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**BASF CORPORATION**

*PASADENA, TEXAS*

# **HAZARDOUS WASTE COMBUSTOR NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS**

## **INFORMATION COLLECTION REQUEST TEST REPORT FOR F-10 BOILER**

**SEPTEMBER 2024**

*Coterie* ENVIRONMENTAL

**840 FIRST AVENUE, SUITE 400 • KING OF PRUSSIA, PA 19406**

**610.945.1777 • [WWW.COTERIE-ENV.COM](http://WWW.COTERIE-ENV.COM)**

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## 1.0 INTRODUCTION

This test report is being submitted by BASF Corporation (BASF) for a hazardous waste fired boiler located at BASF's Pasadena, Texas, facility. This unit is designated as the F-10 Boiler. An emission test was performed for the F-10 Boiler in response to United States Environmental Protection Agency's (USEPA's) Clean Air Act Section 114 Information Collection Request (ICR), dated January 31, 2024, for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Hazardous Waste Combustors (HWCs) codified in Title 40 Code of Federal Regulations (CFR) Part 63 Subpart EEE.

This report describes the testing that was conducted for the purpose of collecting data on hazardous air pollutants (HAPs).

### 1.1 FACILITY OVERVIEW

BASF manufactures OxoAlcohol and plasticizers at the Pasadena facility. The BASF Pasadena facility is considered an area stationary source of HAPs as defined in Section 112(a) of the Clean Air Act as amended November 15, 1990.

The location and identification numbers of the BASF Pasadena facility are:

BASF Corporation  
Pasadena Plant  
4403 La Porte Highway 225  
Pasadena, Texas 77501  
Latitude: 29.72229, Longitude: -95.15094  
EPA ID No. TXD 980 808 778  
EPA Facility Registry Service (FRS) No. 110002081942  
Standard Industrial Classification (SIC) 2869  
North American Industry Classification System (NAICS) 325199

All correspondence should be directed to the following facility contact:

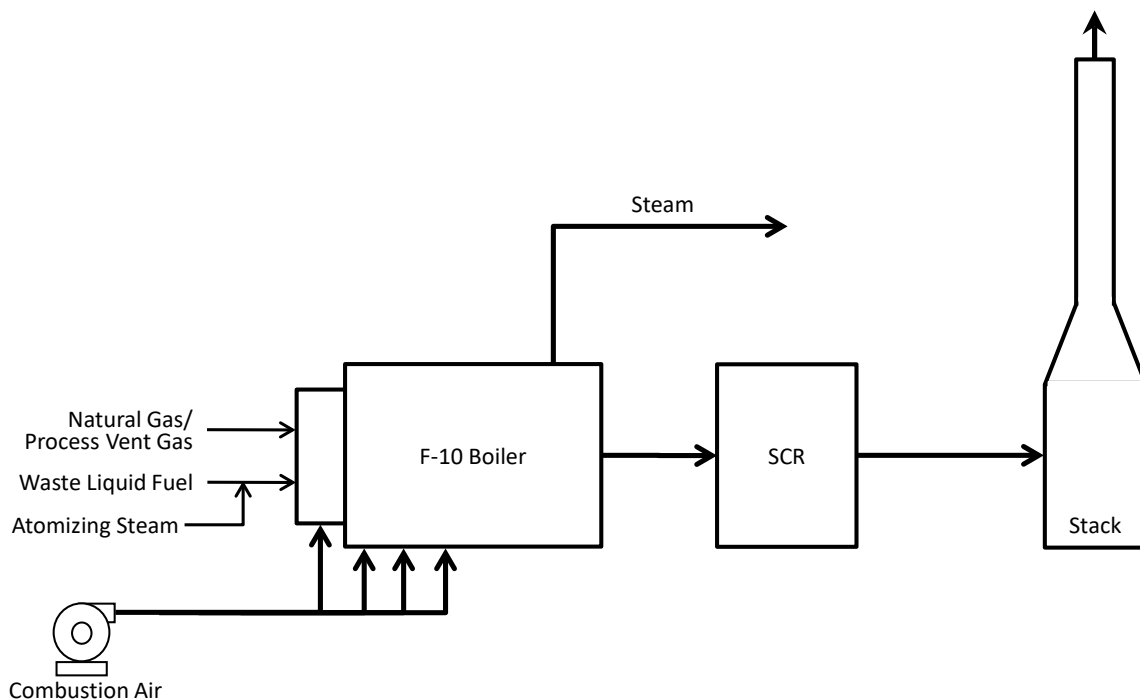
Brian Melancon  
EHS-Q Manager, Pasadena/CPN  
BASF Corporation  
P.O. Box 600  
Pasadena, Texas 77501  
Phone: (281) 884-4349  
Email: brian.melancon@basf.com

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## 1.2 HAZARDOUS WASTE COMBUSTOR OVERVIEW

BASF operates the F-10 Boiler to provide energy recovery as steam while destroying hazardous waste streams generated in the production units. The F-10 Boiler is fired on a mixture of natural gas, process vent gas, and liquid hazardous waste. The liquid hazardous waste fired in the F-10 Boiler is identified as waste liquid fuel. The boiler is equipped with a superheater, an economizer, a selective catalytic reduction (SCR) system, a forced draft fan, and a stack. The Source Classification Code (SCC) for the F-10 Boiler is 10202002 (external combustion, industrial boiler, hazardous waste, liquid/gaseous fuel boiler). Figure 1-1 provides a general process schematic of the F-10 Boiler.

**FIGURE 1-1  
F-10 BOILER SCHEMATIC**



## 1.3 TEST OVERVIEW

This emission test was designed to provide the information requested in USEPA's ICR. One test condition was performed for the boiler. The test condition consisted of seven replicate test runs. The F-10 Boiler was operated in a normal and representative manner during the emission test (*i.e.*, in a manner consistent with the boiler's current operating parameter limits (OPLs)).

The ICR requires emission testing for the following pollutants:

- Polycyclic aromatic hydrocarbons (PAH);
- Polychlorinated biphenyls (PCB);
- Hydrocarbons (HC);

- 
- Hydrogen fluoride (HF);
  - Hydrogen bromide (HBr); and
  - Hydrogen cyanide.

Feedstream (both hazardous and non-hazardous) analyses were also required for higher heating value and fluorine and bromine contents for each test run.

BASF submitted a request to USEPA to waive the emission testing requirements for HF and HBr. In addition, BASF requested to waive the feedstream analytical requirements for fluorine and bromine contents. These waivers were requested because BASF does not use any fluorinated or brominated compounds in any of the processes that generate the boiler feedstreams. Therefore, the feedstreams should not contain any fluorine or bromine. In a response dated March 12, 2024, USEPA approved the waiver requests. Therefore, this emission test did not include stack gas sampling for HF and HBr and did not include feedstream analyses for fluorine and bromine contents.

The emission test was coordinated by BASF personnel, who provided oversight of the boiler operations and the stack sampling activities during the test program. Coterie Environmental LLC (Coterie) was responsible for the test plan and report development. Alliance Technical Group, LLC, (ATG) performed the stack sampling for the test program. ATG was responsible for all stack gas and waste liquid fuel samples collected during the test program, with oversight by BASF and Coterie. The stack gas and waste liquid fuel samples were sent to Eurofins Knoxville (Eurofins) for analysis.

## 1.4 TEST REPORT ORGANIZATION

This report has been prepared following Enclosure 1 of USEPA's ICR. The remaining sections of the report provide the following information:

- Section 2.0 presents a description of the operating conditions;
- Section 3.0 presents a summary of the sampling procedures;
- Section 4.0 presents a summary of the analytical procedures;
- Section 5.0 presents a summary of the feedstream analyses;
- Section 6.0 presents a summary of the stack gas results;
- Appendix A contains the site-specific test plan, including quality assurance project plan (QAPP);
- Appendix B contains the process monitoring data;
- Appendix C contains the waste liquid fuel sampling report;
- Appendix D contains the ATG report entitled *Source Test Report, BASF Corporation, F-10 Boiler* (Report Number AST-2024-2352);
- Appendix E contains the analytical data packages; and
- Appendix F provides the analytical data assessment forms.

## 2.0 OPERATING CONDITIONS

This emission test was designed to provide the information requested in USEPA's ICR. The program consisted of one test condition. The test condition consisted of seven replicate test runs. The test condition was designed to demonstrate operations of the F-10 Boiler in a normal and representative manner. To establish the operating conditions for the test, operating data from April 2023 through March 2024 was reviewed. The target conditions were set within the averages and the maximum or minimum OPL, as appropriate.

### 2.1 COMBUSTION CHAMBER TEMPERATURE

BASF continuously monitors the combustion chamber temperature to demonstrate compliance with the minimum combustion chamber temperature OPL. Combustion chamber temperature is monitored in degrees Fahrenheit (°F).

### 2.2 COMBUSTION AIR FLOW RATE

BASF continuously monitors the combustion air flow rate to demonstrate compliance with the maximum combustion air flow rate OPL. The combustion air flow rate is monitored in thousand pounds per hour (klb/hr).

### 2.3 STEAM PRODUCTION RATE

BASF continuously monitored the steam production rate for plant operations. This monitoring is not required by the HWC NESHAP but is required under the Boiler and Industrial Furnace (BIF) performance standards to demonstrate compliance with the maximum steam production rate OPL. The steam production rate is monitored in klb/hr.

### 2.4 TOTAL HAZARDOUS WASTE FEED RATE

BASF continuously monitors the total hazardous waste feed rate to demonstrate compliance with the maximum total hazardous waste feed rate OPL. The total hazardous waste feed rate is monitored in gallons per minute (gpm).

### 2.5 NATURAL GAS FEED RATE

Pipeline quality natural gas is used as the main fuel for the F-10 Boiler. BASF continuously monitors the natural gas feed rate for plant operations. This monitoring is not required by the HWC NESHAP. The natural gas feed rate is monitored in thousand standard cubic feet per hour (kscfh).

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## 2.6 PROCESS VENT GAS FEED RATE

Non-hazardous process vent gas is also fed to the boiler. BASF continuously monitors the process vent gas feed rate for plant operations. This monitoring is not required by the HWC NESHAP. The process vent gas feed rate is monitored in pounds per hour (lb/hr).

## 2.7 ATOMIZING FLUID DIFFERENTIAL PRESSURE

BASF continuously monitors the atomizing fluid differential pressure to demonstrate compliance with the minimum atomizing fluid differential pressure OPL. The atomizing fluid differential pressure is monitored in pounds per square inch gauge (psig).

## 2.8 TEST LOG

The emission test was conducted during the weeks of June 3 and June 10, 2024. Short summaries of the daily test activities are provided below.

*Monday, June 3, 2024* – The test team arrived onsite to setup equipment for testing.

*Tuesday, June 4, 2024* – The boiler was operating at target conditions at 9:30 a.m. Run 1 began at 10:12 a.m. Testing was paused at 10:32 a.m. because a reactor tank had to be re-filled. Testing resumed at 1:02 p.m. Testing was delayed at 3:26 p.m. due to a pressure loss in the waste feed line. Run 1 could not be completed due to the waste feed line issue and was voided.

*Wednesday, June 5, 2024* – The boiler was operating at target conditions at 9:00 a.m. Run 2 began at 9:32 a.m. Testing was paused at 9:42 a.m. due to severe weather. Testing resumed at 12:33 p.m. and was paused again at 12:58 p.m. due to severe weather. Run 2 resumed at 2:04 p.m. and ended at 5:56 p.m.

*Thursday, June 6, 2024* – The boiler was operating at target conditions at 6:30 a.m. Run 3 began at 7:20 a.m. and ended at 11:33 a.m. Run 4 began at 12:11 p.m. and ended at 4:26 p.m. There were no disruptions during the test runs.

*Friday, June 7, 2024* – The boiler was operating at target conditions at 5:00 a.m. Run 5 began at 5:40 a.m. and ended at 9:53 a.m. There were no disruptions during the test run.

*Tuesday, June 11, 2024* – The boiler was operating at target conditions at 12:45 p.m. Run 6 began at 1:17 p.m. and ended at 5:33 p.m. There were no disruptions during the test run.

*Wednesday, June 12, 2024* – The boiler was operating at target conditions at 6:30 a.m. Run 7 began at 7:30 a.m. and ended at 11:39 a.m. Run 8 began at 12:16 p.m. and ended at 4:26 p.m. There were no disruptions during the test runs. The test team broke down the equipment, packed all samples, and left the site. All testing for the ICR was completed.

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## 2.9 OPERATING DATA SUMMARY

Table 2-1 summarizes the operating conditions. The table compares the actual values achieved during the test to the targets provided in the site-specific test plan. The site-specific test plan is provided in Appendix A. The one-minute data recorded for the operating parameters is provided in Appendix B. The table presents the minimum, maximum, and average values for each test run and the average of the test run averages.

**TABLE 2-1**  
**OPERATING CONDITIONS**

OPERATING PARAMETER	UNITS	TARGETS	STATISTICS	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6	RUN 7	RUN 8	AVERAGE
Combustion chamber temperature	°F	1,700	Average	1,755	1,775	1,743	1,718	1,750	1,780	1,751	1,753
			Minimum	1,702	1,742	1,676	1,706	1,714	1,726	1,734	
			Maximum	1,794	1,795	1,796	1,757	1,794	1,801	1,789	
Combustion air flow rate	klb/hr	100	Average	108	107	101	102	106	107	107	105
			Minimum	99	106	91	98	100	104	105	
			Maximum	110	108	108	104	108	111	108	
Steam production rate	klb/hr	---	Average	124	125	118	118	123	126	125	123
			Minimum	113	124	104	114	117	121	124	
			Maximum	127	126	126	120	127	131	127	
Total hazardous waste feed rate	gpm	2.0	Average	1.51	1.51	1.53	1.51	1.58	1.57	1.58	1.54
			Minimum	1.49	1.50	1.52	1.49	1.54	1.56	1.57	
			Maximum	1.53	1.54	1.54	1.55	1.60	1.60	1.60	
Natural gas feed rate	kscfh	---	Average	88.6	89.8	81.0	81.7	85.9	90.8	86.7	86.4
			Minimum	76.8	87.4	65.0	75.3	79.7	86.9	84.5	
			Maximum	105	92.7	91.3	87.1	92.3	97.2	89.2	
Process vent gas feed rate	lb/hr	---	Average	2,096	2,041	2,062	2,026	2,084	2,059	2,177	2,078
			Minimum	1,496	1,845	1,960	1,884	1,869	1,869	2,076	
			Maximum	2,241	2,162	2,183	2,208	2,238	2,160	2,235	
Atomizing fluid differential pressure	psig	---	Average	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
			Minimum	12.0	12.0	12.0	12.0	12.0	12.0	12.0	
			Maximum	12.0	12.0	12.0	12.0	12.0	12.0	12.0	



## 3.0 SAMPLING PROCEDURES

Sampling was performed during the emission test to satisfy the requirements of the ICR. This section provides descriptions of the waste liquid fuel and stack gas sampling procedures that were performed during the test.

### 3.1 WASTE LIQUID FUEL SAMPLING

The waste liquid fuel was fed to the F-10 Boiler during the emission test. Samples of the waste liquid fuel were collected during each run. The sampling methods were standard methods; therefore, only brief descriptions are provided. More detailed descriptions on the sampling methods can be found in the indicated reference documents and in the QAPP. The QAPP is provided in Appendix A. The waste liquid fuel sampling report is provided in Appendix C.

Samples were collected at the beginning, middle, and end of each test run. At each sampling event, approximately 150 milliliters (mL) of the waste stream was collected into two separate bottles. At the end of the run, each bottle had approximately 450 mL of sample. One sample was sent to the laboratory for analysis, and one sample was sent to the laboratory as a backup.

### 3.2 PROCESS VENT GAS SAMPLING

The process vent gas was fed to the F-10 Boiler during the test. The process vent gas was not sampled during the test. Process vent gas characterization information is provided in Section 2.2 of the site-specific test plan.

### 3.3 NATURAL GAS SAMPLING

Natural gas was fed to the F-10 Boiler during the test. The natural gas was not sampled during the test. The natural gas is not expected to contain any regulated constituents in greater than trace quantities.

### 3.4 STACK GAS SAMPLING

Stack gas samples were collected during each run. The stack gas sampling followed the USEPA methods documented in 40 CFR Part 60 Appendix A. More detailed descriptions of the sampling methods can be found in the indicated reference documents and in the QAPP.

The following monitoring and sampling methods were used:

- USEPA Methods 1, 2, 3A, and 4 for determination of stack sampling traverse points, gas flow rate, composition, and moisture content;
- USEPA Method 23 for measurement of PAH and PCB emissions;

- USEPA Method 25A, a portable continuous emissions monitoring systems (CEMS) operated by the stack sampling contractor, to monitor the concentrations of HC in the stack gas;
- USEPA Method 320 for measurement of hydrogen cyanide emissions; and
- The facility's CEMS to monitor the concentrations of carbon monoxide (CO) and oxygen in the stack gas.

Table 3-1 summarizes the stack gas sampling that was performed and the resulting samples that were collected. The complete field data and sampling procedures for the testing are described in the ATG report in Appendix D.

**TABLE 3-1**  
**STACK GAS SAMPLING**

SAMPLING METHOD <sup>1</sup>	SAMPLING DURATION	SAMPLES COLLECTED PER RUN
USEPA Method 1	Before test series	Not applicable
USEPA Method 2	With each sampling train	Not applicable
USEPA Method 3A	Duration of each test run	Not applicable
USEPA Method 4	With each sampling train	Impingers weighed onsite
USEPA Method 23	240 minutes	Filter
		Front-half and back-half acetone and toluene rinses
		XAD-2 resin
		Deionized water impingers contents
		Deionized water impingers acetone and toluene rinses
USEPA Method 25A (Portable CEMS)	Duration of each test run	Not applicable
USEPA Method 320	60 minutes	Not applicable
Facility CEMS (USEPA Performance Specification 4B)	Duration of each test run	Not applicable

<sup>1</sup> USEPA Method refers to New Source Performance Standards, Test Methods and Procedures, Appendix A, 40 CFR Part 60. USEPA Performance Specification refers to New Source Performance Standards, Performance Specifications, Appendix B, 40 CFR Part 60.

### 3.4.1 POLYCYCLIC AROMATIC HYDROCARBONS AND POLYCHLORINATED BIPHENYLS

Seven samples for PAH and PCB were collected according to USEPA Methods 1, 2, 3A, 4, and 23. For each run, samples of 20-minute duration were taken isokinetically at each of the 12 traverse points for a total sampling time of 240 minutes. Data was recorded at five-minute intervals.

The USEPA Method 23 sampling train operated during this test program contained the following components:

- Glass nozzle;
- Heated glass probe maintained between 223 and 273°F;

- 
- Heated quartz filter and Teflon support maintained between 223 and 273°F;
  - One condenser coil;
  - XAD sorbent trap;
  - Impinger 1 – empty;
  - Impinger 2 – 100 mL water;
  - Impinger 3 – 100 mL water;
  - Impinger 4 – empty; and
  - Impinger 5 – 200 to 300 grams silica gel.

All glassware used in the sampling train was cleaned prior to use. Additionally, all glassware connections were sealed with Teflon gaskets.

At the conclusion of each run, the filter and sorbent trap modules were recovered by sealing the openings with ground glass caps and plugs. The impinger contents were recovered in accordance with the procedures specified in USEPA Method 23. The inside surfaces of the nozzle, probe, and connecting glassware prior to the filter and sorbent module were washed with acetone and toluene.

The samples collected using the USEPA Method 23 sampling train were analyzed for PAH and PCB by high-resolution gas chromatography and high resolution mass spectrometry according to the guidelines of USEPA Method 23.

### **3.4.2 HYDROCARBONS**

The procedures outlined in USEPA Method 25A were used to measure the concentration of HC (as propane) in the stack gas during the test. A continuous sample of stack gas was withdrawn via a sample probe. The sample gas was filtered for removal of particulates prior to being sent to the analyzer. All parts of the sampling system and the analyzer were heated to a temperature of at least 250°F. Sampling was concurrent with the USEPA Method 23 testing.

### **3.4.3 HYDROGEN CYANIDE**

The procedures outlined in USEPA Method 320 were used to measure the concentration of hydrogen cyanide in the stack gas during the test. The stack gas was extracted at a constant rate through a heated probe, heated filter, and heated sample line and analyzed with a Fourier transform infrared (FTIR) analyzer. All parts of the sampling system and the analyzer were heated to a temperature of approximately 300°F.

### **3.4.4 CARBON MONOXIDE AND OXYGEN**

The F-10 Boiler CEMS were operated during each test run to monitor the concentrations of CO and oxygen in the stack gas. A continuous sample of stack gas is withdrawn via a sample probe. The HWC NESHAP requires that the CO and oxygen CEMS comply with Performance Specification 4B in 40 CFR Part 60 Appendix B.

---

### **3.5 SAMPLING QUALITY ASSURANCE AND QUALITY CONTROL**

The site-specific test plan and QAPP described the sampling activities required for the test program. All sampling was performed in accordance with the site-specific test plan, QAPP, and referenced methods.

Run 1 of the test was voided due to operational issues with the boiler. The run was initially paused for the operational issues. After the run was paused due to a pressure loss in the waste feed line, BASF decided to stop the sampling and void the run. Seven runs were performed for the test (Runs 2 through 8). This deviation has no impact on the test results.

No other sampling deviations occurred during this test program.

### **3.6 SAMPLING DATA SUMMARY**

Tables 3-2 through 3-4 provide summaries of the sampling data for the test runs. Table 3-2 summarizes the sampling data for the USEPA Method 23 sampling train. Table 3-3 summarizes the sampling data for USEPA Method 25A. Table 3-4 summarizes the sampling data for USEPA Method 320.

The tables include data for actual sample volume in cubic feet (ft<sup>3</sup>) and corrected sample volume in dry standard cubic feet (dscf). Stack gas temperature and pressure data are presented in °F and inches of mercury (in. Hg), respectively. Stack gas composition data is presented in percent volume (% vol) or percent volume on a dry basis (% vol dry). Stack gas velocity is presented in feet per second (fps), and stack gas flow rate is presented in actual cubic feet per minute (acfm), standard cubic feet per minute (scfm), and/or dry standard cubic feet per minute (dscfm).

**TABLE 3-2**  
**USEPA METHOD 23 SAMPLING TRAIN OPERATING DATA**

PARAMETER	UNITS	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6	RUN 7	RUN 8	AVERAGE
Date	---	06/05/2024	06/06/2024	06/06/2024	06/07/2024	06/11/2024	06/12/2024	06/12/2024	---
Start time	---	09:32	07:20	12:11	05:40	13:17	07:30	12:16	---
Stop time	---	17:56	11:33	16:26	09:53	17:33	11:39	16:26	---
Sampling duration	minutes	240	240	240	240	240	240	240	240
Actual sample volume	ft <sup>3</sup>	157.453	151.532	147.381	151.899	151.897	157.372	157.855	153.627
Corrected sample volume	dscf	154.910	148.992	142.479	150.557	148.853	155.651	152.923	150.624
Stack temperature	°F	347.6	350.2	347.9	350.6	348.9	351.4	352.5	349.9
Stack pressure	in. Hg	29.79	29.81	29.81	29.88	29.87	29.90	29.90	29.85
Moisture content	% vol	16.8	17.2	16.6	17.1	17.1	17.0	16.9	17.0
Carbon dioxide	% vol dry	10.61	10.78	10.79	10.56	10.75	10.70	10.68	10.70
Oxygen	% vol dry	3.43	3.31	3.42	3.39	3.42	3.34	3.46	3.40
Stack gas velocity	fps	52.9	51.7	48.7	49.7	50.4	53.2	52.2	51.3
Stack gas flow rate	acfm	48,187	47,054	44,310	45,273	45,909	48,472	47,577	46,683
Stack gas flow rate	scfm	31,356	30,540	28,843	29,440	29,906	31,509	30,884	30,354
Stack gas flow rate	dscfm	26,099	25,291	24,058	24,413	24,779	26,145	25,676	25,209
Percent isokinetic	%	101.0	100.2	100.8	104.9	102.2	101.3	101.3	101.7

**TABLE 3-3**  
**USEPA METHOD 25A SAMPLING DATA**

PARAMETER	UNITS	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6	RUN 7	RUN 8	AVERAGE
Date	---	06/05/2024	06/06/2024	06/06/2024	06/07/2024	06/11/2024	06/12/2024	06/12/2024	---
Start time	---	09:32	07:20	12:14	05:40	13:17	07:27	12:16	---
Stop time	---	17:52	11:33	16:28	09:53	17:33	11:39	16:26	---
Sampling duration	min	230	240	216	236	244	237	237	234
Moisture content	% vol	16.8	17.2	16.6	17.1	17.1	17.0	16.9	17.0
Oxygen	% vol dry	3.43	3.31	3.42	3.39	3.42	3.34	3.46	3.40
Stack gas flow rate	dscfm	26,131	25,323	24,088	24,443	24,810	26,178	25,707	25,240

**TABLE 3-4**  
**USEPA METHOD 320 SAMPLING DATA**

PARAMETER	UNITS	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6	RUN 7	RUN 8	AVERAGE
Date	---	06/05/2024	06/06/2024	06/06/2024	06/07/2024	06/11/2024	06/12/2024	06/12/2024	---
Start time	---	09:32	07:20	12:14	05:40	13:17	07:27	12:16	---
Stop time	---	17:52	11:33	16:28	09:53	17:33	11:39	16:26	---
Sampling duration	min	230	240	216	236	244	237	237	234
Moisture content	% vol	16.8	17.2	16.6	17.1	17.1	17.0	16.9	17.0
Oxygen	% vol dry	3.43	3.31	3.42	3.39	3.42	3.34	3.46	3.40
Stack gas flow rate	dscfm	26,131	25,323	24,088	24,443	24,810	26,178	25,707	25,240

## 4.0 ANALYTICAL PROCEDURES

The analyses followed ASTM International (ASTM) and USEPA methods. This section describes the analyses and discusses any deviations in analytical procedures from those described in the site-specific test plan and QAPP. The QAPP was distributed to the laboratory for review prior to the test. The analytical data packages are provided in Appendix E.

### 4.1 WASTE LIQUID FUEL ANALYSES

All waste liquid fuel samples were sent to Eurofins for analysis. Samples of the waste liquid fuel were analyzed for density using ASTM Method D1475 and higher heating value using ASTM Method D240. All holding times for these analyses were met, and all quality assurance (QA) and quality control (QC) criteria for these analyses were within acceptance limits.

### 4.2 PROCESS VENT GAS ANALYSES

The process vent gas was not analyzed during the test. Process knowledge is used to characterize the process vent gas. Process vent gas characterization information is provided in Section 2.2 of the site-specific test plan.

### 4.3 NATURAL GAS ANALYSES

The natural gas was not analyzed for the test. The natural gas is not expected to contain any regulated constituents in greater than trace quantities.

### 4.4 STACK GAS ANALYSES

The stack gas samples were analyzed for PAH and PCB by high-resolution gas chromatography and high resolution mass spectrometry according to the guidelines of USEPA Method 23. The USEPA Method 23 samples were sent to Eurofins for analysis. In addition, USEPA Method 25A was used to monitor the stack gas for HC concentrations, and USEPA Method 320 (FTIR) was used to monitor the stack gas for hydrogen cyanide concentrations. All holding times for the USEPA Method 23 analyses were met, and all QA/QC criteria for the methods were within acceptable limits, except as noted in Section 4.5.

### 4.5 ANALYTICAL QUALITY ASSURANCE AND QUALITY CONTROL

Prior to testing, BASF and the contract laboratory established QA/QC goals for each analysis that would be performed as part of the test program. QA/QC objectives included precision, accuracy, representativeness, comparability, and completeness. Typical parameters include laboratory control sample (LCS) and LCS duplicate (LCSD) samples, field and sample duplicates, surrogates, standards, and spikes. Precision is expressed in terms of the distribution, or scatter, of replicate measurement results,

calculated as the relative standard deviation (RSD) or, for duplicates, as relative percent difference (RPD). Accuracy is expressed in terms of percent recovery (e.g., for surrogates, spikes, and reference material).

Tables 4-1 through 4-5 provide details on the QA/QC results. Detailed descriptions of the evaluations are included in the analytical data packages provided in Appendix E and the analytical data assessment forms provided in Appendix F.

**TABLE 4-1**  
**SUMMARY OF QUALITY ASSURANCE/QUALITY CONTROL**  
**LIQUID WASTE SAMPLES – DENSITY**

QUALITY CONTROL CHECK		FREQUENCY	ACCEPTANCE CRITERIA	NOTED DEVIATIONS
Precision	Field duplicate	One per test program	≤20% relative percent difference	None
	Sample duplicate	One per analytical batch	≤10% relative percent difference	None
Accuracy	Laboratory control samples	Two per analytical batch	99-101% recovery	None
Calibration	Calibration	Before analysis and as needed	≤0.5% relative standard deviation	None
Contamination effects	None	---	---	---
Handling and traceability	Holding time	Each sample	<180 days	None

**TABLE 4-2**  
**SUMMARY OF QUALITY ASSURANCE/QUALITY CONTROL**  
**LIQUID WASTE SAMPLES – HIGHER HEATING VALUE**

QUALITY CONTROL CHECK		FREQUENCY	ACCEPTANCE CRITERIA	NOTED DEVIATIONS
Precision	Field duplicate	One per test program	≤20% relative percent difference	None
	Laboratory control sample duplicate	One per analytical batch	≤2% relative percent difference	None
	Sample duplicate	One per analytical batch	≤10% relative percent difference	None
Accuracy	Laboratory control samples	Two per analytical batch	98-102% recovery	None



**TABLE 4-2 (CONTINUED)**  
**SUMMARY OF QUALITY ASSURANCE/QUALITY CONTROL**  
**LIQUID WASTE SAMPLES – HIGHER HEATING VALUE**

QUALITY CONTROL CHECK		FREQUENCY	ACCEPTANCE CRITERIA	NOTED DEVIATIONS
Calibration	Initial Calibration	Before analysis and as needed	≤1% relative standard deviation	None
	Calibration checks	As needed	±1% difference from initial calibration	None
Contamination effects	None	---	---	---
Handling and traceability	Holding time	Each sample	<180 days	None

**TABLE 4-3**  
**SUMMARY OF QUALITY ASSURANCE/QUALITY CONTROL**  
**STACK GAS – POLYCYCLIC AROMATIC HYDROCARBONS AND POLYCHLORINATED BIPHENYLS**

QUALITY CONTROL CHECK		FREQUENCY	ACCEPTANCE CRITERIA	NOTED DEVIATIONS
Precision	Laboratory control sample duplicate	One per analytical batch	≤50% relative percent difference	None
Accuracy	Laboratory control samples	Two per analytical batch	70-130% recovery	Recoveries of naphthalene in the laboratory control samples were outside of limits.
	Internal standards (isotope dilution)	Every sample	20-130% recovery for polycyclic aromatic hydrocarbons 20-145% recovery for polychlorinated biphenyls	None
	Surrogate standards	Every sample	70-130% recovery	Recoveries for 13C6-benzo(c)fluorene surrogate in Run 2 and Run 3 samples were outside of limits. The Run 6 sample was not spiked with field surrogates.

**TABLE 4-3 (CONTINUED)**  
**SUMMARY OF QUALITY ASSURANCE/QUALITY CONTROL**  
**STACK GAS – POLYCYCLIC AROMATIC HYDROCARBONS AND POLYCHLORINATED BIPHENYLS**

QUALITY CONTROL CHECK		FREQUENCY	ACCEPTANCE CRITERIA	NOTED DEVIATIONS
Calibration	Initial calibration (five solutions)	Prior to sample analysis	1. Mean relative response factor for unlabeled standards: <10% relative standard deviation 2. Mean relative response factor for labeled reference compounds: <20% relative standard deviation	None
	Calibration verification (midlevel standard)	At least once per shift	1. Response factors within $\pm 25\%$ of the initial calibration mean relative response factor for unlabeled standards 2. Response factors within $\pm 25\%$ of the initial calibration mean relative response factor for pre-sampling adsorbent standard and pre-extraction filter recovery standard 3. Response factors within $\pm 30\%$ of the initial calibration mean relative response factor for pre-extraction standard and alternative recovery standard	Some response factors were outside of limits.
	Retention time window verification and gas chromatograph column performance	At the beginning of each shift	Compliance with USEPA Method 23	None

**TABLE 4-3 (CONTINUED)**  
**SUMMARY OF QUALITY ASSURANCE/QUALITY CONTROL**  
**STACK GAS – POLYCYCLIC AROMATIC HYDROCARBONS AND POLYCHLORINATED BIPHENYLS**

QUALITY CONTROL CHECK		FREQUENCY	ACCEPTANCE CRITERIA	NOTED DEVIATIONS
Contamination effects	Method blank	One per analytical batch	<Reporting limit	Naphthalene, phenanthrene, fluoranthene, and pyrene were reported in the method blank for Batch 88945 at concentrations above the reporting limits.
	Field proof blank	One per test program	<Reporting limit	2,4'-Dichlorobiphenyl (PCB-8), 2,2',3,5'-tetrachlorobiphenyl (PCB-44), and phenanthrene were reported in the field proof blank at concentrations above the reporting limits.
Handling and traceability	Holding time	Each sample	1. <30 days to extraction 2. <40 days from extraction to analysis <sup>1</sup>	None

<sup>1</sup> Holding time from extraction may be up to one year if samples are stored below -10°C.

**TABLE 4-4**  
**SUMMARY OF QUALITY ASSURANCE/QUALITY CONTROL**  
**STACK GAS – HYDROCARBONS**

QUALITY CONTROL CHECK		FREQUENCY	ACCEPTANCE CRITERIA	NOTED DEVIATIONS
Calibration error test	Checked using USEPA Protocol 1 calibration gases	Prior to the first test run and after any failed drift test	±5% of calibration gas value	None
Drift test	Checked using USEPA Protocol 1 calibration gases	After the last test run and hourly during the test period	±3% of span value	None

**TABLE 4-5**  
**SUMMARY OF QUALITY ASSURANCE/QUALITY CONTROL**  
**STACK GAS – HYDROGEN CYANIDE**

QUALITY CONTROL CHECK		FREQUENCY	ACCEPTANCE CRITERIA	NOTED DEVIATIONS
Calibration transfer standard direct	Verify stability, confirm optical path length	Pre-test	±5% of cert value	None
Calibration transfer standard responses	Verify system stability, recovery, and response time	Pre and post-test run	±5% of mean value	None
Analyte spike	Verify system ability to quantify the analyte of interest in the gas stream	Pre-test	±30% theoretical recovery	None

Table 4-6 summarizes the analytical deviations and provides discussions of the impact that the deviations had on the analytical results, if any.

**TABLE 4-6**  
**SUMMARY OF ANALYTICAL DEVIATIONS**

RUN	DEVIATION/EXCEPTION	SIGNIFICANCE
<b>Waste liquid fuel analyses:</b>		
None	None	None
<b>Stack gas analyses:</b>		
All	Recoveries of naphthalene in the laboratory control samples were outside of limits. The recoveries were 816 percent and 691 percent, which is above the upper limit of 140 percent.	The recoveries were above the limit indicating a potential high bias. This congener was reported at levels above the reporting limit in all samples. These results may be biased high.
2, 3	Recoveries for 13C6-benzo(c)fluorene surrogate in Run 2 and Run 3 samples were outside of limits. Both recoveries were 131 percent, which is just above the upper limit of 130 percent.	Generally, data quality is not considered affected if the signal-to-noise ratio is greater than 10:1, which was achieved for all analytes in the sample.
6	The Run 6 sample was not spiked with field surrogates.	This was a laboratory oversight. The recoveries for these surrogates were within limits for all other samples. This deviation has minimal impact on the results.
2, 3	The response factors for 13C6-indeno(1,2,3-cd)pyrene and 13C6-dibenz(a,h)anthracene were outside of limits in the continuing calibration verification (CCV) for Batch 88999.	Results for Runs 2 and 3 for indeno(1,2,3-cd)pyrene and dibenz(a,h)anthracene were consistent with other runs. This deviation has minimal impact on the results.

**TABLE 4-6 (CONTINUED)**  
**SUMMARY OF ANALYTICAL DEVIATIONS**

RUN	DEVIATION/EXCEPTION			SIGNIFICANCE
7	The response factor for 13C6-indeno(1,2,3-cd)pyrene was outside of limits in the CCV for Batch 89076.			Result for Run 7 for indeno(1,2,3-cd)pyrene was consistent with other runs. This deviation has minimal impact on the results.
4	The response factor for the labeled standard 2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl (PCB-209L) was outside of limits in the CCV for Batch 88871.			The 2,2',3,3',4,4',5,5',6,6'-decachlorobiphenyl result for Run 4 was reported as an estimated value below the reporting limit. All other run results were nondetect. This deviation has minimal impact on the results.
All	Several polycyclic aromatic hydrocarbons were reported in the method blank for Batch 88945 at concentrations above the reporting limits.			The results for these analytes may exhibit a high bias.
	<i>Analyte</i>	<i>Result ng/sample</i>	<i>Reporting Limit ng/sample</i>	
	Fluoranthene	15.46	6.00	
	Naphthalene	1,119	75.0	
	Phenanthrene	18.18	6.00	
	Pyrene	55.75	6.00	
All	2,4'-Dichlorobiphenyl (PCB-8), 2,2',3,5'-tetrachlorobiphenyl (PCB-44), and phenanthrene were reported in the field proof blank at concentrations above the reporting limits.			The results for these analytes may exhibit a high bias.
	<i>Analyte</i>	<i>Result ng/sample</i>	<i>Reporting Limit ng/sample</i>	
	Phenanthrene	412	60.0	
	2,4'-Dichlorobiphenyl (PCB-8)	0.659	0.600	
	2,2',3,5'-tetrachlorobiphenyl (PCB-44)	1.02	0.900	

## 5.0 FEEDSTREAM RESULTS

Waste liquid fuel, process vent gas, and natural gas were fed to the F-10 Boiler during each test run. This section of the report presents the results of feedstream analyses.

### 5.1 WASTE LIQUID FUEL

The liquid hazardous waste fired in the F-10 Boiler is identified as waste liquid fuel. The waste liquid fuel was fed to the boiler during the testing. Table 5-1 presents the higher heating value and density of the waste liquid fuel for each test run. The higher heating value is provided in British thermal units per pound (Btu/lb), and the density is provided in grams per cubic centimeter (g/cm<sup>3</sup>).

**TABLE 5-1**  
**WASTE LIQUID FUEL**

RUN	HIGHER HEATING VALUE (BTU/LB)	DENSITY (G/CM <sup>3</sup> )
2	15,300	0.831
3	15,200	0.830
4	15,200	0.830
5	15,200	0.830
6	15,100	0.830
7	14,800	0.829
8	14,800	0.829
Average	15,100	0.830

### 5.2 PROCESS VENT GAS

The process vent gas was fed to the boiler. Process knowledge is used to characterize the process vent gas. Process vent gas characterization information is provided in Section 2.2 of the site-specific test plan.

### 5.3 NATURAL GAS

Pipeline quality natural gas was fed to the boiler as the main fuel for combustion. The natural gas is not expected to contain any HWC NESHAP regulated constituents in greater than trace quantities.

## 6.0 STACK GAS RESULTS

The emission test was designed to provide the information requested in USEPA's ICR. One test condition was performed for the boiler. The test condition consisted of seven replicate test runs. The ICR emission testing included the following pollutants:

- PAH;
- PCB;
- HC;
- Hydrogen cyanide; and
- CO

The stack gas emission results are discussed below and summarized in the tables in Section 6.5. The ATG stack sampling report is provided in Appendix D. All analytical data packages are included in Appendix E.

### 6.1 POLYCYCLIC AROMATIC HYDROCARBONS AND POLYCHLORINATED BIPHENYLS EMISSION RESULTS

USEPA Method 23 was used to sample and analyze the stack gas for PAH and PCB concentrations. Analytes that were reported as non-detect in any sample fraction were calculated using the method detection limits (MDLs) and are reported with a "<" sign.

### 6.2 HYDROCARBONS EMISSION RESULTS

USEPA Method 25A was used to monitor the stack gas for HC concentrations. The results were calculated assuming all non-detects were present at the reporting limit (RL) and are reported with a "<" sign.

### 6.3 HYDROGEN CYANIDE EMISSION RESULTS

USEPA Method 320 was used to monitor the stack gas for hydrogen cyanide concentrations. The results were calculated assuming all non-detects were present at the MDL and are reported with a "<" sign.

### 6.4 CARBON MONOXIDE

The F-10 Boiler CEMS were operated during the emission test to monitor the concentrations of CO and oxygen in the stack gas. The data presented for CO is based on hourly rolling average (HRA) values; the data presented for oxygen is based on one-minute average readings. The one-minute data recorded is provided in Appendix B.

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## 6.5 STACK GAS RESULTS SUMMARY

Tables 6-1 through 6-5 provide summaries of the stack gas results.

Table 6-1 summarizes the PAH results. Results are presented in nanograms (ng) for the total sample train catch. Emission results are presented in nanograms per dry standard cubic meter (ng/dscm) uncorrected and corrected to seven percent oxygen and lb/hr.

Table 6-2 summarizes the PCB results. Results are presented in ng for the total sample train catch. Emission results are presented in ng/dscm uncorrected and corrected to seven percent oxygen and lb/hr.

Table 6-3 summarizes the HC results. Emission results are reported as propane and are presented in parts per million by volume on a dry basis (ppmv dry) uncorrected and corrected to seven percent oxygen and lb/hr.

Table 6-4 summarizes the hydrogen cyanide results. Emission results are presented in ppmv dry uncorrected and corrected to seven percent oxygen and lb/hr.

Table 6-5 summarizes the CO and oxygen results. The CO emission results are presented in ppmv dry corrected to seven percent oxygen, and the oxygen results are presented in % vol dry.



**TABLE 6-1**  
**POLYCYCLIC AROMATIC HYDROCARBONS RESULTS**

ANALYTES	UNITS	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6	RUN 7	RUN 8	AVERAGE
Acenaphthene	ng	109	118	71.3	72.9	221	250	109	136
	ng/dscm	2.48E+01	2.80E+01	1.77E+01	1.71E+01	5.24E+01	5.67E+01	2.52E+01	3.17E+01
	ng/dscm <sup>1</sup>	1.98E+01	2.21E+01	1.41E+01	1.36E+01	4.17E+01	4.49E+01	2.01E+01	2.52E+01
	lb/hr	2.43E-06	2.65E-06	1.59E-06	1.56E-06	4.87E-06	5.56E-06	2.42E-06	3.01E-06
Acenaphthylene	ng	14.5	16.1	8.54	7.77	16.6	8.4	7.45	11.3
	ng/dscm	3.31E+00	3.82E+00	2.12E+00	1.82E+00	3.94E+00	1.91E+00	1.72E+00	2.66E+00
	ng/dscm <sup>1</sup>	2.63E+00	3.02E+00	1.68E+00	1.45E+00	3.13E+00	1.51E+00	1.37E+00	2.11E+00
	lb/hr	3.23E-07	3.62E-07	1.91E-07	1.67E-07	3.66E-07	1.87E-07	1.65E-07	2.51E-07
Anthracene	ng	99.5	99.1	38.7	44.6	82.4	69.6	38.7	67.5
	ng/dscm	2.27E+01	2.35E+01	9.59E+00	1.05E+01	1.95E+01	1.58E+01	8.94E+00	1.58E+01
	ng/dscm <sup>1</sup>	1.80E+01	1.86E+01	7.63E+00	8.30E+00	1.55E+01	1.25E+01	7.12E+00	1.25E+01
	lb/hr	2.22E-06	2.23E-06	8.64E-07	9.57E-07	1.81E-06	1.55E-06	8.60E-07	1.50E-06
Benz[a]anthracene	ng	3.78	2.81	2.14	3.18	3.10	2.16	2.55	2.82
	ng/dscm	8.62E-01	6.66E-01	5.30E-01	7.46E-01	7.35E-01	4.90E-01	5.89E-01	6.60E-01
	ng/dscm <sup>1</sup>	6.86E-01	5.26E-01	4.22E-01	5.92E-01	5.85E-01	3.88E-01	4.69E-01	5.24E-01
	lb/hr	2.22E-06	2.23E-06	8.64E-07	9.57E-07	1.81E-06	1.55E-06	8.60E-07	1.50E-06
Benzo[b]fluoranthene	ng	10.1	7.53	5.82	6.47	7.78	3.29	2.75	6.25
	ng/dscm	2.30E+00	1.78E+00	1.44E+00	1.52E+00	1.85E+00	7.46E-01	6.35E-01	1.47E+00
	ng/dscm <sup>1</sup>	1.83E+00	1.41E+00	1.15E+00	1.20E+00	1.47E+00	5.91E-01	5.06E-01	1.17E+00
	lb/hr	2.25E-07	1.69E-07	1.30E-07	1.39E-07	1.71E-07	7.31E-08	6.11E-08	1.38E-07

**TABLE 6-1 (CONTINUED)**  
**POLYCYCLIC AROMATIC HYDROCARBONS RESULTS**

ANALYTES	UNITS	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6	RUN 7	RUN 8	AVERAGE
Benzo[k]fluoranthene	ng	3.48	3.46	2.97	3.32	3.35	2.66	2.40	3.09
	ng/dscm	7.93E-01	8.20E-01	7.36E-01	7.79E-01	7.95E-01	6.04E-01	5.54E-01	7.26E-01
	ng/dscm <sup>1</sup>	6.31E-01	6.48E-01	5.85E-01	6.18E-01	6.32E-01	4.78E-01	4.42E-01	5.76E-01
	lb/hr	7.76E-08	7.77E-08	6.63E-08	7.12E-08	7.38E-08	5.91E-08	5.33E-08	6.84E-08
Benzo[g,h,i]perylene	ng	176	144	116	103	130	14.1	25.9	101
	ng/dscm	4.01E+01	3.41E+01	2.88E+01	2.42E+01	3.08E-01	3.20E+00	5.98E+00	1.95E+01
	ng/dscm <sup>1</sup>	3.19E+01	2.70E+01	2.29E+01	1.92E+01	2.45E-01	2.53E+00	4.77E+00	1.55E+01
	lb/hr	3.92E-06	3.23E-06	2.59E-06	2.21E-06	2.86E-08	3.13E-07	5.75E-07	1.84E-06
Benzo[a]pyrene	ng	14.3	9.43	8.16	7.81	10.9	3.05	3.60	8.18
	ng/dscm	3.26E+00	2.24E+00	2.02E+00	1.83E+00	2.59E+00	6.92E-01	8.31E-01	1.92E+00
	ng/dscm <sup>1</sup>	2.59E+00	1.77E+00	1.61E+00	1.45E+00	2.06E+00	5.48E-01	6.63E-01	1.53E+00
	lb/hr	3.19E-07	2.12E-07	1.82E-07	1.68E-07	2.40E-07	6.78E-08	8.00E-08	1.81E-07
Benzo[e]pyrene	ng	52.1	33.0	25.7	26.3	36.1	6.53	9.01	27.0
	ng/dscm	1.19E+01	7.82E+00	6.37E+00	6.17E+00	8.56E+00	1.48E+00	2.08E+00	6.34E+00
	ng/dscm <sup>1</sup>	9.45E+00	6.18E+00	5.07E+00	4.90E+00	6.81E+00	1.17E+00	1.66E+00	5.03E+00
	lb/hr	1.16E-06	7.41E-07	5.74E-07	5.64E-07	7.95E-07	1.45E-07	2.00E-07	5.97E-07
Chrysene	ng	13.2	12.0	8.43	10.2	10.1	9.19	9.37	10.4
	ng/dscm	3.01E+00	2.84E+00	2.09E+00	2.39E+00	2.40E+00	2.09E+00	2.16E+00	2.43E+00
	ng/dscm <sup>1</sup>	2.39E+00	2.25E+00	1.66E+00	1.90E+00	1.91E+00	1.65E+00	1.72E+00	1.93E+00
	lb/hr	2.94E-07	2.69E-07	1.88E-07	2.19E-07	2.22E-07	2.04E-07	2.08E-07	2.29E-07
Dibenz[a,h]anthracene	ng	6.76	6.15	5.06	6.89	7.07	8.06	7.53	6.79
	ng/dscm	1.54E+00	1.46E+00	1.25E+00	1.62E+00	1.68E+00	1.83E+00	1.74E+00	1.59E+00
	ng/dscm <sup>1</sup>	1.23E+00	1.15E+00	1.00E+00	1.28E+00	1.33E+00	1.45E+00	1.39E+00	1.26E+00
	lb/hr	1.51E-07	1.38E-07	1.13E-07	1.48E-07	1.56E-07	1.79E-07	1.67E-07	1.50E-07

**TABLE 6-1 (CONTINUED)**  
**POLYCYCLIC AROMATIC HYDROCARBONS RESULTS**

ANALYTES	UNITS	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6	RUN 7	RUN 8	AVERAGE
Fluoranthene	ng	144	112	74.4	74.2	144	114	65.2	104
	ng/dscm	3.28E+01	2.65E+01	1.84E+01	1.74E+01	3.42E+01	2.59E+01	1.51E+01	2.43E+01
	ng/dscm <sup>1</sup>	2.61E+01	2.10E+01	1.47E+01	1.38E+01	2.72E+01	2.05E+01	1.20E+01	1.93E+01
	lb/hr	3.21E-06	2.51E-06	1.66E-06	1.59E-06	3.17E-06	2.53E-06	1.45E-06	2.30E-06
Fluorene	ng	296	298	151	159	386	364	178	262
	ng/dscm	6.75E+01	7.06E+01	3.74E+01	3.73E+01	9.16E+01	8.26E+01	4.11E+01	6.12E+01
	ng/dscm <sup>1</sup>	5.37E+01	5.58E+01	2.98E+01	2.96E+01	7.28E+01	6.54E+01	3.28E+01	4.85E+01
	lb/hr	6.60E-06	6.69E-06	3.37E-06	3.41E-06	8.50E-06	8.09E-06	3.95E-06	5.80E-06
Indeno[1,2,3-cd]pyrene	ng	36.0	25.2	23.4	21.1	28.1	5.32	8.22	21.0
	ng/dscm	8.21E+00	5.97E+00	5.80E+00	4.95E+00	6.67E+00	1.21E+00	1.90E+00	4.96E+00
	ng/dscm <sup>1</sup>	6.53E+00	4.72E+00	4.61E+00	3.93E+00	5.30E+00	9.55E-01	1.51E+00	3.94E+00
	lb/hr	8.02E-07	5.66E-07	5.23E-07	4.53E-07	6.19E-07	1.18E-07	1.83E-07	4.66E-07
2-Methylnaphthalene	ng	284	274	197	202	439	482	288	309
	ng/dscm	6.47E+01	6.49E+01	4.88E+01	4.74E+01	1.04E+02	1.09E+02	6.65E+01	7.23E+01
	ng/dscm <sup>1</sup>	5.15E+01	5.13E+01	3.88E+01	3.76E+01	8.28E+01	8.66E+01	5.30E+01	5.74E+01
	lb/hr	6.33E-06	6.15E-06	4.40E-06	4.33E-06	9.67E-06	1.07E-05	6.40E-06	6.86E-06
Naphthalene	ng	430	445	415	402	752	820	601	552
	ng/dscm	9.80E+01	1.05E+02	1.03E+02	9.43E+01	1.78E+02	1.86E+02	1.39E+02	1.29E+02
	ng/dscm <sup>1</sup>	7.80E+01	8.33E+01	8.18E+01	7.49E+01	1.42E+02	1.47E+02	1.11E+02	1.03E+02
	lb/hr	9.58E-06	9.99E-06	9.27E-06	8.62E-06	1.66E-05	1.82E-05	1.33E-05	1.22E-05
Perylene	ng	2.90	2.26	1.75	1.93	2.54	1.20	1.01	1.94
	ng/dscm	6.61E-01	5.36E-01	4.34E-01	4.53E-01	6.03E-01	2.72E-01	2.33E-01	4.56E-01
	ng/dscm <sup>1</sup>	5.26E-01	4.23E-01	3.45E-01	3.59E-01	4.79E-01	2.16E-01	1.86E-01	3.62E-01
	lb/hr	6.46E-08	5.07E-08	3.91E-08	4.14E-08	5.59E-08	2.67E-08	2.24E-08	4.30E-08

**TABLE 6-1 (CONTINUED)**  
**POLYCYCLIC AROMATIC HYDROCARBONS RESULTS**

ANALYTES	UNITS	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6	RUN 7	RUN 8	AVERAGE
Phenanthrene	ng	1,130	1,060	507	538	1,230	1,060	613	877
	ng/dscm	2.58E+02	2.51E+02	1.26E+02	1.26E+02	2.92E+02	2.40E+02	1.42E+02	2.05E+02
	ng/dscm <sup>1</sup>	2.05E+02	1.99E+02	1.00E+02	1.00E+02	2.32E+02	1.90E+02	1.13E+02	1.63E+02
	lb/hr	2.52E-05	2.38E-05	1.13E-05	1.15E-05	2.71E-05	2.36E-05	1.36E-05	1.94E-05
Pyrene	ng	166	123	91.5	80.6	152	103	67.5	112
	ng/dscm	3.78E+01	2.92E+01	2.27E+01	1.89E+01	3.61E+01	2.34E+01	1.56E+01	2.62E+01
	ng/dscm <sup>1</sup>	3.01E+01	2.30E+01	1.80E+01	1.50E+01	2.87E+01	1.85E+01	1.24E+01	2.08E+01
	lb/hr	3.70E-06	2.76E-06	2.04E-06	1.73E-06	3.35E-06	2.29E-06	1.50E-06	2.48E-06

<sup>1</sup> Emission results are corrected to seven percent oxygen.

**TABLE 6-2**  
**POLYCHLORINATED BIPHENYLS RESULTS**

ANALYTES	UNITS	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6	RUN 7	RUN 8	AVERAGE
2,4'-Dichlorobiphenyl (PCB-8)	ng	1.65	1.76	0.763	0.705	1.91	1.75	0.894	1.35
	ng/dscm	3.76E-01	4.17E-01	1.89E-01	1.65E-01	4.53E-01	3.97E-01	2.06E-01	3.15E-01
	ng/dscm <sup>1</sup>	2.99E-01	3.30E-01	1.50E-01	1.31E-01	3.60E-01	3.14E-01	1.65E-01	2.50E-01
	lb/hr	3.68E-08	3.95E-08	1.70E-08	1.51E-08	4.21E-08	3.89E-08	1.99E-08	2.99E-08
2,2',5-Trichlorobiphenyl (PCB-18)	ng	0.668	0.837	0.468	0.467	1.13	0.954	0.496	0.717
	ng/dscm	1.52E-01	1.98E-01	1.16E-01	1.10E-01	2.68E-01	2.16E-01	1.15E-01	1.68E-01
	ng/dscm <sup>1</sup>	1.21E-01	1.57E-01	9.22E-02	8.70E-02	2.13E-01	1.71E-01	9.13E-02	1.33E-01
	lb/hr	1.49E-08	1.88E-08	1.05E-08	1.00E-08	2.49E-08	2.12E-08	1.10E-08	1.59E-08
2,4,4'-Trichlorobiphenyl (PCB-28)	ng	1.30	1.15	0.612	0.455	1.36	1.27	0.793	0.991
	ng/dscm	2.96E-01	2.73E-01	1.52E-01	1.07E-01	3.23E-01	2.88E-01	1.83E-01	2.32E-01
	ng/dscm <sup>1</sup>	2.36E-01	2.15E-01	1.21E-01	8.47E-02	2.57E-01	2.28E-01	1.46E-01	1.84E-01
	lb/hr	2.90E-08	2.58E-08	1.37E-08	9.76E-09	2.99E-08	2.82E-08	1.76E-08	2.20E-08
2,2',3,5'- Tetrachlorobiphenyl (PCB-44)	ng	4.05	4.41	2.44	2.76	9.02	10.4	5.18	5.47
	ng/dscm	9.23E-01	1.05E+00	6.05E-01	6.47E-01	2.14E+00	2.36E+00	1.20E+00	1.27E+00
	ng/dscm <sup>1</sup>	7.35E-01	8.26E-01	4.81E-01	5.14E-01	1.70E+00	1.87E+00	9.53E-01	1.01E+00
	lb/hr	9.03E-08	9.90E-08	5.45E-08	5.92E-08	1.99E-07	2.31E-07	1.15E-07	1.21E-07
2,2',5,5'- Tetrachlorobiphenyl (PCB-52)	ng	0.793	0.819	0.367	0.387	1.19	1.16	0.474	0.741
	ng/dscm	1.81E-01	1.94E-01	9.10E-02	9.08E-02	2.82E-01	2.63E-01	1.09E-01	1.73E-01
	ng/dscm <sup>1</sup>	1.44E-01	1.53E-01	7.23E-02	7.21E-02	2.25E-01	2.08E-01	8.72E-02	1.37E-01
	lb/hr	1.77E-08	1.84E-08	8.20E-09	8.30E-09	2.62E-08	2.58E-08	1.05E-08	1.64E-08

**TABLE 6-2 (CONTINUED)**  
**POLYCHLORINATED BIPHENYLS RESULTS**

ANALYTES	UNITS	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6	RUN 7	RUN 8	AVERAGE
2,3',4,4'- Tetrachlorobiphenyl (PCB-66)	ng	0.295	0.262	0.147	0.0779	0.245	0.249	0.138	0.202
	ng/dscm	6.73E-02	6.21E-02	3.64E-02	1.83E-02	5.81E-02	5.65E-02	3.19E-02	4.72E-02
	ng/dscm <sup>1</sup>	5.35E-02	4.91E-02	2.90E-02	1.45E-02	4.62E-02	4.47E-02	2.54E-02	3.75E-02
	lb/hr	6.57E-09	5.88E-09	3.28E-09	1.67E-09	5.40E-09	5.53E-09	3.07E-09	4.49E-09
3,3',4,4'- Tetrachlorobiphenyl (PCB-77)	ng	0.0918	0.0829	0.0756	0.0634	0.0661	0.630	0.0759	0.155
	ng/dscm	2.09E-02	1.96E-02	1.87E-02	1.49E-02	1.57E-02	1.43E-01	1.75E-02	3.58E-02
	ng/dscm <sup>1</sup>	1.67E-02	1.55E-02	1.49E-02	1.18E-02	1.25E-02	1.13E-01	1.40E-02	2.84E-02
	lb/hr	2.05E-09	1.86E-09	1.69E-09	1.36E-09	1.46E-09	1.40E-08	1.69E-09	3.44E-09
3,4,4',5- Tetrachlorobiphenyl (PCB-81)	ng	<0.0960	<0.480	<0.480	<0.480	<0.480	<0.480	<0.480	<0.425
	ng/dscm	<2.19E-02	<1.14E-01	<1.19E-01	<1.13E-01	<1.14E-01	<1.09E-01	<1.11E-01	<1.00E-01
	ng/dscm <sup>1</sup>	<1.74E-02	<8.99E-02	<9.46E-02	<8.94E-02	<9.06E-02	<8.62E-02	<8.83E-02	<7.95E-02
	lb/hr	<2.14E-09	<1.08E-08	<1.07E-08	<1.03E-08	<1.06E-08	<1.07E-08	<1.07E-08	<9.40E-09
2,2',4,5,5'- Pentachlorobiphenyl (PCB-101)	ng	0.363	0.451	0.163	0.210	0.421	0.424	0.200	0.319
	ng/dscm	8.28E-02	1.07E-01	4.04E-02	4.93E-02	1.00E-01	9.62E-02	4.62E-02	7.45E-02
	ng/dscm <sup>1</sup>	6.58E-02	8.45E-02	3.21E-02	3.91E-02	7.94E-02	7.61E-02	3.68E-02	5.91E-02
	lb/hr	8.09E-09	1.01E-08	3.64E-09	4.50E-09	9.27E-09	9.42E-09	4.44E-09	7.07E-09
2,3,3',4,4'- Pentachlorobiphenyl (PCB-105)	ng	<0.102	<0.510	<0.510	<0.510	<0.510	<0.510	<0.510	<0.452
	ng/dscm	<2.33E-02	<1.21E-01	<1.26E-01	<1.20E-01	<1.21E-01	<1.16E-01	<1.18E-01	<1.06E-01
	ng/dscm <sup>1</sup>	<1.85E-02	<9.55E-02	<1.01E-01	<9.50E-02	<9.62E-02	<9.16E-02	<9.39E-02	<8.45E-02
	lb/hr	<2.27E-09	<1.15E-08	<1.14E-08	<1.09E-08	<1.12E-08	<1.13E-08	<1.13E-08	<9.99E-09
2,3,4,4',5- Pentachlorobiphenyl (PCB-114)	ng	<0.165	<0.825	<0.825	<0.825	<0.825	<0.825	<0.825	<0.731
	ng/dscm	<3.76E-02	<1.96E-01	<2.04E-01	<1.94E-01	<1.96E-01	<1.87E-01	<1.91E-01	<1.72E-01
	ng/dscm <sup>1</sup>	<2.99E-02	<1.55E-01	<1.63E-01	<1.54E-01	<1.56E-01	<1.48E-01	<1.52E-01	<1.37E-01
	lb/hr	<3.68E-09	<1.85E-08	<1.84E-08	<1.77E-08	<1.82E-08	<1.83E-08	<1.83E-08	<1.62E-08

**TABLE 6-2 (CONTINUED)**  
**POLYCHLORINATED BIPHENYLS RESULTS**

ANALYTES	UNITS	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6	RUN 7	RUN 8	AVERAGE
2,3',4,4',5-Pentachlorobiphenyl (PCB-118)	ng	0.117	0.138	<0.915	<0.915	0.106	0.243	0.0852	<0.360
	ng/dscm	2.67E-02	3.27E-02	<2.27E-01	<2.15E-01	2.51E-02	5.51E-02	1.97E-02	<8.58E-02
	ng/dscm <sup>1</sup>	2.12E-02	2.58E-02	<1.80E-01	<1.70E-01	2.00E-02	4.36E-02	1.57E-02	<6.82E-02
	lb/hr	2.61E-09	3.10E-09	<2.04E-08	<1.96E-08	2.33E-09	5.40E-09	1.89E-09	<7.91E-09
2',3,4,4',5-Pentachlorobiphenyl (PCB-123)	ng	<0.171	<0.855	<0.855	<0.855	<0.855	<0.855	<0.855	<0.757
	ng/dscm	<3.90E-02	<2.03E-01	<2.12E-01	<2.01E-01	<2.03E-01	<1.94E-01	<1.97E-01	<1.78E-01
	ng/dscm <sup>1</sup>	<3.10E-02	<1.60E-01	<1.69E-01	<1.59E-01	<1.61E-01	<1.54E-01	<1.57E-01	<1.42E-01
	lb/hr	<3.81E-09	<1.92E-08	<1.91E-08	<1.83E-08	<1.88E-08	<1.90E-08	<1.90E-08	<1.68E-08
3,3',4,4',5-Pentachlorobiphenyl (PCB-126)	ng	<0.123	<0.615	<0.615	<0.615	<0.615	<0.615	<0.615	<0.545
	ng/dscm	<2.80E-02	<1.46E-01	<1.52E-01	<1.44E-01	<1.46E-01	<1.40E-01	<1.42E-01	<1.28E-01
	ng/dscm <sup>1</sup>	<2.23E-02	<1.15E-01	<1.21E-01	<1.15E-01	<1.16E-01	<1.10E-01	<1.13E-01	<1.02E-01
	lb/hr	<2.74E-09	<1.38E-08	<1.37E-08	<1.32E-08	<1.35E-08	<1.37E-08	<1.37E-08	<1.20E-08
2,2',3,3',4,4'-Hexachlorobiphenyl (PCB-128)	ng	0.00613	<1.02	<1.02	<1.02	<1.02	<1.02	0.0200	<0.732
	ng/dscm	1.40E-03	<2.42E-01	<2.53E-01	<2.39E-01	<2.42E-01	<2.31E-01	4.62E-03	<1.73E-01
	ng/dscm <sup>1</sup>	1.11E-03	<1.91E-01	<2.01E-01	<1.90E-01	<1.92E-01	<1.83E-01	3.68E-03	<1.37E-01
	lb/hr	1.37E-10	<2.29E-08	<2.28E-08	<2.19E-08	<2.25E-08	<2.27E-08	4.44E-10	<1.62E-08
2,2',3,4,4',5'-Hexachlorobiphenyl (PCB-138)	ng	0.103	0.101	0.118	0.0306	0.113	0.117	0.0309	0.0876
	ng/dscm	2.35E-02	2.39E-02	2.92E-02	7.18E-03	2.68E-02	2.65E-02	7.14E-03	2.06E-02
	ng/dscm <sup>1</sup>	1.87E-02	1.89E-02	2.33E-02	5.70E-03	2.13E-02	2.10E-02	5.69E-03	1.64E-02
	lb/hr	2.30E-09	2.27E-09	2.64E-09	6.56E-10	2.49E-09	2.60E-09	6.86E-10	1.95E-09
2,2',4,4',5,5'-Hexachlorobiphenyl (PCB-153)	ng	0.115	0.0985	0.0555	0.0468	0.0828	0.168	0.0992	0.0951
	ng/dscm	2.62E-02	2.33E-02	1.38E-02	1.10E-02	1.96E-02	3.81E-02	2.29E-02	2.21E-02
	ng/dscm <sup>1</sup>	2.09E-02	1.84E-02	1.09E-02	8.71E-03	1.56E-02	3.02E-02	1.83E-02	1.76E-02
	lb/hr	2.56E-09	2.21E-09	1.24E-09	1.00E-09	1.82E-09	3.73E-09	2.20E-09	2.11E-09

**TABLE 6-2 (CONTINUED)**  
**POLYCHLORINATED BIPHENYLS RESULTS**

ANALYTES	UNITS	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6	RUN 7	RUN 8	AVERAGE
2,3,3',4,4',5-Hexachlorobiphenyl (PCB-156)	ng	0.00289	<1.28	<1.28	<1.28	<1.28	<1.28	<1.28	<1.10
	ng/dscm	6.59E-04	<3.03E-01	<3.17E-01	<3.00E-01	<3.04E-01	<2.90E-01	<2.96E-01	<2.59E-01
	ng/dscm <sup>1</sup>	5.24E-04	<2.40E-01	<2.52E-01	<2.38E-01	<2.41E-01	<2.30E-01	<2.36E-01	<2.05E-01
	lb/hr	6.44E-11	<2.87E-08	<2.86E-08	<2.75E-08	<2.82E-08	<2.84E-08	<2.84E-08	<2.43E-08
2,3,3',4,4',5'-Hexachlorobiphenyl (PCB-157)	ng	0.00289	<1.28	<1.28	<1.28	<1.28	<1.28	<1.28	<1.10
	ng/dscm	6.59E-04	<3.03E-01	<3.17E-01	<3.00E-01	<3.04E-01	<2.90E-01	<2.96E-01	<2.59E-01
	ng/dscm <sup>1</sup>	5.24E-04	<2.40E-01	<2.52E-01	<2.38E-01	<2.41E-01	<2.30E-01	<2.36E-01	<2.05E-01
	lb/hr	6.44E-11	<2.87E-08	<2.86E-08	<2.75E-08	<2.82E-08	<2.84E-08	<2.84E-08	<2.43E-08
2,3',4,4',5,5'-Hexachlorobiphenyl (PCB-167)	ng	<0.180	<0.900	<0.900	<0.900	<0.900	<0.900	<0.900	<0.797
	ng/dscm	<4.10E-02	<2.13E-01	<2.23E-01	<2.11E-01	<2.14E-01	<2.04E-01	<2.08E-01	<1.88E-01
	ng/dscm <sup>1</sup>	<3.26E-02	<1.69E-01	<1.77E-01	<1.68E-01	<1.70E-01	<1.62E-01	<1.66E-01	<1.49E-01
	lb/hr	4.01E-09	<2.02E-08	<2.01E-08	<1.93E-08	<1.98E-08	<2.00E-08	<2.00E-08	<1.76E-08
3,3',4,4',5,5'-Hexachlorobiphenyl (PCB-169)	ng	<0.123	<0.615	<0.615	<0.615	<0.615	<0.615	<0.615	<0.545
	ng/dscm	<2.80E-02	<1.46E-01	<1.52E-01	<1.44E-01	<1.46E-01	<1.40E-01	<1.42E-01	<1.28E-01
	ng/dscm <sup>1</sup>	<2.23E-02	<1.15E-01	<1.21E-01	<1.15E-01	<1.16E-01	<1.10E-01	<1.13E-01	<1.02E-01
	lb/hr	<2.74E-09	<1.38E-08	<1.37E-08	<1.32E-08	<1.35E-08	<1.37E-08	<1.37E-08	<1.20E-08
2,2',3,3',4,4',5-Heptachlorobiphenyl (PCB-170)	ng	0.00447	<0.660	<0.660	<0.660	<0.660	<0.660	<0.660	<0.566
	ng/dscm	1.02E-03	<1.56E-01	<1.64E-01	<1.55E-01	<1.57E-01	<1.50E-01	<1.52E-01	<1.34E-01
	ng/dscm <sup>1</sup>	8.11E-04	<1.24E-01	<1.30E-01	<1.23E-01	<1.25E-01	<1.19E-01	<1.21E-01	<1.06E-01
	lb/hr	9.96E-11	<1.48E-08	<1.47E-08	<1.42E-08	<1.45E-08	<1.47E-08	<1.47E-08	<1.25E-08
2,2',3,4,4',5,5'-Heptachlorobiphenyl (PCB-180)	ng	0.0271	<1.02	<1.02	<1.02	<1.02	<1.02	<1.02	0.878
	ng/dscm	6.18E-03	<2.42E-01	<2.53E-01	<2.39E-01	<2.42E-01	<2.31E-01	<2.36E-01	<2.07E-01
	ng/dscm <sup>1</sup>	4.92E-03	<1.91E-01	<2.01E-01	<1.90E-01	<1.92E-01	<1.83E-01	<1.88E-01	<1.64E-01
	lb/hr	6.04E-10	<2.29E-08	<2.28E-08	<2.19E-08	<2.25E-08	<2.27E-08	<2.27E-08	<1.94E-08



**TABLE 6-2 (CONTINUED)**  
**POLYCHLORINATED BIPHENYLS RESULTS**

ANALYTES	UNITS	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6	RUN 7	RUN 8	AVERAGE
2,2',3,4',5,5',6-Heptachlorobiphenyl (PCB-187)	ng	0.0246	<0.630	<0.630	0.0108	<0.630	0.0322	<0.630	<0.370
	ng/dscm	5.61E-03	<1.49E-01	<1.56E-01	2.53E-03	<1.49E-01	7.31E-03	<1.45E-01	<8.80E-02
	ng/dscm <sup>1</sup>	4.46E-03	<1.18E-01	<1.24E-01	2.01E-03	<1.19E-01	5.78E-03	<1.16E-01	<6.99E-02
	lb/hr	5.48E-10	<1.41E-08	<1.41E-08	2.32E-10	<1.39E-08	7.15E-10	<1.40E-08	<8.23E-09
2,3,3',4,4',5,5'-Heptachlorobiphenyl (PCB-189)	ng	<0.147	<0.735	<0.735	<0.735	<0.735	<0.735	<0.735	<0.651
	ng/dscm	<3.35E-02	<1.74E-01	<1.82E-01	<1.72E-01	<1.74E-01	<1.67E-01	<1.70E-01	<1.53E-01
	ng/dscm <sup>1</sup>	<2.67E-02	<1.38E-01	<1.45E-01	<1.37E-01	<1.39E-01	<1.32E-01	<1.35E-01	<1.22E-01
	lb/hr	<3.28E-09	<1.65E-08	<1.64E-08	<1.58E-08	<1.62E-08	<1.63E-08	<1.63E-08	<1.44E-08
2,2',3,3',4,4',5,6-Octachlorobiphenyl (PCB-195)	ng	<0.159	<0.795	<0.795	<0.795	<0.795	0.0127	<0.795	<0.592
	ng/dscm	<3.62E-02	<1.88E-01	<1.97E-01	<1.86E-01	<1.89E-01	2.88E-03	<1.84E-01	<1.40E-01
	ng/dscm <sup>1</sup>	<2.88E-02	<1.49E-01	<1.57E-01	<1.48E-01	<1.50E-01	2.28E-03	<1.46E-01	<1.12E-01
	lb/hr	<3.54E-09	<1.79E-08	<1.78E-08	<1.71E-08	<1.75E-08	2.82E-10	<1.77E-08	<1.31E-08
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (PCB-206)	ng	<0.171	<0.855	<0.855	<0.855	<0.855	<0.855	<0.855	<0.757
	ng/dscm	<3.90E-02	<2.03E-01	<2.12E-01	<2.01E-01	<2.03E-01	<1.94E-01	<1.97E-01	<1.78E-01
	ng/dscm <sup>1</sup>	<3.10E-02	<1.60E-01	<1.69E-01	<1.59E-01	<1.61E-01	<1.54E-01	<1.57E-01	<1.42E-01
	lb/hr	<3.81E-09	<1.92E-08	<1.91E-08	<1.83E-08	<1.88E-08	<1.90E-08	<1.90E-08	<1.68E-08
2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl (PCB-209)	ng	<0.138	<0.690	0.0380	<0.690	<0.690	<0.690	<0.690	<0.518
	ng/dscm	<3.15E-02	<1.64E-01	9.42E-03	<1.62E-01	<1.64E-01	<1.57E-01	<1.59E-01	<1.21E-01
	ng/dscm <sup>1</sup>	<2.50E-02	<1.29E-01	7.49E-03	<1.28E-01	<1.30E-01	<1.24E-01	<1.27E-01	<9.59E-02
	lb/hr	<3.08E-09	<1.55E-08	8.49E-10	<1.48E-08	<1.52E-08	<1.53E-08	<1.53E-08	<1.14E-08

<sup>1</sup> Emission results are corrected to seven percent oxygen.

**TABLE 6-3  
HYDROCARBONS RESULTS**

ANALYTES	UNITS	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6	RUN 7	RUN 8	AVERAGE
Hydrocarbons (as propane)	ppmv dry	0.0823	0.102	4.01	0.144	<0.0100	0.275	0.198	0.689
	ppmv dry <sup>1</sup>	0.0654	0.0809	3.19	0.115	<0.0100	0.217	0.158	0.548
	lb/hr	0.0148	0.0178	0.664	0.0243	<0.00206	0.0494	0.0350	0.115

<sup>1</sup> Emission results are corrected to seven percent oxygen.

**TABLE 6-4  
HYDROGEN CYANIDE RESULTS**

ANALYTES	UNITS	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6	RUN 7	RUN 8	AVERAGE
Hydrogen cyanide	ppmv dry	3.37	3.25	3.60	2.69	3.66	2.81	3.84	3.23
	ppmv dry <sup>1</sup>	2.68	2.57	2.86	2.14	2.91	2.22	3.06	2.56
	lb/hr	0.371	0.347	0.365	0.277	0.382	0.310	0.416	0.342

<sup>1</sup> Emission results are corrected to seven percent oxygen.

**TABLE 6-5  
CARBON MONOXIDE AND OXYGEN RESULTS**

ANALYTES	UNITS	RUN 2	RUN 3	RUN 4	RUN 5	RUN 6	RUN 7	RUN 8	AVERAGE
Carbon monoxide	ppmv dry <sup>1</sup>	0.00	0.0143	0.00	0.0243	0.00	0.00912	0.00	0.00682
Oxygen	% vol dry	3.34	3.26	3.33	3.42	3.33	3.24	3.33	3.32

<sup>1</sup> Data represents the maximum hourly rolling average corrected to seven percent oxygen.

## Appendix A: SITE-SPECIFIC TEST PLAN



We create chemistry

**BASF CORPORATION**

*PASADENA, TEXAS*

# **HAZARDOUS WASTE COMBUSTOR NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS**

## **INFORMATION COLLECTION REQUEST SITE-SPECIFIC TEST PLAN FOR F-10 BOILER**

**MAY 2024**

*Coterie* ENVIRONMENTAL

840 FIRST AVENUE, SUITE 400 • KING OF PRUSSIA, PA 19406

610.945.1777 • [WWW.COTERIE-ENV.COM](http://WWW.COTERIE-ENV.COM)

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Appendix A:	Quality Assurance Project Plan
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## 1.0 INTRODUCTION

This site-specific test plan is being submitted by BASF Corporation (BASF) for a hazardous waste fired boiler located at BASF's Pasadena, Texas, facility. This unit is designated as the F-10 Boiler. An emission test will be performed for the F-10 Boiler in response to United States Environmental Protection Agency's (USEPA's) Clean Air Act Section 114 Information Collection Request (ICR), dated January 31, 2024, for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Hazardous Waste Combustors (HWCs) codified in Title 40 Code of Federal Regulations (CFR) Part 63 Subpart EEE.

This plan describes the testing to be conducted for the F-10 Boiler for the purpose of collecting data on hazardous air pollutants (HAPs). In accordance with the ICR, this test plan will not be submitted for approval prior to the testing. It will be submitted as an appendix of the emission test report.

### 1.1 FACILITY OVERVIEW

BASF manufactures OxoAlcohol and plasticizers at the Pasadena facility. The BASF facility is considered an area stationary source of HAPs as defined in Section 112(a) of the Clean Air Act as amended November 15, 1990.

The location and identification numbers of the BASF Pasadena facility are:

BASF Corporation  
Pasadena Plant  
4403 La Porte Highway 225  
Pasadena, Texas 77501  
Waste Permit No. 50385  
Industrial Solid Waste Registration No. 33849  
EPA ID No. TXD980808778

All correspondence should be directed to the following facility contact:

John T. Igoe, P.E., CSP  
Sr. EHS Specialist  
BASF Corporation  
P.O. Box 600  
Pasadena, Texas 77501  
Phone: (979) 236-2529  
Email: john.igoe@basf.com

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## 1.2 HAZARDOUS WASTE COMBUSTOR OVERVIEW

BASF operates the F-10 Boiler to provide energy recovery as steam while destroying hazardous waste streams generated in the production units. The F-10 Boiler is fired on a mixture of natural gas, process vent gas, and liquid hazardous waste. The liquid hazardous waste fired in the F-10 Boiler is identified as waste liquid fuel. The boiler is equipped with a superheater, an economizer, a selective catalytic reduction (SCR) system, a forced draft fan, and a stack.

## 1.3 TEST OVERVIEW

This emission test is designed to provide the information requested in USEPA's ICR. One test condition will be performed for the boiler. The F-10 Boiler will be operated in a normal and representative manner during the emission test (*i.e.*, in a manner consistent with the boiler's current operating parameter limits (OPLs)).

The ICR requires emission testing for the following pollutants:

- Polycyclic aromatic hydrocarbons (PAH);
- Polychlorinated biphenyls (PCB);
- Hydrocarbons (HC);
- Hydrogen fluoride (HF);
- Hydrogen bromide (HBr); and
- Hydrogen cyanide.

Feedstream (both hazardous and non-hazardous) analyses are also required for higher heating value and fluorine and bromine contents for each test run.

BASF submitted a request to USEPA to waive the emission testing requirement for HF and HBr. In addition, BASF requested to waive the feedstream analytical requirement for fluorine and bromine contents. These waivers were requested because BASF does not use any fluorinated or brominated compounds in any of the processes that generate the boiler feedstreams. Therefore, the feedstreams should not contain any fluorine or bromine. In a response dated March 12, 2024, USEPA approved the waiver requests. Therefore, this emission test will not include stack gas sampling for HF and HBr and will not include feedstream analyses for fluorine and bromine contents.

This emission test is being coordinated by BASF personnel, who will provide oversight of the boiler operations and the stack sampling activities during the test program. Coterie Environmental LLC (Coterie) is responsible for the test plan and report development. Alliance Technical Group, LLC, (ATG) will perform the stack sampling for the test program. ATG will be responsible for all stack gas and waste liquid fuel samples collected during the test program, with oversight by BASF and Coterie. The stack gas and waste liquid fuel samples will be sent to Eurofins Knoxville (Eurofins) for analysis. Additional



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information on the project team roles and responsibilities is provided in the quality assurance project plan (QAPP) in Appendix A.

The emission test will be conducted during the week of June 3, 2024. The test will consist of seven replicate test runs. The testing is expected to take four days. The test report will be submitted by August 30, 2024.

## **1.4 TEST PLAN ORGANIZATION**

This plan has been prepared in accordance with the ICR. The remaining sections of the plan provide the following information:

- Section 2.0 presents information on the boiler's feedstreams;
- Section 3.0 presents a detailed engineering description of the F-10 Boiler;
- Section 4.0 presents a description of the test operations;
- Section 5.0 presents a summary of the test sampling and analysis procedures; and
- Appendix A includes the QAPP.

## 2.0 FEEDSTREAM CHARACTERIZATION

The F-10 Boiler is fired on a mixture of natural gas, process vent gas, and liquid hazardous waste. The liquid hazardous waste is identified as waste liquid fuel.

### 2.1 WASTE LIQUID FUEL

Waste liquid fuel is generated in the OxoAlcohol process and the plasticizer process. Waste liquid fuel is characteristically hazardous and carries the 40 CFR Part 261 hazardous waste codes of D001 (ignitability) and D018 (benzene). The waste liquid fuel is stored in Tank D-74 at ambient temperature. The waste is generally low in ash, chlorine, and metals contents. Table 2-1 presents the typical characteristics of the waste liquid fuel. The higher heating value is provided in British thermal units per pound (Btu/lb), and the metals, chlorine, ash, and organic HAP contents are provided in milligrams per kilogram (mg/kg). The waste liquid fuel does not contain any PCBs based on process knowledge.

**TABLE 2-1**  
**WASTE LIQUID FUEL**

PARAMETER	UNITS	TYPICAL
Higher heating value	Btu/lb	16,000 – 18,000
Ash	mg/kg	< 1,000
Chlorine	mg/kg	< 50
Metals:		
Antimony	mg/kg	< 5.0
Arsenic	mg/kg	< 2.0
Barium	mg/kg	< 1.0
Beryllium	mg/kg	< 1.0
Cadmium	mg/kg	< 0.5
Chromium	mg/kg	< 1.5
Lead	mg/kg	< 1.5
Mercury	mg/kg	< 0.015
Silver	mg/kg	< 3.0
Thallium	mg/kg	< 3.5
Organic hazardous air pollutants:		
Benzene	mg/kg	0 – 100

### 2.2 PROCESS VENT GAS

Non-hazardous process vent gas is fed to the boiler. This stream consists of various organic compounds as well as carbon monoxide (CO), nitrogen, and hydrogen from the production process. Composition of the gas varies depending on process conditions. The gas is collected in the waste gas header for the unit and is hard piped to the boiler. Table 2-2 provides information on the process vent gas characteristics.

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The higher heating value is provided in British thermal units per standard cubic foot (Btu/scf), and the metals, chlorine, ash, and organic HAP contents are provided in mg/kg.

**TABLE 2-2**  
**PROCESS VENT GAS**

PARAMETER	UNITS	TYPICAL
Higher heating value	Btu/scf	1,850
Regulated metals	mg/kg	Trace
Chlorine	mg/kg	Trace
Ash	mg/kg	Trace
Organic hazardous air pollutants	mg/kg	None

## **2.3 NATURAL GAS**

Natural gas is also fed to the boiler as the main fuel for combustion. The natural gas is not expected to contain any HWC NESHAP regulated constituents in greater than trace quantities.

## **2.4 WASTE CHOSEN FOR THE TEST**

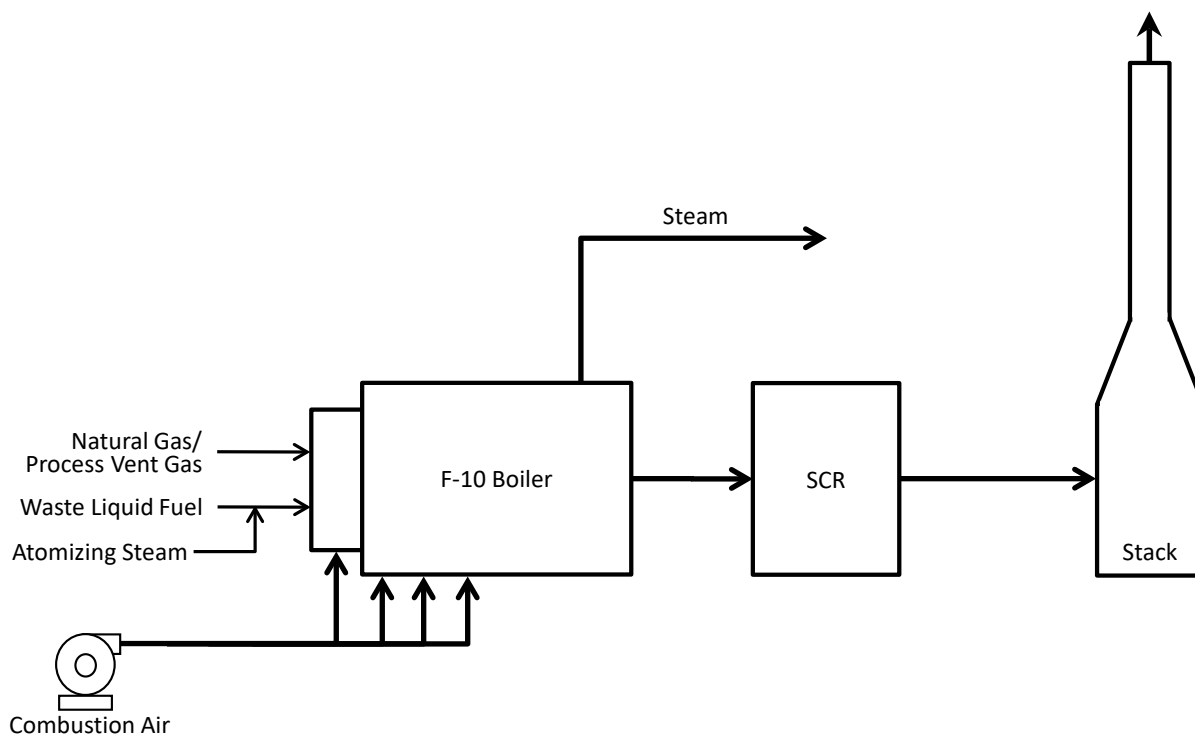
The F-10 Boiler only combusts one liquid hazardous waste stream identified as the waste liquid fuel. This stream will be fed to the boiler during the testing.

### 3.0 ENGINEERING DESCRIPTION

The F-10 Boiler is used to provide energy recovery as steam, while destroying liquid hazardous wastes generated by onsite production units. The F-10 Boiler is designed for a nominal heat input of 180 million British thermal units per hour (MMBtu/hr) and is fired on a mixture of waste liquid fuel, process vent gas, and natural gas. Natural gas and process vent gas are the primary fuels for the boiler.

The main components of the boiler are a firebox, a superheater, an economizer, an SCR system, a forced draft fan, and a stack. The F-10 Boiler uses a low-nitrogen oxides (NO<sub>x</sub>) burner and the SCR system for control of NO<sub>x</sub> emissions. No other air pollution control equipment is installed on the unit. The F-10 Boiler is a forced draft unit, and the primary motive force to move the combustion gases through the system is provided by the combustion air fan. Figure 3-1 provides a process schematic of the F-10 Boiler.

**FIGURE 3-1**  
**F-10 BOILER PROCESS SCHEMATIC**



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### **3.1 WASTE STORAGE SYSTEM**

The waste liquid fuel is hard piped from the production processes to a 20,000-gallon accumulation tank (Tank D-74). The waste liquid fuel is accumulated in Tank D-74 at ambient temperature. The vent gases from Tank D-74 are sent to a flare for processing.

### **3.2 WASTE AND FUEL DELIVERY SYSTEMS**

Waste liquid fuel, process vent gas, and natural gas are fed to the F-10 Boiler. The following sections provide detail on each delivery system.

#### **3.2.1 LIQUID WASTE DELIVERY SYSTEM**

The waste liquid fuel is fed in batch fashion from Tank D-74 to the F-10 Boiler once a certain level is achieved in the accumulation tank. The waste liquid fuel is pumped through a carbon steel feed line and flow meter to a single waste gun located in the center of the burner air register. The waste liquid fuel is atomized with steam prior to combustion. The feed line from Tank D-74 is equipped with a control valve for flow control and two automated ball valves for isolation to ensure proper control and shutdown of the liquid feed.

#### **3.2.2 PROCESS VENT GAS AND NATURAL GAS DELIVERY SYSTEM**

Process vent gas from facility production activities and several other locations is utilized in combination with natural gas as the primary fuel in the F-10 Boiler. Both the natural gas and process vent gas feed lines are equipped with a flow meter, control valve loop, and a double block and bleed station for proper control and shutdown of the feed.

### **3.3 BOILER**

The F-10 Boiler is a Cleaver Brooks D-type water-tube boiler, Model Number NB-601D. The boiler is equipped with one NATCOM low-NO<sub>x</sub> burner, Model Number P-174-SLSGG-32-1623. The burner is factory-mounted in the windbox.

Combustion air is supplied to the boiler through a Chicago Blower Corporation forced draft fan, Model Number 5800 SW. The fan has a capacity of 37,250 actual cubic feet per minute (acfm) of air. The forced draft fan provides the primary motive force for the flue gas through the system.

The heat from the combustion of the feed materials is transferred to the boiler tubes to facilitate the production of steam from incoming feed water. Heat transfer occurs in two sections of the boiler: the superheater and the economizer. The combustion gas passes through the superheater section of the boiler prior to entering the economizer. Steam is generated in the boiler, and the economizer section of the boiler is used to remove any additional heat from the combustion gas to preheat the incoming boiler feed water.

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### **3.4 AIR POLLUTION CONTROL**

The boiler is equipped with a low-NO<sub>x</sub> burner and an anhydrous ammonia SCR system to control NO<sub>x</sub> emissions. The SCR system includes a catalyst and an ammonia distribution system. The boiler is not equipped with any other air pollution control devices.

### **3.5 EXHAUST STACK**

Combustion gas vents to the atmosphere through a stack. The stack discharge is approximately 75 feet above ground level. The stack has a diameter of 4.5 feet and is equipped with isokinetic sampling ports.

## 4.0 TEST OPERATIONS

BASF intends to perform one test condition to collect the data requested in the ICR. This section of the plan establishes the boiler operations that will be demonstrated during the testing. In addition, the amount of waste needed for testing, the monitoring data to be collected during testing, and a schedule for the testing are presented here.

### 4.1 NORMAL OPERATING CONDITIONS

The ICR requested that the F-10 Boiler be operated in a normal and representative manner during the emission test. To establish the operating conditions for the test, operating data from April 2023 through March 2024 was reviewed. Data for the following operating parameters was reviewed:

- Combustion chamber temperature;
- Combustion air flow rate; and
- Total hazardous waste feed rate.

Table 4-1 presents the average value and the OPL for each parameter. The combustion chamber temperature is monitored in degrees Fahrenheit (°F), the combustion air flow rate is monitored in thousand pounds per hour (klb/hr), and the total hazardous waste feed rate is monitored in gallons per minute (gpm).

**TABLE 4-1**  
**AVERAGE VALUES FOR OPERATING PARAMETERS**

PARAMETER	UNITS	AVERAGE VALUE <sup>1</sup>	OPERATING PARAMETER LIMIT	LIMIT TYPE
Combustion chamber temperature	°F	1,702	1,399	Minimum
Combustion air flow rate	klb/hr	86	113	Maximum
Total hazardous waste feed rate	gpm	1.4	5.6	Maximum

<sup>1</sup> Values represent the averages of hazardous waste operating data collected for April 2023 through March 2024.

### 4.2 TEST CONDITION

The test condition is designed to demonstrate operations of the F-10 Boiler at normal and representative conditions. The target conditions were set within the averages presented in Table 4-1 and the maximum or minimum OPL, as appropriate. The process vent gas feed rate and the natural gas feed rate, which are monitored in lb/hr and thousand standard cubic feet per hour (kscfh), respectively, will be allowed to vary as needed to achieve the other target conditions. All operating conditions

presented in this plan are calculated values; the actual conditions observed during the test may vary slightly from these values.

A summary of the target operating conditions is provided in Table 4-2.

**TABLE 4-2**  
**TARGET TEST CONDITION**

OPERATING PARAMETER	UNITS	TARGETS	OPERATING PARAMETER LIMIT
Combustion chamber temperature	°F	1,700	1,399
Combustion air flow rate	klb/hr	100	113
Total hazardous waste feed rate	gpm	2.0	5.6
Process vent gas feed rate	lb/hr	Variable	- - -
Natural gas feed rate	kscfh	Variable	- - -

#### 4.3 TEST MATERIALS AND QUANTITIES

Table 4-3 summarizes the quantity of materials required to conduct the testing. Seven runs will be carried out for the test condition. Each test run will require approximately 4.5 hours. A maximum of two runs will be performed per day. An additional 30 minutes of run time will be required for each day of testing to establish the steady state conditions before the start of the test runs, and approximately 60 minutes will be required between consecutive test runs. Therefore, for the purpose of calculating test quantities, a total of 36.5 hours has been used. We have also added approximately 40 percent to each total to allow for unforeseen delays.

**TABLE 4-3**  
**TEST MATERIAL QUANTITIES**

MATERIAL	UNITS	QUANTITY
Waste liquid fuel	gallons	6,200

#### 4.4 TEST MONITORING

Operating data will be reported for each test run. Table 4-4 presents the operating data that will be reported for the testing. All one-minute average values will be reported for each parameter for each run. Run averages, minimums, and maximums will be determined.



**TABLE 4-4**  
**MONITORED AND REPORTED OPERATING PARAMETERS**

INSTRUMENT TAG NUMBER	DESCRIPTION
TI-7428A-G	Combustion chamber temperature
FT-7420	Combustion air flow rate
FT-7417	Steam production rate
FT-7493	Total hazardous waste feed rate
FC-7478	Process vent gas feed rate
FC-7464	Natural gas feed rate
P-7602	Atomizing fluid differential pressure

In addition to the operating parameters listed in Table 4-4, BASF will also report one-minute average and hourly rolling average data for the oxygen-corrected CO emission concentration from the boiler's continuous emissions monitoring systems (CEMS).

#### 4.5 TEST SCHEDULE

The sampling effort will require one day for setup and four days for testing. During setup, sampling equipment and instruments will be prepared and calibrated, supplies will be brought onsite, and sampling locations will be prepared. The seven test runs will be performed over the four testing days. Although the onsite activities will dictate the actual timing, a preliminary schedule is presented in Table 4-5.

**TABLE 4-5**  
**TEST SCHEDULE**

DAY	START	STOP	ACTIVITY
1	---	---	Setup of sampling equipment and pre-test meetings
2	08:00	08:30	Begin feeding designated materials at target rates and establish steady-state operating conditions
	08:30	09:30	Perform cyclonic flow check and preliminary flow traverse
	09:30	14:00	Run 1
	14:00	15:00	Set-up of sampling equipment for Run 2
	15:00	19:30	Run 2
3	08:00	08:30	Begin feeding designated materials at target rates, establish steady-state operating conditions, and setup sampling equipment for Run 3
	08:30	13:00	Run 3
	13:00	14:00	Set-up of sampling equipment for Run 4
	14:00	18:30	Run 4

**TABLE 4-5 (CONTINUED)**  
**TEST SCHEDULE**

DAY	START	STOP	ACTIVITY
4	08:00	08:30	Begin feeding designated materials at target rates, establish steady-state operating conditions, and setup sampling equipment for Run 5
	08:30	13:00	Run 5
	13:00	14:00	Set-up of sampling equipment for Run 6
	14:00	18:30	Run 6
5	08:00	08:30	Begin feeding designated materials at target rates, establish steady-state operating conditions, and setup sampling equipment for Run 7
	08:30	13:00	Run 7
	13:00	- - -	Break down sampling equipment

## 5.0 SAMPLING AND ANALYSIS

The test condition will consist of seven replicate test runs. For each run, samples will be collected using procedures described in the QAPP found in Appendix A. Since most of the proposed methods are standard reference methods, only brief descriptions are presented. Sample holding times will be consistent with the analytical requirements for the methods used.

### 5.1 WASTE LIQUID FUEL SAMPLING AND ANALYSIS

Waste liquid fuel samples will be collected during each run. The waste sampling location will be clearly labeled during the test. Table 5-1 summarizes the waste liquid fuel sampling and analysis procedures.

**TABLE 5-1**  
**WASTE LIQUID FUEL SAMPLING AND ANALYSIS**

WASTE	SAMPLING METHOD	SAMPLING AMOUNT/ FREQUENCY	ANALYTICAL PARAMETER	ANALYTICAL METHOD <sup>1</sup>
Waste liquid fuel	Tap sampling	Approximately 150 mL into two separate bottles at beginning, middle, and end of each test run	Density	ASTM Method D1475
			Higher heating value	ASTM Method D240

<sup>1</sup> ASTM refers to ASTM International.

BASF personnel will collect the waste liquid fuel samples from a tap located on the feed line. The tap will be flushed initially (allowed to flow briefly) before the samples are collected. Samples will be collected at the beginning, middle, and end of each test run. At each sampling event, approximately 150 milliliters (mL) of the waste stream will be collected into two separate bottles. At the end of the run, each sample bottle will have approximately 450 mL of sample. One sample will be sent to the laboratory for analysis, and one sample will be sent to the laboratory as a backup.

The waste liquid fuel samples will be analyzed to characterize the waste stream. Density and higher heating value of the waste liquid fuel will be determined for each test run.

### 5.2 PROCESS VENT GAS SAMPLING AND ANALYSIS

The process vent gas will not be sampled and analyzed during the test. Process knowledge is used to characterize the process vent gas. Process vent gas characterization information is provided in Section 2.2.

### 5.3 NATURAL GAS SAMPLING AND ANALYSIS

The natural gas will not be sampled and analyzed during the test. The natural gas is not expected to contain any regulated constituents in greater than trace quantities.

### 5.4 STACK GAS SAMPLING AND ANALYSIS

The stack gas will be monitored for HC emissions and sampled for PAH, PCB, and hydrogen cyanide emissions during the test. In addition, the facility's CEMS continuously monitor the stack gas CO concentration. The following monitoring/sampling methods will be used:

- USEPA Methods 1, 2, 3A, and 4 for determination of stack sampling traverse points, gas flow rate, composition, and moisture content;
- USEPA Method 25A, a portable CEMS operated by the stack sampling contractor, to monitor the concentrations of HC in the stack gas;
- USEPA Method 23 for measurement of PAH and PCB emissions;
- USEPA Method 320 for measurement of hydrogen cyanide emissions; and
- The facility's CEMS to monitor the concentrations of CO and oxygen in the stack gas.

Table 5-2 summarizes the stack gas samples to be taken, the parameters to be measured, and the frequency of measurement.

**TABLE 5-2**  
**STACK GAS SAMPLING AND ANALYSIS**

SAMPLING METHOD <sup>1</sup>	SAMPLING DURATION	ANALYTICAL PARAMETER	ANALYTICAL METHOD <sup>1</sup>
USEPA Methods 1, 2, 3A, and 4	Not applicable	Traverse points, stack flow, composition, and moisture	Not applicable
USEPA Method 25A (Portable CEMS)	Continuous	Hydrocarbons	USEPA Method 25A (Portable CEMS)
USEPA Method 23	240 minutes (minimum)	Polycyclic aromatic hydrocarbons and polychlorinated biphenyls	USEPA Method 23
USEPA Method 320	60 minutes (minimum)	Hydrogen cyanide	USEPA Method 320
Facility CEMS (USEPA Performance Specification 4B)	Continuous	Carbon monoxide and oxygen	Facility CEMS (USEPA Performance Specification 4B)

<sup>1</sup> USEPA Method refers to New Source Performance Standards, Test Methods and Procedures, Appendix A, 40 CFR Part 60. USEPA Performance Specification refers to New Source Performance Standards, Performance Specifications, Appendix B, 40 CFR Part 60.

## **Appendix A:**

### **QUALITY ASSURANCE PROJECT PLAN**



We create chemistry

**BASF CORPORATION**

*PASADENA, TEXAS*

# **HAZARDOUS WASTE COMBUSTOR NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS**

## **INFORMATION COLLECTION REQUEST QUALITY ASSURANCE PROJECT PLAN FOR F-10 BOILER**

**MAY 2024**

*Coterie* ENVIRONMENTAL

840 FIRST AVENUE, SUITE 400 • KING OF PRUSSIA, PA 19406

610.945.1777 • [WWW.COTERIE-ENV.COM](http://WWW.COTERIE-ENV.COM)

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## 1.0 INTRODUCTION

This quality assurance project plan (QAPP) is being submitted by BASF Corporation (BASF) for the hazardous waste fired boiler located at BASF's Pasadena, Texas, facility. This unit is designated as the F-10 Boiler. An emission test will be performed for the F-10 Boiler in response to United States Environmental Protection Agency's (USEPA's) Clean Air Act Section 114 Information Collection Request (ICR), dated January 31, 2024, for the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Hazardous Waste Combustors (HWCs) codified in Title 40 Code of Federal Regulations (CFR) Part 63 Subpart EEE. This QAPP describes the quality assurance (QA) and quality control (QC) program associated with the ICR testing to be conducted for the F-10 Boiler. In accordance with the ICR, this QAPP will not be submitted for approval prior to the testing. It will be submitted as an appendix of the emission test report

### 1.1 FACILITY OVERVIEW

BASF manufactures OxoAlcohol and plasticizers at the Pasadena facility. The BASF facility is considered an area stationary source of HAPs as defined in Section 112(a) of the Clean Air Act as amended November 15, 1990.

The street address and identification numbers of the BASF Pasadena facility are:

BASF Corporation  
Pasadena Plant  
4403 La Porte Highway 225  
Pasadena, Texas 77501  
Waste Permit No. 50385  
Industrial Solid Waste Registration No. 33849  
EPA ID No. TXD980808778

All correspondence should be directed to the following facility contact:

John T. Igoe, P.E., CSP  
Sr. EHS Specialist  
BASF Corporation  
P.O. Box 600  
Pasadena, Texas 77501  
Phone: (979) 236-2529  
Email: john.igoe@basf.com

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## 1.2 HAZARDOUS WASTE COMBUSTOR OVERVIEW

BASF operates the F-10 Boiler to provide energy recovery as steam while destroying hazardous waste streams generated in the production units. The F-10 Boiler is fired on a mixture of natural gas, process vent gas, and liquid hazardous waste. The liquid hazardous waste fired in the F-10 Boiler is identified as waste liquid fuel. The boiler is equipped with a superheater, an economizer, a selective catalytic reduction (SCR) system, a forced draft fan, and a stack. More information regarding the design and operation of the F-10 Boiler can be found in Section 3.0 of the site-specific test plan.

## 1.3 TEST OVERVIEW

The emission test is designed to provide the information requested in USEPA's ICR. One test condition will be performed for the boiler. The F-10 Boiler will be operated in a normal and representative manner during the emission test (*i.e.*, in a manner consistent with the boiler's current operating parameter limits (OPLs)).

The ICR emission testing will include the following pollutants:

- Polycyclic aromatic hydrocarbons (PAH);
- Polychlorinated biphenyls (PCB);
- Hydrocarbons (HC); and
- Hydrogen cyanide.

The waste liquid fuel will also be analyzed for higher heating value and density for each test run.

This emission test is being coordinated by BASF personnel, who will provide oversight of the boiler operations and the stack sampling activities during the test program. Coterie Environmental LLC (Coterie) is responsible for the test plan and report development. Alliance Technical Group, LLC, (ATG) will perform the stack sampling for the test program. ATG will be responsible for all stack gas and waste liquid fuel samples collected during the test program, with oversight by BASF and Coterie. The stack gas and waste liquid fuel samples will be sent to Eurofins Knoxville (Eurofins) for analysis.

## 1.4 QUALITY ASSURANCE PROJECT PLAN ORGANIZATION

This QAPP has been prepared following the USEPA document entitled *Preparation Aids for the Development of Category I Quality Assurance Project Plan*. The QAPP will serve as an essential guidance by which the emission test will be performed. The QAPP defines all aspects of QA/QC procedures and establishes sampling and analytical quality indicators that will demonstrate achievement of the test objectives. Additionally, this QAPP defines precision and accuracy criteria for the required measurements that will be used to demonstrate that all associated test data is of sufficient quality to satisfy the requirements of the USEPA's ICR. The remaining sections of the QAPP provide the following information:

- Section 2.0 presents information on the emission test project team;

- 
- Section 3.0 describes the emission test sampling procedures;
  - Section 4.0 presents sample handling and documentation information;
  - Section 5.0 discusses the emission test analytical procedures;
  - Section 6.0 presents the emission test data quality objectives;
  - Section 7.0 discusses calibration procedures and preventative maintenance;
  - Section 8.0 discusses data reduction, validation, and reporting procedures;
  - Section 9.0 discusses QA reports;
  - Section 10.0 includes a list of reference documents for the QAPP; and
  - Attachment A provides a list of analytes for the testing.

## 2.0 ORGANIZATION OF PERSONNEL, RESPONSIBILITIES, AND QUALIFICATIONS

BASF and their contractors will have specific and unique duties in the implementation of the ICR emission test project. The project team duties are summarized below. A project organization flow chart is provided in Figure 2-1. The contractors selected for this project have established training programs that identify, ensure, and document that the personnel assigned to their tasks have appropriate knowledge, skills, training, and certifications to perform their duties. Any key personnel that become unavailable will be replaced by equally qualified personnel prior to test mobilization. This QAPP will be distributed to key project personnel for review prior to the emission test.

BASF, through the Emission Test Manager and operations crew, will:

- Procure and prepare waste feeds;
- Operate F-10 Boiler at the designated conditions;
- Collect waste samples; and
- Report all feed rates and F-10 Boiler process parameters.

Coterie, through the Offsite Project Coordinator, will:

- Prepare the sit-specific test plan and QAPP;
- Provide oversight for the project;
- Perform a detailed QA review of all analytical results; and
- Prepare the final report.

ATG, through the Stack Testing Director and stack sampling field team, will:

- Perform stack gas sampling;
- Implement the QA program for the stack sampling and analysis;
- Provide custody of all samples generated by the test efforts;
- Transport the samples to the laboratories for analysis; and
- Prepare the stack sampling report and supporting documentation.

The laboratory will:

- Perform sample analyses;
- Perform method and QAPP specified QA/QC; and
- Provide a complete laboratory report with a detailed case narrative.

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## **2.1 EMISSION TEST MANAGER**

John Igoe will serve as the BASF Emission Test Manager. Mr. Igoe will be responsible for directing BASF personnel in the operations of the F-10 Boiler during the testing. He will also ensure that all necessary unit operating data is collected during the test.

## **2.2 OFFSITE PROJECT COORDINATOR**

Heather McHale of Coterie will provide offsite coordination of the test program. Ms. McHale will ensure that all test team members communicate throughout the test program and that the objectives of the test plan are met. As the Offsite Project Coordinator, Ms. McHale will also ensure that all analytical data is validated and that all deviations are adequately addressed in the appropriate sections of the test report.

## **2.3 STACK TESTING DIRECTOR**

Dan Loubiere of ATG will serve as the Stack Testing Director for the emission test. Mr. Loubiere will be responsible for technical supervision of the project, data interpretation, overall report preparation, and coordination with all laboratories and outside service providers. Mr. Loubiere or a project manager who reports to Mr. Loubiere will oversee the field crew during the testing, will be responsible for all aspects of sample collection, and will report any deviations immediately to the Emission Test Manager and Offsite Project Coordinator. The Stack Testing Director may or may not be onsite during the emission test.

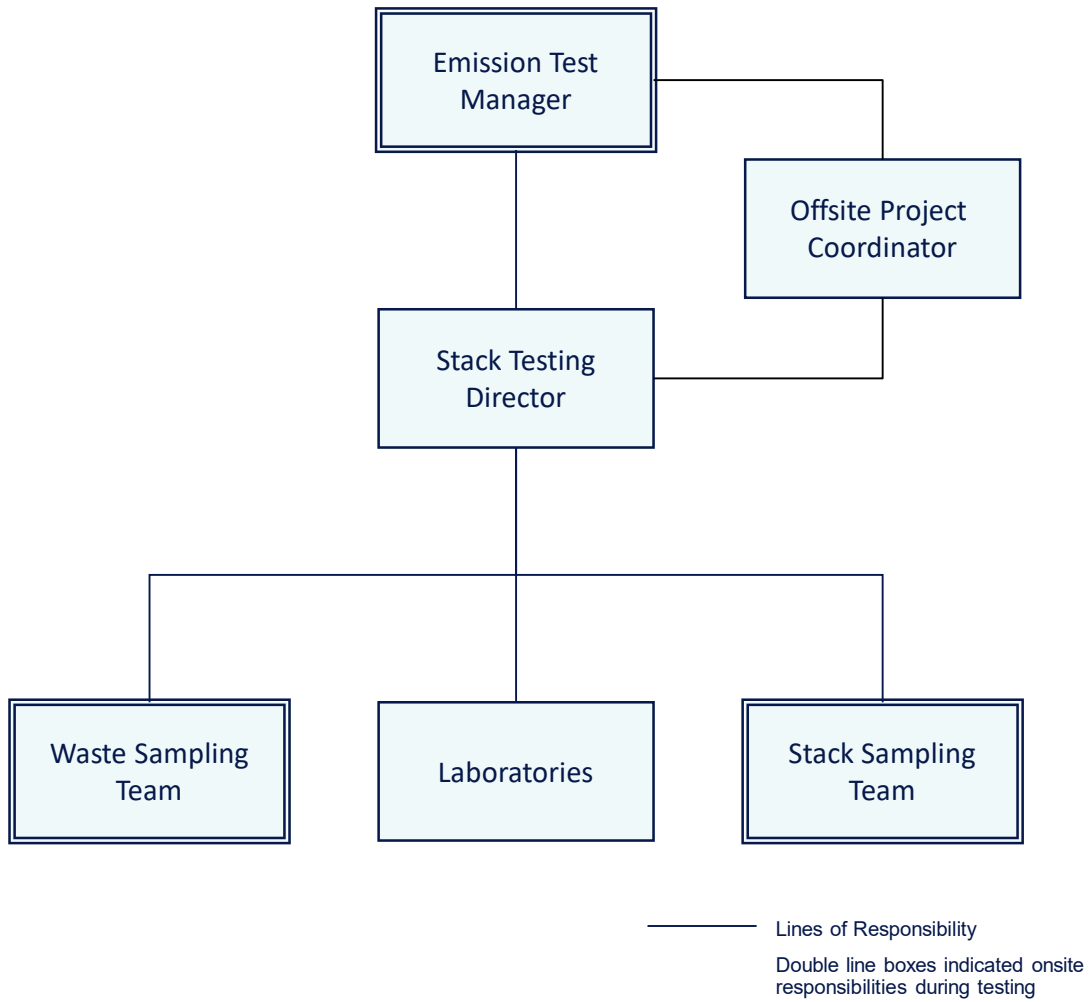
## **2.4 FIELD TEAM**

The field team will be made up of BASF and contractor personnel. BASF operators will be responsible for collecting all waste samples. The stack sampling field team will collect all stack gas samples and will take custody of the waste samples from the operators at the conclusion of the testing.

## **2.5 LABORATORY**

Eurofins will be the subcontracted laboratory. The point of contact for the laboratory is Courtney Adkins. The laboratory is well experienced in conducting analyses per the methods described in this QAPP. Prior to test execution, the QAPP will be submitted to the laboratory for review and understanding of their project responsibilities. The laboratory representative will sign the appropriate QAPP signature page. The laboratory representative will be responsible for ensuring that the laboratory follows all analytical methods specified in the QAPP in accordance with their standard operating procedure (SOPs), that a detailed case narrative is prepared addressing all analytical deviations, and that a complete laboratory report is provided.

**FIGURE 2-1**  
**PROJECT ORGANIZATION**



## 3.0 SAMPLING PROCEDURES

This section provides descriptions of the waste and stack gas sampling procedures to be performed during the test.

### 3.1 WASTE LIQUID FUEL SAMPLING

Waste liquid fuel samples will be collected during each run. The waste sampling locations will be clearly labeled during the test. Table 3-1 summarizes the waste liquid fuel sampling procedures.

**TABLE 3-1**  
**WASTE LIQUID FUEL SAMPLING**

WASTE	SAMPLING METHOD	SAMPLING AMOUNT/ FREQUENCY
Waste liquid fuel	Tap sampling	Approximately 150 mL into two separate bottles at beginning, middle, and end of each test run

BASF personnel will collect the waste liquid fuel samples from a tap located on the feed line. The tap will be flushed initially (allowed to flow briefly) before the samples are collected. At each sampling event, approximately 150 milliliters (mL) of the waste stream will be collected into two separate bottles. At the end of the run, each sample bottle will have approximately 450 mL of sample. One sample will be sent to the laboratory for analysis, and one sample will be sent to the laboratory as a backup.

### 3.2 PROCESS VENT GAS SAMPLING

The process vent gas will not be sampled and analyzed during the test. Process knowledge is used to characterize the process vent gas.

### 3.3 NATURAL GAS SAMPLING

The natural gas will not be sampled and analyzed during the test. The natural gas is not expected to contain any regulated constituents in greater than trace quantities.

### 3.4 STACK GAS SAMPLING

The stack gas sampling will follow the methods documented in 40 CFR Part 60 Appendix A (USEPA Methods). Brief descriptions of these methods are provided in this section. Any modifications to prescribed USEPA methods are outlined in the sampling procedure descriptions below. Table 3-2 summarizes the sampling procedures to be used during the test for collection of stack gas samples.



**TABLE 3-2  
STACK GAS SAMPLING**

PARAMETER	SAMPLING METHOD <sup>1</sup>	SAMPLE FRACTION(S)
Traverse points, gas flow rate, composition, and moisture content	USEPA Methods 1, 2, 3A, and 4	Not applicable
Polycyclic aromatic hydrocarbons and polychlorinated biphenyls	USEPA Method 23	Filter
		Front-half and back-half acetone and toluene rinses
		XAD-2 resin
		Deionized water impingers contents
		Deionized water impingers acetone and toluene rinses
Hydrocarbons	USEPA Method 25A	Not applicable
Hydrogen cyanide	USEPA Method 320	Not applicable
Carbon monoxide and oxygen	Facility CEMS (USEPA Performance Specification 4B)	Not applicable

<sup>1</sup> USEPA Method refers to New Source Performance Standards, Test Methods and Procedures, Appendix A, 40 CFR Part 60. USEPA Performance Specification refers to New Source Performance Standards, Performance Specifications, Appendix B, 40 CFR Part 60.

Adequate sampling ports are available to support the sampling. The gas flow rate, composition, and moisture content data will be collected concurrent with the isokinetic sampling train.

### **3.4.1 SAMPLING POINT DETERMINATION – USEPA METHOD 1**

The number and location of the stack gas sampling points will be determined according to the procedures outlined in USEPA Method 1. Verification of absence of cyclonic flow will be conducted prior to testing by following the procedure described in USEPA Method 1. The cyclonic flow check will be performed once for the test.

### **3.4.2 FLUE GAS VELOCITY AND VOLUMETRIC FLOW RATE – USEPA METHOD 2**

The flue gas velocity and volumetric flow rate will be determined according to the procedures outlined in USEPA Method 2. Velocity measurements will be made using Type S pitot tubes conforming to the geometric specifications outlined in USEPA Method 2. Differential pressures will be measured with fluid manometers. Effluent gas temperatures will be measured with thermocouples equipped with digital readouts.

### **3.4.3 FLUE GAS COMPOSITION AND MOLECULAR WEIGHT – USEPA METHOD 3A**

The composition of the bulk gas and the gas molecular weight at the stack (concentrations of carbon dioxide and oxygen) will be determined by USEPA Method 3A. The stack sampling contractor will supply oxygen and carbon dioxide analyzers and all other associated equipment. The analyzers will be calibrated according to the procedures outlined in the method. A continuous sample of stack gas will be

---

withdrawn via a sample probe. The gas will be filtered and passed through a conditioning system for removal of particulates and moisture prior to being sent to the analyzer.

The calculated molecular weight will be used for all isokinetic calculations. The measured oxygen concentration will also be used to correct emission concentrations to seven percent oxygen.

#### **3.4.4 FLUE GAS MOISTURE CONTENT – USEPA METHOD 4**

The flue gas moisture content will be determined in conjunction with each isokinetic train according to the sampling and analytical procedures outlined in USEPA Method 4. The impingers will be connected in series and will contain reagents as described for each sampling method. The impingers will be housed in an ice bath to ensure condensation of the moisture from the flue gas stream. Any moisture that is not condensed in the impingers is captured in the silica gel. Moisture content is determined by weighing the various sample fractions.

#### **3.4.5 POLYCYCLIC AROMATIC HYDROCARBONS AND POLYCHLORINATED BIPHENYLS – USEPA METHOD 23**

The sampling procedures outlined in USEPA Method 23 will be used to determine the PAH and PCB concentrations in the stack gas during the emission test. The specific list of analytes is provided in Attachment A. The sampling train will consist of a glass fiber filter and coil condenser followed by a XAD-2 resin trap and a series of impingers. A total of four impingers will be used in the sampling train. The first of these impingers will be empty and will be followed by two impingers each containing 100 mL of reagent water. These impingers will be followed by an impinger containing approximately 200 to 300 grams of silica gel. A recirculating pump will also be connected to the sampling train to continuously circulate cold water to the condenser and resin trap to maintain the resin trap temperature below 68 degrees Fahrenheit (°F). A diagram of the sampling train is presented in Figure 3-1.

In preparation for the sampling event, several labeled sampling standards will be introduced inside the resin to monitor sampling efficiencies as well as to provide insights to the sample preservation and storage conditions. Upon preparation of the spiked resin traps, a separate fraction of resin from the same batch will be spiked the same day using the same solutions used in the field sampling modules and will be refrigerated in the laboratory until the return of the field samples. At such time, the control resin will become the laboratory method blank.

All sampling train components will be constructed of materials specified in the methods and will be cleaned and prepared per method specifications prior to testing. The probe and filter temperatures will be maintained between 223 and 273°F. The sampling runs will be performed within  $\pm 10$  percent of isokinetic conditions. A minimum of 141 dry standard cubic feet (dscf) of sample gas will be collected over a minimum of 240 minutes.

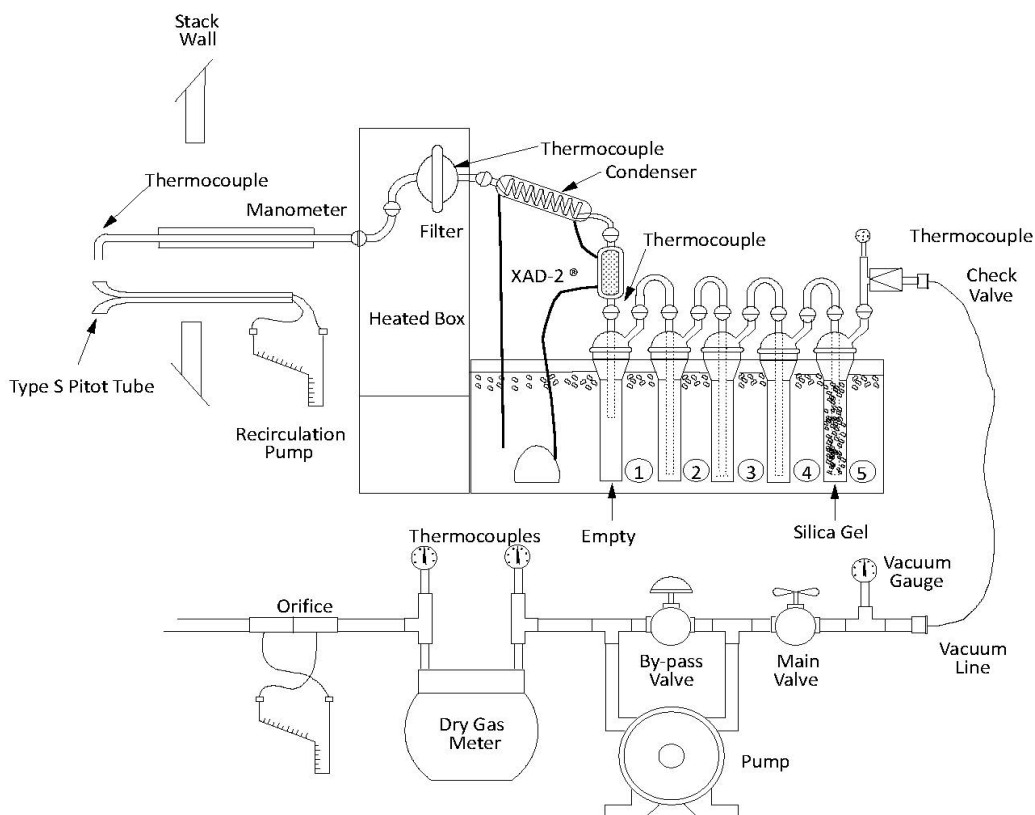
USEPA Method 23 Section 6.1.7 requires that the condenser to be oriented at an angle to cause moisture to flow down to the XAD adsorbent module to facilitate condensate drainage. Glassware with

this configuration is not currently available from a national supplier utilizing a large enough condenser to meet the temperature specifications of the method. Until equipment is widely available, the horizontal or vertical condenser configuration from traditional USEPA Method 23 will be utilized.

The recovery of the sampling train will result in the sample fractions listed in Table 3-2. The sampling train will be recovered according to the procedures specified in the method with one exception. USEPA Method 23 Section 8.2.9 specifies that the impinger condensate and solvent rinses are to be collected in a single container (No. 3). Due to analytical method development constraints of the subcontracted laboratory, it will be necessary to recover the sample fractions separately: impinger condensate (Container No. 3A) and solvent rinses (Container No. 3B). The filter will be shipped in a Petri dish, and all rinses will be collected in amber glass jars. The XAD-2 resin will be wrapped and shipped in the glass trap.

All sample fractions will be combined during extraction. The sample will be spiked with extraction standards. The sample will be analyzed for PAH and PCB by USEPA Method 23 (high resolution gas chromatograph/high resolution mass spectroscopy).

**FIGURE 3-1**  
**USEPA METHOD 23 SAMPLING TRAIN**



### 3.4.6 HYDROCARBONS – USEPA METHOD 25A

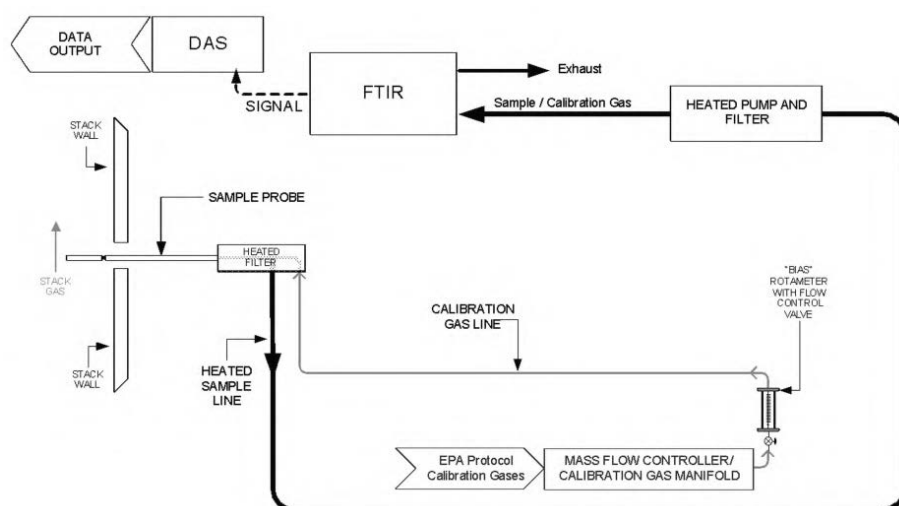
The procedures outlined in USEPA Method 25A will be used to measure the concentration of HC in the stack gas during the test. The stack sampling contractor will supply an HC analyzer with a span calibrated to match the anticipated HC concentration of the stack gas. Sampling will be concurrent with the USEPA Method 23 testing.

A continuous sample of stack gas will be withdrawn via a sample probe. The sampled gas will be filtered for removal of particulates prior to being sent to the analyzer. All parts of the sampling system and the analyzer will be heated to a temperature of at least 250°F. The wet-basis HC concentration will be reported in parts per million by volume (ppmv), as propane.

### 3.4.7 HYDROGEN CYANIDE – USEPA METHOD 320

The procedures outlined in USEPA Method 320 will be used to measure the concentration of hydrogen cyanide in the stack gas during the test. The stack gas will be extracted at a constant rate through a heated probe, heated filter, and heated sample line and analyzed with a Fourier transform infrared (FTIR) analyzer operated by a portable computer. The computer has FTIR spectra of calibration gases stored on the hard drive. These single component calibration spectra are used to analyze the measured sample spectra. The gas components to be measured will be selected from the spectra library and incorporated into the analytical method. The signal amplitude, linearity, and signal to noise ratio will be measured and recorded to document analyzer performance. A leak check will be performed on the sample cell. The instrument path length will be verified using ethylene as the Calibration Transfer Standard. Dynamic spiking will be performed using a certified standard of the target compound in nitrogen with sulfur hexafluoride blended as a tracer to calculate the dilution factor. All test spectra, interferograms, and analytical method information will be recorded and stored with the calculated analytical results. A diagram of the sampling system is presented in Figure 3-2.

**FIGURE 3-2  
USEPA METHOD 320 SAMPLING SYSTEM**



A continuous sample of stack gas will be withdrawn via a sample probe. The sampled gas will be filtered for removal of particulates prior to being sent to the analyzer. All parts of the sampling system and the analyzer will be heated to a temperature of approximately 300°F. The wet-basis hydrogen cyanide concentration will be reported in ppmv.

### 3.4.8 CARBON MONOXIDE AND OXYGEN – USEPA PERFORMANCE SPECIFICATION 4B

The facility's continuous emissions monitoring systems (CEMS) will be used to measure the concentration of carbon monoxide (CO) and oxygen in the stack gas during the test.

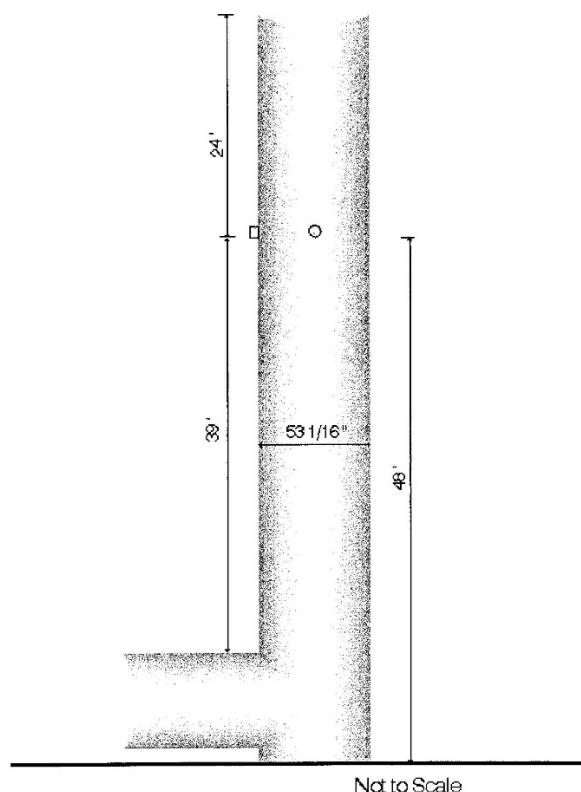
A continuous sample of stack gas will be withdrawn via a sample probe. The sampled gas will be filtered and will be passed through a conditioning system for removal of particulates and moisture prior to being sent to the analyzer. The CO concentration will be reported in parts per million by volume dry basis (ppmv dry) corrected to seven percent oxygen.

## 3.5 SAMPLING LOCATION

All sampling will be conducted on the F-10 Boiler stack. Figure 3-3 provides a diagram of the sampling location.

**FIGURE 3-3**  
**SAMPLING LOCATION**

F-10 Boiler Stack (EPN 84) Stack



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### **3.6 SAMPLING QUALITY CONTROL PROCEDURES**

Specific sampling QC procedures will be followed to ensure the production of useful and valid data throughout the course of this test program.

Prior to the start of testing, all sampling equipment will be thoroughly checked to ensure clean and operable components and to ensure no damage occurred during shipping. Once the equipment has been set up, the manometer used to measure pressure across the pitot tube will be leveled and zeroed, and the number and location of all sampling traverse points will be checked.

At the start of each test day and throughout the testing, all sample train components will be checked to ensure they remain in good condition and continue to operate properly. Electrical components will be checked for damaged wiring or bad connections. All glassware will be inspected to make sure no cracks or chips are present.

All sampling trains will be assembled and recovered in a mobile laboratory to ensure a clean environment, free of uncontrolled dust. To ensure the sampling trains are free of contamination, all glassware will remain sealed until assembly of the sampling train.

Pre-test and post-test leak checks will be performed for each sampling train, as required by the respective test methods. Care will be taken to make sure all sampling trains are being operated within the specifications of their respective method.

At the end of testing each day, all sampling equipment will be sealed and covered to protect from possible contamination and weather damage.

## 4.0 SAMPLE HANDLING AND DOCUMENTATION

Sample custody procedures for this program are based on procedures from *Handbook: QA/QC Procedures for Hazardous Waste Incineration* (QA/QC Handbook) and Chapter One of *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (SW-846). The procedures that will be used are discussed below.

### 4.1 FIELD SAMPLING OPERATIONS

The stack sampling contractor will be responsible for ensuring custody and sample tracking documentation procedures are followed for the field sampling and field analytical efforts. Documentation of all sample collection activities will be recorded on pre-printed data collection forms. Table 4-1 provides a summary of sample custody documentation requirements.

**TABLE 4-1**  
**SAMPLE CUSTODY DOCUMENTATION REQUIREMENTS**

CUSTODY DOCUMENT	REQUIRED INFORMATION
Sample data forms	Sampler's name or initials
	Date and time of sample collection
	Sampling technique
	Compositing technique (waste samples)
	Sample identifier
	Sampling location
Chain of custody	Unique identifier for each sample shipped
	Date and time of sample collection
	Sample preservation requirements
	Analysis and preparation procedures requested
	Signature of individual relinquishing sample custody

Samples will be collected, transported, and stored in clean containers constructed of materials inert to the analytical matrix, such as glass jars. Only containers allowing airtight seals will be used. Amber glass will be employed when specified by the method. All waste feed samples will be packed by the stack sampling contractor for transfer or shipment to the appropriate laboratories. Sample tracking and custody forms, which include sample identification and analysis requests, will be enclosed in the sample shipment container.

Upon receipt by the laboratory, information pertaining to the samples will be recorded on the sample tracking and custody form or an attachment to the form. The laboratory will note the overall condition

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of the samples, including the temperature of the samples upon receipt. The laboratory will also note any discrepancy in the sample identification between the sample labels and the custody forms. The signature of the person receiving the samples will be provided on the chain of custody (COC).

If the laboratory notes discrepancies in sample identification labels and forms or suspects issues concerning sample integrity, the laboratory will contact the Stack Testing Director, who will then contact the Offsite Project Coordinator, as appropriate. In many instances, questions concerning sample labeling can be rectified through discussions between the Stack Testing Director and the laboratory. Some sample integrity concerns can be rectified using archived samples. If archive samples are not available, the sample integrity issues are discussed with the Stack Testing Director and/or the Offsite Project Coordinator, and appropriate actions are taken, as warranted by the specific issue.

Every record pertaining to sample collection activities, including, but not limited to, stack sampling data sheets, process sample data sheets, sample tracking forms, sampling equipment calibration forms, balance calibration forms, and reagent preparation information will be submitted with the report to provide evidence that the samples were handled properly, taken at the correct time and in the correct manner, assigned a unique identifier, received intact by the laboratory, and preserved as appropriate. Adherence to the holding times indicated in Section 5.0, Tables 5-1 and 5-2, will be noted in the laboratory analytical results.

## **4.2 FIELD LABORATORY OPERATIONS**

The stack sampling contractor will provide an onsite laboratory trailer for sample train assembly and recovery and documentation and recordkeeping activities. Sample tracking documentation, shipping records, reagent and standards traceability, and all sampling activity records will be maintained in the laboratory trailer.

Documentation of onsite analytical activities, such as calibration, standards traceability, sample preparation steps, and raw measurement results will also be maintained onsite.



## 5.0 ANALYTICAL PROCEDURES

The analyses will follow ASTM International (ASTM) Methods and USEPA Methods. Table 5-1 presents the analytical methods for waste liquid fuel samples. Table 5-2 presents the analytical methods for stack gas samples. These tables present the referenced analytical method, the laboratory performing the analysis, the extraction and analysis holding time, and if required, the sample preservation and sample preparation method. Collection of these samples was described in Section 3.0. Note that the tables in Section 3.0 specify which samples are to be collected using which methods; the tables included in this section specify the preparation and analytical methods to be used to evaluate each sample.

**TABLE 5-1**  
**PREPARATION AND ANALYSIS PROCEDURES FOR WASTE LIQUID FUEL SAMPLES**

PARAMETER	ANALYTICAL METHOD <sup>1</sup>	LAB	PRESERVATIVE REQUIRED	EXTRACTION HOLDING TIME	ANALYSIS HOLDING TIME	PREPARATION METHOD <sup>1</sup>
Density	ASTM Method D1475	Eurofins	Not applicable	Not applicable	180 days	Not applicable
Higher heating value	ASTM Method D240	Eurofins	Not applicable	Not applicable	180 days	Not applicable

<sup>1</sup> ASTM refers to ASTM International.

**TABLE 5-2**  
**PREPARATION AND ANALYSIS PROCEDURES FOR STACK GAS SAMPLES**

PARAMETER	ANALYTICAL METHOD <sup>1</sup>	LAB	PRESERVATIVE REQUIRED	EXTRACTION HOLDING TIME	ANALYSIS HOLDING TIME	PREPARATION METHOD <sup>1</sup>
Molecular weight	USEPA Method 3A	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Moisture	USEPA Method 4	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Polycyclic aromatic hydrocarbons and polychlorinated biphenyls	USEPA Method 23	Eurofins	≤6°C in the dark	30 days	40 days <sup>2</sup>	USEPA Method 23
Hydrocarbons	USEPA Method 25A	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

**TABLE 5-2 (CONTINUED)**  
**PREPARATION AND ANALYSIS PROCEDURES FOR STACK GAS SAMPLES**

PARAMETER	ANALYTICAL METHOD <sup>1</sup>	LAB	PRESERVATIVE REQUIRED	EXTRACTION HOLDING TIME	ANALYSIS HOLDING TIME	PREPARATION METHOD <sup>1</sup>
Hydrogen cyanide	USEPA Method 320	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Carbon monoxide and oxygen	USEPA Performance Specification 4B	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

<sup>1</sup> USEPA Method refers to New Source Performance Standards, Test Methods and Procedures, Appendix A, 40 CFR Part 60. USEPA Performance Specification refers to New Source Performance Standards, Performance Specifications, Appendix B, 40 CFR Part 60.

<sup>2</sup> Holding time from extraction may be up to one year if samples are stored below -10°C.

## 6.0 DATA QUALITY OBJECTIVES

The purpose of this test program is to provide the information requested in USEPA's ICR. BASF is committed to ensuring data generated during this project are scientifically valid, defensible, complete, and of known precision and accuracy. These objectives can be best achieved by applying the requirements of USEPA accepted methodology as well as the more specific recommendations and guidelines for test burns. To ensure consistency and adequacy of plans and reports and overall data quality, guidance from Chapter One of SW-846 and the QA/QC Handbook has been integrated into the approaches and philosophies of this QAPP.

Key measures of performance include the objectives for precision, accuracy, representativeness, completeness, and comparability (commonly referred to as PARCC parameters). This section presents project-specific data quality objectives for this test. These objectives represent the level of data quality considered acceptable for valid decision making, as measured in a manner that best reflects performance in the actual project matrices. These objectives will be communicated to the entire project team, including onsite sampling personnel and offsite contract laboratories.

### 6.1 QUALITY CONTROL PARAMETERS

QC objectives include precision, accuracy, representativeness, comparability, and completeness. Typical parameters include matrix spike (MS) and MS duplicate (MSD) samples, laboratory control sample (LCS) and LCS duplicate (LCSD) samples, post digestion spike (PDS) and post digestion spike duplicate (PDSD) samples, field and sample duplicates, surrogates, standards, and spikes. Tables 6-1 and 6-2 provide the project specific QC procedures for assessing accuracy and precision for critical measurement parameters. Critical parameters are those that directly relate to the ICR requirements. These tables list the parameter of analysis, the QC parameter, the QC procedure, the frequency at which accuracy and precision are determined, and the objective.

Table 6-3 provides information on the number of samples that will be collected for the emission test.

**TABLE 6-1**  
**QUALITY CONTROL OBJECTIVES FOR WASTE LIQUID FUEL SAMPLES**

ANALYTICAL PARAMETER	QC PARAMETER	QC PROCEDURE	FREQUENCY <sup>1</sup>	OBJECTIVE <sup>1</sup>
Density	Precision	Field duplicate	One per test program	<20% relative percent difference <sup>2</sup>
	Accuracy	Laboratory control sample	One per analytical batch	99-101% recovery
Higher heating value	Precision	Field duplicate	One per test program	<20% relative percent difference <sup>2</sup>
		Laboratory control sample duplicate	One per analytical batch	≤2% relative percent difference <sup>2</sup>
		Sample duplicate	One per analytical batch	≤10% relative percent difference <sup>2</sup>
	Accuracy	Laboratory control samples	Two per analytical batch	98-102% recovery

<sup>1</sup> Unless specified otherwise, the frequency and objective provided for each parameter are based on specifications in the analytical method.

<sup>2</sup> If the concentrations are less than five times the reporting limit, the laboratory will be unable to control these limits.

**TABLE 6-2**  
**QUALITY CONTROL OBJECTIVES FOR STACK GAS SAMPLES**

ANALYTICAL PARAMETERS	QC PARAMETER	QC PROCEDURE	FREQUENCY <sup>1</sup>	OBJECTIVE <sup>1</sup>
Polycyclic aromatic hydrocarbons	Precision	Laboratory control sample duplicate	One per analytical batch	≤25% relative percent difference
	Accuracy	Laboratory control samples	Two per analytical batch	60-140% recovery
		Internal standards (isotope dilution)	Every sample	20-130% recovery
		Surrogate standards	Every sample	70-130% recovery
Polychlorinated biphenyls	Precision	Laboratory control sample duplicate	One per analytical batch	≤50% relative percent difference
	Accuracy	Laboratory control samples	Two per analytical batch	60-135% recovery
		Internal standards (isotope dilution)	Every sample	20-145% recovery
		Surrogate standards	Every sample	20-130% recovery <sup>2</sup> 70-130% recovery <sup>3</sup>

<sup>1</sup> Unless specified otherwise, the frequency and objective provided for each parameter are based on specifications in the analytical method.

<sup>2</sup> These recoveries are required for surrogates PCB-28L, PCB-111L, and PCB-178L.

<sup>3</sup> These recoveries are required for surrogates PCB-8L, PCB-79L, PCB-95L, and PCB-153L.

**TABLE 6-3  
NUMBER OF SAMPLES**

SAMPLE MATRIX	SAMPLE DESCRIPTION	SAMPLES COLLECTED PER RUN	SAMPLES COLLECTED FOR QUALITY CONTROL	TOTAL SAMPLES COLLECTED	SAMPLES ANALYZED	SAMPLES ARCHIVED
Waste liquid fuel	Bulk liquid	2	2	16	8	8
Stack gas – polycyclic aromatic hydrocarbons and polychlorinated biphenyls	Filter	1	2	9	8	1
	Front-half and back-half acetone and toluene rinses	1	1	8	8	0
	XAD-2 resin	1	2	9	8	1
	Deionized water impingers contents	1	1	8	8	0
	Deionized water impingers acetone and toluene rinses	1	1	8	8	0
	Deionized water	0	1	1	0	1
	Acetone	0	1	1	0	1
	Toluene	0	1	1	0	1

### 6.1.1 PRECISION

Precision is a measure of the reproducibility of results under a given set of conditions. It is expressed in terms of the distribution, or scatter, of replicate measurement results, calculated as the relative standard deviation (RSD) or, for duplicates, as relative percent difference (RPD). RPD and RSD values are calculated using the following equations:

$$RPD = \left( \frac{|X_1 - X_2|}{\text{avg } X} \right) \times 100$$

$$RSD = \left( \frac{\text{STDEV}}{\text{avg } X} \right) \times 100$$

Where  $X_1$  and  $X_2$  represent each of the duplicate results.

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### 6.1.2 ACCURACY

Accuracy is a measure of the difference between an analysis result and the “true” value. Accuracy is expressed in terms of percent recovery (e.g., for surrogates, spikes, and reference material). Percent recovery for spiked samples, such as MS samples, is calculated using the following equation:

$$\% \text{Recovery} = \left( \frac{\text{SSR} - \text{SR}}{\text{SA}} \right) \times 100$$

Where:

SSR = Spiked sample result

SR = Sample result

SA = Spike added

Percent recovery for other QC parameters, such as LCS, surrogates, and standards, is calculated using the following equation:

$$\% \text{Recovery} = \left( \frac{\text{Measured Value}}{\text{True Value}} \right) \times 100$$

### 6.1.3 REPRESENTATIVENESS

Representativeness is defined as the degree to which data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition. An appropriate sampling strategy that addresses collection of representative samples in time and space is crucial to subsequent decision-making and defensibility of the data. There are no numerical objectives for representativeness. The selection of suitable locations and sampling strategies, as described in this QAPP, and adherence to sample collection protocols are the bases for ensuring representativeness.

### 6.1.4 COMPARABILITY

Comparability is defined as expressing the confidence with which one data set can be compared to another. There are no numerical objectives for comparability. A representative sample whose results are comparable to other data sets is ensured primarily using standard reference sampling and analytical methods. Reported in common units, the results generated should thus be comparable to those obtained from other emissions tests and allow for consistent decision-making.

### 6.1.5 COMPLETENESS

Completeness is defined as “a measure of the amount of valid data collected compared to the amount planned.” Completeness can be defined quantitatively using the following equation:

$$\% \text{Completeness} = \left( \frac{\text{No. of Valid Data}}{\text{No. of Data Planned}} \right) \times 100$$

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In the overall project context, the target is 100 percent completeness, which for a valid test condition is defined as consisting of three valid test runs. A valid test run is one in which sufficient valid data are presented to make any demonstrations required by the ICR.

A run can be valid even though the completeness objective of 100 percent for the data package is not achieved. Given the possibility of human error (and other unpredictable problems) and the inability of collecting additional samples after a test is completed, the impact of achieving less than 100 percent completeness must be assessed in the specific situation, rather than arbitrarily rejecting all the useable scientific information for the run without such consideration. For example, satisfying the completeness objective for a single piece of analytical data includes providing documentation that proves the following:

- An acceptable number of sub-samples were collected and composited;
- Compositing procedures were followed;
- The sample collection log was completed;
- Shipping documents and laboratory instructions were prepared and followed;
- The correct analytical procedures were followed;
- Any necessary modifications to methodology were documented and justified;
- Approved laboratory records were completed;
- Proper data reduction procedures were followed; and
- Analytical instrument printouts were included.

Clearly, the failure of a sampler to note the time a sub-sample was taken (where the previous and following sample times are noted) has less impact on the validity and acceptability of a data package than a failure by the laboratory to demonstrate that the analytical instrument was properly calibrated.

Any errors or omissions in a data package will be identified and accompanied by a discussion of the potential impact on the validity of the data package and the conclusions of the report for the consideration and approval of the USEPA.

## **6.2 EVALUATION OF CONTAMINATION EFFECTS**

Blanks will be collected throughout the test program to evaluate the effects of contamination on results. Blank samples of all reagents used in the stack sampling program will be collected. Field blanks will be collected during the test program if required by the respective method. Method blanks will be prepared and analyzed by the respective laboratories to evaluate the cleanliness of sample handling and preparation and overall laboratory practices. Since reagent blanks cannot be collected for waste samples, the laboratory method blank will be used to determine the effects of contamination for waste analyses.

Table 6-4 provides the type and acceptance criteria for each stack gas blank to be analyzed. These blanks, as well as the laboratory method blanks for the waste samples, provide critical information on the potential contamination that may occur in test program samples. The results of blank analyses can prove very useful when attempting to understand anomalies in data or generally higher than expected test results.

**TABLE 6-4**  
**BLANK ANALYSIS OBJECTIVES FOR STACK GAS SAMPLES**

ANALYTICAL PARAMETERS	BLANK TYPE	FREQUENCY	OBJECTIVE
Polycyclic aromatic hydrocarbons and polychlorinated biphenyls	Field train proof blank	One per test program	<Reporting limit
	Method blank	One per analytical batch	<Reporting limit
	Reagent blanks	One set per test program	Archived <sup>1</sup>

<sup>1</sup> The specified reagent blanks will initially be archived. These blanks will only be analyzed if sample contamination is suspected based on other analytical results.

### 6.3 PERFORMANCE AUDITS

On September 13, 2010, the USEPA issued a final rule to restructure the stationary source audit program. The program requires that audit samples be analyzed along with the samples collected while testing for regulatory compliance. This analysis helps the regulatory agency determine the validity of compliance test results. The rule requires sources to obtain and use audit samples from accredited providers. The USEPA has approved the National Environmental Laboratory Accreditation Conference (NELAC) Institute (TNI) Stationary Source Audit Program to provide accredited audit samples.

The USEPA suspended the audit program on May 28, 2019, due to a lack of sample providers, and this emission test is not being performed to demonstrate compliance. Therefore, BASF will not obtain any audit samples for the test.

### 6.4 CORRECTIVE ACTION

During any testing project, simple or complex, there is potential that deviations from data quality objectives may occur. This section gives corrective action procedures to be used to mitigate such problems.

#### 6.4.1 EQUIPMENT FAILURE

Any equipment found to be out of calibration or operating improperly will be repaired or replaced before additional measurements are made. If equipment repair is done onsite, calibrations will be performed in accordance with the applicable methods prior to use. It may be necessary to transport equipment offsite for calibration. If calibrations cannot be performed, the equipment will not be used. If measurements are made with equipment subsequently found to be out of calibration or operating



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improperly, a detailed explanation of the cause of the malfunction will be provided. The effect of the malfunction on the data will be assessed, and the data will be qualified.

#### **6.4.2 ANALYTICAL DEVIATIONS**

For analyses where a method QC check sample, such as a method blank, does not meet method specifications, the problem will be investigated to determine the cause as well as any corrective action that should be taken. Once the corrective action has been taken, the analysis will be re-examined to verify the problem has been eliminated.

In instances of out of specification spikes or calibrations, the samples involved will be re-extracted or reanalyzed if possible. In those instances where reanalyzing the sample is not possible, corrective measures will be taken to improve method performance prior to analysis of the next batch of samples.

Results for samples where matrix interferences preclude meeting objectives for recoveries of surrogates or spikes will be evaluated for potential bias to calculated emission results.

#### **6.4.3 CONTAMINATION**

The handling procedures for samples taken during this test, from blank testing to sample collection and analysis, are designed to eliminate contamination by limiting their exposure to contaminants in the ambient air and other outside sources. If levels of contamination are present above the reporting limits in the analyzed blanks, the archived blank samples will be analyzed. Corrective action will be taken if the results of the field blanks are significantly different from those of the reagent blanks or trip blanks. This comparison will indicate whether high levels in the field blank are due to contamination from exposure to outside sources, contamination of reagent materials or, in the case of sorbent traps, from degradation of the traps.

#### **6.4.4 PROCEDURAL DEVIATIONS**

SOPs for the methods being performed will be available onsite during all testing. BASF and the project team will determine an appropriate action in all cases where standard procedures cannot resolve the problem.

## 7.0 CALIBRATION PROCEDURES AND PREVENTATIVE MAINTENANCE

This section presents a brief discussion of calibration and routine maintenance procedures to be used for sampling and analytical equipment. Criteria for analytical calibrations are also included. Calibration procedures for each analytical method are discussed in detail within the methods.

### 7.1 SAMPLING EQUIPMENT

All sampling equipment will be provided by the stack sampling contractor. The equipment will be calibrated prior to arrival onsite and after all testing has been completed. The sampling equipment calibration requirements and acceptance limits are listed in Table 7-1.

The equipment will be calibrated according to the criteria specified in the reference method being employed. In addition, the stack sampling contractor will follow the guidelines set forth in the *Quality Assurance Handbook for Air Pollution Measurement Systems, Volume III, Stationary Source Specific Methods*. When these methods are inapplicable, methods such as those prescribed by ASTM will be used. Dry gas meters, orifices, nozzles, and pitot tubes are calibrated in accordance with these documents. The range of the calibration is specified for all environmental measurements to encompass the range of probable experimental values. This approach ensures that all results are based upon interpolative analyses rather than extrapolative analyses. Calibrations are designed to include, where practical, at least three measurement points evenly spaced over the range. This practice minimizes the probability that false assumptions of calibration linearity will be made. In addition, it is common practice to select, when practical, at least one calibration value that approximates the levels anticipated in the actual measurement.

Data obtained during calibrations are recorded on standardized forms, which are checked for completeness and accuracy. Data reduction and subsequent calculations are performed using computer software. Calculations are checked at least twice for accuracy. Copies of calibration forms will be included in the test or project reports.

**TABLE 7-1**  
**SAMPLING EQUIPMENT CALIBRATION REQUIREMENTS**

STACK GAS PARAMETER	QUALITY PARAMETER	METHOD OF DETERMINATION	FREQUENCY	CRITERIA
Gas flow	Pitot tube angle and dimensions	Calibrated in a wind tunnel or measurements with a vernier micrometer and angle indicator	Pre-test and post-test	To specifications in USEPA Method 2
	Barometer	Measurements with a NIST traceable barometer or calibrated vs. National Weather Service station	Not applicable	Not applicable
	Stack gas thermocouple	Calibrated vs. ASTM mercury-in-glass thermometer or NIST standards	Pre-test and post-test	Within 1.5% as °R
Isokinetic sampling train	Dry gas meter and orifice	Calibrated against reference orifices or against a reference dry gas meter	Pre-test and post-test	1. Y within 0.05 of pre-test Y 2. H <sub>@</sub> within 0.15 of pre-test
	Probe nozzle	Measurements with a vernier micrometer to 0.001 inches	Pre-test and post-test <sup>1</sup>	Maximum difference in any two dimensions within 0.004 inches
	Dry gas meter thermocouples	Calibrated vs. ASTM mercury-in-glass thermometer or NIST standards	Pre-test and post-test	Within 1.5% as °R
	Trip balance	Calibrated vs. standard weights	Pre-test	Within 0.5 grams
Carbon dioxide and oxygen analyzers	Analyzer calibration error test	Checked using USEPA Protocol 1 calibration gases	Before the test run and after any failed system bias or drift check	±2% of calibration span
	System bias test	Checked using USEPA Protocol 1 calibration gases	Before and after each test run	±5% of calibration span
	System drift check	Checked using USEPA Protocol 1 calibration gases	After the post-test system bias test	±3% of calibration span
Hydrocarbon analyzer	Calibration error test	Checked using USEPA Protocol 1 calibration gases	Prior to the first test run and after any failed drift test	±5% of calibration gas value
	Drift test	Checked using USEPA Protocol 1 calibration gases	After the last test run and hourly during the test period	±3% of span value
Hydrogen cyanide Fourier transform infrared analyzer	Calibration transfer standard direct	Verify stability, confirm optical path length	Pre-test	±5% of cert value
	Calibration transfer standard responses	Verify system stability, recovery, and response time	Prior to the first test run and after each test run	±5% of mean value
	Analyte spike	Verify system ability to quantify the analyte of interest in the gas stream	Pre-test	±30% theoretical recovery

**TABLE 7-1 (CONTINUED)**  
**SAMPLING EQUIPMENT CALIBRATION REQUIREMENTS**

STACK GAS PARAMETER	QUALITY PARAMETER	METHOD OF DETERMINATION	FREQUENCY	CRITERIA
Carbon monoxide analyzer (Facility CEMS)	Calibration drift check	Checked using calibration gases	Daily	±3% of calibration span
Oxygen analyzer (Facility CEMS)	Calibration drift check	Checked using calibration gases	Daily	±0.5% volume

<sup>1</sup> If glass or quartz nozzles are used, only a pre-test calibration will be performed, as the calibration cannot change.

### **7.1.1 PITOT TUBES**

Each pitot tube is inspected in accordance with the geometry standards contained in USEPA Method 2 or calibrated in a wind tunnel. A calibration coefficient is calculated for each pitot tube.

### **7.1.2 DIFFERENTIAL PRESSURE GAUGES**

Fluid manometers do not require calibration other than leak checks. Manometers are leak-checked in the field prior to each test series and again upon completion of testing.

### **7.1.3 DIGITAL TEMPERATURE INDICATOR**

One digital temperature indicator is used to determine the flue gas temperature, probe temperature, oven temperature, impinger outlet temperature, and dry gas meter temperature. The digital temperature indicator is calibrated with a reference thermocouple and potentiometer system that is calibrated against National Institute of Standards and Technology (NIST) standards or calibrated versus an ASTM mercury in-glass thermometer. The calibration is acceptable if the agreement is within ±1.5 percent in degrees Rankine (°R) in the temperature range of 460 to 1,600°R (0 to 1,140°F).

### **7.1.4 DRY GAS METER AND ORIFICE**

A set of calibrated orifices is used to calibrate the dry gas meter and orifice. For the meter orifice, an orifice calibration factor is calculated using three different sized calibrated orifices. Each calibrated orifice is measured twice for a total of six measurements. Alternatively, a reference dry gas meter is used to calibrate the field dry gas meter over a range of five different meter pressures. For the dry gas meter, the full calibration provides the calibration factor of the dry gas meter.

### **7.1.5 BAROMETER**

The stack sampling contractor will use a purchased, factory-calibrated, NIST traceable barometer. The barometer calibrations are good for one year, and the barometer is disposed of when the calibration expires. Alternatively, the stack sampling contractor personnel will calibrate a barometer prior to arrival onsite against a National Weather Service station.

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### **7.1.6 NOZZLE**

Nozzles will be calibrated onsite using a micrometer. At least three readings will be taken at quarter turns. The arithmetic average of the values obtained during the calibration is used.

### **7.1.7 CONTINUOUS EMISSIONS MONITORS**

The stack sampling contractor will supply CEMS to measure the concentrations of carbon dioxide, oxygen, and HC in the stack gas. The monitors will be calibrated according to the procedures outlined in the respective test methods.

The facility's CEMS will be used to measure the concentrations of CO and oxygen in the stack gas. A calibration drift check is performed daily as required by the Appendix to HWC NESHAP.

### **7.1.8 FOURIER TRANSFORM INFRARED ANALYZERS**

The FTIR analyzer will be calibrated according to the procedures outlined in the test method. After providing ample time for the analyzer to reach the desired temperature and to stabilize, zero gas (nitrogen) will be introduced directly to the instrument sample port. While flowing nitrogen, the signal amplitude will be recorded, a background spectra will be taken, a linearity check will be performed and recorded, the peak to peak noise and the root mean square in the spectral region of interest will be measured, and a screenshot will be recorded.

Following the zero gas checks, ambient air will be pulled through the sample chamber, and the line width and resolution will be verified to be at 1,879 reciprocal centimeters ( $\text{cm}^{-1}$ ). The peak position will be entered, and the full-width at half height will be recorded (screenshot). Following these checks, another background spectra will be recorded, and the calibration transfer standard (CTS) will be introduced directly to the instrument sample port. The CTS instrument recovery will be recorded, and the instrument mechanical response time will be measured.

The stack gas will be introduced to the analyzer through the sampling system, and several scans will be taken until a stable reading is achieved. The native concentration of the spiking analyte will be recorded. Spike gas will be introduced to the sampling system at a constant flow rate less than or equal to ten percent of the total sample flow rate, and a corresponding dilution ratio will be calculated along with a system response time. Matrix spike recovery spectra will be recorded to compare to against method requirements.

The matrix spike recovery will be conducted once at the beginning of the testing, and the CTS recovery procedures will be repeated following each test run. The corresponding values will be recorded.

## **7.2 ANALYTICAL EQUIPMENT**

Analytical equipment calibration and QC procedures and internal QC checks are included to ensure accuracy of the measurements made by laboratory equipment. Table 7-2 provides a summary of the calibration and QC checks included for each analytical method for this test program.

**TABLE 7-2**  
**ANALYTICAL EQUIPMENT CALIBRATION AND QUALITY CONTROL CHECKS**

PARAMETER	QUALITY CONTROL CHECK	METHOD OF DETERMINATION	FREQUENCY	ACCEPTANCE CRITERIA
Density	Initial calibration	Average of at least three determinations	Before analysis and as needed	≤0.5% relative standard deviation
Higher heating value	Initial calibration	Running average of 10 daily calibration standards	Initially and as needed	≤1% relative standard deviation
	Calibration check	Instrument calibration verification	Daily	±1% difference
Polycyclic aromatic hydrocarbons and polychlorinated biphenyls	Initial calibration	Five high resolution concentration calibration solutions	Prior to sample analysis	1. Mean relative response factor for unlabeled standards: <10% relative standard deviation 2. Mean relative response factor for labeled reference compounds: <20% relative standard deviation
	Calibration verification	Midlevel standard	At least once per shift	1. Response factors within ±25% of the initial calibration mean relative response factor for unlabeled standards 2. Response factors within ±25% of the initial calibration mean relative response factor for pre-sampling adsorbent standard and pre-extraction filter recovery standard 3. Response factors within ±30% of the initial calibration mean relative response factor for pre-extraction standard and alternative recovery standard
	Retention time window verification and gas chromatograph column performance	Monitor retention times, verify gas chromatograph column performance	At the beginning of each shift	Compliance with USEPA Method 23

## 7.3 PREVENTATIVE MAINTENANCE

To ensure the quality and reliability of the data obtained, preventative maintenance is performed on the sampling and analytical equipment. The following sections outline those procedures.

### 7.3.1 SAMPLING EQUIPMENT

An in-house equipment maintenance program is part of routine operations. The maintenance program's strengths include:

- Availability of personnel experienced in the details of equipment maintenance and fabrication;
- Maintenance of an adequate spare parts inventory; and
- Availability of tools and specialized equipment.

For field equipment, preventive maintenance schedules are developed from historical data. Table 7-3 gives specific maintenance procedures for field equipment. Maintenance schedules for major analytical instruments (*e.g.*, balances, gas chromatographs) are based on manufacturer's recommendations.

**TABLE 7-3**  
**MAINTENANCE ACTIVITIES FOR FIELD SAMPLING EQUIPMENT**

EQUIPMENT	MAINTENANCE ACTIVITIES	SPARE PARTS
Vacuum system	Before and after field program: 1) Check oil and oiler jar 2) Leak check 3) Verify vacuum gauge is functional  Yearly or as needed: 1) Replace valves in pump	Spare fluid
Inclined manometer	Before and after each field program: 1) Leak check 2) Check fluid for discoloration or visible matter  Yearly or as needed: 1) Disassemble and clean 2) Replace fluid	Spare fluid, O-rings
Dry gas meter	Before and after each field program: 1) Check meter dial for erratic rotation  Every 3 months: 1) Remove panels and check for excessive oil or corrosion 2) Disassemble and clean	None
Nozzles	Before and after each test: 1) Verify no dents, corrosion, or other damage 2) Glass or quartz nozzles, check for chips and cracks	Spare nozzles
Diaphragm pump	Before and after each test: 1) Leak check, change diaphragm if needed	None
Miscellaneous	Check for availability of spare parts	Fuses, fittings, thermocouples, thermocouple wire, variable transformers.

### 7.3.2 ANALYTICAL EQUIPMENT

In addition to including QC checks in the analysis of test program samples, the laboratories also perform regular inspection and maintenance of the laboratory equipment. Table 7-4 lists some of the routine maintenance procedures associated with the analytical equipment to be used in this test program.

**TABLE 7-4**  
**MAINTENANCE ACTIVITIES FOR ANALYTICAL EQUIPMENT**

PARAMETER	EQUIPMENT	MAINTENANCE PROCEDURES
Polycyclic aromatic hydrocarbons and polychlorinated biphenyls	High resolution gas chromatograph/high resolution mass spectroscopy	<ol style="list-style-type: none"> <li>1. Change rotary pump oil</li> <li>2. Clean beam center/focus stack and outer source</li> <li>3. Clean ion volume</li> <li>4. Change source slit</li> </ol>



## 8.0 DATA REDUCTION, VALIDATION, AND REPORTING

This section presents the approaches to be used to reduce, validate, and report measurement data. With respect to the test, a quality team of companies and laboratories will be working together to ensure the success of this project. The team will make certain that:

- All raw data packages are paginated and assigned a unique project number. Each project number will reflect the type of analyses performed (*i.e.*, organic, inorganic, waste feed, air emissions).
- Each data package contains a case narrative, sample description information, sample receipt information, COC documentation, and summary report. All associated QA/QC results, run/batch data, instrument calibration data, sample extraction/preparation logs, and chromatograms, *etc.* will be included in each final laboratory report. Each report will also contain a list of validation qualifiers.
- These data are assigned to a specific appendix in the test report for easy reference and data review.

### 8.1 DATA REDUCTION

The methods referenced in this QAPP for field measurements and lab analyses are standard methods and are routinely used for such measurements and analyses. Data reduction procedures will follow the specific calculations presented in the reference methods.

Extreme care will be exercised to ensure hand-recorded data are written accurately and legibly. Additionally, prepared and formatted data recording forms will be required for all data collection. This is an important aid to verify all necessary data items are recorded. The collected field and laboratory data will be reviewed for correctness and completeness.

The stack sampling contractor will reduce and validate the sampling and field measurement data. The sampling data will include flow measurements, calibrations, *etc.* Each laboratory will reduce all analytical results prior to submission. The analytical data will be used to determine concentrations and emission rates of the compounds of interest. The way the derived quantities will be reported is discussed in Section 8.3.

### 8.2 DATA VALIDATION

Validation demonstrates that a process, item, data set, or service satisfies the requirements defined by the user. For this program, review and evaluation of documents and records will be performed to assess the validity of samples collected, methodologies used, and data reported. This review comprises three parts: review of field documentation, review of laboratory data reports, and evaluation of data quality. The Offsite Project Coordinator will have overall responsibility for data validation.

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The sampling and analytical methods for this program have been selected because of their accepted validity for these types of applications. Adherence to the accepted methods, as described in this QAPP, is the first criterion for validation. The effectiveness of the analytical methods as applied to this study will be evaluated based on project-specific quality indicators, such as audit samples, replicate samples, and matrix and surrogate spikes.

### **8.2.1 REVIEW OF FIELD DOCUMENTATION**

Sample validation is intended to ensure samples collected are representative of the population under study. Criteria for acceptance include positive identification, documentation of sample shipment, preservation and storage, and documentation demonstrating adherence to sample collection protocols and QC checks. As part of the review of field documentation, field data sheets will be checked for completeness, correctness, and consistency.

### **8.2.2 LABORATORY REVIEW OF DATA**

The representative from each laboratory will approve all data results. The representative's signature will be included in the report. This signature will indicate that all QA/QC expectations were met. If expectations were not met, the discrepancies will be explained in the laboratory case narrative. The laboratory representative will discuss the QA/QC issues and include the impact of these issues on the data results in the case narrative.

Laboratory raw data packages will include the following information:

- A table of contents for the raw data; and
- Numbered pages, correlating to the table of contents.

### **8.2.3 EVALUATION OF DATA QUALITY**

Under the direction of the Offsite Project Coordinator, the project team will review and evaluate the reported data. Data quality will be assessed. Review of the laboratory reports will result in an evaluation of the following parameters:

- Holding time for samples from date of collection to date of preparation and/or analysis;
- Sample storage conditions during the holding period prior to analysis;
- Tuning and calibration of instruments;
- PARCC parameter results and acceptance criteria;
- Blank sample analysis results; and
- Performance evaluation (audit) sample results, if applicable.

## **8.3 DATA REPORTING**

The test report will be submitted to USEPA by August 30, 2024, or an extension will be requested.

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All data will be reported in the appropriate units as applicable to the sample stream and the method of analysis. Waste analytical results will be reported as concentrations by weight. Stack gas results will be reported on a concentration basis and mass emission rates.

Specific procedures will be followed when reporting test results. This section describes the conventions for detection limits, blank correction, and the use of significant figures.

### **8.3.1 MANAGEMENT OF NON-DETECTS**

There are several specific situations that will arise in which calculations will need to be performed, but the analytical results are non-detects (at some level). Contracted laboratories are requested to achieve the lowest detection limits possible for each of the methods included in this QAPP. All detection limits shall be defined in the laboratory reports. No data results shall be reported as “ND” without a defined numerical value provided as the detection limit.

The procedures for handling non-detects will be communicated to each laboratory and the stack sampling contractor. When dealing with detection limits and non-detect data, the following guidelines will be used:

- Method detection limits (MDLs) will be used to report waste analytical data;
- MDLs, reliable detection limits (RDLs), or estimated detection limits (EDLs) will be used to report stack gas analytical data, as appropriate; and
- Any results that use non-detects will be reported as maxima (*i.e.*, with a less-than sign – “<”).

### **8.3.2 BACKGROUND/BLANK CORRECTION**

No methods used in this test program allow background or blank correction. Every effort will be made to use reagents and sampling media of the highest quality to ensure that no contamination is indicated in any of the blank samples. Any background contamination found will be documented.

### **8.3.3 ROUNDING AND SIGNIFICANT FIGURES**

Observational results will be made with as many significant figures as possible. Rounding will be deferred until all resultant calculations have been made. The following rules will be applied in rounding data:

- When the digit after the one to be rounded is less than five, the one to be rounded is left unchanged; and
- When the digit after the one to be rounded is greater than or equal to five, the one to be rounded is increased by one.

Intermediate results will be presented in the final report at an appropriate level of significance (*i.e.*, rounded), although the derived, or resultant, calculations will be based on unrounded intermediate data. Consequently, it may not be possible to precisely reconstruct the resultant calculations on any table from the rounded intermediate results due to rounding errors.

## 9.0 QUALITY ASSURANCE REPORTS

Activities affecting data quality will be reviewed by the project team daily in the field, and as appropriate during non-field efforts. This will allow assessment of the overall effectiveness of the QAPP. These reviews will include the following:

- Summary of key QA activities, stressing measures that are being taken to ensure adherence to the QAPP;
- Description of problems observed that may impact data quality and corrective actions taken;
- Status of sample shipment and integrity at time of receipt and progress of sample analysis;
- Assessment of the QC data gathered over that time period;
- Any changes in QA organizational activities and personnel; and
- Results of internal or external assessments and the plan for correcting identified deficiencies, if any.

The testing program will have multiple tiers of QA/QC reviews. The specific laboratory performing the analysis will review the data for which they are responsible, and the laboratory project manager will sign the analytical data reports. Any QA/QC anomalies will be discussed in the case narrative. The Offsite Project Coordinator will also review the laboratory data package to discuss how the QA/QC anomalies may impact the emissions calculations. Any data determined to be invalid will be stated in the final report, and the impact of the invalid data on the test program will be assessed. Through this multiple tier process, all stages of the testing program will be tracked, monitored, reviewed, and documented.

## 10.0 REFERENCES

ASTM. *Annual Book of ASTM Standards*, latest annual edition.

USEPA. 1994. *Quality Assurance Handbook for Air Pollution Measurement Systems, Volume III, Stationary Source Specific Methods*. Office of Research and Development. EPA/600/R-94/038C.

USEPA. February 1991. *Preparation Aids for the Development of Category I Quality Assurance Project Plan*. Office of Research and Development. EPA/600/8-91/003.

USEPA. 1990. *Handbook: QA/QC Procedures for Hazardous Waste Incineration*. Office of Research and Development. EPA/625/6-89/023.

USEPA. November 1986 and updates. *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods*. USEPA 530/ SW-846.

USEPA. National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors, 40 CFR Part 63, Subpart EEE, September 30, 1999, and as amended through March 20, 2023.

USEPA. New Source Performance Standards, Test Methods and Procedures, Appendix A, 40 CFR Part 60.

USEPA. New Source Performance Standards, Performance Specifications, Appendix B, 40 CFR Part 60.

## Attachment A: ANALYTE LIST

**ATTACHMENT A**  
**ANALYTE LIST**

ANALYTE	CHEMICAL ABSTRACT SERVICE NUMBER
<b>Polycyclic aromatic hydrocarbons</b>	
Acenaphthene	83-32-9
Acenaphthylene	208-96-8
Anthracene	120-12-7
Benz[a]anthracene	56-55-3
Benzo[b]fluoranthene	205-99-2
Benzo[k]fluoranthene	207-08-9
Benzo[g,h,i]perylene	191-24-2
Benzo[a]pyrene	50-32-8
Benzo[e]pyrene	192-97-2
Chrysene	218-01-9
Dibenz[a,h]anthracene	53-70-3
Fluoranthene	206-44-0
Fluorene	86-73-7
Indeno[1,2,3-cd]pyrene	193-39-5
2-Methylnaphthalene	91-57-6
Naphthalene	91-20-3
Perylene	198-55-8
Phenanthrene	85-01-8
Pyrene	129-00-0
<b>Polychlorinated biphenyls</b>	
2,4'-Dichlorobiphenyl	34883-43-7
2,2',5-Trichlorobiphenyl	37680-65-2
2,4,4'-Trichlorobiphenyl	7012-37-5
2,2',3,5'-Tetrachlorobiphenyl	41464-39-5
2,2',5,5'-Tetrachlorobiphenyl	35693-99-3
2,3',4,4'-Tetrachlorobiphenyl	32598-10-0
3,3',4,4'-Tetrachlorobiphenyl	32598-13-3
3,4,4',5-Tetrachlorobiphenyl	70362-50-4
2,2',4,5,5'-Pentachlorobiphenyl	37680-73-2
2,3,3',4,4'-Pentachlorobiphenyl	32598-14-4
2,3,4,4',5-Pentachlorobiphenyl	74472-37-0
2,3',4,4',5-Pentachlorobiphenyl	31508-00-6
2',3,4,4',5-Pentachlorobiphenyl	65510-44-3
3,3',4,4',5-Pentachlorobiphenyl	57465-28-8

**ATTACHMENT A**  
**ANALYTE LIST**

<b>ANALYTE</b>	<b>CHEMICAL ABSTRACT SERVICE NUMBER</b>
2,2',3,3',4,4'-Hexachlorobiphenyl	38380-07-3
2,2',3,4,4',5'-Hexachlorobiphenyl	35065-28-2
2,2',4,4',5,5'-Hexachlorobiphenyl	35065-27-1
2,3,3',4,4',5-Hexachlorobiphenyl	38380-08-4
2,3,3',4,4',5'-Hexachlorobiphenyl	69782-90-7
2,3',4,4',5,5'-Hexachlorobiphenyl	52663-72-6
3,3',4,4',5,5'-Hexachlorobiphenyl	32774-16-6
2,2',3,3',4,4',5-Heptachlorobiphenyl	35065-30-6
2,2',3,4,4',5,5'-Heptachlorobiphenyl	35065-29-3
2,2',3,4',5,5',6-Heptachlorobiphenyl	52663-68-0
2,3,3',4,4',5,5'-Heptachlorobiphenyl	39635-31-9
2,2',3,3',4,4',5,6-Octachlorobiphenyl	52663-78-2
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	40186-72-9
2,2',3,3',4,4',5,5',6,6'-Decachlorobiphenyl	2051-24-3



## Appendix B: PROCESS MONITORING DATA

**BASF Corporation - Pasadena, Texas**  
**F-10 Boiler**

			Run 2			Run 3			Run 4			Run 5		
			Average	Min	Max	Average	Min	Max	Average	Min	Max	Average	Min	Max
T7428	Combustion Chamber Temperature	°F	1,755	1,702	1,794	1,775	1,742	1,795	1,743	1,676	1,796	1,718	1,706	1,757
F7420	Combustion Air Flow Rate	klb/hr	108	99	110	107	106	108	101	91	108	102	98	104
F7417	Steam Production Rate	klb/hr	124	113	127	125	124	126	118	104	126	118	114	120
F7493	Total Hazardous Waste Feed Rate	gpm	1.51	1.49	1.53	1.51	1.50	1.54	1.53	1.52	1.54	1.51	1.49	1.55
FC7464	Natural Gas Flow Rate	kscfh	88.6	76.8	105.2	89.8	87.4	92.7	81.0	65.0	91.3	81.7	75.3	87.1
FC7478	Process Vent Gas Feed Rate	lb/hr	2,096	1,496	2,241	2,041	1,845	2,162	2,062	1,960	2,183	2,026	1,884	2,208
P7602	Atomizing Fluid Differential Pressure	psig	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
AX7807D	Corrected Stack Gas CO OMA	ppmv dry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.78
A7807 (HRA)	Corrected Stack Gas CO HRA	ppmv dry	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.02
AI7808	Stack Gas Oxygen	% vol dry	3.34	3.05	3.80	3.26	3.01	3.55	3.33	3.01	3.70	3.42	3.25	3.62

			Run 6			Run 7			Run 8			Avg of Avgs
			Average	Min	Max	Average	Min	Max	Average	Min	Max	
T7428	Combustion Chamber Temperature	°F	1,750	1,714	1,794	1,780	1,726	1,801	1,751	1,734	1,789	1,753
F7420	Combustion Air Flow Rate	klb/hr	106	100	108	107	104	111	107	105	108	105
F7417	Steam Production Rate	klb/hr	123	117	127	126	121	131	125	124	127	123
F7493	Total Hazardous Waste Feed Rate	gpm	1.58	1.54	1.60	1.57	1.56	1.60	1.58	1.57	1.60	1.54
FC7464	Natural Gas Flow Rate	kscfh	85.9	79.7	92.3	90.8	86.9	97.2	86.7	84.5	89.2	86.4
FC7478	Process Vent Gas Feed Rate	lb/hr	2,084	1,869	2,238	2,059	1,869	2,160	2,177	2,076	2,235	2,078
P7602	Atomizing Fluid Differential Pressure	psig	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
AX7807D	Corrected Stack Gas CO OMA	ppmv dry	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A7807 (HRA)	Corrected Stack Gas CO HRA	ppmv dry	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00
AI7808	Stack Gas Oxygen	% vol dry	3.33	2.99	3.64	3.24	2.88	3.66	3.33	2.94	3.66	3.32

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 2**

Unit	<b>F-10 Boiler</b>
Condition:	<b>ICR Test</b>
Run:	<b>2</b>
Date:	<b>06/05/2024</b>
Start Time:	<b>09:32</b>
Suspend:	<b>09:37</b>
Restart:	<b>12:32</b>
Suspend:	<b>12:47</b>
Restart:	<b>14:04</b>
End Time:	<b>17:56</b>

<b>Parameter</b>	<b>Units</b>	<b>Waste Liquid Fuel</b>
Heating value	Btu/lb	15,300
Specific gravity	- - -	0.831

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/5/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
09:32	1,702	99	113	1.51	76.8
09:33	1,703	100	113	1.51	76.9
09:34	1,705	100	113	1.51	77.0
09:35	1,705	100	114	1.51	77.1
09:36	1,706	100	114	1.51	77.2
09:37	1,707	100	115	1.52	77.3
12:32	1,734	109	125	1.51	103.2
12:33	1,749	109	124	1.50	103.6
12:34	1,767	109	125	1.49	104.0
12:35	1,776	109	125	1.49	104.4
12:36	1,777	109	125	1.49	104.8
12:37	1,783	110	125	1.50	105.2
12:38	1,784	109	125	1.50	105.0
12:39	1,782	109	125	1.50	104.7
12:40	1,780	109	125	1.50	104.4
12:41	1,781	109	125	1.50	103.9
12:42	1,775	108	125	1.49	103.2
12:43	1,755	108	124	1.49	102.6
12:44	1,743	108	124	1.49	102.3
12:45	1,737	108	124	1.50	102.2
12:46	1,735	108	125	1.50	102.1
12:47	1,733	109	125	1.50	101.9
14:04	1,769	108	124	1.50	96.3
14:05	1,778	109	125	1.49	96.3
14:06	1,781	109	124	1.49	96.2
14:07	1,766	108	124	1.50	94.6
14:08	1,760	108	124	1.50	94.5
14:09	1,772	108	124	1.50	95.1
14:10	1,778	108	124	1.50	95.6
14:11	1,781	108	124	1.50	96.2
14:12	1,783	108	124	1.50	95.2
14:13	1,783	108	124	1.50	93.7
14:14	1,782	108	124	1.50	93.2
14:15	1,766	107	124	1.50	93.1
14:16	1,751	107	124	1.50	93.0
14:17	1,743	107	124	1.50	92.8
14:18	1,741	108	124	1.50	92.7
14:19	1,744	108	124	1.50	92.5
14:20	1,753	109	125	1.50	92.4
14:21	1,768	109	125	1.50	92.3
14:22	1,772	108	125	1.50	92.1

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 2

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/5/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
14:23	1,774	108	124	1.50	92.0
14:24	1,762	108	124	1.50	91.8
14:25	1,762	108	124	1.50	91.8
14:26	1,759	108	124	1.50	91.7
14:27	1,754	109	126	1.50	91.7
14:28	1,756	109	126	1.50	91.7
14:29	1,753	109	126	1.52	91.6
14:30	1,751	109	125	1.51	91.6
14:31	1,747	109	125	1.50	91.6
14:32	1,748	109	125	1.50	91.5
14:33	1,764	108	125	1.50	91.5
14:34	1,776	108	125	1.50	91.4
14:35	1,767	108	125	1.50	91.3
14:36	1,755	108	125	1.50	91.1
14:37	1,748	107	124	1.50	90.9
14:38	1,745	107	124	1.50	90.8
14:39	1,744	107	124	1.50	90.6
14:40	1,744	108	125	1.50	90.4
14:41	1,747	108	125	1.50	90.2
14:42	1,752	108	125	1.50	90.0
14:43	1,749	108	124	1.50	89.8
14:44	1,746	107	124	1.50	89.6
14:45	1,744	107	124	1.50	89.3
14:46	1,743	107	124	1.50	89.1
14:47	1,742	107	124	1.50	88.8
14:48	1,742	107	124	1.50	88.6
14:49	1,742	107	124	1.49	88.4
14:50	1,740	107	124	1.51	88.3
14:51	1,740	107	123	1.50	88.2
14:52	1,741	107	124	1.50	88.2
14:53	1,742	108	124	1.51	88.1
14:54	1,743	108	124	1.51	88.1
14:55	1,745	108	124	1.50	88.0
14:56	1,745	107	124	1.50	88.0
14:57	1,743	107	124	1.50	87.9
14:58	1,742	108	124	1.50	87.9
14:59	1,743	107	124	1.50	87.8
15:00	1,743	107	123	1.50	87.8
15:01	1,744	107	124	1.50	87.7
15:02	1,744	107	124	1.51	87.7
15:03	1,744	107	124	1.51	87.6
15:04	1,743	107	123	1.51	87.6
15:05	1,744	107	124	1.50	87.5
15:06	1,745	108	124	1.50	87.5
15:07	1,744	108	124	1.50	87.4
15:08	1,743	108	124	1.50	87.4
15:09	1,744	107	124	1.50	87.3
15:10	1,744	107	124	1.50	87.3
15:11	1,743	107	124	1.51	87.2
15:12	1,742	107	124	1.51	87.2
15:13	1,742	108	124	1.51	87.2
15:14	1,743	108	124	1.51	87.1

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 2

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/5/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
15:15	1,745	108	124	1.51	87.1
15:16	1,744	107	124	1.51	87.0
15:17	1,742	107	123	1.51	86.9
15:18	1,744	107	124	1.51	86.8
15:19	1,743	108	124	1.51	86.7
15:20	1,745	108	124	1.51	86.6
15:21	1,745	108	124	1.50	86.5
15:22	1,745	108	124	1.51	86.4
15:23	1,745	108	124	1.51	86.3
15:24	1,745	108	124	1.51	86.3
15:25	1,745	108	124	1.51	86.2
15:26	1,744	107	124	1.51	86.1
15:27	1,744	107	124	1.51	86.0
15:28	1,744	107	123	1.51	85.9
15:29	1,744	107	123	1.51	84.9
15:30	1,741	106	122	1.51	83.5
15:31	1,738	106	122	1.51	83.3
15:32	1,736	106	122	1.51	83.5
15:33	1,735	106	122	1.51	83.8
15:34	1,737	106	122	1.51	84.0
15:35	1,738	106	122	1.51	84.2
15:36	1,739	107	123	1.51	84.3
15:37	1,741	107	123	1.51	84.3
15:38	1,741	107	123	1.51	84.3
15:39	1,742	107	123	1.51	84.4
15:40	1,742	107	123	1.51	84.4
15:41	1,743	107	123	1.51	84.4
15:42	1,742	107	123	1.51	84.4
15:43	1,742	107	124	1.52	84.4
15:44	1,743	107	123	1.52	84.4
15:45	1,743	107	123	1.51	84.5
15:46	1,741	107	123	1.51	84.5
15:47	1,741	107	123	1.51	84.5
15:48	1,741	106	123	1.51	84.5
15:49	1,740	106	122	1.51	84.5
15:50	1,740	106	122	1.51	84.5
15:51	1,739	106	122	1.51	84.5
15:52	1,739	106	123	1.51	84.6
15:53	1,739	106	123	1.51	84.6
15:54	1,740	106	123	1.52	84.6
15:55	1,743	106	123	1.52	84.6
15:56	1,742	106	123	1.51	84.6
15:57	1,741	106	123	1.51	84.6
15:58	1,742	106	123	1.52	84.7
15:59	1,743	106	123	1.52	84.7
16:00	1,742	107	124	1.52	84.7
16:01	1,745	107	124	1.52	84.7
16:02	1,747	107	124	1.51	84.7
16:03	1,745	107	124	1.51	84.7
16:04	1,744	107	124	1.51	84.8
16:05	1,745	108	124	1.52	84.8
16:06	1,748	108	124	1.52	84.8

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 2

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/5/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
16:07	1,748	108	125	1.52	84.8
16:08	1,746	107	125	1.51	84.8
16:09	1,746	108	125	1.51	84.8
16:10	1,748	108	125	1.52	84.8
16:11	1,748	108	125	1.52	84.9
16:12	1,749	108	125	1.52	84.9
16:13	1,750	108	125	1.52	84.9
16:14	1,749	108	125	1.52	84.9
16:15	1,748	108	125	1.52	84.9
16:16	1,748	108	125	1.52	84.9
16:17	1,750	108	125	1.52	85.0
16:18	1,757	108	125	1.52	85.6
16:19	1,774	108	125	1.52	86.4
16:20	1,783	108	125	1.51	87.3
16:21	1,773	108	125	1.51	86.3
16:22	1,760	107	125	1.52	84.6
16:23	1,750	107	124	1.52	84.6
16:24	1,746	107	125	1.52	85.3
16:25	1,745	107	124	1.52	86.0
16:26	1,745	108	125	1.52	86.3
16:27	1,748	108	125	1.52	86.3
16:28	1,748	108	125	1.52	86.3
16:29	1,749	108	125	1.52	86.3
16:30	1,748	108	125	1.52	86.4
16:31	1,747	108	125	1.52	86.4
16:32	1,748	108	125	1.52	86.4
16:33	1,747	108	125	1.52	86.5
16:34	1,747	108	125	1.52	86.5
16:35	1,748	108	125	1.52	86.5
16:36	1,748	108	125	1.52	86.5
16:37	1,755	108	124	1.52	86.6
16:38	1,771	108	125	1.52	86.6
16:39	1,773	108	125	1.52	86.6
16:40	1,762	108	125	1.52	86.7
16:41	1,753	108	125	1.52	86.7
16:42	1,758	108	125	1.52	86.7
16:43	1,762	108	125	1.52	86.8
16:44	1,757	108	125	1.52	86.8
16:45	1,753	108	125	1.53	86.8
16:46	1,751	108	125	1.52	86.8
16:47	1,750	108	125	1.52	86.9
16:48	1,750	109	125	1.51	86.9
16:49	1,750	109	126	1.51	86.9
16:50	1,750	109	126	1.52	87.0
16:51	1,749	109	126	1.52	87.0
16:52	1,751	109	126	1.52	87.0
16:53	1,753	109	126	1.52	87.1
16:54	1,753	109	127	1.52	87.1
16:55	1,753	110	127	1.52	87.1
16:56	1,753	110	127	1.52	87.1
16:57	1,752	110	127	1.52	87.1
16:58	1,754	110	127	1.52	87.2

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 2

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/5/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
16:59	1,760	109	127	1.52	87.2
17:00	1,774	109	127	1.52	87.2
17:01	1,786	109	126	1.52	87.2
17:02	1,790	109	126	1.51	87.2
17:03	1,792	109	127	1.52	87.3
17:04	1,794	108	127	1.52	87.3
17:05	1,784	108	127	1.52	87.3
17:06	1,775	109	127	1.52	87.3
17:07	1,782	109	127	1.51	87.3
17:08	1,791	109	127	1.52	87.4
17:09	1,781	109	127	1.52	87.4
17:10	1,766	109	127	1.52	87.4
17:11	1,758	109	126	1.52	87.4
17:12	1,752	109	126	1.52	87.4
17:13	1,751	109	126	1.52	87.5
17:14	1,751	109	126	1.52	87.5
17:15	1,752	109	127	1.52	87.5
17:16	1,752	109	126	1.52	87.5
17:17	1,752	109	126	1.52	87.5
17:18	1,751	109	126	1.52	87.6
17:19	1,750	109	126	1.52	87.6
17:20	1,750	109	126	1.52	87.6
17:21	1,750	109	126	1.53	87.6
17:22	1,750	109	126	1.52	87.7
17:23	1,750	109	126	1.52	87.7
17:24	1,750	109	126	1.52	87.7
17:25	1,753	109	126	1.52	87.7
17:26	1,753	109	126	1.51	87.7
17:27	1,751	108	125	1.53	87.8
17:28	1,760	108	126	1.53	87.8
17:29	1,776	108	126	1.52	88.5
17:30	1,786	108	126	1.52	89.5
17:31	1,789	108	126	1.52	89.5
17:32	1,790	108	126	1.52	89.0
17:33	1,788	107	125	1.51	88.5
17:34	1,785	107	125	1.51	88.1
17:35	1,771	108	125	1.52	88.3
17:36	1,767	108	126	1.52	88.7
17:37	1,778	108	126	1.52	89.2
17:38	1,784	108	126	1.52	89.7
17:39	1,787	108	126	1.52	89.9
17:40	1,788	108	125	1.52	89.9
17:41	1,788	107	125	1.52	90.0
17:42	1,791	107	125	1.52	90.0
17:43	1,791	107	125	1.52	90.1
17:44	1,790	107	125	1.52	90.1
17:45	1,791	107	125	1.52	90.2
17:46	1,789	108	125	1.52	90.2
17:47	1,788	108	126	1.52	90.3
17:48	1,786	107	125	1.51	90.3
17:49	1,784	107	125	1.52	90.4
17:50	1,784	107	125	1.52	90.4

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 2**

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/5/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
17:51	1,788	108	126	1.52	90.5
17:52	1,790	108	126	1.52	90.5
17:53	1,790	108	126	1.51	90.5
17:54	1,790	108	126	1.51	90.6
17:55	1,791	107	125	1.51	90.6
17:56	1,791	107	125	1.49	90.8
Average	1,755	108	124	1.51	88.6
Minimum	1,702	99	113	1.49	76.8
Maximum	1,794	110	127	1.53	105.2



**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 2**

Unit	<b>F-10 Boiler</b>
Condition:	<b>ICR Test</b>
Run:	<b>2</b>
Date:	<b>06/05/2024</b>
Start Time:	<b>09:32</b>
Suspend:	<b>09:37</b>
Restart:	<b>12:32</b>
Suspend:	<b>12:47</b>
Restart:	<b>14:04</b>
End Time:	<b>17:56</b>

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/5/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
09:32	2,113	12.0	0.00	0.00	3.49
09:33	2,113	12.0	0.00	0.00	3.41
09:34	2,151	12.0	0.00	0.00	3.29
09:35	2,160	12.0	0.00	0.00	3.53
09:36	2,159	12.0	0.00	0.00	3.49
09:37	2,159	12.0	0.00	0.00	3.50
12:32	1,513	12.0	0.00	0.00	3.39
12:33	1,509	12.0	0.00	0.00	3.44
12:34	1,505	12.0	0.00	0.00	3.39
12:35	1,501	12.0	0.00	0.00	3.29
12:36	1,500	12.0	0.00	0.00	3.45
12:37	1,500	12.0	0.00	0.00	3.45
12:38	1,499	12.0	0.00	0.00	3.28
12:39	1,499	12.0	0.00	0.00	3.39
12:40	1,498	12.0	0.00	0.00	3.45
12:41	1,498	12.0	0.00	0.00	3.29
12:42	1,498	12.0	0.00	0.00	3.27
12:43	1,497	12.0	0.00	0.00	3.33
12:44	1,497	12.0	0.00	0.00	3.36
12:45	1,497	12.0	0.00	0.00	3.42
12:46	1,496	12.0	0.00	0.00	3.48
12:47	1,496	12.0	0.00	0.00	3.44
14:04	1,811	12.0	0.00	0.00	3.40
14:05	1,828	12.0	0.00	0.00	3.37
14:06	1,831	12.0	0.00	0.00	3.36
14:07	1,835	12.0	0.00	0.00	3.30
14:08	1,838	12.0	0.00	0.00	3.42
14:09	1,841	12.0	0.00	0.00	3.36
14:10	1,847	12.0	0.00	0.00	3.31
14:11	1,854	12.0	0.00	0.00	3.27
14:12	1,861	12.0	0.00	0.00	3.28
14:13	1,868	12.0	0.00	0.00	3.27
14:14	1,875	12.0	0.00	0.00	3.28
14:15	1,888	12.0	0.00	0.00	3.45
14:16	1,903	12.0	0.00	0.00	3.37
14:17	1,918	12.0	0.00	0.00	3.28
14:18	1,931	12.0	0.00	0.00	3.31
14:19	1,944	12.0	0.00	0.00	3.39
14:20	1,956	12.0	0.00	0.00	3.35
14:21	1,968	12.0	0.00	0.00	3.25
14:22	1,980	12.0	0.00	0.00	3.35

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 2

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/5/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
14:23	1,992	12.0	0.00	0.00	3.33
14:24	2,003	12.0	0.00	0.00	3.16
14:25	2,014	12.0	0.00	0.00	3.33
14:26	2,030	12.0	0.00	0.00	3.36
14:27	2,048	12.0	0.00	0.00	3.36
14:28	2,066	12.0	0.00	0.00	3.37
14:29	2,022	12.0	0.00	0.00	3.30
14:30	2,056	12.0	0.00	0.00	3.32
14:31	2,075	12.0	0.00	0.00	3.47
14:32	2,078	12.0	0.00	0.00	3.50
14:33	2,082	12.0	0.00	0.00	3.34
14:34	2,085	12.0	0.00	0.00	3.36
14:35	2,088	12.0	0.00	0.00	3.26
14:36	2,091	12.0	0.00	0.00	3.27
14:37	2,095	12.0	0.00	0.00	3.36
14:38	2,098	12.0	0.00	0.00	3.46
14:39	2,101	12.0	0.00	0.00	3.32
14:40	2,105	12.0	0.00	0.00	3.36
14:41	2,108	12.0	0.00	0.00	3.32
14:42	2,112	12.0	0.00	0.00	3.34
14:43	2,115	12.0	0.00	0.00	3.43
14:44	2,118	12.0	0.00	0.00	3.40
14:45	2,122	12.0	0.00	0.00	3.54
14:46	2,125	12.0	0.00	0.00	3.43
14:47	2,128	12.0	0.00	0.00	3.39
14:48	2,136	12.0	0.00	0.00	3.36
14:49	2,144	12.0	0.00	0.00	3.35
14:50	2,153	12.0	0.00	0.00	3.31
14:51	2,162	12.0	0.00	0.00	3.37
14:52	2,170	12.0	0.00	0.00	3.37
14:53	2,179	12.0	0.00	0.00	3.34
14:54	2,188	12.0	0.00	0.00	3.32
14:55	2,196	12.0	0.00	0.00	3.49
14:56	2,205	12.0	0.00	0.00	3.51
14:57	2,205	12.0	0.00	0.00	3.40
14:58	2,202	12.0	0.00	0.00	3.32
14:59	2,200	12.0	0.00	0.00	3.37
15:00	2,197	12.0	0.00	0.00	3.46
15:01	2,194	12.0	0.00	0.00	3.45
15:02	2,192	12.0	0.00	0.00	3.41
15:03	2,189	12.0	0.00	0.00	3.40
15:04	2,191	12.0	0.00	0.00	3.31
15:05	2,193	12.0	0.00	0.00	3.32
15:06	2,196	12.0	0.00	0.00	3.41
15:07	2,199	12.0	0.00	0.00	3.80
15:08	2,202	12.0	0.00	0.00	3.60
15:09	2,205	12.0	0.00	0.00	3.42
15:10	2,205	12.0	0.00	0.00	3.36
15:11	2,204	12.0	0.00	0.00	3.41
15:12	2,202	12.0	0.00	0.00	3.45
15:13	2,201	12.0	0.00	0.00	3.36
15:14	2,200	12.0	0.00	0.00	3.38

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 2**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/5/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
15:15	2,199	12.0	0.00	0.00	3.30
15:16	2,198	12.0	0.00	0.00	3.31
15:17	2,197	12.0	0.00	0.00	3.36
15:18	2,195	12.0	0.00	0.00	3.44
15:19	2,194	12.0	0.00	0.00	3.53
15:20	2,193	12.0	0.00	0.00	3.29
15:21	2,231	12.0	0.00	0.00	3.40
15:22	2,241	12.0	0.00	0.00	3.48
15:23	2,235	12.0	0.00	0.00	3.38
15:24	2,229	12.0	0.00	0.00	3.28
15:25	2,223	12.0	0.00	0.00	3.27
15:26	2,217	12.0	0.00	0.00	3.29
15:27	2,211	12.0	0.00	0.00	3.42
15:28	2,205	12.0	0.00	0.00	3.45
15:29	2,204	12.0	0.00	0.00	3.30
15:30	2,204	12.0	0.00	0.00	3.35
15:31	2,204	12.0	0.00	0.00	3.36
15:32	2,204	12.0	0.00	0.00	3.35
15:33	2,204	12.0	0.00	0.00	3.38
15:34	2,204	12.0	0.00	0.00	3.35
15:35	2,204	12.0	0.00	0.00	3.51
15:36	2,204	12.0	0.00	0.00	3.40
15:37	2,204	12.0	0.00	0.00	3.45
15:38	2,205	12.0	0.00	0.00	3.48
15:39	2,205	12.0	0.00	0.00	3.43
15:40	2,205	12.0	0.00	0.00	3.35
15:41	2,205	12.0	0.00	0.00	3.39
15:42	2,205	12.0	0.00	0.00	3.34
15:43	2,205	12.0	0.00	0.00	3.39
15:44	2,205	12.0	0.00	0.00	3.30
15:45	2,205	12.0	0.00	0.00	3.32
15:46	2,205	12.0	0.00	0.00	3.38
15:47	2,205	12.0	0.00	0.00	3.44
15:48	2,206	12.0	0.00	0.00	3.50
15:49	2,206	12.0	0.00	0.00	3.41
15:50	2,206	12.0	0.00	0.00	3.36
15:51	2,206	12.0	0.00	0.00	3.48
15:52	2,206	12.0	0.00	0.00	3.46
15:53	2,206	12.0	0.00	0.00	3.41
15:54	2,171	12.0	0.00	0.00	3.34
15:55	2,191	12.0	0.00	0.00	3.31
15:56	2,205	12.0	0.00	0.00	3.29
15:57	2,208	12.0	0.00	0.00	3.43
15:58	2,212	12.0	0.00	0.00	3.28
15:59	2,215	12.0	0.00	0.00	3.25
16:00	2,219	12.0	0.00	0.00	3.31
16:01	2,222	12.0	0.00	0.00	3.40
16:02	2,226	12.0	0.00	0.00	3.37
16:03	2,229	12.0	0.00	0.00	3.43
16:04	2,230	12.0	0.00	0.00	3.32
16:05	2,229	12.0	0.00	0.00	3.27
16:06	2,229	12.0	0.00	0.00	3.26

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 2**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/5/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
16:07	2,229	12.0	0.00	0.00	3.26
16:08	2,228	12.0	0.00	0.00	3.37
16:09	2,228	12.0	0.00	0.00	3.34
16:10	2,227	12.0	0.00	0.00	3.38
16:11	2,227	12.0	0.00	0.00	3.36
16:12	2,227	12.0	0.00	0.00	3.36
16:13	2,226	12.0	0.00	0.00	3.38
16:14	2,226	12.0	0.00	0.00	3.36
16:15	2,226	12.0	0.00	0.00	3.36
16:16	2,225	12.0	0.00	0.00	3.26
16:17	2,225	12.0	0.00	0.00	3.28
16:18	2,225	12.0	0.00	0.00	3.36
16:19	2,224	12.0	0.00	0.00	3.30
16:20	2,186	12.0	0.00	0.00	3.26
16:21	2,172	12.0	0.00	0.00	3.25
16:22	2,174	12.0	0.00	0.00	3.34
16:23	2,175	12.0	0.00	0.00	3.37
16:24	2,176	12.0	0.00	0.00	3.35
16:25	2,178	12.0	0.00	0.00	3.41
16:26	2,179	12.0	0.00	0.00	3.28
16:27	2,181	12.0	0.00	0.00	3.21
16:28	2,182	12.0	0.00	0.00	3.36
16:29	2,183	12.0	0.00	0.00	3.54
16:30	2,185	12.0	0.00	0.00	3.43
16:31	2,186	12.0	0.00	0.00	3.37
16:32	2,187	12.0	0.00	0.00	3.38
16:33	2,189	12.0	0.00	0.00	3.40
16:34	2,190	12.0	0.00	0.00	3.36
16:35	2,191	12.0	0.00	0.00	3.35
16:36	2,191	12.0	0.00	0.00	3.25
16:37	2,191	12.0	0.00	0.00	3.43
16:38	2,190	12.0	0.00	0.00	3.31
16:39	2,190	12.0	0.00	0.00	3.14
16:40	2,189	12.0	0.00	0.00	3.32
16:41	2,189	12.0	0.00	0.00	3.34
16:42	2,188	12.0	0.00	0.00	3.36
16:43	2,188	12.0	0.00	0.00	3.18
16:44	2,188	12.0	0.00	0.00	3.26
16:45	2,187	12.0	0.00	0.00	3.17
16:46	2,187	12.0	0.00	0.00	3.25
16:47	2,186	12.0	0.00	0.00	3.29
16:48	2,186	12.0	0.00	0.00	3.31
16:49	2,185	12.0	0.00	0.00	3.36
16:50	2,185	12.0	0.00	0.00	3.26
16:51	2,184	12.0	0.00	0.00	3.24
16:52	2,184	12.0	0.00	0.00	3.24
16:53	2,183	12.0	0.00	0.00	3.32
16:54	2,183	12.0	0.00	0.00	3.33
16:55	2,219	12.0	0.00	0.00	3.35
16:56	2,205	12.0	0.00	0.00	3.45
16:57	2,194	12.0	0.00	0.00	3.37
16:58	2,193	12.0	0.00	0.00	3.36

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 2**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/5/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
16:59	2,192	12.0	0.00	0.00	3.34
17:00	2,191	12.0	0.00	0.00	3.30
17:01	2,190	12.0	0.00	0.00	3.23
17:02	2,189	12.0	0.00	0.00	3.18
17:03	2,188	12.0	0.00	0.00	3.19
17:04	2,187	12.0	0.00	0.00	3.32
17:05	2,186	12.0	0.00	0.00	3.11
17:06	2,185	12.0	0.00	0.00	3.19
17:07	2,184	12.0	0.00	0.00	3.22
17:08	2,184	12.0	0.00	0.00	3.26
17:09	2,183	12.0	0.00	0.00	3.10
17:10	2,182	12.0	0.00	0.00	3.30
17:11	2,181	12.0	0.00	0.00	3.33
17:12	2,180	12.0	0.00	0.00	3.27
17:13	2,179	12.0	0.00	0.00	3.26
17:14	2,178	12.0	0.00	0.00	3.43
17:15	2,177	12.0	0.00	0.00	3.47
17:16	2,174	12.0	0.00	0.00	3.43
17:17	2,169	12.0	0.00	0.00	3.28
17:18	2,165	12.0	0.00	0.00	3.35
17:19	2,161	12.0	0.00	0.00	3.44
17:20	2,156	12.0	0.00	0.00	3.37
17:21	2,152	12.0	0.00	0.00	3.38
17:22	2,148	12.0	0.00	0.00	3.48
17:23	2,143	12.0	0.00	0.00	3.41
17:24	2,138	12.0	0.00	0.00	3.43
17:25	2,132	12.0	0.00	0.00	3.34
17:26	2,127	12.0	0.00	0.00	3.28
17:27	2,121	12.0	0.00	0.00	3.32
17:28	2,109	12.0	0.00	0.00	3.33
17:29	2,095	12.0	0.00	0.00	3.36
17:30	2,080	12.0	0.00	0.00	3.23
17:31	2,066	12.0	0.00	0.00	3.28
17:32	2,052	12.0	0.00	0.00	3.22
17:33	2,037	12.0	0.00	0.00	3.11
17:34	2,032	12.0	0.00	0.00	3.18
17:35	2,030	12.0	0.00	0.00	3.35
17:36	2,028	12.0	0.00	0.00	3.35
17:37	2,026	12.0	0.00	0.00	3.26
17:38	2,024	12.0	0.00	0.00	3.25
17:39	2,022	12.0	0.00	0.00	3.22
17:40	2,020	12.0	0.00	0.00	3.23
17:41	2,018	12.0	0.00	0.00	3.18
17:42	2,016	12.0	0.00	0.00	3.10
17:43	2,015	12.0	0.00	0.00	3.14
17:44	2,014	12.0	0.00	0.00	3.11
17:45	2,014	12.0	0.00	0.00	3.09
17:46	2,014	12.0	0.00	0.00	3.23
17:47	2,014	12.0	0.00	0.00	3.26
17:48	2,014	12.0	0.00	0.00	3.22
17:49	2,014	12.0	0.00	0.00	3.16
17:50	2,014	12.0	0.00	0.00	3.25

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 2**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/5/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
17:51	2,013	12.0	0.00	0.00	3.16
17:52	2,013	12.0	0.00	0.00	3.05
17:53	2,013	12.0	0.00	0.00	3.26
17:54	1,973	12.0	0.00	0.00	3.22
17:55	1,954	12.0	0.00	0.00	3.26
17:56	1,950	12.0	0.00	0.00	3.17
Average	2,096	12.0	0.00	0.00	3.34
Minimum	1,496	12.0	0.00	0.00	3.05
Maximum	2,241	12.0	0.00	0.00	3.80

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 3**

Unit	<b>F-10 Boiler</b>
Condition:	<b>ICR Test</b>
Run:	<b>3</b>
Date:	<b>06/06/2024</b>
Start Time:	<b>07:20</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
End Time:	<b>11:33</b>

<b>Parameter</b>	<b>Units</b>	<b>Waste Liquid Fuel</b>
Heating value	Btu/lb	15,200
Specific gravity	---	0.830

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/6/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
07:20	1,747	108	125	1.50	90.1
07:21	1,749	108	125	1.50	90.2
07:22	1,762	108	125	1.50	90.2
07:23	1,777	108	125	1.50	90.2
07:24	1,783	107	124	1.50	90.2
07:25	1,775	107	124	1.50	90.3
07:26	1,760	107	125	1.50	90.3
07:27	1,749	107	125	1.50	90.3
07:28	1,744	107	124	1.50	90.4
07:29	1,742	107	124	1.50	90.4
07:30	1,742	108	124	1.50	90.4
07:31	1,744	108	125	1.50	90.4
07:32	1,744	107	125	1.50	90.5
07:33	1,743	107	124	1.50	90.5
07:34	1,744	107	124	1.51	90.5
07:35	1,743	107	124	1.52	90.6
07:36	1,742	107	124	1.51	90.6
07:37	1,742	107	124	1.50	90.6
07:38	1,747	107	124	1.50	90.6
07:39	1,753	108	124	1.50	90.7
07:40	1,760	107	124	1.51	90.7
07:41	1,771	107	124	1.50	90.7
07:42	1,780	107	125	1.50	90.8
07:43	1,780	107	125	1.50	90.8
07:44	1,767	107	124	1.50	90.8
07:45	1,753	107	124	1.50	90.8
07:46	1,748	107	124	1.50	90.9
07:47	1,754	107	124	1.50	90.9
07:48	1,755	107	124	1.50	90.9
07:49	1,760	108	125	1.50	91.0
07:50	1,772	108	125	1.50	91.0
07:51	1,779	108	125	1.50	91.0
07:52	1,781	108	125	1.51	91.1
07:53	1,782	107	125	1.51	91.1
07:54	1,778	107	125	1.50	91.2
07:55	1,765	107	124	1.50	91.3
07:56	1,754	107	124	1.50	91.3
07:57	1,758	107	125	1.51	91.4
07:58	1,771	107	125	1.51	91.5
07:59	1,781	108	125	1.50	91.6
08:00	1,786	108	125	1.50	91.6

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 3

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/6/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
08:01	1,786	108	125	1.51	91.7
08:02	1,786	108	125	1.51	91.8
08:03	1,787	108	125	1.51	91.7
08:04	1,788	107	125	1.51	91.6
08:05	1,788	108	125	1.50	91.5
08:06	1,787	107	125	1.50	91.4
08:07	1,786	107	125	1.50	91.3
08:08	1,785	107	125	1.50	91.2
08:09	1,784	107	125	1.51	91.1
08:10	1,785	107	125	1.51	91.0
08:11	1,785	107	124	1.51	90.9
08:12	1,785	107	124	1.50	90.8
08:13	1,787	107	125	1.50	90.7
08:14	1,784	107	124	1.50	90.6
08:15	1,783	106	124	1.50	90.0
08:16	1,779	106	124	1.50	89.0
08:17	1,764	106	124	1.50	88.0
08:18	1,749	106	124	1.50	88.8
08:19	1,744	107	124	1.50	89.8
08:20	1,743	107	124	1.50	89.8
08:21	1,744	107	124	1.50	89.9
08:22	1,744	107	124	1.50	90.0
08:23	1,744	107	124	1.50	90.1
08:24	1,744	107	124	1.50	90.1
08:25	1,742	107	124	1.50	90.2
08:26	1,742	107	124	1.51	90.3
08:27	1,746	108	124	1.50	90.3
08:28	1,761	107	124	1.50	90.4
08:29	1,776	107	124	1.51	90.5
08:30	1,781	107	124	1.51	90.6
08:31	1,783	107	124	1.50	90.6
08:32	1,783	106	124	1.52	90.7
08:33	1,779	106	124	1.53	90.8
08:34	1,772	106	124	1.52	90.9
08:35	1,773	106	124	1.50	90.9
08:36	1,779	107	124	1.50	91.0
08:37	1,782	107	125	1.50	91.1
08:38	1,785	107	125	1.50	91.1
08:39	1,784	107	125	1.50	91.2
08:40	1,785	107	125	1.50	91.3
08:41	1,786	107	125	1.50	91.4
08:42	1,785	107	125	1.51	91.4
08:43	1,784	107	125	1.51	91.3
08:44	1,785	107	125	1.51	91.3
08:45	1,786	107	125	1.50	91.3
08:46	1,786	107	125	1.50	91.2
08:47	1,787	107	125	1.51	91.2
08:48	1,787	107	125	1.51	91.2
08:49	1,785	107	125	1.51	91.1
08:50	1,783	107	125	1.51	91.1
08:51	1,786	107	125	1.51	91.1
08:52	1,789	107	125	1.51	91.0



## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 3

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/6/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
08:53	1,789	107	125	1.51	91.0
08:54	1,788	107	125	1.51	91.0
08:55	1,788	107	125	1.51	90.9
08:56	1,788	107	125	1.51	90.9
08:57	1,788	107	125	1.51	90.8
08:58	1,789	107	125	1.51	90.8
08:59	1,788	107	125	1.51	90.8
09:00	1,785	107	125	1.51	90.7
09:01	1,787	107	126	1.51	90.7
09:02	1,787	107	126	1.51	90.7
09:03	1,786	107	125	1.51	90.6
09:04	1,789	107	125	1.51	90.6
09:05	1,791	108	126	1.51	90.6
09:06	1,792	107	126	1.51	90.5
09:07	1,790	107	126	1.51	90.5
09:08	1,789	107	125	1.51	90.4
09:09	1,787	107	125	1.51	90.1
09:10	1,779	107	125	1.51	89.9
09:11	1,769	107	125	1.51	89.7
09:12	1,772	107	125	1.51	89.4
09:13	1,782	107	125	1.51	89.2
09:14	1,786	107	125	1.51	89.0
09:15	1,785	107	125	1.52	88.8
09:16	1,784	107	125	1.51	88.8
09:17	1,785	107	125	1.51	88.8
09:18	1,787	107	125	1.51	88.7
09:19	1,787	107	125	1.51	88.7
09:20	1,787	107	125	1.51	88.6
09:21	1,783	107	125	1.51	88.6
09:22	1,768	107	125	1.51	88.6
09:23	1,754	107	125	1.52	88.5
09:24	1,750	107	125	1.52	88.5
09:25	1,761	107	125	1.51	88.5
09:26	1,777	107	125	1.51	88.4
09:27	1,784	107	125	1.51	88.4
09:28	1,785	107	125	1.51	88.3
09:29	1,785	107	125	1.51	88.3
09:30	1,785	107	125	1.51	88.3
09:31	1,785	106	124	1.51	88.2
09:32	1,785	106	124	1.51	88.2
09:33	1,787	107	124	1.51	88.1
09:34	1,786	107	125	1.51	88.1
09:35	1,785	107	125	1.51	88.1
09:36	1,786	107	125	1.52	88.0
09:37	1,786	106	125	1.52	88.0
09:38	1,786	106	124	1.51	88.0
09:39	1,786	107	125	1.51	87.9
09:40	1,787	107	125	1.51	87.9
09:41	1,788	107	125	1.51	87.8
09:42	1,789	107	125	1.51	87.8
09:43	1,789	107	125	1.51	87.8
09:44	1,787	107	125	1.51	87.7

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 3

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/6/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
09:45	1,785	106	125	1.51	87.7
09:46	1,785	107	125	1.51	87.7
09:47	1,786	107	125	1.51	87.6
09:48	1,786	106	125	1.51	87.6
09:49	1,788	106	125	1.51	87.5
09:50	1,788	106	125	1.51	87.5
09:51	1,788	106	125	1.52	87.5
09:52	1,785	106	124	1.52	87.4
09:53	1,771	106	124	1.52	87.4
09:54	1,756	106	125	1.52	87.5
09:55	1,747	106	124	1.52	87.6
09:56	1,743	106	124	1.52	87.7
09:57	1,743	107	124	1.52	87.8
09:58	1,745	107	125	1.51	87.9
09:59	1,747	107	125	1.51	88.0
10:00	1,746	108	125	1.51	88.0
10:01	1,745	108	125	1.51	88.1
10:02	1,746	108	125	1.51	88.2
10:03	1,746	107	125	1.51	88.3
10:04	1,745	107	125	1.51	88.4
10:05	1,745	107	125	1.52	88.5
10:06	1,745	107	125	1.52	88.6
10:07	1,745	107	125	1.52	88.6
10:08	1,745	107	125	1.52	88.5
10:09	1,747	107	125	1.51	88.0
10:10	1,750	107	125	1.51	88.0
10:11	1,753	106	125	1.52	88.2
10:12	1,751	106	125	1.52	88.5
10:13	1,747	106	124	1.52	88.8
10:14	1,753	106	125	1.52	89.0
10:15	1,769	107	125	1.51	89.3
10:16	1,780	107	125	1.51	89.6
10:17	1,786	107	125	1.52	89.9
10:18	1,789	107	125	1.52	90.1
10:19	1,789	106	125	1.52	90.4
10:20	1,788	107	125	1.52	90.7
10:21	1,788	107	125	1.52	91.9
10:22	1,788	107	126	1.52	92.7
10:23	1,786	107	126	1.52	92.5
10:24	1,786	107	125	1.51	92.4
10:25	1,786	107	125	1.51	92.2
10:26	1,785	107	125	1.52	92.0
10:27	1,786	107	125	1.52	91.8
10:28	1,788	107	125	1.52	91.6
10:29	1,789	106	125	1.52	91.4
10:30	1,789	106	125	1.52	91.3
10:31	1,788	106	125	1.52	91.1
10:32	1,786	107	125	1.52	90.9
10:33	1,784	106	125	1.52	90.8
10:34	1,783	106	125	1.52	90.6
10:35	1,783	106	125	1.52	90.5
10:36	1,783	106	125	1.52	90.3

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 3

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/6/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
10:37	1,784	107	125	1.52	90.2
10:38	1,786	107	125	1.52	90.0
10:39	1,788	107	125	1.52	89.9
10:40	1,791	107	125	1.52	89.7
10:41	1,791	107	125	1.52	89.6
10:42	1,788	106	125	1.52	89.4
10:43	1,788	106	125	1.52	89.2
10:44	1,790	106	125	1.52	88.9
10:45	1,790	106	125	1.52	88.5
10:46	1,789	106	125	1.52	88.2
10:47	1,790	106	125	1.52	87.9
10:48	1,790	107	125	1.52	87.6
10:49	1,783	107	125	1.52	87.5
10:50	1,767	106	125	1.52	87.6
10:51	1,755	106	125	1.52	87.7
10:52	1,750	107	125	1.52	87.8
10:53	1,749	107	125	1.52	87.9
10:54	1,748	107	125	1.52	88.0
10:55	1,748	107	125	1.52	88.1
10:56	1,747	107	125	1.52	88.2
10:57	1,754	107	125	1.52	88.3
10:58	1,770	107	125	1.52	88.4
10:59	1,781	107	125	1.52	88.5
11:00	1,785	107	125	1.52	88.6
11:01	1,787	106	125	1.52	88.7
11:02	1,786	106	124	1.52	88.8
11:03	1,784	106	124	1.52	89.0
11:04	1,784	106	125	1.52	89.1
11:05	1,785	106	125	1.54	89.2
11:06	1,786	107	125	1.53	89.4
11:07	1,787	107	125	1.52	89.6
11:08	1,788	107	125	1.52	89.9
11:09	1,789	107	126	1.52	90.1
11:10	1,790	107	126	1.52	90.3
11:11	1,791	107	126	1.52	90.5
11:12	1,790	107	126	1.52	90.7
11:13	1,790	107	126	1.52	90.8
11:14	1,792	108	126	1.53	90.7
11:15	1,795	108	126	1.53	90.6
11:16	1,793	108	126	1.52	90.5
11:17	1,791	108	126	1.52	90.4
11:18	1,792	108	126	1.53	90.3
11:19	1,794	107	126	1.53	90.2
11:20	1,791	107	126	1.52	90.1
11:21	1,788	107	126	1.52	90.0
11:22	1,789	107	126	1.52	89.9
11:23	1,790	107	125	1.51	89.8
11:24	1,790	107	125	1.52	89.7
11:25	1,790	107	125	1.53	89.7
11:26	1,789	106	125	1.52	89.6
11:27	1,789	106	125	1.52	89.5
11:28	1,790	107	126	1.52	89.4

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 3**

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/6/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
11:29	1,790	107	126	1.52	89.3
11:30	1,788	107	125	1.52	89.2
11:31	1,789	107	125	1.52	89.1
11:32	1,789	107	125	1.52	89.0
11:33	1,787	107	126	1.52	88.9
Average	1,775	107	125	1.51	89.8
Minimum	1,742	106	124	1.50	87.4
Maximum	1,795	108	126	1.54	92.7

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 3**

Unit	<b>F-10 Boiler</b>
Condition:	<b>ICR Test</b>
Run:	<b>3</b>
Date:	<b>06/06/2024</b>
Start Time:	<b>07:20</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
End Time:	<b>11:33</b>

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/6/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
07:20	2,078	12.0	0.00	0.01	3.39
07:21	2,116	12.0	0.00	0.01	3.39
07:22	2,134	12.0	0.00	0.01	3.33
07:23	2,115	12.0	0.00	0.01	3.24
07:24	2,096	12.0	0.00	0.01	3.21
07:25	2,077	12.0	0.00	0.01	3.22
07:26	2,072	12.0	0.00	0.01	3.25
07:27	2,077	12.0	0.00	0.01	3.24
07:28	2,082	12.0	0.00	0.01	3.31
07:29	2,082	12.0	0.00	0.01	3.36
07:30	2,078	12.0	0.00	0.01	3.37
07:31	2,075	12.0	0.00	0.01	3.38
07:32	2,071	12.0	0.00	0.01	3.32
07:33	2,068	12.0	0.00	0.01	3.29
07:34	2,070	12.0	0.00	0.01	3.41
07:35	2,076	12.0	0.00	0.01	3.34
07:36	2,049	12.0	0.00	0.01	3.35
07:37	2,026	12.0	0.00	0.01	3.40
07:38	2,026	12.0	0.00	0.01	3.36
07:39	2,026	12.0	0.00	0.01	3.36
07:40	2,026	12.0	0.00	0.01	3.39
07:41	2,026	12.0	0.00	0.01	3.39
07:42	2,027	12.0	0.00	0.01	3.31
07:43	2,027	12.0	0.00	0.01	3.24
07:44	2,027	12.0	0.00	0.01	3.26
07:45	2,027	12.0	0.00	0.01	3.22
07:46	2,027	12.0	0.00	0.00	3.26
07:47	2,028	12.0	0.00	0.00	3.33
07:48	2,028	12.0	0.00	0.00	3.30
07:49	2,028	12.0	0.00	0.00	3.27
07:50	2,028	12.0	0.00	0.00	3.33
07:51	2,028	12.0	0.00	0.00	3.37
07:52	2,029	12.0	0.00	0.00	3.31
07:53	2,029	12.0	0.00	0.00	3.26
07:54	2,000	12.0	0.00	0.00	3.32
07:55	1,976	12.0	0.00	0.00	3.26
07:56	1,974	12.0	0.00	0.00	3.21
07:57	1,973	12.0	0.00	0.00	3.31
07:58	1,972	12.0	0.00	0.00	3.34
07:59	1,970	12.0	0.00	0.00	3.32
08:00	1,969	12.0	0.00	0.00	3.25

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 3

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/6/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
08:01	1,967	12.0	0.00	0.00	3.22
08:02	1,966	12.0	0.00	0.00	3.19
08:03	1,964	12.0	0.00	0.00	3.25
08:04	1,963	12.0	0.00	0.00	3.27
08:05	1,962	12.0	0.00	0.00	3.25
08:06	1,960	12.0	0.00	0.00	3.27
08:07	1,969	12.0	0.00	0.00	3.33
08:08	1,985	12.0	0.00	0.00	3.37
08:09	2,002	12.0	0.00	0.00	3.24
08:10	2,018	12.0	0.00	0.00	3.20
08:11	2,020	12.0	0.00	0.00	3.17
08:12	2,010	12.0	0.00	0.00	3.16
08:13	1,999	12.0	0.00	0.00	3.31
08:14	1,989	12.0	0.00	0.00	3.40
08:15	2,000	12.0	0.00	0.00	3.29
08:16	2,026	12.0	0.00	0.00	3.25
08:17	2,037	12.0	0.00	0.00	3.29
08:18	2,035	12.0	0.00	0.00	3.24
08:19	2,033	12.0	0.00	0.00	3.20
08:20	2,031	12.0	0.00	0.00	3.21
08:21	2,029	12.0	0.00	0.00	3.21
08:22	2,027	12.0	0.00	0.00	3.35
08:23	2,025	12.0	0.00	0.00	3.39
08:24	2,024	12.0	0.00	0.00	3.31
08:25	2,022	12.0	0.00	0.00	3.30
08:26	2,020	12.0	0.00	0.00	3.38
08:27	2,018	12.0	0.00	0.00	3.44
08:28	2,016	12.0	0.00	0.00	3.36
08:29	2,014	12.0	0.00	0.00	3.29
08:30	2,012	12.0	0.00	0.00	3.32
08:31	2,010	12.0	0.00	0.00	3.18
08:32	2,008	12.0	0.00	0.00	3.11
08:33	2,006	12.0	0.00	0.00	3.23
08:34	2,003	12.0	0.00	0.00	3.28
08:35	2,001	12.0	0.00	0.00	3.34
08:36	1,999	12.0	0.00	0.00	3.30
08:37	1,996	12.0	0.00	0.00	3.22
08:38	1,993	12.0	0.00	0.00	3.14
08:39	1,991	12.0	0.00	0.00	3.14
08:40	1,988	12.0	0.00	0.00	3.34
08:41	1,985	12.0	0.00	0.00	3.46
08:42	1,983	12.0	0.00	0.00	3.25
08:43	1,980	12.0	0.00	0.00	3.15
08:44	1,978	12.0	0.00	0.00	3.21
08:45	1,975	12.0	0.00	0.00	3.19
08:46	1,972	12.0	0.00	0.00	3.13
08:47	2,019	12.0	0.00	0.00	3.18
08:48	2,056	12.0	0.00	0.00	3.28
08:49	2,052	12.0	0.00	0.00	3.30
08:50	2,047	12.0	0.00	0.00	3.22
08:51	2,042	12.0	0.00	0.00	3.14
08:52	2,038	12.0	0.00	0.00	3.12

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 3**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/6/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
08:53	2,033	12.0	0.00	0.00	3.21
08:54	2,029	12.0	0.00	0.00	3.28
08:55	2,055	12.0	0.00	0.00	3.28
08:56	2,041	12.0	0.00	0.00	3.22
08:57	2,019	12.0	0.00	0.00	3.08
08:58	2,035	12.0	0.00	0.00	3.01
08:59	2,051	12.0	0.00	0.00	3.09
09:00	2,057	12.0	0.00	0.00	3.17
09:01	2,056	12.0	0.00	0.00	3.15
09:02	2,055	12.0	0.00	0.00	3.14
09:03	2,054	12.0	0.00	0.00	3.15
09:04	2,053	12.0	0.00	0.00	3.12
09:05	2,052	12.0	0.00	0.00	3.24
09:06	2,052	12.0	0.00	0.00	3.25
09:07	2,085	12.0	0.00	0.00	3.18
09:08	2,070	12.0	0.00	0.00	3.18
09:09	2,044	12.0	0.00	0.00	3.11
09:10	2,063	12.0	0.00	0.00	3.11
09:11	2,046	12.0	0.00	0.00	3.28
09:12	2,058	12.0	0.00	0.00	3.38
09:13	2,088	12.0	0.00	0.00	3.25
09:14	2,090	12.0	0.00	0.00	3.25
09:15	2,092	12.0	0.00	0.00	3.23
09:16	2,094	12.0	0.00	0.00	3.18
09:17	2,096	12.0	0.00	0.00	3.30
09:18	2,098	12.0	0.00	0.00	3.33
09:19	2,100	12.0	0.00	0.00	3.24
09:20	2,102	12.0	0.00	0.00	3.16
09:21	2,104	12.0	0.00	0.00	3.17
09:22	2,072	12.0	0.00	0.00	3.31
09:23	2,047	12.0	0.00	0.00	3.38
09:24	2,075	12.0	0.00	0.00	3.34
09:25	2,068	12.0	0.00	0.00	3.23
09:26	2,076	12.0	0.00	0.00	3.25
09:27	2,099	12.0	0.00	0.00	3.30
09:28	2,090	12.0	0.00	0.00	3.19
09:29	2,064	12.0	0.00	0.00	3.22
09:30	2,048	12.0	0.00	0.00	3.30
09:31	2,051	12.0	0.00	0.00	3.18
09:32	2,026	12.0	0.00	0.00	3.19
09:33	2,010	12.0	0.00	0.00	3.26
09:34	2,023	12.0	0.00	0.00	3.21
09:35	2,037	12.0	0.00	0.00	3.24
09:36	2,043	12.0	0.00	0.00	3.25
09:37	2,042	12.0	0.00	0.00	3.24
09:38	2,042	12.0	0.00	0.00	3.41
09:39	2,042	12.0	0.00	0.00	3.55
09:40	2,042	12.0	0.00	0.00	3.38
09:41	2,042	12.0	0.00	0.00	3.25
09:42	2,068	12.0	0.00	0.00	3.22
09:43	2,086	12.0	0.00	0.00	3.23
09:44	2,077	12.0	0.00	0.00	3.31

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 3**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/6/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
09:45	2,075	12.0	0.00	0.00	3.29
09:46	2,080	12.0	0.00	0.00	3.15
09:47	2,085	12.0	0.00	0.00	3.11
09:48	2,090	12.0	0.00	0.00	3.18
09:49	2,095	12.0	0.00	0.00	3.21
09:50	2,099	12.0	0.00	0.00	3.17
09:51	2,102	12.0	0.00	0.00	3.23
09:52	2,106	12.0	0.00	0.00	3.32
09:53	2,109	12.0	0.00	0.00	3.27
09:54	2,139	12.0	0.00	0.00	3.29
09:55	2,162	12.0	0.00	0.00	3.33
09:56	2,160	12.0	0.00	0.00	3.40
09:57	2,158	12.0	0.00	0.00	3.37
09:58	2,156	12.0	0.00	0.00	3.37
09:59	2,154	12.0	0.00	0.00	3.38
10:00	2,151	12.0	0.00	0.00	3.34
10:01	2,149	12.0	0.00	0.00	3.33
10:02	2,147	12.0	0.00	0.00	3.39
10:03	2,145	12.0	0.00	0.00	3.47
10:04	2,143	12.0	0.00	0.00	3.50
10:05	2,140	12.0	0.00	0.00	3.43
10:06	2,138	12.0	0.00	0.00	3.42
10:07	2,128	12.0	0.00	0.00	3.35
10:08	2,071	12.0	0.00	0.00	3.25
10:09	2,049	12.0	0.00	0.00	3.23
10:10	2,039	12.0	0.00	0.00	3.24
10:11	2,027	12.0	0.00	0.00	3.27
10:12	1,999	12.0	0.00	0.00	3.28
10:13	1,969	12.0	0.00	0.00	3.26
10:14	1,976	12.0	0.00	0.00	3.30
10:15	1,950	12.0	0.00	0.00	3.30
10:16	1,925	12.0	0.00	0.00	3.23
10:17	1,926	12.0	0.00	0.00	3.29
10:18	1,927	12.0	0.00	0.00	3.32
10:19	1,883	12.0	0.00	0.00	3.28
10:20	1,845	12.0	0.00	0.00	3.25
10:21	1,845	12.0	0.00	0.00	3.29
10:22	1,845	12.0	0.00	0.00	3.28
10:23	1,846	12.0	0.00	0.00	3.31
10:24	1,846	12.0	0.00	0.00	3.37
10:25	1,847	12.0	0.00	0.00	3.21
10:26	1,847	12.0	0.00	0.00	3.15
10:27	1,847	12.0	0.00	0.00	3.32
10:28	1,848	12.0	0.00	0.00	3.31
10:29	1,865	12.0	0.00	0.00	3.14
10:30	1,897	12.0	0.00	0.00	3.10
10:31	1,929	12.0	0.00	0.00	3.14
10:32	1,962	12.0	0.00	0.00	3.29
10:33	1,978	12.0	0.00	0.00	3.26
10:34	1,981	12.0	0.00	0.00	3.20
10:35	1,984	12.0	0.00	0.00	3.32
10:36	2,000	12.0	0.00	0.00	3.24



**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 3**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/6/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
10:37	2,028	12.0	0.00	0.00	3.24
10:38	2,041	12.0	0.00	0.00	3.26
10:39	2,042	12.0	0.00	0.00	3.25
10:40	2,044	12.0	0.00	0.00	3.22
10:41	2,045	12.0	0.00	0.00	3.17
10:42	2,046	12.0	0.00	0.00	3.15
10:43	2,053	12.0	0.00	0.00	3.15
10:44	2,064	12.0	0.00	0.00	3.17
10:45	2,076	12.0	0.00	0.00	3.21
10:46	2,092	12.0	0.00	0.00	3.09
10:47	2,111	12.0	0.00	0.00	3.08
10:48	2,120	12.0	0.00	0.00	3.30
10:49	2,120	12.0	0.00	0.00	3.33
10:50	2,119	12.0	0.00	0.00	3.29
10:51	2,119	12.0	0.00	0.00	3.40
10:52	2,119	12.0	0.00	0.00	3.54
10:53	2,118	12.0	0.00	0.00	3.40
10:54	2,118	12.0	0.00	0.00	3.31
10:55	2,117	12.0	0.00	0.00	3.34
10:56	2,117	12.0	0.00	0.00	3.44
10:57	2,116	12.0	0.00	0.00	3.50
10:58	2,116	12.0	0.00	0.00	3.28
10:59	2,115	12.0	0.00	0.00	3.16
11:00	2,115	12.0	0.00	0.00	3.21
11:01	2,114	12.0	0.00	0.00	3.17
11:02	2,114	12.0	0.00	0.00	3.15
11:03	2,113	12.0	0.00	0.00	3.19
11:04	2,113	12.0	0.00	0.00	3.12
11:05	2,112	12.0	0.00	0.00	3.11
11:06	2,088	12.0	0.00	0.00	3.19
11:07	2,066	12.0	0.00	0.00	3.12
11:08	2,064	12.0	0.00	0.00	3.15
11:09	2,062	12.0	0.00	0.00	3.24
11:10	2,061	12.0	0.00	0.00	3.16
11:11	2,059	12.0	0.00	0.00	3.17
11:12	2,057	12.0	0.00	0.00	3.19
11:13	2,055	12.0	0.00	0.00	3.10
11:14	2,053	12.0	0.00	0.00	3.17
11:15	2,051	12.0	0.00	0.00	3.26
11:16	2,029	12.0	0.00	0.00	3.17
11:17	2,017	12.0	0.00	0.00	3.17
11:18	2,033	12.0	0.00	0.00	3.32
11:19	2,049	12.0	0.00	0.00	3.20
11:20	2,057	12.0	0.00	0.00	3.15
11:21	2,057	12.0	0.00	0.00	3.28
11:22	2,057	12.0	0.00	0.00	3.17
11:23	2,058	12.0	0.00	0.00	3.11
11:24	2,058	12.0	0.00	0.00	3.24
11:25	2,058	12.0	0.00	0.00	3.22
11:26	2,058	12.0	0.00	0.00	3.15
11:27	2,059	12.0	0.00	0.00	3.17
11:28	2,059	12.0	0.00	0.00	3.16

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 3**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/6/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
11:29	2,059	12.0	0.00	0.00	3.21
11:30	2,059	12.0	0.00	0.00	3.25
11:31	2,072	12.0	0.00	0.00	3.37
11:32	2,095	12.0	0.00	0.00	3.35
11:33	2,113	12.0	0.00	0.00	3.16
Average	2,041	12.0	0.00	0.00	3.26
Minimum	1,845	12.0	0.00	0.00	3.01
Maximum	2,162	12.0	0.00	0.01	3.55

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 4**

Unit	<b>F-10 Boiler</b>
Condition:	<b>ICR Test</b>
Run:	<b>4</b>
Date:	<b>06/06/2024</b>
Start Time:	<b>12:11</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
End Time:	<b>16:26</b>

Parameter	Units	Waste Liquid Fuel
Heating value	Btu/lb	15,200
Specific gravity	---	0.830

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/6/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
12:11	1,794	108	126	1.53	91.3
12:12	1,796	108	126	1.53	91.3
12:13	1,793	107	126	1.53	91.2
12:14	1,790	107	126	1.52	91.2
12:15	1,792	107	126	1.52	91.2
12:16	1,792	107	126	1.52	91.2
12:17	1,792	107	126	1.52	91.1
12:18	1,795	107	126	1.52	91.1
12:19	1,795	107	126	1.52	91.1
12:20	1,792	106	126	1.52	91.0
12:21	1,790	106	125	1.53	91.0
12:22	1,789	106	125	1.53	91.0
12:23	1,789	107	125	1.53	91.0
12:24	1,789	106	125	1.52	90.9
12:25	1,789	106	125	1.52	90.9
12:26	1,789	106	125	1.52	90.9
12:27	1,789	107	125	1.52	90.9
12:28	1,789	107	125	1.52	90.8
12:29	1,788	107	125	1.52	90.8
12:30	1,786	107	125	1.52	90.8
12:31	1,788	107	126	1.52	90.8
12:32	1,788	107	126	1.52	90.7
12:33	1,789	107	126	1.52	90.7
12:34	1,789	107	126	1.53	90.7
12:35	1,790	107	126	1.53	90.7
12:36	1,791	107	125	1.53	90.6
12:37	1,790	107	125	1.53	90.6
12:38	1,790	107	125	1.52	90.6
12:39	1,791	106	125	1.53	90.6
12:40	1,790	106	125	1.53	90.5
12:41	1,790	106	125	1.52	90.5
12:42	1,787	106	125	1.52	90.5
12:43	1,786	106	125	1.52	90.5
12:44	1,786	106	125	1.52	90.4
12:45	1,785	106	125	1.52	90.4
12:46	1,782	106	124	1.52	90.4
12:47	1,784	106	124	1.52	90.4
12:48	1,788	106	125	1.52	90.3
12:49	1,789	106	125	1.52	90.3
12:50	1,787	106	125	1.53	90.3
12:51	1,785	106	124	1.53	90.3

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 4

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/6/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
12:52	1,786	106	125	1.53	90.2
12:53	1,789	106	125	1.52	90.2
12:54	1,787	107	125	1.52	90.2
12:55	1,785	106	125	1.52	90.2
12:56	1,784	106	125	1.53	90.1
12:57	1,785	106	124	1.53	90.1
12:58	1,786	106	124	1.53	90.1
12:59	1,788	106	124	1.53	90.0
13:00	1,789	106	124	1.53	90.0
13:01	1,790	106	124	1.52	89.6
13:02	1,790	106	124	1.52	88.9
13:03	1,788	105	123	1.52	88.4
13:04	1,785	105	123	1.53	88.4
13:05	1,783	105	124	1.53	88.3
13:06	1,782	105	124	1.53	88.2
13:07	1,785	105	124	1.52	88.2
13:08	1,787	105	124	1.52	88.1
13:09	1,786	105	124	1.52	88.1
13:10	1,784	105	123	1.52	88.0
13:11	1,781	105	124	1.52	87.9
13:12	1,782	105	124	1.53	87.9
13:13	1,784	106	124	1.53	87.8
13:14	1,784	106	124	1.53	87.7
13:15	1,783	106	124	1.53	87.7
13:16	1,784	106	124	1.52	87.6
13:17	1,786	106	124	1.52	87.5
13:18	1,786	106	124	1.52	87.5
13:19	1,785	106	124	1.52	87.4
13:20	1,783	106	124	1.52	87.3
13:21	1,785	106	124	1.53	87.3
13:22	1,788	106	124	1.53	87.2
13:23	1,788	105	124	1.53	87.1
13:24	1,786	106	124	1.53	87.1
13:25	1,783	106	124	1.53	87.0
13:26	1,781	105	124	1.53	87.0
13:27	1,784	105	123	1.53	86.9
13:28	1,785	105	123	1.52	86.9
13:29	1,779	105	123	1.52	86.8
13:30	1,766	105	123	1.53	86.8
13:31	1,760	105	123	1.53	86.8
13:32	1,769	105	123	1.53	86.7
13:33	1,776	105	123	1.53	86.7
13:34	1,776	106	124	1.53	86.6
13:35	1,763	105	124	1.52	86.6
13:36	1,748	105	123	1.52	86.6
13:37	1,741	105	123	1.52	86.5
13:38	1,740	105	123	1.52	86.5
13:39	1,741	106	123	1.52	86.4
13:40	1,740	106	123	1.52	86.4
13:41	1,740	106	123	1.53	86.4
13:42	1,740	106	123	1.53	86.3
13:43	1,744	106	123	1.53	86.3

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 4

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/6/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
13:44	1,757	105	122	1.53	86.2
13:45	1,770	105	122	1.53	86.2
13:46	1,776	105	122	1.53	86.2
13:47	1,778	104	122	1.53	86.1
13:48	1,767	104	122	1.53	86.1
13:49	1,751	104	122	1.52	86.0
13:50	1,743	104	122	1.52	86.0
13:51	1,750	104	122	1.53	86.0
13:52	1,765	105	122	1.53	85.9
13:53	1,773	105	123	1.53	85.9
13:54	1,777	105	123	1.53	85.8
13:55	1,781	105	122	1.53	85.8
13:56	1,784	105	123	1.53	85.8
13:57	1,782	105	123	1.53	85.7
13:58	1,782	104	123	1.53	85.7
13:59	1,784	104	122	1.53	85.6
14:00	1,783	105	122	1.53	85.6
14:01	1,782	104	122	1.53	85.6
14:02	1,781	104	122	1.52	85.5
14:03	1,780	104	122	1.52	85.5
14:04	1,778	104	122	1.52	85.5
14:05	1,780	104	122	1.53	85.4
14:06	1,783	104	122	1.53	85.4
14:07	1,782	104	122	1.53	85.3
14:08	1,780	104	122	1.53	85.3
14:09	1,779	104	122	1.53	85.3
14:10	1,780	104	122	1.53	85.2
14:11	1,783	104	122	1.53	85.2
14:12	1,784	104	122	1.52	85.0
14:13	1,780	104	121	1.52	84.8
14:14	1,778	103	121	1.53	84.5
14:15	1,779	103	121	1.53	84.2
14:16	1,781	103	121	1.53	84.0
14:17	1,772	103	121	1.53	83.8
14:18	1,754	103	121	1.53	83.8
14:19	1,740	103	120	1.54	83.7
14:20	1,734	103	120	1.54	83.6
14:21	1,733	103	121	1.53	83.6
14:22	1,733	104	121	1.53	83.5
14:23	1,734	104	121	1.53	83.5
14:24	1,736	104	120	1.53	83.4
14:25	1,734	104	120	1.53	83.3
14:26	1,732	104	121	1.53	83.3
14:27	1,731	104	120	1.53	83.2
14:28	1,730	103	120	1.53	83.1
14:29	1,730	104	120	1.53	83.1
14:30	1,740	104	120	1.53	83.0
14:31	1,746	104	121	1.53	83.0
14:32	1,741	104	121	1.53	82.9
14:33	1,736	104	120	1.53	82.8
14:34	1,733	103	120	1.53	82.8
14:35	1,733	103	120	1.53	82.7

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 4

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/6/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
14:36	1,732	103	120	1.53	82.7
14:37	1,732	103	120	1.53	82.6
14:38	1,731	103	120	1.53	82.5
14:39	1,728	103	119	1.53	82.1
14:40	1,726	102	118	1.53	81.3
14:41	1,725	102	118	1.53	80.5
14:42	1,723	101	118	1.53	80.3
14:43	1,721	101	117	1.53	80.6
14:44	1,719	101	117	1.53	81.0
14:45	1,718	101	117	1.53	81.4
14:46	1,719	101	118	1.53	81.5
14:47	1,721	102	118	1.53	81.2
14:48	1,723	102	118	1.53	80.9
14:49	1,722	102	118	1.53	80.5
14:50	1,721	101	117	1.53	80.2
14:51	1,718	100	117	1.53	79.9
14:52	1,716	100	116	1.53	79.4
14:53	1,715	100	116	1.53	78.7
14:54	1,714	99	116	1.53	78.1
14:55	1,713	99	115	1.53	77.6
14:56	1,712	99	115	1.53	77.4
14:57	1,712	99	115	1.53	77.2
14:58	1,711	99	115	1.53	77.0
14:59	1,713	100	115	1.53	76.9
15:00	1,713	99	115	1.53	76.7
15:01	1,711	99	114	1.53	76.5
15:02	1,710	98	113	1.53	76.3
15:03	1,709	98	113	1.53	76.2
15:04	1,708	98	113	1.53	76.0
15:05	1,708	98	113	1.53	75.9
15:06	1,707	98	113	1.53	75.7
15:07	1,708	98	113	1.53	75.6
15:08	1,710	98	114	1.53	75.4
15:09	1,711	98	113	1.53	75.3
15:10	1,712	98	113	1.53	75.1
15:11	1,710	98	113	1.53	75.0
15:12	1,707	98	113	1.53	74.8
15:13	1,707	98	113	1.53	74.7
15:14	1,709	98	113	1.53	74.7
15:15	1,710	98	114	1.52	74.6
15:16	1,710	98	114	1.53	74.5
15:17	1,711	99	115	1.53	74.4
15:18	1,713	99	115	1.53	74.3
15:19	1,715	99	115	1.53	74.2
15:20	1,715	99	115	1.53	74.1
15:21	1,714	99	114	1.53	74.1
15:22	1,712	99	114	1.53	74.0
15:23	1,710	98	113	1.53	73.9
15:24	1,709	98	113	1.53	73.8
15:25	1,709	98	113	1.53	73.7
15:26	1,708	97	112	1.53	73.6
15:27	1,706	97	112	1.53	73.5

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 4

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/6/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
15:28	1,707	97	113	1.53	73.5
15:29	1,707	97	113	1.53	73.4
15:30	1,707	97	112	1.53	73.3
15:31	1,707	98	113	1.53	73.2
15:32	1,709	98	113	1.53	73.1
15:33	1,708	98	113	1.53	72.7
15:34	1,705	97	112	1.53	71.9
15:35	1,704	97	112	1.53	71.2
15:36	1,705	97	111	1.53	70.6
15:37	1,704	96	111	1.53	70.1
15:38	1,703	96	111	1.53	69.7
15:39	1,700	95	110	1.53	69.3
15:40	1,698	95	110	1.53	69.0
15:41	1,697	94	109	1.53	68.8
15:42	1,695	94	109	1.53	68.6
15:43	1,694	94	108	1.53	68.4
15:44	1,693	94	109	1.53	68.3
15:45	1,692	94	109	1.53	68.1
15:46	1,693	94	109	1.53	67.9
15:47	1,694	94	109	1.53	67.7
15:48	1,694	94	108	1.53	67.6
15:49	1,693	94	108	1.53	67.4
15:50	1,691	94	108	1.53	67.2
15:51	1,689	93	107	1.53	67.0
15:52	1,687	93	107	1.53	66.8
15:53	1,686	93	106	1.53	66.5
15:54	1,685	93	106	1.53	66.3
15:55	1,683	92	106	1.52	66.0
15:56	1,682	92	106	1.53	65.8
15:57	1,682	92	105	1.53	65.5
15:58	1,682	92	105	1.53	65.3
15:59	1,680	91	104	1.53	65.0
16:00	1,678	91	104	1.53	65.4
16:01	1,678	91	105	1.53	66.6
16:02	1,680	92	105	1.53	66.6
16:03	1,681	92	105	1.53	65.3
16:04	1,680	91	105	1.53	65.0
16:05	1,679	91	104	1.53	65.8
16:06	1,677	91	105	1.53	66.6
16:07	1,676	92	105	1.53	67.0
16:08	1,678	92	106	1.53	67.1
16:09	1,681	92	106	1.53	67.1
16:10	1,681	92	105	1.53	67.2
16:11	1,680	92	105	1.53	67.3
16:12	1,680	92	106	1.53	67.3
16:13	1,681	93	106	1.53	67.4
16:14	1,683	93	107	1.53	67.5
16:15	1,684	93	107	1.53	67.5
16:16	1,685	93	107	1.53	67.6
16:17	1,686	93	107	1.53	67.9
16:18	1,686	93	107	1.52	68.4
16:19	1,687	94	108	1.53	68.8

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 4**

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/6/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
16:20	1,688	94	108	1.53	69.1
16:21	1,690	94	108	1.53	69.3
16:22	1,692	94	108	1.53	69.6
16:23	1,692	95	109	1.53	69.9
16:24	1,693	95	109	1.53	70.2
16:25	1,695	95	109	1.53	70.5
16:26	1,695	95	109	1.53	70.8
Average	1,743	101	118	1.53	81.0
Minimum	1,676	91	104	1.52	65.0
Maximum	1,796	108	126	1.54	91.3



**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 4**

Unit	<b>F-10 Boiler</b>
Condition:	<b>ICR Test</b>
Run:	<b>4</b>
Date:	<b>06/06/2024</b>
Start Time:	<b>12:11</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
End Time:	<b>16:26</b>

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/6/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
12:11	2,072	12.0	0.00	0.00	3.28
12:12	2,069	12.0	0.00	0.00	3.33
12:13	2,066	12.0	0.00	0.00	3.21
12:14	2,062	12.0	0.00	0.00	3.16
12:15	2,061	12.0	0.00	0.00	3.14
12:16	2,060	12.0	0.00	0.00	3.20
12:17	2,060	12.0	0.00	0.00	3.17
12:18	2,059	12.0	0.00	0.00	3.06
12:19	2,059	12.0	0.00	0.00	3.09
12:20	2,058	12.0	0.00	0.00	3.12
12:21	2,058	12.0	0.00	0.00	3.13
12:22	2,057	12.0	0.00	0.00	3.18
12:23	2,057	12.0	0.00	0.00	3.21
12:24	2,056	12.0	0.00	0.00	3.15
12:25	2,056	12.0	0.00	0.00	3.04
12:26	2,055	12.0	0.00	0.00	3.10
12:27	2,030	12.0	0.00	0.00	3.21
12:28	2,028	12.0	0.00	0.00	3.13
12:29	2,026	12.0	0.00	0.00	3.03
12:30	2,006	12.0	0.00	0.00	3.09
12:31	2,009	12.0	0.00	0.00	3.18
12:32	2,012	12.0	0.00	0.00	3.20
12:33	2,015	12.0	0.00	0.00	3.22
12:34	2,017	12.0	0.00	0.00	3.22
12:35	2,020	12.0	0.00	0.00	3.23
12:36	2,013	12.0	0.00	0.00	3.17
12:37	1,997	12.0	0.00	0.00	3.14
12:38	1,980	12.0	0.00	0.00	3.17
12:39	2,013	12.0	0.00	0.00	3.17
12:40	2,039	12.0	0.00	0.00	3.13
12:41	2,014	12.0	0.00	0.00	3.14
12:42	2,001	12.0	0.00	0.00	3.15
12:43	2,000	12.0	0.00	0.00	3.14
12:44	1,999	12.0	0.00	0.00	3.22
12:45	1,998	12.0	0.00	0.00	3.33
12:46	1,997	12.0	0.00	0.00	3.34
12:47	1,995	12.0	0.00	0.00	3.31
12:48	1,994	12.0	0.00	0.00	3.35
12:49	1,972	12.0	0.00	0.00	3.23
12:50	1,982	12.0	0.00	0.00	3.11
12:51	2,012	12.0	0.00	0.00	3.13

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 4**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/6/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
12:52	2,010	12.0	0.00	0.00	3.21
12:53	2,008	12.0	0.00	0.00	3.31
12:54	2,007	12.0	0.00	0.00	3.32
12:55	2,006	12.0	0.00	0.00	3.19
12:56	2,005	12.0	0.00	0.00	3.14
12:57	2,004	12.0	0.00	0.00	3.20
12:58	2,003	12.0	0.00	0.00	3.11
12:59	2,001	12.0	0.00	0.00	3.17
13:00	2,000	12.0	0.00	0.00	3.35
13:01	1,999	12.0	0.00	0.00	3.24
13:02	1,999	12.0	0.00	0.00	3.17
13:03	2,000	12.0	0.00	0.00	3.16
13:04	2,001	12.0	0.00	0.00	3.19
13:05	2,003	12.0	0.00	0.00	3.31
13:06	2,004	12.0	0.00	0.00	3.23
13:07	2,005	12.0	0.00	0.00	3.12
13:08	2,006	12.0	0.00	0.00	3.11
13:09	2,007	12.0	0.00	0.00	3.15
13:10	2,008	12.0	0.00	0.00	3.20
13:11	2,010	12.0	0.00	0.00	3.23
13:12	2,011	12.0	0.00	0.00	3.13
13:13	2,012	12.0	0.00	0.00	3.11
13:14	2,013	12.0	0.00	0.00	3.32
13:15	2,014	12.0	0.00	0.00	3.30
13:16	2,015	12.0	0.00	0.00	3.18
13:17	2,017	12.0	0.00	0.00	3.23
13:18	2,018	12.0	0.00	0.00	3.13
13:19	2,024	12.0	0.00	0.00	3.17
13:20	2,036	12.0	0.00	0.00	3.23
13:21	2,047	12.0	0.00	0.00	3.01
13:22	2,060	12.0	0.00	0.00	3.04
13:23	2,075	12.0	0.00	0.00	3.11
13:24	2,090	12.0	0.00	0.00	3.14
13:25	2,097	12.0	0.00	0.00	3.23
13:26	2,097	12.0	0.00	0.00	3.22
13:27	2,097	12.0	0.00	0.00	3.25
13:28	2,097	12.0	0.00	0.00	3.29
13:29	2,096	12.0	0.00	0.00	3.19
13:30	2,096	12.0	0.00	0.00	3.16
13:31	2,096	12.0	0.00	0.00	3.25
13:32	2,096	12.0	0.00	0.00	3.22
13:33	2,096	12.0	0.00	0.00	3.19
13:34	2,095	12.0	0.00	0.00	3.21
13:35	2,095	12.0	0.00	0.00	3.34
13:36	2,095	12.0	0.00	0.00	3.38
13:37	2,095	12.0	0.00	0.00	3.32
13:38	2,095	12.0	0.00	0.00	3.33
13:39	2,094	12.0	0.00	0.00	3.35
13:40	2,094	12.0	0.00	0.00	3.37
13:41	2,094	12.0	0.00	0.00	3.31
13:42	2,070	12.0	0.00	0.00	3.41
13:43	2,043	12.0	0.00	0.00	3.51

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 4

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/6/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
13:44	2,038	12.0	0.00	0.00	3.29
13:45	2,033	12.0	0.00	0.00	3.12
13:46	2,028	12.0	0.00	0.00	3.20
13:47	2,022	12.0	0.00	0.00	3.29
13:48	2,017	12.0	0.00	0.00	3.35
13:49	2,015	12.0	0.00	0.00	3.37
13:50	2,016	12.0	0.00	0.00	3.32
13:51	2,016	12.0	0.00	0.00	3.27
13:52	2,017	12.0	0.00	0.00	3.25
13:53	2,018	12.0	0.00	0.00	3.36
13:54	2,019	12.0	0.00	0.00	3.26
13:55	2,020	12.0	0.00	0.00	3.04
13:56	2,020	12.0	0.00	0.00	3.12
13:57	2,021	12.0	0.00	0.00	3.22
13:58	2,022	12.0	0.00	0.00	3.23
13:59	2,023	12.0	0.00	0.00	3.16
14:00	2,024	12.0	0.00	0.00	3.24
14:01	2,024	12.0	0.00	0.00	3.33
14:02	2,025	12.0	0.00	0.00	3.28
14:03	2,026	12.0	0.00	0.00	3.22
14:04	2,027	12.0	0.00	0.00	3.18
14:05	2,027	12.0	0.00	0.00	3.20
14:06	2,028	12.0	0.00	0.00	3.21
14:07	2,029	12.0	0.00	0.00	3.20
14:08	2,030	12.0	0.00	0.00	3.22
14:09	2,028	12.0	0.00	0.00	3.20
14:10	2,023	12.0	0.00	0.00	3.13
14:11	2,019	12.0	0.00	0.00	3.09
14:12	2,014	12.0	0.00	0.00	3.15
14:13	2,010	12.0	0.00	0.00	3.28
14:14	2,005	12.0	0.00	0.00	3.30
14:15	2,038	12.0	0.00	0.00	3.16
14:16	2,074	12.0	0.00	0.00	3.14
14:17	2,072	12.0	0.00	0.00	3.24
14:18	2,071	12.0	0.00	0.00	3.28
14:19	2,069	12.0	0.00	0.00	3.29
14:20	2,068	12.0	0.00	0.00	3.32
14:21	2,058	12.0	0.00	0.00	3.41
14:22	2,038	12.0	0.00	0.00	3.43
14:23	2,028	12.0	0.00	0.00	3.38
14:24	2,029	12.0	0.00	0.00	3.41
14:25	2,029	12.0	0.00	0.00	3.42
14:26	2,029	12.0	0.00	0.00	3.41
14:27	2,029	12.0	0.00	0.00	3.44
14:28	2,030	12.0	0.00	0.00	3.49
14:29	2,030	12.0	0.00	0.00	3.49
14:30	2,030	12.0	0.00	0.00	3.40
14:31	2,031	12.0	0.00	0.00	3.30
14:32	2,031	12.0	0.00	0.00	3.33
14:33	2,031	12.0	0.00	0.00	3.39
14:34	2,032	12.0	0.00	0.00	3.38
14:35	2,010	12.0	0.00	0.00	3.45

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 4**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/6/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
14:36	1,989	12.0	0.00	0.00	3.44
14:37	1,991	12.0	0.00	0.00	3.37
14:38	1,993	12.0	0.00	0.00	3.36
14:39	1,995	12.0	0.00	0.00	3.35
14:40	1,997	12.0	0.00	0.00	3.40
14:41	1,999	12.0	0.00	0.00	3.49
14:42	2,001	12.0	0.00	0.00	3.42
14:43	2,003	12.0	0.00	0.00	3.28
14:44	2,005	12.0	0.00	0.00	3.33
14:45	2,008	12.0	0.00	0.00	3.40
14:46	2,010	12.0	0.00	0.00	3.38
14:47	2,012	12.0	0.00	0.00	3.33
14:48	2,014	12.0	0.00	0.00	3.38
14:49	2,012	12.0	0.00	0.00	3.49
14:50	2,007	12.0	0.00	0.00	3.40
14:51	1,991	12.0	0.00	0.00	3.33
14:52	1,964	12.0	0.00	0.00	3.43
14:53	1,960	12.0	0.00	0.00	3.54
14:54	1,980	12.0	0.00	0.00	3.53
14:55	2,001	12.0	0.00	0.00	3.42
14:56	2,021	12.0	0.00	0.00	3.32
14:57	2,034	12.0	0.00	0.00	3.35
14:58	2,038	12.0	0.00	0.00	3.35
14:59	2,043	12.0	0.00	0.00	3.31
15:00	2,070	12.0	0.00	0.00	3.54
15:01	2,099	12.0	0.00	0.00	3.59
15:02	2,104	12.0	0.00	0.00	3.38
15:03	2,109	12.0	0.00	0.00	3.38
15:04	2,113	12.0	0.00	0.00	3.44
15:05	2,118	12.0	0.00	0.00	3.42
15:06	2,123	12.0	0.00	0.00	3.33
15:07	2,128	12.0	0.00	0.00	3.25
15:08	2,132	12.0	0.00	0.00	3.32
15:09	2,136	12.0	0.00	0.00	3.39
15:10	2,139	12.0	0.00	0.00	3.37
15:11	2,142	12.0	0.00	0.00	3.41
15:12	2,145	12.0	0.00	0.00	3.45
15:13	2,121	12.0	0.00	0.00	3.40
15:14	2,103	12.0	0.00	0.00	3.48
15:15	2,121	12.0	0.00	0.00	3.43
15:16	2,139	12.0	0.00	0.00	3.38
15:17	2,139	12.0	0.00	0.00	3.40
15:18	2,121	12.0	0.00	0.00	3.29
15:19	2,102	12.0	0.00	0.00	3.32
15:20	2,103	12.0	0.00	0.00	3.35
15:21	2,125	12.0	0.00	0.00	3.44
15:22	2,137	12.0	0.00	0.00	3.56
15:23	2,139	12.0	0.00	0.00	3.54
15:24	2,141	12.0	0.00	0.00	3.48
15:25	2,143	12.0	0.00	0.00	3.38
15:26	2,145	12.0	0.00	0.00	3.35
15:27	2,147	12.0	0.00	0.00	3.32

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 4**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/6/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
15:28	2,149	12.0	0.00	0.00	3.40
15:29	2,151	12.0	0.00	0.00	3.41
15:30	2,153	12.0	0.00	0.00	3.45
15:31	2,155	12.0	0.00	0.00	3.55
15:32	2,156	12.0	0.00	0.00	3.57
15:33	2,158	12.0	0.00	0.00	3.54
15:34	2,160	12.0	0.00	0.00	3.41
15:35	2,181	12.0	0.00	0.00	3.46
15:36	2,183	12.0	0.00	0.00	3.51
15:37	2,160	12.0	0.00	0.00	3.45
15:38	2,157	12.0	0.00	0.00	3.41
15:39	2,155	12.0	0.00	0.00	3.32
15:40	2,153	12.0	0.00	0.00	3.31
15:41	2,151	12.0	0.00	0.00	3.44
15:42	2,149	12.0	0.00	0.00	3.45
15:43	2,146	12.0	0.00	0.00	3.47
15:44	2,144	12.0	0.00	0.00	3.54
15:45	2,142	12.0	0.00	0.00	3.52
15:46	2,140	12.0	0.00	0.00	3.48
15:47	2,137	12.0	0.00	0.00	3.49
15:48	2,135	12.0	0.00	0.00	3.41
15:49	2,133	12.0	0.00	0.00	3.52
15:50	2,131	12.0	0.00	0.00	3.44
15:51	2,129	12.0	0.00	0.00	3.41
15:52	2,126	12.0	0.00	0.00	3.53
15:53	2,124	12.0	0.00	0.00	3.56
15:54	2,122	12.0	0.00	0.00	3.67
15:55	2,120	12.0	0.00	0.00	3.63
15:56	2,120	12.0	0.00	0.00	3.43
15:57	2,119	12.0	0.00	0.00	3.46
15:58	2,119	12.0	0.00	0.00	3.61
15:59	2,118	12.0	0.00	0.00	3.70
16:00	2,118	12.0	0.00	0.00	3.64
16:01	2,117	12.0	0.00	0.00	3.42
16:02	2,091	12.0	0.00	0.00	3.43
16:03	2,094	12.0	0.00	0.00	3.48
16:04	2,117	12.0	0.00	0.00	3.41
16:05	2,089	12.0	0.00	0.00	3.41
16:06	2,076	12.0	0.00	0.00	3.53
16:07	2,080	12.0	0.00	0.00	3.58
16:08	2,084	12.0	0.00	0.00	3.50
16:09	2,087	12.0	0.00	0.00	3.54
16:10	2,091	12.0	0.00	0.00	3.52
16:11	2,094	12.0	0.00	0.00	3.50
16:12	2,098	12.0	0.00	0.00	3.65
16:13	2,102	12.0	0.00	0.00	3.59
16:14	2,105	12.0	0.00	0.00	3.42
16:15	2,107	12.0	0.00	0.00	3.52
16:16	2,107	12.0	0.00	0.00	3.55
16:17	2,106	12.0	0.00	0.00	3.56
16:18	2,106	12.0	0.00	0.00	3.48
16:19	2,106	12.0	0.00	0.00	3.49

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 4**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/6/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
16:20	2,105	12.0	0.00	0.00	3.58
16:21	2,105	12.0	0.00	0.00	3.43
16:22	2,104	12.0	0.00	0.00	3.54
16:23	2,104	12.0	0.00	0.00	3.60
16:24	2,104	12.0	0.00	0.00	3.49
16:25	2,103	12.0	0.00	0.00	3.46
16:26	2,103	12.0	0.00	0.00	3.45
Average	2,062	12.0	0.00	0.00	3.33
Minimum	1,960	12.0	0.00	0.00	3.01
Maximum	2,183	12.0	0.00	0.00	3.70

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 5**

Unit	<b>F-10 Boiler</b>
Condition:	<b>ICR Test</b>
Run:	<b>5</b>
Date:	<b>06/07/2024</b>
Start Time:	<b>05:40</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
End Time:	<b>09:53</b>

Parameter	Units	Waste Liquid Fuel
Heating value	Btu/lb	15,200
Specific gravity	---	0.830

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/7/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
05:40	1,720	103	118	1.51	79.9
05:41	1,721	103	119	1.51	80.0
05:42	1,723	104	119	1.51	80.2
05:43	1,723	104	119	1.51	80.3
05:44	1,722	103	119	1.51	80.4
05:45	1,722	103	119	1.51	80.6
05:46	1,722	103	119	1.51	80.7
05:47	1,722	103	119	1.50	80.9
05:48	1,723	103	119	1.50	80.9
05:49	1,723	103	119	1.51	81.0
05:50	1,723	103	118	1.51	81.1
05:51	1,723	103	118	1.51	81.1
05:52	1,721	103	119	1.50	81.2
05:53	1,722	103	119	1.50	81.3
05:54	1,723	104	119	1.50	81.4
05:55	1,724	104	119	1.50	81.4
05:56	1,723	103	118	1.50	81.5
05:57	1,722	103	119	1.50	81.6
05:58	1,721	103	119	1.51	81.7
05:59	1,722	103	118	1.51	81.7
06:00	1,721	103	118	1.51	81.8
06:01	1,721	103	119	1.50	82.0
06:02	1,720	104	119	1.50	82.2
06:03	1,721	104	119	1.50	82.4
06:04	1,720	103	119	1.51	82.6
06:05	1,719	103	118	1.51	82.7
06:06	1,719	103	119	1.50	82.7
06:07	1,722	104	119	1.49	82.6
06:08	1,724	104	119	1.50	82.6
06:09	1,726	104	120	1.50	82.5
06:10	1,725	104	119	1.50	82.5
06:11	1,723	104	119	1.51	82.4
06:12	1,722	103	118	1.51	82.4
06:13	1,722	103	118	1.50	82.3
06:14	1,721	103	118	1.50	82.3
06:15	1,719	102	118	1.50	82.3
06:16	1,718	102	118	1.50	82.2
06:17	1,717	102	117	1.50	82.2
06:18	1,716	102	117	1.50	82.1
06:19	1,716	102	118	1.51	82.1
06:20	1,715	102	118	1.51	82.0

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 5

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/7/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
06:21	1,716	102	118	1.50	82.0
06:22	1,717	103	118	1.50	81.9
06:23	1,718	103	118	1.50	81.9
06:24	1,719	103	118	1.51	81.8
06:25	1,719	103	119	1.51	81.8
06:26	1,720	104	119	1.51	81.7
06:27	1,721	103	119	1.51	81.7
06:28	1,720	103	119	1.51	81.6
06:29	1,720	103	119	1.51	81.6
06:30	1,720	103	119	1.50	81.5
06:31	1,720	103	118	1.50	81.5
06:32	1,718	103	118	1.50	81.4
06:33	1,718	103	118	1.50	81.4
06:34	1,719	103	118	1.51	81.3
06:35	1,719	103	118	1.50	81.3
06:36	1,719	103	118	1.50	81.2
06:37	1,719	103	118	1.51	81.4
06:38	1,717	102	118	1.50	81.9
06:39	1,716	102	118	1.50	82.4
06:40	1,716	103	118	1.51	82.5
06:41	1,719	103	119	1.50	82.7
06:42	1,721	103	119	1.50	82.8
06:43	1,722	103	119	1.50	83.0
06:44	1,721	103	118	1.50	83.2
06:45	1,720	103	118	1.50	83.3
06:46	1,720	103	118	1.51	84.3
06:47	1,719	103	119	1.50	86.1
06:48	1,719	104	119	1.50	85.9
06:49	1,722	104	119	1.50	85.7
06:50	1,723	104	119	1.51	85.5
06:51	1,722	104	119	1.50	85.4
06:52	1,721	103	119	1.50	85.2
06:53	1,719	103	119	1.51	85.0
06:54	1,719	103	119	1.51	84.8
06:55	1,720	103	118	1.51	84.6
06:56	1,720	103	118	1.50	84.5
06:57	1,722	103	119	1.51	84.6
06:58	1,723	104	119	1.51	84.7
06:59	1,723	104	119	1.50	84.8
07:00	1,722	104	119	1.50	84.9
07:01	1,722	103	119	1.50	85.1
07:02	1,720	104	119	1.50	85.3
07:03	1,721	104	120	1.51	85.5
07:04	1,721	104	119	1.51	85.6
07:05	1,721	104	119	1.50	85.6
07:06	1,721	104	119	1.50	85.5
07:07	1,722	104	119	1.50	85.4
07:08	1,723	104	120	1.50	85.4
07:09	1,724	104	120	1.51	85.3
07:10	1,723	103	119	1.51	85.3
07:11	1,722	103	118	1.51	85.2
07:12	1,722	103	119	1.51	85.2



**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 5**

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/7/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
07:13	1,721	103	119	1.50	85.1
07:14	1,721	103	119	1.50	85.0
07:15	1,721	104	119	1.50	85.0
07:16	1,721	103	119	1.50	84.9
07:17	1,721	103	119	1.50	84.9
07:18	1,721	103	119	1.50	84.8
07:19	1,721	103	119	1.50	84.8
07:20	1,719	103	118	1.51	84.7
07:21	1,719	103	118	1.51	84.7
07:22	1,719	102	118	1.51	84.6
07:23	1,717	102	118	1.51	84.5
07:24	1,717	103	119	1.50	84.5
07:25	1,719	104	119	1.50	84.4
07:26	1,721	104	119	1.50	84.4
07:27	1,721	103	119	1.51	84.3
07:28	1,721	103	119	1.51	84.3
07:29	1,720	103	119	1.51	84.2
07:30	1,720	103	119	1.51	84.1
07:31	1,721	103	119	1.51	84.1
07:32	1,720	103	119	1.50	84.0
07:33	1,719	103	119	1.50	84.0
07:34	1,720	104	119	1.50	83.9
07:35	1,723	104	119	1.51	83.9
07:36	1,724	104	120	1.51	83.8
07:37	1,723	104	119	1.51	83.8
07:38	1,721	103	118	1.51	83.7
07:39	1,720	103	118	1.51	83.8
07:40	1,719	102	118	1.51	83.8
07:41	1,718	102	118	1.51	83.9
07:42	1,718	103	118	1.52	83.9
07:43	1,719	103	118	1.51	84.0
07:44	1,720	102	118	1.51	84.0
07:45	1,718	102	117	1.51	84.1
07:46	1,716	101	117	1.50	84.1
07:47	1,716	102	118	1.51	84.1
07:48	1,717	102	118	1.50	84.2
07:49	1,718	102	118	1.51	84.7
07:50	1,723	103	118	1.51	86.3
07:51	1,739	103	119	1.51	87.1
07:52	1,757	103	119	1.51	86.2
07:53	1,755	103	119	1.51	85.6
07:54	1,740	103	119	1.51	85.4
07:55	1,729	102	118	1.51	85.2
07:56	1,722	102	118	1.51	85.0
07:57	1,720	102	118	1.51	84.8
07:58	1,720	103	118	1.51	84.6
07:59	1,719	103	119	1.51	84.4
08:00	1,720	103	119	1.51	84.1
08:01	1,719	103	118	1.51	83.5
08:02	1,716	102	118	1.51	82.9
08:03	1,716	102	118	1.51	82.6
08:04	1,715	102	117	1.51	82.7

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 5**

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/7/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
08:05	1,715	102	117	1.51	82.8
08:06	1,717	102	118	1.51	83.0
08:07	1,718	102	117	1.51	83.1
08:08	1,716	102	117	1.51	83.2
08:09	1,716	102	117	1.51	83.4
08:10	1,717	102	118	1.51	83.5
08:11	1,717	103	118	1.51	83.7
08:12	1,719	103	118	1.51	83.7
08:13	1,719	103	118	1.51	83.6
08:14	1,717	102	118	1.51	83.5
08:15	1,716	102	118	1.51	83.4
08:16	1,716	102	118	1.51	83.3
08:17	1,717	102	118	1.51	83.2
08:18	1,718	103	118	1.51	83.0
08:19	1,720	103	119	1.51	82.9
08:20	1,720	102	118	1.51	82.8
08:21	1,718	102	118	1.51	82.7
08:22	1,717	102	118	1.51	82.6
08:23	1,716	102	117	1.51	82.5
08:24	1,716	102	118	1.51	82.4
08:25	1,717	102	118	1.51	82.3
08:26	1,718	101	117	1.51	82.2
08:27	1,717	101	117	1.51	82.1
08:28	1,715	101	117	1.51	82.0
08:29	1,714	101	117	1.50	81.9
08:30	1,713	101	117	1.51	81.8
08:31	1,713	102	117	1.51	81.6
08:32	1,716	102	117	1.51	81.5
08:33	1,717	101	117	1.51	81.4
08:34	1,717	101	118	1.51	81.3
08:35	1,719	102	118	1.51	81.2
08:36	1,720	102	118	1.51	81.1
08:37	1,719	102	118	1.51	81.0
08:38	1,718	102	118	1.51	80.9
08:39	1,718	102	118	1.51	80.8
08:40	1,719	102	118	1.51	80.7
08:41	1,718	102	118	1.51	80.6
08:42	1,718	102	118	1.51	80.5
08:43	1,718	101	117	1.51	80.3
08:44	1,718	101	117	1.51	79.8
08:45	1,717	101	117	1.51	79.3
08:46	1,716	101	117	1.51	78.8
08:47	1,715	101	116	1.51	78.3
08:48	1,713	100	116	1.51	77.8
08:49	1,710	100	116	1.51	77.3
08:50	1,709	100	116	1.52	77.3
08:51	1,712	100	116	1.51	78.2
08:52	1,715	101	117	1.51	79.1
08:53	1,716	101	117	1.51	80.0
08:54	1,715	102	118	1.51	80.6
08:55	1,717	102	118	1.51	80.4
08:56	1,718	102	118	1.51	80.2

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 5

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/7/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
08:57	1,719	102	118	1.51	80.0
08:58	1,720	102	118	1.51	79.8
08:59	1,720	102	118	1.51	79.6
09:00	1,721	102	118	1.51	79.4
09:01	1,724	103	118	1.51	79.2
09:02	1,723	102	118	1.51	79.0
09:03	1,721	101	118	1.51	78.6
09:04	1,719	101	117	1.51	78.1
09:05	1,716	101	117	1.51	77.7
09:06	1,717	101	117	1.51	77.3
09:07	1,717	100	116	1.51	76.9
09:08	1,715	100	116	1.51	76.5
09:09	1,714	100	116	1.51	76.1
09:10	1,712	99	116	1.51	76.6
09:11	1,711	100	116	1.51	78.5
09:12	1,713	100	117	1.52	78.3
09:13	1,715	101	117	1.52	78.1
09:14	1,715	101	116	1.52	77.9
09:15	1,716	101	116	1.52	77.7
09:16	1,717	100	117	1.51	77.6
09:17	1,715	100	116	1.52	77.3
09:18	1,714	100	116	1.51	76.7
09:19	1,714	100	116	1.51	76.2
09:20	1,714	100	116	1.51	75.7
09:21	1,713	100	115	1.51	75.3
09:22	1,712	99	115	1.51	75.4
09:23	1,711	99	115	1.51	75.5
09:24	1,710	99	115	1.52	75.6
09:25	1,711	99	115	1.52	75.8
09:26	1,712	99	115	1.52	75.9
09:27	1,712	99	115	1.51	76.0
09:28	1,711	99	115	1.51	76.1
09:29	1,710	99	116	1.55	76.6
09:30	1,712	100	116	1.54	77.0
09:31	1,714	100	115	1.52	77.4
09:32	1,712	100	116	1.51	77.7
09:33	1,711	100	116	1.51	77.9
09:34	1,711	100	116	1.52	78.0
09:35	1,713	100	116	1.52	78.1
09:36	1,713	100	116	1.52	78.2
09:37	1,712	99	115	1.52	78.3
09:38	1,711	99	115	1.52	78.4
09:39	1,711	99	115	1.52	78.5
09:40	1,709	99	114	1.52	78.6
09:41	1,709	99	114	1.51	78.8
09:42	1,708	99	114	1.52	78.9
09:43	1,707	98	114	1.53	79.0
09:44	1,706	98	114	1.52	79.1
09:45	1,706	99	114	1.51	79.2
09:46	1,706	99	114	1.51	79.3
09:47	1,706	99	115	1.51	79.2
09:48	1,708	99	115	1.52	79.1

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 5**

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/7/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
09:49	1,708	99	114	1.52	79.0
09:50	1,707	99	114	1.52	78.9
09:51	1,707	98	114	1.52	78.8
09:52	1,707	99	114	1.52	78.7
09:53	1,706	99	114	1.52	78.6
Average	1,718	102	118	1.51	81.7
Minimum	1,706	98	114	1.49	75.3
Maximum	1,757	104	120	1.55	87.1

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 5**

Unit	<b>F-10 Boiler</b>
Condition:	<b>ICR Test</b>
Run:	<b>5</b>
Date:	<b>06/07/2024</b>
Start Time:	<b>05:40</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
End Time:	<b>09:53</b>

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/7/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
05:40	2,170	12.0	0.00	0.00	3.53
05:41	2,190	12.0	0.00	0.00	3.54
05:42	2,208	12.0	0.00	0.00	3.40
05:43	2,158	12.0	0.00	0.00	3.42
05:44	2,164	12.0	0.00	0.00	3.45
05:45	2,169	12.0	0.00	0.00	3.37
05:46	2,175	12.0	0.00	0.00	3.38
05:47	2,177	12.0	0.00	0.00	3.45
05:48	2,173	12.0	0.00	0.00	3.45
05:49	2,168	12.0	0.00	0.00	3.37
05:50	2,164	12.0	0.00	0.00	3.50
05:51	2,159	12.0	0.00	0.00	3.62
05:52	2,155	12.0	0.00	0.00	3.45
05:53	2,150	12.0	0.00	0.00	3.37
05:54	2,144	12.0	0.00	0.00	3.33
05:55	2,135	12.0	0.00	0.00	3.39
05:56	2,125	12.0	0.00	0.00	3.43
05:57	2,115	12.0	0.00	0.00	3.41
05:58	2,106	12.0	0.00	0.00	3.55
05:59	2,096	12.0	0.00	0.00	3.52
06:00	2,089	12.0	0.00	0.00	3.35
06:01	2,088	12.0	0.00	0.00	3.41
06:02	2,088	12.0	0.00	0.00	3.57
06:03	2,087	12.0	0.00	0.00	3.53
06:04	2,086	12.0	0.00	0.00	3.45
06:05	2,086	12.0	0.00	0.00	3.38
06:06	2,085	12.0	0.00	0.00	3.32
06:07	2,084	12.0	0.00	0.00	3.44
06:08	2,084	12.0	0.00	0.00	3.52
06:09	2,083	12.0	0.00	0.00	3.49
06:10	2,082	12.0	0.00	0.00	3.48
06:11	2,082	12.0	0.00	0.00	3.41
06:12	2,081	12.0	0.00	0.00	3.44
06:13	2,065	12.0	0.00	0.00	3.33
06:14	2,048	12.0	0.00	0.00	3.42
06:15	2,070	12.0	0.00	0.00	3.47
06:16	2,050	12.0	0.00	0.00	3.45
06:17	2,076	12.0	0.00	0.00	3.41
06:18	2,062	12.0	0.00	0.00	3.45
06:19	2,047	12.0	0.00	0.00	3.45
06:20	2,033	12.0	0.00	0.00	3.38

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 5**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/7/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
06:21	2,019	12.0	0.00	0.00	3.30
06:22	2,009	12.0	0.00	0.00	3.37
06:23	2,006	12.0	0.00	0.00	3.35
06:24	2,004	12.0	0.00	0.00	3.47
06:25	2,002	12.0	0.00	0.00	3.44
06:26	1,999	12.0	0.00	0.00	3.44
06:27	1,997	12.0	0.00	0.00	3.48
06:28	2,016	12.0	0.00	0.00	3.39
06:29	2,064	12.0	0.00	0.00	3.38
06:30	2,064	12.0	0.00	0.00	3.43
06:31	2,064	12.0	0.00	0.00	3.44
06:32	2,065	12.0	0.00	0.00	3.32
06:33	2,065	12.0	0.00	0.00	3.32
06:34	2,065	12.0	0.00	0.00	3.32
06:35	2,065	12.0	0.00	0.00	3.32
06:36	2,065	12.0	0.00	0.00	3.32
06:37	2,066	12.0	0.00	0.00	3.32
06:38	2,066	12.0	0.00	0.00	3.32
06:39	2,066	12.0	0.00	0.00	3.32
06:40	2,082	12.0	0.00	0.00	3.32
06:41	2,099	12.0	0.00	0.00	3.32
06:42	2,059	12.0	0.00	0.00	3.32
06:43	2,055	12.0	0.00	0.00	3.38
06:44	2,051	12.0	0.00	0.00	3.51
06:45	2,047	12.0	0.78	0.01	3.47
06:46	2,043	12.0	0.23	0.02	3.48
06:47	2,039	12.0	0.08	0.02	3.46
06:48	2,035	12.0	0.00	0.02	3.28
06:49	2,031	12.0	0.00	0.02	3.38
06:50	2,028	12.0	0.00	0.02	3.46
06:51	2,023	12.0	0.00	0.02	3.47
06:52	2,016	12.0	0.00	0.02	3.49
06:53	2,009	12.0	0.00	0.02	3.49
06:54	2,003	12.0	0.00	0.02	3.50
06:55	1,996	12.0	0.00	0.02	3.54
06:56	1,989	12.0	0.00	0.02	3.50
06:57	1,998	12.0	0.00	0.02	3.58
06:58	2,010	12.0	0.00	0.02	3.59
06:59	1,970	12.0	0.00	0.02	3.46
07:00	1,969	12.0	0.00	0.02	3.36
07:01	1,968	12.0	0.00	0.02	3.44
07:02	1,966	12.0	0.00	0.02	3.31
07:03	1,965	12.0	0.00	0.02	3.48
07:04	1,964	12.0	0.00	0.02	3.42
07:05	1,963	12.0	0.00	0.02	3.47
07:06	1,962	12.0	0.00	0.02	3.37
07:07	1,960	12.0	0.00	0.02	3.36
07:08	1,958	12.0	0.00	0.02	3.34
07:09	1,957	12.0	0.00	0.02	3.40
07:10	1,955	12.0	0.00	0.02	3.45
07:11	1,953	12.0	0.00	0.02	3.38
07:12	1,952	12.0	0.00	0.02	3.32

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 5

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/7/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
07:13	1,950	12.0	0.00	0.02	3.43
07:14	1,929	12.0	0.00	0.02	3.36
07:15	1,884	12.0	0.00	0.02	3.45
07:16	1,886	12.0	0.00	0.02	3.39
07:17	1,906	12.0	0.00	0.02	3.47
07:18	1,940	12.0	0.00	0.02	3.32
07:19	1,918	12.0	0.00	0.02	3.42
07:20	1,907	12.0	0.00	0.02	3.44
07:21	1,922	12.0	0.00	0.02	3.42
07:22	1,937	12.0	0.00	0.02	3.49
07:23	1,945	12.0	0.00	0.02	3.41
07:24	1,940	12.0	0.00	0.02	3.42
07:25	1,955	12.0	0.00	0.02	3.47
07:26	1,990	12.0	0.00	0.02	3.39
07:27	1,966	12.0	0.00	0.02	3.48
07:28	1,949	12.0	0.00	0.02	3.43
07:29	1,947	12.0	0.00	0.02	3.49
07:30	1,945	12.0	0.00	0.02	3.51
07:31	1,943	12.0	0.00	0.02	3.45
07:32	1,941	12.0	0.00	0.02	3.50
07:33	1,939	12.0	0.00	0.02	3.39
07:34	1,937	12.0	0.00	0.02	3.34
07:35	1,935	12.0	0.00	0.02	3.41
07:36	1,933	12.0	0.00	0.02	3.30
07:37	1,930	12.0	0.00	0.02	3.37
07:38	1,928	12.0	0.00	0.02	3.38
07:39	1,926	12.0	0.00	0.02	3.47
07:40	1,924	12.0	0.00	0.02	3.46
07:41	1,922	12.0	0.00	0.02	3.37
07:42	1,920	12.0	0.00	0.02	3.28
07:43	1,918	12.0	0.00	0.02	3.28
07:44	1,917	12.0	0.00	0.02	3.40
07:45	1,919	12.0	0.00	0.01	3.44
07:46	1,920	12.0	0.00	0.00	3.40
07:47	1,922	12.0	0.00	0.00	3.41
07:48	1,924	12.0	0.00	0.00	3.38
07:49	1,925	12.0	0.00	0.00	3.43
07:50	1,927	12.0	0.00	0.00	3.49
07:51	1,928	12.0	0.00	0.00	3.29
07:52	1,930	12.0	0.00	0.00	3.30
07:53	1,931	12.0	0.00	0.00	3.27
07:54	1,933	12.0	0.00	0.00	3.43
07:55	1,935	12.0	0.00	0.00	3.57
07:56	1,936	12.0	0.00	0.00	3.29
07:57	1,938	12.0	0.00	0.00	3.38
07:58	1,939	12.0	0.00	0.00	3.49
07:59	1,941	12.0	0.00	0.00	3.47
08:00	1,942	12.0	0.00	0.00	3.39
08:01	1,943	12.0	0.00	0.00	3.36
08:02	1,944	12.0	0.00	0.00	3.39
08:03	1,945	12.0	0.00	0.00	3.46
08:04	1,945	12.0	0.00	0.00	3.38

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 5**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/7/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
08:05	1,946	12.0	0.00	0.00	3.45
08:06	1,947	12.0	0.00	0.00	3.46
08:07	1,948	12.0	0.00	0.00	3.49
08:08	1,949	12.0	0.00	0.00	3.47
08:09	1,950	12.0	0.00	0.00	3.49
08:10	1,951	12.0	0.00	0.00	3.43
08:11	1,952	12.0	0.00	0.00	3.42
08:12	1,953	12.0	0.00	0.00	3.41
08:13	1,954	12.0	0.00	0.00	3.43
08:14	1,955	12.0	0.00	0.00	3.48
08:15	1,956	12.0	0.00	0.00	3.49
08:16	1,956	12.0	0.00	0.00	3.37
08:17	1,957	12.0	0.00	0.00	3.40
08:18	1,957	12.0	0.00	0.00	3.55
08:19	1,957	12.0	0.00	0.00	3.61
08:20	1,958	12.0	0.00	0.00	3.52
08:21	1,958	12.0	0.00	0.00	3.37
08:22	1,959	12.0	0.00	0.00	3.28
08:23	1,959	12.0	0.00	0.00	3.36
08:24	1,959	12.0	0.00	0.00	3.34
08:25	1,960	12.0	0.00	0.00	3.40
08:26	1,960	12.0	0.00	0.00	3.45
08:27	1,960	12.0	0.00	0.00	3.45
08:28	1,961	12.0	0.00	0.00	3.50
08:29	1,961	12.0	0.00	0.00	3.55
08:30	1,961	12.0	0.00	0.00	3.46
08:31	1,962	12.0	0.00	0.00	3.42
08:32	1,970	12.0	0.00	0.00	3.35
08:33	1,996	12.0	0.00	0.00	3.42
08:34	2,016	12.0	0.00	0.00	3.43
08:35	2,019	12.0	0.00	0.00	3.38
08:36	2,022	12.0	0.00	0.00	3.42
08:37	2,026	12.0	0.00	0.00	3.51
08:38	2,029	12.0	0.00	0.00	3.53
08:39	2,032	12.0	0.00	0.00	3.44
08:40	2,035	12.0	0.00	0.00	3.36
08:41	2,038	12.0	0.00	0.00	3.44
08:42	2,041	12.0	0.00	0.00	3.50
08:43	2,058	12.0	0.00	0.00	3.46
08:44	2,082	12.0	0.00	0.00	3.31
08:45	2,056	12.0	0.00	0.00	3.40
08:46	2,071	12.0	0.00	0.00	3.40
08:47	2,086	12.0	0.00	0.00	3.41
08:48	2,100	12.0	0.00	0.00	3.40
08:49	2,111	12.0	0.00	0.00	3.46
08:50	2,113	12.0	0.00	0.00	3.35
08:51	2,114	12.0	0.00	0.00	3.35
08:52	2,116	12.0	0.00	0.00	3.39
08:53	2,117	12.0	0.00	0.00	3.25
08:54	2,118	12.0	0.00	0.00	3.31
08:55	2,120	12.0	0.00	0.00	3.28
08:56	2,121	12.0	0.00	0.00	3.41



## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 5

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/7/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
08:57	2,123	12.0	0.00	0.00	3.42
08:58	2,124	12.0	0.00	0.00	3.44
08:59	2,125	12.0	0.00	0.00	3.44
09:00	2,127	12.0	0.00	0.00	3.39
09:01	2,128	12.0	0.00	0.00	3.38
09:02	2,130	12.0	0.00	0.00	3.41
09:03	2,131	12.0	0.00	0.00	3.37
09:04	2,133	12.0	0.00	0.00	3.40
09:05	2,134	12.0	0.00	0.00	3.44
09:06	2,135	12.0	0.00	0.00	3.40
09:07	2,137	12.0	0.00	0.00	3.41
09:08	2,138	12.0	0.00	0.00	3.40
09:09	2,140	12.0	0.00	0.00	3.37
09:10	2,141	12.0	0.00	0.00	3.30
09:11	2,142	12.0	0.00	0.00	3.35
09:12	2,144	12.0	0.00	0.00	3.34
09:13	2,144	12.0	0.00	0.00	3.46
09:14	2,145	12.0	0.00	0.00	3.45
09:15	2,146	12.0	0.00	0.00	3.42
09:16	2,146	12.0	0.00	0.00	3.41
09:17	2,147	12.0	0.00	0.00	3.33
09:18	2,148	12.0	0.00	0.00	3.44
09:19	2,159	12.0	0.00	0.00	3.50
09:20	2,185	12.0	0.00	0.00	3.36
09:21	2,173	12.0	0.00	0.00	3.33
09:22	2,161	12.0	0.00	0.00	3.47
09:23	2,150	12.0	0.00	0.00	3.44
09:24	2,141	12.0	0.00	0.00	3.39
09:25	2,132	12.0	0.00	0.00	3.29
09:26	2,123	12.0	0.00	0.00	3.42
09:27	2,113	12.0	0.00	0.00	3.31
09:28	2,104	12.0	0.00	0.00	3.52
09:29	2,095	12.0	0.00	0.00	3.40
09:30	2,086	12.0	0.00	0.00	3.38
09:31	2,078	12.0	0.00	0.00	3.45
09:32	2,074	12.0	0.00	0.00	3.49
09:33	2,070	12.0	0.00	0.00	3.43
09:34	2,066	12.0	0.00	0.00	3.44
09:35	2,062	12.0	0.00	0.00	3.44
09:36	2,054	12.0	0.00	0.00	3.51
09:37	2,037	12.0	0.00	0.00	3.41
09:38	2,019	12.0	0.00	0.00	3.40
09:39	2,002	12.0	0.00	0.00	3.46
09:40	1,988	12.0	0.00	0.00	3.30
09:41	1,980	12.0	0.00	0.00	3.36
09:42	1,973	12.0	0.00	0.00	3.50
09:43	1,962	12.0	0.00	0.00	3.45
09:44	1,942	12.0	0.00	0.00	3.33
09:45	1,922	12.0	0.00	0.00	3.37
09:46	1,908	12.0	0.00	0.00	3.50
09:47	1,909	12.0	0.00	0.00	3.33
09:48	1,910	12.0	0.00	0.00	3.38

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 5**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/7/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
09:49	1,911	12.0	0.00	0.00	3.51
09:50	1,912	12.0	0.00	0.00	3.46
09:51	1,912	12.0	0.00	0.00	3.33
09:52	1,913	12.0	0.00	0.00	3.25
09:53	1,914	12.0	0.00	0.00	3.61
Average	2,026	12.0	0.00	0.01	3.42
Minimum	1,884	12.0	0.00	0.00	3.25
Maximum	2,208	12.0	0.78	0.02	3.62

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 6**

Unit	<b>F-10 Boiler</b>
Condition:	<b>ICR Test</b>
Run:	<b>6</b>
Date:	<b>06/11/2024</b>
Start Time:	<b>13:17</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
End Time:	<b>17:33</b>

<b>Parameter</b>	<b>Units</b>	<b>Waste Liquid Fuel</b>
Heating value	Btu/lb	15,100
Specific gravity	---	0.830

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/11/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
13:17	1,794	108	127	1.56	92.3
13:18	1,793	108	127	1.57	92.3
13:19	1,791	108	126	1.57	92.2
13:20	1,790	108	127	1.57	92.2
13:21	1,790	108	127	1.58	92.1
13:22	1,791	108	126	1.58	92.1
13:23	1,788	108	126	1.57	92.0
13:24	1,787	108	127	1.57	92.0
13:25	1,791	108	127	1.57	91.9
13:26	1,790	108	127	1.57	91.9
13:27	1,786	108	126	1.58	91.8
13:28	1,785	108	126	1.58	91.8
13:29	1,787	108	126	1.58	91.7
13:30	1,788	108	126	1.57	91.7
13:31	1,788	108	126	1.58	91.6
13:32	1,786	108	126	1.57	91.6
13:33	1,785	108	126	1.57	91.5
13:34	1,783	108	125	1.57	91.5
13:35	1,783	107	125	1.57	91.4
13:36	1,784	107	125	1.58	91.4
13:37	1,783	107	125	1.58	91.3
13:38	1,780	107	125	1.58	91.3
13:39	1,779	107	125	1.57	91.2
13:40	1,779	107	125	1.57	91.2
13:41	1,779	107	125	1.57	91.1
13:42	1,780	107	125	1.58	91.0
13:43	1,781	107	125	1.57	90.8
13:44	1,772	106	124	1.57	90.5
13:45	1,761	106	124	1.58	90.3
13:46	1,771	106	124	1.58	90.0
13:47	1,774	106	124	1.58	89.8
13:48	1,770	106	124	1.57	89.5
13:49	1,777	106	124	1.57	89.3
13:50	1,778	105	123	1.57	89.0
13:51	1,777	105	123	1.58	88.8
13:52	1,776	105	123	1.59	88.6
13:53	1,776	105	123	1.58	88.4
13:54	1,778	106	124	1.58	88.1
13:55	1,780	106	123	1.58	87.9
13:56	1,779	105	123	1.58	87.7
13:57	1,777	105	123	1.57	87.4

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 6

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/11/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
13:58	1,779	104	122	1.57	87.0
13:59	1,779	104	122	1.58	86.7
14:00	1,778	103	121	1.58	86.3
14:01	1,777	103	120	1.58	85.9
14:02	1,775	102	120	1.58	85.6
14:03	1,764	103	121	1.58	85.7
14:04	1,742	103	121	1.58	85.8
14:05	1,733	103	121	1.58	85.9
14:06	1,729	104	121	1.58	86.0
14:07	1,731	104	121	1.58	86.1
14:08	1,733	104	121	1.59	86.2
14:09	1,732	103	121	1.59	86.3
14:10	1,729	103	121	1.60	86.3
14:11	1,726	103	120	1.59	86.4
14:12	1,725	104	121	1.58	86.5
14:13	1,728	105	121	1.58	86.6
14:14	1,730	104	122	1.57	86.7
14:15	1,728	104	121	1.57	86.8
14:16	1,729	104	121	1.58	86.8
14:17	1,748	104	121	1.59	86.3
14:18	1,765	105	121	1.59	85.7
14:19	1,772	104	121	1.59	85.2
14:20	1,770	103	120	1.58	84.8
14:21	1,767	102	120	1.59	84.4
14:22	1,761	102	120	1.60	84.1
14:23	1,741	102	120	1.58	83.7
14:24	1,731	102	120	1.58	83.4
14:25	1,727	102	119	1.59	83.6
14:26	1,725	102	119	1.58	83.9
14:27	1,723	102	119	1.58	84.1
14:28	1,721	102	119	1.58	84.3
14:29	1,722	103	119	1.58	84.5
14:30	1,722	103	119	1.58	85.0
14:31	1,722	104	121	1.58	86.8
14:32	1,725	105	122	1.58	88.2
14:33	1,731	106	123	1.58	87.8
14:34	1,745	106	123	1.58	87.4
14:35	1,767	106	122	1.58	87.0
14:36	1,774	105	122	1.58	86.4
14:37	1,773	104	121	1.58	84.8
14:38	1,772	103	120	1.58	83.1
14:39	1,765	102	119	1.58	81.6
14:40	1,747	102	119	1.58	80.7
14:41	1,731	101	118	1.58	79.9
14:42	1,723	101	117	1.58	80.3
14:43	1,717	100	117	1.58	80.6
14:44	1,715	100	117	1.58	80.9
14:45	1,714	100	117	1.59	81.2
14:46	1,714	101	118	1.59	81.7
14:47	1,715	102	119	1.58	82.2
14:48	1,719	103	119	1.58	82.7
14:49	1,722	104	120	1.58	83.2

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 6**

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/11/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
14:50	1,725	104	120	1.58	83.4
14:51	1,726	104	120	1.58	83.7
14:52	1,727	104	121	1.58	83.9
14:53	1,737	105	121	1.58	84.1
14:54	1,757	105	122	1.58	84.3
14:55	1,761	105	122	1.58	84.3
14:56	1,747	105	121	1.59	83.0
14:57	1,736	104	120	1.59	82.0
14:58	1,730	103	121	1.59	82.2
14:59	1,727	104	121	1.58	82.3
15:00	1,726	104	121	1.59	82.5
15:01	1,726	105	121	1.60	82.7
15:02	1,728	104	121	1.59	82.8
15:03	1,727	104	121	1.58	83.0
15:04	1,727	104	121	1.58	83.1
15:05	1,727	104	121	1.58	83.3
15:06	1,728	104	121	1.58	83.5
15:07	1,730	104	121	1.58	84.0
15:08	1,731	105	122	1.58	86.1
15:09	1,735	107	124	1.58	87.9
15:10	1,740	108	125	1.58	87.5
15:11	1,743	108	125	1.58	87.2
15:12	1,745	108	124	1.58	86.9
15:13	1,744	107	125	1.58	86.6
15:14	1,742	106	124	1.58	86.3
15:15	1,742	106	124	1.58	86.0
15:16	1,751	106	124	1.58	85.9
15:17	1,765	106	124	1.59	86.7
15:18	1,755	107	124	1.59	87.6
15:19	1,750	107	125	1.58	88.4
15:20	1,764	107	125	1.58	89.1
15:21	1,776	107	125	1.58	88.9
15:22	1,779	107	125	1.58	88.8
15:23	1,781	107	125	1.58	88.7
15:24	1,784	106	125	1.58	88.6
15:25	1,783	106	125	1.59	88.5
15:26	1,784	106	125	1.58	88.3
15:27	1,785	106	125	1.58	88.2
15:28	1,786	107	125	1.59	88.1
15:29	1,785	107	125	1.59	88.0
15:30	1,785	107	125	1.58	87.9
15:31	1,786	106	125	1.58	87.7
15:32	1,783	106	124	1.58	87.6
15:33	1,777	106	124	1.59	87.5
15:34	1,760	106	125	1.60	87.4
15:35	1,747	107	125	1.58	87.3
15:36	1,746	107	125	1.58	87.2
15:37	1,751	108	125	1.58	87.1
15:38	1,769	108	125	1.58	87.0
15:39	1,779	107	125	1.58	86.9
15:40	1,782	107	125	1.58	86.8
15:41	1,784	106	125	1.58	86.7

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 6

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/11/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
15:42	1,786	106	124	1.58	86.3
15:43	1,786	106	124	1.58	85.9
15:44	1,787	106	124	1.58	85.5
15:45	1,783	105	124	1.58	85.1
15:46	1,781	105	124	1.59	84.6
15:47	1,779	105	123	1.58	83.8
15:48	1,776	104	123	1.58	83.0
15:49	1,771	105	123	1.58	82.3
15:50	1,753	104	122	1.58	81.5
15:51	1,738	103	120	1.58	80.7
15:52	1,728	102	120	1.58	80.1
15:53	1,725	103	120	1.58	80.3
15:54	1,726	103	121	1.58	80.5
15:55	1,727	104	121	1.58	80.7
15:56	1,728	104	121	1.58	81.0
15:57	1,728	104	121	1.58	81.8
15:58	1,728	104	122	1.58	82.6
15:59	1,729	105	122	1.59	83.3
16:00	1,732	105	122	1.58	83.6
16:01	1,732	106	122	1.58	84.0
16:02	1,734	106	123	1.58	84.3
16:03	1,733	106	123	1.59	84.7
16:04	1,733	106	124	1.58	85.0
16:05	1,736	106	124	1.58	85.4
16:06	1,737	107	124	1.58	85.7
16:07	1,738	108	125	1.57	86.1
16:08	1,740	108	125	1.58	86.4
16:09	1,745	108	126	1.58	86.8
16:10	1,756	108	126	1.58	87.0
16:11	1,770	107	125	1.58	86.8
16:12	1,758	107	125	1.58	86.6
16:13	1,747	107	125	1.58	86.4
16:14	1,742	107	125	1.58	86.2
16:15	1,741	106	125	1.58	86.0
16:16	1,741	106	124	1.58	85.8
16:17	1,740	106	124	1.58	85.7
16:18	1,739	106	124	1.58	85.5
16:19	1,738	106	124	1.58	85.4
16:20	1,736	106	123	1.58	85.3
16:21	1,734	105	123	1.58	85.2
16:22	1,733	105	123	1.57	85.1
16:23	1,734	105	123	1.58	85.0
16:24	1,734	106	123	1.58	84.9
16:25	1,732	105	123	1.58	84.8
16:26	1,732	106	123	1.57	84.6
16:27	1,735	106	123	1.57	84.5
16:28	1,734	106	123	1.58	84.6
16:29	1,735	106	123	1.58	84.6
16:30	1,734	106	123	1.58	84.6
16:31	1,734	106	123	1.58	84.6
16:32	1,735	106	123	1.59	84.6
16:33	1,737	106	123	1.58	84.6

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 6

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/11/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
16:34	1,736	106	123	1.57	84.7
16:35	1,737	106	124	1.57	84.7
16:36	1,746	106	124	1.58	84.7
16:37	1,750	107	124	1.57	84.7
16:38	1,742	107	124	1.57	84.7
16:39	1,738	106	124	1.58	84.7
16:40	1,737	106	124	1.58	84.8
16:41	1,738	107	124	1.57	84.8
16:42	1,739	107	124	1.57	84.8
16:43	1,739	107	125	1.57	84.8
16:44	1,740	107	125	1.57	84.8
16:45	1,741	107	125	1.57	84.8
16:46	1,739	107	125	1.57	84.9
16:47	1,739	107	124	1.58	84.9
16:48	1,740	107	124	1.58	84.9
16:49	1,740	107	125	1.57	84.9
16:50	1,740	107	125	1.57	84.9
16:51	1,739	107	124	1.57	84.9
16:52	1,739	107	124	1.58	84.9
16:53	1,750	107	124	1.57	85.0
16:54	1,749	107	124	1.57	85.0
16:55	1,740	107	124	1.57	85.0
16:56	1,737	106	123	1.57	85.0
16:57	1,735	105	123	1.58	85.0
16:58	1,733	106	123	1.58	85.4
16:59	1,736	106	124	1.57	87.1
17:00	1,739	107	125	1.57	87.0
17:01	1,741	108	125	1.58	86.8
17:02	1,741	108	125	1.57	86.7
17:03	1,740	107	125	1.57	86.5
17:04	1,741	107	124	1.58	86.3
17:05	1,741	107	125	1.58	86.2
17:06	1,740	107	125	1.57	86.0
17:07	1,741	108	125	1.57	85.9
17:08	1,743	108	125	1.57	85.7
17:09	1,742	107	125	1.58	85.4
17:10	1,741	107	125	1.58	84.4
17:11	1,739	107	124	1.57	83.4
17:12	1,739	107	124	1.57	82.2
17:13	1,739	106	123	1.58	79.7
17:14	1,734	104	121	1.58	79.7
17:15	1,728	103	120	1.57	82.2
17:16	1,726	104	121	1.54	82.6
17:17	1,727	105	122	1.56	82.9
17:18	1,730	106	123	1.56	83.3
17:19	1,732	107	124	1.56	83.6
17:20	1,736	107	125	1.57	84.0
17:21	1,739	108	125	1.57	84.3
17:22	1,739	107	124	1.57	84.7
17:23	1,739	107	124	1.57	85.0
17:24	1,739	107	125	1.57	85.1
17:25	1,738	107	125	1.57	85.2

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 6**

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/11/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
17:26	1,738	107	125	1.57	85.2
17:27	1,739	107	125	1.57	85.3
17:28	1,740	107	125	1.57	85.4
17:29	1,744	107	125	1.57	85.4
17:30	1,742	107	125	1.58	85.5
17:31	1,740	107	125	1.57	85.6
17:32	1,739	107	124	1.57	85.7
17:33	1,737	107	124	1.57	85.7
Average	1,750	106	123	1.58	85.9
Minimum	1,714	100	117	1.54	79.7
Maximum	1,794	108	127	1.60	92.3



**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 6**

Unit	<b>F-10 Boiler</b>
Condition:	<b>ICR Test</b>
Run:	<b>6</b>
Date:	<b>06/11/2024</b>
Start Time:	<b>13:17</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
End Time:	<b>17:33</b>

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/11/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
13:17	1,978	12.0	0.00	0.00	3.23
13:18	1,976	12.0	0.00	0.00	3.21
13:19	1,973	12.0	0.00	0.00	3.19
13:20	1,971	12.0	0.00	0.00	3.19
13:21	1,969	12.0	0.00	0.00	3.17
13:22	1,967	12.0	0.00	0.00	3.29
13:23	1,964	12.0	0.00	0.00	3.24
13:24	1,962	12.0	0.00	0.00	3.15
13:25	1,962	12.0	0.00	0.00	3.25
13:26	1,961	12.0	0.00	0.00	3.30
13:27	1,961	12.0	0.00	0.00	3.21
13:28	1,960	12.0	0.00	0.00	3.13
13:29	1,958	12.0	0.00	0.00	3.27
13:30	1,951	12.0	0.00	0.00	3.29
13:31	1,944	12.0	0.00	0.00	3.26
13:32	1,937	12.0	0.00	0.00	3.24
13:33	1,931	12.0	0.00	0.00	3.27
13:34	1,931	12.0	0.00	0.00	3.35
13:35	1,930	12.0	0.00	0.00	3.41
13:36	1,929	12.0	0.00	0.00	3.22
13:37	1,929	12.0	0.00	0.00	3.25
13:38	1,928	12.0	0.00	0.00	3.21
13:39	1,928	12.0	0.00	0.00	3.26
13:40	1,927	12.0	0.00	0.00	3.21
13:41	1,927	12.0	0.00	0.00	3.19
13:42	1,926	12.0	0.00	0.00	3.17
13:43	1,926	12.0	0.00	0.00	3.35
13:44	1,925	12.0	0.00	0.00	3.28
13:45	1,924	12.0	0.00	0.00	3.23
13:46	1,934	12.0	0.00	0.00	3.11
13:47	1,977	12.0	0.00	0.00	3.18
13:48	1,974	12.0	0.00	0.00	3.20
13:49	1,970	12.0	0.00	0.00	3.12
13:50	1,967	12.0	0.00	0.00	3.17
13:51	1,963	12.0	0.00	0.00	3.36
13:52	1,960	12.0	0.00	0.00	3.19
13:53	1,957	12.0	0.00	0.00	3.20
13:54	1,953	12.0	0.00	0.00	3.29
13:55	1,950	12.0	0.00	0.00	3.18
13:56	1,949	12.0	0.00	0.00	3.27
13:57	1,948	12.0	0.00	0.00	3.22

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 6**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/11/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
13:58	1,946	12.0	0.00	0.00	3.16
13:59	1,945	12.0	0.00	0.00	3.37
14:00	1,944	12.0	0.00	0.00	3.28
14:01	1,942	12.0	0.00	0.00	3.06
14:02	1,941	12.0	0.00	0.00	3.08
14:03	1,939	12.0	0.00	0.00	3.33
14:04	1,938	12.0	0.00	0.00	3.18
14:05	1,930	12.0	0.00	0.00	3.44
14:06	1,894	12.0	0.00	0.00	3.18
14:07	1,869	12.0	0.00	0.00	3.23
14:08	1,895	12.0	0.00	0.00	3.31
14:09	1,916	12.0	0.00	0.00	3.42
14:10	1,914	12.0	0.00	0.00	3.45
14:11	1,913	12.0	0.00	0.00	3.49
14:12	1,911	12.0	0.00	0.00	3.33
14:13	1,922	12.0	0.00	0.00	3.25
14:14	1,968	12.0	0.00	0.00	3.38
14:15	1,943	12.0	0.00	0.00	3.51
14:16	1,919	12.0	0.00	0.00	3.42
14:17	1,908	12.0	0.00	0.00	3.46
14:18	1,948	12.0	0.00	0.00	3.37
14:19	1,945	12.0	0.00	0.00	3.42
14:20	1,942	12.0	0.00	0.00	3.35
14:21	1,939	12.0	0.00	0.00	3.37
14:22	1,937	12.0	0.00	0.00	3.37
14:23	1,934	12.0	0.00	0.00	3.29
14:24	1,950	12.0	0.00	0.00	3.31
14:25	2,023	12.0	0.00	0.00	3.31
14:26	1,987	12.0	0.00	0.00	3.46
14:27	1,989	12.0	0.00	0.00	3.50
14:28	1,991	12.0	0.00	0.00	3.64
14:29	1,992	12.0	0.00	0.00	3.54
14:30	1,994	12.0	0.00	0.00	3.46
14:31	1,995	12.0	0.00	0.00	3.40
14:32	1,997	12.0	0.00	0.00	3.38
14:33	1,999	12.0	0.00	0.00	3.32
14:34	2,000	12.0	0.00	0.00	3.46
14:35	2,002	12.0	0.00	0.00	3.33
14:36	2,004	12.0	0.00	0.00	3.14
14:37	2,005	12.0	0.00	0.00	3.21
14:38	2,007	12.0	0.00	0.00	3.24
14:39	2,008	12.0	0.00	0.00	3.37
14:40	2,010	12.0	0.00	0.00	3.36
14:41	2,012	12.0	0.00	0.00	3.37
14:42	2,013	12.0	0.00	0.00	3.38
14:43	2,015	12.0	0.00	0.00	3.39
14:44	2,017	12.0	0.00	0.00	3.48
14:45	2,022	12.0	0.00	0.00	3.55
14:46	2,026	12.0	0.00	0.00	3.46
14:47	2,031	12.0	0.00	0.00	3.31
14:48	2,036	12.0	0.00	0.00	3.39
14:49	2,040	12.0	0.00	0.00	3.41

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 6

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/11/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
14:50	2,039	12.0	0.00	0.00	3.37
14:51	2,039	12.0	0.00	0.00	3.35
14:52	2,038	12.0	0.00	0.00	3.27
14:53	2,038	12.0	0.00	0.00	3.31
14:54	2,038	12.0	0.00	0.00	3.35
14:55	2,037	12.0	0.00	0.00	3.27
14:56	2,047	12.0	0.00	0.00	3.25
14:57	2,092	12.0	0.00	0.00	3.31
14:58	2,097	12.0	0.00	0.00	3.45
14:59	2,103	12.0	0.00	0.00	3.39
15:00	2,108	12.0	0.00	0.00	3.38
15:01	2,114	12.0	0.00	0.00	3.47
15:02	2,119	12.0	0.00	0.00	3.57
15:03	2,125	12.0	0.00	0.00	3.48
15:04	2,129	12.0	0.00	0.00	3.43
15:05	2,130	12.0	0.00	0.00	3.25
15:06	2,131	12.0	0.00	0.00	3.26
15:07	2,132	12.0	0.00	0.00	3.37
15:08	2,133	12.0	0.00	0.00	3.29
15:09	2,134	12.0	0.00	0.00	3.28
15:10	2,135	12.0	0.00	0.00	3.43
15:11	2,136	12.0	0.00	0.00	3.48
15:12	2,137	12.0	0.00	0.00	3.38
15:13	2,138	12.0	0.00	0.00	3.29
15:14	2,139	12.0	0.00	0.00	3.29
15:15	2,140	12.0	0.00	0.00	3.43
15:16	2,141	12.0	0.00	0.00	3.61
15:17	2,142	12.0	0.00	0.00	3.25
15:18	2,143	12.0	0.00	0.00	3.28
15:19	2,144	12.0	0.00	0.00	3.31
15:20	2,133	12.0	0.00	0.00	3.17
15:21	2,079	12.0	0.00	0.00	3.09
15:22	2,079	12.0	0.00	0.00	3.17
15:23	2,079	12.0	0.00	0.00	3.24
15:24	2,079	12.0	0.00	0.00	3.21
15:25	2,074	12.0	0.00	0.00	3.19
15:26	2,044	12.0	0.00	0.00	3.27
15:27	2,029	12.0	0.00	0.00	3.23
15:28	2,071	12.0	0.00	0.00	3.16
15:29	2,072	12.0	0.00	0.00	3.17
15:30	2,062	12.0	0.00	0.00	3.20
15:31	2,012	12.0	0.00	0.00	3.19
15:32	2,023	12.0	0.00	0.00	3.10
15:33	2,034	12.0	0.00	0.00	3.14
15:34	2,045	12.0	0.00	0.00	3.22
15:35	2,056	12.0	0.00	0.00	3.27
15:36	2,067	12.0	0.00	0.00	3.29
15:37	2,078	12.0	0.00	0.00	3.37
15:38	2,088	12.0	0.00	0.00	3.27
15:39	2,098	12.0	0.00	0.00	3.33
15:40	2,102	12.0	0.00	0.00	3.18
15:41	2,105	12.0	0.00	0.00	2.99

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 6

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/11/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
15:42	2,108	12.0	0.00	0.00	3.30
15:43	2,112	12.0	0.00	0.00	3.23
15:44	2,115	12.0	0.00	0.00	3.28
15:45	2,125	12.0	0.00	0.00	3.11
15:46	2,152	12.0	0.00	0.00	3.24
15:47	2,124	12.0	0.00	0.00	3.25
15:48	2,164	12.0	0.00	0.00	3.20
15:49	2,166	12.0	0.00	0.00	3.35
15:50	2,168	12.0	0.00	0.00	3.47
15:51	2,171	12.0	0.00	0.00	3.40
15:52	2,182	12.0	0.00	0.00	3.30
15:53	2,224	12.0	0.00	0.00	3.36
15:54	2,206	12.0	0.00	0.00	3.33
15:55	2,187	12.0	0.00	0.00	3.52
15:56	2,169	12.0	0.00	0.00	3.38
15:57	2,153	12.0	0.00	0.00	3.40
15:58	2,152	12.0	0.00	0.00	3.39
15:59	2,150	12.0	0.00	0.00	3.48
16:00	2,148	12.0	0.00	0.00	3.41
16:01	2,147	12.0	0.00	0.00	3.36
16:02	2,145	12.0	0.00	0.00	3.37
16:03	2,144	12.0	0.00	0.00	3.35
16:04	2,142	12.0	0.00	0.00	3.34
16:05	2,141	12.0	0.00	0.00	3.21
16:06	2,139	12.0	0.00	0.00	3.26
16:07	2,137	12.0	0.00	0.00	3.51
16:08	2,136	12.0	0.00	0.00	3.38
16:09	2,134	12.0	0.00	0.00	3.50
16:10	2,133	12.0	0.00	0.00	3.46
16:11	2,131	12.0	0.00	0.00	3.29
16:12	2,130	12.0	0.00	0.00	3.38
16:13	2,128	12.0	0.00	0.00	3.42
16:14	2,126	12.0	0.00	0.00	3.36
16:15	2,125	12.0	0.00	0.00	3.29
16:16	2,124	12.0	0.00	0.00	3.36
16:17	2,125	12.0	0.00	0.00	3.37
16:18	2,126	12.0	0.00	0.00	3.27
16:19	2,126	12.0	0.00	0.00	3.40
16:20	2,128	12.0	0.00	0.00	3.35
16:21	2,132	12.0	0.00	0.00	3.40
16:22	2,135	12.0	0.00	0.00	3.50
16:23	2,139	12.0	0.00	0.00	3.42
16:24	2,143	12.0	0.00	0.00	3.53
16:25	2,146	12.0	0.00	0.00	3.41
16:26	2,147	12.0	0.00	0.00	3.35
16:27	2,148	12.0	0.00	0.00	3.38
16:28	2,149	12.0	0.00	0.00	3.40
16:29	2,160	12.0	0.00	0.00	3.41
16:30	2,209	12.0	0.00	0.00	3.48
16:31	2,210	12.0	0.00	0.00	3.47
16:32	2,211	12.0	0.00	0.00	3.36
16:33	2,212	12.0	0.00	0.00	3.44

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 6**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/11/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
16:34	2,213	12.0	0.00	0.00	3.33
16:35	2,215	12.0	0.00	0.00	3.38
16:36	2,216	12.0	0.00	0.00	3.27
16:37	2,217	12.0	0.00	0.00	3.28
16:38	2,218	12.0	0.00	0.00	3.41
16:39	2,219	12.0	0.00	0.00	3.40
16:40	2,220	12.0	0.00	0.00	3.24
16:41	2,221	12.0	0.00	0.00	3.29
16:42	2,222	12.0	0.00	0.00	3.53
16:43	2,223	12.0	0.00	0.00	3.47
16:44	2,224	12.0	0.00	0.00	3.30
16:45	2,225	12.0	0.00	0.00	3.30
16:46	2,226	12.0	0.00	0.00	3.37
16:47	2,227	12.0	0.00	0.00	3.37
16:48	2,229	12.0	0.00	0.00	3.43
16:49	2,220	12.0	0.00	0.00	3.46
16:50	2,175	12.0	0.00	0.00	3.49
16:51	2,207	12.0	0.00	0.00	3.45
16:52	2,171	12.0	0.00	0.00	3.37
16:53	2,172	12.0	0.00	0.00	3.39
16:54	2,174	12.0	0.00	0.00	3.48
16:55	2,182	12.0	0.00	0.00	3.54
16:56	2,220	12.0	0.00	0.00	3.41
16:57	2,211	12.0	0.00	0.00	3.35
16:58	2,203	12.0	0.00	0.00	3.33
16:59	2,205	12.0	0.00	0.00	3.53
17:00	2,208	12.0	0.00	0.00	3.39
17:01	2,210	12.0	0.00	0.00	3.48
17:02	2,213	12.0	0.00	0.00	3.51
17:03	2,215	12.0	0.00	0.00	3.40
17:04	2,217	12.0	0.00	0.00	3.38
17:05	2,220	12.0	0.00	0.00	3.30
17:06	2,222	12.0	0.00	0.00	3.36
17:07	2,225	12.0	0.00	0.00	3.37
17:08	2,227	12.0	0.00	0.00	3.20
17:09	2,230	12.0	0.00	0.00	3.19
17:10	2,232	12.0	0.00	0.00	3.36
17:11	2,234	12.0	0.00	0.00	3.27
17:12	2,237	12.0	0.00	0.00	3.21
17:13	2,238	12.0	0.00	0.00	3.26
17:14	2,230	12.0	0.00	0.00	3.40
17:15	2,223	12.0	0.00	0.00	3.41
17:16	2,215	12.0	0.00	0.00	3.29
17:17	2,208	12.0	0.00	0.00	3.33
17:18	2,201	12.0	0.00	0.00	3.43
17:19	2,201	12.0	0.00	0.00	3.42
17:20	2,201	12.0	0.00	0.00	3.53
17:21	2,202	12.0	0.00	0.00	3.41
17:22	2,202	12.0	0.00	0.00	3.20
17:23	2,202	12.0	0.00	0.00	3.40
17:24	2,202	12.0	0.00	0.00	3.34
17:25	2,202	12.0	0.00	0.00	3.37

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 6**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/11/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
17:26	2,202	12.0	0.00	0.00	3.37
17:27	2,202	12.0	0.00	0.00	3.43
17:28	2,202	12.0	0.00	0.00	3.34
17:29	2,202	12.0	0.00	0.00	3.18
17:30	2,202	12.0	0.00	0.00	3.40
17:31	2,202	12.0	0.00	0.00	3.40
17:32	2,202	12.0	0.00	0.00	3.37
17:33	2,202	12.0	0.00	0.00	3.23
Average	2,084	12.0	0.00	0.00	3.33
Minimum	1,869	12.0	0.00	0.00	2.99
Maximum	2,238	12.0	0.00	0.00	3.64

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 7**

Unit	<b>F-10 Boiler</b>
Condition:	<b>ICR Test</b>
Run:	<b>7</b>
Date:	<b>06/12/2024</b>
Start Time:	<b>07:30</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
End Time:	<b>11:39</b>

<b>Parameter</b>	<b>Units</b>	<b>Waste Liquid Fuel</b>
Heating value	Btu/lb	14,800
Specific gravity	---	0.829

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/12/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
07:30	1,726	105	121	1.56	87.1
07:31	1,728	106	122	1.57	87.8
07:32	1,732	106	122	1.58	88.1
07:33	1,732	106	122	1.57	88.5
07:34	1,733	106	123	1.56	88.8
07:35	1,736	107	123	1.57	89.1
07:36	1,737	107	124	1.57	89.4
07:37	1,737	107	124	1.57	89.8
07:38	1,736	107	124	1.56	90.5
07:39	1,738	108	124	1.56	91.2
07:40	1,760	108	125	1.56	92.0
07:41	1,778	108	125	1.56	92.7
07:42	1,782	109	126	1.56	93.5
07:43	1,786	109	127	1.57	94.2
07:44	1,789	109	128	1.56	95.0
07:45	1,792	109	128	1.57	95.7
07:46	1,794	110	129	1.57	96.5
07:47	1,795	111	129	1.57	97.2
07:48	1,795	111	130	1.57	96.4
07:49	1,798	111	130	1.56	95.5
07:50	1,801	111	131	1.57	94.6
07:51	1,800	111	130	1.57	94.4
07:52	1,799	110	129	1.57	94.2
07:53	1,797	109	129	1.57	93.9
07:54	1,790	109	128	1.57	93.7
07:55	1,786	109	129	1.56	93.5
07:56	1,784	109	129	1.56	93.2
07:57	1,766	109	128	1.57	93.0
07:58	1,755	109	127	1.57	92.8
07:59	1,753	108	127	1.57	92.5
08:00	1,775	108	127	1.56	92.3
08:01	1,786	109	127	1.56	92.1
08:02	1,790	109	127	1.57	91.8
08:03	1,790	108	127	1.57	91.6
08:04	1,790	108	126	1.57	91.4
08:05	1,790	108	126	1.57	91.1
08:06	1,788	107	126	1.57	90.9
08:07	1,784	107	126	1.57	90.7
08:08	1,782	106	125	1.57	90.4
08:09	1,782	107	125	1.57	90.2
08:10	1,782	107	125	1.57	90.0

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 7

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/12/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
08:11	1,784	107	125	1.57	89.7
08:12	1,783	107	125	1.57	89.5
08:13	1,759	107	125	1.57	89.3
08:14	1,746	107	125	1.57	89.0
08:15	1,751	106	125	1.57	90.1
08:16	1,772	107	125	1.57	91.2
08:17	1,782	107	126	1.57	90.8
08:18	1,786	107	126	1.57	90.4
08:19	1,787	107	125	1.57	89.9
08:20	1,779	107	125	1.57	89.5
08:21	1,762	107	126	1.57	89.0
08:22	1,773	106	125	1.57	91.1
08:23	1,783	107	125	1.57	90.3
08:24	1,787	107	126	1.57	89.4
08:25	1,784	107	125	1.57	88.5
08:26	1,784	107	125	1.57	88.6
08:27	1,770	107	125	1.57	88.6
08:28	1,753	107	126	1.57	88.7
08:29	1,757	106	125	1.57	88.7
08:30	1,773	106	125	1.57	88.8
08:31	1,783	107	125	1.57	88.8
08:32	1,787	107	126	1.57	88.9
08:33	1,785	107	125	1.57	88.9
08:34	1,772	106	125	1.57	89.0
08:35	1,752	106	125	1.57	89.0
08:36	1,741	106	124	1.57	89.1
08:37	1,739	106	125	1.57	89.1
08:38	1,740	107	126	1.57	89.2
08:39	1,744	108	126	1.57	89.2
08:40	1,745	108	126	1.57	89.3
08:41	1,752	108	126	1.56	89.3
08:42	1,771	107	126	1.57	89.4
08:43	1,779	107	126	1.57	89.4
08:44	1,784	107	126	1.57	89.5
08:45	1,786	107	126	1.57	89.5
08:46	1,787	107	126	1.57	89.6
08:47	1,789	107	126	1.57	89.6
08:48	1,789	106	125	1.57	89.7
08:49	1,783	106	125	1.57	89.7
08:50	1,763	106	125	1.57	89.8
08:51	1,749	106	125	1.57	89.8
08:52	1,741	106	124	1.57	89.9
08:53	1,739	106	124	1.57	89.9
08:54	1,749	106	124	1.57	90.0
08:55	1,770	106	125	1.57	90.0
08:56	1,767	107	125	1.57	90.1
08:57	1,776	106	125	1.57	90.1
08:58	1,782	106	125	1.57	90.2
08:59	1,781	106	125	1.57	90.3
09:00	1,781	106	125	1.57	90.4
09:01	1,778	106	125	1.57	90.5
09:02	1,767	107	125	1.57	90.5



## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 7

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/12/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
09:03	1,770	107	125	1.57	90.6
09:04	1,757	107	126	1.57	90.7
09:05	1,751	107	126	1.57	90.8
09:06	1,767	107	125	1.57	90.8
09:07	1,779	107	126	1.58	90.9
09:08	1,786	108	126	1.58	91.0
09:09	1,788	108	126	1.57	91.1
09:10	1,789	107	126	1.57	91.1
09:11	1,788	107	126	1.57	91.2
09:12	1,789	107	126	1.57	91.3
09:13	1,788	107	126	1.57	91.4
09:14	1,785	108	127	1.57	91.4
09:15	1,787	108	127	1.57	91.5
09:16	1,787	108	127	1.57	91.6
09:17	1,787	108	127	1.57	91.6
09:18	1,791	108	128	1.57	91.6
09:19	1,791	108	127	1.57	91.6
09:20	1,789	108	126	1.57	91.5
09:21	1,791	107	126	1.57	91.5
09:22	1,789	107	126	1.57	91.5
09:23	1,788	107	126	1.57	91.5
09:24	1,786	107	127	1.57	91.5
09:25	1,789	107	127	1.57	91.5
09:26	1,789	107	126	1.57	91.5
09:27	1,790	107	126	1.57	91.4
09:28	1,786	107	126	1.57	91.4
09:29	1,787	107	126	1.57	91.4
09:30	1,789	107	127	1.57	91.4
09:31	1,789	107	127	1.57	91.4
09:32	1,786	107	126	1.57	91.4
09:33	1,786	107	126	1.57	91.4
09:34	1,791	107	127	1.57	91.3
09:35	1,790	108	127	1.57	91.3
09:36	1,789	107	127	1.57	91.3
09:37	1,783	107	127	1.57	91.3
09:38	1,762	108	127	1.58	91.3
09:39	1,753	108	126	1.58	91.3
09:40	1,768	107	127	1.57	91.3
09:41	1,781	108	127	1.57	91.2
09:42	1,788	108	127	1.58	91.2
09:43	1,789	108	127	1.59	91.2
09:44	1,789	107	126	1.58	91.2
09:45	1,788	107	126	1.57	91.2
09:46	1,790	107	127	1.57	91.2
09:47	1,791	107	127	1.57	91.1
09:48	1,793	108	127	1.57	91.1
09:49	1,790	107	126	1.58	91.1
09:50	1,789	107	126	1.57	91.1
09:51	1,788	107	126	1.57	91.1
09:52	1,789	107	127	1.57	91.1
09:53	1,787	108	127	1.57	91.1
09:54	1,787	107	127	1.58	91.0

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 7

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/12/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
09:55	1,787	107	126	1.58	91.0
09:56	1,788	107	126	1.58	91.0
09:57	1,792	107	126	1.57	91.0
09:58	1,791	107	126	1.57	91.0
09:59	1,788	107	126	1.57	91.0
10:00	1,788	107	126	1.57	91.0
10:01	1,788	107	126	1.57	90.9
10:02	1,793	108	127	1.58	90.9
10:03	1,791	108	127	1.58	90.9
10:04	1,792	107	127	1.57	90.9
10:05	1,787	107	127	1.57	90.9
10:06	1,767	108	127	1.58	90.7
10:07	1,755	107	126	1.58	90.6
10:08	1,758	107	126	1.58	90.4
10:09	1,774	107	126	1.58	90.2
10:10	1,784	108	127	1.57	90.1
10:11	1,791	108	128	1.57	89.9
10:12	1,791	108	127	1.57	89.8
10:13	1,789	107	126	1.58	89.6
10:14	1,788	107	126	1.58	89.4
10:15	1,789	107	126	1.58	89.5
10:16	1,788	107	126	1.57	89.7
10:17	1,786	107	126	1.58	89.8
10:18	1,780	107	126	1.58	89.9
10:19	1,761	107	126	1.58	90.0
10:20	1,751	107	126	1.58	90.1
10:21	1,753	107	126	1.58	90.2
10:22	1,772	107	126	1.58	90.4
10:23	1,783	108	127	1.58	90.2
10:24	1,789	108	127	1.58	90.0
10:25	1,791	107	127	1.57	89.0
10:26	1,791	106	126	1.57	87.9
10:27	1,790	106	126	1.58	89.4
10:28	1,788	107	127	1.58	91.0
10:29	1,788	107	127	1.57	92.5
10:30	1,788	108	128	1.57	92.7
10:31	1,790	108	128	1.57	92.8
10:32	1,789	108	128	1.58	92.8
10:33	1,790	108	128	1.58	92.9
10:34	1,792	108	128	1.58	93.0
10:35	1,796	108	128	1.58	93.1
10:36	1,796	108	128	1.57	93.2
10:37	1,791	108	128	1.57	93.3
10:38	1,790	108	128	1.57	93.4
10:39	1,792	108	128	1.57	93.5
10:40	1,792	108	128	1.58	93.6
10:41	1,791	108	128	1.58	93.6
10:42	1,792	108	128	1.58	93.7
10:43	1,792	108	128	1.58	93.8
10:44	1,792	108	128	1.58	93.9
10:45	1,792	108	127	1.58	94.0
10:46	1,792	108	128	1.58	94.1

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 7

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/12/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
10:47	1,793	109	128	1.58	94.2
10:48	1,791	109	128	1.58	94.3
10:49	1,789	108	128	1.58	94.4
10:50	1,788	108	127	1.58	94.5
10:51	1,791	108	127	1.58	94.5
10:52	1,793	108	128	1.58	94.6
10:53	1,792	108	128	1.58	94.7
10:54	1,793	108	128	1.58	94.8
10:55	1,793	108	128	1.58	94.9
10:56	1,792	108	128	1.58	93.7
10:57	1,790	108	128	1.58	92.4
10:58	1,788	108	127	1.58	92.2
10:59	1,789	108	127	1.58	92.0
11:00	1,792	108	128	1.58	91.8
11:01	1,790	108	128	1.58	91.7
11:02	1,790	108	128	1.58	91.5
11:03	1,790	108	127	1.58	91.3
11:04	1,791	108	127	1.58	91.2
11:05	1,793	108	128	1.58	91.0
11:06	1,791	107	127	1.58	90.8
11:07	1,789	107	127	1.58	90.7
11:08	1,792	107	127	1.58	90.5
11:09	1,790	107	126	1.58	90.3
11:10	1,787	107	126	1.58	90.1
11:11	1,787	107	126	1.58	90.0
11:12	1,785	107	126	1.58	89.8
11:13	1,785	107	126	1.60	89.6
11:14	1,786	107	126	1.59	89.4
11:15	1,786	106	125	1.58	87.0
11:16	1,787	105	125	1.58	86.9
11:17	1,783	104	125	1.58	87.0
11:18	1,782	105	125	1.58	87.0
11:19	1,782	106	125	1.58	87.1
11:20	1,785	106	125	1.58	87.1
11:21	1,785	107	125	1.58	87.2
11:22	1,784	106	125	1.58	87.3
11:23	1,786	106	125	1.58	87.3
11:24	1,790	106	125	1.58	87.4
11:25	1,787	106	125	1.58	87.9
11:26	1,784	105	124	1.58	88.5
11:27	1,781	106	124	1.58	89.1
11:28	1,782	106	125	1.59	88.9
11:29	1,784	106	125	1.59	88.8
11:30	1,786	106	125	1.58	88.6
11:31	1,784	105	124	1.58	88.4
11:32	1,781	106	125	1.58	88.3
11:33	1,782	105	125	1.58	88.1
11:34	1,786	106	125	1.58	87.9
11:35	1,783	106	125	1.58	87.8
11:36	1,784	105	125	1.58	87.6
11:37	1,787	105	125	1.58	87.4
11:38	1,787	105	125	1.58	87.4

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 7**

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/12/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
11:39	1,785	105	125	1.58	87.4

Average	1,780	107	126	1.57	90.8
Minimum	1,726	104	121	1.56	86.9
Maximum	1,801	111	131	1.60	97.2

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 7**

Unit	<b>F-10 Boiler</b>
Condition:	<b>ICR Test</b>
Run:	<b>7</b>
Date:	<b>06/12/2024</b>
Start Time:	<b>07:30</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
End Time:	<b>11:39</b>

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/12/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
07:30	2,096	12.0	0.00	0.01	3.29
07:31	2,096	12.0	0.00	0.01	3.23
07:32	2,096	12.0	0.00	0.01	3.46
07:33	2,096	12.0	0.00	0.01	3.40
07:34	2,096	12.0	0.00	0.01	3.37
07:35	2,096	12.0	0.00	0.01	3.40
07:36	2,096	12.0	0.00	0.01	3.46
07:37	2,096	12.0	0.00	0.01	3.28
07:38	2,096	12.0	0.00	0.01	3.40
07:39	2,096	12.0	0.00	0.01	3.46
07:40	2,095	12.0	0.00	0.01	3.35
07:41	2,070	12.0	0.00	0.01	3.47
07:42	2,044	12.0	0.00	0.01	3.25
07:43	2,046	12.0	0.00	0.01	3.14
07:44	2,048	12.0	0.00	0.01	3.04
07:45	2,051	12.0	0.00	0.00	3.23
07:46	2,053	12.0	0.00	0.00	3.21
07:47	2,055	12.0	0.00	0.00	3.07
07:48	2,055	12.0	0.00	0.00	3.36
07:49	2,056	12.0	0.00	0.00	3.07
07:50	2,057	12.0	0.00	0.00	3.30
07:51	2,057	12.0	0.00	0.00	3.40
07:52	2,058	12.0	0.00	0.00	3.11
07:53	2,059	12.0	0.00	0.00	3.20
07:54	2,059	12.0	0.00	0.00	3.32
07:55	2,060	12.0	0.00	0.00	3.29
07:56	2,060	12.0	0.00	0.00	3.21
07:57	2,061	12.0	0.00	0.00	3.48
07:58	2,062	12.0	0.00	0.00	3.26
07:59	2,062	12.0	0.00	0.00	3.41
08:00	2,063	12.0	0.00	0.00	3.09
08:01	2,064	12.0	0.00	0.00	3.13
08:02	2,064	12.0	0.00	0.00	3.28
08:03	2,065	12.0	0.00	0.00	3.22
08:04	2,066	12.0	0.00	0.00	3.12
08:05	2,066	12.0	0.00	0.00	3.36
08:06	2,067	12.0	0.00	0.00	3.28
08:07	2,068	12.0	0.00	0.00	3.21
08:08	2,068	12.0	0.00	0.00	3.19
08:09	2,069	12.0	0.00	0.00	3.28
08:10	2,069	12.0	0.00	0.00	3.29

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 7**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/12/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
08:11	2,070	12.0	0.00	0.00	3.24
08:12	2,071	12.0	0.00	0.00	3.10
08:13	2,071	12.0	0.00	0.00	3.21
08:14	2,072	12.0	0.00	0.00	3.49
08:15	2,073	12.0	0.00	0.00	3.40
08:16	2,073	12.0	0.00	0.00	3.28
08:17	2,074	12.0	0.00	0.00	3.09
08:18	2,075	12.0	0.00	0.00	3.21
08:19	2,088	12.0	0.00	0.00	3.36
08:20	2,101	12.0	0.00	0.00	3.34
08:21	2,114	12.0	0.00	0.00	3.46
08:22	2,128	12.0	0.00	0.00	3.66
08:23	2,131	12.0	0.00	0.00	3.21
08:24	2,135	12.0	0.00	0.00	3.21
08:25	2,138	12.0	0.00	0.00	3.11
08:26	2,142	12.0	0.00	0.00	3.21
08:27	2,146	12.0	0.00	0.00	3.25
08:28	2,149	12.0	0.00	0.00	3.46
08:29	2,151	12.0	0.00	0.00	3.19
08:30	2,153	12.0	0.00	0.00	3.22
08:31	2,155	12.0	0.00	0.00	3.11
08:32	2,156	12.0	0.00	0.00	3.30
08:33	2,158	12.0	0.00	0.00	3.15
08:34	2,160	12.0	0.00	0.00	3.33
08:35	2,160	12.0	0.00	0.00	3.23
08:36	2,159	12.0	0.00	0.00	3.23
08:37	2,159	12.0	0.00	0.00	3.44
08:38	2,159	12.0	0.00	0.00	3.40
08:39	2,159	12.0	0.00	0.00	3.40
08:40	2,158	12.0	0.00	0.00	3.56
08:41	2,158	12.0	0.00	0.00	3.30
08:42	2,158	12.0	0.00	0.00	3.34
08:43	2,157	12.0	0.00	0.00	3.33
08:44	2,157	12.0	0.00	0.00	3.25
08:45	2,097	12.0	0.00	0.00	3.12
08:46	2,092	12.0	0.00	0.00	3.17
08:47	2,088	12.0	0.00	0.00	3.27
08:48	2,083	12.0	0.00	0.00	3.11
08:49	2,079	12.0	0.00	0.00	3.27
08:50	2,075	12.0	0.00	0.00	3.33
08:51	2,070	12.0	0.00	0.00	3.37
08:52	2,069	12.0	0.00	0.00	3.44
08:53	2,068	12.0	0.00	0.00	3.44
08:54	2,067	12.0	0.00	0.00	3.26
08:55	2,066	12.0	0.00	0.00	3.29
08:56	2,064	12.0	0.00	0.00	3.41
08:57	2,063	12.0	0.00	0.00	3.22
08:58	2,062	12.0	0.00	0.00	3.12
08:59	2,061	12.0	0.00	0.00	3.10
09:00	2,062	12.0	0.00	0.00	3.22
09:01	2,064	12.0	0.00	0.00	3.21
09:02	2,065	12.0	0.00	0.00	3.27

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 7

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/12/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
09:03	2,067	12.0	0.00	0.00	3.26
09:04	2,068	12.0	0.00	0.00	3.47
09:05	2,069	12.0	0.00	0.00	3.40
09:06	2,071	12.0	0.00	0.00	3.30
09:07	2,072	12.0	0.00	0.00	3.14
09:08	2,074	12.0	0.00	0.00	3.24
09:09	2,075	12.0	0.00	0.00	3.30
09:10	2,077	12.0	0.00	0.00	3.27
09:11	2,078	12.0	0.00	0.00	3.27
09:12	2,080	12.0	0.00	0.00	3.14
09:13	2,081	12.0	0.00	0.00	3.00
09:14	2,082	12.0	0.00	0.00	3.40
09:15	2,084	12.0	0.00	0.00	3.05
09:16	2,085	12.0	0.00	0.00	3.35
09:17	2,087	12.0	0.00	0.00	3.29
09:18	2,088	12.0	0.00	0.00	3.08
09:19	2,090	12.0	0.00	0.00	3.21
09:20	2,091	12.0	0.00	0.00	3.08
09:21	2,093	12.0	0.00	0.00	3.37
09:22	2,112	12.0	0.00	0.00	3.17
09:23	2,048	12.0	0.00	0.00	3.13
09:24	2,092	12.0	0.00	0.00	3.09
09:25	2,082	12.0	0.00	0.00	2.91
09:26	2,071	12.0	0.00	0.00	3.13
09:27	2,060	12.0	0.00	0.00	3.08
09:28	2,058	12.0	0.00	0.00	3.28
09:29	2,055	12.0	0.00	0.00	3.12
09:30	2,053	12.0	0.00	0.00	3.21
09:31	2,051	12.0	0.00	0.00	3.24
09:32	2,048	12.0	0.00	0.00	3.27
09:33	2,046	12.0	0.00	0.00	3.17
09:34	2,044	12.0	0.00	0.00	3.27
09:35	2,041	12.0	0.00	0.00	3.35
09:36	2,039	12.0	0.00	0.00	3.33
09:37	2,036	12.0	0.00	0.00	3.19
09:38	2,036	12.0	0.00	0.00	3.51
09:39	2,036	12.0	0.00	0.00	3.24
09:40	2,036	12.0	0.00	0.00	3.49
09:41	2,036	12.0	0.00	0.00	3.25
09:42	2,079	12.0	0.00	0.00	3.45
09:43	2,072	12.0	0.00	0.00	3.23
09:44	2,064	12.0	0.00	0.00	3.15
09:45	2,056	12.0	0.00	0.00	3.16
09:46	2,048	12.0	0.00	0.00	3.20
09:47	2,051	12.0	0.00	0.00	3.03
09:48	2,054	12.0	0.00	0.00	3.16
09:49	2,058	12.0	0.00	0.00	3.19
09:50	2,061	12.0	0.00	0.00	3.25
09:51	2,061	12.0	0.00	0.00	3.13
09:52	2,062	12.0	0.00	0.00	3.32
09:53	2,062	12.0	0.00	0.00	3.28
09:54	2,062	12.0	0.00	0.00	3.20

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 7**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/12/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
09:55	2,063	12.0	0.00	0.00	3.38
09:56	2,063	12.0	0.00	0.00	3.22
09:57	2,063	12.0	0.00	0.00	3.06
09:58	2,064	12.0	0.00	0.00	3.34
09:59	2,064	12.0	0.00	0.00	3.21
10:00	2,064	12.0	0.00	0.00	3.29
10:01	2,065	12.0	0.00	0.00	3.35
10:02	2,109	12.0	0.00	0.00	3.27
10:03	2,095	12.0	0.00	0.00	3.16
10:04	2,079	12.0	0.00	0.00	3.27
10:05	2,063	12.0	0.00	0.00	3.39
10:06	2,092	12.0	0.00	0.00	3.22
10:07	2,122	12.0	0.00	0.00	3.36
10:08	2,131	12.0	0.00	0.00	3.16
10:09	2,140	12.0	0.00	0.00	3.22
10:10	2,148	12.0	0.00	0.00	3.28
10:11	2,156	12.0	0.00	0.00	3.56
10:12	2,154	12.0	0.00	0.00	3.10
10:13	2,150	12.0	0.00	0.00	3.34
10:14	2,147	12.0	0.00	0.00	3.23
10:15	2,144	12.0	0.00	0.00	3.11
10:16	2,141	12.0	0.00	0.00	3.14
10:17	2,138	12.0	0.00	0.00	3.08
10:18	2,134	12.0	0.00	0.00	3.21
10:19	2,131	12.0	0.00	0.00	3.30
10:20	2,128	12.0	0.00	0.00	3.26
10:21	2,125	12.0	0.00	0.00	3.27
10:22	2,122	12.0	0.00	0.00	3.31
10:23	2,063	12.0	0.00	0.00	3.36
10:24	2,063	12.0	0.00	0.00	3.12
10:25	2,065	12.0	0.00	0.00	3.08
10:26	2,067	12.0	0.00	0.00	3.23
10:27	2,069	12.0	0.00	0.00	3.19
10:28	2,072	12.0	0.00	0.00	3.22
10:29	2,074	12.0	0.00	0.00	3.10
10:30	2,032	12.0	0.00	0.00	2.96
10:31	2,072	12.0	0.00	0.00	3.08
10:32	2,045	12.0	0.00	0.00	3.26
10:33	2,015	12.0	0.00	0.00	3.13
10:34	2,018	12.0	0.00	0.00	3.27
10:35	2,023	12.0	0.00	0.00	3.38
10:36	2,027	12.0	0.00	0.00	3.09
10:37	1,973	12.0	0.00	0.00	3.08
10:38	1,968	12.0	0.00	0.00	3.20
10:39	1,964	12.0	0.00	0.00	3.33
10:40	1,961	12.0	0.00	0.00	3.24
10:41	1,958	12.0	0.00	0.00	3.17
10:42	1,954	12.0	0.00	0.00	3.06
10:43	1,951	12.0	0.00	0.00	3.01
10:44	1,947	12.0	0.00	0.00	3.09
10:45	1,944	12.0	0.00	0.00	3.26
10:46	1,941	12.0	0.00	0.00	3.03



## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 7

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/12/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
10:47	1,937	12.0	0.00	0.00	3.11
10:48	1,934	12.0	0.00	0.00	3.15
10:49	1,923	12.0	0.00	0.00	3.25
10:50	1,869	12.0	0.00	0.00	3.13
10:51	1,940	12.0	0.00	0.00	3.19
10:52	1,922	12.0	0.00	0.00	3.20
10:53	1,901	12.0	0.00	0.00	3.08
10:54	1,901	12.0	0.00	0.00	3.14
10:55	1,902	12.0	0.00	0.00	3.12
10:56	1,903	12.0	0.00	0.00	3.19
10:57	1,904	12.0	0.00	0.00	3.22
10:58	1,905	12.0	0.00	0.00	3.12
10:59	1,907	12.0	0.00	0.00	3.38
11:00	1,908	12.0	0.00	0.00	3.25
11:01	1,909	12.0	0.00	0.00	3.28
11:02	1,914	12.0	0.00	0.00	3.03
11:03	1,919	12.0	0.00	0.00	3.25
11:04	1,925	12.0	0.00	0.00	3.35
11:05	1,930	12.0	0.00	0.00	3.22
11:06	1,935	12.0	0.00	0.00	3.19
11:07	1,940	12.0	0.00	0.00	3.31
11:08	1,946	12.0	0.00	0.00	3.20
11:09	2,018	12.0	0.00	0.00	3.14
11:10	2,013	12.0	0.00	0.00	3.39
11:11	2,004	12.0	0.00	0.00	3.52
11:12	1,995	12.0	0.00	0.00	3.38
11:13	1,987	12.0	0.00	0.00	3.42
11:14	1,981	12.0	0.00	0.00	3.41
11:15	1,975	12.0	0.00	0.00	3.15
11:16	1,970	12.0	0.00	0.00	3.03
11:17	2,023	12.0	0.00	0.00	3.24
11:18	2,028	12.0	0.00	0.00	3.20
11:19	2,031	12.0	0.00	0.00	3.19
11:20	2,034	12.0	0.00	0.00	3.29
11:21	2,038	12.0	0.00	0.00	3.25
11:22	2,041	12.0	0.00	0.00	3.34
11:23	2,044	12.0	0.00	0.00	3.13
11:24	2,047	12.0	0.00	0.00	3.25
11:25	2,086	12.0	0.00	0.00	3.24
11:26	2,021	12.0	0.00	0.00	3.32
11:27	2,060	12.0	0.00	0.00	3.36
11:28	2,064	12.0	0.00	0.00	3.18
11:29	2,066	12.0	0.00	0.00	2.88
11:30	2,068	12.0	0.00	0.00	3.06
11:31	2,070	12.0	0.00	0.00	3.20
11:32	2,072	12.0	0.00	0.00	3.20
11:33	2,074	12.0	0.00	0.00	3.20
11:34	2,076	12.0	0.00	0.00	3.39
11:35	2,020	12.0	0.00	0.00	3.28
11:36	2,057	12.0	0.00	0.00	3.05
11:37	2,099	12.0	0.00	0.00	3.02
11:38	2,140	12.0	0.00	0.00	3.01

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 7**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/12/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
11:39	2,147	12.0	0.00	0.00	3.35

Average	2,059	12.0	0.00	0.00	3.24
Minimum	1,869	12.0	0.00	0.00	2.88
Maximum	2,160	12.0	0.00	0.01	3.66

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 8**

Unit	<b>F-10 Boiler</b>
Condition:	<b>ICR Test</b>
Run:	<b>8</b>
Date:	<b>06/12/2024</b>
Start Time:	<b>12:16</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
Suspend:	<b>---</b>
Restart:	<b>---</b>
End Time:	<b>16:26</b>

<b>Parameter</b>	<b>Units</b>	<b>Waste Liquid Fuel</b>
Heating value	Btu/lb	14,800
Specific gravity	---	0.829

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/12/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
12:16	1,787	106	126	1.58	87.9
12:17	1,786	106	126	1.58	87.8
12:18	1,785	106	126	1.58	87.8
12:19	1,789	106	126	1.58	87.7
12:20	1,788	106	125	1.58	87.0
12:21	1,787	106	125	1.58	86.3
12:22	1,788	106	125	1.58	85.6
12:23	1,784	105	125	1.58	87.5
12:24	1,775	106	125	1.58	87.5
12:25	1,756	106	125	1.58	87.4
12:26	1,747	106	125	1.58	87.3
12:27	1,743	106	125	1.58	87.2
12:28	1,742	106	125	1.58	87.1
12:29	1,743	106	125	1.58	87.0
12:30	1,742	106	125	1.59	86.9
12:31	1,759	106	125	1.58	86.8
12:32	1,766	107	125	1.58	86.7
12:33	1,756	107	126	1.58	86.6
12:34	1,748	107	126	1.58	86.5
12:35	1,755	106	125	1.58	86.4
12:36	1,774	106	125	1.58	86.3
12:37	1,781	106	125	1.58	86.2
12:38	1,784	107	125	1.59	86.1
12:39	1,786	106	126	1.58	86.0
12:40	1,785	106	125	1.59	85.9
12:41	1,781	106	125	1.58	85.8
12:42	1,761	106	125	1.58	86.4
12:43	1,747	106	125	1.58	87.0
12:44	1,743	106	125	1.58	87.6
12:45	1,751	106	125	1.58	87.4
12:46	1,767	107	125	1.59	87.3
12:47	1,780	107	126	1.59	87.1
12:48	1,785	107	125	1.58	86.9
12:49	1,787	107	125	1.58	86.8
12:50	1,788	106	125	1.58	86.6
12:51	1,788	106	125	1.58	86.5
12:52	1,776	106	125	1.58	84.5
12:53	1,755	106	125	1.58	84.9
12:54	1,746	106	125	1.58	85.5
12:55	1,744	106	125	1.58	86.1
12:56	1,741	106	125	1.58	86.7

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 8

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/12/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
12:57	1,743	107	125	1.58	86.8
12:58	1,743	107	125	1.58	86.8
12:59	1,742	107	125	1.58	86.9
13:00	1,742	107	125	1.58	86.9
13:01	1,743	107	126	1.58	86.9
13:02	1,742	107	126	1.58	87.0
13:03	1,743	107	125	1.58	87.0
13:04	1,744	107	126	1.58	87.0
13:05	1,743	107	125	1.59	87.1
13:06	1,743	107	126	1.59	87.1
13:07	1,744	107	126	1.59	87.1
13:08	1,743	107	126	1.58	87.1
13:09	1,743	107	126	1.58	87.2
13:10	1,742	107	126	1.58	87.2
13:11	1,743	108	126	1.58	87.2
13:12	1,747	108	126	1.58	87.3
13:13	1,745	108	126	1.58	87.3
13:14	1,745	107	126	1.58	87.3
13:15	1,744	107	126	1.59	87.4
13:16	1,745	108	126	1.59	87.4
13:17	1,745	108	126	1.58	87.4
13:18	1,746	108	126	1.58	87.4
13:19	1,746	108	126	1.58	87.5
13:20	1,746	108	127	1.58	87.5
13:21	1,747	107	126	1.58	87.5
13:22	1,745	107	126	1.59	87.6
13:23	1,745	107	126	1.59	87.6
13:24	1,744	107	126	1.59	87.6
13:25	1,744	107	126	1.59	87.7
13:26	1,746	107	126	1.59	87.7
13:27	1,745	108	126	1.59	87.7
13:28	1,745	108	126	1.59	87.7
13:29	1,744	107	126	1.59	87.8
13:30	1,756	107	126	1.58	87.7
13:31	1,775	108	127	1.58	87.6
13:32	1,785	108	127	1.58	87.4
13:33	1,789	108	127	1.58	87.3
13:34	1,789	107	126	1.58	87.2
13:35	1,788	106	126	1.58	87.1
13:36	1,782	107	126	1.58	87.0
13:37	1,764	107	126	1.58	86.9
13:38	1,751	107	126	1.58	86.8
13:39	1,746	107	126	1.58	86.7
13:40	1,747	107	126	1.59	86.5
13:41	1,745	107	126	1.59	86.4
13:42	1,744	107	126	1.58	86.3
13:43	1,746	107	126	1.58	86.3
13:44	1,744	107	125	1.58	86.3
13:45	1,742	107	125	1.58	86.4
13:46	1,744	107	126	1.58	86.4
13:47	1,744	107	126	1.58	86.4
13:48	1,744	107	125	1.58	86.4

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 8

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/12/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
13:49	1,743	106	125	1.58	86.4
13:50	1,759	106	125	1.59	86.4
13:51	1,772	106	125	1.59	86.4
13:52	1,778	106	125	1.59	86.5
13:53	1,780	106	125	1.58	86.5
13:54	1,781	106	125	1.58	86.5
13:55	1,771	106	125	1.58	86.5
13:56	1,754	106	125	1.58	86.5
13:57	1,747	106	125	1.58	86.5
13:58	1,745	106	125	1.58	86.6
13:59	1,743	106	125	1.58	86.6
14:00	1,742	107	126	1.58	86.6
14:01	1,743	107	125	1.58	86.6
14:02	1,742	107	125	1.59	86.6
14:03	1,742	107	125	1.59	86.6
14:04	1,741	107	125	1.59	86.7
14:05	1,742	108	125	1.59	86.7
14:06	1,741	108	126	1.59	86.7
14:07	1,743	107	126	1.59	86.7
14:08	1,744	108	126	1.59	86.7
14:09	1,745	107	126	1.59	86.7
14:10	1,745	107	126	1.59	86.8
14:11	1,743	108	126	1.59	86.8
14:12	1,743	108	126	1.59	86.8
14:13	1,745	108	126	1.59	86.8
14:14	1,744	108	126	1.58	86.8
14:15	1,744	108	126	1.58	86.8
14:16	1,746	108	126	1.58	86.8
14:17	1,746	108	126	1.58	86.9
14:18	1,745	107	126	1.59	86.9
14:19	1,744	108	126	1.59	86.9
14:20	1,745	108	126	1.59	86.9
14:21	1,746	107	126	1.59	86.9
14:22	1,745	107	126	1.58	86.9
14:23	1,745	107	126	1.58	87.0
14:24	1,744	107	126	1.58	87.0
14:25	1,744	108	126	1.59	87.0
14:26	1,744	108	126	1.59	87.0
14:27	1,744	108	126	1.59	87.0
14:28	1,744	108	126	1.59	87.0
14:29	1,744	107	126	1.59	87.1
14:30	1,745	108	126	1.58	87.1
14:31	1,744	108	126	1.58	87.1
14:32	1,745	108	126	1.59	88.1
14:33	1,752	108	126	1.59	89.2
14:34	1,774	108	127	1.59	88.9
14:35	1,784	108	127	1.58	88.5
14:36	1,788	108	127	1.59	88.0
14:37	1,787	107	126	1.59	87.6
14:38	1,788	107	126	1.59	87.2
14:39	1,776	106	126	1.59	86.8
14:40	1,757	106	126	1.59	86.4

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 8

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/12/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
14:41	1,749	106	125	1.59	85.9
14:42	1,745	106	125	1.59	85.5
14:43	1,743	107	125	1.59	85.5
14:44	1,745	107	126	1.59	85.5
14:45	1,745	107	126	1.58	85.6
14:46	1,745	107	125	1.58	85.6
14:47	1,741	106	125	1.58	85.6
14:48	1,743	106	125	1.59	85.6
14:49	1,744	106	125	1.58	85.6
14:50	1,743	107	125	1.58	85.7
14:51	1,741	107	125	1.58	85.7
14:52	1,743	107	125	1.58	85.7
14:53	1,744	107	125	1.58	85.7
14:54	1,741	107	125	1.58	85.7
14:55	1,741	107	125	1.58	85.8
14:56	1,739	107	125	1.58	85.8
14:57	1,739	107	125	1.58	85.8
14:58	1,739	107	125	1.58	85.8
14:59	1,742	107	125	1.58	85.9
15:00	1,742	107	125	1.59	85.9
15:01	1,742	107	125	1.59	85.9
15:02	1,741	107	125	1.58	86.0
15:03	1,741	107	126	1.58	86.1
15:04	1,740	107	125	1.58	86.3
15:05	1,741	107	125	1.58	86.4
15:06	1,741	107	125	1.58	86.5
15:07	1,741	107	125	1.58	86.6
15:08	1,741	107	125	1.58	86.8
15:09	1,741	107	125	1.58	86.9
15:10	1,742	107	125	1.58	87.0
15:11	1,741	107	125	1.58	87.1
15:12	1,740	107	125	1.58	87.3
15:13	1,742	107	125	1.58	87.4
15:14	1,742	107	125	1.58	87.5
15:15	1,741	107	125	1.58	87.6
15:16	1,746	108	126	1.58	87.8
15:17	1,765	107	126	1.58	87.7
15:18	1,779	108	126	1.59	87.7
15:19	1,784	108	126	1.58	87.6
15:20	1,785	107	126	1.58	87.6
15:21	1,786	107	126	1.58	87.5
15:22	1,784	106	126	1.58	87.5
15:23	1,766	106	126	1.58	87.4
15:24	1,754	107	125	1.58	87.4
15:25	1,748	107	125	1.58	87.3
15:26	1,745	107	125	1.58	87.3
15:27	1,744	107	125	1.58	87.2
15:28	1,744	107	126	1.58	87.2
15:29	1,745	107	125	1.58	87.1
15:30	1,744	107	125	1.59	87.1
15:31	1,743	107	125	1.59	87.0
15:32	1,741	107	125	1.58	87.0

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 8

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/12/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
15:33	1,743	107	125	1.59	86.9
15:34	1,743	107	125	1.59	86.0
15:35	1,740	107	125	1.58	85.0
15:36	1,741	107	124	1.58	85.0
15:37	1,740	106	124	1.58	85.2
15:38	1,738	106	124	1.58	85.4
15:39	1,737	106	124	1.58	85.6
15:40	1,737	106	124	1.58	85.7
15:41	1,737	106	124	1.58	85.9
15:42	1,737	106	124	1.58	86.1
15:43	1,736	106	124	1.58	86.2
15:44	1,739	106	124	1.58	86.4
15:45	1,757	106	124	1.60	86.4
15:46	1,771	106	124	1.59	86.4
15:47	1,762	106	124	1.59	86.4
15:48	1,749	106	124	1.59	86.4
15:49	1,739	105	124	1.58	86.4
15:50	1,734	106	124	1.58	86.4
15:51	1,735	106	124	1.58	86.3
15:52	1,736	106	125	1.58	86.3
15:53	1,738	107	125	1.58	86.3
15:54	1,738	106	124	1.58	86.3
15:55	1,738	106	124	1.58	86.3
15:56	1,738	106	124	1.58	86.3
15:57	1,737	107	125	1.58	86.3
15:58	1,737	106	124	1.58	86.3
15:59	1,736	107	124	1.58	86.3
16:00	1,736	107	124	1.58	86.2
16:01	1,738	107	124	1.58	86.2
16:02	1,738	107	124	1.58	86.2
16:03	1,756	107	125	1.58	86.2
16:04	1,771	107	125	1.58	86.2
16:05	1,779	106	125	1.58	86.2
16:06	1,776	106	125	1.58	86.2
16:07	1,758	107	125	1.58	86.2
16:08	1,747	106	125	1.58	86.2
16:09	1,741	106	124	1.58	86.2
16:10	1,740	106	125	1.58	86.1
16:11	1,741	107	125	1.58	86.1
16:12	1,741	107	125	1.59	86.1
16:13	1,739	107	125	1.59	86.1
16:14	1,739	107	125	1.58	86.1
16:15	1,738	106	124	1.58	86.1
16:16	1,737	106	124	1.58	86.1
16:17	1,736	107	125	1.58	86.1
16:18	1,738	107	125	1.57	86.1
16:19	1,739	107	125	1.57	86.1
16:20	1,739	107	125	1.58	86.1
16:21	1,740	107	124	1.60	86.2
16:22	1,738	106	124	1.59	86.2
16:23	1,737	106	124	1.58	86.3
16:24	1,736	106	124	1.58	86.3

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 8**

Date/Time	T7428	F7420	F7417	F7493	FC7464
6/12/2024	Combustion Chamber Temperature	Combustion Air Flow Rate	Steam Production Rate	Total Hazardous Waste Feed Rate	Natural Gas Flow Rate
Units	°F	klb/hr	klb/hr	gpm	kscfh
16:25	1,737	107	124	1.58	86.4
16:26	1,738	107	124	1.58	86.5
Average	1,751	107	125	1.58	86.7
Minimum	1,734	105	124	1.57	84.5
Maximum	1,789	108	127	1.60	89.2



**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 8**

Unit	<b>F-10 Boiler</b>
Condition:	<b>ICR Test</b>
Run:	<b>8</b>
Date:	<b>06/12/2024</b>
Start Time:	<b>12:16</b>
Suspend:	---
Restart:	---
Suspend:	---
Restart:	---
End Time:	<b>16:26</b>

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/12/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
12:16	2,079	12.0	0.00	0.00	3.09
12:17	2,082	12.0	0.00	0.00	3.21
12:18	2,141	12.0	0.00	0.00	3.27
12:19	2,085	12.0	0.00	0.00	3.18
12:20	2,097	12.0	0.00	0.00	3.10
12:21	2,112	12.0	0.00	0.00	3.01
12:22	2,127	12.0	0.00	0.00	3.31
12:23	2,179	12.0	0.00	0.00	3.18
12:24	2,152	12.0	0.00	0.00	3.16
12:25	2,121	12.0	0.00	0.00	3.44
12:26	2,117	12.0	0.00	0.00	3.41
12:27	2,114	12.0	0.00	0.00	3.40
12:28	2,159	12.0	0.00	0.00	3.32
12:29	2,160	12.0	0.00	0.00	3.33
12:30	2,158	12.0	0.00	0.00	3.30
12:31	2,119	12.0	0.00	0.00	3.21
12:32	2,154	12.0	0.00	0.00	3.40
12:33	2,147	12.0	0.00	0.00	3.40
12:34	2,138	12.0	0.00	0.00	3.43
12:35	2,130	12.0	0.00	0.00	3.30
12:36	2,121	12.0	0.00	0.00	3.33
12:37	2,112	12.0	0.00	0.00	3.18
12:38	2,103	12.0	0.00	0.00	3.19
12:39	2,094	12.0	0.00	0.00	3.16
12:40	2,085	12.0	0.00	0.00	3.26
12:41	2,076	12.0	0.00	0.00	2.99
12:42	2,149	12.0	0.00	0.00	3.32
12:43	2,153	12.0	0.00	0.00	3.33
12:44	2,153	12.0	0.00	0.00	3.37
12:45	2,152	12.0	0.00	0.00	3.25
12:46	2,109	12.0	0.00	0.00	3.39
12:47	2,144	12.0	0.00	0.00	3.02
12:48	2,184	12.0	0.00	0.00	3.31
12:49	2,149	12.0	0.00	0.00	3.28
12:50	2,162	12.0	0.00	0.00	3.18
12:51	2,179	12.0	0.00	0.00	3.15
12:52	2,195	12.0	0.00	0.00	3.08
12:53	2,200	12.0	0.00	0.00	3.33
12:54	2,204	12.0	0.00	0.00	3.21
12:55	2,207	12.0	0.00	0.00	3.29
12:56	2,211	12.0	0.00	0.00	3.34

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 8

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/12/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
12:57	2,215	12.0	0.00	0.00	3.33
12:58	2,218	12.0	0.00	0.00	3.29
12:59	2,222	12.0	0.00	0.00	3.32
13:00	2,125	12.0	0.00	0.00	3.34
13:01	2,196	12.0	0.00	0.00	3.48
13:02	2,200	12.0	0.00	0.00	3.38
13:03	2,199	12.0	0.00	0.00	3.37
13:04	2,198	12.0	0.00	0.00	3.38
13:05	2,197	12.0	0.00	0.00	3.37
13:06	2,196	12.0	0.00	0.00	3.39
13:07	2,196	12.0	0.00	0.00	3.47
13:08	2,195	12.0	0.00	0.00	3.46
13:09	2,194	12.0	0.00	0.00	3.58
13:10	2,191	12.0	0.00	0.00	3.30
13:11	2,188	12.0	0.00	0.00	3.28
13:12	2,185	12.0	0.00	0.00	3.45
13:13	2,183	12.0	0.00	0.00	3.48
13:14	2,180	12.0	0.00	0.00	3.48
13:15	2,177	12.0	0.00	0.00	3.31
13:16	2,174	12.0	0.00	0.00	3.51
13:17	2,171	12.0	0.00	0.00	3.29
13:18	2,168	12.0	0.00	0.00	3.27
13:19	2,166	12.0	0.00	0.00	3.57
13:20	2,163	12.0	0.00	0.00	3.43
13:21	2,160	12.0	0.00	0.00	3.25
13:22	2,157	12.0	0.00	0.00	3.40
13:23	2,154	12.0	0.00	0.00	3.40
13:24	2,155	12.0	0.00	0.00	3.54
13:25	2,156	12.0	0.00	0.00	3.32
13:26	2,157	12.0	0.00	0.00	3.48
13:27	2,157	12.0	0.00	0.00	3.28
13:28	2,158	12.0	0.00	0.00	3.64
13:29	2,159	12.0	0.00	0.00	3.43
13:30	2,160	12.0	0.00	0.00	3.36
13:31	2,161	12.0	0.00	0.00	3.16
13:32	2,161	12.0	0.00	0.00	3.16
13:33	2,162	12.0	0.00	0.00	3.20
13:34	2,163	12.0	0.00	0.00	3.28
13:35	2,164	12.0	0.00	0.00	3.38
13:36	2,165	12.0	0.00	0.00	3.25
13:37	2,165	12.0	0.00	0.00	3.28
13:38	2,166	12.0	0.00	0.00	3.30
13:39	2,167	12.0	0.00	0.00	3.24
13:40	2,168	12.0	0.00	0.00	3.30
13:41	2,168	12.0	0.00	0.00	3.42
13:42	2,169	12.0	0.00	0.00	3.28
13:43	2,170	12.0	0.00	0.00	3.30
13:44	2,171	12.0	0.00	0.00	3.49
13:45	2,172	12.0	0.00	0.00	3.33
13:46	2,172	12.0	0.00	0.00	3.39
13:47	2,173	12.0	0.00	0.00	2.94
13:48	2,174	12.0	0.00	0.00	3.40

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 8

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/12/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
13:49	2,175	12.0	0.00	0.00	3.37
13:50	2,176	12.0	0.00	0.00	3.37
13:51	2,176	12.0	0.00	0.00	3.18
13:52	2,225	12.0	0.00	0.00	3.13
13:53	2,204	12.0	0.00	0.00	3.15
13:54	2,177	12.0	0.00	0.00	3.26
13:55	2,176	12.0	0.00	0.00	3.24
13:56	2,177	12.0	0.00	0.00	3.11
13:57	2,177	12.0	0.00	0.00	3.19
13:58	2,178	12.0	0.00	0.00	3.27
13:59	2,179	12.0	0.00	0.00	3.23
14:00	2,179	12.0	0.00	0.00	3.23
14:01	2,180	12.0	0.00	0.00	3.42
14:02	2,181	12.0	0.00	0.00	3.35
14:03	2,181	12.0	0.00	0.00	3.38
14:04	2,182	12.0	0.00	0.00	3.35
14:05	2,183	12.0	0.00	0.00	3.62
14:06	2,173	12.0	0.00	0.00	3.47
14:07	2,233	12.0	0.00	0.00	3.33
14:08	2,235	12.0	0.00	0.00	3.37
14:09	2,233	12.0	0.00	0.00	3.28
14:10	2,231	12.0	0.00	0.00	3.37
14:11	2,229	12.0	0.00	0.00	3.30
14:12	2,227	12.0	0.00	0.00	3.30
14:13	2,225	12.0	0.00	0.00	3.38
14:14	2,223	12.0	0.00	0.00	3.55
14:15	2,221	12.0	0.00	0.00	3.32
14:16	2,219	12.0	0.00	0.00	3.40
14:17	2,217	12.0	0.00	0.00	3.50
14:18	2,181	12.0	0.00	0.00	3.52
14:19	2,202	12.0	0.00	0.00	3.37
14:20	2,228	12.0	0.00	0.00	3.21
14:21	2,225	12.0	0.00	0.00	3.41
14:22	2,221	12.0	0.00	0.00	3.35
14:23	2,216	12.0	0.00	0.00	3.43
14:24	2,211	12.0	0.00	0.00	3.38
14:25	2,209	12.0	0.00	0.00	3.30
14:26	2,208	12.0	0.00	0.00	3.39
14:27	2,206	12.0	0.00	0.00	3.46
14:28	2,190	12.0	0.00	0.00	3.35
14:29	2,173	12.0	0.00	0.00	3.40
14:30	2,176	12.0	0.00	0.00	3.40
14:31	2,181	12.0	0.00	0.00	3.21
14:32	2,186	12.0	0.00	0.00	3.36
14:33	2,190	12.0	0.00	0.00	3.31
14:34	2,195	12.0	0.00	0.00	3.33
14:35	2,200	12.0	0.00	0.00	3.30
14:36	2,204	12.0	0.00	0.00	3.15
14:37	2,208	12.0	0.00	0.00	3.13
14:38	2,212	12.0	0.00	0.00	3.37
14:39	2,216	12.0	0.00	0.00	3.47
14:40	2,215	12.0	0.00	0.00	3.22

## BASF Corporation - Pasadena, Texas

## F-10 Boiler

## Run 8

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/12/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
14:41	2,215	12.0	0.00	0.00	3.16
14:42	2,214	12.0	0.00	0.00	3.26
14:43	2,213	12.0	0.00	0.00	3.41
14:44	2,212	12.0	0.00	0.00	3.38
14:45	2,212	12.0	0.00	0.00	3.27
14:46	2,211	12.0	0.00	0.00	3.54
14:47	2,210	12.0	0.00	0.00	3.44
14:48	2,209	12.0	0.00	0.00	3.36
14:49	2,209	12.0	0.00	0.00	3.40
14:50	2,208	12.0	0.00	0.00	3.46
14:51	2,207	12.0	0.00	0.00	3.30
14:52	2,206	12.0	0.00	0.00	3.23
14:53	2,206	12.0	0.00	0.00	3.64
14:54	2,205	12.0	0.00	0.00	3.50
14:55	2,204	12.0	0.00	0.00	3.43
14:56	2,203	12.0	0.00	0.00	3.37
14:57	2,203	12.0	0.00	0.00	3.38
14:58	2,202	12.0	0.00	0.00	3.33
14:59	2,199	12.0	0.00	0.00	3.25
15:00	2,196	12.0	0.00	0.00	3.14
15:01	2,194	12.0	0.00	0.00	3.20
15:02	2,191	12.0	0.00	0.00	3.29
15:03	2,188	12.0	0.00	0.00	3.33
15:04	2,186	12.0	0.00	0.00	3.33
15:05	2,183	12.0	0.00	0.00	3.20
15:06	2,180	12.0	0.00	0.00	3.38
15:07	2,177	12.0	0.00	0.00	3.41
15:08	2,175	12.0	0.00	0.00	3.51
15:09	2,235	12.0	0.00	0.00	3.36
15:10	2,207	12.0	0.00	0.00	3.32
15:11	2,170	12.0	0.00	0.00	3.35
15:12	2,167	12.0	0.00	0.00	3.37
15:13	2,167	12.0	0.00	0.00	3.35
15:14	2,215	12.0	0.00	0.00	3.37
15:15	2,183	12.0	0.00	0.00	3.36
15:16	2,142	12.0	0.00	0.00	3.52
15:17	2,178	12.0	0.00	0.00	3.31
15:18	2,184	12.0	0.00	0.00	2.97
15:19	2,188	12.0	0.00	0.00	3.22
15:20	2,191	12.0	0.00	0.00	3.29
15:21	2,194	12.0	0.00	0.00	3.30
15:22	2,197	12.0	0.00	0.00	3.21
15:23	2,200	12.0	0.00	0.00	3.15
15:24	2,203	12.0	0.00	0.00	3.29
15:25	2,206	12.0	0.00	0.00	3.27
15:26	2,209	12.0	0.00	0.00	3.39
15:27	2,213	12.0	0.00	0.00	3.40
15:28	2,216	12.0	0.00	0.00	3.38
15:29	2,219	12.0	0.00	0.00	3.38
15:30	2,222	12.0	0.00	0.00	3.25
15:31	2,167	12.0	0.00	0.00	3.36
15:32	2,166	12.0	0.00	0.00	3.40

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 8**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/12/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
15:33	2,171	12.0	0.00	0.00	3.28
15:34	2,176	12.0	0.00	0.00	3.37
15:35	2,216	12.0	0.00	0.00	3.50
15:36	2,185	12.0	0.00	0.00	3.29
15:37	2,191	12.0	0.00	0.00	3.56
15:38	2,202	12.0	0.00	0.00	3.34
15:39	2,127	12.0	0.00	0.00	3.29
15:40	2,193	12.0	0.00	0.00	3.28
15:41	2,146	12.0	0.00	0.00	3.26
15:42	2,156	12.0	0.00	0.00	3.42
15:43	2,172	12.0	0.00	0.00	3.28
15:44	2,172	12.0	0.00	0.00	3.52
15:45	2,171	12.0	0.00	0.00	3.24
15:46	2,170	12.0	0.00	0.00	3.12
15:47	2,169	12.0	0.00	0.00	3.25
15:48	2,168	12.0	0.00	0.00	3.44
15:49	2,165	12.0	0.00	0.00	3.40
15:50	2,161	12.0	0.00	0.00	3.35
15:51	2,157	12.0	0.00	0.00	3.45
15:52	2,157	12.0	0.00	0.00	3.31
15:53	2,157	12.0	0.00	0.00	3.66
15:54	2,157	12.0	0.00	0.00	3.44
15:55	2,158	12.0	0.00	0.00	3.42
15:56	2,158	12.0	0.00	0.00	3.40
15:57	2,158	12.0	0.00	0.00	3.40
15:58	2,158	12.0	0.00	0.00	3.38
15:59	2,105	12.0	0.00	0.00	3.36
16:00	2,105	12.0	0.00	0.00	3.45
16:01	2,110	12.0	0.00	0.00	3.43
16:02	2,116	12.0	0.00	0.00	3.34
16:03	2,121	12.0	0.00	0.00	3.24
16:04	2,123	12.0	0.00	0.00	3.21
16:05	2,124	12.0	0.00	0.00	3.34
16:06	2,124	12.0	0.00	0.00	3.39
16:07	2,125	12.0	0.00	0.00	3.47
16:08	2,126	12.0	0.00	0.00	3.32
16:09	2,127	12.0	0.00	0.00	3.36
16:10	2,128	12.0	0.00	0.00	3.45
16:11	2,143	12.0	0.00	0.00	3.40
16:12	2,159	12.0	0.00	0.00	3.35
16:13	2,162	12.0	0.00	0.00	3.39
16:14	2,163	12.0	0.00	0.00	3.37
16:15	2,165	12.0	0.00	0.00	3.37
16:16	2,166	12.0	0.00	0.00	3.42
16:17	2,193	12.0	0.00	0.00	3.24
16:18	2,222	12.0	0.00	0.00	3.44
16:19	2,224	12.0	0.00	0.00	3.36
16:20	2,224	12.0	0.00	0.00	3.22
16:21	2,224	12.0	0.00	0.00	3.44
16:22	2,223	12.0	0.00	0.00	3.43
16:23	2,223	12.0	0.00	0.00	3.40
16:24	2,223	12.0	0.00	0.00	3.51

**BASF Corporation - Pasadena, Texas**

**F-10 Boiler**

**Run 8**

Date/Time	FC7478	P7602	AX7807D	A7807 (HRA)	AI7808
6/12/2024	Process Vent Gas Feed Rate	Atomizing Fluid Differential Pressure	Corrected Stack Gas CO OMA	Corrected Stack Gas CO HRA	Stack Gas Oxygen
Units	lb/hr	psig	ppmv dry	ppmv dry	% vol dry
16:25	2,222	12.0	0.00	0.00	3.39
16:26	2,222	12.0	0.00	0.00	3.31
Average	2,177	12.0	0.00	0.00	3.33
Minimum	2,076	12.0	0.00	0.00	2.94
Maximum	2,235	12.0	0.00	0.00	3.66

## **Appendix C:**

### **WASTE LIQUID FUEL SAMPLING REPORT**

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## WASTE LIQUID FUEL SAMPLING REPORT

During each test run, waste liquid fuel was sampled and analyzed for higher heating value and density. BASF Corporation (BASF) personnel collected the waste liquid fuel samples using a tap sampling procedure. The sampling tap was located in the waste liquid fuel feed line. The sample tap was clearly identified and was inspected by the Emission Test Manager prior to testing.

Samples were collected at the beginning, middle, and end of each test run. At each sampling event, approximately 150 milliliters (mL) of the waste stream was collected into two separate bottles. At the conclusion of the run, each bottle had approximately 450 mL of sample.

The field duplicate samples were collected as described in the quality assurance project plan (QAPP). The field duplicates were collected during Run 3.

All samples were properly logged on the waste sampling forms. These forms indicate sampler's initials, the run number, the date, and the time the sample was collected. The completed forms are included in this waste liquid fuel sampling report.



**BASF Corporation – Pasadena, Texas**  
**Waste Sampling Log**

**Unit:** F-10 Boiler

**Test:** HWC NESHAP Information Collection Request Emission Test

**Waste:** Waste Liquid Fuel

Run	Date	Grab Sample	Time of Sample	Initials
1	06/04/24	Beginning	1425 <sup>1022</sup>	OW
		Middle	1447 <sup>1444</sup>	WS
		End	—	—
2	06/05/24	Beginning	0940 <sup>0937</sup>	LS
		Middle	1525 <sup>1522</sup>	LS
		End	1643	MS
3	06/06/24	Beginning	0727	KA
		Middle	0919	WS
		End	1120	WS
4	06/06/24	Beginning	1232	WS
		Middle	1416	WS
		End	1617	WS
5	06/07/24	Beginning	0546	WS
		Middle	0742	WS
		End	0940	WS

Run  
aborted  
C1526

Field  
Dup  
Samples

**BASF Corporation – Pasadena, Texas**  
**Waste Sampling Log**

Unit: F-10 Boiler

Test: HWC NESHAP Information Collection Request Emission Test

Waste: Waste Liquid Fuel

Run	Date	Grab Sample	Time of Sample	Initials
6	06/11/24	Beginning	1325	ED
		Middle	1524	ED
		End	1714	KM
7	06/12/24	Beginning	0732	ED
		Middle	0937	ED
		End	1127	ED
8	06/12/24	Beginning	1224	ED
		Middle	1425	ED
		End	1610	ED
		Beginning		
		Middle		
		End		
		Beginning		
		Middle		
		End		

## Appendix D: STACK SAMPLING REPORT



## Source Test Report

BASF Corporation  
4403 La Porte Hwy 225  
Pasadena, TX 77503

Source Tested: F-10 Boiler (EPN 84)  
Test Dates: June 5-7, 11 & 12, 2024  
EPA FRS No.: 110002081942

Project No. AST-2024-2352

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Prepared By  
Alliance Technical Group, LLC  
5757 Genoa Red Bluff Road  
Pasadena, TX 77507

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**Regulatory Information**

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*Regulatory Citation*

Clean Air Act (CAA) Section 114 – Information Collection Request (ICR)

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**Source Information**

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*Source Name*  
F-10 Boiler

*Source ID*  
EPN 84

*Target Parameters*  
PAH/PCB, THC, HCN

---

**Contact Information**

---

*Test Location*  
BASF Corporation  
4403 La Porte Hwy 225  
Pasadena, TX 77503

*Test Company*  
Alliance Technical Group, LLC  
5757 Genoa Red Bluff Road  
Pasadena, TX 77507

*Analytical Laboratory*  
Eurofins Knoxville  
5815 Middlebrook Pike  
Knoxville, TN 37921  
Courtney Adkins  
courtney.adkins@et.eurofinsus.com  
(865) 291-3019

*Facility Contact*  
John T. Igoe, P.E., CSP  
Sr. EHS Specialist  
john.igoe@basf.com  
(979) 236-2529

*Project Manager*  
Jason Myers  
jason.myers@alliancetg.com  
(512) 658-4211

*Project Coordinator*  
Heather McHale  
Coterie Environmental LLC  
heather.mchale@coterie-env.com  
(610)-406- 2214

*Field Team Leader*  
Jason Lovell  
jason.lovell@alliancetg.com  
(281) 787-5631

*QA/QC Manager*  
Kathleen Shonk  
katie.shonk@alliancetg.com  
(812) 452-4785

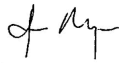
*Report Coordinator*  
Caleb Pyle  
caleb.pyle@alliancetg.com  
(713) 634-8692

*Report Reviewer*  
Ryan Adam  
ryan.adam@alliancetg.com  
(469) 918-0545

Alliance Technical Group, LLC (Alliance) has completed the source testing as described in this report. Results apply only to the source tested and operating conditions for the specific test dates and times identified within this report. All results are intended to be considered in their entirety, and Alliance is not responsible for use of less than the complete test report without written consent. This report shall not be reproduced in full or in part without written approval from the customer.

To the best of my knowledge and abilities, all information, facts and test data are correct. Data presented in this report has been checked for completeness and is accurate, error-free and legible. Onsite testing was conducted in accordance with approved internal Standard Operating Procedures. Any deviations or problems are detailed in the relevant sections in the test report.

This report is only considered valid once an authorized representative of Alliance has signed in the space provided below; any other version is considered draft. This document was prepared in portable document format (.pdf) and contains pages as identified in the bottom footer of this document.



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**Jason Myers, QI**  
**Alliance Technical Group, LLC**

09/22/2024

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Date

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## APPENDICES

Appendix A	Sample Calculations
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## Introduction



## 1.0 Introduction

Alliance Technical Group, LLC (Alliance) was retained by BASF Corporation (BASF) to conduct Clean Air Act (CAA) Section 114 information collection request (ICR) testing at the Pasadena, Texas facility at the request of the United States Environmental Protection Agency (USEPA). Testing was conducted to determine the emission concentrations of polycyclic aromatic hydrocarbons (PAH), polychlorinated biphenyls (PCB), total hydrocarbons (THC) and hydrogen cyanide (HCN) at the exhaust of the F-10 Boiler (EPN 84). This source is regulated under 40 CFR 63, Subpart EEE which is subject to this ICR.

## 1.1 Project Team

Personnel involved in this project are identified in the following table.

**Table 1-1: Project Team**

<b>BASF Personnel</b>	John Igoe
<b>Coterie Personnel</b>	Trevor Romans
<b>Alliance Personnel</b>	Jason Lovell Matthew Brumley Andrew Christiansen Andrew Christiansen-Gomez

## 1.2 Test Program Notes

Run 1 was voided due to waste feed issues.

Run 2 was paused at 9:37 due to inclement weather and was resumed at 12:32. Run 2 was paused again at 12:47, due to inclement weather, and was resumed at 14:04.

Calibration drift checks were performed on the Method 25A THC reference monitor hourly. Approximate 10-to-15-minute gaps in recorded THC data are noted due to these required QA checks. The EPA Method 320 HCN sampling was conducted using a shared heated sample line and therefore has corresponding data gaps during the THC QA drift checks.

## Summary of Results

## 2.0 Summary of Results

Alliance conducted CAA Section 114 ICR testing at the BASF facility in Pasadena, Texas on June 5-7, 11 and 12, 2024. Testing consisted of determining the emission rates of PAH, PCB, THC and HCN at the exhaust of the F-10 Boiler (EPN 84).

Tables 2-1 through 2-6 provide summaries of the emission testing results. All results provided in these tables are on a concentration basis. Mass emission rates are provided in Appendix B. Any difference between the summary results listed in the following tables and the detailed results contained in appendices is due to rounding for presentation.

Result Tables Flag Definitions:

**BDL** - Below Detection Level

**DLL** - Detection Level Limited

**ADL** - Above Detection Level

**Table 2-1: Summary of Results – Hydrogen Cyanide (HCN)**

Run Number	Run 2	Flag	Run 3	Flag	Run 4	Flag	Run 5	Flag
Date	6/5/24		6/6/24		6/6/24		6/7/24	
Hydrogen Cyanide Data								
ppmvd	3.37	ADL	3.25	ADL	3.60	ADL	2.69	ADL
ppmvd @ 7% O <sub>2</sub>	2.68		2.57		2.86		2.14	
Run Number	Run 6	Flag	Run 7	Flag	Run 8	Flag	Average	Flag
Date	6/11/24		6/12/24		6/12/24		--	
Hydrogen Cyanide Data								
ppmvd	3.66	ADL	2.81	ADL	3.84	ADL	3.23	ADL
ppmvd @ 7% O <sub>2</sub>	2.91		2.22		3.06		2.56	

**Table 2-2: Summary of Results – Total Hydrocarbons (THC)**

Run Number	Run 2	Flag	Run 3	Flag	Run 4	Flag	Run 5	Flag
Date	6/5/24		6/6/24		6/6/24		6/7/24	
Total Hydrocarbons (as Propane) Data								
ppmvd	0.0823	ADL	0.102	ADL	4.01	ADL	0.144	ADL
ppmvd @ 7% O <sub>2</sub>	0.0654		0.0809		3.19		0.115	
Run Number	Run 6	Flag	Run 7	Flag	Run 8	Flag	Average	Flag
Date	6/11/24		6/12/24		6/12/24		--	
Total Hydrocarbons (as Propane) Data								
ppmvd	<u>0.01</u>	BDL	0.275	ADL	0.198	ADL	0.688	DLL
ppmvd @ 7% O <sub>2</sub>	<u>0.01</u>		0.217		0.158		0.547	

<sup>1</sup> Underlined results contained all minute data point averages at zero. A reporting limit of 0.01 ppmvw was used for calculation purposes and is considered BDL.

Table 2-3: Summary of Results – Polycyclic Aromatic Hydrocarbons (PAH)- ng/dscm

Run Number	Run 2	Run 3	Run 4	Run 5	Run 6	Run 7	Run 8	Average
Date	6/5/24	6/6/24	6/6/24	6/7/24	6/11/24	6/12/24	6/12/24	
Naphthalene	98.0	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2-Methylnaphthalene	64.7	ADL	ADL	ADL	ADL	ADL	ADL	ADL
Acenaphthylene	3.31	ADL	ADL	ADL	ADL	ADL	ADL	ADL
Acenaphthene	24.8	ADL	ADL	ADL	ADL	ADL	ADL	ADL
Fluorene	67.5	ADL	ADL	ADL	ADL	ADL	ADL	ADL
Phenanthrene	258	ADL	ADL	ADL	ADL	ADL	ADL	ADL
Anthracene	22.7	ADL	ADL	ADL	ADL	ADL	ADL	ADL
Fluoranthene	32.8	ADL	ADL	ADL	ADL	ADL	ADL	ADL
Pyrene	37.8	ADL	ADL	ADL	ADL	ADL	ADL	ADL
Benz[a]anthracene	0.862	ADL	ADL	ADL	ADL	ADL	ADL	ADL
Chrysene	3.01	ADL	ADL	ADL	ADL	ADL	ADL	ADL
Benzo[b]fluoranthene	2.30	ADL	ADL	ADL	ADL	ADL	ADL	ADL
Benzo[k]fluoranthene	0.793	ADL	ADL	ADL	ADL	ADL	ADL	ADL
Benzo[e]pyrene	11.9	ADL	ADL	ADL	ADL	ADL	ADL	ADL
Benzo[a]pyrene	3.26	ADL	ADL	ADL	ADL	ADL	ADL	ADL
Perylene	0.661	ADL	ADL	ADL	ADL	ADL	ADL	ADL
Indeno(1,2,3-cd)pyrene	8.21	ADL	ADL	ADL	ADL	ADL	ADL	ADL
Dibenz[a,h]anthracene	1.54	ADL	ADL	ADL	ADL	ADL	ADL	ADL
Benzo[g,h,i]perylene	40.1	ADL	ADL	ADL	ADL	ADL	ADL	ADL
<b>Total PAH</b>	<b>682</b>	<b>ADL</b>	<b>ADL</b>	<b>ADL</b>	<b>ADL</b>	<b>ADL</b>	<b>ADL</b>	<b>ADL</b>

Note: All sample results from the lab were flagged B – Compound found in the blank and sample.

Table 2-4: Summary of Results – Polycyclic Aromatic Hydrocarbons (PAH) – ng/dscm @ 7% oxygen

Run Number	Run 2	Run 3	Run 4	Run 5	Run 6	Run 7	Run 8	Flag Average
Date	6/5/24	6/6/24	6/6/24	6/7/24	6/11/24	6/12/24	6/12/24	
Naphthalene	78.0	83.3	81.8	74.9	142	147	111	ADL 103
2-Methylnaphthalene	51.5	51.3	38.8	37.6	82.8	86.6	53.0	ADL 57.4
Acenaphthylene	2.63	3.02	1.68	1.45	3.13	1.51	1.37	ADL 2.11
Acenaphthene	19.8	22.1	14.1	13.6	41.7	44.9	20.1	ADL 25.2
Fluorene	53.7	55.8	29.8	29.6	72.8	65.4	32.8	ADL 48.5
Phenanthrene	205	199	100	100	232	190	113	ADL 163
Anthracene	18.0	18.6	7.63	8.30	15.5	12.5	7.12	ADL 12.5
Fluoranthene	26.1	21.0	14.7	13.8	27.2	20.5	12.0	ADL 19.3
Pyrene	30.1	23.0	18.0	15.0	28.7	18.5	12.4	ADL 20.8
Benz[a]anthracene	0.686	0.526	0.422	0.592	0.585	0.388	0.469	ADL 0.524
Chrysene	2.39	2.25	1.66	1.90	1.91	1.65	1.72	ADL 1.93
Benzo[b]fluoranthene	1.83	1.41	1.15	1.20	1.47	0.591	0.506	ADL 1.17
Benzo[k]fluoranthene	0.631	0.648	0.585	0.618	0.632	0.478	0.442	ADL 0.576
Benzo[e]pyrene	9.45	6.18	5.07	4.90	6.81	1.17	1.66	ADL 5.03
Benzo[a]pyrene	2.59	1.77	1.61	1.45	2.06	0.548	0.663	ADL 1.53
Perylene	0.526	0.423	0.345	0.359	0.479	0.216	0.186	ADL 0.362
Indeno(1,2,3-cd)pyrene	6.53	4.72	4.61	3.93	5.30	0.955	1.51	ADL 3.94
Dibenz[a,h]anthracene	1.23	1.15	1.00	1.28	1.33	1.45	1.39	ADL 1.26
Benzo[g,h,i]perylene	31.9	27.0	22.9	19.2	24.5	2.53	4.77	ADL 16.6
<b>Total PAH</b>	<b>543</b>	<b>523</b>	<b>346</b>	<b>330</b>	<b>691</b>	<b>597</b>	<b>376</b>	<b>ADL 483</b>

Note: All sample results from the lab were flagged B – Compound found in the blank and sample.

Table 2-5: Summary of Results – Polychlorinated Biphenyls (PCB) – ng/dscm

Run Number Date	Run 2 6/5/24	Run 3 6/6/24	Run 4 6/6/22	Run 5 6/7/24	Run 6 6/11/24	Run 7 6/12/24	Run 8 6/12/24	Flag Average
2,4'-DiCB (PCB-8)	0.376	ADL	ADL	ADL	ADL	ADL	ADL	0.315
2,2',5'-TriCB (PCB-18)	0.152	ADL	ADL	ADL	ADL	ADL	ADL	0.168
2,4,4'-TriCB (PCB-28)	0.296	ADL	ADL	ADL	ADL	ADL	ADL	0.232
2,2',3,5'-TeCB (PCB-44)	0.923	ADL	ADL	ADL	ADL	ADL	ADL	1.27
2,2',5,5'-TeCB (PCB-52)	0.181	ADL	ADL	ADL	ADL	ADL	ADL	0.173
2,3',4,4'-TeCB (PCB-66)	0.0673	ADL	ADL	ADL	ADL	ADL	ADL	0.0472
3,3',4,4'-TeCB (PCB-77)	0.0209	ADL	ADL	ADL	ADL	ADL	ADL	0.0358
3,4,4',5'-TeCB (PCB-81)	0.0219	BDL	BDL	BDL	BDL	BDL	BDL	0.100
2,2',4,5,5'-PeCB (PCB-101)	0.0828	ADL	ADL	ADL	ADL	ADL	ADL	0.0745
2,3',3',4,4'-PeCB (PCB-105)	0.0233	BDL	BDL	BDL	BDL	BDL	BDL	0.106
2,3',4,4',5'-PeCB (PCB-114)	0.0376	BDL	BDL	BDL	BDL	BDL	BDL	0.172
2,3',4,4',5'-PeCB (PCB-118)	0.0267	ADL	ADL	ADL	ADL	ADL	ADL	0.0858
2,3',4,4',5'-PeCB (PCB-123)	0.0390	BDL	BDL	BDL	BDL	BDL	BDL	0.178
3,3',4,4',5'-PeCB (PCB-126)	0.0280	BDL	BDL	BDL	BDL	BDL	BDL	0.128
2,2',3',3',4,4'-HxCB (PCB-128)	0.00140	ADL	ADL	ADL	ADL	ADL	ADL	0.173
2,2',3',4,4',5'-HxCB (PCB-138)	0.0235	ADL	ADL	ADL	ADL	ADL	ADL	0.0206
2,2',4,4',5',5'-HxCB (PCB-153)	0.0262	ADL	ADL	ADL	ADL	ADL	ADL	0.0221
2,3',3',4,4',5'-HxCB (PCB-156)	0.000659	ADL	ADL	ADL	ADL	ADL	ADL	0.259
2,3',3',4,4',5'-HxCB (PCB-157)	0.000659	ADL	ADL	ADL	ADL	ADL	ADL	0.259
2,3',4,4',5',5'-HxCB (PCB-167)	0.0410	BDL	BDL	BDL	BDL	BDL	BDL	0.188
3,3',4,4',5',5'-HxCB (PCB-169)	0.0280	BDL	BDL	BDL	BDL	BDL	BDL	0.128
2,2',3',3',4,4',5'-HpCB (PCB-170)	0.00102	ADL	ADL	ADL	ADL	ADL	ADL	0.134
2,2',3',4,4',5',5'-HpCB (PCB-180)	0.00618	ADL	ADL	ADL	ADL	ADL	ADL	0.207
2,2',3',4',5',5',6'-HpCB (PCB-187)	0.00561	ADL	ADL	ADL	ADL	ADL	ADL	0.0880
2,3',3',4,4',5',5'-HpCB (PCB-189)	0.0335	BDL	BDL	BDL	BDL	BDL	BDL	0.153
2,2',3',3',4,4',5',6'-OxCB (PCB-195)	0.0362	BDL	BDL	BDL	BDL	BDL	BDL	0.140
2,2',3',3',4,4',5',5',6'-NoCB (PCB-206)	0.0390	BDL	BDL	BDL	BDL	BDL	BDL	0.178
2,2',3',3',4,4',5',5',6',6'-DeCB (PCB-209)	0.0315	BDL	BDL	ADL	ADL	ADL	ADL	0.121
<b>Total PCB</b>	2.55	DLL	DLL	DLL	DLL	DLL	DLL	5.16

Table 2-6: Summary of Results – Polychlorinated Biphenyls (PCB) – ng/dscm @ 7% oxygen

Run Number Date	Run 2 6/5/24	Run 3 6/6/24	Run 4 6/6/22	Run 5 6/7/24	Run 6 6/11/24	Run 7 6/12/24	Run 8 6/12/24	Flag Average
2,4'-DiCB (PCB-8)	0.299	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,2',5'-TrCB (PCB-18)	0.121	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,4,4'-TrCB (PCB-28)	0.236	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,2',3,5'-TeCB (PCB-44)	0.735	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,2',5,5'-TeCB (PCB-52)	0.144	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,3',4,4'-TeCB (PCB-66)	0.0535	ADL	ADL	ADL	ADL	ADL	ADL	ADL
3,3',4,4'-TeCB (PCB-77)	0.0167	ADL	ADL	ADL	ADL	ADL	ADL	ADL
3,4,4',5'-TeCB (PCB-81)	0.0174	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,2',4,5,5'-PeCB (PCB-101)	0.0658	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,3',3',4,4'-PeCB (PCB-105)	0.0185	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,3',4,4',5'-PeCB (PCB-114)	0.0299	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,3',4,4',5'-PeCB (PCB-118)	0.0212	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,3',4,4',5'-PeCB (PCB-123)	0.0310	ADL	ADL	ADL	ADL	ADL	ADL	ADL
3,3',4,4',5'-PeCB (PCB-126)	0.0223	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,2',3,3',4,4'-HxCB (PCB-128)	0.00111	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,2',3,3',4,4',5'-HxCB (PCB-138)	0.0187	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,2',4,4',5,5'-HxCB (PCB-153)	0.0209	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,3',3',4,4',5'-HxCB (PCB-156)	0.000524	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,3',3',4,4',5'-HxCB (PCB-157)	0.000524	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,3',4,4',5,5'-HxCB (PCB-167)	0.0326	ADL	ADL	ADL	ADL	ADL	ADL	ADL
3,3',4,4',5,5'-HxCB (PCB-169)	0.0223	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,2',3,3',4,4',5'-HxCB (PCB-170)	0.000811	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,2',3,3',4,4',5,5'-HxCB (PCB-180)	0.00492	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,2',3,4',5,5',6'-HxCB (PCB-187)	0.00446	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,3',3',4,4',5,5'-HxCB (PCB-189)	0.0267	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,2',3,3',4,4',5,6'-OxCB (PCB-195)	0.0288	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,2',3,3',4,4',5,5',6'-NoCB (PCB-206)	0.0310	ADL	ADL	ADL	ADL	ADL	ADL	ADL
2,2',3,3',4,4',5,5',6,6'-DeCB (PCB-209)	0.0250	ADL	ADL	ADL	ADL	ADL	ADL	ADL
<b>Total PCB</b>	2.03	DLL	DLL	DLL	DLL	DLL	DLL	DLL

## Testing Methodology



### 3.0 Testing Methodology

The emission testing program was conducted in accordance with the test methods listed in Table 3-1. Method descriptions are provided below while quality assurance/quality control data is provided in Appendix D.

**Table 3-1: Source Testing Methodology**

Parameter	U.S. EPA Reference Test Methods	Notes/Remarks
Volumetric Flow Rate	1 & 2	Full Velocity Traverses
Oxygen/Carbon Dioxide	3A	Instrumental Analysis
Moisture Content	4	Gravimetric Analysis
PAH & PCB	23	Isokinetic Sampling
Total Hydrocarbons	25A	Instrumental Analysis
Hydrogen Cyanide	320	FTIR – Continuous Sampling
Gas Dilution System Certification	205	--

#### 3.1 U.S. EPA Reference Test Methods 1 and 2 – Sampling/Traverse Points and Volumetric Flow Rate

The sampling location and number of traverse (sampling) points were selected in accordance with U.S. EPA Reference Test Method 1. To determine the minimum number of traverse points, the upstream and downstream distances were equated into equivalent diameters and compared to Figure 1-1 (for isokinetic sampling) in U.S. EPA Reference Test Method 1.

Full velocity traverses were conducted in accordance with U.S. EPA Reference Test Method 2 to determine the average stack gas velocity pressure, static pressure and temperature. The velocity and static pressure measurement system consisted of a pitot tube and inclined manometer. The stack gas temperature was measured with a K-type thermocouple and pyrometer.

Stack gas velocity pressure and temperature readings were recorded during each test run. The data collected was utilized to calculate the volumetric flow rate in accordance with U.S. EPA Reference Test Method 2.

#### 3.2 U.S. EPA Reference Test Method 3A – Oxygen / Carbon Dioxide

The oxygen (O<sub>2</sub>) and carbon dioxide (CO<sub>2</sub>) testing was conducted in accordance with U.S. EPA Reference Test Method 3A. Data was collected online and reported in one-minute averages. The sampling system consisted of a stainless-steel probe, Teflon sample line(s), gas conditioning system and the identified gas analyzer. The gas conditioning system was a non-contact condenser used to remove moisture from the stack gas. A heated Teflon sample line was used. The quality control measures are described in Section 3.8.

#### 3.3 U.S. EPA Reference Test Method 4 – Moisture Content

The stack gas moisture content (BWS) was determined in accordance with U.S. EPA Reference Test Method 4. The gas conditioning train consisted of a series of chilled impingers. Prior to testing, each impinger was filled with a known quantity of water or silica gel. Each impinger was analyzed gravimetrically before and after each test run on the same balance to determine the amount of moisture condensed.

### 3.4 U.S. EPA Reference Test Method 23 – PAH and PCB

The PAH and PCB testing was conducted in accordance with U.S. EPA Reference Test Method 23. The sampling system consisted of a glass nozzle, heated glass-lined probe, glass filter holder with pre-cleaned heated glass-fiber filter, condenser coil, XAD sorbent module, gas conditioning train, pump and calibrated dry gas meter. The gas conditioning system consisted of five (5) chilled impingers. The first impinger was empty. The next two (2) impingers each contained 100 mL of water. The fourth impinger was empty while the fifth impinger was charged with 200-300 grams of silica gel. The probe liner and filter heating systems were maintained at a temperature of  $120 \pm 14^{\circ}\text{C}$  ( $248 \pm 25^{\circ}\text{F}$ ), and the impinger temperature was maintained at  $20^{\circ}\text{C}$  ( $68^{\circ}\text{F}$ ) or less throughout testing.

Method 23 Section 6.1.7 requires the condenser to be oriented at an angle to cause moisture to flow down to the XAD adsorbent module to facilitate condensate drainage. Glassware with this configuration is not currently available from a national supplier utilizing a large enough condenser to meet the temperature specifications of the method. Alliance will continue to work with manufacturers, but until equipment is widely available, the horizontal or vertical condenser configuration from traditional Method 23 was utilized.

All glassware leading to the XAD adsorbing resin trap was cleaned and sealed before mobilizing to the site. Glassware cleaning consisted of washing with warm soapy water and rinsing with distilled water and acetone. The sampling train was assembled in the sample recovery area. The glass-fiber filter was placed in a glass filter holder with a Teflon filter support and connected to the condenser coil. All open ends of the sampling train were sealed with Teflon tape prior to complete assembly at the sampling location.

Following the completion of each test run, the sampling train was leak checked at vacuum pressure greater than or equal to the highest vacuum pressure observed during the run and the contents of the impingers were measured for moisture gain. The XAD sorbent module was sealed on both ends and placed on ice. The filter was removed from the filter holder and placed in sample container 1. The nozzle, probe liner, filter holder, condenser and all connecting glassware were triple-rinsed and brushed with acetone and then toluene, and these rinses were recovered in sample container 2. The impinger water condensate was recovered into sample container 3a. All impingers were then rinsed three times with acetone and then three times with toluene and collected in sample container 3b. All containers were sealed, labeled and liquid levels marked for transport to the identified laboratory for analysis.

Method 23 Section 8.2.9 has the impinger water and solvent rinses collected in a single container (No. 3). Due to analytical method development constraints of the subcontracted laboratory, it was necessary to split this recovery between two containers: condensate (Container No. 3a) and solvent rinses (Container No. 3b).

A field train proof blank was collected. A complete sampling system was placed at the sampling location and multiple leak checks were performed on the system similar to an actual testing scenario. The sample train was then moved to the mobile laboratory for recovery. A full set of reagent blanks including a filter and a trap were also submitted to the laboratory.

Targeted PAH and PCB analytes are detailed below:

PAH Analytes			
PAH Compound	CAS Number	PAH Compound	CAS Number
Naphthalene	91-20-3	Chrysene	218-01-9
2-Methylnaphthalene	91-57-6	Benzo[b]fluoranthene	205-99-2
Acenaphthylene	208-96-8	Benzo[k]fluoranthene	207-08-9
Acenaphthene	83-32-9	Perylene	198-55-8
Fluorene	86-73-7	Benzo[a]pyrene	50-32-8
Anthracene	120-12-7	Benzo[e]pyrene	192-97-2
Phenanthrene	85-01-8	Benzo[g,h,i]perylene	191-24-2
Fluoranthene	206-44-0	Indeno[1,2,3-cd]pyrene	193-39-5
Pyrene	129-00-0	Dibenz[a,h]anthracene	53-70-3
Benz[a]anthracene	56-55-3		
PCB Analytes			
PCB Congener	CAS Number	PCB Congener	CAS Number
2,4'-DiCB	34883-43-7	2,2',3,3',4,4'-HxCB	38380-07-3
2,2',5-TrCB	37680-65-2	2,2',3,4,4',5'-HxCB	35065-28-2
2,4,4'-TrCB	7012-37-5	2,2',4,4',5,5'-HxCB	35065-27-1
2,2',3,5'-TeCB	41464-39-5	2,3,3',4,4',5-HxCB	38380-08-4
2,2',5,5'-TeCB	35693-99-3	2,3,3',4,4',5'-HxCB	69782-90-7
2,3',4,4'-TeCB	32598-10-0	2,3',4,4',5,5'-HxCB	52663-72-6
3,3',4,4'-TeCB	32598-13-3	3,3',4,4',5,5'-HxCB	32774-16-6
3,4,4',5-TeCB	70362-50-4	2,2',3,3',4,4',5-HpCB	35065-30-6
2,2',4,5,5'-PeCB	37680-73-2	2,2',3,4,4',5,5'-HpCB	35065-29-3
2,3,3',4,4'-PeCB	32598-14-4	2,2',3,4',5,5',6-HpCB	52663-68-0
2,3,4,4',5-PeCB	74472-37-0	2,3,3',4,4',5,5'-HpCB	39635-31-9
2,3',4,4',5-PeCB	31508-00-6	2,2',3,3',4,4',5,6-OcCB	52663-78-2
2',3,4,4',5-PeCB	65510-44-3	2,2',3,3',4,4',5,5',6-NoCB	40186-72-9
3,3',4,4',5-PeCB	57465-28-8	2,2',3,3',4,4',5,5',6,6'-DeCB	2051-24-3

### 3.5 U.S. EPA Reference Test Method 25A – Total Hydrocarbons

The total hydrocarbons (THC) testing was conducted in accordance with U.S. EPA Reference Test Method 25A. Data was collected online and reported in one-minute averages. The sampling system consisted of a stainless-steel probe, heated Teflon sample line(s) and the identified gas analyzer. The quality control measures are described in Section 3.9.

### 3.6 U.S. EPA Reference Test Method 320 – Hydrogen Cyanide

The concentration of hydrogen cyanide (HCN) was determined in accordance with U.S. EPA Reference Test Method 320. Each source gas stream was extracted at a constant rate through a heated probe, heated filter and heated sample line and analyzed with a MKS MultiGas 2030 FTIR operated by a portable computer. The computer has FTIR spectra of calibration gases stored on the hard drive. These single component calibration spectra are used to analyze the measured sample spectra. The gas components to be measured were selected from the spectra library and incorporated into the analytical method. The signal amplitude, linearity, and signal to noise ratio were measured and recorded to document analyzer performance. A leak check was performed on the sample cell. The instrument path length was verified using ethylene as the Calibration Transfer Standard. Dynamic spiking was performed using a certified standard of the target compound in nitrogen with sulfur hexafluoride blended as a tracer to calculate the dilution factor. All test spectra, interferograms, and analytical method information are recorded and stored with the calculated analytical results. The quality control measures are described in Section 3.10.

### 3.7 U.S. EPA Reference Test Method 205 – Gas Dilution System Certification

A calibration gas dilution system field check was conducted in accordance with U.S. EPA Reference Method 205. An initial three (3) point calibration was conducted, using individual Protocol 1 gases, on the analyzer used to complete the dilution system field check. Multiple dilution rates and total gas flow rates were utilized to force the dilution system to perform two dilutions on each mass flow controller. The diluted calibration gases was sent directly to the analyzer, and the analyzer response recorded in an electronic field data sheet. A mid-level supply gas, with a cylinder concentration within 10% of one of the gas divider settings described above, was introduced directly to the analyzer, and the analyzer response recorded in an electronic field data sheet. The cylinder concentration and the analyzer response agreed within 2%. These steps were repeated three (3) times. The average analyzer response agreed within 2% of the predicted gas concentration. No single injection differed more than 2% from the average instrument response for that dilution. Copies of the Method 205 data can be found in the Quality Assurance/Quality Control Appendix.

### 3.8 Quality Assurance/Quality Control – U.S. EPA Reference Test Method 3A

Cylinder calibration gases used met EPA Protocol 1 (+/- 2%) standards. Copies of all calibration gas certificates can be found in the Quality Assurance/Quality Control Appendix.

Low Level gas was introduced directly to the analyzer. After adjusting the analyzer to the Low-Level gas concentration and once the analyzer reading was stable, the analyzer value was recorded. This process was repeated for the High-Level gas. For the Calibration Error Test, Low, Mid, and High Level calibration gases were sequentially introduced directly to the analyzer. All values were within 2.0 percent of the Calibration Span or 0.5% absolute difference.

High or Mid-Level gas (whichever was closer to the stack gas concentration) was introduced at the probe and the time required for the analyzer reading to reach 95 percent or 0.5% (whichever was less restrictive) of the gas concentration was recorded. The analyzer reading was observed until it reached a stable value, and this value was recorded. Next, Low Level gas was introduced at the probe and the time required for the analyzer reading to decrease to a value within 5.0 percent or 0.5% (whichever was less restrictive) was recorded. If the Low-Level gas was zero gas, the response was 0.5% or 5.0 percent of the upscale gas concentration (whichever was less restrictive). The analyzer reading was observed until it reached a stable value and this value was recorded.

The measurement system response time and initial system bias were determined from these data. The System Bias was within 5.0 percent of the Calibration Span or 0.5% absolute difference.

High or Mid-Level gas (whichever was closer to the stack gas concentration) was introduced at the probe. After the analyzer response was stable, the value was recorded. Next, Low Level gas was introduced at the probe, and the analyzer value recorded once it reached a stable response. The System Bias was within 5.0 percent of the Calibration Span or 0.5% absolute difference or the data was invalidated and the Calibration Error Test and System Bias were repeated.

Drift between pre- and post-run System Bias was within 3 percent of the Calibration Span or 0.5% absolute difference. If the drift exceeded 3 percent or 0.5%, the Calibration Error Test and System Bias were repeated.

To determine the number of sampling points, a gas stratification check was conducted prior to initiating testing. The diluent concentrations were measured at three points (16.7, 50.0 and 83.3 percent of the measurement line). Each traverse point was sampled for a minimum of twice the system response time. The diluent concentration at each traverse point did not differ more than 5 percent of the average diluent concentration, and single point sampling was conducted during the test runs. Copies of stratification check data can be found in the Field Data Appendix.

A Data Acquisition System with battery backup was used to record the instrument response in one (1) minute averages. The data was continuously stored as a \*.CSV file in Excel format on the hard drive of a computer. At the completion of testing, the data was also saved to the Alliance server. All data was reviewed by the Field Team Leader before leaving the facility. Once arriving at Alliance's office, all written and electronic data was relinquished to the report coordinator and then a final review was performed by the Project Manager.

### **3.9 Quality Assurance/Quality Control – U.S. EPA Reference Test Method 25A**

Cylinder calibration gases used met EPA Protocol 1 (+/- 2%) standards. Copies of all calibration gas certificates can be found in the Quality Assurance/Quality Control Appendix.

Within two (2) hours prior to testing, zero gas was introduced through the sampling system to the analyzer. After adjusting the analyzer to the Zero gas concentration and once the analyzer reading was stable, the analyzer value was recorded. This process was repeated for the High-Level gas, and the time required for the analyzer reading to reach 95 percent of the gas concentration was recorded to determine the response time. Next, Low and Mid-Level gases were introduced through the sampling system to the analyzer, and the response was recorded when it was stable. All values were less than +/- 5 percent of the calibration gas concentrations.

Mid-Level gas was introduced through the sampling system. After the analyzer response was stable, the value was recorded. Next, Zero gas was introduced through the sampling system, and the analyzer value recorded once it reached a stable response. The Analyzer Drift was less than +/- 3 percent of the span value. Analyzer drift checks were conducted once hourly during testing.

A Data Acquisition System with battery backup was used to record the instrument response in one (1) minute averages. The data was continuously stored as a \*.CSV file in Excel format on the hard drive of a computer. At the completion of testing, the data was also saved to the Alliance server. All data was reviewed by the Field Team Leader before leaving the facility. Once arriving at Alliance's office, all written and electronic data was relinquished to the report coordinator and then a final review was performed by the Project Manager.

### **3.10 Quality Assurance/Quality Control – U.S. EPA Reference Method 320**

EPA Protocol 1 Calibration Gases – Cylinder calibration gases used met EPA Protocol 1 (+/- 2%) standards. Copies of all calibration gas certificates can be found in the Quality Assurance/Quality Control Appendix.

After providing ample time for the FTIR to reach the desired temperature and to stabilize, zero gas (nitrogen) was introduced directly to the instrument sample port. While flowing nitrogen the signal amplitude was recorded, a background spectra was taken, a linearity check was performed and recorded, the peak to peak noise and the root mean square in the spectral region of interest was measured and a screenshot was recorded.

Following the zero gas checks, room air was pulled through the sample chamber and the line width and resolution was verified to be at 1879 cm<sup>-1</sup>, the peak position was entered and the FWHH was recorded (screenshot). Following these checks, another background spectra was recorded and the calibration transfer standard (CTS) was introduced directly to the instrument sample port. The CTS instrument recovery was recorded and the instrument mechanical response time was measured.

Next, stack gas was introduced to the FTIR through the sampling system and several scans were taken until a stable reading was achieved. The native concentration of our target spiking analyte (HCN) was recorded. Spike gas was introduced to the sampling system at a constant flow rate  $\leq 10\%$  of the total sample flow rate and a corresponding dilution ratio was calculated along with a system response time. Matrix spike recovery spectra were recorded and were within the  $\pm 30\%$  of the calculated value of the spike concentration that the method requires.

The matrix spike recovery was conducted once at the beginning of the testing and the CTS recovery procedures were repeated following each test run. The corresponding values were recorded.

## Appendix A



**Location:** BASF Corporation - Pasadena, TX  
**Source:** F-10 Boiler EPN 84  
**Project No.:** AST-2024-2352  
**Run No.:** 2  
**Parameters:** PAH, PCB

**Meter Pressure (Pm), in. Hg**

$$P_m = P_b + \frac{\Delta H}{13.6}$$

where,

$$\begin{array}{ll}
 P_b \frac{29.80}{13.6} & = \text{barometric pressure, in. Hg} \\
 \Delta H \frac{1.492}{13.6} & = \text{pressure differential of orifice, in H}_2\text{O} \\
 P_m \frac{29.91}{13.6} & = \text{in. Hg}
 \end{array}$$

**Absolute Stack Gas Pressure (Ps), in. Hg**

$$P_s = P_b + \frac{P_g}{13.6}$$

where,

$$\begin{array}{ll}
 P_b \frac{29.80}{13.6} & = \text{barometric pressure, in. Hg} \\
 P_g \frac{-0.20}{13.6} & = \text{static pressure, in. H}_2\text{O} \\
 P_s \frac{29.79}{13.6} & = \text{in. Hg}
 \end{array}$$

**Standard Meter Volume (Vmstd), dscf**

$$V_{mstd} = \frac{17.636 \times Y \times V_m \times P_m}{T_m}$$

where,

$$\begin{array}{ll}
 Y \frac{1.015}{1.015} & = \text{meter correction factor} \\
 V_m \frac{157.453}{157.453} & = \text{meter volume, cf} \\
 P_m \frac{29.91}{29.91} & = \text{absolute meter pressure, in. Hg} \\
 T_m \frac{544.2}{544.2} & = \text{absolute meter temperature, } ^\circ\text{R} \\
 V_{mstd} \frac{154.910}{154.910} & = \text{dscf}
 \end{array}$$

**Standard Wet Volume (Vwstd), scf**

$$V_{wstd} = 0.04716 \times V_{lc}$$

where,

$$\begin{array}{ll}
 V_{lc} \frac{661.7}{661.7} & = \text{weight of H}_2\text{O collected, g} \\
 V_{wstd} \frac{31.206}{31.206} & = \text{scf}
 \end{array}$$

**Moisture Fraction (BWSsat), dimensionless (theoretical at saturated conditions)**

$$BWS_{sat} = \frac{10^{6.37 - \left( \frac{2,827}{T_s + 365} \right)}}{P_s}$$

where,

$$\begin{array}{ll}
 T_s \frac{347.6}{347.6} & = \text{stack temperature, } ^\circ\text{F} \\
 P_s \frac{29.79}{29.79} & = \text{absolute stack gas pressure, in. Hg} \\
 BWS_{sat} \frac{8.429}{8.429} & = \text{dimensionless}
 \end{array}$$



**Location:** BASF Corporation - Pasadena, TX  
**Source:** F-10 Boiler EPN 84  
**Project No.:** AST-2024-2352  
**Run No.:** 2  
**Parameters:** PAH, PCB

**Moisture Fraction (BWS), dimensionless (measured)**

$$BWS = \frac{V_{wstd}}{(V_{wstd} + V_{mstd})}$$

where,

$V_{wstd} = \frac{31.206}{154.910}$  = standard wet volume, scf  
 $V_{mstd} = \frac{154.910}{0.168}$  = standard meter volume, dscf  
 $BWS = \frac{0.168}{0.168}$  = dimensionless

**Moisture Fraction (BWS), dimensionless**

$$BWS = BWS_{msd} \text{ unless } BWS_{sat} < BWS_{msd}$$

where,

$BWS_{sat} = \frac{8.429}{0.168}$  = moisture fraction (theoretical at saturated conditions)  
 $BWS_{msd} = \frac{0.168}{0.168}$  = moisture fraction (measured)  
 $BWS = \frac{0.168}{0.168}$

**Excess Air (EA), %**

$$EA = \frac{(\% O_2 - [0.5 \times \% CO]) \times 100}{(0.264 \times \% N_2) - \% O_2 - (0.5 \times \% CO)}$$

where,

$CO_2 = \frac{10.61}{3.43}$  = carbon dioxide concentration, %  
 $O_2 = \frac{3.43}{0.0}$  = oxygen concentration, %  
 $CO = \frac{0.0}{85.96}$  = carbon monoxide concentration, % (assumed zero)  
 $N_2 = \frac{85.96}{17.81}$  = nitrogen concentration, %  
 $EA = \frac{17.81}{17.81}$  = %

**Molecular Weight (DRY) (Md), lb/lb-mole**

$$Md = (0.44 \times \% CO_2) + (0.32 \times \% O_2) + (0.28 \times [100 - \% CO_2 - \% O_2])$$

where,

$CO_2 = \frac{10.61}{3.43}$  = carbon dioxide concentration, %  
 $O_2 = \frac{3.43}{29.83}$  = oxygen concentration, %  
 $Md = \frac{29.83}{29.83}$  = lb/lb mol

**Molecular Weight (WET) (Ms), lb/lb-mole**

$$Ms = (Md \times [1 - BWS]) + (18.015 \times BWS)$$

where,

$Md = \frac{29.83}{0.168}$  = molecular weight (DRY), lb/lb mol  
 $BWS = \frac{0.168}{27.85}$  = moisture fraction, dimensionless  
 $Ms = \frac{27.85}{27.85}$  = lb/lb mol

Location: **BASF Corporation - Pasadena, TX**  
Source: **F-10 Boiler EPN 84**  
Project No.: **AST-2024-2352**  
Run No.: **2**  
Parameters: **PAH, PCB**

Average Velocity (Vs), ft/sec

$$V_s = 85.49 \times C_p \times (\Delta P^{1/2})_{\text{avg}} \times \sqrt{\frac{T_s}{P_s \times M_s}}$$

where,

$C_p$	0.813	= pitot tube coefficient
$\Delta P^{1/2}$	0.772	= velocity head of stack gas, (in. H <sub>2</sub> O) <sup>1/2</sup>
$T_s$	807.3	= absolute stack temperature, °R
$P_s$	29.79	= absolute stack gas pressure, in. Hg
$M_s$	27.85	= molecular weight of stack gas, lb/lb mol
$V_s$	52.9	= ft/sec

Average Stack Gas Flow at Stack Conditions (Qa), acfm

$$Q_a = 60 \times V_s \times A_s$$

where,

$V_s$	52.9	= stack gas velocity, ft/sec
$A_s$	15.18	= cross-sectional area of stack, ft <sup>2</sup>
$Q_a$	48,187	= acfm

Average Stack Gas Flow at Standard Conditions (Qs), dscfm

$$Q_s = \frac{17.636 \times Q_a \times (1 - BWS) \times P_s}{T_s}$$

where,

$Q_a$	48,187	= average stack gas flow at stack conditions, acfm
BWS	0.168	= moisture fraction, dimensionless
$P_s$	29.79	= absolute stack gas pressure, in. Hg
$T_s$	807.3	= absolute stack temperature, °R
$Q_s$	26,099	= dscfm

Dry Gas Meter Calibration Check (Yqa), dimensionless

$$Y_{qa} = \frac{Y - \left( \frac{\Theta}{V_m} \sqrt{\frac{0.0319 \times T_m \times 29}{\Delta H@ \times \left( P_b + \frac{\Delta H_{\text{avg.}}}{13.6} \right) \times M_d}} \sqrt{\Delta H_{\text{avg.}}} \right)}{Y} \times 100$$

where,

$Y$	1.015	= meter correction factor, dimensionless
$\Theta$	240	= run time, min.
$V_m$	157.453	= total meter volume, def
$T_m$	544.2	= absolute meter temperature, °R
$\Delta H@$	1.922	= orifice meter calibration coefficient, in. H <sub>2</sub> O
$P_b$	29.80	= barometric pressure, in. Hg
$\Delta H_{\text{avg}}$	1.492	= average pressure differential of orifice, in. H <sub>2</sub> O
$M_d$	29.83	= molecular weight (DRY), lb/lb mol
$(\Delta H)^{1/2}$	1.244	= average squareroot pressure differential of orifice, (in. H <sub>2</sub> O) <sup>1/2</sup>
$Y_{qa}$	0.7	= percent



**Location:** BASF Corporation - Pasadena, TX  
**Source:** F-10 Boiler EPN 84  
**Project No.:** AST-2024-2352  
**Run No.:** 2  
**Parameters:** PAH, PCB

Volume of Nozzle (Vn), ft<sup>3</sup>

$$V_n = \frac{T_s \times \left( 0.002669 \times V_{lc} + \frac{V_m \times P_m \times Y}{T_m} \right)}{P_s}$$

where,

$T_s$  807.3 = absolute stack temperature, °R  
 $P_s$  29.79 = absolute stack gas pressure, in. Hg  
 $V_{lc}$  661.7 = volume of H<sub>2</sub>O collected, ml  
 $V_m$  157.453 = meter volume, cf  
 $P_m$  29.91 = absolute meter pressure, in. Hg  
 $Y$  1.015 = meter correction factor, unitless  
 $T_m$  544.2 = absolute meter temperature, °R  
 $V_n$  285.925 = volume of nozzle, ft<sup>3</sup>

Isokinetic Sampling Rate (I), %

$$I = \left( \frac{V_n}{\theta \times 60 \times A_n \times V_s} \right) \times 100$$

where,

$V_n$  285.925 = nozzle volume, ft<sup>3</sup>  
 $\theta$  240.0 = run time, minutes  
 $A_n$  0.0004 = area of nozzle, ft<sup>2</sup>  
 $V_s$  52.9 = average velocity, ft/sec  
 $I$  101.0 = %

Location: **BASF Corporation - Pasadena, TX**  
Source: **F-10 Boiler EPN 84**  
Project No.: **AST-2024-2352**  
Run No.: **2**  
Parameters: **PAH, PCB**

**2,4'-DiCB (PCB-8) Concentration ( $C_8$ ), ng/dscm**

$$C_{PCB-8} = \frac{M_{PCB-8} \times 35.3147}{Vmstd}$$

where,

$$\begin{aligned} M_{PCB-8} &= \frac{1.65}{154.910} = 2,4'\text{-DiCB (PCB-8) mass, ng} \\ Vmstd &= \frac{154.910}{0.376} = \text{standard meter volume, dscf} \\ C_{PCB-8} &= \frac{0.376}{0.376} = 2,4'\text{-DiCB (PCB-8) Concentration, ng/dscm} \end{aligned}$$

**2,4'-DiCB Concentration (corrected) ( $C_{PCB-8c-7}$ ), ng/dscm @ 7%  $O_2$**

$$C_{PCB-8c-7} = \frac{M_{PCB-8} \times 35.3147}{Vmstd} \times \frac{20.9 - 7}{20.9 - O_2}$$

where,

$$\begin{aligned} M_{PCB-8} &= \frac{1.65}{154.910} = 2,4'\text{-DiCB (PCB-8) mass, ng} \\ Vmstd &= \frac{154.910}{3.43} = \text{standard meter volume, dscf} \\ O_2 &= \frac{3.43}{0.299} = \text{measured } O_2 \text{ Concentration, \%d} \\ C_{PCB-8c-7} &= \frac{0.299}{0.299} = 2,4'\text{-DiCB Concentration, ng/dscm @ 7\% } O_2 \end{aligned}$$

**Naphthalene Concentration ( $C_{C_{10}H_8}$ ), ng/dscm**

$$C_{C_{10}H_8} = \frac{M_{C_{10}H_8} \times 35.3147}{Vmstd}$$

where,

$$\begin{aligned} M_{C_{10}H_8} &= \frac{430}{154.910} = \text{Naphthalene mass, ng} \\ Vmstd &= \frac{154.910}{98.0} = \text{standard meter volume, dscf} \\ C_{C_{10}H_8} &= \frac{98.0}{98.0} = \text{Naphthalene Concentration, ng/dscm} \end{aligned}$$

**Naphthalene Concentration (corrected) ( $C_{C_{10}H_8c-7}$ ), ng/dscm @ 7%  $O_2$**

$$C_{C_{10}H_8c-7} = \frac{M_{C_{10}H_8} \times 35.3147}{Vmstd} \times \frac{20.9 - 7}{20.9 - O_2}$$

where,

$$\begin{aligned} M_{C_{10}H_8} &= \frac{430}{154.910} = \text{Naphthalene mass, ng} \\ Vmstd &= \frac{154.910}{3.43} = \text{standard meter volume, dscf} \\ O_2 &= \frac{3.43}{78.0} = \text{measured } O_2 \text{ Concentration, \%d} \\ C_{C_{10}H_8c-7} &= \frac{78.0}{78.0} = \text{Naphthalene Concentration, ng/dscm @ 7\% } O_2 \end{aligned}$$

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Run No. /Method** Run 2 / Method 3A

**O<sub>2</sub> - Outlet Concentration (C<sub>O<sub>2</sub></sub>), % dry**

$$C_{O_2} = (C_{obs} - C_0) \times \left( \frac{C_{MA}}{C_M - C_0} \right)$$

**where,**

$C_{obs}$	<u>3.45</u>	= average analyzer value during test, % dry
$C_0$	<u>0.01</u>	= average of pretest & posttest zero responses, % dry
$C_{MA}$	<u>11.00</u>	= actual concentration of calibration gas, % dry
$C_M$	<u>11.04</u>	= average of pretest & posttest calibration responses, % dry
$C_{O_2}$	<u>3.43</u>	= O <sub>2</sub> Concentration, % dry

**CO<sub>2</sub> - Outlet Concentration (C<sub>CO<sub>2</sub></sub>), % dry**

$$C_{CO_2} = (C_{obs} - C_0) \times \left( \frac{C_{MA}}{C_M - C_0} \right)$$

**where,**

$C_{obs}$	<u>10.63</u>	= average analyzer value during test, % dry
$C_0$	<u>-0.01</u>	= average of pretest & posttest zero responses, % dry
$C_{MA}$	<u>10.97</u>	= actual concentration of calibration gas, % dry
$C_M$	<u>10.99</u>	= average of pretest & posttest calibration responses, % dry
$C_{CO_2}$	<u>10.78</u>	= CO <sub>2</sub> Concentration, % dry

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Run No. /Method** Run 2 / Method 25A

**THC - Outlet Concentration (as C<sub>3</sub>H<sub>8</sub>) (C<sub>THC</sub>), ppmvd**

$$C_{THC} = \frac{C_{THCw}}{1 - BWS}$$

where,

$$\begin{array}{lll} C_{THCw} & \frac{0.0684}{0.168} & = \text{THC - Outlet Concentration (as C}_3\text{H}_8\text{), ppmvw} \\ BWS & & = \text{moisture fraction, unitless} \\ C_{THC} & \frac{0.0823}{0.0823} & = \text{ppmvd} \end{array}$$

**THC - Outlet Concentration (as C<sub>3</sub>H<sub>8</sub>) (C<sub>THCc7</sub>), ppmvd @ 7% O<sub>2</sub>**

$$C_{THCc7} = C_{THC} \times \left( \frac{20.9 - 7}{20.9 - O_2} \right)$$

where,

$$\begin{array}{lll} C_{THC} & \frac{0.0823}{3.43} & = \text{THC - Outlet Concentration (as C}_3\text{H}_8\text{), ppmvd} \\ C_{O_2} & & = \text{oxygen concentration, \%} \\ C_{THCc7} & \frac{0.0654}{0.0654} & = \text{ppmvd @7\% O}_2 \end{array}$$

**THC - Outlet Emission Rate (as C<sub>3</sub>H<sub>8</sub>) (ER<sub>THC</sub>), lb/hr**

$$ER_{THC} = \frac{C_{THC} \times MW \times Q_s \times 60 \frac{\text{min}}{\text{hr}} \times 28.32 \frac{\text{L}}{\text{ft}^3}}{24.04 \frac{\text{L}}{\text{g-mole}} \times 1.0E06 \times 454 \frac{\text{g}}{\text{lb}}}$$

where,

$$\begin{array}{lll} C_{THC} & \frac{0.0823}{44.1} & = \text{THC - Outlet Concentration (as C}_3\text{H}_8\text{), ppmvd} \\ MW & & = \text{THC molecular weight, g/g-mole} \\ Q_s & \frac{26,131}{0.0148} & = \text{stack gas volumetric flow rate at standard conditions, dscfm} \\ ER_{THC} & & = \text{lb/hr} \end{array}$$

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Run No. /Method** Run 2 / Method 320

### HCN - Outlet Concentration ( $C_{\text{HCN}}$ ), ppmvd

$$C_{\text{HCN}} = \frac{C_{\text{HCNw}}}{1 - \text{BWS}}$$

where,

$$\begin{array}{lcl} C_{\text{HCNw}} \frac{2.81}{\text{BWS}} & = & \text{HCN - Outlet Concentration, ppmvw} \\ \frac{0.168}{C_{\text{HCN}}} & = & \text{moisture fraction, unitless} \\ \frac{3.37}{C_{\text{HCN}}} & = & \text{ppmvd} \end{array}$$

### HCN - Outlet Concentration ( $C_{\text{HCNc7}}$ ), ppmvd @ 7% O<sub>2</sub>

$$C_{\text{HCNc7}} = C_{\text{HCN}} \times \left( \frac{20.9 - 7}{20.9 - \text{O}_2} \right)$$

where,

$$\begin{array}{lcl} C_{\text{HCN}} \frac{3.37}{\text{O}_2} & = & \text{HCN - Outlet Concentration, ppmvd} \\ \frac{3.43}{C_{\text{O}_2}} & = & \text{oxygen concentration, \%} \\ \frac{2.68}{C_{\text{HCNc7}}} & = & \text{ppmvd @7\% O}_2 \end{array}$$

### HCN - Outlet Emission Rate ( $\text{ER}_{\text{HCN}}$ ), lb/hr

$$\text{ER}_{\text{HCN}} = \frac{C_{\text{HCN}} \times \text{MW} \times \text{Qs} \times 60 \frac{\text{min}}{\text{hr}} \times 28.32 \frac{\text{L}}{\text{ft}^3}}{24.04 \frac{\text{L}}{\text{g-mole}} \times 1.0\text{E}06 \times 454 \frac{\text{g}}{\text{lb}}}$$

where,

$$\begin{array}{lcl} C_{\text{HCN}} \frac{3.37}{\text{MW}} & = & \text{HCN - Outlet Concentration, ppmvd} \\ \frac{27.0253}{\text{MW}} & = & \text{HCN molecular weight, g/g-mole} \\ \frac{26,099}{\text{Qs}} & = & \text{stack gas volumetric flow rate at standard conditions, dscfm} \\ \frac{0.371}{\text{ER}_{\text{HCN}}} & = & \text{lb/hr} \end{array}$$



**Location** BASF Corporation - Pasadena, TX  
**Source** F-10 Boiler EPN 84  
**Project No.** AST-2024-2352  
**Date** 6/4/2024

#### CTS Recovery Value (CTS<sub>R</sub>), %

$$\frac{CTS_{avg}}{CTS_{cyl}} \times 100$$

Where,

$$\begin{aligned}
 CTS_{avg} & \frac{98.82}{\quad} = \text{average of all CTS calibration gas readings, ppm} \\
 CTS_{cyl} & \frac{99.7}{\quad} = \text{CTS bottle certified gas value, ppm} \\
 CTS_R & \frac{99.1\%}{\quad} = \text{CTS recovery value, \%}
 \end{aligned}$$

#### Spike Dilution Factor (DF), %

$$\frac{SF6_{spike} - SF6_{nat}}{SF6_{dir}} \times 100$$

Where,

$$\begin{aligned}
 SF6_{dir} & \frac{12.180}{\quad} = \text{average of direct tracer gas value readings} \\
 SF6_{nat} & \frac{0.010}{\quad} = \text{average of native tracer gas value readings} \\
 SF6_{spike} & \frac{0.696}{\quad} = \text{average of dynamic spike tracer gas value readings} \\
 DF & \frac{5.6\%}{\quad} = \text{spike dilution factor, \%}
 \end{aligned}$$

#### Calculated Spike (Spike<sub>calc</sub>), ppm

$$(DF \times Analyte_{dir}) + (Analyte_{nat} \times (1 - DF))$$

Where,

$$\begin{aligned}
 \%DF & \frac{5.6\%}{\quad} = \text{spike dilution factor, \%} \\
 Analyte_{dir} & \frac{93.35}{\quad} = \text{average of direct analyte gas values, ppm} \\
 Analyte_{nat} & \frac{0.87}{\quad} = \text{average of native analyte gas values, ppm} \\
 Spike_{calc} & \frac{6.07}{\quad} = \text{calculated spike, ppm value, ppm}
 \end{aligned}$$

#### Spike Recovery Value (Spike<sub>R</sub>), %

$$\frac{Analyte_{spike}}{Spike_{calc}} \times 100$$

Where,

$$\begin{aligned}
 Spike_{calc} & \frac{6.07}{\quad} = \text{calculated spike, ppm value, ppm} \\
 Analyte_{spike} & \frac{6.58}{\quad} = \text{average of spiked analyte gas values, ppm} \\
 Spike_R & \frac{108.25\%}{\quad} = \text{spike recovery value, \%}
 \end{aligned}$$



## Appendix B

## Emission Calculations

**Location** BASF Corporation - Pasadena, TX  
**Source** F-10 Boiler EPN 84  
**Project No.** AST-2024-2352

Run Number		Run 2	Run 3	Run 4	Run 5	Run 6	Run 7	Run 8	Average
Date		6/5/24	6/6/24	6/6/24	6/7/24	6/11/24	6/12/24	6/12/24	--
Start Time		9:32	7:20	12:14	5:40	13:17	7:27	12:16	--
Stop Time		17:52	11:33	16:28	9:53	17:33	11:39	16:26	--
<b>Input Data - Outlet</b>									
Moisture Fraction, dimensionless	BWS	0.168	0.172	0.166	0.171	0.171	0.170	0.169	0.16957
Volumetric Flow Rate (M1-4), dscfm	Qs	26,131	25,323	24,088	24,443	24,810	26,178	25,707	25,240
<b>Calculated Data - Outlet</b>									
O <sub>2</sub> Concentration, % dry	C <sub>O<sub>2</sub></sub>	3.43	3.31	3.42	3.39	3.42	3.34	3.46	3.40
CO <sub>2</sub> Concentration, % dry	C <sub>CO<sub>2</sub></sub>	10.61	10.78	10.79	10.56	10.75	10.70	10.68	10.70
THC (as C <sub>3</sub> H <sub>8</sub> ) Concentration, ppmvd	C <sub>THC</sub>	0.0823	0.102	4.01	0.144	<u>0.01</u>	0.275	0.198	0.689
THC (as C <sub>3</sub> H <sub>8</sub> ) Concentration, ppmvw	C <sub>THCW</sub>	0.0684	0.0847	3.35	0.120	<u>0.01</u>	0.228	0.164	0.574
THC (as C <sub>3</sub> H <sub>8</sub> ) Concentration, ppmvd @ 7 % O <sub>2</sub>	C <sub>THC@7</sub>	0.0654	0.0809	3.19	0.115	<u>0.01</u>	0.217	0.158	0.548
THC (as C <sub>3</sub> H <sub>8</sub> ) Emission Rate, lb/hr	ER <sub>THC</sub>	0.0148	0.0178	0.664	0.0243	<u>0.00206</u>	0.0494	0.0350	0.115
<b>FTIR Calculated Data</b>									
HCN - Outlet Concentration, ppmvd	C <sub>HCN</sub>	3.37	3.25	3.60	2.69	3.66	2.81	3.84	3.23
HCN - Outlet Concentration, ppmvw	C <sub>HCNW</sub>	2.81	2.69	3.00	2.23	3.03	2.33	3.19	2.68
HCN - Outlet Concentration, ppmvd @ 7 % O <sub>2</sub>	C <sub>HCN@7</sub>	2.68	2.57	2.86	2.14	2.91	2.22	3.06	2.56
HCN - Outlet Emission Rate, lb/hr	ER <sub>HCN</sub>	0.371	0.347	0.365	0.277	0.382	0.310	0.416	0.342

Underlined results contained all minute data point averages at zero. A reporting limit of 0.01 ppmvw was used for calculation purposes and is considered BDL.

# Emission Calculations

Location BASF Corporation - Pasadena, TX  
Source F-10 Boiler EPN 84  
Project No. AST-2024-2352  
Parameter: PAH

Trap Set Number		Run 2	Run 3	Run 4	Run 5	Run 6	Run 7	Run 8	Average
Date		6/5/24	6/6/24	6/6/24	6/7/24	6/11/24	6/12/24	6/12/24	--
Start Time		9:32	7:20	12:11	5:40	13:17	7:30	12:16	--
Stop Time		17:56	11:33	16:26	9:53	17:33	11:39	16:26	--
Input Data									
Standard Meter Volume, ft <sup>3</sup>	(Vmstd)	154.910	148.992	142.479	150.557	148.853	155.651	152.923	150.623
O <sub>2</sub> Concentration, % dry	(O <sub>2</sub> )	3.43	3.31	3.42	3.39	3.42	3.34	3.46	3.40
Emissions Calculations									
Naphthalene Concentration, ng/dscm	C <sub>10H<sub>8</sub></sub>	98.0	105	103	94.3	178	186	139	129
Naphthalene Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>10H<sub>8</sub></sub> <sup>e</sup>	78.0	83.3	81.8	74.9	142	147	111	103
2-Methylnaphthalene Concentration, ng/dscm	C <sub>11H<sub>10</sub></sub>	64.7	64.9	48.8	47.4	104	109	66.5	72.3
2-Methylnaphthalene Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>11H<sub>10</sub></sub> <sup>e</sup>	51.5	51.3	38.8	37.6	82.8	86.6	53.0	57.4
Acenaphthylene Concentration, ng/dscm	C <sub>12H<sub>8</sub></sub>	3.31	3.82	2.12	1.82	3.94	1.91	1.72	2.66
Acenaphthylene Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>12H<sub>8</sub></sub> <sup>e</sup>	2.63	3.02	1.68	1.45	3.13	1.51	1.37	2.11
Acenaphthene Concentration, ng/dscm	C <sub>12H<sub>10</sub></sub>	24.8	28.0	17.7	17.1	52.4	56.7	25.2	31.7
Acenaphthene Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>12H<sub>10</sub></sub> <sup>e</sup>	19.8	22.1	14.1	13.6	41.7	44.9	20.1	25.2
Fluorene Concentration, ng/dscm	C <sub>13H<sub>10</sub></sub>	67.5	70.6	37.4	37.3	91.6	82.6	41.1	61.2
Fluorene Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>13H<sub>10</sub></sub> <sup>e</sup>	53.7	55.8	29.8	29.6	72.8	65.4	32.8	48.5
Phenanthrene Concentration, ng/dscm	C <sub>14H<sub>10</sub></sub>	258	251	126	126	292	240	142	205
Phenanthrene Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>14H<sub>10</sub></sub> <sup>e</sup>	205	199	100	100	232	190	113	163
Anthracene Concentration, ng/dscm	C <sub>14H<sub>10</sub></sub>	22.7	23.5	9.59	10.5	19.5	15.8	8.94	15.8
Anthracene Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>14H<sub>10</sub></sub> <sup>e</sup>	18.0	18.6	7.63	8.30	15.5	12.5	7.12	12.5
Fluoranthene Concentration, ng/dscm	C <sub>14H<sub>10</sub></sub>	32.8	26.5	18.4	17.4	34.2	25.9	15.1	24.3
Fluoranthene Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>14H<sub>10</sub></sub> <sup>e</sup>	26.1	21.0	14.7	13.8	27.2	20.5	12.0	19.3
Pyrene Concentration, ng/dscm	C <sub>16H<sub>10</sub></sub>	37.8	29.2	22.7	18.9	36.1	23.4	15.6	26.2
Pyrene Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>16H<sub>10</sub></sub> <sup>e</sup>	30.1	23.0	18.0	15.0	28.7	18.5	12.4	20.8
Benzo[a]anthracene Concentration, ng/dscm	C <sub>18H<sub>12</sub></sub>	0.862	0.666	0.530	0.746	0.735	0.490	0.589	0.660
Benzo[a]anthracene Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>18H<sub>12</sub></sub> <sup>e</sup>	0.686	0.526	0.422	0.592	0.585	0.388	0.469	0.524
Chrysene Concentration, ng/dscm	C <sub>18H<sub>12</sub></sub>	3.01	2.84	2.09	2.39	2.40	2.09	2.16	2.43
Chrysene Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>18H<sub>12</sub></sub> <sup>e</sup>	2.39	2.25	1.66	1.90	1.91	1.65	1.72	1.93
Benzo[b]fluoranthene Concentration, ng/dscm	C <sub>20H<sub>12</sub></sub>	2.30	1.78	1.44	1.52	1.85	0.746	0.635	1.47
Benzo[b]fluoranthene Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>20H<sub>12</sub></sub> <sup>e</sup>	1.83	1.41	1.15	1.20	1.47	0.591	0.506	1.17
Benzo[k]fluoranthene Concentration, ng/dscm	C <sub>20H<sub>12</sub></sub>	0.793	0.820	0.736	0.779	0.795	0.604	0.554	0.726
Benzo[k]fluoranthene Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>20H<sub>12</sub></sub> <sup>e</sup>	0.631	0.648	0.585	0.618	0.632	0.478	0.442	0.576
Benzo[e]pyrene Concentration, ng/dscm	C <sub>20H<sub>12</sub></sub>	11.9	7.82	6.37	6.17	8.56	1.48	2.08	6.34
Benzo[e]pyrene Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>20H<sub>12</sub></sub> <sup>e</sup>	9.45	6.18	5.07	4.90	6.81	1.17	1.66	5.03
Benzo[a]pyrene Concentration, ng/dscm	C <sub>20H<sub>12</sub></sub>	3.26	2.24	2.02	1.83	2.59	0.692	0.831	1.92
Benzo[a]pyrene Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>20H<sub>12</sub></sub> <sup>e</sup>	2.59	1.77	1.61	1.45	2.06	0.548	0.663	1.53
Perylene Concentration, ng/dscm	C <sub>20H<sub>12</sub></sub>	0.661	0.536	0.434	0.453	0.603	0.272	0.233	0.456
Perylene Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>20H<sub>12</sub></sub> <sup>e</sup>	0.526	0.423	0.345	0.359	0.479	0.216	0.186	0.362
Indeno[1,2,3-cd]pyrene Concentration, ng/dscm	C <sub>22H<sub>12</sub></sub>	8.21	5.97	5.80	4.95	6.67	1.21	1.90	4.96
Indeno[1,2,3-cd]pyrene Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>22H<sub>12</sub></sub> <sup>e</sup>	6.53	4.72	4.61	3.93	5.30	0.955	1.51	3.94
Dibenz[a,h]anthracene Concentration, ng/dscm	C <sub>22H<sub>14</sub></sub>	1.54	1.46	1.25	1.62	1.68	1.83	1.74	1.59
Dibenz[a,h]anthracene Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>22H<sub>14</sub></sub> <sup>e</sup>	1.23	1.15	1.00	1.28	1.33	1.45	1.39	1.26
Benzo[g,h,i]perylene Concentration, ng/dscm	C <sub>22H<sub>12</sub></sub>	40.1	34.1	28.8	24.2	30.8	3.20	5.98	23.9
Benzo[g,h,i]perylene Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>22H<sub>12</sub></sub> <sup>e</sup>	31.9	27.0	22.9	19.2	24.5	2.53	4.77	19.0
Summation									
Total PAH Concentrations, ng/dscm	C <sub>PAH</sub>	682	662	435	415	869	755	471	613
Total PAH Concentrations, ng/dscm @ 7% O <sub>2</sub>	C <sub>PAH</sub> <sup>e</sup>	543	523	346	330	691	597	376	486

# Emission Calculations

Location BASF Corporation - Pasadena, TX  
Source F-10 Boiler EPN 84  
Project No. AST-2024-2352  
Parameter: PAH

Trap Set Number		Run 2	Run 3	Run 4	Run 5	Run 6	Run 7	Run 8	Average
Date		6/5/24	6/6/24	6/6/24	6/7/24	6/11/24	6/12/24	6/12/24	--
Start Time		9:32	7:20	12:11	5:40	13:17	7:30	12:16	--
Stop Time		17:56	11:33	16:26	9:53	17:33	11:39	16:26	--
Input Data									
Standard Meter Volume, ft <sup>3</sup>	(Vmstd)	154.910	148.992	142.479	150.557	148.853	155.651	152.923	150.623
Volumetric Flow Rate, dscfm	(Qv)	26,131	25,323	24,088	24,443	24,810	26,178	25,707	25,240
O2 Concentration, % dry	(O2)	3.43	3.31	3.42	3.39	3.42	3.34	3.46	3.40
Emissions Calculations									
Naphthalene Emission Rate, lb/hr	ERC1009	9.60E-06	1.00E-05	9.28E-06	8.63E-06	1.66E-05	1.82E-05	1.34E-05	1.22E-05
2-Methylnaphthalene Emission Rate, lb/hr	ERC11010	6.34E-06	6.16E-06	4.41E-06	4.34E-06	9.68E-06	1.07E-05	6.40E-06	6.86E-06
Acenaphthylene Emission Rate, lb/hr	ERC1208	3.24E-07	3.62E-07	1.91E-07	1.67E-07	3.66E-07	1.88E-07	1.66E-07	2.52E-07
Acenaphthene Emission Rate, lb/hr	ERC1209	2.43E-06	2.65E-06	1.59E-06	1.57E-06	4.87E-06	5.56E-06	2.42E-06	3.01E-06
Fluorene Emission Rate, lb/hr	ERC13010	6.61E-06	6.70E-06	3.38E-06	3.41E-06	8.51E-06	8.10E-06	3.96E-06	5.81E-06
Phenanthrene Emission Rate, lb/hr	ERC14010	2.52E-05	2.38E-05	1.13E-05	1.16E-05	2.71E-05	2.36E-05	1.36E-05	1.95E-05
Anthracene Emission Rate, lb/hr	ERC14010	2.22E-06	2.23E-06	8.66E-07	9.58E-07	1.82E-06	1.55E-06	8.61E-07	1.50E-06
Fluoranthene Emission Rate, lb/hr	ERC14010	3.21E-06	2.52E-06	1.66E-06	1.59E-06	3.17E-06	2.54E-06	1.45E-06	2.31E-06
Pyrene Emission Rate, lb/hr	ERC16010	3.70E-06	2.77E-06	2.05E-06	1.73E-06	3.35E-06	2.29E-06	1.50E-06	2.48E-06
Benzo[a]anthracene Emission Rate, lb/hr	ERC18012	8.43E-08	6.32E-08	4.79E-08	6.83E-08	6.84E-08	4.81E-08	5.67E-08	6.24E-08
Chrysene Emission Rate, lb/hr	ERC18012	2.95E-07	2.70E-07	1.89E-07	2.19E-07	2.23E-07	2.04E-07	2.08E-07	2.30E-07
Benzo[b]fluoranthene Emission Rate, lb/hr	ERC20012	2.25E-07	1.69E-07	1.30E-07	1.39E-07	1.72E-07	7.32E-08	6.12E-08	1.39E-07
Benzo[k]fluoranthene Emission Rate, lb/hr	ERC20012	7.77E-08	7.78E-08	6.64E-08	7.13E-08	7.39E-08	5.92E-08	5.34E-08	6.85E-08
Benzo[e]pyrene Emission Rate, lb/hr	ERC20012	1.16E-06	7.42E-07	5.75E-07	5.65E-07	7.96E-07	1.45E-07	2.00E-07	5.98E-07
Benzo[a]pyrene Emission Rate, lb/hr	ERC20012	3.19E-07	2.12E-07	1.82E-07	1.68E-07	2.40E-07	6.79E-08	8.01E-08	1.81E-07
Perylene Emission Rate, lb/hr	ERC20012	6.47E-08	5.08E-08	3.91E-08	4.14E-08	5.60E-08	2.67E-08	2.25E-08	4.30E-08
Indeno[1,2,3-cd]pyrene Emission Rate, lb/hr	ERC22012	8.03E-07	5.67E-07	5.23E-07	4.53E-07	6.20E-07	1.18E-07	1.83E-07	4.67E-07
Dibenz[a,h]anthracene Emission Rate, lb/hr	ERC22014	1.51E-07	1.38E-07	1.13E-07	1.48E-07	1.56E-07	1.79E-07	1.67E-07	1.50E-07
Benzo[g,h,i]perylene Emission Rate, lb/hr	ERC22012	3.93E-06	3.24E-06	2.59E-06	2.21E-06	2.87E-06	3.14E-07	5.76E-07	2.25E-06
Summation									
Total PAH, lb/hr	ERP410	6.68E-05	6.28E-05	3.92E-05	3.80E-05	8.07E-05	7.40E-05	4.54E-05	5.81E-05

Location BASF Corporation - Pasadena, TX

Source F-10 Boiler EPN 84

Project No. ASI-2024-2352

Parameter: PAH

	Run 2	Run 3	Run 4	Run 5	Run 6	Run 7	Run 8
Naphthalene Mass, ng	430	445	415	402	752	820	601
2-Methylanthracene Mass, ng	284	274	197	202	439	482	288
Acenaphthylene Mass, ng	14.5	16.1	8.54	7.77	16.6	8.43	7.45
Acenaphthene Mass, ng	109	118	71.3	72.9	221	250	109
Fluorene Mass, ng	296	298	151	159	386	364	178
Phenanthrene Mass, ng	1130	1060	507	538	1230	1060	613
Anthracene Mass, ng	99.5	99.1	38.7	44.6	82.4	69.6	38.7
Fluoranthene Mass, ng	144	112	74.4	74.2	144	114	65.2
Pyrene Mass, ng	166	123	91.5	80.6	152	103	67.5
Benzo[a]anthracene Mass, ng	3.78	2.81	2.14	3.18	3.10	2.16	2.55
Chrysene Mass, ng	15.2	12.0	8.43	10.2	10.1	9.19	9.37
Benzo[b]fluoranthene Mass, ng	10.1	7.53	5.82	6.47	7.78	3.29	2.75
Benzo[k]fluoranthene Mass, ng	3.48	3.46	2.97	3.32	3.35	2.66	2.40
Benzo[e]pyrene Mass, ng	52.1	33.0	25.7	26.3	36.1	6.53	9.01
Benzo[a]pyrene Mass, ng	14.3	9.43	8.16	7.81	10.9	3.05	3.60
Perylene Mass, ng	2.90	2.26	1.75	1.93	2.54	1.20	1.01
Indeno[1,2,3-cd]pyrene Mass, ng	36.0	25.2	23.4	21.1	28.1	5.32	8.22
Dibenz[a,h]anthracene Mass, ng	6.76	6.15	5.06	6.89	7.07	8.06	7.53
Benzo[ghi]perylene Mass, ng	176	144	116	103	130	14.1	25.9

See analytical report for full descriptions.

Location BASF Corporation - Pasadena, TX  
Source F-10 Boiler EPN 84  
Project No. AST-2024-2352  
Parameter: PCB

Trap Set Number		Run 2	Run 3	Run 4	Run 5	Run 6	Run 7	Run 8	Average
Date		6/5/24	6/6/24	6/6/24	6/7/24	6/11/24	6/12/24	6/12/24	--
Start Time		9:32	7:20	12:11	5:40	13:17	7:30	12:16	--
Stop Time		17:56	11:33	16:26	9:53	17:33	11:39	16:26	--
Input Data									
Standard Meter Volume, ft <sup>3</sup>	(Vmstd)	154.910	148.992	142.479	150.557	148.853	155.651	152.923	150.623
O <sub>2</sub> Concentration, % dry	(O <sub>2</sub> )	3.43	3.31	3.42	3.39	3.42	3.34	3.46	3.40
Emissions Calculations									
2,4'-DiCB (PCB-8) Concentration, ng/dscm	C <sub>8</sub>	0.376	0.417	0.189	0.165	0.453	0.397	0.206	0.315
2,4'-DiCB (PCB-8) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>8</sub> <sup>o</sup>	0.299	0.330	0.150	0.131	0.360	0.314	0.165	0.250
2,2',5'-TrCB (PCB-18) Concentration, ng/dscm	C <sub>18</sub>	0.152	0.198	0.116	0.110	0.268	0.216	0.115	0.168
2,2',5'-TrCB (PCB-18) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>18</sub> <sup>o</sup>	0.121	0.157	0.0922	0.0870	0.213	0.171	0.0913	0.133
2,4,4'-TrCB (PCB-28) Concentration, ng/dscm	C <sub>28</sub>	0.296	0.273	0.152	0.107	0.323	0.288	0.183	0.232
2,4,4'-TrCB (PCB-28) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>28</sub> <sup>o</sup>	0.236	0.215	0.121	0.0847	0.257	0.228	0.146	0.184
2,2',3,5'-TeCB (PCB-44) Concentration, ng/dscm	C <sub>44</sub>	0.923	1.05	0.605	0.647	2.14	2.36	1.20	1.27
2,2',3,5'-TeCB (PCB-44) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>44</sub> <sup>o</sup>	0.735	0.826	0.481	0.514	1.70	1.87	0.953	1.01
2,2',5,5'-TeCB (PCB-52) Concentration, ng/dscm	C <sub>52</sub>	0.181	0.194	0.0910	0.0908	0.282	0.263	0.109	0.173
2,2',5,5'-TeCB (PCB-52) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>52</sub> <sup>o</sup>	0.144	0.153	0.0723	0.0721	0.225	0.208	0.0872	0.137
2,3',4,4'-TeCB (PCB-66) Concentration, ng/dscm	C <sub>66</sub>	0.0673	0.0621	0.0364	0.0183	0.0581	0.0565	0.0319	0.0472
2,3',4,4'-TeCB (PCB-66) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>66</sub> <sup>o</sup>	0.0535	0.0491	0.0290	0.0145	0.0462	0.0447	0.0254	0.0375
3,3',4,4'-TeCB (PCB-77) Concentration, ng/dscm	C <sub>77</sub>	0.0209	0.0196	0.0187	0.0149	0.0157	0.143	0.0175	0.0358
3,3',4,4'-TeCB (PCB-77) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>77</sub> <sup>o</sup>	0.0167	0.0155	0.0149	0.0118	0.0125	0.113	0.0140	0.0284
3,4,4',5'-TeCB (PCB-81) Concentration, ng/dscm	C <sub>81</sub>	0.0219	0.114	0.119	0.113	0.109	0.111	0.111	0.100
3,4,4',5'-TeCB (PCB-81) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>81</sub> <sup>o</sup>	0.0174	0.0899	0.0946	0.0894	0.0906	0.0862	0.0883	0.0795
2,2',4,5,5'-PeCB (PCB-101) Concentration, ng/dscm	C <sub>101</sub>	0.0828	0.107	0.0404	0.0493	0.100	0.0962	0.0462	0.0745
2,2',4,5,5'-PeCB (PCB-101) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>101</sub> <sup>o</sup>	0.0658	0.0845	0.0321	0.0391	0.0794	0.0761	0.0368	0.0591
2,3,3',4,4'-PeCB (PCB-105) Concentration, ng/dscm	C <sub>105</sub>	0.0233	0.121	0.126	0.120	0.121	0.116	0.118	0.106
2,3,3',4,4'-PeCB (PCB-105) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>105</sub> <sup>o</sup>	0.0185	0.0955	0.101	0.0950	0.0962	0.0916	0.0939	0.0845
2,3,4,4',5'-PeCB (PCB-114) Concentration, ng/dscm	C <sub>114</sub>	0.0376	0.196	0.204	0.194	0.196	0.187	0.191	0.172
2,3,4,4',5'-PeCB (PCB-114) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>114</sub> <sup>o</sup>	0.0299	0.155	0.163	0.154	0.156	0.148	0.152	0.137
2,3',4,4',5'-PeCB (PCB-118) Concentration, ng/dscm	C <sub>118</sub>	0.0267	0.0327	0.227	0.215	0.0251	0.0551	0.0197	0.0858
2,3',4,4',5'-PeCB (PCB-118) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>118</sub> <sup>o</sup>	0.0212	0.0258	0.180	0.170	0.0200	0.0436	0.0157	0.0682
2',3,4,4',5'-PeCB (PCB-123) Concentration, ng/dscm	C <sub>123</sub>	0.0390	0.203	0.212	0.201	0.194	0.197	0.178	0.178
2',3,4,4',5'-PeCB (PCB-123) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>123</sub> <sup>o</sup>	0.0310	0.160	0.169	0.159	0.161	0.154	0.157	0.142
3,3',4,4',5'-PeCB (PCB-126) Concentration, ng/dscm	C <sub>126</sub>	0.0280	0.146	0.152	0.144	0.146	0.140	0.142	0.128
3,3',4,4',5'-PeCB (PCB-126) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>126</sub> <sup>o</sup>	0.0223	0.115	0.121	0.115	0.116	0.110	0.113	0.102
2,2',3,3',4,4'-HxCB (PCB-128) Concentration, ng/dscm	C <sub>128</sub>	0.00140	0.242	0.253	0.239	0.242	0.231	0.00462	0.173
2,2',3,3',4,4'-HxCB (PCB-128) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>128</sub> <sup>o</sup>	0.00111	0.191	0.201	0.190	0.192	0.183	0.00368	0.137
2,2',3,4,4',5'-HxCB (PCB-138) Concentration, ng/dscm	C <sub>138</sub>	0.0235	0.0239	0.0292	0.00718	0.0268	0.0265	0.00714	0.0206
2,2',3,4,4',5'-HxCB (PCB-138) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>138</sub> <sup>o</sup>	0.0187	0.0189	0.0233	0.00570	0.0213	0.0210	0.00569	0.0164
2,2',4,4',5,5'-HxCB (PCB-153) Concentration, ng/dscm	C <sub>153</sub>	0.0262	0.0233	0.0138	0.0110	0.0196	0.0381	0.0229	0.0221
2,2',4,4',5,5'-HxCB (PCB-153) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>153</sub> <sup>o</sup>	0.0209	0.0184	0.0109	0.00871	0.0156	0.0302	0.0183	0.0176
2,3,3',4,4',5'-HxCB (PCB-156) Concentration, ng/dscm	C <sub>156</sub>	0.000659	0.303	0.317	0.300	0.304	0.290	0.296	0.259
2,3,3',4,4',5'-HxCB (PCB-156) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>156</sub> <sup>o</sup>	0.000524	0.240	0.252	0.238	0.241	0.230	0.236	0.205
2,3,3',4,4',5'-HxCB (PCB-157) Concentration, ng/dscm	C <sub>157</sub>	0.000659	0.303	0.317	0.300	0.304	0.290	0.296	0.259
2,3,3',4,4',5'-HxCB (PCB-157) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>157</sub> <sup>o</sup>	0.000524	0.240	0.252	0.238	0.241	0.230	0.236	0.205
2,3',4,4',5,5'-HxCB (PCB-167) Concentration, ng/dscm	C <sub>167</sub>	0.0410	0.213	0.223	0.211	0.214	0.204	0.208	0.188
2,3',4,4',5,5'-HxCB (PCB-167) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>167</sub> <sup>o</sup>	0.0326	0.169	0.177	0.168	0.170	0.162	0.166	0.149
3,3',4,4',5,5'-HxCB (PCB-169) Concentration, ng/dscm	C <sub>169</sub>	0.0280	0.146	0.152	0.144	0.146	0.140	0.142	0.128
3,3',4,4',5,5'-HxCB (PCB-169) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>169</sub> <sup>o</sup>	0.0223	0.115	0.121	0.115	0.116	0.110	0.113	0.102
2,2',3,3',4,4',5'-HpCB (PCB-170) Concentration, ng/dscm	C <sub>170</sub>	0.00102	0.156	0.164	0.155	0.157	0.150	0.152	0.134
2,2',3,3',4,4',5'-HpCB (PCB-170) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>170</sub> <sup>o</sup>	0.000811	0.124	0.130	0.123	0.125	0.119	0.121	0.106
2,2',3,4,4',5,5'-HpCB (PCB-180) Concentration, ng/dscm	C <sub>180</sub>	0.00618	0.242	0.253	0.239	0.242	0.231	0.236	0.207
2,2',3,4,4',5,5'-HpCB (PCB-180) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>180</sub> <sup>o</sup>	0.00492	0.191	0.201	0.190	0.192	0.183	0.188	0.164
2,2',3,4',5,5',6'-HpCB (PCB-187) Concentration, ng/dscm	C <sub>187</sub>	0.00561	0.149	0.156	0.00253	0.149	0.00731	0.145	0.0880
2,2',3,4',5,5',6'-HpCB (PCB-187) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>187</sub> <sup>o</sup>	0.00446	0.118	0.124	0.00201	0.119	0.00578	0.116	0.0699
2,3,3',4,4',5,5'-HpCB (PCB-189) Concentration, ng/dscm	C <sub>189</sub>	0.0335	0.174	0.182	0.172	0.174	0.167	0.170	0.153
2,3,3',4,4',5,5'-HpCB (PCB-189) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>189</sub> <sup>o</sup>	0.0267	0.138	0.145	0.137	0.139	0.132	0.135	0.122
2,2',3,3',4,4',5,6-OcCB (PCB-195) Concentration, ng/dscm	C <sub>195</sub>	0.0362	0.188	0.197	0.186	0.189	0.00288	0.184	0.140
2,2',3,3',4,4',5,6-OcCB (PCB-195) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>195</sub> <sup>o</sup>	0.0288	0.149	0.157	0.148	0.150	0.00228	0.146	0.112
2,2',3,3',4,4',5,5',6-NoCB (PCB-206) Concentration, ng/dscm	C <sub>206</sub>	0.0390	0.203	0.212	0.201	0.203	0.194	0.197	0.178
2,2',3,3',4,4',5,5',6-NoCB (PCB-206) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>206</sub> <sup>o</sup>	0.0310	0.160	0.169	0.159	0.161	0.154	0.157	0.142
2,2',3,3',4,4',5,5',6,6'-DeCB (PCB-209) Concentration, ng/dscm	C <sub>209</sub>	0.0315	0.164	0.00942	0.162	0.164	0.157	0.159	0.121
2,2',3,3',4,4',5,5',6,6'-DeCB (PCB-209) Concentration, ng/dscm @ 7% O <sub>2</sub>	C <sub>209</sub> <sup>o</sup>	0.0250	0.129	0.00749	0.128	0.130	0.124	0.127	0.0959
Summation									
Total PCB Concentrations, ng/dscm	C <sub>PCB</sub>	2.55	5.66	4.77	4.52	6.98	6.75	4.90	5.16
Total PCB Concentrations, ng/dscm @ 7% O <sub>2</sub>	C <sub>PCB</sub> <sup>o</sup>	2.03	4.47	3.79	3.59	5.55	5.34	3.91	4.10

Underlined value denotes that the value was below the MDL and is reported as the MDL. This is considered BDL in accordance with the ICR enclosure.

Location **BASF Corporation - Pasadena, TX**  
Source **F-10 Boiler EPN 84**  
Project No. **AST-2024-2352**  
Parameter: **PCB**

Trap Set Number		Run 2	Run 3	Run 4	Run 5	Run 6	Run 7	Run 8	Average
Date		6/5/24	6/6/24	6/6/24	6/7/24	6/11/24	6/12/24	6/12/24	--
Start Time		9:32	7:20	12:11	5:40	13:17	7:30	12:16	--
Stop Time		17:56	11:33	16:26	9:53	17:33	11:39	16:26	--
<b>Input Data</b>									
Standard Meter Volume, ft <sup>3</sup>	(Vmstd)	154.910	148.992	142.479	150.557	148.853	155.651	152.923	150.623
Volumetric Flow Rate, dscfm	(Qv)	26.131	25.323	24.088	24.443	24.810	26.178	25.707	25.240
O2 Concentration, % dry	(O <sub>2</sub> )	3.43	3.31	3.42	3.39	3.42	3.34	3.46	3.40
<b>Emissions Calculations</b>									
2,4'-DiCB (PCB-8) Emission Rate, lb/hr	ER <sub>8</sub>	3.68E-08	3.96E-08	1.71E-08	1.51E-08	4.21E-08	3.89E-08	1.99E-08	2.99E-08
2,2',5'-TrCB (PCB-18) Emission Rate, lb/hr	ER <sub>18</sub>	1.49E-08	1.88E-08	1.05E-08	1.00E-08	2.49E-08	2.12E-08	1.10E-08	1.59E-08
2,4,4'-TrCB (PCB-28) Emission Rate, lb/hr	ER <sub>28</sub>	2.90E-08	2.59E-08	1.37E-08	9.77E-09	3.00E-08	2.83E-08	1.76E-08	2.20E-08
2,2',3,5'-TeCB (PCB-44) Emission Rate, lb/hr	ER <sub>44</sub>	9.04E-08	9.92E-08	5.46E-08	5.93E-08	1.99E-07	2.31E-07	1.15E-07	1.21E-07
2,2',5,5'-TeCB (PCB-52) Emission Rate, lb/hr	ER <sub>52</sub>	1.77E-08	1.84E-08	8.21E-09	8.31E-09	2.62E-08	2.58E-08	1.05E-08	1.65E-08
2,3',4,4'-TeCB (PCB-66) Emission Rate, lb/hr	ER <sub>66</sub>	6.58E-09	5.89E-09	3.29E-09	1.67E-09	5.40E-09	5.54E-09	3.07E-09	4.49E-09
2,3',4,4'-TeCB (PCB-77) Emission Rate, lb/hr	ER <sub>77</sub>	2.05E-09	1.86E-09	1.69E-09	1.36E-09	1.46E-09	1.40E-09	1.69E-09	3.45E-09
3,4,4',5'-TeCB (PCB-81) Emission Rate, lb/hr	ER <sub>81</sub>	2.14E-09	1.08E-08	1.07E-08	1.03E-08	1.06E-08	1.07E-08	1.07E-08	9.42E-09
2,2',4,5,5'-PeCB (PCB-101) Emission Rate, lb/hr	ER <sub>101</sub>	8.10E-09	1.01E-08	3.65E-09	4.51E-09	9.28E-09	9.43E-09	4.45E-09	7.08E-09
2,3,3',4,4'-PeCB (PCB-105) Emission Rate, lb/hr	ER <sub>105</sub>	2.28E-09	1.15E-08	1.14E-08	1.10E-08	1.12E-08	1.13E-08	1.13E-08	1.00E-08
2,3,4,4',5'-PeCB (PCB-114) Emission Rate, lb/hr	ER <sub>114</sub>	3.68E-09	1.85E-08	1.85E-08	1.77E-08	1.82E-08	1.84E-08	1.83E-08	1.62E-08
2,3',4,4',5'-PeCB (PCB-118) Emission Rate, lb/hr	ER <sub>118</sub>	2.61E-09	3.10E-09	2.05E-08	1.97E-08	2.34E-09	5.41E-09	1.89E-09	7.92E-09
2',3,4,4',5'-PeCB (PCB-123) Emission Rate, lb/hr	ER <sub>123</sub>	3.82E-09	1.92E-08	1.91E-08	1.84E-08	1.89E-08	1.90E-08	1.90E-08	1.68E-08
3,3',4,4',5'-PeCB (PCB-126) Emission Rate, lb/hr	ER <sub>126</sub>	2.74E-09	1.38E-08	1.38E-08	1.32E-08	1.36E-08	1.37E-08	1.37E-08	1.21E-08
2,2',3,3',4,4'-HxCB (PCB-128) Emission Rate, lb/hr	ER <sub>128</sub>	1.37E-10	2.29E-08	2.28E-08	2.19E-08	2.25E-08	2.27E-08	4.45E-10	1.62E-08
2,2',3,4,4',5'-HxCB (PCB-138) Emission Rate, lb/hr	ER <sub>138</sub>	2.30E-09	2.27E-09	2.64E-09	6.57E-10	2.49E-09	2.60E-09	6.87E-10	1.95E-09
2,2',4,4',5,5'-HxCB (PCB-153) Emission Rate, lb/hr	ER <sub>153</sub>	2.57E-09	2.21E-09	1.24E-09	1.01E-09	1.83E-09	3.74E-09	2.21E-09	2.11E-09
2,3,3',4,4',5'-HxCB (PCB-156) Emission Rate, lb/hr	ER <sub>156</sub>	6.45E-11	2.88E-08	2.86E-08	2.75E-08	2.82E-08	2.85E-08	2.85E-08	2.43E-08
2,3,3',4,4',5'-HxCB (PCB-157) Emission Rate, lb/hr	ER <sub>157</sub>	6.45E-11	2.88E-08	2.86E-08	2.75E-08	2.82E-08	2.85E-08	2.85E-08	2.43E-08
2,3',4,4',5,5'-HxCB (PCB-167) Emission Rate, lb/hr	ER <sub>167</sub>	4.02E-09	2.02E-08	2.01E-08	1.93E-08	1.98E-08	2.00E-08	2.00E-08	1.77E-08
3,3',4,4',5,5'-HxCB (PCB-169) Emission Rate, lb/hr	ER <sub>169</sub>	2.74E-09	1.38E-08	1.38E-08	1.32E-08	1.36E-08	1.37E-08	1.37E-08	1.21E-08
2,2',3,3',4,4',5'-HpCB (PCB-170) Emission Rate, lb/hr	ER <sub>170</sub>	9.97E-11	1.48E-08	1.48E-08	1.42E-08	1.46E-08	1.47E-08	1.47E-08	1.25E-08
2,2',3,4,4',5,5'-HpCB (PCB-180) Emission Rate, lb/hr	ER <sub>180</sub>	6.05E-10	2.29E-08	2.28E-08	2.19E-08	2.25E-08	2.27E-08	2.27E-08	1.94E-08
2,2',3,4',5,5',6'-HpCB (PCB-187) Emission Rate, lb/hr	ER <sub>187</sub>	5.49E-10	1.42E-08	1.41E-08	2.32E-10	1.39E-08	7.16E-10	1.40E-08	8.24E-09
2,3,3',4,4',5,5'-HpCB (PCB-189) Emission Rate, lb/hr	ER <sub>189</sub>	3.28E-09	1.65E-08	1.64E-08	1.58E-08	1.62E-08	1.64E-08	1.63E-08	1.44E-08
2,2',3,3',4,4',5,6-OcCB (PCB-195) Emission Rate, lb/hr	ER <sub>195</sub>	3.55E-09	1.79E-08	1.78E-08	1.71E-08	1.75E-08	2.83E-10	1.77E-08	1.31E-08
2,2',3,3',4,4',5,5',6-NoCB (PCB-206) Emission Rate, lb/hr	ER <sub>206</sub>	3.82E-09	1.92E-08	1.91E-08	1.84E-08	1.89E-08	1.90E-08	1.90E-08	1.68E-08
2,2',3,3',4,4',5,5',6,6'-DeCB (PCB-209) Emission Rate, lb/hr	ER <sub>209</sub>	3.08E-09	1.55E-08	8.50E-10	1.48E-08	1.52E-08	1.54E-08	1.53E-08	1.15E-08
<b>Summation</b>									
Total PCB Emission Rate, lb/hr	ER <sub>PCB</sub>	2.50E-07	5.37E-07	4.30E-07	4.14E-07	6.48E-07	6.62E-07	4.72E-07	4.88E-07

Underlined value denotes that the value was below the MDL and is reported as the MDL. This is considered BDL in accordance with the ICR enclosure.

Location BASF Corporation - Pasadena, TX

Source F-10 Boiler EPN 84

Project No. AST-2024-2352

Parameter: PCB

	Run 2	Run 3	Run 4	Run 5	Run 6	Run 7	Run 8
M <sub>6</sub>	1.65	1.76	0.763	0.705	1.91	1.75	0.894
M <sub>18</sub>	0.668	0.837	0.468	0.467	1.13	0.954	0.496
M <sub>35</sub>	1.30	1.15	0.612	0.455	1.36	1.27	0.793
M <sub>4</sub>	4.05	4.41	2.44	2.76	9.02	10.4	5.18
M <sub>2</sub>	0.793	0.819	0.367	0.387	1.19	1.16	0.474
M <sub>65</sub>	0.295	0.262	0.147	0.0779	0.245	0.249	0.138
M <sub>7</sub>	0.0918	0.0829	0.0756	0.0634	0.0661	0.0630	0.0759
M <sub>1</sub>	0.0960	0.480	0.480	0.480	0.480	0.480	0.480
M <sub>101</sub>	0.363	0.451	0.163	0.210	0.421	0.424	0.200
M <sub>105</sub>	0.102	0.510	0.510	0.510	0.510	0.510	0.510
M <sub>114</sub>	0.165	0.825	0.825	0.825	0.825	0.825	0.825
M <sub>118</sub>	0.117	0.138	0.0915	0.0915	0.106	0.243	0.0852
M <sub>123</sub>	0.171	0.855	0.855	0.855	0.855	0.855	0.855
M <sub>126</sub>	0.123	0.615	0.615	0.615	0.615	0.615	0.615
M <sub>128</sub>	0.00613	1.02	1.02	1.02	1.02	1.02	0.0200
M <sub>138</sub>	0.103	0.101	0.118	0.0306	0.113	0.117	0.0309
M <sub>153</sub>	0.115	0.0985	0.0555	0.0468	0.0828	0.168	0.0992
M <sub>155</sub>	0.115	0.0985	0.0555	0.0468	0.0828	0.168	0.0992
M <sub>157</sub>	0.00289	1.28	1.28	1.28	1.28	1.28	1.28
M <sub>167</sub>	0.180	0.900	0.900	0.900	0.900	0.900	0.900
M <sub>169</sub>	0.123	0.615	0.615	0.615	0.615	0.615	0.615
M <sub>170</sub>	0.00447	0.660	0.660	0.660	0.660	0.660	0.660
M <sub>180</sub>	0.0271	1.02	1.02	1.02	1.02	1.02	1.02
M <sub>187</sub>	0.0246	0.630	0.630	0.0108	0.630	0.0322	0.630
M <sub>189</sub>	0.147	0.735	0.735	0.735	0.735	0.735	0.735
M <sub>195</sub>	0.159	0.795	0.795	0.795	0.795	0.795	0.795
M <sub>206</sub>	0.171	0.855	0.855	0.855	0.855	0.855	0.855
M <sub>209</sub>	0.138	0.690	0.0380	0.690	0.690	0.690	0.690

Secur analytical report for fling deceptions.  
 Undefined value denotes that the value was below the MDL and is reported as the MDL. This is considered BDL in accordance with the KTR enclosure.



## Appendix C

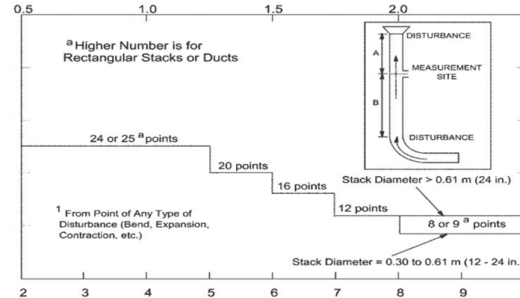
Location **BASF Corporation - Pasadena, TX**  
Source **F-10 Boiler EPN 84**  
Project No. **AST-2024-2352**  
Parameters **PAH, PCB**

Run Number		Run 2	Run 3	Run 4	Run 5	Run 6	Run 7	Run 8	Average
Date		6/5/24	6/6/24	6/6/24	6/7/24	6/11/24	6/12/24	6/12/24	--
Start Time		9:32	7:20	12:11	5:40	13:17	7:30	12:16	--
Stop Time		17:56	11:33	16:26	9:53	17:33	11:39	16:26	--
Run Time, min	( $\Theta$ )	240.0	240.0	240.0	240.0	240.0	240.0	240.0	240.0
<b>INPUT DATA</b>									
Barometric Pressure, in. Hg	(Pb)	29.80	29.82	29.82	29.89	29.88	29.91	29.91	29.86
Meter Correction Factor	(Y)	1.015	1.015	1.015	1.015	1.015	1.015	1.015	--
Orifice Calibration Value	( $\Delta H @$ )	1.922	1.922	1.922	1.922	1.922	1.922	1.922	--
Meter Volume, ft <sup>3</sup>	(Vm)	157.453	151.532	147.381	151.899	151.897	157.372	157.855	153.627
Meter Temperature, °F	(Tm)	84.5	85.1	94.3	81.9	88.0	83.6	95.0	87.5
Meter Temperature, °R	(Tm)	544.2	544.8	554.0	541.5	547.6	543.3	554.7	547.2
Meter Orifice Pressure, in. WC	( $\Delta H$ )	1.492	1.404	1.339	1.302	1.357	1.495	1.471	1.409
Volume H <sub>2</sub> O Collected, mL	(Vlc)	661.7	655.6	600.8	657.4	653.1	677.1	657.7	651.9
Nozzle Diameter, in	(Dn)	0.261	0.261	0.261	0.261	0.261	0.261	0.261	0.261
Area of Nozzle, ft <sup>2</sup>	(An)	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004	0.0004
<b>ISOKINETIC DATA</b>									
Standard Meter Volume, ft <sup>3</sup>	(Vmstd)	154.910	148.992	142.479	150.557	148.853	155.651	152.923	150.623
Standard Water Volume, ft <sup>3</sup>	(Vwstd)	31.206	30.918	28.334	31.003	30.799	31.932	31.017	30.744
Moisture Fraction Measured	(BWSmsd)	0.168	0.172	0.166	0.171	0.171	0.170	0.169	0.169
Moisture Fraction @ Saturation	(BWSsat)	8.429	8.711	8.453	8.730	8.547	8.817	8.946	8.662
Moisture Fraction	(BWS)	0.168	0.172	0.166	0.171	0.171	0.170	0.169	0.169
Meter Pressure, in Hg	(Pm)	29.91	29.92	29.92	29.99	29.98	30.02	30.02	29.96
Volume at Nozzle, ft <sup>3</sup>	(Vn)	285.925	277.102	262.328	279.111	275.695	288.473	283.273	278.84
Isokinetic Sampling Rate, (%)	(I)	101.0	100.2	100.8	104.9	102.2	101.3	101.3	101.7
DGM Calibration Check Value, (+/- 5%)	(Y <sub>qa</sub> )	0.7	0.0	-0.6	4.2	1.7	0.8	0.9	1.1

Location BASF Corporation - Pasadena, TX  
Source F-10 Boiler EPN 84  
Project No. AST-2024-2352  
Date: 06/04/24

### Stack Parameters

Duct Orientation: Vertical  
Duct Design: Circular  
Distance from Far Wall to Outside of Port: 59.25 in  
Nipple Length: 6.50 in  
Depth of Duct: 52.75 in  
Cross Sectional Area of Duct: 15.18 ft<sup>2</sup>  
No. of Test Ports: 2  
Distance A: 25.0 ft  
Distance A Duct Diameters: 5.7 (must be  $\geq 0.5$ )  
Distance B: 50.0 ft  
Distance B Duct Diameters: 11.4 (must be  $\geq 2$ )  
Minimum Number of Traverse Points: 12  
Actual Number of Traverse Points: 12  
Number of Readings per Point: 4  
Measurer (Initial and Date): ACG 6/3/24  
Reviewer (Initial and Date): MBB 6/3/24

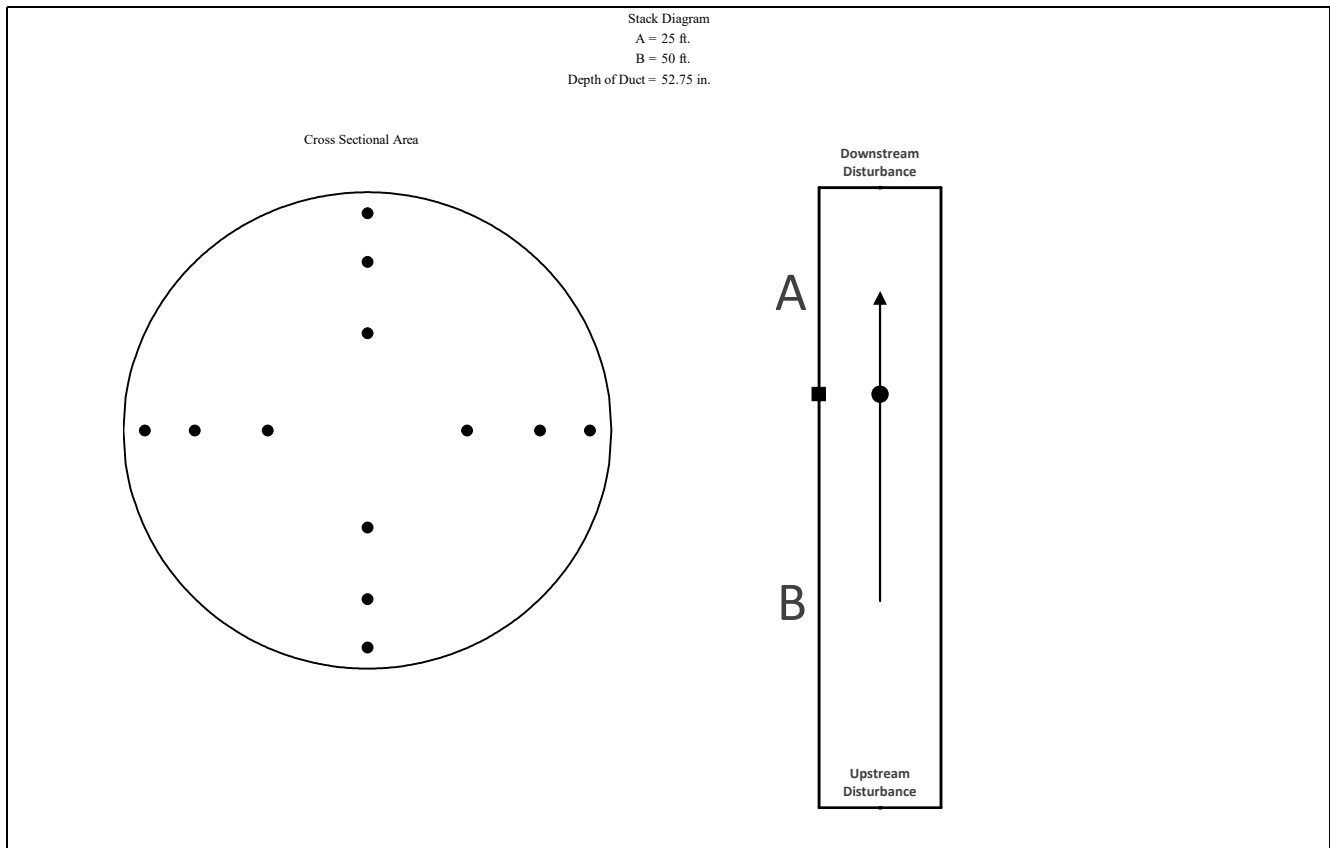


### CIRCULAR DUCT

LOCATION OF TRAVERSE POINTS											
Number of traverse points on a diameter											
	2	3	4	5	6	7	8	9	10	11	12
1	14.6	--	6.7	--	4.4	--	3.2	--	2.6	--	2.1
2	85.4	--	25.0	--	14.6	--	10.5	--	8.2	--	6.7
3	--	--	75.0	--	29.6	--	19.4	--	14.6	--	11.8
4	--	--	93.3	--	70.4	--	32.3	--	22.6	--	17.7
5	--	--	--	--	85.4	--	67.7	--	34.2	--	25.0
6	--	--	--	--	95.6	--	80.6	--	65.8	--	35.6
7	--	--	--	--	--	--	89.5	--	77.4	--	64.4
8	--	--	--	--	--	--	96.8	--	85.4	--	75.0
9	--	--	--	--	--	--	--	--	91.8	--	82.3
10	--	--	--	--	--	--	--	--	97.4	--	88.2
11	--	--	--	--	--	--	--	--	--	--	93.3
12	--	--	--	--	--	--	--	--	--	--	97.9

Traverse Point	% of Diameter	Distance from inside wall	Distance from outside of port
1	4.4	2.32	8 13/16
2	14.6	7.70	14 3/16
3	29.6	15.61	22 1/8
4	70.4	37.14	43 5/8
5	85.4	45.05	51 9/16
6	95.6	50.43	56 15/16
7	--	--	--
8	--	--	--
9	--	--	--
10	--	--	--
11	--	--	--
12	--	--	--

\*Percent of stack diameter from inside wall to traverse point.



## Cyclonic Flow Check

Location BASF Corporation - Pasadena, TX  
 Source F-10 Boiler EPN 84  
 Project No. AST-2024-2352  
 Date 06/03/24

Sample Point	Angle ( $\Delta P=0$ )
1	0
2	0
3	5
4	5
5	0
6	0
7	5
8	0
9	0
10	5
11	5
12	0
Average	2

Location **BASF Corporation - Pasadena, TX**

Source **F-10 Boiler EPN 84**

Project No. **AST-2024-2352**

Parameters **PAH, PCB**

Run Number	Run 2	Run 3	Run 4	Run 5	Run 6	Run 7	Run 8	Average
Date	6/5/24	6/6/24	6/6/24	6/7/24	6/11/24	6/12/24	6/12/24	--
Start Time	9:32	7:20	12:11	5:40	13:17	7:30	12:16	--
Stop Time	17:56	11:33	16:26	9:53	17:33	11:39	16:26	--
Run Time, min	240.0	240.0	240.0	240.0	240.0	240.0	240.0	240.0
<b>VELOCITY HEAD, in. WC</b>								
Point 1	0.47	0.54	0.53	0.48	0.55	0.52	0.55	0.52
Point 2	0.44	0.53	0.53	0.48	0.53	0.52	0.53	0.51
Point 3	0.58	0.50	0.53	0.47	0.56	0.55	0.52	0.53
Point 4	0.59	0.48	0.53	0.48	0.52	0.59	0.53	0.53
Point 5	0.63	0.48	0.57	0.53	0.55	0.62	0.53	0.56
Point 6	0.64	0.58	0.57	0.52	0.53	0.60	0.58	0.57
Point 7	0.63	0.60	0.55	0.53	0.52	0.59	0.58	0.57
Point 8	0.61	0.60	0.56	0.52	0.51	0.58	0.58	0.56
Point 9	0.65	0.60	0.54	0.52	0.57	0.60	0.62	0.59
Point 10	0.65	0.60	0.53	0.54	0.57	0.62	0.65	0.59
Point 11	0.63	0.59	0.53	0.54	0.56	0.63	0.62	0.59
Point 12	0.65	0.60	0.52	0.53	0.59	0.63	0.63	0.59
Point 13	0.63	0.64	0.51	0.57	0.60	0.63	0.63	0.60
Point 14	0.66	0.63	0.60	0.56	0.56	0.63	0.64	0.61
Point 15	0.65	0.63	0.59	0.56	0.54	0.64	0.64	0.61
Point 16	0.63	0.64	0.58	0.57	0.59	0.64	0.56	0.60
Point 17	0.60	0.58	0.59	0.53	0.53	0.56	0.55	0.56
Point 18	0.56	0.59	0.58	0.59	0.47	0.55	0.57	0.56
Point 19	0.55	0.59	0.59	0.58	0.51	0.55	0.54	0.56
Point 20	0.54	0.60	0.57	0.57	0.53	0.56	0.54	0.56
Point 21	0.52	0.53	0.49	0.51	0.46	0.56	0.53	0.51
Point 22	0.52	0.53	0.50	0.54	0.49	0.55	0.54	0.52
Point 23	0.52	0.50	0.47	0.54	0.49	0.57	0.55	0.52
Point 24	0.48	0.53	0.47	0.53	0.52	0.57	0.53	0.52
Point 25	0.60	0.43	0.52	0.45	0.57	0.60	0.60	0.54
Point 26	0.58	0.59	0.51	0.49	0.58	0.60	0.61	0.56
Point 27	0.59	0.58	0.51	0.48	0.55	0.58	0.59	0.55
Point 28	0.60	0.57	0.48	0.47	0.53	0.60	0.60	0.55
Point 29	0.61	0.61	0.56	0.56	0.56	0.64	0.63	0.59
Point 30	0.61	0.61	0.55	0.58	0.58	0.64	0.63	0.60
Point 31	0.61	0.61	0.51	0.55	0.57	0.65	0.63	0.59
Point 32	0.62	0.63	0.51	0.55	0.61	0.64	0.64	0.60
Point 33	0.63	0.60	0.51	0.58	0.63	0.67	0.65	0.61
Point 34	0.62	0.59	0.53	0.58	0.61	0.64	0.63	0.60
Point 35	0.64	0.61	0.51	0.57	0.62	0.66	0.66	0.61
Point 36	0.65	0.60	0.53	0.55	0.60	0.68	0.67	0.61
Point 37	0.64	0.59	0.51	0.59	0.60	0.66	0.63	0.60
Point 38	0.65	0.61	0.49	0.57	0.60	0.67	0.63	0.60
Point 39	0.63	0.61	0.48	0.56	0.60	0.68	0.62	0.60
Point 40	0.63	0.61	0.45	0.55	0.60	0.67	0.62	0.59
Point 41	0.63	0.55	0.44	0.52	0.46	0.64	0.54	0.54
Point 42	0.64	0.54	0.40	0.49	0.48	0.63	0.55	0.53
Point 43	0.66	0.56	0.42	0.50	0.48	0.61	0.57	0.54
Point 44	0.66	0.58	0.40	0.49	0.49	0.60	0.55	0.54
Point 45	0.54	0.48	0.34	0.44	0.45	0.55	0.49	0.47
Point 46	0.54	0.46	0.38	0.43	0.48	0.52	0.47	0.47
Point 47	0.53	0.46	0.38	0.45	0.50	0.53	0.47	0.47
Point 48	0.55	0.47	0.38	0.46	0.45	0.53	0.46	0.47
<b>CALCULATED DATA</b>								
Square Root of $\Delta P$ , (in. WC) <sup>1/2</sup>	( $\Delta P$ )	0.772	0.752	0.710	0.724	0.735	0.776	0.747
Pitot Tube Coefficient	(Cp)	0.813	0.813	0.813	0.813	0.813	0.813	0.813
Barometric Pressure, in. Hg	(Pb)	29.80	29.82	29.82	29.89	29.88	29.91	29.86
Static Pressure, in. WC	(Pg)	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20	-0.20
Stack Pressure, in. Hg	(Ps)	29.79	29.81	29.81	29.88	29.87	29.90	29.85
Stack Cross-sectional Area, ft <sup>2</sup>	(As)	15.18	15.18	15.18	15.18	15.18	15.18	15.18
Stack Temperature, °F	(Ts)	347.6	350.2	347.9	350.6	348.9	351.4	349.9
Stack Temperature, °R	(Ts)	807.3	809.9	807.5	810.2	808.5	811.1	809.5
Moisture Fraction Measured	(BWSmsd)	0.168	0.172	0.166	0.171	0.171	0.170	0.169
Moisture Fraction @ Saturation	(BWSsat)	8.429	8.711	8.453	8.730	8.547	8.817	8.662
Moisture Fraction	(BWS)	0.168	0.172	0.166	0.171	0.171	0.170	0.169
O <sub>2</sub> Concentration, %	(O <sub>2</sub> )	3.43	3.31	3.42	3.39	3.42	3.34	3.40
CO <sub>2</sub> Concentration, %	(CO <sub>2</sub> )	10.61	10.78	10.79	10.56	10.75	10.7	10.68
CO Concentration, %	(CO)	0	0	0	0	0	0	0.00
N <sub>2</sub> Concentration, %	(N <sub>2</sub> )	85.96	85.91	85.79	86.05	85.83	85.96	85.91
Excess Air, %	(EA)	17.81	17.09	17.79	17.54	17.78	17.26	17.61
Molecular Weight, lb/lb-mole (dry)	(Md)	29.83	29.86	29.86	29.83	29.86	29.85	29.85
Molecular Weight, lb/lb-mole (wet)	(Ms)	27.85	27.82	27.90	27.81	27.83	27.83	27.84
Velocity, ft/sec	(Vs)	52.9	51.7	48.7	49.7	50.4	53.2	51.3
<b>VOLUMETRIC FLOW RATE</b>								
At Stack Conditions, acfm	(Qa)	48,187	47,054	44,310	45,273	45,909	48,472	46,683
At Standard Conditions, scfm	(Qsw)	31,356	30,540	28,843	29,440	29,906	31,509	30,354
At Standard Conditions, dscfm	(Qs)	26,099	25,291	24,058	24,413	24,779	26,145	25,209

Location **BASF Corporation - Pasadena, TX**

Source **F-10 Boiler EPN 84**

Project No. **AST-2024-2352**

Parameters **PAH, PCB**

Analysis **Gravimetric**

<b>Run 2</b>	<b>Date:</b> 6/5/24						
<b>Impinger No.</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>Total</b>
<b>Contents</b>	XAD Trap	Empty	H2O	H2O	Empty	Silica	--
<b>Initial Mass, g</b>	349.6	503.2	684.6	707.9	644.8	980.8	3870.9
<b>Final Mass, g</b>	362.1	1120.9	677.3	707.8	648.6	1015.9	4532.6
<b>Gain</b>	12.5	617.7	-7.3	-0.1	3.8	35.1	661.7
<b>Run 3</b>	<b>Date:</b> 6/6/24						
<b>Impinger No.</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>Total</b>
<b>Contents</b>	XAD Trap	Empty	H2O	H2O	Empty	Silica	--
<b>Initial Mass, g</b>	355.8	524.7	746.6	682.0	616.5	934.2	3859.8
<b>Final Mass, g</b>	370.0	1132.8	678.7	744.9	618.9	970.1	4515.4
<b>Gain</b>	14.2	608.1	-67.9	62.9	2.4	35.9	655.6
<b>Run 4</b>	<b>Date:</b> 6/6/24						
<b>Impinger No.</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>Total</b>
<b>Contents</b>	XAD Trap	Empty	H2O	H2O	Empty	Silica	--
<b>Initial Mass, g</b>	351.4	503.7	695.8	717.3	645.7	944.7	3858.6
<b>Final Mass, g</b>	361.1	1067.7	690.7	716.4	647.5	976.0	4459.4
<b>Gain</b>	9.7	564.0	-5.1	-0.9	1.8	31.3	600.8
<b>Run 5</b>	<b>Date:</b> 6/7/24						
<b>Impinger No.</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>Total</b>
<b>Contents</b>	XAD Trap	Empty	H2O	H2O	Empty	Silica	--
<b>Initial Mass, g</b>	349.8	524.8	746.6	698.2	616.7	924.2	3860.3
<b>Final Mass, g</b>	363.5	1137.9	743.8	698.2	618.6	955.7	4517.7
<b>Gain</b>	13.7	613.1	-2.8	0.0	1.9	31.5	657.4
<b>Run 6</b>	<b>Date:</b> 6/11/24						
<b>Impinger No.</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>Total</b>
<b>Contents</b>	XAD Trap	Empty	H2O	H2O	Empty	Silica	--
<b>Initial Mass, g</b>	353.6	503.2	717.2	714.5	647.4	956.3	3892.2
<b>Final Mass, g</b>	366.6	1116.9	715.4	714.4	649.3	982.7	4545.3
<b>Gain</b>	13.0	613.7	-1.8	-0.1	1.9	26.4	653.1
<b>Run 7</b>	<b>Date:</b> 6/12/24						
<b>Impinger No.</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>Total</b>
<b>Contents</b>	XAD Trap	Empty	H2O	H2O	Empty	Silica	--
<b>Initial Mass, g</b>	351.1	524.2	755.9	714.1	614.2	943.2	3902.7
<b>Final Mass, g</b>	356.2	1155.5	764.9	715.5	615.3	972.4	4579.8
<b>Gain</b>	5.1	631.3	9.0	1.4	1.1	29.2	677.1
<b>Run 8</b>	<b>Date:</b> 6/12/24						
<b>Impinger No.</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>Total</b>
<b>Contents</b>	XAD Trap	Empty	H2O	H2O	Empty	Silica	--
<b>Initial Mass, g</b>	355.0	496.8	733.7	766.7	646.2	943.6	3942.0
<b>Final Mass, g</b>	364.0	1117.3	730.7	768.0	647.6	972.1	4599.7
<b>Gain</b>	9.0	620.5	-3.0	1.3	1.4	28.5	657.7

Location: BASF Corporation - Pasadena, TX					Start Time: 9:32		Source: F-10 Boiler EPN 84				
Date: 6/5/24		Run 2		VALID		End Time: 17:56		Project No.: AST-2024-2352		Parameters: PAH, PCB	

STACK DATA (EST)			EQUIPMENT		STACK DATA (EST)			FILTER NO.		STACK DATA (FINAL)			MOIST. DATA					
Moisture:	16.5	% est.	Meter Box ID:	MB-511	Est. Tm:	90	°F			Pb:	29.80	in. Hg	Vlc (ml)					
Barometric:	29.80	in. Hg	Y:	1.015	Est. Ts:	351	°F			Pg:	-0.20	in. WC	661.7					
Static Press:	-0.20	in. WC	AH @ (in.WC):	1.922	Est. AP:	0.48	in. WC			O <sub>2</sub> :	3.43	%	K-FACTOR					
Stack Press:	29.79	in. Hg	Probe ID:	M508-3	Est. Dn:	0.263	in.			CO <sub>2</sub> :	10.61	%	2.52					
CO <sub>2</sub> :	10.8	%	Liner Material:	glass	Target Rate:	0.60	scfm							Check Pt.	Initial	Final	Corr.	
O <sub>2</sub> :	3.5	%	Pitot ID:	M508-3	LEAK CHECK:	Pre	Mid 1	Mid 2	Mid 3	Post					Mid 1 (cf)	--		
N <sub>2</sub> /CO:	85.7	%	Pitot Cp/Type:	0.813 S-type	Leak Rate (cfm):	0.001	--	--	--	0.001					Mid 2 (cf)	--		
Md:	29.87	lb/lb-mole	Nozzle ID:	GN-261 glass	Vacuum (in Hg):	17	--	--	--	15					Mid 3 (cf)	--		
Ms:	27.91	lb/lb-mole	Nozzle Dn (in.):	0.261	Pitot Tube:	Pass	--	--	--	Pass					Mid-Point Leak Check Vol (cf):	--		

Sample Pt.	Sample Time (minutes)		Dry Gas Meter Reading (ft <sup>3</sup> )	Pitot Tube ΔP (in WC)	Gas Temperatures (°F)		Orifice Press. ΔH (in. WC)		Pump Vac (in. Hg)	Gas Temperatures (°F)				% ISO	Vs (fps)
	Begin	End			DGM Average	Stack	Ideal	Actual		Probe	Filter	Imp Exit	Trap		
A-1	0.00	5.00	0.000	0.47	75	278	1.27	1.25	4	251	251	55	55	99.6	44.93
1	5.00	10.00	2.963	0.44	76	270	1.19	1.20	4	253	254	55	44	100.7	43.10
1	10.00	15.00	5.873	0.58	75	345	1.43	1.44	5	249	250	55	48	97.5	52.03
1	15.00	20.00	8.951	0.59	76	349	1.45	1.45	5	249	247	56	51	101.0	52.65
2	20.00	25.00	12.169	0.63	77	350	1.56	1.55	5	252	251	56	50	99.9	54.57
2	25.00	30.00	15.468	0.64	78	352	1.56	1.55	5	250	249	56	50	100.4	54.81
2	30.00	35.00	18.798	0.63	79	351	1.56	1.57	5	249	249	58	53	102.5	54.65
2	35.00	40.00	22.195	0.61	80	350	1.51	1.50	5	249	250	58	55	102.6	53.57
3	40.00	45.00	25.541	0.65	76	351	1.59	1.60	5	250	250	58	53	99.1	55.34
3	45.00	50.00	28.850	0.65	78	353	1.59	1.60	5	252	250	58	51	101.3	55.40
3	50.00	55.00	32.240	0.63	78	352	1.55	1.55	5	248	248	60	49	103.7	54.51
3	55.00	60.00	35.658	0.65	79	352	1.59	1.60	5	250	250	61	49	99.7	55.16
4	60.00	65.00	38.991	0.63	80	352	1.56	1.55	5	249	249	60	49	99.0	54.68
4	65.00	70.00	42.278	0.66	81	352	1.64	1.65	5	251	251	53	49	98.9	55.96
4	70.00	75.00	45.643	0.65	82	351	1.61	1.60	5	250	250	56	49	101.4	55.38
4	75.00	80.00	49.070	0.63	82	351	1.56	1.55	5	250	251	54	45	101.8	54.39
5	80.00	85.00	52.447	0.60	83	350	1.49	1.50	5	250	248	55	44	100.4	53.13
5	85.00	90.00	55.712	0.56	84	349	1.40	1.40	5	250	251	56	46	101.1	51.34
5	90.00	95.00	58.901	0.55	85	348	1.38	1.37	5	251	250	56	46	102.6	50.81
5	95.00	100.00	62.113	0.54	85	348	1.35	1.33	5	250	250	57	45	103.4	50.39
6	100.00	105.00	65.324	0.52	86	344	1.31	1.33	5	250	251	57	45	101.2	49.33
6	105.00	110.00	68.421	0.52	86	344	1.30	1.30	5	249	250	59	48	97.7	49.04
6	110.00	115.00	71.393	0.52	86	344	1.32	1.30	5	250	250	60	48	101.1	49.37
6	115.00	120.00	74.490	0.48	86	344	1.21	1.20	5	249	251	60	49	100.8	47.35
B1	120.00	125.00	77.451	0.60	82	353	1.48	1.49	5	248	246	65	54	101.1	53.23
1	125.00	130.00	80.726	0.58	84	353	1.43	1.45	5	249	251	60	52	99.3	52.20
1	130.00	135.00	83.894	0.59	85	354	1.46	1.45	5	250	249	59	52	99.4	52.82
1	135.00	140.00	87.102	0.60	85	354	1.49	1.50	5	251	250	57	53	98.9	53.26
2	140.00	145.00	90.321	0.61	86	354	1.51	1.50	5	251	249	57	54	101.2	53.62
2	145.00	150.00	93.643	0.61	86	354	1.51	1.50	5	255	251	57	51	103.5	53.62
2	150.00	155.00	97.041	0.61	87	354	1.53	1.55	5	249	250	59	53	100.3	53.88
2	155.00	160.00	100.356	0.62	87	354	1.53	1.55	5	251	250	61	50	99.3	53.92
3	160.00	165.00	103.641	0.63	88	353	1.58	1.58	6	252	251	61	50	103.5	54.63
3	165.00	170.00	107.120	0.62	88	354	1.54	1.55	5	251	249	63	53	100.8	54.01
3	170.00	175.00	110.467	0.64	89	353	1.59	1.60	6	250	251	60	50	103.0	54.76
3	175.00	180.00	113.943	0.65	89	354	1.63	1.63	6	251	251	58	52	101.8	55.52
4	180.00	185.00	117.422	0.64	90	353	1.61	1.60	6	251	249	57	52	99.2	55.02
4	185.00	190.00	120.791	0.65	90	354	1.62	1.60	6	250	250	56	58	104.7	55.31
4	190.00	195.00	124.361	0.63	90	354	1.59	1.60	6	251	249	56	59	101.6	54.71
4	195.00	200.00	127.790	0.63	90	354	1.58	1.60	6	250	251	57	60	100.7	54.58
5	200.00	205.00	131.180	0.63	91	353	1.58	1.60	6	251	249	57	61	99.9	54.46
5	205.00	210.00	134.544	0.64	91	353	1.60	1.60	6	248	251	59	60	100.9	54.89
5	210.00	215.00	137.971	0.66	91	354	1.64	1.65	6	253	250	61	50	100.5	55.65
5	215.00	220.00	141.426	0.66	91	354	1.64	1.65	6	250	249	62	50	100.3	55.65
6	220.00	225.00	144.874	0.54	91	346	1.36	1.35	5	250	250	63	53	99.9	50.09
6	225.00	230.00	148.000	0.54	91	345	1.37	1.36	5	251	250	60	53	97.8	50.25
6	230.00	235.00	151.072	0.53	91	345	1.34	1.32	5	250	250	57	53	101.5	49.59
6	235.00	240.00	154.220	0.55	91	345	1.39	1.40	5	251	252	58	54	102.2	50.62
Final DGM:			157.453												

RESULTS	Run Time		Vm	AP	Tm	Ts	Max Vac	AH	%ISO	BWS	Y <sub>qa</sub>				
	240.0	min	157.453	ft <sup>3</sup>	0.60	in. WC	84.5	°F	347.6	°F	6	1.492	in. WC	101.0	0.168

Location: BASF Corporation - Pasadena, TX				Start Time: 7:20		Source: F-10 Boiler EPN 84					
Date: 6/6/24		Run 3		VALID		End Time: 11:33		Project No.: AST-2024-2352		Parameters: PAH, PCB	

STACK DATA (EST)			EQUIPMENT		STACK DATA (EST)			FILTER NO.		STACK DATA (FINAL)			MOIST. DATA	
Moisture:	16.7	% est.	Meter Box ID: MB-511		Est. Tm:	85	°F		Pb:	29.82	in. Hg	Vlc (ml)		
Barometric:	29.80	in. Hg	Y: 1.015		Est. Ts:	348	°F		Pg:	-0.20	in. WC	655.6		
Static Press:	-0.20	in. WC	ΔH @ (in.WC): 1.922		Est. AP:	0.60	in. WC		O <sub>2</sub> :	3.31	%	K-FACTOR		
Stack Press:	29.79	in. Hg	Probe ID: M508-3		Est. Dn:	0.250	in.		CO <sub>2</sub> :	10.78	%	2.490		
CO <sub>2</sub> :	10.8	%	Liner Material: glass		Target Rate:	0.60	scfm				Check Pt.	Initial	Final	Corr.
O <sub>2</sub> :	3.5	%	Pitot ID: M508-3		LEAK CHECK:	Pre	Mid 1	Mid 2	Mid 3	Post	Mid 1 (cf)			
N <sub>2</sub> /CO:	85.7	%	Pitot Cp/Type:	0.813	S-type	Leak Rate (cfm):	0.000	--	--	--	0.000	Mid 2 (cf)		--
Md:	29.87	lb/lb-mole	Nozzle ID:	GN-261	glass	Vacuum (in Hg):	17	--	--	--	15	Mid 3 (cf)		--
Ms:	27.89	lb/lb-mole	Nozzle Dn (in.):	0.261		Pitot Tube:	Pass	--	--	--	Pass	Mid-Point Leak Check Vol (cf):		--

Sample Pt.	Sample Time (minutes)		Dry Gas Meter Reading (ft <sup>3</sup> )	Pitot Tube ΔP (in WC)	Gas Temperatures (°F)		Orifice Press. ΔH (in. WC)		Pump Vac (in. Hg)	Gas Temperatures (°F)				% ISO	Vs (fps)
	Begin	End			Amb.	Stack	Ideal	Actual		Probe Amb.	Filter Amb.	Imp Exit Amb.	Trap Amb.		
A-1	0.00	5.00	0.000	0.54	73	352	1.32	1.30	4	250	250	65	51	92.4	50.67
1	5.00	10.00	2.802	0.53	74	352	1.28	1.25	4	249	250	61	48	91.7	49.78
1	10.00	15.00	5.540	0.50	75	350	1.21	1.20	4	251	250	55	47	101.0	48.27
1	15.00	20.00	8.478	0.48	75	348	1.18	1.17	4	251	251	55	47	96.6	47.58
2	20.00	25.00	11.255	0.48	76	346	1.19	1.17	4	250	249	55	47	95.9	47.52
2	25.00	30.00	14.019	0.58	77	343	1.44	1.44	5	250	250	55	46	99.0	52.12
2	30.00	35.00	17.164	0.60	78	355	1.46	1.45	5	249	250	56	49	99.6	53.27
2	35.00	40.00	20.355	0.60	79	354	1.47	1.47	5	249	250	57	51	100.7	53.24
3	40.00	45.00	23.590	0.60	79	355	1.46	1.45	5	250	252	59	47	100.2	53.13
3	45.00	50.00	26.799	0.60	80	355	1.47	1.45	5	250	251	62	51	100.3	53.22
3	50.00	55.00	30.023	0.59	81	355	1.46	1.45	5	249	249	63	51	101.7	53.00
3	55.00	60.00	33.284	0.60	81	355	1.46	1.45	5	251	251	61	53	100.1	53.13
4	60.00	65.00	36.503	0.64	82	354	1.56	1.56	5	249	250	60	53	101.8	54.81
4	65.00	70.00	39.890	0.63	83	353	1.56	1.55	5	249	251	60	54	98.5	54.56
4	70.00	75.00	43.161	0.63	83	354	1.55	1.55	5	248	250	59	53	100.6	54.51
4	75.00	80.00	46.494	0.64	84	354	1.59	1.60	5	250	250	58	52	101.7	55.20
5	80.00	85.00	49.912	0.58	84	352	1.43	1.43	5	250	251	59	54	98.9	52.23
5	85.00	90.00	53.067	0.59	85	351	1.47	1.46	5	250	250	61	55	98.1	52.74
5	90.00	95.00	56.236	0.59	85	351	1.47	1.46	5	251	250	62	56	101.6	52.78
5	95.00	100.00	59.520	0.60	85	351	1.49	1.50	5	248	251	63	55	99.6	53.09
6	100.00	105.00	62.757	0.53	86	346	1.33	1.33	5	253	251	61	55	98.4	49.83
6	105.00	110.00	65.784	0.53	86	344	1.32	1.30	5	250	251	61	57	99.3	49.53
6	110.00	115.00	68.830	0.50	86	344	1.26	1.25	5	250	250	65	56	99.2	48.34
6	115.00	120.00	71.800	0.53	86	344	1.33	1.30	5	250	250	64	56	99.6	49.77
B1	120.00	125.00	74.868	0.43	85	340	1.09	1.10	5	254	253	66	44	100.0	44.82
1	125.00	130.00	77.652	0.59	86	351	1.48	1.48	5	251	250	58	42	100.5	52.87
1	130.00	135.00	80.911	0.58	87	351	1.45	1.45	5	250	250	58	42	99.5	52.38
1	135.00	140.00	84.115	0.57	87	350	1.42	1.40	5	250	250	57	43	101.6	51.80
2	140.00	145.00	87.355	0.61	87	351	1.52	1.50	5	251	250	57	44	100.5	53.62
2	145.00	150.00	90.669	0.61	87	352	1.53	1.53	5	249	251	54	46	99.1	53.79
2	150.00	155.00	93.942	0.61	88	352	1.53	1.53	5	250	2490	56	46	99.3	53.74
2	155.00	160.00	97.225	0.63	88	352	1.57	1.56	5	250	250	59	47	100.4	54.53
3	160.00	165.00	100.591	0.60	88	351	1.51	1.50	5	250	249	60	49	101.1	53.31
3	165.00	170.00	103.911	0.59	89	351	1.49	1.50	5	252	252	60	50	101.2	52.92
3	170.00	175.00	107.215	0.61	89	354	1.52	1.52	5	250	250	62	50	100.8	53.72
3	175.00	180.00	110.542	0.60	89	354	1.48	1.48	5	248	251	62	51	101.4	53.06
4	180.00	185.00	113.850	0.59	90	354	1.47	1.45	5	249	250	61	38	101.1	52.83
4	185.00	190.00	117.140	0.61	90	354	1.52	1.50	6	250	251	55	37	97.3	53.72
4	190.00	195.00	120.358	0.61	90	354	1.52	1.51	6	249	252	53	38	101.7	53.72
4	195.00	200.00	123.723	0.61	90	354	1.53	1.53	6	250	250	54	38	100.8	53.77
5	200.00	205.00	127.061	0.55	91	352	1.38	1.38	5	249	250	55	37	99.1	50.86
5	205.00	210.00	130.179	0.54	91	351	1.36	1.35	5	251	249	57	38	99.5	50.45
5	210.00	215.00	133.289	0.56	91	350	1.41	1.40	5	250	251	57	38	99.5	51.35
5	215.00	220.00	136.458	0.58	91	351	1.45	1.45	5	249	249	59	38	99.1	52.15
6	220.00	225.00	139.659	0.48	92	341	1.22	1.21	5	250	249	58	39	101.3	47.27
6	225.00	230.00	142.670	0.46	92	340	1.17	1.15	5	251	252	59	40	101.3	46.25
6	230.00	235.00	145.620	0.46	92	341	1.17	1.15	5	250	251	60	41	102.1	46.28
6	235.00	240.00	148.590	0.47	92	341	1.20	1.20	5	251	249	60	41	100.1	46.78
Final DGM:			151.532												

RESULTS	Run Time		Vm	AP	Tm	Ts	Max Vac	ΔH	%ISO	BWS	Y <sub>qa</sub>				
	240.0	min	151.532	ft <sup>3</sup>	0.57	in. WC	85.1	°F	350.2	°F	6	1.404	in. WC	100.2	0.172



Location: BASF Corporation - Pasadena, TX				Start Time: 12:11		Source: F-10 Boiler EPN 84					
Date: 6/6/24		Run 4		VALID		End Time: 16:26		Project No.: AST-2024-2352		Parameters: PAH, PCB	

STACK DATA (EST)			EQUIPMENT		STACK DATA (EST)			FILTER NO.		STACK DATA (FINAL)			MOIST. DATA	
Moisture: 16.7 % est.	Meter Box ID: MB-511		Est. Tm: 85 °F				Pb: 29.82 in. Hg		Vlc (ml)					
Barometric: 29.80 in. Hg	Y: 1.015		Est. Ts: 350 °F				Pg: -0.20 in. WC		600.8					
Static Press: -0.20 in. WC	ΔH @ (in.WC): 1.922		Est. ΔP: 0.57 in. WC				O <sub>2</sub> : 3.42 %		K-FACTOR					
Stack Press: 29.79 in. Hg	Probe ID: M508-3		Est. Dn: 0.253 in.				CO <sub>2</sub> : 10.79 %		2.482					
CO <sub>2</sub> : 10.8 %	Liner Material: glass		Target Rate: 0.60 scfm											
O <sub>2</sub> : 3.5 %	Pitot ID: M508-3		LEAK CHECK!		Pre	Mid 1	Mid 2	Mid 3	Post	Mid 1 (cf)	--			
N <sub>2</sub> /CO: 85.7 %	Pitot Cp/Type: 0.813 S-type		Leak Rate (cfm): 0.000		--	--	--	--	0.000	Mid 2 (cf)	--			
Md: 29.87 lb/lb-mole	Nozzle ID: GN-261 glass		Vacuum (in Hg): 17		--	--	--	--	15	Mid 3 (cf)	--			
Ms: 27.89 lb/lb-mole	Nozzle Dn (in.): 0.261		Pitot Tube: Pass		--	--	--	--	Pass	Mid-Point Leak Check Vol (cf):	--			

Sample Pt.	Sample Time (minutes)		Dry Gas Meter Reading (ft <sup>3</sup> )	Pitot Tube ΔP (in WC)	Gas Temperatures (°F)		Orifice Press. ΔH (in. WC)		Pump Vac (in. Hg)	Gas Temperatures (°F)				% ISO	Vs (fps)
					DGM Average	Stack	Ideal	Actual		Probe	Filter	Imp Exit	Trap		
	Amb.	Amb.			Amb.	Amb.				Amb.	Amb.				
	Begin	End			--	--				--	--	--	--		
A-1	0.00	5.00	0.000	0.53	90	340	1.35	1.35	4	250	240	65	48	98.9	49.65
1	5.00	10.00	3.076	0.53	90	353	1.33	1.36	5	249	252	60	49	101.0	50.19
1	10.00	15.00	6.202	0.53	90	353	1.32	1.30	5	250	249	58	49	99.8	50.05
1	15.00	20.00	9.280	0.53	91	353	1.33	1.35	5	251	249	58	50	100.3	50.05
2	20.00	25.00	12.380	0.57	91	355	1.42	1.40	5	251	252	59	49	100.6	51.97
2	25.00	30.00	15.600	0.57	92	355	1.43	1.45	5	251	252	59	50	100.7	51.97
2	30.00	35.00	18.830	0.55	92	355	1.38	1.40	5	250	251	59	49	101.0	51.05
2	35.00	40.00	22.010	0.56	92	355	1.40	1.40	5	251	252	60	50	100.7	51.51
3	40.00	45.00	25.210	0.54	93	356	1.35	1.35	5	249	250	60	50	100.8	50.61
3	45.00	50.00	28.360	0.53	93	356	1.33	1.35	5	251	252	61	50	101.7	50.14
3	50.00	55.00	31.510	0.53	93	356	1.33	1.35	5	251	252	62	51	101.4	50.14
3	55.00	60.00	34.650	0.52	93	356	1.30	1.30	5	250	251	63	53	101.1	49.67
4	60.00	65.00	37.750	0.51	93	356	1.28	1.30	5	250	252	64	54	100.7	49.19
4	65.00	70.00	40.810	0.60	93	353	1.51	1.50	5	250	251	65	56	100.3	53.25
4	70.00	75.00	44.120	0.59	94	353	1.49	1.50	5	250	249	60	45	100.1	52.94
4	75.00	80.00	47.410	0.58	94	353	1.46	1.47	5	251	250	58	48	103.0	52.49
5	80.00	85.00	50.744	0.59	94	353	1.49	1.50	6	251	250	55	45	98.9	52.90
5	85.00	90.00	53.990	0.58	94	353	1.47	1.48	5	249	251	55	46	100.0	52.54
5	90.00	95.00	57.252	0.59	94	352	1.49	1.50	6	250	251	56	47	102.1	52.77
5	95.00	100.00	60.600	0.57	94	352	1.44	1.45	5	252	250	56	46	99.7	51.96
6	100.00	105.00	63.819	0.49	95	348	1.25	1.25	5	250	250	57	47	102.1	48.03
6	105.00	110.00	66.890	0.50	95	344	1.28	1.25	5	252	250	60	49	99.5	48.34
6	110.00	115.00	69.915	0.47	95	345	1.21	1.20	5	249	251	63	49	101.6	47.05
6	115.00	120.00	72.920	0.47	95	344	1.20	1.20	5	250	250	64	50	102.7	46.87
B1	120.00	125.00	75.950	0.52	93	347	1.32	1.30	5	251	252	65	45	102.5	49.39
1	125.00	130.00	79.110	0.51	94	347	1.30	1.30	5	250	250	62	46	101.2	49.06
1	130.00	135.00	82.215	0.51	94	347	1.30	1.30	5	249	250	60	45	100.0	48.96
1	135.00	140.00	85.279	0.48	94	346	1.21	1.20	5	250	250	57	46	101.6	47.23
2	140.00	145.00	88.286	0.56	94	344	1.42	1.40	5	250	250	55	39	98.7	51.07
2	145.00	150.00	91.449	0.55	94	348	1.38	1.40	5	251	249	55	44	102.3	50.60
2	150.00	155.00	94.681	0.51	95	348	1.29	1.30	5	249	249	57	42	101.7	48.90
2	155.00	160.00	97.794	0.51	95	347	1.29	1.30	5	249	250	59	40	101.6	48.72
3	160.00	165.00	100.895	0.51	96	346	1.31	1.30	5	250	250	59	51	98.2	48.98
3	165.00	170.00	103.920	0.53	96	347	1.36	1.35	5	249	250	60	42	101.0	50.05
3	170.00	175.00	107.093	0.51	96	347	1.31	1.30	5	251	251	60	42	98.6	49.11
3	175.00	180.00	110.133	0.53	96	347	1.34	1.35	5	250	251	61	44	101.3	49.63
4	180.00	185.00	113.289	0.51	97	346	1.30	1.30	5	250	250	63	43	102.8	48.88
4	185.00	190.00	116.455	0.49	97	346	1.24	1.25	5	251	250	65	43	101.0	47.72
4	190.00	195.00	119.490	0.48	97	347	1.22	1.22	5	252	251	63	43	100.5	47.31
4	195.00	200.00	122.480	0.45	97	346	1.15	1.12	5	250	252	64	43	102.0	45.92
5	200.00	205.00	125.430	0.44	97	345	1.12	1.10	5	249	250	64	43	98.8	45.22
5	205.00	210.00	128.248	0.40	97	344	1.02	1.00	5	249	249	64	45	100.2	43.24
5	210.00	215.00	130.985	0.42	97	343	1.07	1.07	5	251	250	65	46	98.2	44.12
5	215.00	220.00	133.724	0.40	97	343	1.03	1.01	5	251	250	61	44	100.1	43.27
6	220.00	225.00	136.464	0.34	96	336	0.87	0.85	5	251	249	60	44	100.1	39.37
6	225.00	230.00	138.976	0.38	96	330	0.99	0.90	5	250	250	59	43	104.7	41.78
6	230.00	235.00	141.783	0.38	96	331	0.99	0.99	5	251	250	61	44	102.1	41.80
6	235.00	240.00	144.520	0.38	96	330	0.99	0.99	5	250	251	62	44	106.7	41.78
Final DGM:			147.381												

RESULTS	Run Time		Vm	AP	Tm	Ts	Max Vac	ΔH	%ISO	BWS	Y <sub>qa</sub>			
	240.0	min	147.381	ft <sup>3</sup>	0.51	in. WC	94.3	°F	347.9	°F	6	1.339 in. WC	100.8	0.166

Location: <b>BASF Corporation - Pasadena, TX</b>				Start Time: <b>5:40</b>		Source: <b>F-10 Boiler EPN 84</b>			
Date: <b>6/7/24</b>		Run <b>5</b>		End Time: <b>9:53</b>		Project No.: <b>AST-2024-2352</b>		Parameters: <b>PAH, PCB</b>	

STACK DATA (EST)			EQUIPMENT		STACK DATA (EST)			FILTER NO.		STACK DATA (FINAL)			MOIST. DATA	
Moisture:	16.7	% est.	Meter Box ID:	MB-511	Est. Tm:	94	°F		Pb:	29.89	in. Hg	Vlc (ml)		
Barometric:	29.80	in. Hg	Y:	1.015	Est. Ts:	348	°F		Pg:	-0.20	in. WC	657.4		
Static Press:	-0.20	in. WC	ΔH @ (in.WC):	1.922	Est. ΔP:	0.51	in. WC		O <sub>2</sub> :	3.39	%	K-FACTOR		
Stack Press:	29.79	in. Hg	Probe ID:	M508-3	Est. Dn:	0.258	in.		CO <sub>2</sub> :	10.56	%	2,532		
CO <sub>2</sub> :	10.8	%	Liner Material:	glass	Target Rate:	0.60	scfm				Check Pt.	Initial	Final	Corr.
O <sub>2</sub> :	3.5	%	Pitot ID:	M508-3	LEAK CHECK:	Pre	Mid 1	Mid 2	Mid 3	Post	Mid 1 (cf)			
N <sub>2</sub> /CO:	85.7	%	Pitot Cp/Type:	0.813	S-type	Leak Rate (cfm):	0.000	--	--	--	0.000	Mid 2 (cf)		
Md:	29.87	lb/lb-mole	Nozzle ID:	GN-261	glass	Vacuum (in Hg):	15	--	--	--	15	Mid 3 (cf)		
Ms:	27.89	lb/lb-mole	Nozzle Dn (in.):	0.261	Pitot Tube:	Pass	--	--	--	Pass	Mid-Point Leak Check Vol (cf):			--

Sample Pt.	Sample Time (minutes)		Dry Gas Meter Reading (ft³)	Pitot Tube ΔP (in WC)	Gas Temperatures (°F)		Orifice Press. ΔH (in. WC)		Pump Vac (in. Hg)	Gas Temperatures (°F)				% ISO	Vs (fps)
	Begin	End			Amb.	Stack	Ideal	Actual		Probe	Filter	Imp Exit	Trap		
A-1	0.00	5.00	0.000	0.48	69	345	1.17	1.15	3	254	246	66	40	106.1	47.40
1	5.00	10.00	3.011	0.48	70	353	1.16	1.15	3	249	253	61	41	102.6	47.63
1	10.00	15.00	5.915	0.47	71	352	1.14	1.15	3	251	250	58	41	105.7	47.20
1	15.00	20.00	8.890	0.48	72	352	1.15	1.15	3	250	250	57	40	103.5	47.40
2	20.00	25.00	11.819	0.53	74	353	1.30	1.30	4	249	250	59	40	103.0	50.24
2	25.00	30.00	14.915	0.52	75	354	1.25	1.25	4	248	249	58	45	106.0	49.37
2	30.00	35.00	18.048	0.53	76	354	1.28	1.28	4	250	250	58	42	102.6	49.84
2	35.00	40.00	21.117	0.52	77	354	1.26	1.25	4	251	251	58	44	106.2	49.37
3	40.00	45.00	24.269	0.52	78	353	1.28	1.28	4	250	251	58	44	104.1	49.72
3	45.00	50.00	27.389	0.54	79	354	1.32	1.30	4	250	250	59	42	105.6	50.46
3	50.00	55.00	30.603	0.54	80	354	1.33	1.33	4	250	250	58	42	104.5	50.64
3	55.00	60.00	33.803	0.53	80	354	1.29	1.30	4	250	250	59	44	103.2	49.84
4	60.00	65.00	36.913	0.57	81	353	1.40	1.40	5	249	250	60	50	105.7	51.90
4	65.00	70.00	40.240	0.56	82	353	1.38	1.37	4	249	250	63	53	103.0	51.45
4	70.00	75.00	43.459	0.56	83	353	1.38	1.40	4	250	250	65	53	103.2	51.45
4	75.00	80.00	46.689	0.57	83	353	1.41	1.40	4	251	250	63	39	104.5	51.90
5	80.00	85.00	49.990	0.53	83	351	1.31	1.30	4	251	250	50	39	104.5	49.99
5	85.00	90.00	53.177	0.59	83	352	1.45	1.45	4	250	250	51	40	102.3	52.60
5	90.00	95.00	56.456	0.58	83	353	1.42	1.40	4	250	251	53	40	103.8	52.13
5	95.00	100.00	59.750	0.57	83	353	1.41	1.40	4	250	250	53	37	103.3	52.04
6	100.00	105.00	63.021	0.51	83	349	1.26	1.30	4	250	251	53	35	102.6	48.98
6	105.00	110.00	66.095	0.54	83	349	1.33	1.35	4	251	250	55	35	107.3	50.26
6	110.00	115.00	69.393	0.54	83	349	1.34	1.35	4	250	251	56	35	106.3	50.40
6	115.00	120.00	72.670	0.53	84	349	1.32	1.30	4	251	252	57	36	107.6	49.93
B1	120.00	125.00	75.962	0.45	84	349	1.12	1.10	4	251	250	65	48	102.7	46.00
1	125.00	130.00	78.858	0.49	82	348	1.20	1.20	4	252	251	65	48	103.9	47.78
1	130.00	135.00	81.892	0.48	83	348	1.18	1.20	4	249	250	63	48	103.3	47.24
1	135.00	140.00	84.880	0.47	82	348	1.16	1.15	4	249	250	63	49	107.2	46.89
2	140.00	145.00	87.954	0.56	82	351	1.37	1.40	4	250	250	64	35	103.7	51.15
2	145.00	150.00	91.185	0.58	83	352	1.42	1.42	5	250	249	60	35	105.8	52.10
2	150.00	155.00	94.543	0.55	83	351	1.37	1.40	5	250	251	56	36	104.5	51.11
2	155.00	160.00	97.800	0.55	83	351	1.37	1.40	5	249	250	57	37	105.2	51.11
3	160.00	165.00	101.080	0.58	84	352	1.43	1.42	5	250	250	57	38	104.1	52.14
3	165.00	170.00	104.394	0.58	84	352	1.45	1.45	5	250	250	58	39	105.9	52.51
3	170.00	175.00	107.787	0.57	84	352	1.42	1.45	5	250	250	58	40	105.0	52.05
3	175.00	180.00	111.123	0.55	85	352	1.37	1.40	4	250	249	59	-43	107.2	51.14
4	180.00	185.00	114.475	0.59	86	353	1.45	1.45	5	251	250	60	47	102.9	52.58
4	185.00	190.00	117.786	0.57	85	354	1.42	1.40	5	250	250	60	47	104.7	52.07
4	190.00	195.00	121.112	0.56	85	353	1.39	1.40	5	249	249	61	47	105.9	51.45
4	195.00	200.00	124.440	0.55	86	353	1.37	1.40	5	250	250	61	47	105.9	51.12
5	200.00	205.00	127.753	0.52	86	350	1.30	1.30	4	249	249	62	48	104.4	49.58
5	205.00	210.00	130.933	0.49	86	350	1.23	1.23	4	250	251	62	49	105.0	48.23
5	210.00	215.00	134.044	0.50	87	349	1.24	1.25	4	249	250	63	50	106.5	48.25
5	215.00	220.00	137.210	0.49	87	346	1.23	1.25	5	250	251	60	43	100.9	47.92
6	220.00	225.00	140.200	0.44	87	341	1.12	1.11	4	249	251	61	44	106.6	45.37
6	225.00	230.00	143.211	0.43	87	341	1.09	1.10	4	249	250	61	43	101.4	44.90
6	230.00	235.00	146.045	0.45	87	340	1.14	1.15	4	252	251	61	44	101.2	45.75
6	235.00	240.00	148.930	0.46	87	342	1.16	1.15	4	252	251	63	45	103.1	46.31
Final DGM:			151.899												

RESULTS	Run Time		Vm	AP	Tm	Ts	Max Vac	ΔH	%ISO	BWS	Y <sub>qa</sub>				
	240.0	min	151.899	ft³	0.53	in. WC	81.9	°F	350.6	°F	5	1.302	in. WC	104.9	0.171

Location: BASF Corporation - Pasadena, TX					Start Time: 13:17		Source: F-10 Boiler EPN 84				
Date: 6/11/24		Run 6		VALID		End Time: 17:33		Project No.: AST-2024-2352		Parameters: PAH, PCB	

STACK DATA (EST)			EQUIPMENT		STACK DATA (EST)			FILTER NO.		STACK DATA (FINAL)			MOIST. DATA	
Moisture: 16.7 % est.	Meter Box ID: MB-511		Est. Tm: 82 °F				Pb: 29.88 in. Hg		Vlc (ml)					
Barometric: 29.80 in. Hg	Y: 1.015		Est. Ts: 351 °F				Pg: -0.20 in. WC		653.1					
Static Press: -0.20 in. WC	ΔH @ (in.WC): 1.922		Est. AP: 0.58 in. WC				O <sub>2</sub> : 3.42 %		K-FACTOR					
Stack Press: 29.79 in. Hg	Probe ID: M508-3		Est. Dn: 0.253 in.				CO <sub>2</sub> : 10.75 %		2.467					
CO <sub>2</sub> : 10.8 %	Liner Material: glass		Target Rate: 0.60 scfm											
O <sub>2</sub> : 3.5 %	Pitot ID: M508-3		LEAK CHECK!		Pre	Mid 1	Mid 2	Mid 3	Post	Check Pt.	Initial	Final	Corr.	
N <sub>2</sub> /CO: 85.7 %	Pitot Cp/Type: 0.813 S-type		Leak Rate (cfm): 0.000		--	--	--	--	0.000	Mid 1 (cf)	--			
Md: 29.87 lb/lb-mole	Nozzle ID: GN-261 glass		Vacuum (in Hg): 15		--	--	--	--	15	Mid 2 (cf)	--			
Ms: 27.89 lb/lb-mole	Nozzle Dn (in.): 0.261		Pitot Tube: Pass		--	--	--	--	Pass	Mid 3 (cf)	--			
										Mid-Point Leak Check Vol (cf): --				

Sample Pt.	Sample Time (minutes)		Dry Gas Meter Reading (ft <sup>3</sup> )	Pitot Tube ΔP (in WC)	Gas Temperatures (°F)		Orifice Press. ΔH (in. WC)		Pump Vac (in. Hg)	Gas Temperatures (°F)				% ISO	Vs (fps)
					DGM Average	Stack	Ideal	Actual		Probe	Filter	Imp Exit	Trap		
	Amb.	Amb.			Amb.	Amb.				Amb.	Amb.				
	Begin	End			--	--				--	--	--	--		
A-1	0.00	5.00	0.000	0.55	74	351	1.34	1.35	5	251	251	66	54	100.6	50.92
1	5.00	10.00	3.073	0.53	75	351	1.30	1.30	5	250	250	62	50	100.5	50.13
1	10.00	15.00	6.102	0.56	77	350	1.36	1.35	5	250	250	60	53	99.2	51.12
1	15.00	20.00	9.164	0.52	78	350	1.28	1.28	5	250	251	56	54	102.0	49.48
2	20.00	25.00	12.220	0.55	79	351	1.36	1.35	5	249	250	57	56	101.5	51.06
2	25.00	30.00	15.359	0.53	80	353	1.30	1.30	5	249	250	57	57	103.0	49.96
2	30.00	35.00	18.473	0.52	81	353	1.27	1.28	5	252	251	58	59	102.8	49.38
2	35.00	40.00	21.552	0.51	82	353	1.26	1.25	5	251	250	60	59	103.8	49.10
3	40.00	45.00	24.649	0.57	83	354	1.41	1.40	5	251	250	61	60	101.5	52.03
3	45.00	50.00	27.859	0.57	84	353	1.41	1.40	5	249	249	56	55	102.9	51.90
3	50.00	55.00	31.115	0.56	85	354	1.38	1.38	5	249	251	51	49	103.0	51.34
3	55.00	60.00	34.340	0.59	86	354	1.46	1.48	6	250	251	50	38	101.0	52.84
4	60.00	65.00	37.601	0.60	87	353	1.49	1.50	6	247	250	50	40	103.4	53.16
4	65.00	70.00	40.969	0.56	87	353	1.39	1.40	5	251	250	52	40	103.2	51.49
4	70.00	75.00	44.225	0.54	88	352	1.35	1.35	5	249	250	53	44	102.1	50.54
4	75.00	80.00	47.397	0.59	88	353	1.48	1.50	6	251	250	54	43	101.7	52.94
5	80.00	85.00	50.702	0.53	89	348	1.32	1.30	5	251	250	55	46	101.1	49.66
5	85.00	90.00	53.810	0.47	89	345	1.18	1.20	5	250	250	57	50	102.2	46.90
5	90.00	95.00	56.790	0.51	89	345	1.29	1.30	5	251	250	58	50	102.1	48.85
5	95.00	100.00	59.890	0.53	90	346	1.34	1.35	5	251	251	58	50	100.7	49.83
6	100.00	105.00	63.010	0.46	90	345	1.16	1.15	5	252	251	58	52	101.4	46.40
6	105.00	110.00	65.940	0.49	90	345	1.24	1.25	5	251	250	58	47	103.0	47.89
6	110.00	115.00	69.011	0.49	90	345	1.24	1.25	5	250	250	57	46	105.6	47.94
6	115.00	120.00	72.164	0.52	91	346	1.30	1.30	5	250	251	58	50	106.1	49.12
B1	120.00	125.00	75.410	0.57	88	352	1.41	1.40	5	255	251	65	48	100.1	51.74
1	125.00	130.00	78.594	0.58	89	352	1.45	1.45	6	250	249	66	55	101.4	52.33
1	130.00	135.00	81.861	0.55	90	351	1.39	1.40	5	250	249	65	50	101.5	51.11
1	135.00	140.00	85.066	0.53	90	350	1.33	1.31	5	250	251	65	48	100.3	49.96
2	140.00	145.00	88.166	0.56	90	354	1.40	1.40	5	250	250	61	53	101.6	51.48
2	145.00	150.00	91.384	0.58	91	351	1.45	1.45	6	249	245	60	55	101.3	52.25
2	150.00	155.00	94.660	0.57	91	351	1.43	1.45	6	252	251	63	36	100.1	51.84
2	155.00	160.00	97.871	0.61	91	352	1.53	1.51	6	252	252	52	36	100.5	53.66
3	160.00	165.00	101.205	0.63	91	354	1.56	1.56	6	249	252	48	51	100.6	54.38
3	165.00	170.00	104.578	0.61	92	354	1.52	1.50	6	248	251	46	39	101.8	53.60
3	170.00	175.00	107.947	0.62	92	353	1.55	1.55	6	249	250	49	36	102.2	54.00
3	175.00	180.00	111.360	0.60	92	353	1.50	1.50	6	251	250	50	38	102.6	53.25
4	180.00	185.00	114.740	0.60	92	353	1.50	1.50	6	251	250	51	49	101.7	53.25
4	185.00	190.00	118.090	0.60	92	353	1.50	1.50	6	250	250	53	47	99.6	53.25
4	190.00	195.00	121.370	0.60	92	354	1.51	1.50	6	251	251	54	45	102.4	53.37
4	195.00	200.00	124.746	0.60	92	354	1.50	1.50	6	251	249	54	45	101.2	53.29
5	200.00	205.00	128.077	0.46	92	339	1.17	1.18	5	250	250	45	44	100.4	46.12
5	205.00	210.00	130.992	0.48	92	337	1.22	1.20	5	252	251	55	44	100.1	46.91
5	210.00	215.00	133.958	0.48	92	337	1.24	1.25	5	251	250	56	44	100.5	47.36
5	215.00	220.00	136.962	0.49	92	338	1.25	1.25	5	249	249	57	48	100.9	47.63
6	220.00	225.00	139.992	0.45	92	333	1.15	1.15	5	249	243	57	48	103.3	45.29
6	225.00	230.00	142.962	0.48	92	339	1.21	1.22	5	252	251	57	46	102.9	46.97
6	230.00	235.00	146.006	0.50	91	340	1.27	1.30	5	250	249	58	49	99.3	48.22
6	235.00	240.00	149.010	0.45	92	339	1.15	1.15	5	250	252	58	46	100.3	45.72
Final DGM:			151.897												

RESULTS	Run Time		Vm	AP	Tm	Ts	Max Vac	ΔH	%ISO	BWS	Y <sub>qa</sub>	
	240.0	min	151.897	ft <sup>3</sup>	0.54	in. WC	88.0	°F	348.9	°F	6	
								1.357	in. WC	102.2	0.171	1.7

Location: BASF Corporation - Pasadena, TX					Start Time: 7:30		Source: F-10 Boiler EPN 84				
Date: 6/12/24		Run 7		VALID		End Time: 11:39		Project No.: AST-2024-2352		Parameters: PAH, PCB	

STACK DATA (EST)			EQUIPMENT		STACK DATA (EST)			FILTER NO.		STACK DATA (FINAL)			MOIST. DATA	
Moisture:	16.7	% est.	Meter Box ID:	MB-511	Est. Tm:	88	°F			Pb:	29.91	in. Hg	Vlc (ml)	
Barometric:	29.80	in. Hg	Y:	1.015	Est. Ts:	349	°F			Pg:	-0.20	in. WC	677.1	
Static Press:	-0.20	in. WC	AH @ (in.WC):	1.922	Est. AP:	0.54	in. WC			O <sub>2</sub> :	3.34	%	K-FACTOR	
Stack Press:	29.79	in. Hg	Probe ID:	M508-3	Est. Dn:	0.255	in.			CO <sub>2</sub> :	10.7	%	2,500	
CO <sub>2</sub> :	10.8	%	Liner Material:	glass	Target Rate:	0.60	scfm							
O <sub>2</sub> :	3.5	%	Pitot ID:	M508-3	LEAK CHECK:	Pre	Mid 1	Mid 2	Mid 3	Post	Check Pt.	Initial	Final	Corr.
N <sub>2</sub> /CO:	85.7	%	Pitot Cp/Type:	0.813 S-type	Leak Rate (cfm):	0.001	--	--	--	0.001	Mid 1 (cf)			--
Md:	29.87	lb/lb-mole	Nozzle ID:	GN-261 glass	Vacuum (in Hg):	17	--	--	--	10	Mid 2 (cf)			--
Ms:	27.89	lb/lb-mole	Nozzle Dn (in.):	0.261	Pitot Tube:	Pass	--	--	--	Pass	Mid 3 (cf)			--
										Mid-Point Leak Check Vol (cf):				--

Sample Pt.	Sample Time (minutes)		Dry Gas Meter Reading (ft <sup>3</sup> )	Pitot Tube ΔP (in WC)	Gas Temperatures (°F)		Orifice Press. ΔH (in. WC)		Pump Vac (in. Hg)	Gas Temperatures (°F)				% ISO	Vs (fps)
	Begin	End			DGM Average	Stack	Ideal	Actual		Probe	Filter	Imp Exit	Trap		
A-1	0.00	5.00	0.000	0.52	69	345	1.26	1.25	3	250	251	66	48	100.0	49.33
1	5.00	10.00	2.955	0.52	70	347	1.26	1.25	3	250	250	61	43	100.1	49.34
1	10.00	15.00	5.910	0.55	71	348	1.32	1.33	4	249	251	60	49	101.8	50.60
1	15.00	20.00	8.993	0.59	72	349	1.44	1.45	4	251	250	60	50	101.6	52.86
2	20.00	25.00	12.210	0.62	73	354	1.50	1.50	5	250	251	61	48	101.3	54.25
2	25.00	30.00	15.488	0.60	74	353	1.46	1.45	4	250	250	62	51	99.4	53.30
2	30.00	35.00	18.657	0.59	75	354	1.43	1.45	4	250	251	63	52	101.1	52.84
2	35.00	40.00	21.856	0.58	76	354	1.40	1.40	4	250	251	63	51	101.1	52.25
3	40.00	45.00	25.025	0.60	77	354	1.47	1.47	4	250	251	64	53	99.6	53.42
3	45.00	50.00	28.222	0.62	78	354	1.50	1.50	5	250	250	63	50	102.4	53.95
3	50.00	55.00	31.549	0.63	79	354	1.55	1.55	5	250	251	63	50	99.5	54.69
3	55.00	60.00	34.830	0.63	79	353	1.53	1.55	5	250	250	64	52	102.1	54.39
4	60.00	65.00	38.184	0.63	80	352	1.54	1.55	5	250	251	64	52	100.3	54.45
4	65.00	70.00	41.493	0.63	81	352	1.54	1.55	5	248	251	65	55	100.5	54.40
4	70.00	75.00	44.810	0.64	82	352	1.58	1.58	5	252	249	61	49	99.8	54.97
4	75.00	80.00	48.143	0.64	83	352	1.58	1.60	5	249	251	60	50	100.9	55.01
5	80.00	85.00	51.523	0.56	84	348	1.38	1.39	4	250	249	59	51	100.8	51.06
5	85.00	90.00	54.681	0.55	85	348	1.36	1.37	4	249	250	60	49	100.8	50.69
5	90.00	95.00	57.821	0.55	85	348	1.37	1.37	4	249	249	60	52	100.9	50.87
5	95.00	100.00	60.975	0.56	85	349	1.40	1.40	4	251	251	61	51	100.7	51.46
6	100.00	105.00	64.156	0.56	86	348	1.40	1.40	4	250	250	61	53	101.7	51.38
6	105.00	110.00	67.374	0.55	86	348	1.38	1.39	4	251	250	61	53	100.3	50.97
6	110.00	115.00	70.522	0.57	86	349	1.42	1.43	5	251	250	62	52	102.0	51.78
6	115.00	120.00	73.770	0.57	86	349	1.42	1.43	5	252	251	63	50	102.6	51.78
B1	120.00	125.00	77.035	0.60	84	350	1.49	1.50	5	243	250	64	50	100.5	53.24
1	125.00	130.00	80.309	0.60	86	350	1.49	1.50	5	252	253	60	56	102.3	53.07
1	130.00	135.00	83.641	0.58	86	349	1.46	1.45	5	249	250	59	58	100.7	52.41
1	135.00	140.00	86.885	0.60	86	349	1.49	1.50	5	249	249	58	53	102.9	53.03
2	140.00	145.00	90.239	0.64	86	352	1.59	1.60	5	251	25	56	36	101.6	54.97
2	145.00	150.00	93.658	0.64	87	352	1.58	1.58	5	250	251	58	39	101.6	54.79
2	150.00	155.00	97.074	0.65	87	353	1.62	1.61	5	249	248	58	49	100.7	55.60
2	155.00	160.00	100.505	0.64	87	352	1.60	1.60	5	249	249	59	45	101.0	55.14
3	160.00	165.00	103.920	0.67	87	354	1.65	1.65	5	249	250	60	42	99.9	56.10
3	165.00	170.00	107.350	0.64	87	353	1.60	1.60	5	251	250	61	45	100.6	55.13
3	170.00	175.00	110.749	0.66	87	353	1.64	1.65	5	250	250	62	44	100.0	55.85
3	175.00	180.00	114.169	0.68	88	353	1.68	1.68	6	250	250	62	47	100.8	56.53
4	180.00	185.00	117.666	0.66	89	353	1.65	1.65	6	249	247	63	50	100.6	55.85
4	185.00	190.00	121.120	0.67	89	353	1.66	1.65	6	251	251	63	52	99.6	56.06
4	190.00	195.00	124.554	0.68	89	353	1.70	1.70	6	250	251	64	52	99.2	56.69
4	195.00	200.00	128.011	0.67	89	354	1.66	1.65	5	252	250	65	51	100.1	56.10
5	200.00	205.00	131.458	0.64	89	354	1.58	1.60	5	249	250	60	38	104.2	54.82
5	205.00	210.00	134.965	0.63	90	354	1.58	1.60	5	250	250	59	38	100.1	54.73
5	210.00	215.00	138.337	0.61	90	354	1.52	1.53	5	251	250	59	39	99.4	53.73
5	215.00	220.00	141.624	0.60	90	354	1.50	1.50	5	250	251	58	38	100.0	53.29
6	220.00	225.00	144.903	0.55	90	351	1.38	1.40	5	249	249	58	37	99.5	50.97
6	225.00	230.00	148.035	0.52	90	351	1.30	1.30	5	249	250	59	39	100.3	49.42
6	230.00	235.00	151.098	0.53	90	351	1.32	1.33	5	250	250	59	41	102.2	49.89
6	235.00	240.00	154.250	0.53	90	351	1.33	1.33	5	250	250	59	42	101.1	49.99
Final DGM:			157.372												

RESULTS	Run Time		Vm	AP	Tm	Ts	Max Vac	AH	%ISO	BWS	Y <sub>qa</sub>				
	240.0	min	157.372	ft <sup>3</sup>	0.60	in. WC	83.6	°F	351.4	°F	6	1.495	in. WC	101.3	0.170

Location: BASF Corporation - Pasadena, TX				Start Time: 12:16		Source: F-10 Boiler EPN 84					
Date: 6/12/24		Run 8		VALID		End Time: 16:26		Project No.: AST-2024-2352		Parameters: PAH, PCB	

STACK DATA (EST)			EQUIPMENT		STACK DATA (EST)			FILTER NO.		STACK DATA (FINAL)			MOIST. DATA	
Moisture:	16.7	% est.	Meter Box ID:	MB-511	Est. Tm:	84	°F			Pb:	29.91	in. Hg	Vlc (ml)	
Barometric:	29.80	in. Hg	Y:	1.015	Est. Ts:	351	°F			Pg:	-0.20	in. WC	657.7	
Static Press:	-0.20	in. WC	AH @ (in.WC):	1.922	Est. AP:	0.60	in. WC			O <sub>2</sub> :	3.46	%	K-FACTOR	
Stack Press:	29.79	in. Hg	Probe ID:	M508-3	Est. Dn:	0.250	in.			CO <sub>2</sub> :	10.68	%	2.472	
CO <sub>2</sub> :	10.8	%	Liner Material:	glass	Target Rate:	0.60	scfm			Check Pt. Initial Final Corr.				
O <sub>2</sub> :	3.5	%	Pitot ID:	M508-3	LEAK CHECK:	Pre	Mid 1	Mid 2	Mid 3	Post	Mid 1 (cf)		--	
N <sub>2</sub> /CO:	85.7	%	Pitot Cp/Type:	0.813 S-type	Leak Rate (cfm):	0.002	--	--	--	0.002	Mid 2 (cf)		--	
Md:	29.87	lb/lb-mole	Nozzle ID:	GN-261 glass	Vacuum (in Hg):	15	--	--	--	10	Mid 3 (cf)		--	
Ms:	27.89	lb/lb-mole	Nozzle Dn (in.):	0.261	Pitot Tube:	Pass	--	--	--	Pass	Mid-Point Leak Check Vol (cf):		--	

Sample Pt.	Sample Time (minutes)		Dry Gas Meter Reading (ft <sup>3</sup> )	Pitot Tube ΔP (in WC)	Gas Temperatures (°F)		Orifice Press. ΔH (in. WC)		Pump Vac (in. Hg)	Gas Temperatures (°F)				% ISO	Vs (fps)
	Begin	End			DGM Average	Stack	Ideal	Actual		Probe	Filter	Imp Exit	Trap		
A-1	0.00	5.00	0.000	0.55	90	353	1.37	1.38	5	243	243	65	52	98.2	50.99
1	5.00	10.00	3.087	0.53	90	352	1.32	1.33	5	253	244	66	50	98.9	49.97
1	10.00	15.00	6.136	0.52	90	352	1.30	1.30	5	250	246	63	51	100.3	49.55
1	15.00	20.00	9.203	0.53	90	352	1.33	1.33	5	249	249	61	52	100.8	50.11
2	20.00	25.00	12.322	0.53	91	355	1.32	1.33	5	251	252	60	51	100.1	50.06
2	25.00	30.00	15.408	0.58	91	355	1.45	1.45	5	250	251	61	53	100.3	52.47
2	30.00	35.00	18.648	0.58	92	355	1.46	1.47	5	249	249	61	54	100.2	52.60
2	35.00	40.00	21.900	0.58	92	355	1.45	1.46	5	250	251	61	52	100.5	52.42
3	40.00	45.00	25.150	0.62	92	355	1.55	1.55	5	250	249	61	53	100.5	54.20
3	45.00	50.00	28.510	0.65	93	356	1.63	1.63	5	250	250	62	53	101.9	55.53
3	50.00	55.00	32.000	0.62	93	356	1.55	1.55	5	249	251	63	54	102.2	54.23
3	55.00	60.00	35.420	0.63	93	356	1.58	1.58	6	250	249	64	57	99.6	54.67
4	60.00	65.00	38.780	0.63	93	355	1.58	1.58	6	250	251	61	39	100.1	54.64
4	65.00	70.00	42.160	0.64	93	355	1.60	1.60	6	250	251	59	37	99.3	55.07
4	70.00	75.00	45.540	0.64	95	355	1.61	1.61	6	250	249	57	36	101.3	55.07
4	75.00	80.00	49.000	0.56	95	355	1.41	1.41	6	251	250	57	36	103.3	51.51
5	80.00	85.00	52.300	0.55	95	355	1.38	1.38	6	250	251	57	36	100.4	51.05
5	85.00	90.00	55.480	0.57	95	355	1.43	1.43	6	251	251	57	36	104.8	51.97
5	90.00	95.00	58.860	0.54	95	355	1.36	1.36	6	250	251	58	37	103.3	50.58
5	95.00	100.00	62.103	0.54	96	355	1.36	1.36	6	251	251	58	36	100.8	50.49
6	100.00	105.00	65.266	0.53	96	348	1.34	1.35	6	245	251	59	37	100.7	49.71
6	105.00	110.00	68.403	0.54	96	348	1.37	1.37	6	250	251	60	36	99.8	50.22
6	110.00	115.00	71.547	0.55	96	348	1.41	1.40	6	250	250	60	36	101.8	50.97
6	115.00	120.00	74.800	0.53	96	348	1.35	1.35	6	251	251	60	36	103.6	49.90
B1	120.00	125.00	78.040	0.60	95	353	1.50	1.50	6	244	249	66	43	99.0	53.08
1	125.00	130.00	81.307	0.61	95	350	1.54	1.54	6	250	241	65	38	101.5	53.46
1	130.00	135.00	84.692	0.59	96	350	1.49	1.50	6	250	250	58	42	101.5	52.62
1	135.00	140.00	88.030	0.60	96	349	1.51	1.52	6	250	247	58	43	100.2	52.94
2	140.00	145.00	91.351	0.63	96	352	1.58	1.59	6	251	251	58	40	99.9	54.32
2	145.00	150.00	94.736	0.63	96	352	1.60	1.60	6	251	250	58	39	102.9	54.66
2	150.00	155.00	98.243	0.63	97	352	1.59	1.59	6	251	250	58	42	101.5	54.36
2	155.00	160.00	101.688	0.64	96	352	1.62	1.63	6	250	249	59	46	99.5	55.01
3	160.00	165.00	105.099	0.65	97	354	1.63	1.64	6	251	250	60	45	101.4	55.25
3	165.00	170.00	108.589	0.63	97	355	1.59	1.60	6	249	249	58	47	100.9	54.64
3	170.00	175.00	112.020	0.66	97	355	1.67	1.67	6	252	247	60	46	102.5	55.92
3	175.00	180.00	115.585	0.67	97	355	1.68	1.69	6	251	250	60	50	98.9	56.22
4	180.00	185.00	119.043	0.63	97	355	1.60	1.60	6	250	249	63	53	102.8	54.77
4	185.00	190.00	122.547	0.63	97	355	1.60	1.60	6	249	252	62	45	100.8	54.77
4	190.00	195.00	125.984	0.62	97	355	1.57	1.58	6	250	249	57	48	101.8	54.37
4	195.00	200.00	129.428	0.62	98	355	1.57	1.58	6	251	252	56	36	100.5	54.29
5	200.00	205.00	132.831	0.54	98	351	1.37	1.55	6	249	239	56	37	100.4	50.41
5	205.00	210.00	136.001	0.55	98	352	1.40	1.40	6	251	253	57	37	100.0	51.09
5	210.00	215.00	139.199	0.57	97	352	1.44	1.45	6	249	251	58	37	101.7	51.83
5	215.00	220.00	142.492	0.55	97	352	1.40	1.40	6	251	249	58	37	100.8	51.14
6	220.00	225.00	145.712	0.49	97	349	1.24	1.25	5	250	251	58	38	103.5	47.86
6	225.00	230.00	148.820	0.47	97	345	1.20	1.20	6	248	250	59	39	102.6	46.90
6	230.00	235.00	151.854	0.47	97	344	1.21	1.20	6	250	249	59	41	101.1	46.92
6	235.00	240.00	154.850	0.46	97	344	1.18	1.18	6	251	251	59	41	102.6	46.37
Final DGM:			157.855												

RESULTS	Run Time		Vm	AP	Tm	Ts	Max Vac	AH	%ISO	BWS	Y <sub>qa</sub>				
	240.0	min	157.855	ft <sup>3</sup>	0.58	in. WC	95.0	°F	352.5	°F	6	1.471	in. WC	101.3	0.169

## Stratification Check

**Location:** BASF Corporation - Pasadena, TX  
**Source:** F-10 Boiler EPN 84  
**Project No.:** AST-2024-2352  
**Date:** 6/4/2024

Traverse Point	Time	O <sub>2</sub> (%)	CO <sub>2</sub> (%)
A-1	9:10	4.09	9.84
2	9:13	3.65	9.41
3	9:16	3.83	9.63
Average		3.9	9.6
<b>Criteria Met</b>		Single Point	Single Point

**Location:** BASF Corporation - Pasadena, TX  
**Source:** F-10 Boiler EPN 84  
**Project No.:** AST-2024-2352

Response Times, seconds			
Parameter	O <sub>2</sub> - Outlet	CO <sub>2</sub> - Outlet	THC - Outlet
Zero	65	66	53
Low	NA	NA	53
Mid	65	66	53
High	65	66	53
Average	65.0	66.0	53.0

Location **BASF Corporation - Pasadena, TX**

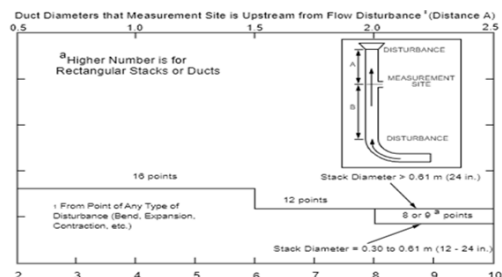
Source **F-10 Boiler EPN 84**

Project No. **AST-2024-2352**

Date: **04/15/24**

### Stack Parameters

Duct Orientation: **Vertical**  
 Duct Design: **Circular**  
 Distance from Far Wall to Outside of Port: **59.25** in  
 Nipple Length: **6.50** in  
 Depth of Duct: **52.75** in  
 Cross Sectional Area of Duct: **15.18** ft<sup>2</sup>  
 No. of Test Ports: **2**  
 Number of Readings per Point: **1**  
 Distance A: **25.0** ft  
 Distance A Duct Diameters: **5.7** (must be  $\geq 0.5$ )  
 Distance B: **50.0** ft  
 Distance B Duct Diameters: **11.4** (must be  $\geq 2$ )  
 Minimum Number of Traverse Points: **12**  
 Actual Number of Traverse Points: **3**  
 Measurer (Initial and Date): **EAT 4/15/24**  
 Reviewer (Initial and Date): **SMM 4/15/24**

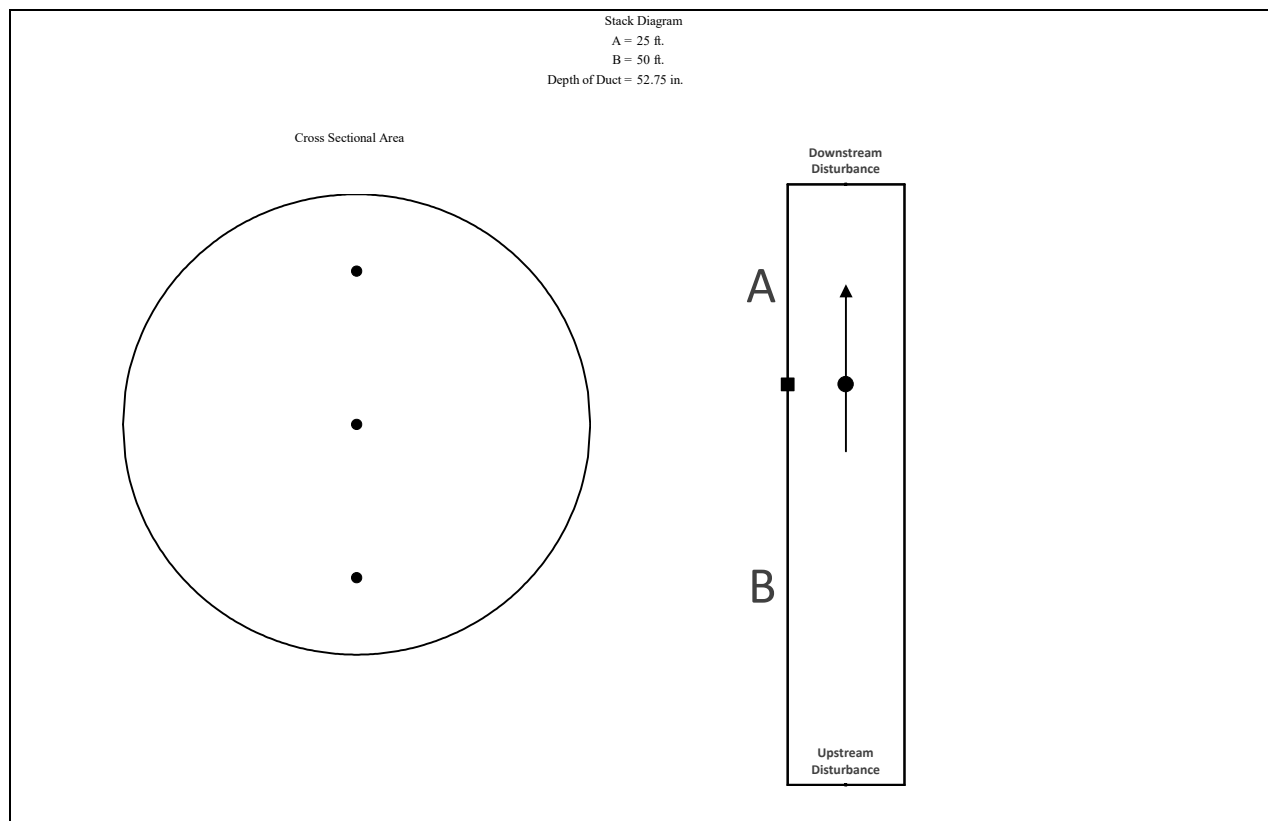


### CIRCULAR DUCT

LOCATION OF TRAVERSE POINTS											
Number of traverse points on a diameter											
	2	3	4	5	6	7	8	9	10	11	12
1	14.6	16.7	6.7	--	4.4	--	3.2	--	2.6	--	2.1
2	85.4	50.0	25.0	--	14.6	--	10.5	--	8.2	--	6.7
3	--	83.3	75.0	--	29.6	--	19.4	--	14.6	--	11.8
4	--	--	93.3	--	70.4	--	32.3	--	22.6	--	17.7
5	--	--	--	--	85.4	--	67.7	--	34.2	--	25.0
6	--	--	--	--	95.6	--	80.6	--	65.8	--	35.6
7	--	--	--	--	--	--	89.5	--	77.4	--	64.4
8	--	--	--	--	--	--	96.8	--	85.4	--	75.0
9	--	--	--	--	--	--	--	--	91.8	--	82.3
10	--	--	--	--	--	--	--	--	97.4	--	88.2
11	--	--	--	--	--	--	--	--	--	--	93.3
12	--	--	--	--	--	--	--	--	--	--	97.9

\*Percent of stack diameter from inside wall to traverse point.

Traverse Point	% of Diameter	Distance from inside wall	Distance from outside of port
1	16.7	8.81	15.31
2	50.0	26.38	32.88
3	83.3	43.94	50.44
4	--	--	--
5	--	--	--
6	--	--	--
7	--	--	--
8	--	--	--
9	--	--	--
10	--	--	--
11	--	--	--
12	--	--	--





Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/5/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.45	10.63	0.07
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.01	-0.03	-0.04
Posttest System Zero Response	0.01	0.02	0.09
Average Zero Response (C <sub>0</sub> )	0.01	-0.01	0.03
Pretest System Cal Response	11.06	11.02	25.16
Posttest System Cal Response	11.01	10.96	25.03
Average Cal Response (C <sub>M</sub> )	11.04	10.99	25.10
Corrected Run Average (Corr)	3.43	10.61	NA
9:32	3.58	10.72	0.12
9:33	3.53	10.74	0.00
9:34	3.59	10.72	0.00
9:35	3.61	10.70	0.19
9:36	3.65	10.67	0.05
9:37	3.60	10.69	0.31
12:32	3.53	10.45	0.00
12:33	3.48	10.47	0.01
12:34	3.45	10.48	0.00
12:35	3.42	10.52	0.00
12:36	3.47	10.48	0.00
12:37	3.47	10.48	0.00
12:38	3.44	10.50	0.00
12:39	3.41	10.52	0.43
12:40	3.49	10.48	0.00
12:41	3.51	10.48	0.00
12:42	3.54	10.46	0.12
12:43	3.54	10.47	0.00
12:44	3.54	10.46	0.00
12:45	3.56	10.43	0.05
12:46	3.56	10.43	0.00
12:47	3.61	10.40	0.00
14:04	3.42	10.56	0.00
14:05	3.45	10.56	0.01
14:06	3.48	10.55	0.00
14:07	3.42	10.60	0.00
14:08	3.32	10.65	0.00
14:09	3.35	10.62	0.00
14:10	3.44	10.58	0.00
14:11	3.38	10.61	0.00
14:12	3.42	10.59	0.00
14:13	3.40	10.61	0.00
14:14	3.42	10.60	0.00
14:15	3.45	10.60	0.03
14:16	3.47	10.59	0.00
14:17	3.50	10.58	0.00
14:22	3.40	10.68	0.00
14:23	3.45	10.65	0.06
14:24	3.45	10.67	0.01
14:25	3.45	10.65	0.00
14:26	3.44	10.65	0.36
14:27	3.41	10.66	0.00
14:28	3.43	10.66	0.00
14:29	3.49	10.63	0.01
14:30	3.53	10.61	0.00
14:31	3.48	10.63	0.00
14:32	3.48	10.64	0.00
14:33	3.41	10.67	0.00
14:34	3.47	10.64	0.00
14:35	3.44	10.66	0.01

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/5/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.45	10.63	0.07
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.01	-0.03	-0.04
Posttest System Zero Response	0.01	0.02	0.09
Average Zero Response (C <sub>0</sub> )	0.01	-0.01	0.03
Pretest System Cal Response	11.06	11.02	25.16
Posttest System Cal Response	11.01	10.96	25.03
Average Cal Response (C <sub>M</sub> )	11.04	10.99	25.10
Corrected Run Average (Corr)	3.43	10.61	NA
14:36	3.50	10.63	0.00
14:37	3.50	10.63	0.00
14:38	3.48	10.64	0.00
14:39	3.46	10.66	0.00
14:40	3.45	10.67	0.04
14:41	3.48	10.66	0.00
14:42	3.52	10.63	0.02
14:43	3.48	10.66	0.27
14:44	3.53	10.64	0.00
14:45	3.50	10.66	0.09
14:46	3.50	10.67	0.00
14:47	3.45	10.70	0.00
14:48	3.47	10.69	0.00
14:49	3.53	10.66	0.00
14:50	3.44	10.72	0.01
14:51	3.49	10.69	0.09
14:52	3.55	10.65	0.01
14:53	3.52	10.67	0.10
14:54	3.50	10.69	0.40
14:55	3.49	10.70	0.11
14:56	3.47	10.72	0.15
14:57	3.54	10.67	0.15
14:58	3.51	10.69	0.16
14:59	3.52	10.68	0.19
15:00	3.47	10.70	0.22
15:01	3.51	10.67	0.23
15:02	3.45	10.71	0.19
15:03	3.52	10.66	0.37
15:04	3.48	10.66	0.23
15:05	3.48	10.66	0.14
15:06	3.51	10.65	0.19
15:07	3.54	10.64	0.08
15:08	3.50	10.67	0.18
15:09	3.48	10.68	0.05
15:10	3.47	10.68	0.06
15:11	3.46	10.70	0.04
15:12	3.49	10.69	0.03
15:13	3.50	10.67	0.09
15:14	3.44	10.71	0.15
15:15	3.50	10.70	0.05
15:16	3.54	10.68	0.00
15:17	3.48	10.71	0.00
15:23	3.46	10.69	0.02
15:24	3.46	10.70	0.01
15:25	3.48	10.68	0.00
15:26	3.52	10.65	0.03
15:27	3.48	10.67	0.00
15:28	3.48	10.67	0.00
15:29	3.48	10.67	0.00
15:30	3.44	10.69	0.00

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/5/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.45	10.63	0.07
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.01	-0.03	-0.04
Posttest System Zero Response	0.01	0.02	0.09
Average Zero Response (C <sub>0</sub> )	0.01	-0.01	0.03
Pretest System Cal Response	11.06	11.02	25.16
Posttest System Cal Response	11.01	10.96	25.03
Average Cal Response (C <sub>M</sub> )	11.04	10.99	25.10
Corrected Run Average (Corr)	3.43	10.61	NA
15:31	3.51	10.64	0.00
15:32	3.52	10.63	0.00
15:33	3.48	10.65	0.00
15:34	3.48	10.64	0.00
15:35	3.45	10.65	0.00
15:36	3.47	10.64	0.26
15:37	3.51	10.61	0.06
15:38	3.49	10.62	0.00
15:39	3.48	10.62	0.00
15:40	3.50	10.60	0.00
15:41	3.48	10.61	0.00
15:42	3.49	10.60	0.00
15:43	3.50	10.60	0.00
15:44	3.51	10.59	0.00
15:45	3.50	10.59	0.00
15:46	3.52	10.57	0.00
15:47	3.48	10.60	0.00
15:48	3.43	10.64	0.00
15:49	3.51	10.59	0.00
15:50	3.48	10.62	0.00
15:51	3.50	10.60	0.00
15:52	3.51	10.58	0.00
15:53	3.48	10.60	0.00
15:54	3.45	10.62	0.13
15:55	3.46	10.62	0.00
15:56	3.42	10.66	0.00
15:57	3.41	10.67	0.00
15:58	3.47	10.63	0.00
15:59	3.46	10.63	0.03
16:00	3.46	10.63	0.00
16:01	3.47	10.63	0.00
16:02	3.49	10.63	0.00
16:03	3.48	10.63	0.01
16:04	3.40	10.69	0.00
16:05	3.42	10.67	0.00
16:06	3.49	10.64	0.00
16:07	3.43	10.68	0.00
16:08	3.44	10.67	0.02
16:09	3.44	10.68	0.01
16:10	3.51	10.64	0.01
16:11	3.44	10.68	0.00
16:12	3.45	10.69	0.00
16:13	3.47	10.68	0.00
16:14	3.43	10.71	0.00
16:15	3.43	10.70	0.11
16:16	3.43	10.70	0.00
16:17	3.47	10.68	0.00
16:26	3.50	10.66	0.16
16:27	3.43	10.70	0.07
16:28	3.49	10.73	0.00

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/5/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.45	10.63	0.07
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.01	-0.03	-0.04
Posttest System Zero Response	0.01	0.02	0.09
Average Zero Response (C <sub>0</sub> )	0.01	-0.01	0.03
Pretest System Cal Response	11.06	11.02	25.16
Posttest System Cal Response	11.01	10.96	25.03
Average Cal Response (C <sub>M</sub> )	11.04	10.99	25.10
Corrected Run Average (Corr)	3.43	10.61	NA
16:29	3.54	10.62	0.00
16:30	3.47	10.66	0.00
16:31	3.50	10.64	0.02
16:32	3.46	10.66	0.08
16:33	3.47	10.64	0.05
16:34	3.49	10.64	0.06
16:35	3.43	10.66	0.08
16:36	3.44	10.65	0.14
16:37	3.35	10.70	0.05
16:38	3.34	10.70	0.08
16:39	3.48	10.62	0.05
16:40	3.47	10.62	0.11
16:41	3.41	10.65	0.57
16:42	3.38	10.67	0.04
16:43	3.40	10.65	0.08
16:44	3.48	10.60	0.04
16:45	3.47	10.61	0.06
16:46	3.44	10.62	0.05
16:47	3.41	10.64	0.04
16:48	3.47	10.60	0.04
16:49	3.48	10.59	0.06
16:50	3.41	10.64	0.22
16:51	3.45	10.61	0.03
16:52	3.48	10.59	0.07
16:53	3.43	10.62	0.17
16:54	3.45	10.62	0.31
16:55	3.48	10.60	0.14
16:56	3.45	10.62	0.17
16:57	3.39	10.64	0.13
16:58	3.43	10.63	0.27
16:59	3.35	10.68	0.13
17:00	3.36	10.68	0.29
17:01	3.32	10.70	0.16
17:02	3.32	10.70	0.30
17:03	3.22	10.76	0.43
17:04	3.29	10.72	0.21
17:05	3.34	10.69	0.19
17:06	3.28	10.72	0.21
17:07	3.23	10.74	0.27
17:08	3.34	10.67	0.24
17:09	3.41	10.64	0.26
17:10	3.43	10.63	0.32
17:11	3.39	10.65	0.25
17:12	3.44	10.62	0.23
17:13	3.42	10.62	0.25
17:14	3.46	10.60	0.22
17:15	3.42	10.63	0.31
17:16	3.47	10.60	0.48
17:21	3.45	10.60	0.18
17:22	3.52	10.56	0.00

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/5/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.45	10.63	0.07
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.01	-0.03	-0.04
Posttest System Zero Response	0.01	0.02	0.09
Average Zero Response (C <sub>0</sub> )	0.01	-0.01	0.03
Pretest System Cal Response	11.06	11.02	25.16
Posttest System Cal Response	11.01	10.96	25.03
Average Cal Response (C <sub>M</sub> )	11.04	10.99	25.10
Corrected Run Average (Corr)	3.43	10.61	NA
17:23	3.42	10.60	0.07
17:24	3.43	10.60	0.00
17:25	3.48	10.56	0.00
17:26	3.48	10.56	0.00
17:27	3.43	10.59	0.00
17:28	3.34	10.63	0.00
17:29	3.35	10.61	0.01
17:30	3.33	10.63	0.00
17:31	3.30	10.64	0.00
17:32	3.29	10.64	0.00
17:33	3.32	10.62	0.00
17:34	3.35	10.60	0.00
17:35	3.40	10.56	0.00
17:36	3.32	10.60	0.00
17:37	3.33	10.59	0.00
17:38	3.33	10.59	0.00
17:39	3.33	10.59	0.00
17:40	3.30	10.61	0.00
17:41	3.32	10.59	0.09
17:42	3.26	10.62	0.12
17:43	3.29	10.60	0.00
17:44	3.27	10.62	0.00
17:45	3.28	10.61	0.00
17:46	3.34	10.57	0.00
17:47	3.24	10.62	0.00
17:48	3.36	10.55	0.06
17:49	3.26	10.60	0.00
17:50	3.25	10.60	0.36
17:51	3.36	10.54	0.10
17:52	3.30	10.57	0.00

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/5/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
9:32	191.7	0.983	2.8	15.3
9:33	191.7	0.983	3.0	16.0
9:34	191.7	0.983	2.7	18.0
9:35	191.7	0.984	2.5	14.7
9:36	191.7	0.983	3.6	16.5
9:37	191.7	0.983	3.1	15.6
12:32	191.7	0.985	2.9	20.2
12:33	191.7	0.985	3.2	17.2
12:35	191.7	0.986	2.6	16.1
12:36	191.7	0.986	2.6	18.2
12:37	191.7	0.986	3.1	16.3
12:38	191.7	0.986	3.1	15.8
12:39	191.7	0.986	2.6	15.3
12:40	191.7	0.986	2.8	16.1
12:41	191.7	0.986	2.8	15.1
12:42	191.7	0.986	2.7	14.2
12:43	191.7	0.986	2.1	14.5
12:44	191.7	0.986	2.9	14.2
12:45	191.7	0.986	3.5	17.1
12:46	191.7	0.986	2.4	14.1
12:47	191.7	0.986	2.4	13.2
14:04	191.7	0.982	3.2	16.4
14:05	191.7	0.980	3.6	18.5
14:06	191.6	0.980	2.5	21.1
14:07	191.7	0.982	3.1	16.3
14:08	191.7	0.982	2.7	14.9
14:09	191.7	0.982	2.2	14.9
14:10	191.7	0.982	2.7	13.5
14:11	191.7	0.980	2.5	18.3
14:12	191.6	0.981	3.0	16.2
14:13	191.7	0.981	2.4	15.1
14:14	191.7	0.979	2.7	20.0
14:15	191.7	0.980	2.8	16.3
14:16	191.6	0.980	3.1	18.1
14:17	191.7	0.980	2.6	15.5
14:22	191.6	0.979	2.7	16.5
14:24	191.7	0.979	2.7	16.3
14:25	191.7	0.979	2.8	15.2
14:26	191.7	0.979	2.7	14.8
14:27	191.7	0.978	2.3	16.3
14:28	191.6	0.978	3.0	17.6
14:29	191.7	0.978	3.2	18.0
14:30	191.7	0.978	2.6	18.6
14:31	191.7	0.978	2.5	16.4
14:32	191.7	0.978	3.3	16.3
14:33	191.7	0.978	2.8	15.5
14:34	191.7	0.979	2.1	18.0
14:35	191.6	0.979	2.7	14.6
14:36	191.7	0.979	2.4	14.5
14:37	191.7	0.979	2.6	14.2
14:38	191.7	0.979	2.4	14.5
14:39	191.7	0.979	2.4	15.0
14:40	191.7	0.979	3.4	16.6
14:41	191.7	0.979	2.8	17.5
14:42	191.7	0.979	2.7	15.9
14:43	191.7	0.979	3.1	16.4
14:44	191.7	0.979	3.5	17.6
14:46	191.7	0.979	2.9	15.5
14:47	191.7	0.980	2.4	14.8

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/5/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
14:48	191.7	0.979	3.2	16.7
14:49	191.7	0.979	3.4	16.9
14:50	191.7	0.979	2.7	14.8
14:51	191.7	0.979	2.3	14.1
14:52	191.7	0.978	2.4	16.1
14:53	191.7	0.979	2.9	16.3
14:54	191.7	0.978	2.7	19.6
14:55	191.7	0.979	3.2	16.1
14:56	191.7	0.979	2.5	16.2
14:57	191.7	0.979	2.9	15.1
14:58	191.7	0.979	2.6	14.4
14:59	191.7	0.979	2.5	14.3
15:00	191.7	0.978	3.1	16.5
15:01	191.7	0.979	2.7	15.6
15:02	191.7	0.979	2.9	16.4
15:03	191.7	0.979	2.7	15.4
15:04	191.7	0.979	2.9	15.3
15:05	191.6	0.978	2.3	20.3
15:06	191.7	0.979	2.4	16.3
15:08	191.7	0.979	2.9	16.4
15:09	191.7	0.980	2.4	15.1
15:10	191.7	0.979	2.8	15.4
15:11	191.7	0.979	2.3	15.0
15:12	191.7	0.979	3.0	14.6
15:13	191.7	0.979	2.7	17.4
15:14	191.7	0.979	3.2	17.8
15:15	191.6	0.979	2.4	16.1
15:16	191.6	0.980	2.7	15.3
15:17	191.6	0.979	3.0	15.7
15:23	191.7	0.980	2.6	15.6
15:24	191.7	0.979	2.6	15.6
15:25	191.7	0.979	2.6	15.1
15:26	191.7	0.979	2.9	15.4
15:27	191.7	0.979	2.9	19.8
15:28	191.7	0.979	3.0	16.3
15:30	191.7	0.980	3.0	15.8
15:31	191.7	0.979	2.8	15.2
15:32	191.7	0.980	3.0	14.4
15:33	191.6	0.979	2.4	18.0
15:34	191.6	0.979	3.3	16.0
15:35	191.6	0.979	2.5	16.4
15:36	191.6	0.979	2.8	16.3
15:37	191.6	0.980	2.2	18.1
15:38	191.6	0.980	1.9	14.5
15:39	191.7	0.980	2.2	15.1
15:40	191.7	0.980	2.9	16.0
15:41	191.7	0.980	3.1	17.0
15:42	191.7	0.980	2.7	15.9
15:43	191.7	0.979	2.5	19.2
15:44	191.7	0.980	2.6	17.6
15:45	191.7	0.980	3.1	16.2
15:46	191.7	0.980	3.3	15.9
15:47	191.7	0.980	2.4	18.0
15:48	191.7	0.980	2.9	15.9
15:49	191.7	0.980	2.9	16.6
15:50	191.7	0.980	3.4	17.3
15:52	191.7	0.980	3.0	17.7
15:53	191.6	0.981	3.1	15.5
15:54	191.6	0.980	3.4	17.7

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/5/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
15:55	191.6	0.980	3.4	18.8
15:56	191.7	0.980	2.5	18.8
15:57	191.7	0.980	2.8	17.8
15:58	191.7	0.981	3.1	17.5
15:59	191.7	0.981	2.9	18.0
16:00	191.7	0.981	2.5	16.4
16:01	191.7	0.981	3.1	18.7
16:02	191.7	0.981	2.7	16.9
16:03	191.7	0.981	2.9	16.3
16:04	191.7	0.981	2.1	17.9
16:05	191.7	0.980	2.8	19.2
16:06	191.7	0.981	2.5	16.7
16:07	191.7	0.981	3.2	17.0
16:08	191.7	0.981	3.2	16.5
16:09	191.7	0.982	2.5	15.3
16:10	191.7	0.982	2.2	14.4
16:11	191.7	0.982	2.3	14.2
16:12	191.7	0.982	2.1	14.1
16:14	191.7	0.981	2.2	17.8
16:15	191.7	0.981	2.8	15.1
16:16	191.7	0.982	2.5	14.6
16:17	191.7	0.981	2.5	14.5
16:26	191.7	0.981	3.0	17.0
16:27	191.7	0.982	2.9	15.6
16:28	191.7	0.981	2.6	15.1
16:29	191.7	0.981	2.5	15.4
16:30	191.7	0.981	3.3	17.3
16:31	191.7	0.981	3.1	16.2
16:32	191.7	0.981	2.4	16.4
16:33	191.7	0.981	2.7	15.2
16:34	191.7	0.981	2.8	17.0
16:36	191.7	0.981	2.6	16.3
16:37	191.7	0.981	2.4	15.2
16:38	191.7	0.981	2.7	15.6
16:39	191.7	0.981	3.6	16.9
16:40	191.7	0.981	2.9	16.8
16:41	191.7	0.981	3.2	15.7
16:42	191.7	0.981	2.8	15.2
16:43	191.7	0.980	2.3	19.1
16:44	191.7	0.981	3.0	15.1
16:45	191.6	0.981	2.9	16.4
16:46	191.7	0.981	3.0	16.6
16:47	191.7	0.981	3.5	18.9
16:48	191.7	0.981	3.4	15.8
16:49	191.7	0.980	3.0	19.0
16:50	191.6	0.981	2.5	16.5
16:51	191.6	0.981	2.9	16.5
16:52	191.6	0.981	3.2	16.2
16:53	191.7	0.980	2.9	16.6
16:54	191.6	0.981	3.3	17.2
16:55	191.6	0.981	3.1	16.2
16:57	191.7	0.980	2.6	17.9
16:58	191.6	0.980	2.9	18.3
16:59	191.7	0.981	2.6	16.5
17:00	191.7	0.981	3.8	17.8
17:01	191.7	0.981	3.0	15.5
17:02	191.7	0.981	3.1	15.6
17:03	191.7	0.981	2.9	14.9
17:04	191.7	0.981	2.8	14.7



**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/5/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
17:05	191.7	0.981	2.8	15.8
17:06	191.7	0.981	2.5	15.5
17:07	191.7	0.981	2.7	15.4
17:08	191.7	0.980	2.3	18.3
17:09	191.7	0.981	3.1	15.8
17:10	191.7	0.981	2.8	15.6
17:11	191.7	0.981	3.0	15.0
17:12	191.7	0.981	2.7	15.2
17:13	191.7	0.981	2.8	15.3
17:14	191.7	0.981	2.8	15.2
17:15	191.7	0.980	3.1	16.3
17:16	191.7	0.981	2.5	18.1
17:21	191.7	0.981	3.0	13.0
17:22	191.7	0.980	2.4	14.0
17:23	191.7	0.981	2.4	14.0
17:24	191.7	0.981	2.1	13.6
17:25	191.7	0.981	2.6	13.5
17:26	191.7	0.981	2.1	13.5
17:27	191.7	0.981	2.4	13.2
17:28	191.7	0.981	2.9	13.3
17:29	191.7	0.980	2.6	14.1
17:30	191.7	0.980	3.5	16.9
17:31	191.6	0.978	3.4	22.6
17:32	191.7	0.980	3.5	17.2
17:33	191.7	0.980	3.6	18.4
17:34	191.7	0.980	3.1	16.1
17:35	191.7	0.981	2.9	14.5
17:36	191.7	0.980	2.5	14.9
17:37	191.7	0.981	2.8	14.1
17:38	191.7	0.980	2.5	14.6
17:39	191.7	0.979	3.1	19.4
17:41	191.6	0.980	2.6	16.3
17:42	191.6	0.980	3.1	16.2
17:43	191.6	0.980	2.8	18.9
17:44	191.6	0.980	2.7	16.3
17:45	191.6	0.980	3.0	16.1
17:46	191.6	0.980	3.3	16.3
17:47	191.6	0.980	2.9	16.0
17:48	191.7	0.980	3.4	16.5
17:49	191.7	0.980	3.3	17.5
17:50	191.7	0.980	3.1	16.3
17:51	191.7	0.979	2.4	18.0
17:52	191.7	0.980	2.6	18.9

Parameter	Temperature	Pressure	HCN - Outlet	BWS - Outlet
Run Average	191.7	0.981	2.8	16.3

**Location:** BASF Corporation - Pasadena, TX  
**Source:** F-10 Boiler EPN 84  
**Project No.:** AST-2024-2352  
**Date:** 6/6/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.32	10.82	0.08
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.02	0.05	-0.04
Posttest System Zero Response	-0.04	0.15	-0.03
Average Zero Response (C <sub>0</sub> )	-0.01	0.10	-0.04
Pretest System Cal Response	11.09	10.98	24.83
Posttest System Cal Response	11.03	11.03	24.85
Average Cal Response (C <sub>M</sub> )	11.06	11.01	24.84
Corrected Run Average (Corr)	3.31	10.78	NA
7:20	3.42	10.87	0.00
7:21	3.38	10.88	0.00
7:22	3.39	10.87	0.00
7:23	3.33	10.90	0.00
7:24	3.37	10.92	0.00
7:25	3.38	10.88	0.00
7:26	3.43	10.86	0.00
7:27	3.44	10.86	0.00
7:28	3.44	10.86	0.00
7:29	3.47	10.84	0.00
7:30	3.42	10.86	0.00
7:31	3.42	10.86	0.00
7:32	3.45	10.84	0.00
7:33	3.43	10.87	0.00
7:34	3.47	10.85	0.00
7:35	3.42	10.86	0.00
7:36	3.47	10.83	0.00
7:37	3.38	10.89	0.00
7:38	3.48	10.83	0.00
7:39	3.42	10.86	0.00
7:40	3.34	10.90	0.00
7:41	3.32	10.92	0.01
7:42	3.30	10.94	0.13
7:43	3.39	10.88	0.00
7:44	3.37	10.90	0.00
7:45	3.39	10.89	0.00
7:46	3.35	10.91	0.00
7:47	3.38	10.90	0.00
7:48	3.36	10.92	0.00
7:49	3.37	10.91	0.00
7:50	3.33	10.93	0.00
7:51	3.33	10.93	0.00
7:52	3.38	10.91	0.00
7:53	3.25	10.97	0.00
7:54	3.40	10.89	0.00
7:55	3.42	10.88	0.00
7:56	3.39	10.89	0.00
7:57	3.35	10.91	0.00
7:58	3.33	10.93	0.00
7:59	3.34	10.92	0.00
8:00	3.29	10.95	0.02
8:01	3.29	10.94	0.00
8:02	3.34	10.92	0.00
8:03	3.24	10.97	0.00
8:04	3.23	10.98	0.00
8:05	3.35	10.90	0.00
8:06	3.34	10.91	0.00
8:07	3.34	10.91	0.00
8:08	3.28	10.96	0.00
8:09	3.29	10.95	0.00

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/6/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.32	10.82	0.08
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.02	0.05	-0.04
Posttest System Zero Response	-0.04	0.15	-0.03
Average Zero Response (C <sub>0</sub> )	-0.01	0.10	-0.04
Pretest System Cal Response	11.09	10.98	24.83
Posttest System Cal Response	11.03	11.03	24.85
Average Cal Response (C <sub>M</sub> )	11.06	11.01	24.84
Corrected Run Average (Corr)	3.31	10.78	NA
8:10	3.32	10.94	0.00
8:11	3.29	10.95	0.00
8:12	3.35	10.92	0.00
8:13	3.23	10.99	0.00
8:14	3.31	10.95	0.00
8:15	3.30	10.97	0.00
8:16	3.39	10.91	0.00
8:17	3.40	10.91	0.00
8:23	3.41	10.89	0.00
8:24	3.45	10.87	0.00
8:25	3.47	10.84	0.13
8:26	3.41	10.87	0.00
8:27	3.41	10.87	0.06
8:28	3.37	10.90	0.02
8:29	3.34	10.92	0.00
8:30	3.31	10.93	0.00
8:31	3.31	10.94	0.00
8:32	3.32	10.93	0.00
8:33	3.37	10.90	0.00
8:34	3.28	10.93	0.00
8:35	3.28	10.93	0.00
8:36	3.25	10.96	0.00
8:37	3.32	10.92	0.00
8:38	3.27	10.95	0.00
8:39	3.28	10.93	0.22
8:40	3.30	10.92	0.02
8:41	3.27	10.94	0.00
8:42	3.27	10.93	0.00
8:43	3.28	10.94	0.00
8:44	3.28	10.94	0.03
8:45	3.20	10.99	0.00
8:46	3.27	10.94	0.00
8:47	3.32	10.91	0.00
8:48	3.27	10.94	0.00
8:49	3.21	10.96	0.00
8:50	3.34	10.87	0.00
8:51	3.31	10.89	0.00
8:52	3.29	10.90	0.00
8:53	3.28	10.91	0.00
8:54	3.27	10.92	0.00
8:55	3.30	10.90	0.00
8:56	3.21	10.95	0.00
8:57	3.30	10.89	0.00
8:58	3.30	10.90	0.00
8:59	3.23	10.93	0.00
9:00	3.25	10.92	0.00
9:01	3.31	10.88	0.00
9:02	3.26	10.92	0.00
9:03	3.27	10.91	0.29
9:04	3.33	10.87	0.00

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/6/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.32	10.82	0.08
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.02	0.05	-0.04
Posttest System Zero Response	-0.04	0.15	-0.03
Average Zero Response (C <sub>0</sub> )	-0.01	0.10	-0.04
Pretest System Cal Response	11.09	10.98	24.83
Posttest System Cal Response	11.03	11.03	24.85
Average Cal Response (C <sub>M</sub> )	11.06	11.01	24.84
Corrected Run Average (Corr)	3.31	10.78	NA
9:05	3.25	10.92	0.00
9:06	3.26	10.92	0.00
9:07	3.21	10.94	0.00
9:08	3.33	10.88	0.00
9:09	3.25	10.92	0.00
9:10	3.44	10.81	0.00
9:11	3.32	10.87	0.00
9:12	3.29	10.89	0.00
9:13	3.28	10.89	0.00
9:14	3.31	10.88	0.00
9:15	3.28	10.90	0.00
9:16	3.28	10.90	0.00
9:17	3.28	10.88	0.00
9:18	3.25	10.90	0.00
9:19	3.29	10.88	0.10
9:24	3.35	10.81	0.00
9:25	3.27	10.85	0.00
9:26	3.33	10.81	0.07
9:27	3.32	10.81	0.00
9:28	3.37	10.78	0.00
9:29	3.25	10.85	0.00
9:30	3.27	10.83	0.00
9:31	3.24	10.86	0.00
9:32	3.33	10.79	0.00
9:33	3.27	10.83	0.00
9:34	3.23	10.85	0.05
9:35	3.35	10.78	0.00
9:36	3.24	10.84	0.21
9:37	3.32	10.79	0.75
9:38	3.24	10.84	0.00
9:39	3.25	10.82	0.00
9:40	3.30	10.79	0.12
9:41	3.31	10.80	0.00
9:42	3.27	10.81	0.00
9:43	3.33	10.77	0.00
9:44	3.23	10.83	0.00
9:45	3.23	10.83	0.05
9:46	3.35	10.76	0.00
9:47	3.34	10.78	0.03
9:48	3.33	10.78	0.00
9:49	3.34	10.79	0.01
9:50	3.30	10.82	0.00
9:51	3.23	10.86	0.00
9:52	3.32	10.82	0.00
9:53	3.33	10.80	0.00
9:54	3.46	10.72	0.00
9:55	3.43	10.75	0.00
9:56	3.40	10.77	0.03
9:57	3.46	10.72	0.00
9:58	3.45	10.73	0.00

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/6/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.32	10.82	0.08
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.02	0.05	-0.04
Posttest System Zero Response	-0.04	0.15	-0.03
Average Zero Response (C <sub>0</sub> )	-0.01	0.10	-0.04
Pretest System Cal Response	11.09	10.98	24.83
Posttest System Cal Response	11.03	11.03	24.85
Average Cal Response (C <sub>M</sub> )	11.06	11.01	24.84
Corrected Run Average (Corr)	3.31	10.78	NA
9:59	3.47	10.71	0.00
10:00	3.50	10.69	0.00
10:01	3.49	10.70	0.00
10:02	3.45	10.73	0.00
10:03	3.48	10.70	0.00
10:04	3.50	10.69	0.00
10:05	3.49	10.70	0.00
10:06	3.37	10.76	0.00
10:07	3.46	10.70	0.06
10:08	3.39	10.74	0.00
10:09	3.24	10.83	0.00
10:10	3.29	10.81	0.00
10:11	3.33	10.79	0.00
10:12	3.33	10.79	0.13
10:13	3.36	10.76	0.00
10:14	3.30	10.79	0.00
10:15	3.26	10.81	0.00
10:16	3.36	10.75	0.01
10:21	3.35	10.71	0.00
10:22	3.32	10.73	0.00
10:23	3.36	10.70	0.00
10:24	3.20	10.79	0.00
10:25	3.28	10.73	0.01
10:26	3.29	10.73	0.00
10:27	3.32	10.72	0.00
10:28	3.23	10.78	0.00
10:29	3.31	10.72	0.00
10:30	3.27	10.75	0.00
10:31	3.42	10.67	0.00
10:32	3.36	10.70	0.00
10:33	3.32	10.72	0.00
10:34	3.36	10.69	0.00
10:35	3.39	10.68	0.00
10:36	3.36	10.68	0.00
10:37	3.30	10.72	0.00
10:38	3.37	10.68	0.00
10:39	3.21	10.77	0.00
10:40	3.28	10.73	0.00
10:41	3.23	10.76	0.00
10:42	3.25	10.75	0.12
10:43	3.19	10.79	0.01
10:44	3.33	10.72	0.06
10:45	3.23	10.78	0.72
10:46	3.25	10.76	0.05
10:47	3.31	10.73	0.04
10:48	3.40	10.68	0.07
10:49	3.33	10.72	0.06
10:50	3.37	10.69	0.06
10:51	3.47	10.64	0.09
10:52	3.41	10.67	0.15

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/6/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.32	10.82	0.08
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.02	0.05	-0.04
Posttest System Zero Response	-0.04	0.15	-0.03
Average Zero Response (C <sub>0</sub> )	-0.01	0.10	-0.04
Pretest System Cal Response	11.09	10.98	24.83
Posttest System Cal Response	11.03	11.03	24.85
Average Cal Response (C <sub>M</sub> )	11.06	11.01	24.84
Corrected Run Average (Corr)	3.31	10.78	NA
10:53	3.42	10.67	0.19
10:54	3.47	10.63	0.18
10:55	3.45	10.64	0.11
10:56	3.40	10.67	0.11
10:57	3.25	10.76	0.15
10:58	3.30	10.73	0.14
10:59	3.34	10.71	0.19
11:00	3.31	10.72	0.21
11:01	3.27	10.75	0.24
11:02	3.29	10.72	0.14
11:03	3.29	10.72	0.17
11:04	3.29	10.72	0.22
11:05	3.24	10.74	0.24
11:06	3.19	10.77	0.33
11:07	3.30	10.70	0.35
11:08	3.28	10.72	0.47
11:09	3.26	10.73	0.44
11:10	3.23	10.73	0.45
11:11	3.19	10.79	0.43
11:12	3.25	10.71	0.42
11:13	3.28	10.70	0.45
11:14	3.27	10.69	0.42
11:15	3.24	10.72	0.41
11:16	3.19	10.74	0.38
11:17	3.29	10.68	0.43
11:18	3.28	10.68	0.39
11:19	3.32	10.66	0.41
11:20	3.31	10.66	0.47
11:21	3.19	10.74	0.42
11:22	3.20	10.74	0.80
11:23	3.31	10.67	0.59
11:24	3.23	10.71	0.66
11:25	3.26	10.69	0.54
11:26	3.28	10.69	0.48
11:27	3.25	10.70	0.49
11:28	3.30	10.67	0.52
11:29	3.26	10.69	0.50
11:30	3.30	10.67	0.55
11:31	3.34	10.65	0.52
11:32	3.29	10.68	0.59
11:33	3.11	10.79	1.23

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/6/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
7:20	191.6	0.979	2.9	18.4
7:21	191.6	0.980	2.8	15.9
7:22	191.7	0.980	2.5	14.8
7:23	191.7	0.979	2.2	18.3
7:24	191.7	0.980	2.5	15.5
7:25	191.7	0.980	3.2	17.5
7:26	191.7	0.980	2.2	15.0
7:27	191.7	0.979	2.4	17.8
7:28	191.7	0.980	2.7	15.2
7:29	191.7	0.980	2.4	15.1
7:30	191.7	0.979	2.5	19.1
7:32	191.6	0.979	2.5	16.3
7:33	191.6	0.979	2.4	18.3
7:34	191.6	0.979	1.8	16.5
7:35	191.6	0.979	2.7	16.7
7:36	191.6	0.980	2.8	16.1
7:37	191.6	0.979	2.7	16.0
7:38	191.6	0.979	3.1	17.4
7:39	191.6	0.979	2.6	19.3
7:40	191.5	0.980	3.0	16.3
7:41	191.6	0.980	2.4	13.8
7:42	191.6	0.979	2.5	15.7
7:43	191.6	0.979	2.5	16.4
7:44	191.6	0.979	2.7	16.7
7:45	191.6	0.980	2.8	16.5
7:46	191.6	0.980	2.0	14.9
7:47	191.6	0.979	3.0	17.6
7:48	191.6	0.980	1.8	14.9
7:49	191.5	0.978	2.0	20.8
7:50	191.5	0.980	2.6	15.8
7:51	191.5	0.980	2.8	15.5
7:52	191.5	0.979	2.8	16.3
7:54	191.6	0.980	2.8	15.4
7:55	191.6	0.980	2.3	15.0
7:56	191.5	0.979	2.2	18.5
7:57	191.6	0.979	2.1	17.0
7:58	191.6	0.980	2.5	14.8
7:59	191.5	0.980	2.6	14.7
8:00	191.5	0.980	2.9	18.2
8:01	191.6	0.980	2.8	17.2
8:02	191.5	0.980	2.9	16.0
8:03	191.6	0.980	2.9	16.9
8:04	191.6	0.981	2.8	15.6
8:05	191.5	0.980	2.1	15.8
8:06	191.5	0.980	2.4	18.7
8:07	191.6	0.980	2.0	16.9
8:08	191.6	0.980	2.4	15.9
8:09	191.6	0.981	2.4	14.9
8:10	191.7	0.979	3.2	17.1
8:11	191.6	0.980	2.8	18.0
8:12	191.6	0.981	2.8	15.1
8:13	191.7	0.980	3.1	16.2
8:14	191.7	0.981	2.8	17.0
8:16	191.7	0.981	2.1	13.7
8:17	191.7	0.980	2.5	17.9
8:23	191.6	0.981	2.9	15.8
8:24	191.6	0.981	2.4	15.4
8:25	191.6	0.980	2.3	18.4
8:26	191.6	0.981	2.6	15.5

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/6/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
8:27	191.6	0.981	2.5	15.7
8:28	191.6	0.981	2.4	17.4
8:29	191.6	0.981	2.6	15.7
8:30	191.6	0.981	2.7	16.2
8:31	191.6	0.981	2.6	17.8
8:32	191.6	0.981	2.6	16.3
8:33	191.7	0.981	3.0	15.3
8:34	191.7	0.981	2.8	16.5
8:35	191.7	0.980	3.3	17.2
8:36	191.6	0.981	2.9	17.7
8:38	191.7	0.981	2.6	14.9
8:39	191.7	0.981	2.4	16.3
8:40	191.7	0.980	1.9	19.0
8:41	191.6	0.981	2.6	15.5
8:42	191.7	0.981	2.4	15.6
8:43	191.7	0.981	2.7	14.8
8:44	191.7	0.981	2.9	16.9
8:45	191.6	0.980	2.6	17.8
8:46	191.6	0.981	2.8	16.0
8:47	191.7	0.981	2.7	15.7
8:48	191.7	0.980	2.2	18.3
8:49	191.6	0.980	2.3	17.5
8:50	191.6	0.981	2.9	17.0
8:51	191.6	0.981	2.7	16.7
8:52	191.6	0.981	2.6	15.9
8:53	191.6	0.981	2.5	14.8
8:54	191.6	0.980	3.3	17.3
8:55	191.6	0.980	2.8	17.7
8:56	191.7	0.981	2.7	15.9
8:57	191.6	0.981	2.8	17.0
8:58	191.6	0.980	3.0	19.9
9:00	191.6	0.981	2.9	16.4
9:01	191.6	0.981	3.2	16.0
9:02	191.6	0.981	2.5	15.3
9:03	191.6	0.981	2.8	16.3
9:04	191.6	0.981	2.4	15.9
9:05	191.6	0.982	2.3	16.9
9:06	191.6	0.981	2.6	17.8
9:07	191.6	0.981	2.6	16.3
9:08	191.6	0.982	2.3	14.8
9:09	191.6	0.979	2.5	19.4
9:10	191.6	0.981	3.0	17.4
9:11	191.6	0.982	3.4	15.2
9:12	191.6	0.981	2.8	15.4
9:13	191.6	0.980	3.0	17.0
9:14	191.6	0.981	2.8	16.8
9:15	191.6	0.981	2.7	15.4
9:16	191.6	0.981	2.8	19.7
9:17	191.6	0.982	2.2	15.1
9:18	191.6	0.981	2.9	16.5
9:19	191.6	0.981	3.4	17.4
9:24	191.6	0.981	2.5	15.9
9:25	191.6	0.981	3.0	15.8
9:26	191.6	0.981	2.4	19.8
9:27	191.6	0.981	3.5	17.2
9:28	191.6	0.981	2.6	16.9
9:29	191.6	0.982	2.3	15.8
9:30	191.6	0.981	3.0	16.0
9:31	191.7	0.981	2.5	19.0



**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/6/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
9:32	191.7	0.981	2.3	16.7
9:33	191.6	0.981	2.7	16.4
9:34	191.6	0.981	2.1	14.6
9:35	191.6	0.981	2.2	16.2
9:36	191.6	0.981	2.3	18.3
9:37	191.6	0.982	2.6	15.8
9:38	191.6	0.981	2.9	17.2
9:39	191.6	0.982	2.5	15.6
9:40	191.6	0.982	2.9	15.0
9:41	191.6	0.981	2.0	17.8
9:43	191.6	0.982	3.0	15.5
9:44	191.6	0.982	2.5	14.1
9:45	191.6	0.981	2.5	18.5
9:46	191.6	0.981	2.2	18.2
9:47	191.6	0.981	2.2	18.2
9:48	191.6	0.982	2.7	15.9
9:49	191.6	0.982	3.0	15.4
9:50	191.6	0.982	2.4	14.8
9:51	191.6	0.981	2.6	16.0
9:52	191.6	0.981	2.3	18.3
9:53	191.6	0.982	2.0	15.0
9:54	191.6	0.981	2.8	15.6
9:55	191.6	0.981	2.2	18.7
9:56	191.6	0.981	2.3	19.3
9:57	191.6	0.982	3.1	15.9
9:58	191.6	0.982	2.6	14.4
9:59	191.6	0.981	2.5	16.5
10:00	191.6	0.981	2.8	15.5
10:01	191.6	0.982	3.2	15.0
10:02	191.6	0.981	3.2	16.2
10:03	191.6	0.981	2.5	19.2
10:05	191.6	0.981	3.4	16.7
10:06	191.6	0.982	2.2	15.0
10:07	191.6	0.982	2.5	14.0
10:08	191.6	0.980	2.4	18.0
10:09	191.6	0.981	2.5	17.4
10:10	191.7	0.981	3.2	15.9
10:11	191.6	0.982	2.6	14.4
10:12	191.7	0.981	2.7	16.5
10:13	191.7	0.981	2.9	16.3
10:14	191.7	0.981	2.9	17.2
10:15	191.7	0.981	2.4	15.5
10:16	191.6	0.981	2.7	18.0
10:21	191.7	0.981	2.9	16.9
10:22	191.7	0.981	3.3	16.3
10:23	191.7	0.981	3.1	15.7
10:24	191.6	0.981	1.9	20.2
10:25	191.6	0.982	2.7	16.0
10:27	191.6	0.981	3.2	16.1
10:28	191.6	0.981	2.9	16.8
10:29	191.6	0.981	3.3	18.3
10:30	191.6	0.982	2.8	15.4
10:31	191.6	0.982	2.8	14.6
10:32	191.6	0.981	2.5	16.1
10:33	191.6	0.980	2.9	19.3
10:34	191.6	0.981	2.8	17.1
10:35	191.6	0.982	2.9	15.1
10:36	191.6	0.981	2.9	16.0
10:37	191.6	0.981	2.9	16.2

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/6/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
10:38	191.6	0.981	3.4	17.4
10:39	191.6	0.981	3.3	15.9
10:40	191.6	0.982	3.3	15.0
10:41	191.6	0.981	3.2	16.4
10:42	191.6	0.980	3.0	18.9
10:43	191.6	0.982	2.6	15.9
10:44	191.6	0.981	2.9	15.7
10:45	191.6	0.982	3.3	14.8
10:46	191.6	0.982	2.8	14.3
10:47	191.6	0.981	2.3	14.8
10:49	191.6	0.980	2.5	19.4
10:50	191.6	0.981	2.9	17.8
10:51	191.6	0.981	2.9	17.0
10:52	191.6	0.982	2.5	14.9
10:53	191.6	0.982	3.0	14.4
10:54	191.6	0.981	3.0	15.0
10:55	191.6	0.980	2.2	18.1
10:56	191.6	0.981	2.8	15.7
10:57	191.6	0.981	2.9	15.8
10:58	191.6	0.981	3.1	16.7
10:59	191.6	0.981	3.1	16.2
11:00	191.6	0.981	2.9	15.8
11:01	191.6	0.981	2.8	16.0
11:02	191.6	0.981	2.7	18.6
11:03	191.6	0.982	3.0	15.1
11:04	191.6	0.981	2.7	16.4
11:05	191.6	0.982	2.4	14.7
11:06	191.6	0.982	2.8	14.4
11:07	191.6	0.980	2.4	19.3
11:08	191.6	0.982	3.1	15.5
11:10	191.6	0.981	2.8	15.5
11:11	191.6	0.981	2.4	15.1
11:12	191.6	0.981	2.9	16.2
11:13	191.6	0.981	2.9	15.7
11:14	191.6	0.980	2.7	20.0
11:15	191.6	0.982	3.2	15.7
11:16	191.6	0.981	2.7	16.5
11:17	191.6	0.981	3.4	16.7
11:18	191.6	0.981	3.0	16.9
11:19	191.6	0.981	3.0	17.4
11:20	191.6	0.982	3.3	15.3
11:21	191.6	0.981	3.0	15.3
11:22	191.6	0.981	2.6	18.0
11:23	191.6	0.981	2.8	17.0
11:24	191.6	0.982	2.3	14.6
11:25	191.6	0.982	2.5	14.2
11:26	191.6	0.981	2.3	16.2
11:27	191.6	0.980	3.1	16.7
11:28	191.6	0.980	3.0	19.3
11:29	191.6	0.982	2.6	15.7
11:30	191.6	0.981	3.1	16.2
11:32	191.7	0.981	2.8	15.7
11:33	191.6	0.982	2.8	14.8

Parameter	Temperature	Pressure	HCN - Outlet	BWS - Outlet
Run Average	191.6	0.981	2.7	16.5

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/6/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.40	10.83	3.35
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	-0.04	0.15	-0.03
Posttest System Zero Response	-0.04	-0.01	-0.04
Average Zero Response (C <sub>0</sub> )	-0.04	0.07	-0.04
Pretest System Cal Response	11.03	11.03	24.85
Posttest System Cal Response	11.02	10.99	24.82
Average Cal Response (C <sub>M</sub> )	11.03	11.01	24.84
Corrected Run Average (Corr)	3.42	10.79	NA
12:14	3.29	10.97	0.00
12:15	3.31	10.95	0.00
12:16	3.21	11.00	0.00
12:17	3.22	11.00	0.00
12:18	3.27	10.96	0.00
12:19	3.26	10.97	0.04
12:20	3.27	10.97	0.00
12:21	3.21	11.00	0.25
12:22	3.24	10.98	0.02
12:23	3.26	10.96	0.00
12:24	3.25	10.97	0.00
12:25	3.33	10.92	0.00
12:26	3.26	10.95	0.04
12:27	3.31	10.92	0.00
12:28	3.28	10.94	0.04
12:29	3.25	10.95	0.07
12:30	3.24	10.96	0.05
12:31	3.22	11.30	0.08
12:32	3.29	10.93	0.04
12:33	3.32	10.92	0.02
12:34	3.34	10.90	0.00
12:35	3.25	10.95	0.01
12:36	3.25	10.95	0.00
12:37	3.25	10.95	0.07
12:38	3.31	10.92	0.00
12:39	3.27	10.94	0.00
12:40	3.25	10.95	0.00
12:41	3.27	10.94	0.00
12:42	3.20	10.98	0.00
12:43	3.27	10.94	0.03
12:44	3.36	10.88	0.00
12:45	3.33	10.90	0.00
12:46	3.30	10.92	0.00
12:47	3.30	10.92	0.35
12:48	3.28	10.93	0.00
12:49	3.22	10.97	0.00
12:50	3.25	10.96	0.00
12:51	3.26	10.94	0.08
12:52	3.35	10.90	0.10
12:53	3.23	10.97	0.09
12:54	3.28	10.95	0.00
12:55	3.30	10.94	0.01
12:56	3.27	10.95	0.00
12:57	3.30	10.94	0.00
12:58	3.28	10.95	0.19
12:59	3.28	10.94	0.67
13:00	3.23	10.97	0.00
13:01	3.35	10.91	0.00
13:02	3.23	10.99	0.34
13:03	3.29	10.96	0.04

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/6/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.40	10.83	3.35
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	-0.04	0.15	-0.03
Posttest System Zero Response	-0.04	-0.01	-0.04
Average Zero Response (C <sub>0</sub> )	-0.04	0.07	-0.04
Pretest System Cal Response	11.03	11.03	24.85
Posttest System Cal Response	11.02	10.99	24.82
Average Cal Response (C <sub>M</sub> )	11.03	11.01	24.84
Corrected Run Average (Corr)	3.42	10.79	NA
13:04	3.26	10.98	0.08
13:05	3.30	10.97	0.01
13:06	3.25	10.99	0.03
13:07	3.29	10.95	0.06
13:08	3.26	10.97	0.31
13:09	3.31	10.96	0.02
13:10	3.31	10.95	0.07
13:11	3.23	10.98	0.28
13:12	3.25	10.98	0.01
13:13	3.37	10.90	0.02
13:30	3.35	10.94	0.01
13:31	3.30	10.95	0.00
13:32	3.22	10.99	0.00
13:33	3.30	10.94	0.15
13:34	3.43	10.86	0.04
13:35	3.51	10.82	0.02
13:36	3.40	10.88	0.27
13:37	3.38	10.88	0.01
13:38	3.44	10.85	0.00
13:39	3.44	10.85	0.00
13:40	3.46	10.83	0.03
13:41	3.40	10.86	0.04
13:42	3.55	10.77	0.02
13:43	3.37	10.88	0.71
13:44	3.32	10.90	0.15
13:45	3.32	10.89	0.40
13:46	3.27	10.92	0.29
13:47	3.40	10.85	0.43
13:48	3.45	10.82	0.41
13:49	3.29	10.90	0.57
13:50	3.39	10.84	0.35
13:51	3.29	10.89	0.35
13:52	3.37	10.84	0.45
13:53	3.33	10.88	0.53
13:54	3.20	10.95	0.44
13:55	3.33	10.87	0.50
13:56	3.31	10.89	0.47
13:57	3.21	10.95	0.51
13:58	3.28	10.91	0.48
13:59	3.27	10.91	0.49
14:00	3.27	10.90	0.48
14:01	3.30	10.90	0.50
14:02	3.24	10.92	0.62
14:03	3.37	10.85	0.58
14:04	3.23	10.92	0.59
14:05	3.30	10.88	0.57
14:06	3.24	10.91	0.58
14:07	3.33	10.86	0.63
14:08	3.33	10.87	0.67
14:09	3.17	10.95	0.70

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/6/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.40	10.83	3.35
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	-0.04	0.15	-0.03
Posttest System Zero Response	-0.04	-0.01	-0.04
Average Zero Response (C <sub>0</sub> )	-0.04	0.07	-0.04
Pretest System Cal Response	11.03	11.03	24.85
Posttest System Cal Response	11.02	10.99	24.82
Average Cal Response (C <sub>M</sub> )	11.03	11.01	24.84
Corrected Run Average (Corr)	3.42	10.79	NA
14:10	3.19	10.94	0.64
14:11	3.30	10.88	0.60
14:12	3.35	10.86	0.60
14:13	3.24	10.90	0.55
14:20	3.46	10.79	0.00
14:21	3.45	10.79	0.00
14:22	3.36	10.83	0.06
14:23	3.43	10.80	0.00
14:24	3.46	10.80	0.00
14:25	3.45	10.80	0.04
14:26	3.51	10.76	0.00
14:27	3.56	10.73	0.00
14:28	3.40	10.82	0.00
14:29	3.39	10.82	0.05
14:30	3.35	10.85	0.00
14:31	3.46	10.78	0.21
14:32	3.38	10.83	0.00
14:33	3.50	10.76	0.00
14:34	3.39	10.82	0.00
14:35	3.42	10.81	0.00
14:36	3.47	10.78	0.00
14:37	3.43	10.81	0.00
14:38	3.52	10.76	0.03
14:39	3.42	10.81	0.00
14:40	3.48	10.79	0.07
14:41	3.43	10.81	0.04
14:42	3.47	10.79	0.29
14:43	3.53	10.76	0.00
14:44	3.51	10.76	0.21
14:45	3.38	10.82	0.00
14:46	3.50	10.75	0.04
14:47	3.50	10.76	0.59
14:48	3.46	10.78	0.21
14:49	3.48	10.77	0.00
14:50	3.44	10.78	0.00
14:51	3.45	10.78	0.00
14:52	3.47	10.77	0.00
14:53	3.48	10.77	0.00
14:54	3.49	10.77	0.00
14:55	3.53	10.74	0.01
14:56	3.54	10.75	0.04
14:57	3.40	10.81	0.00
14:58	3.43	10.78	0.43
14:59	3.61	10.70	0.00
15:00	3.50	10.77	0.00
15:01	3.43	10.81	0.00
15:02	3.45	10.80	0.01
15:03	3.48	10.78	0.00
15:04	3.52	10.76	0.00
15:05	3.51	10.77	0.00

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/6/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.40	10.83	3.35
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	-0.04	0.15	-0.03
Posttest System Zero Response	-0.04	-0.01	-0.04
Average Zero Response (C <sub>0</sub> )	-0.04	0.07	-0.04
Pretest System Cal Response	11.03	11.03	24.85
Posttest System Cal Response	11.02	10.99	24.82
Average Cal Response (C <sub>M</sub> )	11.03	11.01	24.84
Corrected Run Average (Corr)	3.42	10.79	NA
15:06	3.39	10.83	0.00
15:07	3.52	10.77	0.00
15:08	3.47	10.79	0.00
15:09	3.49	10.79	0.27
15:10	3.55	10.76	0.00
15:11	3.48	10.79	0.04
15:23	3.50	10.78	0.41
15:24	3.51	10.78	0.42
15:25	3.49	10.81	0.37
15:26	3.42	10.84	0.37
15:27	3.48	10.80	0.00
15:28	3.42	10.83	0.00
15:29	3.56	10.76	0.00
15:30	3.44	10.82	0.06
15:31	3.57	10.75	0.00
15:32	3.49	10.80	0.00
15:33	3.49	10.82	0.00
15:34	3.44	10.85	0.00
15:35	3.55	10.79	0.00
15:36	3.45	10.85	0.00
15:37	3.56	10.79	0.00
15:38	3.55	10.80	0.00
15:39	3.61	10.77	0.00
15:40	3.53	10.83	0.00
15:41	3.54	10.80	0.12
15:42	3.53	10.81	0.00
15:43	3.57	10.79	0.00
15:44	3.53	10.80	0.12
15:45	3.59	10.77	2.05
15:46	3.55	10.79	4.03
15:47	3.53	10.80	6.26
15:48	3.59	10.76	6.12
15:49	3.56	10.78	2.39
15:50	3.64	10.74	3.63
15:51	3.58	10.78	5.18
15:52	3.57	10.78	4.55
15:53	3.74	10.71	27.08
15:54	3.66	10.75	15.64
15:55	3.51	10.82	25.21
15:56	3.67	10.73	23.73
15:57	3.67	10.75	44.35
15:58	3.78	10.70	32.89
15:59	3.56	10.83	24.38
16:00	3.54	10.83	61.74
16:01	3.57	10.81	50.00
16:02	3.59	10.81	47.02
16:03	3.68	10.77	33.47
16:04	3.60	10.80	24.47
16:05	3.60	10.80	41.66
16:06	3.56	10.82	31.16

**Location:** BASF Corporation - Pasadena, TX  
**Source:** F-10 Boiler EPN 84  
**Project No.:** AST-2024-2352  
**Date:** 6/6/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.40	10.83	3.35
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	-0.04	0.15	-0.03
Posttest System Zero Response	-0.04	-0.01	-0.04
Average Zero Response (C <sub>0</sub> )	-0.04	0.07	-0.04
Pretest System Cal Response	11.03	11.03	24.85
Posttest System Cal Response	11.02	10.99	24.82
Average Cal Response (C <sub>M</sub> )	11.03	11.01	24.84
Corrected Run Average (Corr)	3.42	10.79	NA
16:07	3.56	10.82	31.52
16:08	3.60	10.79	30.92
16:09	3.65	10.76	29.09
16:10	3.61	10.80	24.05
16:11	3.64	10.78	37.32
16:12	3.53	10.83	7.25
16:13	3.61	10.79	9.03
16:14	3.57	10.81	6.81
16:21	3.63	10.76	1.82
16:22	3.54	10.80	1.40
16:23	3.59	10.77	0.85
16:24	3.52	10.81	0.34
16:25	3.53	10.80	0.07
16:26	3.55	10.79	0.00
16:27	3.47	10.83	0.00
16:28	1.87	5.21	0.73

Location: BASF Corporation - Pasadena, TX

Source: F-10 Boiler EPN 84

Project No.: AST-2024-2352

Date: 6/6/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
12:14	191.7	0.982	1.3	11.8
12:15	191.6	0.982	3.0	13.7
12:16	191.7	0.982	2.2	12.7
12:17	191.7	0.982	2.3	12.9
12:18	191.7	0.981	3.0	15.1
12:19	191.7	0.982	3.3	14.8
12:20	191.7	0.981	2.6	14.5
12:21	191.7	0.981	2.9	17.8
12:22	191.6	0.981	3.0	15.7
12:23	191.6	0.981	3.1	15.6
12:24	191.6	0.980	2.5	18.3
12:25	191.6	0.982	2.5	16.0
12:26	191.6	0.981	2.8	16.5
12:27	191.6	0.981	3.4	18.2
12:28	191.6	0.982	3.5	15.1
12:30	191.6	0.982	3.3	14.8
12:31	191.6	0.981	2.7	16.5
12:32	191.6	0.981	2.8	16.3
12:33	191.6	0.981	3.9	18.9
12:34	191.6	0.981	3.0	16.3
12:35	191.6	0.982	2.9	14.8
12:36	191.6	0.981	3.5	16.4
12:37	191.6	0.981	3.0	17.0
12:38	191.6	0.981	3.4	15.2
12:39	191.6	0.980	3.4	17.1
12:40	191.6	0.981	3.5	16.7
12:41	191.6	0.981	3.0	16.2
12:42	191.6	0.981	2.3	19.8
12:43	191.6	0.982	2.8	15.3
12:44	191.6	0.982	2.9	14.3
12:45	191.6	0.981	2.5	16.1
12:46	191.6	0.980	3.1	17.5
12:47	191.6	0.981	2.6	16.2
12:48	191.6	0.981	3.5	15.6
12:49	191.6	0.980	2.2	18.6
12:50	191.6	0.982	2.1	15.7
12:52	191.7	0.982	2.6	15.1
12:53	191.7	0.981	3.5	16.7
12:54	191.7	0.982	2.4	15.4
12:55	191.7	0.982	3.4	14.5
12:56	191.7	0.980	3.4	16.9
12:57	191.7	0.981	2.8	16.9
12:58	191.6	0.981	3.0	15.4
12:59	191.6	0.980	2.7	19.1
13:00	191.6	0.980	3.2	16.5
13:01	191.7	0.980	2.8	17.7
13:02	191.7	0.981	3.2	16.5
13:03	191.7	0.981	2.9	15.8
13:04	191.6	0.981	3.5	15.6
13:05	191.6	0.981	3.2	15.1
13:06	191.7	0.980	3.7	16.9
13:07	191.7	0.981	3.0	16.4
13:08	191.6	0.981	2.9	15.0
13:09	191.6	0.981	3.7	15.8
13:10	191.6	0.979	2.7	19.5
13:11	191.6	0.981	2.8	17.1
13:12	191.6	0.981	3.4	16.5
13:30	191.7	0.982	2.8	13.0
13:31	191.7	0.982	2.7	12.8



**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/6/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
13:32	191.7	0.982	2.6	13.2
13:33	191.7	0.982	2.5	13.1
13:34	191.7	0.982	2.1	13.0
13:36	191.7	0.981	2.7	15.2
13:37	191.6	0.981	2.9	15.2
13:38	191.6	0.981	3.2	14.5
13:39	191.6	0.981	2.6	13.6
13:40	191.6	0.981	1.8	13.6
13:41	191.6	0.981	2.6	14.8
13:42	191.6	0.980	2.4	15.1
13:43	191.6	0.979	2.6	18.0
13:44	191.6	0.981	2.9	16.0
13:45	191.7	0.980	3.2	17.0
13:46	191.6	0.980	3.2	16.0
13:47	191.6	0.980	3.3	15.7
13:48	191.6	0.980	3.1	17.8
13:49	191.6	0.980	3.5	15.7
13:50	191.7	0.979	3.4	17.4
13:51	191.6	0.980	2.9	16.5
13:52	191.7	0.980	3.6	15.9
13:53	191.7	0.980	3.1	16.3
13:54	191.7	0.980	2.8	15.4
13:55	191.6	0.978	3.3	21.5
13:57	191.6	0.980	2.8	17.0
13:58	191.6	0.980	2.9	15.6
13:59	191.6	0.981	3.1	14.9
14:00	191.6	0.981	2.7	14.8
14:01	191.6	0.980	2.7	15.3
14:02	191.6	0.981	3.1	14.6
14:03	191.6	0.979	3.0	17.2
14:04	191.6	0.980	3.5	16.7
14:05	191.6	0.980	3.1	15.7
14:06	191.6	0.980	3.1	16.3
14:07	191.6	0.980	3.1	17.0
14:08	191.6	0.980	3.2	15.1
14:09	191.6	0.979	3.3	18.3
14:10	191.6	0.980	2.5	17.4
14:11	191.6	0.981	2.9	15.3
14:12	191.6	0.981	2.8	14.6
14:13	191.6	0.980	2.8	16.0
14:20	191.6	0.980	3.1	16.8
14:21	191.7	0.980	2.2	14.8
14:22	191.7	0.979	3.4	17.2
14:23	191.7	0.979	3.8	18.2
14:24	191.6	0.979	2.6	17.0
14:25	191.7	0.980	3.3	15.3
14:26	191.6	0.980	2.2	14.8
14:27	191.7	0.979	1.9	18.4
14:28	191.6	0.980	2.1	16.4
14:29	191.6	0.980	2.4	15.4
14:30	191.7	0.980	3.3	16.5
14:31	191.6	0.980	2.7	16.0
14:32	191.7	0.981	3.1	14.7
14:33	191.7	0.981	2.6	14.8
14:34	191.7	0.979	2.5	17.9
14:35	191.6	0.980	2.9	16.4
14:36	191.7	0.980	3.2	15.4
14:37	191.6	0.980	3.5	16.1
14:38	191.6	0.980	2.8	16.0

Location: BASF Corporation - Pasadena, TX

Source: F-10 Boiler EPN 84

Project No.: AST-2024-2352

Date: 6/6/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
14:39	191.6	0.980	3.5	15.4
14:41	191.6	0.980	3.5	16.3
14:42	191.7	0.980	2.7	16.0
14:43	191.6	0.980	3.5	17.2
14:44	191.6	0.980	2.9	17.5
14:45	191.6	0.980	3.6	16.3
14:46	191.6	0.980	3.8	14.6
14:47	191.6	0.980	2.6	16.1
14:48	191.6	0.979	3.4	17.5
14:49	191.6	0.979	2.9	16.9
14:50	191.6	0.980	3.5	15.8
14:51	191.6	0.980	2.9	16.0
14:52	191.6	0.979	2.8	15.9
14:53	191.7	0.980	3.7	17.5
14:54	191.7	0.980	3.5	16.9
14:55	191.6	0.980	3.5	16.5
14:56	191.6	0.980	3.3	15.0
14:57	191.7	0.979	3.1	16.5
14:58	191.6	0.979	3.8	18.6
14:59	191.7	0.980	2.6	14.8
15:00	191.6	0.979	3.1	17.6
15:01	191.6	0.980	2.9	16.2
15:03	191.6	0.980	3.1	14.7
15:04	191.6	0.980	2.3	15.0
15:05	191.6	0.980	3.1	15.2
15:06	191.6	0.979	3.5	16.9
15:07	191.6	0.980	2.8	16.1
15:08	191.6	0.979	2.9	16.6
15:09	191.6	0.979	3.2	17.7
15:10	191.6	0.979	2.5	20.1
15:11	191.6	0.980	3.0	15.9
15:23	191.7	0.980	3.2	14.1
15:25	191.7	0.979	2.3	16.2
15:26	191.7	0.980	3.2	16.5
15:27	191.7	0.980	2.8	14.4
15:28	191.7	0.979	2.7	19.3
15:29	191.7	0.979	3.5	16.9
15:30	191.7	0.980	2.8	15.5
15:31	191.7	0.979	3.0	17.0
15:32	191.7	0.980	3.1	16.1
15:33	191.7	0.979	4.0	16.6
15:34	191.6	0.980	3.3	15.6
15:35	191.6	0.979	3.6	17.2
15:36	191.7	0.980	3.0	16.1
15:37	191.6	0.979	2.3	16.3
15:38	191.7	0.978	2.1	19.0
15:39	191.6	0.979	3.4	16.5
15:40	191.6	0.979	3.4	16.1
15:41	191.6	0.979	3.2	17.5
15:42	191.6	0.980	3.0	15.3
15:43	191.7	0.980	3.4	15.5
15:44	191.7	0.980	3.0	15.8
15:46	191.7	0.979	3.4	17.2
15:47	191.6	0.980	3.6	16.2
15:48	191.7	0.979	3.6	17.1
15:49	191.7	0.980	3.1	15.5
15:50	191.7	0.979	3.1	16.9
15:51	191.7	0.979	3.3	16.0
15:52	191.7	0.979	3.6	16.8

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/6/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
15:53	191.7	0.980	2.5	14.7
15:54	191.6	0.979	2.2	16.1
15:55	191.7	0.980	2.9	15.0
15:56	191.7	0.980	2.6	14.8
15:57	191.7	0.979	2.9	16.4
15:58	191.7	0.979	3.1	17.0
15:59	191.7	0.980	2.7	15.2
16:00	191.7	0.979	3.5	16.8
16:01	191.7	0.980	3.1	16.3
16:02	191.7	0.979	3.4	16.9
16:03	191.7	0.979	3.5	17.3
16:04	191.7	0.980	2.7	15.4
16:05	191.7	0.980	2.9	14.8
16:06	191.7	0.979	2.5	15.4
16:08	191.7	0.979	2.9	17.3
16:09	191.7	0.980	3.4	15.3
16:10	191.7	0.980	2.9	14.1
16:11	191.7	0.978	3.2	17.4
16:12	191.7	0.979	3.4	16.7
16:13	191.7	0.980	3.4	15.9
16:14	191.7	0.980	2.3	14.5
16:21	191.6	0.980	3.1	15.9
16:22	191.7	0.980	3.9	14.6
16:23	191.7	0.979	2.6	15.4
16:24	191.7	0.979	2.7	16.2
16:25	191.7	0.979	3.4	15.9
16:26	191.7	0.979	3.4	16.6
16:27	191.7	0.979	3.4	16.2
16:28	191.7	0.979	3.2	15.1

Parameter	Temperature	Pressure	HCN - Outlet	BWS - Outlet
Run Average	191.6	0.980	3.0	16.1

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/7/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.39	10.59	0.12
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.04	0.09	-0.04
Posttest System Zero Response	-0.04	0.10	0.07
Average Zero Response (C <sub>0</sub> )	0.00	0.10	0.02
Pretest System Cal Response	11.03	11.00	24.86
Posttest System Cal Response	10.96	11.01	25.57
Average Cal Response (C <sub>M</sub> )	11.00	11.01	25.22
Corrected Run Average (Corr)	3.39	10.56	NA
5:40	3.37	10.86	0.00
5:41	3.43	10.81	0.00
5:42	3.41	10.82	0.00
5:43	3.44	10.80	0.00
5:44	3.36	10.85	0.00
5:45	3.41	10.81	0.00
5:46	3.41	10.81	0.00
5:47	3.44	10.79	0.00
5:48	3.37	10.83	0.00
5:49	3.42	10.80	0.00
5:50	3.43	10.79	0.00
5:51	3.40	10.82	0.00
5:52	3.41	10.79	0.00
5:53	3.43	10.78	0.00
5:54	3.44	10.77	0.05
5:55	3.40	10.79	0.00
5:56	3.43	10.75	0.30
5:57	3.41	10.77	0.00
5:58	3.36	10.78	0.04
5:59	3.40	10.75	0.10
6:00	3.43	10.71	0.15
6:01	3.48	10.68	0.69
6:02	3.48	10.69	0.26
6:03	3.45	10.70	0.27
6:04	3.40	10.72	0.37
6:05	3.41	10.70	0.47
6:06	3.40	10.70	0.46
6:07	3.37	10.71	0.58
6:08	3.42	10.67	0.50
6:09	3.40	10.68	0.52
6:10	3.44	10.66	0.56
6:11	3.33	10.71	0.61
6:12	3.44	10.65	0.59
6:13	3.42	10.65	0.61
6:14	3.42	10.65	0.56
6:15	3.40	10.66	0.56
6:16	3.40	10.65	0.53
6:17	3.43	10.62	0.58
6:18	3.39	10.65	0.52
6:19	3.35	10.65	0.50
6:20	3.40	10.61	0.49
6:21	3.41	10.61	0.51
6:22	3.42	10.59	0.51
6:23	3.44	10.58	0.51
6:24	3.40	10.59	0.51
6:25	3.41	10.60	0.51
6:26	3.42	10.58	0.50
6:27	3.40	10.60	0.49
6:28	3.38	10.61	0.48
6:29	3.40	10.59	0.45

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/7/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.39	10.59	0.12
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.04	0.09	-0.04
Posttest System Zero Response	-0.04	0.10	0.07
Average Zero Response (C <sub>0</sub> )	0.00	0.10	0.02
Pretest System Cal Response	11.03	11.00	24.86
Posttest System Cal Response	10.96	11.01	25.57
Average Cal Response (C <sub>M</sub> )	11.00	11.01	25.22
Corrected Run Average (Corr)	3.39	10.56	NA
6:30	3.38	10.61	0.45
6:31	3.42	10.58	0.45
6:32	3.40	10.59	0.45
6:33	3.44	10.57	0.47
6:34	3.46	10.56	0.47
6:35	3.41	10.58	0.53
6:36	3.48	10.54	0.56
6:37	3.36	10.62	0.93
6:38	3.39	10.59	0.57
6:39	3.38	10.59	0.54
6:40	3.41	10.58	0.57
6:45	3.41	10.57	0.00
6:46	3.38	10.58	0.00
6:47	3.38	10.57	0.00
6:48	3.36	10.58	0.00
6:49	3.39	10.56	0.00
6:50	3.43	10.55	0.00
6:51	3.42	10.55	0.00
6:52	3.39	10.56	0.02
6:53	3.46	10.52	0.00
6:54	3.37	10.56	0.00
6:55	3.40	10.54	0.00
6:56	3.42	10.51	0.00
6:57	3.46	10.49	0.00
6:58	3.39	10.52	0.00
6:59	3.40	10.52	0.00
7:00	3.34	10.56	0.00
7:01	3.38	10.53	0.00
7:02	3.39	10.52	0.00
7:03	3.43	10.50	0.00
7:04	3.41	10.50	0.00
7:05	3.41	10.49	0.00
7:06	3.36	10.53	0.00
7:07	3.35	10.54	0.00
7:08	3.39	10.53	0.00
7:09	3.36	10.55	0.00
7:10	3.39	10.52	0.08
7:11	3.35	10.54	0.00
7:12	3.41	10.51	0.00
7:13	3.41	10.51	0.00
7:14	3.39	10.52	0.00
7:15	3.37	10.53	0.00
7:16	3.38	10.52	0.00
7:17	3.43	10.51	0.00
7:18	3.43	10.51	0.00
7:19	3.37	10.53	0.00
7:20	3.42	10.52	0.00
7:21	3.37	10.55	0.00
7:22	3.38	10.54	0.00
7:23	3.36	10.55	0.00

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/7/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.39	10.59	0.12
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.04	0.09	-0.04
Posttest System Zero Response	-0.04	0.10	0.07
Average Zero Response (C <sub>0</sub> )	0.00	0.10	0.02
Pretest System Cal Response	11.03	11.00	24.86
Posttest System Cal Response	10.96	11.01	25.57
Average Cal Response (C <sub>M</sub> )	11.00	11.01	25.22
Corrected Run Average (Corr)	3.39	10.56	NA
7:24	3.46	10.50	0.00
7:25	3.44	10.51	0.00
7:26	3.41	10.54	0.00
7:27	3.37	10.55	0.00
7:28	3.40	10.54	0.01
7:29	3.43	10.52	0.09
7:30	3.41	10.54	0.00
7:31	3.33	10.58	0.00
7:32	3.29	10.60	0.00
7:33	3.38	10.54	0.00
7:34	3.38	10.55	0.00
7:35	3.42	10.53	0.00
7:36	3.37	10.57	0.00
7:45	3.38	10.56	0.00
7:46	3.38	10.58	0.00
7:47	3.35	10.57	0.00
7:48	3.34	10.57	0.00
7:49	3.36	10.55	0.00
7:50	3.34	10.56	0.00
7:51	3.47	10.49	0.00
7:52	3.31	10.58	0.00
7:53	3.28	10.59	0.00
7:54	3.26	10.60	0.00
7:55	3.33	10.56	0.00
7:56	3.37	10.55	0.00
7:57	3.39	10.53	0.00
7:58	3.28	10.60	0.00
7:59	3.35	10.55	0.00
8:00	3.36	10.55	0.10
8:01	3.45	10.50	0.00
8:02	3.41	10.53	0.00
8:03	3.39	10.55	0.00
8:04	3.40	10.55	0.00
8:05	3.38	10.56	0.00
8:06	3.38	10.56	0.00
8:07	3.36	10.56	0.04
8:08	3.41	10.54	0.00
8:09	3.42	10.54	0.00
8:10	3.42	10.54	0.00
8:11	3.39	10.55	0.00
8:12	3.40	10.54	0.00
8:13	3.38	10.55	0.06
8:14	3.42	10.54	0.00
8:15	3.43	10.55	0.00
8:16	3.40	10.55	0.02
8:17	3.38	10.56	0.13
8:18	3.39	10.55	0.20
8:19	3.42	10.54	0.25
8:20	3.37	10.56	0.46
8:21	3.41	10.55	0.33

**Location:** BASF Corporation - Pasadena, TX  
**Source:** F-10 Boiler EPN 84  
**Project No.:** AST-2024-2352  
**Date:** 6/7/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.39	10.59	0.12
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.04	0.09	-0.04
Posttest System Zero Response	-0.04	0.10	0.07
Average Zero Response (C <sub>0</sub> )	0.00	0.10	0.02
Pretest System Cal Response	11.03	11.00	24.86
Posttest System Cal Response	10.96	11.01	25.57
Average Cal Response (C <sub>M</sub> )	11.00	11.01	25.22
Corrected Run Average (Corr)	3.39	10.56	NA
8:22	3.38	10.56	0.35
8:23	3.40	10.54	0.40
8:24	3.35	10.58	0.42
8:25	3.36	10.58	0.42
8:26	3.37	10.57	0.47
8:27	3.41	10.55	0.42
8:28	3.40	10.56	0.38
8:29	3.41	10.55	0.42
8:30	3.40	10.56	0.38
8:33	3.39	10.57	0.21
8:34	3.36	10.59	0.00
8:35	3.42	10.56	0.02
8:36	3.40	10.57	0.00
8:37	3.37	10.59	0.00
8:38	3.39	10.58	0.00
8:39	3.44	10.55	0.00
8:40	3.34	10.62	0.00
8:41	3.42	10.57	0.29
8:42	3.31	10.64	0.00
8:43	3.37	10.61	0.00
8:44	3.35	10.63	0.00
8:45	3.43	10.59	0.00
8:46	3.41	10.60	0.00
8:47	3.38	10.62	0.00
8:48	3.40	10.61	0.00
8:49	3.32	10.66	0.00
8:50	3.36	10.63	0.00
8:51	3.37	10.61	0.00
8:52	3.42	10.59	0.00
8:53	3.42	10.59	0.00
8:54	3.40	10.61	0.00
8:55	3.34	10.64	0.00
8:56	3.39	10.60	0.00
8:57	3.39	10.60	0.00
8:58	3.38	10.60	0.00
8:59	3.35	10.63	0.00
9:00	3.39	10.61	0.00
9:01	3.38	10.62	0.00
9:02	3.33	10.65	0.00
9:03	3.41	10.60	0.00
9:04	3.40	10.61	0.00
9:05	3.42	10.60	0.00
9:06	3.40	10.62	0.10
9:07	3.36	10.64	0.00
9:08	3.35	10.64	0.00
9:09	3.35	10.64	0.00
9:10	3.39	10.62	0.00
9:11	3.42	10.60	0.02
9:12	3.40	10.61	0.00
9:13	3.39	10.61	0.00

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/7/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.39	10.59	0.12
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.04	0.09	-0.04
Posttest System Zero Response	-0.04	0.10	0.07
Average Zero Response (C <sub>0</sub> )	0.00	0.10	0.02
Pretest System Cal Response	11.03	11.00	24.86
Posttest System Cal Response	10.96	11.01	25.57
Average Cal Response (C <sub>M</sub> )	11.00	11.01	25.22
Corrected Run Average (Corr)	3.39	10.56	NA
9:14	3.40	10.60	0.00
9:15	3.38	10.61	0.00
9:16	3.44	10.58	0.00
9:17	3.35	10.63	0.00
9:18	3.35	10.63	0.02
9:19	3.43	10.59	0.00
9:20	3.40	10.62	0.00
9:21	3.38	10.62	0.00
9:22	3.37	10.63	0.00
9:23	3.40	10.60	0.00
9:24	3.38	10.61	0.00
9:29	3.45	10.54	0.08
9:30	3.45	10.54	0.00
9:31	3.47	10.53	0.13
9:32	3.37	10.59	0.00
9:33	3.33	10.60	0.00
9:34	3.38	10.57	0.00
9:35	3.40	10.57	0.00
9:36	3.36	10.58	0.10
9:37	3.46	10.51	0.00
9:38	3.40	10.55	0.00
9:39	3.35	10.57	0.02
9:40	3.42	10.53	0.00
9:41	3.36	10.57	0.00
9:42	3.36	10.55	0.01
9:43	3.42	10.50	0.00
9:44	3.45	10.49	0.05
9:45	3.29	10.58	0.07
9:46	3.41	10.51	0.05
9:47	3.41	10.52	0.07
9:48	3.41	10.52	0.08
9:49	3.42	10.51	0.05
9:50	3.38	10.53	0.03
9:51	3.37	10.54	0.04
9:52	3.43	10.52	0.03
9:53	3.40	10.51	0.01



**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/7/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
5:40	191.6	0.981	1.9	19.0
5:41	191.6	0.983	2.0	15.0
5:42	191.7	0.981	1.8	18.4
5:43	191.7	0.982	2.8	15.7
5:44	191.7	0.982	2.3	16.4
5:45	191.7	0.982	2.1	17.0
5:46	191.7	0.982	2.4	16.2
5:47	191.7	0.983	2.3	14.9
5:48	191.7	0.982	2.8	17.0
5:49	191.7	0.981	2.8	17.5
5:50	191.7	0.982	2.5	16.7
5:52	191.7	0.983	2.8	15.1
5:53	191.7	0.983	2.2	14.3
5:54	191.7	0.981	2.0	20.0
5:55	191.7	0.983	2.3	15.7
5:56	191.7	0.981	1.9	17.7
5:57	191.7	0.983	2.2	15.6
5:58	191.7	0.982	2.2	18.1
5:59	191.7	0.982	2.2	15.7
6:00	191.6	0.982	2.8	17.6
6:01	191.6	0.983	1.9	14.7
6:02	191.6	0.982	1.7	15.7
6:03	191.6	0.982	2.6	17.0
6:04	191.6	0.983	1.9	15.7
6:05	191.7	0.982	2.3	15.4
6:06	191.6	0.981	1.5	19.7
6:07	191.6	0.983	2.4	16.4
6:08	191.7	0.983	1.8	14.5
6:09	191.7	0.982	2.5	17.2
6:10	191.7	0.982	2.4	17.8
6:11	191.7	0.983	2.4	16.2
6:12	191.6	0.984	1.7	14.4
6:14	191.7	0.983	1.8	15.0
6:15	191.7	0.983	2.3	18.4
6:16	191.7	0.982	1.8	17.6
6:17	191.7	0.983	2.6	16.5
6:18	191.7	0.983	2.4	15.2
6:19	191.7	0.982	1.9	18.2
6:20	191.7	0.983	1.5	18.8
6:21	191.7	0.983	2.1	15.0
6:22	191.7	0.984	2.1	14.5
6:23	191.7	0.983	1.7	13.9
6:24	191.6	0.982	1.7	20.4
6:25	191.7	0.983	2.2	15.6
6:26	191.7	0.983	2.2	16.0
6:27	191.7	0.983	2.2	15.2
6:28	191.7	0.983	2.2	15.5
6:29	191.7	0.981	1.7	21.0
6:30	191.7	0.983	2.4	17.2
6:31	191.7	0.983	2.2	15.4
6:32	191.7	0.983	2.2	14.8
6:33	191.7	0.983	1.9	15.8
6:34	191.7	0.982	1.8	18.2
6:36	191.7	0.983	1.6	14.9
6:37	191.7	0.982	2.4	17.3
6:38	191.7	0.984	2.0	14.8
6:39	191.6	0.982	2.1	19.0
6:40	191.7	0.983	2.4	15.1
6:41	191.7	0.983	1.9	13.7

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/7/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
6:42	191.7	0.983	2.8	17.6
6:43	191.7	0.983	2.9	16.3
6:44	191.7	0.983	2.5	16.2
6:45	191.7	0.983	2.5	16.9
6:46	191.7	0.983	2.5	15.8
6:47	191.7	0.983	2.5	17.1
6:48	191.6	0.983	2.3	16.9
6:49	191.6	0.984	2.0	14.2
6:50	191.6	0.982	2.2	18.8
6:51	191.6	0.984	2.1	15.5
6:52	191.7	0.984	2.0	13.6
6:53	191.7	0.982	2.9	17.3
6:54	191.7	0.983	2.0	17.1
6:55	191.7	0.983	3.0	18.9
6:56	191.7	0.984	1.8	15.0
6:58	191.7	0.983	1.9	15.7
6:59	191.7	0.983	1.7	17.8
7:00	191.6	0.984	1.5	14.1
7:01	191.6	0.983	1.7	15.6
7:02	191.7	0.984	2.3	15.4
7:03	191.7	0.983	2.1	19.3
7:04	191.7	0.983	2.5	17.8
7:05	191.7	0.983	2.5	16.3
7:06	191.7	0.984	2.0	14.9
7:07	191.7	0.983	2.5	16.1
7:08	191.7	0.984	2.2	14.9
7:09	191.6	0.983	1.9	18.3
7:10	191.7	0.983	2.1	16.7
7:11	191.6	0.983	2.1	19.3
7:12	191.6	0.983	2.0	16.2
7:13	191.7	0.984	2.4	14.4
7:14	191.7	0.983	2.5	16.7
7:15	191.7	0.983	2.5	17.8
7:16	191.6	0.983	2.6	16.1
7:17	191.7	0.984	2.0	14.4
7:19	191.6	0.982	2.0	18.7
7:20	191.6	0.983	1.9	17.5
7:21	191.6	0.983	2.6	15.4
7:22	191.6	0.983	2.4	16.4
7:23	191.6	0.983	2.0	16.4
7:24	191.7	0.983	2.2	17.9
7:25	191.6	0.984	2.2	16.8
7:26	191.7	0.984	2.4	15.3
7:27	191.7	0.983	2.8	16.3
7:28	191.7	0.983	2.3	15.8
7:29	191.6	0.984	2.3	15.1
7:30	191.6	0.982	2.1	19.2
7:31	191.6	0.984	2.4	16.0
7:32	191.7	0.983	3.0	17.6
7:33	191.7	0.984	2.2	15.8
7:34	191.7	0.983	2.3	16.4
7:35	191.6	0.983	2.3	15.6
7:36	191.6	0.983	2.0	19.2
7:37	191.7	0.984	2.5	17.5
7:38	191.6	0.983	2.4	16.2
7:39	191.7	0.984	2.2	15.5
7:41	191.6	0.983	2.3	16.3
7:42	191.7	0.984	1.6	14.7
7:43	191.6	0.983	2.7	17.6

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/7/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
7:44	191.7	0.983	2.2	15.9
7:45	191.7	0.984	2.5	17.0
7:46	191.7	0.983	2.3	15.6
7:47	191.7	0.983	2.4	18.8
7:48	191.7	0.984	2.2	16.2
7:49	191.7	0.983	2.1	18.3
7:50	191.7	0.984	1.6	14.4
7:51	191.7	0.983	1.7	15.5
7:52	191.7	0.982	2.2	18.4
7:53	191.7	0.984	2.3	15.9
7:54	191.7	0.984	2.2	14.9
7:55	191.7	0.983	1.7	18.2
7:56	191.7	0.984	2.5	16.2
7:57	191.7	0.983	2.0	18.0
7:58	191.6	0.984	2.4	15.4
7:59	191.7	0.984	2.5	16.3
8:00	191.7	0.984	2.4	15.9
8:01	191.7	0.984	2.6	16.9
8:03	191.6	0.984	2.3	16.7
8:04	191.6	0.984	2.3	15.9
8:05	191.6	0.983	2.3	16.9
8:06	191.6	0.984	2.7	17.8
8:07	191.6	0.984	2.0	15.3
8:08	191.6	0.983	2.4	18.6
8:09	191.6	0.984	2.4	15.5
8:10	191.6	0.983	1.9	20.0
8:11	191.6	0.984	2.3	16.7
8:12	191.6	0.985	2.0	14.9
8:13	191.6	0.984	2.2	16.0
8:14	191.6	0.984	2.4	16.3
8:15	191.6	0.985	2.2	14.5
8:16	191.6	0.983	2.0	18.9
8:17	191.6	0.985	2.3	15.4
8:18	191.6	0.985	2.0	14.2
8:19	191.6	0.984	2.2	16.4
8:20	191.6	0.984	2.2	16.8
8:21	191.6	0.984	2.4	19.1
8:22	191.6	0.985	2.2	15.3
8:23	191.6	0.984	2.4	16.0
8:25	191.6	0.985	2.5	16.2
8:26	191.6	0.984	2.0	15.5
8:27	191.6	0.984	1.9	18.2
8:28	191.6	0.985	2.2	15.6
8:29	191.6	0.985	2.2	15.7
8:30	191.6	0.983	2.2	18.9
8:31	191.6	0.984	1.9	17.3
8:32	191.6	0.985	2.5	16.5
8:33	191.6	0.985	1.9	15.2
8:34	191.6	0.984	2.6	17.2
8:35	191.6	0.985	2.6	16.8
8:36	191.7	0.985	1.6	14.8
8:37	191.6	0.984	2.6	16.8
8:38	191.6	0.985	3.1	18.6
8:39	191.7	0.985	2.0	14.6
8:40	191.7	0.985	1.7	14.1
8:41	191.7	0.985	2.3	16.5
8:42	191.7	0.985	2.5	16.3
8:43	191.7	0.985	2.2	17.9
8:44	191.7	0.984	1.9	17.0

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/7/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
8:45	191.7	0.985	2.6	16.7
8:47	191.7	0.985	2.4	16.1
8:48	191.7	0.985	1.9	14.5
8:49	191.7	0.984	2.1	18.8
8:50	191.7	0.985	2.2	18.6
8:51	191.7	0.985	1.6	15.8
8:52	191.7	0.985	2.1	14.5
8:53	191.7	0.985	2.9	16.6
8:54	191.7	0.985	2.3	17.1
8:55	191.7	0.984	2.2	16.7
8:56	191.7	0.985	2.9	18.4
8:57	191.7	0.985	2.4	16.0
8:58	191.7	0.985	2.1	14.7
8:59	191.7	0.985	1.9	17.9
9:00	191.7	0.984	1.9	18.7
9:01	191.7	0.985	2.1	15.6
9:02	191.7	0.986	2.1	14.1
9:03	191.7	0.984	2.4	17.2
9:04	191.7	0.985	3.0	17.1
9:05	191.7	0.986	2.3	14.9
9:06	191.7	0.985	2.2	16.0
9:07	191.7	0.985	1.9	18.7
9:09	191.7	0.986	1.5	14.2
9:10	191.7	0.985	2.2	14.3
9:11	191.7	0.984	2.2	19.2
9:12	191.7	0.985	2.7	16.5
9:13	191.7	0.984	2.9	18.8
9:14	191.7	0.985	2.4	15.6
9:15	191.7	0.986	2.2	14.1
9:16	191.7	0.985	2.8	16.8
9:17	191.7	0.985	3.0	17.7
9:18	191.7	0.985	2.1	15.7
9:19	191.7	0.986	2.6	14.4
9:20	191.7	0.985	2.3	16.5
9:21	191.7	0.985	2.4	15.0
9:22	191.7	0.985	1.9	16.8
9:23	191.7	0.985	2.4	16.1
9:24	191.7	0.985	2.4	17.6
9:25	191.7	0.985	2.4	15.2
9:26	191.7	0.985	2.3	15.6
9:27	191.7	0.985	2.3	17.6
9:28	191.7	0.985	2.4	16.4
9:30	191.6	0.985	2.1	16.4
9:31	191.6	0.985	2.6	17.9
9:32	191.6	0.985	2.2	15.0
9:33	191.6	0.985	2.0	16.3
9:34	191.7	0.985	1.9	15.6
9:35	191.7	0.985	2.4	19.1
9:36	191.7	0.986	2.5	15.0
9:37	191.7	0.985	2.4	14.9
9:38	191.7	0.985	2.0	16.0
9:39	191.7	0.985	2.1	18.9
9:40	191.7	0.984	2.2	18.1
9:41	191.7	0.985	2.3	15.0
9:42	191.7	0.985	2.4	16.9
9:43	191.6	0.985	2.6	16.4
9:44	191.7	0.985	1.9	16.1
9:45	191.6	0.985	2.7	17.5
9:46	191.7	0.985	2.4	17.5

**Location:** BASF Corporation - Pasadena, TX  
**Source:** F-10 Boiler EPN 84  
**Project No.:** AST-2024-2352  
**Date:** 6/7/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
9:47	191.7	0.985	2.6	18.0
9:48	191.7	0.986	1.9	14.3
9:49	191.7	0.985	1.7	15.3
9:50	191.7	0.986	2.1	15.4
9:52	191.7	0.985	2.3	17.4
9:53	191.7	0.985	2.1	15.3
Parameter	Temperature	Pressure	HCN - Outlet	BWS - Outlet
Run Average	191.7	0.984	2.2	16.5

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/11/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.43	10.86	0.00
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.02	0.06	-0.04
Posttest System Zero Response	-0.04	0.01	-0.04
Average Zero Response (C <sub>0</sub> )	-0.01	0.04	-0.04
Pretest System Cal Response	11.05	11.13	25.34
Posttest System Cal Response	11.02	11.03	25.21
Average Cal Response (C <sub>M</sub> )	11.04	11.08	25.28
Corrected Run Average (Corr)	3.42	10.75	NA
13:17	3.24	11.04	0.00
13:18	3.27	11.03	0.00
13:19	3.32	10.99	0.00
13:20	3.35	10.97	0.00
13:21	3.30	11.01	0.00
13:22	3.25	11.04	0.00
13:23	3.32	11.00	0.00
13:24	3.32	11.01	0.00
13:25	3.28	11.03	0.00
13:26	3.25	11.05	0.00
13:27	3.33	11.01	0.00
13:28	3.36	10.99	0.00
13:29	3.30	11.02	0.00
13:30	3.30	11.02	0.00
13:31	3.33	11.01	0.00
13:32	3.37	10.97	0.00
13:33	3.34	11.00	0.00
13:34	3.32	11.02	0.00
13:35	3.34	11.00	0.00
13:36	3.34	11.00	0.00
13:37	3.35	10.98	0.00
13:38	3.32	10.99	0.00
13:39	3.26	11.03	0.00
13:40	3.28	11.03	0.00
13:41	3.35	11.00	0.00
13:42	3.37	10.98	0.00
13:43	3.39	10.97	0.00
13:44	3.35	11.01	0.00
13:45	3.40	10.97	0.00
13:46	3.34	11.01	0.00
13:47	3.28	11.04	0.00
13:48	3.32	11.01	0.00
13:49	3.34	11.02	0.00
13:50	3.30	11.03	0.00
13:51	3.34	11.01	0.00
13:52	3.41	10.95	0.00
13:53	3.29	11.02	0.00
13:54	3.38	10.97	0.00
13:55	3.33	10.99	0.00
13:56	3.27	11.03	0.00
13:57	3.41	10.95	0.00
13:58	3.32	11.02	0.00
13:59	3.20	11.09	0.00
14:00	3.30	11.01	0.00
14:01	3.45	10.94	0.00
14:02	3.33	10.99	0.00
14:03	3.50	10.91	0.00
14:04	3.31	11.01	0.00
14:05	3.34	10.99	0.00
14:06	3.40	10.96	0.00

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/11/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.43	10.86	0.00
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.02	0.06	-0.04
Posttest System Zero Response	-0.04	0.01	-0.04
Average Zero Response (C <sub>0</sub> )	-0.01	0.04	-0.04
Pretest System Cal Response	11.05	11.13	25.34
Posttest System Cal Response	11.02	11.03	25.21
Average Cal Response (C <sub>M</sub> )	11.04	11.08	25.28
Corrected Run Average (Corr)	3.42	10.75	NA
14:07	3.46	10.93	0.00
14:08	3.50	10.91	0.00
14:09	3.53	10.87	0.00
14:10	3.54	10.85	0.00
14:11	3.48	10.90	0.00
14:12	3.45	10.92	0.00
14:13	3.56	10.85	0.00
14:14	3.57	10.83	0.00
14:20	3.38	10.97	0.00
14:21	3.38	10.95	0.00
14:22	3.44	10.92	0.00
14:23	3.38	10.96	0.00
14:24	3.54	10.86	0.00
14:25	3.50	10.89	0.00
14:26	3.48	10.88	0.00
14:27	3.48	10.87	0.00
14:28	3.51	10.86	0.00
14:29	3.48	10.87	0.00
14:30	3.51	10.83	0.00
14:31	3.46	10.86	0.00
14:32	3.43	10.88	0.00
14:33	3.44	10.87	0.00
14:34	3.38	10.90	0.00
14:35	3.42	10.89	0.00
14:36	3.34	10.95	0.00
14:37	3.33	10.96	0.00
14:38	3.41	10.92	0.00
14:39	3.44	10.89	0.00
14:40	3.48	10.89	0.00
14:41	3.50	10.88	0.00
14:42	3.48	10.89	0.00
14:43	3.51	10.87	0.00
14:44	3.52	10.85	0.00
14:45	3.48	10.86	0.00
14:46	3.46	10.88	0.00
14:47	3.49	10.85	0.00
14:48	3.51	10.84	0.00
14:49	3.48	10.86	0.00
14:50	3.48	10.85	0.00
14:51	3.45	10.87	0.00
14:52	3.41	10.89	0.00
14:53	3.43	10.86	0.00
14:54	3.43	10.88	0.00
14:55	3.43	10.89	0.00
14:56	3.42	10.91	0.00
14:57	3.47	10.86	0.00
14:58	3.46	10.87	0.00
14:59	3.55	10.81	0.00
15:00	3.55	10.83	0.00
15:01	3.50	10.85	0.00

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/11/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.43	10.86	0.00
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.02	0.06	-0.04
Posttest System Zero Response	-0.04	0.01	-0.04
Average Zero Response (C <sub>0</sub> )	-0.01	0.04	-0.04
Pretest System Cal Response	11.05	11.13	25.34
Posttest System Cal Response	11.02	11.03	25.21
Average Cal Response (C <sub>M</sub> )	11.04	11.08	25.28
Corrected Run Average (Corr)	3.42	10.75	NA
15:02	3.51	10.85	0.00
15:03	3.47	10.88	0.00
15:04	3.47	10.88	0.00
15:05	3.50	10.86	0.00
15:06	3.38	10.92	0.00
15:07	3.47	10.85	0.00
15:08	3.53	10.81	0.00
15:09	3.51	10.83	0.00
15:10	3.51	10.83	0.00
15:11	3.50	10.84	0.00
15:12	3.49	10.86	0.00
15:17	3.44	10.85	0.00
15:18	3.39	10.86	0.00
15:19	3.34	10.89	0.00
15:20	3.35	10.89	0.00
15:21	3.29	10.91	0.00
15:22	3.31	10.88	0.00
15:23	3.30	10.89	0.00
15:24	3.33	10.86	0.00
15:25	3.28	10.89	0.00
15:26	3.26	10.89	0.00
15:27	3.32	10.85	0.00
15:28	3.26	10.88	0.00
15:29	3.31	10.85	0.00
15:30	3.27	10.88	0.00
15:31	3.31	10.84	0.00
15:32	3.39	10.81	0.00
15:33	3.36	10.82	0.00
15:34	3.42	10.78	0.00
15:35	3.43	10.77	0.00
15:36	3.42	10.78	0.00
15:37	3.41	10.80	0.00
15:38	3.35	10.82	0.00
15:39	3.30	10.87	0.00
15:40	3.31	10.86	0.00
15:41	3.27	10.90	0.00
15:42	3.30	10.88	0.00
15:43	3.24	10.92	0.00
15:44	3.29	10.91	0.00
15:45	3.33	10.88	0.00
15:46	3.27	10.92	0.00
15:47	3.28	10.91	0.00
15:48	3.41	10.85	0.00
15:49	3.47	10.83	0.00
15:50	3.40	10.86	0.00
15:51	3.43	10.85	0.00
15:52	3.47	10.82	0.00
15:53	3.48	10.81	0.00
15:54	3.47	10.81	0.00
15:55	3.49	10.79	0.00



Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/11/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.43	10.86	0.00
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.02	0.06	-0.04
Posttest System Zero Response	-0.04	0.01	-0.04
Average Zero Response (C <sub>0</sub> )	-0.01	0.04	-0.04
Pretest System Cal Response	11.05	11.13	25.34
Posttest System Cal Response	11.02	11.03	25.21
Average Cal Response (C <sub>M</sub> )	11.04	11.08	25.28
Corrected Run Average (Corr)	3.42	10.75	NA
15:56	3.49	10.79	0.00
15:57	3.50	10.79	0.00
15:58	3.54	10.76	0.00
15:59	3.48	10.80	0.00
16:00	3.55	10.75	0.00
16:01	3.49	10.77	0.00
16:02	3.48	10.77	0.00
16:03	3.49	10.77	0.00
16:04	3.46	10.77	0.00
16:05	3.53	10.74	0.00
16:06	3.51	10.75	0.00
16:07	3.48	10.76	0.00
16:08	3.44	10.80	0.00
16:13	3.47	10.79	0.00
16:14	3.47	10.80	0.00
16:15	3.47	10.79	0.00
16:16	3.46	10.79	0.00
16:17	3.50	10.78	0.00
16:18	3.49	10.78	0.00
16:19	3.49	10.79	0.00
16:20	3.49	10.79	0.00
16:21	3.50	10.78	0.00
16:22	3.53	10.76	0.00
16:23	3.48	10.79	0.00
16:24	3.48	10.78	0.00
16:25	3.50	10.78	0.00
16:26	3.49	10.79	0.00
16:27	3.53	10.77	0.00
16:28	3.50	10.79	0.00
16:29	3.50	10.78	0.00
16:30	3.51	10.77	0.00
16:31	3.50	10.77	0.00
16:32	3.49	10.77	0.00
16:33	3.53	10.75	0.00
16:34	3.40	10.82	0.00
16:35	3.42	10.80	0.00
16:36	3.52	10.75	0.00
16:37	3.46	10.78	0.00
16:38	3.45	10.77	0.00
16:39	3.49	10.74	0.00
16:40	3.48	10.75	0.00
16:41	3.49	10.75	0.00
16:42	3.50	10.76	0.00
16:43	3.49	10.75	0.00
16:44	3.48	10.77	0.00
16:45	3.51	10.75	0.00
16:46	3.50	10.75	0.00
16:47	3.50	10.74	0.00
16:48	3.50	10.74	0.00
16:49	3.47	10.77	0.00

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/11/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.43	10.86	0.00
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	0.02	0.06	-0.04
Posttest System Zero Response	-0.04	0.01	-0.04
Average Zero Response (C <sub>0</sub> )	-0.01	0.04	-0.04
Pretest System Cal Response	11.05	11.13	25.34
Posttest System Cal Response	11.02	11.03	25.21
Average Cal Response (C <sub>M</sub> )	11.04	11.08	25.28
Corrected Run Average (Corr)	3.42	10.75	NA
16:50	3.47	10.77	0.00
16:51	3.42	10.79	0.00
16:52	3.48	10.76	0.00
16:53	3.49	10.77	0.00
16:54	3.49	10.76	0.00
16:55	3.47	10.78	0.00
16:56	3.41	10.80	0.00
16:57	3.47	10.76	0.00
16:58	3.50	10.74	0.00
16:59	3.50	10.74	0.00
17:00	3.49	10.75	0.00
17:01	3.53	10.73	0.00
17:02	3.48	10.75	0.00
17:03	3.50	10.74	0.00
17:04	3.47	10.76	0.00
17:05	3.48	10.76	0.00
17:06	3.49	10.75	0.00
17:07	3.48	10.76	0.00
17:08	3.47	10.77	0.00
17:09	3.48	10.77	0.00
17:10	3.46	10.78	0.00
17:11	3.49	10.79	0.00
17:12	3.52	10.79	0.00
17:13	3.52	10.78	0.00
17:14	3.47	10.79	0.00
17:15	3.48	10.79	0.00
17:16	3.53	10.75	0.00
17:17	3.48	10.77	0.00
17:18	3.52	10.74	0.00
17:19	3.50	10.76	0.00
17:20	3.45	10.79	0.00
17:21	3.46	10.80	0.00
17:22	3.49	10.78	0.00
17:23	3.53	10.74	0.00
17:24	3.45	10.79	0.00
17:25	3.50	10.75	0.00
17:26	3.48	10.79	0.00
17:27	3.46	10.80	0.00
17:28	3.43	10.82	0.00
17:29	3.47	10.80	0.00
17:30	3.51	10.78	0.00
17:31	3.48	10.79	0.00
17:32	3.46	10.80	0.00
17:33	3.46	10.80	0.00

Location: BASF Corporation - Pasadena, TX

Source: F-10 Boiler EPN 84

Project No.: AST-2024-2352

Date: 6/11/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
13:17	191.7	0.980	2.7	20.2
13:18	191.7	0.982	2.6	18.0
13:19	191.7	0.982	3.1	15.6
13:20	191.7	0.982	3.0	15.1
13:21	191.7	0.982	3.3	16.0
13:22	191.7	0.981	2.6	21.6
13:23	191.7	0.982	2.9	17.0
13:25	191.7	0.983	2.5	14.8
13:26	191.7	0.982	3.0	16.6
13:27	191.7	0.983	2.8	15.5
13:28	191.7	0.983	2.9	14.4
13:29	191.7	0.980	2.8	21.5
13:30	191.7	0.982	2.7	18.0
13:31	191.7	0.982	3.0	15.6
13:32	191.7	0.981	3.4	16.9
13:33	191.7	0.982	3.2	15.5
13:34	191.7	0.982	2.8	14.3
13:35	191.7	0.982	2.3	13.7
13:36	191.7	0.981	2.9	19.3
13:37	191.7	0.982	3.0	15.3
13:38	191.7	0.982	3.1	15.6
13:39	191.6	0.981	2.6	20.9
13:40	191.7	0.982	3.1	17.0
13:41	191.7	0.982	2.7	16.1
13:42	191.7	0.981	2.9	16.4
13:43	191.7	0.982	3.0	15.6
13:44	191.7	0.982	2.9	14.6
13:45	191.7	0.981	3.2	18.5
13:47	191.6	0.981	2.4	20.4
13:48	191.6	0.982	2.7	16.4
13:49	191.6	0.982	3.3	15.9
13:50	191.7	0.982	2.7	15.2
13:51	191.7	0.982	1.9	14.2
13:52	191.7	0.982	2.3	15.0
13:53	191.6	0.982	2.8	16.5
13:54	191.6	0.982	2.7	14.6
13:55	191.6	0.980	2.5	18.0
13:56	191.6	0.981	2.7	19.6
13:57	191.6	0.982	3.1	15.7
13:58	191.6	0.981	2.8	15.7
13:59	191.6	0.982	3.3	16.9
14:00	191.6	0.981	3.4	18.9
14:01	191.6	0.982	3.3	15.3
14:02	191.6	0.981	3.3	16.4
14:03	191.6	0.982	3.0	16.3
14:04	191.7	0.982	2.8	15.0
14:05	191.6	0.980	2.9	19.7
14:06	191.6	0.982	3.4	16.3
14:07	191.6	0.982	2.9	15.0
14:09	191.7	0.981	3.2	16.5
14:10	191.7	0.982	3.7	17.3
14:11	191.7	0.982	3.3	17.2
14:12	191.7	0.982	3.0	15.1
14:13	191.7	0.982	2.6	14.9
14:14	191.7	0.981	3.4	16.5
14:20	191.7	0.981	2.8	16.2
14:21	191.7	0.981	3.1	15.8
14:22	191.7	0.981	2.6	15.0
14:23	191.7	0.981	3.0	17.7

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/11/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
14:24	191.7	0.980	3.4	16.9
14:25	191.7	0.981	3.4	18.4
14:26	191.7	0.981	2.7	16.8
14:27	191.7	0.981	3.1	16.1
14:28	191.7	0.981	2.8	15.0
14:29	191.7	0.981	2.9	14.7
14:31	191.7	0.981	3.0	17.7
14:32	191.7	0.981	3.0	15.8
14:33	191.7	0.981	3.0	16.5
14:34	191.7	0.980	3.4	19.2
14:35	191.7	0.981	2.9	16.3
14:36	191.7	0.981	3.0	16.4
14:37	191.7	0.981	3.0	16.1
14:38	191.7	0.982	3.4	15.4
14:39	191.7	0.982	2.6	14.5
14:40	191.7	0.981	2.9	16.4
14:41	191.7	0.981	3.4	17.0
14:42	191.7	0.980	2.9	19.7
14:43	191.7	0.981	3.6	17.9
14:44	191.7	0.982	3.0	16.1
14:45	191.7	0.982	3.0	14.7
14:46	191.7	0.981	2.8	14.5
14:47	191.7	0.980	3.3	17.0
14:48	191.7	0.980	3.4	18.4
14:49	191.7	0.981	3.0	16.2
14:50	191.8	0.981	3.2	14.4
14:51	191.7	0.981	3.0	18.2
14:53	191.7	0.982	2.7	14.2
14:54	191.7	0.980	2.9	16.8
14:55	191.8	0.982	2.9	14.6
14:56	191.7	0.980	2.8	15.9
14:57	191.7	0.979	2.8	21.2
14:58	191.7	0.981	3.4	17.2
14:59	191.7	0.981	3.2	15.1
15:00	191.7	0.982	2.9	14.3
15:01	191.7	0.981	2.7	15.3
15:02	191.7	0.980	2.8	16.1
15:03	191.7	0.980	3.1	15.6
15:04	191.7	0.979	2.7	20.8
15:05	191.7	0.980	3.3	17.2
15:06	191.8	0.981	3.0	15.9
15:07	191.7	0.981	2.8	14.8
15:08	191.7	0.980	2.8	16.5
15:09	191.7	0.980	3.7	18.1
15:10	191.7	0.981	2.7	16.1
15:11	191.7	0.979	2.3	19.8
15:12	191.7	0.981	3.0	16.5
15:17	191.7	0.981	3.2	16.2
15:18	191.7	0.981	3.0	14.7
15:19	191.7	0.978	2.4	20.9
15:20	191.7	0.980	2.5	18.9
15:21	191.7	0.981	3.5	15.6
15:22	191.7	0.981	2.7	14.4
15:23	191.7	0.981	2.4	14.0
15:24	191.7	0.980	2.9	16.0
15:25	191.7	0.980	3.3	15.5
15:26	191.7	0.981	2.7	14.5
15:27	191.7	0.980	2.9	17.1
15:28	191.7	0.980	3.3	18.2

Location: BASF Corporation - Pasadena, TX

Source: F-10 Boiler EPN 84

Project No.: AST-2024-2352

Date: 6/11/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
15:29	191.7	0.980	2.9	16.2
15:30	191.7	0.980	2.7	15.8
15:31	191.7	0.981	3.3	15.4
15:32	191.7	0.979	2.8	21.2
15:33	191.7	0.981	3.0	16.9
15:34	191.7	0.980	2.9	16.9
15:36	191.7	0.981	3.2	16.0
15:37	191.6	0.981	3.3	14.7
15:38	191.6	0.981	2.6	14.2
15:39	191.7	0.979	2.9	18.5
15:40	191.6	0.980	3.0	19.2
15:41	191.7	0.981	3.1	16.1
15:42	191.7	0.981	3.2	14.7
15:43	191.7	0.979	2.9	18.0
15:44	191.7	0.981	2.6	15.1
15:45	191.7	0.980	2.8	15.4
15:46	191.7	0.980	2.8	18.9
15:47	191.7	0.981	3.6	15.8
15:48	191.7	0.980	3.3	17.8
15:49	191.7	0.980	3.7	18.5
15:50	191.7	0.981	2.7	15.7
15:51	191.7	0.981	2.8	14.5
15:52	191.7	0.980	2.4	14.8
15:53	191.7	0.979	2.6	19.0
15:54	191.7	0.980	2.6	17.1
15:55	191.7	0.981	3.0	15.1
15:56	191.7	0.980	3.3	16.5
15:58	191.7	0.979	3.1	20.3
15:59	191.7	0.981	2.7	16.3
16:00	191.7	0.981	2.3	14.7
16:01	191.7	0.981	2.1	13.7
16:02	191.7	0.980	2.4	15.5
16:03	191.7	0.981	2.7	14.7
16:04	191.7	0.980	2.9	16.0
16:05	191.7	0.980	3.0	18.5
16:06	191.7	0.981	3.1	15.3
16:07	191.7	0.979	3.6	17.5
16:08	191.8	0.980	3.5	17.6
16:13	191.7	0.979	3.7	19.0
16:14	191.7	0.980	3.3	16.3
16:15	191.7	0.980	2.8	15.0
16:16	191.7	0.980	3.5	16.4
16:17	191.7	0.980	3.2	15.9
16:18	191.7	0.980	3.5	15.6
16:20	191.7	0.981	3.5	14.9
16:21	191.7	0.981	3.2	14.9
16:22	191.6	0.979	3.0	21.5
16:23	191.6	0.981	3.1	16.0
16:24	191.6	0.979	3.1	18.1
16:25	191.7	0.980	2.8	16.7
16:26	191.7	0.981	3.3	15.6
16:27	191.7	0.981	3.2	14.4
16:28	191.7	0.980	3.6	16.9
16:29	191.7	0.981	3.2	15.8
16:30	191.7	0.980	3.1	16.4
16:31	191.7	0.981	3.0	15.6
16:32	191.7	0.980	2.8	18.5
16:33	191.7	0.981	2.4	14.7
16:34	191.7	0.979	3.2	21.8

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/11/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
16:35	191.7	0.981	3.5	16.7
16:36	191.7	0.980	3.6	18.2
16:37	191.7	0.981	3.2	15.8
16:38	191.7	0.981	3.1	15.1
16:39	191.8	0.981	3.7	14.9
16:40	191.8	0.980	3.4	16.7
16:42	191.7	0.980	3.1	17.2
16:43	191.7	0.980	3.3	16.5
16:44	191.8	0.980	3.6	16.7
16:45	191.7	0.980	3.5	17.6
16:46	191.7	0.980	3.6	17.9
16:47	191.7	0.981	3.1	16.3
16:48	191.7	0.980	3.5	15.9
16:49	191.7	0.981	3.3	15.6
16:50	191.6	0.980	3.5	15.6
16:51	191.7	0.980	3.9	15.6
16:52	191.7	0.980	3.1	15.6
16:53	191.6	0.979	2.6	19.5
16:54	191.6	0.980	2.6	20.6
16:55	191.6	0.980	3.7	16.8
16:56	191.6	0.980	3.4	16.3
16:57	191.7	0.980	3.1	15.7
16:58	191.7	0.980	3.3	15.7
16:59	191.7	0.980	3.0	15.8
17:00	191.7	0.980	3.6	16.0
17:01	191.7	0.980	3.2	16.2
17:03	191.7	0.980	3.4	16.4
17:04	191.7	0.980	3.4	16.4
17:05	191.7	0.981	2.7	15.7
17:06	191.7	0.980	3.7	15.8
17:07	191.7	0.980	3.3	16.0
17:08	191.7	0.980	3.3	16.2
17:09	191.7	0.978	3.3	20.1
17:10	191.7	0.979	2.8	18.3
17:11	191.7	0.980	3.5	16.2
17:12	191.7	0.980	3.3	15.8
17:13	191.7	0.980	2.9	15.5
17:14	191.7	0.980	3.1	15.0
17:15	191.7	0.980	3.1	14.5
17:16	191.7	0.979	3.3	17.9
17:17	191.7	0.980	3.5	17.1
17:18	191.7	0.981	2.9	14.8
17:19	191.7	0.980	3.4	15.3
17:20	191.7	0.980	3.6	17.1
17:21	191.7	0.980	3.1	15.9
17:22	191.7	0.979	3.0	17.4
17:23	191.7	0.980	3.5	17.4
17:25	191.7	0.981	2.4	14.7
17:26	191.7	0.980	2.9	16.2
17:27	191.7	0.979	2.9	19.6
17:28	191.6	0.980	3.0	15.9
17:29	191.6	0.980	3.5	16.5
17:30	191.7	0.980	2.6	15.0
17:31	191.7	0.979	3.2	16.8
17:32	191.7	0.980	3.3	16.4
17:33	191.7	0.980	2.9	14.8
<b>Parameter</b>	<b>Temperature</b>	<b>Pressure</b>	<b>HCN - Outlet</b>	<b>BWS - Outlet</b>
<b>Run Average</b>	191.7	0.981	3.0	16.5

**Location:** BASF Corporation - Pasadena, TX  
**Source:** F-10 Boiler EPN 84  
**Project No.:** AST-2024-2352  
**Date:** 6/12/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.30	10.71	0.23
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	-0.04	0.05	-0.04
Posttest System Zero Response	-0.04	0.08	-0.04
Average Zero Response (C <sub>0</sub> )	-0.04	0.07	-0.04
Pretest System Cal Response	11.01	11.02	24.84
Posttest System Cal Response	10.97	10.94	24.96
Average Cal Response (C <sub>M</sub> )	10.99	10.98	24.90
Corrected Run Average (Corr)	3.34	10.70	NA
7:27	3.44	10.79	0.00
7:28	3.48	10.75	0.00
7:29	3.52	10.74	0.00
7:30	3.53	10.72	0.00
7:31	3.48	10.76	0.00
7:32	3.50	10.74	0.00
7:33	3.50	10.74	0.00
7:34	3.53	10.72	0.00
7:35	3.47	10.77	0.00
7:36	3.45	10.76	0.00
7:37	3.51	10.73	0.00
7:38	3.42	10.77	0.00
7:39	3.37	10.81	0.00
7:40	3.34	10.81	0.00
7:41	3.27	10.85	0.00
7:42	3.28	10.83	0.00
7:43	3.33	10.81	0.00
7:44	3.24	10.86	0.00
7:45	3.31	10.81	0.00
7:46	3.32	10.81	0.00
7:47	3.24	10.85	0.00
7:48	3.30	10.83	0.00
7:49	3.36	10.79	0.00
7:50	3.29	10.84	0.00
7:51	3.31	10.82	0.00
7:52	3.29	10.83	0.00
7:53	3.30	10.84	0.00
7:54	3.22	10.88	0.00
7:55	3.40	10.77	0.00
7:56	3.39	10.79	0.00
7:57	3.43	10.76	0.00
7:58	3.28	10.84	0.00
7:59	3.40	10.77	0.00
8:00	3.27	10.85	0.00
8:01	3.34	10.81	0.00
8:02	3.23	10.88	0.00
8:03	3.24	10.87	0.00
8:04	3.29	10.83	0.00
8:05	3.30	10.84	0.00
8:06	3.29	10.84	0.00
8:07	3.28	10.84	0.00
8:08	3.31	10.82	0.00
8:09	3.29	10.83	0.00
8:10	3.25	10.84	0.00
8:11	3.34	10.79	0.00
8:12	3.39	10.76	0.00
8:13	3.50	10.71	0.00
8:14	3.25	10.84	0.00
8:15	3.28	10.82	0.00
8:16	3.36	10.76	0.00

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/12/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.30	10.71	0.23
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	-0.04	0.05	-0.04
Posttest System Zero Response	-0.04	0.08	-0.04
Average Zero Response (C <sub>0</sub> )	-0.04	0.07	-0.04
Pretest System Cal Response	11.01	11.02	24.84
Posttest System Cal Response	10.97	10.94	24.96
Average Cal Response (C <sub>M</sub> )	10.99	10.98	24.90
Corrected Run Average (Corr)	3.34	10.70	NA
8:17	3.40	10.76	0.00
8:18	3.27	10.82	0.00
8:19	3.42	10.75	0.00
8:20	3.36	10.78	0.00
8:21	3.31	10.80	0.00
8:22	3.27	10.83	0.00
8:23	3.30	10.82	0.00
8:29	3.28	10.84	0.00
8:30	3.32	10.82	0.00
8:31	3.23	10.89	0.00
8:32	3.32	10.83	0.00
8:33	3.38	10.80	0.00
8:34	3.41	10.80	0.00
8:35	3.47	10.77	0.00
8:36	3.42	10.79	0.02
8:37	3.44	10.77	0.06
8:38	3.44	10.79	0.10
8:39	3.45	10.80	0.13
8:40	3.38	10.83	0.18
8:41	3.34	10.86	0.23
8:42	3.29	10.90	0.28
8:43	3.25	10.93	0.33
8:44	3.27	10.92	0.39
8:45	3.31	10.90	0.43
8:46	3.31	10.91	0.48
8:47	3.26	10.92	0.54
8:48	3.34	10.87	0.57
8:49	3.37	10.83	0.60
8:50	3.46	10.79	0.63
8:51	3.40	10.80	0.64
8:52	3.36	10.82	0.60
8:53	3.32	10.83	0.34
8:54	3.38	10.79	0.00
8:55	3.32	10.81	0.00
8:56	3.35	10.78	0.00
8:57	3.28	10.82	0.02
8:58	3.31	10.79	0.26
8:59	3.29	10.80	0.40
9:00	3.35	10.75	0.48
9:01	3.27	10.78	0.52
9:02	3.36	10.72	0.56
9:03	3.48	10.66	0.56
9:04	3.32	10.76	0.55
9:05	3.30	10.76	0.57
9:06	3.27	10.76	0.58
9:07	3.36	10.71	0.59
9:08	3.30	10.74	0.57
9:09	3.31	10.73	0.56
9:10	3.30	10.74	0.56
9:11	3.21	10.79	0.57



Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/12/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.30	10.71	0.23
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	-0.04	0.05	-0.04
Posttest System Zero Response	-0.04	0.08	-0.04
Average Zero Response (C <sub>0</sub> )	-0.04	0.07	-0.04
Pretest System Cal Response	11.01	11.02	24.84
Posttest System Cal Response	10.97	10.94	24.96
Average Cal Response (C <sub>M</sub> )	10.99	10.98	24.90
Corrected Run Average (Corr)	3.34	10.70	NA
9:12	3.29	10.73	0.57
9:13	3.25	10.76	0.56
9:14	3.25	10.75	0.54
9:15	3.35	10.70	0.55
9:16	3.16	10.80	0.55
9:17	3.29	10.73	0.55
9:18	3.30	10.72	0.57
9:19	3.21	10.77	0.57
9:20	3.30	10.72	0.57
9:21	3.25	10.73	0.59
9:22	3.22	10.74	0.61
9:23	3.28	10.71	0.60
9:24	3.28	10.70	0.73
9:33	3.34	10.64	0.00
9:34	3.23	10.71	0.00
9:35	3.20	10.70	0.00
9:36	3.29	10.66	0.00
9:37	3.29	10.66	0.00
9:38	3.23	10.68	0.00
9:39	3.43	10.56	0.00
9:40	3.41	10.57	0.00
9:41	3.36	10.59	0.00
9:42	3.29	10.63	0.00
9:43	3.27	10.64	0.00
9:44	3.30	10.62	0.00
9:45	3.26	10.65	0.00
9:46	3.30	10.63	0.00
9:47	3.28	10.64	0.00
9:48	3.23	10.67	0.00
9:49	3.21	10.68	0.00
9:50	3.32	10.62	0.00
9:51	3.29	10.65	0.00
9:52	3.22	10.68	0.00
9:53	3.35	10.60	0.00
9:54	3.24	10.68	0.00
9:55	3.24	10.66	0.00
9:56	3.35	10.62	0.00
9:57	3.28	10.67	0.00
9:58	3.21	10.70	0.00
9:59	3.33	10.63	0.00
10:00	3.22	10.70	0.00
10:01	3.26	10.67	0.00
10:02	3.27	10.68	0.00
10:03	3.30	10.65	0.00
10:04	3.25	10.68	0.00
10:05	3.31	10.65	0.00
10:06	3.25	10.69	0.00
10:07	3.30	10.67	0.00
10:08	3.40	10.61	0.00
10:09	3.44	10.59	0.00

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/12/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.30	10.71	0.23
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	-0.04	0.05	-0.04
Posttest System Zero Response	-0.04	0.08	-0.04
Average Zero Response (C <sub>0</sub> )	-0.04	0.07	-0.04
Pretest System Cal Response	11.01	11.02	24.84
Posttest System Cal Response	10.97	10.94	24.96
Average Cal Response (C <sub>M</sub> )	10.99	10.98	24.90
Corrected Run Average (Corr)	3.34	10.70	NA
10:10	3.32	10.67	0.00
10:11	3.26	10.68	0.00
10:12	3.40	10.59	0.00
10:13	3.27	10.67	0.00
10:14	3.26	10.69	0.00
10:15	3.29	10.68	0.00
10:16	3.23	10.70	0.00
10:17	3.26	10.69	0.00
10:18	3.22	10.71	0.00
10:19	3.29	10.66	0.02
10:20	3.38	10.61	0.04
10:21	3.34	10.63	0.02
10:22	3.39	10.60	0.00
10:23	3.29	10.65	0.00
10:27	3.23	10.67	0.06
10:28	3.25	10.64	0.07
10:29	3.25	10.64	0.08
10:30	3.25	10.65	0.10
10:31	3.23	10.64	0.14
10:32	3.29	10.61	0.15
10:33	3.24	10.63	0.16
10:34	3.25	10.63	0.17
10:35	3.23	10.64	0.20
10:36	3.23	10.64	0.21
10:37	3.29	10.60	0.24
10:38	3.23	10.63	0.22
10:39	3.26	10.62	0.21
10:40	3.20	10.65	0.23
10:41	3.19	10.64	0.24
10:42	3.25	10.61	0.23
10:43	3.23	10.62	0.24
10:44	3.22	10.63	0.30
10:45	3.24	10.60	0.27
10:46	3.30	10.58	0.24
10:47	3.28	10.59	0.25
10:48	3.27	10.61	0.26
10:49	3.21	10.64	0.27
10:50	3.26	10.61	0.27
10:51	3.26	10.60	0.26
10:52	3.26	10.59	0.29
10:53	3.22	10.63	0.30
10:54	3.27	10.58	0.33
10:55	3.30	10.58	0.34
10:56	3.24	10.62	0.31
10:57	3.28	10.59	0.33
10:58	3.25	10.61	0.34
10:59	3.39	10.53	0.38
11:00	3.17	10.66	0.39
11:01	3.29	10.58	0.40
11:02	3.22	10.63	0.40

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/12/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.30	10.71	0.23
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	-0.04	0.05	-0.04
Posttest System Zero Response	-0.04	0.08	-0.04
Average Zero Response (C <sub>0</sub> )	-0.04	0.07	-0.04
Pretest System Cal Response	11.01	11.02	24.84
Posttest System Cal Response	10.97	10.94	24.96
Average Cal Response (C <sub>M</sub> )	10.99	10.98	24.90
Corrected Run Average (Corr)	3.34	10.70	NA
11:03	3.30	10.57	0.41
11:04	3.30	10.59	0.42
11:05	3.28	10.58	0.42
11:06	3.20	10.64	0.44
11:07	3.24	10.63	0.44
11:08	3.34	10.56	0.44
11:09	3.41	10.55	0.45
11:10	3.35	10.56	0.45
11:11	3.42	10.53	0.47
11:12	3.30	10.59	0.50
11:13	3.09	10.73	0.52
11:14	3.14	10.70	0.50
11:15	3.22	10.65	0.51
11:16	3.28	10.60	0.55
11:17	3.29	10.59	0.53
11:18	3.28	10.59	0.57
11:19	3.36	10.54	0.58
11:20	3.33	10.56	0.64
11:21	3.26	10.60	0.66
11:22	3.26	10.60	0.65
11:23	3.28	10.58	0.66
11:24	3.37	10.54	0.72
11:25	3.31	10.59	0.74
11:26	3.31	10.57	0.75
11:27	3.27	10.61	0.74
11:28	3.18	10.65	0.74
11:29	3.32	10.57	0.94
11:30	3.34	10.56	0.72
11:31	3.24	10.61	0.75
11:32	3.21	10.63	0.76
11:33	3.32	10.57	0.82
11:34	3.21	10.65	0.85
11:35	3.11	10.69	0.86
11:36	3.13	10.68	0.87
11:37	3.32	10.58	0.87
11:38	3.35	10.56	0.90
11:39	3.32	10.58	0.80

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/12/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
7:27	191.6	0.984	2.2	15.0
7:28	191.6	0.982	2.6	18.9
7:29	191.7	0.984	1.9	13.9
7:30	191.6	0.982	2.3	17.6
7:31	191.6	0.984	1.7	14.4
7:33	191.6	0.984	1.5	13.3
7:34	191.6	0.983	2.6	17.9
7:35	191.6	0.983	2.2	17.3
7:36	191.6	0.983	2.4	15.9
7:37	191.6	0.983	2.7	15.9
7:38	191.6	0.983	2.1	17.7
7:39	191.6	0.983	2.8	15.5
7:40	191.6	0.983	2.3	18.0
7:41	191.6	0.984	2.1	14.4
7:42	191.7	0.983	2.0	14.4
7:43	191.6	0.983	2.5	18.5
7:44	191.6	0.984	2.2	14.3
7:45	191.7	0.982	2.1	19.8
7:46	191.6	0.984	2.6	15.5
7:47	191.7	0.984	1.9	14.0
7:48	191.7	0.983	2.5	16.2
7:49	191.7	0.983	2.2	15.9
7:50	191.7	0.984	2.4	15.3
7:51	191.7	0.983	2.7	14.4
7:52	191.6	0.983	2.1	18.5
7:54	191.6	0.982	1.8	18.4
7:55	191.6	0.982	2.4	18.9
7:56	191.7	0.984	2.3	15.5
7:57	191.7	0.983	2.4	16.2
7:58	191.7	0.984	2.5	17.1
7:59	191.7	0.984	2.0	14.3
8:00	191.6	0.983	2.4	16.0
8:01	191.6	0.983	2.4	19.4
8:02	191.6	0.984	2.0	14.0
8:03	191.6	0.984	1.7	13.0
8:04	191.6	0.982	2.8	17.4
8:05	191.6	0.983	2.9	17.1
8:06	191.6	0.983	2.5	17.9
8:07	191.6	0.983	2.6	18.6
8:08	191.6	0.984	2.6	16.1
8:09	191.7	0.984	2.1	15.4
8:10	191.6	0.984	2.7	17.0
8:11	191.6	0.983	2.0	15.9
8:12	191.7	0.983	2.4	18.7
8:13	191.6	0.984	2.8	17.9
8:14	191.6	0.984	2.3	15.4
8:16	191.6	0.984	1.9	14.3
8:17	191.6	0.985	1.7	13.2
8:18	191.6	0.982	2.0	18.9
8:19	191.6	0.984	1.9	15.8
8:20	191.6	0.984	1.9	14.2
8:21	191.6	0.982	2.0	18.6
8:22	191.6	0.983	1.9	17.9
8:23	191.6	0.984	1.9	16.2
8:29	191.6	0.983	2.1	16.7
8:30	191.6	0.984	2.6	15.6
8:31	191.6	0.983	2.6	19.4
8:32	191.6	0.984	1.6	14.7
8:33	191.6	0.984	1.9	15.9

Location: BASF Corporation - Pasadena, TX

Source: F-10 Boiler EPN 84

Project No.: AST-2024-2352

Date: 6/12/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
8:34	191.6	0.984	2.2	16.3
8:35	191.6	0.984	2.2	19.5
8:36	191.6	0.985	2.2	15.2
8:38	191.6	0.984	2.2	16.0
8:39	191.6	0.985	2.4	16.5
8:40	191.6	0.985	2.2	15.1
8:41	191.7	0.984	2.6	16.9
8:42	191.6	0.985	2.0	15.2
8:43	191.7	0.984	2.3	15.1
8:44	191.7	0.985	2.4	15.6
8:45	191.7	0.984	2.7	17.5
8:46	191.7	0.985	2.1	15.5
8:47	191.7	0.985	2.9	14.5
8:48	191.7	0.984	2.2	18.1
8:49	191.6	0.985	1.9	18.3
8:50	191.6	0.986	1.6	14.3
8:51	191.7	0.985	2.2	15.2
8:52	191.7	0.984	2.6	19.5
8:53	191.7	0.985	1.6	15.7
8:54	191.7	0.985	2.9	17.6
8:55	191.7	0.985	2.8	16.5
8:56	191.7	0.986	2.0	15.2
8:57	191.7	0.985	2.5	16.5
8:58	191.7	0.984	3.0	19.0
9:00	191.7	0.986	2.1	16.4
9:01	191.7	0.986	1.7	14.8
9:02	191.6	0.985	2.3	17.7
9:03	191.6	0.986	1.9	15.6
9:04	191.7	0.986	2.2	14.6
9:05	191.6	0.984	2.4	16.3
9:06	191.6	0.985	2.1	19.2
9:07	191.6	0.985	2.4	16.1
9:08	191.6	0.985	2.2	16.5
9:09	191.6	0.985	1.8	16.4
9:10	191.6	0.985	2.5	16.2
9:11	191.6	0.985	2.6	17.2
9:12	191.6	0.985	2.4	15.8
9:13	191.6	0.985	2.5	16.2
9:14	191.6	0.985	2.9	17.6
9:15	191.6	0.985	2.4	15.8
9:16	191.6	0.985	2.3	15.6
9:17	191.6	0.985	2.0	18.3
9:18	191.6	0.985	2.4	16.1
9:19	191.7	0.985	2.0	16.0
9:20	191.6	0.984	2.0	20.3
9:22	191.7	0.986	2.5	15.4
9:23	191.7	0.985	2.3	15.0
9:24	191.7	0.985	2.0	18.7
9:33	191.6	0.985	2.1	17.9
9:34	191.6	0.986	2.3	15.0
9:35	191.7	0.985	2.5	15.6
9:36	191.7	0.986	2.4	16.3
9:37	191.7	0.985	2.1	15.7
9:38	191.6	0.985	2.8	16.9
9:39	191.6	0.986	2.7	16.3
9:40	191.6	0.984	2.1	17.7
9:41	191.6	0.985	2.4	16.9
9:42	191.6	0.985	2.4	15.8
9:44	191.6	0.985	2.2	18.3

Location: BASF Corporation - Pasadena, TX

Source: F-10 Boiler EPN 84

Project No.: AST-2024-2352

Date: 6/12/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
9:45	191.6	0.985	1.9	16.6
9:46	191.6	0.985	2.6	16.2
9:47	191.6	0.986	2.7	16.9
9:48	191.6	0.985	2.2	15.1
9:49	191.6	0.986	2.3	14.6
9:50	191.7	0.985	2.5	16.9
9:51	191.6	0.985	2.4	17.1
9:52	191.7	0.985	2.4	15.9
9:53	191.7	0.985	3.0	17.2
9:54	191.6	0.985	3.0	17.1
9:55	191.6	0.986	2.1	15.7
9:56	191.7	0.986	2.4	15.0
9:57	191.6	0.985	2.6	16.7
9:58	191.6	0.984	2.0	19.3
9:59	191.6	0.985	2.0	18.4
10:00	191.7	0.986	2.3	17.2
10:01	191.7	0.986	2.7	15.1
10:02	191.7	0.986	1.8	14.4
10:03	191.7	0.985	1.9	17.8
10:05	191.7	0.986	2.2	17.6
10:06	191.7	0.985	2.8	16.1
10:07	191.7	0.986	2.2	15.5
10:08	191.7	0.985	2.9	16.9
10:09	191.7	0.986	2.2	16.7
10:10	191.7	0.986	2.3	15.7
10:11	191.6	0.986	2.0	15.1
10:12	191.7	0.985	2.5	17.0
10:13	191.7	0.985	3.1	17.6
10:14	191.7	0.986	1.7	15.0
10:15	191.7	0.984	2.0	19.5
10:16	191.7	0.985	2.3	16.4
10:17	191.7	0.985	2.6	15.2
10:18	191.7	0.986	2.6	15.0
10:19	191.7	0.985	2.3	14.9
10:20	191.7	0.986	2.3	16.5
10:21	191.7	0.984	2.3	20.6
10:22	191.7	0.986	2.6	17.6
10:23	191.7	0.986	2.4	15.4
10:27	191.7	0.985	2.0	16.7
10:28	191.6	0.986	2.6	15.1
10:29	191.7	0.986	2.2	15.6
10:30	191.6	0.986	2.6	15.7
10:31	191.7	0.985	1.8	18.9
10:32	191.7	0.985	1.9	16.4
10:33	191.6	0.986	2.4	15.3
10:34	191.7	0.985	2.6	16.8
10:35	191.7	0.985	2.9	16.4
10:36	191.7	0.984	2.7	18.7
10:37	191.7	0.985	2.3	16.2
10:38	191.6	0.984	2.0	19.9
10:39	191.6	0.985	2.4	16.7
10:40	191.6	0.985	3.3	17.8
10:41	191.6	0.986	2.3	16.9
10:42	191.6	0.986	2.2	15.5
10:43	191.7	0.985	2.3	14.5
10:44	191.6	0.985	2.5	16.7
10:45	191.6	0.985	2.5	15.9
10:46	191.6	0.986	2.1	15.0
10:47	191.6	0.985	2.1	18.2

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/12/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
10:49	191.6	0.985	1.9	15.8
10:50	191.6	0.985	2.8	14.4
10:51	191.6	0.984	2.9	17.4
10:52	191.6	0.984	2.4	20.1
10:53	191.7	0.986	2.6	17.2
10:54	191.7	0.985	2.3	15.6
10:55	191.7	0.985	2.0	18.8
10:56	191.7	0.985	2.1	19.0
10:57	191.7	0.986	2.5	16.2
10:58	191.7	0.986	2.8	15.1
10:59	191.7	0.986	2.3	14.3
11:00	191.7	0.985	2.7	16.7
11:01	191.7	0.986	2.3	16.9
11:02	191.7	0.985	2.7	15.8
11:03	191.7	0.986	3.0	14.8
11:04	191.7	0.985	2.1	16.0
11:05	191.7	0.985	2.1	19.1
11:06	191.7	0.985	3.0	17.2
11:07	191.7	0.985	2.3	16.2
11:08	191.7	0.985	2.4	15.5
11:09	191.7	0.984	1.8	18.9
11:11	191.7	0.985	2.3	16.2
11:12	191.7	0.985	2.4	16.6
11:13	191.7	0.985	2.3	16.0
11:14	191.7	0.985	2.6	18.3
11:15	191.7	0.985	2.2	19.7
11:16	191.7	0.985	2.7	16.8
11:17	191.7	0.986	2.2	15.0
11:18	191.7	0.986	2.0	14.6
11:19	191.7	0.985	2.4	17.9
11:20	191.7	0.985	3.0	16.2
11:21	191.7	0.986	2.2	15.3
11:22	191.7	0.985	2.6	17.0
11:23	191.7	0.985	2.6	15.9
11:24	191.7	0.985	2.7	15.3
11:25	191.7	0.984	1.8	21.2
11:26	191.6	0.985	2.4	17.4
11:27	191.6	0.986	2.9	16.0
11:28	191.6	0.986	2.4	15.5
11:29	191.6	0.985	2.3	15.4
11:30	191.6	0.984	2.4	20.2
11:31	191.6	0.985	2.4	17.5
11:33	191.6	0.986	2.8	15.7
11:34	191.7	0.985	2.2	15.1
11:35	191.7	0.986	2.3	14.9
11:36	191.7	0.985	2.6	16.4
11:37	191.6	0.985	2.9	17.8
11:38	191.6	0.985	2.1	16.9
11:39	191.7	0.985	2.1	17.0
<b>Parameter</b>	<b>Temperature</b>	<b>Pressure</b>	<b>HCN - Outlet</b>	<b>BWS - Outlet</b>
<b>Run Average</b>	191.7	0.985	2.3	16.5

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/12/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.41	10.64	0.16
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	-0.04	0.08	-0.04
Posttest System Zero Response	-0.04	0.00	0.03
Average Zero Response (C <sub>0</sub> )	-0.04	0.04	-0.01
Pretest System Cal Response	10.97	10.94	24.96
Posttest System Cal Response	10.93	10.90	24.87
Average Cal Response (C <sub>M</sub> )	10.95	10.92	24.92
Corrected Run Average (Corr)	3.46	10.68	NA
12:16	3.30	10.87	0.40
12:17	3.28	10.88	0.40
12:18	3.24	10.96	0.43
12:19	3.16	10.96	0.34
12:20	3.25	10.91	0.55
12:21	3.16	10.97	0.36
12:22	3.27	10.89	0.37
12:23	3.37	10.83	0.33
12:24	3.44	10.78	0.33
12:25	3.41	10.81	0.32
12:26	3.37	10.84	0.31
12:27	3.41	10.79	0.33
12:28	3.44	10.79	0.31
12:29	3.30	10.87	0.35
12:30	3.37	10.81	0.36
12:31	3.43	10.77	0.37
12:32	3.42	10.79	0.37
12:33	3.40	10.82	0.34
12:34	3.36	10.82	0.38
12:35	3.27	10.87	0.40
12:36	3.27	10.87	0.40
12:37	3.30	11.00	0.43
12:38	3.25	10.88	0.49
12:39	3.25	10.86	0.45
12:40	3.38	10.79	0.45
12:41	3.39	10.78	0.46
12:42	3.35	10.81	0.48
12:43	3.37	10.78	0.42
12:44	3.36	10.79	0.45
12:45	3.27	10.83	0.47
12:46	3.37	10.77	0.50
12:47	3.35	10.78	0.52
12:48	3.21	10.86	0.54
12:49	3.33	10.81	0.58
12:50	3.23	10.85	0.62
12:51	3.38	10.76	0.62
12:52	3.35	10.79	0.61
12:53	3.42	10.74	0.59
12:54	3.45	10.72	0.59
12:55	3.45	10.71	0.56
12:56	3.50	10.69	0.57
12:57	3.42	10.73	0.55
12:58	3.40	10.72	0.57
12:59	3.52	10.66	0.60
13:00	3.46	10.69	0.56
13:01	3.45	10.70	0.60
13:02	3.52	10.66	0.62
13:03	3.43	10.71	0.60
13:04	3.42	10.71	0.60
13:05	3.39	10.72	0.62



Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/12/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.41	10.64	0.16
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	-0.04	0.08	-0.04
Posttest System Zero Response	-0.04	0.00	0.03
Average Zero Response (C <sub>0</sub> )	-0.04	0.04	-0.01
Pretest System Cal Response	10.97	10.94	24.96
Posttest System Cal Response	10.93	10.90	24.87
Average Cal Response (C <sub>M</sub> )	10.95	10.92	24.92
Corrected Run Average (Corr)	3.46	10.68	NA
13:06	3.44	10.69	0.58
13:07	3.46	10.67	0.59
13:08	3.49	10.66	0.58
13:09	3.45	10.67	0.61
13:10	3.41	10.68	0.62
13:11	3.57	10.60	0.62
13:12	3.47	10.68	0.63
13:13	3.39	10.71	0.74
13:14	3.51	10.64	0.72
13:19	3.43	10.67	0.22
13:20	3.50	10.62	0.20
13:21	3.49	10.64	0.02
13:22	3.46	10.65	0.00
13:23	3.48	10.65	0.00
13:24	3.49	10.63	0.04
13:25	3.39	10.68	0.00
13:26	3.51	10.61	0.00
13:27	3.44	10.66	0.02
13:28	3.37	10.69	0.00
13:29	3.35	10.70	0.01
13:30	3.28	10.73	0.00
13:31	3.26	10.75	0.00
13:32	3.25	10.75	0.00
13:33	3.29	10.73	0.00
13:34	3.25	10.75	0.00
13:35	3.38	10.67	0.00
13:36	3.38	10.68	0.03
13:37	3.37	10.68	0.04
13:38	3.40	10.66	0.05
13:39	3.46	10.63	0.05
13:40	3.42	10.64	0.07
13:41	3.43	10.65	0.03
13:42	3.46	10.63	0.06
13:43	3.44	10.63	0.06
13:44	3.40	10.65	0.11
13:45	3.45	10.62	0.07
13:46	3.53	10.57	0.10
13:47	3.53	10.59	0.06
13:48	3.37	10.69	0.09
13:49	3.28	10.72	0.12
13:50	3.32	10.71	0.18
13:51	3.29	10.74	0.21
13:52	3.26	10.75	0.21
13:53	3.40	11.00	0.22
13:54	3.37	10.69	0.21
13:55	3.33	10.72	0.17
13:56	3.37	10.69	0.33
13:57	3.45	10.63	0.16
13:58	3.40	10.66	0.43
13:59	3.45	10.63	0.19

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/12/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.41	10.64	0.16
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	-0.04	0.08	-0.04
Posttest System Zero Response	-0.04	0.00	0.03
Average Zero Response (C <sub>0</sub> )	-0.04	0.04	-0.01
Pretest System Cal Response	10.97	10.94	24.96
Posttest System Cal Response	10.93	10.90	24.87
Average Cal Response (C <sub>M</sub> )	10.95	10.92	24.92
Corrected Run Average (Corr)	3.46	10.68	NA
14:00	3.40	10.68	0.17
14:01	3.47	10.63	0.19
14:02	3.44	10.64	0.18
14:03	3.52	10.60	0.22
14:04	3.53	10.59	0.21
14:05	3.47	10.63	0.23
14:06	3.41	10.64	0.26
14:07	3.42	10.65	0.31
14:08	3.43	10.65	0.34
14:09	3.48	10.60	0.32
14:10	3.45	10.63	0.34
14:11	3.45	10.62	0.37
14:12	3.51	10.58	0.32
14:13	3.47	10.61	0.52
14:14	3.40	10.66	0.31
14:15	3.50	10.59	0.31
14:21	3.45	10.59	0.00
14:22	3.41	10.62	0.00
14:23	3.38	10.64	0.01
14:24	3.46	10.58	0.00
14:25	3.49	10.57	0.00
14:26	3.44	10.59	0.00
14:27	3.37	10.63	0.00
14:28	3.50	10.57	0.00
14:29	3.40	10.62	0.00
14:30	3.53	10.53	0.00
14:31	3.44	10.59	0.00
14:32	3.44	10.58	0.00
14:33	3.35	10.65	0.00
14:34	3.30	10.66	0.00
14:35	3.22	10.73	0.00
14:36	3.29	10.67	0.00
14:37	3.37	10.63	0.00
14:38	3.28	10.69	0.00
14:39	3.35	10.65	0.00
14:40	3.42	10.61	0.00
14:41	3.43	10.60	0.00
14:42	3.43	10.57	0.00
14:43	3.38	10.63	0.07
14:44	3.51	10.54	0.19
14:45	3.45	10.58	0.00
14:46	3.37	10.63	0.00
14:47	3.37	10.63	0.01
14:48	3.41	10.59	0.04
14:49	3.44	10.57	0.00
14:50	3.46	10.57	0.00
14:51	3.47	10.57	0.00
14:52	3.45	10.58	0.00
14:53	3.46	10.57	0.00
14:54	3.45	10.57	0.00

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/12/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.41	10.64	0.16
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	-0.04	0.08	-0.04
Posttest System Zero Response	-0.04	0.00	0.03
Average Zero Response (C <sub>0</sub> )	-0.04	0.04	-0.01
Pretest System Cal Response	10.97	10.94	24.96
Posttest System Cal Response	10.93	10.90	24.87
Average Cal Response (C <sub>M</sub> )	10.95	10.92	24.92
Corrected Run Average (Corr)	3.46	10.68	NA
14:55	3.48	10.56	0.00
14:56	3.48	10.55	0.02
14:57	3.45	10.56	0.00
14:58	3.45	10.56	0.00
14:59	3.42	10.57	0.00
15:00	3.45	10.56	0.00
15:01	3.50	10.52	0.00
15:02	3.45	10.56	0.00
15:03	3.42	10.57	0.00
15:04	3.44	10.56	0.00
15:05	3.51	10.52	0.00
15:06	3.51	10.52	0.00
15:07	3.46	10.56	0.00
15:08	3.48	10.54	0.00
15:09	3.47	10.54	0.00
15:10	3.45	10.56	0.00
15:11	3.39	10.59	0.00
15:12	3.46	10.55	0.00
15:13	3.45	10.55	0.00
15:14	3.50	10.51	0.00
15:15	3.36	10.60	0.00
15:16	3.32	10.62	0.00
15:17	3.30	10.63	0.00
15:18	3.29	10.64	0.00
15:19	3.30	10.64	0.08
15:20	3.27	10.65	0.00
15:21	3.30	10.64	0.03
15:27	3.41	10.56	0.00
15:28	3.41	10.56	0.09
15:29	3.48	10.52	0.00
15:30	3.45	10.52	0.05
15:31	3.43	10.54	0.00
15:32	3.50	10.50	0.00
15:33	3.45	10.53	0.00
15:34	3.48	10.52	0.39
15:35	3.49	10.51	0.00
15:36	3.49	10.51	0.03
15:37	3.47	10.53	0.00
15:38	3.44	10.55	0.00
15:39	3.39	10.57	0.00
15:40	3.48	10.51	0.00
15:41	3.36	10.57	0.00
15:42	3.56	10.46	0.00
15:43	3.43	10.54	0.01
15:44	3.31	10.59	0.00
15:45	3.33	10.58	0.02
15:46	3.48	10.48	0.00
15:47	3.54	10.47	0.06
15:48	3.38	10.55	0.00
15:49	3.43	10.51	0.00

Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date: 6/12/24

Time Unit Status	O <sub>2</sub> - Outlet % dry Valid	CO <sub>2</sub> - Outlet % dry Valid	THC - Outlet ppmvw Valid
Uncorrected Run Average (C <sub>obs</sub> )	3.41	10.64	0.16
Cal Gas Concentration (C <sub>MA</sub> )	11.00	10.97	25.00
Pretest System Zero Response	-0.04	0.08	-0.04
Posttest System Zero Response	-0.04	0.00	0.03
Average Zero Response (C <sub>0</sub> )	-0.04	0.04	-0.01
Pretest System Cal Response	10.97	10.94	24.96
Posttest System Cal Response	10.93	10.90	24.87
Average Cal Response (C <sub>M</sub> )	10.95	10.92	24.92
Corrected Run Average (Corr)	3.46	10.68	NA
15:50	3.42	10.51	0.00
15:51	3.51	10.46	0.00
15:52	3.51	10.46	0.00
15:53	3.47	10.48	0.00
15:54	3.42	10.51	0.00
15:55	3.48	10.47	0.00
15:56	3.46	10.48	0.00
15:57	3.44	10.48	0.00
15:58	3.48	10.47	0.00
15:59	3.50	10.45	0.00
16:00	3.46	10.48	0.00
16:01	3.39	10.52	0.00
16:02	3.38	10.52	0.09
16:03	3.34	10.54	0.03
16:04	3.34	10.55	0.00
16:05	3.40	10.51	0.00
16:06	3.43	10.50	0.03
16:07	3.45	10.49	0.00
16:08	3.44	10.49	0.00
16:09	3.42	10.50	0.00
16:10	3.44	10.49	0.00
16:11	3.44	10.50	0.00
16:12	3.47	10.49	0.02
16:13	3.46	10.50	0.03
16:14	3.44	10.50	0.00
16:15	3.40	10.53	0.00
16:16	3.45	10.50	0.00
16:17	3.45	10.50	0.00
16:18	3.42	10.53	0.00
16:19	3.46	10.51	0.00
16:20	3.51	10.48	0.00
16:21	3.46	10.52	0.00
16:22	3.50	10.49	0.00
16:23	3.41	10.53	0.00
16:24	3.49	10.48	0.00
16:25	3.53	10.47	0.00
16:26	3.48	10.51	0.16

Location: BASF Corporation - Pasadena, TX

Source: F-10 Boiler EPN 84

Project No.: AST-2024-2352

Date: 6/12/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
12:16	191.7	0.986	2.2	10.6
12:17	191.7	0.986	2.9	12.2
12:18	191.7	0.986	2.4	13.9
12:19	191.7	0.986	2.4	13.5
12:20	191.7	0.986	2.3	14.8
12:21	191.8	0.985	2.5	14.2
12:22	191.7	0.984	2.4	19.4
12:23	191.7	0.985	3.4	17.4
12:24	191.7	0.986	2.8	14.8
12:25	191.7	0.986	2.8	13.9
12:26	191.7	0.985	2.4	13.9
12:27	191.7	0.983	2.7	18.5
12:28	191.7	0.985	2.8	18.1
12:30	191.7	0.985	3.3	16.2
12:31	191.7	0.985	3.1	16.5
12:32	191.7	0.985	3.8	16.3
12:33	191.7	0.985	3.3	14.5
12:34	191.7	0.983	3.0	19.9
12:35	191.7	0.985	2.3	18.5
12:36	191.7	0.985	3.9	15.9
12:37	191.7	0.986	2.5	14.4
12:38	191.7	0.986	3.0	13.7
12:39	191.7	0.986	2.2	14.1
12:40	191.7	0.985	2.4	15.7
12:41	191.6	0.983	2.8	20.7
12:42	191.6	0.985	2.7	18.0
12:43	191.6	0.986	3.9	16.2
12:44	191.7	0.986	3.4	15.1
12:45	191.6	0.985	3.3	14.8
12:46	191.7	0.986	2.7	14.4
12:47	191.6	0.985	3.1	16.2
12:48	191.7	0.984	3.1	18.9
12:49	191.6	0.985	3.0	18.4
12:50	191.6	0.986	2.2	14.6
12:52	191.6	0.985	3.0	15.1
12:53	191.6	0.985	3.5	16.0
12:54	191.7	0.984	2.7	16.7
12:55	191.6	0.984	3.7	18.6
12:56	191.7	0.985	2.9	17.2
12:57	191.7	0.984	2.8	19.7
12:58	191.7	0.985	3.6	15.5
12:59	191.7	0.985	2.7	16.3
13:00	191.7	0.985	3.2	15.2
13:01	191.7	0.985	3.2	15.3
13:02	191.7	0.985	3.7	17.0
13:03	191.7	0.985	3.4	17.4
13:04	191.7	0.986	3.0	15.4
13:05	191.7	0.985	3.0	14.9
13:06	191.6	0.985	3.7	16.4
13:07	191.7	0.984	2.7	17.4
13:08	191.7	0.985	3.7	17.2
13:09	191.7	0.985	3.3	15.8
13:10	191.6	0.985	2.6	14.7
13:11	191.6	0.985	3.3	14.9
13:12	191.6	0.983	3.0	21.5
13:14	191.6	0.985	3.7	16.5
13:19	191.7	0.983	2.9	21.0
13:20	191.6	0.985	2.5	18.0
13:21	191.6	0.985	3.3	16.2

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/12/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
13:22	191.6	0.986	3.0	15.1
13:23	191.6	0.984	3.4	16.5
13:24	191.6	0.985	2.8	15.8
13:25	191.6	0.986	3.5	14.3
13:26	191.7	0.985	1.9	14.5
13:27	191.6	0.984	2.7	18.5
13:28	191.6	0.984	3.3	18.2
13:29	191.6	0.984	3.0	16.5
13:30	191.6	0.985	3.5	16.9
13:31	191.7	0.984	3.6	16.2
13:32	191.6	0.984	3.2	19.0
13:33	191.7	0.985	3.3	15.4
13:34	191.7	0.985	3.2	14.3
13:36	191.6	0.985	2.9	14.0
13:37	191.7	0.983	3.4	17.4
13:38	191.6	0.985	3.6	16.4
13:39	191.6	0.985	2.9	15.5
13:40	191.6	0.985	3.1	15.6
13:41	191.6	0.983	3.2	21.6
13:42	191.6	0.985	2.8	16.8
13:43	191.7	0.985	3.0	15.5
13:44	191.7	0.985	3.4	15.4
13:45	191.7	0.985	3.3	15.0
13:46	191.7	0.983	3.4	18.3
13:47	191.7	0.984	2.8	16.9
13:48	191.7	0.985	3.6	15.8
13:49	191.6	0.984	2.8	17.7
13:50	191.6	0.984	3.5	16.2
13:51	191.7	0.985	3.6	14.5
13:52	191.6	0.984	3.6	17.6
13:53	191.6	0.985	3.4	15.5
13:54	191.7	0.984	3.3	15.9
13:55	191.7	0.984	3.8	16.9
13:56	191.6	0.984	3.7	16.7
13:58	191.7	0.984	3.6	17.8
13:59	191.6	0.984	3.2	16.8
14:00	191.6	0.984	3.7	16.2
14:01	191.6	0.985	3.4	15.6
14:02	191.7	0.984	3.5	16.6
14:03	191.7	0.985	2.7	14.8
14:04	191.7	0.985	2.1	14.6
14:05	191.7	0.984	3.7	16.7
14:06	191.7	0.984	3.2	16.5
14:07	191.6	0.983	3.2	20.1
14:08	191.6	0.984	3.2	18.2
14:09	191.6	0.985	4.1	15.6
14:10	191.7	0.985	3.4	14.4
14:11	191.7	0.984	3.2	14.9
14:12	191.7	0.984	3.5	17.9
14:13	191.7	0.985	3.3	15.9
14:14	191.7	0.984	3.1	16.5
14:15	191.7	0.984	3.7	17.0
14:21	191.7	0.984	3.2	15.9
14:22	191.6	0.985	3.4	14.8
14:23	191.7	0.984	2.7	15.4
14:24	191.6	0.984	3.4	17.8
14:25	191.7	0.984	4.0	15.3
14:26	191.7	0.984	4.1	15.8
14:27	191.7	0.984	3.6	15.1

Location: BASF Corporation - Pasadena, TX

Source: F-10 Boiler EPN 84

Project No.: AST-2024-2352

Date: 6/12/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
14:28	191.7	0.984	3.2	17.1
14:29	191.6	0.984	3.3	17.8
14:30	191.6	0.984	3.0	16.1
14:31	191.7	0.984	3.8	16.4
14:32	191.6	0.983	3.2	19.8
14:33	191.7	0.984	3.7	15.3
14:34	191.7	0.984	4.0	15.2
14:35	191.7	0.984	3.4	15.1
14:36	191.7	0.983	3.6	17.5
14:37	191.7	0.984	3.2	17.2
14:38	191.7	0.984	3.4	15.3
14:39	191.7	0.985	3.4	14.2
14:41	191.7	0.983	3.0	18.7
14:42	191.7	0.984	3.2	16.3
14:43	191.7	0.984	3.1	15.6
14:44	191.7	0.983	3.8	17.0
14:45	191.7	0.984	3.3	15.9
14:46	191.7	0.983	4.1	16.9
14:47	191.7	0.983	3.9	16.9
14:48	191.7	0.983	3.6	17.6
14:49	191.7	0.984	3.4	16.3
14:50	191.7	0.984	3.5	16.8
14:51	191.7	0.984	3.3	16.0
14:52	191.7	0.983	3.2	17.8
14:53	191.7	0.984	4.1	16.2
14:54	191.7	0.984	3.5	16.6
14:55	191.7	0.984	3.6	15.3
14:56	191.7	0.984	3.1	16.0
14:57	191.7	0.983	2.4	17.8
14:58	191.7	0.984	3.0	16.0
14:59	191.7	0.983	3.0	18.6
15:00	191.7	0.984	3.4	16.1
15:01	191.7	0.983	3.8	16.6
15:03	191.7	0.983	3.2	19.1
15:04	191.7	0.984	2.9	16.3
15:05	191.7	0.983	3.7	16.4
15:06	191.7	0.984	3.7	15.1
15:07	191.7	0.983	3.4	17.1
15:08	191.7	0.984	3.2	15.3
15:09	191.7	0.982	3.0	19.4
15:10	191.7	0.983	2.7	19.1
15:11	191.7	0.984	3.1	16.4
15:12	191.7	0.984	3.4	16.6
15:13	191.7	0.984	3.2	15.7
15:14	191.7	0.984	3.1	14.6
15:15	191.7	0.984	2.6	14.8
15:16	191.7	0.983	2.7	17.9
15:17	191.7	0.984	3.2	16.0
15:18	191.7	0.984	3.7	15.8
15:19	191.7	0.983	3.9	17.5
15:20	191.7	0.984	3.9	16.0
15:21	191.7	0.983	3.0	18.5
15:27	191.7	0.983	3.5	18.1
15:28	191.7	0.984	3.0	16.5
15:29	191.7	0.983	3.7	16.1
15:30	191.7	0.984	3.3	15.6
15:31	191.7	0.984	2.6	15.3
15:32	191.7	0.984	2.7	15.5
15:33	191.7	0.982	2.6	19.4

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

**Date:** 6/12/24

Time Unit MDL Status	Temperature ° C -- Valid	Pressure atm -- Valid	HCN - Outlet ppmvw 0.13 Valid	BWS - Outlet % (wet) -- Valid
15:34	191.7	0.984	3.7	16.4
15:35	191.7	0.984	2.7	14.5
15:36	191.7	0.984	3.0	14.4
15:37	191.7	0.981	3.1	19.3
15:38	191.7	0.983	3.3	17.2
15:39	191.7	0.984	3.5	15.9
15:40	191.7	0.984	3.1	15.4
15:41	191.7	0.983	3.3	17.0
15:42	191.7	0.983	3.9	16.9
15:43	191.7	0.983	4.0	18.6
15:44	191.7	0.983	3.3	16.6
15:46	191.7	0.984	3.4	15.5
15:47	191.7	0.983	3.2	16.1
15:48	191.7	0.982	3.1	19.2
15:49	191.7	0.983	3.6	17.2
15:50	191.7	0.984	3.9	15.0
15:51	191.7	0.983	3.2	15.3
15:52	191.7	0.983	3.5	15.8
15:53	191.7	0.982	3.0	21.6
15:54	191.7	0.983	3.5	17.1
15:55	191.7	0.983	3.1	16.0
15:56	191.7	0.983	3.3	15.8
15:57	191.7	0.984	3.1	15.8
15:58	191.7	0.984	3.1	14.3
15:59	191.7	0.982	2.8	17.3
16:00	191.7	0.983	3.9	19.1
16:01	191.7	0.983	2.9	17.1
16:02	191.7	0.984	3.5	15.7
16:03	191.7	0.984	3.1	14.7
16:04	191.7	0.982	2.3	17.9
16:05	191.7	0.983	3.2	17.9
16:06	191.7	0.983	2.8	15.9
16:08	191.7	0.983	3.5	15.8
16:09	191.7	0.983	4.2	15.4
16:10	191.7	0.983	3.6	14.5
16:11	191.7	0.982	3.4	18.3
16:12	191.7	0.982	2.3	20.0
16:13	191.7	0.983	3.6	16.6
16:14	191.7	0.984	2.1	14.7
16:15	191.7	0.983	2.4	15.9
16:16	191.7	0.983	2.9	14.9
16:17	191.7	0.982	3.2	16.8
16:18	191.6	0.982	2.9	21.3
16:19	191.7	0.983	3.5	16.5
16:20	191.7	0.983	3.2	15.2
16:21	191.7	0.984	2.5	14.4
16:22	191.7	0.983	2.8	14.7
16:23	191.7	0.983	3.2	15.3
16:24	191.7	0.982	2.5	17.9
16:25	191.7	0.982	2.9	20.3
16:26	191.7	0.983	3.6	16.3
<b>Parameter</b>	<b>Temperature</b>	<b>Pressure</b>	<b>HCN - Outlet</b>	<b>BWS - Outlet</b>
<b>Run Average</b>	191.7	0.984	3.2	16.4



## Appendix D


Location **BASF Corporation - Pasadena, TX**

Source **F-10 Boiler EPN 84**

Project No. **AST-2024-2352**

Parameters **PAH, PCB**

Date	Nozzle ID	Nozzle Diameter (in.)					Criteria	Material
6/4/24	GN-261	0.261	0.261	0.261	0.261	0.000	≤ 0.004 in.	glass
6/6/24	GN-249	0.249	0.249	0.249	0.249	0.000		glass
Date	Pitot ID	Evidence of damage?	Evidence of mis-alignment?	Calibration or Repair required?				
6/4/24	M508-3	no	no	no				
Date	Probe or Thermocouple ID	Reference Temp. (°F)	Indicated Temp. (°F)	Difference	Criteria	Probe Length		
6/4/24	M508-3			--	± 1.5 % (absolute)	8FT		
Field Balance Check								
Date	06/04/24	06/05/24	06/06/24	06/07/24	06/11/24	06/12/24		
Balance ID:	TOP2KG-1	TOP2KG-1	TOP2KG-1	TOP2KG-1	TOP2KG-1	TOP2KG-1		
Certified Weight ID:	HOU-1KG-7	HOU-1KG-7	HOU-1KG-7	HOU-1KG-7	HOU-1KG-7	HOU-1KG-7		
Certified Weight Expiration:	1/9/26	1/9/26	1/9/26	1/9/26	1/9/26	1/9/26		
Certified Weight (g):	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0		
Measured Weight (g):	1000.0	1000.0	1000.0	1000.0	1000.0	1000.0		
Weight Difference (g):	0.0	0.0	0.0	0.0	0.0	0.0		
Date	Barometric Pressure	Evidence of damage?	Reading Verified	Calibration or Repair required?	Weather Station Location			
6/4/24	Weather Station	NA	NA	NA	Pasadena, TX			
Date	Meter Box ID	Positive Pressure Leak Check						
6/4/24	MB-511	Pass						
Reagent Name	Lot/ID Number	Field Prep performed?	If Field Prep Performed:					
			Field Lot Number	Date Prepared	Prepared By			
Acetone	232064	No	N/A	N/A	N/A			
Toluene	234975	No	N/A	N/A	N/A			

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		Revision	23.1
		Effective Date	8/29/23
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#### Equipment Detail - Dry Gas Meter

Console ID: MB-511  
 Meter S/N: MB-511  
 Critical Orifice S/N: CO-1789

#### Calibration Detail

Initial Barometric Pressure, in. Hg	(P <sub>b</sub> )	29.72					
Final Barometric Pressure, in. Hg	(P <sub>b</sub> <sub>f</sub> )	29.72					
Average Barometric Pressure, in. Hg	(P <sub>b</sub> )	29.72					
Critical Orifice ID	(Y)	12	12	17	17	20	20
K' Factor, ft <sup>3</sup> ·R <sup>1/2</sup> / in. WC·min	(K')	0.3307	0.3307	0.4530	0.4530	0.5506	0.5506
Vacuum Pressure, in. Hg	(V <sub>p</sub> )	20.0	20.0	17.0	17.0	16.0	16.0
Initial DGM Volume, ft <sup>3</sup>	(V <sub>m</sub> )	27.203	33.725	14.870	20.915	0.000	7.230
Final DGM Volume, ft <sup>3</sup>	(V <sub>m</sub> <sub>f</sub> )	33.725	40.215	20.815	26.770	7.115	14.380
Total DGM Volume, ft <sup>3</sup>	(V <sub>m</sub> )	6.522	6.490	5.945	5.855	7.115	7.150
Ambient Temperature, °F	(T <sub>a</sub> )	77	77	77	77	77	77
Initial DGM Temperature, °F	(T <sub>m</sub> )	84	84	82	83	78	80
Final DGM Temperature, °F	(T <sub>m</sub> <sub>f</sub> )	84	85	83	84	80	82
Average DGM Temperature, °F	( T <sub>m</sub> )	84	85	83	84	79	81
Elapsed Time	(Θ)	15.00	15.00	10.00	10.00	10.00	10.00
Meter Orifice Pressure, in. WC	(ΔH)	0.65	0.65	1.20	1.20	1.70	1.70
Standard Meter volume, ft <sup>3</sup>	(V <sub>m</sub> std)	6.2990	6.2624	5.7655	5.6677	6.9535	6.9619
Standard Critical Orifice Volume, ft <sup>3</sup>	(V <sub>cr</sub> )	6.3637	6.3637	5.8115	5.8115	7.0636	7.0636
Meter Correction Factor	(Y)	1.010	1.016	1.008	1.025	1.016	1.015
Tolerance	--	0.005	0.001	0.007	0.010	0.001	0.000
Orifice Calibration Value	(ΔH @)	1.962	1.960	1.938	1.935	1.873	1.866
Tolerance	--	0.040	0.038	0.016	0.012	0.049	0.056
Orifice Cal Check	--	0.34		0.34		0.20	
Meter Correction Factor	(Y)	1.015					
Orifice Calibration Value	(ΔH @)	1.922					
Positive Pressure Leak Check		Yes					

#### Equipment Detail - Thermocouple Sensor


Reference Calibrator Make: Environmental Supply  
 Reference Calibrator Model: CL3512A  
 Reference Calibrator S/N: 18000594

#### Calibration Detail

Reference Temp.		Display Temp.		Accuracy	Absolute Difference
°F	°R	°F	°R	%	°F
0	460	1	461	-0.2	1
68	528	68	528	0.0	0
100	560	101	561	-0.2	1
223	683	223	683	0.0	0
248	708	250	710	-0.3	2
273	733	274	734	-0.1	1
300	760	303	763	-0.4	3
400	860	400	860	0.0	0
500	960	499	959	0.1	1
600	1,060	603	1,063	-0.3	3
700	1,160	701	1,161	-0.1	1
800	1,260	801	1,261	-0.1	1
900	1,360	899	1,359	0.1	1
1,000	1,460	1,002	1,462	-0.1	2
1,100	1,560	1,103	1,563	-0.2	3
1,200	1,660	1,203	1,663	-0.2	3

#### Personnel

Calibration By: Matt Brumley  
 Calibration Date: 5/16/2024  
 Reviewed By: Jason Lovell

	DGM Calibration-Orifices	Document ID	620.004
		Revision	24.0
		Effective Date	1/31/24
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#### Equipment Detail - Dry Gas Meter

Console ID: MB-511  
 Meter S/N: MB-511  
 Critical Orifice S/N: CO-1789

#### Calibration Detail

Initial Barometric Pressure, in. Hg	(P <sub>b</sub> )	29.86					
Final Barometric Pressure, in. Hg	(P <sub>bF</sub> )	29.85					
Average Barometric Pressure, in. Hg	(P <sub>b</sub> )	29.86					
Critical Orifice ID	(Y)	12	12	17	17	20	20
K' Factor, ft <sup>3</sup> ·R <sup>1/2</sup> / in. WC·min	(K')	0.3307	0.3307	0.4530	0.453	0.5506	0.551
Vacuum Pressure, in. Hg	(V <sub>p</sub> )	19.5	19.5	17.0	17.0	16.0	16.0
Initial DGM Volume, ft <sup>3</sup>	(V <sub>m</sub> )	0.000	6.611	0.000	6.162	0.000	7.380
Final DGM Volume, ft <sup>3</sup>	(V <sub>mF</sub> )	6.611	13.221	6.162	12.325	7.380	14.760
Total DGM Volume, ft <sup>3</sup>	(V <sub>m</sub> )	6.611	6.611	6.162	6.163	7.380	7.380
Ambient Temperature, °F	(T <sub>a</sub> )	85	85	85	85	85	85
Initial DGM Temperature, °F	(T <sub>m</sub> )	91	92	97	98	92	93
Final DGM Temperature, °F	(T <sub>mF</sub> )	91	92	98	98	92	93
Average DGM Temperature, °F	(T <sub>m</sub> )	91	92	98	98	92	93
Elapsed Time	(Θ)	15.00	15.00	10.00	10.00	10.00	10.00
Meter Orifice Pressure, in. WC	(ΔH)	0.65	0.65	1.23	1.23	1.78	1.78
Standard Meter volume, ft <sup>3</sup>	(V <sub>mstd</sub> )	6.3319	6.3205	5.8418	5.8375	7.0758	7.0630
Standard Critical Orifice Volume, ft <sup>3</sup>	(V <sub>cr</sub> )	6.3455	6.3455	5.7948	5.7948	7.0433	7.0433
Meter Correction Factor	(Y)	1.002	1.004	0.992	0.993	0.995	0.997
Tolerance	--	0.005	0.007	0.005	0.005	0.002	0.000
Orifice Calibration Value	(ΔH @)	1.957	1.953	1.953	1.952	1.935	1.932
Tolerance	--	0.010	0.006	0.006	0.005	0.012	0.015
Orifice Cal Check	--	1.08		1.07		0.67	
Meter Correction Factor	(Y)	0.997					
Orifice Calibration Value	(ΔH @)	1.947					
Positive Pressure Leak Check		Yes					

#### Equipment Detail - Thermocouple Sensor

Reference Calibrator Make:  
 Reference Calibrator Model:  
 Reference Calibrator S/N:

#### Calibration Detail

Reference Temp.		Display Temp.		Accuracy	Absolute Difference
°F	°R	°F	°R	%	°F
0	460	-	-	-	-
68	528	-	-	-	-
100	560	-	-	-	-
223	683	-	-	-	-
248	708	-	-	-	-
273	733	-	-	-	-
300	760	-	-	-	-
400	860	-	-	-	-
500	960	-	-	-	-
600	1,060	-	-	-	-
700	1,160	-	-	-	-
800	1,260	-	-	-	-
900	1,360	-	-	-	-
1,000	1,460	-	-	-	-
1,100	1,560	-	-	-	-
1,200	1,660	-	-	-	-

#### Personnel

Calibration By: JOHNNY WILLIAMS  
 Calibration Date: 9/13/2024  
 Reviewed By: SMM

	Pitot Calibration-Wind Tunnel	Document ID	620.002
		Revision	20.1
		Effective Date	8/26/2020
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#### Equipment Detail

Model: Type S  
ID: PT-508-3


#### Calibration Detail

Time: 13:12  
T<sub>s</sub>: 78.9 °F  
Pb: 29.90 in. Hg  
C<sub>pstd</sub>: 0.990

Flow fps	ΔPstd			High Side - "A"			Low Side - "B"		
	Standard	Start	End	ΔPs in. WC	σ Cp(a)	σ Deviation	ΔPs in. WC	σ Cp(b)	σ Deviation
	in. WC	in. WC	in. WC						
20	0.09	0.09	0.09	0.14	0.794	-0.020	0.14	0.794	-0.019
30	0.20	0.21	0.21	0.30	0.828	0.014	0.30	0.828	0.015
40	0.36	0.37	0.37	0.55	0.812	-0.002	0.54	0.819	0.006
50	0.56	0.58	0.58	0.85	0.818	0.004	0.86	0.813	0.000
60	0.81	0.83	0.83	1.20	0.823	0.009	1.20	0.823	0.010
70	1.10	1.15	1.15	1.70	0.814	0.000	1.70	0.814	0.001
80	1.43	1.50	1.50	2.20	0.817	0.003	2.25	0.808	-0.005
90	1.81	1.85	1.85	2.80	0.805	-0.009	2.80	0.805	-0.008
EPA Method 2 Section 10.1.3 QA/QC									
50	0.56	0.58	0.58	0.85	0.818	0.004	0.86	0.813	0.000
50	0.56	0.58	0.58	0.85	0.818	0.004	0.86	0.813	0.000
Average					0.814	0.008		0.813	0.008
Acceptability Criteria					--	≤ 0.01		--	≤ 0.01
					Cp(a)-Cp(b)  ≤ 0.01			Cp(a)-Cp(b)  = 0.001	

#### Personnel

Calibrated By: ERIC TEMPEST  
Calibration Date: 5/20/2024  
Reviewed By: Jason Lovell

	Pitot Calibration-Wind Tunnel	Document ID	620.002
		Revision	23.0
		Effective Date	1/25/2023
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#### Equipment Detail

Model: Type S  
ID: PT-508-3

#### Calibration Detail

Time: 11:30  
T<sub>s</sub>: 88 °F  
Pb: 30.06 in. Hg  
Std Pitot ID: 12-STD-1  
C<sub>pstd</sub>: 0.990

Flow fps	ΔPstd			High Side - "A"			Low Side - "B"		
	Standard	Start	End	ΔPs	σ	ΔPs	σ		
	in. WC	in. WC	in. WC	in. WC	Cp(a) Deviation	in. WC	Cp(b) Deviation		
20	0.09	0.09	0.09	0.14	0.794	-0.005	0.14	0.794	-0.005
30	0.20	0.20	0.21	0.29	0.832	0.033	0.30	0.818	0.019
40	0.35	0.35	0.35	0.54	0.797	-0.002	0.54	0.797	-0.002
50	0.55	0.54	0.55	0.85	0.793	-0.006	0.84	0.797	-0.002
60	0.80	0.79	0.80	1.21	0.802	0.003	1.20	0.806	0.007
70	1.08	1.09	1.10	1.72	0.790	-0.009	1.71	0.792	-0.007
80	1.42	1.41	1.41	2.20	0.793	-0.006	2.20	0.793	-0.006
90	1.79	1.80	1.80	2.80	0.794	-0.005	2.82	0.791	-0.008
EPA Method 2 Section 10.1.3 QA/QC									
50	0.55	0.56	0.58	0.85	0.811	0.012	0.85	0.811	0.012
50	0.55	0.55	0.58	0.85	0.807	0.008	0.85	0.807	0.008
Average				0.799	0.009		0.799	0.007	
Acceptability Criteria				--	≤ 0.01		--	≤ 0.01	
				Cp(a)-Cp(b) ≤ 0.01			Cp(a)-Cp(b) =	0.000	

**Location** BASF Corporation - Pasadena, TX

**Source** F-10 Boiler EPN 84

**Project No.** AST-2024-2352

Parameter	O <sub>2</sub> - Outlet	CO <sub>2</sub> - Outlet	THC - Outlet
<b>Make</b>	CAI	CAI	VIG
<b>Model</b>	700LX	700LX	20/2
<b>S/N</b>	2203010	2203010	803020
<b>Operating Range</b>	25	25	100
<b>Cylinder ID</b>			
<b>Zero</b>	NA	NA	NA
<b>Mid</b>	EB0072880	EB0072880	EB0064311
<b>High</b>	EB0069838	EB0069838	EB0064311
<b>Cylinder Certified Values</b>			
<b>Zero</b>	NA	NA	NA
<b>Mid</b>	11.00	10.97	870
<b>High</b>	22.07	21.9	870
<b>Cylinder Expiration Date</b>			
<b>Zero</b>	NA	NA	NA
<b>Mid</b>	11/1/31	11/1/31	6/19/30
<b>High</b>	12/3/31	12/3/31	6/19/30
<b>Type of Sample Line</b>	Heated Sample Line		

## Calibration Data

**Location:** BASF Corporation - Pasadena, TX  
**Source:** F-10 Boiler EPN 84  
**Project No.:** AST-2024-2352  
**Date:** 6/5/24

Parameter	O <sub>2</sub> - Outlet	CO <sub>2</sub> - Outlet	THC - Outlet
<b>Expected Average Concentration</b>	10.00	10.00	25.00
<b>Span Between</b>			
Low	10.00	10.00	37.50
High	50.00	50.00	62.50
<b>Desired Span</b>	22.07	21.90	50.00
<b>Low Range Gas</b>			
Low	NA	NA	12.50
High	NA	NA	17.50
<b>Mid Range Gas</b>			
Low	8.83	8.76	22.50
High	13.24	13.14	27.50
<b>High Range Gas</b>			
Low	NA	NA	40.00
High	NA	NA	45.00
<b>Actual Concentration (% or ppm)</b>			
Zero	0.00	0.00	0.00
Low	NA	NA	15.00
Mid	11.00	10.97	25.00
High	22.07	21.90	45.00
<b>Response Time (seconds)</b>	65.00	66.00	53.00
<b>Upscale Calibration Gas (C<sub>MA</sub>)</b>	Mid	Mid	Mid
<b>Instrument Response (% or ppm)</b>			
Zero	-0.04	0.08	-0.04
Low	NA	NA	15.09
Mid	11.02	11.00	25.16
High	22.09	21.95	44.78
<b>Performance (% of Span or Cal. Gas Conc.)</b>			
Zero	0.18	0.37	0.00
Low	NA	NA	1.27
Mid	0.09	0.14	1.20
High	0.09	0.23	0.00
<b>Status</b>			
Zero	PASS	PASS	PASS
Low	NA	NA	PASS
Mid	PASS	PASS	PASS
High	PASS	PASS	PASS



## Calibration Data

**Location:** BASF Corporation - Pasadena, TX  
**Source:** F-10 Boiler EPN 84  
**Project No.:** AST-2024-2352  
**Date:** 6/6/24

Parameter	O <sub>2</sub> - Outlet	CO <sub>2</sub> - Outlet	THC - Outlet
<b>Expected Average Concentration</b>	3.45	10.63	0.07
<b>Span Between</b>			
<b>Low</b>	3.45	10.63	0.10
<b>High</b>	20.00	53.15	0.17
<b>Desired Span</b>	22.07	21.90	50.00
<b>Low Range Gas</b>			
<b>Low</b>	NA	NA	12.50
<b>High</b>	NA	NA	17.50
<b>Mid Range Gas</b>			
<b>Low</b>	8.83	8.76	22.50
<b>High</b>	13.24	13.14	27.50
<b>High Range Gas</b>			
<b>Low</b>	NA	NA	40.00
<b>High</b>	NA	NA	45.00
<b>Actual Concentration (% or ppm)</b>			
<b>Zero</b>	0.00	0.00	0.00
<b>Low</b>	NA	NA	15.00
<b>Mid</b>	11.00	10.97	25.00
<b>High</b>	22.07	21.90	45.00
<b>Upscale Calibration Gas (C<sub>MA</sub>)</b>	Mid	Mid	Mid
<b>Instrument Response (% or ppm)</b>			
<b>Zero</b>	-0.04	0.06	-0.04
<b>Low</b>	NA	NA	15.39
<b>Mid</b>	11.01	11.00	24.83
<b>High</b>	22.09	21.91	45.12
<b>Performance (% of Span or Cal. Gas Conc.)</b>			
<b>Zero</b>	0.18	0.27	0.00
<b>Low</b>	NA	NA	2.51
<b>Mid</b>	0.05	0.14	-0.88
<b>High</b>	0.09	0.05	0.00
<b>Status</b>			
<b>Zero</b>	PASS	PASS	PASS
<b>Low</b>	NA	NA	PASS
<b>Mid</b>	PASS	PASS	PASS
<b>High</b>	PASS	PASS	PASS

## Calibration Data

**Location:** BASF Corporation - Pasadena, TX  
**Source:** F-10 Boiler EPN 84  
**Project No.:** AST-2024-2352  
**Date:** 6/7/24

Parameter	O <sub>2</sub> - Outlet	CO <sub>2</sub> - Outlet	THC - Outlet
<b>Expected Average Concentration</b>	3.45	10.63	0.07
<b>Span Between</b>			
<b>Low</b>	3.45	10.63	0.10
<b>High</b>	20.00	53.15	0.17
<b>Desired Span</b>	22.07	21.90	50.00
<b>Low Range Gas</b>			
<b>Low</b>	NA	NA	12.50
<b>High</b>	NA	NA	17.50
<b>Mid Range Gas</b>			
<b>Low</b>	8.83	8.76	22.50
<b>High</b>	13.24	13.14	27.50
<b>High Range Gas</b>			
<b>Low</b>	NA	NA	40.00
<b>High</b>	NA	NA	45.00
<b>Actual Concentration (% or ppm)</b>			
<b>Zero</b>	0.00	0.00	0.00
<b>Low</b>	NA	NA	15.00
<b>Mid</b>	11.00	10.97	25.00
<b>High</b>	22.07	21.90	45.00
<b>Upscale Calibration Gas (C<sub>MA</sub>)</b>	Mid	Mid	Mid
<b>Instrument Response (% or ppm)</b>			
<b>Zero</b>	0.01	0.00	-0.04
<b>Low</b>	NA	NA	14.99
<b>Mid</b>	11.01	11.01	24.86
<b>High</b>	22.10	21.90	45.04
<b>Performance (% of Span or Cal. Gas Conc.)</b>			
<b>Zero</b>	0.05	0.00	0.00
<b>Low</b>	NA	NA	0.02
<b>Mid</b>	0.05	0.18	-0.58
<b>High</b>	0.14	0.00	0.00
<b>Status</b>			
<b>Zero</b>	PASS	PASS	PASS
<b>Low</b>	NA	NA	PASS
<b>Mid</b>	PASS	PASS	PASS
<b>High</b>	PASS	PASS	PASS

## Calibration Data

**Location:** BASF Corporation - Pasadena, TX  
**Source:** F-10 Boiler EPN 84  
**Project No.:** AST-2024-2352  
**Date:** 6/11/24

Parameter	O <sub>2</sub> - Outlet	CO <sub>2</sub> - Outlet	THC - Outlet
<b>Expected Average Concentration</b>	3.45	10.63	0.07
<b>Span Between</b>			
<b>Low</b>	3.45	10.63	0.10
<b>High</b>	20.00	53.15	0.17
<b>Desired Span</b>	22.07	21.90	50.00
<b>Low Range Gas</b>			
<b>Low</b>	NA	NA	12.50
<b>High</b>	NA	NA	17.50
<b>Mid Range Gas</b>			
<b>Low</b>	8.83	8.76	22.50
<b>High</b>	13.24	13.14	27.50
<b>High Range Gas</b>			
<b>Low</b>	NA	NA	40.00
<b>High</b>	NA	NA	45.00
<b>Actual Concentration (% or ppm)</b>			
<b>Zero</b>	0.00	0.00	0.00
<b>Low</b>	NA	NA	15.00
<b>Mid</b>	11.00	10.97	25.00
<b>High</b>	22.07	21.90	45.00
<b>Upscale Calibration Gas (C<sub>MA</sub>)</b>	Mid	Mid	Mid
<b>Instrument Response (% or ppm)</b>			
<b>Zero</b>	0.00	0.00	-0.04
<b>Low</b>	NA	NA	14.86
<b>Mid</b>	11.01	11.01	25.34
<b>High</b>	22.12	21.90	45.08
<b>Performance (% of Span or Cal. Gas Conc.)</b>			
<b>Zero</b>	0.00	0.00	0.00
<b>Low</b>	NA	NA	-0.93
<b>Mid</b>	0.05	0.18	1.25
<b>High</b>	0.23	0.00	0.00
<b>Status</b>			
<b>Zero</b>	PASS	PASS	PASS
<b>Low</b>	NA	NA	PASS
<b>Mid</b>	PASS	PASS	PASS
<b>High</b>	PASS	PASS	PASS

## Calibration Data

**Location:** BASF Corporation - Pasadena, TX  
**Source:** F-10 Boiler EPN 84  
**Project No.:** AST-2024-2352  
**Date:** 6/12/24

Parameter	O <sub>2</sub> - Outlet	CO <sub>2</sub> - Outlet	THC - Outlet
<b>Expected Average Concentration</b>	3.45	10.63	0.07
<b>Span Between</b>			
Low	3.45	10.63	0.10
High	20.00	53.15	0.17
<b>Desired Span</b>	22.07	21.90	50.00
<b>Low Range Gas</b>			
Low	NA	NA	12.50
High	NA	NA	17.50
<b>Mid Range Gas</b>			
Low	8.83	8.76	22.50
High	13.24	13.14	27.50
<b>High Range Gas</b>			
Low	NA	NA	40.00
High	NA	NA	45.00
<b>Actual Concentration (% or ppm)</b>			
Zero	0.00	0.00	0.00
Low	NA	NA	15.00
Mid	11.00	10.97	25.00
High	22.07	21.90	45.00
<b>Upscale Calibration Gas (C<sub>MA</sub>)</b>	Mid	Mid	Mid
<b>Instrument Response (% or ppm)</b>			
Zero	-0.04	0.00	-0.04
Low	NA	NA	14.92
Mid	11.00	10.98	24.84
High	22.08	21.89	44.98
<b>Performance (% of Span or Cal. Gas Conc.)</b>			
Zero	0.18	0.00	0.00
Low	NA	NA	-0.31
Mid	0.00	0.05	-0.52
High	0.05	0.05	0.00
<b>Status</b>			
Zero	PASS	PASS	PASS
Low	NA	NA	PASS
Mid	PASS	PASS	PASS
High	PASS	PASS	PASS

## Bias/Drift Determinations

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

Parameter	O <sub>2</sub> - Outlet	CO <sub>2</sub> - Outlet	THC - Outlet
<b>Run 2    Date            6/5/24</b>			
Span Value	22.07	21.90	50.00
Initial Instrument Zero Cal Response	-0.04	0.08	-0.04
Initial Instrument Upscale Cal Response	11.02	11.00	25.16
Pretest System Zero Response	0.01	-0.03	-0.04
Posttest System Zero Response	0.01	0.02	0.09
Pretest System Upscale Response	11.06	11.02	25.16
Posttest System Upscale Response	11.01	10.96	25.03
Bias (%)			
Pretest Zero	0.23	-0.50	NA
Posttest Zero	0.23	-0.27	NA
Pretest Span	0.18	0.09	NA
Posttest Span	-0.05	-0.18	NA
Drift (%)			
Zero	0.00	0.23	0.26
Mid	-0.23	-0.27	-0.26
<b>Run 3    Date            6/6/24</b>			
Span Value	22.07	21.90	50.00
Instrument Zero Cal Response	-0.04	0.06	-0.04
Instrument Upscale Cal Response	11.01	11.00	24.83
Pretest System Zero Response	0.02	0.05	-0.04
Posttest System Zero Response	-0.04	0.15	-0.03
Pretest System Upscale Response	11.09	10.98	24.83
Posttest System Upscale Response	11.03	11.03	24.85
Bias (%)			
Pretest Zero	0.27	-0.05	NA
Posttest Zero	0.00	0.41	NA
Pretest Span	0.36	-0.09	NA
Posttest Span	0.09	0.14	NA
Drift (%)			
Zero	-0.27	0.46	0.02
Mid	-0.27	0.23	0.04
<b>Run 4    Date            6/6/24</b>			
Span Value	22.07	21.90	50.00
Instrument Zero Cal Response	-0.04	0.06	-0.04
Instrument Upscale Cal Response	11.01	11.00	24.83
Pretest System Zero Response	-0.04	0.15	-0.03
Posttest System Zero Response	-0.04	-0.01	-0.04
Pretest System Upscale Response	11.03	11.03	24.85
Posttest System Upscale Response	11.02	10.99	24.82
Bias (%)			
Pretest Zero	0.00	0.41	NA
Posttest Zero	0.00	-0.32	NA
Pretest Span	0.09	0.14	NA
Posttest Span	0.05	-0.05	NA
Drift (%)			
Zero	0.00	-0.73	-0.02
Mid	-0.05	-0.18	-0.06

## Bias/Drift Determinations

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

Parameter	O <sub>2</sub> - Outlet	CO <sub>2</sub> - Outlet	THC - Outlet
<b>Run 5    Date        6/7/24</b>			
Span Value	22.07	21.90	50.00
Instrument Zero Cal Response	0.01	0.00	-0.04
Instrument Upscale Cal Response	11.01	11.01	24.86
Pretest System Zero Response	0.04	0.09	-0.04
Posttest System Zero Response	-0.04	0.10	0.07
Pretest System Upscale Response	11.03	11.00	24.86
Posttest System Upscale Response	10.96	11.01	25.57
Bias (%)			
Pretest Zero	0.14	0.41	NA
Posttest Zero	0.23	0.46	NA
Pretest Span	0.09	0.05	NA
Posttest Span	0.23	0.00	NA
Drift (%)			
Zero	-0.36	0.05	0.22
Mid	-0.32	0.05	1.42
<b>Run 6    Date        6/11/24</b>			
Span Value	22.07	21.90	50.00
Instrument Zero Cal Response	0.00	0.00	-0.04
Instrument Upscale Cal Response	11.01	11.01	25.34
Pretest System Zero Response	0.02	0.06	-0.04
Posttest System Zero Response	-0.04	0.01	-0.04
Pretest System Upscale Response	11.05	11.13	25.34
Posttest System Upscale Response	11.02	11.03	25.21
Bias (%)			
Pretest Zero	0.09	0.27	NA
Posttest Zero	0.18	0.05	NA
Pretest Span	0.18	0.55	NA
Posttest Span	0.05	0.09	NA
Drift (%)			
Zero	-0.27	-0.23	0.00
Mid	-0.14	-0.46	-0.26
<b>Run 7    Date        6/12/24</b>			
Span Value	22.07	21.90	50.00
Instrument Zero Cal Response	-0.04	0.00	-0.04
Instrument Upscale Cal Response	11.00	10.98	24.84
Pretest System Zero Response	-0.04	0.05	-0.04
Posttest System Zero Response	-0.04	0.08	-0.04
Pretest System Upscale Response	11.01	11.02	24.84
Posttest System Upscale Response	10.97	10.94	24.96
Bias (%)			
Pretest Zero	0.00	0.23	NA
Posttest Zero	0.00	0.37	NA
Pretest Span	0.05	0.18	NA
Posttest Span	0.14	0.18	NA
Drift (%)			
Zero	0.00	0.14	0.00
Mid	-0.18	-0.37	0.24

## Bias/Drift Determinations

**Location:** BASF Corporation - Pasadena, TX

**Source:** F-10 Boiler EPN 84

**Project No.:** AST-2024-2352

Parameter	O <sub>2</sub> - Outlet	CO <sub>2</sub> - Outlet	THC - Outlet
<b>Run 8      Date      6/12/24</b>			
Span Value	22.07	21.90	50.00
Instrument Zero Cal Response	-0.04	0.00	-0.04
Instrument Upscale Cal Response	11.00	10.98	24.84
Pretest System Zero Response	-0.04	0.08	-0.04
Posttest System Zero Response	-0.04	0.00	0.03
Pretest System Upscale Response	10.97	10.94	24.96
Posttest System Upscale Response	10.93	10.90	24.87
Bias (%)			
Pretest Zero	0.00	0.37	NA
Posttest Zero	0.00	0.00	NA
Pretest Span	0.14	0.18	NA
Posttest Span	0.32	0.37	NA
Drift (%)			
Zero	0.00	-0.37	0.14
Mid	-0.18	-0.18	-0.18



Red Ball Technical Gas Service  
555 Craig Kennedy Way  
Shreveport, LA 71107  
800-551-8150  
PGVP Vendor ID # G12023

## EPA PROTOCOL GAS CERTIFICATE OF ANALYSIS

Cylinder Number:	EB0069838	Certification Date:	12/05/2023
Product ID Number:	123956	Expiration Date:	12/03/2031
Cylinder Pressure:	1900 PSIG	MFG Facility:	- Shreveport - LA
COA #	EB0069838.20231128-0	Lot Number:	EB0069838.20231128
Customer PO. NO.:		Tracking Number:	084210634
Customer:		Previous Certification Dates:	

This calibration standard has been certified per the May 2012 EPA Traceability Protocol, Document EPA-600/R-12/531, using procedure G2.

Do Not Use This Cylinder Below 100 psig (0.7 Megapascal).

### Certified Concentration(s)

Component	Concentration	Uncertainty	Analytical Principle	Assayed On
Carbon Dioxide	21.9 %	±0.15 %	FTIR	12/05/2023
Oxygen	22.07 %	±0.05 %	MPA	12/05/2023
Nitrogen	Balance			

Analytical Measurement Data Available Online.

### Reference Standard(s)

Serial Number	Lot	Expiration	Type	Balance	Component	Concentration	Uncertainty(%)	NIST Reference
CC749243	CC749243.20230228	07/09/2031	GMIS	N2	O2	20.01 %	0.112	SRM 2659a
EB0004315	EB0004315.20201022	04/05/2030	GMIS	N2	CO2	24.75 %	0.237	C2190301.03

### Analytical Instrumentation

Component	Principle	Make	Model	Serial	MPC Date
O2	MPA	Thermo	410i	1162980025	11/24/2023
CO2	FTIR	MKS	MKS 2031DJG2EKVS13T	017146467	12/05/2023

### SMART-CERT



This is to certify the gases referenced have been calibrated/tested, and verified to meet the defined specifications. This calibration/test was performed using Gases or Scales that are traceable through National Institute of Standards and Technology (NIST) to the International System of Units (SI). The basis of compliance stated is a comparison of the measurement parameters to the specified or required calibration/testing process. The expanded uncertainties use a coverage factor of k=2 to approximate the 95% confidence level of the measurement, unless otherwise noted. This calibration certificate applies only to the item described and shall not be reproduced other than in full, without written approval from Red Ball Technical Gas Services. If not included, the uncertainty of calibrations are available upon request and were taken into account when determining pass or fail.

*Jasmine Godfrey*

Jasmine Godfrey  
Analytical Chemist  
Assay Laboratory: Red Ball TGS  
Version 02-1, Revised on 2018-09-17  
BAS-FHWC-Pasadena-000801





Red Ball Technical Gas Service  
555 Craig Kennedy Way  
Shreveport, LA 71107  
800-551-8150  
PGVP Vendor ID # G12023

## EPA PROTOCOL GAS CERTIFICATE OF ANALYSIS

Cylinder Number:	EB0072880	Certification Date:	11/03/2023
Product ID Number:	125371	Expiration Date:	11/01/2031
Cylinder Pressure:	1900 PSIG	MFG Facility:	- Shreveport - LA
COA #	EB0072880.20231024-0	Lot Number:	EB0072880.20231024
Customer PO. NO.:		Tracking Number:	084248293
Customer:		Previous Certification Dates:	

This calibration standard has been certified per the May 2012 EPA Traceability Protocol, Document EPA-600/R-12/531, using procedure G1.

Do Not Use This Cylinder Below 100 psig (0.7 Megapascal).

### Certified Concentration(s)

Component	Concentration	Uncertainty	Analytical Principle	Assayed On
Carbon Dioxide	10.97 %	±0.05 %	NDIR	11/02/2023
Oxygen	11.00 %	±0.03 %	MPA	11/03/2023
Nitrogen	Balance			

Analytical Measurement Data Available Online.

### Reference Standard(s)

Serial Number	Lot	Expiration	Type	Balance	Component	Concentration	Uncertainty(%)	NIST Reference
CC716408	CC716408.20230109	07/09/2031	GMIS	N2	O2	12.003 %	0.122	SRM 2659a
CC749243	CC749243.20230228	07/09/2031	GMIS	N2	O2	20.01 %	0.112	SRM 2659a
EB0004315	EB0004315.20201022	04/05/2030	GMIS	N2	CO2	24.75 %	0.237	C2190301.03
EB0022021	EB0022021.20180323	07/15/2026	GMIS	N2	CO2	14.9 %	0.777	101001

### Analytical Instrumentation

Component	Principle	Make	Model	Serial	MPC Date
CO2	NDIR	Thermo	410i	1162980025	10/17/2023
O2	MPA	Thermo	410i	1162980025	10/31/2023

### SMART-CERT



This is to certify the gases referenced have been calibrated/tested, and verified to meet the defined specifications. This calibration/test was performed using Gases or Scales that are traceable through National Institute of Standards and Technology (NIST) to the International System of Units (SI). The basis of compliance stated is a comparison of the measurement parameters to the specified or required calibration/testing process. The expanded uncertainties use a coverage factor of k=2 to approximate the 95% confidence level of the measurement, unless otherwise noted. This calibration certificate applies only to the item described and shall not be reproduced other than in full, without written approval from Red Ball Technical Gas Services. If not included, the uncertainty of calibrations are available upon request and were taken into account when determining pass or fail.

*Hayden Hartley*

Hayden Hartley  
Analyst

Assay Laboratory: Red Ball TGS

Version 02-1, Revised on 2018-09-17  
BAS-FHWC-Pasadena-000802



Red Ball Technical Gas Service  
555 Craig Kennedy Way  
Shreveport, LA 71107  
800-551-8150  
PGVP Vendor ID # G12022

## EPA PROTOCOL GAS CERTIFICATE OF ANALYSIS

Cylinder Number:	EB0064311	Certification Date:	06/21/2022
Product ID Number:	125263	Expiration Date:	06/19/2030
Cylinder Pressure:	1900 PSIG	MFG Facility:	- Shreveport - LA
COA #	EB0064311.20220613-0	Lot Number:	EB0064311.20220613
Customer PO. NO.:		Tracking Number:	083028568
Customer:		Previous Certification Dates:	

This calibration standard has been certified per the May 2012 EPA Traceability Protocol, Document EPA-600/R-12/531, using procedure G1.

Do Not Use This Cylinder Below 100 psig (0.7 Megapascal).

### Certified Concentration(s)

Component	Concentration	Uncertainty	Analytical Principle	Assayed On
Propane	870 PPM	±10 PPM	FTIR	06/21/2022
Nitrogen	Balance			

Analytical Measurement Data Available Online.

### Reference Standard(s)

Serial Number	Lot	Expiration	Type	Balance	Component	Concentration	Uncertainty(%)	NIST Reference
EB0050267	EB0050267.20160114g	05/17/2024	GMIS	N2	C3H8	1494 PPM	0.603	2647a
EB0055482	EB0055482.20160107	05/17/2024	GMIS	N2	C3H8	750 PPM	0.635	2647A

### Analytical Instrumentation

Component	Principle	Make	Model	Serial	MPC Date
C3H8	FTIR	MKS	MKS 2031DJG2EKS13T	017146467	06/08/2022

### SMART-CERT



This is to certify the gases referenced have been calibrated/tested, and verified to meet the defined specifications. This calibration/test was performed using Gases or Scales that are traceable through National Institute of Standards and Technology (NIST) to the International System of Units (SI). The basis of compliance stated is a comparison of the measurement parameters to the specified or required calibration/testing process. The expanded uncertainties use a coverage factor of k=2 to approximate the 95% confidence level of the measurement, unless otherwise noted. This calibration certificate applies only to the item described and shall not be reproduced other than in full, without written approval from Red Ball Technical Gas Services. If not included, the uncertainty of calibrations are available upon request and were taken into account when determining pass or fail.

*Aaron Varelas*

Aaron Varelas  
Analytical Chemist  
Assay Laboratory: Red Ball TGS  
Version 02-1, Revised on 2018-09-17  
BAS-FHWC-Pasadena-000803



Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date 6/3/24

Method Criteria		EPA
Parameter		O2
	Make	CAI
	Model	700LX
	S/N	2203010
	Span	25.0
Cylinder Number ID		
	Zero	NA
	Mid	EB0072880
	High	EB0069838
Cylinder Certified Values		
	Zero	0.0
	Mid	11.00
	High	22.07
Instrument Response (% or ppm)		
	Zero	0.0
	Mid	11.0
	High	22.1
Calibration Gas Selection (% of Span)		
	Mid	44.0
	High	88.3
Calibration Error Performance (% of Span)		
	Zero	-0.2
	Mid	0.0
	High	0.0
Linearity (% of Range)		
		0.1

Analyzer Make: CAI  
Analyzer Model: 700LX  
Analyzer SN: 2203010  
Envionics ID: 8875  
Component/Balance Gas: O2/N2  
Cylinder Gas ID (Dilution): EB0069838  
Cylinder Gas Concentration (Dilution), %: 22.07  
Cylinder Gas ID (Mid-Level): EB0072880  
Cylinder Gas Concentration (Mid-Level), %: 11.00

Target Mass Flow Contollers	Target Dilution (%)	Target Flow Rate lpm	Target Concentration (%)	Actual Concentration (%)	Injection 1 Analyzer Concentration (%)	Injection 2 Analyzer Concentration (%)	Injection 3 Analyzer Concentration (%)	Average Analyzer Concentration (%)	Difference (%)	Average Error ( ± 2 %)
10L/10L*	90.0	7.0	19.9	19.9	20.1	20.1	20.1	20.08	0.18	0.9%
10L/10L*	80.0	7.0	17.7	17.7	18.0	17.9	17.9	17.94	0.24	1.3%
10L/5L	80.0	5.0	17.7	17.7	18.0	17.9	17.9	17.94	0.24	1.4%
10L/5L	50.0	5.0	11.0	11.0	11.0	11.0	11.0	10.99	-0.01	-0.1%
10L/1L	20.0	4.0	4.4	4.4	4.4	4.4	4.4	4.40	0.00	0.0%
10L/1L	10.0	4.0	2.2	2.2	2.2	2.2	2.2	2.22	0.02	0.9%

\*Not all AST Envionics Units have 2-10L Mass Flow Controllers. For these units the 90% @ 7lpm and 80% @ 7lpm injections will not be conducted.

Average Analyzer Concentration (%)	Injection 1 Error ( ± 2 %)	Injection 2 Error ( ± 2 %)	Injection 3 Error ( ± 2 %)
20.08	0.0%	0.0%	0.0%
17.94	0.1%	0.0%	0.0%
17.94	0.1%	-0.1%	0.0%
10.99	0.2%	-0.1%	0.0%
4.40	0.0%	0.0%	0.0%
2.22	0.0%	0.0%	0.0%

#### Mid-Level Supply Gas Calibration Direct to Analyzer

Calibration Gas Concentration (%)	Injection 1 Analyzer Concentration (%)	Injection 2 Analyzer Concentration (%)	Injection 3 Analyzer Concentration (%)	Average Analyzer Concentration (%)	Difference (%)	Average Error ( ± 2 %)
11.00	11.0	11.1	11.1	11.04	0.04	0.3%



Location: BASF Corporation - Pasadena, TX  
Source: F-10 Boiler EPN 84  
Project No.: AST-2024-2352  
Date 6/7/24

Method Criteria		EPA
Parameter		O2
	Make	CAI
	Model	700LX
	S/N	2203010
	Span	25.0
Cylinder Number ID		
	Zero	NA
	Mid	EB0072880
	High	EB0069838
Cylinder Certified Values		
	Zero	0.0
	Mid	11.00
	High	22.07
Instrument Response (% or ppm)		
	Zero	0.0
	Mid	11.0
	High	22.1
Calibration Gas Selection (% of Span)		
	Mid	44.0
	High	88.3
Calibration Error Performance (% of Span)		
	Zero	0.0
	Mid	0.0
	High	0.1
Linearity (% of Range)		
		0.0

Analyzer Make: CAI  
Analyzer Model: 700LX  
Analyzer SN: 2203010  
Enviroics ID: 8875  
Component/Balance Gas: O2/N2  
Cylinder Gas ID (Dilution): EB0069838  
Cylinder Gas Concentration (Dilution), %: 22.07  
Cylinder Gas ID (Mid-Level): EB0072880  
Cylinder Gas Concentration (Mid-Level), %: 11.00


Target Mass Flow Contollers	Target Dilution (%)	Target Flow Rate lpm	Target Concentration (%)	Actual Concentration (%)	Injection 1 Analyzer Concentration (%)	Injection 2 Analyzer Concentration (%)	Injection 3 Analyzer Concentration (%)	Average Analyzer Concentration (%)	Difference (%)	Average Error ( ± 2 %)
10L/10L*	90.0	7.0	19.9	19.9	20.0	20.1	20.0	20.04	0.14	0.7%
10L/10L*	80.0	7.0	17.7	17.7	17.7	17.7	17.7	17.68	-0.02	-0.1%
10L/5L	80.0	5.0	17.7	17.7	17.7	17.7	17.7	17.70	0.00	0.0%
10L/5L	50.0	5.0	11.0	11.0	11.0	11.0	11.0	11.03	0.03	0.3%
10L/1L	20.0	4.0	4.4	4.3	4.3	4.3	4.2	4.26	-0.04	-0.9%
10L/1L	10.0	4.0	2.2	2.3	2.3	2.3	2.3	2.28	-0.02	-0.8%

\*Not all AST Enviroics Units have 2-10L Mass Flow Controllers. For these units the 90% @ 7lpm and 80% @ 7lpm injections will not be conducted.

Average Analyzer Concentration (%)	Injection 1 Error ( ± 2 %)	Injection 2 Error ( ± 2 %)	Injection 3 Error ( ± 2 %)
20.04	0.0%	0.0%	0.0%
17.68	0.0%	-0.2%	0.2%
17.70	0.0%	0.0%	0.1%
11.03	0.0%	0.1%	0.0%
4.26	0.7%	-0.2%	-0.5%
2.28	-1.5%	0.7%	0.7%

#### Mid-Level Supply Gas Calibration Direct to Analyzer

Calibration Gas Concentration (%)	Injection 1 Analyzer Concentration (%)	Injection 2 Analyzer Concentration (%)	Injection 3 Analyzer Concentration (%)	Average Analyzer Concentration (%)	Difference (%)	Average Error ( ± 2 %)
11.00	11.1	11.1	11.0	11.06	0.06	0.6%

	Mass Flow Controller Calibration	Document ID	620.009
		Revision	22.0
		Effective Date	12/16/22
Issuing Department	Tech Services	Page	1 of 1

Dilution System Make:	Envionics
Dilution System Model:	4040
Dilution System S/N:	8875
Calibration Equipment Make:	Alicat Scientific
Calibration Equipment Model:	M-10SLPD/5MM-D/5M, M-1SLPM-D/5M
Calibration Equipment S/N:	Alicat Scientific
Flow Cell S/N:	391709
Flow Cell S/N:	391710
Calibration Gas:	Nitrogen
Barometric Pressure, mmHg:	29.86
Ambient Temperature, °F:	87

Mass Flow Controller ID	#1			# 2			# 3		
Size, ccm:	10,000			10,000			1,000		
Make:	Hasting			Hasting			Hasting		
Model:	EFC-202-10L			EFC-202-10L			EFC-202-1L		
S/N:	8031233018			803123025			803113007		
	Set Flow cc/min	True Flow cc/min	Difference	Set Flow cc/min	True Flow cc/min	Difference	Set Flow cc/min	True Flow cc/min	Difference
5%	500	438	12.4%	500	406	18.8%	50	48	4.0%
10%	1,000	964	3.6%	1,000	930	7.0%	100	98	2.0%
20%	2,000	2,015	0.8%	2,000	1,990	0.5%	200	200	0.0%
30%	3,000	3,055	1.8%	3,000	3,050	1.7%	300	302	0.7%
40%	4,000	4,105	2.6%	4,000	4,085	2.1%	400	405	1.3%
50%	5,000	5,130	2.6%	5,000	5,130	2.6%	500	507	1.4%
60%	6,000	6,150	2.5%	6,000	6,150	2.5%	600	610	1.7%
70%	7,000	7,160	2.3%	7,000	7,175	2.5%	700	712	1.7%
80%	8,000	8,180	2.3%	8,000	8,200	2.5%	800	815	1.9%
90%	9,000	9,190	2.1%	9,000	9,195	2.2%	900	917	1.9%
100%	10,000	10,205	2.1%	10,000	10,200	2.0%	1,000	1,018	1.8%

Note: The mass flow controller's calibration values are used by the dilution system's operating software to improve accuracy. These calibrations are not necessarily indicative of the systems overall performance. Performance is verified by conducting a Method 205 prior to each field use.

Calibration Performed By: Andrew Christiansen

Date: 6/28/2024



Location	BASF Corporation - Pasadena, TX		
Source	F-10 Boiler EPN 84		
Project No.	AST-2024-2352		
Date	6/4/2024		
Ethylene Cylinder ID	EB0087432		
Concentration (ppmv)	99.7		
Instrument	Outlet	MKS 3 (Serial #016589333)	

CTS 1	101.13	CTS 7	98.94	AVERAGE	98.82	Greatest Deviation from average 2.33%
CTS 2	98.60	CTS 8	98.83	MAX	101.13	
CTS 3	98.84	CTS 9	98.34	deviation	2.31	
CTS 4	98.60	CTS 10	98.31	MIN	97.85	Agreement with Assumed Pathlength 99.12% within 5% no correction required
CTS 5	99.41	CTS 11	97.85	deviation	0.98	
CTS 6	98.51	CTS 12	98.82			

<b>CTS 1</b>						<b>CTS 7</b>					
Date	Time	File	Temperature (C Pressure		Ethylene	Date	Time	File	Temperature (C Pressure		Ethylene
6/3/24	15:54:15	SF ICR PASA MKS3 000009.LAB	190.5	1.010	101.01	6/6/24	6:32:14	ICR PASA MKS3 001183.LAB	191.4	1.034	98.77
6/3/24	15:55:18	SF ICR PASA MKS3 000010.LAB	190.6	1.012	101.35	6/6/24	6:33:17	ICR PASA MKS3 001184.LAB	191.2	1.034	99.02
6/3/24	15:56:21	SF ICR PASA MKS3 000011.LAB	190.6	1.010	101.04	6/6/24	6:34:20	ICR PASA MKS3 001185.LAB	191.2	1.034	99.02
<b>CTS 2</b>						<b>CTS 8</b>					
Date	Time	File	Temperature (C Pressure		Ethylene	Date	Time	File	Temperature (C Pressure		Ethylene
6/4/24	9:57:35	SF ICR PASA MKS3 000156.LAB	191.5	1.014	98.46	6/6/24	12:01:43	ICR PASA MKS3 001495.LAB	191.3	1.033	98.77
6/4/24	9:58:38	SF ICR PASA MKS3 000157.LAB	191.5	1.014	98.61	6/6/24	12:02:45	ICR PASA MKS3 001496.LAB	191.2	1.033	99.13
6/4/24	9:59:40	SF ICR PASA MKS3 000158.LAB	191.4	1.014	98.73	6/6/24	12:03:48	ICR PASA MKS3 001497.LAB	191.1	1.033	98.60
<b>CTS 3</b>						<b>CTS 9</b>					
Date	Time	File	Temperature (C Pressure		Ethylene	Date	Time	File	Temperature (C Pressure		Ethylene
6/4/24	12:45:37	SF ICR PASA MKS3 000315.LAB	191.2	1.027	98.77	6/6/24	16:48:14	ICR PASA MKS3 001767.LAB	191.4	1.024	98.45
6/4/24	12:46:39	SF ICR PASA MKS3 000316.LAB	191.2	1.027	98.66	6/6/24	16:49:17	ICR PASA MKS3 001768.LAB	191.4	1.024	98.52
6/4/24	12:47:42	SF ICR PASA MKS3 000317.LAB	191.1	1.027	99.10	6/6/24	16:50:20	ICR PASA MKS3 001769.LAB	191.4	1.024	98.06
<b>CTS 4</b>						<b>CTS 10</b>					
Date	Time	File	Temperature (C Pressure		Ethylene	Date	Time	File	Temperature (C Pressure		Ethylene
6/4/24	16:00:58	SF ICR PASA MKS3 000500.LAB	191.4	1.024	98.45	6/7/24	5:14:18	ICR PASA MKS3 001777.LAB	191.4	1.024	98.10
6/4/24	16:02:01	SF ICR PASA MKS3 000501.LAB	191.3	1.024	98.67	6/7/24	5:15:21	ICR PASA MKS3 001778.LAB	191.4	1.024	98.55
6/4/24	16:03:04	SF ICR PASA MKS3 000502.LAB	191.3	1.024	98.68	6/7/24	5:16:24	ICR PASA MKS3 001779.LAB	191.3	1.013	98.28
<b>CTS 5</b>						<b>CTS 11</b>					
Date	Time	File	Temperature (C Pressure		Ethylene	Date	Time	File	Temperature (C Pressure		Ethylene
6/5/24	7:29:02	SF ICR PASA MKS3 000552.LAB	191.2	1.029	99.65	6/7/24	10:20:50	ICR PASA MKS3 002068.LAB	191.4	1.027	97.64
6/5/24	7:30:05	SF ICR PASA MKS3 000553.LAB	191.1	1.029	99.68	6/7/24	10:21:53	ICR PASA MKS3 002069.LAB	191.4	1.030	98.05
6/5/24	7:31:08	SF ICR PASA MKS3 000554.LAB	191.2	1.023	98.90	6/7/24	10:22:56	ICR PASA MKS3 002070.LAB	191.3	1.030	97.85
<b>CTS 6</b>						<b>CTS 12</b>					
Date	Time	File	Temperature (C Pressure		Ethylene	Date	Time	File	Temperature (C Pressure		Ethylene
6/5/24	18:18:43	SF ICR PASA MKS3 001170.LAB	191.3	1.027	98.44	6/11/24	12:05:21	ICR PASA MKS3 002089.LAB	191.4	1.030	98.63
6/5/24	18:19:46	SF ICR PASA MKS3 001171.LAB	191.3	1.027	98.68	6/11/24	12:06:24	ICR PASA MKS3 002090.LAB	191.4	1.030	98.97
6/5/24	18:20:48	SF ICR PASA MKS3 001172.LAB	191.2	1.028	98.40	6/11/24	12:07:27	ICR PASA MKS3 002091.LAB	191.3	1.030	98.85



Location BASF Corporation - Pasadena, TX  
Source F-10 Boiler EPN 84  
Project No. AST-2024-2352  
Date 6/4/2024  
Ethylene Cylinder ID EB0087432  
Concentration (ppmv) 99.7  
Instrument Outlet MKS 3 (Serial #016589333)

CTS 13	98.88	CTS 19	--
CTS 14	98.29	CTS 20	--
CTS 15	98.56	CTS 21	--
CTS 16	99.26	CTS 22	--
CTS 17	--	CTS 23	--
CTS 18	--	CTS 24	--

CTS 13					
Date	Time	File	Temperature (C Pressure		Ethylene
6/11/24	17:56:49	BASF ICR PASA MKS3 002423.L	191.4	1.030	98.77
6/11/24	17:57:52	BASF ICR PASA MKS3 002424.L	191.3	1.029	98.69
6/11/24	17:58:55	BASF ICR PASA MKS3 002425.L	191.2	1.029	99.17

CTS 14					
Date	Time	File	Temperature (C Pressure		Ethylene
6/12/24	6:44:50	BASF ICR PASA MKS3 002456.L	191.5	1.024	98.18
6/12/24	6:45:53	BASF ICR PASA MKS3 002457.L	191.4	1.024	98.35
6/12/24	6:46:56	BASF ICR PASA MKS3 002458.L	191.3	1.024	98.35

CTS 15					
Date	Time	File	Temperature (C Pressure		Ethylene
6/12/24	12:04:50	BASF ICR PASA MKS3 002760.L	191.1	1.044	98.35
6/12/24	12:05:53	BASF ICR PASA MKS3 002761.L	191.0	1.044	98.79
6/12/24	12:06:56	BASF ICR PASA MKS3 002762.L	191.0	1.044	98.53

CTS 16					
Date	Time	File	Temperature (C Pressure		Ethylene
6/12/24	16:49:46	BASF ICR PASA MKS3 003030.L	191.4	1.039	99.15
6/12/24	16:50:49	BASF ICR PASA MKS3 003031.L	191.3	1.039	99.35
6/12/24	16:51:51	BASF ICR PASA MKS3 003032.L	191.2	1.039	99.28

CTS 17					
Date	Time	File	Temperature (C Pressure		Ethylene

CTS 18					
Date	Time	File	Temperature (C Pressure		Ethylene

CTS 19					
Date	Time	File	Temperature (C Pressure		Ethylene

CTS 20					
Date	Time	File	Temperature (C Pressure		Ethylene

CTS 21					
Date	Time	File	Temperature (C Pressure		Ethylene

CTS 22					
Date	Time	File	Temperature (C Pressure		Ethylene

CTS 23					
Date	Time	File	Temperature (C Pressure		Ethylene

CTS 24					
Date	Time	File	Temperature (C Pressure		Ethylene



Location BASF Corporation - Pasadena, TX  
Source F-10 Boiler EPN 84  
Project No. AST-2024-2352  
Date 6/4/2024

Spike Cylinder ID	CC731714	Component
Spike Gas concentration	102	Hydrogen Cyanide
Tracer Cylinder ID	CC731714	Component
Tracer Gas concentration	10.1	SF6
Instrument ID    Outlet	MKS 3 (Serial #016589333)	

Direct Spike Values

Date	Time	File	Temperature (C)	Pressure	Spike (ppm)	Tracer (ppm)
06/03/24	16:07:53	BASF_ICR_PASA_MKS3_000022.LAB	190.3	1.291	93.21	12.173
06/03/24	16:08:56	BASF_ICR_PASA_MKS3_000023.LAB	190.2	1.291	93.31	12.209
06/03/24	16:09:59	BASF_ICR_PASA_MKS3_000024.LAB	190.3	1.291	93.29	12.170
06/03/24	16:11:01	BASF_ICR_PASA_MKS3_000025.LAB	190.2	1.291	93.36	12.175
06/03/24	16:12:04	BASF_ICR_PASA_MKS3_000026.LAB	190.2	1.291	93.31	12.157
06/03/24	16:13:07	BASF_ICR_PASA_MKS3_000027.LAB	190.3	1.291	93.31	12.163
06/03/24	16:14:10	BASF_ICR_PASA_MKS3_000028.LAB	190.3	1.291	93.67	12.211
Average					93.35	12.180

Native Values

Date	Time	File	Temperature (C)	Pressure	Spike (ppm)	Tracer (ppm)
06/04/24	8:55:48	BASF_ICR_PASA_MKS3_000101.LAB	191.6	0.980	0.78	0.010
06/04/24	8:56:51	BASF_ICR_PASA_MKS3_000102.LAB	191.6	0.978	1.03	0.010
06/04/24	8:57:53	BASF_ICR_PASA_MKS3_000103.LAB	191.6	0.980	0.72	0.010
06/04/24	8:58:56	BASF_ICR_PASA_MKS3_000104.LAB	191.6	0.978	1.05	0.010
06/04/24	8:59:59	BASF_ICR_PASA_MKS3_000105.LAB	191.6	0.979	0.81	0.010
06/04/24	9:01:02	BASF_ICR_PASA_MKS3_000106.LAB	191.6	0.979	0.86	0.010
06/04/24	9:02:05	BASF_ICR_PASA_MKS3_000107.LAB	191.6	0.979	0.80	0.010
Average					0.87	0.010

Spiked values

Date	Time	File	Temperature (C)	Pressure	Spike (ppm)	Tracer (ppm)
06/04/24	9:33:31	BASF_ICR_PASA_MKS3_000137.LAB	191.6	0.981	6.40	0.682
06/04/24	9:34:34	BASF_ICR_PASA_MKS3_000138.LAB	191.6	0.980	6.65	0.705
06/04/24	9:35:37	BASF_ICR_PASA_MKS3_000139.LAB	191.6	0.980	6.67	0.706
06/04/24	9:36:40	BASF_ICR_PASA_MKS3_000140.LAB	191.6	0.980	6.55	0.686
06/04/24	9:37:43	BASF_ICR_PASA_MKS3_000141.LAB	191.5	0.980	6.48	0.686
06/04/24	9:38:46	BASF_ICR_PASA_MKS3_000142.LAB	191.6	0.980	6.59	0.704
06/04/24	9:39:49	BASF_ICR_PASA_MKS3_000143.LAB	191.6	0.980	6.70	0.702
Average					6.58	0.696

Dilution Factor  
5.6%

Calculated Spike  
6.07

Spike Recovery  
108.25%





Location BASF Corporation - Pasadena, TX  
Source F-10 Boiler EPN 84  
Project No. AST-2024-2352  
Date 6/11/2024

Spike Cylinder ID	CC731714	Component
Spike Gas concentration	102	Hydrogen Cyanide
Tracer Cylinder ID	CC731714	Component
Tracer Gas concentration	10.1	SF6
Instrument ID    Outlet	MKS 3 (Serial #016589333)	

Direct Spike Values

Date	Time	File	Temperature (C)	Pressure	Spike (ppm)	Tracer (ppm)
06/03/24	16:07:53	BASF_ICR_PASA_MKS3_000022.LAB	190.3	1.291	93.21	12.173
06/03/24	16:08:56	BASF_ICR_PASA_MKS3_000023.LAB	190.2	1.291	93.31	12.209
06/03/24	16:09:59	BASF_ICR_PASA_MKS3_000024.LAB	190.3	1.291	93.29	12.170
06/03/24	16:11:01	BASF_ICR_PASA_MKS3_000025.LAB	190.2	1.291	93.36	12.175
06/03/24	16:12:04	BASF_ICR_PASA_MKS3_000026.LAB	190.2	1.291	93.31	12.157
06/03/24	16:13:07	BASF_ICR_PASA_MKS3_000027.LAB	190.3	1.291	93.31	12.163
06/03/24	16:14:10	BASF_ICR_PASA_MKS3_000028.LAB	190.3	1.291	93.67	12.211
Average					93.35	12.180

Native Values

Date	Time	File	Temperature (C)	Pressure	Spike (ppm)	Tracer (ppm)
06/11/24	17:27:06	BASF_ICR_PASA_MKS3_002396.LAB	191.7	0.979	2.94	0.010
06/11/24	17:28:09	BASF_ICR_PASA_MKS3_002397.LAB	191.6	0.980	3.03	0.010
06/11/24	17:29:12	BASF_ICR_PASA_MKS3_002398.LAB	191.6	0.980	3.50	0.010
06/11/24	17:30:15	BASF_ICR_PASA_MKS3_002399.LAB	191.7	0.980	2.56	0.010
06/11/24	17:31:18	BASF_ICR_PASA_MKS3_002400.LAB	191.7	0.979	3.23	0.010
06/11/24	17:32:21	BASF_ICR_PASA_MKS3_002401.LAB	191.7	0.980	3.33	0.010
06/11/24	17:33:23	BASF_ICR_PASA_MKS3_002402.LAB	191.7	0.980	2.93	0.010
Average					3.07	0.010

Spiked values

Date	Time	File	Temperature (C)	Pressure	Spike (ppm)	Tracer (ppm)
06/11/24	18:15:41	BASF_ICR_PASA_MKS3_002441.LAB	191.7	0.979	6.52	0.485
06/11/24	18:16:44	BASF_ICR_PASA_MKS3_002442.LAB	191.7	0.980	6.64	0.464
06/11/24	18:17:47	BASF_ICR_PASA_MKS3_002443.LAB	191.7	0.978	6.46	0.459
06/11/24	18:18:50	BASF_ICR_PASA_MKS3_002444.LAB	191.7	0.980	6.54	0.466
06/11/24	18:19:53	BASF_ICR_PASA_MKS3_002445.LAB	191.7	0.980	6.68	0.483
06/11/24	18:20:56	BASF_ICR_PASA_MKS3_002446.LAB	191.7	0.980	6.65	0.485
06/11/24	18:21:59	BASF_ICR_PASA_MKS3_002447.LAB	191.7	0.980	6.31	0.476
Average					6.54	0.474

Dilution Factor  
3.8%

Calculated Spike  
6.51

Spike Recovery  
100.46%



Red Ball Technical Gas Service  
555 Craig Kennedy Way  
Shreveport, LA 71107  
800-551-8150  
PGVP Vendor ID # G12023

## CERTIFIED GAS CERTIFICATE OF ANALYSIS

Cylinder Number:	EB0087432	Certification Date:	04/24/2023
Product ID Number:	124838	Expiration Date:	04/23/2025
Cylinder Pressure:	1900 PSIG	MFG Facility:	- Shreveport - LA
COA #	EB0087432.20230423-0	Lot Number:	EB0087432.20230423
Customer PO. NO.:		Tracking Number:	083082405
Customer:		Previous Certification Dates:	

This mixture is for laboratory use only, not for drug, household or other use.  
This mixture is certified in Mole % to be within  $\pm 2\%$  of the actual number reported with a confidence of 95%.  
This mixture was manufactured by scale; weights traceable to N.I.S.T. Certificate #822/266926-02.  
Do Not Use This Cylinder Below 100 psig (0.7 Megapascal).

### Certified Concentration(s)

Component	Concentration	Uncertainty	Analytical Principle
Ethylene	99.7 PPM	$\pm 2\%$ NIST	FTIR
Nitrogen	Balance		

Analytical Measurement Data Available Online.

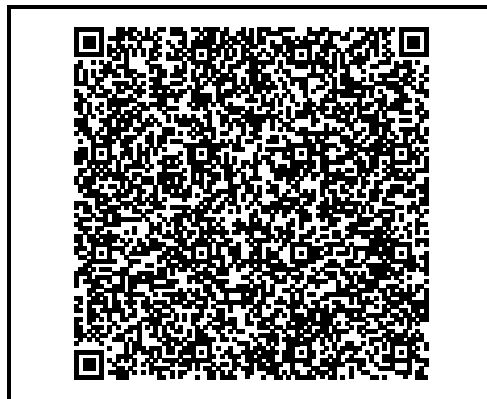
### Reference Standard(s)

Serial Number	Lot	Expiration	Type	Balance	Component	Concentration	Uncertainty(%)	NIST Reference
CC518673	CC518673	07/27/2023	PS	N2	C2H4	99.8 PPM	2	4011772

### Analytical Instrumentation

Component	Principle	Make	Model	Serial	MPC Date
C2H4	FTIR	MKS	MKS 2031DJG2EKVS13T	017146467	

### SMART-CERT



This is to certify the gases referenced have been calibrated/tested, and verified to meet the defined specifications. This calibration/test was performed using Gases or Scales that are traceable through National Institute of Standards and Technology (NIST) to the International System of Units (SI). The basis of compliance stated is a comparison of the measurement parameters to the specified or required calibration/testing process. The expanded uncertainties use a coverage factor of  $k=2$  to approximate the 95% confidence level of the measurement, unless otherwise noted. This calibration certificate applies only to the item described and shall not be reproduced other than in full, without written approval from Red Ball Technical Gas Services. If not included, the uncertainty of calibrations are available upon request and were taken into account when determining pass or fail.

*Aaron Varelas*

Aaron Varelas  
Analytical Chemist  
Assay Laboratory: Red Ball TGS  
Version 02-G, Revised on 2017-07-02  
BASFHWC-Pasadena-000811

**SPECGAS, INC.**

SPECGAS, Inc.  
86 Vincent Circle  
Warminster, PA. 18974  
Tel. 215 443 2600  
Fax. 215 443 2665  
WWW.SPECGASINC.COM

# CERTIFICATE



## ANALYTICAL REPORT-PRODUCT CERTIFICATION

SOLD TO: Red Ball Oxygen  
PO Box 7316  
Shreveport, LA. 71137-7316

SHIP TO: Houston Store  
6200 South Loop East  
Houston, TX 77087

DATE: 4/16/24  
PO#: 4051003

## CERTIFIED STANDARD MIXTURE

CYLINDER #  
CC731714

Component		Nominal	Actual
SULFUR HEXAFLUORIDE	SF6	10.0 ppm	10.1 ppm
HYDROGEN CYANIDE	HCN	100 ppm	102 ppm
NITROGEN	N2	Balance	Balance

SF6:

Blend Tolerance: +/- 10 %

Analytical Tolerance: +/- 5 %

HCN:

Blend Tolerance: +/- 5 %

Analytical Tolerance: +/- 2 %

N.I.S.T.: Mixture was blended on a high resolution Scale (Sartorius Combits 1, Serial # 29503041) Traceable to N.I.S.T. through test # 221140

4kg wt. (Serial #85424) Standards traceable to N.I.S.T. through weight & measures test # 2267372

PRESSURE: 2000 psia

VALVE: CGA 350 s/s

CYL. SIZE: 150A COC

ANALYSIS DATE: 4/16/24

EXPIRATION DATE: 4/16/25

UN 1956, Compressed Gas, N.O.S.

(Hydrogen Cyanide, Nitrogen) 2.2

Emergency Phone #: 1 800 535 5053



### Warning

Contains gas under pressure

May explode if heated

May displace oxygen and cause rapid suffocation

ANALYST

DATE

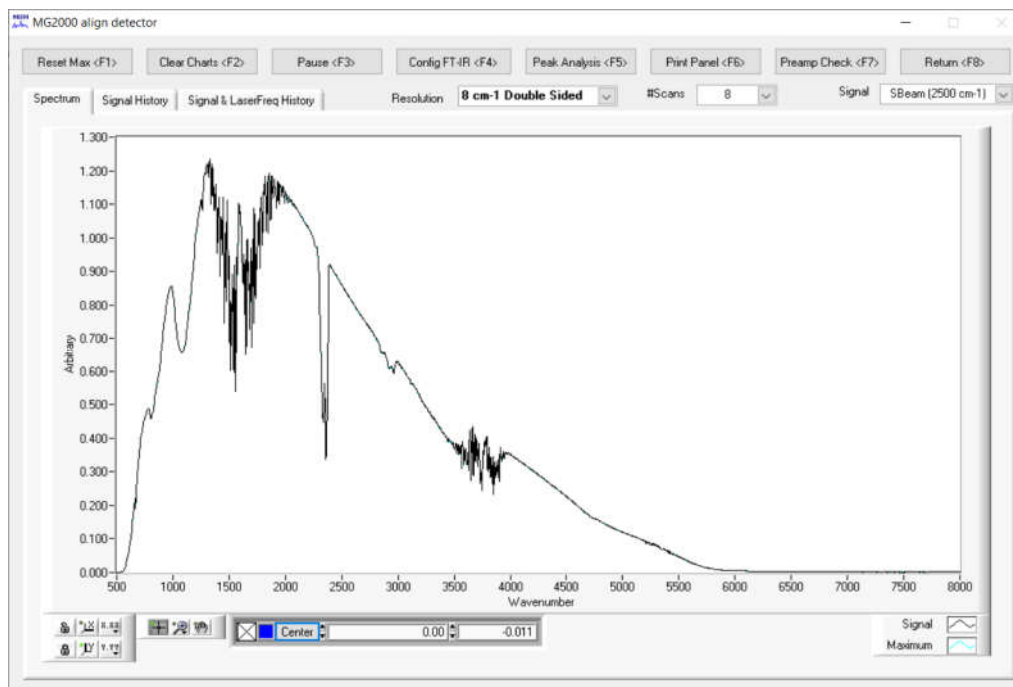
4/16/24

Location	BASF Corporation - Pasadena, TX
Project No.	AST-2024-2352
Instrument	MKS 3 (Serial #016589333)

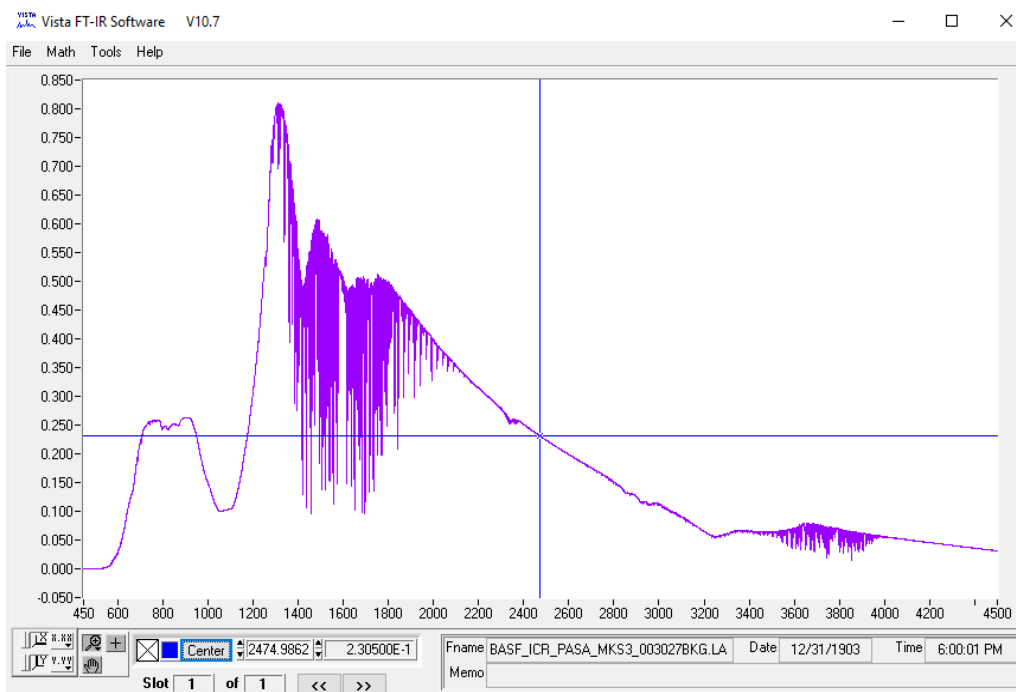
Summary of Spikes

Source	F-10 Boiler EPN 84	F-10 Boiler EPN 84
Date	6/4/24	6/11/24
Time	9:33	18:15
Analyte	Hydrogen Cyanide	Hydrogen Cyanide
Direct	93.35	93.35
Native	0.87	3.07
Spiked	6.58	6.54
Dilution	5.6%	3.8%
Recovery	108%	100%
Result	PASS	PASS

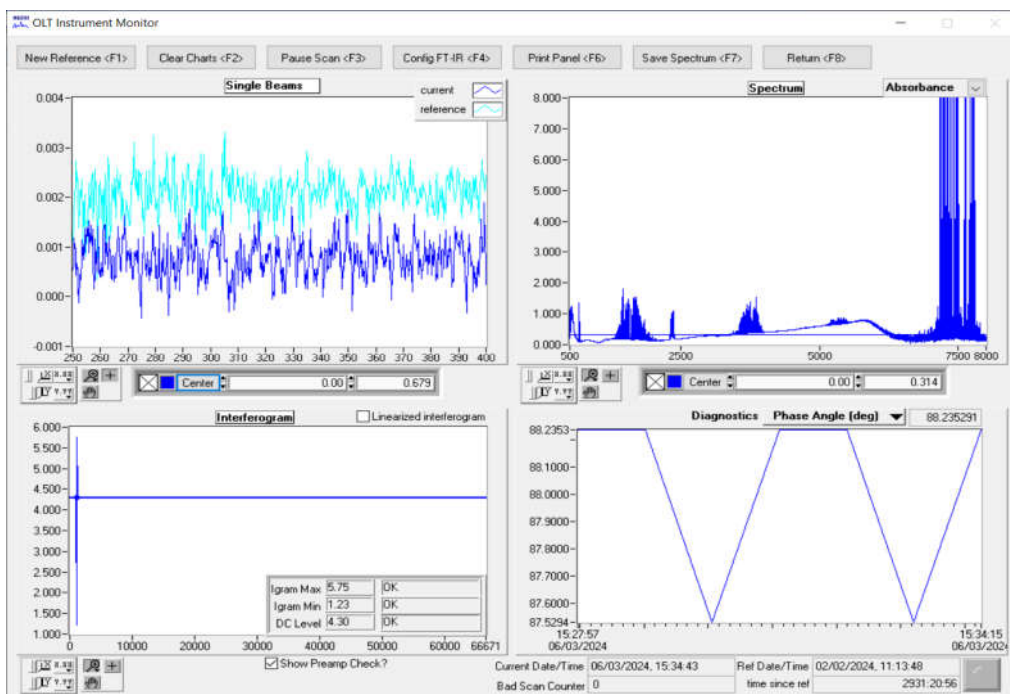
Location	BASF Corporation - Pasadena, TX
Source	F-10 Boiler EPN 84
Project No.	AST-2024-2352
Health Check Parameter	Single Beam (Pre-Test)
Instrument ID	MKS 3 (Serial #016589333)
Date	6/3/2024



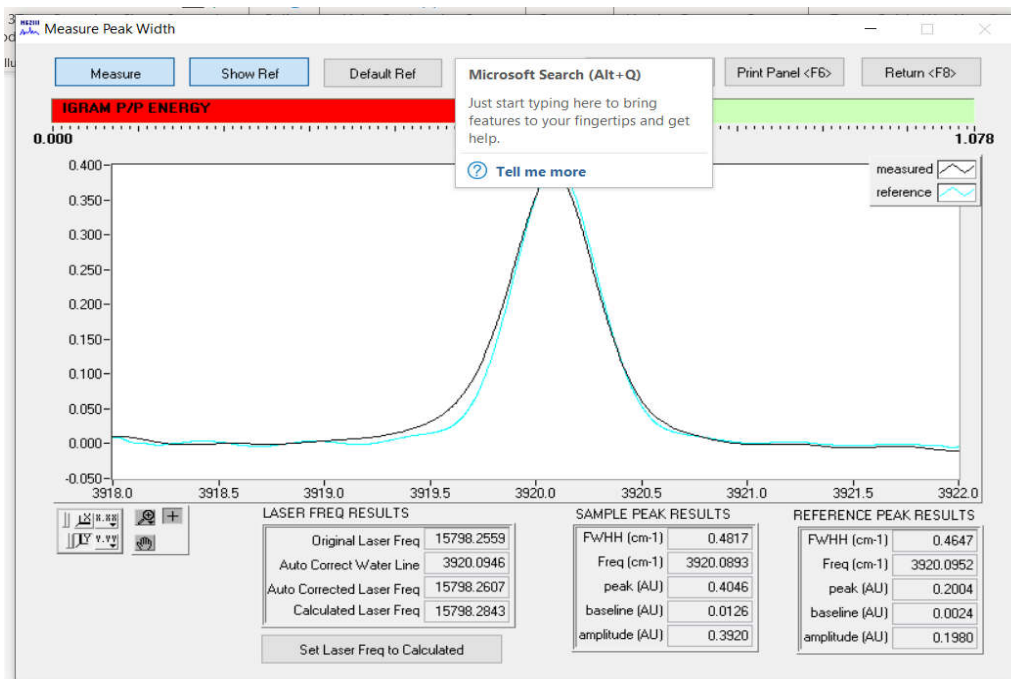
Location	BASF Corporation - Pasadena, TX
Source	F-10 Boiler EPN 84
Project No.	AST-2024-2352
Health Check Parameter	Single Beam (Post-Test)
Instrument ID	MKS 3 (Serial #016589333)
Date	6/12/2024



Location	BASF Corporation - Pasadena, TX
Source	F-10 Boiler EPN 84
Project No.	AST-2024-2352
Health Check Parameter	Detector Linearity
Instrument ID	MKS 3 (Serial #016589333)
Date	6/3/2024

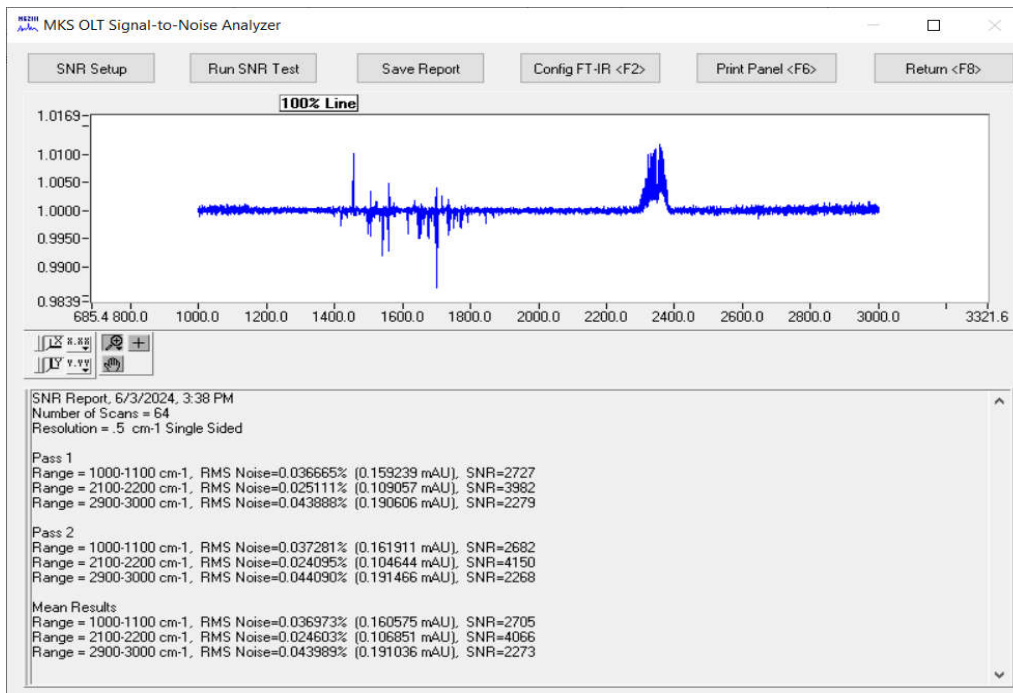


Location	BASF Corporation - Pasadena, TX
Source	F-10 Boiler EPN 84
Project No.	AST-2024-2352
Health Check Parameter	Peak Analysis
Instrument ID	MKS 3 (Serial #016589333)
Date	6/3/2024





Location	BASF Corporation - Pasadena, TX
Source	F-10 Boiler EPN 84
Project No.	AST-2024-2352
Health Check Parameter	Signal to Noise Ratio
Instrument ID	MKS 3 (Serial #016589333)
Date	6/3/2024



Location	BASF Corporation - Pasadena, TX
Source	F-10 Boiler EPN 84
Project No.	AST-2024-2352
Health Check Parameter	Analysis Validation Utility
Instrument ID	MKS 3 (Serial #016589333)
Date	6/3/2024

## Analysis Validation Report

Sample Filename: D:\Documents\2024\24-2352 BASF Pasadena\BASF\_ICR\_PASA\_MKS3\_000673.LAB

Filename for noise: D:\Documents\2024\24-2352 BASF Pasadena\BASF\_ICR\_PASA\_MKS3\_000544.LAB

Interferences Filenames: C:\OLT\Analysis Validation Utility\Support spectra\1min 191C LN2\Interferents H2O 20pct CO2

C:\OLT\Analysis Validation Utility\Support spectra\1min 191C LN2\Interferents H2O 20pct CO2 20pct 1min #2.LAB

C:\OLT\Analysis Validation Utility\Support spectra\1min 191C LN2\Interferents H2O 20pct CO2 20pct 1min #3.LAB

C:\OLT\Analysis Validation Utility\Support spectra\1min 191C LN2\Interferents H2O 20pct CO2 20pct 1min #4.LAB

C:\OLT\Analysis Validation Utility\Support spectra\1min 191C LN2\Interferents H2O 20pct CO2 20pct 1min #5.LAB

C:\OLT\Analysis Validation Utility\Support spectra\1min 191C LN2\Interferents H2O 20pct CO2 20pct 1min #6.LAB

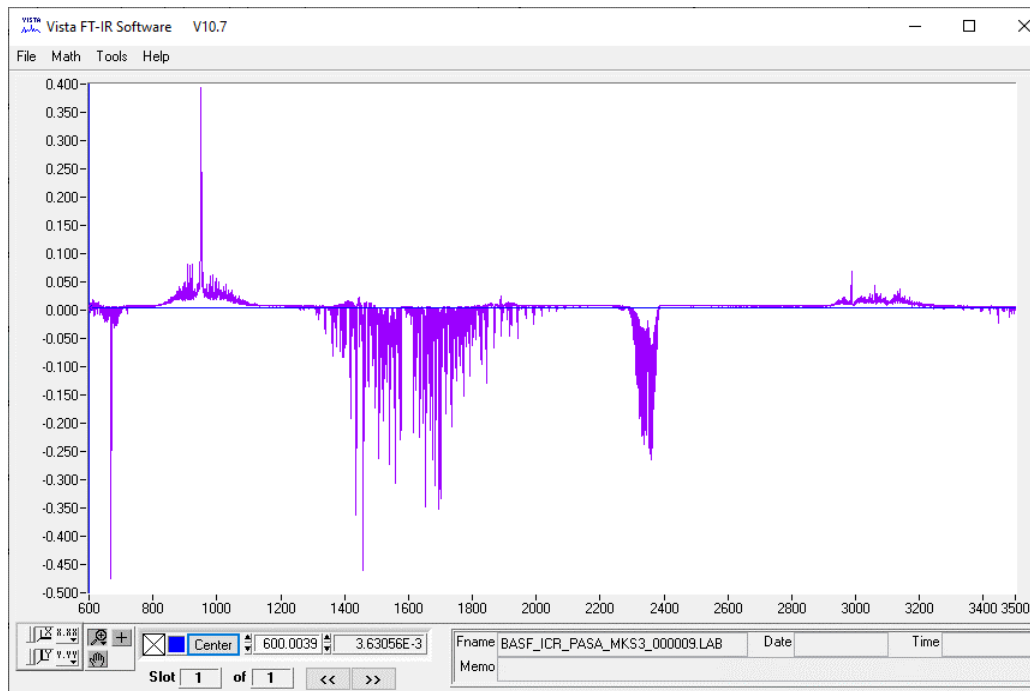
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C:\OLT\Analysis Validation Utility\Support spectra\1min 191C LN2\Interferents H2O 20pct CO2 20pct 1min #8.LAB

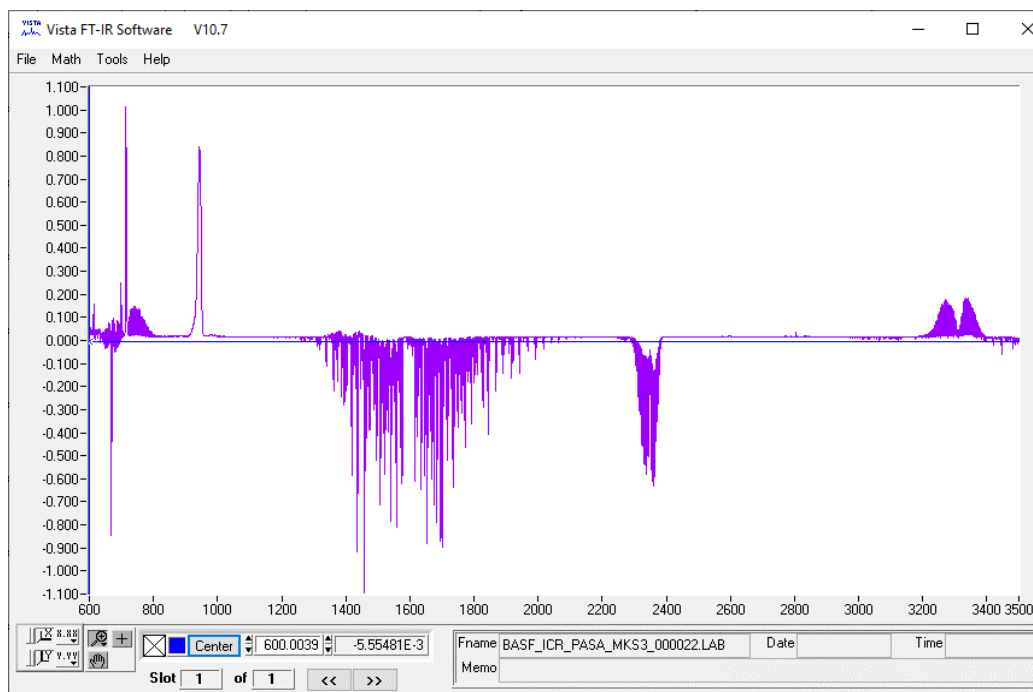
Recipe path: C:\OLT\RECIPES\BASF ICR HCN.MGRCP

Gas calibration Name	Conc	MDC3	MDC2	MDC1	MAU	FMU*R	OCU
NO (350,3000) 191C	2.44	4.99	0.15	0.42	0.57	6.81	6.81
NO2 (150) 191C (10F2)	-0.07	0.43	0.21	0.05	0.06	0.45	0.45
NO2 (2000) 191C (20F2)	-20.52	25.75	0.69	3.19	4.06	32.81	32.81
N2O (100,200,300) 191C	-0.16	0.53	0.05	0.05	0.06	0.61	0.61
NH3 (300) 191C (10F2)	1.99	1.44	0.04	0.26	0.44	2.43	2.43
NH3 (3000) 191C (20F2)	1.07	14.85	0.52	4.37	8.25	28	28
H2O% (20) 191C	14.73	0.13		0.04	0.08	0.25	0.25
CO2% (20) 191C	8.67	0.34		0.02	0.03	0.47	0.47
CO (500) 191C (10F2)	1.01	2.56	0.1	0.35	0.75	5.52	5.52
CO% (1) 191C (20F2)	0	0	0	0	0	0.01	0.01
CH4 (3000) 191C	0.03	9.13	0.68	2.4	3.95	15.04	15.04
ETHANE (500) 191C	0.46	6.74	0.15	0.77	0.86	7.5	7.5
ETHYLENE (100,3000) 191C	0.62	2.01	0.13	0.39	0.67	3.5	3.5
ACETYLENE (1000) 191C	3.44	21.24	0.26	2.25	3.01	28.48	28.48
PROPANE (200) 191C	-1.42	2.93	0.28	0.4	0.43	3.16	3.16
PROPYLENE (200,1000) 191C	-0.41	5.64	0.22	1.05	1.23	6.61	6.61
BUTANE (200) 191C	3.28	2.5	0.27	0.36	0.42	2.96	2.96
FORMALDEHYDE (70) 191C	0.14	2.61	0.09	0.47	0.54	2.98	2.98
ACETALDEHYDE (500) 191C	-5.13	12.99	0.14	1.43	1.84	16.73	16.73
FORMIC ACID (10) 191C	-0.54	0.97	0.02	0.26	0.31	1.15	1.15
MEOH (10) 191C	0.5	0.65	0.27	0.46	0.52	0.75	0.75
SF6 (10) 191C	-0.02	0.01	0.01	0.01	0.01	0.02	0.02
HCN (100) 191C	2.85	15.06	0.13	1.63	2.79	25.74	25.74

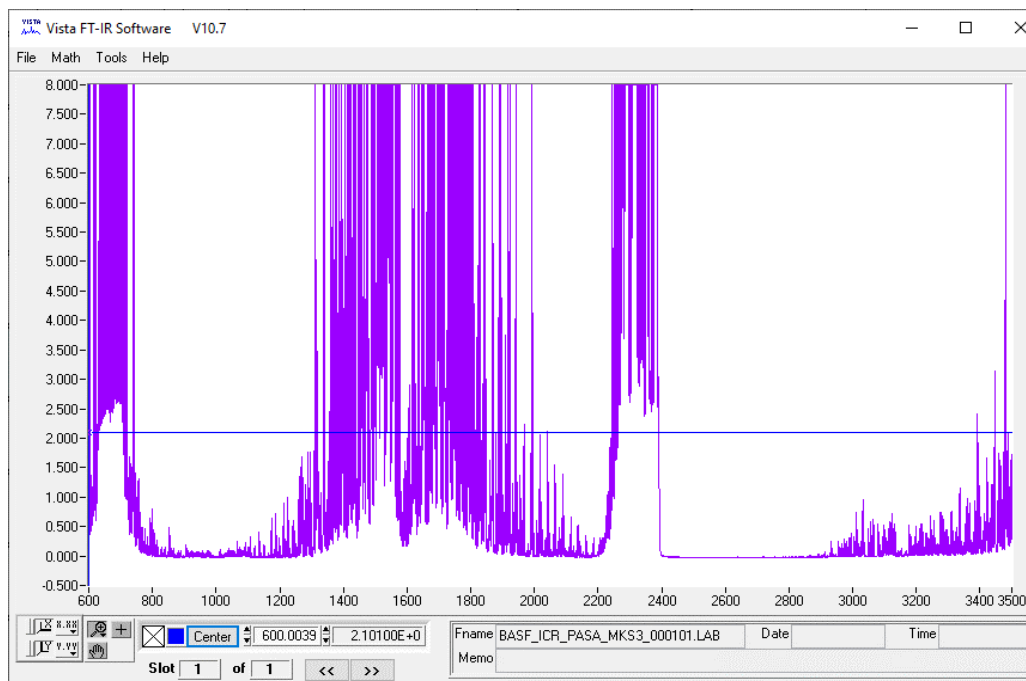
Location	BASF Corporation - Pasadena, TX
Source	F-10 Boiler EPN 84
Project No.	AST-2024-2352
Spectra (CTS)	BASF_ICR_PASA_MKS3_000009.LAB
Date	6/3/2024
Time	3:54:15 PM



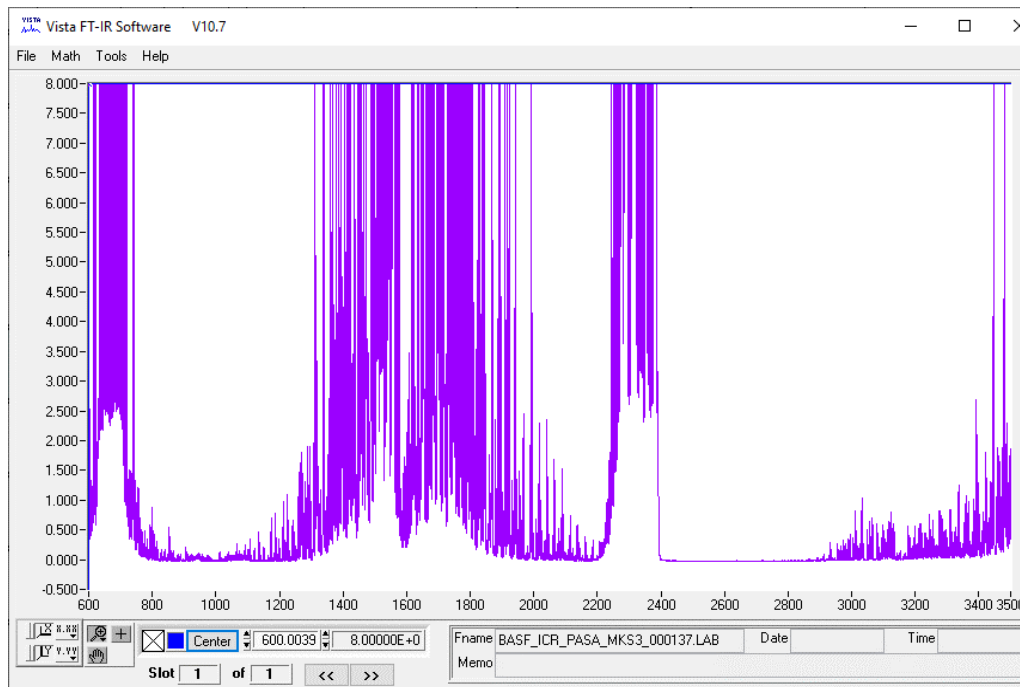
Location	BASF Corporation - Pasadena, TX
Source	F-10 Boiler EPN 84
Project No.	AST-2024-2352
Spectra (Analyte Direct)	BASF_ICR_PASA_MKS3_000022.LAB
Date	6/3/2024
Time	4:07:53 PM



Location	BASF Corporation - Pasadena, TX
Source	F-10 Boiler EPN 84
Project No.	AST-2024-2352
Spectra (Native)	BASF_ICR_PASA_MKS3_000101.LAB
Date	6/4/2024
Time	8:55:48 AM



Location	BASF Corporation - Pasadena, TX
Source	F-10 Boiler EPN 84
Project No.	AST-2024-2352
Spectra (Spike)	BASF_ICR_PASA_MKS3_000137.LAB
Date	6/4/2024
Time	9:33:31 AM



## Appendix E

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/3/24 15:20	21.4	0.75	-0.04	
6/3/24 15:21	21.41	0.75	-0.04	
6/3/24 15:22	21.39	0.76	-0.04	
6/3/24 15:23	11.43	0.7	-0.04	
6/3/24 15:24	-0.03	0.29	-0.04	
6/3/24 15:25	-0.04	0	-0.04	
6/3/24 15:26	-0.04	-0.01	-0.04	
6/3/24 15:27	-0.04	-0.01	-0.04	
6/3/24 15:28	16.03	15.03	-0.04	
6/3/24 15:29	22.95	22.18	28.85	
6/3/24 15:30	22.27	21.88	41.47	
6/3/24 15:31	14.8	14.59	72.88	
6/3/24 15:32	10.96	10.76	31.59	
6/3/24 15:33	10.99	11.01	25.21	
6/3/24 15:34	10.93	11.06	24.87	
6/3/24 15:35	10.93	11.02	25.5	
6/3/24 15:36	10.94	11	25.26	
6/3/24 15:37	10.95	10.98	24.58	
6/3/24 15:38	10.96	10.97	23.68	
6/3/24 15:39	15.09	14.95	22.62	
6/3/24 15:40	20.45	20.19	22.07	
6/3/24 15:41	20.08	19.87	21.45	
6/3/24 15:42	18.19	17.98	20.98	
6/3/24 15:43	18.02	17.84	20.23	
6/3/24 15:44	17.95	17.78	19.93	
6/3/24 15:45	11.41	11.24	19.75	
6/3/24 15:46	6.89	6.76	19.54	
6/3/24 15:47	3.3	3.24	19.24	
6/3/24 15:48	7.77	7.75	18.82	
6/3/24 15:49	19.21	19.01	18.53	
6/3/24 15:50	17.99	17.86	19.58	
6/3/24 15:51	9.84	9.58	20.06	
6/3/24 15:52	3.99	3.92	20.09	
6/3/24 15:53	7.85	7.84	20	
6/3/24 15:54	20.08	19.87	20.02	
6/3/24 15:55	18.32	18.1	19.89	
6/3/24 15:56	14.51	14.3	19.6	
6/3/24 15:57	10.99	10.9	19.37	
6/3/24 15:58	7.98	7.82	19.06	
6/3/24 15:59	3.8	3.73	19.85	
6/3/24 16:00	4.25	4.26	20.1	
6/3/24 16:01	10.94	10.91	20.91	
6/3/24 16:02	5.97	5.92	20.94	
6/3/24 16:03	11.04	11.03	20.14	
6/3/24 16:04	11.04	11.02	19.29	
6/3/24 16:05	9.36	9.33	18.59	
6/3/24 16:06	-0.04	-0.02	18	
6/3/24 16:07	9.45	9.98	17.72	
6/3/24 16:08	10.9	11.02	18.15	
6/4/24 7:27	12.27	-0.03	0.27	
6/4/24 7:28	0.07	0	0.31	
6/4/24 7:29	19.75	15.73	0.35	
6/4/24 7:30	22.1	22.17	0.34	
6/4/24 7:31	16.41	16.17	0.32	
6/4/24 7:32	10.95	10.98	0.31	
6/4/24 7:33	12.77	8.91	0.37	
6/4/24 7:34	20.92	0.07	0.31	
6/4/24 7:35	20.86	0.11	0.39	
6/4/24 7:36	20.85	0.12	0.42	
6/4/24 7:37	20.85	0.13	0.59	



BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/4/24 7:38	20.85	0.14	0.44	
6/4/24 7:39	20.85	0.14	0.57	
6/4/24 7:40	20.86	0.15	0.54	
6/4/24 7:41	20.85	0.16	0.54	
6/4/24 7:42	20.86	0.16	0.53	
6/4/24 7:43	20.87	0.16	0.54	
6/4/24 7:44	20.89	0.16	0.52	
6/4/24 7:45	20.89	0.17	0.49	
6/4/24 7:46	20.9	0.17	0.46	
6/4/24 7:47	20.92	0.17	2.42	
6/4/24 7:48	20.91	0.17	6.86	
6/4/24 7:49	20.92	0.17	6.93	
6/4/24 7:50	20.93	0.17	6.9	
6/4/24 7:51	20.76	0.18	7.13	
6/4/24 7:52	20.79	0.18	7.6	
6/4/24 7:53	20.8	0.19	9.47	
6/4/24 7:54	20.78	0.22	10.7	
6/4/24 7:55	20.82	0.2	9.7	
6/4/24 7:56	20.83	0.2	2.5	
6/4/24 7:57	20.84	0.2	0.12	
6/4/24 7:58	20.84	0.2	-0.02	
6/4/24 7:59	20.84	0.21	-0.03	
6/4/24 8:00	20.87	0.2	-0.03	
6/4/24 8:01	21.04	0.14	-0.04	
6/4/24 8:02	17.97	3.63	-0.04	
6/4/24 8:03	4.38	3.45	-0.04	
6/4/24 8:04	0.08	0.06	-0.04	
6/4/24 8:05	-0.01	0	-0.03	
6/4/24 8:06	6.94	5.18	0.18	
6/4/24 8:07	10.69	10.95	-0.01	
6/4/24 8:08	11.01	10.99	-0.04	
6/4/24 8:09	11.23	10.71	-0.04	
6/4/24 8:10	20.97	0.43	-0.02	
6/4/24 8:11	21.36	0.09	-0.04	
6/4/24 8:12	21.14	0.15	0.18	
6/4/24 8:13	20.33	0.14	-0.04	
6/4/24 8:14	21.4	0.09	-0.04	
6/4/24 8:15	21.41	0.08	-0.03	
6/4/24 8:16	21.42	0.08	0.05	
6/4/24 8:17	21.46	0.09	-0.04	
6/4/24 8:18	17.07	0.38	-0.04	
6/4/24 8:19	0.59	1.31	-0.03	
6/4/24 8:20	3.92	10.56	-0.02	
6/4/24 8:21	4.05	10.59	0.04	
6/4/24 8:22	4.01	10.62	-0.02	
6/4/24 8:23	4.03	10.64	-0.03	
6/4/24 8:24	3.85	10.75	0.02	
6/4/24 8:25	3.78	10.84	-0.01	
6/4/24 8:26	3.74	10.84	-0.04	
6/4/24 8:27	3.68	10.82	-0.04	
6/4/24 8:28	3.74	10.8	2.07	
6/4/24 8:29	3.76	10.8	33.65	
6/4/24 8:30	3.73	10.82	34.85	
6/4/24 8:31	3.57	10.93	42.59	
6/4/24 8:32	3.79	10.81	44.77	
6/4/24 8:33	3.89	10.75	44.81	
6/4/24 8:34	3.93	10.71	44.49	
6/4/24 8:35	3.84	10.74	29.91	
6/4/24 8:36	3.9	10.71	14.79	
6/4/24 8:37	3.9	10.72	15	
6/4/24 8:38	3.93	10.72	15.58	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/4/24 8:39	4.02	10.64	3.79	
6/4/24 8:40	4.14	10.56	0	
6/4/24 8:41	4.09	10.56	5.66	
6/4/24 8:42	4.06	10.57	23.94	
6/4/24 8:43	4.13	10.56	24.89	
6/4/24 8:44	4.17	10.56	24.92	
6/4/24 8:45	4.03	10.59	6.27	
6/4/24 8:46	4.09	10.54	-0.03	
6/4/24 8:47	4.1	10.53	0.26	
6/4/24 8:48	4.05	10.57	-0.03	
6/4/24 8:49	4.11	10.54	0.35	
6/4/24 8:50	4.04	10.6	-0.02	
6/4/24 8:51	4.09	10.56	-0.04	
6/4/24 8:52	4.03	10.61	-0.03	
6/4/24 8:53	4.03	10.6	-0.01	
6/4/24 8:54	4.15	10.56	-0.04	
6/4/24 8:55	4.05	10.63	-0.03	
6/4/24 8:56	4.05	10.64	-0.04	
6/4/24 8:57	4.1	10.6	-0.02	
6/4/24 8:58	4.15	10.58	-0.03	
6/4/24 8:59	4.12	10.6	0.08	
6/4/24 9:00	4.1	10.6	-0.04	
6/4/24 9:01	4.12	10.57	-0.03	
6/4/24 9:02	4.16	10.56	-0.03	
6/4/24 9:03	4.14	10.57	0.03	
6/4/24 9:04	4.21	10.54	0.07	
6/4/24 9:05	4.09	10.63	-0.03	
6/4/24 9:06	4.11	10.6	-0.03	
6/4/24 9:07	4.13	10.6	-0.01	
6/4/24 9:08	4.13	10.6	-0.01	
6/4/24 9:09	4.15	10.6	-0.03	
6/4/24 9:10	4.09	9.84	0	Strat check
6/4/24 9:11	3.57	8.9	0.05	
6/4/24 9:12	3.4	8.96	0.01	
6/4/24 9:13	3.65	9.41	0.04	
6/4/24 9:14	3.75	9.68	0.01	
6/4/24 9:15	3.83	9.63	0.02	
6/4/24 9:16	3.83	9.63	0.05	
6/4/24 9:17	3.79	9.65	0.08	
6/4/24 9:18	3.83	9.64	0.14	
6/4/24 9:19	3.81	9.65	0.18	
6/4/24 9:20	3.79	9.66	0.19	
6/4/24 9:21	3.81	9.65	0.19	
6/4/24 9:22	3.83	9.62	0.21	
6/4/24 9:23	3.74	9.72	0.21	
6/4/24 9:24	3.77	9.67	0.2	
6/4/24 9:25	3.76	9.69	0.19	
6/4/24 9:26	3.84	9.62	0.24	
6/4/24 9:27	3.81	9.62	0.23	
6/4/24 9:28	3.77	9.63	0.24	
6/4/24 9:29	3.84	9.61	0.36	
6/4/24 9:30	3.81	9.62	0.25	
6/4/24 9:31	3.74	9.67	0.31	
6/4/24 9:32	3.81	9.62	0.3	
6/4/24 9:33	3.62	9.69	0.29	
6/4/24 9:34	3.64	9.65	0.37	
6/4/24 9:35	3.67	9.61	0.41	
6/4/24 9:36	3.62	9.64	0.44	
6/4/24 9:37	3.69	9.61	0.4	
6/4/24 9:38	3.77	9.57	0.38	
6/4/24 9:39	3.66	9.64	0.4	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/4/24 23:54	21.37	0.13	-0.04	
6/4/24 23:55	21.37	0.13	-0.04	
6/4/24 23:56	21.37	0.13	-0.04	
6/4/24 23:57	21.37	0.13	-0.04	
6/4/24 23:58	21.37	0.13	-0.04	
6/4/24 23:59	21.37	0.13	-0.04	
6/5/24 0:00	21.37	0.13	-0.04	
6/5/24 0:01	21.37	0.13	-0.04	
6/5/24 0:02	21.37	0.13	-0.04	
6/5/24 0:03	21.37	0.13	-0.04	
6/5/24 0:04	21.37	0.13	-0.04	
6/5/24 0:05	21.37	0.13	-0.04	
6/5/24 0:06	21.37	0.13	-0.04	
6/5/24 0:07	21.37	0.13	-0.04	
6/5/24 0:08	21.37	0.13	-0.04	
6/5/24 0:09	21.37	0.13	-0.04	
6/5/24 0:10	21.37	0.13	-0.04	
6/5/24 0:11	21.38	0.13	-0.04	
6/5/24 0:12	21.38	0.13	-0.04	
6/5/24 0:13	21.38	0.12	-0.04	
6/5/24 0:14	21.38	0.12	-0.04	
6/5/24 0:15	21.38	0.13	-0.04	
6/5/24 0:16	21.38	0.13	-0.04	
6/5/24 0:17	21.38	0.13	-0.04	
6/5/24 0:18	21.38	0.13	-0.04	
6/5/24 0:19	21.38	0.13	-0.04	
6/5/24 0:20	21.37	0.13	-0.04	
6/5/24 0:21	21.37	0.13	-0.04	
6/5/24 0:22	21.37	0.13	-0.04	
6/5/24 0:23	21.37	0.13	-0.04	
6/5/24 0:24	21.37	0.12	-0.04	
6/5/24 0:25	21.37	0.12	-0.04	
6/5/24 0:26	21.38	0.13	-0.04	
6/5/24 0:27	21.37	0.13	-0.04	
6/5/24 0:28	21.37	0.13	-0.04	
6/5/24 0:29	21.37	0.13	-0.04	
6/5/24 0:30	21.37	0.13	-0.04	
6/5/24 0:31	21.37	0.13	-0.04	
6/5/24 0:32	21.37	0.12	-0.04	
6/5/24 0:33	21.37	0.13	-0.04	
6/5/24 0:34	21.37	0.13	-0.04	
6/5/24 0:35	21.37	0.13	-0.04	
6/5/24 0:36	21.37	0.12	-0.04	
6/5/24 0:37	21.37	0.12	-0.04	
6/5/24 0:38	21.38	0.12	-0.04	
6/5/24 0:39	21.38	0.12	-0.04	
6/5/24 0:40	21.38	0.13	-0.04	
6/5/24 0:41	21.38	0.12	-0.04	
6/5/24 0:42	21.38	0.12	-0.04	
6/5/24 0:43	21.38	0.13	-0.04	
6/5/24 0:44	21.38	0.13	-0.04	
6/5/24 0:45	21.38	0.13	-0.04	
6/5/24 0:46	21.38	0.13	-0.04	
6/5/24 0:47	21.38	0.12	-0.04	
6/5/24 0:48	21.38	0.13	-0.04	
6/5/24 0:49	21.38	0.12	-0.04	
6/5/24 0:50	21.38	0.12	-0.04	
6/5/24 0:51	21.38	0.12	-0.04	
6/5/24 0:52	21.37	0.12	-0.02	
6/5/24 0:53	21.37	0.12	-0.04	
6/5/24 0:54	21.38	0.12	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/5/24 0:55	21.38	0.13	-0.04	
6/5/24 0:56	21.38	0.12	-0.04	
6/5/24 0:57	21.38	0.12	-0.04	
6/5/24 0:58	21.38	0.12	-0.04	
6/5/24 0:59	21.38	0.12	-0.04	
6/5/24 1:00	21.38	0.12	-0.04	
6/5/24 1:01	21.38	0.12	-0.04	
6/5/24 1:02	21.38	0.12	-0.04	
6/5/24 1:03	21.38	0.12	-0.04	
6/5/24 1:04	21.38	0.12	-0.04	
6/5/24 1:05	21.39	0.12	-0.04	
6/5/24 1:06	21.39	0.12	-0.04	
6/5/24 1:07	21.39	0.12	-0.04	
6/5/24 1:08	21.39	0.12	0.05	
6/5/24 1:09	21.38	0.12	-0.04	
6/5/24 1:10	21.39	0.12	-0.04	
6/5/24 1:11	21.39	0.12	-0.04	
6/5/24 1:12	21.39	0.12	-0.04	
6/5/24 1:13	21.38	0.12	-0.04	
6/5/24 1:14	21.38	0.12	-0.04	
6/5/24 1:15	21.38	0.12	-0.01	
6/5/24 1:16	21.38	0.12	-0.04	
6/5/24 1:17	21.38	0.12	-0.04	
6/5/24 1:18	21.38	0.12	0	
6/5/24 1:19	21.38	0.12	-0.04	
6/5/24 1:20	21.38	0.12	-0.04	
6/5/24 1:21	21.38	0.12	-0.04	
6/5/24 1:22	21.38	0.12	-0.04	
6/5/24 1:23	21.38	0.12	-0.04	
6/5/24 1:24	21.38	0.12	-0.04	
6/5/24 1:25	21.38	0.11	-0.04	
6/5/24 1:26	21.38	0.12	-0.04	
6/5/24 1:27	21.39	0.12	-0.04	
6/5/24 1:28	21.39	0.11	-0.04	
6/5/24 1:29	21.39	0.11	-0.04	
6/5/24 1:30	21.39	0.11	-0.04	
6/5/24 1:31	21.39	0.11	-0.04	
6/5/24 1:32	21.39	0.11	-0.04	
6/5/24 1:33	21.39	0.11	-0.04	
6/5/24 1:34	21.39	0.12	-0.04	
6/5/24 1:35	21.39	0.11	-0.04	
6/5/24 1:36	21.39	0.11	-0.04	
6/5/24 1:37	21.39	0.11	-0.04	
6/5/24 1:38	21.39	0.11	-0.04	
6/5/24 1:39	21.38	0.11	-0.04	
6/5/24 1:40	21.38	0.11	-0.04	
6/5/24 1:41	21.38	0.11	-0.04	
6/5/24 1:42	21.38	0.11	-0.04	
6/5/24 1:43	21.38	0.11	-0.04	
6/5/24 1:44	21.38	0.11	-0.04	
6/5/24 1:45	21.38	0.11	-0.04	
6/5/24 1:46	21.38	0.11	-0.04	
6/5/24 1:47	21.38	0.11	-0.04	
6/5/24 1:48	21.38	0.11	-0.04	
6/5/24 1:49	21.38	0.11	-0.04	
6/5/24 1:50	21.38	0.11	-0.04	
6/5/24 1:51	21.38	0.11	-0.04	
6/5/24 1:52	21.38	0.11	-0.04	
6/5/24 1:53	21.38	0.11	-0.04	
6/5/24 1:54	21.38	0.11	-0.04	
6/5/24 1:55	21.38	0.11	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/5/24 1:56	21.38	0.11	-0.04	
6/5/24 1:57	21.38	0.11	-0.04	
6/5/24 1:58	21.38	0.11	-0.04	
6/5/24 1:59	21.38	0.11	-0.04	
6/5/24 2:00	21.38	0.11	0.07	
6/5/24 2:01	21.38	0.11	-0.04	
6/5/24 2:02	21.38	0.11	-0.04	
6/5/24 2:03	21.38	0.11	-0.04	
6/5/24 2:04	21.38	0.11	-0.04	
6/5/24 2:05	21.38	0.11	-0.04	
6/5/24 2:06	21.38	0.11	-0.04	
6/5/24 2:07	21.38	0.11	-0.04	
6/5/24 2:08	21.38	0.11	-0.04	
6/5/24 2:09	21.38	0.11	-0.04	
6/5/24 2:10	21.38	0.11	-0.04	
6/5/24 2:11	21.38	0.11	-0.01	
6/5/24 2:12	21.38	0.11	-0.04	
6/5/24 2:13	21.39	0.11	-0.04	
6/5/24 2:14	21.39	0.11	-0.04	
6/5/24 2:15	21.38	0.11	-0.04	
6/5/24 2:16	21.38	0.11	-0.04	
6/5/24 2:17	21.38	0.11	-0.04	
6/5/24 2:18	21.38	0.11	-0.04	
6/5/24 2:19	21.38	0.11	-0.04	
6/5/24 2:20	21.38	0.11	-0.04	
6/5/24 2:21	21.38	0.1	-0.04	
6/5/24 2:22	21.39	0.11	-0.04	
6/5/24 2:23	21.38	0.11	-0.04	
6/5/24 2:24	21.39	0.1	-0.04	
6/5/24 2:25	21.38	0.1	0.08	
6/5/24 2:26	21.38	0.1	-0.04	
6/5/24 2:27	21.38	0.1	-0.04	
6/5/24 2:28	21.38	0.11	-0.04	
6/5/24 2:29	21.39	0.11	-0.04	
6/5/24 2:30	21.39	0.11	-0.04	
6/5/24 2:31	21.39	0.1	-0.04	
6/5/24 2:32	21.38	0.1	-0.04	
6/5/24 2:33	21.38	0.1	-0.04	
6/5/24 2:34	21.38	0.1	-0.04	
6/5/24 2:35	21.39	0.1	-0.04	
6/5/24 2:36	21.39	0.1	-0.04	
6/5/24 2:37	21.39	0.1	-0.04	
6/5/24 2:38	21.39	0.1	-0.04	
6/5/24 2:39	21.39	0.1	-0.04	
6/5/24 2:40	21.39	0.1	-0.04	
6/5/24 2:41	21.39	0.1	-0.03	
6/5/24 2:42	21.39	0.1	-0.04	
6/5/24 2:43	21.39	0.1	-0.04	
6/5/24 2:44	21.39	0.1	-0.04	
6/5/24 2:45	21.39	0.11	-0.04	
6/5/24 2:46	21.39	0.1	0.03	
6/5/24 2:47	21.39	0.1	-0.04	
6/5/24 2:48	21.39	0.1	-0.04	
6/5/24 2:49	21.39	0.1	-0.04	
6/5/24 2:50	21.39	0.1	-0.04	
6/5/24 2:51	21.39	0.1	-0.04	
6/5/24 2:52	21.39	0.1	-0.04	
6/5/24 2:53	21.39	0.1	-0.04	
6/5/24 2:54	21.4	0.1	-0.04	
6/5/24 2:55	21.39	0.1	-0.04	
6/5/24 2:56	21.39	0.1	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/5/24 2:57	21.39	0.1	-0.04	
6/5/24 2:58	21.39	0.1	-0.04	
6/5/24 2:59	21.39	0.1	-0.04	
6/5/24 3:00	21.39	0.1	-0.04	
6/5/24 3:01	21.39	0.1	-0.03	
6/5/24 3:02	21.39	0.1	-0.04	
6/5/24 3:03	21.39	0.1	-0.04	
6/5/24 3:04	21.39	0.1	-0.04	
6/5/24 3:05	21.39	0.1	-0.04	
6/5/24 3:06	21.39	0.1	-0.04	
6/5/24 3:07	21.39	0.1	-0.04	
6/5/24 3:08	21.39	0.1	-0.04	
6/5/24 3:09	21.39	0.1	-0.04	
6/5/24 3:10	21.39	0.1	-0.04	
6/5/24 3:11	21.39	0.1	-0.04	
6/5/24 3:12	21.39	0.1	-0.04	
6/5/24 3:13	21.39	0.1	-0.04	
6/5/24 3:14	21.39	0.1	-0.04	
6/5/24 3:15	21.39	0.1	-0.04	
6/5/24 3:16	21.39	0.1	-0.04	
6/5/24 3:17	21.39	0.09	-0.04	
6/5/24 3:18	21.39	0.09	-0.04	
6/5/24 3:19	21.39	0.1	-0.04	
6/5/24 3:20	21.39	0.1	-0.04	
6/5/24 3:21	21.39	0.1	-0.04	
6/5/24 3:22	21.39	0.09	-0.04	
6/5/24 3:23	21.39	0.1	-0.04	
6/5/24 3:24	21.39	0.1	-0.04	
6/5/24 3:25	21.39	0.1	-0.04	
6/5/24 3:26	21.39	0.1	-0.04	
6/5/24 3:27	21.39	0.1	-0.04	
6/5/24 3:28	21.39	0.1	-0.04	
6/5/24 3:29	21.39	0.1	0.05	
6/5/24 3:30	21.39	0.1	-0.04	
6/5/24 3:31	21.39	0.1	-0.04	
6/5/24 3:32	21.39	0.1	-0.04	
6/5/24 3:33	21.39	0.1	-0.04	
6/5/24 3:34	21.39	0.1	-0.04	
6/5/24 3:35	21.39	0.1	-0.04	
6/5/24 3:36	21.39	0.1	-0.04	
6/5/24 3:37	21.39	0.09	-0.04	
6/5/24 3:38	21.39	0.09	0	
6/5/24 3:39	21.39	0.1	-0.04	
6/5/24 3:40	21.39	0.09	-0.04	
6/5/24 3:41	21.39	0.09	0.22	
6/5/24 3:42	21.4	0.1	-0.04	
6/5/24 3:43	21.4	0.09	-0.04	
6/5/24 3:44	21.4	0.09	-0.04	
6/5/24 3:45	21.4	0.09	-0.04	
6/5/24 3:46	21.4	0.09	-0.04	
6/5/24 3:47	21.39	0.09	-0.04	
6/5/24 3:48	21.4	0.09	-0.04	
6/5/24 3:49	21.4	0.09	-0.04	
6/5/24 3:50	21.4	0.09	-0.04	
6/5/24 3:51	21.39	0.09	-0.04	
6/5/24 3:52	21.39	0.09	-0.04	
6/5/24 3:53	21.39	0.09	-0.04	
6/5/24 3:54	21.39	0.1	-0.04	
6/5/24 3:55	21.39	0.09	-0.04	
6/5/24 3:56	21.39	0.09	-0.04	
6/5/24 3:57	21.4	0.09	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/5/24 3:58	21.39	0.09	-0.04	
6/5/24 3:59	21.39	0.09	-0.04	
6/5/24 4:00	21.39	0.09	-0.04	
6/5/24 4:01	21.39	0.09	-0.04	
6/5/24 4:02	21.39	0.09	-0.04	
6/5/24 4:03	21.39	0.09	-0.04	
6/5/24 4:04	21.39	0.09	-0.04	
6/5/24 4:05	21.39	0.09	-0.04	
6/5/24 4:06	21.39	0.09	-0.04	
6/5/24 4:07	21.39	0.09	-0.04	
6/5/24 4:08	21.39	0.09	-0.04	
6/5/24 4:09	21.39	0.1	-0.04	
6/5/24 4:10	21.39	0.09	-0.04	
6/5/24 4:11	21.39	0.09	-0.04	
6/5/24 4:12	21.39	0.09	-0.04	
6/5/24 4:13	21.39	0.09	-0.04	
6/5/24 4:14	21.39	0.09	-0.04	
6/5/24 4:15	21.39	0.09	-0.04	
6/5/24 4:16	21.39	0.09	-0.04	
6/5/24 4:17	21.39	0.09	-0.04	
6/5/24 4:18	21.39	0.09	-0.04	
6/5/24 4:19	21.39	0.09	-0.04	
6/5/24 4:20	21.39	0.09	-0.04	
6/5/24 4:21	21.39	0.09	0.35	
6/5/24 4:22	21.39	0.09	-0.04	
6/5/24 4:23	21.39	0.09	-0.04	
6/5/24 4:24	21.39	0.09	-0.04	
6/5/24 4:25	21.39	0.09	-0.04	
6/5/24 4:26	21.39	0.09	-0.04	
6/5/24 4:27	21.39	0.09	-0.04	
6/5/24 4:28	21.39	0.09	-0.04	
6/5/24 4:29	21.39	0.09	-0.04	
6/5/24 4:30	21.39	0.09	-0.04	
6/5/24 4:31	21.38	0.09	-0.01	
6/5/24 4:32	21.38	0.09	0.04	
6/5/24 4:33	21.38	0.09	-0.04	
6/5/24 4:34	21.38	0.09	-0.04	
6/5/24 4:35	21.38	0.09	-0.04	
6/5/24 4:36	21.38	0.09	-0.04	
6/5/24 4:37	21.38	0.09	-0.04	
6/5/24 4:38	21.38	0.09	-0.04	
6/5/24 4:39	21.38	0.09	-0.04	
6/5/24 4:40	21.38	0.09	-0.04	
6/5/24 4:41	21.38	0.09	-0.04	
6/5/24 4:42	21.38	0.09	-0.04	
6/5/24 4:43	21.38	0.09	-0.04	
6/5/24 4:44	21.38	0.09	-0.04	
6/5/24 4:45	21.38	0.09	-0.04	
6/5/24 4:46	21.38	0.09	-0.04	
6/5/24 4:47	21.38	0.09	-0.04	
6/5/24 4:48	21.39	0.09	0.06	
6/5/24 4:49	21.39	0.09	-0.04	
6/5/24 4:50	21.39	0.09	-0.04	
6/5/24 4:51	21.39	0.09	-0.03	
6/5/24 4:52	21.39	0.09	-0.04	
6/5/24 4:53	21.39	0.09	-0.04	
6/5/24 4:54	21.39	0.09	0.09	
6/5/24 4:55	21.39	0.08	-0.04	
6/5/24 4:56	21.39	0.08	-0.04	
6/5/24 4:57	21.39	0.09	-0.04	
6/5/24 4:58	21.4	0.08	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/5/24 4:59	21.4	0.08	-0.04	
6/5/24 5:00	21.4	0.08	-0.04	
6/5/24 5:01	21.39	0.09	-0.04	
6/5/24 5:02	21.39	0.09	-0.04	
6/5/24 5:03	21.39	0.09	-0.04	
6/5/24 5:04	21.39	0.08	-0.04	
6/5/24 5:05	21.39	0.09	-0.04	
6/5/24 5:06	21.39	0.08	-0.04	
6/5/24 5:07	21.39	0.08	-0.04	
6/5/24 5:08	21.39	0.08	-0.04	
6/5/24 5:09	21.39	0.09	-0.04	
6/5/24 5:10	21.39	0.08	-0.04	
6/5/24 5:11	21.4	0.08	-0.04	
6/5/24 5:12	21.39	0.09	-0.04	
6/5/24 5:13	21.39	0.08	-0.04	
6/5/24 5:14	21.39	0.08	-0.04	
6/5/24 5:15	21.39	0.08	-0.04	
6/5/24 5:16	21.39	0.09	-0.04	
6/5/24 5:17	21.39	0.08	-0.04	
6/5/24 5:18	21.39	0.08	-0.04	
6/5/24 5:19	21.39	0.09	-0.04	
6/5/24 5:20	21.39	0.08	-0.04	
6/5/24 5:21	21.39	0.08	-0.04	
6/5/24 5:22	21.39	0.08	-0.04	
6/5/24 5:23	21.39	0.08	-0.04	
6/5/24 5:24	21.39	0.08	-0.04	
6/5/24 5:25	21.39	0.08	-0.04	
6/5/24 5:26	21.39	0.08	-0.04	
6/5/24 5:27	21.39	0.08	-0.04	
6/5/24 5:28	21.39	0.08	-0.04	
6/5/24 5:29	21.39	0.08	-0.04	
6/5/24 5:30	21.39	0.08	-0.04	
6/5/24 5:31	21.39	0.09	-0.04	
6/5/24 5:32	21.39	0.08	-0.04	
6/5/24 5:33	21.39	0.08	-0.04	
6/5/24 5:34	21.39	0.08	-0.04	
6/5/24 5:35	21.39	0.09	-0.04	
6/5/24 5:36	21.39	0.09	-0.04	
6/5/24 5:37	21.39	0.09	-0.04	
6/5/24 5:38	21.39	0.08	-0.04	
6/5/24 5:39	21.39	0.08	-0.04	
6/5/24 5:40	21.39	0.08	-0.04	
6/5/24 5:41	21.39	0.09	-0.04	
6/5/24 5:42	21.39	0.09	-0.04	
6/5/24 5:43	21.39	0.08	0.12	
6/5/24 5:44	21.39	0.08	-0.04	
6/5/24 5:45	21.39	0.08	-0.04	
6/5/24 5:46	21.39	0.08	-0.04	
6/5/24 5:47	21.39	0.08	-0.04	
6/5/24 5:48	21.39	0.08	-0.04	
6/5/24 5:49	21.39	0.08	-0.04	
6/5/24 5:50	21.39	0.08	-0.04	
6/5/24 5:51	21.39	0.08	-0.04	
6/5/24 5:52	21.39	0.08	-0.04	
6/5/24 5:53	21.39	0.08	-0.04	
6/5/24 5:54	21.39	0.08	-0.04	
6/5/24 5:55	21.39	0.08	-0.04	
6/5/24 5:56	21.39	0.08	-0.04	
6/5/24 5:57	21.39	0.08	-0.04	
6/5/24 5:58	21.39	0.08	-0.04	
6/5/24 5:59	21.39	0.08	-0.04	



BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/5/24 6:00	21.39	0.08	-0.04	
6/5/24 6:01	21.38	0.08	-0.04	
6/5/24 6:02	21.38	0.08	-0.04	
6/5/24 6:03	21.39	0.08	-0.04	
6/5/24 6:04	21.38	0.08	-0.04	
6/5/24 6:05	21.38	0.08	-0.04	
6/5/24 6:06	21.38	0.08	-0.04	
6/5/24 6:07	21.38	0.08	-0.04	
6/5/24 6:08	21.38	0.08	-0.04	
6/5/24 6:09	21.38	0.08	-0.04	
6/5/24 6:10	21.38	0.08	-0.04	
6/5/24 6:11	21.38	0.08	-0.04	
6/5/24 6:12	21.38	0.08	-0.04	
6/5/24 6:13	21.38	0.08	-0.04	
6/5/24 6:14	21.38	0.08	-0.04	
6/5/24 6:15	21.38	0.08	-0.04	
6/5/24 6:16	21.38	0.08	-0.04	
6/5/24 6:17	21.38	0.08	-0.04	
6/5/24 6:18	21.38	0.08	-0.04	
6/5/24 6:19	21.38	0.08	-0.04	
6/5/24 6:20	21.38	0.08	0.32	
6/5/24 6:21	21.38	0.08	-0.04	
6/5/24 6:22	21.38	0.08	-0.04	
6/5/24 6:23	21.38	0.08	-0.04	
6/5/24 6:24	21.38	0.08	-0.04	
6/5/24 6:25	21.38	0.08	-0.04	
6/5/24 6:26	21.38	0.08	-0.04	
6/5/24 6:27	21.38	0.08	-0.04	
6/5/24 6:28	21.38	0.08	-0.04	
6/5/24 6:29	21.38	0.08	-0.04	
6/5/24 6:30	21.38	0.08	-0.04	
6/5/24 6:31	21.38	0.08	-0.04	
6/5/24 6:32	21.38	0.08	-0.04	
6/5/24 6:33	21.38	0.08	-0.04	
6/5/24 6:34	21.38	0.08	-0.04	
6/5/24 6:35	21.38	0.08	-0.04	
6/5/24 6:36	21.38	0.08	-0.04	
6/5/24 6:37	21.38	0.08	-0.04	
6/5/24 6:38	21.38	0.08	-0.04	
6/5/24 6:39	21.38	0.08	-0.04	
6/5/24 6:40	21.38	0.08	0.05	
6/5/24 6:41	21.38	0.08	-0.04	
6/5/24 6:42	21.38	0.08	-0.04	
6/5/24 6:43	21.38	0.08	-0.04	
6/5/24 6:44	21.38	0.08	-0.04	
6/5/24 6:45	21.39	0.08	-0.04	
6/5/24 6:46	21.39	0.08	-0.04	
6/5/24 6:47	21.38	0.08	-0.04	
6/5/24 6:48	21.38	0.08	-0.04	
6/5/24 6:49	21.38	0.07	-0.04	
6/5/24 6:50	21.38	0.08	-0.04	
6/5/24 6:51	21.39	0.08	-0.04	
6/5/24 6:52	21.39	0.08	-0.04	
6/5/24 6:53	21.39	0.08	-0.04	
6/5/24 6:54	21.27	0.08	-0.04	
6/5/24 6:55	21.26	0.09	-0.04	
6/5/24 6:56	21.25	0.09	-0.04	
6/5/24 6:57	6.99	0.02	-0.04	
6/5/24 6:58	-0.04	-0.03	-0.04	Bias
6/5/24 6:59	2.08	1.46	-0.04	
6/5/24 7:00	4.04	3.16	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/5/24 7:01	5.09	5.71	-0.04	
6/5/24 7:02	3.91	3.75	-0.04	
6/5/24 7:03	10.98	10.86	-0.04	
6/5/24 7:04	11.02	11.01	-0.04	
6/5/24 7:05	4.12	4.17	-0.04	
6/5/24 7:06	-0.04	0.08	-0.04	
6/5/24 7:07	17.08	16.78	-0.04	
6/5/24 7:08	20.52	20.3	-0.04	
6/5/24 7:09	10.91	10.83	-0.04	
6/5/24 7:10	10.97	11.04	-0.04	
6/5/24 7:11	11.82	10.08	-0.04	
6/5/24 7:12	21.21	0.17	-0.04	
6/5/24 7:13	20.96	0.2	-0.04	
6/5/24 7:14	21.03	0.21	-0.04	
6/5/24 7:15	21.08	0.22	-0.04	
6/5/24 7:16	21.09	0.22	-0.04	
6/5/24 7:17	21.11	0.22	-0.04	
6/5/24 7:18	21.13	0.22	-0.04	
6/5/24 7:19	21.15	0.22	-0.04	
6/5/24 7:20	21.16	0.22	28.47	
6/5/24 7:21	21.18	0.22	40.65	
6/5/24 7:22	21.19	0.22	42.2	
6/5/24 7:23	21.21	0.22	44.78	
6/5/24 7:24	21.23	0.22	41.47	
6/5/24 7:25	21.24	0.23	13.5	
6/5/24 7:26	21.24	0.23	15.09	
6/5/24 7:27	21.23	0.23	15.43	
6/5/24 7:28	21.23	0.24	25.16	
6/5/24 7:29	21.23	0.24	25.03	
6/5/24 7:30	21.23	0.24	9.6	
6/5/24 7:31	21.24	0.24	0.17	
6/5/24 7:32	21.25	0.24	0.08	
6/5/24 7:33	21.17	0.26	0.06	
6/5/24 7:34	20.55	0.3	1.18	
6/5/24 7:35	7.01	8.67	0.12	
6/5/24 7:36	0.45	0.44	-0.01	
6/5/24 7:37	0.04	-0.03	0.04	
6/5/24 7:38	0.01	-0.03	0.08	
6/5/24 7:39	0.01	-0.03	0.09	
6/5/24 7:40	8.53	8.58	0.14	
6/5/24 7:41	11.03	10.93	0.3	
6/5/24 7:42	11.05	11.01	0.29	
6/5/24 7:43	11.05	11.01	0.36	
6/5/24 7:44	11.06	11.02	0.37	
6/5/24 7:45	11.06	11.02	0.39	
6/5/24 7:46	5.24	10.82	0.37	
6/5/24 7:47	4.26	10.74	0.44	
6/5/24 7:48	4.21	10.76	0.37	
6/5/24 7:49	4.46	10.77	0.01	
6/5/24 7:50	4.1	10.81	-0.03	
6/5/24 7:51	4.15	10.78	0	
6/5/24 7:52	4.23	10.72	-0.03	
6/5/24 7:53	4.11	10.78	-0.02	
6/5/24 7:54	4.12	10.76	0.01	
6/5/24 7:55	4.18	10.71	0.09	
6/5/24 7:56	4.18	10.7	0.01	
6/5/24 7:57	4.13	10.72	-0.04	
6/5/24 7:58	4.15	10.7	0.03	
6/5/24 7:59	4.16	10.7	0.42	
6/5/24 8:00	4.18	10.68	-0.04	
6/5/24 8:01	4.13	10.71	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/5/24 8:02	4.12	10.71	-0.04	
6/5/24 8:03	4.13	10.71	-0.03	
6/5/24 8:04	4.17	10.68	0.09	
6/5/24 8:05	4.13	10.68	-0.04	
6/5/24 8:06	4.12	10.69	-0.04	
6/5/24 8:07	4.13	10.68	0.01	
6/5/24 8:08	4.2	10.65	-0.01	
6/5/24 8:09	4.16	10.67	-0.04	
6/5/24 8:10	4.22	10.63	-0.04	
6/5/24 8:11	4.14	10.67	-0.03	
6/5/24 8:12	4.12	10.68	0.04	
6/5/24 8:13	4.06	10.71	0	
6/5/24 8:14	4.16	10.65	-0.01	
6/5/24 8:15	4.2	10.65	-0.02	
6/5/24 8:16	4.14	10.68	-0.01	
6/5/24 8:17	4.15	10.67	-0.01	
6/5/24 8:18	4.18	10.65	0.12	
6/5/24 8:19	4.22	10.63	-0.02	
6/5/24 8:20	4.06	10.71	0.01	
6/5/24 8:21	3.92	10.76	-0.03	
6/5/24 8:22	4.03	10.69	-0.02	
6/5/24 8:23	4.11	10.64	-0.02	
6/5/24 8:24	4.02	10.69	-0.04	
6/5/24 8:25	4.01	10.7	-0.01	
6/5/24 8:26	4.01	10.69	0.02	
6/5/24 8:27	3.95	10.7	-0.03	
6/5/24 8:28	3.98	10.68	0.51	
6/5/24 8:29	3.99	10.67	-0.04	
6/5/24 8:30	3.9	10.72	-0.03	
6/5/24 8:31	3.96	10.68	-0.03	
6/5/24 8:32	3.93	10.68	0.14	
6/5/24 8:33	3.91	10.68	0.02	
6/5/24 8:34	3.96	10.64	-0.02	
6/5/24 8:35	3.94	10.64	-0.01	
6/5/24 8:36	3.91	10.65	-0.03	
6/5/24 8:37	3.83	10.71	-0.04	
6/5/24 8:38	3.84	10.69	-0.04	
6/5/24 8:39	3.87	10.66	-0.03	
6/5/24 8:40	3.83	10.68	-0.04	
6/5/24 8:41	3.8	10.69	-0.04	
6/5/24 8:42	3.68	10.74	-0.03	
6/5/24 8:43	3.65	10.75	0.12	
6/5/24 8:44	3.74	10.69	-0.04	
6/5/24 8:45	3.73	10.69	-0.04	
6/5/24 8:46	3.74	10.68	-0.03	
6/5/24 8:47	3.69	10.72	-0.01	
6/5/24 8:48	3.65	10.73	-0.04	
6/5/24 8:49	3.72	10.7	-0.04	
6/5/24 8:50	3.65	10.75	-0.04	
6/5/24 8:51	3.62	10.76	-0.03	
6/5/24 8:52	3.67	10.72	-0.04	
6/5/24 8:53	3.63	10.74	-0.02	
6/5/24 8:54	3.52	10.78	0.21	
6/5/24 8:55	3.48	10.78	-0.04	
6/5/24 8:56	3.54	10.73	-0.01	
6/5/24 8:57	3.6	10.68	-0.02	
6/5/24 8:58	3.6	10.66	-0.04	
6/5/24 8:59	3.62	10.65	-0.03	
6/5/24 9:00	3.66	10.64	-0.03	
6/5/24 9:01	3.54	10.72	-0.01	
6/5/24 9:02	3.53	10.74	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/5/24 9:03	3.58	10.7	-0.04	
6/5/24 9:04	3.51	10.73	-0.04	
6/5/24 9:05	3.43	10.77	-0.02	
6/5/24 9:06	3.57	10.69	-0.03	
6/5/24 9:07	3.62	10.66	-0.04	
6/5/24 9:08	3.59	10.69	0.01	
6/5/24 9:09	3.51	10.73	-0.02	
6/5/24 9:10	3.51	10.72	-0.04	
6/5/24 9:11	3.54	10.71	-0.04	
6/5/24 9:12	3.57	10.69	-0.04	
6/5/24 9:13	3.47	10.75	-0.04	
6/5/24 9:14	3.56	10.7	-0.03	
6/5/24 9:15	3.58	10.69	-0.02	
6/5/24 9:16	3.6	10.69	-0.03	
6/5/24 9:17	3.54	10.73	0.24	
6/5/24 9:18	3.55	10.72	0.01	
6/5/24 9:19	3.54	10.74	-0.04	
6/5/24 9:20	3.54	10.74	-0.02	
6/5/24 9:21	3.51	10.76	-0.01	
6/5/24 9:22	3.46	10.8	-0.02	
6/5/24 9:23	3.56	10.73	0.05	
6/5/24 9:24	3.56	10.72	-0.04	
6/5/24 9:25	3.52	10.76	0.02	
6/5/24 9:26	3.55	10.74	-0.04	
6/5/24 9:27	3.59	10.71	-0.02	
6/5/24 9:28	3.54	10.74	-0.02	
6/5/24 9:29	3.53	10.75	-0.04	
6/5/24 9:30	3.56	10.73	-0.04	
6/5/24 9:31	3.53	10.74	-0.04	
6/5/24 9:32	3.59	10.71	-0.02	
6/5/24 9:33	3.51	10.79	-0.04	
6/5/24 9:34	3.5	10.82	-0.02	
6/5/24 9:35	3.58	10.72	0.12	Run 2
6/5/24 9:36	3.53	10.74	0	
6/5/24 9:37	3.59	10.72	-0.04	
6/5/24 9:38	3.61	10.7	0.19	
6/5/24 9:39	3.65	10.67	0.05	
6/5/24 9:40	3.6	10.69	0.31	Pause for lightning
6/5/24 9:41	3.53	10.74	-0.01	
6/5/24 9:42	3.49	10.75	-0.02	
6/5/24 9:43	3.49	10.74	0.03	
6/5/24 9:44	3.55	10.71	0	
6/5/24 9:45	3.5	10.73	0	
6/5/24 9:46	3.5	10.71	-0.01	
6/5/24 9:47	3.54	10.68	-0.03	
6/5/24 9:48	3.58	10.65	-0.03	
6/5/24 9:49	3.51	10.7	-0.03	
6/5/24 9:50	3.56	10.66	-0.03	
6/5/24 9:51	3.49	10.69	0.1	
6/5/24 9:52	3.52	10.66	0.06	
6/5/24 9:53	3.55	10.64	-0.04	
6/5/24 9:54	3.54	10.63	0.2	
6/5/24 9:55	3.54	10.62	0.12	
6/5/24 9:56	3.55	10.6	0	
6/5/24 9:57	3.47	10.64	-0.03	
6/5/24 9:58	3.47	10.63	0.04	
6/5/24 9:59	3.57	10.56	0.35	
6/5/24 10:00	3.41	10.64	-0.03	
6/5/24 10:01	3.43	10.62	-0.04	
6/5/24 10:02	3.44	10.61	0.04	
6/5/24 10:03	3.48	10.57	-0.01	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/5/24 10:04	3.48	10.56	-0.04	
6/5/24 10:05	3.53	10.52	-0.04	
6/5/24 10:06	3.43	10.57	0	
6/5/24 10:07	3.53	10.49	-0.04	
6/5/24 10:08	3.48	10.51	-0.04	
6/5/24 10:09	3.47	10.5	-0.04	
6/5/24 10:10	3.45	10.53	-0.04	
6/5/24 10:11	3.55	10.45	-0.04	
6/5/24 10:12	3.55	10.46	-0.04	
6/5/24 10:13	3.6	10.44	-0.04	
6/5/24 10:14	3.52	10.48	-0.04	
6/5/24 10:15	3.4	10.55	-0.04	
6/5/24 10:16	3.33	10.59	-0.03	
6/5/24 10:17	3.46	10.52	-0.02	
6/5/24 10:18	3.64	10.41	-0.02	Bias
6/5/24 10:19	3.6	10.44	-0.04	
6/5/24 10:20	3.6	10.45	0.53	
6/5/24 10:21	3.56	10.49	18.23	
6/5/24 10:22	3.58	10.49	25.05	
6/5/24 10:23	3.59	10.52	14.17	
6/5/24 10:24	3.43	10.62	-0.04	
6/5/24 10:25	3.56	10.54	-0.04	
6/5/24 10:26	3.51	10.58	-0.03	
6/5/24 10:27	3.55	10.56	-0.04	
6/5/24 10:28	3.58	10.57	-0.04	
6/5/24 10:29	3.69	10.54	-0.04	
6/5/24 10:30	3.52	10.67	-0.04	
6/5/24 10:31	3.52	10.68	-0.03	
6/5/24 10:32	3.49	10.7	-0.04	
6/5/24 10:33	3.47	10.72	-0.03	
6/5/24 10:34	3.52	10.69	-0.03	
6/5/24 10:35	3.55	10.68	-0.04	
6/5/24 10:36	3.63	10.63	-0.04	
6/5/24 10:37	3.51	10.71	-0.04	
6/5/24 10:38	3.47	10.75	-0.04	
6/5/24 10:39	3.46	10.77	-0.04	
6/5/24 10:40	3.52	10.74	-0.04	
6/5/24 10:41	3.52	10.74	-0.04	
6/5/24 10:42	3.45	10.78	-0.03	
6/5/24 10:43	3.48	10.77	-0.04	
6/5/24 10:44	3.54	10.74	-0.04	
6/5/24 10:45	3.46	10.8	-0.01	
6/5/24 10:46	3.63	10.69	-0.04	
6/5/24 10:47	3.54	10.76	-0.02	
6/5/24 10:48	3.47	10.81	-0.04	
6/5/24 10:49	3.48	10.81	-0.04	
6/5/24 10:50	3.5	10.8	-0.04	
6/5/24 10:51	3.46	10.83	-0.04	
6/5/24 10:52	3.49	10.81	-0.04	
6/5/24 10:53	3.59	10.77	-0.04	
6/5/24 10:54	3.48	10.85	0.26	
6/5/24 10:55	3.56	10.79	-0.03	
6/5/24 10:56	3.53	10.82	-0.04	
6/5/24 10:57	3.55	10.81	-0.04	
6/5/24 10:58	3.55	10.81	-0.04	
6/5/24 10:59	3.53	10.82	-0.03	
6/5/24 11:00	3.47	10.84	-0.04	
6/5/24 11:01	3.57	10.78	-0.04	
6/5/24 11:02	3.62	10.75	-0.04	
6/5/24 11:03	3.65	10.72	0.01	
6/5/24 11:04	3.53	10.78	-0.03	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/5/24 11:05	3.57	10.77	-0.04	
6/5/24 11:06	3.64	10.72	0.22	
6/5/24 11:07	3.55	10.76	-0.04	
6/5/24 11:08	3.56	10.75	-0.04	
6/5/24 11:09	3.57	10.73	-0.04	
6/5/24 11:10	3.66	10.67	-0.04	
6/5/24 11:11	3.59	10.7	-0.04	
6/5/24 11:12	3.54	10.74	-0.04	
6/5/24 11:13	3.62	10.7	-0.04	
6/5/24 11:14	3.57	10.72	-0.01	
6/5/24 11:15	3.56	10.72	-0.04	
6/5/24 11:16	3.53	10.74	-0.04	
6/5/24 11:17	3.59	10.69	0.96	
6/5/24 11:18	3.52	10.73	-0.04	
6/5/24 11:19	3.48	10.74	-0.04	
6/5/24 11:20	3.51	10.72	-0.03	
6/5/24 11:21	3.55	10.68	0.01	THC Bias
6/5/24 11:22	3.55	10.69	9.82	
6/5/24 11:23	3.51	10.71	25.24	
6/5/24 11:24	3.54	10.69	11.93	
6/5/24 11:25	3.49	10.73	-0.03	
6/5/24 11:26	3.53	10.72	-0.03	
6/5/24 11:27	3.48	10.74	0.01	
6/5/24 11:28	3.56	10.68	-0.02	
6/5/24 11:29	3.52	10.7	-0.03	
6/5/24 11:30	3.52	10.69	-0.02	
6/5/24 11:31	3.49	10.71	0	
6/5/24 11:32	3.53	10.67	0	
6/5/24 11:33	3.55	10.67	0.04	
6/5/24 11:34	3.53	10.67	0.04	
6/5/24 11:35	3.59	10.62	0.1	
6/5/24 11:36	3.59	10.62	0.12	
6/5/24 11:37	3.57	10.63	0.86	
6/5/24 11:38	3.53	10.65	0.42	
6/5/24 11:39	3.56	10.63	0.25	
6/5/24 11:40	3.57	10.62	0.2	
6/5/24 11:41	3.53	10.64	0.32	
6/5/24 11:42	3.55	10.61	0.22	
6/5/24 11:43	3.56	10.6	0.25	
6/5/24 11:44	3.5	10.62	0.23	
6/5/24 11:45	3.49	10.62	0.59	
6/5/24 11:46	3.49	10.6	0.23	
6/5/24 11:47	3.55	10.57	0.2	
6/5/24 11:48	3.5	10.6	0.14	
6/5/24 11:49	3.53	10.57	0.33	
6/5/24 11:50	3.55	10.55	0.19	
6/5/24 11:51	3.53	10.56	0.18	
6/5/24 11:52	3.58	10.54	0.14	
6/5/24 11:53	3.58	10.54	0.13	
6/5/24 11:54	3.59	10.53	0.09	
6/5/24 11:55	3.58	10.54	0.21	
6/5/24 11:56	3.56	10.55	0.13	
6/5/24 11:57	3.55	10.56	0.1	
6/5/24 11:58	3.54	10.55	0.13	
6/5/24 11:59	3.54	10.55	0.12	
6/5/24 12:00	3.59	10.53	0.18	
6/5/24 12:01	3.57	10.54	0.24	
6/5/24 12:02	3.65	10.49	0.37	
6/5/24 12:03	3.54	10.55	0.21	
6/5/24 12:04	3.57	10.53	0.21	
6/5/24 12:05	3.52	10.54	0.3	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/5/24 12:06	3.6	10.49	0.25	
6/5/24 12:07	3.62	10.47	0.46	
6/5/24 12:08	3.6	10.49	0.35	
6/5/24 12:09	3.55	10.5	0.21	
6/5/24 12:10	3.51	10.51	0.23	
6/5/24 12:11	3.62	10.45	1	
6/5/24 12:12	3.48	10.53	-0.01	
6/5/24 12:13	3.55	10.5	0.29	
6/5/24 12:14	3.68	10.42	-0.04	
6/5/24 12:15	3.54	10.5	0.07	
6/5/24 12:16	3.56	10.49	-0.04	
6/5/24 12:17	3.55	10.49	-0.01	
6/5/24 12:18	3.62	10.45	-0.03	
6/5/24 12:19	3.59	10.47	-0.01	
6/5/24 12:20	3.53	10.5	-0.01	THC Bias
6/5/24 12:21	3.51	10.51	0.18	
6/5/24 12:22	3.47	10.53	0.47	
6/5/24 12:23	3.46	10.53	2.3	
6/5/24 12:24	3.43	10.54	23.15	
6/5/24 12:25	3.4	10.56	25.64	
6/5/24 12:26	3.41	10.55	11.15	
6/5/24 12:27	3.48	10.49	-0.04	
6/5/24 12:28	3.51	10.48	-0.03	
6/5/24 12:29	3.56	10.44	-0.01	
6/5/24 12:30	3.53	10.46	-0.02	
6/5/24 12:31	3.53	10.45	-0.01	
6/5/24 12:32	3.55	10.43	0.23	
6/5/24 12:33	3.6	10.39	0.32	
6/5/24 12:34	3.58	10.42	-0.04	
6/5/24 12:35	3.56	10.42	-0.04	Restart Run 2
6/5/24 12:36	3.53	10.45	-0.01	
6/5/24 12:37	3.48	10.47	0.01	
6/5/24 12:38	3.45	10.48	-0.04	
6/5/24 12:39	3.42	10.52	-0.03	
6/5/24 12:40	3.47	10.48	-0.04	
6/5/24 12:41	3.47	10.48	-0.04	
6/5/24 12:42	3.44	10.5	-0.04	
6/5/24 12:43	3.41	10.52	0.43	
6/5/24 12:44	3.49	10.48	-0.04	
6/5/24 12:45	3.51	10.48	-0.03	
6/5/24 12:46	3.54	10.46	0.12	
6/5/24 12:47	3.54	10.47	-0.04	
6/5/24 12:48	3.54	10.46	-0.04	
6/5/24 12:49	3.56	10.43	0.05	
6/5/24 12:50	3.56	10.43	-0.02	
6/5/24 12:51	3.61	10.4	-0.04	Pause Weather
6/5/24 12:52	3.63	10.39	-0.03	
6/5/24 12:53	3.61	10.39	-0.04	
6/5/24 12:54	3.57	10.42	-0.01	
6/5/24 12:55	3.6	10.41	-0.04	
6/5/24 12:56	3.63	10.39	-0.02	
6/5/24 12:57	3.6	10.41	-0.04	
6/5/24 12:58	3.59	10.42	-0.02	
6/5/24 12:59	3.56	10.44	-0.04	
6/5/24 13:00	3.58	10.44	0.17	
6/5/24 13:01	3.6	10.43	0.03	
6/5/24 13:02	3.59	10.44	-0.03	
6/5/24 13:03	3.53	10.48	-0.02	
6/5/24 13:04	3.49	10.51	-0.04	
6/5/24 13:05	3.48	10.52	-0.04	
6/5/24 13:06	3.47	10.54	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/5/24 13:07	3.43	10.56	-0.03	
6/5/24 13:08	3.42	10.56	0.12	
6/5/24 13:09	3.45	10.54	0.01	
6/5/24 13:10	3.48	10.51	0.1	
6/5/24 13:11	3.53	10.49	0	
6/5/24 13:12	3.54	10.48	-0.04	
6/5/24 13:13	3.53	10.47	0.02	
6/5/24 13:14	3.58	10.43	-0.02	
6/5/24 13:15	3.58	10.43	-0.04	
6/5/24 13:16	3.57	10.43	-0.04	
6/5/24 13:17	3.62	10.4	-0.04	
6/5/24 13:18	3.54	10.45	-0.04	
6/5/24 13:19	3.56	10.44	-0.04	
6/5/24 13:20	3.58	10.44	-0.04	
6/5/24 13:21	3.54	10.46	-0.02	
6/5/24 13:22	3.59	10.44	0.07	
6/5/24 13:23	3.6	10.45	22.5	
6/5/24 13:24	3.65	10.42	25.23	
6/5/24 13:25	3.6	10.45	19.39	
6/5/24 13:26	3.59	10.45	-0.04	
6/5/24 13:27	3.61	10.45	-0.03	
6/5/24 13:28	3.56	10.49	-0.02	
6/5/24 13:29	3.61	10.46	-0.01	
6/5/24 13:30	3.55	10.49	-0.04	
6/5/24 13:31	3.56	10.47	-0.02	
6/5/24 13:32	3.52	10.49	0.02	
6/5/24 13:33	3.57	10.46	-0.03	
6/5/24 13:34	3.55	10.46	0.12	
6/5/24 13:35	3.5	10.49	-0.04	
6/5/24 13:36	3.47	10.49	-0.04	
6/5/24 13:37	3.46	10.5	0.03	
6/5/24 13:38	3.46	10.5	-0.02	
6/5/24 13:39	3.48	10.5	-0.02	
6/5/24 13:40	3.42	10.53	-0.04	
6/5/24 13:41	3.42	10.54	0.09	
6/5/24 13:42	3.45	10.53	-0.04	
6/5/24 13:43	3.4	10.56	-0.04	
6/5/24 13:44	3.48	10.52	0.02	
6/5/24 13:45	3.54	10.49	-0.03	
6/5/24 13:46	3.54	10.49	0.01	
6/5/24 13:47	3.54	10.5	-0.01	
6/5/24 13:48	3.53	10.5	-0.02	
6/5/24 13:49	3.54	10.49	-0.02	
6/5/24 13:50	3.54	10.5	0.14	
6/5/24 13:51	3.44	10.54	0.04	
6/5/24 13:52	3.39	10.56	0.05	
6/5/24 13:53	3.48	10.51	0	
6/5/24 13:54	3.52	10.48	0	
6/5/24 13:55	3.53	10.49	0	
6/5/24 13:56	3.55	10.47	0	
6/5/24 13:57	3.49	10.5	0.28	
6/5/24 13:58	3.44	10.53	-0.02	
6/5/24 13:59	3.52	10.5	-0.03	
6/5/24 14:00	3.49	10.52	-0.03	
6/5/24 14:01	3.51	10.5	-0.04	
6/5/24 14:02	3.53	10.49	-0.04	
6/5/24 14:03	3.54	10.49	-0.01	
6/5/24 14:04	3.51	10.52	-0.02	
6/5/24 14:05	3.52	10.52	-0.04	
6/5/24 14:06	3.43	10.56	-0.04	
6/5/24 14:07	3.42	10.56	-0.04	Restart Test



BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/5/24 14:08	3.45	10.56	0.01	
6/5/24 14:09	3.48	10.55	-0.03	
6/5/24 14:10	3.42	10.6	-0.04	
6/5/24 14:11	3.32	10.65	-0.04	
6/5/24 14:12	3.35	10.62	-0.04	
6/5/24 14:13	3.44	10.58	-0.03	
6/5/24 14:14	3.38	10.61	-0.03	
6/5/24 14:15	3.42	10.59	-0.03	
6/5/24 14:16	3.4	10.61	-0.03	
6/5/24 14:17	3.42	10.6	-0.04	
6/5/24 14:18	3.45	10.6	0.03	
6/5/24 14:19	3.47	10.59	-0.03	
6/5/24 14:20	3.5	10.58	-0.03	
6/5/24 14:21	3.5	10.59	-0.03	Pause THC Bias
6/5/24 14:22	3.44	10.63	4.99	
6/5/24 14:23	3.41	10.66	25.18	
6/5/24 14:24	3.48	10.63	11.6	
6/5/24 14:25	3.4	10.68	-0.03	Restart
6/5/24 14:26	3.45	10.65	0.06	
6/5/24 14:27	3.45	10.67	0.01	
6/5/24 14:28	3.45	10.65	-0.03	
6/5/24 14:29	3.44	10.65	0.36	
6/5/24 14:30	3.41	10.66	0	
6/5/24 14:31	3.43	10.66	0	
6/5/24 14:32	3.49	10.63	0.01	
6/5/24 14:33	3.53	10.61	-0.02	
6/5/24 14:34	3.48	10.63	-0.04	
6/5/24 14:35	3.48	10.64	-0.04	
6/5/24 14:36	3.41	10.67	-0.03	
6/5/24 14:37	3.47	10.64	-0.04	
6/5/24 14:38	3.44	10.66	0.01	
6/5/24 14:39	3.5	10.63	-0.03	
6/5/24 14:40	3.5	10.63	-0.04	
6/5/24 14:41	3.48	10.64	-0.04	
6/5/24 14:42	3.46	10.66	-0.04	
6/5/24 14:43	3.45	10.67	0.04	
6/5/24 14:44	3.48	10.66	-0.04	
6/5/24 14:45	3.52	10.63	0.02	
6/5/24 14:46	3.48	10.66	0.27	
6/5/24 14:47	3.53	10.64	-0.04	
6/5/24 14:48	3.5	10.66	0.09	
6/5/24 14:49	3.5	10.67	-0.03	
6/5/24 14:50	3.45	10.7	-0.03	
6/5/24 14:51	3.47	10.69	-0.03	
6/5/24 14:52	3.53	10.66	-0.02	
6/5/24 14:53	3.44	10.72	0.01	
6/5/24 14:54	3.49	10.69	0.09	
6/5/24 14:55	3.55	10.65	0.01	
6/5/24 14:56	3.52	10.67	0.1	
6/5/24 14:57	3.5	10.69	0.4	
6/5/24 14:58	3.49	10.7	0.11	
6/5/24 14:59	3.47	10.72	0.15	
6/5/24 15:00	3.54	10.67	0.15	
6/5/24 15:01	3.51	10.69	0.16	
6/5/24 15:02	3.52	10.68	0.19	
6/5/24 15:03	3.47	10.7	0.22	
6/5/24 15:04	3.51	10.67	0.23	
6/5/24 15:05	3.45	10.71	0.19	
6/5/24 15:06	3.52	10.66	0.37	
6/5/24 15:07	3.48	10.66	0.23	
6/5/24 15:08	3.48	10.66	0.14	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/5/24 15:09	3.51	10.65	0.19	
6/5/24 15:10	3.54	10.64	0.08	
6/5/24 15:11	3.5	10.67	0.18	
6/5/24 15:12	3.48	10.68	0.05	
6/5/24 15:13	3.47	10.68	0.06	
6/5/24 15:14	3.46	10.7	0.04	
6/5/24 15:15	3.49	10.69	0.03	
6/5/24 15:16	3.5	10.67	0.09	
6/5/24 15:17	3.44	10.71	0.15	
6/5/24 15:18	3.5	10.7	0.05	
6/5/24 15:19	3.54	10.68	-0.02	
6/5/24 15:20	3.48	10.71	-0.03	
6/5/24 15:21	3.46	10.71	0.04	
6/5/24 15:22	3.47	10.7	0.09	
6/5/24 15:23	3.52	10.68	18.08	
6/5/24 15:24	3.48	10.69	25.2	
6/5/24 15:25	3.47	10.7	9.71	
6/5/24 15:26	3.46	10.69	0.02	Restart
6/5/24 15:27	3.46	10.7	0.01	
6/5/24 15:28	3.48	10.68	-0.02	
6/5/24 15:29	3.52	10.65	0.03	
6/5/24 15:30	3.48	10.67	-0.04	
6/5/24 15:31	3.48	10.67	-0.04	
6/5/24 15:32	3.48	10.67	0	
6/5/24 15:33	3.44	10.69	-0.04	
6/5/24 15:34	3.51	10.64	-0.04	
6/5/24 15:35	3.52	10.63	-0.04	
6/5/24 15:36	3.48	10.65	-0.04	
6/5/24 15:37	3.48	10.64	-0.03	
6/5/24 15:38	3.45	10.65	-0.04	
6/5/24 15:39	3.47	10.64	0.26	
6/5/24 15:40	3.51	10.61	0.06	
6/5/24 15:41	3.49	10.62	0	
6/5/24 15:42	3.48	10.62	-0.04	
6/5/24 15:43	3.5	10.6	-0.04	
6/5/24 15:44	3.48	10.61	-0.04	
6/5/24 15:45	3.49	10.6	-0.04	
6/5/24 15:46	3.5	10.6	-0.02	
6/5/24 15:47	3.51	10.59	-0.04	
6/5/24 15:48	3.5	10.59	-0.04	
6/5/24 15:49	3.52	10.57	-0.04	
6/5/24 15:50	3.48	10.6	-0.03	
6/5/24 15:51	3.43	10.64	-0.01	
6/5/24 15:52	3.51	10.59	-0.04	
6/5/24 15:53	3.48	10.62	-0.04	
6/5/24 15:54	3.5	10.6	-0.03	
6/5/24 15:55	3.51	10.58	-0.02	
6/5/24 15:56	3.48	10.6	-0.04	
6/5/24 15:57	3.45	10.62	0.13	
6/5/24 15:58	3.46	10.62	-0.03	
6/5/24 15:59	3.42	10.66	-0.04	
6/5/24 16:00	3.41	10.67	-0.03	
6/5/24 16:01	3.47	10.63	-0.04	
6/5/24 16:02	3.46	10.63	0.03	
6/5/24 16:03	3.46	10.63	-0.02	
6/5/24 16:04	3.47	10.63	-0.04	
6/5/24 16:05	3.49	10.63	-0.02	
6/5/24 16:06	3.48	10.63	0.01	
6/5/24 16:07	3.4	10.69	-0.03	
6/5/24 16:08	3.42	10.67	-0.02	
6/5/24 16:09	3.49	10.64	-0.03	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/5/24 16:10	3.43	10.68	-0.03	
6/5/24 16:11	3.44	10.67	0.02	
6/5/24 16:12	3.44	10.68	0.01	
6/5/24 16:13	3.51	10.64	0.01	
6/5/24 16:14	3.44	10.68	-0.01	
6/5/24 16:15	3.45	10.69	-0.02	
6/5/24 16:16	3.47	10.68	0	
6/5/24 16:17	3.43	10.71	-0.03	
6/5/24 16:18	3.43	10.7	0.11	
6/5/24 16:19	3.43	10.7	-0.03	
6/5/24 16:20	3.47	10.68	-0.02	Pause for THC
6/5/24 16:21	3.42	10.71	0.15	
6/5/24 16:22	3.3	10.78	10.52	
6/5/24 16:23	3.37	10.75	24.83	
6/5/24 16:24	3.39	10.73	26.2	
6/5/24 16:25	3.46	10.69	25.05	
6/5/24 16:26	3.45	10.7	26.47	
6/5/24 16:27	3.43	10.71	25.96	
6/5/24 16:28	3.43	10.71	7.34	
6/5/24 16:29	3.5	10.66	0.16	Restart
6/5/24 16:30	3.43	10.7	0.07	
6/5/24 16:31	3.49	10.73	0	
6/5/24 16:32	3.54	10.62	-0.01	
6/5/24 16:33	3.47	10.66	0	
6/5/24 16:34	3.5	10.64	0.02	
6/5/24 16:35	3.46	10.66	0.08	
6/5/24 16:36	3.47	10.64	0.05	
6/5/24 16:37	3.49	10.64	0.06	
6/5/24 16:38	3.43	10.66	0.08	
6/5/24 16:39	3.44	10.65	0.14	
6/5/24 16:40	3.35	10.7	0.05	
6/5/24 16:41	3.34	10.7	0.08	
6/5/24 16:42	3.48	10.62	0.05	
6/5/24 16:43	3.47	10.62	0.11	
6/5/24 16:44	3.41	10.65	0.57	
6/5/24 16:45	3.38	10.67	0.04	
6/5/24 16:46	3.4	10.65	0.08	
6/5/24 16:47	3.48	10.6	0.04	
6/5/24 16:48	3.47	10.61	0.06	
6/5/24 16:49	3.44	10.62	0.05	
6/5/24 16:50	3.41	10.64	0.04	
6/5/24 16:51	3.47	10.6	0.04	
6/5/24 16:52	3.48	10.59	0.06	
6/5/24 16:53	3.41	10.64	0.22	
6/5/24 16:54	3.45	10.61	0.03	
6/5/24 16:55	3.48	10.59	0.07	
6/5/24 16:56	3.43	10.62	0.17	
6/5/24 16:57	3.45	10.62	0.31	
6/5/24 16:58	3.48	10.6	0.14	
6/5/24 16:59	3.45	10.62	0.17	
6/5/24 17:00	3.39	10.64	0.13	
6/5/24 17:01	3.43	10.63	0.27	
6/5/24 17:02	3.35	10.68	0.13	
6/5/24 17:03	3.36	10.68	0.29	
6/5/24 17:04	3.32	10.7	0.16	
6/5/24 17:05	3.32	10.7	0.3	
6/5/24 17:06	3.22	10.76	0.43	
6/5/24 17:07	3.29	10.72	0.21	
6/5/24 17:08	3.34	10.69	0.19	
6/5/24 17:09	3.28	10.72	0.21	
6/5/24 17:10	3.23	10.74	0.27	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/5/24 17:11	3.34	10.67	0.24	
6/5/24 17:12	3.41	10.64	0.26	
6/5/24 17:13	3.43	10.63	0.32	
6/5/24 17:14	3.39	10.65	0.25	
6/5/24 17:15	3.44	10.62	0.23	
6/5/24 17:16	3.42	10.62	0.25	
6/5/24 17:17	3.46	10.6	0.22	
6/5/24 17:18	3.42	10.63	0.31	
6/5/24 17:19	3.47	10.6	0.48	
6/5/24 17:20	3.43	10.61	0.29	Pause THC Bias
6/5/24 17:21	3.48	10.59	16.29	
6/5/24 17:22	3.48	10.6	24.83	
6/5/24 17:23	3.53	10.57	19	
6/5/24 17:24	3.45	10.6	0.18	Restart
6/5/24 17:25	3.52	10.56	-0.03	
6/5/24 17:26	3.42	10.6	0.07	
6/5/24 17:27	3.43	10.6	-0.04	
6/5/24 17:28	3.48	10.56	-0.03	
6/5/24 17:29	3.48	10.56	0	
6/5/24 17:30	3.43	10.59	0	
6/5/24 17:31	3.34	10.63	-0.04	
6/5/24 17:32	3.35	10.61	0.01	
6/5/24 17:33	3.33	10.63	-0.03	
6/5/24 17:34	3.3	10.64	-0.03	
6/5/24 17:35	3.29	10.64	-0.04	
6/5/24 17:36	3.32	10.62	-0.04	
6/5/24 17:37	3.35	10.6	-0.04	
6/5/24 17:38	3.4	10.56	-0.04	
6/5/24 17:39	3.32	10.6	-0.04	
6/5/24 17:40	3.33	10.59	-0.03	
6/5/24 17:41	3.33	10.59	-0.04	
6/5/24 17:42	3.33	10.59	-0.04	
6/5/24 17:43	3.3	10.61	-0.04	
6/5/24 17:44	3.32	10.59	0.09	
6/5/24 17:45	3.26	10.62	0.12	
6/5/24 17:46	3.29	10.6	-0.04	
6/5/24 17:47	3.27	10.62	-0.03	
6/5/24 17:48	3.28	10.61	-0.04	
6/5/24 17:49	3.34	10.57	-0.02	
6/5/24 17:50	3.24	10.62	-0.04	
6/5/24 17:51	3.36	10.55	0.06	
6/5/24 17:52	3.26	10.6	-0.04	
6/5/24 17:53	3.25	10.6	0.36	
6/5/24 17:54	3.36	10.54	0.1	
6/5/24 17:55	3.3	10.57	-0.04	End
6/5/24 17:56	3.32	10.56	-0.02	
6/5/24 17:57	3.34	10.55	-0.03	
6/5/24 17:58	3.3	10.57	-0.04	
6/5/24 17:59	3.29	10.57	-0.01	
6/5/24 18:00	3.31	10.56	0.02	
6/5/24 18:01	2.31	5.95	0.11	
6/5/24 18:02	0.01	0.02	0.09	Bias
6/5/24 18:03	2.64	2.42	-0.02	
6/5/24 18:04	10.86	9.53	-0.03	
6/5/24 18:05	11.01	10.96	0.18	
6/5/24 18:06	8.99	11.01	1.58	
6/5/24 18:07	3.33	10.93	20.45	
6/5/24 18:08	17.59	2.71	22.24	
6/5/24 18:09	21.26	0.74	25.6	
6/5/24 18:10	21.26	0.73	26.25	
6/5/24 18:11	21.27	0.73	26.35	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/5/24 18:12	21.27	0.72	26.06	
6/5/24 18:13	21.26	0.72	25.03	
6/5/24 18:14	21.26	0.72	25.09	
6/6/24 6:09	19.78	0.65	-0.04	
6/6/24 6:10	2.74	3.39	1.39	
6/6/24 6:11	21.88	18.77	2.64	
6/6/24 6:12	22.55	21.23	-0.04	
6/6/24 6:13	22.29	21.83	-0.04	
6/6/24 6:14	18.38	17.05	0.07	
6/6/24 6:15	10.86	10.95	-0.03	
6/6/24 6:16	19.92	1.66	-0.04	
6/6/24 6:17	21.37	0.15	-0.04	Cal/Bias
6/6/24 6:18	21.33	0.17	-0.03	
6/6/24 6:19	21.33	0.17	-0.04	
6/6/24 6:20	21.33	0.18	-0.04	
6/6/24 6:21	21.34	0.18	-0.04	
6/6/24 6:22	21.34	0.19	-0.03	
6/6/24 6:23	21.35	0.18	-0.04	
6/6/24 6:24	21.36	0.19	-0.03	
6/6/24 6:25	21.36	0.19	5	
6/6/24 6:26	21.37	0.19	45.12	
6/6/24 6:27	21.37	0.18	36.9	
6/6/24 6:28	21.38	0.18	13.45	
6/6/24 6:29	21.38	0.18	15.39	
6/6/24 6:30	21.39	0.17	19.08	
6/6/24 6:31	21.4	0.17	24.62	
6/6/24 6:32	21.39	0.17	24.83	
6/6/24 6:33	21.38	0.17	10.61	
6/6/24 6:34	21.38	0.18	-0.04	
6/6/24 6:35	21.39	0.17	0.36	
6/6/24 6:36	21.4	0.17	-0.04	
6/6/24 6:37	20.37	0.19	-0.04	
6/6/24 6:38	2.81	3.76	-0.02	
6/6/24 6:39	0.02	0.05	-0.03	
6/6/24 6:40	3.15	3.5	-0.04	
6/6/24 6:41	11.09	10.98	-0.03	
6/6/24 6:42	9.34	11.05	-0.02	
6/6/24 6:43	3.55	10.93	-0.03	
6/6/24 6:44	3.53	10.91	0	
6/6/24 6:45	3.53	10.91	-0.04	
6/6/24 6:46	3.52	10.91	-0.04	
6/6/24 6:47	3.52	10.89	-0.03	
6/6/24 6:48	3.48	10.9	-0.04	
6/6/24 6:49	3.49	10.9	-0.04	
6/6/24 6:50	3.5	10.89	-0.04	
6/6/24 6:51	3.45	10.92	-0.04	
6/6/24 6:52	3.47	10.89	-0.04	
6/6/24 6:53	3.49	10.89	-0.04	
6/6/24 6:54	3.45	10.89	-0.04	
6/6/24 6:55	3.46	10.88	-0.04	
6/6/24 6:56	3.45	10.89	-0.04	
6/6/24 6:57	3.49	10.88	-0.04	
6/6/24 6:58	3.46	10.89	-0.04	
6/6/24 6:59	3.5	10.88	0.23	
6/6/24 7:00	3.47	10.9	-0.04	
6/6/24 7:01	3.48	10.89	-0.04	
6/6/24 7:02	3.47	10.89	-0.04	
6/6/24 7:03	3.45	10.9	-0.04	
6/6/24 7:04	3.39	10.94	-0.03	
6/6/24 7:05	3.34	10.97	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/6/24 7:06	3.34	10.96	-0.04	
6/6/24 7:07	3.44	10.9	-0.04	
6/6/24 7:08	3.4	10.91	-0.04	
6/6/24 7:09	3.42	10.89	-0.04	
6/6/24 7:10	3.47	10.86	-0.04	
6/6/24 7:11	3.47	10.85	-0.04	
6/6/24 7:12	3.49	10.84	-0.04	
6/6/24 7:13	3.44	10.87	-0.04	
6/6/24 7:14	3.35	10.91	-0.04	
6/6/24 7:15	3.36	10.91	0.53	
6/6/24 7:16	3.33	10.93	-0.04	
6/6/24 7:17	3.32	10.93	-0.04	
6/6/24 7:18	3.25	10.99	0.02	
6/6/24 7:19	3.37	10.9	0	
6/6/24 7:20	3.43	10.86	-0.04	
6/6/24 7:21	3.33	10.91	-0.04	
6/6/24 7:22	3.43	10.85	-0.01	
6/6/24 7:23	3.42	10.87	-0.04	Run 3
6/6/24 7:24	3.38	10.88	-0.04	
6/6/24 7:25	3.39	10.87	-0.03	
6/6/24 7:26	3.33	10.9	-0.03	
6/6/24 7:27	3.37	10.92	-0.04	
6/6/24 7:28	3.38	10.88	-0.04	
6/6/24 7:29	3.43	10.86	-0.03	
6/6/24 7:30	3.44	10.86	-0.04	
6/6/24 7:31	3.44	10.86	-0.04	
6/6/24 7:32	3.47	10.84	-0.04	
6/6/24 7:33	3.42	10.86	-0.04	
6/6/24 7:34	3.42	10.86	-0.04	
6/6/24 7:35	3.45	10.84	-0.04	
6/6/24 7:36	3.43	10.87	-0.04	
6/6/24 7:37	3.47	10.85	-0.04	
6/6/24 7:38	3.42	10.86	-0.04	
6/6/24 7:39	3.47	10.83	-0.04	
6/6/24 7:40	3.38	10.89	-0.04	
6/6/24 7:41	3.48	10.83	-0.04	
6/6/24 7:42	3.42	10.86	-0.04	
6/6/24 7:43	3.34	10.9	-0.04	
6/6/24 7:44	3.32	10.92	0.01	
6/6/24 7:45	3.3	10.94	0.13	
6/6/24 7:46	3.39	10.88	-0.03	
6/6/24 7:47	3.37	10.9	-0.04	
6/6/24 7:48	3.39	10.89	-0.04	
6/6/24 7:49	3.35	10.91	-0.04	
6/6/24 7:50	3.38	10.9	0	
6/6/24 7:51	3.36	10.92	-0.04	
6/6/24 7:52	3.37	10.91	-0.02	
6/6/24 7:53	3.33	10.93	-0.04	
6/6/24 7:54	3.33	10.93	-0.04	
6/6/24 7:55	3.38	10.91	-0.04	
6/6/24 7:56	3.25	10.97	-0.03	
6/6/24 7:57	3.4	10.89	-0.04	
6/6/24 7:58	3.42	10.88	-0.04	
6/6/24 7:59	3.39	10.89	-0.03	
6/6/24 8:00	3.35	10.91	-0.03	
6/6/24 8:01	3.33	10.93	-0.04	
6/6/24 8:02	3.34	10.92	-0.02	
6/6/24 8:03	3.29	10.95	0.02	
6/6/24 8:04	3.29	10.94	-0.02	
6/6/24 8:05	3.34	10.92	-0.04	
6/6/24 8:06	3.24	10.97	-0.01	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/6/24 8:07	3.23	10.98	-0.04	
6/6/24 8:08	3.35	10.9	-0.04	
6/6/24 8:09	3.34	10.91	-0.04	
6/6/24 8:10	3.34	10.91	-0.04	
6/6/24 8:11	3.28	10.96	-0.04	
6/6/24 8:12	3.29	10.95	-0.04	
6/6/24 8:13	3.32	10.94	-0.04	
6/6/24 8:14	3.29	10.95	-0.04	
6/6/24 8:15	3.35	10.92	-0.03	
6/6/24 8:16	3.23	10.99	-0.04	
6/6/24 8:17	3.31	10.95	-0.04	
6/6/24 8:18	3.3	10.97	-0.04	
6/6/24 8:19	3.39	10.91	-0.04	
6/6/24 8:20	3.4	10.91	-0.04	Pause THC Bias
6/6/24 8:21	3.48	10.85	0.02	
6/6/24 8:22	3.36	10.92	-0.04	
6/6/24 8:23	3.49	10.84	3.62	
6/6/24 8:24	3.52	10.82	25.12	
6/6/24 8:25	3.46	10.86	10.88	
6/6/24 8:26	3.41	10.89	-0.04	Restart
6/6/24 8:27	3.45	10.87	-0.04	
6/6/24 8:28	3.47	10.84	0.13	
6/6/24 8:29	3.41	10.87	-0.01	
6/6/24 8:30	3.41	10.87	0.06	
6/6/24 8:31	3.37	10.9	0.02	
6/6/24 8:32	3.34	10.92	-0.04	
6/6/24 8:33	3.31	10.93	-0.04	
6/6/24 8:34	3.31	10.94	-0.04	
6/6/24 8:35	3.32	10.93	-0.04	
6/6/24 8:36	3.37	10.9	-0.04	
6/6/24 8:37	3.28	10.93	-0.04	
6/6/24 8:38	3.28	10.93	-0.04	
6/6/24 8:39	3.25	10.96	-0.03	
6/6/24 8:40	3.32	10.92	-0.04	
6/6/24 8:41	3.27	10.95	-0.03	
6/6/24 8:42	3.28	10.93	0.22	
6/6/24 8:43	3.3	10.92	0.02	
6/6/24 8:44	3.27	10.94	-0.04	
6/6/24 8:45	3.27	10.93	-0.04	
6/6/24 8:46	3.28	10.94	-0.04	
6/6/24 8:47	3.28	10.94	0.03	
6/6/24 8:48	3.2	10.99	-0.04	
6/6/24 8:49	3.27	10.94	-0.04	
6/6/24 8:50	3.32	10.91	-0.04	
6/6/24 8:51	3.27	10.94	-0.04	
6/6/24 8:52	3.21	10.96	-0.03	
6/6/24 8:53	3.34	10.87	-0.04	
6/6/24 8:54	3.31	10.89	-0.04	
6/6/24 8:55	3.29	10.9	-0.04	
6/6/24 8:56	3.28	10.91	-0.04	
6/6/24 8:57	3.27	10.92	-0.04	
6/6/24 8:58	3.3	10.9	-0.04	
6/6/24 8:59	3.21	10.95	-0.04	
6/6/24 9:00	3.3	10.89	-0.04	
6/6/24 9:01	3.3	10.9	-0.04	
6/6/24 9:02	3.23	10.93	-0.04	
6/6/24 9:03	3.25	10.92	0	
6/6/24 9:04	3.31	10.88	-0.04	
6/6/24 9:05	3.26	10.92	-0.04	
6/6/24 9:06	3.27	10.91	0.29	
6/6/24 9:07	3.33	10.87	-0.03	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/6/24 9:08	3.25	10.92	-0.04	
6/6/24 9:09	3.26	10.92	-0.04	
6/6/24 9:10	3.21	10.94	-0.04	
6/6/24 9:11	3.33	10.88	-0.04	
6/6/24 9:12	3.25	10.92	-0.03	
6/6/24 9:13	3.44	10.81	-0.04	
6/6/24 9:14	3.32	10.87	-0.04	
6/6/24 9:15	3.29	10.89	-0.04	
6/6/24 9:16	3.28	10.89	-0.04	
6/6/24 9:17	3.31	10.88	-0.04	
6/6/24 9:18	3.28	10.9	-0.04	
6/6/24 9:19	3.28	10.9	-0.04	
6/6/24 9:20	3.28	10.88	-0.04	
6/6/24 9:21	3.25	10.9	-0.02	
6/6/24 9:22	3.29	10.88	0.1	Pause for THC Bias
6/6/24 9:23	3.31	10.85	-0.04	
6/6/24 9:24	3.36	10.83	13.74	
6/6/24 9:25	3.44	10.78	25.04	
6/6/24 9:26	3.37	10.81	9.96	
6/6/24 9:27	3.35	10.81	-0.04	Restart
6/6/24 9:28	3.27	10.85	-0.04	
6/6/24 9:29	3.33	10.81	0.07	
6/6/24 9:30	3.32	10.81	-0.04	
6/6/24 9:31	3.37	10.78	-0.03	
6/6/24 9:32	3.25	10.85	-0.04	
6/6/24 9:33	3.27	10.83	-0.03	
6/6/24 9:34	3.24	10.86	-0.04	
6/6/24 9:35	3.33	10.79	-0.04	
6/6/24 9:36	3.27	10.83	-0.03	
6/6/24 9:37	3.23	10.85	0.05	
6/6/24 9:38	3.35	10.78	-0.04	
6/6/24 9:39	3.24	10.84	0.21	
6/6/24 9:40	3.32	10.79	0.75	
6/6/24 9:41	3.24	10.84	-0.01	
6/6/24 9:42	3.25	10.82	-0.04	
6/6/24 9:43	3.3	10.79	0.12	
6/6/24 9:44	3.31	10.8	-0.04	
6/6/24 9:45	3.27	10.81	-0.02	
6/6/24 9:46	3.33	10.77	-0.04	
6/6/24 9:47	3.23	10.83	-0.04	
6/6/24 9:48	3.23	10.83	0.05	
6/6/24 9:49	3.35	10.76	-0.04	
6/6/24 9:50	3.34	10.78	0.03	
6/6/24 9:51	3.33	10.78	-0.04	
6/6/24 9:52	3.34	10.79	0.01	
6/6/24 9:53	3.3	10.82	-0.04	
6/6/24 9:54	3.23	10.86	-0.02	
6/6/24 9:55	3.32	10.82	-0.03	
6/6/24 9:56	3.33	10.8	-0.04	
6/6/24 9:57	3.46	10.72	0	
6/6/24 9:58	3.43	10.75	-0.03	
6/6/24 9:59	3.4	10.77	0.03	
6/6/24 10:00	3.46	10.72	-0.04	
6/6/24 10:01	3.45	10.73	-0.04	
6/6/24 10:02	3.47	10.71	-0.03	
6/6/24 10:03	3.5	10.69	-0.03	
6/6/24 10:04	3.49	10.7	-0.04	
6/6/24 10:05	3.45	10.73	-0.04	
6/6/24 10:06	3.48	10.7	-0.04	
6/6/24 10:07	3.5	10.69	-0.04	
6/6/24 10:08	3.49	10.7	-0.03	



BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/6/24 10:09	3.37	10.76	-0.03	
6/6/24 10:10	3.46	10.7	0.06	
6/6/24 10:11	3.39	10.74	0	
6/6/24 10:12	3.24	10.83	-0.03	
6/6/24 10:13	3.29	10.81	-0.04	
6/6/24 10:14	3.33	10.79	-0.02	
6/6/24 10:15	3.33	10.79	0.13	
6/6/24 10:16	3.36	10.76	-0.03	
6/6/24 10:17	3.3	10.79	-0.02	
6/6/24 10:18	3.26	10.81	-0.04	
6/6/24 10:19	3.36	10.75	0.01	Pause THC
6/6/24 10:20	3.27	10.79	-0.03	
6/6/24 10:21	3.31	10.75	10.84	
6/6/24 10:22	3.3	10.76	24.84	
6/6/24 10:23	3.3	10.74	10.62	
6/6/24 10:24	3.35	10.71	-0.02	Restart
6/6/24 10:25	3.32	10.73	-0.01	
6/6/24 10:26	3.36	10.7	-0.03	
6/6/24 10:27	3.2	10.79	-0.01	
6/6/24 10:28	3.28	10.73	0.01	
6/6/24 10:29	3.29	10.73	-0.02	
6/6/24 10:30	3.32	10.72	-0.01	
6/6/24 10:31	3.23	10.78	-0.03	
6/6/24 10:32	3.31	10.72	-0.04	
6/6/24 10:33	3.27	10.75	-0.03	
6/6/24 10:34	3.42	10.67	-0.03	
6/6/24 10:35	3.36	10.7	-0.03	
6/6/24 10:36	3.32	10.72	-0.01	
6/6/24 10:37	3.36	10.69	-0.02	
6/6/24 10:38	3.39	10.68	-0.03	
6/6/24 10:39	3.36	10.68	-0.01	
6/6/24 10:40	3.3	10.72	-0.02	
6/6/24 10:41	3.37	10.68	-0.03	
6/6/24 10:42	3.21	10.77	-0.01	
6/6/24 10:43	3.28	10.73	-0.03	
6/6/24 10:44	3.23	10.76	-0.02	
6/6/24 10:45	3.25	10.75	0.12	
6/6/24 10:46	3.19	10.79	0.01	
6/6/24 10:47	3.33	10.72	0.06	
6/6/24 10:48	3.23	10.78	0.72	
6/6/24 10:49	3.25	10.76	0.05	
6/6/24 10:50	3.31	10.73	0.04	
6/6/24 10:51	3.4	10.68	0.07	
6/6/24 10:52	3.33	10.72	0.06	
6/6/24 10:53	3.37	10.69	0.06	
6/6/24 10:54	3.47	10.64	0.09	
6/6/24 10:55	3.41	10.67	0.15	
6/6/24 10:56	3.42	10.67	0.19	
6/6/24 10:57	3.47	10.63	0.18	
6/6/24 10:58	3.45	10.64	0.11	
6/6/24 10:59	3.4	10.67	0.11	
6/6/24 11:00	3.25	10.76	0.15	
6/6/24 11:01	3.3	10.73	0.14	
6/6/24 11:02	3.34	10.71	0.19	
6/6/24 11:03	3.31	10.72	0.21	
6/6/24 11:04	3.27	10.75	0.24	
6/6/24 11:05	3.29	10.72	0.14	
6/6/24 11:06	3.29	10.72	0.17	
6/6/24 11:07	3.29	10.72	0.22	
6/6/24 11:08	3.24	10.74	0.24	
6/6/24 11:09	3.19	10.77	0.33	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/6/24 11:10	3.3	10.7	0.35	
6/6/24 11:11	3.28	10.72	0.47	
6/6/24 11:12	3.26	10.73	0.44	
6/6/24 11:13	3.23	10.73	0.45	
6/6/24 11:14	3.19	10.79	0.43	
6/6/24 11:15	3.25	10.71	0.42	
6/6/24 11:16	3.28	10.7	0.45	
6/6/24 11:17	3.27	10.69	0.42	
6/6/24 11:18	3.24	10.72	0.41	
6/6/24 11:19	3.19	10.74	0.38	
6/6/24 11:20	3.29	10.68	0.43	
6/6/24 11:21	3.28	10.68	0.39	
6/6/24 11:22	3.32	10.66	0.41	
6/6/24 11:23	3.31	10.66	0.47	
6/6/24 11:24	3.19	10.74	0.42	
6/6/24 11:25	3.2	10.74	0.8	
6/6/24 11:26	3.31	10.67	0.59	
6/6/24 11:27	3.23	10.71	0.66	
6/6/24 11:28	3.26	10.69	0.54	
6/6/24 11:29	3.28	10.69	0.48	
6/6/24 11:30	3.25	10.7	0.49	
6/6/24 11:31	3.3	10.67	0.52	
6/6/24 11:32	3.26	10.69	0.5	
6/6/24 11:33	3.3	10.67	0.55	
6/6/24 11:34	3.34	10.65	0.52	
6/6/24 11:35	3.29	10.68	0.59	
6/6/24 11:36	3.11	10.79	1.23	End
6/6/24 11:37	3.22	10.73	1.07	
6/6/24 11:38	3.26	10.7	0.39	
6/6/24 11:39	3.29	10.69	-0.03	Bias
6/6/24 11:40	3.21	10.73	10.89	
6/6/24 11:41	3.24	10.71	24.85	
6/6/24 11:42	2.55	6.35	10.85	
6/6/24 11:43	-0.04	0.15	-0.04	
6/6/24 11:44	3.26	3.4	-0.04	
6/6/24 11:45	10.97	10.28	-0.02	
6/6/24 11:46	11.03	11.03	0.37	
6/6/24 11:47	11.03	11.03	-0.04	
6/6/24 11:48	11.03	11.03	0	
6/6/24 11:49	11.88	6.26	-0.02	
6/6/24 11:50	21.4	0.89	0.11	
6/6/24 11:51	21.41	0.88	0.42	
6/6/24 11:52	21.42	0.88	-0.03	
6/6/24 11:53	21.43	0.88	-0.01	
6/6/24 11:54	21.43	0.87	-0.01	
6/6/24 11:55	21.43	0.88	-0.02	
6/6/24 11:56	21.44	0.87	-0.03	
6/6/24 11:57	21.44	0.87	0	
6/6/24 11:58	21.38	0.88	-0.01	
6/6/24 11:59	21.33	0.88	0.03	
6/6/24 12:00	21.18	0.88	-0.01	
6/6/24 12:01	21.26	0.88	-0.01	
6/6/24 12:02	21.28	0.88	0	
6/6/24 12:03	21.28	0.89	0.05	
6/6/24 12:04	21.25	0.92	0	
6/6/24 12:05	21.24	0.98	-0.01	
6/6/24 12:06	21.24	1.05	0.01	
6/6/24 12:07	21.23	1.09	-0.03	
6/6/24 12:08	10.81	7.2	-0.02	
6/6/24 12:09	3.28	11.04	-0.03	
6/6/24 12:10	3.28	11.01	0	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/6/24 12:11	3.32	10.97	0	
6/6/24 12:12	3.31	11.01	0.01	
6/6/24 12:13	3.23	11	-0.02	
6/6/24 12:14	3.29	10.96	-0.01	
6/6/24 12:15	3.37	10.91	0.01	
6/6/24 12:16	3.15	11.03	0.02	
6/6/24 12:17	3.29	10.97	0	Run 4
6/6/24 12:18	3.31	10.95	-0.03	
6/6/24 12:19	3.21	11	0	
6/6/24 12:20	3.22	11	0	
6/6/24 12:21	3.27	10.96	-0.01	
6/6/24 12:22	3.26	10.97	0.04	
6/6/24 12:23	3.27	10.97	-0.01	
6/6/24 12:24	3.21	11	0.25	
6/6/24 12:25	3.24	10.98	0.02	
6/6/24 12:26	3.26	10.96	-0.02	
6/6/24 12:27	3.25	10.97	-0.03	
6/6/24 12:28	3.33	10.92	-0.03	
6/6/24 12:29	3.26	10.95	0.04	
6/6/24 12:30	3.31	10.92	-0.03	
6/6/24 12:31	3.28	10.94	0.04	
6/6/24 12:32	3.25	10.95	0.07	
6/6/24 12:33	3.24	10.96	0.05	
6/6/24 12:34	3.22	11.3	0.08	
6/6/24 12:35	3.29	10.93	0.04	
6/6/24 12:36	3.32	10.92	0.02	
6/6/24 12:37	3.34	10.9	0	
6/6/24 12:38	3.25	10.95	0.01	
6/6/24 12:39	3.25	10.95	-0.01	
6/6/24 12:40	3.25	10.95	0.07	
6/6/24 12:41	3.31	10.92	-0.03	
6/6/24 12:42	3.27	10.94	-0.02	
6/6/24 12:43	3.25	10.95	-0.03	
6/6/24 12:44	3.27	10.94	-0.01	
6/6/24 12:45	3.2	10.98	-0.02	
6/6/24 12:46	3.27	10.94	0.03	
6/6/24 12:47	3.36	10.88	-0.01	
6/6/24 12:48	3.33	10.9	-0.01	
6/6/24 12:49	3.3	10.92	-0.03	
6/6/24 12:50	3.3	10.92	0.35	
6/6/24 12:51	3.28	10.93	-0.01	
6/6/24 12:52	3.22	10.97	-0.01	
6/6/24 12:53	3.25	10.96	-0.02	
6/6/24 12:54	3.26	10.94	0.08	
6/6/24 12:55	3.35	10.9	0.1	
6/6/24 12:56	3.23	10.97	0.09	
6/6/24 12:57	3.28	10.95	0	
6/6/24 12:58	3.3	10.94	0.01	
6/6/24 12:59	3.27	10.95	-0.01	
6/6/24 13:00	3.3	10.94	-0.03	
6/6/24 13:01	3.28	10.95	0.19	
6/6/24 13:02	3.28	10.94	0.67	
6/6/24 13:03	3.23	10.97	-0.03	
6/6/24 13:04	3.35	10.91	-0.01	
6/6/24 13:05	3.23	10.99	0.34	
6/6/24 13:06	3.29	10.96	0.04	
6/6/24 13:07	3.26	10.98	0.08	
6/6/24 13:08	3.3	10.97	0.01	
6/6/24 13:09	3.25	10.99	0.03	
6/6/24 13:10	3.29	10.95	0.06	
6/6/24 13:11	3.26	10.97	0.31	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/6/24 13:12	3.31	10.96	0.02	
6/6/24 13:13	3.31	10.95	0.07	
6/6/24 13:14	3.23	10.98	0.28	
6/6/24 13:15	3.25	10.98	0.01	
6/6/24 13:16	3.37	10.9	0.02	Pause for THC Bias
6/6/24 13:17	3.17	11.01	0.03	
6/6/24 13:18	3.29	10.94	-0.01	
6/6/24 13:19	1.07	2.21	0.24	
6/6/24 13:20	-0.04	0.86	0.96	
6/6/24 13:21	-0.04	0.85	0.62	
6/6/24 13:22	-0.04	0.85	1.59	
6/6/24 13:23	0.06	1.14	0.56	
6/6/24 13:24	-0.04	0.85	5.38	
6/6/24 13:25	0.91	3.83	18.46	
6/6/24 13:26	3.25	10.97	23.9	
6/6/24 13:27	3.3	10.98	24.86	
6/6/24 13:28	3.26	11.01	11.04	
6/6/24 13:29	3.25	11.01	0	
6/6/24 13:30	3.27	10.98	0.02	
6/6/24 13:31	3.29	10.98	0.01	
6/6/24 13:32	3.36	10.93	0.01	
6/6/24 13:33	3.35	10.94	0.01	Restart
6/6/24 13:34	3.3	10.95	-0.03	
6/6/24 13:35	3.22	10.99	-0.03	
6/6/24 13:36	3.3	10.94	0.15	
6/6/24 13:37	3.43	10.86	0.04	
6/6/24 13:38	3.51	10.82	0.02	
6/6/24 13:39	3.4	10.88	0.27	
6/6/24 13:40	3.38	10.88	0.01	
6/6/24 13:41	3.44	10.85	-0.01	
6/6/24 13:42	3.44	10.85	0	
6/6/24 13:43	3.46	10.83	0.03	
6/6/24 13:44	3.4	10.86	0.04	
6/6/24 13:45	3.55	10.77	0.02	
6/6/24 13:46	3.37	10.88	0.71	
6/6/24 13:47	3.32	10.9	0.15	
6/6/24 13:48	3.32	10.89	0.4	
6/6/24 13:49	3.27	10.92	0.29	
6/6/24 13:50	3.4	10.85	0.43	
6/6/24 13:51	3.45	10.82	0.41	
6/6/24 13:52	3.29	10.9	0.57	
6/6/24 13:53	3.39	10.84	0.35	
6/6/24 13:54	3.29	10.89	0.35	
6/6/24 13:55	3.37	10.84	0.45	
6/6/24 13:56	3.33	10.88	0.53	
6/6/24 13:57	3.2	10.95	0.44	
6/6/24 13:58	3.33	10.87	0.5	
6/6/24 13:59	3.31	10.89	0.47	
6/6/24 14:00	3.21	10.95	0.51	
6/6/24 14:01	3.28	10.91	0.48	
6/6/24 14:02	3.27	10.91	0.49	
6/6/24 14:03	3.27	10.9	0.48	
6/6/24 14:04	3.3	10.9	0.5	
6/6/24 14:05	3.24	10.92	0.62	
6/6/24 14:06	3.37	10.85	0.58	
6/6/24 14:07	3.23	10.92	0.59	
6/6/24 14:08	3.3	10.88	0.57	
6/6/24 14:09	3.24	10.91	0.58	
6/6/24 14:10	3.33	10.86	0.63	
6/6/24 14:11	3.33	10.87	0.67	
6/6/24 14:12	3.17	10.95	0.7	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/6/24 14:13	3.19	10.94	0.64	
6/6/24 14:14	3.3	10.88	0.6	
6/6/24 14:15	3.35	10.86	0.6	
6/6/24 14:16	3.24	10.9	0.55	Pause for THC Bias
6/6/24 14:17	3.25	10.9	0.04	
6/6/24 14:18	3.26	10.9	2.89	
6/6/24 14:19	3.25	10.91	18.81	
6/6/24 14:20	3.37	10.84	23.2	
6/6/24 14:21	3.41	10.83	24.55	
6/6/24 14:22	3.4	10.83	9.63	
6/6/24 14:23	3.46	10.79	-0.03	Restart
6/6/24 14:24	3.45	10.79	-0.03	
6/6/24 14:25	3.36	10.83	0.06	
6/6/24 14:26	3.43	10.8	-0.01	
6/6/24 14:27	3.46	10.8	-0.04	
6/6/24 14:28	3.45	10.8	0.04	
6/6/24 14:29	3.51	10.76	-0.03	
6/6/24 14:30	3.56	10.73	-0.04	
6/6/24 14:31	3.4	10.82	0	
6/6/24 14:32	3.39	10.82	0.05	
6/6/24 14:33	3.35	10.85	-0.04	
6/6/24 14:34	3.46	10.78	0.21	
6/6/24 14:35	3.38	10.83	-0.04	
6/6/24 14:36	3.5	10.76	-0.03	
6/6/24 14:37	3.39	10.82	-0.03	
6/6/24 14:38	3.42	10.81	-0.01	
6/6/24 14:39	3.47	10.78	-0.04	
6/6/24 14:40	3.43	10.81	-0.02	
6/6/24 14:41	3.52	10.76	0.03	
6/6/24 14:42	3.42	10.81	-0.04	
6/6/24 14:43	3.48	10.79	0.07	
6/6/24 14:44	3.43	10.81	0.04	
6/6/24 14:45	3.47	10.79	0.29	
6/6/24 14:46	3.53	10.76	-0.03	
6/6/24 14:47	3.51	10.76	0.21	
6/6/24 14:48	3.38	10.82	-0.01	
6/6/24 14:49	3.5	10.75	0.04	
6/6/24 14:50	3.5	10.76	0.59	
6/6/24 14:51	3.46	10.78	0.21	
6/6/24 14:52	3.48	10.77	-0.02	
6/6/24 14:53	3.44	10.78	-0.04	
6/6/24 14:54	3.45	10.78	-0.02	
6/6/24 14:55	3.47	10.77	-0.04	
6/6/24 14:56	3.48	10.77	-0.04	
6/6/24 14:57	3.49	10.77	-0.03	
6/6/24 14:58	3.53	10.74	0.01	
6/6/24 14:59	3.54	10.75	0.04	
6/6/24 15:00	3.4	10.81	-0.03	
6/6/24 15:01	3.43	10.78	0.43	
6/6/24 15:02	3.61	10.7	-0.03	
6/6/24 15:03	3.5	10.77	-0.04	
6/6/24 15:04	3.43	10.81	-0.04	
6/6/24 15:05	3.45	10.8	0.01	
6/6/24 15:06	3.48	10.78	-0.01	
6/6/24 15:07	3.52	10.76	-0.01	
6/6/24 15:08	3.51	10.77	-0.03	
6/6/24 15:09	3.39	10.83	-0.03	
6/6/24 15:10	3.52	10.77	-0.03	
6/6/24 15:11	3.47	10.79	-0.04	
6/6/24 15:12	3.49	10.79	0.27	
6/6/24 15:13	3.55	10.76	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/6/24 15:14	3.48	10.79	0.04	Pause THC Bias
6/6/24 15:15	3.46	10.8	-0.04	
6/6/24 15:16	3.48	10.79	0.34	
6/6/24 15:17	3.45	10.8	7.39	
6/6/24 15:18	3.49	10.78	19.22	
6/6/24 15:19	3.49	10.78	13.19	
6/6/24 15:20	3.52	10.75	15.67	
6/6/24 15:21	3.47	10.78	25.1	
6/6/24 15:22	3.43	10.8	18.18	
6/6/24 15:23	3.47	10.79	8.44	
6/6/24 15:24	3.56	10.75	10.99	
6/6/24 15:25	3.58	10.74	4.38	
6/6/24 15:26	3.5	10.78	0.41	Restart
6/6/24 15:27	3.51	10.78	0.42	
6/6/24 15:28	3.49	10.81	0.37	
6/6/24 15:29	3.42	10.84	0.37	
6/6/24 15:30	3.48	10.8	0	
6/6/24 15:31	3.42	10.83	-0.02	
6/6/24 15:32	3.56	10.76	-0.04	
6/6/24 15:33	3.44	10.82	0.06	
6/6/24 15:34	3.57	10.75	0	
6/6/24 15:35	3.49	10.8	-0.04	
6/6/24 15:36	3.49	10.82	-0.04	
6/6/24 15:37	3.44	10.85	-0.04	
6/6/24 15:38	3.55	10.79	-0.04	
6/6/24 15:39	3.45	10.85	-0.04	
6/6/24 15:40	3.56	10.79	-0.04	
6/6/24 15:41	3.55	10.8	-0.04	
6/6/24 15:42	3.61	10.77	-0.04	
6/6/24 15:43	3.53	10.83	-0.04	
6/6/24 15:44	3.54	10.8	0.12	
6/6/24 15:45	3.53	10.81	-0.04	
6/6/24 15:46	3.57	10.79	-0.04	
6/6/24 15:47	3.53	10.8	0.12	
6/6/24 15:48	3.59	10.77	2.05	
6/6/24 15:49	3.55	10.79	4.03	
6/6/24 15:50	3.53	10.8	6.26	
6/6/24 15:51	3.59	10.76	6.12	
6/6/24 15:52	3.56	10.78	2.39	
6/6/24 15:53	3.64	10.74	3.63	
6/6/24 15:54	3.58	10.78	5.18	
6/6/24 15:55	3.57	10.78	4.55	
6/6/24 15:56	3.74	10.71	27.08	
6/6/24 15:57	3.66	10.75	15.64	
6/6/24 15:58	3.51	10.82	25.21	
6/6/24 15:59	3.67	10.73	23.73	
6/6/24 16:00	3.67	10.75	44.35	
6/6/24 16:01	3.78	10.7	32.89	
6/6/24 16:02	3.56	10.83	24.38	
6/6/24 16:03	3.54	10.83	61.74	
6/6/24 16:04	3.57	10.81	50	
6/6/24 16:05	3.59	10.81	47.02	
6/6/24 16:06	3.68	10.77	33.47	
6/6/24 16:07	3.6	10.8	24.47	
6/6/24 16:08	3.6	10.8	41.66	
6/6/24 16:09	3.56	10.82	31.16	
6/6/24 16:10	3.56	10.82	31.52	
6/6/24 16:11	3.6	10.79	30.92	
6/6/24 16:12	3.65	10.76	29.09	
6/6/24 16:13	3.61	10.8	24.05	
6/6/24 16:14	3.64	10.78	37.32	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/6/24 16:15	3.53	10.83	7.25	
6/6/24 16:16	3.61	10.79	9.03	
6/6/24 16:17	3.57	10.81	6.81	Pause for THC Bias
6/6/24 16:18	3.58	10.81	-0.04	
6/6/24 16:19	3.69	10.75	-0.04	
6/6/24 16:20	3.47	10.86	0.34	
6/6/24 16:21	3.71	10.73	15.3	
6/6/24 16:22	3.62	10.77	24.82	
6/6/24 16:23	3.56	10.8	7.24	
6/6/24 16:24	3.63	10.76	1.82	Restart
6/6/24 16:25	3.54	10.8	1.4	
6/6/24 16:26	3.59	10.77	0.85	
6/6/24 16:27	3.52	10.81	0.34	
6/6/24 16:28	3.53	10.8	0.07	
6/6/24 16:29	3.55	10.79	-0.03	
6/6/24 16:30	3.47	10.83	-0.01	
6/6/24 16:31	1.87	5.21	0.73	
6/6/24 16:32	-0.04	-0.01	-0.04	Bias
6/6/24 16:33	-0.04	-0.02	2.8	
6/6/24 16:34	8.31	8.77	0.46	
6/6/24 16:35	11.01	12.16	-0.04	
6/6/24 16:36	11.02	10.99	-0.04	
6/6/24 16:37	10.75	10.62	0.42	
6/6/24 16:38	18.57	0.32	14.44	
6/6/24 16:39	21.32	0.09	24.82	
6/6/24 16:40	21.32	0.08	24.62	
6/6/24 16:41	21.32	0.07	85.32	Shoot hight span
6/7/24 5:01	10.39	-0.03	-0.04	Bias
6/7/24 5:02	3.17	2.45	1.21	
6/7/24 5:03	22.24	21.6	-0.04	
6/7/24 5:04	22.1	21.89	-0.04	
6/7/24 5:05	21.42	21	-0.04	
6/7/24 5:06	10.8	10.89	-0.04	
6/7/24 5:07	13.76	7.8	-0.04	
6/7/24 5:08	21.24	0.07	21.83	
6/7/24 5:09	21.2	0.09	44.65	
6/7/24 5:10	21.2	0.09	45.04	
6/7/24 5:11	21.2	0.09	23.9	
6/7/24 5:12	21.2	0.09	14.99	
6/7/24 5:13	21.2	0.09	22.67	
6/7/24 5:14	21.07	0.08	24.86	
6/7/24 5:15	20.2	0.08	12.59	
6/7/24 5:16	6.43	8.34	0.98	
6/7/24 5:17	0.04	0.09	-0.02	
6/7/24 5:18	1.15	1.84	-0.02	
6/7/24 5:19	10.91	10.9	-0.04	
6/7/24 5:20	11.03	11	-0.02	
6/7/24 5:21	8.57	10.97	-0.04	
6/7/24 5:22	3.46	10.9	-0.04	
6/7/24 5:23	3.44	10.9	-0.02	
6/7/24 5:24	3.43	10.9	-0.04	
6/7/24 5:25	3.43	10.89	-0.04	
6/7/24 5:26	3.44	10.88	-0.04	
6/7/24 5:27	3.41	10.89	-0.04	
6/7/24 5:28	3.41	10.89	0	
6/7/24 5:29	3.43	10.87	-0.04	
6/7/24 5:30	3.4	10.88	-0.04	
6/7/24 5:31	3.42	10.86	-0.04	
6/7/24 5:32	3.45	10.85	-0.04	
6/7/24 5:33	3.39	10.89	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/7/24 5:34	3.39	10.88	-0.04	
6/7/24 5:35	3.4	10.87	-0.04	
6/7/24 5:36	3.41	10.86	-0.03	
6/7/24 5:37	3.39	10.86	-0.04	
6/7/24 5:38	3.41	10.84	-0.02	
6/7/24 5:39	3.42	10.83	-0.03	
6/7/24 5:40	3.45	10.8	-0.04	
6/7/24 5:41	3.39	10.84	-0.02	
6/7/24 5:42	3.45	10.8	-0.02	
6/7/24 5:43	3.37	10.86	-0.03	Run 5
6/7/24 5:44	3.43	10.81	-0.03	
6/7/24 5:45	3.41	10.82	-0.03	
6/7/24 5:46	3.44	10.8	-0.03	
6/7/24 5:47	3.36	10.85	-0.02	
6/7/24 5:48	3.41	10.81	-0.01	
6/7/24 5:49	3.41	10.81	-0.03	
6/7/24 5:50	3.44	10.79	-0.03	
6/7/24 5:51	3.37	10.83	-0.02	
6/7/24 5:52	3.42	10.8	-0.02	
6/7/24 5:53	3.43	10.79	-0.01	
6/7/24 5:54	3.4	10.82	-0.03	
6/7/24 5:55	3.41	10.79	-0.02	
6/7/24 5:56	3.43	10.78	-0.03	
6/7/24 5:57	3.44	10.77	0.05	
6/7/24 5:58	3.4	10.79	-0.02	
6/7/24 5:59	3.43	10.75	0.3	
6/7/24 6:00	3.41	10.77	-0.01	
6/7/24 6:01	3.36	10.78	0.04	
6/7/24 6:02	3.4	10.75	0.1	
6/7/24 6:03	3.43	10.71	0.15	
6/7/24 6:04	3.48	10.68	0.69	
6/7/24 6:05	3.48	10.69	0.26	
6/7/24 6:06	3.45	10.7	0.27	
6/7/24 6:07	3.4	10.72	0.37	
6/7/24 6:08	3.41	10.7	0.47	
6/7/24 6:09	3.4	10.7	0.46	
6/7/24 6:10	3.37	10.71	0.58	
6/7/24 6:11	3.42	10.67	0.5	
6/7/24 6:12	3.4	10.68	0.52	
6/7/24 6:13	3.44	10.66	0.56	
6/7/24 6:14	3.33	10.71	0.61	
6/7/24 6:15	3.44	10.65	0.59	
6/7/24 6:16	3.42	10.65	0.61	
6/7/24 6:17	3.42	10.65	0.56	
6/7/24 6:18	3.4	10.66	0.56	
6/7/24 6:19	3.4	10.65	0.53	
6/7/24 6:20	3.43	10.62	0.58	
6/7/24 6:21	3.39	10.65	0.52	
6/7/24 6:22	3.35	10.65	0.5	
6/7/24 6:23	3.4	10.61	0.49	
6/7/24 6:24	3.41	10.61	0.51	
6/7/24 6:25	3.42	10.59	0.51	
6/7/24 6:26	3.44	10.58	0.51	
6/7/24 6:27	3.4	10.59	0.51	
6/7/24 6:28	3.41	10.6	0.51	
6/7/24 6:29	3.42	10.58	0.5	
6/7/24 6:30	3.4	10.6	0.49	
6/7/24 6:31	3.38	10.61	0.48	
6/7/24 6:32	3.4	10.59	0.45	
6/7/24 6:33	3.38	10.61	0.45	
6/7/24 6:34	3.42	10.58	0.45	



BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/7/24 6:35	3.4	10.59	0.45	
6/7/24 6:36	3.44	10.57	0.47	
6/7/24 6:37	3.46	10.56	0.47	
6/7/24 6:38	3.41	10.58	0.53	
6/7/24 6:39	3.48	10.54	0.56	
6/7/24 6:40	3.36	10.62	0.93	
6/7/24 6:41	3.39	10.59	0.57	
6/7/24 6:42	3.38	10.59	0.54	
6/7/24 6:43	3.41	10.58	0.57	Pause for THC
6/7/24 6:44	3.4	10.57	-0.04	
6/7/24 6:45	3.45	10.55	2.93	
6/7/24 6:46	3.39	10.59	25.24	
6/7/24 6:47	3.38	10.59	6.02	
6/7/24 6:48	3.41	10.57	-0.04	Restart
6/7/24 6:49	3.38	10.58	-0.04	
6/7/24 6:50	3.38	10.57	-0.04	
6/7/24 6:51	3.36	10.58	-0.04	
6/7/24 6:52	3.39	10.56	-0.04	
6/7/24 6:53	3.43	10.55	-0.04	
6/7/24 6:54	3.42	10.55	-0.04	
6/7/24 6:55	3.39	10.56	0.02	
6/7/24 6:56	3.46	10.52	-0.04	
6/7/24 6:57	3.37	10.56	-0.04	
6/7/24 6:58	3.4	10.54	-0.04	
6/7/24 6:59	3.42	10.51	-0.04	
6/7/24 7:00	3.46	10.49	-0.04	
6/7/24 7:01	3.39	10.52	-0.04	
6/7/24 7:02	3.4	10.52	-0.04	
6/7/24 7:03	3.34	10.56	-0.04	
6/7/24 7:04	3.38	10.53	-0.04	
6/7/24 7:05	3.39	10.52	-0.03	
6/7/24 7:06	3.43	10.5	-0.04	
6/7/24 7:07	3.41	10.5	-0.04	
6/7/24 7:08	3.41	10.49	-0.03	
6/7/24 7:09	3.36	10.53	-0.04	
6/7/24 7:10	3.35	10.54	-0.03	
6/7/24 7:11	3.39	10.53	-0.04	
6/7/24 7:12	3.36	10.55	-0.01	
6/7/24 7:13	3.39	10.52	0.08	
6/7/24 7:14	3.35	10.54	-0.04	
6/7/24 7:15	3.41	10.51	-0.04	
6/7/24 7:16	3.41	10.51	-0.04	
6/7/24 7:17	3.39	10.52	-0.04	
6/7/24 7:18	3.37	10.53	-0.03	
6/7/24 7:19	3.38	10.52	-0.02	
6/7/24 7:20	3.43	10.51	-0.04	
6/7/24 7:21	3.43	10.51	-0.04	
6/7/24 7:22	3.37	10.53	-0.04	
6/7/24 7:23	3.42	10.52	-0.04	
6/7/24 7:24	3.37	10.55	-0.04	
6/7/24 7:25	3.38	10.54	-0.04	
6/7/24 7:26	3.36	10.55	-0.04	
6/7/24 7:27	3.46	10.5	-0.04	
6/7/24 7:28	3.44	10.51	-0.04	
6/7/24 7:29	3.41	10.54	-0.04	
6/7/24 7:30	3.37	10.55	-0.03	
6/7/24 7:31	3.4	10.54	0.01	
6/7/24 7:32	3.43	10.52	0.09	
6/7/24 7:33	3.41	10.54	-0.04	
6/7/24 7:34	3.33	10.58	-0.04	
6/7/24 7:35	3.29	10.6	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/7/24 7:36	3.38	10.54	-0.04	
6/7/24 7:37	3.38	10.55	-0.04	
6/7/24 7:38	3.42	10.53	-0.04	
6/7/24 7:39	3.37	10.57	-0.04	Pause for THC Bias
6/7/24 7:40	3.39	10.56	-0.04	
6/7/24 7:41	3.4	10.56	2.72	
6/7/24 7:42	3.39	10.56	24.4	
6/7/24 7:43	3.36	10.57	25.12	
6/7/24 7:44	3.32	10.6	11.98	
6/7/24 7:45	3.38	10.56	-0.04	Restart
6/7/24 7:46	3.38	10.58	-0.04	
6/7/24 7:47	3.35	10.57	-0.04	
6/7/24 7:48	3.34	10.57	-0.04	
6/7/24 7:49	3.36	10.55	-0.04	
6/7/24 7:50	3.34	10.56	-0.04	
6/7/24 7:51	3.47	10.49	-0.04	
6/7/24 7:52	3.31	10.58	-0.04	
6/7/24 7:53	3.28	10.59	-0.04	
6/7/24 7:54	3.26	10.6	-0.04	
6/7/24 7:55	3.33	10.56	-0.04	
6/7/24 7:56	3.37	10.55	-0.04	
6/7/24 7:57	3.39	10.53	-0.04	
6/7/24 7:58	3.28	10.6	-0.03	
6/7/24 7:59	3.35	10.55	-0.04	
6/7/24 8:00	3.36	10.55	0.1	
6/7/24 8:01	3.45	10.5	0	
6/7/24 8:02	3.41	10.53	-0.04	
6/7/24 8:03	3.39	10.55	-0.04	
6/7/24 8:04	3.4	10.55	-0.04	
6/7/24 8:05	3.38	10.56	-0.04	
6/7/24 8:06	3.38	10.56	-0.04	
6/7/24 8:07	3.36	10.56	0.04	
6/7/24 8:08	3.41	10.54	-0.04	
6/7/24 8:09	3.42	10.54	-0.04	
6/7/24 8:10	3.42	10.54	-0.04	
6/7/24 8:11	3.39	10.55	-0.02	
6/7/24 8:12	3.4	10.54	-0.02	
6/7/24 8:13	3.38	10.55	0.06	
6/7/24 8:14	3.42	10.54	-0.01	
6/7/24 8:15	3.43	10.55	-0.01	
6/7/24 8:16	3.4	10.55	0.02	
6/7/24 8:17	3.38	10.56	0.13	
6/7/24 8:18	3.39	10.55	0.2	
6/7/24 8:19	3.42	10.54	0.25	
6/7/24 8:20	3.37	10.56	0.46	
6/7/24 8:21	3.41	10.55	0.33	
6/7/24 8:22	3.38	10.56	0.35	
6/7/24 8:23	3.4	10.54	0.4	
6/7/24 8:24	3.35	10.58	0.42	
6/7/24 8:25	3.36	10.58	0.42	
6/7/24 8:26	3.37	10.57	0.47	
6/7/24 8:27	3.41	10.55	0.42	
6/7/24 8:28	3.4	10.56	0.38	
6/7/24 8:29	3.41	10.55	0.42	
6/7/24 8:30	3.4	10.56	0.38	Pause for THC Bias
6/7/24 8:31	3.35	10.59	0.34	
6/7/24 8:32	3.35	10.58	0.46	
6/7/24 8:33	3.42	10.56	10.05	
6/7/24 8:34	3.39	10.57	25.5	
6/7/24 8:35	3.37	10.57	14.18	
6/7/24 8:36	3.39	10.57	0.21	Restart

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/7/24 8:37	3.36	10.59	-0.04	
6/7/24 8:38	3.42	10.56	0.02	
6/7/24 8:39	3.4	10.57	-0.04	
6/7/24 8:40	3.37	10.59	-0.04	
6/7/24 8:41	3.39	10.58	-0.03	
6/7/24 8:42	3.44	10.55	-0.03	
6/7/24 8:43	3.34	10.62	-0.04	
6/7/24 8:44	3.42	10.57	0.29	
6/7/24 8:45	3.31	10.64	-0.03	
6/7/24 8:46	3.37	10.61	-0.03	
6/7/24 8:47	3.35	10.63	-0.04	
6/7/24 8:48	3.43	10.59	-0.04	
6/7/24 8:49	3.41	10.6	-0.04	
6/7/24 8:50	3.38	10.62	-0.04	
6/7/24 8:51	3.4	10.61	-0.04	
6/7/24 8:52	3.32	10.66	-0.04	
6/7/24 8:53	3.36	10.63	-0.04	
6/7/24 8:54	3.37	10.61	-0.04	
6/7/24 8:55	3.42	10.59	0	
6/7/24 8:56	3.42	10.59	-0.04	
6/7/24 8:57	3.4	10.61	-0.04	
6/7/24 8:58	3.34	10.64	-0.04	
6/7/24 8:59	3.39	10.6	-0.04	
6/7/24 9:00	3.39	10.6	-0.04	
6/7/24 9:01	3.38	10.6	-0.03	
6/7/24 9:02	3.35	10.63	-0.03	
6/7/24 9:03	3.39	10.61	-0.03	
6/7/24 9:04	3.38	10.62	-0.04	
6/7/24 9:05	3.33	10.65	-0.04	
6/7/24 9:06	3.41	10.6	-0.04	
6/7/24 9:07	3.4	10.61	-0.04	
6/7/24 9:08	3.42	10.6	-0.04	
6/7/24 9:09	3.4	10.62	0.1	
6/7/24 9:10	3.36	10.64	-0.03	
6/7/24 9:11	3.35	10.64	-0.04	
6/7/24 9:12	3.35	10.64	-0.04	
6/7/24 9:13	3.39	10.62	-0.04	
6/7/24 9:14	3.42	10.6	0.02	
6/7/24 9:15	3.4	10.61	-0.04	
6/7/24 9:16	3.39	10.61	-0.04	
6/7/24 9:17	3.4	10.6	-0.02	
6/7/24 9:18	3.38	10.61	-0.04	
6/7/24 9:19	3.44	10.58	-0.03	
6/7/24 9:20	3.35	10.63	-0.04	
6/7/24 9:21	3.35	10.63	0.02	
6/7/24 9:22	3.43	10.59	-0.03	
6/7/24 9:23	3.4	10.62	-0.04	
6/7/24 9:24	3.38	10.62	-0.04	
6/7/24 9:25	3.37	10.63	-0.02	
6/7/24 9:26	3.4	10.6	-0.02	
6/7/24 9:27	3.38	10.61	-0.04	Pause for THC
6/7/24 9:28	3.38	10.61	-0.04	
6/7/24 9:29	3.33	10.64	9.48	
6/7/24 9:30	3.43	10.58	25.36	
6/7/24 9:31	3.28	10.65	6.11	
6/7/24 9:32	3.45	10.54	0.08	Restart
6/7/24 9:33	3.45	10.54	-0.04	
6/7/24 9:34	3.47	10.53	0.13	
6/7/24 9:35	3.37	10.59	-0.04	
6/7/24 9:36	3.33	10.6	-0.02	
6/7/24 9:37	3.38	10.57	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/7/24 9:38	3.4	10.57	-0.04	
6/7/24 9:39	3.36	10.58	0.1	
6/7/24 9:40	3.46	10.51	-0.03	
6/7/24 9:41	3.4	10.55	-0.04	
6/7/24 9:42	3.35	10.57	0.02	
6/7/24 9:43	3.42	10.53	-0.03	
6/7/24 9:44	3.36	10.57	-0.03	
6/7/24 9:45	3.36	10.55	0.01	
6/7/24 9:46	3.42	10.5	-0.01	
6/7/24 9:47	3.45	10.49	0.05	
6/7/24 9:48	3.29	10.58	0.07	
6/7/24 9:49	3.41	10.51	0.05	
6/7/24 9:50	3.41	10.52	0.07	
6/7/24 9:51	3.41	10.52	0.08	
6/7/24 9:52	3.42	10.51	0.05	
6/7/24 9:53	3.38	10.53	0.03	
6/7/24 9:54	3.37	10.54	0.04	
6/7/24 9:55	3.43	10.52	0.03	
6/7/24 9:56	3.4	10.51	0.01	End
6/7/24 9:57	3.41	10.49	0.02	
6/7/24 9:58	1.39	1.94	0.04	
6/7/24 9:59	-0.04	0.1	0.36	
6/7/24 10:00	0.78	1.29	0.08	
6/7/24 10:01	10.81	9.87	0.04	
6/7/24 10:02	10.96	11.01	0.07	
6/7/24 10:03	9.31	10.99	3.16	
6/7/24 10:04	3.47	10.88	25.57	
6/7/24 10:05	3.02	9.2	9.75	
6/7/24 10:06	20.85	0.92	0.24	
6/7/24 10:07	21.37	0.82	0.35	
6/7/24 10:08	21.38	0.82	0.32	
6/7/24 10:09	21.38	0.82	0.25	
6/7/24 10:10	21.38	0.81	0.3	
6/7/24 10:11	21.39	0.81	0.37	
6/7/24 10:12	21.39	0.81	0.63	
6/7/24 10:13	21.39	0.81	0.65	
6/7/24 10:14	21.39	0.81	7.91	
6/7/24 10:15	20.27	17.97	2.07	
6/7/24 10:16	19.95	19.09	1.02	
6/7/24 10:17	20.57	19.62	1	
6/7/24 10:18	17.79	17.06	1.13	
6/7/24 10:19	14.48	13.98	0.92	
6/7/24 10:20	6.32	6.54	1.5	
6/7/24 10:21	3.25	3.77	1.27	
6/7/24 10:22	6.1	6.41	1.05	
6/7/24 10:23	19.71	18.81	1.18	
6/7/24 10:24	16.52	15.84	1.24	
6/7/24 10:25	10.91	10.73	1.41	
6/7/24 10:26	3.79	4.26	1.29	
6/7/24 10:27	7.44	7.63	1.34	
6/7/24 10:28	20.62	19.65	1.42	
6/7/24 10:29	17.65	16.78	1.17	
6/7/24 10:30	10.52	10.35	1.14	
6/7/24 10:31	3.8	4.28	1.21	
6/7/24 10:32	3.08	3.66	1.15	
6/7/24 10:33	7.29	7.43	1.05	
6/7/24 10:34	1.03	1.63	0.99	
6/7/24 10:35	6.62	6.82	0.97	
6/7/24 10:36	7.72	8.42	0.95	
6/7/24 10:37	11	10.94	0.97	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/11/24 11:33	21.52	0.67	-0.04	
6/11/24 11:34	21.52	0.68	11.68	
6/11/24 11:35	21.53	0.68	39.5	
6/11/24 11:36	20.93	0.68	16.78	
6/11/24 11:37	-0.02	0.6	25.52	
6/11/24 11:38	-0.04	0.59	2.03	
6/11/24 11:39	-0.01	0.12	45.8	
6/11/24 11:40	0	0	17.85	
6/11/24 11:41	16.14	13.3	13.2	
6/11/24 11:42	23.18	21.2	14.66	
6/11/24 11:43	23.19	21.19	16.45	
6/11/24 11:44	22.41	21.14	17.43	
6/11/24 11:45	22.11	21.75	18.04	
6/11/24 11:46	19.84	19.49	18.34	
6/11/24 11:47	10.92	10.97	18.31	
6/11/24 11:48	20.33	0.59	18.02	
6/11/24 11:49	21.04	0.12	17.11	
6/11/24 11:50	20.97	0.13	12.13	
6/11/24 11:51	20.97	0.14	-0.04	
6/11/24 11:52	20.98	0.14	1.52	
6/11/24 11:53	20.99	0.14	51.95	
6/11/24 11:54	21	0.14	45.08	
6/11/24 11:55	21	0.14	23.49	
6/11/24 11:56	21.01	0.14	14.86	
6/11/24 11:57	20.98	0.14	18.89	
6/11/24 11:58	20.97	0.14	24.77	
6/11/24 11:59	20.96	0.14	24.5	
6/11/24 12:00	20.97	0.14	24.54	
6/11/24 12:01	20.98	0.14	23.43	
6/11/24 12:02	20.99	0.13	24.3	
6/11/24 12:03	21	0.13	25.34	
6/11/24 12:04	21.01	0.13	7.03	
6/11/24 12:05	21.01	0.13	16.65	
6/11/24 12:06	21.02	0.13	28.98	
6/11/24 12:07	12	4.78	23.81	
6/11/24 12:08	2.95	7.47	-0.04	
6/11/24 12:09	1.23	2.61	-0.04	
6/11/24 12:10	0.02	0.06	-0.04	Bias
6/11/24 12:11	-0.02	-0.02	-0.04	
6/11/24 12:12	5.95	6.61	-0.04	
6/11/24 12:13	10.93	11.08	-0.04	
6/11/24 12:14	11.05	11.13	-0.04	
6/11/24 12:15	8.79	11.08	-0.04	
6/11/24 12:16	4.38	11.04	0.41	
6/11/24 12:17	4.01	11.03	9.12	
6/11/24 12:18	4.01	11.02	26.77	
6/11/24 12:19	3.97	11.05	1.85	
6/11/24 12:20	4.01	11.02	-0.04	
6/11/24 12:21	4.01	11.02	-0.04	
6/11/24 12:22	4.05	11.01	-0.04	
6/11/24 12:23	4.02	11.05	-0.04	
6/11/24 12:24	4.05	11.02	-0.04	
6/11/24 12:25	4.06	11.01	-0.04	
6/11/24 12:26	4.13	10.97	-0.04	
6/11/24 12:27	4.08	11.01	-0.04	
6/11/24 12:28	4.02	11.04	-0.04	
6/11/24 12:29	4.05	11.03	-0.04	
6/11/24 12:30	4.1	10.96	-0.04	
6/11/24 12:31	4.05	10.98	-0.04	
6/11/24 12:32	4.02	10.99	-0.04	
6/11/24 12:33	4.01	10.99	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/11/24 12:34	3.92	11.05	-0.04	
6/11/24 12:35	3.85	11.07	-0.04	
6/11/24 12:36	3.89	11.04	-0.04	
6/11/24 12:37	3.8	11.09	4.91	
6/11/24 12:38	3.83	11.05	5.84	
6/11/24 12:39	3.71	11.08	-0.04	
6/11/24 12:40	3.61	11.12	-0.04	
6/11/24 12:41	3.75	11.04	-0.04	
6/11/24 12:42	3.78	10.99	-0.04	
6/11/24 12:43	3.69	11.03	-0.04	
6/11/24 12:44	3.7	11	-0.04	
6/11/24 12:45	3.63	11.02	-0.04	
6/11/24 12:46	3.59	11.02	-0.04	
6/11/24 12:47	3.66	10.97	-0.04	
6/11/24 12:48	3.6	10.99	-0.04	
6/11/24 12:49	3.66	10.92	-0.04	
6/11/24 12:50	3.72	10.89	-0.04	
6/11/24 12:51	3.46	11.04	-0.04	
6/11/24 12:52	3.51	10.99	-0.04	
6/11/24 12:53	3.56	10.96	-0.04	
6/11/24 12:54	3.52	10.98	-0.04	
6/11/24 12:55	3.58	10.93	-0.04	
6/11/24 12:56	3.62	10.9	-0.04	
6/11/24 12:57	3.63	10.89	-0.04	
6/11/24 12:58	3.43	10.99	-0.04	
6/11/24 12:59	3.57	10.89	-0.04	
6/11/24 13:00	3.49	10.94	-0.04	
6/11/24 13:01	3.51	10.93	-0.04	
6/11/24 13:02	3.48	10.93	-0.04	
6/11/24 13:03	3.52	10.9	-0.04	
6/11/24 13:04	3.52	10.9	-0.04	
6/11/24 13:05	3.47	10.93	-0.04	
6/11/24 13:06	3.54	10.87	-0.04	
6/11/24 13:07	3.51	10.9	-0.04	
6/11/24 13:08	3.35	10.99	-0.04	
6/11/24 13:09	3.36	10.98	-0.04	
6/11/24 13:10	3.38	10.96	-0.04	
6/11/24 13:11	3.41	10.93	-0.04	
6/11/24 13:12	3.34	10.98	-0.04	
6/11/24 13:13	3.26	11.01	-0.04	
6/11/24 13:14	3.4	10.93	-0.04	
6/11/24 13:15	3.39	10.93	-0.04	
6/11/24 13:16	3.4	10.95	-0.04	
6/11/24 13:17	3.33	10.98	-0.04	
6/11/24 13:18	3.29	11	-0.04	
6/11/24 13:19	3.34	10.98	-0.04	
6/11/24 13:20	3.24	11.04	-0.04	Run 6
6/11/24 13:21	3.27	11.03	-0.04	
6/11/24 13:22	3.32	10.99	-0.04	
6/11/24 13:23	3.35	10.97	-0.04	
6/11/24 13:24	3.3	11.01	-0.04	
6/11/24 13:25	3.25	11.04	-0.04	
6/11/24 13:26	3.32	11	-0.04	
6/11/24 13:27	3.32	11.01	-0.04	
6/11/24 13:28	3.28	11.03	-0.04	
6/11/24 13:29	3.25	11.05	-0.04	
6/11/24 13:30	3.33	11.01	-0.04	
6/11/24 13:31	3.36	10.99	-0.04	
6/11/24 13:32	3.3	11.02	-0.04	
6/11/24 13:33	3.3	11.02	-0.04	
6/11/24 13:34	3.33	11.01	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/11/24 13:35	3.37	10.97	-0.04	
6/11/24 13:36	3.34	11	-0.04	
6/11/24 13:37	3.32	11.02	-0.04	
6/11/24 13:38	3.34	11	-0.04	
6/11/24 13:39	3.34	11	-0.04	
6/11/24 13:40	3.35	10.98	-0.04	
6/11/24 13:41	3.32	10.99	-0.04	
6/11/24 13:42	3.26	11.03	-0.04	
6/11/24 13:43	3.28	11.03	-0.04	
6/11/24 13:44	3.35	11	-0.04	
6/11/24 13:45	3.37	10.98	-0.04	
6/11/24 13:46	3.39	10.97	-0.04	
6/11/24 13:47	3.35	11.01	-0.04	
6/11/24 13:48	3.4	10.97	-0.04	
6/11/24 13:49	3.34	11.01	-0.04	
6/11/24 13:50	3.28	11.04	-0.04	
6/11/24 13:51	3.32	11.01	-0.04	
6/11/24 13:52	3.34	11.02	-0.04	
6/11/24 13:53	3.3	11.03	-0.04	
6/11/24 13:54	3.34	11.01	-0.04	
6/11/24 13:55	3.41	10.95	-0.04	
6/11/24 13:56	3.29	11.02	-0.04	
6/11/24 13:57	3.38	10.97	-0.04	
6/11/24 13:58	3.33	10.99	-0.04	
6/11/24 13:59	3.27	11.03	-0.04	
6/11/24 14:00	3.41	10.95	-0.04	
6/11/24 14:01	3.32	11.02	-0.04	
6/11/24 14:02	3.2	11.09	-0.04	
6/11/24 14:03	3.3	11.01	-0.04	
6/11/24 14:04	3.45	10.94	-0.04	
6/11/24 14:05	3.33	10.99	-0.04	
6/11/24 14:06	3.5	10.91	-0.04	
6/11/24 14:07	3.31	11.01	-0.04	
6/11/24 14:08	3.34	10.99	-0.04	
6/11/24 14:09	3.4	10.96	-0.04	
6/11/24 14:10	3.46	10.93	-0.04	
6/11/24 14:11	3.5	10.91	-0.04	
6/11/24 14:12	3.53	10.87	-0.04	
6/11/24 14:13	3.54	10.85	-0.04	
6/11/24 14:14	3.48	10.9	-0.04	
6/11/24 14:15	3.45	10.92	-0.04	
6/11/24 14:16	3.56	10.85	-0.04	
6/11/24 14:17	3.57	10.83	-0.04	Pause THC Bias
6/11/24 14:18	3.48	10.9	-0.04	
6/11/24 14:19	3.34	10.96	0.29	
6/11/24 14:20	3.46	10.89	21.68	
6/11/24 14:21	3.41	10.94	25.12	
6/11/24 14:22	3.37	10.97	5.41	
6/11/24 14:23	3.38	10.97	-0.04	Restart
6/11/24 14:24	3.38	10.95	-0.04	
6/11/24 14:25	3.44	10.92	-0.04	
6/11/24 14:26	3.38	10.96	-0.04	
6/11/24 14:27	3.54	10.86	-0.04	
6/11/24 14:28	3.5	10.89	-0.04	
6/11/24 14:29	3.48	10.88	-0.04	
6/11/24 14:30	3.48	10.87	-0.04	
6/11/24 14:31	3.51	10.86	-0.04	
6/11/24 14:32	3.48	10.87	-0.04	
6/11/24 14:33	3.51	10.83	-0.04	
6/11/24 14:34	3.46	10.86	-0.04	
6/11/24 14:35	3.43	10.88	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/11/24 14:36	3.44	10.87	-0.04	
6/11/24 14:37	3.38	10.9	-0.04	
6/11/24 14:38	3.42	10.89	-0.04	
6/11/24 14:39	3.34	10.95	-0.04	
6/11/24 14:40	3.33	10.96	-0.04	
6/11/24 14:41	3.41	10.92	-0.04	
6/11/24 14:42	3.44	10.89	-0.04	
6/11/24 14:43	3.48	10.89	-0.04	
6/11/24 14:44	3.5	10.88	-0.04	
6/11/24 14:45	3.48	10.89	-0.04	
6/11/24 14:46	3.51	10.87	-0.04	
6/11/24 14:47	3.52	10.85	-0.04	
6/11/24 14:48	3.48	10.86	-0.04	
6/11/24 14:49	3.46	10.88	-0.04	
6/11/24 14:50	3.49	10.85	-0.04	
6/11/24 14:51	3.51	10.84	-0.04	
6/11/24 14:52	3.48	10.86	-0.04	
6/11/24 14:53	3.48	10.85	-0.04	
6/11/24 14:54	3.45	10.87	-0.04	
6/11/24 14:55	3.41	10.89	-0.04	
6/11/24 14:56	3.43	10.86	-0.04	
6/11/24 14:57	3.43	10.88	-0.04	
6/11/24 14:58	3.43	10.89	-0.04	
6/11/24 14:59	3.42	10.91	-0.04	
6/11/24 15:00	3.47	10.86	-0.04	
6/11/24 15:01	3.46	10.87	-0.04	
6/11/24 15:02	3.55	10.81	-0.04	
6/11/24 15:03	3.55	10.83	-0.04	
6/11/24 15:04	3.5	10.85	-0.04	
6/11/24 15:05	3.51	10.85	-0.04	
6/11/24 15:06	3.47	10.88	-0.04	
6/11/24 15:07	3.47	10.88	-0.04	
6/11/24 15:08	3.5	10.86	-0.04	
6/11/24 15:09	3.38	10.92	-0.04	
6/11/24 15:10	3.47	10.85	-0.04	
6/11/24 15:11	3.53	10.81	-0.04	
6/11/24 15:12	3.51	10.83	-0.04	
6/11/24 15:13	3.51	10.83	-0.04	
6/11/24 15:14	3.5	10.84	-0.04	
6/11/24 15:15	3.49	10.86	-0.04	Pause for THC
6/11/24 15:16	3.49	10.83	0.1	
6/11/24 15:17	3.47	10.85	10.51	
6/11/24 15:18	3.38	10.88	25.35	
6/11/24 15:19	3.46	10.82	5.63	
6/11/24 15:20	3.44	10.85	-0.04	Restart
6/11/24 15:21	3.39	10.86	-0.04	
6/11/24 15:22	3.34	10.89	-0.04	
6/11/24 15:23	3.35	10.89	-0.04	
6/11/24 15:24	3.29	10.91	-0.04	
6/11/24 15:25	3.31	10.88	-0.04	
6/11/24 15:26	3.3	10.89	-0.04	
6/11/24 15:27	3.33	10.86	-0.04	
6/11/24 15:28	3.28	10.89	-0.04	
6/11/24 15:29	3.26	10.89	-0.04	
6/11/24 15:30	3.32	10.85	-0.04	
6/11/24 15:31	3.26	10.88	-0.04	
6/11/24 15:32	3.31	10.85	-0.04	
6/11/24 15:33	3.27	10.88	-0.04	
6/11/24 15:34	3.31	10.84	-0.04	
6/11/24 15:35	3.39	10.81	-0.04	
6/11/24 15:36	3.36	10.82	-0.04	



BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/11/24 15:37	3.42	10.78	-0.04	
6/11/24 15:38	3.43	10.77	-0.04	
6/11/24 15:39	3.42	10.78	-0.04	
6/11/24 15:40	3.41	10.8	-0.04	
6/11/24 15:41	3.35	10.82	-0.04	
6/11/24 15:42	3.3	10.87	-0.02	
6/11/24 15:43	3.31	10.86	-0.04	
6/11/24 15:44	3.27	10.9	-0.04	
6/11/24 15:45	3.3	10.88	-0.04	
6/11/24 15:46	3.24	10.92	-0.04	
6/11/24 15:47	3.29	10.91	-0.04	
6/11/24 15:48	3.33	10.88	-0.04	
6/11/24 15:49	3.27	10.92	-0.04	
6/11/24 15:50	3.28	10.91	-0.04	
6/11/24 15:51	3.41	10.85	-0.04	
6/11/24 15:52	3.47	10.83	-0.04	
6/11/24 15:53	3.4	10.86	-0.04	
6/11/24 15:54	3.43	10.85	-0.04	
6/11/24 15:55	3.47	10.82	-0.04	
6/11/24 15:56	3.48	10.81	-0.04	
6/11/24 15:57	3.47	10.81	-0.04	
6/11/24 15:58	3.49	10.79	-0.04	
6/11/24 15:59	3.49	10.79	-0.04	
6/11/24 16:00	3.5	10.79	-0.04	
6/11/24 16:01	3.54	10.76	-0.04	
6/11/24 16:02	3.48	10.8	-0.04	
6/11/24 16:03	3.55	10.75	-0.04	
6/11/24 16:04	3.49	10.77	-0.04	
6/11/24 16:05	3.48	10.77	-0.04	
6/11/24 16:06	3.49	10.77	-0.04	
6/11/24 16:07	3.46	10.77	-0.04	
6/11/24 16:08	3.53	10.74	-0.04	
6/11/24 16:09	3.51	10.75	-0.04	
6/11/24 16:10	3.48	10.76	-0.04	
6/11/24 16:11	3.44	10.8	-0.04	Pause THC
6/11/24 16:12	3.39	10.81	-0.04	
6/11/24 16:13	3.46	10.78	19.08	
6/11/24 16:14	3.5	10.76	25.19	
6/11/24 16:15	3.53	10.75	5.53	
6/11/24 16:16	3.47	10.79	-0.04	Restart
6/11/24 16:17	3.47	10.8	-0.04	
6/11/24 16:18	3.47	10.79	-0.04	
6/11/24 16:19	3.46	10.79	-0.04	
6/11/24 16:20	3.5	10.78	-0.03	
6/11/24 16:21	3.49	10.78	-0.04	
6/11/24 16:22	3.49	10.79	-0.03	
6/11/24 16:23	3.49	10.79	-0.04	
6/11/24 16:24	3.5	10.78	-0.04	
6/11/24 16:25	3.53	10.76	-0.04	
6/11/24 16:26	3.48	10.79	-0.04	
6/11/24 16:27	3.48	10.78	-0.04	
6/11/24 16:28	3.5	10.78	-0.04	
6/11/24 16:29	3.49	10.79	-0.04	
6/11/24 16:30	3.53	10.77	-0.04	
6/11/24 16:31	3.5	10.79	-0.04	
6/11/24 16:32	3.5	10.78	-0.04	
6/11/24 16:33	3.51	10.77	-0.04	
6/11/24 16:34	3.5	10.77	-0.04	
6/11/24 16:35	3.49	10.77	-0.04	
6/11/24 16:36	3.53	10.75	-0.04	
6/11/24 16:37	3.4	10.82	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/11/24 16:38	3.42	10.8	-0.04	
6/11/24 16:39	3.52	10.75	-0.04	
6/11/24 16:40	3.46	10.78	-0.04	
6/11/24 16:41	3.45	10.77	-0.04	
6/11/24 16:42	3.49	10.74	-0.04	
6/11/24 16:43	3.48	10.75	-0.04	
6/11/24 16:44	3.49	10.75	-0.04	
6/11/24 16:45	3.5	10.76	-0.04	
6/11/24 16:46	3.49	10.75	-0.04	
6/11/24 16:47	3.48	10.77	-0.04	
6/11/24 16:48	3.51	10.75	-0.04	
6/11/24 16:49	3.5	10.75	-0.04	
6/11/24 16:50	3.5	10.74	-0.04	
6/11/24 16:51	3.5	10.74	-0.04	
6/11/24 16:52	3.47	10.77	-0.04	
6/11/24 16:53	3.47	10.77	-0.04	
6/11/24 16:54	3.42	10.79	-0.04	
6/11/24 16:55	3.48	10.76	-0.04	
6/11/24 16:56	3.49	10.77	-0.04	
6/11/24 16:57	3.49	10.76	-0.04	
6/11/24 16:58	3.47	10.78	-0.04	
6/11/24 16:59	3.41	10.8	-0.04	
6/11/24 17:00	3.47	10.76	-0.04	
6/11/24 17:01	3.5	10.74	-0.04	
6/11/24 17:02	3.5	10.74	-0.04	
6/11/24 17:03	3.49	10.75	-0.04	
6/11/24 17:04	3.53	10.73	-0.04	
6/11/24 17:05	3.48	10.75	-0.04	
6/11/24 17:06	3.5	10.74	-0.04	
6/11/24 17:07	3.47	10.76	-0.04	
6/11/24 17:08	3.48	10.76	-0.04	
6/11/24 17:09	3.49	10.75	-0.04	
6/11/24 17:10	3.48	10.76	-0.04	
6/11/24 17:11	3.47	10.77	-0.04	
6/11/24 17:12	3.48	10.77	-0.04	
6/11/24 17:13	3.46	10.78	-0.04	
6/11/24 17:14	3.49	10.79	-0.04	
6/11/24 17:15	3.52	10.79	-0.04	
6/11/24 17:16	3.52	10.78	-0.04	
6/11/24 17:17	3.47	10.79	-0.04	
6/11/24 17:18	3.48	10.79	-0.04	
6/11/24 17:19	3.53	10.75	-0.04	
6/11/24 17:20	3.48	10.77	-0.04	
6/11/24 17:21	3.52	10.74	-0.04	
6/11/24 17:22	3.5	10.76	-0.04	
6/11/24 17:23	3.45	10.79	-0.04	
6/11/24 17:24	3.46	10.8	-0.04	
6/11/24 17:25	3.49	10.78	-0.04	
6/11/24 17:26	3.53	10.74	-0.04	
6/11/24 17:27	3.45	10.79	-0.04	
6/11/24 17:28	3.5	10.75	-0.04	
6/11/24 17:29	3.48	10.79	-0.04	
6/11/24 17:30	3.46	10.8	-0.04	
6/11/24 17:31	3.43	10.82	-0.04	
6/11/24 17:32	3.47	10.8	-0.04	
6/11/24 17:33	3.51	10.78	-0.04	
6/11/24 17:34	3.48	10.79	-0.04	
6/11/24 17:35	3.46	10.8	-0.04	
6/11/24 17:36	3.46	10.8	-0.04	End
6/11/24 17:37	3.61	10.44	-0.04	
6/11/24 17:38	0.33	0.19	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/11/24 17:39	-0.04	0.01	-0.04	
6/11/24 17:40	-0.04	0.01	-0.04	
6/11/24 17:41	7.9	8.01	-0.04	
6/11/24 17:42	11.01	10.93	-0.04	
6/11/24 17:43	11.02	11.03	-0.02	
6/11/24 17:44	5.76	10.98	10.6	
6/11/24 17:45	13.11	1.85	24.63	
6/11/24 17:46	21.32	0.65	25.21	
6/11/24 17:47	21.33	0.64	25.2	
6/11/24 17:48	21.33	0.63	2.42	
6/11/24 17:49	21.33	0.63	-0.04	
6/11/24 17:50	21.34	0.62	-0.04	
6/12/24 6:30	21.44	0.46	-0.04	
6/12/24 6:31	18.32	0.44	-0.04	
6/12/24 6:32	0.02	0.33	-0.04	
6/12/24 6:33	-0.04	0	-0.04	
6/12/24 6:34	0.63	1.06	2.91	
6/12/24 6:35	22.13	20.5	0.95	
6/12/24 6:36	22.32	21.9	-0.04	Cal
6/12/24 6:37	14.86	13.99	0	
6/12/24 6:38	12.29	7.99	0.25	
6/12/24 6:39	21.14	0.1	44.07	
6/12/24 6:40	21.11	0.12	44.98	
6/12/24 6:41	21.1	0.13	41.09	
6/12/24 6:42	21.1	0.13	14.97	
6/12/24 6:43	21.11	0.13	14.92	
6/12/24 6:44	21.1	0.14	20.62	
6/12/24 6:45	21.1	0.14	24.84	
6/12/24 6:46	21.11	0.13	24.69	
6/12/24 6:47	17.29	0.51	20.68	
6/12/24 6:48	2.67	6.27	0.37	
6/12/24 6:49	-0.03	0.1	0.07	
6/12/24 6:50	-0.04	0.05	0.06	Bias
6/12/24 6:51	-0.02	0.26	0.05	
6/12/24 6:52	9.42	10.15	0.04	
6/12/24 6:53	11.01	11.02	0.04	
6/12/24 6:54	10.06	10.95	0.06	
6/12/24 6:55	4.25	10.76	0.06	
6/12/24 6:56	4.23	10.73	0.04	
6/12/24 6:57	4.15	10.77	0.04	
6/12/24 6:58	4.13	10.78	0.03	
6/12/24 6:59	3.97	10.86	0.02	
6/12/24 7:00	3.89	10.87	0.06	
6/12/24 7:01	4.04	10.76	0.09	
6/12/24 7:02	3.99	10.79	0.09	
6/12/24 7:03	4.03	10.75	0.13	
6/12/24 7:04	3.91	10.81	0.16	
6/12/24 7:05	3.89	10.81	0.19	
6/12/24 7:06	3.82	10.85	0.22	
6/12/24 7:07	3.8	10.83	0.21	
6/12/24 7:08	3.79	10.82	0.23	
6/12/24 7:09	3.75	10.83	0.24	
6/12/24 7:10	3.68	10.85	0.19	
6/12/24 7:11	3.75	10.79	0.16	
6/12/24 7:12	3.69	10.82	1.21	
6/12/24 7:13	3.56	10.88	0.02	
6/12/24 7:14	3.61	10.82	-0.04	
6/12/24 7:15	3.6	10.82	-0.04	
6/12/24 7:16	3.62	10.79	-0.04	
6/12/24 7:17	3.55	10.83	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/12/24 7:18	3.55	10.81	-0.04	Run 7
6/12/24 7:19	3.57	10.79	-0.04	
6/12/24 7:20	3.51	10.83	-0.04	
6/12/24 7:21	3.5	10.92	-0.04	
6/12/24 7:22	3.51	10.81	-0.04	
6/12/24 7:23	3.55	10.77	-0.04	
6/12/24 7:24	3.49	10.8	-0.04	
6/12/24 7:25	3.5	10.79	-0.04	
6/12/24 7:26	3.58	10.73	-0.04	
6/12/24 7:27	3.56	10.74	-0.04	
6/12/24 7:28	3.46	10.8	-0.04	
6/12/24 7:29	3.5	10.78	-0.04	
6/12/24 7:30	3.44	10.79	-0.04	
6/12/24 7:31	3.48	10.75	-0.04	
6/12/24 7:32	3.52	10.74	-0.04	
6/12/24 7:33	3.53	10.72	-0.04	
6/12/24 7:34	3.48	10.76	-0.04	
6/12/24 7:35	3.5	10.74	-0.04	
6/12/24 7:36	3.5	10.74	-0.04	
6/12/24 7:37	3.53	10.72	-0.04	
6/12/24 7:38	3.47	10.77	-0.04	
6/12/24 7:39	3.45	10.76	-0.04	
6/12/24 7:40	3.51	10.73	-0.04	
6/12/24 7:41	3.42	10.77	-0.04	
6/12/24 7:42	3.37	10.81	-0.04	
6/12/24 7:43	3.34	10.81	-0.04	
6/12/24 7:44	3.27	10.85	-0.04	
6/12/24 7:45	3.28	10.83	-0.04	
6/12/24 7:46	3.33	10.81	-0.04	
6/12/24 7:47	3.24	10.86	-0.04	
6/12/24 7:48	3.31	10.81	-0.04	
6/12/24 7:49	3.32	10.81	-0.04	
6/12/24 7:50	3.24	10.85	-0.04	
6/12/24 7:51	3.3	10.83	-0.04	
6/12/24 7:52	3.36	10.79	-0.04	
6/12/24 7:53	3.29	10.84	-0.04	
6/12/24 7:54	3.31	10.82	-0.04	
6/12/24 7:55	3.29	10.83	-0.04	
6/12/24 7:56	3.3	10.84	-0.04	
6/12/24 7:57	3.22	10.88	-0.04	
6/12/24 7:58	3.4	10.77	-0.04	
6/12/24 7:59	3.39	10.79	-0.04	
6/12/24 8:00	3.43	10.76	-0.04	
6/12/24 8:01	3.28	10.84	-0.04	
6/12/24 8:02	3.4	10.77	-0.04	
6/12/24 8:03	3.27	10.85	-0.04	
6/12/24 8:04	3.34	10.81	-0.04	
6/12/24 8:05	3.23	10.88	-0.04	
6/12/24 8:06	3.24	10.87	-0.04	
6/12/24 8:07	3.29	10.83	-0.04	
6/12/24 8:08	3.3	10.84	-0.04	
6/12/24 8:09	3.29	10.84	-0.04	
6/12/24 8:10	3.28	10.84	-0.04	
6/12/24 8:11	3.31	10.82	-0.04	
6/12/24 8:12	3.29	10.83	-0.04	
6/12/24 8:13	3.25	10.84	-0.04	
6/12/24 8:14	3.34	10.79	-0.04	
6/12/24 8:15	3.39	10.76	-0.04	
6/12/24 8:16	3.5	10.71	-0.04	
6/12/24 8:17	3.25	10.84	-0.04	
6/12/24 8:18	3.28	10.82	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/12/24 8:19	3.36	10.76	-0.04	
6/12/24 8:20	3.4	10.76	-0.04	
6/12/24 8:21	3.27	10.82	-0.04	
6/12/24 8:22	3.42	10.75	-0.04	
6/12/24 8:23	3.36	10.78	-0.04	
6/12/24 8:24	3.31	10.8	-0.04	
6/12/24 8:25	3.27	10.83	-0.04	
6/12/24 8:26	3.3	10.82	-0.04	Pause for THC Bias
6/12/24 8:27	3.29	10.82	-0.04	
6/12/24 8:28	3.38	10.78	0.36	
6/12/24 8:29	3.41	10.75	22.15	
6/12/24 8:30	3.42	10.76	25.11	
6/12/24 8:31	3.33	10.8	13.47	
6/12/24 8:32	3.28	10.84	-0.04	Restart
6/12/24 8:33	3.32	10.82	-0.04	
6/12/24 8:34	3.23	10.89	-0.04	
6/12/24 8:35	3.32	10.83	-0.04	
6/12/24 8:36	3.38	10.8	-0.04	
6/12/24 8:37	3.41	10.8	-0.03	
6/12/24 8:38	3.47	10.77	-0.02	
6/12/24 8:39	3.42	10.79	0.02	
6/12/24 8:40	3.44	10.77	0.06	
6/12/24 8:41	3.44	10.79	0.1	
6/12/24 8:42	3.45	10.8	0.13	
6/12/24 8:43	3.38	10.83	0.18	
6/12/24 8:44	3.34	10.86	0.23	
6/12/24 8:45	3.29	10.9	0.28	
6/12/24 8:46	3.25	10.93	0.33	
6/12/24 8:47	3.27	10.92	0.39	
6/12/24 8:48	3.31	10.9	0.43	
6/12/24 8:49	3.31	10.91	0.48	
6/12/24 8:50	3.26	10.92	0.54	
6/12/24 8:51	3.34	10.87	0.57	
6/12/24 8:52	3.37	10.83	0.6	
6/12/24 8:53	3.46	10.79	0.63	
6/12/24 8:54	3.4	10.8	0.64	
6/12/24 8:55	3.36	10.82	0.6	
6/12/24 8:56	3.32	10.83	0.34	
6/12/24 8:57	3.38	10.79	-0.04	
6/12/24 8:58	3.32	10.81	-0.04	
6/12/24 8:59	3.35	10.78	-0.04	
6/12/24 9:00	3.28	10.82	0.02	
6/12/24 9:01	3.31	10.79	0.26	
6/12/24 9:02	3.29	10.8	0.4	
6/12/24 9:03	3.35	10.75	0.48	
6/12/24 9:04	3.27	10.78	0.52	
6/12/24 9:05	3.36	10.72	0.56	
6/12/24 9:06	3.48	10.66	0.56	
6/12/24 9:07	3.32	10.76	0.55	
6/12/24 9:08	3.3	10.76	0.57	
6/12/24 9:09	3.27	10.76	0.58	
6/12/24 9:10	3.36	10.71	0.59	
6/12/24 9:11	3.3	10.74	0.57	
6/12/24 9:12	3.31	10.73	0.56	
6/12/24 9:13	3.3	10.74	0.56	
6/12/24 9:14	3.21	10.79	0.57	
6/12/24 9:15	3.29	10.73	0.57	
6/12/24 9:16	3.25	10.76	0.56	
6/12/24 9:17	3.25	10.75	0.54	
6/12/24 9:18	3.35	10.7	0.55	
6/12/24 9:19	3.16	10.8	0.55	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/12/24 9:20	3.29	10.73	0.55	
6/12/24 9:21	3.3	10.72	0.57	
6/12/24 9:22	3.21	10.77	0.57	
6/12/24 9:23	3.3	10.72	0.57	
6/12/24 9:24	3.25	10.73	0.59	
6/12/24 9:25	3.22	10.74	0.61	
6/12/24 9:26	3.28	10.71	0.6	
6/12/24 9:27	3.28	10.7	0.73	Pause for THC Bias
6/12/24 9:28	3.23	10.72	6.2	
6/12/24 9:29	3.32	10.68	-0.04	
6/12/24 9:30	3.23	10.73	15.92	
6/12/24 9:31	3.26	10.7	24.87	
6/12/24 9:32	3.32	10.65	5.59	
6/12/24 9:33	3.34	10.64	-0.04	Restart
6/12/24 9:34	3.23	10.71	-0.04	
6/12/24 9:35	3.2	10.7	-0.04	
6/12/24 9:36	3.29	10.66	-0.04	
6/12/24 9:37	3.29	10.66	-0.04	
6/12/24 9:38	3.23	10.68	-0.04	
6/12/24 9:39	3.43	10.56	-0.04	
6/12/24 9:40	3.41	10.57	-0.04	
6/12/24 9:41	3.36	10.59	-0.04	
6/12/24 9:42	3.29	10.63	-0.04	
6/12/24 9:43	3.27	10.64	-0.04	
6/12/24 9:44	3.3	10.62	-0.04	
6/12/24 9:45	3.26	10.65	-0.04	
6/12/24 9:46	3.3	10.63	-0.04	
6/12/24 9:47	3.28	10.64	-0.04	
6/12/24 9:48	3.23	10.67	-0.04	
6/12/24 9:49	3.21	10.68	-0.04	
6/12/24 9:50	3.32	10.62	-0.04	
6/12/24 9:51	3.29	10.65	-0.04	
6/12/24 9:52	3.22	10.68	-0.04	
6/12/24 9:53	3.35	10.6	-0.04	
6/12/24 9:54	3.24	10.68	-0.04	
6/12/24 9:55	3.24	10.66	-0.04	
6/12/24 9:56	3.35	10.62	-0.04	
6/12/24 9:57	3.28	10.67	-0.04	
6/12/24 9:58	3.21	10.7	-0.04	
6/12/24 9:59	3.33	10.63	-0.04	
6/12/24 10:00	3.22	10.7	-0.03	
6/12/24 10:01	3.26	10.67	-0.04	
6/12/24 10:02	3.27	10.68	-0.04	
6/12/24 10:03	3.3	10.65	-0.04	
6/12/24 10:04	3.25	10.68	-0.02	
6/12/24 10:05	3.31	10.65	-0.03	
6/12/24 10:06	3.25	10.69	-0.03	
6/12/24 10:07	3.3	10.67	-0.04	
6/12/24 10:08	3.4	10.61	-0.04	
6/12/24 10:09	3.44	10.59	-0.04	
6/12/24 10:10	3.32	10.67	-0.04	
6/12/24 10:11	3.26	10.68	-0.04	
6/12/24 10:12	3.4	10.59	-0.04	
6/12/24 10:13	3.27	10.67	-0.03	
6/12/24 10:14	3.26	10.69	-0.03	
6/12/24 10:15	3.29	10.68	-0.04	
6/12/24 10:16	3.23	10.7	-0.02	
6/12/24 10:17	3.26	10.69	-0.02	
6/12/24 10:18	3.22	10.71	0	
6/12/24 10:19	3.29	10.66	0.02	
6/12/24 10:20	3.38	10.61	0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/12/24 10:21	3.34	10.63	0.02	
6/12/24 10:22	3.39	10.6	-0.01	
6/12/24 10:23	3.29	10.65	-0.01	
6/12/24 10:24	3.31	10.64	0	
6/12/24 10:25	3.23	10.67	-0.01	Pause THC
6/12/24 10:26	3.21	10.7	0	
6/12/24 10:27	3.2	10.71	17.81	
6/12/24 10:28	3.17	10.72	24.87	
6/12/24 10:29	3.25	10.66	7.83	
6/12/24 10:30	3.23	10.67	0.06	Restart
6/12/24 10:31	3.25	10.64	0.07	
6/12/24 10:32	3.25	10.64	0.08	
6/12/24 10:33	3.25	10.65	0.1	
6/12/24 10:34	3.23	10.64	0.14	
6/12/24 10:35	3.29	10.61	0.15	
6/12/24 10:36	3.24	10.63	0.16	
6/12/24 10:37	3.25	10.63	0.17	
6/12/24 10:38	3.23	10.64	0.2	
6/12/24 10:39	3.23	10.64	0.21	
6/12/24 10:40	3.29	10.6	0.24	
6/12/24 10:41	3.23	10.63	0.22	
6/12/24 10:42	3.26	10.62	0.21	
6/12/24 10:43	3.2	10.65	0.23	
6/12/24 10:44	3.19	10.64	0.24	
6/12/24 10:45	3.25	10.61	0.23	
6/12/24 10:46	3.23	10.62	0.24	
6/12/24 10:47	3.22	10.63	0.3	
6/12/24 10:48	3.24	10.6	0.27	
6/12/24 10:49	3.3	10.58	0.24	
6/12/24 10:50	3.28	10.59	0.25	
6/12/24 10:51	3.27	10.61	0.26	
6/12/24 10:52	3.21	10.64	0.27	
6/12/24 10:53	3.26	10.61	0.27	
6/12/24 10:54	3.26	10.6	0.26	
6/12/24 10:55	3.26	10.59	0.29	
6/12/24 10:56	3.22	10.63	0.3	
6/12/24 10:57	3.27	10.58	0.33	
6/12/24 10:58	3.3	10.58	0.34	
6/12/24 10:59	3.24	10.62	0.31	
6/12/24 11:00	3.28	10.59	0.33	
6/12/24 11:01	3.25	10.61	0.34	
6/12/24 11:02	3.39	10.53	0.38	
6/12/24 11:03	3.17	10.66	0.39	
6/12/24 11:04	3.29	10.58	0.4	
6/12/24 11:05	3.22	10.63	0.4	
6/12/24 11:06	3.3	10.57	0.41	
6/12/24 11:07	3.3	10.59	0.42	
6/12/24 11:08	3.28	10.58	0.42	
6/12/24 11:09	3.2	10.64	0.44	
6/12/24 11:10	3.24	10.63	0.44	
6/12/24 11:11	3.34	10.56	0.44	
6/12/24 11:12	3.41	10.55	0.45	
6/12/24 11:13	3.35	10.56	0.45	
6/12/24 11:14	3.42	10.53	0.47	
6/12/24 11:15	3.3	10.59	0.5	
6/12/24 11:16	3.09	10.73	0.52	
6/12/24 11:17	3.14	10.7	0.5	
6/12/24 11:18	3.22	10.65	0.51	
6/12/24 11:19	3.28	10.6	0.55	
6/12/24 11:20	3.29	10.59	0.53	
6/12/24 11:21	3.28	10.59	0.57	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/12/24 11:22	3.36	10.54	0.58	
6/12/24 11:23	3.33	10.56	0.64	
6/12/24 11:24	3.26	10.6	0.66	
6/12/24 11:25	3.26	10.6	0.65	
6/12/24 11:26	3.28	10.58	0.66	
6/12/24 11:27	3.37	10.54	0.72	
6/12/24 11:28	3.31	10.59	0.74	
6/12/24 11:29	3.31	10.57	0.75	
6/12/24 11:30	3.27	10.61	0.74	
6/12/24 11:31	3.18	10.65	0.74	
6/12/24 11:32	3.32	10.57	0.94	
6/12/24 11:33	3.34	10.56	0.72	
6/12/24 11:34	3.24	10.61	0.75	
6/12/24 11:35	3.21	10.63	0.76	
6/12/24 11:36	3.32	10.57	0.82	
6/12/24 11:37	3.21	10.65	0.85	
6/12/24 11:38	3.11	10.69	0.86	
6/12/24 11:39	3.13	10.68	0.87	
6/12/24 11:40	3.32	10.58	0.87	
6/12/24 11:41	3.35	10.56	0.9	
6/12/24 11:42	3.32	10.58	0.8	End
6/12/24 11:43	-0.04	0.24	0.98	
6/12/24 11:44	-0.04	0.08	1.03	Bias
6/12/24 11:45	-0.04	-0.01	0.88	
6/12/24 11:46	1.69	2.5	-0.04	
6/12/24 11:47	10.86	10.36	0.01	
6/12/24 11:48	10.97	10.94	-0.04	
6/12/24 11:49	10.98	10.95	0.04	
6/12/24 11:50	18.28	2.72	13.25	
6/12/24 11:51	21.23	0.12	25.19	
6/12/24 11:52	21.24	0.11	24.96	
6/12/24 11:53	21.25	0.1	25	
6/12/24 11:54	21.28	0.08	5.04	
6/12/24 11:55	21.28	0.08	0.03	
6/12/24 11:56	21.28	0.08	0.02	
6/12/24 11:57	21.28	0.08	0.11	
6/12/24 11:58	21.28	0.08	0.1	
6/12/24 11:59	21.28	0.09	0.06	
6/12/24 12:00	21.28	0.09	0.09	
6/12/24 12:01	21.29	0.08	0.41	
6/12/24 12:02	21.29	0.08	0.09	
6/12/24 12:03	21.27	0.07	0.15	
6/12/24 12:04	21.26	0.07	0.19	
6/12/24 12:05	21.26	0.07	0.28	
6/12/24 12:06	21.25	0.07	0.31	
6/12/24 12:07	21.24	0.07	0.29	
6/12/24 12:08	21.24	0.07	0.3	
6/12/24 12:09	21.23	0.07	0.25	
6/12/24 12:10	17.31	3.21	0.26	
6/12/24 12:11	3.41	10.96	0.23	
6/12/24 12:12	3.35	10.91	0.2	
6/12/24 12:13	3.23	10.96	0.18	
6/12/24 12:14	3.26	10.93	0.22	
6/12/24 12:15	3.27	10.92	0.19	
6/12/24 12:16	3.31	10.88	0.28	
6/12/24 12:17	3.26	10.9	0.35	
6/12/24 12:18	3.25	10.9	0.42	
6/12/24 12:19	3.3	10.87	0.4	Run 8
6/12/24 12:20	3.28	10.88	0.4	
6/12/24 12:21	3.24	10.96	0.43	
6/12/24 12:22	3.16	10.96	0.34	



BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/12/24 12:23	3.25	10.91	0.55	
6/12/24 12:24	3.16	10.97	0.36	
6/12/24 12:25	3.27	10.89	0.37	
6/12/24 12:26	3.37	10.83	0.33	
6/12/24 12:27	3.44	10.78	0.33	
6/12/24 12:28	3.41	10.81	0.32	
6/12/24 12:29	3.37	10.84	0.31	
6/12/24 12:30	3.41	10.79	0.33	
6/12/24 12:31	3.44	10.79	0.31	
6/12/24 12:32	3.3	10.87	0.35	
6/12/24 12:33	3.37	10.81	0.36	
6/12/24 12:34	3.43	10.77	0.37	
6/12/24 12:35	3.42	10.79	0.37	
6/12/24 12:36	3.4	10.82	0.34	
6/12/24 12:37	3.36	10.82	0.38	
6/12/24 12:38	3.27	10.87	0.4	
6/12/24 12:39	3.27	10.87	0.4	
6/12/24 12:40	3.3	11	0.43	
6/12/24 12:41	3.25	10.88	0.49	
6/12/24 12:42	3.25	10.86	0.45	
6/12/24 12:43	3.38	10.79	0.45	
6/12/24 12:44	3.39	10.78	0.46	
6/12/24 12:45	3.35	10.81	0.48	
6/12/24 12:46	3.37	10.78	0.42	
6/12/24 12:47	3.36	10.79	0.45	
6/12/24 12:48	3.27	10.83	0.47	
6/12/24 12:49	3.37	10.77	0.5	
6/12/24 12:50	3.35	10.78	0.52	
6/12/24 12:51	3.21	10.86	0.54	
6/12/24 12:52	3.33	10.81	0.58	
6/12/24 12:53	3.23	10.85	0.62	
6/12/24 12:54	3.38	10.76	0.62	
6/12/24 12:55	3.35	10.79	0.61	
6/12/24 12:56	3.42	10.74	0.59	
6/12/24 12:57	3.45	10.72	0.59	
6/12/24 12:58	3.45	10.71	0.56	
6/12/24 12:59	3.5	10.69	0.57	
6/12/24 13:00	3.42	10.73	0.55	
6/12/24 13:01	3.4	10.72	0.57	
6/12/24 13:02	3.52	10.66	0.6	
6/12/24 13:03	3.46	10.69	0.56	
6/12/24 13:04	3.45	10.7	0.6	
6/12/24 13:05	3.52	10.66	0.62	
6/12/24 13:06	3.43	10.71	0.6	
6/12/24 13:07	3.42	10.71	0.6	
6/12/24 13:08	3.39	10.72	0.62	
6/12/24 13:09	3.44	10.69	0.58	
6/12/24 13:10	3.46	10.67	0.59	
6/12/24 13:11	3.49	10.66	0.58	
6/12/24 13:12	3.45	10.67	0.61	
6/12/24 13:13	3.41	10.68	0.62	
6/12/24 13:14	3.57	10.6	0.62	
6/12/24 13:15	3.47	10.68	0.63	
6/12/24 13:16	3.39	10.71	0.74	
6/12/24 13:17	3.51	10.64	0.72	Pause for THC Bias
6/12/24 13:18	3.44	10.68	0.04	
6/12/24 13:19	3.39	10.69	3.72	
6/12/24 13:20	3.53	10.61	25.05	
6/12/24 13:21	3.37	10.72	11.06	
6/12/24 13:22	3.43	10.67	0.22	Restart
6/12/24 13:23	3.5	10.62	0.2	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/12/24 13:24	3.49	10.64	0.02	
6/12/24 13:25	3.46	10.65	0	
6/12/24 13:26	3.48	10.65	-0.03	
6/12/24 13:27	3.49	10.63	0.04	
6/12/24 13:28	3.39	10.68	-0.01	
6/12/24 13:29	3.51	10.61	0	
6/12/24 13:30	3.44	10.66	0.02	
6/12/24 13:31	3.37	10.69	-0.02	
6/12/24 13:32	3.35	10.7	0.01	
6/12/24 13:33	3.28	10.73	-0.03	
6/12/24 13:34	3.26	10.75	-0.04	
6/12/24 13:35	3.25	10.75	-0.02	
6/12/24 13:36	3.29	10.73	-0.02	
6/12/24 13:37	3.25	10.75	0	
6/12/24 13:38	3.38	10.67	0	
6/12/24 13:39	3.38	10.68	0.03	
6/12/24 13:40	3.37	10.68	0.04	
6/12/24 13:41	3.4	10.66	0.05	
6/12/24 13:42	3.46	10.63	0.05	
6/12/24 13:43	3.42	10.64	0.07	
6/12/24 13:44	3.43	10.65	0.03	
6/12/24 13:45	3.46	10.63	0.06	
6/12/24 13:46	3.44	10.63	0.06	
6/12/24 13:47	3.4	10.65	0.11	
6/12/24 13:48	3.45	10.62	0.07	
6/12/24 13:49	3.53	10.57	0.1	
6/12/24 13:50	3.53	10.59	0.06	
6/12/24 13:51	3.37	10.69	0.09	
6/12/24 13:52	3.28	10.72	0.12	
6/12/24 13:53	3.32	10.71	0.18	
6/12/24 13:54	3.29	10.74	0.21	
6/12/24 13:55	3.26	10.75	0.21	
6/12/24 13:56	3.4	11	0.22	
6/12/24 13:57	3.37	10.69	0.21	
6/12/24 13:58	3.33	10.72	0.17	
6/12/24 13:59	3.37	10.69	0.33	
6/12/24 14:00	3.45	10.63	0.16	
6/12/24 14:01	3.4	10.66	0.43	
6/12/24 14:02	3.45	10.63	0.19	
6/12/24 14:03	3.4	10.68	0.17	
6/12/24 14:04	3.47	10.63	0.19	
6/12/24 14:05	3.44	10.64	0.18	
6/12/24 14:06	3.52	10.6	0.22	
6/12/24 14:07	3.53	10.59	0.21	
6/12/24 14:08	3.47	10.63	0.23	
6/12/24 14:09	3.41	10.64	0.26	
6/12/24 14:10	3.42	10.65	0.31	
6/12/24 14:11	3.43	10.65	0.34	
6/12/24 14:12	3.48	10.6	0.32	
6/12/24 14:13	3.45	10.63	0.34	
6/12/24 14:14	3.45	10.62	0.37	
6/12/24 14:15	3.51	10.58	0.32	
6/12/24 14:16	3.47	10.61	0.52	
6/12/24 14:17	3.4	10.66	0.31	
6/12/24 14:18	3.5	10.59	0.31	Pause for THC
6/12/24 14:19	3.46	10.61	0.89	
6/12/24 14:20	3.46	10.61	-0.04	
6/12/24 14:21	3.4	10.65	14.03	
6/12/24 14:22	3.48	10.58	25.2	
6/12/24 14:23	3.42	10.63	4.61	
6/12/24 14:24	3.45	10.59	-0.04	Restart

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/12/24 14:25	3.41	10.62	-0.04	
6/12/24 14:26	3.38	10.64	0.01	
6/12/24 14:27	3.46	10.58	-0.02	
6/12/24 14:28	3.49	10.57	0	
6/12/24 14:29	3.44	10.59	-0.04	
6/12/24 14:30	3.37	10.63	-0.03	
6/12/24 14:31	3.5	10.57	-0.04	
6/12/24 14:32	3.4	10.62	-0.04	
6/12/24 14:33	3.53	10.53	-0.03	
6/12/24 14:34	3.44	10.59	-0.04	
6/12/24 14:35	3.44	10.58	-0.04	
6/12/24 14:36	3.35	10.65	-0.02	
6/12/24 14:37	3.3	10.66	-0.04	
6/12/24 14:38	3.22	10.73	-0.03	
6/12/24 14:39	3.29	10.67	-0.03	
6/12/24 14:40	3.37	10.63	-0.04	
6/12/24 14:41	3.28	10.69	-0.02	
6/12/24 14:42	3.35	10.65	-0.03	
6/12/24 14:43	3.42	10.61	-0.02	
6/12/24 14:44	3.43	10.6	-0.04	
6/12/24 14:45	3.43	10.57	-0.04	
6/12/24 14:46	3.38	10.63	0.07	
6/12/24 14:47	3.51	10.54	0.19	
6/12/24 14:48	3.45	10.58	-0.04	
6/12/24 14:49	3.37	10.63	-0.04	
6/12/24 14:50	3.37	10.63	0.01	
6/12/24 14:51	3.41	10.59	0.04	
6/12/24 14:52	3.44	10.57	-0.03	
6/12/24 14:53	3.46	10.57	0	
6/12/24 14:54	3.47	10.57	0	
6/12/24 14:55	3.45	10.58	-0.03	
6/12/24 14:56	3.46	10.57	-0.04	
6/12/24 14:57	3.45	10.57	-0.02	
6/12/24 14:58	3.48	10.56	-0.04	
6/12/24 14:59	3.48	10.55	0.02	
6/12/24 15:00	3.45	10.56	-0.04	
6/12/24 15:01	3.45	10.56	-0.04	
6/12/24 15:02	3.42	10.57	-0.04	
6/12/24 15:03	3.45	10.56	-0.03	
6/12/24 15:04	3.5	10.52	-0.04	
6/12/24 15:05	3.45	10.56	-0.04	
6/12/24 15:06	3.42	10.57	-0.02	
6/12/24 15:07	3.44	10.56	-0.04	
6/12/24 15:08	3.51	10.52	-0.01	
6/12/24 15:09	3.51	10.52	-0.02	
6/12/24 15:10	3.46	10.56	-0.04	
6/12/24 15:11	3.48	10.54	-0.03	
6/12/24 15:12	3.47	10.54	-0.02	
6/12/24 15:13	3.45	10.56	-0.04	
6/12/24 15:14	3.39	10.59	-0.04	
6/12/24 15:15	3.46	10.55	-0.04	
6/12/24 15:16	3.45	10.55	-0.04	
6/12/24 15:17	3.5	10.51	-0.01	
6/12/24 15:18	3.36	10.6	-0.04	
6/12/24 15:19	3.32	10.62	-0.04	
6/12/24 15:20	3.3	10.63	-0.04	
6/12/24 15:21	3.29	10.64	-0.03	
6/12/24 15:22	3.3	10.64	0.08	
6/12/24 15:23	3.27	10.65	0	
6/12/24 15:24	3.3	10.64	0.03	Pause for THC
6/12/24 15:25	3.37	10.59	-0.03	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/12/24 15:26	3.4	10.57	0.76	
6/12/24 15:27	3.4	10.55	23.98	
6/12/24 15:28	3.44	10.55	25.21	
6/12/24 15:29	3.41	10.56	4.66	
6/12/24 15:30	3.41	10.56	0	Restart
6/12/24 15:31	3.41	10.56	0.09	
6/12/24 15:32	3.48	10.52	0	
6/12/24 15:33	3.45	10.52	0.05	
6/12/24 15:34	3.43	10.54	-0.04	
6/12/24 15:35	3.5	10.5	-0.04	
6/12/24 15:36	3.45	10.53	-0.01	
6/12/24 15:37	3.48	10.52	0.39	
6/12/24 15:38	3.49	10.51	-0.03	
6/12/24 15:39	3.49	10.51	0.03	
6/12/24 15:40	3.47	10.53	-0.04	
6/12/24 15:41	3.44	10.55	-0.03	
6/12/24 15:42	3.39	10.57	-0.01	
6/12/24 15:43	3.48	10.51	-0.03	
6/12/24 15:44	3.36	10.57	-0.02	
6/12/24 15:45	3.56	10.46	-0.03	
6/12/24 15:46	3.43	10.54	0.01	
6/12/24 15:47	3.31	10.59	-0.04	
6/12/24 15:48	3.33	10.58	0.02	
6/12/24 15:49	3.48	10.48	-0.03	
6/12/24 15:50	3.54	10.47	0.06	
6/12/24 15:51	3.38	10.55	-0.03	
6/12/24 15:52	3.43	10.51	-0.03	
6/12/24 15:53	3.42	10.51	-0.04	
6/12/24 15:54	3.51	10.46	-0.04	
6/12/24 15:55	3.51	10.46	-0.04	
6/12/24 15:56	3.47	10.48	-0.04	
6/12/24 15:57	3.42	10.51	-0.04	
6/12/24 15:58	3.48	10.47	-0.01	
6/12/24 15:59	3.46	10.48	-0.04	
6/12/24 16:00	3.44	10.48	-0.03	
6/12/24 16:01	3.48	10.47	0	
6/12/24 16:02	3.5	10.45	-0.02	
6/12/24 16:03	3.46	10.48	-0.01	
6/12/24 16:04	3.39	10.52	-0.02	
6/12/24 16:05	3.38	10.52	0.09	
6/12/24 16:06	3.34	10.54	0.03	
6/12/24 16:07	3.34	10.55	-0.03	
6/12/24 16:08	3.4	10.51	-0.03	
6/12/24 16:09	3.43	10.5	0.03	
6/12/24 16:10	3.45	10.49	-0.04	
6/12/24 16:11	3.44	10.49	-0.01	
6/12/24 16:12	3.42	10.5	0	
6/12/24 16:13	3.44	10.49	-0.03	
6/12/24 16:14	3.44	10.5	-0.03	
6/12/24 16:15	3.47	10.49	0.02	
6/12/24 16:16	3.46	10.5	0.03	
6/12/24 16:17	3.44	10.5	-0.04	
6/12/24 16:18	3.4	10.53	-0.04	
6/12/24 16:19	3.45	10.5	-0.04	
6/12/24 16:20	3.45	10.5	-0.02	
6/12/24 16:21	3.42	10.53	-0.02	
6/12/24 16:22	3.46	10.51	-0.04	
6/12/24 16:23	3.51	10.48	-0.04	
6/12/24 16:24	3.46	10.52	-0.02	
6/12/24 16:25	3.5	10.49	-0.04	
6/12/24 16:26	3.41	10.53	-0.04	

BASF - Pasadena, TX  
F-10 Boiler CSV Data

Time	O2	CO2	THC	Notes
6/12/24 16:27	3.49	10.48	-0.04	End
6/12/24 16:28	3.53	10.47	-0.04	
6/12/24 16:29	3.48	10.51	0.16	
6/12/24 16:30	3.66	10.15	0.27	
6/12/24 16:31	0.57	0.22	-0.04	
6/12/24 16:32	-0.04	0	0.03	
6/12/24 16:33	-0.04	-0.01	0.21	
6/12/24 16:34	8.22	8.21	-0.04	
6/12/24 16:35	10.93	10.9	-0.03	
6/12/24 16:36	10.38	6.47	-0.04	
6/12/24 16:37	21.18	0.71	10.4	
6/12/24 16:38	21.26	0.69	24.87	

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/3/2024	15:45	191.4	1.006	0.00	0.00	0.00	0.00
6/3/2024	15:46	191.4	1.006	-0.04	-0.04	0.00	0.01
6/3/2024	15:47	191.5	1.006	-0.04	-0.09	0.00	0.00
6/3/2024	15:49	191.5	1.006	0.02	-0.13	-0.01	0.01
6/3/2024	15:50	191.4	1.005	0.04	-0.10	-0.01	0.01
6/3/2024	15:51	191.4	1.013	45.61	0.00	0.12	-0.05
6/3/2024	15:52	190.5	1.023	103.53	-0.08	-0.02	0.00
6/3/2024	15:53	190.0	1.020	102.48	0.00	-0.02	-0.01
6/3/2024	15:54	190.5	1.010	101.01	0.01	-0.02	0.00
6/3/2024	15:55	190.6	1.012	101.35	0.01	-0.03	0.01
6/3/2024	15:56	190.6	1.010	101.04	-0.09	-0.02	0.00
6/3/2024	15:57	190.7	1.010	101.17	-0.10	-0.03	0.00
6/3/2024	15:58	191.0	1.005	97.69	-0.03	-0.03	-0.01
6/3/2024	15:59	191.4	1.004	95.70	0.06	-0.03	0.08
6/3/2024	16:00	191.5	1.004	94.83	-0.05	-0.03	0.13
6/3/2024	16:01	191.3	1.012	28.96	63.54	-0.03	6.39
6/3/2024	16:02	190.8	1.014	0.84	88.16	-0.04	10.19
6/3/2024	16:03	190.6	1.014	1.15	88.46	-0.04	10.22
6/3/2024	16:04	190.3	1.024	2.15	89.78	-0.05	10.52
6/3/2024	16:05	189.8	1.117	2.15	88.63	-0.04	10.52
6/3/2024	16:06	190.2	1.291	1.39	87.22	-0.04	10.94
6/3/2024	16:07	190.3	1.291	1.90	93.21	-0.03	12.17
6/3/2024	16:08	190.2	1.291	1.86	93.31	-0.03	12.21
6/3/2024	16:09	190.3	1.291	1.54	93.29	-0.03	12.17
6/3/2024	16:11	190.2	1.291	1.54	93.36	-0.04	12.18
6/3/2024	16:12	190.2	1.291	1.73	93.31	-0.03	12.16
6/3/2024	16:13	190.3	1.291	2.01	93.31	-0.03	12.16
6/3/2024	16:14	190.3	1.291	1.47	93.67	-0.04	12.21
6/3/2024	16:15	190.3	1.291	1.73	93.58	-0.04	12.25
6/3/2024	16:16	190.5	1.117	1.78	91.48	-0.03	10.28
6/3/2024	16:17	191.3	1.004	-1.01	88.92	-0.04	9.45
6/3/2024	16:18	191.5	1.004	-1.07	87.60	-0.04	9.44
6/3/2024	16:19	191.5	1.039	0.69	7.58	-0.03	0.46
6/3/2024	16:20	191.5	1.040	-0.08	0.38	-0.04	0.01
6/3/2024	16:21	191.6	1.011	0.00	1.37	-0.04	0.01
6/3/2024	16:22	191.7	1.004	-0.01	3.97	-0.03	0.00
6/4/2024	7:45	191.6	1.043	-0.02	-0.06	-0.03	0.01
6/4/2024	7:46	191.6	1.043	0.02	-0.02	-0.03	0.01
6/4/2024	7:47	191.5	1.044	-0.10	0.01	-0.03	0.01
6/4/2024	7:48	191.6	1.044	-0.04	-0.01	-0.04	0.01
6/4/2024	7:49	191.5	1.044	0.01	0.02	-0.03	0.01
6/4/2024	7:50	191.5	1.044	0.03	0.13	-0.03	0.01
6/4/2024	7:53	191.5	1.044	0.00	0.00	0.00	0.00
6/4/2024	7:54	191.5	1.044	-0.11	0.04	-0.01	0.00
6/4/2024	7:55	191.5	1.044	-0.05	0.01	0.00	0.00
6/4/2024	7:56	191.5	1.044	-0.02	0.05	-0.01	0.00
6/4/2024	7:57	191.6	1.045	-0.04	0.05	0.00	0.00
6/4/2024	7:59	191.6	1.045	-0.01	-0.04	0.00	0.00
6/4/2024	8:00	191.6	1.045	-0.07	0.03	0.00	0.00
6/4/2024	8:01	191.5	1.045	-0.03	-0.03	0.00	0.00
6/4/2024	8:02	191.6	1.045	-0.08	0.05	0.00	0.00
6/4/2024	8:03	191.6	1.045	-0.06	0.07	0.00	0.00
6/4/2024	8:04	191.6	1.045	0.02	0.03	0.00	0.00
6/4/2024	8:05	191.6	1.045	-0.07	0.07	0.00	0.00
6/4/2024	8:06	191.6	1.045	-0.03	-0.02	0.00	0.00
6/4/2024	8:07	191.6	1.045	-0.09	0.11	0.00	0.00
6/4/2024	8:08	191.6	1.045	-0.03	0.10	0.00	0.00
6/4/2024	8:09	191.6	1.045	-0.10	0.05	-0.01	0.00
6/4/2024	8:10	191.6	1.032	-0.03	0.10	0.00	0.00
6/4/2024	8:11	191.7	1.003	-0.07	0.08	0.00	0.00
6/4/2024	8:12	191.7	1.003	0.00	0.10	0.13	0.00
6/4/2024	8:13	191.7	0.993	0.01	0.44	1.65	0.01
6/4/2024	8:14	191.7	0.983	0.00	0.34	3.22	0.00

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/4/2024	8:15	191.7	0.983	-0.02	0.33	3.23	0.01
6/4/2024	8:16	191.7	0.983	-0.03	0.33	3.22	0.00
6/4/2024	8:17	191.6	0.983	-0.05	0.36	3.12	0.01
6/4/2024	8:18	191.6	0.985	-0.06	0.22	1.62	0.00
6/4/2024	8:20	191.6	0.983	0.06	0.34	1.59	0.00
6/4/2024	8:22	191.6	0.981	0.33	0.79	8.14	0.00
6/4/2024	8:23	191.6	0.979	0.33	0.80	8.91	0.00
6/4/2024	8:24	191.6	0.979	0.33	0.83	9.84	0.01
6/4/2024	8:25	191.6	0.979	0.32	0.82	12.17	0.00
6/4/2024	8:26	191.6	0.979	0.28	0.71	12.43	0.00
6/4/2024	8:27	191.6	0.979	0.26	1.07	15.14	0.01
6/4/2024	8:28	191.6	0.978	0.32	0.94	13.63	0.00
6/4/2024	8:29	191.6	0.979	0.34	0.78	13.70	0.00
6/4/2024	8:30	191.6	0.977	0.41	0.98	16.90	0.00
6/4/2024	8:31	191.6	0.978	0.44	1.09	18.12	0.00
6/4/2024	8:32	191.6	0.978	0.38	0.95	16.17	0.00
6/4/2024	8:33	191.6	0.979	0.39	0.85	15.14	0.00
6/4/2024	8:34	191.6	0.977	0.16	1.18	17.60	0.01
6/4/2024	8:35	191.5	0.977	0.06	0.77	19.76	-0.01
6/4/2024	8:36	191.6	0.979	0.44	0.90	16.25	0.00
6/4/2024	8:37	191.6	0.979	0.42	0.85	15.66	0.00
6/4/2024	8:39	191.6	0.979	0.35	0.73	14.96	0.00
6/4/2024	8:40	191.6	0.979	0.46	0.89	15.50	0.00
6/4/2024	8:41	191.6	0.979	0.40	0.79	14.27	0.00
6/4/2024	8:42	191.6	0.978	0.23	0.86	18.27	0.01
6/4/2024	8:43	191.6	0.979	0.36	0.95	15.87	0.00
6/4/2024	8:44	191.7	0.979	0.35	0.86	15.98	0.00
6/4/2024	8:45	191.6	0.977	0.41	0.79	18.99	-0.01
6/4/2024	8:46	191.6	0.979	0.36	0.85	18.06	0.00
6/4/2024	8:47	191.6	0.978	0.38	0.83	16.91	0.01
6/4/2024	8:48	191.6	0.979	0.37	0.88	15.47	0.00
6/4/2024	8:49	191.6	0.979	0.35	0.76	14.64	0.00
6/4/2024	8:50	191.6	0.979	0.24	0.71	16.04	0.00
6/4/2024	8:51	191.6	0.979	0.28	0.94	17.02	0.00
6/4/2024	8:52	191.6	0.979	0.35	0.95	17.36	0.00
6/4/2024	8:53	191.6	0.980	0.39	0.77	15.05	0.00
6/4/2024	8:54	191.6	0.979	0.42	0.98	16.73	0.00
6/4/2024	8:55	191.6	0.980	0.33	0.78	14.10	0.00
6/4/2024	8:56	191.6	0.978	0.20	1.03	17.72	0.01
6/4/2024	8:57	191.6	0.980	0.32	0.72	14.39	0.00
6/4/2024	8:58	191.6	0.978	0.25	1.05	17.39	-0.01
6/4/2024	8:59	191.6	0.979	0.35	0.81	15.80	0.00
6/4/2024	9:01	191.6	0.979	0.42	0.86	15.49	-0.01
6/4/2024	9:02	191.6	0.979	0.34	0.80	14.60	0.00
6/4/2024	9:03	191.6	0.978	0.41	0.89	17.55	0.00
6/4/2024	9:04	191.5	0.979	0.33	0.77	16.09	0.00
6/4/2024	9:05	191.5	0.979	0.30	1.03	17.62	0.01
6/4/2024	9:06	191.5	0.980	0.34	0.71	14.87	0.00
6/4/2024	9:07	191.6	0.979	0.36	0.80	15.79	0.00
6/4/2024	9:08	191.5	0.979	0.35	0.92	16.54	0.01
6/4/2024	9:09	191.6	0.980	0.36	0.61	14.12	0.00
6/4/2024	9:10	191.6	0.978	0.32	0.78	18.61	0.00
6/4/2024	9:11	191.6	0.980	0.21	7.09	16.19	0.97
6/4/2024	9:12	191.6	0.981	0.12	10.85	13.67	1.31
6/4/2024	9:13	191.6	0.979	0.13	8.70	17.04	0.97
6/4/2024	9:14	191.6	0.980	0.18	6.48	15.51	0.71
6/4/2024	9:15	191.6	0.980	0.20	6.64	13.42	0.73
6/4/2024	9:16	191.6	0.980	0.22	6.73	13.01	0.73
6/4/2024	9:17	191.6	0.980	0.17	6.69	13.81	0.73
6/4/2024	9:18	191.5	0.979	0.22	6.21	18.52	0.67
6/4/2024	9:19	191.6	0.980	0.20	6.54	14.00	0.72
6/4/2024	9:20	191.6	0.980	0.10	6.68	13.45	0.72
6/4/2024	9:22	191.6	0.979	0.20	6.50	16.47	0.70
6/4/2024	9:23	191.5	0.979	0.33	6.61	16.51	0.69

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/4/2024	9:24	191.5	0.980	0.20	6.52	14.76	0.70
6/4/2024	9:25	191.5	0.980	0.24	6.64	13.71	0.72
6/4/2024	9:26	191.6	0.981	0.12	6.75	13.05	0.72
6/4/2024	9:27	191.6	0.981	0.16	6.72	13.28	0.72
6/4/2024	9:28	191.6	0.980	0.18	6.73	13.60	0.71
6/4/2024	9:29	191.5	0.979	0.20	6.46	17.49	0.69
6/4/2024	9:30	191.5	0.981	0.25	6.65	14.00	0.71
6/4/2024	9:31	191.5	0.980	0.12	6.70	13.45	0.71
6/4/2024	9:32	191.6	0.980	0.13	6.74	13.88	0.72
6/4/2024	9:33	191.6	0.981	0.20	6.40	16.23	0.68
6/4/2024	9:34	191.6	0.980	0.22	6.65	14.94	0.71
6/4/2024	9:35	191.6	0.980	0.18	6.67	14.39	0.71
6/4/2024	9:36	191.6	0.980	0.16	6.55	17.19	0.69
6/4/2024	9:37	191.5	0.980	0.19	6.48	16.53	0.69
6/4/2024	9:38	191.6	0.980	0.11	6.59	14.66	0.70
6/4/2024	9:39	191.6	0.980	0.15	6.70	14.17	0.70
6/4/2024	9:40	191.6	0.980	0.17	6.62	14.41	0.70
6/4/2024	9:41	191.6	0.980	0.21	6.61	16.80	0.68
6/4/2024	9:42	191.5	0.980	0.16	6.63	14.94	0.71
6/4/2024	9:44	191.6	0.995	0.13	2.47	9.51	0.22
6/4/2024	9:45	191.6	1.007	-0.03	0.31	2.22	0.00
6/4/2024	9:46	191.7	1.007	-0.09	0.04	0.84	0.00
6/4/2024	9:47	191.7	1.007	-0.03	0.02	0.17	0.00
6/4/2024	9:48	191.7	1.007	-0.02	0.03	0.06	0.00
6/4/2024	9:50	191.7	1.007	0.00	0.00	0.00	0.00
6/4/2024	9:51	191.6	1.007	-0.02	-0.02	-0.02	0.00
6/4/2024	9:55	191.6	1.011	98.49	0.09	-0.04	-0.01
6/4/2024	9:56	191.6	1.012	98.24	0.10	-0.05	-0.01
6/4/2024	9:57	191.5	1.014	98.46	0.02	-0.05	-0.01
6/4/2024	9:58	191.5	1.014	98.61	0.01	-0.05	-0.01
6/4/2024	9:59	191.4	1.014	98.73	0.02	-0.05	-0.01
6/4/2024	10:00	191.5	0.994	56.56	0.46	1.52	-0.02
6/4/2024	10:01	191.6	0.982	0.40	0.55	6.70	0.00
6/4/2024	10:02	191.6	0.982	0.33	0.73	7.98	0.00
6/4/2024	10:03	191.6	0.981	0.33	0.71	8.96	0.00
6/4/2024	10:04	191.6	0.981	0.32	0.81	10.09	0.01
6/4/2024	10:05	191.6	0.981	0.33	0.76	13.34	0.00
6/4/2024	10:07	191.6	0.981	0.37	0.73	13.03	0.00
6/4/2024	10:08	191.6	0.981	0.38	0.84	14.46	0.00
6/4/2024	10:09	191.6	0.981	0.35	0.75	13.56	0.00
6/4/2024	10:10	191.6	0.980	0.27	0.72	14.68	0.00
6/4/2024	10:11	191.6	0.980	0.30	0.71	14.47	0.00
6/4/2024	10:12	191.5	0.980	0.17	0.71	15.30	0.00
6/4/2024	10:13	191.6	0.978	0.41	0.70	18.06	-0.01
6/4/2024	10:14	191.6	0.979	0.35	0.68	18.62	0.00
6/4/2024	10:15	191.6	0.980	0.36	0.86	15.78	0.00
6/4/2024	10:16	191.6	0.979	0.50	1.01	17.69	-0.01
6/4/2024	10:17	191.6	0.979	0.36	0.81	17.36	0.00
6/4/2024	10:18	191.6	0.980	0.38	0.83	15.85	0.00
6/4/2024	10:19	191.6	0.979	0.47	0.92	17.36	0.00
6/4/2024	10:20	191.6	0.979	0.39	0.92	16.66	-0.01
6/4/2024	10:21	191.6	0.980	0.44	0.77	15.84	0.00
6/4/2024	10:22	191.6	0.979	0.24	0.91	16.73	-0.02
6/4/2024	10:23	191.6	0.980	0.43	0.84	17.18	0.00
6/4/2024	10:24	191.6	0.980	0.38	0.77	15.26	0.00
6/4/2024	10:25	191.6	0.979	0.28	0.98	17.32	0.00
6/4/2024	10:26	191.6	0.980	0.34	0.82	16.29	-0.01
6/4/2024	10:27	191.6	0.980	0.30	0.81	15.10	0.00
6/4/2024	10:29	191.6	0.979	0.37	0.77	18.59	0.00
6/4/2024	10:30	191.6	0.981	0.34	0.66	14.94	0.00
6/4/2024	10:31	191.6	0.980	0.37	0.89	15.78	0.00
6/4/2024	10:32	191.6	0.980	0.32	0.73	14.63	0.00
6/4/2024	10:33	191.6	0.979	0.21	0.72	16.03	0.00
6/4/2024	10:34	191.6	0.979	0.26	0.96	17.19	0.00



BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/4/2024	10:35	191.6	0.980	0.36	0.86	16.15	0.00
6/4/2024	10:36	191.6	0.980	0.35	0.78	14.94	0.00
6/4/2024	10:37	191.6	0.980	0.27	0.72	14.05	0.00
6/4/2024	10:38	191.5	0.979	-0.63	0.66	17.19	0.02
6/4/2024	10:39	191.6	0.980	0.36	0.90	16.54	0.00
6/4/2024	10:40	191.6	0.980	0.35	0.74	15.05	0.00
6/4/2024	10:41	191.6	0.979	0.23	0.72	16.41	-0.01
6/4/2024	10:42	191.6	0.980	0.28	0.80	15.21	0.00
6/4/2024	10:43	191.6	0.979	0.26	0.83	15.06	0.00
6/4/2024	10:44	191.6	0.979	0.34	0.89	15.99	0.00
6/4/2024	10:45	191.6	0.979	0.45	0.96	17.18	0.00
6/4/2024	10:46	191.6	0.979	0.33	0.93	16.75	-0.01
6/4/2024	10:47	191.6	0.979	0.29	0.89	15.58	0.00
6/4/2024	10:48	191.6	0.979	0.26	0.94	17.06	0.00
6/4/2024	10:49	191.6	0.979	0.37	0.80	15.63	0.00
6/4/2024	10:51	191.6	0.979	0.31	0.98	17.01	0.00
6/4/2024	10:52	191.6	0.979	0.39	1.03	17.95	-0.01
6/4/2024	10:53	191.6	0.979	0.30	0.88	15.63	-0.01
6/4/2024	10:54	191.6	0.979	0.31	0.75	14.58	0.00
6/4/2024	10:55	191.6	0.979	0.28	0.77	15.18	0.00
6/4/2024	10:56	191.6	0.979	0.29	0.79	14.87	0.00
6/4/2024	10:57	191.6	0.979	0.16	0.63	15.43	0.00
6/4/2024	10:58	191.6	0.978	0.34	0.76	19.36	0.00
6/4/2024	10:59	191.6	0.980	0.32	0.88	16.22	0.00
6/4/2024	11:00	191.6	0.979	0.33	0.88	16.47	-0.01
6/4/2024	11:01	191.6	0.979	0.28	0.96	16.71	0.00
6/4/2024	11:02	191.6	0.979	0.36	0.74	15.60	0.00
6/4/2024	11:03	191.6	0.980	0.30	0.85	14.59	0.00
6/4/2024	11:04	191.6	0.980	0.26	0.71	13.94	0.00
6/4/2024	11:05	191.6	0.979	0.37	0.74	17.90	-0.01
6/4/2024	11:06	191.6	0.979	0.31	0.87	16.30	0.00
6/4/2024	11:07	191.6	0.979	0.29	0.92	16.39	0.00
6/4/2024	11:08	191.6	0.979	0.30	0.99	16.45	-0.01
6/4/2024	11:09	191.6	0.979	0.29	0.92	16.06	0.00
6/4/2024	11:10	191.6	0.979	0.24	0.77	19.88	0.00
6/4/2024	11:11	191.5	0.979	0.28	0.87	16.90	-0.01
6/4/2024	11:13	191.6	0.980	0.30	0.89	15.39	-0.01
6/4/2024	11:14	191.6	0.980	0.24	0.85	14.14	0.00
6/4/2024	11:15	191.6	0.980	0.27	0.68	13.63	0.00
6/4/2024	11:16	191.6	0.978	0.33	1.17	16.43	-0.01
6/4/2024	11:17	191.6	0.978	0.25	1.02	19.12	0.00
6/4/2024	11:18	191.6	0.979	0.24	0.79	16.44	0.00
6/4/2024	11:19	191.6	0.979	0.30	0.82	15.61	0.00
6/4/2024	11:20	191.6	0.979	0.32	0.91	15.35	0.00
6/4/2024	11:21	191.6	0.980	0.28	0.79	14.45	0.00
6/4/2024	11:22	191.6	0.979	0.31	0.90	16.58	-0.01
6/4/2024	11:23	191.6	0.979	0.29	0.84	15.80	0.00
6/4/2024	11:24	191.6	0.979	0.46	0.92	16.30	0.00
6/4/2024	11:25	191.6	0.979	0.30	0.86	15.12	-0.01
6/4/2024	11:26	191.6	0.979	0.28	0.90	15.37	0.00
6/4/2024	11:27	191.6	0.979	0.27	0.88	16.32	-0.01
6/4/2024	11:28	191.6	0.979	0.22	0.90	16.22	0.00
6/4/2024	11:29	191.6	0.978	0.34	0.98	17.38	0.00
6/4/2024	11:30	191.6	0.979	0.31	0.95	16.29	-0.01
6/4/2024	11:31	191.6	0.978	0.21	0.86	16.11	-0.01
6/4/2024	11:32	191.6	0.978	0.13	0.76	18.61	0.00
6/4/2024	11:34	191.6	0.979	0.35	0.89	16.38	0.00
6/4/2024	11:35	191.6	0.979	0.29	0.93	15.38	0.00
6/4/2024	11:36	191.6	0.979	0.31	0.85	15.82	0.00
6/4/2024	11:37	191.6	0.979	0.30	0.88	15.31	0.00
6/4/2024	11:38	191.6	0.978	0.32	0.84	19.38	0.00
6/4/2024	11:39	191.5	0.979	0.31	0.85	16.26	0.00
6/4/2024	11:40	191.6	0.979	0.38	0.87	16.43	0.00
6/4/2024	11:41	191.6	0.979	0.30	1.09	17.77	0.00

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/4/2024	11:42	191.6	0.979	0.31	0.85	15.65	0.00
6/4/2024	11:43	191.6	0.979	0.25	0.89	16.04	0.00
6/4/2024	11:44	191.6	0.979	0.27	0.75	15.21	0.00
6/4/2024	11:45	191.6	0.979	0.24	0.81	14.67	0.00
6/4/2024	11:46	191.6	0.979	0.27	0.77	14.99	0.00
6/4/2024	11:47	191.6	0.979	0.31	0.76	14.76	0.00
6/4/2024	11:48	191.6	0.979	0.27	0.73	14.39	0.00
6/4/2024	11:49	191.6	0.979	0.13	1.14	17.57	-0.01
6/4/2024	11:50	191.6	0.979	0.27	0.90	16.61	0.00
6/4/2024	11:51	191.6	0.979	0.21	0.85	16.88	0.00
6/4/2024	11:52	191.6	0.979	0.29	0.91	15.62	0.00
6/4/2024	11:53	191.6	0.979	0.27	0.86	16.04	0.00
6/4/2024	11:54	191.6	0.979	0.09	0.77	18.16	0.00
6/4/2024	11:56	191.6	0.980	0.22	0.73	14.77	0.00
6/4/2024	11:57	191.6	0.979	0.25	0.80	15.97	0.00
6/4/2024	11:58	191.6	0.978	0.32	0.89	16.77	0.00
6/4/2024	11:59	191.6	0.979	0.18	1.04	18.43	-0.01
6/4/2024	12:00	191.5	0.978	0.13	0.69	20.36	0.00
6/4/2024	12:01	191.5	0.978	0.28	0.78	19.01	0.00
6/4/2024	12:02	191.6	0.979	0.29	0.79	17.83	0.00
6/4/2024	12:03	191.6	0.979	0.30	0.83	16.23	0.00
6/4/2024	12:04	191.6	0.980	0.26	0.77	15.22	0.00
6/4/2024	12:05	191.6	0.979	0.22	0.83	15.01	-0.01
6/4/2024	12:06	191.6	0.980	0.35	0.78	14.96	-0.01
6/4/2024	12:07	191.6	0.980	0.21	0.82	14.27	0.00
6/4/2024	12:08	191.6	0.979	0.25	0.75	13.96	0.00
6/4/2024	12:09	191.6	0.979	0.38	0.80	14.94	-0.01
6/4/2024	12:10	191.6	0.980	0.33	0.82	13.88	0.00
6/4/2024	12:11	191.6	0.979	0.18	1.07	17.37	-0.01
6/4/2024	12:12	191.6	0.979	0.35	0.81	16.21	0.00
6/4/2024	12:13	191.6	0.979	0.06	0.83	18.87	0.00
6/4/2024	12:14	191.6	0.979	0.31	0.76	16.59	0.00
6/4/2024	12:15	191.6	0.979	0.28	0.94	15.92	0.00
6/4/2024	12:16	191.6	0.979	0.30	0.88	16.45	0.00
6/4/2024	12:18	191.6	0.980	0.31	1.02	16.63	-0.01
6/4/2024	12:19	191.6	0.980	0.27	0.86	14.59	0.00
6/4/2024	12:20	191.5	0.981	0.28	0.74	14.67	0.00
6/4/2024	12:21	191.6	0.981	0.28	0.76	14.63	0.00
6/4/2024	12:22	191.6	0.980	0.25	0.72	16.11	0.00
6/4/2024	12:23	191.6	0.979	0.22	0.97	16.42	0.00
6/4/2024	12:24	191.6	0.979	0.31	0.94	17.71	0.00
6/4/2024	12:25	191.5	0.984	-1.97	0.72	18.87	0.08
6/4/2024	12:26	191.7	1.002	1.60	-2.05	80.71	-0.38
6/4/2024	12:27	191.8	1.003	1.52	1.28	80.67	-0.38
6/4/2024	12:28	191.8	1.002	1.41	-0.89	81.09	-0.39
6/4/2024	12:29	191.8	1.002	1.41	-1.58	80.37	-0.34
6/4/2024	12:30	191.9	1.002	1.73	-0.48	80.02	-0.37
6/4/2024	12:31	191.9	1.002	1.63	-1.08	78.64	-0.36
6/4/2024	12:32	191.8	1.002	2.15	-2.53	77.32	-0.35
6/4/2024	12:33	191.9	1.001	2.22	2.81	73.70	-0.32
6/4/2024	12:34	191.8	1.030	1.41	7.87	43.71	-0.19
6/4/2024	12:35	191.7	1.007	1.86	-1.22	0.65	-0.05
6/4/2024	12:36	191.7	1.007	2.12	-0.96	0.36	-0.06
6/4/2024	12:37	191.6	1.007	2.04	-0.78	0.14	-0.06
6/4/2024	12:38	191.6	1.008	2.02	-0.90	0.09	-0.06
6/4/2024	12:41	191.6	1.008	0.00	0.00	0.00	0.00
6/4/2024	12:42	191.6	1.008	-0.05	-0.49	-0.02	0.00
6/4/2024	12:43	191.6	1.012	16.00	0.05	-0.01	-0.03
6/4/2024	12:44	191.4	1.025	98.15	-0.27	-0.04	0.00
6/4/2024	12:45	191.2	1.027	98.77	0.08	-0.03	0.00
6/4/2024	12:46	191.2	1.027	98.66	0.24	-0.04	0.00
6/4/2024	12:47	191.1	1.027	99.10	0.07	-0.04	0.00
6/4/2024	12:48	191.1	1.017	45.44	0.10	-0.02	-0.05
6/4/2024	12:49	191.4	1.002	-2.13	-1.01	0.05	0.02

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/4/2024	12:50	191.5	0.982	0.10	2.11	7.73	-0.01
6/4/2024	12:51	191.6	0.980	0.01	2.95	9.40	-0.01
6/4/2024	12:52	191.6	0.979	0.16	2.51	11.72	-0.01
6/4/2024	12:53	191.6	0.978	0.04	2.60	13.96	-0.01
6/4/2024	12:55	191.6	0.978	-0.05	3.23	15.24	-0.02
6/4/2024	12:56	191.6	0.977	0.26	3.75	17.72	0.00
6/4/2024	12:57	191.6	0.978	0.17	4.09	17.87	-0.01
6/4/2024	12:58	191.6	0.979	0.32	3.95	17.46	-0.01
6/4/2024	12:59	191.6	0.979	0.23	3.60	15.25	0.00
6/4/2024	13:00	191.6	0.979	0.25	2.98	15.08	-0.01
6/4/2024	13:01	191.6	0.978	0.29	3.35	15.71	-0.01
6/4/2024	13:02	191.6	0.978	0.31	3.25	19.04	-0.03
6/4/2024	13:03	191.6	0.978	0.30	2.52	17.19	-0.01
6/4/2024	13:04	191.6	0.979	0.34	3.54	17.55	-0.02
6/4/2024	13:05	191.6	0.979	0.37	3.43	16.42	-0.01
6/4/2024	13:06	191.6	0.978	0.27	3.47	17.10	-0.02
6/4/2024	13:07	191.6	0.979	0.21	3.79	15.93	-0.01
6/4/2024	13:08	191.6	0.978	0.26	3.24	17.78	-0.01
6/4/2024	13:09	191.5	0.978	0.46	3.98	18.06	-0.01
6/4/2024	13:10	191.6	0.978	0.31	3.29	17.51	-0.01
6/4/2024	13:11	191.6	0.979	0.29	3.48	15.76	-0.01
6/4/2024	13:12	191.6	0.979	0.35	3.03	15.28	-0.02
6/4/2024	13:13	191.6	0.979	0.16	3.13	14.81	-0.01
6/4/2024	13:14	191.6	0.979	0.12	3.07	15.10	-0.01
6/4/2024	13:16	191.6	0.979	0.29	3.34	14.52	-0.02
6/4/2024	13:17	191.5	0.978	0.30	3.26	18.23	-0.01
6/4/2024	13:18	191.6	0.978	-0.03	3.14	18.17	-0.02
6/4/2024	13:19	191.6	0.979	0.38	2.93	16.59	-0.01
6/4/2024	13:20	191.6	0.979	0.32	3.43	15.88	-0.01
6/4/2024	13:21	191.6	0.979	0.29	3.47	15.37	0.00
6/4/2024	13:22	191.6	0.978	0.26	3.35	16.90	-0.01
6/4/2024	13:23	191.6	0.978	0.24	3.50	16.20	-0.01
6/4/2024	13:24	191.6	0.978	0.10	3.35	18.43	-0.01
6/4/2024	13:25	191.6	0.978	0.24	3.37	17.40	-0.01
6/4/2024	13:26	191.6	0.978	0.04	4.03	18.37	-0.01
6/4/2024	13:27	191.5	0.978	0.44	2.89	16.45	-0.01
6/4/2024	13:28	191.6	0.979	0.24	3.67	15.37	-0.02
6/4/2024	13:29	191.6	0.978	0.36	3.44	16.43	-0.01
6/4/2024	13:30	191.6	0.979	0.17	3.67	15.66	-0.02
6/4/2024	13:31	191.6	0.979	0.39	3.76	14.92	-0.01
6/4/2024	13:32	191.6	0.978	0.30	3.36	17.10	-0.02
6/4/2024	13:33	191.6	0.978	0.19	3.66	18.79	-0.02
6/4/2024	13:34	191.6	0.978	0.38	3.07	16.73	0.00
6/4/2024	13:35	191.6	0.978	0.25	3.25	16.29	-0.01
6/4/2024	13:36	191.6	0.978	0.32	4.11	16.64	-0.01
6/4/2024	13:38	191.6	0.978	0.24	4.12	18.15	-0.02
6/4/2024	13:39	191.6	0.978	0.23	2.90	16.60	-0.01
6/4/2024	13:40	191.6	0.979	0.22	3.83	16.20	-0.01
6/4/2024	13:41	191.6	0.978	0.23	3.85	16.62	-0.01
6/4/2024	13:42	191.6	0.978	0.09	3.31	16.04	-0.01
6/4/2024	13:43	191.6	0.978	0.36	4.05	15.60	-0.01
6/4/2024	13:44	191.6	0.978	0.30	3.29	18.29	-0.02
6/4/2024	13:45	191.6	0.978	0.27	3.48	16.37	-0.02
6/4/2024	13:46	191.6	0.978	0.29	3.65	16.46	-0.02
6/4/2024	13:47	191.6	0.978	0.14	3.69	16.28	-0.02
6/4/2024	13:48	191.6	0.978	0.28	3.56	15.74	-0.01
6/4/2024	13:49	191.6	0.978	0.17	4.09	16.30	-0.01
6/4/2024	13:50	191.6	0.978	0.12	3.22	15.53	-0.02
6/4/2024	13:51	191.6	0.977	0.28	4.09	16.46	-0.01
6/4/2024	13:52	191.6	0.977	0.28	3.64	17.54	-0.01
6/4/2024	13:53	191.7	0.978	0.26	3.55	16.33	-0.01
6/4/2024	13:54	191.6	0.977	0.24	3.22	18.37	-0.02
6/4/2024	13:55	191.6	0.978	0.17	3.06	16.45	-0.02
6/4/2024	13:56	191.6	0.978	0.20	3.70	16.44	-0.02

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/4/2024	13:57	191.6	0.978	0.13	4.22	16.31	-0.02
6/4/2024	13:58	191.6	0.977	0.15	2.60	18.31	-0.02
6/4/2024	14:00	191.6	0.977	0.31	3.38	16.45	-0.02
6/4/2024	14:01	191.6	0.978	0.23	3.70	16.55	-0.02
6/4/2024	14:02	191.6	0.977	0.21	3.72	16.49	-0.02
6/4/2024	14:03	191.6	0.977	0.18	3.90	16.92	-0.02
6/4/2024	14:04	191.6	0.977	0.35	3.72	15.99	-0.01
6/4/2024	14:05	191.6	0.978	0.13	3.22	15.75	-0.02
6/4/2024	14:06	191.6	0.977	0.17	3.23	19.35	-0.02
6/4/2024	14:07	191.6	0.978	0.22	3.98	16.89	-0.01
6/4/2024	14:08	191.6	0.978	0.29	3.26	16.27	-0.02
6/4/2024	14:09	191.6	0.977	0.35	3.50	16.64	-0.02
6/4/2024	14:10	191.6	0.978	0.36	3.52	16.28	-0.01
6/4/2024	14:11	191.6	0.978	0.31	3.38	16.37	-0.02
6/4/2024	14:12	191.6	0.977	0.28	3.28	18.32	-0.02
6/4/2024	14:13	191.6	0.976	0.31	3.19	19.46	-0.01
6/4/2024	14:14	191.6	0.976	0.22	3.44	20.98	-0.02
6/4/2024	14:15	191.6	0.977	0.42	3.24	18.15	-0.02
6/4/2024	14:16	191.6	0.978	0.42	3.72	16.27	-0.01
6/4/2024	14:17	191.6	0.978	0.20	3.67	15.59	-0.01
6/4/2024	14:18	191.6	0.978	0.28	3.23	15.40	-0.01
6/4/2024	14:19	191.6	0.978	0.21	3.60	14.72	-0.01
6/4/2024	14:20	191.6	0.978	0.25	2.69	14.56	-0.01
6/4/2024	14:22	191.6	0.978	0.25	2.87	14.90	-0.01
6/4/2024	14:23	191.7	0.978	0.20	3.14	14.79	-0.02
6/4/2024	14:24	191.6	0.977	0.22	2.88	16.18	-0.02
6/4/2024	14:25	191.6	0.977	0.28	3.66	17.23	-0.02
6/4/2024	14:26	191.6	0.977	0.22	3.74	16.86	-0.02
6/4/2024	14:27	191.6	0.977	0.29	3.22	16.23	-0.02
6/4/2024	14:28	191.6	0.978	0.17	2.86	15.16	-0.02
6/4/2024	14:29	191.7	0.977	0.11	3.47	17.62	-0.02
6/4/2024	14:30	191.6	0.977	0.32	4.19	17.75	-0.02
6/4/2024	14:31	191.6	0.977	0.02	3.82	16.77	-0.01
6/4/2024	14:32	191.6	0.977	0.16	4.00	18.41	-0.02
6/4/2024	14:33	191.7	0.977	0.22	3.13	19.09	-0.03
6/4/2024	14:34	191.7	0.977	0.36	2.89	18.71	-0.02
6/4/2024	14:35	191.7	0.977	0.23	3.15	17.30	-0.02
6/4/2024	14:36	191.7	0.977	0.27	3.64	16.37	-0.02
6/4/2024	14:37	191.7	0.977	0.19	3.63	17.04	-0.01
6/4/2024	14:38	191.7	0.977	0.21	3.69	16.26	-0.01
6/4/2024	14:39	191.7	0.977	0.10	3.27	16.46	-0.01
6/4/2024	14:40	191.7	0.978	0.16	3.29	15.64	-0.01
6/4/2024	14:41	191.7	0.977	0.13	3.87	16.66	-0.02
6/4/2024	14:42	191.7	0.977	0.26	3.64	16.62	-0.02
6/4/2024	14:44	191.7	0.976	0.29	3.90	17.38	-0.02
6/4/2024	14:45	191.6	0.977	0.16	3.33	19.19	-0.01
6/4/2024	14:46	191.6	0.978	0.17	3.41	16.33	-0.02
6/4/2024	14:47	191.7	0.978	0.13	3.32	15.00	-0.02
6/4/2024	14:48	191.7	0.978	0.16	3.20	14.81	-0.02
6/4/2024	14:49	191.7	0.977	0.13	3.09	15.29	-0.02
6/4/2024	14:50	191.7	0.977	0.11	3.64	16.07	-0.02
6/4/2024	14:51	191.7	0.977	0.33	3.36	15.80	-0.02
6/4/2024	14:52	191.7	0.977	0.11	3.71	16.94	-0.01
6/4/2024	14:53	191.7	0.977	0.11	3.92	17.22	-0.01
6/4/2024	14:54	191.6	0.977	0.28	3.48	17.06	-0.02
6/4/2024	14:55	191.7	0.977	0.22	3.91	17.98	-0.02
6/4/2024	14:56	191.6	0.977	0.28	2.97	16.92	-0.03
6/4/2024	14:57	191.6	0.977	0.31	3.29	16.98	-0.01
6/4/2024	14:58	191.6	0.977	0.09	3.85	17.76	-0.02
6/4/2024	14:59	191.6	0.977	0.27	3.38	16.25	-0.02
6/4/2024	15:00	191.6	0.977	0.11	3.47	15.76	-0.02
6/4/2024	15:01	191.6	0.977	0.18	3.82	16.04	-0.02
6/4/2024	15:02	191.6	0.976	0.25	3.45	20.03	-0.01
6/4/2024	15:03	191.6	0.976	0.41	3.37	18.45	-0.02

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/4/2024	15:05	191.6	0.976	0.15	3.22	19.54	-0.01
6/4/2024	15:06	191.6	0.976	0.25	3.05	19.11	-0.01
6/4/2024	15:07	191.6	0.977	0.25	3.30	17.69	-0.01
6/4/2024	15:08	191.7	0.977	0.18	3.86	16.62	-0.02
6/4/2024	15:09	191.6	0.977	0.13	3.96	15.84	-0.01
6/4/2024	15:10	191.7	0.977	0.25	3.11	15.91	-0.02
6/4/2024	15:11	191.7	0.976	0.29	3.91	17.51	-0.01
6/4/2024	15:12	191.6	0.977	0.11	3.35	17.79	0.00
6/4/2024	15:13	191.6	0.977	0.20	3.92	17.48	-0.01
6/4/2024	15:14	191.7	0.977	0.30	3.77	16.68	-0.02
6/4/2024	15:15	191.7	0.977	0.23	3.87	15.71	-0.02
6/4/2024	15:16	191.7	0.977	0.22	3.24	15.00	-0.01
6/4/2024	15:17	191.7	0.977	0.22	3.66	15.80	-0.02
6/4/2024	15:18	191.7	0.977	0.19	3.92	16.21	-0.02
6/4/2024	15:19	191.7	0.977	0.24	3.57	16.01	-0.01
6/4/2024	15:20	191.7	0.978	0.04	3.98	16.67	-0.02
6/4/2024	15:21	191.7	0.977	0.08	3.30	15.14	-0.02
6/4/2024	15:22	191.7	0.978	0.24	3.46	14.64	-0.02
6/4/2024	15:23	191.7	0.977	0.24	2.59	14.73	-0.02
6/4/2024	15:24	191.7	0.977	0.27	3.29	16.16	-0.01
6/4/2024	15:25	191.7	0.976	0.19	3.17	17.92	-0.01
6/4/2024	15:27	191.6	0.977	0.28	3.62	17.03	-0.01
6/4/2024	15:28	191.6	0.977	0.05	3.53	17.07	-0.02
6/4/2024	15:29	191.6	0.977	0.19	3.77	16.61	-0.02
6/4/2024	15:30	191.6	0.976	0.19	4.14	18.19	-0.01
6/4/2024	15:31	191.6	0.977	0.20	2.87	16.93	-0.02
6/4/2024	15:32	191.6	0.977	0.20	3.63	18.15	-0.02
6/4/2024	15:33	191.6	0.977	0.23	3.04	16.51	-0.01
6/4/2024	15:34	191.6	0.977	0.24	3.94	16.47	-0.02
6/4/2024	15:35	191.6	0.977	0.20	4.28	17.92	-0.02
6/4/2024	15:36	191.6	0.977	0.18	3.38	16.30	-0.02
6/4/2024	15:37	191.6	0.977	0.10	3.64	16.89	-0.02
6/4/2024	15:38	191.6	0.977	0.28	4.30	17.08	-0.01
6/4/2024	15:39	191.6	0.977	0.32	3.73	16.78	-0.02
6/4/2024	15:40	191.6	0.977	0.16	4.44	18.41	-0.02
6/4/2024	15:41	191.6	0.977	0.19	3.46	15.77	-0.02
6/4/2024	15:42	191.6	0.978	0.17	3.66	14.81	-0.01
6/4/2024	15:43	191.6	0.976	0.20	3.56	17.23	-0.01
6/4/2024	15:44	191.6	0.977	0.31	3.14	16.64	-0.02
6/4/2024	15:45	191.7	0.977	0.18	3.73	16.61	-0.02
6/4/2024	15:46	191.6	0.976	0.26	4.01	17.41	-0.02
6/4/2024	15:47	191.6	0.976	0.26	4.12	17.99	-0.02
6/4/2024	15:49	191.7	0.986	0.09	3.09	13.98	-0.03
6/4/2024	15:50	191.7	1.006	-0.60	0.12	2.36	0.00
6/4/2024	15:51	191.7	1.006	-0.02	-0.36	0.95	0.00
6/4/2024	15:52	191.7	1.006	0.03	-0.71	0.45	-0.01
6/4/2024	15:53	191.7	1.006	-0.01	-0.54	0.30	-0.01
6/4/2024	15:54	191.7	1.006	-0.05	-0.25	0.18	0.00
6/4/2024	15:55	191.7	1.006	-0.01	-0.39	0.16	0.01
6/4/2024	15:57	191.7	1.006	0.00	0.00	0.00	0.00
6/4/2024	15:58	191.7	1.006	0.00	0.07	-0.07	0.01
6/4/2024	15:59	191.6	1.022	75.75	0.50	-0.10	-0.03
6/4/2024	16:00	191.4	1.024	98.45	0.41	-0.10	0.00
6/4/2024	16:02	191.3	1.024	98.67	0.75	-0.10	-0.01
6/4/2024	16:03	191.3	1.024	98.68	0.42	-0.13	0.00
6/4/2024	16:04	191.4	0.987	2.35	-0.47	5.19	-0.87
6/4/2024	16:05	191.5	0.978	0.03	2.87	9.84	-0.01
6/4/2024	16:06	191.5	0.977	-0.04	3.68	12.42	-0.02
6/4/2024	16:07	191.6	0.976	0.08	4.35	15.74	-0.01
6/4/2024	16:08	191.5	0.976	0.10	4.34	17.22	-0.01
6/4/2024	16:09	191.6	0.977	0.18	4.28	15.99	-0.01
6/4/2024	16:10	191.6	0.977	0.10	4.55	15.84	-0.01
6/4/2024	16:11	191.6	0.977	0.04	4.23	17.85	-0.02
6/4/2024	16:12	191.6	0.977	0.27	4.36	16.71	0.00

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/4/2024	16:13	191.6	0.977	0.17	4.39	18.31	-0.01
6/4/2024	16:14	191.6	0.977	0.30	3.35	18.76	-0.01
6/4/2024	16:15	191.6	0.977	0.24	4.34	17.61	-0.01
6/4/2024	16:16	191.6	0.977	0.35	4.81	18.32	-0.01
6/4/2024	16:17	191.6	0.978	0.14	3.87	16.56	-0.01
6/4/2024	16:18	191.7	0.977	0.26	4.07	16.76	-0.01
6/4/2024	16:19	191.6	0.977	0.17	4.58	16.41	-0.01
6/4/2024	16:20	191.6	0.977	0.27	4.63	16.47	-0.01
6/4/2024	16:21	191.6	0.978	0.19	4.20	15.71	-0.01
6/4/2024	16:22	191.6	0.978	0.23	4.23	15.22	-0.01
6/4/2024	16:24	191.6	0.976	0.34	3.83	17.79	-0.01
6/4/2024	16:25	191.6	0.977	0.11	4.83	18.19	-0.01
6/4/2024	16:26	191.6	0.977	0.12	3.85	16.96	-0.01
6/4/2024	16:27	191.6	0.978	0.28	3.87	15.70	-0.01
6/4/2024	16:28	191.6	0.977	0.20	4.45	15.73	-0.01
6/4/2024	16:29	191.6	0.977	0.16	4.69	16.39	-0.01
6/4/2024	16:30	191.6	0.977	0.27	4.63	16.38	-0.01
6/4/2024	16:31	191.6	0.977	0.34	4.84	16.92	-0.02
6/4/2024	16:32	191.6	0.976	0.27	4.03	19.36	-0.03
6/4/2024	16:33	191.6	0.977	0.21	3.58	18.28	-0.01
6/4/2024	16:34	191.7	0.977	0.27	3.93	16.54	-0.01
6/4/2024	16:35	191.7	0.978	0.16	4.17	15.22	-0.01
6/4/2024	16:36	191.6	0.978	0.24	4.17	14.89	-0.02
6/4/2024	16:37	191.6	0.978	0.26	3.87	15.02	-0.01
6/4/2024	16:38	191.6	0.977	0.16	4.17	15.77	-0.01
6/4/2024	16:39	191.6	0.977	0.16	4.36	16.51	-0.01
6/4/2024	16:40	191.7	0.977	0.06	4.31	16.62	-0.01
6/4/2024	16:41	191.6	0.976	0.22	4.86	17.53	-0.01
6/4/2024	16:42	191.7	0.978	0.21	4.55	16.18	-0.01
6/5/2024	7:16	191.6	1.008	-0.41	0.88	-0.15	0.02
6/5/2024	7:17	191.6	1.008	-0.51	0.78	-0.14	0.01
6/5/2024	7:19	191.6	1.008	0.00	0.00	0.00	0.00
6/5/2024	7:20	191.6	1.008	0.07	-0.14	-0.01	0.00
6/5/2024	7:21	191.6	1.008	0.06	-0.26	-0.01	0.00
6/5/2024	7:22	191.6	1.008	0.04	-0.34	-0.02	0.01
6/5/2024	7:23	191.6	1.008	0.16	-0.27	-0.01	0.00
6/5/2024	7:24	191.6	1.008	0.08	-0.29	0.00	0.00
6/5/2024	7:25	191.5	1.020	46.63	-0.61	0.01	-0.04
6/5/2024	7:26	191.3	1.029	99.59	-0.41	0.00	0.00
6/5/2024	7:27	191.2	1.029	99.53	-0.12	-0.01	-0.01
6/5/2024	7:29	191.2	1.029	99.65	-0.49	0.00	0.00
6/5/2024	7:30	191.1	1.029	99.68	0.37	-0.01	0.00
6/5/2024	7:31	191.2	1.023	98.90	0.06	-0.01	0.00
6/5/2024	7:32	191.5	1.002	96.33	0.02	-0.01	-0.01
6/5/2024	7:33	191.7	0.943	96.71	0.18	-0.01	-0.01
6/5/2024	7:34	191.8	0.360	97.47	-1.41	0.03	0.04
6/5/2024	7:35	191.8	0.624	23.58	-2.23	0.95	-0.81
6/5/2024	7:36	191.8	0.983	0.29	1.44	6.18	0.02
6/5/2024	7:37	191.8	0.984	0.11	1.17	5.72	0.01
6/5/2024	7:38	191.7	0.985	0.26	0.90	5.03	0.01
6/5/2024	7:39	191.7	0.985	0.12	0.26	3.83	0.01
6/5/2024	7:40	191.8	0.985	0.24	0.21	3.11	-0.01
6/5/2024	7:41	191.7	0.986	0.42	0.45	2.39	-0.01
6/5/2024	7:42	191.7	0.986	0.13	0.14	1.51	-0.01
6/5/2024	7:43	191.7	0.986	0.17	-0.41	0.86	-0.02
6/5/2024	7:44	191.7	0.986	0.26	-0.36	0.72	-0.02
6/5/2024	7:45	191.7	0.986	0.41	-0.53	0.56	-0.02
6/5/2024	7:46	191.7	0.983	0.29	0.90	4.97	-0.01
6/5/2024	7:47	191.7	0.982	0.63	1.76	6.75	-0.01
6/5/2024	7:48	191.7	0.982	0.50	1.53	7.88	-0.02
6/5/2024	7:49	191.7	0.982	0.69	1.90	8.55	-0.01
6/5/2024	7:51	191.7	0.981	0.53	1.34	8.86	-0.01
6/5/2024	7:52	191.7	0.981	0.65	1.65	10.32	-0.01

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Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/5/2024	7:53	191.7	0.981	0.39	1.85	12.19	-0.02
6/5/2024	7:54	191.7	0.981	0.42	1.70	11.20	-0.01
6/5/2024	7:55	191.7	0.981	0.52	1.77	10.92	-0.02
6/5/2024	7:56	191.7	0.980	0.27	2.48	14.41	-0.02
6/5/2024	7:57	191.7	0.980	0.32	2.35	14.92	-0.01
6/5/2024	7:58	191.6	0.979	0.50	2.81	15.66	-0.01
6/5/2024	7:59	191.7	0.980	0.50	3.12	15.96	-0.02
6/5/2024	8:00	191.7	0.980	0.47	2.44	15.12	-0.02
6/5/2024	8:01	191.7	0.980	0.36	2.42	14.22	-0.02
6/5/2024	8:02	191.6	0.980	0.33	3.11	16.68	-0.01
6/5/2024	8:03	191.6	0.981	0.47	2.39	13.89	0.00
6/5/2024	8:04	191.7	0.980	0.39	2.44	15.94	-0.03
6/5/2024	8:05	191.7	0.980	0.49	2.87	17.66	-0.02
6/5/2024	8:06	191.7	0.980	0.39	3.06	15.81	-0.02
6/5/2024	8:07	191.7	0.981	0.52	2.70	14.37	-0.01
6/5/2024	8:08	191.7	0.981	0.37	2.99	17.56	-0.01
6/5/2024	8:09	191.6	0.980	0.36	2.83	17.00	-0.02
6/5/2024	8:10	191.6	0.981	0.46	2.96	18.48	-0.02
6/5/2024	8:11	191.7	0.982	0.51	2.51	14.66	-0.01
6/5/2024	8:13	191.7	0.981	0.56	2.20	15.76	-0.01
6/5/2024	8:14	191.7	0.981	0.46	2.59	14.17	-0.02
6/5/2024	8:15	191.7	0.980	0.58	3.54	17.56	-0.02
6/5/2024	8:16	191.7	0.981	0.55	2.36	16.24	-0.01
6/5/2024	8:17	191.7	0.981	0.59	2.34	14.82	-0.02
6/5/2024	8:18	191.7	0.982	0.55	2.38	14.46	-0.02
6/5/2024	8:19	191.7	0.980	0.43	3.21	17.37	-0.01
6/5/2024	8:20	191.7	0.981	0.53	3.13	15.59	-0.01
6/5/2024	8:21	191.7	0.981	0.63	3.28	16.50	-0.01
6/5/2024	8:22	191.7	0.982	0.60	3.27	16.20	-0.02
6/5/2024	8:23	191.7	0.981	0.56	2.56	14.87	-0.02
6/5/2024	8:24	191.7	0.981	0.57	3.37	17.65	-0.01
6/5/2024	8:25	191.7	0.981	0.63	3.27	17.98	-0.01
6/5/2024	8:26	191.7	0.981	0.47	2.67	15.70	-0.01
6/5/2024	8:27	191.7	0.982	0.60	3.21	15.34	-0.01
6/5/2024	8:28	191.7	0.981	0.50	2.36	15.02	-0.02
6/5/2024	8:29	191.7	0.981	0.57	1.79	18.35	-0.01
6/5/2024	8:30	191.7	0.982	0.61	2.70	15.30	-0.02
6/5/2024	8:31	191.7	0.981	0.55	2.63	15.86	-0.01
6/5/2024	8:32	191.6	0.981	0.32	2.23	18.17	-0.02
6/5/2024	8:34	191.6	0.981	0.59	2.77	16.31	-0.01
6/5/2024	8:35	191.6	0.982	0.49	2.53	15.11	-0.02
6/5/2024	8:36	191.7	0.982	0.44	2.78	15.71	-0.02
6/5/2024	8:37	191.7	0.982	0.63	2.49	14.78	-0.02
6/5/2024	8:38	191.7	0.982	0.56	2.77	17.22	-0.02
6/5/2024	8:39	191.7	0.982	0.49	2.79	15.56	-0.01
6/5/2024	8:40	191.6	0.981	0.66	2.67	19.21	-0.01
6/5/2024	8:41	191.6	0.982	0.63	2.42	15.66	-0.01
6/5/2024	8:42	191.7	0.982	0.53	2.47	15.45	-0.01
6/5/2024	8:43	191.6	0.982	0.58	2.63	15.38	-0.02
6/5/2024	8:44	191.7	0.982	0.75	2.76	16.43	-0.03
6/5/2024	8:45	191.6	0.981	0.57	3.31	17.58	-0.01
6/5/2024	8:46	191.7	0.982	0.53	2.96	15.83	-0.02
6/5/2024	8:47	191.7	0.982	0.61	2.72	14.91	-0.02
6/5/2024	8:48	191.7	0.981	0.44	2.68	19.20	-0.02
6/5/2024	8:49	191.6	0.982	0.57	3.00	15.97	-0.02
6/5/2024	8:50	191.7	0.982	0.55	2.61	15.56	-0.01
6/5/2024	8:51	191.7	0.981	0.44	2.65	17.43	-0.02
6/5/2024	8:52	191.7	0.981	0.61	3.00	17.33	-0.01
6/5/2024	8:53	191.6	0.982	0.58	2.65	16.25	-0.02
6/5/2024	8:54	191.6	0.982	0.47	2.79	16.44	-0.02
6/5/2024	8:56	191.7	0.982	0.46	2.75	15.18	-0.03
6/5/2024	8:57	191.7	0.982	0.52	2.91	16.84	-0.02
6/5/2024	8:58	191.6	0.982	0.65	3.07	17.31	-0.02
6/5/2024	8:59	191.7	0.981	0.58	3.28	17.15	-0.01

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Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/5/2024	9:00	191.7	0.982	0.47	2.70	16.71	0.00
6/5/2024	9:01	191.7	0.982	0.36	2.17	15.52	-0.01
6/5/2024	9:02	191.7	0.982	0.35	2.89	16.40	-0.02
6/5/2024	9:03	191.6	0.982	0.51	2.60	16.94	-0.01
6/5/2024	9:04	191.7	0.981	0.56	3.23	16.59	-0.02
6/5/2024	9:05	191.7	0.982	0.46	2.69	15.47	-0.03
6/5/2024	9:06	191.7	0.982	0.51	3.03	17.96	-0.02
6/5/2024	9:07	191.7	0.982	0.56	2.99	16.23	-0.02
6/5/2024	9:08	191.7	0.982	0.51	3.14	17.03	-0.01
6/5/2024	9:09	191.7	0.982	0.50	3.15	16.72	-0.02
6/5/2024	9:10	191.7	0.983	0.62	3.55	16.86	-0.02
6/5/2024	9:11	191.7	0.981	0.54	3.22	17.47	-0.01
6/5/2024	9:12	191.7	0.982	0.44	2.87	15.45	-0.02
6/5/2024	9:13	191.7	0.982	0.41	2.96	15.14	-0.01
6/5/2024	9:14	191.6	0.982	0.52	2.66	14.96	-0.01
6/5/2024	9:15	191.6	0.981	0.58	2.77	19.04	-0.02
6/5/2024	9:16	191.6	0.981	0.62	2.49	18.22	-0.02
6/5/2024	9:18	191.6	0.983	0.62	3.14	16.10	-0.01
6/5/2024	9:19	191.6	0.982	0.59	2.93	16.49	-0.02
6/5/2024	9:20	191.7	0.982	0.73	3.13	17.51	-0.02
6/5/2024	9:21	191.7	0.983	0.64	2.70	15.71	-0.02
6/5/2024	9:22	191.7	0.982	0.70	2.74	16.02	-0.03
6/5/2024	9:23	191.6	0.983	0.55	2.66	14.80	-0.01
6/5/2024	9:24	191.6	0.982	0.48	2.93	17.32	-0.02
6/5/2024	9:25	191.7	0.982	0.71	3.54	16.62	-0.01
6/5/2024	9:26	191.7	0.982	0.53	3.06	15.99	-0.01
6/5/2024	9:27	191.7	0.982	0.68	2.91	18.50	-0.02
6/5/2024	9:28	191.7	0.982	0.68	2.50	16.70	-0.02
6/5/2024	9:29	191.7	0.982	0.64	3.31	17.26	-0.02
6/5/2024	9:30	191.7	0.982	0.65	2.84	15.85	-0.01
6/5/2024	9:31	191.7	0.982	0.47	2.63	19.70	-0.02
6/5/2024	9:32	191.7	0.983	0.68	2.78	15.28	-0.02
6/5/2024	9:33	191.7	0.983	0.79	2.95	16.04	-0.02
6/5/2024	9:34	191.7	0.983	0.65	2.68	18.02	-0.02
6/5/2024	9:35	191.7	0.984	0.62	2.48	14.72	-0.02
6/5/2024	9:36	191.7	0.983	0.53	3.64	16.54	-0.02
6/5/2024	9:37	191.7	0.983	0.56	3.14	15.59	-0.01
6/5/2024	9:38	191.7	0.984	0.65	3.55	16.46	-0.01
6/5/2024	9:40	191.7	0.983	0.58	2.91	17.65	-0.01
6/5/2024	9:41	191.7	0.985	0.60	2.56	14.65	-0.02
6/5/2024	9:42	191.7	0.985	0.50	2.59	16.01	-0.01
6/5/2024	9:43	191.7	0.985	0.47	2.39	13.02	-0.02
6/5/2024	9:44	191.7	0.984	0.56	2.31	13.49	-0.02
6/5/2024	9:45	191.7	0.984	0.50	3.26	16.37	-0.02
6/5/2024	9:46	191.7	0.983	0.76	2.49	16.30	-0.01
6/5/2024	9:47	191.7	0.984	0.54	3.10	15.23	-0.02
6/5/2024	9:48	191.7	0.984	0.78	2.60	16.84	-0.02
6/5/2024	9:49	191.7	0.984	0.61	2.31	14.85	-0.01
6/5/2024	9:50	191.7	0.983	0.49	2.72	16.75	-0.02
6/5/2024	9:51	191.7	0.983	0.64	3.29	16.87	-0.01
6/5/2024	9:52	191.7	0.983	0.60	3.18	16.85	-0.01
6/5/2024	9:53	191.7	0.984	0.49	2.89	15.37	-0.02
6/5/2024	9:54	191.7	0.984	0.62	2.37	18.22	-0.02
6/5/2024	9:55	191.7	0.984	0.78	2.45	14.84	-0.02
6/5/2024	9:56	191.7	0.984	0.44	2.08	15.74	-0.02
6/5/2024	9:57	191.7	0.984	0.77	2.61	16.45	-0.02
6/5/2024	9:58	191.7	0.984	0.78	3.07	15.79	-0.02
6/5/2024	9:59	191.7	0.984	0.43	3.14	17.20	-0.02
6/5/2024	10:00	191.7	0.984	0.58	2.20	14.83	-0.02
6/5/2024	10:02	191.7	0.985	0.61	2.63	12.67	-0.02
6/5/2024	10:03	191.8	0.985	0.66	2.69	14.03	-0.01
6/5/2024	10:04	191.7	0.984	0.64	2.62	13.96	-0.02
6/5/2024	10:05	191.7	0.984	0.62	2.76	18.57	-0.03
6/5/2024	10:06	191.7	0.984	0.81	3.00	15.02	-0.02



BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/5/2024	10:07	191.7	0.984	0.67	3.01	15.07	-0.01
6/5/2024	10:08	191.7	0.985	0.58	2.68	14.18	-0.02
6/5/2024	10:09	191.7	0.985	0.60	2.42	15.84	-0.02
6/5/2024	10:10	191.7	0.984	0.71	2.49	14.99	-0.02
6/5/2024	10:11	191.7	0.985	0.61	2.89	16.45	-0.02
6/5/2024	10:12	191.7	0.985	0.57	3.01	15.49	-0.02
6/5/2024	10:13	191.7	0.985	0.55	2.74	14.80	-0.01
6/5/2024	10:14	191.7	0.983	0.63	3.20	18.07	-0.02
6/5/2024	10:15	191.7	0.985	0.75	3.18	16.20	-0.02
6/5/2024	10:16	191.7	0.985	0.57	2.46	13.60	-0.01
6/5/2024	10:17	191.7	0.984	0.78	2.88	16.62	-0.01
6/5/2024	10:18	191.7	0.984	0.70	3.15	16.07	-0.03
6/5/2024	10:19	191.7	0.984	0.55	2.93	17.42	-0.01
6/5/2024	10:20	191.7	0.985	0.69	2.98	15.16	-0.01
6/5/2024	10:21	191.7	0.983	0.76	2.65	20.07	-0.02
6/5/2024	10:22	191.7	0.985	0.64	3.15	16.94	-0.01
6/5/2024	10:24	191.7	0.985	0.61	2.25	14.76	-0.02
6/5/2024	10:25	191.7	0.985	0.71	2.55	16.06	-0.03
6/5/2024	10:26	191.7	0.985	0.65	2.96	14.18	-0.03
6/5/2024	10:27	191.7	0.984	0.65	2.50	18.49	-0.02
6/5/2024	10:28	191.7	0.984	0.77	2.71	17.80	-0.03
6/5/2024	10:29	191.7	0.983	0.60	2.51	22.62	-0.02
6/5/2024	10:30	191.7	0.984	0.49	3.39	16.81	-0.01
6/5/2024	10:31	191.7	0.985	0.74	2.73	14.36	-0.02
6/5/2024	10:32	191.7	0.985	0.72	2.17	13.15	-0.02
6/5/2024	10:33	191.7	0.984	0.57	3.00	15.92	-0.02
6/5/2024	10:34	191.7	0.985	0.69	2.69	17.82	-0.02
6/5/2024	10:35	191.7	0.984	0.49	2.26	14.67	-0.02
6/5/2024	10:36	191.7	0.985	0.67	2.56	14.12	-0.02
6/5/2024	10:37	191.7	0.985	0.63	2.56	14.89	-0.01
6/5/2024	10:38	191.7	0.984	0.59	2.46	14.56	-0.02
6/5/2024	10:39	191.7	0.983	0.66	2.67	19.01	-0.03
6/5/2024	10:40	191.6	0.982	0.86	2.38	20.36	-0.03
6/5/2024	10:41	191.6	0.984	0.71	3.00	21.17	-0.03
6/5/2024	10:42	191.6	0.985	0.70	3.12	16.62	-0.02
6/5/2024	10:43	191.6	0.986	0.67	2.58	14.71	-0.02
6/5/2024	10:44	191.6	0.985	0.54	2.67	15.62	-0.01
6/5/2024	10:46	191.7	0.985	0.84	3.19	15.90	-0.02
6/5/2024	10:47	191.7	0.985	0.60	2.74	13.81	-0.02
6/5/2024	10:48	191.6	0.984	0.59	2.76	16.41	-0.01
6/5/2024	10:49	191.6	0.985	0.71	2.49	14.12	-0.01
6/5/2024	10:50	191.7	0.985	0.56	2.42	13.44	-0.02
6/5/2024	10:51	191.6	0.984	0.74	2.54	18.28	-0.02
6/5/2024	10:52	191.6	0.985	0.62	2.43	16.75	-0.01
6/5/2024	10:53	191.6	0.985	0.51	2.73	14.54	-0.02
6/5/2024	10:54	191.6	0.985	0.67	2.18	14.63	-0.02
6/5/2024	10:55	191.6	0.985	0.65	2.12	14.96	-0.02
6/5/2024	10:56	191.7	0.984	0.70	2.25	18.21	-0.02
6/5/2024	10:57	191.6	0.985	0.64	2.54	16.68	-0.02
6/5/2024	10:58	191.7	0.985	0.63	2.83	16.25	-0.02
6/5/2024	10:59	191.6	0.985	0.71	3.10	15.97	-0.02
6/5/2024	11:00	191.6	0.984	0.51	2.84	19.98	-0.03
6/5/2024	11:01	191.6	0.985	0.59	2.98	15.90	-0.01
6/5/2024	11:02	191.6	0.984	0.61	2.53	16.55	-0.02
6/5/2024	11:03	191.6	0.985	0.69	2.59	15.58	-0.01
6/5/2024	11:04	191.6	0.986	0.54	2.00	12.82	-0.01
6/5/2024	11:05	191.7	0.984	0.76	3.27	16.11	-0.02
6/5/2024	11:06	191.7	0.985	0.53	3.40	14.91	-0.01
6/5/2024	11:08	191.7	0.984	0.65	2.76	18.23	-0.02
6/5/2024	11:09	191.7	0.985	0.57	2.39	14.35	-0.02
6/5/2024	11:10	191.7	0.984	0.44	2.63	17.31	-0.02
6/5/2024	11:11	191.6	0.983	0.66	3.42	17.91	-0.01
6/5/2024	11:12	191.6	0.984	0.75	2.89	18.94	-0.02
6/5/2024	11:13	191.6	0.984	0.71	2.34	18.49	-0.02

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/5/2024	11:14	191.6	0.985	0.73	2.47	18.95	-0.03
6/5/2024	11:15	191.6	0.985	0.59	1.81	14.34	-0.02
6/5/2024	11:16	191.6	0.984	0.61	1.70	14.70	-0.01
6/5/2024	11:17	191.6	0.984	0.75	2.51	17.95	-0.01
6/5/2024	11:18	191.6	0.985	0.63	2.98	15.76	-0.01
6/5/2024	11:19	191.6	0.985	0.56	3.08	14.43	-0.02
6/5/2024	11:20	191.6	0.984	0.86	1.91	18.81	-0.02
6/5/2024	11:21	191.6	0.985	0.56	2.37	14.69	-0.01
6/5/2024	11:22	191.6	0.984	0.72	2.32	15.21	-0.01
6/5/2024	11:23	191.7	0.985	0.70	2.86	17.62	-0.02
6/5/2024	11:24	191.6	0.985	0.78	2.96	16.65	-0.02
6/5/2024	11:25	191.7	0.985	0.82	2.68	15.36	-0.01
6/5/2024	11:26	191.7	0.985	0.65	2.83	15.71	-0.02
6/5/2024	11:27	191.6	0.985	0.75	2.51	16.02	-0.02
6/5/2024	11:28	191.7	0.984	0.72	2.56	17.82	-0.01
6/5/2024	11:30	191.6	0.985	0.80	2.26	14.67	-0.02
6/5/2024	11:31	191.7	0.984	0.65	3.00	16.13	-0.03
6/5/2024	11:32	191.6	0.985	0.74	2.49	19.39	-0.02
6/5/2024	11:33	191.6	0.985	0.71	2.84	15.91	-0.02
6/5/2024	11:34	191.7	0.985	0.75	2.76	15.62	-0.02
6/5/2024	11:35	191.7	0.983	0.65	2.53	18.56	-0.02
6/5/2024	11:36	191.7	0.985	0.72	2.69	15.86	-0.02
6/5/2024	11:37	191.7	0.985	0.69	2.83	15.63	-0.02
6/5/2024	11:38	191.7	0.984	0.84	2.07	17.65	-0.02
6/5/2024	11:39	191.6	0.985	0.65	2.96	16.83	-0.01
6/5/2024	11:40	191.6	0.985	0.67	2.54	15.44	-0.01
6/5/2024	11:41	191.7	0.985	0.69	2.83	16.40	-0.02
6/5/2024	11:42	191.7	0.985	0.72	2.69	16.64	-0.02
6/5/2024	11:43	191.7	0.985	0.50	2.83	19.39	-0.03
6/5/2024	11:44	191.7	0.985	0.61	3.01	17.69	-0.02
6/5/2024	11:45	191.7	0.984	0.60	2.78	17.84	-0.01
6/5/2024	11:46	191.7	0.986	0.81	2.69	16.19	-0.01
6/5/2024	11:47	191.7	0.986	0.43	2.85	15.58	-0.01
6/5/2024	11:48	191.7	0.985	0.72	2.96	15.98	-0.02
6/5/2024	11:49	191.7	0.985	0.57	2.72	16.64	-0.01
6/5/2024	11:51	191.7	0.985	0.56	3.02	17.58	-0.01
6/5/2024	11:52	191.6	0.985	0.58	3.39	16.91	-0.01
6/5/2024	11:53	191.7	0.985	0.65	3.17	18.07	0.00
6/5/2024	11:54	191.7	0.986	0.54	2.98	15.77	-0.02
6/5/2024	11:55	191.6	0.986	0.71	2.44	15.15	-0.01
6/5/2024	11:56	191.6	0.985	0.61	2.72	19.22	-0.02
6/5/2024	11:57	191.6	0.985	0.59	3.23	16.72	-0.02
6/5/2024	11:58	191.7	0.986	0.66	2.80	16.46	-0.01
6/5/2024	11:59	191.7	0.986	0.64	3.36	15.85	-0.02
6/5/2024	12:00	191.7	0.987	0.56	2.59	15.18	-0.01
6/5/2024	12:01	191.6	0.986	0.81	2.95	16.75	-0.01
6/5/2024	12:02	191.7	0.986	0.47	3.37	17.42	-0.01
6/5/2024	12:03	191.6	0.985	0.77	2.98	17.51	-0.01
6/5/2024	12:04	191.6	0.986	0.42	2.67	17.52	-0.01
6/5/2024	12:05	191.6	0.986	0.71	3.17	17.45	-0.01
6/5/2024	12:06	191.7	0.986	0.65	2.75	18.56	0.00
6/5/2024	12:07	191.7	0.986	0.51	2.69	16.23	-0.02
6/5/2024	12:08	191.7	0.985	0.50	2.58	19.95	-0.02
6/5/2024	12:09	191.7	0.986	0.62	2.37	18.20	-0.02
6/5/2024	12:10	191.7	0.986	0.72	2.25	16.63	-0.02
6/5/2024	12:11	191.7	0.986	0.66	2.93	17.61	-0.01
6/5/2024	12:13	191.7	0.986	0.65	3.14	15.74	-0.01
6/5/2024	12:14	191.7	0.986	0.66	2.97	14.32	-0.02
6/5/2024	12:15	191.6	0.986	0.60	2.74	17.98	-0.02
6/5/2024	12:16	191.7	0.986	0.55	2.23	16.86	-0.02
6/5/2024	12:17	191.7	0.986	0.60	3.16	17.78	-0.02
6/5/2024	12:18	191.7	0.986	0.79	2.67	15.48	-0.01
6/5/2024	12:19	191.7	0.986	0.55	2.57	15.31	-0.02
6/5/2024	12:20	191.7	0.986	0.65	2.67	16.70	-0.01

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/5/2024	12:21	191.7	0.986	0.71	2.66	16.60	-0.01
6/5/2024	12:22	191.7	0.985	0.73	2.71	21.24	-0.02
6/5/2024	12:23	191.7	0.986	0.63	2.60	19.12	-0.02
6/5/2024	12:24	191.7	0.986	0.69	2.72	18.13	-0.02
6/5/2024	12:25	191.7	0.987	1.00	2.43	16.60	-0.02
6/5/2024	12:26	191.7	0.986	0.77	3.11	18.53	-0.02
6/5/2024	12:27	191.7	0.986	0.61	2.61	16.56	-0.02
6/5/2024	12:28	191.7	0.986	0.69	2.98	16.14	-0.01
6/5/2024	12:29	191.7	0.986	0.54	2.85	16.29	-0.02
6/5/2024	12:30	191.7	0.985	0.89	2.92	19.42	-0.02
6/5/2024	12:31	191.7	0.986	0.80	3.18	17.47	-0.01
6/5/2024	12:32	191.7	0.985	0.71	2.90	20.19	-0.02
6/5/2024	12:33	191.7	0.985	0.63	3.22	17.16	-0.01
6/5/2024	12:35	191.7	0.986	0.65	2.62	16.08	-0.02
6/5/2024	12:36	191.7	0.986	0.64	2.59	18.16	-0.01
6/5/2024	12:37	191.7	0.986	0.73	3.09	16.33	-0.02
6/5/2024	12:38	191.7	0.986	0.69	3.08	15.83	-0.01
6/5/2024	12:39	191.7	0.986	0.58	2.61	15.29	-0.01
6/5/2024	12:40	191.7	0.986	0.75	2.78	16.14	-0.02
6/5/2024	12:41	191.7	0.986	0.65	2.77	15.12	-0.02
6/5/2024	12:42	191.7	0.986	0.51	2.66	14.20	-0.02
6/5/2024	12:43	191.7	0.986	0.57	2.12	14.50	-0.02
6/5/2024	12:44	191.7	0.986	0.60	2.85	14.24	-0.02
6/5/2024	12:45	191.7	0.986	0.52	3.46	17.14	-0.02
6/5/2024	12:46	191.7	0.986	0.52	2.41	14.06	-0.02
6/5/2024	12:47	191.7	0.986	0.53	2.38	13.15	-0.03
6/5/2024	12:48	191.7	0.986	0.54	2.08	13.18	-0.02
6/5/2024	12:49	191.7	0.985	0.74	2.45	15.01	-0.02
6/5/2024	12:50	191.7	0.985	0.78	2.38	14.89	-0.02
6/5/2024	12:51	191.7	0.985	0.63	2.52	14.17	-0.01
6/5/2024	12:52	191.7	0.985	0.68	2.55	13.07	-0.02
6/5/2024	12:53	191.7	0.984	0.58	2.99	15.52	-0.01
6/5/2024	12:54	191.7	0.984	0.58	2.73	15.93	-0.01
6/5/2024	12:55	191.7	0.984	0.53	1.97	15.04	-0.01
6/5/2024	12:57	191.7	0.985	0.64	3.10	13.91	-0.01
6/5/2024	12:58	191.7	0.985	0.76	2.78	13.51	-0.02
6/5/2024	12:59	191.6	0.984	0.41	3.12	17.33	-0.02
6/5/2024	13:00	191.6	0.984	0.70	1.89	14.66	-0.01
6/5/2024	13:01	191.6	0.984	0.60	2.19	14.36	-0.02
6/5/2024	13:02	191.6	0.984	0.84	2.70	18.27	-0.02
6/5/2024	13:03	191.6	0.983	0.76	2.41	19.42	-0.02
6/5/2024	13:04	191.6	0.984	0.66	2.56	17.76	-0.01
6/5/2024	13:05	191.6	0.985	0.65	2.77	15.36	-0.01
6/5/2024	13:06	191.6	0.984	0.70	2.51	15.10	-0.02
6/5/2024	13:07	191.6	0.984	0.67	2.85	16.36	-0.01
6/5/2024	13:08	191.6	0.984	0.77	2.78	15.59	-0.02
6/5/2024	13:09	191.6	0.984	0.71	2.57	14.32	-0.01
6/5/2024	13:10	191.6	0.984	0.62	2.97	17.50	-0.02
6/5/2024	13:11	191.6	0.983	0.86	2.83	21.19	-0.02
6/5/2024	13:12	191.7	0.984	0.75	2.70	15.90	-0.01
6/5/2024	13:13	191.7	0.985	0.68	2.68	14.10	-0.02
6/5/2024	13:14	191.7	0.984	0.71	2.52	14.80	-0.02
6/5/2024	13:15	191.7	0.984	0.62	2.46	16.21	-0.02
6/5/2024	13:16	191.7	0.984	0.75	3.07	17.16	-0.01
6/5/2024	13:17	191.7	0.984	0.61	2.69	15.75	-0.01
6/5/2024	13:19	191.7	0.984	0.61	2.98	15.51	-0.02
6/5/2024	13:20	191.7	0.983	0.76	2.54	20.51	-0.02
6/5/2024	13:21	191.7	0.984	0.50	2.52	15.26	-0.01
6/5/2024	13:22	191.7	0.984	0.62	2.84	14.40	-0.02
6/5/2024	13:23	191.7	0.983	0.74	2.41	14.93	-0.02
6/5/2024	13:24	191.7	0.984	0.70	2.42	17.86	-0.02
6/5/2024	13:25	191.7	0.984	0.68	3.07	15.02	-0.01
6/5/2024	13:26	191.7	0.984	0.66	3.07	16.24	-0.01
6/5/2024	13:27	191.7	0.984	0.74	2.46	15.98	-0.01

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/5/2024	13:28	191.7	0.982	0.79	2.75	19.69	-0.02
6/5/2024	13:29	191.7	0.984	0.46	3.08	17.27	-0.02
6/5/2024	13:30	191.7	0.984	0.65	1.98	14.62	-0.01
6/5/2024	13:31	191.7	0.984	0.73	2.22	15.19	-0.01
6/5/2024	13:32	191.7	0.984	0.72	2.59	14.33	-0.02
6/5/2024	13:33	191.7	0.983	0.62	2.18	14.62	-0.02
6/5/2024	13:34	191.7	0.983	0.57	3.51	17.48	-0.01
6/5/2024	13:35	191.7	0.982	0.64	2.22	19.54	-0.02
6/5/2024	13:36	191.7	0.983	0.61	3.08	16.16	-0.02
6/5/2024	13:37	191.7	0.983	0.64	2.64	14.56	-0.01
6/5/2024	13:38	191.7	0.983	0.73	2.56	14.77	-0.02
6/5/2024	13:39	191.7	0.983	0.71	2.63	19.81	-0.03
6/5/2024	13:41	191.7	0.982	0.57	2.73	16.01	-0.02
6/5/2024	13:42	191.7	0.982	0.57	3.16	16.62	-0.01
6/5/2024	13:43	191.7	0.982	0.62	3.10	17.38	-0.02
6/5/2024	13:44	191.7	0.982	0.79	2.63	16.27	-0.01
6/5/2024	13:45	191.7	0.983	0.65	2.91	15.76	-0.02
6/5/2024	13:46	191.7	0.983	0.71	2.69	14.48	-0.01
6/5/2024	13:47	191.7	0.983	0.78	2.39	14.24	-0.02
6/5/2024	13:48	191.7	0.982	0.82	2.36	18.02	-0.02
6/5/2024	13:49	191.7	0.982	0.73	2.54	19.38	-0.01
6/5/2024	13:50	191.7	0.983	0.74	2.36	16.23	-0.02
6/5/2024	13:51	191.7	0.982	0.66	2.96	16.63	-0.02
6/5/2024	13:52	191.7	0.983	0.62	1.96	14.49	-0.01
6/5/2024	13:53	191.7	0.982	0.77	2.77	15.19	-0.02
6/5/2024	13:54	191.7	0.982	0.81	3.59	16.65	-0.02
6/5/2024	13:55	191.7	0.982	0.65	2.97	18.45	-0.02
6/5/2024	13:56	191.7	0.982	0.69	3.11	16.20	-0.02
6/5/2024	13:57	191.7	0.982	0.80	2.75	15.50	-0.01
6/5/2024	13:58	191.7	0.982	0.64	2.74	16.93	-0.01
6/5/2024	13:59	191.7	0.982	0.65	2.42	15.27	-0.02
6/5/2024	14:00	191.6	0.983	0.89	2.69	14.41	-0.01
6/5/2024	14:01	191.7	0.982	0.71	2.15	15.50	-0.02
6/5/2024	14:03	191.7	0.982	0.75	2.19	14.61	-0.01
6/5/2024	14:04	191.7	0.982	0.85	3.19	16.39	-0.02
6/5/2024	14:05	191.7	0.980	0.79	3.60	18.53	-0.01
6/5/2024	14:06	191.6	0.980	0.70	2.50	21.15	-0.02
6/5/2024	14:07	191.7	0.982	0.67	3.10	16.26	-0.01
6/5/2024	14:08	191.7	0.982	0.60	2.75	14.88	-0.02
6/5/2024	14:09	191.7	0.982	0.68	2.21	14.91	-0.01
6/5/2024	14:10	191.7	0.982	0.66	2.69	13.51	-0.01
6/5/2024	14:11	191.7	0.980	0.97	2.52	18.32	-0.02
6/5/2024	14:12	191.6	0.981	0.79	3.02	16.15	-0.02
6/5/2024	14:13	191.7	0.981	0.85	2.39	15.05	-0.01
6/5/2024	14:14	191.7	0.979	0.66	2.73	20.04	-0.02
6/5/2024	14:15	191.7	0.980	0.62	2.85	16.29	-0.02
6/5/2024	14:16	191.6	0.980	0.58	3.10	18.12	-0.03
6/5/2024	14:17	191.7	0.980	0.67	2.57	15.54	-0.02
6/5/2024	14:18	191.7	0.981	0.60	2.87	14.58	-0.01
6/5/2024	14:19	191.7	0.979	0.81	2.95	16.49	-0.02
6/5/2024	14:20	191.7	0.979	0.64	2.59	19.74	-0.02
6/5/2024	14:21	191.7	0.980	0.56	2.34	15.15	-0.02
6/5/2024	14:22	191.6	0.979	0.71	2.75	16.51	-0.02
6/5/2024	14:24	191.7	0.979	0.74	2.73	16.35	-0.01
6/5/2024	14:25	191.7	0.979	0.77	2.79	15.16	-0.01
6/5/2024	14:26	191.7	0.979	0.73	2.74	14.82	-0.01
6/5/2024	14:27	191.7	0.978	0.56	2.28	16.32	-0.02
6/5/2024	14:28	191.6	0.978	0.66	2.99	17.65	-0.01
6/5/2024	14:29	191.7	0.978	0.43	3.19	18.03	-0.01
6/5/2024	14:30	191.7	0.978	0.68	2.55	18.60	-0.01
6/5/2024	14:31	191.7	0.978	0.75	2.46	16.45	-0.02
6/5/2024	14:32	191.7	0.978	0.73	3.26	16.33	-0.01
6/5/2024	14:33	191.7	0.978	0.69	2.84	15.51	-0.02
6/5/2024	14:34	191.7	0.979	0.53	2.09	17.99	-0.02

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F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/5/2024	14:35	191.6	0.979	0.76	2.68	14.61	-0.02
6/5/2024	14:36	191.7	0.979	0.64	2.37	14.51	-0.02
6/5/2024	14:37	191.7	0.979	0.77	2.61	14.25	-0.02
6/5/2024	14:38	191.7	0.979	0.51	2.43	14.45	-0.02
6/5/2024	14:39	191.7	0.979	0.63	2.36	15.05	-0.02
6/5/2024	14:40	191.7	0.979	0.52	3.40	16.65	-0.02
6/5/2024	14:41	191.7	0.979	0.75	2.81	17.54	-0.01
6/5/2024	14:42	191.7	0.979	0.68	2.67	15.93	-0.02
6/5/2024	14:43	191.7	0.979	0.62	3.10	16.43	-0.02
6/5/2024	14:44	191.7	0.979	0.69	3.47	17.61	-0.02
6/5/2024	14:46	191.7	0.979	0.65	2.94	15.47	-0.02
6/5/2024	14:47	191.7	0.980	0.48	2.42	14.80	-0.02
6/5/2024	14:48	191.7	0.979	0.70	3.22	16.69	-0.03
6/5/2024	14:49	191.7	0.979	0.73	3.40	16.88	-0.01
6/5/2024	14:50	191.7	0.979	0.72	2.67	14.76	-0.02
6/5/2024	14:51	191.7	0.979	0.58	2.31	14.14	-0.02
6/5/2024	14:52	191.7	0.978	0.58	2.41	16.10	-0.02
6/5/2024	14:53	191.7	0.979	0.54	2.93	16.27	-0.03
6/5/2024	14:54	191.7	0.978	0.82	2.72	19.57	-0.01
6/5/2024	14:55	191.7	0.979	0.72	3.17	16.08	-0.01
6/5/2024	14:56	191.7	0.979	0.79	2.46	16.22	-0.02
6/5/2024	14:57	191.7	0.979	0.68	2.86	15.07	-0.01
6/5/2024	14:58	191.7	0.979	0.66	2.63	14.43	-0.03
6/5/2024	14:59	191.7	0.979	0.78	2.52	14.33	-0.02
6/5/2024	15:00	191.7	0.978	0.77	3.14	16.52	-0.02
6/5/2024	15:01	191.7	0.979	0.61	2.66	15.60	-0.01
6/5/2024	15:02	191.7	0.979	0.57	2.86	16.41	-0.03
6/5/2024	15:03	191.7	0.979	0.67	2.74	15.36	-0.01
6/5/2024	15:04	191.7	0.979	0.68	2.89	15.31	-0.02
6/5/2024	15:05	191.6	0.978	0.84	2.26	20.35	-0.03
6/5/2024	15:06	191.7	0.979	0.68	2.39	16.25	-0.01
6/5/2024	15:08	191.7	0.979	0.66	2.95	16.41	-0.01
6/5/2024	15:09	191.7	0.980	0.64	2.37	15.13	0.00
6/5/2024	15:10	191.7	0.979	0.71	2.76	15.41	-0.01
6/5/2024	15:11	191.7	0.979	0.66	2.33	15.04	-0.01
6/5/2024	15:12	191.7	0.979	0.69	3.05	14.60	-0.01
6/5/2024	15:13	191.7	0.979	0.64	2.74	17.36	-0.01
6/5/2024	15:14	191.7	0.979	0.71	3.20	17.81	-0.02
6/5/2024	15:15	191.6	0.979	0.65	2.39	16.11	-0.01
6/5/2024	15:16	191.6	0.980	0.76	2.68	15.34	-0.02
6/5/2024	15:17	191.6	0.979	0.88	3.02	15.68	-0.01
6/5/2024	15:18	191.7	0.980	0.58	2.86	15.02	-0.01
6/5/2024	15:19	191.6	0.980	0.54	3.47	17.50	-0.02
6/5/2024	15:20	191.7	0.980	0.65	2.88	15.50	-0.02
6/5/2024	15:21	191.7	0.978	0.63	2.52	18.00	-0.01
6/5/2024	15:22	191.7	0.979	0.62	2.38	18.75	-0.02
6/5/2024	15:23	191.7	0.980	0.63	2.59	15.56	-0.01
6/5/2024	15:24	191.7	0.979	0.82	2.59	15.58	-0.01
6/5/2024	15:25	191.7	0.979	0.73	2.58	15.06	-0.01
6/5/2024	15:26	191.7	0.979	0.81	2.87	15.44	-0.01
6/5/2024	15:27	191.7	0.979	0.75	2.85	19.76	-0.02
6/5/2024	15:28	191.7	0.979	0.78	3.00	16.28	-0.02
6/5/2024	15:30	191.7	0.980	0.83	2.97	15.81	-0.01
6/5/2024	15:31	191.7	0.979	0.74	2.77	15.24	-0.01
6/5/2024	15:32	191.7	0.980	0.78	3.01	14.35	-0.02
6/5/2024	15:33	191.6	0.979	0.80	2.39	17.96	-0.03
6/5/2024	15:34	191.6	0.979	0.88	3.27	16.04	-0.01
6/5/2024	15:35	191.6	0.979	0.65	2.51	16.43	-0.01
6/5/2024	15:36	191.6	0.979	0.67	2.77	16.34	-0.02
6/5/2024	15:37	191.6	0.980	0.77	2.22	18.09	-0.02
6/5/2024	15:38	191.6	0.980	0.79	1.87	14.55	-0.02
6/5/2024	15:39	191.7	0.980	0.75	2.20	15.05	-0.01
6/5/2024	15:40	191.7	0.980	0.63	2.94	15.96	-0.02
6/5/2024	15:41	191.7	0.980	0.67	3.13	16.97	-0.01

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F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/5/2024	15:42	191.7	0.980	0.70	2.72	15.90	-0.02
6/5/2024	15:43	191.7	0.979	0.78	2.49	19.18	-0.02
6/5/2024	15:44	191.7	0.980	0.70	2.61	17.61	-0.02
6/5/2024	15:45	191.7	0.980	0.75	3.07	16.24	-0.02
6/5/2024	15:46	191.7	0.980	0.71	3.31	15.91	-0.01
6/5/2024	15:47	191.7	0.980	0.59	2.45	17.99	-0.02
6/5/2024	15:48	191.7	0.980	0.73	2.86	15.86	-0.01
6/5/2024	15:49	191.7	0.980	0.81	2.94	16.57	-0.02
6/5/2024	15:50	191.7	0.980	0.79	3.37	17.33	-0.02
6/5/2024	15:52	191.7	0.980	0.68	2.98	17.68	-0.02
6/5/2024	15:53	191.6	0.981	0.81	3.11	15.54	-0.01
6/5/2024	15:54	191.6	0.980	0.84	3.45	17.67	-0.01
6/5/2024	15:55	191.6	0.980	0.69	3.44	18.78	-0.01
6/5/2024	15:56	191.7	0.980	0.73	2.46	18.82	-0.02
6/5/2024	15:57	191.7	0.980	0.75	2.76	17.78	-0.02
6/5/2024	15:58	191.7	0.981	0.80	3.10	17.53	-0.01
6/5/2024	15:59	191.7	0.981	0.71	2.90	18.00	-0.01
6/5/2024	16:00	191.7	0.981	0.66	2.52	16.43	-0.02
6/5/2024	16:01	191.7	0.981	0.65	3.09	18.70	-0.02
6/5/2024	16:02	191.7	0.981	0.65	2.73	16.89	-0.01
6/5/2024	16:03	191.7	0.981	0.73	2.93	16.26	-0.01
6/5/2024	16:04	191.7	0.981	0.75	2.14	17.92	-0.01
6/5/2024	16:05	191.7	0.980	0.87	2.75	19.17	-0.02
6/5/2024	16:06	191.7	0.981	0.83	2.52	16.68	-0.02
6/5/2024	16:07	191.7	0.981	0.72	3.17	17.02	-0.01
6/5/2024	16:08	191.7	0.981	0.76	3.24	16.54	-0.02
6/5/2024	16:09	191.7	0.982	0.61	2.47	15.35	-0.02
6/5/2024	16:10	191.7	0.982	0.69	2.22	14.42	-0.02
6/5/2024	16:11	191.7	0.982	0.70	2.34	14.21	-0.01
6/5/2024	16:12	191.7	0.982	0.76	2.13	14.06	-0.03
6/5/2024	16:14	191.7	0.981	0.78	2.19	17.78	-0.02
6/5/2024	16:15	191.7	0.981	0.79	2.76	15.14	-0.01
6/5/2024	16:16	191.7	0.982	0.85	2.50	14.59	-0.02
6/5/2024	16:17	191.7	0.981	0.63	2.53	14.48	-0.02
6/5/2024	16:18	191.7	0.981	0.78	3.06	18.93	-0.02
6/5/2024	16:19	191.7	0.981	0.63	2.83	16.22	-0.02
6/5/2024	16:20	191.7	0.981	0.55	3.22	17.20	-0.01
6/5/2024	16:21	191.7	0.982	0.60	2.82	15.91	-0.02
6/5/2024	16:22	191.7	0.981	0.65	2.78	15.87	-0.02
6/5/2024	16:23	191.7	0.981	0.73	2.71	16.05	-0.01
6/5/2024	16:24	191.7	0.981	0.76	2.32	15.59	-0.01
6/5/2024	16:25	191.7	0.981	0.66	3.12	15.88	-0.01
6/5/2024	16:26	191.7	0.981	0.59	2.97	17.04	-0.01
6/5/2024	16:27	191.7	0.982	0.81	2.91	15.57	-0.02
6/5/2024	16:28	191.7	0.981	0.66	2.56	15.08	-0.02
6/5/2024	16:29	191.7	0.981	0.69	2.46	15.40	-0.02
6/5/2024	16:30	191.7	0.981	0.54	3.33	17.26	-0.01
6/5/2024	16:31	191.7	0.981	0.72	3.12	16.16	-0.01
6/5/2024	16:32	191.7	0.981	0.70	2.38	16.39	-0.02
6/5/2024	16:33	191.7	0.981	0.67	2.66	15.19	-0.03
6/5/2024	16:34	191.7	0.981	0.73	2.81	17.03	-0.01
6/5/2024	16:36	191.7	0.981	0.83	2.59	16.26	-0.02
6/5/2024	16:37	191.7	0.981	0.64	2.40	15.19	-0.01
6/5/2024	16:38	191.7	0.981	0.88	2.72	15.59	-0.01
6/5/2024	16:39	191.7	0.981	0.44	3.57	16.85	-0.02
6/5/2024	16:40	191.7	0.981	0.72	2.95	16.79	-0.02
6/5/2024	16:41	191.7	0.981	0.82	3.21	15.71	-0.01
6/5/2024	16:42	191.7	0.981	0.70	2.84	15.19	-0.01
6/5/2024	16:43	191.7	0.980	0.73	2.26	19.12	-0.02
6/5/2024	16:44	191.7	0.981	0.79	2.98	15.10	-0.01
6/5/2024	16:45	191.6	0.981	0.91	2.90	16.36	-0.01
6/5/2024	16:46	191.7	0.981	0.60	3.03	16.63	-0.01
6/5/2024	16:47	191.7	0.981	0.57	3.49	18.87	-0.02
6/5/2024	16:48	191.7	0.981	0.66	3.38	15.80	-0.01

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/5/2024	16:49	191.7	0.980	0.78	3.04	18.97	-0.02
6/5/2024	16:50	191.6	0.981	0.81	2.54	16.53	-0.02
6/5/2024	16:51	191.6	0.981	0.66	2.89	16.48	-0.01
6/5/2024	16:52	191.6	0.981	0.76	3.25	16.22	-0.01
6/5/2024	16:53	191.7	0.980	0.70	2.91	16.63	-0.01
6/5/2024	16:54	191.6	0.981	0.81	3.28	17.19	-0.01
6/5/2024	16:55	191.6	0.981	0.73	3.07	16.20	-0.01
6/5/2024	16:57	191.7	0.980	0.81	2.64	17.86	-0.02
6/5/2024	16:58	191.6	0.980	0.93	2.94	18.26	-0.02
6/5/2024	16:59	191.7	0.981	0.80	2.62	16.52	-0.02
6/5/2024	17:00	191.7	0.981	0.56	3.82	17.83	-0.02
6/5/2024	17:01	191.7	0.981	0.82	3.04	15.46	-0.02
6/5/2024	17:02	191.7	0.981	0.69	3.11	15.55	-0.01
6/5/2024	17:03	191.7	0.981	0.84	2.86	14.93	-0.01
6/5/2024	17:04	191.7	0.981	0.79	2.75	14.66	-0.01
6/5/2024	17:05	191.7	0.981	0.77	2.82	15.81	-0.02
6/5/2024	17:06	191.7	0.981	0.59	2.48	15.45	-0.02
6/5/2024	17:07	191.7	0.981	0.75	2.72	15.40	-0.02
6/5/2024	17:08	191.7	0.980	0.74	2.32	18.32	-0.02
6/5/2024	17:09	191.7	0.981	0.57	3.07	15.77	-0.01
6/5/2024	17:10	191.7	0.981	0.66	2.82	15.64	-0.01
6/5/2024	17:11	191.7	0.981	0.84	3.00	15.01	-0.01
6/5/2024	17:12	191.7	0.981	0.78	2.68	15.17	-0.02
6/5/2024	17:13	191.7	0.981	0.72	2.77	15.27	-0.02
6/5/2024	17:14	191.7	0.981	0.58	2.81	15.19	-0.01
6/5/2024	17:15	191.7	0.980	0.77	3.13	16.35	-0.01
6/5/2024	17:16	191.7	0.981	0.65	2.47	18.09	-0.02
6/5/2024	17:17	191.7	0.980	0.61	3.06	15.94	-0.02
6/5/2024	17:19	191.7	0.981	0.70	3.18	14.53	-0.01
6/5/2024	17:20	191.7	0.981	0.75	2.76	13.42	-0.02
6/5/2024	17:21	191.7	0.981	0.46	3.03	12.98	-0.02
6/5/2024	17:22	191.7	0.980	0.63	2.41	13.98	-0.02
6/5/2024	17:23	191.7	0.981	0.62	2.41	14.02	-0.02
6/5/2024	17:24	191.7	0.981	0.75	2.14	13.64	-0.02
6/5/2024	17:25	191.7	0.981	0.67	2.62	13.52	-0.01
6/5/2024	17:26	191.7	0.981	0.86	2.11	13.46	-0.01
6/5/2024	17:27	191.7	0.981	0.71	2.37	13.21	-0.01
6/5/2024	17:28	191.7	0.981	0.81	2.89	13.35	-0.02
6/5/2024	17:29	191.7	0.980	0.73	2.57	14.12	-0.02
6/5/2024	17:30	191.7	0.980	0.52	3.48	16.87	-0.02
6/5/2024	17:31	191.6	0.978	0.81	3.39	22.60	-0.02
6/5/2024	17:32	191.7	0.980	0.87	3.49	17.20	-0.02
6/5/2024	17:33	191.7	0.980	0.83	3.64	18.40	-0.01
6/5/2024	17:34	191.7	0.980	0.66	3.13	16.14	-0.02
6/5/2024	17:35	191.7	0.981	0.67	2.94	14.47	-0.02
6/5/2024	17:36	191.7	0.980	0.51	2.54	14.93	-0.02
6/5/2024	17:37	191.7	0.981	0.65	2.77	14.08	-0.02
6/5/2024	17:38	191.7	0.980	0.74	2.49	14.61	-0.01
6/5/2024	17:39	191.7	0.979	0.72	3.07	19.36	-0.02
6/5/2024	17:41	191.6	0.980	0.77	2.57	16.30	-0.01
6/5/2024	17:42	191.6	0.980	0.66	3.14	16.21	-0.02
6/5/2024	17:43	191.6	0.980	0.77	2.84	18.87	-0.01
6/5/2024	17:44	191.6	0.980	0.75	2.73	16.29	-0.02
6/5/2024	17:45	191.6	0.980	0.61	2.99	16.08	-0.02
6/5/2024	17:46	191.6	0.980	0.64	3.35	16.28	-0.02
6/5/2024	17:47	191.6	0.980	0.78	2.93	16.01	-0.02
6/5/2024	17:48	191.7	0.980	0.78	3.37	16.47	-0.02
6/5/2024	17:49	191.7	0.980	0.73	3.26	17.52	-0.02
6/5/2024	17:50	191.7	0.980	0.69	3.14	16.32	-0.02
6/5/2024	17:51	191.7	0.979	0.89	2.41	18.02	-0.02
6/5/2024	17:52	191.7	0.980	0.70	2.64	18.87	-0.03
6/5/2024	17:53	191.6	0.980	0.76	2.87	16.73	-0.02
6/5/2024	17:54	191.6	0.980	0.70	3.63	15.68	-0.01
6/5/2024	17:55	191.7	0.980	0.69	3.15	14.97	-0.01

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/5/2024	17:56	191.6	0.980	0.72	3.11	14.83	-0.02
6/5/2024	17:57	191.7	0.980	0.72	2.74	15.05	-0.02
6/5/2024	17:58	191.7	0.980	0.73	3.12	16.39	-0.02
6/5/2024	17:59	191.7	0.980	0.82	2.85	15.46	-0.01
6/5/2024	18:00	191.7	0.980	0.61	3.07	16.04	-0.01
6/5/2024	18:01	191.7	0.983	0.60	2.81	16.42	-0.01
6/5/2024	18:03	191.7	0.985	0.46	1.33	6.92	-0.01
6/5/2024	18:04	191.7	0.986	0.49	0.73	4.11	-0.01
6/5/2024	18:05	191.7	0.987	0.56	0.59	2.31	-0.02
6/5/2024	18:06	191.7	0.987	0.56	0.02	1.39	-0.02
6/5/2024	18:07	191.7	0.984	0.44	1.39	4.62	-0.03
6/5/2024	18:08	191.7	0.989	0.52	1.57	6.45	-0.02
6/5/2024	18:09	191.7	1.007	0.50	-0.73	0.89	-0.01
6/5/2024	18:10	191.7	1.007	0.45	-0.35	0.43	-0.01
6/5/2024	18:11	191.8	1.007	0.41	-0.26	0.33	-0.01
6/5/2024	18:12	191.7	1.007	0.32	-0.78	0.24	-0.01
6/5/2024	18:15	191.7	1.007	0.00	0.00	0.00	0.00
6/5/2024	18:16	191.7	1.007	-0.03	0.01	-0.05	0.00
6/5/2024	18:17	191.5	1.025	85.12	0.15	-0.11	-0.12
6/5/2024	18:18	191.3	1.027	98.44	0.81	-0.12	0.00
6/5/2024	18:19	191.3	1.027	98.68	0.49	-0.13	0.00
6/5/2024	18:20	191.2	1.028	98.40	0.16	-0.13	0.00
6/5/2024	18:21	191.4	1.008	8.52	0.43	-0.11	-0.01
6/6/2024	6:21	191.7	1.011	-0.25	0.23	-0.13	0.00
6/6/2024	6:22	191.7	1.011	-0.33	0.36	-0.12	0.00
6/6/2024	6:24	191.7	1.012	0.00	0.00	0.00	0.00
6/6/2024	6:25	191.7	1.012	0.08	-0.12	-0.04	0.00
6/6/2024	6:27	191.7	1.012	-0.17	0.38	-0.02	0.01
6/6/2024	6:28	191.7	1.012	0.02	-0.10	-0.02	0.00
6/6/2024	6:29	191.7	1.012	-0.09	0.20	-0.02	0.00
6/6/2024	6:30	191.7	1.012	-0.13	0.30	-0.03	0.00
6/6/2024	6:31	191.6	1.020	26.98	0.23	-0.02	-0.03
6/6/2024	6:32	191.4	1.034	98.77	0.22	-0.03	-0.01
6/6/2024	6:33	191.2	1.034	99.02	0.08	-0.01	-0.01
6/6/2024	6:34	191.2	1.034	99.02	0.10	-0.03	-0.01
6/6/2024	6:35	191.1	1.034	98.90	-0.10	-0.04	0.00
6/6/2024	6:37	191.5	1.011	-0.16	-0.09	-0.04	0.00
6/6/2024	6:38	191.6	0.992	-1.42	-0.65	2.55	-0.11
6/6/2024	6:39	191.7	0.989	-0.01	-0.23	1.86	0.01
6/6/2024	6:40	191.7	0.989	-0.23	-0.88	1.23	0.01
6/6/2024	6:41	191.7	0.990	-0.20	-0.65	0.67	-0.01
6/6/2024	6:42	191.8	0.990	0.03	-0.47	0.57	-0.01
6/6/2024	6:43	191.8	0.987	0.03	0.28	4.38	-0.01
6/6/2024	6:44	191.8	0.986	0.11	0.99	5.75	-0.01
6/6/2024	6:45	191.8	0.986	0.20	1.41	7.00	0.00
6/6/2024	6:46	191.8	0.986	0.00	1.33	7.57	0.00
6/6/2024	6:48	191.8	0.985	0.07	1.17	8.39	-0.01
6/6/2024	6:49	191.7	0.981	0.20	1.67	8.61	-0.01
6/6/2024	6:50	191.8	0.978	0.13	2.24	14.14	0.00
6/6/2024	6:51	191.7	0.979	0.21	3.07	17.05	-0.01
6/6/2024	6:52	191.7	0.979	0.30	3.17	18.10	-0.01
6/6/2024	6:53	191.7	0.980	0.32	2.19	14.55	-0.01
6/6/2024	6:54	191.7	0.978	0.28	2.37	18.73	-0.01
6/6/2024	6:55	191.7	0.980	0.27	2.35	14.93	-0.01
6/6/2024	6:56	191.7	0.980	0.35	2.59	13.99	-0.01
6/6/2024	6:57	191.7	0.979	0.23	2.40	14.62	-0.01
6/6/2024	6:58	191.6	0.978	0.31	2.54	20.07	-0.01
6/6/2024	6:59	191.6	0.980	0.25	2.19	14.92	-0.01
6/6/2024	7:00	191.7	0.979	0.17	2.91	16.26	-0.01
6/6/2024	7:01	191.6	0.979	0.32	2.78	16.56	0.00
6/6/2024	7:02	191.7	0.980	0.39	2.35	15.00	0.00
6/6/2024	7:03	191.6	0.979	0.08	2.33	15.87	-0.01
6/6/2024	7:04	191.7	0.980	0.38	3.39	17.09	0.00



BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/6/2024	7:05	191.7	0.979	0.27	3.20	17.38	-0.01
6/6/2024	7:06	191.7	0.979	0.17	2.71	17.01	-0.01
6/6/2024	7:07	191.7	0.979	0.31	3.02	17.72	-0.01
6/6/2024	7:08	191.7	0.979	0.27	2.85	18.26	-0.01
6/6/2024	7:10	191.7	0.980	0.37	2.76	16.30	-0.01
6/6/2024	7:11	191.7	0.980	0.39	2.59	14.77	-0.02
6/6/2024	7:12	191.7	0.980	0.20	2.64	14.25	-0.01
6/6/2024	7:13	191.7	0.979	0.28	2.25	16.32	-0.02
6/6/2024	7:14	191.7	0.979	0.33	2.25	18.91	0.00
6/6/2024	7:15	191.7	0.980	0.33	2.40	15.25	0.00
6/6/2024	7:16	191.7	0.979	0.39	2.95	16.68	-0.01
6/6/2024	7:17	191.7	0.979	0.19	2.83	18.05	0.00
6/6/2024	7:18	191.6	0.981	0.31	1.87	14.70	-0.01
6/6/2024	7:19	191.7	0.978	0.31	3.16	17.28	0.00
6/6/2024	7:20	191.6	0.979	0.14	2.85	18.44	-0.02
6/6/2024	7:21	191.6	0.980	0.30	2.77	15.93	-0.01
6/6/2024	7:22	191.7	0.980	0.32	2.46	14.76	-0.01
6/6/2024	7:23	191.7	0.979	0.22	2.23	18.31	-0.01
6/6/2024	7:24	191.7	0.980	0.33	2.50	15.46	-0.01
6/6/2024	7:25	191.7	0.980	0.30	3.24	17.45	-0.01
6/6/2024	7:26	191.7	0.980	0.42	2.17	14.97	-0.01
6/6/2024	7:27	191.7	0.979	0.38	2.37	17.85	-0.01
6/6/2024	7:28	191.7	0.980	0.41	2.72	15.23	-0.01
6/6/2024	7:29	191.7	0.980	0.39	2.40	15.09	-0.02
6/6/2024	7:30	191.7	0.979	0.17	2.48	19.08	-0.01
6/6/2024	7:32	191.6	0.979	0.25	2.54	16.27	0.00
6/6/2024	7:33	191.6	0.979	0.24	2.37	18.28	-0.01
6/6/2024	7:34	191.6	0.979	0.40	1.84	16.51	-0.01
6/6/2024	7:35	191.6	0.979	0.31	2.74	16.66	-0.01
6/6/2024	7:36	191.6	0.980	0.30	2.77	16.09	0.00
6/6/2024	7:37	191.6	0.979	0.43	2.70	15.97	-0.01
6/6/2024	7:38	191.6	0.979	0.48	3.13	17.36	0.00
6/6/2024	7:39	191.6	0.979	0.20	2.65	19.30	0.00
6/6/2024	7:40	191.5	0.980	0.33	2.96	16.27	-0.01
6/6/2024	7:41	191.6	0.980	0.32	2.41	13.75	0.00
6/6/2024	7:42	191.6	0.979	0.25	2.46	15.65	-0.02
6/6/2024	7:43	191.6	0.979	0.27	2.51	16.43	-0.01
6/6/2024	7:44	191.6	0.979	0.25	2.69	16.74	-0.01
6/6/2024	7:45	191.6	0.980	0.35	2.84	16.50	0.00
6/6/2024	7:46	191.6	0.980	0.28	1.96	14.86	-0.01
6/6/2024	7:47	191.6	0.979	0.40	3.04	17.57	-0.01
6/6/2024	7:48	191.6	0.980	0.35	1.80	14.86	-0.01
6/6/2024	7:49	191.5	0.978	0.35	1.97	20.84	-0.01
6/6/2024	7:50	191.5	0.980	0.32	2.60	15.79	-0.01
6/6/2024	7:51	191.5	0.980	0.34	2.75	15.54	-0.01
6/6/2024	7:52	191.5	0.979	0.19	2.81	16.30	-0.01
6/6/2024	7:54	191.6	0.980	0.38	2.82	15.45	0.00
6/6/2024	7:55	191.6	0.980	0.41	2.33	15.04	-0.01
6/6/2024	7:56	191.5	0.979	0.15	2.24	18.47	-0.01
6/6/2024	7:57	191.6	0.979	0.23	2.11	16.99	-0.01
6/6/2024	7:58	191.6	0.980	0.24	2.53	14.85	-0.01
6/6/2024	7:59	191.5	0.980	0.05	2.55	14.69	-0.01
6/6/2024	8:00	191.5	0.980	0.26	2.88	18.21	-0.01
6/6/2024	8:01	191.6	0.980	0.32	2.75	17.20	-0.01
6/6/2024	8:02	191.5	0.980	0.42	2.92	16.00	0.00
6/6/2024	8:03	191.6	0.980	0.24	2.92	16.90	-0.01
6/6/2024	8:04	191.6	0.981	0.21	2.82	15.64	-0.01
6/6/2024	8:05	191.5	0.980	0.24	2.13	15.78	-0.01
6/6/2024	8:06	191.5	0.980	0.40	2.40	18.74	-0.01
6/6/2024	8:07	191.6	0.980	0.18	2.04	16.87	-0.02
6/6/2024	8:08	191.6	0.980	0.32	2.40	15.91	-0.01
6/6/2024	8:09	191.6	0.981	0.13	2.41	14.92	-0.01
6/6/2024	8:10	191.7	0.979	0.28	3.22	17.08	0.00
6/6/2024	8:11	191.6	0.980	0.26	2.81	18.05	-0.01

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/6/2024	8:12	191.6	0.981	0.29	2.76	15.07	0.00
6/6/2024	8:13	191.7	0.980	0.21	3.05	16.16	-0.01
6/6/2024	8:14	191.7	0.981	0.33	2.77	17.00	-0.01
6/6/2024	8:16	191.7	0.981	0.34	2.13	13.74	-0.01
6/6/2024	8:17	191.7	0.980	0.49	2.52	17.94	0.00
6/6/2024	8:18	191.6	0.980	0.17	2.11	16.92	-0.01
6/6/2024	8:19	191.6	0.981	0.46	2.29	15.49	0.00
6/6/2024	8:20	191.6	0.980	0.34	3.33	17.48	-0.02
6/6/2024	8:21	191.6	0.981	0.40	2.45	16.51	-0.01
6/6/2024	8:22	191.6	0.980	0.21	3.14	18.17	0.00
6/6/2024	8:23	191.6	0.981	0.26	2.90	15.77	-0.01
6/6/2024	8:24	191.6	0.981	0.42	2.45	15.36	-0.01
6/6/2024	8:25	191.6	0.980	0.41	2.25	18.42	-0.01
6/6/2024	8:26	191.6	0.981	0.37	2.60	15.47	-0.02
6/6/2024	8:27	191.6	0.981	0.20	2.46	15.74	-0.01
6/6/2024	8:28	191.6	0.981	0.32	2.45	17.42	-0.01
6/6/2024	8:29	191.6	0.981	0.48	2.57	15.74	-0.01
6/6/2024	8:30	191.6	0.981	0.24	2.68	16.19	-0.01
6/6/2024	8:31	191.6	0.981	0.46	2.57	17.81	-0.01
6/6/2024	8:32	191.6	0.981	0.43	2.60	16.27	-0.01
6/6/2024	8:33	191.7	0.981	0.39	3.03	15.35	-0.01
6/6/2024	8:34	191.7	0.981	0.33	2.75	16.46	-0.01
6/6/2024	8:35	191.7	0.980	0.29	3.26	17.17	-0.01
6/6/2024	8:36	191.6	0.981	0.38	2.91	17.75	-0.01
6/6/2024	8:38	191.7	0.981	0.21	2.57	14.89	-0.01
6/6/2024	8:39	191.7	0.981	0.29	2.41	16.25	-0.01
6/6/2024	8:40	191.7	0.980	0.35	1.93	18.97	-0.02
6/6/2024	8:41	191.6	0.981	0.32	2.65	15.54	0.00
6/6/2024	8:42	191.7	0.981	0.41	2.41	15.62	-0.01
6/6/2024	8:43	191.7	0.981	0.34	2.69	14.79	-0.02
6/6/2024	8:44	191.7	0.981	0.26	2.93	16.86	-0.01
6/6/2024	8:45	191.6	0.980	0.27	2.65	17.77	-0.01
6/6/2024	8:46	191.6	0.981	0.39	2.79	16.02	-0.01
6/6/2024	8:47	191.7	0.981	0.33	2.71	15.75	-0.01
6/6/2024	8:48	191.7	0.980	0.30	2.24	18.30	-0.01
6/6/2024	8:49	191.6	0.980	0.43	2.30	17.49	-0.01
6/6/2024	8:50	191.6	0.981	0.40	2.94	17.03	0.00
6/6/2024	8:51	191.6	0.981	0.34	2.74	16.71	-0.01
6/6/2024	8:52	191.6	0.981	0.40	2.57	15.87	0.00
6/6/2024	8:53	191.6	0.981	0.33	2.47	14.82	-0.01
6/6/2024	8:54	191.6	0.980	0.29	3.32	17.28	-0.01
6/6/2024	8:55	191.6	0.980	0.28	2.76	17.71	-0.01
6/6/2024	8:56	191.7	0.981	0.43	2.68	15.90	0.00
6/6/2024	8:57	191.6	0.981	0.38	2.80	16.97	-0.01
6/6/2024	8:58	191.6	0.980	0.28	2.98	19.91	-0.01
6/6/2024	9:00	191.6	0.981	0.46	2.86	16.42	-0.01
6/6/2024	9:01	191.6	0.981	0.30	3.15	16.05	-0.01
6/6/2024	9:02	191.6	0.981	0.22	2.46	15.31	-0.02
6/6/2024	9:03	191.6	0.981	0.40	2.79	16.31	-0.02
6/6/2024	9:04	191.6	0.981	0.21	2.44	15.87	-0.01
6/6/2024	9:05	191.6	0.982	0.47	2.32	16.94	-0.01
6/6/2024	9:06	191.6	0.981	0.24	2.63	17.77	-0.01
6/6/2024	9:07	191.6	0.981	0.41	2.55	16.33	-0.01
6/6/2024	9:08	191.6	0.982	0.29	2.32	14.82	-0.02
6/6/2024	9:09	191.6	0.979	0.42	2.48	19.45	-0.02
6/6/2024	9:10	191.6	0.981	0.45	2.95	17.42	-0.01
6/6/2024	9:11	191.6	0.982	0.28	3.38	15.23	-0.01
6/6/2024	9:12	191.6	0.981	0.54	2.76	15.37	-0.01
6/6/2024	9:13	191.6	0.980	0.31	2.98	16.97	-0.01
6/6/2024	9:14	191.6	0.981	0.40	2.79	16.85	-0.01
6/6/2024	9:15	191.6	0.981	0.35	2.66	15.44	-0.01
6/6/2024	9:16	191.6	0.981	0.34	2.76	19.74	-0.01
6/6/2024	9:17	191.6	0.982	0.30	2.20	15.08	-0.01
6/6/2024	9:18	191.6	0.981	0.33	2.87	16.46	-0.01

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/6/2024	9:19	191.6	0.981	0.25	3.35	17.42	-0.01
6/6/2024	9:21	191.6	0.982	0.28	2.62	16.39	-0.01
6/6/2024	9:22	191.6	0.981	0.32	2.70	16.45	0.00
6/6/2024	9:23	191.6	0.981	0.28	2.73	16.21	-0.01
6/6/2024	9:24	191.6	0.981	0.36	2.46	15.90	0.00
6/6/2024	9:25	191.6	0.981	0.38	3.01	15.75	0.00
6/6/2024	9:26	191.6	0.981	0.26	2.42	19.83	-0.01
6/6/2024	9:27	191.6	0.981	0.47	3.47	17.21	-0.01
6/6/2024	9:28	191.6	0.981	0.34	2.57	16.86	0.00
6/6/2024	9:29	191.6	0.982	0.36	2.33	15.82	-0.01
6/6/2024	9:30	191.6	0.981	0.15	2.95	15.97	-0.01
6/6/2024	9:31	191.7	0.981	0.33	2.54	18.97	-0.01
6/6/2024	9:32	191.7	0.981	0.40	2.26	16.75	-0.01
6/6/2024	9:33	191.6	0.981	0.42	2.68	16.44	-0.01
6/6/2024	9:34	191.6	0.981	0.31	2.14	14.58	-0.01
6/6/2024	9:35	191.6	0.981	0.36	2.17	16.21	-0.01
6/6/2024	9:36	191.6	0.981	0.42	2.27	18.28	-0.01
6/6/2024	9:37	191.6	0.982	0.28	2.55	15.78	-0.01
6/6/2024	9:38	191.6	0.981	0.31	2.86	17.19	-0.01
6/6/2024	9:39	191.6	0.982	0.18	2.51	15.62	-0.01
6/6/2024	9:40	191.6	0.982	0.28	2.87	15.01	-0.01
6/6/2024	9:41	191.6	0.981	0.32	1.97	17.79	-0.01
6/6/2024	9:43	191.6	0.982	0.47	2.95	15.49	-0.02
6/6/2024	9:44	191.6	0.982	0.21	2.49	14.10	-0.01
6/6/2024	9:45	191.6	0.981	0.29	2.48	18.50	-0.02
6/6/2024	9:46	191.6	0.981	0.38	2.21	18.19	-0.01
6/6/2024	9:47	191.6	0.981	0.41	2.24	18.21	-0.02
6/6/2024	9:48	191.6	0.982	0.38	2.73	15.87	-0.01
6/6/2024	9:49	191.6	0.982	0.24	3.01	15.40	-0.01
6/6/2024	9:50	191.6	0.982	0.31	2.41	14.84	-0.01
6/6/2024	9:51	191.6	0.981	0.35	2.64	15.99	-0.01
6/6/2024	9:52	191.6	0.981	0.40	2.31	18.30	-0.01
6/6/2024	9:53	191.6	0.982	0.30	2.03	14.99	-0.01
6/6/2024	9:54	191.6	0.981	0.39	2.77	15.59	0.00
6/6/2024	9:55	191.6	0.981	0.34	2.25	18.66	-0.02
6/6/2024	9:56	191.6	0.981	0.46	2.28	19.33	0.00
6/6/2024	9:57	191.6	0.982	0.39	3.11	15.93	-0.01
6/6/2024	9:58	191.6	0.982	0.36	2.62	14.39	-0.01
6/6/2024	9:59	191.6	0.981	0.24	2.51	16.50	-0.01
6/6/2024	10:00	191.6	0.981	0.46	2.84	15.55	-0.01
6/6/2024	10:01	191.6	0.982	0.31	3.19	15.00	-0.02
6/6/2024	10:02	191.6	0.981	0.23	3.22	16.18	-0.01
6/6/2024	10:03	191.6	0.981	0.29	2.46	19.20	-0.02
6/6/2024	10:05	191.6	0.981	0.37	3.42	16.71	-0.01
6/6/2024	10:06	191.6	0.982	0.34	2.17	14.99	-0.01
6/6/2024	10:07	191.6	0.982	0.08	2.50	13.99	-0.01
6/6/2024	10:08	191.6	0.980	0.46	2.42	18.04	-0.01
6/6/2024	10:09	191.6	0.981	0.22	2.52	17.41	-0.02
6/6/2024	10:10	191.7	0.981	0.42	3.22	15.88	-0.01
6/6/2024	10:11	191.6	0.982	0.31	2.61	14.43	-0.01
6/6/2024	10:12	191.7	0.981	0.39	2.70	16.50	-0.01
6/6/2024	10:13	191.7	0.981	0.32	2.89	16.33	-0.02
6/6/2024	10:14	191.7	0.981	0.46	2.91	17.22	-0.01
6/6/2024	10:15	191.7	0.981	0.35	2.41	15.55	-0.01
6/6/2024	10:16	191.6	0.981	0.42	2.69	18.01	-0.02
6/6/2024	10:17	191.7	0.981	0.35	3.32	16.25	-0.01
6/6/2024	10:18	191.7	0.982	0.41	2.83	15.76	-0.01
6/6/2024	10:19	191.6	0.981	0.26	2.90	15.33	-0.01
6/6/2024	10:20	191.7	0.981	0.35	2.56	16.05	-0.01
6/6/2024	10:21	191.7	0.981	0.33	2.90	16.88	-0.01
6/6/2024	10:22	191.7	0.981	0.40	3.26	16.29	-0.01
6/6/2024	10:23	191.7	0.981	0.37	3.13	15.74	-0.01
6/6/2024	10:24	191.6	0.981	0.33	1.86	20.22	-0.01
6/6/2024	10:25	191.6	0.982	0.35	2.71	16.05	-0.02

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/6/2024	10:27	191.6	0.981	0.32	3.24	16.11	-0.02
6/6/2024	10:28	191.6	0.981	0.33	2.88	16.76	0.00
6/6/2024	10:29	191.6	0.981	0.21	3.30	18.32	-0.01
6/6/2024	10:30	191.6	0.982	0.36	2.80	15.37	-0.01
6/6/2024	10:31	191.6	0.982	0.23	2.78	14.56	-0.02
6/6/2024	10:32	191.6	0.981	0.24	2.50	16.09	-0.01
6/6/2024	10:33	191.6	0.980	0.32	2.91	19.33	-0.01
6/6/2024	10:34	191.6	0.981	0.13	2.79	17.08	0.00
6/6/2024	10:35	191.6	0.982	0.36	2.93	15.09	-0.01
6/6/2024	10:36	191.6	0.981	0.35	2.85	15.98	-0.02
6/6/2024	10:37	191.6	0.981	0.47	2.94	16.16	0.00
6/6/2024	10:38	191.6	0.981	0.26	3.36	17.40	-0.01
6/6/2024	10:39	191.6	0.981	0.48	3.30	15.92	-0.01
6/6/2024	10:40	191.6	0.982	0.20	3.26	15.05	-0.01
6/6/2024	10:41	191.6	0.981	0.30	3.20	16.39	-0.01
6/6/2024	10:42	191.6	0.980	0.29	3.04	18.88	-0.01
6/6/2024	10:43	191.6	0.982	0.52	2.56	15.93	0.00
6/6/2024	10:44	191.6	0.981	0.46	2.87	15.68	-0.01
6/6/2024	10:45	191.6	0.982	0.21	3.27	14.79	-0.02
6/6/2024	10:46	191.6	0.982	0.30	2.82	14.26	-0.01
6/6/2024	10:47	191.6	0.981	0.27	2.33	14.76	-0.02
6/6/2024	10:49	191.6	0.980	0.60	2.47	19.37	-0.01
6/6/2024	10:50	191.6	0.981	0.46	2.94	17.77	-0.01
6/6/2024	10:51	191.6	0.981	0.30	2.95	17.03	-0.01
6/6/2024	10:52	191.6	0.982	0.48	2.49	14.95	-0.01
6/6/2024	10:53	191.6	0.982	0.30	2.96	14.38	-0.02
6/6/2024	10:54	191.6	0.981	0.38	3.04	14.98	-0.01
6/6/2024	10:55	191.6	0.980	0.30	2.24	18.13	-0.01
6/6/2024	10:56	191.6	0.981	0.35	2.82	15.74	-0.01
6/6/2024	10:57	191.6	0.981	0.35	2.86	15.79	-0.01
6/6/2024	10:58	191.6	0.981	0.46	3.08	16.66	-0.02
6/6/2024	10:59	191.6	0.981	0.32	3.06	16.21	-0.02
6/6/2024	11:00	191.6	0.981	0.27	2.86	15.82	-0.01
6/6/2024	11:01	191.6	0.981	0.34	2.77	16.05	-0.01
6/6/2024	11:02	191.6	0.981	0.35	2.65	18.61	-0.01
6/6/2024	11:03	191.6	0.982	0.28	2.99	15.09	-0.02
6/6/2024	11:04	191.6	0.981	0.41	2.65	16.41	-0.01
6/6/2024	11:05	191.6	0.982	0.39	2.44	14.73	-0.02
6/6/2024	11:06	191.6	0.982	0.13	2.78	14.41	-0.02
6/6/2024	11:07	191.6	0.980	0.48	2.42	19.33	-0.01
6/6/2024	11:08	191.6	0.982	0.29	3.09	15.54	-0.02
6/6/2024	11:10	191.6	0.981	0.29	2.81	15.46	-0.01
6/6/2024	11:11	191.6	0.981	0.34	2.45	15.13	-0.01
6/6/2024	11:12	191.6	0.981	0.15	2.95	16.20	-0.01
6/6/2024	11:13	191.6	0.981	0.34	2.90	15.66	-0.01
6/6/2024	11:14	191.6	0.980	0.45	2.65	20.05	-0.02
6/6/2024	11:15	191.6	0.982	0.26	3.22	15.71	-0.01
6/6/2024	11:16	191.6	0.981	0.39	2.71	16.52	-0.02
6/6/2024	11:17	191.6	0.981	0.31	3.42	16.73	-0.02
6/6/2024	11:18	191.6	0.981	0.26	3.01	16.95	-0.01
6/6/2024	11:19	191.6	0.981	0.33	2.96	17.37	-0.01
6/6/2024	11:20	191.6	0.982	0.29	3.30	15.27	-0.02
6/6/2024	11:21	191.6	0.981	0.43	3.05	15.28	-0.01
6/6/2024	11:22	191.6	0.981	0.24	2.60	17.97	-0.01
6/6/2024	11:23	191.6	0.981	0.35	2.78	16.98	-0.01
6/6/2024	11:24	191.6	0.982	0.38	2.25	14.59	-0.02
6/6/2024	11:25	191.6	0.982	0.36	2.48	14.22	-0.02
6/6/2024	11:26	191.6	0.981	0.21	2.34	16.19	-0.02
6/6/2024	11:27	191.6	0.980	0.43	3.14	16.69	-0.02
6/6/2024	11:28	191.6	0.980	0.33	2.96	19.34	-0.02
6/6/2024	11:29	191.6	0.982	0.31	2.63	15.69	-0.01
6/6/2024	11:30	191.6	0.981	0.35	3.15	16.22	-0.02
6/6/2024	11:32	191.7	0.981	0.19	2.77	15.70	-0.01
6/6/2024	11:33	191.6	0.982	0.15	2.81	14.81	-0.01

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/6/2024	11:34	191.7	0.980	0.29	2.66	18.49	-0.01
6/6/2024	11:35	191.7	0.981	0.25	2.50	14.99	-0.02
6/6/2024	11:36	191.6	0.981	0.36	2.81	16.13	-0.02
6/6/2024	11:37	191.6	0.981	0.35	3.43	16.84	-0.01
6/6/2024	11:38	191.6	0.982	0.43	2.13	14.96	-0.02
6/6/2024	11:39	191.6	0.980	0.35	3.27	16.53	-0.02
6/6/2024	11:40	191.7	0.980	0.28	3.37	18.20	-0.02
6/6/2024	11:41	191.7	0.981	0.53	2.36	18.48	-0.02
6/6/2024	11:42	191.7	0.982	0.27	3.01	16.30	-0.01
6/6/2024	11:43	191.6	0.987	0.31	0.49	9.91	0.00
6/6/2024	11:44	191.7	0.987	0.08	0.81	3.87	-0.01
6/6/2024	11:45	191.6	0.988	0.03	0.06	2.31	-0.02
6/6/2024	11:46	191.6	0.988	0.04	-0.74	1.30	-0.02
6/6/2024	11:47	191.7	0.988	0.26	-0.63	0.64	-0.02
6/6/2024	11:48	191.7	0.989	0.30	-0.98	0.47	-0.02
6/6/2024	11:49	191.7	0.994	0.15	-0.56	0.63	-0.02
6/6/2024	11:50	191.7	1.012	0.14	-1.13	0.59	-0.01
6/6/2024	11:51	191.6	1.012	0.04	-0.71	0.34	0.00
6/6/2024	11:52	191.7	1.012	-0.01	-0.58	0.24	-0.01
6/6/2024	11:54	191.7	1.012	0.05	-0.62	0.18	0.00
6/6/2024	11:55	191.7	1.012	0.03	-0.88	0.12	-0.01
6/6/2024	11:56	191.7	1.012	0.06	-0.12	0.03	-0.01
6/6/2024	11:58	191.7	1.012	0.00	0.00	0.00	0.00
6/6/2024	11:59	191.6	1.027	63.44	-0.08	-0.02	-0.04
6/6/2024	12:00	191.4	1.033	98.65	0.06	-0.05	0.00
6/6/2024	12:01	191.3	1.033	98.77	-0.29	-0.05	-0.01
6/6/2024	12:02	191.2	1.033	99.13	-0.01	-0.06	0.00
6/6/2024	12:03	191.1	1.033	98.60	-0.01	-0.05	0.00
6/6/2024	12:04	191.3	0.502	93.60	-0.21	-0.09	-0.01
6/6/2024	12:05	191.6	0.343	95.22	-0.31	-0.10	0.04
6/6/2024	12:06	191.7	0.343	93.43	-0.39	-0.06	0.04
6/6/2024	12:08	191.8	0.343	91.40	0.01	-0.01	0.03
6/6/2024	12:09	191.8	0.725	5.71	-1.32	2.96	-0.86
6/6/2024	12:10	191.7	0.984	0.15	1.54	7.40	-0.01
6/6/2024	12:11	191.7	0.983	0.22	1.90	8.61	-0.03
6/6/2024	12:12	191.7	0.982	0.39	2.02	9.83	-0.01
6/6/2024	12:13	191.7	0.982	0.38	1.39	10.79	-0.01
6/6/2024	12:14	191.7	0.982	0.24	1.33	11.79	-0.02
6/6/2024	12:15	191.6	0.982	0.44	2.98	13.73	-0.01
6/6/2024	12:16	191.7	0.982	0.44	2.20	12.72	-0.01
6/6/2024	12:17	191.7	0.982	0.33	2.27	12.90	-0.01
6/6/2024	12:18	191.7	0.981	0.37	2.96	15.11	-0.02
6/6/2024	12:19	191.7	0.982	0.32	3.26	14.76	-0.02
6/6/2024	12:20	191.7	0.981	0.29	2.59	14.52	-0.01
6/6/2024	12:21	191.7	0.981	0.35	2.90	17.84	-0.01
6/6/2024	12:22	191.6	0.981	0.29	3.00	15.73	-0.03
6/6/2024	12:23	191.6	0.981	0.27	3.09	15.60	-0.02
6/6/2024	12:24	191.6	0.980	0.27	2.48	18.29	-0.01
6/6/2024	12:25	191.6	0.982	0.33	2.49	16.02	-0.01
6/6/2024	12:26	191.6	0.981	0.53	2.83	16.47	-0.02
6/6/2024	12:27	191.6	0.981	0.40	3.44	18.22	-0.01
6/6/2024	12:28	191.6	0.982	0.54	3.52	15.10	-0.02
6/6/2024	12:30	191.6	0.982	0.38	3.31	14.77	-0.02
6/6/2024	12:31	191.6	0.981	0.30	2.73	16.46	-0.02
6/6/2024	12:32	191.6	0.981	0.38	2.84	16.35	-0.01
6/6/2024	12:33	191.6	0.981	0.06	3.89	18.92	-0.02
6/6/2024	12:34	191.6	0.981	0.34	2.95	16.34	-0.02
6/6/2024	12:35	191.6	0.982	0.34	2.91	14.78	-0.02
6/6/2024	12:36	191.6	0.981	0.58	3.54	16.38	-0.02
6/6/2024	12:37	191.6	0.981	0.38	3.01	17.03	-0.01
6/6/2024	12:38	191.6	0.981	0.24	3.36	15.16	-0.01
6/6/2024	12:39	191.6	0.980	0.36	3.39	17.06	-0.01
6/6/2024	12:40	191.6	0.981	0.31	3.53	16.71	-0.02
6/6/2024	12:41	191.6	0.981	0.43	3.01	16.21	-0.01

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/6/2024	12:42	191.6	0.981	0.37	2.28	19.76	-0.02
6/6/2024	12:43	191.6	0.982	0.34	2.77	15.30	-0.02
6/6/2024	12:44	191.6	0.982	0.44	2.90	14.28	-0.02
6/6/2024	12:45	191.6	0.981	0.24	2.51	16.12	-0.02
6/6/2024	12:46	191.6	0.980	0.35	3.08	17.50	-0.01
6/6/2024	12:47	191.6	0.981	0.33	2.62	16.24	-0.01
6/6/2024	12:48	191.6	0.981	0.48	3.50	15.56	-0.01
6/6/2024	12:49	191.6	0.980	0.38	2.19	18.62	-0.01
6/6/2024	12:50	191.6	0.982	0.40	2.10	15.74	-0.02
6/6/2024	12:52	191.7	0.982	0.13	2.56	15.11	-0.02
6/6/2024	12:53	191.7	0.981	0.33	3.48	16.74	-0.02
6/6/2024	12:54	191.7	0.982	0.19	2.43	15.39	-0.01
6/6/2024	12:55	191.7	0.982	0.22	3.45	14.46	-0.02
6/6/2024	12:56	191.7	0.980	0.40	3.35	16.91	-0.01
6/6/2024	12:57	191.7	0.981	0.19	2.84	16.94	-0.02
6/6/2024	12:58	191.6	0.981	0.25	2.95	15.36	-0.01
6/6/2024	12:59	191.6	0.980	0.36	2.72	19.10	-0.02
6/6/2024	13:00	191.6	0.980	0.10	3.21	16.54	-0.02
6/6/2024	13:01	191.7	0.980	0.64	2.76	17.66	-0.02
6/6/2024	13:02	191.7	0.981	0.28	3.17	16.46	-0.02
6/6/2024	13:03	191.7	0.981	0.30	2.89	15.81	-0.02
6/6/2024	13:04	191.6	0.981	0.39	3.52	15.61	-0.02
6/6/2024	13:05	191.6	0.981	0.44	3.20	15.06	-0.02
6/6/2024	13:06	191.7	0.980	0.21	3.72	16.93	-0.01
6/6/2024	13:07	191.7	0.981	0.31	3.00	16.43	-0.03
6/6/2024	13:08	191.6	0.981	0.34	2.92	14.96	-0.01
6/6/2024	13:09	191.6	0.981	0.38	3.74	15.77	-0.01
6/6/2024	13:10	191.6	0.979	0.44	2.74	19.53	-0.02
6/6/2024	13:11	191.6	0.981	0.20	2.82	17.06	-0.02
6/6/2024	13:12	191.6	0.981	0.42	3.40	16.46	-0.03
6/6/2024	13:14	191.6	0.981	0.34	2.92	14.85	-0.02
6/6/2024	13:15	191.6	0.980	0.29	3.53	16.72	-0.02
6/6/2024	13:16	191.6	0.980	0.32	3.32	16.79	-0.01
6/6/2024	13:17	191.6	0.981	0.31	2.73	15.30	-0.01
6/6/2024	13:18	191.7	0.981	0.22	2.84	14.28	-0.01
6/6/2024	13:19	191.6	0.981	0.33	3.47	17.22	-0.02
6/6/2024	13:20	191.6	0.986	0.13	2.04	8.36	0.00
6/6/2024	13:21	191.7	0.987	0.07	0.92	4.19	0.00
6/6/2024	13:22	191.6	0.987	0.26	0.84	2.55	0.00
6/6/2024	13:23	191.6	0.987	0.13	0.03	1.56	-0.01
6/6/2024	13:24	191.6	0.987	0.06	-0.98	0.65	-0.01
6/6/2024	13:25	191.7	0.987	0.13	-1.07	0.93	-0.01
6/6/2024	13:26	191.7	0.984	0.24	0.69	5.16	-0.02
6/6/2024	13:27	191.7	0.983	0.24	2.44	9.12	-0.03
6/6/2024	13:28	191.7	0.982	0.31	1.81	10.82	-0.01
6/6/2024	13:29	191.7	0.982	0.24	1.33	11.99	-0.02
6/6/2024	13:30	191.7	0.982	0.37	2.80	13.04	-0.02
6/6/2024	13:31	191.7	0.982	0.41	2.68	12.77	-0.01
6/6/2024	13:32	191.7	0.982	0.33	2.56	13.20	-0.02
6/6/2024	13:33	191.7	0.982	0.34	2.47	13.10	-0.01
6/6/2024	13:34	191.7	0.982	0.24	2.07	13.02	-0.01
6/6/2024	13:36	191.7	0.981	0.28	2.72	15.16	-0.02
6/6/2024	13:37	191.6	0.981	0.33	2.90	15.19	-0.02
6/6/2024	13:38	191.6	0.981	0.32	3.19	14.54	-0.01
6/6/2024	13:39	191.6	0.981	0.08	2.61	13.58	-0.02
6/6/2024	13:40	191.6	0.981	0.26	1.84	13.60	-0.02
6/6/2024	13:41	191.6	0.981	0.30	2.59	14.79	-0.02
6/6/2024	13:42	191.6	0.980	0.19	2.43	15.07	-0.02
6/6/2024	13:43	191.6	0.979	0.39	2.58	18.00	-0.02
6/6/2024	13:44	191.6	0.981	0.28	2.88	15.96	-0.02
6/6/2024	13:45	191.7	0.980	0.32	3.19	17.03	-0.02
6/6/2024	13:46	191.6	0.980	0.47	3.19	16.03	-0.02
6/6/2024	13:47	191.6	0.980	0.24	3.32	15.68	-0.02
6/6/2024	13:48	191.6	0.980	0.55	3.12	17.82	-0.02

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/6/2024	13:49	191.6	0.980	0.27	3.55	15.67	-0.02
6/6/2024	13:50	191.7	0.979	0.32	3.38	17.44	-0.02
6/6/2024	13:51	191.6	0.980	0.22	2.92	16.53	-0.02
6/6/2024	13:52	191.7	0.980	0.21	3.57	15.91	-0.02
6/6/2024	13:53	191.7	0.980	0.39	3.07	16.34	-0.01
6/6/2024	13:54	191.7	0.980	0.39	2.80	15.37	-0.02
6/6/2024	13:55	191.6	0.978	0.24	3.28	21.51	-0.02
6/6/2024	13:57	191.6	0.980	0.47	2.77	16.99	-0.02
6/6/2024	13:58	191.6	0.980	0.36	2.88	15.62	-0.02
6/6/2024	13:59	191.6	0.981	0.47	3.13	14.89	-0.02
6/6/2024	14:00	191.6	0.981	0.47	2.68	14.79	-0.01
6/6/2024	14:01	191.6	0.980	0.18	2.74	15.25	-0.03
6/6/2024	14:02	191.6	0.981	0.33	3.11	14.64	-0.02
6/6/2024	14:03	191.6	0.979	0.34	3.02	17.20	-0.02
6/6/2024	14:04	191.6	0.980	0.41	3.50	16.75	0.00
6/6/2024	14:05	191.6	0.980	0.26	3.08	15.68	-0.02
6/6/2024	14:06	191.6	0.980	0.32	3.10	16.33	-0.02
6/6/2024	14:07	191.6	0.980	0.04	3.09	16.97	-0.02
6/6/2024	14:08	191.6	0.980	0.32	3.16	15.13	-0.02
6/6/2024	14:09	191.6	0.979	0.26	3.26	18.28	-0.02
6/6/2024	14:10	191.6	0.980	0.39	2.52	17.41	-0.01
6/6/2024	14:11	191.6	0.981	0.36	2.91	15.32	-0.02
6/6/2024	14:12	191.6	0.981	0.43	2.83	14.57	-0.02
6/6/2024	14:13	191.6	0.980	0.39	2.77	16.02	-0.02
6/6/2024	14:14	191.6	0.980	0.29	2.85	16.18	-0.02
6/6/2024	14:15	191.6	0.980	0.20	3.56	15.78	-0.01
6/6/2024	14:16	191.6	0.979	0.28	3.26	16.69	-0.02
6/6/2024	14:17	191.7	0.980	0.19	3.13	16.04	-0.02
6/6/2024	14:19	191.7	0.979	0.43	3.20	17.52	-0.02
6/6/2024	14:20	191.6	0.980	0.34	3.05	16.84	-0.01
6/6/2024	14:21	191.7	0.980	0.30	2.22	14.79	-0.02
6/6/2024	14:22	191.7	0.979	0.32	3.41	17.18	-0.02
6/6/2024	14:23	191.7	0.979	0.34	3.76	18.24	-0.01
6/6/2024	14:24	191.6	0.979	0.37	2.65	17.04	-0.02
6/6/2024	14:25	191.7	0.980	0.49	3.29	15.30	-0.01
6/6/2024	14:26	191.6	0.980	0.25	2.20	14.82	-0.02
6/6/2024	14:27	191.7	0.979	0.27	1.92	18.39	-0.01
6/6/2024	14:28	191.6	0.980	0.25	2.13	16.41	-0.02
6/6/2024	14:29	191.6	0.980	0.41	2.44	15.36	-0.02
6/6/2024	14:30	191.7	0.980	0.33	3.29	16.48	-0.02
6/6/2024	14:31	191.6	0.980	0.30	2.74	16.03	-0.01
6/6/2024	14:32	191.7	0.981	0.22	3.15	14.68	-0.02
6/6/2024	14:33	191.7	0.981	0.36	2.56	14.77	-0.02
6/6/2024	14:34	191.7	0.979	0.41	2.46	17.92	-0.02
6/6/2024	14:35	191.6	0.980	0.49	2.94	16.41	-0.02
6/6/2024	14:36	191.7	0.980	0.35	3.25	15.41	-0.02
6/6/2024	14:37	191.6	0.980	0.25	3.54	16.08	-0.02
6/6/2024	14:38	191.6	0.980	0.37	2.77	16.01	-0.02
6/6/2024	14:39	191.6	0.980	0.31	3.51	15.43	-0.02
6/6/2024	14:41	191.6	0.980	0.49	3.55	16.27	-0.03
6/6/2024	14:42	191.7	0.980	0.45	2.71	16.01	-0.01
6/6/2024	14:43	191.6	0.980	0.26	3.50	17.17	-0.01
6/6/2024	14:44	191.6	0.980	0.23	2.90	17.46	-0.02
6/6/2024	14:45	191.6	0.980	0.34	3.62	16.26	-0.02
6/6/2024	14:46	191.6	0.980	0.29	3.80	14.64	-0.01
6/6/2024	14:47	191.6	0.980	0.28	2.60	16.07	-0.01
6/6/2024	14:48	191.6	0.979	0.32	3.36	17.54	-0.01
6/6/2024	14:49	191.6	0.979	0.26	2.90	16.95	-0.02
6/6/2024	14:50	191.6	0.980	0.29	3.51	15.85	-0.02
6/6/2024	14:51	191.6	0.980	0.38	2.92	16.04	-0.01
6/6/2024	14:52	191.6	0.979	0.39	2.80	15.87	-0.02
6/6/2024	14:53	191.7	0.980	0.30	3.65	17.49	-0.02
6/6/2024	14:54	191.7	0.980	0.30	3.46	16.88	-0.01
6/6/2024	14:55	191.6	0.980	0.47	3.50	16.48	-0.02

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/6/2024	14:56	191.6	0.980	0.39	3.29	15.00	-0.01
6/6/2024	14:57	191.7	0.979	0.30	3.11	16.47	-0.02
6/6/2024	14:58	191.6	0.979	0.46	3.84	18.60	-0.02
6/6/2024	14:59	191.7	0.980	0.30	2.56	14.77	-0.01
6/6/2024	15:00	191.6	0.979	0.26	3.14	17.60	-0.02
6/6/2024	15:01	191.6	0.980	0.31	2.89	16.24	-0.02
6/6/2024	15:03	191.6	0.980	0.46	3.12	14.74	-0.01
6/6/2024	15:04	191.6	0.980	0.26	2.35	14.96	-0.03
6/6/2024	15:05	191.6	0.980	0.37	3.12	15.19	-0.03
6/6/2024	15:06	191.6	0.979	0.29	3.46	16.92	-0.01
6/6/2024	15:07	191.6	0.980	0.20	2.84	16.06	-0.03
6/6/2024	15:08	191.6	0.979	0.26	2.90	16.59	-0.01
6/6/2024	15:09	191.6	0.979	0.27	3.24	17.70	-0.02
6/6/2024	15:10	191.6	0.979	0.31	2.46	20.09	-0.02
6/6/2024	15:11	191.6	0.980	0.39	2.99	15.86	-0.02
6/6/2024	15:12	191.6	0.980	0.15	2.91	14.27	-0.02
6/6/2024	15:13	191.6	0.980	0.32	2.34	14.27	-0.02
6/6/2024	15:14	191.6	0.979	0.33	3.07	17.47	-0.02
6/6/2024	15:15	191.6	0.980	0.37	3.38	16.23	-0.01
6/6/2024	15:16	191.6	0.979	0.33	3.51	16.74	-0.03
6/6/2024	15:17	191.6	0.980	0.46	3.06	15.99	-0.02
6/6/2024	15:18	191.6	0.980	0.26	2.70	14.51	-0.02
6/6/2024	15:19	191.6	0.980	0.29	2.16	15.21	-0.01
6/6/2024	15:20	191.7	0.978	0.29	3.23	19.09	-0.02
6/6/2024	15:21	191.7	0.980	0.35	2.34	16.81	-0.01
6/6/2024	15:22	191.7	0.980	0.24	2.21	14.98	-0.02
6/6/2024	15:23	191.7	0.980	0.34	3.16	14.14	-0.03
6/6/2024	15:25	191.7	0.979	0.30	2.30	16.21	-0.02
6/6/2024	15:26	191.7	0.980	0.28	3.22	16.48	-0.02
6/6/2024	15:27	191.7	0.980	0.18	2.83	14.39	-0.02
6/6/2024	15:28	191.7	0.979	0.40	2.73	19.29	-0.02
6/6/2024	15:29	191.7	0.979	0.36	3.47	16.88	-0.02
6/6/2024	15:30	191.7	0.980	0.51	2.77	15.49	-0.02
6/6/2024	15:31	191.7	0.979	0.22	3.00	16.95	-0.02
6/6/2024	15:32	191.7	0.980	0.19	3.12	16.07	-0.02
6/6/2024	15:33	191.7	0.979	0.24	3.95	16.60	-0.01
6/6/2024	15:34	191.6	0.980	0.31	3.29	15.57	-0.02
6/6/2024	15:35	191.6	0.979	0.43	3.55	17.25	-0.02
6/6/2024	15:36	191.7	0.980	0.37	3.00	16.11	-0.02
6/6/2024	15:37	191.6	0.979	0.43	2.26	16.31	-0.02
6/6/2024	15:38	191.7	0.978	0.52	2.09	19.00	-0.01
6/6/2024	15:39	191.6	0.979	0.15	3.42	16.50	-0.03
6/6/2024	15:40	191.6	0.979	0.32	3.41	16.08	-0.03
6/6/2024	15:41	191.6	0.979	0.29	3.22	17.50	-0.02
6/6/2024	15:42	191.6	0.980	0.42	2.97	15.30	-0.02
6/6/2024	15:43	191.7	0.980	0.29	3.37	15.51	-0.03
6/6/2024	15:44	191.7	0.980	0.37	2.99	15.80	-0.02
6/6/2024	15:46	191.7	0.979	0.65	3.39	17.18	-0.02
6/6/2024	15:47	191.6	0.980	0.21	3.61	16.20	-0.01
6/6/2024	15:48	191.7	0.979	0.38	3.58	17.13	-0.02
6/6/2024	15:49	191.7	0.980	0.33	3.09	15.52	-0.02
6/6/2024	15:50	191.7	0.979	0.21	3.15	16.88	-0.02
6/6/2024	15:51	191.7	0.979	0.23	3.34	16.00	-0.02
6/6/2024	15:52	191.7	0.979	0.13	3.55	16.79	-0.01
6/6/2024	15:53	191.7	0.980	0.32	2.47	14.67	-0.02
6/6/2024	15:54	191.6	0.979	0.40	2.17	16.10	-0.02
6/6/2024	15:55	191.7	0.980	0.38	2.93	15.02	-0.02
6/6/2024	15:56	191.7	0.980	0.28	2.65	14.82	-0.02
6/6/2024	15:57	191.7	0.979	0.31	2.88	16.43	-0.02
6/6/2024	15:58	191.7	0.979	0.31	3.12	16.98	-0.02
6/6/2024	15:59	191.7	0.980	0.09	2.74	15.16	-0.01
6/6/2024	16:00	191.7	0.979	0.41	3.49	16.83	-0.02
6/6/2024	16:01	191.7	0.980	0.33	3.15	16.33	-0.01
6/6/2024	16:02	191.7	0.979	0.34	3.45	16.92	-0.01



BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/6/2024	16:03	191.7	0.979	0.32	3.51	17.33	-0.03
6/6/2024	16:04	191.7	0.980	0.21	2.74	15.43	-0.02
6/6/2024	16:05	191.7	0.980	0.45	2.93	14.81	-0.02
6/6/2024	16:06	191.7	0.979	0.19	2.52	15.41	-0.01
6/6/2024	16:08	191.7	0.979	0.52	2.91	17.29	-0.03
6/6/2024	16:09	191.7	0.980	0.23	3.40	15.32	-0.02
6/6/2024	16:10	191.7	0.980	0.09	2.93	14.10	-0.03
6/6/2024	16:11	191.7	0.978	0.16	3.20	17.41	-0.03
6/6/2024	16:12	191.7	0.979	0.25	3.37	16.71	-0.02
6/6/2024	16:13	191.7	0.980	0.28	3.39	15.93	-0.02
6/6/2024	16:14	191.7	0.980	0.34	2.34	14.55	-0.03
6/6/2024	16:15	191.7	0.979	0.36	2.87	15.93	-0.01
6/6/2024	16:16	191.7	0.979	0.21	2.74	18.10	-0.02
6/6/2024	16:17	191.6	0.979	0.42	3.35	16.03	-0.01
6/6/2024	16:18	191.6	0.980	0.41	3.40	14.70	-0.02
6/6/2024	16:19	191.6	0.979	0.45	3.37	16.62	-0.02
6/6/2024	16:20	191.6	0.978	0.22	3.68	18.71	-0.01
6/6/2024	16:21	191.6	0.980	0.36	3.14	15.94	-0.01
6/6/2024	16:22	191.7	0.980	0.24	3.95	14.57	-0.03
6/6/2024	16:23	191.7	0.979	0.15	2.64	15.44	-0.02
6/6/2024	16:24	191.7	0.979	0.26	2.66	16.17	-0.01
6/6/2024	16:25	191.7	0.979	0.29	3.40	15.94	-0.01
6/6/2024	16:26	191.7	0.979	0.32	3.39	16.56	-0.02
6/6/2024	16:27	191.7	0.979	0.36	3.43	16.23	-0.02
6/6/2024	16:28	191.7	0.979	0.29	3.19	15.07	-0.02
6/6/2024	16:30	191.6	0.979	0.18	3.20	16.19	-0.02
6/6/2024	16:31	191.7	0.979	0.37	3.75	16.28	-0.03
6/6/2024	16:32	191.6	0.982	0.23	2.14	13.48	-0.02
6/6/2024	16:33	191.7	0.983	0.01	1.54	6.51	0.01
6/6/2024	16:34	191.7	0.984	0.15	0.60	3.81	-0.01
6/6/2024	16:35	191.7	0.986	0.28	-0.24	1.96	-0.02
6/6/2024	16:36	191.7	0.986	0.16	-0.76	0.91	-0.03
6/6/2024	16:37	191.7	0.986	0.35	-1.17	0.58	-0.03
6/6/2024	16:38	191.8	0.994	0.15	-0.69	0.80	-0.02
6/6/2024	16:39	191.8	1.010	0.11	-0.44	0.63	-0.01
6/6/2024	16:40	191.8	1.010	0.04	-0.96	0.34	-0.01
6/6/2024	16:41	191.8	1.010	0.07	-0.71	0.13	0.00
6/6/2024	16:42	191.8	1.010	0.08	-0.49	0.04	-0.01
6/6/2024	16:44	191.8	1.010	0.00	0.00	0.00	0.00
6/6/2024	16:46	191.7	1.021	75.10	0.63	-0.02	-0.03
6/6/2024	16:47	191.5	1.024	97.76	-0.29	-0.06	0.00
6/6/2024	16:48	191.4	1.024	98.45	0.65	-0.07	0.00
6/6/2024	16:49	191.4	1.024	98.52	0.16	-0.07	0.00
6/6/2024	16:50	191.4	1.024	98.06	0.07	-0.05	0.00
6/7/2024	5:05	191.8	1.008	-0.58	0.17	-0.08	0.01
6/7/2024	5:06	191.8	1.008	-0.47	0.11	-0.07	0.02
6/7/2024	5:07	191.8	1.008	-0.34	0.15	-0.09	0.02
6/7/2024	5:08	191.8	1.008	-0.38	0.25	-0.09	0.02
6/7/2024	5:11	191.8	1.008	0.00	0.00	0.00	0.00
6/7/2024	5:12	191.7	1.022	89.39	-0.16	0.01	-0.09
6/7/2024	5:13	191.4	1.024	98.39	0.09	0.01	-0.01
6/7/2024	5:14	191.4	1.024	98.10	0.08	0.01	-0.01
6/7/2024	5:15	191.4	1.024	98.55	-0.28	0.01	-0.01
6/7/2024	5:16	191.3	1.013	98.28	-0.12	0.00	-0.04
6/7/2024	5:17	191.4	0.985	0.77	1.16	3.79	-0.02
6/7/2024	5:18	191.5	0.987	-0.01	0.24	3.33	0.00
6/7/2024	5:19	191.6	0.988	0.14	-0.76	0.93	-0.01
6/7/2024	5:20	191.6	0.989	0.33	-0.31	0.11	-0.02
6/7/2024	5:21	191.6	0.989	0.35	-0.40	0.11	-0.02
6/7/2024	5:22	191.7	0.986	0.20	0.60	2.80	-0.01
6/7/2024	5:23	191.7	0.984	0.31	1.20	6.85	-0.01
6/7/2024	5:24	191.7	0.984	0.29	0.91	7.97	-0.01
6/7/2024	5:25	191.7	0.983	0.34	1.31	8.84	-0.01

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/7/2024	5:26	191.6	0.983	0.20	0.98	10.55	-0.01
6/7/2024	5:27	191.6	0.982	0.27	1.46	12.44	-0.01
6/7/2024	5:28	191.6	0.983	0.40	1.37	12.83	-0.01
6/7/2024	5:30	191.7	0.982	0.44	1.61	12.31	-0.01
6/7/2024	5:31	191.6	0.982	0.34	2.00	15.78	-0.01
6/7/2024	5:32	191.7	0.982	0.38	2.06	14.68	-0.01
6/7/2024	5:33	191.6	0.983	0.34	1.71	13.20	-0.01
6/7/2024	5:34	191.6	0.981	0.49	2.43	16.43	-0.02
6/7/2024	5:35	191.6	0.982	0.43	2.16	17.23	-0.02
6/7/2024	5:36	191.6	0.982	0.46	2.87	16.52	-0.01
6/7/2024	5:37	191.7	0.983	0.50	1.63	14.23	-0.02
6/7/2024	5:38	191.7	0.983	0.38	1.83	14.34	-0.01
6/7/2024	5:39	191.7	0.981	0.10	2.10	15.87	0.00
6/7/2024	5:40	191.6	0.981	0.58	1.90	18.99	-0.02
6/7/2024	5:41	191.6	0.983	0.39	2.01	14.96	-0.01
6/7/2024	5:42	191.7	0.981	0.40	1.84	18.38	-0.02
6/7/2024	5:43	191.7	0.982	0.50	2.76	15.67	-0.02
6/7/2024	5:44	191.7	0.982	0.34	2.30	16.39	-0.02
6/7/2024	5:45	191.7	0.982	0.50	2.07	17.02	-0.01
6/7/2024	5:46	191.7	0.982	0.49	2.38	16.15	-0.01
6/7/2024	5:47	191.7	0.983	0.41	2.30	14.94	-0.02
6/7/2024	5:48	191.7	0.982	0.46	2.84	16.99	-0.02
6/7/2024	5:49	191.7	0.981	0.56	2.84	17.53	-0.01
6/7/2024	5:50	191.7	0.982	0.48	2.46	16.73	-0.01
6/7/2024	5:52	191.7	0.983	0.57	2.77	15.10	-0.02
6/7/2024	5:53	191.7	0.983	0.60	2.15	14.28	-0.01
6/7/2024	5:54	191.7	0.981	0.71	2.04	19.98	-0.02
6/7/2024	5:55	191.7	0.983	0.41	2.32	15.70	-0.02
6/7/2024	5:56	191.7	0.981	0.57	1.91	17.71	-0.02
6/7/2024	5:57	191.7	0.983	0.69	2.23	15.56	-0.02
6/7/2024	5:58	191.7	0.982	0.56	2.22	18.11	-0.02
6/7/2024	5:59	191.7	0.982	0.46	2.16	15.71	-0.02
6/7/2024	6:00	191.6	0.982	0.42	2.81	17.58	-0.01
6/7/2024	6:01	191.6	0.983	0.48	1.85	14.67	-0.02
6/7/2024	6:02	191.6	0.982	0.38	1.66	15.69	-0.01
6/7/2024	6:03	191.6	0.982	0.33	2.56	17.03	-0.02
6/7/2024	6:04	191.6	0.983	0.44	1.88	15.69	-0.02
6/7/2024	6:05	191.7	0.982	0.54	2.29	15.36	-0.03
6/7/2024	6:06	191.6	0.981	0.48	1.54	19.67	-0.02
6/7/2024	6:07	191.6	0.983	0.63	2.39	16.40	-0.02
6/7/2024	6:08	191.7	0.983	0.66	1.77	14.51	-0.02
6/7/2024	6:09	191.7	0.982	0.58	2.52	17.17	-0.01
6/7/2024	6:10	191.7	0.982	0.59	2.41	17.78	-0.02
6/7/2024	6:11	191.7	0.983	0.53	2.41	16.17	-0.02
6/7/2024	6:12	191.6	0.984	0.40	1.67	14.39	-0.02
6/7/2024	6:14	191.7	0.983	0.44	1.80	14.99	-0.01
6/7/2024	6:15	191.7	0.983	0.43	2.29	18.39	-0.02
6/7/2024	6:16	191.7	0.982	0.44	1.76	17.58	-0.03
6/7/2024	6:17	191.7	0.983	0.52	2.55	16.47	-0.01
6/7/2024	6:18	191.7	0.983	0.65	2.36	15.17	-0.02
6/7/2024	6:19	191.7	0.982	0.69	1.92	18.23	-0.02
6/7/2024	6:20	191.7	0.983	0.65	1.54	18.80	-0.03
6/7/2024	6:21	191.7	0.983	0.63	2.05	15.03	-0.01
6/7/2024	6:22	191.7	0.984	0.56	2.08	14.48	-0.02
6/7/2024	6:23	191.7	0.983	0.61	1.66	13.90	-0.03
6/7/2024	6:24	191.6	0.982	0.60	1.70	20.36	-0.02
6/7/2024	6:25	191.7	0.983	0.59	2.23	15.56	-0.02
6/7/2024	6:26	191.7	0.983	0.54	2.18	15.95	-0.02
6/7/2024	6:27	191.7	0.983	0.59	2.18	15.22	-0.01
6/7/2024	6:28	191.7	0.983	0.26	2.23	15.54	-0.02
6/7/2024	6:29	191.7	0.981	0.52	1.72	21.01	-0.02
6/7/2024	6:30	191.7	0.983	0.63	2.41	17.16	-0.01
6/7/2024	6:31	191.7	0.983	0.61	2.21	15.40	-0.02
6/7/2024	6:32	191.7	0.983	0.61	2.23	14.79	-0.02

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F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/7/2024	6:33	191.7	0.983	0.47	1.92	15.85	-0.02
6/7/2024	6:34	191.7	0.982	0.67	1.83	18.24	-0.01
6/7/2024	6:36	191.7	0.983	0.62	1.65	14.87	-0.03
6/7/2024	6:37	191.7	0.982	0.43	2.36	17.33	-0.01
6/7/2024	6:38	191.7	0.984	0.62	1.98	14.77	-0.02
6/7/2024	6:39	191.6	0.982	0.43	2.12	18.98	-0.02
6/7/2024	6:40	191.7	0.983	0.49	2.41	15.07	-0.02
6/7/2024	6:41	191.7	0.983	0.60	1.87	13.74	-0.02
6/7/2024	6:42	191.7	0.983	0.57	2.81	17.59	-0.02
6/7/2024	6:43	191.7	0.983	0.67	2.89	16.28	-0.02
6/7/2024	6:44	191.7	0.983	0.47	2.46	16.20	-0.02
6/7/2024	6:45	191.7	0.983	0.69	2.52	16.94	-0.02
6/7/2024	6:46	191.7	0.983	0.77	2.49	15.77	-0.02
6/7/2024	6:47	191.7	0.983	0.73	2.54	17.13	-0.01
6/7/2024	6:48	191.6	0.983	0.52	2.27	16.88	-0.02
6/7/2024	6:49	191.6	0.984	0.61	1.96	14.21	-0.01
6/7/2024	6:50	191.6	0.982	0.48	2.23	18.77	-0.03
6/7/2024	6:51	191.6	0.984	0.50	2.15	15.46	-0.01
6/7/2024	6:52	191.7	0.984	0.63	1.95	13.63	-0.01
6/7/2024	6:53	191.7	0.982	0.48	2.91	17.34	-0.02
6/7/2024	6:54	191.7	0.983	0.46	2.03	17.11	-0.02
6/7/2024	6:55	191.7	0.983	0.56	3.03	18.87	-0.01
6/7/2024	6:56	191.7	0.984	0.55	1.83	14.99	-0.02
6/7/2024	6:58	191.7	0.983	0.67	1.93	15.73	-0.02
6/7/2024	6:59	191.7	0.983	0.54	1.74	17.81	-0.02
6/7/2024	7:00	191.6	0.984	0.48	1.51	14.07	-0.01
6/7/2024	7:01	191.6	0.983	0.50	1.67	15.57	-0.01
6/7/2024	7:02	191.7	0.984	0.61	2.27	15.44	-0.01
6/7/2024	7:03	191.7	0.983	0.60	2.11	19.27	-0.02
6/7/2024	7:04	191.7	0.983	0.51	2.50	17.80	-0.01
6/7/2024	7:05	191.7	0.983	0.51	2.49	16.28	-0.02
6/7/2024	7:06	191.7	0.984	0.45	2.01	14.92	-0.02
6/7/2024	7:07	191.7	0.983	0.61	2.51	16.08	-0.01
6/7/2024	7:08	191.7	0.984	0.64	2.23	14.87	-0.01
6/7/2024	7:09	191.6	0.983	0.55	1.88	18.26	-0.02
6/7/2024	7:10	191.7	0.983	0.57	2.12	16.71	-0.01
6/7/2024	7:11	191.6	0.983	0.60	2.09	19.28	-0.02
6/7/2024	7:12	191.6	0.983	0.53	1.97	16.23	-0.02
6/7/2024	7:13	191.7	0.984	0.61	2.40	14.41	-0.01
6/7/2024	7:14	191.7	0.983	0.56	2.51	16.71	-0.01
6/7/2024	7:15	191.7	0.983	0.56	2.50	17.77	-0.02
6/7/2024	7:16	191.6	0.983	0.54	2.55	16.15	-0.01
6/7/2024	7:17	191.7	0.984	0.53	1.99	14.43	-0.02
6/7/2024	7:19	191.6	0.982	0.62	2.04	18.73	-0.02
6/7/2024	7:20	191.6	0.983	0.72	1.86	17.51	-0.02
6/7/2024	7:21	191.6	0.983	0.68	2.58	15.44	-0.01
6/7/2024	7:22	191.6	0.983	0.72	2.43	16.42	-0.01
6/7/2024	7:23	191.6	0.983	0.72	2.05	16.35	-0.01
6/7/2024	7:24	191.7	0.983	0.73	2.23	17.93	-0.02
6/7/2024	7:25	191.6	0.984	0.67	2.19	16.79	-0.02
6/7/2024	7:26	191.7	0.984	0.56	2.37	15.28	-0.02
6/7/2024	7:27	191.7	0.983	0.60	2.77	16.29	-0.01
6/7/2024	7:28	191.7	0.983	0.55	2.31	15.81	-0.02
6/7/2024	7:29	191.6	0.984	0.56	2.32	15.13	-0.02
6/7/2024	7:30	191.6	0.982	0.68	2.08	19.20	-0.02
6/7/2024	7:31	191.6	0.984	0.58	2.42	16.02	-0.02
6/7/2024	7:32	191.7	0.983	0.66	3.00	17.58	-0.01
6/7/2024	7:33	191.7	0.984	0.39	2.18	15.76	-0.02
6/7/2024	7:34	191.7	0.983	0.58	2.34	16.39	-0.01
6/7/2024	7:35	191.6	0.983	0.62	2.32	15.59	-0.02
6/7/2024	7:36	191.6	0.983	0.64	2.05	19.16	-0.02
6/7/2024	7:37	191.7	0.984	0.78	2.54	17.50	-0.02
6/7/2024	7:38	191.6	0.983	0.61	2.38	16.23	-0.01
6/7/2024	7:39	191.7	0.984	0.52	2.22	15.48	-0.01

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/7/2024	7:41	191.6	0.983	0.67	2.26	16.30	-0.02
6/7/2024	7:42	191.7	0.984	0.47	1.63	14.69	-0.02
6/7/2024	7:43	191.6	0.983	0.55	2.73	17.62	-0.02
6/7/2024	7:44	191.7	0.983	0.73	2.22	15.86	-0.02
6/7/2024	7:45	191.7	0.984	0.45	2.54	17.05	-0.02
6/7/2024	7:46	191.7	0.983	0.48	2.31	15.63	-0.01
6/7/2024	7:47	191.7	0.983	0.63	2.41	18.76	-0.03
6/7/2024	7:48	191.7	0.984	0.47	2.19	16.17	-0.02
6/7/2024	7:49	191.7	0.983	0.52	2.14	18.31	-0.03
6/7/2024	7:50	191.7	0.984	0.58	1.63	14.40	-0.02
6/7/2024	7:51	191.7	0.983	0.61	1.72	15.47	-0.02
6/7/2024	7:52	191.7	0.982	0.74	2.24	18.36	-0.02
6/7/2024	7:53	191.7	0.984	0.71	2.28	15.91	-0.02
6/7/2024	7:54	191.7	0.984	0.63	2.16	14.87	-0.01
6/7/2024	7:55	191.7	0.983	0.58	1.65	18.22	-0.01
6/7/2024	7:56	191.7	0.984	0.71	2.51	16.20	-0.01
6/7/2024	7:57	191.7	0.983	0.86	1.99	18.00	-0.02
6/7/2024	7:58	191.6	0.984	0.55	2.40	15.35	-0.02
6/7/2024	7:59	191.7	0.984	0.55	2.50	16.25	-0.02
6/7/2024	8:00	191.7	0.984	0.69	2.45	15.94	-0.01
6/7/2024	8:01	191.7	0.984	0.59	2.59	16.87	-0.02
6/7/2024	8:03	191.6	0.984	0.74	2.31	16.73	-0.03
6/7/2024	8:04	191.6	0.984	0.70	2.28	15.89	-0.02
6/7/2024	8:05	191.6	0.983	0.74	2.25	16.88	-0.01
6/7/2024	8:06	191.6	0.984	0.80	2.67	17.78	-0.02
6/7/2024	8:07	191.6	0.984	0.74	1.98	15.34	-0.02
6/7/2024	8:08	191.6	0.983	0.63	2.43	18.56	-0.02
6/7/2024	8:09	191.6	0.984	0.55	2.43	15.50	-0.02
6/7/2024	8:10	191.6	0.983	0.76	1.94	20.03	-0.02
6/7/2024	8:11	191.6	0.984	0.63	2.27	16.71	-0.02
6/7/2024	8:12	191.6	0.985	0.60	2.01	14.88	-0.02
6/7/2024	8:13	191.6	0.984	0.59	2.18	16.04	-0.02
6/7/2024	8:14	191.6	0.984	0.71	2.42	16.27	-0.01
6/7/2024	8:15	191.6	0.985	0.63	2.21	14.54	-0.02
6/7/2024	8:16	191.6	0.983	0.57	2.04	18.93	-0.02
6/7/2024	8:17	191.6	0.985	0.77	2.30	15.40	-0.03
6/7/2024	8:18	191.6	0.985	0.50	1.96	14.23	-0.02
6/7/2024	8:19	191.6	0.984	0.63	2.21	16.36	-0.02
6/7/2024	8:20	191.6	0.984	0.63	2.25	16.81	-0.01
6/7/2024	8:21	191.6	0.984	0.51	2.45	19.14	-0.03
6/7/2024	8:22	191.6	0.985	0.68	2.20	15.30	-0.01
6/7/2024	8:23	191.6	0.984	0.72	2.35	16.00	-0.02
6/7/2024	8:25	191.6	0.985	0.63	2.49	16.19	-0.01
6/7/2024	8:26	191.6	0.984	0.75	2.00	15.49	-0.02
6/7/2024	8:27	191.6	0.984	0.72	1.89	18.19	-0.02
6/7/2024	8:28	191.6	0.985	0.67	2.18	15.64	-0.03
6/7/2024	8:29	191.6	0.985	0.56	2.18	15.73	-0.01
6/7/2024	8:30	191.6	0.983	0.72	2.23	18.86	-0.02
6/7/2024	8:31	191.6	0.984	0.63	1.94	17.29	-0.03
6/7/2024	8:32	191.6	0.985	0.56	2.46	16.46	-0.02
6/7/2024	8:33	191.6	0.985	0.69	1.95	15.22	-0.02
6/7/2024	8:34	191.6	0.984	0.44	2.56	17.23	-0.02
6/7/2024	8:35	191.6	0.985	0.62	2.61	16.83	-0.02
6/7/2024	8:36	191.7	0.985	0.55	1.56	14.83	-0.02
6/7/2024	8:37	191.6	0.984	0.61	2.61	16.78	-0.02
6/7/2024	8:38	191.6	0.985	0.63	3.13	18.62	-0.02
6/7/2024	8:39	191.7	0.985	0.66	1.97	14.62	-0.02
6/7/2024	8:40	191.7	0.985	0.71	1.70	14.11	-0.01
6/7/2024	8:41	191.7	0.985	0.61	2.33	16.51	-0.02
6/7/2024	8:42	191.7	0.985	0.51	2.50	16.29	-0.02
6/7/2024	8:43	191.7	0.985	0.63	2.22	17.86	-0.03
6/7/2024	8:44	191.7	0.984	0.59	1.94	16.97	-0.02
6/7/2024	8:45	191.7	0.985	0.60	2.56	16.74	-0.02
6/7/2024	8:47	191.7	0.985	0.54	2.43	16.13	-0.02

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/7/2024	8:48	191.7	0.985	0.73	1.95	14.52	-0.02
6/7/2024	8:49	191.7	0.984	0.54	2.07	18.85	-0.02
6/7/2024	8:50	191.7	0.985	0.61	2.24	18.59	-0.03
6/7/2024	8:51	191.7	0.985	0.64	1.59	15.84	-0.02
6/7/2024	8:52	191.7	0.985	0.77	2.15	14.51	-0.02
6/7/2024	8:53	191.7	0.985	0.55	2.86	16.59	-0.01
6/7/2024	8:54	191.7	0.985	0.55	2.29	17.11	-0.02
6/7/2024	8:55	191.7	0.984	0.42	2.17	16.68	-0.02
6/7/2024	8:56	191.7	0.985	0.63	2.91	18.41	-0.02
6/7/2024	8:57	191.7	0.985	0.47	2.37	16.03	-0.02
6/7/2024	8:58	191.7	0.985	0.66	2.10	14.69	-0.02
6/7/2024	8:59	191.7	0.985	0.60	1.92	17.86	-0.02
6/7/2024	9:00	191.7	0.984	0.50	1.87	18.66	-0.02
6/7/2024	9:01	191.7	0.985	0.61	2.09	15.57	-0.02
6/7/2024	9:02	191.7	0.986	0.76	2.09	14.09	-0.01
6/7/2024	9:03	191.7	0.984	0.57	2.37	17.17	-0.02
6/7/2024	9:04	191.7	0.985	0.62	2.99	17.06	-0.01
6/7/2024	9:05	191.7	0.986	0.71	2.28	14.93	-0.01
6/7/2024	9:06	191.7	0.985	0.63	2.16	16.01	-0.02
6/7/2024	9:07	191.7	0.985	0.54	1.87	18.75	-0.02
6/7/2024	9:09	191.7	0.986	0.70	1.50	14.17	-0.02
6/7/2024	9:10	191.7	0.985	0.60	2.21	14.27	-0.02
6/7/2024	9:11	191.7	0.984	0.77	2.19	19.22	-0.03
6/7/2024	9:12	191.7	0.985	0.66	2.71	16.49	-0.02
6/7/2024	9:13	191.7	0.984	0.66	2.92	18.84	-0.02
6/7/2024	9:14	191.7	0.985	0.55	2.37	15.65	-0.03
6/7/2024	9:15	191.7	0.986	0.63	2.16	14.09	-0.01
6/7/2024	9:16	191.7	0.985	0.55	2.82	16.83	-0.02
6/7/2024	9:17	191.7	0.985	0.75	2.99	17.67	-0.02
6/7/2024	9:18	191.7	0.985	0.53	2.12	15.72	-0.02
6/7/2024	9:19	191.7	0.986	0.69	2.59	14.42	-0.02
6/7/2024	9:20	191.7	0.985	0.64	2.33	16.54	-0.02
6/7/2024	9:21	191.7	0.985	0.65	2.35	15.03	-0.02
6/7/2024	9:22	191.7	0.985	0.58	1.88	16.80	-0.01
6/7/2024	9:23	191.7	0.985	0.70	2.39	16.08	-0.02
6/7/2024	9:24	191.7	0.985	0.78	2.35	17.55	-0.03
6/7/2024	9:25	191.7	0.985	0.53	2.43	15.16	-0.02
6/7/2024	9:26	191.7	0.985	0.66	2.25	15.57	-0.02
6/7/2024	9:27	191.7	0.985	0.69	2.29	17.58	-0.02
6/7/2024	9:28	191.7	0.985	0.64	2.45	16.39	-0.02
6/7/2024	9:30	191.6	0.985	0.65	2.13	16.43	-0.02
6/7/2024	9:31	191.6	0.985	0.48	2.63	17.93	-0.02
6/7/2024	9:32	191.6	0.985	0.79	2.16	14.97	-0.02
6/7/2024	9:33	191.6	0.985	0.62	2.05	16.32	-0.02
6/7/2024	9:34	191.7	0.985	0.63	1.90	15.65	-0.02
6/7/2024	9:35	191.7	0.985	0.80	2.41	19.08	-0.02
6/7/2024	9:36	191.7	0.986	0.63	2.49	15.01	-0.02
6/7/2024	9:37	191.7	0.985	0.53	2.40	14.88	-0.01
6/7/2024	9:38	191.7	0.985	0.71	2.02	16.02	-0.02
6/7/2024	9:39	191.7	0.985	0.62	2.05	18.87	-0.03
6/7/2024	9:40	191.7	0.984	0.65	2.20	18.09	-0.03
6/7/2024	9:41	191.7	0.985	0.76	2.30	15.00	-0.02
6/7/2024	9:42	191.7	0.985	0.66	2.36	16.87	-0.02
6/7/2024	9:43	191.6	0.985	0.62	2.65	16.44	-0.01
6/7/2024	9:44	191.7	0.985	0.81	1.94	16.11	-0.02
6/7/2024	9:45	191.6	0.985	0.53	2.67	17.54	-0.02
6/7/2024	9:46	191.7	0.985	0.63	2.43	17.47	-0.02
6/7/2024	9:47	191.7	0.985	0.63	2.64	18.01	-0.02
6/7/2024	9:48	191.7	0.986	0.69	1.86	14.34	-0.02
6/7/2024	9:49	191.7	0.985	0.58	1.73	15.33	-0.02
6/7/2024	9:50	191.7	0.986	0.52	2.06	15.40	-0.02
6/7/2024	9:52	191.7	0.985	0.51	2.33	17.37	-0.02
6/7/2024	9:53	191.7	0.985	0.79	2.07	15.27	-0.02
6/7/2024	9:54	191.7	0.986	0.64	2.17	14.39	-0.03

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/7/2024	9:55	191.7	0.985	0.70	2.53	16.78	-0.01
6/7/2024	9:56	191.7	0.984	0.61	2.29	19.25	-0.02
6/7/2024	9:57	191.7	0.986	0.66	2.23	15.39	-0.01
6/7/2024	9:58	191.7	0.985	0.61	2.33	15.80	-0.02
6/7/2024	9:59	191.7	0.990	0.62	1.68	14.69	-0.02
6/7/2024	10:00	191.7	0.991	0.45	0.63	5.22	-0.01
6/7/2024	10:01	191.7	0.991	0.30	0.23	2.84	-0.01
6/7/2024	10:02	191.7	0.992	0.56	-0.32	1.95	-0.03
6/7/2024	10:03	191.7	0.992	0.44	-0.68	1.45	-0.02
6/7/2024	10:04	191.7	0.990	0.43	0.05	2.85	-0.02
6/7/2024	10:05	191.7	0.988	0.54	1.49	8.77	-0.03
6/7/2024	10:06	191.7	0.995	4.55	0.91	8.18	-0.03
6/7/2024	10:07	191.7	1.010	0.39	0.36	2.77	-0.01
6/7/2024	10:08	191.8	1.010	0.41	-0.08	1.54	-0.01
6/7/2024	10:09	191.8	1.010	0.36	-0.74	0.82	-0.01
6/7/2024	10:10	191.8	1.010	0.23	-0.68	0.56	-0.01
6/7/2024	10:11	191.8	1.010	0.35	-0.59	0.42	-0.02
6/7/2024	10:12	191.8	1.010	0.48	-0.60	0.37	-0.01
6/7/2024	10:14	191.8	1.010	0.41	-0.59	0.35	-0.01
6/7/2024	10:16	191.8	1.014	0.00	0.00	0.00	0.00
6/7/2024	10:17	191.7	1.019	35.75	0.08	-0.03	-0.04
6/7/2024	10:18	191.6	1.025	97.72	0.53	-0.08	0.00
6/7/2024	10:19	191.5	1.025	97.85	0.00	-0.09	0.00
6/7/2024	10:20	191.4	1.027	97.64	0.60	-0.09	0.00
6/7/2024	10:21	191.4	1.030	98.05	0.43	-0.10	0.00
6/7/2024	10:22	191.3	1.030	97.85	0.72	-0.10	-0.01
6/7/2024	10:23	191.3	1.030	97.30	0.38	-0.12	-0.01
6/7/2024	10:25	191.4	1.017	15.57	0.35	-0.11	-0.02
6/7/2024	10:26	191.6	1.014	-0.09	0.88	-0.10	0.00
6/7/2024	10:27	191.7	1.014	-0.12	0.74	-0.10	0.00
6/7/2024	10:28	191.7	1.014	-0.02	0.38	-0.11	0.00
6/7/2024	10:29	191.7	1.014	-0.14	0.68	-0.12	0.00
6/7/2024	10:30	191.7	1.014	0.05	0.80	-0.11	0.01
6/7/2024	10:31	191.7	1.012	-0.05	0.98	-0.10	0.00
6/7/2024	10:32	191.8	1.010	-0.02	0.39	-0.10	0.00
6/7/2024	10:33	191.8	1.010	-0.06	1.20	-0.10	0.00
6/11/2024	11:55	191.9	1.007	7.61	1.58	3.12	-0.03
6/11/2024	11:56	191.8	1.011	0.47	-0.02	0.38	0.01
6/11/2024	11:57	191.8	1.011	-0.08	0.46	-0.07	0.01
6/11/2024	11:58	191.8	1.011	-0.18	-0.26	-0.09	0.00
6/11/2024	11:59	191.8	1.011	0.01	0.02	-0.09	0.00
6/11/2024	12:02	191.8	1.011	0.00	0.00	0.00	0.00
6/11/2024	12:03	191.7	1.011	-0.05	0.07	0.00	0.00
6/11/2024	12:04	191.7	1.023	53.38	0.16	0.00	-0.04
6/11/2024	12:05	191.4	1.030	98.63	-0.11	-0.02	-0.01
6/11/2024	12:06	191.4	1.030	98.97	-0.12	-0.02	0.00
6/11/2024	12:07	191.3	1.030	98.85	-0.03	-0.01	0.00
6/11/2024	12:08	191.4	0.998	8.73	-0.66	1.18	-0.67
6/11/2024	12:09	191.6	0.986	0.25	1.31	4.85	-0.01
6/11/2024	12:10	191.6	0.987	0.05	1.08	4.93	-0.01
6/11/2024	12:11	191.7	0.988	-0.03	0.97	3.56	0.01
6/11/2024	12:12	191.7	0.988	-0.14	0.37	1.73	0.00
6/11/2024	12:13	191.7	0.989	0.10	0.32	1.04	-0.01
6/11/2024	12:14	191.7	0.989	0.00	-0.15	0.56	-0.01
6/11/2024	12:15	191.7	0.989	0.06	-0.11	0.36	-0.01
6/11/2024	12:16	191.7	0.987	-0.05	0.65	2.70	0.00
6/11/2024	12:17	191.8	0.985	0.13	1.38	6.39	-0.01
6/11/2024	12:18	191.8	0.985	0.17	1.80	7.79	0.01
6/11/2024	12:20	191.8	0.984	0.19	2.13	8.88	-0.01
6/11/2024	12:21	191.7	0.984	0.32	2.09	9.79	-0.01
6/11/2024	12:22	191.7	0.984	0.35	1.93	10.32	0.00
6/11/2024	12:23	191.7	0.984	0.20	1.74	10.76	-0.01
6/11/2024	12:24	191.7	0.983	0.24	2.55	13.48	-0.01

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/11/2024	12:25	191.7	0.983	0.25	2.36	12.56	0.00
6/11/2024	12:26	191.7	0.983	0.25	2.44	12.27	-0.01
6/11/2024	12:27	191.7	0.982	0.24	2.95	16.87	0.00
6/11/2024	12:28	191.7	0.982	0.07	3.02	16.11	-0.01
6/11/2024	12:29	191.7	0.983	0.22	3.04	14.90	-0.01
6/11/2024	12:30	191.7	0.981	0.35	3.28	17.49	0.00
6/11/2024	12:31	191.6	0.983	0.25	3.54	18.07	-0.01
6/11/2024	12:32	191.7	0.983	0.17	2.49	13.62	-0.01
6/11/2024	12:33	191.7	0.983	0.39	2.50	14.00	0.00
6/11/2024	12:34	191.7	0.983	0.30	2.14	13.37	0.00
6/11/2024	12:35	191.7	0.981	0.27	3.04	16.29	0.00
6/11/2024	12:36	191.6	0.983	0.26	3.56	16.75	0.00
6/11/2024	12:37	191.7	0.983	0.50	2.83	13.26	0.00
6/11/2024	12:38	191.6	0.982	0.17	3.26	17.36	-0.01
6/11/2024	12:39	191.7	0.982	0.39	2.67	15.29	0.00
6/11/2024	12:40	191.7	0.982	0.36	2.72	14.55	0.00
6/11/2024	12:42	191.7	0.981	0.16	2.93	19.03	0.00
6/11/2024	12:43	191.6	0.983	0.31	2.67	15.76	-0.01
6/11/2024	12:44	191.6	0.982	0.26	3.31	16.12	-0.02
6/11/2024	12:45	191.6	0.983	0.36	3.09	17.48	-0.01
6/11/2024	12:46	191.6	0.982	0.25	2.87	16.24	-0.01
6/11/2024	12:47	191.6	0.982	0.25	3.18	15.64	-0.01
6/11/2024	12:48	191.6	0.982	0.34	3.03	16.16	-0.01
6/11/2024	12:49	191.6	0.982	0.20	3.20	17.05	-0.01
6/11/2024	12:50	191.6	0.982	0.35	3.24	16.68	-0.01
6/11/2024	12:51	191.6	0.983	0.25	2.94	13.36	-0.01
6/11/2024	12:52	191.6	0.981	0.19	2.96	16.99	-0.01
6/11/2024	12:53	191.6	0.982	0.23	2.88	16.20	0.00
6/11/2024	12:54	191.6	0.982	0.35	2.74	17.72	-0.01
6/11/2024	12:55	191.6	0.982	0.29	2.86	16.33	0.00
6/11/2024	12:56	191.7	0.983	0.42	3.04	15.60	-0.01
6/11/2024	12:57	191.7	0.981	0.11	2.88	19.19	-0.01
6/11/2024	12:58	191.6	0.983	0.28	2.72	14.14	-0.01
6/11/2024	12:59	191.7	0.981	0.29	2.71	18.46	-0.01
6/11/2024	13:00	191.6	0.982	0.32	2.65	14.94	0.00
6/11/2024	13:01	191.6	0.982	0.20	2.97	14.94	-0.01
6/11/2024	13:02	191.6	0.981	0.34	2.54	20.25	-0.01
6/11/2024	13:04	191.7	0.982	0.46	3.02	16.37	-0.01
6/11/2024	13:05	191.7	0.982	0.21	2.50	15.28	0.00
6/11/2024	13:06	191.7	0.982	0.33	3.42	16.54	-0.01
6/11/2024	13:07	191.6	0.981	0.13	3.28	17.76	-0.01
6/11/2024	13:08	191.6	0.983	0.42	2.48	14.67	0.00
6/11/2024	13:09	191.7	0.981	0.31	2.57	16.33	0.00
6/11/2024	13:10	191.7	0.982	0.40	3.46	16.68	-0.01
6/11/2024	13:11	191.6	0.981	0.24	3.19	16.85	-0.02
6/11/2024	13:12	191.7	0.982	0.41	3.36	17.40	-0.01
6/11/2024	13:13	191.6	0.981	0.25	3.13	17.26	-0.01
6/11/2024	13:14	191.7	0.982	0.44	2.87	16.56	-0.02
6/11/2024	13:15	191.7	0.982	0.28	2.98	15.12	-0.01
6/11/2024	13:16	191.7	0.982	0.41	2.89	16.22	-0.01
6/11/2024	13:17	191.7	0.980	0.31	2.71	20.19	-0.01
6/11/2024	13:18	191.7	0.982	0.37	2.57	17.98	-0.02
6/11/2024	13:19	191.7	0.982	0.29	3.08	15.65	-0.01
6/11/2024	13:20	191.7	0.982	0.22	3.01	15.14	-0.01
6/11/2024	13:21	191.7	0.982	0.25	3.26	16.00	-0.01
6/11/2024	13:22	191.7	0.981	0.12	2.64	21.55	-0.02
6/11/2024	13:23	191.7	0.982	0.31	2.92	17.02	-0.02
6/11/2024	13:25	191.7	0.983	0.23	2.50	14.81	0.00
6/11/2024	13:26	191.7	0.982	0.18	2.99	16.59	-0.01
6/11/2024	13:27	191.7	0.983	0.24	2.77	15.46	-0.01
6/11/2024	13:28	191.7	0.983	0.38	2.93	14.38	-0.01
6/11/2024	13:29	191.7	0.980	0.33	2.77	21.48	-0.02
6/11/2024	13:30	191.7	0.982	0.36	2.73	17.97	-0.01
6/11/2024	13:31	191.7	0.982	0.18	2.96	15.58	-0.01

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/11/2024	13:32	191.7	0.981	0.29	3.40	16.89	-0.01
6/11/2024	13:33	191.7	0.982	0.35	3.21	15.54	-0.01
6/11/2024	13:34	191.7	0.982	0.21	2.83	14.30	-0.01
6/11/2024	13:35	191.7	0.982	0.22	2.29	13.67	-0.01
6/11/2024	13:36	191.7	0.981	0.25	2.88	19.31	-0.02
6/11/2024	13:37	191.7	0.982	0.35	3.01	15.29	-0.01
6/11/2024	13:38	191.7	0.982	0.27	3.05	15.61	-0.01
6/11/2024	13:39	191.6	0.981	0.40	2.61	20.88	-0.02
6/11/2024	13:40	191.7	0.982	0.44	3.15	16.97	-0.01
6/11/2024	13:41	191.7	0.982	0.25	2.69	16.06	-0.01
6/11/2024	13:42	191.7	0.981	0.24	2.89	16.38	0.00
6/11/2024	13:43	191.7	0.982	0.24	3.02	15.63	-0.01
6/11/2024	13:44	191.7	0.982	0.28	2.91	14.64	-0.01
6/11/2024	13:45	191.7	0.981	0.35	3.17	18.50	-0.01
6/11/2024	13:47	191.6	0.981	0.46	2.38	20.44	-0.02
6/11/2024	13:48	191.6	0.982	0.29	2.68	16.37	0.00
6/11/2024	13:49	191.6	0.982	0.28	3.32	15.88	-0.01
6/11/2024	13:50	191.7	0.982	0.21	2.70	15.21	-0.01
6/11/2024	13:51	191.7	0.982	0.42	1.92	14.22	0.00
6/11/2024	13:52	191.7	0.982	0.35	2.26	15.01	-0.01
6/11/2024	13:53	191.6	0.982	0.35	2.80	16.47	-0.01
6/11/2024	13:54	191.6	0.982	0.26	2.68	14.59	-0.01
6/11/2024	13:55	191.6	0.980	0.23	2.49	18.03	-0.02
6/11/2024	13:56	191.6	0.981	0.18	2.71	19.56	-0.01
6/11/2024	13:57	191.6	0.982	0.42	3.07	15.68	-0.01
6/11/2024	13:58	191.6	0.981	0.27	2.77	15.66	-0.01
6/11/2024	13:59	191.6	0.982	0.42	3.31	16.92	-0.01
6/11/2024	14:00	191.6	0.981	0.44	3.44	18.94	-0.01
6/11/2024	14:01	191.6	0.982	0.30	3.28	15.27	0.00
6/11/2024	14:02	191.6	0.981	0.21	3.25	16.42	-0.01
6/11/2024	14:03	191.6	0.982	0.48	3.00	16.33	-0.01
6/11/2024	14:04	191.7	0.982	0.31	2.82	15.04	-0.01
6/11/2024	14:05	191.6	0.980	0.48	2.91	19.74	-0.02
6/11/2024	14:06	191.6	0.982	0.43	3.36	16.29	-0.01
6/11/2024	14:07	191.6	0.982	0.33	2.95	14.98	-0.01
6/11/2024	14:09	191.7	0.981	0.30	3.16	16.46	-0.01
6/11/2024	14:10	191.7	0.982	0.29	3.70	17.30	-0.01
6/11/2024	14:11	191.7	0.982	0.33	3.27	17.18	-0.01
6/11/2024	14:12	191.7	0.982	0.35	2.98	15.06	-0.01
6/11/2024	14:13	191.7	0.982	0.29	2.60	14.94	-0.01
6/11/2024	14:14	191.7	0.981	0.45	3.39	16.48	-0.01
6/11/2024	14:15	191.7	0.981	0.20	2.94	17.29	-0.01
6/11/2024	14:16	191.7	0.980	0.31	2.62	19.96	-0.01
6/11/2024	14:17	191.7	0.981	0.31	3.38	16.28	-0.01
6/11/2024	14:18	191.7	0.982	0.31	3.24	16.47	-0.01
6/11/2024	14:19	191.7	0.981	0.47	3.43	17.07	-0.01
6/11/2024	14:20	191.7	0.981	0.28	2.78	16.19	-0.01
6/11/2024	14:21	191.7	0.981	0.12	3.10	15.84	0.00
6/11/2024	14:22	191.7	0.981	0.39	2.62	14.99	-0.01
6/11/2024	14:23	191.7	0.981	0.15	2.99	17.67	-0.01
6/11/2024	14:24	191.7	0.980	0.22	3.43	16.87	-0.01
6/11/2024	14:25	191.7	0.981	0.28	3.36	18.36	0.00
6/11/2024	14:26	191.7	0.981	0.48	2.72	16.78	-0.01
6/11/2024	14:27	191.7	0.981	0.32	3.13	16.09	-0.01
6/11/2024	14:28	191.7	0.981	0.27	2.75	14.99	-0.01
6/11/2024	14:29	191.7	0.981	0.26	2.91	14.68	-0.01
6/11/2024	14:31	191.7	0.981	0.36	3.03	17.73	-0.01
6/11/2024	14:32	191.7	0.981	0.31	3.02	15.78	-0.01
6/11/2024	14:33	191.7	0.981	0.17	3.00	16.51	-0.01
6/11/2024	14:34	191.7	0.980	0.26	3.44	19.16	0.00
6/11/2024	14:35	191.7	0.981	0.37	2.88	16.29	-0.01
6/11/2024	14:36	191.7	0.981	0.29	3.03	16.35	0.00
6/11/2024	14:37	191.7	0.981	0.40	2.97	16.09	-0.01
6/11/2024	14:38	191.7	0.982	0.28	3.41	15.42	-0.01



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F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/11/2024	14:39	191.7	0.982	0.27	2.58	14.47	-0.01
6/11/2024	14:40	191.7	0.981	0.43	2.94	16.41	-0.01
6/11/2024	14:41	191.7	0.981	0.33	3.43	17.00	-0.01
6/11/2024	14:42	191.7	0.980	0.18	2.92	19.74	-0.02
6/11/2024	14:43	191.7	0.981	0.31	3.55	17.94	-0.01
6/11/2024	14:44	191.7	0.982	0.42	2.98	16.06	-0.01
6/11/2024	14:45	191.7	0.982	0.24	3.04	14.70	-0.02
6/11/2024	14:46	191.7	0.981	0.37	2.79	14.53	0.00
6/11/2024	14:47	191.7	0.980	0.35	3.26	17.01	-0.01
6/11/2024	14:48	191.7	0.980	0.26	3.36	18.35	-0.01
6/11/2024	14:49	191.7	0.981	0.34	2.98	16.25	-0.01
6/11/2024	14:50	191.8	0.981	0.36	3.16	14.38	-0.01
6/11/2024	14:51	191.7	0.981	0.33	2.98	18.19	-0.02
6/11/2024	14:53	191.7	0.982	0.35	2.74	14.18	-0.02
6/11/2024	14:54	191.7	0.980	0.40	2.86	16.80	-0.01
6/11/2024	14:55	191.8	0.982	0.25	2.94	14.62	-0.01
6/11/2024	14:56	191.7	0.980	0.20	2.78	15.91	-0.01
6/11/2024	14:57	191.7	0.979	0.54	2.83	21.16	-0.02
6/11/2024	14:58	191.7	0.981	0.30	3.40	17.19	-0.01
6/11/2024	14:59	191.7	0.981	0.31	3.20	15.11	-0.01
6/11/2024	15:00	191.7	0.982	0.53	2.86	14.27	-0.01
6/11/2024	15:01	191.7	0.981	0.35	2.68	15.25	-0.01
6/11/2024	15:02	191.7	0.980	0.28	2.84	16.14	-0.01
6/11/2024	15:03	191.7	0.980	0.45	3.09	15.61	-0.01
6/11/2024	15:04	191.7	0.979	0.30	2.68	20.81	-0.01
6/11/2024	15:05	191.7	0.980	0.33	3.26	17.18	0.00
6/11/2024	15:06	191.8	0.981	0.29	2.95	15.93	0.00
6/11/2024	15:07	191.7	0.981	0.37	2.82	14.75	-0.01
6/11/2024	15:08	191.7	0.980	0.32	2.85	16.52	-0.01
6/11/2024	15:09	191.7	0.980	0.36	3.67	18.11	-0.01
6/11/2024	15:10	191.7	0.981	0.41	2.71	16.11	-0.01
6/11/2024	15:11	191.7	0.979	0.56	2.29	19.84	-0.02
6/11/2024	15:12	191.7	0.981	0.46	2.98	16.51	-0.01
6/11/2024	15:14	191.7	0.981	0.29	2.88	14.96	0.00
6/11/2024	15:15	191.7	0.981	0.41	3.07	14.54	-0.01
6/11/2024	15:16	191.7	0.980	0.06	2.71	15.38	-0.01
6/11/2024	15:17	191.7	0.981	0.56	3.23	16.19	-0.01
6/11/2024	15:18	191.7	0.981	0.33	2.98	14.71	-0.01
6/11/2024	15:19	191.7	0.978	0.58	2.42	20.88	-0.02
6/11/2024	15:20	191.7	0.980	0.61	2.54	18.89	-0.01
6/11/2024	15:21	191.7	0.981	0.32	3.47	15.65	-0.01
6/11/2024	15:22	191.7	0.981	0.29	2.73	14.37	-0.01
6/11/2024	15:23	191.7	0.981	0.36	2.40	13.99	-0.01
6/11/2024	15:24	191.7	0.980	0.24	2.86	15.98	-0.01
6/11/2024	15:25	191.7	0.980	0.30	3.31	15.52	0.00
6/11/2024	15:26	191.7	0.981	0.45	2.65	14.46	0.00
6/11/2024	15:27	191.7	0.980	0.32	2.88	17.07	-0.01
6/11/2024	15:28	191.7	0.980	0.26	3.31	18.21	0.00
6/11/2024	15:29	191.7	0.980	0.29	2.90	16.19	-0.01
6/11/2024	15:30	191.7	0.980	0.26	2.73	15.82	-0.01
6/11/2024	15:31	191.7	0.981	0.27	3.30	15.37	0.00
6/11/2024	15:32	191.7	0.979	0.35	2.83	21.23	-0.01
6/11/2024	15:33	191.7	0.981	0.53	3.03	16.94	-0.01
6/11/2024	15:34	191.7	0.980	0.46	2.94	16.90	-0.01
6/11/2024	15:36	191.7	0.981	0.23	3.25	15.96	-0.01
6/11/2024	15:37	191.6	0.981	0.23	3.26	14.73	-0.01
6/11/2024	15:38	191.6	0.981	0.26	2.63	14.23	-0.01
6/11/2024	15:39	191.7	0.979	0.35	2.87	18.50	-0.02
6/11/2024	15:40	191.6	0.980	0.24	2.96	19.22	-0.01
6/11/2024	15:41	191.7	0.981	0.31	3.10	16.07	-0.01
6/11/2024	15:42	191.7	0.981	0.31	3.15	14.66	-0.01
6/11/2024	15:43	191.7	0.979	0.40	2.88	17.97	-0.01
6/11/2024	15:44	191.7	0.981	0.23	2.64	15.07	0.00
6/11/2024	15:45	191.7	0.980	0.34	2.84	15.38	-0.01

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F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/11/2024	15:46	191.7	0.980	0.34	2.84	18.88	-0.01
6/11/2024	15:47	191.7	0.981	0.46	3.55	15.77	-0.01
6/11/2024	15:48	191.7	0.980	0.43	3.31	17.77	-0.01
6/11/2024	15:49	191.7	0.980	0.27	3.68	18.47	-0.01
6/11/2024	15:50	191.7	0.981	0.40	2.66	15.74	-0.01
6/11/2024	15:51	191.7	0.981	0.38	2.82	14.45	-0.01
6/11/2024	15:52	191.7	0.980	0.24	2.45	14.76	-0.02
6/11/2024	15:53	191.7	0.979	0.33	2.55	18.99	-0.01
6/11/2024	15:54	191.7	0.980	0.41	2.59	17.14	0.00
6/11/2024	15:55	191.7	0.981	0.29	3.01	15.05	-0.01
6/11/2024	15:56	191.7	0.980	0.38	3.27	16.47	-0.01
6/11/2024	15:58	191.7	0.979	0.36	3.08	20.31	-0.01
6/11/2024	15:59	191.7	0.981	0.35	2.75	16.26	-0.01
6/11/2024	16:00	191.7	0.981	0.33	2.34	14.69	-0.01
6/11/2024	16:01	191.7	0.981	0.22	2.11	13.68	0.00
6/11/2024	16:02	191.7	0.980	0.37	2.43	15.55	-0.02
6/11/2024	16:03	191.7	0.981	0.32	2.71	14.69	-0.02
6/11/2024	16:04	191.7	0.980	0.34	2.93	16.02	-0.01
6/11/2024	16:05	191.7	0.980	0.31	3.00	18.51	-0.01
6/11/2024	16:06	191.7	0.981	0.37	3.10	15.32	0.00
6/11/2024	16:07	191.7	0.979	0.38	3.60	17.47	-0.01
6/11/2024	16:08	191.8	0.980	0.19	3.51	17.63	-0.01
6/11/2024	16:09	191.7	0.980	0.35	3.06	18.23	-0.01
6/11/2024	16:10	191.7	0.980	0.44	3.03	16.30	-0.02
6/11/2024	16:11	191.7	0.981	0.27	3.22	15.41	-0.01
6/11/2024	16:12	191.7	0.980	0.19	2.99	16.52	-0.01
6/11/2024	16:13	191.7	0.979	0.39	3.66	18.98	-0.01
6/11/2024	16:14	191.7	0.980	0.25	3.28	16.33	-0.01
6/11/2024	16:15	191.7	0.980	0.26	2.78	14.96	-0.01
6/11/2024	16:16	191.7	0.980	0.01	3.53	16.37	-0.01
6/11/2024	16:17	191.7	0.980	0.20	3.22	15.90	-0.01
6/11/2024	16:18	191.7	0.980	0.39	3.49	15.58	-0.01
6/11/2024	16:20	191.7	0.981	0.27	3.55	14.91	-0.01
6/11/2024	16:21	191.7	0.981	0.26	3.20	14.93	-0.02
6/11/2024	16:22	191.6	0.979	0.24	2.95	21.51	-0.02
6/11/2024	16:23	191.6	0.981	0.36	3.11	16.00	-0.01
6/11/2024	16:24	191.6	0.979	0.29	3.06	18.08	-0.02
6/11/2024	16:25	191.7	0.980	0.50	2.81	16.71	0.00
6/11/2024	16:26	191.7	0.981	0.48	3.29	15.60	-0.01
6/11/2024	16:27	191.7	0.981	0.35	3.17	14.43	-0.02
6/11/2024	16:28	191.7	0.980	0.34	3.63	16.85	-0.01
6/11/2024	16:29	191.7	0.981	0.39	3.16	15.84	-0.01
6/11/2024	16:30	191.7	0.980	0.35	3.14	16.36	-0.02
6/11/2024	16:31	191.7	0.981	0.41	2.98	15.57	-0.01
6/11/2024	16:32	191.7	0.980	0.06	2.84	18.47	-0.01
6/11/2024	16:33	191.7	0.981	0.37	2.36	14.66	-0.01
6/11/2024	16:34	191.7	0.979	0.22	3.16	21.79	-0.01
6/11/2024	16:35	191.7	0.981	0.38	3.47	16.66	-0.01
6/11/2024	16:36	191.7	0.980	0.38	3.62	18.16	-0.01
6/11/2024	16:37	191.7	0.981	0.19	3.17	15.80	-0.01
6/11/2024	16:38	191.7	0.981	0.41	3.13	15.05	-0.01
6/11/2024	16:39	191.8	0.981	0.28	3.73	14.92	-0.01
6/11/2024	16:40	191.8	0.980	0.35	3.37	16.68	-0.01
6/11/2024	16:42	191.7	0.980	0.52	3.14	17.16	-0.01
6/11/2024	16:43	191.7	0.980	0.44	3.26	16.47	-0.02
6/11/2024	16:44	191.8	0.980	0.22	3.60	16.73	-0.01
6/11/2024	16:45	191.7	0.980	0.31	3.49	17.60	-0.01
6/11/2024	16:46	191.7	0.980	0.39	3.65	17.86	-0.01
6/11/2024	16:47	191.7	0.981	0.29	3.12	16.32	-0.01
6/11/2024	16:48	191.7	0.980	0.46	3.46	15.87	-0.02
6/11/2024	16:49	191.7	0.981	0.36	3.32	15.59	-0.02
6/11/2024	16:50	191.6	0.980	0.23	3.51	15.64	-0.01
6/11/2024	16:51	191.7	0.980	0.29	3.87	15.62	-0.01
6/11/2024	16:52	191.7	0.980	0.39	3.10	15.57	-0.01

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/11/2024	16:53	191.6	0.979	0.25	2.56	19.49	-0.02
6/11/2024	16:54	191.6	0.980	0.29	2.61	20.61	-0.01
6/11/2024	16:55	191.6	0.980	0.41	3.67	16.76	-0.01
6/11/2024	16:56	191.6	0.980	0.22	3.44	16.31	-0.01
6/11/2024	16:57	191.7	0.980	0.50	3.05	15.66	0.00
6/11/2024	16:58	191.7	0.980	0.45	3.27	15.66	-0.01
6/11/2024	16:59	191.7	0.980	0.26	3.04	15.82	-0.01
6/11/2024	17:00	191.7	0.980	0.21	3.57	16.05	-0.01
6/11/2024	17:01	191.7	0.980	0.30	3.16	16.18	-0.01
6/11/2024	17:03	191.7	0.980	0.42	3.43	16.42	-0.01
6/11/2024	17:04	191.7	0.980	0.22	3.43	16.36	-0.01
6/11/2024	17:05	191.7	0.981	0.30	2.71	15.70	-0.01
6/11/2024	17:06	191.7	0.980	0.38	3.66	15.75	0.00
6/11/2024	17:07	191.7	0.980	0.41	3.32	16.03	-0.01
6/11/2024	17:08	191.7	0.980	0.39	3.27	16.19	-0.01
6/11/2024	17:09	191.7	0.978	0.47	3.31	20.11	-0.01
6/11/2024	17:10	191.7	0.979	0.33	2.76	18.32	-0.01
6/11/2024	17:11	191.7	0.980	0.48	3.52	16.18	-0.02
6/11/2024	17:12	191.7	0.980	0.43	3.26	15.82	0.00
6/11/2024	17:13	191.7	0.980	0.42	2.91	15.49	-0.01
6/11/2024	17:14	191.7	0.980	0.44	3.11	15.02	-0.01
6/11/2024	17:15	191.7	0.980	0.34	3.06	14.55	-0.01
6/11/2024	17:16	191.7	0.979	0.31	3.30	17.85	-0.02
6/11/2024	17:17	191.7	0.980	0.22	3.53	17.09	-0.01
6/11/2024	17:18	191.7	0.981	0.31	2.91	14.79	-0.01
6/11/2024	17:19	191.7	0.980	0.49	3.37	15.30	-0.01
6/11/2024	17:20	191.7	0.980	0.28	3.56	17.08	-0.01
6/11/2024	17:21	191.7	0.980	0.49	3.06	15.93	-0.01
6/11/2024	17:22	191.7	0.979	0.32	2.98	17.36	-0.01
6/11/2024	17:23	191.7	0.980	0.44	3.50	17.41	-0.01
6/11/2024	17:25	191.7	0.981	0.26	2.41	14.71	-0.01
6/11/2024	17:26	191.7	0.980	0.25	2.93	16.23	-0.01
6/11/2024	17:27	191.7	0.979	0.31	2.94	19.57	-0.01
6/11/2024	17:28	191.6	0.980	0.38	3.03	15.90	-0.01
6/11/2024	17:29	191.6	0.980	0.30	3.50	16.51	-0.01
6/11/2024	17:30	191.7	0.980	0.51	2.56	14.98	-0.01
6/11/2024	17:31	191.7	0.979	0.43	3.23	16.77	-0.02
6/11/2024	17:32	191.7	0.980	0.43	3.33	16.35	-0.01
6/11/2024	17:33	191.7	0.980	0.38	2.93	14.79	-0.02
6/11/2024	17:34	191.7	0.979	0.34	3.63	16.93	-0.02
6/11/2024	17:35	191.7	0.978	0.37	3.41	21.39	-0.02
6/11/2024	17:36	191.7	0.981	0.42	3.40	16.07	-0.02
6/11/2024	17:37	191.7	0.979	0.35	3.39	17.25	-0.01
6/11/2024	17:38	191.7	0.981	0.33	2.67	15.66	-0.01
6/11/2024	17:39	191.7	0.984	0.35	1.69	10.05	0.00
6/11/2024	17:40	191.7	0.986	0.12	1.31	3.97	0.00
6/11/2024	17:41	191.7	0.986	0.07	0.58	2.09	0.00
6/11/2024	17:42	191.7	0.986	0.23	0.05	1.68	0.00
6/11/2024	17:43	191.7	0.987	0.20	-0.13	0.67	-0.02
6/11/2024	17:44	191.7	0.986	0.30	0.06	0.53	-0.02
6/11/2024	17:45	191.7	0.980	0.29	1.77	6.63	0.00
6/11/2024	17:47	191.7	1.004	0.02	-0.65	0.59	0.00
6/11/2024	17:48	191.7	1.008	0.08	-0.19	0.24	0.01
6/11/2024	17:49	191.7	1.008	0.19	-0.31	0.14	-0.01
6/11/2024	17:50	191.7	1.008	0.14	-0.12	0.10	0.00
6/11/2024	17:51	191.8	1.008	0.21	-0.06	0.09	-0.01
6/11/2024	17:53	191.7	1.008	0.00	0.00	0.00	0.00
6/11/2024	17:54	191.7	1.009	4.52	36.60	-0.02	3.85
6/11/2024	17:55	191.6	1.026	83.02	10.33	-0.04	1.00
6/11/2024	17:56	191.4	1.030	98.77	-0.06	-0.05	-0.01
6/11/2024	17:57	191.3	1.029	98.69	0.35	-0.05	-0.01
6/11/2024	17:58	191.2	1.029	99.17	0.22	-0.06	-0.01
6/11/2024	17:59	191.2	1.027	94.87	-0.07	-0.05	-0.01
6/11/2024	18:01	191.4	0.467	5.42	-0.47	-0.18	0.00

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/11/2024	18:02	191.6	0.340	3.37	0.98	-0.14	-0.01
6/11/2024	18:03	191.7	0.340	3.95	2.07	-0.08	0.00
6/11/2024	18:04	191.8	0.843	-6.50	8.56	5.64	0.68
6/11/2024	18:05	191.7	0.982	-0.11	11.17	6.82	1.23
6/11/2024	18:06	191.7	0.981	0.21	9.19	8.42	0.84
6/11/2024	18:07	191.7	0.981	0.11	8.54	8.70	0.81
6/11/2024	18:08	191.7	0.981	0.09	8.43	9.78	0.81
6/11/2024	18:09	191.7	0.980	0.27	7.30	10.95	0.65
6/11/2024	18:10	191.7	0.981	0.09	5.68	13.05	0.51
6/11/2024	18:11	191.7	0.980	0.27	6.76	12.13	0.51
6/11/2024	18:12	191.7	0.979	0.27	7.36	16.84	0.48
6/11/2024	18:13	191.7	0.980	0.25	6.51	16.53	0.46
6/11/2024	18:14	191.7	0.981	0.36	5.76	14.46	0.49
6/11/2024	18:15	191.7	0.979	0.20	6.52	14.71	0.48
6/11/2024	18:16	191.7	0.980	0.03	6.64	15.93	0.46
6/11/2024	18:17	191.7	0.978	0.07	6.46	18.56	0.46
6/11/2024	18:18	191.7	0.980	0.05	6.54	16.33	0.47
6/11/2024	18:19	191.7	0.980	0.21	6.68	14.74	0.48
6/11/2024	18:20	191.7	0.980	0.24	6.65	13.78	0.48
6/11/2024	18:21	191.7	0.980	0.20	6.31	14.45	0.48
6/11/2024	18:23	191.8	0.999	0.20	2.79	7.61	0.12
6/11/2024	18:24	191.8	1.006	0.19	-0.03	1.88	0.01
6/12/2024	6:38	191.7	1.010	0.00	0.00	0.00	0.00
6/12/2024	6:39	191.7	1.010	-0.02	-0.11	-0.02	0.00
6/12/2024	6:40	191.7	1.010	0.11	-0.03	-0.03	0.00
6/12/2024	6:41	191.7	1.010	-0.09	-0.13	-0.01	0.00
6/12/2024	6:42	191.7	1.010	-0.02	0.04	-0.01	-0.01
6/12/2024	6:43	191.7	1.018	44.43	-0.59	-0.01	-0.05
6/12/2024	6:44	191.5	1.024	98.18	-0.05	-0.03	0.00
6/12/2024	6:45	191.4	1.024	98.35	-0.06	-0.02	0.00
6/12/2024	6:46	191.3	1.024	98.35	0.26	-0.03	-0.01
6/12/2024	6:47	191.3	1.017	78.75	-0.10	0.13	-0.01
6/12/2024	6:49	191.5	0.989	20.24	0.47	2.53	0.00
6/12/2024	6:50	191.5	0.989	0.31	0.43	2.60	0.02
6/12/2024	6:51	191.6	0.989	0.05	-0.38	0.10	0.00
6/12/2024	6:52	191.6	0.989	0.03	-0.47	0.00	-0.01
6/12/2024	6:53	191.6	0.989	0.02	-0.22	0.26	-0.02
6/12/2024	6:54	191.6	0.990	0.13	-0.24	0.00	-0.01
6/12/2024	6:55	191.6	0.989	0.05	-0.17	0.57	-0.02
6/12/2024	6:56	191.6	0.986	0.07	0.76	5.33	-0.01
6/12/2024	6:57	191.7	0.986	0.07	0.70	6.35	-0.01
6/12/2024	6:58	191.7	0.985	0.21	1.67	7.13	0.00
6/12/2024	6:59	191.6	0.985	0.18	0.94	7.55	-0.02
6/12/2024	7:00	191.6	0.985	0.32	1.43	8.06	-0.01
6/12/2024	7:01	191.6	0.984	0.32	1.34	8.87	-0.02
6/12/2024	7:02	191.6	0.984	-0.03	1.06	10.42	0.01
6/12/2024	7:03	191.6	0.983	0.30	2.80	15.83	-0.01
6/12/2024	7:04	191.6	0.983	0.11	2.14	15.64	-0.01
6/12/2024	7:05	191.6	0.984	0.26	1.46	12.74	-0.01
6/12/2024	7:06	191.6	0.982	0.28	2.55	16.59	-0.01
6/12/2024	7:07	191.6	0.984	0.26	2.56	17.37	0.00
6/12/2024	7:08	191.6	0.984	0.26	1.42	12.61	-0.01
6/12/2024	7:09	191.6	0.983	0.41	2.47	15.39	-0.02
6/12/2024	7:11	191.6	0.983	0.34	2.57	15.06	-0.01
6/12/2024	7:12	191.6	0.983	0.27	2.66	16.99	-0.01
6/12/2024	7:13	191.5	0.983	0.20	2.51	16.59	0.00
6/12/2024	7:14	191.6	0.984	0.42	1.22	14.23	-0.01
6/12/2024	7:15	191.6	0.982	0.32	2.50	19.42	-0.01
6/12/2024	7:16	191.6	0.984	0.39	2.78	17.09	0.00
6/12/2024	7:17	191.6	0.984	0.44	2.59	13.89	-0.01
6/12/2024	7:18	191.6	0.983	0.43	1.43	14.74	0.00
6/12/2024	7:19	191.6	0.982	0.36	1.94	20.34	-0.02
6/12/2024	7:20	191.6	0.984	0.29	1.95	14.73	-0.01

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/12/2024	7:21	191.6	0.983	0.47	1.56	14.57	-0.01
6/12/2024	7:22	191.6	0.984	0.15	1.73	14.39	-0.01
6/12/2024	7:23	191.6	0.983	0.16	2.27	17.08	-0.01
6/12/2024	7:24	191.6	0.984	0.51	2.15	15.58	-0.01
6/12/2024	7:25	191.6	0.982	0.39	1.74	18.12	-0.01
6/12/2024	7:26	191.6	0.983	0.40	2.09	17.07	-0.01
6/12/2024	7:27	191.6	0.984	0.23	2.22	15.01	0.00
6/12/2024	7:28	191.6	0.982	0.22	2.62	18.89	-0.01
6/12/2024	7:29	191.7	0.984	0.30	1.88	13.90	-0.01
6/12/2024	7:30	191.6	0.982	0.15	2.33	17.57	-0.01
6/12/2024	7:31	191.6	0.984	0.25	1.66	14.37	-0.01
6/12/2024	7:33	191.6	0.984	0.37	1.50	13.34	0.00
6/12/2024	7:34	191.6	0.983	0.28	2.59	17.94	-0.01
6/12/2024	7:35	191.6	0.983	0.28	2.20	17.34	-0.02
6/12/2024	7:36	191.6	0.983	0.24	2.37	15.88	-0.02
6/12/2024	7:37	191.6	0.983	0.03	2.73	15.94	-0.02
6/12/2024	7:38	191.6	0.983	0.14	2.07	17.66	-0.02
6/12/2024	7:39	191.6	0.983	0.28	2.80	15.45	-0.02
6/12/2024	7:40	191.6	0.983	0.22	2.26	18.04	0.00
6/12/2024	7:41	191.6	0.984	0.34	2.11	14.37	-0.01
6/12/2024	7:42	191.7	0.983	0.29	2.03	14.36	-0.02
6/12/2024	7:43	191.6	0.983	0.43	2.46	18.51	-0.01
6/12/2024	7:44	191.6	0.984	0.21	2.20	14.29	-0.01
6/12/2024	7:45	191.7	0.982	0.23	2.13	19.80	-0.02
6/12/2024	7:46	191.6	0.984	0.42	2.57	15.47	-0.02
6/12/2024	7:47	191.7	0.984	0.16	1.95	13.96	-0.01
6/12/2024	7:48	191.7	0.983	0.32	2.46	16.24	-0.03
6/12/2024	7:49	191.7	0.983	0.32	2.16	15.89	-0.01
6/12/2024	7:50	191.7	0.984	0.33	2.42	15.35	-0.01
6/12/2024	7:51	191.7	0.983	0.40	2.75	14.42	-0.01
6/12/2024	7:52	191.6	0.983	0.40	2.11	18.50	-0.01
6/12/2024	7:54	191.6	0.982	0.25	1.80	18.40	-0.01
6/12/2024	7:55	191.6	0.982	0.43	2.43	18.85	-0.01
6/12/2024	7:56	191.7	0.984	0.18	2.31	15.52	0.00
6/12/2024	7:57	191.7	0.983	0.27	2.44	16.21	-0.01
6/12/2024	7:58	191.7	0.984	0.52	2.49	17.06	-0.01
6/12/2024	7:59	191.7	0.984	0.35	2.03	14.26	0.00
6/12/2024	8:00	191.6	0.983	0.14	2.39	16.01	-0.02
6/12/2024	8:01	191.6	0.983	0.32	2.42	19.37	-0.02
6/12/2024	8:02	191.6	0.984	0.27	2.00	14.05	-0.01
6/12/2024	8:03	191.6	0.984	0.27	1.70	13.03	-0.01
6/12/2024	8:04	191.6	0.982	0.21	2.85	17.41	-0.01
6/12/2024	8:05	191.6	0.983	0.41	2.88	17.10	-0.01
6/12/2024	8:06	191.6	0.983	0.22	2.53	17.87	-0.01
6/12/2024	8:07	191.6	0.983	0.29	2.61	18.62	-0.01
6/12/2024	8:08	191.6	0.984	0.36	2.60	16.11	-0.01
6/12/2024	8:09	191.7	0.984	0.28	2.12	15.44	-0.01
6/12/2024	8:10	191.6	0.984	0.51	2.69	17.04	-0.01
6/12/2024	8:11	191.6	0.983	0.44	2.02	15.90	-0.01
6/12/2024	8:12	191.7	0.983	0.24	2.42	18.72	0.00
6/12/2024	8:13	191.6	0.984	0.25	2.81	17.85	-0.01
6/12/2024	8:14	191.6	0.984	0.44	2.29	15.39	-0.01
6/12/2024	8:16	191.6	0.984	0.29	1.92	14.27	-0.02
6/12/2024	8:17	191.6	0.985	0.20	1.68	13.23	-0.01
6/12/2024	8:18	191.6	0.982	0.25	1.95	18.93	-0.01
6/12/2024	8:19	191.6	0.984	0.43	1.94	15.77	-0.01
6/12/2024	8:20	191.6	0.984	0.35	1.94	14.16	-0.01
6/12/2024	8:21	191.6	0.982	0.31	2.05	18.57	-0.02
6/12/2024	8:22	191.6	0.983	0.30	1.92	17.86	-0.01
6/12/2024	8:23	191.6	0.984	0.48	1.90	16.17	-0.01
6/12/2024	8:24	191.6	0.984	0.20	3.10	17.48	-0.01
6/12/2024	8:25	191.6	0.985	0.31	2.63	15.14	-0.01
6/12/2024	8:26	191.6	0.984	0.36	2.10	15.18	-0.01
6/12/2024	8:27	191.6	0.984	0.32	3.07	17.10	-0.01

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/12/2024	8:28	191.6	0.984	0.33	2.63	16.19	0.00
6/12/2024	8:29	191.6	0.983	0.38	2.13	16.70	-0.01
6/12/2024	8:30	191.6	0.984	0.36	2.60	15.58	-0.01
6/12/2024	8:31	191.6	0.983	0.51	2.64	19.44	-0.01
6/12/2024	8:32	191.6	0.984	0.42	1.60	14.72	-0.01
6/12/2024	8:33	191.6	0.984	0.21	1.94	15.92	-0.01
6/12/2024	8:34	191.6	0.984	0.34	2.21	16.31	-0.01
6/12/2024	8:35	191.6	0.984	0.38	2.21	19.48	-0.02
6/12/2024	8:36	191.6	0.985	0.35	2.23	15.19	0.00
6/12/2024	8:38	191.6	0.984	0.20	2.23	16.00	-0.01
6/12/2024	8:39	191.6	0.985	0.33	2.41	16.53	-0.01
6/12/2024	8:40	191.6	0.985	0.29	2.22	15.12	-0.01
6/12/2024	8:41	191.7	0.984	0.40	2.56	16.93	-0.01
6/12/2024	8:42	191.6	0.985	0.32	2.02	15.18	-0.02
6/12/2024	8:43	191.7	0.984	0.45	2.29	15.10	0.00
6/12/2024	8:44	191.7	0.985	0.44	2.37	15.56	-0.01
6/12/2024	8:45	191.7	0.984	0.56	2.73	17.51	-0.01
6/12/2024	8:46	191.7	0.985	0.43	2.15	15.51	-0.01
6/12/2024	8:47	191.7	0.985	0.39	2.90	14.49	-0.01
6/12/2024	8:48	191.7	0.984	0.42	2.20	18.08	-0.01
6/12/2024	8:49	191.6	0.985	0.36	1.94	18.25	-0.02
6/12/2024	8:50	191.6	0.986	0.42	1.61	14.26	-0.01
6/12/2024	8:51	191.7	0.985	0.22	2.20	15.22	-0.02
6/12/2024	8:52	191.7	0.984	0.43	2.64	19.45	-0.01
6/12/2024	8:53	191.7	0.985	0.41	1.61	15.71	-0.02
6/12/2024	8:54	191.7	0.985	0.26	2.86	17.56	-0.02
6/12/2024	8:55	191.7	0.985	0.41	2.82	16.47	-0.01
6/12/2024	8:56	191.7	0.986	0.38	2.04	15.16	-0.01
6/12/2024	8:57	191.7	0.985	0.33	2.47	16.55	-0.01
6/12/2024	8:58	191.7	0.984	0.44	3.01	19.02	-0.01
6/12/2024	9:00	191.7	0.986	0.25	2.08	16.36	-0.01
6/12/2024	9:01	191.7	0.986	0.46	1.73	14.83	0.00
6/12/2024	9:02	191.6	0.985	0.41	2.25	17.66	0.00
6/12/2024	9:03	191.6	0.986	0.26	1.91	15.61	-0.01
6/12/2024	9:04	191.7	0.986	0.35	2.19	14.61	-0.01
6/12/2024	9:05	191.6	0.984	0.40	2.37	16.28	-0.01
6/12/2024	9:06	191.6	0.985	0.36	2.13	19.17	0.00
6/12/2024	9:07	191.6	0.985	0.25	2.45	16.13	0.00
6/12/2024	9:08	191.6	0.985	0.41	2.16	16.52	0.00
6/12/2024	9:09	191.6	0.985	0.42	1.79	16.37	-0.01
6/12/2024	9:10	191.6	0.985	0.31	2.46	16.18	-0.01
6/12/2024	9:11	191.6	0.985	0.39	2.64	17.20	-0.01
6/12/2024	9:12	191.6	0.985	0.48	2.44	15.85	-0.01
6/12/2024	9:13	191.6	0.985	0.36	2.51	16.24	-0.01
6/12/2024	9:14	191.6	0.985	0.49	2.89	17.57	-0.01
6/12/2024	9:15	191.6	0.985	0.42	2.45	15.79	-0.01
6/12/2024	9:16	191.6	0.985	0.32	2.33	15.63	0.00
6/12/2024	9:17	191.6	0.985	0.25	1.97	18.32	0.00
6/12/2024	9:18	191.6	0.985	0.39	2.42	16.07	-0.01
6/12/2024	9:19	191.7	0.985	0.39	2.04	16.02	-0.01
6/12/2024	9:20	191.6	0.984	0.08	2.01	20.33	-0.02
6/12/2024	9:22	191.7	0.986	0.39	2.48	15.39	-0.01
6/12/2024	9:23	191.7	0.985	0.49	2.29	15.00	-0.01
6/12/2024	9:24	191.7	0.985	0.48	2.04	18.68	-0.01
6/12/2024	9:25	191.7	0.985	0.18	2.45	15.26	0.00
6/12/2024	9:26	191.7	0.985	0.36	2.39	14.76	0.00
6/12/2024	9:27	191.7	0.985	0.56	2.39	18.52	-0.01
6/12/2024	9:28	191.7	0.985	0.23	1.90	18.82	-0.01
6/12/2024	9:29	191.6	0.986	0.39	2.32	16.25	-0.02
6/12/2024	9:30	191.6	0.986	0.29	2.19	14.94	-0.01
6/12/2024	9:31	191.6	0.985	0.35	2.43	15.30	-0.01
6/12/2024	9:32	191.7	0.984	0.52	1.64	19.39	-0.01
6/12/2024	9:33	191.6	0.985	0.34	2.09	17.92	-0.01
6/12/2024	9:34	191.6	0.986	0.22	2.26	14.97	-0.01

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Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/12/2024	9:35	191.7	0.985	0.37	2.49	15.57	0.00
6/12/2024	9:36	191.7	0.986	0.42	2.42	16.31	-0.01
6/12/2024	9:37	191.7	0.985	0.41	2.15	15.67	-0.01
6/12/2024	9:38	191.6	0.985	0.42	2.75	16.87	-0.01
6/12/2024	9:39	191.6	0.986	0.31	2.72	16.26	-0.01
6/12/2024	9:40	191.6	0.984	0.53	2.13	17.68	-0.01
6/12/2024	9:41	191.6	0.985	0.45	2.44	16.93	-0.01
6/12/2024	9:42	191.6	0.985	0.30	2.43	15.78	0.00
6/12/2024	9:44	191.6	0.985	0.48	2.23	18.29	-0.01
6/12/2024	9:45	191.6	0.985	0.25	1.86	16.57	-0.01
6/12/2024	9:46	191.6	0.985	0.23	2.63	16.19	-0.02
6/12/2024	9:47	191.6	0.986	0.36	2.71	16.92	-0.01
6/12/2024	9:48	191.6	0.985	0.40	2.22	15.13	-0.01
6/12/2024	9:49	191.6	0.986	0.51	2.34	14.61	-0.01
6/12/2024	9:50	191.7	0.985	0.32	2.52	16.91	-0.01
6/12/2024	9:51	191.6	0.985	0.45	2.44	17.08	-0.01
6/12/2024	9:52	191.7	0.985	0.49	2.36	15.93	0.00
6/12/2024	9:53	191.7	0.985	0.19	2.96	17.22	-0.01
6/12/2024	9:54	191.6	0.985	0.29	3.00	17.06	-0.02
6/12/2024	9:55	191.6	0.986	0.32	2.13	15.68	-0.01
6/12/2024	9:56	191.7	0.986	0.41	2.38	15.03	-0.01
6/12/2024	9:57	191.6	0.985	0.36	2.57	16.69	-0.01
6/12/2024	9:58	191.6	0.984	0.36	2.03	19.28	-0.01
6/12/2024	9:59	191.6	0.985	0.43	2.04	18.42	-0.02
6/12/2024	10:00	191.7	0.986	0.34	2.32	17.21	-0.01
6/12/2024	10:01	191.7	0.986	0.46	2.75	15.12	-0.01
6/12/2024	10:02	191.7	0.986	0.22	1.85	14.39	-0.01
6/12/2024	10:03	191.7	0.985	0.35	1.94	17.78	-0.01
6/12/2024	10:05	191.7	0.986	0.40	2.17	17.55	-0.01
6/12/2024	10:06	191.7	0.985	0.45	2.76	16.05	0.00
6/12/2024	10:07	191.7	0.986	0.46	2.17	15.54	-0.01
6/12/2024	10:08	191.7	0.985	0.37	2.90	16.92	-0.02
6/12/2024	10:09	191.7	0.986	0.45	2.22	16.69	0.00
6/12/2024	10:10	191.7	0.986	0.39	2.29	15.71	-0.02
6/12/2024	10:11	191.6	0.986	0.31	1.98	15.07	-0.01
6/12/2024	10:12	191.7	0.985	0.46	2.50	16.99	-0.01
6/12/2024	10:13	191.7	0.985	0.30	3.08	17.56	-0.02
6/12/2024	10:14	191.7	0.986	0.47	1.72	15.01	0.00
6/12/2024	10:15	191.7	0.984	0.42	1.97	19.49	-0.01
6/12/2024	10:16	191.7	0.985	0.33	2.28	16.43	-0.01
6/12/2024	10:17	191.7	0.985	0.40	2.55	15.20	-0.01
6/12/2024	10:18	191.7	0.986	0.26	2.60	14.97	-0.02
6/12/2024	10:19	191.7	0.985	0.48	2.34	14.92	-0.01
6/12/2024	10:20	191.7	0.986	0.05	2.27	16.47	-0.01
6/12/2024	10:21	191.7	0.984	0.42	2.31	20.65	-0.01
6/12/2024	10:22	191.7	0.986	0.45	2.60	17.58	-0.01
6/12/2024	10:23	191.7	0.986	0.22	2.37	15.36	-0.01
6/12/2024	10:24	191.7	0.985	0.24	2.54	15.96	-0.01
6/12/2024	10:25	191.7	0.985	0.47	2.48	16.63	-0.02
6/12/2024	10:27	191.7	0.985	0.19	2.04	16.69	-0.02
6/12/2024	10:28	191.6	0.986	0.28	2.58	15.12	-0.01
6/12/2024	10:29	191.7	0.986	0.46	2.21	15.61	-0.01
6/12/2024	10:30	191.6	0.986	0.39	2.55	15.65	-0.01
6/12/2024	10:31	191.7	0.985	0.45	1.78	18.86	-0.01
6/12/2024	10:32	191.7	0.985	0.35	1.86	16.44	-0.01
6/12/2024	10:33	191.6	0.986	0.34	2.42	15.30	-0.01
6/12/2024	10:34	191.7	0.985	0.32	2.55	16.78	-0.01
6/12/2024	10:35	191.7	0.985	0.59	2.88	16.44	-0.01
6/12/2024	10:36	191.7	0.984	0.47	2.68	18.65	-0.01
6/12/2024	10:37	191.7	0.985	0.44	2.30	16.15	-0.01
6/12/2024	10:38	191.6	0.984	0.20	2.02	19.93	-0.02
6/12/2024	10:39	191.6	0.985	0.53	2.41	16.74	-0.01
6/12/2024	10:40	191.6	0.985	0.44	3.29	17.84	-0.01
6/12/2024	10:41	191.6	0.986	0.41	2.28	16.90	-0.01

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Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/12/2024	10:42	191.6	0.986	0.38	2.23	15.55	-0.01
6/12/2024	10:43	191.7	0.985	0.37	2.27	14.46	-0.02
6/12/2024	10:44	191.6	0.985	0.40	2.46	16.68	-0.01
6/12/2024	10:45	191.6	0.985	0.43	2.50	15.87	-0.01
6/12/2024	10:46	191.6	0.986	0.44	2.07	15.00	-0.01
6/12/2024	10:47	191.6	0.985	0.40	2.07	18.20	-0.01
6/12/2024	10:49	191.6	0.985	0.29	1.94	15.80	-0.01
6/12/2024	10:50	191.6	0.985	0.30	2.77	14.36	-0.02
6/12/2024	10:51	191.6	0.984	0.23	2.93	17.37	-0.01
6/12/2024	10:52	191.6	0.984	0.48	2.43	20.14	-0.01
6/12/2024	10:53	191.7	0.986	0.37	2.62	17.18	-0.01
6/12/2024	10:54	191.7	0.985	0.52	2.33	15.58	-0.01
6/12/2024	10:55	191.7	0.985	0.40	1.97	18.80	-0.01
6/12/2024	10:56	191.7	0.985	0.53	2.09	19.04	-0.01
6/12/2024	10:57	191.7	0.986	0.42	2.52	16.22	0.00
6/12/2024	10:58	191.7	0.986	0.32	2.80	15.14	-0.01
6/12/2024	10:59	191.7	0.986	0.48	2.35	14.30	-0.01
6/12/2024	11:00	191.7	0.985	0.56	2.66	16.66	-0.01
6/12/2024	11:01	191.7	0.986	0.33	2.27	16.85	-0.01
6/12/2024	11:02	191.7	0.985	0.34	2.65	15.82	-0.02
6/12/2024	11:03	191.7	0.986	0.41	2.95	14.78	-0.01
6/12/2024	11:04	191.7	0.985	0.30	2.14	15.98	-0.02
6/12/2024	11:05	191.7	0.985	0.43	2.11	19.14	-0.01
6/12/2024	11:06	191.7	0.985	0.57	3.01	17.20	0.00
6/12/2024	11:07	191.7	0.985	0.49	2.27	16.22	0.00
6/12/2024	11:08	191.7	0.985	0.38	2.41	15.50	-0.01
6/12/2024	11:09	191.7	0.984	0.48	1.78	18.92	-0.01
6/12/2024	11:11	191.7	0.985	0.31	2.32	16.19	-0.02
6/12/2024	11:12	191.7	0.985	0.45	2.44	16.58	-0.01
6/12/2024	11:13	191.7	0.985	0.26	2.32	15.97	-0.01
6/12/2024	11:14	191.7	0.985	0.49	2.61	18.28	-0.01
6/12/2024	11:15	191.7	0.985	0.61	2.20	19.67	-0.02
6/12/2024	11:16	191.7	0.985	0.27	2.66	16.85	-0.01
6/12/2024	11:17	191.7	0.986	0.32	2.19	14.99	-0.01
6/12/2024	11:18	191.7	0.986	0.39	1.98	14.60	-0.01
6/12/2024	11:19	191.7	0.985	0.39	2.41	17.93	0.00
6/12/2024	11:20	191.7	0.985	0.27	3.03	16.21	-0.01
6/12/2024	11:21	191.7	0.986	0.52	2.22	15.32	-0.01
6/12/2024	11:22	191.7	0.985	0.35	2.59	16.99	0.00
6/12/2024	11:23	191.7	0.985	0.41	2.60	15.85	0.00
6/12/2024	11:24	191.7	0.985	0.17	2.68	15.31	-0.01
6/12/2024	11:25	191.7	0.984	0.51	1.82	21.15	-0.01
6/12/2024	11:26	191.6	0.985	0.40	2.43	17.44	-0.01
6/12/2024	11:27	191.6	0.986	0.24	2.89	15.98	-0.01
6/12/2024	11:28	191.6	0.986	0.22	2.37	15.46	-0.01
6/12/2024	11:29	191.6	0.985	0.44	2.30	15.38	-0.01
6/12/2024	11:30	191.6	0.984	0.37	2.42	20.15	-0.01
6/12/2024	11:31	191.6	0.985	0.39	2.37	17.45	-0.01
6/12/2024	11:33	191.6	0.986	0.34	2.78	15.70	0.00
6/12/2024	11:34	191.7	0.985	0.45	2.16	15.05	-0.01
6/12/2024	11:35	191.7	0.986	0.42	2.29	14.88	-0.01
6/12/2024	11:36	191.7	0.985	0.43	2.57	16.40	-0.01
6/12/2024	11:37	191.6	0.985	0.49	2.90	17.80	-0.01
6/12/2024	11:38	191.6	0.985	0.36	2.12	16.89	-0.02
6/12/2024	11:39	191.7	0.985	0.48	2.07	16.98	-0.01
6/12/2024	11:40	191.7	0.986	0.21	2.47	15.91	-0.01
6/12/2024	11:41	191.6	0.985	0.36	2.34	16.48	-0.01
6/12/2024	11:42	191.6	0.985	0.37	2.43	17.16	-0.01
6/12/2024	11:43	191.6	0.989	0.31	1.95	13.45	0.01
6/12/2024	11:44	191.6	0.990	0.17	0.70	5.91	0.00
6/12/2024	11:45	191.6	0.991	0.10	0.36	3.09	0.00
6/12/2024	11:46	191.7	0.991	0.02	-0.07	1.99	0.01
6/12/2024	11:47	191.7	0.991	0.08	-0.53	1.94	-0.01
6/12/2024	11:48	191.7	0.992	0.19	-0.08	1.09	-0.02



BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/12/2024	11:49	191.7	0.992	0.40	-1.39	0.60	-0.01
6/12/2024	11:50	191.7	0.787	0.08	-0.77	0.55	-0.02
6/12/2024	11:51	191.7	1.013	0.47	-0.86	0.81	-0.02
6/12/2024	11:52	191.7	1.013	0.41	-0.66	0.40	-0.01
6/12/2024	11:53	191.8	1.013	0.24	-0.73	0.21	-0.01
6/12/2024	11:55	191.7	1.013	0.40	-0.73	0.13	-0.01
6/12/2024	11:56	191.7	1.013	0.10	-0.23	0.11	-0.01
6/12/2024	11:57	191.8	1.013	0.28	-0.12	0.08	0.00
6/12/2024	11:58	191.7	1.013	0.43	-0.11	0.09	-0.01
6/12/2024	12:00	191.7	1.013	0.00	0.00	0.00	0.00
6/12/2024	12:01	191.7	1.022	20.44	0.09	0.01	-0.03
6/12/2024	12:02	191.4	1.044	98.48	0.41	-0.02	-0.01
6/12/2024	12:03	191.2	1.044	98.58	0.26	-0.02	0.00
6/12/2024	12:04	191.1	1.044	98.35	0.10	-0.02	0.00
6/12/2024	12:05	191.0	1.044	98.79	0.14	-0.02	0.00
6/12/2024	12:06	191.0	1.044	98.53	0.18	-0.03	-0.03
6/12/2024	12:07	191.0	1.044	98.98	0.69	-0.03	0.00
6/12/2024	12:09	191.0	1.044	98.50	-0.04	-0.03	0.00
6/12/2024	12:10	191.0	1.044	98.45	-0.06	-0.04	0.00
6/12/2024	12:11	191.0	1.033	87.32	-0.49	0.00	-0.02
6/12/2024	12:12	191.4	0.988	0.12	1.56	5.02	-0.01
6/12/2024	12:13	191.6	0.987	0.17	1.77	6.98	-0.01
6/12/2024	12:14	191.7	0.986	-0.07	2.10	8.33	-0.02
6/12/2024	12:15	191.7	0.986	0.18	2.26	9.52	-0.01
6/12/2024	12:16	191.7	0.986	0.04	2.18	10.60	-0.02
6/12/2024	12:17	191.7	0.986	0.10	2.94	12.23	0.00
6/12/2024	12:18	191.7	0.986	-0.03	2.45	13.86	-0.01
6/12/2024	12:19	191.7	0.986	0.26	2.37	13.45	-0.01
6/12/2024	12:20	191.7	0.986	0.01	2.31	14.79	-0.01
6/12/2024	12:21	191.8	0.985	0.21	2.50	14.21	0.00
6/12/2024	12:22	191.7	0.984	-0.05	2.42	19.40	-0.01
6/12/2024	12:23	191.7	0.985	0.12	3.37	17.40	-0.01
6/12/2024	12:24	191.7	0.986	0.34	2.78	14.76	-0.02
6/12/2024	12:25	191.7	0.986	0.10	2.77	13.92	0.00
6/12/2024	12:26	191.7	0.985	0.01	2.39	13.91	-0.01
6/12/2024	12:27	191.7	0.983	-0.16	2.67	18.47	-0.02
6/12/2024	12:28	191.7	0.985	0.03	2.81	18.05	-0.01
6/12/2024	12:30	191.7	0.985	0.19	3.31	16.16	-0.02
6/12/2024	12:31	191.7	0.985	0.12	3.13	16.50	-0.01
6/12/2024	12:32	191.7	0.985	0.20	3.77	16.25	-0.01
6/12/2024	12:33	191.7	0.985	0.20	3.33	14.52	-0.01
6/12/2024	12:34	191.7	0.983	0.05	2.95	19.94	-0.02
6/12/2024	12:35	191.7	0.985	0.23	2.27	18.51	-0.01
6/12/2024	12:36	191.7	0.985	0.15	3.89	15.87	-0.01
6/12/2024	12:37	191.7	0.986	-0.02	2.49	14.39	-0.01
6/12/2024	12:38	191.7	0.986	-0.01	2.95	13.75	0.00
6/12/2024	12:39	191.7	0.986	0.24	2.24	14.14	-0.01
6/12/2024	12:40	191.7	0.985	0.01	2.43	15.66	0.00
6/12/2024	12:41	191.6	0.983	0.25	2.77	20.66	-0.02
6/12/2024	12:42	191.6	0.985	0.26	2.66	17.96	-0.02
6/12/2024	12:43	191.6	0.986	0.29	3.86	16.24	-0.01
6/12/2024	12:44	191.7	0.986	0.20	3.42	15.12	-0.02
6/12/2024	12:45	191.6	0.985	0.40	3.26	14.80	-0.01
6/12/2024	12:46	191.7	0.986	-0.05	2.65	14.45	0.00
6/12/2024	12:47	191.6	0.985	0.24	3.08	16.16	-0.01
6/12/2024	12:48	191.7	0.984	0.13	3.10	18.94	-0.01
6/12/2024	12:49	191.6	0.985	0.28	3.00	18.40	-0.01
6/12/2024	12:50	191.6	0.986	0.01	2.15	14.63	-0.02
6/12/2024	12:52	191.6	0.985	0.07	3.04	15.05	-0.02
6/12/2024	12:53	191.6	0.985	0.06	3.54	15.96	-0.01
6/12/2024	12:54	191.7	0.984	0.21	2.71	16.68	-0.01
6/12/2024	12:55	191.6	0.984	0.14	3.65	18.61	-0.01
6/12/2024	12:56	191.7	0.985	0.24	2.91	17.19	-0.02
6/12/2024	12:57	191.7	0.984	0.24	2.81	19.66	-0.01

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/12/2024	12:58	191.7	0.985	0.35	3.56	15.54	0.00
6/12/2024	12:59	191.7	0.985	0.44	2.73	16.31	-0.01
6/12/2024	13:00	191.7	0.985	0.04	3.20	15.23	-0.01
6/12/2024	13:01	191.7	0.985	0.09	3.16	15.35	0.00
6/12/2024	13:02	191.7	0.985	0.15	3.75	16.99	-0.01
6/12/2024	13:03	191.7	0.985	0.11	3.41	17.41	-0.01
6/12/2024	13:04	191.7	0.986	0.31	2.98	15.39	-0.01
6/12/2024	13:05	191.7	0.985	0.14	2.99	14.87	-0.01
6/12/2024	13:06	191.6	0.985	0.24	3.69	16.38	-0.02
6/12/2024	13:07	191.7	0.984	0.17	2.71	17.36	-0.02
6/12/2024	13:08	191.7	0.985	0.24	3.71	17.17	-0.01
6/12/2024	13:09	191.7	0.985	0.10	3.32	15.80	-0.01
6/12/2024	13:10	191.6	0.985	0.03	2.59	14.75	-0.01
6/12/2024	13:11	191.6	0.985	0.14	3.31	14.86	-0.01
6/12/2024	13:12	191.6	0.983	0.15	2.98	21.48	-0.01
6/12/2024	13:14	191.6	0.985	0.12	3.66	16.51	-0.01
6/12/2024	13:15	191.6	0.985	0.08	3.20	15.17	-0.01
6/12/2024	13:16	191.6	0.985	0.35	3.38	15.54	-0.02
6/12/2024	13:17	191.6	0.985	0.31	2.82	15.94	0.00
6/12/2024	13:18	191.7	0.986	0.24	3.13	14.71	-0.01
6/12/2024	13:19	191.7	0.983	0.05	2.92	20.98	-0.02
6/12/2024	13:20	191.6	0.985	0.15	2.52	17.98	-0.01
6/12/2024	13:21	191.6	0.985	0.21	3.32	16.25	-0.02
6/12/2024	13:22	191.6	0.986	0.32	2.95	15.10	0.00
6/12/2024	13:23	191.6	0.984	0.14	3.38	16.53	-0.01
6/12/2024	13:24	191.6	0.985	0.17	2.81	15.81	-0.01
6/12/2024	13:25	191.6	0.986	0.22	3.48	14.31	-0.01
6/12/2024	13:26	191.7	0.985	0.30	1.94	14.52	0.00
6/12/2024	13:27	191.6	0.984	0.26	2.66	18.54	0.00
6/12/2024	13:28	191.6	0.984	0.13	3.29	18.19	-0.01
6/12/2024	13:29	191.6	0.984	0.32	3.01	16.51	-0.02
6/12/2024	13:30	191.6	0.985	0.32	3.51	16.90	-0.02
6/12/2024	13:31	191.7	0.984	0.12	3.57	16.17	-0.03
6/12/2024	13:32	191.6	0.984	0.17	3.17	18.96	-0.01
6/12/2024	13:33	191.7	0.985	0.05	3.26	15.36	-0.01
6/12/2024	13:34	191.7	0.985	0.34	3.21	14.34	0.00
6/12/2024	13:36	191.6	0.985	0.04	2.91	13.98	-0.01
6/12/2024	13:37	191.7	0.983	0.38	3.36	17.37	-0.01
6/12/2024	13:38	191.6	0.985	0.29	3.63	16.38	-0.01
6/12/2024	13:39	191.6	0.985	0.12	2.94	15.46	-0.02
6/12/2024	13:40	191.6	0.985	0.07	3.14	15.60	-0.01
6/12/2024	13:41	191.6	0.983	0.25	3.24	21.62	-0.02
6/12/2024	13:42	191.6	0.985	0.12	2.81	16.83	-0.02
6/12/2024	13:43	191.7	0.985	0.29	2.96	15.54	-0.02
6/12/2024	13:44	191.7	0.985	0.23	3.37	15.41	-0.02
6/12/2024	13:45	191.7	0.985	0.10	3.35	14.99	-0.01
6/12/2024	13:46	191.7	0.983	0.29	3.36	18.32	-0.01
6/12/2024	13:47	191.7	0.984	0.24	2.84	16.85	-0.01
6/12/2024	13:48	191.7	0.985	0.40	3.59	15.81	-0.01
6/12/2024	13:49	191.6	0.984	0.28	2.80	17.66	-0.02
6/12/2024	13:50	191.6	0.984	-0.01	3.46	16.19	-0.01
6/12/2024	13:51	191.7	0.985	0.14	3.56	14.50	-0.02
6/12/2024	13:52	191.6	0.984	0.45	3.60	17.55	-0.01
6/12/2024	13:53	191.6	0.985	0.12	3.39	15.50	-0.01
6/12/2024	13:54	191.7	0.984	0.21	3.31	15.92	-0.01
6/12/2024	13:55	191.7	0.984	0.08	3.79	16.88	-0.01
6/12/2024	13:56	191.6	0.984	0.35	3.71	16.71	-0.02
6/12/2024	13:58	191.7	0.984	0.24	3.65	17.84	-0.02
6/12/2024	13:59	191.6	0.984	0.24	3.17	16.83	-0.01
6/12/2024	14:00	191.6	0.984	0.01	3.67	16.16	0.00
6/12/2024	14:01	191.6	0.985	0.10	3.39	15.59	-0.01
6/12/2024	14:02	191.7	0.984	0.31	3.46	16.64	-0.01
6/12/2024	14:03	191.7	0.985	0.13	2.69	14.78	-0.01
6/12/2024	14:04	191.7	0.985	0.05	2.05	14.64	-0.01

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/12/2024	14:05	191.7	0.984	0.23	3.71	16.73	-0.01
6/12/2024	14:06	191.7	0.984	0.07	3.21	16.53	-0.01
6/12/2024	14:07	191.6	0.983	0.02	3.24	20.10	-0.01
6/12/2024	14:08	191.6	0.984	0.26	3.22	18.23	-0.01
6/12/2024	14:09	191.6	0.985	0.17	4.06	15.60	-0.01
6/12/2024	14:10	191.7	0.985	0.13	3.42	14.37	-0.02
6/12/2024	14:11	191.7	0.984	0.47	3.22	14.86	-0.01
6/12/2024	14:12	191.7	0.984	0.15	3.55	17.94	-0.01
6/12/2024	14:13	191.7	0.985	0.38	3.28	15.94	-0.02
6/12/2024	14:14	191.7	0.984	0.23	3.09	16.45	-0.01
6/12/2024	14:15	191.7	0.984	0.00	3.74	17.00	-0.01
6/12/2024	14:16	191.7	0.984	0.09	2.98	15.14	-0.02
6/12/2024	14:17	191.7	0.984	0.01	3.14	16.40	-0.01
6/12/2024	14:19	191.7	0.984	0.03	3.75	17.56	0.00
6/12/2024	14:20	191.7	0.984	0.40	3.87	17.14	0.00
6/12/2024	14:21	191.7	0.984	0.22	3.21	15.94	-0.01
6/12/2024	14:22	191.6	0.985	0.28	3.45	14.79	0.00
6/12/2024	14:23	191.7	0.984	0.08	2.68	15.45	-0.01
6/12/2024	14:24	191.6	0.984	0.19	3.41	17.84	-0.01
6/12/2024	14:25	191.7	0.984	-0.07	4.01	15.34	-0.01
6/12/2024	14:26	191.7	0.984	0.10	4.07	15.80	-0.02
6/12/2024	14:27	191.7	0.984	-0.03	3.56	15.14	-0.02
6/12/2024	14:28	191.7	0.984	0.23	3.23	17.07	-0.02
6/12/2024	14:29	191.6	0.984	0.03	3.32	17.82	-0.02
6/12/2024	14:30	191.6	0.984	0.27	3.02	16.06	-0.01
6/12/2024	14:31	191.7	0.984	0.07	3.78	16.36	-0.01
6/12/2024	14:32	191.6	0.983	0.00	3.23	19.77	-0.01
6/12/2024	14:33	191.7	0.984	0.02	3.72	15.30	-0.01
6/12/2024	14:34	191.7	0.984	0.09	3.97	15.18	-0.02
6/12/2024	14:35	191.7	0.984	0.20	3.42	15.12	-0.02
6/12/2024	14:36	191.7	0.983	0.15	3.56	17.47	-0.02
6/12/2024	14:37	191.7	0.984	0.25	3.24	17.21	-0.01
6/12/2024	14:38	191.7	0.984	0.21	3.38	15.27	-0.01
6/12/2024	14:39	191.7	0.985	0.17	3.42	14.17	-0.01
6/12/2024	14:41	191.7	0.983	0.15	2.96	18.74	-0.01
6/12/2024	14:42	191.7	0.984	0.08	3.22	16.26	-0.01
6/12/2024	14:43	191.7	0.984	0.20	3.12	15.58	-0.02
6/12/2024	14:44	191.7	0.983	0.27	3.79	16.96	0.00
6/12/2024	14:45	191.7	0.984	0.20	3.32	15.89	-0.02
6/12/2024	14:46	191.7	0.983	0.28	4.12	16.88	-0.02
6/12/2024	14:47	191.7	0.983	0.15	3.95	16.87	0.00
6/12/2024	14:48	191.7	0.983	0.17	3.59	17.57	-0.02
6/12/2024	14:49	191.7	0.984	0.13	3.38	16.30	-0.01
6/12/2024	14:50	191.7	0.984	0.30	3.54	16.82	-0.02
6/12/2024	14:51	191.7	0.984	0.17	3.29	15.98	-0.01
6/12/2024	14:52	191.7	0.983	0.27	3.16	17.81	-0.01
6/12/2024	14:53	191.7	0.984	0.13	4.10	16.24	-0.03
6/12/2024	14:54	191.7	0.984	0.19	3.47	16.61	0.00
6/12/2024	14:55	191.7	0.984	0.27	3.61	15.32	-0.01
6/12/2024	14:56	191.7	0.984	0.26	3.07	16.00	-0.02
6/12/2024	14:57	191.7	0.983	0.21	2.41	17.81	0.00
6/12/2024	14:58	191.7	0.984	0.05	2.98	15.98	-0.01
6/12/2024	14:59	191.7	0.983	0.29	3.00	18.64	-0.02
6/12/2024	15:00	191.7	0.984	0.19	3.44	16.08	-0.01
6/12/2024	15:01	191.7	0.983	0.37	3.77	16.65	0.00
6/12/2024	15:03	191.7	0.983	0.21	3.25	19.14	-0.01
6/12/2024	15:04	191.7	0.984	0.31	2.86	16.28	0.00
6/12/2024	15:05	191.7	0.983	0.09	3.74	16.37	-0.01
6/12/2024	15:06	191.7	0.984	0.04	3.73	15.11	-0.01
6/12/2024	15:07	191.7	0.983	0.28	3.44	17.11	-0.01
6/12/2024	15:08	191.7	0.984	0.14	3.17	15.29	0.00
6/12/2024	15:09	191.7	0.982	-0.09	3.04	19.38	-0.02
6/12/2024	15:10	191.7	0.983	0.23	2.69	19.10	-0.01
6/12/2024	15:11	191.7	0.984	0.15	3.06	16.41	-0.02

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/12/2024	15:12	191.7	0.984	0.20	3.42	16.60	0.00
6/12/2024	15:13	191.7	0.984	0.20	3.19	15.71	-0.01
6/12/2024	15:14	191.7	0.984	0.26	3.09	14.64	-0.01
6/12/2024	15:15	191.7	0.984	0.07	2.62	14.85	-0.01
6/12/2024	15:16	191.7	0.983	0.27	2.68	17.94	-0.01
6/12/2024	15:17	191.7	0.984	0.23	3.20	16.00	-0.02
6/12/2024	15:18	191.7	0.984	0.10	3.73	15.84	-0.03
6/12/2024	15:19	191.7	0.983	0.26	3.86	17.49	-0.01
6/12/2024	15:20	191.7	0.984	0.17	3.89	16.01	-0.01
6/12/2024	15:21	191.7	0.983	0.07	3.02	18.47	-0.02
6/12/2024	15:22	191.7	0.984	0.20	3.43	16.24	-0.01
6/12/2024	15:23	191.7	0.984	0.23	3.11	14.92	-0.01
6/12/2024	15:25	191.7	0.984	0.23	2.42	14.89	0.00
6/12/2024	15:26	191.7	0.983	0.32	3.51	17.22	-0.02
6/12/2024	15:27	191.7	0.983	0.19	3.48	18.14	-0.01
6/12/2024	15:28	191.7	0.984	0.35	3.00	16.49	-0.01
6/12/2024	15:29	191.7	0.983	0.31	3.66	16.12	-0.01
6/12/2024	15:30	191.7	0.984	0.08	3.31	15.65	-0.01
6/12/2024	15:31	191.7	0.984	0.26	2.61	15.33	-0.01
6/12/2024	15:32	191.7	0.984	0.13	2.72	15.50	-0.01
6/12/2024	15:33	191.7	0.982	0.11	2.59	19.41	-0.02
6/12/2024	15:34	191.7	0.984	0.16	3.72	16.39	-0.02
6/12/2024	15:35	191.7	0.984	0.43	2.75	14.54	-0.01
6/12/2024	15:36	191.7	0.984	0.06	3.04	14.45	0.00
6/12/2024	15:37	191.7	0.981	0.22	3.09	19.29	0.00
6/12/2024	15:38	191.7	0.983	0.11	3.34	17.22	-0.02
6/12/2024	15:39	191.7	0.984	0.10	3.47	15.90	-0.02
6/12/2024	15:40	191.7	0.984	0.03	3.07	15.39	-0.02
6/12/2024	15:41	191.7	0.983	0.13	3.33	17.01	-0.02
6/12/2024	15:42	191.7	0.983	0.10	3.89	16.93	-0.01
6/12/2024	15:43	191.7	0.983	0.13	4.04	18.63	-0.01
6/12/2024	15:44	191.7	0.983	0.26	3.34	16.60	-0.01
6/12/2024	15:46	191.7	0.984	0.08	3.35	15.47	-0.02
6/12/2024	15:47	191.7	0.983	0.31	3.18	16.12	0.00
6/12/2024	15:48	191.7	0.982	0.28	3.10	19.20	-0.01
6/12/2024	15:49	191.7	0.983	-0.01	3.58	17.16	-0.01
6/12/2024	15:50	191.7	0.984	0.22	3.89	15.00	-0.01
6/12/2024	15:51	191.7	0.983	0.34	3.19	15.29	-0.02
6/12/2024	15:52	191.7	0.983	0.28	3.48	15.77	-0.01
6/12/2024	15:53	191.7	0.982	0.14	2.96	21.63	-0.02
6/12/2024	15:54	191.7	0.983	0.26	3.53	17.12	-0.01
6/12/2024	15:55	191.7	0.983	0.12	3.14	16.02	-0.02
6/12/2024	15:56	191.7	0.983	0.14	3.28	15.82	-0.01
6/12/2024	15:57	191.7	0.984	0.34	3.15	15.76	-0.01
6/12/2024	15:58	191.7	0.984	0.36	3.07	14.33	-0.01
6/12/2024	15:59	191.7	0.982	0.34	2.83	17.28	-0.02
6/12/2024	16:00	191.7	0.983	0.09	3.91	19.11	-0.01
6/12/2024	16:01	191.7	0.983	0.26	2.87	17.14	-0.01
6/12/2024	16:02	191.7	0.984	0.19	3.53	15.72	-0.01
6/12/2024	16:03	191.7	0.984	0.39	3.14	14.73	-0.01
6/12/2024	16:04	191.7	0.982	-0.06	2.31	17.92	-0.01
6/12/2024	16:05	191.7	0.983	0.25	3.18	17.85	0.00
6/12/2024	16:06	191.7	0.983	0.20	2.77	15.93	-0.01
6/12/2024	16:08	191.7	0.983	0.11	3.45	15.82	-0.01
6/12/2024	16:09	191.7	0.983	0.19	4.17	15.37	-0.02
6/12/2024	16:10	191.7	0.983	0.21	3.60	14.54	-0.02
6/12/2024	16:11	191.7	0.982	0.31	3.40	18.27	-0.02
6/12/2024	16:12	191.7	0.982	0.24	2.26	20.02	-0.02
6/12/2024	16:13	191.7	0.983	0.17	3.57	16.57	-0.01
6/12/2024	16:14	191.7	0.984	0.40	2.13	14.71	-0.01
6/12/2024	16:15	191.7	0.983	0.11	2.38	15.90	-0.01
6/12/2024	16:16	191.7	0.983	-0.02	2.86	14.91	-0.01
6/12/2024	16:17	191.7	0.982	0.17	3.22	16.82	-0.01
6/12/2024	16:18	191.6	0.982	0.22	2.88	21.31	-0.02

BASF - Pasadena, TX  
F-10 Boiler FTIR Data

Date	Time	Temp (°C)	Pressure (atm)	Ethylene (ppmvw)	HCN (ppmvw)	H2O (%)	SF6 (ppmvw)
6/12/2024	16:19	191.7	0.983	-0.07	3.46	16.48	-0.02
6/12/2024	16:20	191.7	0.983	0.03	3.22	15.21	-0.01
6/12/2024	16:21	191.7	0.984	-0.11	2.55	14.42	-0.01
6/12/2024	16:22	191.7	0.983	0.37	2.83	14.67	-0.01
6/12/2024	16:23	191.7	0.983	0.18	3.21	15.25	-0.02
6/12/2024	16:24	191.7	0.982	0.33	2.54	17.87	-0.02
6/12/2024	16:25	191.7	0.982	0.29	2.92	20.33	-0.01
6/12/2024	16:26	191.7	0.983	0.21	3.60	16.31	-0.02
6/12/2024	16:27	191.7	0.984	0.12	2.93	14.30	-0.01
6/12/2024	16:28	191.7	0.984	0.17	2.45	13.94	-0.01
6/12/2024	16:30	191.7	0.981	0.09	2.81	19.11	-0.01
6/12/2024	16:31	191.7	0.983	-0.01	2.97	17.18	-0.02
6/12/2024	16:32	191.7	0.987	-0.02	2.77	12.24	0.01
6/12/2024	16:33	191.7	0.988	-0.02	1.40	5.14	0.00
6/12/2024	16:34	191.7	0.988	0.12	0.02	2.97	0.00
6/12/2024	16:35	191.7	0.989	-0.07	0.02	1.71	-0.01
6/12/2024	16:36	191.7	0.990	-0.07	-0.96	0.67	-0.02
6/12/2024	16:37	191.7	0.997	-0.05	-0.77	0.85	-0.02
6/12/2024	16:38	191.7	1.010	-0.11	-0.91	0.77	0.00
6/12/2024	16:39	191.7	1.010	-0.10	-0.63	0.56	0.00
6/12/2024	16:40	191.7	1.010	-0.19	-0.90	0.42	0.00
6/12/2024	16:41	191.7	1.010	-0.08	-0.85	0.20	0.00
6/12/2024	16:42	191.7	1.010	-0.04	-0.95	0.05	0.00
6/12/2024	16:43	191.7	1.010	-0.39	-0.84	0.05	0.00
6/12/2024	16:46	191.8	1.011	0.00	0.00	0.00	0.00
6/12/2024	16:47	191.8	1.011	-0.05	0.38	-0.01	0.00
6/12/2024	16:48	191.7	1.022	30.76	-0.29	-0.02	-0.03
6/12/2024	16:49	191.4	1.039	99.15	-0.25	-0.03	0.00
6/12/2024	16:50	191.3	1.039	99.35	0.54	-0.04	0.00
6/12/2024	16:51	191.2	1.039	99.28	0.42	-0.05	0.00
6/12/2024	16:52	191.3	1.013	10.52	0.03	-0.07	-0.01

**Last Page of Report**

## **Appendix E:**

### **ANALYTICAL DATA PACKAGES**

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Appendix	Description
E.1	Waste Liquid Fuel Analyses
E.2	Stack Gas Analyses – Polycyclic Aromatic Hydrocarbons And Polychlorinated Biphenyls



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## **Appendix E.1**

### **Waste Liquid Fuel Analyses**



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Austin Abranovic  
Alliance Source Testing, LLC  
214 Central Circle SW  
Decatur AL 35603

Generated 7/17/2024 10:06 AM

## JOB DESCRIPTION

BASF Pasadena TX Waste Feed

## JOB NUMBER

140-37217-1

# Eurofins Knoxville

## Job Notes

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Authorized for release by  
Aurielle C Wright, Project Management Assistant I  
[Aurielle.Wright@et.eurofinsus.com](mailto:Aurielle.Wright@et.eurofinsus.com)  
Designee for  
Courtney M Adkins, Project Manager II  
[Courtney.Adkins@et.eurofinsus.com](mailto:Courtney.Adkins@et.eurofinsus.com)  
865 291-3019

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# Definitions/Glossary

Client: Alliance Source Testing, LLC  
Project/Site: BASF Pasadena TX Waste Feed

Job ID: 140-37217-1

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▣	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# Sample Summary

Client: Alliance Source Testing, LLC  
Project/Site: BASF Pasadena TX Waste Feed

Job ID: 140-37217-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
140-37217-1	WASTE FEED-COMPOSITE-RUN 2A	Waste	06/05/24 17:53	06/19/24 09:00
140-37217-2	WASTE FEED-COMPOSITE-RUN 3A	Waste	06/06/24 11:33	06/19/24 09:00
140-37217-3	WASTE FEED-COMPOSITE-RUN 4A	Waste	06/06/24 16:26	06/19/24 09:00
140-37217-4	WASTE FEED-COMPOSITE-RUN 5A	Waste	06/07/24 09:53	06/19/24 09:00
140-37217-5	WASTE FEED-COMPOSITE-RUN 6A	Waste	06/11/24 17:33	06/19/24 09:00
140-37217-6	WASTE FEED-COMPOSITE-RUN 7A	Waste	06/12/24 11:39	06/19/24 09:00
140-37217-7	WASTE FEED-COMPOSITE-RUN 8A	Waste	06/12/24 16:26	06/19/24 09:00
140-37217-15	WASTE FEED-COMPOSITE-RUN 3A DUP	Waste	06/06/24 11:33	06/19/24 09:00

# Method Summary

Client: Alliance Source Testing, LLC  
Project/Site: BASF Pasadena TX Waste Feed

Job ID: 140-37217-1

Method	Method Description	Protocol	Laboratory
D1475	Density	ASTM	EET KNX
D240	Heat of Combustion	ASTM	EET KNX

**Protocol References:**

ASTM = ASTM International

**Laboratory References:**

EET KNX = Eurofins Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

**Job Narrative**  
**140-37217-1**

**Receipt**

The samples were received on 6/19/2024 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 20.1° C.

**Receipt Exceptions**

The Field Sampler was not listed on the Chain of Custody.

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. Matrix not listed, logged per project requirements.

The following samples were submitted for analysis; however, it was not listed on the Chain-of-Custody (COC): WASTE FEED-COMPOSITE-RUN 3A DUP (140-37217-15) and WASTE FEED-COMPOSITE-RUN 3B DUP (140-37217-16)

**General Chemistry**

Gross Calorific Value: The heat of combustion (gross calorific value) of the samples was determined using SOP number KNOX-WC-0010 (based on ASTM Method D5865 for solids and ASTM Method D240 for liquids). A waste feed sample is combusted in an oxygen bomb that has been placed in a bomb calorimeter. The energy released during this combustion process is captured in the calorimeter, and the temperature rise of a water bath surrounding the bomb is measured. The temperature rise is proportional to the heat liberated during the combustion in calories. The gross calorific value is calculated from the temperature rise, the sample weight, and the calibration coefficient of the calorimeter. Certain extraneous sources of heat are assessed, and the effect of these heat sources is accounted for in the calculation, as well as the effect of various accelerants that are added to enhance combustion of the sample. The gross heat of combustion is calculated in units of cal/g using the following equation:

$$Q \text{ (gross)} = [(\Delta tEE) - (e1+e2+e3+e4)] / m$$

Where:

Q (gross) = Gross calorific value at constant volume as determined, cal/g

EE = Heat capacity of the calorimeter, cal/°C

Δt = Corrected temperature rise as measured by the calorimeter, °C

e1 = Correction for heat of formation of nitric acid in calories, calculated by the calorimeter based on the energy released by the sample

e2 = Correction for sulfur, which is usually 0

e3 = Correction for fuse wire

e4 = Correction for spike addition that is calculated by the calorimeter using the spike weight benzoic acid equivalent (grams) times the benzoic acid heat of combustion (6318 cal/g)

m = Mass of the sample, g

The results are converted to Btu/lb, as necessary using the following conversion factor: 1 cal/g = 1.8 Btu/lb.

Method D1475: Density: The density (or specific gravity) of the samples was determined using SOP number KNOX-WC-0015, based on ASTM Methods D1475 (replaced D1963) and D854. A Hubbard-Carmick type pycnometer is tared on a four-place analytical balance. The pycnometer filled with water is weighed to calibrate the volume at the desired temperature. The pycnometer filled with sample is weighed to determine the weight of the sample at the calibrated volume. The standard temperature for this procedure is 25.0°C. The density and specific gravity of the material are calculated using the following equations:

$$d(\text{SAMP}) = [C(T) - A] / V(T)$$

Where:

d(SAMP) = Density of the liquid sample at temperature T, g/cm<sup>3</sup>

C(T) = Weight of pycnometer filled with sample at temperature T, g

A = Weight of pycnometer, g

V(T) = Volume of pycnometer at temperature T, cm<sup>3</sup>

$$d(\text{SAMP}) = [C(T) - A] / [V(T) - [(D(T) - C(T)) / dH_2O(T)]]$$

Where:



d(SAMP) = Density of the solid sample at temperature T, g/cm<sup>3</sup>  
D(T) = Weight of pycnometer filled with water and an aliquot of the sample at temperature T, g  
C(T) = Weight of pycnometer partially filled with an aliquot of the sample at temperature T, g  
A = Weight of pycnometer, g  
dH<sub>2</sub>O(T) = Density of pure water at temperature T, g/cm<sup>3</sup>  
V(T) = Volume of pycnometer at temperature T, cm<sup>3</sup>

$$S(T) = d(\text{SAMP}) / d\text{H}_2\text{O}(T)$$

Where:

S(T) = Specific gravity of the sample at temperature T, unitless

d(SAMP) = Density of the sample at temperature T, g/cm<sup>3</sup>

dH<sub>2</sub>O(T) = Density of pure water at temperature T, g/cm<sup>3</sup>

T = Temperature of analysis

Conversion factors:

1 lb/gal = 0.1198 g/cm<sup>3</sup>

1 Kg/cu. m = 0.001 g/cm<sup>3</sup>

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

## QC Association Summary

Client: Alliance Source Testing, LLC  
Project/Site: BASF Pasadena TX Waste Feed

Job ID: 140-37217-1

### General Chemistry

#### Analysis Batch: 88477

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-37217-1	WASTE FEED-COMPOSITE-RUN 2A	Total/NA	Waste	D1475	
140-37217-2	WASTE FEED-COMPOSITE-RUN 3A	Total/NA	Waste	D1475	
140-37217-3	WASTE FEED-COMPOSITE-RUN 4A	Total/NA	Waste	D1475	
140-37217-4	WASTE FEED-COMPOSITE-RUN 5A	Total/NA	Waste	D1475	
140-37217-5	WASTE FEED-COMPOSITE-RUN 6A	Total/NA	Waste	D1475	
140-37217-6	WASTE FEED-COMPOSITE-RUN 7A	Total/NA	Waste	D1475	
140-37217-7	WASTE FEED-COMPOSITE-RUN 8A	Total/NA	Waste	D1475	
140-37217-15	WASTE FEED-COMPOSITE-RUN 3A DUP	Total/NA	Waste	D1475	
LCS 140-88477/1	Lab Control Sample	Total/NA	Waste	D1475	
140-37217-3 DU	WASTE FEED-COMPOSITE-RUN 4A	Total/NA	Waste	D1475	

#### Analysis Batch: 88720

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-37217-1	WASTE FEED-COMPOSITE-RUN 2A	Total/NA	Waste	D240	
140-37217-2	WASTE FEED-COMPOSITE-RUN 3A	Total/NA	Waste	D240	
140-37217-3	WASTE FEED-COMPOSITE-RUN 4A	Total/NA	Waste	D240	
140-37217-4	WASTE FEED-COMPOSITE-RUN 5A	Total/NA	Waste	D240	
140-37217-5	WASTE FEED-COMPOSITE-RUN 6A	Total/NA	Waste	D240	
140-37217-6	WASTE FEED-COMPOSITE-RUN 7A	Total/NA	Waste	D240	
140-37217-7	WASTE FEED-COMPOSITE-RUN 8A	Total/NA	Waste	D240	
140-37217-15	WASTE FEED-COMPOSITE-RUN 3A DUP	Total/NA	Waste	D240	
LCS 140-88720/3	Lab Control Sample	Total/NA	Waste	D240	
LCSD 140-88720/4	Lab Control Sample Dup	Total/NA	Waste	D240	
140-37217-3 DU	WASTE FEED-COMPOSITE-RUN 4A	Total/NA	Waste	D240	

# Client Sample Results

Client: Alliance Source Testing, LLC  
Project/Site: BASF Pasadena TX Waste Feed

Job ID: 140-37217-1

**Client Sample ID: WASTE FEED-COMPOSITE-RUN 2A**

**Lab Sample ID: 140-37217-1**

**Date Collected: 06/05/24 17:53**

**Matrix: Waste**

**Date Received: 06/19/24 09:00**

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density (ASTM D1475)	0.831		0.0100	0.0100	g/cm3			07/08/24 11:00	1
Gross Calorific Value (ASTM D240)	15300		1590	318	BTU/lb			07/15/24 08:20	1

# Client Sample Results

Client: Alliance Source Testing, LLC  
Project/Site: BASF Pasadena TX Waste Feed

Job ID: 140-37217-1

**Client Sample ID: WASTE FEED-COMPOSITE-RUN 3A**

**Lab Sample ID: 140-37217-2**

**Date Collected: 06/06/24 11:33**

**Matrix: Waste**

**Date Received: 06/19/24 09:00**

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density (ASTM D1475)	0.830		0.0100	0.0100	g/cm3			07/08/24 11:00	1
Gross Calorific Value (ASTM D240)	15200		1760	352	BTU/lb			07/15/24 08:20	1

# Client Sample Results

Client: Alliance Source Testing, LLC  
Project/Site: BASF Pasadena TX Waste Feed

Job ID: 140-37217-1

**Client Sample ID: WASTE FEED-COMPOSITE-RUN 4A**

**Lab Sample ID: 140-37217-3**

**Date Collected: 06/06/24 16:26**

**Matrix: Waste**

**Date Received: 06/19/24 09:00**

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density (ASTM D1475)	0.830		0.0100	0.0100	g/cm3			07/08/24 11:00	1
Gross Calorific Value (ASTM D240)	15200		1630	326	BTU/lb			07/15/24 08:20	1

# Client Sample Results

Client: Alliance Source Testing, LLC  
Project/Site: BASF Pasadena TX Waste Feed

Job ID: 140-37217-1

**Client Sample ID: WASTE FEED-COMPOSITE-RUN 5A**

**Lab Sample ID: 140-37217-4**

**Date Collected: 06/07/24 09:53**

**Matrix: Waste**

**Date Received: 06/19/24 09:00**

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density (ASTM D1475)	0.830		0.0100	0.0100	g/cm3			07/08/24 11:00	1
Gross Calorific Value (ASTM D240)	15200		1720	345	BTU/lb			07/15/24 08:24	1

# Client Sample Results

Client: Alliance Source Testing, LLC  
Project/Site: BASF Pasadena TX Waste Feed

Job ID: 140-37217-1

**Client Sample ID: WASTE FEED-COMPOSITE-RUN 6A**

**Lab Sample ID: 140-37217-5**

**Date Collected: 06/11/24 17:33**

**Matrix: Waste**

**Date Received: 06/19/24 09:00**

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density (ASTM D1475)	0.830		0.0100	0.0100	g/cm3			07/08/24 11:00	1
Gross Calorific Value (ASTM D240)	15100		1700	340	BTU/lb			07/15/24 08:24	1

# Client Sample Results

Client: Alliance Source Testing, LLC  
Project/Site: BASF Pasadena TX Waste Feed

Job ID: 140-37217-1

**Client Sample ID: WASTE FEED-COMPOSITE-RUN 7A**

**Lab Sample ID: 140-37217-6**

**Date Collected: 06/12/24 11:39**

**Matrix: Waste**

**Date Received: 06/19/24 09:00**

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density (ASTM D1475)	0.829		0.0100	0.0100	g/cm3			07/08/24 11:00	1
Gross Calorific Value (ASTM D240)	14800		1770	353	BTU/lb			07/15/24 08:24	1



# Client Sample Results

Client: Alliance Source Testing, LLC  
Project/Site: BASF Pasadena TX Waste Feed

Job ID: 140-37217-1

**Client Sample ID: WASTE FEED-COMPOSITE-RUN 8A**

**Lab Sample ID: 140-37217-7**

**Date Collected: 06/12/24 16:26**

**Matrix: Waste**

**Date Received: 06/19/24 09:00**

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density (ASTM D1475)	0.829		0.0100	0.0100	g/cm3			07/08/24 11:00	1
Gross Calorific Value (ASTM D240)	14800		1790	358	BTU/lb			07/15/24 08:24	1

# Client Sample Results

Client: Alliance Source Testing, LLC  
Project/Site: BASF Pasadena TX Waste Feed

Job ID: 140-37217-1

**Client Sample ID: WASTE FEED-COMPOSITE-RUN 3A DUP**

**Lab Sample ID: 140-37217-15**

**Date Collected: 06/06/24 11:33**

**Matrix: Waste**

**Date Received: 06/19/24 09:00**

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Density (ASTM D1475)	0.830		0.0100	0.0100	g/cm3			07/08/24 11:00	1
Gross Calorific Value (ASTM D240)	15100		1720	343	BTU/lb			07/15/24 08:24	1

Default Detection Limits

Client: Alliance Source Testing, LLC  
Project/Site: BASF Pasadena TX Waste Feed

Job ID: 140-37217-1

General Chemistry

Analyte	RL	MDL	Units
Density	0.0100	0.0100	g/cm3
Gross Calorific Value	1800	360	BTU/lb

# QC Sample Results

Client: Alliance Source Testing, LLC  
Project/Site: BASF Pasadena TX Waste Feed

Job ID: 140-37217-1

## Method: D1475 - Density

Lab Sample ID: LCS 140-88477/1  
Matrix: Waste  
Analysis Batch: 88477

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Density	0.997	0.9970		g/cm3		100	99 - 101

Lab Sample ID: 140-37217-3 DU  
Matrix: Waste  
Analysis Batch: 88477

Client Sample ID: WASTE FEED-COMPOSITE-RUN 4A  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Density	0.830		0.8303		g/cm3		0	10

## Method: D240 - Heat of Combustion

Lab Sample ID: LCS 140-88720/3  
Matrix: Waste  
Analysis Batch: 88720

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gross Calorific Value	20600	20380		BTU/lb		99	98 - 102

Lab Sample ID: LCSD 140-88720/4  
Matrix: Waste  
Analysis Batch: 88720

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gross Calorific Value	20600	20380		BTU/lb		99	98 - 102	0	2.0

Lab Sample ID: 140-37217-3 DU  
Matrix: Waste  
Analysis Batch: 88720

Client Sample ID: WASTE FEED-COMPOSITE-RUN 4A  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Gross Calorific Value	15200		15200		BTU/lb		0.3	10

# Lab Chronicle

Client: Alliance Source Testing, LLC  
Project/Site: BASF Pasadena TX Waste Feed

Job ID: 140-37217-1

**Client Sample ID: WASTE FEED-COMPOSITE-RUN 2A**

**Lab Sample ID: 140-37217-1**

**Date Collected: 06/05/24 17:53**

**Matrix: Waste**

**Date Received: 06/19/24 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D1475		1			88477	07/08/24 11:00	SJF	EET KNX
		Instrument ID: NOEQUIP								
Total/NA	Analysis	D240		1	0.5654 g	0.5 g	88720	07/15/24 08:20	TXR	EET KNX
		Instrument ID: NOEQUIP								

**Client Sample ID: WASTE FEED-COMPOSITE-RUN 3A**

**Lab Sample ID: 140-37217-2**

**Date Collected: 06/06/24 11:33**

**Matrix: Waste**

**Date Received: 06/19/24 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D1475		1			88477	07/08/24 11:00	SJF	EET KNX
		Instrument ID: NOEQUIP								
Total/NA	Analysis	D240		1	0.5120 g	0.5 g	88720	07/15/24 08:20	TXR	EET KNX
		Instrument ID: NOEQUIP								

**Client Sample ID: WASTE FEED-COMPOSITE-RUN 4A**

**Lab Sample ID: 140-37217-3**

**Date Collected: 06/06/24 16:26**

**Matrix: Waste**

**Date Received: 06/19/24 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D1475		1			88477	07/08/24 11:00	SJF	EET KNX
		Instrument ID: NOEQUIP								
Total/NA	Analysis	D240		1	0.5523 g	0.5 g	88720	07/15/24 08:20	TXR	EET KNX
		Instrument ID: NOEQUIP								

**Client Sample ID: WASTE FEED-COMPOSITE-RUN 5A**

**Lab Sample ID: 140-37217-4**

**Date Collected: 06/07/24 09:53**

**Matrix: Waste**

**Date Received: 06/19/24 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D1475		1			88477	07/08/24 11:00	SJF	EET KNX
		Instrument ID: NOEQUIP								
Total/NA	Analysis	D240		1	0.5221 g	0.5 g	88720	07/15/24 08:24	TXR	EET KNX
		Instrument ID: NOEQUIP								

**Client Sample ID: WASTE FEED-COMPOSITE-RUN 6A**

**Lab Sample ID: 140-37217-5**

**Date Collected: 06/11/24 17:33**

**Matrix: Waste**

**Date Received: 06/19/24 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D1475		1			88477	07/08/24 11:00	SJF	EET KNX
		Instrument ID: NOEQUIP								
Total/NA	Analysis	D240		1	0.5297 g	0.5 g	88720	07/15/24 08:24	TXR	EET KNX
		Instrument ID: NOEQUIP								

Eurofins Knoxville

# Lab Chronicle

Client: Alliance Source Testing, LLC  
Project/Site: BASF Pasadena TX Waste Feed

Job ID: 140-37217-1

**Client Sample ID: WASTE FEED-COMPOSITE-RUN 7A**

**Lab Sample ID: 140-37217-6**

**Date Collected: 06/12/24 11:39**

**Matrix: Waste**

**Date Received: 06/19/24 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D1475		1			88477	07/08/24 11:00	SJF	EET KNX
		Instrument ID: NOEQUIP								
Total/NA	Analysis	D240		1	0.5094 g	0.5 g	88720	07/15/24 08:24	TXR	EET KNX
		Instrument ID: NOEQUIP								

**Client Sample ID: WASTE FEED-COMPOSITE-RUN 8A**

**Lab Sample ID: 140-37217-7**

**Date Collected: 06/12/24 16:26**

**Matrix: Waste**

**Date Received: 06/19/24 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D1475		1			88477	07/08/24 11:00	SJF	EET KNX
		Instrument ID: NOEQUIP								
Total/NA	Analysis	D240		1	0.5031 g	0.5 g	88720	07/15/24 08:24	TXR	EET KNX
		Instrument ID: NOEQUIP								

**Client Sample ID: WASTE FEED-COMPOSITE-RUN 3A DUP**

**Lab Sample ID: 140-37217-15**

**Date Collected: 06/06/24 11:33**

**Matrix: Waste**

**Date Received: 06/19/24 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D1475		1			88477	07/08/24 11:00	SJF	EET KNX
		Instrument ID: NOEQUIP								
Total/NA	Analysis	D240		1	0.5243 g	0.5 g	88720	07/15/24 08:24	TXR	EET KNX
		Instrument ID: NOEQUIP								

**Client Sample ID: Lab Control Sample**

**Lab Sample ID: LCS 140-88477/1**

**Date Collected: N/A**

**Matrix: Waste**

**Date Received: N/A**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D1475		1			88477	07/08/24 11:00	SJF	EET KNX
		Instrument ID: NOEQUIP								

**Client Sample ID: Lab Control Sample**

**Lab Sample ID: LCS 140-88720/3**

**Date Collected: N/A**

**Matrix: Waste**

**Date Received: N/A**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D240		1	0.5115 g	0.5 g	88720	07/15/24 08:20	TXR	EET KNX
		Instrument ID: NOEQUIP								

# Lab Chronicle

Client: Alliance Source Testing, LLC  
Project/Site: BASF Pasadena TX Waste Feed

Job ID: 140-37217-1

**Client Sample ID: Lab Control Sample Dup**

**Lab Sample ID: LCSD 140-88720/4**

**Date Collected: N/A**

**Matrix: Waste**

**Date Received: N/A**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D240		1	0.5057 g	0.5 g	88720	07/15/24 08:20	TXR	EET KNX
Instrument ID: NOEQUIP										

**Client Sample ID: WASTE FEED-COMPOSITE-RUN 4A**

**Lab Sample ID: 140-37217-3 DU**

**Date Collected: 06/06/24 16:26**

**Matrix: Waste**

**Date Received: 06/19/24 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D1475		1			88477	07/08/24 11:00	SJF	EET KNX
Instrument ID: NOEQUIP										
Total/NA	Analysis	D240		1	0.5570 g	0.5 g	88720	07/15/24 08:20	TXR	EET KNX
Instrument ID: NOEQUIP										

## Laboratory References:

EET KNX = Eurofins Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

# Accreditation/Certification Summary

Client: Alliance Source Testing, LLC  
Project/Site: BASF Pasadena TX Waste Feed

Job ID: 140-37217-1

## Laboratory: Eurofins Knoxville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
	AFCEE	N/A	
ANAB	Dept. of Defense ELAP	L2311	02-13-25
ANAB	Dept. of Energy	L2311.01	02-13-25
ANAB	ISO/IEC 17025	L2311	02-13-25
Arkansas DEQ	State	88-0688	06-17-25
Colorado	State	TN00009	02-28-25
Connecticut	State	PH-0223	10-01-26
Florida	NELAP	E87177	06-30-25
Georgia (DW)	State	906	07-27-25
Hawaii	State	NA	07-27-24
Kansas	NELAP	E-10349	10-31-24
Kentucky (DW)	State	90101	12-31-24
Louisiana (All)	NELAP	83979	06-30-25
Louisiana (DW)	State	LA019	12-31-24
Maryland	State	277	03-31-25
Michigan	State	9933	07-27-25
Nevada	State	TN00009	07-31-24
New Hampshire	NELAP	2999	01-17-25
New Jersey	NELAP	TN001	06-30-25
New York	NELAP	10781	03-31-25
North Carolina (DW)	State	21705	07-31-24
North Carolina (WW/SW)	State	64	12-31-24
Oklahoma	State	9415	08-31-24
Oregon	NELAP	TNI0189	01-01-25
Pennsylvania	NELAP	68-00576	12-31-24
Tennessee	State	02014	07-27-25
Texas	NELAP	T104704380-23-18	08-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	525-22-279-18762	10-06-25
Utah	NELAP	TN00009	07-31-24
Virginia	NELAP	460176	09-14-24
Washington	State	C593	01-19-25
West Virginia (DW)	State	9955C	12-31-24
West Virginia DEP	State	345	04-30-25
Wisconsin	State	998044300	08-31-24



# GENERAL CHEMISTRY

COVER PAGE  
GENERAL CHEMISTRY

Lab Name: Eurofins Knoxville Job Number: 140-37217-1

SDG No.:

Project: BASF Pasadena TX Waste Feed

Client Sample ID	Lab Sample ID
WASTE FEED-COMPOSITE-RUN 2A	140-37217-1
WASTE FEED-COMPOSITE-RUN 3A	140-37217-2
WASTE FEED-COMPOSITE-RUN 4A	140-37217-3
WASTE FEED-COMPOSITE-RUN 5A	140-37217-4
WASTE FEED-COMPOSITE-RUN 6A	140-37217-5
WASTE FEED-COMPOSITE-RUN 7A	140-37217-6
WASTE FEED-COMPOSITE-RUN 8A	140-37217-7
WASTE FEED-COMPOSITE-RUN 3A DUP	140-37217-15

Comments:

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY

Client Sample ID: WASTE FEED-COMPOSITE-RUN 2A

Lab Sample ID: 140-37217-1

Lab Name: Eurofins Knoxville

Job No.: 140-37217-1

SDG ID.:

Matrix: Waste

Date Sampled: 06/05/2024 17:53

Reporting Basis: WET

Date Received: 06/19/2024 09:00

Preparation Batch Number:

Instrument ID: NONE

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Density	0.831	0.0100	0.0100	g/cm3			1	D1475
	Gross Calorific Value	15300	1590	318	BTU/lb			1	D240

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY

Client Sample ID: WASTE FEED-COMPOSITE-RUN 3A

Lab Sample ID: 140-37217-2

Lab Name: Eurofins Knoxville

Job No.: 140-37217-1

SDG ID.:

Matrix: Waste

Date Sampled: 06/06/2024 11:33

Reporting Basis: WET

Date Received: 06/19/2024 09:00

Preparation Batch Number:

Instrument ID: NONE

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Density	0.830	0.0100	0.0100	g/cm3			1	D1475
	Gross Calorific Value	15200	1760	352	BTU/lb			1	D240

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY

Client Sample ID: WASTE FEED-COMPOSITE-RUN 4A

Lab Sample ID: 140-37217-3

Lab Name: Eurofins Knoxville

Job No.: 140-37217-1

SDG ID.:

Matrix: Waste

Date Sampled: 06/06/2024 16:26

Reporting Basis: WET

Date Received: 06/19/2024 09:00

Preparation Batch Number:

Instrument ID: NONE

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Density	0.830	0.0100	0.0100	g/cm3			1	D1475
	Gross Calorific Value	15200	1630	326	BTU/lb			1	D240

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY

Client Sample ID: WASTE FEED-COMPOSITE-RUN 5A

Lab Sample ID: 140-37217-4

Lab Name: Eurofins Knoxville

Job No.: 140-37217-1

SDG ID.:

Matrix: Waste

Date Sampled: 06/07/2024 09:53

Reporting Basis: WET

Date Received: 06/19/2024 09:00

Preparation Batch Number:

Instrument ID: NONE

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Density	0.830	0.0100	0.0100	g/cm3			1	D1475
	Gross Calorific Value	15200	1720	345	BTU/lb			1	D240

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY

Client Sample ID: WASTE FEED-COMPOSITE-RUN 6A

Lab Sample ID: 140-37217-5

Lab Name: Eurofins Knoxville

Job No.: 140-37217-1

SDG ID.:

Matrix: Waste

Date Sampled: 06/11/2024 17:33

Reporting Basis: WET

Date Received: 06/19/2024 09:00

Preparation Batch Number:

Instrument ID: NONE

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Density	0.830	0.0100	0.0100	g/cm3			1	D1475
	Gross Calorific Value	15100	1700	340	BTU/lb			1	D240

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY

Client Sample ID: WASTE FEED-COMPOSITE-RUN 7A  
Lab Sample ID: 140-37217-6  
Lab Name: Eurofins Knoxville  
Job No.: 140-37217-1  
SDG ID.:  
Matrix: Waste  
Date Sampled: 06/12/2024 11:39  
Reporting Basis: WET  
Date Received: 06/19/2024 09:00  
Preparation Batch Number:  
Instrument ID: NONE

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Density	0.829	0.0100	0.0100	g/cm3			1	D1475
	Gross Calorific Value	14800	1770	353	BTU/lb			1	D240



1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY

Client Sample ID: WASTE FEED-COMPOSITE-RUN 8A

Lab Sample ID: 140-37217-7

Lab Name: Eurofins Knoxville

Job No.: 140-37217-1

SDG ID.:

Matrix: Waste

Date Sampled: 06/12/2024 16:26

Reporting Basis: WET

Date Received: 06/19/2024 09:00

Preparation Batch Number:

Instrument ID: NONE

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Density	0.829	0.0100	0.0100	g/cm3			1	D1475
	Gross Calorific Value	14800	1790	358	BTU/lb			1	D240

1B-IN  
INORGANIC ANALYSIS DATA SHEET  
GENERAL CHEMISTRY

Client Sample ID: WASTE FEED-COMPOSITE-RUN 3A DUP

Lab Sample ID: 140-37217-15

Lab Name: Eurofins Knoxville

Job No.: 140-37217-1

SDG ID.:

Matrix: Waste

Date Sampled: 06/06/2024 11:33

Reporting Basis: WET

Date Received: 06/19/2024 09:00

Preparation Batch Number:

Instrument ID: NONE

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Density	0.830	0.0100	0.0100	g/cm3			1	D1475
	Gross Calorific Value	15100	1720	343	BTU/lb			1	D240

2-IN  
CALIBRATION QUALITY CONTROL  
GENERAL CHEMISTRY

Lab Name: Eurofins Knoxville Job No.: 140-37217-1  
SDG No.: \_\_\_\_\_  
Analyst: TXR Batch Start Date: 07/15/2024  
Reporting Units: BTU/lb Analytical Batch No.: 88720

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	08:20	Gross Calorific Value	11370	11400	100	99-101		85INBENZACIDP_00010
2	CCV	08:20	Gross Calorific Value	11370	11400	100	99-101		85INBENZACIDP_00010

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

6-IN  
DUPLICATE  
GENERAL CHEMISTRY

Lab Name: Eurofins Knoxville Job No.: 140-37217-1  
SDG No.: \_\_\_\_\_  
Matrix: Waste

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 88477 Date: 07/08/2024 11:00								
D1475	WASTE FEED-COMPOSITE-RUN 4A	140-37217-3	Density	0.830	g/cm3			
D1475	WASTE FEED-COMPOSITE-RUN 4A	140-37217-3 DU	Density	0.8303	g/cm3	0	10	
Batch ID: 88720 Date: 07/15/2024 08:20								
D240	WASTE FEED-COMPOSITE-RUN 4A	140-37217-3	Gross Calorific Value	15200	BTU/lb			
D240	WASTE FEED-COMPOSITE-RUN 4A	140-37217-3 DU	Gross Calorific Value	15200	BTU/lb	0.3	10	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN  
LAB CONTROL SAMPLE  
GENERAL CHEMISTRY

Lab Name: Eurofins Knoxville

Job No.: 140-37217-1

SDG No.:

Matrix: Waste

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 88477 Date: 07/08/2024 11:00											
						LCS Source: 85INWaterD25P_00125					
D1475	LCS 140-88477/1	Density	0.9970		g/cm3	0.997	100	99-101			
Batch ID: 88720 Date: 07/15/2024 08:20											
						LCS Source: 85NTISOCTP_00005					
D240	LCS 140-88720/3	Gross Calorific Value	20380		BTU/lb	20600	99	98-102	0	2.0	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN  
LAB CONTROL SAMPLE DUPLICATE  
GENERAL CHEMISTRY

Lab Name: Eurofins Knoxville Job No.: 140-37217-1  
SDG No.:  
Matrix: Waste

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 88720 Date: 07/15/2024 08:20											
LCSD Source: 85NTISOCTP_00005											
D240	LCSD 140-88720/4	Gross Calorific Value	20380		BTU/lb	20600	99	98-102	0	2.0	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN  
DETECTION LIMITS  
GENERAL CHEMISTRY

Lab Name: Eurofins Knoxville

Job Number: 140-37217-1

SDG Number: \_\_\_\_\_

Matrix: Waste

Instrument ID: NOEQUIP

Method: D1475

RL Date: 01/01/2015 13:16

Analyte	Wavelength/ Mass	RL (g/cm3)	
Density		0.01	

9-IN  
CALIBRATION BLANK DETECTION LIMITS  
GENERAL CHEMISTRY

Lab Name: Eurofins Knoxville Job Number: 140-37217-1  
SDG Number: \_\_\_\_\_  
Matrix: Waste Instrument ID: NOEQUIP  
Method: D1475 XRL Date: 01/01/2015 15:46

Analyte	Wavelength/ Mass	XRL (g/cm3)	
Density		0.01	



9-IN  
DETECTION LIMITS  
GENERAL CHEMISTRY

Lab Name: Eurofins Knoxville Job Number: 140-37217-1  
SDG Number: \_\_\_\_\_  
Matrix: Waste Instrument ID: NOEQUIP  
Method: D240 MDL Date: 09/25/2019 10:07

Analyte	Wavelength/ Mass	RL (BTU/lb)	MDL (BTU/lb)
Gross Calorific Value		1800	360

9-IN  
CALIBRATION BLANK DETECTION LIMITS  
GENERAL CHEMISTRY

Lab Name: Eurofins Knoxville Job Number: 140-37217-1  
SDG Number: \_\_\_\_\_  
Matrix: Waste Instrument ID: NOEQUIP  
Method: D240 XMDL Date: 01/28/2015 15:50

Analyte	Wavelength/ Mass	XRL (BTU/lb)	XMDL (BTU/lb)
Gross Calorific Value		1800	130

13-IN  
ANALYSIS RUN LOG  
GENERAL CHEMISTRY

Lab Name: Eurofins Knoxville Job No.: 140-37217-1  
SDG No.: \_\_\_\_\_  
Instrument ID: NOEQUIP Analysis Method: D1475  
Start Date: 07/08/2024 11:00 End Date: 07/08/2024 11:00

Lab Sample Id	D/F	T Y P e	Time	D e n	Analytes																									
LCS 140-88477/1	1	T	11:00	X																										
140-37217-1	1	T	11:00	X																										
140-37217-2	1	T	11:00	X																										
140-37217-3	1	T	11:00	X																										
140-37217-3 DU	1	T	11:00	X																										
140-37217-4	1	T	11:00	X																										
140-37217-5	1	T	11:00	X																										
140-37217-6	1	T	11:00	X																										
140-37217-7	1	T	11:00	X																										
140-37217-15	1	T	11:00	X																										
ZZZZZZ			11:00																											
ZZZZZZ			11:00																											
ZZZZZZ			11:00																											
ZZZZZZ			11:00																											
ZZZZZZ			11:00																											
ZZZZZZ			11:00																											

Prep Types: \_\_\_\_\_  
T = Total/NA

13-IN  
ANALYSIS RUN LOG  
GENERAL CHEMISTRY

Lab Name: Eurofins Knoxville Job No.: 140-37217-1  
SDG No.: \_\_\_\_\_  
Instrument ID: NOEQUIP Analysis Method: D240  
Start Date: 07/15/2024 08:20 End Date: 07/15/2024 08:24

Lab Sample Id	D/F	T Y P e	Time	Analytes																			
				G C V																			
CCV 140-88720/1	1		08:20	X																			
CCV 140-88720/2	1		08:20	X																			
LCS 140-88720/3	1	T	08:20	X																			
LCSD 140-88720/4	1	T	08:20	X																			
ZZZZZZ			08:20																				
ZZZZZZ			08:20																				
ZZZZZZ			08:20																				
ZZZZZZ			08:20																				
ZZZZZZ			08:20																				
ZZZZZZ			08:20																				
ZZZZZZ			08:20																				
ZZZZZZ			08:20																				
ZZZZZZ			08:20																				
ZZZZZZ			08:20																				
140-37217-1	1	T	08:20	X																			
140-37217-2	1	T	08:20	X																			
140-37217-3	1	T	08:20	X																			
140-37217-3 DU	1	T	08:20	X																			
140-37217-4	1	T	08:24	X																			
140-37217-5	1	T	08:24	X																			
140-37217-6	1	T	08:24	X																			
140-37217-7	1	T	08:24	X																			
140-37217-15	1	T	08:24	X																			

Prep Types: \_\_\_\_\_  
T = Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-37217-1

SDG No.: \_\_\_\_\_

Batch Number: 88477 Batch Start Date: 07/08/24 11:00 Batch Analyst: Forrest-Bank, Solana J

Batch Method: D1475 Batch End Date: 07/08/24 14:43

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	85INWater25P 00332	85INWaterD25P 00125				
LCS 140-88477/1		D1475			1 mL	1 mL				

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

## GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Knoxville

Job No.: 140-37217-1

SDG No.:

Batch Number: 88720

Batch Start Date: 07/15/24 08:20

Batch Analyst: Runions, Trinity G

Batch Method: D240

Batch End Date: 07/16/24 12:35

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	BombId	CalSmpNo	BombEE	TapeWt
CCV 140-88720/1		D240			1.0715 g	0.5 g	1	4967	2369.10 Cal/Degree C	
CCV 140-88720/2		D240			1.0729 g	0.5 g	4	4968	2395.37 Cal/Degree C	
LCS 140-88720/3		D240			0.5115 g	0.5 g	1	4969	2368.30 Cal/Degree C	0.0419 g
LCSD 140-88720/4		D240			0.5057 g	0.5 g	4	4970	2385.32 Cal/Degree C	0.0480 g
140-37217-A-1	WASTE FEED-COMPOSITE- RUN 2A	D240	Waste	T	0.5654 g	0.5 g	1	4983	2368.30 Cal/Degree C	0.0432 g
140-37217-A-2	WASTE FEED-COMPOSITE- RUN 3A	D240	Waste	T	0.5120 g	0.5 g	4	4984	2385.32 Cal/Degree C	0.0464 g
140-37217-A-3	WASTE FEED-COMPOSITE- RUN 4A	D240	Waste	T	0.5523 g	0.5 g	1	4985	2368.30 Cal/Degree C	0.0417 g
140-37217-A-3 DU	WASTE FEED-COMPOSITE- RUN 4A	D240	Waste	T	0.5570 g	0.5 g	4	4986	2385.32 Cal/Degree C	0.0453 g
140-37217-A-4	WASTE FEED-COMPOSITE- RUN 5A	D240	Waste	T	0.5221 g	0.5 g	1	4987	2368.30 Cal/Degree C	0.0441 g
140-37217-A-5	WASTE FEED-COMPOSITE- RUN 6A	D240	Waste	T	0.5297 g	0.5 g	4	4988	2385.32 Cal/Degree C	0.0434 g
140-37217-A-6	WASTE FEED-COMPOSITE- RUN 7A	D240	Waste	T	0.5094 g	0.5 g	1	4989	2368.30 Cal/Degree C	0.0438 g
140-37217-A-7	WASTE FEED-COMPOSITE- RUN 8A	D240	Waste	T	0.5031 g	0.5 g	4	4990	2385.32 Cal/Degree C	0.0472 g
140-37217-A-15	WASTE FEED-COMPOSITE- RUN 3A DUP	D240	Waste	T	0.5243 g	0.5 g	1	4991	2368.30 Cal/Degree C	0.0442 g

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	1OctanolWgt	FuseCorr	BAE	TempChg	AcidCorr	HeatofComb
CCV 140-88720/1		D240				15.00 Cal	0 g	2.8682 Degrees C	10.00 Cal	6318.294559029 4 Cal/g
CCV 140-88720/2		D240				15.00 Cal	0 g	2.8405 Degrees C	10.00 Cal	6318.434602479 26 Cal/g

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

D240

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## GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-37217-1

SDG No.: \_\_\_\_\_

Batch Number: 88720 Batch Start Date: 07/15/24 08:20 Batch Analyst: Runions, Trinity GBatch Method: D240 Batch End Date: 07/16/24 12:35

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	1OctanolWgt	FuseCorr	BAE	TempChg	AcidCorr	HeatofComb
LCS 140-88720/3		D240				15.00 Cal	0.041449034504 5901 g	2.5669 Degrees C	10.00 Cal	11324.17257087 Cal/g
LCSD 140-88720/4		D240				15.00 Cal	0.047483380816 7142 g	2.5366 Degrees C	10.00 Cal	11322.13310658 49 Cal/g
140-37217-A-1	WASTE FEED-COMPOSITE- RUN 2A	D240	Waste	T	0.3290 g	15.00 Cal	0.548680595125 04 g	3.5066 Degrees C	10.00 Cal	8512.764025468 7 Cal/g
140-37217-A-2	WASTE FEED-COMPOSITE- RUN 3A	D240	Waste	T	0.2281 g	15.00 Cal	0.396679265590 377 g	2.8693 Degrees C	10.00 Cal	8423.787257812 5 Cal/g
140-37217-A-3	WASTE FEED-COMPOSITE- RUN 4A	D240	Waste	T	0.2437 g	15.00 Cal	0.416019974675 53 g	3.0832 Degrees C	10.00 Cal	8416.672750316 86 Cal/g
140-37217-A-3 DU	WASTE FEED-COMPOSITE- RUN 4A	D240	Waste	T	0.2491 g	15.00 Cal	0.427885501741 057 g	3.1155 Degrees C	10.00 Cal	8443.597594254 94 Cal/g
140-37217-A-4	WASTE FEED-COMPOSITE- RUN 5A	D240	Waste	T	0.4125 g	15.00 Cal	0.677979582146 249 g	3.6828 Degrees C	10.00 Cal	8453.361884696 42 Cal/g
140-37217-A-5	WASTE FEED-COMPOSITE- RUN 6A	D240	Waste	T	0.2478 g	15.00 Cal	0.424006774295 663 g	2.9916 Degrees C	10.00 Cal	8367.091772701 53 Cal/g
140-37217-A-6	WASTE FEED-COMPOSITE- RUN 7A	D240	Waste	T	0.2462 g	15.00 Cal	0.421941943653 055 g	2.9101 Degrees C	10.00 Cal	8247.272536317 24 Cal/g
140-37217-A-7	WASTE FEED-COMPOSITE- RUN 8A	D240	Waste	T	0.2460 g	15.00 Cal	0.424997784108 895 g	2.8674 Degrees C	10.00 Cal	8208.170479030 01 Cal/g
140-37217-A-15	WASTE FEED-COMPOSITE- RUN 3A DUP	D240	Waste	T	0.2496 g	15.00 Cal	0.427566255144 033 g	3.0027 Degrees C	10.00 Cal	8363.400362387 95 Cal/g

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	85INBENZACIDP 00010	85NTISOCTP 00005				
CCV 140-88720/1		D240			1.0715 mL					
CCV 140-88720/2		D240			1.0729 mL					
LCS 140-88720/3		D240				0.5115 g				
LCSD 140-88720/4		D240				0.5057 g				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

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## GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-37217-1

SDG No.: \_\_\_\_\_

Batch Number: 88720 Batch Start Date: 07/15/24 08:20 Batch Analyst: Runions, Trinity GBatch Method: D240 Batch End Date: 07/16/24 12:35

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	85INBENZACIDP 00010	85NTISOCTP 00005				
140-37217-A-1	WASTE FEED-COMPOSITE- RUN 2A	D240	Waste	T						
140-37217-A-2	WASTE FEED-COMPOSITE- RUN 3A	D240	Waste	T						
140-37217-A-3	WASTE FEED-COMPOSITE- RUN 4A	D240	Waste	T						
140-37217-A-3 DU	WASTE FEED-COMPOSITE- RUN 4A	D240	Waste	T						
140-37217-A-4	WASTE FEED-COMPOSITE- RUN 5A	D240	Waste	T						
140-37217-A-5	WASTE FEED-COMPOSITE- RUN 6A	D240	Waste	T						
140-37217-A-6	WASTE FEED-COMPOSITE- RUN 7A	D240	Waste	T						
140-37217-A-7	WASTE FEED-COMPOSITE- RUN 8A	D240	Waste	T						
140-37217-A-15	WASTE FEED-COMPOSITE- RUN 3A DUP	D240	Waste	T						

Batch Notes	
Perform Calculation (0=No, 1=Yes)	Yes
Nominal Amount Used	0.5 g
Heat of Combustion Value of Tape	6250 Cal/g
Heat of Combustion Value of Paper	3937.3 Cal/g

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

D240

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General Chemistry Raw Data Report

Job ID: 140-37217-1

Batch: 88477  
Method: D1475

Analyst Initials: SJF  
Instrument: NONE

Lab Sample ID: LCS 140-88477/1					Analysis Date: Jul 08, 2024 11:00
Analyte	Detector	Dilution	Raw Result	Unit	
Density	None	1	0.9970	g/cm3	
Lab Sample ID: 140-37217-A-1					Analysis Date: Jul 08, 2024 11:00
Analyte	Detector	Dilution	Raw Result	Unit	
Density	None	1	0.8311	g/cm3	
Lab Sample ID: 140-37217-A-2					Analysis Date: Jul 08, 2024 11:00
Analyte	Detector	Dilution	Raw Result	Unit	
Density	None	1	0.8301	g/cm3	
Lab Sample ID: 140-37217-A-3					Analysis Date: Jul 08, 2024 11:00
Analyte	Detector	Dilution	Raw Result	Unit	
Density	None	1	0.8301	g/cm3	
Lab Sample ID: 140-37217-A-3 DU					Analysis Date: Jul 08, 2024 11:00
Analyte	Detector	Dilution	Raw Result	Unit	
Density	None	1	0.8303	g/cm3	
Lab Sample ID: 140-37217-A-4					Analysis Date: Jul 08, 2024 11:00
Analyte	Detector	Dilution	Raw Result	Unit	
Density	None	1	0.8295	g/cm3	
Lab Sample ID: 140-37217-A-5					Analysis Date: Jul 08, 2024 11:00
Analyte	Detector	Dilution	Raw Result	Unit	
Density	None	1	0.8296	g/cm3	
Lab Sample ID: 140-37217-A-6					Analysis Date: Jul 08, 2024 11:00
Analyte	Detector	Dilution	Raw Result	Unit	
Density	None	1	0.8287	g/cm3	
Lab Sample ID: 140-37217-A-7					Analysis Date: Jul 08, 2024 11:00
Analyte	Detector	Dilution	Raw Result	Unit	
Density	None	1	0.8291	g/cm3	
Lab Sample ID: 140-37217-A-15					Analysis Date: Jul 08, 2024 11:00
Analyte	Detector	Dilution	Raw Result	Unit	
Density	None	1	0.8299	g/cm3	

**Eurofins Knoxville  
SOP KNOX-WC-0015  
Density Data Worksheet**

Report Density (y/n)?	Balance ID:	w3
Report Specific Gravity (y/n)?	Thermometer ID:	w5

Analysis Date:	07/08/2024	(mm/dd/yyyy)
Analysis H <sub>2</sub> O Temp.:	25.0	°C
Density of Water:	0.9971	(g/cm <sup>3</sup> )

Reviewed by:	SFB
Date:	7/8/2024
Density of Water:	8.3210 (lb/gal)

[illegible]

## Pycnometer Initial Calibration Worksheet

[illegible]

**Eurofins Knoxville Density Data Review / Narrative Checklist**  
**Methods: ASTM D-854, D-1475 by SOP: KNOX-WC-0015, Rev. 7**  
**Page 1 of 1**

<b>Analytical Batch:</b>	88477	<b>Analysis Date:</b>	7/8/2024
<b>Job(s):</b>	37217, 37341, 37343, 37292		

Review Items	N/A	Y	N	If No, why is data reportable?	2nd √
<b>Section 1: Calibration</b>					
1. Was the balance calibration checked prior to use?		X			X
2. Was an initial calibration performed for the pycnometers and were the %RSDs<0.5%		X			X
3. Were the dry pycnometer reading(s) within 0.01 g of the average from the initial calibration?		X			X
<b>Section 2: Preparation/Matrix QC</b>					
1. LCS done per batch of up to twenty samples?		X			X
2. LCS/LCSD recoveries within laboratory established QC limits? (99-101%Recovery) If no, list LCS ID:		X			X
3. Was a duplicate sample analyzed per batch of up to ten samples?		X			X
4. DU RPD ≤ 10% If no, list ID:		X			X
<b>B. Client Sample and QC Sample Results</b>					
1. Were all job/project requirements met?		X			X
2. Were sample IDs verified?		X			X
3. Were all transcriptions checked?		X			X
4. Calculations checked for error?		X			X
5. Batch information complete?		X			X
6. Correct analyst identified?		X			X
7. Worksheet complete?		X			X
8. Reagents tab complete and correct?		X			X
<b>D. Other</b>					
1. Are all nonconformances documented appropriately?	X				X
2. Correct Narrative NCM chosen?		X		✓ [5869]	X
3. Final report acceptable? (Results correct, units correct, deviations noted in narrative, and analysis dates correct.)		X			X

<b>Reviewed by:</b> SFB	<b>Date:</b> 7/8/2024	<b>2<sup>nd</sup> Level Reviewer:</b> DCW	<b>Date:</b> 7/9/24
<b>Comments:</b>		<b>Comments:</b>	

# General Chemistry Raw Data Report

Job ID: 140-37217-1

**Batch: 88720**  
**Method: D240**

**Analyst Initials: TXR**  
**Instrument: NONE**

## Lab Sample ID: CCV 140-88720/1

**Analysis Date: Jul 15, 2024 08:20**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Gross Calorific Value	None	1	13540.10524	Cal/g	1.0715 g	0.5 g

## Lab Sample ID: CCV 140-88720/2

**Analysis Date: Jul 15, 2024 08:20**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Gross Calorific Value	None	1	13558.09697	Cal/g	1.0729 g	0.5 g

## Lab Sample ID: LCS 140-88720/3

**Analysis Date: Jul 15, 2024 08:20**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Gross Calorific Value	None	1	11584.62854	Cal/g	0.5115 g	0.5 g

## Lab Sample ID: LCSD 140-88720/4

**Analysis Date: Jul 15, 2024 08:20**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Gross Calorific Value	None	1	11451.205424	Cal/g	0.5057 g	0.5 g

## Lab Sample ID: 140-37217-A-1

**Analysis Date: Jul 15, 2024 08:20**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Gross Calorific Value	None	1	9626.23356	Cal/g	0.5654 g	0.5 g

## Lab Sample ID: 140-37217-A-2

**Analysis Date: Jul 15, 2024 08:20**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Gross Calorific Value	None	1	8625.958152	Cal/g	0.5120 g	0.5 g

## Lab Sample ID: 140-37217-A-3

**Analysis Date: Jul 15, 2024 08:20**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Gross Calorific Value	None	1	9297.05672	Cal/g	0.5523 g	0.5 g

## Lab Sample ID: 140-37217-A-3 DU

**Analysis Date: Jul 15, 2024 08:20**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Gross Calorific Value	None	1	9406.16772	Cal/g	0.5570 g	0.5 g

## Lab Sample ID: 140-37217-A-4

**Analysis Date: Jul 15, 2024 08:24**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Gross Calorific Value	None	1	8827.00048	Cal/g	0.5221 g	0.5 g

## Lab Sample ID: 140-37217-A-5

**Analysis Date: Jul 15, 2024 08:24**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Gross Calorific Value	None	1	8864.097024	Cal/g	0.5297 g	0.5 g

## Lab Sample ID: 140-37217-A-6

**Analysis Date: Jul 15, 2024 08:24**

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Gross Calorific Value	None	1	8402.32126	Cal/g	0.5094 g	0.5 g

Eurofins Knoxville

General Chemistry Raw Data Report

Job ID: 140-37217-1

Batch: 88720 (Continued)	Analyst Initials: TXR
Method: D240	Instrument: NONE

Lab Sample ID: 140-37217-A-7

Analysis Date: Jul 15, 2024 08:24

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Gross Calorific Value	None	1	8259.061136	Cal/g	0.5031 g	0.5 g

Lab Sample ID: 140-37217-A-15

Analysis Date: Jul 15, 2024 08:24

Analyte	Detector	Dilution	Raw Result	Unit	Initial Amount	Final Amount
Gross Calorific Value	None	1	8769.86162	Cal/g	0.5243 g	0.5 g

**TestAmerica Knoxville**  
**Calorimeter Calibration Worksheet**  
**Determination of Energy Equivalent (EE)**  
**per SOP KNOX-WC-0010**

***Initial Calibration Data***

Calorimeter Sample ID	Calibration Date	EE (cal/°C)	Mean EE (cal/°C)	SD EE (cal/°C)	%RSD (%)
<b><i>BOMB ID=1</i></b>					
CCV-062424-1a	06/24/24	2361.9400	2368.2990	10.3	0.44%
CCV-062424-1b	06/24/24	2386.1100			
CCV-062624-1	06/26/24	2370.1100			
CCV-062724-1	06/27/24	2382.2100			
CCV-070124-1	07/01/24	2356.1600			
CCV-070224-1	07/02/24	2359.6000			
CCV-070824-1	07/08/24	2363.3400			
CCV-070924-1	07/09/24	2358.4300			
CCV-071124-1	07/11/24	2375.9900			
CCV-071524-1	07/15/24	2369.1000			

***Daily Calibration Check Standard***

Calorimeter Sample ID	Calibration Date	EE (cal/°C)	ICAL Mean EE (cal/°C)	%D (%)
CCV-071524-1	07/15/24	2369.1000	2368.2990	0.0%

**TestAmerica Laboratories**  
**Bomb Calorimeter Data Worksheet**  
**Measurement of Heat of Combustion**  
**per SOP KNOX-WC-0010**

Sample ID: CCV-071524-1  
 Work Order Number: NA  
 Analysis Date: 07/15/2024  
 Std. or Determination? STD  
 Analyst: TMB/TGR

Gross Heat of Combustion (cal/g): NA  
 Gross Heat of Combustion (Btu/lb): NA

***Bomb Calorimeter Data Report***

Parr 6200		
Sample ID:		
Method	Dynamic Type	Final
Standardization Bomb ID		1
Ign. T. Temp	21.7127 EE Value	2369.10
Jacket T	29.9971 Temp. Rise	2.8682
Weight	1.07150 Spike Wght	0.00000
Fuse	15.0000 Acid	10.0000
Sulfur	0.00000	
	Gross Heat	11369.2
		Calor ID

TGR  
7/15/24



### Initial Calibration Data

### Daily Calibration Check Standard

BASFHWC-Pasadena-2004986  
7/17/2004  
10:06:41 AM

**TestAmerica Laboratories**  
**Bomb Calorimeter Data Worksheet**  
**Measurement of Heat of Combustion**  
**per SOP KNOX-WC-0010**

**Sample ID:** CCV-071524-4  
**Work Order Number:** NA  
**Analysis Date:** 07/15/2024  
**Std. or Determination?** STD  
**Analyst:** TMB/T6R

**Gross Heat of Combustion (cal/g):** NA  
**Gross Heat of Combustion (Btu/lb):** NA

***Bomb Calorimeter Data Report***

Parr 6200 Calorimeter				Rev. 12/15/14104420
Sample ID:	4968	07/15/24	08:58:10	
Method	Dynamic Type	Final		
Mode	Standardization Bomb ID	4		
Temp	20.3217 EE Value	2395.37		
T	29.9998 Temp. Rise	2.8405		
Weight	1.07290 Spike Wght	0.00000		
Fuse	15.0000 Acid	10.0000		
Sulfur	0.00000			
Gross Heat		11325.2		
		Btu/lb		

T6R  
07/15/24

Parr 6200 Calorimeter Rev. 190314104420

Sample ID: 4869 07/15/24 09:06:27

Method Dynamic Type Preliminary

Mode Determination Bomb ID 1

Init. Temp 24.2187 EE Value 2368.30

Jacket T 30.0060 Temp. Rise 2.5669

Weight 0.51150 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 21304.9

Btu/lb

TGR  
7/15/24

Parr 6200 Calorimeter Rev. 190314104420

Sample ID: 4971 07/15/24 10:56:15

Method Dynamic Type Preliminary

Mode Determination Bomb ID 1

Init. Temp 23.2969 EE Value 2368.30

Jacket T 30.0009 Temp. Rise 3.2656

Weight 0.50680 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 27379.9

Btu/lb

TGR  
7/15/24

Parr 6200 Calorimeter Rev. 190314104420

Sample ID: 4970 07/15/24 09:14:01

Method Dynamic Type Preliminary

Mode Determination Bomb ID 4

Init. Temp 23.0648 EE Value 2385.32

Jacket T 30.0040 Temp. Rise 2.5366

Weight 0.50570 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 21447.6

Btu/lb

Parr 6200 Calorimeter Rev. 190314104420

Sample ID: 4972 07/15/24 11:06:26

Method Dynamic Type Preliminary

Mode Determination Bomb ID 4

Init. Temp 22.1448 EE Value 2385.32

Jacket T 30.0017 Temp. Rise 2.7266

Weight 0.50040 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 23305.0

Btu/lb

Parr 6200 Calorimeter Rev. 190314104420

Sample ID: 4973 07/15/24 11:15:35

Method Dynamic Type Preliminary

Mode Determination Bomb ID 1

Init. Temp 25.7817 EE Value 2368.30

Jacket T 30.0052 Temp. Rise 3.0054

Weight 0.55150 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 23149.6

Btu/lb

Parr 62 Rev. 190314104420

Sample ID: 4975 07/15/24 12:06:15

Method Dynamic Type Preliminary

Mode Determination Bomb ID 1

Init. Temp 25.8026 EE Value 2368.30

Jacket T 30.0037 Temp. Rise 3.5114

Weight 0.58120 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 25677.9

Btu/lb

TGR  
7/15/24

TGR  
7/15/24

Parr 6200 Calorimeter Rev. 190314104420

Sample ID: 4974 07/15/24 11:28:08

Method Dynamic Type Preliminary

Mode Determination Bomb ID 4

Init. Temp 24.1821 EE Value 2385.32

Jacket T 30.0047 Temp. Rise 2.8212

Weight 0.56250 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 21454.6

Btu/lb

Parr 6200 Calorimeter Rev. 190314104420

Sample ID: 4976 07/15/24 12:14:37

Method Dynamic Type Preliminary

Mode Determination Bomb ID 4

Init. Temp 24.4352 EE Value 2385.32

Jacket T 30.0058 Temp. Rise 3.4865

Weight 0.57850 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 25798.7

Btu/lb

Parr 6200 Calor. 04420

Sample ID: 4977 07/15/24 13:22:17

Method Dynamic Type Preliminary

Mode Determination Bomb ID 1

Init. Temp 25.2169 EE Value 2368.30

Jacket T 30.1712 Temp. Rise 3.1438

Weight 0.56370 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 23695.3

Btu/lb

T62  
7/15/24

Parr 6200 C 04420

Sample ID: 4979 07/15/24 14:03:04

Method Dynamic Type Preliminary

Mode Determination Bomb ID 1

Init. Temp 26.0429 EE Value 2368.30

Jacket T 30.0046 Temp. Rise 2.6326

Weight 0.50220 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 22257.5

Btu/lb

T62  
7/15/24

Parr 6200 Calorimeter Rev. 190314104420

Sample ID: 4978 07/15/24 13:30:00

Method Dynamic Type Preliminary

Mode Determination Bomb ID 4

Init. Temp 24.4370 EE Value 2385.32

Jacket T 30.0112 Temp. Rise 3.3481

Weight 0.55010 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 26050.1

Btu/lb

Parr 6200 Calorimeter Rev. 190314104420

Sample ID: 4980 07/15/24 14:10:53

Method Dynamic Type Preliminary

Mode Determination Bomb ID 4

Init. Temp 25.8193 EE Value 2385.32

Jacket T 30.0035 Temp. Rise 2.2998

Weight 0.52170 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 18841.2

Btu/lb

P... 04420

Sample ID: 4981 07/15/24 14:18:36

Method Dynamic Type Preliminary

Test Determination Bomb ID 1

Temp 27.9303 EE Value 2368.30

Sample T 30.1015 Temp. Rise 2.9808

Weight 0.52720 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 24017.5

Btu/lb

TGR  
7/15/24

Parr 6200 Calorimeter Rev. 190314104420

Sample ID: 4982 07/16/24 08:15:38

Method Dynamic Type Preliminary

Mode Determination Bomb ID 4

Init. Temp 19.2773 EE Value 2385.32

Jacket T 30.0014 Temp. Rise 3.7228

Weight 0.55100 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 28927.4

Btu/lb

TGR  
7/16/24

Parr 6200 Calorimeter Rev. 190314104420

Sample ID: 4983 07/16/24 08:23:47

Method Dynamic Type Preliminary

Mode Determination Bomb ID 1

Init. Temp 19.5037 EE Value 2368.30

Jacket T 30.0042 Temp. Rise 3.5066

Weight 0.56540 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 26358.9

Btu/lb

Parr 6200 Calorimeter Rev. 190314104420

Sample ID: 4984 07/16/24 09:07:40

Method Dynamic Type Preliminary

Mode Determination Bomb ID 4

Init. Temp 21.9460 EE Value 2385.32

Jacket T 30.0034 Temp. Rise 2.8693

Weight 0.51200 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 23973.5

Btu/lb

TGR  
7/16/24

Parr 6200 Calorimeter Rev. 190314104420

Sample ID: 4985 07/16/24 09:16:40

Method Dynamic Type Preliminary

Mode Determination Bomb ID 1

Init. Temp 21.9064 EE Value 2368.30

Jacket T 30.0023 Temp. Rise 3.0832

Weight 0.55230 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 23716.6

Btu/lb

Parr 6200 Calorimeter Rev. 190314104420

Sample ID: 4986 07/16/24 09:25:27

Method Dynamic Type Preliminary

Mode Determination Bomb ID 4

Init. Temp 24.2804 EE Value 2385.32

Jacket T 30.0049 Temp. Rise 3.1155

Weight 0.55700 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 23934.4

Btu/lb

TGR  
7/16/24

Parr 6200 Calorimeter Rev. 190314104420

Sample ID: 4988 07/16/24 11:02:07

Method Dynamic Type Preliminary

Mode Determination Bomb ID 4

Init. Temp 23.5073 EE Value 2385.32

Jacket T 30.0016 Temp. Rise 2.9916

Weight 0.52970 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 24164.4

Btu/lb

TGR  
7/16/24

Parr 6200 Calorimeter Rev. 190314104420

Sample ID: 4987 07/16/24 10:54:38

Method Dynamic Type Preliminary

Mode Determination Bomb ID 1

Init. Temp 22.3380 EE Value 2368.30

Jacket T 29.9814 Temp. Rise 3.6828

Weight 0.52210 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 29984.1

Btu/lb

TGR  
7/16/24

Parr 6200 Calorimeter Rev. 190314104420

Sample ID: 4989 07/16/24 11:10:06

Method Dynamic Type Preliminary

Mode Determination Bomb ID 1

Init. Temp 25.6337 EE Value 2368.30

Jacket T 30.0046 Temp. Rise 2.9101

Weight 0.50940 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 24265.0

Btu/lb



Parr 6200 Calorimeter Rev. 190314104420

Sample ID: 4990 07/16/24 11:17:34

Method Dynamic Type Preliminary

Mode Determination Bomb ID 4

Init. Temp 26.0917 EE Value 2385.32

Jacket T 29.9066 Temp. Rise 2.8674

Weight 0.50310 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 24381.5

Btu/lb

TGR  
7/16/24

Parr 6200 Calorimeter Rev. 190314104420

Sample ID: 4991 07/16/24 11:28:14

Method Dynamic Type Preliminary

Mode Determination Bomb ID 1

Init. Temp 27.7265 EE Value 2368.30

Jacket T 30.0036 Temp. Rise 3.0027

Weight 0.52430 Spike Wght 0.00000

Fuse 15.0000 Acid 10.0000

Sulfur 0.00000

Gross Heat 24328.5

Btu/lb

## Eurofins TestAmerica Knoxville Heat of Combustion Data Review / Narrative Checklist

Methods: ASTM D5865, D240 by SOP KNOX-WC-0010, Rev. 8

Page 1 of 1

Batch Number:	88720	Job Number(s):	140-37090, 400-257786, 140-37217		
Analysis Date:	07-16-2024	Analyst Name:	TMB/TGR	Method Citation	<input type="checkbox"/> D5865 <input checked="" type="checkbox"/> D240

Review Items	N/A	Y	N	If No, why is data reportable?	2nd √
<b>Section 1. Calibration</b>					
1. Was a <b>weekly</b> calibration check performed for each bomb/bucket combination and %D $\leq$ 1%?		X			X
2. Is the %D for the weekly calibration check $\leq$ 1%?		X		If not $\leq$ 1.0%, discard data and repeat.	X
3. Was the final weekly calibration successful? (%D $\leq$ 1.0%)		X			X
4. Is the initial calibration complete, with at least ten calibration runs?		X			X
5. Are the previous ten calibration runs recorded on the calorimeter calibration worksheet?		X			X
6. Does the rolling average show a %RSD $\leq$ 1.0%?		X			X
<b>Section 2. Client Sample Analysis</b>					
1. Were all special project requirements met? (Review Project Notes, Project Documents, and Comments in Backlog)		X			X
2. Were sample IDs verified?		X			X
3. Were all weights entered directly into TALS?		X			X
4. Were all transcriptions checked? (Check transcription of data from calorimeter to TALS worksheet ( $\Delta t$ , Acid Correction))		X			X
5. Were any data collected by writing the values on paper?			X		X
6. Are all written entries neat, professional, and scanned into the documents section of the TALS batch?	n/a				X
7. Calculations checked for error? (Verify that the final instrument result = calculated result on spreadsheet (to 3 significant figures))		X			X
<b>Section 3. Preparation/Matrix QC</b>					
1. LCS/LCSD done per batch of up to twenty samples?		X			X
2. LCS/LCSD recoveries within laboratory established QC limits? (98-102%)		X			X
3. LCS/LCSD RPD within laboratory established QC limits? ( $\leq$ 2.0% RPD)		X			X
4. Was a duplicate sample analyzed per batch of up to 10 samples?			X	Duplicate sample analyzed per batch of up to 20 samples per SOP.	X
5. DUP RPD $\leq$ 10.0%? If no, list ID:		X		____ [F5] OS &/or DUP < 5xRL, absolute difference < RL ____ [Option] MS/MSD/DUP-%RPD.NCM: _____	X
<b>Section 4. TALS Reporting</b>					
1. If Batch Information Complete?		X			X
2. Batch QC linked correctly?		X			X
3. Is raw data from calorimeter and calibration summary attached as a default file?		X			X
4. Are all non-conformances documented (NCM Manager)?	n/a			NCM Number(s): _____	X
5. Was appropriate narrative NCM added (NCM Create/Edit)?		X		<input checked="" type="checkbox"/> [5853]	X
6. Final report acceptable? (Results, units, analysis dates are correct. Flags and/or errors were addressed.)		X			X

Reviewed by: TMB/TGR	Date: 07-16-2024
Comments:	
2 <sup>nd</sup> Level Reviewer: DCW	Date: 7/16/24
Comments:	

# Shipping and Receiving Documents



Knoxville, TN 37921-5947  
phone 865.291.3000 fax 865.584.4315

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

**TestAmerica Laboratories, Inc.**

<b>Client Contact</b>		<b>Project Manager: Jason Myers</b>		<b>Site Contact:</b>		<b>Date:</b>		<b>COC No:</b>	
Alliance Source Testing      AST Office: HOU		<b>Tel/Fax:</b>		<b>Lab Contact:</b>		<b>Carrier:</b>		<b>of      COCs</b>	
Address    5757 Genoa Red Bluff Road									
City/State/Zip    Pasadena, TX									
256-351-0121      Phone									
HOUreports@stacktest.com									
Project Name: BASF 24-2352									
Site: BASF Pasadena, TX									
P O #									

Analysis Turnaround Time		TAT if different from Below	
<input type="checkbox"/> CALENDAR DAYS	<input type="checkbox"/> WORKING DAYS	<input type="checkbox"/> 2 weeks	<input type="checkbox"/> 1 week
<input type="checkbox"/> 2 days	<input type="checkbox"/> 1 day		

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y / N)		Perform MS / MSD (Y / N)		ASTM D1475 - Density	ASTM D240 - HHV	HOLD	Sample Specific Notes:
Waste Feed - COMPOSITE - Run 2B	6/5/24	0832-1753	C		1								
Waste Feed - COMPOSITE - Run 3B	6/6/24	0720-1133	C		1								High Heat Value/Density
Waste Feed - COMPOSITE - Run 4B	6/6/24	1211-1826	C		1								"
Waste Feed - COMPOSITE - Run 5B	6/7/24	0540-0953	C		1								"
Waste Feed - COMPOSITE - Run 6B	6/11/24	1317-1733	C		1								"
Waste Feed - COMPOSITE - Run 7B	6/12/24	0730-1139	C		1								"
Waste Feed - COMPOSITE - Run 8B	6/12/24	1216-1828	C		1								"

**Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other**

**Possible Hazard Identification:**  
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard    ☐ Flammable    ☐ Skin Irritant    ☐ Poison B    ☐ Unknown

**Special Instructions/QC Requirements & Comments:**

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Cooler Temp. (°C): Obs'd:      Corr'd:      Therm ID No.:      Months	
Relinquished by: <i>[Signature]</i>	Received by: <i>[Signature]</i>	Company: <i>EPA KNOX</i>	Date/Time: <i>6/11/24 1530</i>
Relinquished by: <i>[Signature]</i>	Received by: <i>[Signature]</i>	Company: <i>EPA KNOX</i>	Date/Time: <i>6/19/24 09:00</i>
Relinquished by: <i>[Signature]</i>	Received by: <i>[Signature]</i>	Company: <i>EPA KNOX</i>	Date/Time: <i>6/19/24 09:00</i>

## EUROFINS KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Are the shipping containers intact?	✓			<input type="checkbox"/> Containers, Broken	NO Custody Seal
2. Were ambient air containers received intact?			✓	<input type="checkbox"/> Checked in lab	Received ambient for 20.01.20.14
3. The coolers/containers custody seal if present, is it intact?			✓	<input type="checkbox"/> Yes <input type="checkbox"/> NA	LAB 6-19-24 Hand delivered
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID: 5076 Correction factor: +0.1°C			✓	<input type="checkbox"/> Cooler Out of Temp, Client Contacted, Proceed/Cancel <input type="checkbox"/> Cooler Out of Temp, Same Day Receipt	6) 3A Dup 3B Dup
5. Were all of the sample containers received intact?	✓			<input type="checkbox"/> Containers, Broken	10
6. Were samples received in appropriate containers?	✓			<input type="checkbox"/> Containers, Improper; Client Contacted; Proceed/Cancel	13
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			<input type="checkbox"/> COC & Samples Do Not Match <input type="checkbox"/> COC Incorrect/Incomplete <input type="checkbox"/> COC Not Received	
8. Were all of the samples listed on the COC received?	✓	✓		<input checked="" type="checkbox"/> Sample Received, Not on COC <input type="checkbox"/> Sample on COC, Not Received	
9. Is the date/time of sample collection noted?	✓			<input type="checkbox"/> COC; No Date/Time; Client Contacted	Labeling Verified by: _____ Date: _____
10. Was the sampler identified on the COC?		✓		<input checked="" type="checkbox"/> Sampler Not Listed on COC	pH test strip lot number: _____
11. Is the client and project name/# identified?	✓			<input type="checkbox"/> COC Incorrect/Incomplete	
12. Are tests/parameters listed for each sample?	✓			<input type="checkbox"/> COC No tests on COC	
13. Is the matrix of the samples noted?	✓	✓		<input checked="" type="checkbox"/> COC Incorrect/Incomplete	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			<input type="checkbox"/> COC Incorrect/Incomplete	Box 16A: pH Preservation Box 18A: Residual Chlorine
15. Were samples received within holding time?	✓			<input type="checkbox"/> Holding Time - Receipt	Preservative: _____
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	<input type="checkbox"/> pH Adjusted, pH Included (See box 16A) <input type="checkbox"/> Incorrect Preservative	Lot Number: _____
17. Were VOA samples received without headspace?			✓	<input type="checkbox"/> Headspace (VOA only)	Exp Date: _____
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number: _____			✓	<input type="checkbox"/> Residual Chlorine	Analyst: _____
19. For 1613B water samples is pH<9?			✓	<input type="checkbox"/> If no, notify lab to adjust	Date: _____
20. For rad samples was sample activity info. Provided?			✓	<input type="checkbox"/> Project missing info	Time: _____
Project #: 14007031 PM Instructions: _____					

Sample Receiving Associate: Ch Dema Date: 6-19-24

QA026R33.doc, 11/10/23

---

## **Appendix E.2**

### **Stack Gas Analyses –**

### **Polycyclic Aromatic Hydrocarbons And Polychlorinated Biphenyls**



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Austin Abranovic  
Alliance Source Testing LLC  
214 Central Circle SW  
Decatur AL 35603

Generated 9/6/2024 4:19 PM Revision 1

## JOB DESCRIPTION

BASF Pasadena TX M23

## JOB NUMBER

140-37234-1



# Eurofins Knoxville

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

## Authorization



Generated  
9/6/2024 4:19 PM  
Revision 1

Authorized for release by  
Courtney M Adkins, Project Manager II  
[Courtney.Adkins@et.eurofinsus.com](mailto:Courtney.Adkins@et.eurofinsus.com)  
865 291-3019

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# Definitions/Glossary

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

## Qualifiers

### Dioxin

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
B	Compound was found in the blank and sample.
C	The compound co-eluted with other compounds
C129	The compound co-eluted with PCB-129
C156	The compound co-eluted with PCB-156
C20	The compound co-eluted with PCB-20
C90	The compound co-eluted with PCB-90
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
q	The reported result is the estimated maximum possible concentration of this analyte, quantitated using the theoretical ion ratio. The measured ion ratio does not meet qualitative identification criteria and indicates a possible interference.
S	Ion suppression
S1-	Surrogate recovery exceeds control limits, low biased.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▣	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Method Summary

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

Method	Method Description	Protocol	Laboratory
23	Chlorinated Biphenyl Congeners (Stationary Source)	EPA	EET KNX
23	Polycyclic Aromatic Hydrocarbons (Stationary Source)	EPA	EET KNX
Combined Prep	Extraction, Source Air Samples (Combined)	None	EET KNX
Split	Source Air Split	None	EET KNX

### Protocol References:

EPA = US Environmental Protection Agency

None = None

### Laboratory References:

EET KNX = Eurofins Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

# Sample Summary

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
140-37234-1	M23 F-10 BOILER RUN 2 COMBINED	Air	06/05/24 17:53	06/19/24 09:00
140-37234-2	M23 F-10 BOILER RUN 3 COMBINED	Air	06/06/24 11:33	06/19/24 09:00
140-37234-3	M23 F-10 BOILER RUN 4 COMBINED	Air	06/06/24 16:26	06/19/24 09:00
140-37234-4	M23 F-10 BOILER RUN 5 COMBINED	Air	06/07/24 09:53	06/19/24 09:00
140-37234-5	M23 F-10 BOILER RUN 6 COMBINED	Air	06/11/24 17:33	06/19/24 09:00
140-37234-6	M23 F-10 BOILER RUN 7 COMBINED	Air	06/12/24 11:39	06/19/24 09:00
140-37234-7	M23 F-10 BOILER RUN 8 COMBINED	Air	06/12/24 16:26	06/19/24 09:00
140-37234-8	M23 F-10 BOILER BT COMBINED	Air	06/03/24 17:00	06/19/24 09:00
140-37234-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAI COMBINED	Air	06/03/24 00:00	06/19/24 09:00

**Job Narrative**  
**140-37234-1**

**Revision**

The report being provided is a revision of the original report sent on 7/26/2024. The report (revision 1) is being revised due to: Revising report to update various M23 data issues, IDAs, FS, MDLs.

**Receipt**

The samples were received on 6/19/2024 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 0.2° C.

**Receipt Exceptions**

The Field Sampler was not listed on the Chain of Custody.

The Chain-of-Custody (COC) was incomplete as received and/or improperly completed. Matrix not listed, logged per project requirements.

The Chain of Custody was received without any analyses selected. Logged per project requirements.

**High-Res**

The Pre-Sampling Adsorbent Standards and Pre-Extraction Filter Recovery Standard for the PAH analysis were not quantitated by isotope dilution technique, but rather by internal standards that were added after extraction & concentration. These standards were removed from the final report forms. The recoveries were recalculated by isotope dilution technique outside the LIMS system and are presented in a table in the narrative. The target analytes were quantitated by isotope dilution technique.

Sample #	13C6-Benzo(c)fluorene	13C12-Benzo(j)fluoranthene	Anthracene-d10
1	131	103	70
2	131	107	77
3	114	103	73
4	118	104	87
5	122	114	75
6	116	113	74
7	116	104	83
8	119	105	110

The EPA Method 23 states to quantitate the sample results against the continuing calibration verification. Knoxville's approach is to quantitate the sample results against the initial calibration, consistent with other Hi-Res methodology.

The reporting limit (RL) and method detection limit (MDL) for the PAH analytes have not been established. The MDL is set equal to the RL. The reporting limit is supported by the initial calibration.

The Pre-Extraction Filter Surrogate, PCB-159L, was not spiked onto the filter due to unavailability of the standard when the extraction started.

Method 23: The laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 140-88192 and 140-88337 and analytical batch 140-88920 recovered outside acceptance limits for Naphthalene. The entire sample was consumed during analysis or extraction therefore, the data have been reported.

Method 23: The method blank for preparation batch 140-88192 and 140-88337 contained multiple analytes above the reporting limit (RL). The entire sample was consumed during analysis or extraction, therefore, the data have been reported.

Method 23: Field surrogate 13C6-Benzo(c)fluorene was slightly above QC limits for the following samples after recalculating the recoveries against its respective IDA. See the table of recoveries in the narrative.

M23 F-10 BOILER RUN 2 COMBINED (140-37234-1) and M23 F-10 BOILER RUN 3 COMBINED (140-37234-2)

Method 23: The opening PAH Continuing Calibration Verification, (CCV 140-88999/1) was slightly outside QC limits for one or more Isotope Dilution Analyte (IDA) recoveries. All target analyte recoveries are in QC limits. After discussion with the project manager, it was decided to report the data with narration.

Method 23: The opening PAH Continuing Calibration Verification, (CCV 140-89076/1) was slightly outside QC limits for one or more Isotope Dilution Analyte (IDA) recoveries. All target analyte recoveries are in QC limits. After discussion with the project manager, it was decided to report the data with narration.

Method 23: Sample M23 F-10 BOILER RUN 6 COMBINED (140-37234-5) was not spiked with PCB field surrogates.

Method 23: The continuing calibration standard, (WDMCCV 140-88871/1), was outside method control criteria of 30%D for PCB-209L. The unlabeled native analyte PCB-209 recovered within limits. At client's request, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

#### **Organic Prep**

PAH Filter Surrogate Anthracene-d10 was spiked 10 x lower than the method requirement. Recoveries were calculated based on the amount spiked.

Method Split: The following samples required a Gel-Permeation clean up, via EPA method 3640A, to reduce matrix interference: M23 F-10 BOILER RUN 2 COMBINED (140-37234-1), M23 F-10 BOILER RUN 3 COMBINED (140-37234-2), M23 F-10 BOILER RUN 4 COMBINED (140-37234-3), M23 F-10 BOILER RUN 5 COMBINED (140-37234-4), M23 F-10 BOILER RUN 6 COMBINED (140-37234-5), M23 F-10 BOILER RUN 7 COMBINED (140-37234-6), M23 F-10 BOILER RUN 8 COMBINED (140-37234-7), M23 F-10 BOILER BT COMBINED (140-37234-8) and M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED (140-37234-14).

Method Split: A deviation from the Standard Operating Procedure (SOP) occurred. Details are as follows: During column cleanup, the 2:3 methylene chloride and hexane mixture was not added to the column after the 35 mL hexane elution step. all samples were affected.

Method Split: original samples were pulled from archive and continued through SIM PAH column clean ups.

M23 F-10 BOILER RUN 2 COMBINED (140-37234-1), M23 F-10 BOILER RUN 3 COMBINED (140-37234-2), M23 F-10 BOILER RUN 4 COMBINED (140-37234-3), M23 F-10 BOILER RUN 5 COMBINED (140-37234-4), M23 F-10 BOILER RUN 6 COMBINED (140-37234-5), M23 F-10 BOILER RUN 7 COMBINED (140-37234-6), M23 F-10 BOILER RUN 8 COMBINED (140-37234-7), M23 F-10 BOILER BT COMBINED (140-37234-8) and M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED (140-37234-14)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.



# QC Association Summary

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

## Specialty Organics

### Prep Batch: 88192

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-37234-1	M23 F-10 BOILER RUN 2 COMBINED	Total/NA	Air	Combined Prep	
140-37234-2	M23 F-10 BOILER RUN 3 COMBINED	Total/NA	Air	Combined Prep	
140-37234-3	M23 F-10 BOILER RUN 4 COMBINED	Total/NA	Air	Combined Prep	
140-37234-4	M23 F-10 BOILER RUN 5 COMBINED	Total/NA	Air	Combined Prep	
140-37234-5	M23 F-10 BOILER RUN 6 COMBINED	Total/NA	Air	Combined Prep	
140-37234-6	M23 F-10 BOILER RUN 7 COMBINED	Total/NA	Air	Combined Prep	
140-37234-7	M23 F-10 BOILER RUN 8 COMBINED	Total/NA	Air	Combined Prep	
140-37234-8	M23 F-10 BOILER BT COMBINED	Total/NA	Air	Combined Prep	
140-37234-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAI	Total/NA	Air	Combined Prep	
MB 140-88192/21-B	Method Blank	Total/NA	Air	Combined Prep	
LCS 140-88192/19-B	Lab Control Sample	Total/NA	Air	Combined Prep	
LCSD 140-88192/20-B	Lab Control Sample Dup	Total/NA	Air	Combined Prep	

### Prep Batch: 88193

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-37234-1	M23 F-10 BOILER RUN 2 COMBINED	Total/NA	Air	Combined Prep	
140-37234-2	M23 F-10 BOILER RUN 3 COMBINED	Total/NA	Air	Combined Prep	
140-37234-3	M23 F-10 BOILER RUN 4 COMBINED	Total/NA	Air	Combined Prep	
140-37234-4	M23 F-10 BOILER RUN 5 COMBINED	Total/NA	Air	Combined Prep	
140-37234-5	M23 F-10 BOILER RUN 6 COMBINED	Total/NA	Air	Combined Prep	
140-37234-6	M23 F-10 BOILER RUN 7 COMBINED	Total/NA	Air	Combined Prep	
140-37234-7	M23 F-10 BOILER RUN 8 COMBINED	Total/NA	Air	Combined Prep	
140-37234-8	M23 F-10 BOILER BT COMBINED	Total/NA	Air	Combined Prep	
140-37234-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAI	Total/NA	Air	Combined Prep	
MB 140-88193/21-B	Method Blank	Total/NA	Air	Combined Prep	
LCS 140-88193/19-B	Lab Control Sample	Total/NA	Air	Combined Prep	
LCSD 140-88193/20-B	Lab Control Sample Dup	Total/NA	Air	Combined Prep	

### Cleanup Batch: 88337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-37234-1	M23 F-10 BOILER RUN 2 COMBINED	Total/NA	Air	Split	88192
140-37234-2	M23 F-10 BOILER RUN 3 COMBINED	Total/NA	Air	Split	88192
140-37234-3	M23 F-10 BOILER RUN 4 COMBINED	Total/NA	Air	Split	88192
140-37234-4	M23 F-10 BOILER RUN 5 COMBINED	Total/NA	Air	Split	88192
140-37234-5	M23 F-10 BOILER RUN 6 COMBINED	Total/NA	Air	Split	88192
140-37234-6	M23 F-10 BOILER RUN 7 COMBINED	Total/NA	Air	Split	88192
140-37234-7	M23 F-10 BOILER RUN 8 COMBINED	Total/NA	Air	Split	88192
140-37234-8	M23 F-10 BOILER BT COMBINED	Total/NA	Air	Split	88192
140-37234-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAI	Total/NA	Air	Split	88192
MB 140-88192/21-B	Method Blank	Total/NA	Air	Split	88192
LCS 140-88192/19-B	Lab Control Sample	Total/NA	Air	Split	88192
LCSD 140-88192/20-B	Lab Control Sample Dup	Total/NA	Air	Split	88192

### Cleanup Batch: 88338

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-37234-1	M23 F-10 BOILER RUN 2 COMBINED	Total/NA	Air	Split	88193
140-37234-2	M23 F-10 BOILER RUN 3 COMBINED	Total/NA	Air	Split	88193
140-37234-3	M23 F-10 BOILER RUN 4 COMBINED	Total/NA	Air	Split	88193
140-37234-4	M23 F-10 BOILER RUN 5 COMBINED	Total/NA	Air	Split	88193
140-37234-5	M23 F-10 BOILER RUN 6 COMBINED	Total/NA	Air	Split	88193
140-37234-6	M23 F-10 BOILER RUN 7 COMBINED	Total/NA	Air	Split	88193

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# QC Association Summary

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

## Specialty Organics (Continued)

### Cleanup Batch: 88338 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-37234-7	M23 F-10 BOILER RUN 8 COMBINED	Total/NA	Air	Split	88193
140-37234-8	M23 F-10 BOILER BT COMBINED	Total/NA	Air	Split	88193
140-37234-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAI	Total/NA	Air	Split	88193
MB 140-88193/21-B	Method Blank	Total/NA	Air	Split	88193
LCS 140-88193/19-B	Lab Control Sample	Total/NA	Air	Split	88193
LCSD 140-88193/20-B	Lab Control Sample Dup	Total/NA	Air	Split	88193

### Analysis Batch: 88747

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 140-88193/21-B	Method Blank	Total/NA	Air	23	88338
LCS 140-88193/19-B	Lab Control Sample	Total/NA	Air	23	88338
LCSD 140-88193/20-B	Lab Control Sample Dup	Total/NA	Air	23	88338

### Analysis Batch: 88809

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-37234-1	M23 F-10 BOILER RUN 2 COMBINED	Total/NA	Air	23	88338
140-37234-2	M23 F-10 BOILER RUN 3 COMBINED	Total/NA	Air	23	88338
140-37234-4	M23 F-10 BOILER RUN 5 COMBINED	Total/NA	Air	23	88338
140-37234-8	M23 F-10 BOILER BT COMBINED	Total/NA	Air	23	88338
140-37234-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAI	Total/NA	Air	23	88338

### Analysis Batch: 88834

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-37234-5	M23 F-10 BOILER RUN 6 COMBINED	Total/NA	Air	23	88338
140-37234-6	M23 F-10 BOILER RUN 7 COMBINED	Total/NA	Air	23	88338
140-37234-7	M23 F-10 BOILER RUN 8 COMBINED	Total/NA	Air	23	88338

### Analysis Batch: 88871

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-37234-3	M23 F-10 BOILER RUN 4 COMBINED	Total/NA	Air	23	88338

### Analysis Batch: 88920

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 140-88192/19-B	Lab Control Sample	Total/NA	Air	23	88337
LCSD 140-88192/20-B	Lab Control Sample Dup	Total/NA	Air	23	88337

### Analysis Batch: 88945

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 140-88192/21-B	Method Blank	Total/NA	Air	23	88337

### Analysis Batch: 88999

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-37234-1	M23 F-10 BOILER RUN 2 COMBINED	Total/NA	Air	23	88337
140-37234-2	M23 F-10 BOILER RUN 3 COMBINED	Total/NA	Air	23	88337

### Analysis Batch: 89013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-37234-3	M23 F-10 BOILER RUN 4 COMBINED	Total/NA	Air	23	88337
140-37234-4	M23 F-10 BOILER RUN 5 COMBINED	Total/NA	Air	23	88337
140-37234-5	M23 F-10 BOILER RUN 6 COMBINED	Total/NA	Air	23	88337
140-37234-7	M23 F-10 BOILER RUN 8 COMBINED	Total/NA	Air	23	88337

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# QC Association Summary

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

## Specialty Organics (Continued)

### Analysis Batch: 89013 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-37234-8	M23 F-10 BOILER BT COMBINED	Total/NA	Air	23	88337
140-37234-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAI	Total/NA	Air	23	88337

### Analysis Batch: 89076

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-37234-6	M23 F-10 BOILER RUN 7 COMBINED	Total/NA	Air	23	88337

# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

Client Sample ID: M23 F-10 BOILER RUN 2 COMBINED

Lab Sample ID: 140-37234-1

Date Collected: 06/05/24 17:53

Matrix: Air

Date Received: 06/19/24 09:00

Sample Container: Air Train

## Method: EPA 23 - Chlorinated Biphenyl Congeners (Stationary Source)

Analyte	Result	Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
PCB-8	1.65		0.600	0.132	0.0138	ng/Sample		07/16/24 16:41	1
PCB-18	0.668	S C	0.600	0.285	0.0155	ng/Sample		07/16/24 16:41	1
PCB-28	1.30	C20 B	0.600	0.252	0.0159	ng/Sample		07/16/24 16:41	1
PCB-44	4.05	C B	0.900	0.390	0.0222	ng/Sample		07/16/24 16:41	1
PCB-52	0.793		0.300	0.132	0.0235	ng/Sample		07/16/24 16:41	1
PCB-66	0.295	J	0.300	0.120	0.0172	ng/Sample		07/16/24 16:41	1
PCB-77	0.0918	J q	0.300	0.126	0.0196	ng/Sample		07/16/24 16:41	1
PCB-81	ND		0.300	0.0960	0.0204	ng/Sample		07/16/24 16:41	1
PCB-101	0.363	J C90	0.900	0.390	0.00476	ng/Sample		07/16/24 16:41	1
PCB-105	ND		0.300	0.102	0.0671	ng/Sample		07/16/24 16:41	1
PCB-114	ND		0.300	0.165	0.0650	ng/Sample		07/16/24 16:41	1
PCB-118	0.117	J q	0.300	0.183	0.0693	ng/Sample		07/16/24 16:41	1
PCB-123	ND		0.300	0.171	0.0686	ng/Sample		07/16/24 16:41	1
PCB-126	ND		0.300	0.123	0.0764	ng/Sample		07/16/24 16:41	1
PCB-128	0.00613	J q C B	0.600	0.204	0.00239	ng/Sample		07/16/24 16:41	1
PCB-138	0.103	J C129	1.20	0.510	0.00248	ng/Sample		07/16/24 16:41	1
PCB-153	0.115	J C B	0.600	0.249	0.00214	ng/Sample		07/16/24 16:41	1
PCB-156	0.00289	J q C	0.600	0.255	0.00245	ng/Sample		07/16/24 16:41	1
PCB-157	0.00289	J q C156	0.600	0.255	0.00245	ng/Sample		07/16/24 16:41	1
PCB-167	ND		0.300	0.180	0.00178	ng/Sample		07/16/24 16:41	1
PCB-169	ND		0.300	0.123	0.00184	ng/Sample		07/16/24 16:41	1
PCB-170	0.00447	J	0.300	0.132	0.000261	ng/Sample		07/16/24 16:41	1
PCB-180	0.0271	J q C	0.600	0.204	0.000187	ng/Sample		07/16/24 16:41	1
PCB-187	0.0246	J	0.300	0.126	0.000198	ng/Sample		07/16/24 16:41	1
PCB-189	ND		0.300	0.147	0.00386	ng/Sample		07/16/24 16:41	1
PCB-195	ND		0.300	0.159	0.00154	ng/Sample		07/16/24 16:41	1
PCB-206	ND		0.300	0.171	0.0240	ng/Sample		07/16/24 16:41	1
PCB-209	ND		0.300	0.138	0.00178	ng/Sample		07/16/24 16:41	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	60		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-3L	70		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-4L	71		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-15L	84	S	20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-19L	82		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-37L	81		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-54L	102		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-77L	91		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-81L	89		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-104L	86		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-105L	91		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-114L	100		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-118L	86		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-123L	100		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-126L	93		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-155L	94		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-156L	98	C	20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-157L	98	C156	20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-167L	88		20 - 145	06/27/24 14:35	07/16/24 16:41	1

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# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

Client Sample ID: M23 F-10 BOILER RUN 2 COMBINED

Lab Sample ID: 140-37234-1

Date Collected: 06/05/24 17:53

Matrix: Air

Date Received: 06/19/24 09:00

Sample Container: Air Train

## Method: EPA 23 - Chlorinated Biphenyl Congeners (Stationary Source) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-169L	87		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-170L	90		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-188L	102		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-189L	98		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-202L	88		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-205L	95		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-206L	97		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-208L	99		20 - 145	06/27/24 14:35	07/16/24 16:41	1
PCB-209L	106		20 - 145	06/27/24 14:35	07/16/24 16:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	75		20 - 130	06/27/24 14:35	07/16/24 16:41	1
PCB-111L	79		20 - 130	06/27/24 14:35	07/16/24 16:41	1
PCB-178L	87		20 - 130	06/27/24 14:35	07/16/24 16:41	1
PCB-8L	101		70 - 130	06/27/24 14:35	07/16/24 16:41	1
PCB-79L	109		70 - 130	06/27/24 14:35	07/16/24 16:41	1
PCB-95L	114		70 - 130	06/27/24 14:35	07/16/24 16:41	1
PCB-153L	102		70 - 130	06/27/24 14:35	07/16/24 16:41	1

## Method: EPA 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source)

Analyte	Result	Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
Naphthalene	430	J B **	750	750	1.31	ng/Sample		07/20/24 10:31	10
2-Methylnaphthalene	284	J B	750	750	0.465	ng/Sample		07/20/24 10:31	10
Acenaphthylene	14.5	J B	30.0	30.0	0.388	ng/Sample		07/20/24 10:31	10
Acenaphthene	109	J B	300	300	0.536	ng/Sample		07/20/24 10:31	10
Fluorene	296	J B	300	300	0.559	ng/Sample		07/20/24 10:31	10
Phenanthrene	1130	B	60.0	60.0	0.860	ng/Sample		07/20/24 10:31	10
Anthracene	99.5	J B	300	300	0.775	ng/Sample		07/20/24 10:31	10
Fluoranthene	144	B	60.0	60.0	0.336	ng/Sample		07/20/24 10:31	10
Pyrene	166	B	60.0	60.0	0.359	ng/Sample		07/20/24 10:31	10
Benzo[a]anthracene	3.78	J B	60.0	60.0	0.227	ng/Sample		07/20/24 10:31	10
Chrysene	13.2	J B	60.0	60.0	0.233	ng/Sample		07/20/24 10:31	10
Benzo[b]fluoranthene	10.1	J B	300	300	0.124	ng/Sample		07/20/24 10:31	10
Benzo[k]fluoranthene	3.48	J B	60.0	60.0	0.112	ng/Sample		07/20/24 10:31	10
Benzo[e]pyrene	52.1	J B	60.0	60.0	0.102	ng/Sample		07/20/24 10:31	10
Benzo[a]pyrene	14.3	J B	30.0	30.0	0.103	ng/Sample		07/20/24 10:31	10
Perylene	2.90	J B	30.0	30.0	0.0861	ng/Sample		07/20/24 10:31	10
Indeno[1,2,3-cd]pyrene	36.0	B	30.0	30.0	0.121	ng/Sample		07/20/24 10:31	10
Dibenz(a,h)anthracene	6.76	J B	60.0	60.0	0.0744	ng/Sample		07/20/24 10:31	10
Benzo[g,h,i]perylene	176	B	60.0	60.0	0.0933	ng/Sample		07/20/24 10:31	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6-Naphthalene	46		20 - 130	06/27/24 14:06	07/20/24 10:31	10
13C6-2-Methylnaphthalene	56		20 - 130	06/27/24 14:06	07/20/24 10:31	10
13C6-Acenaphthylene	80		20 - 130	06/27/24 14:06	07/20/24 10:31	10
13C6-Acenaphthene	76		20 - 130	06/27/24 14:06	07/20/24 10:31	10
13C6-Fluorene	87		20 - 130	06/27/24 14:06	07/20/24 10:31	10
13C6-Fluoranthrene	83		20 - 130	06/27/24 14:06	07/20/24 10:31	10
13C3-Pyrene	78		20 - 130	06/27/24 14:06	07/20/24 10:31	10
13C6-Benzo(a)anthracene	70		20 - 130	06/27/24 14:06	07/20/24 10:31	10

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# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

**Client Sample ID: M23 F-10 BOILER RUN 2 COMBINED**

**Lab Sample ID: 140-37234-1**

**Date Collected: 06/05/24 17:53**

**Matrix: Air**

**Date Received: 06/19/24 09:00**

**Sample Container: Air Train**

## Method: EPA 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source) (Continued)

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C6-Chrysene	71		20 - 130	06/27/24 14:06	07/20/24 10:31	10
13C6-Benzo(b)fluoranthene	81		20 - 130	06/27/24 14:06	07/20/24 10:31	10
13C6-Benzo(k)fluoranthene	87		20 - 130	06/27/24 14:06	07/20/24 10:31	10
13C4-Benzo(e)pyrene	73		20 - 130	06/27/24 14:06	07/20/24 10:31	10
13C4-Benzo(a)pyrene	90		20 - 130	06/27/24 14:06	07/20/24 10:31	10
Perylene-d12	88		20 - 130	06/27/24 14:06	07/20/24 10:31	10
13C6-Indeno(1,2,3-cd)pyrene	88		20 - 130	06/27/24 14:06	07/20/24 10:31	10
13C6-Dibenz(a,h)anthracene	98		20 - 130	06/27/24 14:06	07/20/24 10:31	10
13C12-Benzo(ghi)perylene	87		20 - 130	06/27/24 14:06	07/20/24 10:31	10
13C6-Anthracene	92		20 - 130	06/27/24 14:06	07/20/24 10:31	10
13C6-Phenanthrene	75		20 - 130	06/27/24 14:06	07/20/24 10:31	10

# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

Client Sample ID: M23 F-10 BOILER RUN 3 COMBINED

Lab Sample ID: 140-37234-2

Date Collected: 06/06/24 11:33

Matrix: Air

Date Received: 06/19/24 09:00

Sample Container: Air Train

## Method: EPA 23 - Chlorinated Biphenyl Congeners (Stationary Source)

Analyte	Result	Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
PCB-8	1.76	J	3.00	0.660	0.0977	ng/Sample		07/16/24 19:38	5
PCB-18	0.837	J C	3.00	1.43	0.00774	ng/Sample		07/16/24 19:38	5
PCB-28	1.15	J B C20	3.00	1.26	0.0573	ng/Sample		07/16/24 19:38	5
PCB-44	4.41	J C B	4.50	1.95	0.0454	ng/Sample		07/16/24 19:38	5
PCB-52	0.819	J	1.50	0.660	0.0481	ng/Sample		07/16/24 19:38	5
PCB-66	0.262	J	1.50	0.600	0.0351	ng/Sample		07/16/24 19:38	5
PCB-77	0.0829	J q	1.50	0.630	0.0406	ng/Sample		07/16/24 19:38	5
PCB-81	ND		1.50	0.480	0.0411	ng/Sample		07/16/24 19:38	5
PCB-101	0.451	J C90	4.50	1.95	0.0154	ng/Sample		07/16/24 19:38	5
PCB-105	ND		1.50	0.510	0.0807	ng/Sample		07/16/24 19:38	5
PCB-114	ND		1.50	0.825	0.0754	ng/Sample		07/16/24 19:38	5
PCB-118	0.138	J	1.50	0.915	0.0735	ng/Sample		07/16/24 19:38	5
PCB-123	ND		1.50	0.855	0.0846	ng/Sample		07/16/24 19:38	5
PCB-126	ND		1.50	0.615	0.100	ng/Sample		07/16/24 19:38	5
PCB-128	ND	C	3.00	1.02	0.0190	ng/Sample		07/16/24 19:38	5
PCB-138	0.101	J C129 q	6.00	2.55	0.0197	ng/Sample		07/16/24 19:38	5
PCB-153	0.0985	J C B q	3.00	1.25	0.0170	ng/Sample		07/16/24 19:38	5
PCB-156	ND	C	3.00	1.28	0.0199	ng/Sample		07/16/24 19:38	5
PCB-157	ND	C156	3.00	1.28	0.0199	ng/Sample		07/16/24 19:38	5
PCB-167	ND		1.50	0.900	0.0135	ng/Sample		07/16/24 19:38	5
PCB-169	ND		1.50	0.615	0.0149	ng/Sample		07/16/24 19:38	5
PCB-170	ND		1.50	0.660	0.00150	ng/Sample		07/16/24 19:38	5
PCB-180	ND	C	3.00	1.02	0.00110	ng/Sample		07/16/24 19:38	5
PCB-187	ND		1.50	0.630	0.00117	ng/Sample		07/16/24 19:38	5
PCB-189	ND		1.50	0.735	0.0175	ng/Sample		07/16/24 19:38	5
PCB-195	ND		1.50	0.795	0.0101	ng/Sample		07/16/24 19:38	5
PCB-206	ND		1.50	0.855	0.298	ng/Sample		07/16/24 19:38	5
PCB-209	ND		1.50	0.690	0.00286	ng/Sample		07/16/24 19:38	5

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	62		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-3L	66		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-4L	66		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-15L	87		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-19L	66		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-37L	82		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-54L	82		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-77L	90		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-81L	88		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-104L	85		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-105L	92		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-114L	100		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-118L	91		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-123L	96		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-126L	91		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-155L	93		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-156L	95	C	20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-157L	95	C156	20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-167L	92		20 - 145	06/27/24 14:35	07/16/24 19:38	5

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# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

Client Sample ID: M23 F-10 BOILER RUN 3 COMBINED

Lab Sample ID: 140-37234-2

Date Collected: 06/06/24 11:33

Matrix: Air

Date Received: 06/19/24 09:00

Sample Container: Air Train

## Method: EPA 23 - Chlorinated Biphenyl Congeners (Stationary Source) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-169L	89		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-170L	91		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-188L	98		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-189L	91		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-202L	92		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-205L	94		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-206L	92		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-208L	92		20 - 145	06/27/24 14:35	07/16/24 19:38	5
PCB-209L	107		20 - 145	06/27/24 14:35	07/16/24 19:38	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	76		20 - 130	06/27/24 14:35	07/16/24 19:38	5
PCB-111L	77		20 - 130	06/27/24 14:35	07/16/24 19:38	5
PCB-178L	86		20 - 130	06/27/24 14:35	07/16/24 19:38	5
PCB-8L	114		70 - 130	06/27/24 14:35	07/16/24 19:38	5
PCB-79L	109		70 - 130	06/27/24 14:35	07/16/24 19:38	5
PCB-95L	114		70 - 130	06/27/24 14:35	07/16/24 19:38	5
PCB-153L	102		70 - 130	06/27/24 14:35	07/16/24 19:38	5

## Method: EPA 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source)

Analyte	Result	Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
Naphthalene	445	J B **	750	750	1.21	ng/Sample		07/20/24 11:35	10
2-Methylnaphthalene	274	J B	750	750	0.498	ng/Sample		07/20/24 11:35	10
Acenaphthylene	16.1	J B	30.0	30.0	0.343	ng/Sample		07/20/24 11:35	10
Acenaphthene	118	J B	300	300	0.478	ng/Sample		07/20/24 11:35	10
Fluorene	298	J B	300	300	0.511	ng/Sample		07/20/24 11:35	10
Phenanthrene	1060	B	60.0	60.0	0.712	ng/Sample		07/20/24 11:35	10
Anthracene	99.1	J B	300	300	0.609	ng/Sample		07/20/24 11:35	10
Fluoranthene	112	B	60.0	60.0	0.356	ng/Sample		07/20/24 11:35	10
Pyrene	123	B	60.0	60.0	0.353	ng/Sample		07/20/24 11:35	10
Benzo[a]anthracene	2.81	J B	60.0	60.0	0.189	ng/Sample		07/20/24 11:35	10
Chrysene	12.0	J B	60.0	60.0	0.191	ng/Sample		07/20/24 11:35	10
Benzo[b]fluoranthene	7.53	J B	300	300	0.120	ng/Sample		07/20/24 11:35	10
Benzo[k]fluoranthene	3.46	J B	60.0	60.0	0.113	ng/Sample		07/20/24 11:35	10
Benzo[e]pyrene	33.0	J B	60.0	60.0	0.109	ng/Sample		07/20/24 11:35	10
Benzo[a]pyrene	9.43	J B	30.0	30.0	0.0925	ng/Sample		07/20/24 11:35	10
Perylene	2.26	J B	30.0	30.0	0.0880	ng/Sample		07/20/24 11:35	10
Indeno[1,2,3-cd]pyrene	25.2	J B	30.0	30.0	0.105	ng/Sample		07/20/24 11:35	10
Dibenz(a,h)anthracene	6.15	J B	60.0	60.0	0.0682	ng/Sample		07/20/24 11:35	10
Benzo[g,h,i]perylene	144	B	60.0	60.0	0.0865	ng/Sample		07/20/24 11:35	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6-Naphthalene	47		20 - 130	06/27/24 14:06	07/20/24 11:35	10
13C6-2-Methylnaphthalene	56		20 - 130	06/27/24 14:06	07/20/24 11:35	10
13C6-Acenaphthylene	88		20 - 130	06/27/24 14:06	07/20/24 11:35	10
13C6-Acenaphthene	80		20 - 130	06/27/24 14:06	07/20/24 11:35	10
13C6-Fluorene	92		20 - 130	06/27/24 14:06	07/20/24 11:35	10
13C6-Fluoranthrene	86		20 - 130	06/27/24 14:06	07/20/24 11:35	10
13C3-Pyrene	82		20 - 130	06/27/24 14:06	07/20/24 11:35	10
13C6-Benzo(a)anthracene	70		20 - 130	06/27/24 14:06	07/20/24 11:35	10

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# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

**Client Sample ID: M23 F-10 BOILER RUN 3 COMBINED**

**Lab Sample ID: 140-37234-2**

**Date Collected: 06/06/24 11:33**

**Matrix: Air**

**Date Received: 06/19/24 09:00**

**Sample Container: Air Train**

## Method: EPA 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source) (Continued)

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C6-Chrysene	69		20 - 130	06/27/24 14:06	07/20/24 11:35	10
13C6-Benzo(b)fluoranthene	79		20 - 130	06/27/24 14:06	07/20/24 11:35	10
13C6-Benzo(k)fluoranthene	85		20 - 130	06/27/24 14:06	07/20/24 11:35	10
13C4-Benzo(e)pyrene	73		20 - 130	06/27/24 14:06	07/20/24 11:35	10
13C4-Benzo(a)pyrene	87		20 - 130	06/27/24 14:06	07/20/24 11:35	10
Perylene-d12	87		20 - 130	06/27/24 14:06	07/20/24 11:35	10
13C6-Indeno(1,2,3-cd)pyrene	96		20 - 130	06/27/24 14:06	07/20/24 11:35	10
13C6-Dibenz(a,h)anthracene	94		20 - 130	06/27/24 14:06	07/20/24 11:35	10
13C12-Benzo(ghi)perylene	84		20 - 130	06/27/24 14:06	07/20/24 11:35	10
13C6-Anthracene	95		20 - 130	06/27/24 14:06	07/20/24 11:35	10
13C6-Phenanthrene	77		20 - 130	06/27/24 14:06	07/20/24 11:35	10

# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

Client Sample ID: M23 F-10 BOILER RUN 4 COMBINED

Lab Sample ID: 140-37234-3

Date Collected: 06/06/24 16:26

Matrix: Air

Date Received: 06/19/24 09:00

Sample Container: Air Train

## Method: EPA 23 - Chlorinated Biphenyl Congeners (Stationary Source)

Analyte	Result	Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
PCB-8	0.763	J	3.00	0.660	0.0794	ng/Sample		07/17/24 19:36	5
PCB-18	0.468	J C	3.00	1.43	0.0279	ng/Sample		07/17/24 19:36	5
PCB-28	0.612	J C20 B	3.00	1.26	0.0391	ng/Sample		07/17/24 19:36	5
PCB-44	2.44	J C B	4.50	1.95	0.0304	ng/Sample		07/17/24 19:36	5
PCB-52	0.367	J q	1.50	0.660	0.0322	ng/Sample		07/17/24 19:36	5
PCB-66	0.147	J q	1.50	0.600	0.0235	ng/Sample		07/17/24 19:36	5
PCB-77	0.0756	J q	1.50	0.630	0.0270	ng/Sample		07/17/24 19:36	5
PCB-81	ND		1.50	0.480	0.0277	ng/Sample		07/17/24 19:36	5
PCB-101	0.163	J q C90	4.50	1.95	0.0487	ng/Sample		07/17/24 19:36	5
PCB-105	ND		1.50	0.510	0.146	ng/Sample		07/17/24 19:36	5
PCB-114	ND		1.50	0.825	0.142	ng/Sample		07/17/24 19:36	5
PCB-118	ND		1.50	0.915	0.135	ng/Sample		07/17/24 19:36	5
PCB-123	ND		1.50	0.855	0.145	ng/Sample		07/17/24 19:36	5
PCB-126	ND		1.50	0.615	0.179	ng/Sample		07/17/24 19:36	5
PCB-128	ND C		3.00	1.02	0.0214	ng/Sample		07/17/24 19:36	5
PCB-138	0.118	J q C129	6.00	2.55	0.0222	ng/Sample		07/17/24 19:36	5
PCB-153	0.0555	J q C B	3.00	1.25	0.0192	ng/Sample		07/17/24 19:36	5
PCB-156	ND C		3.00	1.28	0.0233	ng/Sample		07/17/24 19:36	5
PCB-157	ND C156		3.00	1.28	0.0233	ng/Sample		07/17/24 19:36	5
PCB-167	ND		1.50	0.900	0.0154	ng/Sample		07/17/24 19:36	5
PCB-169	ND		1.50	0.615	0.0157	ng/Sample		07/17/24 19:36	5
PCB-170	ND		1.50	0.660	0.00538	ng/Sample		07/17/24 19:36	5
PCB-180	ND C		3.00	1.02	0.00415	ng/Sample		07/17/24 19:36	5
PCB-187	ND		1.50	0.630	0.00440	ng/Sample		07/17/24 19:36	5
PCB-189	ND		1.50	0.735	0.0349	ng/Sample		07/17/24 19:36	5
PCB-195	ND		1.50	0.795	0.0177	ng/Sample		07/17/24 19:36	5
PCB-206	ND		1.50	0.855	0.204	ng/Sample		07/17/24 19:36	5
PCB-209	0.0380	J q	1.50	0.690	0.0101	ng/Sample		07/17/24 19:36	5

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	55		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-3L	57		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-4L	63		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-15L	80		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-19L	67		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-37L	80		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-54L	84		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-77L	86		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-81L	85		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-104L	92		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-105L	91		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-114L	94		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-118L	88		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-123L	93		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-126L	91		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-155L	95		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-156L	99 C		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-157L	99 C156		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-167L	93		20 - 145	06/27/24 14:35	07/17/24 19:36	5

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# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

**Client Sample ID: M23 F-10 BOILER RUN 4 COMBINED**

**Lab Sample ID: 140-37234-3**

Date Collected: 06/06/24 16:26

Matrix: Air

Date Received: 06/19/24 09:00

Sample Container: Air Train

## Method: EPA 23 - Chlorinated Biphenyl Congeners (Stationary Source) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-169L	95		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-170L	96		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-188L	96		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-189L	96		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-202L	99		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-205L	100		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-206L	108		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-208L	103		20 - 145	06/27/24 14:35	07/17/24 19:36	5
PCB-209L	123		20 - 145	06/27/24 14:35	07/17/24 19:36	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	71		20 - 130	06/27/24 14:35	07/17/24 19:36	5
PCB-111L	79		20 - 130	06/27/24 14:35	07/17/24 19:36	5
PCB-178L	82		20 - 130	06/27/24 14:35	07/17/24 19:36	5
PCB-8L	108		70 - 130	06/27/24 14:35	07/17/24 19:36	5
PCB-79L	110		70 - 130	06/27/24 14:35	07/17/24 19:36	5
PCB-95L	110		70 - 130	06/27/24 14:35	07/17/24 19:36	5
PCB-153L	98		70 - 130	06/27/24 14:35	07/17/24 19:36	5

## Method: EPA 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source)

Analyte	Result	Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
Naphthalene	415	J B **	750	750	0.991	ng/Sample		07/22/24 18:15	10
2-Methylnaphthalene	197	J B	750	750	0.610	ng/Sample		07/22/24 18:15	10
Acenaphthylene	8.54	J B	30.0	30.0	0.352	ng/Sample		07/22/24 18:15	10
Acenaphthene	71.3	J B	300	300	0.512	ng/Sample		07/22/24 18:15	10
Fluorene	151	J B	300	300	0.582	ng/Sample		07/22/24 18:15	10
Phenanthrene	507	B	60.0	60.0	0.661	ng/Sample		07/22/24 18:15	10
Anthracene	38.7	J B	300	300	0.581	ng/Sample		07/22/24 18:15	10
Fluoranthene	74.4	B	60.0	60.0	0.249	ng/Sample		07/22/24 18:15	10
Pyrene	91.5	B	60.0	60.0	0.246	ng/Sample		07/22/24 18:15	10
Benzo[a]anthracene	2.14	J B	60.0	60.0	0.171	ng/Sample		07/22/24 18:15	10
Chrysene	8.43	J B	60.0	60.0	0.182	ng/Sample		07/22/24 18:15	10
Benzo[b]fluoranthene	5.82	J B	300	300	0.0818	ng/Sample		07/22/24 18:15	10
Benzo[k]fluoranthene	2.97	J B	60.0	60.0	0.0795	ng/Sample		07/22/24 18:15	10
Benzo[e]pyrene	25.7	J B	60.0	60.0	0.0685	ng/Sample		07/22/24 18:15	10
Benzo[a]pyrene	8.16	J B	30.0	30.0	0.0741	ng/Sample		07/22/24 18:15	10
Perylene	1.75	J B	30.0	30.0	0.0605	ng/Sample		07/22/24 18:15	10
Indeno[1,2,3-cd]pyrene	23.4	J B	30.0	30.0	0.0907	ng/Sample		07/22/24 18:15	10
Dibenz(a,h)anthracene	5.06	J B	60.0	60.0	0.0481	ng/Sample		07/22/24 18:15	10
Benzo[g,h,i]perylene	116	B	60.0	60.0	0.0723	ng/Sample		07/22/24 18:15	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6-Naphthalene	50		20 - 130	06/27/24 14:06	07/22/24 18:15	10
13C6-2-Methylnaphthalene	58		20 - 130	06/27/24 14:06	07/22/24 18:15	10
13C6-Acenaphthylene	82		20 - 130	06/27/24 14:06	07/22/24 18:15	10
13C6-Acenaphthene	82		20 - 130	06/27/24 14:06	07/22/24 18:15	10
13C6-Fluorene	87		20 - 130	06/27/24 14:06	07/22/24 18:15	10
13C6-Fluoranthrene	80		20 - 130	06/27/24 14:06	07/22/24 18:15	10
13C3-Pyrene	81		20 - 130	06/27/24 14:06	07/22/24 18:15	10
13C6-Benzo(a)anthracene	66		20 - 130	06/27/24 14:06	07/22/24 18:15	10

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# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

**Client Sample ID: M23 F-10 BOILER RUN 4 COMBINED**

**Lab Sample ID: 140-37234-3**

**Date Collected: 06/06/24 16:26**

**Matrix: Air**

**Date Received: 06/19/24 09:00**

**Sample Container: Air Train**

## Method: EPA 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source) (Continued)

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C6-Chrysene	68		20 - 130	06/27/24 14:06	07/22/24 18:15	10
13C6-Benzo(b)fluoranthene	78		20 - 130	06/27/24 14:06	07/22/24 18:15	10
13C6-Benzo(k)fluoranthene	86		20 - 130	06/27/24 14:06	07/22/24 18:15	10
13C4-Benzo(e)pyrene	74		20 - 130	06/27/24 14:06	07/22/24 18:15	10
13C4-Benzo(a)pyrene	86		20 - 130	06/27/24 14:06	07/22/24 18:15	10
Perylene-d12	86		20 - 130	06/27/24 14:06	07/22/24 18:15	10
13C6-Indeno(1,2,3-cd)pyrene	89		20 - 130	06/27/24 14:06	07/22/24 18:15	10
13C6-Dibenz(a,h)anthracene	96		20 - 130	06/27/24 14:06	07/22/24 18:15	10
13C12-Benzo(ghi)perylene	88		20 - 130	06/27/24 14:06	07/22/24 18:15	10
13C6-Anthracene	88		20 - 130	06/27/24 14:06	07/22/24 18:15	10
13C6-Phenanthrene	71		20 - 130	06/27/24 14:06	07/22/24 18:15	10

# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

Client Sample ID: M23 F-10 BOILER RUN 5 COMBINED

Lab Sample ID: 140-37234-4

Date Collected: 06/07/24 09:53

Matrix: Air

Date Received: 06/19/24 09:00

Sample Container: Air Train

## Method: EPA 23 - Chlorinated Biphenyl Congeners (Stationary Source)

Analyte	Result	Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
PCB-8	0.705	J	3.00	0.660	0.0780	ng/Sample		07/16/24 21:40	5
PCB-18	0.467	J C	3.00	1.43	0.0110	ng/Sample		07/16/24 21:40	5
PCB-28	0.455	J B C20 q	3.00	1.26	0.0370	ng/Sample		07/16/24 21:40	5
PCB-44	2.76	J C B	4.50	1.95	0.0495	ng/Sample		07/16/24 21:40	5
PCB-52	0.387	J q	1.50	0.660	0.0523	ng/Sample		07/16/24 21:40	5
PCB-66	0.0779	J q	1.50	0.600	0.0382	ng/Sample		07/16/24 21:40	5
PCB-77	0.0634	J q	1.50	0.630	0.0451	ng/Sample		07/16/24 21:40	5
PCB-81	ND		1.50	0.480	0.0439	ng/Sample		07/16/24 21:40	5
PCB-101	0.210	J C90 q	4.50	1.95	0.0210	ng/Sample		07/16/24 21:40	5
PCB-105	ND		1.50	0.510	0.101	ng/Sample		07/16/24 21:40	5
PCB-114	ND		1.50	0.825	0.101	ng/Sample		07/16/24 21:40	5
PCB-118	ND		1.50	0.915	0.0957	ng/Sample		07/16/24 21:40	5
PCB-123	ND		1.50	0.855	0.110	ng/Sample		07/16/24 21:40	5
PCB-126	ND		1.50	0.615	0.126	ng/Sample		07/16/24 21:40	5
PCB-128	ND C		3.00	1.02	0.0172	ng/Sample		07/16/24 21:40	5
PCB-138	0.0306	J C129 q	6.00	2.55	0.0179	ng/Sample		07/16/24 21:40	5
PCB-153	0.0468	J C B q	3.00	1.25	0.0155	ng/Sample		07/16/24 21:40	5
PCB-156	ND C		3.00	1.28	0.0182	ng/Sample		07/16/24 21:40	5
PCB-157	ND C156		3.00	1.28	0.0182	ng/Sample		07/16/24 21:40	5
PCB-167	ND		1.50	0.900	0.0126	ng/Sample		07/16/24 21:40	5
PCB-169	ND		1.50	0.615	0.0130	ng/Sample		07/16/24 21:40	5
PCB-170	ND		1.50	0.660	0.00171	ng/Sample		07/16/24 21:40	5
PCB-180	ND C		3.00	1.02	0.00137	ng/Sample		07/16/24 21:40	5
PCB-187	0.0108	J q	1.50	0.630	0.00145	ng/Sample		07/16/24 21:40	5
PCB-189	ND		1.50	0.735	0.0270	ng/Sample		07/16/24 21:40	5
PCB-195	ND		1.50	0.795	0.0129	ng/Sample		07/16/24 21:40	5
PCB-206	ND		1.50	0.855	0.149	ng/Sample		07/16/24 21:40	5
PCB-209	ND		1.50	0.690	0.00333	ng/Sample		07/16/24 21:40	5

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	59		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-3L	60		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-4L	63		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-15L	75		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-19L	67		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-37L	74		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-54L	78		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-77L	80		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-81L	80		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-104L	86		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-105L	89		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-114L	87		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-118L	86		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-123L	87		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-126L	84		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-155L	90		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-156L	92 C		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-157L	92 C156		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-167L	88		20 - 145	06/27/24 14:35	07/16/24 21:40	5

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# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

Client Sample ID: M23 F-10 BOILER RUN 5 COMBINED

Lab Sample ID: 140-37234-4

Date Collected: 06/07/24 09:53

Matrix: Air

Date Received: 06/19/24 09:00

Sample Container: Air Train

## Method: EPA 23 - Chlorinated Biphenyl Congeners (Stationary Source) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-169L	91		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-170L	93		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-188L	90		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-189L	90		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-202L	91		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-205L	93		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-206L	94		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-208L	87		20 - 145	06/27/24 14:35	07/16/24 21:40	5
PCB-209L	105		20 - 145	06/27/24 14:35	07/16/24 21:40	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	73		20 - 130	06/27/24 14:35	07/16/24 21:40	5
PCB-111L	80		20 - 130	06/27/24 14:35	07/16/24 21:40	5
PCB-178L	79		20 - 130	06/27/24 14:35	07/16/24 21:40	5
PCB-8L	116		70 - 130	06/27/24 14:35	07/16/24 21:40	5
PCB-79L	111		70 - 130	06/27/24 14:35	07/16/24 21:40	5
PCB-95L	118		70 - 130	06/27/24 14:35	07/16/24 21:40	5
PCB-153L	101		70 - 130	06/27/24 14:35	07/16/24 21:40	5

## Method: EPA 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source)

Analyte	Result	Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
Naphthalene	402	J B **	750	750	1.05	ng/Sample		07/22/24 19:20	10
2-Methylnaphthalene	202	J B	750	750	0.767	ng/Sample		07/22/24 19:20	10
Acenaphthylene	7.77	J B	30.0	30.0	0.492	ng/Sample		07/22/24 19:20	10
Acenaphthene	72.9	J B	300	300	0.673	ng/Sample		07/22/24 19:20	10
Fluorene	159	J B	300	300	0.655	ng/Sample		07/22/24 19:20	10
Phenanthrene	538	B	60.0	60.0	0.850	ng/Sample		07/22/24 19:20	10
Anthracene	44.6	J B	300	300	0.815	ng/Sample		07/22/24 19:20	10
Fluoranthene	74.2	B	60.0	60.0	0.335	ng/Sample		07/22/24 19:20	10
Pyrene	80.6	B	60.0	60.0	0.326	ng/Sample		07/22/24 19:20	10
Benzo[a]anthracene	3.18	J B	60.0	60.0	0.236	ng/Sample		07/22/24 19:20	10
Chrysene	10.2	J B	60.0	60.0	0.236	ng/Sample		07/22/24 19:20	10
Benzo[b]fluoranthene	6.47	J B	300	300	0.140	ng/Sample		07/22/24 19:20	10
Benzo[k]fluoranthene	3.32	J B	60.0	60.0	0.134	ng/Sample		07/22/24 19:20	10
Benzo[e]pyrene	26.3	J B	60.0	60.0	0.116	ng/Sample		07/22/24 19:20	10
Benzo[a]pyrene	7.81	J B	30.0	30.0	0.116	ng/Sample		07/22/24 19:20	10
Perylene	1.93	J B	30.0	30.0	0.107	ng/Sample		07/22/24 19:20	10
Indeno[1,2,3-cd]pyrene	21.1	J B	30.0	30.0	0.120	ng/Sample		07/22/24 19:20	10
Dibenz(a,h)anthracene	6.89	J B	60.0	60.0	0.0703	ng/Sample		07/22/24 19:20	10
Benzo[g,h,i]perylene	103	B	60.0	60.0	0.0966	ng/Sample		07/22/24 19:20	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6-Naphthalene	49		20 - 130	06/27/24 14:06	07/22/24 19:20	10
13C6-2-Methylnaphthalene	54		20 - 130	06/27/24 14:06	07/22/24 19:20	10
13C6-Acenaphthylene	78		20 - 130	06/27/24 14:06	07/22/24 19:20	10
13C6-Acenaphthene	72		20 - 130	06/27/24 14:06	07/22/24 19:20	10
13C6-Fluorene	86		20 - 130	06/27/24 14:06	07/22/24 19:20	10
13C6-Fluoranthrene	85		20 - 130	06/27/24 14:06	07/22/24 19:20	10
13C3-Pyrene	86		20 - 130	06/27/24 14:06	07/22/24 19:20	10
13C6-Benzo(a)anthracene	71		20 - 130	06/27/24 14:06	07/22/24 19:20	10

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# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

**Client Sample ID: M23 F-10 BOILER RUN 5 COMBINED**

**Lab Sample ID: 140-37234-4**

**Date Collected: 06/07/24 09:53**

**Matrix: Air**

**Date Received: 06/19/24 09:00**

**Sample Container: Air Train**

## Method: EPA 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source) (Continued)

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C6-Chrysene	79		20 - 130	06/27/24 14:06	07/22/24 19:20	10
13C6-Benzo(b)fluoranthene	80		20 - 130	06/27/24 14:06	07/22/24 19:20	10
13C6-Benzo(k)fluoranthene	89		20 - 130	06/27/24 14:06	07/22/24 19:20	10
13C4-Benzo(e)pyrene	74		20 - 130	06/27/24 14:06	07/22/24 19:20	10
13C4-Benzo(a)pyrene	91		20 - 130	06/27/24 14:06	07/22/24 19:20	10
Perylene-d12	91		20 - 130	06/27/24 14:06	07/22/24 19:20	10
13C6-Indeno(1,2,3-cd)pyrene	92		20 - 130	06/27/24 14:06	07/22/24 19:20	10
13C6-Dibenz(a,h)anthracene	99		20 - 130	06/27/24 14:06	07/22/24 19:20	10
13C12-Benzo(ghi)perylene	92		20 - 130	06/27/24 14:06	07/22/24 19:20	10
13C6-Anthracene	92		20 - 130	06/27/24 14:06	07/22/24 19:20	10
13C6-Phenanthrene	73		20 - 130	06/27/24 14:06	07/22/24 19:20	10



# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

Client Sample ID: M23 F-10 BOILER RUN 6 COMBINED

Lab Sample ID: 140-37234-5

Date Collected: 06/11/24 17:33

Matrix: Air

Date Received: 06/19/24 09:00

Sample Container: Air Train

## Method: EPA 23 - Chlorinated Biphenyl Congeners (Stationary Source)

Analyte	Result	Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
PCB-8	1.91	J	3.00	0.660	0.0835	ng/Sample		07/17/24 04:20	5
PCB-18	1.13	J C	3.00	1.43	0.0119	ng/Sample		07/17/24 04:20	5
PCB-28	1.36	J C20 B	3.00	1.26	0.0651	ng/Sample		07/17/24 04:20	5
PCB-44	9.02	C B	4.50	1.95	0.0436	ng/Sample		07/17/24 04:20	5
PCB-52	1.19	J	1.50	0.660	0.0462	ng/Sample		07/17/24 04:20	5
PCB-66	0.245	J q	1.50	0.600	0.0337	ng/Sample		07/17/24 04:20	5
PCB-77	0.0661	J q	1.50	0.630	0.0396	ng/Sample		07/17/24 04:20	5
PCB-81	ND		1.50	0.480	0.0389	ng/Sample		07/17/24 04:20	5
PCB-101	0.421	J q C90	4.50	1.95	0.0264	ng/Sample		07/17/24 04:20	5
PCB-105	ND		1.50	0.510	0.103	ng/Sample		07/17/24 04:20	5
PCB-114	ND		1.50	0.825	0.105	ng/Sample		07/17/24 04:20	5
PCB-118	0.106	J q	1.50	0.915	0.100	ng/Sample		07/17/24 04:20	5
PCB-123	ND		1.50	0.855	0.102	ng/Sample		07/17/24 04:20	5
PCB-126	ND		1.50	0.615	0.132	ng/Sample		07/17/24 04:20	5
PCB-128	ND C		3.00	1.02	0.0220	ng/Sample		07/17/24 04:20	5
PCB-138	0.113	J q C129	6.00	2.55	0.0228	ng/Sample		07/17/24 04:20	5
PCB-153	0.0828	J q C B	3.00	1.25	0.0198	ng/Sample		07/17/24 04:20	5
PCB-156	ND C		3.00	1.28	0.0235	ng/Sample		07/17/24 04:20	5
PCB-157	ND C156		3.00	1.28	0.0235	ng/Sample		07/17/24 04:20	5
PCB-167	ND		1.50	0.900	0.0158	ng/Sample		07/17/24 04:20	5
PCB-169	ND		1.50	0.615	0.0166	ng/Sample		07/17/24 04:20	5
PCB-170	ND		1.50	0.660	0.00162	ng/Sample		07/17/24 04:20	5
PCB-180	ND C		3.00	1.02	0.00120	ng/Sample		07/17/24 04:20	5
PCB-187	ND		1.50	0.630	0.00127	ng/Sample		07/17/24 04:20	5
PCB-189	ND		1.50	0.735	0.0226	ng/Sample		07/17/24 04:20	5
PCB-195	ND		1.50	0.795	0.0181	ng/Sample		07/17/24 04:20	5
PCB-206	ND		1.50	0.855	0.109	ng/Sample		07/17/24 04:20	5
PCB-209	ND		1.50	0.690	0.00886	ng/Sample		07/17/24 04:20	5

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	62		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-3L	65		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-4L	65		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-15L	84		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-19L	74		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-37L	80		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-54L	86		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-77L	83		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-81L	83		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-104L	97		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-105L	92		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-114L	95		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-118L	88		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-123L	95		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-126L	90		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-155L	95		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-156L	97 C		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-157L	97 C156		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-167L	91		20 - 145	06/27/24 14:35	07/17/24 04:20	5

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# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

**Client Sample ID: M23 F-10 BOILER RUN 6 COMBINED**

**Lab Sample ID: 140-37234-5**

Date Collected: 06/11/24 17:33

Matrix: Air

Date Received: 06/19/24 09:00

Sample Container: Air Train

## Method: EPA 23 - Chlorinated Biphenyl Congeners (Stationary Source) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-169L	94		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-170L	97		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-188L	101		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-189L	95		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-202L	96		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-205L	99		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-206L	102		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-208L	90		20 - 145	06/27/24 14:35	07/17/24 04:20	5
PCB-209L	112		20 - 145	06/27/24 14:35	07/17/24 04:20	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	78		20 - 130	06/27/24 14:35	07/17/24 04:20	5
PCB-111L	81		20 - 130	06/27/24 14:35	07/17/24 04:20	5
PCB-178L	87		20 - 130	06/27/24 14:35	07/17/24 04:20	5
PCB-8L	0	S1-	70 - 130	06/27/24 14:35	07/17/24 04:20	5
PCB-79L	0	S1-	70 - 130	06/27/24 14:35	07/17/24 04:20	5
PCB-95L	0	S1-	70 - 130	06/27/24 14:35	07/17/24 04:20	5
PCB-153L	0	S1-	70 - 130	06/27/24 14:35	07/17/24 04:20	5

## Method: EPA 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source)

Analyte	Result	Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
Naphthalene	752	B +	750	750	1.41	ng/Sample		07/22/24 20:24	10
2-Methylnaphthalene	439	J B	750	750	0.548	ng/Sample		07/22/24 20:24	10
Acenaphthylene	16.6	J B	30.0	30.0	0.422	ng/Sample		07/22/24 20:24	10
Acenaphthene	221	J B	300	300	0.647	ng/Sample		07/22/24 20:24	10
Fluorene	386	B	300	300	0.640	ng/Sample		07/22/24 20:24	10
Phenanthrene	1230	B	60.0	60.0	0.868	ng/Sample		07/22/24 20:24	10
Anthracene	82.4	J B	300	300	0.709	ng/Sample		07/22/24 20:24	10
Fluoranthene	144	B	60.0	60.0	0.389	ng/Sample		07/22/24 20:24	10
Pyrene	152	B	60.0	60.0	0.387	ng/Sample		07/22/24 20:24	10
Benzo[a]anthracene	3.10	J B	60.0	60.0	0.236	ng/Sample		07/22/24 20:24	10
Chrysene	10.1	J B	60.0	60.0	0.239	ng/Sample		07/22/24 20:24	10
Benzo[b]fluoranthene	7.78	J B	300	300	0.133	ng/Sample		07/22/24 20:24	10
Benzo[k]fluoranthene	3.35	J B	60.0	60.0	0.115	ng/Sample		07/22/24 20:24	10
Benzo[e]pyrene	36.1	J B	60.0	60.0	0.112	ng/Sample		07/22/24 20:24	10
Benzo[a]pyrene	10.9	J B	30.0	30.0	0.105	ng/Sample		07/22/24 20:24	10
Perylene	2.54	J B	30.0	30.0	0.0907	ng/Sample		07/22/24 20:24	10
Indeno[1,2,3-cd]pyrene	28.1	J B	30.0	30.0	0.127	ng/Sample		07/22/24 20:24	10
Dibenz(a,h)anthracene	7.07	J B	60.0	60.0	0.0707	ng/Sample		07/22/24 20:24	10
Benzo[g,h,i]perylene	130	B	60.0	60.0	0.0919	ng/Sample		07/22/24 20:24	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6-Naphthalene	59		20 - 130	06/27/24 14:06	07/22/24 20:24	10
13C6-2-Methylnaphthalene	65		20 - 130	06/27/24 14:06	07/22/24 20:24	10
13C6-Acenaphthylene	91		20 - 130	06/27/24 14:06	07/22/24 20:24	10
13C6-Acenaphthene	87		20 - 130	06/27/24 14:06	07/22/24 20:24	10
13C6-Fluorene	96		20 - 130	06/27/24 14:06	07/22/24 20:24	10
13C6-Fluoranthrene	88		20 - 130	06/27/24 14:06	07/22/24 20:24	10
13C3-Pyrene	84		20 - 130	06/27/24 14:06	07/22/24 20:24	10
13C6-Benzo(a)anthracene	70		20 - 130	06/27/24 14:06	07/22/24 20:24	10

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# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

**Client Sample ID: M23 F-10 BOILER RUN 6 COMBINED**

**Lab Sample ID: 140-37234-5**

**Date Collected: 06/11/24 17:33**

**Matrix: Air**

**Date Received: 06/19/24 09:00**

**Sample Container: Air Train**

## Method: EPA 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source) (Continued)

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C6-Chrysene	77		20 - 130	06/27/24 14:06	07/22/24 20:24	10
13C6-Benzo(b)fluoranthene	80		20 - 130	06/27/24 14:06	07/22/24 20:24	10
13C6-Benzo(k)fluoranthene	91		20 - 130	06/27/24 14:06	07/22/24 20:24	10
13C4-Benzo(e)pyrene	74		20 - 130	06/27/24 14:06	07/22/24 20:24	10
13C4-Benzo(a)pyrene	93		20 - 130	06/27/24 14:06	07/22/24 20:24	10
Perylene-d12	88		20 - 130	06/27/24 14:06	07/22/24 20:24	10
13C6-Indeno(1,2,3-cd)pyrene	86		20 - 130	06/27/24 14:06	07/22/24 20:24	10
13C6-Dibenz(a,h)anthracene	93		20 - 130	06/27/24 14:06	07/22/24 20:24	10
13C12-Benzo(ghi)perylene	93		20 - 130	06/27/24 14:06	07/22/24 20:24	10
13C6-Anthracene	102		20 - 130	06/27/24 14:06	07/22/24 20:24	10
13C6-Phenanthrene	80		20 - 130	06/27/24 14:06	07/22/24 20:24	10

# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

Client Sample ID: M23 F-10 BOILER RUN 7 COMBINED

Lab Sample ID: 140-37234-6

Date Collected: 06/12/24 11:39

Matrix: Air

Date Received: 06/19/24 09:00

Sample Container: Air Train

## Method: EPA 23 - Chlorinated Biphenyl Congeners (Stationary Source)

Analyte	Result	Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
PCB-8	1.75	J	3.00	0.660	0.0632	ng/Sample		07/17/24 05:21	5
PCB-18	0.954	J C	3.00	1.43	0.0178	ng/Sample		07/17/24 05:21	5
PCB-28	1.27	J C20 B	3.00	1.26	0.0428	ng/Sample		07/17/24 05:21	5
PCB-44	10.4	C B	4.50	1.95	0.0999	ng/Sample		07/17/24 05:21	5
PCB-52	1.16	J	1.50	0.660	0.106	ng/Sample		07/17/24 05:21	5
PCB-66	0.249	J q	1.50	0.600	0.0772	ng/Sample		07/17/24 05:21	5
PCB-77	ND		1.50	0.630	0.0922	ng/Sample		07/17/24 05:21	5
PCB-81	ND		1.50	0.480	0.0876	ng/Sample		07/17/24 05:21	5
PCB-101	0.424	J q C90	4.50	1.95	0.0228	ng/Sample		07/17/24 05:21	5
PCB-105	ND		1.50	0.510	0.0646	ng/Sample		07/17/24 05:21	5
PCB-114	ND		1.50	0.825	0.0643	ng/Sample		07/17/24 05:21	5
PCB-118	0.243	J	1.50	0.915	0.0613	ng/Sample		07/17/24 05:21	5
PCB-123	ND		1.50	0.855	0.0649	ng/Sample		07/17/24 05:21	5
PCB-126	ND		1.50	0.615	0.0741	ng/Sample		07/17/24 05:21	5
PCB-128	ND C		3.00	1.02	0.0235	ng/Sample		07/17/24 05:21	5
PCB-138	0.117	J q C129	6.00	2.55	0.0244	ng/Sample		07/17/24 05:21	5
PCB-153	0.168	J q C B	3.00	1.25	0.0211	ng/Sample		07/17/24 05:21	5
PCB-156	ND C		3.00	1.28	0.0261	ng/Sample		07/17/24 05:21	5
PCB-157	ND C156		3.00	1.28	0.0261	ng/Sample		07/17/24 05:21	5
PCB-167	ND		1.50	0.900	0.0165	ng/Sample		07/17/24 05:21	5
PCB-169	ND		1.50	0.615	0.0172	ng/Sample		07/17/24 05:21	5
PCB-170	ND		1.50	0.660	0.00227	ng/Sample		07/17/24 05:21	5
PCB-180	ND C		3.00	1.02	0.00169	ng/Sample		07/17/24 05:21	5
PCB-187	0.0322	J q	1.50	0.630	0.00179	ng/Sample		07/17/24 05:21	5
PCB-189	ND		1.50	0.735	0.0149	ng/Sample		07/17/24 05:21	5
PCB-195	0.0127	J q	1.50	0.795	0.00933	ng/Sample		07/17/24 05:21	5
PCB-206	ND		1.50	0.855	0.388	ng/Sample		07/17/24 05:21	5
PCB-209	ND		1.50	0.690	0.00219	ng/Sample		07/17/24 05:21	5

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	56		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-3L	63		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-4L	60		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-15L	85		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-19L	69		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-37L	77		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-54L	81		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-77L	85		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-81L	83		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-104L	88		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-105L	91		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-114L	91		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-118L	85		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-123L	90		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-126L	89		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-155L	91		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-156L	85 C		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-157L	85 C156		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-167L	85		20 - 145	06/27/24 14:35	07/17/24 05:21	5

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# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

**Client Sample ID: M23 F-10 BOILER RUN 7 COMBINED**

**Lab Sample ID: 140-37234-6**

**Date Collected: 06/12/24 11:39**

**Matrix: Air**

**Date Received: 06/19/24 09:00**

**Sample Container: Air Train**

## Method: EPA 23 - Chlorinated Biphenyl Congeners (Stationary Source) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-169L	87		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-170L	90		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-188L	94		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-189L	92		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-202L	94		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-205L	89		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-206L	95		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-208L	86		20 - 145	06/27/24 14:35	07/17/24 05:21	5
PCB-209L	113		20 - 145	06/27/24 14:35	07/17/24 05:21	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	77		20 - 130	06/27/24 14:35	07/17/24 05:21	5
PCB-111L	79		20 - 130	06/27/24 14:35	07/17/24 05:21	5
PCB-178L	87		20 - 130	06/27/24 14:35	07/17/24 05:21	5
PCB-8L	115		70 - 130	06/27/24 14:35	07/17/24 05:21	5
PCB-79L	112		70 - 130	06/27/24 14:35	07/17/24 05:21	5
PCB-95L	122		70 - 130	06/27/24 14:35	07/17/24 05:21	5
PCB-153L	106		70 - 130	06/27/24 14:35	07/17/24 05:21	5

## Method: EPA 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source)

Analyte	Result	Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
Naphthalene	820	B +	750	750	1.31	ng/Sample		07/23/24 07:13	10
2-Methylnaphthalene	482	J B	750	750	0.351	ng/Sample		07/23/24 07:13	10
Acenaphthylene	8.43	J B	30.0	30.0	0.316	ng/Sample		07/23/24 07:13	10
Acenaphthene	250	J B	300	300	0.452	ng/Sample		07/23/24 07:13	10
Fluorene	364	B	300	300	0.487	ng/Sample		07/23/24 07:13	10
Phenanthrene	1060	B	60.0	60.0	0.708	ng/Sample		07/23/24 07:13	10
Anthracene	69.6	J B	300	300	0.682	ng/Sample		07/23/24 07:13	10
Fluoranthene	114	B	60.0	60.0	0.384	ng/Sample		07/23/24 07:13	10
Pyrene	103	B	60.0	60.0	0.379	ng/Sample		07/23/24 07:13	10
Benzo[a]anthracene	2.16	J B	60.0	60.0	0.184	ng/Sample		07/23/24 07:13	10
Chrysene	9.19	J B	60.0	60.0	0.181	ng/Sample		07/23/24 07:13	10
Benzo[b]fluoranthene	3.29	J B	300	300	0.111	ng/Sample		07/23/24 07:13	10
Benzo[k]fluoranthene	2.66	J B	60.0	60.0	0.0975	ng/Sample		07/23/24 07:13	10
Benzo[e]pyrene	6.53	J B	60.0	60.0	0.0842	ng/Sample		07/23/24 07:13	10
Benzo[a]pyrene	3.05	J B	30.0	30.0	0.0898	ng/Sample		07/23/24 07:13	10
Perylene	1.20	J B	30.0	30.0	0.0811	ng/Sample		07/23/24 07:13	10
Indeno[1,2,3-cd]pyrene	5.32	J B	30.0	30.0	0.0958	ng/Sample		07/23/24 07:13	10
Dibenz(a,h)anthracene	8.06	J B	60.0	60.0	0.0720	ng/Sample		07/23/24 07:13	10
Benzo[g,h,i]perylene	14.1	J B	60.0	60.0	0.0760	ng/Sample		07/23/24 07:13	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6-Naphthalene	68		20 - 130	06/27/24 14:06	07/23/24 07:13	10
13C6-2-Methylnaphthalene	70		20 - 130	06/27/24 14:06	07/23/24 07:13	10
13C6-Acenaphthylene	101		20 - 130	06/27/24 14:06	07/23/24 07:13	10
13C6-Acenaphthene	91		20 - 130	06/27/24 14:06	07/23/24 07:13	10
13C6-Fluorene	96		20 - 130	06/27/24 14:06	07/23/24 07:13	10
13C6-Fluoranthrene	90		20 - 130	06/27/24 14:06	07/23/24 07:13	10
13C3-Pyrene	89		20 - 130	06/27/24 14:06	07/23/24 07:13	10
13C6-Benzo(a)anthracene	70		20 - 130	06/27/24 14:06	07/23/24 07:13	10

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# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

**Client Sample ID: M23 F-10 BOILER RUN 7 COMBINED**

**Lab Sample ID: 140-37234-6**

**Date Collected: 06/12/24 11:39**

**Matrix: Air**

**Date Received: 06/19/24 09:00**

**Sample Container: Air Train**

## Method: EPA 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source) (Continued)

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C6-Chrysene	77		20 - 130	06/27/24 14:06	07/23/24 07:13	10
13C6-Benzo(b)fluoranthene	71		20 - 130	06/27/24 14:06	07/23/24 07:13	10
13C6-Benzo(k)fluoranthene	91		20 - 130	06/27/24 14:06	07/23/24 07:13	10
13C4-Benzo(e)pyrene	74		20 - 130	06/27/24 14:06	07/23/24 07:13	10
13C4-Benzo(a)pyrene	89		20 - 130	06/27/24 14:06	07/23/24 07:13	10
Perylene-d12	87		20 - 130	06/27/24 14:06	07/23/24 07:13	10
13C6-Indeno(1,2,3-cd)pyrene	81		20 - 130	06/27/24 14:06	07/23/24 07:13	10
13C6-Dibenz(a,h)anthracene	80		20 - 130	06/27/24 14:06	07/23/24 07:13	10
13C12-Benzo(ghi)perylene	89		20 - 130	06/27/24 14:06	07/23/24 07:13	10
13C6-Anthracene	88		20 - 130	06/27/24 14:06	07/23/24 07:13	10
13C6-Phenanthrene	74		20 - 130	06/27/24 14:06	07/23/24 07:13	10

# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

Client Sample ID: M23 F-10 BOILER RUN 8 COMBINED

Lab Sample ID: 140-37234-7

Date Collected: 06/12/24 16:26

Matrix: Air

Date Received: 06/19/24 09:00

Sample Container: Air Train

## Method: EPA 23 - Chlorinated Biphenyl Congeners (Stationary Source)

Analyte	Result	Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
PCB-8	0.894	J	3.00	0.660	0.0617	ng/Sample		07/17/24 06:22	5
PCB-18	0.496	J q C	3.00	1.43	0.00839	ng/Sample		07/17/24 06:22	5
PCB-28	0.793	J C20 B	3.00	1.26	0.0403	ng/Sample		07/17/24 06:22	5
PCB-44	5.18	C B	4.50	1.95	0.0465	ng/Sample		07/17/24 06:22	5
PCB-52	0.474	J q	1.50	0.660	0.0493	ng/Sample		07/17/24 06:22	5
PCB-66	0.138	J	1.50	0.600	0.0360	ng/Sample		07/17/24 06:22	5
PCB-77	0.0759	J q	1.50	0.630	0.0429	ng/Sample		07/17/24 06:22	5
PCB-81	ND		1.50	0.480	0.0408	ng/Sample		07/17/24 06:22	5
PCB-101	0.200	J C90	4.50	1.95	0.0379	ng/Sample		07/17/24 06:22	5
PCB-105	ND		1.50	0.510	0.0532	ng/Sample		07/17/24 06:22	5
PCB-114	ND		1.50	0.825	0.0524	ng/Sample		07/17/24 06:22	5
PCB-118	0.0852	J q	1.50	0.915	0.0477	ng/Sample		07/17/24 06:22	5
PCB-123	ND		1.50	0.855	0.0553	ng/Sample		07/17/24 06:22	5
PCB-126	ND		1.50	0.615	0.0628	ng/Sample		07/17/24 06:22	5
PCB-128	0.0200	J C B	3.00	1.02	0.00932	ng/Sample		07/17/24 06:22	5
PCB-138	0.0309	J q C129	6.00	2.55	0.00968	ng/Sample		07/17/24 06:22	5
PCB-153	0.0992	J q C B	3.00	1.25	0.00837	ng/Sample		07/17/24 06:22	5
PCB-156	ND	C	3.00	1.28	0.0103	ng/Sample		07/17/24 06:22	5
PCB-157	ND	C156	3.00	1.28	0.0103	ng/Sample		07/17/24 06:22	5
PCB-167	ND		1.50	0.900	0.00649	ng/Sample		07/17/24 06:22	5
PCB-169	ND		1.50	0.615	0.00694	ng/Sample		07/17/24 06:22	5
PCB-170	ND		1.50	0.660	0.00159	ng/Sample		07/17/24 06:22	5
PCB-180	ND	C	3.00	1.02	0.00121	ng/Sample		07/17/24 06:22	5
PCB-187	ND		1.50	0.630	0.00129	ng/Sample		07/17/24 06:22	5
PCB-189	ND		1.50	0.735	0.0131	ng/Sample		07/17/24 06:22	5
PCB-195	ND		1.50	0.795	0.00867	ng/Sample		07/17/24 06:22	5
PCB-206	ND		1.50	0.855	0.159	ng/Sample		07/17/24 06:22	5
PCB-209	ND		1.50	0.690	0.00205	ng/Sample		07/17/24 06:22	5

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	56		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-3L	59		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-4L	61		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-15L	80		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-19L	69		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-37L	71		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-54L	84		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-77L	82		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-81L	82		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-104L	82		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-105L	90		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-114L	91		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-118L	92		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-123L	89		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-126L	91		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-155L	85		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-156L	86	C	20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-157L	86	C156	20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-167L	84		20 - 145	06/27/24 14:35	07/17/24 06:22	5

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# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

Client Sample ID: M23 F-10 BOILER RUN 8 COMBINED

Lab Sample ID: 140-37234-7

Date Collected: 06/12/24 16:26

Matrix: Air

Date Received: 06/19/24 09:00

Sample Container: Air Train

## Method: EPA 23 - Chlorinated Biphenyl Congeners (Stationary Source) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-169L	85		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-170L	88		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-188L	98		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-189L	95		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-202L	91		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-205L	92		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-206L	103		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-208L	88		20 - 145	06/27/24 14:35	07/17/24 06:22	5
PCB-209L	120		20 - 145	06/27/24 14:35	07/17/24 06:22	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	74		20 - 130	06/27/24 14:35	07/17/24 06:22	5
PCB-111L	77		20 - 130	06/27/24 14:35	07/17/24 06:22	5
PCB-178L	86		20 - 130	06/27/24 14:35	07/17/24 06:22	5
PCB-8L	112		70 - 130	06/27/24 14:35	07/17/24 06:22	5
PCB-79L	115		70 - 130	06/27/24 14:35	07/17/24 06:22	5
PCB-95L	121		70 - 130	06/27/24 14:35	07/17/24 06:22	5
PCB-153L	114		70 - 130	06/27/24 14:35	07/17/24 06:22	5

## Method: EPA 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source)

Analyte	Result	Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
Naphthalene	601	J B **	750	750	1.09	ng/Sample		07/22/24 22:33	10
2-Methylnaphthalene	288	J B	750	750	0.851	ng/Sample		07/22/24 22:33	10
Acenaphthylene	7.45	J B	30.0	30.0	0.481	ng/Sample		07/22/24 22:33	10
Acenaphthene	109	J B	300	300	0.653	ng/Sample		07/22/24 22:33	10
Fluorene	178	J B	300	300	0.630	ng/Sample		07/22/24 22:33	10
Phenanthrene	613	B	60.0	60.0	0.959	ng/Sample		07/22/24 22:33	10
Anthracene	38.7	J B	300	300	0.863	ng/Sample		07/22/24 22:33	10
Fluoranthene	65.2	B	60.0	60.0	0.347	ng/Sample		07/22/24 22:33	10
Pyrene	67.5	B	60.0	60.0	0.352	ng/Sample		07/22/24 22:33	10
Benzo[a]anthracene	2.55	J B	60.0	60.0	0.246	ng/Sample		07/22/24 22:33	10
Chrysene	9.37	J B	60.0	60.0	0.239	ng/Sample		07/22/24 22:33	10
Benzo[b]fluoranthene	2.75	J B	300	300	0.142	ng/Sample		07/22/24 22:33	10
Benzo[k]fluoranthene	2.40	J B	60.0	60.0	0.125	ng/Sample		07/22/24 22:33	10
Benzo[e]pyrene	9.01	J B	60.0	60.0	0.120	ng/Sample		07/22/24 22:33	10
Benzo[a]pyrene	3.60	J B	30.0	30.0	0.110	ng/Sample		07/22/24 22:33	10
Perylene	1.01	J B	30.0	30.0	0.0963	ng/Sample		07/22/24 22:33	10
Indeno[1,2,3-cd]pyrene	8.22	J B	30.0	30.0	0.117	ng/Sample		07/22/24 22:33	10
Dibenz(a,h)anthracene	7.53	J B	60.0	60.0	0.0894	ng/Sample		07/22/24 22:33	10
Benzo[g,h,i]perylene	25.9	J B	60.0	60.0	0.0960	ng/Sample		07/22/24 22:33	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6-Naphthalene	46		20 - 130	06/27/24 14:06	07/22/24 22:33	10
13C6-2-Methylnaphthalene	51		20 - 130	06/27/24 14:06	07/22/24 22:33	10
13C6-Acenaphthylene	81		20 - 130	06/27/24 14:06	07/22/24 22:33	10
13C6-Acenaphthene	80		20 - 130	06/27/24 14:06	07/22/24 22:33	10
13C6-Fluorene	85		20 - 130	06/27/24 14:06	07/22/24 22:33	10
13C6-Fluoranthrene	88		20 - 130	06/27/24 14:06	07/22/24 22:33	10
13C3-Pyrene	85		20 - 130	06/27/24 14:06	07/22/24 22:33	10
13C6-Benzo(a)anthracene	77		20 - 130	06/27/24 14:06	07/22/24 22:33	10

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# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

**Client Sample ID: M23 F-10 BOILER RUN 8 COMBINED**

**Lab Sample ID: 140-37234-7**

**Date Collected: 06/12/24 16:26**

**Matrix: Air**

**Date Received: 06/19/24 09:00**

**Sample Container: Air Train**

## Method: EPA 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source) (Continued)

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C6-Chrysene	81		20 - 130	06/27/24 14:06	07/22/24 22:33	10
13C6-Benzo(b)fluoranthene	79		20 - 130	06/27/24 14:06	07/22/24 22:33	10
13C6-Benzo(k)fluoranthene	95		20 - 130	06/27/24 14:06	07/22/24 22:33	10
13C4-Benzo(e)pyrene	77		20 - 130	06/27/24 14:06	07/22/24 22:33	10
13C4-Benzo(a)pyrene	93		20 - 130	06/27/24 14:06	07/22/24 22:33	10
Perylene-d12	91		20 - 130	06/27/24 14:06	07/22/24 22:33	10
13C6-Indeno(1,2,3-cd)pyrene	82		20 - 130	06/27/24 14:06	07/22/24 22:33	10
13C6-Dibenz(a,h)anthracene	102		20 - 130	06/27/24 14:06	07/22/24 22:33	10
13C12-Benzo(ghi)perylene	96		20 - 130	06/27/24 14:06	07/22/24 22:33	10
13C6-Anthracene	88		20 - 130	06/27/24 14:06	07/22/24 22:33	10
13C6-Phenanthrene	70		20 - 130	06/27/24 14:06	07/22/24 22:33	10



# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

Client Sample ID: M23 F-10 BOILER BT COMBINED

Lab Sample ID: 140-37234-8

Date Collected: 06/03/24 17:00

Matrix: Air

Date Received: 06/19/24 09:00

Sample Container: Air Train

## Method: EPA 23 - Chlorinated Biphenyl Congeners (Stationary Source)

Analyte	Result	Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
PCB-8	0.659		0.600	0.132	0.0231	ng/Sample		07/16/24 15:40	1
PCB-18	0.226	J C q	0.600	0.285	0.00605	ng/Sample		07/16/24 15:40	1
PCB-28	0.470	J B C20	0.600	0.252	0.0111	ng/Sample		07/16/24 15:40	1
PCB-44	1.02	C B	0.900	0.390	0.00920	ng/Sample		07/16/24 15:40	1
PCB-52	0.224	J	0.300	0.132	0.00973	ng/Sample		07/16/24 15:40	1
PCB-66	0.0896	J	0.300	0.120	0.00711	ng/Sample		07/16/24 15:40	1
PCB-77	0.0215	J q	0.300	0.126	0.00816	ng/Sample		07/16/24 15:40	1
PCB-81	ND		0.300	0.0960	0.00839	ng/Sample		07/16/24 15:40	1
PCB-101	0.0799	J C90 q	0.900	0.390	0.00812	ng/Sample		07/16/24 15:40	1
PCB-105	0.0136	J q	0.300	0.102	0.00853	ng/Sample		07/16/24 15:40	1
PCB-114	0.0117	J q	0.300	0.165	0.00807	ng/Sample		07/16/24 15:40	1
PCB-118	ND		0.300	0.183	0.00816	ng/Sample		07/16/24 15:40	1
PCB-123	ND		0.300	0.171	0.00867	ng/Sample		07/16/24 15:40	1
PCB-126	ND		0.300	0.123	0.00968	ng/Sample		07/16/24 15:40	1
PCB-128	ND C		0.600	0.204	0.00125	ng/Sample		07/16/24 15:40	1
PCB-138	0.0118	J C129 q	1.20	0.510	0.00130	ng/Sample		07/16/24 15:40	1
PCB-153	0.00863	J C B q	0.600	0.249	0.00112	ng/Sample		07/16/24 15:40	1
PCB-156	ND C		0.600	0.255	0.00122	ng/Sample		07/16/24 15:40	1
PCB-157	ND C156		0.600	0.255	0.00122	ng/Sample		07/16/24 15:40	1
PCB-167	ND		0.300	0.180	0.000962	ng/Sample		07/16/24 15:40	1
PCB-169	ND		0.300	0.123	0.00100	ng/Sample		07/16/24 15:40	1
PCB-170	ND		0.300	0.132	0.000452	ng/Sample		07/16/24 15:40	1
PCB-180	ND C		0.600	0.204	0.000328	ng/Sample		07/16/24 15:40	1
PCB-187	ND		0.300	0.126	0.000348	ng/Sample		07/16/24 15:40	1
PCB-189	ND		0.300	0.147	0.00377	ng/Sample		07/16/24 15:40	1
PCB-195	ND		0.300	0.159	0.00624	ng/Sample		07/16/24 15:40	1
PCB-206	ND		0.300	0.171	0.0376	ng/Sample		07/16/24 15:40	1
PCB-209	ND		0.300	0.138	0.00327	ng/Sample		07/16/24 15:40	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	52		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-3L	57		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-4L	56		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-15L	74		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-19L	64		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-37L	70		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-54L	77		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-77L	80		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-81L	79		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-104L	77		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-105L	85		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-114L	91		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-118L	82		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-123L	89		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-126L	84		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-155L	84		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-156L	97 C		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-157L	97 C156		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-167L	84		20 - 145	06/27/24 14:35	07/16/24 15:40	1

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# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

**Client Sample ID: M23 F-10 BOILER BT COMBINED**

**Lab Sample ID: 140-37234-8**

**Date Collected: 06/03/24 17:00**

**Matrix: Air**

**Date Received: 06/19/24 09:00**

**Sample Container: Air Train**

## Method: EPA 23 - Chlorinated Biphenyl Congeners (Stationary Source) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-169L	83		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-170L	86		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-188L	95		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-189L	91		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-202L	83		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-205L	88		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-206L	91		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-208L	89		20 - 145	06/27/24 14:35	07/16/24 15:40	1
PCB-209L	102		20 - 145	06/27/24 14:35	07/16/24 15:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	66		20 - 130	06/27/24 14:35	07/16/24 15:40	1
PCB-111L	76		20 - 130	06/27/24 14:35	07/16/24 15:40	1
PCB-178L	81		20 - 130	06/27/24 14:35	07/16/24 15:40	1
PCB-8L	111		70 - 130	06/27/24 14:35	07/16/24 15:40	1
PCB-79L	117		70 - 130	06/27/24 14:35	07/16/24 15:40	1
PCB-95L	119		70 - 130	06/27/24 14:35	07/16/24 15:40	1
PCB-153L	103		70 - 130	06/27/24 14:35	07/16/24 15:40	1

## Method: EPA 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source)

Analyte	Result	Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
Naphthalene	185	J B **	750	750	0.579	ng/Sample		07/22/24 17:11	10
2-Methylnaphthalene	94.1	J B	750	750	0.282	ng/Sample		07/22/24 17:11	10
Acenaphthylene	5.97	J B	30.0	30.0	0.233	ng/Sample		07/22/24 17:11	10
Acenaphthene	43.1	J B	300	300	0.233	ng/Sample		07/22/24 17:11	10
Fluorene	129	J B	300	300	0.322	ng/Sample		07/22/24 17:11	10
Phenanthrene	412	B	60.0	60.0	0.408	ng/Sample		07/22/24 17:11	10
Anthracene	43.3	J B	300	300	0.342	ng/Sample		07/22/24 17:11	10
Fluoranthene	29.2	J B	60.0	60.0	0.150	ng/Sample		07/22/24 17:11	10
Pyrene	28.3	J B	60.0	60.0	0.150	ng/Sample		07/22/24 17:11	10
Benzo[a]anthracene	1.12	J B	60.0	60.0	0.103	ng/Sample		07/22/24 17:11	10
Chrysene	3.72	J B	60.0	60.0	0.0976	ng/Sample		07/22/24 17:11	10
Benzo[b]fluoranthene	1.10	J B	300	300	0.0651	ng/Sample		07/22/24 17:11	10
Benzo[k]fluoranthene	1.17	J B	60.0	60.0	0.0583	ng/Sample		07/22/24 17:11	10
Benzo[e]pyrene	1.53	J B	60.0	60.0	0.0557	ng/Sample		07/22/24 17:11	10
Benzo[a]pyrene	1.27	J B	30.0	30.0	0.0538	ng/Sample		07/22/24 17:11	10
Perylene	0.544	J B	30.0	30.0	0.0460	ng/Sample		07/22/24 17:11	10
Indeno[1,2,3-cd]pyrene	2.18	J B	30.0	30.0	0.0409	ng/Sample		07/22/24 17:11	10
Dibenz(a,h)anthracene	3.09	J B	60.0	60.0	0.0390	ng/Sample		07/22/24 17:11	10
Benzo[g,h,i]perylene	3.84	J B	60.0	60.0	0.0307	ng/Sample		07/22/24 17:11	10

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6-Naphthalene	60		20 - 130	06/27/24 14:06	07/22/24 17:11	10
13C6-2-Methylnaphthalene	61		20 - 130	06/27/24 14:06	07/22/24 17:11	10
13C6-Acenaphthylene	88		20 - 130	06/27/24 14:06	07/22/24 17:11	10
13C6-Acenaphthene	85		20 - 130	06/27/24 14:06	07/22/24 17:11	10
13C6-Fluorene	91		20 - 130	06/27/24 14:06	07/22/24 17:11	10
13C6-Fluoranthrene	88		20 - 130	06/27/24 14:06	07/22/24 17:11	10
13C3-Pyrene	84		20 - 130	06/27/24 14:06	07/22/24 17:11	10
13C6-Benzo(a)anthracene	66		20 - 130	06/27/24 14:06	07/22/24 17:11	10

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# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

**Client Sample ID: M23 F-10 BOILER BT COMBINED**

**Lab Sample ID: 140-37234-8**

**Date Collected: 06/03/24 17:00**

**Matrix: Air**

**Date Received: 06/19/24 09:00**

**Sample Container: Air Train**

**Method: EPA 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source) (Continued)**

<i>Isotope Dilution</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
13C6-Chrysene	73		20 - 130	06/27/24 14:06	07/22/24 17:11	10
13C6-Benzo(b)fluoranthene	77		20 - 130	06/27/24 14:06	07/22/24 17:11	10
13C6-Benzo(k)fluoranthene	85		20 - 130	06/27/24 14:06	07/22/24 17:11	10
13C4-Benzo(e)pyrene	74		20 - 130	06/27/24 14:06	07/22/24 17:11	10
13C4-Benzo(a)pyrene	83		20 - 130	06/27/24 14:06	07/22/24 17:11	10
Perylene-d12	88		20 - 130	06/27/24 14:06	07/22/24 17:11	10
13C6-Indeno(1,2,3-cd)pyrene	73		20 - 130	06/27/24 14:06	07/22/24 17:11	10
13C6-Dibenz(a,h)anthracene	92		20 - 130	06/27/24 14:06	07/22/24 17:11	10
13C12-Benzo(ghi)perylene	85		20 - 130	06/27/24 14:06	07/22/24 17:11	10
13C6-Anthracene	85		20 - 130	06/27/24 14:06	07/22/24 17:11	10
13C6-Phenanthrene	72		20 - 130	06/27/24 14:06	07/22/24 17:11	10

# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

Client Sample ID: M23 MEDIA CHECK A-2229 FILTER, A-2228

Lab Sample ID: 140-37234-14

## XAD COMBINED

Date Collected: 06/03/24 00:00

Matrix: Air

Date Received: 06/19/24 09:00

Sample Container: Air Train

### Method: EPA 23 - Chlorinated Biphenyl Congeners (Stationary Source)

Analyte	Result	Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
PCB-8	ND		0.600	0.132	0.0103	ng/Sample		07/16/24 14:38	1
PCB-18	ND	C	0.600	0.285	0.00618	ng/Sample		07/16/24 14:38	1
PCB-28	0.0271	J B C20	0.600	0.252	0.0111	ng/Sample		07/16/24 14:38	1
PCB-44	0.0535	J C B q	0.900	0.390	0.00982	ng/Sample		07/16/24 14:38	1
PCB-52	0.0130	J q	0.300	0.132	0.0104	ng/Sample		07/16/24 14:38	1
PCB-66	ND		0.300	0.120	0.00759	ng/Sample		07/16/24 14:38	1
PCB-77	0.0149	J q	0.300	0.126	0.00873	ng/Sample		07/16/24 14:38	1
PCB-81	ND		0.300	0.0960	0.00893	ng/Sample		07/16/24 14:38	1
PCB-101	ND	C90	0.900	0.390	0.00601	ng/Sample		07/16/24 14:38	1
PCB-105	ND		0.300	0.102	0.0108	ng/Sample		07/16/24 14:38	1
PCB-114	ND		0.300	0.165	0.0117	ng/Sample		07/16/24 14:38	1
PCB-118	ND		0.300	0.183	0.00998	ng/Sample		07/16/24 14:38	1
PCB-123	ND		0.300	0.171	0.0120	ng/Sample		07/16/24 14:38	1
PCB-126	ND		0.300	0.123	0.0123	ng/Sample		07/16/24 14:38	1
PCB-128	ND	C	0.600	0.204	0.00303	ng/Sample		07/16/24 14:38	1
PCB-138	ND	C129	1.20	0.510	0.00315	ng/Sample		07/16/24 14:38	1
PCB-153	ND	C	0.600	0.249	0.00273	ng/Sample		07/16/24 14:38	1
PCB-156	ND	C	0.600	0.255	0.00336	ng/Sample		07/16/24 14:38	1
PCB-157	ND	C156	0.600	0.255	0.00336	ng/Sample		07/16/24 14:38	1
PCB-167	ND		0.300	0.180	0.00215	ng/Sample		07/16/24 14:38	1
PCB-169	ND		0.300	0.123	0.00222	ng/Sample		07/16/24 14:38	1
PCB-170	ND		0.300	0.132	0.00331	ng/Sample		07/16/24 14:38	1
PCB-180	ND	C	0.600	0.204	0.00259	ng/Sample		07/16/24 14:38	1
PCB-187	ND		0.300	0.126	0.00275	ng/Sample		07/16/24 14:38	1
PCB-189	ND		0.300	0.147	0.00239	ng/Sample		07/16/24 14:38	1
PCB-195	ND		0.300	0.159	0.00373	ng/Sample		07/16/24 14:38	1
PCB-206	ND		0.300	0.171	0.0401	ng/Sample		07/16/24 14:38	1
PCB-209	ND		0.300	0.138	0.00117	ng/Sample		07/16/24 14:38	1

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	72		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-3L	71		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-4L	72		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-15L	72		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-19L	73		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-37L	76		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-54L	83		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-77L	85		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-81L	83		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-104L	82		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-105L	87		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-114L	84		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-118L	87		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-123L	83		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-126L	88		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-155L	80		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-156L	89	C	20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-157L	89	C156	20 - 145	06/27/24 14:35	07/16/24 14:38	1

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# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

Client Sample ID: M23 MEDIA CHECK A-2229 FILTER, A-2228

Lab Sample ID: 140-37234-14

## XAD COMBINED

Date Collected: 06/03/24 00:00

Matrix: Air

Date Received: 06/19/24 09:00

Sample Container: Air Train

### Method: EPA 23 - Chlorinated Biphenyl Congeners (Stationary Source) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-167L	86		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-169L	91		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-170L	87		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-188L	82		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-189L	90		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-202L	83		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-205L	91		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-206L	94		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-208L	88		20 - 145	06/27/24 14:35	07/16/24 14:38	1
PCB-209L	108		20 - 145	06/27/24 14:35	07/16/24 14:38	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-28L	73		20 - 130	06/27/24 14:35	07/16/24 14:38	1
PCB-111L	78		20 - 130	06/27/24 14:35	07/16/24 14:38	1
PCB-178L	77		20 - 130	06/27/24 14:35	07/16/24 14:38	1

### Method: EPA 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source)

Analyte	Result	Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
Naphthalene	40.2	J B **	75.0	75.0	0.0409	ng/Sample		07/22/24 16:06	1
2-Methylnaphthalene	14.5	J B	75.0	75.0	0.0355	ng/Sample		07/22/24 16:06	1
Acenaphthylene	0.240	J B	3.00	3.00	0.0289	ng/Sample		07/22/24 16:06	1
Acenaphthene	6.40	J B	30.0	30.0	0.0391	ng/Sample		07/22/24 16:06	1
Fluorene	4.52	J B	30.0	30.0	0.0445	ng/Sample		07/22/24 16:06	1
Phenanthrene	9.16	B	6.00	6.00	0.0571	ng/Sample		07/22/24 16:06	1
Anthracene	0.175	J B	30.0	30.0	0.0551	ng/Sample		07/22/24 16:06	1
Fluoranthene	3.14	J B	6.00	6.00	0.0183	ng/Sample		07/22/24 16:06	1
Pyrene	4.32	J B	6.00	6.00	0.0174	ng/Sample		07/22/24 16:06	1
Benzo[a]anthracene	0.0460	J B	6.00	6.00	0.0201	ng/Sample		07/22/24 16:06	1
Chrysene	1.00	J B	6.00	6.00	0.0194	ng/Sample		07/22/24 16:06	1
Benzo[b]fluoranthene	0.294	J B	30.0	30.0	0.00675	ng/Sample		07/22/24 16:06	1
Benzo[k]fluoranthene	0.120	J B	6.00	6.00	0.00613	ng/Sample		07/22/24 16:06	1
Benzo[e]pyrene	0.252	J B	6.00	6.00	0.00537	ng/Sample		07/22/24 16:06	1
Benzo[a]pyrene	0.148	J B	3.00	3.00	0.00520	ng/Sample		07/22/24 16:06	1
Perylene	0.191	J B	3.00	3.00	0.00539	ng/Sample		07/22/24 16:06	1
Indeno[1,2,3-cd]pyrene	0.217	J B	3.00	3.00	0.00556	ng/Sample		07/22/24 16:06	1
Dibenz(a,h)anthracene	0.0617	J B	6.00	6.00	0.00396	ng/Sample		07/22/24 16:06	1
Benzo[g,h,i]perylene	0.198	J B	6.00	6.00	0.00469	ng/Sample		07/22/24 16:06	1
Isotope Dilution	%Recovery	Qualifier	Limits			Prepared		Analyzed	Dil Fac
13C6-Naphthalene	67		20 - 130			06/27/24 14:06		07/22/24 16:06	1
13C6-2-Methylnaphthalene	68		20 - 130			06/27/24 14:06		07/22/24 16:06	1
13C6-Acenaphthylene	83		20 - 130			06/27/24 14:06		07/22/24 16:06	1
13C6-Acenaphthene	77		20 - 130			06/27/24 14:06		07/22/24 16:06	1
13C6-Fluorene	78		20 - 130			06/27/24 14:06		07/22/24 16:06	1
13C6-Fluoranthrene	77		20 - 130			06/27/24 14:06		07/22/24 16:06	1
13C3-Pyrene	79		20 - 130			06/27/24 14:06		07/22/24 16:06	1
13C6-Benzo(a)anthracene	50		20 - 130			06/27/24 14:06		07/22/24 16:06	1
13C6-Chrysene	54		20 - 130			06/27/24 14:06		07/22/24 16:06	1

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# Client Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

Client Sample ID: M23 MEDIA CHECK A-2229 FILTER, A-2228

Lab Sample ID: 140-37234-14

XAD COMBINED

Date Collected: 06/03/24 00:00

Matrix: Air

Date Received: 06/19/24 09:00

Sample Container: Air Train

## Method: EPA 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source) (Continued)

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6-Benzo(b)fluoranthene	73		20 - 130	06/27/24 14:06	07/22/24 16:06	1
13C6-Benzo(k)fluoranthene	83		20 - 130	06/27/24 14:06	07/22/24 16:06	1
13C4-Benzo(e)pyrene	75		20 - 130	06/27/24 14:06	07/22/24 16:06	1
13C4-Benzo(a)pyrene	82		20 - 130	06/27/24 14:06	07/22/24 16:06	1
Perylene-d12	71		20 - 130	06/27/24 14:06	07/22/24 16:06	1
13C6-Indeno(1,2,3-cd)pyrene	60		20 - 130	06/27/24 14:06	07/22/24 16:06	1
13C6-Dibenz(a,h)anthracene	69		20 - 130	06/27/24 14:06	07/22/24 16:06	1
13C12-Benzo(ghi)perylene	63		20 - 130	06/27/24 14:06	07/22/24 16:06	1
13C6-Anthracene	80		20 - 130	06/27/24 14:06	07/22/24 16:06	1
13C6-Phenanthrene	68		20 - 130	06/27/24 14:06	07/22/24 16:06	1

## Default Detection Limits

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

### Method: 23 - Chlorinated Biphenyl Congeners (Stationary Source)

#### Prep: Combined Prep

Analyte	RL	Units
PCB-101	0.300	ng/Sample
PCB-105	0.100	ng/Sample
PCB-114	0.100	ng/Sample
PCB-118	0.100	ng/Sample
PCB-123	0.100	ng/Sample
PCB-126	0.100	ng/Sample
PCB-128	0.200	ng/Sample
PCB-138	0.400	ng/Sample
PCB-153	0.200	ng/Sample
PCB-156	0.200	ng/Sample
PCB-157	0.200	ng/Sample
PCB-167	0.100	ng/Sample
PCB-169	0.100	ng/Sample
PCB-170	0.100	ng/Sample
PCB-18	0.200	ng/Sample
PCB-180	0.200	ng/Sample
PCB-187	0.100	ng/Sample
PCB-189	0.100	ng/Sample
PCB-195	0.100	ng/Sample
PCB-206	0.100	ng/Sample
PCB-209	0.100	ng/Sample
PCB-28	0.200	ng/Sample
PCB-44	0.300	ng/Sample
PCB-52	0.100	ng/Sample
PCB-66	0.100	ng/Sample
PCB-77	0.100	ng/Sample
PCB-8	0.200	ng/Sample
PCB-81	0.100	ng/Sample

### Method: 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source)

#### Prep: Combined Prep

Analyte	RL	Units
2-Methylnaphthalene	25.0	ng/Sample
Acenaphthene	10.0	ng/Sample
Acenaphthylene	1.00	ng/Sample
Anthracene	10.0	ng/Sample
Benzo[a]anthracene	2.00	ng/Sample
Benzo[a]pyrene	1.00	ng/Sample
Benzo[b]fluoranthene	10.0	ng/Sample
Benzo[e]pyrene	2.00	ng/Sample
Benzo[g,h,i]perylene	2.00	ng/Sample
Benzo[k]fluoranthene	2.00	ng/Sample
Chrysene	2.00	ng/Sample
Dibenz(a,h)anthracene	2.00	ng/Sample
Fluoranthene	2.00	ng/Sample
Fluorene	10.0	ng/Sample
Indeno[1,2,3-cd]pyrene	1.00	ng/Sample
Naphthalene	25.0	ng/Sample
Perylene	1.00	ng/Sample
Phenanthrene	2.00	ng/Sample
Pyrene	2.00	ng/Sample

# Surrogate Summary

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

## Method: 23 - Chlorinated Biphenyl Congeners (Stationary Source)

Matrix: Air

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)						
		PCB28L (20-130)	PCB111L (20-130)	PCB178L (20-130)	PCB8L (70-130)	PCB79L (70-130)	PCB95L (70-130)	PCB153L (70-130)
140-37234-1	M23 F-10 BOILER RUN 2 COMBINED	75	79	87	101	109	114	102
140-37234-2	M23 F-10 BOILER RUN 3 COMBINED	76	77	86	114	109	114	102
140-37234-3	M23 F-10 BOILER RUN 4 COMBINED	71	79	82	108	110	110	98
140-37234-4	M23 F-10 BOILER RUN 5 COMBINED	73	80	79	116	111	118	101
140-37234-5	M23 F-10 BOILER RUN 6 COMBINED	78	81	87	0 S1-	0 S1-	0 S1-	0 S1-
140-37234-6	M23 F-10 BOILER RUN 7 COMBINED	77	79	87	115	112	122	106
140-37234-7	M23 F-10 BOILER RUN 8 COMBINED	74	77	86	112	115	121	114
140-37234-8	M23 F-10 BOILER BT COMBINED	66	76	81	111	117	119	103
140-37234-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	73	78	77				
MB 140-88193/21-B	Method Blank	72	73	75				

### Surrogate Legend

PCB28L = PCB-28L

PCB111L = PCB-111L

PCB178L = PCB-178L

PCB8L = PCB-8L

PCB79L = PCB-79L

PCB95L = PCB-95L

PCB153L = PCB-153L

## Method: 23 - Chlorinated Biphenyl Congeners (Stationary Source)

Matrix: Air

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		PCB28L (15-145)	PCB111L (40-145)	PCB178L (40-145)
LCS 140-88193/19-B	Lab Control Sample	67	72	70
LCSD 140-88193/20-B	Lab Control Sample Dup	66	69	68

### Surrogate Legend

PCB28L = PCB-28L

PCB111L = PCB-111L

PCB178L = PCB-178L



# Isotope Dilution Summary

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

## Method: 23 - Chlorinated Biphenyl Congeners (Stationary Source)

Matrix: Air

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB1L (20-145)	PCB3L (20-145)	PCB4L (20-145)	PCB15L (20-145)	PCB19L (20-145)	PCB37L (20-145)	PCB54L (20-145)	PCB77L (20-145)
140-37234-1	M23 F-10 BOILER RUN 2 COMBINED	60	70	71	84 S	82	81	102	91
140-37234-2	M23 F-10 BOILER RUN 3 COMBINED	62	66	66	87	66	82	82	90
140-37234-3	M23 F-10 BOILER RUN 4 COMBINED	55	57	63	80	67	80	84	86
140-37234-4	M23 F-10 BOILER RUN 5 COMBINED	59	60	63	75	67	74	78	80
140-37234-5	M23 F-10 BOILER RUN 6 COMBINED	62	65	65	84	74	80	86	83
140-37234-6	M23 F-10 BOILER RUN 7 COMBINED	56	63	60	85	69	77	81	85
140-37234-7	M23 F-10 BOILER RUN 8 COMBINED	56	59	61	80	69	71	84	82
140-37234-8	M23 F-10 BOILER BT COMBINED	52	57	56	74	64	70	77	80
140-37234-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	72	71	72	72	73	76	83	85
MB 140-88193/21-B	Method Blank	69	76	66	72	69	75	80	80

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB81L (20-145)	PCB104L (20-145)	PCB105L (20-145)	PCB114L (20-145)	PCB118L (20-145)	PCB123L (20-145)	PCB126L (20-145)	PCB155L (20-145)
140-37234-1	M23 F-10 BOILER RUN 2 COMBINED	89	86	91	100	86	100	93	94
140-37234-2	M23 F-10 BOILER RUN 3 COMBINED	88	85	92	100	91	96	91	93
140-37234-3	M23 F-10 BOILER RUN 4 COMBINED	85	92	91	94	88	93	91	95
140-37234-4	M23 F-10 BOILER RUN 5 COMBINED	80	86	89	87	86	87	84	90
140-37234-5	M23 F-10 BOILER RUN 6 COMBINED	83	97	92	95	88	95	90	95
140-37234-6	M23 F-10 BOILER RUN 7 COMBINED	83	88	91	91	85	90	89	91
140-37234-7	M23 F-10 BOILER RUN 8 COMBINED	82	82	90	91	92	89	91	85
140-37234-8	M23 F-10 BOILER BT COMBINED	79	77	85	91	82	89	84	84
140-37234-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	83	82	87	84	87	83	88	80
MB 140-88193/21-B	Method Blank	80	80	87	82	83	82	88	77

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB156L (20-145)	PCB157L (20-145)	PCB167L (20-145)	PCB169L (20-145)	PCB170L (20-145)	PCB188L (20-145)	PCB189L (20-145)	PCB202L (20-145)
140-37234-1	M23 F-10 BOILER RUN 2 COMBINED	98 C	98 C156	88	87	90	102	98	88
140-37234-2	M23 F-10 BOILER RUN 3 COMBINED	95 C	95 C156	92	89	91	98	91	92
140-37234-3	M23 F-10 BOILER RUN 4 COMBINED	99 C	99 C156	93	95	96	96	96	99
140-37234-4	M23 F-10 BOILER RUN 5 COMBINED	92 C	92 C156	88	91	93	90	90	91
140-37234-5	M23 F-10 BOILER RUN 6 COMBINED	97 C	97 C156	91	94	97	101	95	96

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# Isotope Dilution Summary

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

## Method: 23 - Chlorinated Biphenyl Congeners (Stationary Source) (Continued)

Matrix: Air

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		PCB156L (20-145)	PCB157L (20-145)	PCB167L (20-145)	PCB169L (20-145)	PCB170L (20-145)	PCB188L (20-145)	PCB189L (20-145)	PCB202L (20-145)
140-37234-6	M23 F-10 BOILER RUN 7 COMBINED	85 C	85 C156	85	87	90	94	92	94
140-37234-7	M23 F-10 BOILER RUN 8 COMBINED	86 C	86 C156	84	85	88	98	95	91
140-37234-8	M23 F-10 BOILER BT COMBINED	97 C	97 C156	84	83	86	95	91	83
140-37234-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	89 C	89 C156	86	91	87	82	90	83
MB 140-88193/21-B	Method Blank	88 C	88 C156	83	90	86	80	88	81

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)			
		PCB205L (20-145)	PCB206L (20-145)	PCB208L (20-145)	PCB209L (20-145)
140-37234-1	M23 F-10 BOILER RUN 2 COMBINED	95	97	99	106
140-37234-2	M23 F-10 BOILER RUN 3 COMBINED	94	92	92	107
140-37234-3	M23 F-10 BOILER RUN 4 COMBINED	100	108	103	123
140-37234-4	M23 F-10 BOILER RUN 5 COMBINED	93	94	87	105
140-37234-5	M23 F-10 BOILER RUN 6 COMBINED	99	102	90	112
140-37234-6	M23 F-10 BOILER RUN 7 COMBINED	89	95	86	113
140-37234-7	M23 F-10 BOILER RUN 8 COMBINED	92	103	88	120
140-37234-8	M23 F-10 BOILER BT COMBINED	88	91	89	102
140-37234-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	91	94	88	108
MB 140-88193/21-B	Method Blank	91	93	90	102

### Surrogate Legend

PCB1L = PCB-1L  
PCB3L = PCB-3L  
PCB4L = PCB-4L  
PCB15L = PCB-15L  
PCB19L = PCB-19L  
PCB37L = PCB-37L  
PCB54L = PCB-54L  
PCB77L = PCB-77L  
PCB81L = PCB-81L  
PCB104L = PCB-104L  
PCB105L = PCB-105L  
PCB114L = PCB-114L  
PCB118L = PCB-118L  
PCB123L = PCB-123L  
PCB126L = PCB-126L  
PCB155L = PCB-155L  
PCB156L = PCB-156L  
PCB157L = PCB-157L  
PCB167L = PCB-167L  
PCB169L = PCB-169L

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# Isotope Dilution Summary

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

PCB170L = PCB-170L  
PCB188L = PCB-188L  
PCB189L = PCB-189L  
PCB202L = PCB-202L  
PCB205L = PCB-205L  
PCB206L = PCB-206L  
PCB208L = PCB-208L  
PCB209L = PCB-209L

## Method: 23 - Chlorinated Biphenyl Congeners (Stationary Source)

Matrix: Air

Prep Type: Total/NA

		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB1L (15-145)	PCB3L (15-145)	PCB4L (15-145)	PCB15L (15-145)	PCB19L (15-145)	PCB37L (15-145)	PCB54L (15-145)	PCB77L (40-145)
LCS 140-88193/19-B	Lab Control Sample	74	73	72	71	68	73	78	79
LCSD 140-88193/20-B	Lab Control Sample Dup	67	70	65	69	66	72	75	78
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB81L (40-145)	PCB104L (40-145)	PCB105L (40-145)	PCB114L (40-145)	PCB118L (40-145)	PCB123L (40-145)	PCB126L (40-145)	PCB155L (40-145)
LCS 140-88193/19-B	Lab Control Sample	78	74	85	80	81	79	84	74
LCSD 140-88193/20-B	Lab Control Sample Dup	77	72	82	77	77	76	84	70
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB156L (40-145)	PCB157L (40-145)	PCB167L (40-145)	PCB169L (40-145)	PCB170L (40-145)	PCB188L (40-145)	PCB189L (40-145)	PCB202L (40-145)
LCS 140-88193/19-B	Lab Control Sample	86 C	86 C156	83	86	86	77	86	79
LCSD 140-88193/20-B	Lab Control Sample Dup	84 C	84 C156	81	86	83	73	82	76
		Percent Isotope Dilution Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	PCB205L (40-145)	PCB206L (40-145)	PCB208L (40-145)	PCB209L (40-145)				
LCS 140-88193/19-B	Lab Control Sample	86	88	86	96				
LCSD 140-88193/20-B	Lab Control Sample Dup	81	87	83	94				

### Surrogate Legend

PCB1L = PCB-1L  
PCB3L = PCB-3L  
PCB4L = PCB-4L  
PCB15L = PCB-15L  
PCB19L = PCB-19L  
PCB37L = PCB-37L  
PCB54L = PCB-54L  
PCB77L = PCB-77L  
PCB81L = PCB-81L  
PCB104L = PCB-104L  
PCB105L = PCB-105L  
PCB114L = PCB-114L  
PCB118L = PCB-118L  
PCB123L = PCB-123L  
PCB126L = PCB-126L  
PCB155L = PCB-155L  
PCB156L = PCB-156L  
PCB157L = PCB-157L  
PCB167L = PCB-167L  
PCB169L = PCB-169L  
PCB170L = PCB-170L  
PCB188L = PCB-188L

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# Isotope Dilution Summary

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

PCB189L = PCB-189L  
PCB202L = PCB-202L  
PCB205L = PCB-205L  
PCB206L = PCB-206L  
PCB208L = PCB-208L  
PCB209L = PCB-209L

## Method: 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source)

Matrix: Air

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		C6N (20-130)	C62MN (20-130)	C6Acy (20-130)	C6Ace (20-130)	C6Fle (20-130)	C6Fla (20-130)	C3Pyr (20-130)	C6BaA (20-130)
140-37234-1	M23 F-10 BOILER RUN 2 COMBINED	46	56	80	76	87	83	78	70
140-37234-2	M23 F-10 BOILER RUN 3 COMBINED	47	56	88	80	92	86	82	70
140-37234-3	M23 F-10 BOILER RUN 4 COMBINED	50	58	82	82	87	80	81	66
140-37234-4	M23 F-10 BOILER RUN 5 COMBINED	49	54	78	72	86	85	86	71
140-37234-5	M23 F-10 BOILER RUN 6 COMBINED	59	65	91	87	96	88	84	70
140-37234-6	M23 F-10 BOILER RUN 7 COMBINED	68	70	101	91	96	90	89	70
140-37234-7	M23 F-10 BOILER RUN 8 COMBINED	46	51	81	80	85	88	85	77
140-37234-8	M23 F-10 BOILER BT COMBINED	60	61	88	85	91	88	84	66
140-37234-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	67	68	83	77	78	77	79	50
LCS 140-88192/19-B	Lab Control Sample	82	70	91	84	91	91	93	94
LCSD 140-88192/20-B	Lab Control Sample Dup	83	73	90	84	91	91	91	91
MB 140-88192/21-B	Method Blank	72	67	93	84	96	93	94	78

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)							
		C6Chr (20-130)	C6BbF (20-130)	C6BkF (20-130)	C4BeP (20-130)	C4BaP (20-130)	PRY (20-130)	IND (20-130)	DBA (20-130)
140-37234-1	M23 F-10 BOILER RUN 2 COMBINED	71	81	87	73	90	88	88	98
140-37234-2	M23 F-10 BOILER RUN 3 COMBINED	69	79	85	73	87	87	96	94
140-37234-3	M23 F-10 BOILER RUN 4 COMBINED	68	78	86	74	86	86	89	96
140-37234-4	M23 F-10 BOILER RUN 5 COMBINED	79	80	89	74	91	91	92	99
140-37234-5	M23 F-10 BOILER RUN 6 COMBINED	77	80	91	74	93	88	86	93
140-37234-6	M23 F-10 BOILER RUN 7 COMBINED	77	71	91	74	89	87	81	80
140-37234-7	M23 F-10 BOILER RUN 8 COMBINED	81	79	95	77	93	91	82	102
140-37234-8	M23 F-10 BOILER BT COMBINED	73	77	85	74	83	88	73	92
140-37234-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	54	73	83	75	82	71	60	69
LCS 140-88192/19-B	Lab Control Sample	91	103	94	92	95	95	103	90
LCSD 140-88192/20-B	Lab Control Sample Dup	88	99	92	92	93	96	104	98
MB 140-88192/21-B	Method Blank	76	96	94	87	89	92	99	99

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# Isotope Dilution Summary

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

## Method: 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source) (Continued)

Matrix: Air

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Isotope Dilution Recovery (Acceptance Limits)		
		BghiP (20-130)	AN (20-130)	C6Ph (20-130)
140-37234-1	M23 F-10 BOILER RUN 2 COMB	87	92	75
140-37234-2	M23 F-10 BOILER RUN 3 COMBINED	84	95	77
140-37234-3	M23 F-10 BOILER RUN 4 COMBINED	88	88	71
140-37234-4	M23 F-10 BOILER RUN 5 COMBINED	92	92	73
140-37234-5	M23 F-10 BOILER RUN 6 COMBINED	93	102	80
140-37234-6	M23 F-10 BOILER RUN 7 COMBINED	89	88	74
140-37234-7	M23 F-10 BOILER RUN 8 COMBINED	96	88	70
140-37234-8	M23 F-10 BOILER BT COMBINED	85	85	72
140-37234-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	63	80	68
LCS 140-88192/19-B	Lab Control Sample	82	78	68
LCSD 140-88192/20-B	Lab Control Sample Dup	81	80	70
MB 140-88192/21-B	Method Blank	86	92	79

### Surrogate Legend

C6N = 13C6-Naphthalene  
 C62MN = 13C6-2-Methylnaphthalene  
 C6Acy = 13C6-Acenaphthylene  
 C6Ace = 13C6-Acenaphthene  
 C6Fle = 13C6-Fluorene  
 C6Fla = 13C6-Fluoranthrene  
 C3Pyr = 13C3-Pyrene  
 C6BaA = 13C6-Benzo(a)anthracene  
 C6Chr = 13C6-Chrysene  
 C6BbF = 13C6-Benzo(b)fluoranthene  
 C6BkF = 13C6-Benzo(k)fluoranthene  
 C4BeP = 13C4-Benzo(e)pyrene  
 C4BaP = 13C4-Benzo(a)pyrene  
 PRY = Perylene-d12  
 IND = 13C6-Indeno(1,2,3-cd)pyrene  
 DBA = 13C6-Dibenz(a,h)anthracene  
 BghiP = 13C12-Benzo(ghi)perylene  
 AN = 13C6-Anthracene  
 C6Ph = 13C6-Phenanthrene

# QC Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

## Method: 23 - Chlorinated Biphenyl Congeners (Stationary Source)

Lab Sample ID: MB 140-88193/21-B  
Matrix: Air  
Analysis Batch: 88747

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 88193

Analyte	MB Result	MB Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
PCB-8	ND		0.600	0.132	0.0112	ng/Sample		07/15/24 16:31	1
PCB-18	ND	C	0.600	0.285	0.00504	ng/Sample		07/15/24 16:31	1
PCB-28	0.03705	J q C20	0.600	0.252	0.0106	ng/Sample		07/15/24 16:31	1
PCB-44	0.04942	J C	0.900	0.390	0.0120	ng/Sample		07/15/24 16:31	1
PCB-52	ND		0.300	0.132	0.0127	ng/Sample		07/15/24 16:31	1
PCB-66	ND		0.300	0.120	0.00925	ng/Sample		07/15/24 16:31	1
PCB-77	ND		0.300	0.126	0.0106	ng/Sample		07/15/24 16:31	1
PCB-81	ND		0.300	0.0960	0.0110	ng/Sample		07/15/24 16:31	1
PCB-101	ND	C90	0.900	0.390	0.0101	ng/Sample		07/15/24 16:31	1
PCB-105	ND		0.300	0.102	0.0141	ng/Sample		07/15/24 16:31	1
PCB-114	ND		0.300	0.165	0.0149	ng/Sample		07/15/24 16:31	1
PCB-118	ND		0.300	0.183	0.0133	ng/Sample		07/15/24 16:31	1
PCB-123	ND		0.300	0.171	0.0154	ng/Sample		07/15/24 16:31	1
PCB-126	ND		0.300	0.123	0.0156	ng/Sample		07/15/24 16:31	1
PCB-128	0.005771	J q C	0.600	0.204	0.00396	ng/Sample		07/15/24 16:31	1
PCB-138	ND	C129	1.20	0.510	0.00411	ng/Sample		07/15/24 16:31	1
PCB-153	0.005324	J q C	0.600	0.249	0.00356	ng/Sample		07/15/24 16:31	1
PCB-156	ND	C	0.600	0.255	0.00443	ng/Sample		07/15/24 16:31	1
PCB-157	ND	C156	0.600	0.255	0.00443	ng/Sample		07/15/24 16:31	1
PCB-167	ND		0.300	0.180	0.00289	ng/Sample		07/15/24 16:31	1
PCB-169	ND		0.300	0.123	0.00276	ng/Sample		07/15/24 16:31	1
PCB-170	ND		0.300	0.132	0.00421	ng/Sample		07/15/24 16:31	1
PCB-180	ND	C	0.600	0.204	0.00338	ng/Sample		07/15/24 16:31	1
PCB-187	ND		0.300	0.126	0.00358	ng/Sample		07/15/24 16:31	1
PCB-189	ND		0.300	0.147	0.00459	ng/Sample		07/15/24 16:31	1
PCB-195	ND		0.300	0.159	0.00414	ng/Sample		07/15/24 16:31	1
PCB-206	ND		0.300	0.171	0.0152	ng/Sample		07/15/24 16:31	1
PCB-209	ND		0.300	0.138	0.00132	ng/Sample		07/15/24 16:31	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
PCB-1L	69		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-3L	76		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-4L	66		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-15L	72		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-19L	69		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-37L	75		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-54L	80		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-77L	80		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-81L	80		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-104L	80		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-105L	87		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-114L	82		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-118L	83		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-123L	82		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-126L	88		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-155L	77		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-156L	88	C	20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-157L	88	C156	20 - 145	06/27/24 14:35	07/15/24 16:31	1

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# QC Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

## Method: 23 - Chlorinated Biphenyl Congeners (Stationary Source) (Continued)

Lab Sample ID: MB 140-88193/21-B  
Matrix: Air  
Analysis Batch: 88747

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 88193

Isotope Dilution	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
PCB-167L	83		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-169L	90		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-170L	86		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-188L	80		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-189L	88		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-202L	81		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-205L	91		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-206L	93		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-208L	90		20 - 145	06/27/24 14:35	07/15/24 16:31	1
PCB-209L	102		20 - 145	06/27/24 14:35	07/15/24 16:31	1
Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
PCB-28L	72		20 - 130	06/27/24 14:35	07/15/24 16:31	1
PCB-111L	73		20 - 130	06/27/24 14:35	07/15/24 16:31	1
PCB-178L	75		20 - 130	06/27/24 14:35	07/15/24 16:31	1

Lab Sample ID: LCS 140-88193/19-B  
Matrix: Air  
Analysis Batch: 88747

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 88193

Analyte			Spike	LCS	LCS	Unit	D	%Rec	%Rec		
			Added	Result	Qualifier			Limits	Limits		
PCB-77			15.0	13.34		ng/Sample		89	60 - 135		
PCB-81			15.0	13.65		ng/Sample		91	60 - 135		
PCB-105			15.0	14.04		ng/Sample		94	60 - 135		
PCB-114			15.0	13.87		ng/Sample		92	60 - 135		
PCB-118			15.0	13.37		ng/Sample		89	60 - 135		
PCB-123			15.0	14.01		ng/Sample		93	60 - 135		
PCB-126			15.0	14.13		ng/Sample		94	60 - 135		
PCB-156			30.0	28.29	C	ng/Sample		94	60 - 135		
PCB-157			30.0	28.29	C156	ng/Sample		94	60 - 135		
PCB-167			15.0	13.90		ng/Sample		93	60 - 135		
PCB-169			15.0	14.12		ng/Sample		94	60 - 135		
PCB-189			15.0	14.59		ng/Sample		97	60 - 135		
PCB-206			15.0	13.02		ng/Sample		87	60 - 135		
PCB-209			15.0	14.30		ng/Sample		95	60 - 135		

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# QC Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

## Method: 23 - Chlorinated Biphenyl Congeners (Stationary Source) (Continued)

Lab Sample ID: LCS 140-88193/19-B

Matrix: Air

Analysis Batch: 88747

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 88193

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
PCB-114L	80		40 - 145
PCB-118L	81		40 - 145
PCB-123L	79		40 - 145
PCB-126L	84		40 - 145
PCB-155L	74		40 - 145
PCB-156L	86	C	40 - 145
PCB-157L	86	C156	40 - 145
PCB-167L	83		40 - 145
PCB-169L	86		40 - 145
PCB-170L	86		40 - 145
PCB-188L	77		40 - 145
PCB-189L	86		40 - 145
PCB-202L	79		40 - 145
PCB-205L	86		40 - 145
PCB-206L	88		40 - 145
PCB-208L	86		40 - 145
PCB-209L	96		40 - 145

Surrogate	LCS		Limits
	%Recovery	Qualifier	
PCB-28L	67		15 - 145
PCB-111L	72		40 - 145
PCB-178L	70		40 - 145

Lab Sample ID: LCSD 140-88193/20-B

Matrix: Air

Analysis Batch: 88747

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 88193

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD	Limit
							Limits	RPD		
PCB-77	15.0	13.57		ng/Sample		90	60 - 135	2		50
PCB-81	15.0	13.54		ng/Sample		90	60 - 135	1		50
PCB-105	15.0	13.85		ng/Sample		92	60 - 135	1		50
PCB-114	15.0	13.99		ng/Sample		93	60 - 135	1		50
PCB-118	15.0	13.80		ng/Sample		92	60 - 135	3		50
PCB-123	15.0	13.15		ng/Sample		88	60 - 135	6		50
PCB-126	15.0	14.15		ng/Sample		94	60 - 135	0		50
PCB-156	30.0	28.43	C	ng/Sample		95	60 - 135	0		50
PCB-157	30.0	28.43	C156	ng/Sample		95	60 - 135	0		50
PCB-167	15.0	13.86		ng/Sample		92	60 - 135	0		50
PCB-169	15.0	13.79		ng/Sample		92	60 - 135	2		50
PCB-189	15.0	14.28		ng/Sample		95	60 - 135	2		50
PCB-206	15.0	13.16		ng/Sample		88	60 - 135	1		50
PCB-209	15.0	14.25		ng/Sample		95	60 - 135	0		50

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
PCB-1L	67		15 - 145
PCB-3L	70		15 - 145
PCB-4L	65		15 - 145
PCB-15L	69		15 - 145

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# QC Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

## Method: 23 - Chlorinated Biphenyl Congeners (Stationary Source) (Continued)

Lab Sample ID: LCSD 140-88193/20-B  
Matrix: Air  
Analysis Batch: 88747

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 88193

Isotope Dilution	LCSD		Limits
	%Recovery	Qualifier	
PCB-19L	66		15 - 145
PCB-37L	72		15 - 145
PCB-54L	75		15 - 145
PCB-77L	78		40 - 145
PCB-81L	77		40 - 145
PCB-104L	72		40 - 145
PCB-105L	82		40 - 145
PCB-114L	77		40 - 145
PCB-118L	77		40 - 145
PCB-123L	76		40 - 145
PCB-126L	84		40 - 145
PCB-155L	70		40 - 145
PCB-156L	84	C	40 - 145
PCB-157L	84	C156	40 - 145
PCB-167L	81		40 - 145
PCB-169L	86		40 - 145
PCB-170L	83		40 - 145
PCB-188L	73		40 - 145
PCB-189L	82		40 - 145
PCB-202L	76		40 - 145
PCB-205L	81		40 - 145
PCB-206L	87		40 - 145
PCB-208L	83		40 - 145
PCB-209L	94		40 - 145
Surrogate	LCSD		Limits
	%Recovery	Qualifier	
PCB-28L	66		15 - 145
PCB-111L	69		40 - 145
PCB-178L	68		40 - 145

## Method: 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source)

Lab Sample ID: MB 140-88192/21-B  
Matrix: Air  
Analysis Batch: 88945

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 88192

Analyte	MB		RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
	Result	Qualifier							
Naphthalene	1119		75.0	75.0	0.0862	ng/Sample		07/19/24 00:57	1
2-Methylnaphthalene	20.85	J	75.0	75.0	0.0421	ng/Sample		07/19/24 00:57	1
Acenaphthylene	0.6786	J	3.00	3.00	0.0314	ng/Sample		07/19/24 00:57	1
Acenaphthene	8.559	J	30.0	30.0	0.0426	ng/Sample		07/19/24 00:57	1
Fluorene	7.319	J	30.0	30.0	0.0447	ng/Sample		07/19/24 00:57	1
Phenanthrene	18.18		6.00	6.00	0.0509	ng/Sample		07/19/24 00:57	1
Anthracene	0.6294	J	30.0	30.0	0.0484	ng/Sample		07/19/24 00:57	1
Fluoranthene	15.46		6.00	6.00	0.0445	ng/Sample		07/19/24 00:57	1
Pyrene	55.75		6.00	6.00	0.0418	ng/Sample		07/19/24 00:57	1
Benzo[a]anthracene	0.1461	J	6.00	6.00	0.0525	ng/Sample		07/19/24 00:57	1
Chrysene	1.403	J	6.00	6.00	0.0542	ng/Sample		07/19/24 00:57	1
Benzo[b]fluoranthene	0.7774	J	30.0	30.0	0.00941	ng/Sample		07/19/24 00:57	1

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# QC Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

## Method: 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source) (Continued)

Lab Sample ID: MB 140-88192/21-B  
Matrix: Air  
Analysis Batch: 88945

Client Sample ID: Method Blank  
Prep Type: Total/NA  
Prep Batch: 88192

Analyte	MB Result	MB Qualifier	RL	MDL	EDL	Unit	D	Analyzed	Dil Fac
Benzo[k]fluoranthene	0.1864	J	6.00	6.00	0.00948	ng/Sample		07/19/24 00:57	1
Benzo[e]pyrene	1.607	J	6.00	6.00	0.00870	ng/Sample		07/19/24 00:57	1
Benzo[a]pyrene	1.130	J	3.00	3.00	0.00791	ng/Sample		07/19/24 00:57	1
Perylene	0.3756	J	3.00	3.00	0.00747	ng/Sample		07/19/24 00:57	1
Indeno[1,2,3-cd]pyrene	0.9852	J	3.00	3.00	0.00865	ng/Sample		07/19/24 00:57	1
Dibenz(a,h)anthracene	0.1901	J	6.00	6.00	0.00432	ng/Sample		07/19/24 00:57	1
Benzo[g,h,i]perylene	4.009	J	6.00	6.00	0.00706	ng/Sample		07/19/24 00:57	1

Isotope Dilution	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C6-Naphthalene	72		20 - 130	06/27/24 14:06	07/19/24 00:57	1
13C6-2-Methylnaphthalene	67		20 - 130	06/27/24 14:06	07/19/24 00:57	1
13C6-Acenaphthylene	93		20 - 130	06/27/24 14:06	07/19/24 00:57	1
13C6-Acenaphthene	84		20 - 130	06/27/24 14:06	07/19/24 00:57	1
13C6-Fluorene	96		20 - 130	06/27/24 14:06	07/19/24 00:57	1
13C6-Fluoranthrene	93		20 - 130	06/27/24 14:06	07/19/24 00:57	1
13C3-Pyrene	94		20 - 130	06/27/24 14:06	07/19/24 00:57	1
13C6-Benzo(a)anthracene	78		20 - 130	06/27/24 14:06	07/19/24 00:57	1
13C6-Chrysene	76		20 - 130	06/27/24 14:06	07/19/24 00:57	1
13C6-Benzo(b)fluoranthene	96		20 - 130	06/27/24 14:06	07/19/24 00:57	1
13C6-Benzo(k)fluoranthene	94		20 - 130	06/27/24 14:06	07/19/24 00:57	1
13C4-Benzo(e)pyrene	87		20 - 130	06/27/24 14:06	07/19/24 00:57	1
13C4-Benzo(a)pyrene	89		20 - 130	06/27/24 14:06	07/19/24 00:57	1
Perylene-d12	92		20 - 130	06/27/24 14:06	07/19/24 00:57	1
13C6-Indeno(1,2,3-cd)pyrene	99		20 - 130	06/27/24 14:06	07/19/24 00:57	1
13C6-Dibenz(a,h)anthracene	99		20 - 130	06/27/24 14:06	07/19/24 00:57	1
13C12-Benzo(ghi)perylene	86		20 - 130	06/27/24 14:06	07/19/24 00:57	1
13C6-Anthracene	92		20 - 130	06/27/24 14:06	07/19/24 00:57	1
13C6-Phenanthrene	79		20 - 130	06/27/24 14:06	07/19/24 00:57	1

Lab Sample ID: LCS 140-88192/19-B  
Matrix: Air  
Analysis Batch: 88920

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 88192

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Naphthalene	150	1224	*+	ng/Sample		816	60 - 140
2-Methylnaphthalene	150	163.8		ng/Sample		109	60 - 140
Acenaphthylene	150	125.0		ng/Sample		83	60 - 140
Acenaphthene	150	141.4		ng/Sample		94	60 - 140
Fluorene	150	147.0		ng/Sample		98	60 - 140
Phenanthrene	150	164.4		ng/Sample		110	60 - 140
Anthracene	150	131.1		ng/Sample		87	60 - 140
Fluoranthene	150	159.9		ng/Sample		107	60 - 140
Pyrene	150	202.9		ng/Sample		135	60 - 140
Benzo[a]anthracene	150	162.5		ng/Sample		108	60 - 140
Chrysene	150	160.9		ng/Sample		107	60 - 140
Benzo[b]fluoranthene	150	143.0		ng/Sample		95	60 - 140
Benzo[k]fluoranthene	150	132.3		ng/Sample		88	60 - 140
Benzo[e]pyrene	150	146.0		ng/Sample		97	60 - 140
Benzo[a]pyrene	150	129.5		ng/Sample		86	60 - 140

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# QC Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

## Method: 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source) (Continued)

Lab Sample ID: LCS 140-88192/19-B

Matrix: Air

Analysis Batch: 88920

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 88192

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Perylene	150	137.5		ng/Sample		92	60 - 140
Indeno[1,2,3-cd]pyrene	150	148.1		ng/Sample		99	60 - 140
Dibenz(a,h)anthracene	150	146.9		ng/Sample		98	60 - 140
Benzo[g,h,i]perylene	150	145.8		ng/Sample		97	60 - 140

Isotope Dilution	LCS %Recovery	LCS Qualifier	Limits
13C6-Naphthalene	82		20 - 130
13C6-2-Methylnaphthalene	70		20 - 130
13C6-Acenaphthylene	91		20 - 130
13C6-Acenaphthene	84		20 - 130
13C6-Fluorene	91		20 - 130
13C6-Fluoranthrene	91		20 - 130
13C3-Pyrene	93		20 - 130
13C6-Benzo(a)anthracene	94		20 - 130
13C6-Chrysene	91		20 - 130
13C6-Benzo(b)fluoranthene	103		20 - 130
13C6-Benzo(k)fluoranthene	94		20 - 130
13C4-Benzo(e)pyrene	92		20 - 130
13C4-Benzo(a)pyrene	95		20 - 130
Perylene-d12	95		20 - 130
13C6-Indeno(1,2,3-cd)pyrene	103		20 - 130
13C6-Dibenz(a,h)anthracene	90		20 - 130
13C12-Benzo(ghi)perylene	82		20 - 130
13C6-Anthracene	78		20 - 130
13C6-Phenanthrene	68		20 - 130

Lab Sample ID: LCSD 140-88192/20-B

Matrix: Air

Analysis Batch: 88920

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 88192

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Naphthalene	150	1037	*+	ng/Sample		691	60 - 140	17	25
2-Methylnaphthalene	150	153.8		ng/Sample		103	60 - 140	6	25
Acenaphthylene	150	121.9		ng/Sample		81	60 - 140	2	25
Acenaphthene	150	135.5		ng/Sample		90	60 - 140	4	25
Fluorene	150	140.8		ng/Sample		94	60 - 140	4	25
Phenanthrene	150	158.6		ng/Sample		106	60 - 140	4	25
Anthracene	150	126.8		ng/Sample		85	60 - 140	3	25
Fluoranthene	150	153.2		ng/Sample		102	60 - 140	4	25
Pyrene	150	190.9		ng/Sample		127	60 - 140	6	25
Benzo[a]anthracene	150	160.0		ng/Sample		107	60 - 140	2	25
Chrysene	150	161.0		ng/Sample		107	60 - 140	0	25
Benzo[b]fluoranthene	150	142.3		ng/Sample		95	60 - 140	0	25
Benzo[k]fluoranthene	150	138.9		ng/Sample		93	60 - 140	5	25
Benzo[e]pyrene	150	144.6		ng/Sample		96	60 - 140	1	25
Benzo[a]pyrene	150	129.1		ng/Sample		86	60 - 140	0	25
Perylene	150	135.0		ng/Sample		90	60 - 140	2	25
Indeno[1,2,3-cd]pyrene	150	144.5		ng/Sample		96	60 - 140	2	25
Dibenz(a,h)anthracene	150	147.5		ng/Sample		98	60 - 140	0	25

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# QC Sample Results

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

## Method: 23 - Polycyclic Aromatic Hydrocarbons (Stationary Source) (Continued)

Lab Sample ID: LCSD 140-88192/20-B

Matrix: Air

Analysis Batch: 88920

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 88192

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzo[g,h,i]perylene	150	146.7		ng/Sample		98	60 - 140	1	25
Isotope Dilution									
	LCSD %Recovery	LCSD Qualifier	Limits						
13C6-Naphthalene	83		20 - 130						
13C6-2-Methylnaphthalene	73		20 - 130						
13C6-Acenaphthylene	90		20 - 130						
13C6-Acenaphthene	84		20 - 130						
13C6-Fluorene	91		20 - 130						
13C6-Fluoranthrene	91		20 - 130						
13C3-Pyrene	91		20 - 130						
13C6-Benzo(a)anthracene	91		20 - 130						
13C6-Chrysene	88		20 - 130						
13C6-Benzo(b)fluoranthene	99		20 - 130						
13C6-Benzo(k)fluoranthene	92		20 - 130						
13C4-Benzo(e)pyrene	92		20 - 130						
13C4-Benzo(a)pyrene	93		20 - 130						
Perylene-d12	96		20 - 130						
13C6-Indeno(1,2,3-cd)pyrene	104		20 - 130						
13C6-Dibenz(a,h)anthracene	98		20 - 130						
13C12-Benzo(ghi)perylene	81		20 - 130						
13C6-Anthracene	80		20 - 130						
13C6-Phenanthrene	70		20 - 130						

# Lab Chronicle

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

## Client Sample ID: M23 F-10 BOILER RUN 2 COMBINED

Lab Sample ID: 140-37234-1

Date Collected: 06/05/24 17:53

Matrix: Air

Date Received: 06/19/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88193	06/27/24 14:35	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	100 uL	88338	07/02/24 10:18	DER	EET KNX
Total/NA	Analysis	23		1			88809	07/16/24 16:41	LKM	EET KNX
Instrument ID: D2D										
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88192	06/27/24 14:06	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	500 uL	88337	07/02/24 10:15	DER	EET KNX
Total/NA	Analysis	23		10			88999	07/20/24 10:31	LKM	EET KNX
Instrument ID: D3PAH										

## Client Sample ID: M23 F-10 BOILER RUN 3 COMBINED

Lab Sample ID: 140-37234-2

Date Collected: 06/06/24 11:33

Matrix: Air

Date Received: 06/19/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88193	06/27/24 14:35	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	100 uL	88338	07/02/24 10:18	DER	EET KNX
Total/NA	Analysis	23		5			88809	07/16/24 19:38	LKM	EET KNX
Instrument ID: D2D										
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88192	06/27/24 14:06	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	500 uL	88337	07/02/24 10:15	DER	EET KNX
Total/NA	Analysis	23		10			88999	07/20/24 11:35	LKM	EET KNX
Instrument ID: D3PAH										

## Client Sample ID: M23 F-10 BOILER RUN 4 COMBINED

Lab Sample ID: 140-37234-3

Date Collected: 06/06/24 16:26

Matrix: Air

Date Received: 06/19/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88193	06/27/24 14:35	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	100 uL	88338	07/02/24 10:18	DER	EET KNX
Total/NA	Analysis	23		5			88871	07/17/24 19:36	BKK	EET KNX
Instrument ID: D2D										
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88192	06/27/24 14:06	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	500 uL	88337	07/02/24 10:15	DER	EET KNX
Total/NA	Analysis	23		10			89013	07/22/24 18:15	LKM	EET KNX
Instrument ID: D3PAH										

## Client Sample ID: M23 F-10 BOILER RUN 5 COMBINED

Lab Sample ID: 140-37234-4

Date Collected: 06/07/24 09:53

Matrix: Air

Date Received: 06/19/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88193	06/27/24 14:35	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	100 uL	88338	07/02/24 10:18	DER	EET KNX
Total/NA	Analysis	23		5			88809	07/16/24 21:40	LKM	EET KNX
Instrument ID: D2D										

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# Lab Chronicle

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

## Client Sample ID: M23 F-10 BOILER RUN 5 COMBINED

Lab Sample ID: 140-37234-4

Date Collected: 06/07/24 09:53

Matrix: Air

Date Received: 06/19/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88192	06/27/24 14:06	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	500 uL	88337	07/02/24 10:15	DER	EET KNX
Total/NA	Analysis	23		10			89013	07/22/24 19:20	LKM	EET KNX
Instrument ID: D3PAH										

## Client Sample ID: M23 F-10 BOILER RUN 6 COMBINED

Lab Sample ID: 140-37234-5

Date Collected: 06/11/24 17:33

Matrix: Air

Date Received: 06/19/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88193	06/27/24 14:35	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	100 uL	88338	07/02/24 10:18	DER	EET KNX
Total/NA	Analysis	23		5			88834	07/17/24 04:20	LKM	EET KNX
Instrument ID: D2D										
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88192	06/27/24 14:06	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	500 uL	88337	07/02/24 10:15	DER	EET KNX
Total/NA	Analysis	23		10			89013	07/22/24 20:24	LKM	EET KNX
Instrument ID: D3PAH										

## Client Sample ID: M23 F-10 BOILER RUN 7 COMBINED

Lab Sample ID: 140-37234-6

Date Collected: 06/12/24 11:39

Matrix: Air

Date Received: 06/19/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88193	06/27/24 14:35	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	100 uL	88338	07/02/24 10:18	DER	EET KNX
Total/NA	Analysis	23		5			88834	07/17/24 05:21	LKM	EET KNX
Instrument ID: D2D										
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88192	06/27/24 14:06	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	500 uL	88337	07/02/24 10:15	DER	EET KNX
Total/NA	Analysis	23		10			89076	07/23/24 07:13	LKM	EET KNX
Instrument ID: D3PAH										

## Client Sample ID: M23 F-10 BOILER RUN 8 COMBINED

Lab Sample ID: 140-37234-7

Date Collected: 06/12/24 16:26

Matrix: Air

Date Received: 06/19/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88193	06/27/24 14:35	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	100 uL	88338	07/02/24 10:18	DER	EET KNX
Total/NA	Analysis	23		5			88834	07/17/24 06:22	LKM	EET KNX
Instrument ID: D2D										
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88192	06/27/24 14:06	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	500 uL	88337	07/02/24 10:15	DER	EET KNX
Total/NA	Analysis	23		10			89013	07/22/24 22:33	LKM	EET KNX
Instrument ID: D3PAH										

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# Lab Chronicle

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

**Client Sample ID: M23 F-10 BOILER BT COMBINED**

**Lab Sample ID: 140-37234-8**

**Date Collected: 06/03/24 17:00**

**Matrix: Air**

**Date Received: 06/19/24 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88193	06/27/24 14:35	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	100 uL	88338	07/02/24 10:18	DER	EET KNX
Total/NA	Analysis	23		1			88809	07/16/24 15:40	LKM	EET KNX
Instrument ID: D2D										
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88192	06/27/24 14:06	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	500 uL	88337	07/02/24 10:15	DER	EET KNX
Total/NA	Analysis	23		10			89013	07/22/24 17:11	LKM	EET KNX
Instrument ID: D3PAH										

**Client Sample ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED**

**Lab Sample ID: 140-37234-14**

**Date Collected: 06/03/24 00:00**

**Matrix: Air**

**Date Received: 06/19/24 09:00**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88193	06/27/24 14:35	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	100 uL	88338	07/02/24 10:18	DER	EET KNX
Total/NA	Analysis	23		1			88809	07/16/24 14:38	LKM	EET KNX
Instrument ID: D2D										
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88192	06/27/24 14:06	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	500 uL	88337	07/02/24 10:15	DER	EET KNX
Total/NA	Analysis	23		1			89013	07/22/24 16:06	LKM	EET KNX
Instrument ID: D3PAH										

**Client Sample ID: Method Blank**

**Lab Sample ID: MB 140-88192/21-B**

**Date Collected: N/A**

**Matrix: Air**

**Date Received: N/A**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88192	06/27/24 14:06	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	500 uL	88337	07/02/24 10:15	DER	EET KNX
Total/NA	Analysis	23		1			88945	07/19/24 00:57	MSP	EET KNX
Instrument ID: D3PAH										

**Client Sample ID: Method Blank**

**Lab Sample ID: MB 140-88193/21-B**

**Date Collected: N/A**

**Matrix: Air**

**Date Received: N/A**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88193	06/27/24 14:35	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	100 uL	88338	07/02/24 10:18	DER	EET KNX
Total/NA	Analysis	23		1			88747	07/15/24 16:31	LKM	EET KNX
Instrument ID: D2D										

Eurofins Knoxville



# Lab Chronicle

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

**Client Sample ID: Lab Control Sample**

**Lab Sample ID: LCS 140-88192/19-B**

**Date Collected: N/A**

**Matrix: Air**

**Date Received: N/A**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88192	06/27/24 14:06	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	500 uL	88337	07/02/24 10:15	DER	EET KNX
Total/NA	Analysis	23		1			88920	07/18/24 12:24	MSP	EET KNX
Instrument ID: D3PAH										

**Client Sample ID: Lab Control Sample**

**Lab Sample ID: LCS 140-88193/19-B**

**Date Collected: N/A**

**Matrix: Air**

**Date Received: N/A**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88193	06/27/24 14:35	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	100 uL	88338	07/02/24 10:18	DER	EET KNX
Total/NA	Analysis	23		1			88747	07/15/24 13:44	LKM	EET KNX
Instrument ID: D2D										

**Client Sample ID: Lab Control Sample Dup**

**Lab Sample ID: LCSD 140-88192/20-B**

**Date Collected: N/A**

**Matrix: Air**

**Date Received: N/A**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88192	06/27/24 14:06	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	500 uL	88337	07/02/24 10:15	DER	EET KNX
Total/NA	Analysis	23		1			88920	07/18/24 13:28	MSP	EET KNX
Instrument ID: D3PAH										

**Client Sample ID: Lab Control Sample Dup**

**Lab Sample ID: LCSD 140-88193/20-B**

**Date Collected: N/A**

**Matrix: Air**

**Date Received: N/A**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	Combined Prep			1 Sample	30 mL	88193	06/27/24 14:35	SSS	EET KNX
Total/NA	Cleanup	Split			10 mL	100 uL	88338	07/02/24 10:18	DER	EET KNX
Total/NA	Analysis	23		1			88747	07/15/24 14:45	LKM	EET KNX
Instrument ID: D2D										

## Laboratory References:

EET KNX = Eurofins Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000



# Accreditation/Certification Summary

Client: Alliance Source Testing LLC  
Project/Site: BASF Pasadena TX M23

Job ID: 140-37234-1

## Laboratory: Eurofins Knoxville

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
	AFCEE	N/A	
ANAB	Dept. of Defense ELAP	L2311	02-13-25
ANAB	Dept. of Energy	L2311.01	02-13-25
ANAB	ISO/IEC 17025	L2311	02-13-25
Arkansas DEQ	State	88-0688	06-17-25
Colorado	State	TN00009	02-28-25
Connecticut	State	PH-0223	10-01-26
Florida	NELAP	E87177	06-30-25
Georgia (DW)	State	906	07-27-25
Hawaii	State	NA	07-27-24
Kansas	NELAP	E-10349	10-31-24
Kentucky (DW)	State	90101	12-31-24
Louisiana (All)	NELAP	83979	06-30-25
Louisiana (DW)	State	LA019	12-31-24
Maryland	State	277	03-31-25
Michigan	State	9933	07-27-25
Nevada	State	TN00009	07-31-24
New Hampshire	NELAP	2999	01-17-25
New Jersey	NELAP	TN001	06-30-25
New York	NELAP	10781	03-31-25
North Carolina (DW)	State	21705	07-31-25
North Carolina (WW/SW)	State	64	12-31-24
Oklahoma	State	9415	08-31-24
Oregon	NELAP	TNI0189	01-01-25
Pennsylvania	NELAP	68-00576	12-31-24
Tennessee	State	02014	07-27-25
Texas	NELAP	T104704380	08-31-24
US Fish & Wildlife	US Federal Programs	058448	07-31-24
USDA	US Federal Programs	525-22-279-18762	10-06-25
Utah	NELAP	TN00009	07-31-24
Virginia	NELAP	460176	09-14-24
Washington	State	C593	01-19-25
West Virginia (DW)	State	9955C	12-31-24
West Virginia DEP	State	345	04-30-25
Wisconsin	State	998044300	08-07-24

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville

Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D

Analysis Batch Number: 87130

Lab Sample ID: IC 140-87130/1

Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/31/24 14:36

Lab File ID: d2240531pila.d

GC Column: SPB-Octyl

ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-23	21.82	Split Peak	V4XA	05/31/24 19:26
PCB-45	23.14	Incomplete Integration	P0IK	05/31/24 16:29
PCB-45/51	23.14	Incomplete Integration	P0IK	05/31/24 16:29
PCB-51	23.14	Incomplete Integration	P0IK	05/31/24 16:29
PCB-21	23.22	Incomplete Integration	P0IK	05/31/24 16:28
PCB-21/33	23.22	Incomplete Integration	P0IK	05/31/24 16:28
PCB-33	23.22	Incomplete Integration	P0IK	05/31/24 16:28
PCB-46	23.39	Incomplete Integration	P0IK	05/31/24 16:29
PCB-22	23.60	Baseline	V4XA	05/31/24 21:29
PCB-43	24.94	Incomplete Integration	P0IK	05/31/24 16:29
PCB-43/73	24.94	Incomplete Integration	P0IK	05/31/24 16:29
PCB-73	24.94	Incomplete Integration	P0IK	05/31/24 16:29
PCB-40	26.81	Incomplete Integration	P0IK	05/31/24 16:30
PCB-40/41/71	26.81	Incomplete Integration	P0IK	05/31/24 16:30
PCB-41	26.81	Incomplete Integration	P0IK	05/31/24 16:30
PCB-71	26.81	Incomplete Integration	P0IK	05/31/24 16:30
PCB-103	28.06	Baseline	V4XA	05/31/24 19:30
PCB-94	28.28	Invalid Compound ID	V4XA	05/31/24 19:30
PCB-102	29.13	Incomplete Integration	P0IK	05/31/24 16:39
PCB-98	29.13	Incomplete Integration	P0IK	05/31/24 16:39
PCB-98/102	29.13	Incomplete Integration	P0IK	05/31/24 16:39
PCB-88	29.48	Incomplete Integration	P0IK	05/31/24 16:39
PCB-88/91	29.48	Incomplete Integration	P0IK	05/31/24 16:39
PCB-91	29.48	Incomplete Integration	P0IK	05/31/24 16:39
PCB-84	29.79	Incomplete Integration	P0IK	05/31/24 16:39
PCB-121	30.69	Baseline	P0IK	05/31/24 16:40
PCB-101	31.63	Split Peak	V4XA	05/31/24 19:29
PCB-113	31.63	Split Peak	V4XA	05/31/24 19:29
PCB-90	31.63	Split Peak	V4XA	05/31/24 19:29
PCB-90/101/113	31.63	Split Peak	V4XA	05/31/24 19:29

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville

Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D

Analysis Batch Number: 87130

Lab Sample ID: IC 140-87130/1

Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/31/24 14:36

Lab File ID: d2240531pila.d

GC Column: SPB-Octyl

ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-83	32.24	Split Peak	V4XA	05/31/24 19:29
PCB-83/99	32.24	Split Peak	V4XA	05/31/24 19:29
PCB-99	32.24	Split Peak	V4XA	05/31/24 19:29
PCB-112	32.34	Baseline	V4XA	05/31/24 19:30
PCB-109	32.71	Incomplete Integration	P0IK	05/31/24 16:40
PCB-119	32.71	Incomplete Integration	P0IK	05/31/24 16:40
PCB-125	32.71	Incomplete Integration	P0IK	05/31/24 16:40
PCB-86	32.71	Incomplete Integration	P0IK	05/31/24 16:40
PCB-86/87/97/109/119/125	32.71	Incomplete Integration	P0IK	05/31/24 16:40
PCB-87	32.71	Incomplete Integration	P0IK	05/31/24 16:40
PCB-97	32.71	Incomplete Integration	P0IK	05/31/24 16:40
PCB-79	32.72	Baseline	P0IK	05/31/24 16:32
PCB-78	33.30	Incomplete Integration	P0IK	05/31/24 16:30
PCB-110	33.69	Incomplete Integration	P0IK	05/31/24 16:40
PCB-110/115	33.69	Incomplete Integration	P0IK	05/31/24 16:40
PCB-115	33.69	Incomplete Integration	P0IK	05/31/24 16:40
PCB-81	33.71	Incomplete Integration	P0IK	05/31/24 16:31
PCB-77	34.27	Incomplete Integration	P0IK	05/31/24 16:31
PCB-135	34.55	Incomplete Integration	P0IK	05/31/24 16:42
PCB-135/151	34.55	Incomplete Integration	P0IK	05/31/24 16:42
PCB-151	34.55	Incomplete Integration	P0IK	05/31/24 16:42
PCB-154	34.78	Baseline	V4XA	05/31/24 19:31
PCB-120	34.81	Split Peak	V4XA	05/31/24 21:31
PCB-144	35.13	Incomplete Integration	P0IK	05/31/24 16:42
PCB-147	35.47	Baseline	V4XA	05/31/24 19:32
PCB-147/149	35.47	Baseline	V4XA	05/31/24 19:32
PCB-149	35.47	Baseline	V4XA	05/31/24 19:32
PCB-108	35.92	Split Peak	V4XA	05/31/24 21:31
PCB-108/124	35.92	Split Peak	V4XA	05/31/24 21:31
PCB-124	35.92	Split Peak	V4XA	05/31/24 21:31

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D Analysis Batch Number: 87130

Lab Sample ID: IC 140-87130/1 Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/31/24 14:36 Lab File ID: d2240531pila.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-131	36.28	Baseline	P0IK	06/01/24 11:28
PCB-142	36.41	Baseline	P0IK	06/01/24 11:28
PCB-129	39.74	Incomplete Integration	P0IK	05/31/24 16:43
PCB-129/138/160/163	39.74	Incomplete Integration	P0IK	05/31/24 16:43
PCB-138	39.74	Incomplete Integration	P0IK	05/31/24 16:43
PCB-160	39.74	Incomplete Integration	P0IK	05/31/24 16:43
PCB-163	39.74	Incomplete Integration	P0IK	05/31/24 16:43
PCB-158	40.13	Incomplete Integration	P0IK	05/31/24 16:43
PCB-126	40.87	Baseline	P0IK	05/31/24 16:41
PCB-128	40.96	Incomplete Integration	P0IK	05/31/24 17:03
PCB-128/166	40.96	Incomplete Integration	P0IK	05/31/24 17:03
PCB-166	40.96	Incomplete Integration	P0IK	05/31/24 17:03
PCB-159L	41.95	Peak assignment corrected	P0IK	05/31/24 16:25
PCB-162	42.25	Baseline	P0IK	05/31/24 17:03
PCB-177	42.38	Baseline	V4XA	05/31/24 19:32
PCB-167	42.73	Incomplete Integration	P0IK	05/31/24 15:37
PCB-197	44.35	Incomplete Integration	P0IK	05/31/24 17:04
PCB-169	47.11	Incomplete Integration	P0IK	05/31/24 15:37
PCB-196	47.93	Incomplete Integration	P0IK	05/31/24 17:05
PCB-208	49.19	Baseline	P0IK	05/31/24 15:38
PCB-195	49.38	Baseline	V4XA	05/31/24 19:33
PCB-207	50.09	Incomplete Integration	P0IK	05/31/24 17:05
PCB-194	51.77	Incomplete Integration	P0IK	05/31/24 17:05
PCB-205	52.21	Incomplete Integration	P0IK	05/31/24 15:38
PCB-206	53.98	Baseline	P0IK	05/31/24 15:39

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville

Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D

Analysis Batch Number: 87130

Lab Sample ID: IC 140-87130/2

Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/31/24 16:53

Lab File ID: d2240531pi2a.d

GC Column: SPB-Octyl

ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-6	16.42	Baseline	V4XA	05/31/24 19:42
PCB-54L	20.22	Baseline	V4XA	05/31/24 21:35
PCB-54	20.24	Baseline	P0IK	05/31/24 17:57
PCB-21	23.14	Incomplete Integration	P0IK	05/31/24 18:02
PCB-21/33	23.14	Incomplete Integration	P0IK	05/31/24 18:02
PCB-33	23.14	Incomplete Integration	P0IK	05/31/24 18:02
PCB-45	23.15	Incomplete Integration	P0IK	05/31/24 18:02
PCB-45/51	23.15	Incomplete Integration	P0IK	05/31/24 18:02
PCB-51	23.15	Incomplete Integration	P0IK	05/31/24 18:02
PCB-43	24.96	Incomplete Integration	P0IK	05/31/24 18:03
PCB-43/73	24.96	Incomplete Integration	P0IK	05/31/24 18:03
PCB-73	24.96	Incomplete Integration	P0IK	05/31/24 18:03
PCB-49	25.24	Incomplete Integration	P0IK	05/31/24 18:03
PCB-49/69	25.24	Incomplete Integration	P0IK	05/31/24 18:03
PCB-69	25.24	Incomplete Integration	P0IK	05/31/24 18:03
PCB-104	25.75	Baseline	P0IK	05/31/24 17:55
PCB-38	26.10	Split Peak	V4XA	05/31/24 21:34
PCB-40	26.83	Incomplete Integration	P0IK	05/31/24 18:03
PCB-40/41/71	26.83	Incomplete Integration	P0IK	05/31/24 18:03
PCB-41	26.83	Incomplete Integration	P0IK	05/31/24 18:03
PCB-71	26.83	Incomplete Integration	P0IK	05/31/24 18:03
PCB-64	27.06	Split Peak	V4XA	05/31/24 21:35
PCB-102	29.14	Baseline	V4XA	05/31/24 19:35
PCB-98	29.14	Baseline	V4XA	05/31/24 19:35
PCB-98/102	29.14	Baseline	V4XA	05/31/24 19:35
PCB-61	29.59	Incomplete Integration	P0IK	05/31/24 18:04
PCB-61/70/74/76	29.59	Incomplete Integration	P0IK	05/31/24 18:04
PCB-70	29.59	Incomplete Integration	P0IK	05/31/24 18:04
PCB-74	29.59	Incomplete Integration	P0IK	05/31/24 18:04
PCB-76	29.59	Incomplete Integration	P0IK	05/31/24 18:04

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville

Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D

Analysis Batch Number: 87130

Lab Sample ID: IC 140-87130/2

Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/31/24 16:53

Lab File ID: d2240531pi2a.d

GC Column: SPB-Octyl

ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-89	30.29	Baseline	V4XA	05/31/24 19:36
PCB-121	30.69	Baseline	V4XA	05/31/24 19:36
PCB-92	31.07	Baseline	V4XA	05/31/24 19:36
PCB-83	32.21	Split Peak	V4XA	05/31/24 21:36
PCB-83/99	32.21	Split Peak	V4XA	05/31/24 21:36
PCB-99	32.21	Split Peak	V4XA	05/31/24 21:36
PCB-109	32.74	Baseline	V4XA	05/31/24 19:36
PCB-119	32.74	Baseline	V4XA	05/31/24 19:36
PCB-125	32.74	Baseline	V4XA	05/31/24 19:36
PCB-86	32.74	Baseline	V4XA	05/31/24 19:36
PCB-86/87/97/109/119/125	32.74	Baseline	V4XA	05/31/24 19:36
PCB-87	32.74	Baseline	V4XA	05/31/24 19:36
PCB-97	32.74	Baseline	V4XA	05/31/24 19:36
PCB-78	33.29	Baseline	V4XA	05/31/24 21:36
PCB-110	33.65	Baseline	V4XA	05/31/24 19:36
PCB-110/115	33.65	Baseline	V4XA	05/31/24 19:36
PCB-115	33.65	Baseline	V4XA	05/31/24 19:36
PCB-81	33.71	Split Peak	V4XA	05/31/24 19:35
PCB-135	34.60	Baseline	V4XA	05/31/24 21:38
PCB-135/151	34.60	Baseline	V4XA	05/31/24 21:38
PCB-151	34.60	Baseline	V4XA	05/31/24 21:38
PCB-134	35.68	Baseline	V4XA	05/31/24 21:38
PCB-134/143	35.68	Baseline	V4XA	05/31/24 21:38
PCB-143	35.68	Baseline	V4XA	05/31/24 21:38
PCB-108	35.93	Split Peak	V4XA	05/31/24 20:09
PCB-108/124	35.93	Split Peak	V4XA	05/31/24 20:09
PCB-124	35.93	Split Peak	V4XA	05/31/24 20:09
PCB-107	36.18	Split Peak	V4XA	05/31/24 20:09
PCB-131	36.28	Baseline	V4XA	06/01/24 03:35
PCB-142	36.40	Baseline	V4XA	06/01/24 03:35

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D Analysis Batch Number: 87130

Lab Sample ID: IC 140-87130/2 Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/31/24 16:53 Lab File ID: d2240531pi2a.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-105	37.78	Split Peak	V4XA	05/31/24 21:37
PCB-129	39.74	Baseline	V4XA	05/31/24 21:39
PCB-129/138/160/163	39.74	Baseline	V4XA	05/31/24 21:39
PCB-138	39.74	Baseline	V4XA	05/31/24 21:39
PCB-160	39.74	Baseline	V4XA	05/31/24 21:39
PCB-163	39.74	Baseline	V4XA	05/31/24 21:39
PCB-183	41.71	Baseline	V4XA	05/31/24 19:40
PCB-183/185	41.71	Baseline	V4XA	05/31/24 19:40
PCB-185	41.71	Baseline	V4XA	05/31/24 19:40
PCB-159	41.96	Split Peak	V4XA	05/31/24 21:39
PCB-162	42.25	Split Peak	V4XA	05/31/24 21:39
PCB-177	42.38	Baseline	V4XA	05/31/24 19:41
PCB-170	46.55	Baseline	V4XA	05/31/24 19:40
PCB-169	47.12	Baseline	V4XA	05/31/24 21:40
PCB-208	49.20	Baseline	P0IK	05/31/24 17:56
PCB-195	49.39	Split Peak	V4XA	05/31/24 21:40
PCB-207	50.09	Baseline	V4XA	05/31/24 19:40
PCB-206	53.98	Baseline	P0IK	05/31/24 17:56

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville

Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D

Analysis Batch Number: 87130

Lab Sample ID: IC 140-87130/3

Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/31/24 18:00

Lab File ID: d2240531pi3.d

GC Column: SPB-Octyl

ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-8L	16.83	Baseline	P0IK	05/31/24 19:08
PCB-54L	20.20	Baseline	V4XA	05/31/24 21:43
PCB-21	23.13	Baseline	V4XA	05/31/24 21:42
PCB-21/33	23.13	Baseline	V4XA	05/31/24 21:42
PCB-33	23.13	Baseline	V4XA	05/31/24 21:42
PCB-45	23.13	Baseline	V4XA	05/31/24 21:43
PCB-45/51	23.13	Baseline	V4XA	05/31/24 21:43
PCB-51	23.13	Baseline	V4XA	05/31/24 21:43
PCB-43	24.94	Baseline	V4XA	05/31/24 21:44
PCB-43/73	24.94	Baseline	V4XA	05/31/24 21:44
PCB-73	24.94	Baseline	V4XA	05/31/24 21:44
PCB-40	26.80	Baseline	V4XA	05/31/24 21:44
PCB-40/41/71	26.80	Baseline	V4XA	05/31/24 21:44
PCB-41	26.80	Baseline	V4XA	05/31/24 21:44
PCB-71	26.80	Baseline	V4XA	05/31/24 21:44
PCB-102	29.08	Baseline	V4XA	05/31/24 21:46
PCB-98	29.08	Baseline	V4XA	05/31/24 21:46
PCB-98/102	29.08	Baseline	V4XA	05/31/24 21:46
PCB-88	29.46	Baseline	V4XA	05/31/24 21:46
PCB-88/91	29.46	Baseline	V4XA	05/31/24 21:46
PCB-91	29.46	Baseline	V4XA	05/31/24 21:46
PCB-61	29.57	Baseline	V4XA	05/31/24 21:44
PCB-61/70/74/76	29.57	Baseline	V4XA	05/31/24 21:44
PCB-70	29.57	Baseline	V4XA	05/31/24 21:44
PCB-74	29.57	Baseline	V4XA	05/31/24 21:44
PCB-76	29.57	Baseline	V4XA	05/31/24 21:44
PCB-56	30.56	Split Peak	V4XA	05/31/24 21:45
PCB-83	32.21	Split Peak	V4XA	05/31/24 21:46
PCB-83/99	32.21	Split Peak	V4XA	05/31/24 21:46
PCB-99	32.21	Split Peak	V4XA	05/31/24 21:46



HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville

Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D

Analysis Batch Number: 87130

Lab Sample ID: IC 140-87130/3

Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/31/24 18:00

Lab File ID: d2240531pi3.d

GC Column: SPB-Octyl

ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-109	32.70	Baseline	V4XA	05/31/24 21:46
PCB-119	32.70	Baseline	V4XA	05/31/24 21:46
PCB-125	32.70	Baseline	V4XA	05/31/24 21:46
PCB-86	32.70	Baseline	V4XA	05/31/24 21:46
PCB-86/87/97/109/119/125	32.70	Baseline	V4XA	05/31/24 21:46
PCB-87	32.70	Baseline	V4XA	05/31/24 21:46
PCB-97	32.70	Baseline	V4XA	05/31/24 21:46
PCB-78	33.25	Baseline	V4XA	05/31/24 21:45
PCB-116	33.43	Baseline	V4XA	05/31/24 21:47
PCB-117	33.43	Baseline	V4XA	05/31/24 21:47
PCB-85	33.43	Baseline	V4XA	05/31/24 21:47
PCB-85/116/117	33.43	Baseline	V4XA	05/31/24 21:47
PCB-110	33.62	Baseline	V4XA	05/31/24 21:47
PCB-110/115	33.62	Baseline	V4XA	05/31/24 21:47
PCB-115	33.62	Baseline	V4XA	05/31/24 21:47
PCB-81	33.70	Split Peak	V4XA	05/31/24 21:45
PCB-105	37.77	Split Peak	V4XA	05/31/24 21:47
PCB-127	39.25	Baseline	V4XA	05/31/24 21:48
PCB-129	39.73	Baseline	V4XA	05/31/24 21:50
PCB-129/138/160/163	39.73	Baseline	V4XA	05/31/24 21:50
PCB-138	39.73	Baseline	V4XA	05/31/24 21:50
PCB-160	39.73	Baseline	V4XA	05/31/24 21:50
PCB-163	39.73	Baseline	V4XA	05/31/24 21:50
PCB-183	41.69	Baseline	V4XA	05/31/24 21:50
PCB-183/185	41.69	Baseline	V4XA	05/31/24 21:50
PCB-185	41.69	Baseline	V4XA	05/31/24 21:50
PCB-190	47.04	Split Peak	V4XA	05/31/24 21:51
PCB-208	49.18	Baseline	V4XA	05/31/24 21:51
PCB-207	50.11	Baseline	V4XA	05/31/24 21:51
PCB-206	53.97	Baseline	V4XA	05/31/24 21:51

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville

Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D

Analysis Batch Number: 87130

Lab Sample ID: IC 140-87130/4

Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/31/24 19:10

Lab File ID: d2240531pi4.d

GC Column: SPB-Octyl

ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-21	23.12	Baseline	V4XA	05/31/24 21:23
PCB-21/33	23.12	Baseline	V4XA	05/31/24 21:23
PCB-33	23.12	Baseline	V4XA	05/31/24 21:23
PCB-45	23.13	Baseline	V4XA	05/31/24 21:23
PCB-45/51	23.13	Baseline	V4XA	05/31/24 21:23
PCB-51	23.13	Baseline	V4XA	05/31/24 21:23
PCB-52	24.78	Split Peak	V4XA	05/31/24 21:24
PCB-43	24.93	Invalid Compound ID	V4XA	05/31/24 21:24
PCB-43/73	24.93	Invalid Compound ID	V4XA	05/31/24 21:24
PCB-73	24.93	Invalid Compound ID	V4XA	05/31/24 21:24
PCB-49	25.23	Invalid Compound ID	V4XA	05/31/24 21:24
PCB-49/69	25.23	Invalid Compound ID	V4XA	05/31/24 21:24
PCB-69	25.23	Invalid Compound ID	V4XA	05/31/24 21:24
PCB-40	26.80	Baseline	V4XA	05/31/24 21:25
PCB-40/41/71	26.80	Baseline	V4XA	05/31/24 21:25
PCB-41	26.80	Baseline	V4XA	05/31/24 21:25
PCB-71	26.80	Baseline	V4XA	05/31/24 21:25
PCB-61	29.56	Baseline	V4XA	05/31/24 21:25
PCB-61/70/74/76	29.56	Baseline	V4XA	05/31/24 21:25
PCB-70	29.56	Baseline	V4XA	05/31/24 21:25
PCB-74	29.56	Baseline	V4XA	05/31/24 21:25
PCB-76	29.56	Baseline	V4XA	05/31/24 21:25
PCB-109	32.70	Baseline	V4XA	05/31/24 21:26
PCB-119	32.70	Baseline	V4XA	05/31/24 21:26
PCB-125	32.70	Baseline	V4XA	05/31/24 21:26
PCB-86	32.70	Baseline	V4XA	05/31/24 21:26
PCB-86/87/97/109/119/125	32.70	Baseline	V4XA	05/31/24 21:26
PCB-87	32.70	Baseline	V4XA	05/31/24 21:26
PCB-97	32.70	Baseline	V4XA	05/31/24 21:26
PCB-135	34.53	Invalid Compound ID	V4XA	05/31/24 20:54

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D Analysis Batch Number: 87130

Lab Sample ID: IC 140-87130/4 Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/31/24 19:10 Lab File ID: d2240531pi4.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-135/151	34.53	Invalid Compound ID	V4XA	05/31/24 20:54
PCB-151	34.53	Invalid Compound ID	V4XA	05/31/24 20:54
PCB-131	36.25	Baseline	V4XA	06/01/24 03:37
PCB-142	36.39	Baseline	V4XA	06/01/24 03:37
PCB-129	39.72	Baseline	V4XA	05/31/24 21:27
PCB-129/138/160/163	39.72	Baseline	V4XA	05/31/24 21:27
PCB-138	39.72	Baseline	V4XA	05/31/24 21:27
PCB-160	39.72	Baseline	V4XA	05/31/24 21:27
PCB-163	39.72	Baseline	V4XA	05/31/24 21:27
PCB-183	41.69	Invalid Compound ID	V4XA	05/31/24 21:28
PCB-183/185	41.69	Invalid Compound ID	V4XA	05/31/24 21:28
PCB-185	41.69	Invalid Compound ID	V4XA	05/31/24 21:28
PCB-206	53.96	Baseline	V4XA	06/01/24 03:12

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville

Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D

Analysis Batch Number: 87130

Lab Sample ID: IC 140-87130/5

Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/31/24 20:12

Lab File ID: d2240531pi5.d

GC Column: SPB-Octyl

ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-21	23.10	Baseline	V4XA	06/01/24 02:57
PCB-21/33	23.10	Baseline	V4XA	06/01/24 02:57
PCB-33	23.10	Baseline	V4XA	06/01/24 02:57
PCB-45	23.12	Baseline	V4XA	06/01/24 02:57
PCB-45/51	23.12	Baseline	V4XA	06/01/24 02:57
PCB-51	23.12	Baseline	V4XA	06/01/24 02:57
PCB-43	24.92	Baseline	V4XA	06/01/24 02:57
PCB-43/73	24.92	Baseline	V4XA	06/01/24 02:57
PCB-73	24.92	Baseline	V4XA	06/01/24 02:57
PCB-40	26.79	Baseline	V4XA	06/01/24 02:58
PCB-40/41/71	26.79	Baseline	V4XA	06/01/24 02:58
PCB-41	26.79	Baseline	V4XA	06/01/24 02:58
PCB-71	26.79	Baseline	V4XA	06/01/24 02:58
PCB-102	29.05	Baseline	V4XA	06/01/24 02:58
PCB-98	29.05	Baseline	V4XA	06/01/24 02:58
PCB-98/102	29.05	Baseline	V4XA	06/01/24 02:58
PCB-61	29.55	Baseline	V4XA	06/01/24 02:58
PCB-61/70/74/76	29.55	Baseline	V4XA	06/01/24 02:58
PCB-70	29.55	Baseline	V4XA	06/01/24 02:58
PCB-74	29.55	Baseline	V4XA	06/01/24 02:58
PCB-76	29.55	Baseline	V4XA	06/01/24 02:58
PCB-109	32.68	Baseline	V4XA	06/01/24 02:58
PCB-119	32.68	Baseline	V4XA	06/01/24 02:58
PCB-125	32.68	Baseline	V4XA	06/01/24 02:58
PCB-86	32.68	Baseline	V4XA	06/01/24 02:58
PCB-86/87/97/109/119/125	32.68	Baseline	V4XA	06/01/24 02:58
PCB-87	32.68	Baseline	V4XA	06/01/24 02:58
PCB-97	32.68	Baseline	V4XA	06/01/24 02:58
PCB-110	33.59	Baseline	V4XA	06/01/24 02:59
PCB-110/115	33.59	Baseline	V4XA	06/01/24 02:59

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D Analysis Batch Number: 87130

Lab Sample ID: IC 140-87130/5 Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/31/24 20:12 Lab File ID: d2240531pi5.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-115	33.59	Baseline	V4XA	06/01/24 02:59
PCB-135	34.51	Baseline	V4XA	06/01/24 02:59
PCB-135/151	34.51	Baseline	V4XA	06/01/24 02:59
PCB-151	34.51	Baseline	V4XA	06/01/24 02:59
PCB-129	39.72	Baseline	V4XA	06/01/24 03:00
PCB-129/138/160/163	39.72	Baseline	V4XA	06/01/24 03:00
PCB-138	39.72	Baseline	V4XA	06/01/24 03:00
PCB-160	39.72	Baseline	V4XA	06/01/24 03:00
PCB-163	39.72	Baseline	V4XA	06/01/24 03:00
PCB-158	40.10	Invalid Compound ID	V4XA	06/01/24 03:01
PCB-183	41.69	Invalid Compound ID	V4XA	06/01/24 03:01
PCB-183/185	41.69	Invalid Compound ID	V4XA	06/01/24 03:01
PCB-185	41.69	Invalid Compound ID	V4XA	06/01/24 03:01

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville

Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D

Analysis Batch Number: 87130

Lab Sample ID: IC 140-87130/6

Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/31/24 21:13

Lab File ID: d2240531pi6.d

GC Column: SPB-Octyl

ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-54L	20.16	Baseline	V4XA	06/01/24 03:03
PCB-21	23.10	Baseline	V4XA	06/01/24 03:03
PCB-21/33	23.10	Baseline	V4XA	06/01/24 03:03
PCB-33	23.10	Baseline	V4XA	06/01/24 03:03
PCB-45	23.10	Baseline	V4XA	06/01/24 03:03
PCB-45/51	23.10	Baseline	V4XA	06/01/24 03:03
PCB-51	23.10	Baseline	V4XA	06/01/24 03:03
PCB-43	24.90	Invalid Compound ID	V4XA	06/01/24 03:04
PCB-43/73	24.90	Invalid Compound ID	V4XA	06/01/24 03:04
PCB-73	24.90	Invalid Compound ID	V4XA	06/01/24 03:04
PCB-49	25.20	Split Peak	V4XA	06/01/24 03:04
PCB-49/69	25.20	Split Peak	V4XA	06/01/24 03:04
PCB-69	25.20	Split Peak	V4XA	06/01/24 03:04
PCB-40	26.77	Invalid Compound ID	V4XA	06/01/24 03:05
PCB-40/41/71	26.77	Invalid Compound ID	V4XA	06/01/24 03:05
PCB-41	26.77	Invalid Compound ID	V4XA	06/01/24 03:05
PCB-71	26.77	Invalid Compound ID	V4XA	06/01/24 03:05
PCB-121	30.66	Baseline	V4XA	06/01/24 03:06
PCB-92	31.03	Baseline	V4XA	06/01/24 03:06
PCB-109	32.68	Baseline	V4XA	06/01/24 03:06
PCB-119	32.68	Baseline	V4XA	06/01/24 03:06
PCB-125	32.68	Baseline	V4XA	06/01/24 03:06
PCB-86	32.68	Baseline	V4XA	06/01/24 03:06
PCB-86/87/97/109/119/125	32.68	Baseline	V4XA	06/01/24 03:06
PCB-87	32.68	Baseline	V4XA	06/01/24 03:06
PCB-97	32.68	Baseline	V4XA	06/01/24 03:06
PCB-135	34.51	Baseline	V4XA	06/01/24 03:06
PCB-135/151	34.51	Baseline	V4XA	06/01/24 03:06
PCB-151	34.51	Baseline	V4XA	06/01/24 03:06
PCB-129	39.72	Baseline	V4XA	06/01/24 03:07

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
 SDG No.: \_\_\_\_\_  
 Instrument ID: D2D Analysis Batch Number: 87130  
 Lab Sample ID: IC 140-87130/6 Client Sample ID: \_\_\_\_\_  
 Date Analyzed: 05/31/24 21:13 Lab File ID: d2240531pi6.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-129/138/160/163	39.72	Baseline	V4XA	06/01/24 03:07
PCB-138	39.72	Baseline	V4XA	06/01/24 03:07
PCB-160	39.72	Baseline	V4XA	06/01/24 03:07
PCB-163	39.72	Baseline	V4XA	06/01/24 03:07
PCB-183	41.69	Invalid Compound ID	V4XA	06/01/24 03:07
PCB-183/185	41.69	Invalid Compound ID	V4XA	06/01/24 03:07
PCB-185	41.69	Invalid Compound ID	V4XA	06/01/24 03:07
PCB-206	53.96	Baseline	V4XA	06/01/24 03:12

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D Analysis Batch Number: 87130

Lab Sample ID: ICV 140-87130/7 Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/31/24 22:58 Lab File ID: d2240531icv.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-21	23.10	Incomplete Integration	P0IK	06/01/24 11:07
PCB-21/33	23.10	Incomplete Integration	P0IK	06/01/24 11:07
PCB-33	23.10	Incomplete Integration	P0IK	06/01/24 11:07
PCB-45	23.10	Incomplete Integration	P0IK	06/01/24 11:07
PCB-45/51	23.10	Incomplete Integration	P0IK	06/01/24 11:07
PCB-51	23.10	Incomplete Integration	P0IK	06/01/24 11:07
PCB-43	24.92	Incomplete Integration	P0IK	06/01/24 11:08
PCB-43/73	24.92	Incomplete Integration	P0IK	06/01/24 11:08
PCB-73	24.92	Incomplete Integration	P0IK	06/01/24 11:08
PCB-40	26.77	Incomplete Integration	P0IK	06/01/24 11:08
PCB-40/41/71	26.77	Incomplete Integration	P0IK	06/01/24 11:08
PCB-41	26.77	Incomplete Integration	P0IK	06/01/24 11:08
PCB-71	26.77	Incomplete Integration	P0IK	06/01/24 11:08
PCB-102	29.05	Incomplete Integration	P0IK	06/01/24 11:09
PCB-98	29.05	Incomplete Integration	P0IK	06/01/24 11:09
PCB-98/102	29.05	Incomplete Integration	P0IK	06/01/24 11:09
PCB-109	32.68	Incomplete Integration	P0IK	06/01/24 11:09
PCB-119	32.68	Incomplete Integration	P0IK	06/01/24 11:09
PCB-125	32.68	Incomplete Integration	P0IK	06/01/24 11:09
PCB-86	32.68	Incomplete Integration	P0IK	06/01/24 11:09
PCB-86/87/97/109/119/125	32.68	Incomplete Integration	P0IK	06/01/24 11:09
PCB-87	32.68	Incomplete Integration	P0IK	06/01/24 11:09
PCB-97	32.68	Incomplete Integration	P0IK	06/01/24 11:09
PCB-135	34.56	Incomplete Integration	P0IK	06/01/24 11:10
PCB-135/151	34.56	Incomplete Integration	P0IK	06/01/24 11:10
PCB-151	34.56	Incomplete Integration	P0IK	06/01/24 11:10
PCB-129	39.71	Incomplete Integration	P0IK	06/01/24 11:10
PCB-129/138/160/163	39.71	Incomplete Integration	P0IK	06/01/24 11:10
PCB-138	39.71	Incomplete Integration	P0IK	06/01/24 11:10
PCB-160	39.71	Incomplete Integration	P0IK	06/01/24 11:10



# HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D Analysis Batch Number: 87130

Lab Sample ID: ICV 140-87130/7 Client Sample ID: \_\_\_\_\_

Date Analyzed: 05/31/24 22:58 Lab File ID: d2240531icv.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-163	39.71	Incomplete Integration	P0IK	06/01/24 11:10
PCB-183	41.67	Incomplete Integration	P0IK	06/01/24 11:11
PCB-183/185	41.67	Incomplete Integration	P0IK	06/01/24 11:11
PCB-185	41.67	Incomplete Integration	P0IK	06/01/24 11:11

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D Analysis Batch Number: 88747

Lab Sample ID: WDMCCV 140-88747/1 Client Sample ID: \_\_\_\_\_

Date Analyzed: 07/15/24 12:43 Lab File ID: d2240715c1a.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-21	23.07	Incomplete Integration	F9EE	07/15/24 13:50
PCB-21/33	23.07	Incomplete Integration	F9EE	07/15/24 13:50
PCB-33	23.07	Incomplete Integration	F9EE	07/15/24 13:50
PCB-45	23.07	Incomplete Integration	F9EE	07/15/24 13:50
PCB-45/51	23.07	Incomplete Integration	F9EE	07/15/24 13:50
PCB-51	23.07	Incomplete Integration	F9EE	07/15/24 13:50
PCB-43	24.86	Incomplete Integration	F9EE	07/15/24 13:51
PCB-43/73	24.86	Incomplete Integration	F9EE	07/15/24 13:51
PCB-73	24.86	Incomplete Integration	F9EE	07/15/24 13:51
PCB-40	26.74	Incomplete Integration	F9EE	07/15/24 13:51
PCB-40/41/71	26.74	Incomplete Integration	F9EE	07/15/24 13:51
PCB-41	26.74	Incomplete Integration	F9EE	07/15/24 13:51
PCB-71	26.74	Incomplete Integration	F9EE	07/15/24 13:51
PCB-109	32.60	Incomplete Integration	F9EE	07/15/24 13:52
PCB-119	32.60	Incomplete Integration	F9EE	07/15/24 13:52
PCB-125	32.60	Incomplete Integration	F9EE	07/15/24 13:52
PCB-86	32.60	Incomplete Integration	F9EE	07/15/24 13:52
PCB-86/87/97/109/119/125	32.60	Incomplete Integration	F9EE	07/15/24 13:52
PCB-87	32.60	Incomplete Integration	F9EE	07/15/24 13:52
PCB-97	32.60	Incomplete Integration	F9EE	07/15/24 13:52
PCB-135	34.42	Incomplete Integration	F9EE	07/15/24 13:52
PCB-135/151	34.42	Incomplete Integration	F9EE	07/15/24 13:52
PCB-151	34.42	Incomplete Integration	F9EE	07/15/24 13:52
PCB-129	39.61	Incomplete Integration	F9EE	07/15/24 13:53
PCB-129/138/160/163	39.61	Incomplete Integration	F9EE	07/15/24 13:53
PCB-138	39.61	Incomplete Integration	F9EE	07/15/24 13:53
PCB-160	39.61	Incomplete Integration	F9EE	07/15/24 13:53
PCB-163	39.61	Incomplete Integration	F9EE	07/15/24 13:53
PCB-183	41.56	Incomplete Integration	F9EE	07/15/24 13:53
PCB-183/185	41.56	Incomplete Integration	F9EE	07/15/24 13:53

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D Analysis Batch Number: 88747

Lab Sample ID: WDMCCV 140-88747/1 Client Sample ID: \_\_\_\_\_

Date Analyzed: 07/15/24 12:43 Lab File ID: d2240715c1a.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-185	41.56	Incomplete Integration	F9EE	07/15/24 13:53
PCB-190	46.92	Incomplete Integration	F9EE	07/15/24 13:54

Lab Sample ID: LCS 140-88193/19-B Client Sample ID: \_\_\_\_\_

Date Analyzed: 07/15/24 13:44 Lab File ID: lcs140-8819319-b.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-123	36.14	Invalid Compound ID	V4XA	07/15/24 19:43
PCB-138	39.60	Baseline	V4XA	07/15/24 19:41

Lab Sample ID: LCSD 140-88193/20-B Client Sample ID: \_\_\_\_\_

Date Analyzed: 07/15/24 14:45 Lab File ID: lcsd140-8819320-b.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-138	39.60	Baseline	V4XA	07/15/24 19:47

Lab Sample ID: MB 140-88193/21-B Client Sample ID: \_\_\_\_\_

Date Analyzed: 07/15/24 16:31 Lab File ID: mb140-8819321-b.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-54L	20.14	Baseline	V4XA	07/15/24 19:51
PCB-153	38.35	Baseline	V4XA	07/15/24 19:53

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville

Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D

Analysis Batch Number: 88809

Lab Sample ID: WDMCCV 140-88809/1

Client Sample ID: \_\_\_\_\_

Date Analyzed: 07/16/24 11:46

Lab File ID: d2240716c1a.d

GC Column: SPB-Octyl

ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-45	23.10	Baseline	V4XA	07/16/24 18:54
PCB-45/51	23.10	Baseline	V4XA	07/16/24 18:54
PCB-51	23.10	Baseline	V4XA	07/16/24 18:54
PCB-21	23.11	Baseline	V4XA	07/16/24 18:54
PCB-21/33	23.11	Baseline	V4XA	07/16/24 18:54
PCB-33	23.11	Baseline	V4XA	07/16/24 18:54
PCB-43	24.90	Baseline	V4XA	07/16/24 18:54
PCB-43/73	24.90	Baseline	V4XA	07/16/24 18:54
PCB-73	24.90	Baseline	V4XA	07/16/24 18:54
PCB-40	26.78	Baseline	V4XA	07/16/24 18:55
PCB-40/41/71	26.78	Baseline	V4XA	07/16/24 18:55
PCB-41	26.78	Baseline	V4XA	07/16/24 18:55
PCB-71	26.78	Baseline	V4XA	07/16/24 18:55
PCB-102	29.03	Baseline	V4XA	07/16/24 18:55
PCB-98	29.03	Baseline	V4XA	07/16/24 18:55
PCB-98/102	29.03	Baseline	V4XA	07/16/24 18:55
PCB-109	32.65	Baseline	V4XA	07/16/24 18:55
PCB-119	32.65	Baseline	V4XA	07/16/24 18:55
PCB-125	32.65	Baseline	V4XA	07/16/24 18:55
PCB-86	32.65	Baseline	V4XA	07/16/24 18:55
PCB-86/87/97/109/119/125	32.65	Baseline	V4XA	07/16/24 18:55
PCB-87	32.65	Baseline	V4XA	07/16/24 18:55
PCB-97	32.65	Baseline	V4XA	07/16/24 18:55
PCB-135	34.47	Baseline	V4XA	07/16/24 18:56
PCB-135/151	34.47	Baseline	V4XA	07/16/24 18:56
PCB-151	34.47	Baseline	V4XA	07/16/24 18:56
PCB-129	39.66	Baseline	V4XA	07/16/24 18:56
PCB-129/138/160/163	39.66	Baseline	V4XA	07/16/24 18:56
PCB-138	39.66	Baseline	V4XA	07/16/24 18:56
PCB-160	39.66	Baseline	V4XA	07/16/24 18:56

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D Analysis Batch Number: 88809

Lab Sample ID: WDMCCV 140-88809/1 Client Sample ID: \_\_\_\_\_

Date Analyzed: 07/16/24 11:46 Lab File ID: d2240716c1a.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-163	39.66	Baseline	V4XA	07/16/24 18:56
PCB-183	41.60	Invalid Compound ID	V4XA	07/16/24 18:58
PCB-183/185	41.60	Invalid Compound ID	V4XA	07/16/24 18:58
PCB-185	41.60	Invalid Compound ID	V4XA	07/16/24 18:58

Lab Sample ID: 140-37234-14 Client Sample ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD

Date Analyzed: 07/16/24 14:38 Lab File ID: 140-37234-a-14-b.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-28	22.93	Incomplete Integration	TT6I	07/17/24 10:12
PCB-52	24.77	Incomplete Integration	TT6I	07/17/24 10:12
PCB-44	25.68	Incomplete Integration	TT6I	07/17/24 10:13
PCB-77	34.21	Incomplete Integration	TT6I	07/17/24 10:13

Lab Sample ID: 140-37234-8 Client Sample ID: M23 F-10 BOILER BT COMBINED

Date Analyzed: 07/16/24 15:40 Lab File ID: 140-37234-a-8-d.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-128		Invalid Compound ID	TT6I	07/17/24 10:33
PCB-8	16.85	Incomplete Integration	TT6I	07/17/24 10:31
PCB-18	19.07	Incomplete Integration	TT6I	07/17/24 10:31
PCB-101	31.59	Incomplete Integration	TT6I	07/17/24 10:32
PCB-138	39.66	Incomplete Integration	TT6I	07/17/24 10:33

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D Analysis Batch Number: 88809

Lab Sample ID: 140-37234-1 Client Sample ID: M23 F-10 BOILER RUN 2 COMBINED

Date Analyzed: 07/16/24 16:41 Lab File ID: 140-37234-a-1-d.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-8L	16.87	Incomplete Integration	TT6I	07/17/24 12:21
PCB-8	16.88	Incomplete Integration	TT6I	07/17/24 11:41
PCB-18	19.15	Incomplete Integration	TT6I	07/17/24 11:41
PCB-52	24.81	Incomplete Integration	TT6I	07/17/24 11:43
PCB-44	25.82	Incomplete Integration	TT6I	07/17/24 11:43
PCB-77	34.24	Incomplete Integration	TT6I	07/17/24 11:44
PCB-118	36.54	Incomplete Integration	TT6I	07/17/24 11:45
PCB-105	37.77	Incomplete Integration	TT6I	07/17/24 11:45
PCB-138	39.67	Incomplete Integration	TT6I	07/17/24 11:46
PCB-128	40.96	Incomplete Integration	TT6I	07/17/24 11:46
PCB-187	41.01	Incomplete Integration	TT6I	07/17/24 11:46
PCB-156	43.77	Incomplete Integration	TT6I	07/17/24 11:46
PCB-157	43.77	Incomplete Integration	TT6I	07/17/24 11:46

Lab Sample ID: 140-37234-2 Client Sample ID: M23 F-10 BOILER RUN 3 COMBINED

Date Analyzed: 07/16/24 19:38 Lab File ID: 140-37234-a-2-d5x\_202407 GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-18	19.04	Incomplete Integration	TT6I	07/17/24 11:49
PCB-52	24.76	Incomplete Integration	TT6I	07/17/24 11:49
PCB-66	29.86	Incomplete Integration	TT6I	07/17/24 11:50
PCB-101	31.61	Incomplete Integration	TT6I	07/17/24 11:50
PCB-77	34.25	Incomplete Integration	TT6I	07/17/24 11:50
PCB-118	36.55	Incomplete Integration	TT6I	07/17/24 11:51

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
 SDG No.: \_\_\_\_\_  
 Instrument ID: D2D Analysis Batch Number: 88809  
 Lab Sample ID: 140-37234-4 Client Sample ID: M23 F-10 BOILER RUN 5 COMBINED  
 Date Analyzed: 07/16/24 21:40 Lab File ID: 140-37234-a-4-d5x.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-8	16.83	Incomplete Integration	TT6I	07/17/24 12:12
PCB-18	18.99	Incomplete Integration	TT6I	07/17/24 12:13
PCB-15L	19.90	Incomplete Integration	TT6I	07/17/24 12:12
PCB-66	29.84	Incomplete Integration	TT6I	07/17/24 12:13
PCB-77	34.20	Incomplete Integration	TT6I	07/17/24 12:13
PCB-153	38.36	Incomplete Integration	TT6I	07/17/24 12:14
PCB-138	39.64	Incomplete Integration	TT6I	07/17/24 12:14

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville

Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D

Analysis Batch Number: 88834

Lab Sample ID: WDMCCV 140-88834/1

Client Sample ID: \_\_\_\_\_

Date Analyzed: 07/16/24 23:14

Lab File ID: d2240716c2a.d

GC Column: SPB-Octyl

ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-21	23.09	Baseline	V4XA	07/17/24 00:24
PCB-21/33	23.09	Baseline	V4XA	07/17/24 00:24
PCB-33	23.09	Baseline	V4XA	07/17/24 00:24
PCB-45	23.09	Baseline	V4XA	07/17/24 00:24
PCB-45/51	23.09	Baseline	V4XA	07/17/24 00:24
PCB-51	23.09	Baseline	V4XA	07/17/24 00:24
PCB-43	24.88	Baseline	V4XA	07/17/24 00:24
PCB-43/73	24.88	Baseline	V4XA	07/17/24 00:24
PCB-73	24.88	Baseline	V4XA	07/17/24 00:24
PCB-40	26.77	Baseline	V4XA	07/17/24 00:25
PCB-40/41/71	26.77	Baseline	V4XA	07/17/24 00:25
PCB-41	26.77	Baseline	V4XA	07/17/24 00:25
PCB-71	26.77	Baseline	V4XA	07/17/24 00:25
PCB-109	32.63	Baseline	V4XA	07/17/24 00:25
PCB-119	32.63	Baseline	V4XA	07/17/24 00:25
PCB-125	32.63	Baseline	V4XA	07/17/24 00:25
PCB-86	32.63	Baseline	V4XA	07/17/24 00:25
PCB-86/87/97/109/119/125	32.63	Baseline	V4XA	07/17/24 00:25
PCB-87	32.63	Baseline	V4XA	07/17/24 00:25
PCB-97	32.63	Baseline	V4XA	07/17/24 00:25
PCB-135	34.44	Baseline	V4XA	07/17/24 00:26
PCB-135/151	34.44	Baseline	V4XA	07/17/24 00:26
PCB-151	34.44	Baseline	V4XA	07/17/24 00:26
PCB-133	37.14	Baseline	V4XA	07/17/24 00:26
PCB-129	39.65	Baseline	V4XA	07/17/24 00:26
PCB-129/138/160/163	39.65	Baseline	V4XA	07/17/24 00:26
PCB-138	39.65	Baseline	V4XA	07/17/24 00:26
PCB-160	39.65	Baseline	V4XA	07/17/24 00:26
PCB-163	39.65	Baseline	V4XA	07/17/24 00:26
PCB-183	41.58	Baseline	V4XA	07/17/24 00:27



HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
 SDG No.: \_\_\_\_\_  
 Instrument ID: D2D Analysis Batch Number: 88834  
 Lab Sample ID: WDMCCV 140-88834/1 Client Sample ID: \_\_\_\_\_  
 Date Analyzed: 07/16/24 23:14 Lab File ID: d2240716c2a.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-183/185	41.58	Baseline	V4XA	07/17/24 00:27
PCB-185	41.58	Baseline	V4XA	07/17/24 00:27
PCB-209	55.46	Baseline	V4XA	07/17/24 00:27

Lab Sample ID: 140-37234-5 Client Sample ID: M23 F-10 BOILER RUN 6 COMBINED  
 Date Analyzed: 07/17/24 04:20 Lab File ID: 140-37234-a-5-d-5x.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-153L		Invalid Compound ID	TT6I	07/17/24 13:03
PCB-8	16.84	Incomplete Integration	TT6I	07/17/24 13:00
PCB-18	19.02	Incomplete Integration	TT6I	07/17/24 13:01
PCB-52	24.74	Incomplete Integration	TT6I	07/17/24 13:01
PCB-66	29.83	Incomplete Integration	TT6I	07/17/24 13:01
PCB-77	34.25	Incomplete Integration	TT6I	07/17/24 13:02
PCB-118	36.53	Incomplete Integration	TT6I	07/17/24 13:02
PCB-105	37.73	Incomplete Integration	TT6I	07/17/24 13:03
PCB-153	38.36	Incomplete Integration	TT6I	07/17/24 13:03
PCB-138	39.65	Incomplete Integration	TT6I	07/17/24 13:03
PCB-156	43.79	Incomplete Integration	TT6I	07/17/24 13:04
PCB-157	43.79	Incomplete Integration	TT6I	07/17/24 13:04

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
 SDG No.: \_\_\_\_\_  
 Instrument ID: D2D Analysis Batch Number: 88834  
 Lab Sample ID: 140-37234-6 Client Sample ID: M23 F-10 BOILER RUN 7 COMBINED  
 Date Analyzed: 07/17/24 05:21 Lab File ID: 140-37234-a-6-d-5x.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-8	16.84	Incomplete Integration	TT6I	07/17/24 13:28
PCB-18	19.03	Incomplete Integration	TT6I	07/17/24 13:29
PCB-138	39.65	Incomplete Integration	TT6I	07/17/24 13:30
PCB-187	41.04	Incomplete Integration	TT6I	07/17/24 13:30

Lab Sample ID: 140-37234-7 Client Sample ID: M23 F-10 BOILER RUN 8 COMBINED  
 Date Analyzed: 07/17/24 06:22 Lab File ID: 140-37234-a-7-d-5x.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-8L	16.81	Incomplete Integration	TT6I	07/17/24 13:32
PCB-8	16.83	Incomplete Integration	TT6I	07/17/24 13:32
PCB-18	19.02	Incomplete Integration	TT6I	07/17/24 13:32
PCB-15L	19.91	Incomplete Integration	TT6I	07/17/24 13:32
PCB-37L	26.89	Incomplete Integration	TT6I	07/17/24 13:32
PCB-66	29.81	Incomplete Integration	TT6I	07/17/24 13:33
PCB-77	34.22	Incomplete Integration	TT6I	07/17/24 13:33
PCB-118	36.50	Incomplete Integration	TT6I	07/17/24 13:34
PCB-138	39.64	Incomplete Integration	TT6I	07/17/24 13:35

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D Analysis Batch Number: 88871

Lab Sample ID: WDMCCV 140-88871/1 Client Sample ID: \_\_\_\_\_

Date Analyzed: 07/17/24 12:39 Lab File ID: d2240717c1c.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-21	23.07	Incomplete Integration	P0IK	07/17/24 16:51
PCB-21/33	23.07	Incomplete Integration	P0IK	07/17/24 16:51
PCB-33	23.07	Incomplete Integration	P0IK	07/17/24 16:51
PCB-45	23.07	Incomplete Integration	P0IK	07/17/24 16:51
PCB-45/51	23.07	Incomplete Integration	P0IK	07/17/24 16:51
PCB-51	23.07	Incomplete Integration	P0IK	07/17/24 16:51
PCB-43	24.86	Incomplete Integration	P0IK	07/17/24 16:52
PCB-43/73	24.86	Incomplete Integration	P0IK	07/17/24 16:52
PCB-73	24.86	Incomplete Integration	P0IK	07/17/24 16:52
PCB-38	26.01	Incomplete Integration	P0IK	07/17/24 16:51
PCB-40	26.74	Incomplete Integration	P0IK	07/17/24 16:52
PCB-40/41/71	26.74	Incomplete Integration	P0IK	07/17/24 16:52
PCB-41	26.74	Incomplete Integration	P0IK	07/17/24 16:52
PCB-71	26.74	Incomplete Integration	P0IK	07/17/24 16:52
PCB-109	32.60	Incomplete Integration	P0IK	07/17/24 16:54
PCB-119	32.60	Incomplete Integration	P0IK	07/17/24 16:54
PCB-125	32.60	Incomplete Integration	P0IK	07/17/24 16:54
PCB-86	32.60	Incomplete Integration	P0IK	07/17/24 16:54
PCB-86/87/97/109/119/125	32.60	Incomplete Integration	P0IK	07/17/24 16:54
PCB-87	32.60	Incomplete Integration	P0IK	07/17/24 16:54
PCB-97	32.60	Incomplete Integration	P0IK	07/17/24 16:54
PCB-135	34.42	Incomplete Integration	P0IK	07/17/24 16:55
PCB-135/151	34.42	Incomplete Integration	P0IK	07/17/24 16:55
PCB-151	34.42	Incomplete Integration	P0IK	07/17/24 16:55
PCB-134	35.67	Incomplete Integration	P0IK	07/17/24 16:55
PCB-134/143	35.67	Incomplete Integration	P0IK	07/17/24 16:55
PCB-143	35.67	Incomplete Integration	P0IK	07/17/24 16:55
PCB-139	35.94	Incomplete Integration	P0IK	07/17/24 16:55
PCB-139/140	35.94	Incomplete Integration	P0IK	07/17/24 16:55
PCB-140	35.94	Incomplete Integration	P0IK	07/17/24 16:55

HI-RES PCBS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D Analysis Batch Number: 88871

Lab Sample ID: WDMCCV 140-88871/1 Client Sample ID: \_\_\_\_\_

Date Analyzed: 07/17/24 12:39 Lab File ID: d2240717c1c.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-129	39.62	Incomplete Integration	P0IK	07/17/24 16:55
PCB-129/138/160/163	39.62	Incomplete Integration	P0IK	07/17/24 16:55
PCB-138	39.62	Incomplete Integration	P0IK	07/17/24 16:55
PCB-160	39.62	Incomplete Integration	P0IK	07/17/24 16:55
PCB-163	39.62	Incomplete Integration	P0IK	07/17/24 16:55
PCB-183	41.57	Incomplete Integration	P0IK	07/17/24 16:56
PCB-183/185	41.57	Incomplete Integration	P0IK	07/17/24 16:56
PCB-185	41.57	Incomplete Integration	P0IK	07/17/24 16:56

Lab Sample ID: 140-37234-3 Client Sample ID: M23 F-10 BOILER RUN 4 COMBINED

Date Analyzed: 07/17/24 19:36 Lab File ID: 140-37234-a-3-d5xrr.d GC Column: SPB-Octyl ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
PCB-8	16.81	Split Peak	V4XA	07/17/24 20:54
PCB-18	18.99	Split Peak	V4XA	07/17/24 20:54
PCB-28L	22.86	Split Peak	V4XA	07/17/24 20:54
PCB-77	34.16	Baseline	V4XA	07/17/24 20:56
PCB-138	39.56	Baseline	V4XA	07/17/24 20:57
PCB-209	55.40	Baseline	V4XA	07/17/24 20:58

## HI-RES PAHS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville

Job No.: 140-37234-1

SDG No.:

Instrument ID: D3PAH

Analysis Batch Number: 87843

Lab Sample ID: IC 140-87843/1

Client Sample ID:

Date Analyzed: 06/19/24 16:34

Lab File ID: d3240619ic1.d

GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C6-Dibenz (a,h) anthracene	58.09	Incomplete Integration	F9EE	06/19/24 18:15
13C12-Benzo (ghi) perylene	58.47	Incomplete Integration	F9EE	06/19/24 18:14
Benzo [g,h,i] perylene	58.49	Incomplete Integration	F9EE	06/19/24 18:14

Lab Sample ID: IC 140-87843/2

Client Sample ID:

Date Analyzed: 06/19/24 17:38

Lab File ID: d3240619ic2.d

GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C6-Indeno (1,2,3-cd) pyrene	58.03	Incomplete Integration	F9EE	06/19/24 18:48
13C6-Dibenz (a,h) anthracene	58.11	Incomplete Integration	F9EE	06/19/24 18:49
13C12-Benzo (ghi) perylene	58.50	Incomplete Integration	F9EE	06/19/24 18:49
Benzo [g,h,i] perylene	58.51	Incomplete Integration	F9EE	06/19/24 18:49

Lab Sample ID: IC 140-87843/3

Client Sample ID:

Date Analyzed: 06/19/24 18:42

Lab File ID: d3240619ic3.d

GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C6-Dibenz (a,h) anthracene	58.11	Incomplete Integration	F9EE	06/20/24 09:34
Dibenz (a,h) anthracene	58.11	Incomplete Integration	F9EE	06/20/24 09:34
13C12-Benzo (ghi) perylene	58.50	Incomplete Integration	F9EE	06/20/24 09:35
Benzo [g,h,i] perylene	58.51	Incomplete Integration	F9EE	06/20/24 09:35

HI-RES PAHS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D3PAH Analysis Batch Number: 87843

Lab Sample ID: IC 140-87843/4 Client Sample ID: \_\_\_\_\_

Date Analyzed: 06/19/24 19:47 Lab File ID: d3240619ic4.d GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C6-Indeno(1,2,3-cd)pyrene	58.01	Incomplete Integration	F9EE	06/20/24 09:35
13C6-Dibenz(a,h)anthracene	58.09	Incomplete Integration	F9EE	06/20/24 09:35
Dibenz(a,h)anthracene	58.09	Incomplete Integration	F9EE	06/20/24 09:35
13C12-Benzo(ghi)perylene	58.48	Incomplete Integration	F9EE	06/20/24 09:35
Benzo[g,h,i]perylene	58.50	Incomplete Integration	F9EE	06/20/24 09:36

Lab Sample ID: IC 140-87843/5 Client Sample ID: \_\_\_\_\_

Date Analyzed: 06/19/24 20:51 Lab File ID: d3240619ic5.d GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C6-Dibenz(a,h)anthracene	58.09	Incomplete Integration	F9EE	06/20/24 09:36
Dibenz(a,h)anthracene	58.09	Incomplete Integration	F9EE	06/20/24 09:36
13C12-Benzo(ghi)perylene	58.48	Incomplete Integration	F9EE	06/20/24 09:36
Benzo[g,h,i]perylene	58.50	Incomplete Integration	F9EE	06/20/24 09:36

Lab Sample ID: IC 140-87843/6 Client Sample ID: \_\_\_\_\_

Date Analyzed: 06/19/24 21:56 Lab File ID: d3240619ic6.d GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C6-Dibenz(a,h)anthracene	58.08	Incomplete Integration	F9EE	06/20/24 09:37
Dibenz(a,h)anthracene	58.10	Incomplete Integration	F9EE	06/20/24 09:37
13C12-Benzo(ghi)perylene	58.48	Incomplete Integration	F9EE	06/20/24 09:37
Benzo[g,h,i]perylene	58.48	Incomplete Integration	F9EE	06/20/24 09:37

HI-RES PAHS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D3PAH Analysis Batch Number: 87843

Lab Sample ID: IC 140-87843/7 Client Sample ID: \_\_\_\_\_

Date Analyzed: 06/19/24 23:00 Lab File ID: d3240619ic7.d GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C6-Indeno(1,2,3-cd)pyrene	58.02	Incomplete Integration	F9EE	06/20/24 09:37
13C6-Dibenz(a,h)anthracene	58.10	Incomplete Integration	F9EE	06/20/24 09:38
Dibenz(a,h)anthracene	58.10	Incomplete Integration	F9EE	06/20/24 09:38
13C12-Benzo(ghi)perylene	58.49	Incomplete Integration	F9EE	06/20/24 09:38
Benzo[g,h,i]perylene	58.50	Incomplete Integration	F9EE	06/20/24 09:38

Lab Sample ID: IC 140-87843/8 Client Sample ID: \_\_\_\_\_

Date Analyzed: 06/20/24 00:04 Lab File ID: d3240619ic8.d GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C6-Dibenz(a,h)anthracene	58.10	Incomplete Integration	F9EE	06/20/24 09:38
Dibenz(a,h)anthracene	58.10	Incomplete Integration	F9EE	06/20/24 09:38
13C12-Benzo(ghi)perylene	58.48	Incomplete Integration	F9EE	06/20/24 09:39
Benzo[g,h,i]perylene	58.50	Incomplete Integration	F9EE	06/20/24 09:39

Lab Sample ID: IC 140-87843/9 Client Sample ID: \_\_\_\_\_

Date Analyzed: 06/20/24 01:09 Lab File ID: d3240619ic9.d GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	58.01	Incomplete Integration	F9EE	06/20/24 09:39
13C6-Dibenz(a,h)anthracene	58.07	Incomplete Integration	F9EE	06/20/24 09:39
Dibenz(a,h)anthracene	58.07	Incomplete Integration	F9EE	06/20/24 09:39
13C12-Benzo(ghi)perylene	58.48	Incomplete Integration	F9EE	06/20/24 09:39
Benzo[g,h,i]perylene	58.48	Incomplete Integration	F9EE	06/20/24 09:39

HI-RES PAHS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
 SDG No.: \_\_\_\_\_  
 Instrument ID: D3PAH Analysis Batch Number: 87843  
 Lab Sample ID: ICV 140-87843/10 Client Sample ID: \_\_\_\_\_  
 Date Analyzed: 06/20/24 02:46 Lab File ID: d3240619icv.d GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C6-Naphthalene	11.67	Incomplete Integration	F9EE	06/20/24 09:48
Naphthalene	11.67	Incomplete Integration	F9EE	06/20/24 09:48



HI-RES PAHS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
 SDG No.: \_\_\_\_\_  
 Instrument ID: D3PAH Analysis Batch Number: 88920  
 Lab Sample ID: LCS 140-88192/19-B Client Sample ID: \_\_\_\_\_  
 Date Analyzed: 07/18/24 12:24 Lab File ID: lcs140-8819219-b.d GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	57.91	Split Peak	Q9DB	07/18/24 16:25

HI-RES PAHS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D3PAH Analysis Batch Number: 88945

Lab Sample ID: MB 140-88192/21-B Client Sample ID: \_\_\_\_\_

Date Analyzed: 07/19/24 00:57 Lab File ID: mb140-8819221-b\_20240719 GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Anthracene	25.26	Incomplete Integration	TT6I	07/20/24 10:14
Benzo[a]anthracene	45.87	Incomplete Integration	TT6I	07/20/24 10:08
Benzo[k]fluoranthene	54.63	Incomplete Integration	TT6I	07/20/24 10:08
Perylene	55.86	Incomplete Integration	TT6I	07/20/24 10:07
Dibenz (a,h) anthracene	57.99	Incomplete Integration	TT6I	07/20/24 10:08
13C12-Benzo (ghi) perylene	58.38	Incomplete Integration	TT6I	07/20/24 10:08
Benzo[g,h,i]perylene	58.38	Incomplete Integration	TT6I	07/20/24 10:07

HI-RES PAHS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
 SDG No.: \_\_\_\_\_  
 Instrument ID: D3PAH Analysis Batch Number: 88999  
 Lab Sample ID: CCV 140-88999/1 Client Sample ID: \_\_\_\_\_  
 Date Analyzed: 07/20/24 02:03 Lab File ID: d3240720c1a.d GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Indeno[1,2,3-cd]pyrene	57.90	Split Peak	V4XA	07/20/24 03:11

Lab Sample ID: 140-37234-1 Client Sample ID: M23 F-10 BOILER RUN 2 COMBINED  
 Date Analyzed: 07/20/24 10:31 Lab File ID: 140-37234-a-1-c.d GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Acenaphthylene	16.61	Incomplete Integration	TT6I	07/20/24 11:35
Phenanthrene	24.92	Incomplete Integration	TT6I	07/20/24 11:35
Pyrene	35.32	Incomplete Integration	TT6I	07/20/24 11:35
Chrysene	46.12	Incomplete Integration	TT6I	07/20/24 11:34
Benzo[b]fluoranthene	54.49	Incomplete Integration	TT6I	07/20/24 11:34
Benzo[k]fluoranthene	54.61	Incomplete Integration	TT6I	07/20/24 11:35
Benzo[e]pyrene	55.45	Incomplete Integration	TT6I	07/20/24 11:34
Benzo[a]pyrene	55.60	Incomplete Integration	TT6I	07/20/24 11:35
Perylene-d12	55.77	Incomplete Integration	TT6I	07/20/24 11:34
Perylene	55.84	Incomplete Integration	TT6I	07/20/24 11:34
Indeno[1,2,3-cd]pyrene	57.91	Incomplete Integration	TT6I	07/20/24 11:34
Dibenz(a,h)anthracene	57.97	Incomplete Integration	TT6I	07/20/24 11:35
13C12-Benzo(ghi)perylene	58.36	Incomplete Integration	TT6I	07/20/24 11:35
Benzo[g,h,i]perylene	58.36	Incomplete Integration	TT6I	07/20/24 11:35

## HI-RES PAHS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville

Job No.: 140-37234-1

SDG No.:

Instrument ID: D3PAH

Analysis Batch Number: 88999

Lab Sample ID: 140-37234-2

Client Sample ID: M23 F-10 BOILER RUN 3 COMBINED

Date Analyzed: 07/20/24 11:35

Lab File ID: 140-37234-A-2-C\_24072013 GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	11.44	Incomplete Integration	TT6I	07/20/24 14:02
2-Methylnaphthalene	13.78	Incomplete Integration	TT6I	07/20/24 14:02
Acenaphthylene	16.62	Incomplete Integration	TT6I	07/20/24 14:03
Fluorene	19.58	Incomplete Integration	TT6I	07/20/24 14:04
Fluoranthene	33.65	Incomplete Integration	TT6I	07/20/24 14:03
Pyrene	35.33	Incomplete Integration	TT6I	07/20/24 14:03
13C6-Chrysene	46.12	Incomplete Integration	TT6I	07/20/24 14:02
Benzo[b]fluoranthene	54.51	Incomplete Integration	TT6I	07/20/24 14:03
Benzo[k]fluoranthene	54.63	Incomplete Integration	TT6I	07/20/24 14:04
Benzo[a]pyrene	55.60	Incomplete Integration	TT6I	07/20/24 14:03
Perylene-d12	55.77	Incomplete Integration	TT6I	07/20/24 14:02
Perylene	55.84	Incomplete Integration	TT6I	07/20/24 14:03
13C6-Indeno (1,2,3-cd)pyrene	57.91	Incomplete Integration	TT6I	07/20/24 14:02
Indeno[1,2,3-cd]pyrene	57.93	Incomplete Integration	TT6I	07/20/24 14:02
Dibenz (a,h) anthracene	57.99	Incomplete Integration	TT6I	07/20/24 14:03
13C12-Benzo (ghi) perylene	58.36	Incomplete Integration	TT6I	07/20/24 14:03
Benzo[g,h,i] perylene	58.38	Incomplete Integration	TT6I	07/20/24 14:03

HI-RES PAHS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville

Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D3PAH

Analysis Batch Number: 89013

Lab Sample ID: 140-37234-14

Client Sample ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD

Date Analyzed: 07/22/24 16:06

Lab File ID: 140-37234-b-14-b.d

GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Methylnaphthalene	13.79	Incomplete Integration	TT6I	07/23/24 09:52
Acenaphthylene	16.67	Incomplete Integration	TT6I	07/23/24 09:53
Fluorene	19.65	Incomplete Integration	TT6I	07/23/24 09:54
Anthracene	25.36	Incomplete Integration	TT6I	07/23/24 09:52
Fluoranthene	33.77	Incomplete Integration	TT6I	07/23/24 09:53
Benzo[k]fluoranthene	54.68	Incomplete Integration	TT6I	07/23/24 09:54
Perylene	55.82	Incomplete Integration	TT6I	07/23/24 09:53
Indeno[1,2,3-cd]pyrene	57.95	Incomplete Integration	TT6I	07/23/24 09:52
Dibenz(a,h)anthracene	58.03	Incomplete Integration	TT6I	07/23/24 09:53
Benzo[g,h,i]perylene	58.42	Incomplete Integration	TT6I	07/23/24 09:53

Lab Sample ID: 140-37234-8

Client Sample ID: M23 F-10 BOILER BT COMBINED

Date Analyzed: 07/22/24 17:11

Lab File ID: 140-37234-a-8-c.d

GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Methylnaphthalene	13.83	Incomplete Integration	TT6I	07/23/24 09:55
Acenaphthylene	16.69	Incomplete Integration	TT6I	07/23/24 09:56
Phenanthrene	25.05	Incomplete Integration	TT6I	07/23/24 09:55
Fluoranthene	33.79	Incomplete Integration	TT6I	07/23/24 09:55
Pyrene	35.48	Incomplete Integration	TT6I	07/23/24 09:56
Benzo[a]anthracene	46.03	Incomplete Integration	TT6I	07/23/24 09:56
Benzo[b]fluoranthene	54.59	Incomplete Integration	TT6I	07/23/24 09:55
Benzo[k]fluoranthene	54.71	Incomplete Integration	TT6I	07/23/24 09:56
Perylene	55.90	Incomplete Integration	TT6I	07/23/24 09:55
Indeno[1,2,3-cd]pyrene	57.97	Incomplete Integration	TT6I	07/23/24 09:54
Dibenz(a,h)anthracene	58.04	Incomplete Integration	TT6I	07/23/24 09:56
Benzo[g,h,i]perylene	58.45	Incomplete Integration	TT6I	07/23/24 09:55

HI-RES PAHS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D3PAH Analysis Batch Number: 89013

Lab Sample ID: 140-37234-3 Client Sample ID: M23 F-10 BOILER RUN 4 COMBINED

Date Analyzed: 07/22/24 18:15 Lab File ID: 140-37234-a-3-c.d GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	11.54	Incomplete Integration	TT6I	07/23/24 09:58
2-Methylnaphthalene	13.85	Incomplete Integration	TT6I	07/23/24 09:58
Acenaphthylene	16.72	Incomplete Integration	TT6I	07/23/24 09:59
Phenanthrene	25.06	Incomplete Integration	TT6I	07/23/24 09:59
Anthracene	25.40	Incomplete Integration	TT6I	07/23/24 09:57
Fluoranthene	33.81	Incomplete Integration	TT6I	07/23/24 09:58
Chrysene	46.30	Incomplete Integration	TT6I	07/23/24 09:58
Benzo[k]fluoranthene	54.73	Incomplete Integration	TT6I	07/23/24 09:59
Benzo[e]pyrene	55.54	Incomplete Integration	TT6I	07/23/24 09:58
Benzo[a]pyrene	55.69	Incomplete Integration	TT6I	07/23/24 09:59
Perylene	55.92	Incomplete Integration	TT6I	07/23/24 09:58
13C6-Indeno (1,2,3-cd) pyrene	57.98	Incomplete Integration	TT6I	07/23/24 09:58
Indeno[1,2,3-cd]pyrene	58.00	Incomplete Integration	TT6I	07/23/24 09:57
13C6-Dibenz (a,h) anthracene	58.06	Incomplete Integration	TT6I	07/23/24 09:57
Dibenz (a,h) anthracene	58.06	Incomplete Integration	TT6I	07/23/24 09:59
Benzo[g,h,i]perylene	58.45	Incomplete Integration	TT6I	07/23/24 09:59

HI-RES PAHS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D3PAH Analysis Batch Number: 89013

Lab Sample ID: 140-37234-4 Client Sample ID: M23 F-10 BOILER RUN 5 COMBINED

Date Analyzed: 07/22/24 19:20 Lab File ID: 140-37234-a-4-c.d GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	11.52	Incomplete Integration	TT6I	07/23/24 10:31
2-Methylnaphthalene	13.83	Incomplete Integration	TT6I	07/23/24 10:30
Acenaphthylene	16.68	Incomplete Integration	TT6I	07/23/24 10:32
Anthracene	25.37	Incomplete Integration	TT6I	07/23/24 10:30
Pyrene	35.47	Incomplete Integration	TT6I	07/23/24 10:31
Benzo[a]anthracene	46.00	Incomplete Integration	TT6I	07/23/24 10:32
Chrysene	46.27	Incomplete Integration	TT6I	07/23/24 10:31
Benzo[b]fluoranthene	54.59	Incomplete Integration	TT6I	07/23/24 10:31
Benzo[k]fluoranthene	54.71	Incomplete Integration	TT6I	07/23/24 10:34
Benzo[e]pyrene	55.52	Incomplete Integration	TT6I	07/23/24 10:35
13C4-Benzo (a) pyrene	55.65	Incomplete Integration	TT6I	07/23/24 10:34
Benzo[a]pyrene	55.67	Incomplete Integration	TT6I	07/23/24 10:34
Perylene-d12	55.82	Incomplete Integration	TT6I	07/23/24 10:30
Perylene	55.90	Incomplete Integration	TT6I	07/23/24 10:31
13C6-Indeno (1,2,3-cd) pyrene	57.96	Incomplete Integration	TT6I	07/23/24 10:30
Indeno[1,2,3-cd]pyrene	57.98	Incomplete Integration	TT6I	07/23/24 10:30
Dibenz (a,h) anthracene	58.04	Incomplete Integration	TT6I	07/23/24 10:31
Benzo[g,h,i]perylene	58.43	Incomplete Integration	TT6I	07/23/24 10:31

HI-RES PAHS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D3PAH Analysis Batch Number: 89013

Lab Sample ID: 140-37234-5 Client Sample ID: M23 F-10 BOILER RUN 6 COMBINED

Date Analyzed: 07/22/24 20:24 Lab File ID: 140-37234-a-5-c.d GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Methylnaphthalene	13.82	Incomplete Integration	TT6I	07/23/24 10:35
Acenaphthylene	16.68	Incomplete Integration	TT6I	07/23/24 10:36
Fluorene	19.66	Incomplete Integration	TT6I	07/23/24 10:37
Anthracene	25.36	Incomplete Integration	TT6I	07/23/24 10:35
Benzo[b]fluoranthene	54.57	Incomplete Integration	TT6I	07/23/24 10:36
Benzo[k]fluoranthene	54.69	Incomplete Integration	TT6I	07/23/24 10:37
Benzo[e]pyrene	55.50	Incomplete Integration	TT6I	07/23/24 10:35
Benzo[a]pyrene	55.65	Incomplete Integration	TT6I	07/23/24 10:37
Perylene-d12	55.82	Incomplete Integration	TT6I	07/23/24 10:35
Perylene	55.89	Incomplete Integration	TT6I	07/23/24 10:36
Indeno[1,2,3-cd]pyrene	57.96	Incomplete Integration	TT6I	07/23/24 10:35
13C6-Dibenz (a,h) anthracene	58.03	Incomplete Integration	TT6I	07/23/24 10:35
Dibenz (a,h) anthracene	58.03	Incomplete Integration	TT6I	07/23/24 10:36
Benzo[g,h,i]perylene	58.41	Incomplete Integration	TT6I	07/23/24 10:36



HI-RES PAHS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D3PAH Analysis Batch Number: 89013

Lab Sample ID: 140-37234-7 Client Sample ID: M23 F-10 BOILER RUN 8 COMBINED

Date Analyzed: 07/22/24 22:33 Lab File ID: 140-37234-a-7-c.d GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	11.51	Incomplete Integration	TT6I	07/23/24 10:38
2-Methylnaphthalene	13.82	Incomplete Integration	TT6I	07/23/24 10:38
Acenaphthylene	16.69	Incomplete Integration	TT6I	07/23/24 10:39
Fluorene	19.65	Incomplete Integration	TT6I	07/23/24 10:39
Anthracene	25.36	Incomplete Integration	TT6I	07/23/24 10:38
Fluoranthene	33.78	Incomplete Integration	TT6I	07/23/24 10:39
Pyrene	35.47	Incomplete Integration	TT6I	07/23/24 10:39
Benzo[a]anthracene	46.00	Incomplete Integration	TT6I	07/23/24 10:39
Chrysene	46.27	Incomplete Integration	TT6I	07/23/24 10:39
Benzo[b]fluoranthene	54.58	Incomplete Integration	TT6I	07/23/24 10:39
Benzo[k]fluoranthene	54.71	Incomplete Integration	TT6I	07/23/24 10:40
Perylene	55.89	Incomplete Integration	TT6I	07/23/24 10:38
Indeno[1,2,3-cd]pyrene	57.96	Incomplete Integration	TT6I	07/23/24 10:38
13C6-Dibenz (a,h) anthracene	58.03	Incomplete Integration	TT6I	07/23/24 10:38
Dibenz (a,h) anthracene	58.05	Incomplete Integration	TT6I	07/23/24 10:39
Benzo[g,h,i]perylene	58.43	Incomplete Integration	TT6I	07/23/24 10:39

HI-RES PAHS MANUAL INTEGRATION SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D3PAH Analysis Batch Number: 89076

Lab Sample ID: CCV 140-89076/1 Client Sample ID: \_\_\_\_\_

Date Analyzed: 07/22/24 23:53 Lab File ID: d3240722c2a.d GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
13C6-Dibenz (a,h) anthracene	58.06	Split Peak	V4XA	07/23/24 00:58
Dibenz (a,h) anthracene	58.06	Split Peak	V4XA	07/23/24 01:00

Lab Sample ID: 140-37234-6 Client Sample ID: M23 F-10 BOILER RUN 7 COMBINED

Date Analyzed: 07/23/24 07:13 Lab File ID: 140-37234-a-6-c-10x.d GC Column: Rxi-5SilMS 2 ID: 0.25 (mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
Naphthalene	11.50	Incomplete Integration	TT6I	07/23/24 12:58
2-Methylnaphthalene	13.81	Incomplete Integration	TT6I	07/23/24 12:58
Acenaphthylene	16.74	Incomplete Integration	TT6I	07/23/24 13:00
Fluorene	19.63	Incomplete Integration	TT6I	07/23/24 13:00
Anthracene	25.34	Incomplete Integration	TT6I	07/23/24 12:58
Fluoranthene	33.76	Incomplete Integration	TT6I	07/23/24 12:59
Pyrene	35.45	Incomplete Integration	TT6I	07/23/24 12:59
Chrysene	46.23	Incomplete Integration	TT6I	07/23/24 12:59
Benzo[b]fluoranthene	54.55	Incomplete Integration	TT6I	07/23/24 12:59
Benzo[k]fluoranthene	54.69	Incomplete Integration	TT6I	07/23/24 13:00
Benzo[a]pyrene	55.63	Incomplete Integration	TT6I	07/23/24 13:00
Perylene-d12	55.80	Incomplete Integration	TT6I	07/23/24 12:58
Perylene	55.88	Incomplete Integration	TT6I	07/23/24 13:00
13C6-Indeno (1,2,3-cd) pyrene	57.94	Incomplete Integration	TT6I	07/23/24 12:58
Indeno [1,2,3-cd] pyrene	57.96	Incomplete Integration	TT6I	07/23/24 12:58
Dibenz (a,h) anthracene	58.02	Incomplete Integration	TT6I	07/23/24 12:59
Benzo [g,h,i] perylene	58.41	Incomplete Integration	TT6I	07/23/24 12:59

# Method 23 Revised (PAHs)

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Method 23 Revised (PAHs)

FORM II  
HI-RES PAHS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): Rxi-5SilMS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	C6N #	C62MN #	C6Acy #	C6Ace #	C6Fle #	C6Ph #	AN #	C6Fla #
M23 F-10 BOILER RUN 2 COMBINED	140-37234-1	46	56	80	76	87	75	92	83
M23 F-10 BOILER RUN 3 COMBINED	140-37234-2	47	56	88	80	92	77	95	86
M23 F-10 BOILER RUN 4 COMBINED	140-37234-3	50	58	82	82	87	71	88	80
M23 F-10 BOILER RUN 5 COMBINED	140-37234-4	49	54	78	72	86	73	92	85
M23 F-10 BOILER RUN 6 COMBINED	140-37234-5	59	65	91	87	96	80	102	88
M23 F-10 BOILER RUN 7 COMBINED	140-37234-6	68	70	101	91	96	74	88	90
M23 F-10 BOILER RUN 8 COMBINED	140-37234-7	46	51	81	80	85	70	88	88
M23 F-10 BOILER BT COMBINED	140-37234-8	60	61	88	85	91	72	85	88
M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	140-37234-14	67	68	83	77	78	68	80	77
	MB 140-88192/21-B	72	67	93	84	96	79	92	93
	LCS 140-88192/19-B	82	70	91	84	91	68	78	91
	LCSD 140-88192/20-B	83	73	90	84	91	70	80	91

QC LIMITS

C6N = 13C6-Naphthalene	20-130
C62MN = 13C6-2-Methylnaphthalene	20-130
C6Acy = 13C6-Acenaphthylene	20-130
C6Ace = 13C6-Acenaphthene	20-130
C6Fle = 13C6-Fluorene	20-130
C6Ph = 13C6-Phenanthrene	20-130
AN = 13C6-Anthracene	20-130
C6Fla = 13C6-Fluoranthrene	20-130

# Column to be used to flag recovery values

FORM II  
HI-RES PAHS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): Rxi-5SilMS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	C3Pyr #	C6BaA #	C6Chr #	C6BbF #	C6BkF #	C4BeP #	C4BaP #	PRY #
M23 F-10 BOILER RUN 2 COMBINED	140-37234-1	78	70	71	81	87	73	90	88
M23 F-10 BOILER RUN 3 COMBINED	140-37234-2	82	70	69	79	85	73	87	87
M23 F-10 BOILER RUN 4 COMBINED	140-37234-3	81	66	68	78	86	74	86	86
M23 F-10 BOILER RUN 5 COMBINED	140-37234-4	86	71	79	80	89	74	91	91
M23 F-10 BOILER RUN 6 COMBINED	140-37234-5	84	70	77	80	91	74	93	88
M23 F-10 BOILER RUN 7 COMBINED	140-37234-6	89	70	77	71	91	74	89	87
M23 F-10 BOILER RUN 8 COMBINED	140-37234-7	85	77	81	79	95	77	93	91
M23 F-10 BOILER BT COMBINED	140-37234-8	84	66	73	77	85	74	83	88
M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	140-37234-14	79	50	54	73	83	75	82	71
	MB 140-88192/21-B	94	78	76	96	94	87	89	92
	LCS 140-88192/19-B	93	94	91	103	94	92	95	95
	LCSD 140-88192/20-B	91	91	88	99	92	92	93	96

QC LIMITS

C3Pyr = 13C3-Pyrene	20-130
C6BaA = 13C6-Benzo (a) anthracene	20-130
C6Chr = 13C6-Chrysene	20-130
C6BbF = 13C6-Benzo (b) fluoranthene	20-130
C6BkF = 13C6-Benzo (k) fluoranthene	20-130
C4BeP = 13C4-Benzo (e) pyrene	20-130
C4BaP = 13C4-Benzo (a) pyrene	20-130
PRY = Perylene-d12	20-130

# Column to be used to flag recovery values

FORM II  
HI-RES PAHS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): Rxi-5SilMS ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	IND #	DBA #	BghiP #
M23 F-10 BOILER RUN 2 COMBINED	140-37234-1	88	98	87
M23 F-10 BOILER RUN 3 COMBINED	140-37234-2	96	94	84
M23 F-10 BOILER RUN 4 COMBINED	140-37234-3	89	96	88
M23 F-10 BOILER RUN 5 COMBINED	140-37234-4	92	99	92
M23 F-10 BOILER RUN 6 COMBINED	140-37234-5	86	93	93
M23 F-10 BOILER RUN 7 COMBINED	140-37234-6	81	80	89
M23 F-10 BOILER RUN 8 COMBINED	140-37234-7	82	102	96
M23 F-10 BOILER BT COMBINED	140-37234-8	73	92	85
M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	140-37234-14	60	69	63
	MB 140-88192/21-B	99	99	86
	LCS 140-88192/19-B	103	90	82
	LCSD 140-88192/20-B	104	98	81

	<u>QC LIMITS</u>
IND = 13C6-Indeno (1,2,3-cd)pyrene	20-130
DBA = 13C6-Dibenz (a,h) anthracene	20-130
BghiP = 13C12-Benzo (ghi) perylene	20-130

# Column to be used to flag recovery values

FORM III  
HI-RES PAHS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Matrix: Air Level: Low Lab File ID: lcs140-8819219-b.d  
Lab ID: LCS 140-88192/19-B Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ng/Sample)	LCS CONCENTRATION (ng/Sample)	LCS % REC	QC LIMITS REC	#
Naphthalene	150	1224	816	60-140	*+
2-Methylnaphthalene	150	163.8	109	60-140	
Acenaphthylene	150	125.0	83	60-140	
Acenaphthene	150	141.4	94	60-140	
Fluorene	150	147.0	98	60-140	
Phenanthrene	150	164.4	110	60-140	
Anthracene	150	131.1	87	60-140	
Fluoranthene	150	159.9	107	60-140	
Pyrene	150	202.9	135	60-140	
Benzo[a]anthracene	150	162.5	108	60-140	
Chrysene	150	160.9	107	60-140	
Benzo[b]fluoranthene	150	143.0	95	60-140	
Benzo[k]fluoranthene	150	132.3	88	60-140	
Benzo[e]pyrene	150	146.0	97	60-140	
Benzo[a]pyrene	150	129.5	86	60-140	
Perylene	150	137.5	92	60-140	
Indeno[1,2,3-cd]pyrene	150	148.1	99	60-140	
Dibenz(a,h)anthracene	150	146.9	98	60-140	
Benzo[g,h,i]perylene	150	145.8	97	60-140	
13C6-Naphthalene	150	123.3	82	20-130	
13C6-2-Methylnaphthalene	150	105.5	70	20-130	
13C6-Acenaphthylene	150	136.7	91	20-130	
13C6-Acenaphthene	150	126.4	84	20-130	
13C6-Fluorene	150	135.8	91	20-130	
13C6-Fluoranthrene	150	137.0	91	20-130	
13C3-Pyrene	150	139.3	93	20-130	
13C6-Benzo(a)anthracene	150	141.7	94	20-130	
13C6-Chrysene	150	136.8	91	20-130	
13C6-Benzo(b)fluoranthene	150	155.1	103	20-130	
13C6-Benzo(k)fluoranthene	150	141.5	94	20-130	
13C4-Benzo(e)pyrene	150	138.6	92	20-130	
13C4-Benzo(a)pyrene	150	142.9	95	20-130	
Perylene-d12	150	142.5	95	20-130	
13C6-Indeno(1,2,3-cd)pyrene	150	154.1	103	20-130	
13C6-Dibenz(a,h)anthracene	150	135.3	90	20-130	
13C12-Benzo(ghi)perylene	150	123.4	82	20-130	
13C6-Anthracene	150	116.6	78	20-130	
13C6-Phenanthrene	150	101.5	68	20-130	

# Column to be used to flag recovery and RPD values

FORM III  
HI-RES PAHS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Matrix: Air Level: Low Lab File ID: lcsd140-8819220-b.d  
Lab ID: LCSD 140-88192/20-B Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ng/Sample)	LCSD CONCENTRATION (ng/Sample)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
Naphthalene	150	1037	691	17	25	60-140	*+
2-Methylnaphthalene	150	153.8	103	6	25	60-140	
Acenaphthylene	150	121.9	81	2	25	60-140	
Acenaphthene	150	135.5	90	4	25	60-140	
Fluorene	150	140.8	94	4	25	60-140	
Phenanthrene	150	158.6	106	4	25	60-140	
Anthracene	150	126.8	85	3	25	60-140	
Fluoranthene	150	153.2	102	4	25	60-140	
Pyrene	150	190.9	127	6	25	60-140	
Benzo[a]anthracene	150	160.0	107	2	25	60-140	
Chrysene	150	161.0	107	0	25	60-140	
Benzo[b]fluoranthene	150	142.3	95	0	25	60-140	
Benzo[k]fluoranthene	150	138.9	93	5	25	60-140	
Benzo[e]pyrene	150	144.6	96	1	25	60-140	
Benzo[a]pyrene	150	129.1	86	0	25	60-140	
Perylene	150	135.0	90	2	25	60-140	
Indeno[1,2,3-cd]pyrene	150	144.5	96	2	25	60-140	
Dibenz(a,h)anthracene	150	147.5	98	0	25	60-140	
Benzo[g,h,i]perylene	150	146.7	98	1	25	60-140	
13C6-Naphthalene	150	124.3	83			20-130	
13C6-2-Methylnaphthalene	150	108.8	73			20-130	
13C6-Acenaphthylene	150	135.7	90			20-130	
13C6-Acenaphthene	150	126.5	84			20-130	
13C6-Fluorene	150	136.3	91			20-130	
13C6-Fluoranthrene	150	137.1	91			20-130	
13C3-Pyrene	150	136.1	91			20-130	
13C6-Benzo(a)anthracene	150	137.1	91			20-130	
13C6-Chrysene	150	132.2	88			20-130	
13C6-Benzo(b)fluoranthene	150	148.9	99			20-130	
13C6-Benzo(k)fluoranthene	150	138.4	92			20-130	
13C4-Benzo(e)pyrene	150	137.3	92			20-130	
13C4-Benzo(a)pyrene	150	139.1	93			20-130	
Perylene-d12	150	144.1	96			20-130	
13C6-Indeno(1,2,3-cd)pyrene	150	155.3	104			20-130	
13C6-Dibenz(a,h)anthracene	150	146.6	98			20-130	
13C12-Benzo(ghi)perylene	150	121.7	81			20-130	
13C6-Anthracene	150	119.3	80			20-130	
13C6-Phenanthrene	150	105.6	70			20-130	

# Column to be used to flag recovery and RPD values



FORM IV  
HI-RES PAHS METHOD BLANK SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: mb140-8819221-b\_2024071900560 Lab Sample ID: MB 140-88192/21-B  
 Matrix: Air Date Extracted: 06/27/2024 14:06  
 Instrument ID: D3PAH Date Analyzed: 07/19/2024 00:57  
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-88192/19-B	lcs140-8819 219-b.d	07/18/2024 12:24
	LCSD 140-88192/20-B	lcsd140-881 9220-b.d	07/18/2024 13:28
M23 F-10 BOILER RUN 2 COMBINED	140-37234-1	140-37234-a -1-c.d	07/20/2024 10:31
M23 F-10 BOILER RUN 3 COMBINED	140-37234-2	140-37234-A -2-C 240720 133022.d	07/20/2024 11:35
M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	140-37234-14	140-37234-b -14-b.d	07/22/2024 16:06
M23 F-10 BOILER BT COMBINED	140-37234-8	140-37234-a -8-c.d	07/22/2024 17:11
M23 F-10 BOILER RUN 4 COMBINED	140-37234-3	140-37234-a -3-c.d	07/22/2024 18:15
M23 F-10 BOILER RUN 5 COMBINED	140-37234-4	140-37234-a -4-c.d	07/22/2024 19:20
M23 F-10 BOILER RUN 6 COMBINED	140-37234-5	140-37234-a -5-c.d	07/22/2024 20:24
M23 F-10 BOILER RUN 8 COMBINED	140-37234-7	140-37234-a -7-c.d	07/22/2024 22:33
M23 F-10 BOILER RUN 7 COMBINED	140-37234-6	140-37234-a -6-c-10x.d	07/23/2024 07:13

FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 2</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-1</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-1-c.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/05/2024 17:53</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/20/2024 10:31</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88999</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
91-20-3	Naphthalene	430	J B * +	750	750	1.31
91-57-6	2-Methylnaphthalene	284	J B	750	750	0.465
208-96-8	Acenaphthylene	14.5	J B	30.0	30.0	0.388
83-32-9	Acenaphthene	109	J B	300	300	0.536
86-73-7	Fluorene	296	J B	300	300	0.559
85-01-8	Phenanthrene	1130	B	60.0	60.0	0.860
120-12-7	Anthracene	99.5	J B	300	300	0.775
206-44-0	Fluoranthene	144	B	60.0	60.0	0.336
129-00-0	Pyrene	166	B	60.0	60.0	0.359
56-55-3	Benzo[a]anthracene	3.78	J B	60.0	60.0	0.227
218-01-9	Chrysene	13.2	J B	60.0	60.0	0.233
205-99-2	Benzo[b]fluoranthene	10.1	J B	300	300	0.124
207-08-9	Benzo[k]fluoranthene	3.48	J B	60.0	60.0	0.112
192-97-2	Benzo[e]pyrene	52.1	J B	60.0	60.0	0.102
50-32-8	Benzo[a]pyrene	14.3	J B	30.0	30.0	0.103
198-55-0	Perylene	2.90	J B	30.0	30.0	0.0861
193-39-5	Indeno[1,2,3-cd]pyrene	36.0	B	30.0	30.0	0.121
53-70-3	Dibenz(a,h)anthracene	6.76	J B	60.0	60.0	0.0744
191-24-2	Benzo[g,h,i]perylene	176	B	60.0	60.0	0.0933

FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 2</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-1</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-1-c.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/05/2024 17:53</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/20/2024 10:31</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88999</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02217	13C6-Naphthalene	46		20-130
STL03357	13C6-2-Methylnaphthalene	56		20-130
189811-56-1	13C6-Acenaphthylene	80		20-130
189811-57-2	13C6-Acenaphthene	76		20-130
STL00616	13C6-Fluorene	87		20-130
1397194-60-3	13C6-Fluoranthrene	83		20-130
1397214-90-2	13C3-Pyrene	78		20-130
917378-11-1	13C6-Benzo (a) anthracene	70		20-130
1397177-72-8	13C6-Chrysene	71		20-130
STL03358	13C6-Benzo (b) fluoranthene	81		20-130
1397194-60-3	13C6-Benzo (k) fluoranthene	87		20-130
STL03382	13C4-Benzo (e) pyrene	73		20-130
STL03359	13C4-Benzo (a) pyrene	90		20-130
1520-96-3	Perylene-d12	88		20-130
362044-56-2	13C6-Indeno (1,2,3-cd) pyrene	88		20-130
STL03360	13C6-Dibenz (a,h) anthracene	98		20-130
350820-11-0	13C12-Benzo (ghi) perylene	87		20-130
189811-60-7	13C6-Anthracene	92		20-130
1189955-53-0	13C6-Phenanthrene	75		20-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
 Lims ID: 140-37234-A-1-C  
 Client ID: M23 F-10 BOILER RUN 2 COMBINED  
 Sample Type: Client  
 Inject. Date: 20-Jul-2024 10:31:00 ALS Bottle#: 0 Worklist Smp#: 11  
 Injection Vol: 1.0 ul Dil. Factor: 10.0000  
 Sample Info:  
 Misc. Info.: 140-0033591-011  
 Operator ID: Xcalibur\_System Instrument ID: D3PAH  
 Method: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\EPA\_23\_\_PAH.m  
 Limit Group: HR - HRPAL ICAL  
 Last Update: 20-Jul-2024 11:35:59 Calib Date: 20-Jun-2024 01:09:00  
 Integrator: RTE  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
 Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
 Process Host: CTX1689

First Level Reviewer: TT6I

Date: 20-Jul-2024 11:35:59

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:26	3100527		3.3746	4.600	4.600	0.002154	0.002154	46.00	
Naphthalene	11:26	11452199		1.2893	28.6	28.6	0.0876	0.0876		
D 13C6-2-Methylnaphthalene	13:47	1784347		1.6031	5.573	5.573	0.000370	0.000370	55.73	
2-Methylnaphthalene	13:47	4318758		1.2786	18.9	18.9	0.0310	0.0310		
D 13C6-Acenaphthylene	16:37	2635807		1.6520	7.988	7.988	0.002708	0.002708	79.88	
Acenaphthylene	16:37	341731		2.3661	0.9681	0.9681	0.0258	0.0258		M
* Acenaphthene-d10	17:11	998676		3.5E+04	5.000	5.000				
D 13C6-Acenaphthene	17:18	1491829		0.9792	7.628	7.628	0.003531	0.003531	76.28	
Acenaphthene	17:18	1376175		1.2697	7.265	7.265	0.0357	0.0357		
D 13C6-Fluorene	19:34	1544157		0.8898	8.688	8.688	0.006820	0.006820	86.88	
Fluorene	19:35	3823086		1.2532	19.8	19.8	0.0372	0.0372		
D 13C6-Phenanthrene	24:55	2130998		0.5724	7.527	7.527	0.002348	0.002348	75.27	
Phenanthrene	24:55	17778238		1.1044	75.5	75.5	0.0573	0.0573		M
\$ Anthracin-d10	25:08	135524		0.4257	0.6437	0.6437	0.002114	0.002114	64.37	
D 13C6-Anthracene	25:15	2060173		0.4523	9.208	9.208	0.002972	0.002972	92.08	
Anthracene	25:15	1856629		1.3586	6.633	6.633	0.0517	0.0517		
D 13C6-Fluoranthrene	33:38	4916284		1.1994	8.288	8.288	0.0125	0.0125	82.88	
Fluoranthene	33:39	5445158		1.1513	9.620	9.620	0.0224	0.0224		
* Pyrene-d10	35:11	2472984		7.9E+04	5.000	5.000				
D 13C3-Pyrene	35:20	5219657		1.3512	7.810	7.810	0.008002	0.008002	78.10	
Pyrene	35:20	6162230		1.0652	11.1	11.1	0.0239	0.0239		M
\$ 13C6-Benzo(c)fluorene	39:02	2605184		0.5136	10.3	10.3	0.005462	0.005462	103	M
D 13C6-Benzo(a)anthracene	45:51	4467359		1.5189	7.042	7.042	0.003859	0.003859	70.42	
Benzo[a]anthracene	45:51	109641		0.9739	0.2520	0.2520	0.0151	0.0151		
D 13C6-Chrysene	46:07	4812673		1.6287	7.075	7.075	0.003599	0.003599	70.75	
Chrysene	46:08	416645		0.9815	0.8821	0.8821	0.0156	0.0156		M
D 13C6-Benzo(b)fluoranthene	54:29	4917705		1.4621	8.053	8.053	0.001989	0.001989	80.53	
Benzo[b]fluoranthene	54:30	372102		1.1249	0.6726	0.6726	0.008251	0.008251		M
\$ 13C12-Benzo(j)fluoranthene	54:32	4676221		1.3558	8.258	8.258	0.006753	0.006753	82.58	
D 13C6-Benzo(k)fluoranthene	54:37	6331978		1.7507	8.660	8.660	0.001661	0.001661	86.60	
Benzo[k]fluoranthene	54:37	165702		1.1271	0.2322	0.2322	0.007451	0.007451		Ma
* Benzo(e)pyrene-d12	55:22	2088248		5.7E+04	5.000	5.000				
Benzo[e]pyrene	55:27	1731840		1.0013	3.472	3.472	0.006770	0.006770		M
D 13C4-Benzo(e)pyrene	55:27	4981311		1.6368	7.287	7.287	0.002931	0.002931	72.87	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C4-Benzo(a)pyrene	55:36	5802548		1.5508	8.959	8.959	0.003094	0.003094	89.59	
Benzo[a]pyrene	55:36	616760		1.1130	0.9550	0.9550	0.006841	0.006841		M
D Perylene-d12	55:47	4388819		1.1917	8.818	8.818	0.008673	0.008673	88.18	M
Perylene	55:51	121523		1.4307	0.1935	0.1935	0.005737	0.005737		M
D 13C6-Indeno(1,2,3-cd)pyrene	57:55	3765567		1.0218	8.823	8.823	0.004657	0.004657	88.23	
Indeno[1,2,3-cd]pyrene	57:55	1017011		1.1249	2.401	2.401	0.008066	0.008066		M
D 13C6-Dibenz(a,h)anthracene	57:59	4336670		1.0553	9.840	9.840	0.002975	0.002975	98.40	
Dibenz(a,h)anthracene	57:59	221158		1.1314	0.4508	0.4508	0.004960	0.004960		M
D 13C12-Benzo(ghi)perylene	58:22	4622298		1.2749	8.681	8.681	0.001029	0.001029	86.81	M
Benzo[g,h,i]perylene	58:22	6974119		1.2838	11.8	11.8	0.006218	0.006218		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Lims ID: 140-37234-A-1-C  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Sample Type: Client  
Inject. Date: 20-Jul-2024 10:31:00 ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Sample Info:  
Misc. Info.: 140-0033591-011  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 20-Jul-2024 11:35:59 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1689

First Level Reviewer: TT6I

Date: 20-Jul-2024 11:35:59

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:26	11:40	2	0.666	3100527	1015665	206	515	4930		
Naphthalene											
128.0626	11:26	11:41	1	1.000	11452199	3855819	4589	11472	840		
13C6-2-Methylnaphthalene											
148.0984	13:47	13:46	0	0.802	1784347	759363	17	42	44668		
2-Methylnaphthalene											
142.0783	13:47	13:47	0	1.000	4318758	1912778	1205	3012	1587		
13C6-Acenaphthylene											
158.0828	16:37	16:38	-1	0.967	2635807	906887	127	317	7141		
Acenaphthylene											
152.0626	16:37	16:37	-1	1.000	341731	119871	1239	3097	97		M
Acenaphthene-d10											
164.1404	17:11	17:12	-1		998676	354265	19	47	18646		M
13C6-Acenaphthene											
160.0984	17:18	17:19	-1	1.007	1491829	506527	98	245	5169		
Acenaphthene											
154.0783	17:18	17:20	-1	1.000	1376175	466680	919	2297	508		
13C6-Fluorene											
172.0984	19:34	19:35	-1	1.139	1544157	461802	172	430	2685		
Fluorene											
166.0783	19:35	19:35	-1	1.001	3823086	1091094	862	2155	1266		
13C6-Phenanthrene											
184.0984	24:55	24:55	-1	0.708	2130998	484276	46	115	10528		
Phenanthrene											
178.0783	24:55	24:55	-1	1.000	17778238	3906443	1226	3065	3186		M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:08	25:08	-2	0.714	135524	33382	31	77	1077		
13C6-Anthracene											
184.0984	25:15	25:15	-1	0.718	2060173	436757	46	115	9495		
Anthracene											
178.0783	25:15	25:17	-1	1.000	1856629	361082	1226	3065	295		
13C6-Fluoranthrene											
208.0984	33:38	33:38	-2	0.956	4916284	914826	513	1282	1783		
Fluoranthene											
202.0783	33:39	33:37	-1	1.000	5445158	995473	944	2360	1055		
Pyrene-d10											
212.1404	35:11	35:12	-1		2472984	427752	125	312	3422		
13C3-Pyrene											
205.0883	35:20	35:19	-1	1.004	5219657	926559	370	925	2504		
Pyrene											
202.0783	35:20	35:20	-2	1.000	6162230	1095211	944	2360	1160		M
13C6-Benzo(c)fluorene											
222.1134	39:02	39:02	-1	0.705	2605184	451071	96	240	4699		M
13C6-Benzo(a)anthracene											
234.1140	45:51	45:49	0	1.303	4467359	686192	304	760	2257		
Benzo[a]anthracene											
228.0939	45:51	45:52	-1	1.000	109641	17136	405	1012	42		
13C6-Chrysene											
234.1140	46:07	46:09	-1	1.310	4812673	662448	304	760	2179		
Chrysene											
228.0939	46:08	46:08	-1	1.000	416645	47254	405	1012	117		M
13C6-Benzo(b)fluoranthene											
258.1140	54:29	54:28	-1	0.984	4917705	1195980	151	377	7920		
Benzo[b]fluoranthene											
252.0939	54:30	54:30	0	1.000	372102	69142	444	1110	156		M
13C12-Benzo(j)fluoranthene											
264.1336	54:32	54:33	0	0.985	4676221	1028724	475	1187	2166		
13C6-Benzo(k)fluoranthene											
258.1140	54:37	54:36	0	0.986	6331978	1321724	151	377	8753		
Benzo[k]fluoranthene											
252.0939	54:37	54:37	-1	1.000	165702	36218	444	1110	82		Ma
Benzo(e)pyrene-d12											
264.1692	55:22	55:23	-1		2088248	648231	536	1340	1209		
Benzo[e]pyrene											
252.0939	55:27	55:27	0	1.000	1731840	559140	444	1110	1259		M
13C4-Benzo(e)pyrene											
256.1073	55:27	55:26	0	1.002	4981311	1637550	249	622	6577		M
13C4-Benzo(a)pyrene											
256.1073	55:36	55:38	0	1.004	5802548	1457812	249	622	5855		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Benzo[a]pyrene											M
252.0939	55:36	55:36	0	1.000	616760	171980	444	1110	387		M
Perylene-d12											M
264.1692	55:47	55:47	0	1.007	4388819	1352448	536	1340	2523		M
Perylene											M
252.0939	55:51	55:51	0	1.001	121523	27954	444	1110	63		M
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	57:55	57:54	0	1.046	3765567	1206820	247	617	4886		
Indeno[1,2,3-cd]pyrene											M
276.0939	57:55	57:55	0	1.000	1017011	301614	438	1095	689		M
13C6-Dibenz(a,h)anthracene											
284.1296	57:59	57:58	0	1.047	4336670	1063854	163	407	6527		
Dibenz(a,h)anthracene											M
278.1096	57:59	57:59	0	1.000	221158	46235	239	597	193		M
13C12-Benzo(ghi)perylene											M
288.1342	58:22	58:22	0	1.054	4622298	1371847	68	170	20174		M
Benzo[g,h,i]perylene											M
276.0939	58:22	58:22	-1	1.000	6974119	1913731	438	1095	4369		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

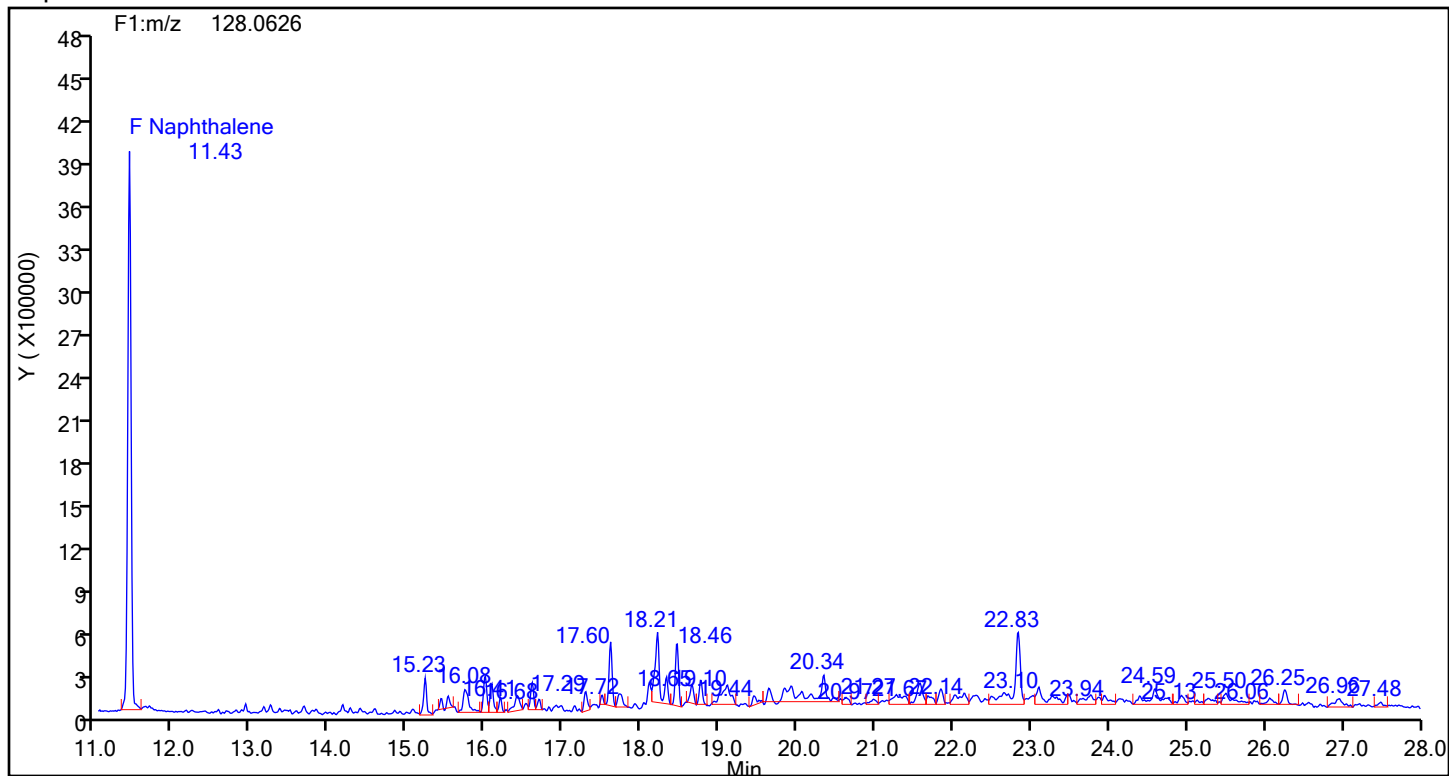
a - User Assigned ID



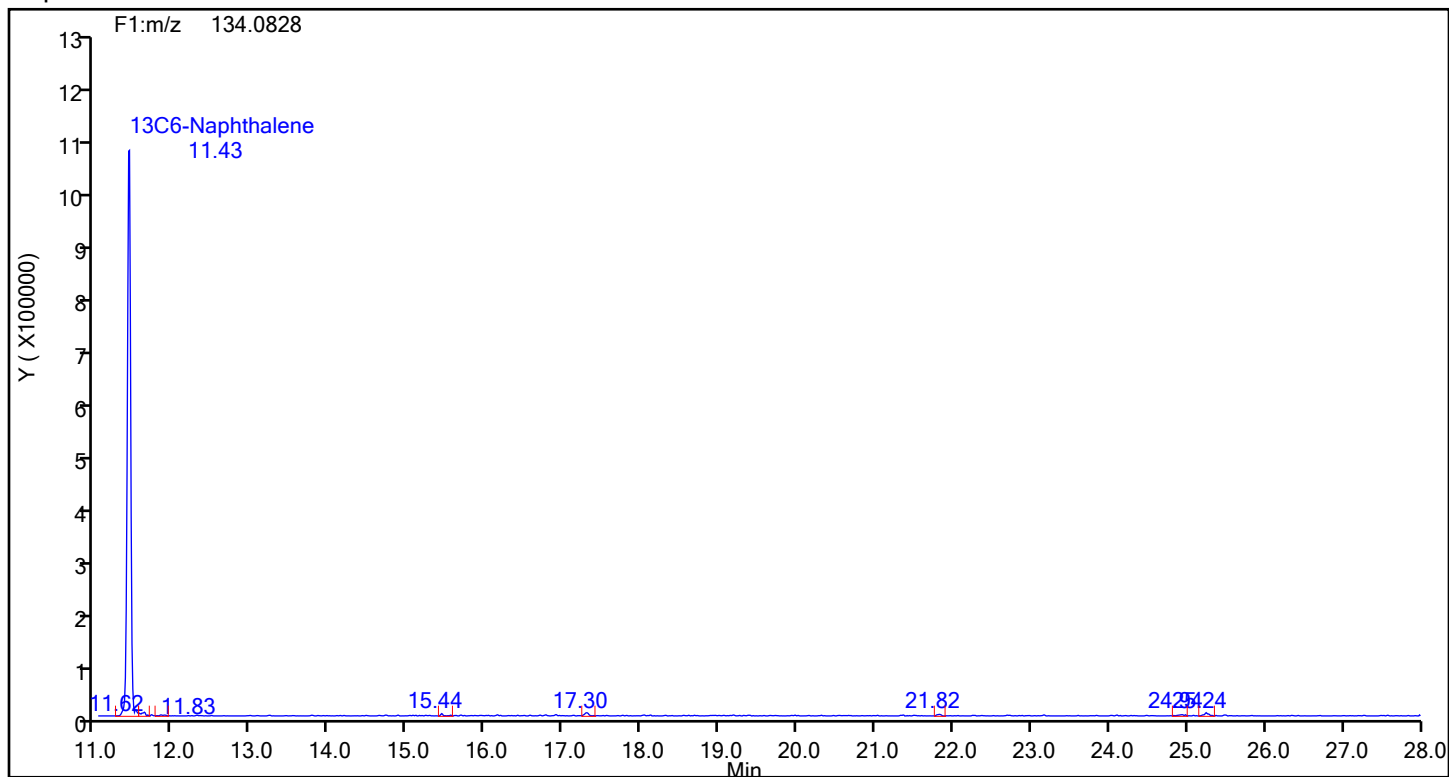
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Injection Date: 20-Jul-2024 10:31:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88999 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



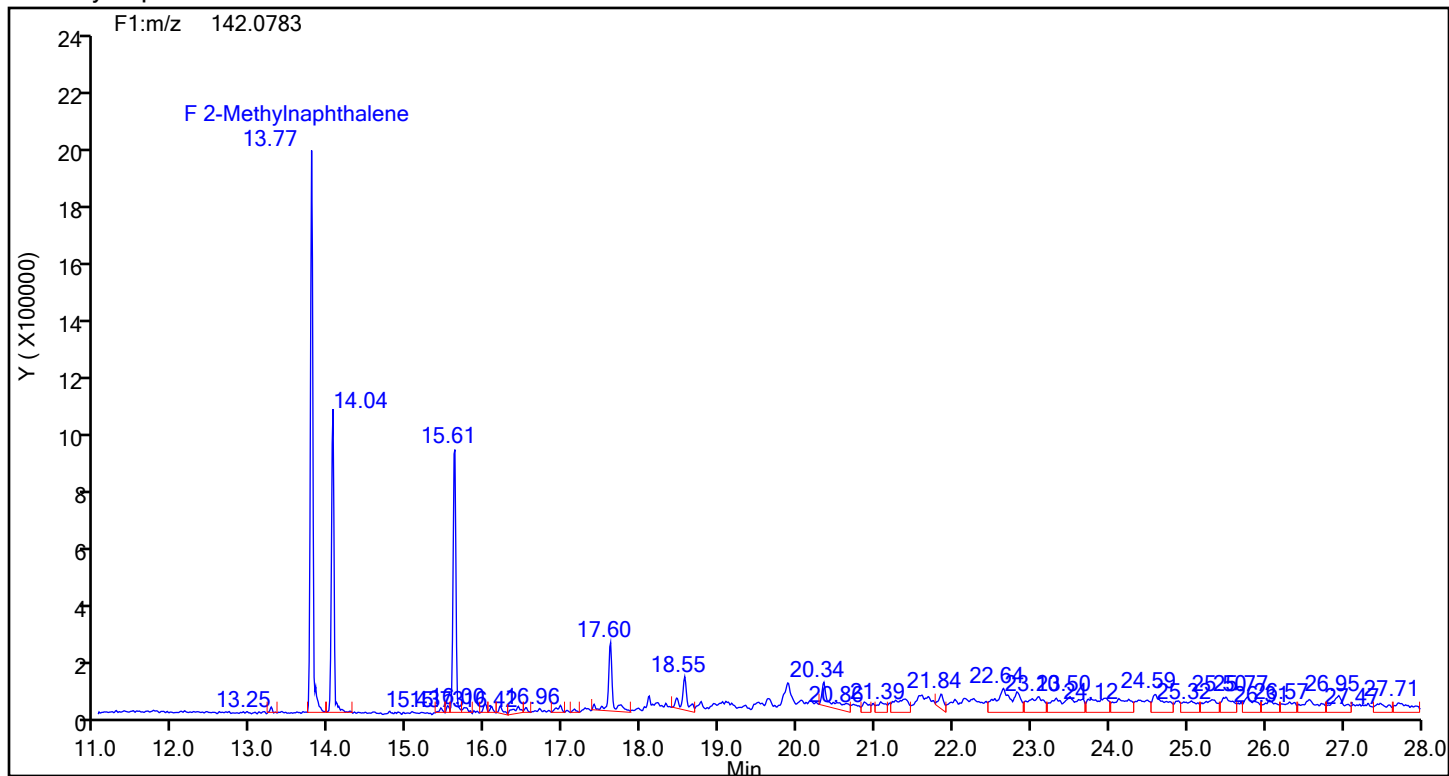
## Naphthalene Standards



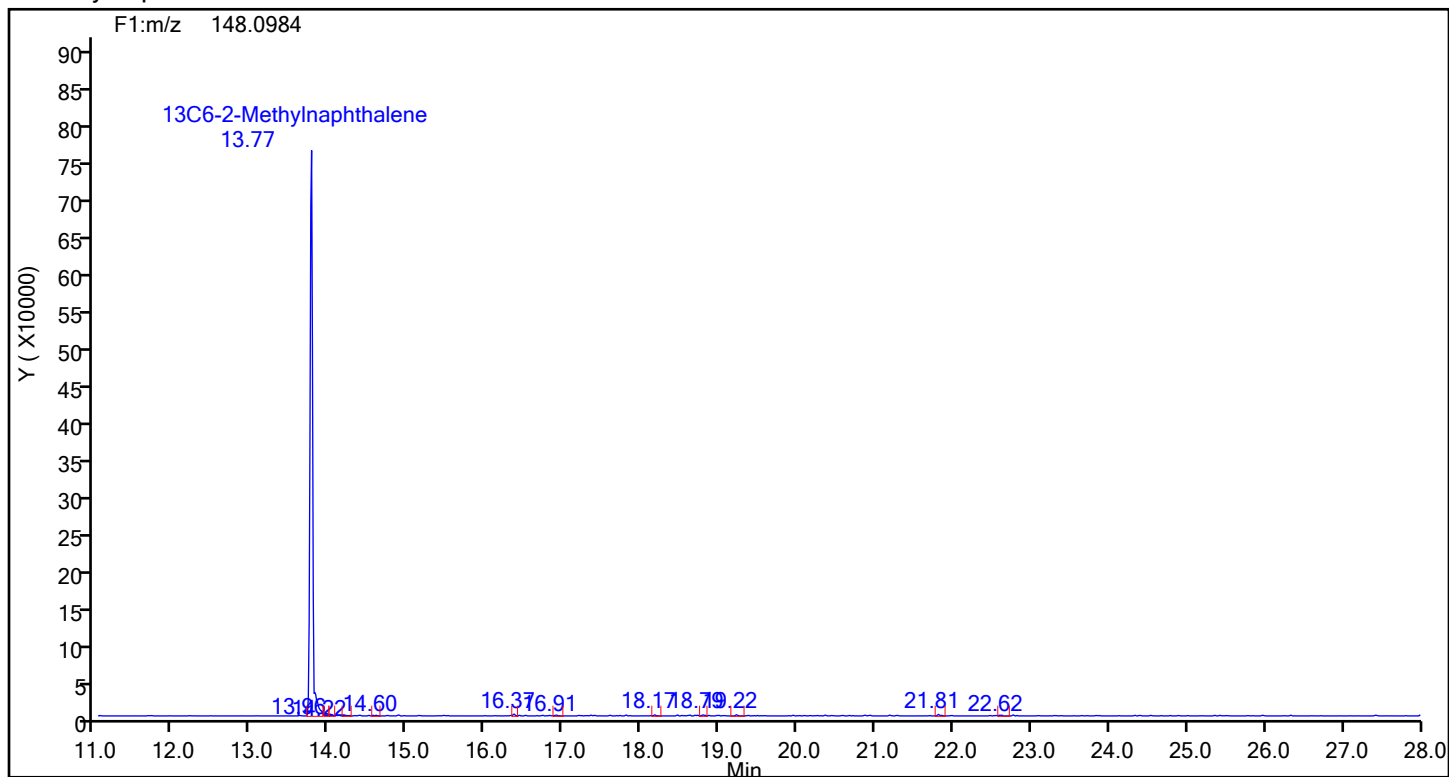
## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88999 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



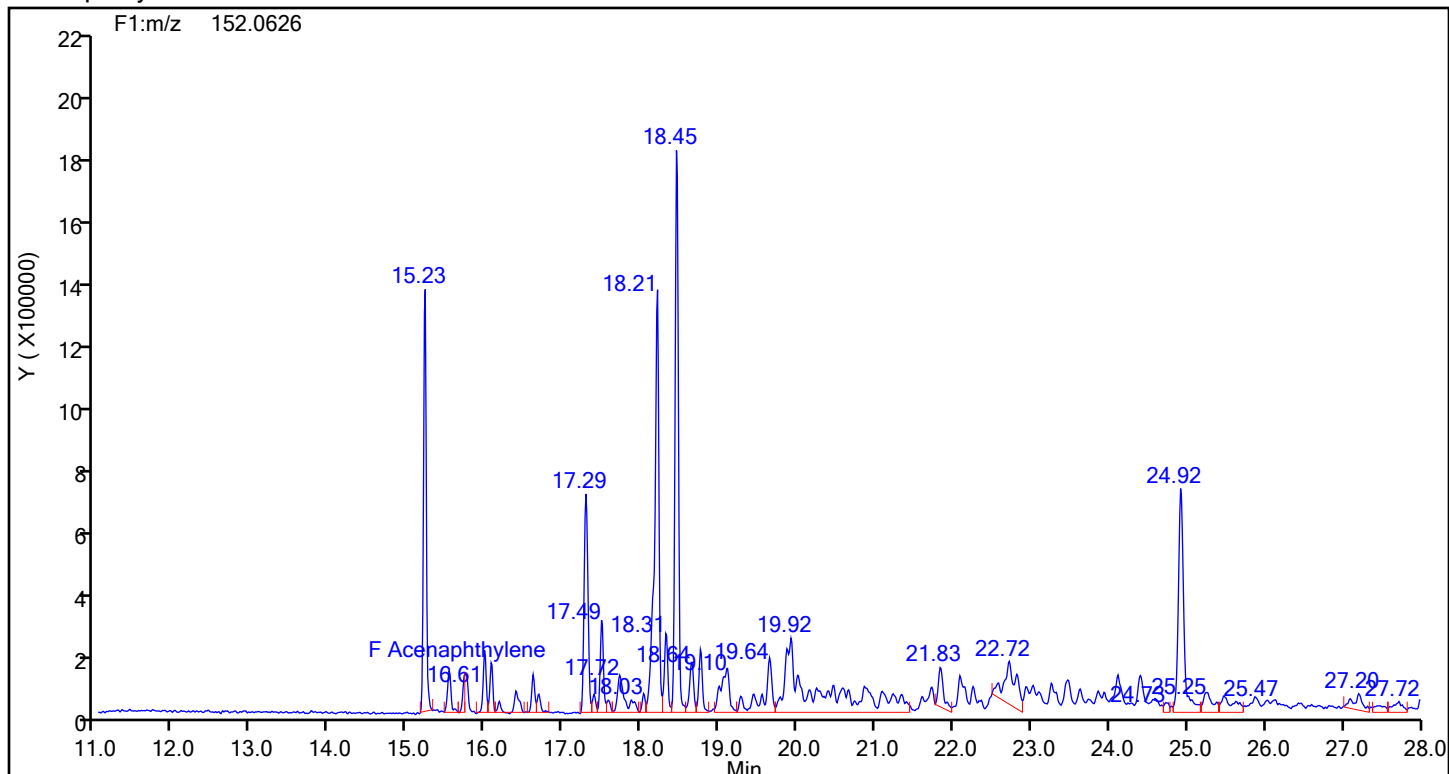
## 2-Methylnaphthalene Standards



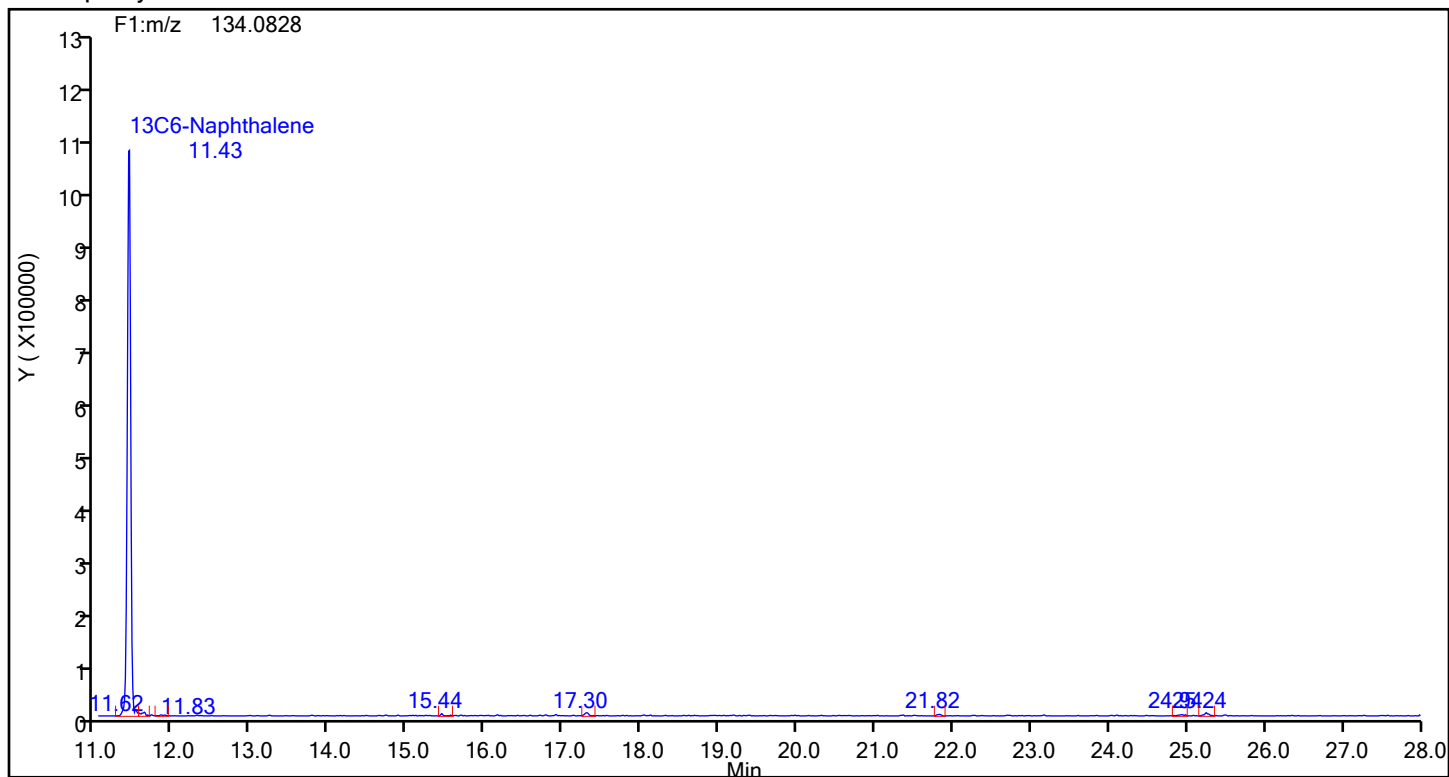
## Eurofins Knoxville

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Injection Date: 20-Jul-2024 10:31:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88999 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene



## Acenaphthylene Standards



## Eurofins Knoxville

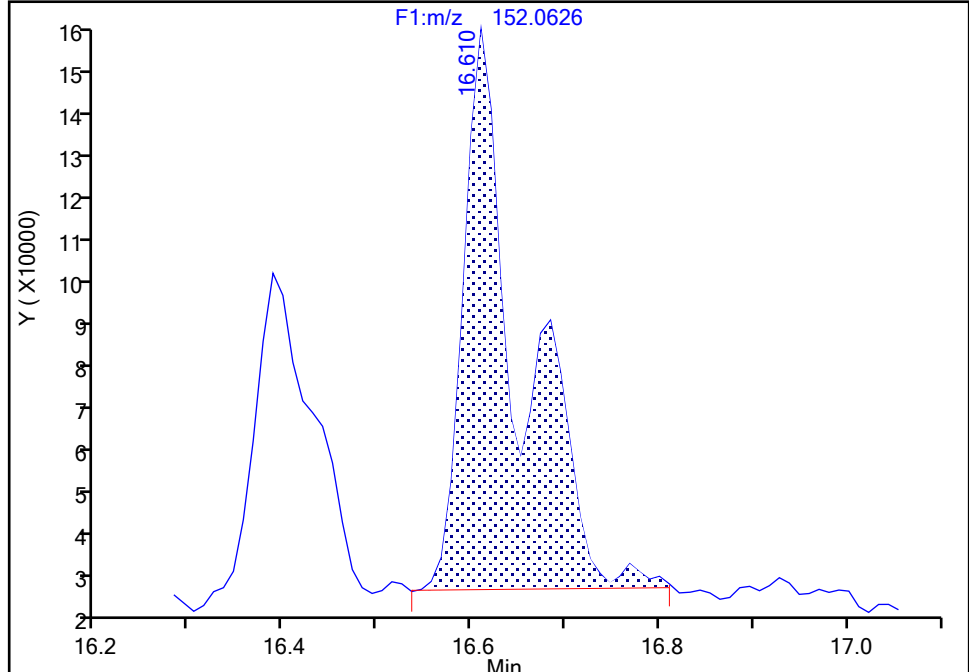
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-1-C Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

Acenaphthylene, CAS: 208-96-8

Signal: 1

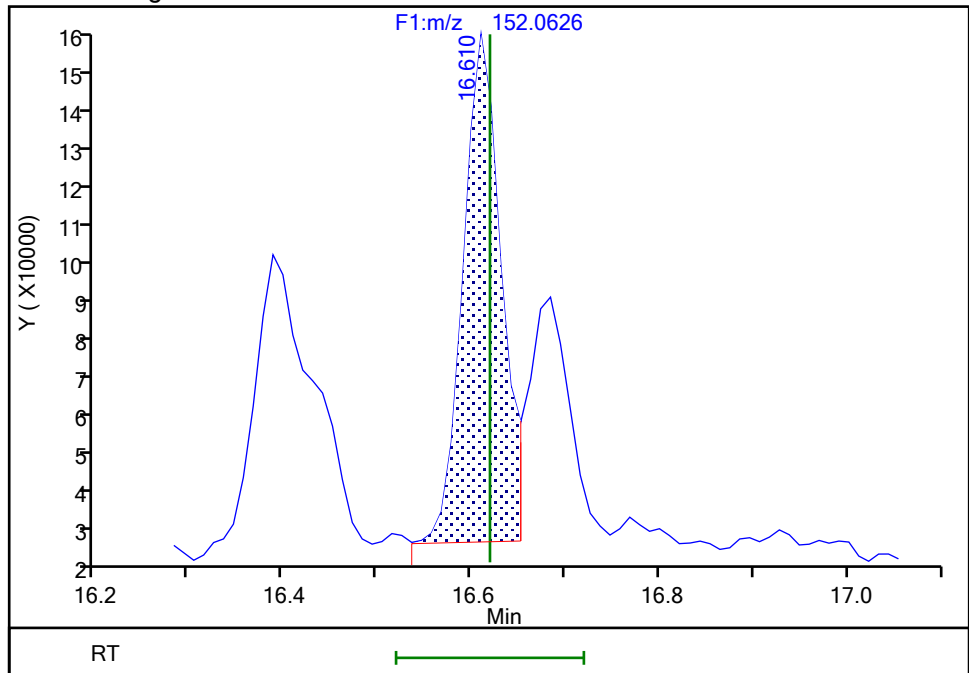
RT: 16.61  
Area: 512273  
Amount: 1.451253  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.61  
Area: 341731  
Amount: 0.968113  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 11:35:23 -04:00:00 (UTC)

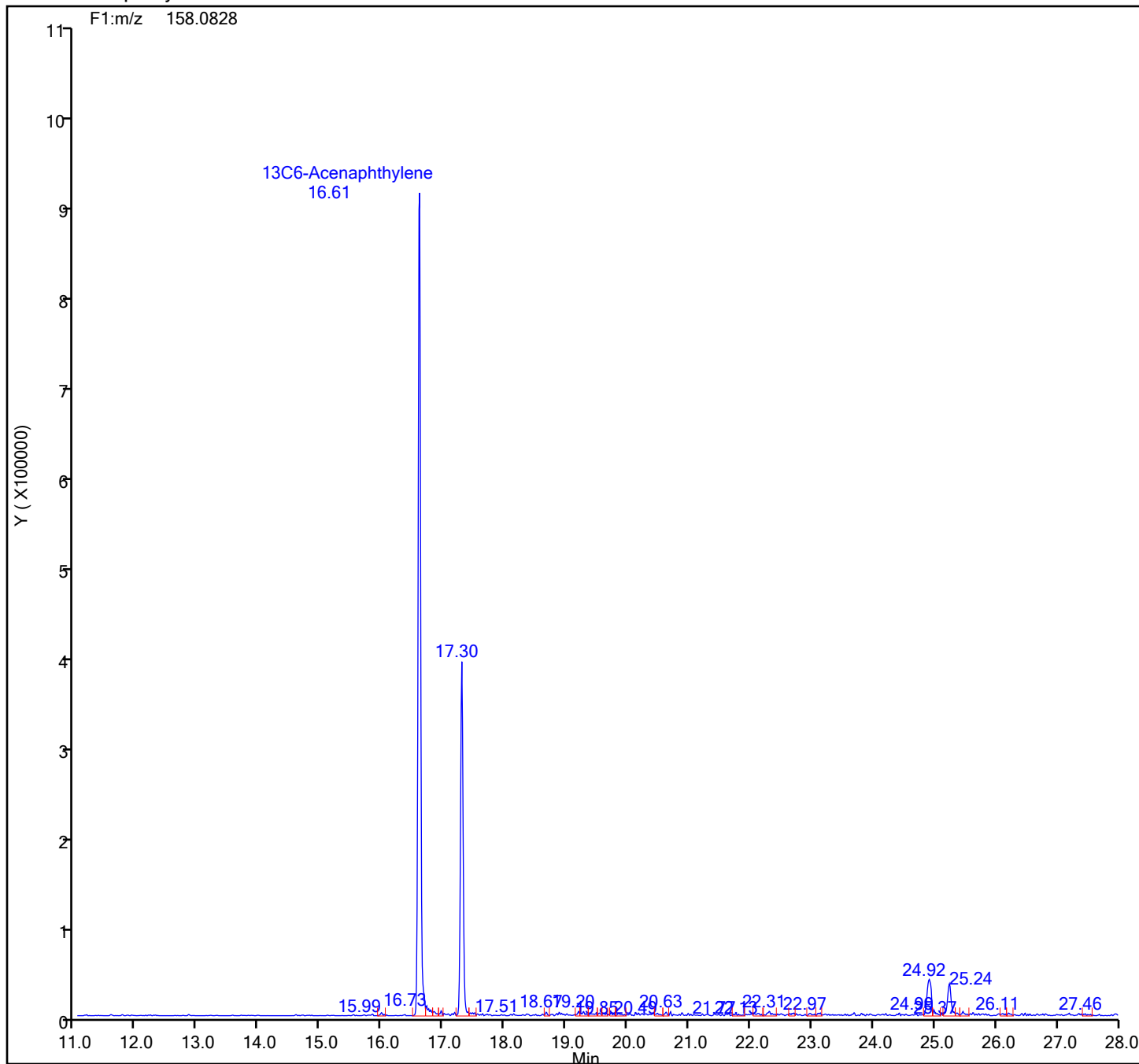
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88999 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

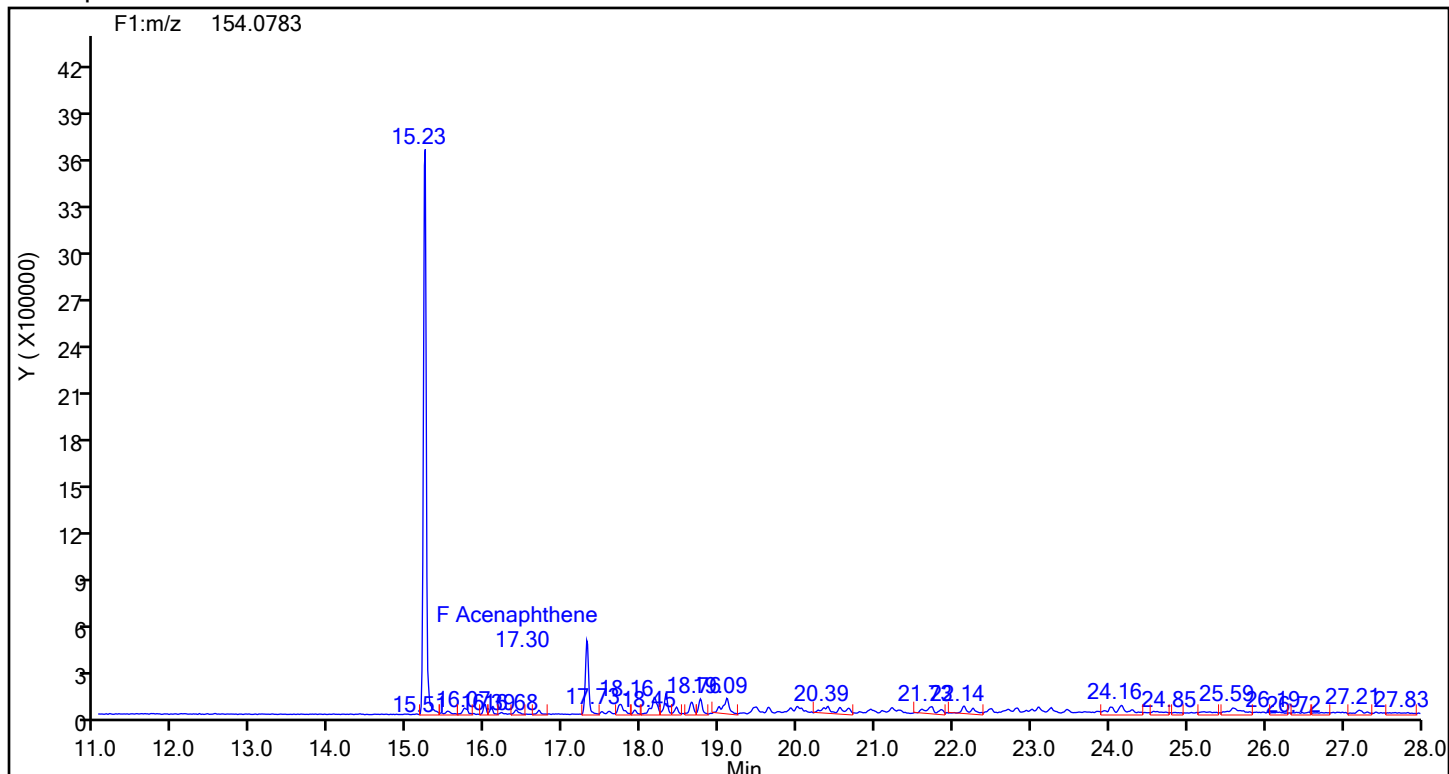
## 13C6-Acenaphthylene Standards



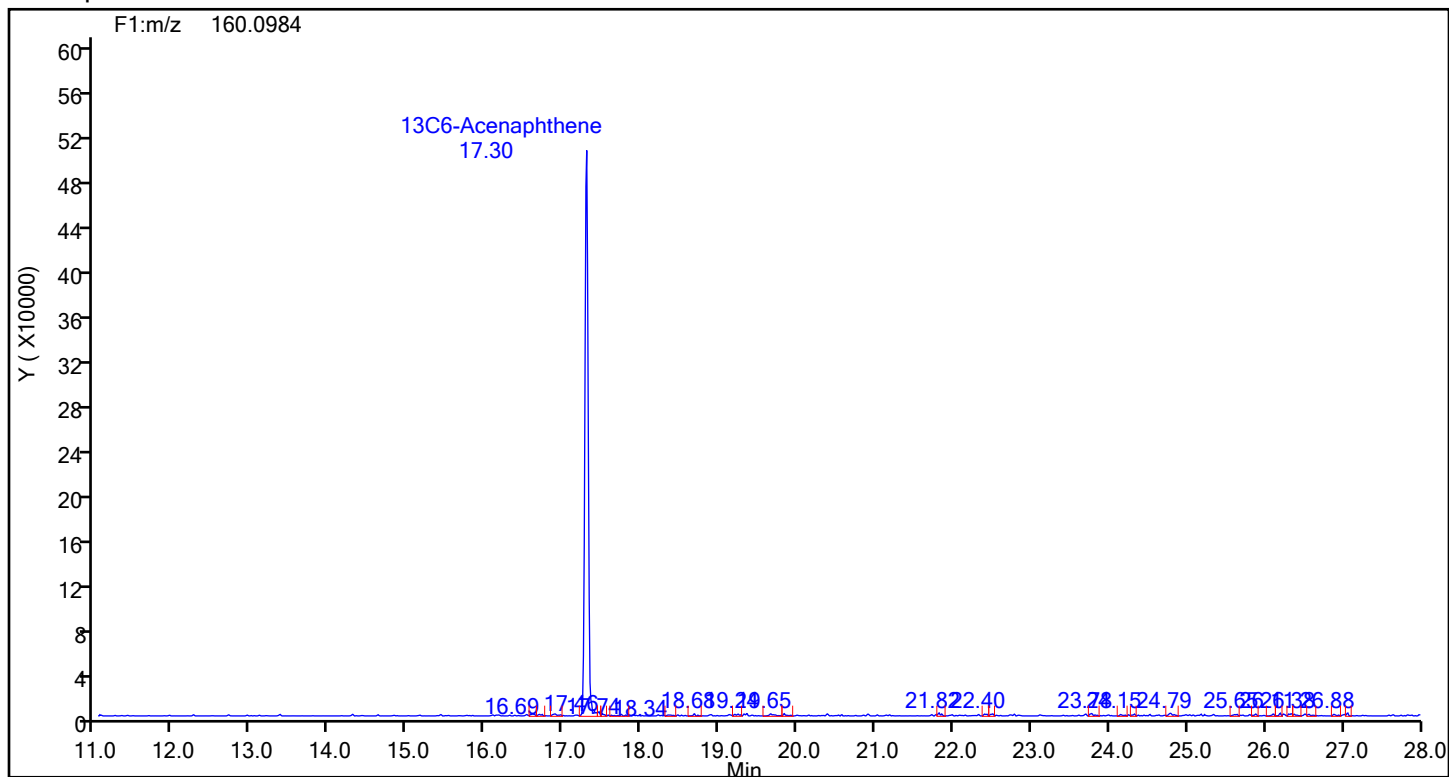
## Eurofins Knoxville

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Injection Date: 20-Jul-2024 10:31:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88999 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



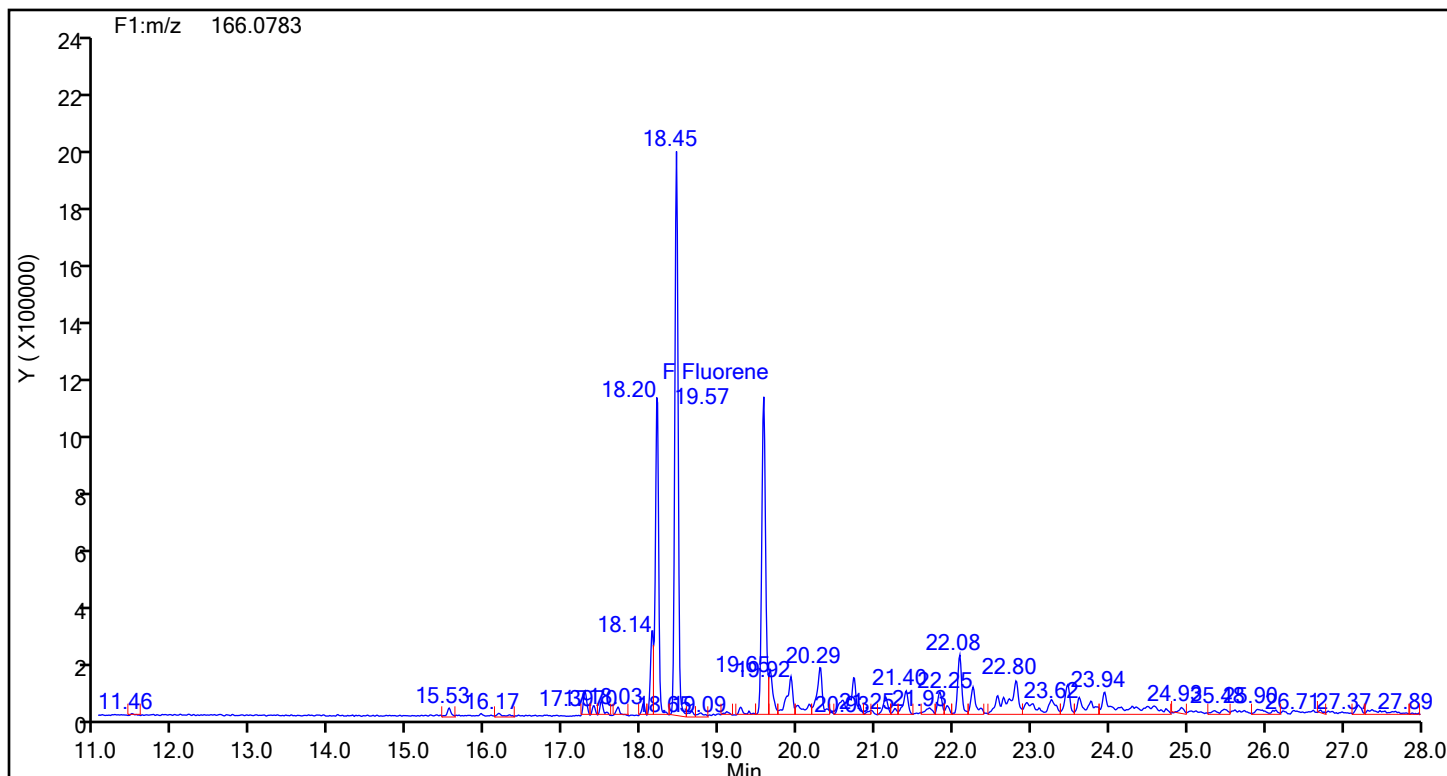
## Acenaphthene Standards



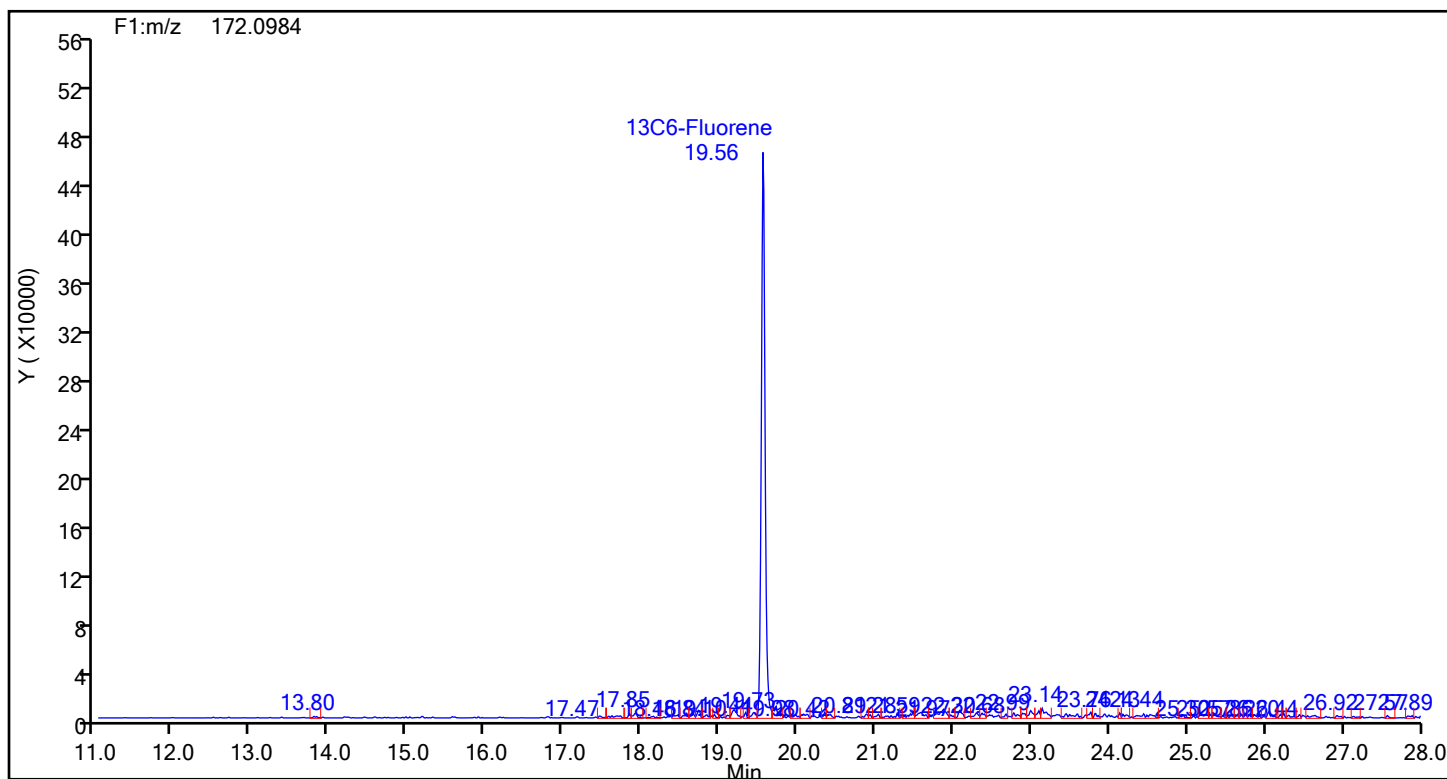
## Eurofins Knoxville

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Injection Date: 20-Jul-2024 10:31:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88999 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene



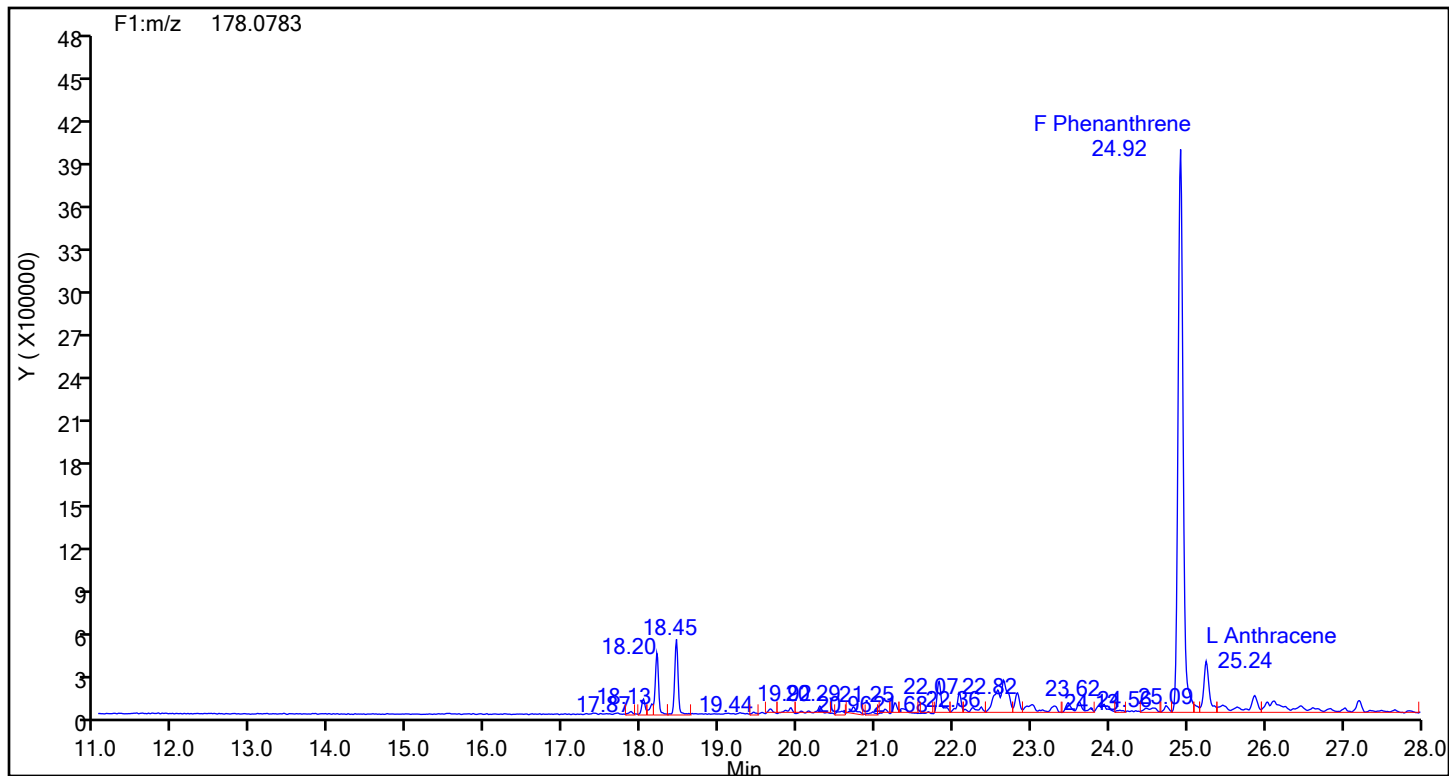
## Fluorene Standards



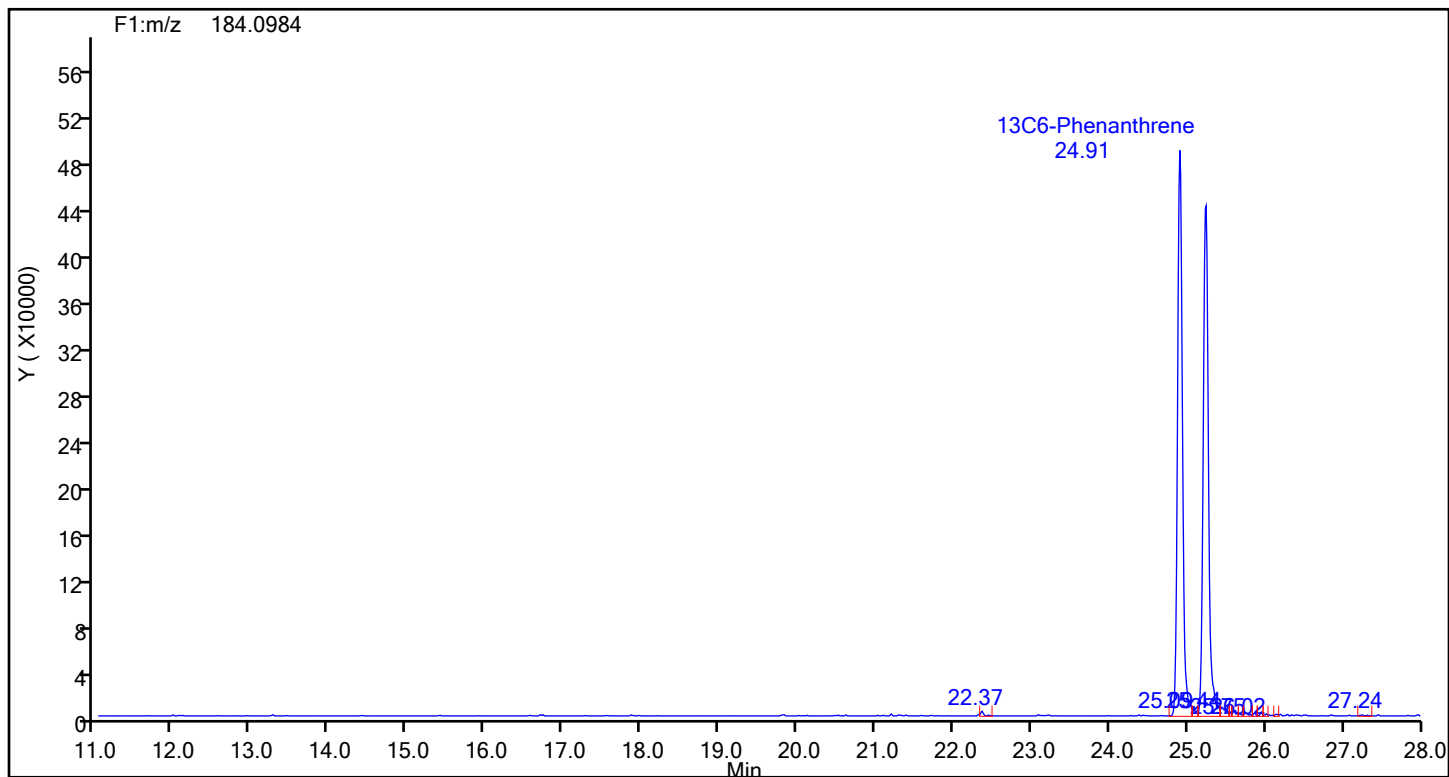
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88999 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Phenanthrene



## Phenanthrene Standards





## Eurofins Knoxville

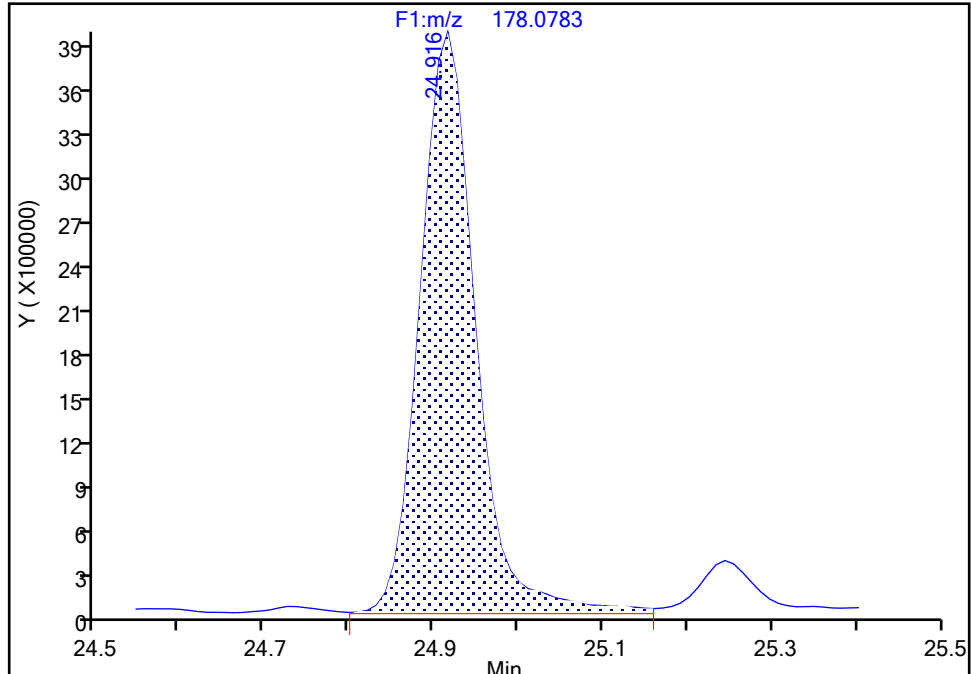
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Injection Date: 20-Jul-2024 10:31:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-1-C Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Phenanthrene, CAS: 85-01-8

Signal: 1

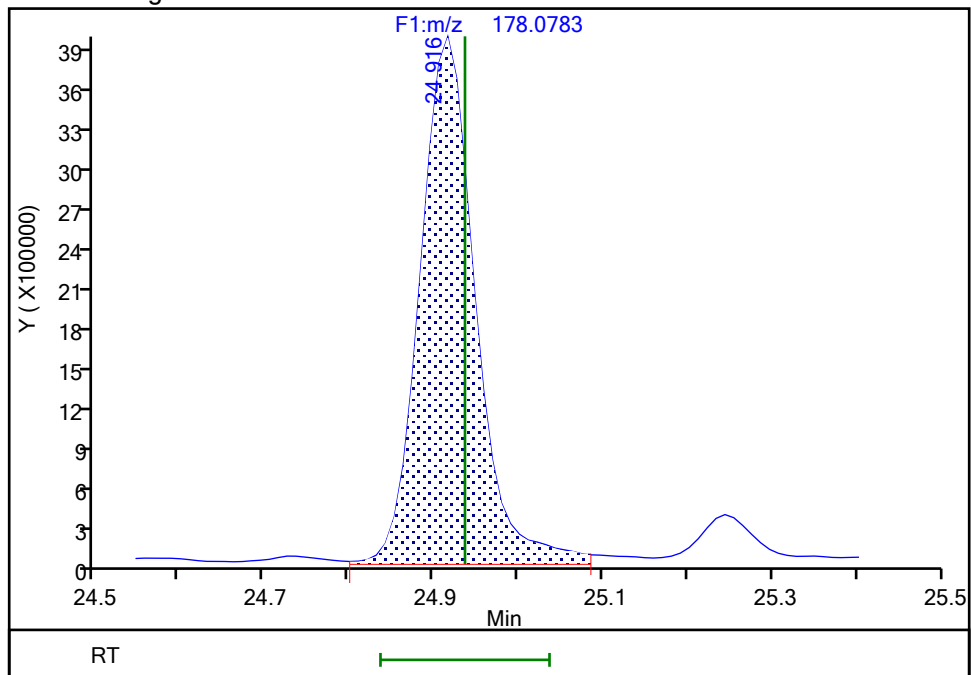
RT: 24.92  
Area: 17965897  
Amount: 76.335195  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.92  
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Amount: 75.537852  
Amount Units: pg/ul

## Manual Integration Results



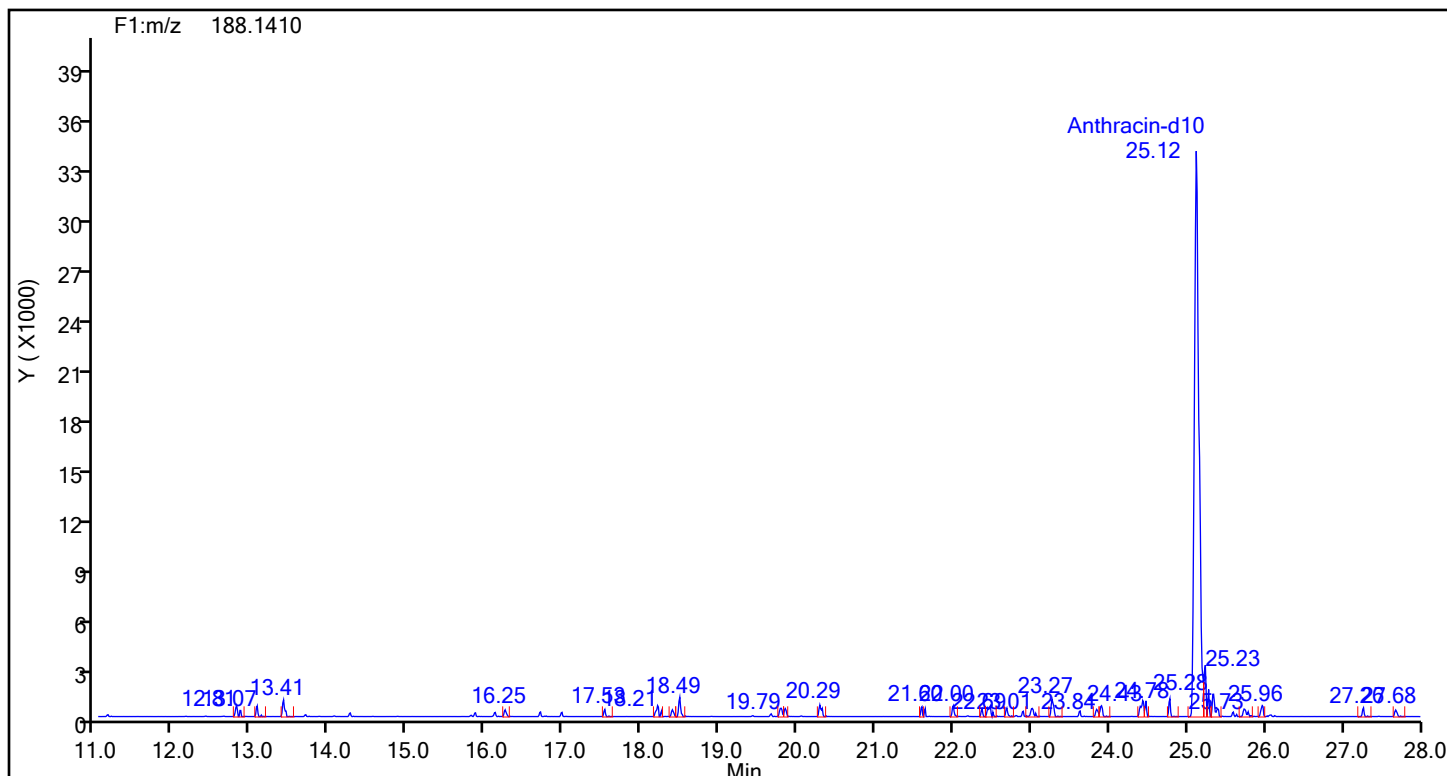
Reviewer: TT6I, 20-Jul-2024 11:35:01 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

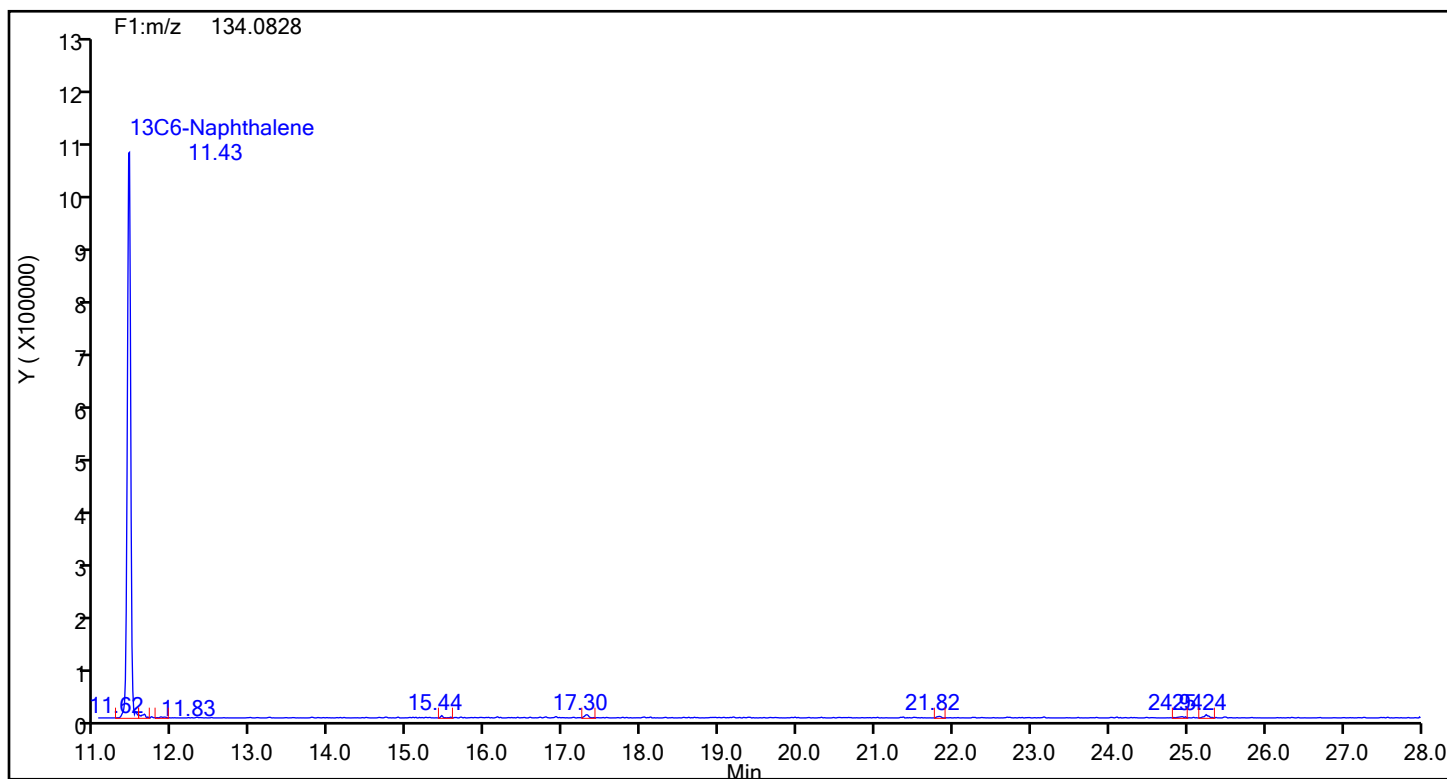
Audit Reason: Incomplete Integration

## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88999 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10

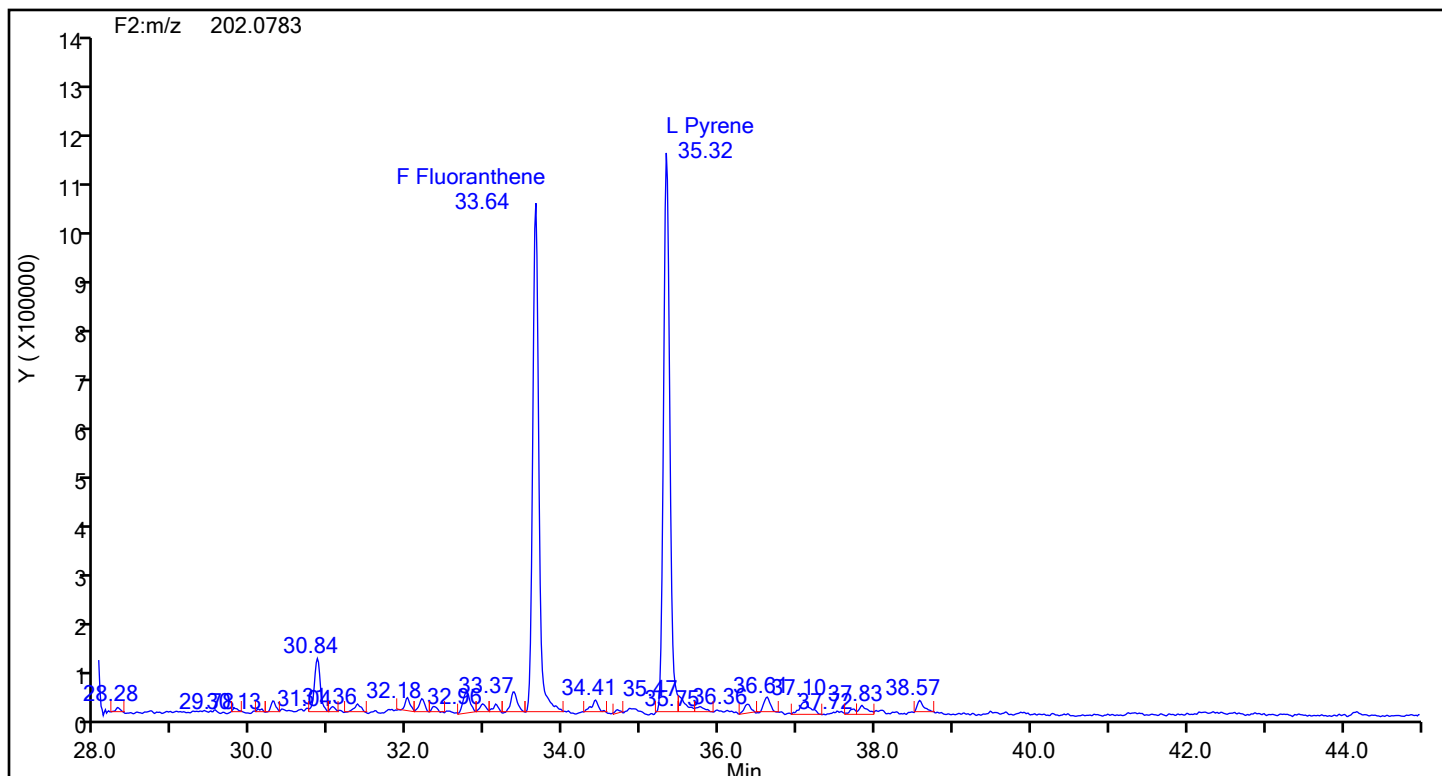


## Anthracin-d10 Standards

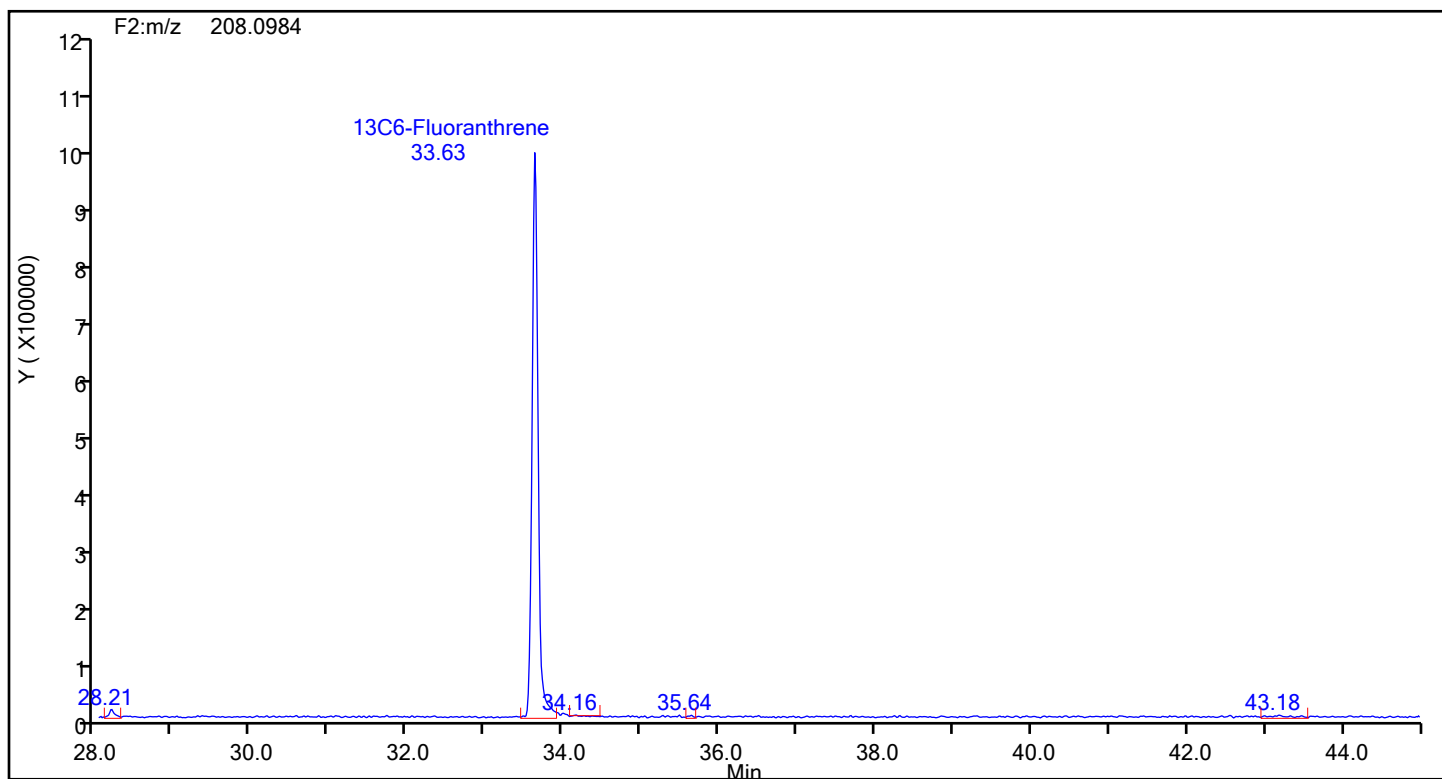


## Eurofins Knoxville

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Injection Date: 20-Jul-2024 10:31:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88999 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Fluoranthene



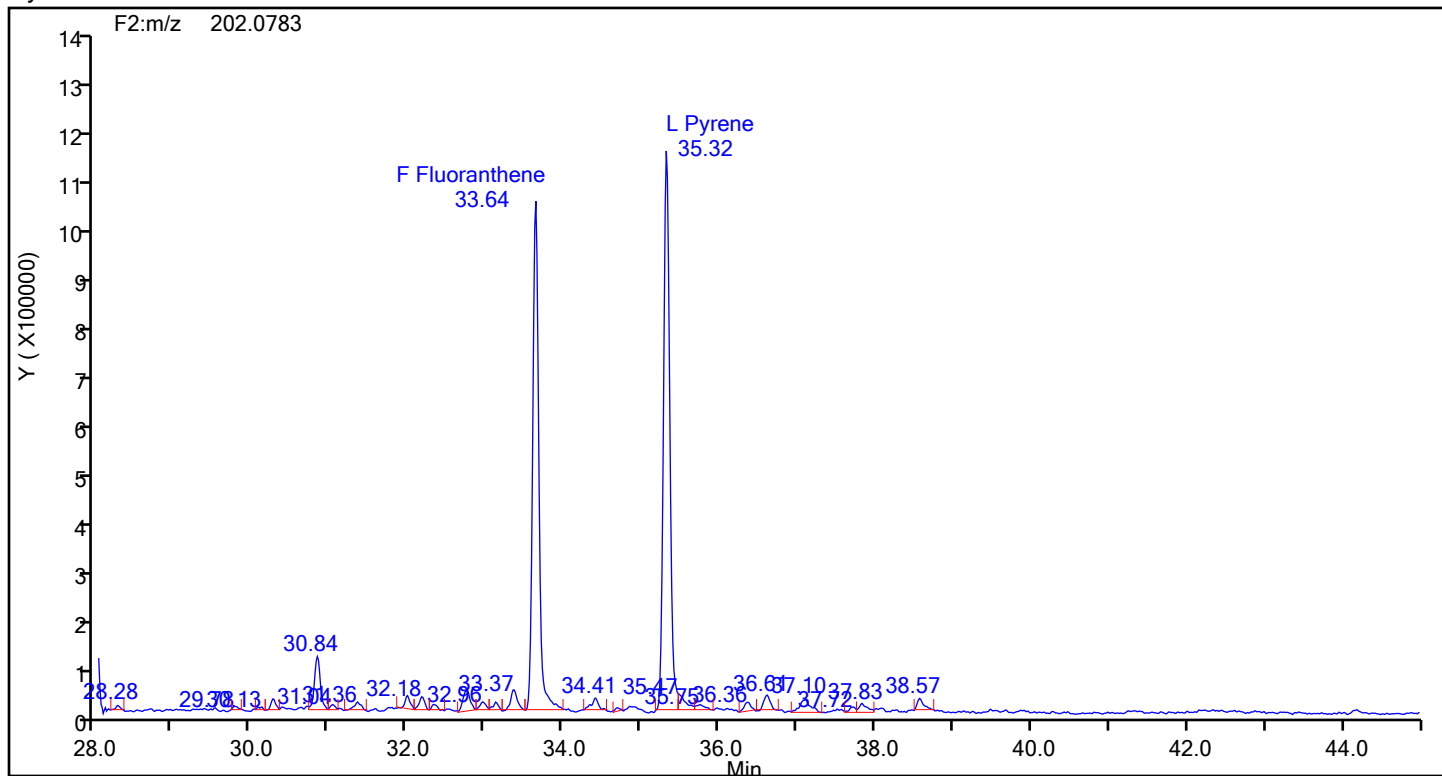
## Fluoranthene Standards



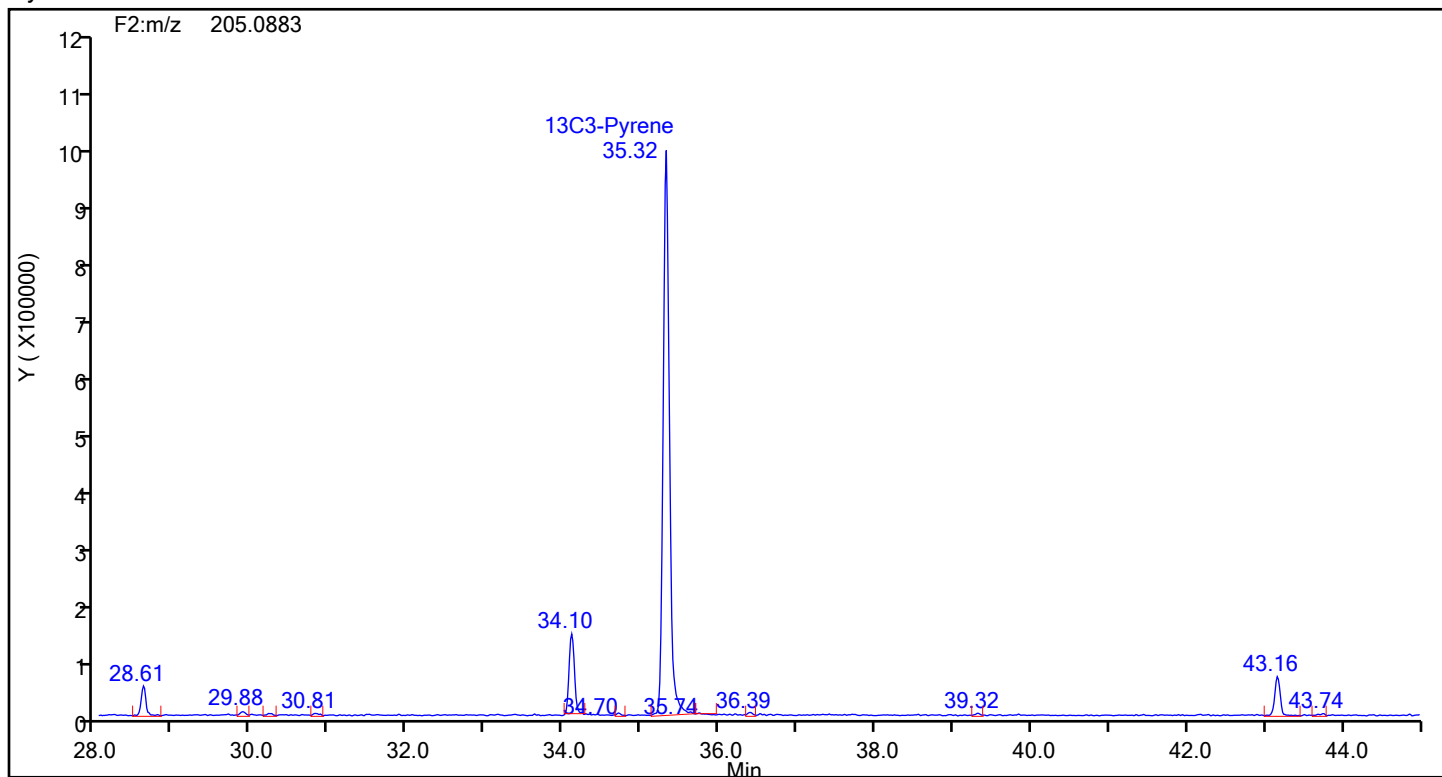
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88999 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Pyrene



## Pyrene Standards



## Eurofins Knoxville

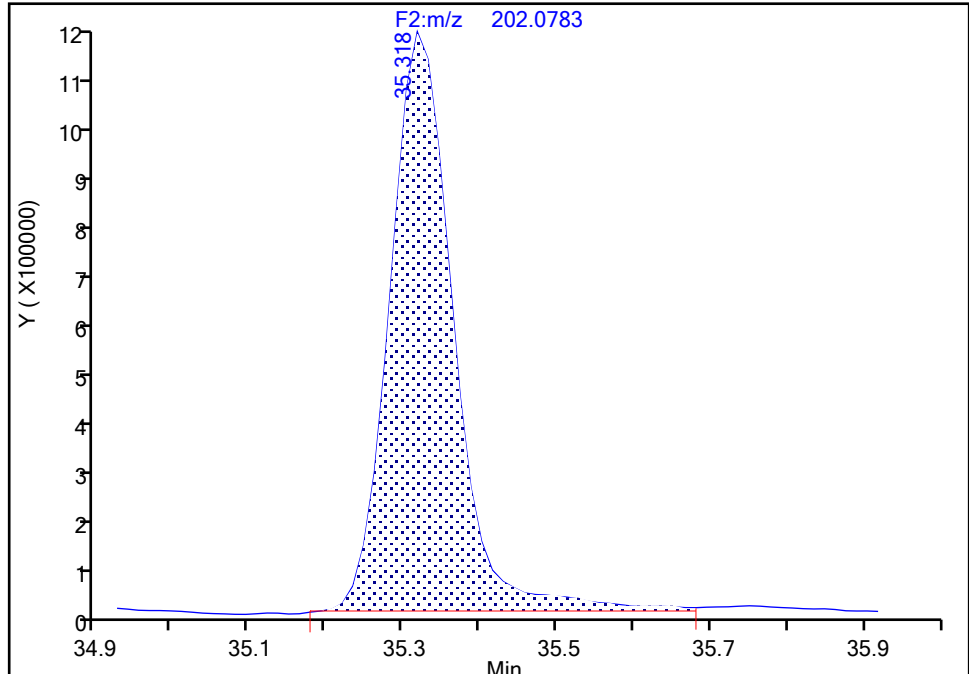
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-1-C Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F2(28.03 :43.99 )

Pyrene, CAS: 129-00-0

Signal: 1

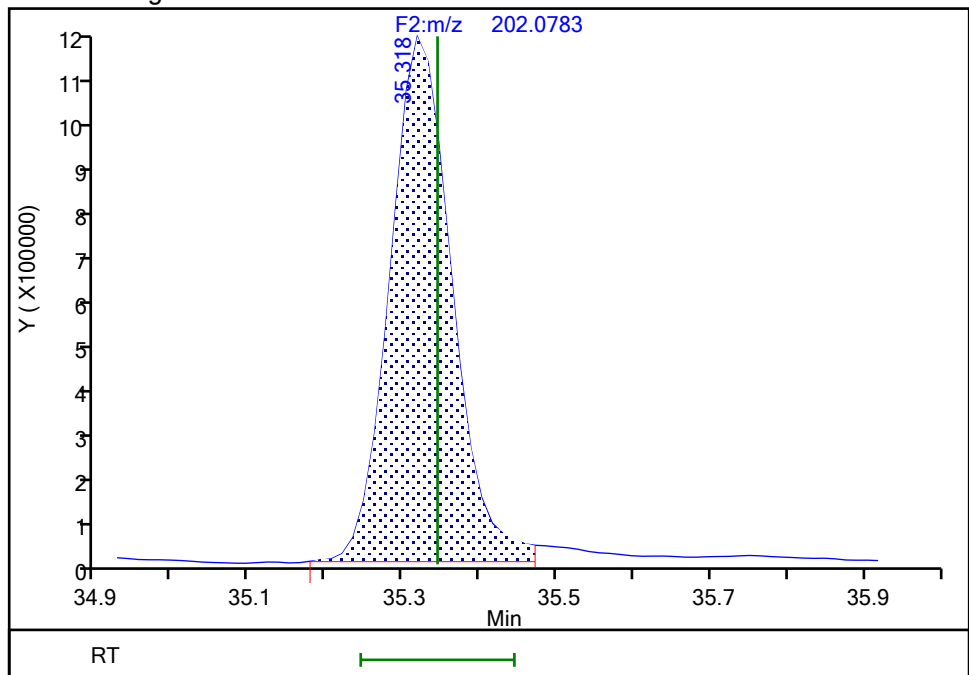
RT: 35.32  
Area: 6367763  
Amount: 11.452832  
Amount Units: pg/ul

## Processing Integration Results



RT: 35.32  
Area: 6162230  
Amount: 11.083168  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 11:35:18 -04:00:00 (UTC)

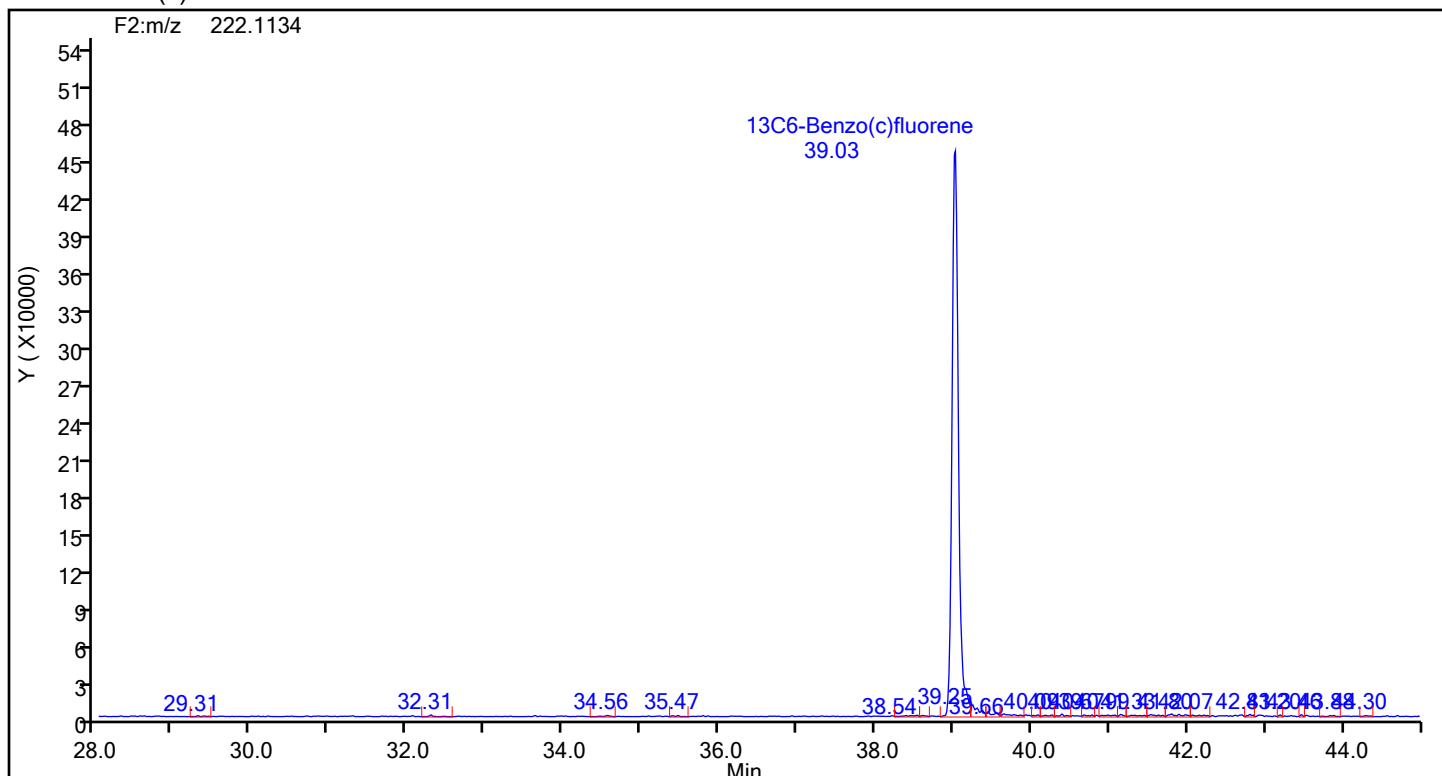
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

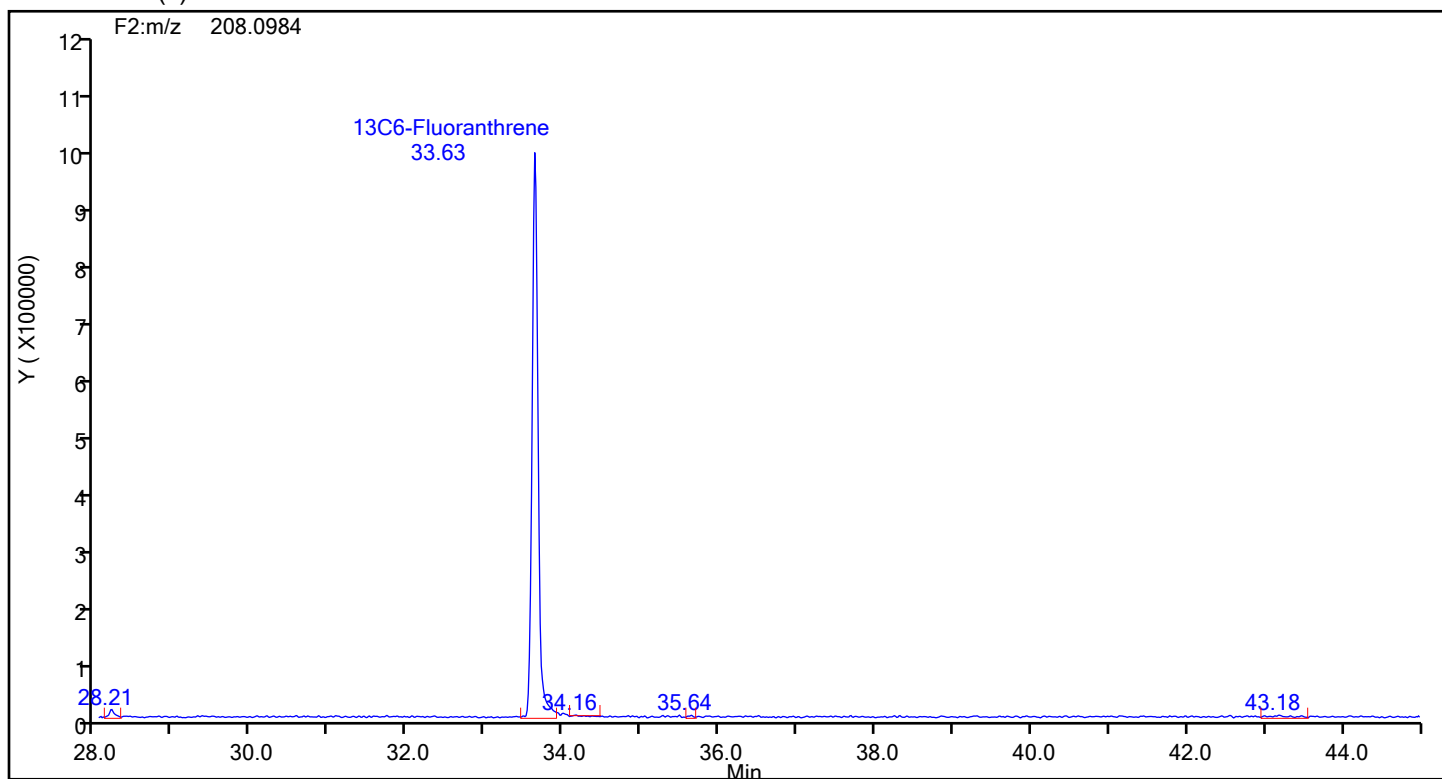
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88999 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C6-Benzo(c)fluorene



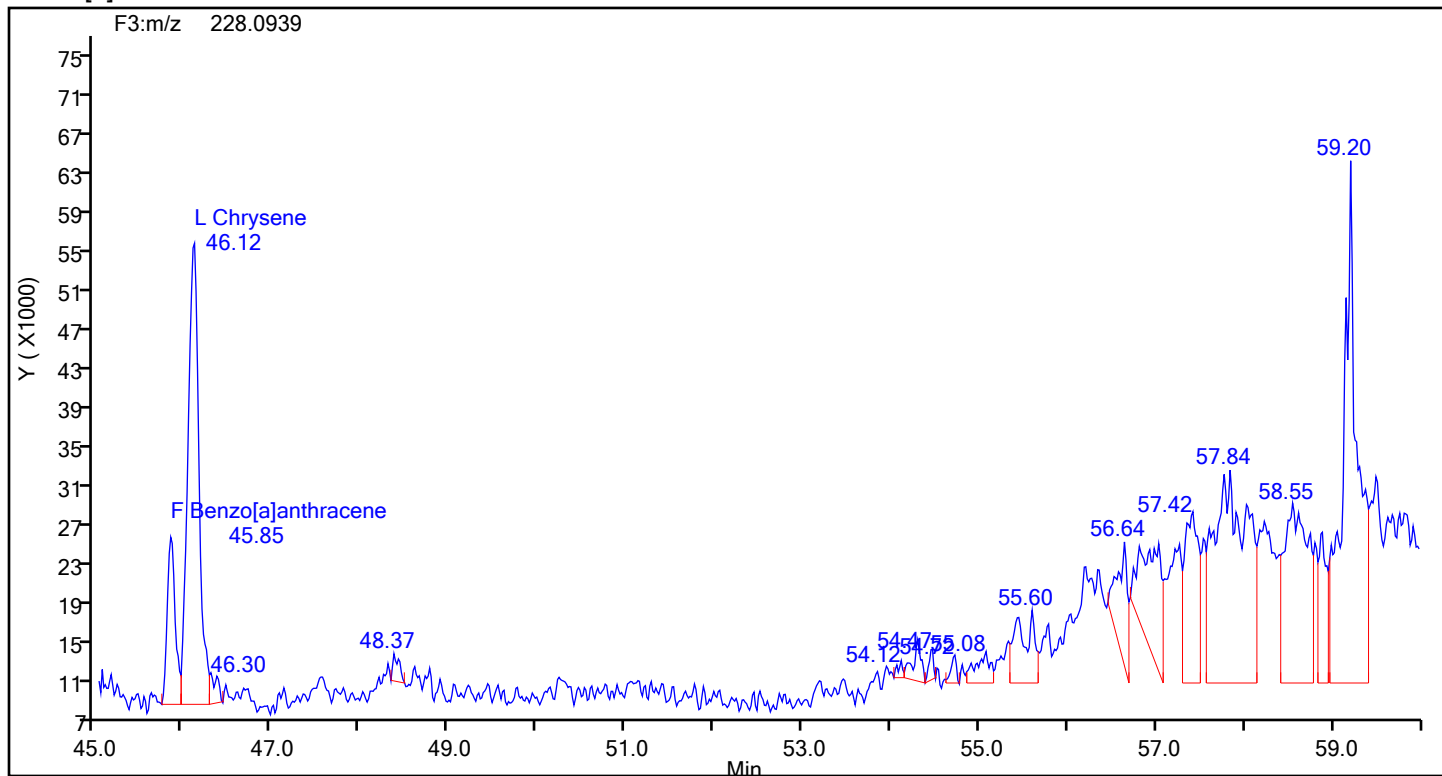
## 13C6-Benzo(c)fluorene Standards



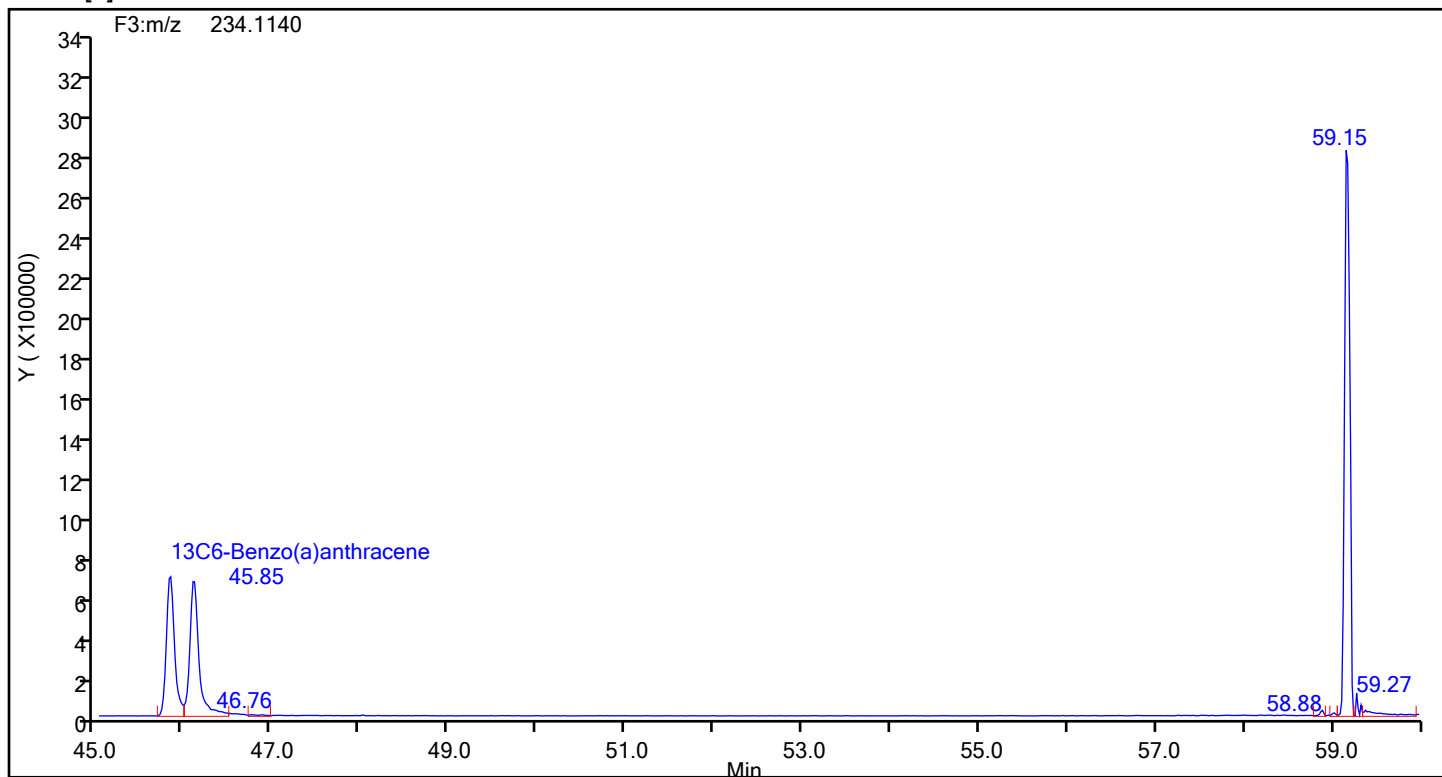
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88999 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



## Benzo[a]anthracene Standards



## Eurofins Knoxville

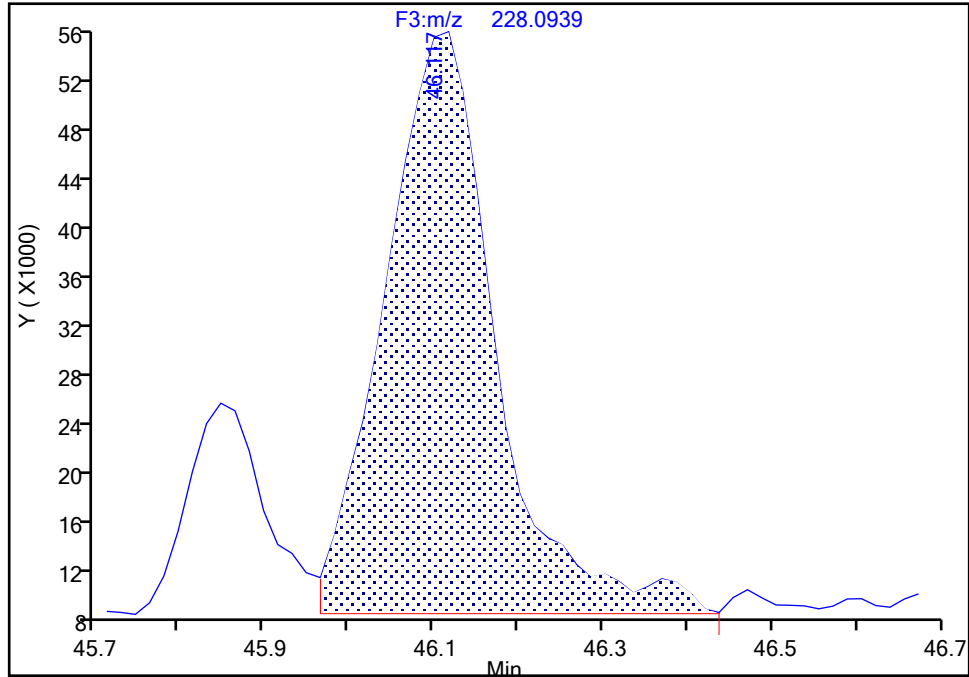
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-1-C Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Chrysene, CAS: 218-01-9

Signal: 1

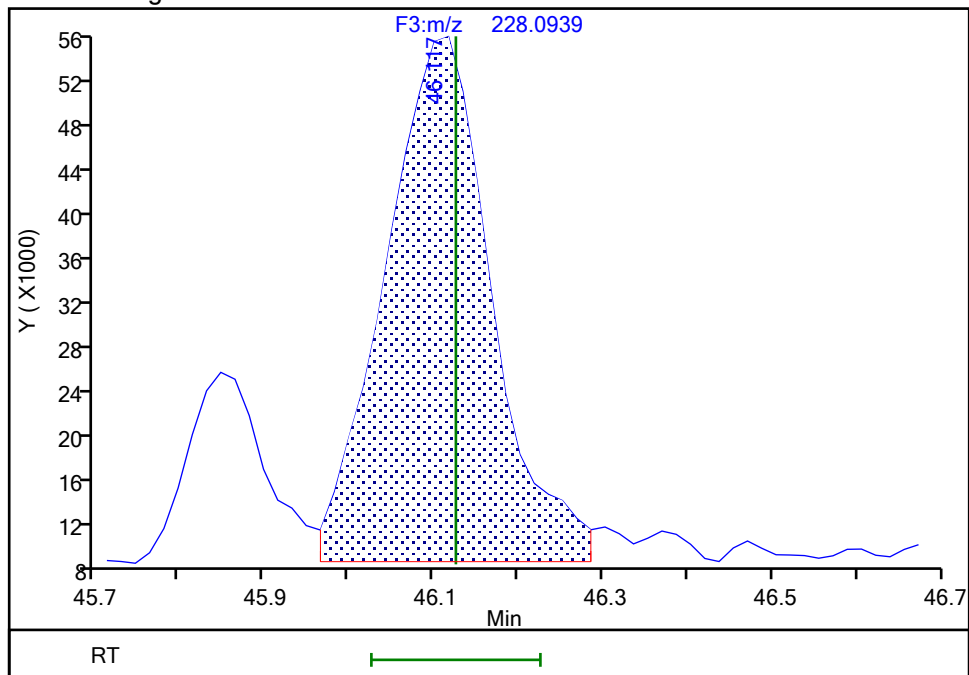
RT: 46.12  
Area: 431957  
Amount: 0.914501  
Amount Units: pg/ul

## Processing Integration Results



RT: 46.12  
Area: 416645  
Amount: 0.882084  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 11:34:47 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

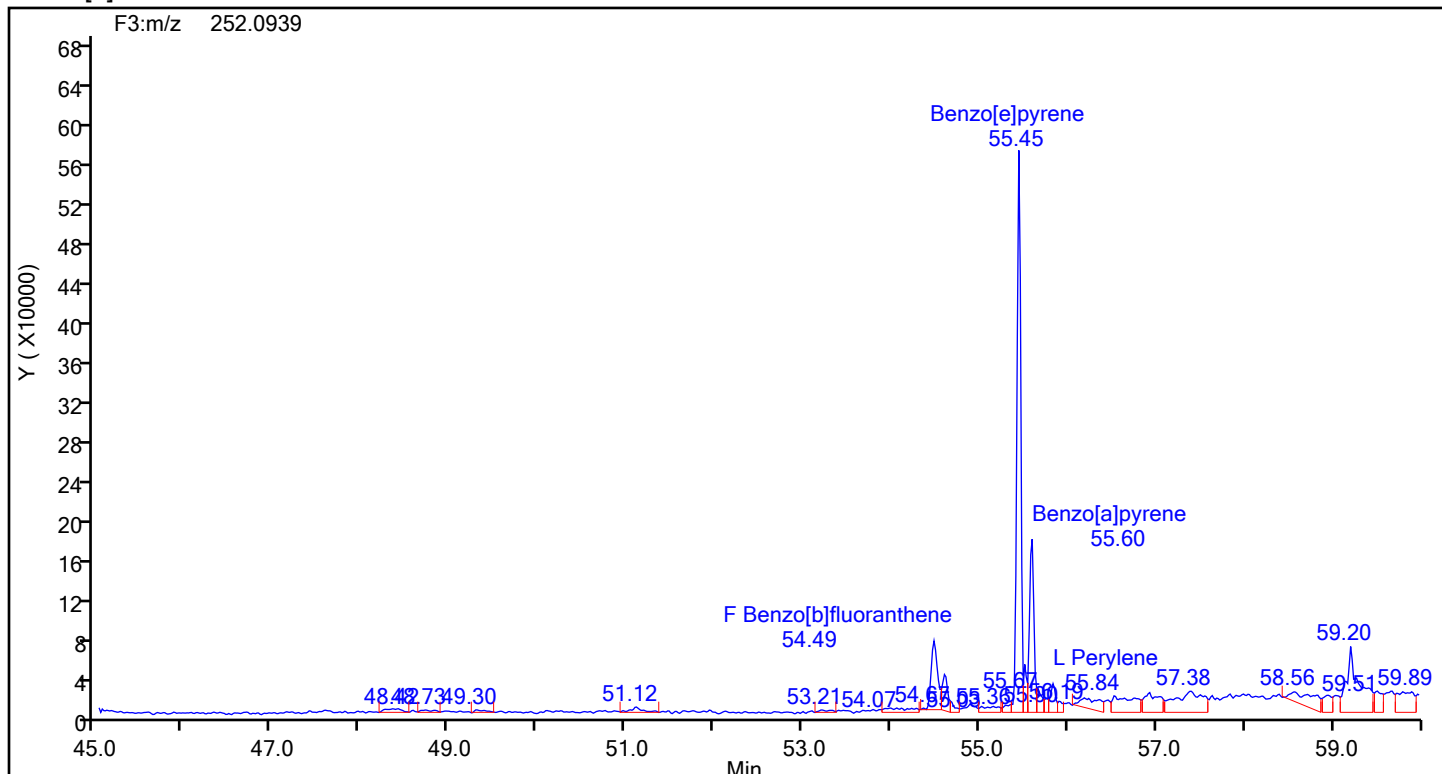
Audit Reason: Incomplete Integration



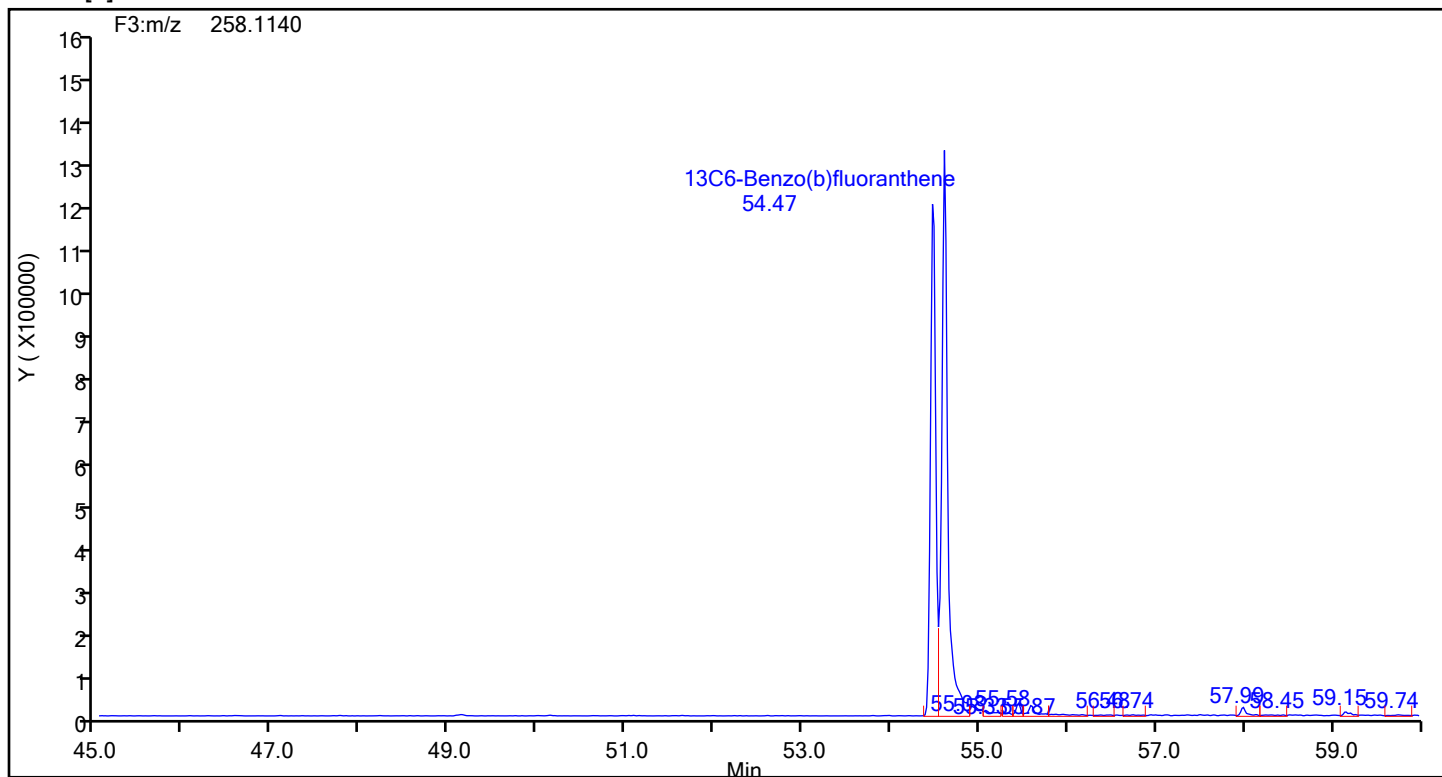
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88999 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



## Benzo[b]fluoranthene Standards



## Eurofins Knoxville

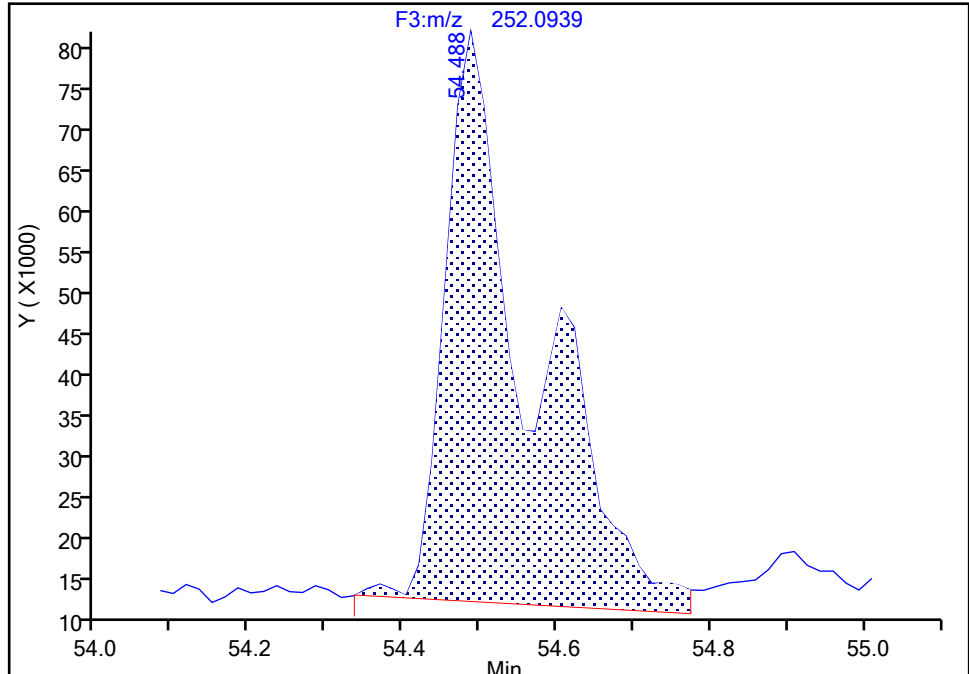
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-1-C Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

## Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

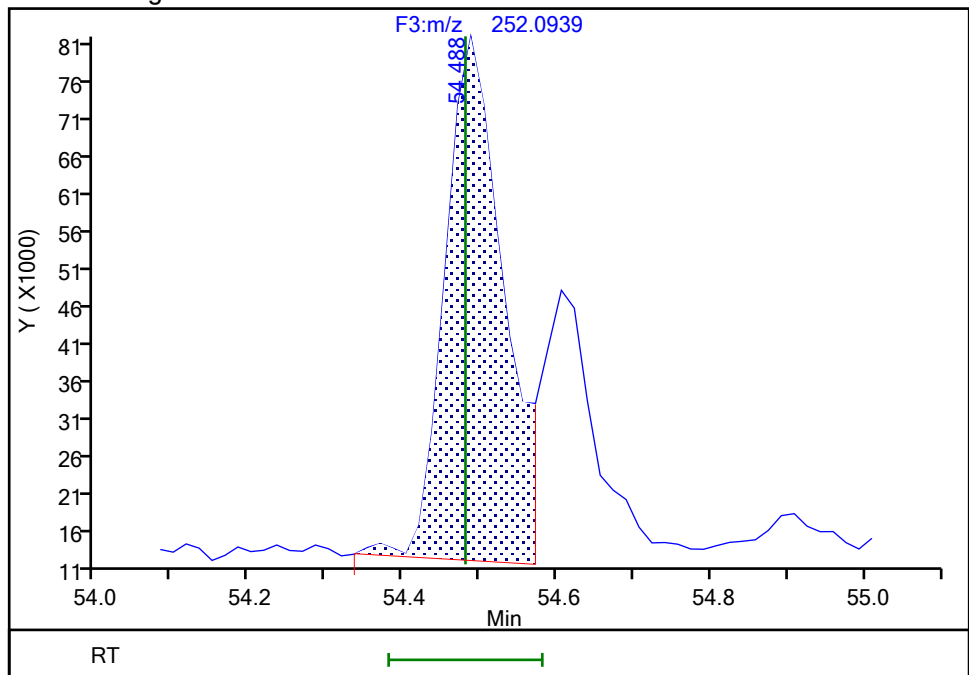
RT: 54.49  
Area: 544142  
Amount: 0.983630  
Amount Units: pg/ul

## Processing Integration Results



RT: 54.49  
Area: 372102  
Amount: 0.672638  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 11:34:51 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

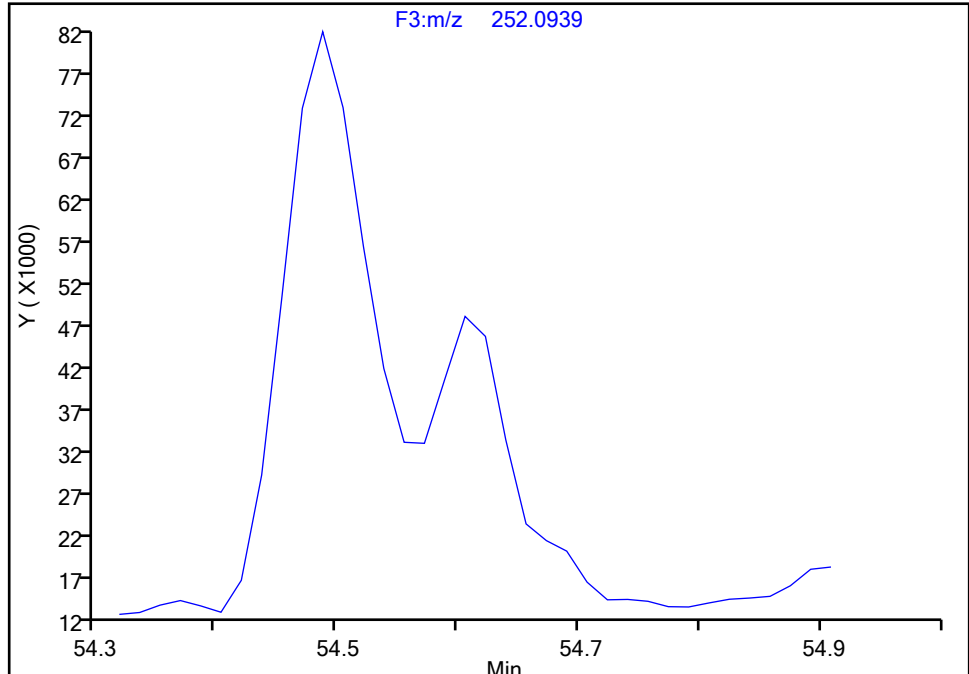
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-1-C Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

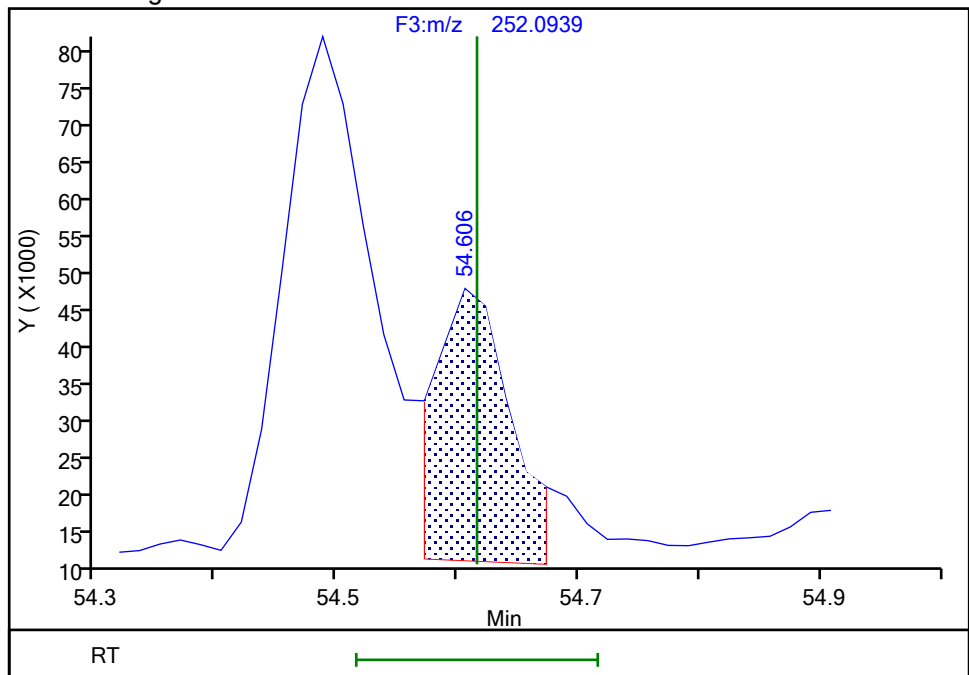
Not Detected  
Expected RT: 54.62

## Processing Integration Results



## Manual Integration Results

RT: 54.61  
Area: 165702  
Amount: 0.232184  
Amount Units: pg/ul



Reviewer: TT6I, 20-Jul-2024 11:35:47 -04:00:00 (UTC)

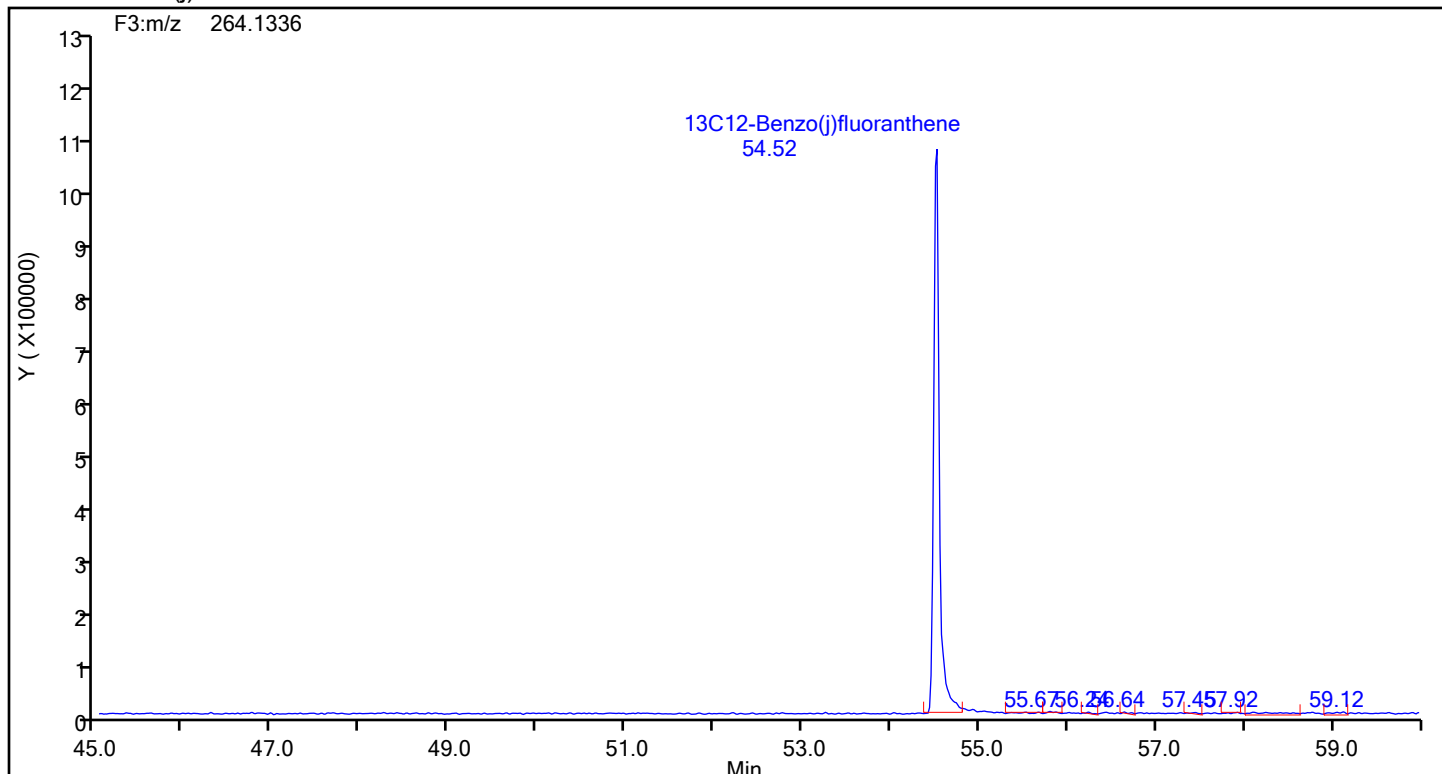
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

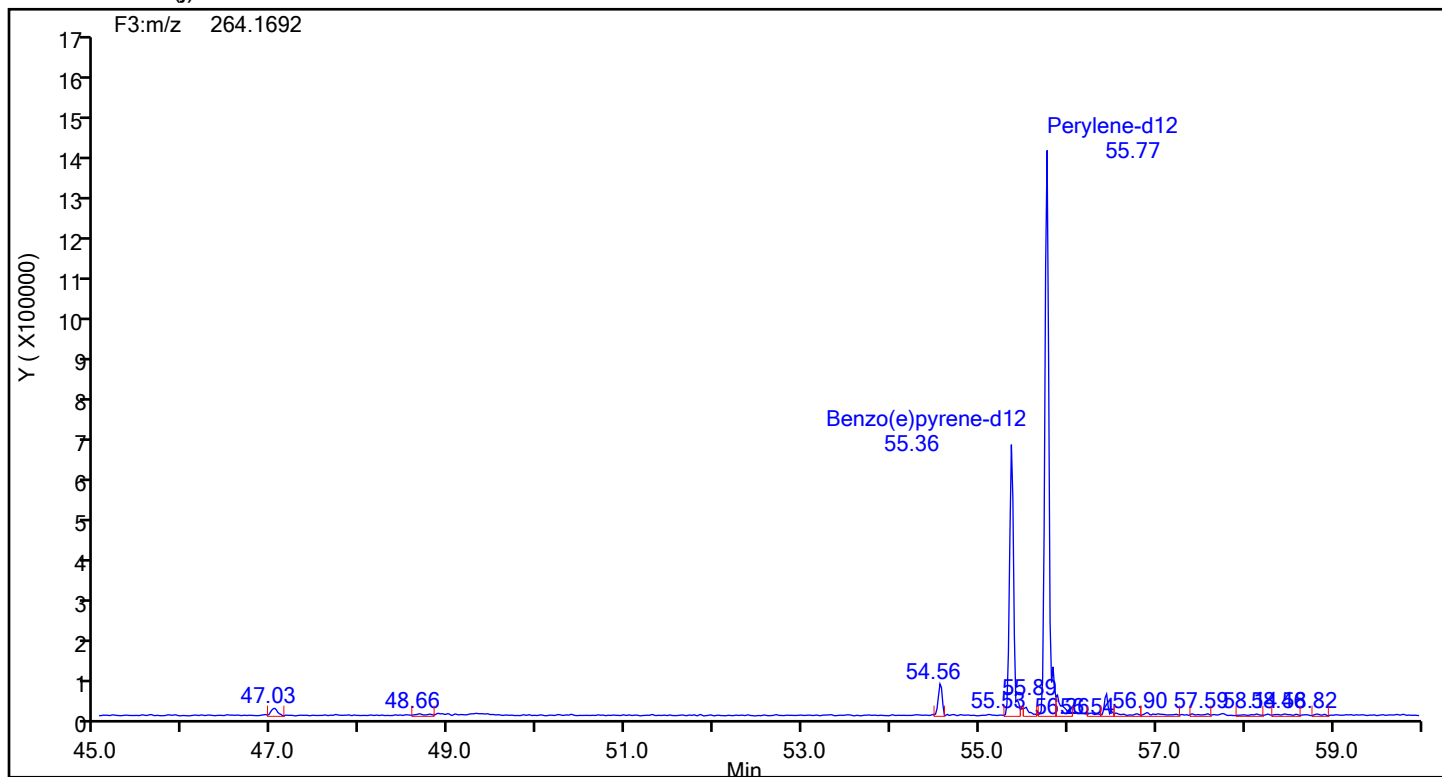
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88999 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



## 13C12-Benzo(j)fluoranthene Standards



## Eurofins Knoxville

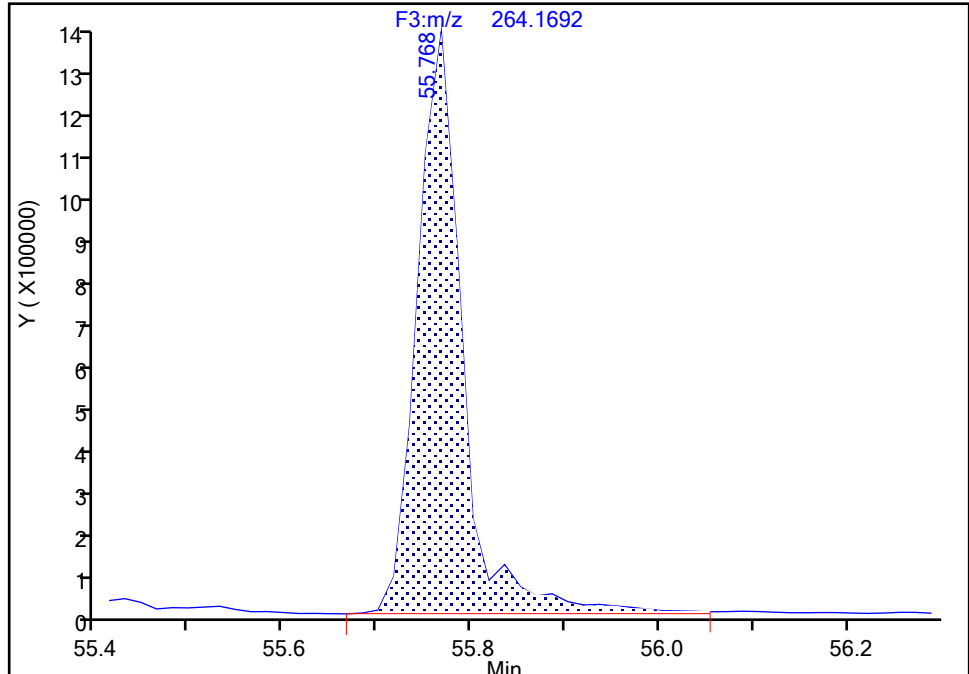
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-1-C Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Perylene-d12, CAS: 1520-96-3

Signal: 1

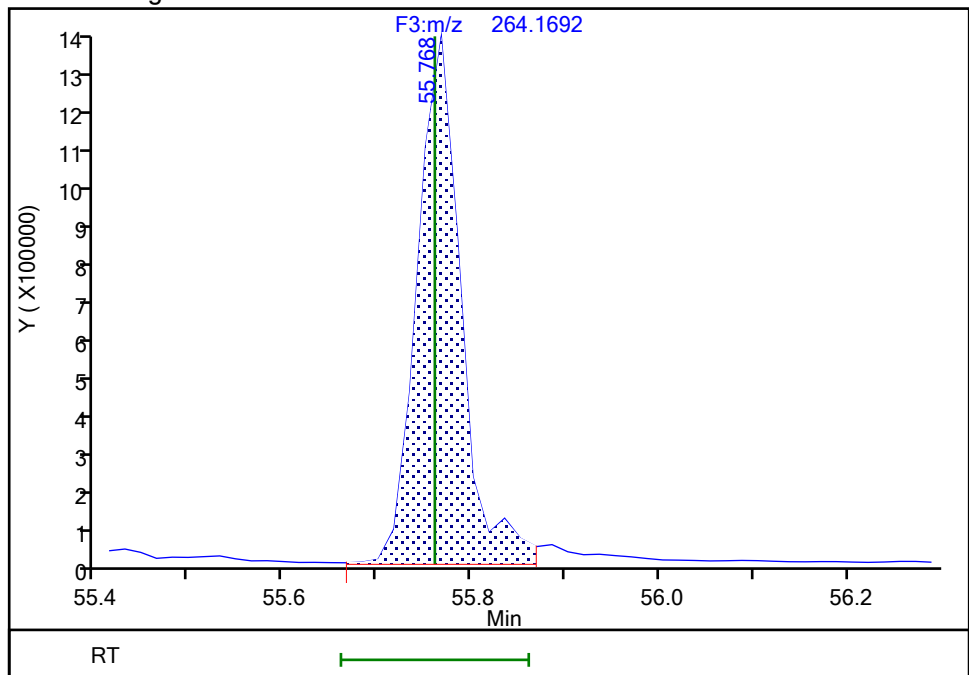
RT: 55.77  
Area: 4584574  
Amount: 9.211383  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.77  
Area: 4388819  
Amount: 8.818069  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 11:34:12 -04:00:00 (UTC)

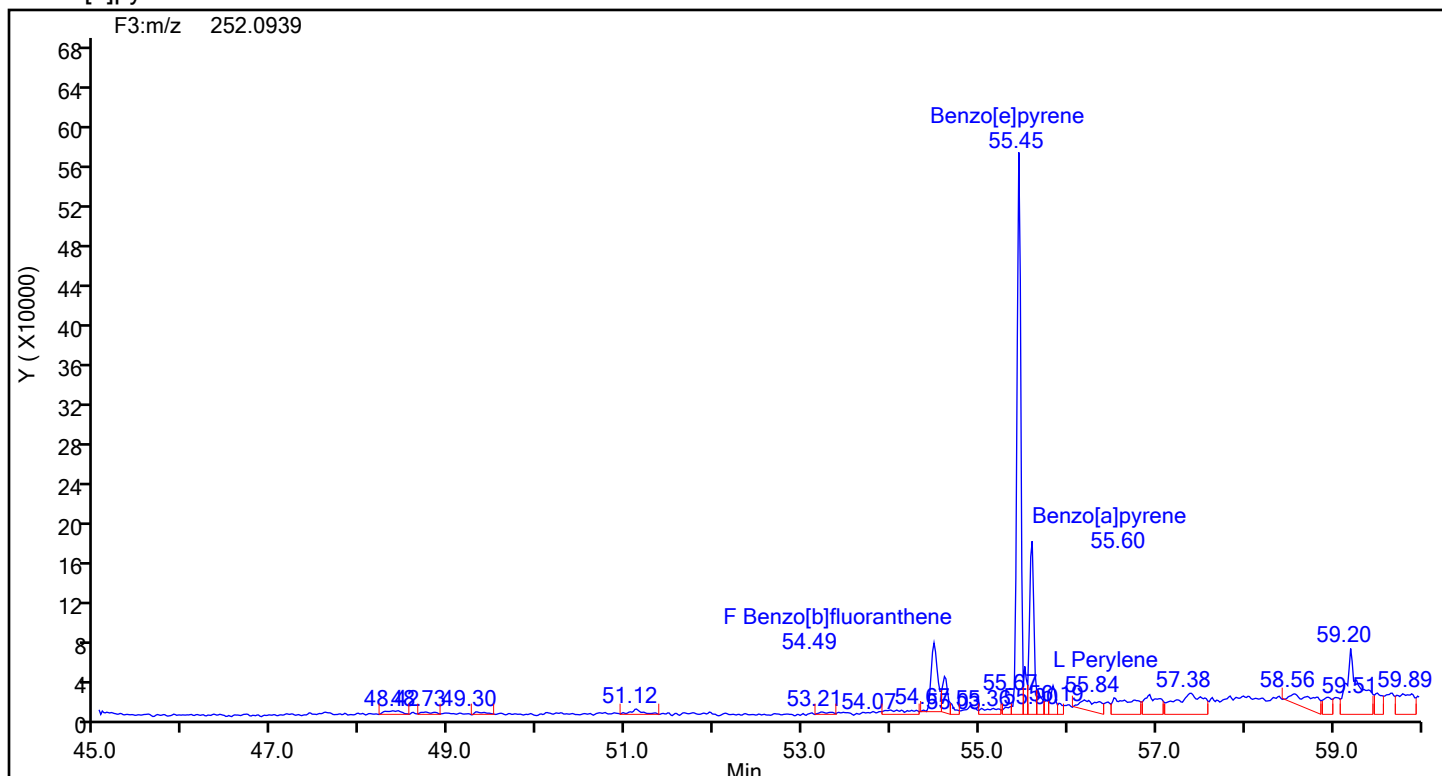
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

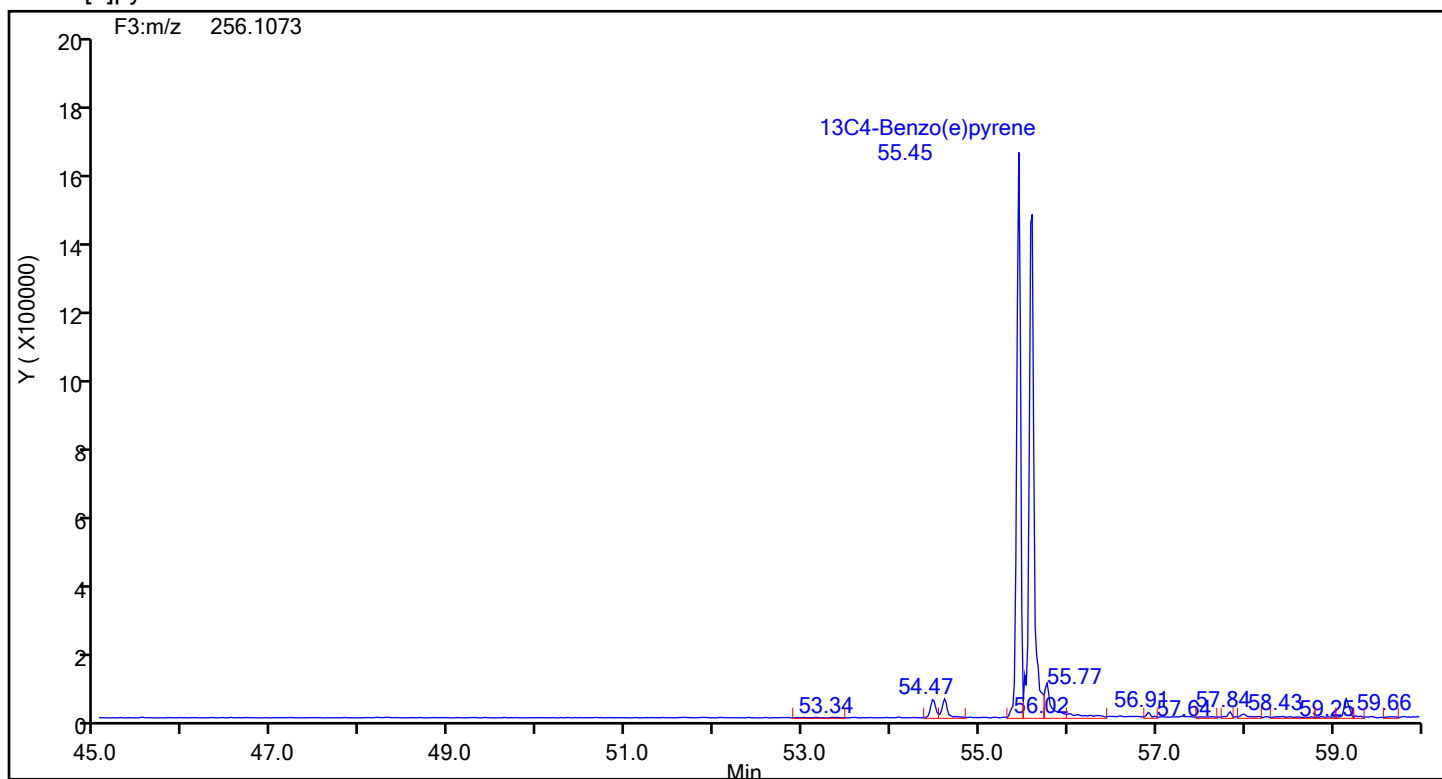
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88999 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[e]pyrene



## Benzo[e]pyrene Standards



## Eurofins Knoxville

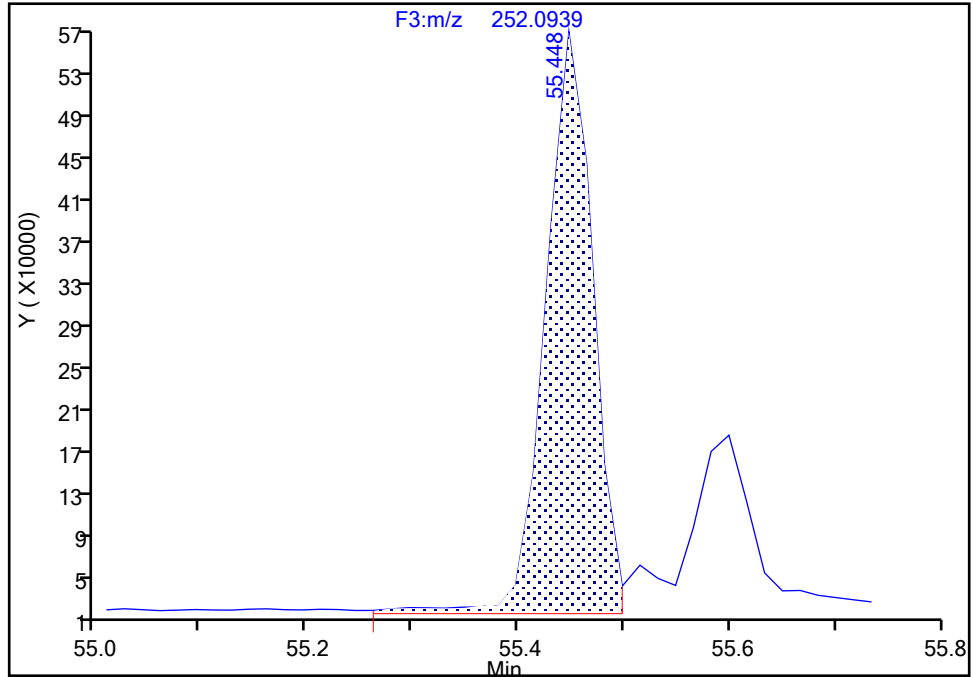
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-1-C Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

## Benzo[e]pyrene, CAS: 192-97-2

Signal: 1

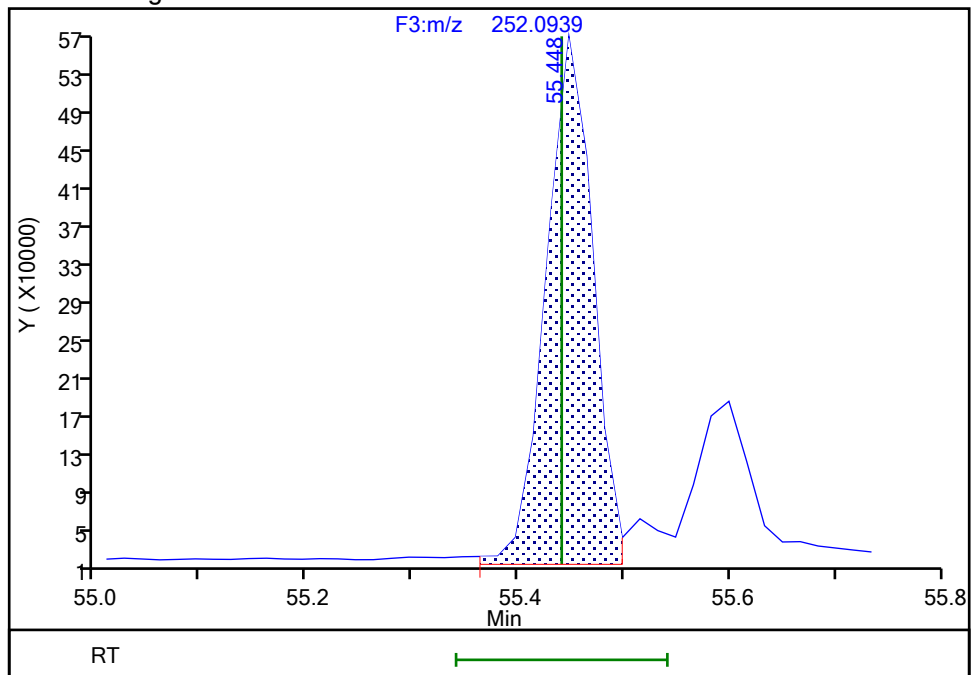
RT: 55.45  
Area: 1751025  
Amount: 3.510732  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.45  
Area: 1731840  
Amount: 3.472267  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 11:34:19 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

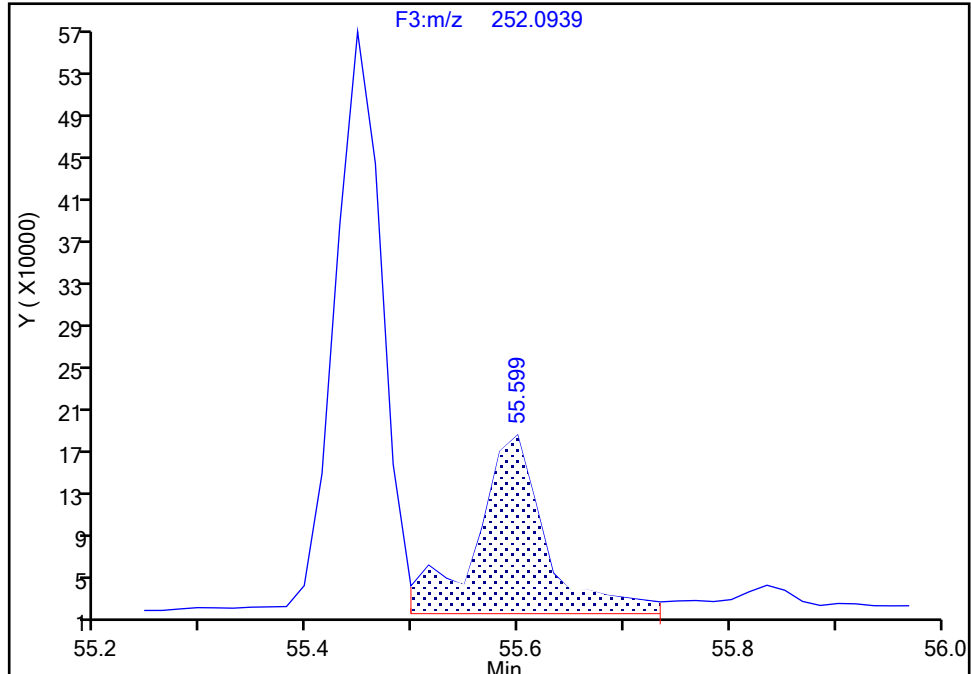
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-1-C Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

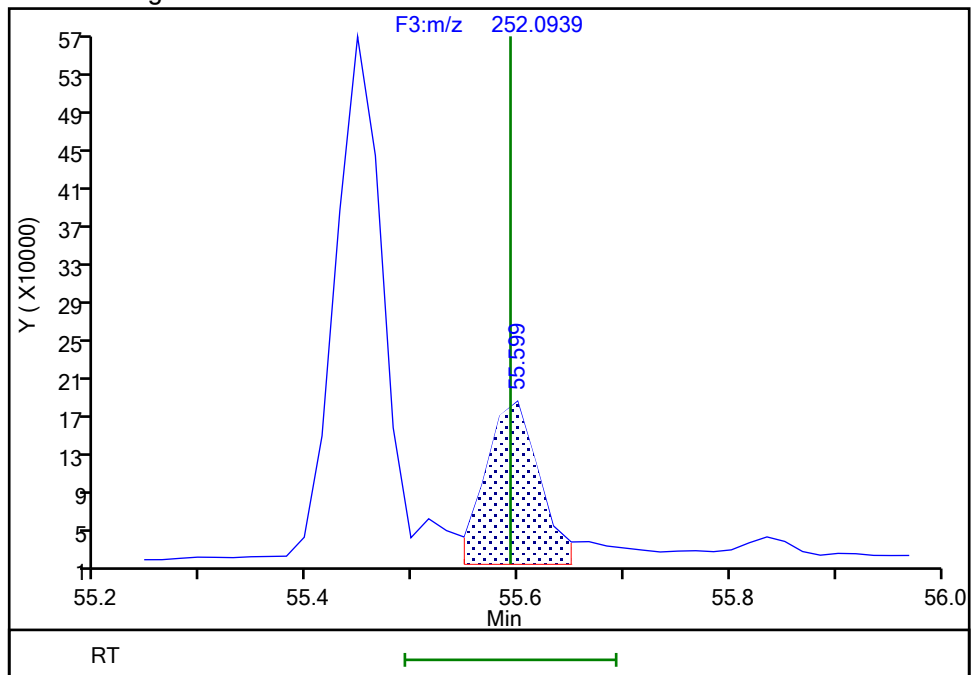
RT: 55.60  
Area: 790975  
Amount: 1.224719  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.60  
Area: 616760  
Amount: 0.954970  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 11:35:34 -04:00:00 (UTC)

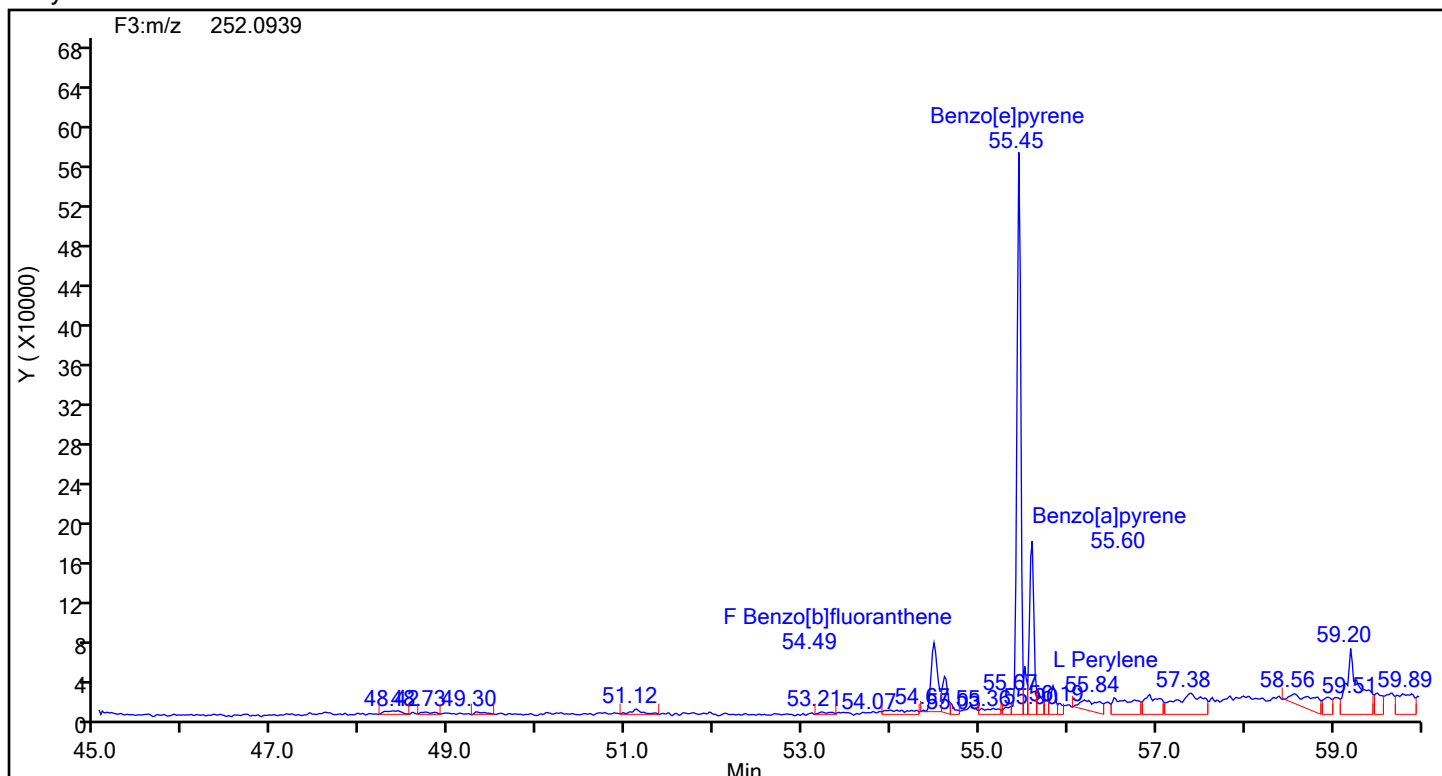
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

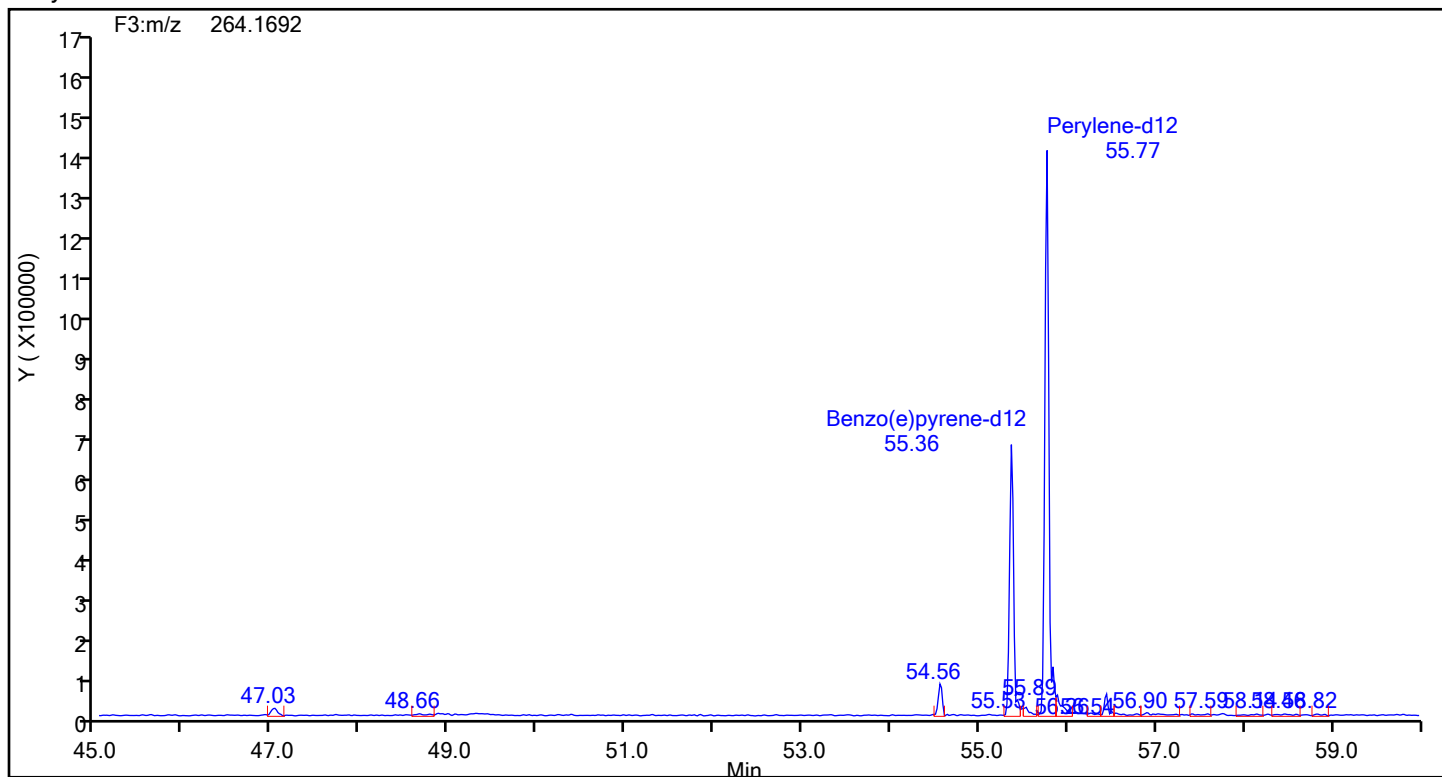


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88999 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Perylene



## Perylene Standards



## Eurofins Knoxville

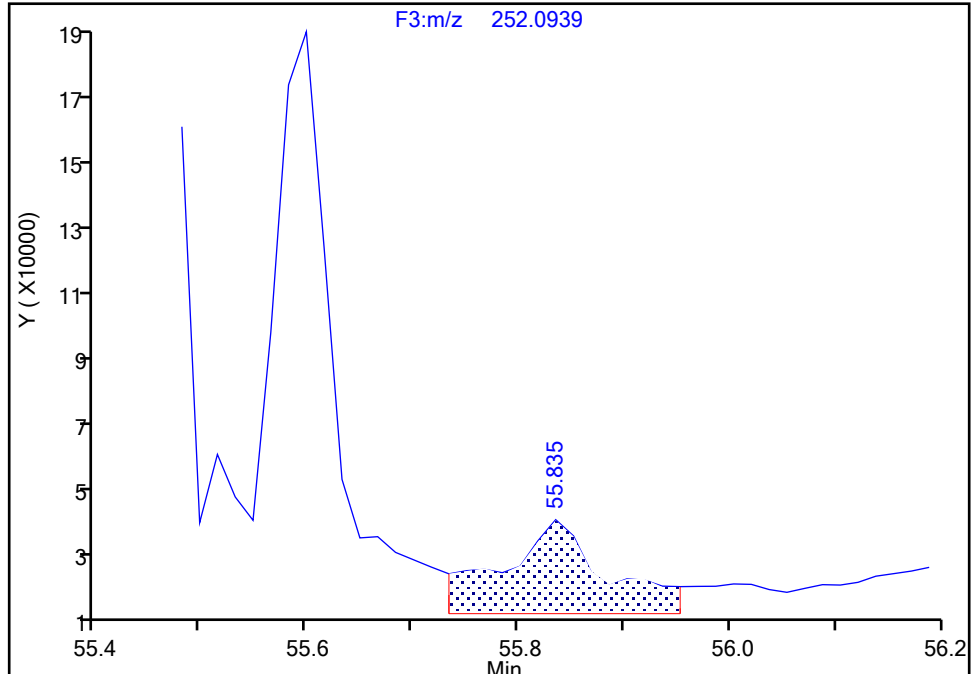
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-1-C Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

Perylene, CAS: 198-55-0

Signal: 1

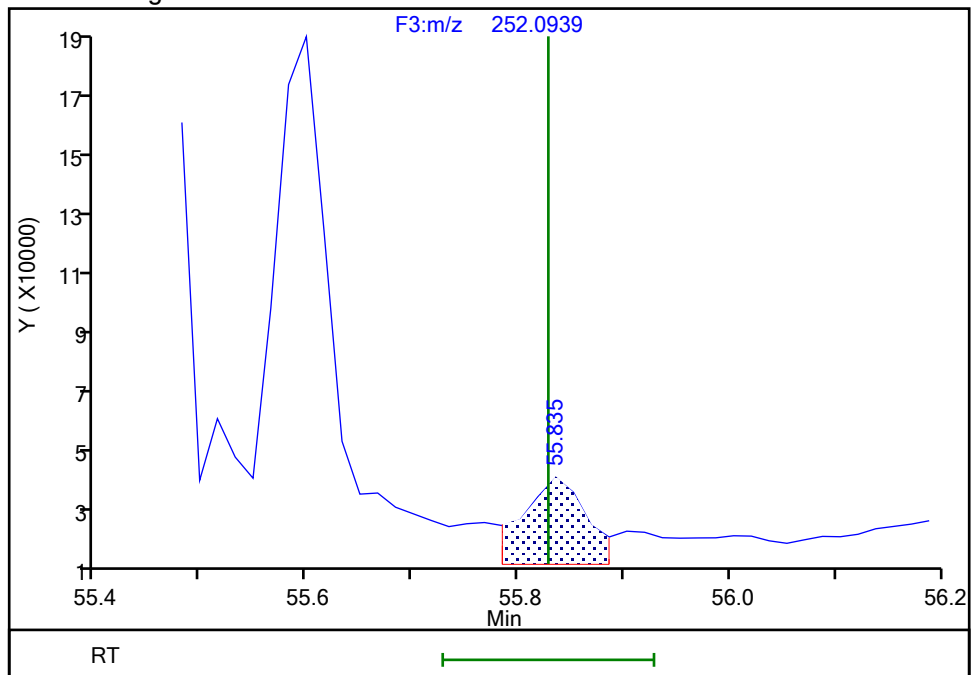
RT: 55.84  
Area: 187410  
Amount: 0.298473  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.84  
Area: 121523  
Amount: 0.193540  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 11:34:41 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

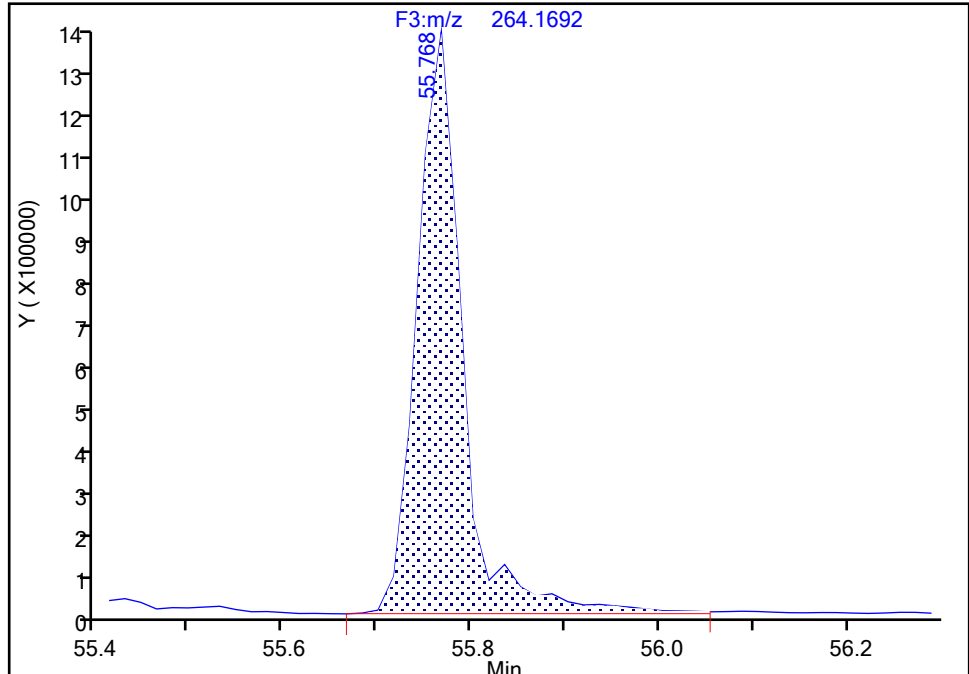
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-1-C Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Perylene-d12, CAS: 1520-96-3

Signal: 1

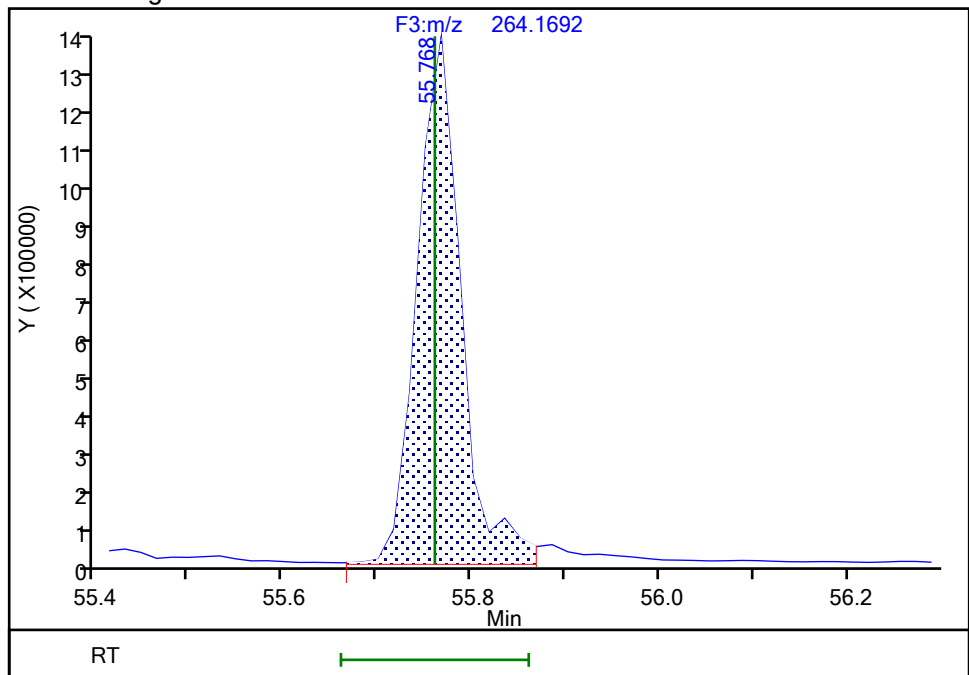
RT: 55.77  
Area: 4584574  
Amount: 9.211383  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.77  
Area: 4388819  
Amount: 8.818069  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 11:34:12 -04:00:00 (UTC)

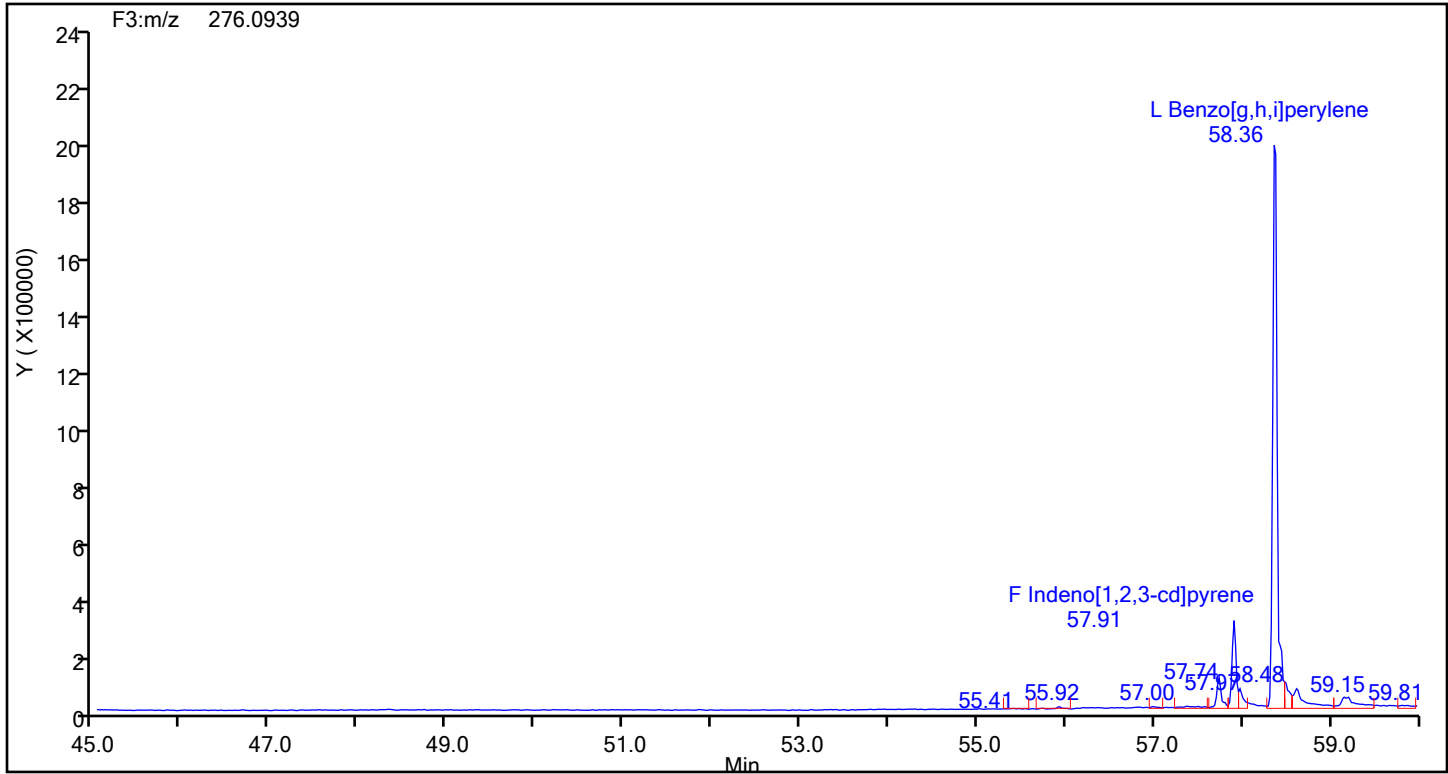
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

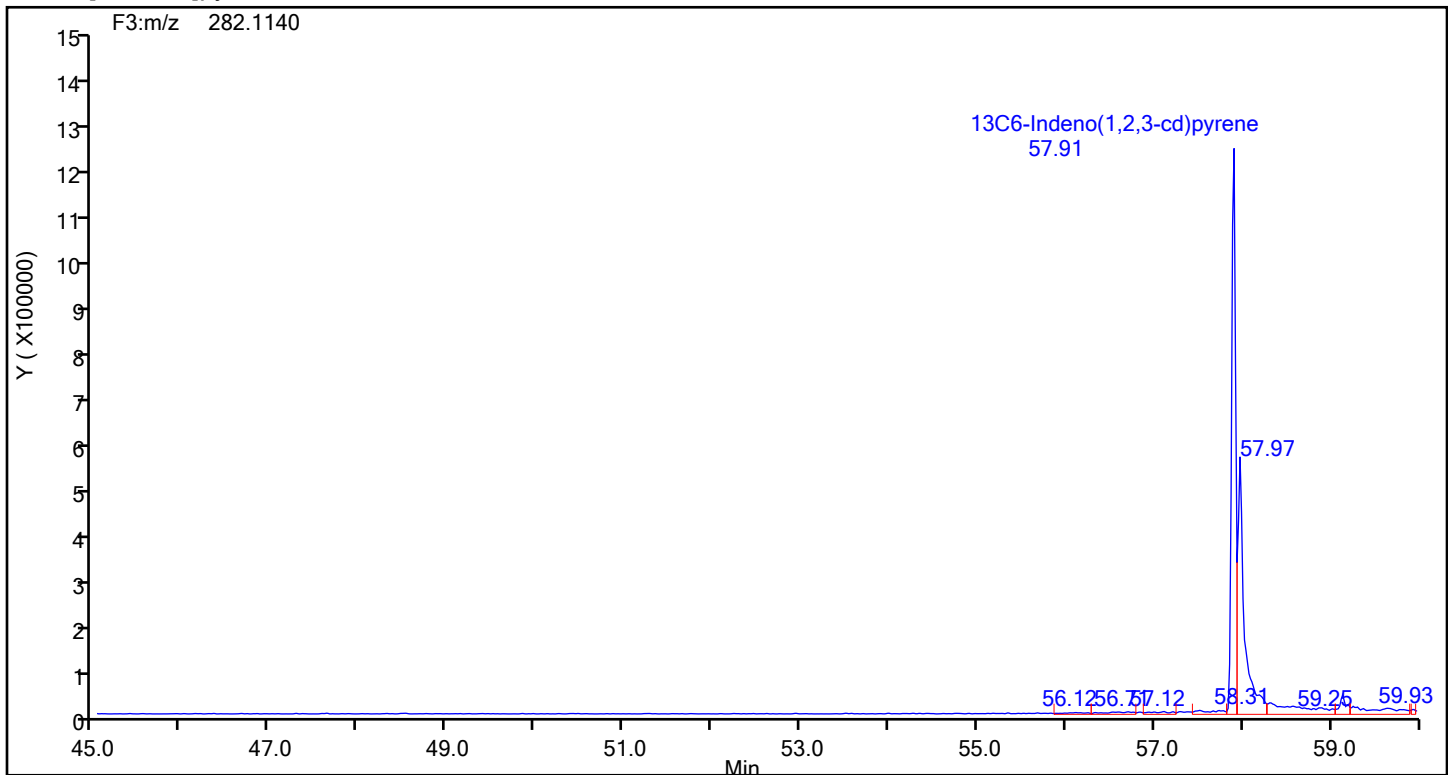
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88999 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Indeno[1,2,3-cd]pyrene



## Indeno[1,2,3-cd]pyrene Standards



## Eurofins Knoxville

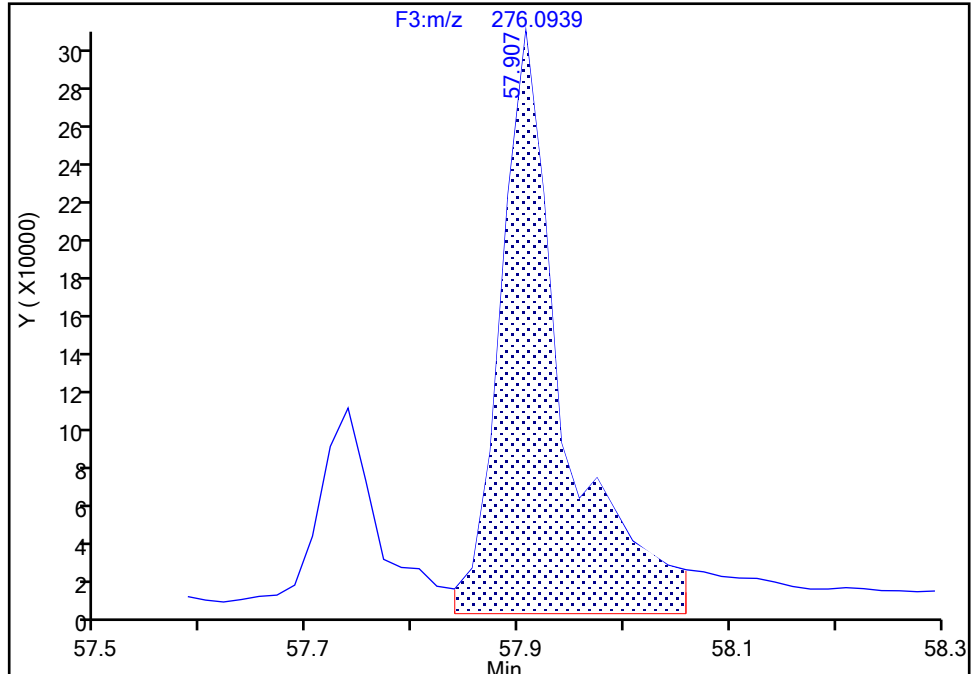
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-1-C Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

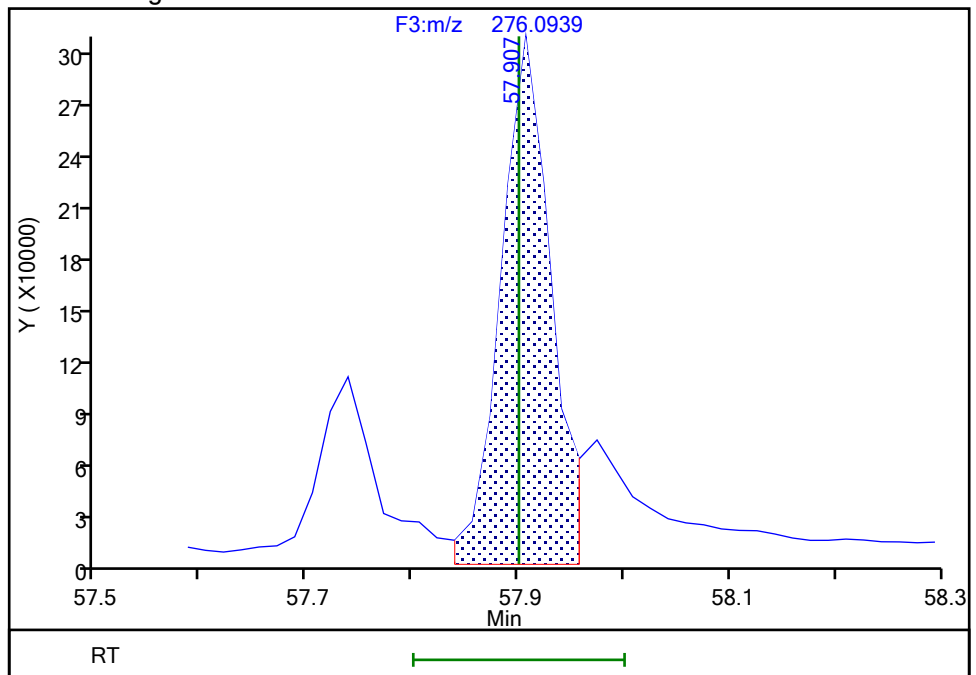
RT: 57.91  
Area: 1243694  
Amount: 2.935978  
Amount Units: pg/ul

## Processing Integration Results



RT: 57.91  
Area: 1017011  
Amount: 2.400849  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 11:34:07 -04:00:00 (UTC)

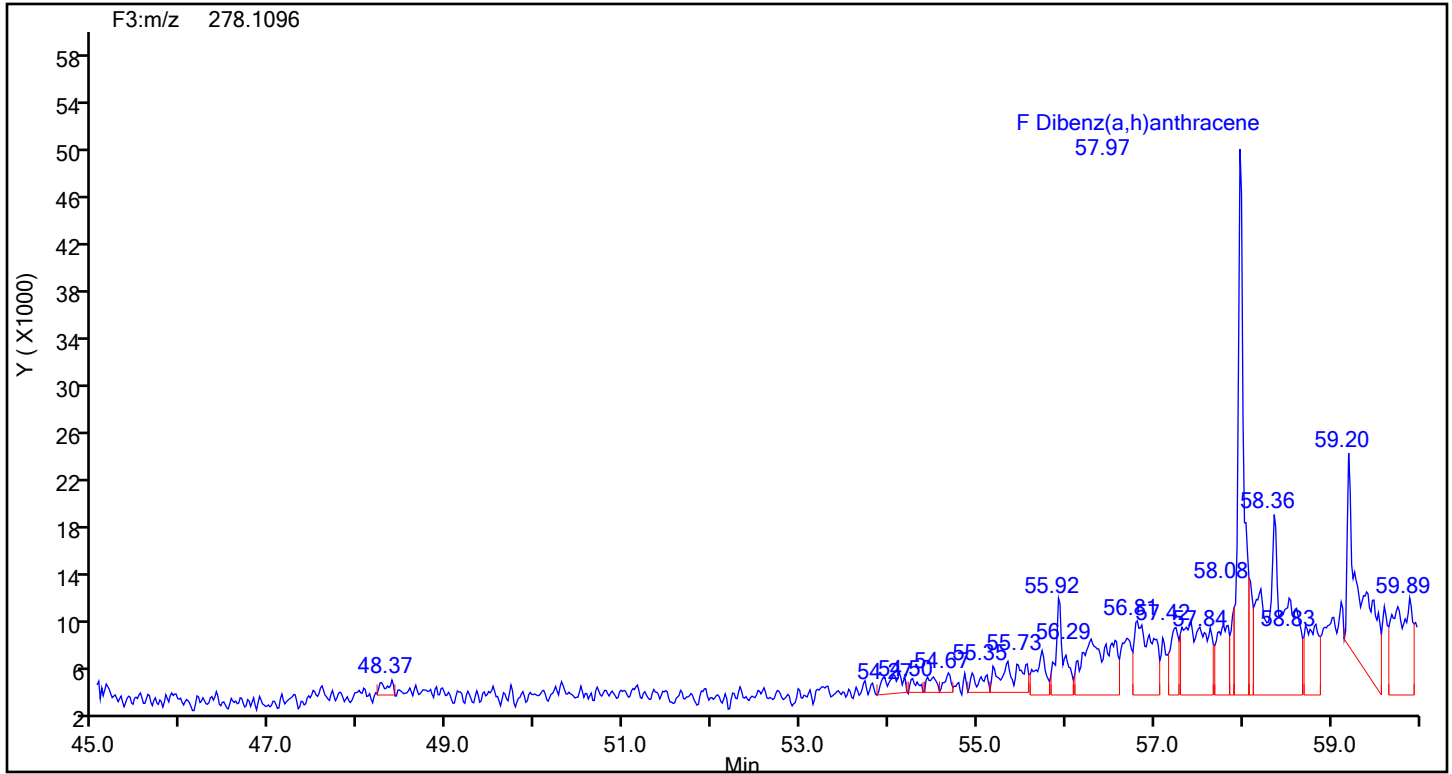
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

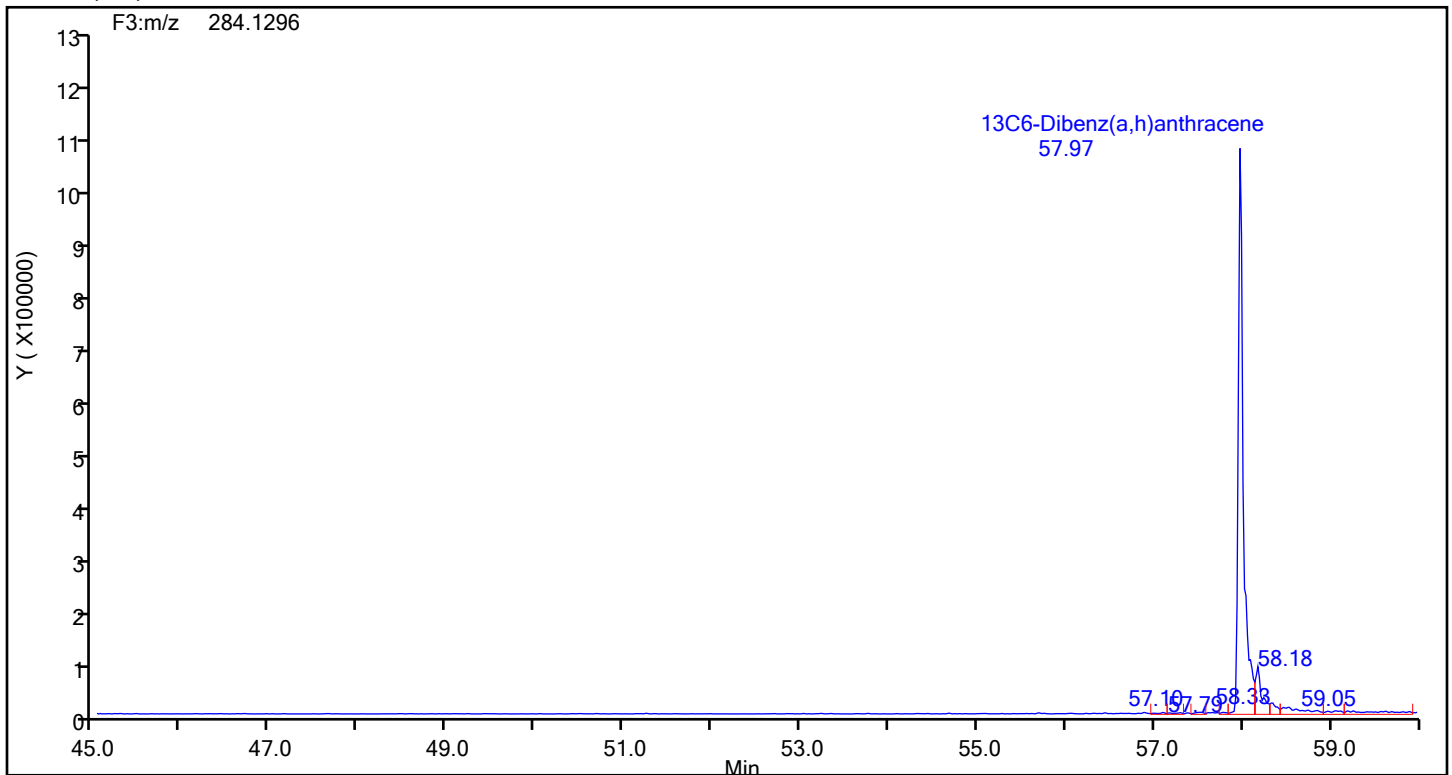
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88999 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Dibenz(a,h)anthracene



## Dibenzo(a,h)anthracene Standards



## Eurofins Knoxville

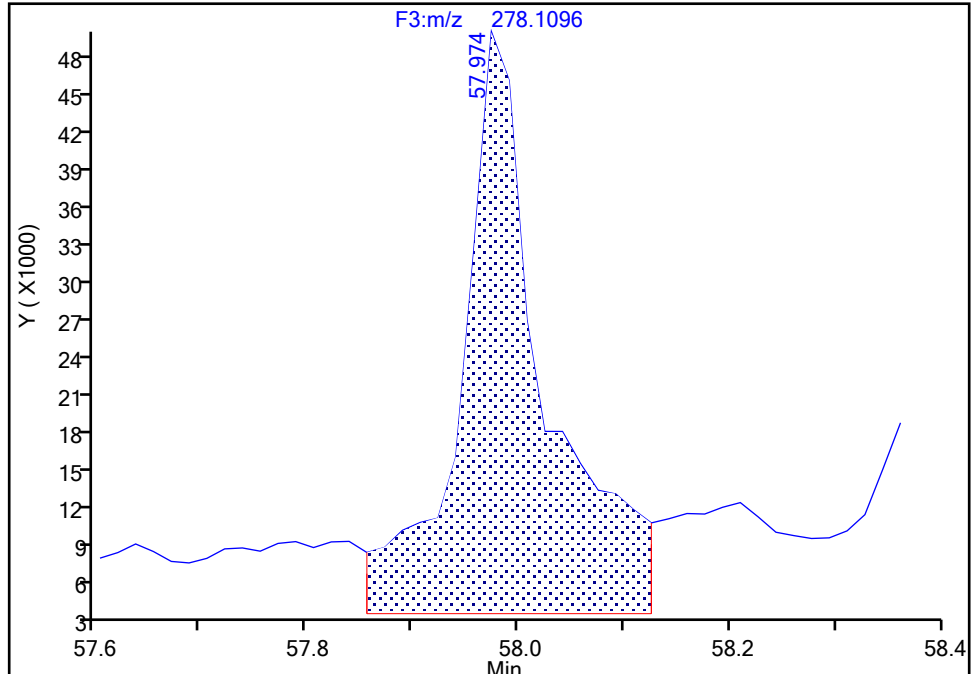
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-1-C Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

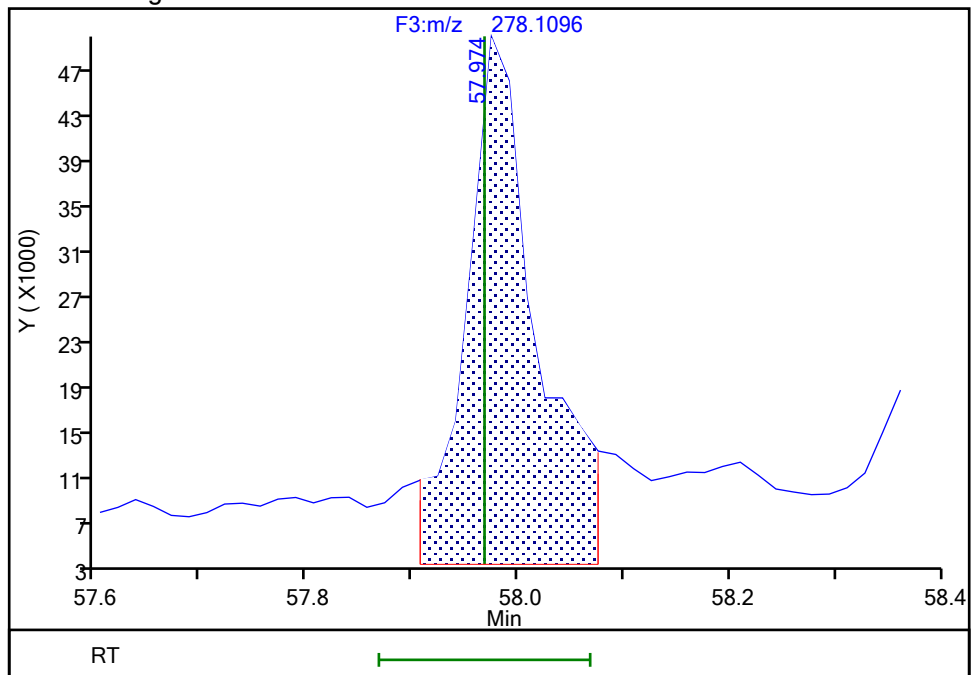
RT: 57.97  
Area: 257424  
Amount: 0.524670  
Amount Units: pg/ul

## Processing Integration Results



RT: 57.97  
Area: 221158  
Amount: 0.450755  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 11:35:13 -04:00:00 (UTC)

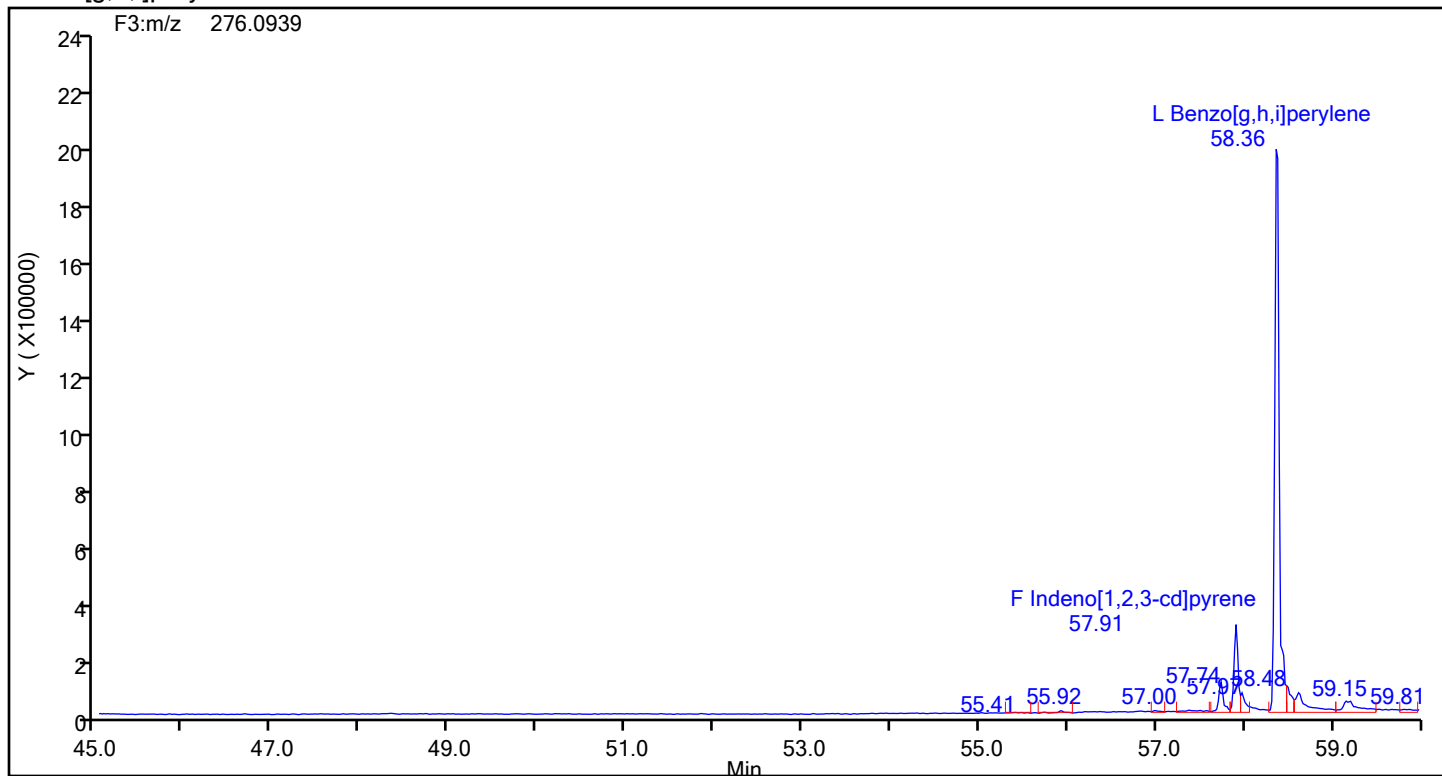
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

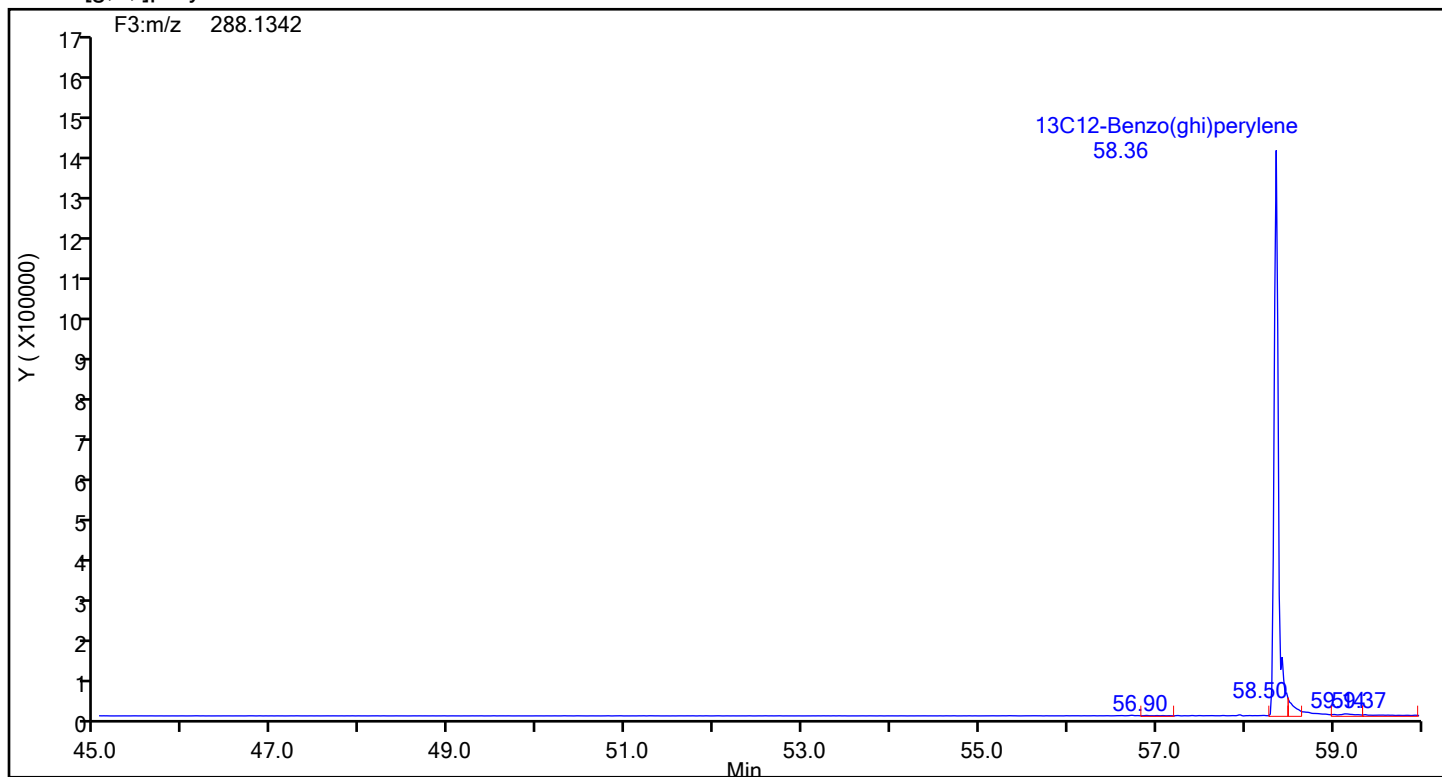
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Injection Date: 20-Jul-2024 10:31:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88999 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[g,h,i]perylene



## Benzo[g,h,i]perylene Standards





## Eurofins Knoxville

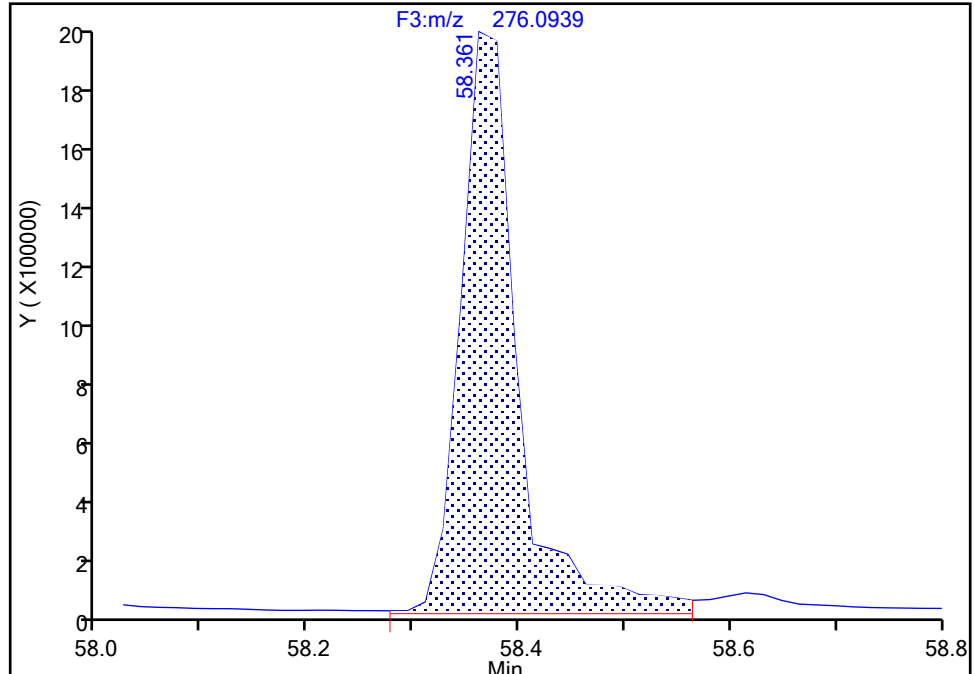
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Injection Date: 20-Jul-2024 10:31:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-1-C Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

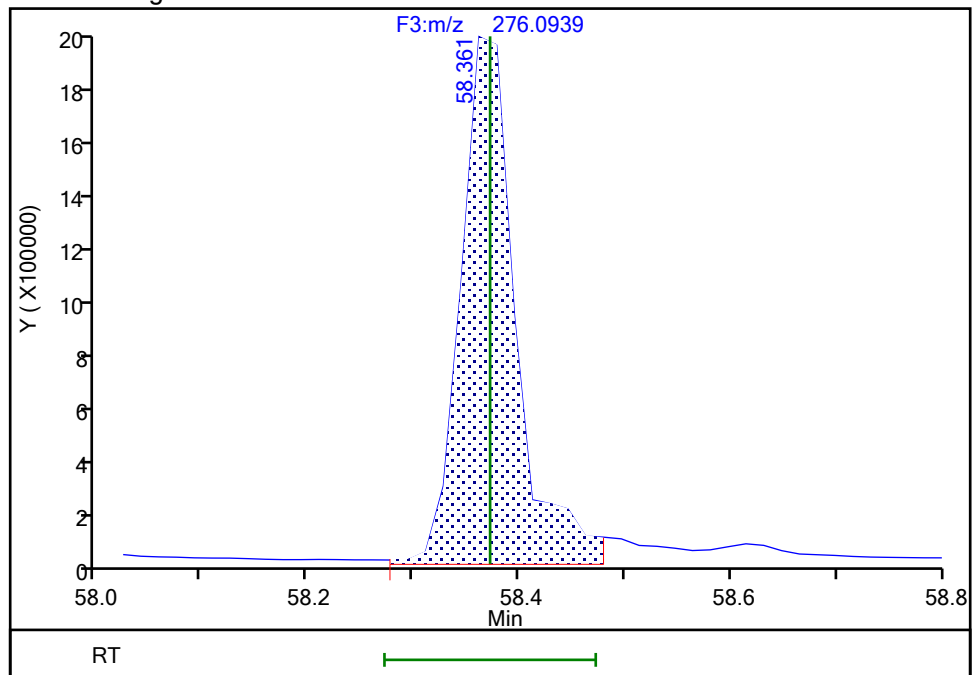
RT: 58.36  
Area: 7261417  
Amount: 11.781994  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.36  
Area: 6974119  
Amount: 11.753006  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 11:35:05 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

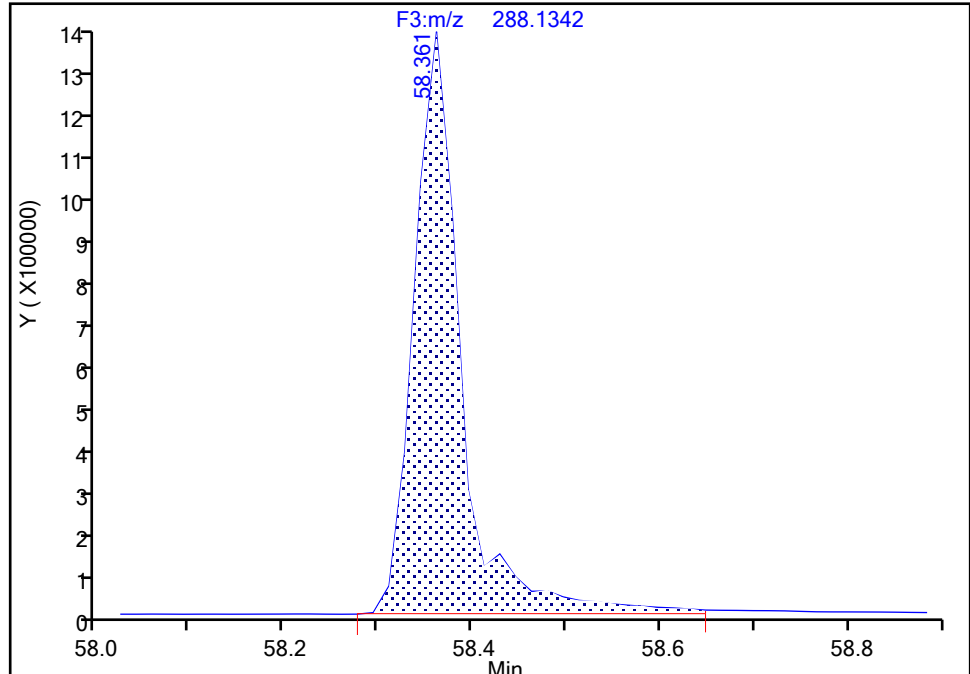
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Injection Date: 20-Jul-2024 10:31:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-1-C Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C12-Benzo(ghi)perylene, CAS: 350820-11-0**

Signal: 1

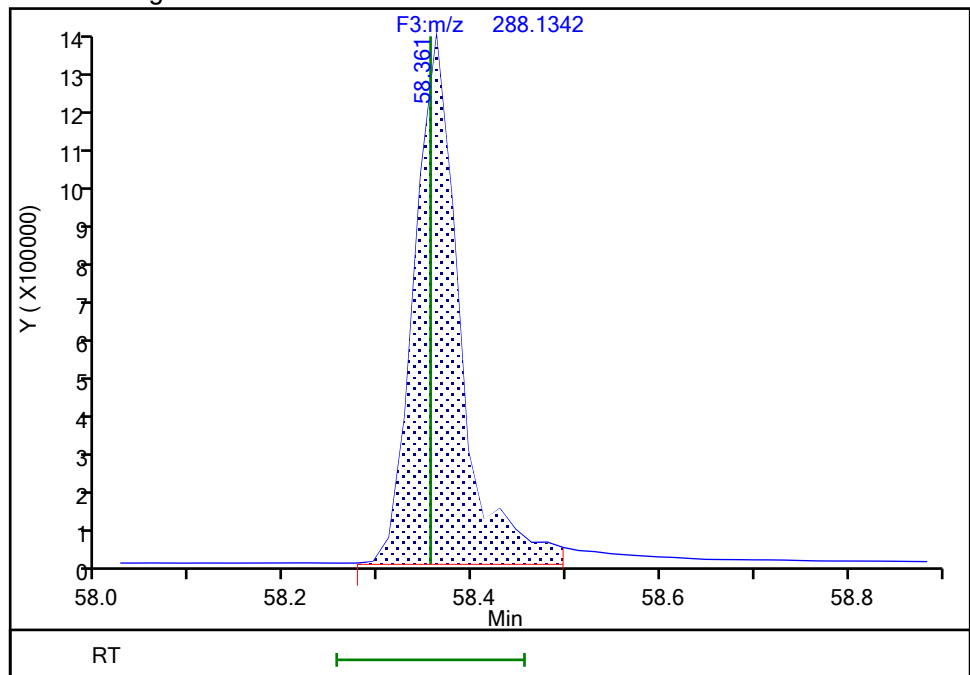
RT: 58.36  
Area: 4800872  
Amount: 9.016517  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.36  
Area: 4622298  
Amount: 8.681137  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 11:35:28 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-a-1-c.d  
Lims ID: 140-37234-A-1-C  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Sample Type: Client  
Inject. Date: 20-Jul-2024 10:31:00 ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Sample Info:  
Misc. Info.: 140-0033591-011  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 20-Jul-2024 11:35:59 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1689

First Level Reviewer: TT6I

Date: 20-Jul-2024 11:35:59

Compound	Amount Added	Amount Recovered	% Rec.
Anthracin-d10	10.0	0.6437	64.37
13C6-Benzo(c)fluorene	100.0	10.3	102.56
13C12-Benzo(j)fluoranthene	100.0	8.26	82.58

FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 3</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-2</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-A-2-C_240720133022.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/06/2024 11:33</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/20/2024 11:35</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88999</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
91-20-3	Naphthalene	445	J B * +	750	750	1.21
91-57-6	2-Methylnaphthalene	274	J B	750	750	0.498
208-96-8	Acenaphthylene	16.1	J B	30.0	30.0	0.343
83-32-9	Acenaphthene	118	J B	300	300	0.478
86-73-7	Fluorene	298	J B	300	300	0.511
85-01-8	Phenanthrene	1060	B	60.0	60.0	0.712
120-12-7	Anthracene	99.1	J B	300	300	0.609
206-44-0	Fluoranthene	112	B	60.0	60.0	0.356
129-00-0	Pyrene	123	B	60.0	60.0	0.353
56-55-3	Benzo[a]anthracene	2.81	J B	60.0	60.0	0.189
218-01-9	Chrysene	12.0	J B	60.0	60.0	0.191
205-99-2	Benzo[b]fluoranthene	7.53	J B	300	300	0.120
207-08-9	Benzo[k]fluoranthene	3.46	J B	60.0	60.0	0.113
192-97-2	Benzo[e]pyrene	33.0	J B	60.0	60.0	0.109
50-32-8	Benzo[a]pyrene	9.43	J B	30.0	30.0	0.0925
198-55-0	Perylene	2.26	J B	30.0	30.0	0.0880
193-39-5	Indeno[1,2,3-cd]pyrene	25.2	J B	30.0	30.0	0.105
53-70-3	Dibenz(a,h)anthracene	6.15	J B	60.0	60.0	0.0682
191-24-2	Benzo[g,h,i]perylene	144	B	60.0	60.0	0.0865

FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 3</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-2</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-A-2-C_240720133022.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/06/2024 11:33</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/20/2024 11:35</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88999</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02217	13C6-Naphthalene	47		20-130
STL03357	13C6-2-Methylnaphthalene	56		20-130
189811-56-1	13C6-Acenaphthylene	88		20-130
189811-57-2	13C6-Acenaphthene	80		20-130
STL00616	13C6-Fluorene	92		20-130
1397194-60-3	13C6-Fluoranthrene	86		20-130
1397214-90-2	13C3-Pyrene	82		20-130
917378-11-1	13C6-Benzo (a) anthracene	70		20-130
1397177-72-8	13C6-Chrysene	69		20-130
STL03358	13C6-Benzo (b) fluoranthene	79		20-130
1397194-60-3	13C6-Benzo (k) fluoranthene	85		20-130
STL03382	13C4-Benzo (e) pyrene	73		20-130
STL03359	13C4-Benzo (a) pyrene	87		20-130
1520-96-3	Perylene-d12	87		20-130
362044-56-2	13C6-Indeno (1,2,3-cd) pyrene	96		20-130
STL03360	13C6-Dibenz (a,h) anthracene	94		20-130
350820-11-0	13C12-Benzo (ghi) perylene	84		20-130
189811-60-7	13C6-Anthracene	95		20-130
1189955-53-0	13C6-Phenanthrene	77		20-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Lims ID: 140-37234-A-2-C  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Sample Type: Client  
Inject. Date: 20-Jul-2024 11:35:00 ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Sample Info:  
Misc. Info.: 140-0033591-012  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAL ICAL  
Last Update: 20-Jul-2024 14:04:23 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1689

First Level Reviewer: TT6I

Date: 20-Jul-2024 14:04:23

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:26	2995399		3.3746	4.659	4.659	0.002203	0.002203	46.59	
Naphthalene	11:27	11467650		1.2893	29.7	29.7	0.0809	0.0809		M
D 13C6-2-Methylnaphthalene	13:46	1720964		1.6031	5.635	5.635	0.000386	0.000386	56.35	
2-Methylnaphthalene	13:47	4014624		1.2786	18.2	18.2	0.0332	0.0332		M
D 13C6-Acenaphthylene	16:38	2784662		1.6520	8.847	8.847	0.002831	0.002831	88.47	
Acenaphthylene	16:38	378045		2.3661	1.075	1.075	0.0228	0.0228		M
* Acenaphthene-d10	17:12	952641		3.5E+04	5.000	5.000				
D 13C6-Acenaphthene	17:19	1486824		0.9792	7.970	7.970	0.004825	0.004825	79.70	
Acenaphthene	17:19	1483747		1.2697	7.860	7.860	0.0319	0.0319		
D 13C6-Fluorene	19:35	1563147		0.8898	9.220	9.220	0.007659	0.007659	92.20	
Fluorene	19:35	3889421		1.2532	19.9	19.9	0.0341	0.0341		M
D 13C6-Phenanthrene	24:55	2181046		0.5724	7.683	7.683	0.001706	0.001706	76.83	
Phenanthrene	24:56	16973795		1.1044	70.5	70.5	0.0475	0.0475		
\$ Anthracin-d10	25:09	155641		0.4257	0.7372	0.7372	0.001766	0.001766	73.72	
D 13C6-Anthracene	25:16	2131596		0.4523	9.502	9.502	0.002159	0.002159	95.02	
Anthracene	25:16	1912785		1.3586	6.605	6.605	0.0406	0.0406		
D 13C6-Fluoranthrene	33:39	5106089		1.1994	8.584	8.584	0.0134	0.0134	85.84	
Fluoranthene	33:40	4402718		1.1513	7.489	7.489	0.0237	0.0237		M
* Pyrene-d10	35:12	2479637		7.9E+04	5.000	5.000				
D 13C3-Pyrene	35:20	5474026		1.3512	8.169	8.169	0.008531	0.008531	81.69	
Pyrene	35:20	4793801		1.0652	8.221	8.221	0.0235	0.0235		M
\$ 13C6-Benzo(c)fluorene	39:03	2734109		0.5136	10.7	10.7	0.008960	0.008960	107	
D 13C6-Benzo(a)anthracene	45:51	4586560		1.5189	7.007	7.007	0.004488	0.004488	70.07	
Benzo[a]anthracene	45:52	83819		0.9739	0.1877	0.1877	0.0126	0.0126		
D 13C6-Chrysene	46:08	4871653		1.6287	6.941	6.941	0.004186	0.004186	69.41	M
Chrysene	46:08	382525		0.9815	0.8000	0.8000	0.0127	0.0127		
D 13C6-Benzo(b)fluoranthene	54:30	4969760		1.4621	7.888	7.888	0.001653	0.001653	78.88	
Benzo[b]fluoranthene	54:31	280723		1.1249	0.5021	0.5021	0.008018	0.008018		M
\$ 13C12-Benzo(j)fluoranthene	54:32	4920882		1.3558	8.423	8.423	0.006925	0.006925	84.23	
D 13C6-Benzo(k)fluoranthene	54:38	6431914		1.7507	8.526	8.526	0.001381	0.001381	85.26	
Benzo[k]fluoranthene	54:38	167351		1.1271	0.2309	0.2309	0.007556	0.007556		Ma
* Benzo(e)pyrene-d12	55:23	2154587		5.7E+04	5.000	5.000				
Benzo[e]pyrene	55:29	1142724		1.0013	2.202	2.202	0.007296	0.007296		
D 13C4-Benzo(e)pyrene	55:28	5183070		1.6368	7.348	7.348	0.002873	0.002873	73.48	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C4-Benzo(a)pyrene	55:37	5798985		1.5508	8.678	8.678	0.003032	0.003032	86.78	
Benzo[a]pyrene	55:37	405723		1.1130	0.6286	0.6286	0.006167	0.006167		M
D Perylene-d12	55:47	4478770		1.1917	8.722	8.722	0.008432	0.008432	87.22	M
Perylene	55:51	96541		1.4307	0.1507	0.1507	0.005866	0.005866		M
D 13C6-Indeno(1,2,3-cd)pyrene	57:55	4212237		1.0218	9.566	9.566	0.004185	0.004185	95.66	M
Indeno[1,2,3-cd]pyrene	57:56	795166		1.1249	1.678	1.678	0.006992	0.006992		M
D 13C6-Dibenz(a,h)anthracene	58:00	4279772		1.0553	9.412	9.412	0.002768	0.002768	94.12	
Dibenz(a,h)anthracene	58:00	198582		1.1314	0.4101	0.4101	0.004545	0.004545		M
D 13C12-Benzo(ghi)perylene	58:22	4620858		1.2749	8.411	8.411	0.000863	0.000863	84.11	M
Benzo[g,h,i]perylene	58:23	5691192		1.2838	9.594	9.594	0.005770	0.005770		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
 Lims ID: 140-37234-A-2-C  
 Client ID: M23 F-10 BOILER RUN 3 COMBINED  
 Sample Type: Client  
 Inject. Date: 20-Jul-2024 11:35:00 ALS Bottle#: 0 Worklist Smp#: 12  
 Injection Vol: 1.0 ul Dil. Factor: 10.0000  
 Sample Info:  
 Misc. Info.: 140-0033591-012  
 Operator ID: Xcalibur\_System Instrument ID: D3PAH  
 Method: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\EPA\_23\_\_PAH.m  
 Limit Group: HR - HRPAL ICAL  
 Last Update: 20-Jul-2024 14:04:23 Calib Date: 20-Jun-2024 01:09:00  
 Integrator: RTE  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
 Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
 Process Host: CTX1689

First Level Reviewer: TT61

Date: 20-Jul-2024 14:04:23

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:26	11:24	2	0.665	2995399	1023964	192	480	5333		
Naphthalene											
128.0626	11:27	11:27	2	1.001	11467650	3860469	4270	10675	904		M
13C6-2-Methylnaphthalene											
148.0984	13:46	13:46	0	0.801	1720964	733972	16	40	45873		
2-Methylnaphthalene											
142.0783	13:47	13:47	1	1.001	4014624	1824848	1246	3115	1465		M
13C6-Acenaphthylene											
158.0828	16:38	16:38	0	0.967	2784662	946143	121	302	7819		
Acenaphthylene											
152.0626	16:38	16:38	0	1.000	378045	137080	1132	2830	121		M
Acenaphthene-d10											
164.1404	17:12	17:12	0		952641	322810	19	47	16990		
13C6-Acenaphthene											
160.0984	17:19	17:19	0	1.007	1486824	523455	122	305	4291		
Acenaphthene											
154.0783	17:19	17:20	-1	1.000	1483747	504593	848	2120	595		
13C6-Fluorene											
172.0984	19:35	19:35	-1	1.138	1563147	466193	176	440	2649		
Fluorene											
166.0783	19:35	19:35	-1	1.001	3889421	1072949	797	1992	1346		M
13C6-Phenanthrene											
184.0984	24:55	24:56	-1	0.708	2181046	499016	35	87	14258		
Phenanthrene											
178.0783	24:56	24:56	-1	1.000	16973795	3713998	1047	2617	3547		M



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:09	25:09	-1	0.714	155641	39883	27	67	1477		
13C6-Anthracene											
184.0984	25:16	25:16	-1	0.718	2131596	474395	35	87	13554		
Anthracene											
178.0783	25:16	25:16	-1	1.000	1912785	359188	1047	2617	343		
13C6-Fluoranthrene											
208.0984	33:39	33:40	-1	0.956	5106089	890890	572	1430	1558		
Fluoranthene											M
202.0783	33:40	33:40	0	1.000	4402718	799662	974	2435	821		M
Pyrene-d10											
212.1404	35:12	35:12	0		2479637	445471	119	297	3743		
13C3-Pyrene											
205.0883	35:20	35:20	0	1.004	5474026	971587	411	1027	2364		
Pyrene											M
202.0783	35:20	35:20	-1	1.000	4793801	846803	974	2435	869		M
13C6-Benzo(c)fluorene											
222.1134	39:03	39:03	0	0.705	2734109	466130	164	410	2842		
13C6-Benzo(a)anthracene											
234.1140	45:51	45:51	1	1.303	4586560	725781	352	880	2062		
Benzo[a]anthracene											
228.0939	45:52	45:52	1	1.000	83819	15038	356	890	42		
13C6-Chrysene											M
234.1140	46:08	46:08	1	1.311	4871653	711297	352	880	2021		M
Chrysene											
228.0939	46:08	46:09	0	1.000	382525	45381	356	890	127		
13C6-Benzo(b)fluoranthene											
258.1140	54:30	54:30	1	0.984	4969760	1247271	125	312	9978		
Benzo[b]fluoranthene											M
252.0939	54:31	54:31	2	1.000	280723	52932	450	1125	118		M
13C12-Benzo(j)fluoranthene											
264.1336	54:32	54:32	1	0.984	4920882	1125065	485	1212	2320		
13C6-Benzo(k)fluoranthene											
258.1140	54:38	54:37	2	0.986	6431914	1320924	125	312	10567		
Benzo[k]fluoranthene											Ma
252.0939	54:38	54:38	1	1.000	167351	36256	450	1125	81		M
Benzo(e)pyrene-d12											
264.1692	55:23	55:23	1		2154587	645407	519	1297	1244		
Benzo[e]pyrene											
252.0939	55:29	55:28	2	1.000	1142724	331641	450	1125	737		
13C4-Benzo(e)pyrene											
256.1073	55:28	55:28	1	1.001	5183070	1539993	243	607	6337		
13C4-Benzo(a)pyrene											
256.1073	55:37	55:37	1	1.004	5798985	1638945	243	607	6745		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Benzo[a]pyrene											M
252.0939	55:37	55:37	1	1.000	405723	115502	450	1125	257		M
Perylene-d12											M
264.1692	55:47	55:47	1	1.007	4478770	1340469	519	1297	2583		M
Perylene											M
252.0939	55:51	55:51	1	1.001	96541	20647	450	1125	46		M
13C6-Indeno(1,2,3-cd)pyrene											M
282.1140	57:55	57:55	1	1.046	4212237	1248511	221	552	5649		M
Indeno[1,2,3-cd]pyrene											M
276.0939	57:56	57:56	2	1.000	795166	224459	393	982	571		M
13C6-Dibenz(a,h)anthracene											
284.1296	58:00	57:59	2	1.047	4279772	1040461	151	377	6890		
Dibenz(a,h)anthracene											M
278.1096	58:00	58:00	2	1.000	198582	44263	214	535	207		M
13C12-Benzo(ghi)perylene											M
288.1342	58:22	58:22	1	1.054	4620858	1325834	57	142	23260		M
Benzo[g,h,i]perylene											M
276.0939	58:23	58:23	1	1.000	5691192	1675300	393	982	4263		M

### QC Flag Legend

Processing Flags

Review Flags

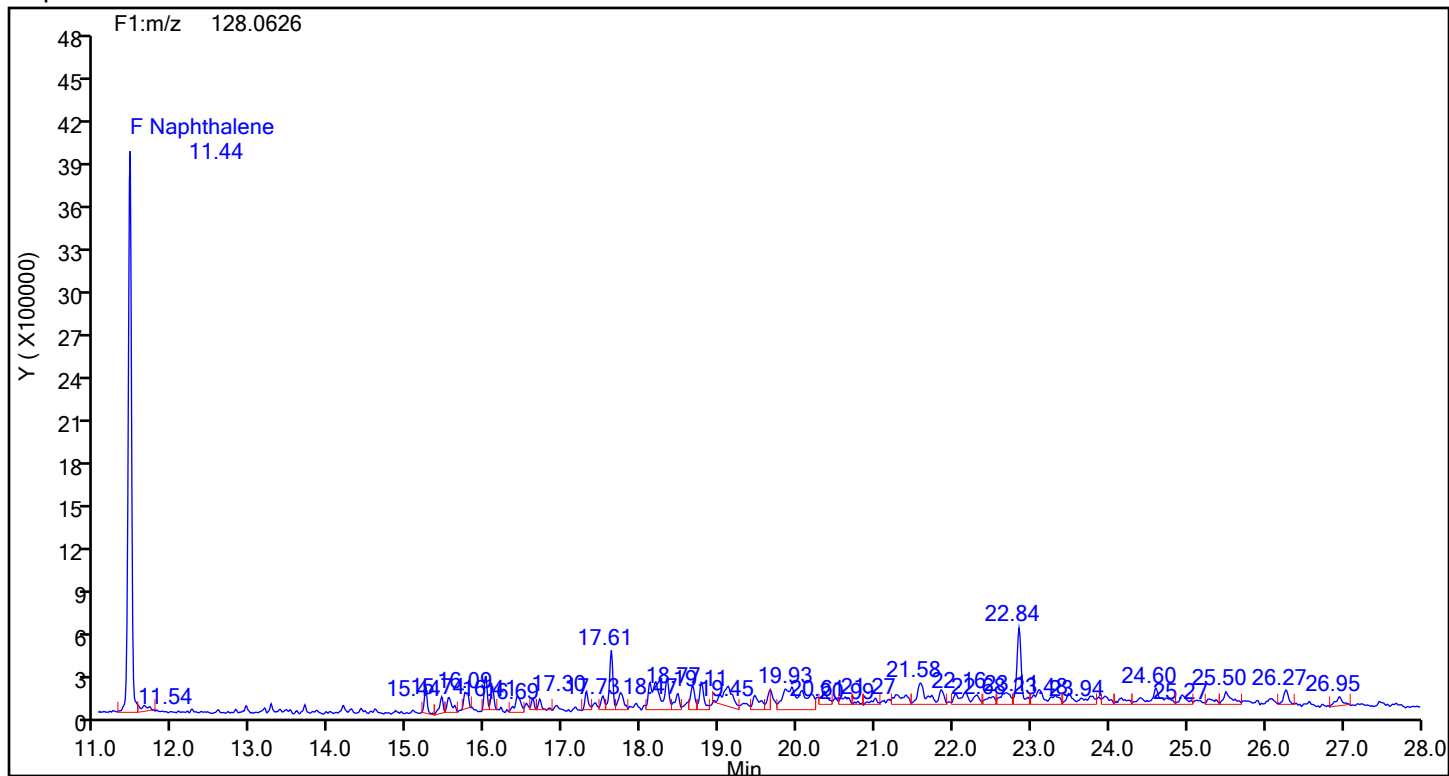
M - Manually Integrated

a - User Assigned ID

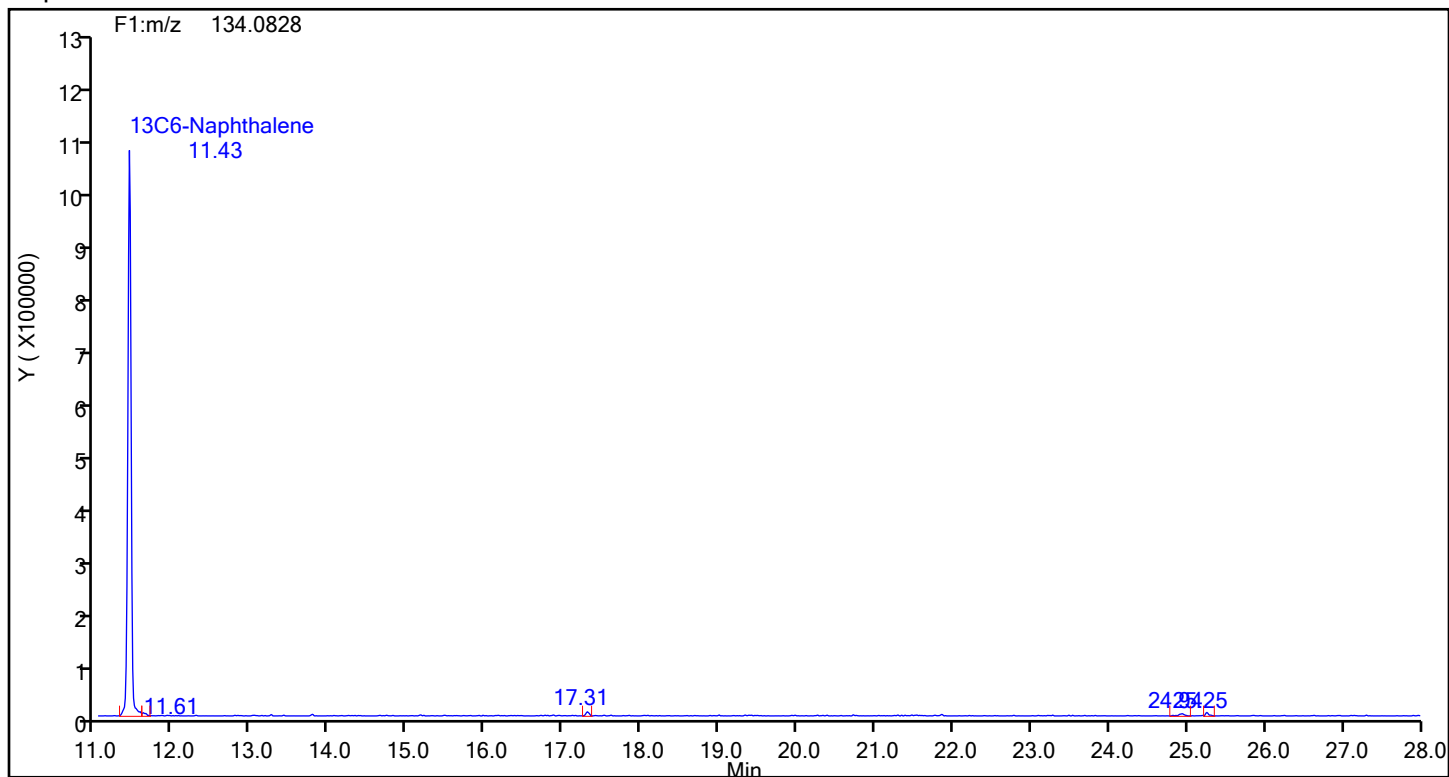
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88999 Sample Line#: 12  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



## Naphthalene Standards



## Eurofins Knoxville

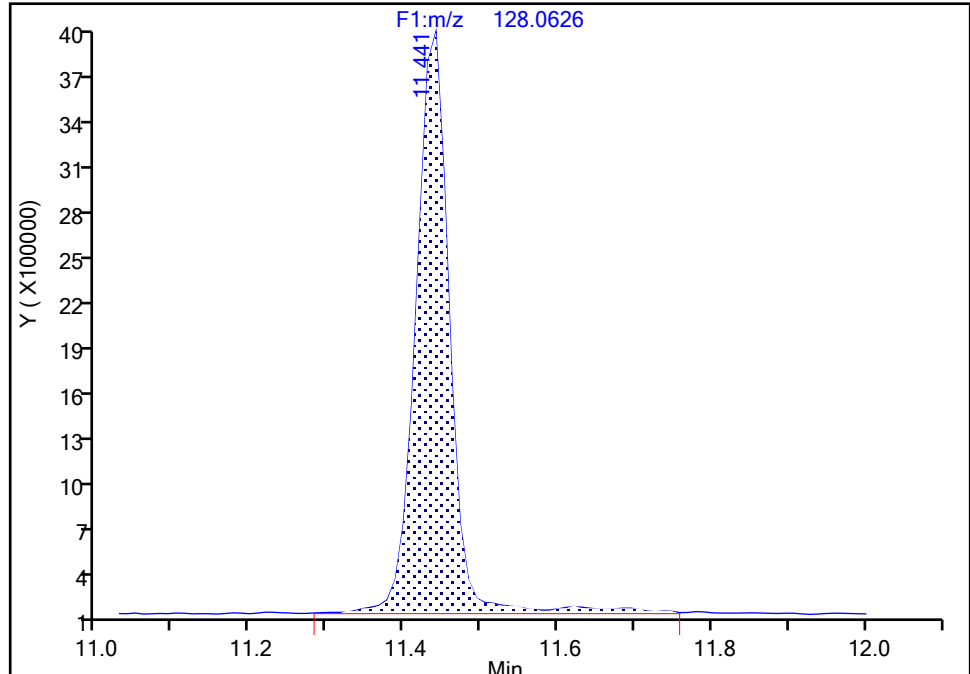
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-2-C Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Naphthalene, CAS: 91-20-3

Signal: 1

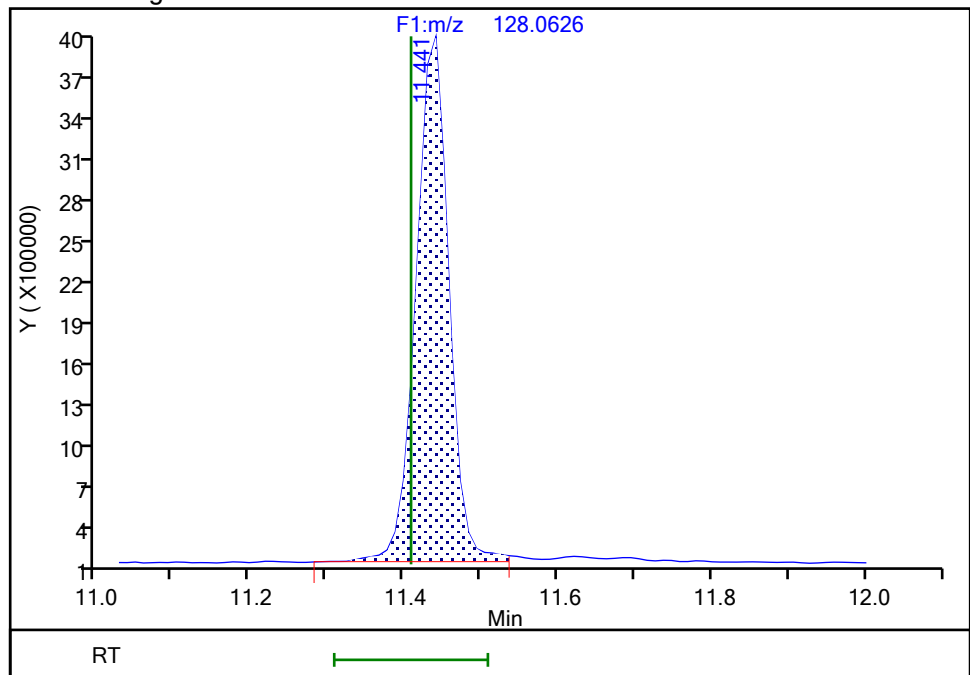
RT: 11.44  
Area: 11767120  
Amount: 30.470182  
Amount Units: pg/ul

## Processing Integration Results



RT: 11.44  
Area: 11467650  
Amount: 29.694725  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 14:02:54 -04:00:00 (UTC)

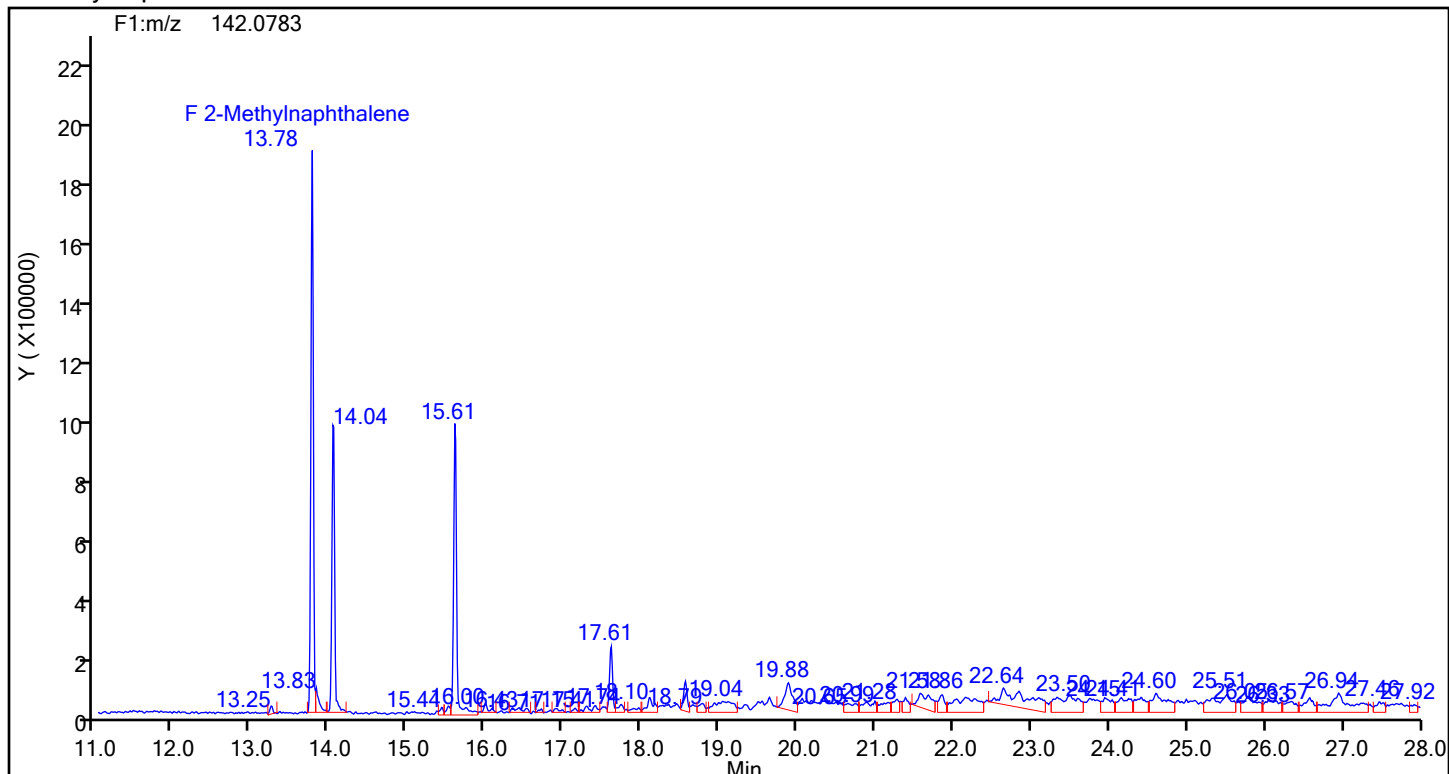
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

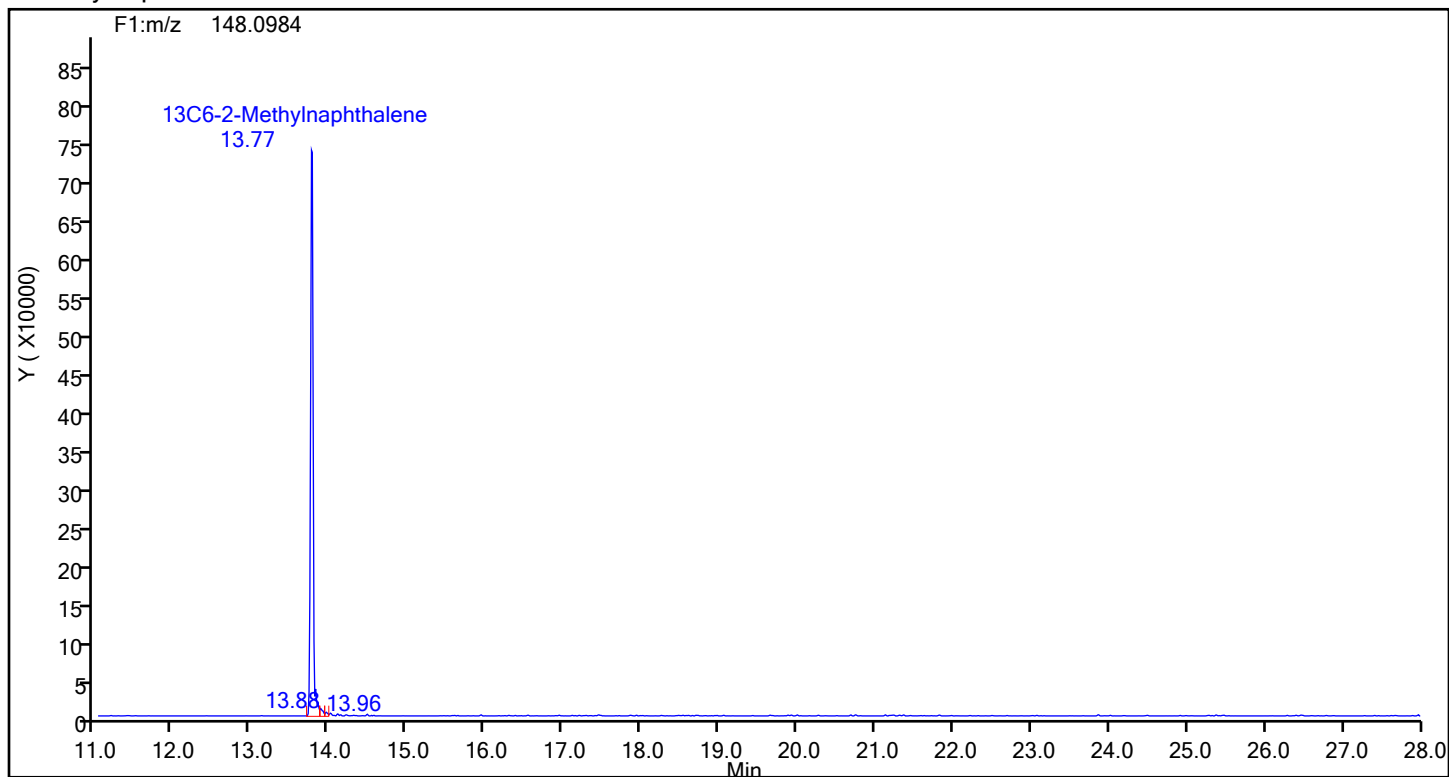
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88999 Sample Line#: 12  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



## 2-Methylnaphthalene Standards



## Eurofins Knoxville

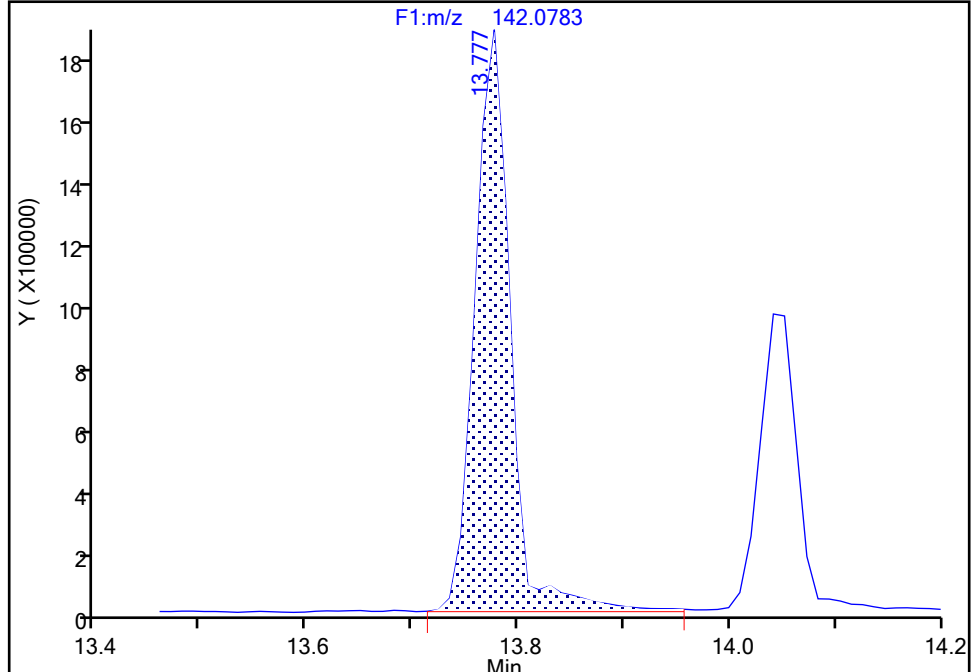
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-2-C Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

**2-Methylnaphthalene, CAS: 91-57-6**

Signal: 1

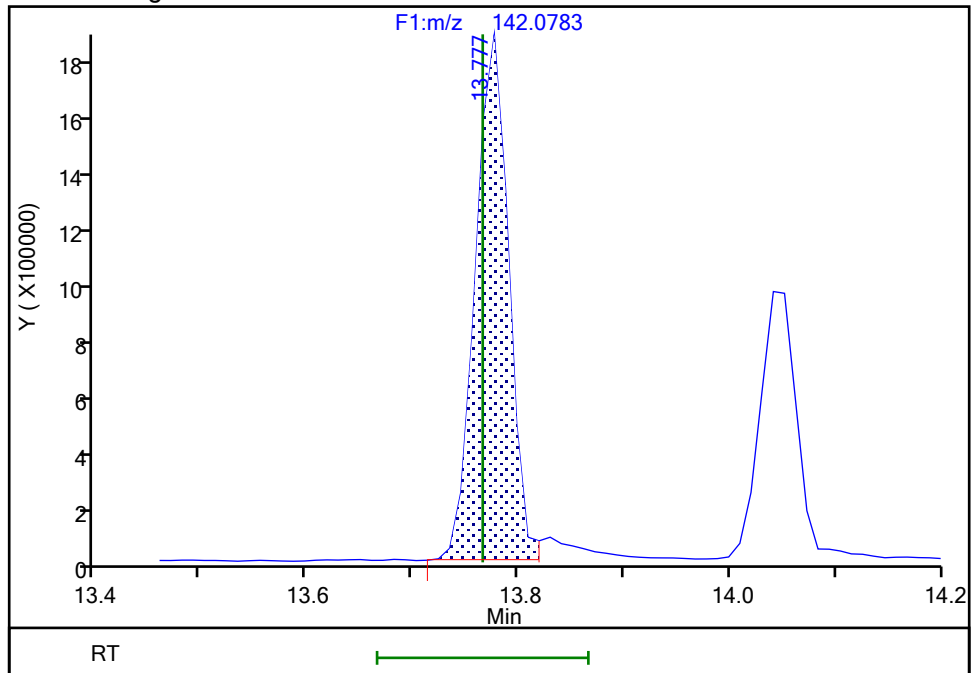
RT: 13.78  
Area: 4248040  
Amount: 19.306053  
Amount Units: pg/ul

## Processing Integration Results



RT: 13.78  
Area: 4014624  
Amount: 18.245248  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 14:02:42 -04:00:00 (UTC)

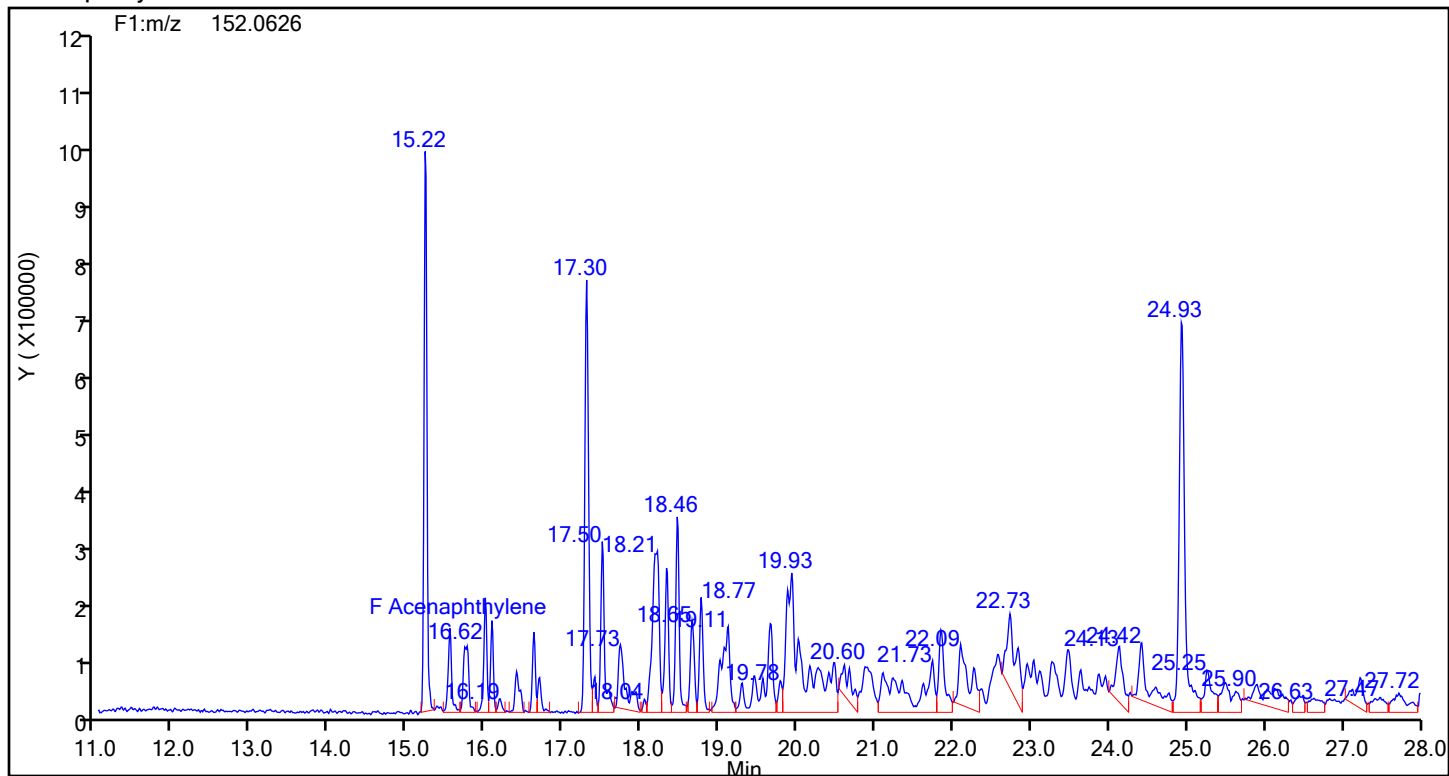
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

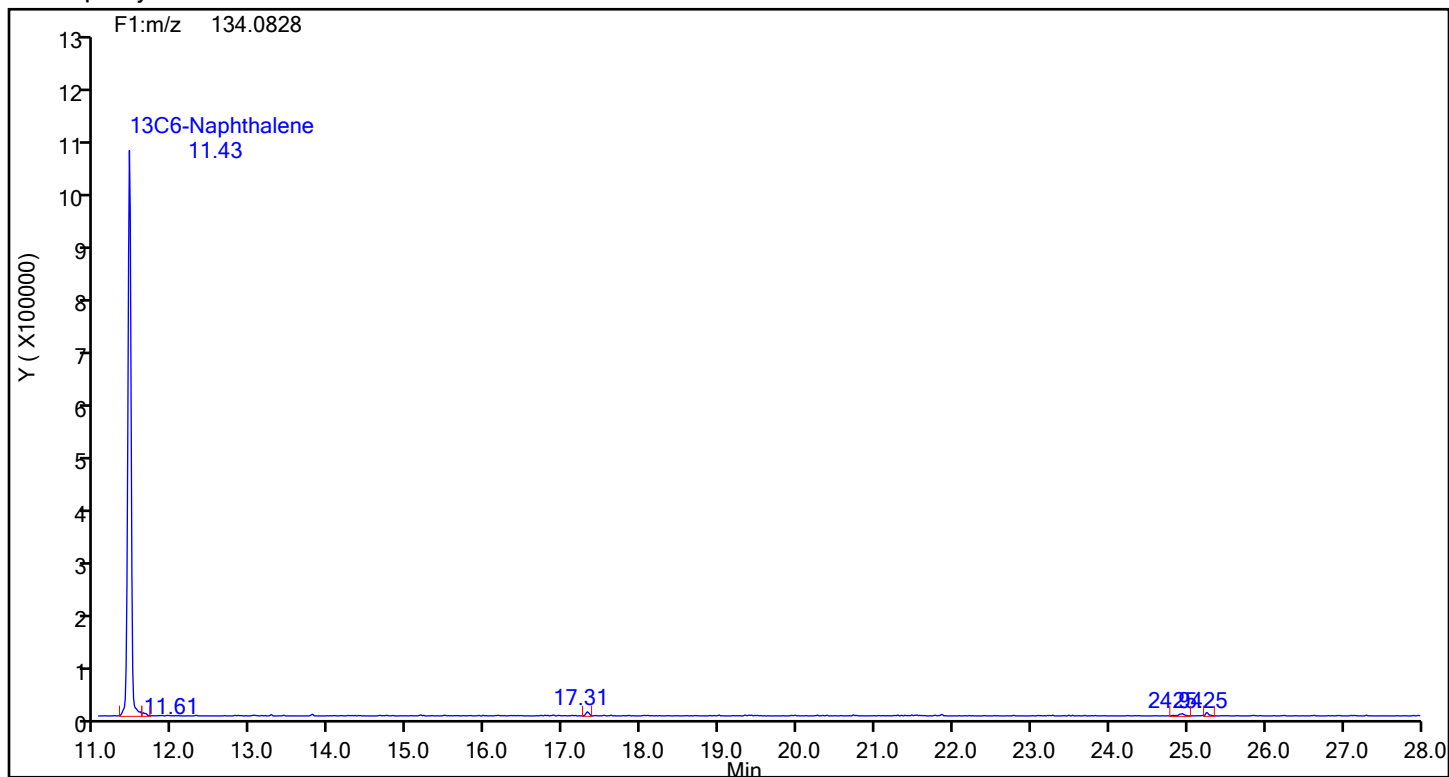
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88999 Sample Line#: 12  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene



## Acenaphthylene Standards



## Eurofins Knoxville

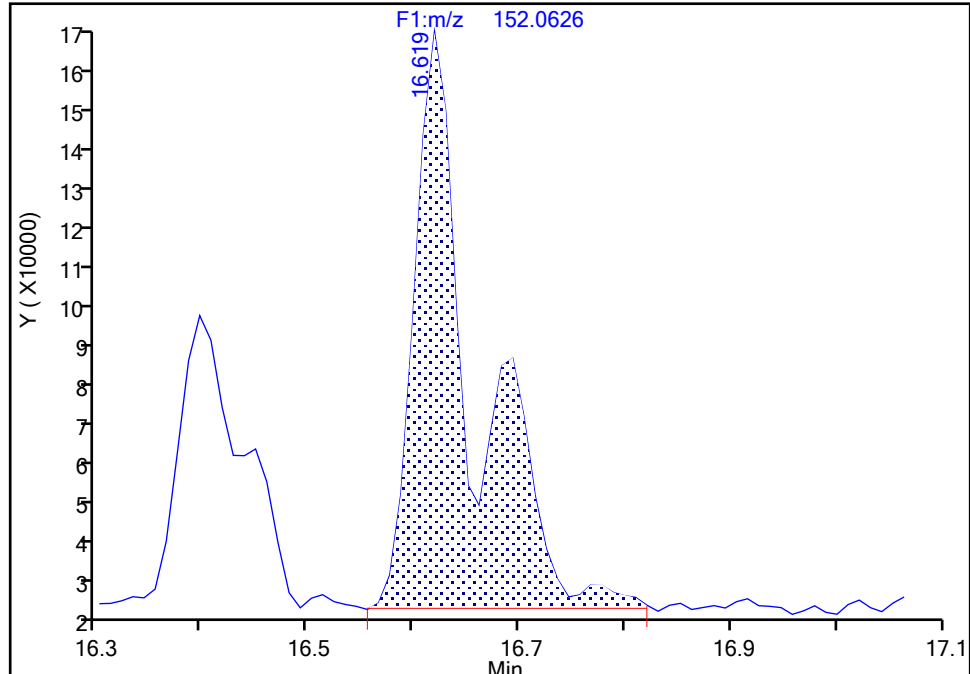
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-2-C Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Acenaphthylene, CAS: 208-96-8

Signal: 1

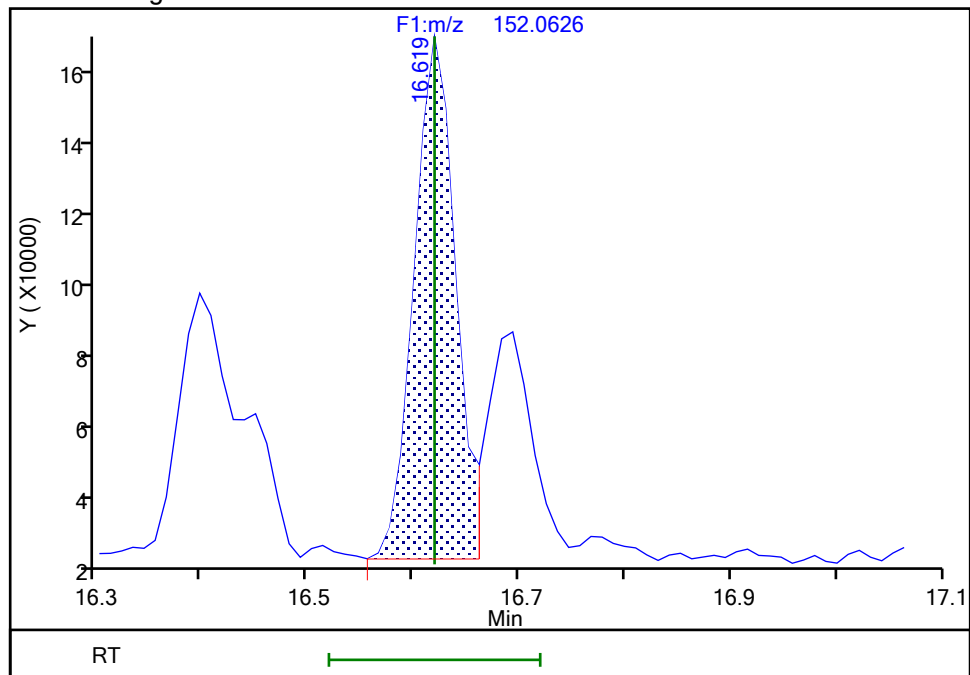
RT: 16.62  
Area: 557083  
Amount: 1.583511  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.62  
Area: 378045  
Amount: 1.074594  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 14:03:46 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

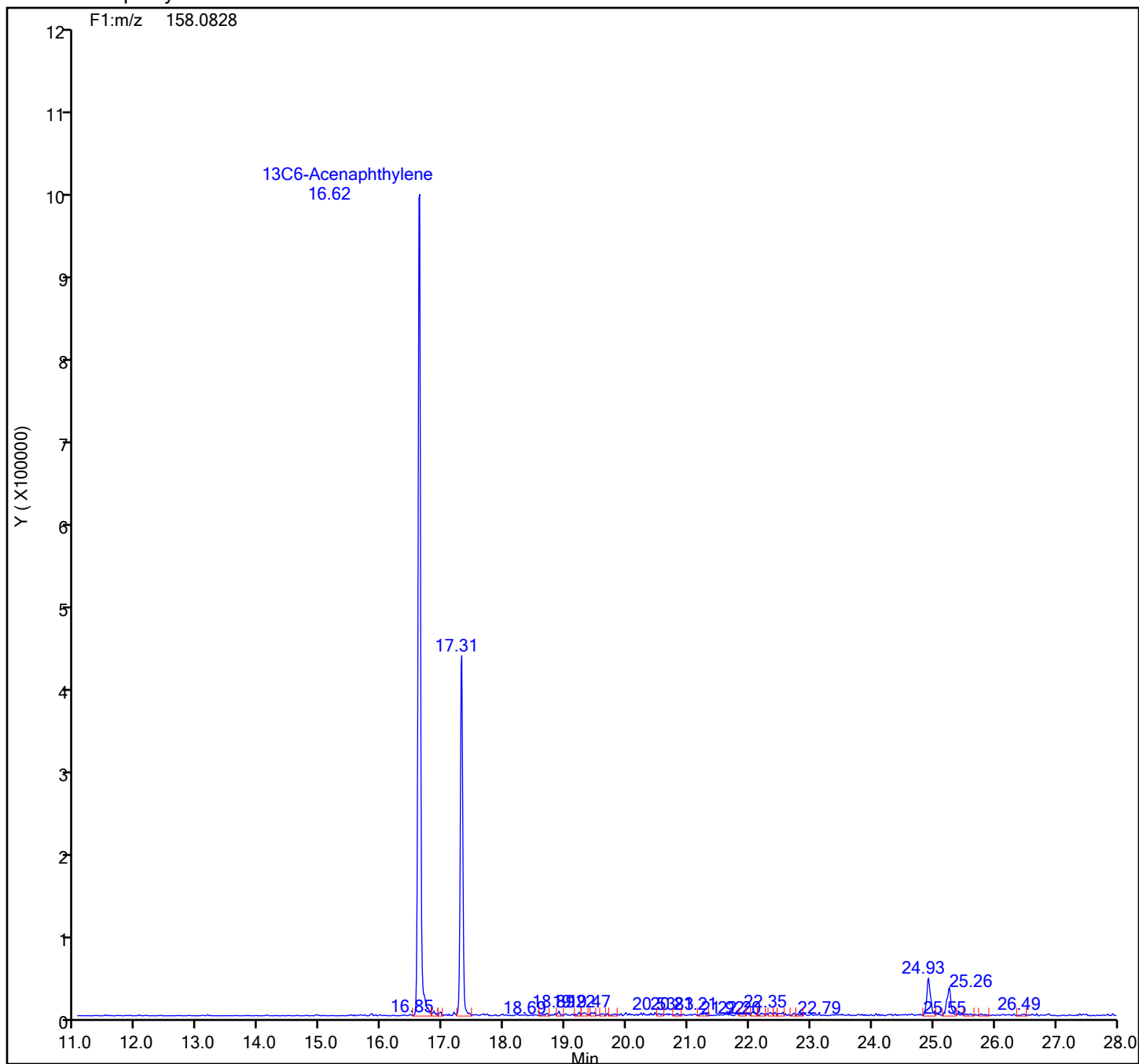
Audit Reason: Incomplete Integration



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88999 Sample Line#: 12  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

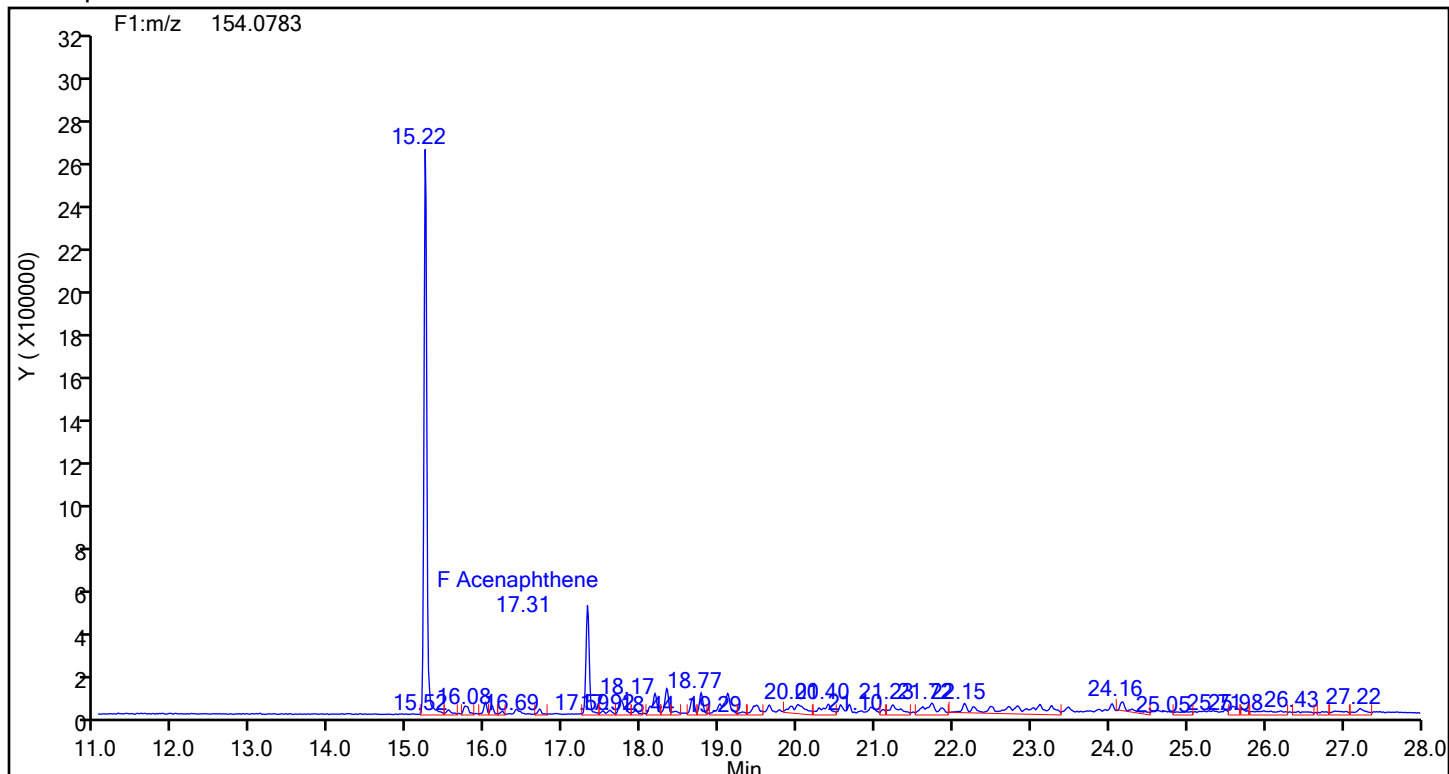
## 13C6-Acenaphthylene Standards



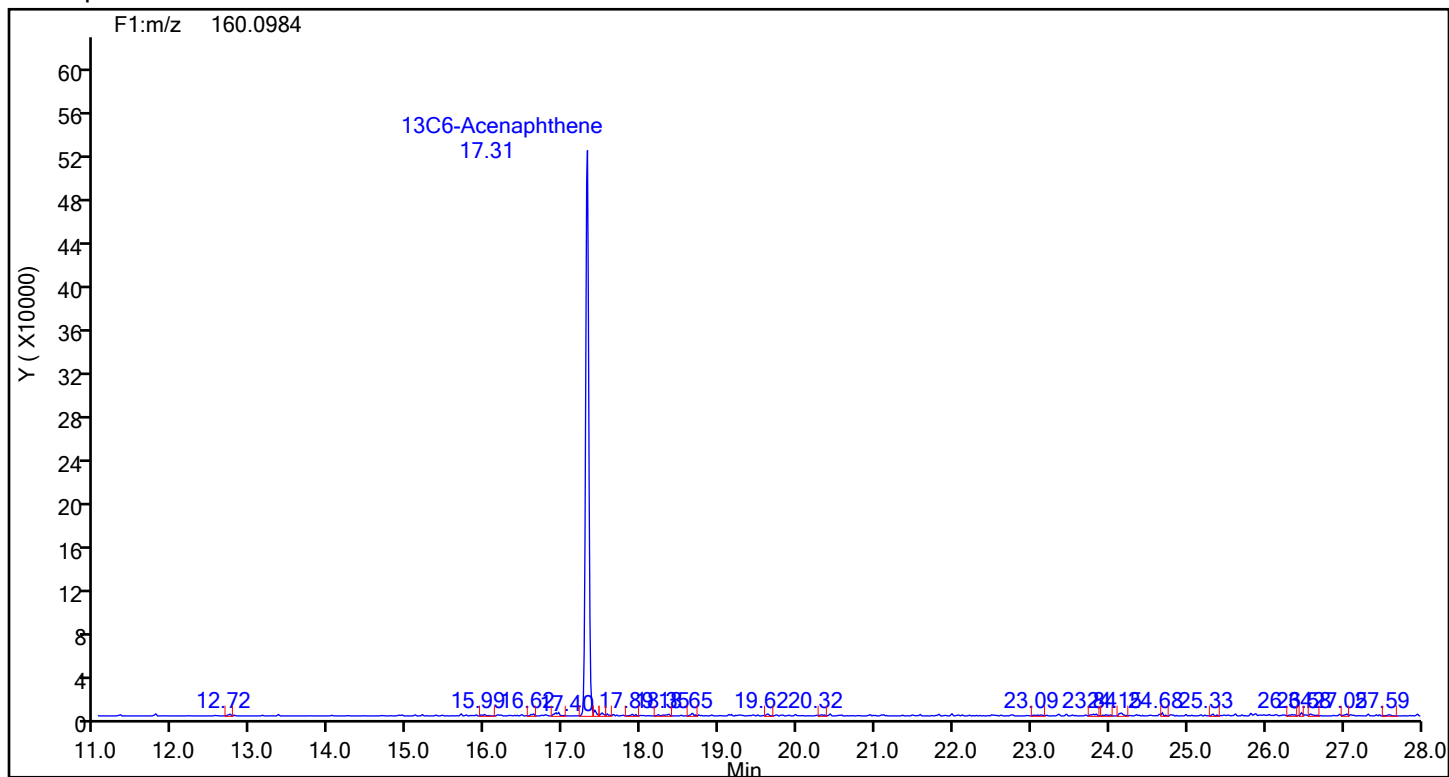
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88999 Sample Line#: 12  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



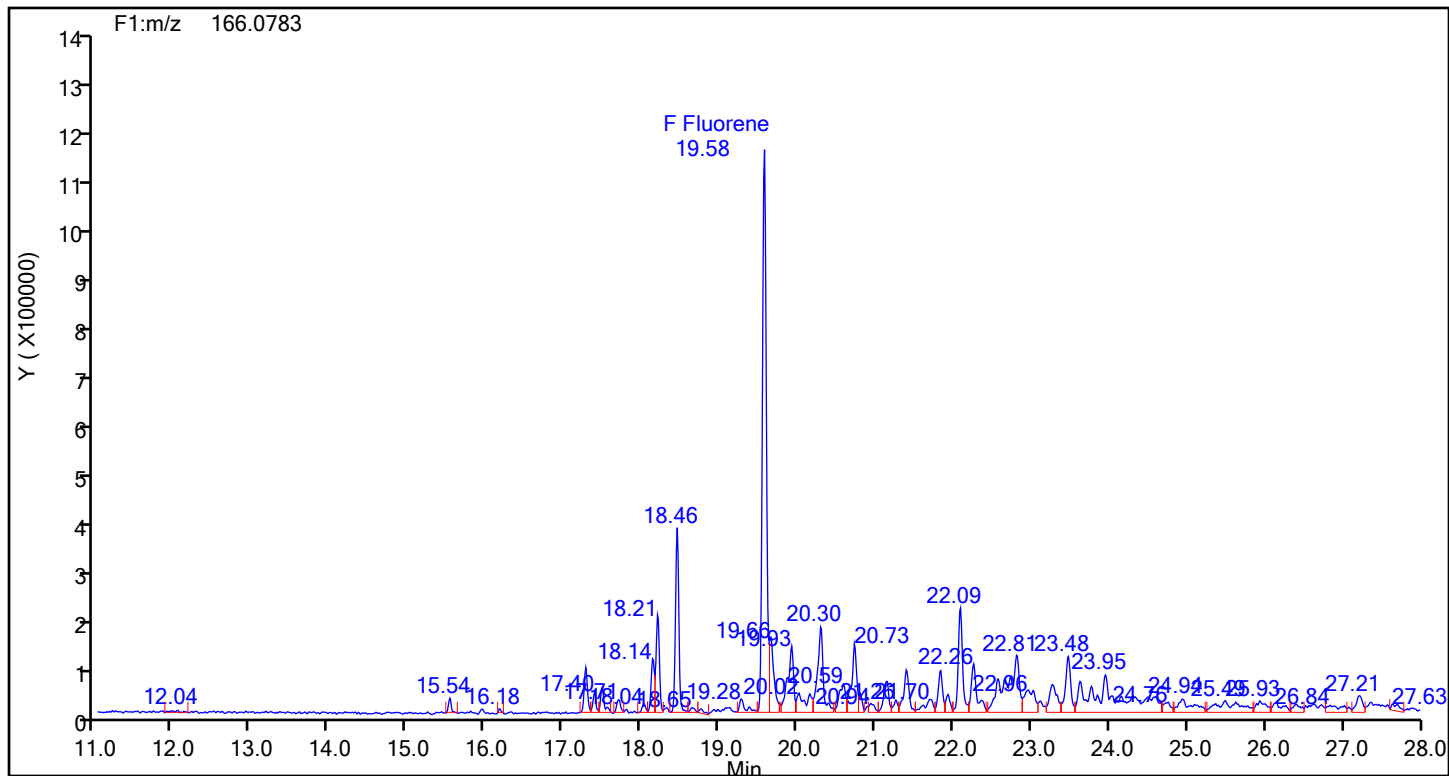
## Acenaphthene Standards



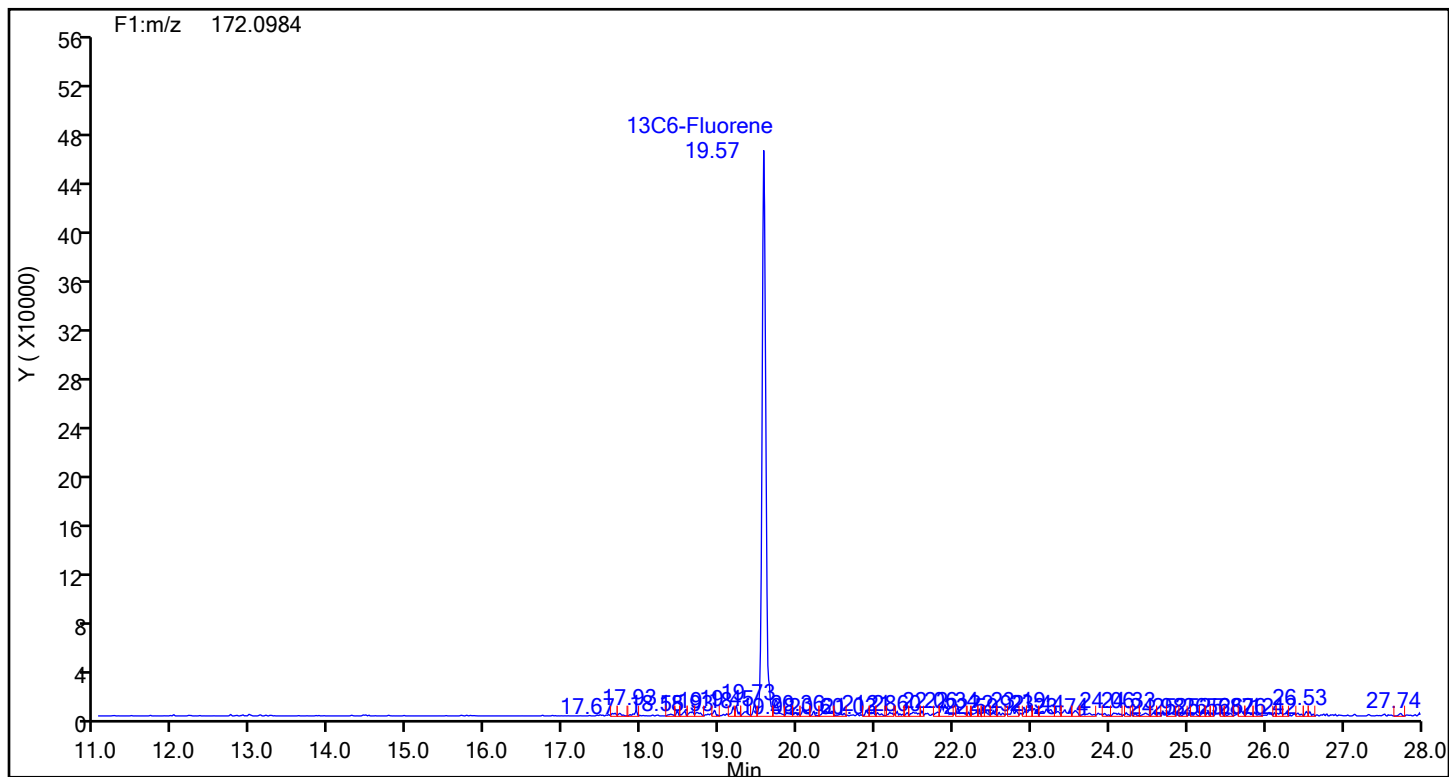
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88999 Sample Line#: 12  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene



## Fluorene Standards



## Eurofins Knoxville

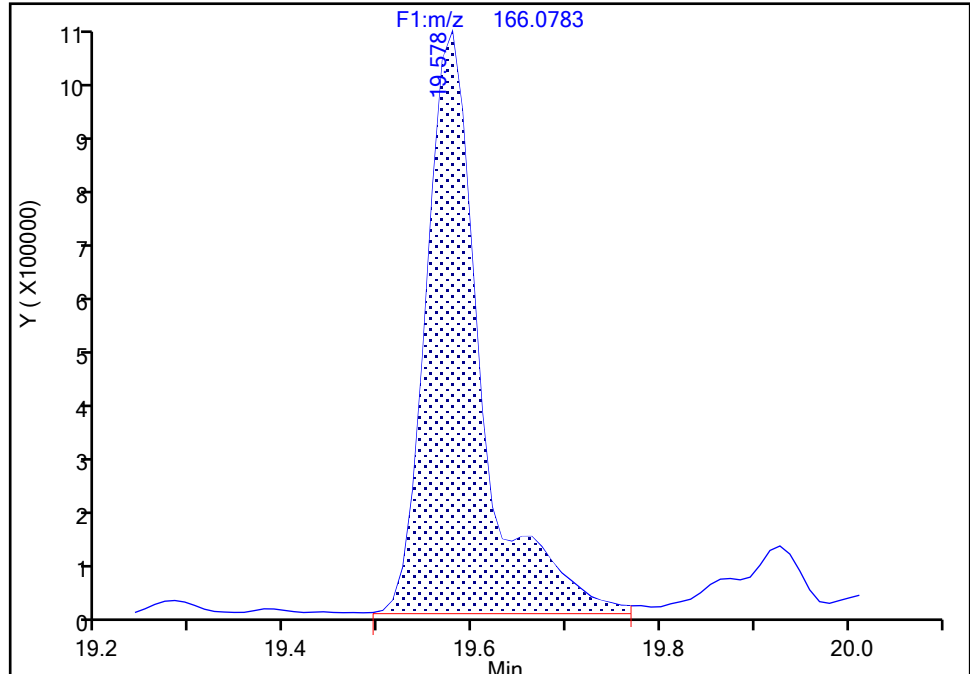
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-2-C Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Fluorene, CAS: 86-73-7

Signal: 1

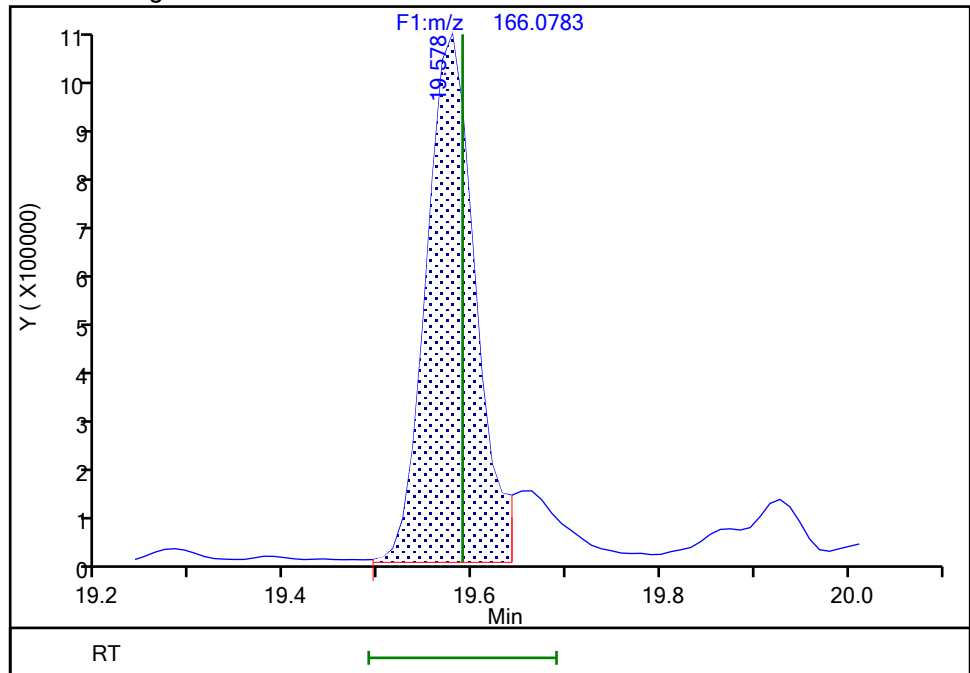
RT: 19.58  
Area: 4395716  
Amount: 22.440095  
Amount Units: pg/ul

## Processing Integration Results



RT: 19.58  
Area: 3889421  
Amount: 19.855463  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 14:04:02 -04:00:00 (UTC)

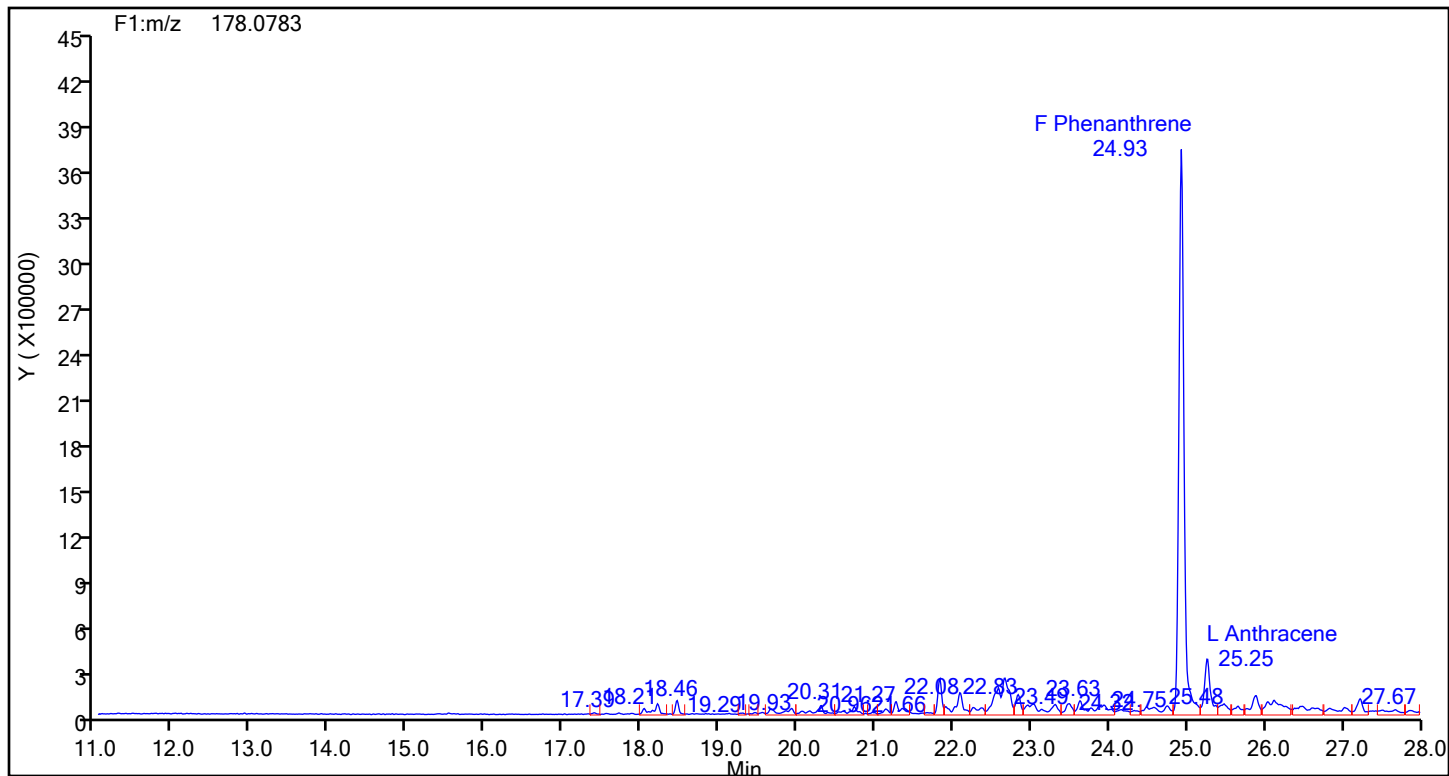
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

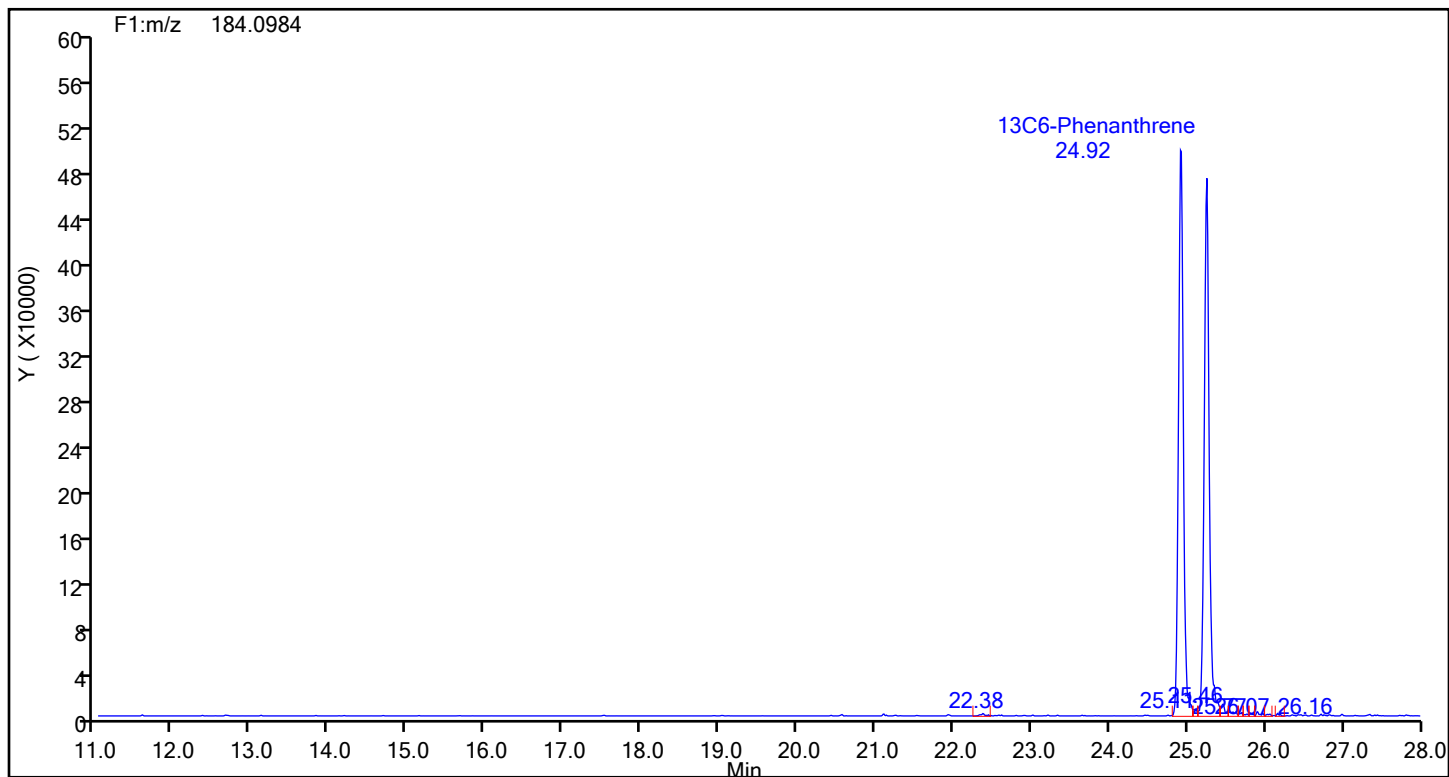
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88999 Sample Line#: 12  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Phenanthrene

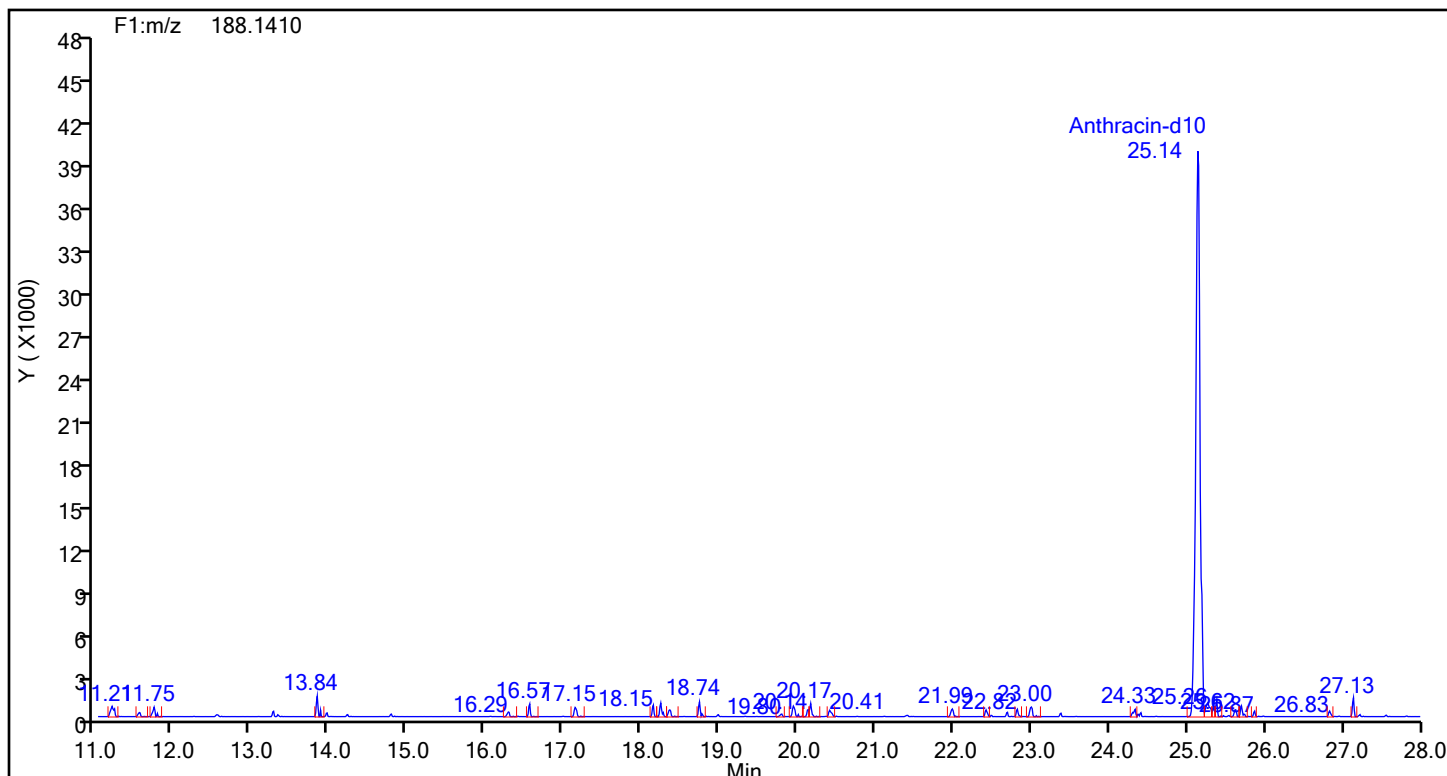


## Phenanthrene Standards

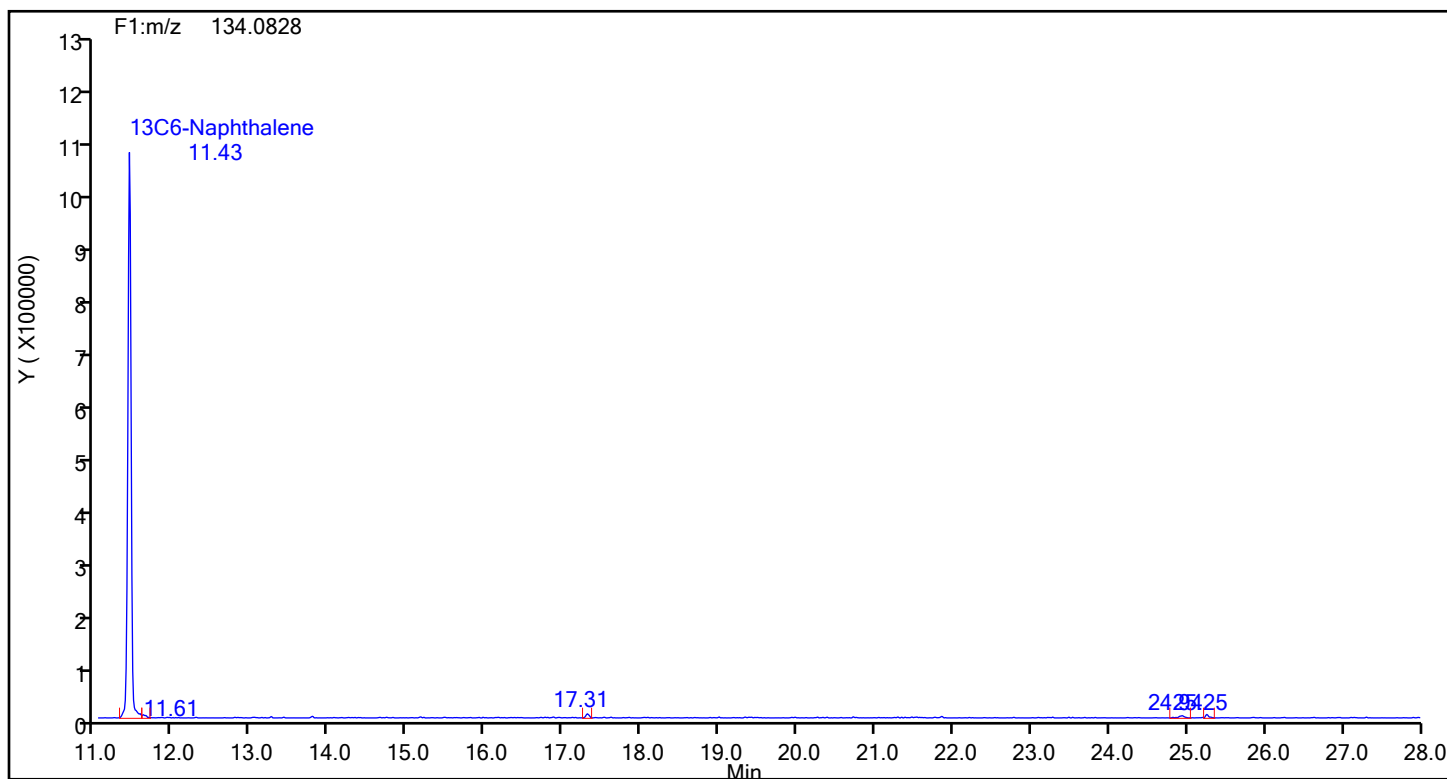


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88999 Sample Line#: 12  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10



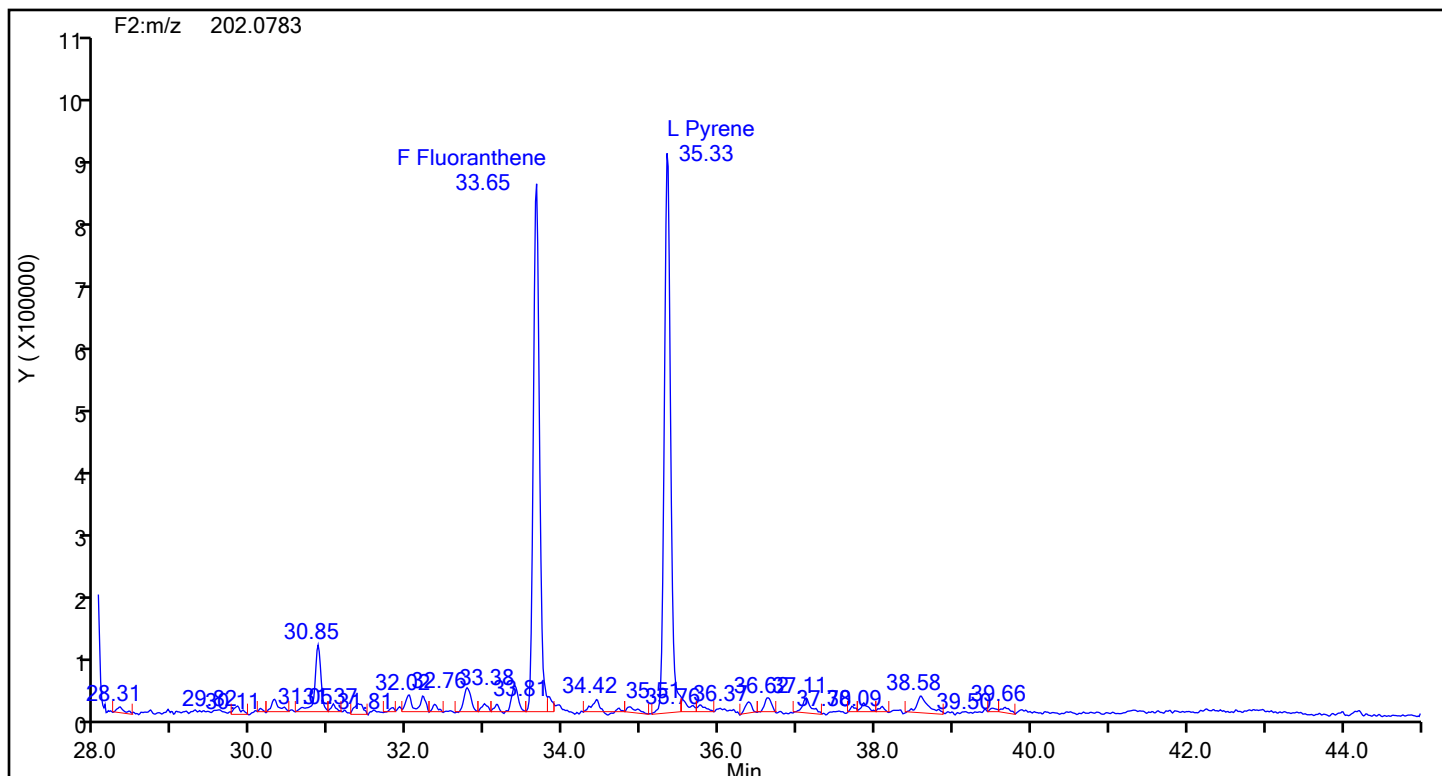
## Anthracin-d10 Standards



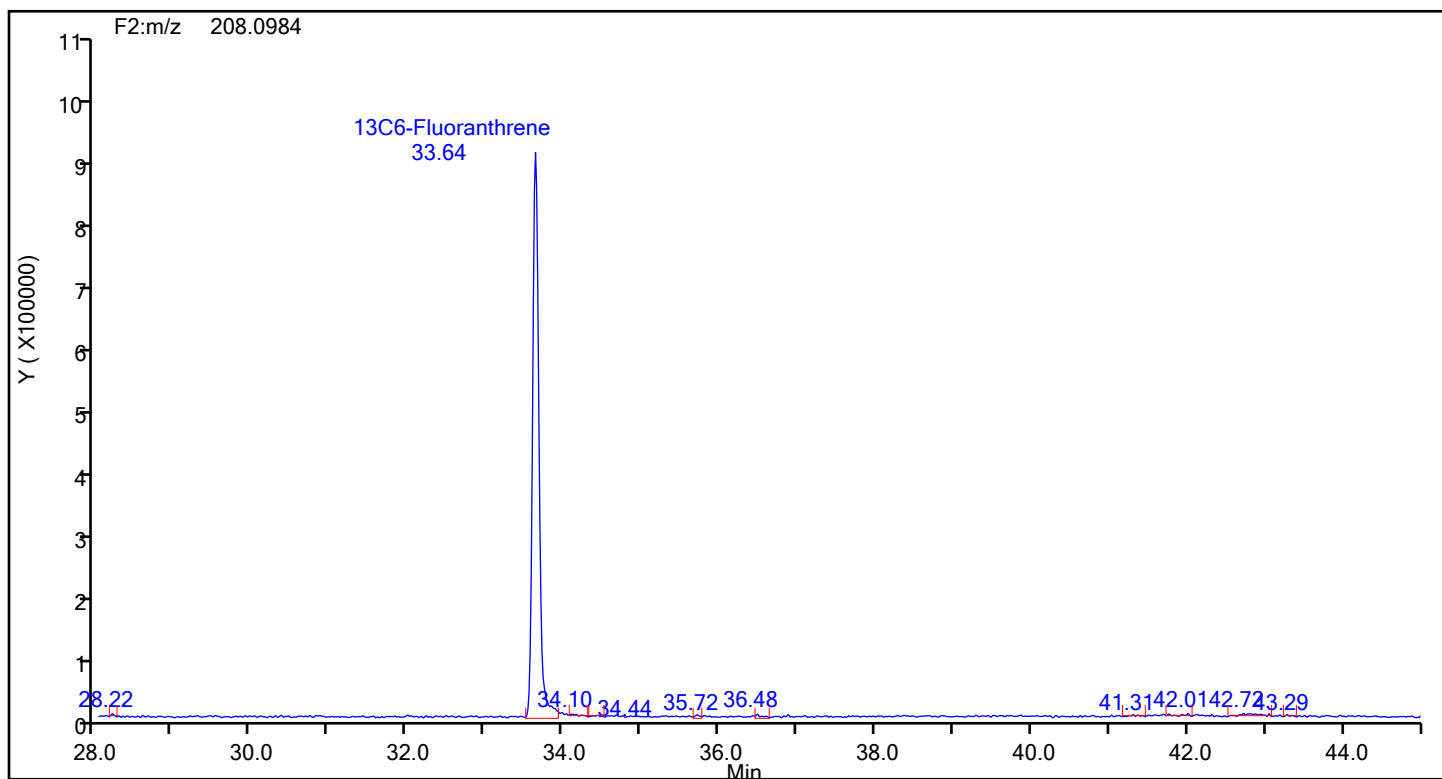
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88999 Sample Line#: 12  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluoranthene



## Fluoranthene Standards



## Eurofins Knoxville

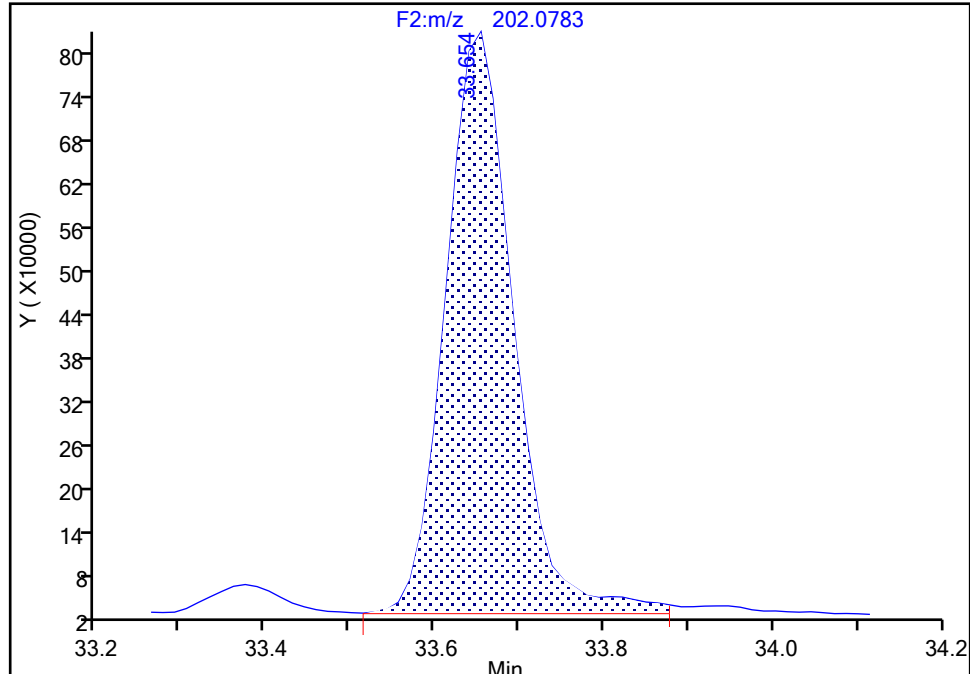
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Injection Date: 20-Jul-2024 11:35:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-2-C Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F2(28.03 :43.99 )

## Fluoranthene, CAS: 206-44-0

Signal: 1

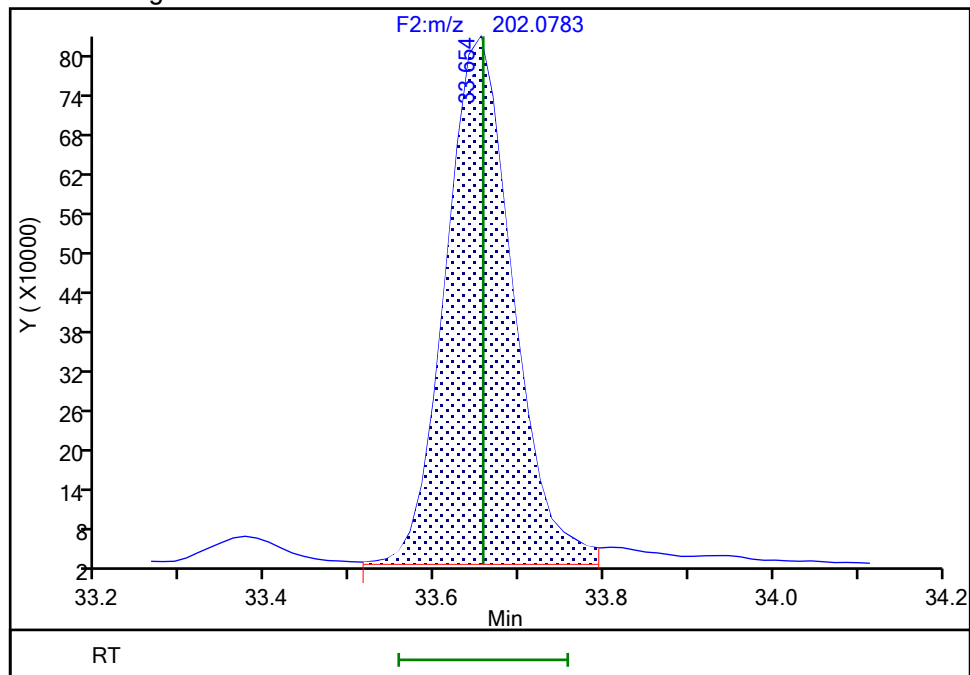
RT: 33.65  
Area: 4492464  
Amount: 7.641874  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.65  
Area: 4402718  
Amount: 7.489212  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 14:03:15 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

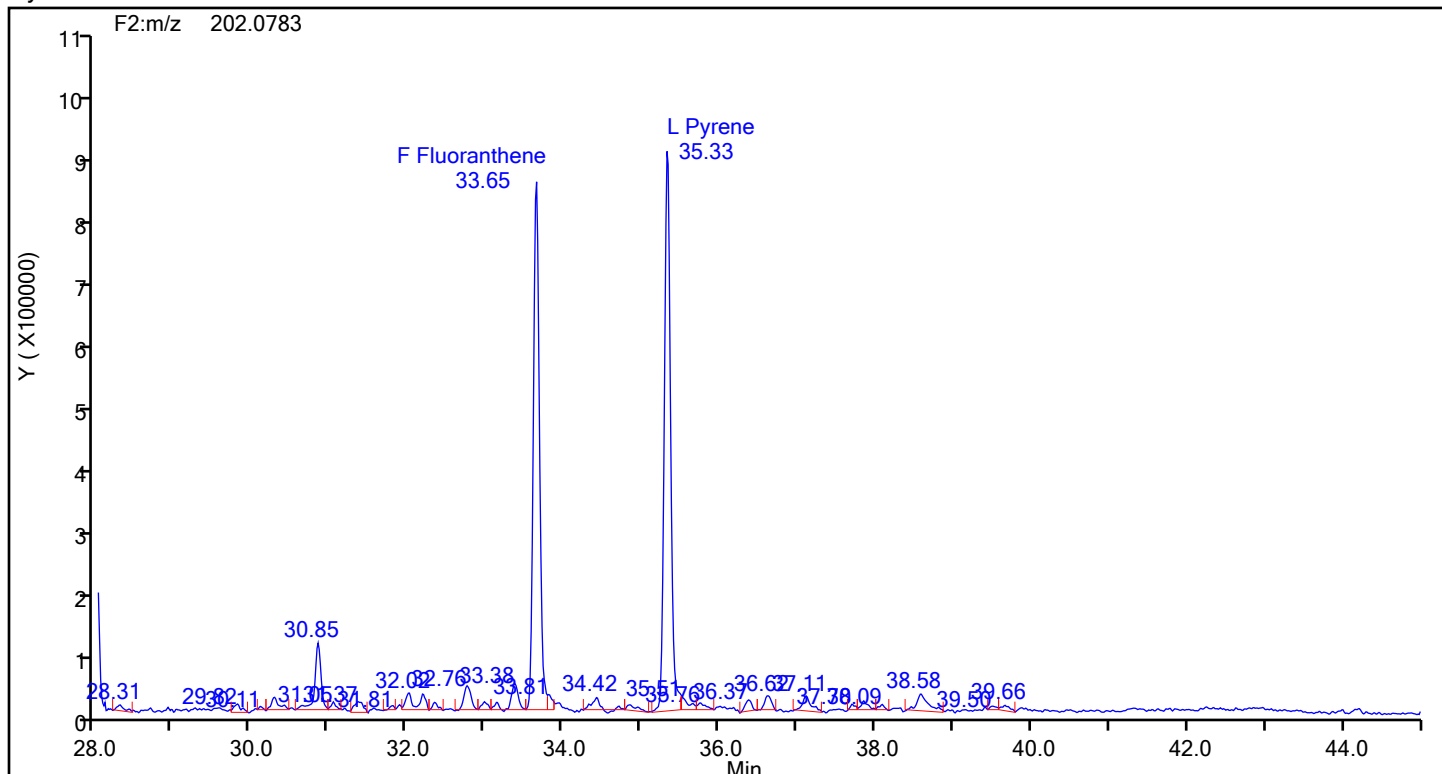
Audit Reason: Incomplete Integration



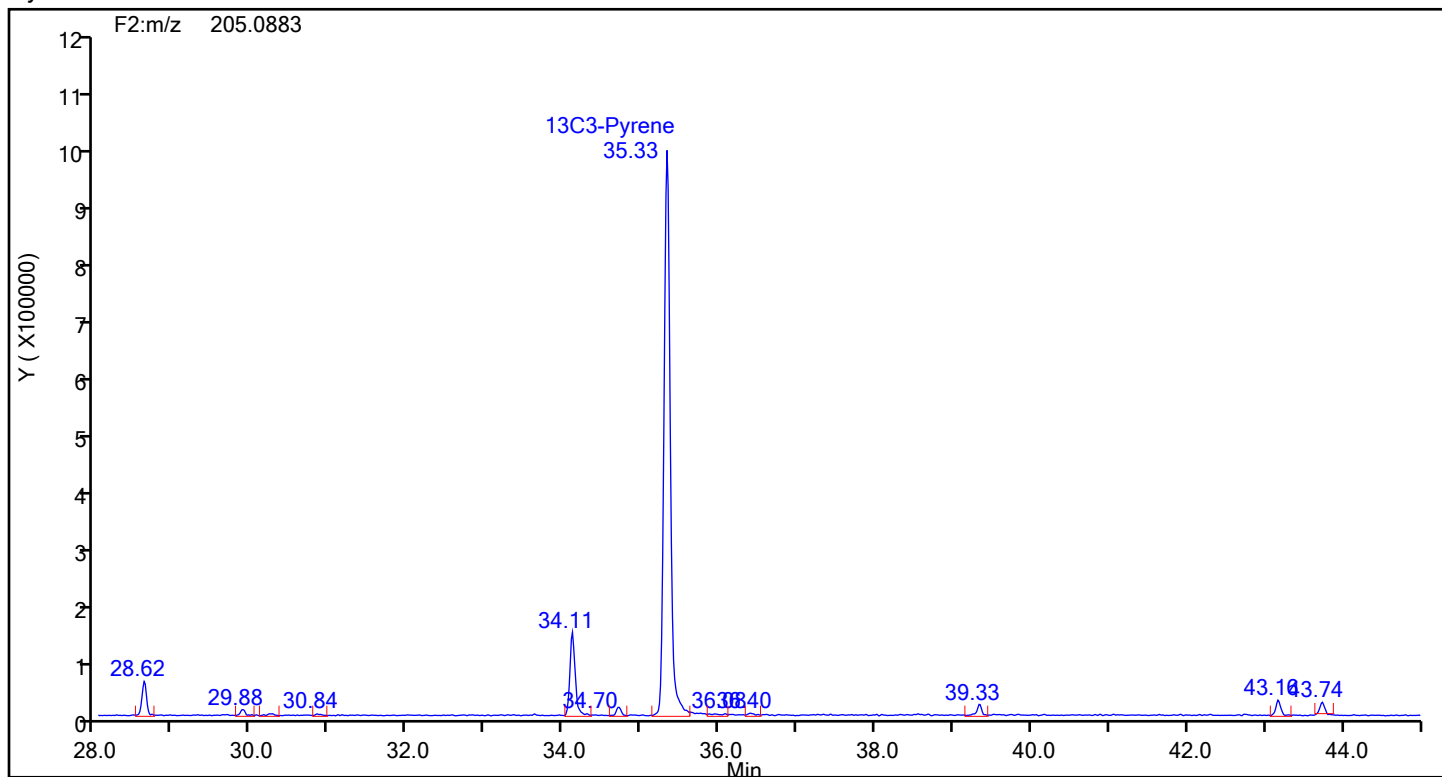
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88999 Sample Line#: 12  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Pyrene



## Pyrene Standards



## Eurofins Knoxville

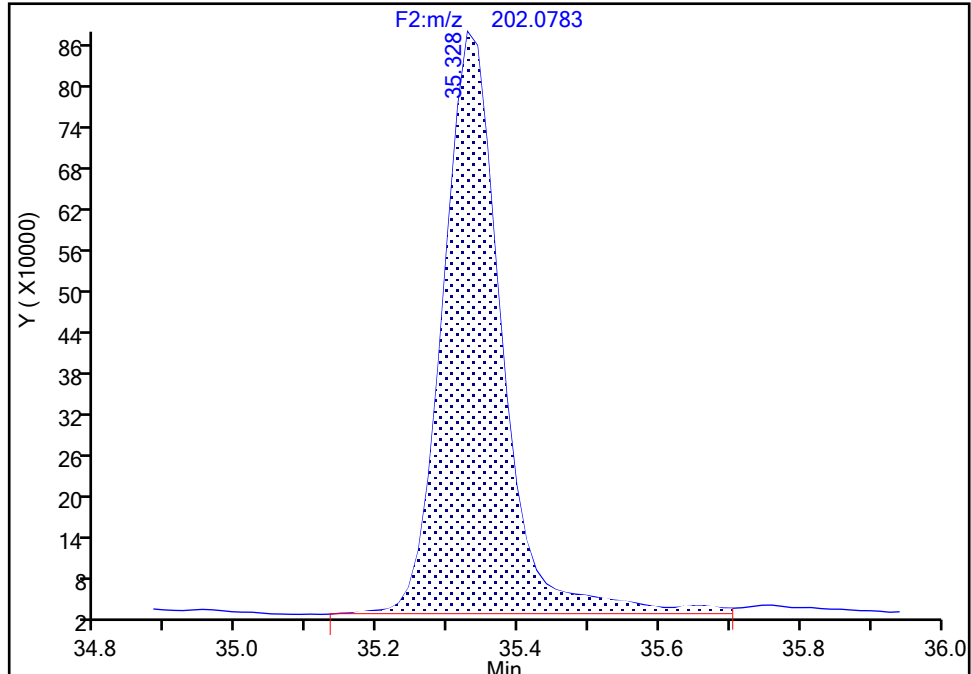
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-2-C Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F2(28.03 :43.99 )

Pyrene, CAS: 129-00-0

Signal: 1

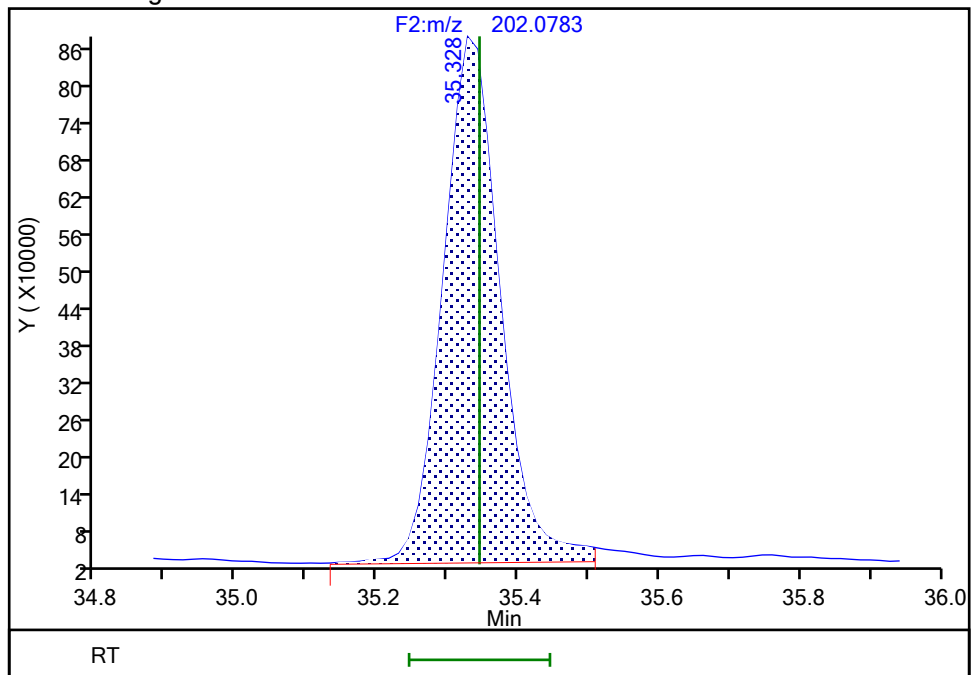
RT: 35.33  
Area: 4926492  
Amount: 8.448875  
Amount Units: pg/ul

## Processing Integration Results



RT: 35.33  
Area: 4793801  
Amount: 8.221312  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 14:03:39 -04:00:00 (UTC)

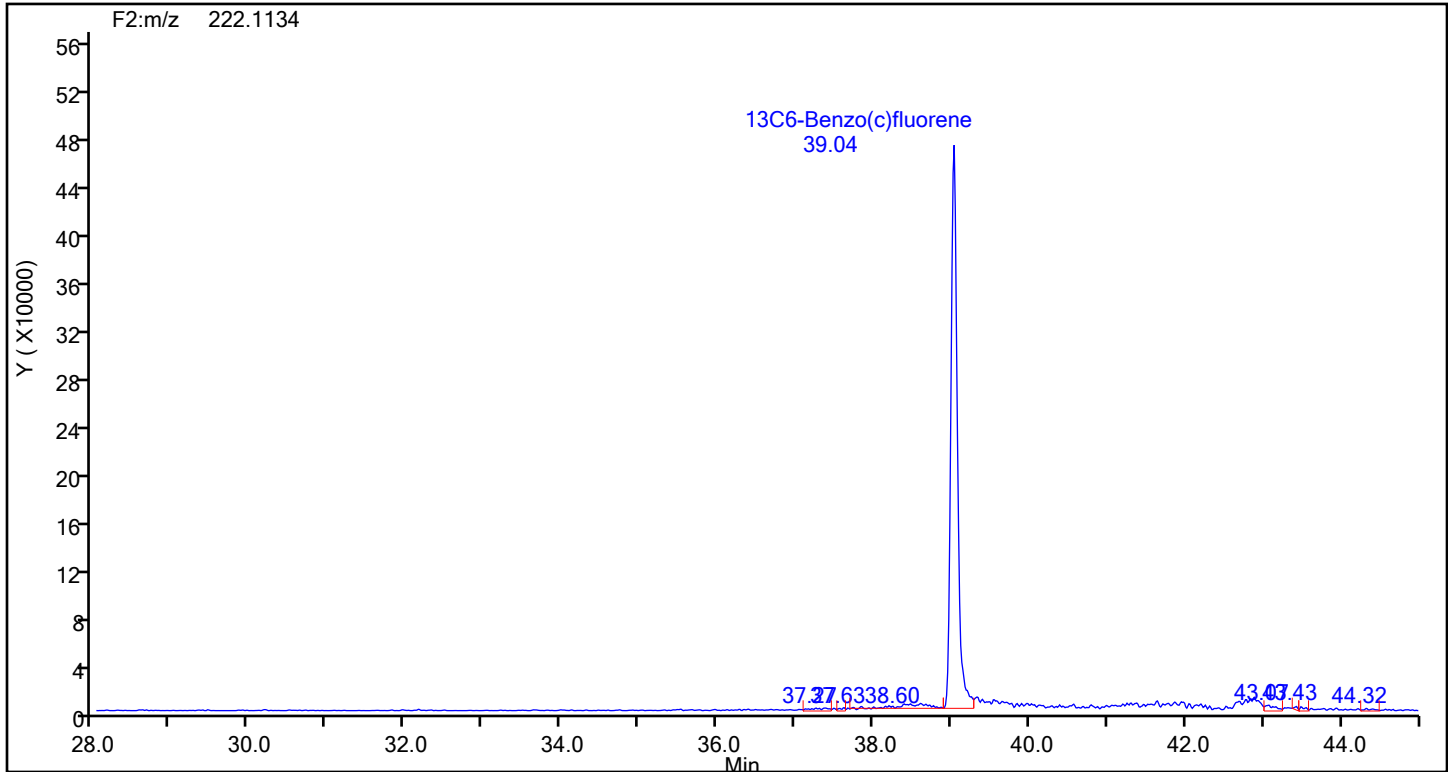
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

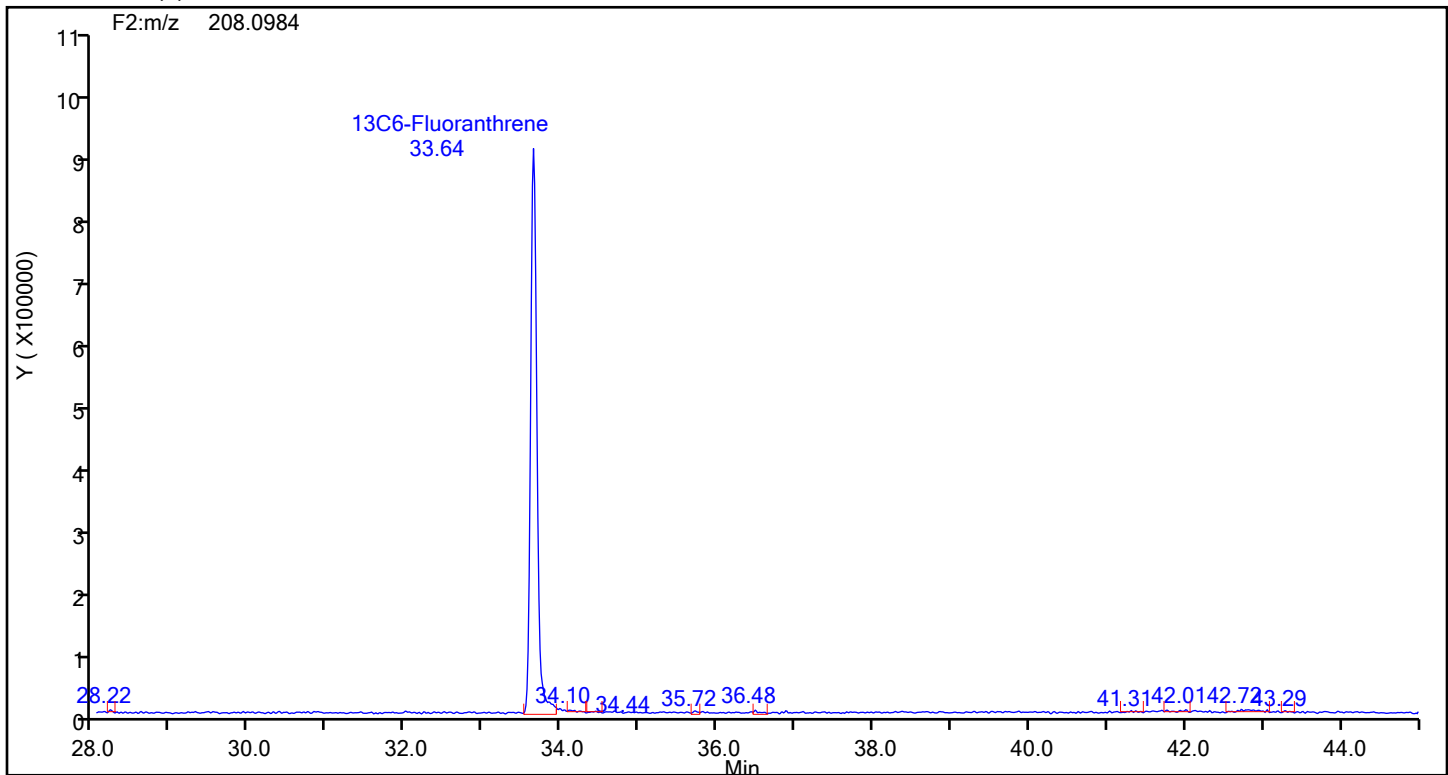
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88999 Sample Line#: 12  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C6-Benzo(c)fluorene



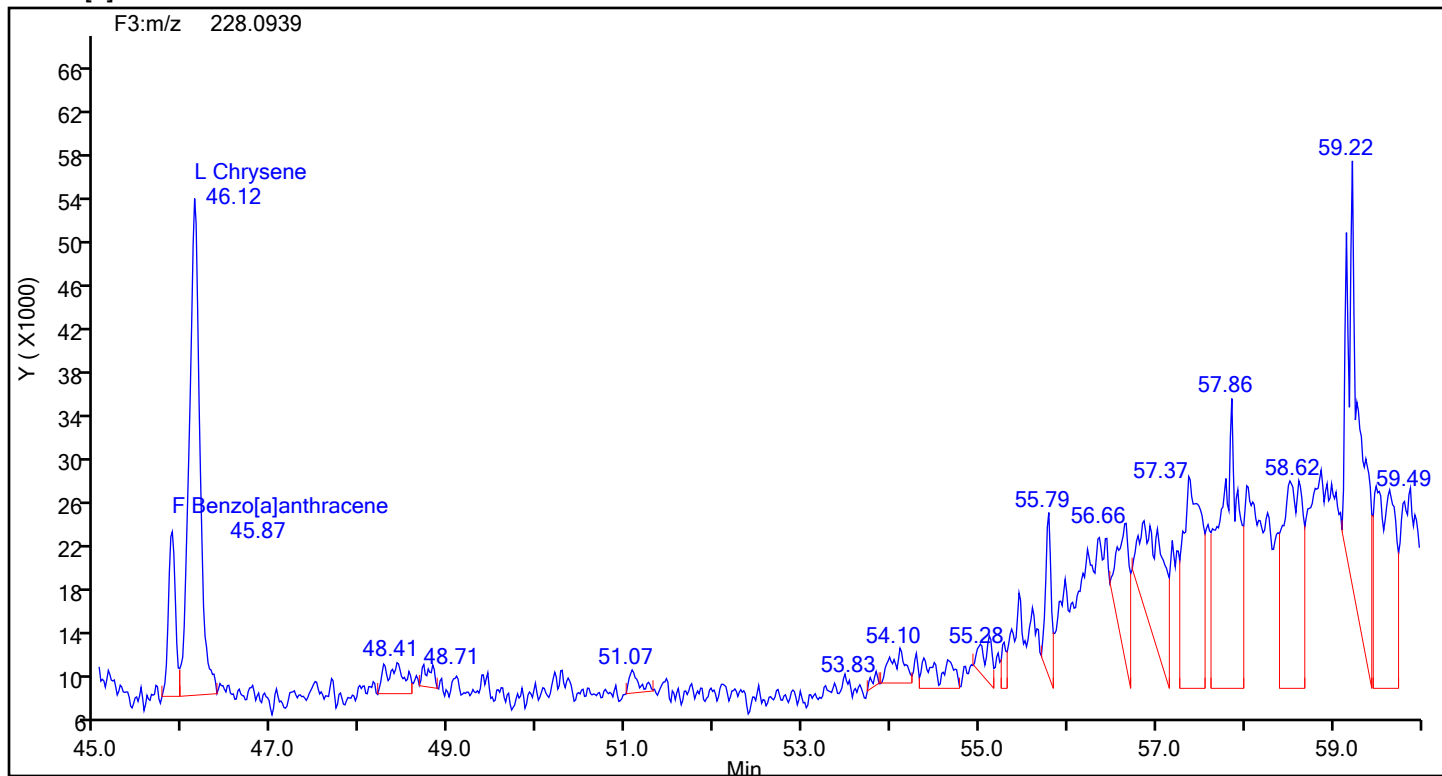
## 13C6-Benzo(c)fluorene Standards



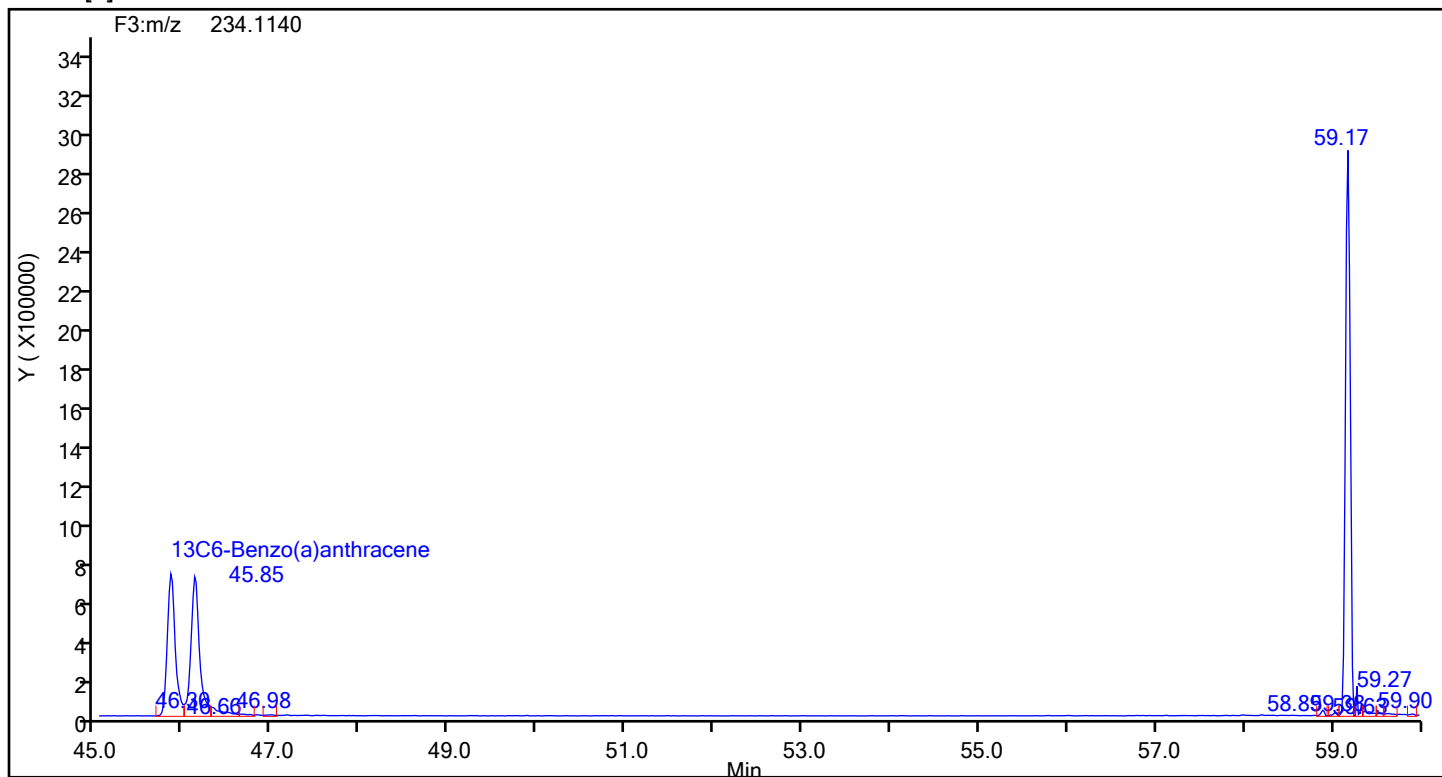
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88999 Sample Line#: 12  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



## Benzo[a]anthracene Standards



## Eurofins Knoxville

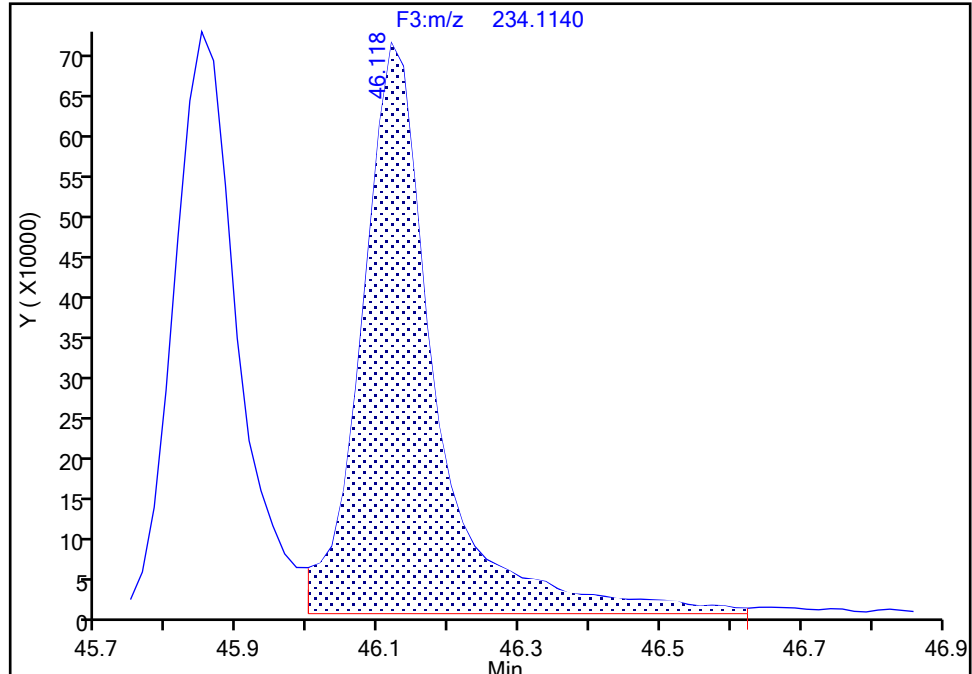
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-2-C Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C6-Chrysene, CAS: 1397177-72-8**

Signal: 1

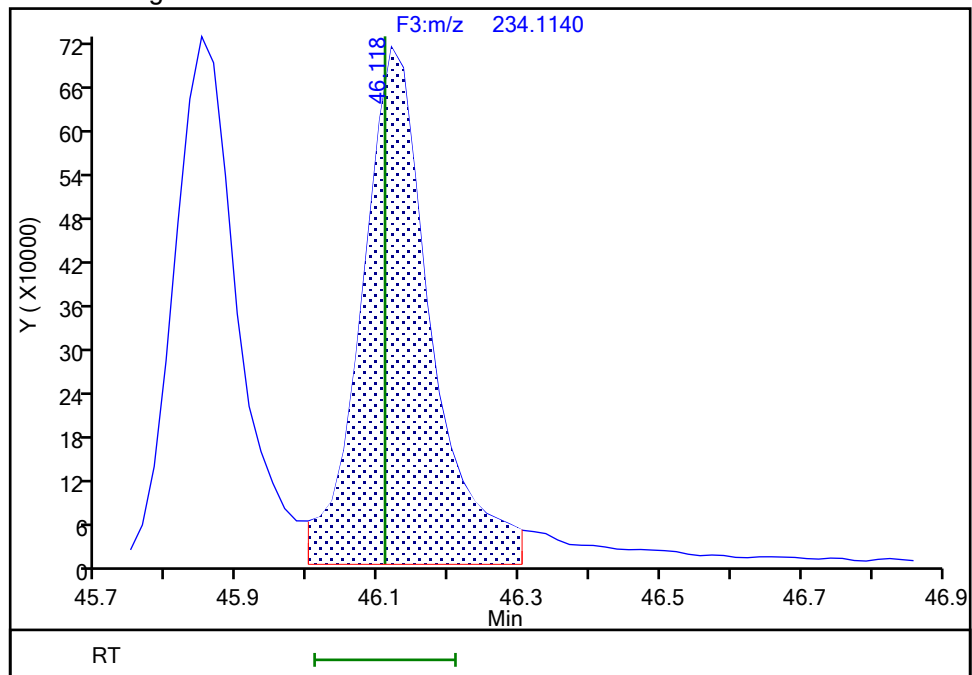
RT: 46.12  
Area: 5223667  
Amount: 7.442748  
Amount Units: pg/ul

## Processing Integration Results



RT: 46.12  
Area: 4871653  
Amount: 6.941194  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 14:02:26 -04:00:00 (UTC)

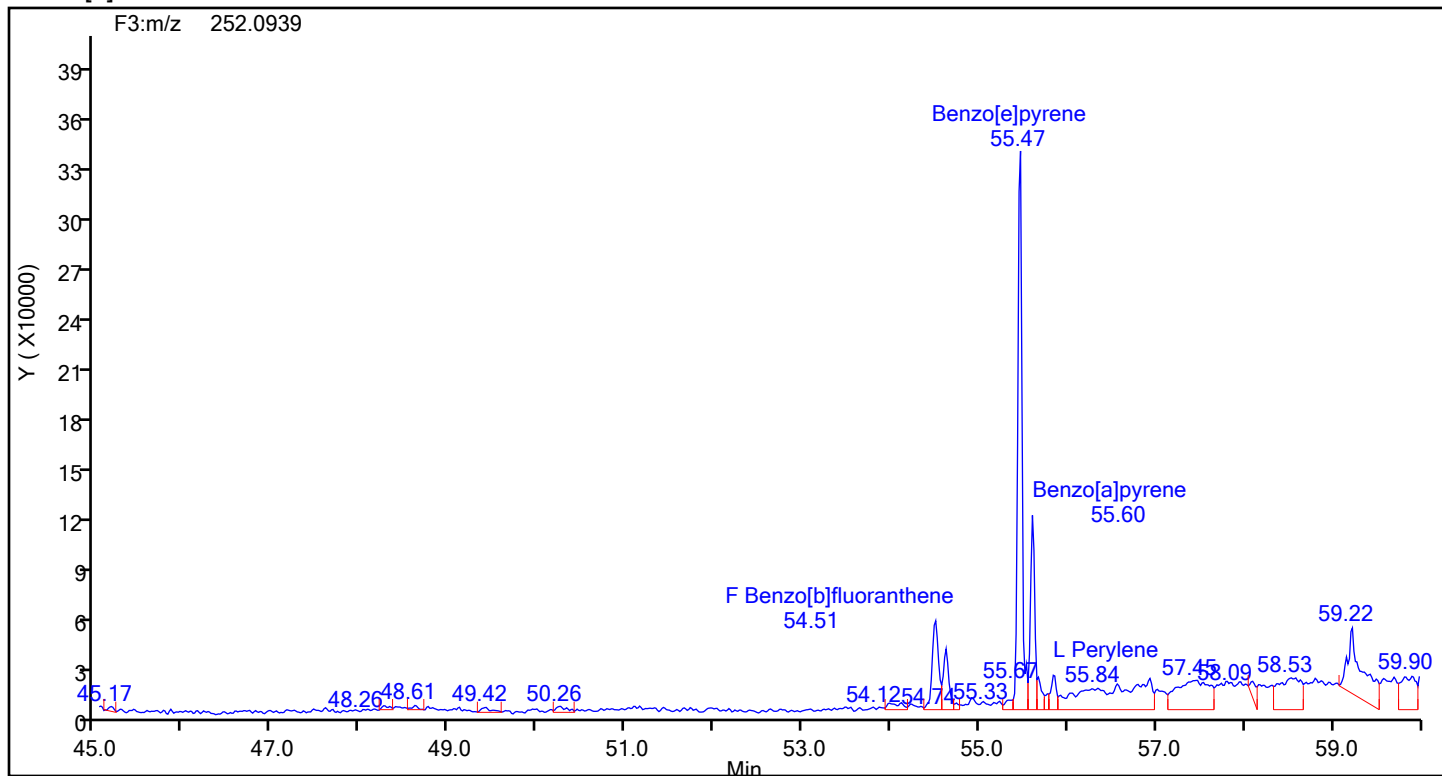
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

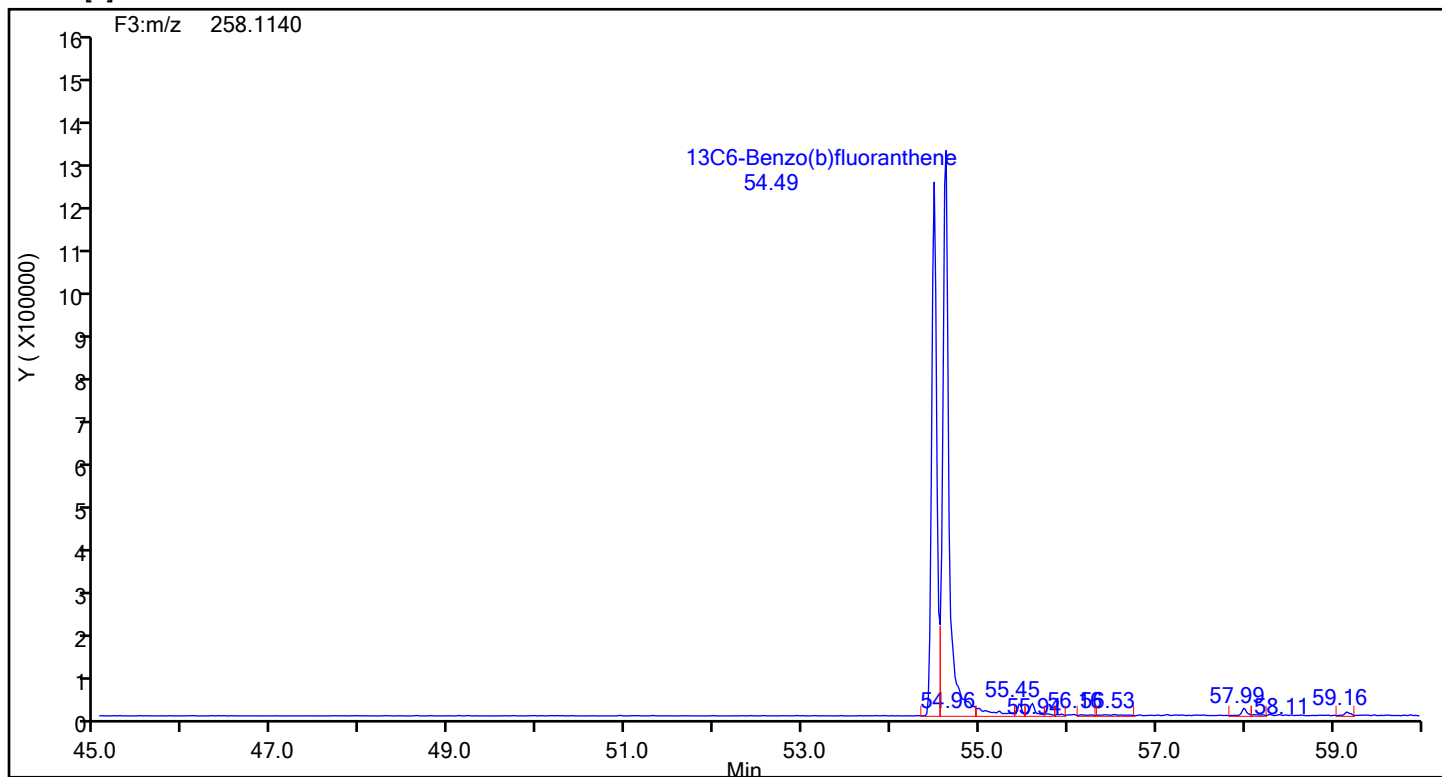
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88999 Sample Line#: 12  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



## Benzo[b]fluoranthene Standards



## Eurofins Knoxville

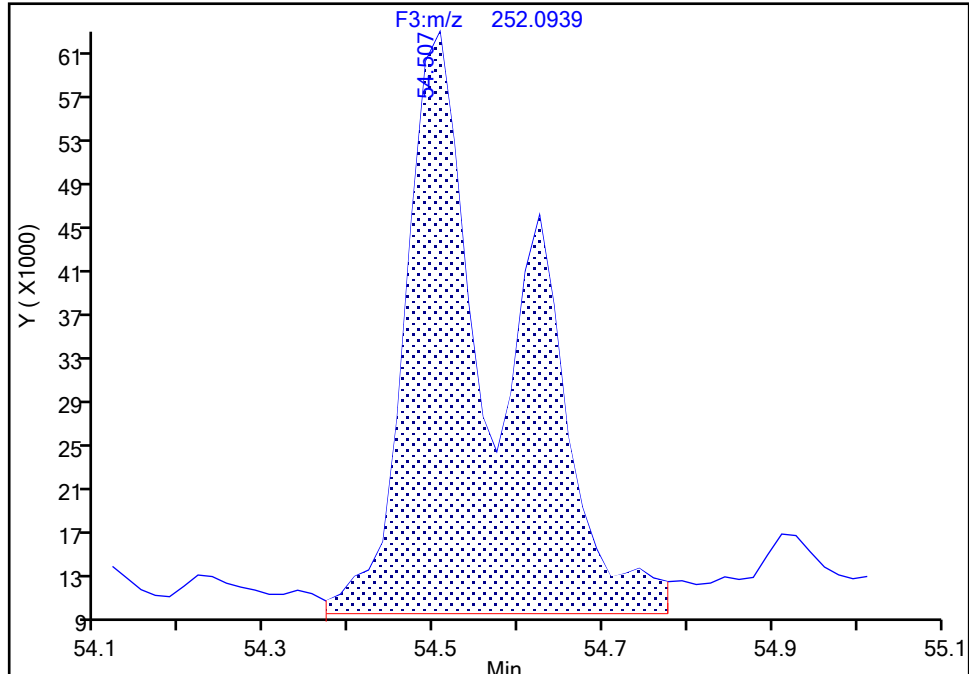
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-2-C Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

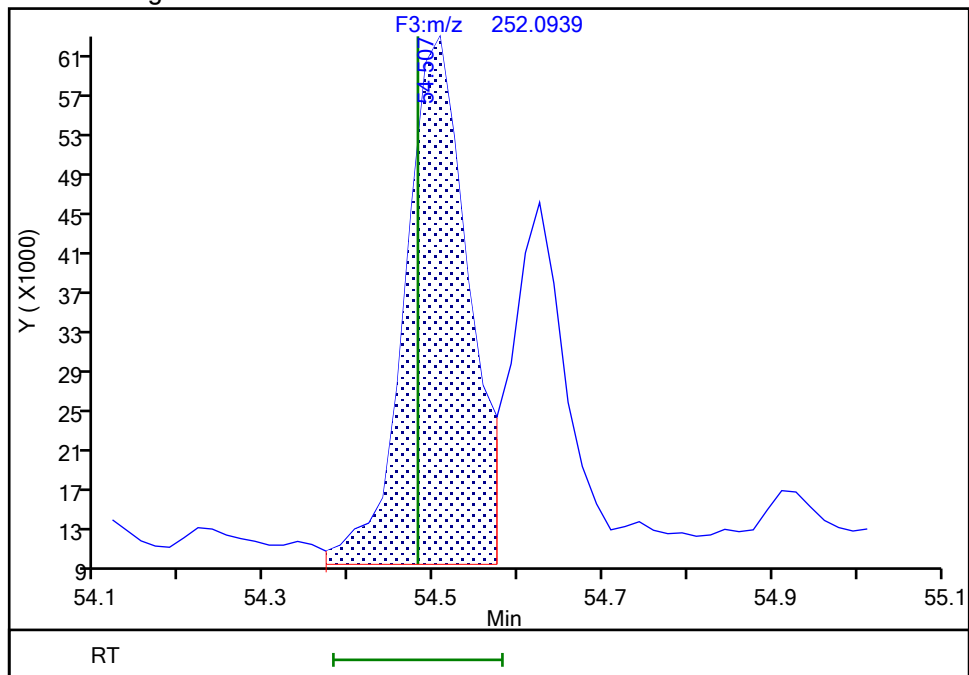
RT: 54.51  
Area: 445407  
Amount: 0.796716  
Amount Units: pg/ul

## Processing Integration Results



RT: 54.51  
Area: 280723  
Amount: 0.502139  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 14:03:11 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

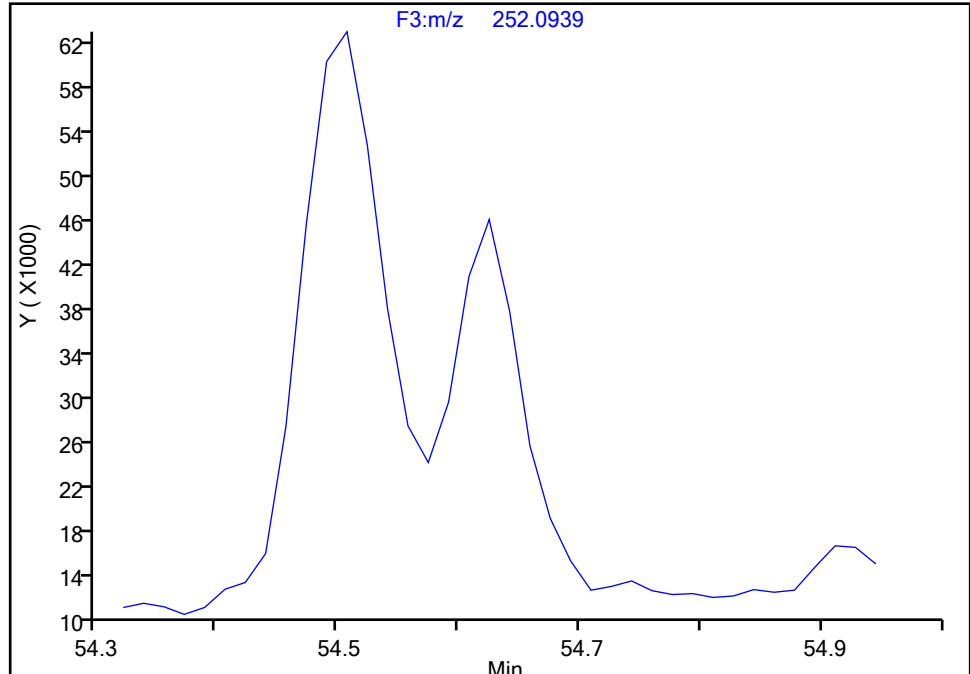
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-2-C Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

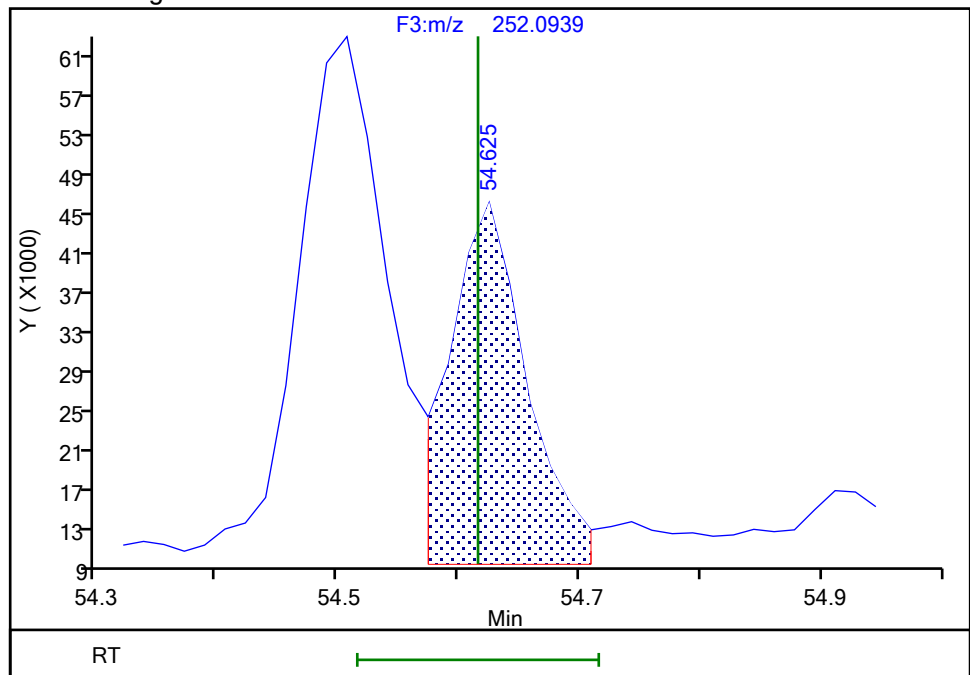
Not Detected  
Expected RT: 54.62

## Processing Integration Results



## Manual Integration Results

RT: 54.62  
Area: 167351  
Amount: 0.230851  
Amount Units: pg/ul



Reviewer: TT6I, 20-Jul-2024 14:04:12 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

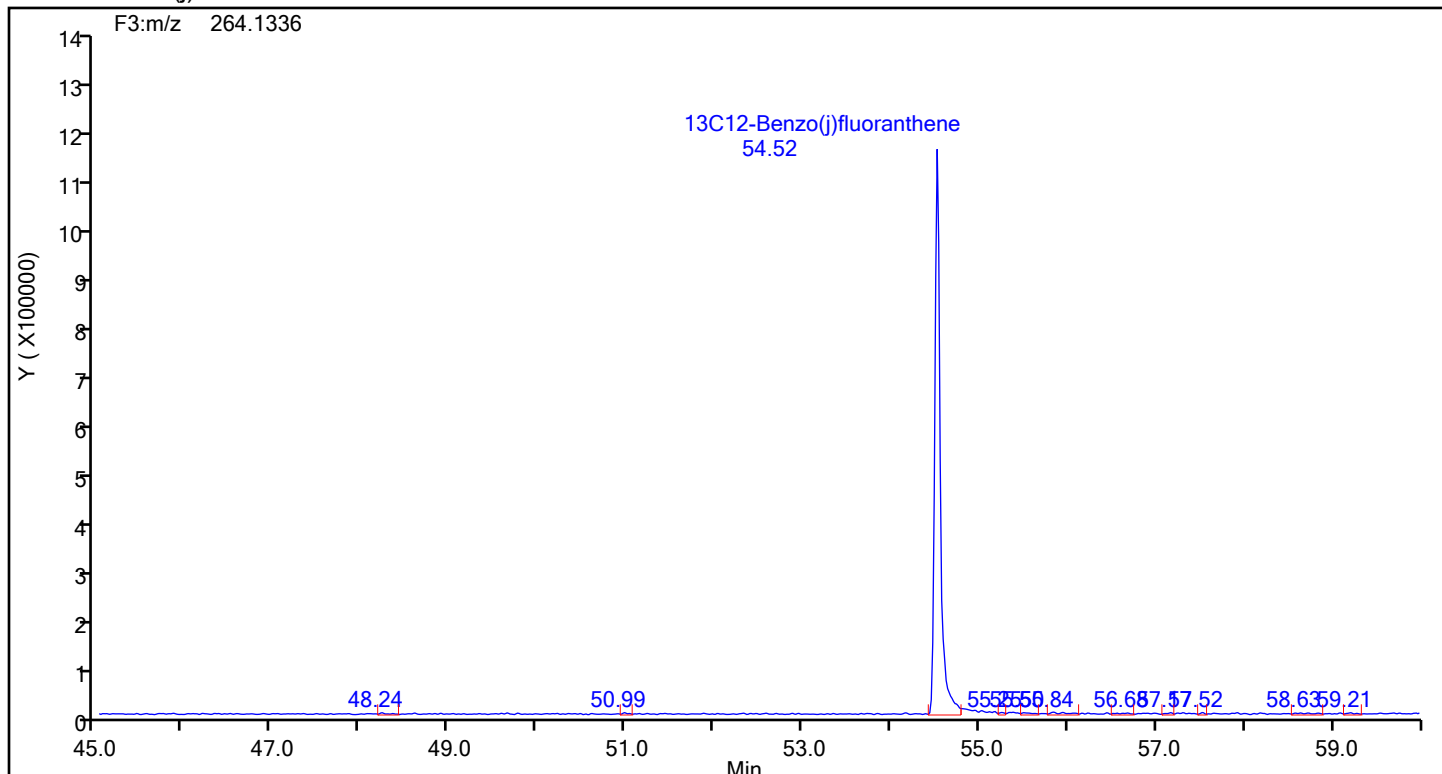
Audit Reason: Incomplete Integration



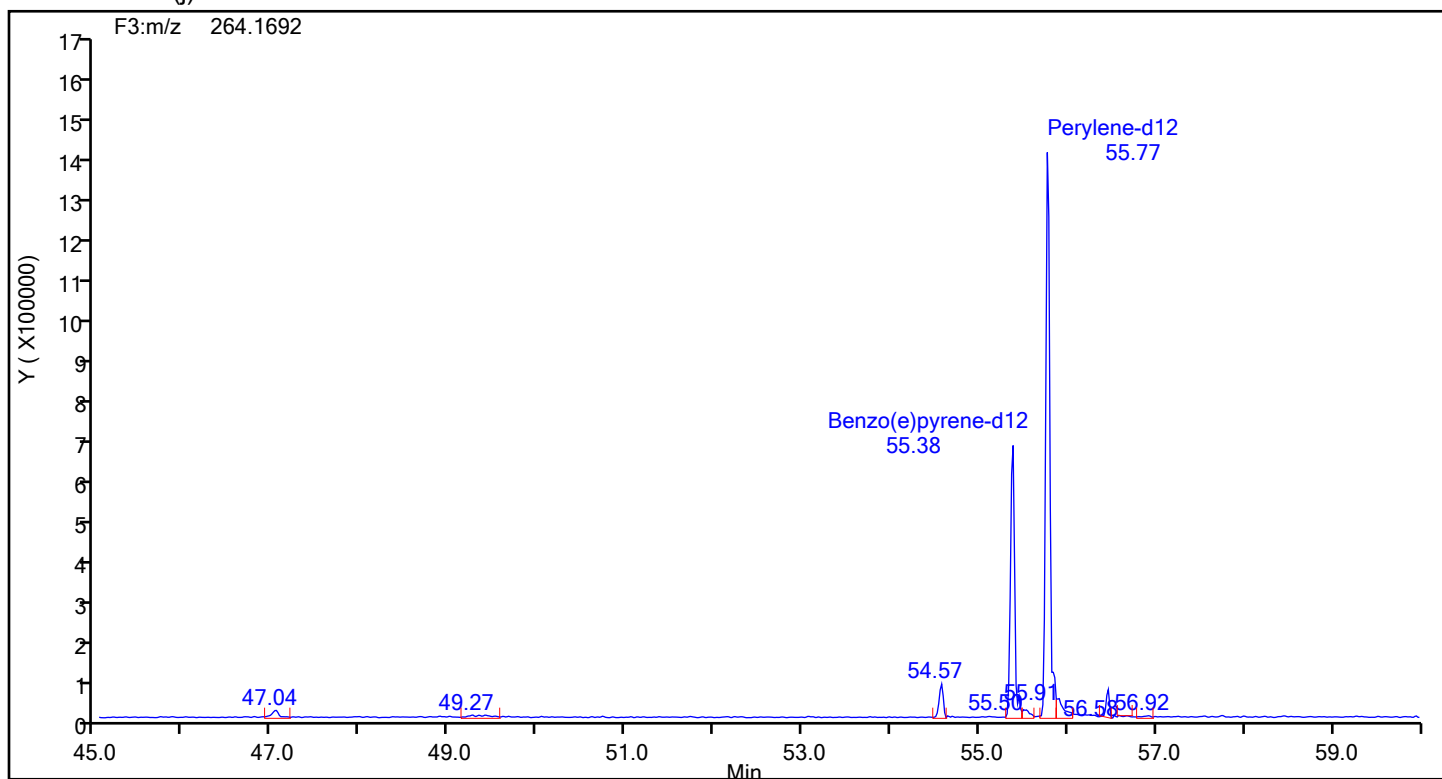
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88999 Sample Line#: 12  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



## 13C12-Benzo(j)fluoranthene Standards



## Eurofins Knoxville

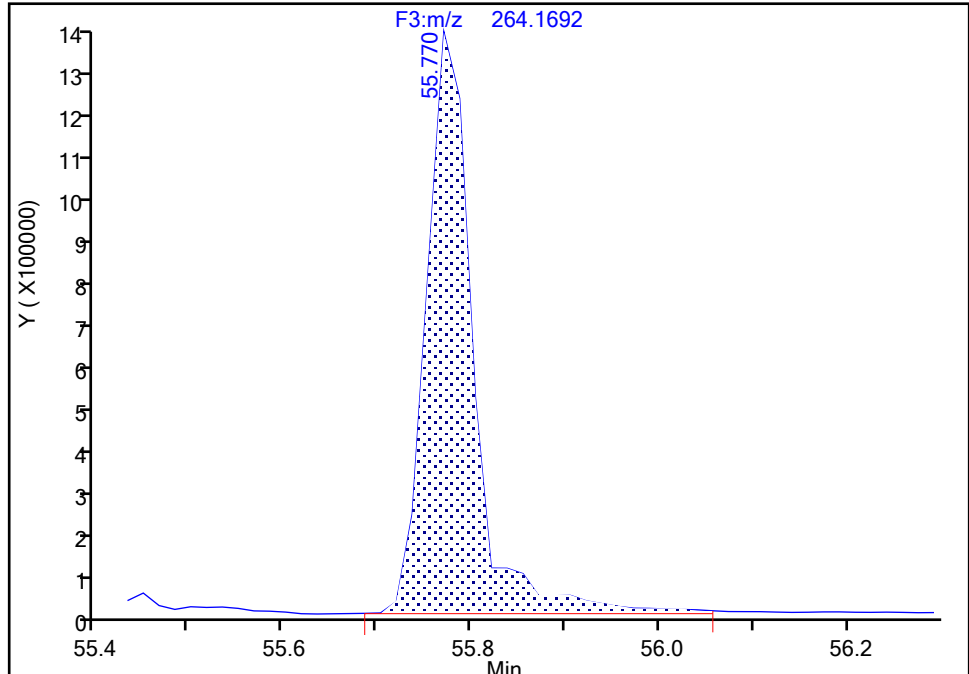
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-2-C Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Perylene-d12, CAS: 1520-96-3

Signal: 1

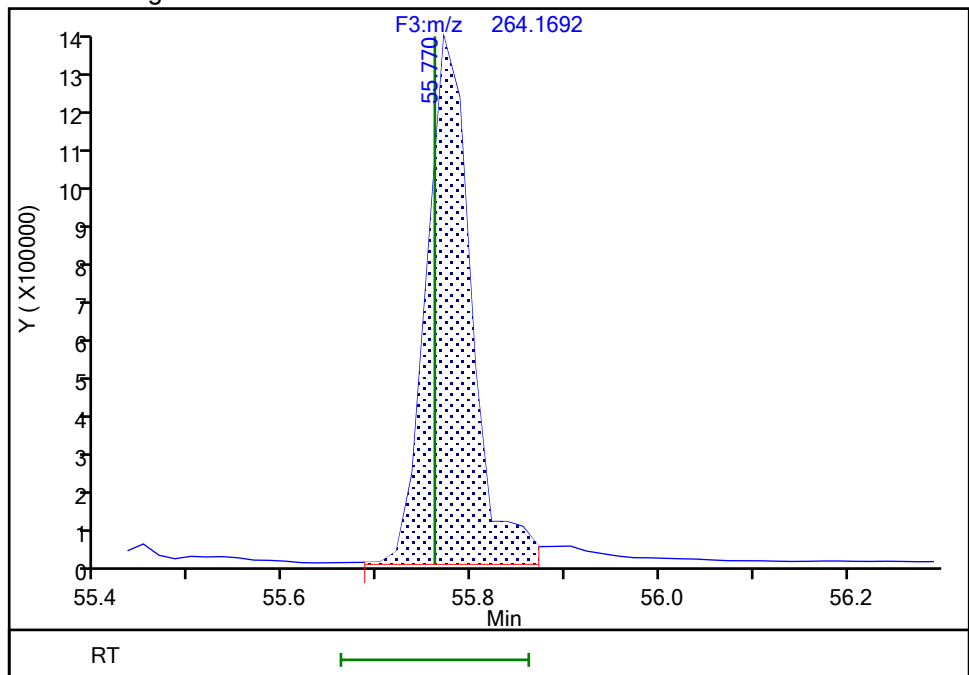
RT: 55.77  
Area: 4702912  
Amount: 9.158213  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.77  
Area: 4478770  
Amount: 8.721730  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 14:02:22 -04:00:00 (UTC)

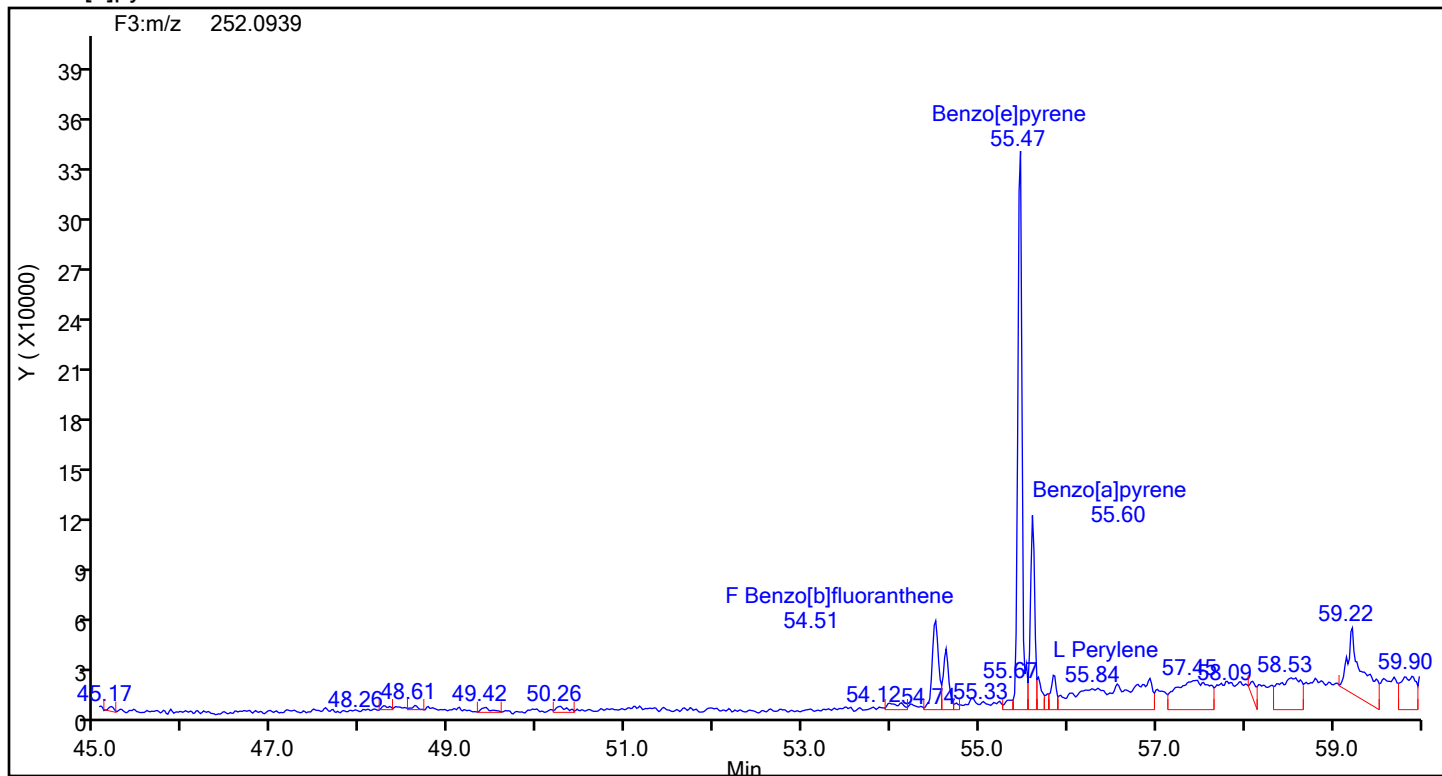
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

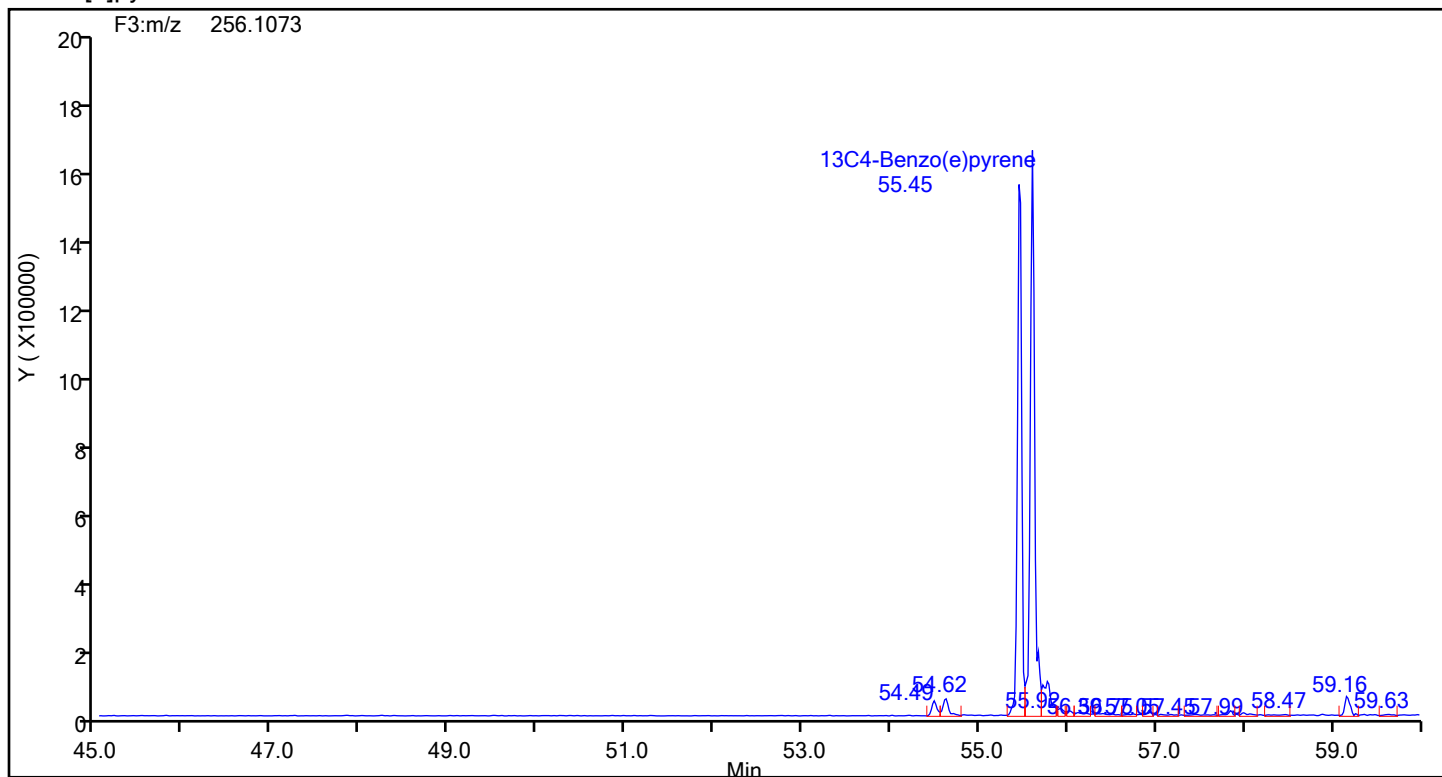
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88999 Sample Line#: 12  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[e]pyrene



## Benzo[e]pyrene Standards



## Eurofins Knoxville

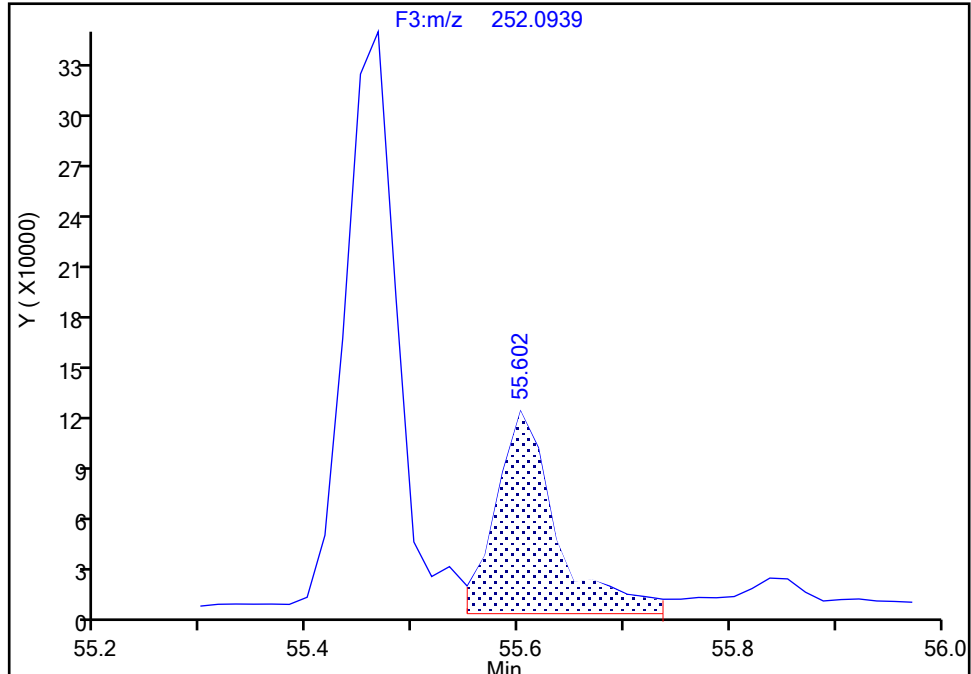
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-2-C Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

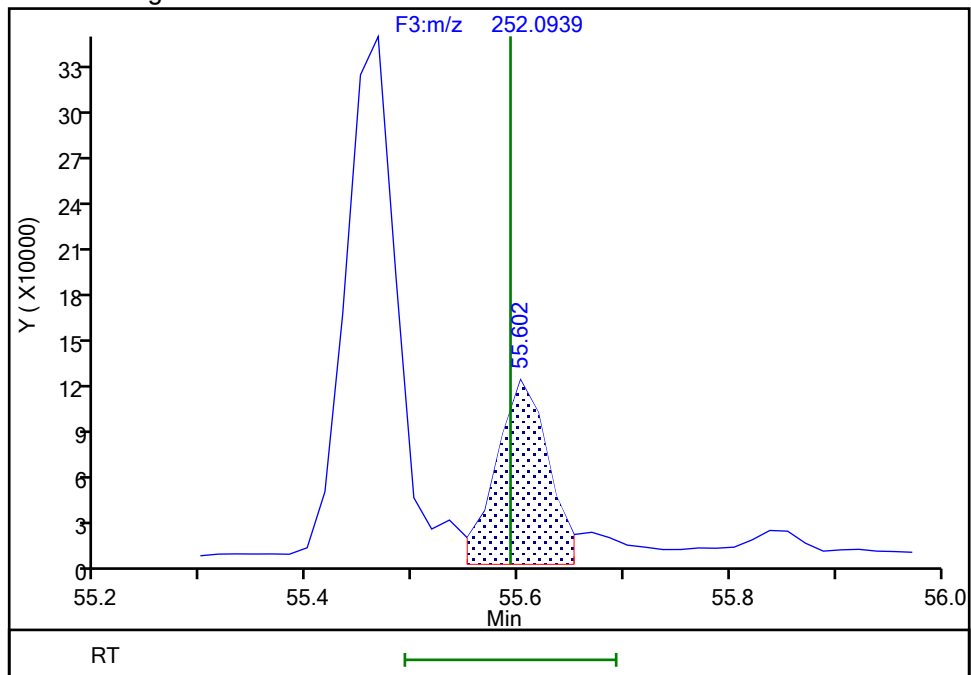
RT: 55.60  
Area: 459615  
Amount: 0.712090  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.60  
Area: 405723  
Amount: 0.628594  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 14:03:56 -04:00:00 (UTC)

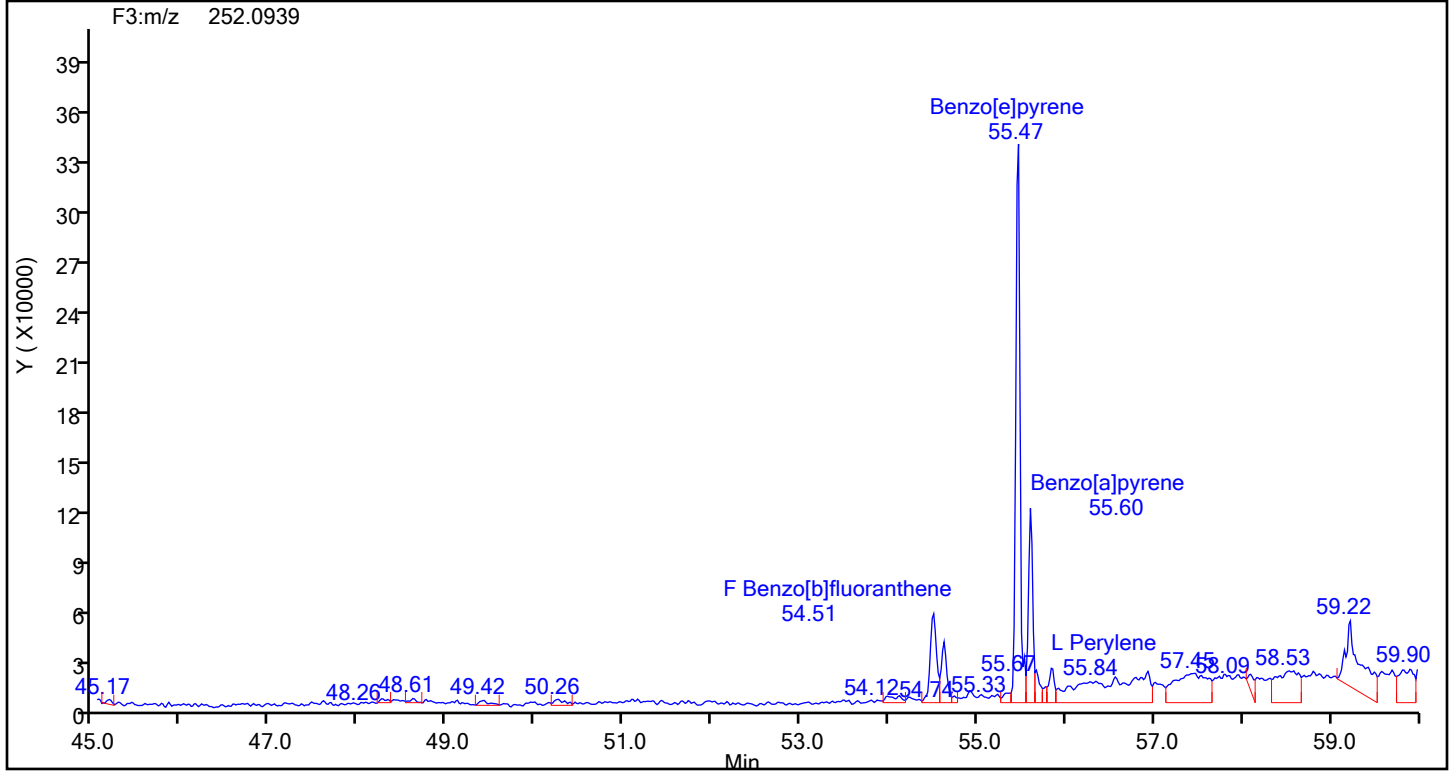
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

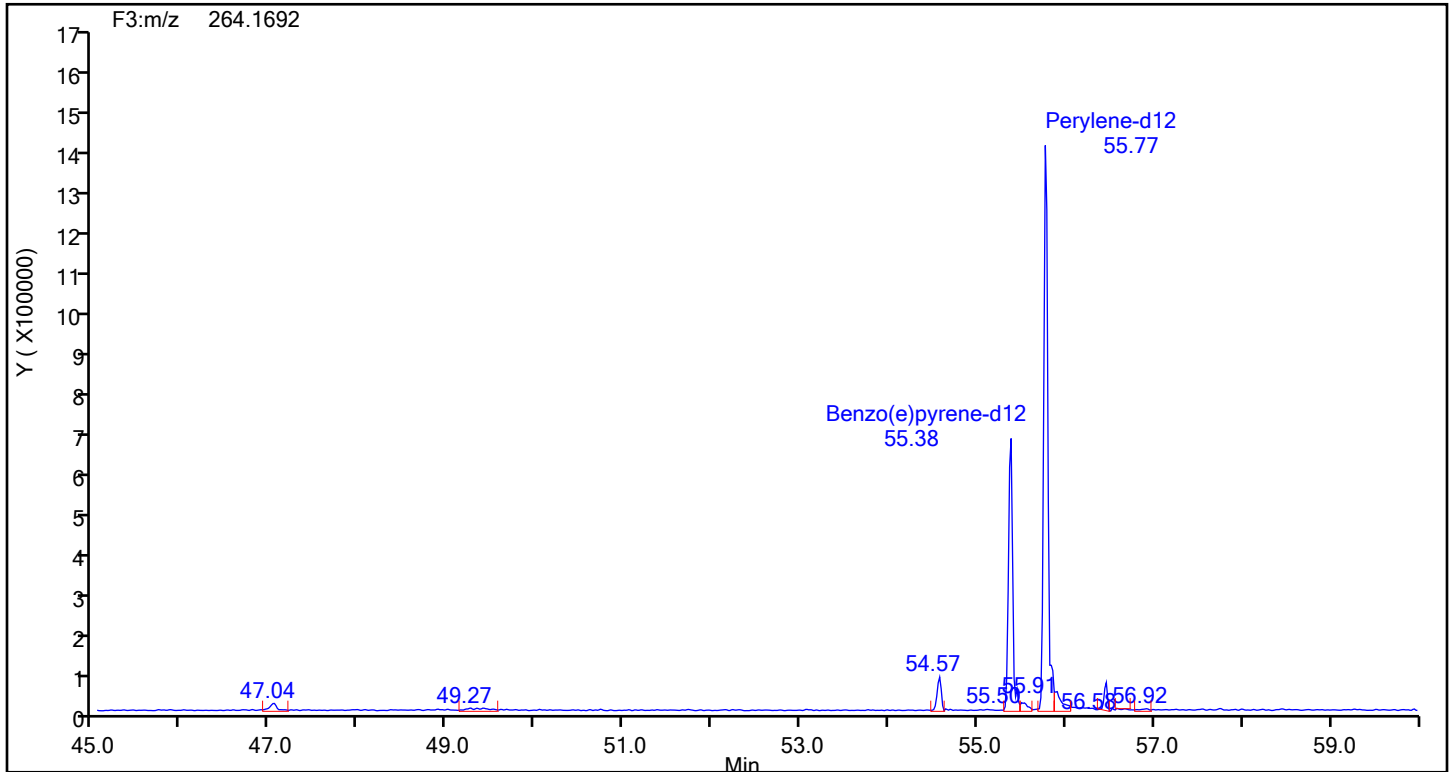
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88999 Sample Line#: 12  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Perylene



## Perylene Standards



## Eurofins Knoxville

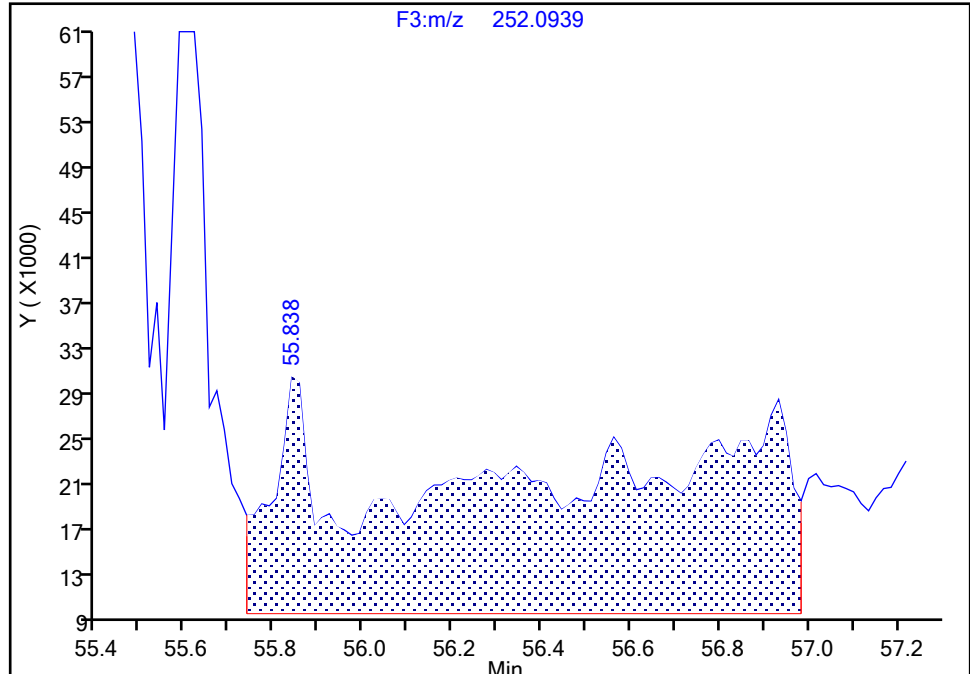
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-2-C Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Perylene, CAS: 198-55-0

Signal: 1

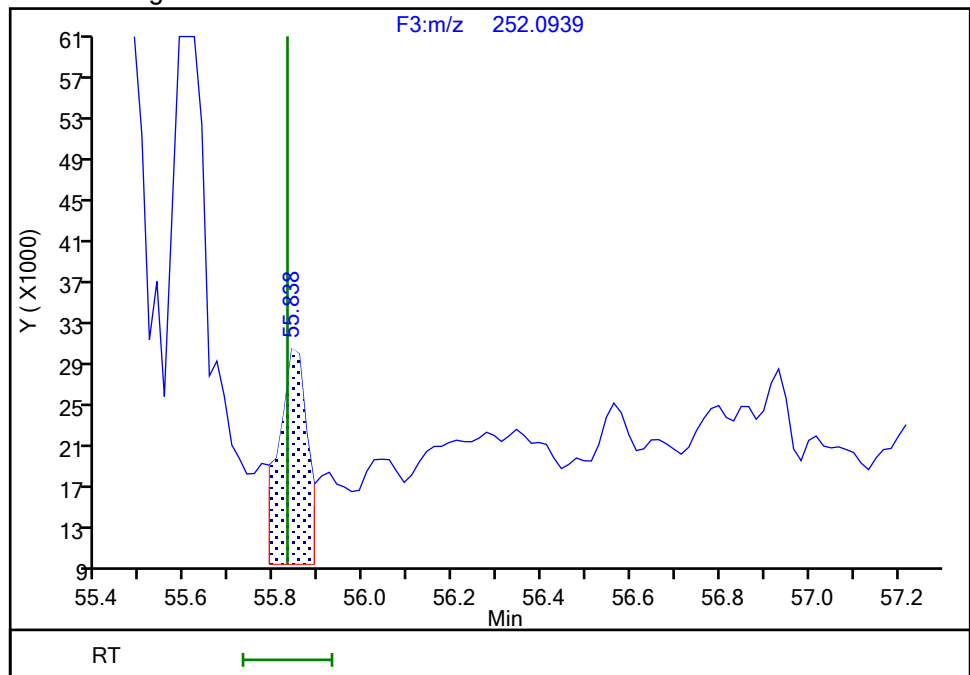
RT: 55.84  
Area: 876197  
Amount: 1.367422  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.84  
Area: 96541  
Amount: 0.150665  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 14:03:04 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

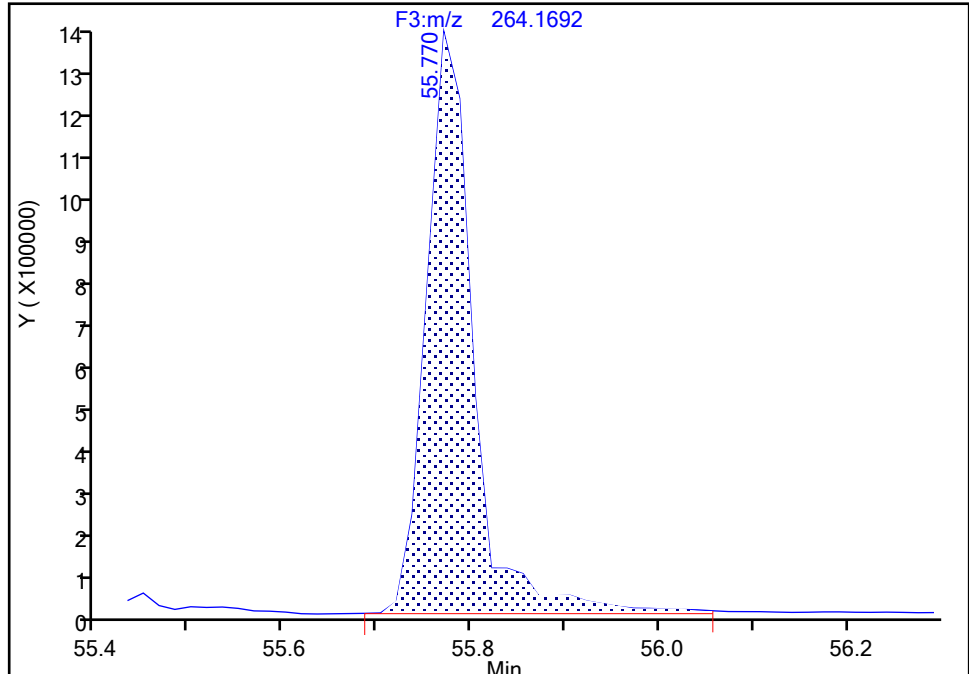
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-2-C Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Perylene-d12, CAS: 1520-96-3

Signal: 1

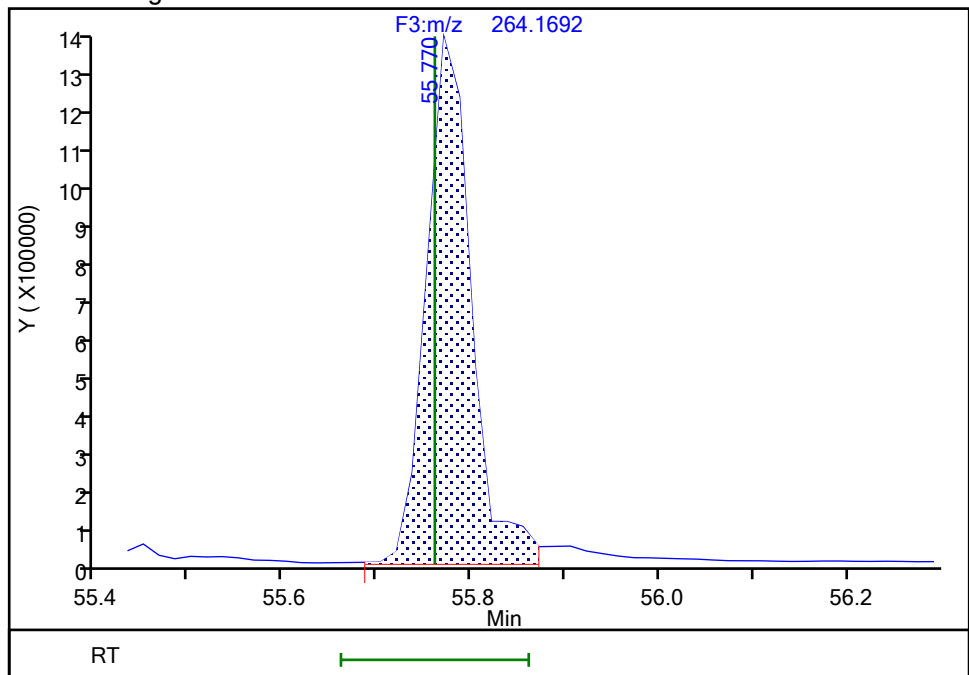
RT: 55.77  
Area: 4702912  
Amount: 9.158213  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.77  
Area: 4478770  
Amount: 8.721730  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 14:02:22 -04:00:00 (UTC)

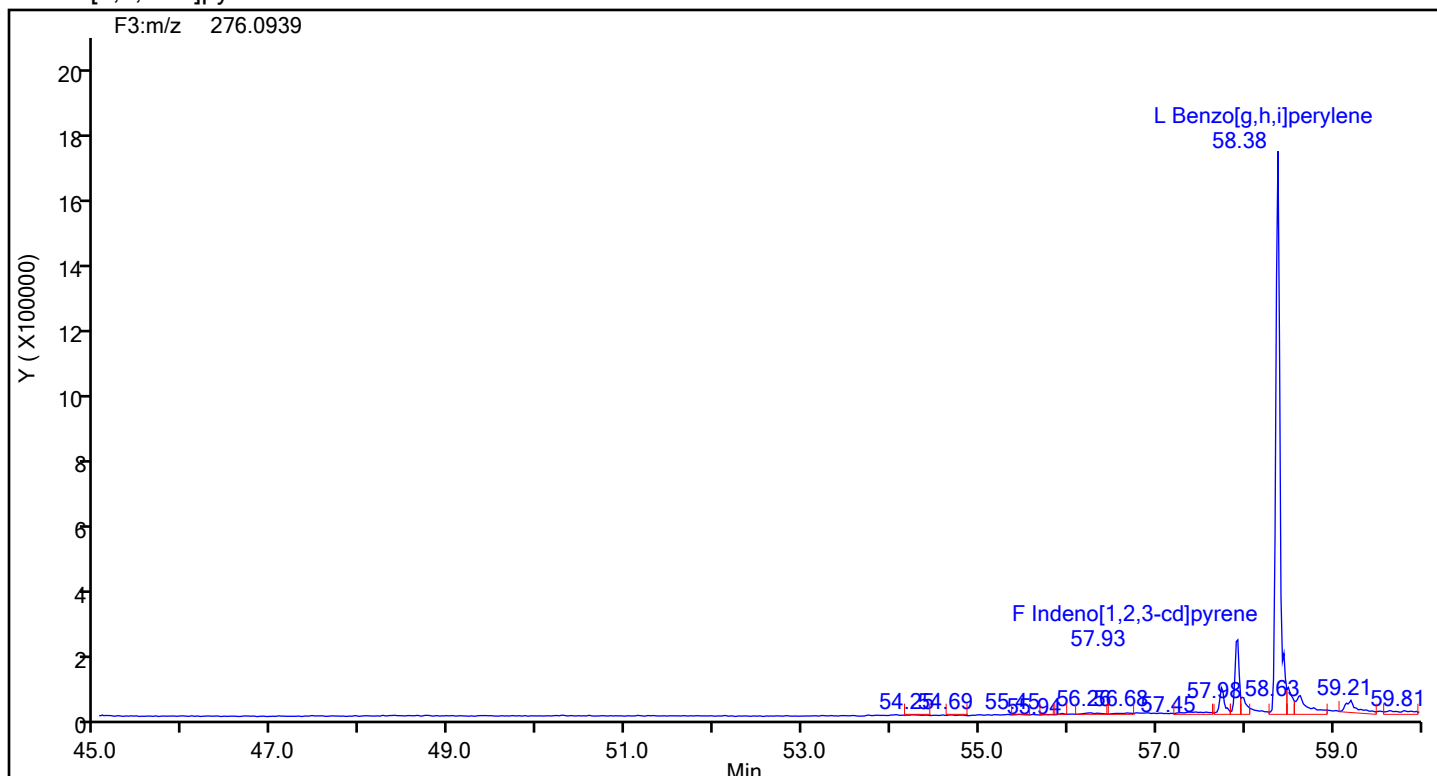
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

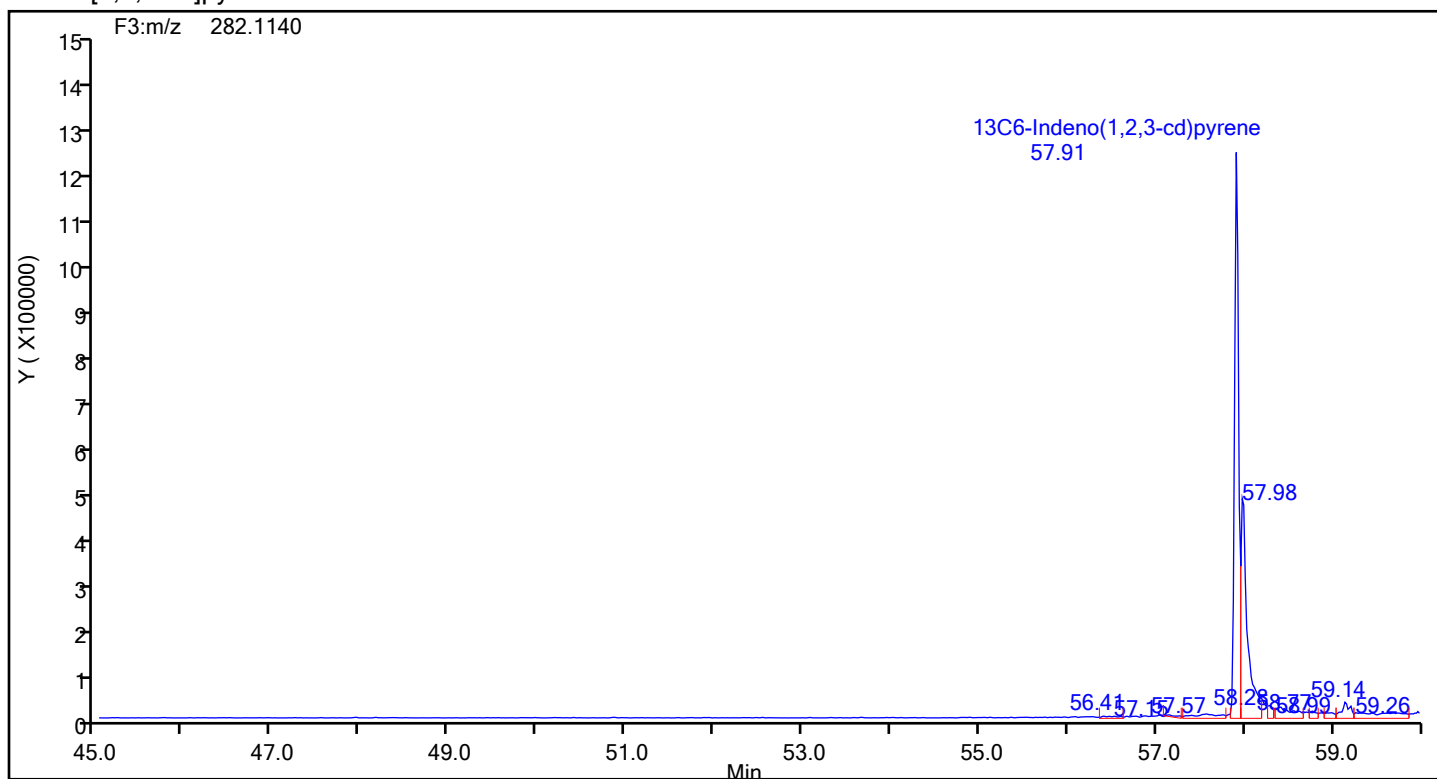
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88999 Sample Line#: 12  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Indeno[1,2,3-cd]pyrene



## Indeno[1,2,3-cd]pyrene Standards





## Eurofins Knoxville

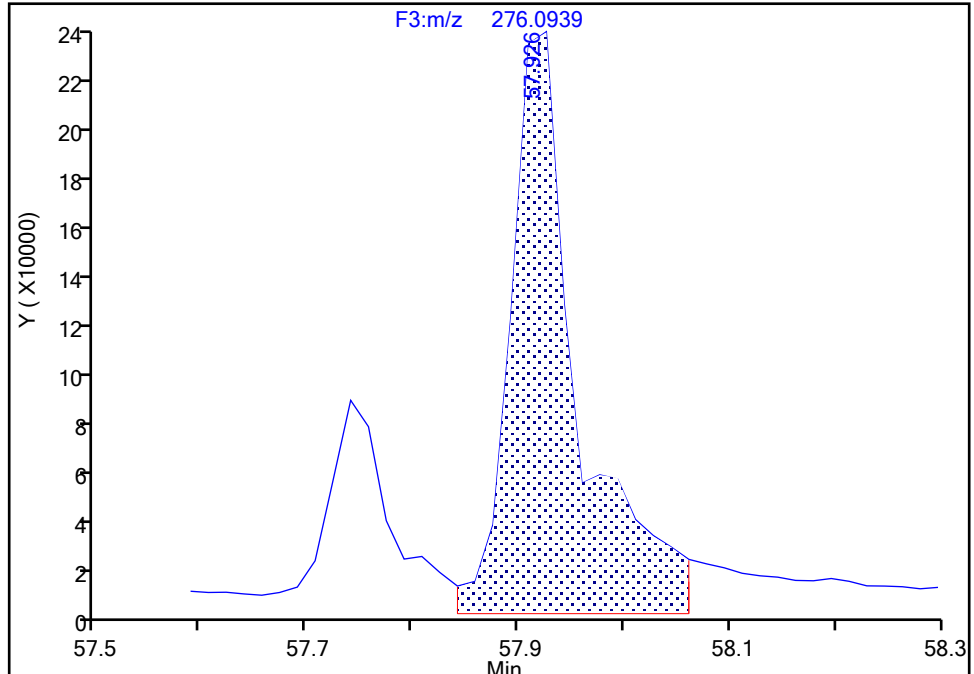
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-2-C Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

## Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

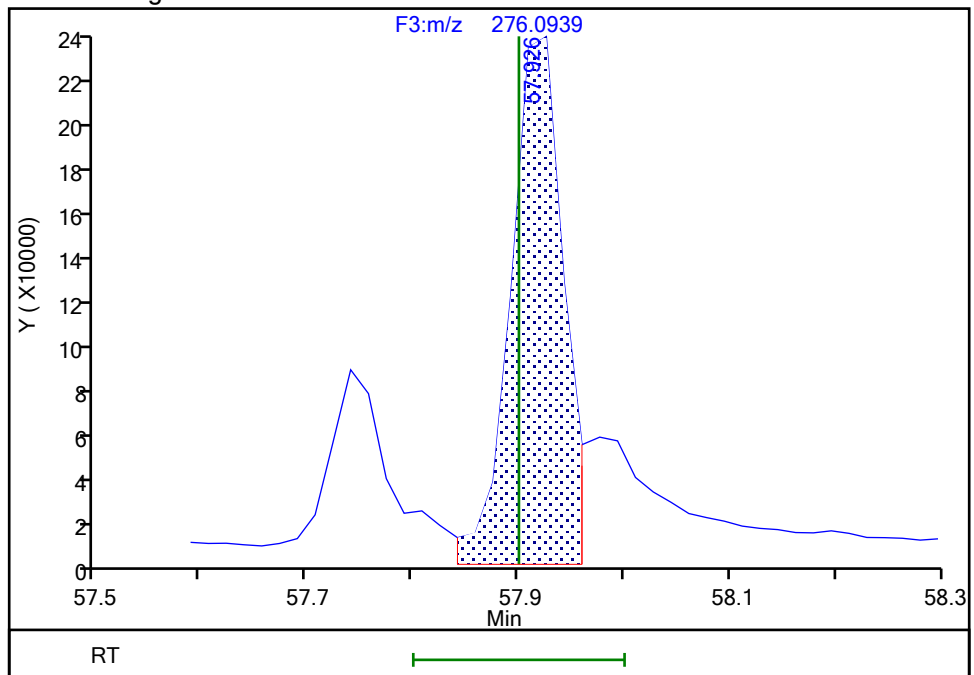
RT: 57.93  
Area: 1002014  
Amount: 1.384285  
Amount Units: pg/ul

## Processing Integration Results



RT: 57.93  
Area: 795166  
Amount: 1.678088  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 14:02:17 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

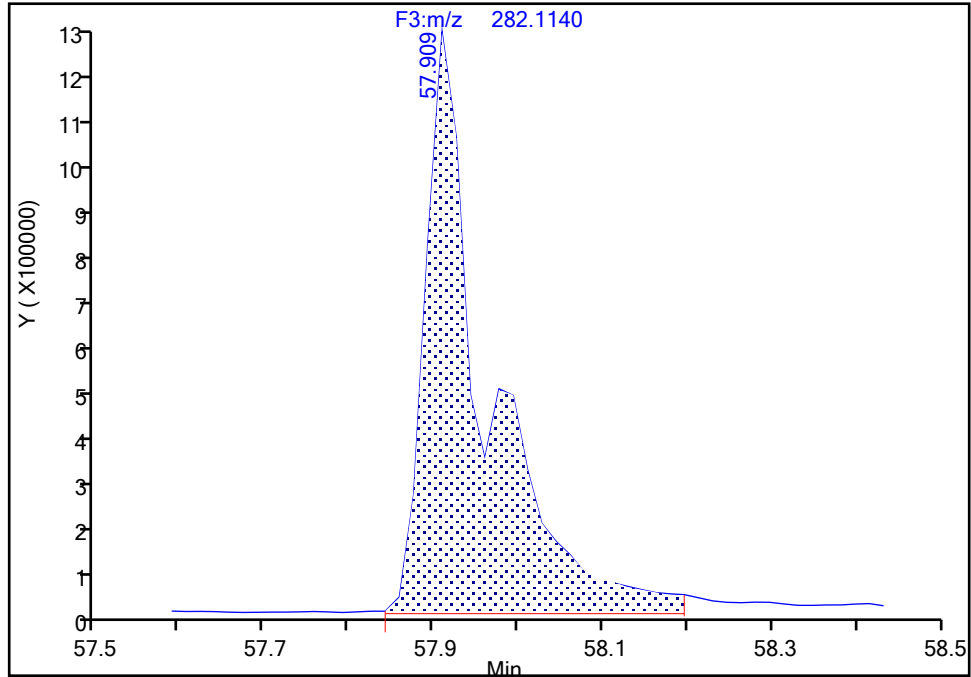
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-2-C Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C6-Indeno(1,2,3-cd)pyrene, CAS: 362044-56-2**

Signal: 1

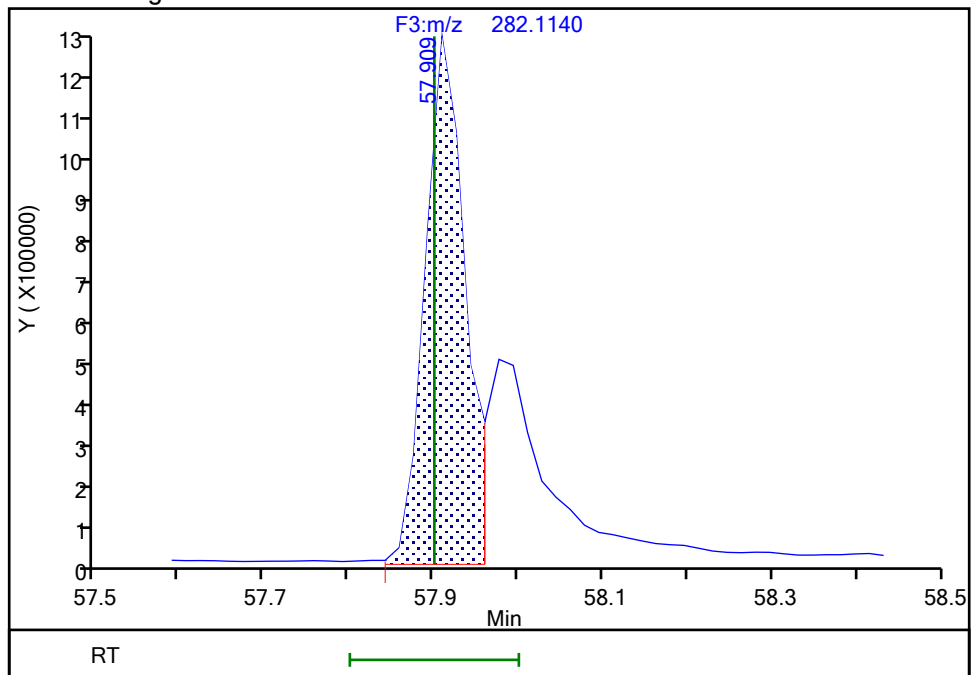
RT: 57.91  
Area: 6434546  
Amount: 14.612962  
Amount Units: pg/ul

## Processing Integration Results



RT: 57.91  
Area: 4212237  
Amount: 9.566061  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 14:02:35 -04:00:00 (UTC)

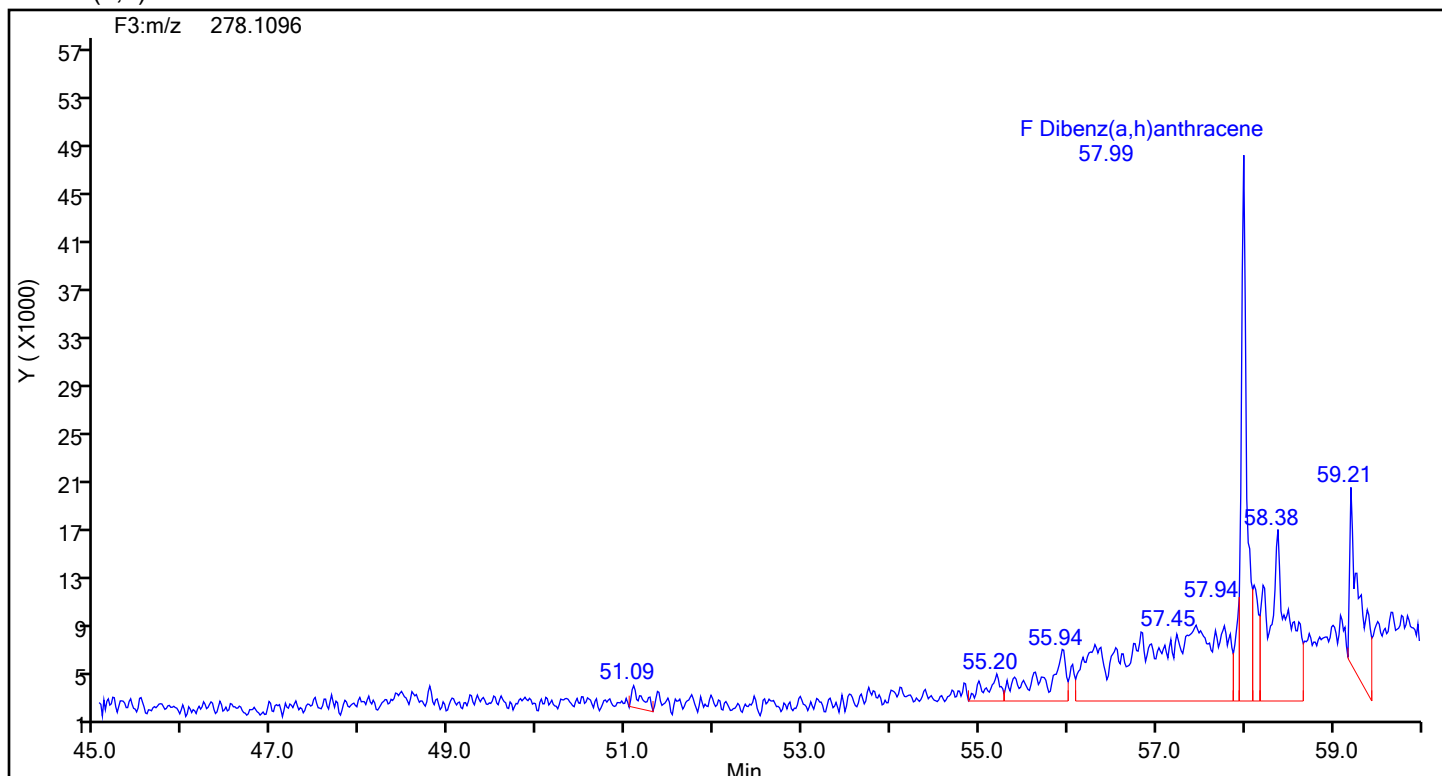
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

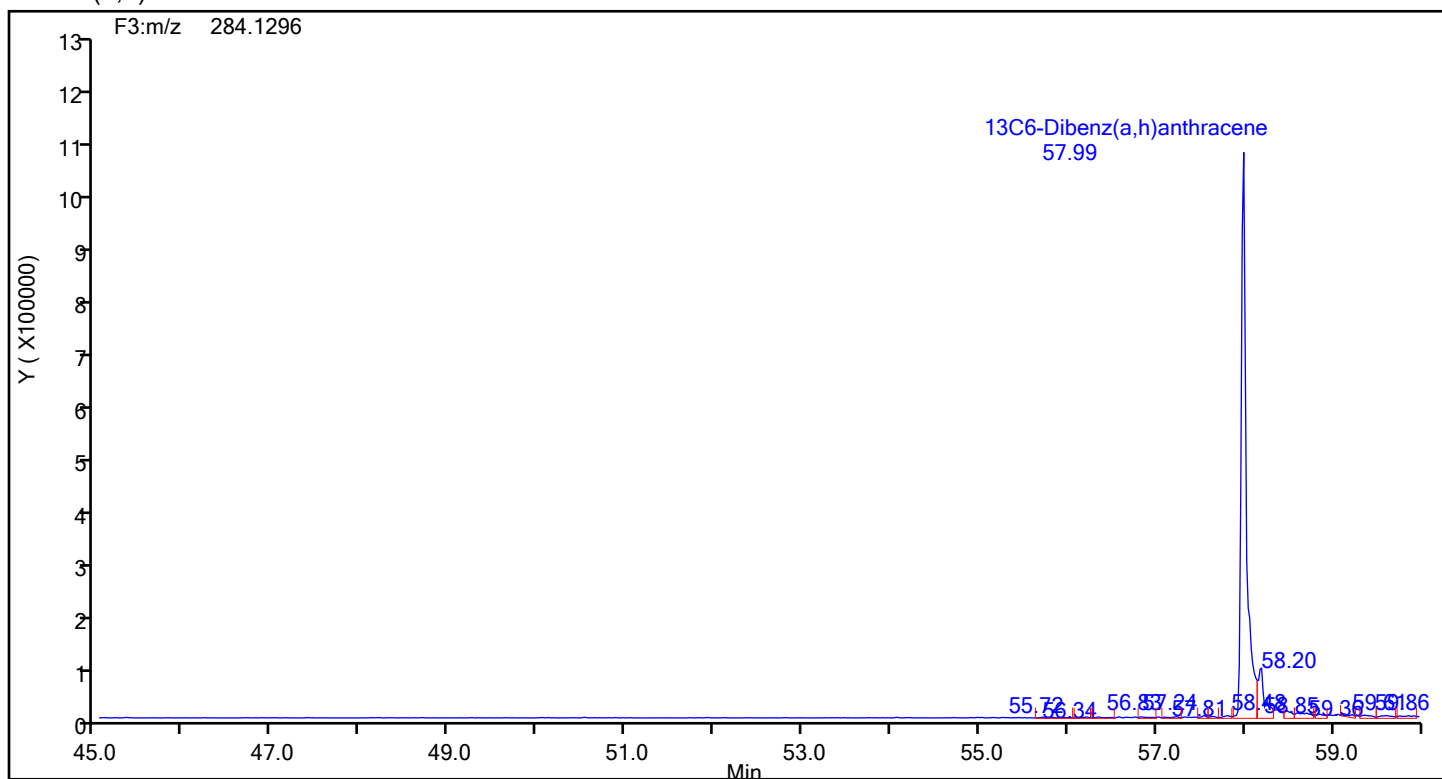
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88999 Sample Line#: 12  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Dibenz(a,h)anthracene



## Dibenz(a,h)anthracene Standards



## Eurofins Knoxville

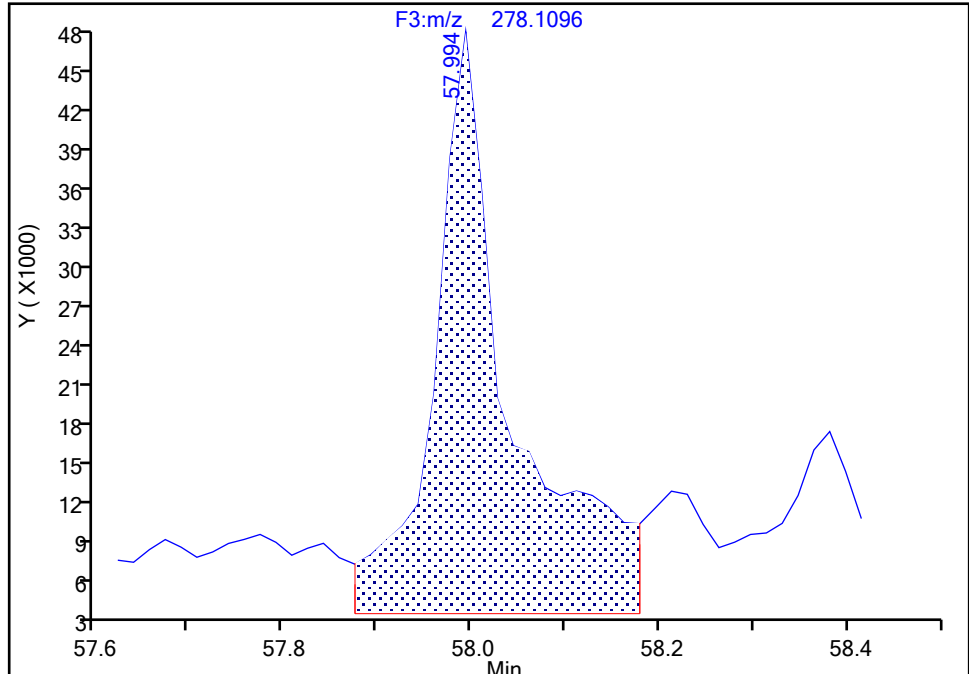
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-2-C Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

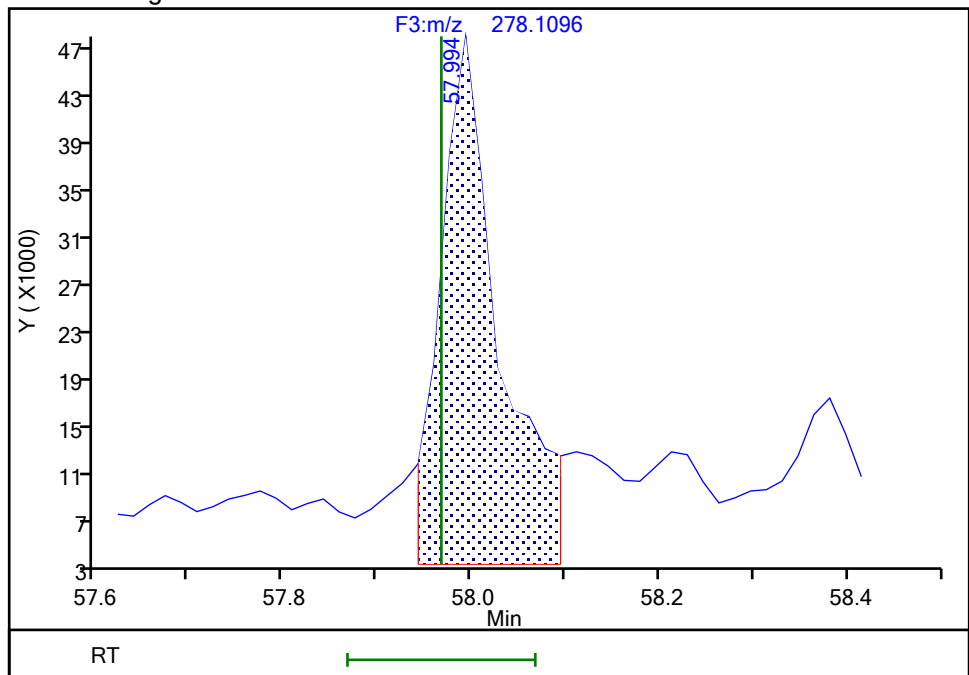
RT: 57.99  
Area: 255167  
Amount: 0.526984  
Amount Units: pg/ul

## Processing Integration Results



RT: 57.99  
Area: 198582  
Amount: 0.410122  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 14:03:34 -04:00:00 (UTC)

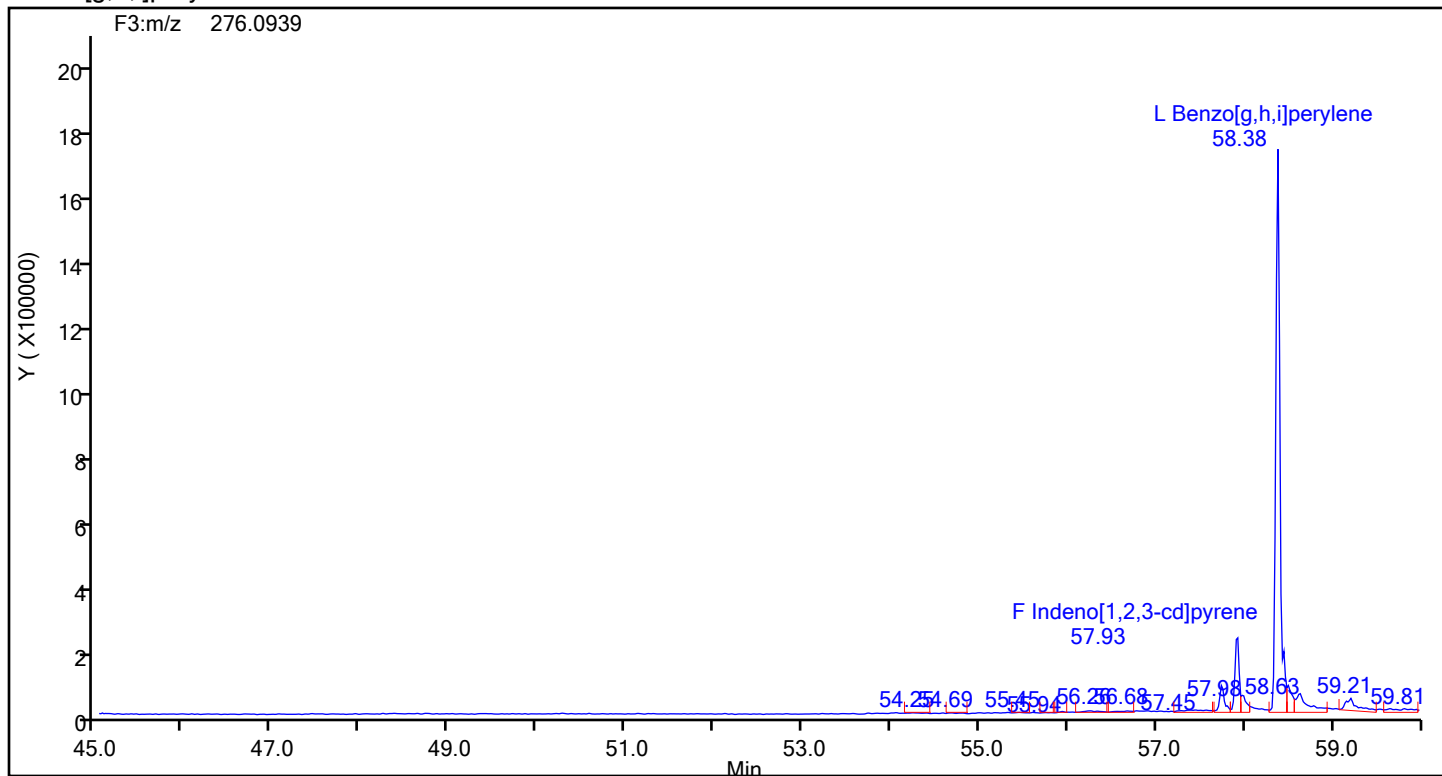
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

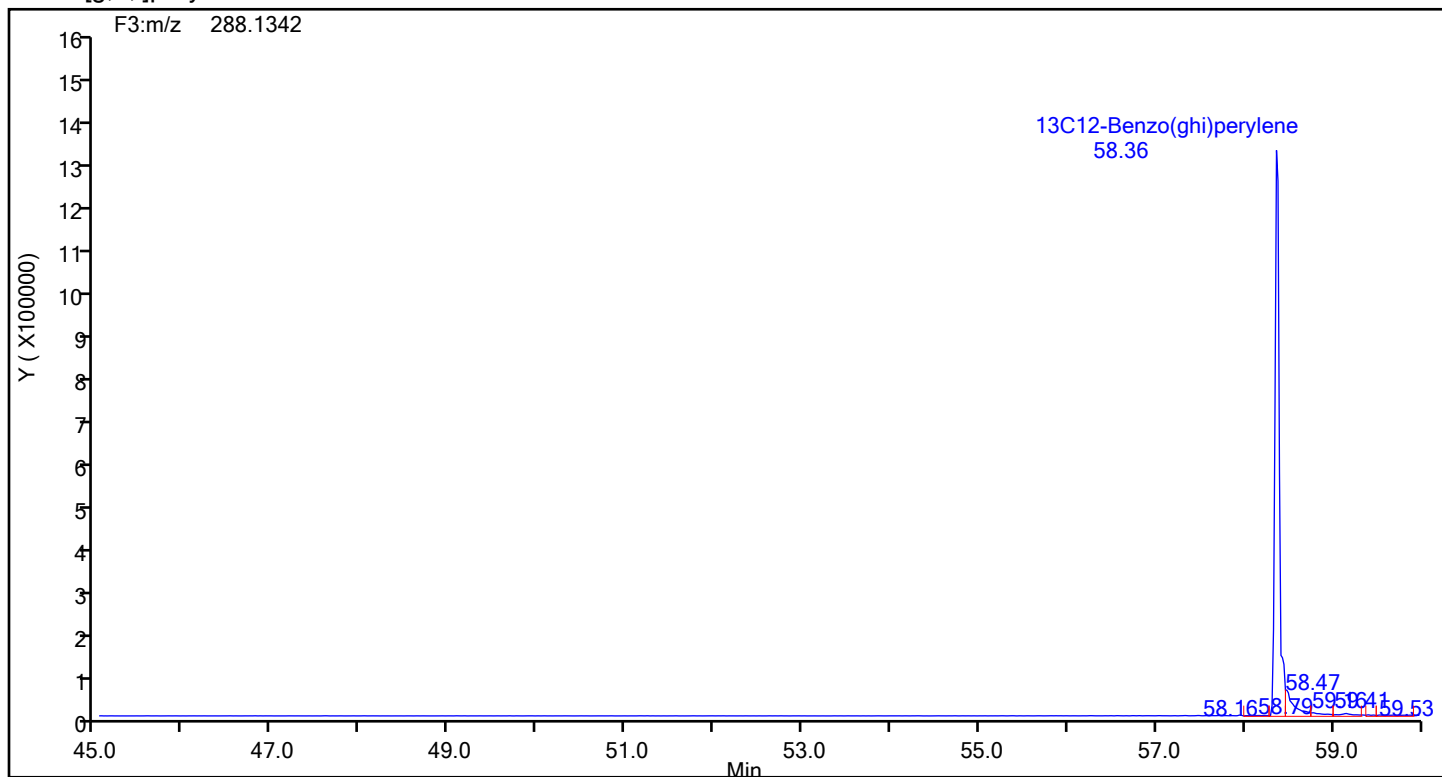
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88999 Sample Line#: 12  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[g,h,i]perylene



## Benzo[g,h,i]perylene Standards



## Eurofins Knoxville

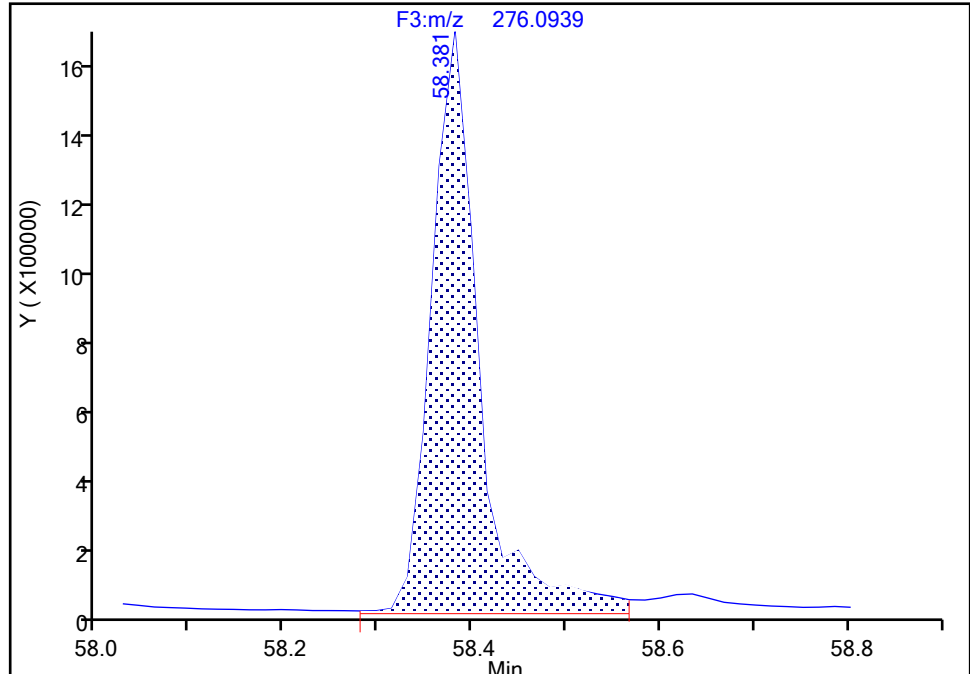
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-2-C Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

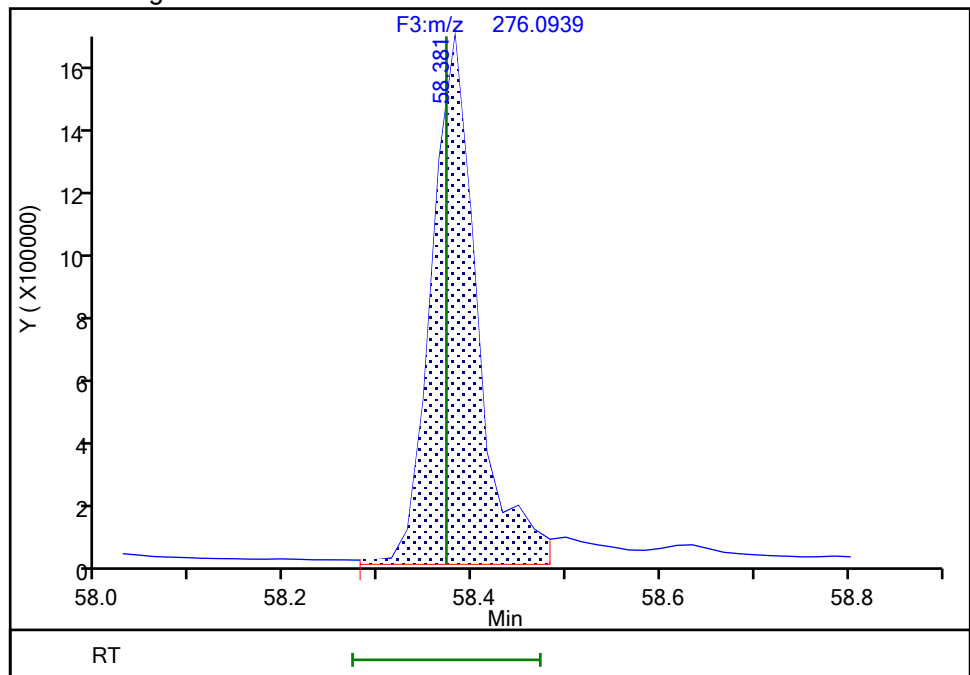
RT: 58.38  
Area: 5971579  
Amount: 9.332561  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.38  
Area: 5691192  
Amount: 9.593966  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 14:03:23 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

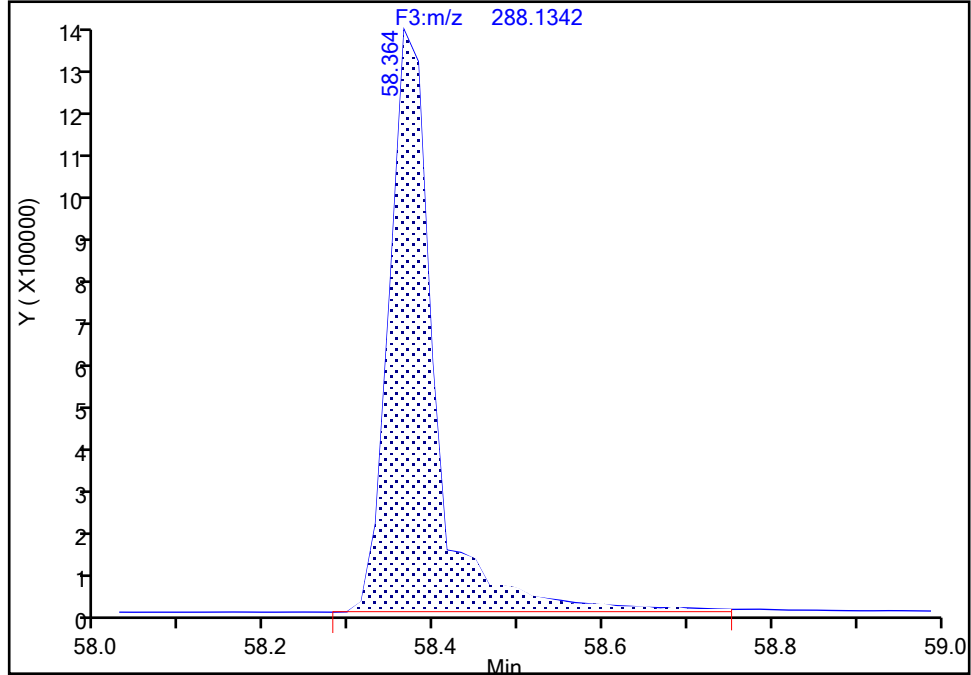
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Injection Date: 20-Jul-2024 11:35:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-2-C Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C12-Benzo(ghi)perylene, CAS: 350820-11-0**

Signal: 1

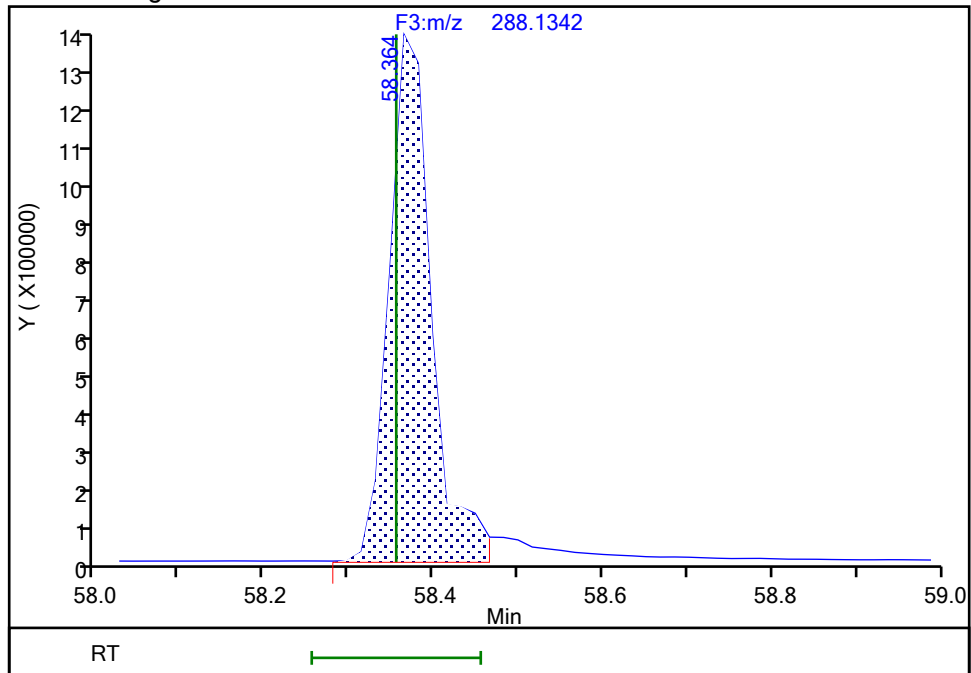
RT: 58.36  
Area: 4984320  
Amount: 9.072827  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.36  
Area: 4620858  
Amount: 8.411226  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 14:03:50 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\140-37234-A-2-C\_240720133022.d  
Lims ID: 140-37234-A-2-C  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Sample Type: Client  
Inject. Date: 20-Jul-2024 11:35:00 ALS Bottle#: 0 Worklist Smp#: 12  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Sample Info:  
Misc. Info.: 140-0033591-012  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 20-Jul-2024 14:04:23 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1689

First Level Reviewer: TT6I

Date: 20-Jul-2024 14:04:23

Compound	Amount Added	Amount Recovered	% Rec.
Anthracin-d10	10.0	0.7372	73.72
13C6-Benzo(c)fluorene	100.0	10.7	107.35
13C12-Benzo(j)fluoranthene	100.0	8.42	84.23



FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 4</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-3</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-3-c.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/06/2024 16:26</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/22/2024 18:15</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>89013</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
91-20-3	Naphthalene	415	J B * +	750	750	0.991
91-57-6	2-Methylnaphthalene	197	J B	750	750	0.610
208-96-8	Acenaphthylene	8.54	J B	30.0	30.0	0.352
83-32-9	Acenaphthene	71.3	J B	300	300	0.512
86-73-7	Fluorene	151	J B	300	300	0.582
85-01-8	Phenanthrene	507	B	60.0	60.0	0.661
120-12-7	Anthracene	38.7	J B	300	300	0.581
206-44-0	Fluoranthene	74.4	B	60.0	60.0	0.249
129-00-0	Pyrene	91.5	B	60.0	60.0	0.246
56-55-3	Benzo[a]anthracene	2.14	J B	60.0	60.0	0.171
218-01-9	Chrysene	8.43	J B	60.0	60.0	0.182
205-99-2	Benzo[b]fluoranthene	5.82	J B	300	300	0.0818
207-08-9	Benzo[k]fluoranthene	2.97	J B	60.0	60.0	0.0795
192-97-2	Benzo[e]pyrene	25.7	J B	60.0	60.0	0.0685
50-32-8	Benzo[a]pyrene	8.16	J B	30.0	30.0	0.0741
198-55-0	Perylene	1.75	J B	30.0	30.0	0.0605
193-39-5	Indeno[1,2,3-cd]pyrene	23.4	J B	30.0	30.0	0.0907
53-70-3	Dibenz(a,h)anthracene	5.06	J B	60.0	60.0	0.0481
191-24-2	Benzo[g,h,i]perylene	116	B	60.0	60.0	0.0723

FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 4</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-3</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-3-c.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/06/2024 16:26</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/22/2024 18:15</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>89013</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02217	13C6-Naphthalene	50		20-130
STL03357	13C6-2-Methylnaphthalene	58		20-130
189811-56-1	13C6-Acenaphthylene	82		20-130
189811-57-2	13C6-Acenaphthene	82		20-130
STL00616	13C6-Fluorene	87		20-130
1397194-60-3	13C6-Fluoranthrene	80		20-130
1397214-90-2	13C3-Pyrene	81		20-130
917378-11-1	13C6-Benzo (a) anthracene	66		20-130
1397177-72-8	13C6-Chrysene	68		20-130
STL03358	13C6-Benzo (b) fluoranthene	78		20-130
1397194-60-3	13C6-Benzo (k) fluoranthene	86		20-130
STL03382	13C4-Benzo (e) pyrene	74		20-130
STL03359	13C4-Benzo (a) pyrene	86		20-130
1520-96-3	Perylene-d12	86		20-130
362044-56-2	13C6-Indeno (1,2,3-cd) pyrene	89		20-130
STL03360	13C6-Dibenz (a,h) anthracene	96		20-130
350820-11-0	13C12-Benzo (ghi) perylene	88		20-130
189811-60-7	13C6-Anthracene	88		20-130
1189955-53-0	13C6-Phenanthrene	71		20-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
 Lims ID: 140-37234-A-3-C  
 Client ID: M23 F-10 BOILER RUN 4 COMBINED  
 Sample Type: Client  
 Inject. Date: 22-Jul-2024 18:15:00 ALS Bottle#: 0 Worklist Smp#: 9  
 Injection Vol: 1.0 ul Dil. Factor: 10.0000  
 Sample Info:  
 Misc. Info.: 140-0033599-008  
 Operator ID: Xcalibur\_System Instrument ID: D3PAH  
 Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
 Limit Group: HR - HRPAL ICAL  
 Last Update: 23-Jul-2024 10:00:07 Calib Date: 20-Jun-2024 01:09:00  
 Integrator: RTE  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
 Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
 Process Host: CTX1613

First Level Reviewer: TT6I

Date: 23-Jul-2024 10:00:07

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:32	2280873		3.3746	5.026	5.026	0.001969	0.001969	50.26	
Naphthalene	11:33	8130518		1.2893	27.6	27.6	0.0661	0.0661		M
D 13C6-2-Methylnaphthalene	13:51	1249026		1.6031	5.794	5.794	0.000977	0.000977	57.94	
2-Methylnaphthalene	13:52	2100840		1.2786	13.2	13.2	0.0406	0.0406		M
D 13C6-Acenaphthylene	16:43	1819419		1.6520	8.190	8.190	0.004063	0.004063	81.90	
Acenaphthylene	16:43	145454		2.3661	0.5691	0.5691	0.0234	0.0234		M
* Acenaphthene-d10	17:18	672358		3.5E+04	5.000	5.000				
D 13C6-Acenaphthene	17:25	1080171		0.9792	8.204	8.204	0.003999	0.003999	82.04	
Acenaphthene	17:25	652158		1.2697	4.755	4.755	0.0341	0.0341		
D 13C6-Fluorene	19:42	1041296		0.8898	8.702	8.702	0.005707	0.005707	87.02	
Fluorene	19:42	1315074		1.2532	10.1	10.1	0.0388	0.0388		
D 13C6-Phenanthrene	25:04	1644576		0.5724	7.086	7.086	0.002620	0.002620	70.86	
Phenanthrene	25:04	6133400		1.1044	33.8	33.8	0.0441	0.0441		M
\$ Anthracin-d10	25:17	110472		0.4257	0.6401	0.6401	0.001342	0.001342	64.01	
D 13C6-Anthracene	25:24	1614163		0.4523	8.802	8.802	0.003315	0.003315	88.02	
Anthracene	25:25	566333		1.3586	2.582	2.582	0.0387	0.0387		M
D 13C6-Fluoranthrene	33:49	3876644		1.1994	7.973	7.973	0.0107	0.0107	79.73	
Fluoranthene	33:49	2212849		1.1513	4.958	4.958	0.0166	0.0166		M
* Pyrene-d10	35:22	2027082		7.9E+04	5.000	5.000				
D 13C3-Pyrene	35:30	4437280		1.3512	8.100	8.100	0.008403	0.008403	81.00	
Pyrene	35:30	2881763		1.0652	6.097	6.097	0.0164	0.0164		
\$ 13C6-Benzo(c)fluorene	39:13	1938358		0.5136	9.309	9.309	0.004227	0.004227	93.09	M
D 13C6-Benzo(a)anthracene	46:02	3688370		1.5189	6.624	6.624	0.005007	0.005007	66.24	
Benzo[a]anthracene	46:03	51360		0.9739	0.1430	0.1430	0.0114	0.0114		
D 13C6-Chrysene	46:18	4087086		1.6287	6.845	6.845	0.004669	0.004669	68.45	
Chrysene	46:19	225501		0.9815	0.5622	0.5622	0.0122	0.0122		M
D 13C6-Benzo(b)fluoranthene	54:36	4191065		1.4621	7.819	7.819	0.001531	0.001531	78.19	
Benzo[b]fluoranthene	54:37	182887		1.1249	0.3879	0.3879	0.005451	0.005451		
\$ 13C12-Benzo(j)fluoranthene	54:38	4007366		1.3558	8.062	8.062	0.005063	0.005063	80.62	
D 13C6-Benzo(k)fluoranthene	54:44	5489001		1.7507	8.552	8.552	0.001279	0.001279	85.52	
Benzo[k]fluoranthene	54:44	122646		1.1271	0.1982	0.1982	0.005300	0.005300		M
* Benzo(e)pyrene-d12	55:28	1833057		5.7E+04	5.000	5.000				M
D 13C4-Benzo(e)pyrene	55:33	4427447		1.6368	7.378	7.378	0.002713	0.002713	73.78	
Benzo[e]pyrene	55:33	760205		1.0013	1.715	1.715	0.004569	0.004569		M

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C4-Benzo(a)pyrene	55:41	4905335		1.5508	8.628	8.628	0.002863	0.002863	86.28	
Benzo[a]pyrene	55:42	296992		1.1130	0.5440	0.5440	0.004941	0.004941		M
D Perylene-d12	55:52	3770846		1.1917	8.631	8.631	0.005978	0.005978	86.31	
Perylene	55:56	63112		1.4307	0.1170	0.1170	0.004032	0.004032		M
D 13C6-Indeno(1,2,3-cd)pyrene	57:59	3318047		1.0218	8.857	8.857	0.004183	0.004183	88.57	M
Indeno[1,2,3-cd]pyrene	58:00	582121		1.1249	1.560	1.560	0.006043	0.006043		M
D 13C6-Dibenz(a,h)anthracene	58:04	3730842		1.0553	9.644	9.644	0.002341	0.002341	96.44	M
Dibenz(a,h)anthracene	58:04	142515		1.1314	0.3376	0.3376	0.003204	0.003204		M
D 13C12-Benzo(ghi)perylene	58:28	4104014		1.2749	8.781	8.781	0.000726	0.000726	87.81	
Benzo[g,h,i]perylene	58:28	4089068		1.2838	7.761	7.761	0.004822	0.004822		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Lims ID: 140-37234-A-3-C  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Sample Type: Client  
Inject. Date: 22-Jul-2024 18:15:00 ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Sample Info:  
Misc. Info.: 140-0033599-008  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 23-Jul-2024 10:00:07 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1613

First Level Reviewer: TT61

Date: 23-Jul-2024 10:00:07

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:32	11:29	2	0.667	2280873	734094	119	297	6169		
Naphthalene											
128.0626	11:33	11:33	3	1.001	8130518	2758484	2502	6255	1103		M
13C6-2-Methylnaphthalene											
148.0984	13:51	13:49	1	0.801	1249026	500427	28	70	17872		
2-Methylnaphthalene											
142.0783	13:52	13:52	1	1.001	2100840	909297	1040	2600	874		M
13C6-Acenaphthylene											
158.0828	16:43	16:41	1	0.966	1819419	611880	120	300	5099		
Acenaphthylene											
152.0626	16:43	16:43	1	1.000	145454	49860	798	1995	62		M
Acenaphthene-d10											
164.1404	17:18	17:16	1		672358	223485	3	7	74495		
13C6-Acenaphthene											
160.0984	17:25	17:23	1	1.007	1080171	359610	70	175	5137		
Acenaphthene											
154.0783	17:25	17:23	1	1.000	652158	215147	623	1557	345		
13C6-Fluorene											
172.0984	19:42	19:40	1	1.139	1041296	282005	91	227	3099		
Fluorene											
166.0783	19:42	19:40	0	1.000	1315074	356419	549	1372	649		
13C6-Phenanthrene											
184.0984	25:04	25:03	1	0.709	1644576	351250	42	105	8363		
Phenanthrene											
178.0783	25:04	25:04	0	1.000	6133400	1277825	684	1710	1868		M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:17	25:15	1	0.715	110472	27233	16	40	1702		
13C6-Anthracene											
184.0984	25:24	25:22	1	0.718	1614163	325171	42	105	7742		
Anthracene											M
178.0783	25:25	25:25	1	1.000	566333	118194	684	1710	173		M
13C6-Fluoranthrene											
208.0984	33:49	33:47	1	0.956	3876644	671126	361	902	1859		
Fluoranthene											M
202.0783	33:49	33:49	1	1.000	2212849	390049	514	1285	759		M
Pyrene-d10											
212.1404	35:22	35:21	1		2027082	350101	78	195	4488		
13C3-Pyrene											
205.0883	35:30	35:28	1	1.004	4437280	734735	318	795	2310		
Pyrene											
202.0783	35:30	35:29	1	1.000	2881763	473455	514	1285	921		
13C6-Benzo(c)fluorene											M
222.1134	39:13	39:13	2	0.707	1938358	322700	61	152	5290		M
13C6-Benzo(a)anthracene											
234.1140	46:02	45:59	1	1.301	3688370	564796	329	822	1717		
Benzo[a]anthracene											
228.0939	46:03	46:02	2	1.000	51360	8723	251	627	35		
13C6-Chrysene											
234.1140	46:18	46:15	1	1.309	4087086	525475	329	822	1597		
Chrysene											M
228.0939	46:19	46:19	2	1.000	225501	27337	251	627	109		M
13C6-Benzo(b)fluoranthene											
258.1140	54:36	54:35	1	0.985	4191065	1043671	97	242	10760		
Benzo[b]fluoranthene											
252.0939	54:37	54:36	2	1.000	182887	34782	256	640	136		
13C12-Benzo(j)fluoranthene											
264.1336	54:38	54:37	1	0.985	4007366	874999	297	742	2946		
13C6-Benzo(k)fluoranthene											
258.1140	54:44	54:42	2	0.987	5489001	1071462	97	242	11046		
Benzo[k]fluoranthene											M
252.0939	54:44	54:44	1	1.000	122646	24905	256	640	97		M
Benzo(e)pyrene-d12											M
264.1692	55:28	55:27	1		1833057	540467	308	770	1755		M
13C4-Benzo(e)pyrene											
256.1073	55:33	55:32	1	1.002	4427447	1398827	192	480	7286		
Benzo[e]pyrene											M
252.0939	55:33	55:33	1	1.000	760205	237251	256	640	927		M
13C4-Benzo(a)pyrene											
256.1073	55:41	55:40	1	1.004	4905335	1163728	192	480	6061		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Benzo[a]pyrene											M
252.0939	55:42	55:42	2	1.000	296992	77964	256	640	305		M
Perylene-d12											
264.1692	55:52	55:50	2	1.007	3770846	1109408	308	770	3602		
Perylene											M
252.0939	55:56	55:56	2	1.001	63112	15160	256	640	59		M
13C6-Indeno(1,2,3-cd)pyrene											M
282.1140	57:59	57:59	1	1.046	3318047	951669	185	462	5144		M
Indeno[1,2,3-cd]pyrene											M
276.0939	58:00	58:00	2	1.000	582121	165620	259	647	639		M
13C6-Dibenz(a,h)anthracene											M
284.1296	58:04	58:04	2	1.047	3730842	786131	107	267	7347		M
Dibenz(a,h)anthracene											M
278.1096	58:04	58:04	1	1.000	142515	28693	114	285	252		M
13C12-Benzo(ghi)perylene											
288.1342	58:28	58:27	1	1.054	4104014	1045226	40	100	26131		
Benzo[g,h,i]perylene											M
276.0939	58:28	58:28	1	1.000	4089068	1140225	259	647	4402		M

### QC Flag Legend

Processing Flags

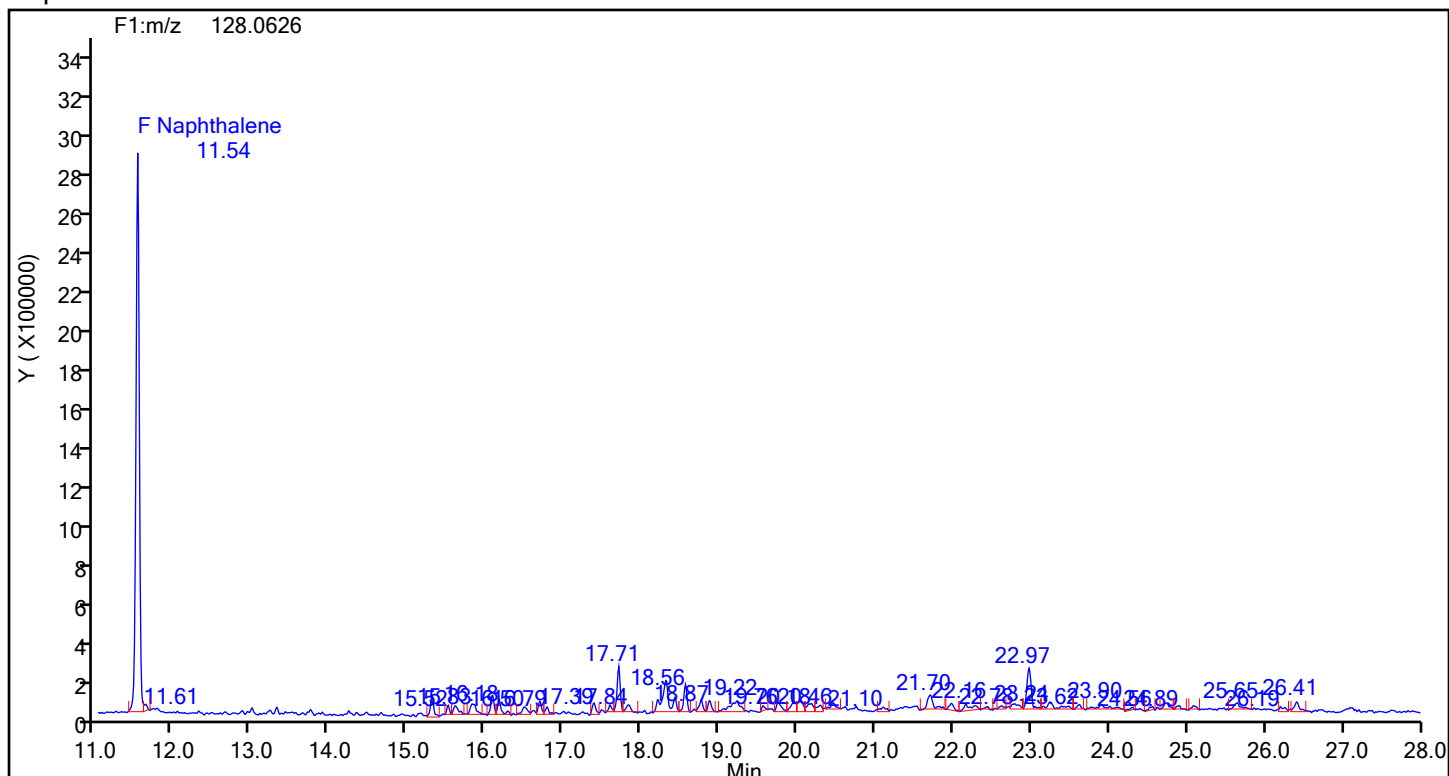
Review Flags

M - Manually Integrated

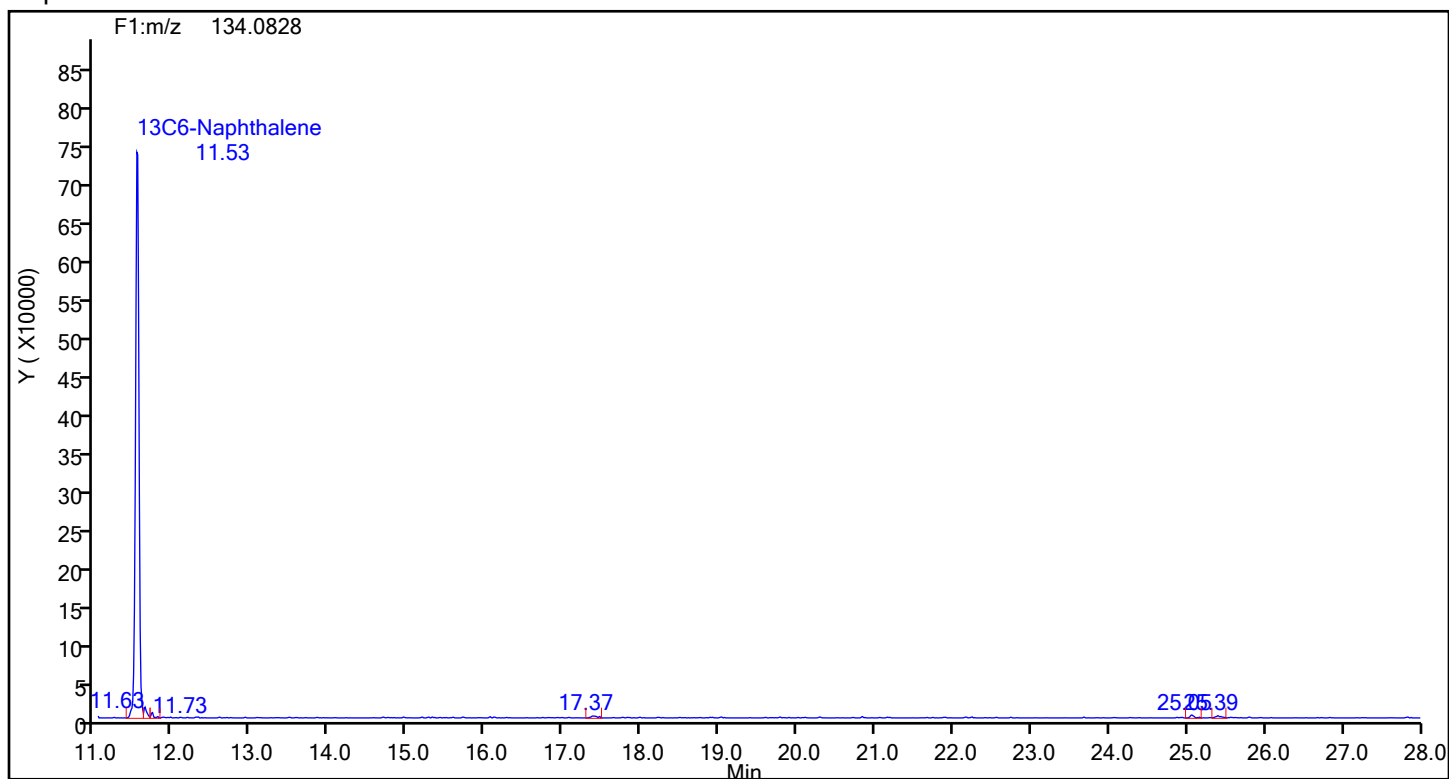
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 89013 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



## Naphthalene Standards





## Eurofins Knoxville

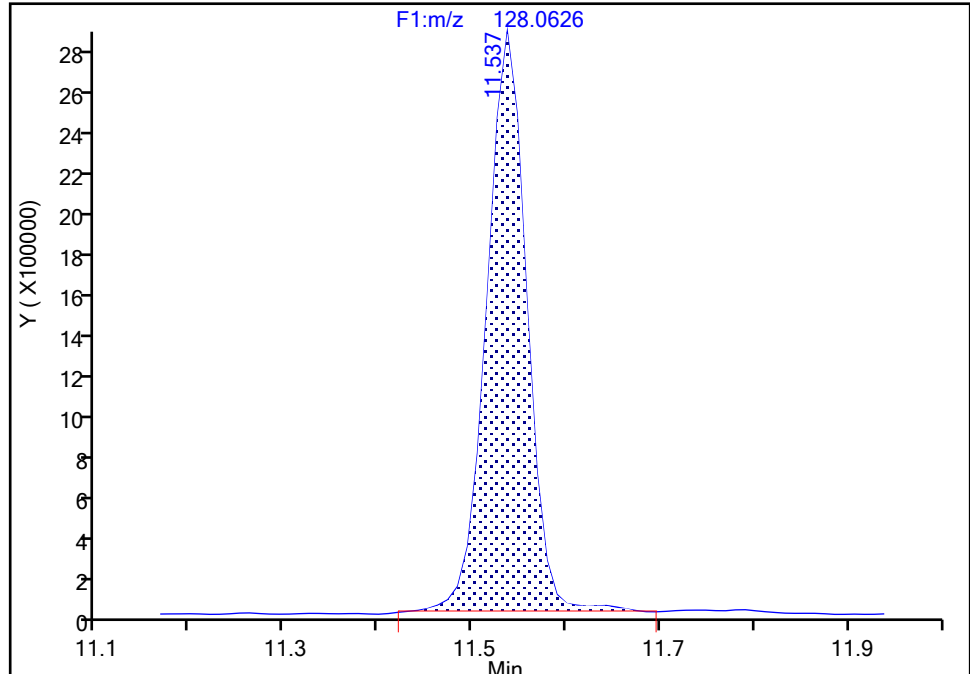
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-3-C Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Naphthalene, CAS: 91-20-3

Signal: 1

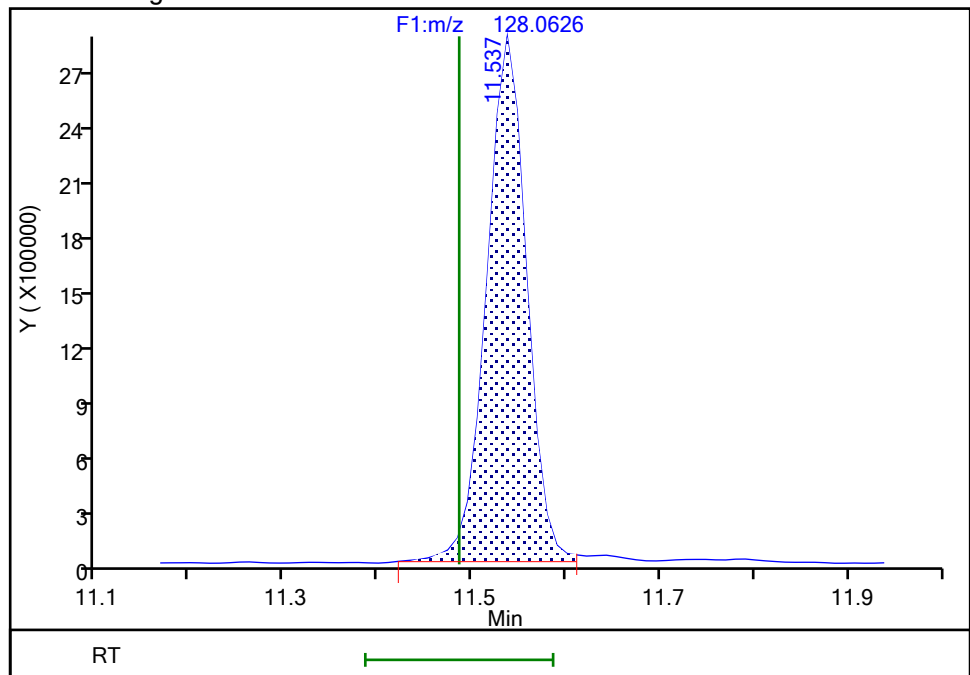
RT: 11.54  
Area: 8228462  
Amount: 27.981895  
Amount Units: pg/ul

## Processing Integration Results



RT: 11.54  
Area: 8130518  
Amount: 27.648824  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:58:34 -04:00:00 (UTC)

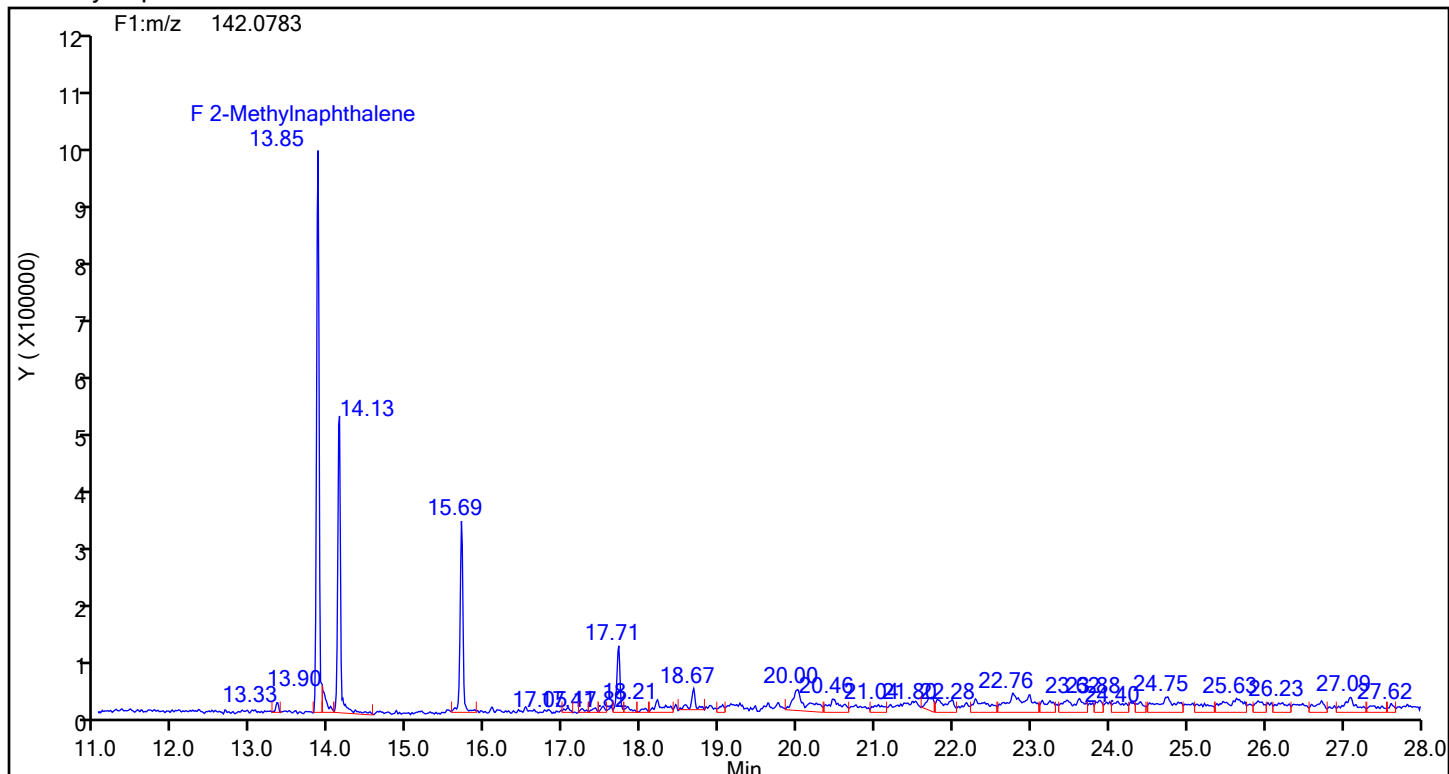
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

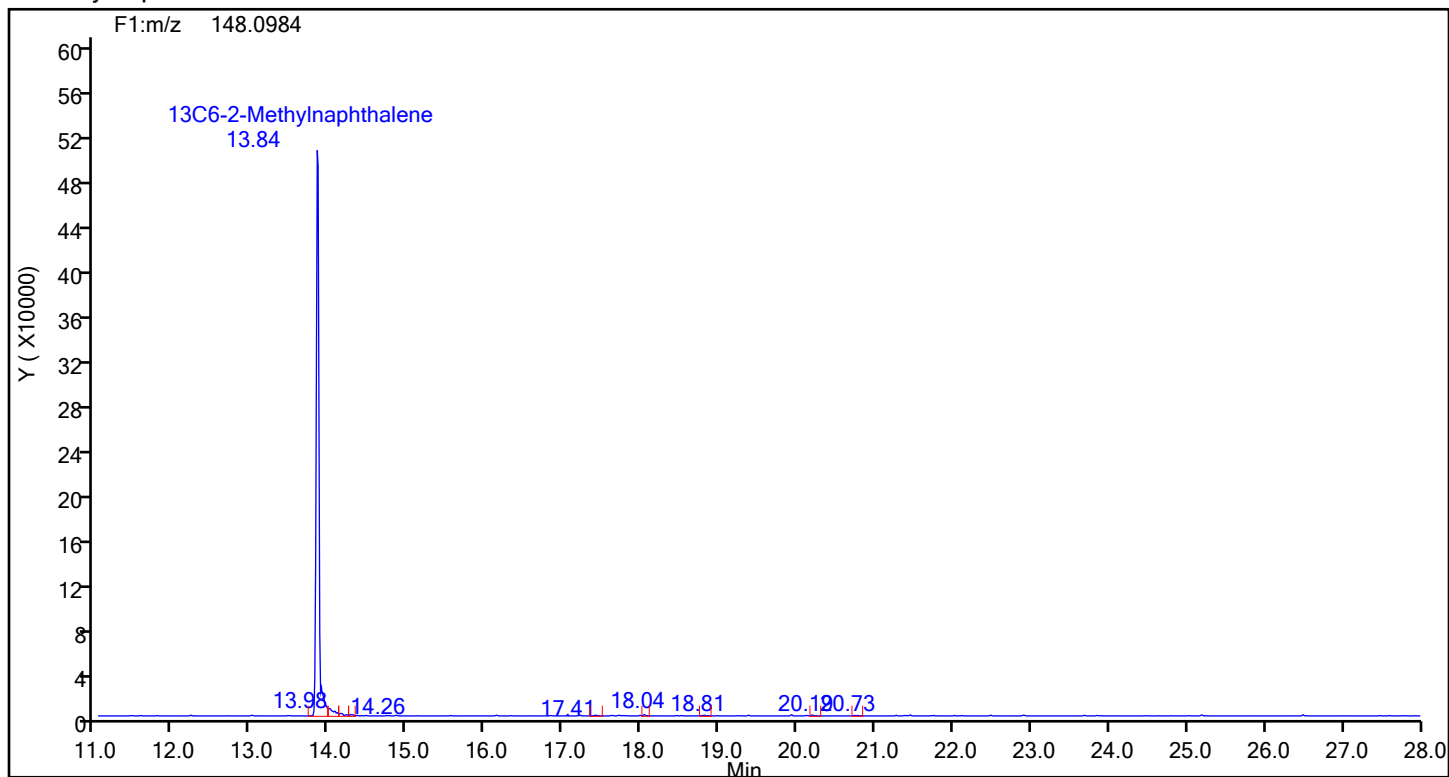
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 89013 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



## 2-Methylnaphthalene Standards



## Eurofins Knoxville

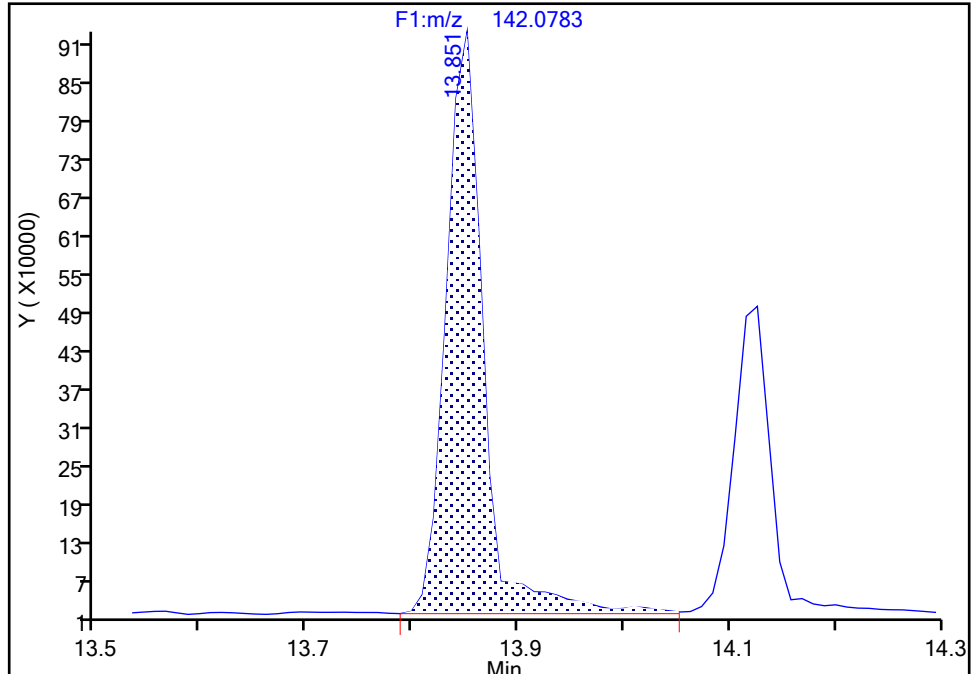
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-3-C Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

**2-Methylnaphthalene, CAS: 91-57-6**

Signal: 1

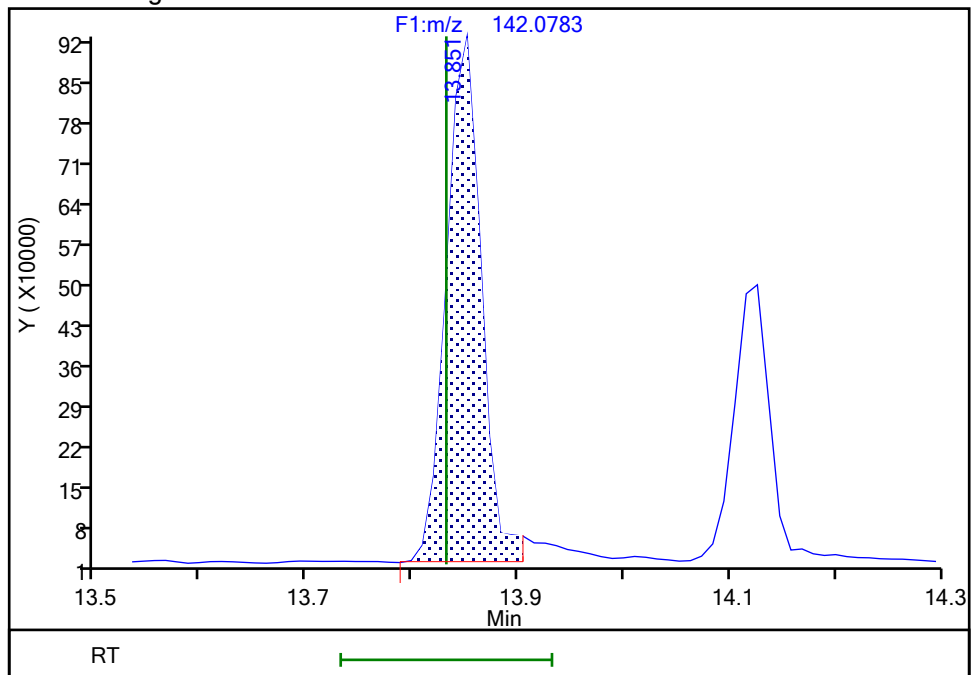
RT: 13.85  
Area: 2238389  
Amount: 14.016538  
Amount Units: pg/ul

## Processing Integration Results



RT: 13.85  
Area: 2100840  
Amount: 13.155222  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:58:14 -04:00:00 (UTC)

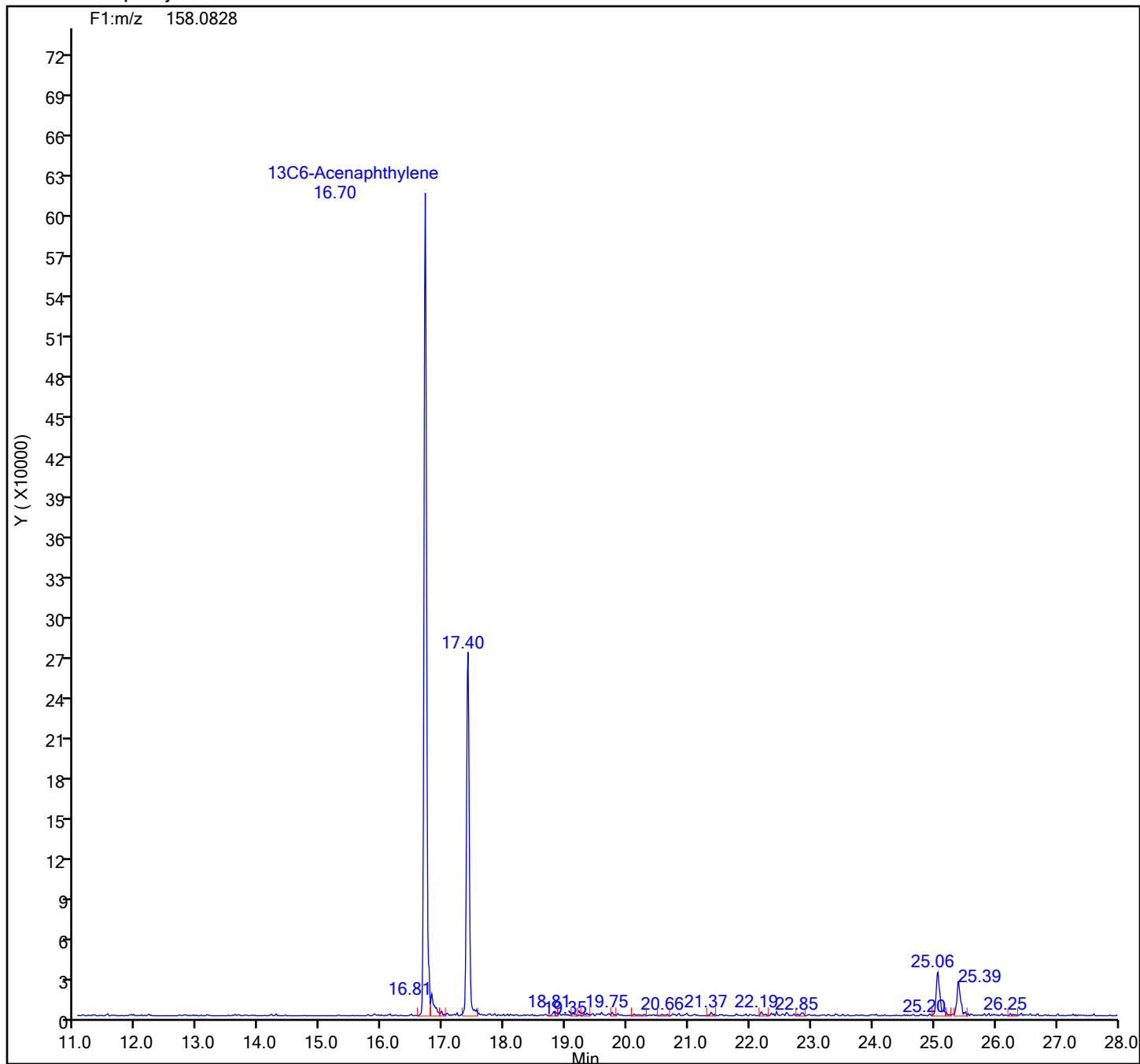
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 89013 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

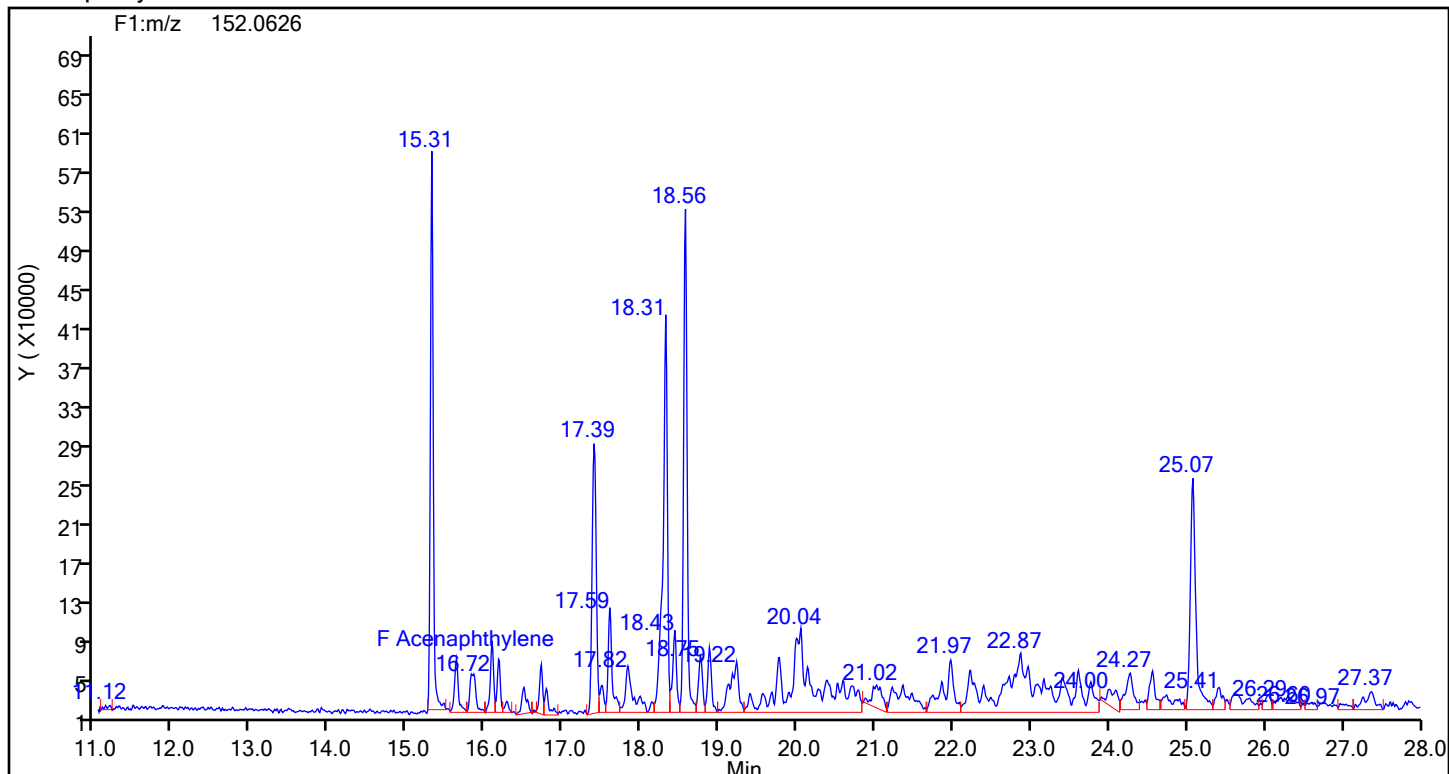
## 13C6-Acenaphthylene Standards



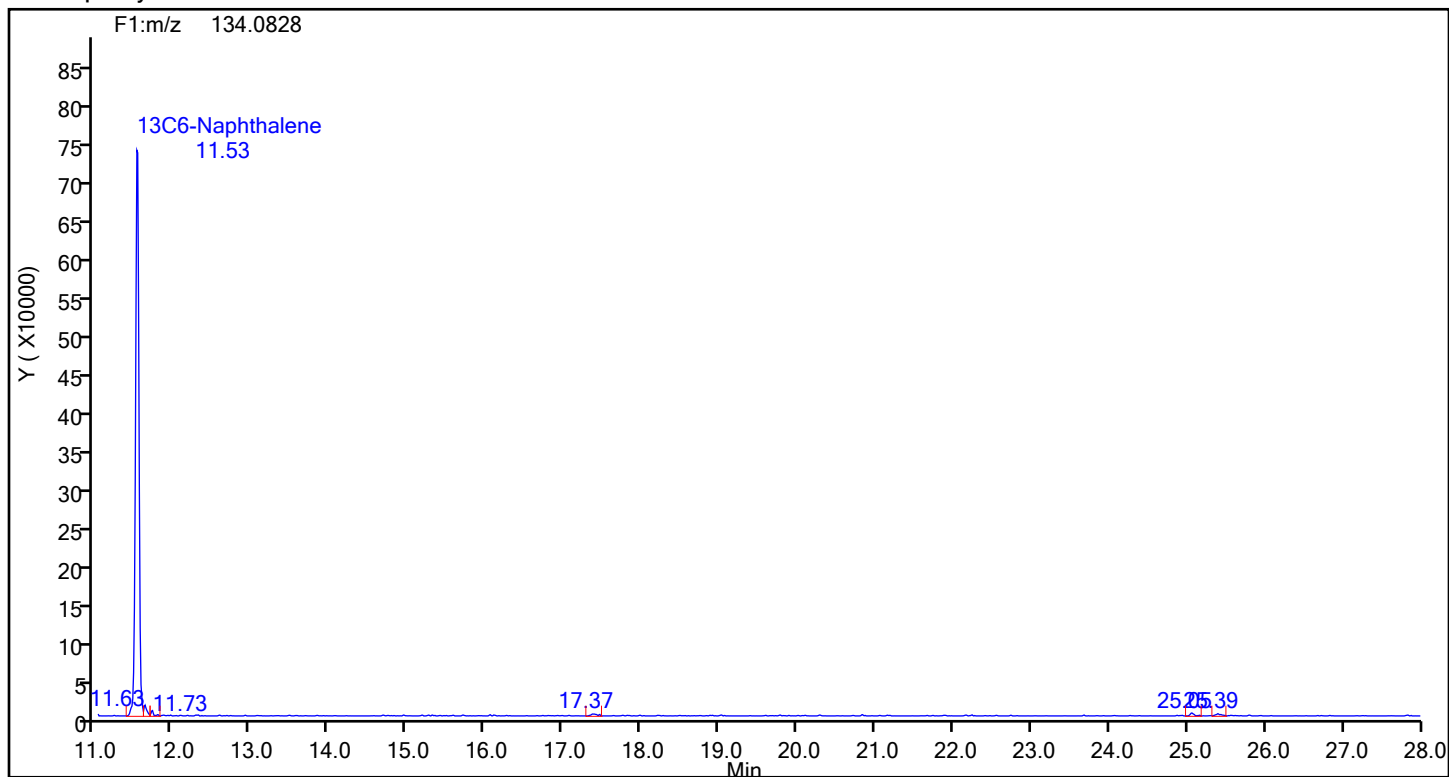
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 89013 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene



## Acenaphthylene Standards



## Eurofins Knoxville

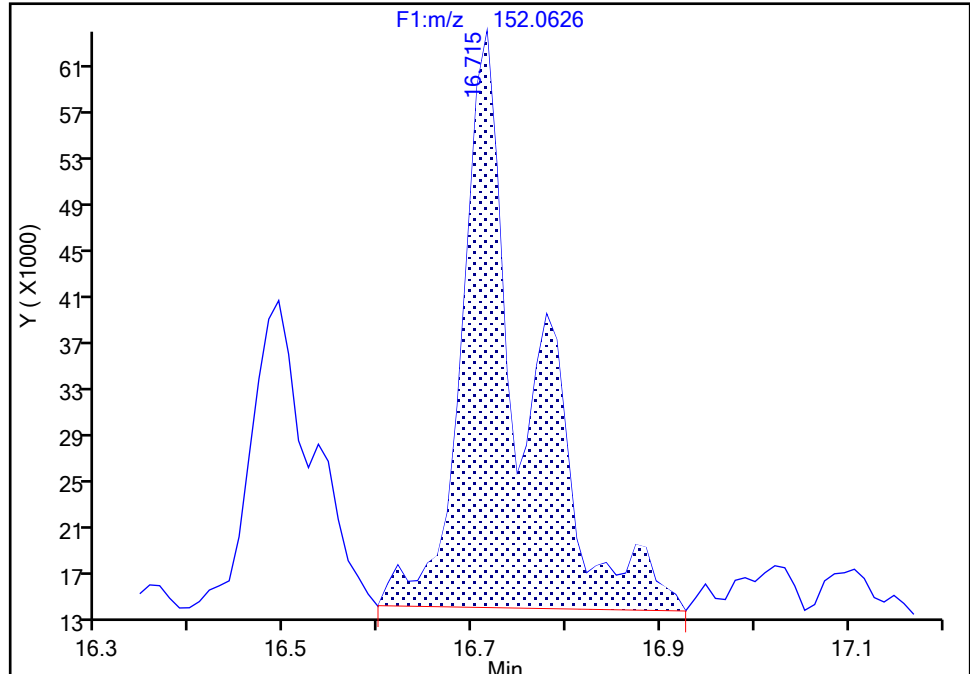
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-3-C Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Acenaphthylene, CAS: 208-96-8

Signal: 1

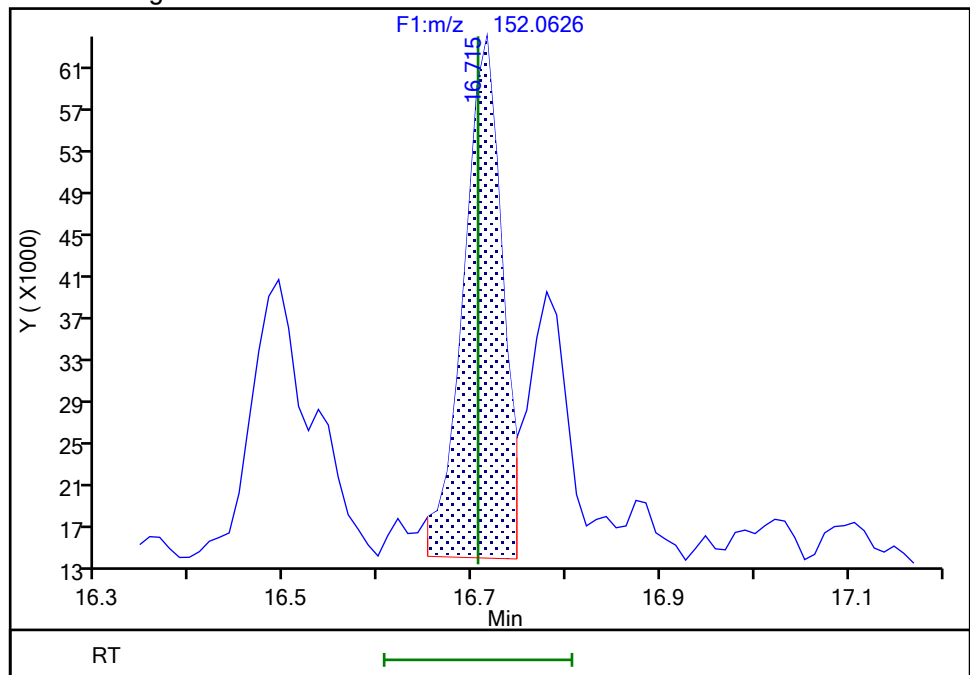
RT: 16.72  
Area: 240276  
Amount: 0.940110  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.72  
Area: 145454  
Amount: 0.569107  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:59:28 -04:00:00 (UTC)

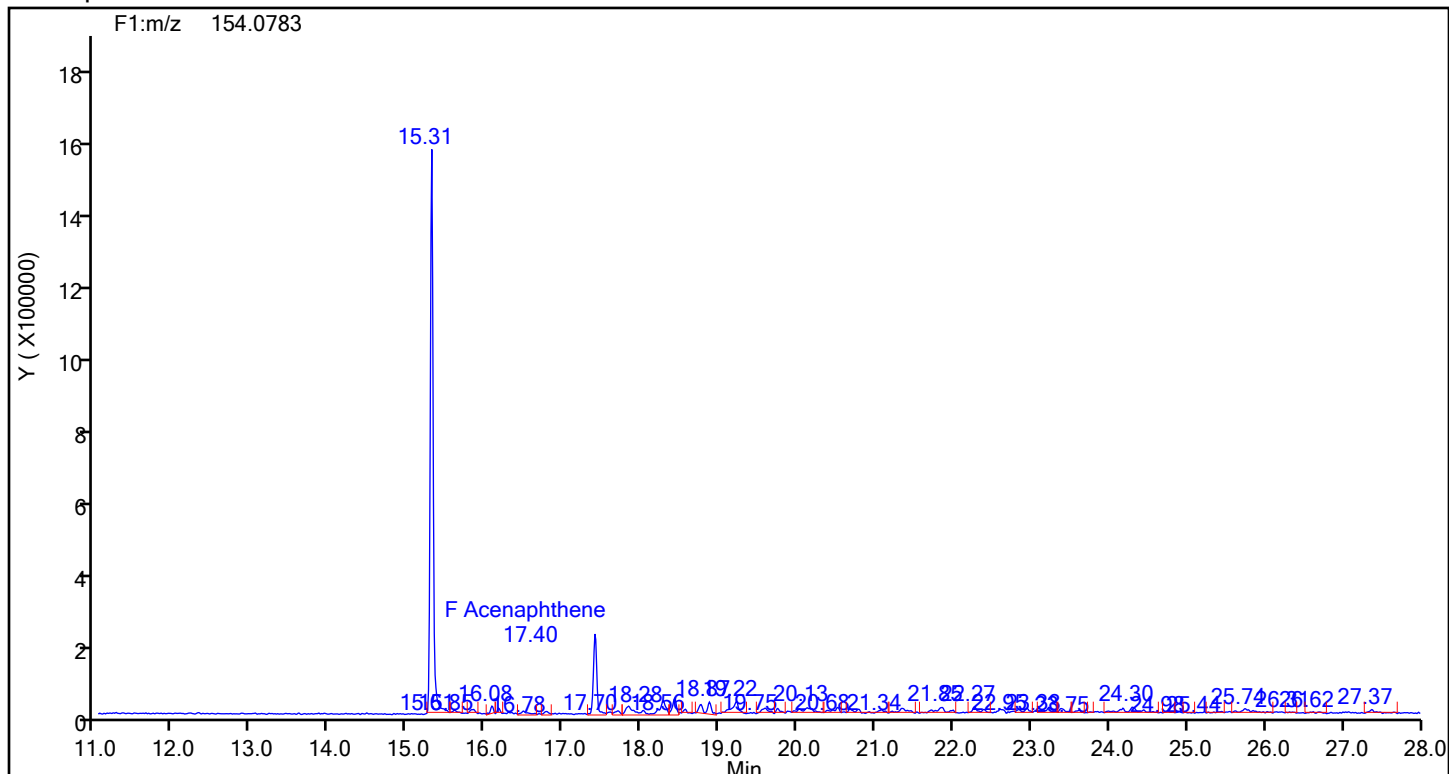
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

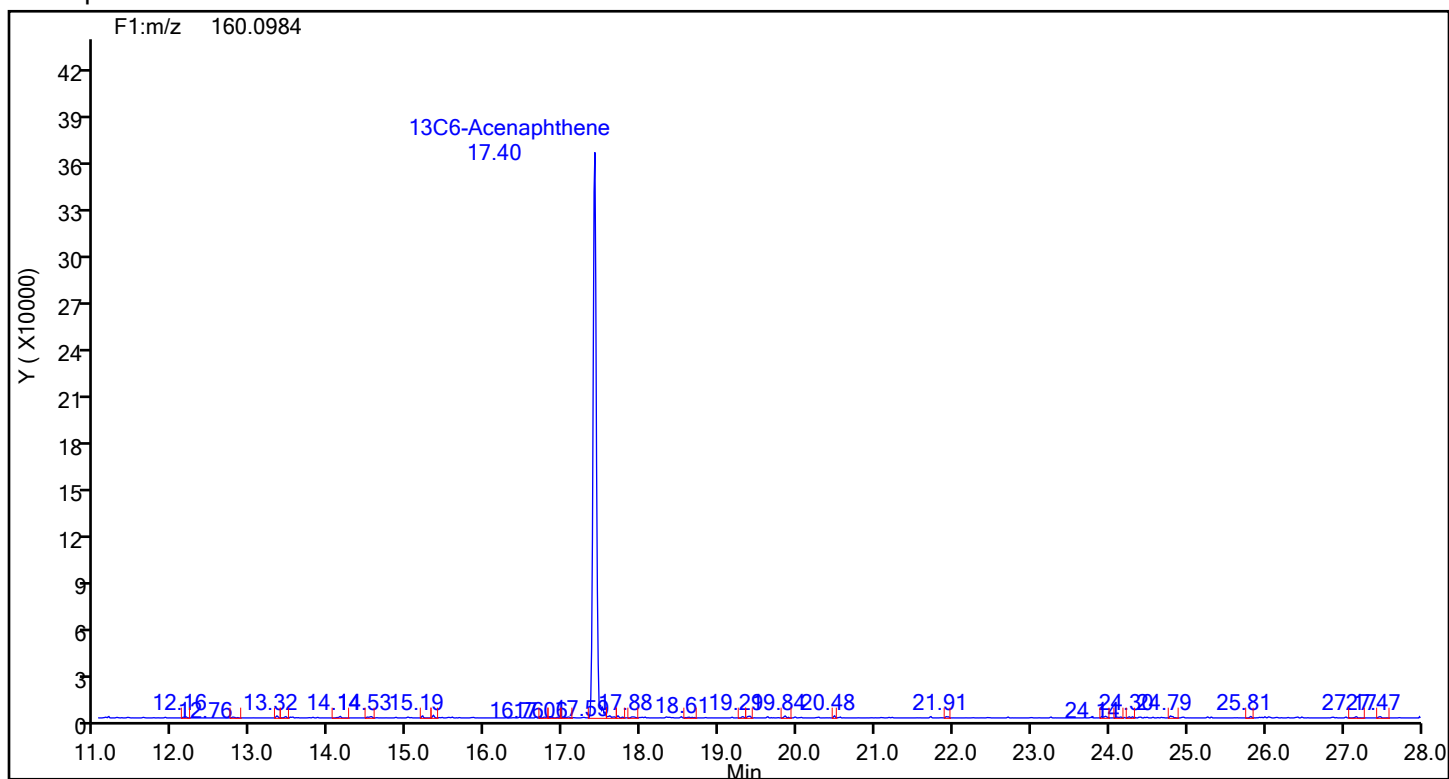
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 89013 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



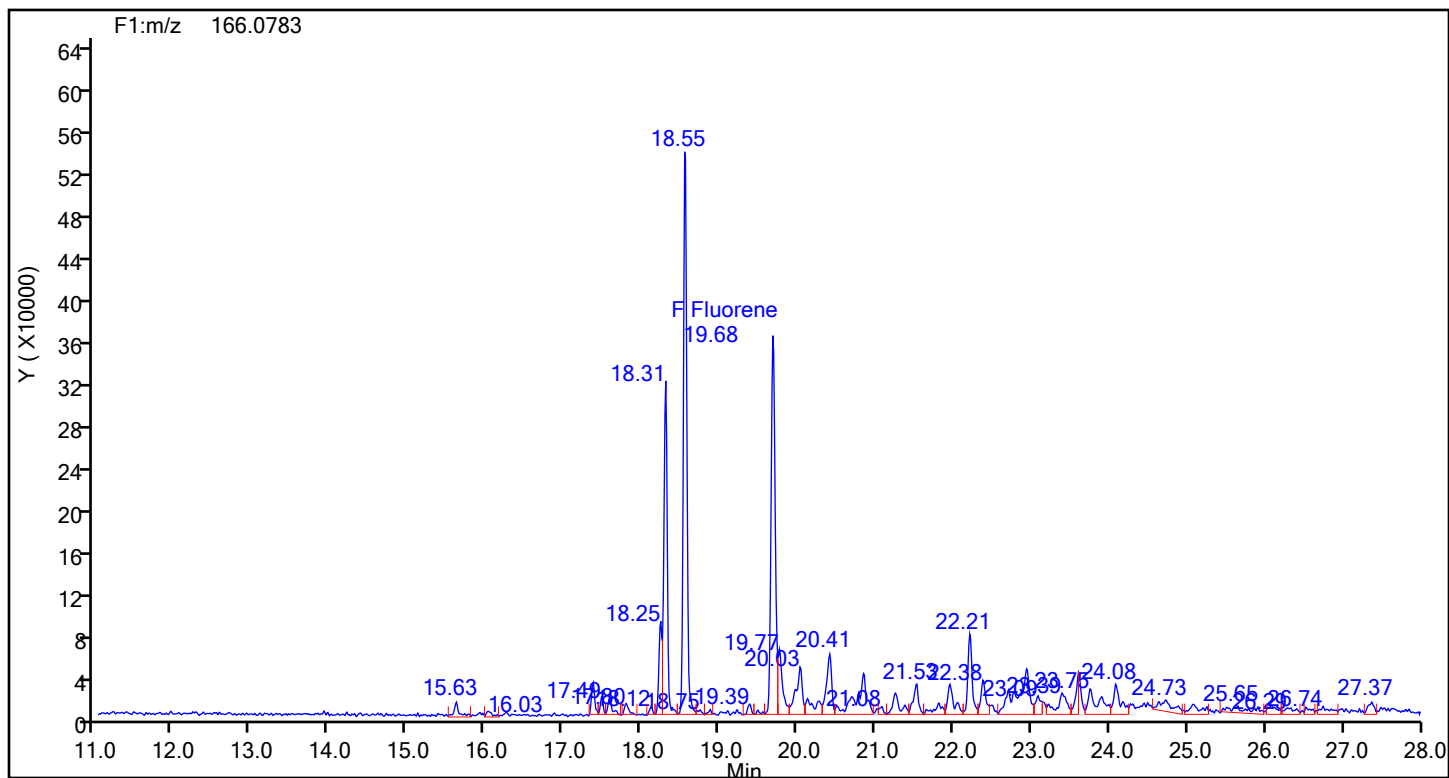
## Acenaphthene Standards



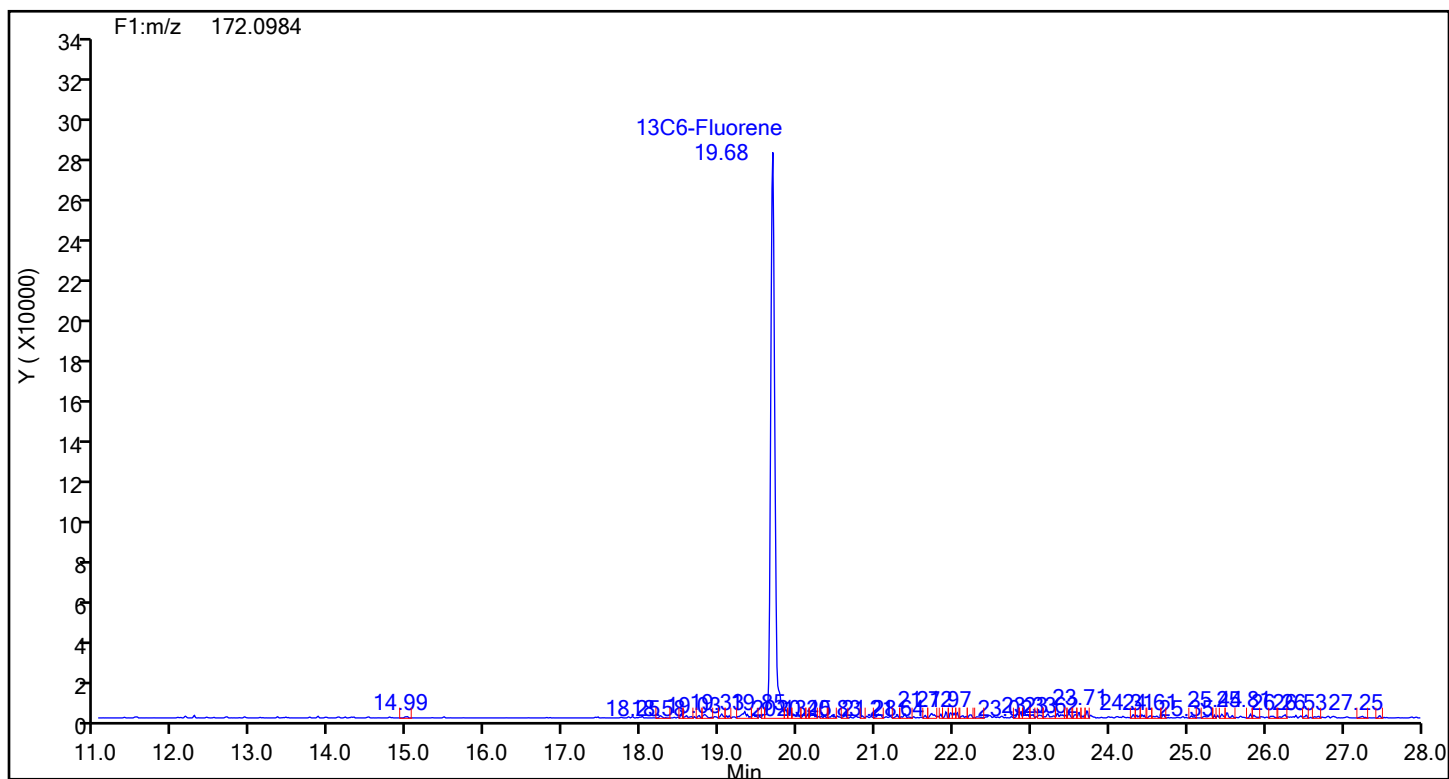
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 89013 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene



## Fluorene Standards

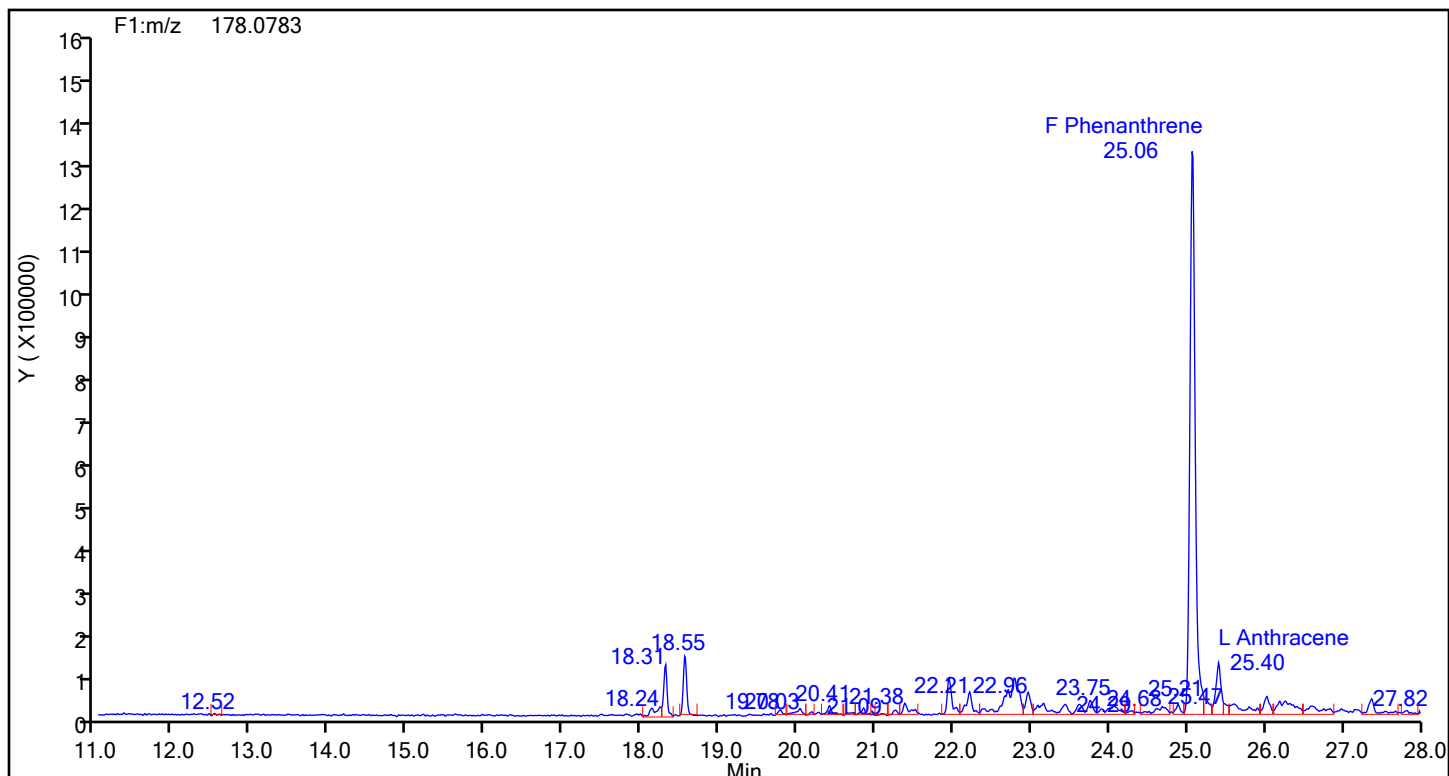




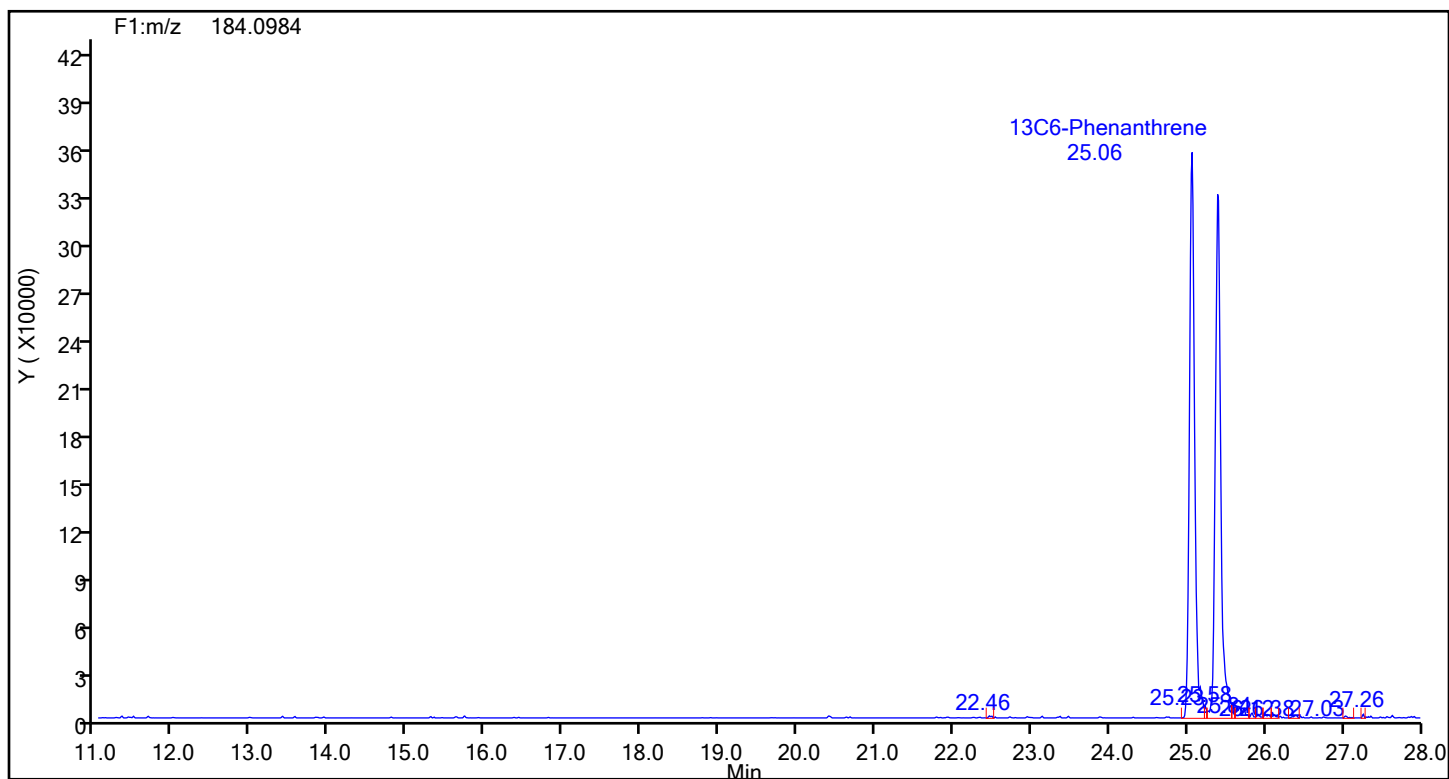
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 89013 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Phenanthrene



## Phenanthrene Standards



## Eurofins Knoxville

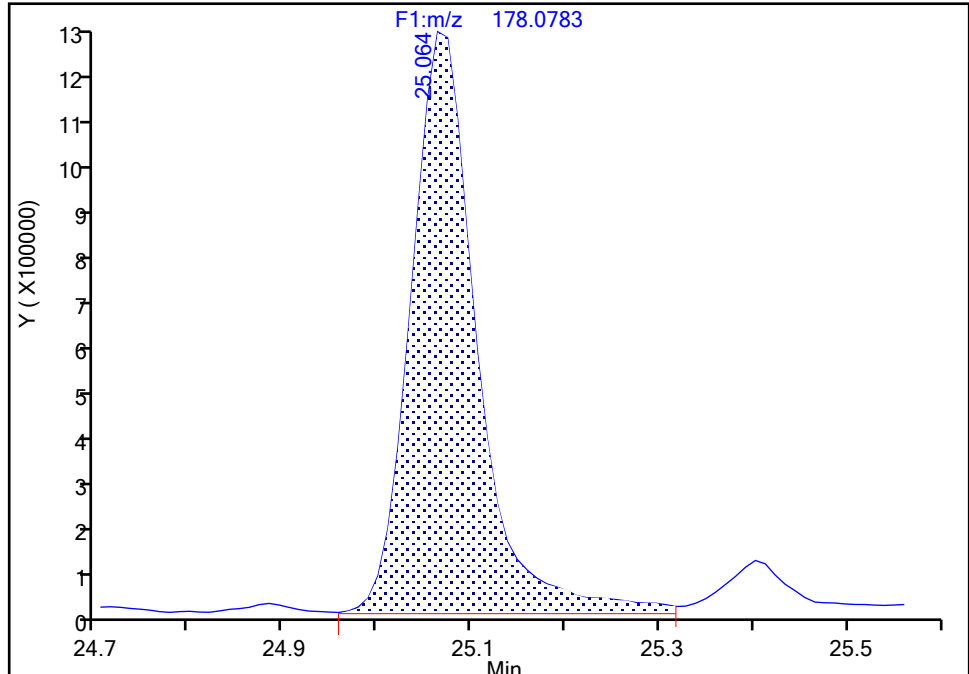
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-3-C Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Phenanthrene, CAS: 85-01-8

Signal: 1

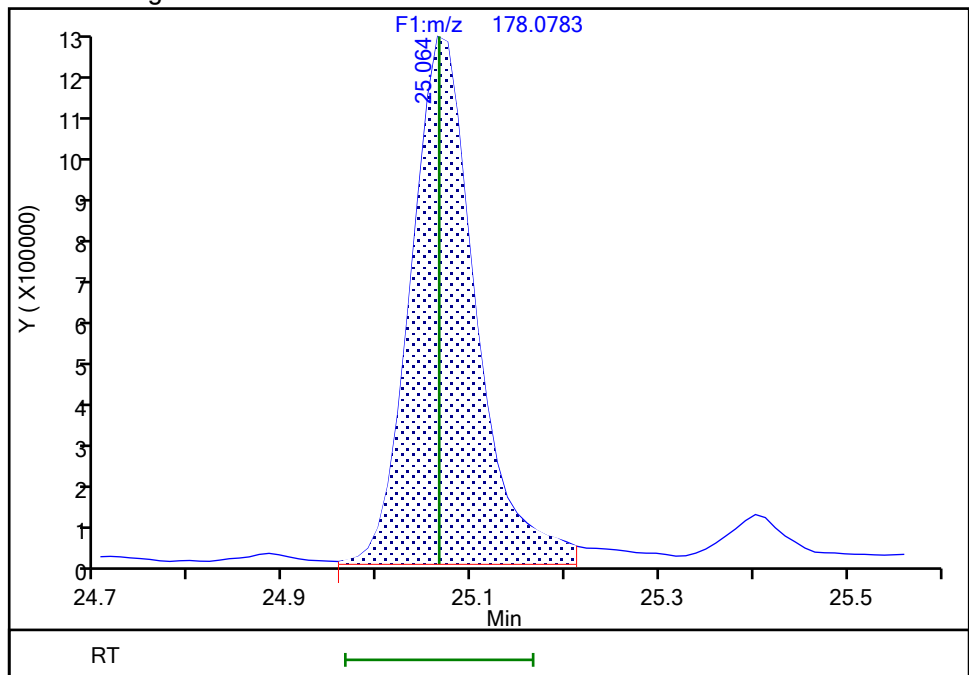
RT: 25.06  
Area: 6310230  
Amount: 34.741630  
Amount Units: pg/ul

## Processing Integration Results



RT: 25.06  
Area: 6133400  
Amount: 33.768074  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:59:05 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

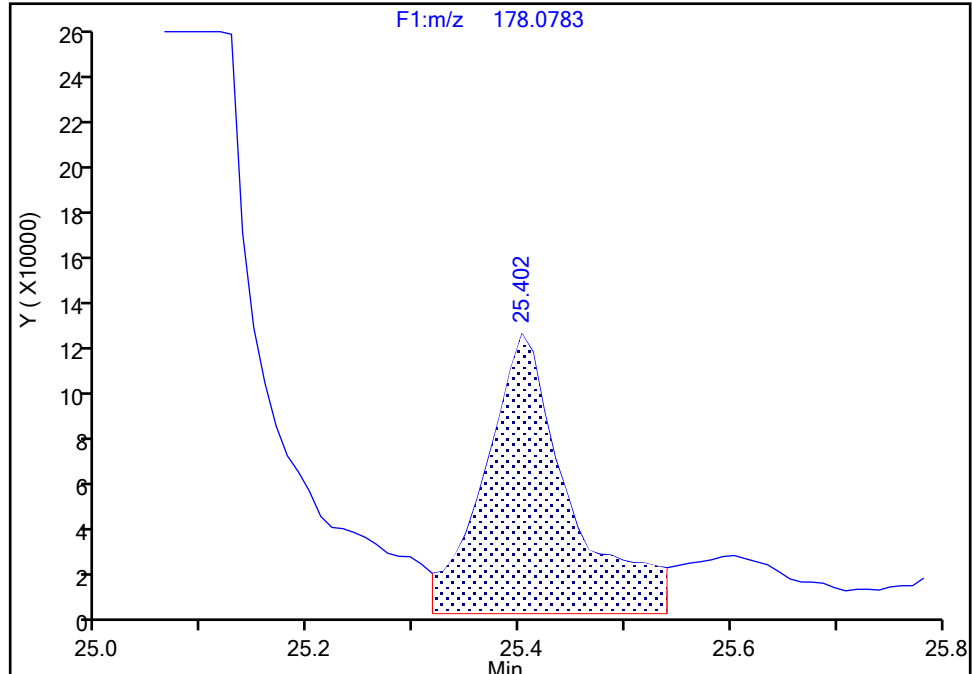
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-3-C Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Anthracene, CAS: 120-12-7

Signal: 1

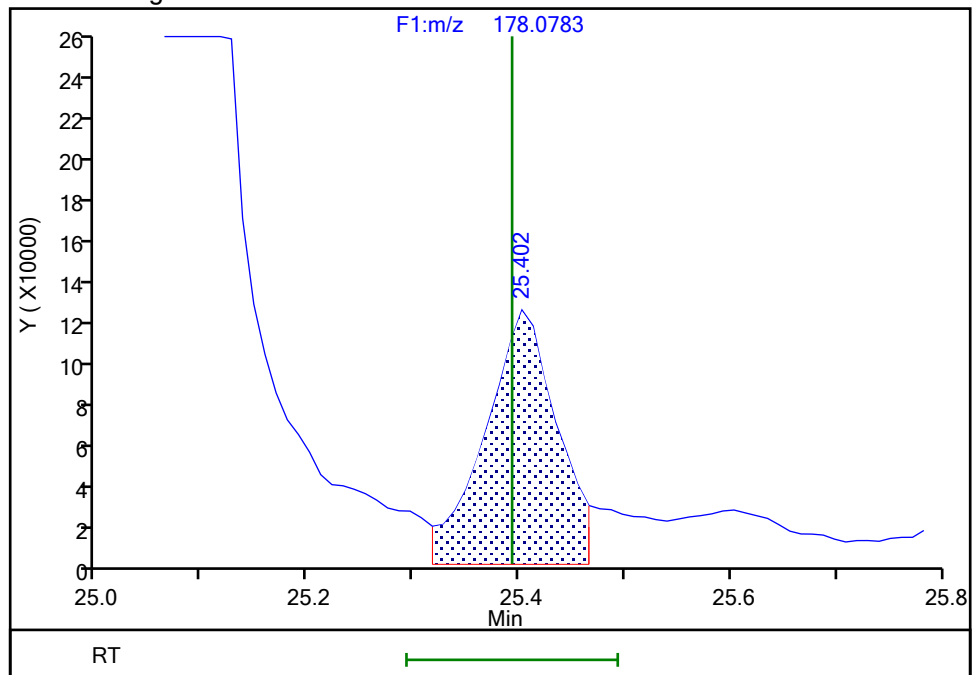
RT: 25.40  
Area: 653720  
Amount: 2.980956  
Amount Units: pg/ul

## Processing Integration Results



RT: 25.40  
Area: 566333  
Amount: 2.582472  
Amount Units: pg/ul

## Manual Integration Results



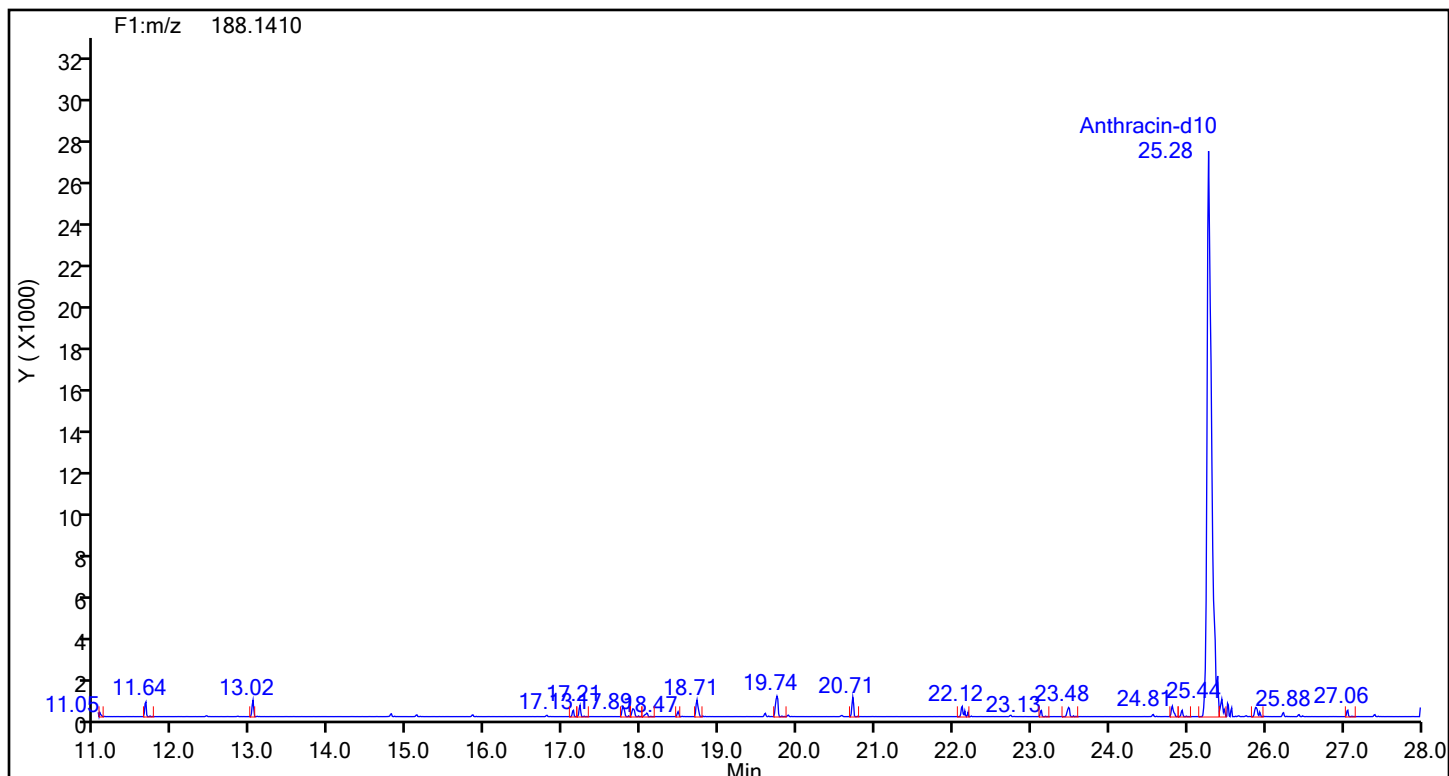
Reviewer: TT6I, 23-Jul-2024 09:57:41 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

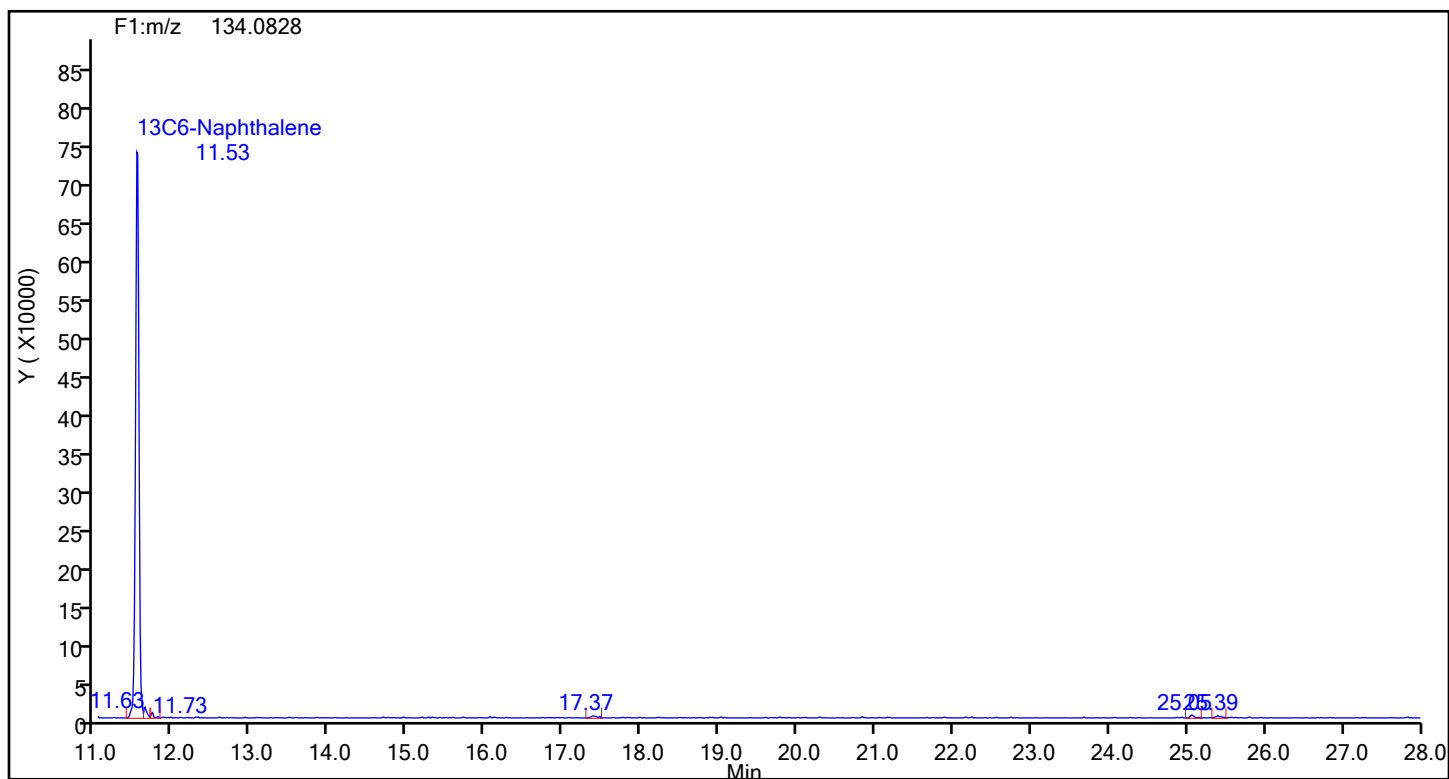
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 89013 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10

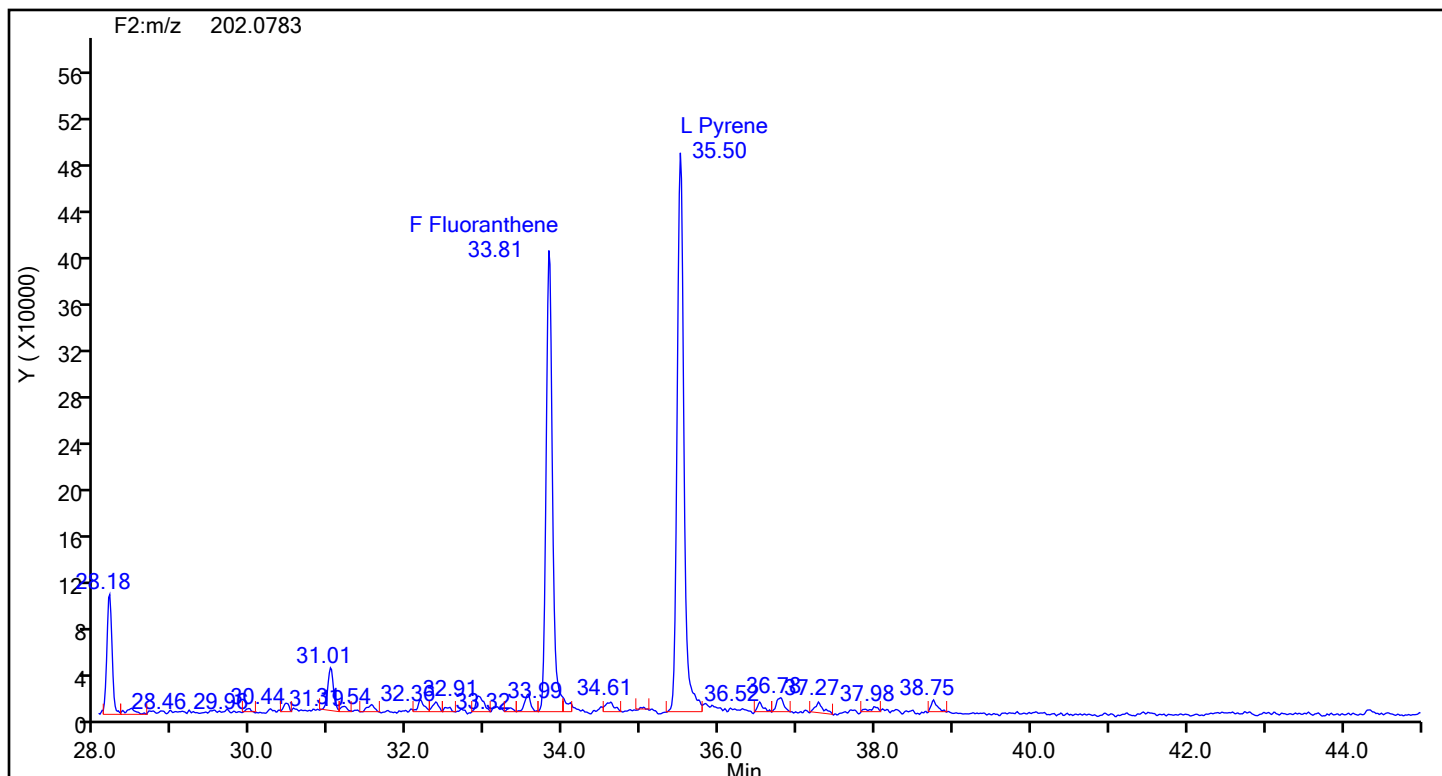


## Anthracin-d10 Standards

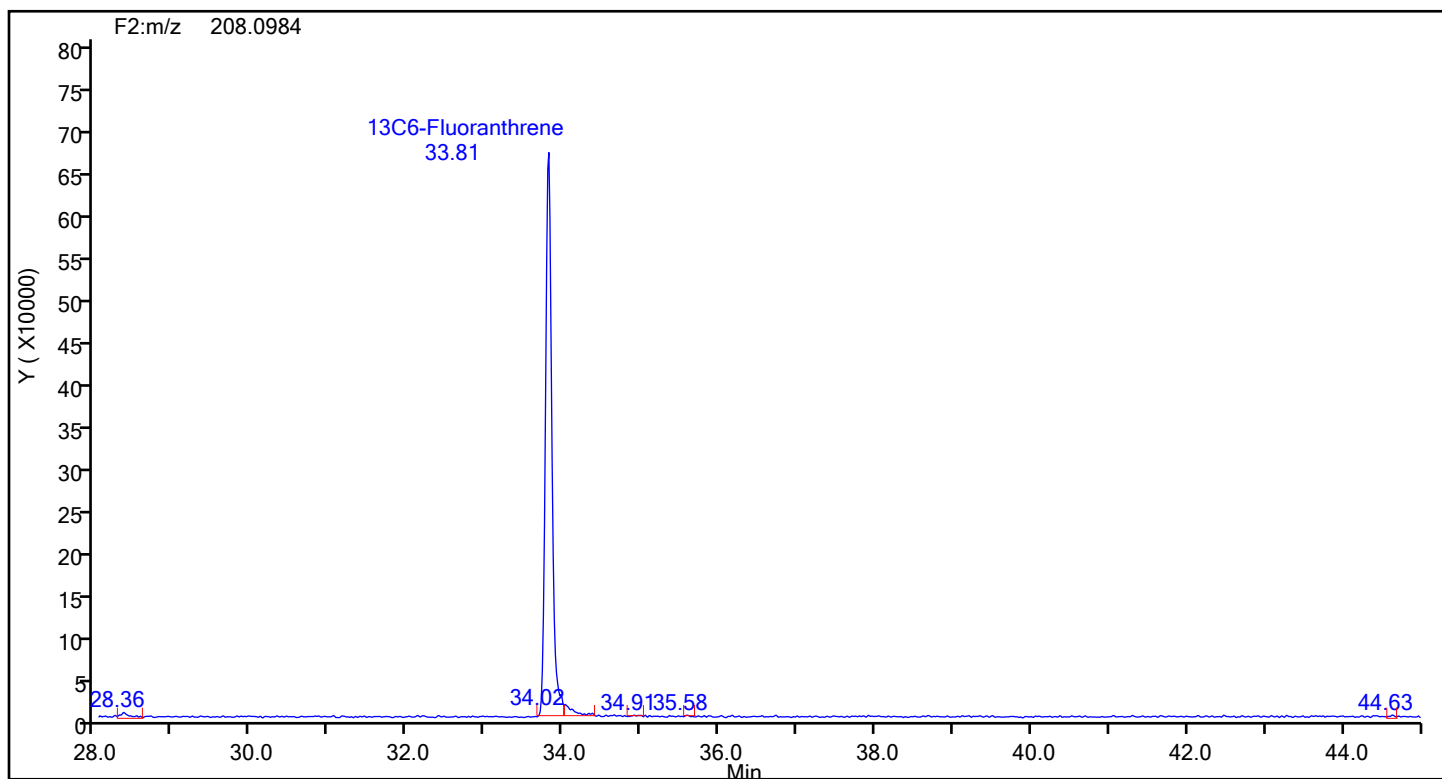


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 89013 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Fluoranthene



## Fluoranthene Standards



## Eurofins Knoxville

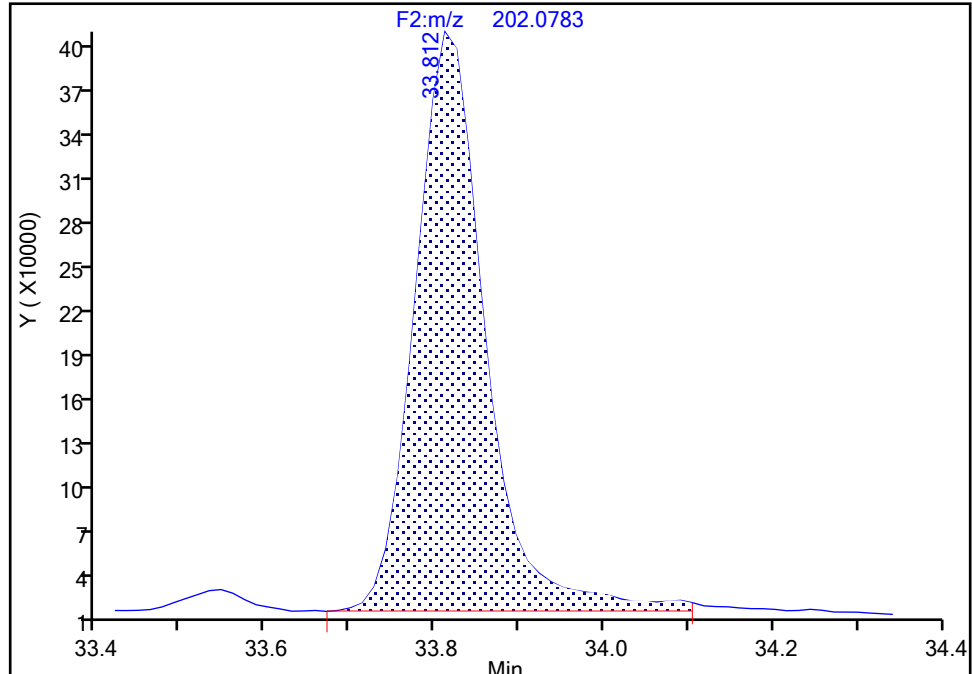
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-3-C Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F2(28.03 :43.99 )

## Fluoranthene, CAS: 206-44-0

Signal: 1

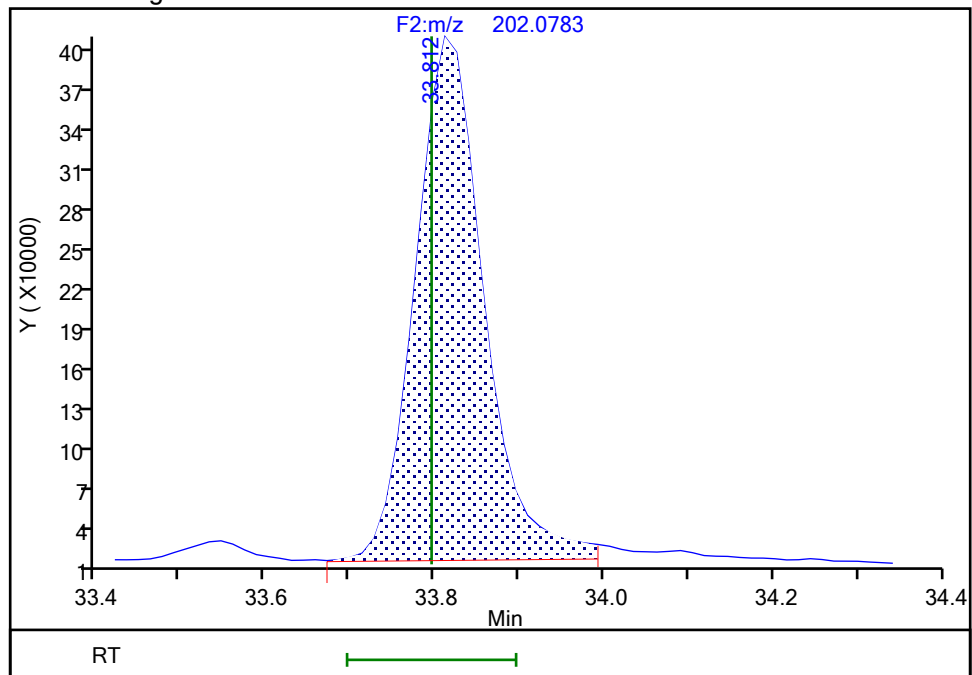
RT: 33.81  
Area: 2258242  
Amount: 5.059623  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.81  
Area: 2212849  
Amount: 4.957920  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:58:55 -04:00:00 (UTC)

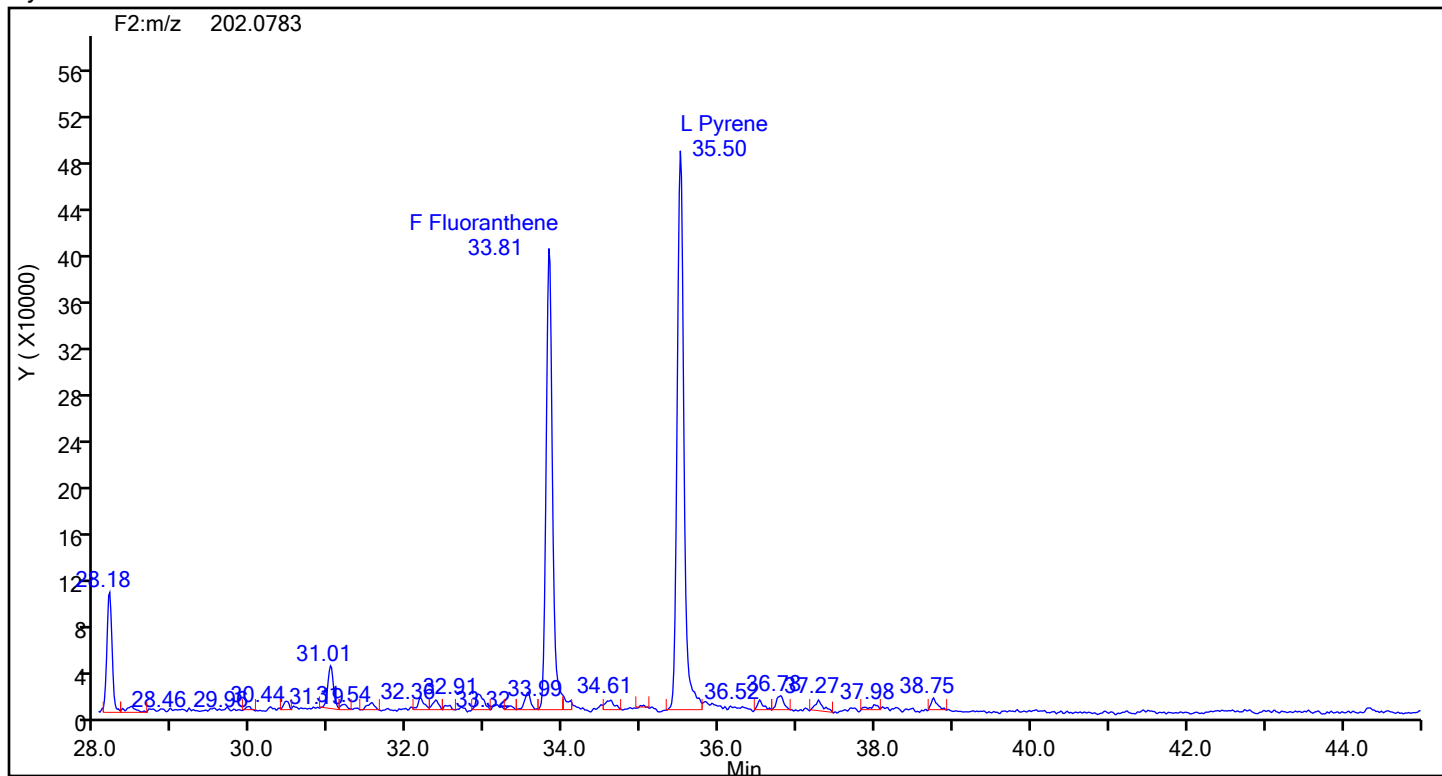
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

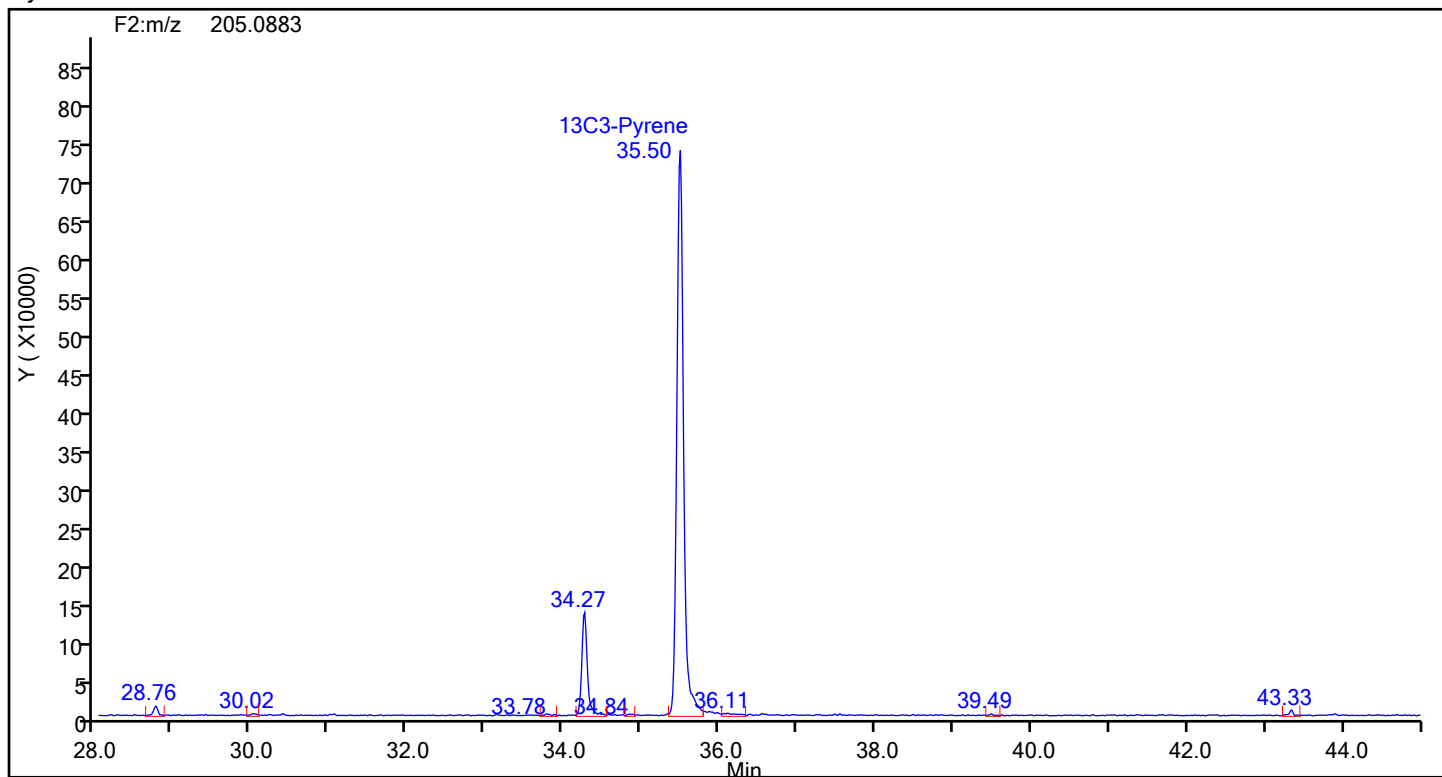
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 89013 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Pyrene



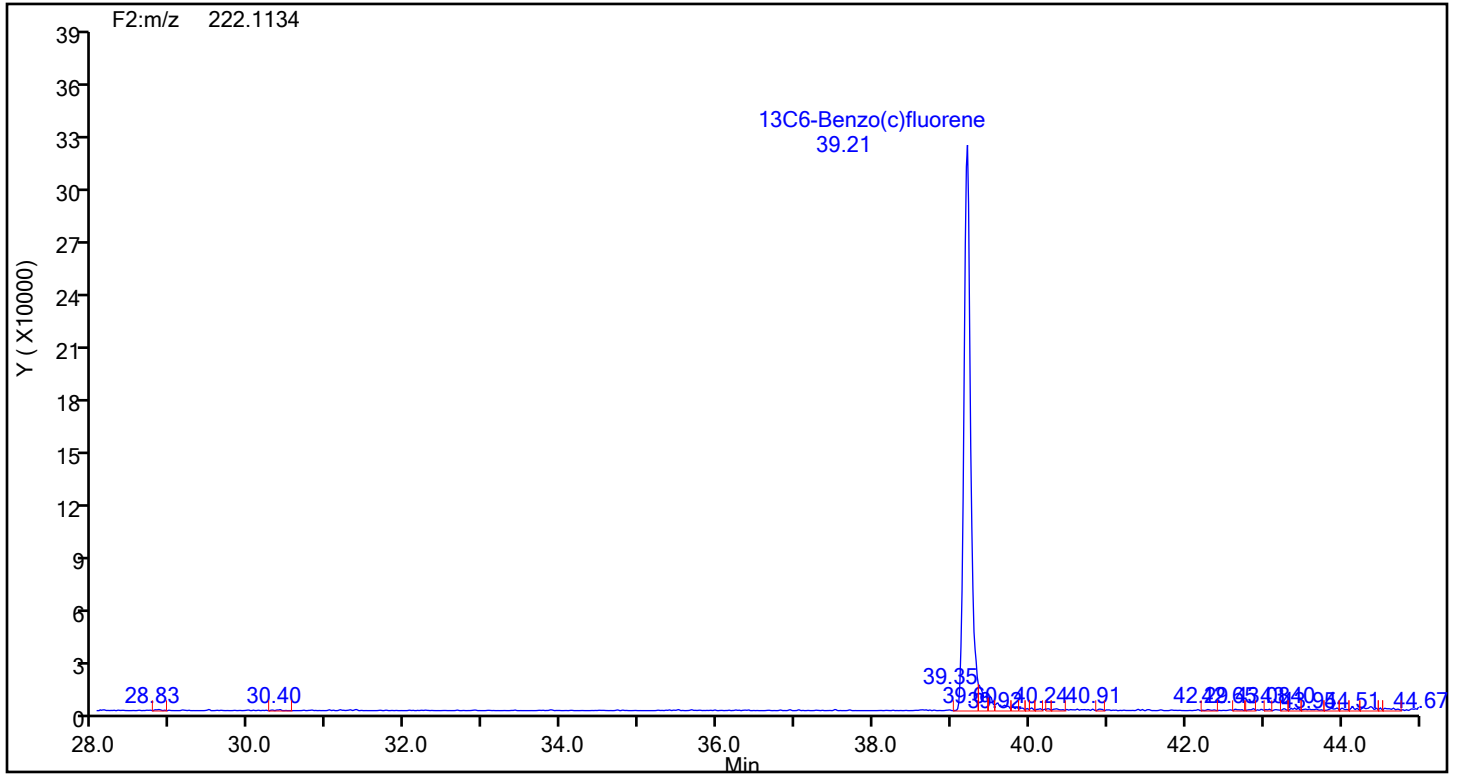
## Pyrene Standards



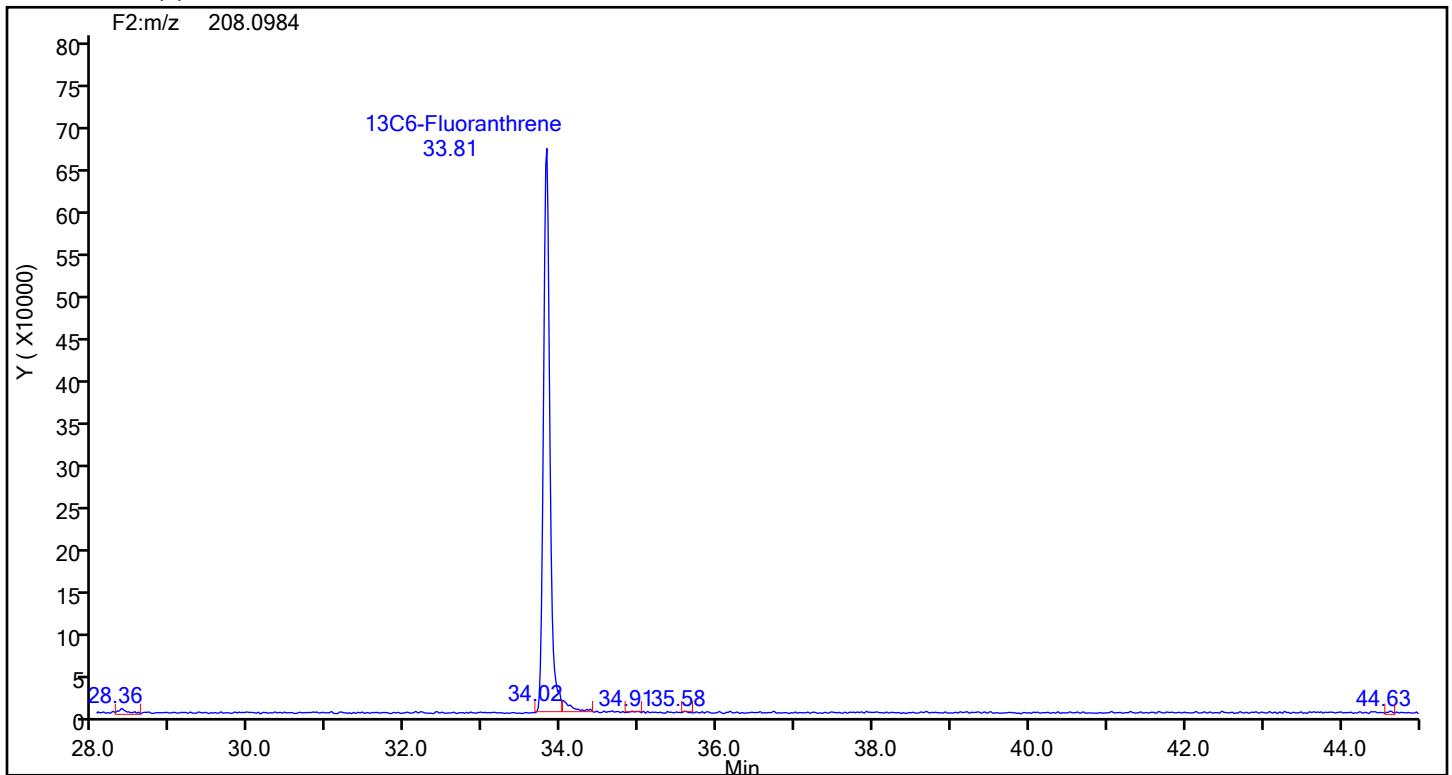
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 89013 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C6-Benzo(c)fluorene



## 13C6-Benzo(c)fluorene Standards

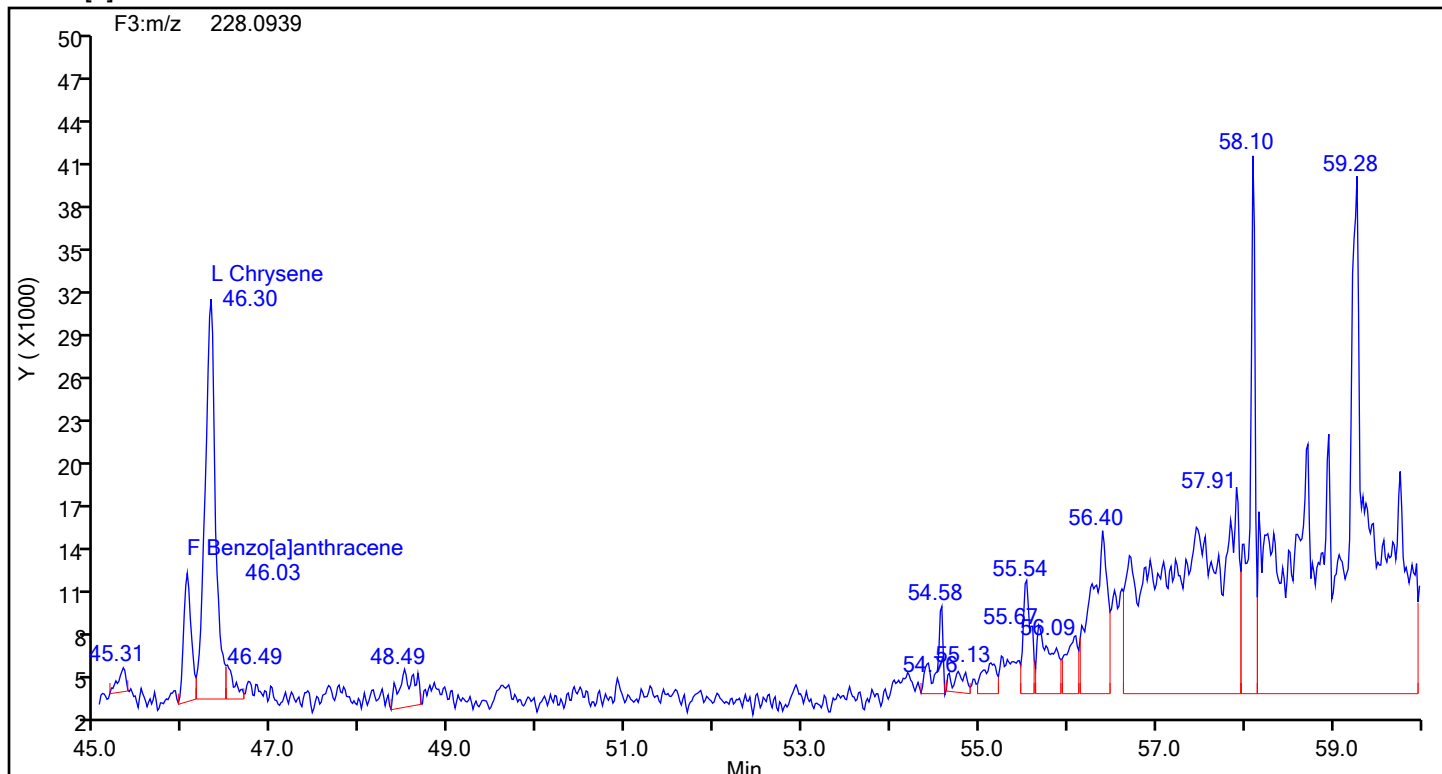




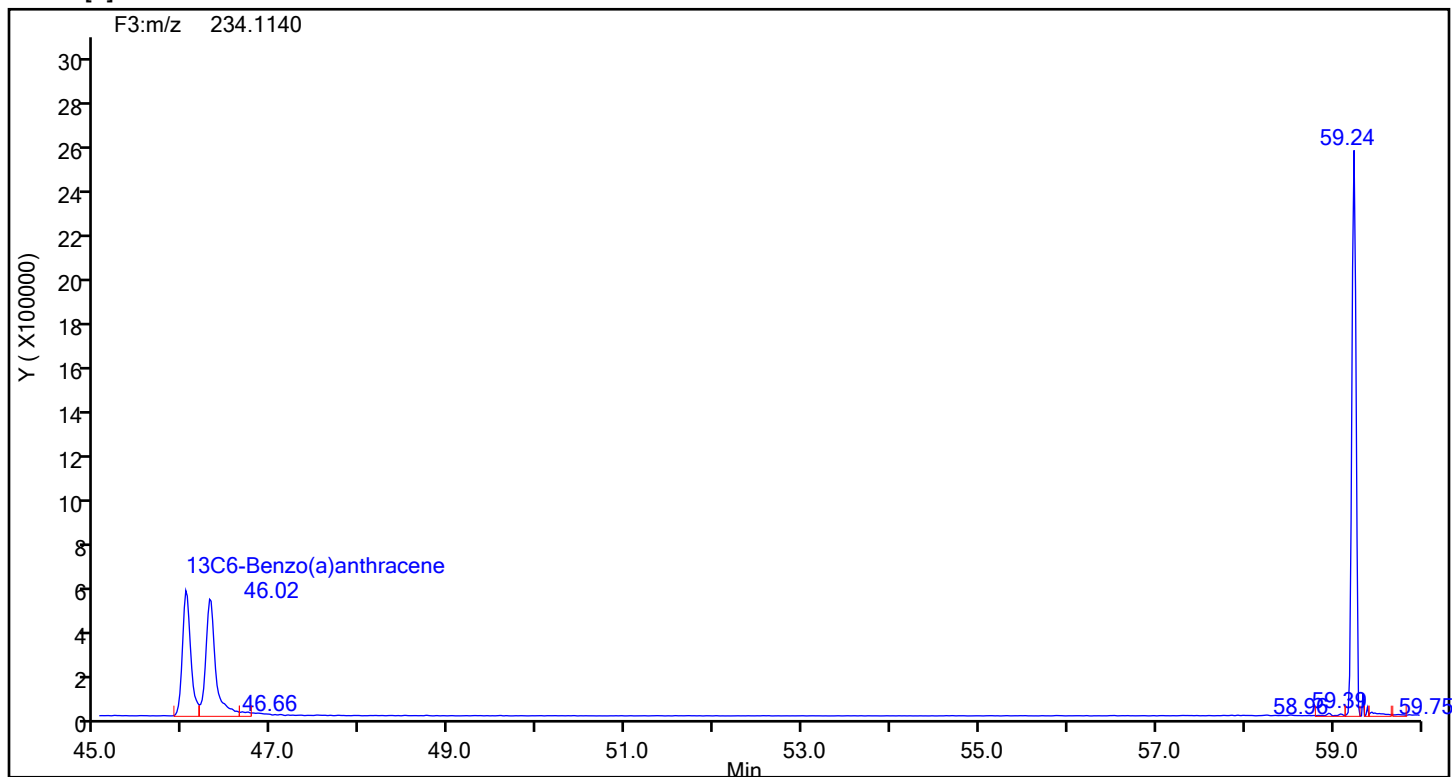
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 89013 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



## Benzo[a]anthracene Standards



## Eurofins Knoxville

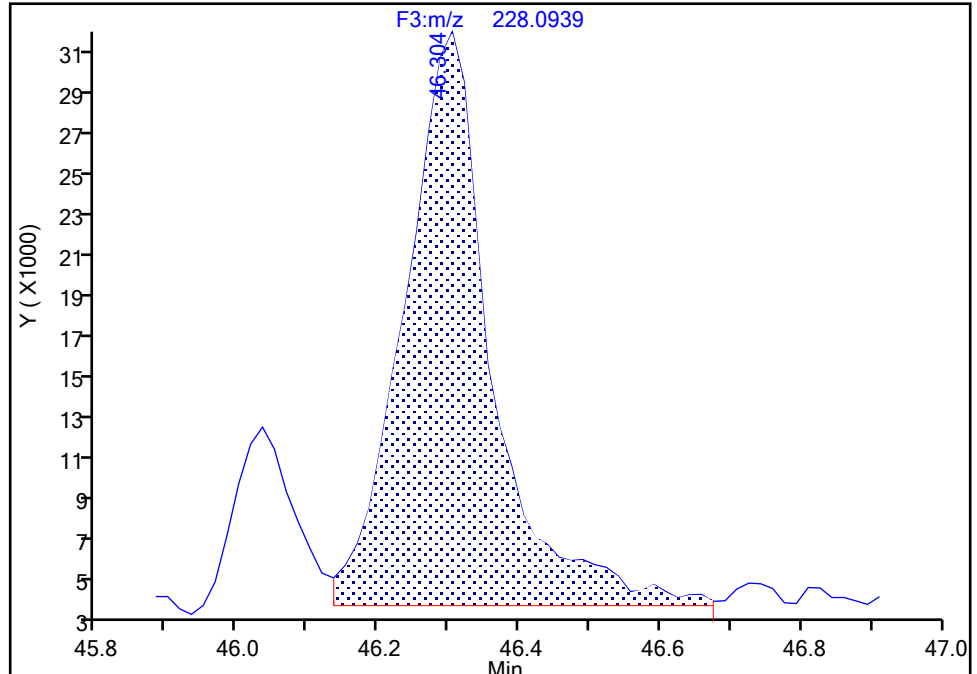
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-3-C Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Chrysene, CAS: 218-01-9

Signal: 1

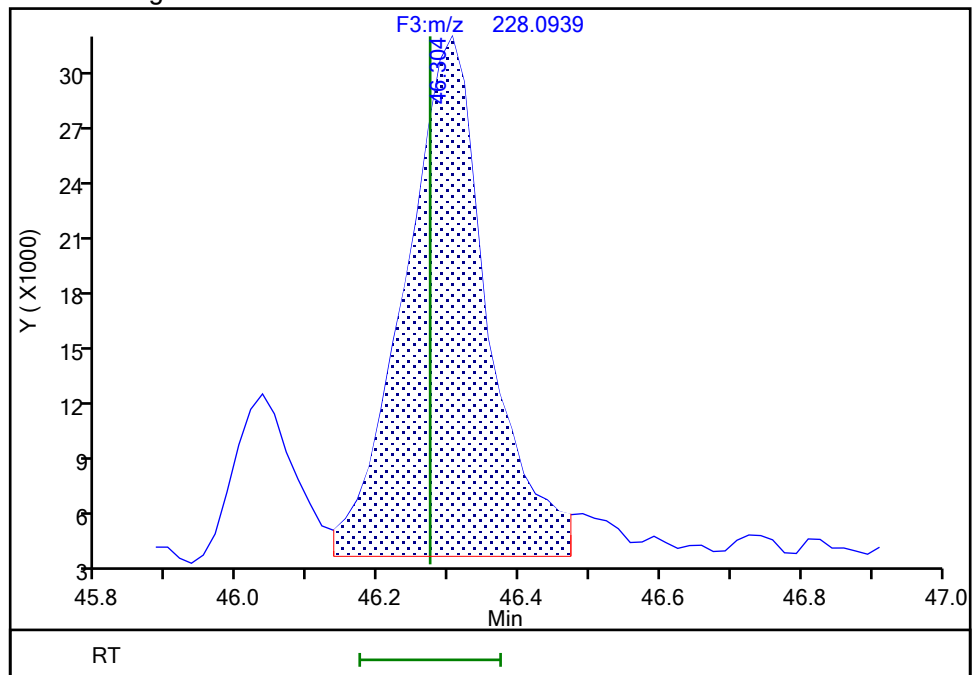
RT: 46.30  
Area: 237455  
Amount: 0.591967  
Amount Units: pg/ul

## Processing Integration Results



RT: 46.30  
Area: 225501  
Amount: 0.562166  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:58:49 -04:00:00 (UTC)

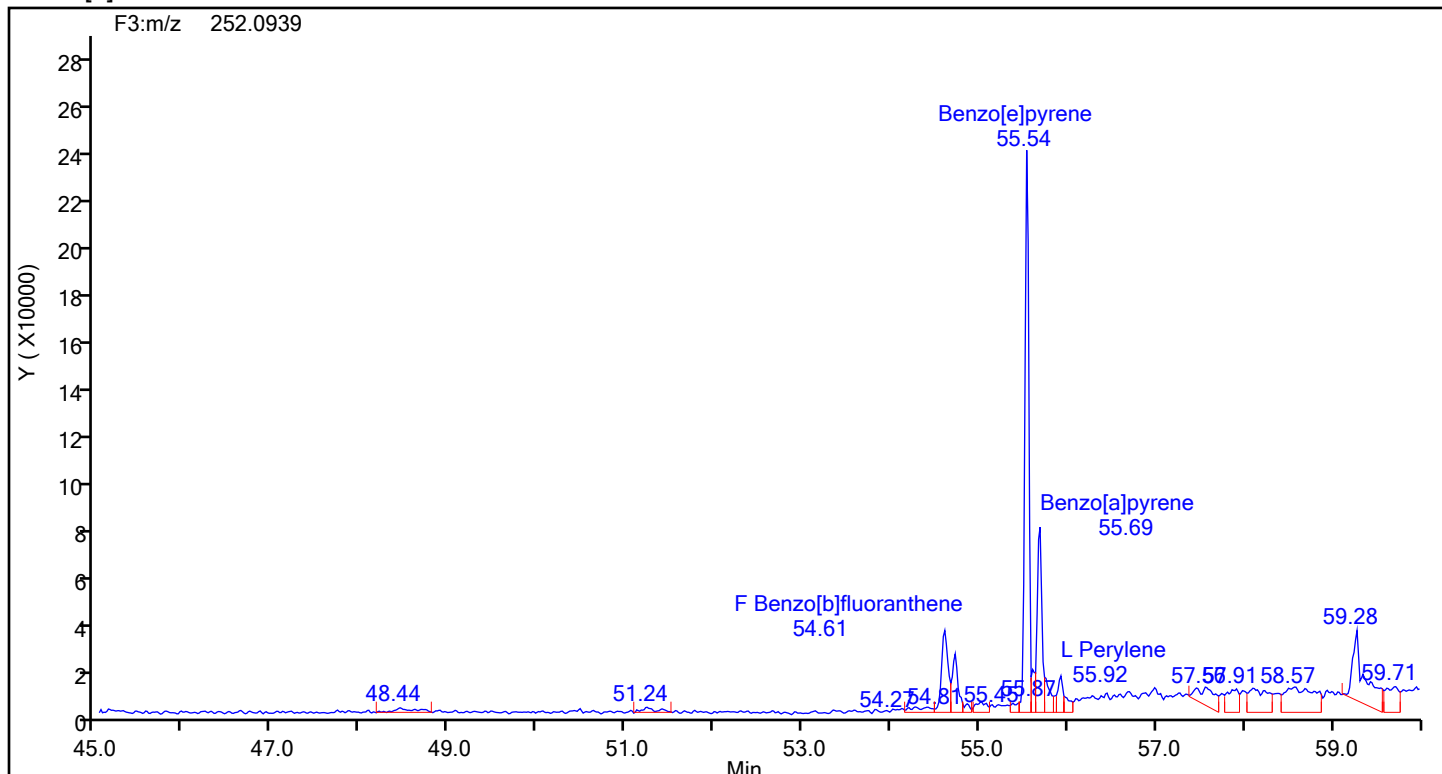
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

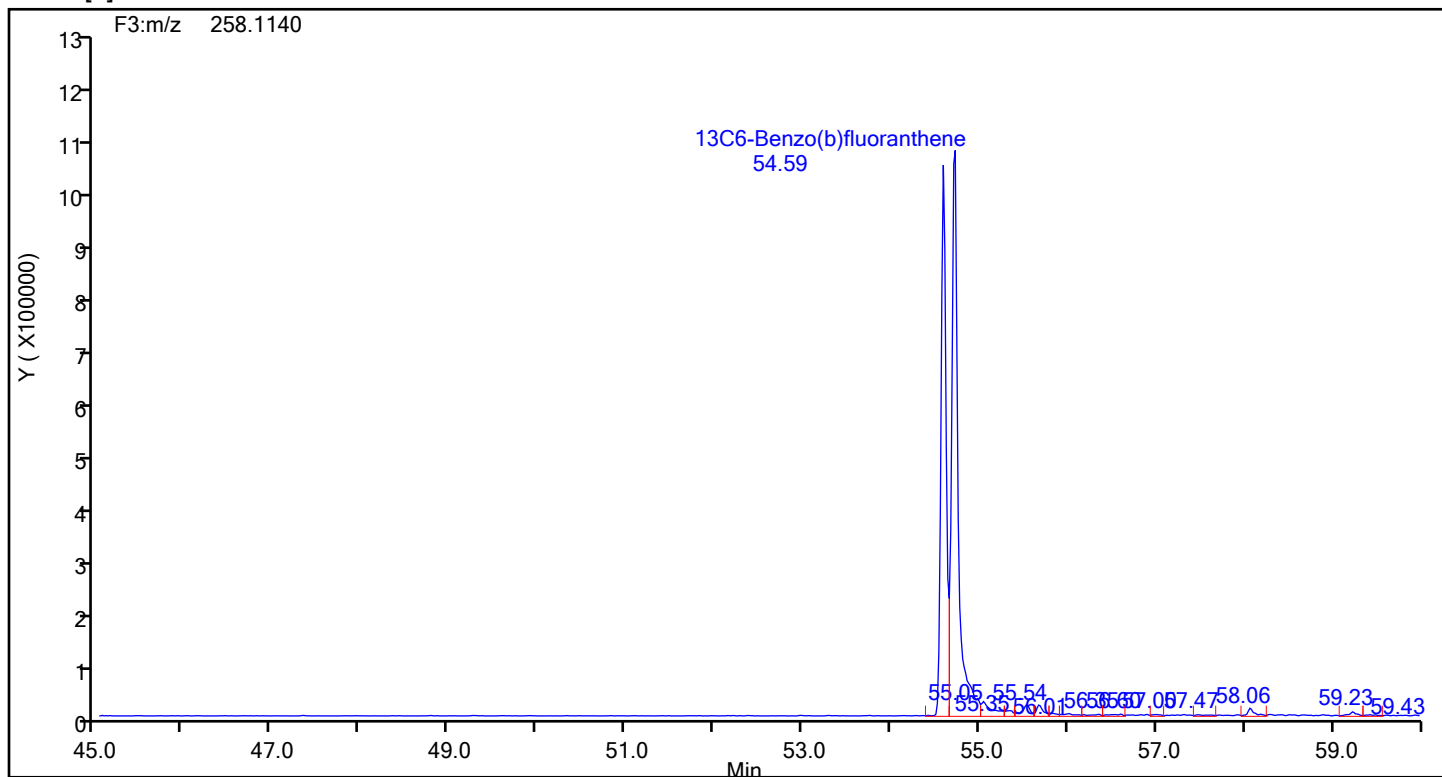
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 89013 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



## Benzo[b]fluoranthene Standards



## Eurofins Knoxville

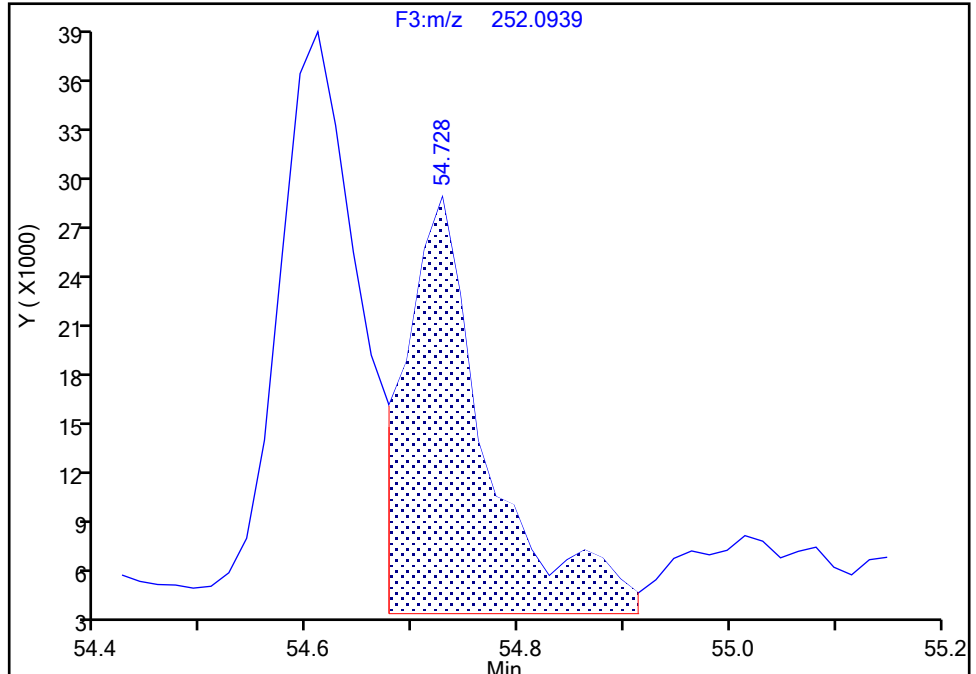
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-3-C Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

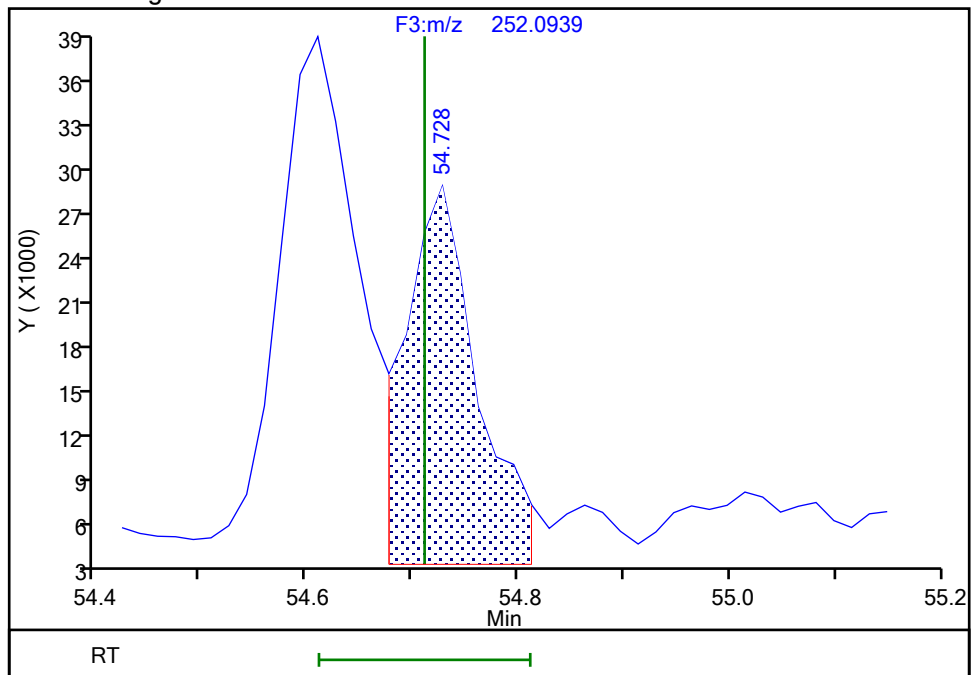
RT: 54.73  
Area: 131946  
Amount: 0.213278  
Amount Units: pg/ul

## Processing Integration Results



RT: 54.73  
Area: 122646  
Amount: 0.198246  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:59:53 -04:00:00 (UTC)

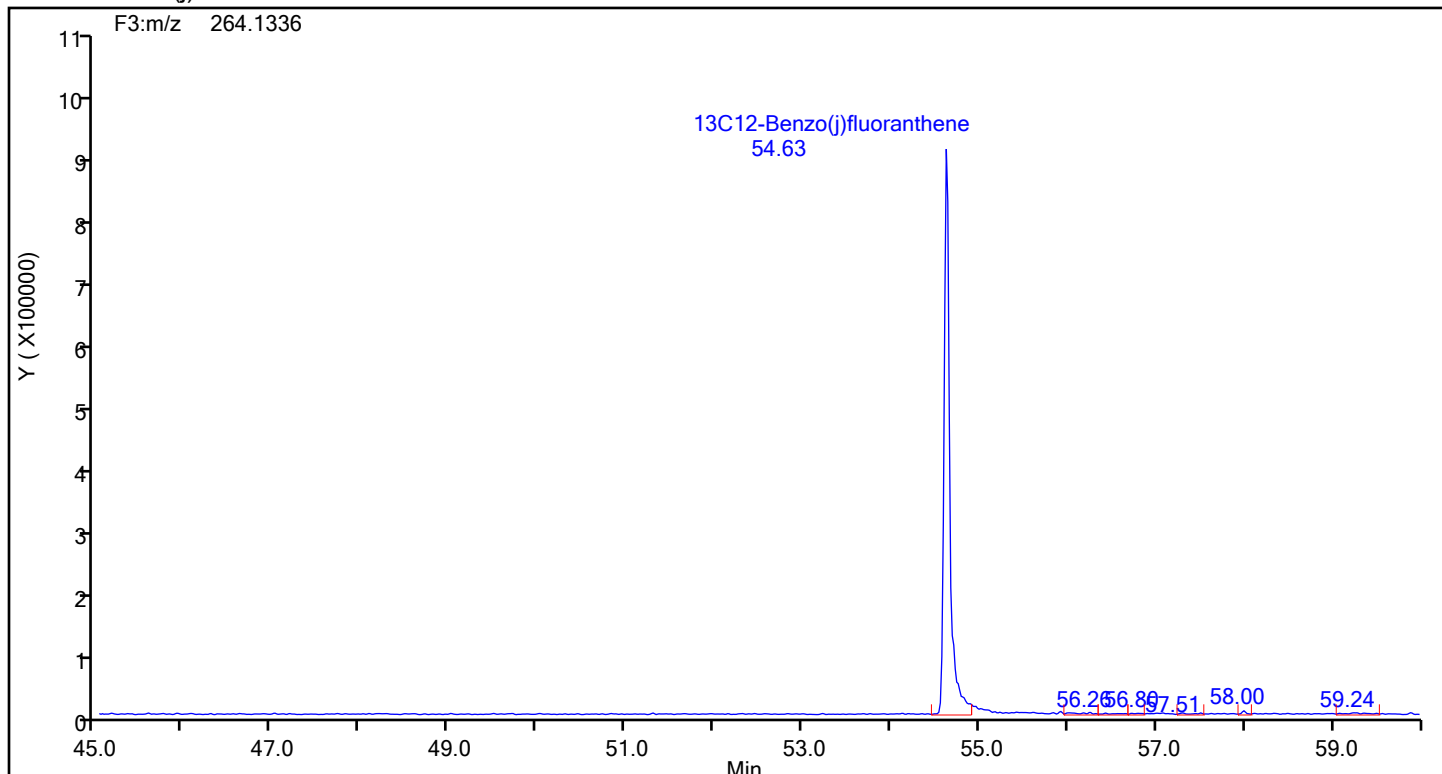
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

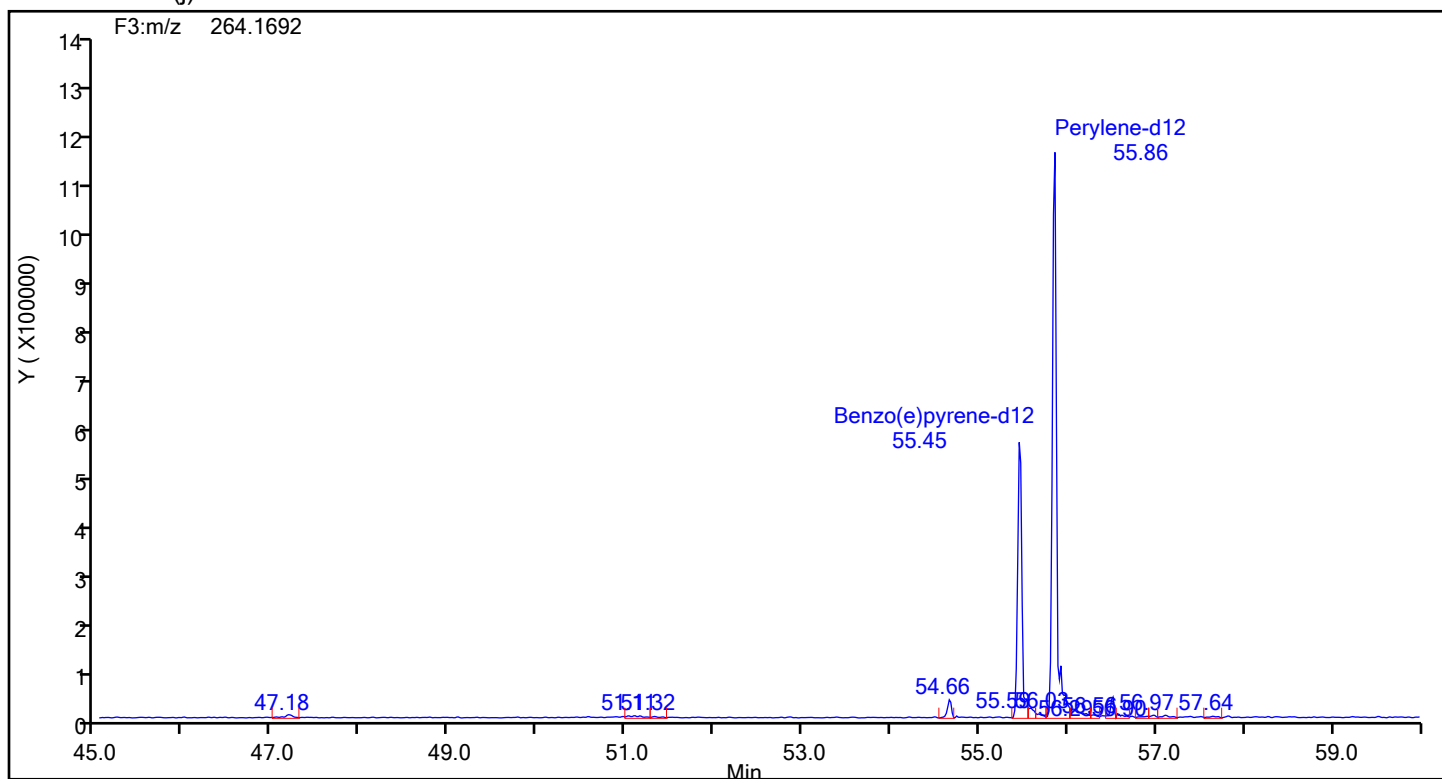
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 89013 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



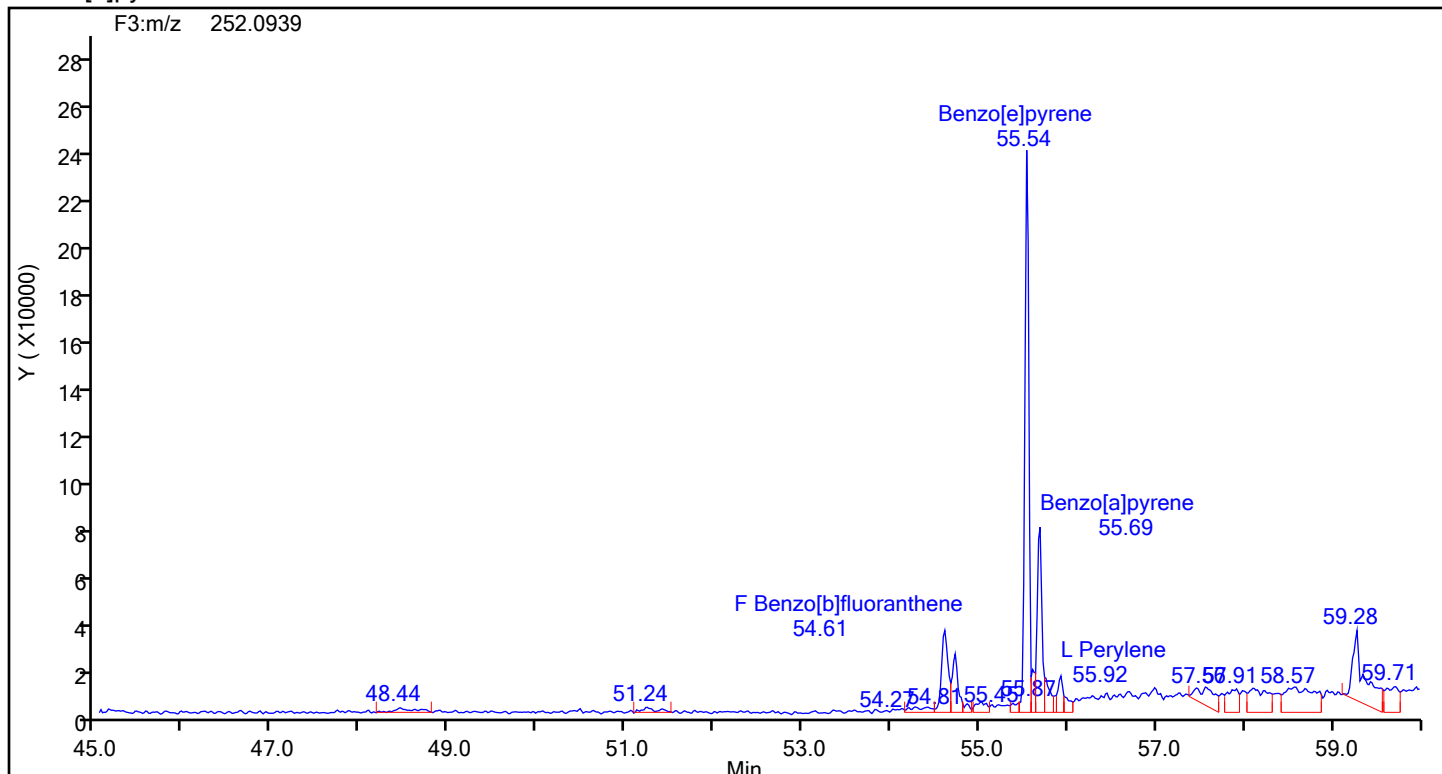
## 13C12-Benzo(j)fluoranthene Standards



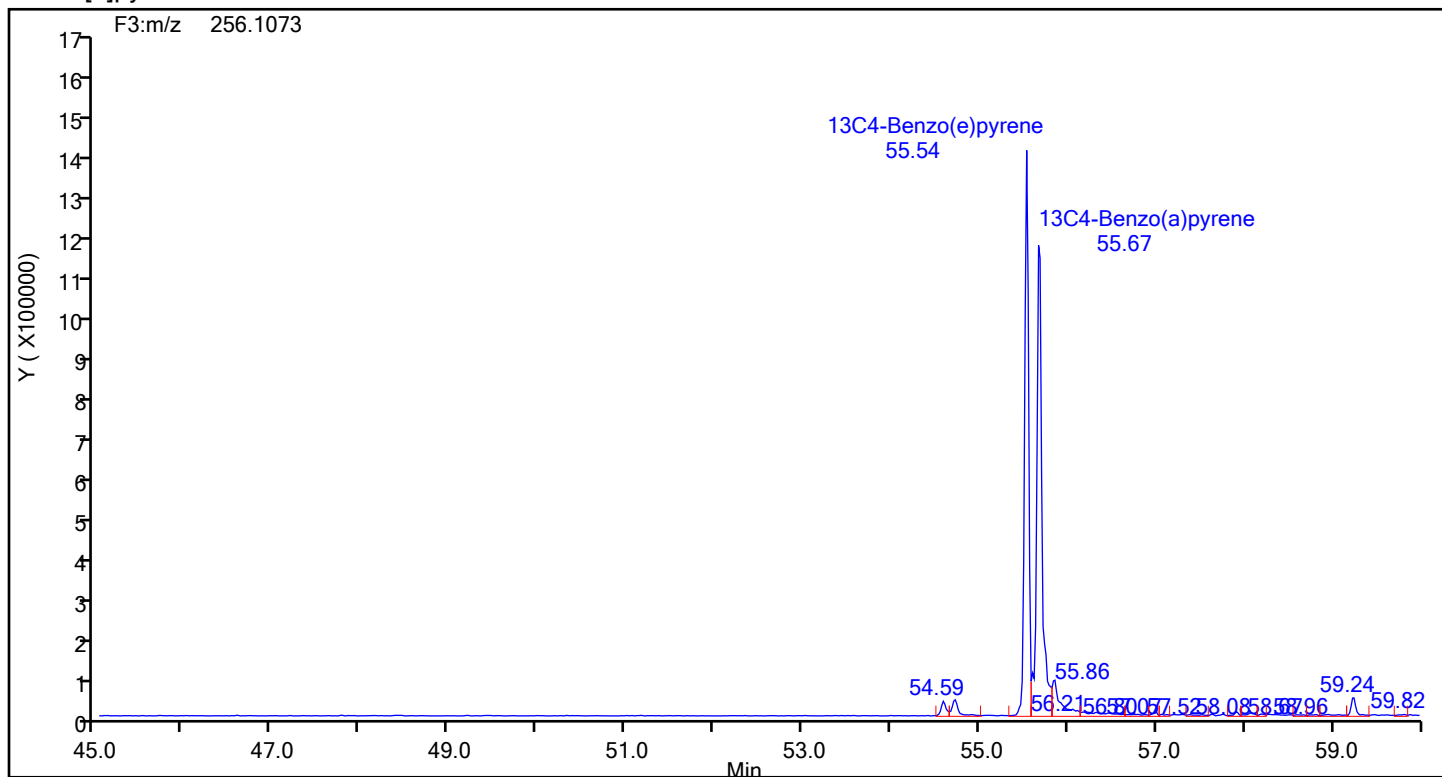
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 89013 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[e]pyrene



## Benzo[e]pyrene Standards



## Eurofins Knoxville

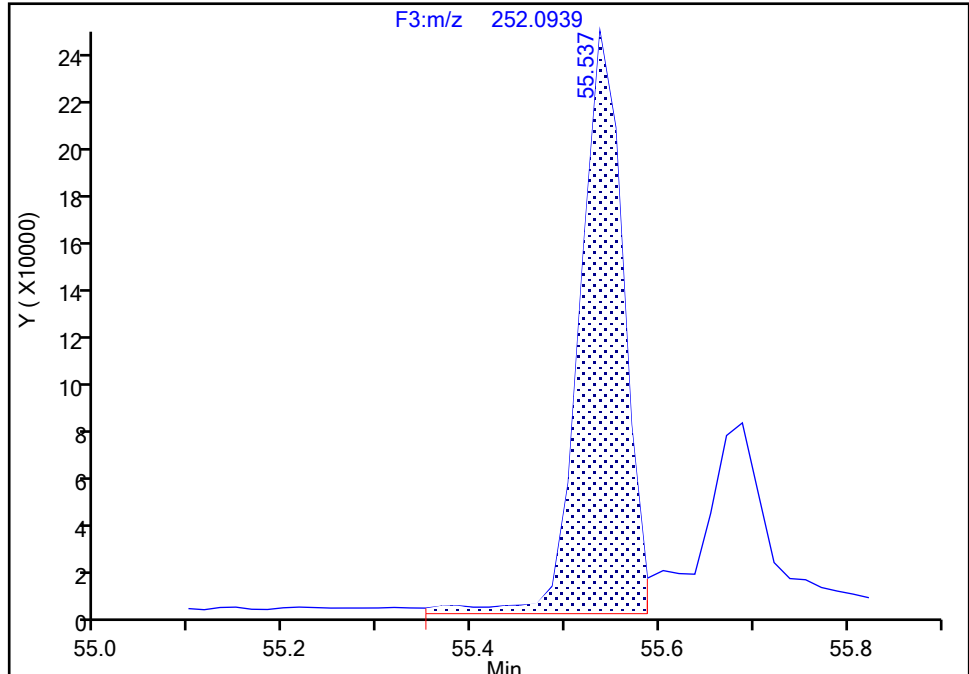
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-3-C Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

## Benzo[e]pyrene, CAS: 192-97-2

Signal: 1

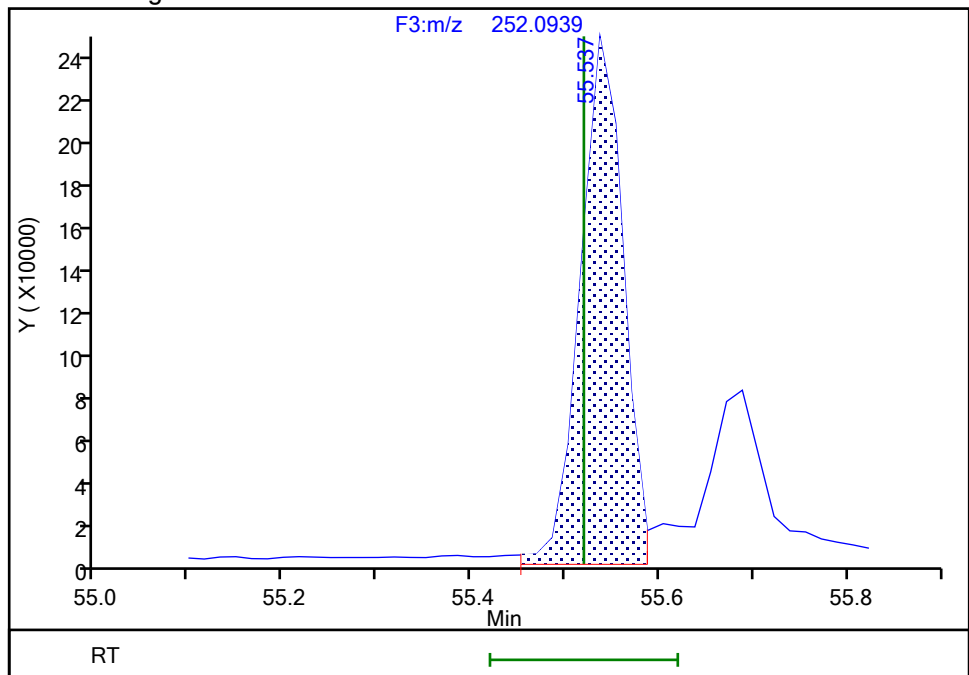
RT: 55.54  
Area: 770426  
Amount: 1.737907  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.54  
Area: 760205  
Amount: 1.714851  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:58:02 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

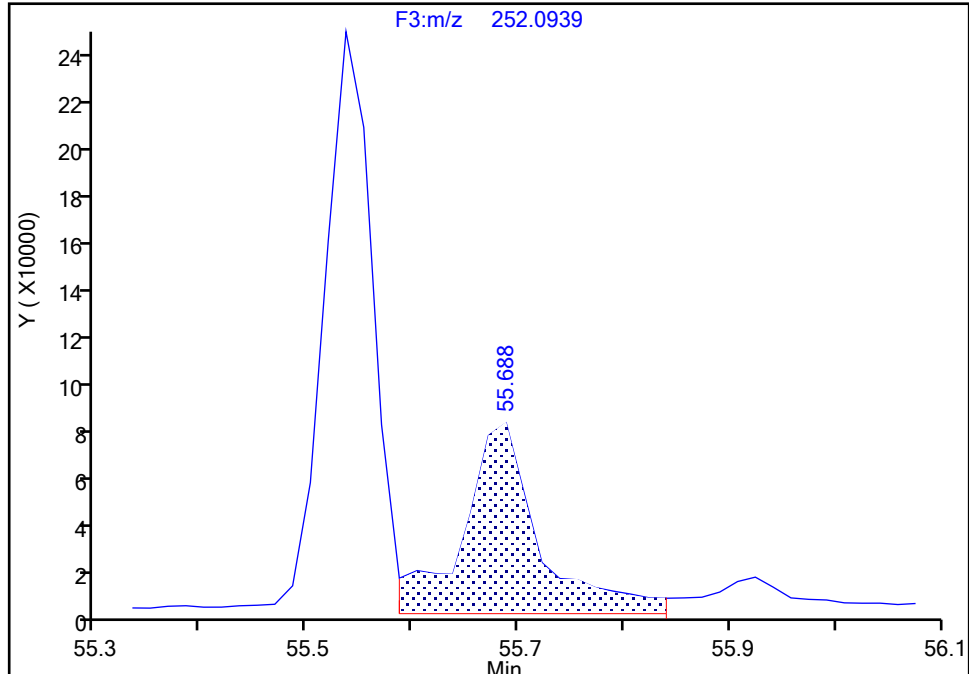
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-3-C Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

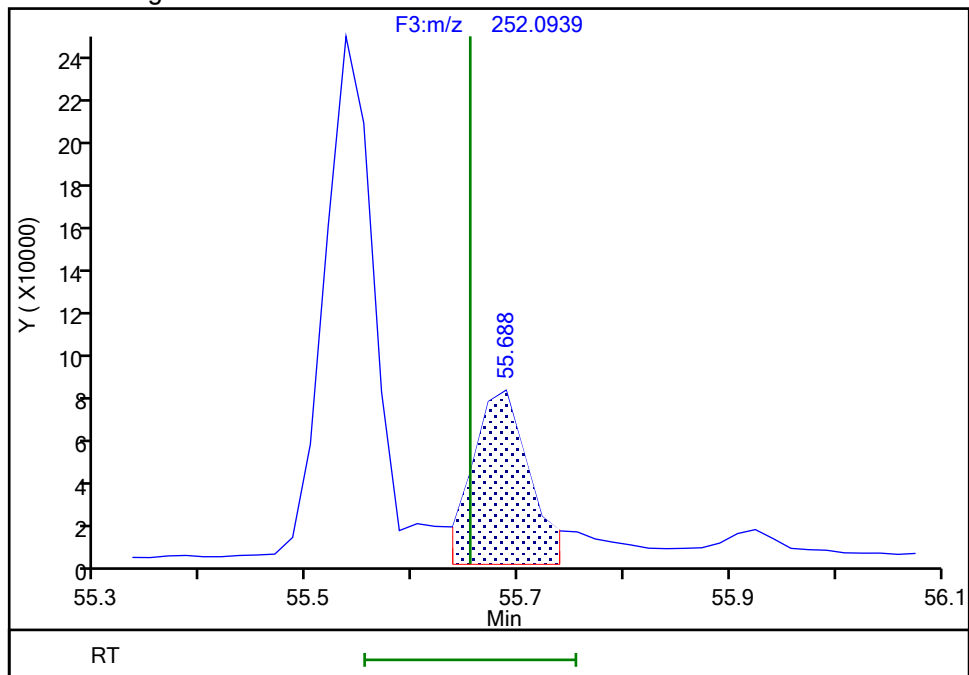
RT: 55.69  
Area: 392612  
Amount: 0.719097  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.69  
Area: 296992  
Amount: 0.543962  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:59:38 -04:00:00 (UTC)

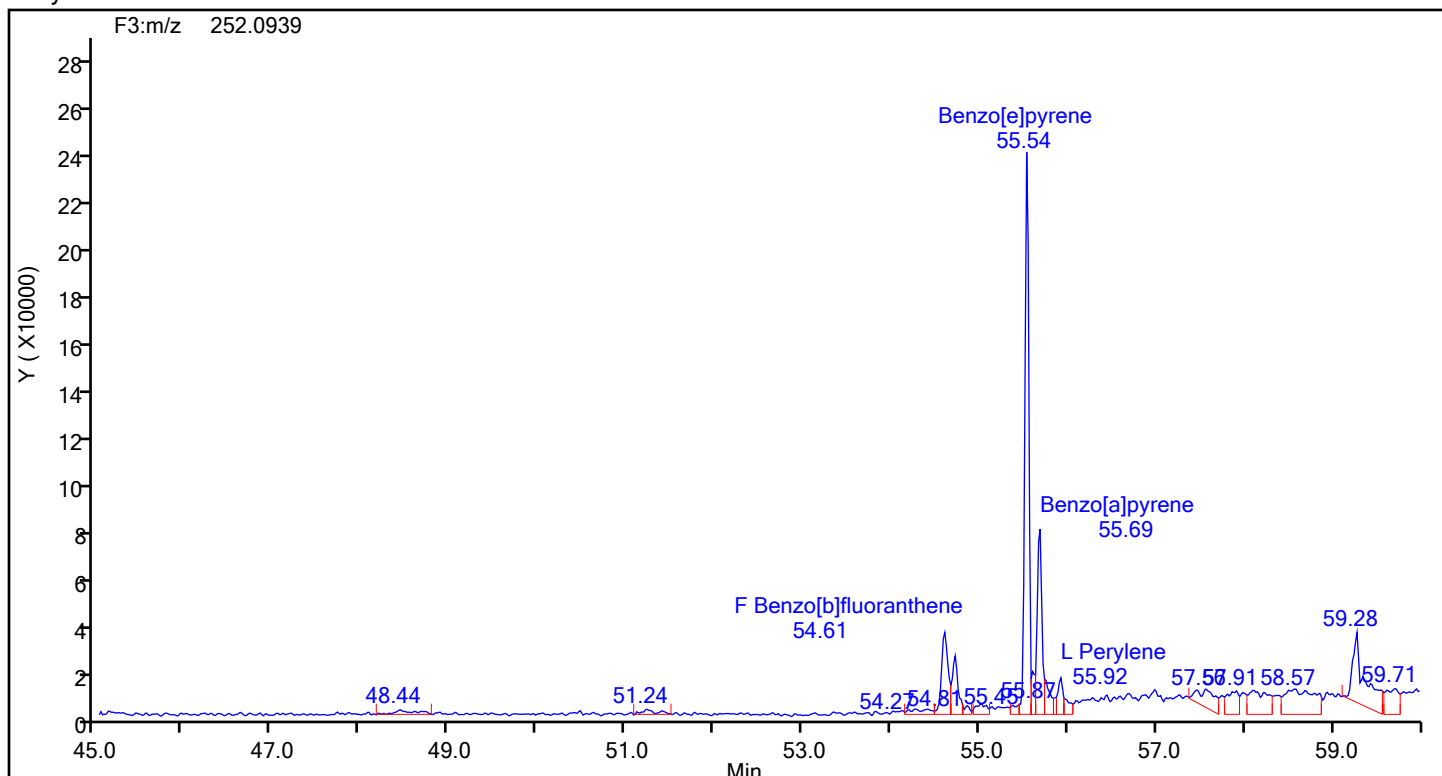
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

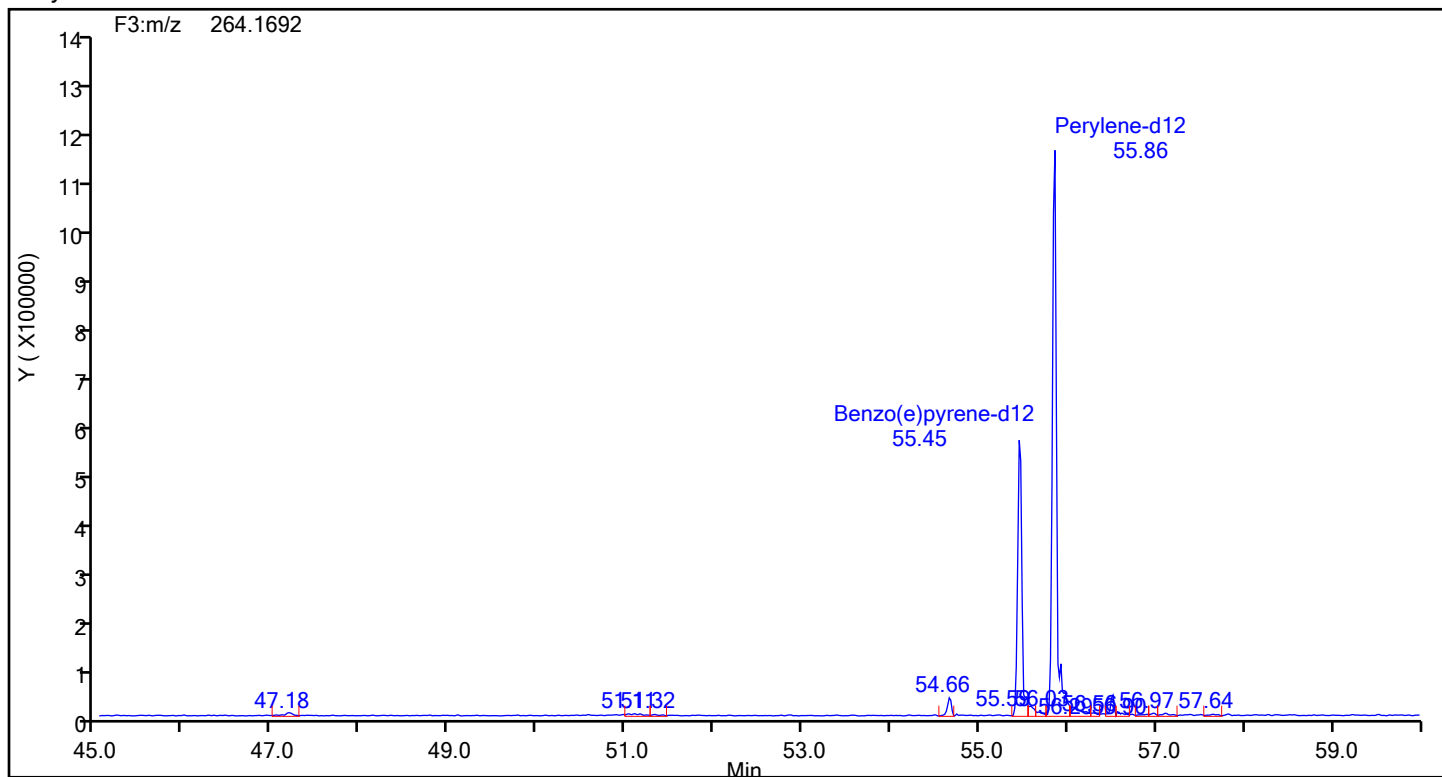


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 89013 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Perylene



## Perylene Standards



## Eurofins Knoxville

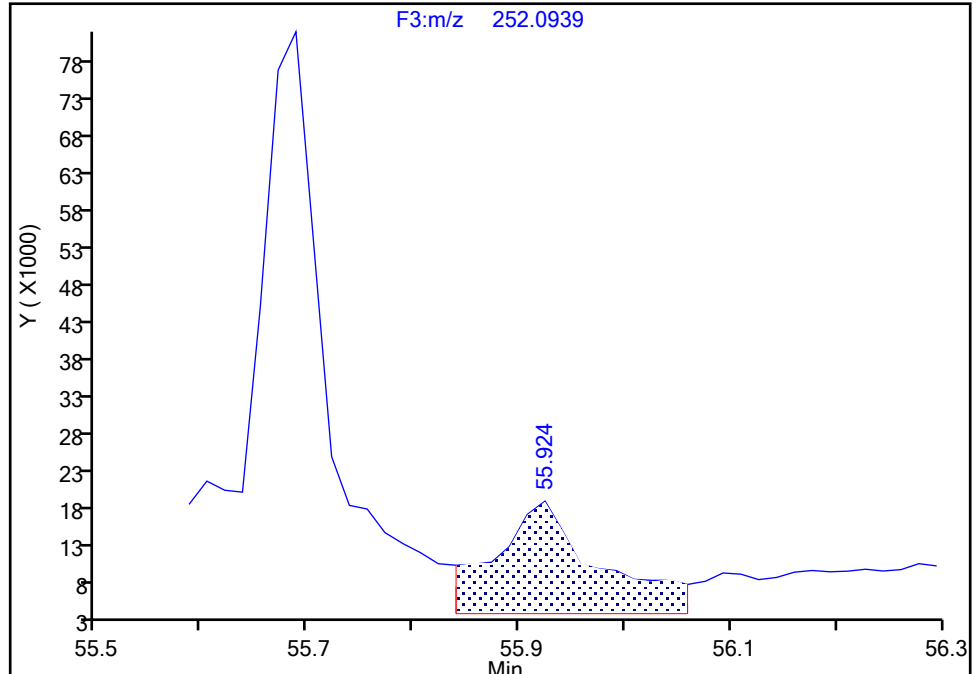
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-3-C Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**Perylene, CAS: 198-55-0**

Signal: 1

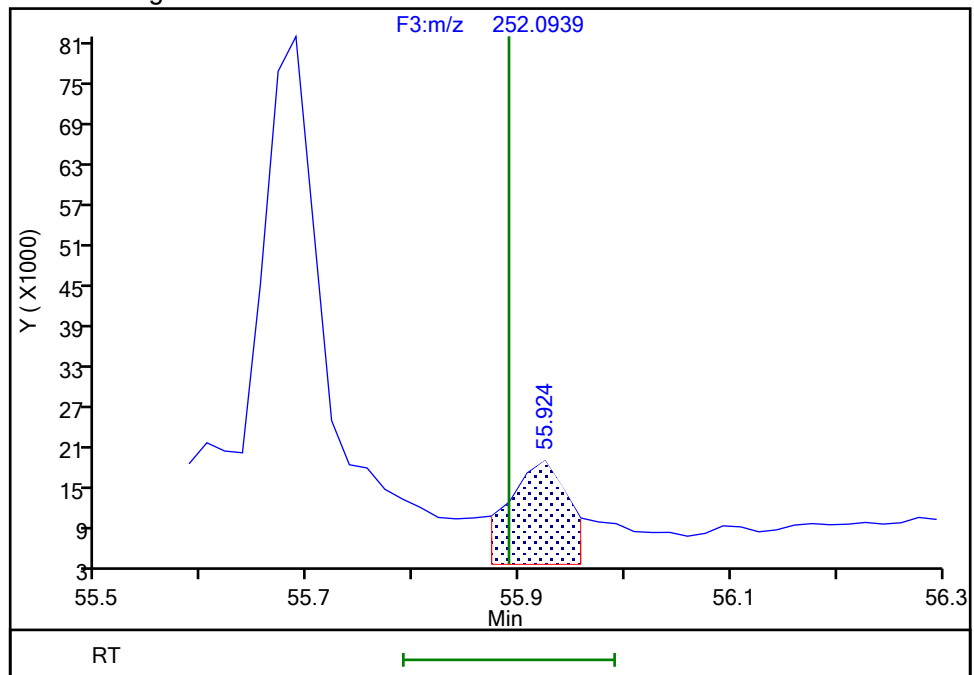
RT: 55.92  
Area: 101303  
Amount: 0.187777  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.92  
Area: 63112  
Amount: 0.116986  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:58:44 -04:00:00 (UTC)

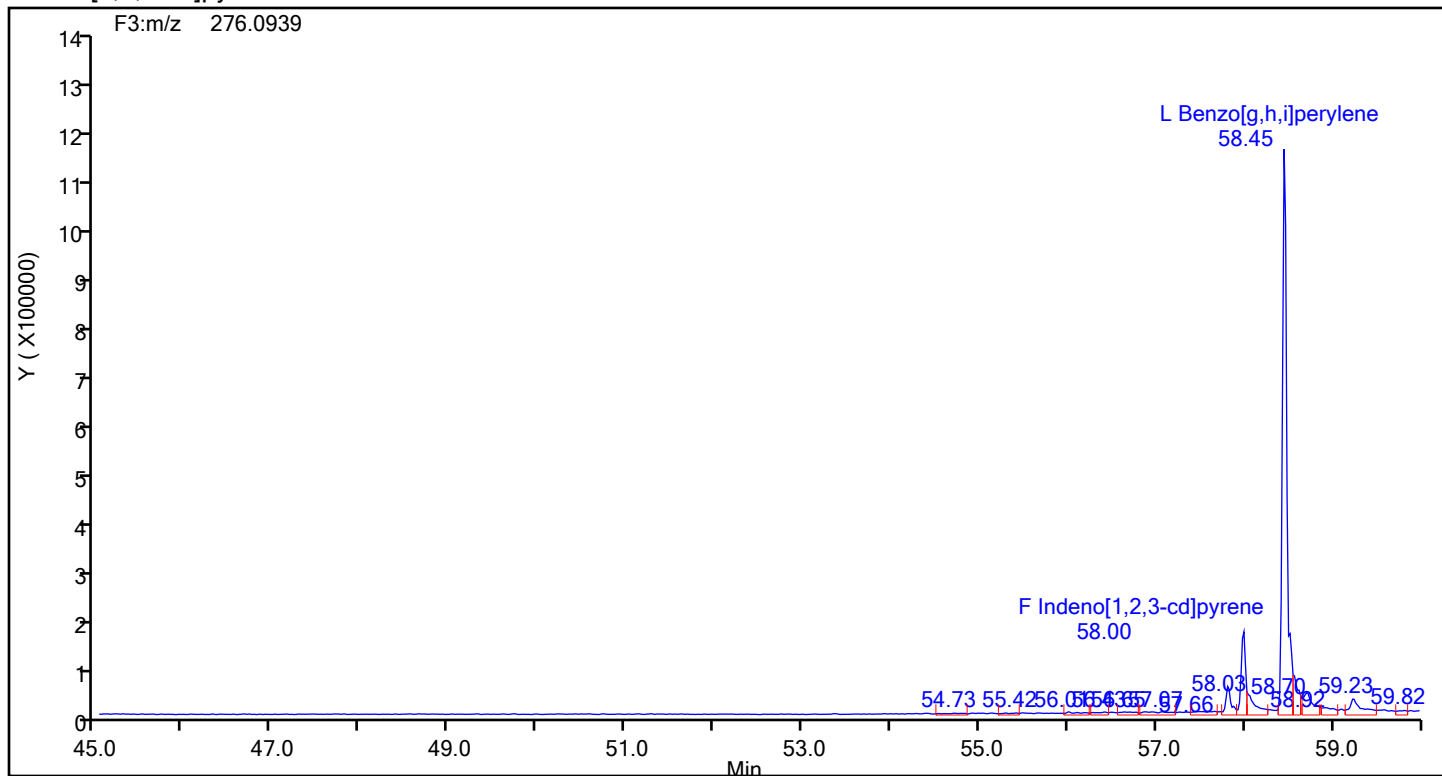
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

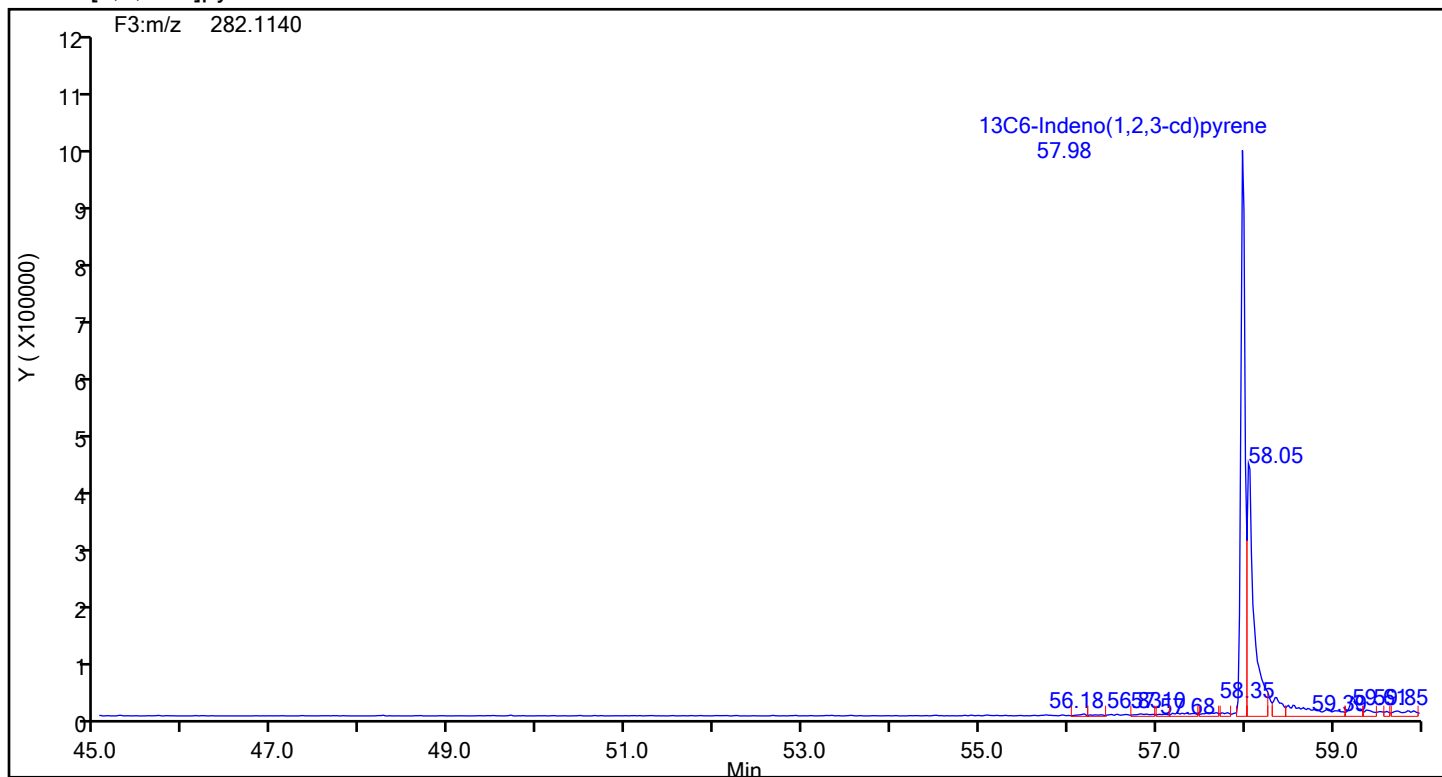
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 89013 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Indeno[1,2,3-cd]pyrene



## Indeno[1,2,3-cd]pyrene Standards



## Eurofins Knoxville

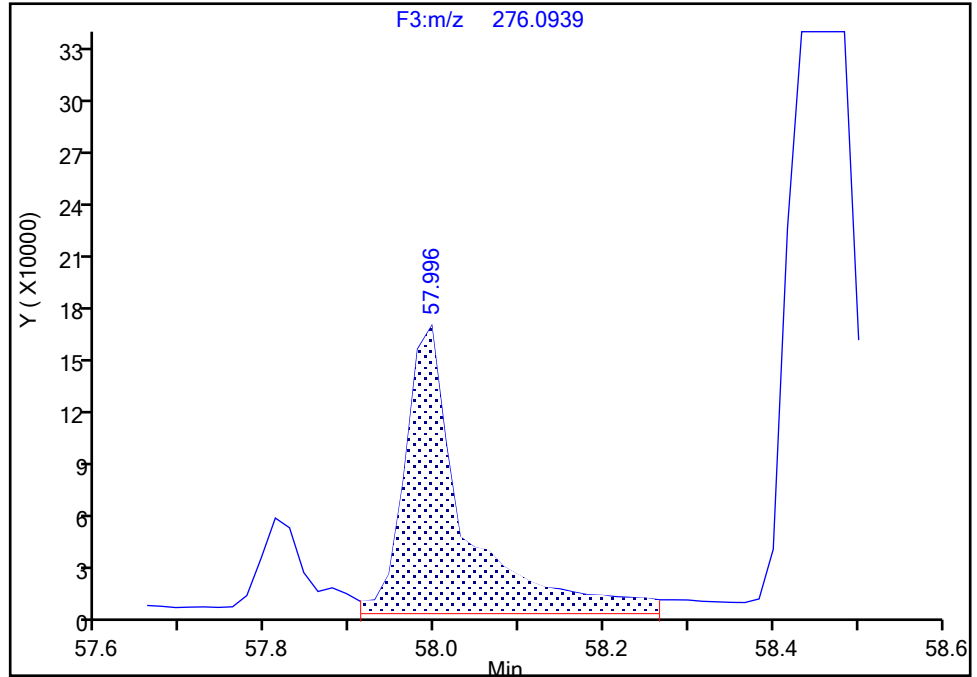
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-3-C Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

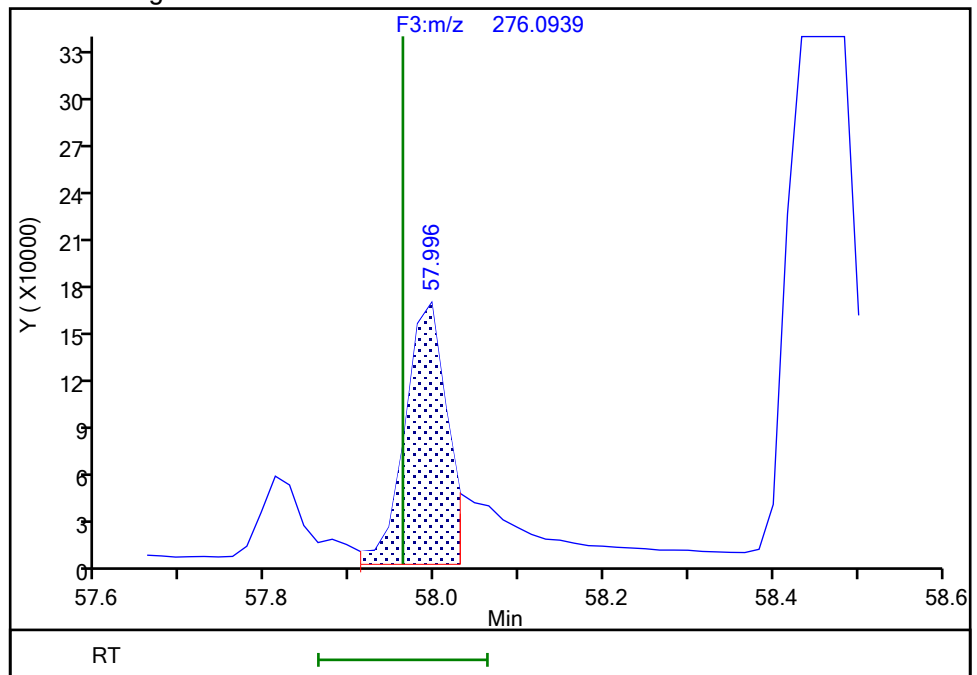
RT: 58.00  
Area: 822825  
Amount: 1.359738  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.00  
Area: 582121  
Amount: 1.559554  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:57:46 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

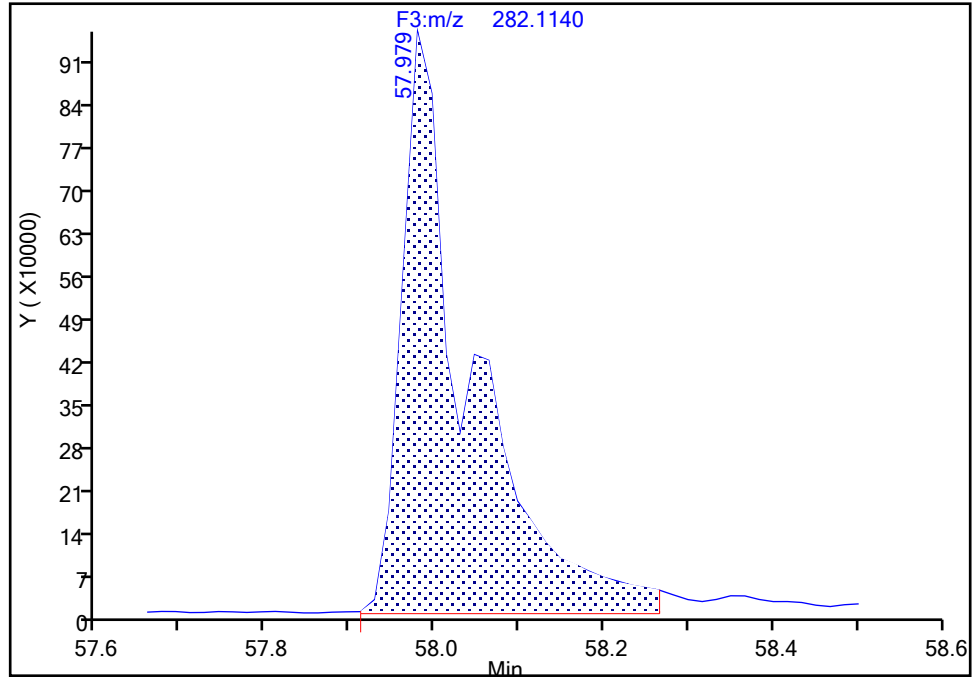
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-3-C Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C6-Indeno(1,2,3-cd)pyrene, CAS: 362044-56-2**

Signal: 1

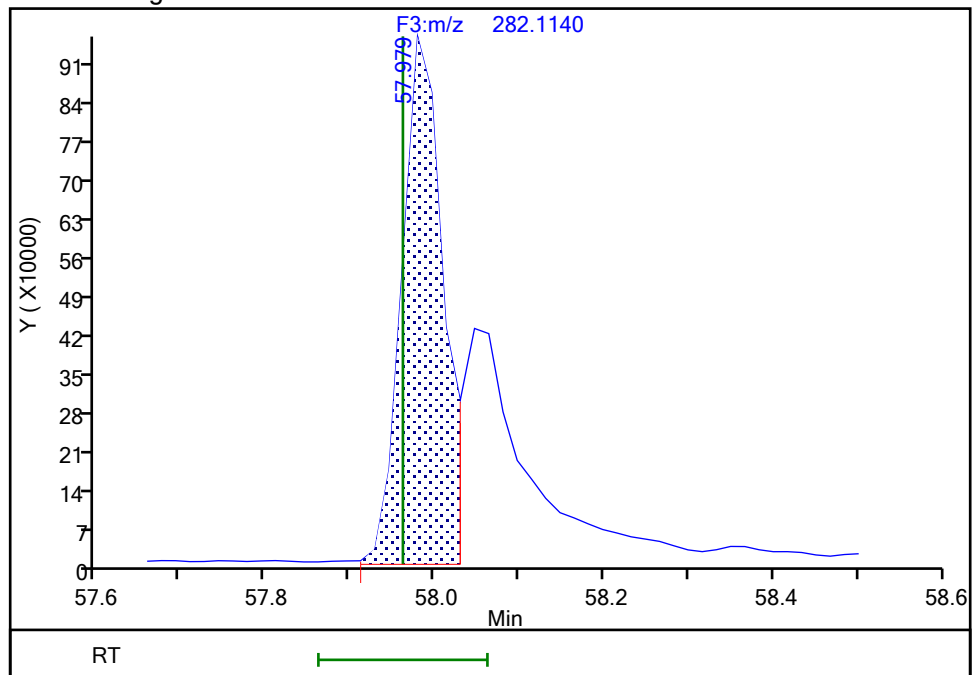
RT: 57.98  
Area: 5379251  
Amount: 13.830576  
Amount Units: pg/ul

## Processing Integration Results



RT: 57.98  
Area: 3318047  
Amount: 8.857088  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:58:07 -04:00:00 (UTC)

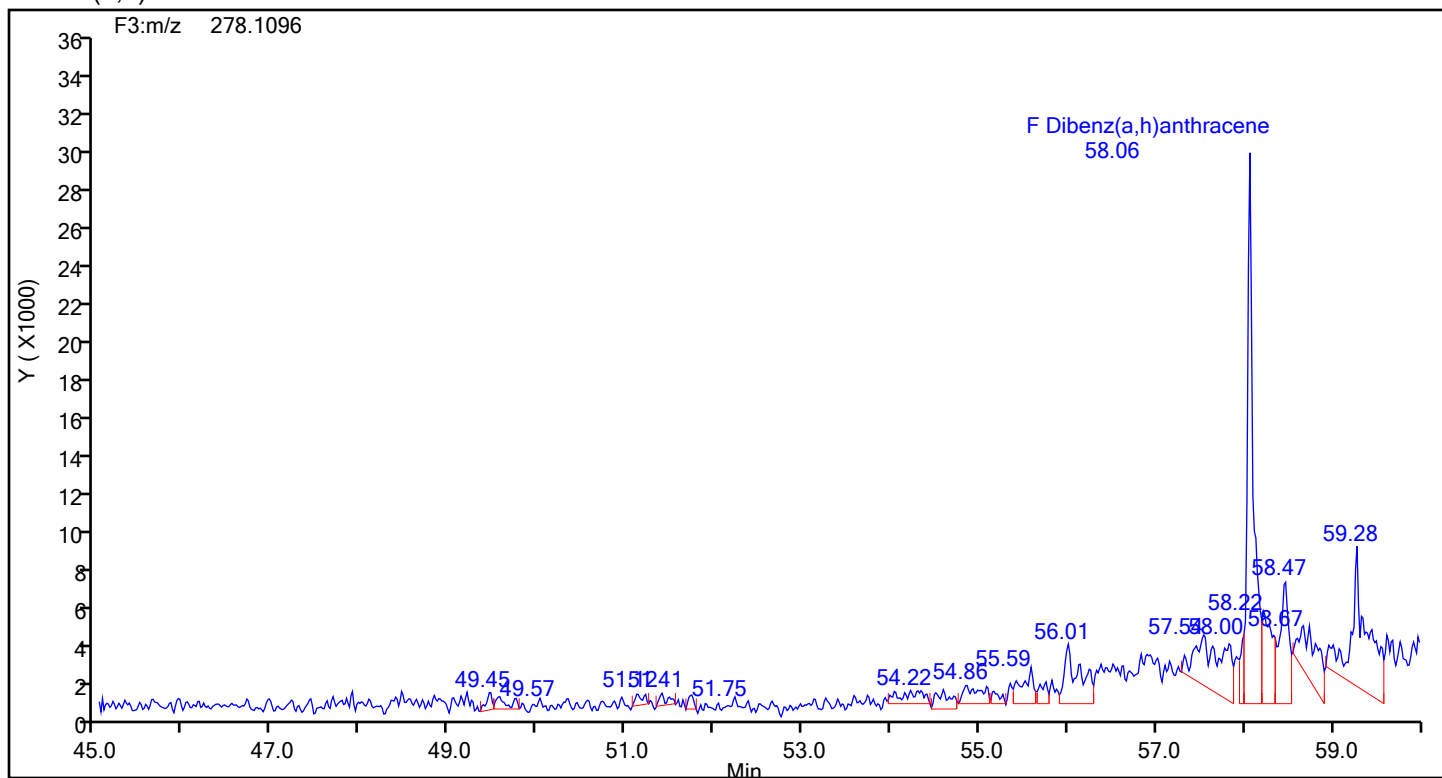
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

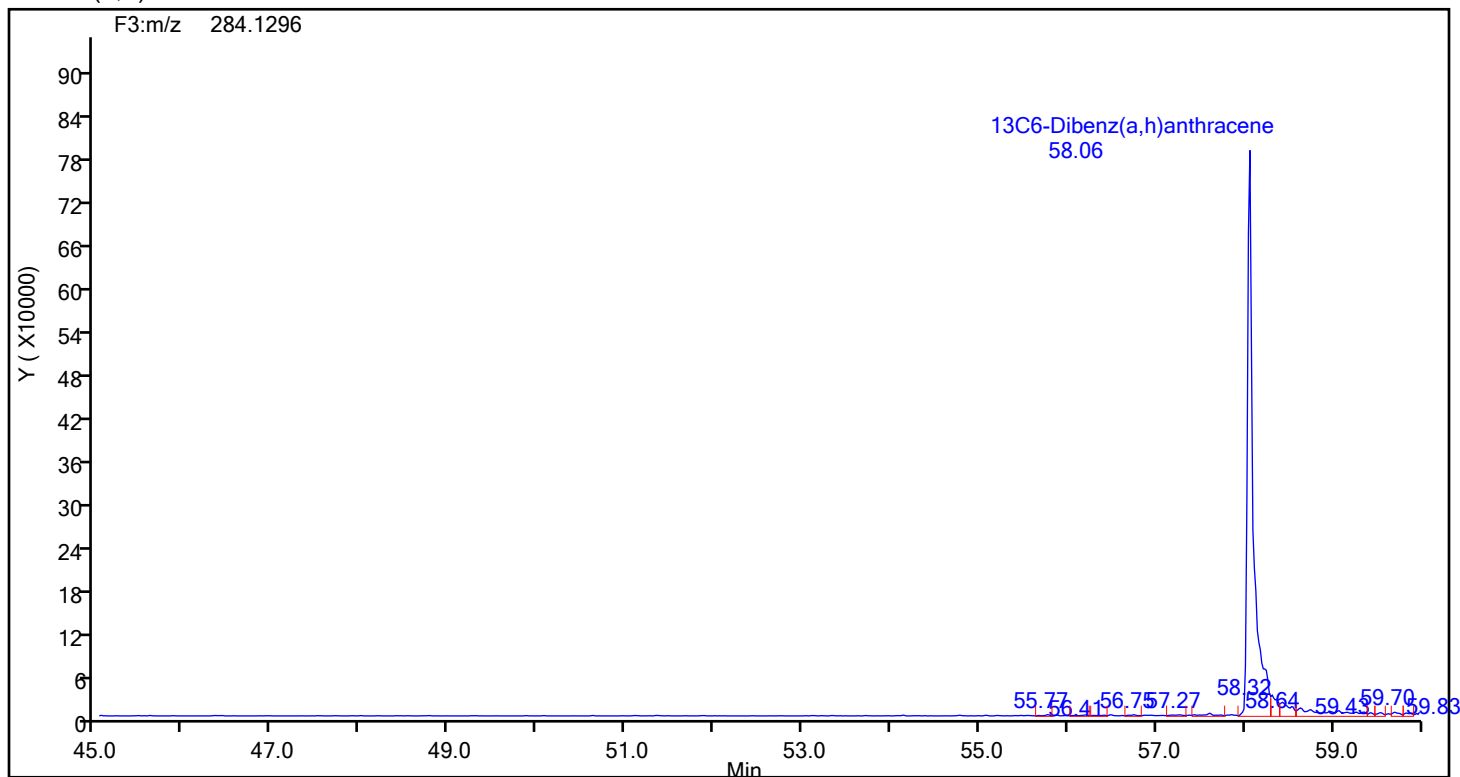
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 89013 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Dibenz(a,h)anthracene



## Dibenzo(a,h)anthracene Standards



## Eurofins Knoxville

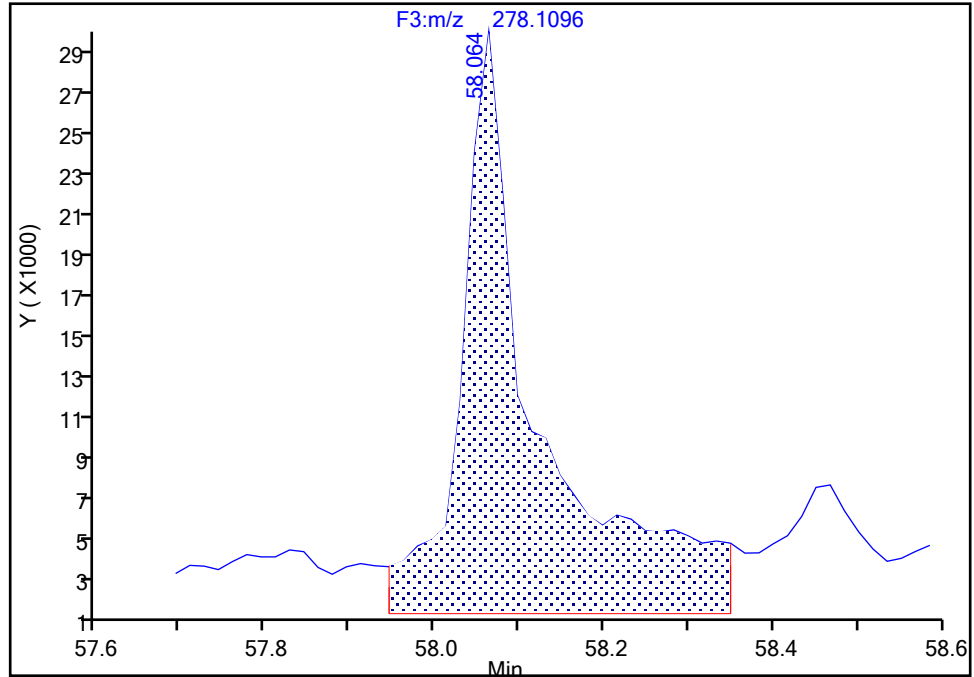
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-3-C Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

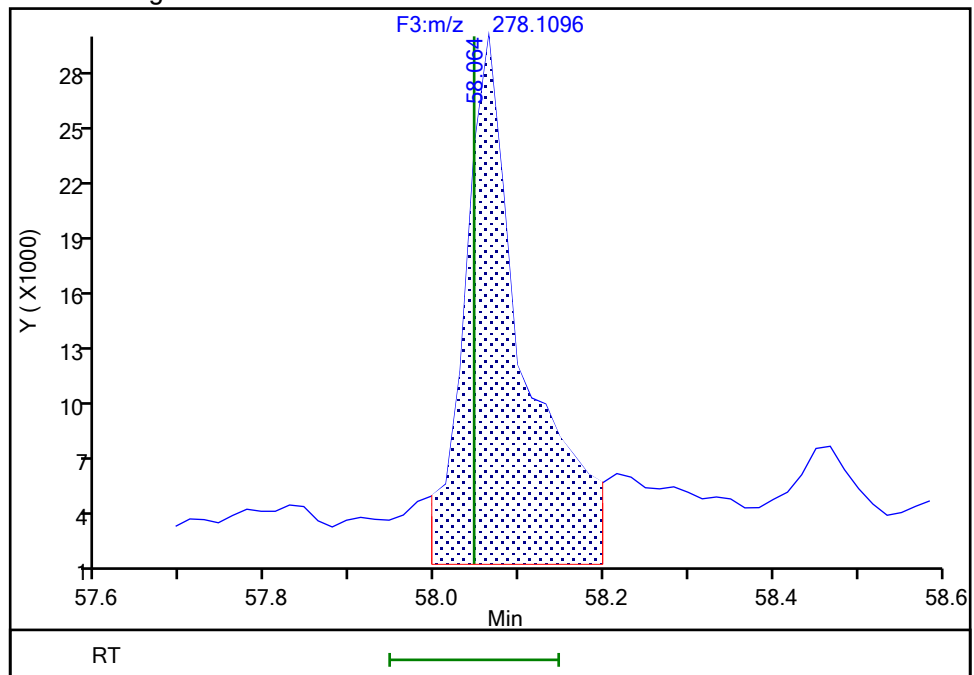
RT: 58.06  
Area: 184753  
Amount: 0.437702  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.06  
Area: 142515  
Amount: 0.337635  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:59:18 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

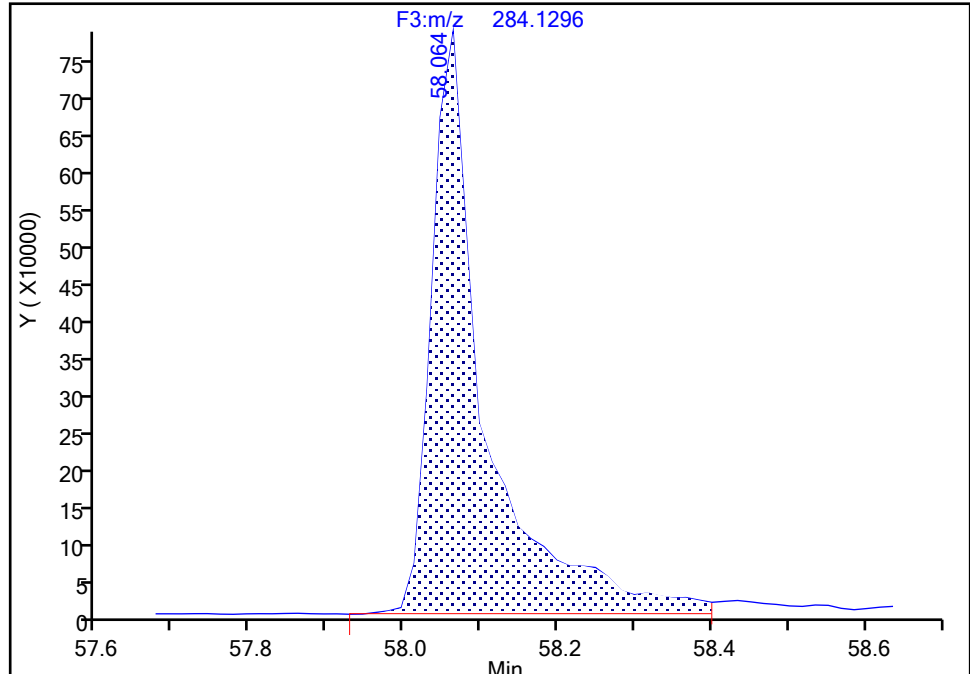
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-3-C Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C6-Dibenz(a,h)anthracene, CAS: STL03360**

Signal: 1

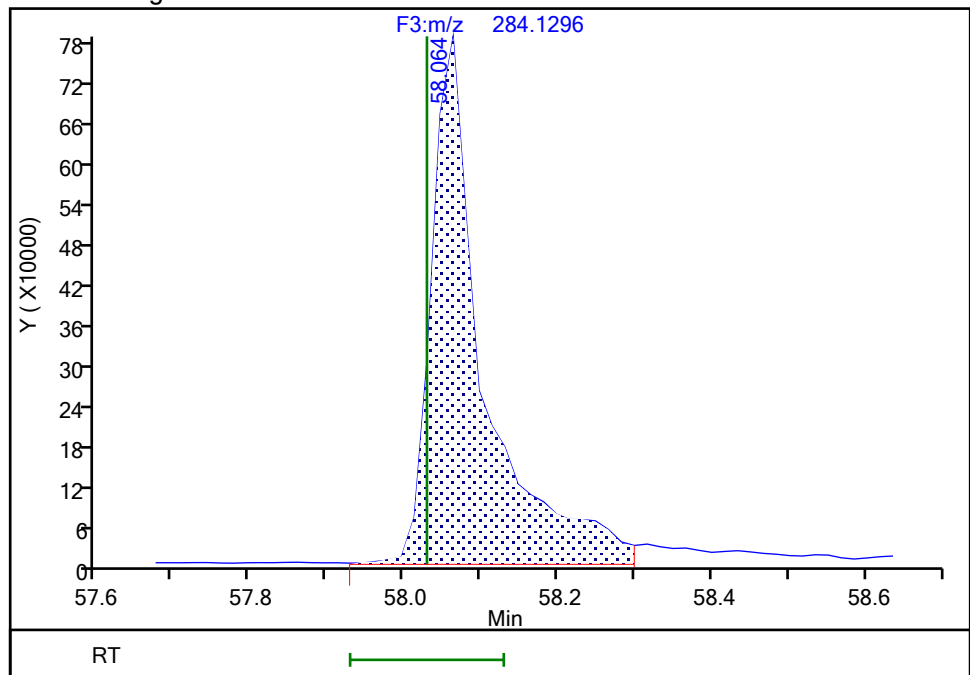
RT: 58.06  
Area: 3859992  
Amount: 9.610049  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.06  
Area: 3730842  
Amount: 9.643530  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:57:54 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d

Injection Date: 22-Jul-2024 18:15:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 4 COMBINED

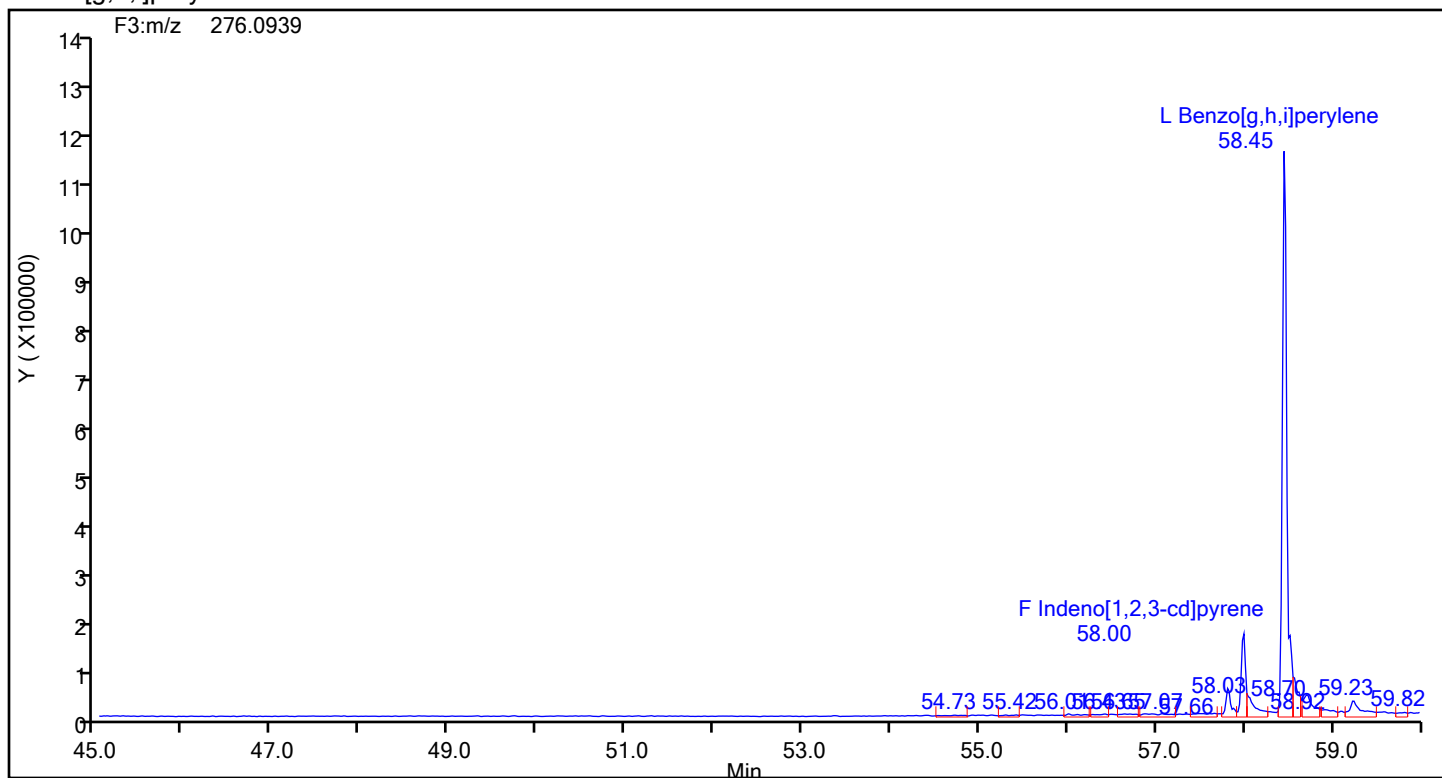
Worklist#: 89013

Sample Line#: 9

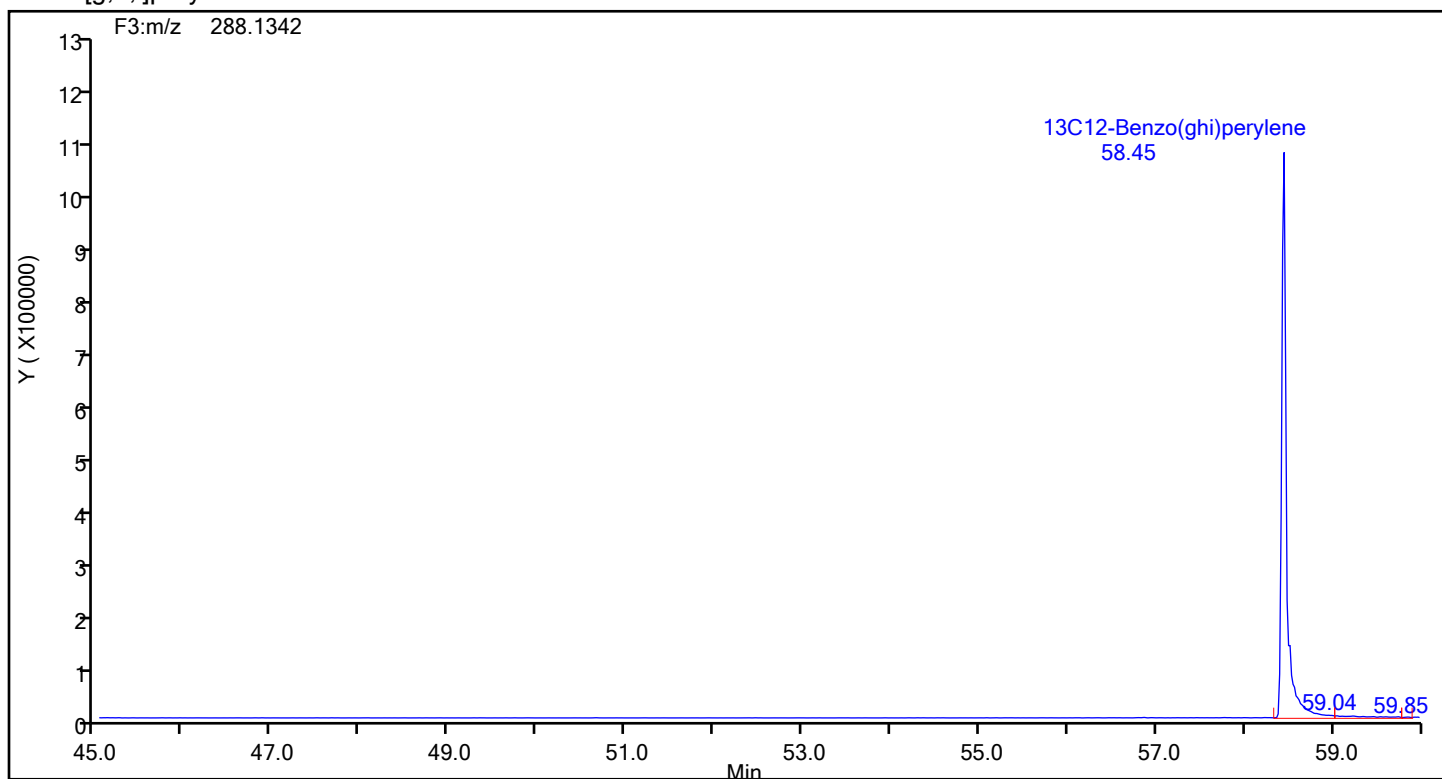
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Benzo[g,h,i]perylene



## Benzo[g,h,i]perylene Standards



## Eurofins Knoxville

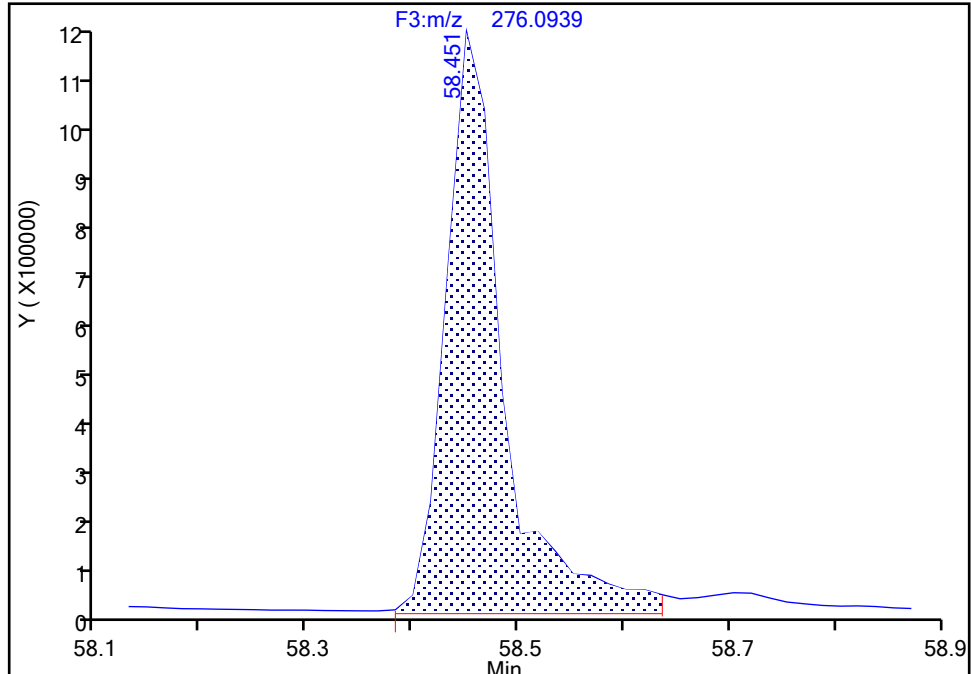
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Injection Date: 22-Jul-2024 18:15:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-3-C Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

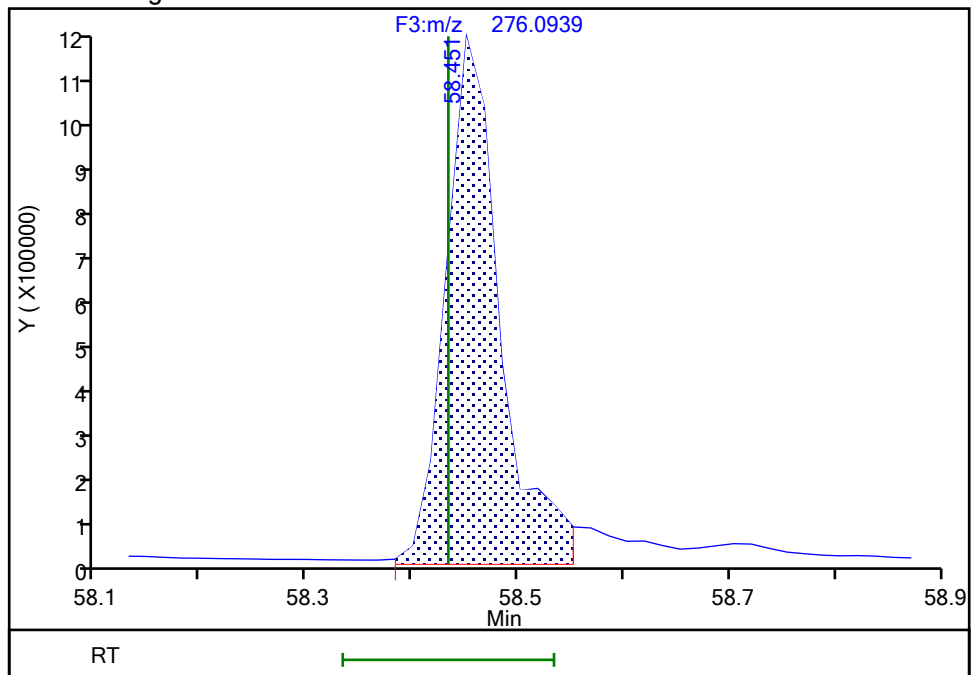
RT: 58.45  
Area: 4340190  
Amount: 8.237918  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.45  
Area: 4089068  
Amount: 7.761275  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:59:10 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-3-c.d  
Lims ID: 140-37234-A-3-C  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Sample Type: Client  
Inject. Date: 22-Jul-2024 18:15:00 ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Sample Info:  
Misc. Info.: 140-0033599-008  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 23-Jul-2024 10:00:07 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1613

First Level Reviewer: TT6I

Date: 23-Jul-2024 10:00:07

Compound	Amount Added	Amount Recovered	% Rec.
Anthracin-d10	10.0	0.6401	64.01
13C6-Benzo(c)fluorene	100.0	9.31	93.09
13C12-Benzo(j)fluoranthene	100.0	8.06	80.62

FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 5 COMBINED</u>	Lab Sample ID: <u>140-37234-4</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-4-c.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/07/2024 09:53</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/22/2024 19:20</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>89013</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
91-20-3	Naphthalene	402	J B * +	750	750	1.05
91-57-6	2-Methylnaphthalene	202	J B	750	750	0.767
208-96-8	Acenaphthylene	7.77	J B	30.0	30.0	0.492
83-32-9	Acenaphthene	72.9	J B	300	300	0.673
86-73-7	Fluorene	159	J B	300	300	0.655
85-01-8	Phenanthrene	538	B	60.0	60.0	0.850
120-12-7	Anthracene	44.6	J B	300	300	0.815
206-44-0	Fluoranthene	74.2	B	60.0	60.0	0.335
129-00-0	Pyrene	80.6	B	60.0	60.0	0.326
56-55-3	Benzo[a]anthracene	3.18	J B	60.0	60.0	0.236
218-01-9	Chrysene	10.2	J B	60.0	60.0	0.236
205-99-2	Benzo[b]fluoranthene	6.47	J B	300	300	0.140
207-08-9	Benzo[k]fluoranthene	3.32	J B	60.0	60.0	0.134
192-97-2	Benzo[e]pyrene	26.3	J B	60.0	60.0	0.116
50-32-8	Benzo[a]pyrene	7.81	J B	30.0	30.0	0.116
198-55-0	Perylene	1.93	J B	30.0	30.0	0.107
193-39-5	Indeno[1,2,3-cd]pyrene	21.1	J B	30.0	30.0	0.120
53-70-3	Dibenz(a,h)anthracene	6.89	J B	60.0	60.0	0.0703
191-24-2	Benzo[g,h,i]perylene	103	B	60.0	60.0	0.0966

FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 5</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-4</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-4-c.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/07/2024 09:53</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/22/2024 19:20</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>89013</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02217	13C6-Naphthalene	49		20-130
STL03357	13C6-2-Methylnaphthalene	54		20-130
189811-56-1	13C6-Acenaphthylene	78		20-130
189811-57-2	13C6-Acenaphthene	72		20-130
STL00616	13C6-Fluorene	86		20-130
1397194-60-3	13C6-Fluoranthrene	85		20-130
1397214-90-2	13C3-Pyrene	86		20-130
917378-11-1	13C6-Benzo (a) anthracene	71		20-130
1397177-72-8	13C6-Chrysene	79		20-130
STL03358	13C6-Benzo (b) fluoranthene	80		20-130
1397194-60-3	13C6-Benzo (k) fluoranthene	89		20-130
STL03382	13C4-Benzo (e) pyrene	74		20-130
STL03359	13C4-Benzo (a) pyrene	91		20-130
1520-96-3	Perylene-d12	91		20-130
362044-56-2	13C6-Indeno (1,2,3-cd) pyrene	92		20-130
STL03360	13C6-Dibenz (a,h) anthracene	99		20-130
350820-11-0	13C12-Benzo (ghi) perylene	92		20-130
189811-60-7	13C6-Anthracene	92		20-130
1189955-53-0	13C6-Phenanthrene	73		20-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Lims ID: 140-37234-A-4-C  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Sample Type: Client  
Inject. Date: 22-Jul-2024 19:20:00 ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Sample Info:  
Misc. Info.: 140-0033599-009  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 23-Jul-2024 10:35:13 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1613

First Level Reviewer: TT6I

Date: 23-Jul-2024 10:35:13

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:31	1832474		3.3746	4.930	4.930	0.001808	0.001808	49.30	
Naphthalene	11:31	6324427		1.2893	26.8	26.8	0.0700	0.0700		M
D 13C6-2-Methylnaphthalene	13:50	945061		1.6031	5.352	5.352	0.000525	0.000525	53.52	
2-Methylnaphthalene	13:50	1627087		1.2786	13.5	13.5	0.0511	0.0511		M
D 13C6-Acenaphthylene	16:42	1414070		1.6520	7.770	7.770	0.003215	0.003215	77.70	
Acenaphthylene	16:42	95487		2.3661	0.5181	0.5181	0.0328	0.0328		M
* Acenaphthene-d10	17:16	550790		3.5E+04	5.000	5.000				
D 13C6-Acenaphthene	17:23	778923		0.9792	7.221	7.221	0.003142	0.003142	72.21	
Acenaphthene	17:23	480354		1.2697	4.857	4.857	0.0449	0.0449		
D 13C6-Fluorene	19:40	839029		0.8898	8.560	8.560	0.005762	0.005762	85.60	
Fluorene	19:40	1113260		1.2532	10.6	10.6	0.0437	0.0437		
D 13C6-Phenanthrene	25:02	1125965		0.5724	7.298	7.298	0.002798	0.002798	72.98	
Phenanthrene	25:03	4462240		1.1044	35.9	35.9	0.0567	0.0567		
\$ Anthracin-d10	25:17	92595		0.4257	0.8070	0.8070	0.001672	0.001672	80.70	
D 13C6-Anthracene	25:22	1124196		0.4523	9.221	9.221	0.003541	0.003541	92.21	
Anthracene	25:23	454277		1.3586	2.974	2.974	0.0543	0.0543		M
D 13C6-Fluoranthrene	33:47	2736796		1.1994	8.466	8.466	0.0148	0.0148	84.66	
Fluoranthene	33:48	1558989		1.1513	4.948	4.948	0.0224	0.0224		
* Pyrene-d10	35:20	1347603		7.9E+04	5.000	5.000				
D 13C3-Pyrene	35:29	3116478		1.3512	8.558	8.558	0.009253	0.009253	85.58	
Pyrene	35:29	1782885		1.0652	5.371	5.371	0.0218	0.0218		M
\$ 13C6-Benzo(c)fluorene	39:11	1407320		0.5136	10.2	10.2	0.005414	0.005414	102	
D 13C6-Benzo(a)anthracene	46:00	2604046		1.5189	7.146	7.146	0.006475	0.006475	71.46	
Benzo[a]anthracene	46:00	53702		0.9739	0.2118	0.2118	0.0157	0.0157		M
D 13C6-Chrysene	46:17	3097768		1.6287	7.927	7.927	0.006038	0.006038	79.27	
Chrysene	46:17	206276		0.9815	0.6785	0.6785	0.0158	0.0158		M
D 13C6-Benzo(b)fluoranthene	54:35	2814168		1.4621	8.023	8.023	0.001560	0.001560	80.23	
Benzo[b]fluoranthene	54:36	136649		1.1249	0.4317	0.4317	0.009318	0.009318		M
\$ 13C12-Benzo(j)fluoranthene	54:37	2700750		1.3558	8.303	8.303	0.007102	0.007102	83.03	
D 13C6-Benzo(k)fluoranthene	54:42	3718612		1.7507	8.853	8.853	0.001303	0.001303	88.53	
Benzo[k]fluoranthene	54:43	92850		1.1271	0.2215	0.2215	0.008966	0.008966		Ma
* Benzo(e)pyrene-d12	55:26	1199601		5.7E+04	5.000	5.000				
D 13C4-Benzo(e)pyrene	55:31	2888749		1.6368	7.356	7.356	0.006717	0.006717	73.56	
Benzo[e]pyrene	55:31	508004		1.0013	1.756	1.756	0.007743	0.007743		Ma

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C4-Benzo(a)pyrene	55:40	3386305		1.5508	9.101	9.101	0.007090	0.007090	91.01	M
Benzo[a]pyrene	55:41	196299		1.1130	0.5208	0.5208	0.007747	0.007747		M
D Perylene-d12	55:50	2588960		1.1917	9.055	9.055	0.007909	0.007909	90.55	M
Perylene	55:55	47733		1.4307	0.1289	0.1289	0.007129	0.007129		M
D 13C6-Indeno(1,2,3-cd)pyrene	57:58	2257934		1.0218	9.210	9.210	0.005106	0.005106	92.10	M
Indeno[1,2,3-cd]pyrene	57:59	358113		1.1249	1.410	1.410	0.008013	0.008013		M
D 13C6-Dibenz(a,h)anthracene	58:03	2511244		1.0553	9.919	9.919	0.003197	0.003197	99.19	
Dibenz(a,h)anthracene	58:03	130585		1.1314	0.4596	0.4596	0.004688	0.004688		M
D 13C12-Benzo(ghi)perylene	58:26	2822419		1.2749	9.228	9.228	0.001071	0.001071	92.28	
Benzo[g,h,i]perylene	58:26	2487170		1.2838	6.864	6.864	0.006440	0.006440		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
 Lims ID: 140-37234-A-4-C  
 Client ID: M23 F-10 BOILER RUN 5 COMBINED  
 Sample Type: Client  
 Inject. Date: 22-Jul-2024 19:20:00 ALS Bottle#: 0 Worklist Smp#: 10  
 Injection Vol: 1.0 ul Dil. Factor: 10.0000  
 Sample Info:  
 Misc. Info.: 140-0033599-009  
 Operator ID: Xcalibur\_System Instrument ID: D3PAH  
 Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
 Limit Group: HR - HRPAL ICAL  
 Last Update: 23-Jul-2024 10:35:13 Calib Date: 20-Jun-2024 01:09:00  
 Integrator: RTE  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
 Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
 Process Host: CTX1613

First Level Reviewer: TT61

Date: 23-Jul-2024 10:35:13

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:31	11:29	1	0.667	1832474	604893	93	232	6504		
Naphthalene											
128.0626	11:31	11:31	2	1.001	6324427	2050465	2184	5460	939		M
13C6-2-Methylnaphthalene											
148.0984	13:50	13:49	0	0.801	945061	407412	13	32	31339		
2-Methylnaphthalene											
142.0783	13:50	13:50	0	1.001	1627087	673202	1065	2662	632		M
13C6-Acenaphthylene											
158.0828	16:42	16:41	-1	0.967	1414070	477599	81	202	5896		
Acenaphthylene											
152.0626	16:42	16:42	-1	1.000	95487	31858	807	2017	39		M
Acenaphthene-d10											
164.1404	17:16	17:16	-1		550790	190176	13	32	14629		
13C6-Acenaphthene											
160.0984	17:23	17:23	-1	1.007	778923	259803	47	117	5528		
Acenaphthene											
154.0783	17:23	17:23	-1	1.000	480354	163893	592	1480	277		
13C6-Fluorene											
172.0984	19:40	19:40	-1	1.140	839029	223212	78	195	2862		
Fluorene											
166.0783	19:40	19:40	-1	1.000	1113260	264018	489	1222	540		
13C6-Phenanthrene											
184.0984	25:02	25:03	-1	0.709	1125965	245146	29	72	8453		
Phenanthrene											
178.0783	25:03	25:04	-1	1.000	4462240	893252	614	1535	1455		



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:17	25:15	1	0.715	92595	20644	13	32	1588		
13C6-Anthracene											
184.0984	25:22	25:22	-1	0.718	1124196	208065	29	72	7175		
Anthracene											
178.0783	25:23	25:23	-1	1.000	454277	76750	614	1535	125		M
13C6-Fluoranthrene											
208.0984	33:47	33:47	-1	0.956	2736796	462931	320	800	1447		
Fluoranthene											
202.0783	33:48	33:49	0	1.000	1558989	270892	477	1192	568		
Pyrene-d10											
212.1404	35:20	35:21	-1		1347603	224759	68	170	3305		
13C3-Pyrene											
205.0883	35:29	35:28	-1	1.004	3116478	514128	225	562	2285		
Pyrene											
202.0783	35:29	35:29	-1	1.000	1782885	304056	477	1192	637		M
13C6-Benzo(c)fluorene											
222.1134	39:11	39:13	0	0.707	1407320	224322	50	125	4486		
13C6-Benzo(a)anthracene											
234.1140	46:00	45:59	0	1.302	2604046	389142	288	720	1351		
Benzo[a]anthracene											
228.0939	46:00	46:00	0	1.000	53702	8210	238	595	34		M
13C6-Chrysene											
234.1140	46:17	46:15	0	1.310	3097768	384876	288	720	1336		
Chrysene											
228.0939	46:17	46:17	0	1.000	206276	24088	238	595	101		M
13C6-Benzo(b)fluoranthene											
258.1140	54:35	54:35	0	0.984	2814168	688778	67	167	10280		
Benzo[b]fluoranthene											
252.0939	54:36	54:36	1	1.000	136649	24687	289	722	85		M
13C12-Benzo(j)fluoranthene											
264.1336	54:37	54:37	0	0.985	2700750	592986	282	705	2103		
13C6-Benzo(k)fluoranthene											
258.1140	54:42	54:42	0	0.987	3718612	714438	67	167	10663		
Benzo[k]fluoranthene											
252.0939	54:43	54:43	0	1.000	92850	18715	289	722	65		Ma
Benzo(e)pyrene-d12											
264.1692	55:26	55:27	0		1199601	366062	276	690	1326		
13C4-Benzo(e)pyrene											
256.1073	55:31	55:32	0	1.002	2888749	931311	322	805	2892		
Benzo[e]pyrene											
252.0939	55:31	55:31	0	1.000	508004	149389	289	722	517		Ma
13C4-Benzo(a)pyrene											
256.1073	55:40	55:40	0	1.004	3386305	837357	322	805	2600		M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Benzo[a]pyrene											M
252.0939	55:41	55:41	1	1.000	196299	46008	289	722	159		M
Perylene-d12											M
264.1692	55:50	55:50	0	1.007	2588960	707934	276	690	2565		M
Perylene											M
252.0939	55:55	55:55	1	1.002	47733	11686	289	722	40		M
13C6-Indeno(1,2,3-cd)pyrene											M
282.1140	57:58	57:58	0	1.046	2257934	640103	153	382	4184		M
Indeno[1,2,3-cd]pyrene											M
276.0939	57:59	57:59	1	1.000	358113	92910	231	577	402		M
13C6-Dibenz(a,h)anthracene											
284.1296	58:03	58:04	1	1.047	2511244	499631	99	247	5047		
Dibenz(a,h)anthracene											M
278.1096	58:03	58:03	0	1.000	130585	26461	106	265	250		M
13C12-Benzo(ghi)perylene											
288.1342	58:26	58:27	0	1.054	2822419	697973	40	100	17449		
Benzo[g,h,i]perylene											M
276.0939	58:26	58:26	0	1.000	2487170	686963	231	577	2974		M

### QC Flag Legend

Processing Flags

Review Flags

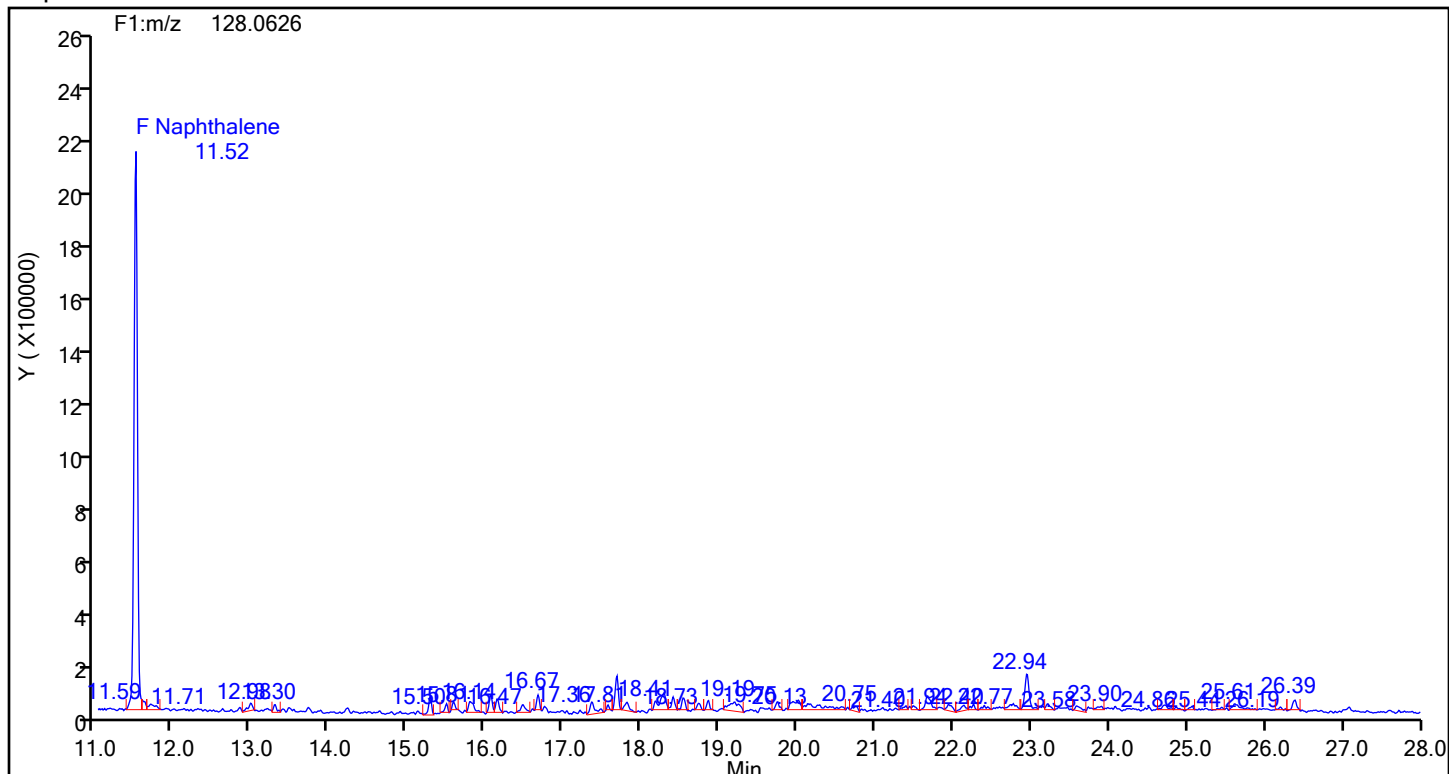
M - Manually Integrated

a - User Assigned ID

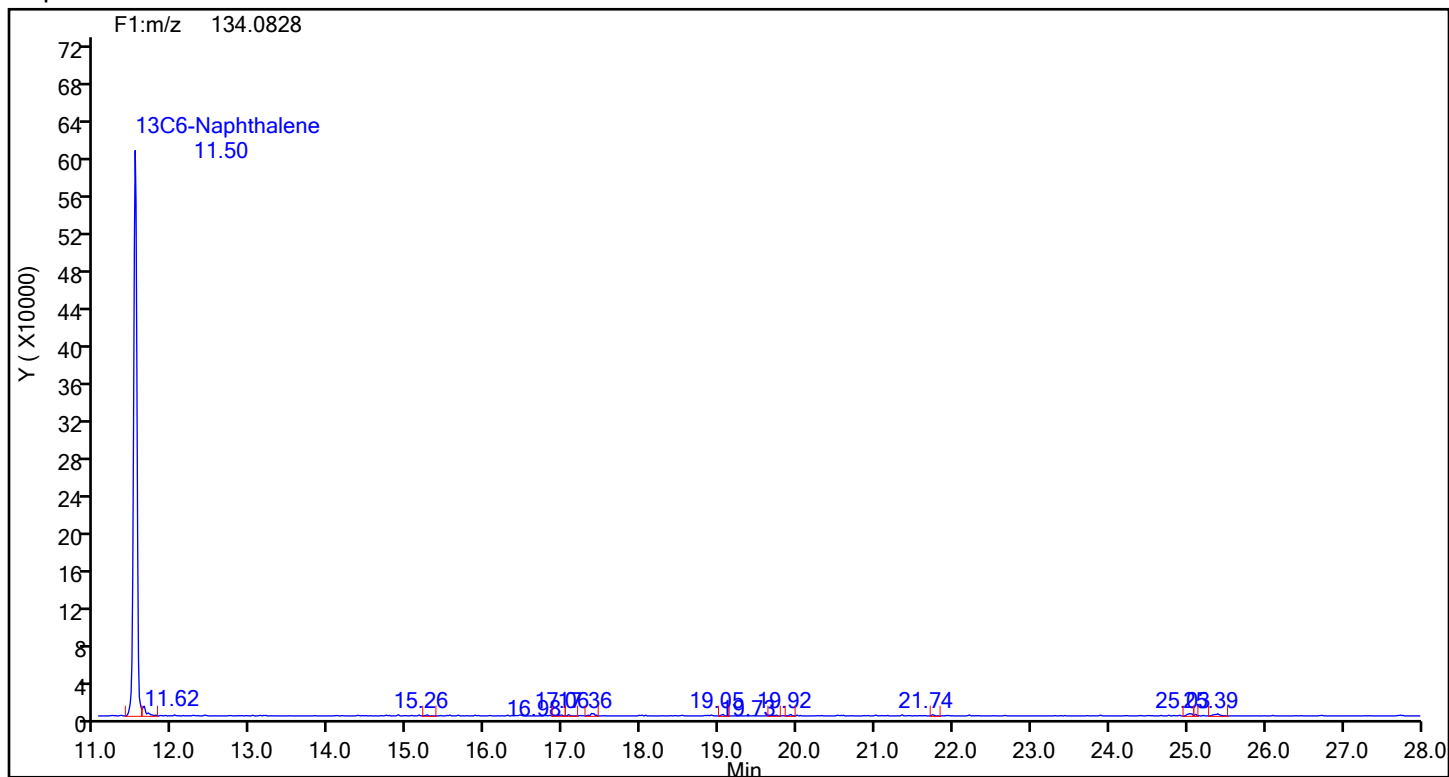
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 89013 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



## Naphthalene Standards



## Eurofins Knoxville

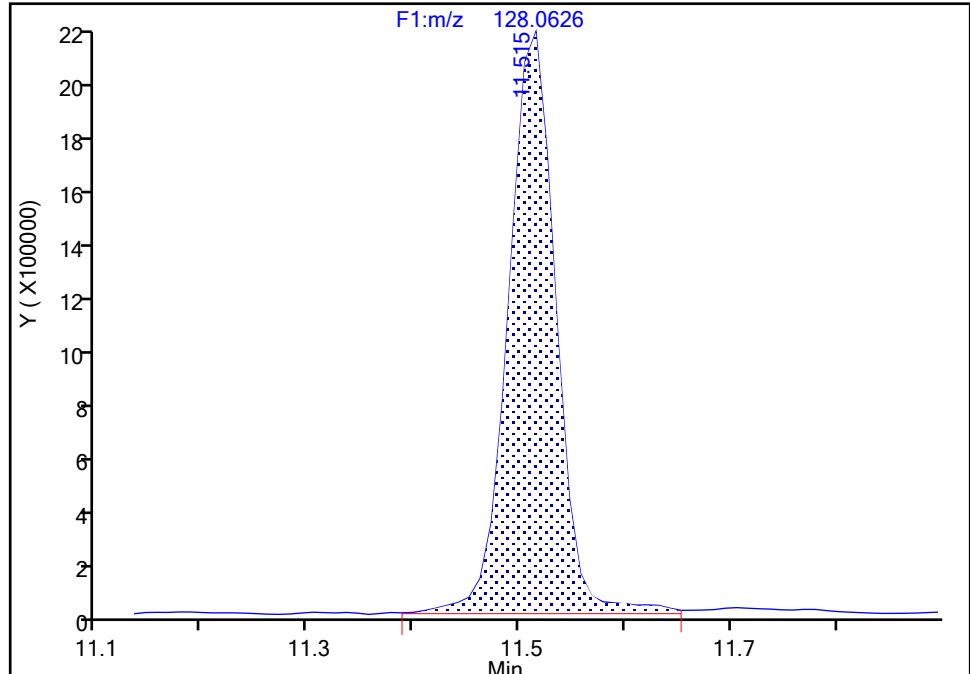
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-4-C Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F1(6.03 :27.99 )

## Naphthalene, CAS: 91-20-3

Signal: 1

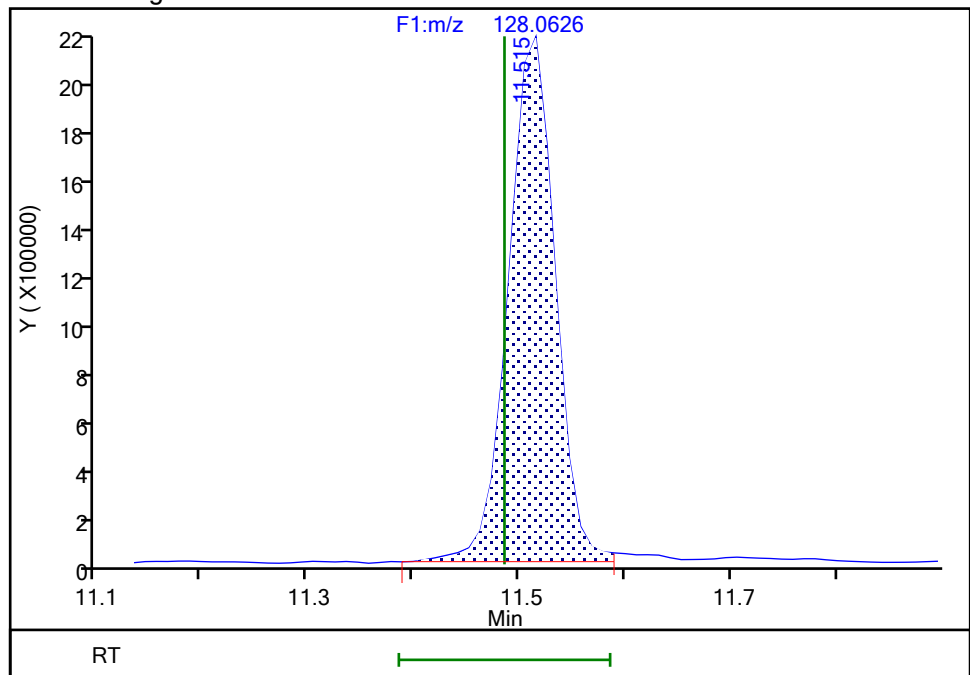
RT: 11.52  
Area: 6403782  
Amount: 27.105553  
Amount Units: pg/ul

## Processing Integration Results



RT: 11.52  
Area: 6324427  
Amount: 26.769664  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:31:08 -04:00:00 (UTC)

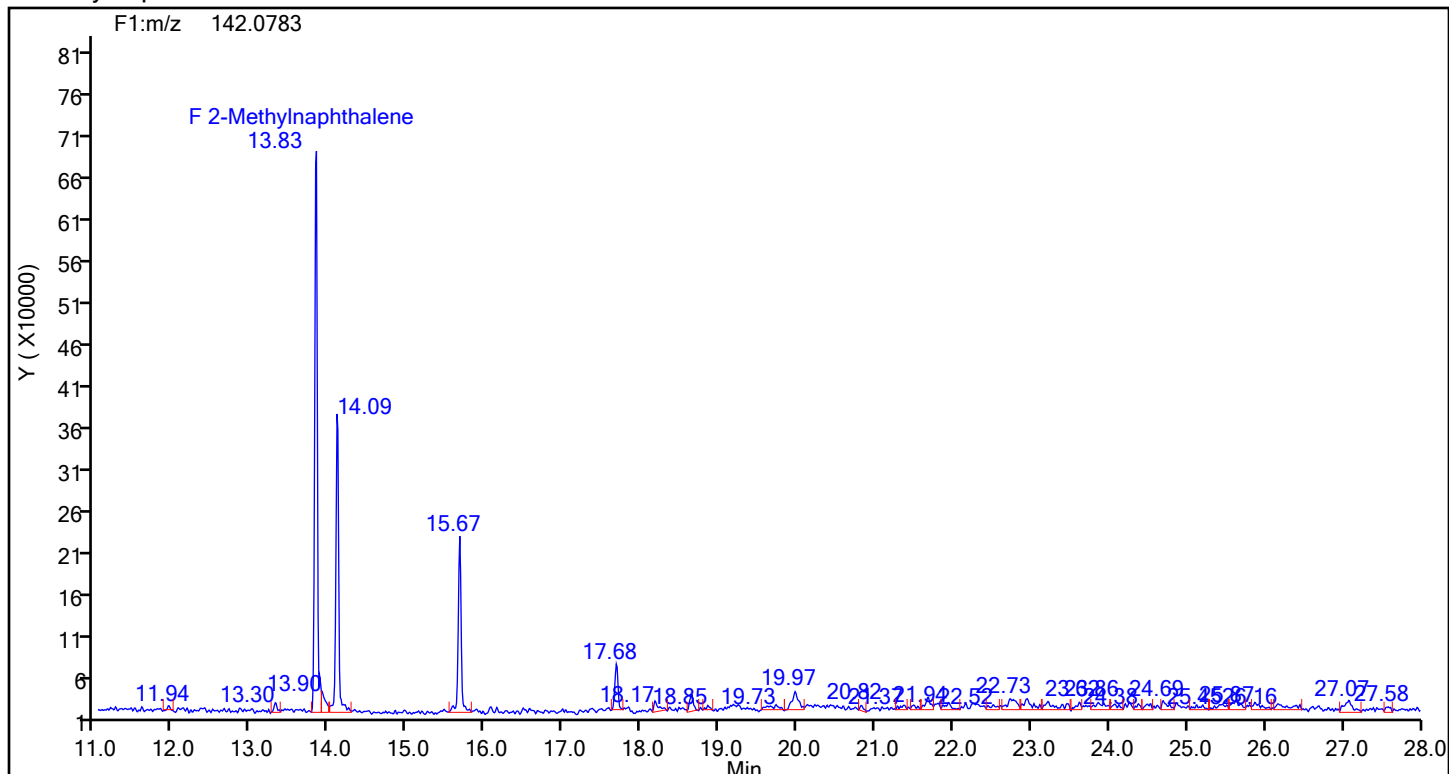
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

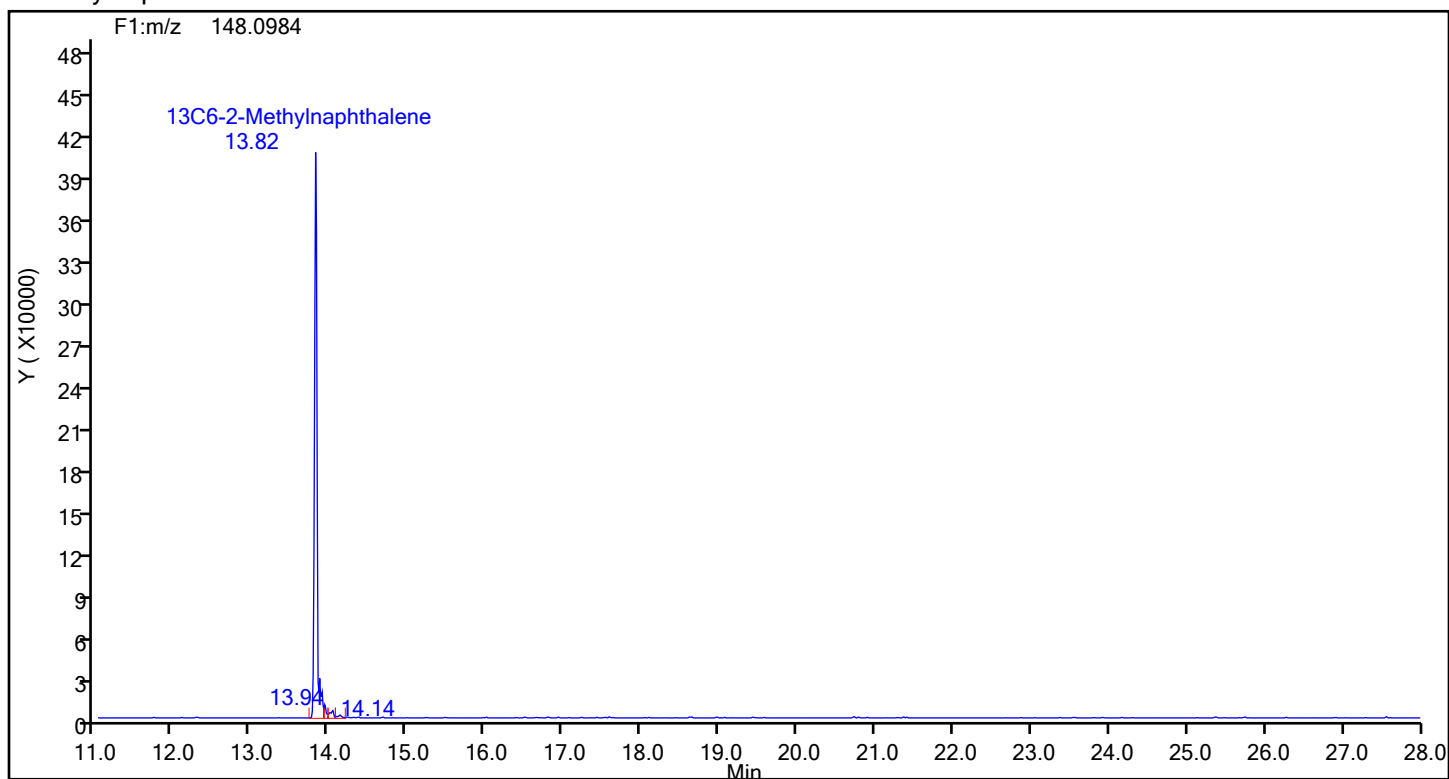
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 89013 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



## 2-Methylnaphthalene Standards



## Eurofins Knoxville

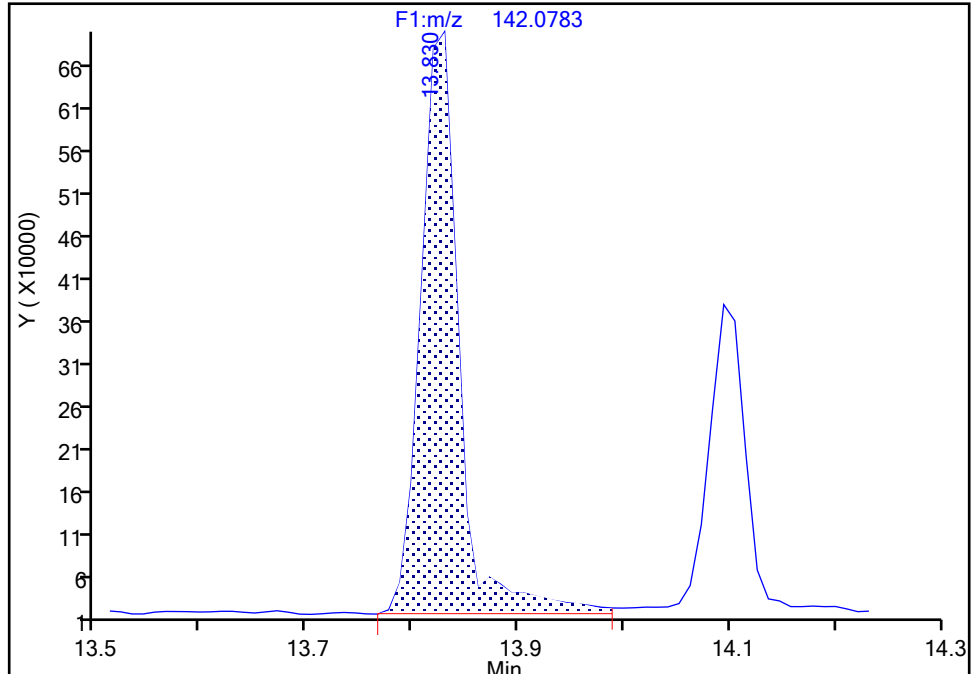
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-4-C Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

**2-Methylnaphthalene, CAS: 91-57-6**

Signal: 1

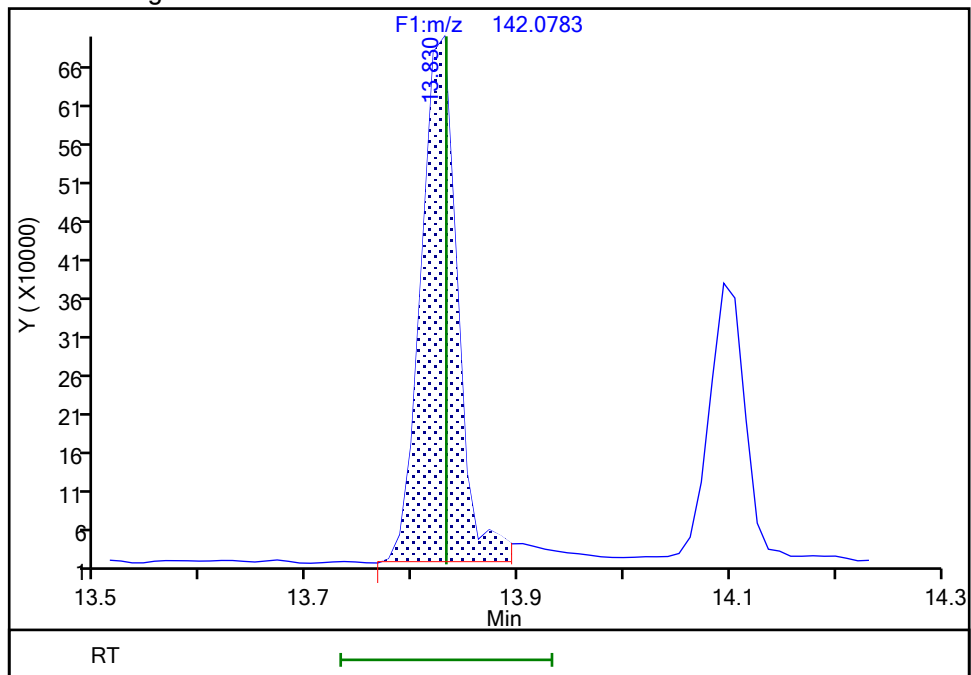
RT: 13.83  
Area: 1705453  
Amount: 14.114211  
Amount Units: pg/ul

## Processing Integration Results



RT: 13.83  
Area: 1627087  
Amount: 13.465659  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:30:53 -04:00:00 (UTC)

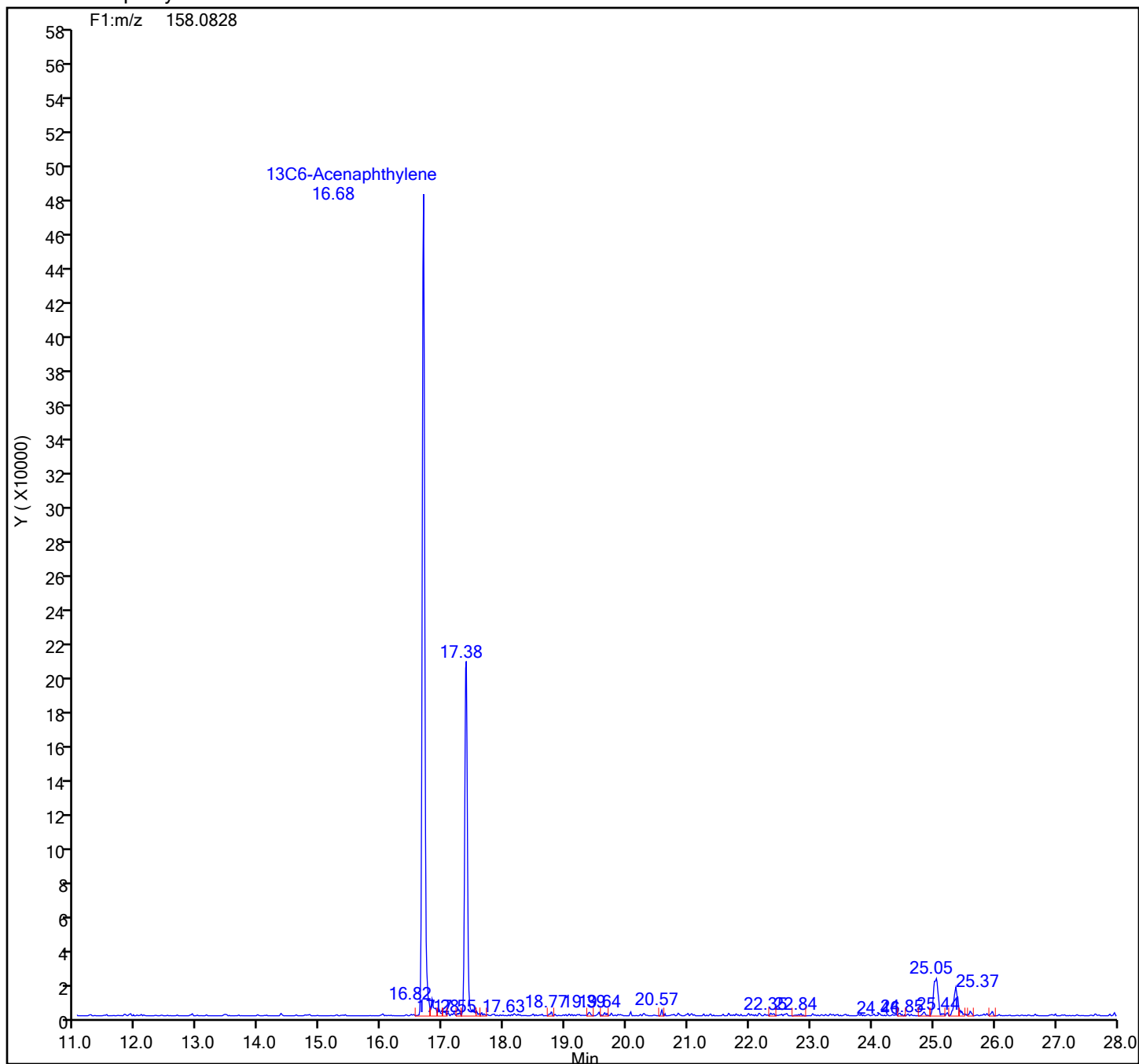
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 89013 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

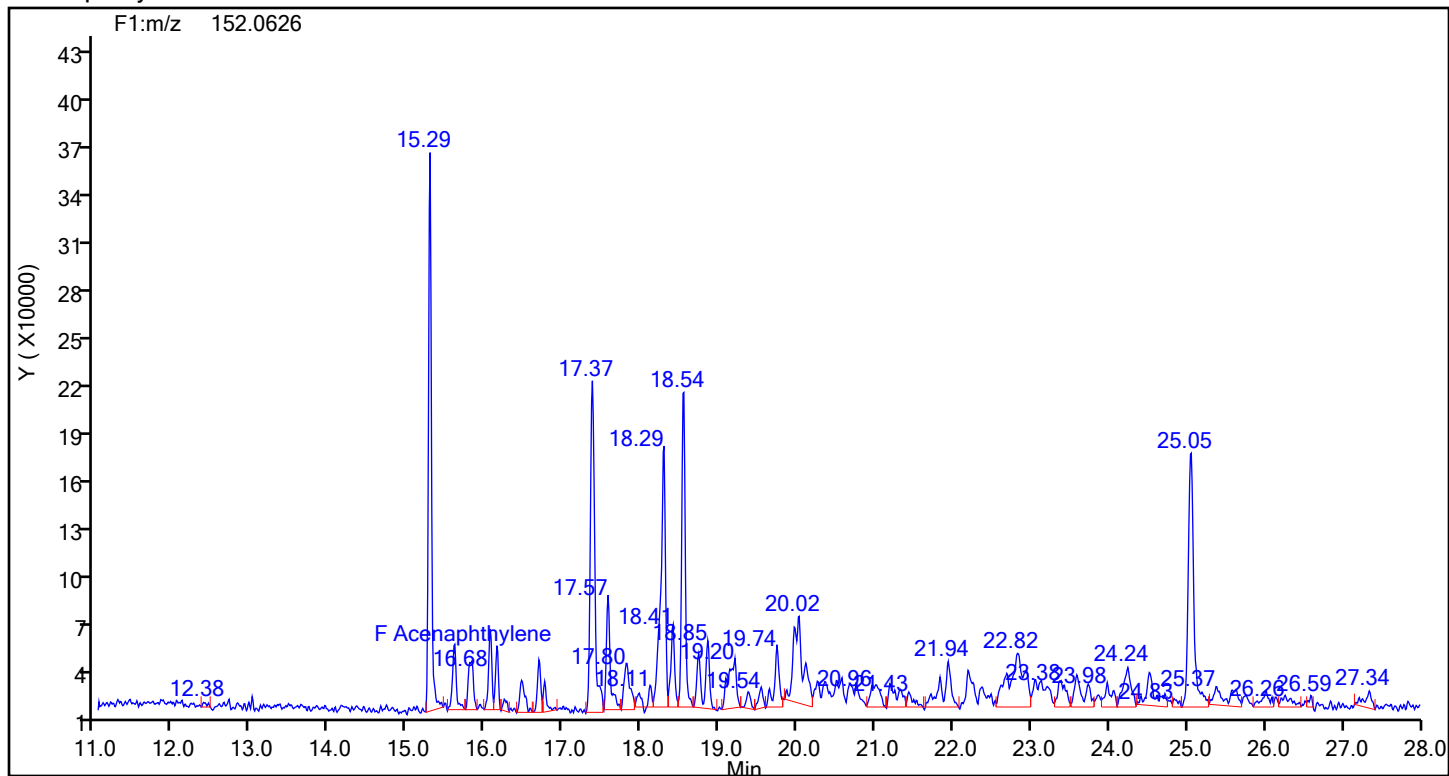
## 13C6-Acenaphthylene Standards



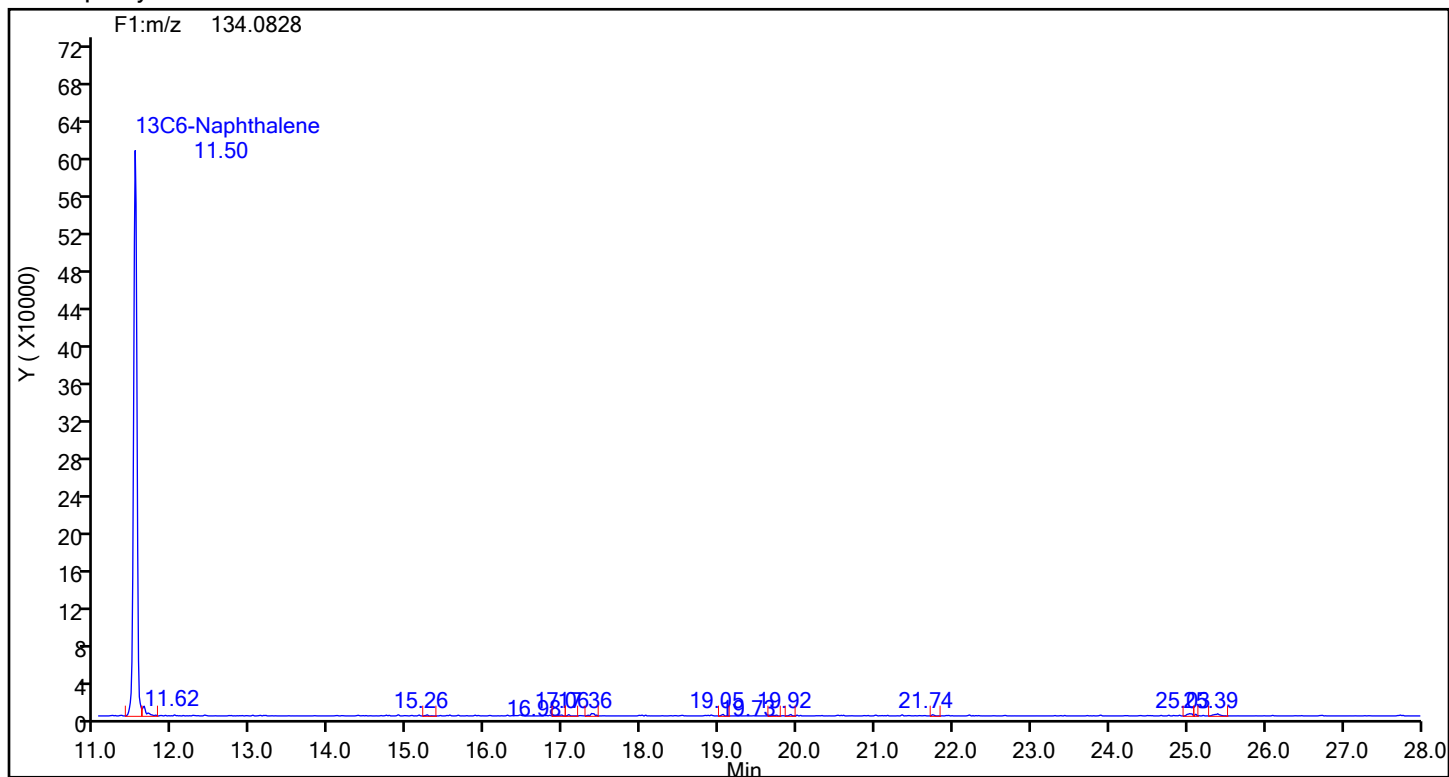
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 89013 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene



## Acenaphthylene Standards





## Eurofins Knoxville

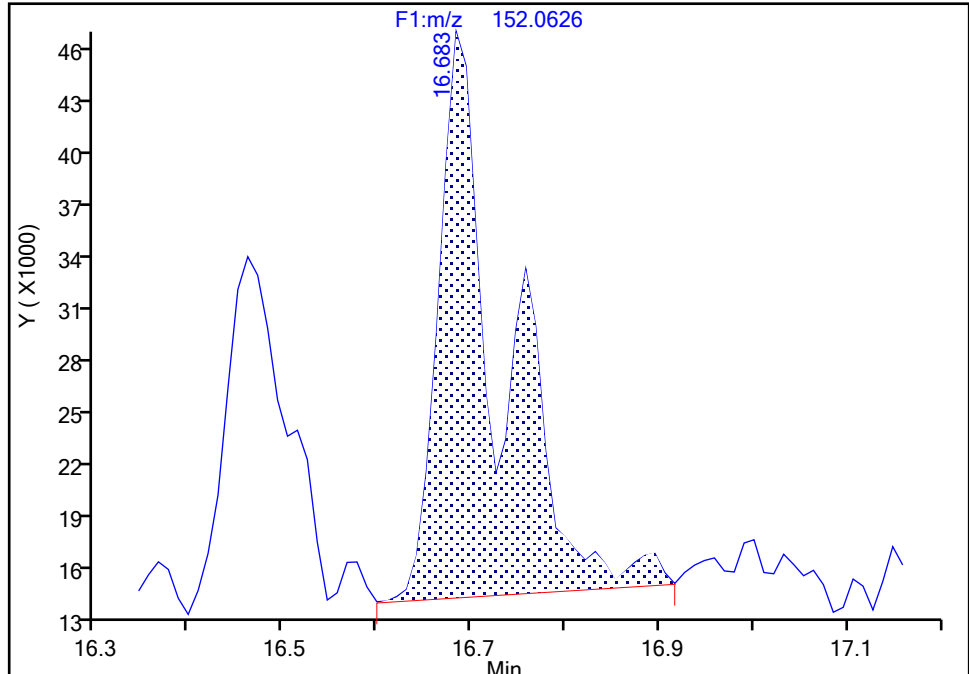
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-4-C Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Acenaphthylene, CAS: 208-96-8

Signal: 1

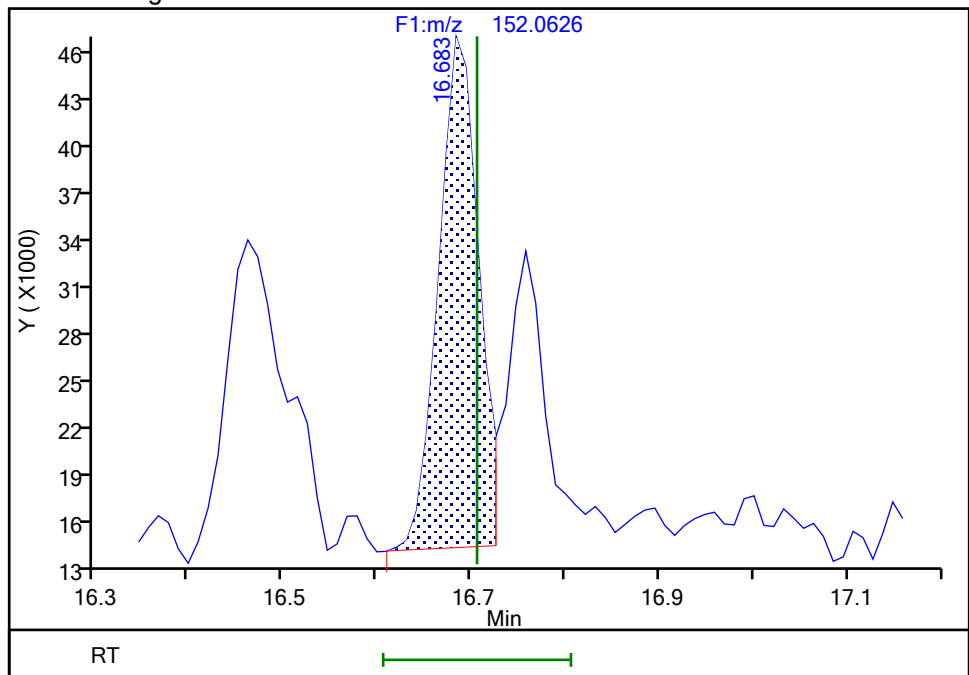
RT: 16.68  
Area: 149145  
Amount: 0.809235  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.68  
Area: 95487  
Amount: 0.518096  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:32:20 -04:00:00 (UTC)

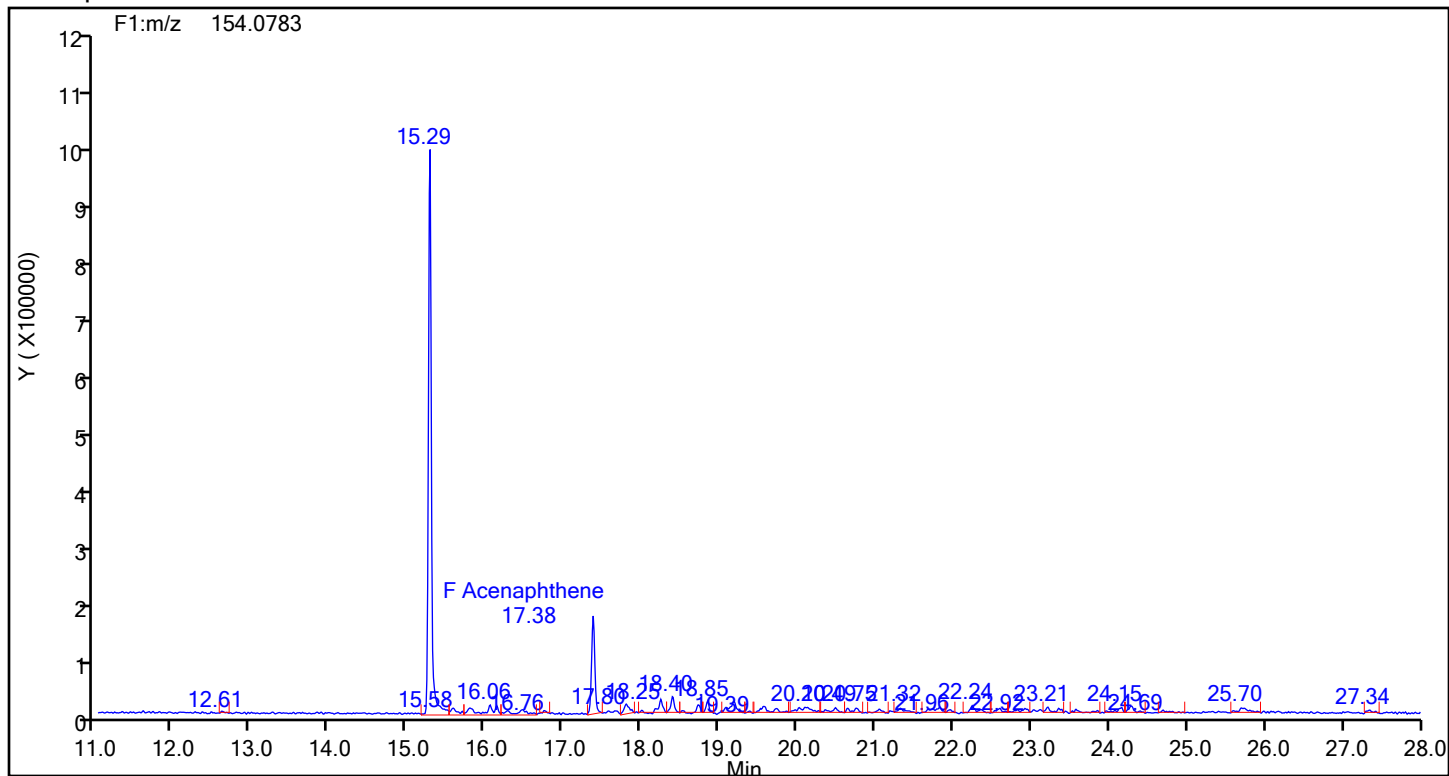
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

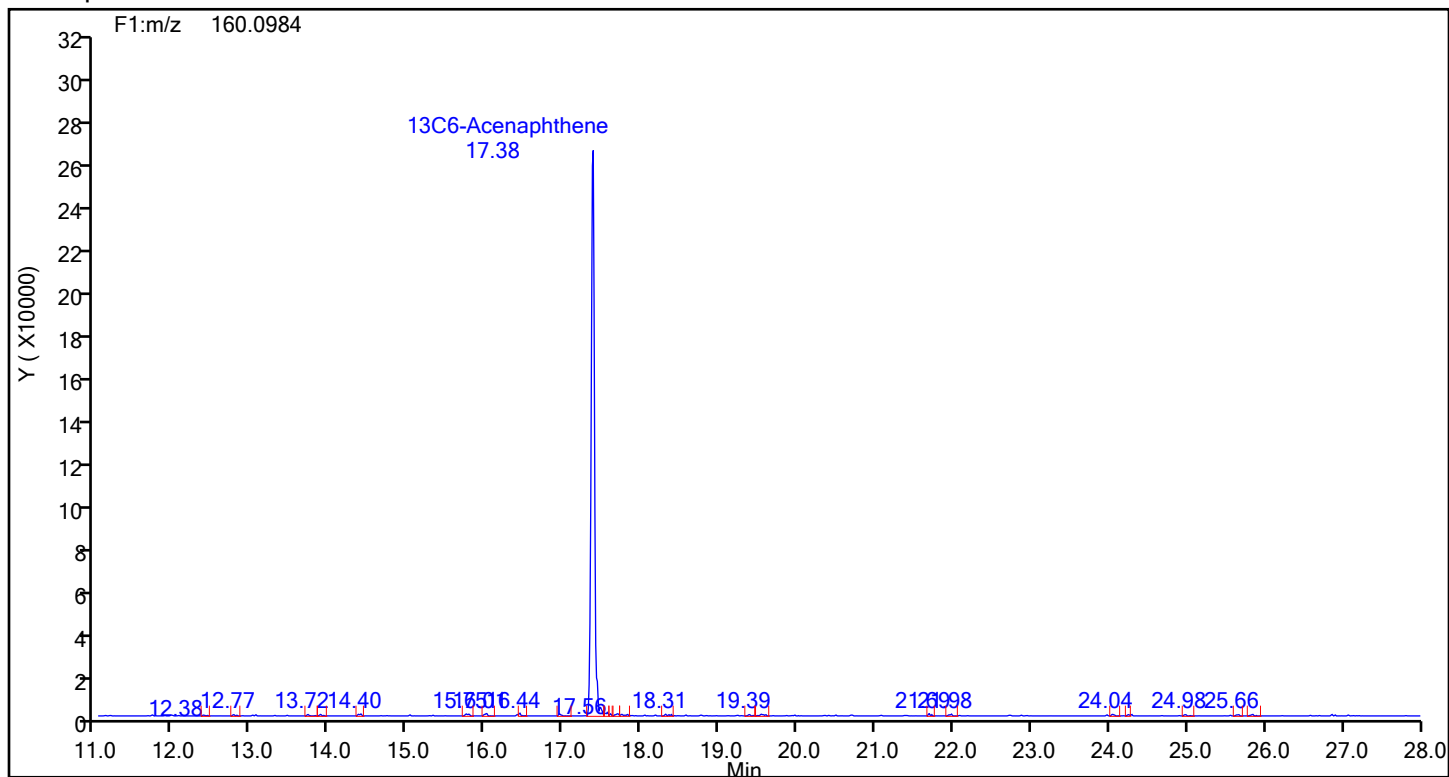
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 89013 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



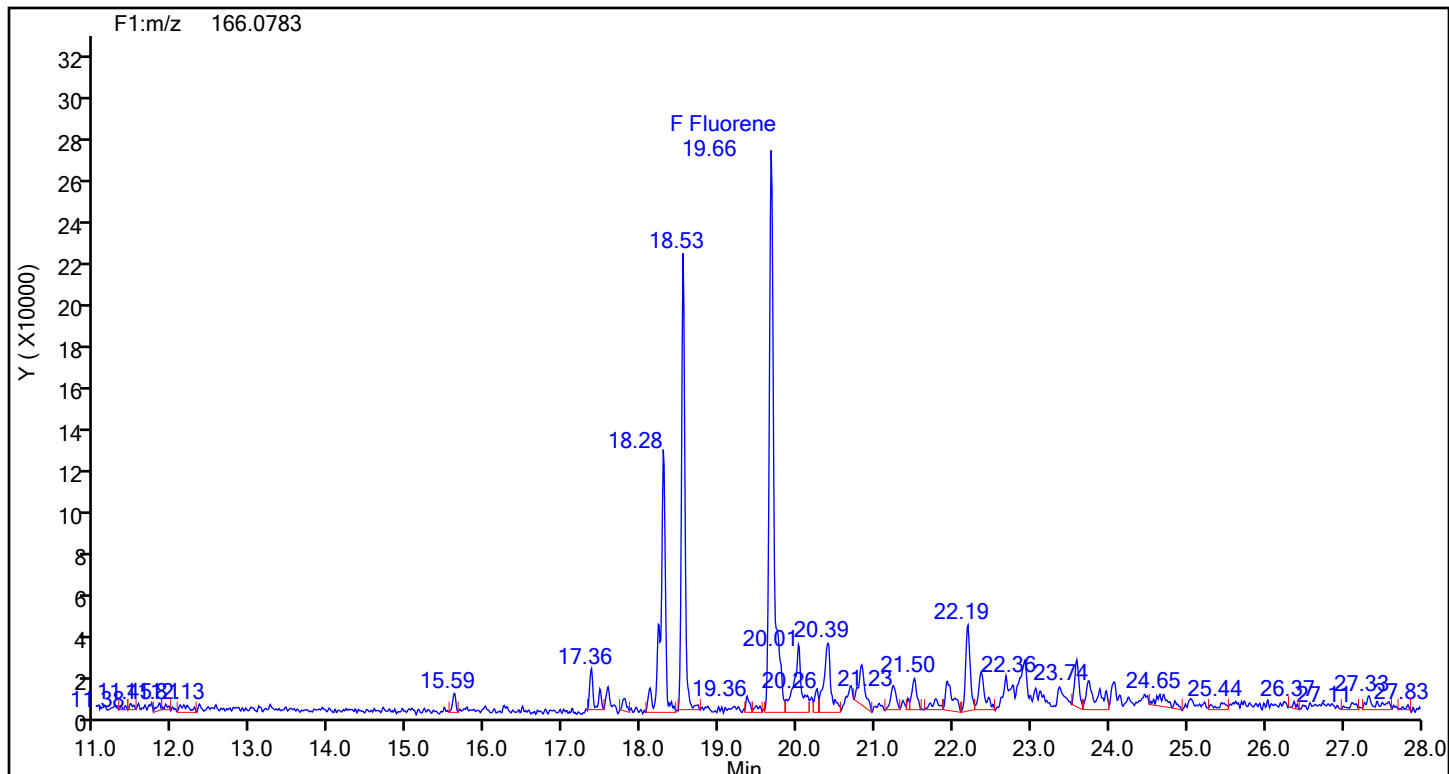
## Acenaphthene Standards



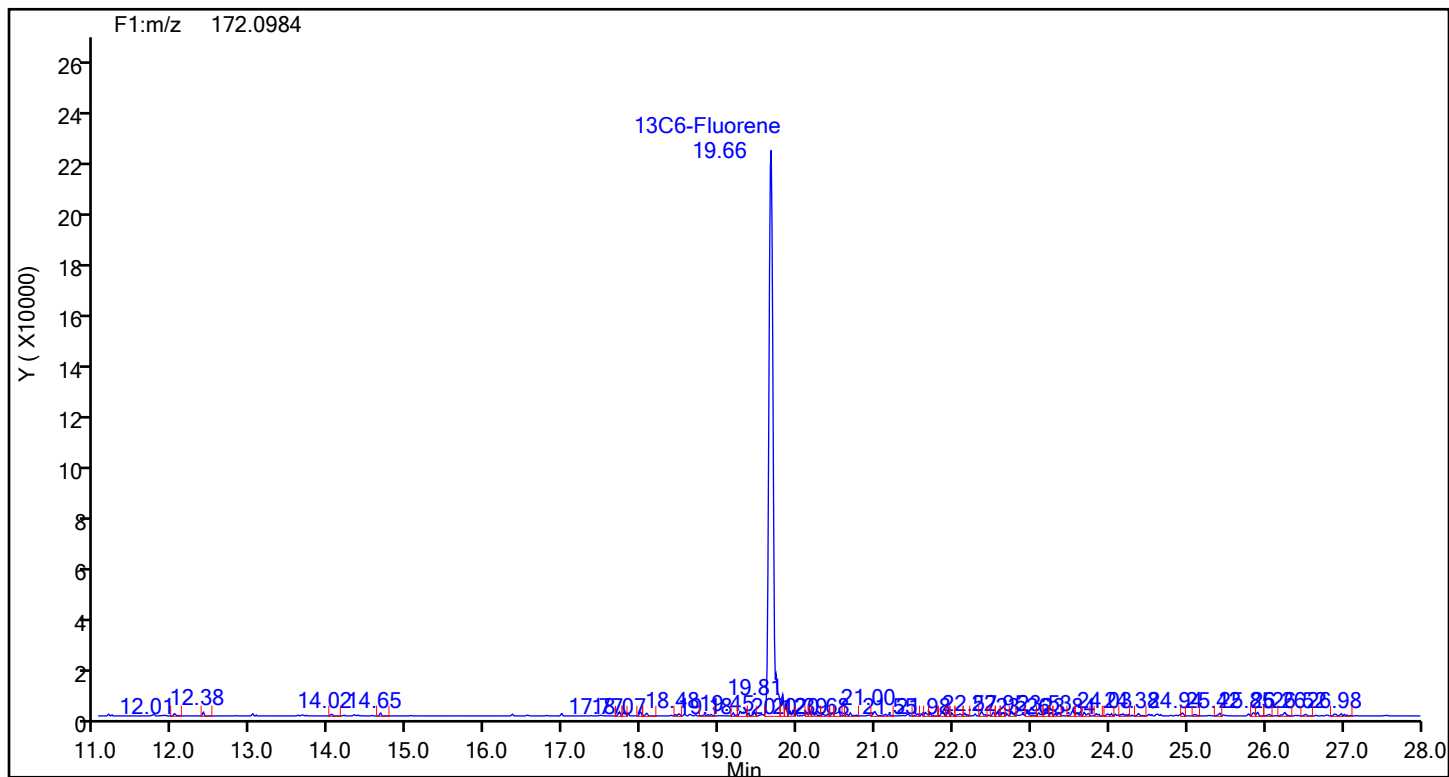
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 89013 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene



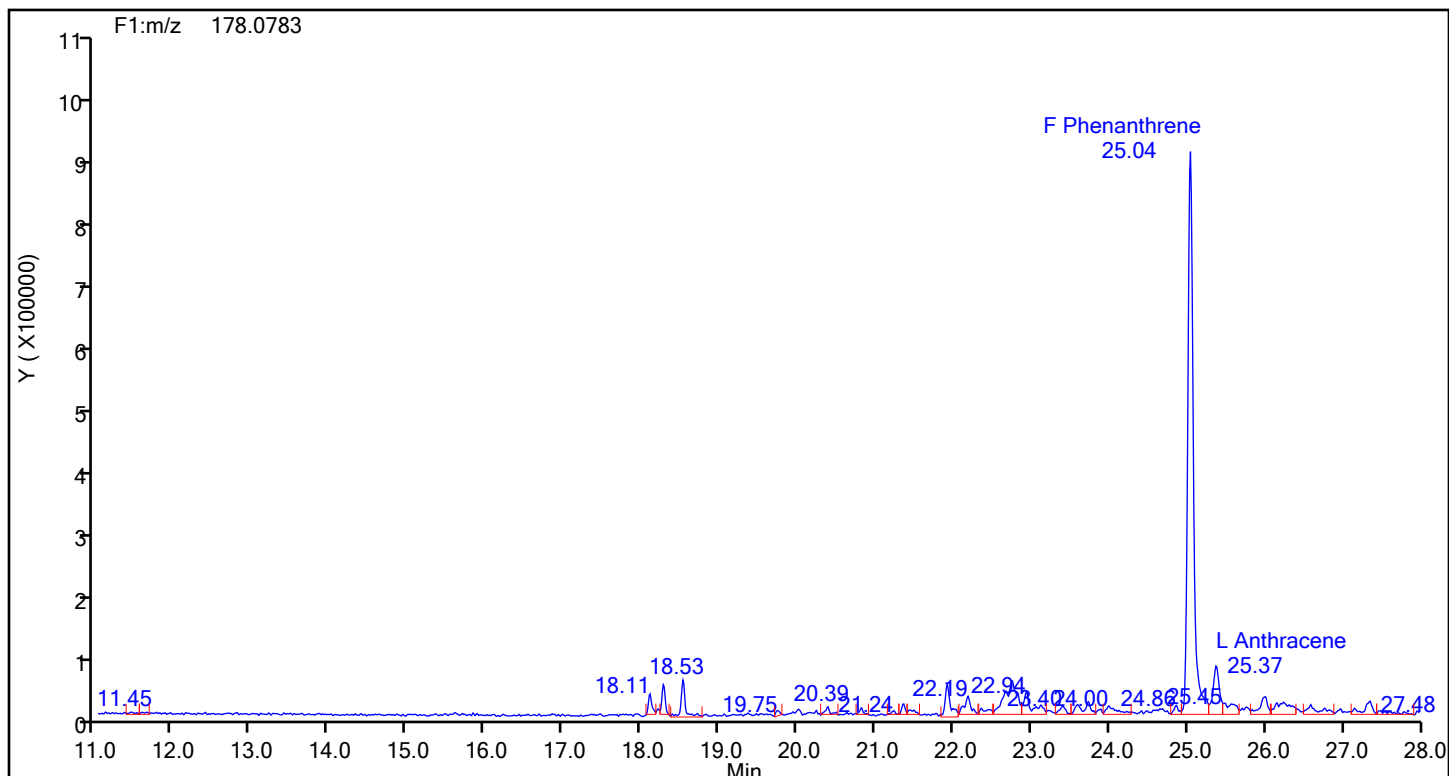
## Fluorene Standards



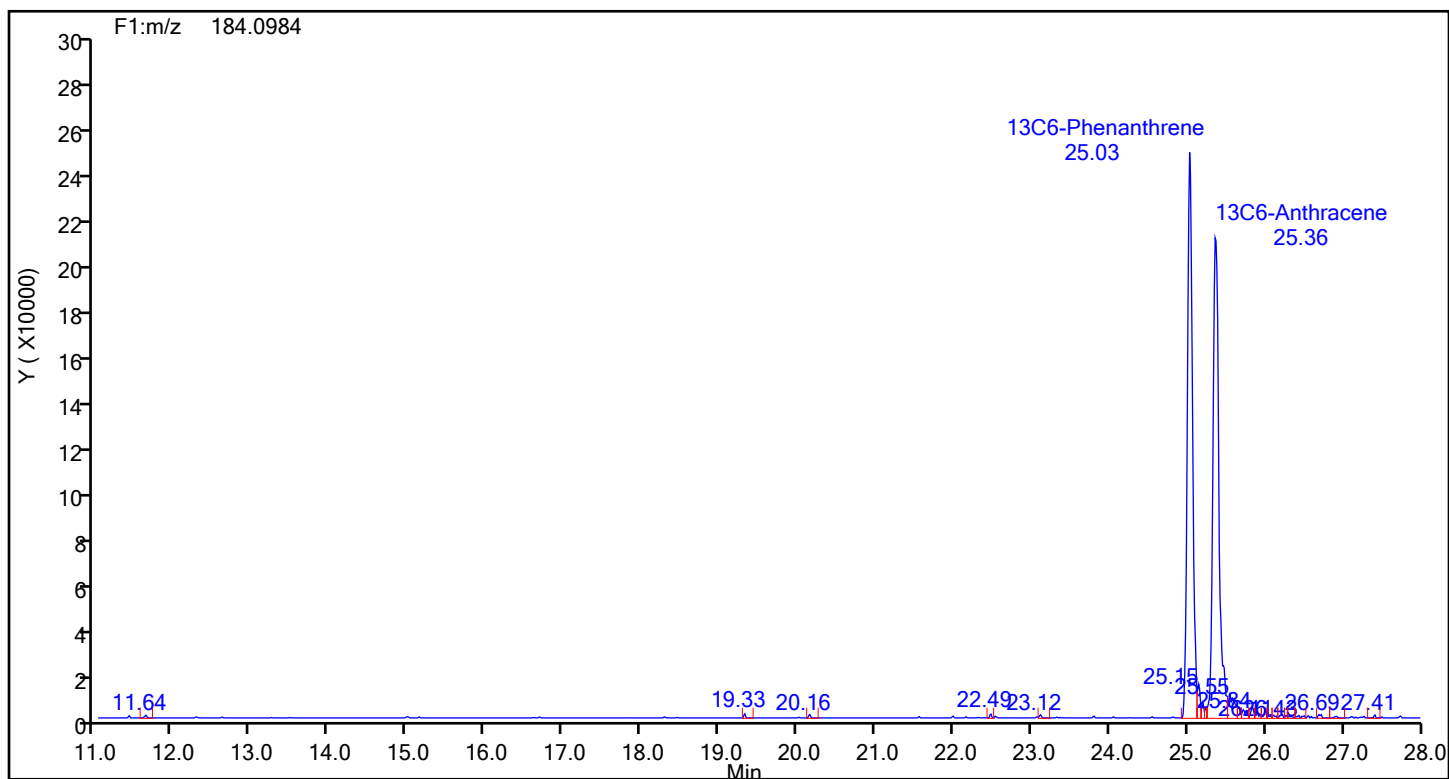
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 89013 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Phenanthrene



## Phenanthrene Standards



## Eurofins Knoxville

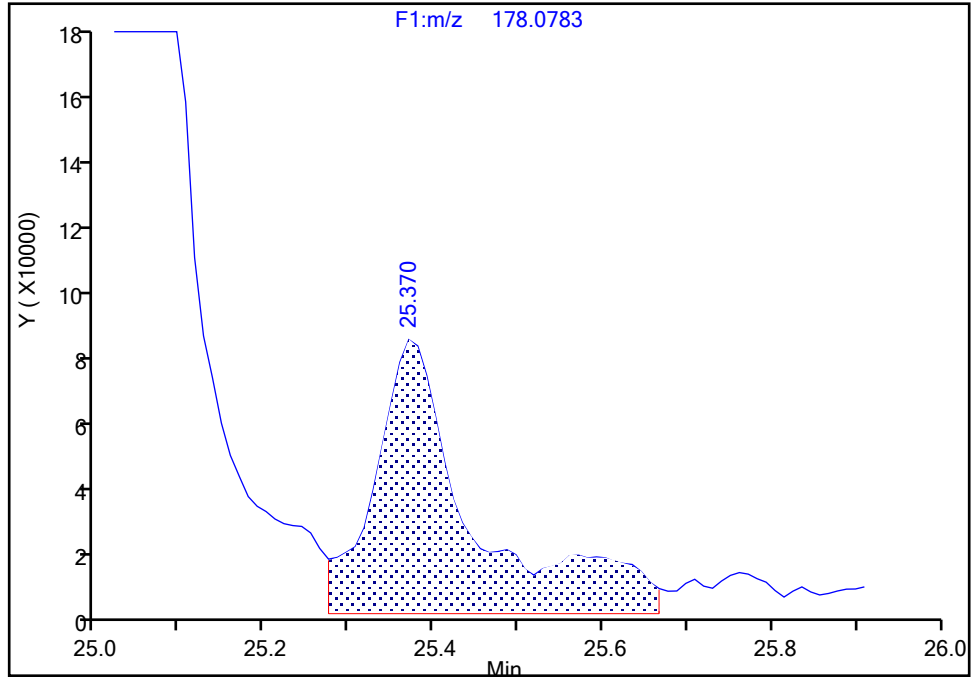
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-4-C Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Anthracene, CAS: 120-12-7

Signal: 1

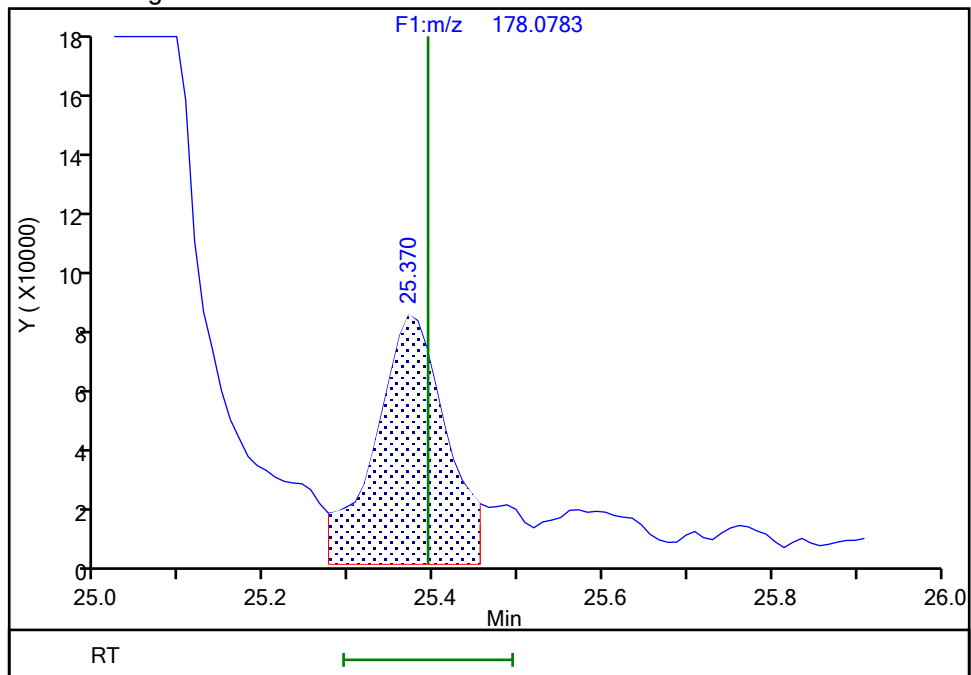
RT: 25.37  
Area: 627721  
Amount: 4.109943  
Amount Units: pg/ul

## Processing Integration Results



RT: 25.37  
Area: 454277  
Amount: 2.974335  
Amount Units: pg/ul

## Manual Integration Results



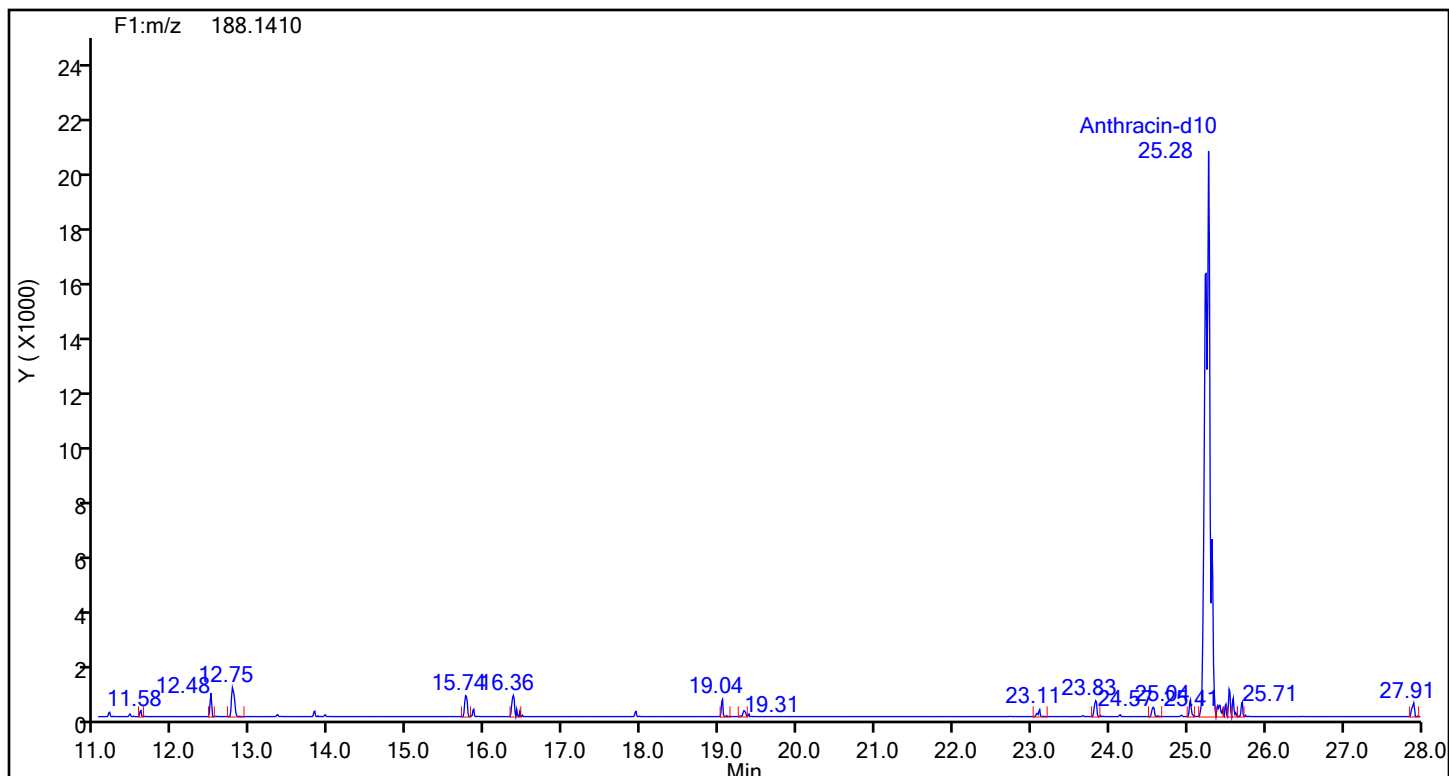
Reviewer: TT6I, 23-Jul-2024 10:30:21 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

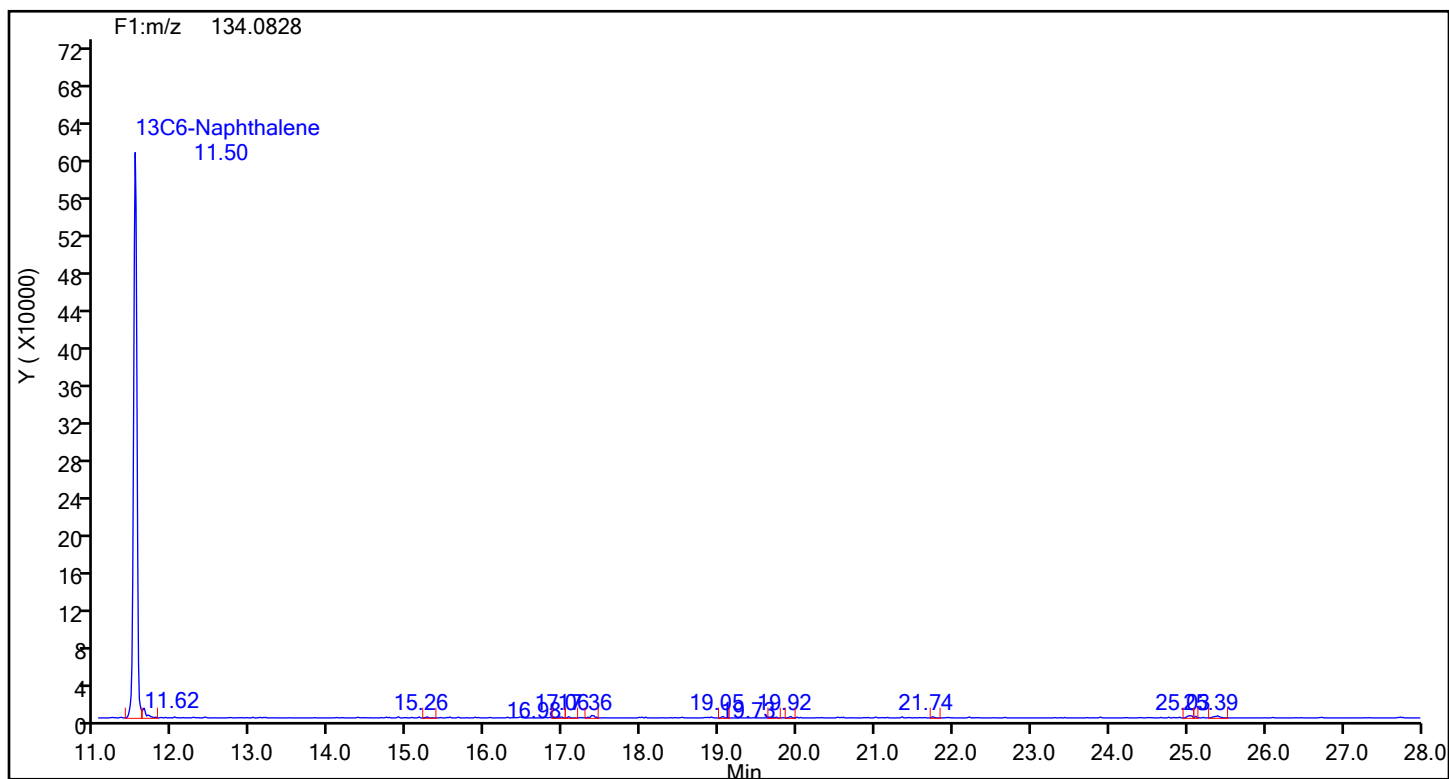
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 89013 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10

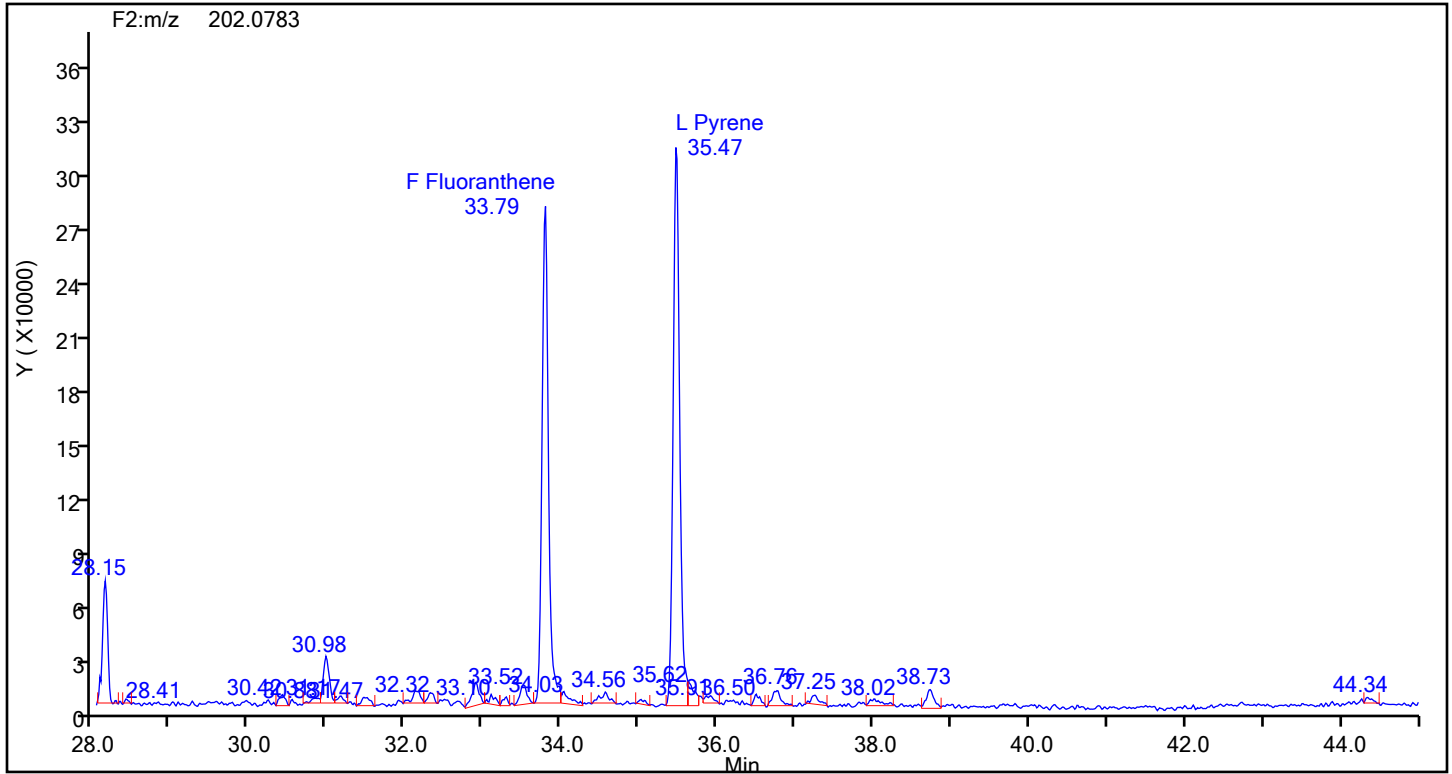


## Anthracin-d10 Standards

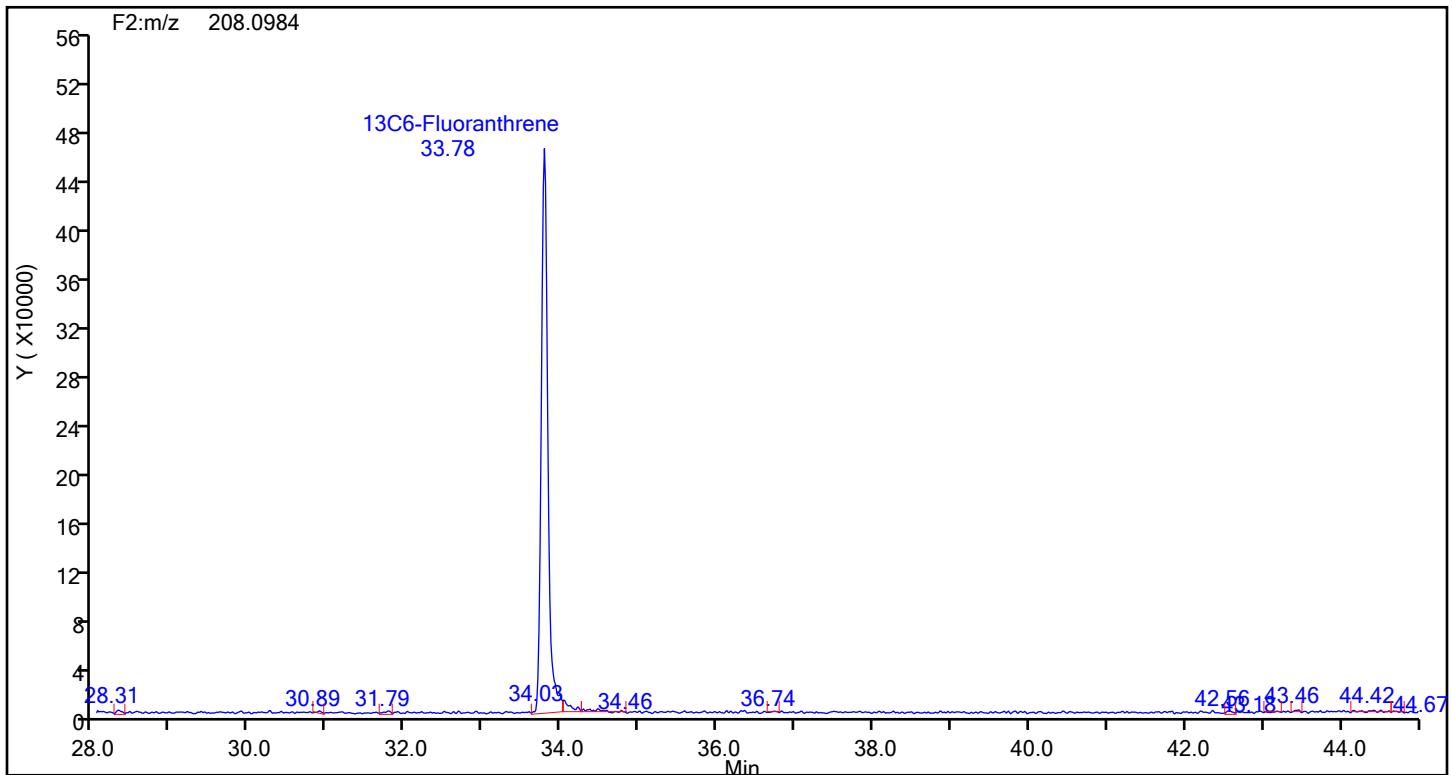


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 89013 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Fluoranthene



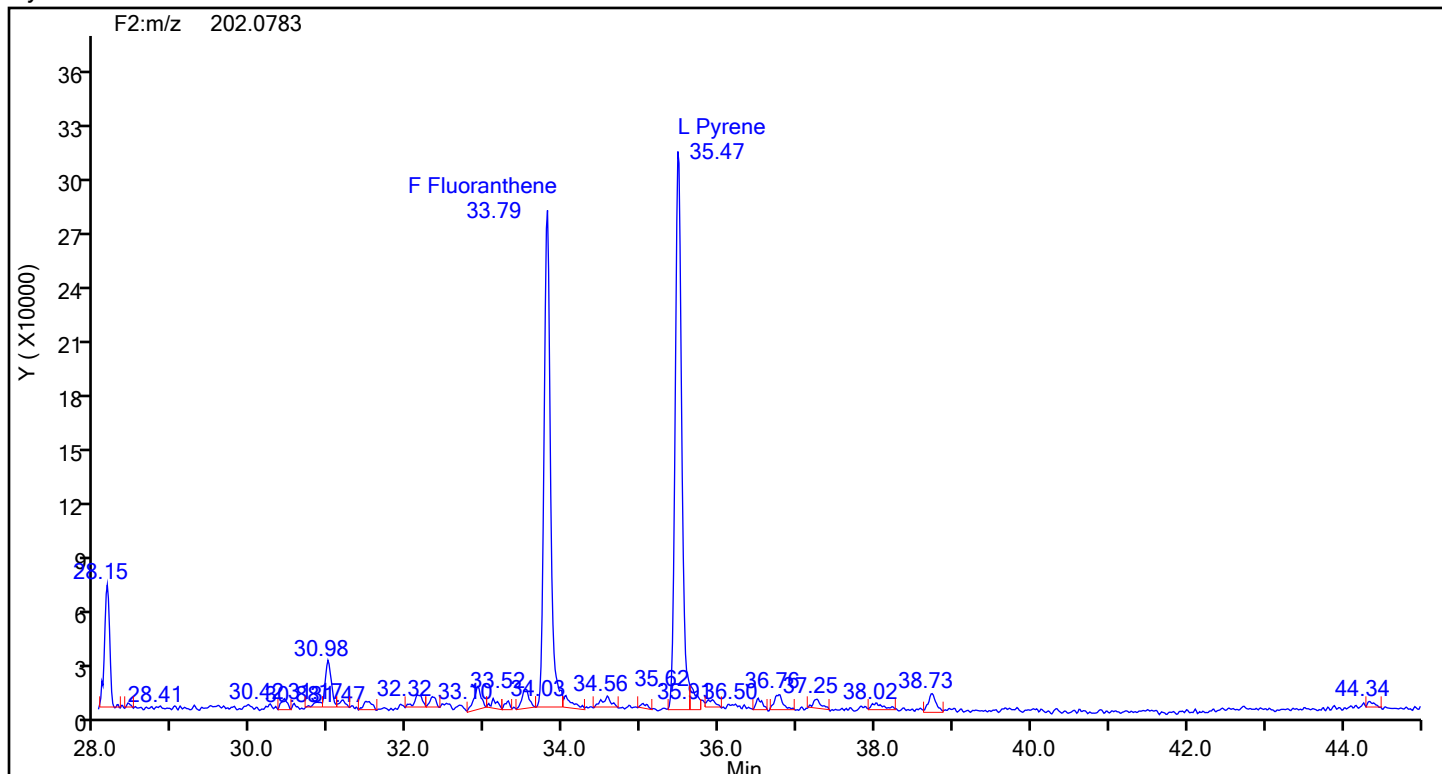
## Fluoranthene Standards



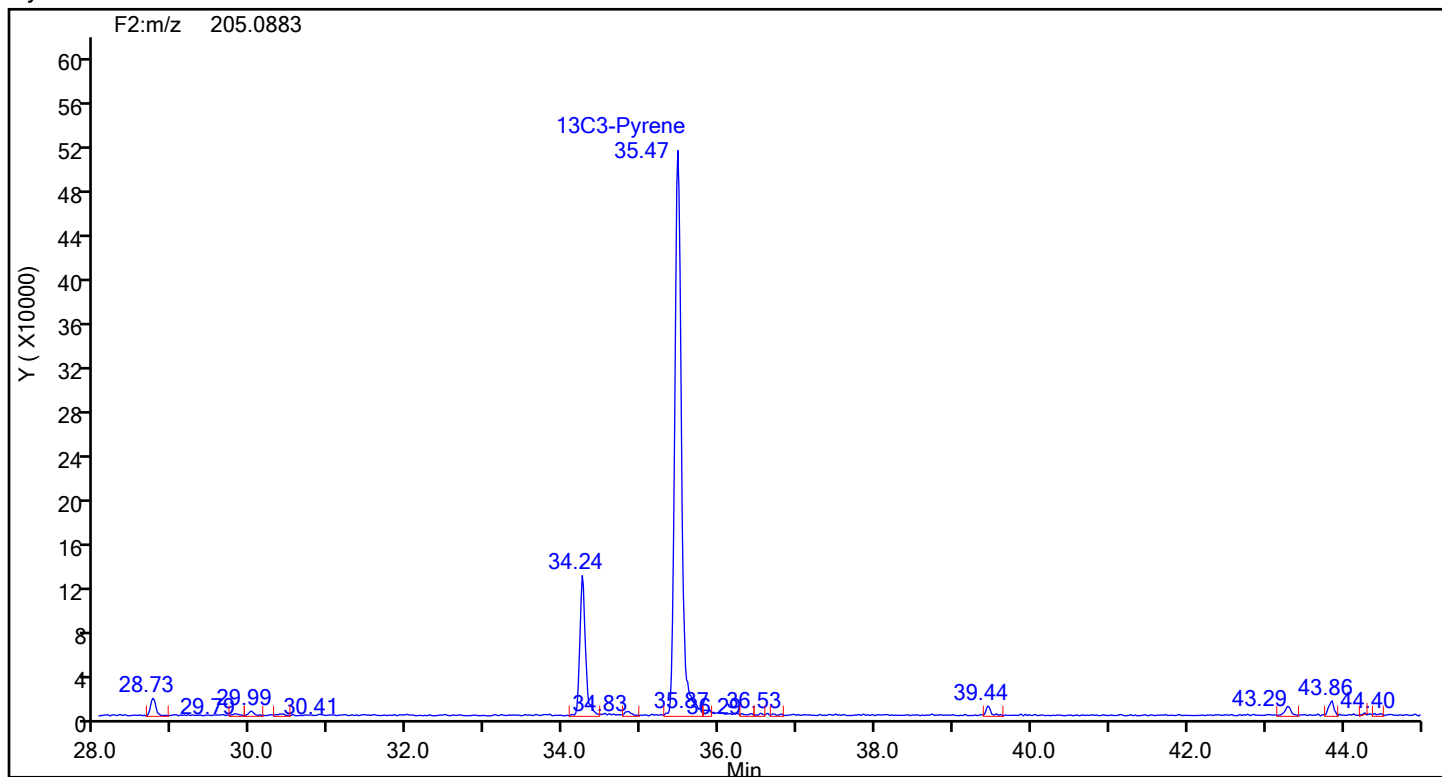
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 89013 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Pyrene



## Pyrene Standards





## Eurofins Knoxville

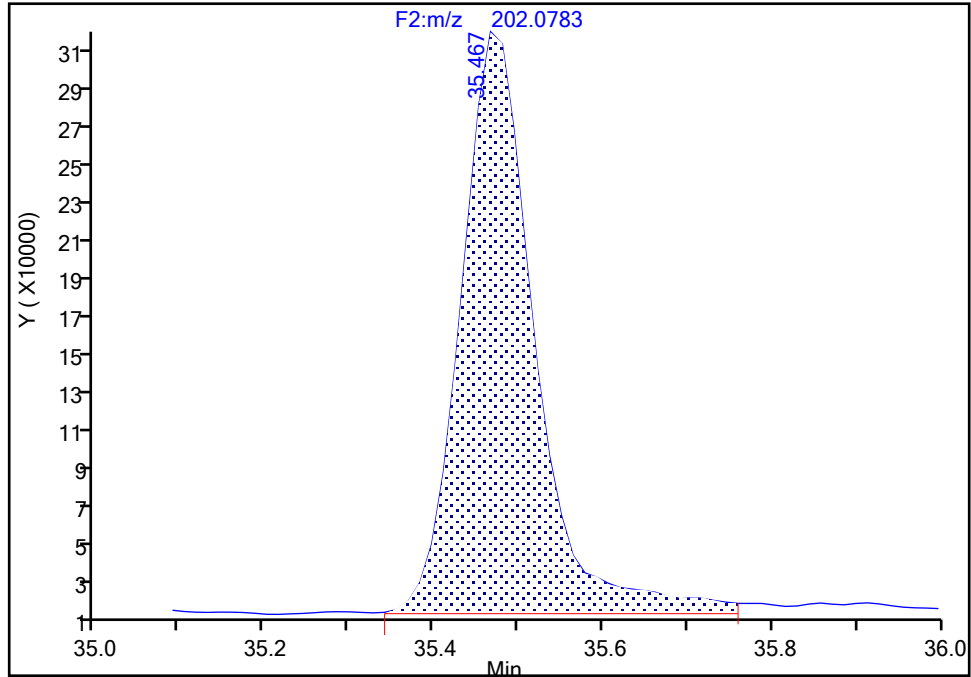
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-4-C Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F2(28.03 :43.99 )

Pyrene, CAS: 129-00-0

Signal: 1

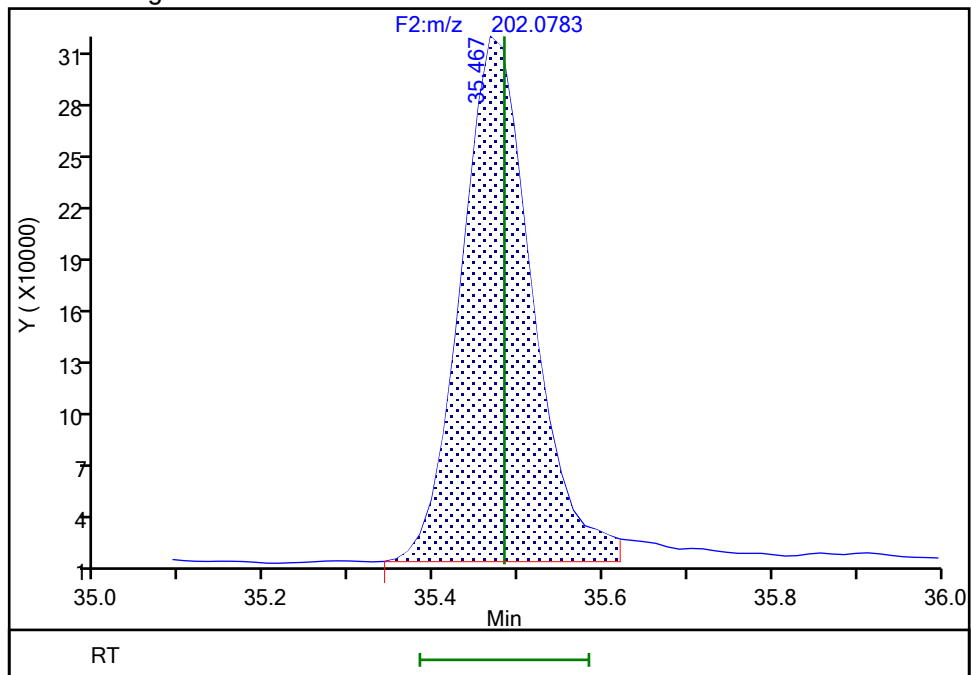
RT: 35.47  
Area: 1849764  
Amount: 5.572117  
Amount Units: pg/ul

## Processing Integration Results



RT: 35.47  
Area: 1782885  
Amount: 5.370655  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:31:57 -04:00:00 (UTC)

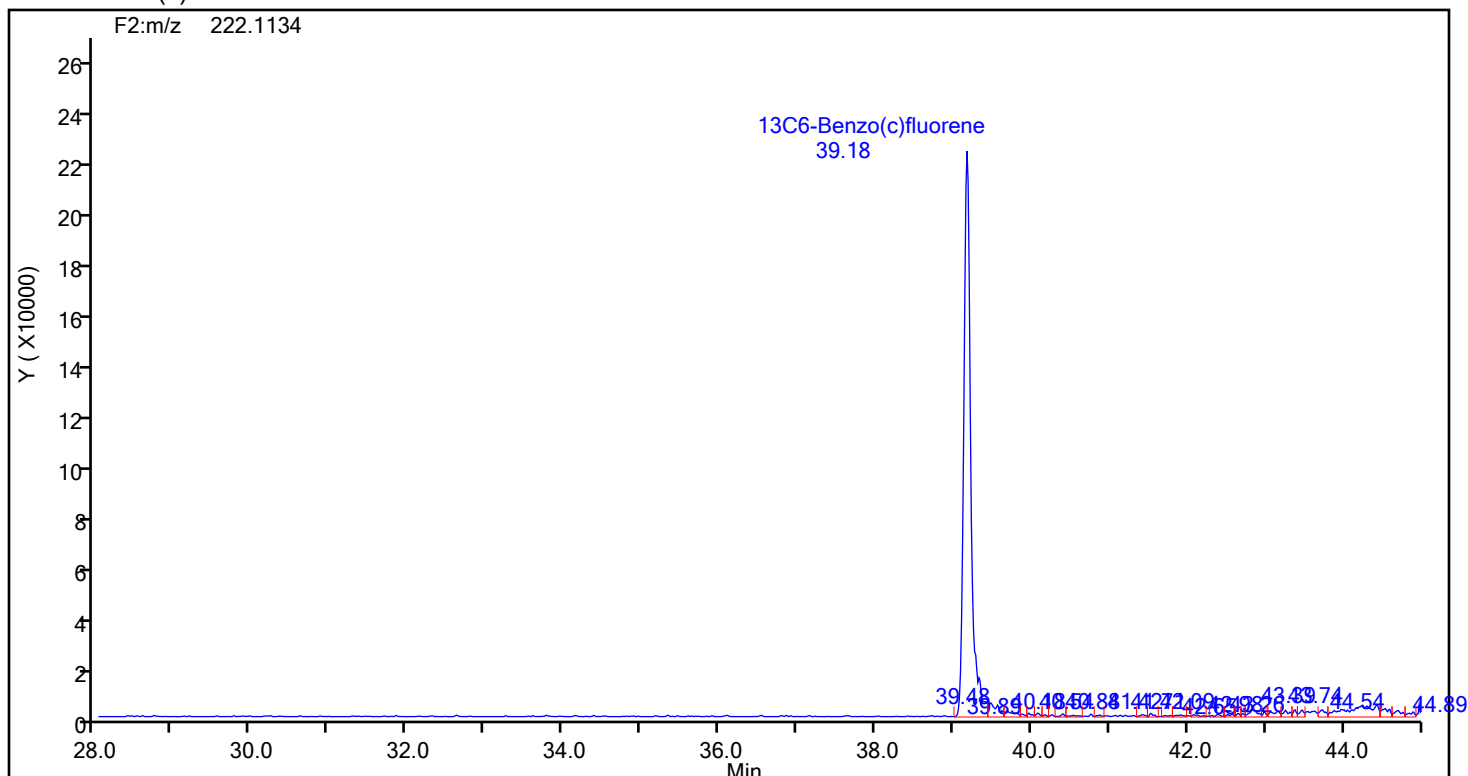
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

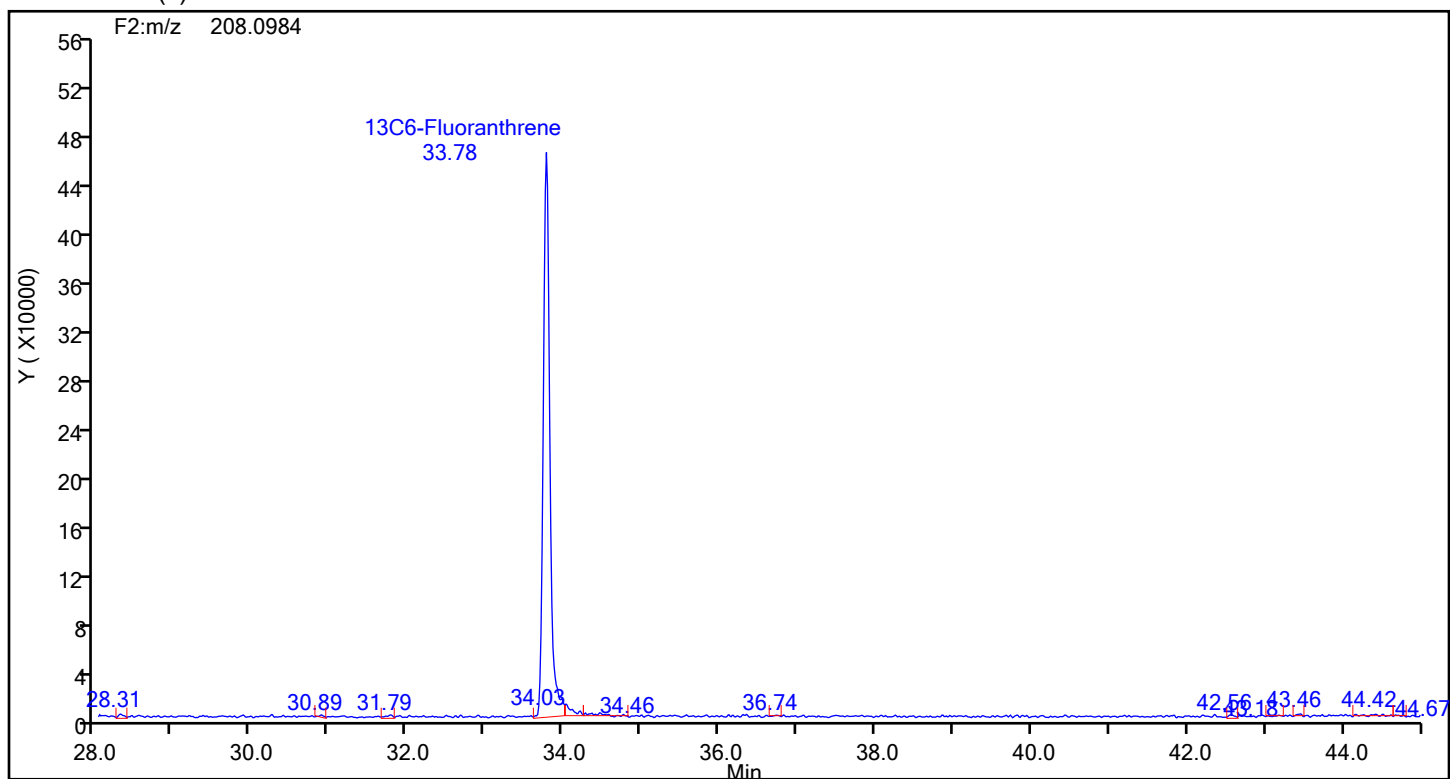
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 89013 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C6-Benzo(c)fluorene



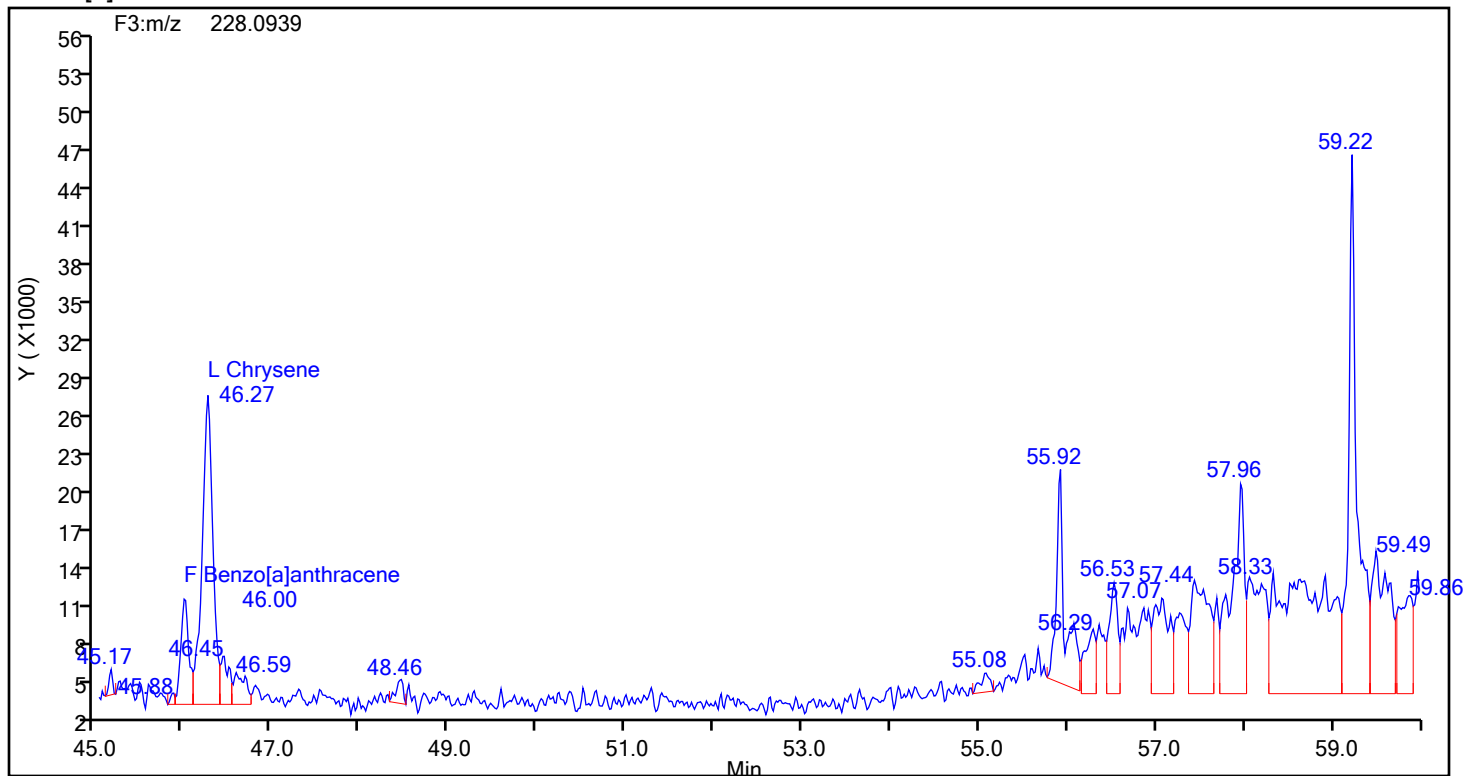
## 13C6-Benzo(c)fluorene Standards



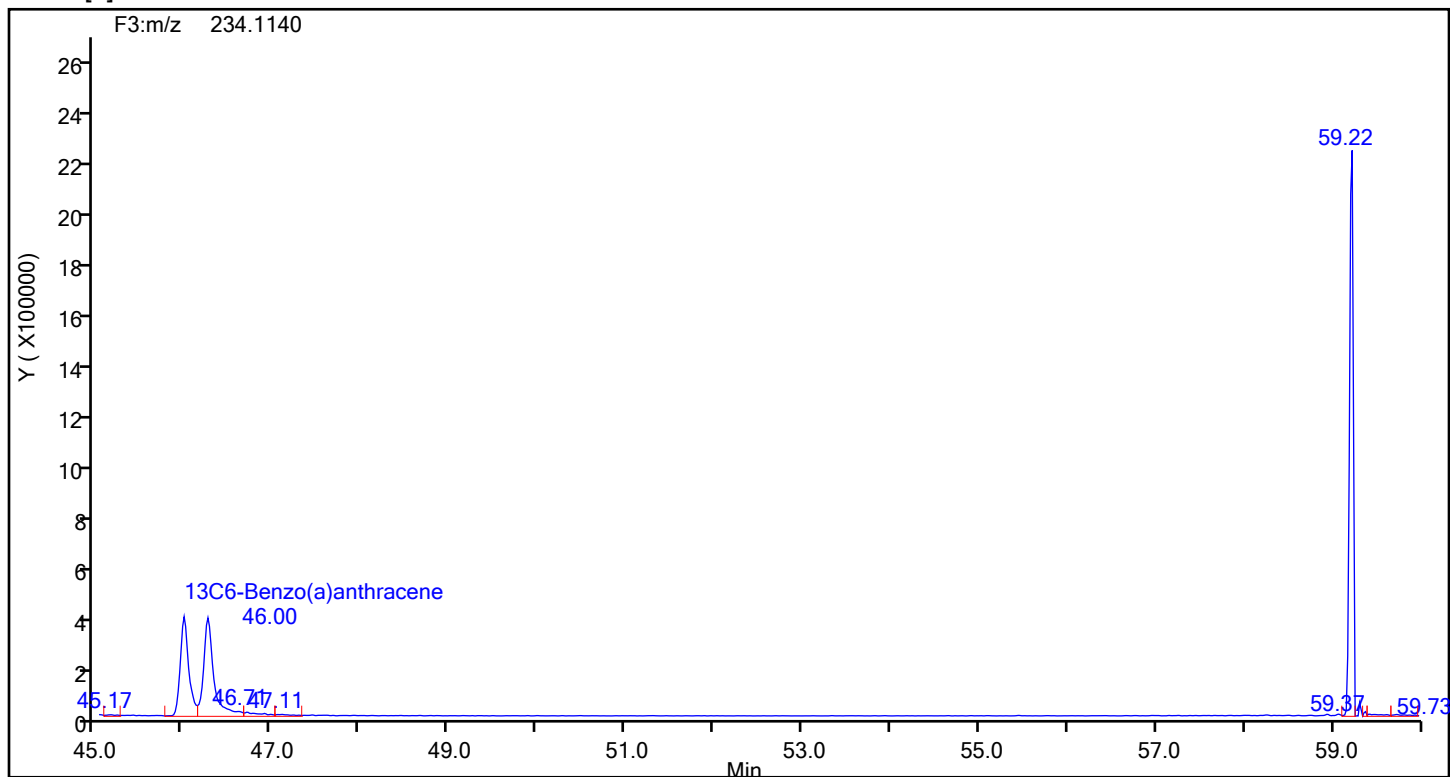
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 89013 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



## Benzo[a]anthracene Standards



## Eurofins Knoxville

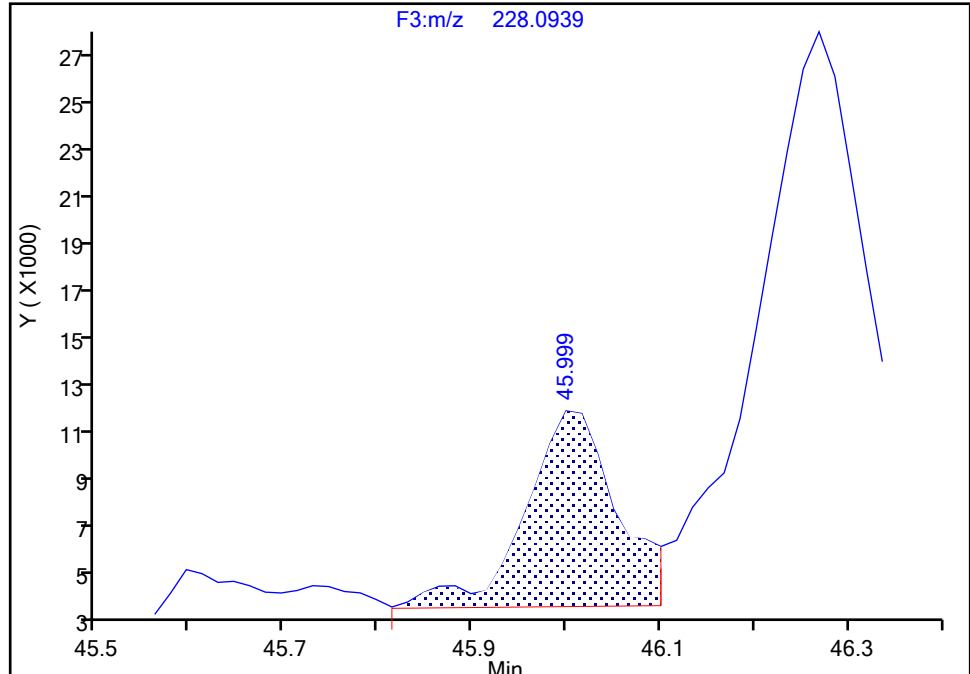
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-4-C Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

## Benzo[a]anthracene, CAS: 56-55-3

Signal: 1

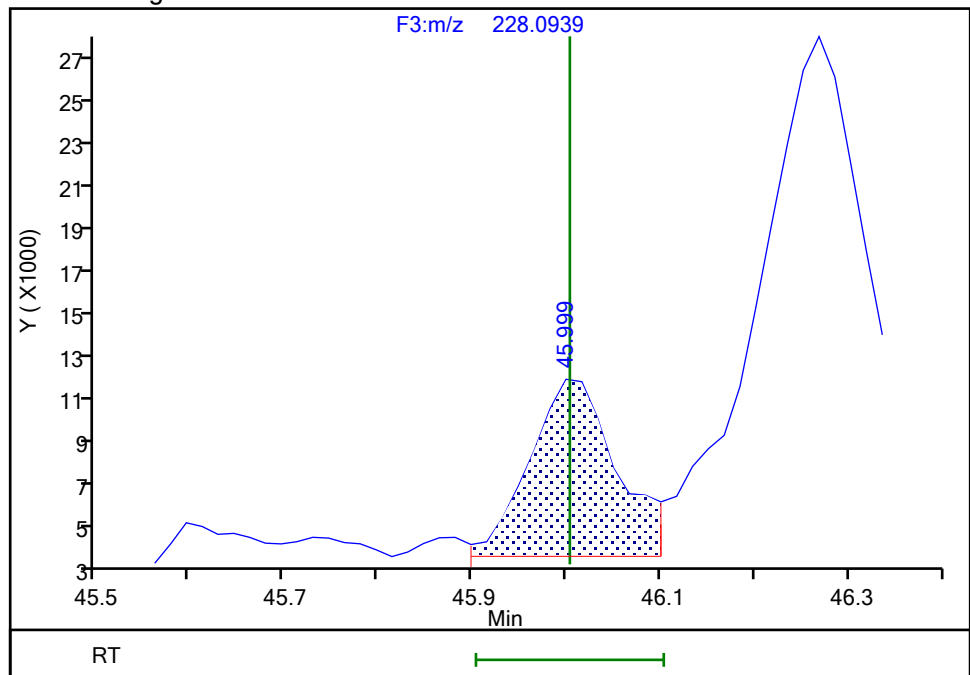
RT: 46.00  
Area: 55026  
Amount: 0.216982  
Amount Units: pg/ul

## Processing Integration Results



RT: 46.00  
Area: 53702  
Amount: 0.211761  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:32:01 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

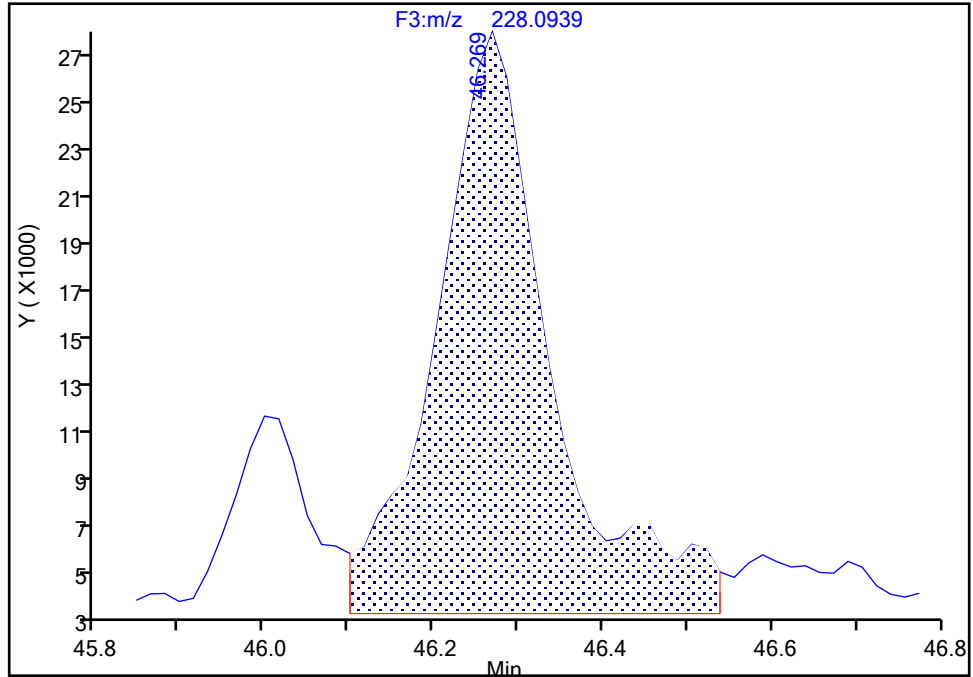
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Injection Date: 22-Jul-2024 19:20:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-4-C Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

## Chrysene, CAS: 218-01-9

Signal: 1

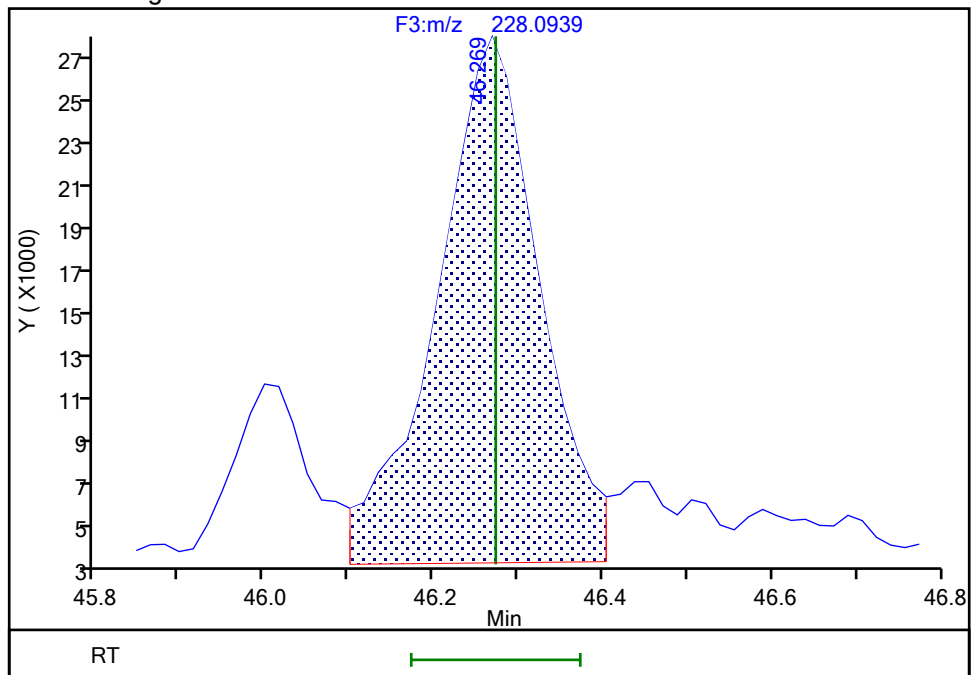
RT: 46.27  
Area: 226882  
Amount: 0.746245  
Amount Units: pg/ul

## Processing Integration Results



RT: 46.27  
Area: 206276  
Amount: 0.678469  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:31:23 -04:00:00 (UTC)

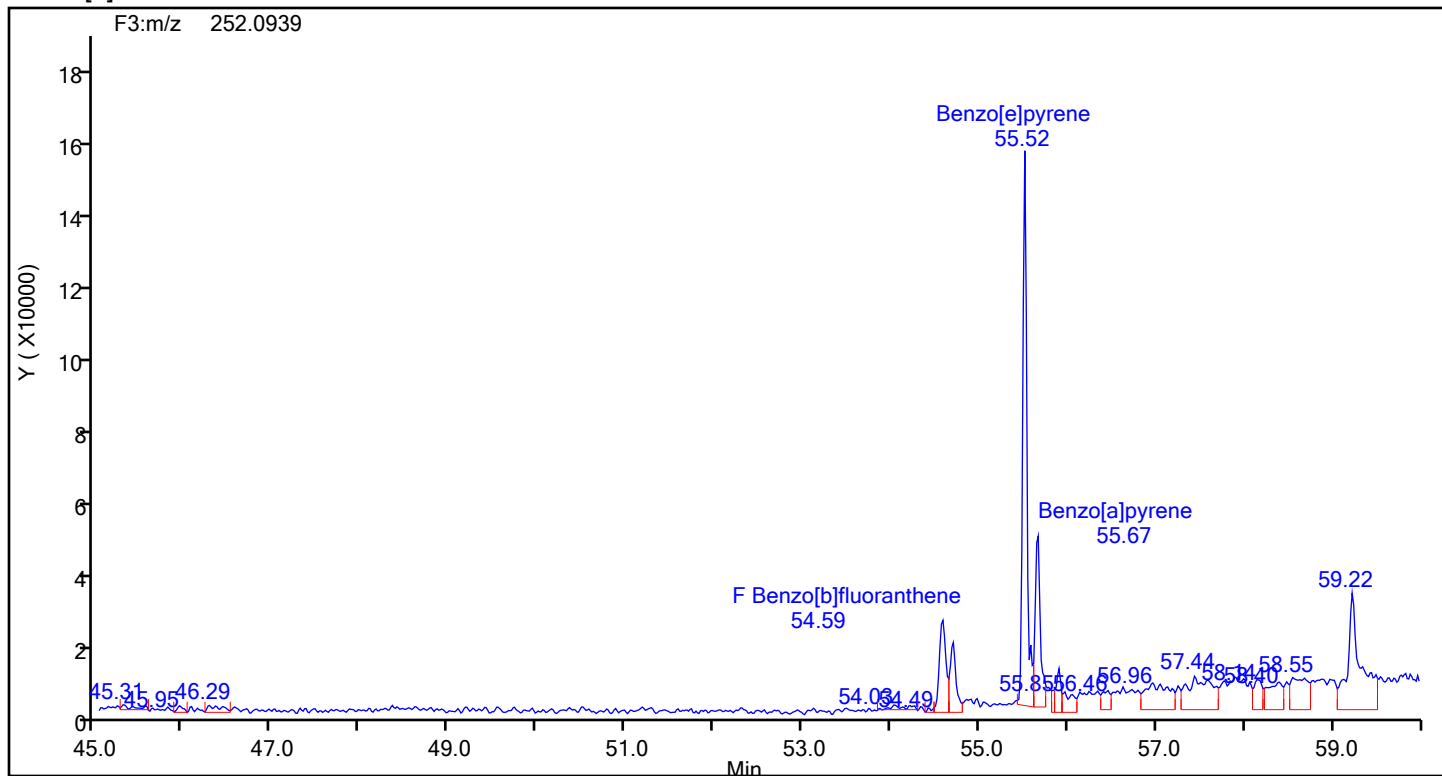
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

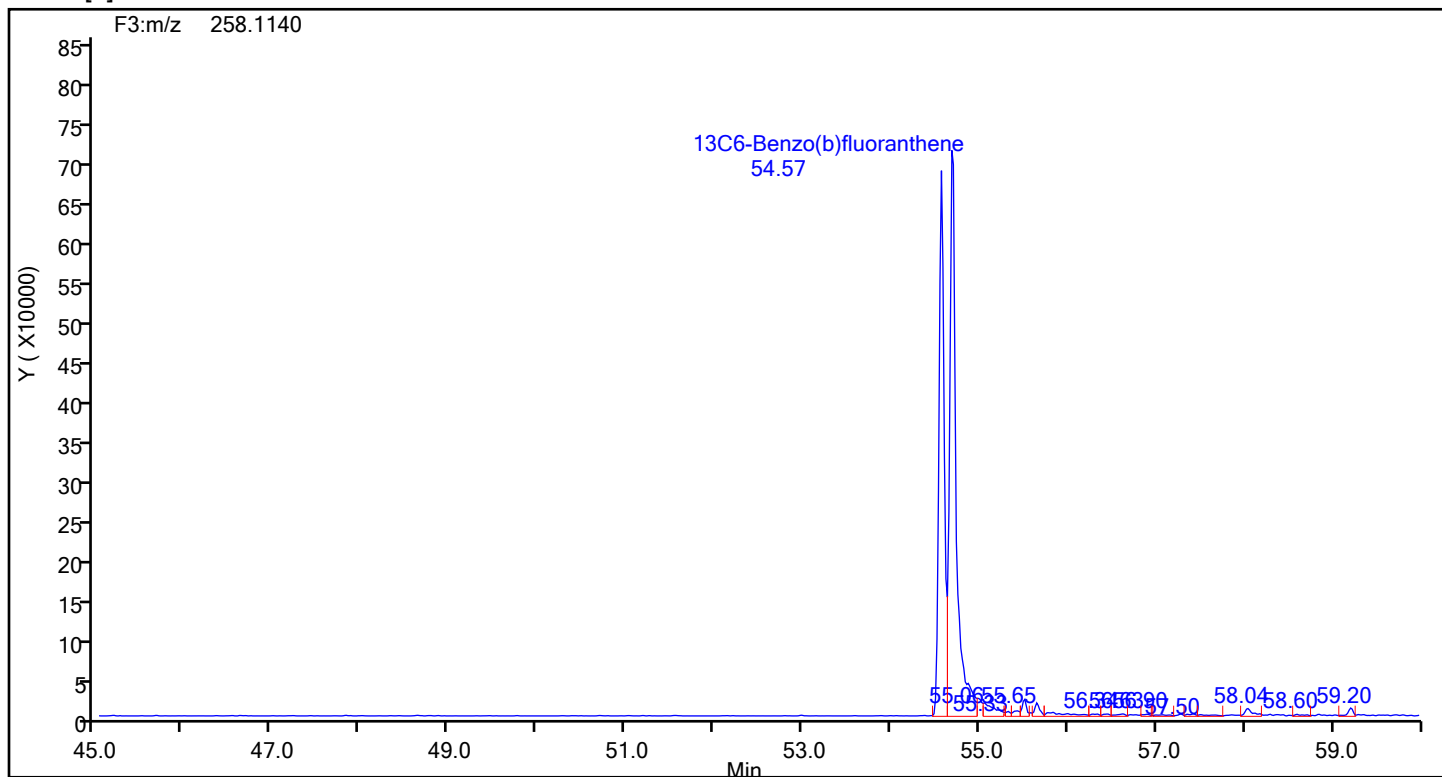
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 89013 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



## Benzo[b]fluoranthene Standards



## Eurofins Knoxville

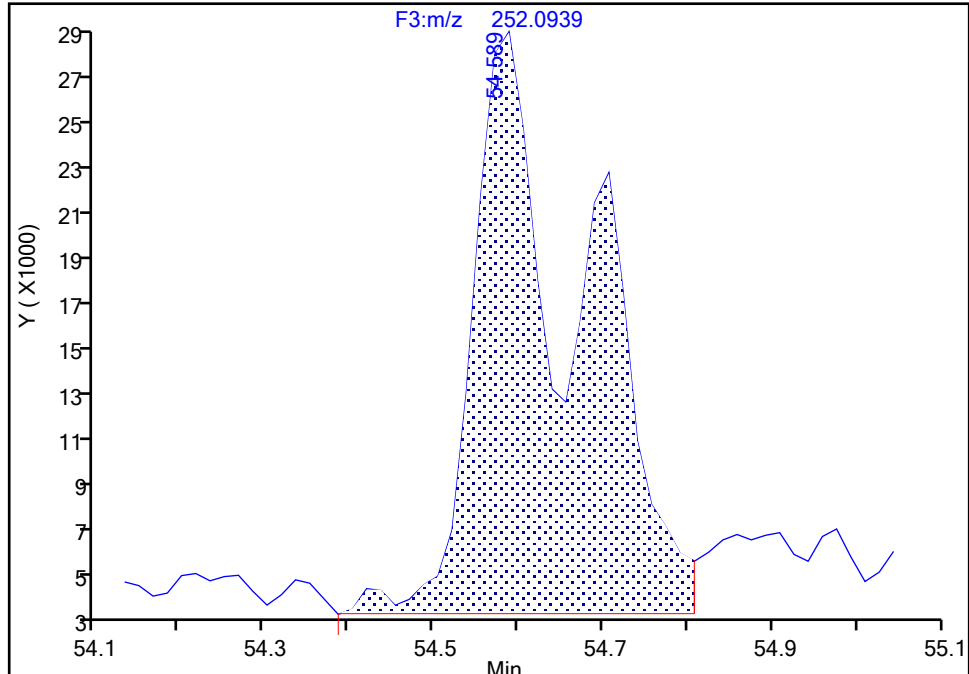
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-4-C Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

## Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

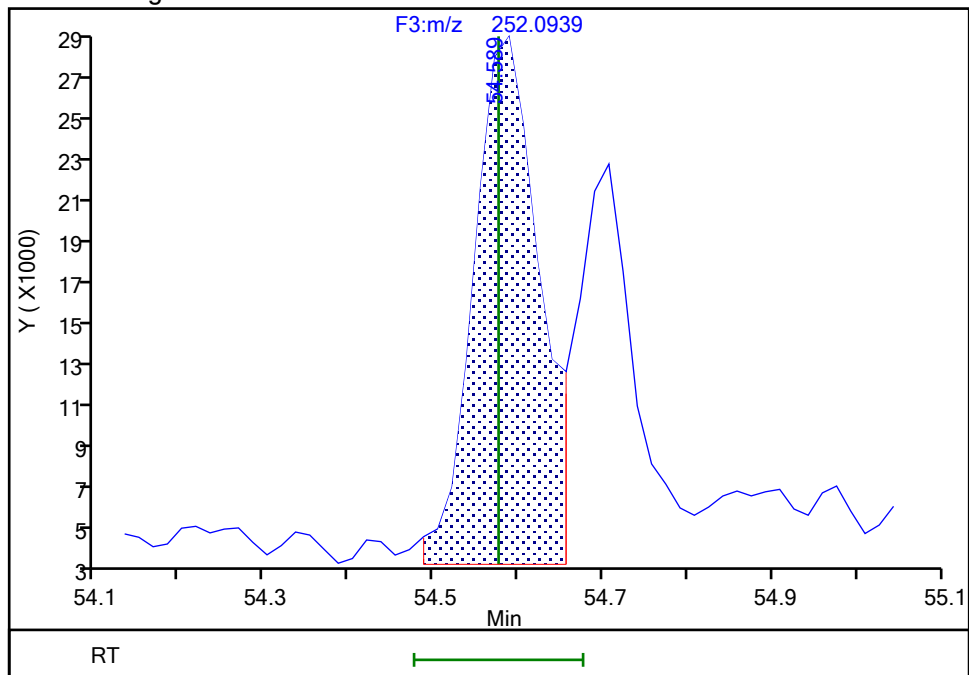
RT: 54.59  
Area: 222633  
Amount: 0.703269  
Amount Units: pg/ul

## Processing Integration Results



RT: 54.59  
Area: 136649  
Amount: 0.431656  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:31:30 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

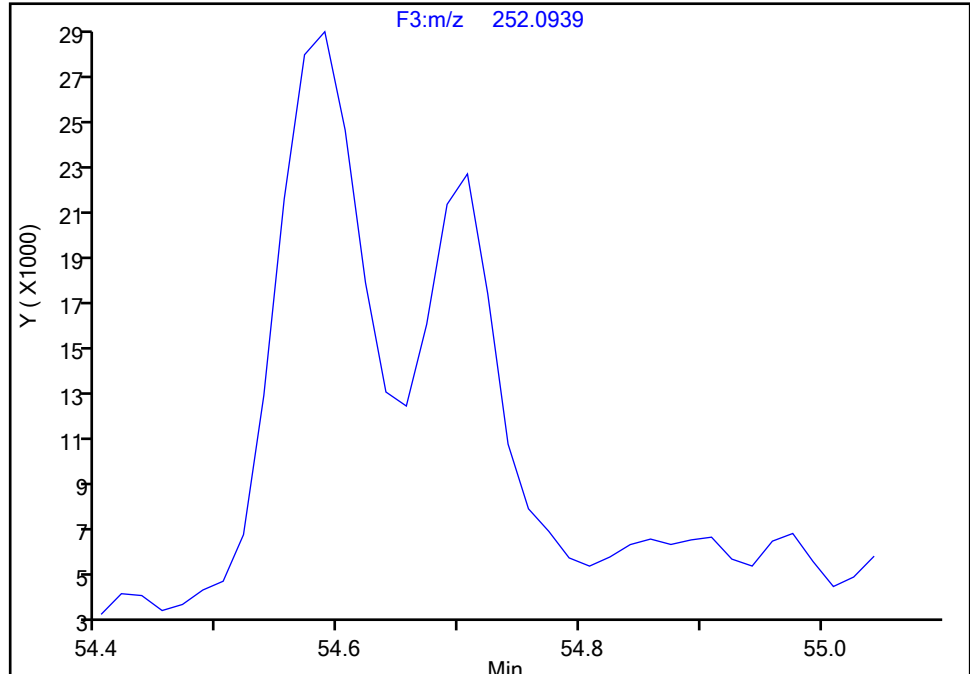
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-4-C Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

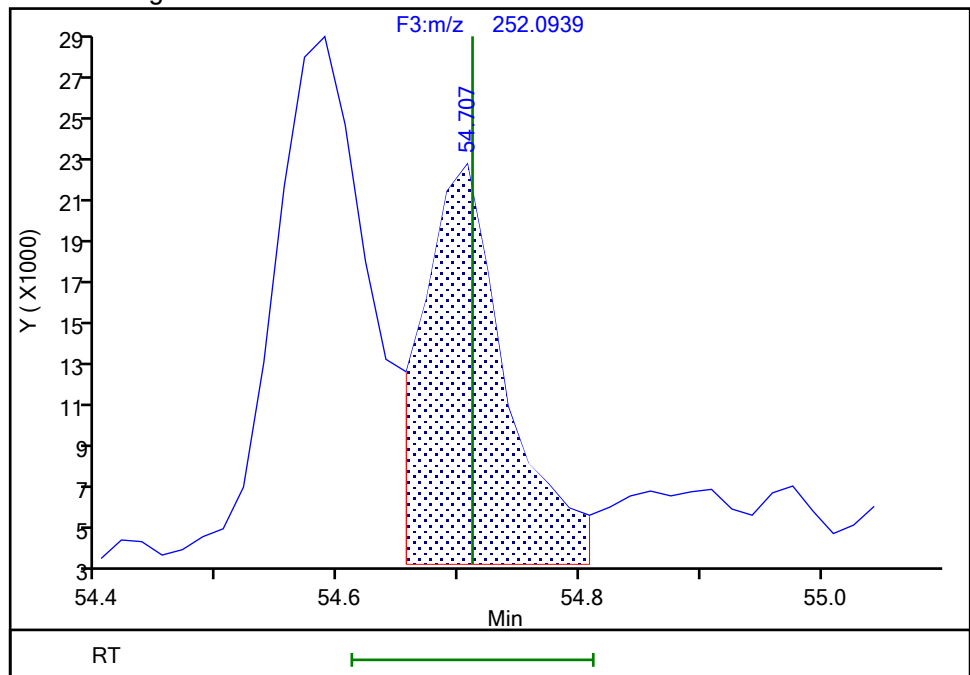
Not Detected  
Expected RT: 54.71

## Processing Integration Results



## Manual Integration Results

RT: 54.71  
Area: 92850  
Amount: 0.221536  
Amount Units: pg/ul



Reviewer: TT6I, 23-Jul-2024 10:34:50 -04:00:00 (UTC)

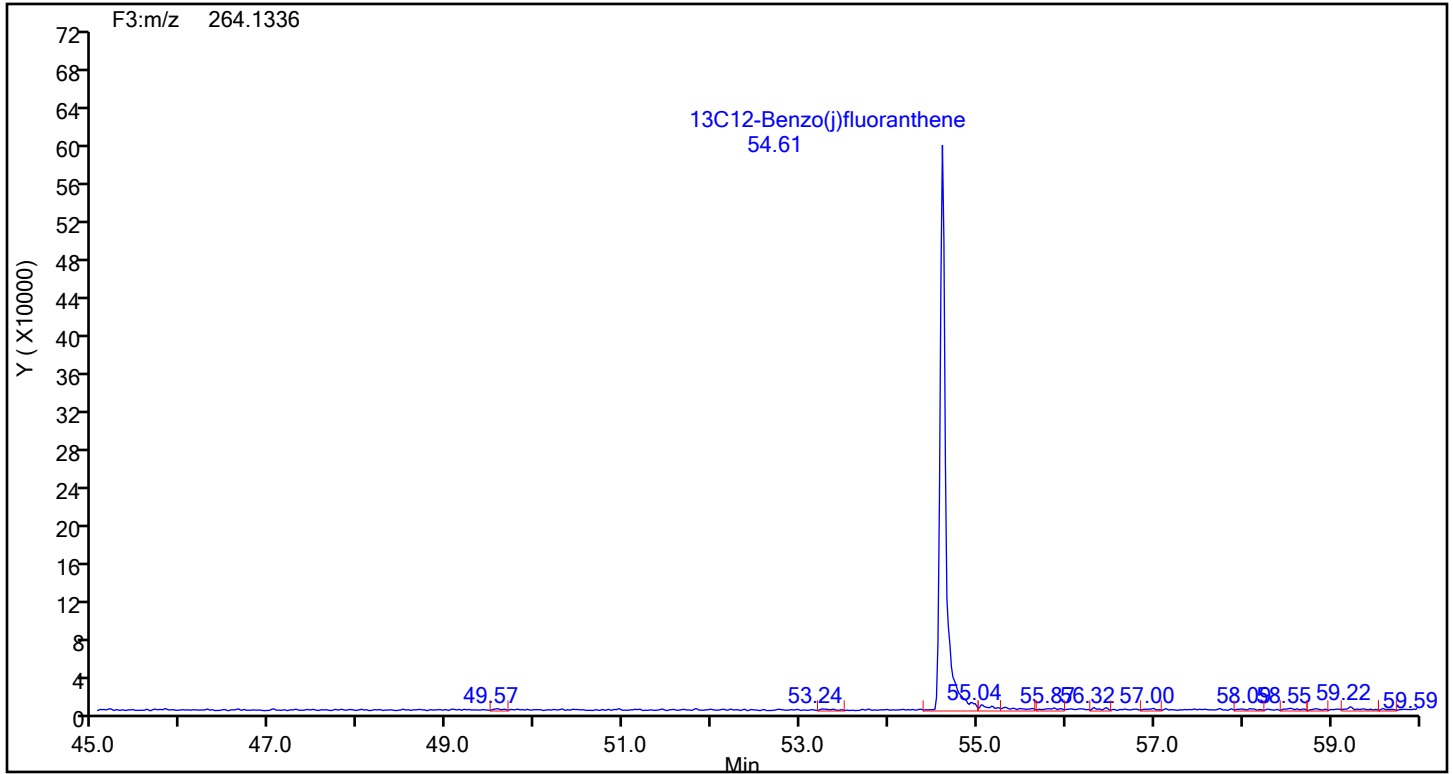
Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Incomplete Integration



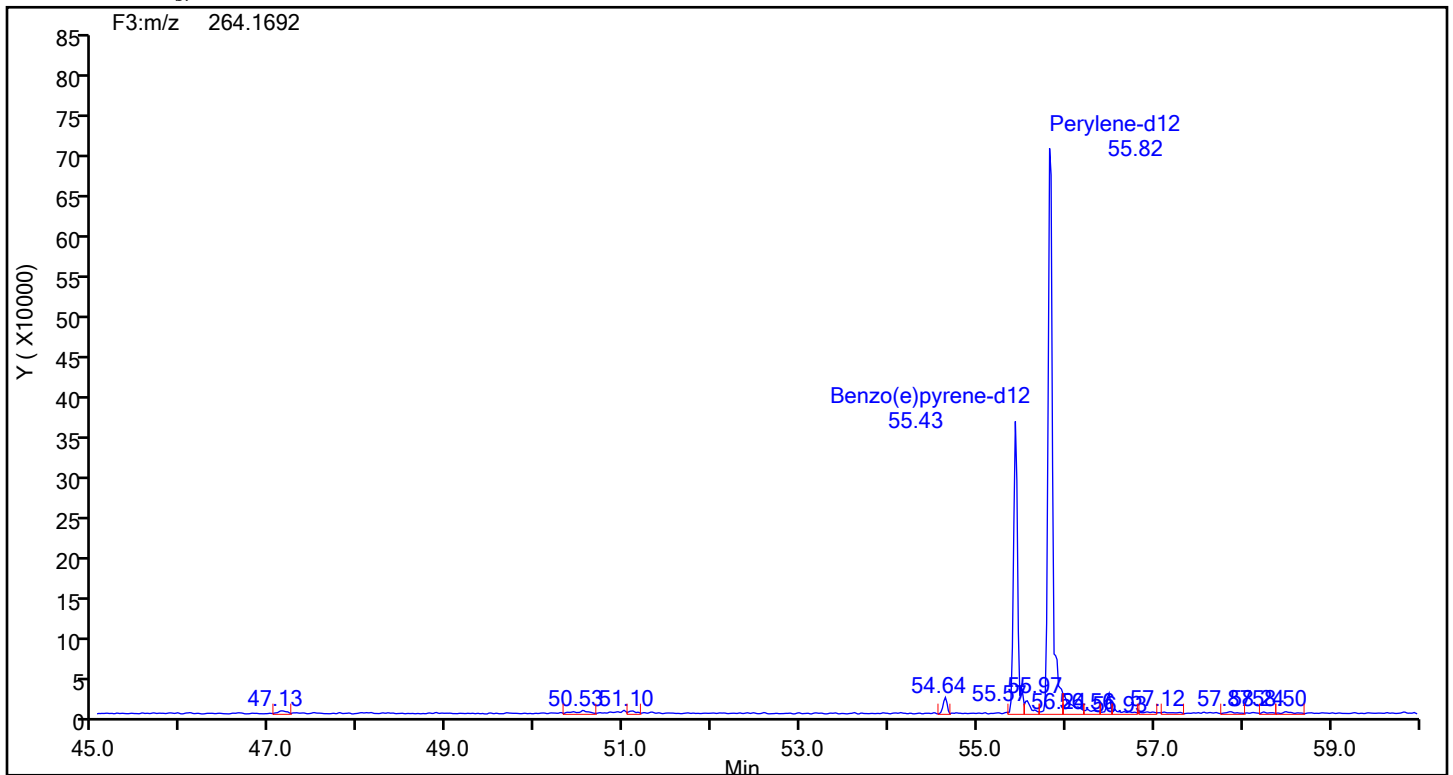
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 89013 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



## 13C12-Benzo(j)fluoranthene Standards



## Eurofins Knoxville

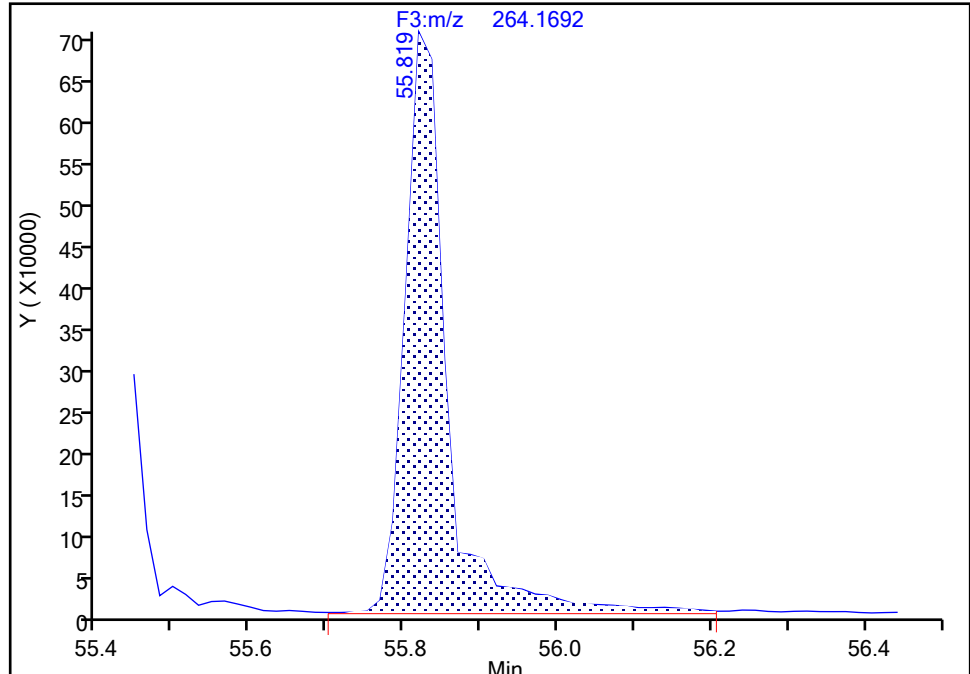
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-4-C Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Perylene-d12, CAS: 1520-96-3

Signal: 1

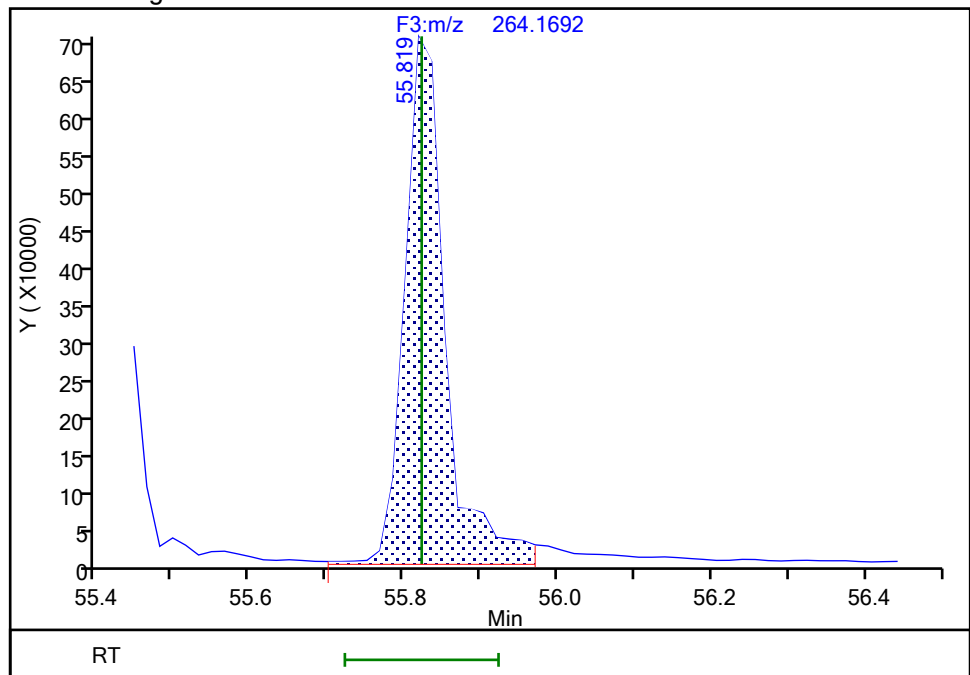
RT: 55.82  
Area: 2734407  
Amount: 9.563883  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.82  
Area: 2588960  
Amount: 9.055167  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:30:30 -04:00:00 (UTC)

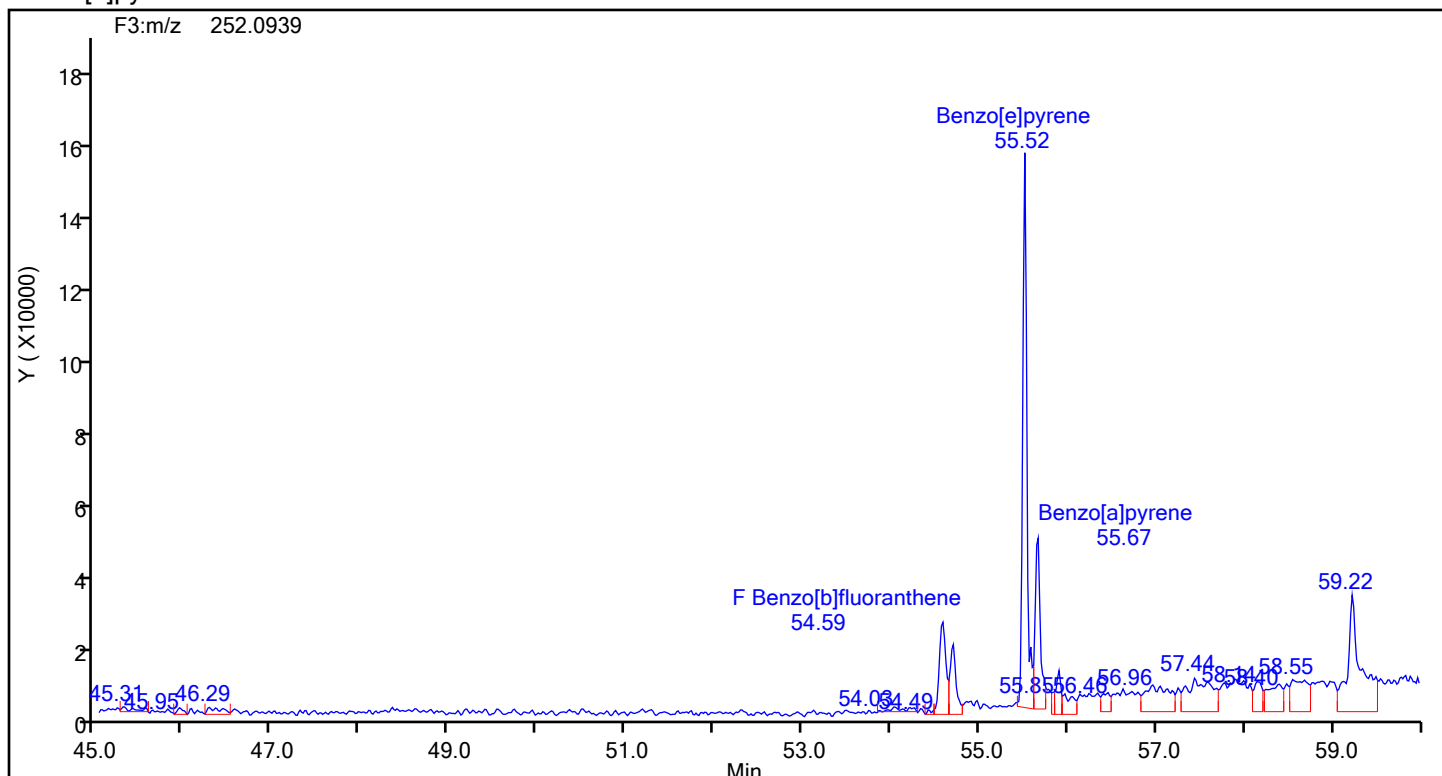
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

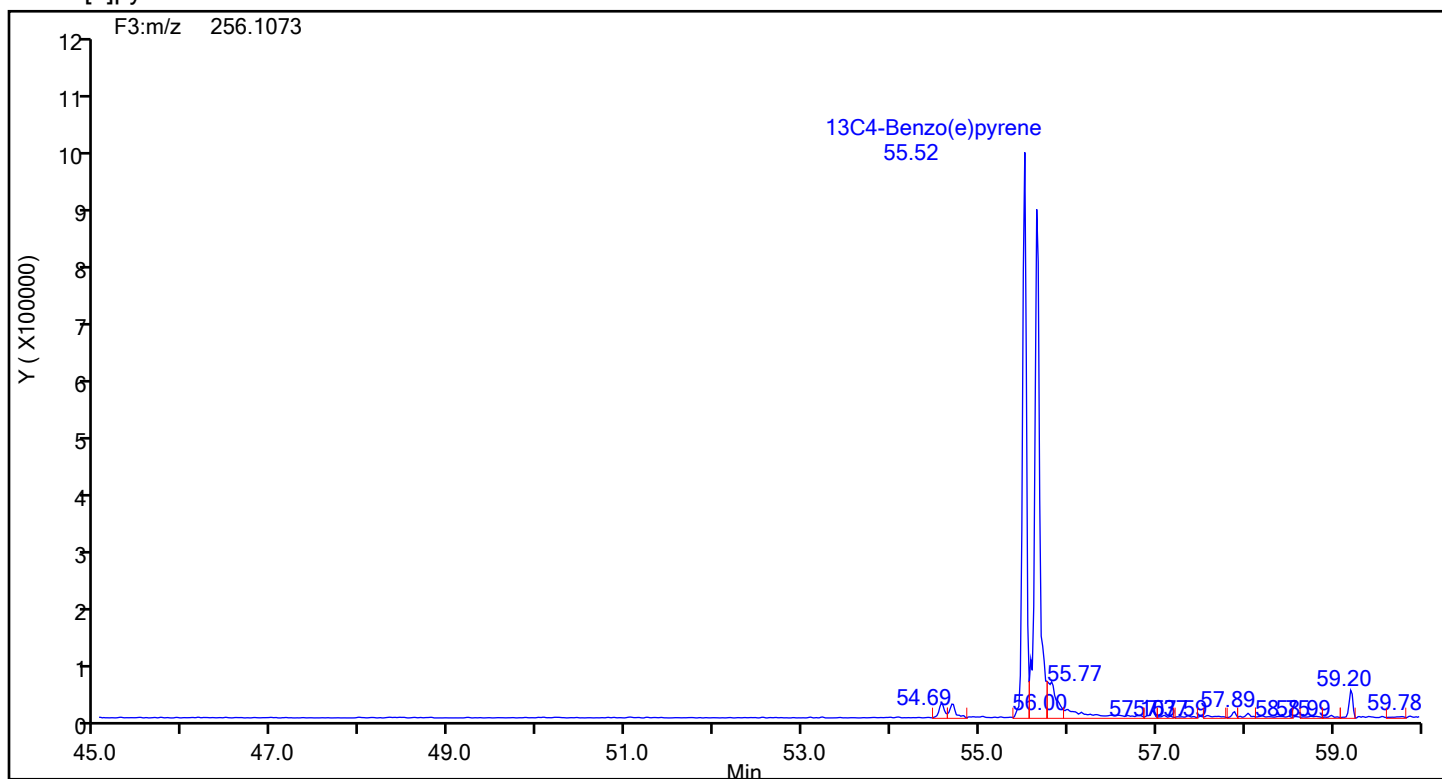
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 89013 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[e]pyrene



## Benzo[e]pyrene Standards



## Eurofins Knoxville

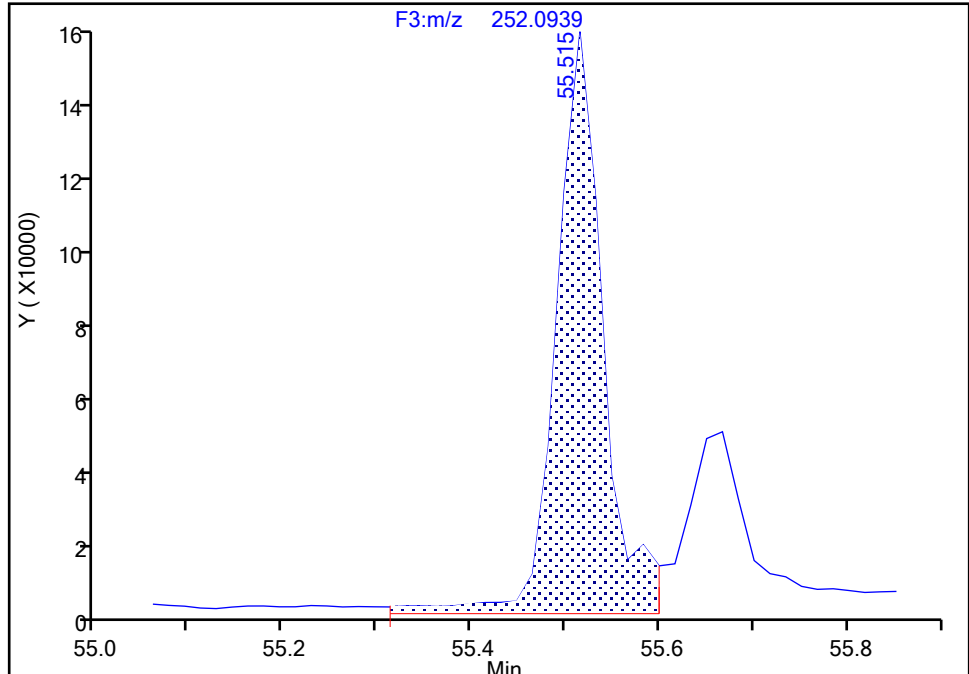
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-4-C Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

## Benzo[e]pyrene, CAS: 192-97-2

Signal: 1

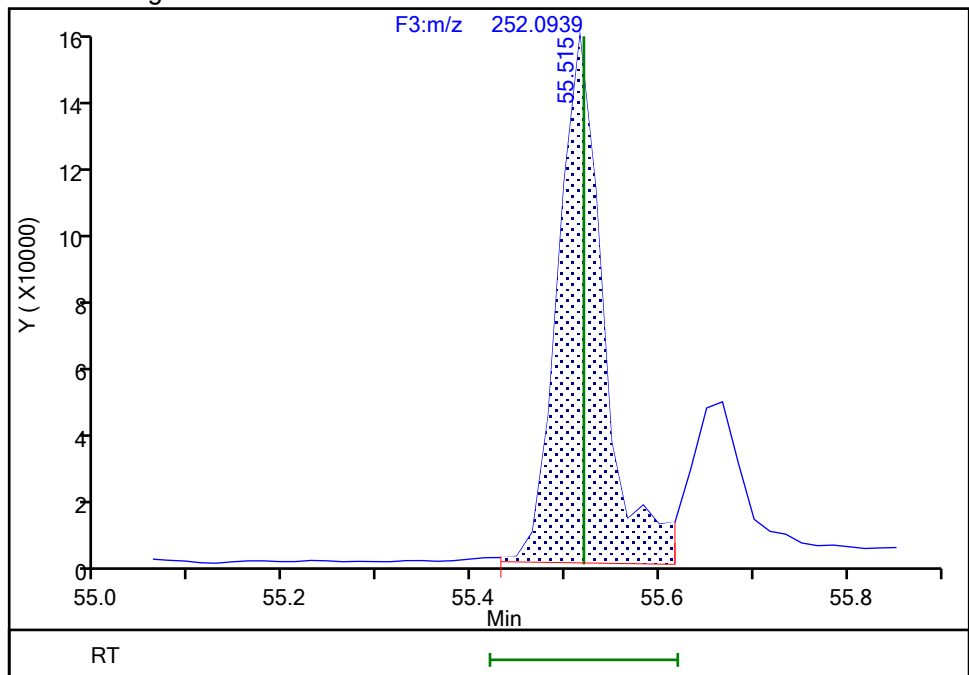
RT: 55.52  
Area: 524717  
Amount: 1.814113  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.52  
Area: 508004  
Amount: 1.756331  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:35:07 -04:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Incomplete Integration

## Eurofins Knoxville

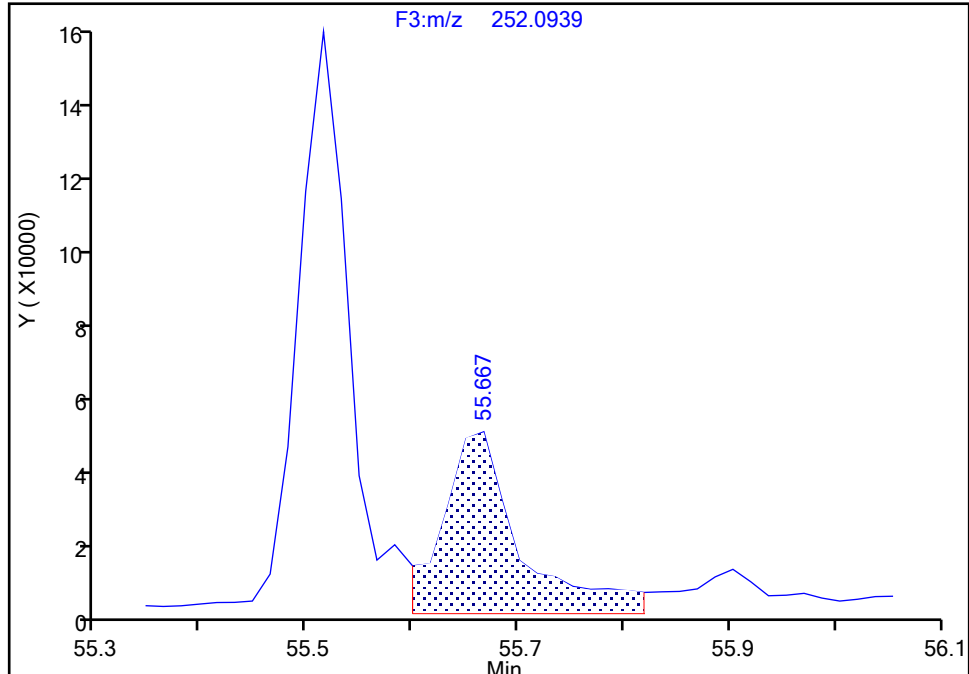
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-4-C Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

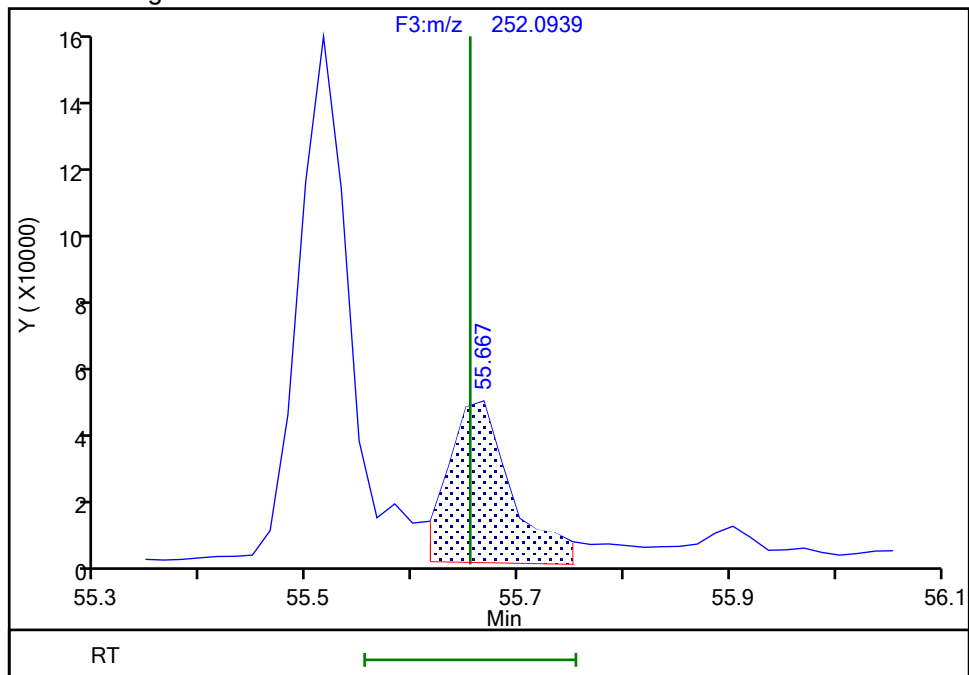
RT: 55.67  
Area: 237108  
Amount: 0.568921  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.67  
Area: 196299  
Amount: 0.520816  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:34:11 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

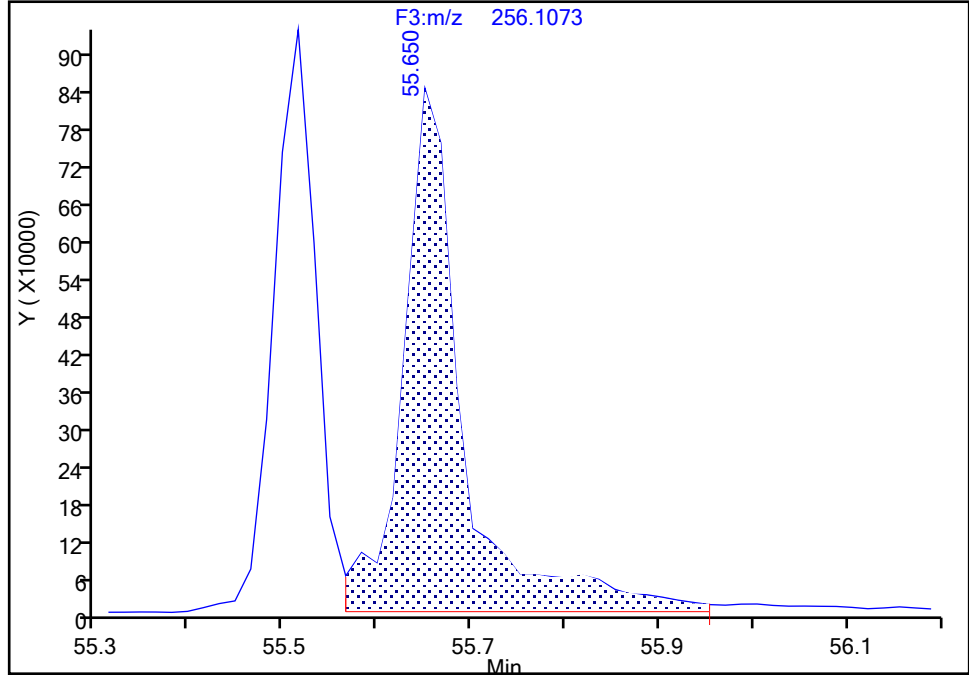
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-4-C Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C4-Benzo(a)pyrene, CAS: STL03359**

Signal: 1

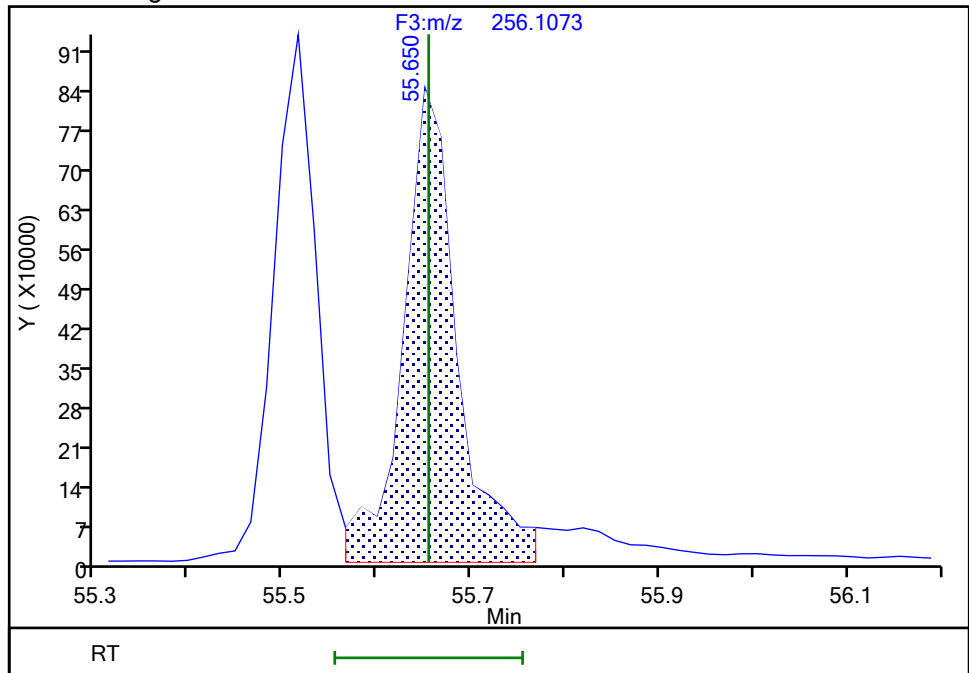
RT: 55.65  
Area: 3744438  
Amount: 10.063903  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.65  
Area: 3386305  
Amount: 9.101351  
Amount Units: pg/ul

## Manual Integration Results



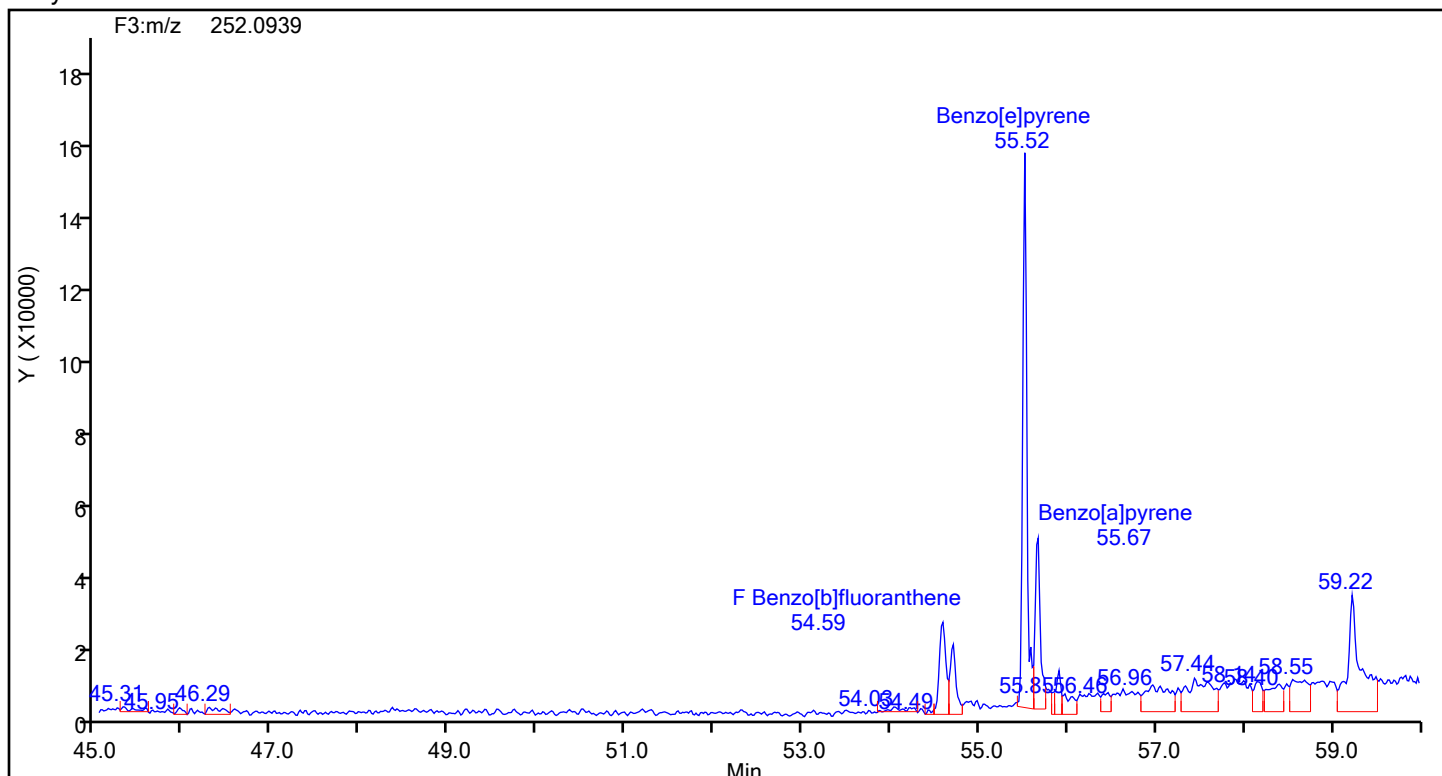
Reviewer: TT6I, 23-Jul-2024 10:34:34 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

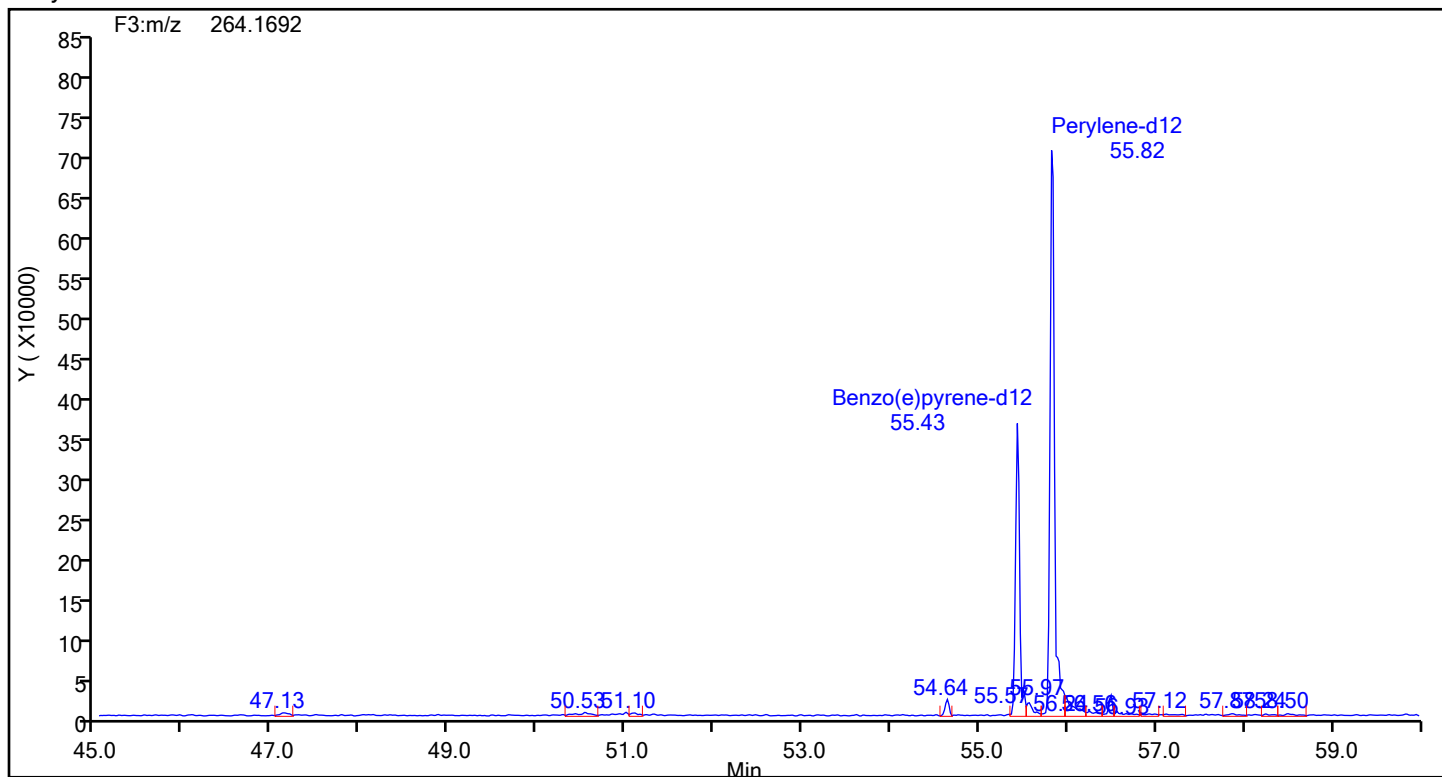
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 89013 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Perylene



## Perylene Standards



## Eurofins Knoxville

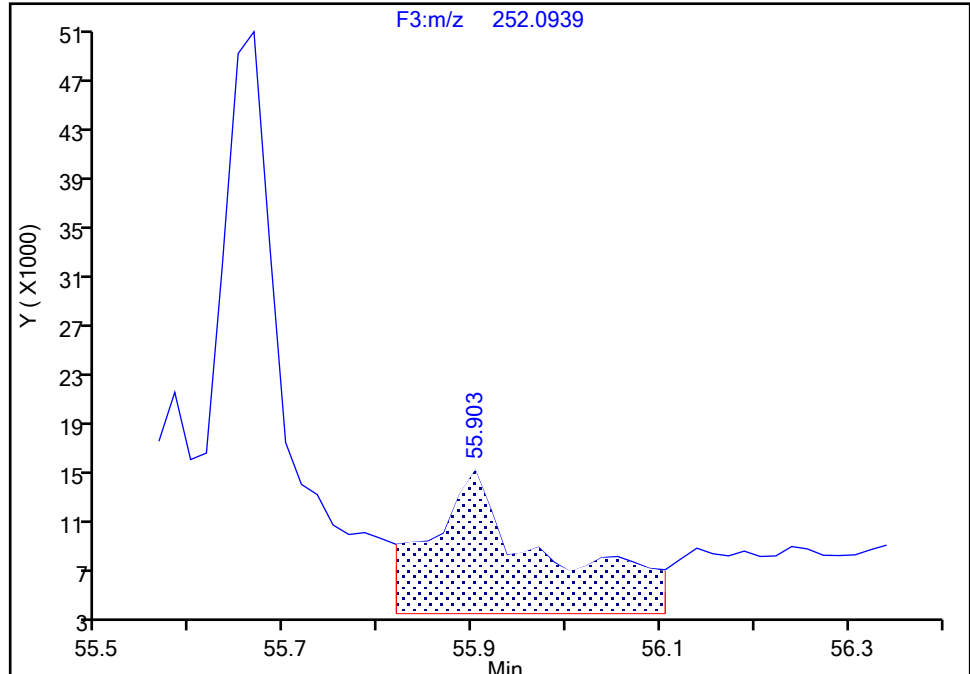
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-4-C Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

Perylene, CAS: 198-55-0

Signal: 1

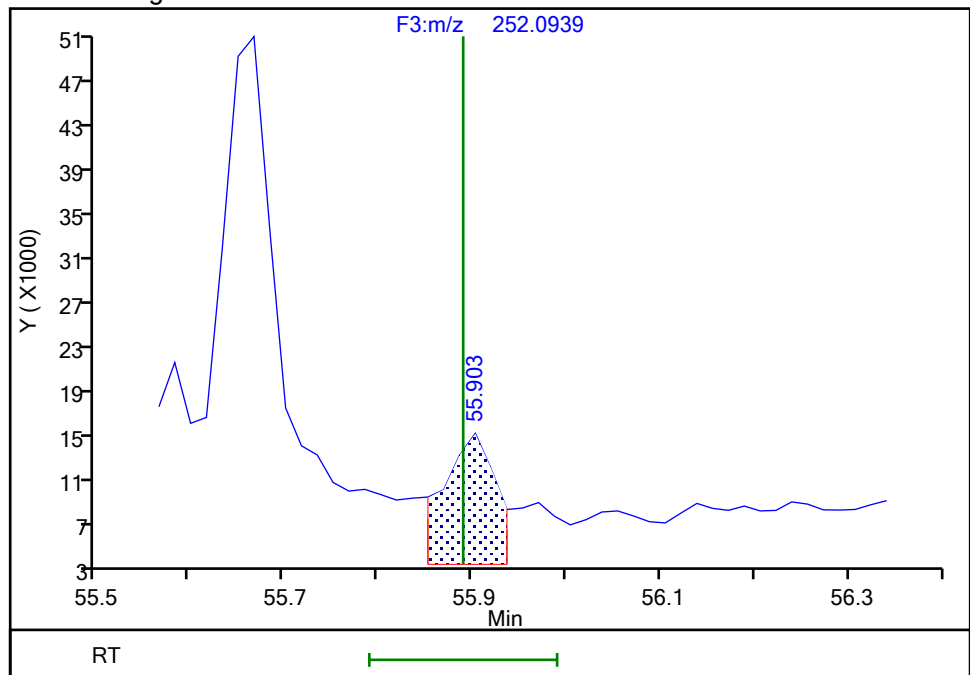
RT: 55.90  
Area: 98137  
Amount: 0.264952  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.90  
Area: 47733  
Amount: 0.128870  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:31:18 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration



## Eurofins Knoxville

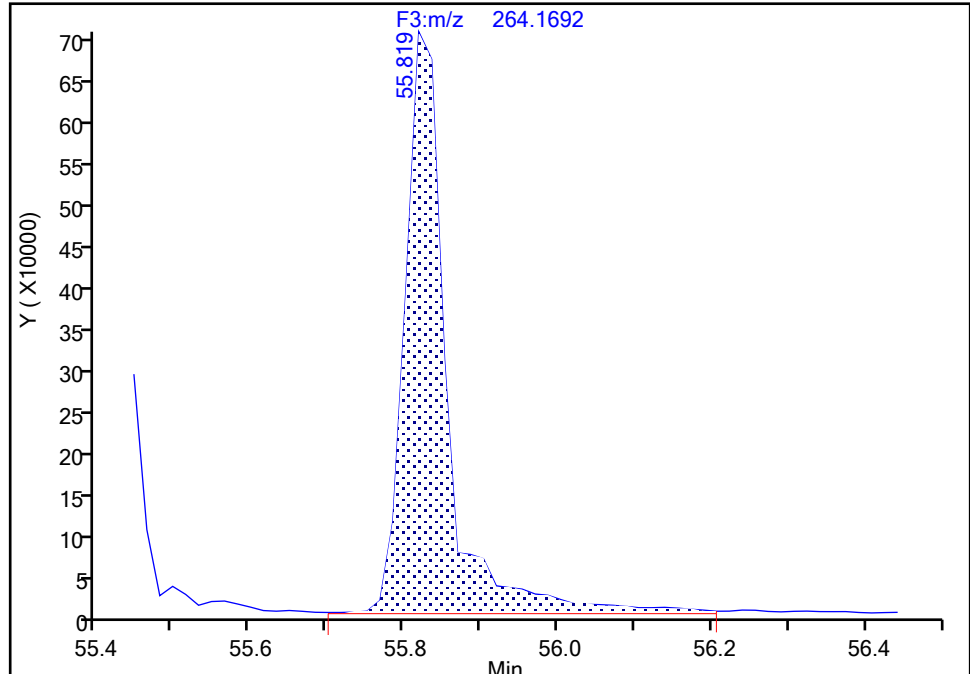
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-4-C Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Perylene-d12, CAS: 1520-96-3

Signal: 1

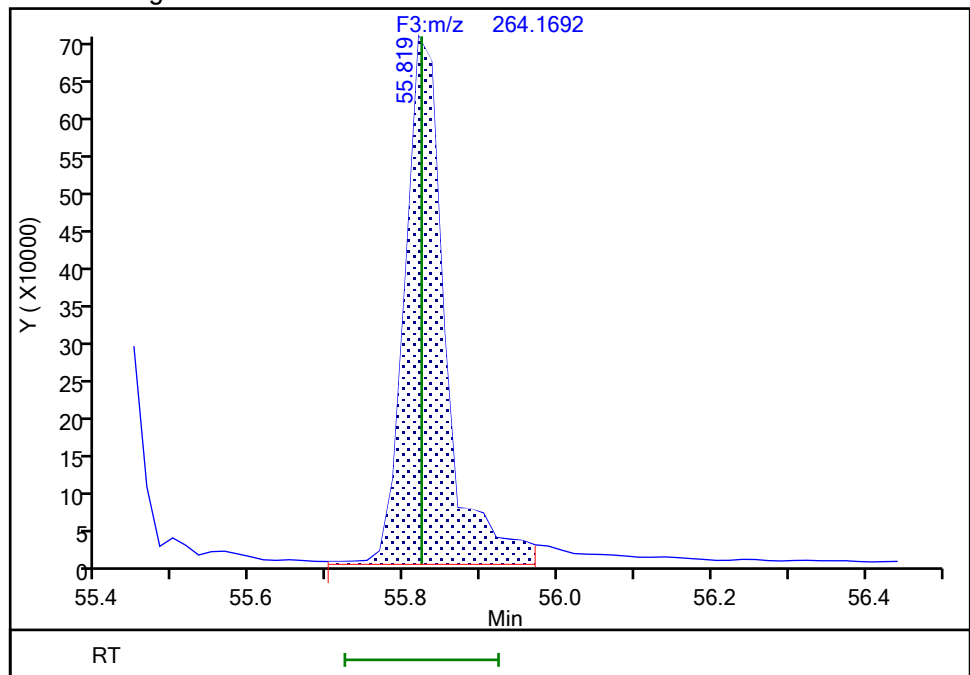
RT: 55.82  
Area: 2734407  
Amount: 9.563883  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.82  
Area: 2588960  
Amount: 9.055167  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:30:30 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d

Injection Date: 22-Jul-2024 19:20:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 5 COMBINED

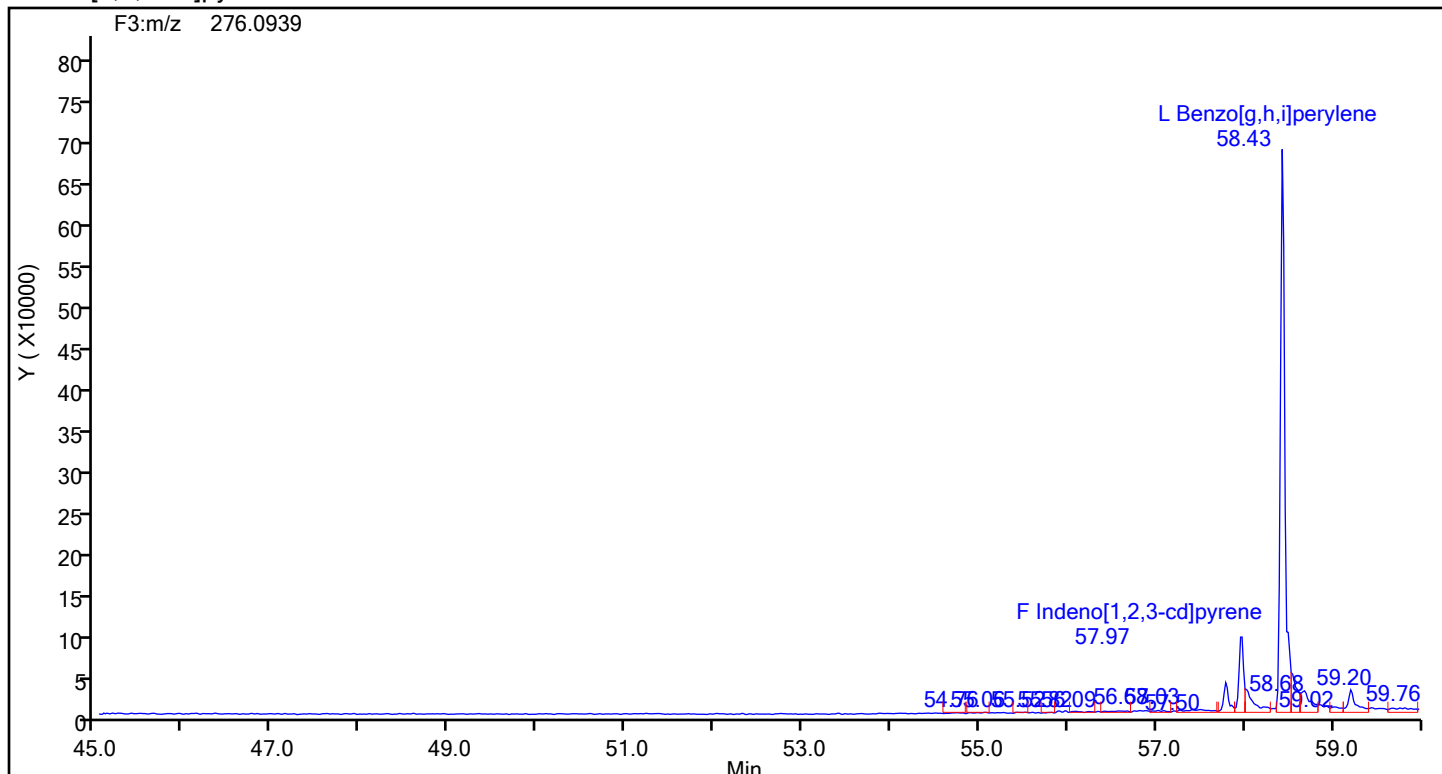
Worklist#: 89013

Sample Line#: 10

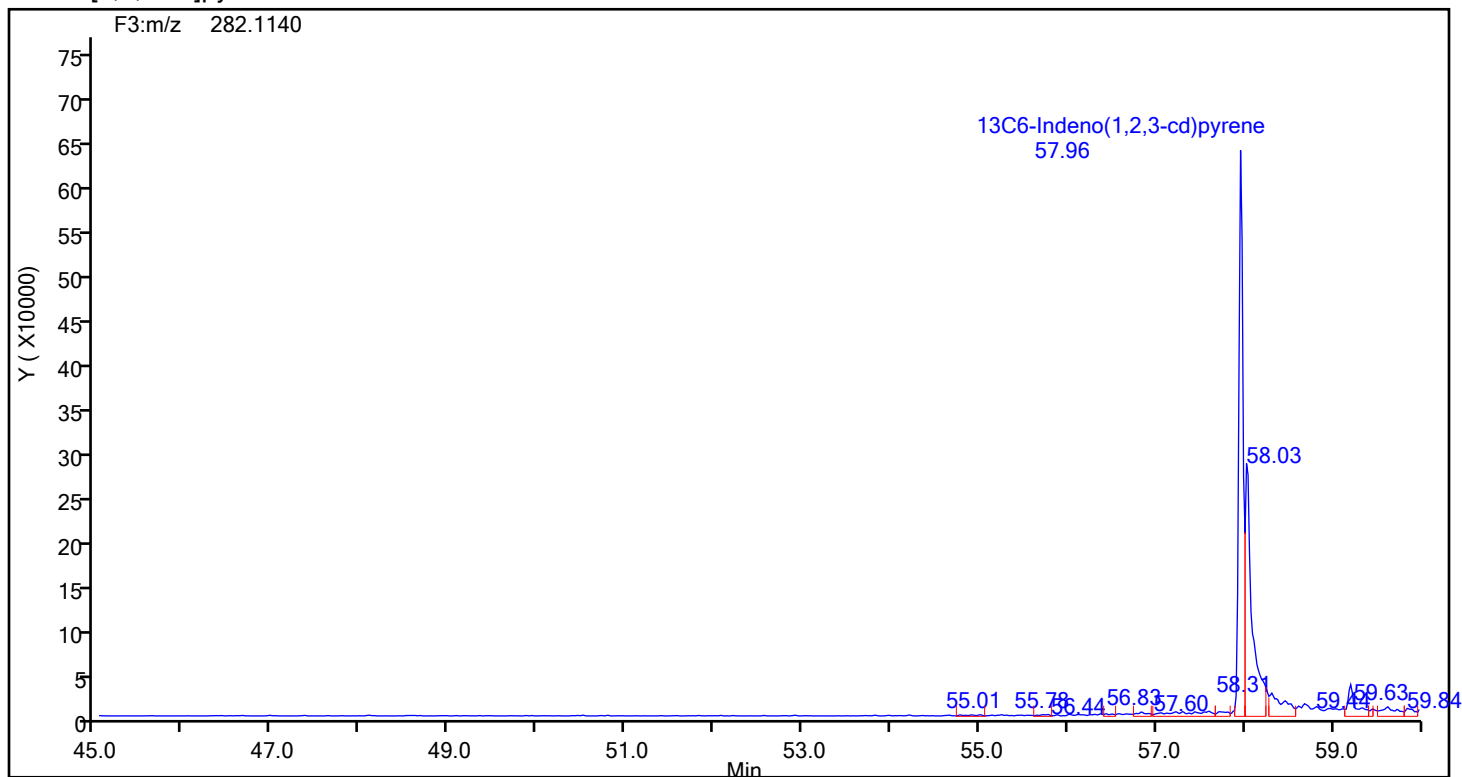
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

Indeno[1,2,3-cd]pyrene



Indeno[1,2,3-cd]pyrene Standards



## Eurofins Knoxville

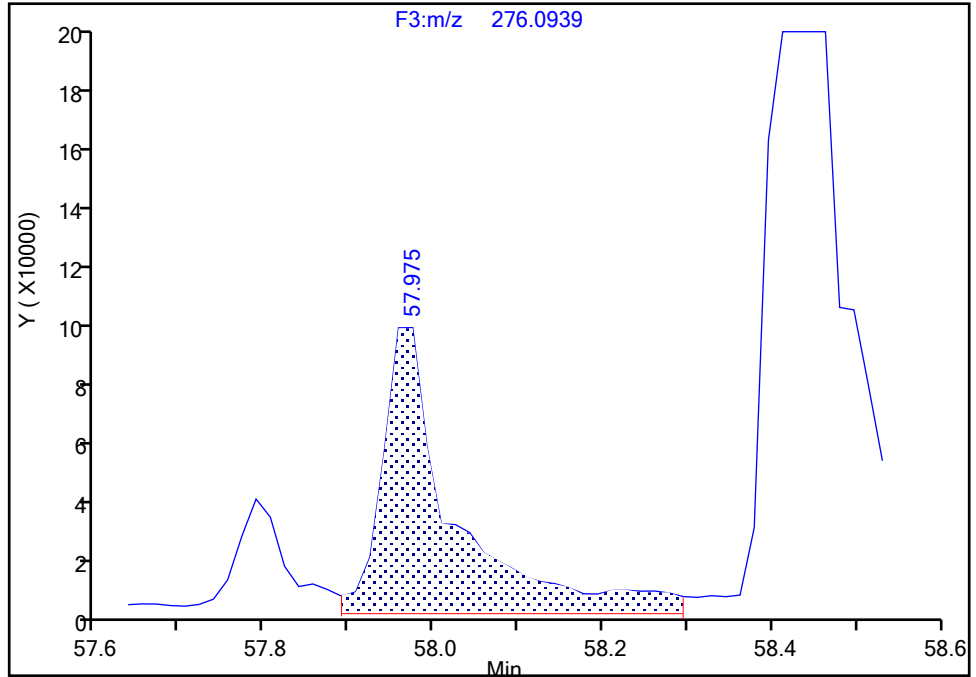
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-4-C Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

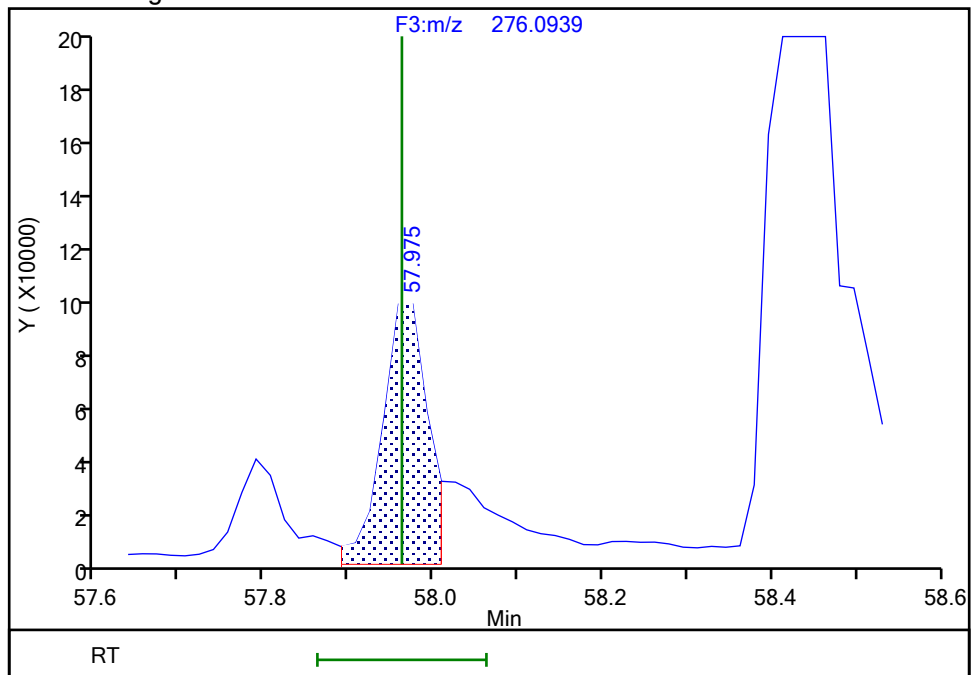
RT: 57.97  
Area: 559650  
Amount: 1.358189  
Amount Units: pg/ul

## Processing Integration Results



RT: 57.97  
Area: 358113  
Amount: 1.409868  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:30:25 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

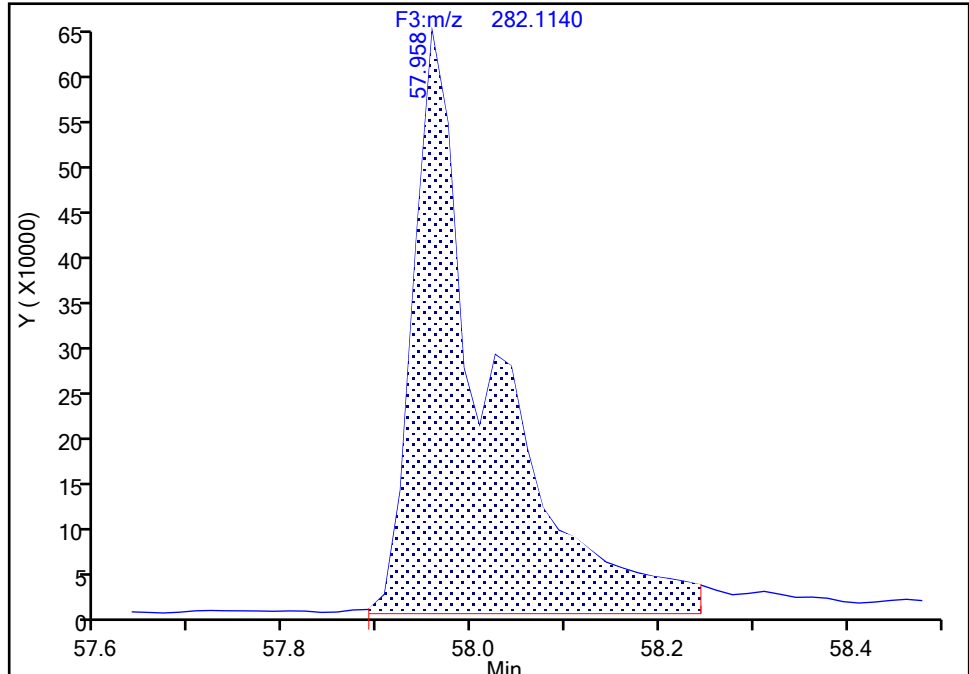
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-4-C Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C6-Indeno(1,2,3-cd)pyrene, CAS: 362044-56-2**

Signal: 1

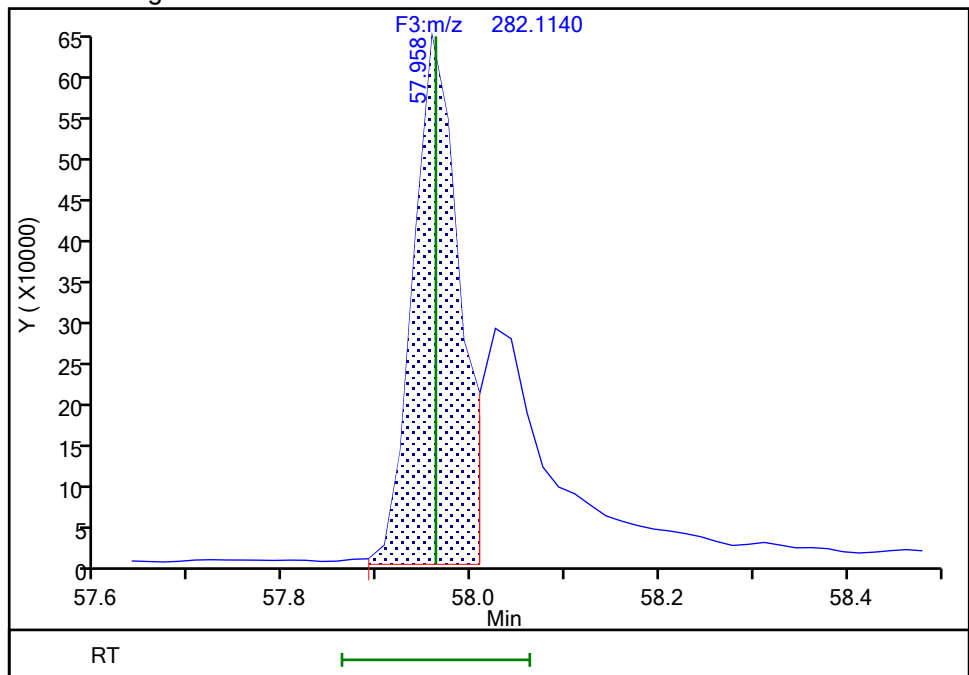
RT: 57.96  
Area: 3662906  
Amount: 14.940783  
Amount Units: pg/ul

## Processing Integration Results



RT: 57.96  
Area: 2257934  
Amount: 9.209983  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:30:46 -04:00:00 (UTC)

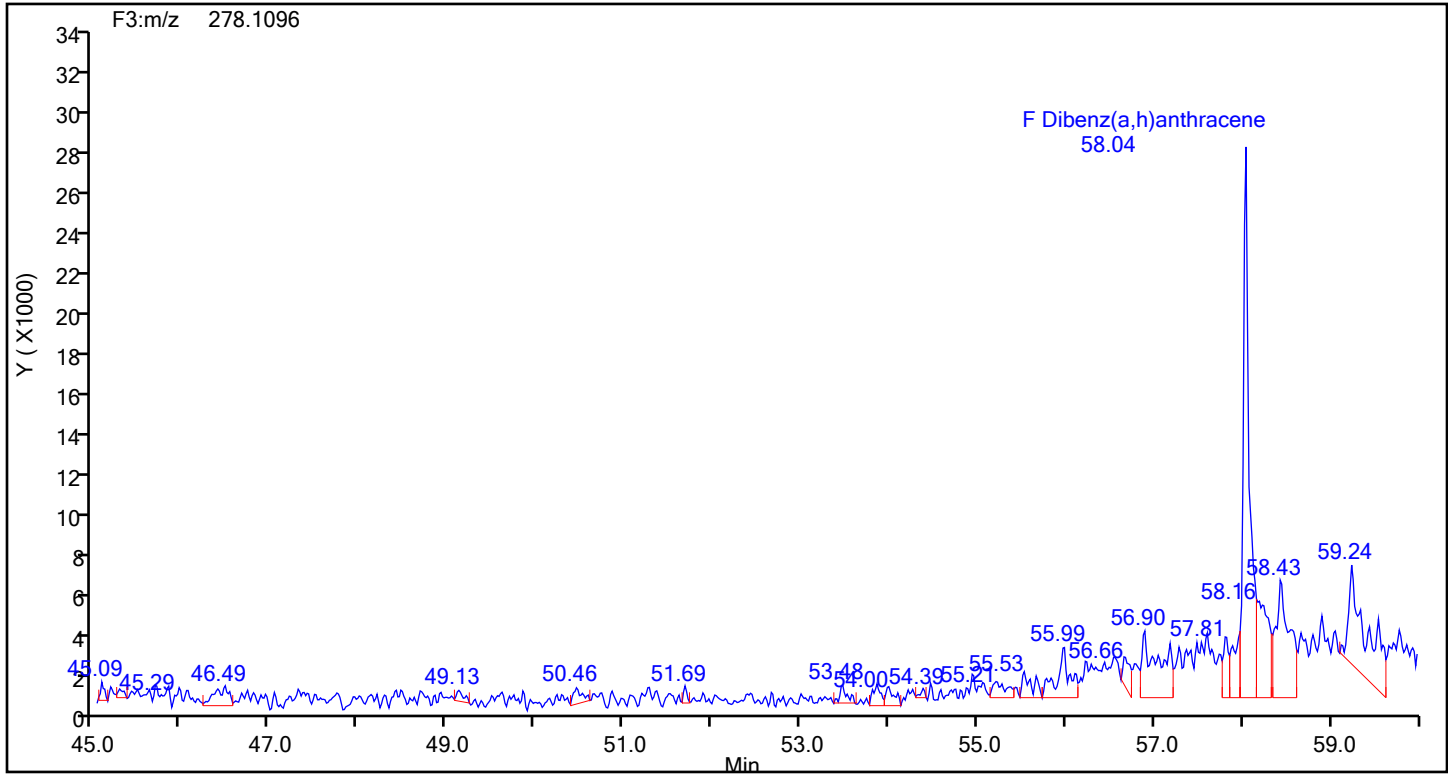
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

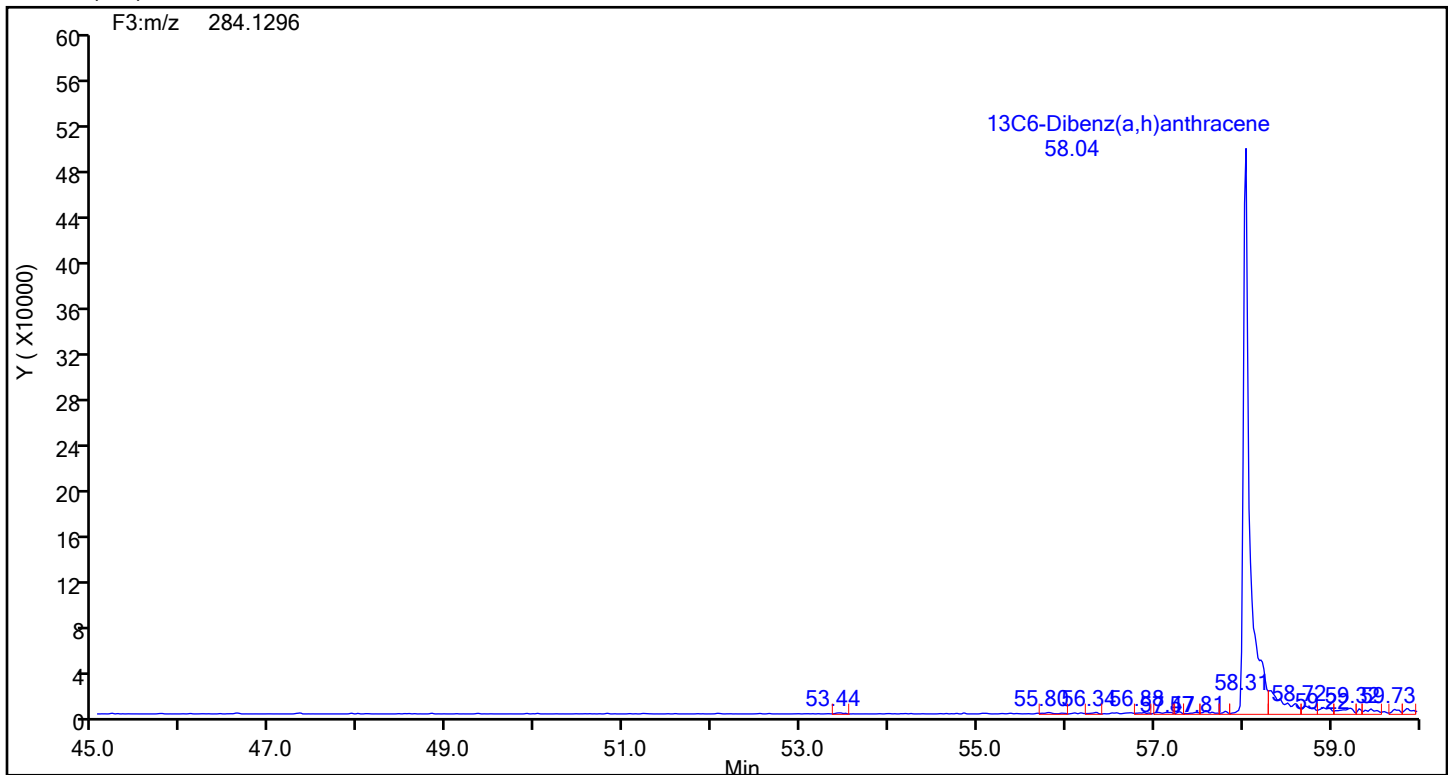
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 89013 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Dibenz(a,h)anthracene



## Dibenz(a,h)anthracene Standards



## Eurofins Knoxville

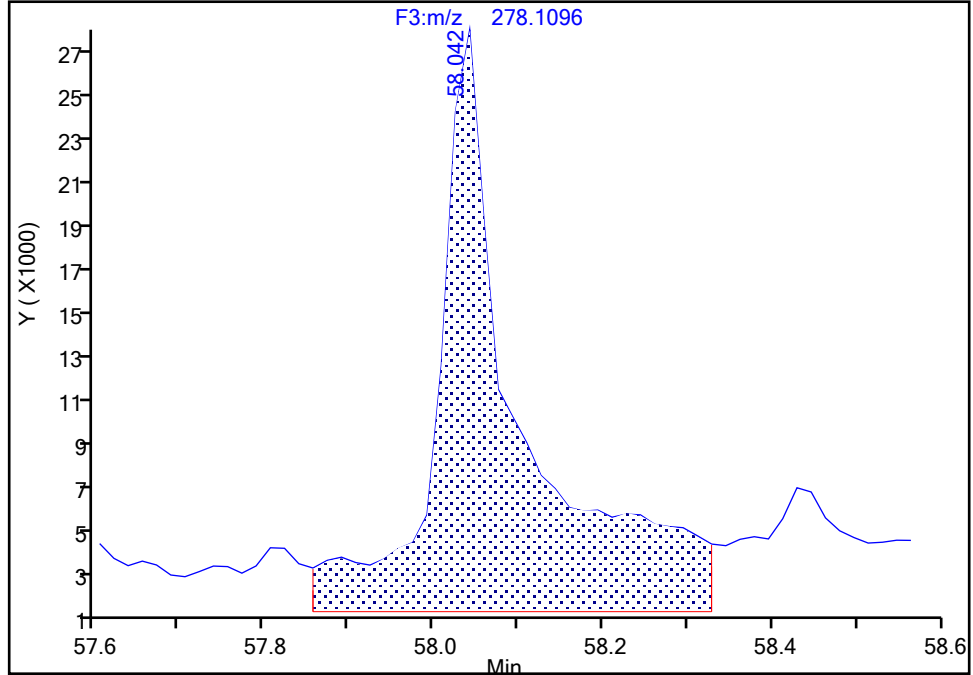
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-4-C Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

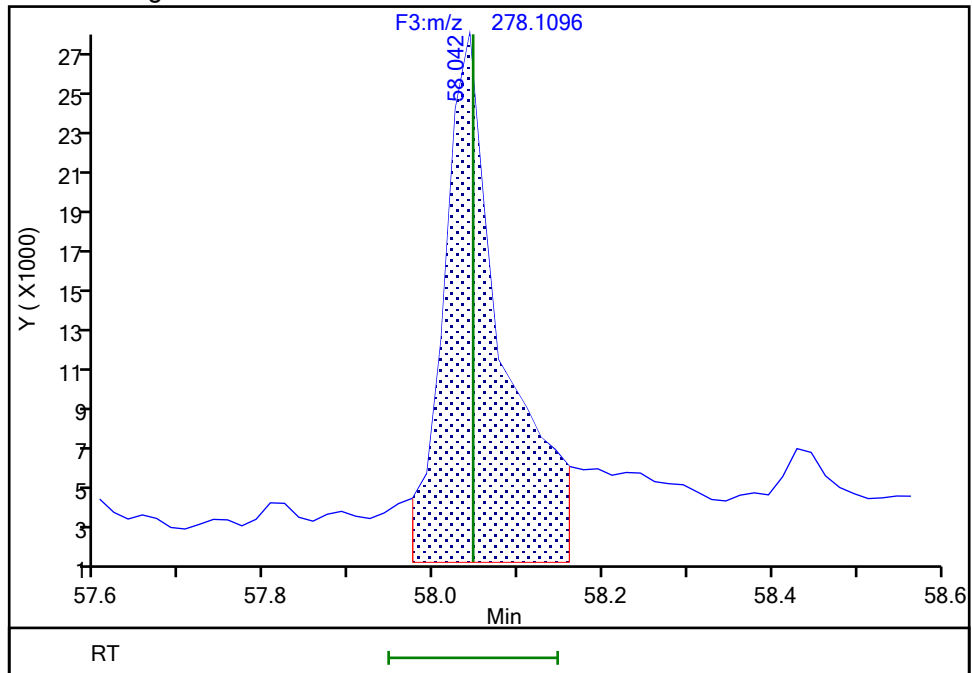
RT: 58.04  
Area: 185927  
Amount: 0.654406  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.04  
Area: 130585  
Amount: 0.459619  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:31:52 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d

Injection Date: 22-Jul-2024 19:20:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 5 COMBINED

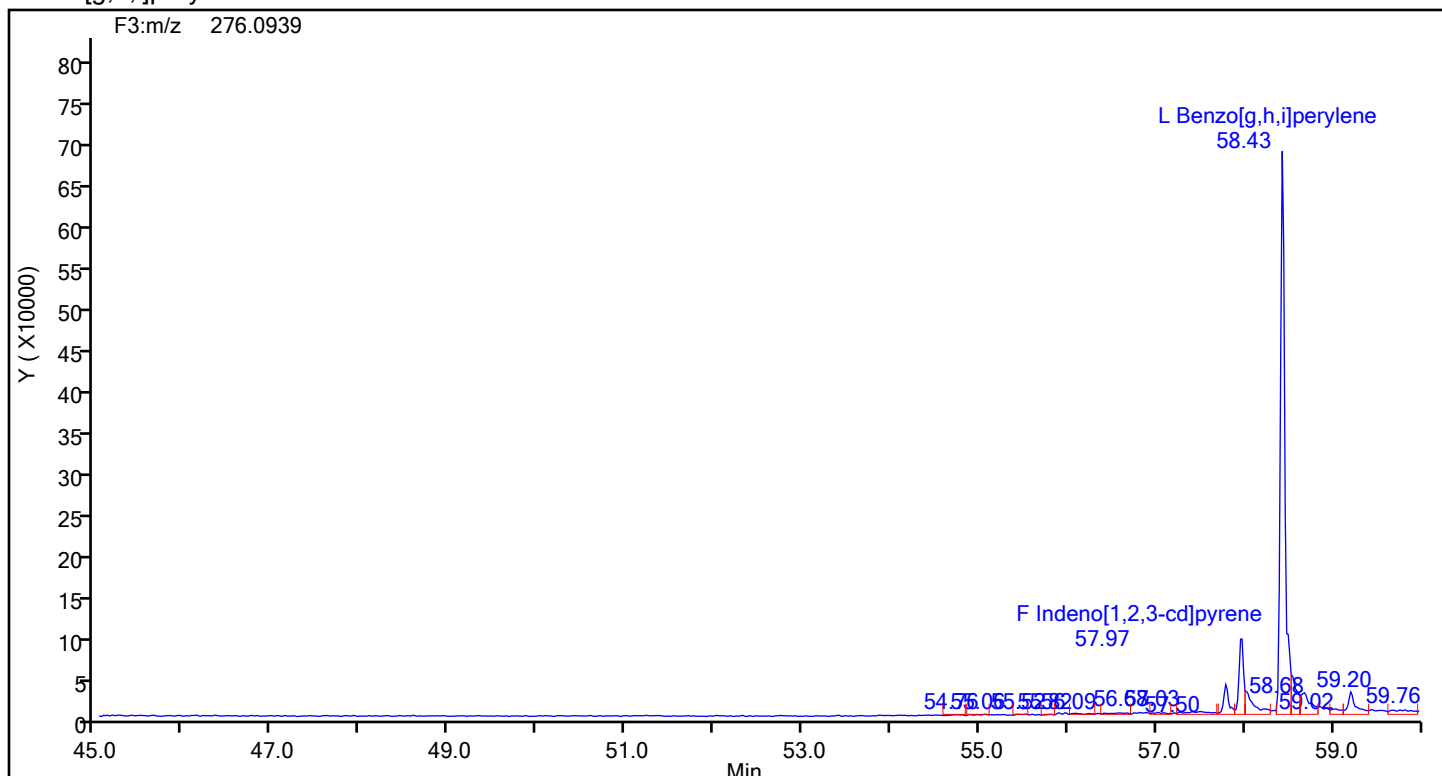
Worklist#: 89013

Sample Line#: 10

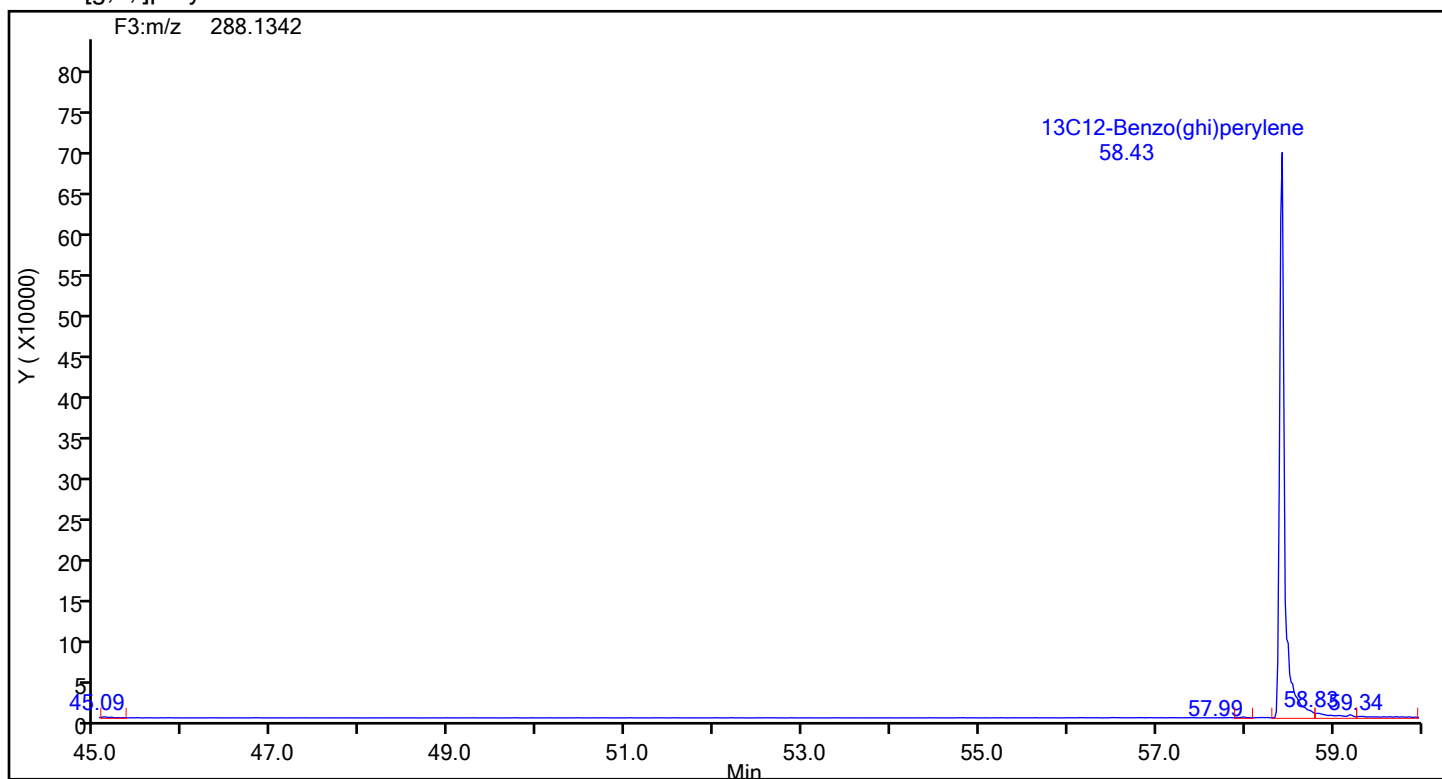
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Benzo[g,h,i]perylene



## Benzo[g,h,i]perylene Standards



## Eurofins Knoxville

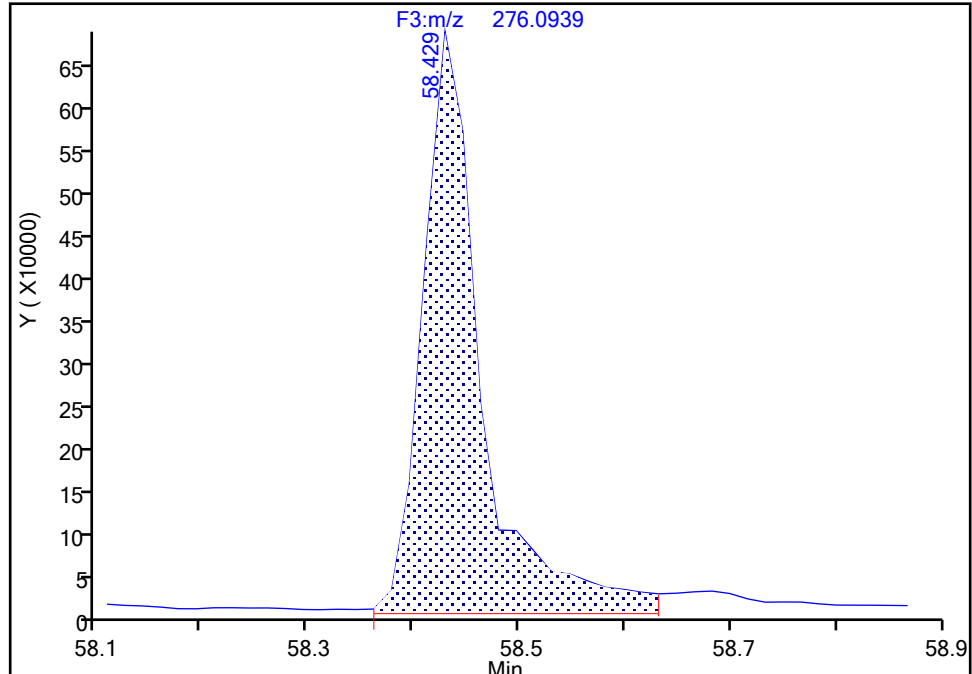
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Injection Date: 22-Jul-2024 19:20:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-4-C Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

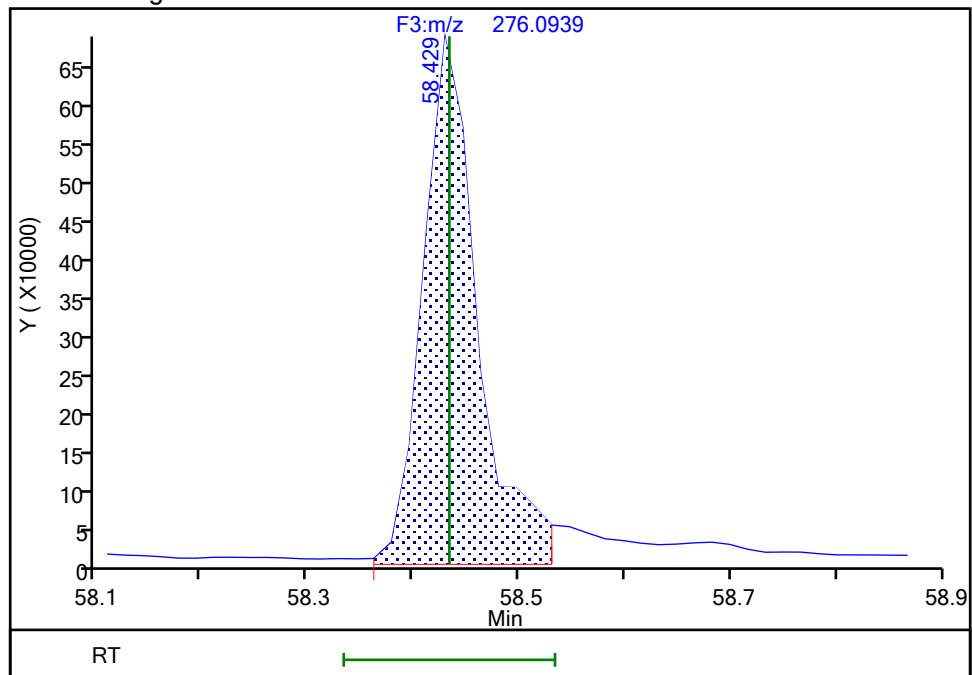
RT: 58.43  
Area: 2673945  
Amount: 7.379867  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.43  
Area: 2487170  
Amount: 6.864384  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:31:44 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration



Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-4-c.d  
Lims ID: 140-37234-A-4-C  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Sample Type: Client  
Inject. Date: 22-Jul-2024 19:20:00 ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Sample Info:  
Misc. Info.: 140-0033599-009  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 23-Jul-2024 10:35:13 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1613

First Level Reviewer: TT6I

Date: 23-Jul-2024 10:35:13

Compound	Amount Added	Amount Recovered	% Rec.
Anthracin-d10	10.0	0.8070	80.70
13C6-Benzo(c)fluorene	100.0	10.2	101.67
13C12-Benzo(j)fluoranthene	100.0	8.30	83.03

FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 6</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-5</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-5-c.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/11/2024 17:33</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/22/2024 20:24</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>89013</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
91-20-3	Naphthalene	752	B *+	750	750	1.41
91-57-6	2-Methylnaphthalene	439	J B	750	750	0.548
208-96-8	Acenaphthylene	16.6	J B	30.0	30.0	0.422
83-32-9	Acenaphthene	221	J B	300	300	0.647
86-73-7	Fluorene	386	B	300	300	0.640
85-01-8	Phenanthrene	1230	B	60.0	60.0	0.868
120-12-7	Anthracene	82.4	J B	300	300	0.709
206-44-0	Fluoranthene	144	B	60.0	60.0	0.389
129-00-0	Pyrene	152	B	60.0	60.0	0.387
56-55-3	Benzo[a]anthracene	3.10	J B	60.0	60.0	0.236
218-01-9	Chrysene	10.1	J B	60.0	60.0	0.239
205-99-2	Benzo[b]fluoranthene	7.78	J B	300	300	0.133
207-08-9	Benzo[k]fluoranthene	3.35	J B	60.0	60.0	0.115
192-97-2	Benzo[e]pyrene	36.1	J B	60.0	60.0	0.112
50-32-8	Benzo[a]pyrene	10.9	J B	30.0	30.0	0.105
198-55-0	Perylene	2.54	J B	30.0	30.0	0.0907
193-39-5	Indeno[1,2,3-cd]pyrene	28.1	J B	30.0	30.0	0.127
53-70-3	Dibenz(a,h)anthracene	7.07	J B	60.0	60.0	0.0707
191-24-2	Benzo[g,h,i]perylene	130	B	60.0	60.0	0.0919

FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 6</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-5</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-5-c.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/11/2024 17:33</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/22/2024 20:24</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>89013</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02217	13C6-Naphthalene	59		20-130
STL03357	13C6-2-Methylnaphthalene	65		20-130
189811-56-1	13C6-Acenaphthylene	91		20-130
189811-57-2	13C6-Acenaphthene	87		20-130
STL00616	13C6-Fluorene	96		20-130
1397194-60-3	13C6-Fluoranthrene	88		20-130
1397214-90-2	13C3-Pyrene	84		20-130
917378-11-1	13C6-Benzo (a) anthracene	70		20-130
1397177-72-8	13C6-Chrysene	77		20-130
STL03358	13C6-Benzo (b) fluoranthene	80		20-130
1397194-60-3	13C6-Benzo (k) fluoranthene	91		20-130
STL03382	13C4-Benzo (e) pyrene	74		20-130
STL03359	13C4-Benzo (a) pyrene	93		20-130
1520-96-3	Perylene-d12	88		20-130
362044-56-2	13C6-Indeno (1,2,3-cd) pyrene	86		20-130
STL03360	13C6-Dibenz (a,h) anthracene	93		20-130
350820-11-0	13C12-Benzo (ghi) perylene	93		20-130
189811-60-7	13C6-Anthracene	102		20-130
1189955-53-0	13C6-Phenanthrene	80		20-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Lims ID: 140-37234-A-5-C  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Sample Type: Client  
Inject. Date: 22-Jul-2024 20:24:00 ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Sample Info:  
Misc. Info.: 140-0033599-010  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 23-Jul-2024 10:37:49 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1613

First Level Reviewer: TT6I

Date: 23-Jul-2024 10:37:49

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:30	2373981		3.3746	5.901	5.901	0.001815	0.001815	59.01	
Naphthalene	11:31	15349490		1.2893	50.2	50.2	0.0939	0.0939		
D 13C6-2-Methylnaphthalene	13:49	1251113		1.6031	6.547	6.547	0.001685	0.001685	65.47	
2-Methylnaphthalene	13:50	4684012		1.2786	29.3	29.3	0.0365	0.0365		M
D 13C6-Acenaphthylene	16:41	1789623		1.6520	9.088	9.088	0.002589	0.002589	90.88	
Acenaphthylene	16:41	267121		2.3661	1.107	1.107	0.0281	0.0281		M
* Acenaphthene-d10	17:15	596034		3.5E+04	5.000	5.000				
D 13C6-Acenaphthene	17:22	1019544		0.9792	8.735	8.735	0.003380	0.003380	87.35	
Acenaphthene	17:23	1903726		1.2697	14.7	14.7	0.0431	0.0431		
D 13C6-Fluorene	19:40	1015529		0.8898	9.574	9.574	0.007388	0.007388	95.74	
Fluorene	19:40	3277900		1.2532	25.8	25.8	0.0427	0.0427		M
D 13C6-Phenanthrene	25:02	1468871		0.5724	8.046	8.046	0.002332	0.002332	80.46	
Phenanthrene	25:02	13346131		1.1044	82.3	82.3	0.0578	0.0578		
\$ Anthracin-d10	25:16	103424		0.4257	0.7618	0.7618	0.001306	0.001306	76.18	M
D 13C6-Anthracene	25:22	1466494		0.4523	10.2	10.2	0.002951	0.002951	102	
Anthracene	25:22	1094487		1.3586	5.493	5.493	0.0473	0.0473		M
D 13C6-Fluoranthrene	33:46	3347090		1.1994	8.751	8.751	0.0163	0.0163	87.51	
Fluoranthene	33:47	3699070		1.1513	9.599	9.599	0.0259	0.0259		
* Pyrene-d10	35:20	1594523		7.9E+04	5.000	5.000				
D 13C3-Pyrene	35:28	3623518		1.3512	8.409	8.409	0.0128	0.0128	84.09	
Pyrene	35:29	3921829		1.0652	10.2	10.2	0.0258	0.0258		
\$ 13C6-Benzo(c)fluorene	39:10	1680961		0.5136	10.3	10.3	0.005234	0.005234	103	M
D 13C6-Benzo(a)anthracene	45:59	3014876		1.5189	7.033	7.033	0.005231	0.005231	70.33	
Benzo[a]anthracene	46:00	60743		0.9739	0.2069	0.2069	0.0157	0.0157		
D 13C6-Chrysene	46:16	3532364		1.6287	7.684	7.684	0.004879	0.004879	76.84	
Chrysene	46:16	234436		0.9815	0.6762	0.6762	0.0159	0.0159		
D 13C6-Benzo(b)fluoranthene	54:34	3317710		1.4621	8.040	8.040	0.001309	0.001309	80.40	
Benzo[b]fluoranthene	54:35	193597		1.1249	0.5187	0.5187	0.008848	0.008848		M
\$ 13C12-Benzo(j)fluoranthene	54:37	3498987		1.3558	9.144	9.144	0.005843	0.005843	91.44	
D 13C6-Benzo(k)fluoranthene	54:42	4495785		1.7507	9.099	9.099	0.001093	0.001093	90.99	
Benzo[k]fluoranthene	54:42	113140		1.1271	0.2233	0.2233	0.007681	0.007681		Ma
* Benzo(e)pyrene-d12	55:26	1411152		5.7E+04	5.000	5.000				
D 13C4-Benzo(e)pyrene	55:30	3395871		1.6368	7.351	7.351	0.003425	0.003425	73.51	
Benzo[e]pyrene	55:30	819268		1.0013	2.409	2.409	0.007445	0.007445		M

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C4-Benzo(a)pyrene	55:40	4087737		1.5508	9.340	9.340	0.003615	0.003615	93.40	
Benzo[a]pyrene	55:40	329422		1.1130	0.7240	0.7240	0.006976	0.006976		M
D Perylene-d12	55:50	2944461		1.1917	8.755	8.755	0.007639	0.007639	87.55	M
Perylene	55:54	71325		1.4307	0.1693	0.1693	0.006050	0.006050		M
D 13C6-Indeno(1,2,3-cd)pyrene	57:58	2488556		1.0218	8.629	8.629	0.004794	0.004794	86.29	
Indeno[1,2,3-cd]pyrene	57:58	523938		1.1249	1.872	1.872	0.008475	0.008475		M
D 13C6-Dibenz(a,h)anthracene	58:02	2759133		1.0553	9.264	9.264	0.002772	0.002772	92.64	M
Dibenz(a,h)anthracene	58:02	147092		1.1314	0.4712	0.4712	0.004714	0.004714		M
D 13C12-Benzo(ghi)perylene	58:25	3352326		1.2749	9.317	9.317	0.001004	0.001004	93.17	
Benzo[g,h,i]perylene	58:25	3718778		1.2838	8.641	8.641	0.006127	0.006127		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
 Lims ID: 140-37234-A-5-C  
 Client ID: M23 F-10 BOILER RUN 6 COMBINED  
 Sample Type: Client  
 Inject. Date: 22-Jul-2024 20:24:00 ALS Bottle#: 0 Worklist Smp#: 11  
 Injection Vol: 1.0 ul Dil. Factor: 10.0000  
 Sample Info:  
 Misc. Info.: 140-0033599-010  
 Operator ID: Xcalibur\_System Instrument ID: D3PAH  
 Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
 Limit Group: HR - HRPAL ICAL  
 Last Update: 23-Jul-2024 10:37:49 Calib Date: 20-Jun-2024 01:09:00  
 Integrator: RTE  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
 Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
 Process Host: CTX1613

First Level Reviewer: TT61

Date: 23-Jul-2024 10:37:49

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:30	11:29	1	0.667	2373981	758414	109	272	6958		
Naphthalene											
128.0626	11:31	11:31	1	1.001	15349490	5259926	3674	9185	1432		
13C6-2-Methylnaphthalene											
148.0984	13:49	13:49	-1	0.801	1251113	535526	48	120	11157		
2-Methylnaphthalene											
142.0783	13:50	13:50	-1	1.001	4684012	2013374	1001	2502	2011		M
13C6-Acenaphthylene											
158.0828	16:41	16:41	-1	0.967	1789623	617746	76	190	8128		
Acenaphthylene											
152.0626	16:41	16:41	-2	1.000	267121	92606	908	2270	102		M
Acenaphthene-d10											
164.1404	17:15	17:16	-1		596034	222090	12	30	18508		
13C6-Acenaphthene											
160.0984	17:22	17:23	-2	1.007	1019544	340949	59	147	5779		
Acenaphthene											
154.0783	17:23	17:23	-1	1.001	1903726	616250	747	1867	825		
13C6-Fluorene											
172.0984	19:40	19:40	-1	1.140	1015529	271607	117	292	2321		
Fluorene											
166.0783	19:40	19:40	-2	1.000	3277900	920290	581	1452	1584		M
13C6-Phenanthrene											
184.0984	25:02	25:03	-1	0.709	1468871	308390	29	72	10634		
Phenanthrene											
178.0783	25:02	25:04	-2	1.000	13346131	2749285	788	1970	3489		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											M
188.1410	25:16	25:16	-1	0.715	103424	26739	12	30	2228		M
13C6-Anthracene											
184.0984	25:22	25:22	-2	0.718	1466494	306701	29	72	10576		
Anthracene											M
178.0783	25:22	25:22	-2	1.000	1094487	218594	788	1970	277		M
13C6-Fluoranthrene											
208.0984	33:46	33:47	-2	0.956	3347090	572779	423	1057	1354		
Fluoranthene											
202.0783	33:47	33:49	-1	1.000	3699070	638474	684	1710	933		
Pyrene-d10											
212.1404	35:20	35:21	-1		1594523	269694	65	162	4149		
13C3-Pyrene											
205.0883	35:28	35:28	-2	1.004	3623518	622337	372	930	1673		
Pyrene											
202.0783	35:29	35:29	-1	1.000	3921829	651241	684	1710	952		
13C6-Benzo(c)fluorene											M
222.1134	39:10	39:10	-1	0.706	1680961	269897	58	145	4653		M
13C6-Benzo(a)anthracene											
234.1140	45:59	45:59	-1	1.302	3014876	464210	261	652	1779		
Benzo[a]anthracene											
228.0939	46:00	46:00	0	1.000	60743	9422	284	710	33		
13C6-Chrysene											
234.1140	46:16	46:15	-1	1.309	3532364	454062	261	652	1740		
Chrysene											
228.0939	46:16	46:17	-1	1.000	234436	27355	284	710	96		
13C6-Benzo(b)fluoranthene											
258.1140	54:34	54:35	-1	0.984	3317710	795745	63	157	12631		
Benzo[b]fluoranthene											M
252.0939	54:35	54:35	0	1.000	193597	38532	317	792	122		M
13C12-Benzo(j)fluoranthene											
264.1336	54:37	54:37	0	0.985	3498987	710045	260	650	2731		
13C6-Benzo(k)fluoranthene											
258.1140	54:42	54:42	0	0.987	4495785	914826	63	157	14521		
Benzo[k]fluoranthene											Ma
252.0939	54:42	54:42	-1	1.000	113140	23985	317	792	76		M
Benzo(e)pyrene-d12											
264.1692	55:26	55:27	0		1411152	410272	299	747	1372		
13C4-Benzo(e)pyrene											
256.1073	55:30	55:32	-1	1.001	3395871	1062494	184	460	5774		
Benzo[e]pyrene											M
252.0939	55:30	55:30	-1	1.000	819268	226647	317	792	715		M
13C4-Benzo(a)pyrene											
256.1073	55:40	55:40	0	1.004	4087737	1020046	184	460	5544		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Benzo[a]pyrene											M
252.0939	55:40	55:40	0	1.000	329422	82258	317	792	259		M
Perylene-d12											M
264.1692	55:50	55:50	0	1.007	2944461	915023	299	747	3060		M
Perylene											M
252.0939	55:54	55:54	0	1.001	71325	16080	317	792	51		M
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	57:58	57:58	0	1.046	2488556	739485	161	402	4593		
Indeno[1,2,3-cd]pyrene											M
276.0939	57:58	57:58	0	1.000	523938	142940	282	705	507		M
13C6-Dibenz(a,h)anthracene											M
284.1296	58:02	58:02	0	1.047	2759133	646898	96	240	6739		M
Dibenz(a,h)anthracene											M
278.1096	58:02	58:02	-1	1.000	147092	27278	138	345	198		M
13C12-Benzo(ghi)perylene											
288.1342	58:25	58:27	-1	1.054	3352326	896354	42	105	21342		
Benzo[g,h,i]perylene											M
276.0939	58:25	58:25	-1	1.000	3718778	951992	282	705	3376		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

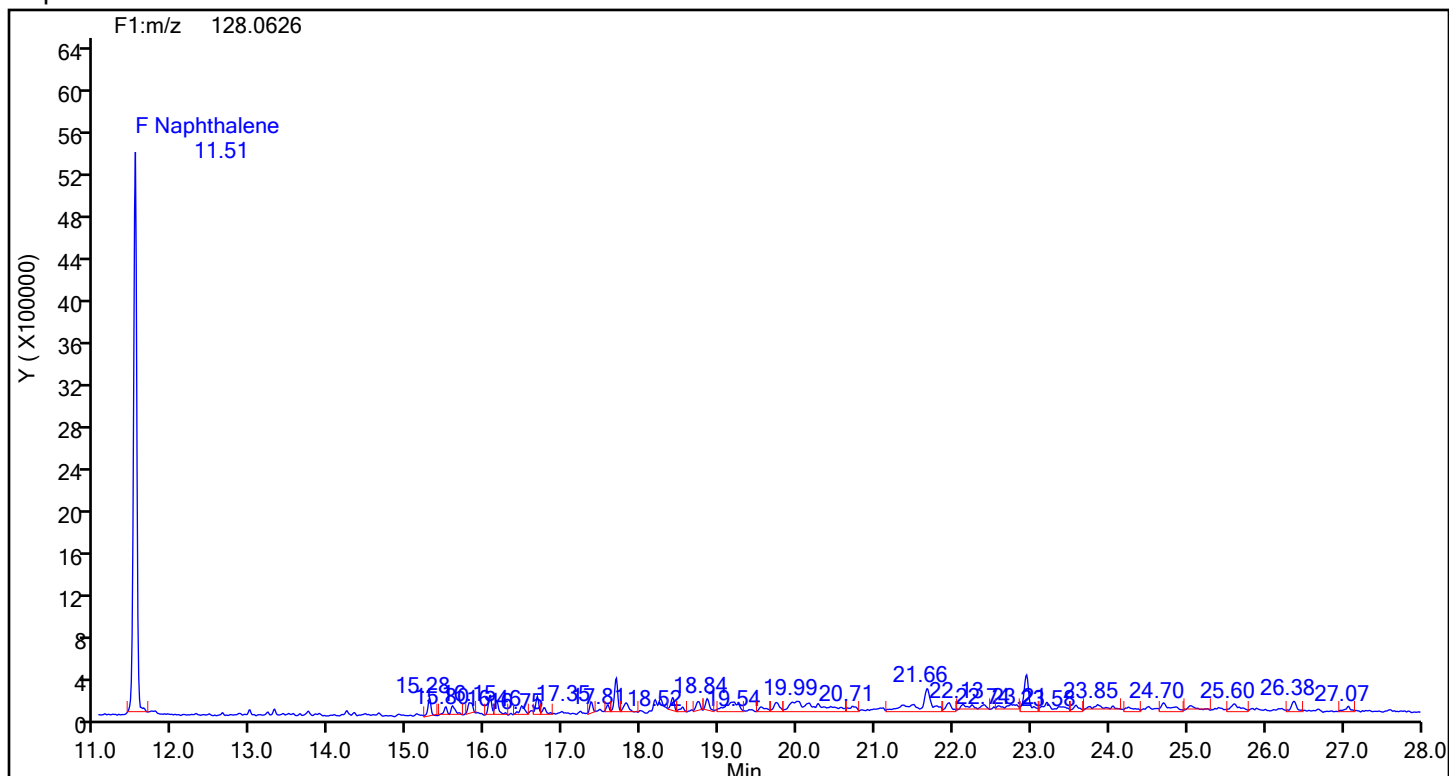
a - User Assigned ID



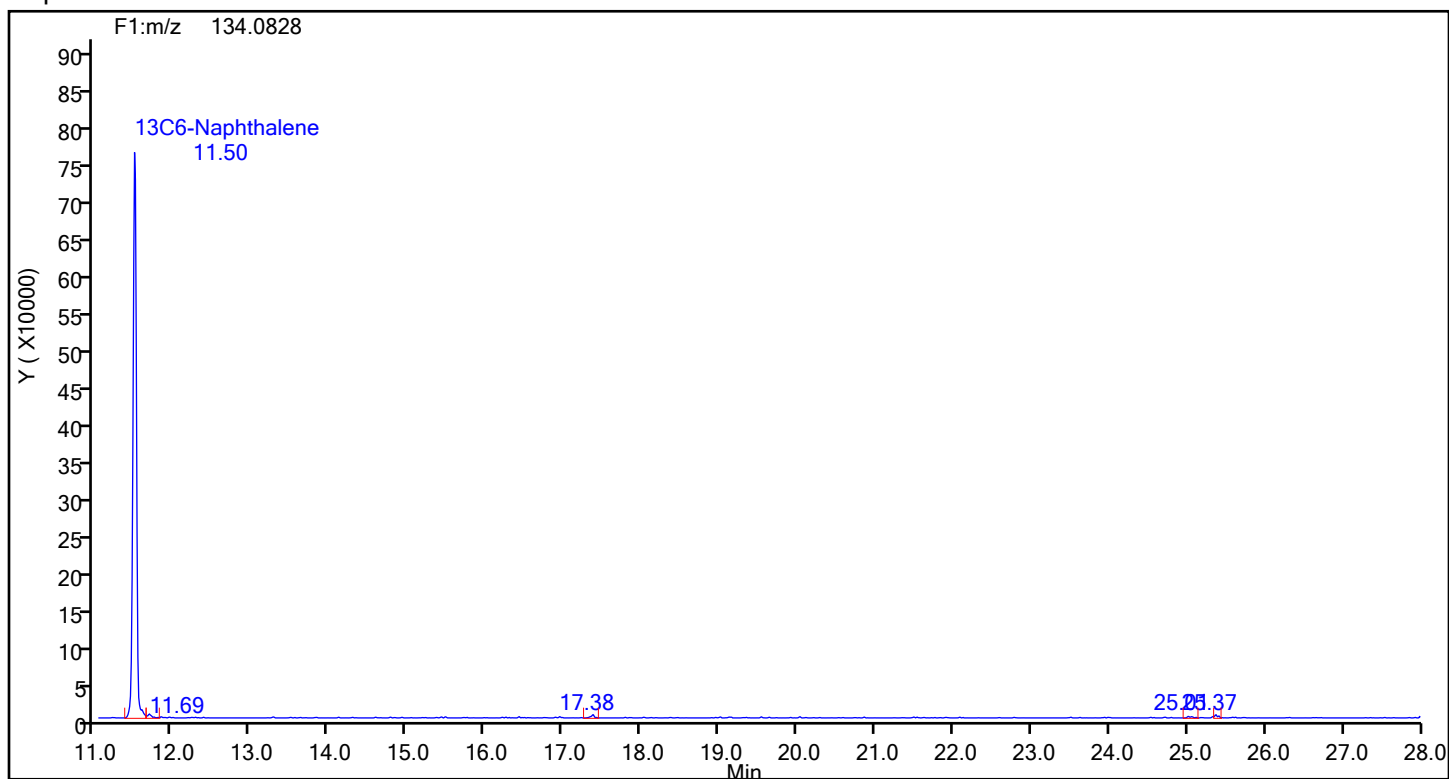
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 89013 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



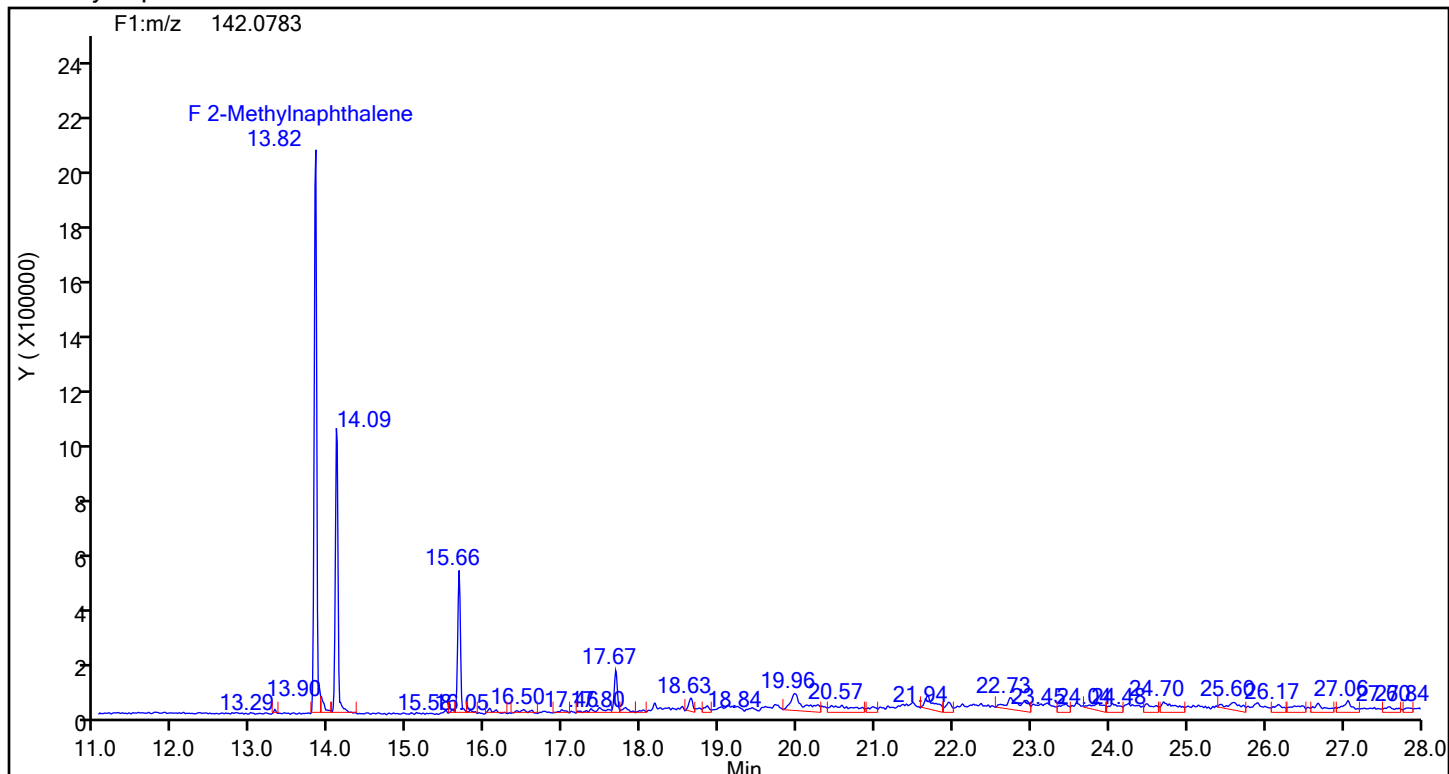
## Naphthalene Standards



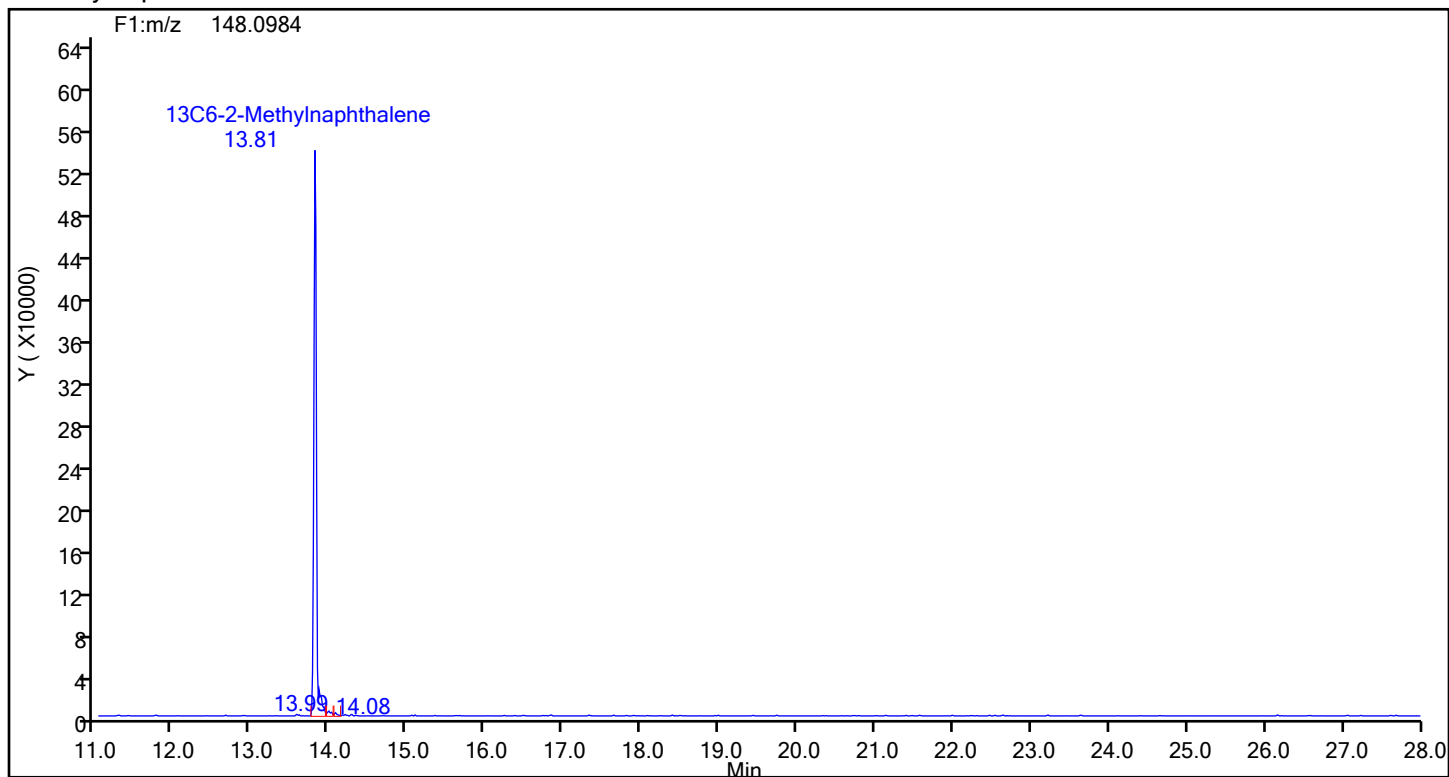
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 89013 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



## 2-Methylnaphthalene Standards



## Eurofins Knoxville

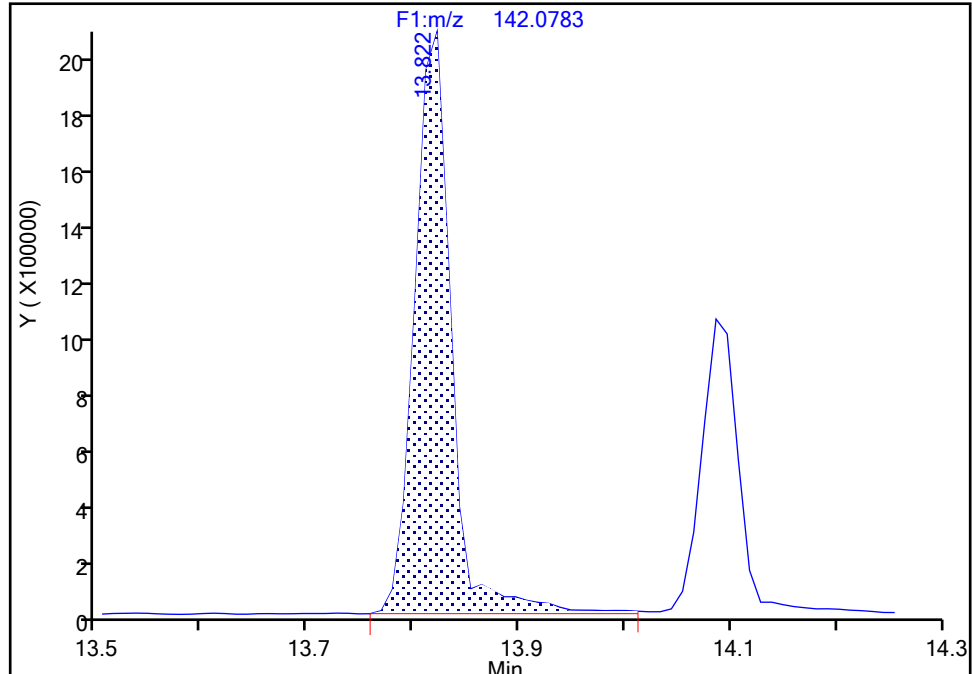
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-5-C Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

**2-Methylnaphthalene, CAS: 91-57-6**

Signal: 1

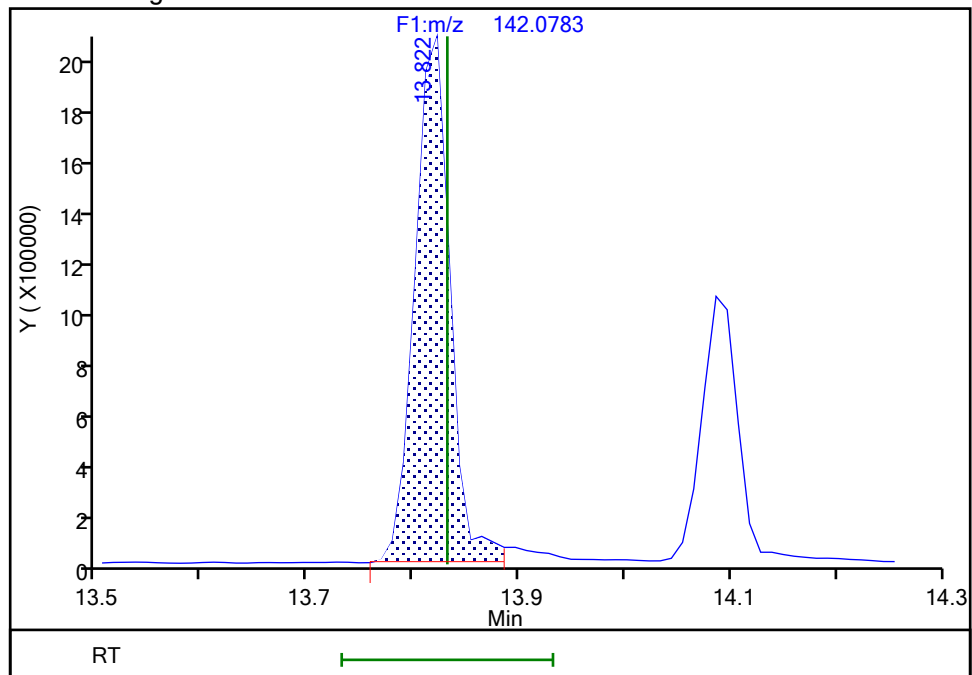
RT: 13.82  
Area: 4855690  
Amount: 30.355060  
Amount Units: pg/ul

## Processing Integration Results



RT: 13.82  
Area: 4684012  
Amount: 29.281825  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:35:57 -04:00:00 (UTC)

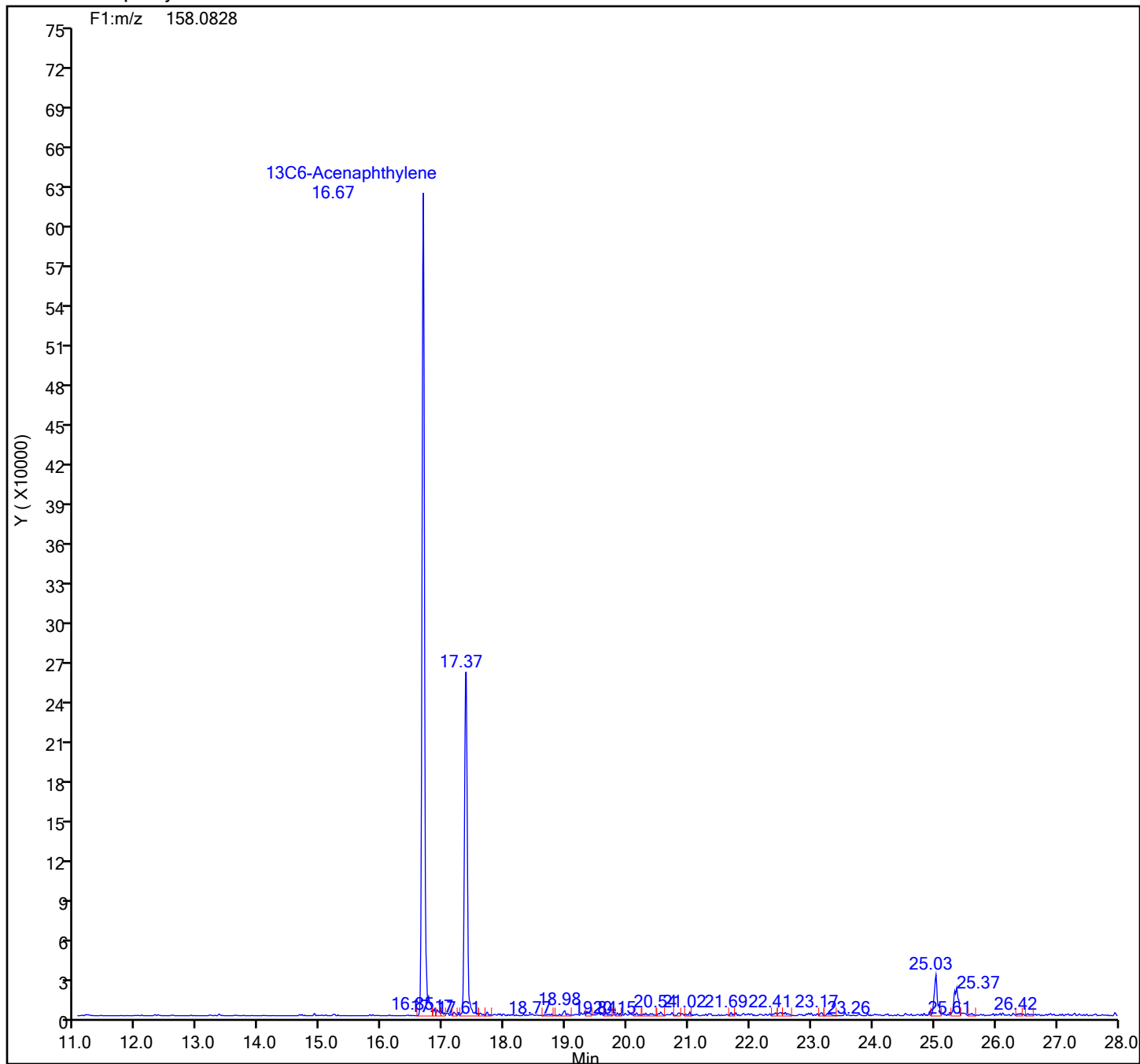
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 89013 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

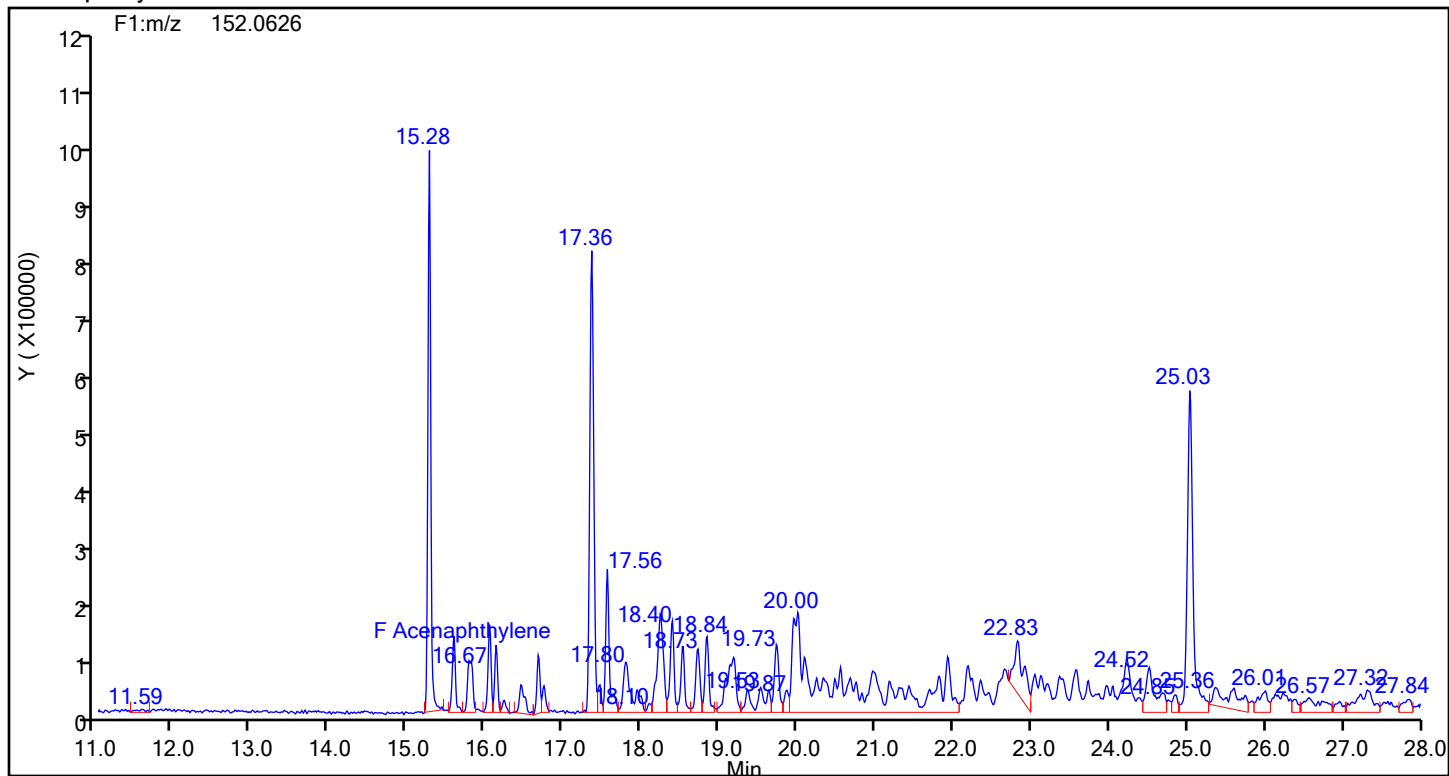
## 13C6-Acenaphthylene Standards



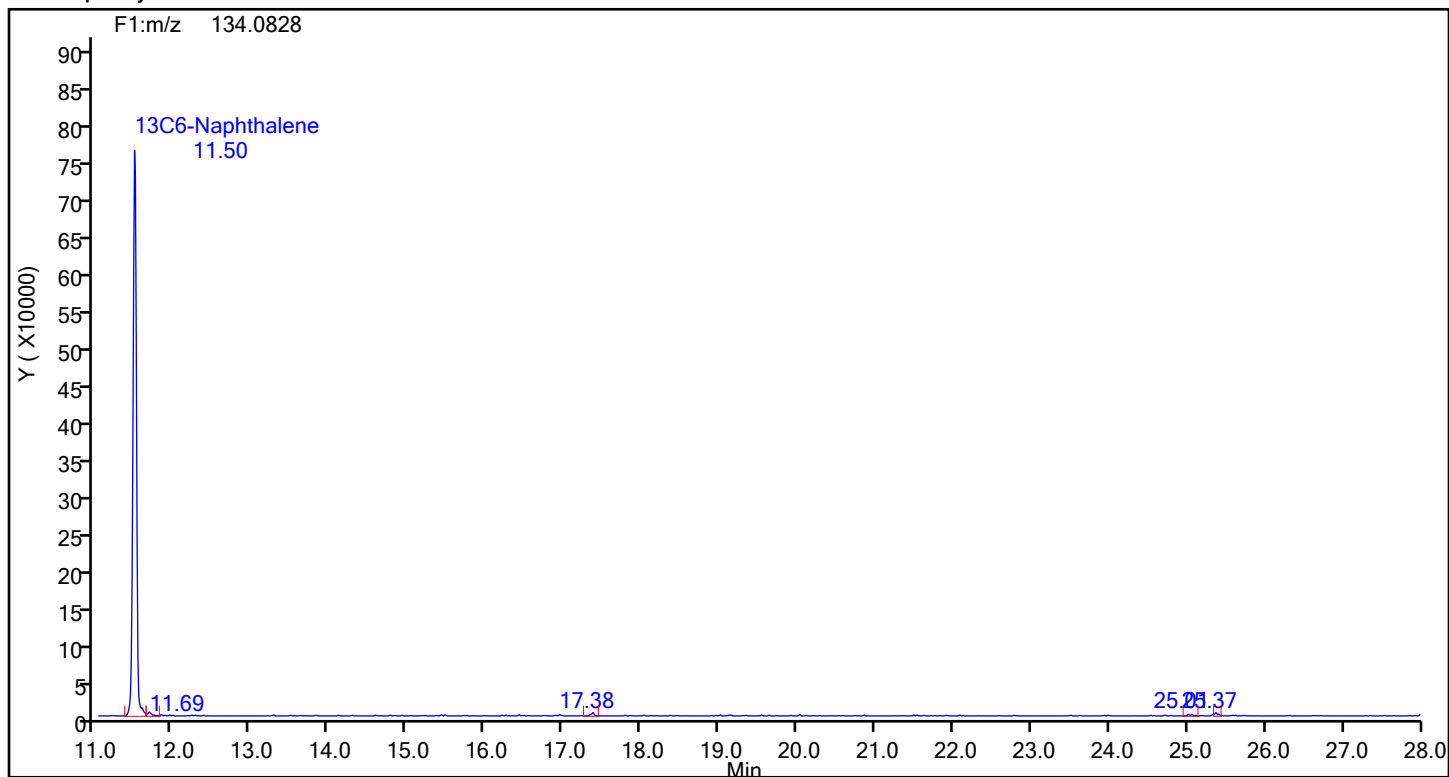
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 89013 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene



## Acenaphthylene Standards



## Eurofins Knoxville

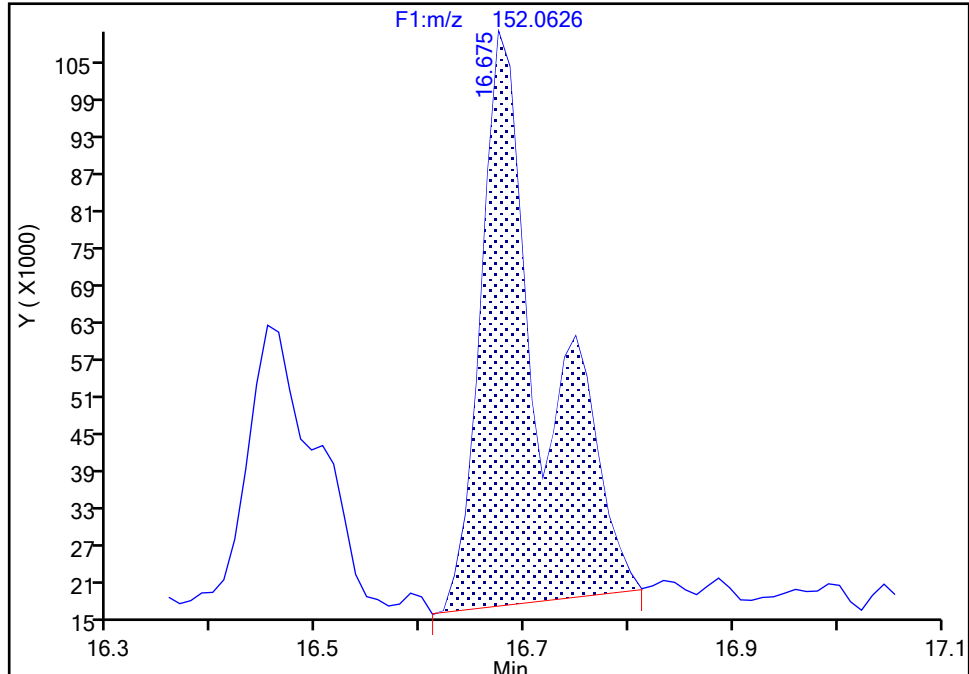
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-5-C Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Acenaphthylene, CAS: 208-96-8

Signal: 1

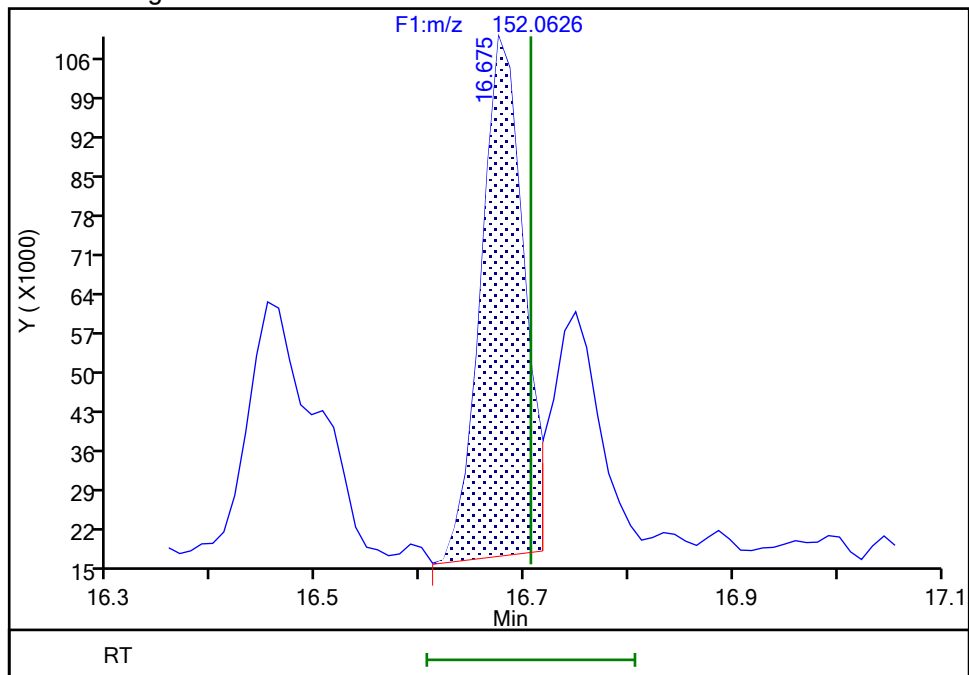
RT: 16.67  
Area: 386494  
Amount: 1.602129  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.67  
Area: 267121  
Amount: 1.107293  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:36:57 -04:00:00 (UTC)

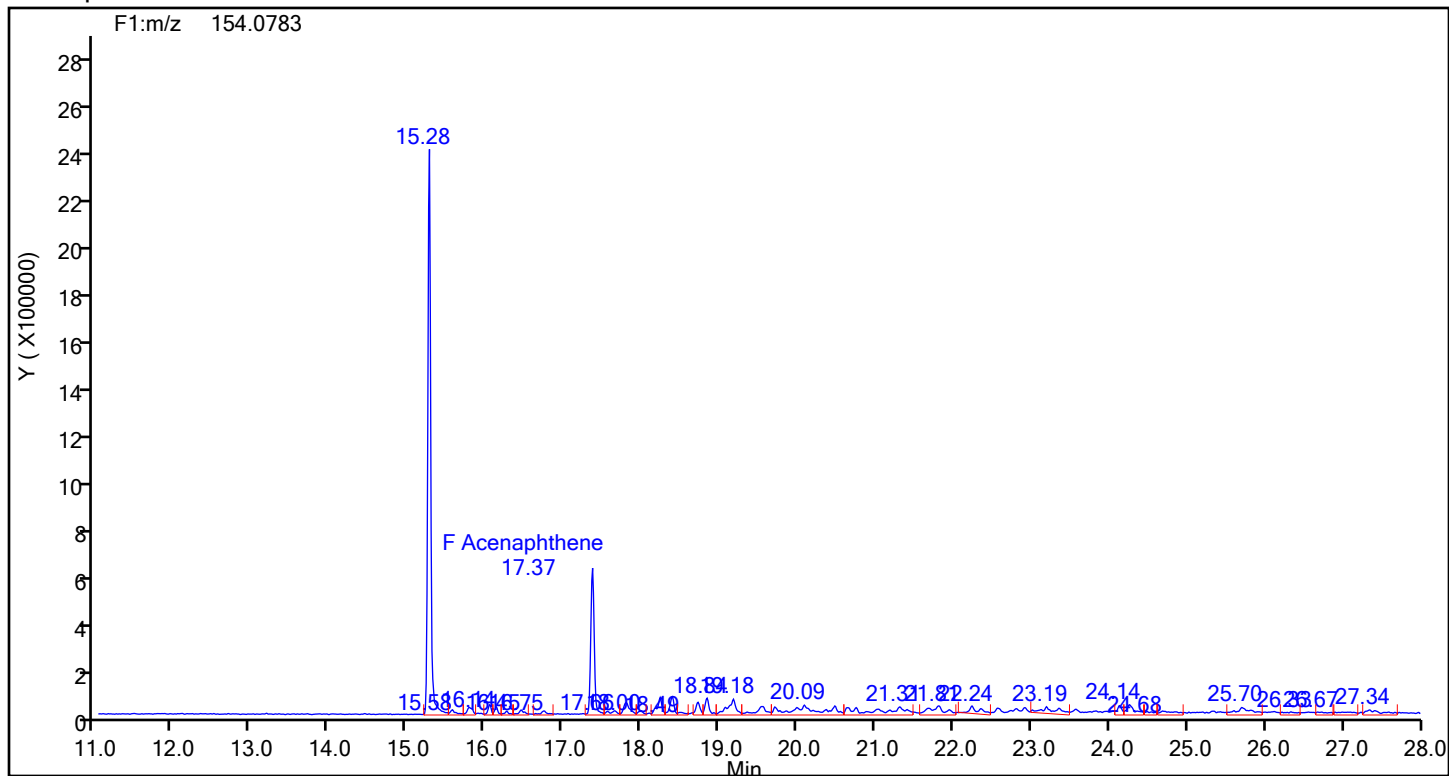
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

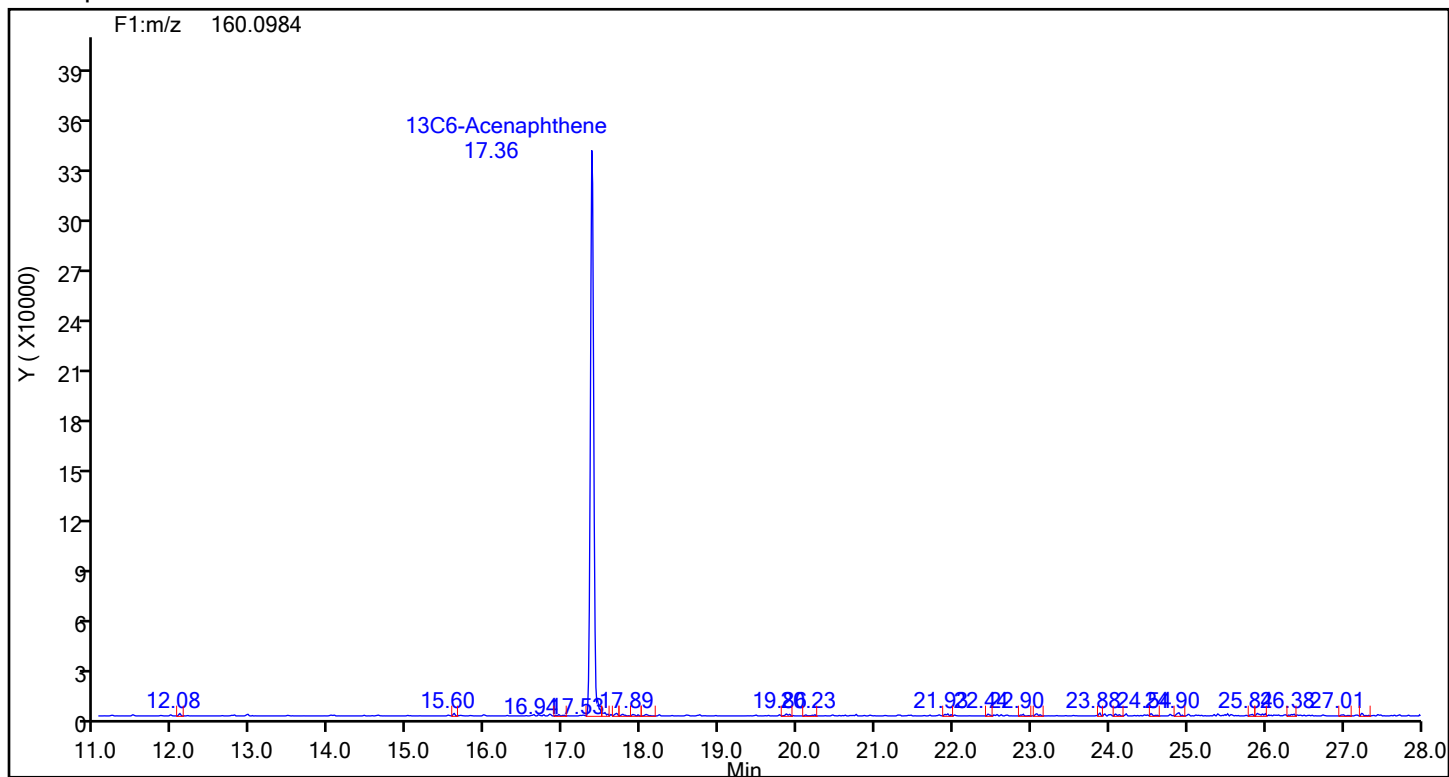
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 89013 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



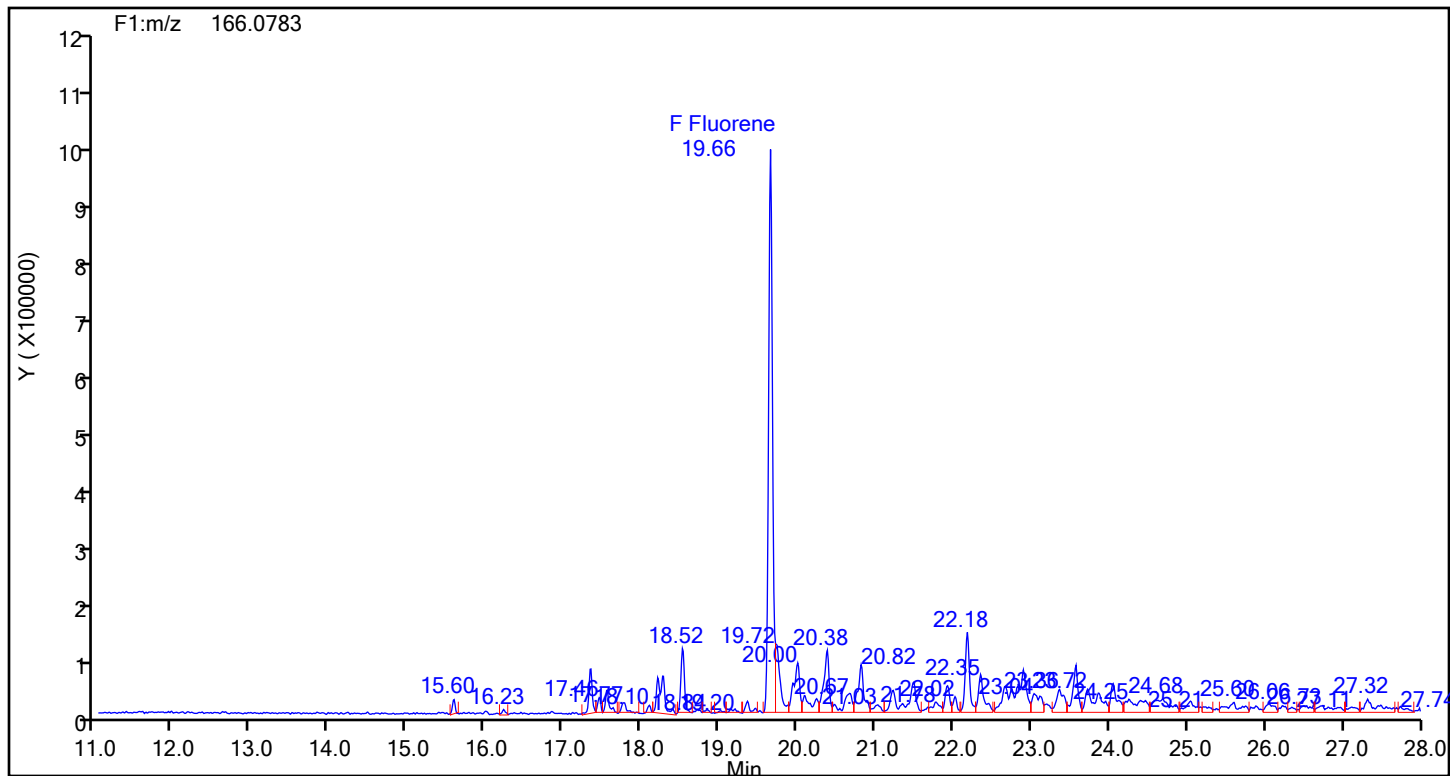
## Acenaphthene Standards



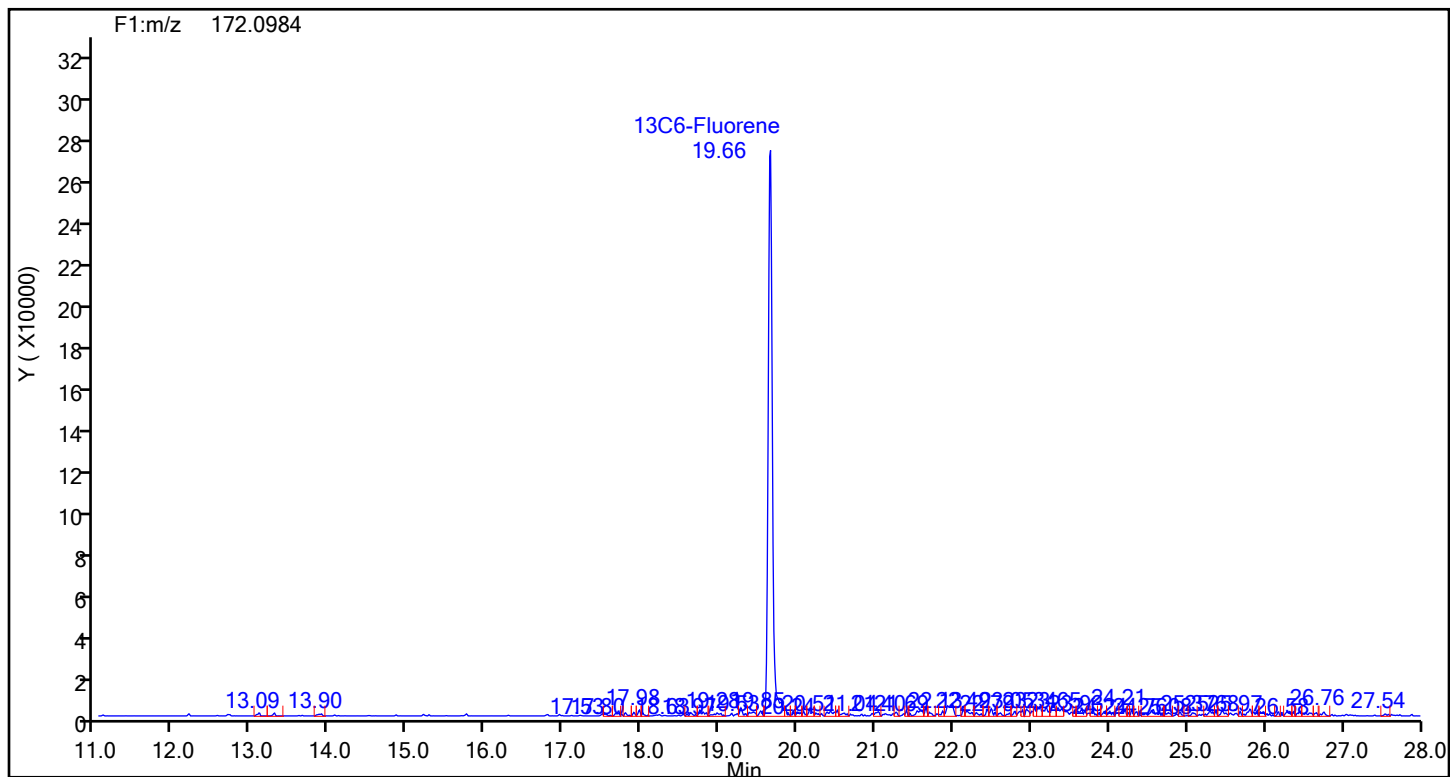
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 89013 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene



## Fluorene Standards





## Eurofins Knoxville

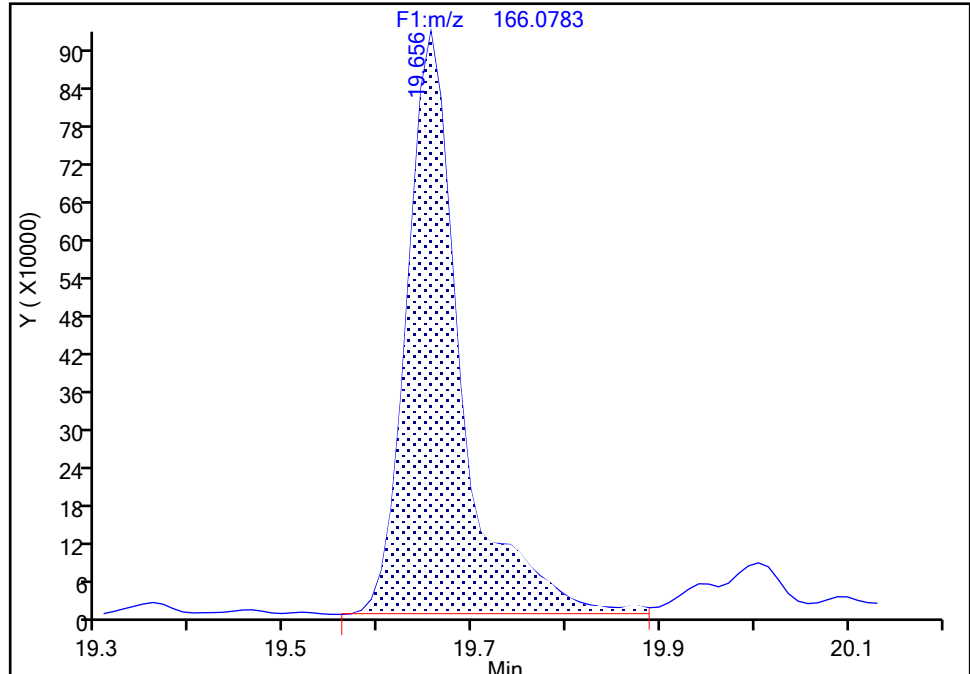
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-5-C Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Fluorene, CAS: 86-73-7

Signal: 1

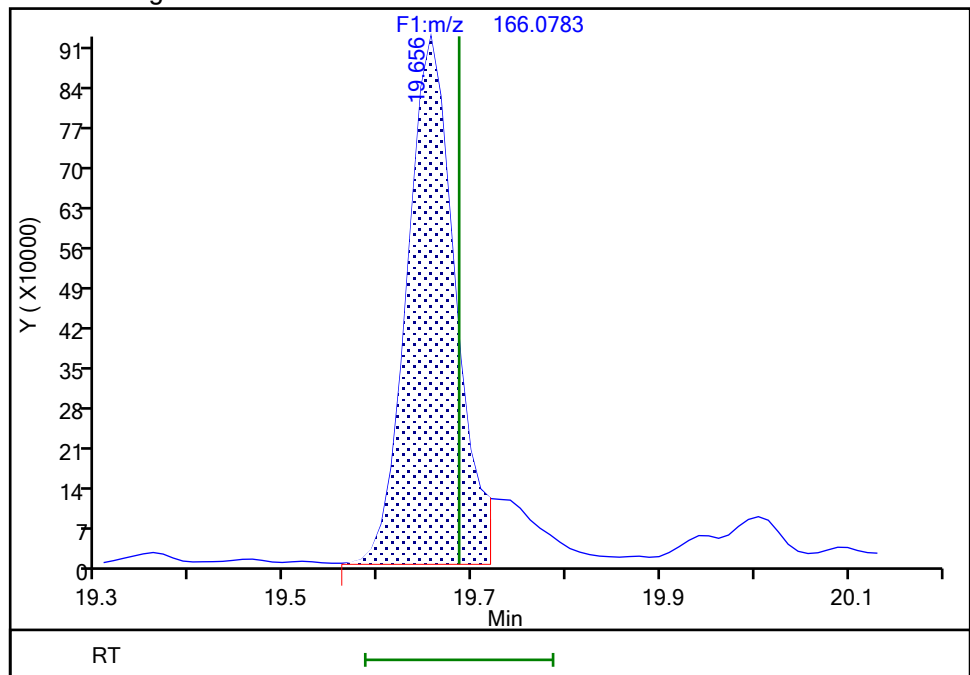
RT: 19.66  
Area: 3702976  
Amount: 29.097351  
Amount Units: pg/ul

## Processing Integration Results



RT: 19.66  
Area: 3277900  
Amount: 25.757177  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:37:25 -04:00:00 (UTC)

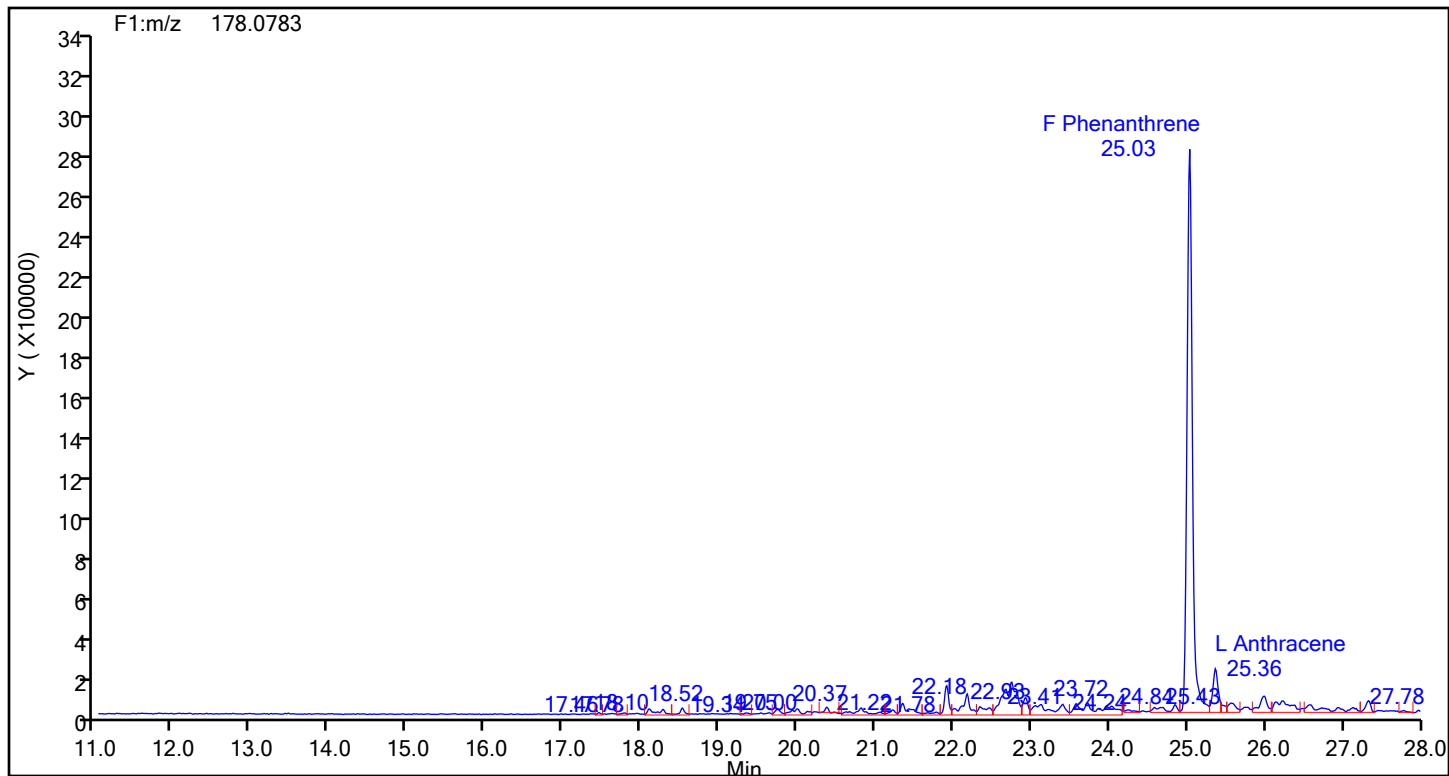
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

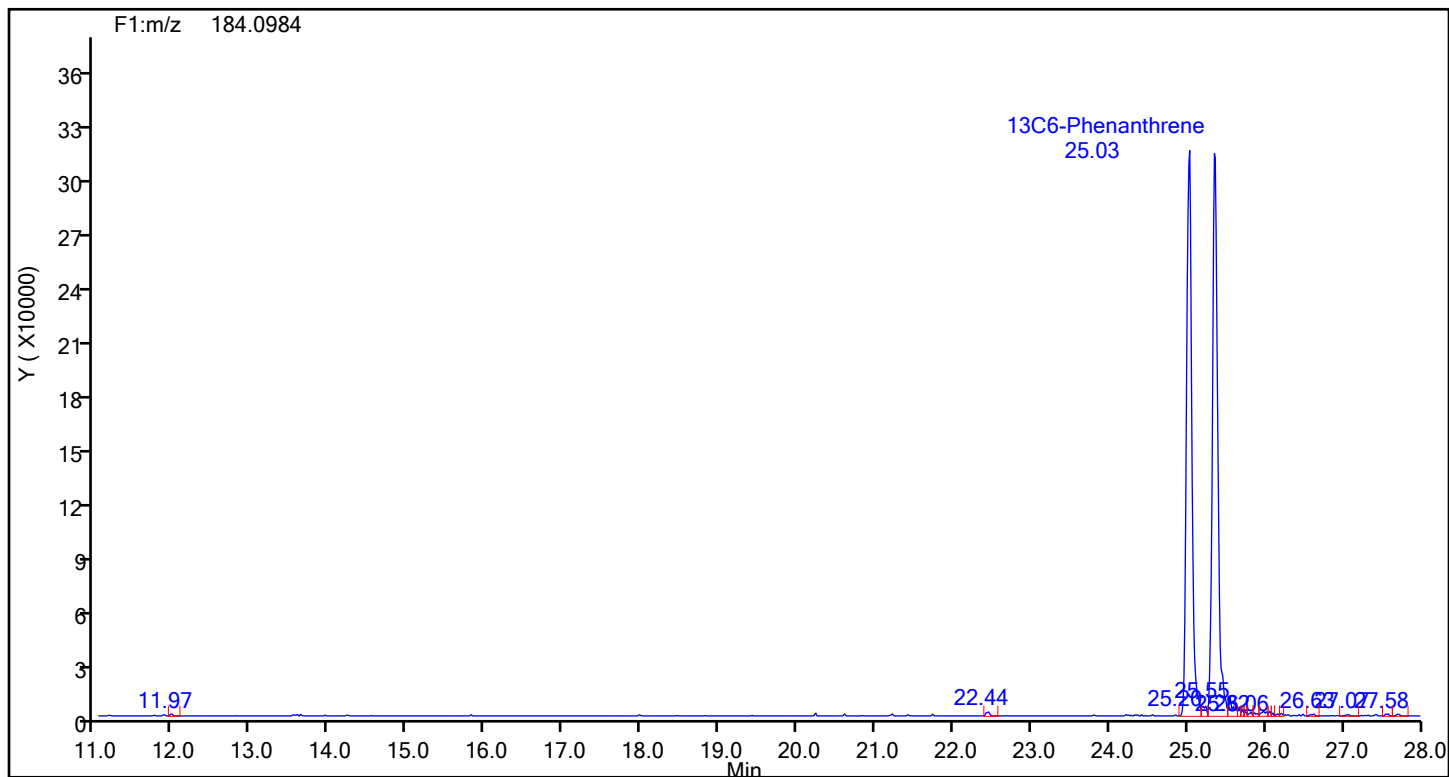
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 89013 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Phenanthrene



## Phenanthrene Standards



## Eurofins Knoxville

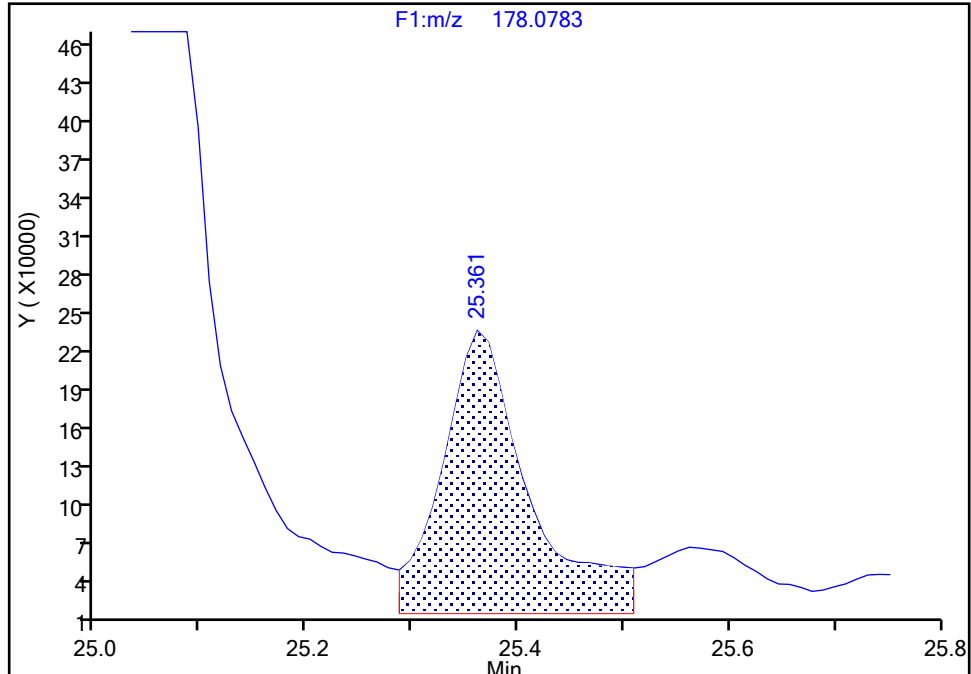
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-5-C Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Anthracene, CAS: 120-12-7

Signal: 1

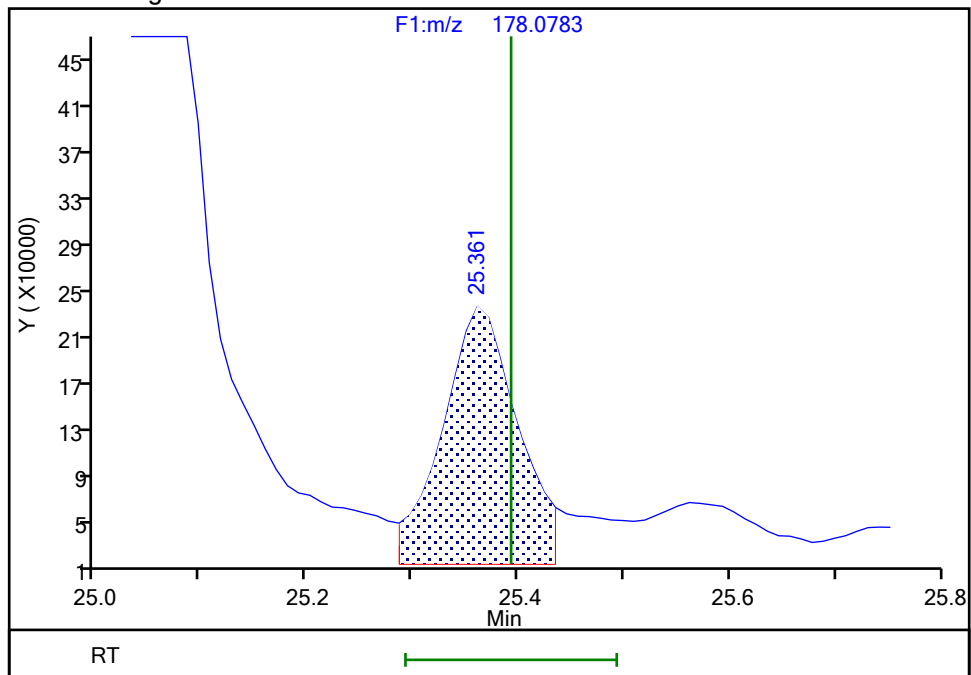
RT: 25.36  
Area: 1243204  
Amount: 6.239837  
Amount Units: pg/ul

## Processing Integration Results



RT: 25.36  
Area: 1094487  
Amount: 5.493403  
Amount Units: pg/ul

## Manual Integration Results



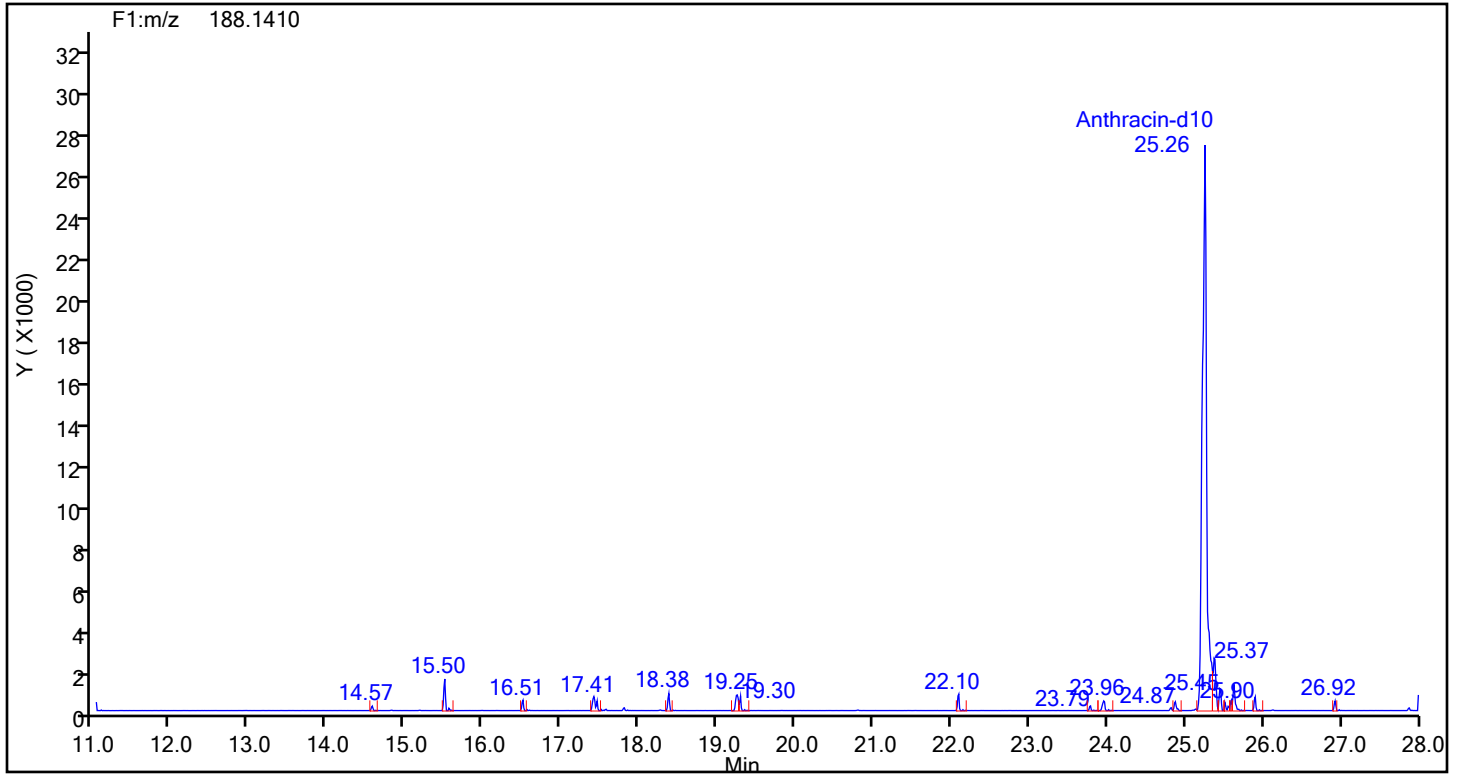
Reviewer: TT6I, 23-Jul-2024 10:35:28 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

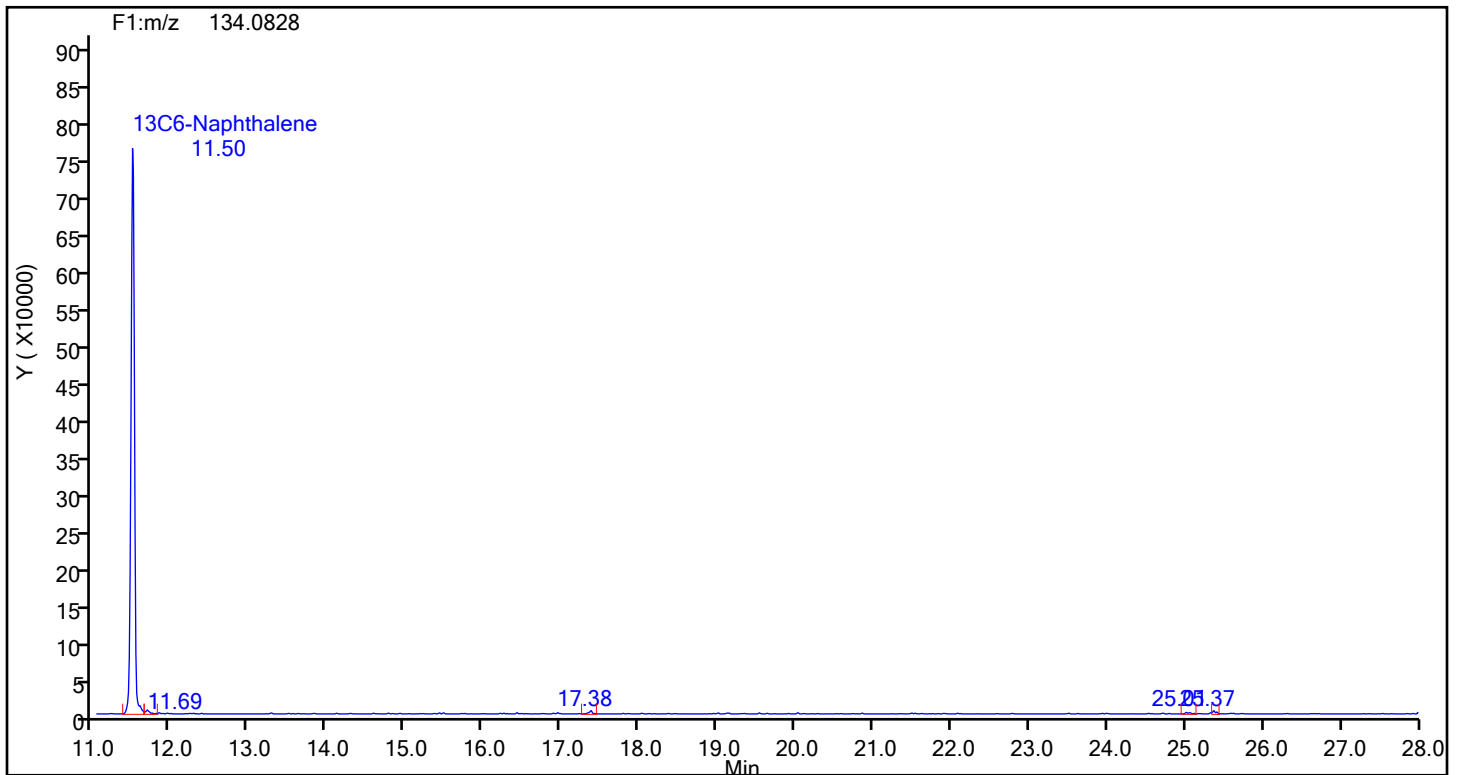
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 89013 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10



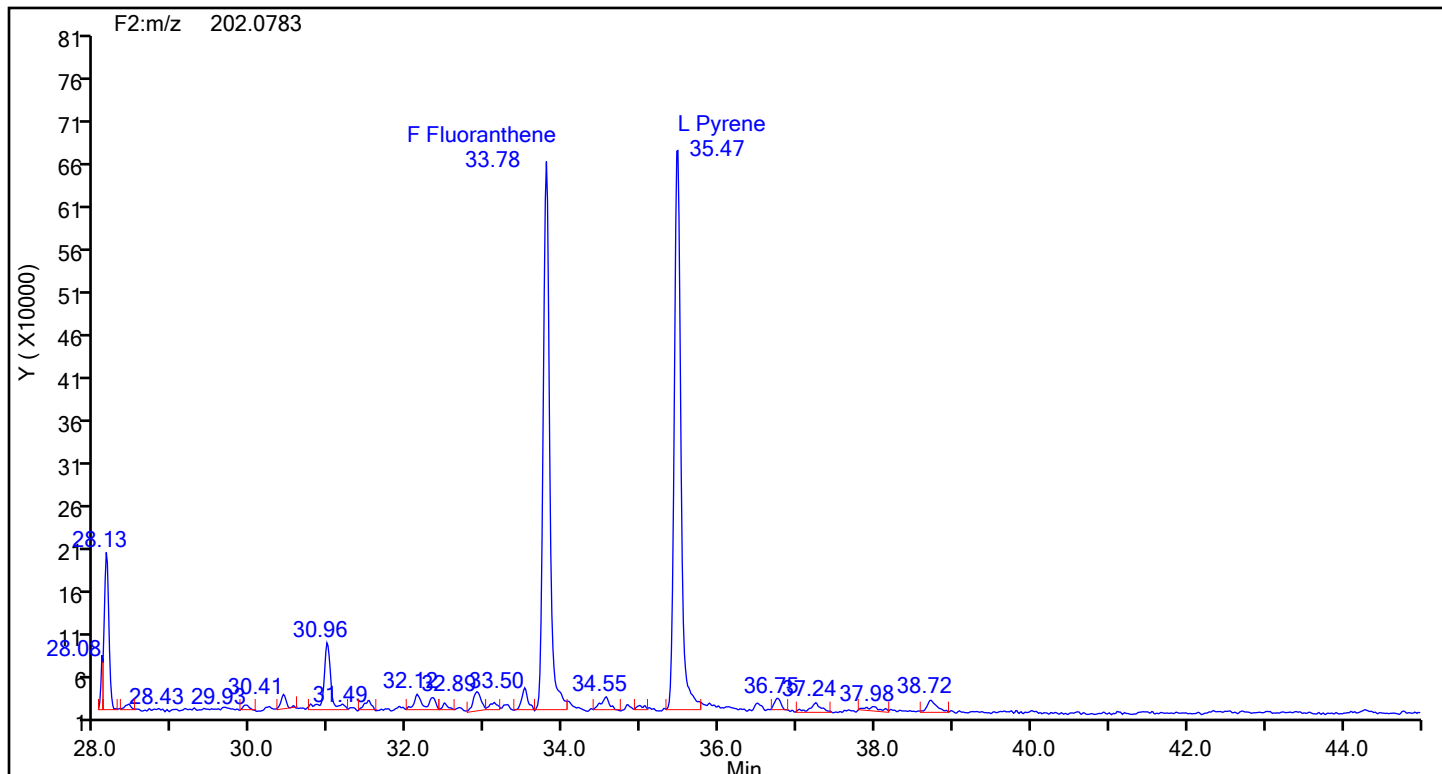
## Anthracin-d10 Standards



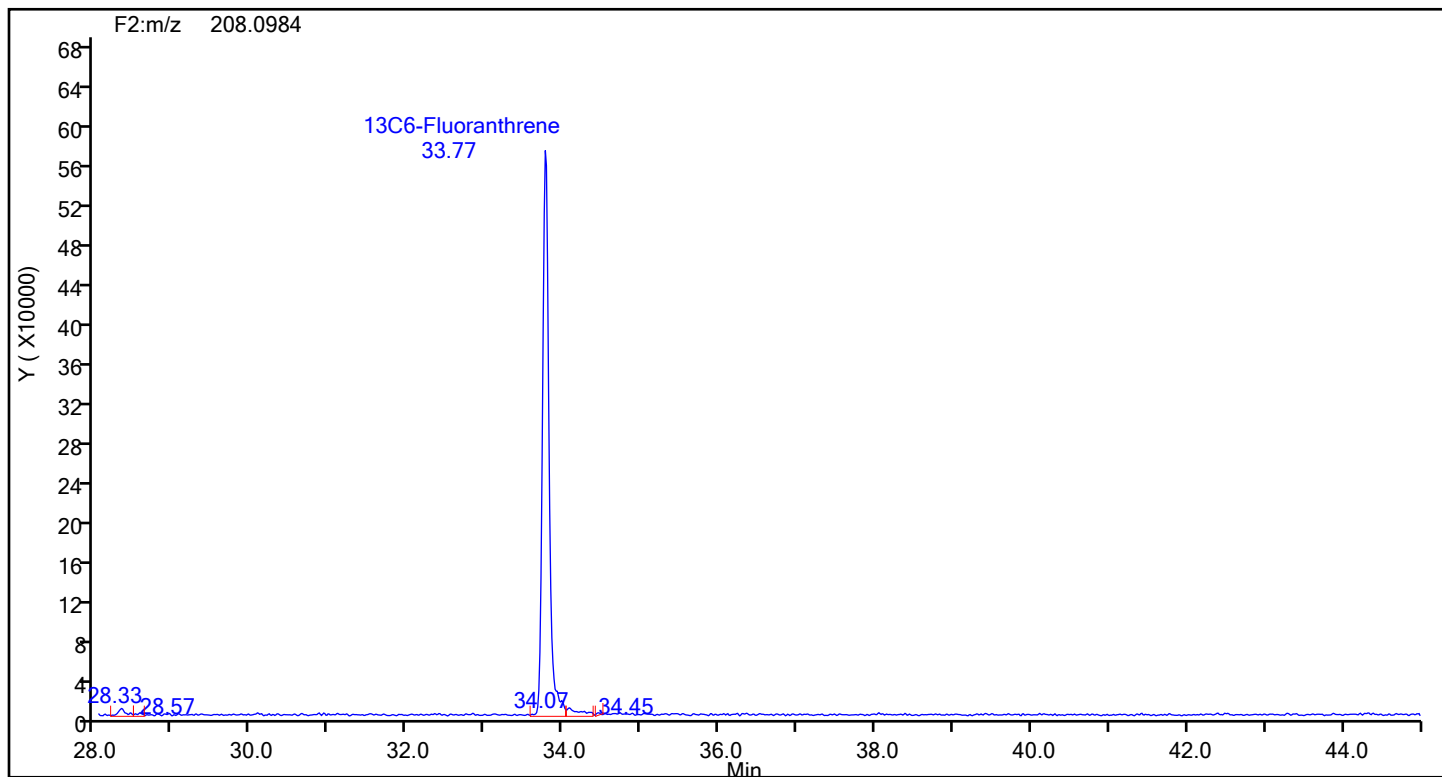
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 89013 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluoranthene



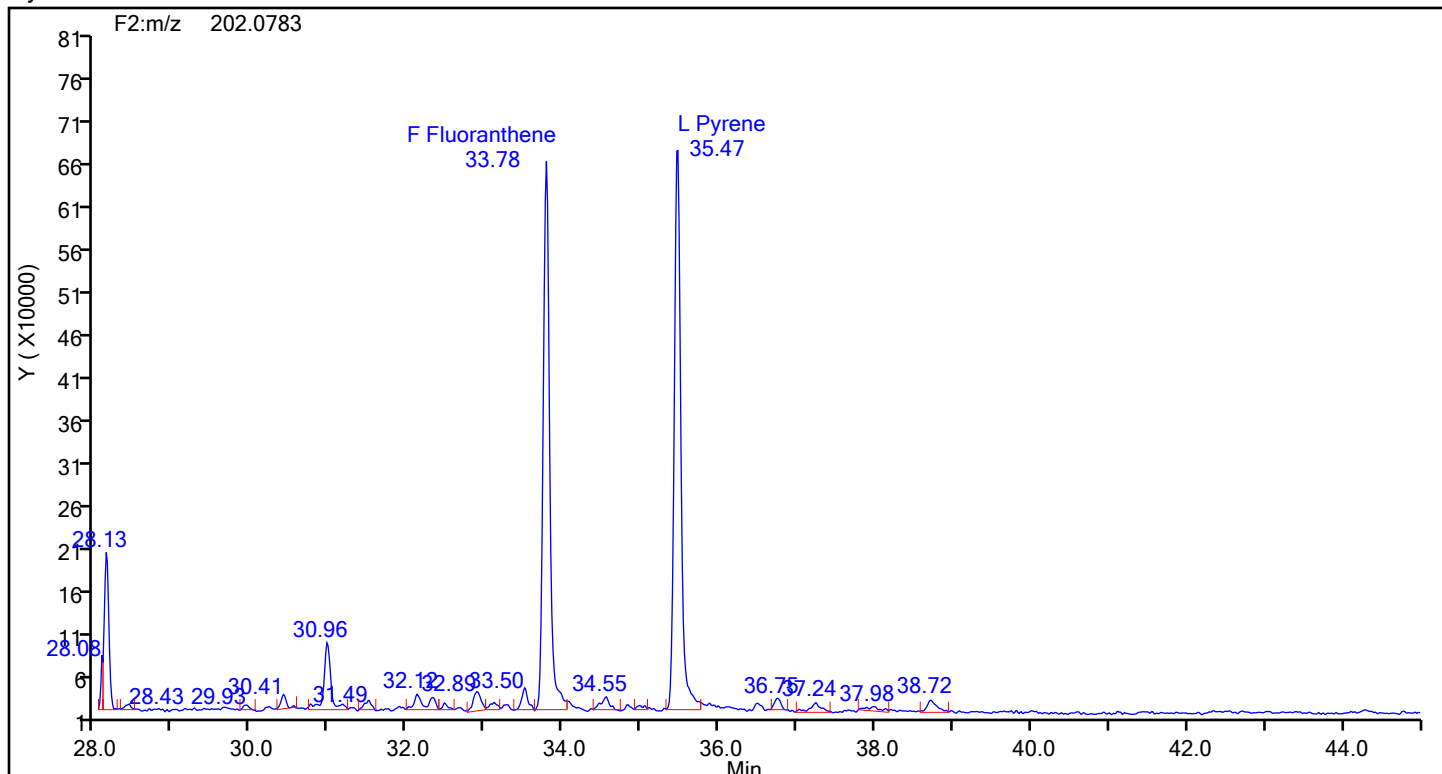
## Fluoranthene Standards



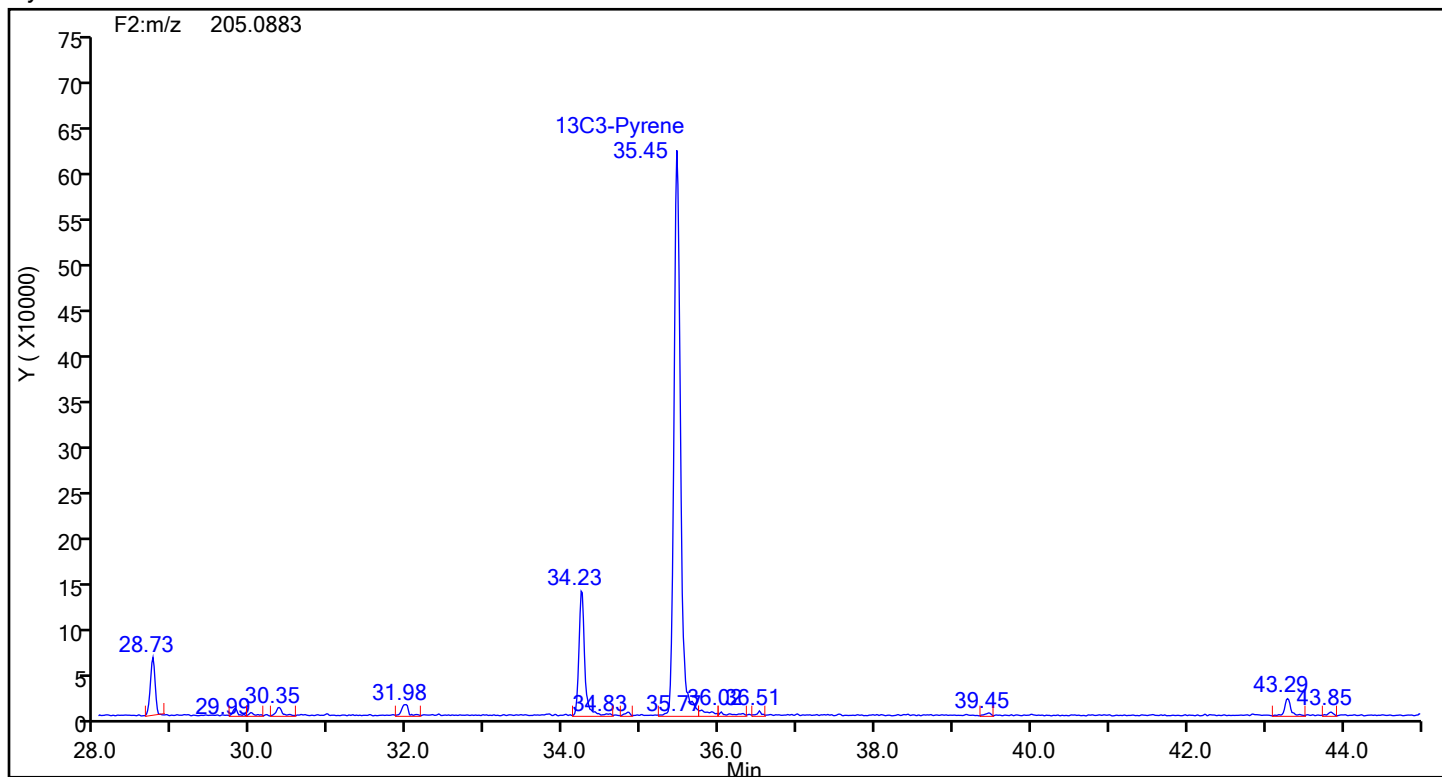
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 89013 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Pyrene



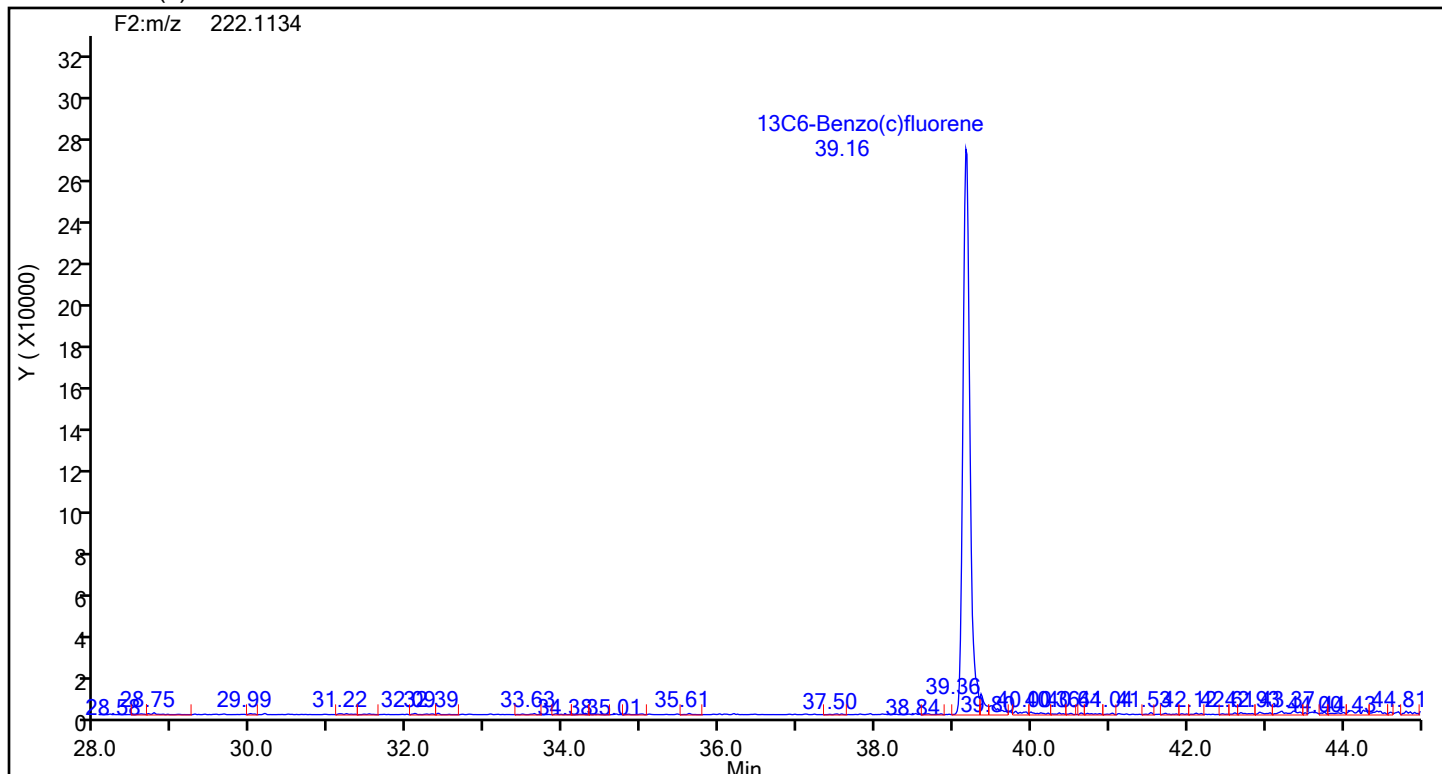
## Pyrene Standards



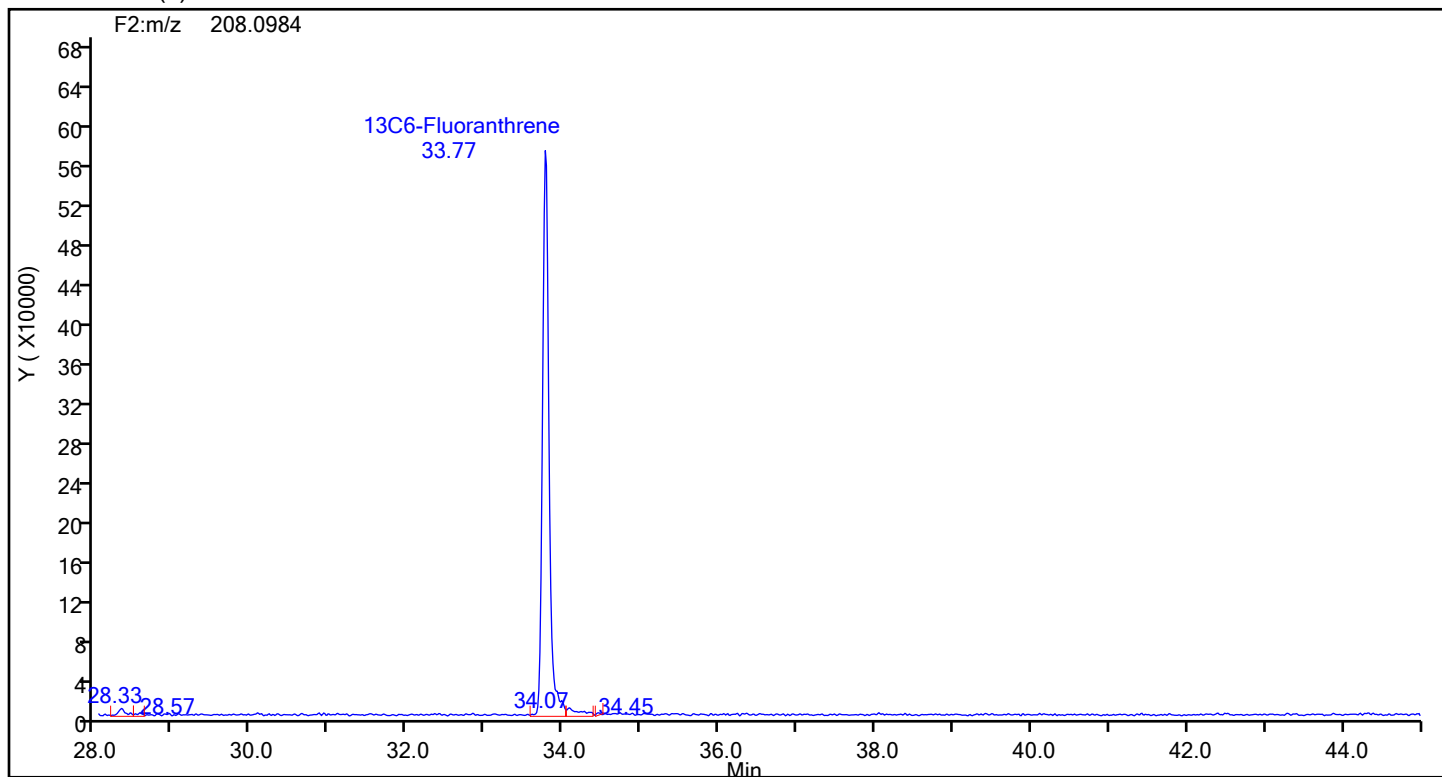
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 89013 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C6-Benzo(c)fluorene



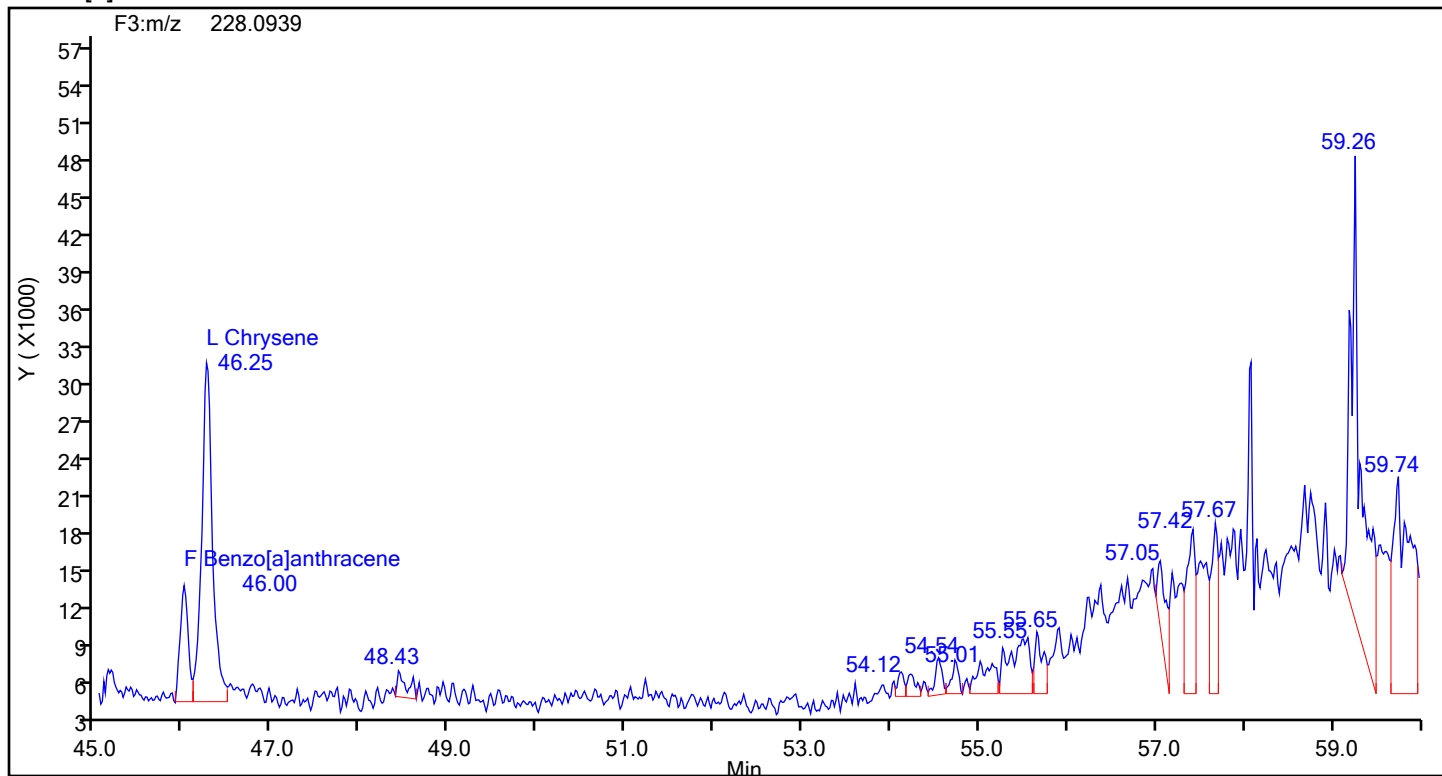
## 13C6-Benzo(c)fluorene Standards



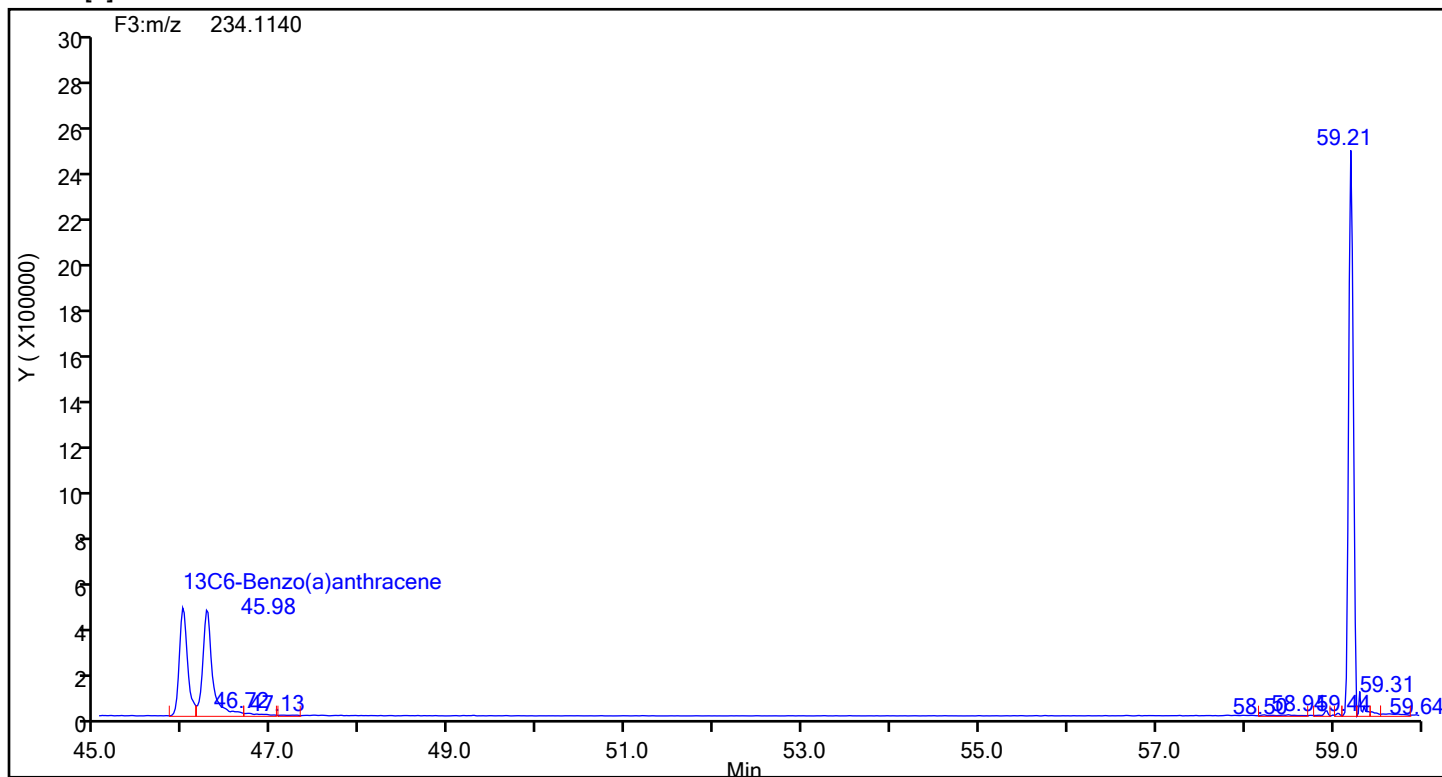
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 89013 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



## Benzo[a]anthracene Standards

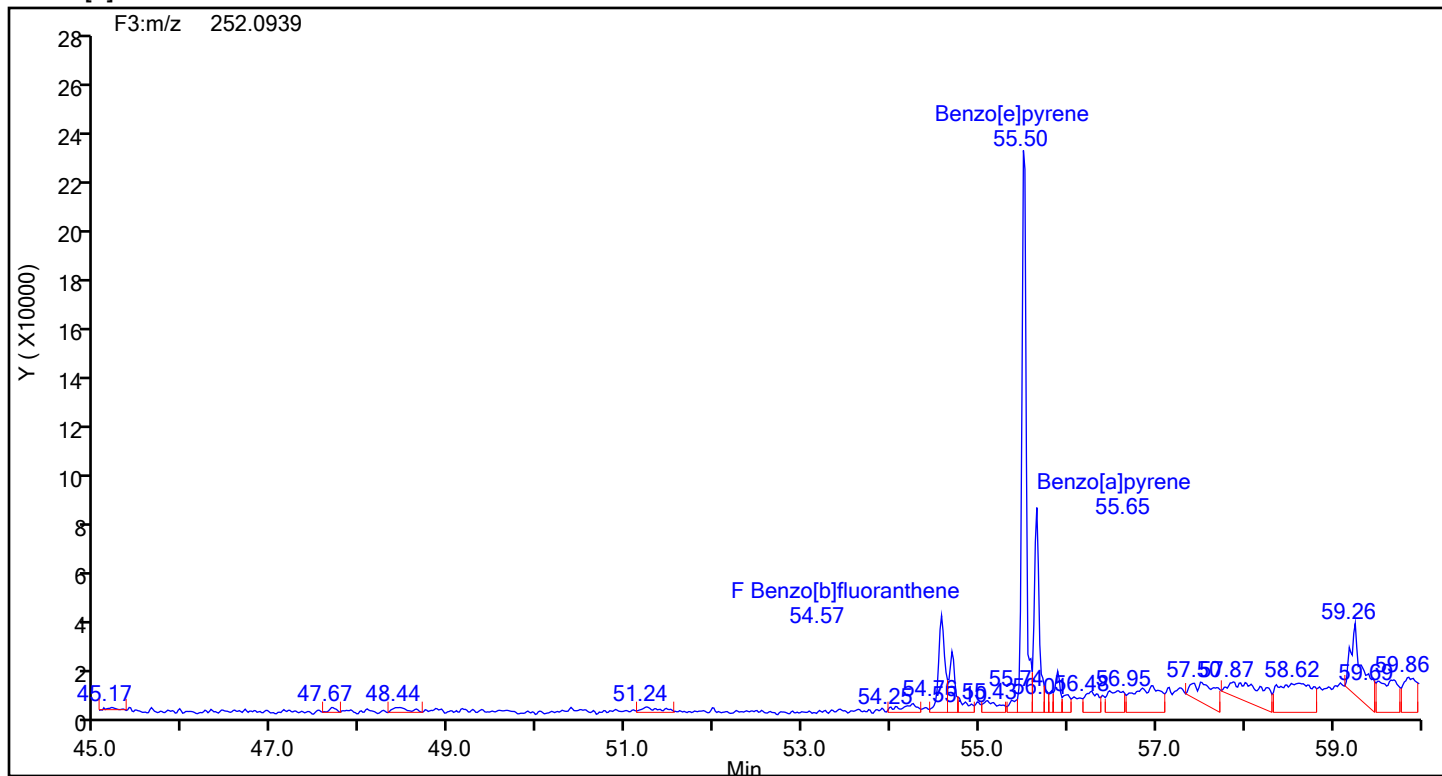




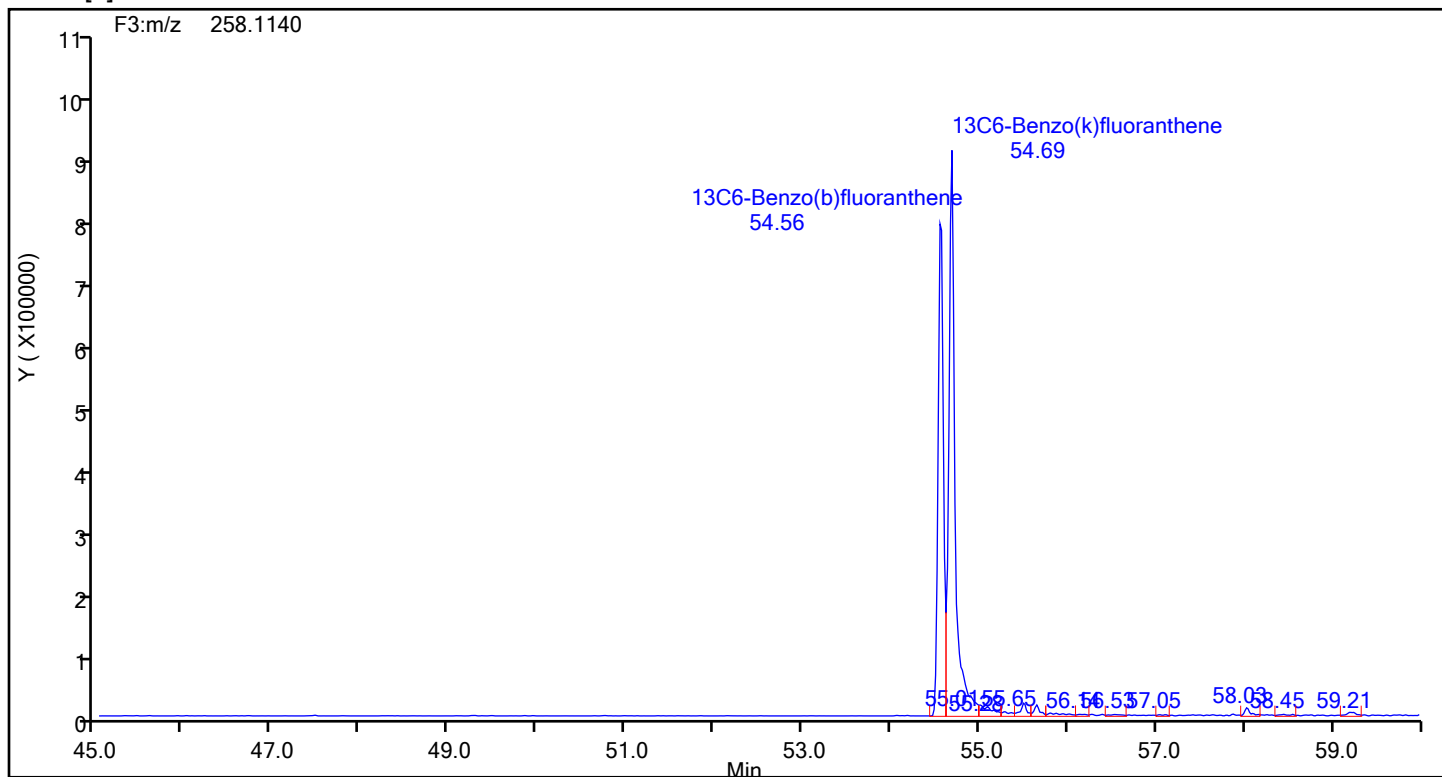
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 89013 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



## Benzo[b]fluoranthene Standards



## Eurofins Knoxville

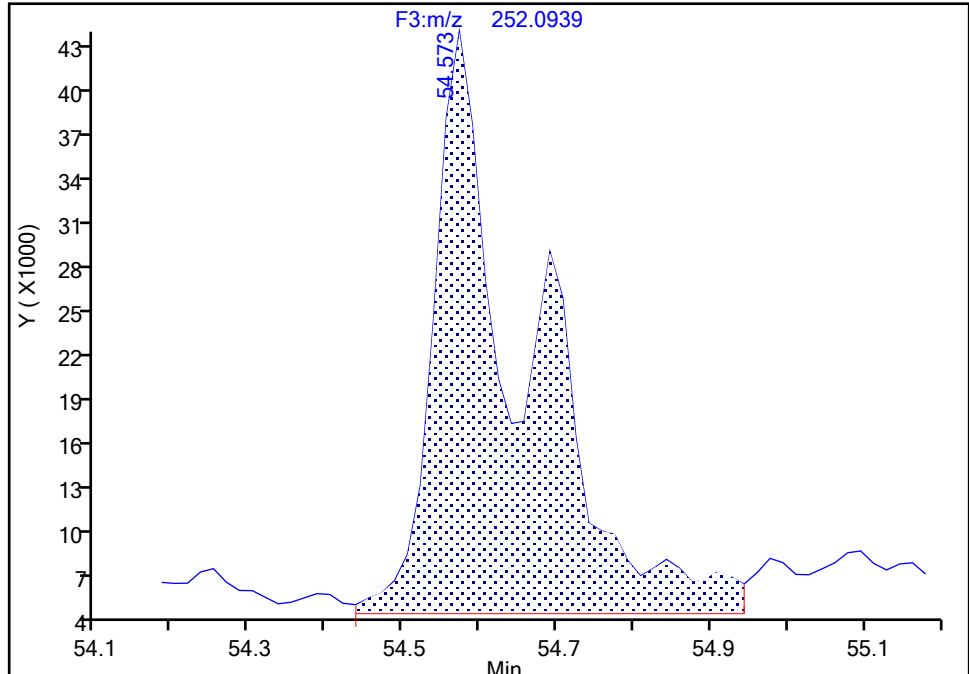
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-5-C Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

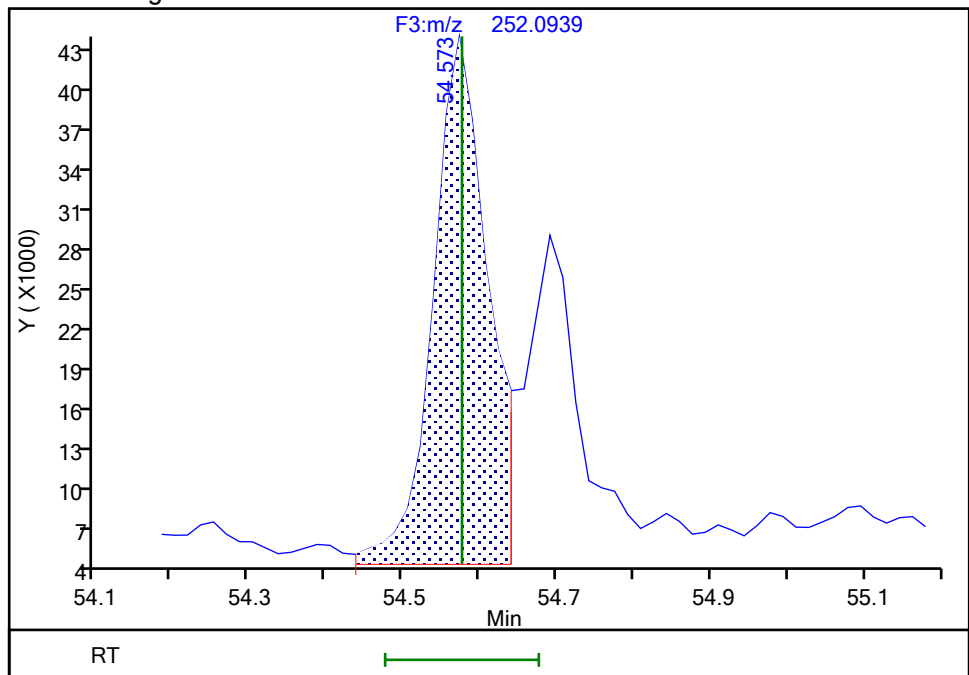
RT: 54.57  
Area: 325737  
Amount: 0.872791  
Amount Units: pg/ul

## Processing Integration Results



RT: 54.57  
Area: 193597  
Amount: 0.518731  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:36:26 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

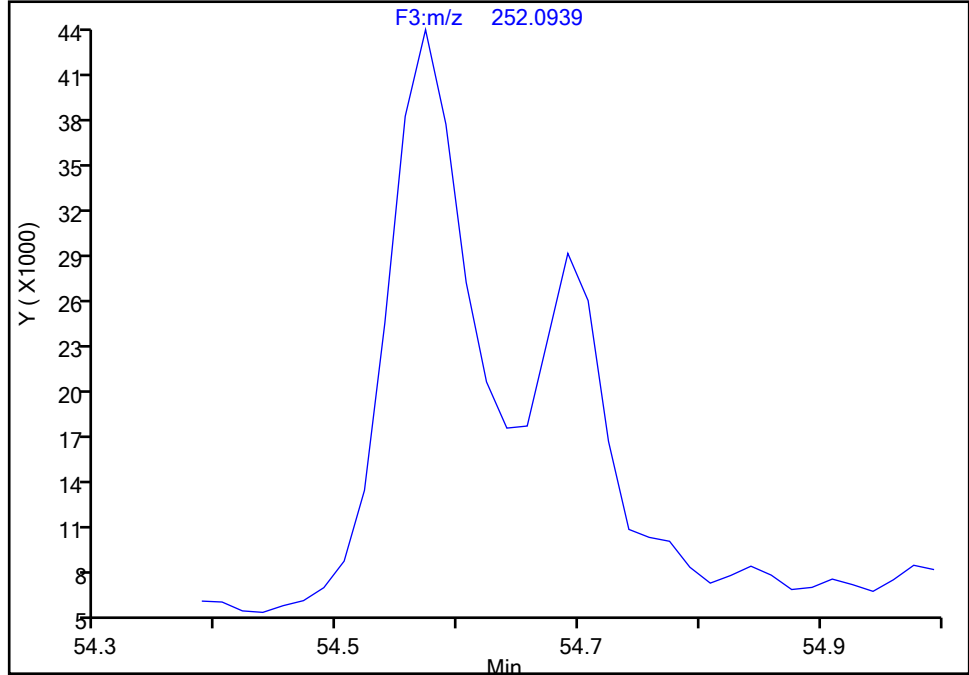
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-5-C Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

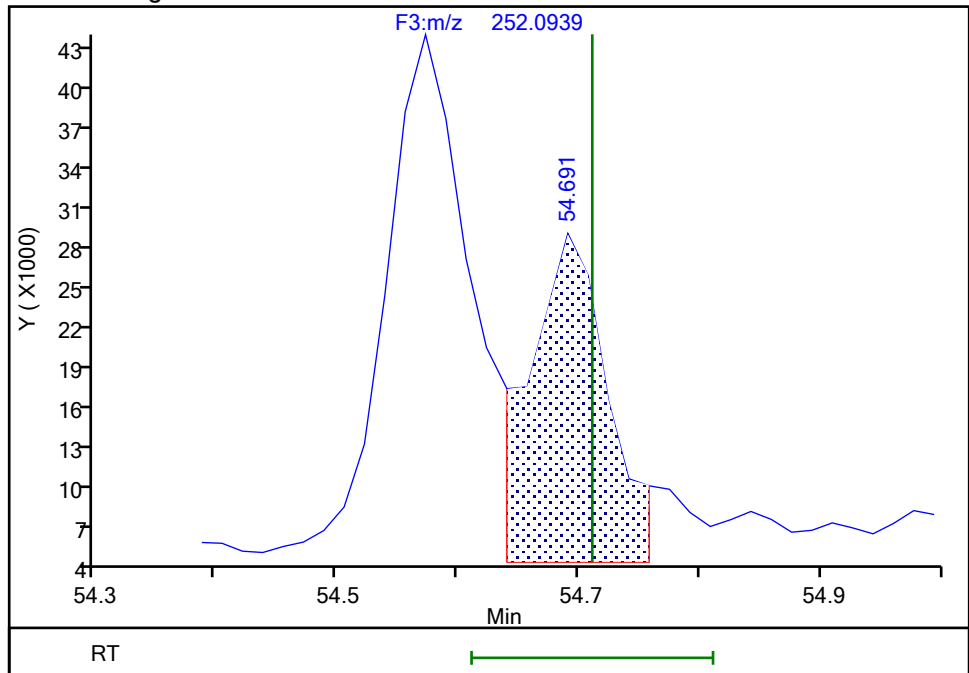
Not Detected  
Expected RT: 54.71

## Processing Integration Results



RT: 54.69  
Area: 113140  
Amount: 0.223282  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:37:37 -04:00:00 (UTC)

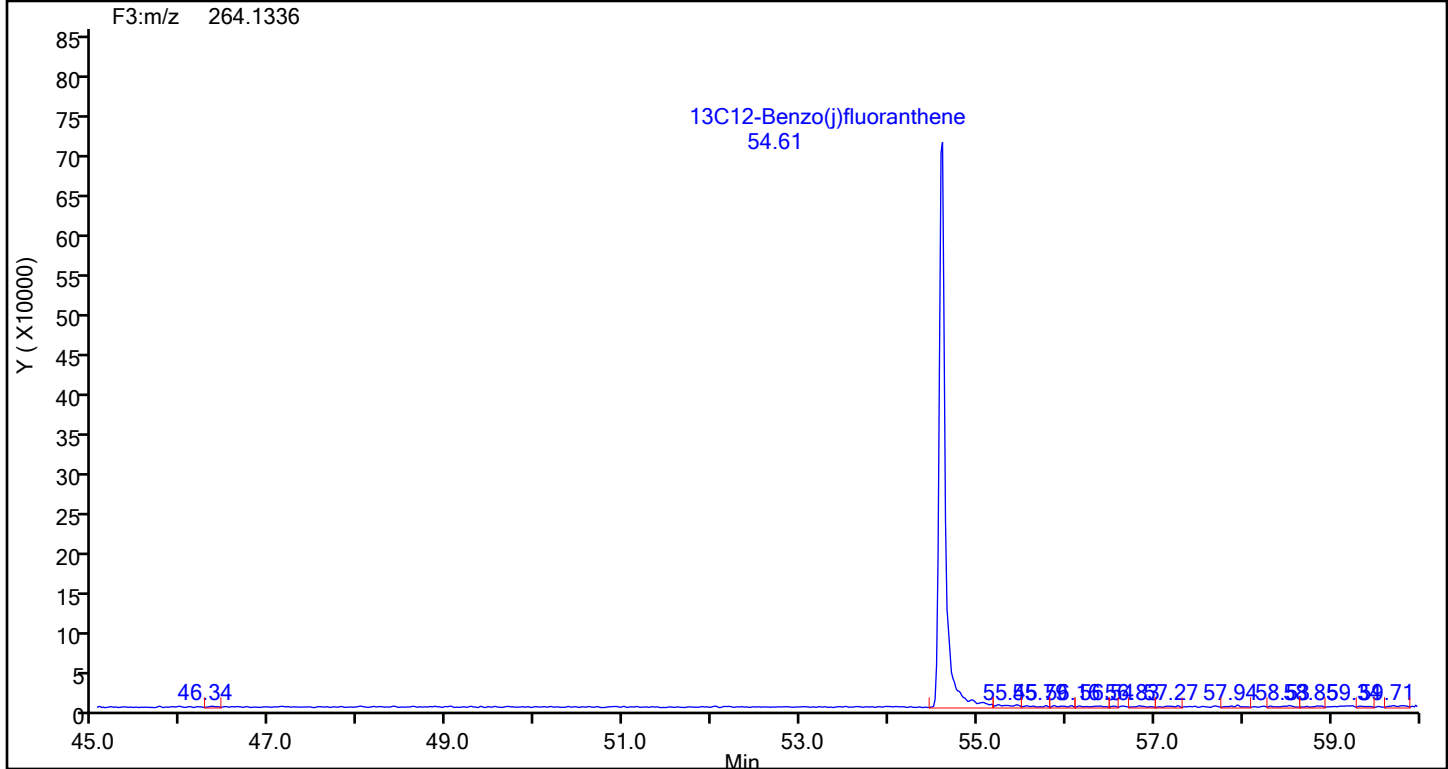
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

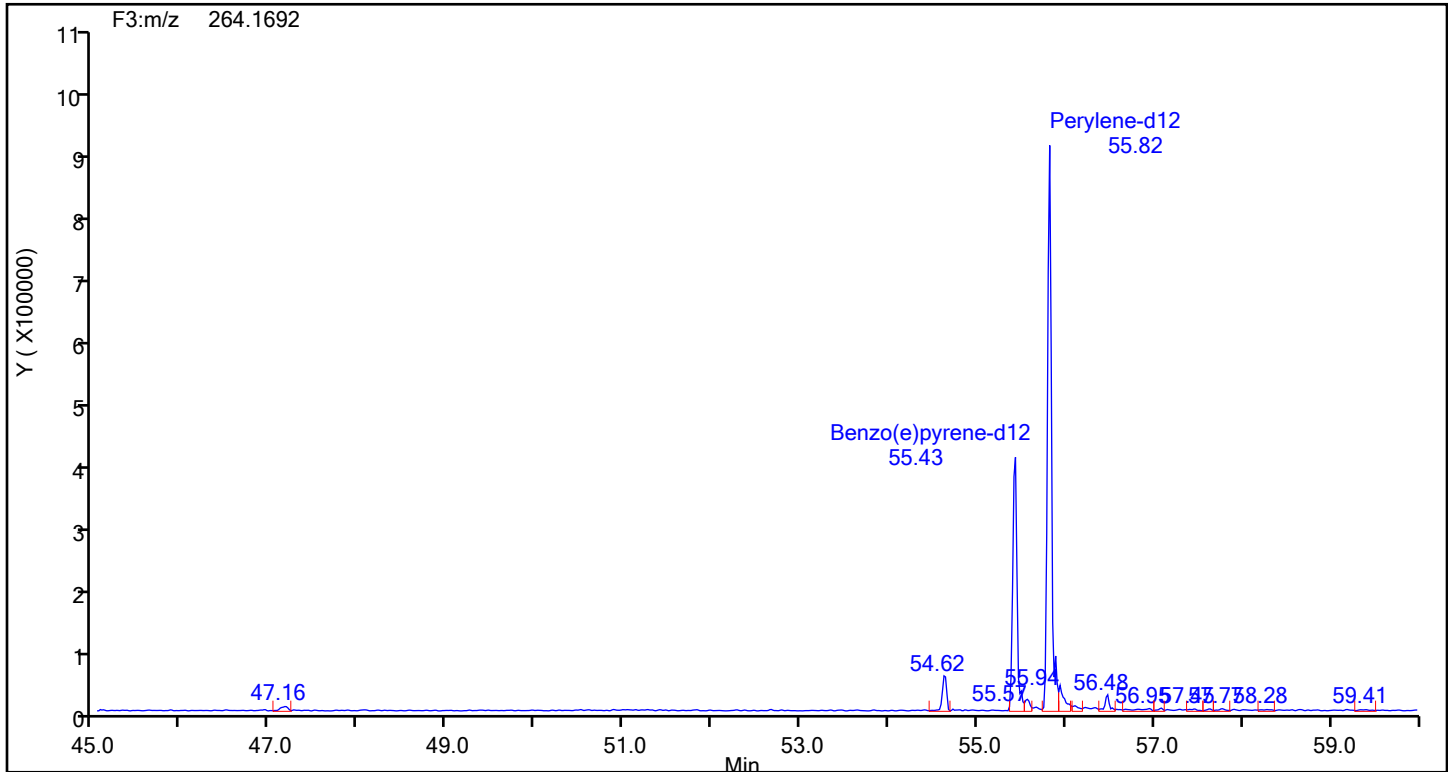
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 89013 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



## 13C12-Benzo(j)fluoranthene Standards



## Eurofins Knoxville

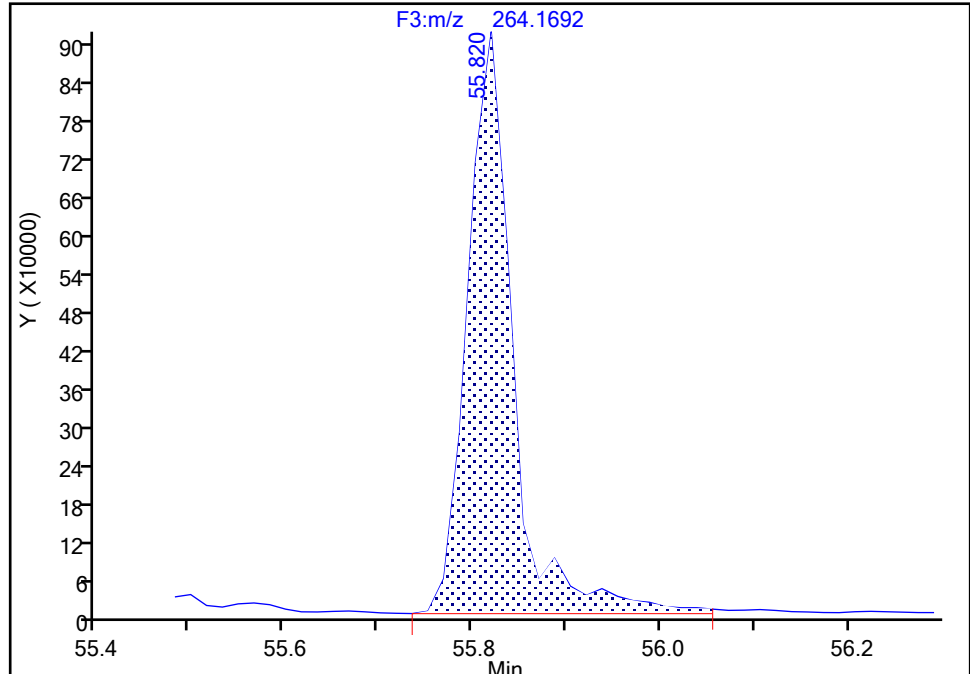
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-5-C Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

Perylene-d12, CAS: 1520-96-3

Signal: 1

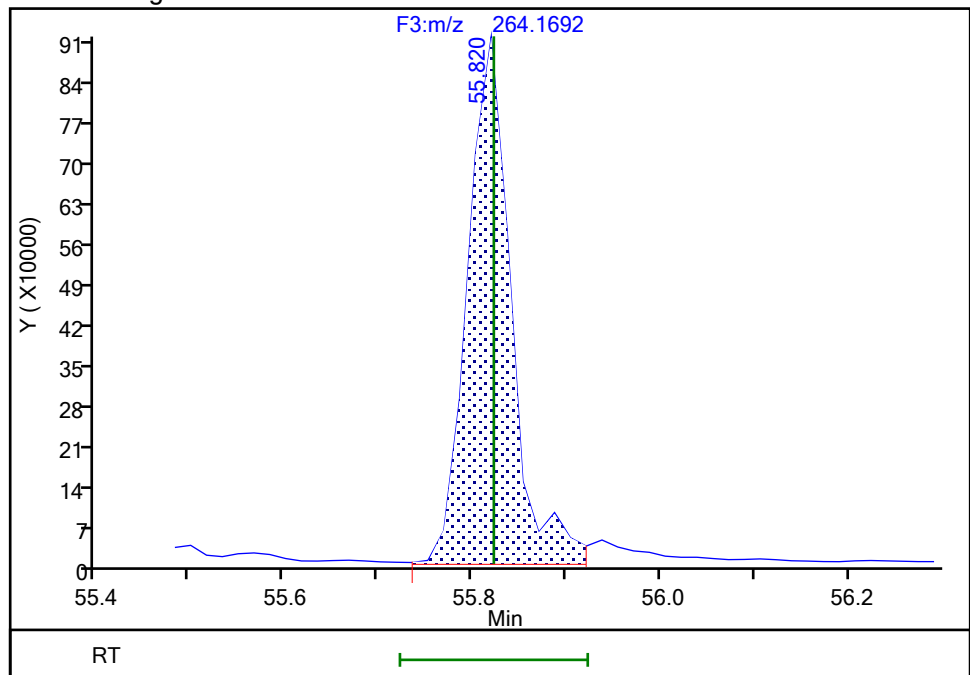
RT: 55.82  
Area: 3092493  
Amount: 9.194812  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.82  
Area: 2944461  
Amount: 8.754673  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:35:37 -04:00:00 (UTC)

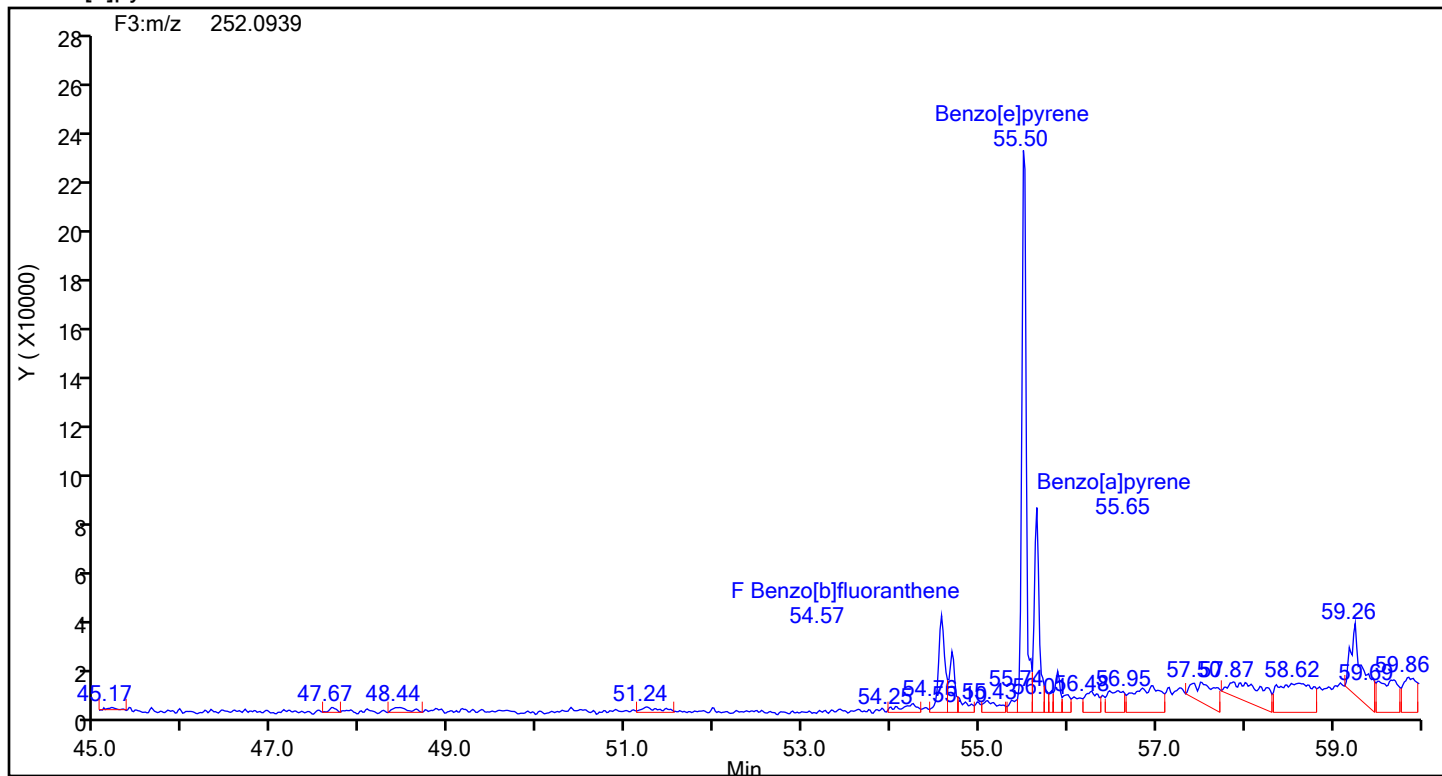
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

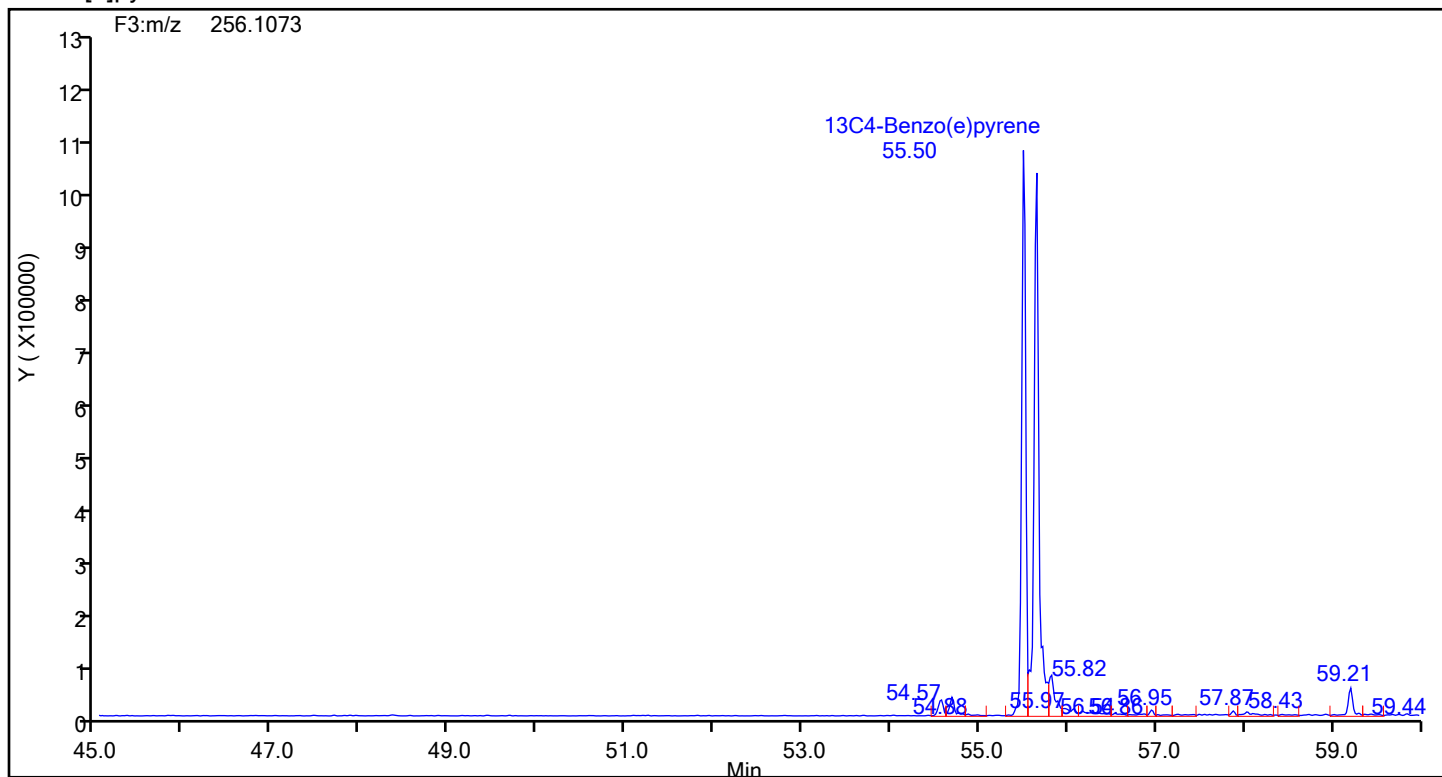
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 89013 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[e]pyrene



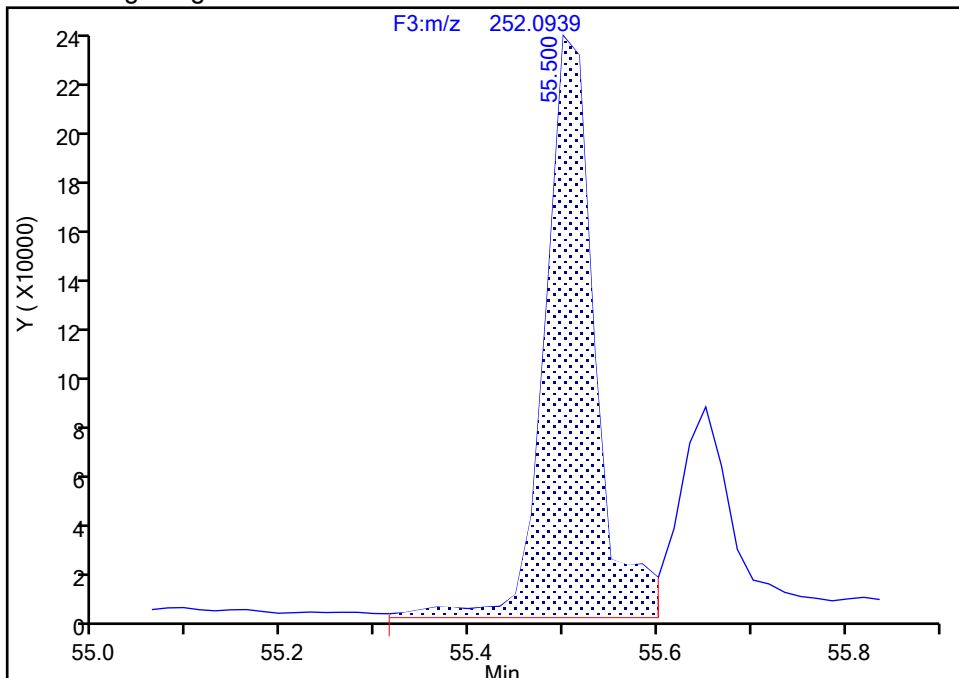
## Benzo[e]pyrene Standards



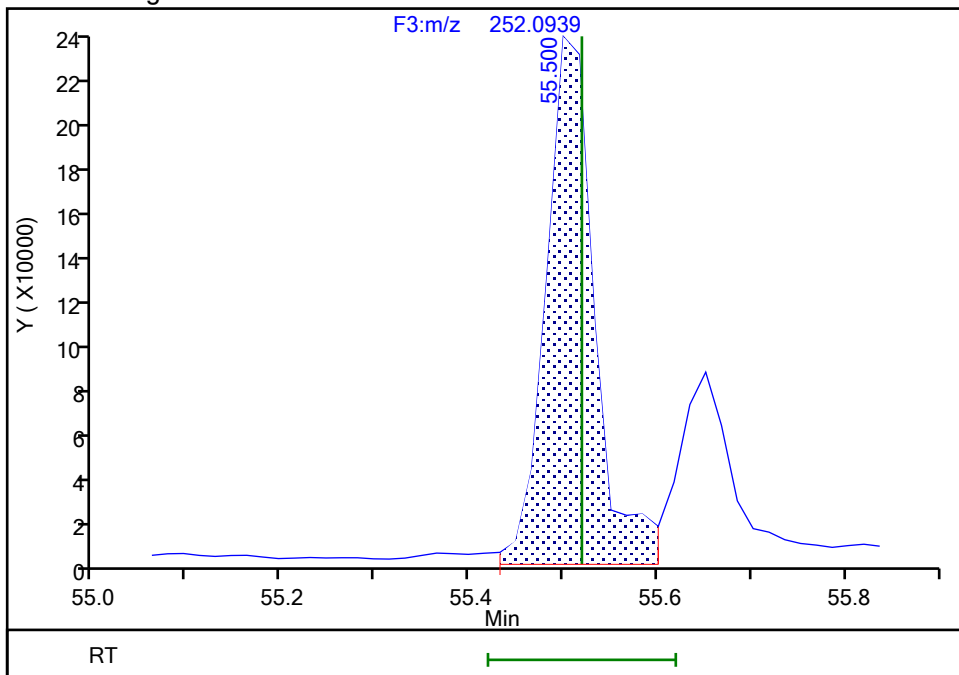
Data File:	\\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d				
Injection Date:	22-Jul-2024 20:24:00	Instrument ID:	D3PAH		
Lims ID:	140-37234-A-5-C	Lab Sample ID:	140-37234-5		
Client ID:	M23 F-10 BOILER RUN 6 COMBINED				
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	10.0000		
Method:	EPA_23_PAH	Limit Group:	HR - HRPAAH ICAL		
Column:	Restek-5Sil MS 25um ( 0.25 mm)	Detector	F3(44.04 :59.98 )		

Signal: 1

RT:	55.50
Area:	834908
Amount:	2.455480
Amount Units:	pg/ul



RT: 55.50  
Area: 819268  
Amount: 2.409483  
Amount Units: pg/ul



## Eurofins Knoxville

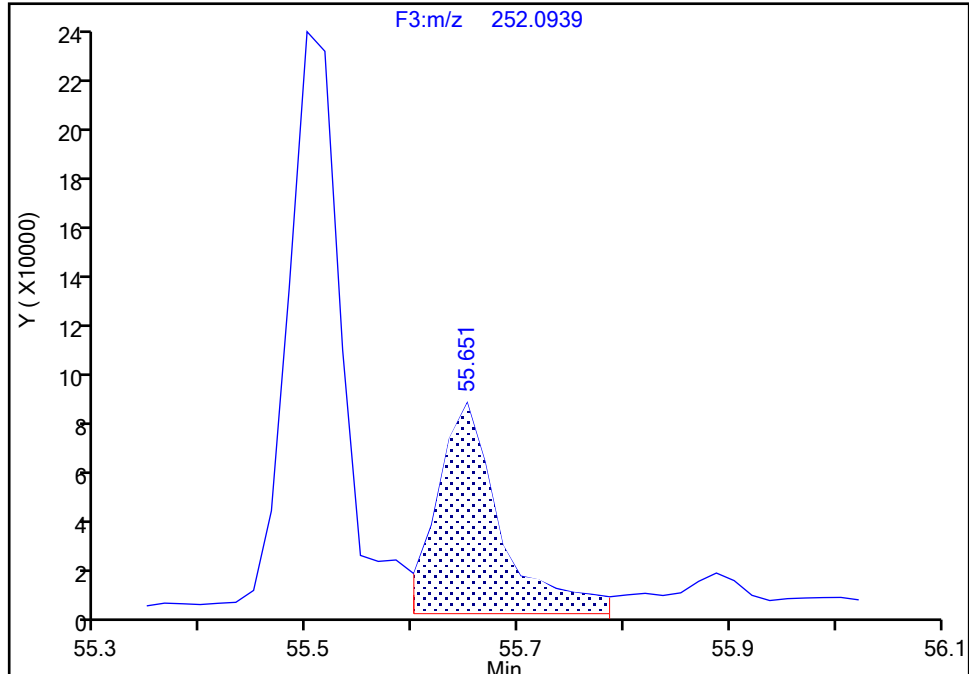
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-5-C Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Benzo[a]pyrene, CAS: 50-32-8

Signal: 1

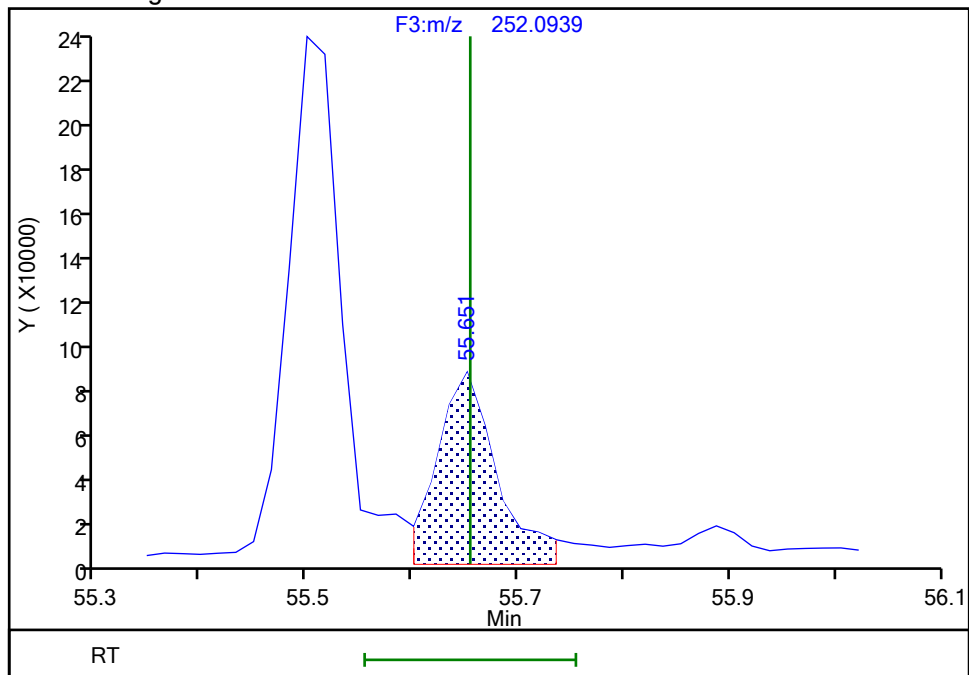
RT: 55.65  
Area: 341314  
Amount: 0.750177  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.65  
Area: 329422  
Amount: 0.724039  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:37:18 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

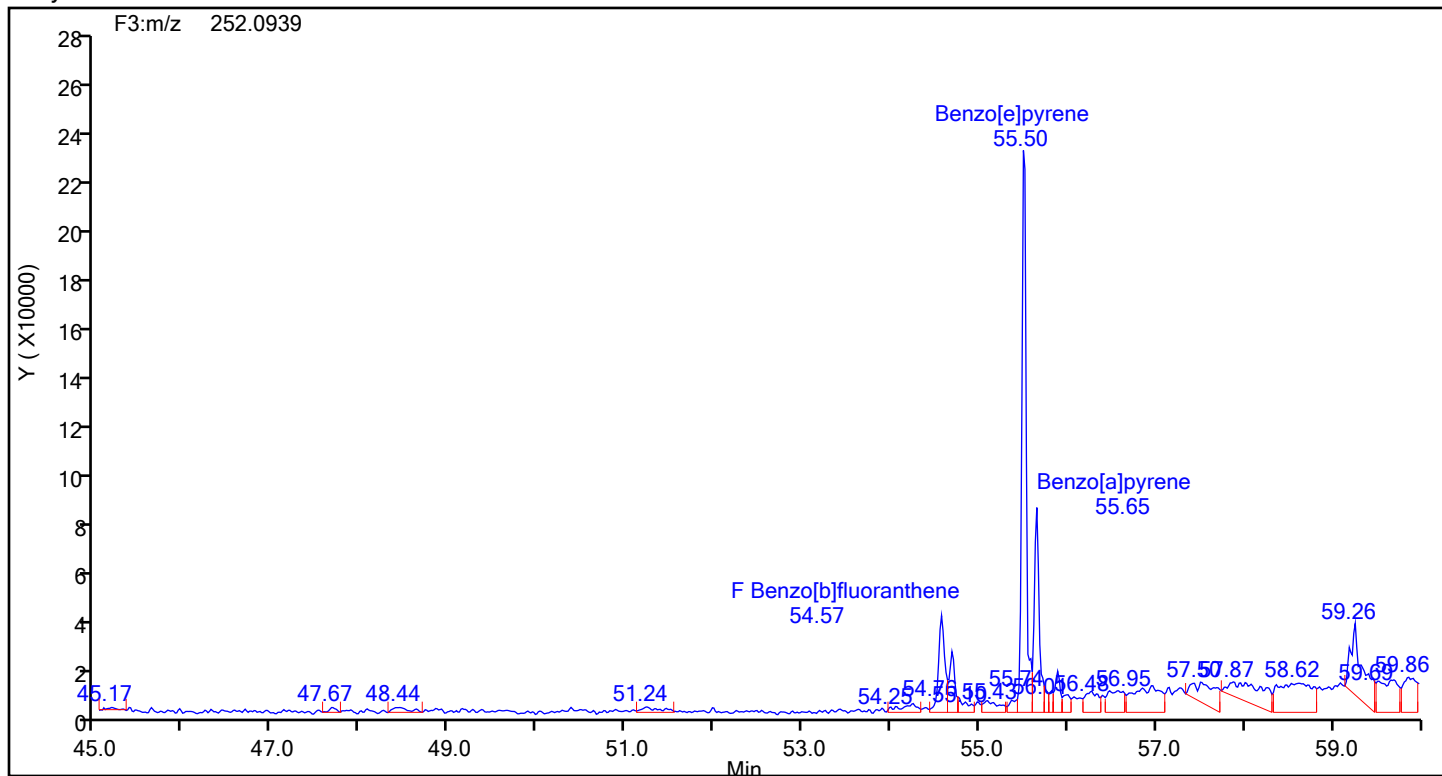
Audit Reason: Incomplete Integration



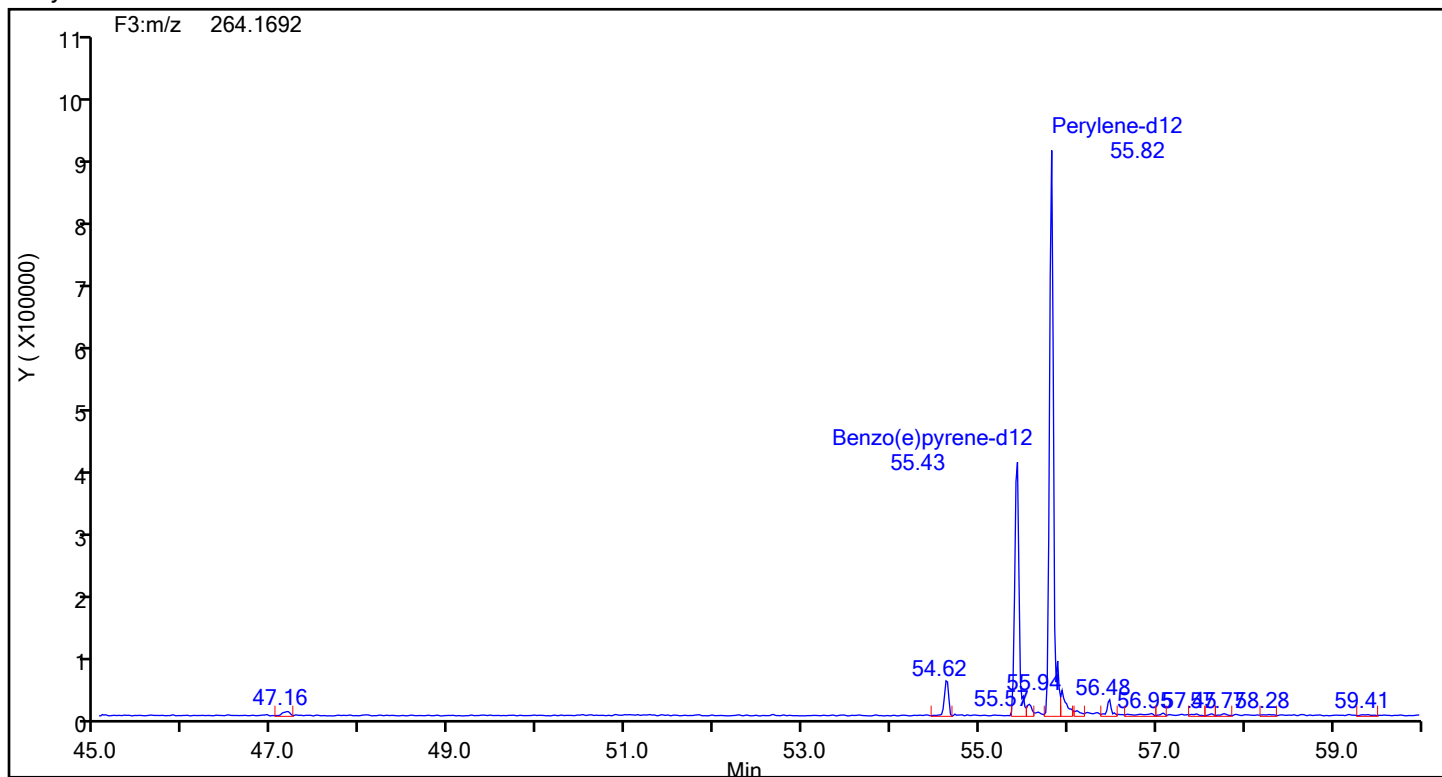
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 89013 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Perylene



## Perylene Standards



## Eurofins Knoxville

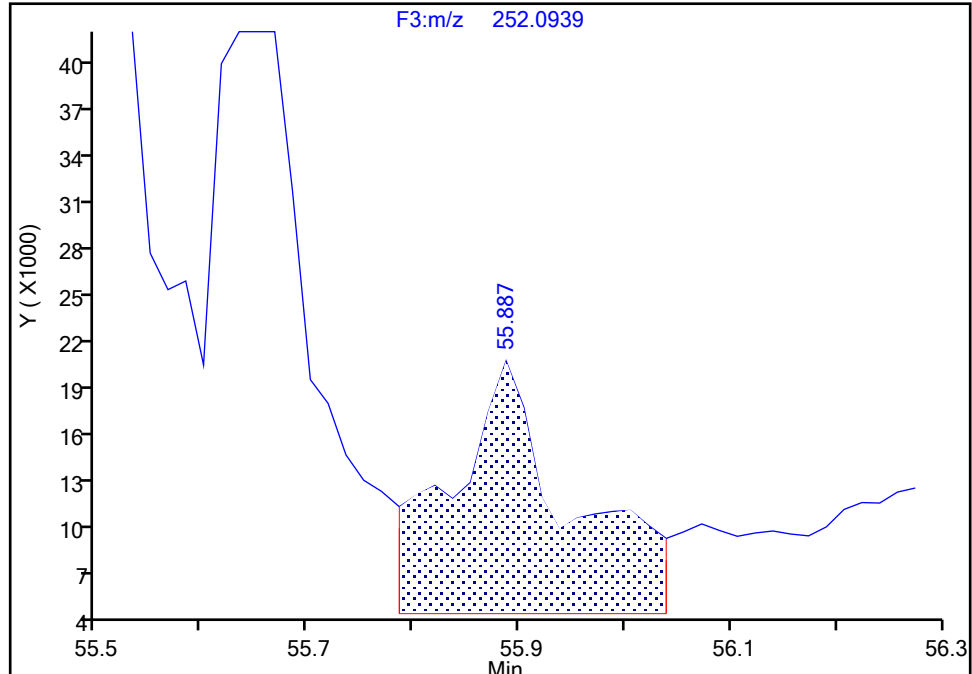
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-5-C Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**Perylene, CAS: 198-55-0**

Signal: 1

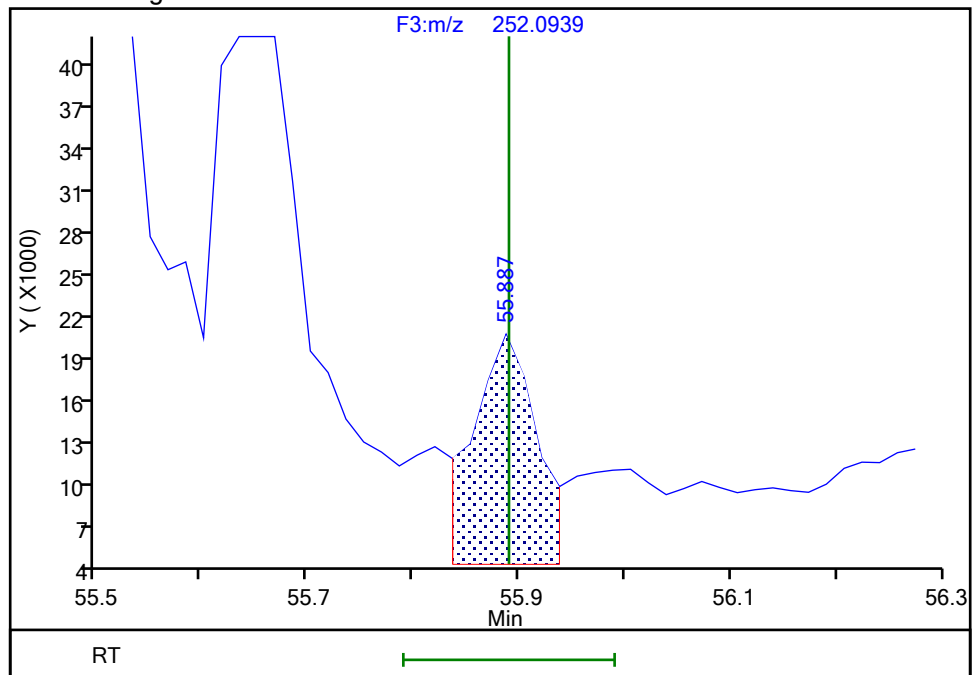
RT: 55.89  
Area: 124732  
Amount: 0.296095  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.89  
Area: 71325  
Amount: 0.169315  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:36:19 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

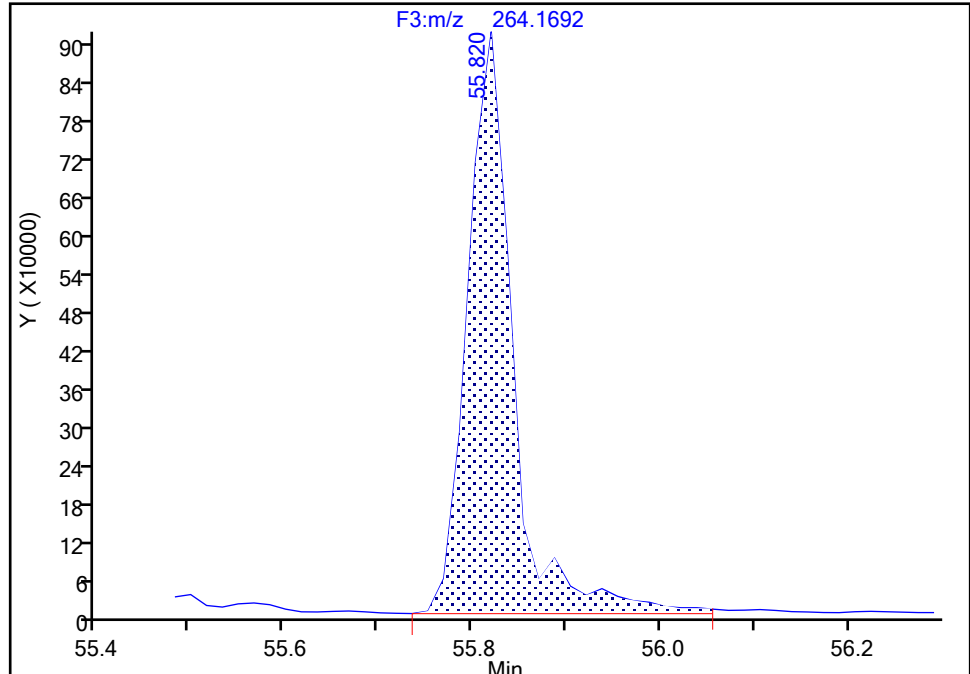
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-5-C Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

## Perylene-d12, CAS: 1520-96-3

Signal: 1

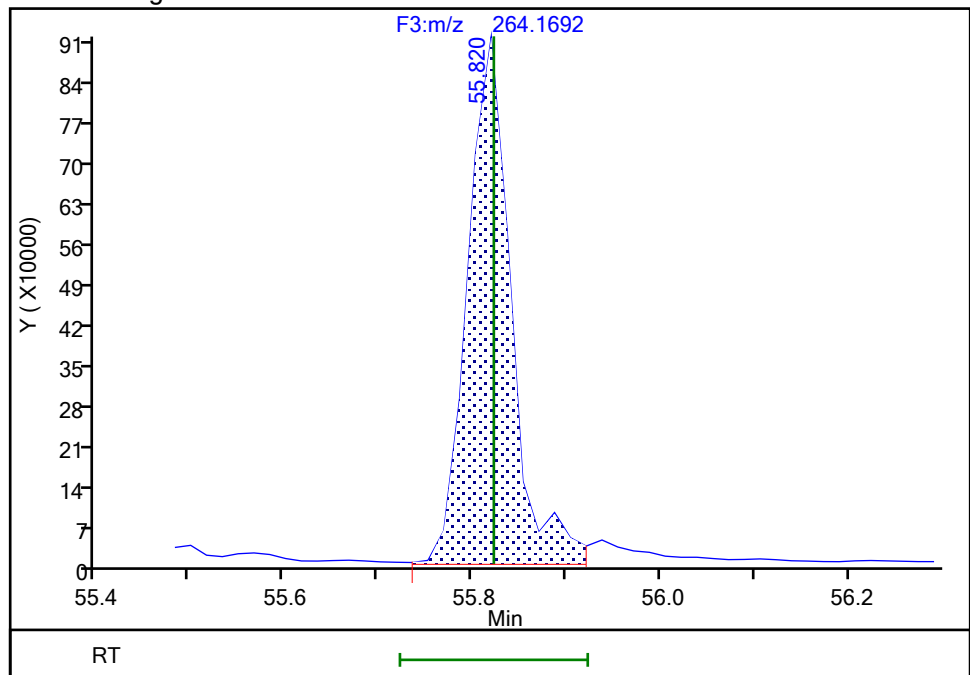
RT: 55.82  
Area: 3092493  
Amount: 9.194812  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.82  
Area: 2944461  
Amount: 8.754673  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:35:37 -04:00:00 (UTC)

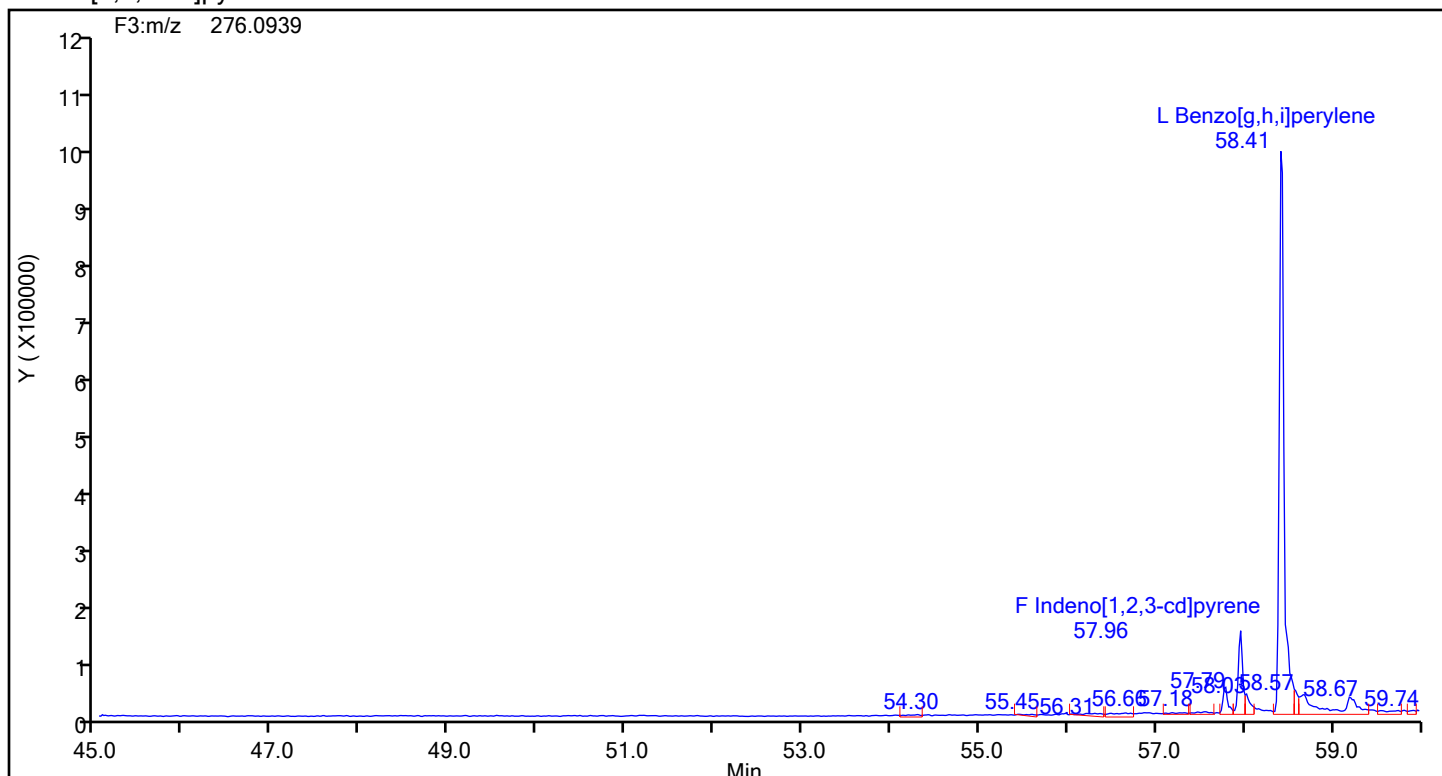
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

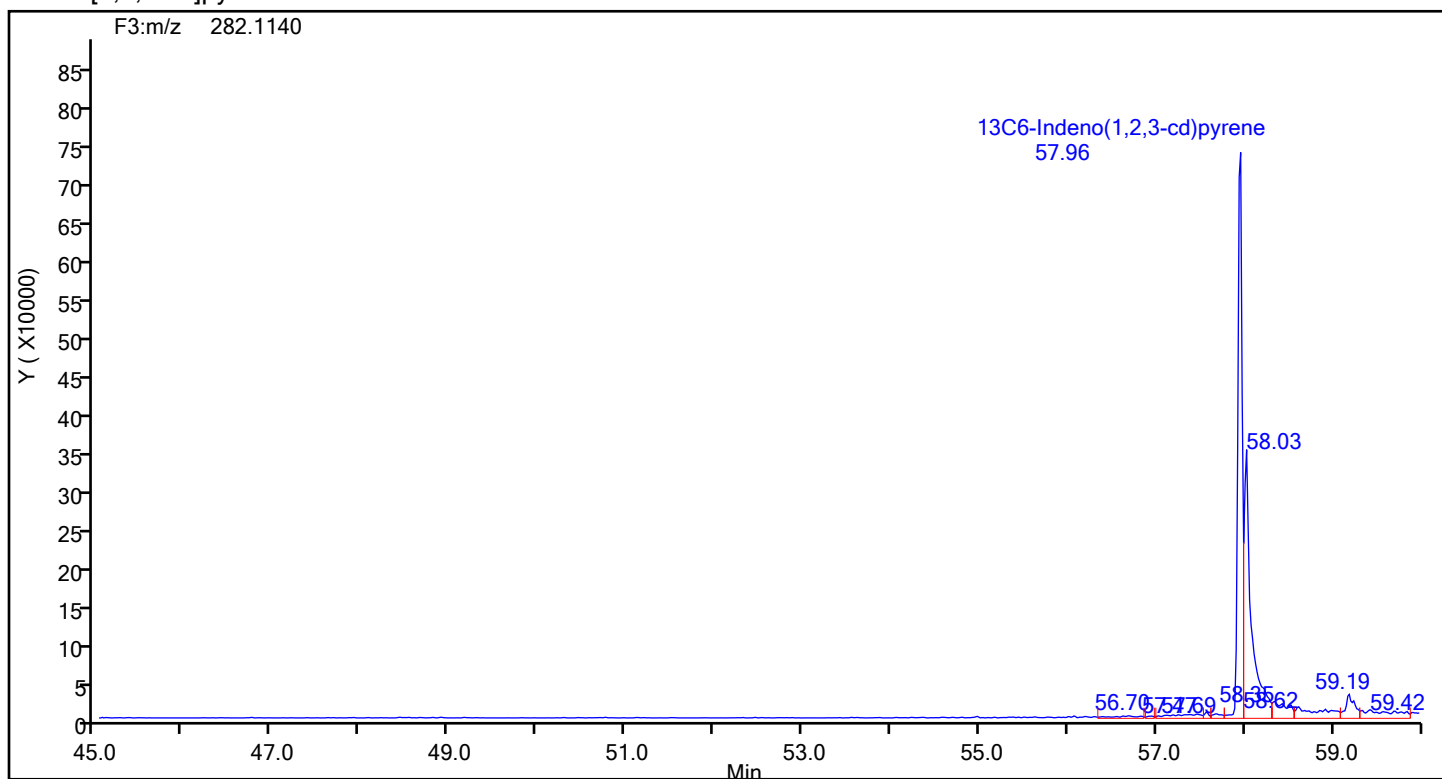
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 89013 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Indeno[1,2,3-cd]pyrene



## Indeno[1,2,3-cd]pyrene Standards



## Eurofins Knoxville

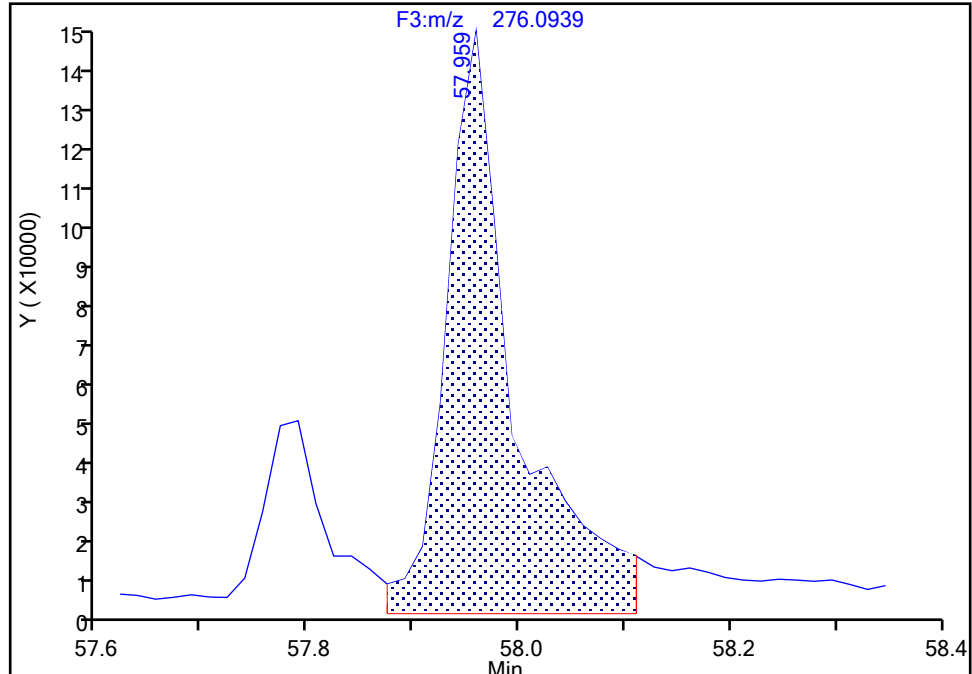
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-5-C Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

## Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

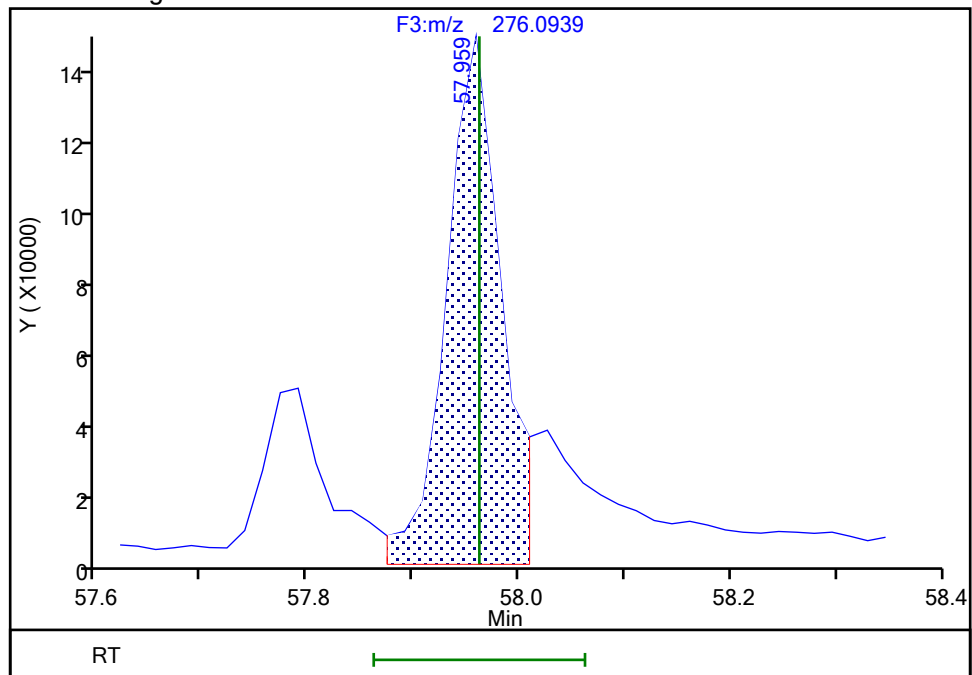
RT: 57.96  
Area: 648875  
Amount: 2.317839  
Amount Units: pg/ul

## Processing Integration Results



RT: 57.96  
Area: 523938  
Amount: 1.871553  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:35:32 -04:00:00 (UTC)

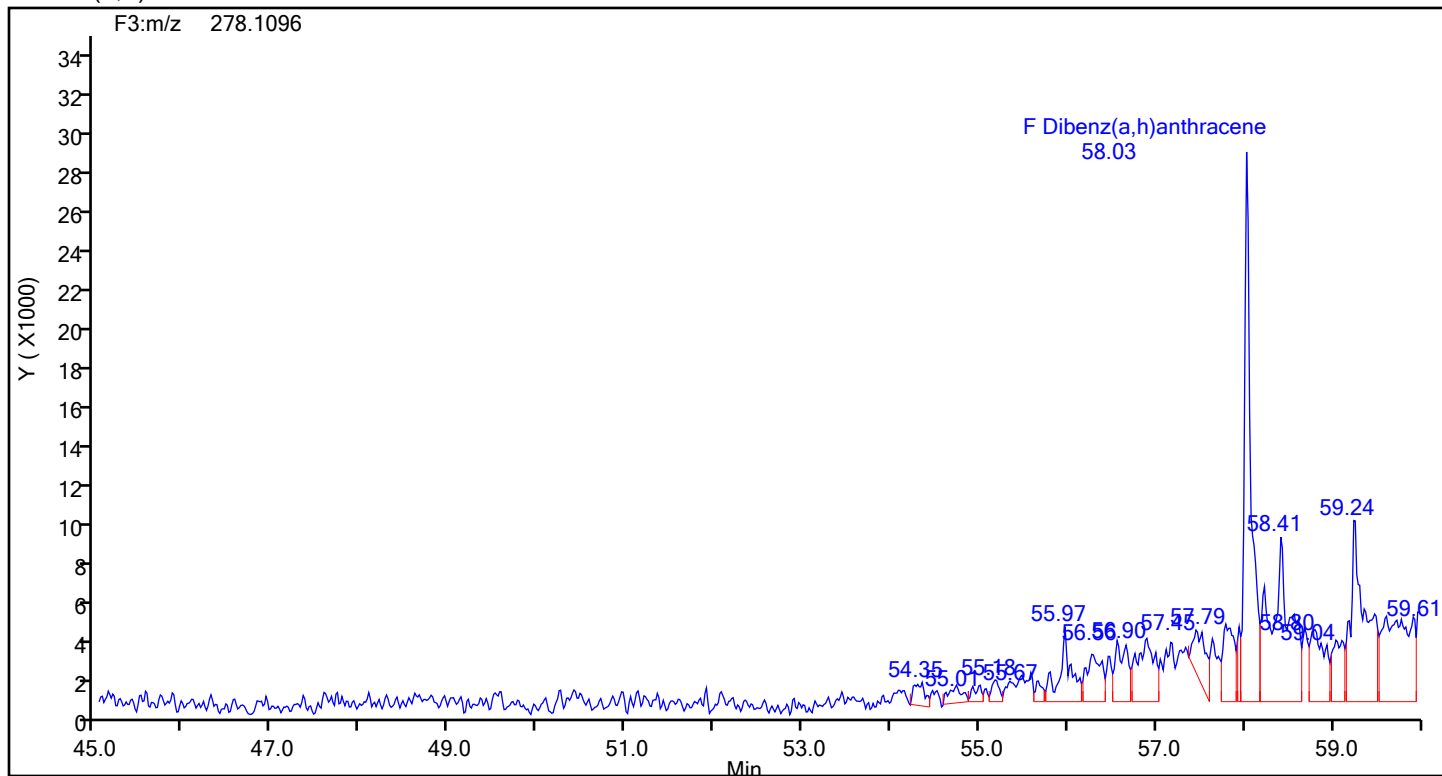
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

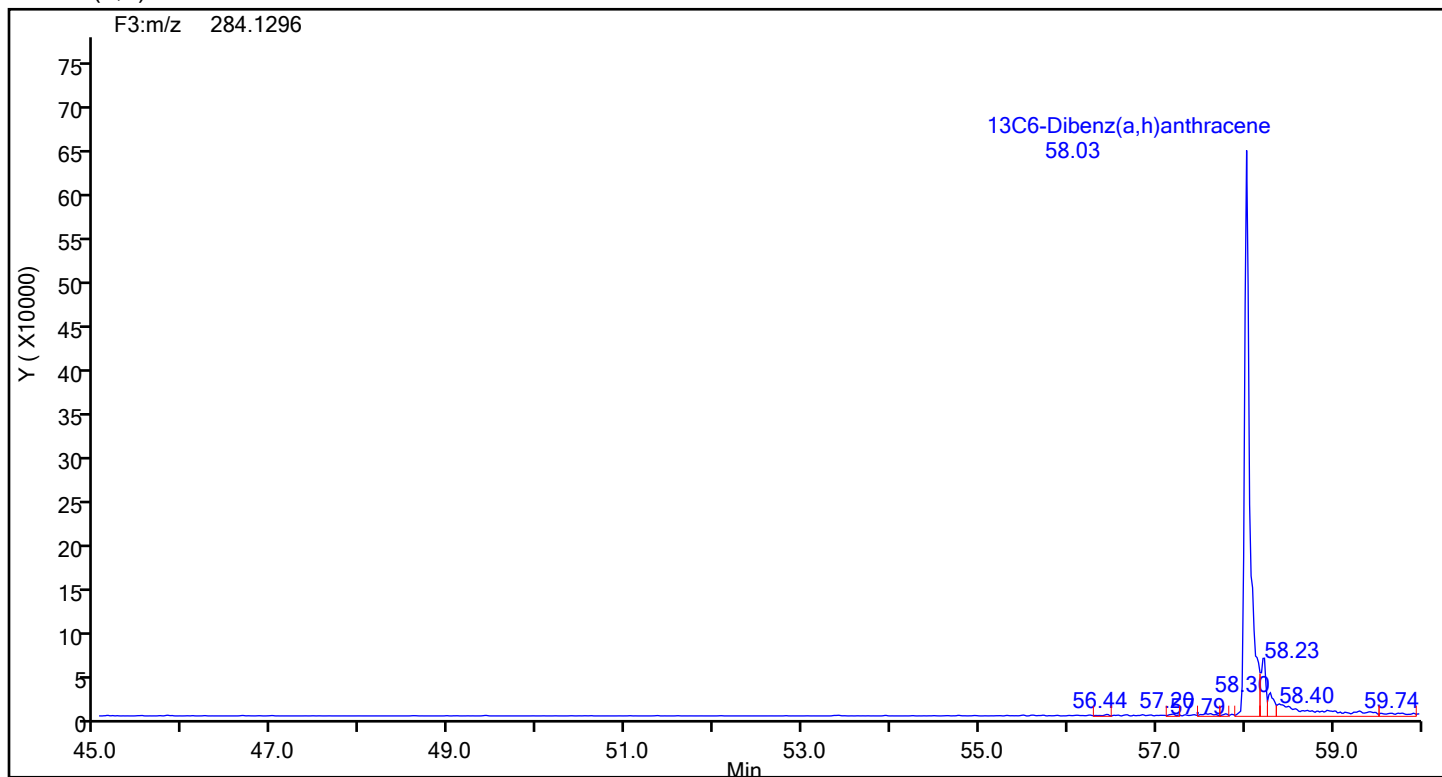
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 89013 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Dibenz(a,h)anthracene



## Dibenz(a,h)anthracene Standards



## Eurofins Knoxville

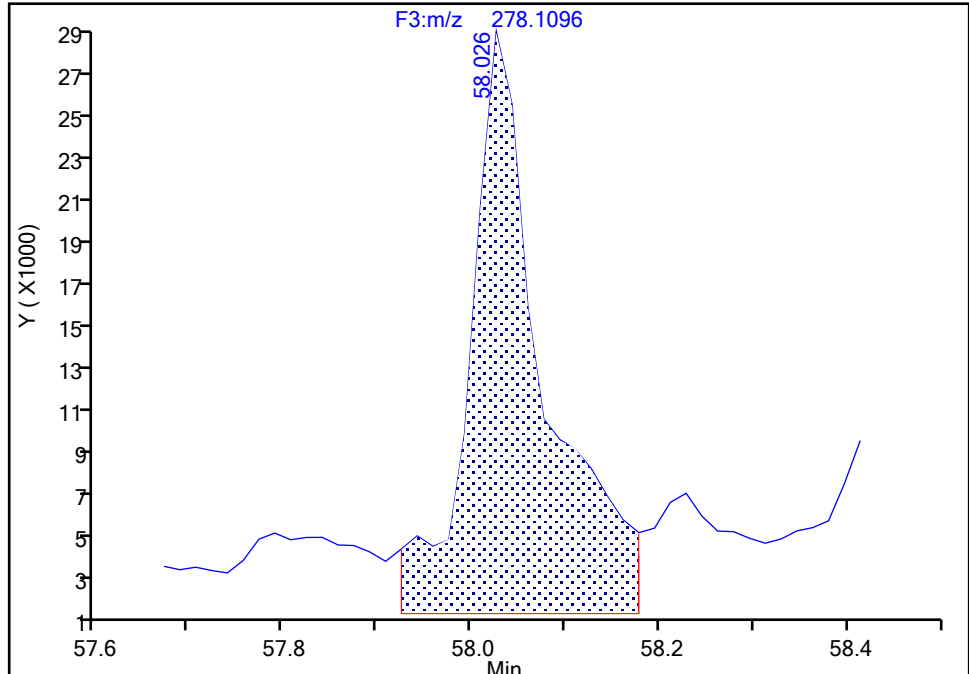
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-5-C Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

## Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

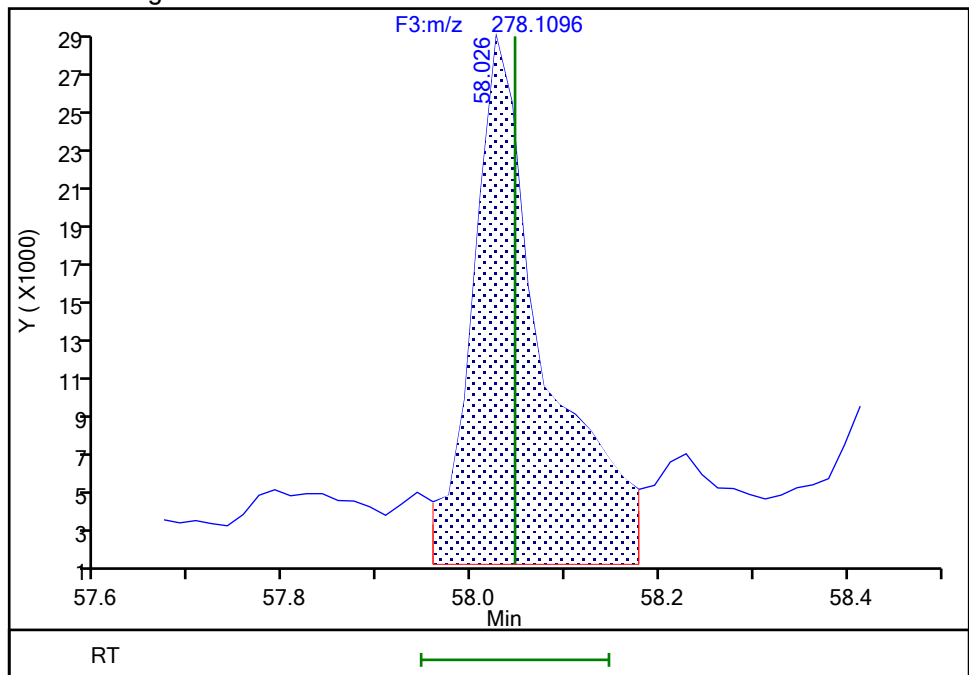
RT: 58.03  
Area: 150417  
Amount: 0.481857  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.03  
Area: 147092  
Amount: 0.471205  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:36:49 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

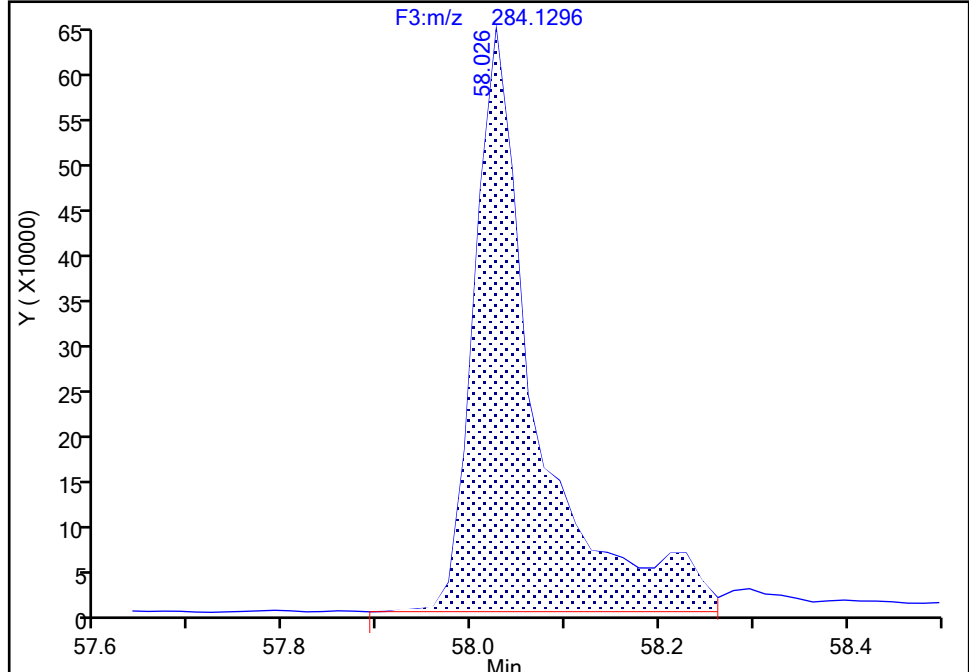
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-5-C Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C6-Dibenz(a,h)anthracene, CAS: STL03360**

Signal: 1

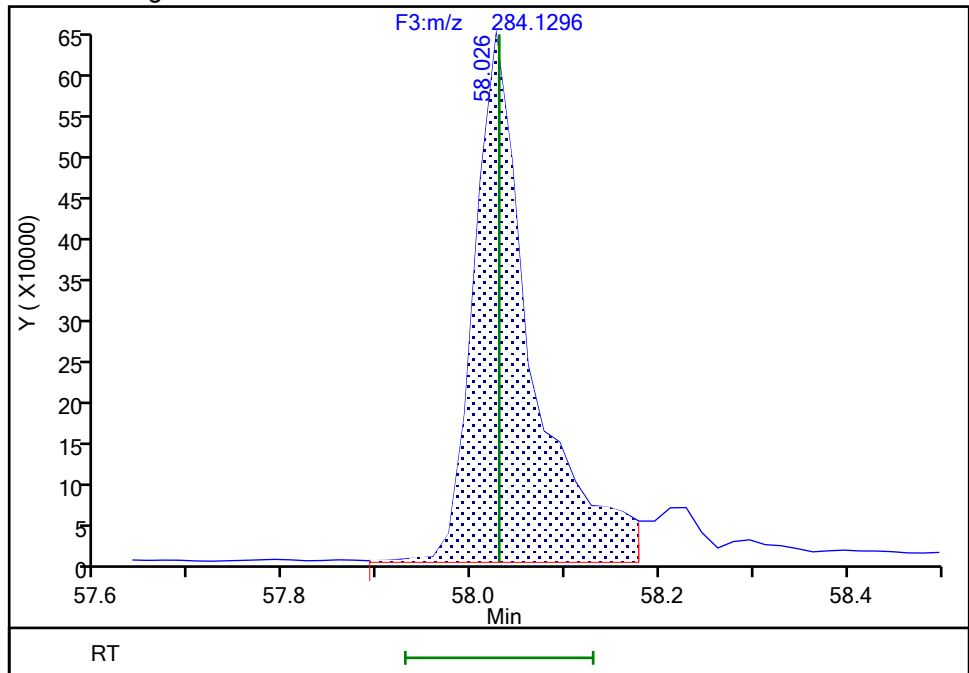
RT: 58.03  
Area: 2985662  
Amount: 10.024714  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.03  
Area: 2759133  
Amount: 9.264116  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:35:43 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

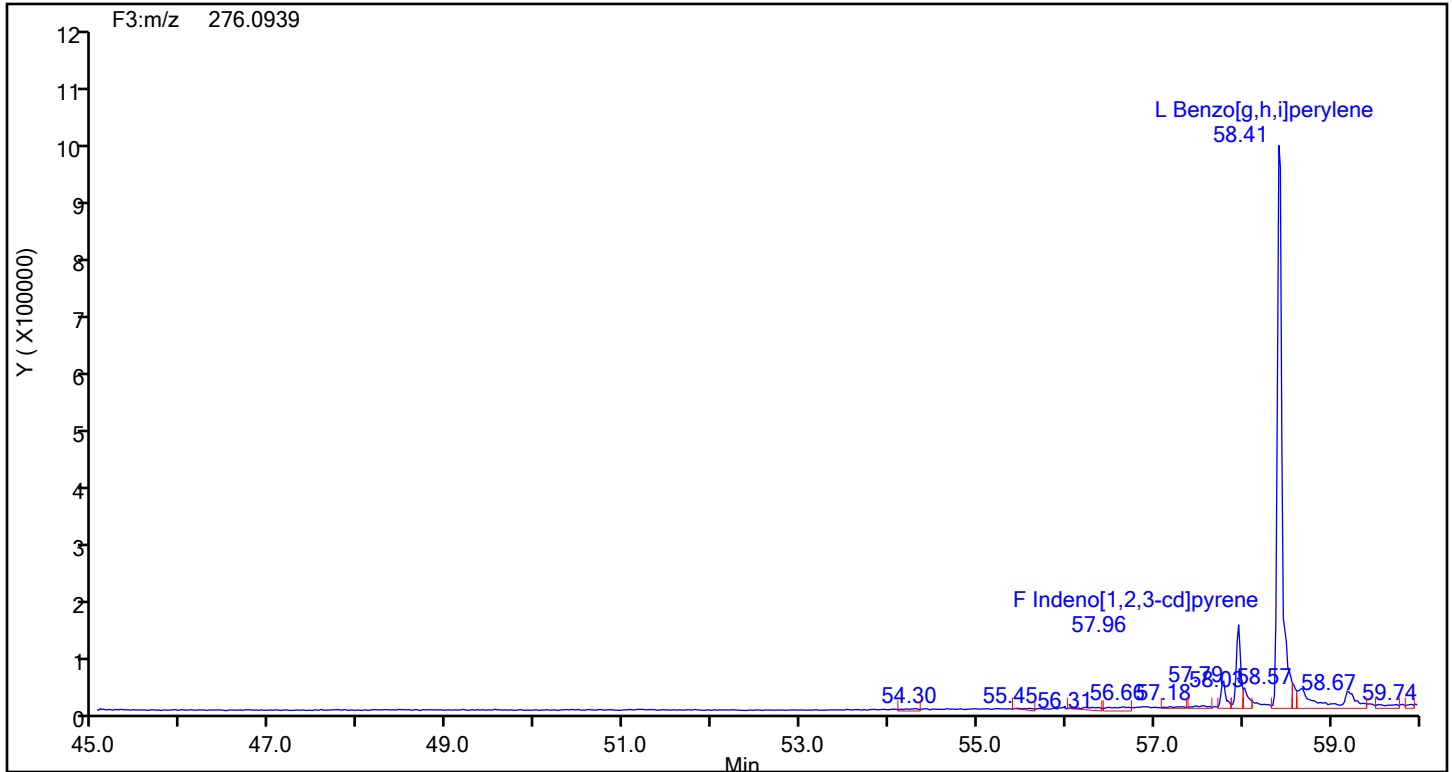
Audit Reason: Incomplete Integration



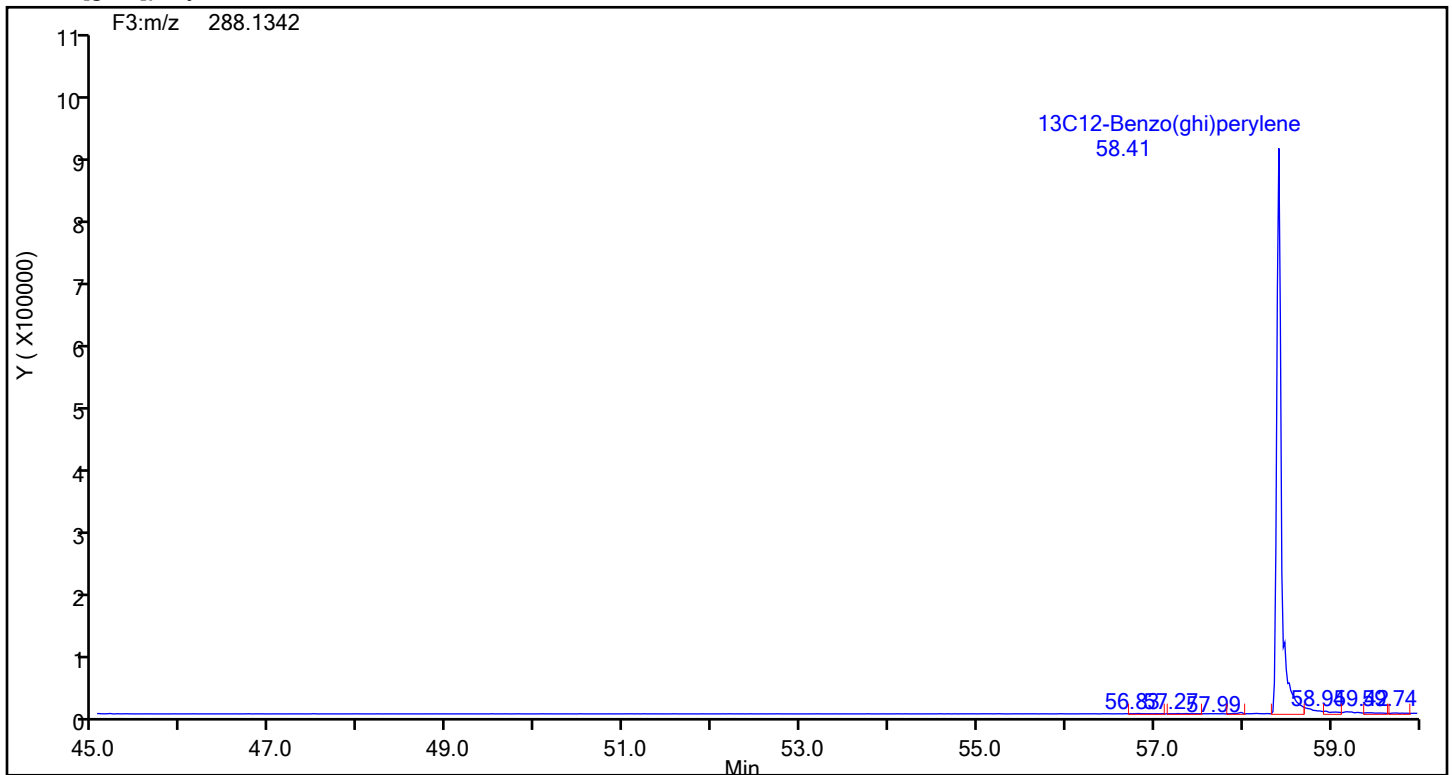
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 89013 Sample Line#: 11  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[g,h,i]perylene



## Benzo[g,h,i]perylene Standards



## Eurofins Knoxville

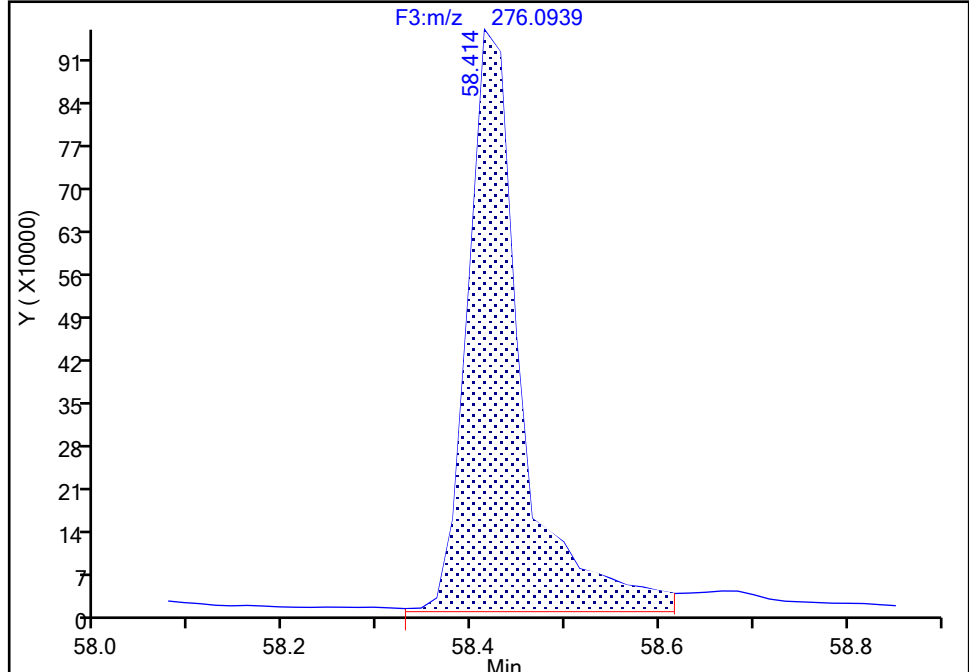
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Injection Date: 22-Jul-2024 20:24:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-5-C Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

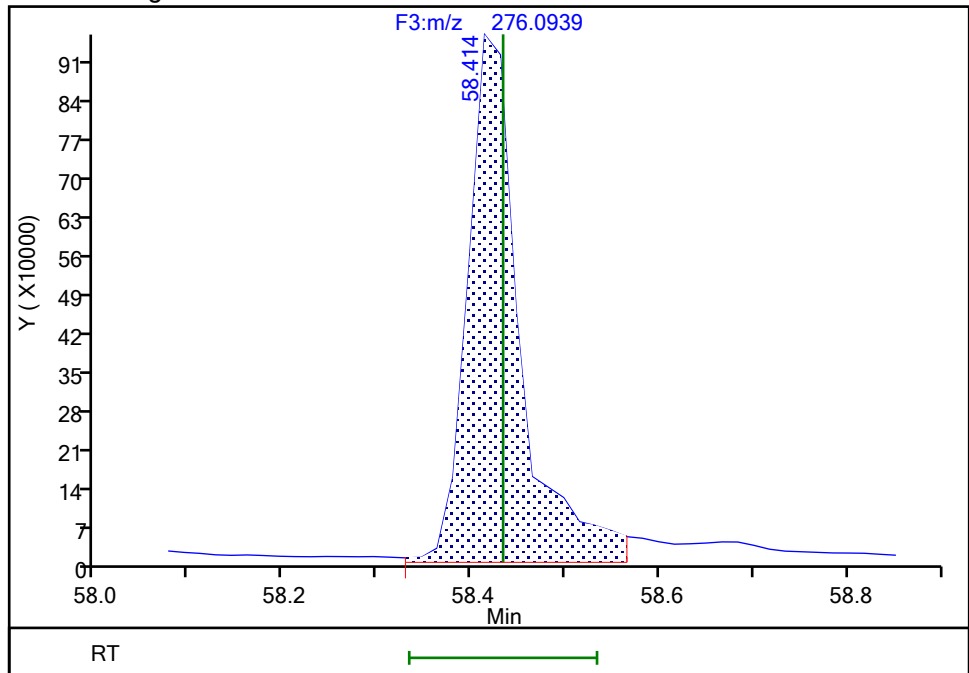
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Area: 3808227  
Amount: 8.848999  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.41  
Area: 3718778  
Amount: 8.641150  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:36:43 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-5-c.d  
Lims ID: 140-37234-A-5-C  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Sample Type: Client  
Inject. Date: 22-Jul-2024 20:24:00 ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Sample Info:  
Misc. Info.: 140-0033599-010  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 23-Jul-2024 10:37:49 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1613

First Level Reviewer: TT6I

Date: 23-Jul-2024 10:37:49

Compound	Amount Added	Amount Recovered	% Rec.
Anthracin-d10	10.0	0.7618	76.18
13C6-Benzo(c)fluorene	100.0	10.3	102.63
13C12-Benzo(j)fluoranthene	100.0	9.14	91.44

FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 7 COMBINED</u>	Lab Sample ID: <u>140-37234-6</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-6-c-10x.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/12/2024 11:39</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/23/2024 07:13</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>89076</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
91-20-3	Naphthalene	820	B *+	750	750	1.31
91-57-6	2-Methylnaphthalene	482	J B	750	750	0.351
208-96-8	Acenaphthylene	8.43	J B	30.0	30.0	0.316
83-32-9	Acenaphthene	250	J B	300	300	0.452
86-73-7	Fluorene	364	B	300	300	0.487
85-01-8	Phenanthrene	1060	B	60.0	60.0	0.708
120-12-7	Anthracene	69.6	J B	300	300	0.682
206-44-0	Fluoranthene	114	B	60.0	60.0	0.384
129-00-0	Pyrene	103	B	60.0	60.0	0.379
56-55-3	Benzo[a]anthracene	2.16	J B	60.0	60.0	0.184
218-01-9	Chrysene	9.19	J B	60.0	60.0	0.181
205-99-2	Benzo[b]fluoranthene	3.29	J B	300	300	0.111
207-08-9	Benzo[k]fluoranthene	2.66	J B	60.0	60.0	0.0975
192-97-2	Benzo[e]pyrene	6.53	J B	60.0	60.0	0.0842
50-32-8	Benzo[a]pyrene	3.05	J B	30.0	30.0	0.0898
198-55-0	Perylene	1.20	J B	30.0	30.0	0.0811
193-39-5	Indeno[1,2,3-cd]pyrene	5.32	J B	30.0	30.0	0.0958
53-70-3	Dibenz(a,h)anthracene	8.06	J B	60.0	60.0	0.0720
191-24-2	Benzo[g,h,i]perylene	14.1	J B	60.0	60.0	0.0760

FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 7</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-6</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-6-c-10x.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/12/2024 11:39</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/23/2024 07:13</u>
Con. Extract Vol.: <u>30 (mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>1 (uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>89076</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02217	13C6-Naphthalene	68		20-130
STL03357	13C6-2-Methylnaphthalene	70		20-130
189811-56-1	13C6-Acenaphthylene	101		20-130
189811-57-2	13C6-Acenaphthene	91		20-130
STL00616	13C6-Fluorene	96		20-130
1397194-60-3	13C6-Fluoranthrene	90		20-130
1397214-90-2	13C3-Pyrene	89		20-130
917378-11-1	13C6-Benzo (a) anthracene	70		20-130
1397177-72-8	13C6-Chrysene	77		20-130
STL03358	13C6-Benzo (b) fluoranthene	71		20-130
1397194-60-3	13C6-Benzo (k) fluoranthene	91		20-130
STL03382	13C4-Benzo (e) pyrene	74		20-130
STL03359	13C4-Benzo (a) pyrene	89		20-130
1520-96-3	Perylene-d12	87		20-130
362044-56-2	13C6-Indeno (1,2,3-cd) pyrene	81		20-130
STL03360	13C6-Dibenz (a,h) anthracene	80		20-130
350820-11-0	13C12-Benzo (ghi) perylene	89		20-130
189811-60-7	13C6-Anthracene	88		20-130
1189955-53-0	13C6-Phenanthrene	74		20-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
 Lims ID: 140-37234-A-6-C  
 Client ID: M23 F-10 BOILER RUN 7 COMBINED  
 Sample Type: Client  
 Inject. Date: 23-Jul-2024 07:13:00 ALS Bottle#: 0 Worklist Smp#: 10  
 Injection Vol: 1.0 ul Dil. Factor: 10.0000  
 Sample Info:  
 Misc. Info.: 140-0033622-010  
 Operator ID: Xcalibur\_System Instrument ID: D3PAH  
 Method: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\EPA\_23\_\_PAH.m  
 Limit Group: HR - HRPAAH ICAL  
 Last Update: 23-Jul-2024 13:00:51 Calib Date: 20-Jun-2024 01:09:00  
 Integrator: RTE  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
 Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
 Process Host: CTX1613

First Level Reviewer: TT6I

Date: 23-Jul-2024 13:00:51

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:30	3714371		3.3746	6.767	6.767	0.001928	0.001928	67.67	
Naphthalene	11:30	26190639		1.2893	54.7	54.7	0.0874	0.0874		M
D 13C6-2-Methylnaphthalene	13:48	1835197		1.6031	7.038	7.038	0.001421	0.001421	70.38	
2-Methylnaphthalene	13:49	7537813		1.2786	32.1	32.1	0.0234	0.0234		M
D 13C6-Acenaphthylene	16:40	2710641		1.6520	10.1	10.1	0.003056	0.003056	101	
Acenaphthylene	16:45	193222		2.3661	0.5622	0.5622	0.0211	0.0211		M
* Acenaphthene-d10	17:15	813289		3.5E+04	5.000	5.000				
D 13C6-Acenaphthene	17:22	1452437		0.9792	9.119	9.119	0.003164	0.003164	91.19	
Acenaphthene	17:22	3068897		1.2697	16.6	16.6	0.0301	0.0301		
D 13C6-Fluorene	19:39	1383117		0.8898	9.556	9.556	0.006349	0.006349	95.56	
Fluorene	19:39	4200575		1.2532	24.2	24.2	0.0325	0.0325		M
D 13C6-Phenanthrene	25:01	1845512		0.5724	7.420	7.420	0.002088	0.002088	74.20	
Phenanthrene	25:01	14380059		1.1044	70.6	70.6	0.0472	0.0472		
\$ Anthracin-d10	25:14	121154		0.4257	0.6550	0.6550	0.001387	0.001387	65.50	
D 13C6-Anthracene	25:20	1727454		0.4523	8.789	8.789	0.002642	0.002642	87.89	
Anthracene	25:21	1089092		1.3586	4.641	4.641	0.0454	0.0454		M
D 13C6-Fluoranthrene	33:45	4697988		1.1994	9.015	9.015	0.0145	0.0145	90.15	
Fluoranthene	33:46	4109562		1.1513	7.598	7.598	0.0256	0.0256		M
* Pyrene-d10	35:19	2172501		7.9E+04	5.000	5.000				
D 13C3-Pyrene	35:26	5235633		1.3512	8.918	8.918	0.009177	0.009177	89.18	
Pyrene	35:27	3829593		1.0652	6.867	6.867	0.0252	0.0252		M
\$ 13C6-Benzo(c)fluorene	39:09	2314001		0.5136	10.4	10.4	0.005940	0.005940	104	
D 13C6-Benzo(a)anthracene	45:58	3810700		1.5189	6.973	6.973	0.005158	0.005158	69.73	
Benzo[a]anthracene	45:58	53526		0.9739	0.1442	0.1442	0.0123	0.0123		
D 13C6-Chrysene	46:14	4500077		1.6287	7.679	7.679	0.004811	0.004811	76.79	
Chrysene	46:14	270593		0.9815	0.6127	0.6127	0.0121	0.0121		M
D 13C6-Benzo(b)fluoranthene	54:34	3738517		1.4621	7.107	7.107	0.002009	0.002009	71.07	
Benzo[b]fluoranthene	54:34	92347		1.1249	0.2196	0.2196	0.007392	0.007392		M
\$ 13C12-Benzo(j)fluoranthene	54:36	3912238		1.3558	8.020	8.020	0.008769	0.008769	80.20	
D 13C6-Benzo(k)fluoranthene	54:41	5717873		1.7507	9.077	9.077	0.001678	0.001678	90.77	
Benzo[k]fluoranthene	54:42	114159		1.1271	0.1771	0.1771	0.006499	0.006499		Ma
* Benzo(e)pyrene-d12	55:25	1799036		5.7E+04	5.000	5.000				M
Benzo[e]pyrene	55:30	190099		1.0013	0.4352	0.4352	0.005612	0.005612		
D 13C4-Benzo(e)pyrene	55:30	4362368		1.6368	7.407	7.407	0.003183	0.003183	74.07	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C4-Benzo(a)pyrene	55:38	4960607		1.5508	8.890	8.890	0.003360	0.003360	88.90	
Benzo[a]pyrene	55:38	112086		1.1130	0.2030	0.2030	0.005986	0.005986		M
D Perylene-d12	55:48	3718599		1.1917	8.673	8.673	0.0100	0.0100	86.73	M
Perylene	55:54	42416		1.4307	0.0797	0.0797	0.005408	0.005408		Ma
D 13C6-Indeno(1,2,3-cd)pyrene	57:57	2988224		1.0218	8.128	8.128	0.005813	0.005813	81.28	M
Indeno[1,2,3-cd]pyrene	57:58	119236		1.1249	0.3547	0.3547	0.006386	0.006386		M
D 13C6-Dibenz(a,h)anthracene	58:02	3023158		1.0553	7.962	7.962	0.003142	0.003142	79.62	
Dibenz(a,h)anthracene	58:02	183710		1.1314	0.5371	0.5371	0.004800	0.004800		M
D 13C12-Benzo(ghi)perylene	58:25	4070865		1.2749	8.875	8.875	0.001412	0.001412	88.75	
Benzo[g,h,i]perylene	58:25	491203		1.2838	0.9399	0.9399	0.005067	0.005067		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Lims ID: 140-37234-A-6-C  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Sample Type: Client  
Inject. Date: 23-Jul-2024 07:13:00 ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Sample Info:  
Misc. Info.: 140-0033622-010  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 23-Jul-2024 13:00:51 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1613

First Level Reviewer: TT61

Date: 23-Jul-2024 13:00:51

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:30	11:28	0	0.666	3714371	1208344	143	357	8450		
Naphthalene											
128.0626	11:30	11:30	0	1.001	26190639	8761751	5449	13622	1608		M
13C6-2-Methylnaphthalene											
148.0984	13:48	13:48	-2	0.801	1835197	789361	50	125	15787		
2-Methylnaphthalene											
142.0783	13:49	13:49	-2	1.001	7537813	3149589	946	2365	3329		M
13C6-Acenaphthylene											
158.0828	16:40	16:40	-3	0.966	2710641	877319	111	277	7904		
Acenaphthylene											
152.0626	16:45	16:45	1	1.000	193222	70941	994	2485	71		M
Acenaphthene-d10											
164.1404	17:15	17:18	-3		813289	274350	24	60	11431		
13C6-Acenaphthene											
160.0984	17:22	17:22	-3	1.007	1452437	498311	68	170	7328		
Acenaphthene											
154.0783	17:22	17:23	-4	1.000	3068897	986480	762	1905	1295		
13C6-Fluorene											
172.0984	19:39	19:38	-3	1.139	1383117	382780	124	310	3087		
Fluorene											
166.0783	19:39	19:39	-4	1.000	4200575	1137658	623	1557	1826		M
13C6-Phenanthrene											
184.0984	25:01	25:02	-3	0.708	1845512	408553	34	85	12016		
Phenanthrene											
178.0783	25:01	25:01	-3	1.000	14380059	2974870	852	2130	3492		



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:14	25:16	-3	0.715	121154	29013	17	42	1707		
13C6-Anthracene											
184.0984	25:20	25:22	-3	0.718	1727454	344970	34	85	10146		
Anthracene											M
178.0783	25:21	25:21	-3	1.000	1089092	204358	852	2130	240		M
13C6-Fluoranthrene											
208.0984	33:45	33:46	-3	0.956	4697988	789856	494	1235	1599		
Fluoranthene											M
202.0783	33:46	33:46	-3	1.000	4109562	700711	932	2330	752		M
Pyrene-d10											
212.1404	35:19	35:21	-2		2172501	355635	88	220	4041		
13C3-Pyrene											
205.0883	35:26	35:27	-3	1.004	5235633	866627	353	882	2455		
Pyrene											M
202.0783	35:27	35:27	-2	1.000	3829593	657106	932	2330	705		M
13C6-Benzo(c)fluorene											
222.1134	39:09	39:09	-3	0.706	2314001	351764	87	217	4043		
13C6-Benzo(a)anthracene											
234.1140	45:58	45:58	-3	1.302	3810700	565041	331	827	1707		
Benzo[a]anthracene											
228.0939	45:58	46:03	-3	1.000	53526	9191	270	675	34		
13C6-Chrysene											
234.1140	46:14	46:13	-2	1.310	4500077	569455	331	827	1720		
Chrysene											M
228.0939	46:14	46:14	-3	1.000	270593	31338	270	675	116		M
13C6-Benzo(b)fluoranthene											
258.1140	54:34	54:34	-2	0.984	3738517	908008	124	310	7323		
Benzo[b]fluoranthene											M
252.0939	54:34	54:34	-2	1.000	92347	19966	302	755	66		M
13C12-Benzo(j)fluoranthene											
264.1336	54:36	54:34	-2	0.985	3912238	826760	502	1255	1647		
13C6-Benzo(k)fluoranthene											
258.1140	54:41	54:41	-2	0.987	5717873	1030795	124	310	8313		
Benzo[k]fluoranthene											Ma
252.0939	54:42	54:42	-2	1.000	114159	19271	302	755	64		M
Benzo(e)pyrene-d12											M
264.1692	55:25	55:27	-2		1799036	527758	505	1262	1045		M
Benzo[e]pyrene											
252.0939	55:30	55:30	-2	1.000	190099	49604	302	755	164		
13C4-Benzo(e)pyrene											
256.1073	55:30	55:30	-2	1.002	4362368	1343658	220	550	6108		
13C4-Benzo(a)pyrene											
256.1073	55:38	55:39	-2	1.004	4960607	1133253	220	550	5151		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Benzo[a]pyrene											M
252.0939	55:38	55:38	-3	1.000	112086	21881	302	755	72		M
Perylene-d12											M
264.1692	55:48	55:48	-3	1.007	3718599	975856	505	1262	1932		M
Perylene											Ma
252.0939	55:54	55:54	-2	1.002	42416	10215	302	755	34		M
13C6-Indeno(1,2,3-cd)pyrene											M
282.1140	57:57	57:57	-2	1.046	2988224	800407	251	627	3189		M
Indeno[1,2,3-cd]pyrene											M
276.0939	57:58	57:58	-2	1.000	119236	27077	230	575	118		M
13C6-Dibenz(a,h)anthracene											
284.1296	58:02	58:03	-2	1.047	3023158	592952	140	350	4235		
Dibenz(a,h)anthracene											M
278.1096	58:02	58:02	-2	1.000	183710	31756	129	322	246		M
13C12-Benzo(ghi)perylene											
288.1342	58:25	58:26	-2	1.054	4070865	884051	76	190	11632		
Benzo[g,h,i]perylene											M
276.0939	58:25	58:25	-2	1.000	491203	116382	230	575	506		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d

Injection Date: 23-Jul-2024 07:13:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 7 COMBINED

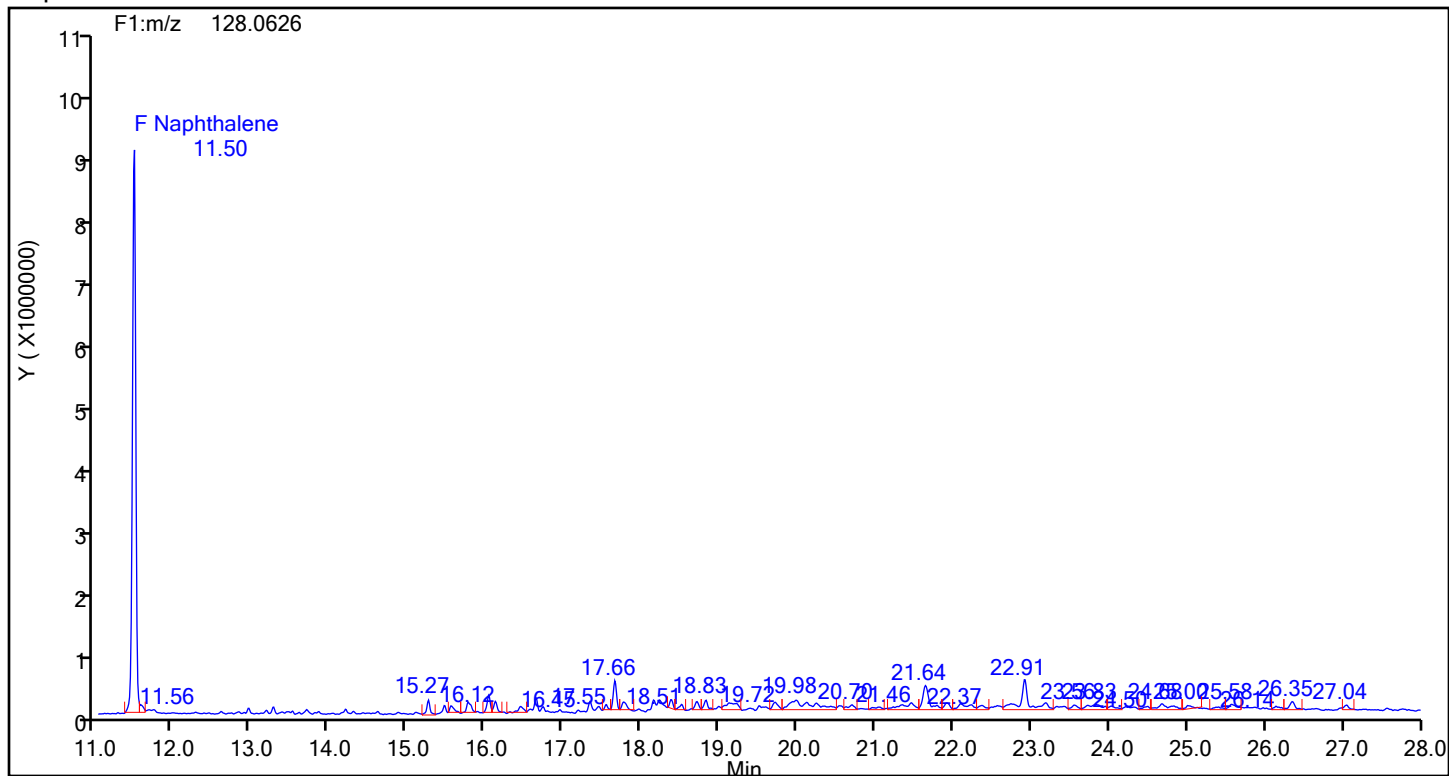
Worklist#: 89076

Sample Line#: 10

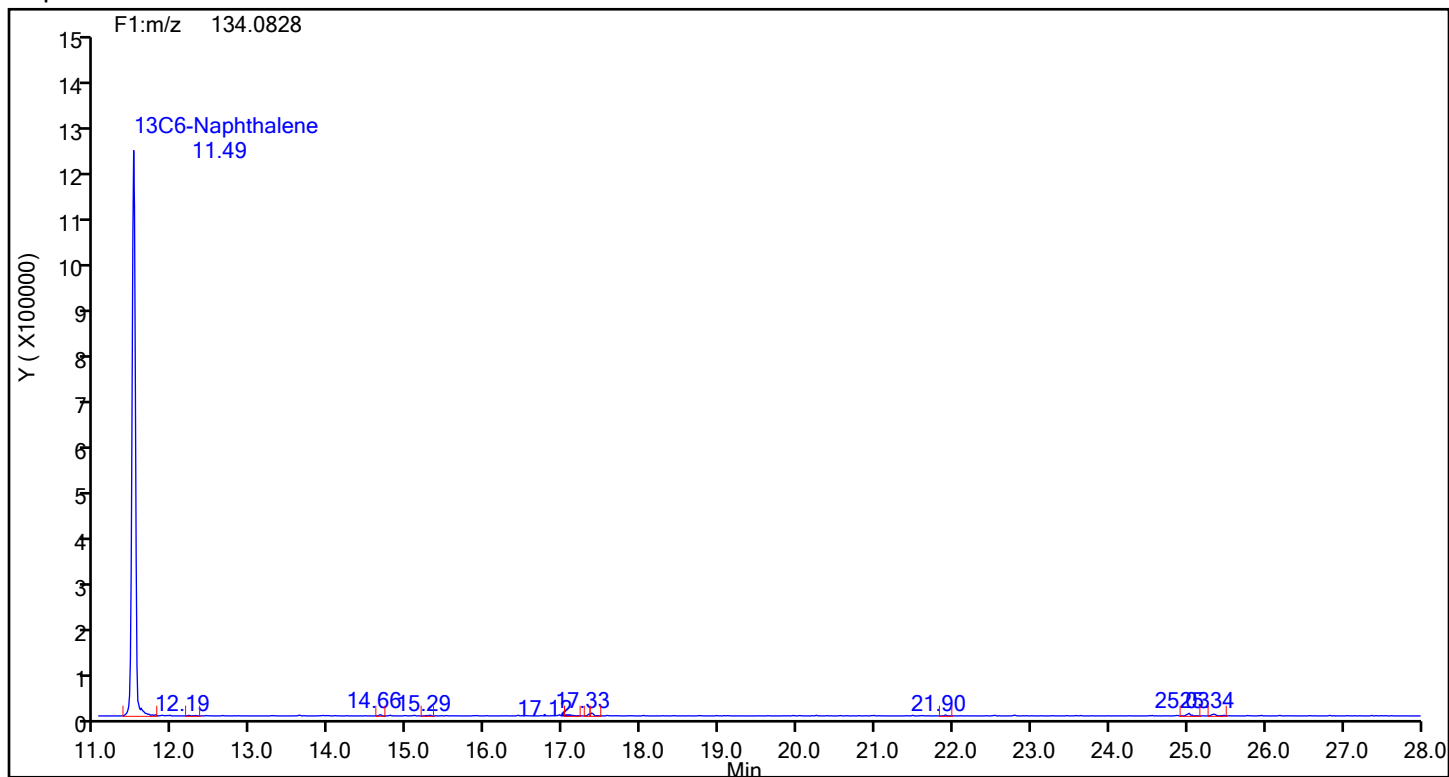
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Naphthalene



## Naphthalene Standards



## Eurofins Knoxville

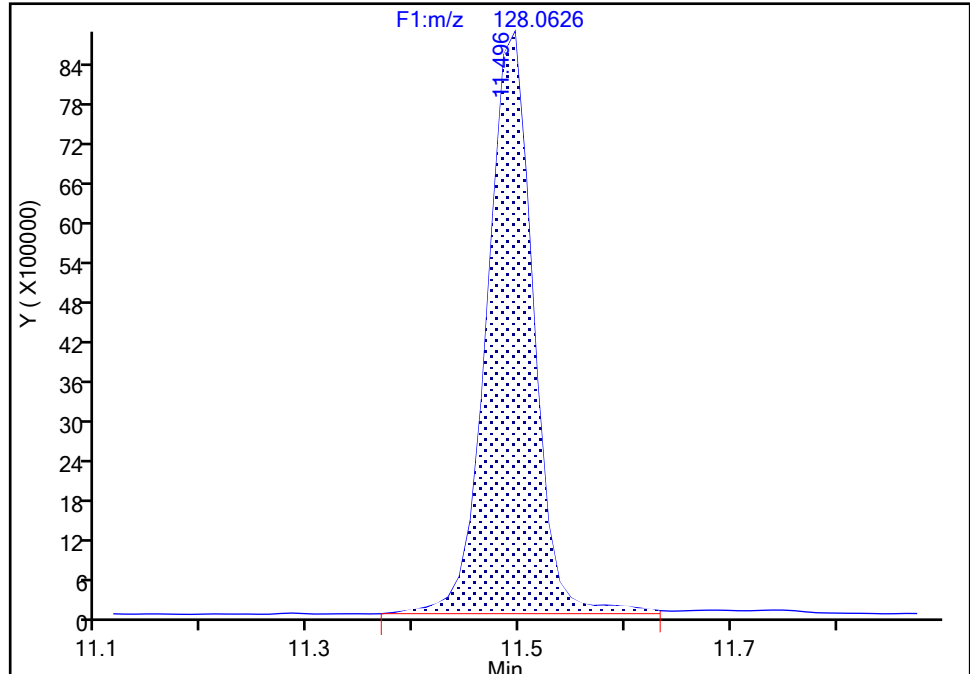
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Injection Date: 23-Jul-2024 07:13:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-6-C Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Naphthalene, CAS: 91-20-3

Signal: 1

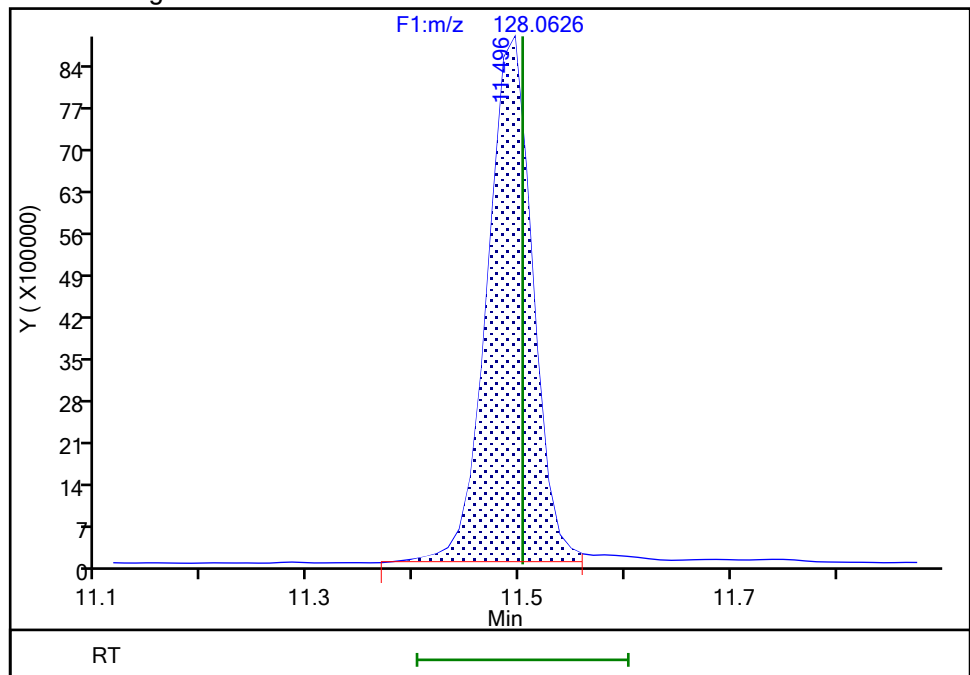
RT: 11.50  
Area: 26560065  
Amount: 55.463006  
Amount Units: pg/ul

## Processing Integration Results



RT: 11.50  
Area: 26190639  
Amount: 54.691567  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 12:58:58 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d

Injection Date: 23-Jul-2024 07:13:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 7 COMBINED

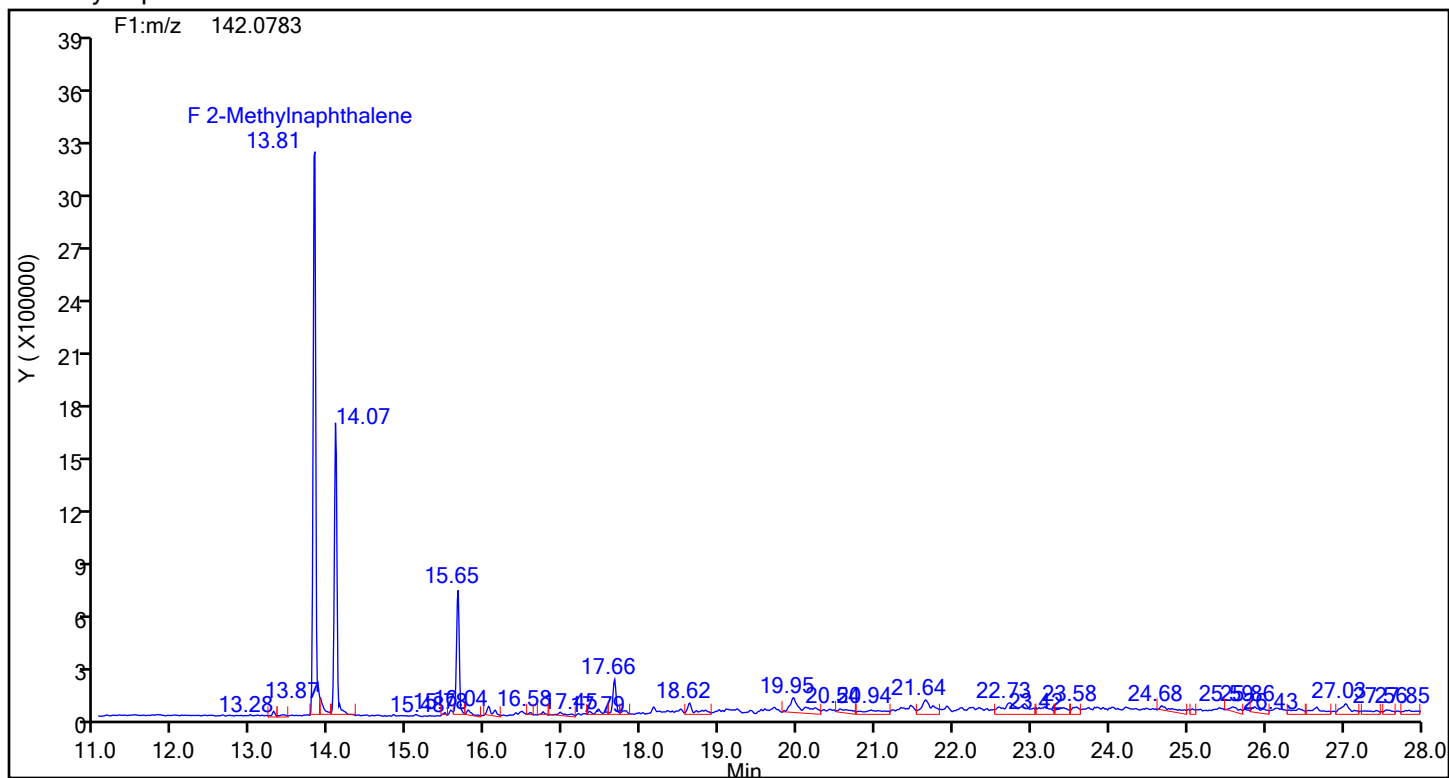
Worklist#: 89076

Sample Line#: 10

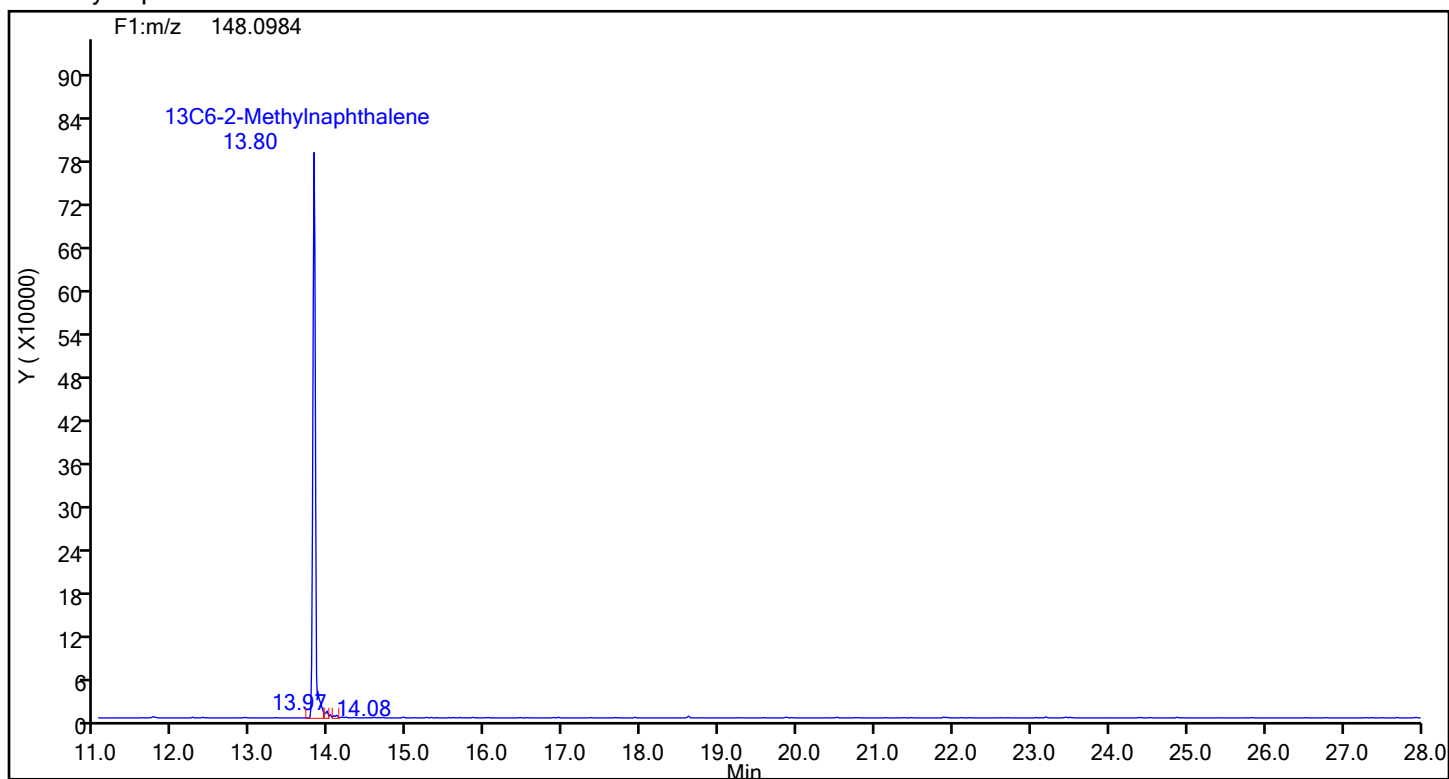
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## 2-Methylnaphthalene



## 2-Methylnaphthalene Standards



## Eurofins Knoxville

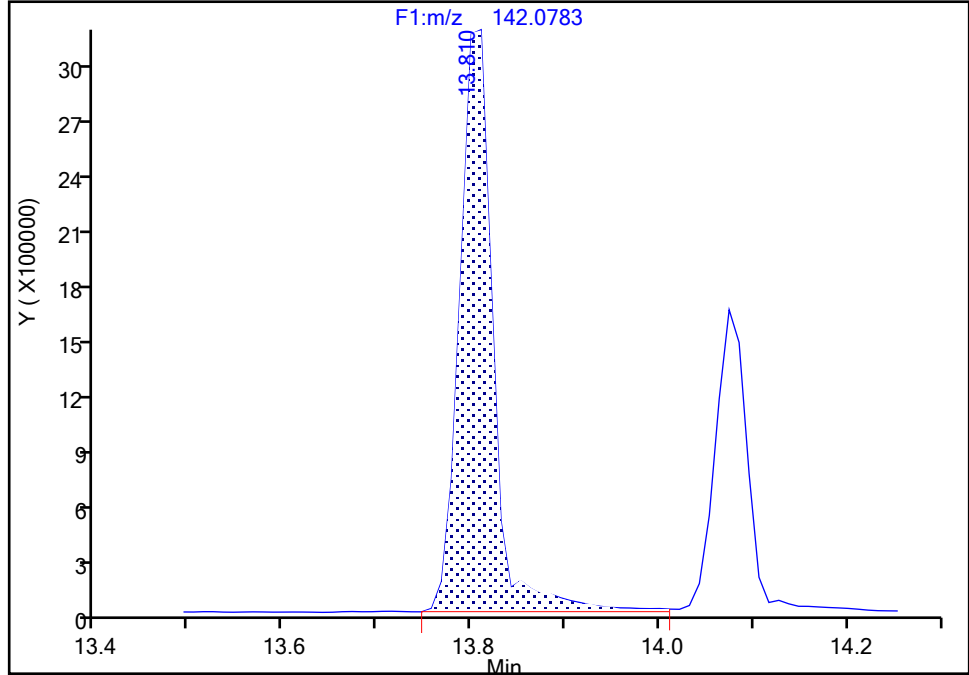
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Injection Date: 23-Jul-2024 07:13:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-6-C Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F1(6.03 :27.99 )

**2-Methylnaphthalene, CAS: 91-57-6**

Signal: 1

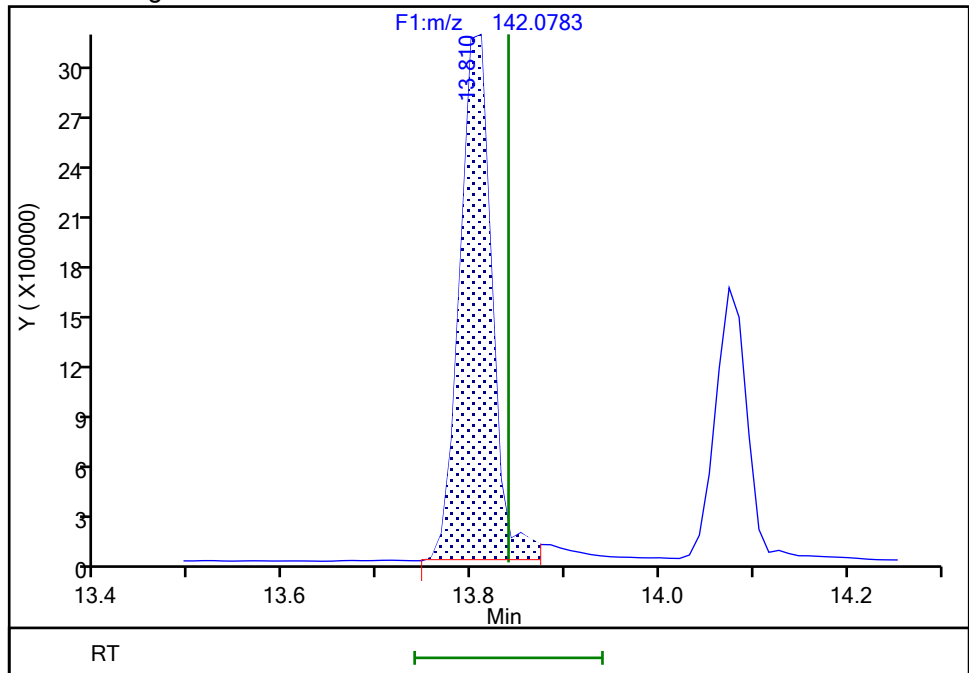
RT: 13.81  
Area: 7836565  
Amount: 33.397944  
Amount Units: pg/ul

## Processing Integration Results



RT: 13.81  
Area: 7537813  
Amount: 32.124720  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 12:58:40 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d

Injection Date: 23-Jul-2024 07:13:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 7 COMBINED

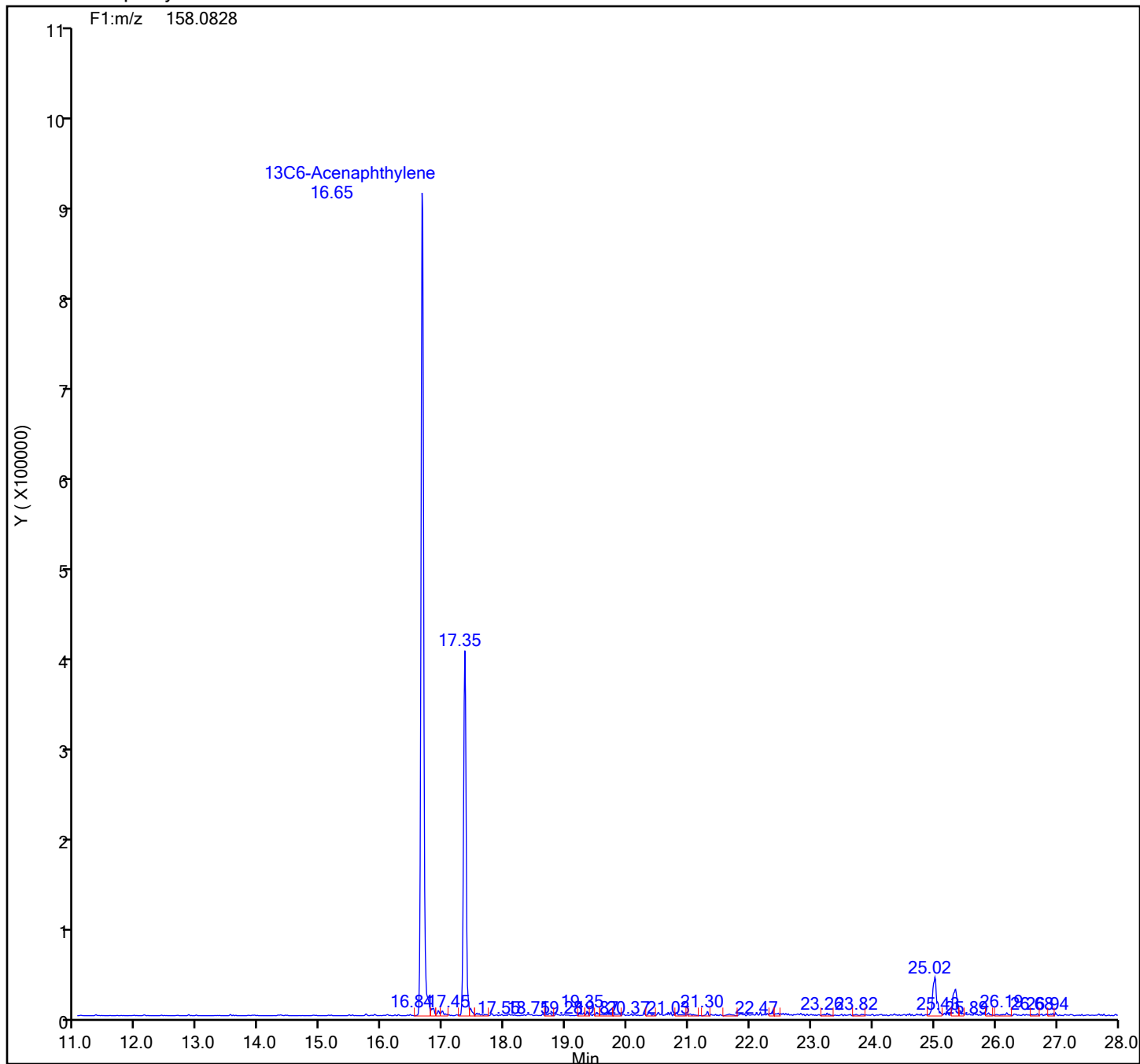
Worklist#: 89076

Sample Line#: 10

Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

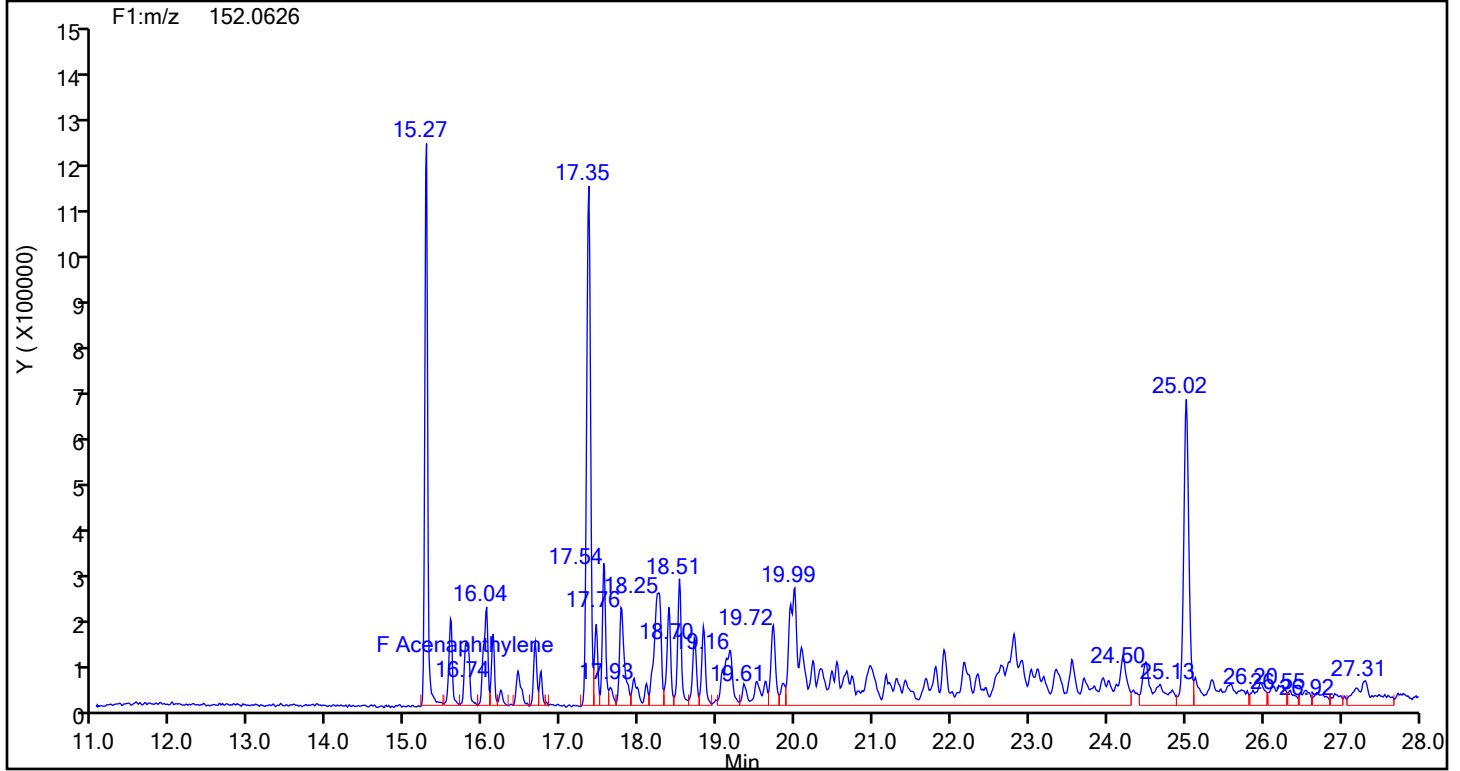
## 13C6-Acenaphthylene Standards



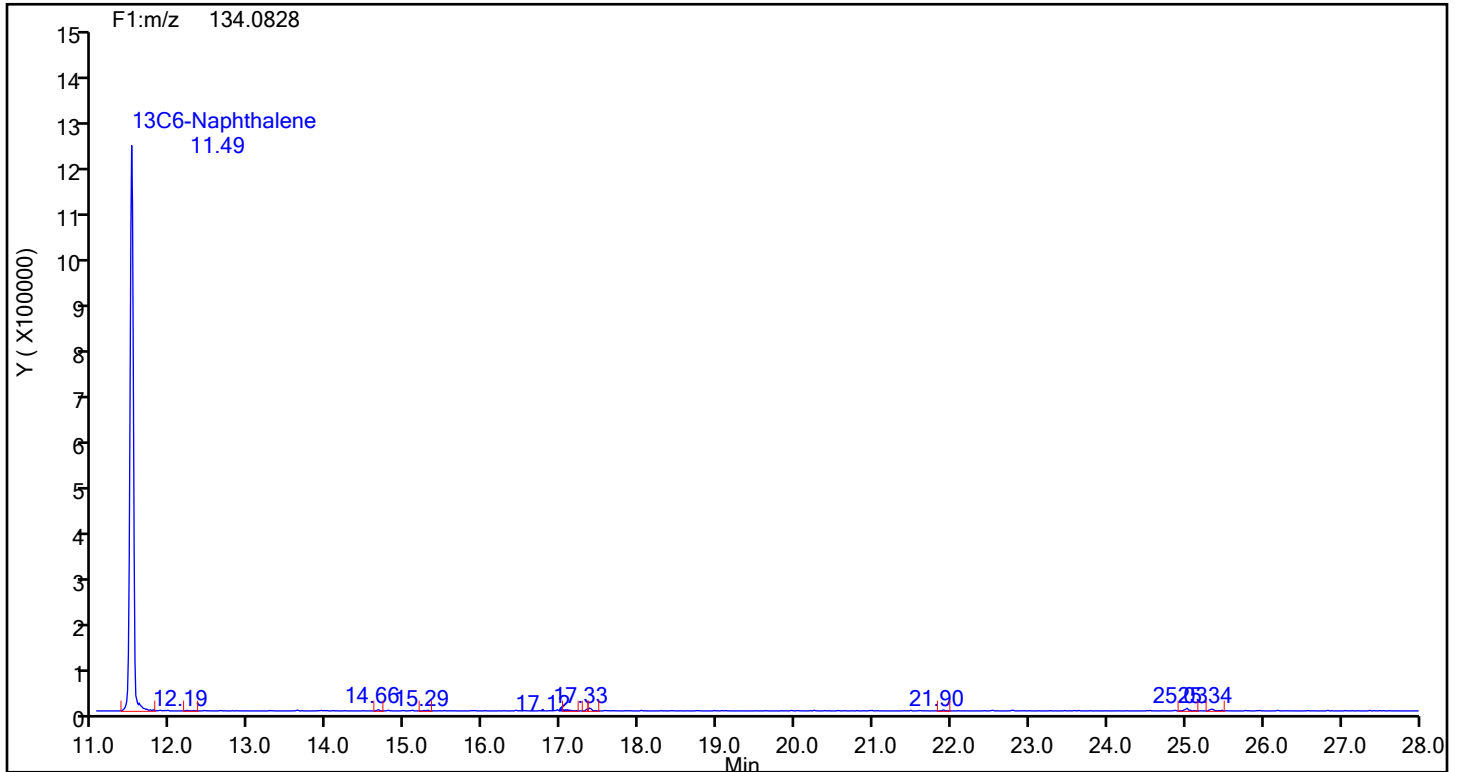
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 89076 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene



## Acenaphthylene Standards





## Eurofins Knoxville

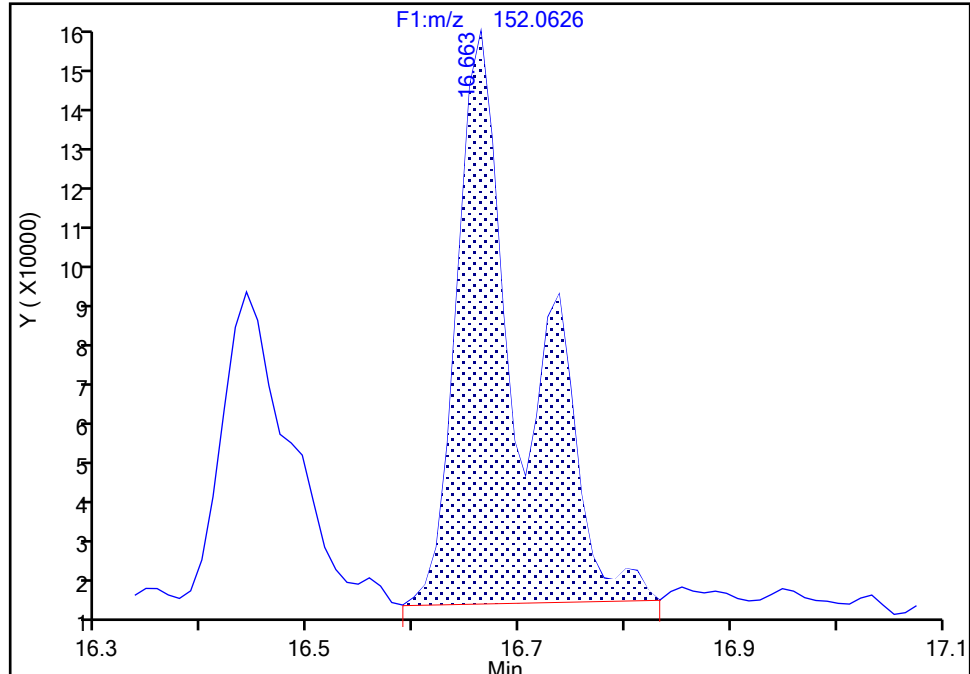
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-6-C Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Acenaphthylene, CAS: 208-96-8

Signal: 1

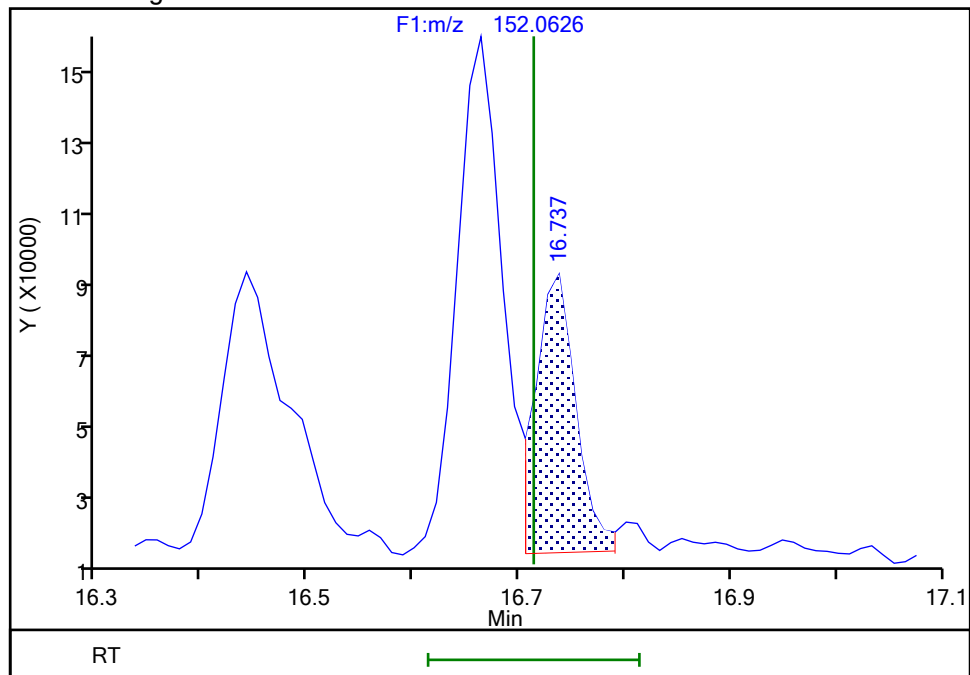
RT: 16.66  
Area: 582892  
Amount: 1.696100  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.74  
Area: 193222  
Amount: 0.562238  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 13:00:00 -04:00:00 (UTC)

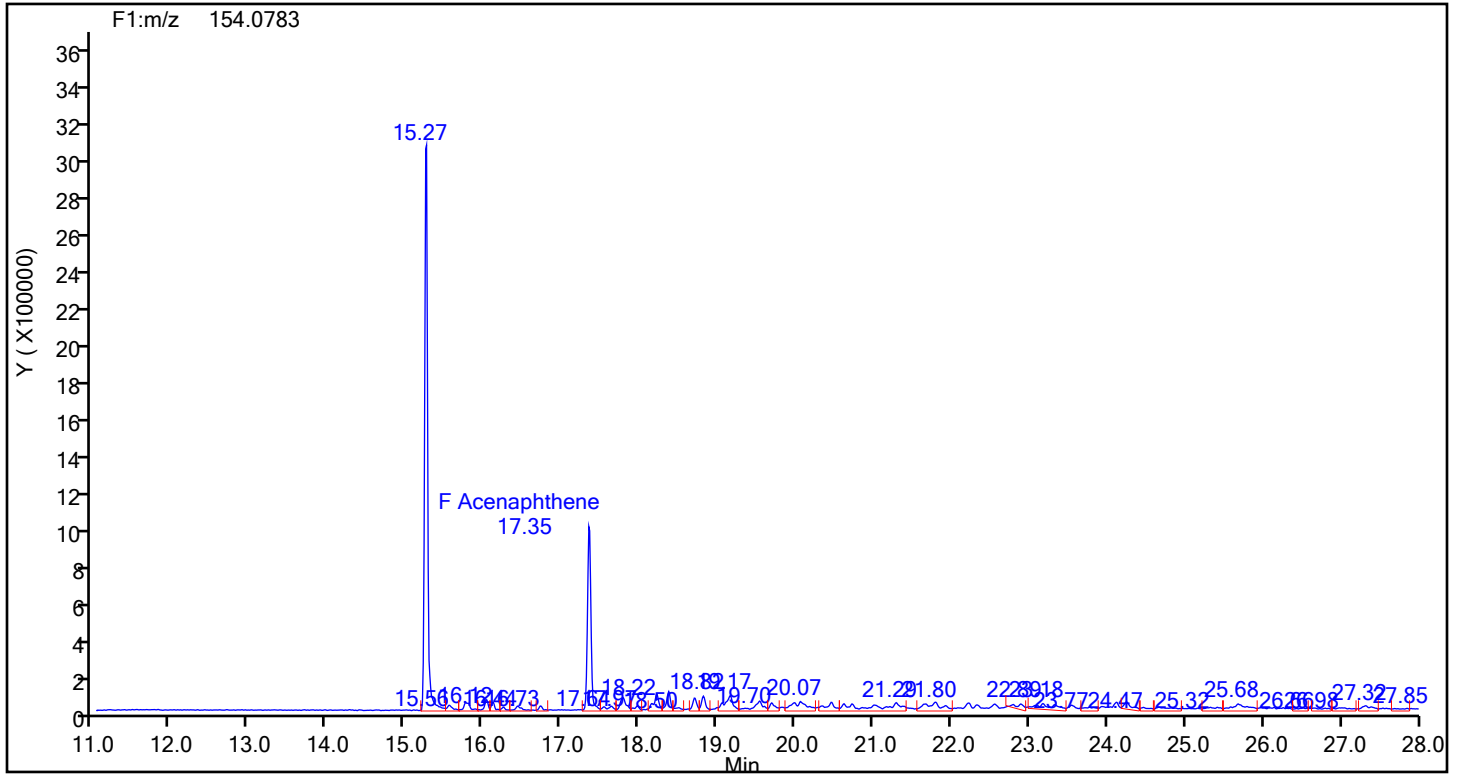
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

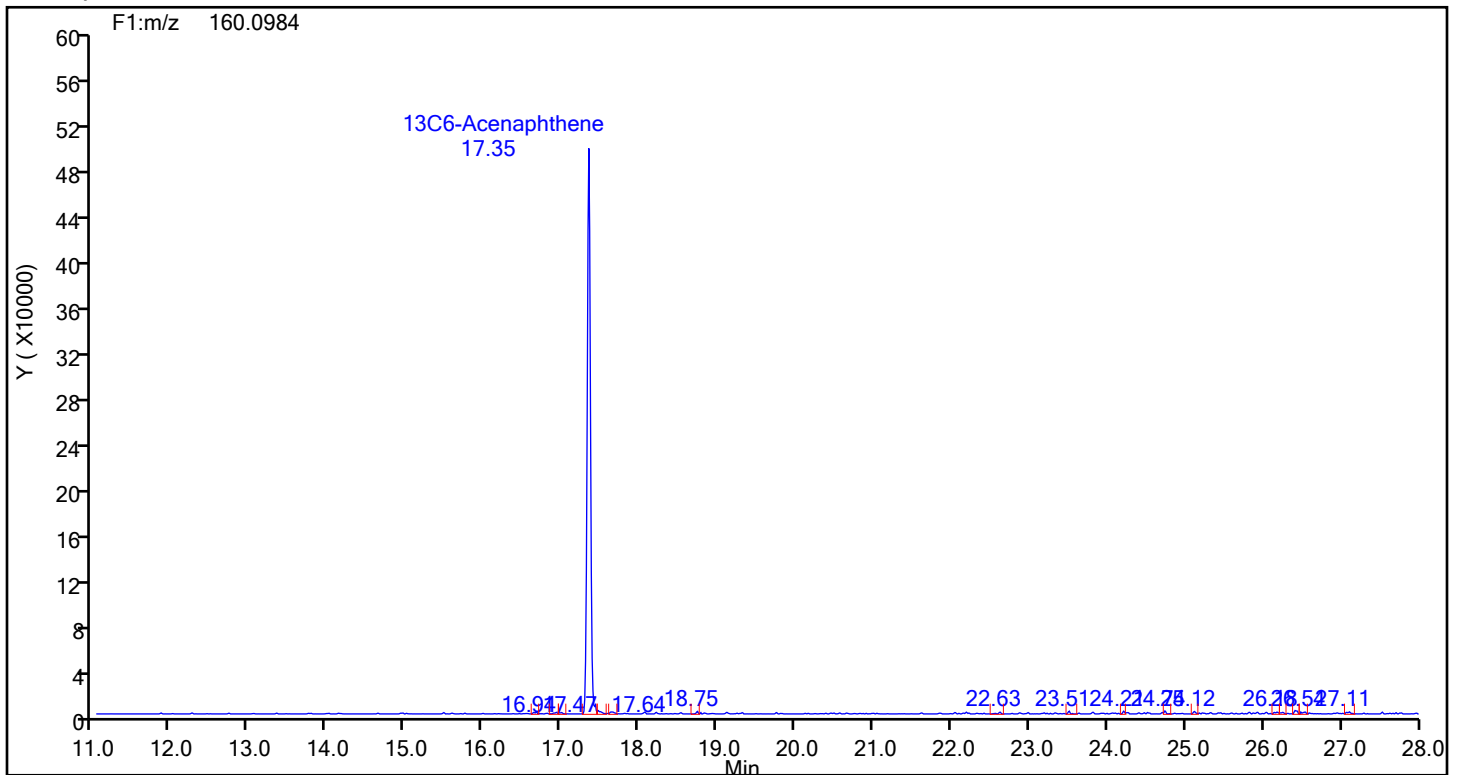
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 89076 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



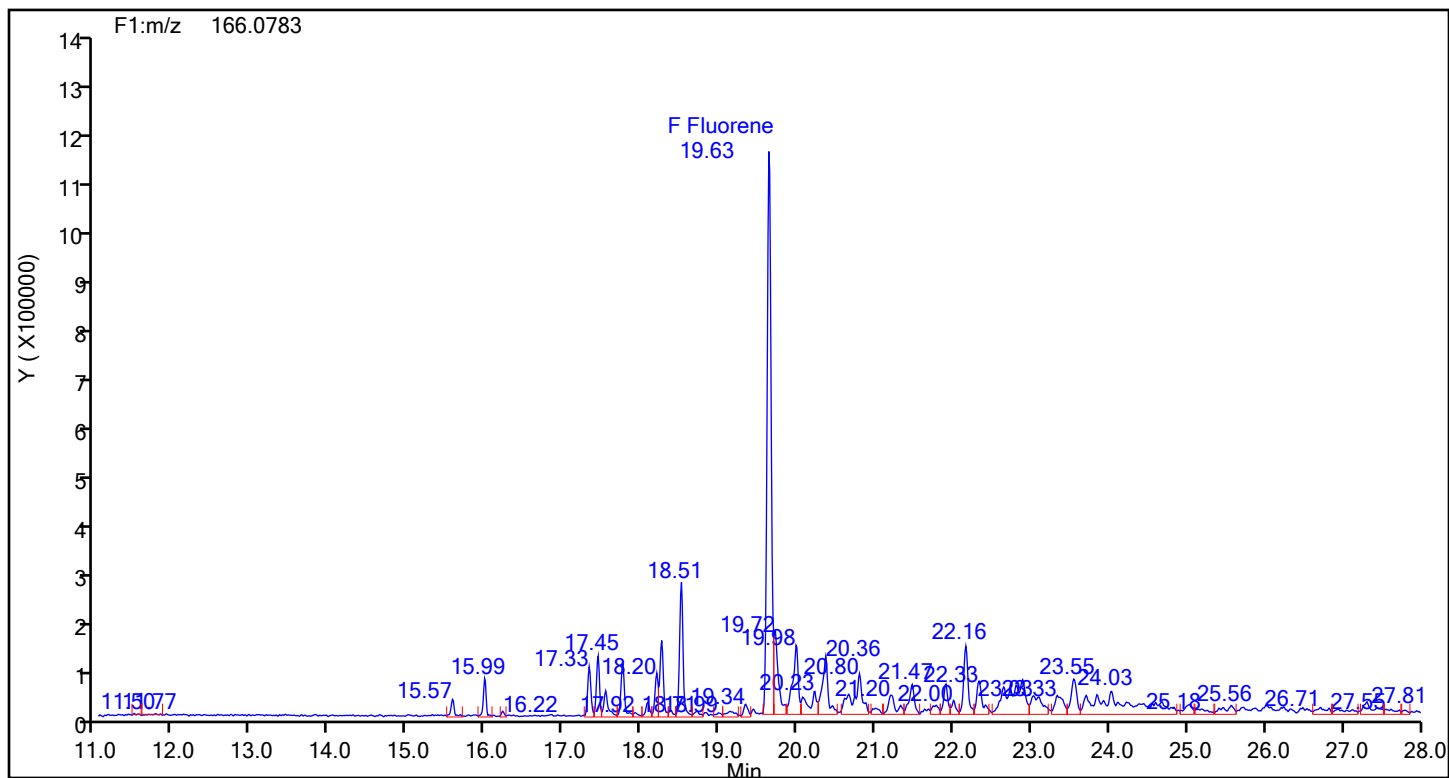
## Acenaphthene Standards



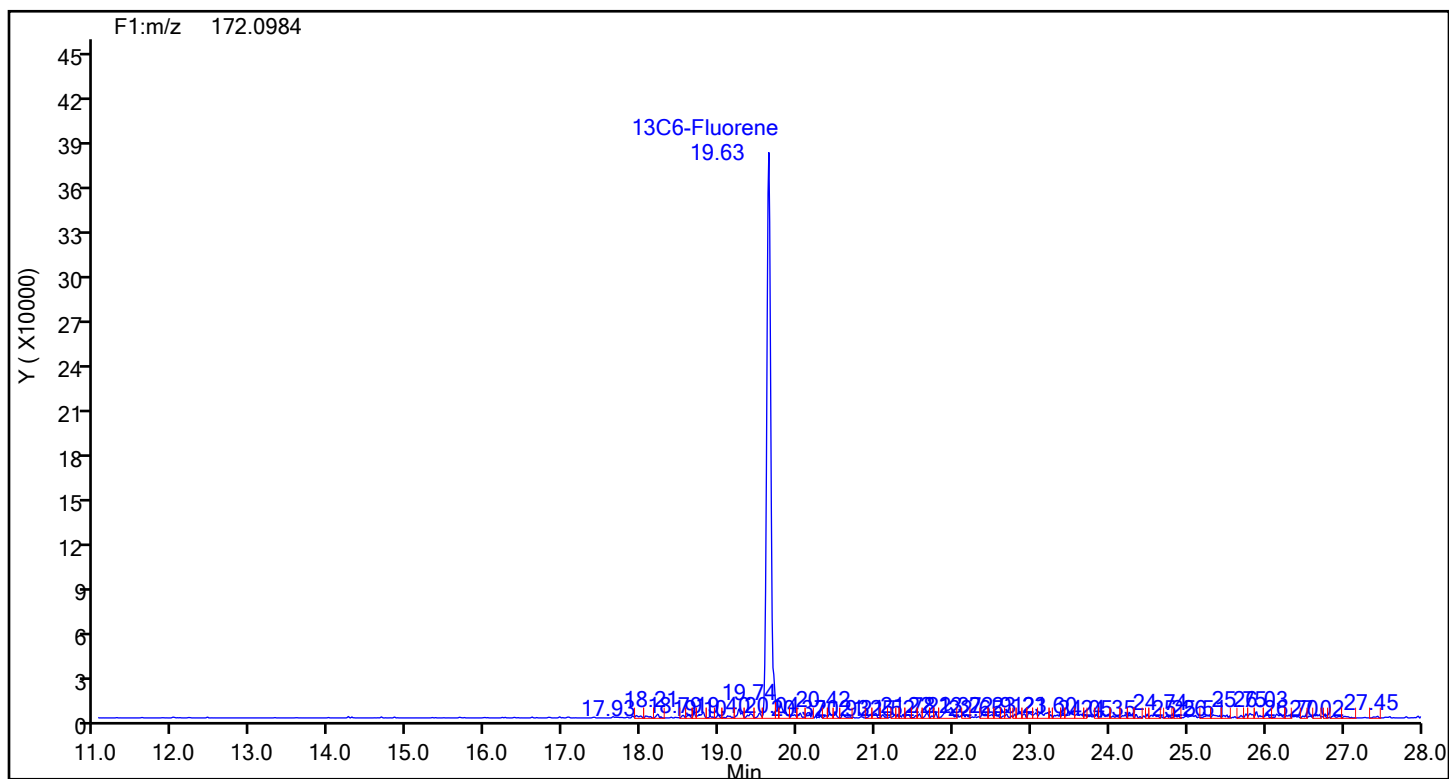
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 89076 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene



## Fluorene Standards



## Eurofins Knoxville

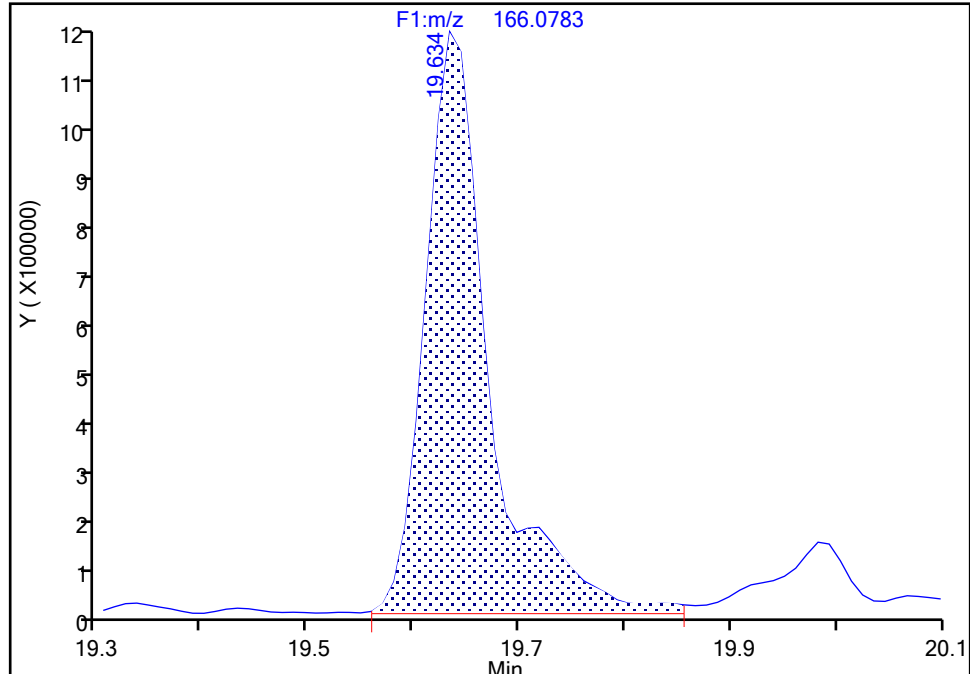
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-6-C Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Fluorene, CAS: 86-73-7

Signal: 1

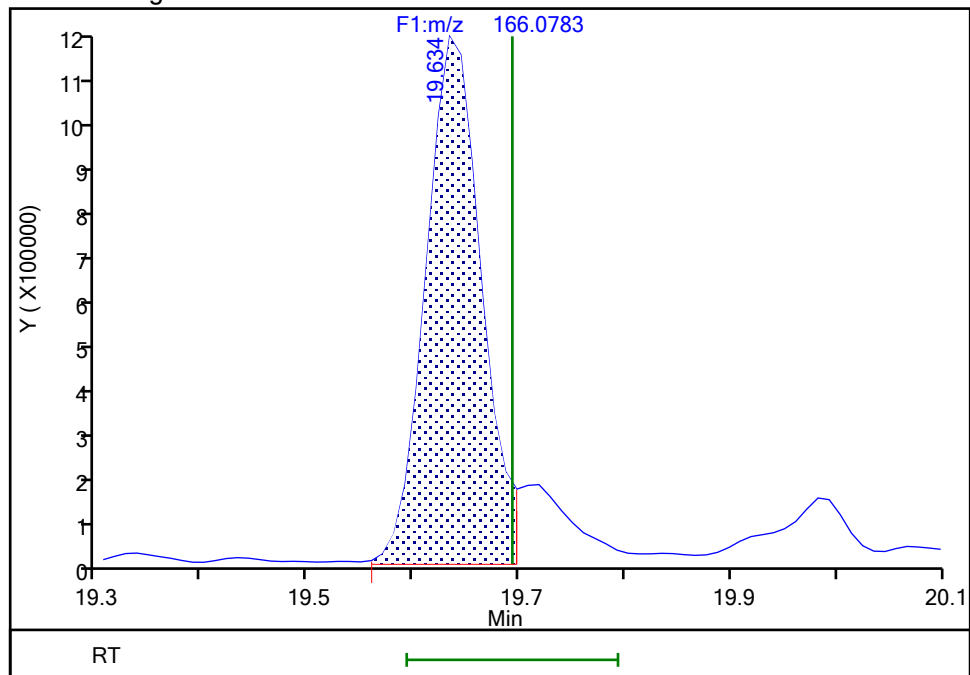
RT: 19.63  
Area: 4821041  
Amount: 27.814854  
Amount Units: pg/ul

## Processing Integration Results



RT: 19.63  
Area: 4200575  
Amount: 24.235094  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 13:00:16 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d

Injection Date: 23-Jul-2024 07:13:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 7 COMBINED

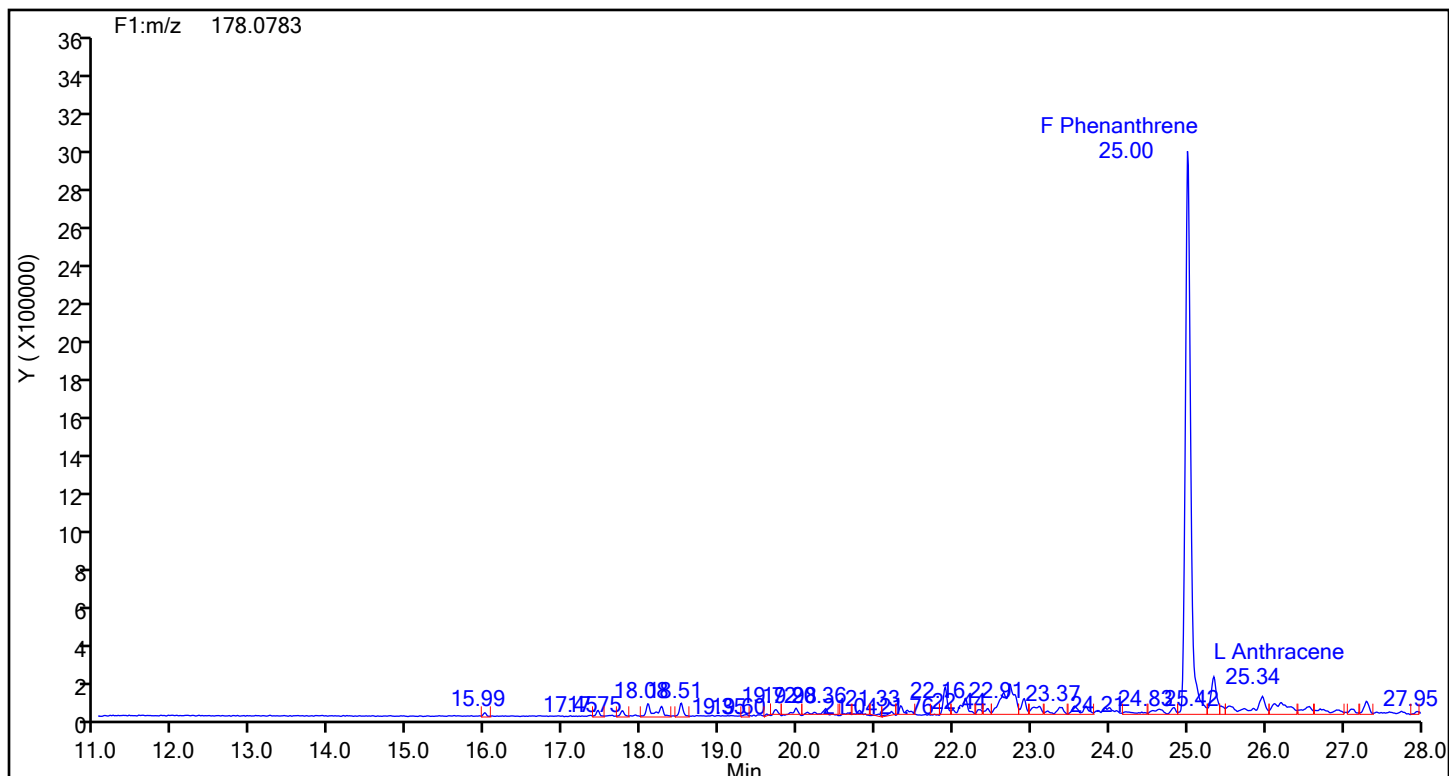
Worklist#: 89076

Sample Line#: 10

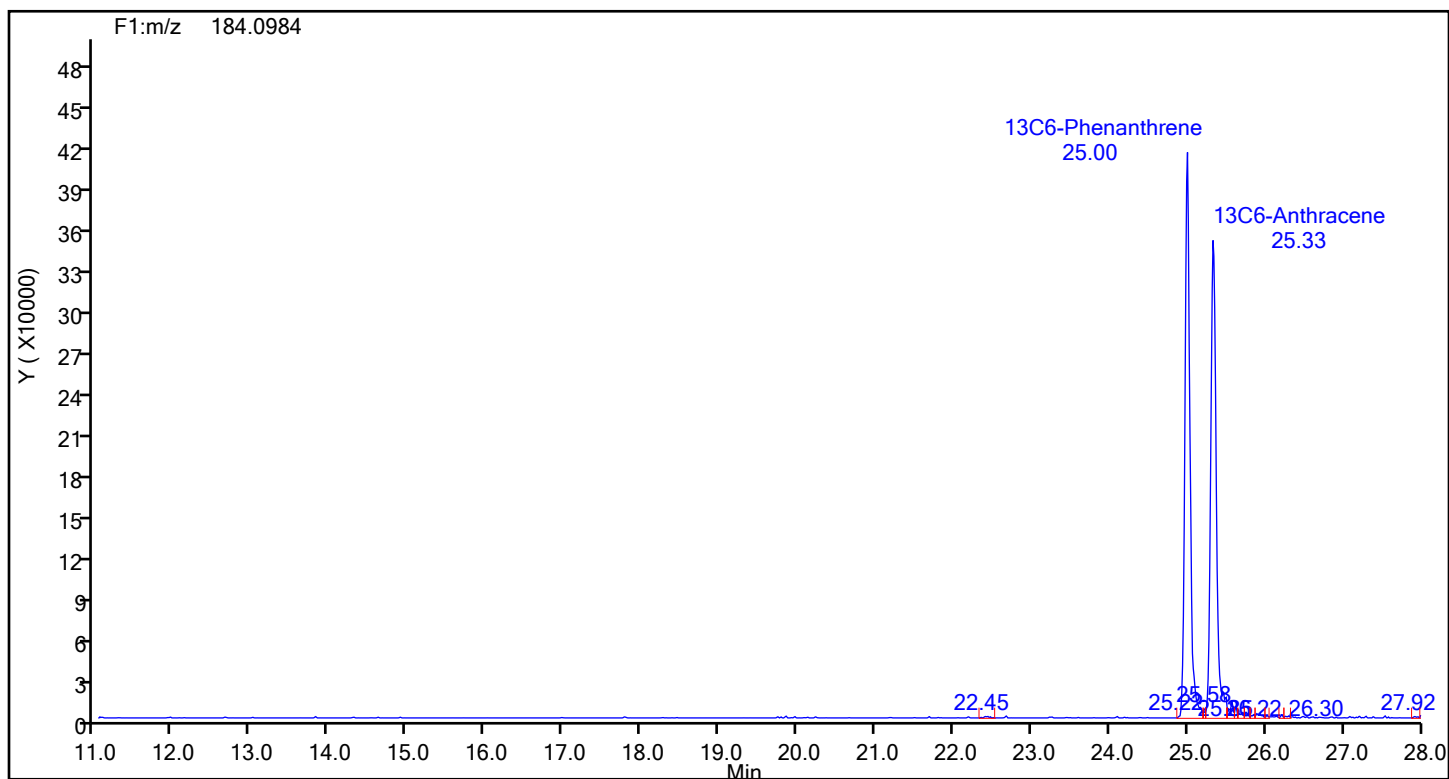
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Phenanthrene



## Phenanthrene Standards



## Eurofins Knoxville

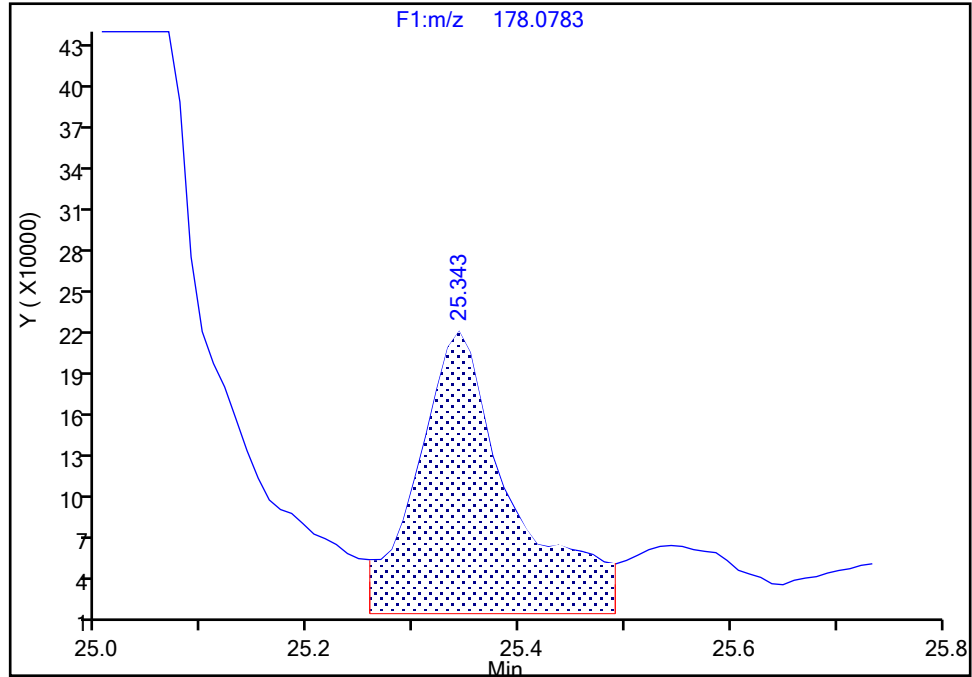
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-6-C Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Anthracene, CAS: 120-12-7

Signal: 1

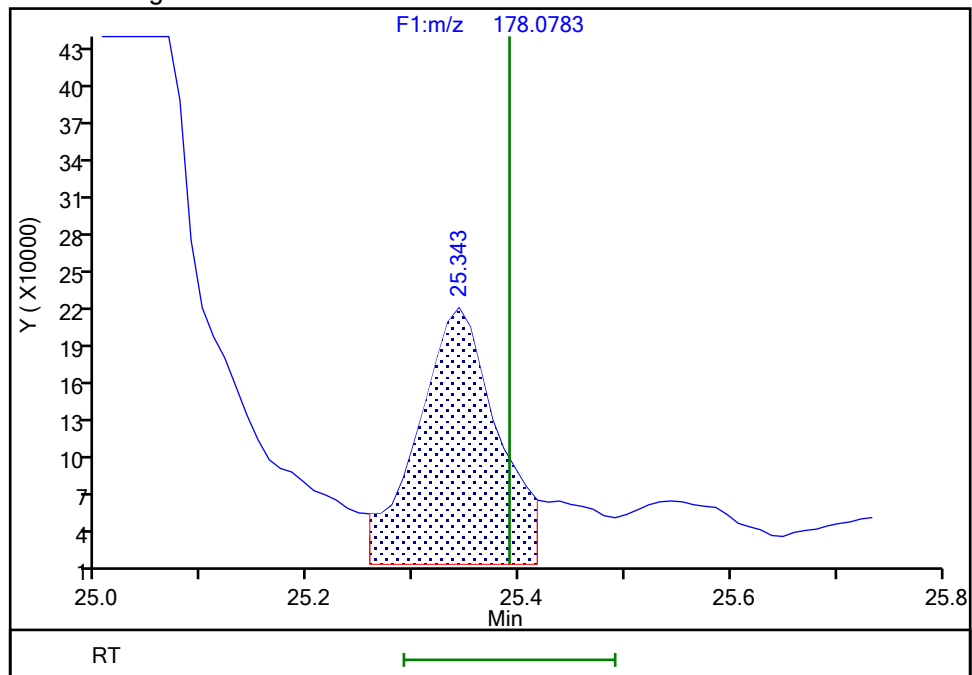
RT: 25.34  
Area: 1259944  
Amount: 5.368537  
Amount Units: pg/ul

## Processing Integration Results



RT: 25.34  
Area: 1089092  
Amount: 4.640548  
Amount Units: pg/ul

## Manual Integration Results



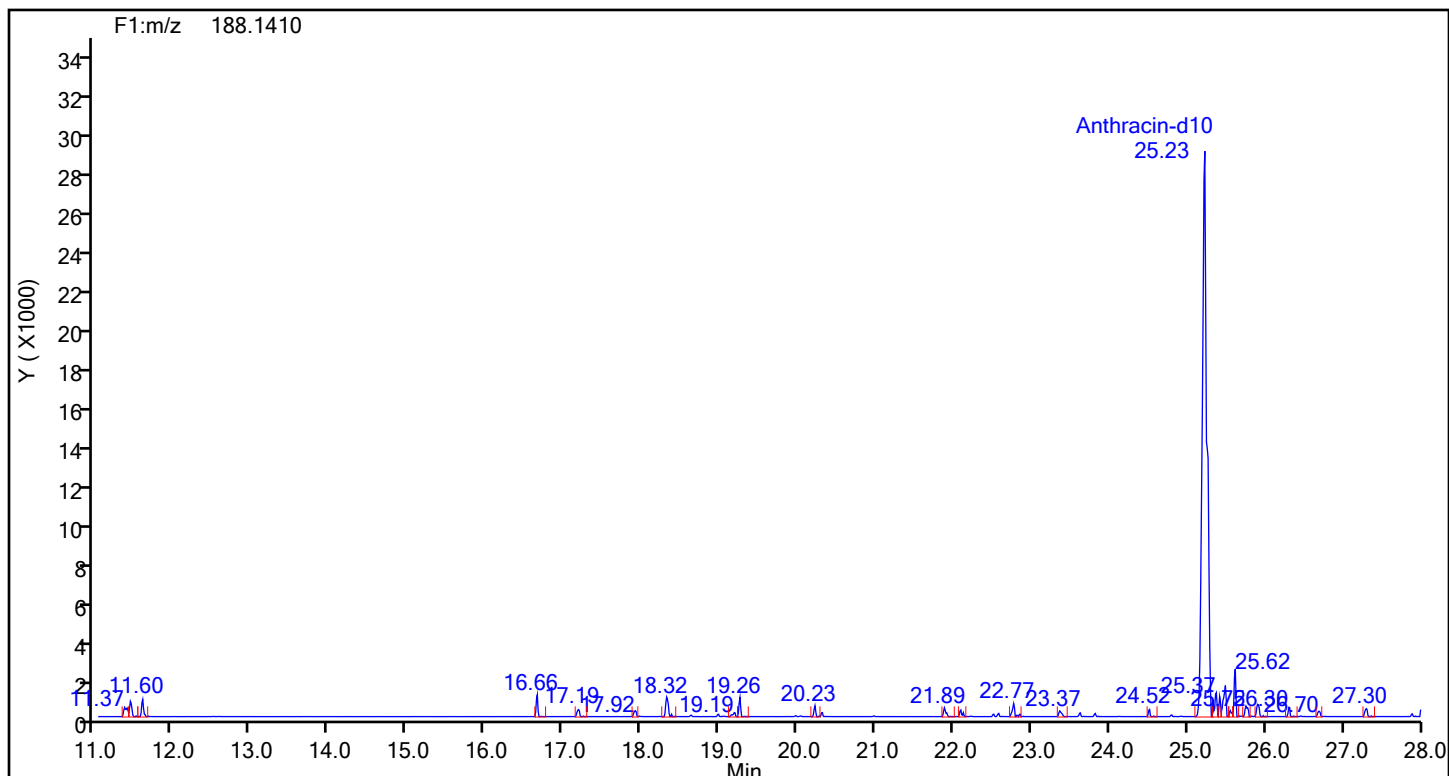
Reviewer: TT6I, 23-Jul-2024 12:58:08 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

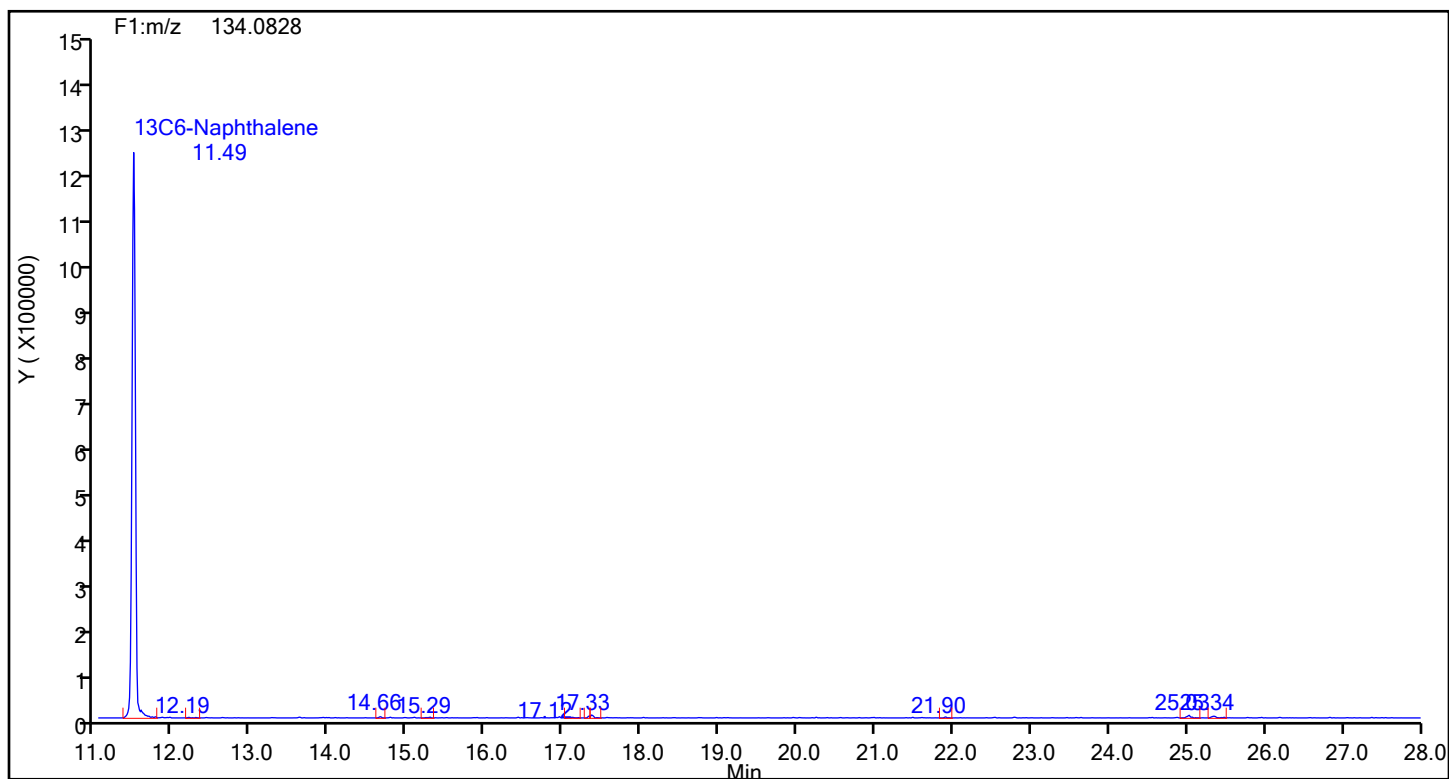
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 89076 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10



## Anthracin-d10 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d

Injection Date: 23-Jul-2024 07:13:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 7 COMBINED

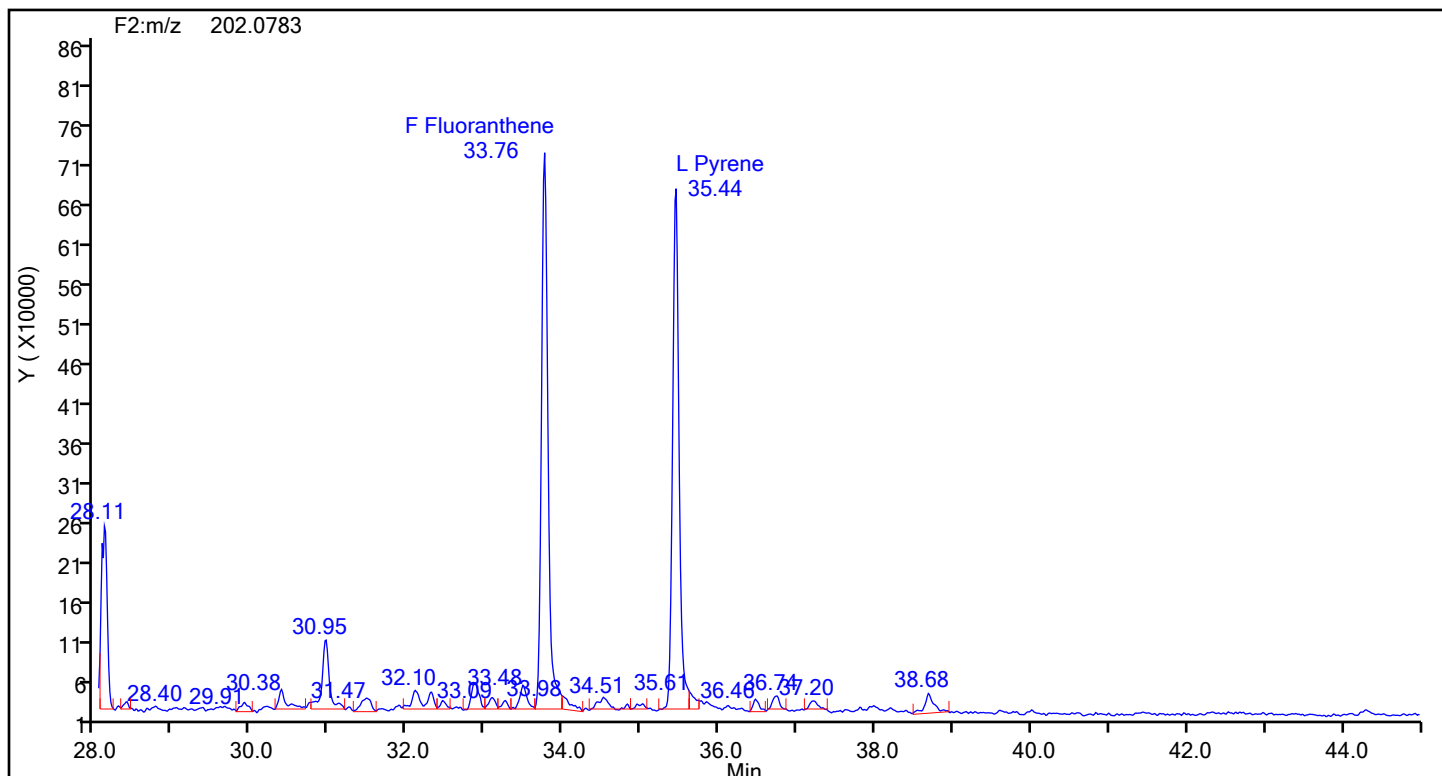
Worklist#: 89076

Sample Line#: 10

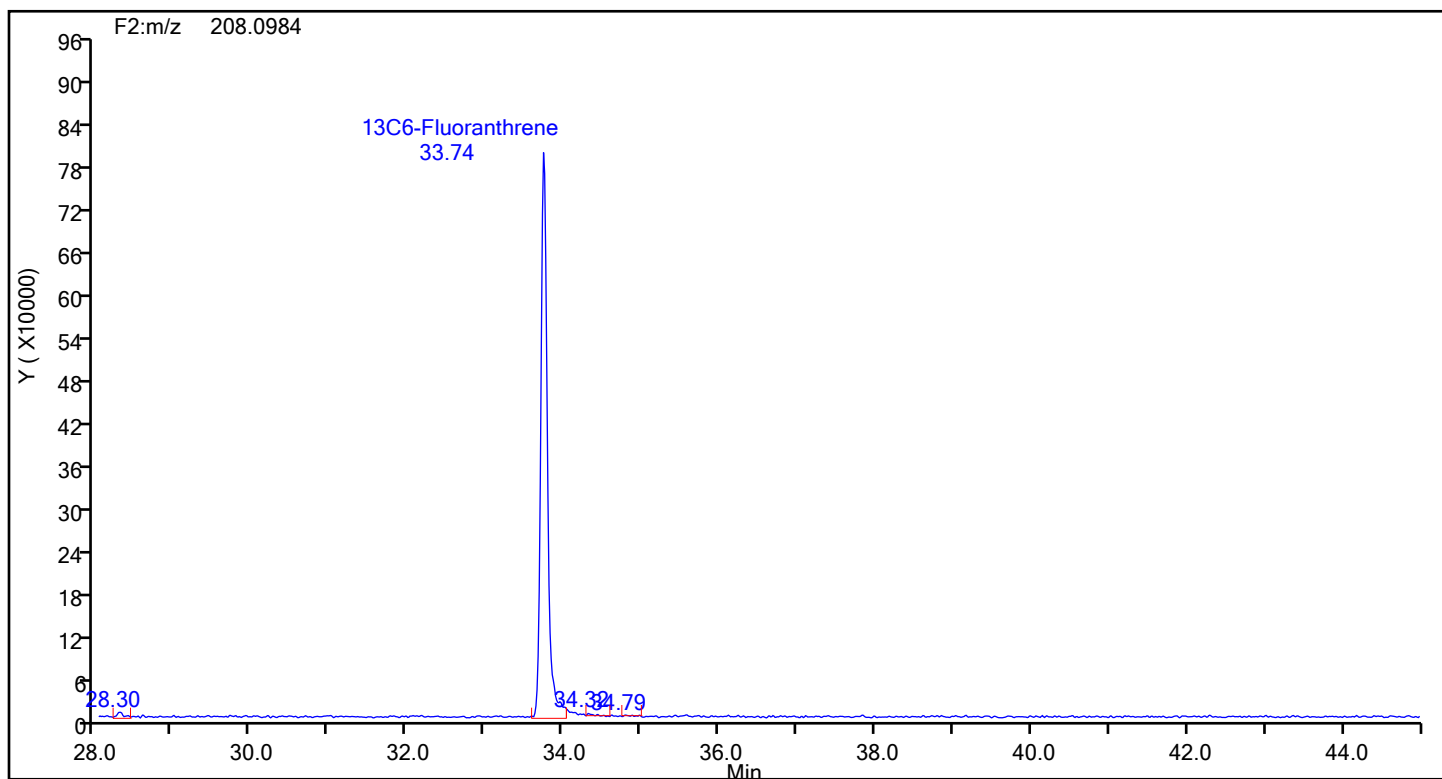
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Fluoranthene



## Fluoranthene Standards





## Eurofins Knoxville

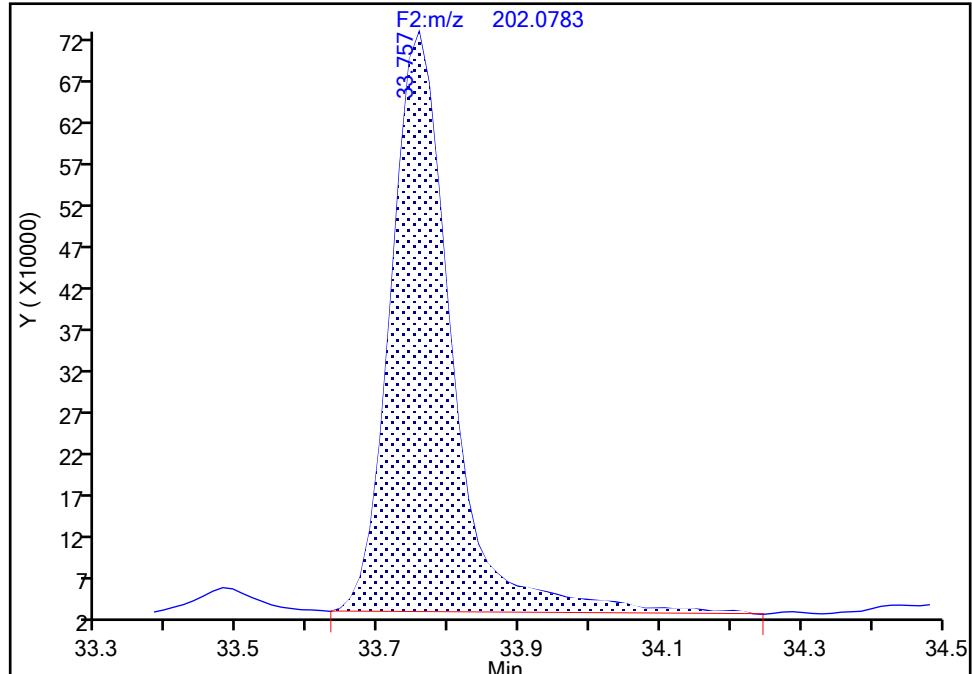
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-6-C Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F2(28.03 :43.99 )

## Fluoranthene, CAS: 206-44-0

Signal: 1

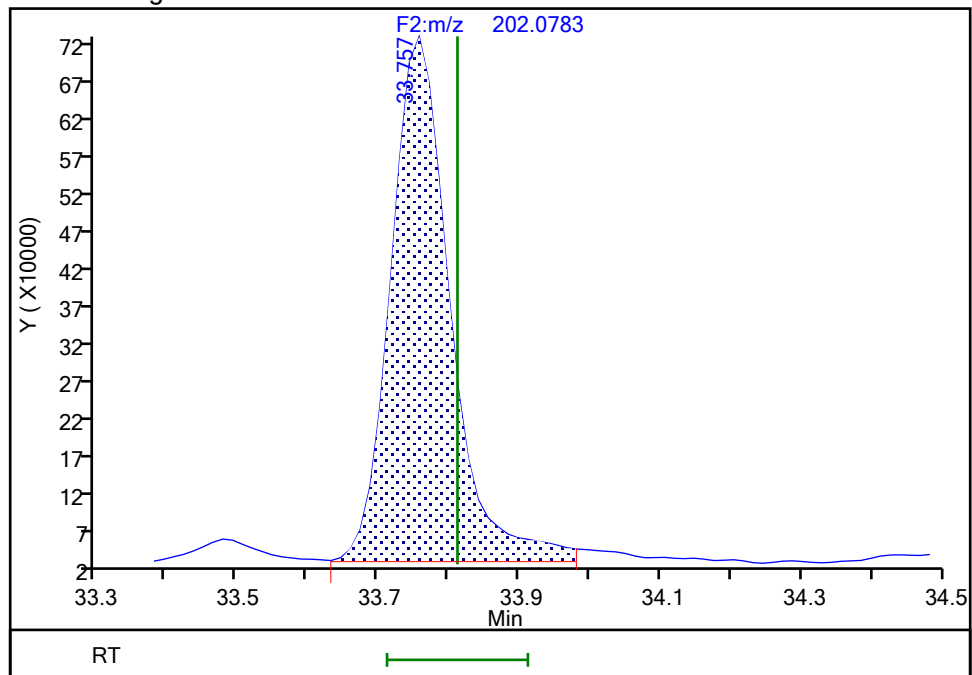
RT: 33.76  
Area: 4227742  
Amount: 7.816282  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.76  
Area: 4109562  
Amount: 7.597790  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 12:59:20 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d

Injection Date: 23-Jul-2024 07:13:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 7 COMBINED

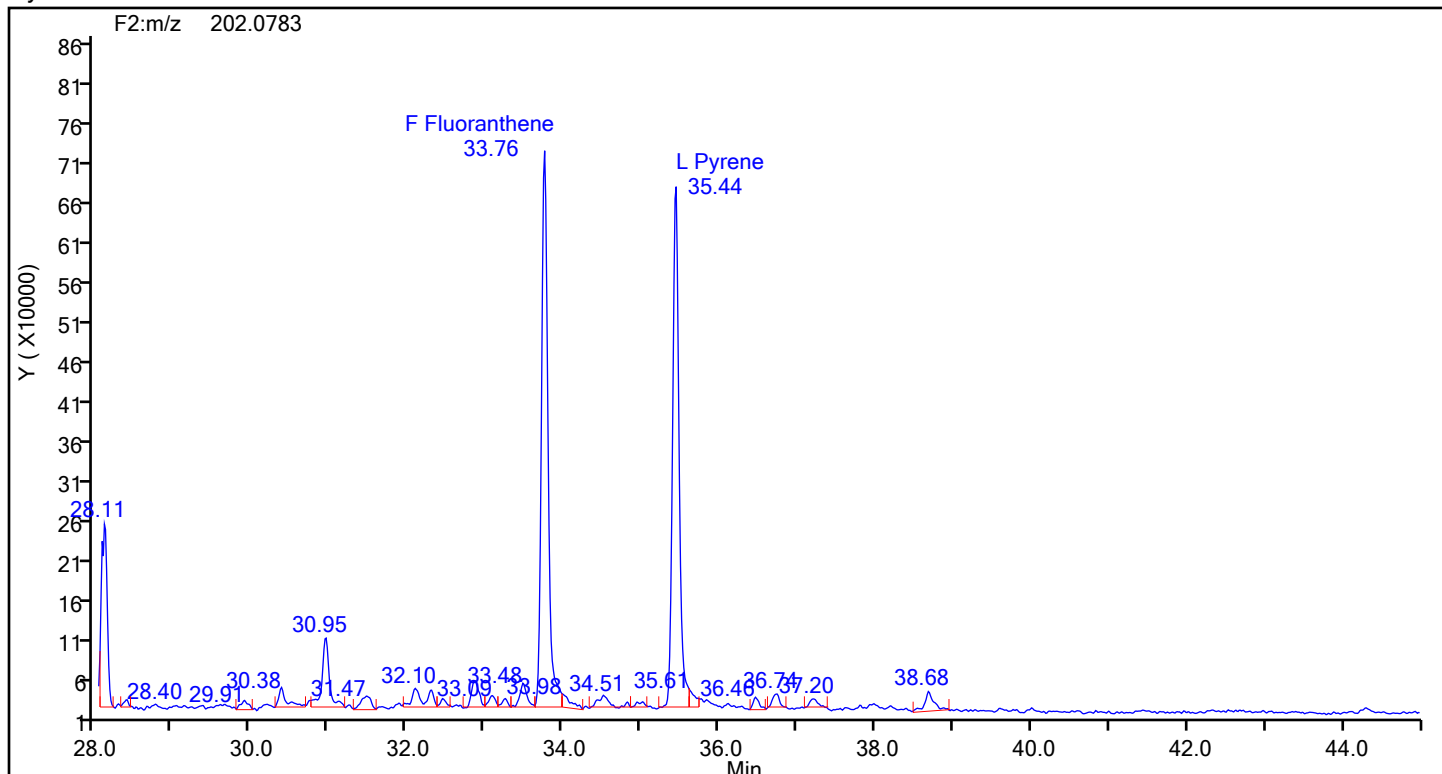
Worklist#: 89076

Sample Line#: 10

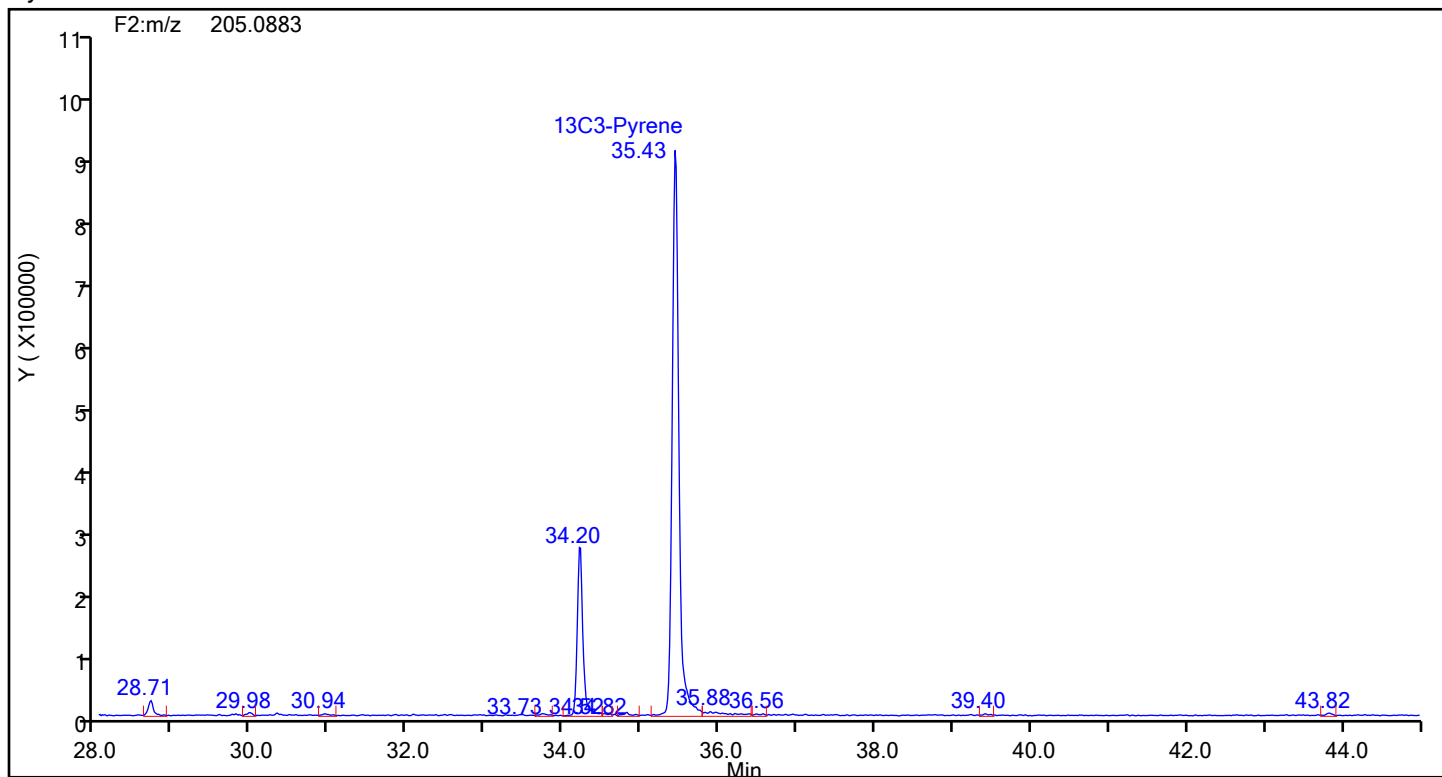
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Pyrene



## Pyrene Standards



## Eurofins Knoxville

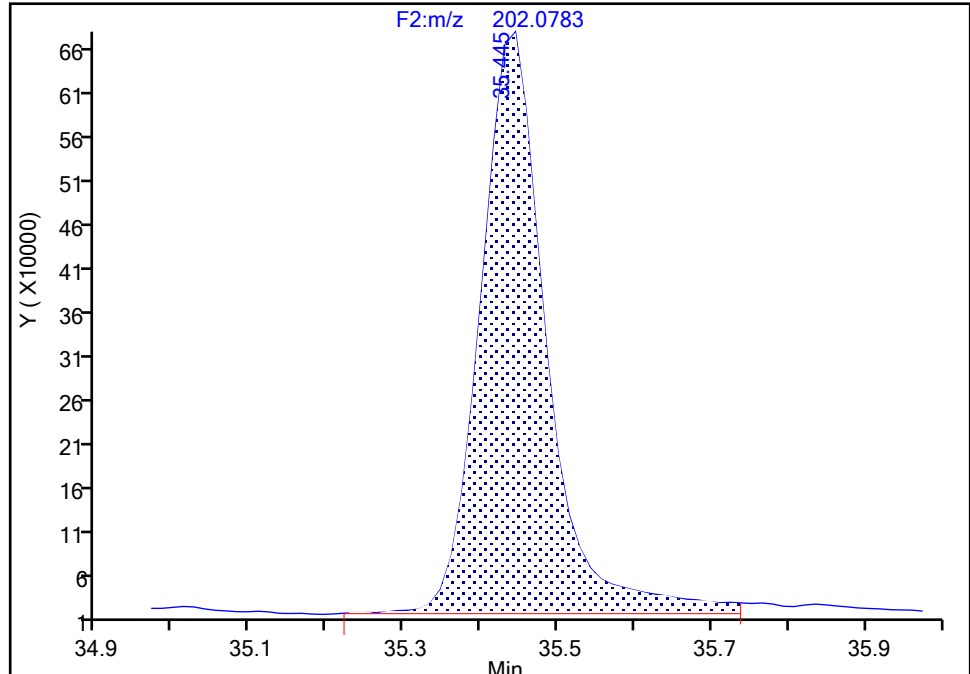
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-6-C Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F2(28.03 :43.99 )

Pyrene, CAS: 129-00-0

Signal: 1

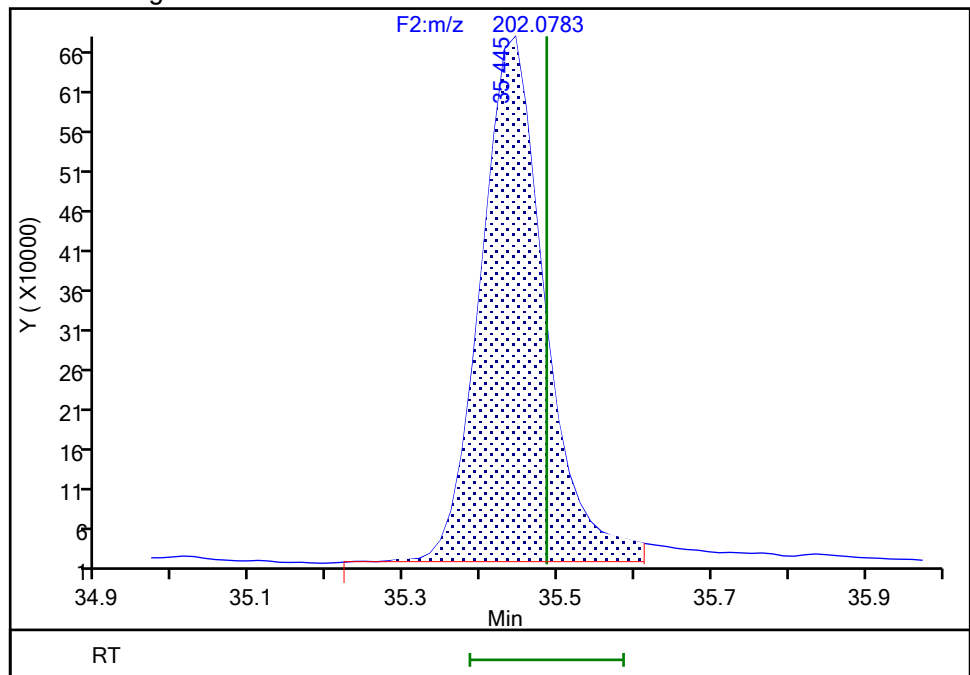
RT: 35.44  
Area: 3939046  
Amount: 7.063010  
Amount Units: pg/ul

## Processing Integration Results



RT: 35.44  
Area: 3829593  
Amount: 6.866753  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 12:59:48 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d

Injection Date: 23-Jul-2024 07:13:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 7 COMBINED

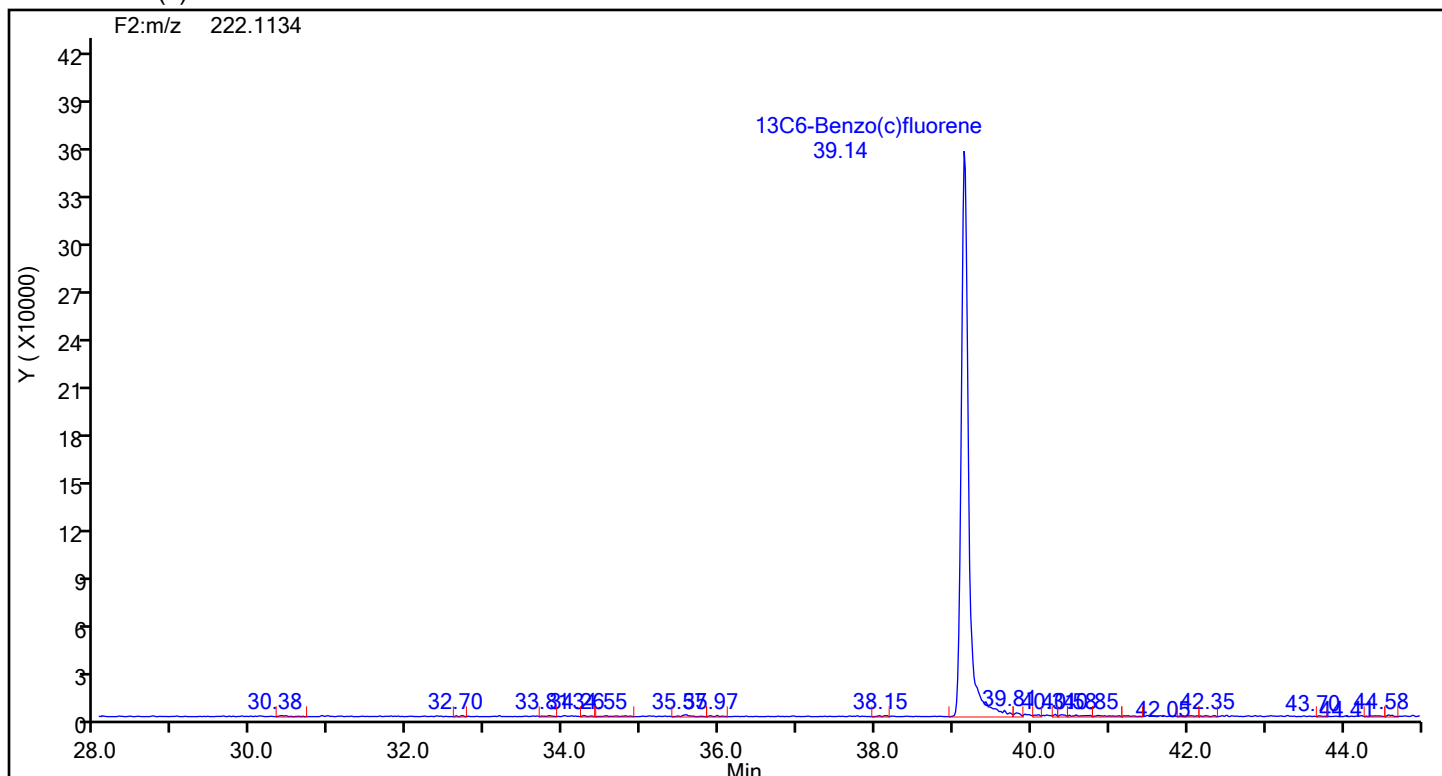
Worklist#: 89076

Sample Line#: 10

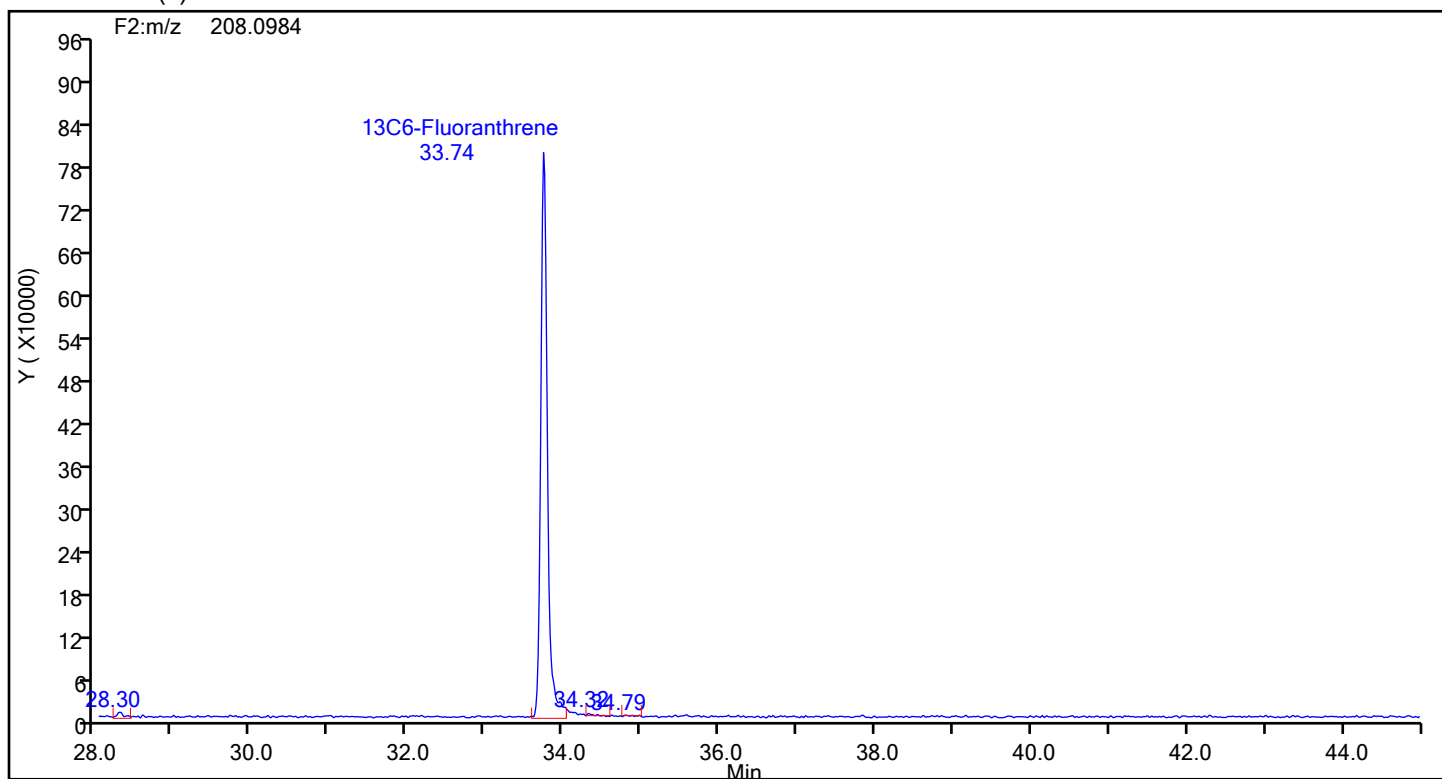
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## 13C6-Benzo(c)fluorene



## 13C6-Benzo(c)fluorene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d

Injection Date: 23-Jul-2024 07:13:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 7 COMBINED

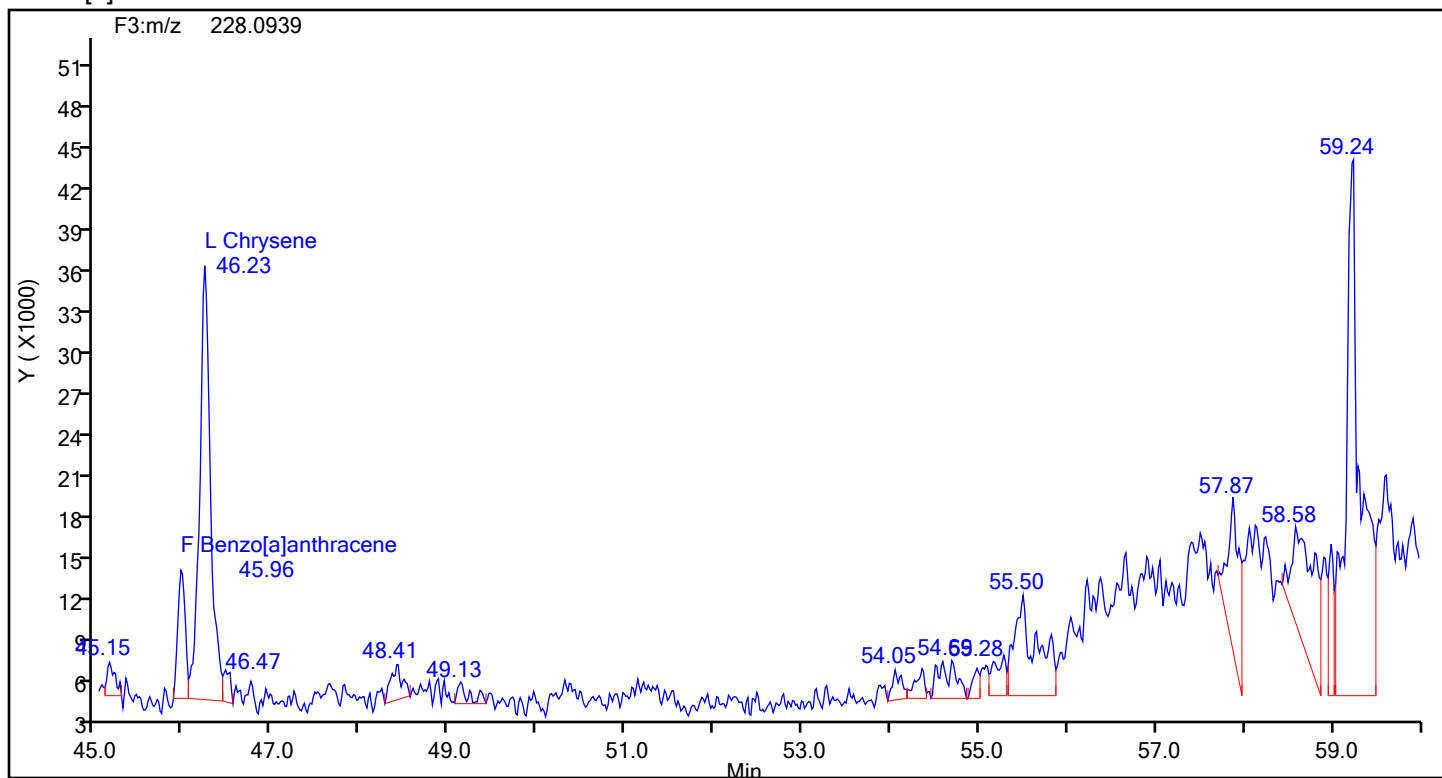
Worklist#: 89076

Sample Line#: 10

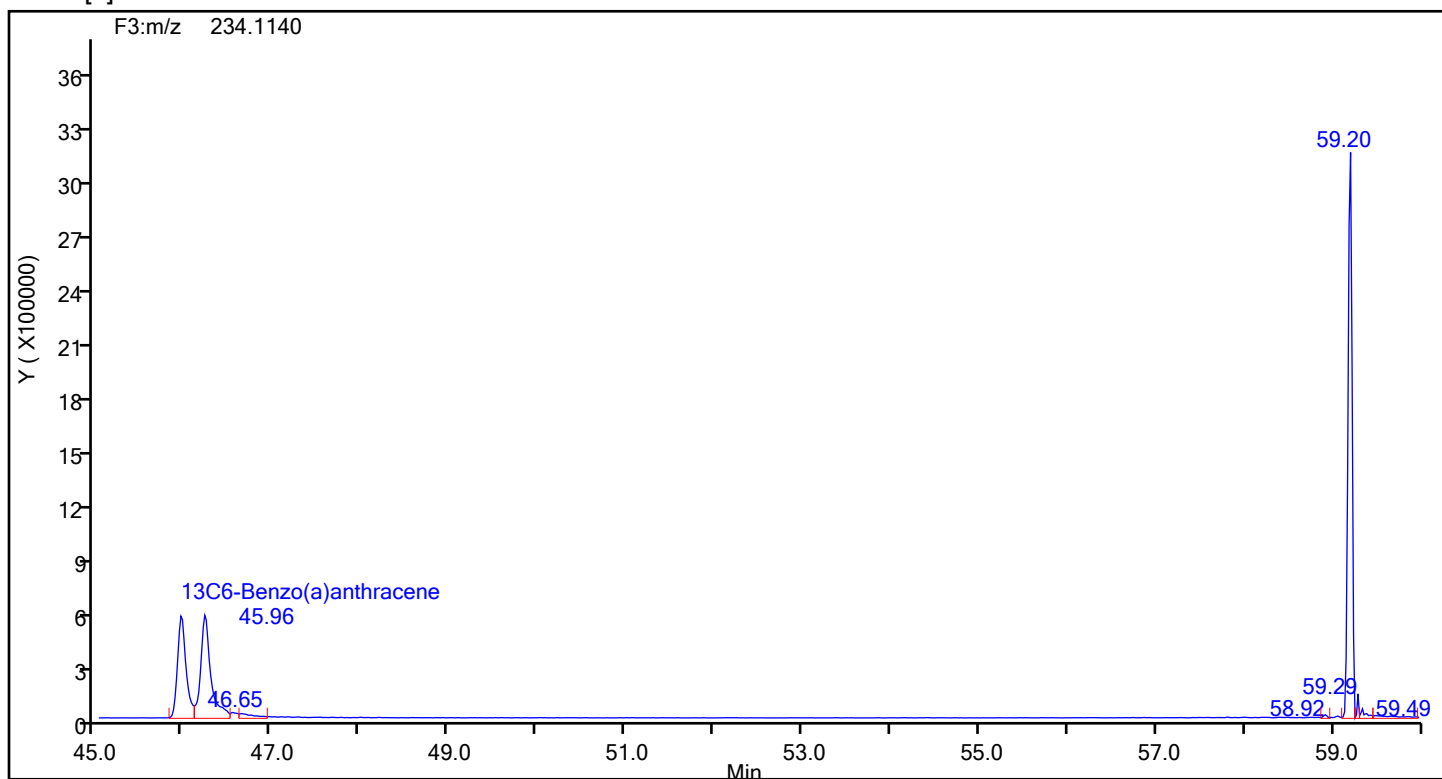
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Benzo[a]anthracene



## Benzo[a]anthracene Standards



## Eurofins Knoxville

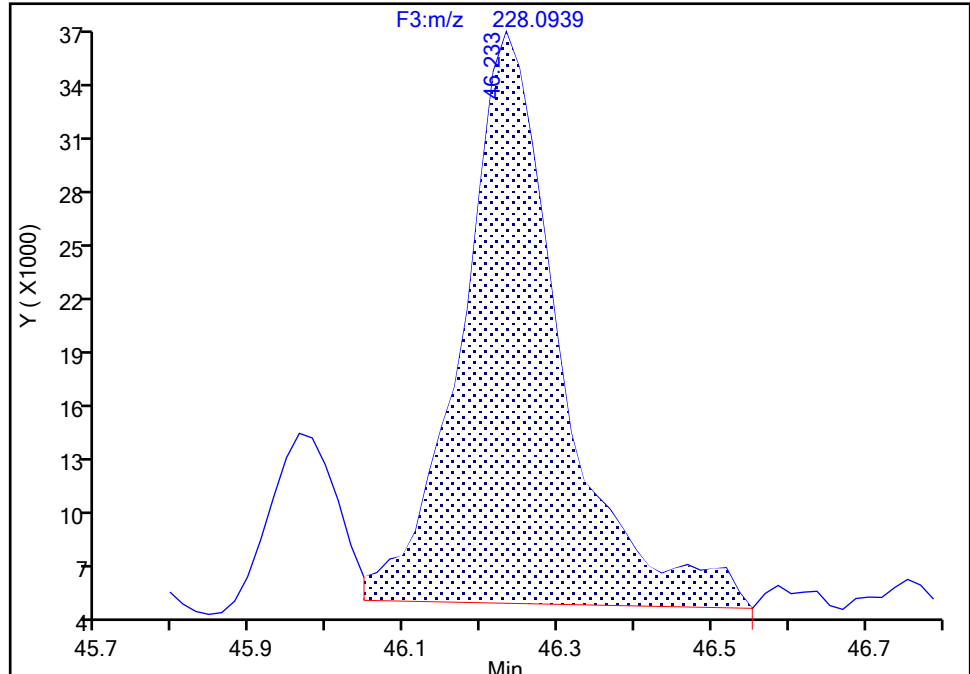
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-6-C Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

## Chrysene, CAS: 218-01-9

Signal: 1

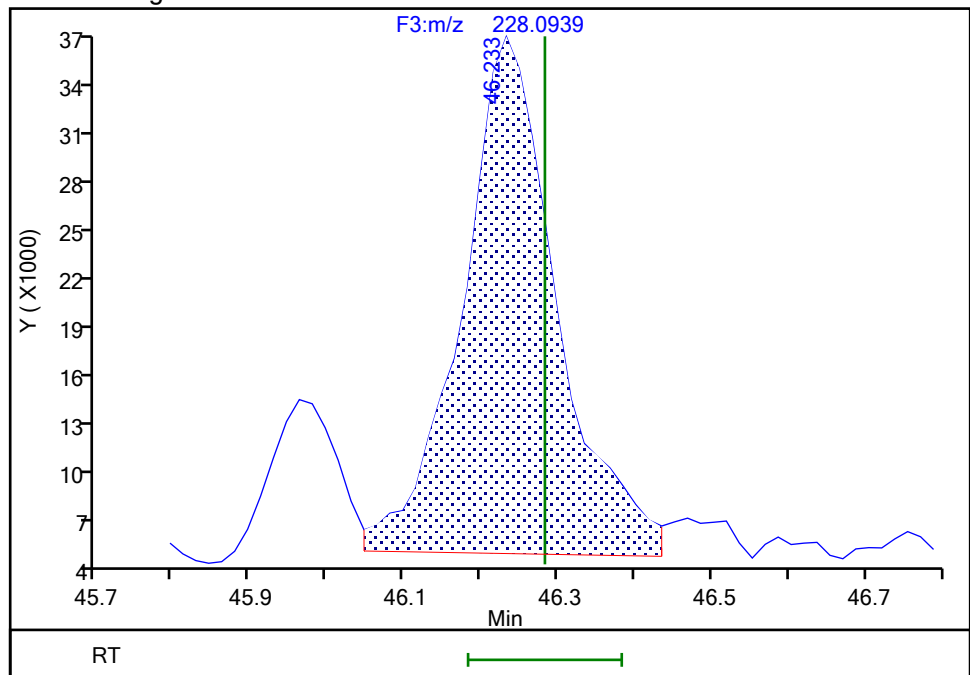
RT: 46.23  
Area: 281964  
Amount: 0.638416  
Amount Units: pg/ul

## Processing Integration Results



RT: 46.23  
Area: 270593  
Amount: 0.612670  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 12:59:09 -04:00:00 (UTC)

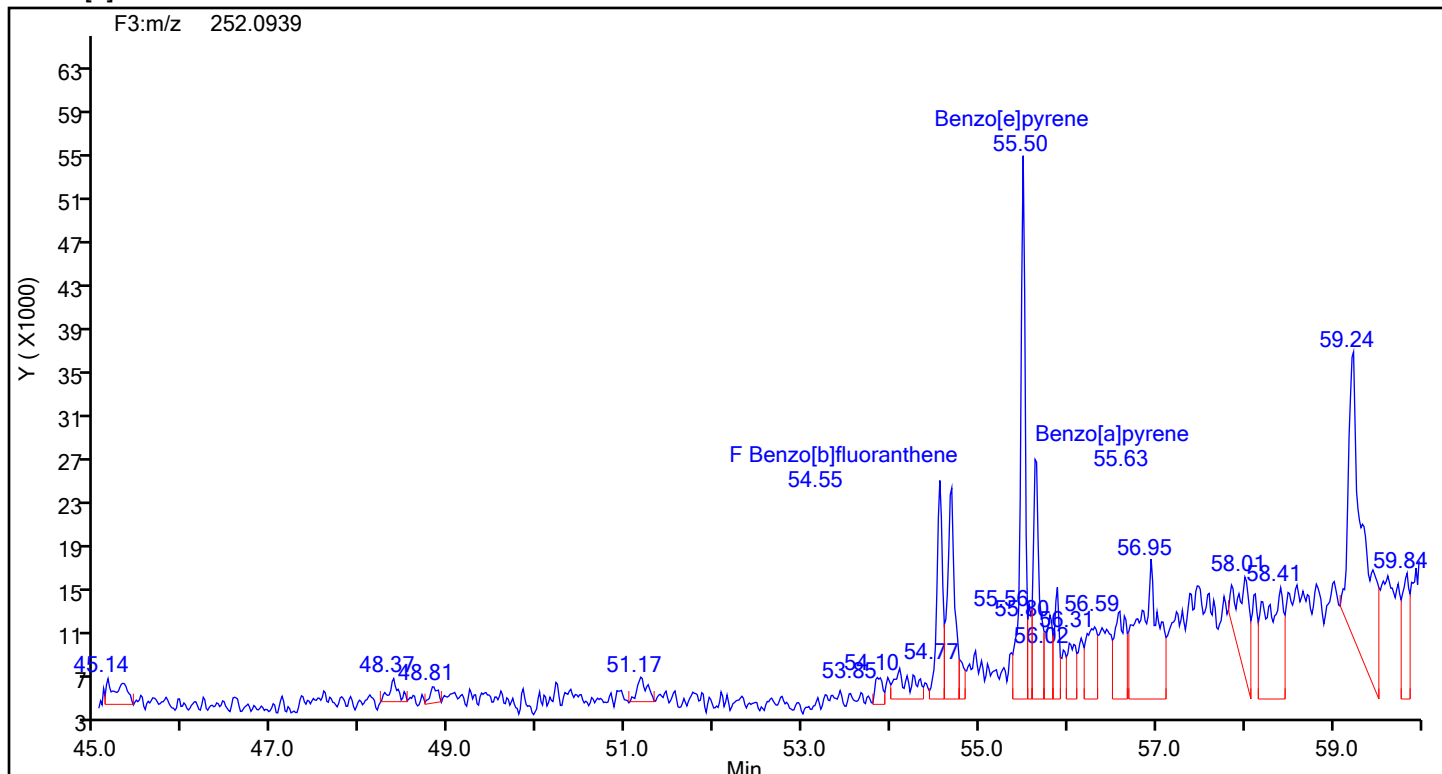
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

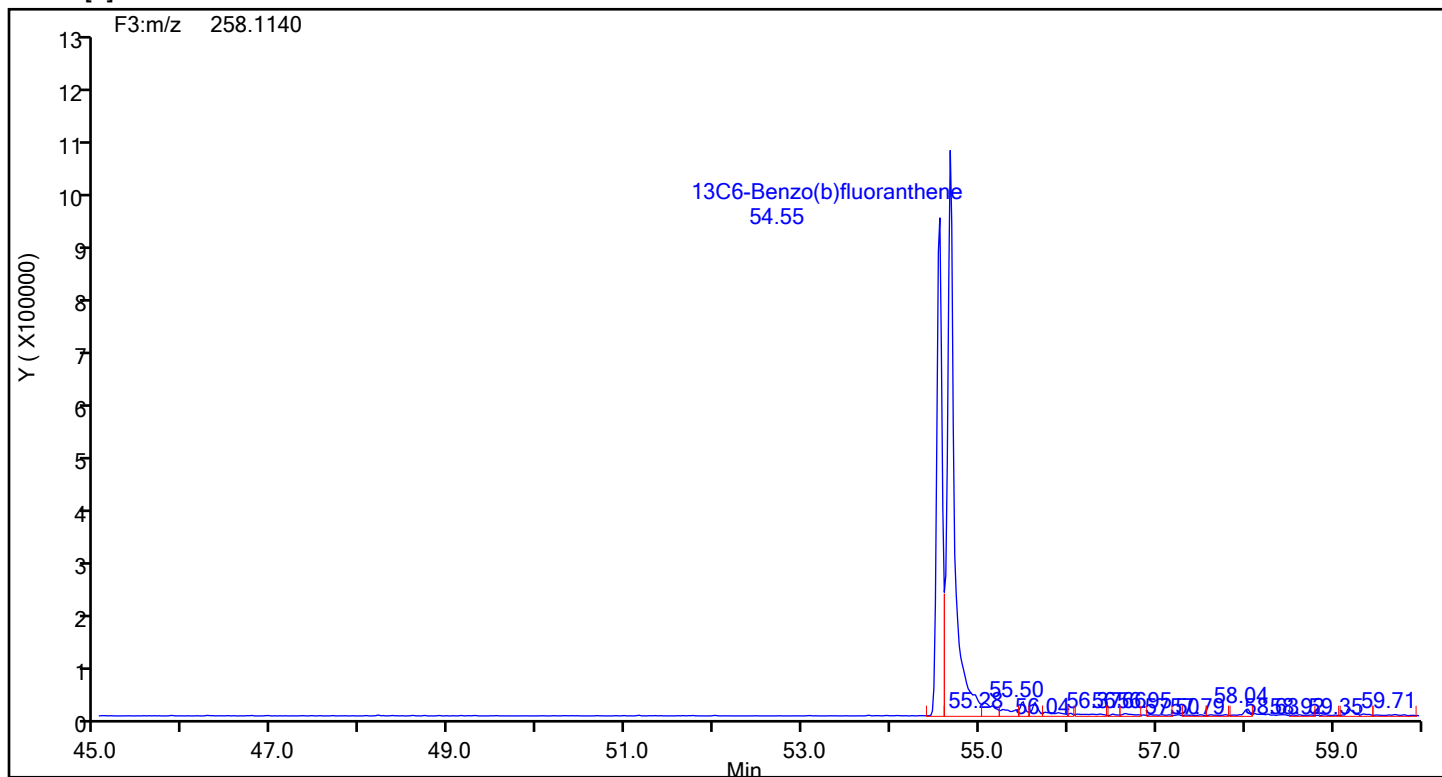
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 89076 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



## Benzo[b]fluoranthene Standards



## Eurofins Knoxville

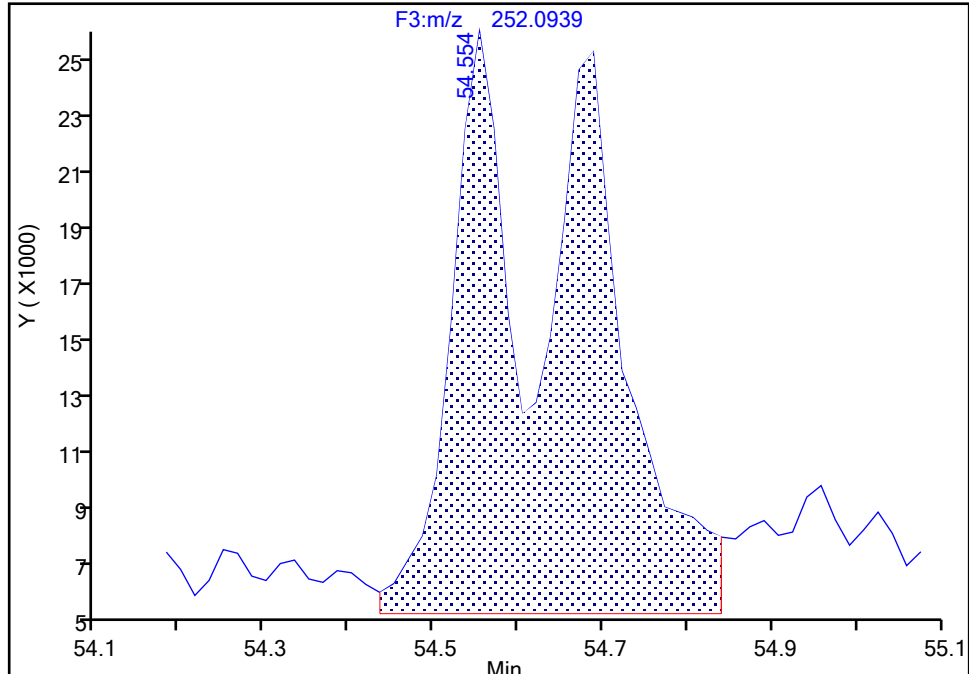
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-6-C Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

## Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

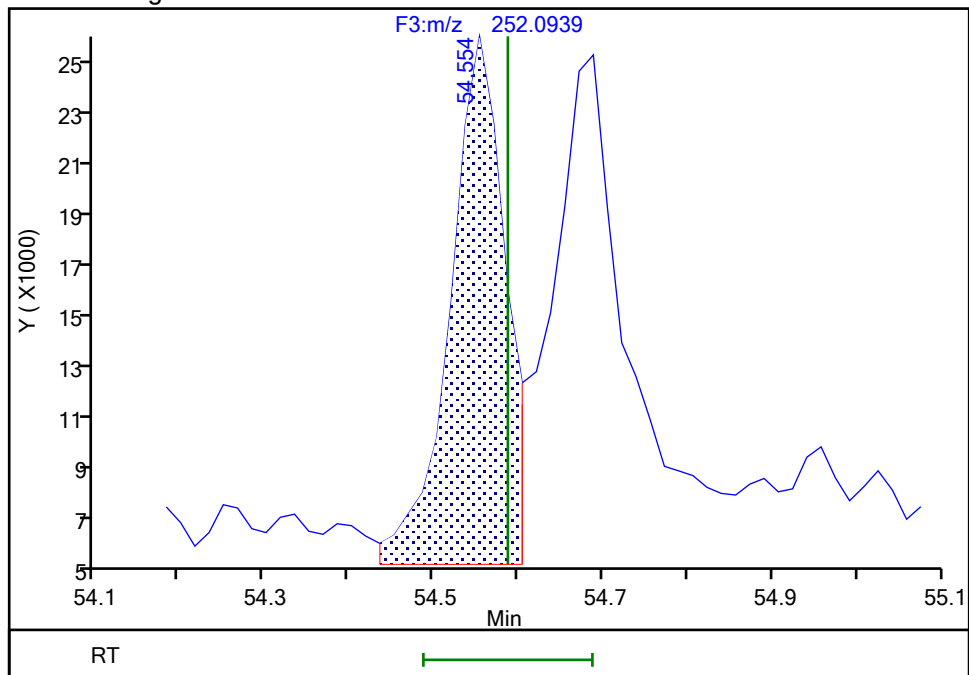
RT: 54.55  
Area: 210332  
Amount: 0.500136  
Amount Units: pg/ul

## Processing Integration Results



RT: 54.55  
Area: 92347  
Amount: 0.219586  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 12:59:15 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration



## Eurofins Knoxville

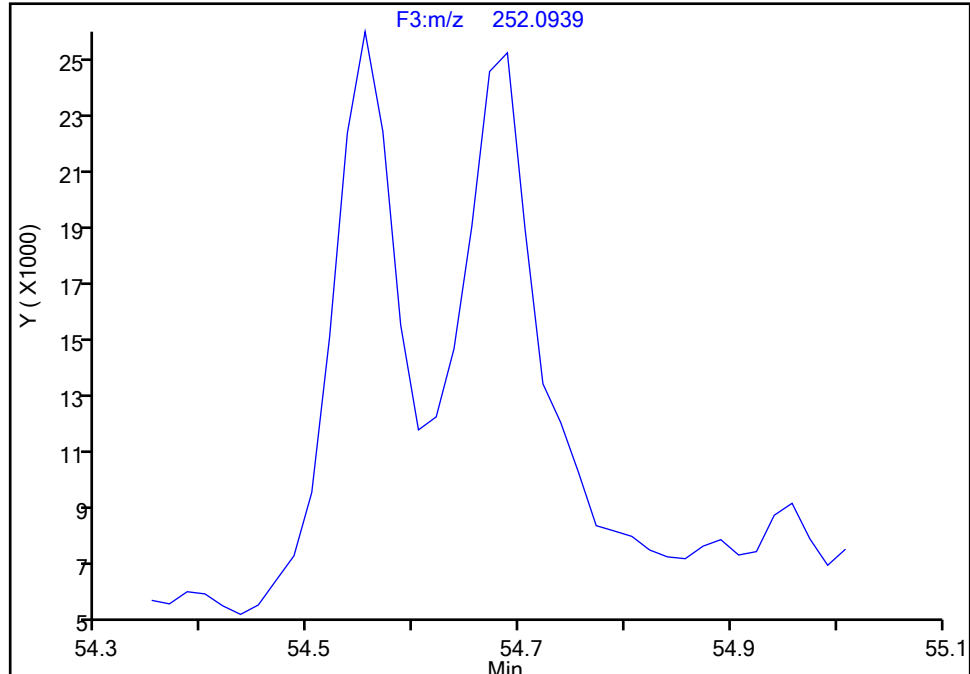
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-6-C Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**Benzo[k]fluoranthene, CAS: 207-08-9**

Signal: 1

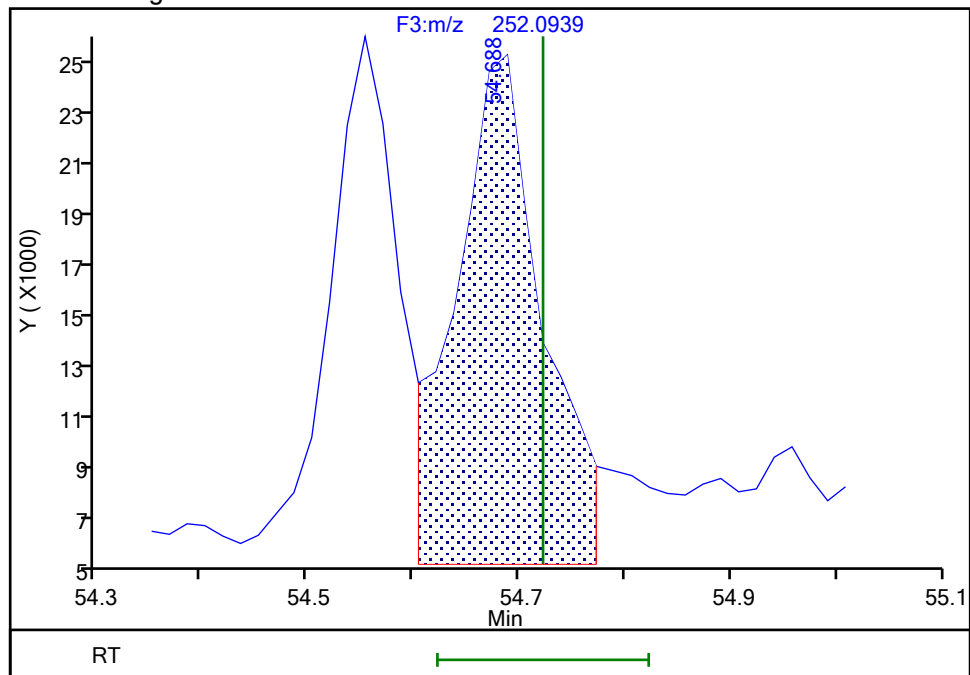
Not Detected  
Expected RT: 54.72

## Processing Integration Results



## Manual Integration Results

RT: 54.69  
Area: 114159  
Amount: 0.177141  
Amount Units: pg/ul



Reviewer: TT6I, 23-Jul-2024 13:00:28 -04:00:00 (UTC)

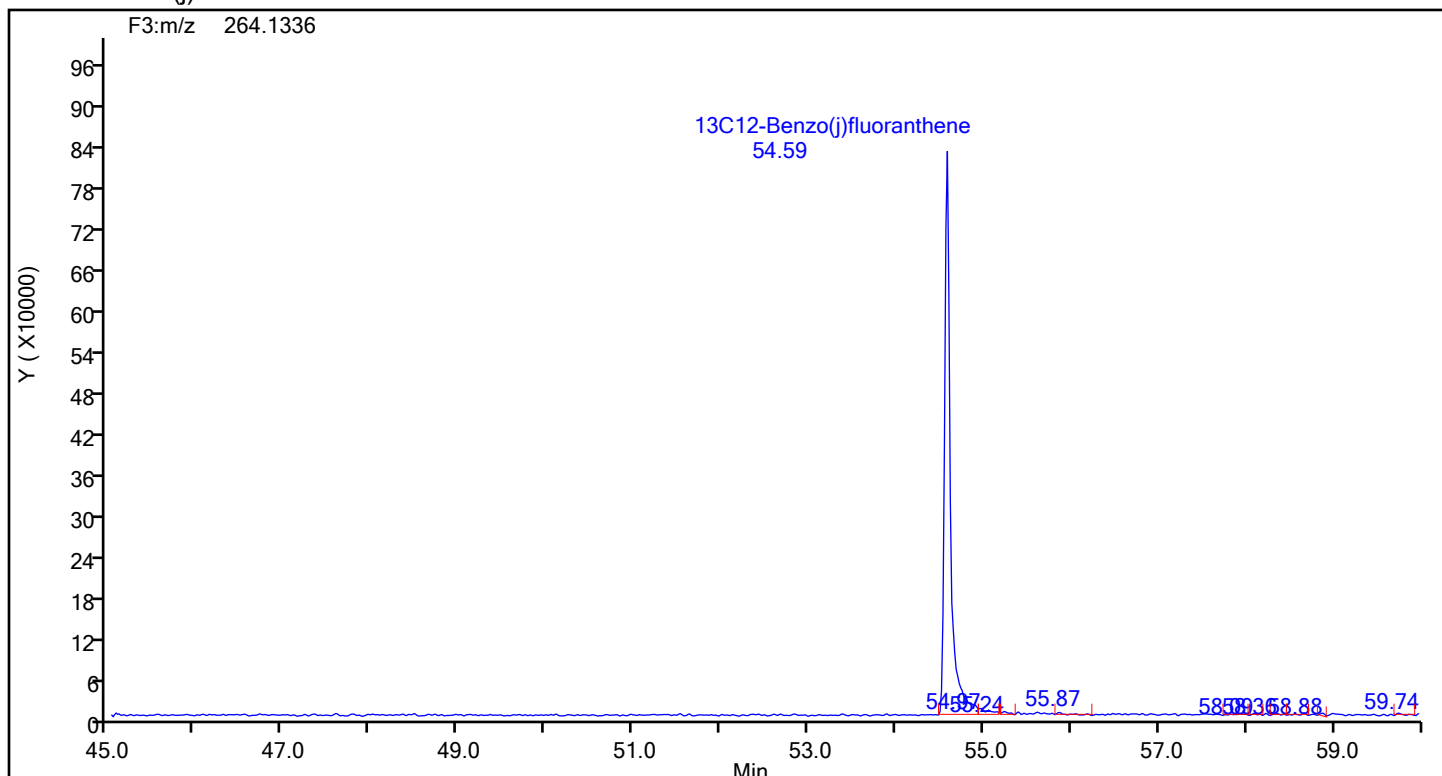
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

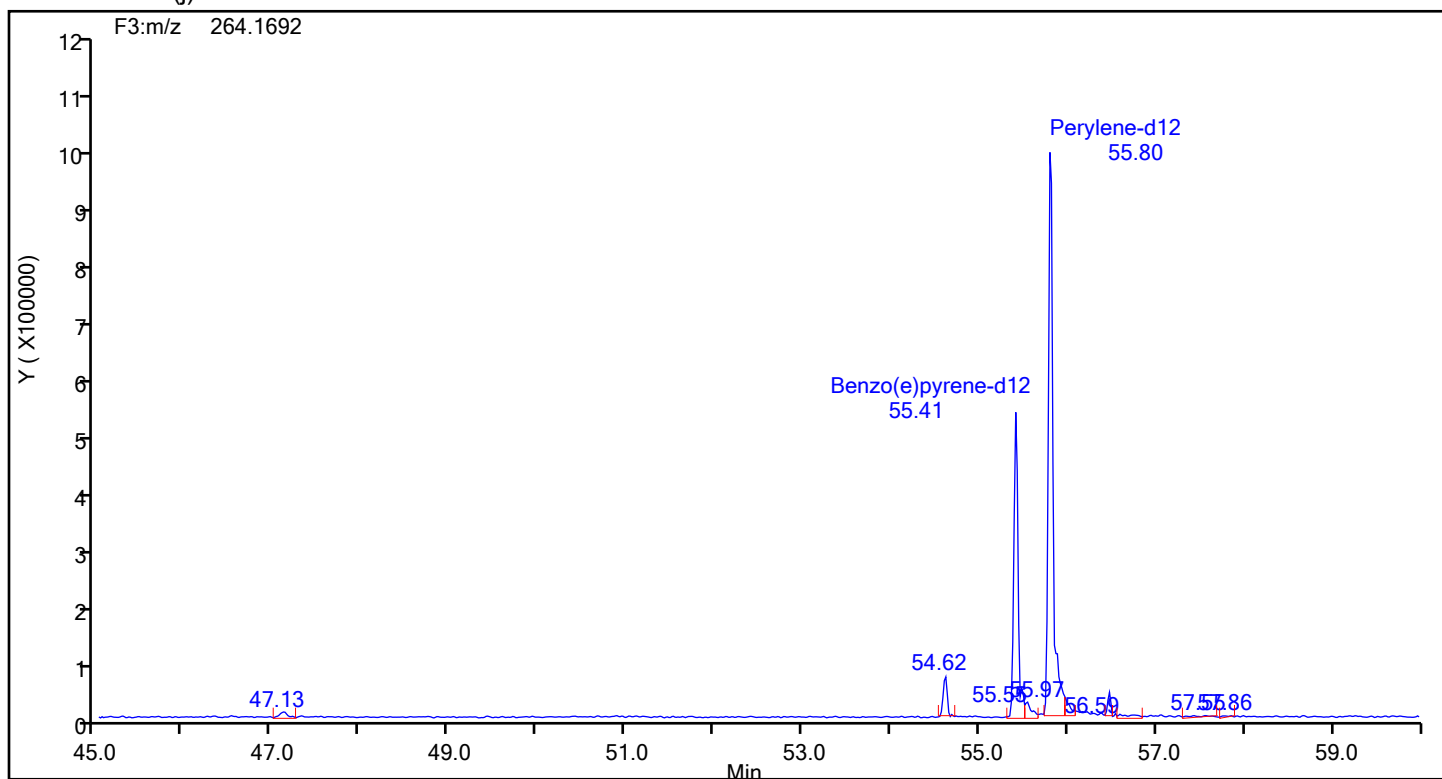
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 89076 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



## 13C12-Benzo(j)fluoranthene Standards



## Eurofins Knoxville

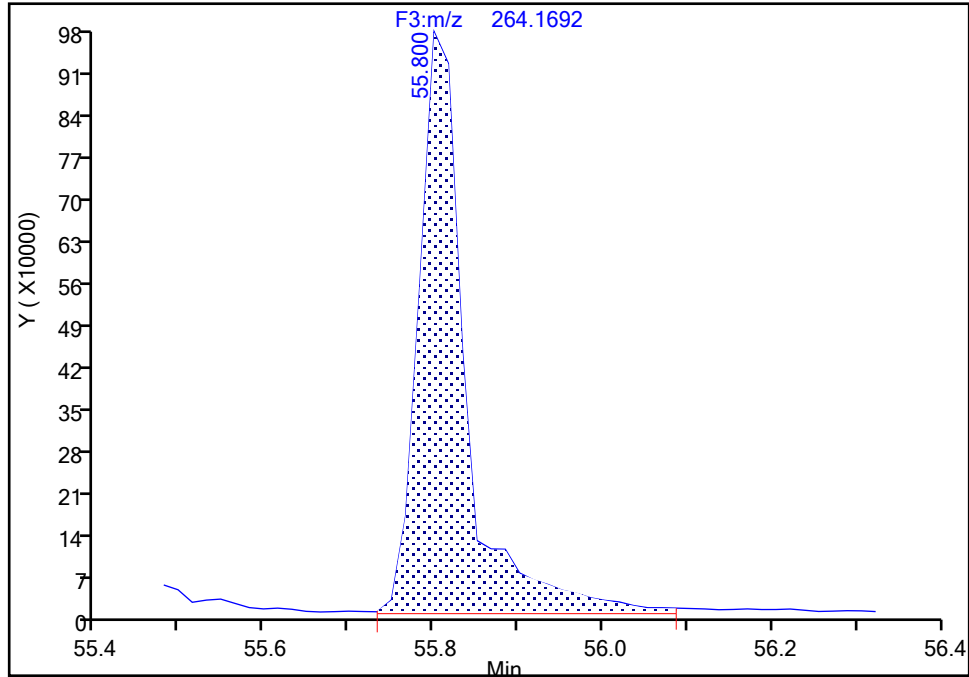
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-6-C Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Perylene-d12, CAS: 1520-96-3

Signal: 1

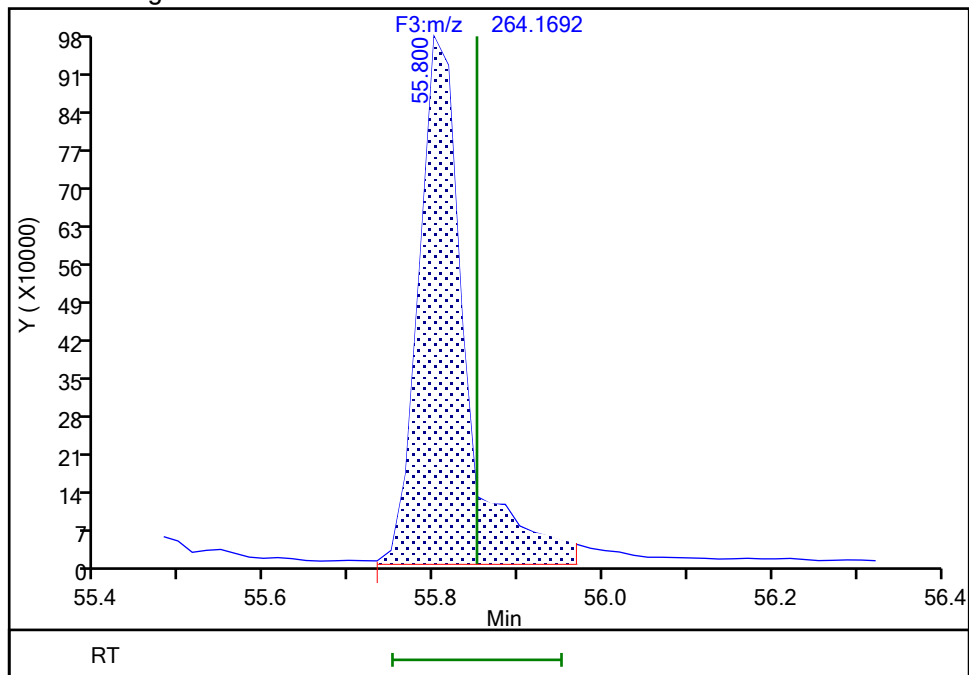
RT: 55.80  
Area: 3835907  
Amount: 8.372751  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.80  
Area: 3718599  
Amount: 8.672562  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 12:58:19 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d

Injection Date: 23-Jul-2024 07:13:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 7 COMBINED

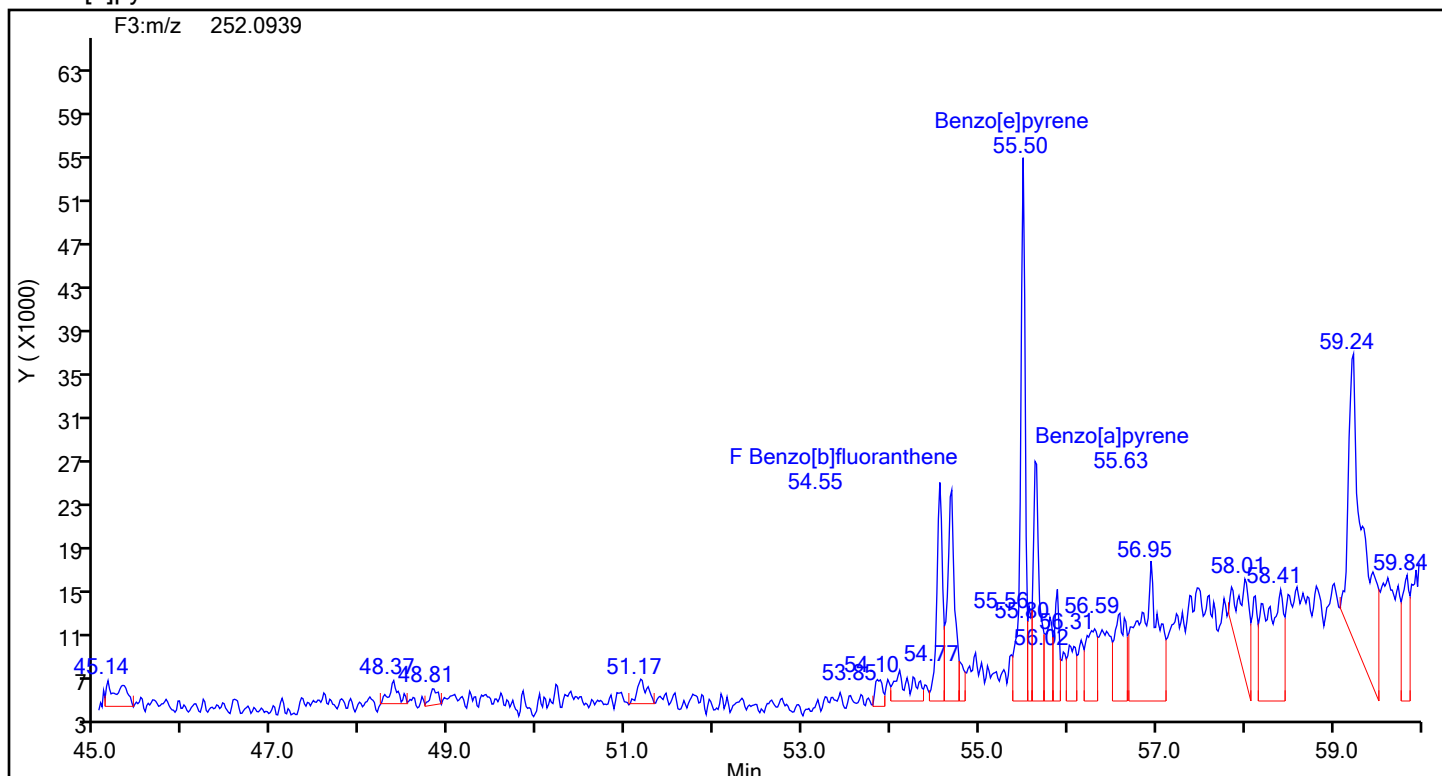
Worklist#: 89076

Sample Line#: 10

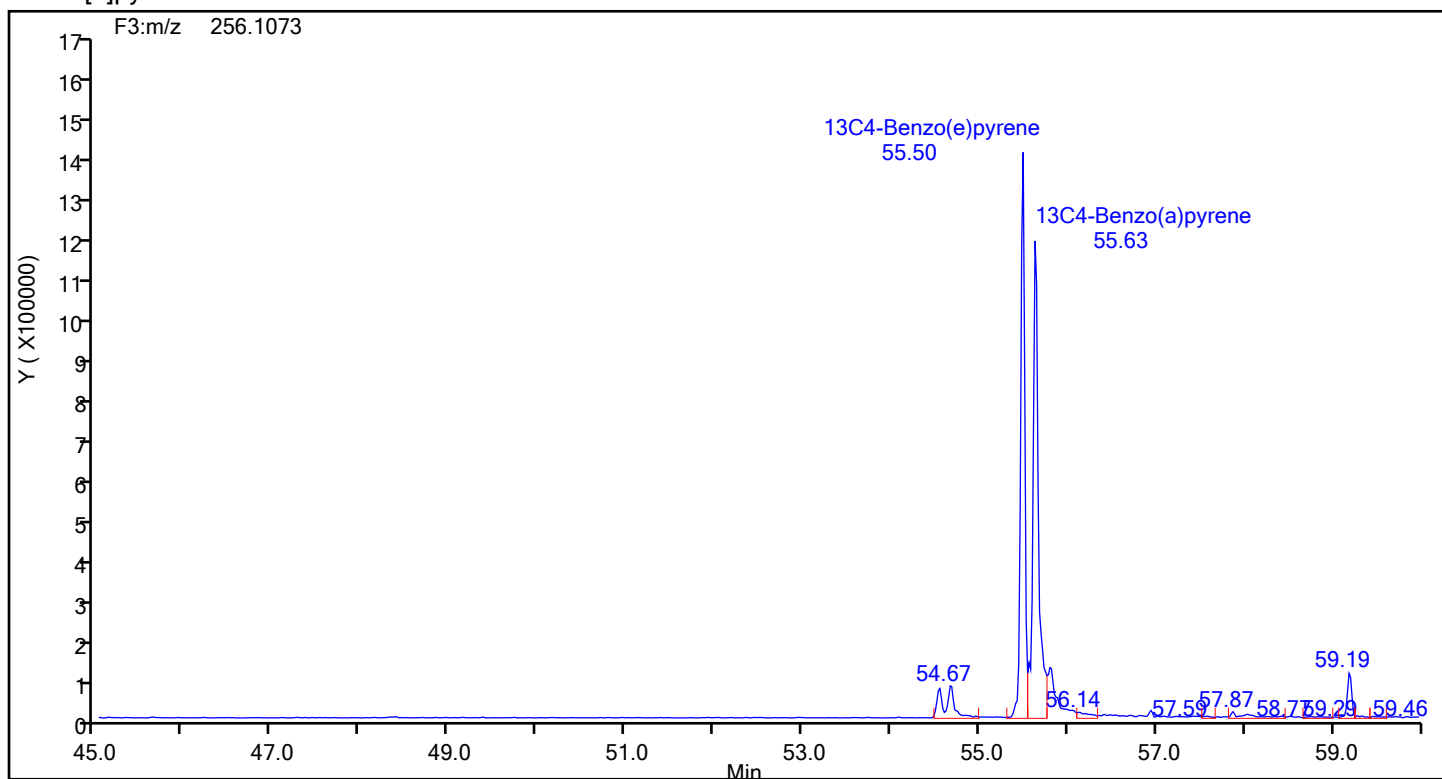
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Benzo[e]pyrene



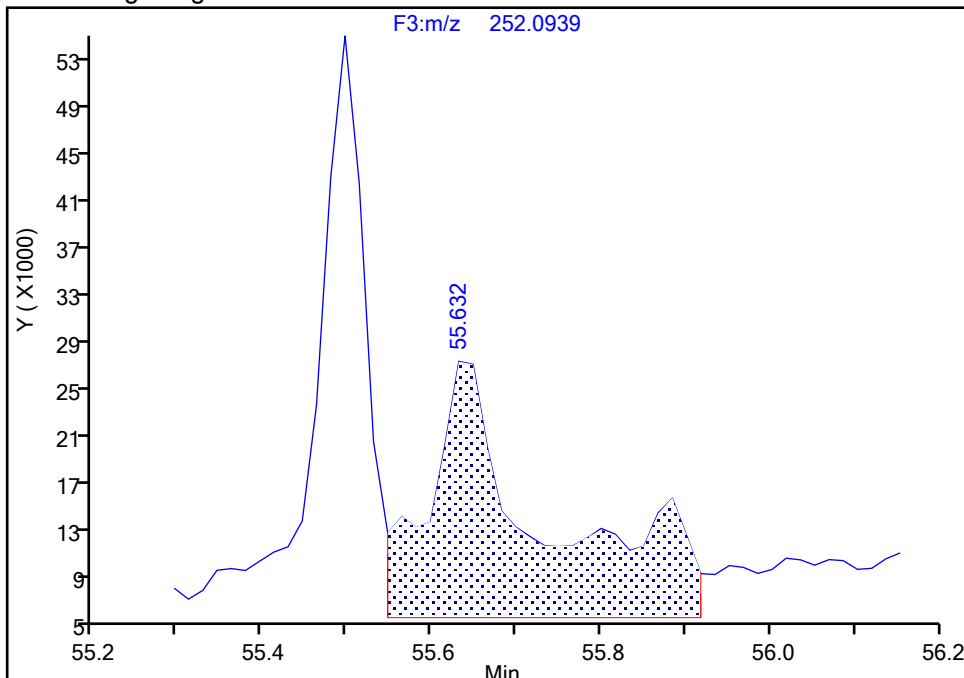
## Benzo[e]pyrene Standards



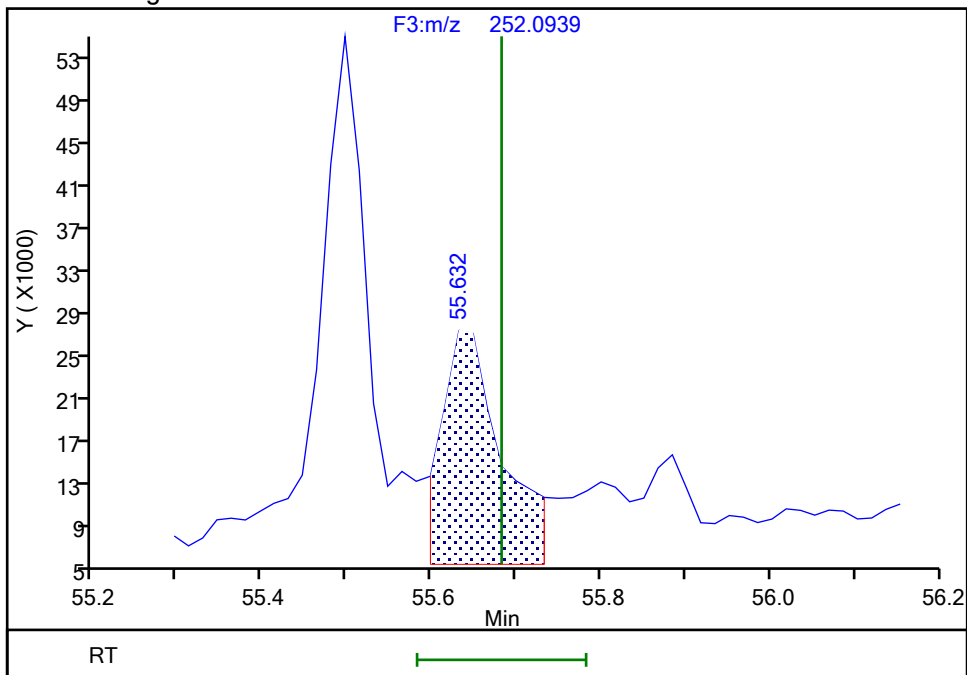
Data File:	\\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d				
Injection Date:	23-Jul-2024 07:13:00	Instrument ID:	D3PAH		
Lims ID:	140-37234-A-6-C	Lab Sample ID:	140-37234-6		
Client ID:	M23 F-10 BOILER RUN 7 COMBINED				
Operator ID:	Xcalibur_System	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	10.0000		
Method:	EPA_23__PAH	Limit Group:	HR - HRPAAH ICAL		
Column:	Restek-5Sil MS 25um ( 0.25 mm)	Detector	F3(44.04 :59.98 )		

Signal: 1

RT: 55.63  
Area: 207096  
Amount: 0.375085  
Amount Units: pg/ul



RT: 55.63  
Area: 112086  
Amount: 0.203006  
Amount Units: pg/ul



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d

Injection Date: 23-Jul-2024 07:13:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 7 COMBINED

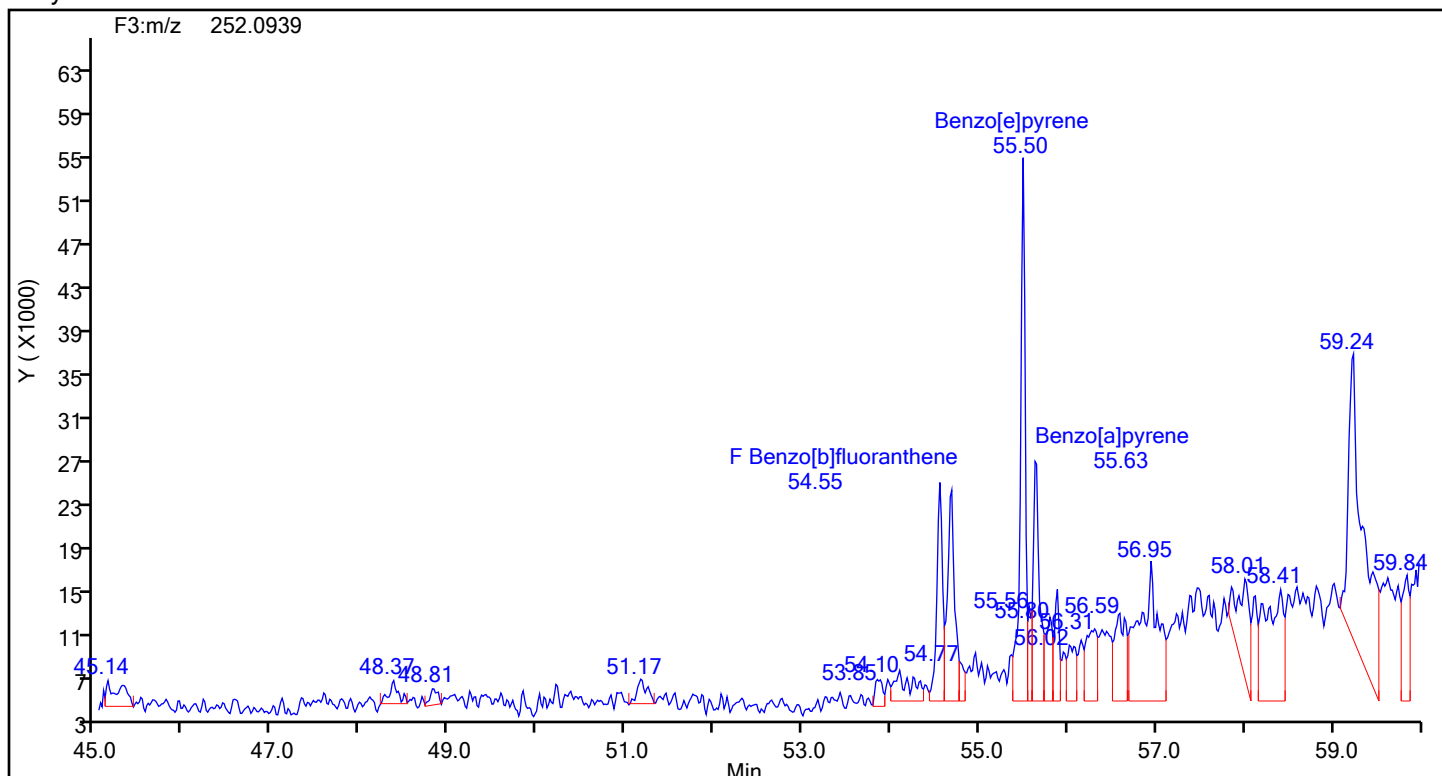
Worklist#: 89076

Sample Line#: 10

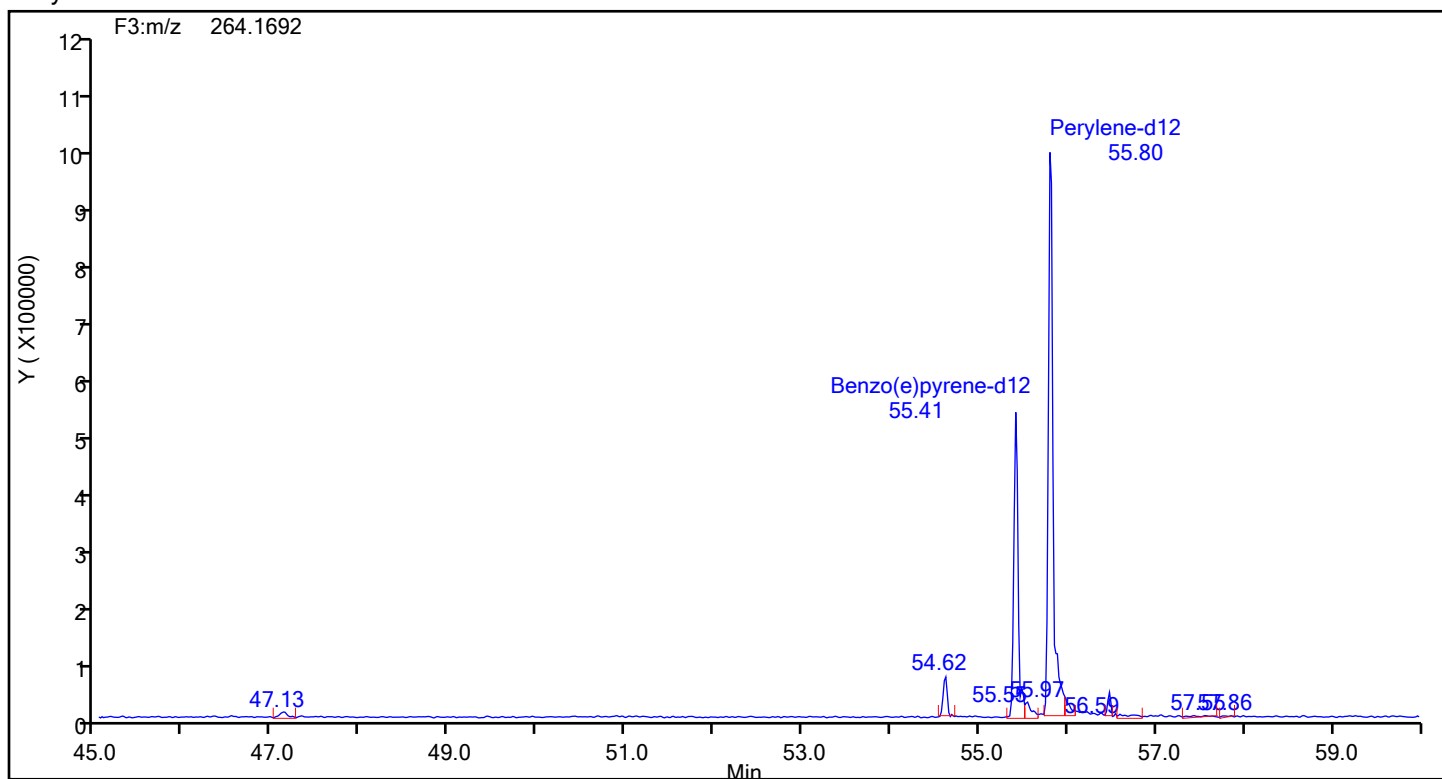
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Perylene



## Perylene Standards



## Eurofins Knoxville

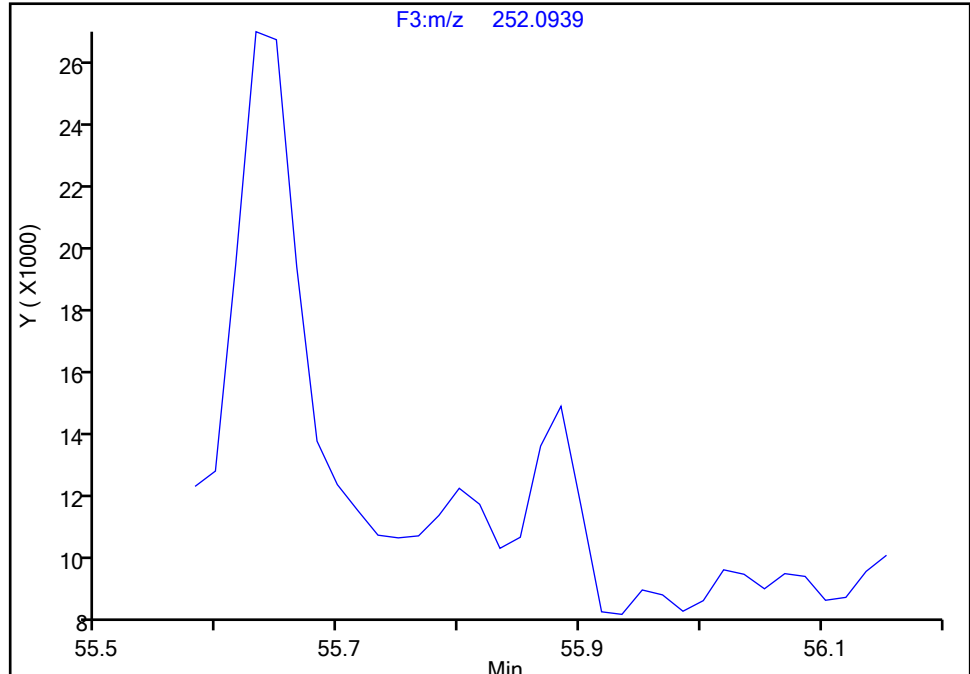
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-6-C Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Perylene, CAS: 198-55-0

Signal: 1

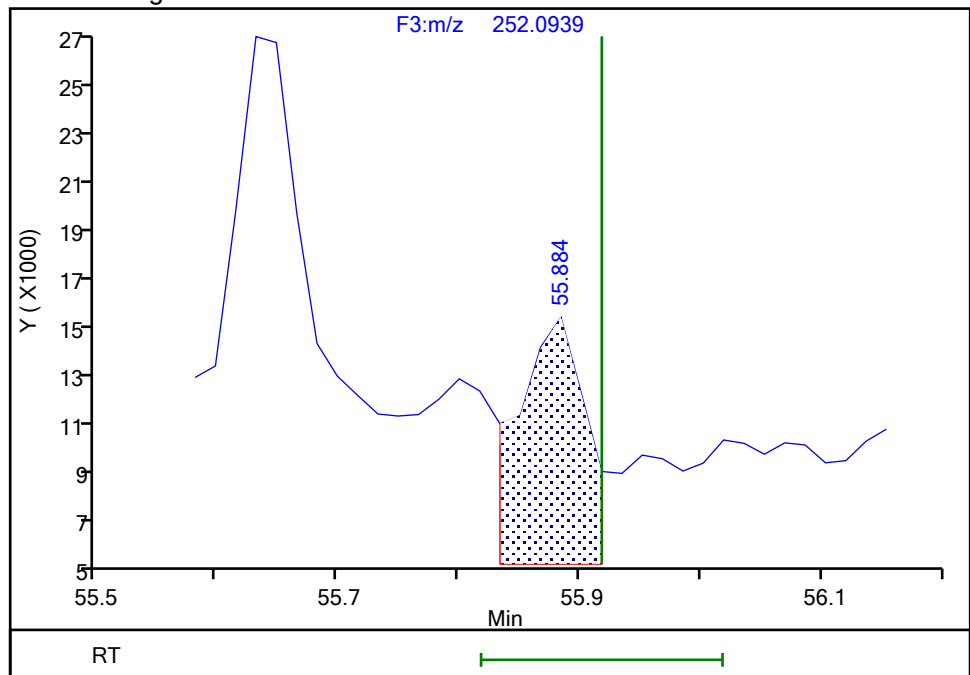
Not Detected  
Expected RT: 55.92

## Processing Integration Results



## Manual Integration Results

RT: 55.88  
Area: 42416  
Amount: 0.079728  
Amount Units: pg/ul



Reviewer: TT6I, 23-Jul-2024 13:00:46 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

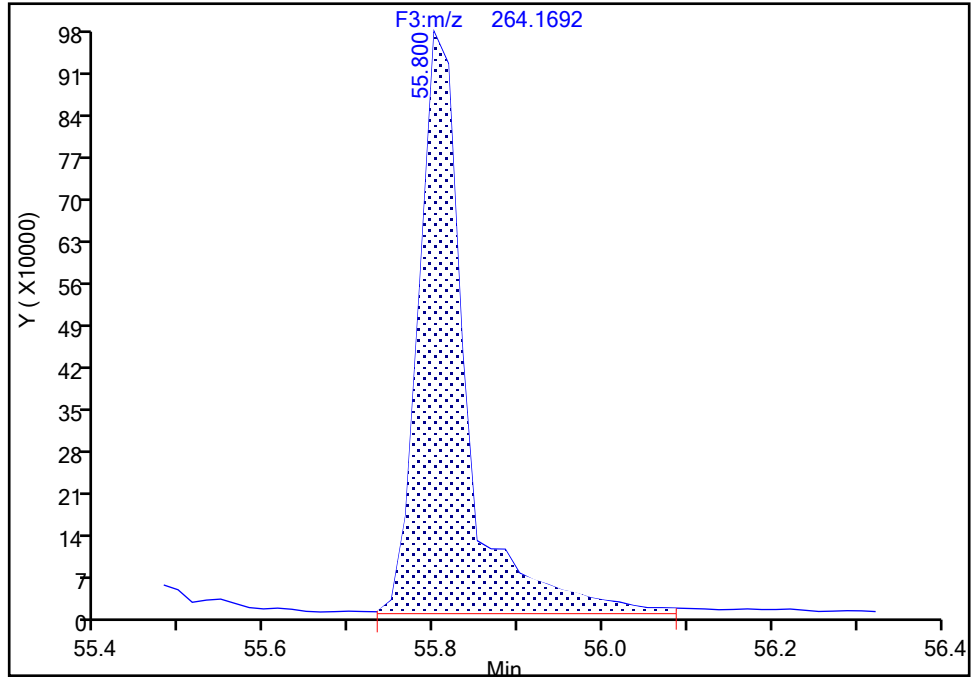
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-6-C Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Perylene-d12, CAS: 1520-96-3

Signal: 1

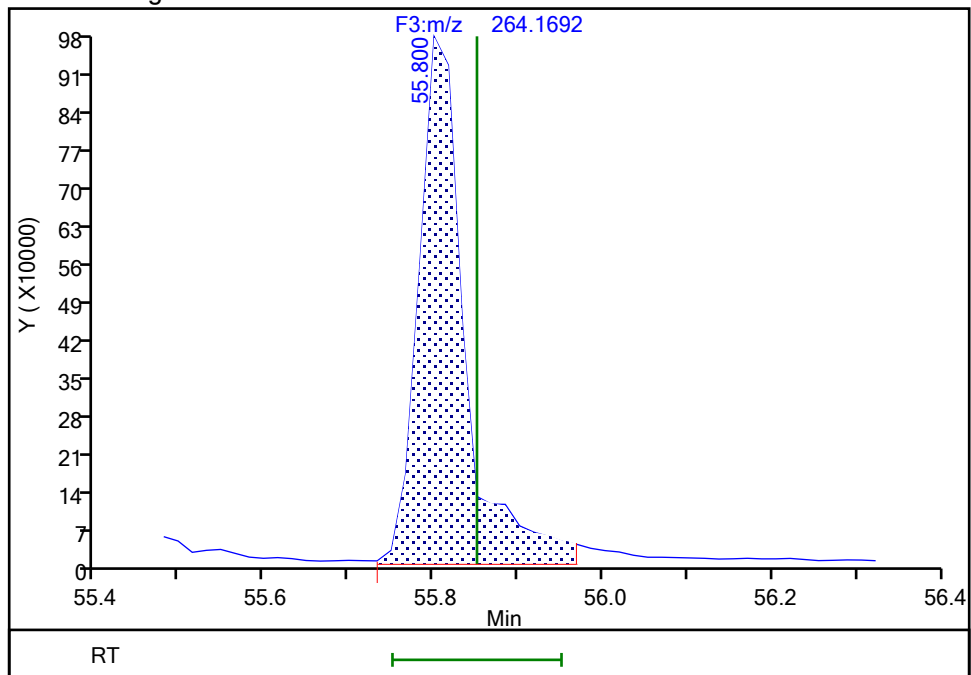
RT: 55.80  
Area: 3835907  
Amount: 8.372751  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.80  
Area: 3718599  
Amount: 8.672562  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 12:58:19 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d

Injection Date: 23-Jul-2024 07:13:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 7 COMBINED

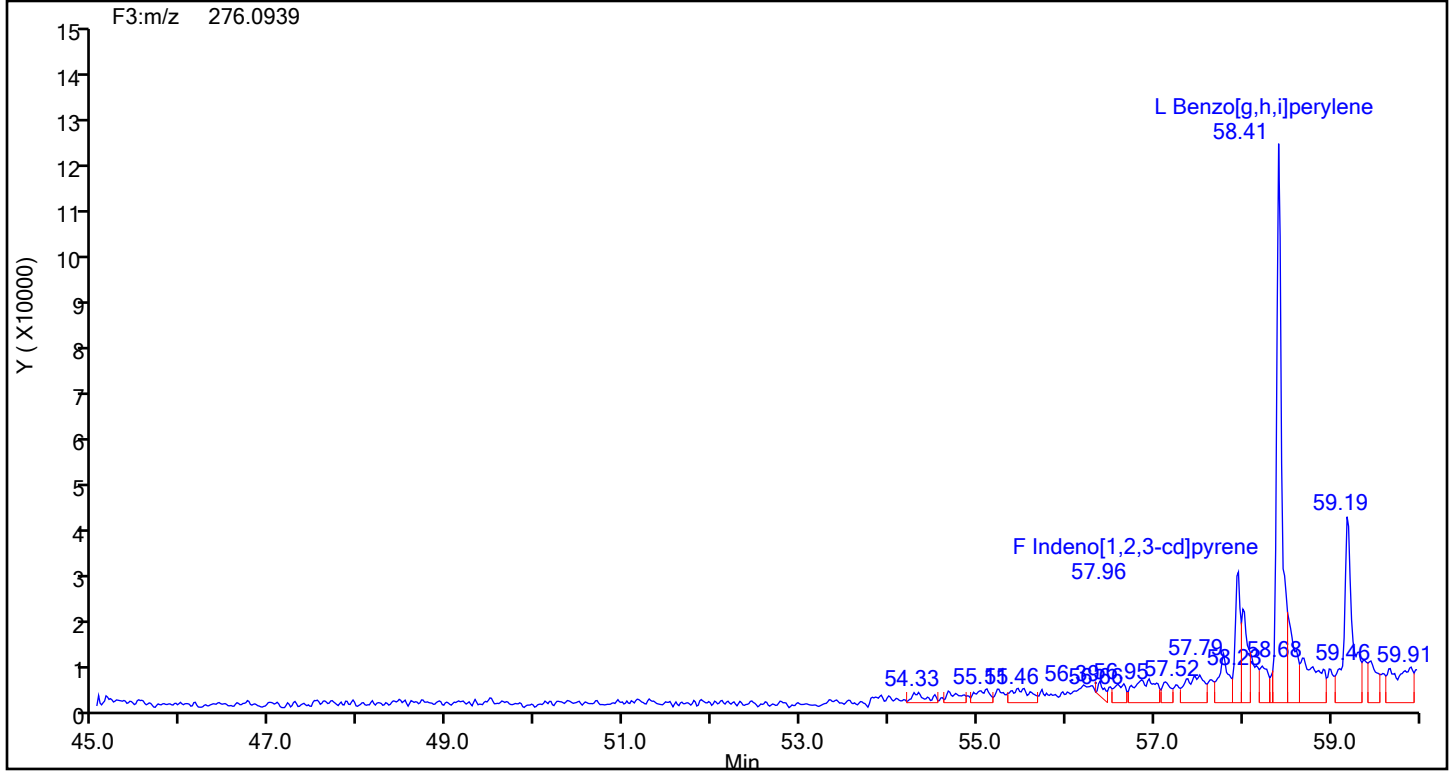
Worklist#: 89076

Sample Line#: 10

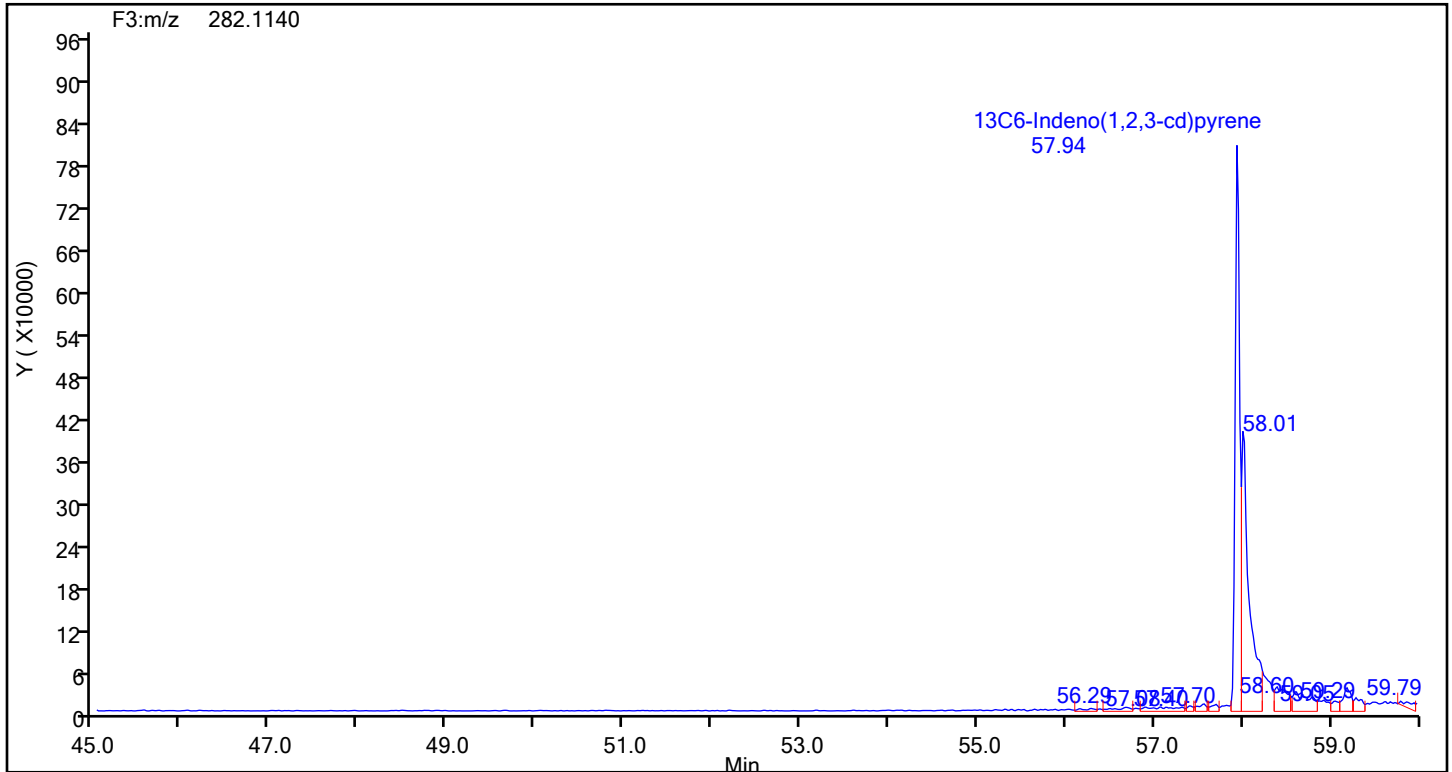
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

Indeno[1,2,3-cd]pyrene



Indeno[1,2,3-cd]pyrene Standards



## Eurofins Knoxville

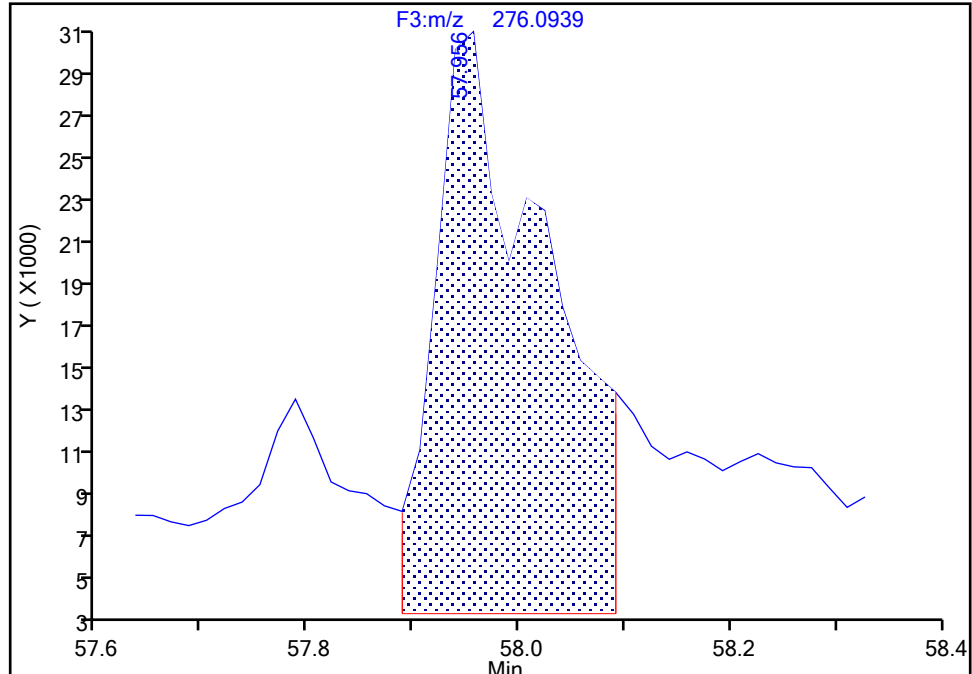
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-6-C Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

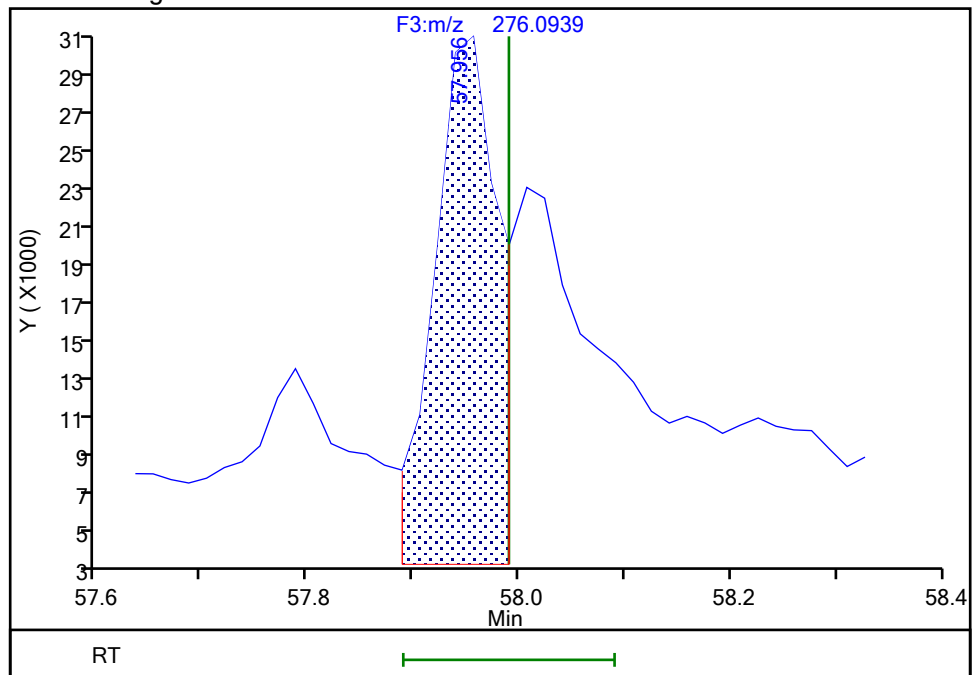
RT: 57.96  
Area: 198116  
Amount: 0.340951  
Amount Units: pg/ul

## Processing Integration Results



RT: 57.96  
Area: 119236  
Amount: 0.354702  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 12:58:15 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

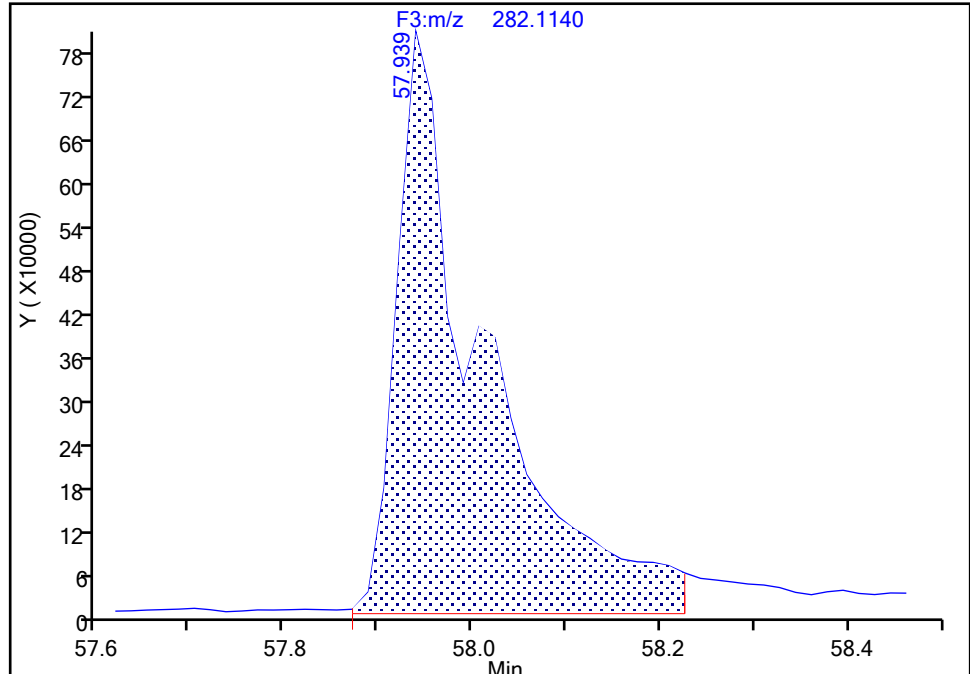
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-6-C Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C6-Indeno(1,2,3-cd)pyrene, CAS: 362044-56-2**

Signal: 1

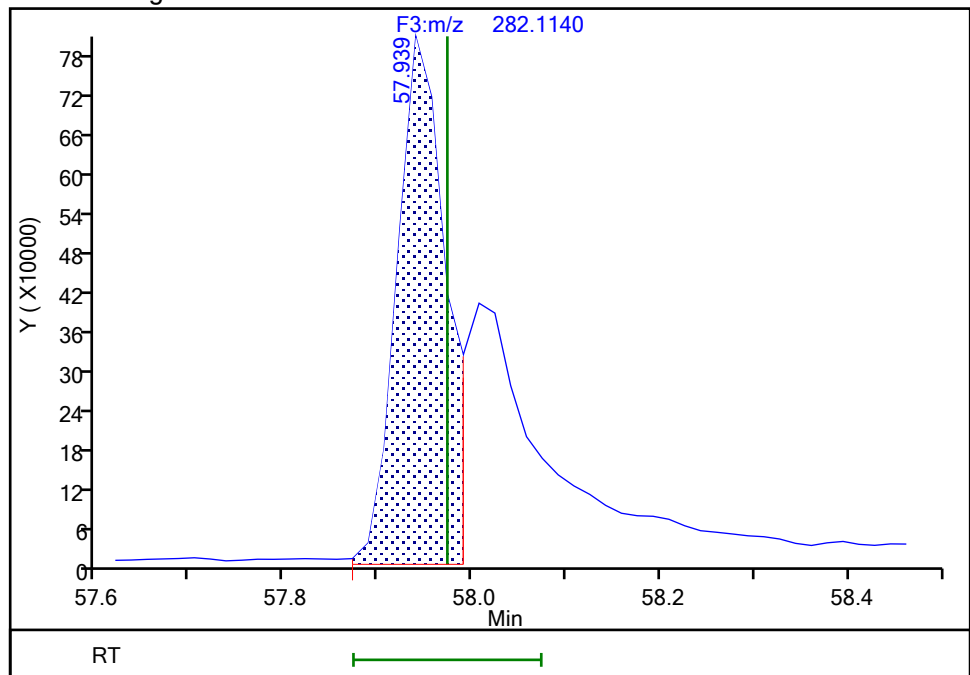
RT: 57.94  
Area: 5165325  
Amount: 13.148439  
Amount Units: pg/ul

## Processing Integration Results



RT: 57.94  
Area: 2988224  
Amount: 8.127513  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 12:58:33 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d

Injection Date: 23-Jul-2024 07:13:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 7 COMBINED

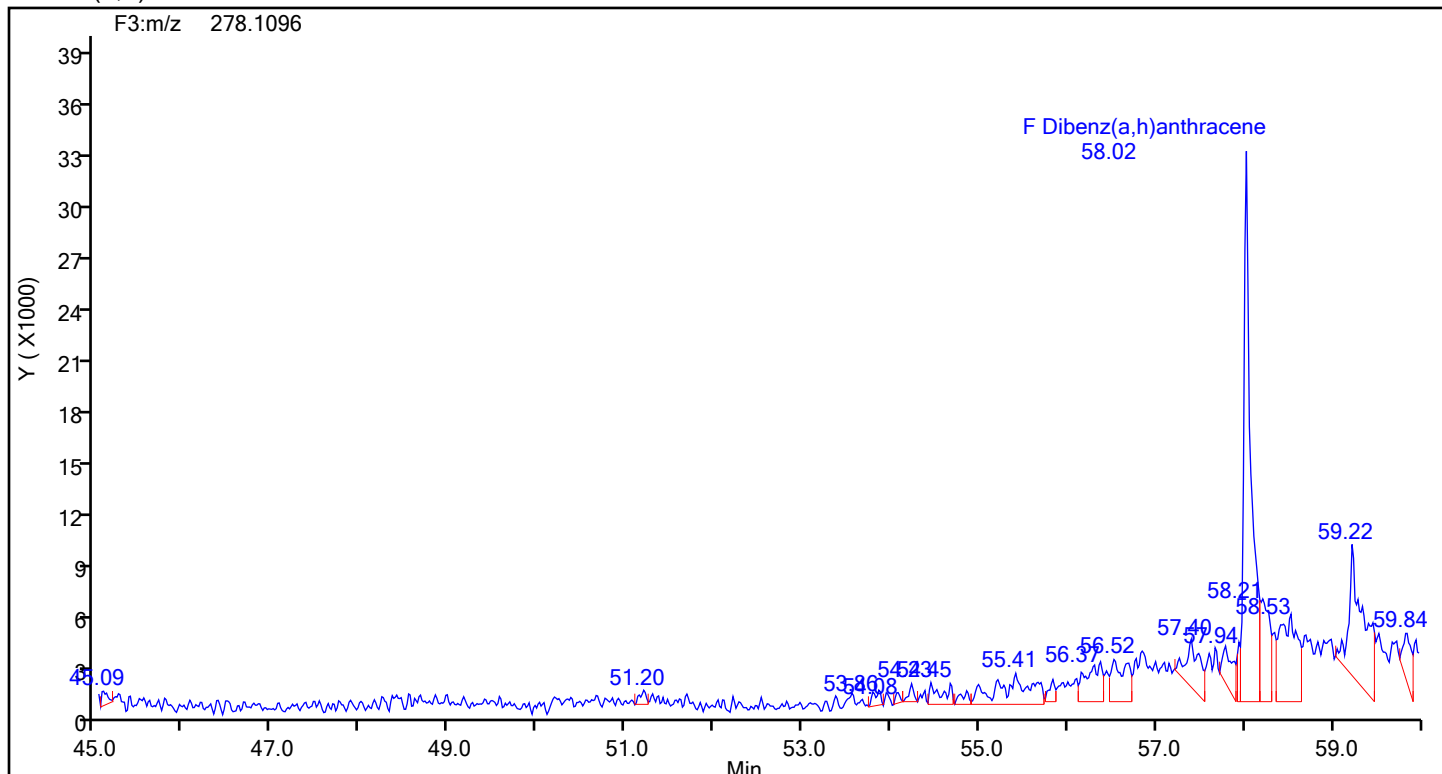
Worklist#: 89076

Sample Line#: 10

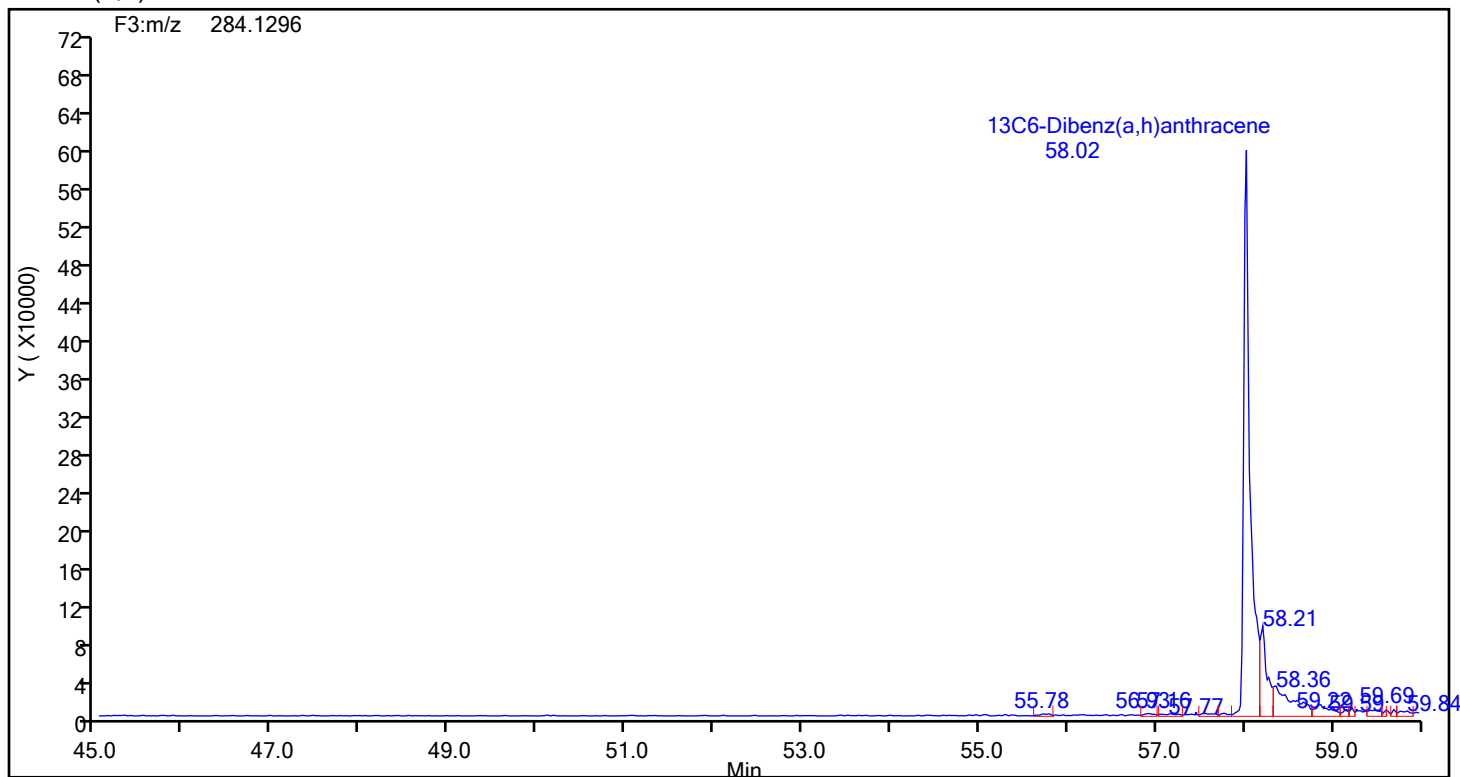
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

Dibenz(a,h)anthracene



Dibenz(a,h)anthracene Standards



## Eurofins Knoxville

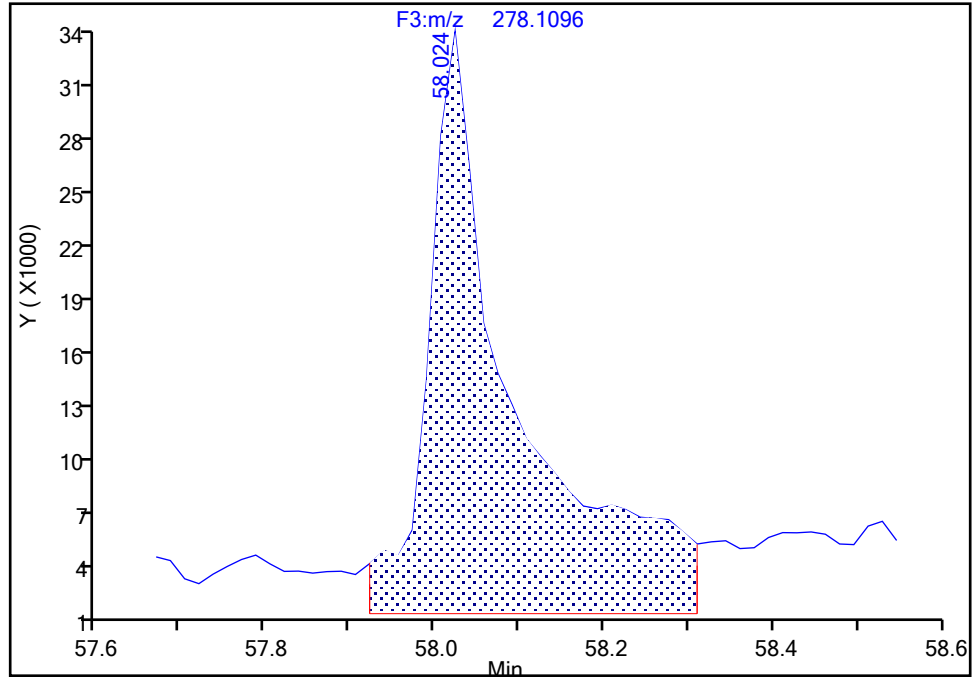
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-6-C Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**Dibenz(a,h)anthracene, CAS: 53-70-3**

Signal: 1

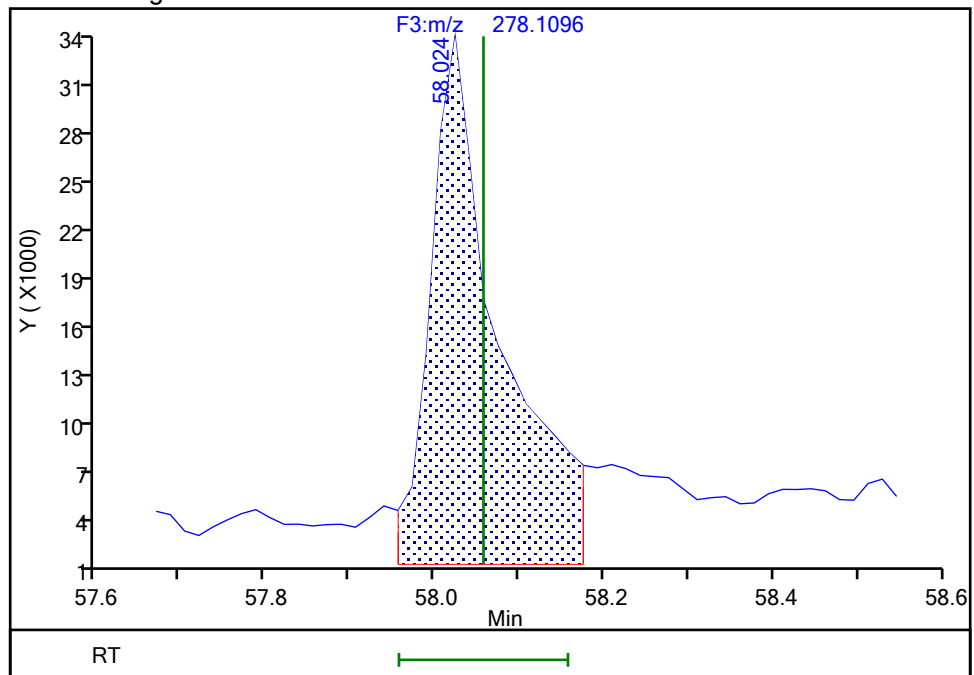
RT: 58.02  
Area: 228519  
Amount: 0.668121  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.02  
Area: 183710  
Amount: 0.537113  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 12:59:43 -04:00:00 (UTC)

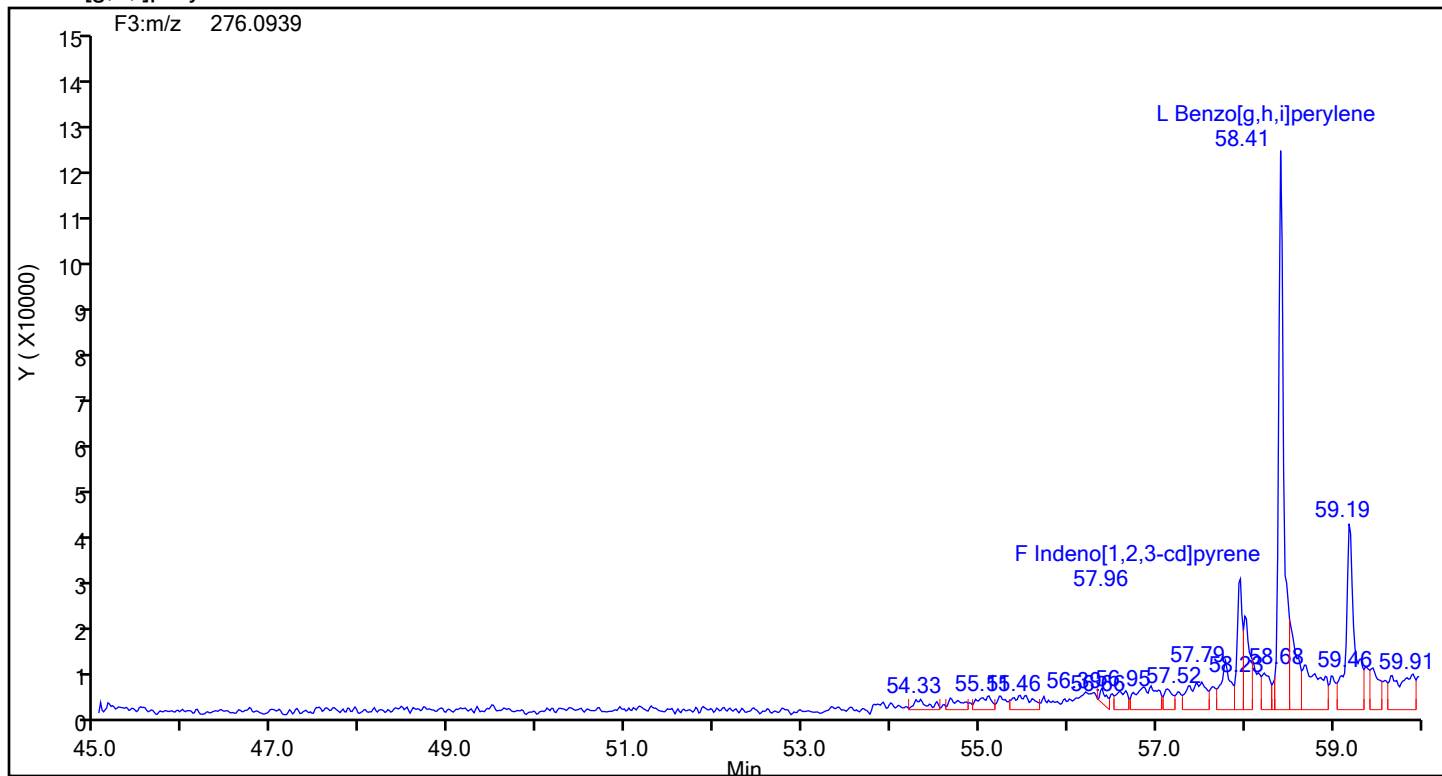
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

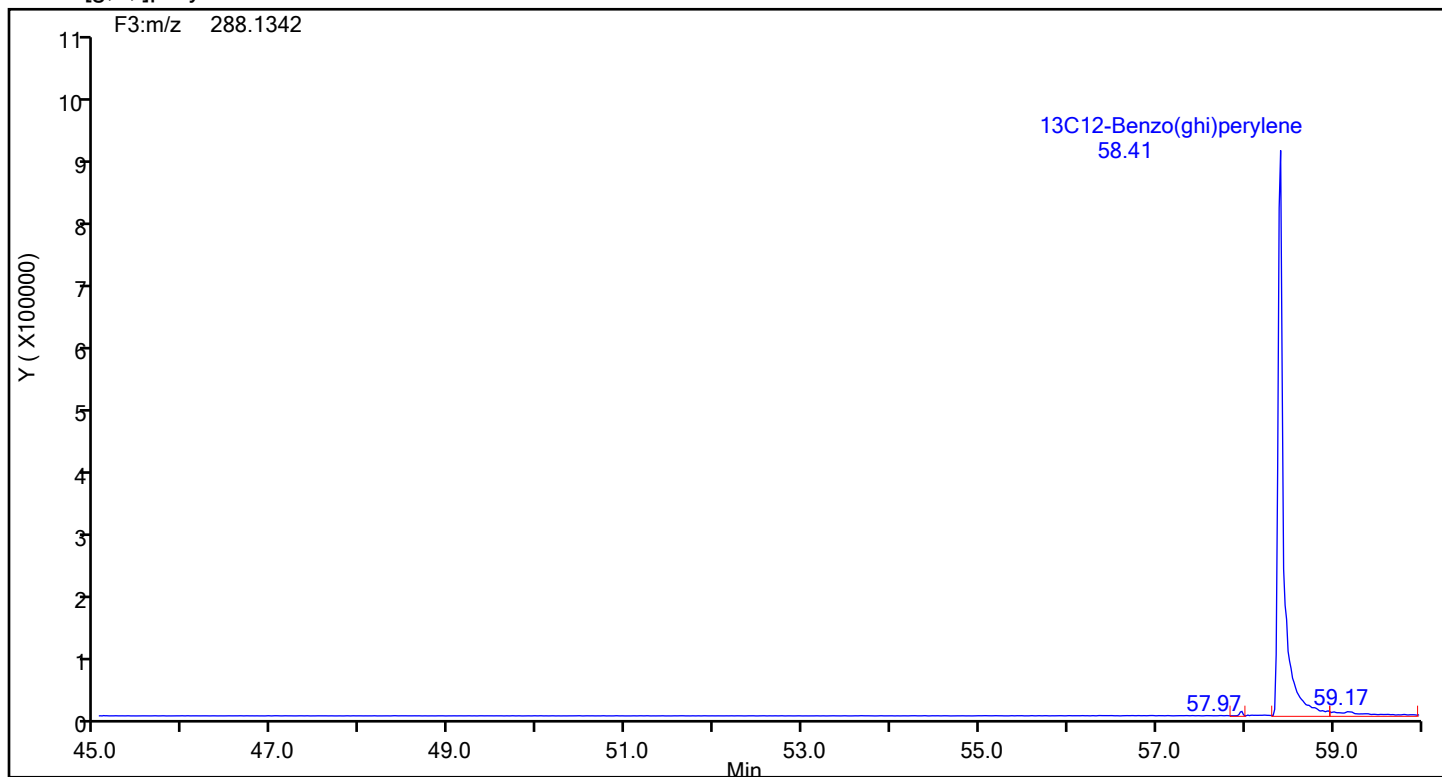
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 89076 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[g,h,i]perylene



## Benzo[g,h,i]perylene Standards



## Eurofins Knoxville

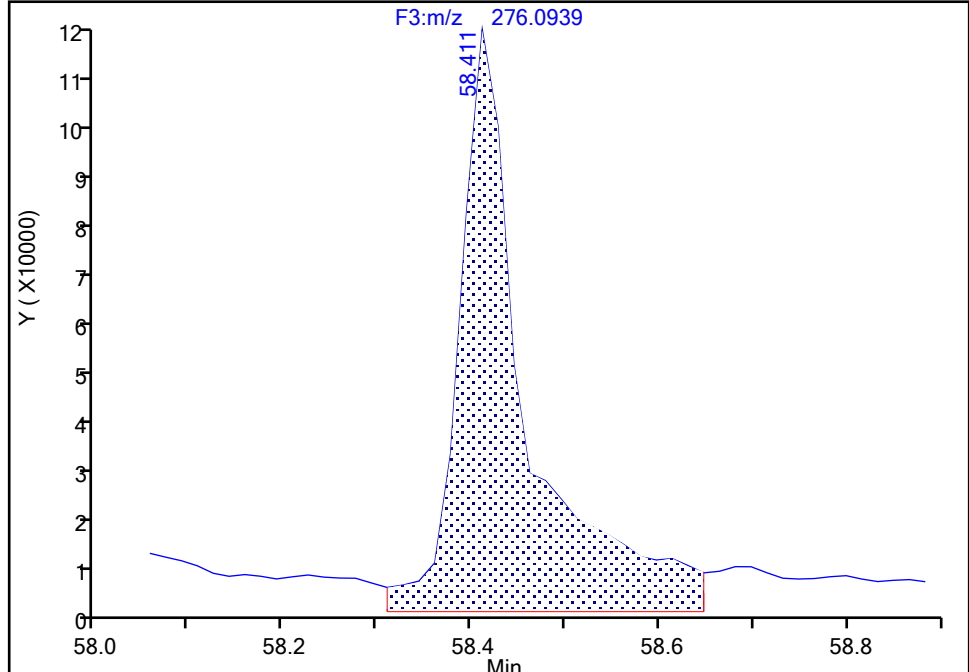
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Injection Date: 23-Jul-2024 07:13:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-6-C Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

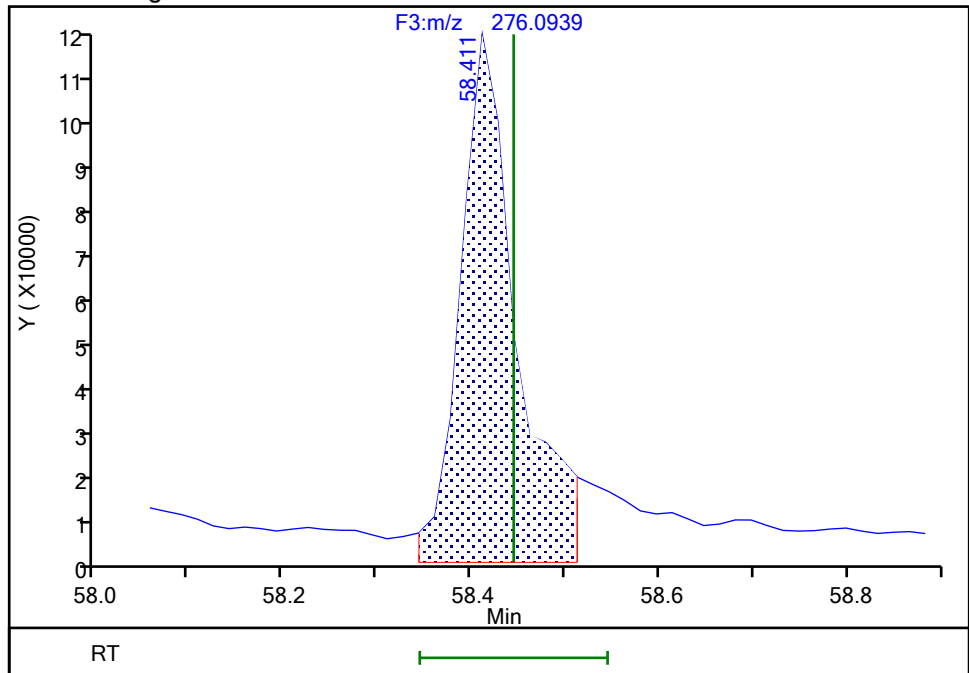
RT: 58.41  
Area: 591568  
Amount: 1.131972  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.41  
Area: 491203  
Amount: 0.939922  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 12:59:34 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\140-37234-a-6-c-10x.d  
Lims ID: 140-37234-A-6-C  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Sample Type: Client  
Inject. Date: 23-Jul-2024 07:13:00 ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Sample Info:  
Misc. Info.: 140-0033622-010  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 23-Jul-2024 13:00:51 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1613

First Level Reviewer: TT6I

Date: 23-Jul-2024 13:00:51

Compound	Amount Added	Amount Recovered	% Rec.
Anthracin-d10	10.0	0.6550	65.50
13C6-Benzo(c)fluorene	100.0	10.4	103.70
13C12-Benzo(j)fluoranthene	100.0	8.02	80.20



FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 8</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-7</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-7-c.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/12/2024 16:26</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/22/2024 22:33</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>89013</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
91-20-3	Naphthalene	601	J B * +	750	750	1.09
91-57-6	2-Methylnaphthalene	288	J B	750	750	0.851
208-96-8	Acenaphthylene	7.45	J B	30.0	30.0	0.481
83-32-9	Acenaphthene	109	J B	300	300	0.653
86-73-7	Fluorene	178	J B	300	300	0.630
85-01-8	Phenanthrene	613	B	60.0	60.0	0.959
120-12-7	Anthracene	38.7	J B	300	300	0.863
206-44-0	Fluoranthene	65.2	B	60.0	60.0	0.347
129-00-0	Pyrene	67.5	B	60.0	60.0	0.352
56-55-3	Benzo[a]anthracene	2.55	J B	60.0	60.0	0.246
218-01-9	Chrysene	9.37	J B	60.0	60.0	0.239
205-99-2	Benzo[b]fluoranthene	2.75	J B	300	300	0.142
207-08-9	Benzo[k]fluoranthene	2.40	J B	60.0	60.0	0.125
192-97-2	Benzo[e]pyrene	9.01	J B	60.0	60.0	0.120
50-32-8	Benzo[a]pyrene	3.60	J B	30.0	30.0	0.110
198-55-0	Perylene	1.01	J B	30.0	30.0	0.0963
193-39-5	Indeno[1,2,3-cd]pyrene	8.22	J B	30.0	30.0	0.117
53-70-3	Dibenz(a,h)anthracene	7.53	J B	60.0	60.0	0.0894
191-24-2	Benzo[g,h,i]perylene	25.9	J B	60.0	60.0	0.0960

FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 8</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-7</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-7-c.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/12/2024 16:26</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/22/2024 22:33</u>
Con. Extract Vol.: <u>30 (mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>1 (uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>89013</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02217	13C6-Naphthalene	46		20-130
STL03357	13C6-2-Methylnaphthalene	51		20-130
189811-56-1	13C6-Acenaphthylene	81		20-130
189811-57-2	13C6-Acenaphthene	80		20-130
STL00616	13C6-Fluorene	85		20-130
1397194-60-3	13C6-Fluoranthrene	88		20-130
1397214-90-2	13C3-Pyrene	85		20-130
917378-11-1	13C6-Benzo (a) anthracene	77		20-130
1397177-72-8	13C6-Chrysene	81		20-130
STL03358	13C6-Benzo (b) fluoranthene	79		20-130
1397194-60-3	13C6-Benzo (k) fluoranthene	95		20-130
STL03382	13C4-Benzo (e) pyrene	77		20-130
STL03359	13C4-Benzo (a) pyrene	93		20-130
1520-96-3	Perylene-d12	91		20-130
362044-56-2	13C6-Indeno (1,2,3-cd) pyrene	82		20-130
STL03360	13C6-Dibenz (a,h) anthracene	102		20-130
350820-11-0	13C12-Benzo (ghi) perylene	96		20-130
189811-60-7	13C6-Anthracene	88		20-130
1189955-53-0	13C6-Phenanthrene	70		20-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Lims ID: 140-37234-A-7-C  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Sample Type: Client  
Inject. Date: 22-Jul-2024 22:33:00 ALS Bottle#: 0 Worklist Smp#: 13  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Sample Info:  
Misc. Info.: 140-0033599-012  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAL ICAL  
Last Update: 23-Jul-2024 10:40:15 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1613

First Level Reviewer: TT6I

Date: 23-Jul-2024 10:40:15

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:30	1779740		3.3746	4.582	4.582	0.001595	0.001595	45.82	
Naphthalene	11:31	9198523		1.2893	40.1	40.1	0.0728	0.0728		M
D 13C6-2-Methylnaphthalene	13:50	932578		1.6031	5.054	5.054	0.001008	0.001008	50.54	
2-Methylnaphthalene	13:50	2287869		1.2786	19.2	19.2	0.0568	0.0568		M
D 13C6-Acenaphthylene	16:41	1531299		1.6520	8.053	8.053	0.002069	0.002069	80.53	
Acenaphthylene	16:42	106156		2.3661	0.4964	0.4964	0.0321	0.0321		M
* Acenaphthene-d10	17:15	575527		3.5E+04	5.000	5.000				
D 13C6-Acenaphthene	17:23	903811		0.9792	8.019	8.019	0.003079	0.003079	80.19	
Acenaphthene	17:23	833833		1.2697	7.266	7.266	0.0436	0.0436		
D 13C6-Fluorene	19:39	875319		0.8898	8.546	8.546	0.004901	0.004901	85.46	
Fluorene	19:40	1300512		1.2532	11.9	11.9	0.0420	0.0420		M
D 13C6-Phenanthrene	25:02	1114438		0.5724	6.999	6.999	0.001516	0.001516	69.99	
Phenanthrene	25:03	5034023		1.1044	40.9	40.9	0.0639	0.0639		
\$ Anthracin-d10	25:14	86186		0.4257	0.7278	0.7278	0.000764	0.000764	72.78	
D 13C6-Anthracene	25:22	1102920		0.4523	8.765	8.765	0.001919	0.001919	87.65	
Anthracene	25:22	386146		1.3586	2.577	2.577	0.0575	0.0575		M
D 13C6-Fluoranthrene	33:47	2945301		1.1994	8.828	8.828	0.0152	0.0152	88.28	
Fluoranthene	33:47	1473212		1.1513	4.344	4.344	0.0231	0.0231		M
* Pyrene-d10	35:19	1390911		7.9E+04	5.000	5.000				
D 13C3-Pyrene	35:28	3192307		1.3512	8.493	8.493	0.0107	0.0107	84.93	
Pyrene	35:29	1530731		1.0652	4.502	4.502	0.0235	0.0235		M
\$ 13C6-Benzo(c)fluorene	39:10	1412317		0.5136	9.885	9.885	0.004436	0.004436	98.85	
D 13C6-Benzo(a)anthracene	46:00	2778412		1.5189	7.683	7.683	0.006046	0.006046	76.83	
Benzo[a]anthracene	46:01	45990		0.9739	0.1700	0.1700	0.0164	0.0164		M
D 13C6-Chrysene	46:16	3157419		1.6287	8.143	8.143	0.005639	0.005639	81.43	
Chrysene	46:17	193595		0.9815	0.6247	0.6247	0.0159	0.0159		M
D 13C6-Benzo(b)fluoranthene	54:35	2743257		1.4621	7.881	7.881	0.001133	0.001133	78.81	
Benzo[b]fluoranthene	54:35	56663		1.1249	0.1836	0.1836	0.009455	0.009455		M
\$ 13C12-Benzo(j)fluoranthene	54:37	2632727		1.3558	8.156	8.156	0.006926	0.006926	81.56	M
D 13C6-Benzo(k)fluoranthene	54:42	3972875		1.7507	9.532	9.532	0.000947	0.000947	95.32	
Benzo[k]fluoranthene	54:43	71519		1.1271	0.1597	0.1597	0.008360	0.008360		Ma
* Benzo(e)pyrene-d12	55:27	1190366		5.7E+04	5.000	5.000				
D 13C4-Benzo(e)pyrene	55:31	2990695		1.6368	7.675	7.675	0.006243	0.006243	76.75	
Benzo[e]pyrene	55:32	179906		1.0013	0.6008	0.6008	0.008012	0.008012		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C4-Benzo(a)pyrene	55:40	3419741		1.5508	9.263	9.263	0.006590	0.006590	92.63	
Benzo[a]pyrene	55:40	91311		1.1130	0.2399	0.2399	0.007315	0.007315		
D Perylene-d12	55:50	2584362		1.1917	9.109	9.109	0.009468	0.009468	91.09	
Perylene	55:54	24827		1.4307	0.0671	0.0671	0.006421	0.006421		M
D 13C6-Indeno(1,2,3-cd)pyrene	57:58	2001411		1.0218	8.227	8.227	0.005028	0.005028	82.27	
Indeno[1,2,3-cd]pyrene	57:58	123386		1.1249	0.5480	0.5480	0.007808	0.007808		M
D 13C6-Dibenz(a,h)anthracene	58:02	2558536		1.0553	10.2	10.2	0.002748	0.002748	102	M
Dibenz(a,h)anthracene	58:03	145231		1.1314	0.5017	0.5017	0.005957	0.005957		M
D 13C12-Benzo(ghi)perylene	58:25	2899953		1.2749	9.555	9.555	0.000867	0.000867	95.55	
Benzo[g,h,i]perylene	58:27	643769		1.2838	1.729	1.729	0.006400	0.006400		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
 Lims ID: 140-37234-A-7-C  
 Client ID: M23 F-10 BOILER RUN 8 COMBINED  
 Sample Type: Client  
 Inject. Date: 22-Jul-2024 22:33:00 ALS Bottle#: 0 Worklist Smp#: 13  
 Injection Vol: 1.0 ul Dil. Factor: 10.0000  
 Sample Info:  
 Misc. Info.: 140-0033599-012  
 Operator ID: Xcalibur\_System Instrument ID: D3PAH  
 Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
 Limit Group: HR - HRPAL ICAL  
 Last Update: 23-Jul-2024 10:40:15 Calib Date: 20-Jun-2024 01:09:00  
 Integrator: RTE  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
 Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
 Process Host: CTX1613

First Level Reviewer: TT61

Date: 23-Jul-2024 10:40:15

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:30	11:29	1	0.667	1779740	580892	80	200	7261		
Naphthalene											
128.0626	11:31	11:31	1	1.001	9198523	3008292	2181	5452	1379		M
13C6-2-Methylnaphthalene											
148.0984	13:50	13:49	0	0.801	932578	388814	24	60	16201		
2-Methylnaphthalene											
142.0783	13:50	13:50	-1	1.000	2287869	1001392	1129	2822	887		M
13C6-Acenaphthylene											
158.0828	16:41	16:41	-1	0.967	1531299	519162	51	127	10180		
Acenaphthylene											
152.0626	16:42	16:42	-1	1.000	106156	35797	901	2252	40		M
Acenaphthene-d10											
164.1404	17:15	17:16	-1		575527	185739	16	40	11609		
13C6-Acenaphthene											
160.0984	17:23	17:23	-1	1.007	903811	296520	45	112	6589		
Acenaphthene											
154.0783	17:23	17:23	-1	1.000	833833	273530	656	1640	417		
13C6-Fluorene											
172.0984	19:39	19:40	-2	1.139	875319	247992	65	162	3815		
Fluorene											
166.0783	19:40	19:40	-2	1.001	1300512	357485	522	1305	685		M
13C6-Phenanthrene											
184.0984	25:02	25:03	-2	0.709	1114438	237985	16	40	14874		
Phenanthrene											
178.0783	25:03	25:04	-2	1.000	5034023	1001073	672	1680	1490		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:14	25:16	-3	0.714	86186	17608	6	15	2935		
13C6-Anthracene											
184.0984	25:22	25:22	-1	0.718	1102920	214931	16	40	13433		
Anthracene											M
178.0783	25:22	25:22	-2	1.000	386146	68907	672	1680	103		M
13C6-Fluoranthrene											
208.0984	33:47	33:47	-2	0.956	2945301	492275	336	840	1465		
Fluoranthene											M
202.0783	33:47	33:47	-1	1.000	1473212	253792	525	1312	483		M
Pyrene-d10											
212.1404	35:19	35:21	-2		1390911	230456	55	137	4190		
13C3-Pyrene											
205.0883	35:28	35:28	-2	1.004	3192307	524802	267	667	1966		
Pyrene											M
202.0783	35:29	35:29	-1	1.000	1530731	254588	525	1312	485		M
13C6-Benzo(c)fluorene											
222.1134	39:10	39:10	-1	0.706	1412317	229805	42	105	5472		
13C6-Benzo(a)anthracene											
234.1140	46:00	45:59	-1	1.302	2778412	394345	266	665	1483		
Benzo[a]anthracene											M
228.0939	46:01	46:01	0	1.000	45990	6344	252	630	25		M
13C6-Chrysene											
234.1140	46:16	46:15	-1	1.310	3157419	403414	266	665	1517		
Chrysene											M
228.0939	46:17	46:17	0	1.000	193595	20954	252	630	83		M
13C6-Benzo(b)fluoranthene											
258.1140	54:35	54:35	0	0.985	2743257	655349	48	120	13653		
Benzo[b]fluoranthene											M
252.0939	54:35	54:35	0	1.000	56663	13947	279	697	50		M
13C12-Benzo(j)fluoranthene											M
264.1336	54:37	54:37	0	0.985	2632727	579544	272	680	2131		M
13C6-Benzo(k)fluoranthene											
258.1140	54:42	54:42	0	0.987	3972875	739693	48	120	15410		
Benzo[k]fluoranthene											Ma
252.0939	54:43	54:43	0	1.000	71519	12835	279	697	46		M
Benzo(e)pyrene-d12											
264.1692	55:27	55:27	0		1190366	362054	327	817	1107		
13C4-Benzo(e)pyrene											
256.1073	55:31	55:32	-1	1.001	2990695	868842	296	740	2935		
Benzo[e]pyrene											
252.0939	55:32	55:30	0	1.000	179906	47802	279	697	171		
13C4-Benzo(a)pyrene											
256.1073	55:40	55:40	0	1.004	3419741	856018	296	740	2892		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Benzo[a]pyrene											
252.0939	55:40	55:40	0	1.000	91311	18416	279	697	66		
Perylene-d12											
264.1692	55:50	55:50	0	1.007	2584362	758678	327	817	2320		
Perylene											
252.0939	55:54	55:54	0	1.001	24827	6266	279	697	22		M
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	57:58	57:58	0	1.046	2001411	648912	149	372	4355		
Indeno[1,2,3-cd]pyrene											
276.0939	57:58	57:58	0	1.000	123386	27650	228	570	121		M
13C6-Dibenz(a,h)anthracene											
284.1296	58:02	58:02	0	1.047	2558536	507473	84	210	6041		M
Dibenz(a,h)anthracene											
278.1096	58:03	58:03	0	1.000	145231	23067	137	342	168		M
13C12-Benzo(ghi)perylene											
288.1342	58:25	58:27	-1	1.054	2899953	693715	32	80	21679		
Benzo[g,h,i]perylene											
276.0939	58:27	58:27	0	1.000	643769	166625	228	570	731		M

### QC Flag Legend

Processing Flags

Review Flags

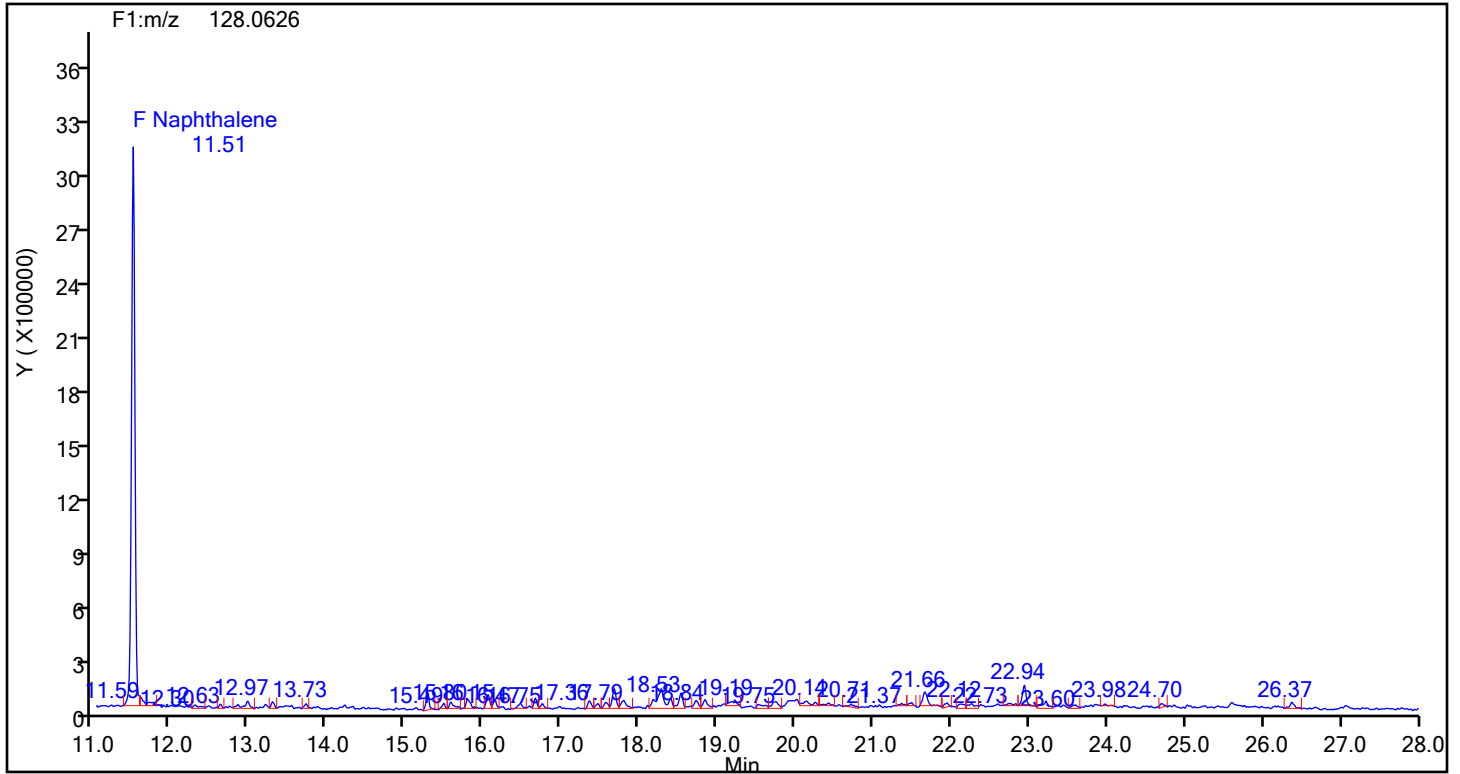
M - Manually Integrated

a - User Assigned ID

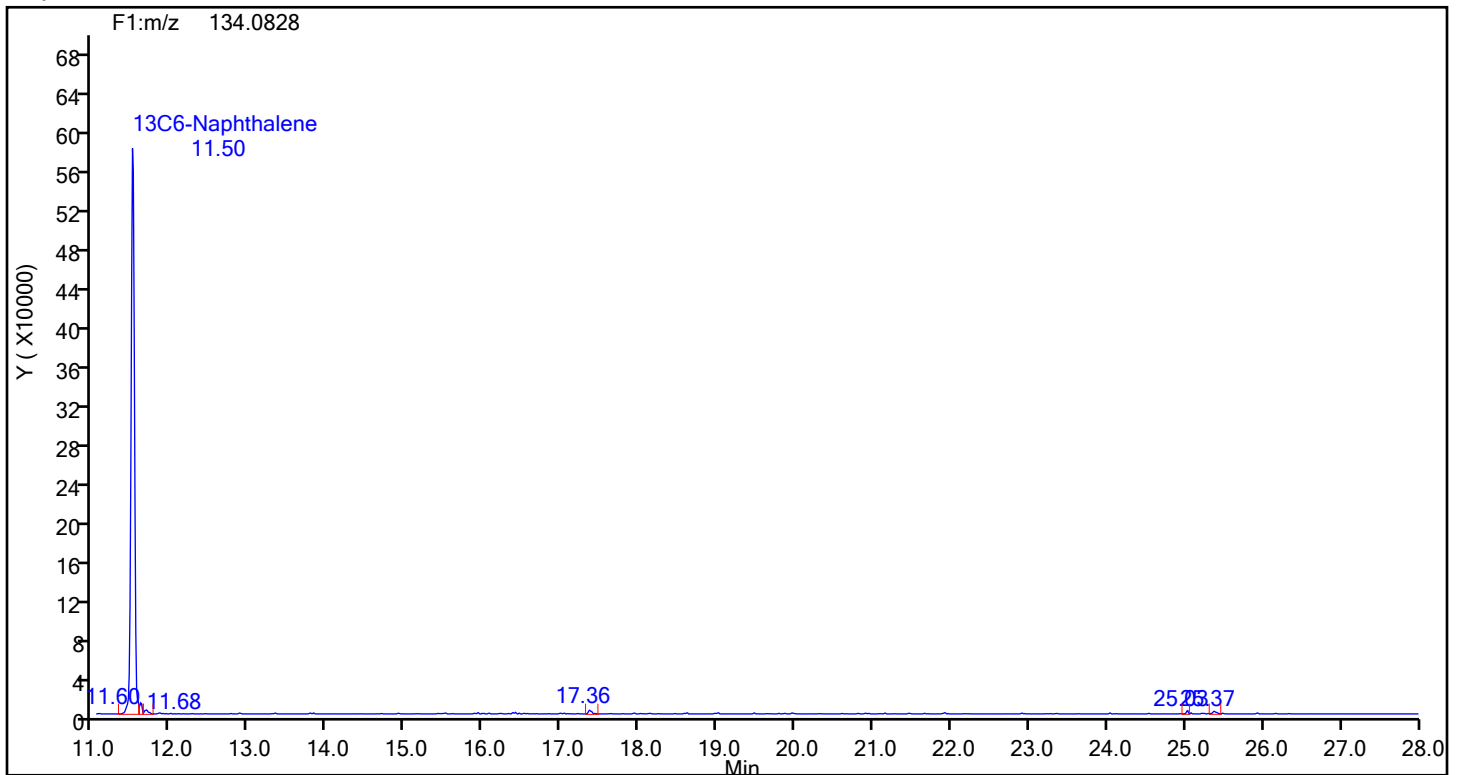
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 89013 Sample Line#: 13  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



## Naphthalene Standards





## Eurofins Knoxville

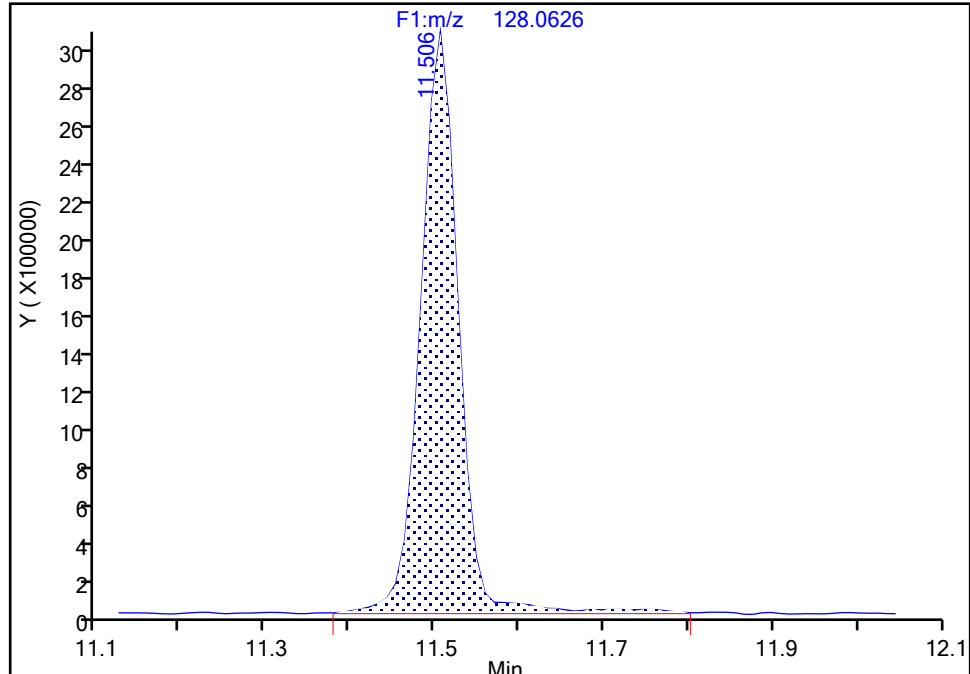
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Injection Date: 22-Jul-2024 22:33:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-7-C Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 13  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Naphthalene, CAS: 91-20-3

Signal: 1

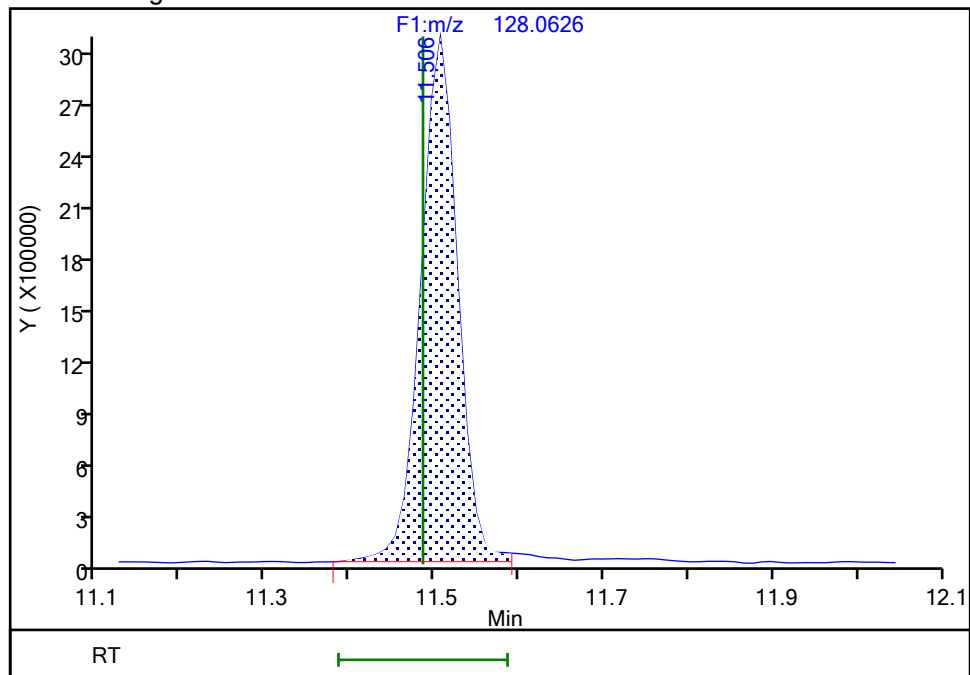
RT: 11.51  
Area: 9443765  
Amount: 41.157422  
Amount Units: pg/ul

## Processing Integration Results



RT: 11.51  
Area: 9198523  
Amount: 40.088618  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:38:49 -04:00:00 (UTC)

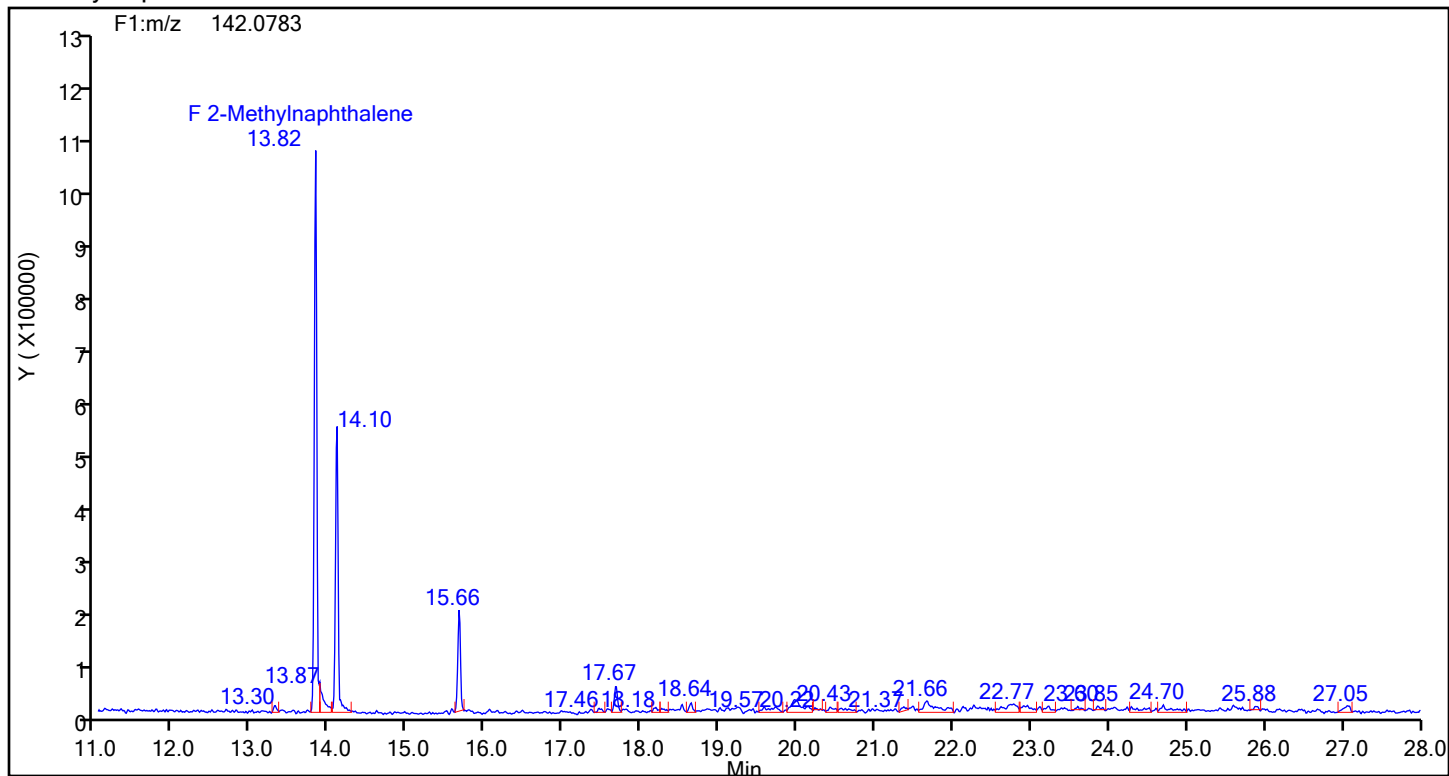
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

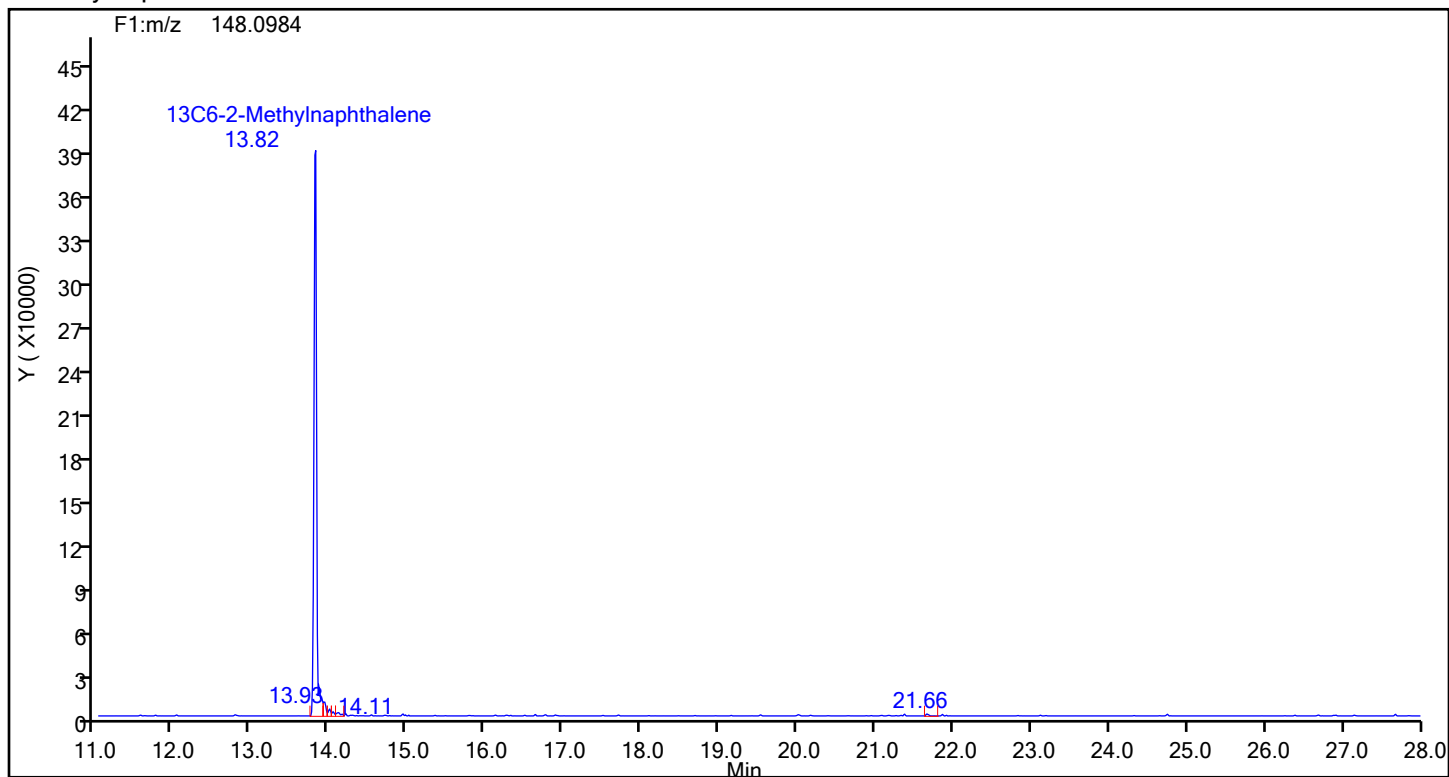
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 89013 Sample Line#: 13  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



## 2-Methylnaphthalene Standards



## Eurofins Knoxville

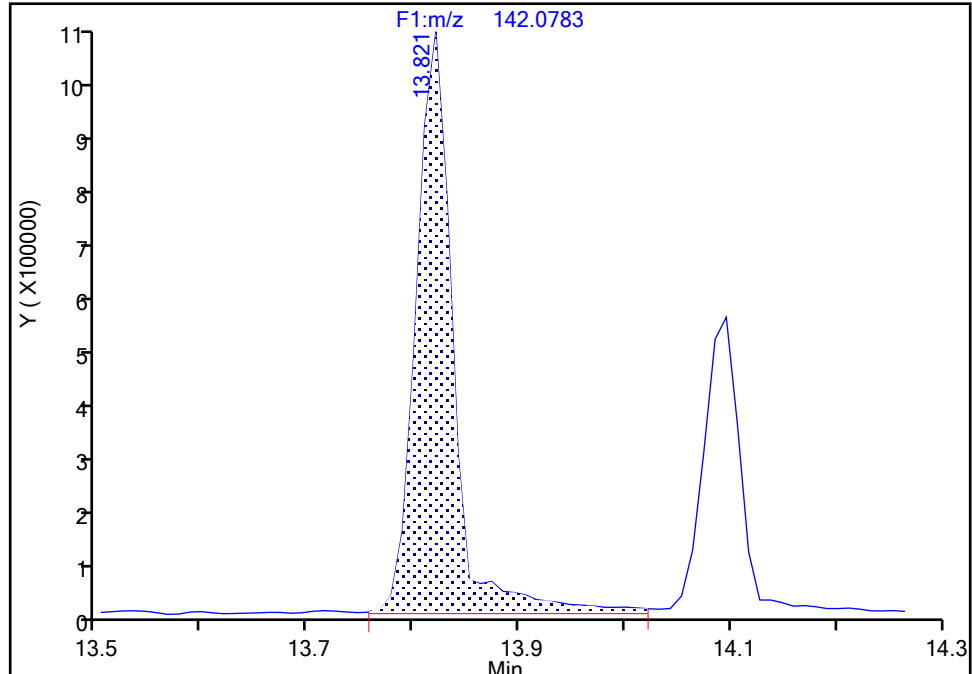
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-7-C Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 13  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

**2-Methylnaphthalene, CAS: 91-57-6**

Signal: 1

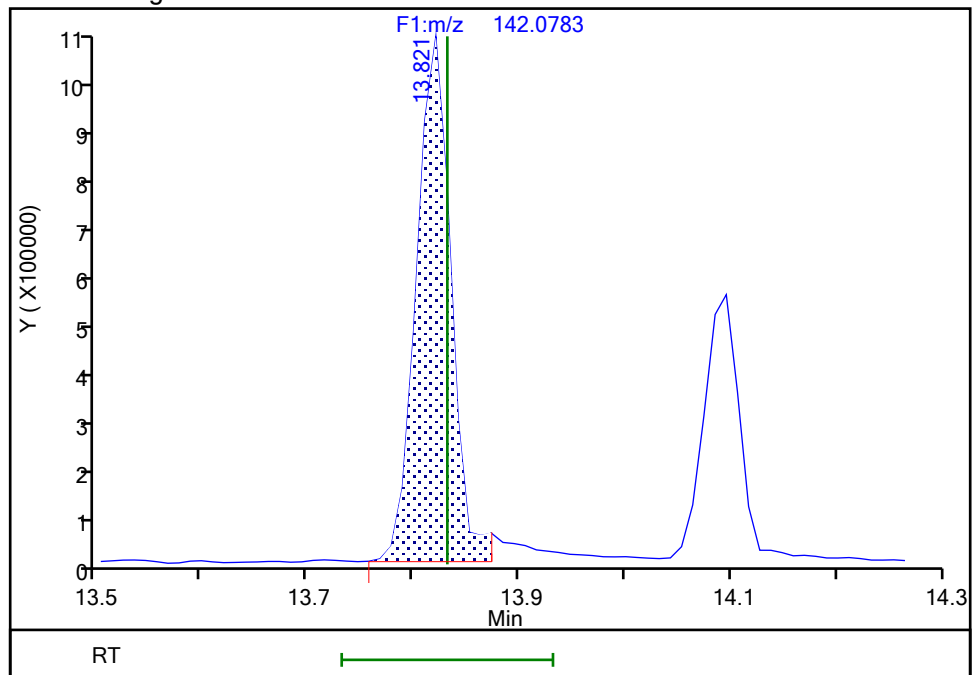
RT: 13.82  
Area: 2439367  
Amount: 20.458259  
Amount Units: pg/ul

## Processing Integration Results



RT: 13.82  
Area: 2287869  
Amount: 19.187689  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:38:31 -04:00:00 (UTC)

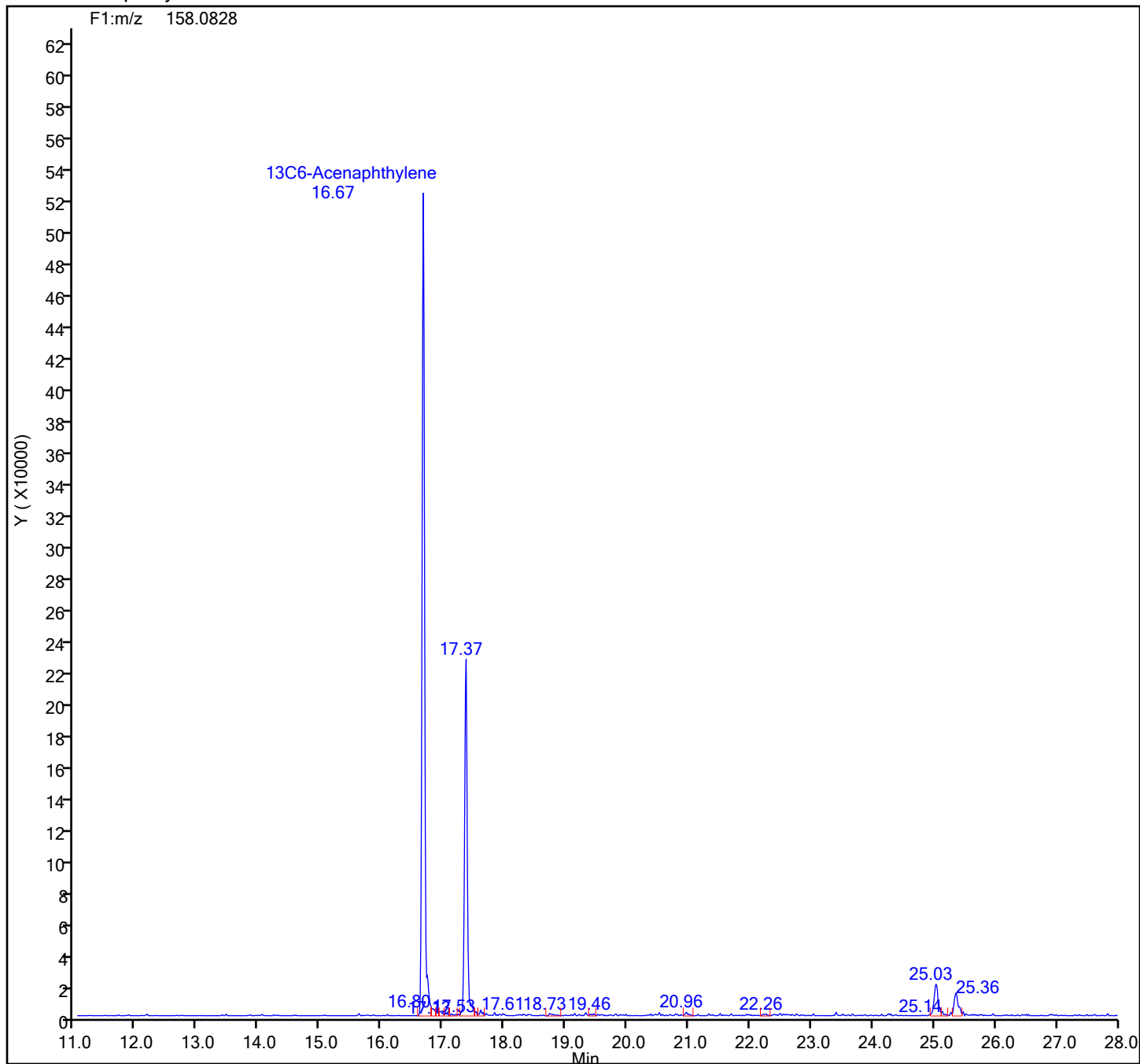
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 89013 Sample Line#: 13  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

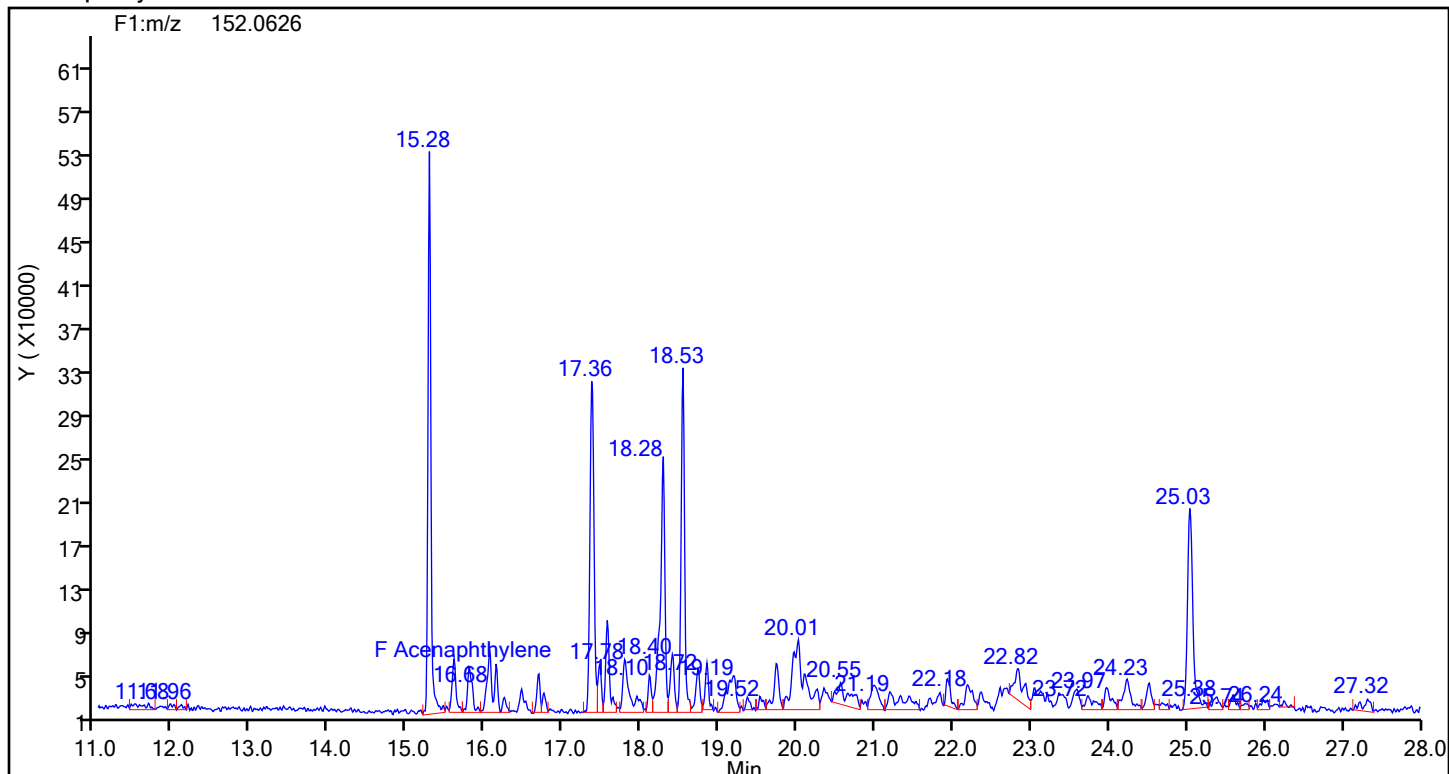
## 13C6-Acenaphthylene Standards



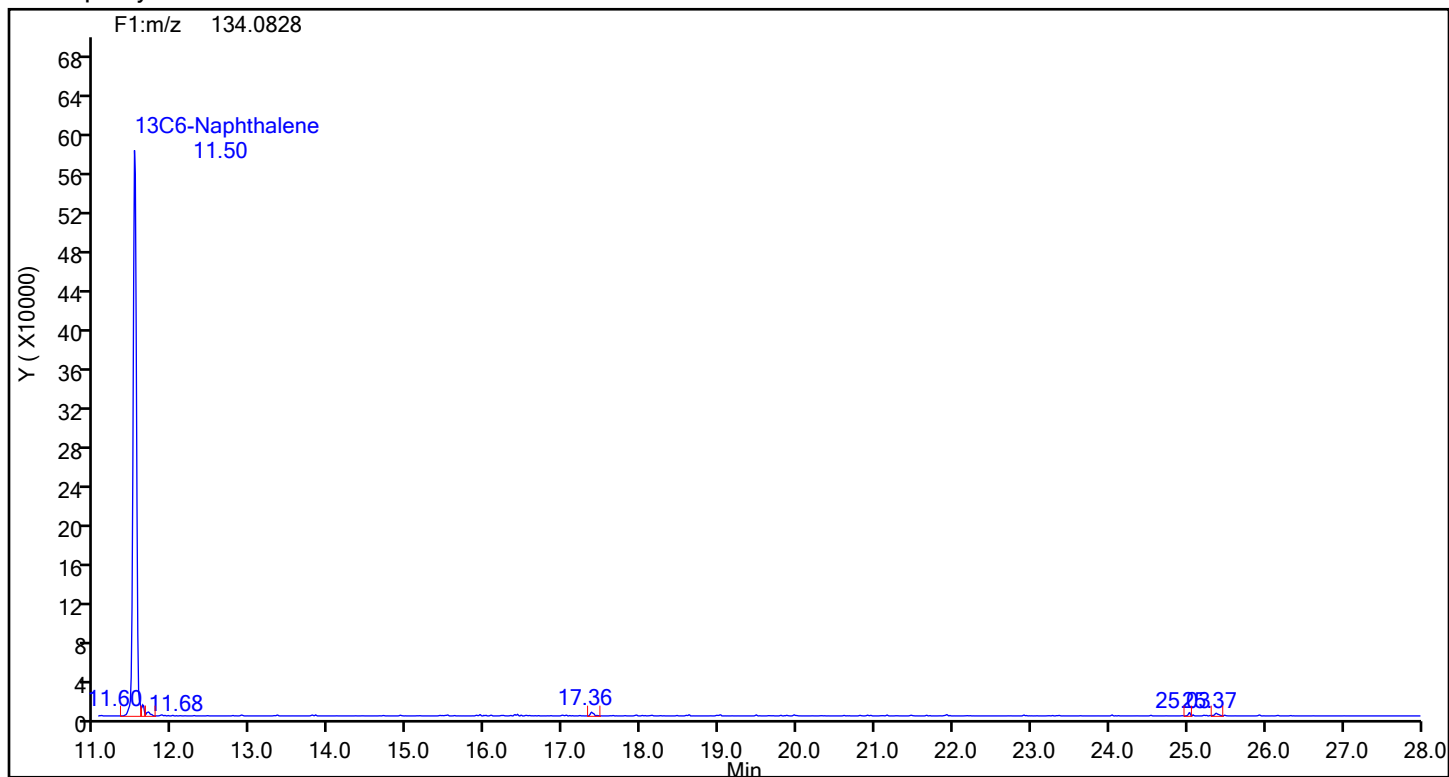
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 89013 Sample Line#: 13  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene



## Acenaphthylene Standards



## Eurofins Knoxville

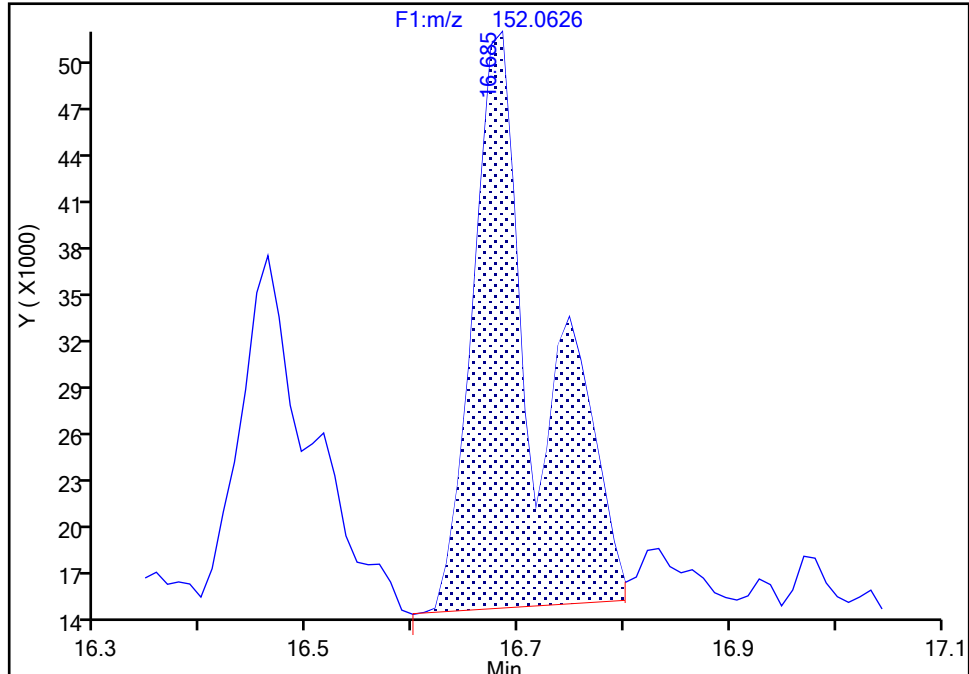
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Injection Date: 22-Jul-2024 22:33:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-7-C Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 13  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Acenaphthylene, CAS: 208-96-8

Signal: 1

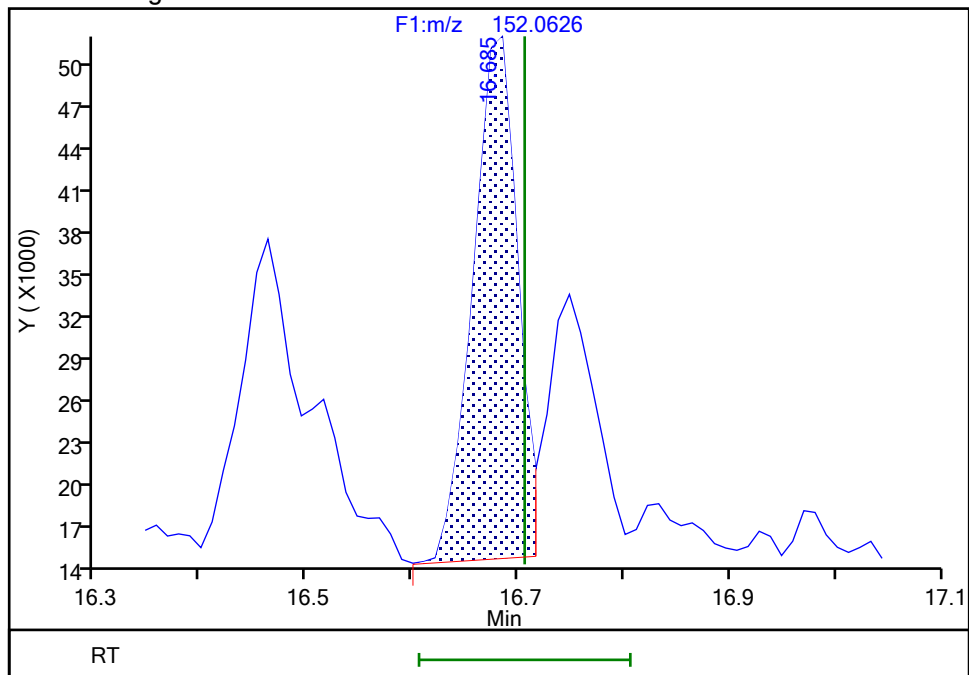
RT: 16.68  
Area: 158349  
Amount: 0.740454  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.68  
Area: 106156  
Amount: 0.496395  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:39:45 -04:00:00 (UTC)

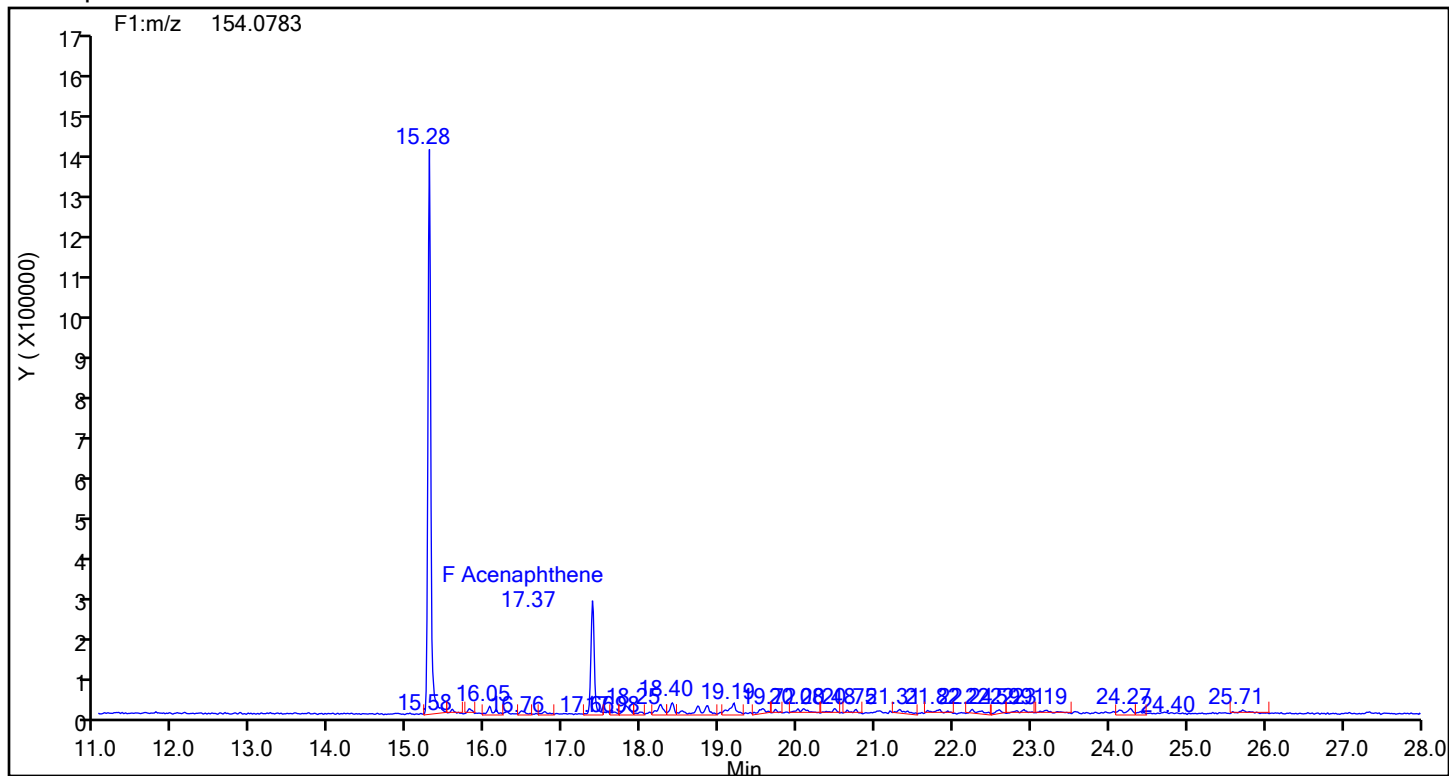
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

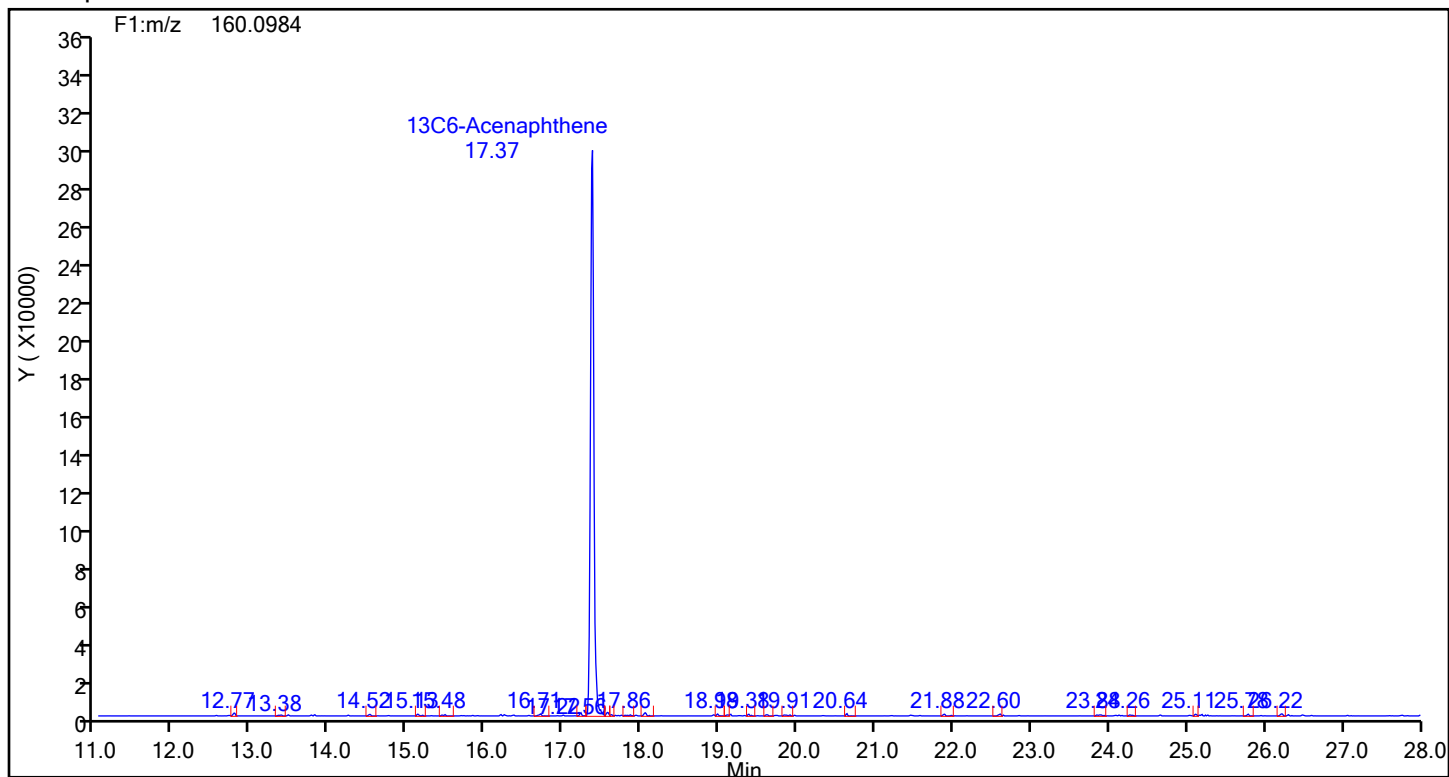
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 89013 Sample Line#: 13  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



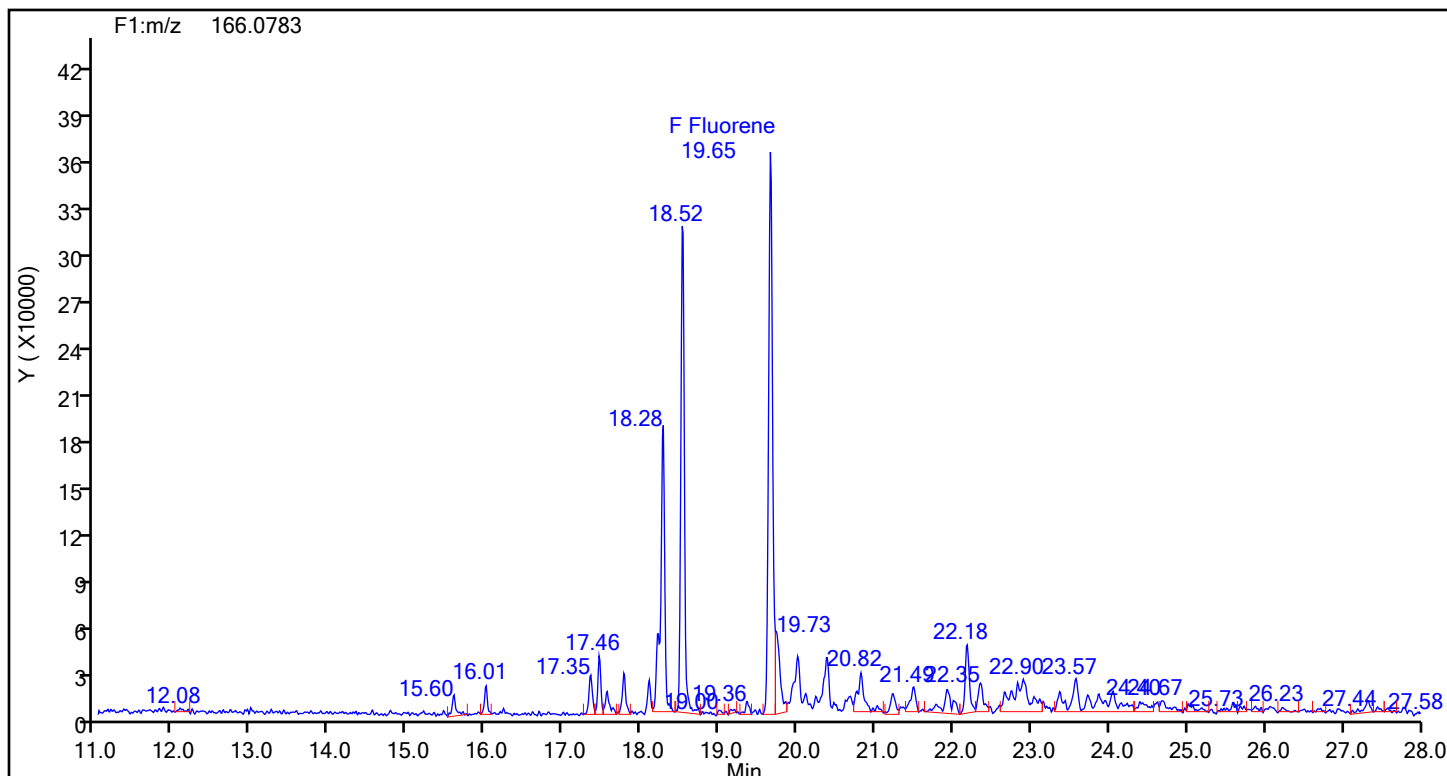
## Acenaphthene Standards



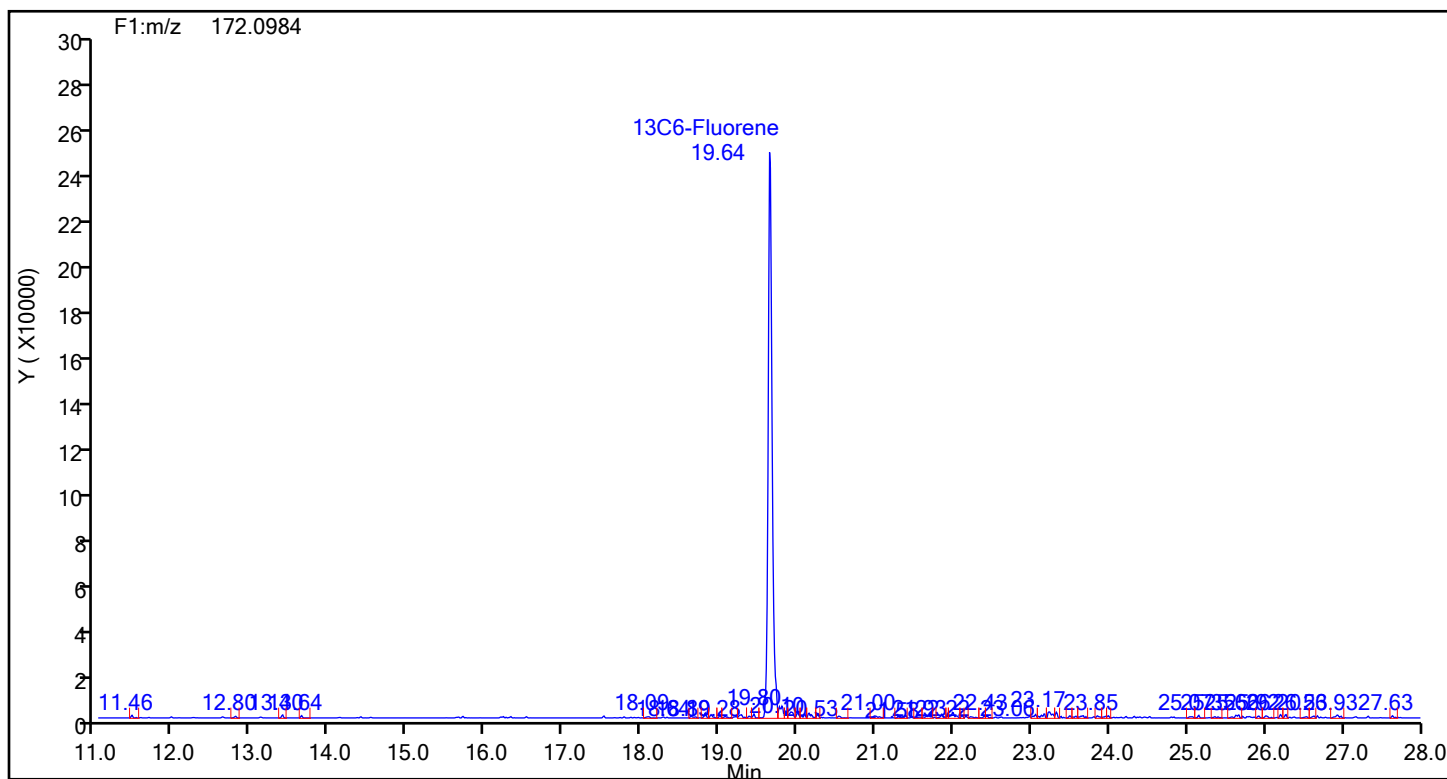
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 89013 Sample Line#: 13  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene



## Fluorene Standards





## Eurofins Knoxville

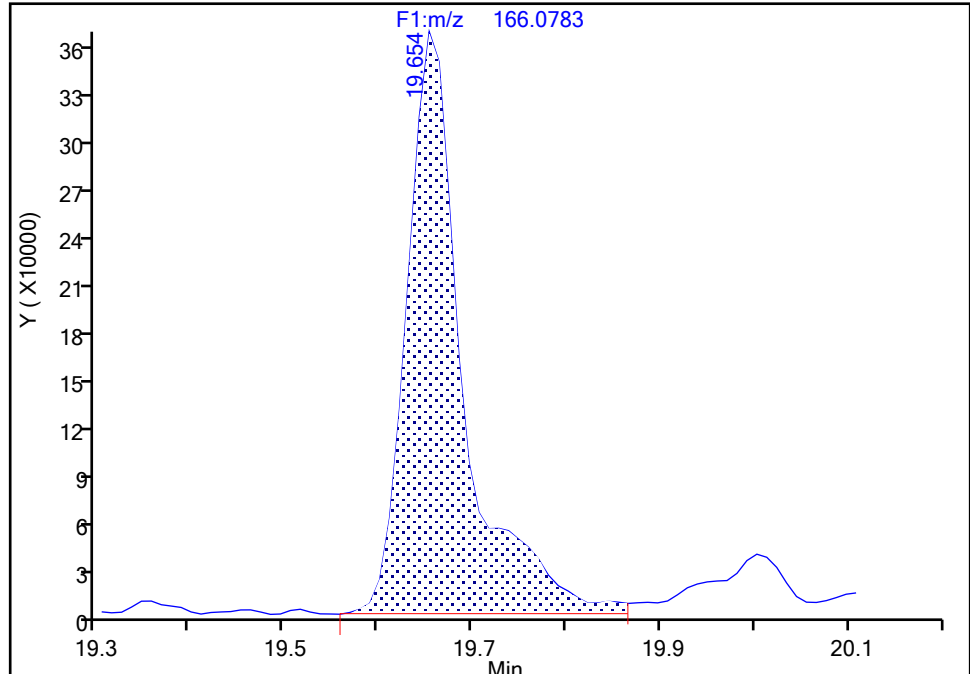
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-7-C Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 13  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Fluorene, CAS: 86-73-7

Signal: 1

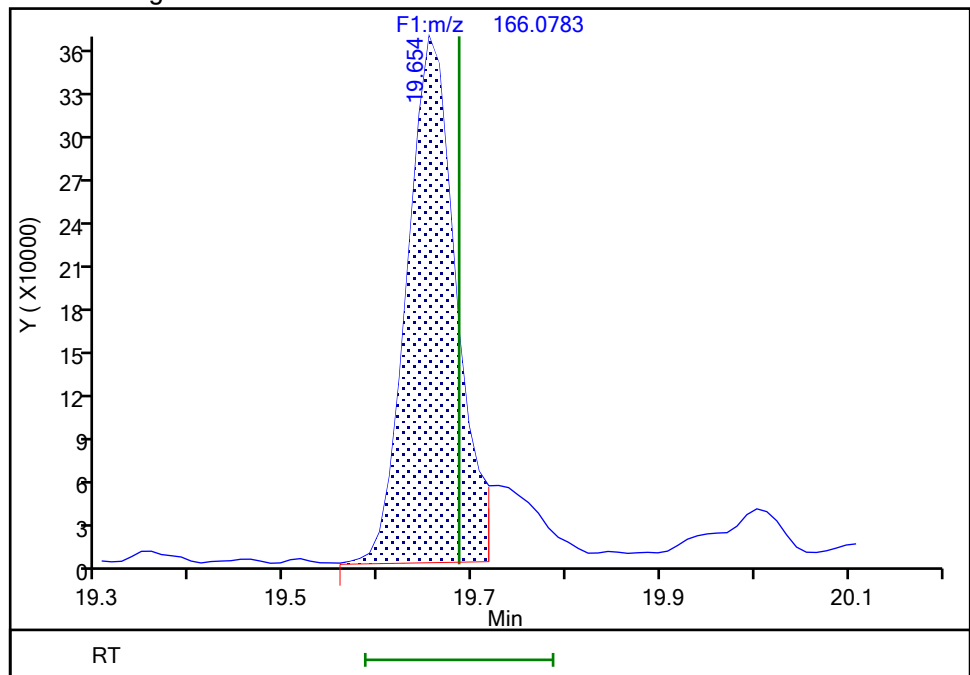
RT: 19.65  
Area: 1499448  
Amount: 13.669730  
Amount Units: pg/ul

## Processing Integration Results



RT: 19.65  
Area: 1300512  
Amount: 11.856128  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:39:55 -04:00:00 (UTC)

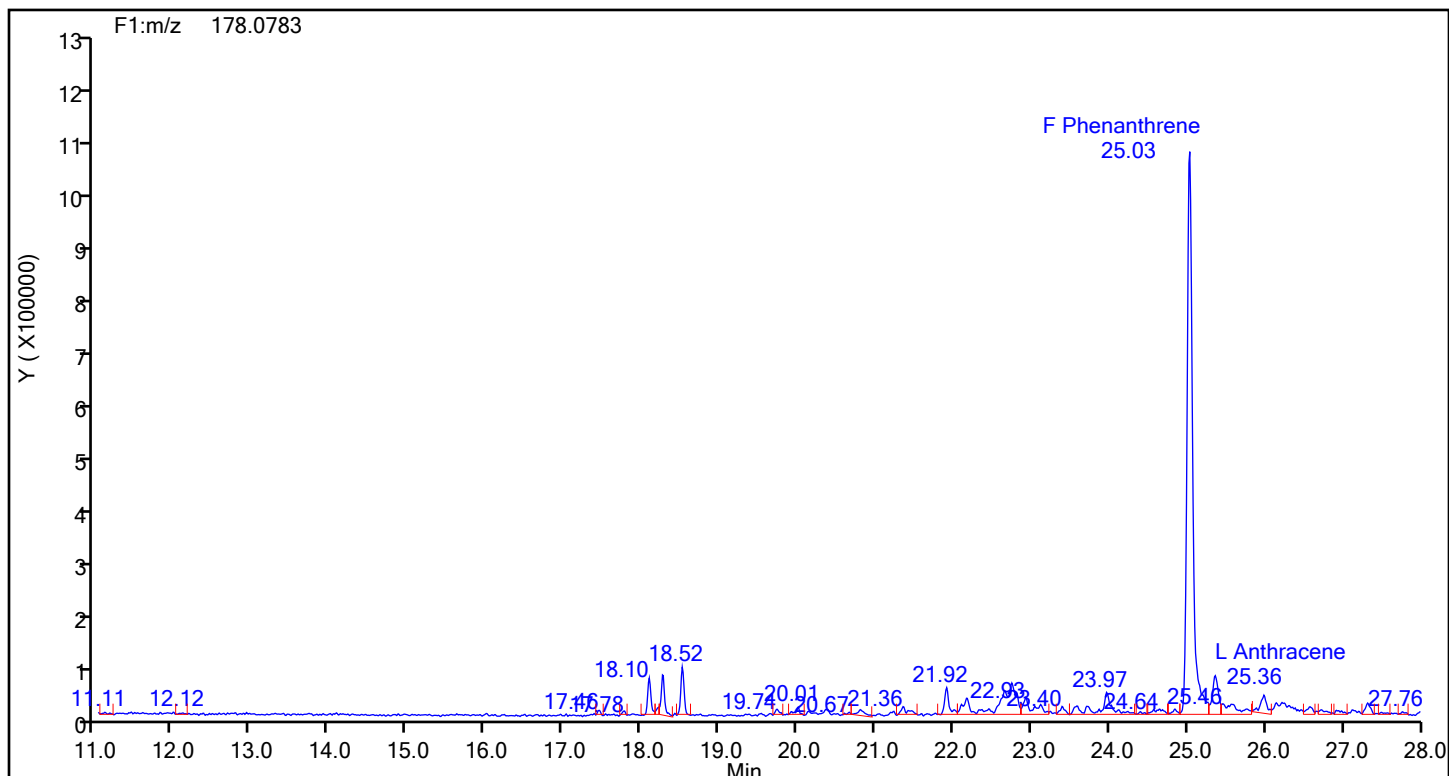
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

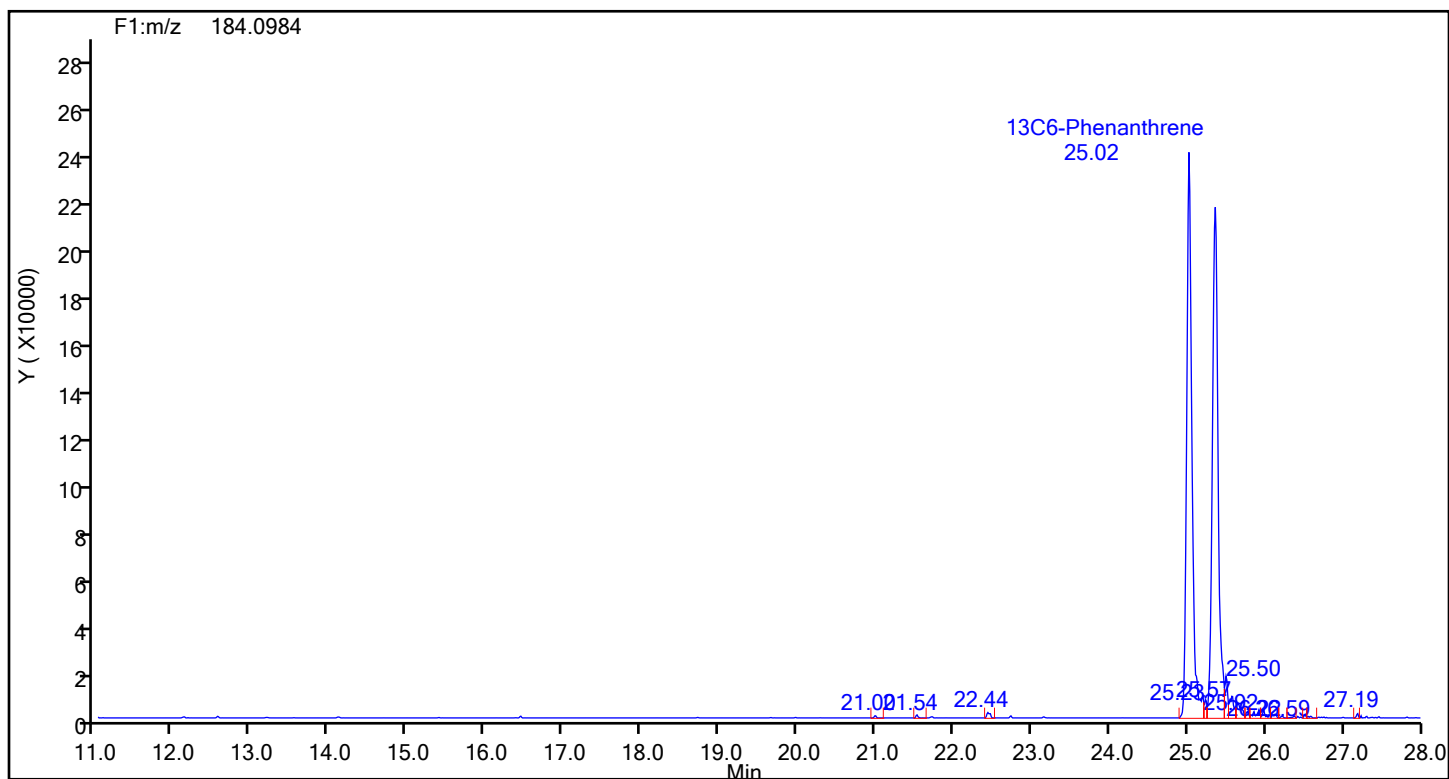
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 89013 Sample Line#: 13  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Phenanthrene



## Phenanthrene Standards



## Eurofins Knoxville

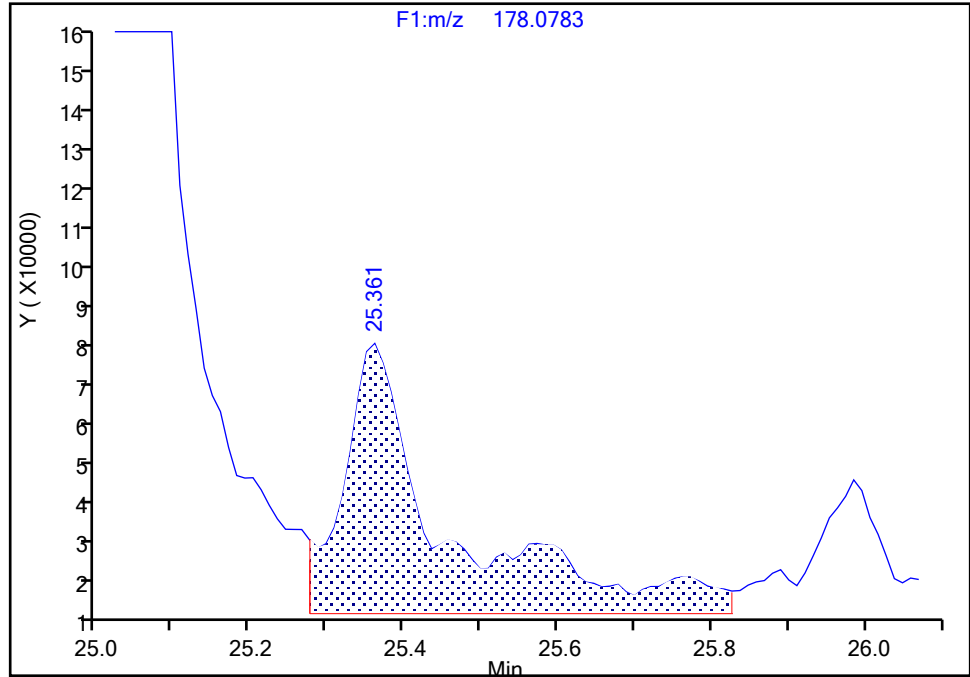
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-7-C Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 13  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Anthracene, CAS: 120-12-7

Signal: 1

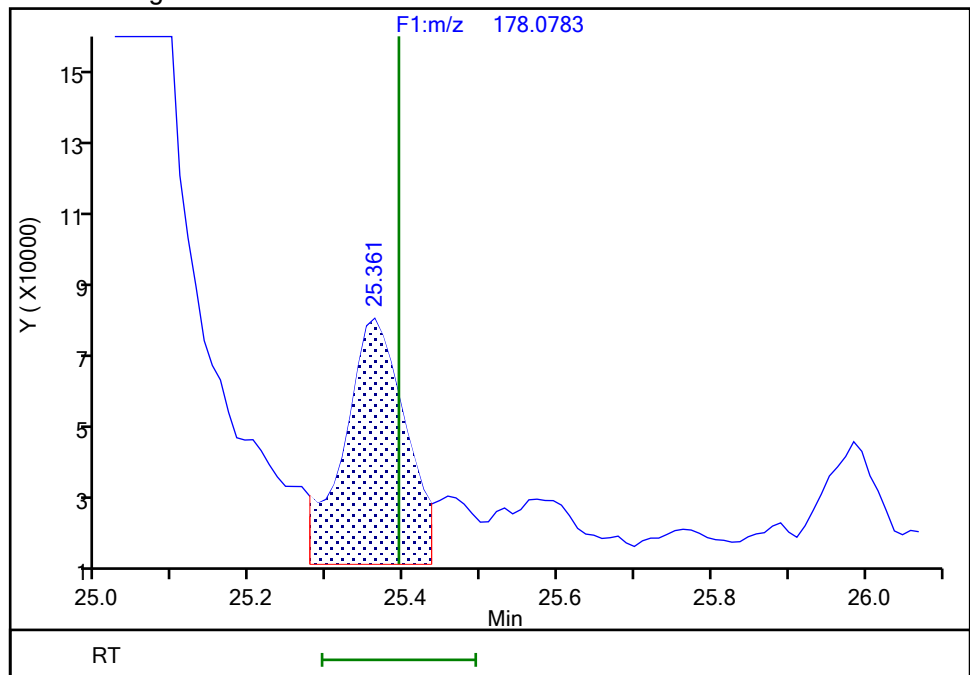
RT: 25.36  
Area: 643244  
Amount: 4.292822  
Amount Units: pg/ul

## Processing Integration Results



RT: 25.36  
Area: 386146  
Amount: 2.577025  
Amount Units: pg/ul

## Manual Integration Results



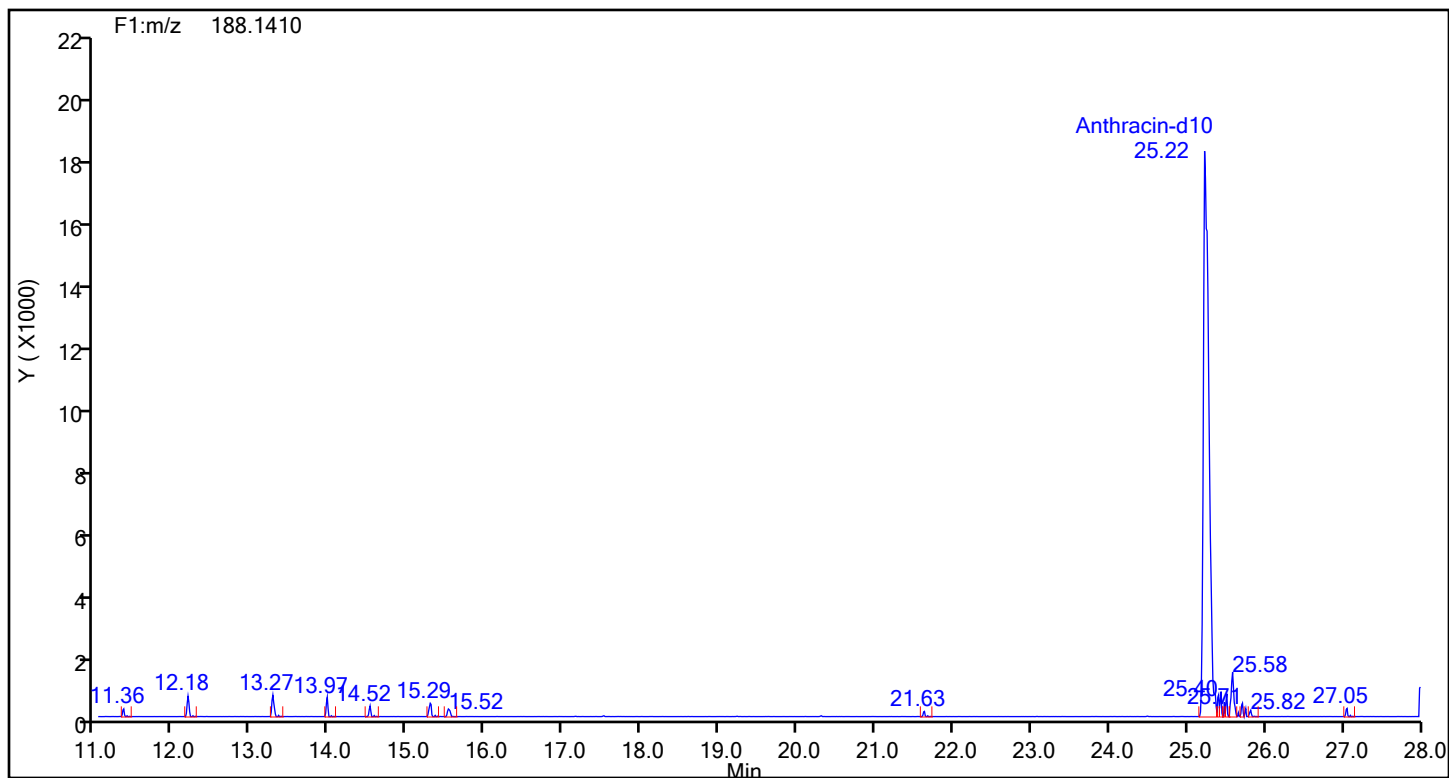
Reviewer: TT6I, 23-Jul-2024 10:38:04 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

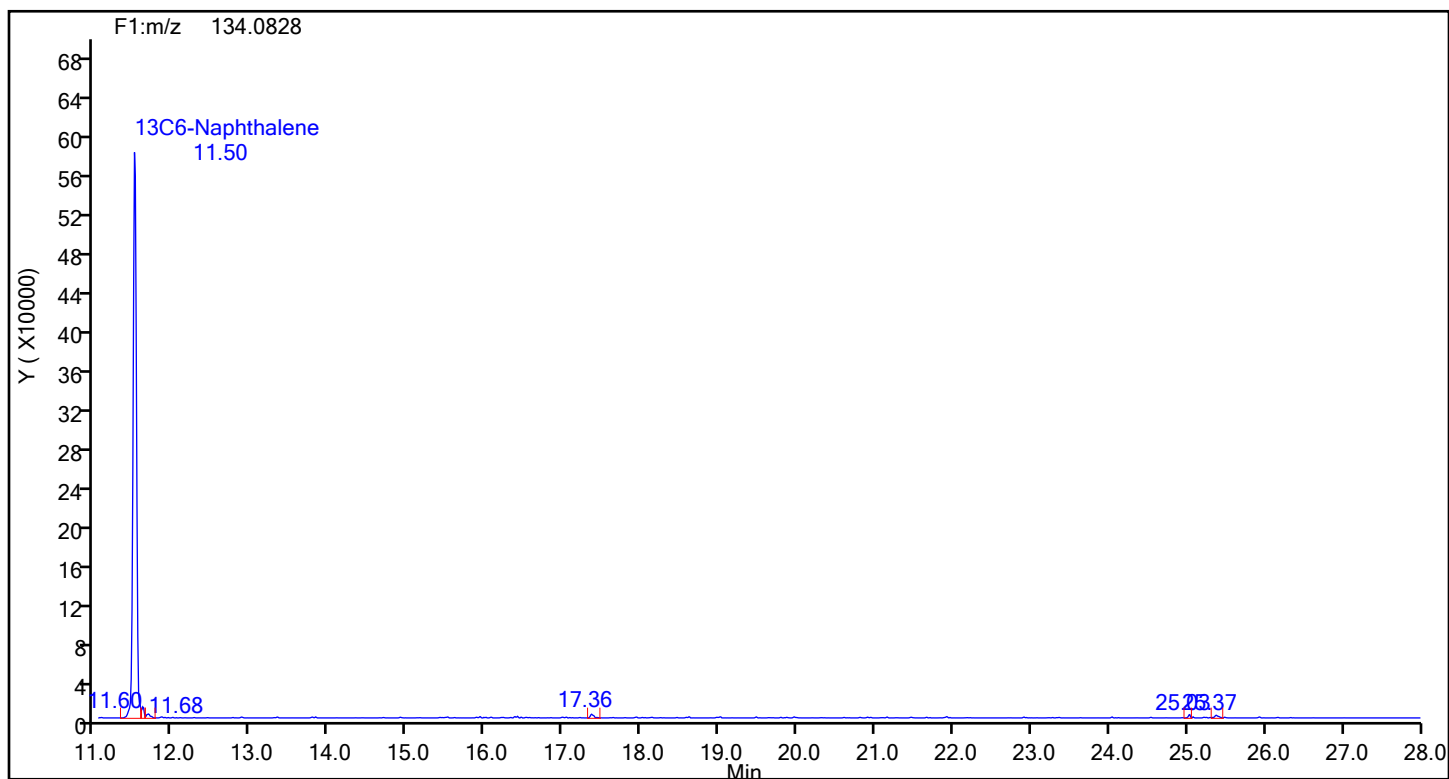
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 89013 Sample Line#: 13  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10

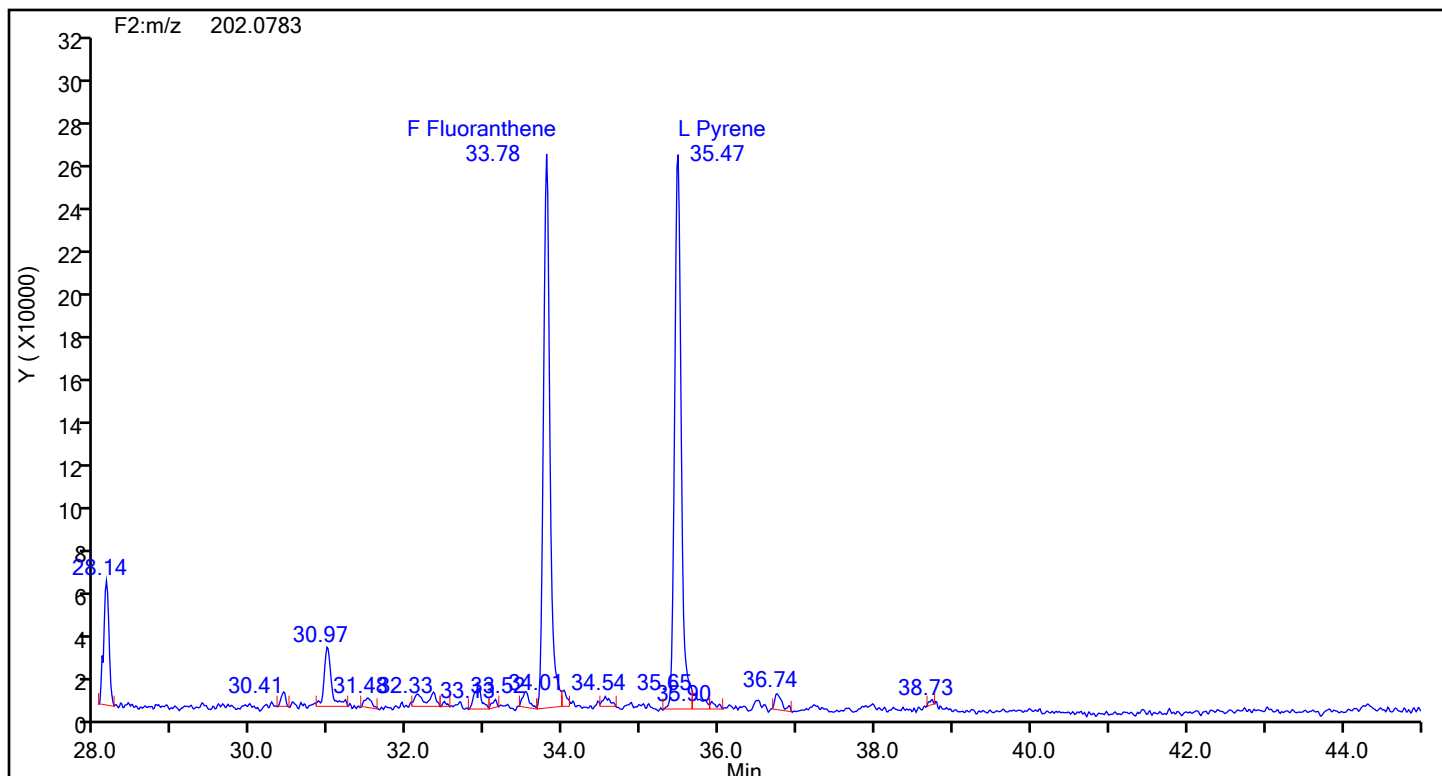


## Anthracin-d10 Standards

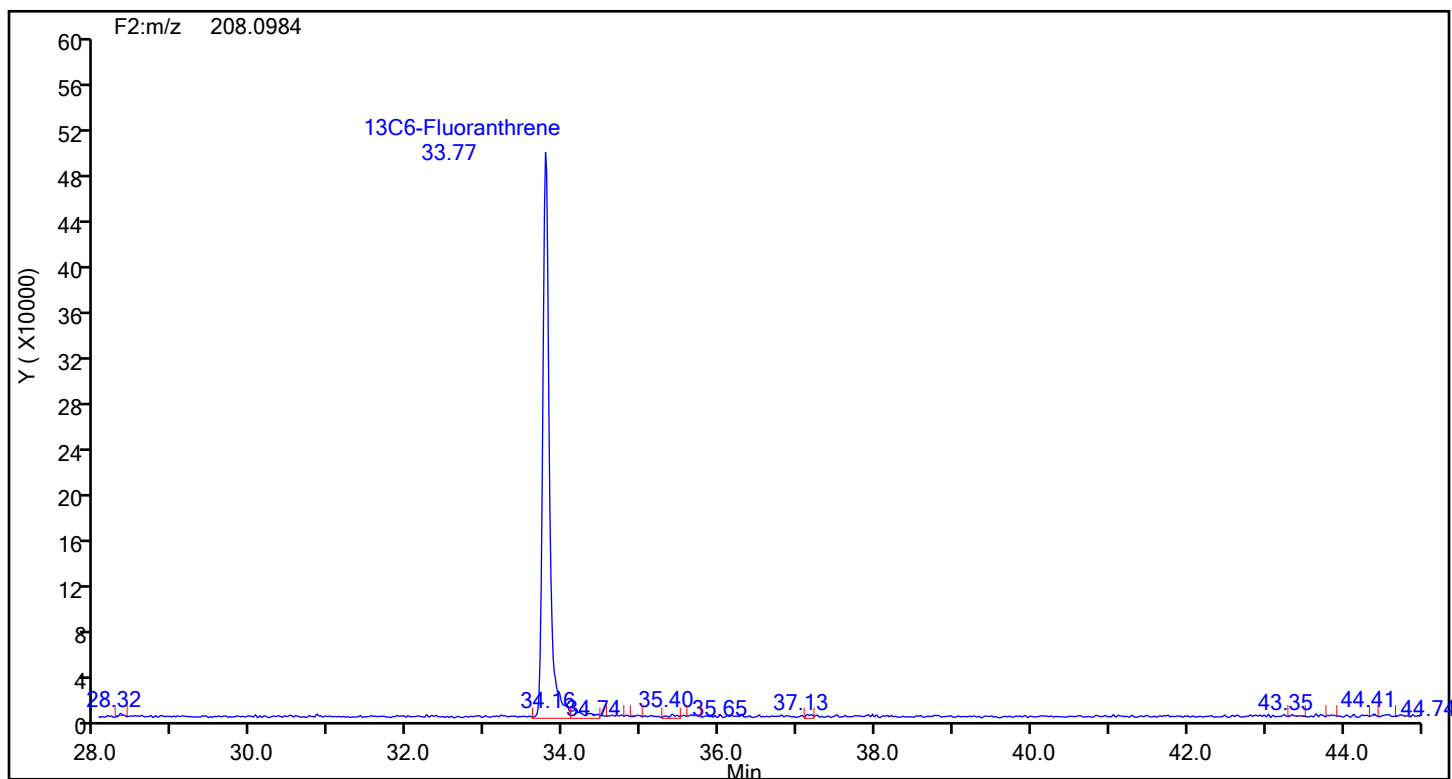


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 89013 Sample Line#: 13  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Fluoranthene



## Fluoranthene Standards



## Eurofins Knoxville

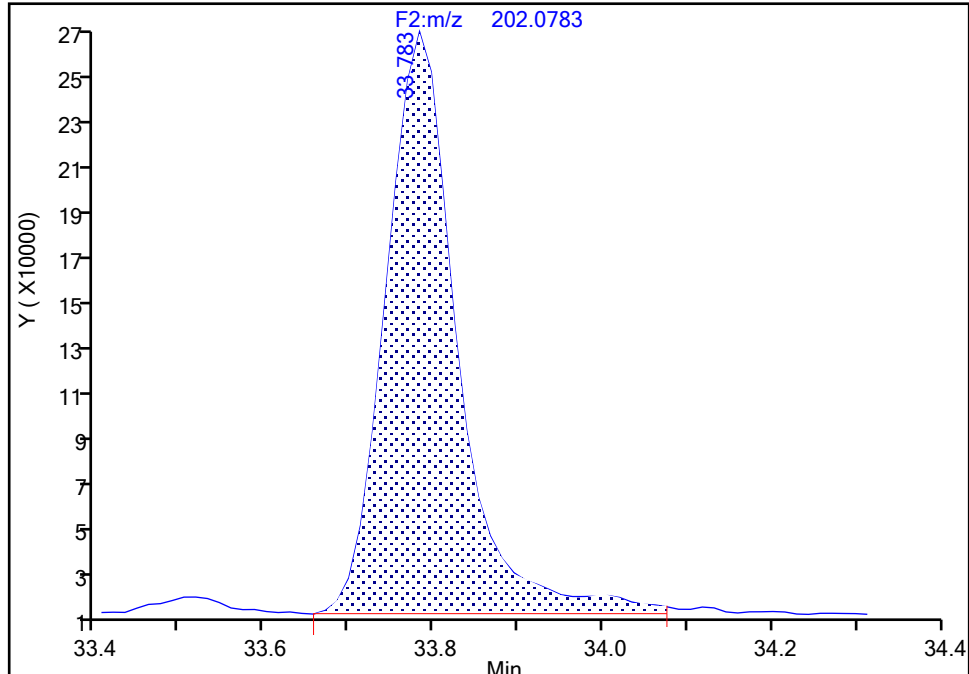
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-7-C Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 13  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F2(28.03 :43.99 )

## Fluoranthene, CAS: 206-44-0

Signal: 1

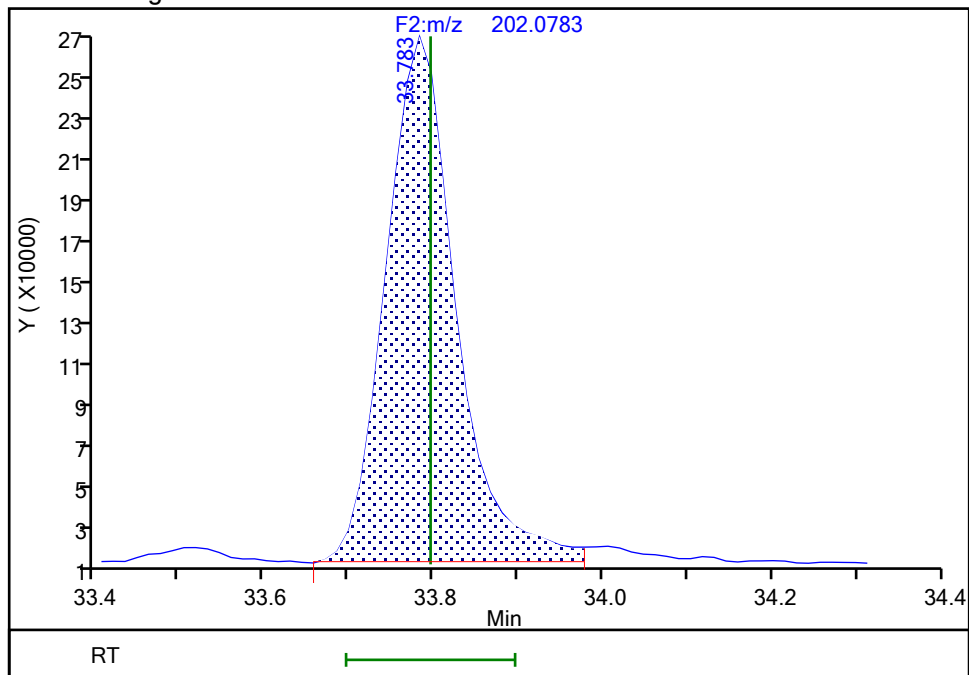
RT: 33.78  
Area: 1503690  
Amount: 4.434373  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.78  
Area: 1473212  
Amount: 4.344494  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:39:14 -04:00:00 (UTC)

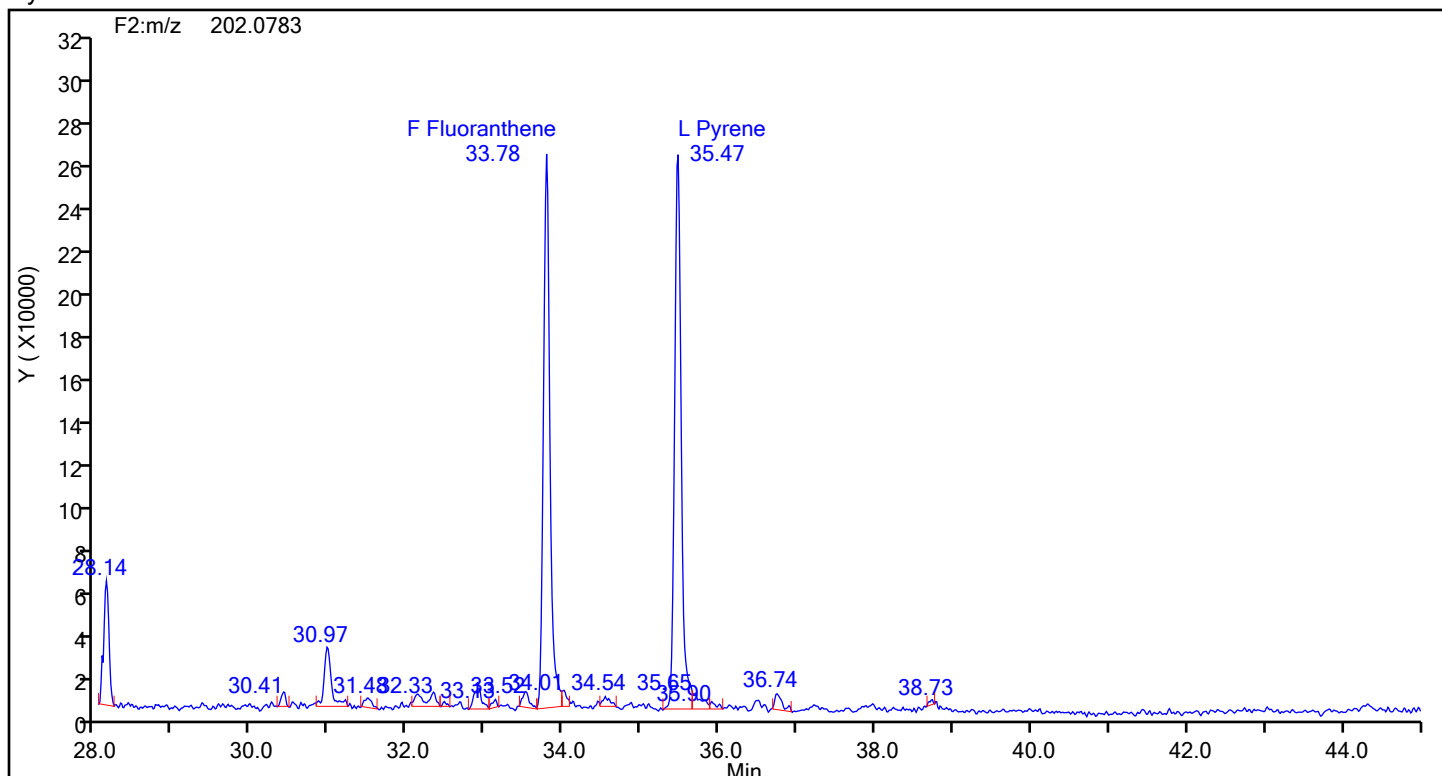
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

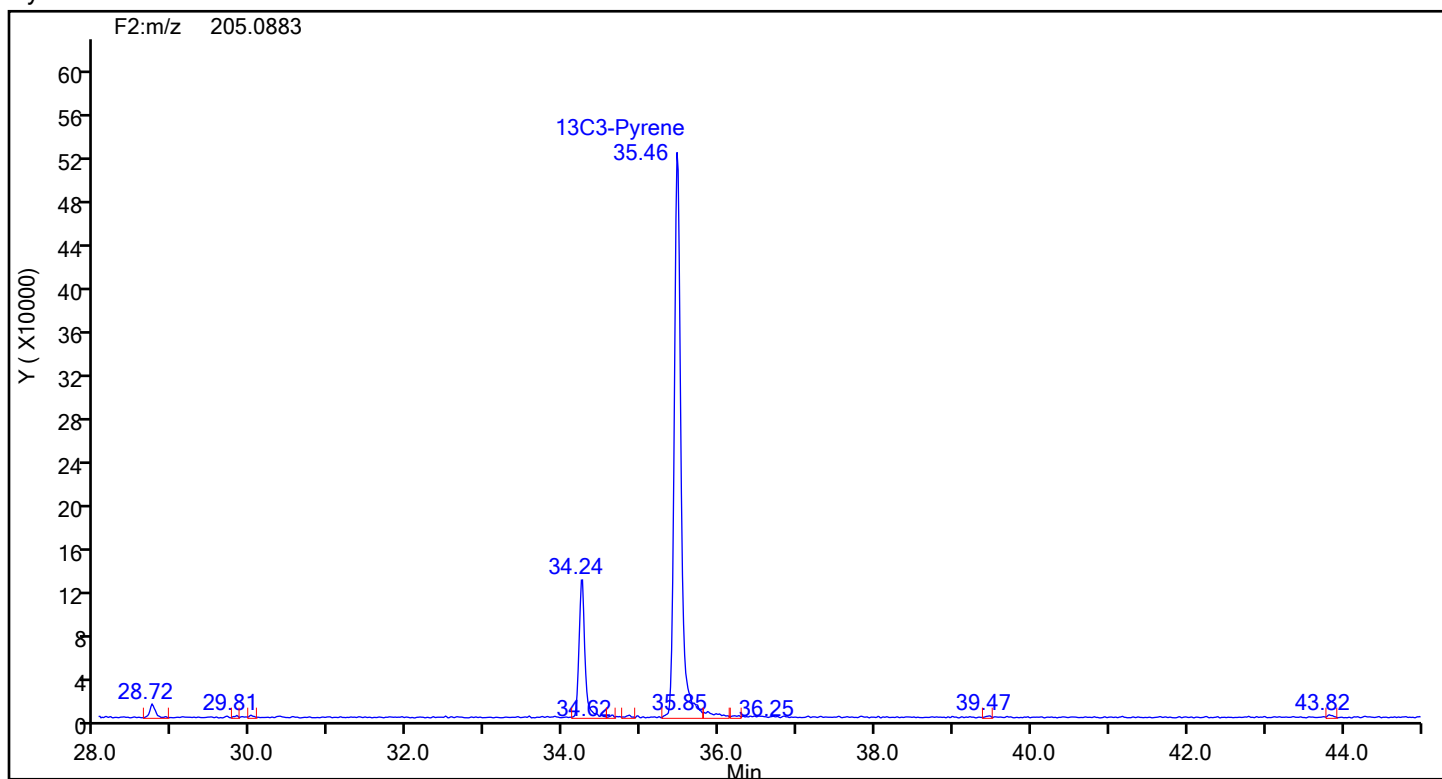
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 89013 Sample Line#: 13  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Pyrene



## Pyrene Standards



## Eurofins Knoxville

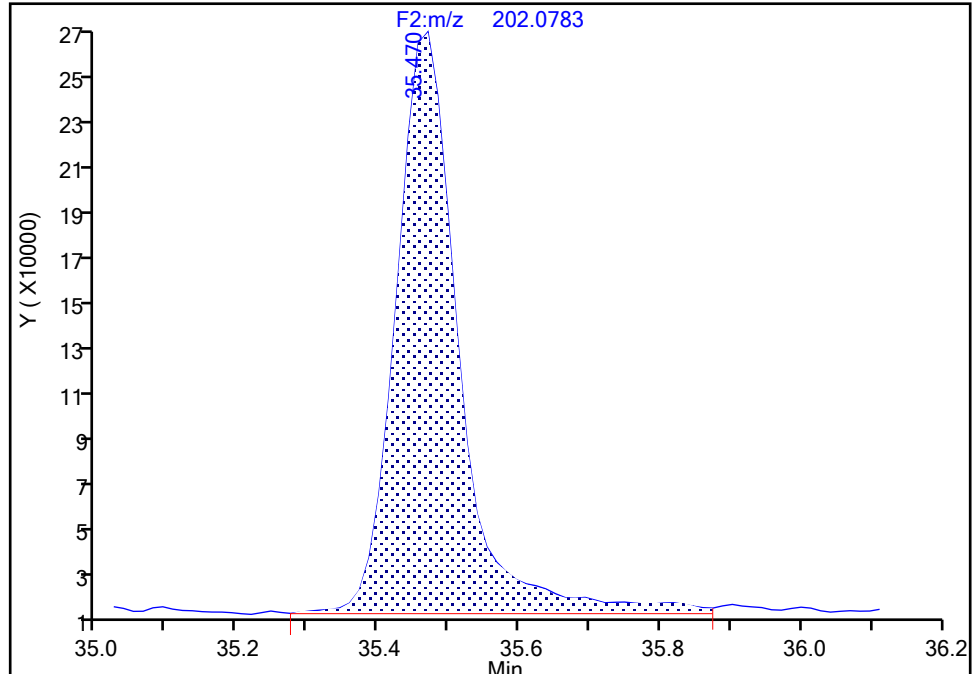
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Injection Date: 22-Jul-2024 22:33:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-7-C Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 13  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F2(28.03 :43.99 )

Pyrene, CAS: 129-00-0

Signal: 1

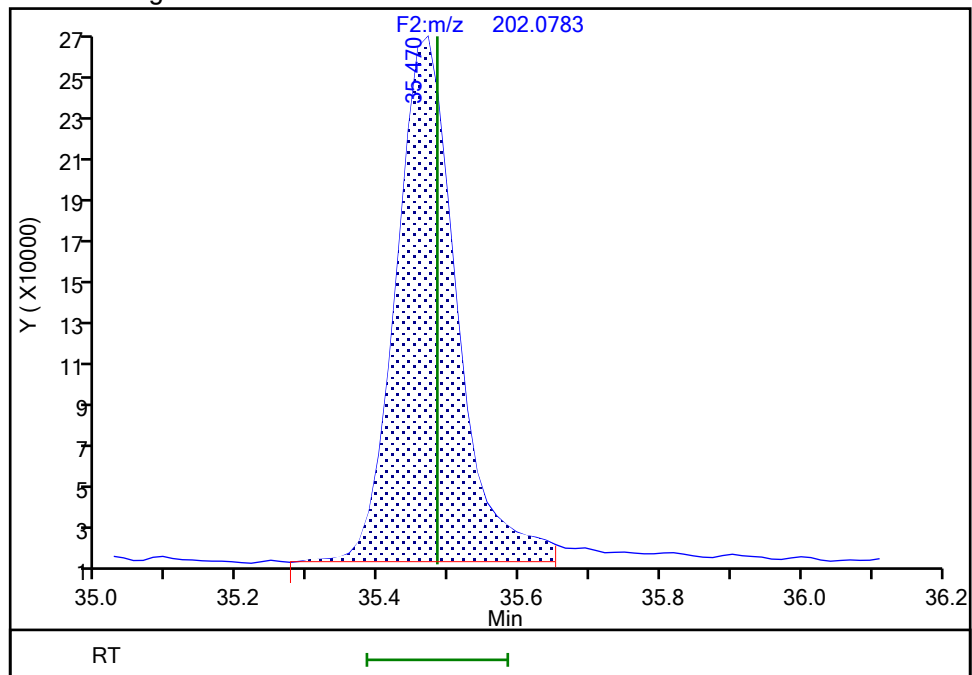
RT: 35.47  
Area: 1591335  
Amount: 4.679775  
Amount Units: pg/ul

## Processing Integration Results



RT: 35.47  
Area: 1530731  
Amount: 4.501551  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:39:36 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d

Injection Date: 22-Jul-2024 22:33:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 8 COMBINED

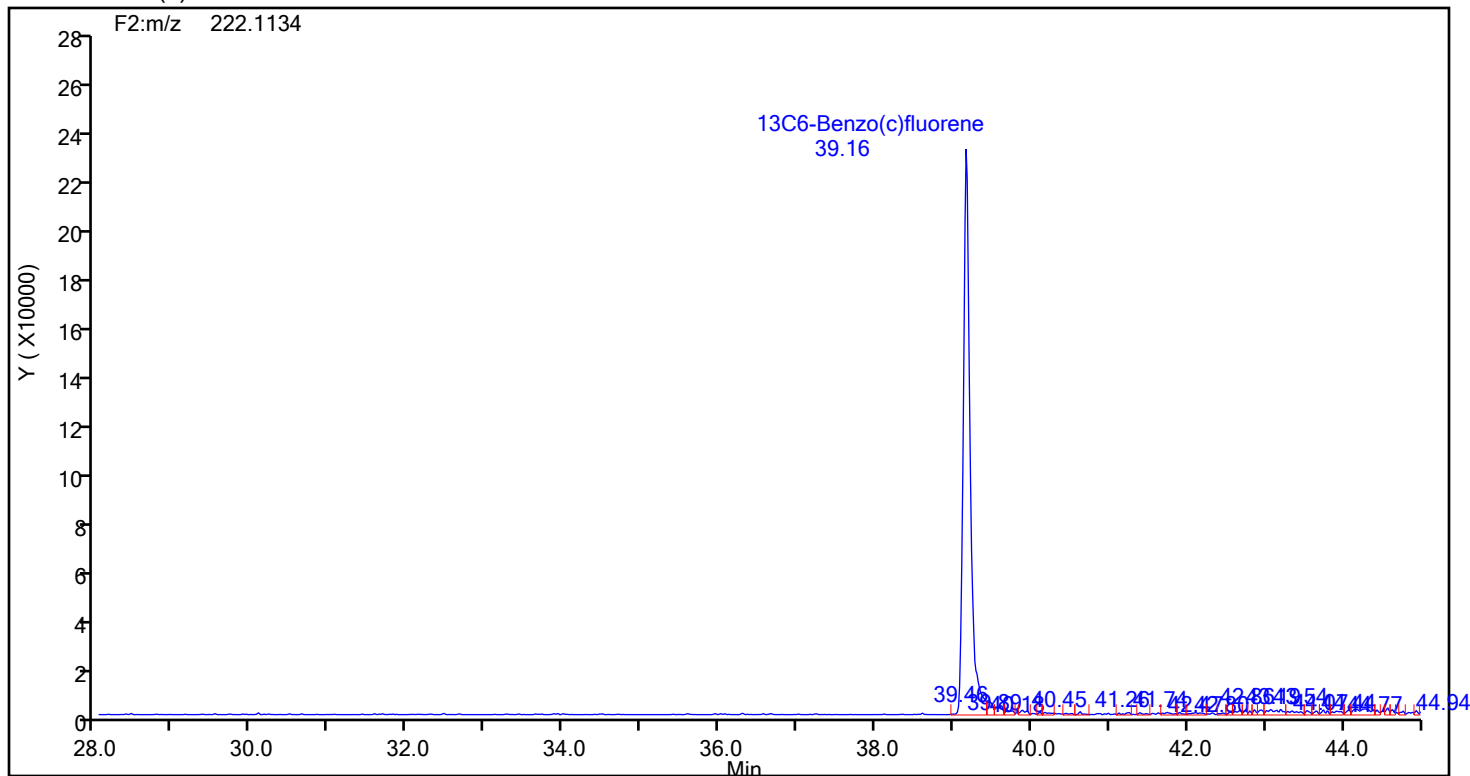
Worklist#: 89013

Sample Line#: 13

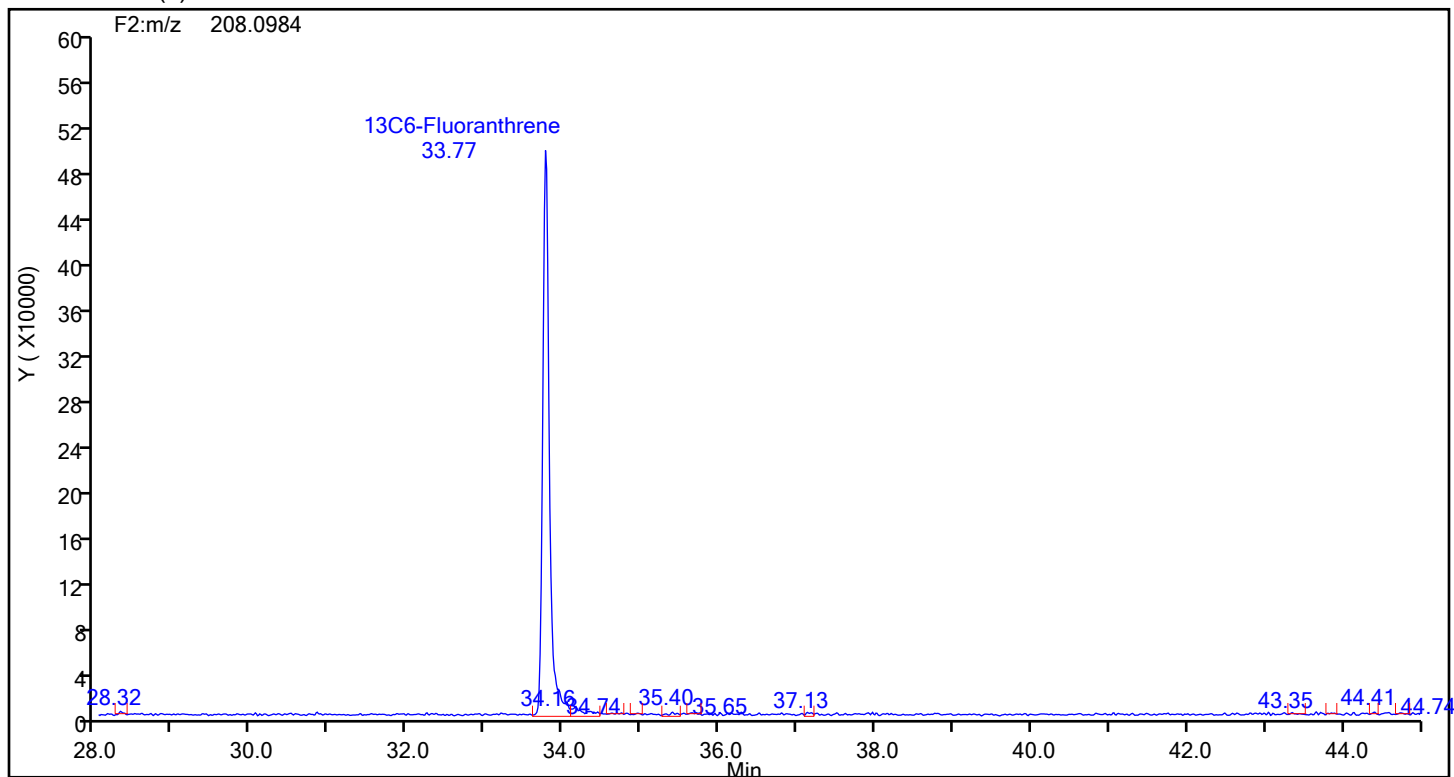
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## 13C6-Benzo(c)fluorene



## 13C6-Benzo(c)fluorene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d

Injection Date: 22-Jul-2024 22:33:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 8 COMBINED

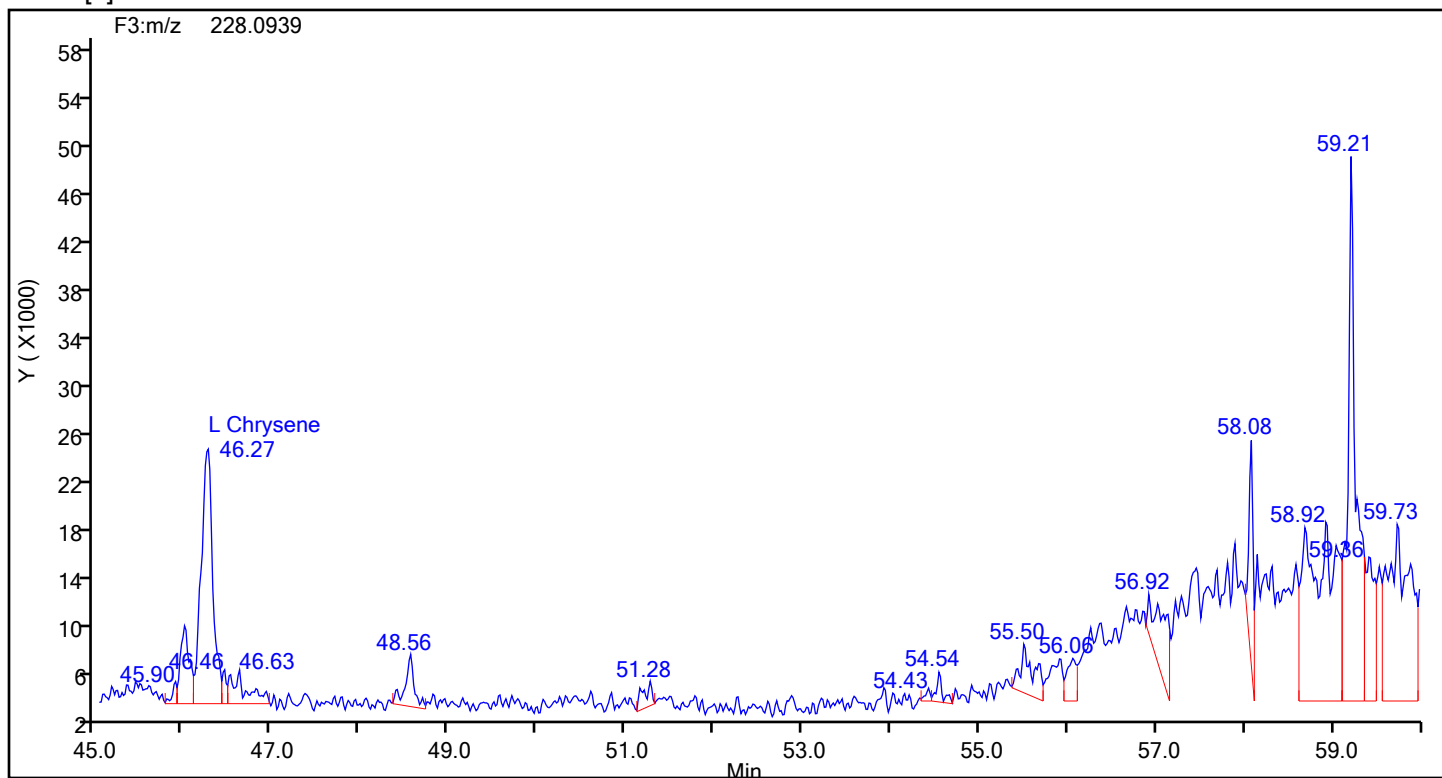
Worklist#: 89013

Sample Line#: 13

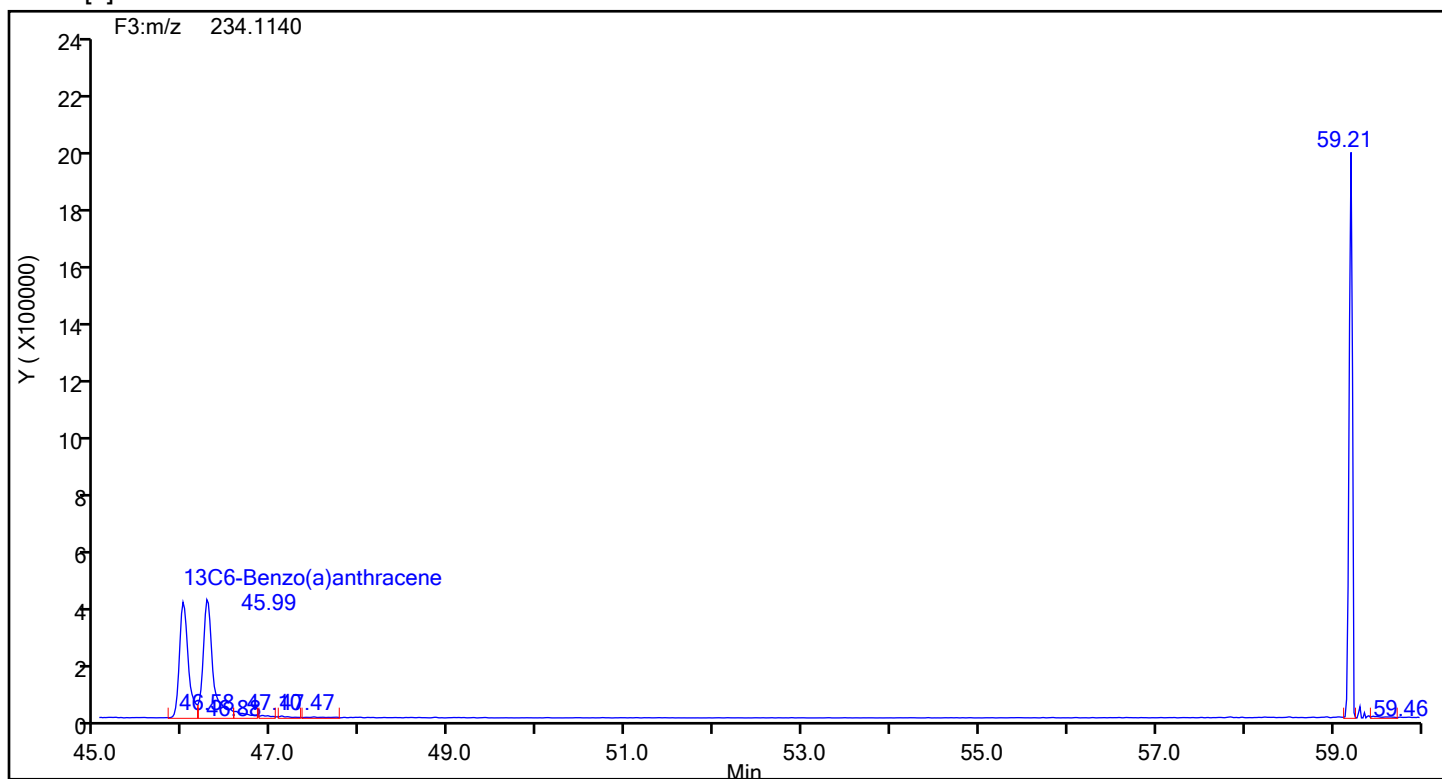
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Benzo[a]anthracene



## Benzo[a]anthracene Standards



## Eurofins Knoxville

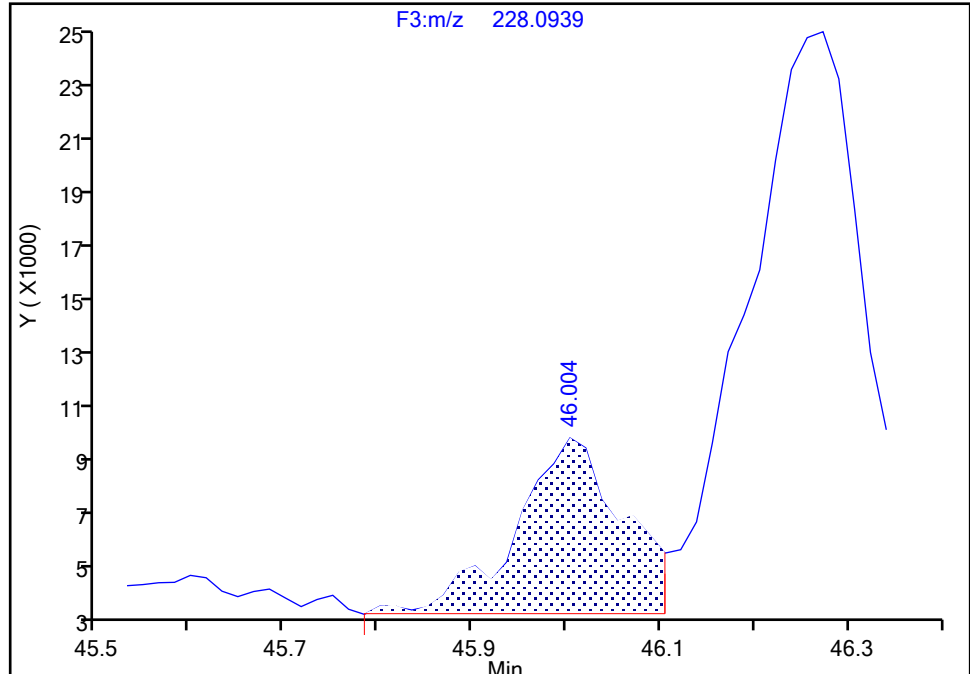
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-7-C Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 13  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**Benzo[a]anthracene, CAS: 56-55-3**

Signal: 1

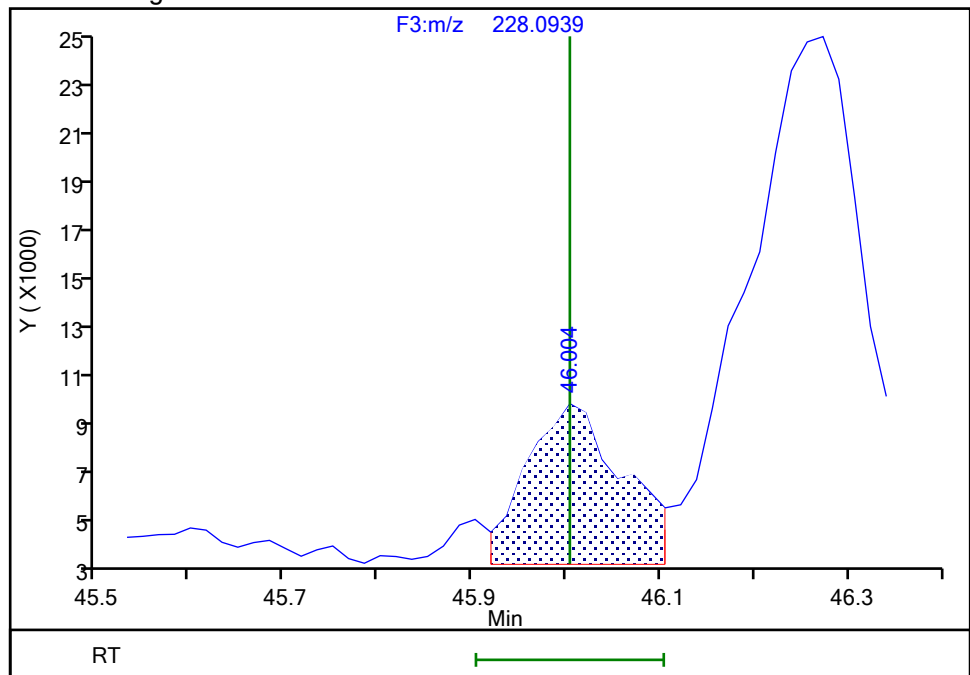
RT: 46.00  
Area: 49888  
Amount: 0.184375  
Amount Units: pg/ul

## Processing Integration Results



RT: 46.00  
Area: 45990  
Amount: 0.169969  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:39:40 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

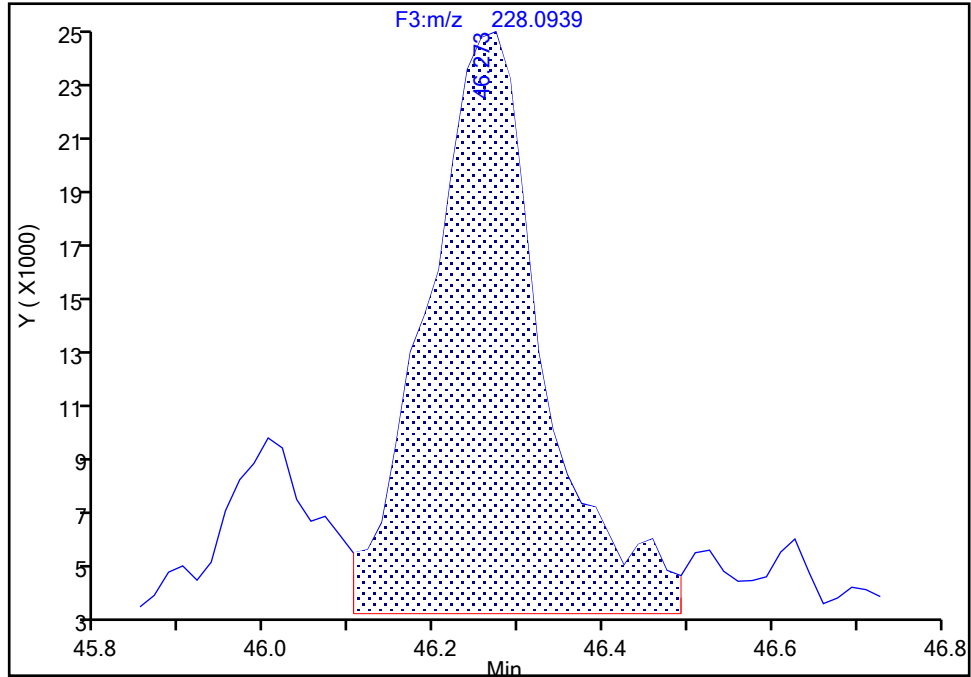
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-7-C Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 13  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Chrysene, CAS: 218-01-9

Signal: 1

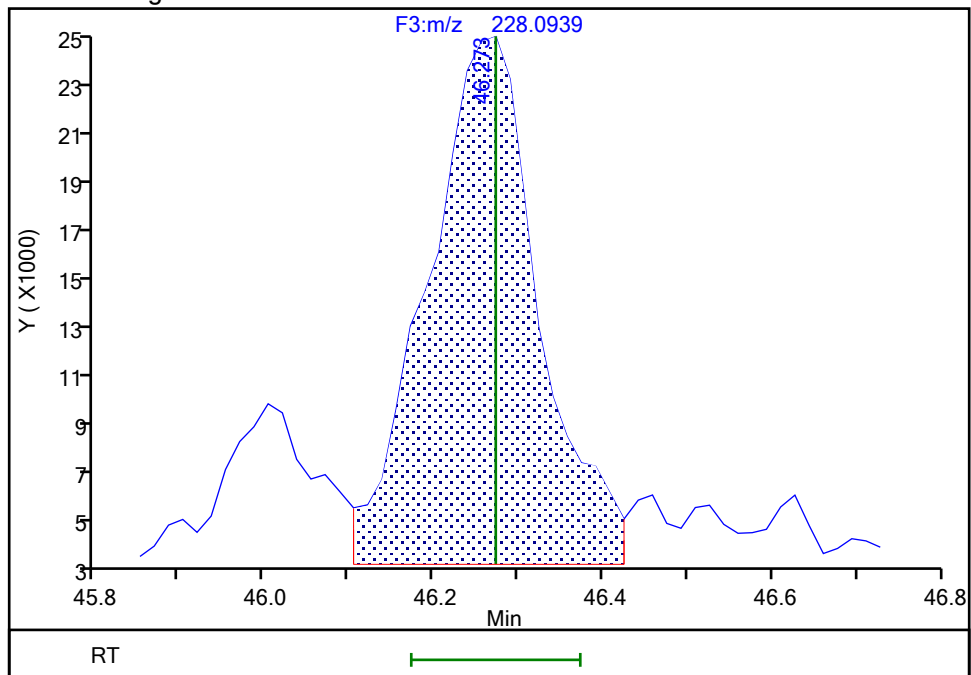
RT: 46.27  
Area: 200061  
Amount: 0.645595  
Amount Units: pg/ul

## Processing Integration Results



RT: 46.27  
Area: 193595  
Amount: 0.624729  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:39:03 -04:00:00 (UTC)

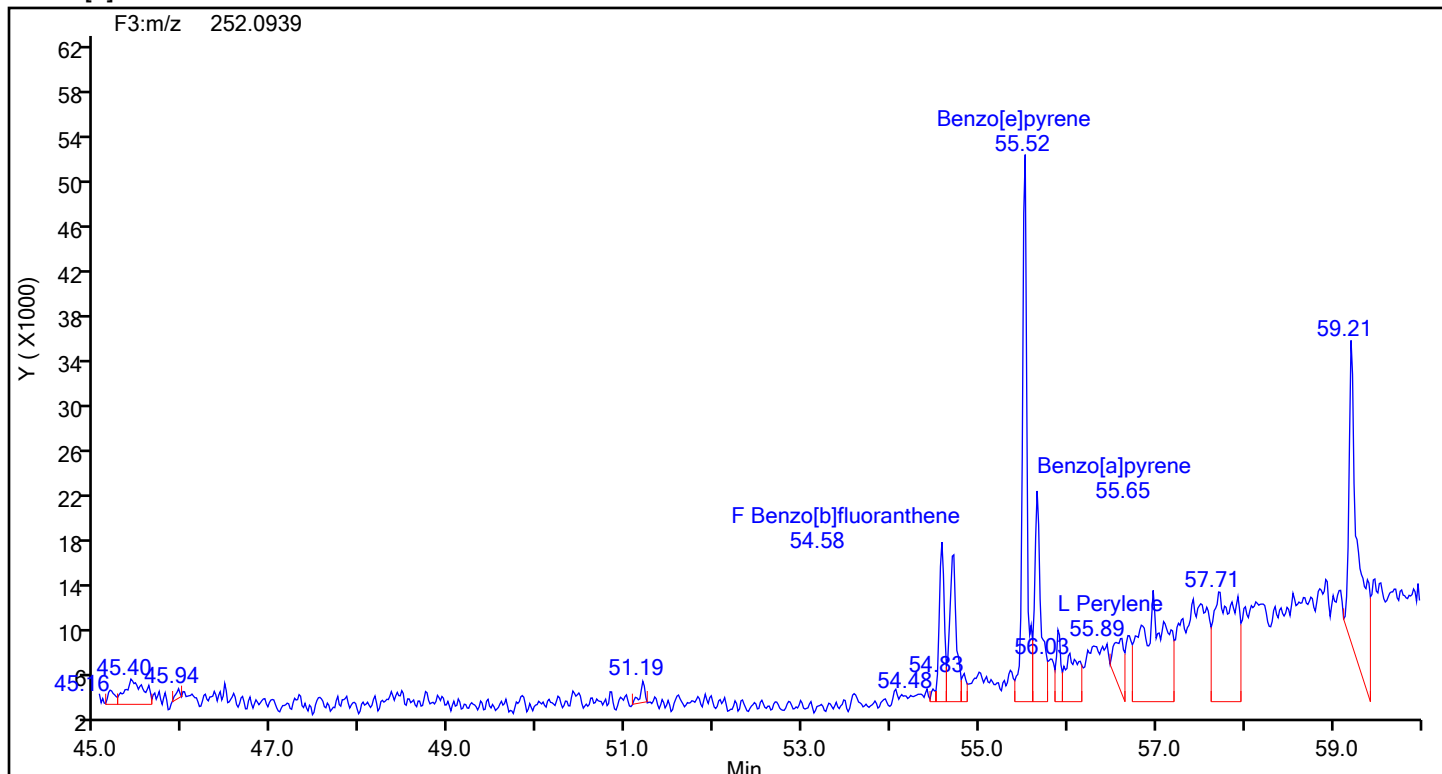
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

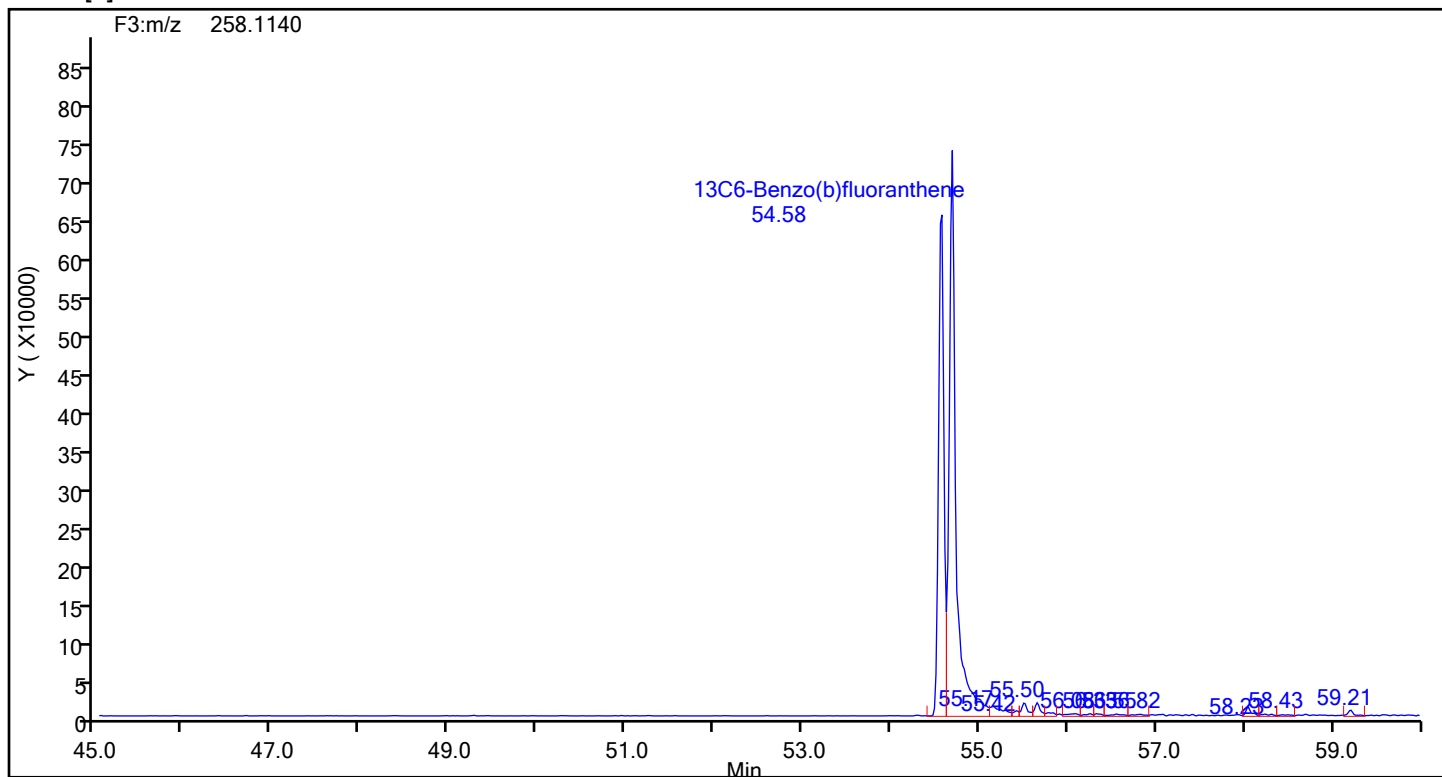
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 89013 Sample Line#: 13  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



## Benzo[b]fluoranthene Standards



## Eurofins Knoxville

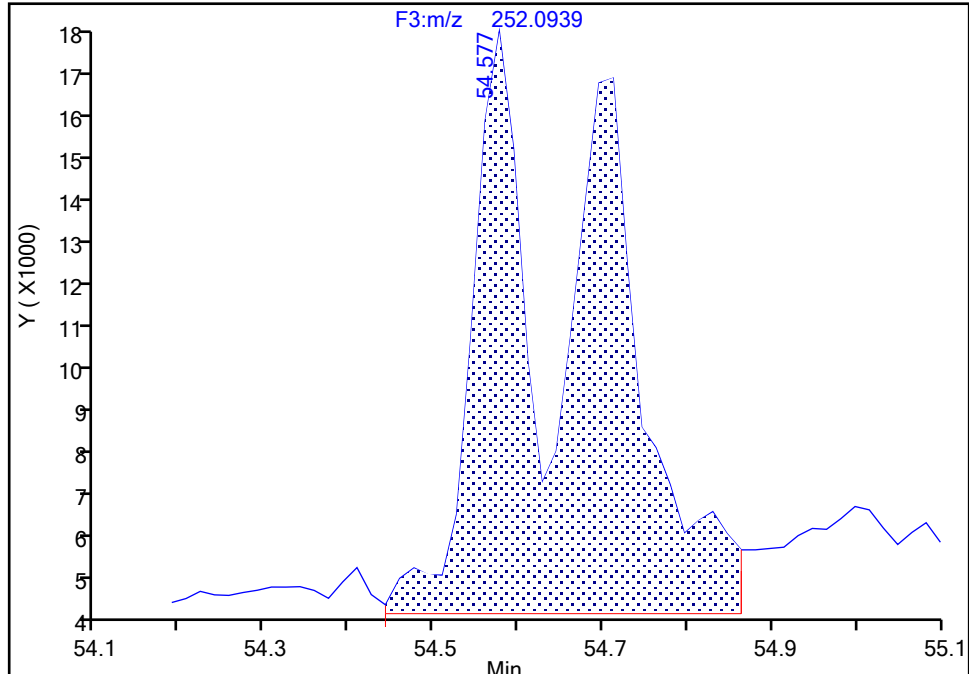
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-7-C Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 13  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

## Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

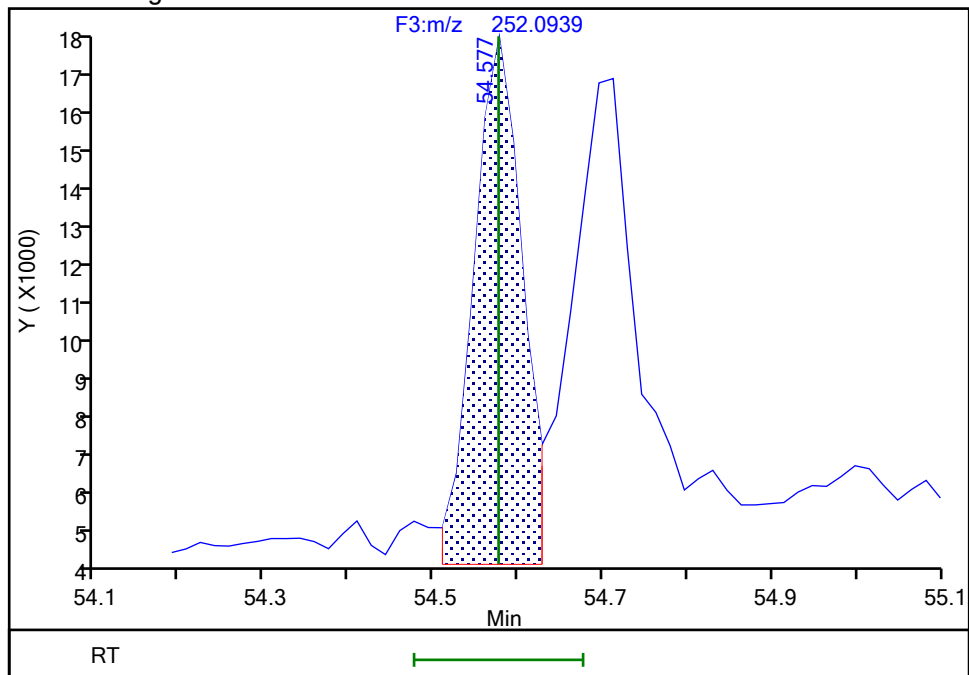
RT: 54.58  
Area: 135575  
Amount: 0.439334  
Amount Units: pg/ul

## Processing Integration Results



RT: 54.58  
Area: 56663  
Amount: 0.183618  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:39:09 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

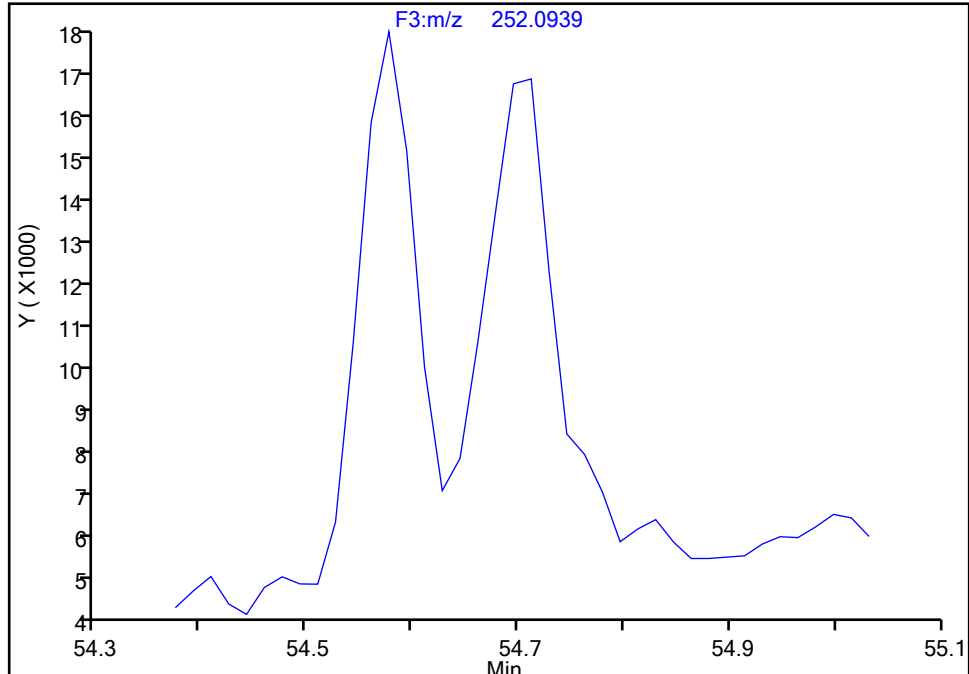
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-7-C Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 13  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

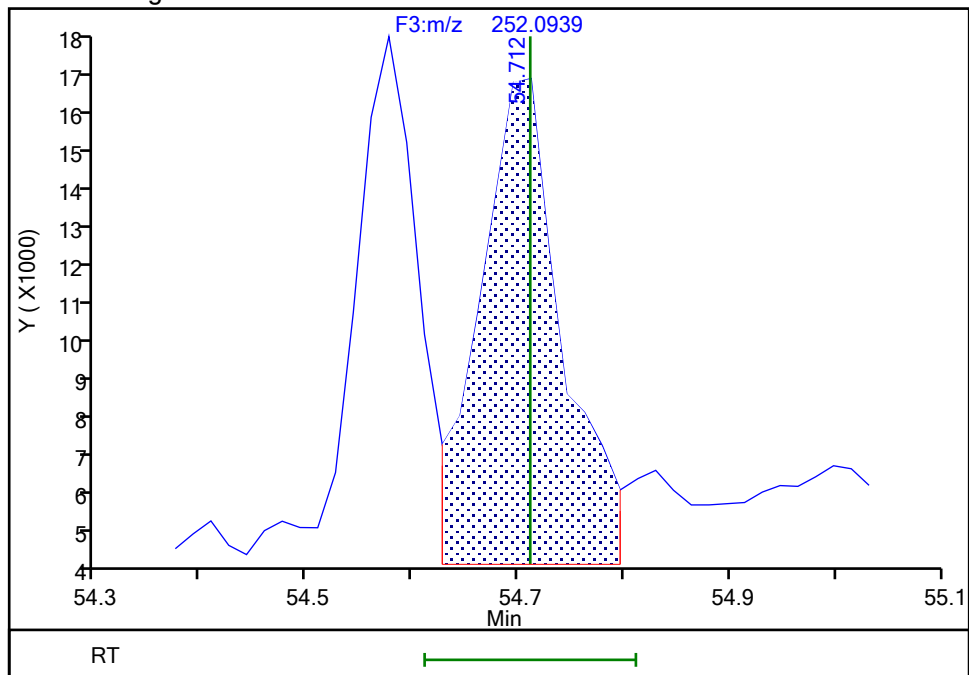
Not Detected  
Expected RT: 54.71

## Processing Integration Results



## Manual Integration Results

RT: 54.71  
Area: 71519  
Amount: 0.159720  
Amount Units: pg/ul



Reviewer: TT6I, 23-Jul-2024 10:40:05 -04:00:00 (UTC)

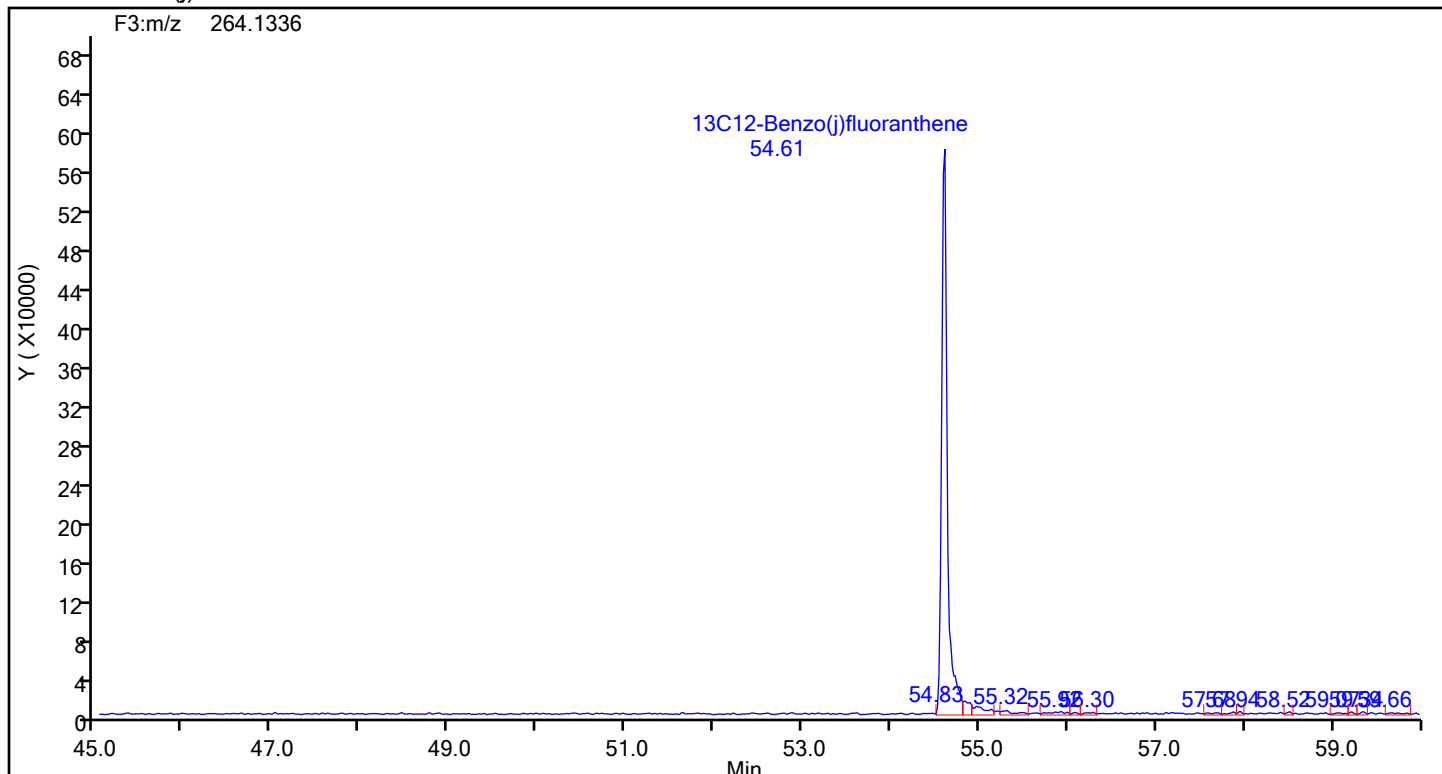
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

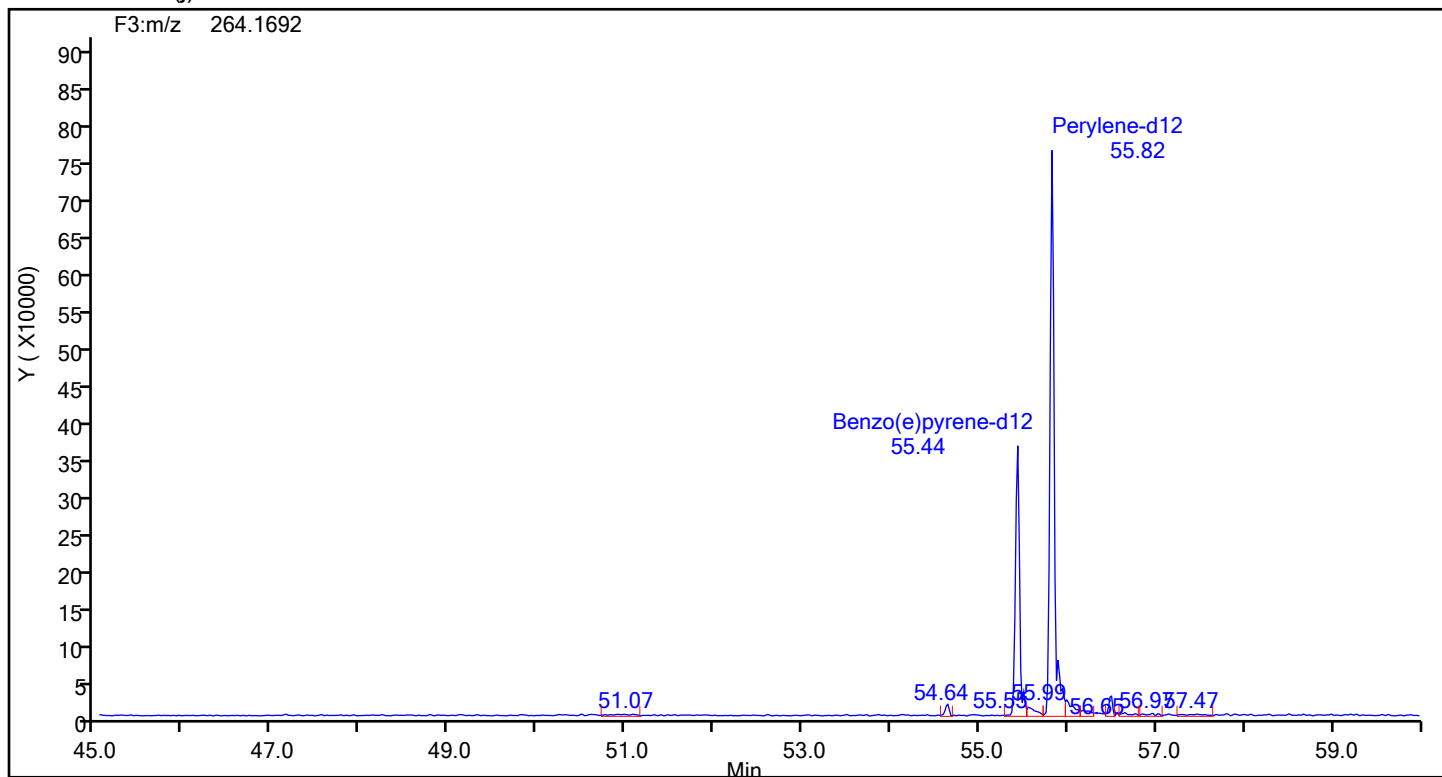
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 89013 Sample Line#: 13  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



## 13C12-Benzo(j)fluoranthene Standards

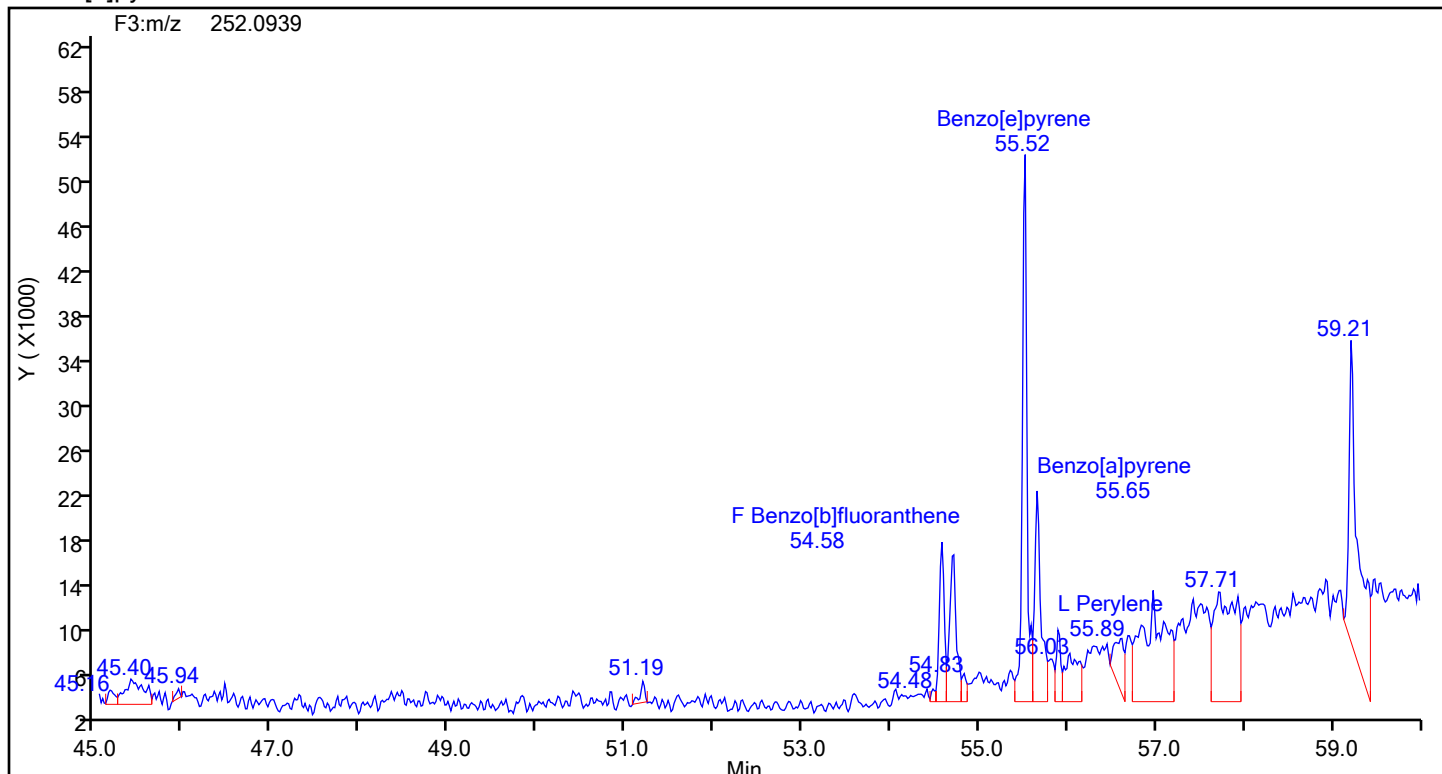




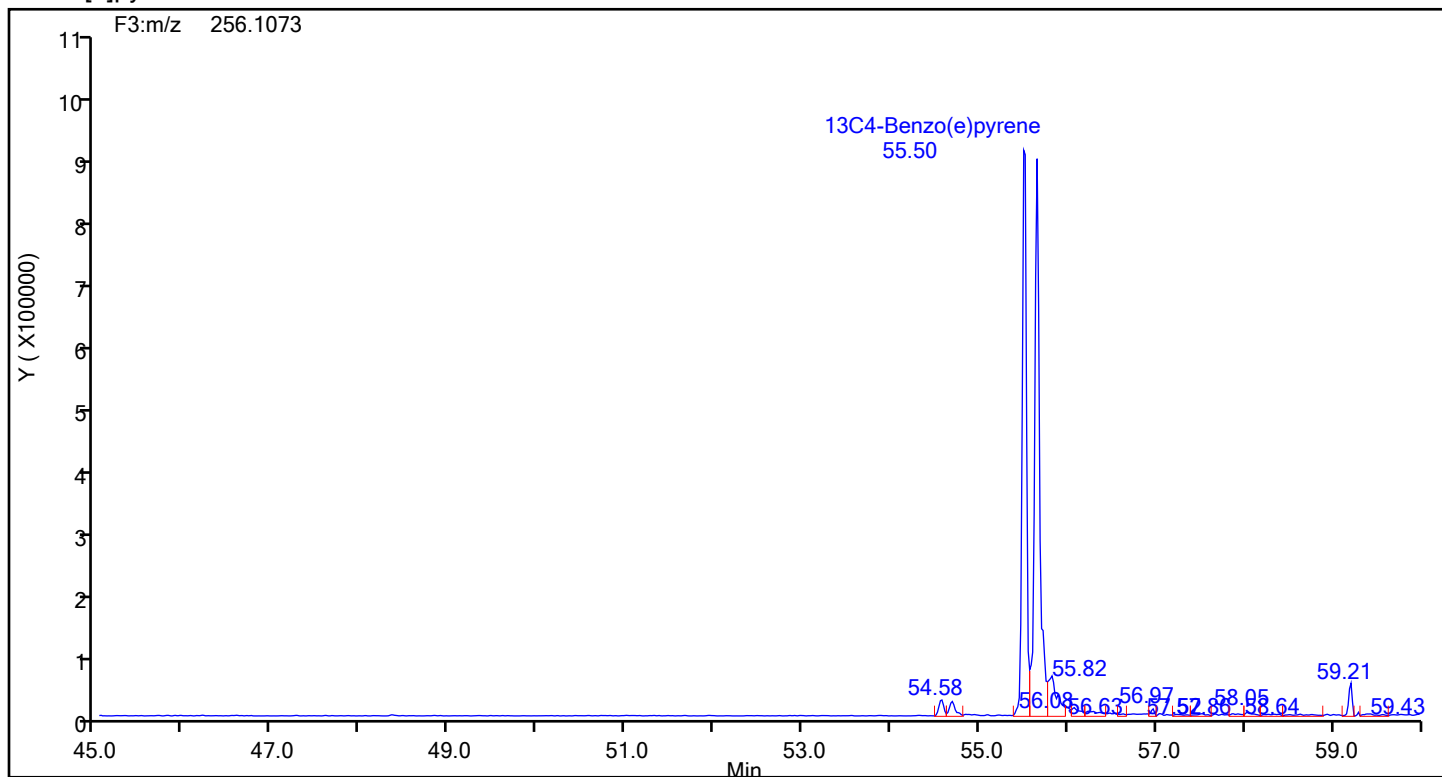
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 89013 Sample Line#: 13  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[e]pyrene



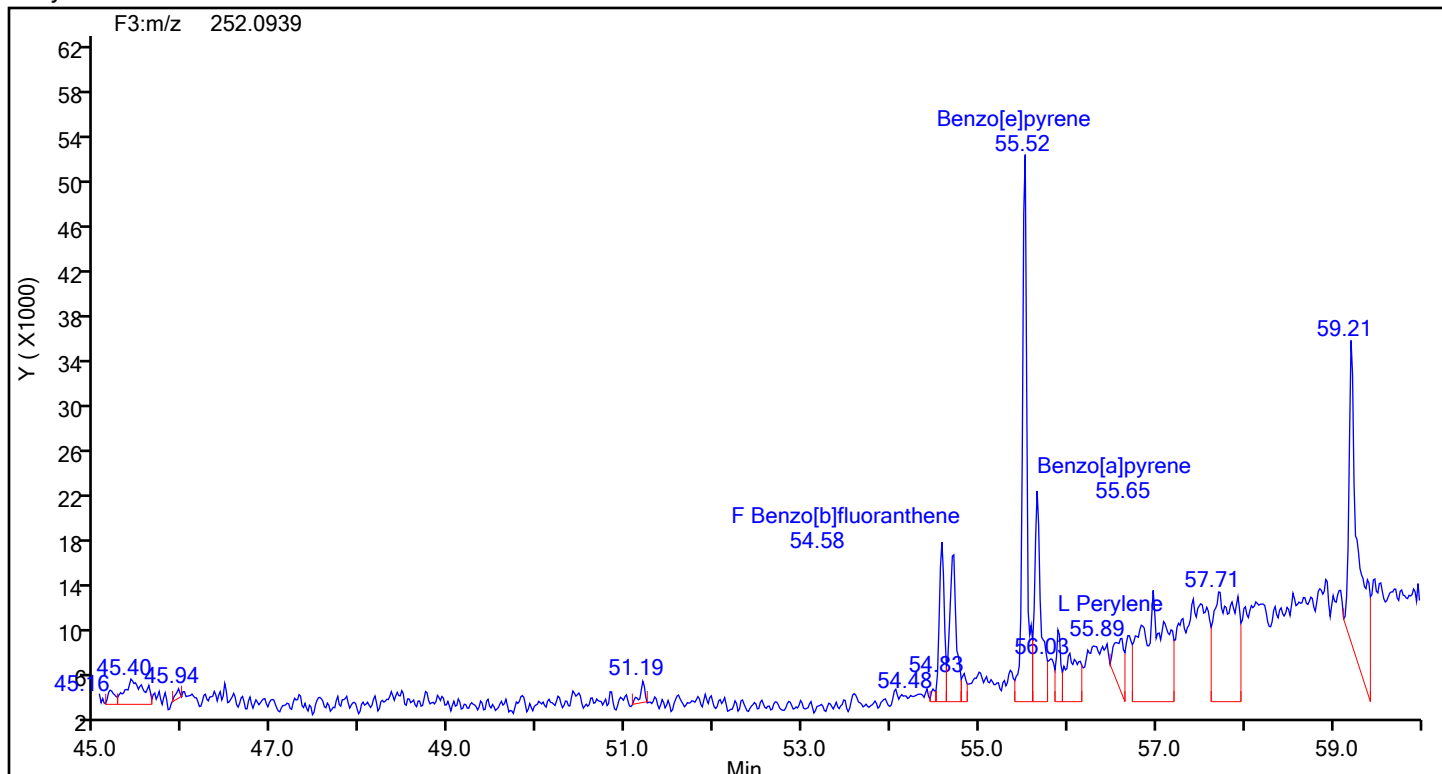
## Benzo[e]pyrene Standards



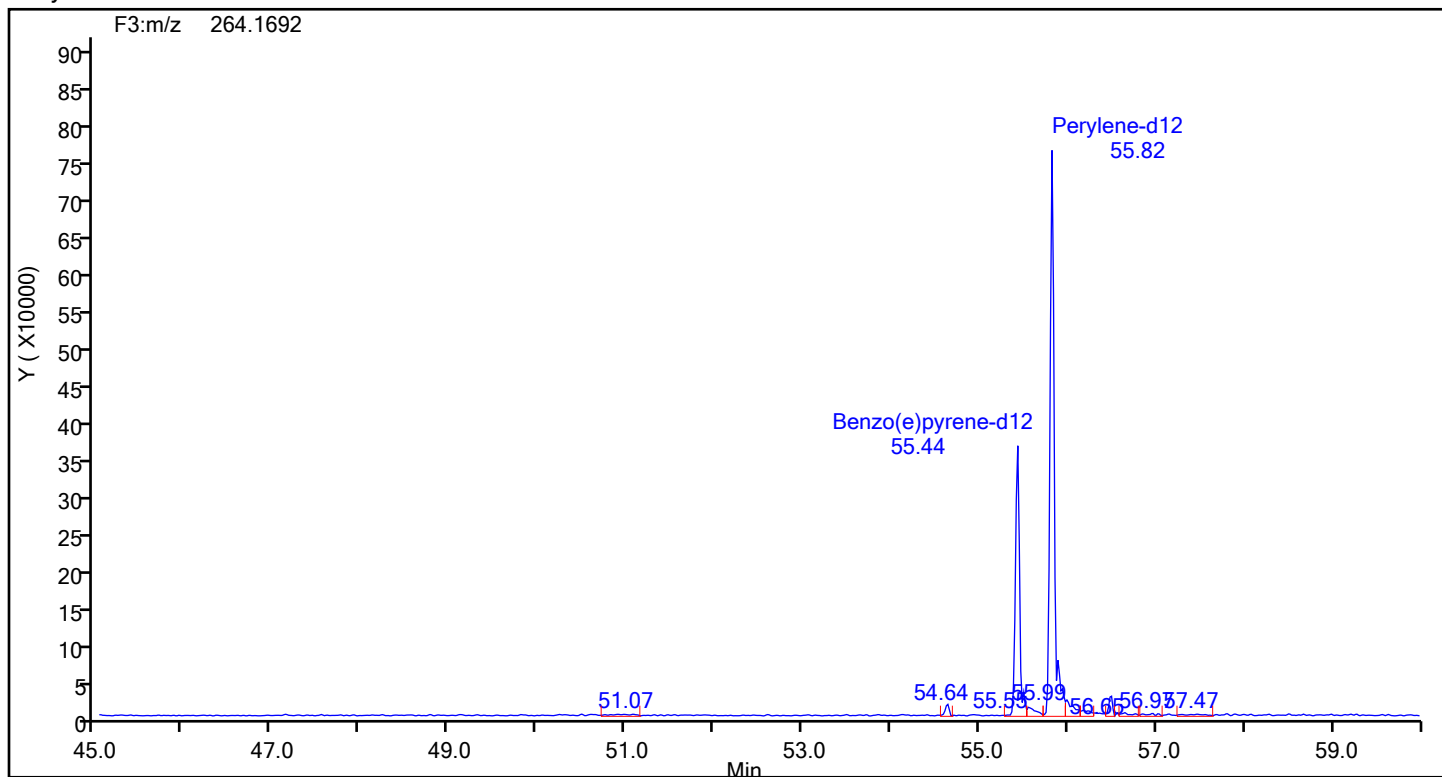
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 89013 Sample Line#: 13  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Perylene



## Perylene Standards



## Eurofins Knoxville

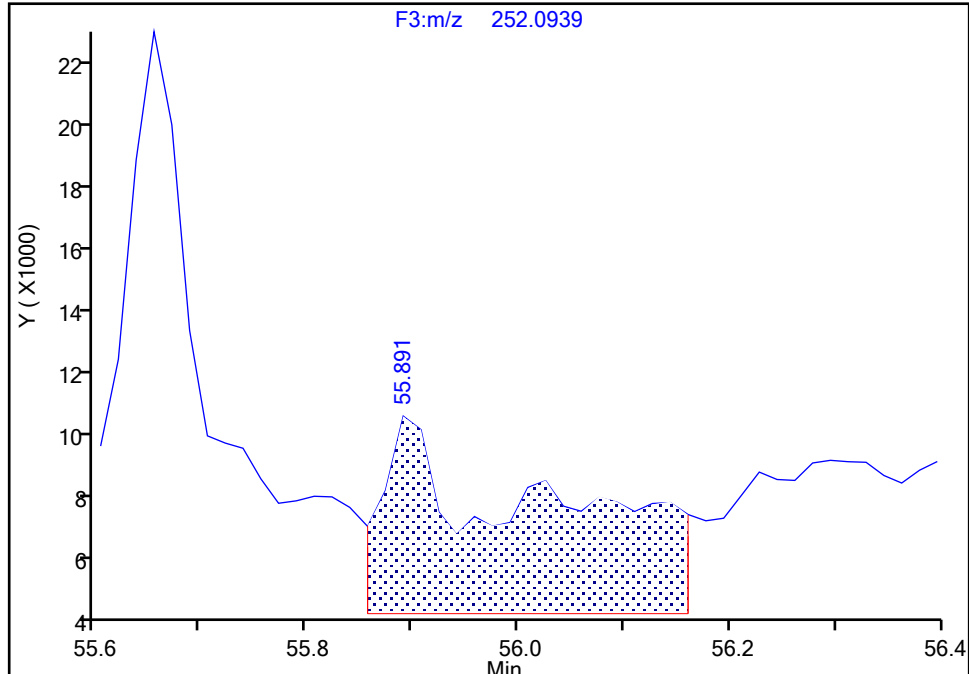
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Injection Date: 22-Jul-2024 22:33:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-7-C Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 13  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Perylene, CAS: 198-55-0

Signal: 1

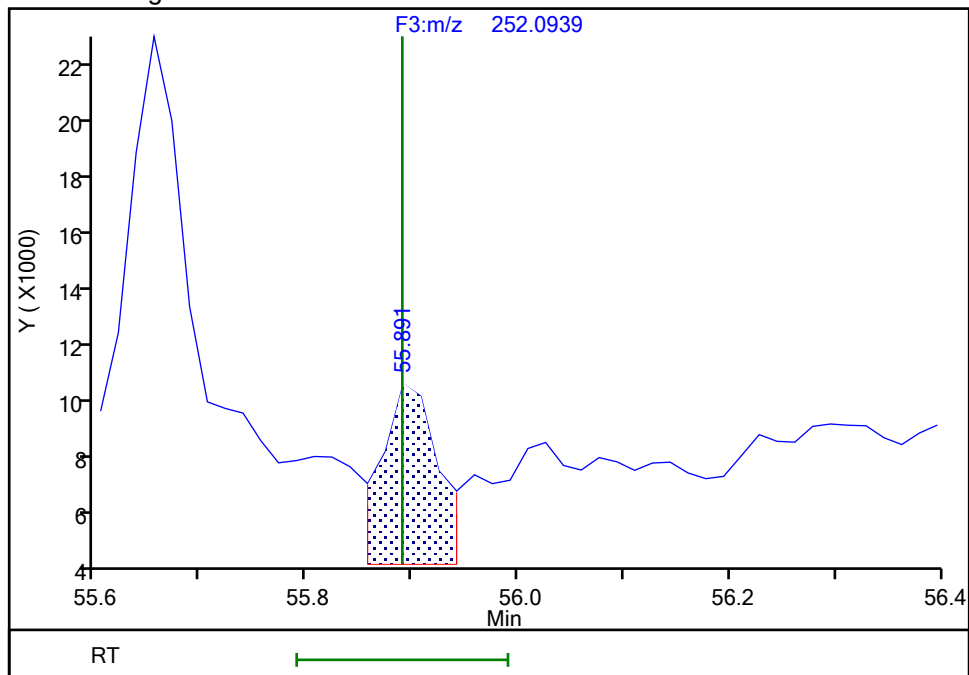
RT: 55.89  
Area: 66688  
Amount: 0.180366  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.89  
Area: 24827  
Amount: 0.067148  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:38:58 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d

Injection Date: 22-Jul-2024 22:33:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 8 COMBINED

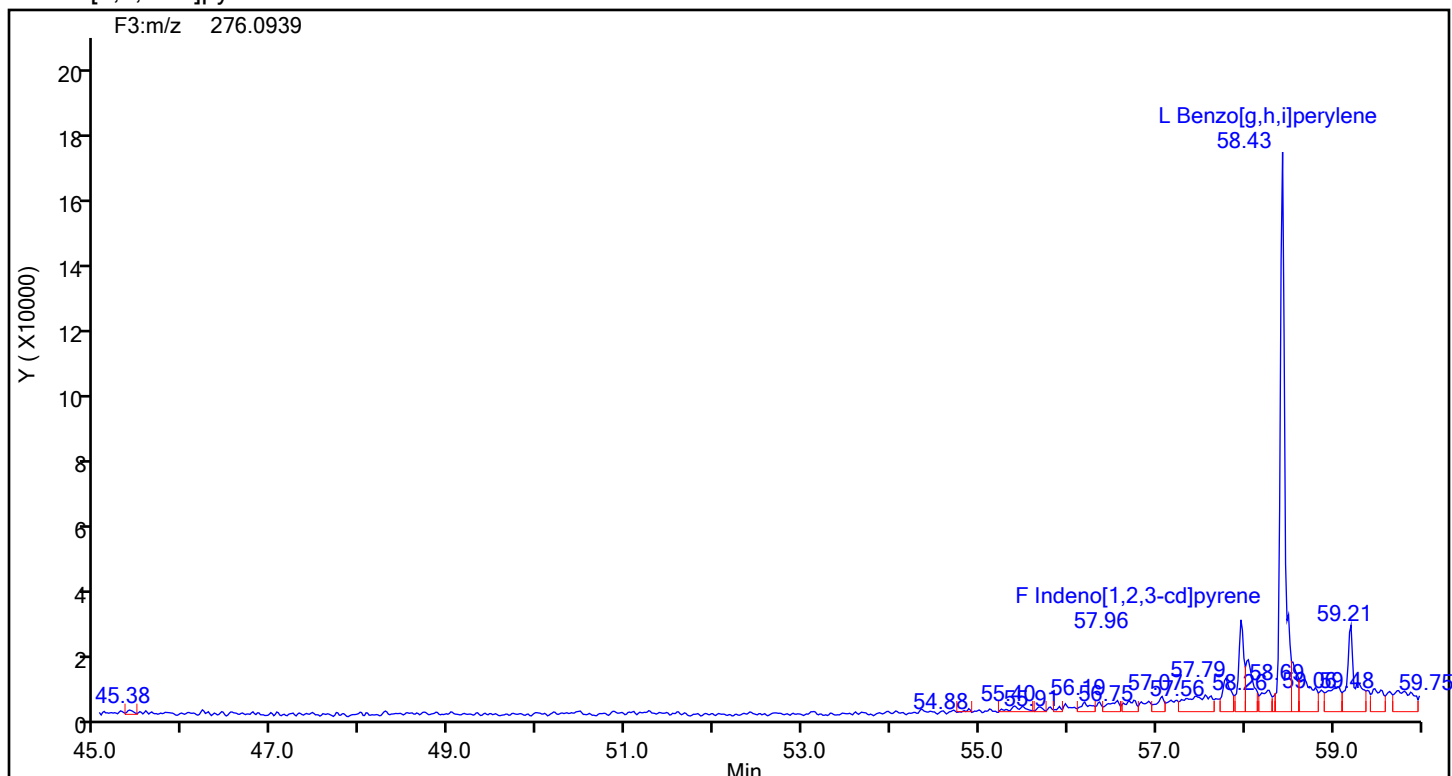
Worklist#: 89013

Sample Line#: 13

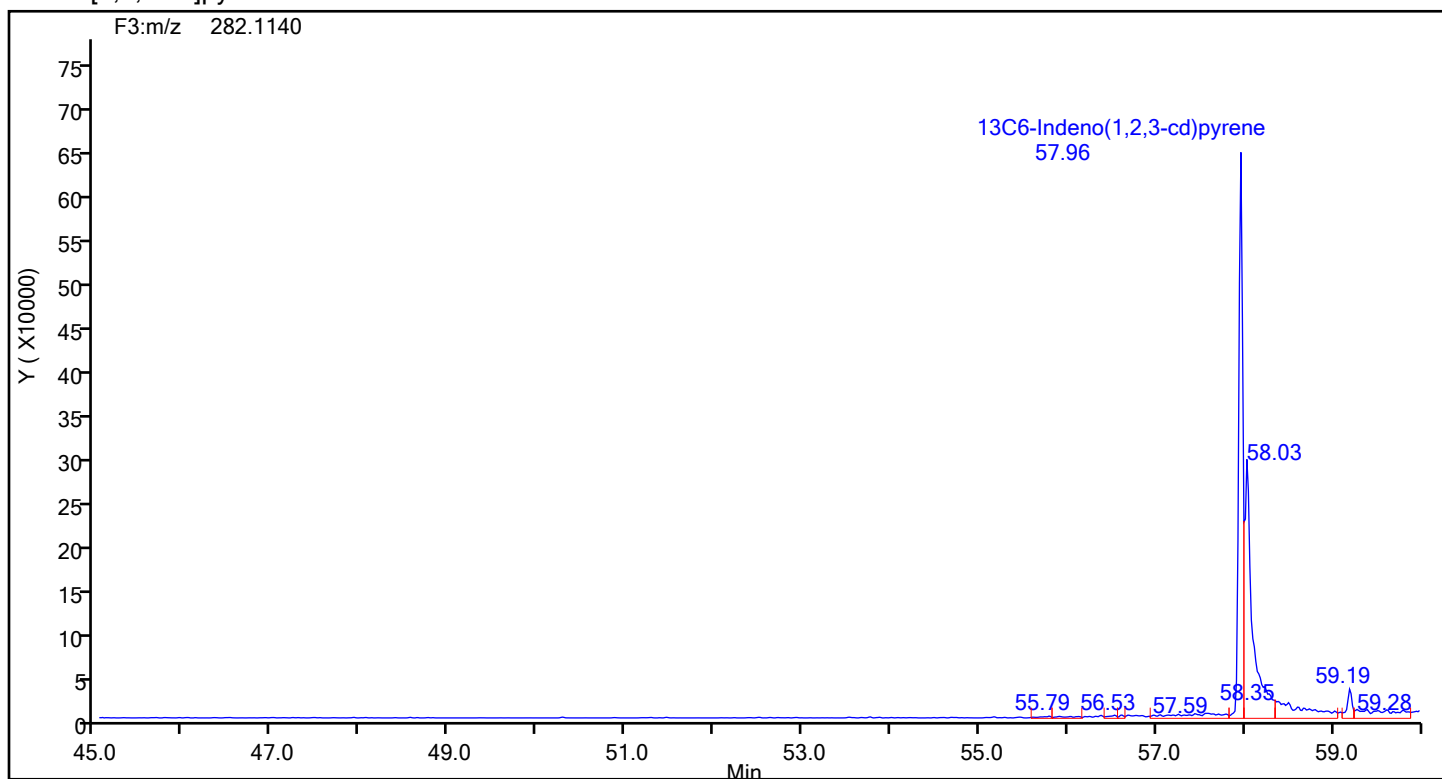
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

Indeno[1,2,3-cd]pyrene



Indeno[1,2,3-cd]pyrene Standards



## Eurofins Knoxville

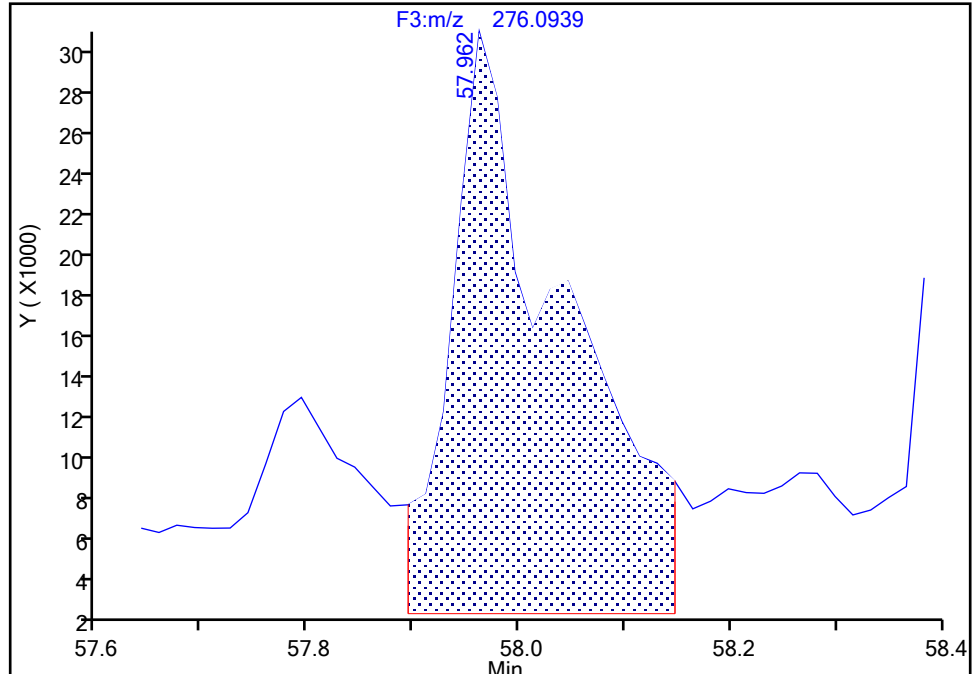
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-7-C Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 13  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

## Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

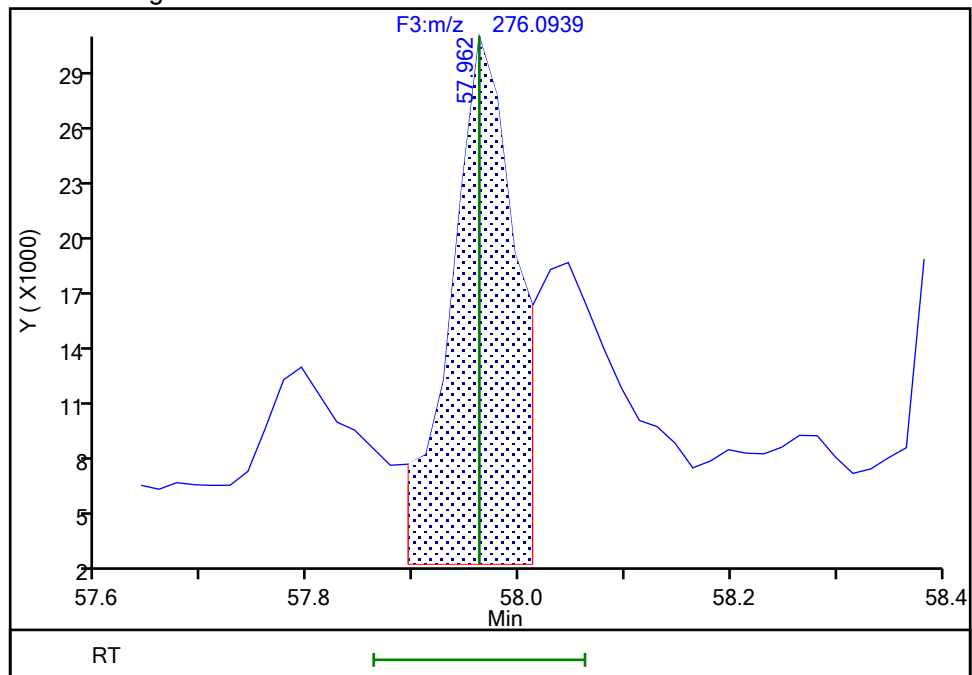
RT: 57.96  
Area: 204661  
Amount: 0.909009  
Amount Units: pg/ul

## Processing Integration Results



RT: 57.96  
Area: 123386  
Amount: 0.548024  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:38:08 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d

Injection Date: 22-Jul-2024 22:33:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 8 COMBINED

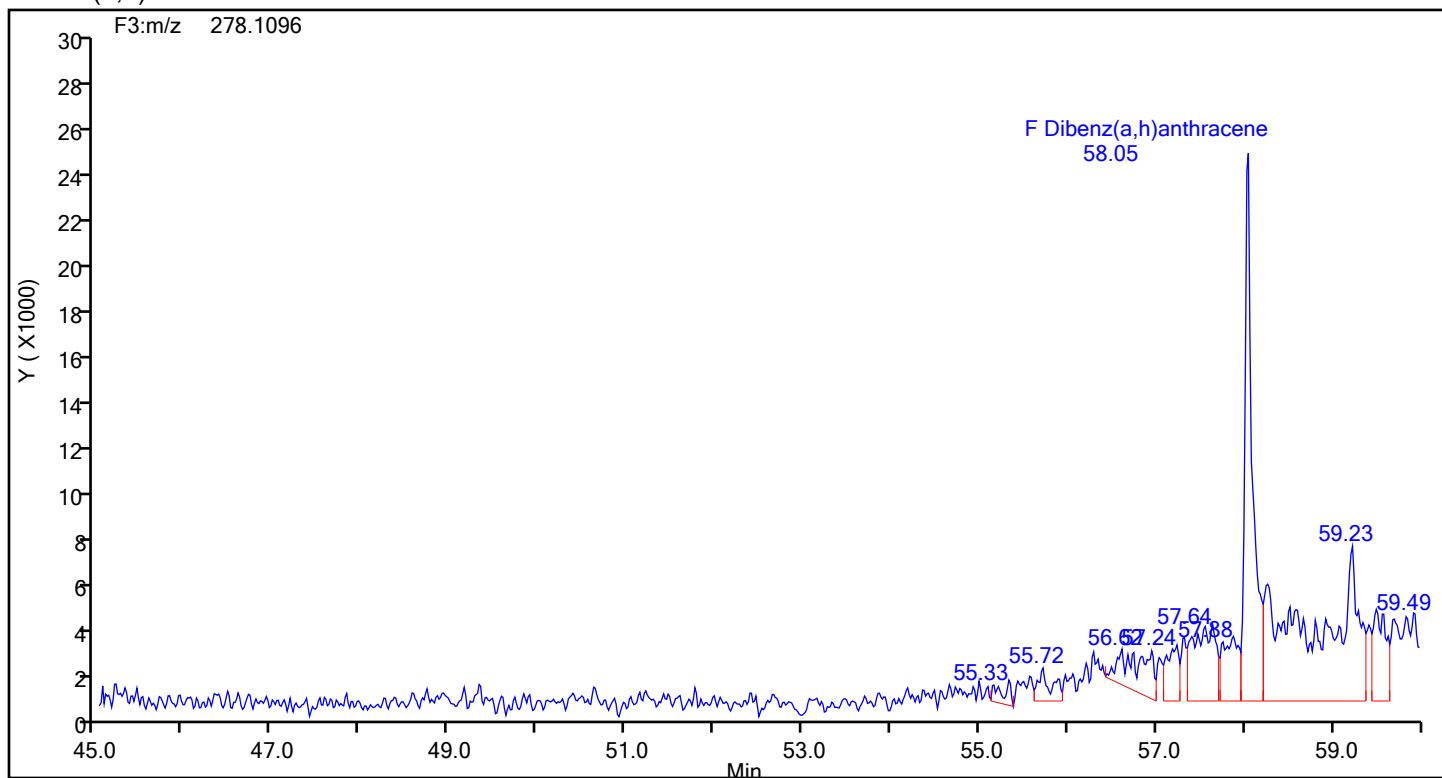
Worklist#: 89013

Sample Line#: 13

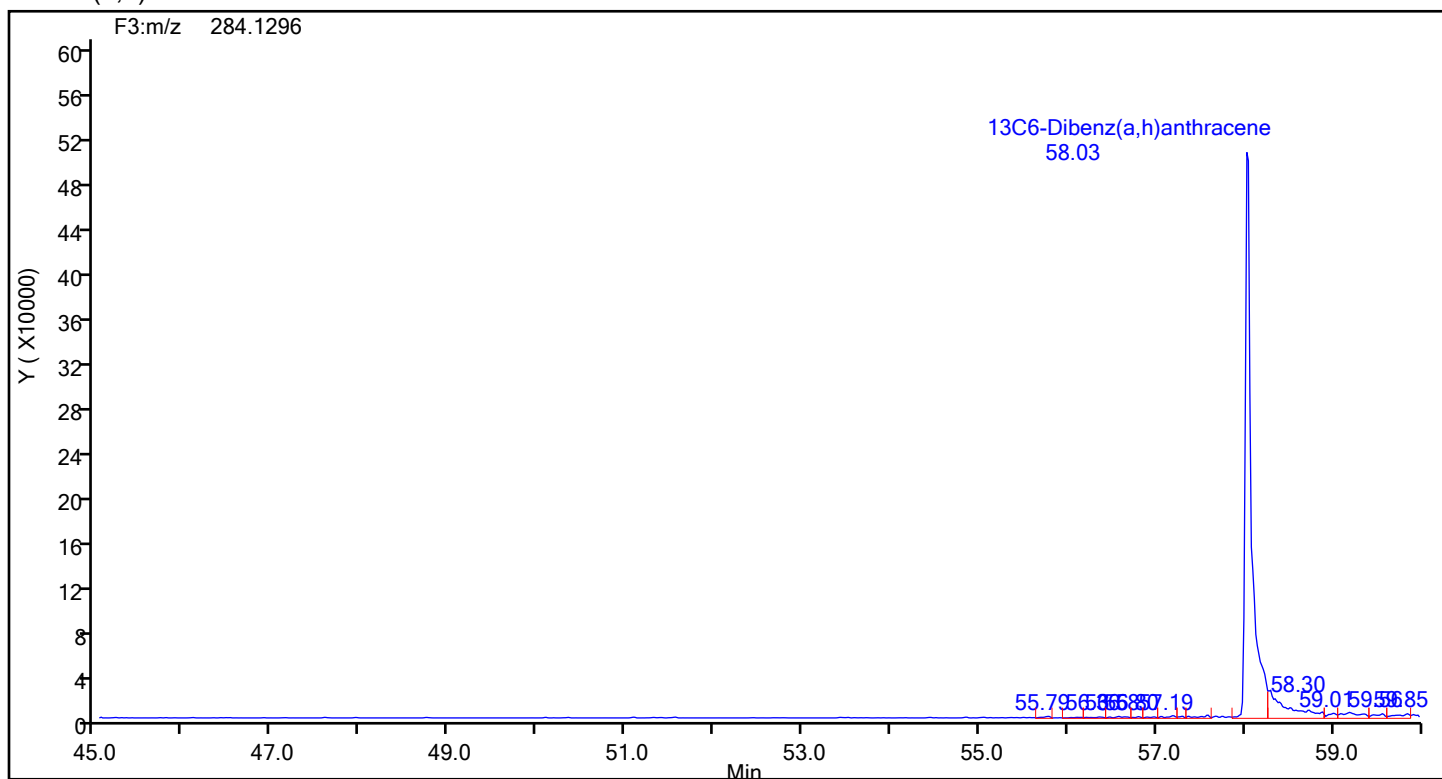
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

Dibenz(a,h)anthracene



Dibenz(a,h)anthracene Standards



## Eurofins Knoxville

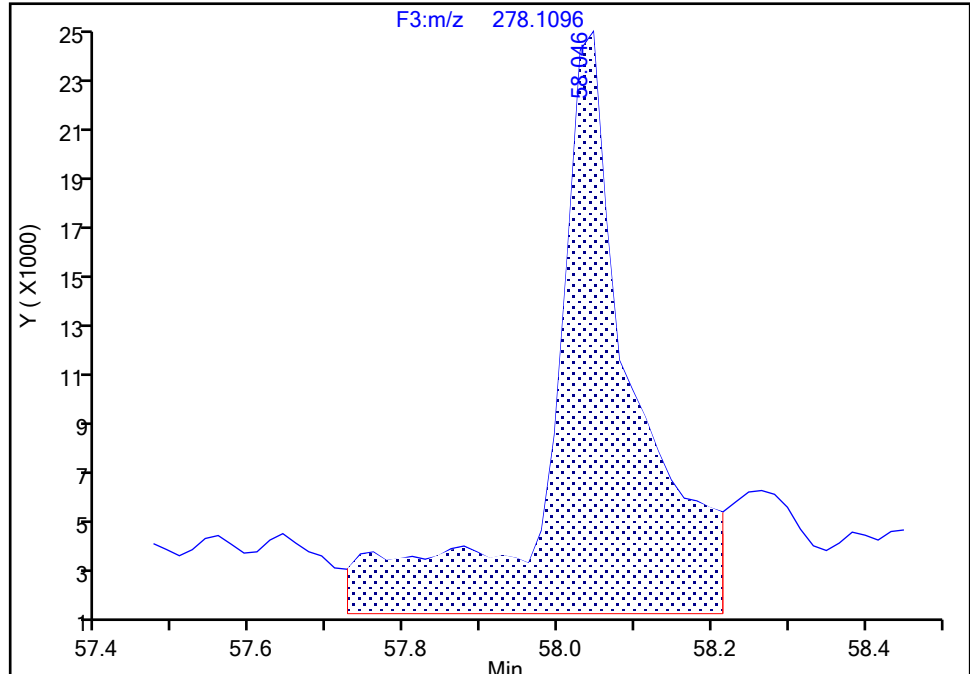
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-7-C Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 13  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

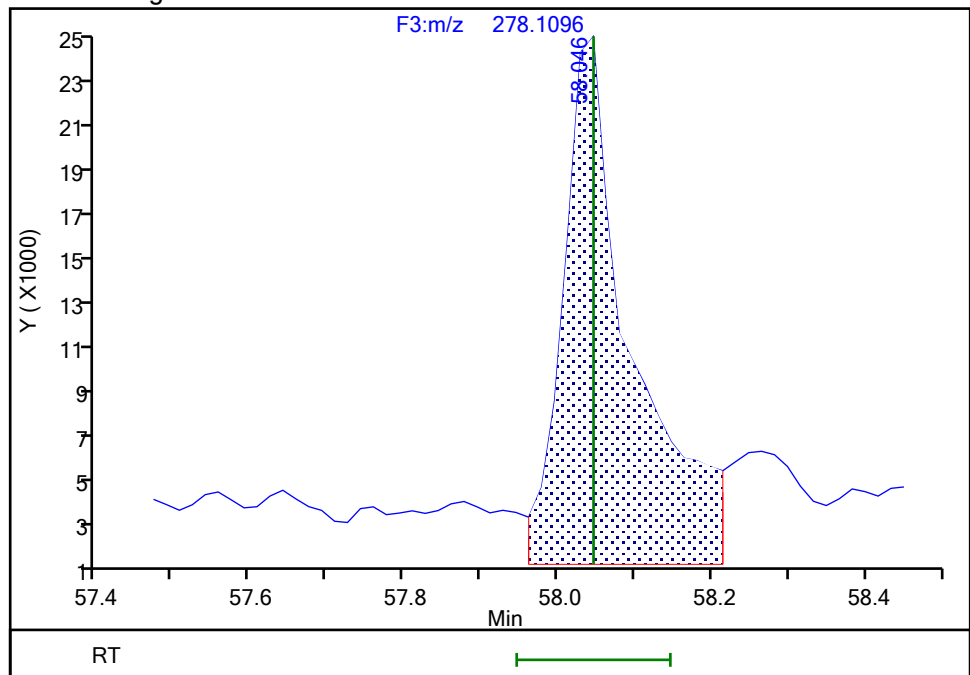
RT: 58.05  
Area: 174882  
Amount: 0.604154  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.05  
Area: 145231  
Amount: 0.501720  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:39:31 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

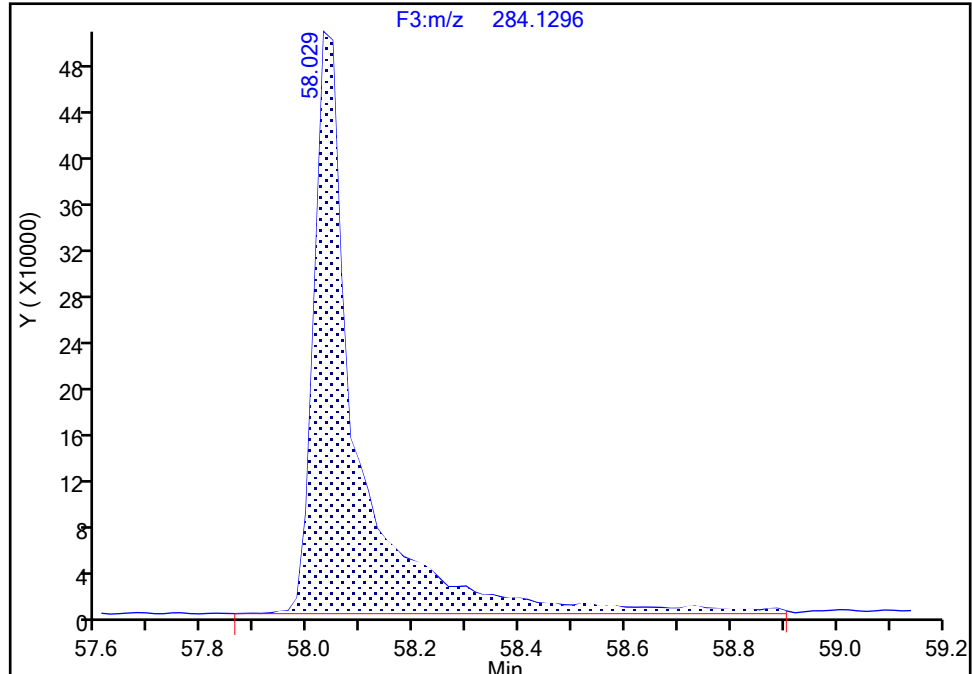
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-7-C Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 13  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

**13C6-Dibenz(a,h)anthracene, CAS: STL03360**

Signal: 1

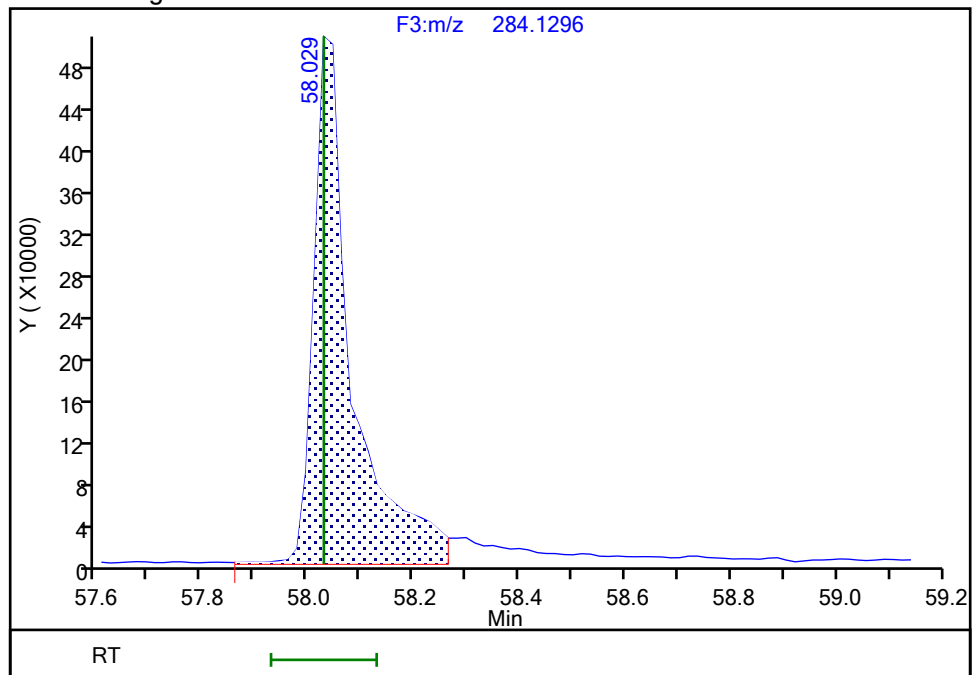
RT: 58.03  
Area: 2902862  
Amount: 11.554496  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.03  
Area: 2558536  
Amount: 10.183948  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:38:17 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d

Injection Date: 22-Jul-2024 22:33:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER RUN 8 COMBINED

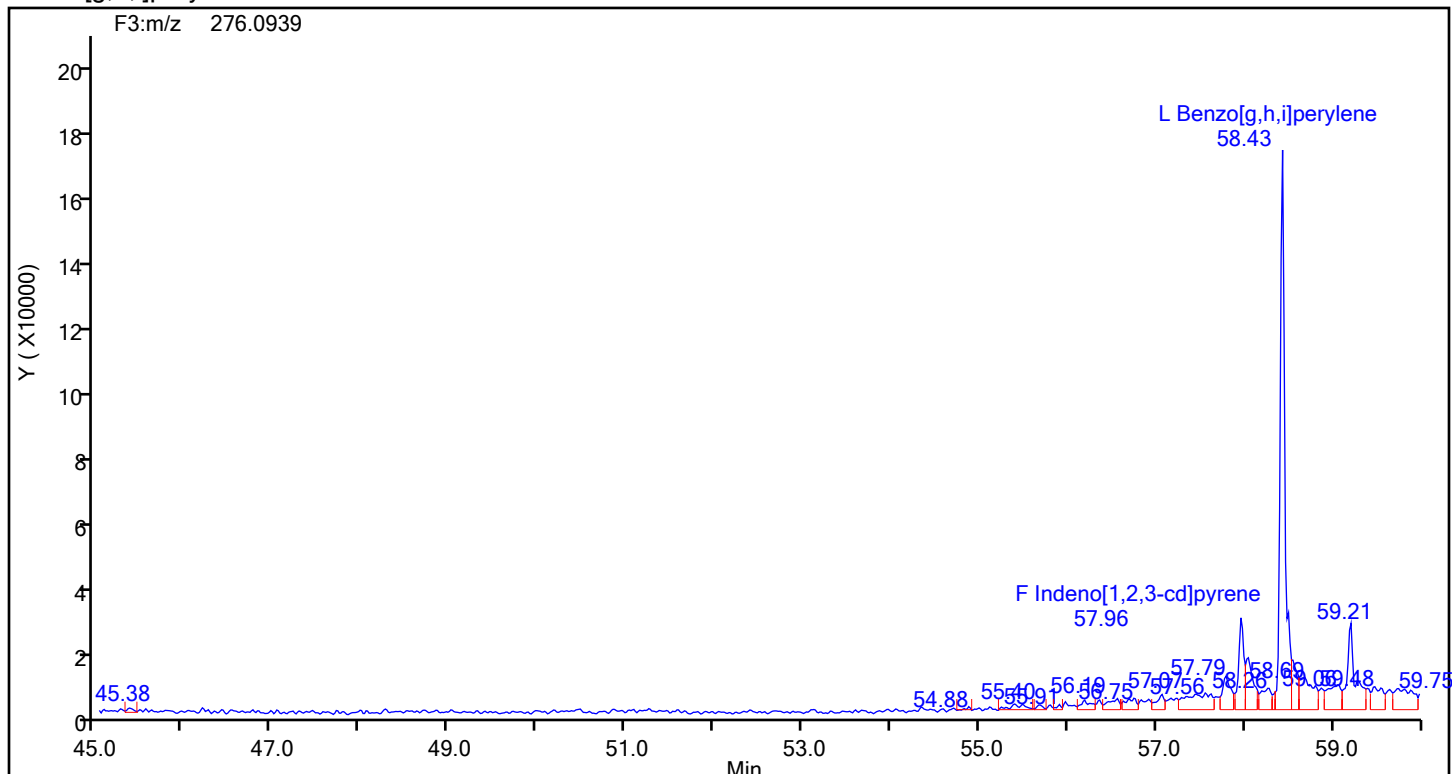
Worklist#: 89013

Sample Line#: 13

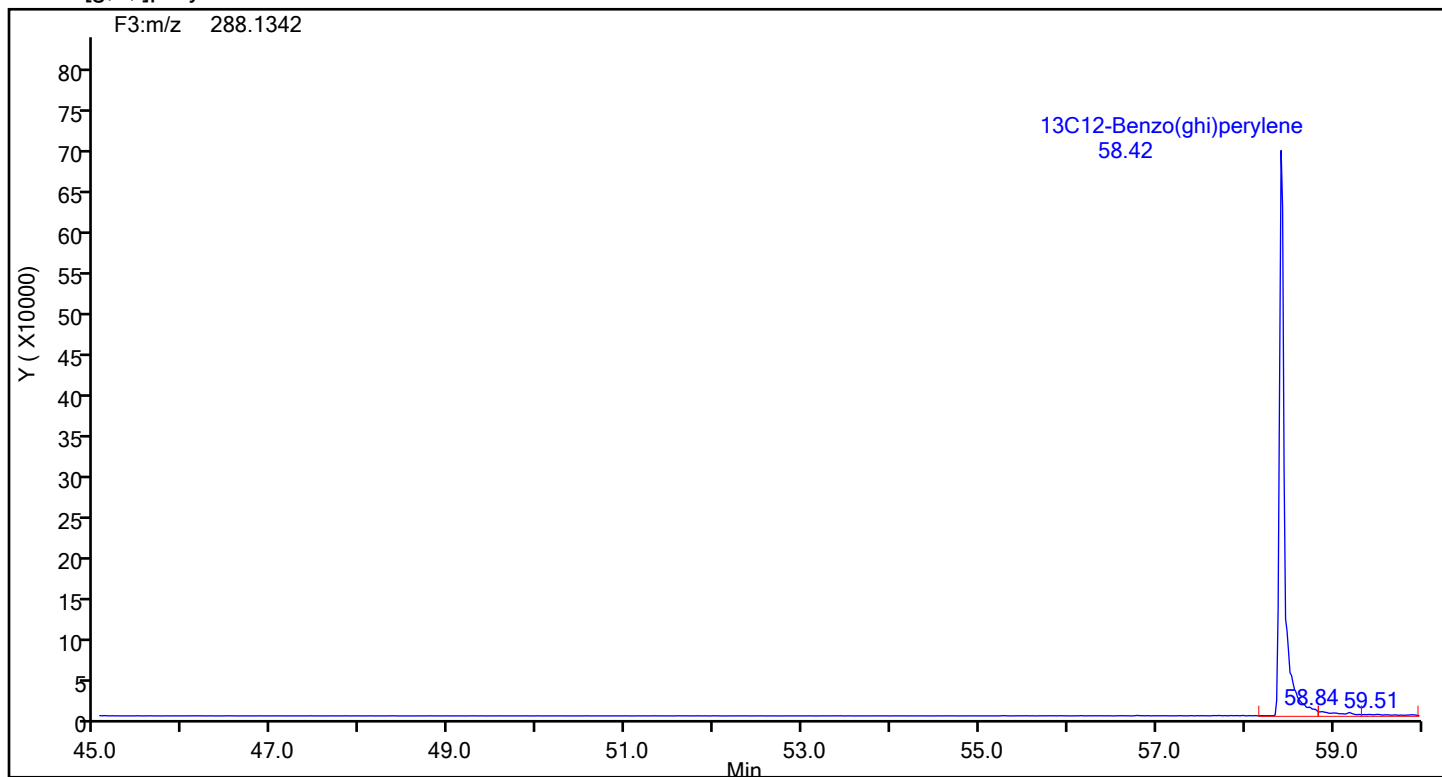
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Benzo[g,h,i]perylene



## Benzo[g,h,i]perylene Standards



## Eurofins Knoxville

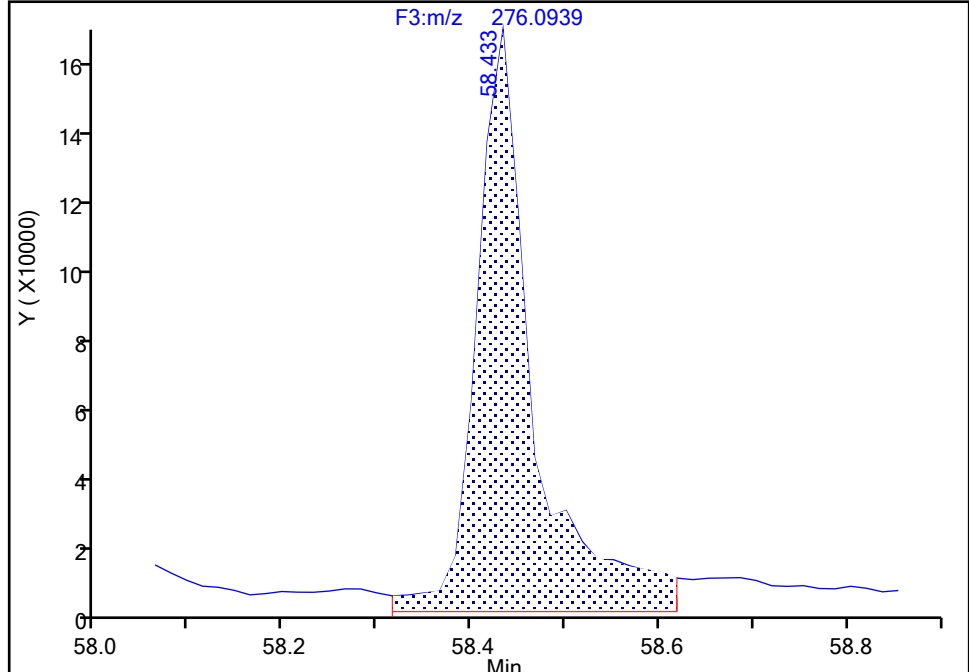
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Injection Date: 22-Jul-2024 22:33:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-7-C Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 13  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

**Benzo[g,h,i]perylene, CAS: 191-24-2**

Signal: 1

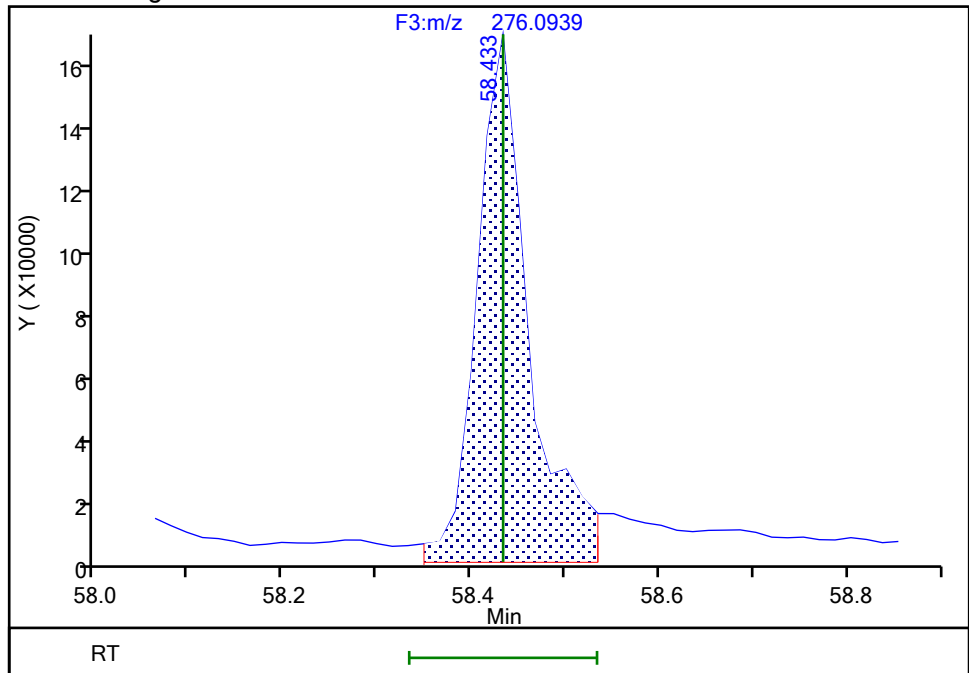
RT: 58.43  
Area: 708016  
Amount: 1.901821  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.43  
Area: 643769  
Amount: 1.729246  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 10:39:25 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-7-c.d  
Lims ID: 140-37234-A-7-C  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Sample Type: Client  
Inject. Date: 22-Jul-2024 22:33:00 ALS Bottle#: 0 Worklist Smp#: 13  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Sample Info:  
Misc. Info.: 140-0033599-012  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 23-Jul-2024 10:40:15 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1613

First Level Reviewer: TT6I

Date: 23-Jul-2024 10:40:15

Compound	Amount Added	Amount Recovered	% Rec.
Anthracin-d10	10.0	0.7278	72.78
13C6-Benzo(c)fluorene	100.0	9.89	98.85
13C12-Benzo(j)fluoranthene	100.0	8.16	81.56

FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER BT COMBINED</u>	Lab Sample ID: <u>140-37234-8</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-8-c.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/03/2024 17:00</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/22/2024 17:11</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>89013</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
91-20-3	Naphthalene	185	J B * +	750	750	0.579
91-57-6	2-Methylnaphthalene	94.1	J B	750	750	0.282
208-96-8	Acenaphthylene	5.97	J B	30.0	30.0	0.233
83-32-9	Acenaphthene	43.1	J B	300	300	0.233
86-73-7	Fluorene	129	J B	300	300	0.322
85-01-8	Phenanthrene	412	B	60.0	60.0	0.408
120-12-7	Anthracene	43.3	J B	300	300	0.342
206-44-0	Fluoranthene	29.2	J B	60.0	60.0	0.150
129-00-0	Pyrene	28.3	J B	60.0	60.0	0.150
56-55-3	Benzo[a]anthracene	1.12	J B	60.0	60.0	0.103
218-01-9	Chrysene	3.72	J B	60.0	60.0	0.0976
205-99-2	Benzo[b]fluoranthene	1.10	J B	300	300	0.0651
207-08-9	Benzo[k]fluoranthene	1.17	J B	60.0	60.0	0.0583
192-97-2	Benzo[e]pyrene	1.53	J B	60.0	60.0	0.0557
50-32-8	Benzo[a]pyrene	1.27	J B	30.0	30.0	0.0538
198-55-0	Perylene	0.544	J B	30.0	30.0	0.0460
193-39-5	Indeno[1,2,3-cd]pyrene	2.18	J B	30.0	30.0	0.0409
53-70-3	Dibenz(a,h)anthracene	3.09	J B	60.0	60.0	0.0390
191-24-2	Benzo[g,h,i]perylene	3.84	J B	60.0	60.0	0.0307

FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER BT COMBINED</u>	Lab Sample ID: <u>140-37234-8</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-8-c.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/03/2024 17:00</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/22/2024 17:11</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>10</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>89013</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02217	13C6-Naphthalene	60		20-130
STL03357	13C6-2-Methylnaphthalene	61		20-130
189811-56-1	13C6-Acenaphthylene	88		20-130
189811-57-2	13C6-Acenaphthene	85		20-130
STL00616	13C6-Fluorene	91		20-130
1397194-60-3	13C6-Fluoranthrene	88		20-130
1397214-90-2	13C3-Pyrene	84		20-130
917378-11-1	13C6-Benzo (a) anthracene	66		20-130
1397177-72-8	13C6-Chrysene	73		20-130
STL03358	13C6-Benzo (b) fluoranthene	77		20-130
1397194-60-3	13C6-Benzo (k) fluoranthene	85		20-130
STL03382	13C4-Benzo (e) pyrene	74		20-130
STL03359	13C4-Benzo (a) pyrene	83		20-130
1520-96-3	Perylene-d12	88		20-130
362044-56-2	13C6-Indeno (1,2,3-cd) pyrene	73		20-130
STL03360	13C6-Dibenz (a,h) anthracene	92		20-130
350820-11-0	13C12-Benzo (ghi) perylene	85		20-130
189811-60-7	13C6-Anthracene	85		20-130
1189955-53-0	13C6-Phenanthrene	72		20-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Lims ID: 140-37234-A-8-C  
Client ID: M23 F-10 BOILER BT COMBINED  
Sample Type: Client  
Inject. Date: 22-Jul-2024 17:11:00 ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Sample Info:  
Misc. Info.: 140-0033599-008  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 23-Jul-2024 09:57:11 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1613

First Level Reviewer: TT6I

Date: 23-Jul-2024 09:57:11

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:31	4015483		3.3746	6.024	6.024	0.001486	0.001486	60.24	
Naphthalene	11:32	6401200		1.2893	12.4	12.4	0.0386	0.0386		
D 13C6-2-Methylnaphthalene	13:50	1945254		1.6031	6.143	6.143	0.001232	0.001232	61.43	
2-Methylnaphthalene	13:50	1560771		1.2786	6.275	6.275	0.0188	0.0188		M
D 13C6-Acenaphthylene	16:42	2885249		1.6520	8.842	8.842	0.002808	0.002808	88.42	
Acenaphthylene	16:42	154058		2.3661	0.3980	0.3980	0.0155	0.0155		M
* Acenaphthene-d10	17:16	987670		3.5E+04	5.000	5.000				
D 13C6-Acenaphthene	17:23	1635748		0.9792	8.457	8.457	0.002858	0.002858	84.57	
Acenaphthene	17:24	597311		1.2697	2.876	2.876	0.0155	0.0155		
D 13C6-Fluorene	19:40	1600936		0.8898	9.108	9.108	0.004911	0.004911	91.08	
Fluorene	19:41	1729255		1.2532	8.619	8.619	0.0215	0.0215		
D 13C6-Phenanthrene	25:03	2299373		0.5724	7.169	7.169	0.001996	0.001996	71.69	
Phenanthrene	25:04	6978368		1.1044	27.5	27.5	0.0272	0.0272		M
\$ Anthracin-d10	25:16	223637		0.4257	0.9376	0.9376	0.000599	0.000599	93.76	
D 13C6-Anthracene	25:23	2162896		0.4523	8.534	8.534	0.002526	0.002526	85.34	
Anthracene	25:23	849046		1.3586	2.889	2.889	0.0228	0.0228		
D 13C6-Fluoranthrene	33:48	5934963		1.1994	8.832	8.832	0.006396	0.006396	88.32	
Fluoranthene	33:48	1329150		1.1513	1.945	1.945	0.0100	0.0100		M
* Pyrene-d10	35:21	2801388		7.9E+04	5.000	5.000				
D 13C3-Pyrene	35:29	6326529		1.3512	8.357	8.357	0.004983	0.004983	83.57	
Pyrene	35:29	1272569		1.0652	1.888	1.888	0.0100	0.0100		M
\$ 13C6-Benzo(c)fluorene	39:12	2873472		0.5136	9.986	9.986	0.002980	0.002980	99.86	
D 13C6-Benzo(a)anthracene	46:01	5386095		1.5189	6.617	6.617	0.004097	0.004097	66.17	
Benzo[a]anthracene	46:02	39159		0.9739	0.0747	0.0747	0.006887	0.006887		M
D 13C6-Chrysene	46:18	6334751		1.6287	7.257	7.257	0.003821	0.003821	72.57	
Chrysene	46:18	154340		0.9815	0.2482	0.2482	0.006506	0.006506		
D 13C6-Benzo(b)fluoranthene	54:36	6010781		1.4621	7.671	7.671	0.001213	0.001213	76.71	
Benzo[b]fluoranthene	54:36	49755		1.1249	0.0736	0.0736	0.004340	0.004340		M
\$ 13C12-Benzo(j)fluoranthene	54:37	5828233		1.3558	8.021	8.021	0.003576	0.003576	80.21	
D 13C6-Benzo(k)fluoranthene	54:43	7974723		1.7507	8.500	8.500	0.001013	0.001013	85.00	
Benzo[k]fluoranthene	54:43	69907		1.1271	0.0778	0.0778	0.003884	0.003884		M
* Benzo(e)pyrene-d12	55:27	2679658		5.7E+04	5.000	5.000				
D 13C4-Benzo(e)pyrene	55:31	6531534		1.6368	7.446	7.446	0.001996	0.001996	74.46	
Benzo[e]pyrene	55:32	66912		1.0013	0.1023	0.1023	0.003714	0.003714		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C4-Benzo(a)pyrene	55:40	6922517		1.5508	8.329	8.329	0.002107	0.002107	83.29	
Benzo[a]pyrene	55:40	65374		1.1130	0.0848	0.0848	0.003588	0.003588		
D Perylene-d12	55:51	5618165		1.1917	8.797	8.797	0.004180	0.004180	87.97	
Perylene	55:55	29131		1.4307	0.0362	0.0362	0.003066	0.003066		M
D 13C6-Indeno(1,2,3-cd)pyrene	57:59	4023087		1.0218	7.346	7.346	0.003328	0.003328	73.46	
Indeno[1,2,3-cd]pyrene	57:59	65846		1.1249	0.1455	0.1455	0.002728	0.002728		M
D 13C6-Dibenz(a,h)anthracene	58:03	5227957		1.0553	9.244	9.244	0.002171	0.002171	92.44	
Dibenz(a,h)anthracene	58:03	121855		1.1314	0.2060	0.2060	0.002603	0.002603		M
D 13C12-Benzo(ghi)perylene	58:26	5814991		1.2749	8.511	8.511	0.000573	0.000573	85.11	
Benzo[g,h,i]perylene	58:27	191301		1.2838	0.2563	0.2563	0.002045	0.002045		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Lims ID: 140-37234-A-8-C  
Client ID: M23 F-10 BOILER BT COMBINED  
Sample Type: Client  
Inject. Date: 22-Jul-2024 17:11:00 ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Sample Info:  
Misc. Info.: 140-0033599-008  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAL ICAL  
Last Update: 23-Jul-2024 09:57:11 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1613

First Level Reviewer: TT61

Date: 23-Jul-2024 09:57:11

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:31	11:29	2	0.667	4015483	1295709	134	335	9669		
Naphthalene											
128.0626	11:32	11:30	2	1.001	6401200	2103447	2579	6447	816		
13C6-2-Methylnaphthalene											
148.0984	13:50	13:49	1	0.801	1945254	870430	53	132	16423		
2-Methylnaphthalene											
142.0783	13:50	13:50	0	1.000	1560771	697416	837	2092	833		M
13C6-Acenaphthylene											
158.0828	16:42	16:41	0	0.967	2885249	978686	124	310	7893		
Acenaphthylene											
152.0626	16:42	16:42	-1	1.000	154058	51894	789	1972	66		M
Acenaphthene-d10											
164.1404	17:16	17:16	0		987670	334121	21	52	15911		
13C6-Acenaphthene											
160.0984	17:23	17:23	-1	1.007	1635748	537428	75	187	7166		
Acenaphthene											
154.0783	17:24	17:23	0	1.001	597311	197677	424	1060	466		
13C6-Fluorene											
172.0984	19:40	19:40	-1	1.139	1600936	457489	117	292	3910		
Fluorene											
166.0783	19:41	19:40	-1	1.001	1729255	481523	492	1230	979		
13C6-Phenanthrene											
184.0984	25:03	25:03	-1	0.709	2299373	499233	45	112	11094		
Phenanthrene											
178.0783	25:04	25:04	-1	1.000	6978368	1485955	600	1500	2477		M



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:16	25:15	-1	0.715	223637	46892	10	25	4689		
13C6-Anthracene											
184.0984	25:23	25:22	-1	0.718	2162896	484833	45	112	10774		
Anthracene											
178.0783	25:23	25:22	-1	1.000	849046	150421	600	1500	251		
13C6-Fluoranthrene											
208.0984	33:48	33:47	0	0.956	5934963	976110	301	752	3243		
Fluoranthrene											
202.0783	33:48	33:48	0	1.000	1329150	237078	451	1127	526		M
Pyrene-d10											
212.1404	35:21	35:21	0		2801388	490114	73	182	6714		M
13C3-Pyrene											
205.0883	35:29	35:28	0	1.004	6326529	1058581	264	660	4010		M
Pyrene											
202.0783	35:29	35:29	0	1.000	1272569	221020	451	1127	490		M
13C6-Benzo(c)fluorene											
222.1134	39:12	39:11	1	0.707	2873472	474591	60	150	7910		
13C6-Benzo(a)anthracene											
234.1140	46:01	45:59	1	1.302	5386095	790249	375	937	2107		
Benzo[a]anthracene											
228.0939	46:02	46:02	2	1.000	39159	6508	212	530	31		M
13C6-Chrysene											
234.1140	46:18	46:15	1	1.310	6334751	830025	375	937	2213		
Chrysene											
228.0939	46:18	46:16	1	1.000	154340	21978	212	530	104		
13C6-Benzo(b)fluoranthene											
258.1140	54:36	54:35	1	0.985	6010781	1474754	107	267	13783		
Benzo[b]fluoranthene											
252.0939	54:36	54:36	1	1.000	49755	11144	288	720	39		M
13C12-Benzo(j)fluoranthene											
264.1336	54:37	54:37	0	0.985	5828233	1261402	292	730	4320		M
13C6-Benzo(k)fluoranthene											
258.1140	54:43	54:42	1	0.987	7974723	1644629	107	267	15370		
Benzo[k]fluoranthene											
252.0939	54:43	54:43	0	1.000	69907	14281	288	720	50		M
Benzo(e)pyrene-d12											
264.1692	55:27	55:27	1		2679658	752895	300	750	2510		M
13C4-Benzo(e)pyrene											
256.1073	55:31	55:32	0	1.001	6531534	1936409	197	492	9829		
Benzo[e]pyrene											
252.0939	55:32	55:31	1	1.000	66912	14622	288	720	51		
13C4-Benzo(a)pyrene											
256.1073	55:40	55:40	1	1.004	6922517	1803014	197	492	9152		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Benzo[a]pyrene											
252.0939	55:40	55:40	1	1.000	65374	13643	288	720	47		
Perylene-d12											
264.1692	55:51	55:50	1	1.007	5618165	1641577	300	750	5472		
Perylene											
252.0939	55:55	55:55	1	1.001	29131	5620	288	720	20		M
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	57:59	57:58	1	1.046	4023087	1212258	205	512	5913		
Indeno[1,2,3-cd]pyrene											
276.0939	57:59	57:59	1	1.000	65846	16012	149	372	107		M
13C6-Dibenz(a,h)anthracene											
284.1296	58:03	58:02	1	1.047	5227957	1103535	138	345	7997		
Dibenz(a,h)anthracene											
278.1096	58:03	58:03	0	1.000	121855	25295	130	325	195		M
13C12-Benzo(ghi)perylene											
288.1342	58:26	58:27	0	1.054	5814991	1416907	44	110	32202		
Benzo[g,h,i]perylene											
276.0939	58:27	58:27	1	1.000	191301	47273	149	372	317		M

### QC Flag Legend

Processing Flags

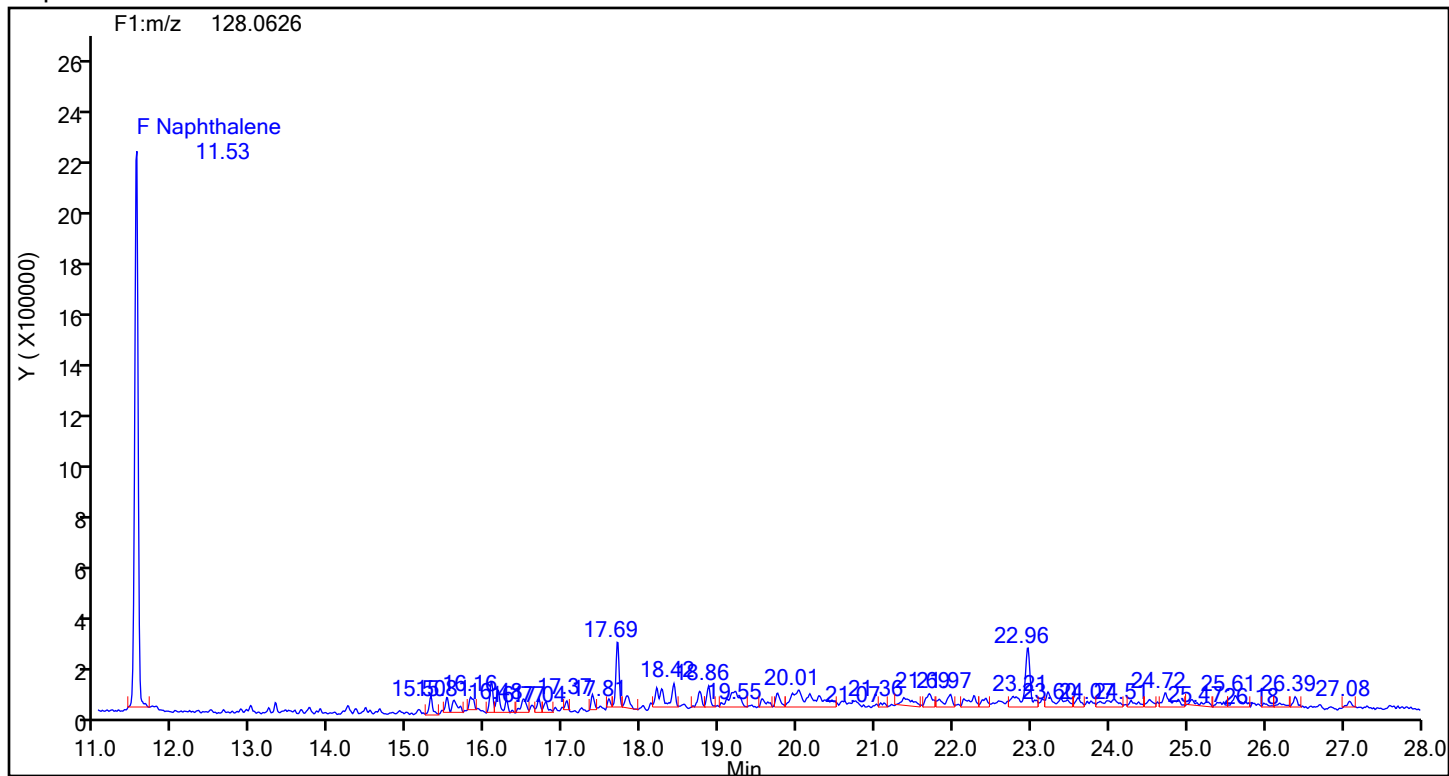
Review Flags

M - Manually Integrated

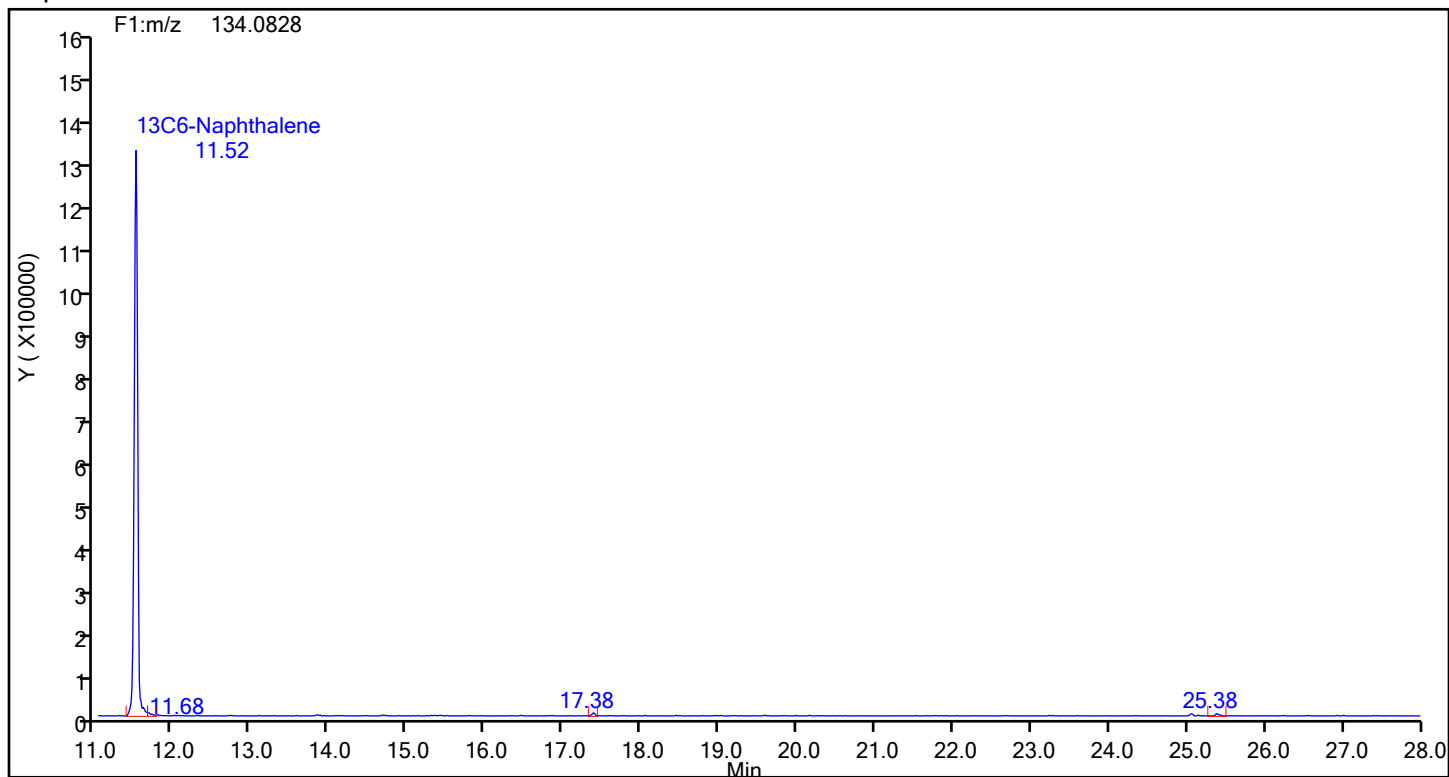
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Injection Date: 22-Jul-2024 17:11:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 89013 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



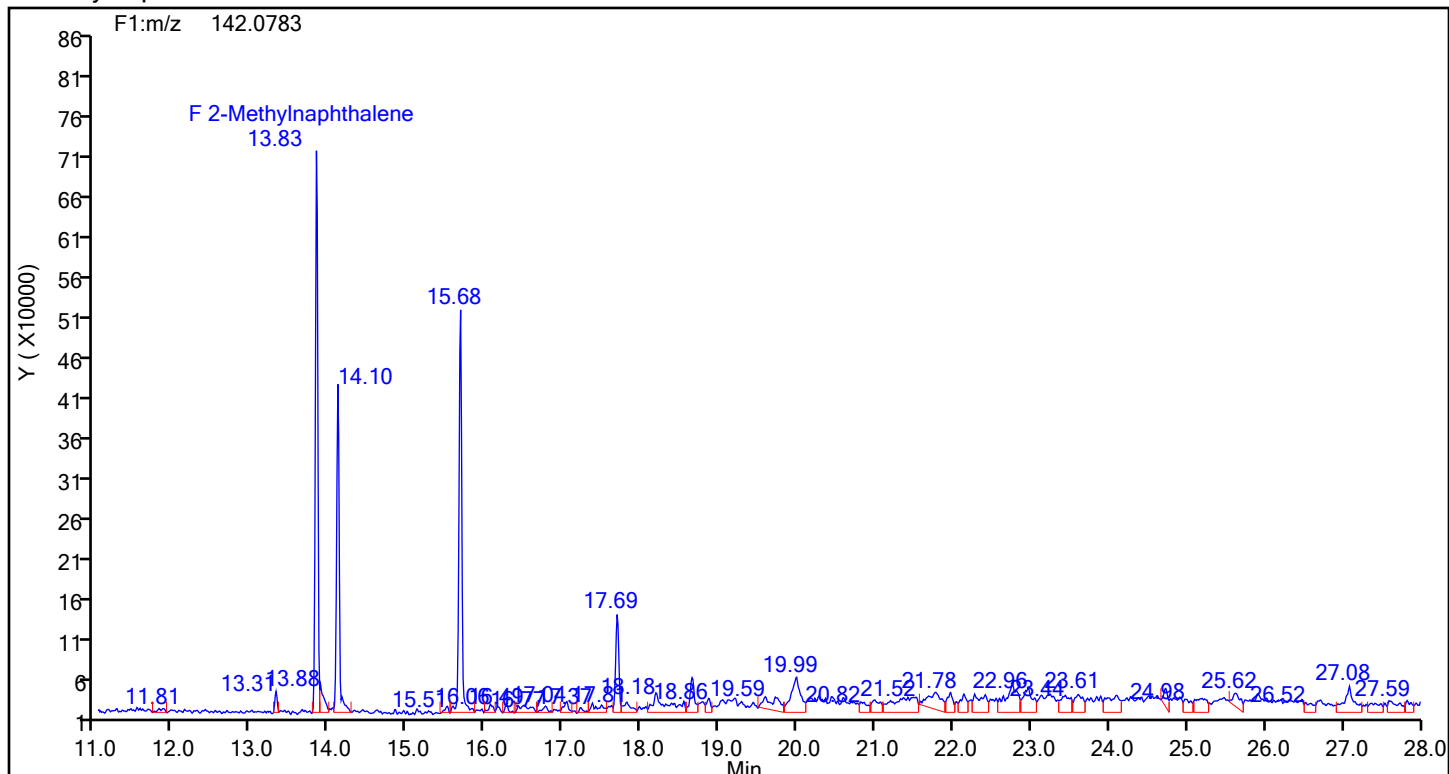
## Naphthalene Standards



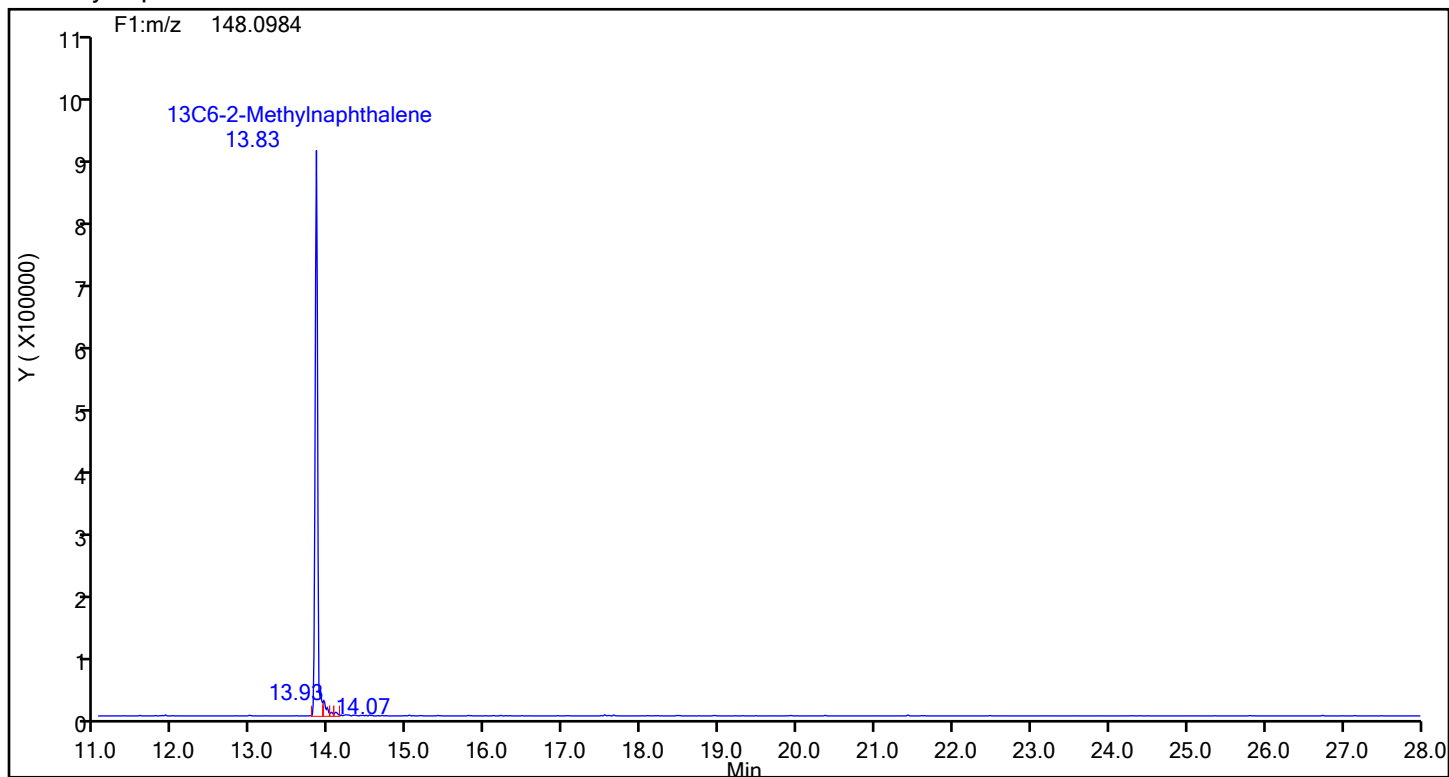
## Eurofins Knoxville

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Injection Date: 22-Jul-2024 17:11:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 89013 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



## 2-Methylnaphthalene Standards



## Eurofins Knoxville

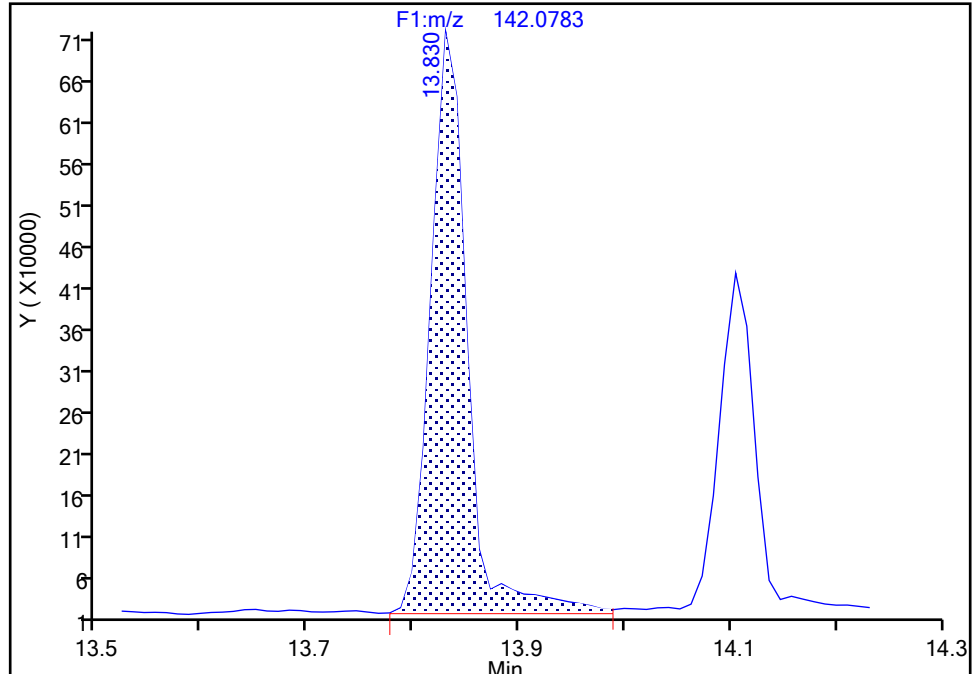
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Injection Date: 22-Jul-2024 17:11:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-8-C Lab Sample ID: 140-37234-8  
Client ID: M23 F-10 BOILER BT COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

**2-Methylnaphthalene, CAS: 91-57-6**

Signal: 1

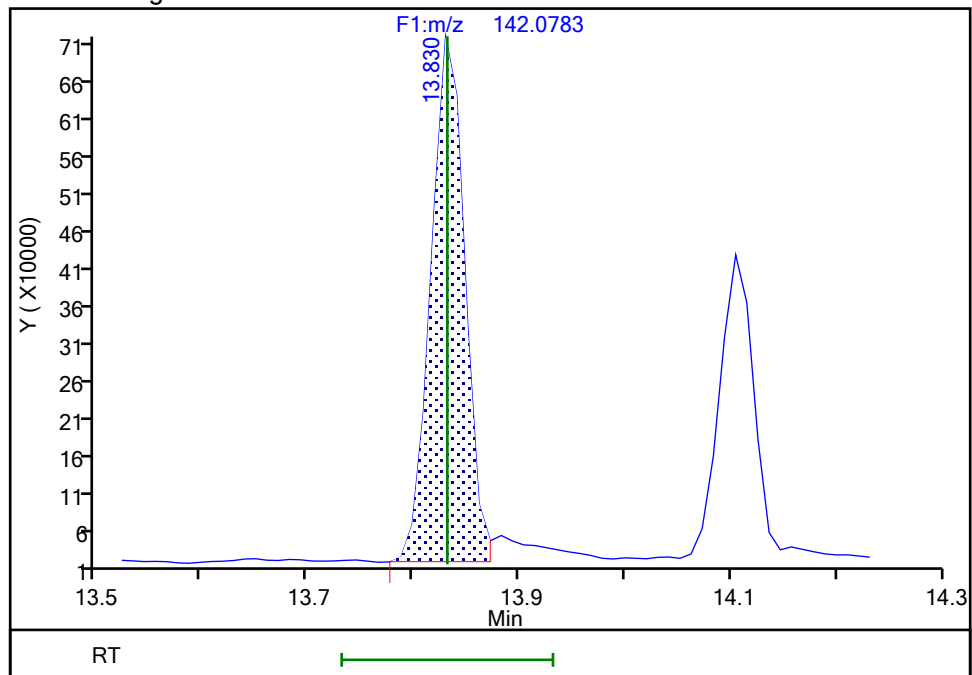
RT: 13.83  
Area: 1678348  
Amount: 6.748114  
Amount Units: pg/ul

## Processing Integration Results



RT: 13.83  
Area: 1560771  
Amount: 6.275373  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:55:03 -04:00:00 (UTC)

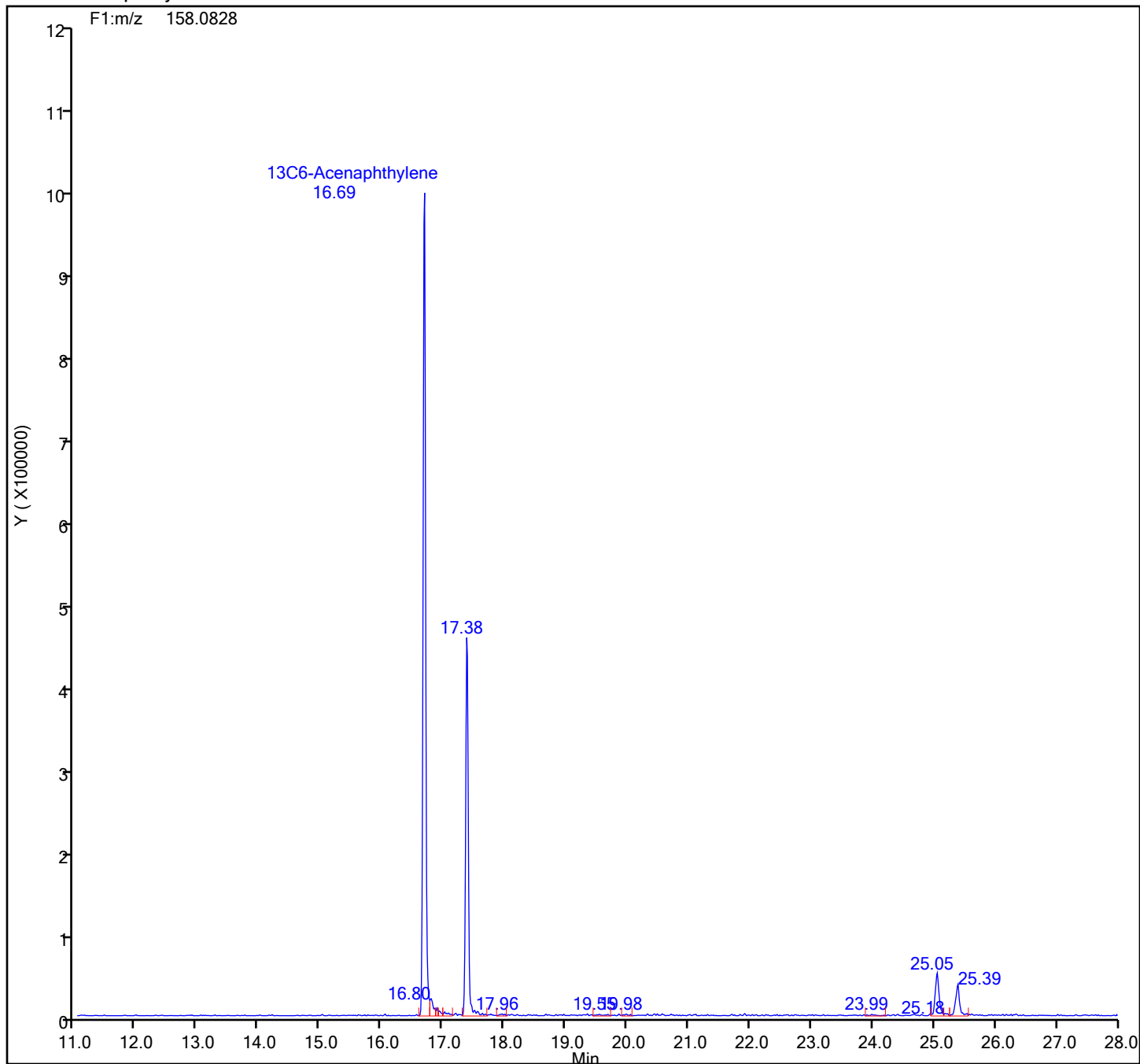
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

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Injection Date: 22-Jul-2024 17:11:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 89013 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

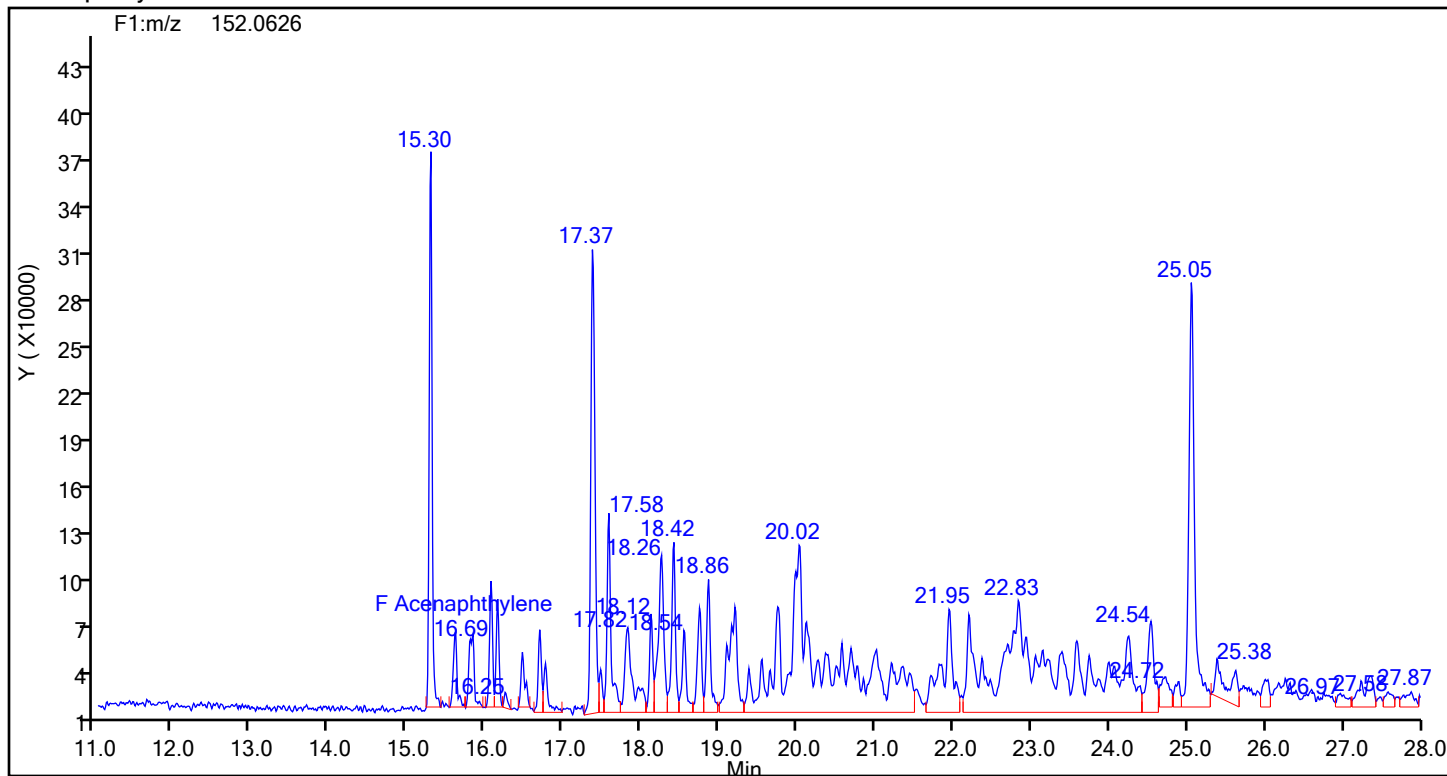
## 13C6-Acenaphthylene Standards



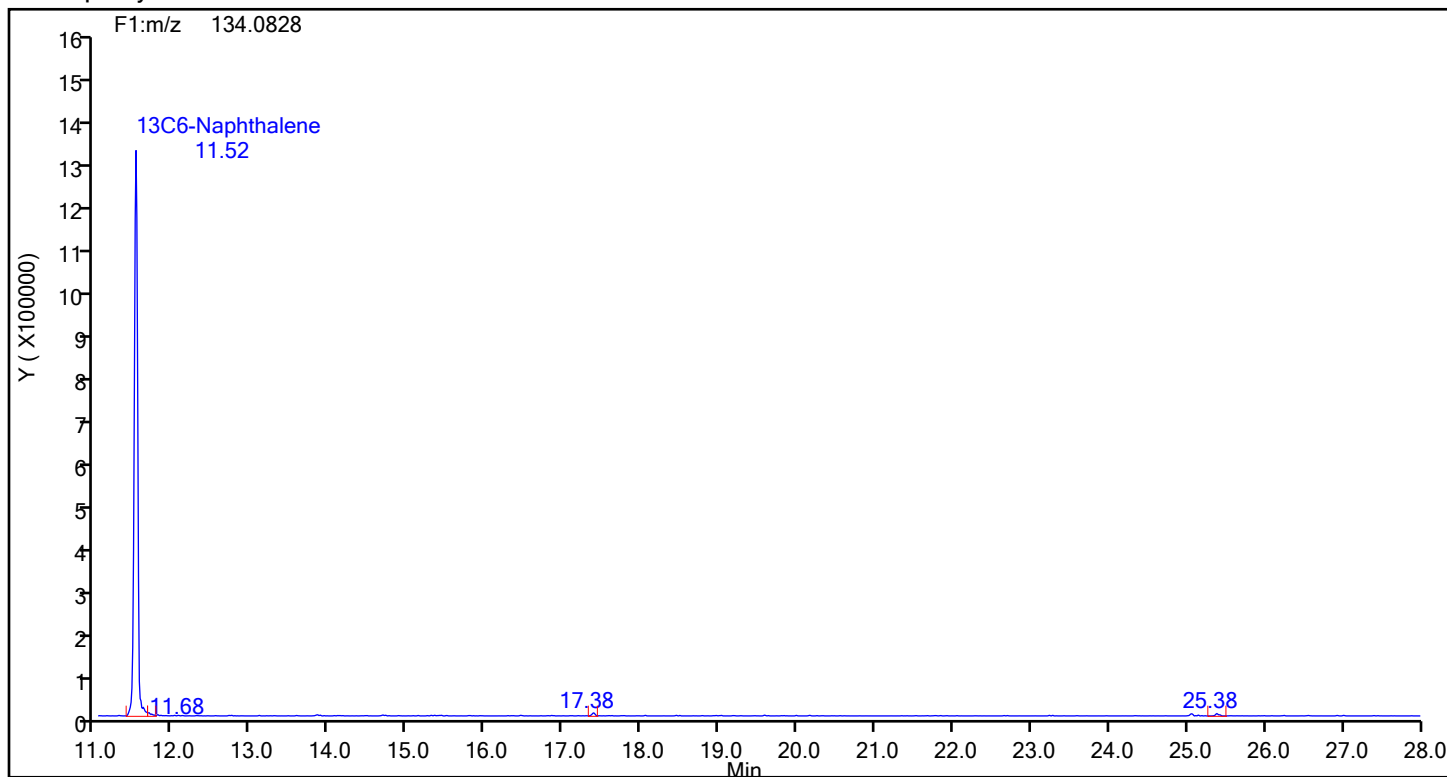
## Eurofins Knoxville

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Injection Date: 22-Jul-2024 17:11:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 89013 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene



## Acenaphthylene Standards



## Eurofins Knoxville

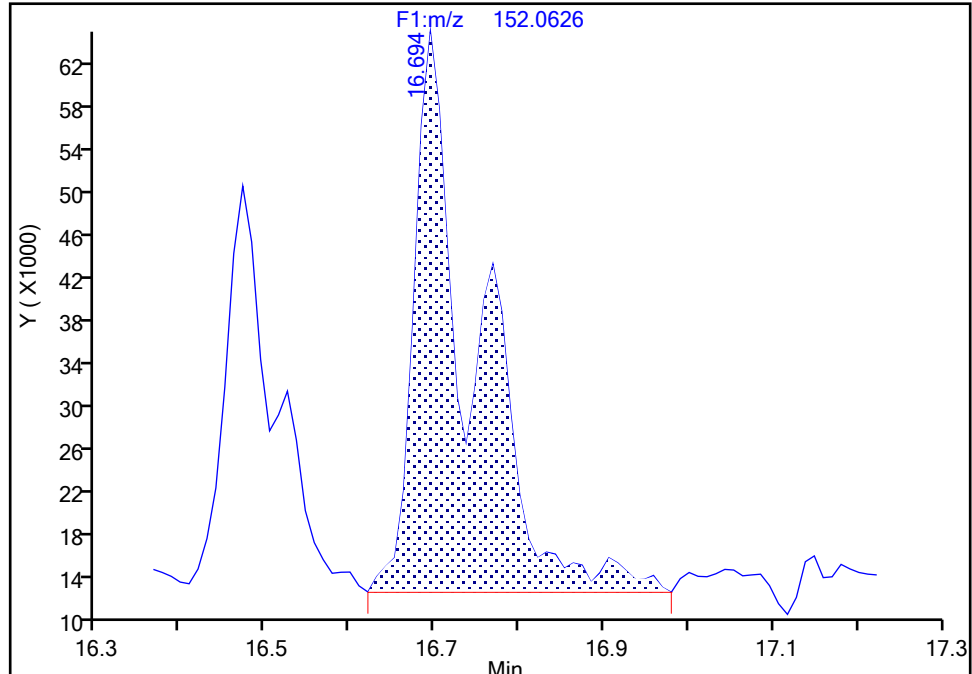
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Injection Date: 22-Jul-2024 17:11:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-8-C Lab Sample ID: 140-37234-8  
Client ID: M23 F-10 BOILER BT COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Acenaphthylene, CAS: 208-96-8

Signal: 1

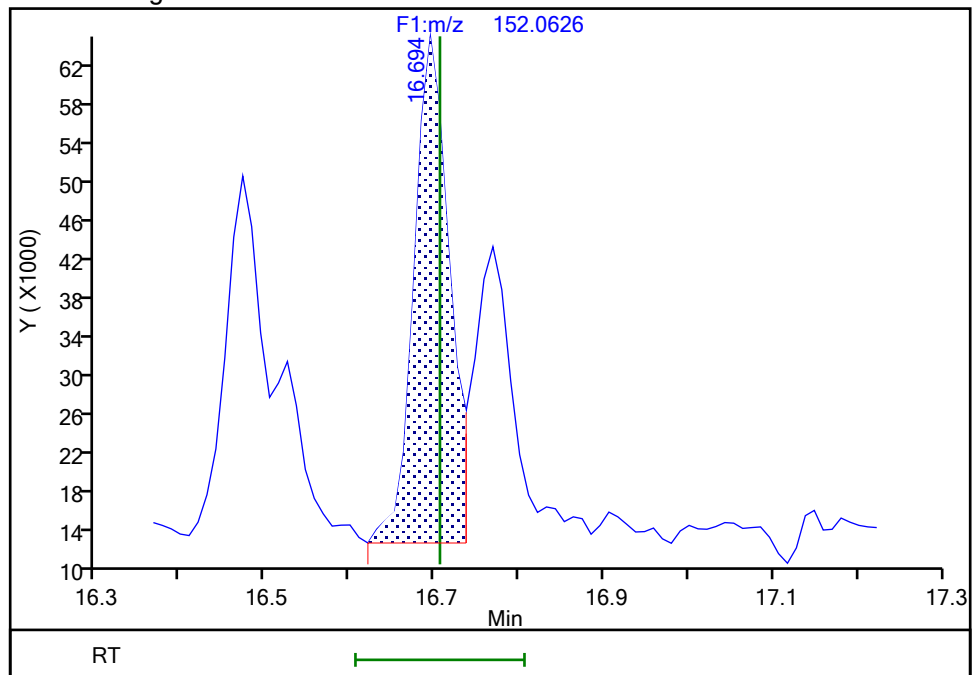
RT: 16.69  
Area: 258984  
Amount: 0.669140  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.69  
Area: 154058  
Amount: 0.398042  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:56:42 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

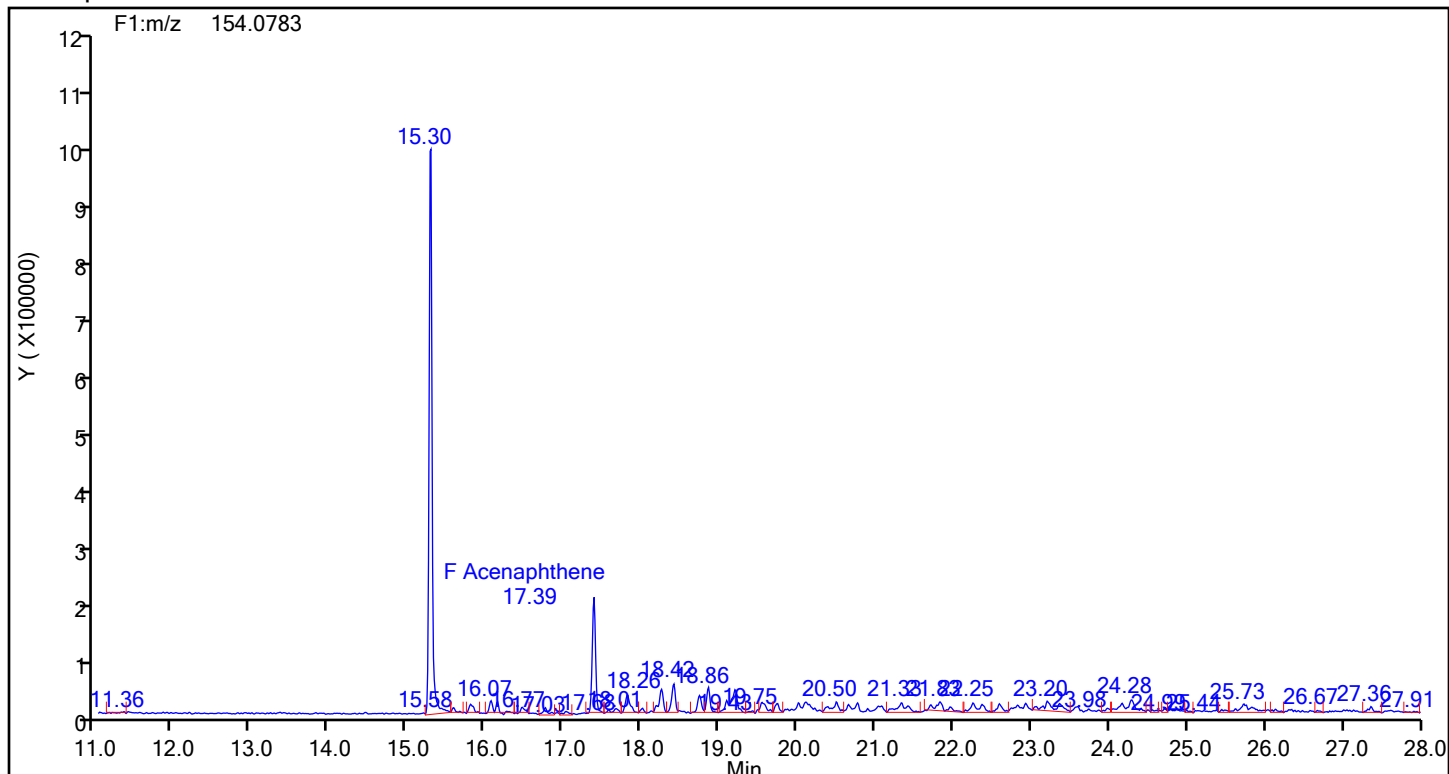
Audit Reason: Incomplete Integration



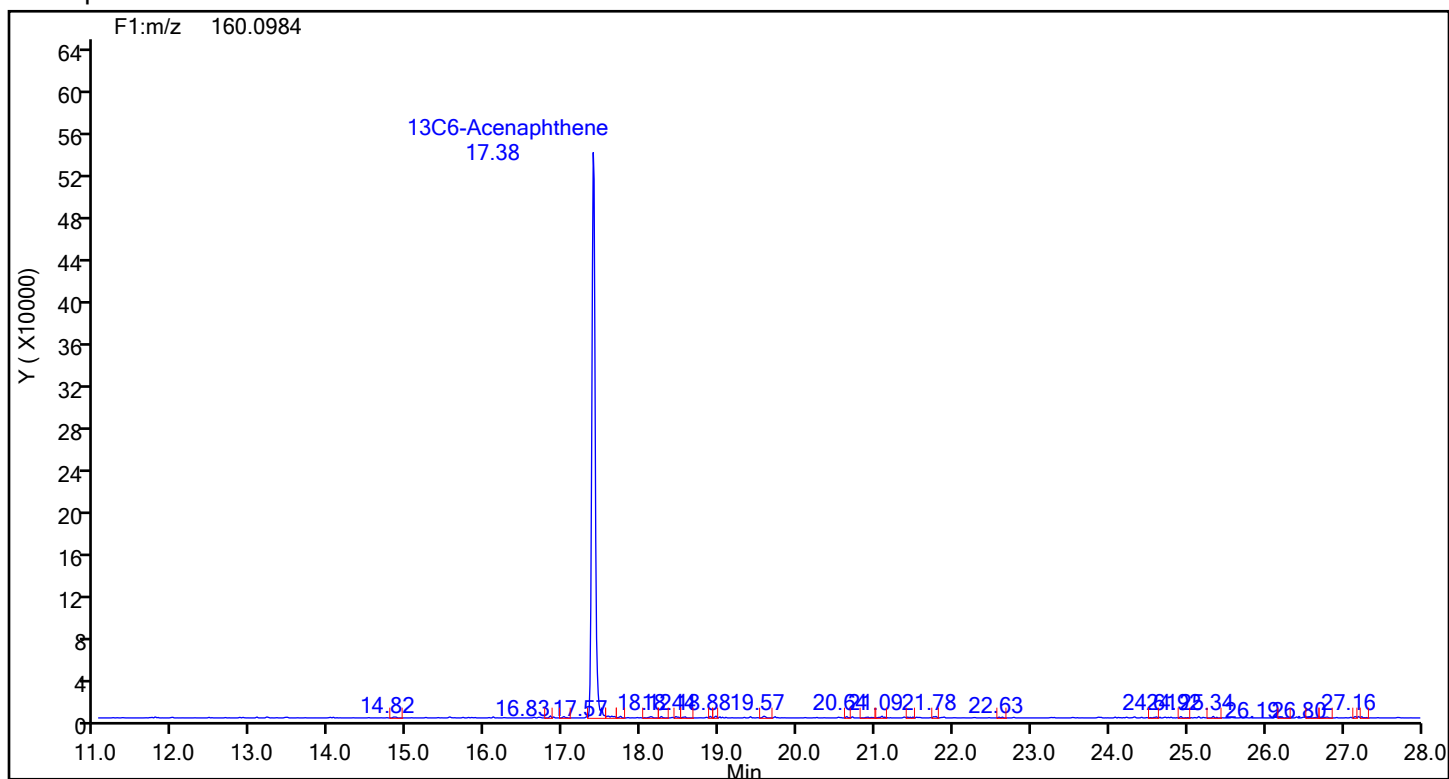
## Eurofins Knoxville

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Injection Date: 22-Jul-2024 17:11:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 89013 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



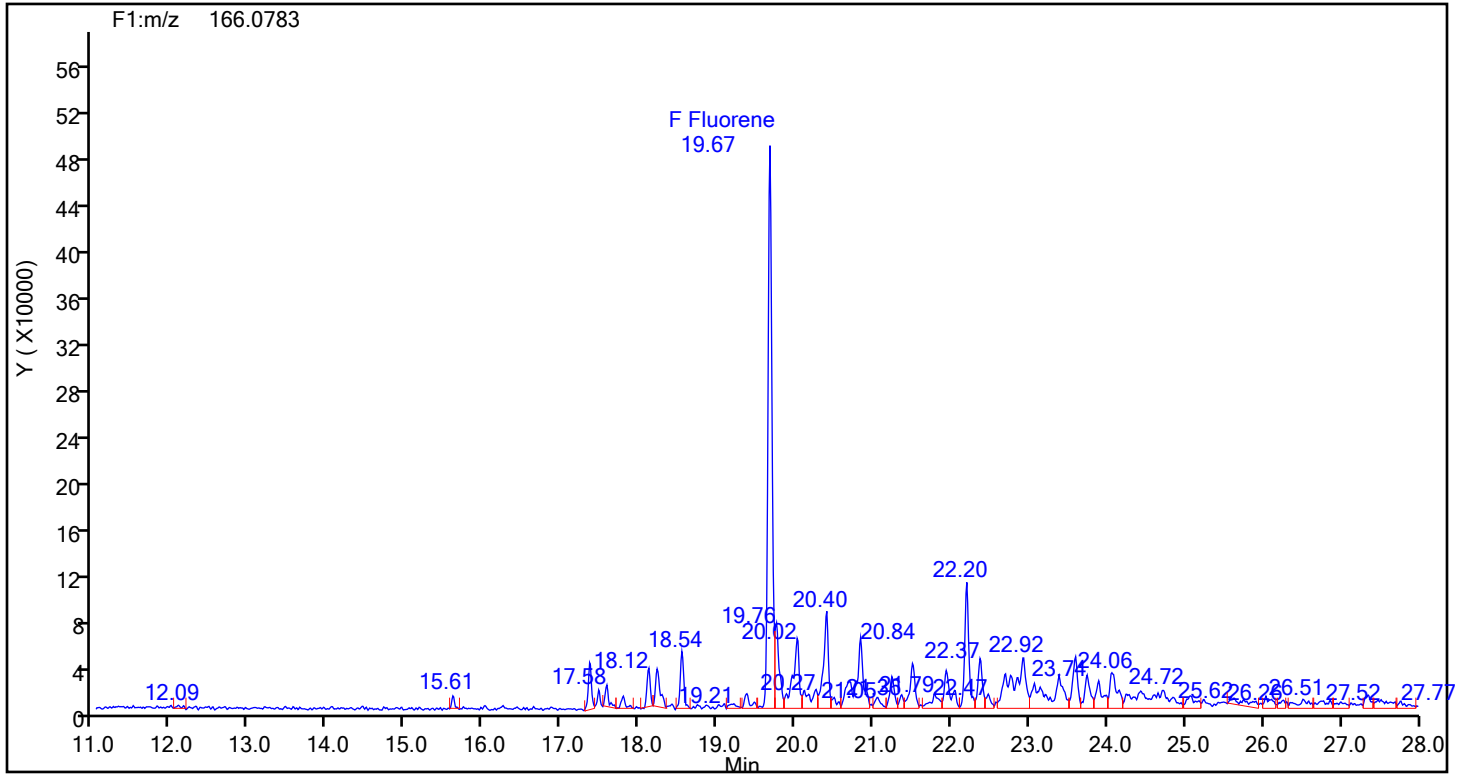
## Acenaphthene Standards



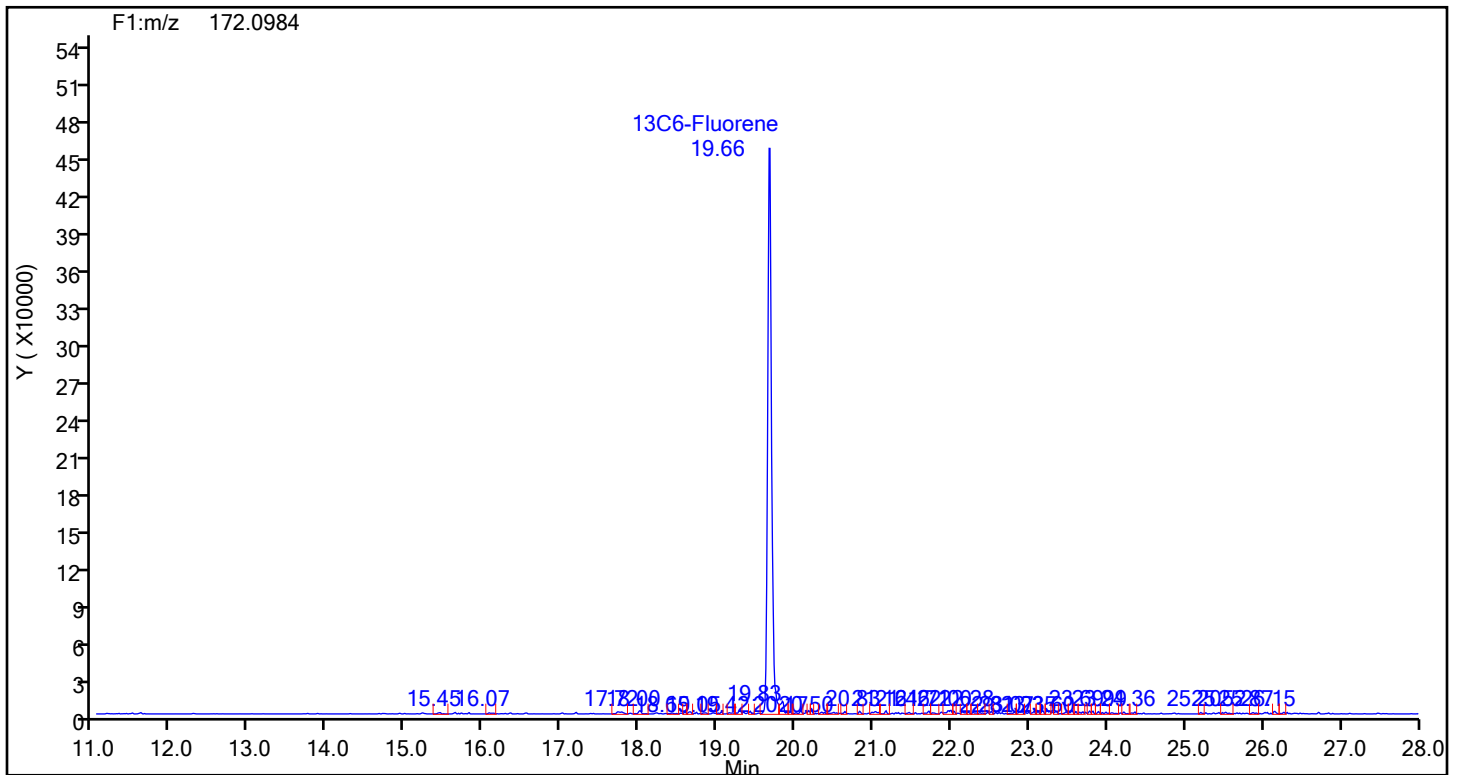
## Eurofins Knoxville

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Injection Date: 22-Jul-2024 17:11:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 89013 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene



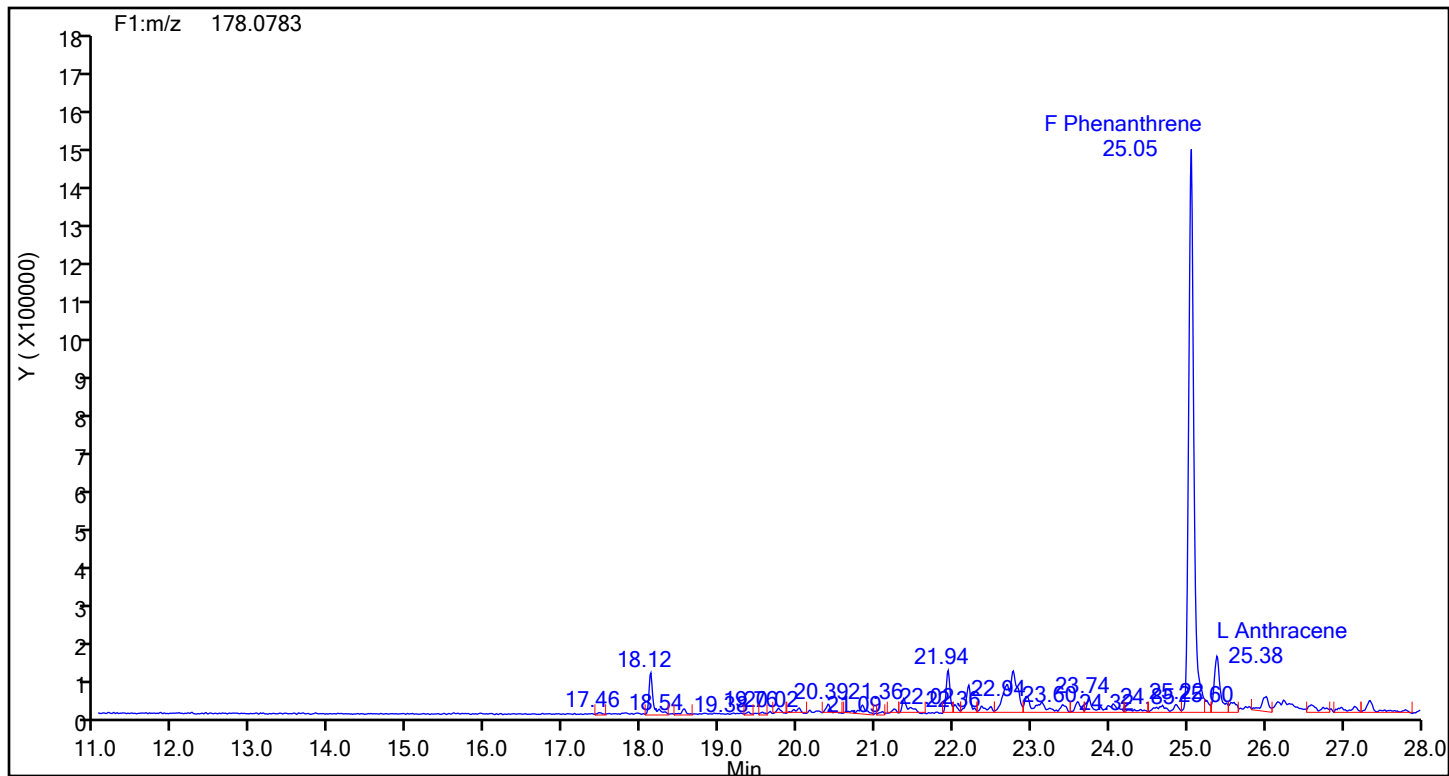
## Fluorene Standards



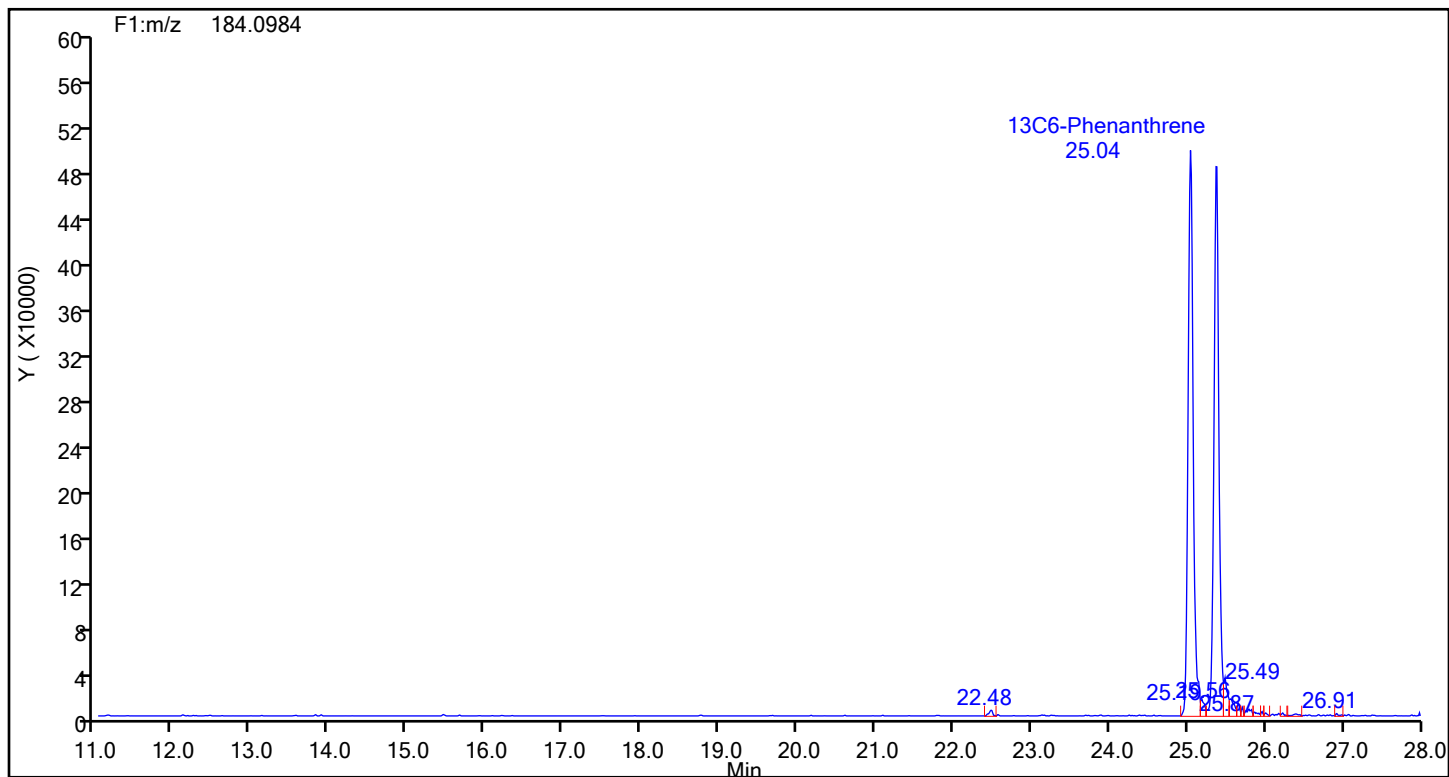
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 89013 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Phenanthrene



## Phenanthrene Standards



## Eurofins Knoxville

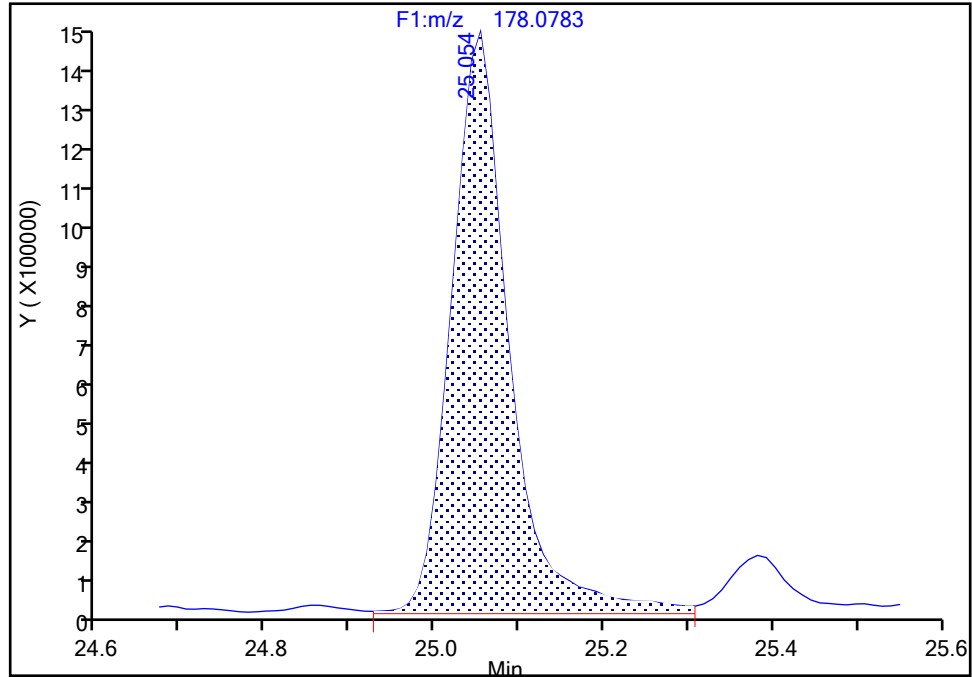
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-8-C Lab Sample ID: 140-37234-8  
Client ID: M23 F-10 BOILER BT COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Phenanthrene, CAS: 85-01-8

Signal: 1

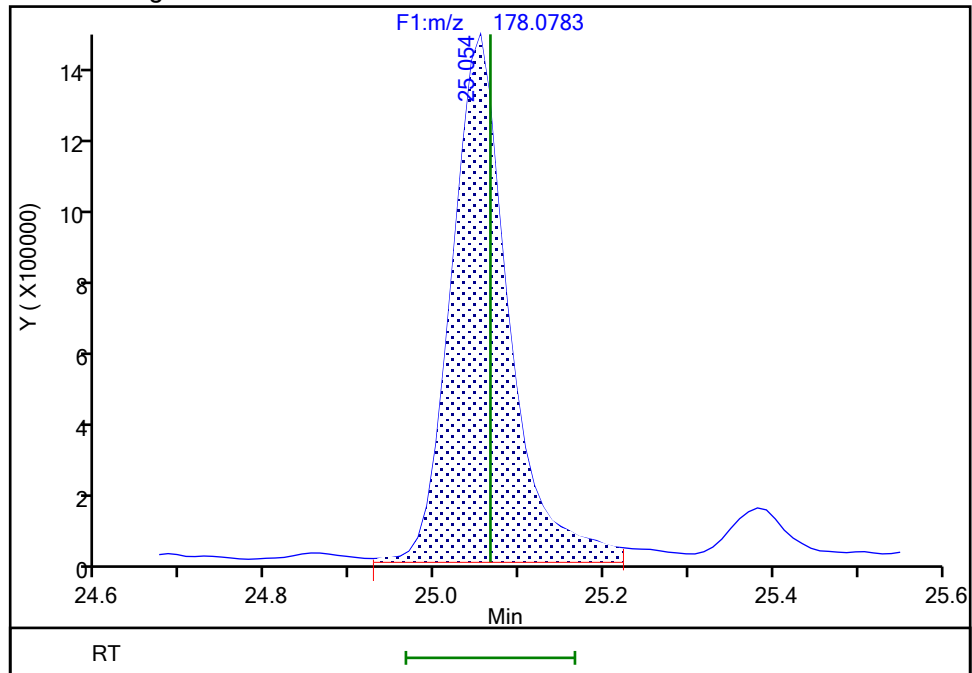
RT: 25.05  
Area: 7109230  
Amount: 27.994460  
Amount Units: pg/ul

## Processing Integration Results



RT: 25.05  
Area: 6978368  
Amount: 27.479156  
Amount Units: pg/ul

## Manual Integration Results



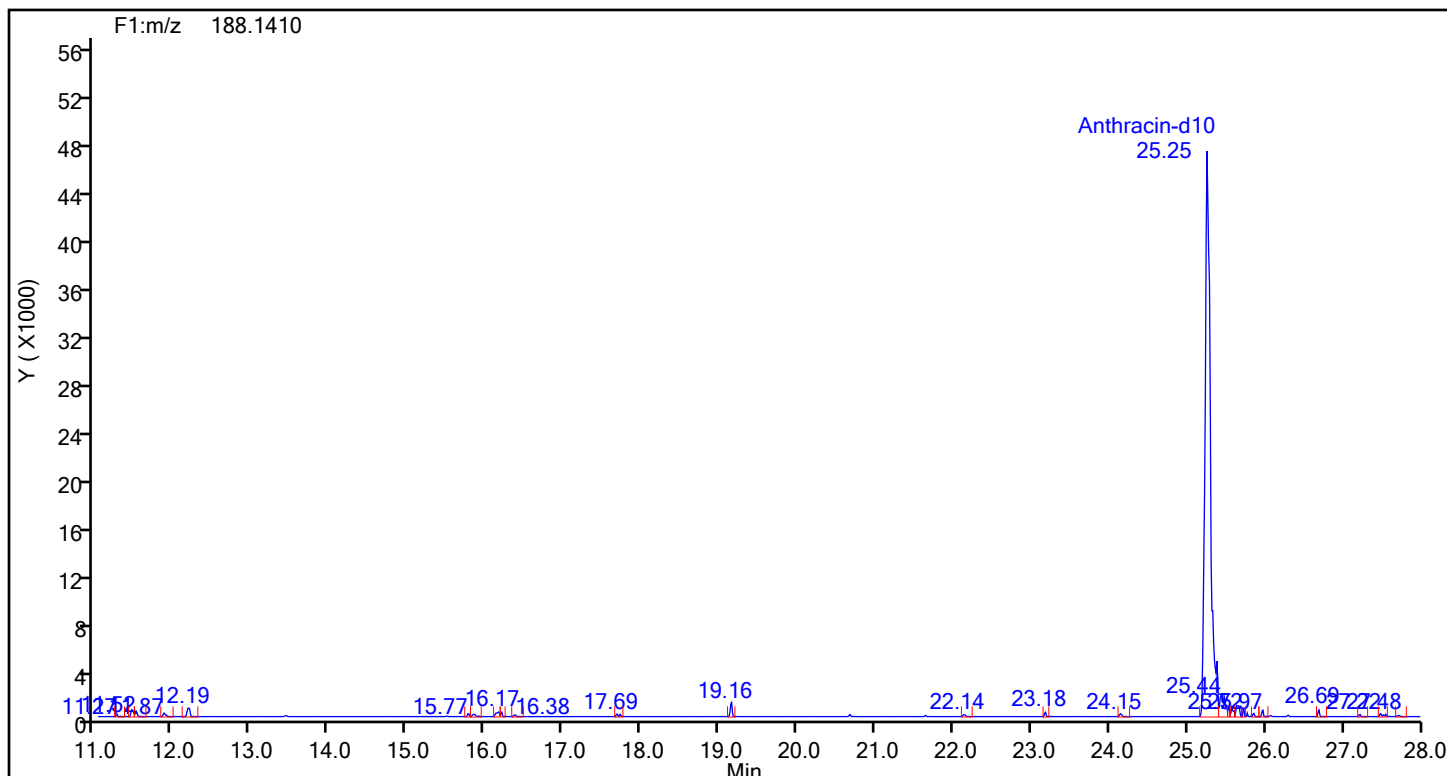
Reviewer: TT6I, 23-Jul-2024 09:55:53 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

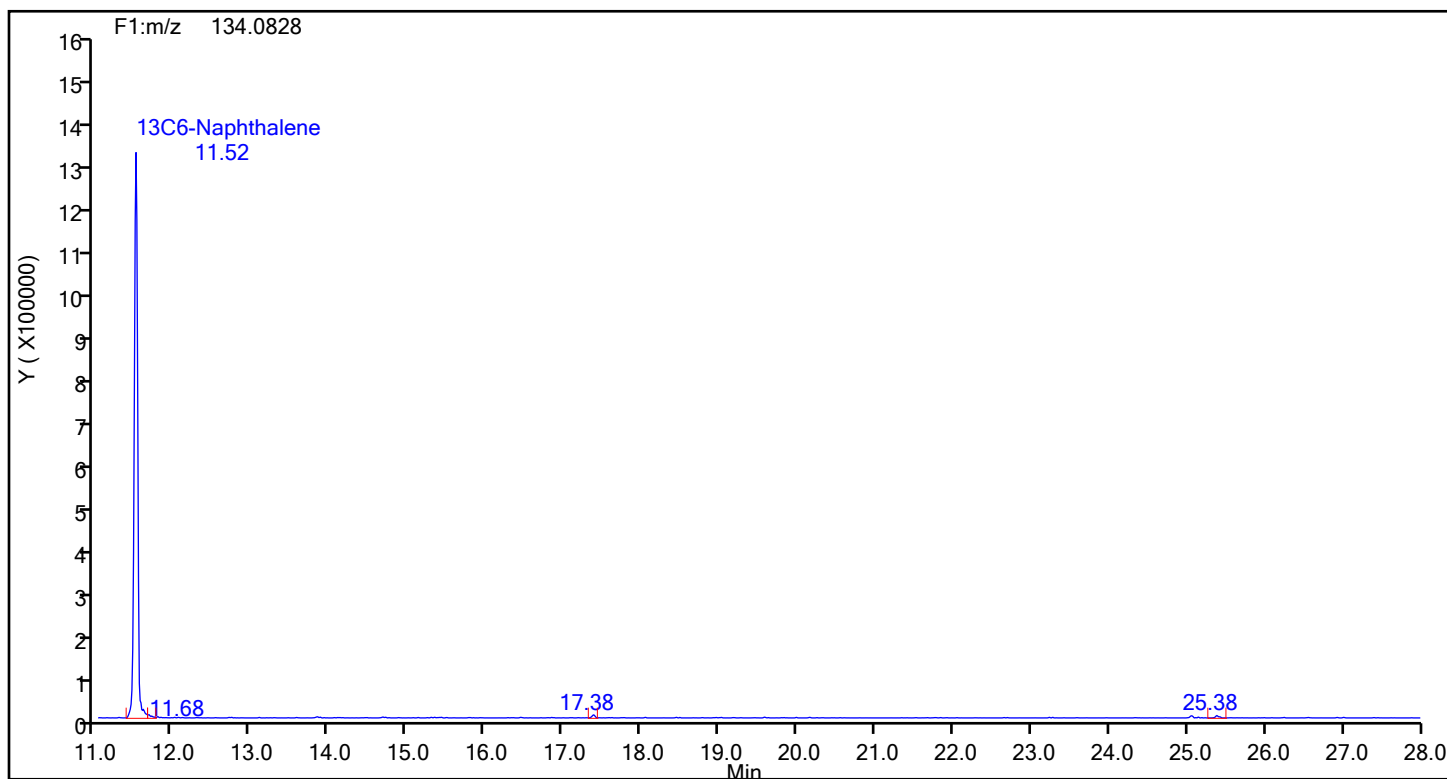
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 89013 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10

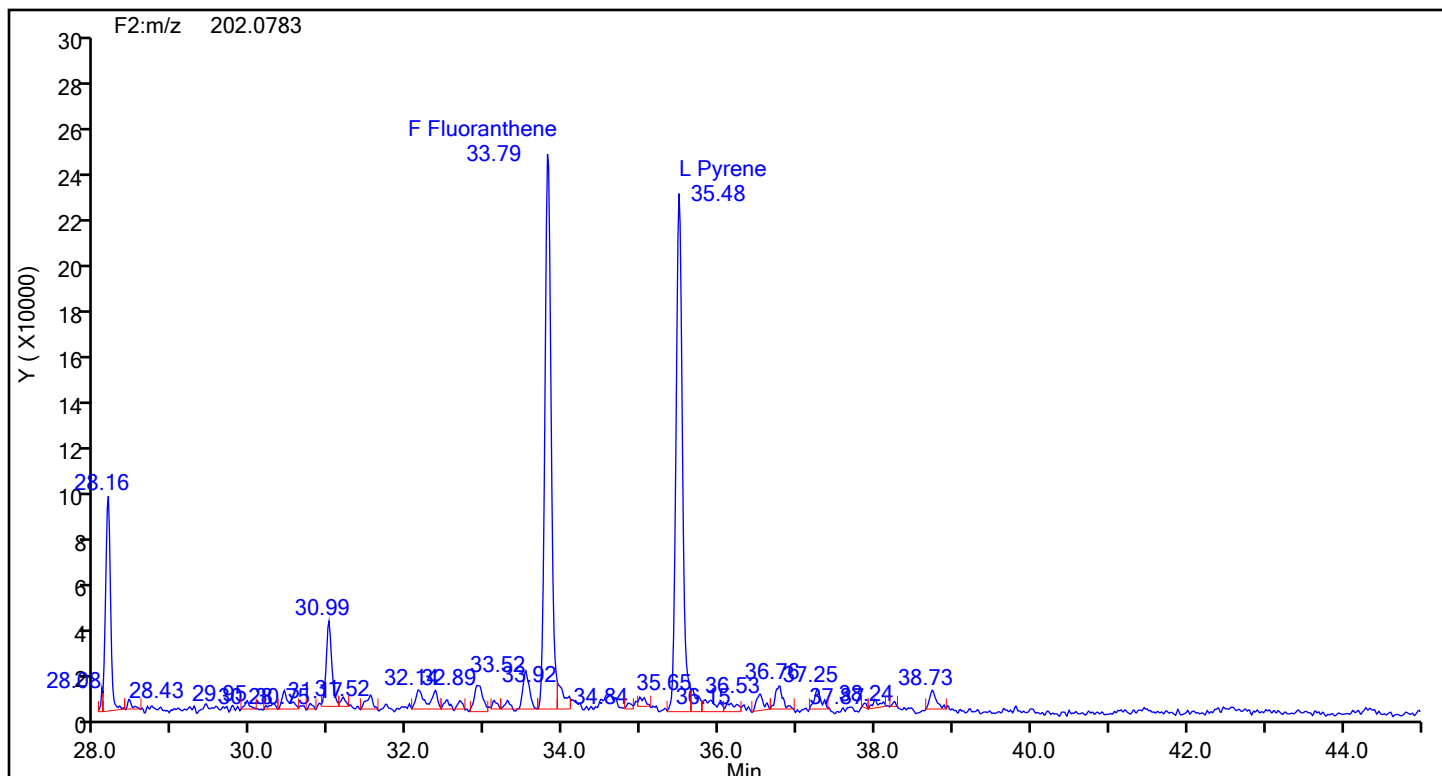


## Anthracin-d10 Standards

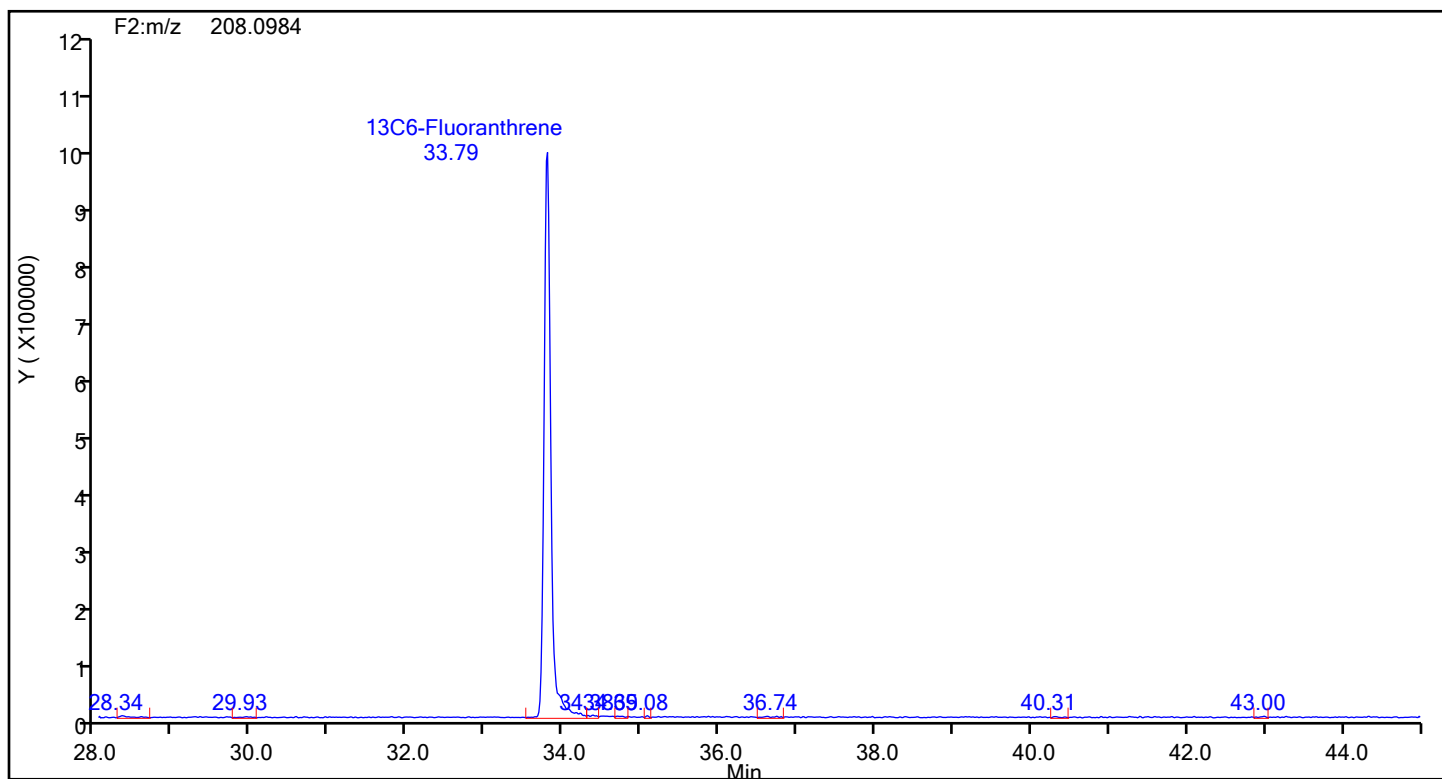


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 89013 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Fluoranthene



## Fluoranthene Standards



## Eurofins Knoxville

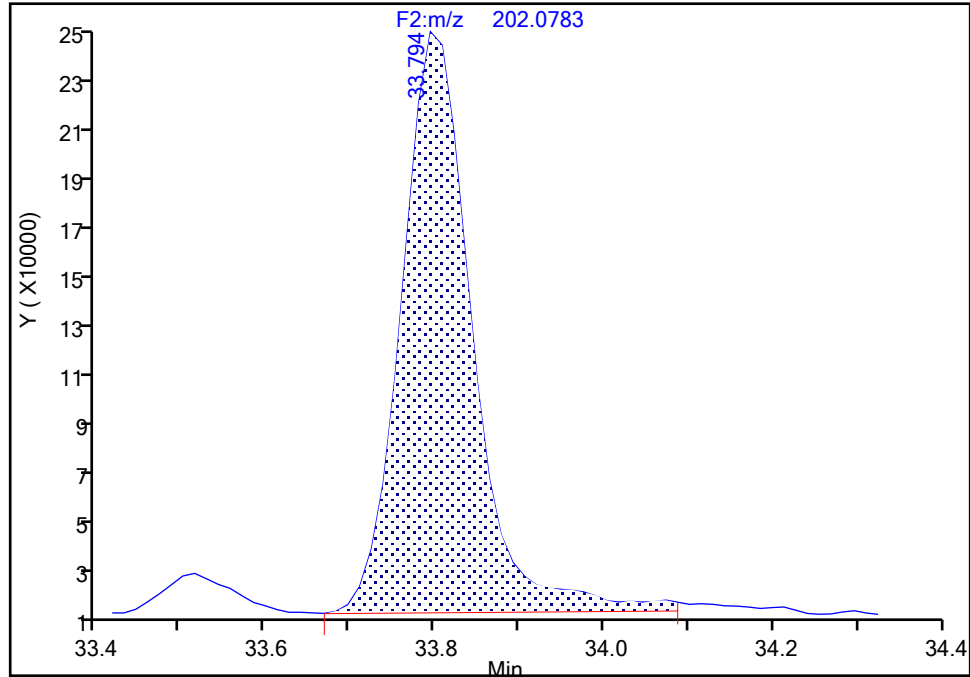
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-8-C Lab Sample ID: 140-37234-8  
Client ID: M23 F-10 BOILER BT COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F2(28.03 :43.99 )

## Fluoranthene, CAS: 206-44-0

Signal: 1

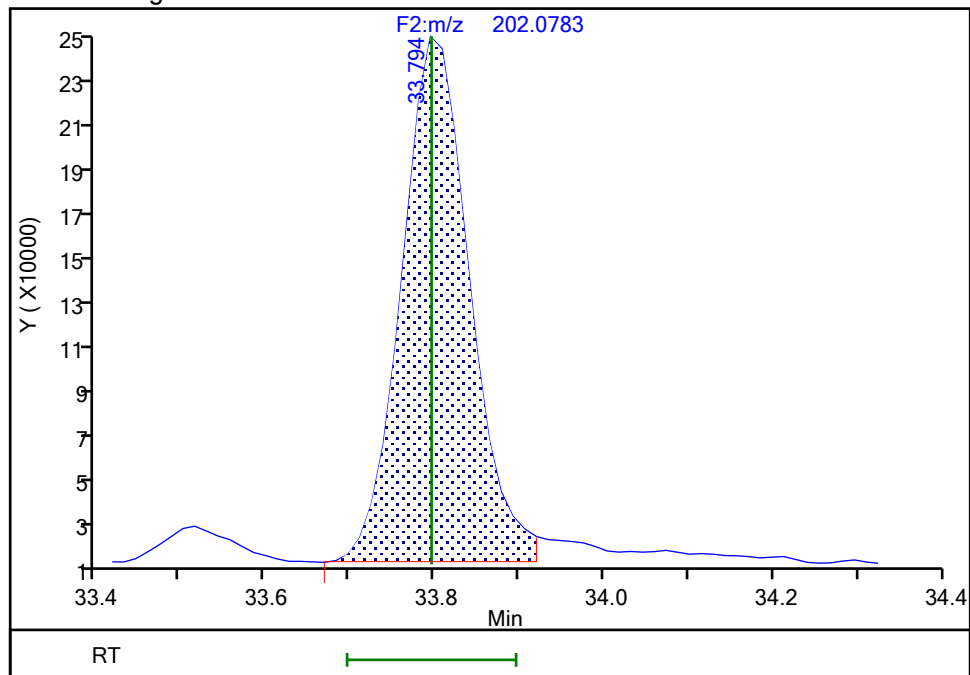
RT: 33.79  
Area: 1388692  
Amount: 2.032318  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.79  
Area: 1329150  
Amount: 1.945179  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:55:46 -04:00:00 (UTC)

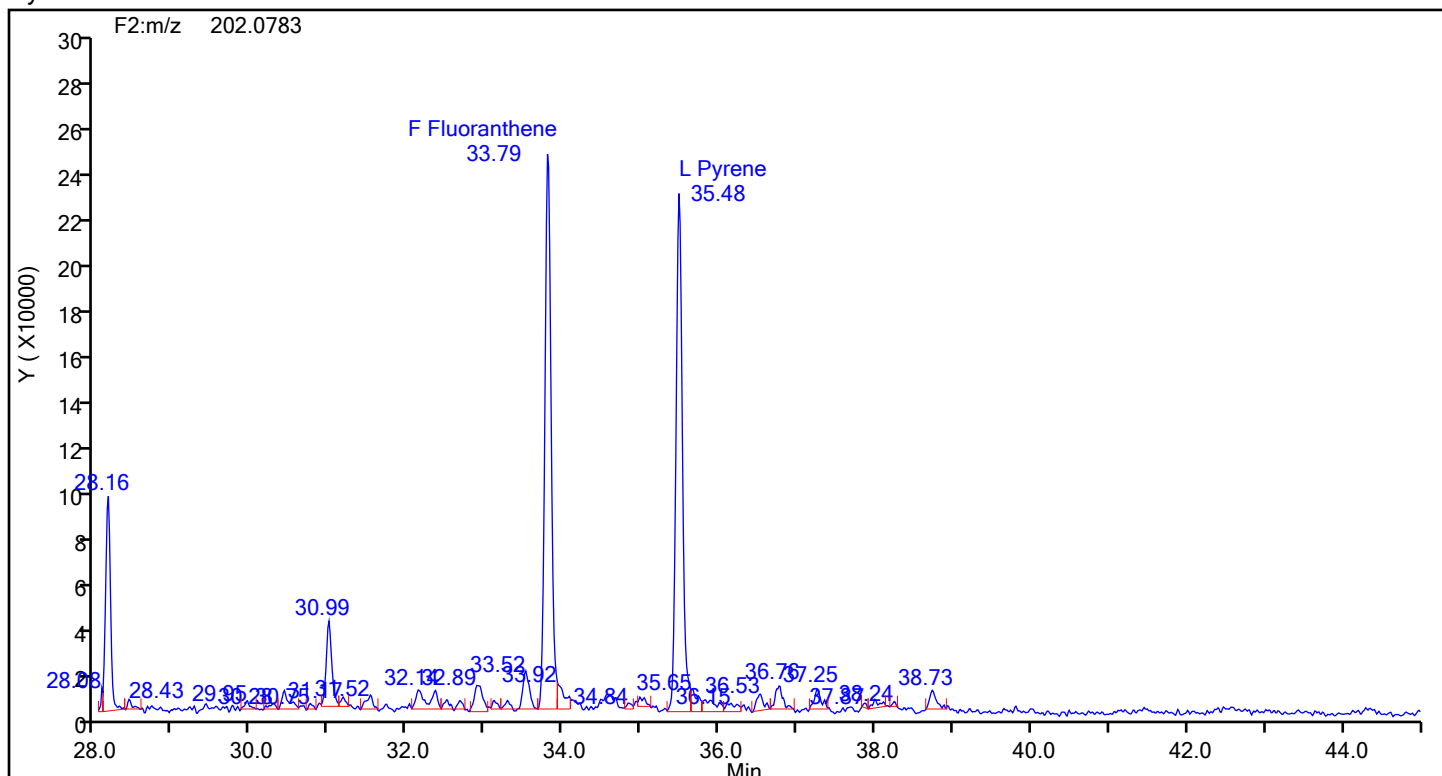
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

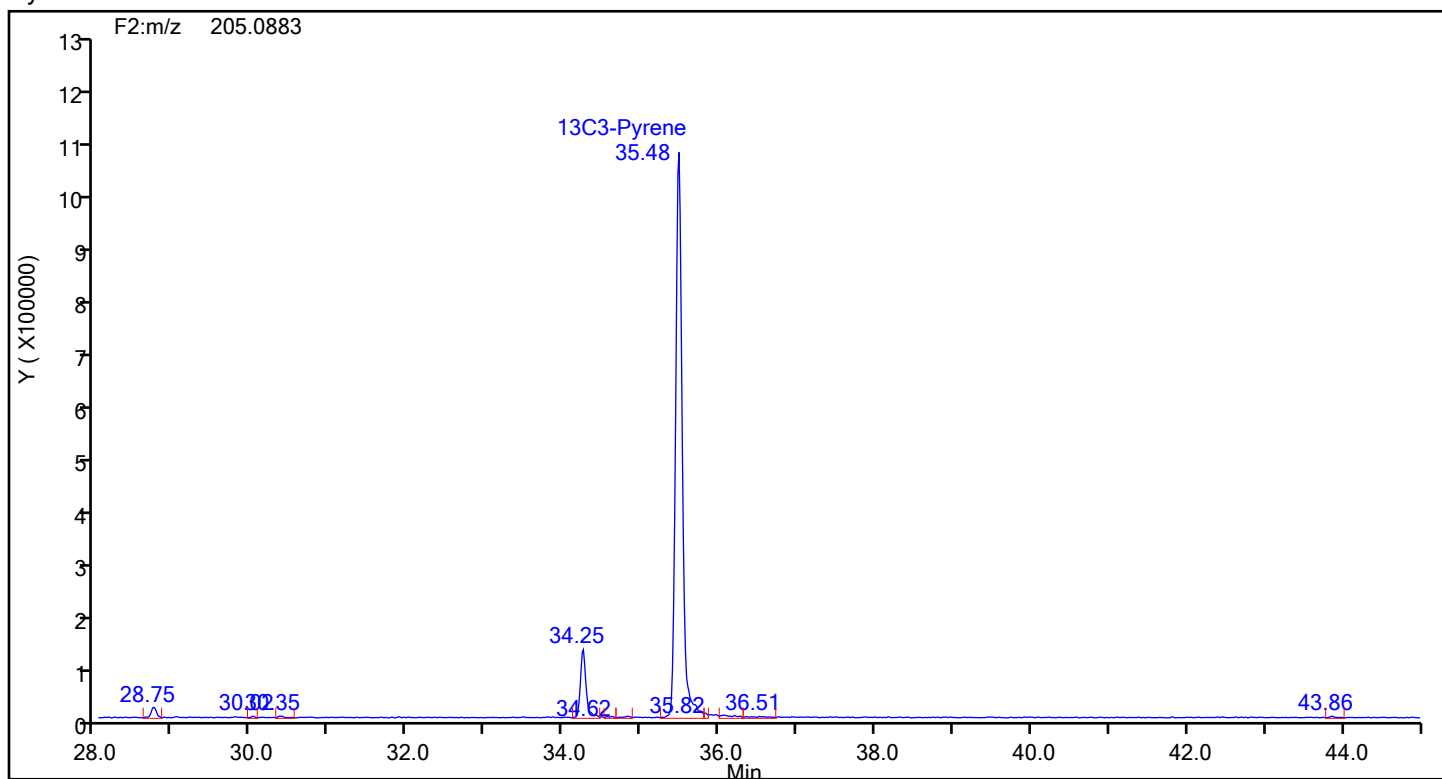
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 89013 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Pyrene



## Pyrene Standards





## Eurofins Knoxville

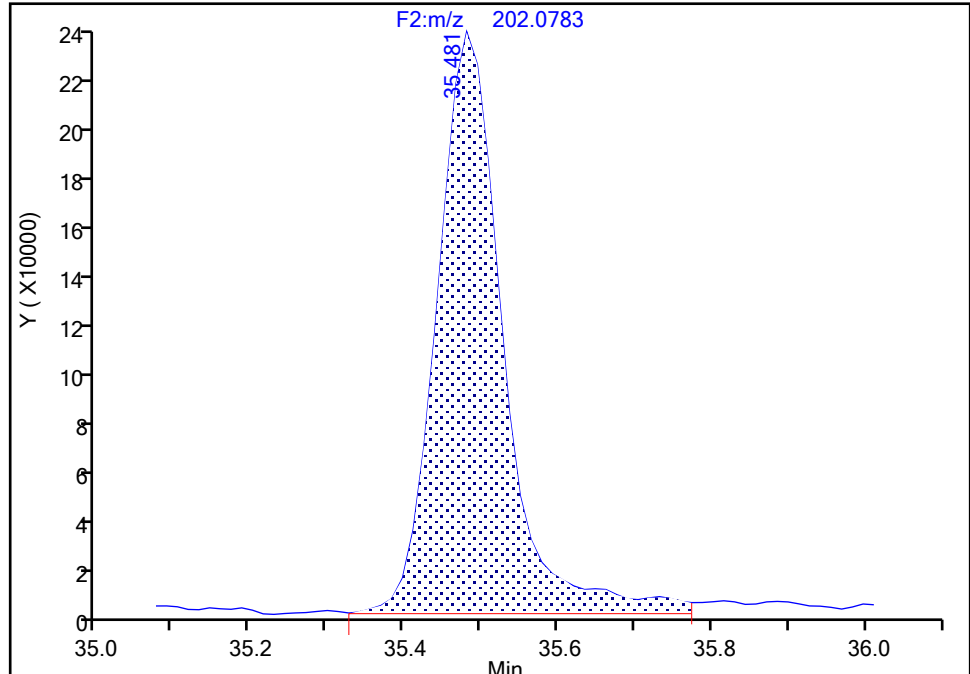
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-8-C Lab Sample ID: 140-37234-8  
Client ID: M23 F-10 BOILER BT COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F2(28.03 :43.99 )

Pyrene, CAS: 129-00-0

Signal: 1

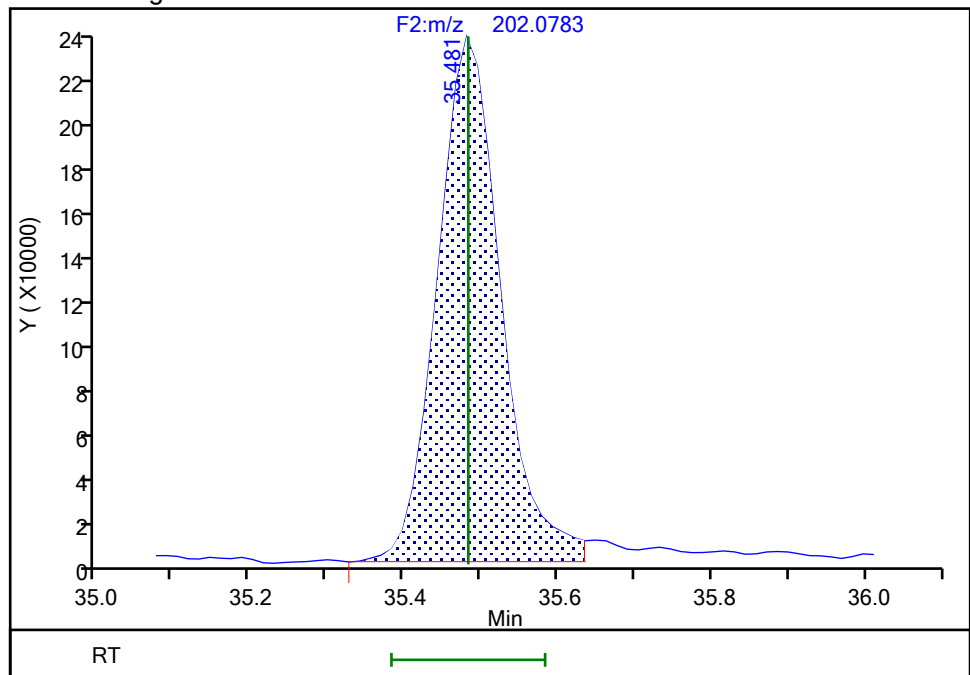
RT: 35.48  
Area: 1321289  
Amount: 1.960651  
Amount Units: pg/ul

## Processing Integration Results



RT: 35.48  
Area: 1272569  
Amount: 1.888356  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:56:15 -04:00:00 (UTC)

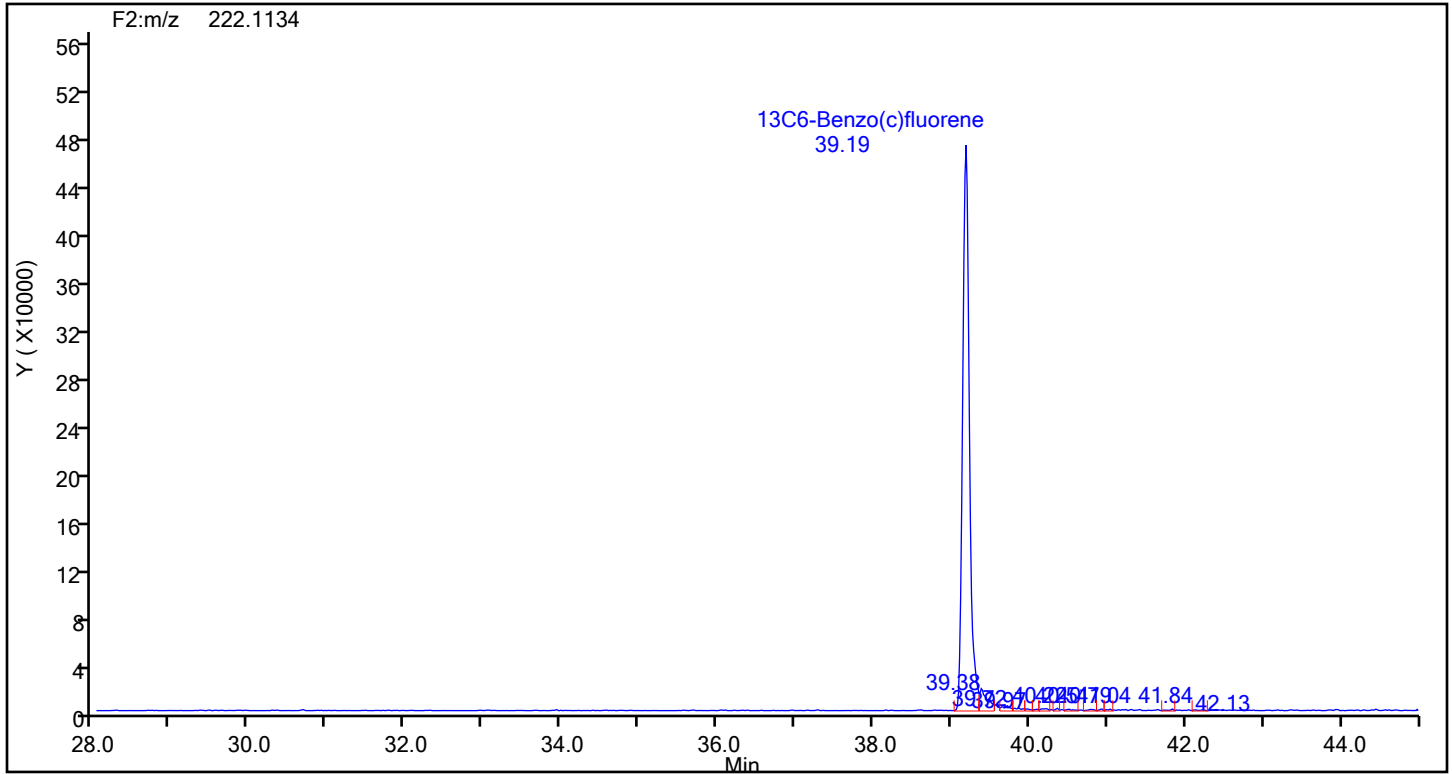
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

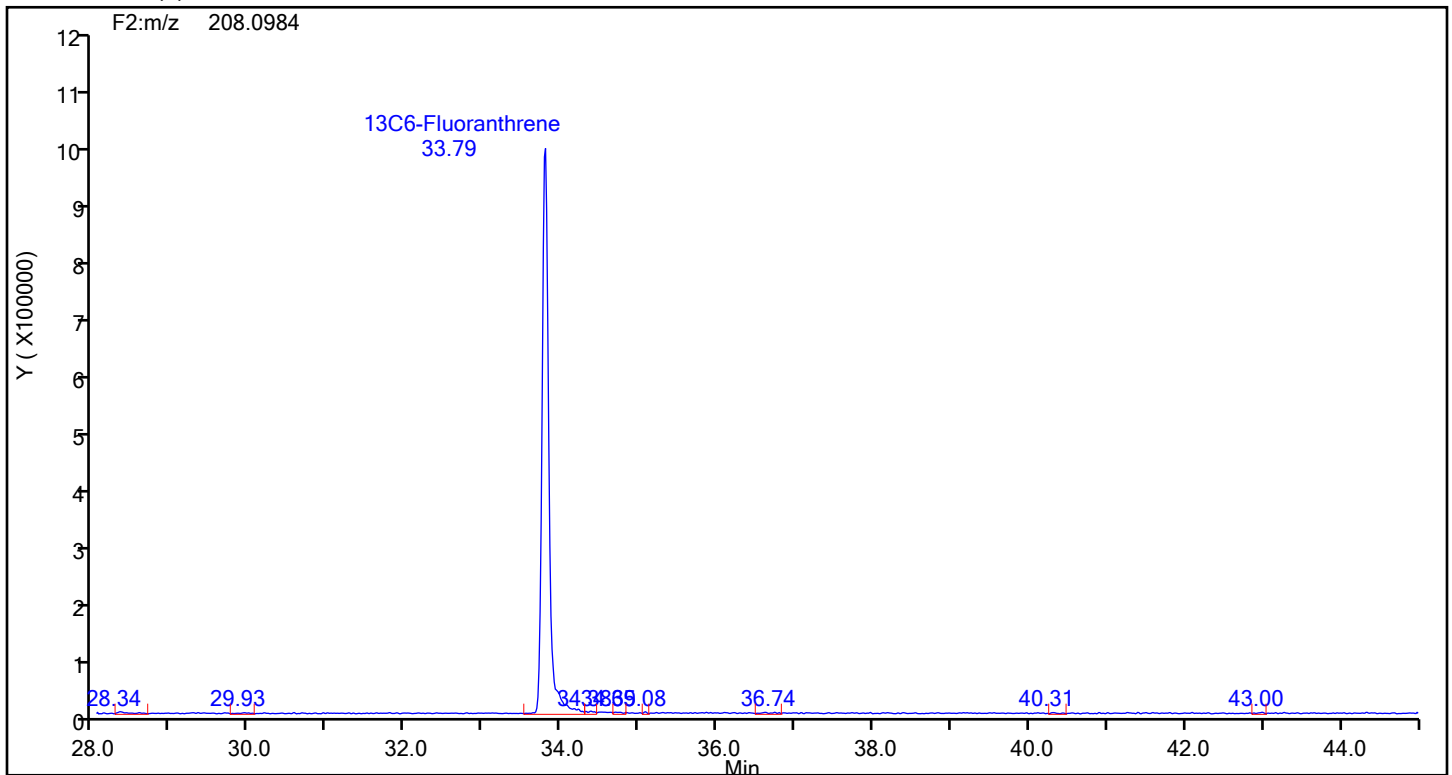
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 89013 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C6-Benzo(c)fluorene



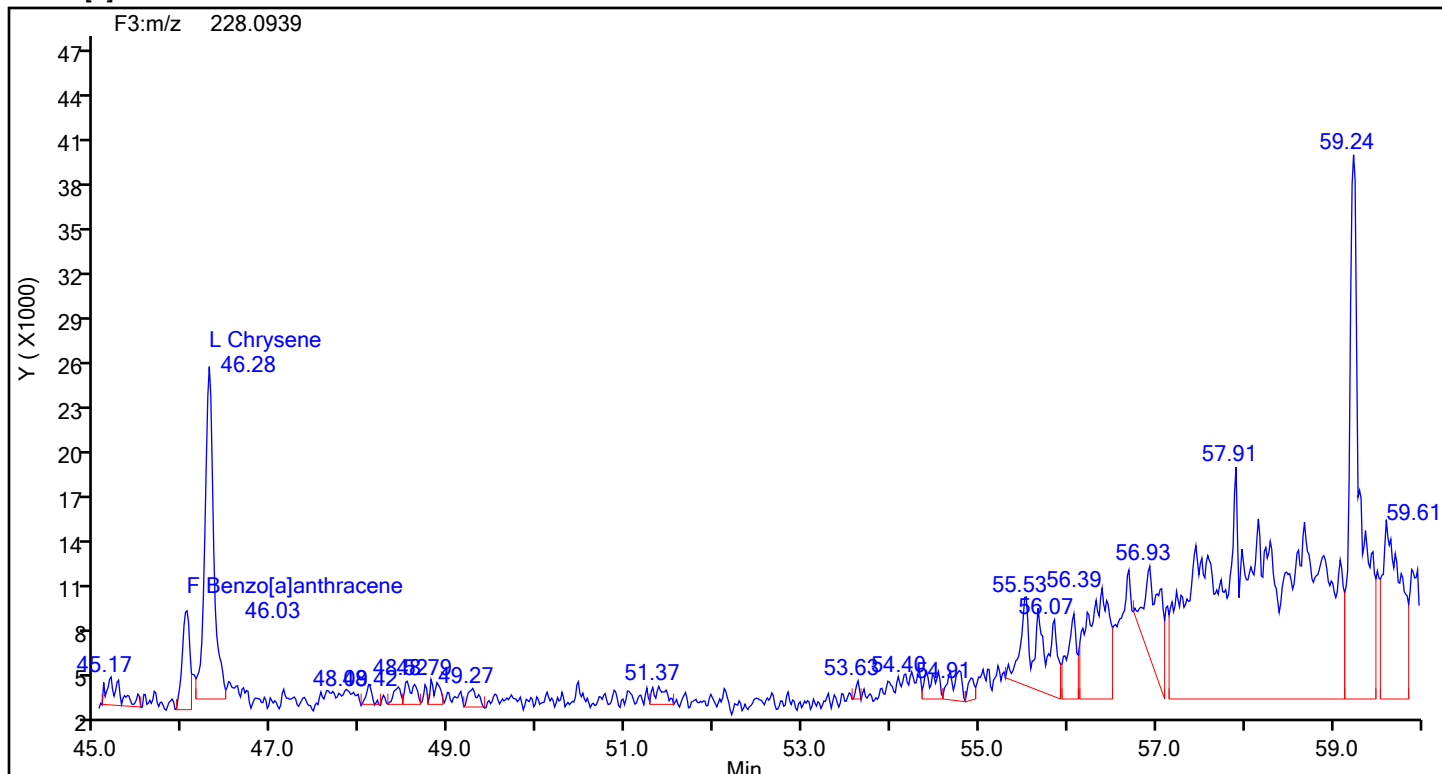
## 13C6-Benzo(c)fluorene Standards



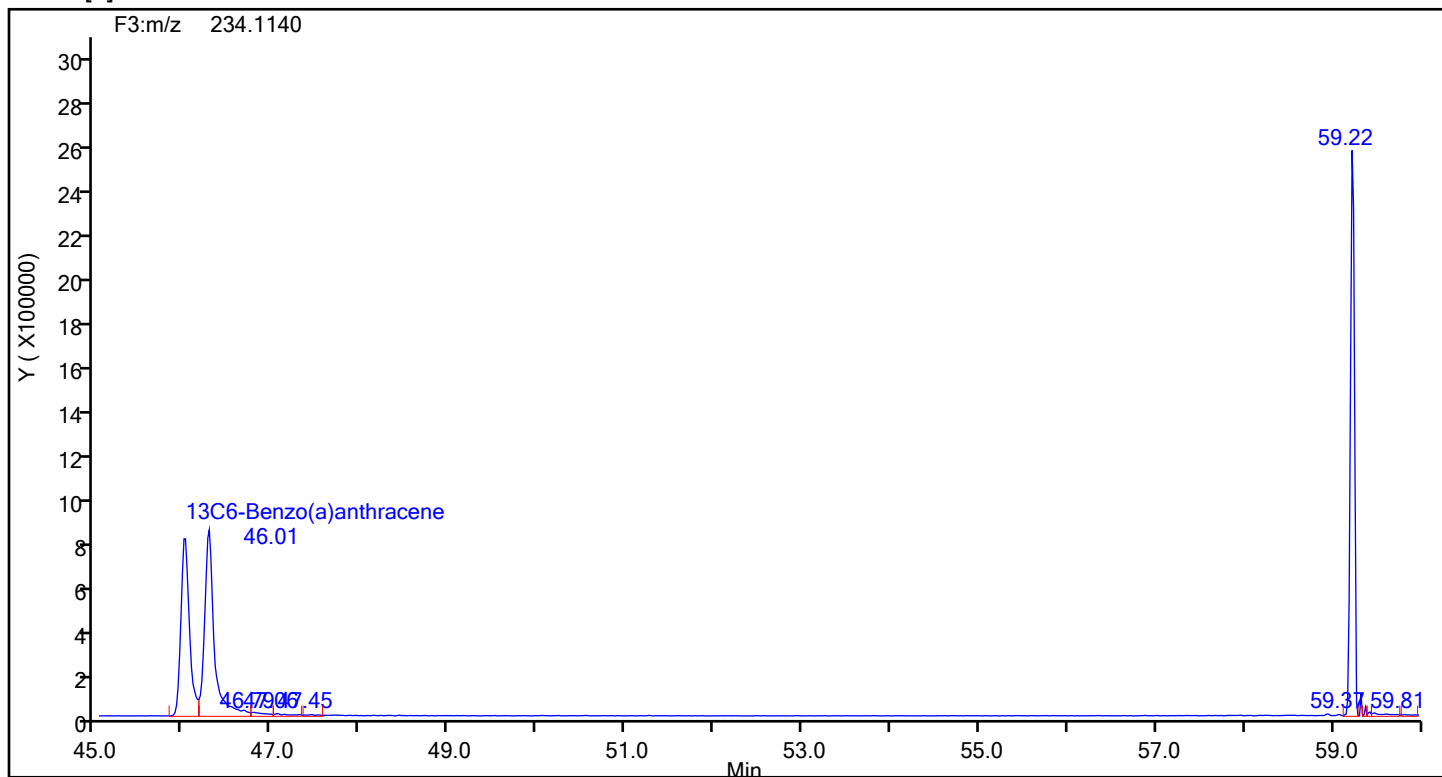
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 89013 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



## Benzo[a]anthracene Standards



## Eurofins Knoxville

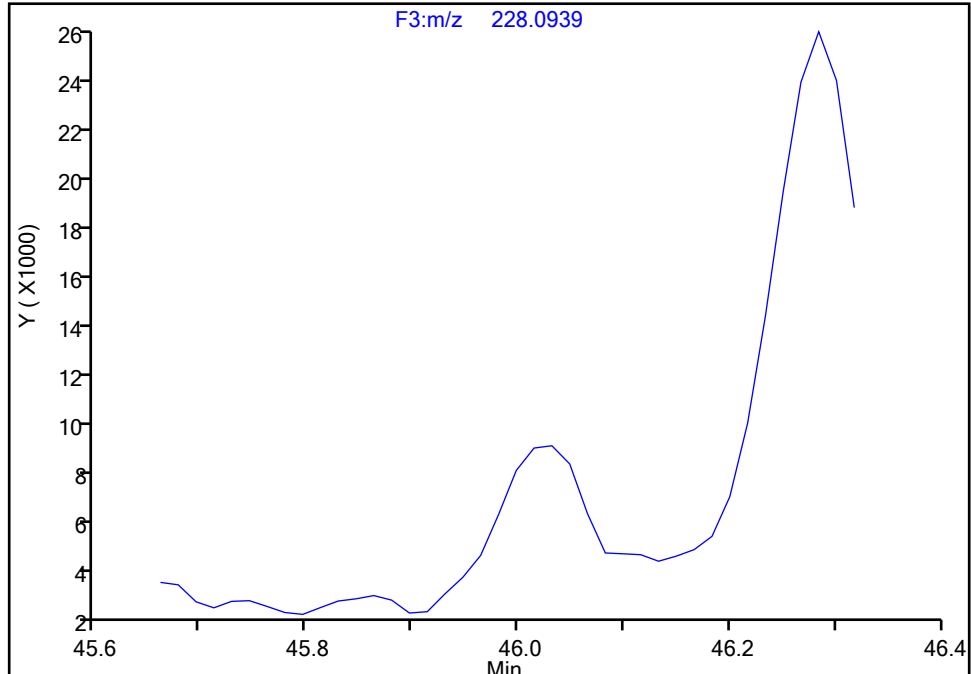
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-8-C Lab Sample ID: 140-37234-8  
Client ID: M23 F-10 BOILER BT COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

**Benzo[a]anthracene, CAS: 56-55-3**

Signal: 1

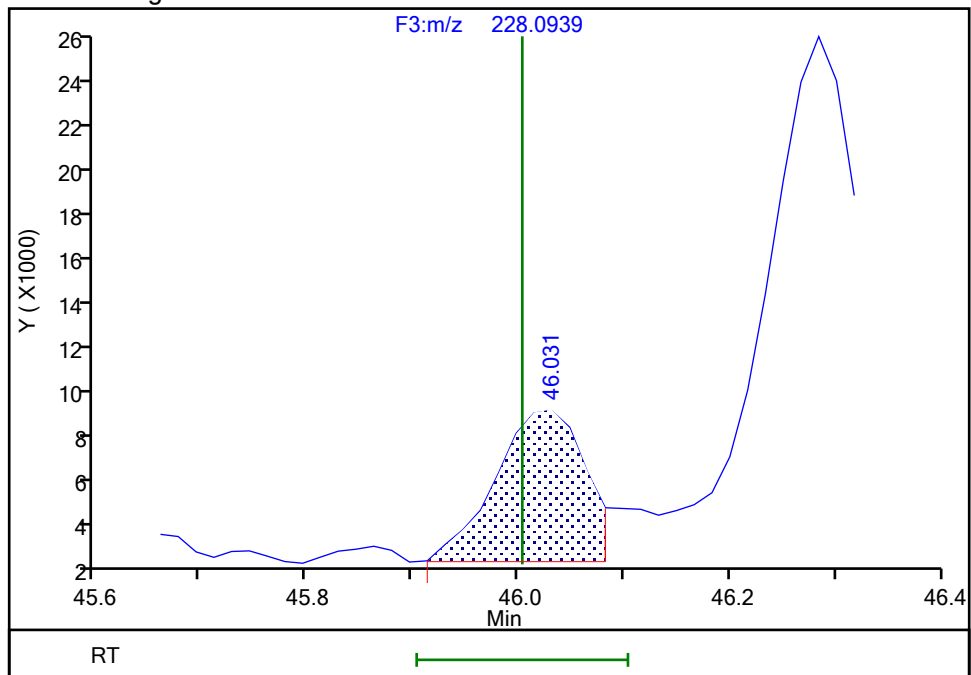
Not Detected  
Expected RT: 46.00

## Processing Integration Results



RT: 46.03  
Area: 39159  
Amount: 0.074655  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:56:34 -04:00:00 (UTC)

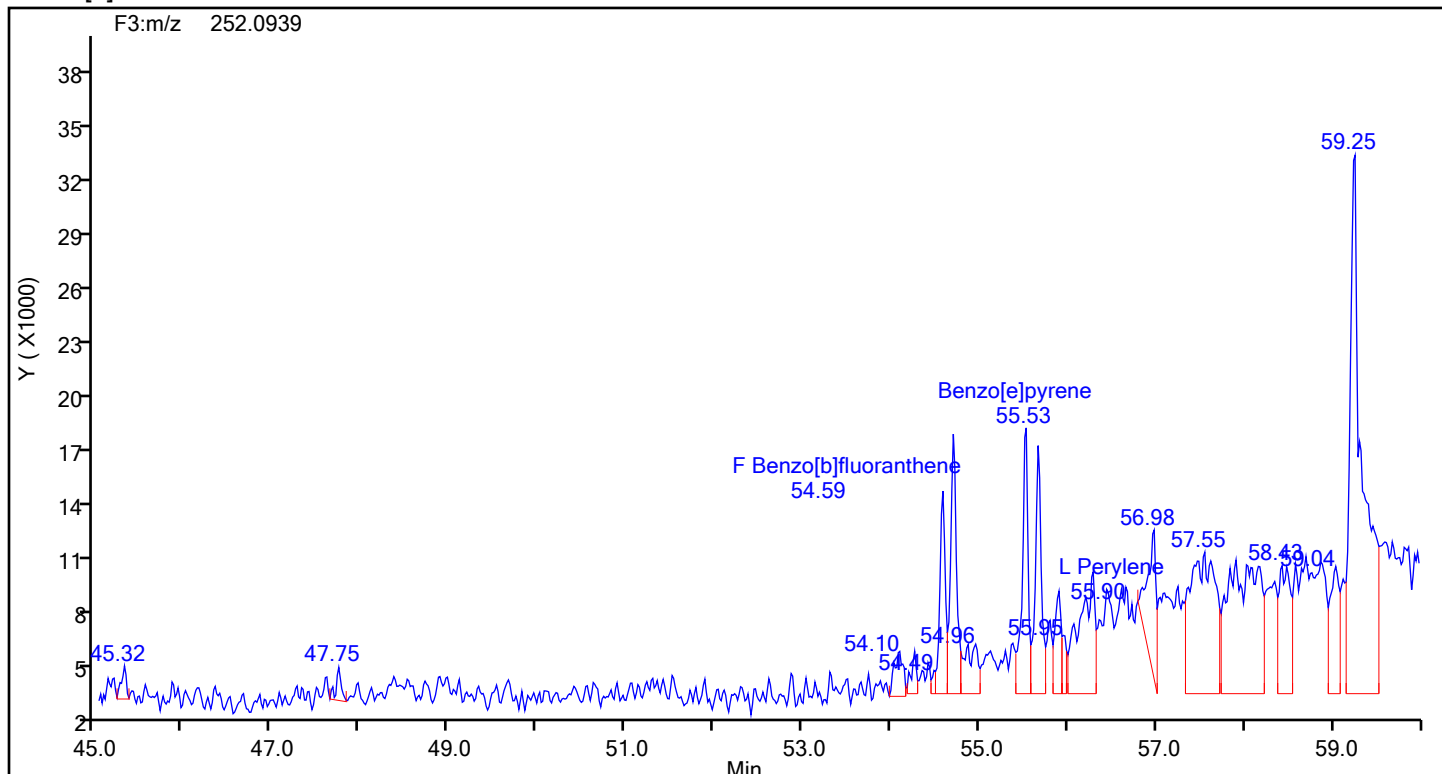
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

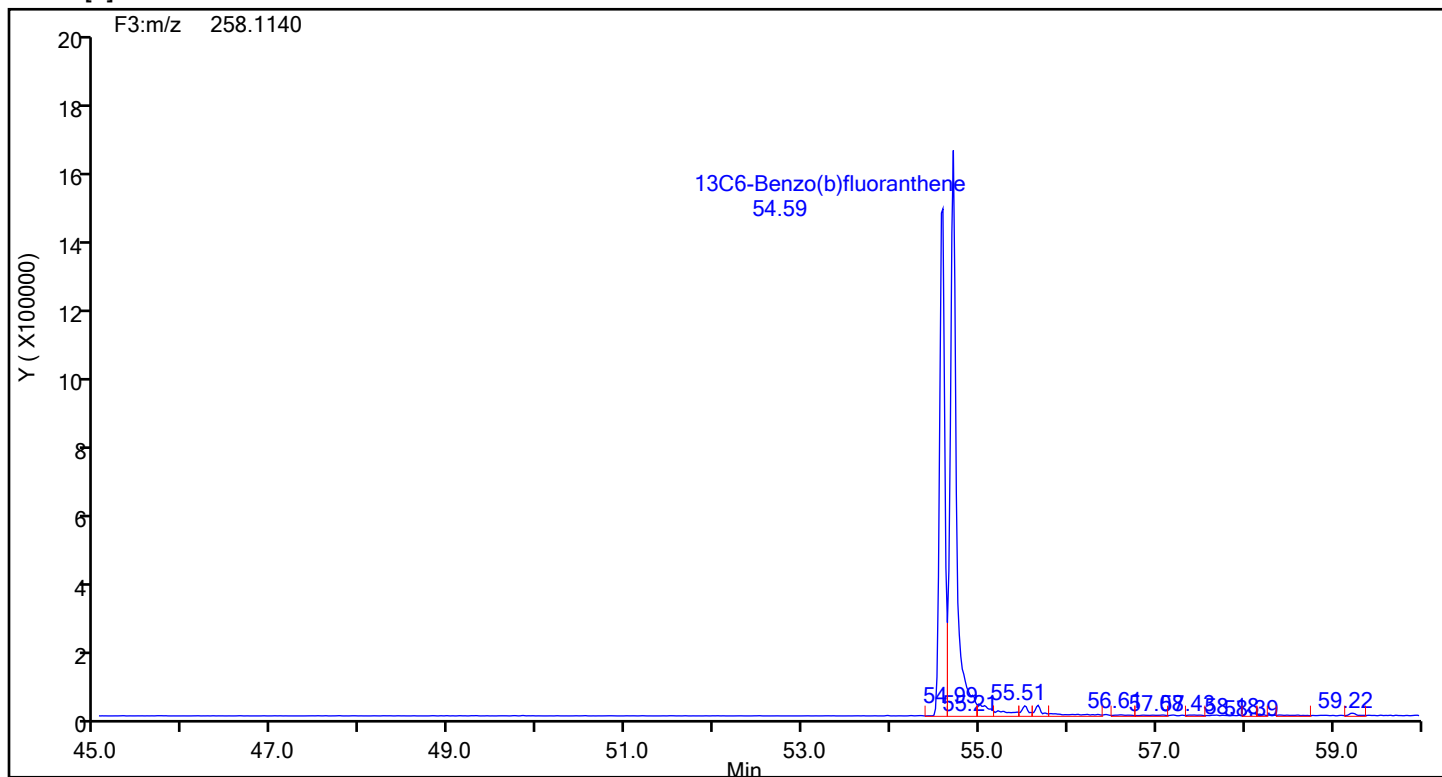
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 89013 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



## Benzo[b]fluoranthene Standards



## Eurofins Knoxville

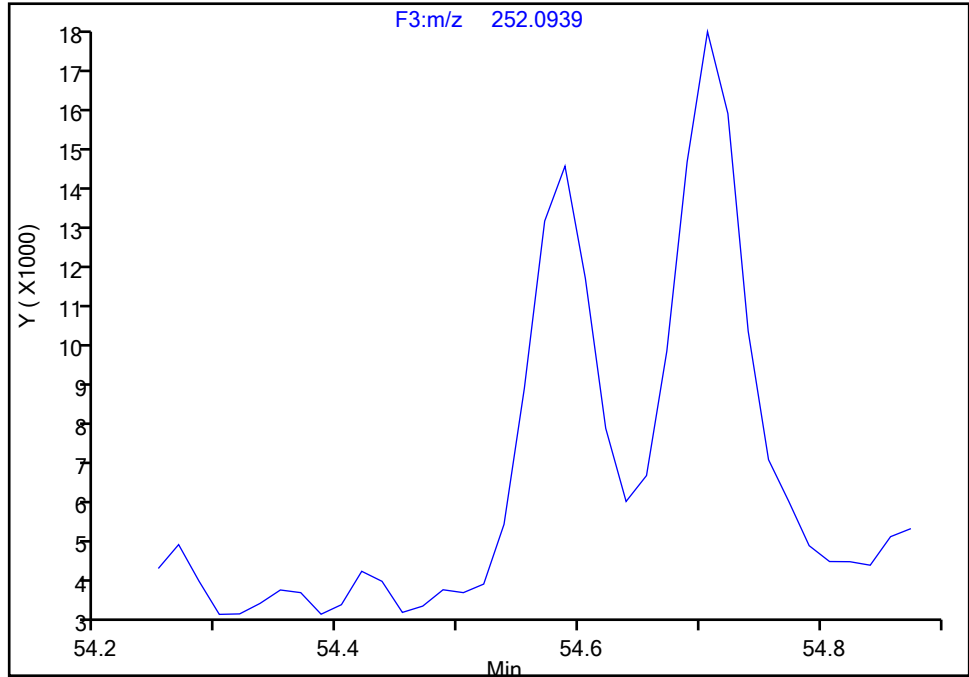
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-8-C Lab Sample ID: 140-37234-8  
Client ID: M23 F-10 BOILER BT COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Benzo[b]fluoranthene, CAS: 205-99-2

Signal: 1

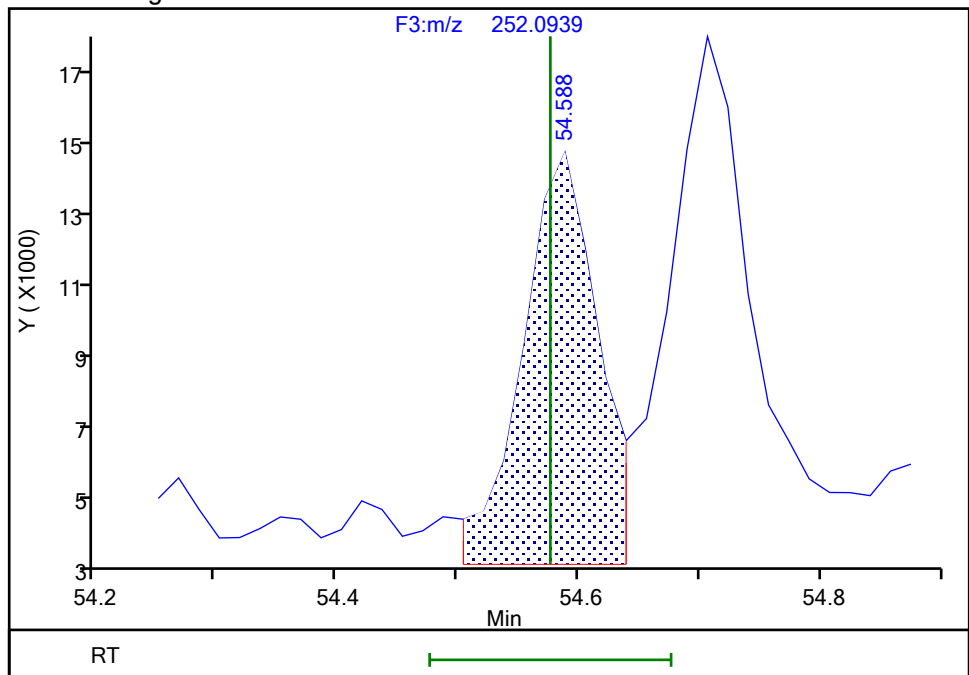
Not Detected  
Expected RT: 54.58

## Processing Integration Results



## Manual Integration Results

RT: 54.59  
Area: 49755  
Amount: 0.073585  
Amount Units: pg/ul



Reviewer: TT6I, 23-Jul-2024 09:55:41 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

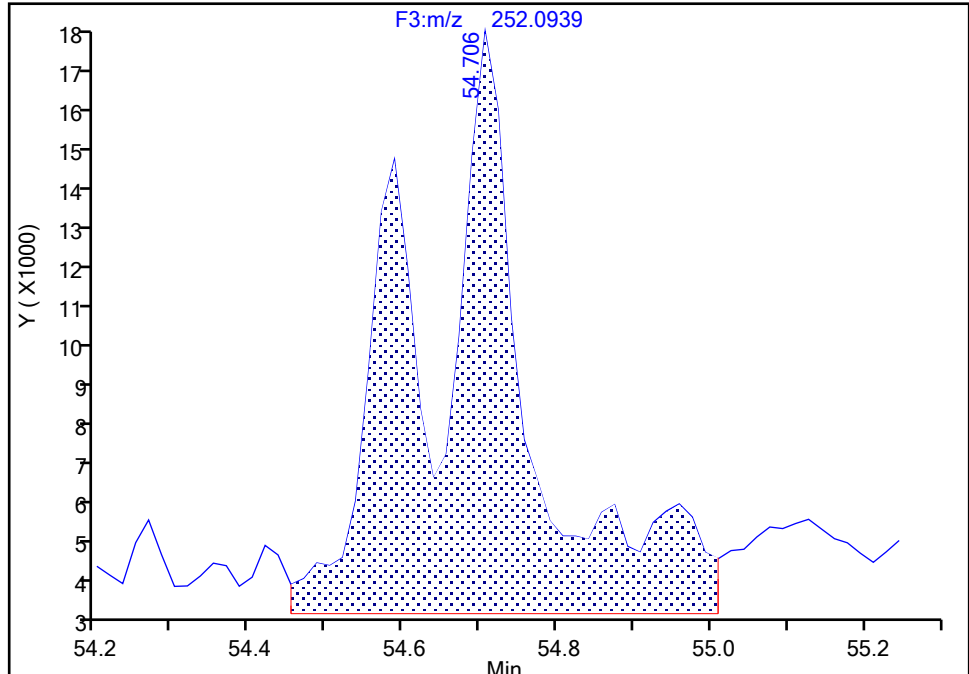
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-8-C Lab Sample ID: 140-37234-8  
Client ID: M23 F-10 BOILER BT COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

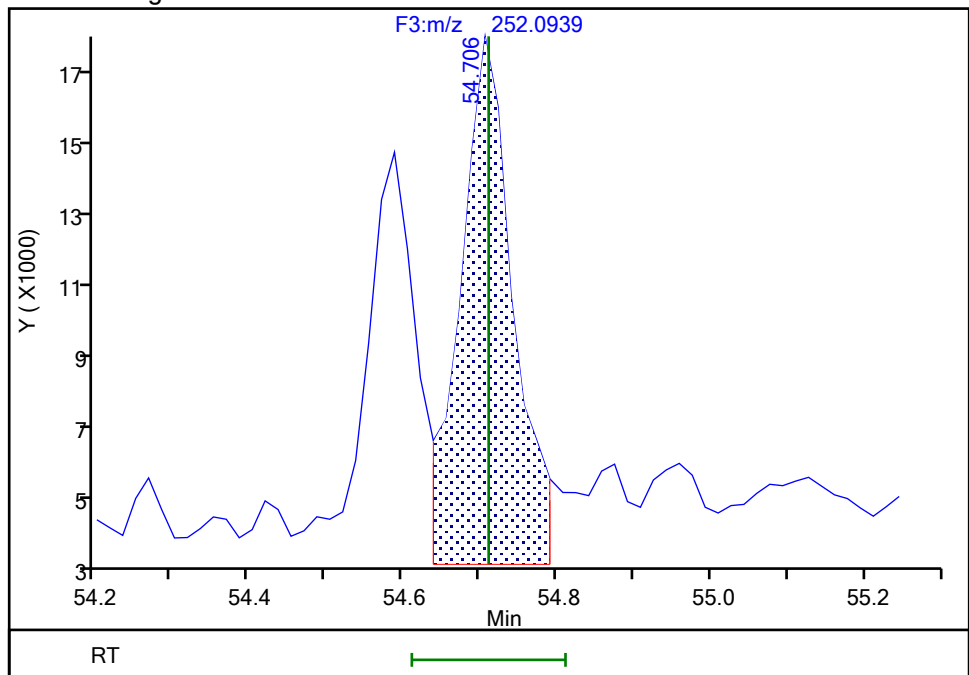
RT: 54.71  
Area: 145257  
Amount: 0.161609  
Amount Units: pg/ul

## Processing Integration Results



RT: 54.71  
Area: 69907  
Amount: 0.077777  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:56:55 -04:00:00 (UTC)

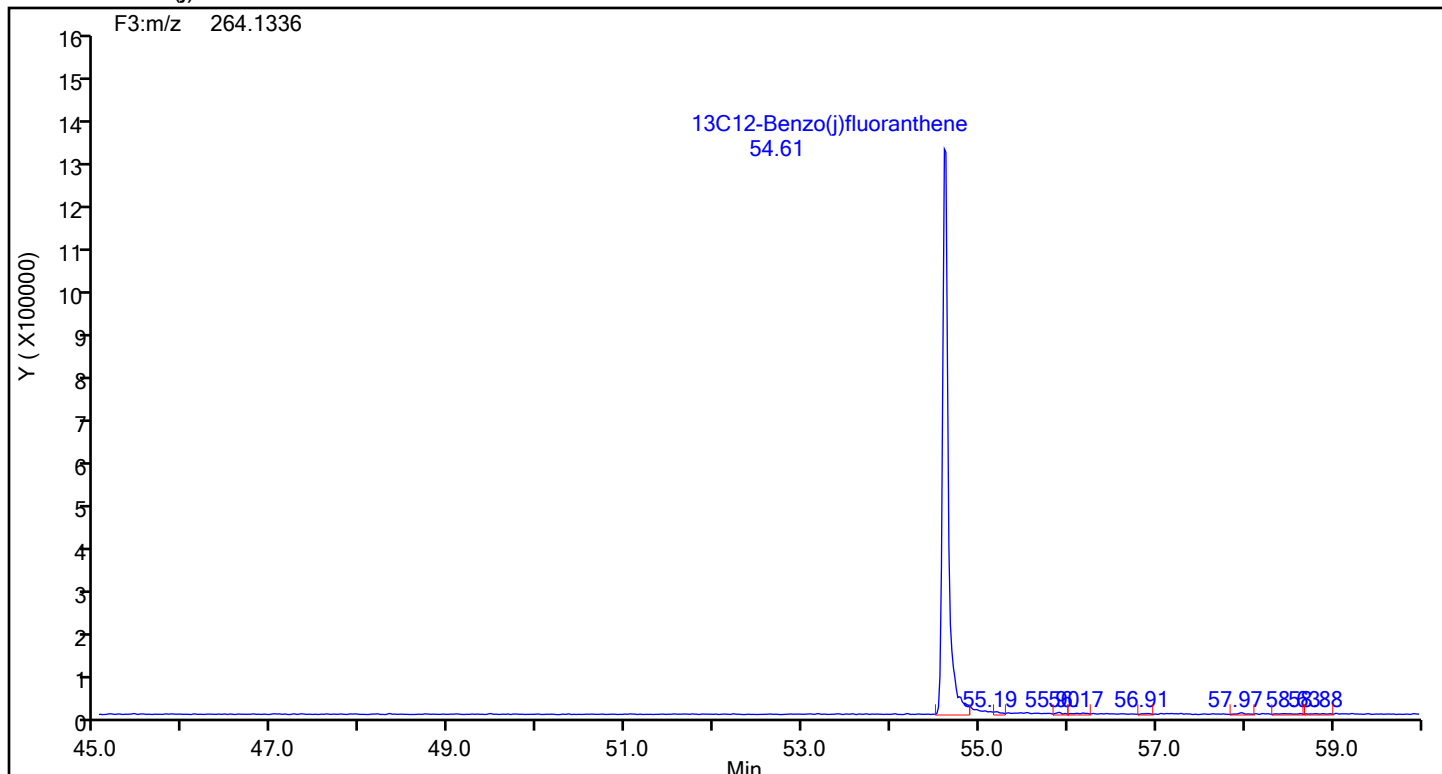
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

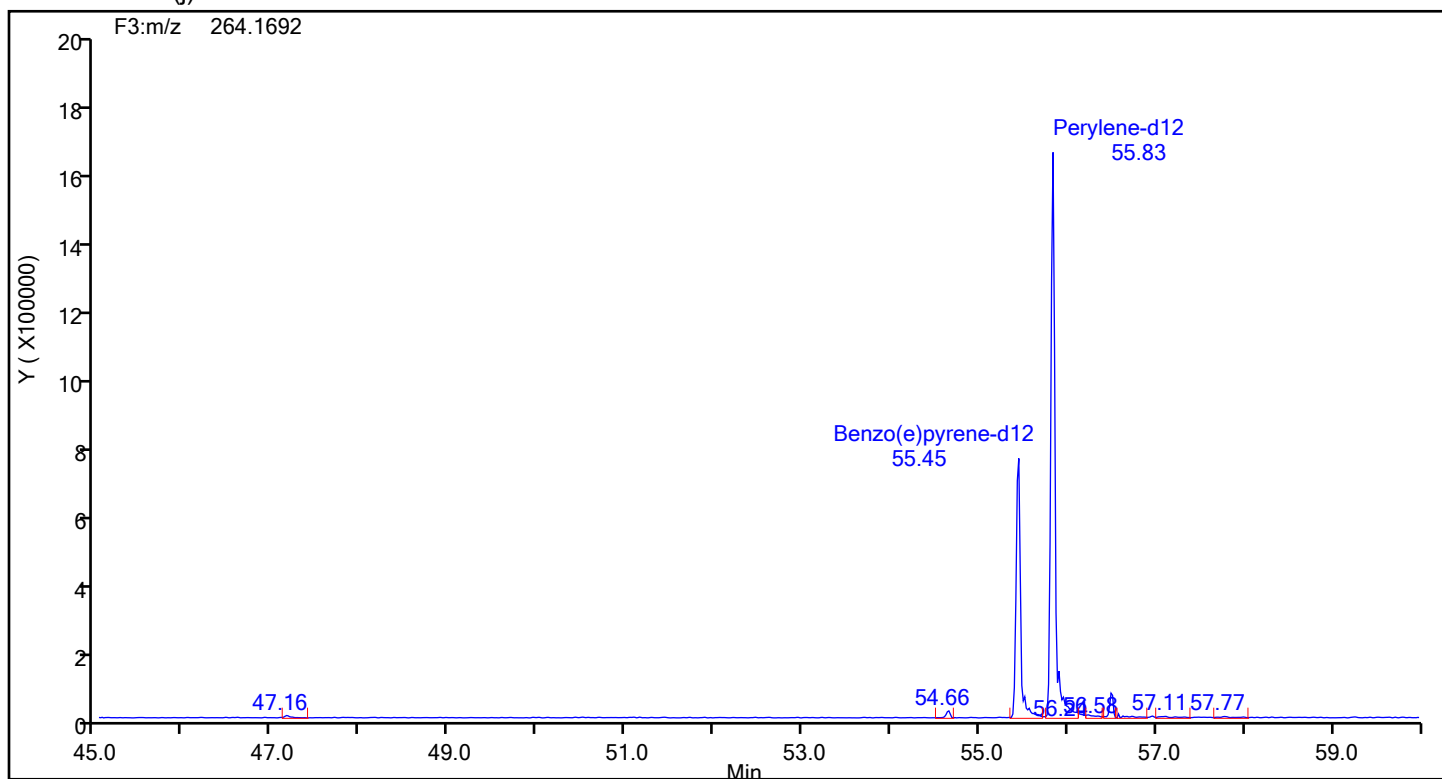
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 89013 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



## 13C12-Benzo(j)fluoranthene Standards

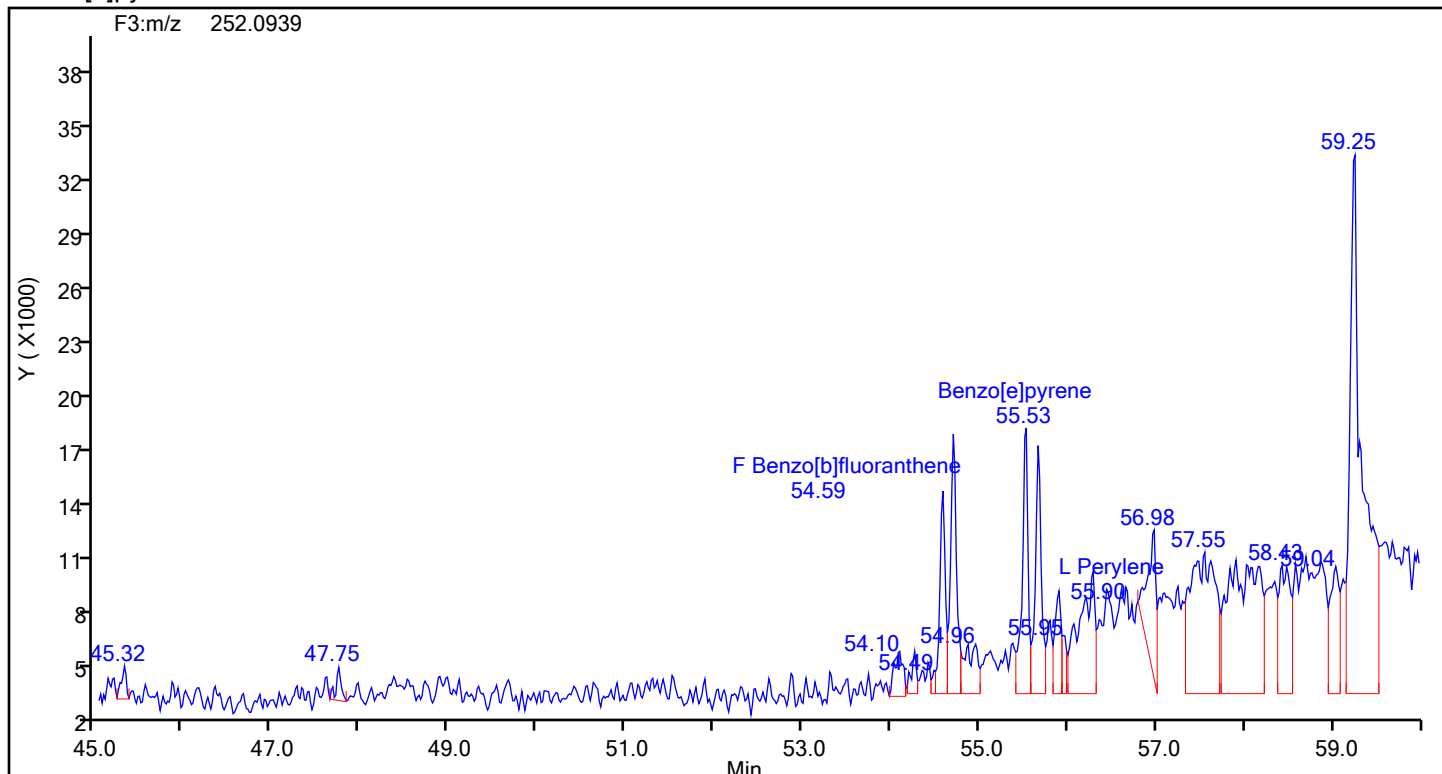




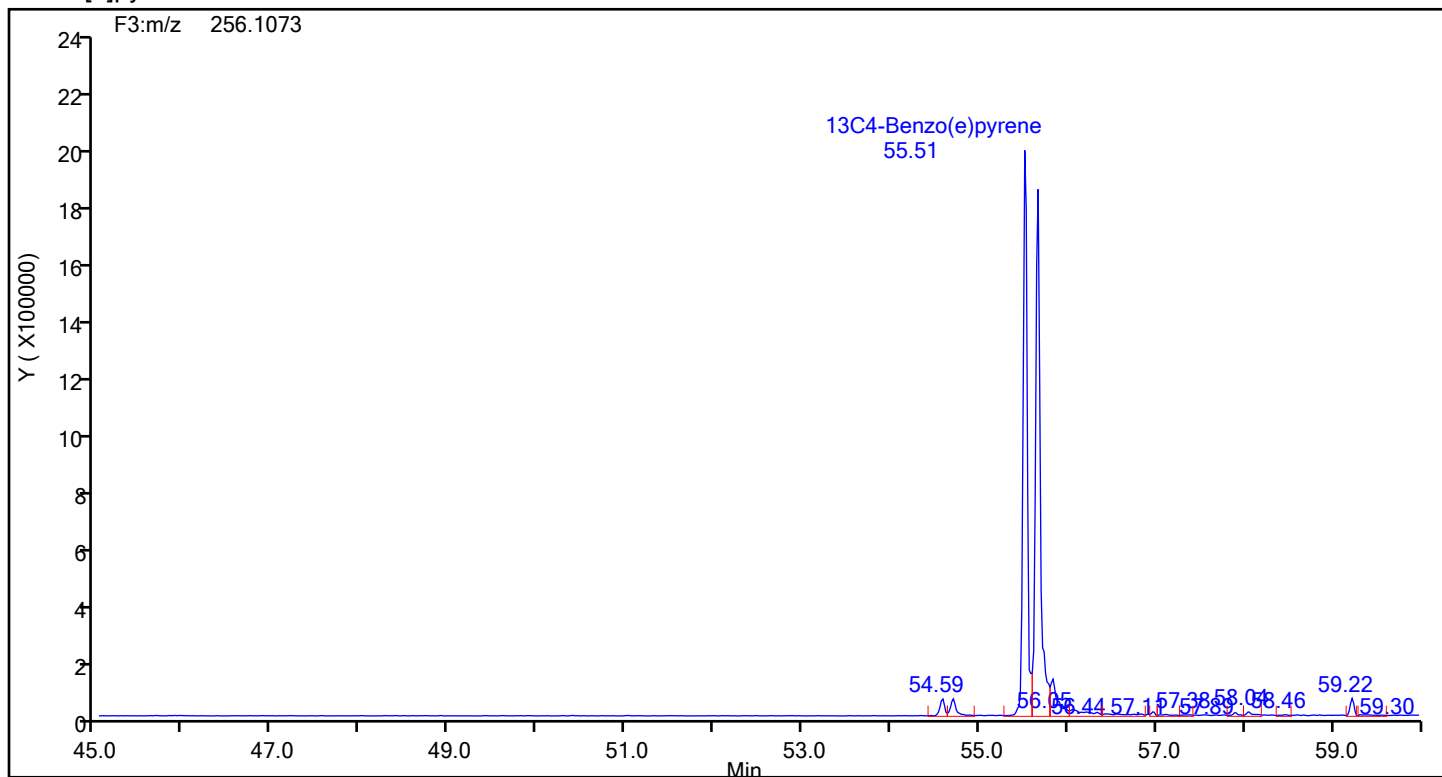
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 89013 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[e]pyrene



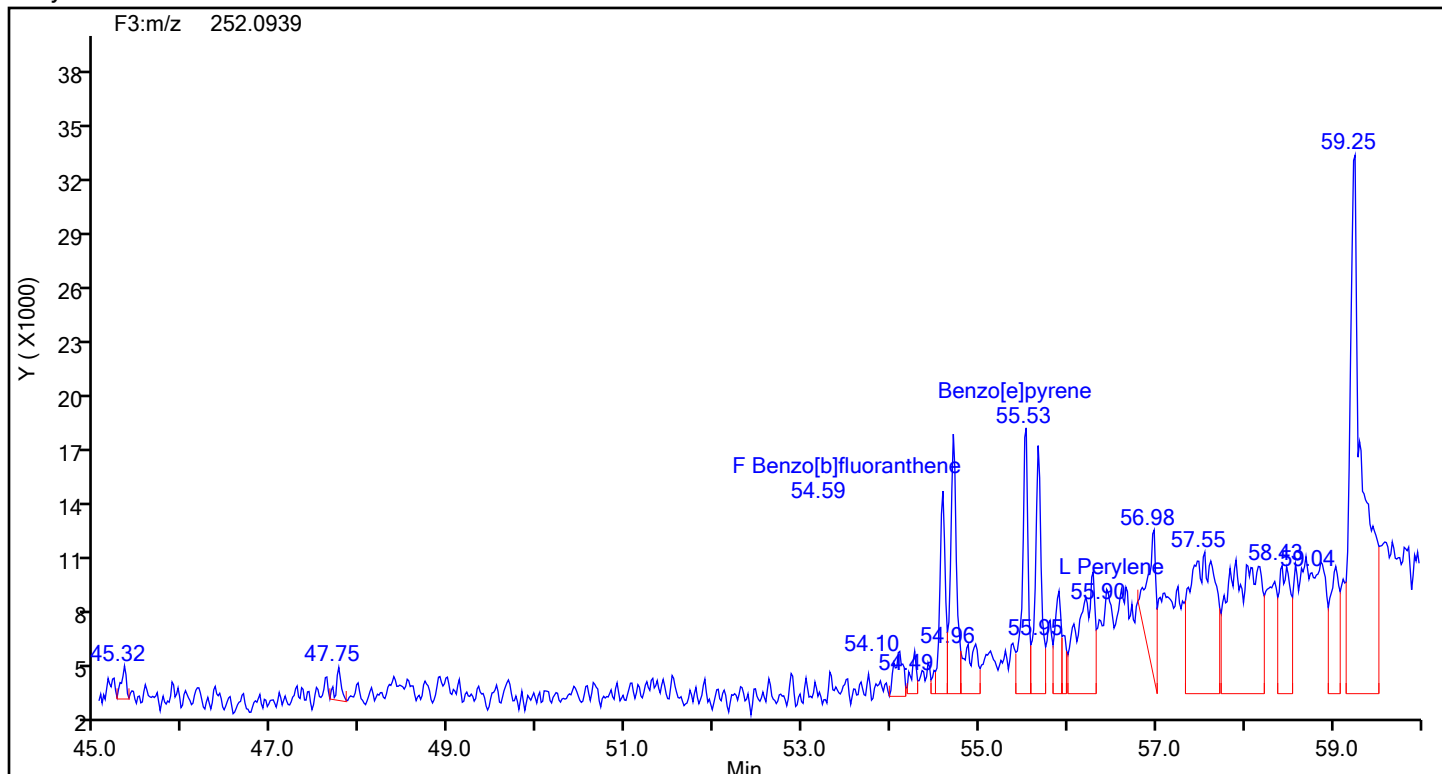
## Benzo[e]pyrene Standards



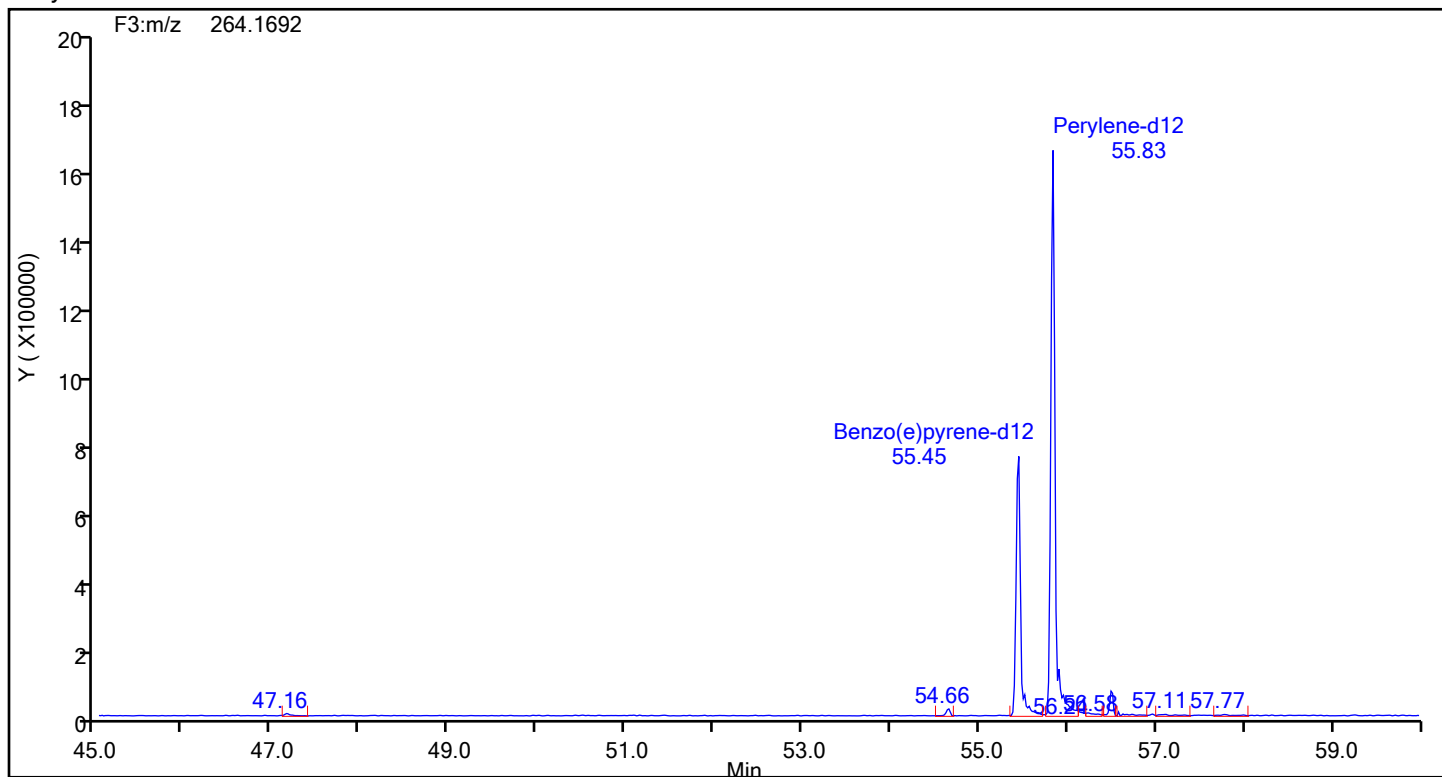
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 89013 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Perylene



## Perylene Standards



## Eurofins Knoxville

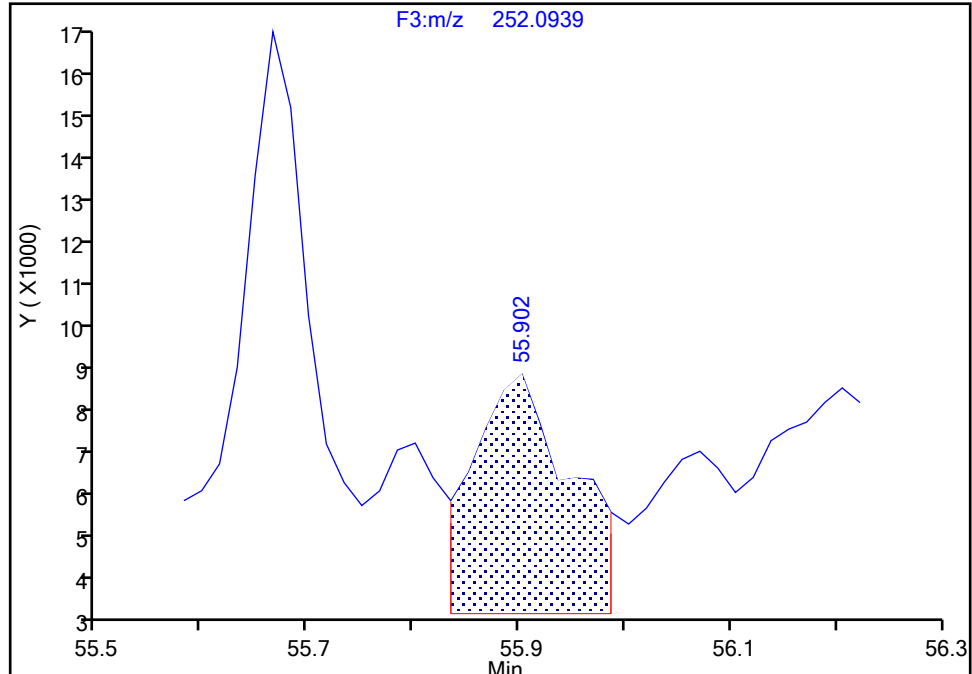
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-8-C Lab Sample ID: 140-37234-8  
Client ID: M23 F-10 BOILER BT COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Perylene, CAS: 198-55-0

Signal: 1

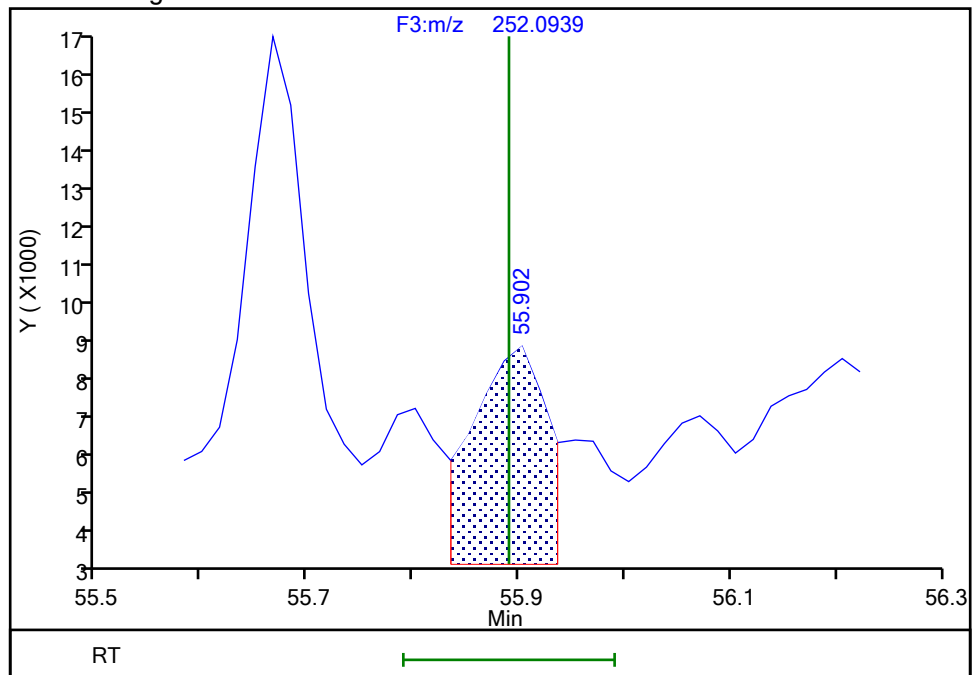
RT: 55.90  
Area: 35404  
Amount: 0.044047  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.90  
Area: 29131  
Amount: 0.036243  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:55:22 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d

Injection Date: 22-Jul-2024 17:11:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER BT COMBINED

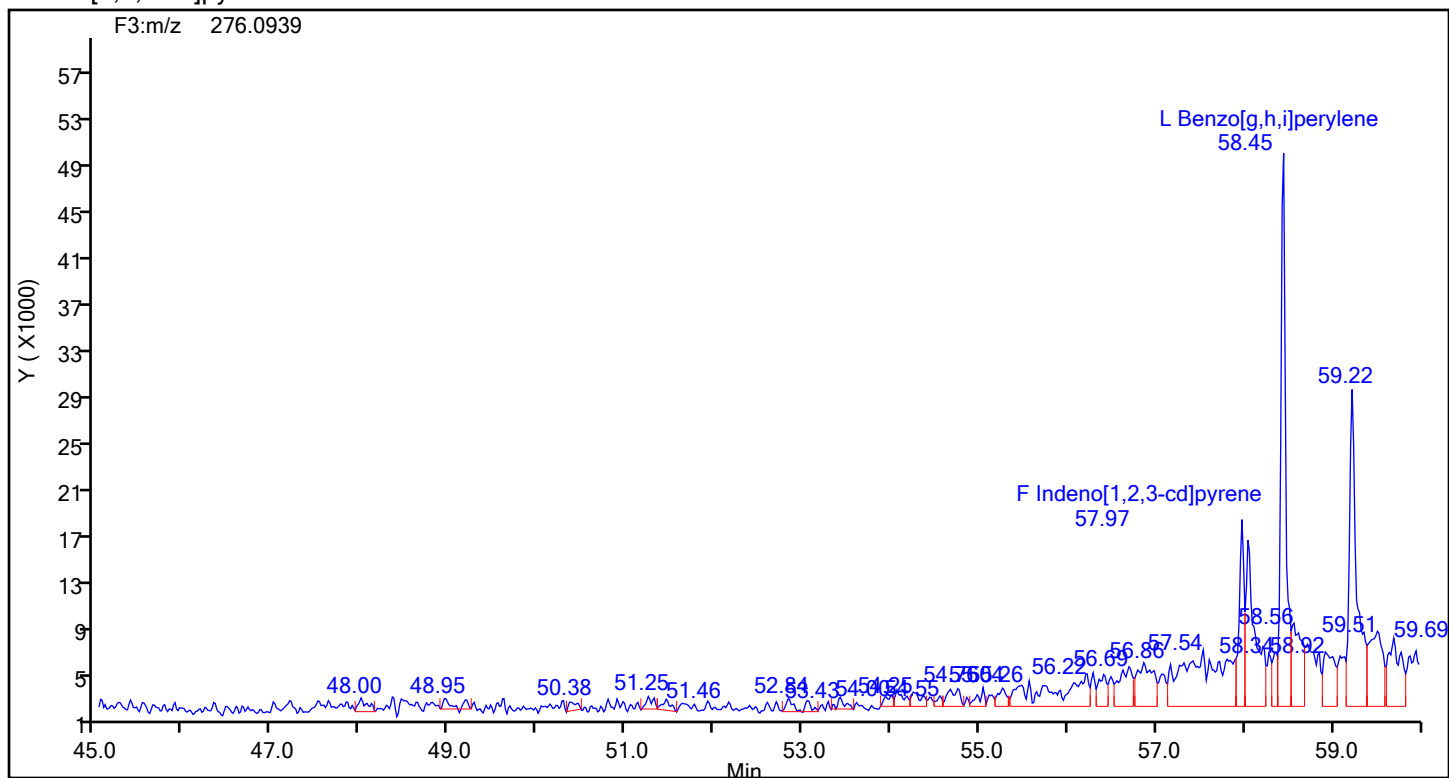
Worklist#: 89013

Sample Line#: 8

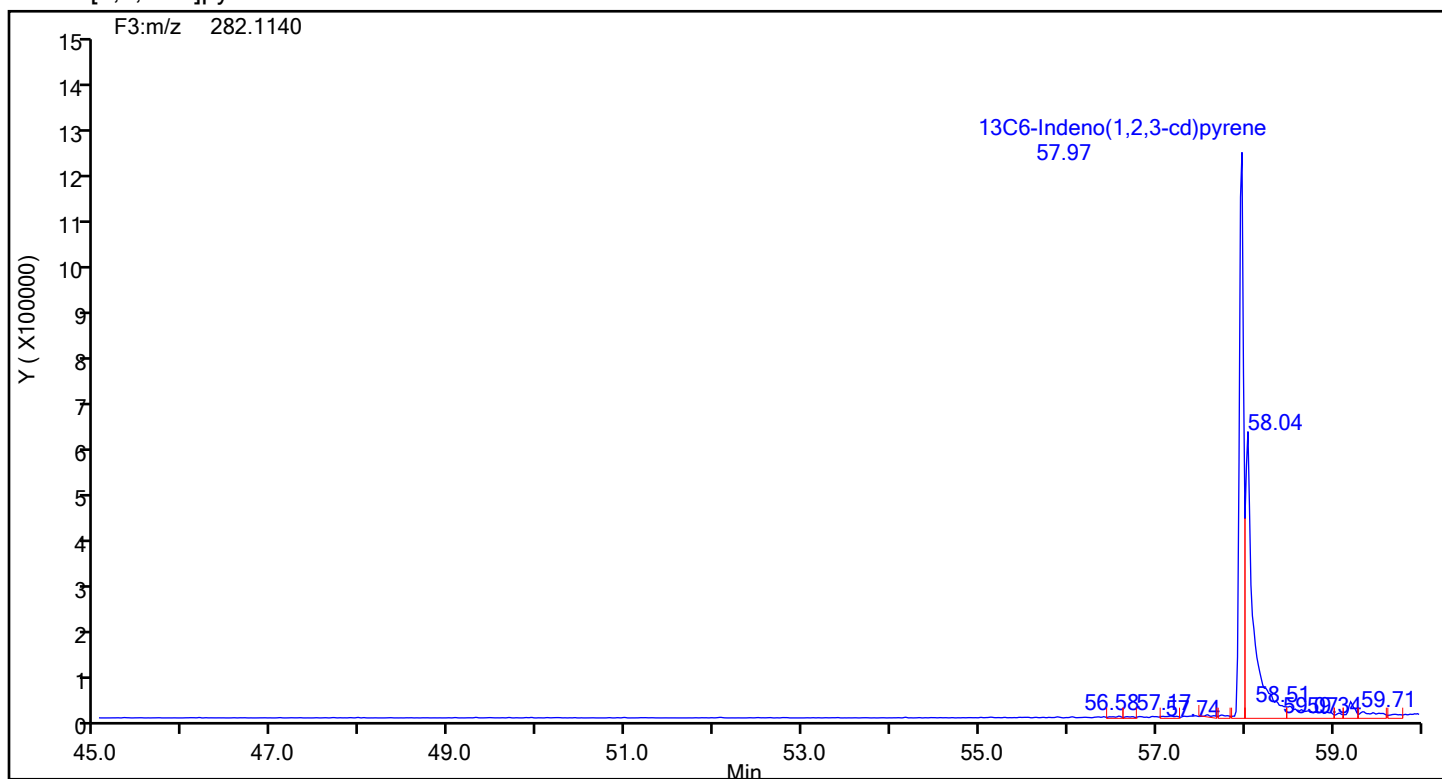
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

Indeno[1,2,3-cd]pyrene



Indeno[1,2,3-cd]pyrene Standards



## Eurofins Knoxville

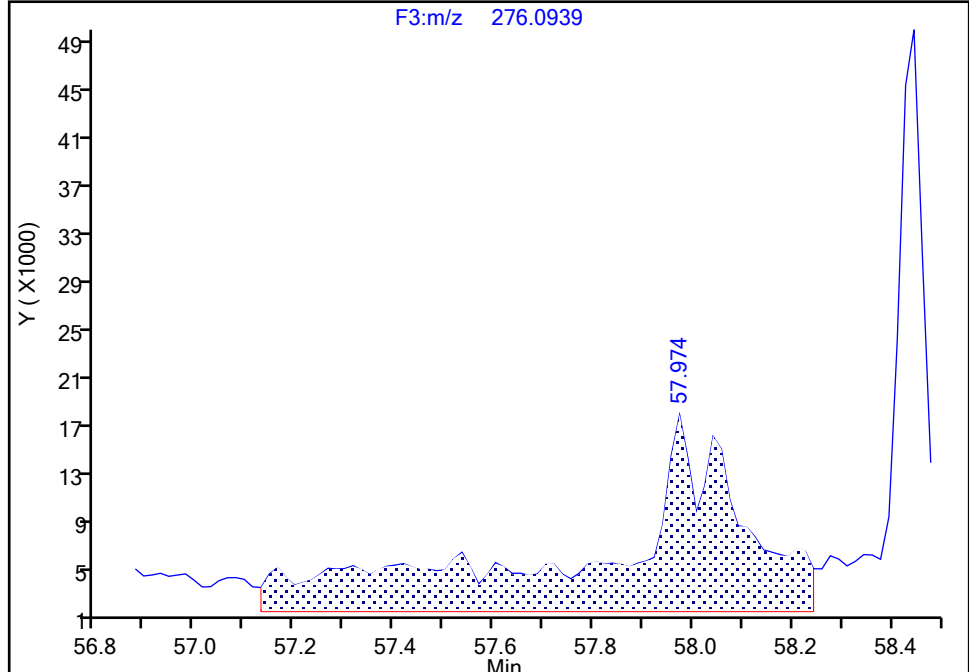
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-8-C Lab Sample ID: 140-37234-8  
Client ID: M23 F-10 BOILER BT COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

## Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

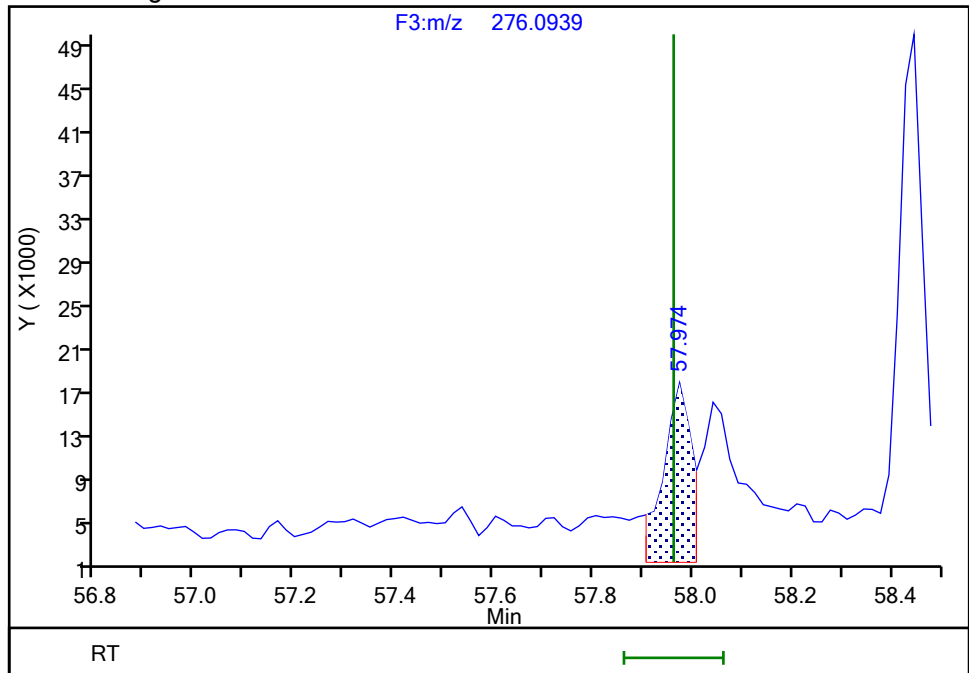
RT: 57.97  
Area: 323244  
Amount: 0.714234  
Amount Units: pg/ul

## Processing Integration Results



RT: 57.97  
Area: 65846  
Amount: 0.145492  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:54:44 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d

Injection Date: 22-Jul-2024 17:11:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER BT COMBINED

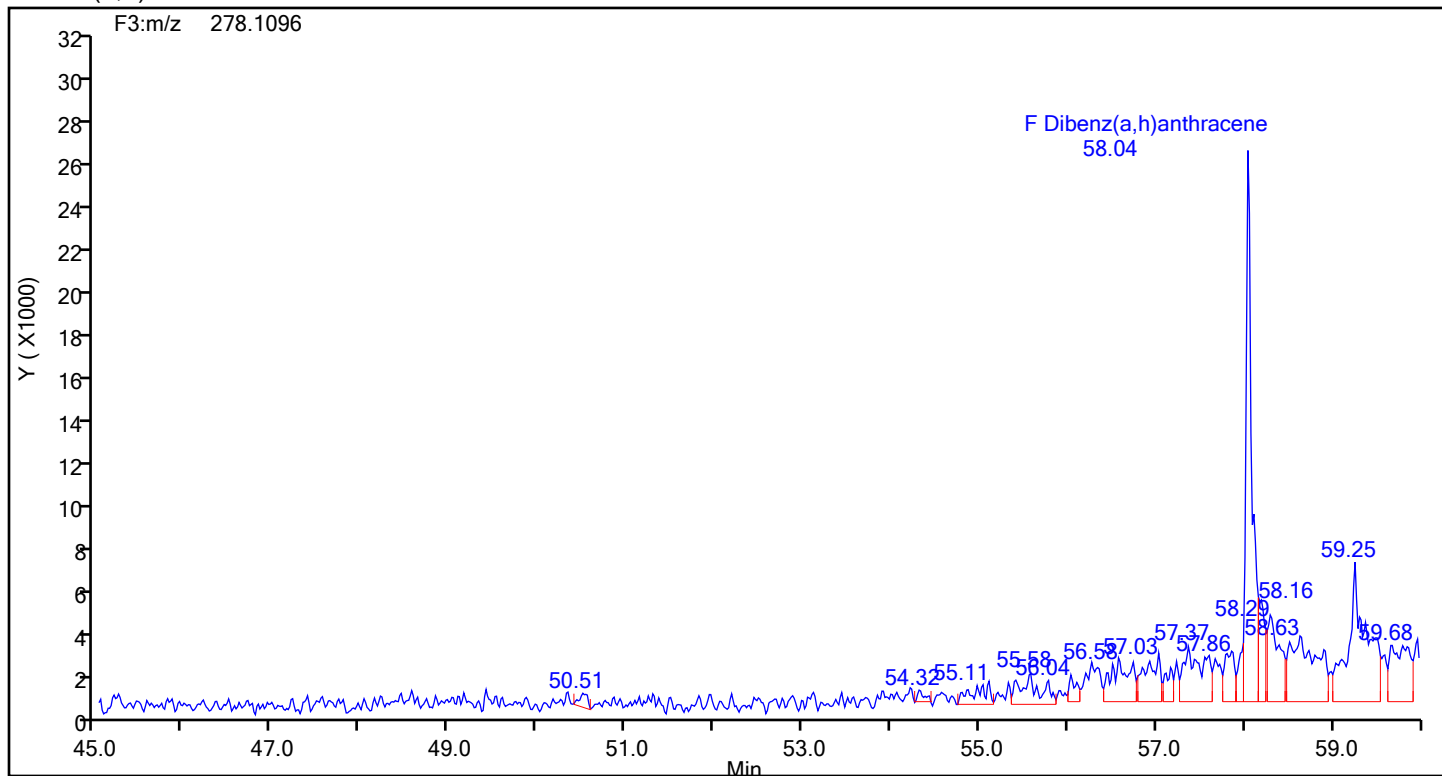
Worklist#: 89013

Sample Line#: 8

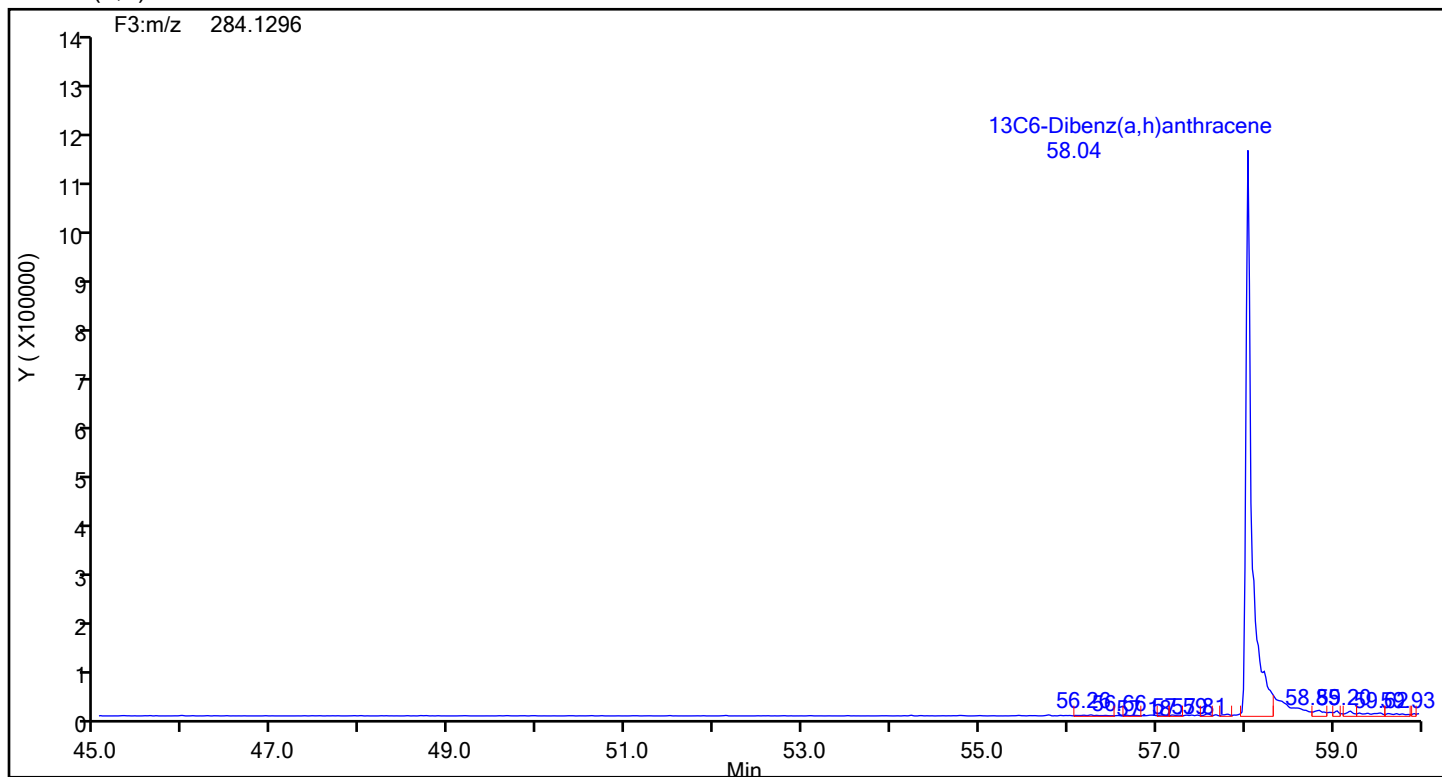
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

Dibenz(a,h)anthracene



Dibenz(a,h)anthracene Standards



## Eurofins Knoxville

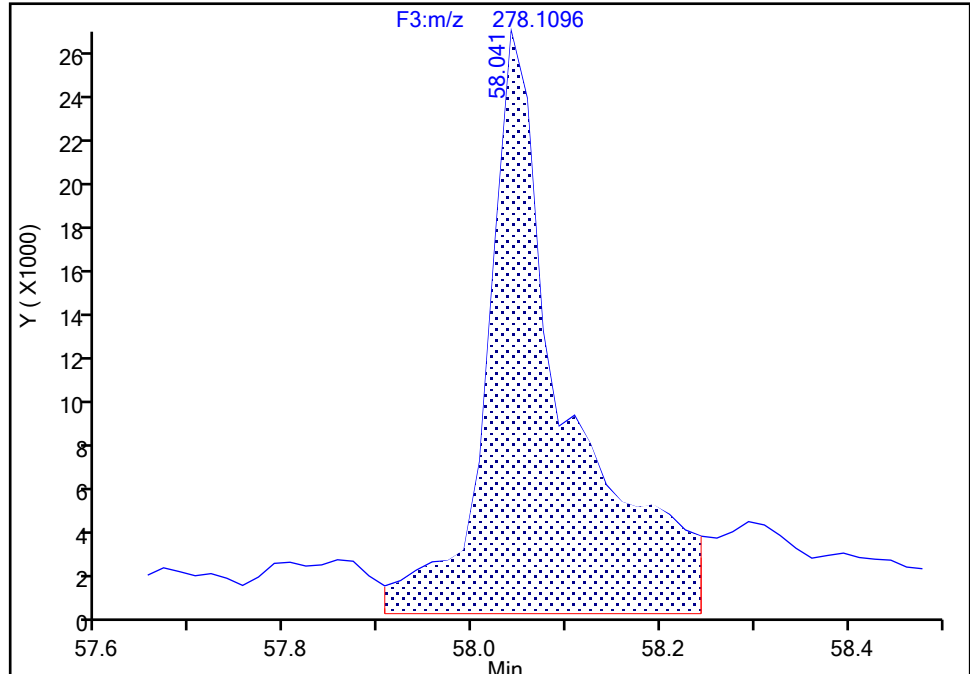
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-8-C Lab Sample ID: 140-37234-8  
Client ID: M23 F-10 BOILER BT COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

## Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

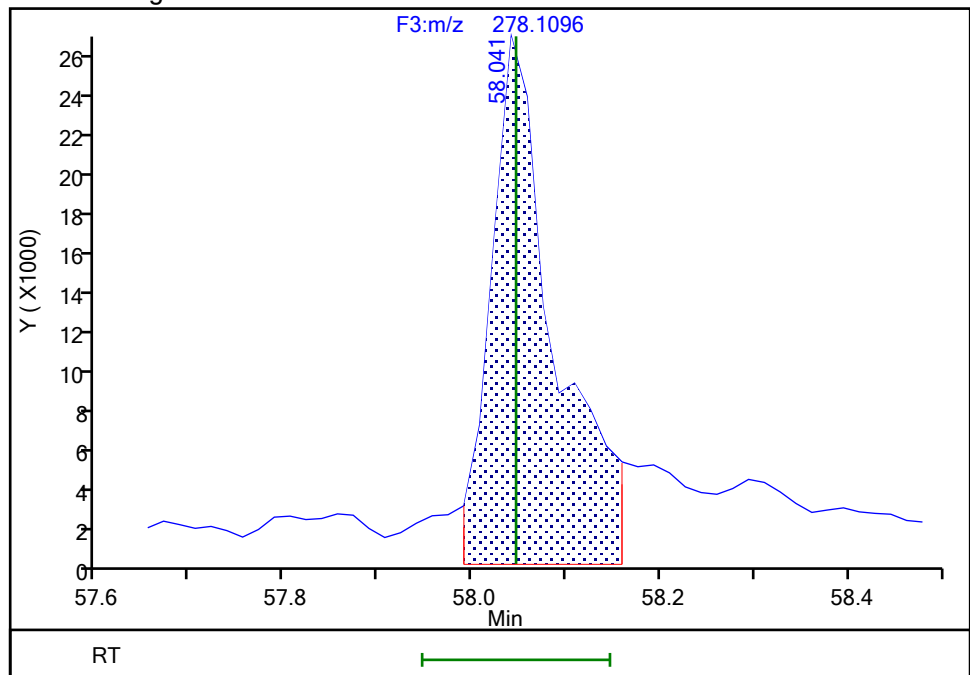
RT: 58.04  
Area: 149803  
Amount: 0.253269  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.04  
Area: 121855  
Amount: 0.206018  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:56:11 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d

Injection Date: 22-Jul-2024 17:11:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 F-10 BOILER BT COMBINED

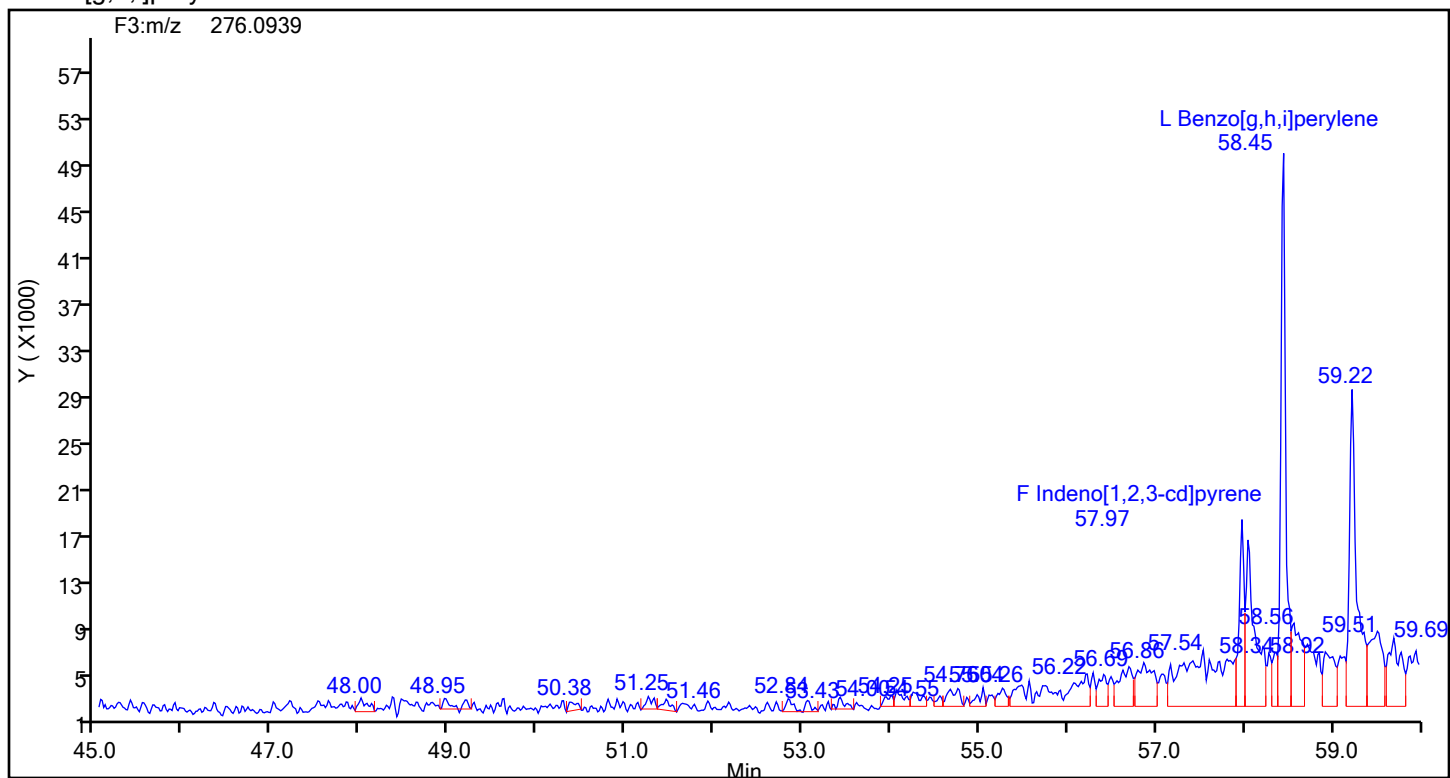
Worklist#: 89013

Sample Line#: 8

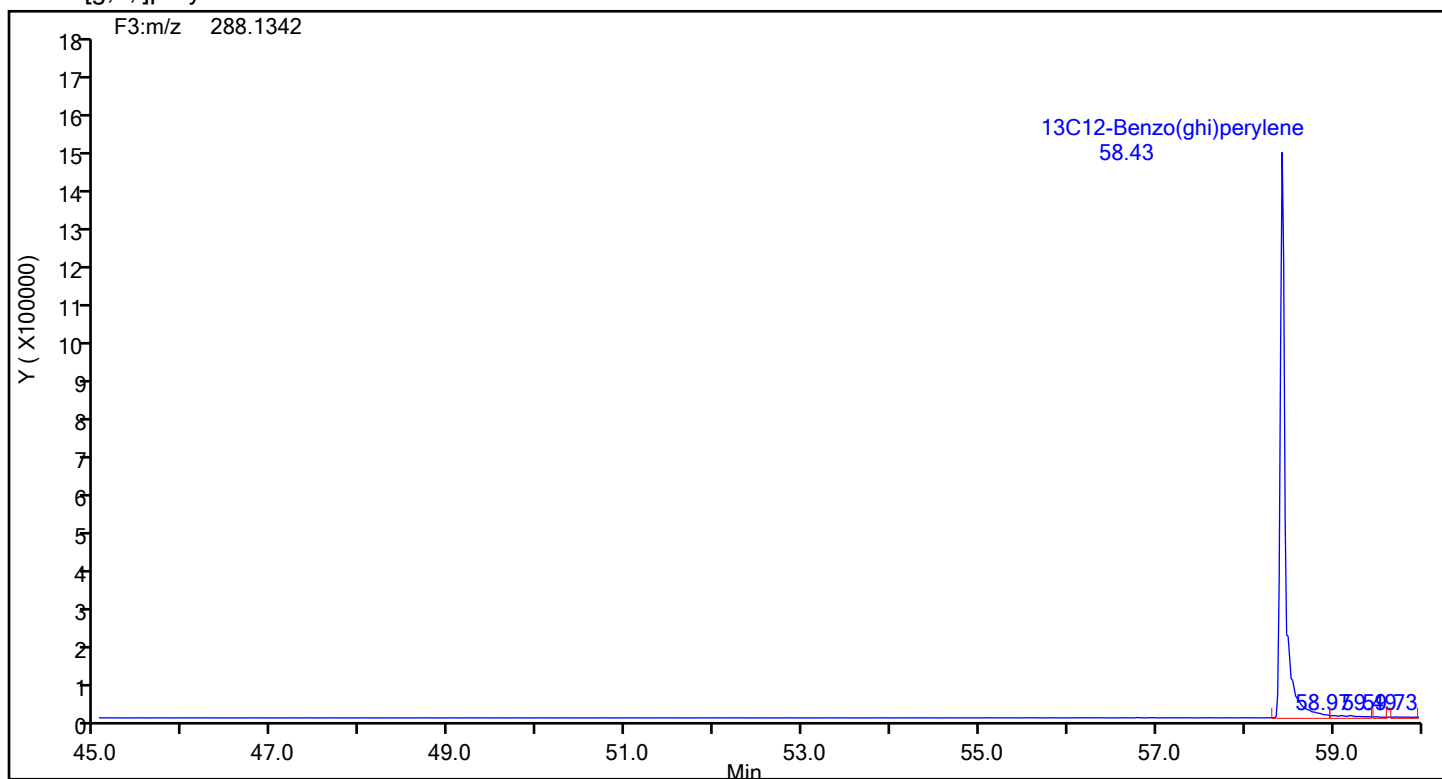
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Benzo[g,h,i]perylene



## Benzo[g,h,i]perylene Standards





## Eurofins Knoxville

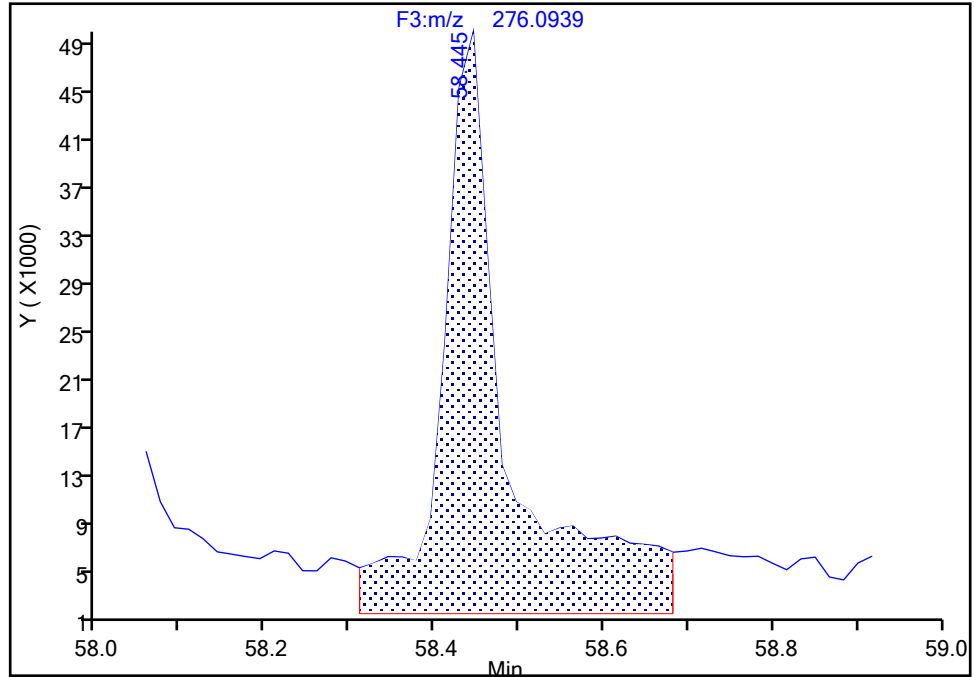
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Injection Date: 22-Jul-2024 17:11:00 Instrument ID: D3PAH  
Lims ID: 140-37234-A-8-C Lab Sample ID: 140-37234-8  
Client ID: M23 F-10 BOILER BT COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

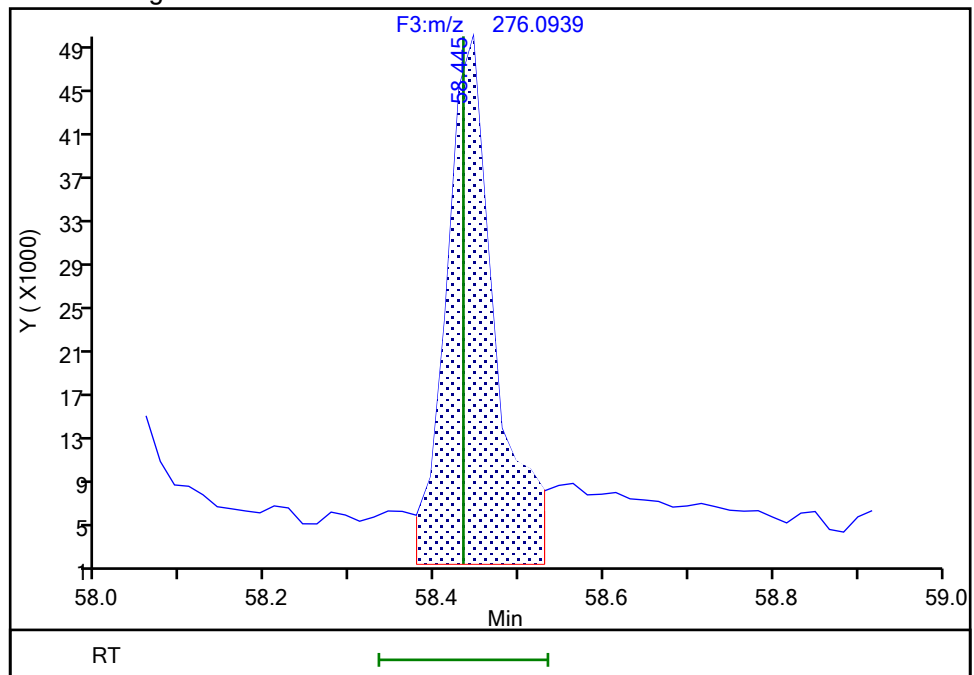
RT: 58.45  
Area: 259776  
Amount: 0.347991  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.45  
Area: 191301  
Amount: 0.256263  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:55:59 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-a-8-c.d  
Lims ID: 140-37234-A-8-C  
Client ID: M23 F-10 BOILER BT COMBINED  
Sample Type: Client  
Inject. Date: 22-Jul-2024 17:11:00 ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 10.0000  
Sample Info:  
Misc. Info.: 140-0033599-008  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 23-Jul-2024 09:57:11 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1613

First Level Reviewer: TT6I

Date: 23-Jul-2024 09:57:11

Compound	Amount Added	Amount Recovered	% Rec.
Anthracin-d10	10.0	0.9376	93.76
13C6-Benzo(c)fluorene	100.0	9.99	99.86
13C12-Benzo(j)fluoranthene	100.0	8.02	80.21

FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 MEDIA CHECK A-2229</u> <u>FILTER, A-2228 XAD</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-14</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-b-14-b.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/03/2024 00:00</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/22/2024 16:06</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>89013</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
91-20-3	Naphthalene	40.2	J B * +	75.0	75.0	0.0409
91-57-6	2-Methylnaphthalene	14.5	J B	75.0	75.0	0.0355
208-96-8	Acenaphthylene	0.240	J B	3.00	3.00	0.0289
83-32-9	Acenaphthene	6.40	J B	30.0	30.0	0.0391
86-73-7	Fluorene	4.52	J B	30.0	30.0	0.0445
85-01-8	Phenanthrene	9.16	B	6.00	6.00	0.0571
120-12-7	Anthracene	0.175	J B	30.0	30.0	0.0551
206-44-0	Fluoranthene	3.14	J B	6.00	6.00	0.0183
129-00-0	Pyrene	4.32	J B	6.00	6.00	0.0174
56-55-3	Benzo[a]anthracene	0.0460	J B	6.00	6.00	0.0201
218-01-9	Chrysene	1.00	J B	6.00	6.00	0.0194
205-99-2	Benzo[b]fluoranthene	0.294	J B	30.0	30.0	0.00675
207-08-9	Benzo[k]fluoranthene	0.120	J B	6.00	6.00	0.00613
192-97-2	Benzo[e]pyrene	0.252	J B	6.00	6.00	0.00537
50-32-8	Benzo[a]pyrene	0.148	J B	3.00	3.00	0.00520
198-55-0	Perylene	0.191	J B	3.00	3.00	0.00539
193-39-5	Indeno[1,2,3-cd]pyrene	0.217	J B	3.00	3.00	0.00556
53-70-3	Dibenz(a,h)anthracene	0.0617	J B	6.00	6.00	0.00396
191-24-2	Benzo[g,h,i]perylene	0.198	J B	6.00	6.00	0.00469

FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 MEDIA CHECK A-2229</u> <u>FILTER, A-2228 XAD</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-14</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-b-14-b.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/03/2024 00:00</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/22/2024 16:06</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>89013</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02217	13C6-Naphthalene	67		20-130
STL03357	13C6-2-Methylnaphthalene	68		20-130
189811-56-1	13C6-Acenaphthylene	83		20-130
189811-57-2	13C6-Acenaphthene	77		20-130
STL00616	13C6-Fluorene	78		20-130
1397194-60-3	13C6-Fluoranthrene	77		20-130
1397214-90-2	13C3-Pyrene	79		20-130
917378-11-1	13C6-Benzo (a) anthracene	50		20-130
1397177-72-8	13C6-Chrysene	54		20-130
STL03358	13C6-Benzo (b) fluoranthene	73		20-130
1397194-60-3	13C6-Benzo (k) fluoranthene	83		20-130
STL03382	13C4-Benzo (e) pyrene	75		20-130
STL03359	13C4-Benzo (a) pyrene	82		20-130
1520-96-3	Perylene-d12	71		20-130
362044-56-2	13C6-Indeno (1,2,3-cd) pyrene	60		20-130
STL03360	13C6-Dibenz (a,h) anthracene	69		20-130
350820-11-0	13C12-Benzo (ghi) perylene	63		20-130
189811-60-7	13C6-Anthracene	80		20-130
1189955-53-0	13C6-Phenanthrene	68		20-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Lims ID: 140-37234-B-14-B  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Sample Type: Client  
Inject. Date: 22-Jul-2024 16:06:00 ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033599-006  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAL ICAL  
Last Update: 23-Jul-2024 09:54:26 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1613

First Level Reviewer: TT6I

Date: 23-Jul-2024 09:54:26

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:26	24856966		3.3746	66.7	66.7	0.005323	0.005323	66.68	
Naphthalene	11:26	8597329		1.2893	26.8	26.8	0.0273	0.0273		
D 13C6-2-Methylnaphthalene	13:48	11978255		1.6031	67.6	67.6	0.001289	0.001289	67.64	
2-Methylnaphthalene	13:48	1484899		1.2786	9.696	9.696	0.0237	0.0237		M
D 13C6-Acenaphthylene	16:40	15147797		1.6520	83.0	83.0	0.002952	0.002952	83.00	
Acenaphthylene	16:41	31452		2.3661	0.1598	0.1598	0.0192	0.0192		M
* Acenaphthene-d10	17:15	5523404		3.5E+04	50.0	50.0				
D 13C6-Acenaphthene	17:22	8320332		0.9792	76.9	76.9	0.002814	0.002814	76.92	
Acenaphthene	17:22	450923		1.2697	4.268	4.268	0.0261	0.0261		
D 13C6-Fluorene	19:39	7657674		0.8898	77.9	77.9	0.000991	0.000991	77.90	
Fluorene	19:40	289047		1.2532	3.012	3.012	0.0297	0.0297		M
D 13C6-Phenanthrene	25:02	10500733		0.5724	67.6	67.6	0.002881	0.002881	67.61	
Phenanthrene	25:02	708524		1.1044	6.109	6.109	0.0381	0.0381		
\$ Anthracin-d10	25:15	174		0.4257	0.001506	0.001506	0.000352	0.000352		
D 13C6-Anthracene	25:22	9853059		0.4523	80.3	80.3	0.003646	0.003646	80.28	
Anthracene	25:22	15612		1.3586	0.1166	0.1166	0.0367	0.0367		M
D 13C6-Fluoranthrene	33:47	24982439		1.1994	76.8	76.8	0.0133	0.0133	76.77	
Fluoranthene	33:47	602018		1.1513	2.093	2.093	0.0122	0.0122		M
* Pyrene-d10	35:19	13566199		7.9E+04	50.0	50.0				
D 13C3-Pyrene	35:28	29123765		1.3512	79.4	79.4	0.0105	0.0105	79.44	
Pyrene	35:28	894485		1.0652	2.883	2.883	0.0116	0.0116		
\$ 13C6-Benzo(c)fluorene	39:11	3645		0.5136	0.0262	0.0262	0.004254	0.004254		
D 13C6-Benzo(a)anthracene	46:00	21871956		1.5189	49.8	49.8	0.008284	0.008284	49.82	
Benzo[a]anthracene	46:01	6539		0.9739	0.0307	0.0307	0.0134	0.0134		
D 13C6-Chrysene	46:16	25439134		1.6287	54.0	54.0	0.007726	0.007726	54.04	
Chrysene	46:17	167195		0.9815	0.6697	0.6697	0.0130	0.0130		
D 13C6-Benzo(b)fluoranthene	54:34	30719910		1.4621	72.7	72.7	0.001108	0.001108	72.69	
Benzo[b]fluoranthene	54:34	67764		1.1249	0.1961	0.1961	0.004497	0.004497		
\$ 13C12-Benzo(j)fluoranthene	54:36	34487		1.3558	0.0880	0.0880	0.006572	0.006572		
D 13C6-Benzo(k)fluoranthene	54:41	41884357		1.7507	82.8	82.8	0.000925	0.000925	82.77	
Benzo[k]fluoranthene	54:41	37752		1.1271	0.0800	0.0800	0.004089	0.004089		M
* Benzo(e)pyrene-d12	55:26	14451839		5.7E+04	50.0	50.0				
D 13C4-Benzo(e)pyrene	55:31	35351073		1.6368	74.7	74.7	0.001927	0.001927	74.72	
Benzo[e]pyrene	55:31	59470		1.0013	0.1680	0.1680	0.003578	0.003578		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C4-Benzo(a)pyrene	55:39	36541680		1.5508	81.5	81.5	0.002034	0.002034	81.52	
Benzo[a]pyrene	55:39	40216		1.1130	0.0989	0.0989	0.003466	0.003466		
D Perylene-d12	55:49	24494819		1.1917	71.1	71.1	0.006182	0.006182	71.11	
Perylene	55:50	44653		1.4307	0.1274	0.1274	0.003595	0.003595		M
D 13C6-Indeno(1,2,3-cd)pyrene	57:57	17659316		1.0218	59.8	59.8	0.005338	0.005338	59.79	
Indeno[1,2,3-cd]pyrene	57:57	28702		1.1249	0.1445	0.1445	0.003707	0.003707		M
D 13C6-Dibenz(a,h)anthracene	58:01	21009596		1.0553	68.9	68.9	0.003941	0.003941	68.88	
Dibenz(a,h)anthracene	58:02	9785		1.1314	0.0412	0.0412	0.002643	0.002643		M
D 13C12-Benzo(ghi)perylene	58:24	23278512		1.2749	63.2	63.2	0.000805	0.000805	63.17	
Benzo[g,h,i]perylene	58:25	39499		1.2838	0.1322	0.1322	0.003127	0.003127		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Lims ID: 140-37234-B-14-B  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Sample Type: Client  
Inject. Date: 22-Jul-2024 16:06:00 ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033599-006  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAL ICAL  
Last Update: 23-Jul-2024 09:54:26 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1613

First Level Reviewer: TT61

Date: 23-Jul-2024 09:54:26

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:26	11:29	-4	0.663	24856966	8194418	261	652	31396		
Naphthalene											
128.0626	11:26	11:30	-3	1.001	8597329	2783074	1153	2882	2414		
13C6-2-Methylnaphthalene											
148.0984	13:48	13:49	-2	0.800	11978255	5387848	30	75	179595		
2-Methylnaphthalene											
142.0783	13:48	13:48	-3	1.000	1484899	657446	653	1632	1007		M
13C6-Acenaphthylene											
158.0828	16:40	16:41	-2	0.967	15147797	4901992	71	177	69042		
Acenaphthylene											
152.0626	16:41	16:41	-2	1.000	31452	6775	477	1192	14		M
Acenaphthene-d10											
164.1404	17:15	17:16	-2		5523404	1814729	7	17	259247		
13C6-Acenaphthene											
160.0984	17:22	17:23	-2	1.007	8320332	2618397	40	100	65460		
Acenaphthene											
154.0783	17:22	17:23	-2	1.000	450923	149104	347	867	430		
13C6-Fluorene											
172.0984	19:39	19:40	-2	1.140	7657674	2069139	13	32	159165		
Fluorene											
166.0783	19:40	19:40	-2	1.001	289047	80827	308	770	262		M
13C6-Phenanthrene											
184.0984	25:02	25:03	-2	0.709	10500733	2164555	31	77	69824		
Phenanthrene											
178.0783	25:02	25:03	-2	1.000	708524	155257	364	910	427		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:15	25:15	-2	0.715	174	110	3	7	37		
13C6-Anthracene											
184.0984	25:22	25:22	-1	0.718	9853059	1824086	31	77	58841		
Anthracene											
178.0783	25:22	25:22	-2	1.000	15612	5717	364	910	16		M
13C6-Fluoranthrene											
208.0984	33:47	33:47	-2	0.956	24982439	4468341	298	745	14994		
Fluoranthene											
202.0783	33:47	33:47	-2	1.000	602018	106057	251	627	423		M
Pyrene-d10											
212.1404	35:19	35:21	-2		13566199	2334406	19	47	122864		
13C3-Pyrene											
205.0883	35:28	35:28	-2	1.004	29123765	5069010	266	665	19056		
Pyrene											
202.0783	35:28	35:28	-2	1.000	894485	156317	251	627	623		
13C6-Benzo(c)fluorene											
222.1134	39:11	39:11	0	0.707	3645	1209	41	102	29		
13C6-Benzo(a)anthracene											
234.1140	46:00	45:59	-1	1.302	21871956	3544776	466	1165	7607		
Benzo[a]anthracene											
228.0939	46:01	46:00	0	1.000	6539	1055	185	462	6		
13C6-Chrysene											
234.1140	46:16	46:15	-1	1.310	25439134	3631810	466	1165	7794		
Chrysene											
228.0939	46:17	46:16	0	1.000	167195	23778	185	462	129		
13C6-Benzo(b)fluoranthene											
258.1140	54:34	54:35	-1	0.984	30719910	8441325	60	150	140689		
Benzo[b]fluoranthene											
252.0939	54:34	54:35	-1	1.000	67764	13043	171	427	76		
13C12-Benzo(j)fluoranthene											
264.1336	54:36	54:37	-1	0.985	34487	6595	330	825	20		
13C6-Benzo(k)fluoranthene											
258.1140	54:41	54:42	-1	0.987	41884357	9265389	60	150	154423		
Benzo[k]fluoranthene											
252.0939	54:41	54:41	-2	1.000	37752	7570	171	427	44		M
Benzo(e)pyrene-d12											
264.1692	55:26	55:27	-1		14451839	4629078	273	682	16956		
13C4-Benzo(e)pyrene											
256.1073	55:31	55:32	-1	1.002	35351073	11917525	117	292	101859		
Benzo[e]pyrene											
252.0939	55:31	55:31	-1	1.000	59470	13203	171	427	77		
13C4-Benzo(a)pyrene											
256.1073	55:39	55:40	-1	1.004	36541680	11068337	117	292	94601		



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Benzo[a]pyrene											
252.0939	55:39	55:40	-1	1.000	40216	7354	171	427	43		
Perylene-d12											
264.1692	55:49	55:50	-1	1.007	24494819	8301955	273	682	30410		
Perylene											
252.0939	55:50	55:50	-4	1.000	44653	6517	171	427	38		M
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	57:57	57:58	-1	1.046	17659316	5923590	202	505	29325		
Indeno[1,2,3-cd]pyrene											
276.0939	57:57	57:57	-1	1.000	28702	5435	99	247	55		M
13C6-Dibenz(a,h)anthracene											
284.1296	58:01	58:02	-1	1.047	21009596	5083839	154	385	33012		
Dibenz(a,h)anthracene											
278.1096	58:02	58:02	-1	1.000	9785	2355	61	152	39		M
13C12-Benzo(ghi)perylene											
288.1342	58:24	58:27	-2	1.054	23278512	6153081	38	95	161923		
Benzo[g,h,i]perylene											
276.0939	58:25	58:25	-1	1.000	39499	11139	99	247	113		M

### QC Flag Legend

Processing Flags

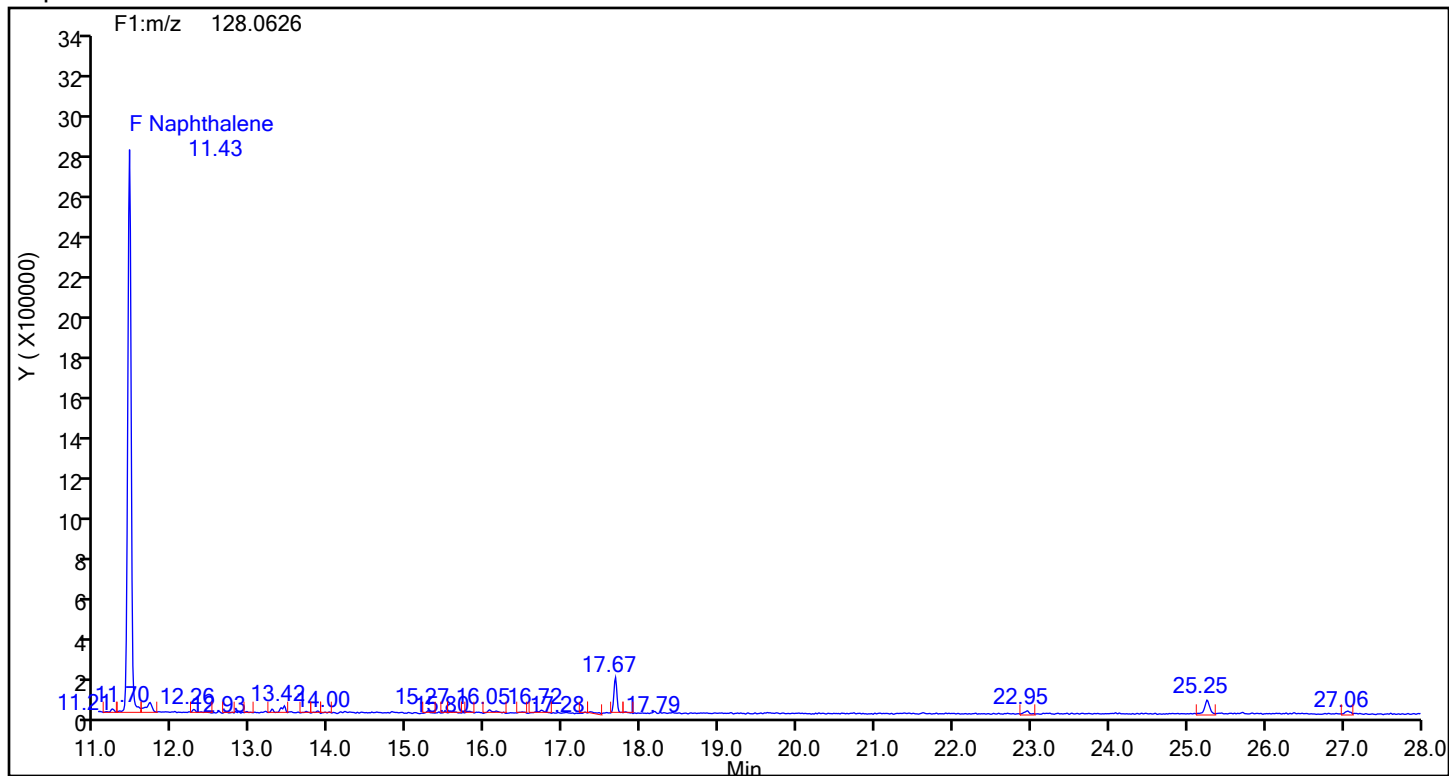
Review Flags

M - Manually Integrated

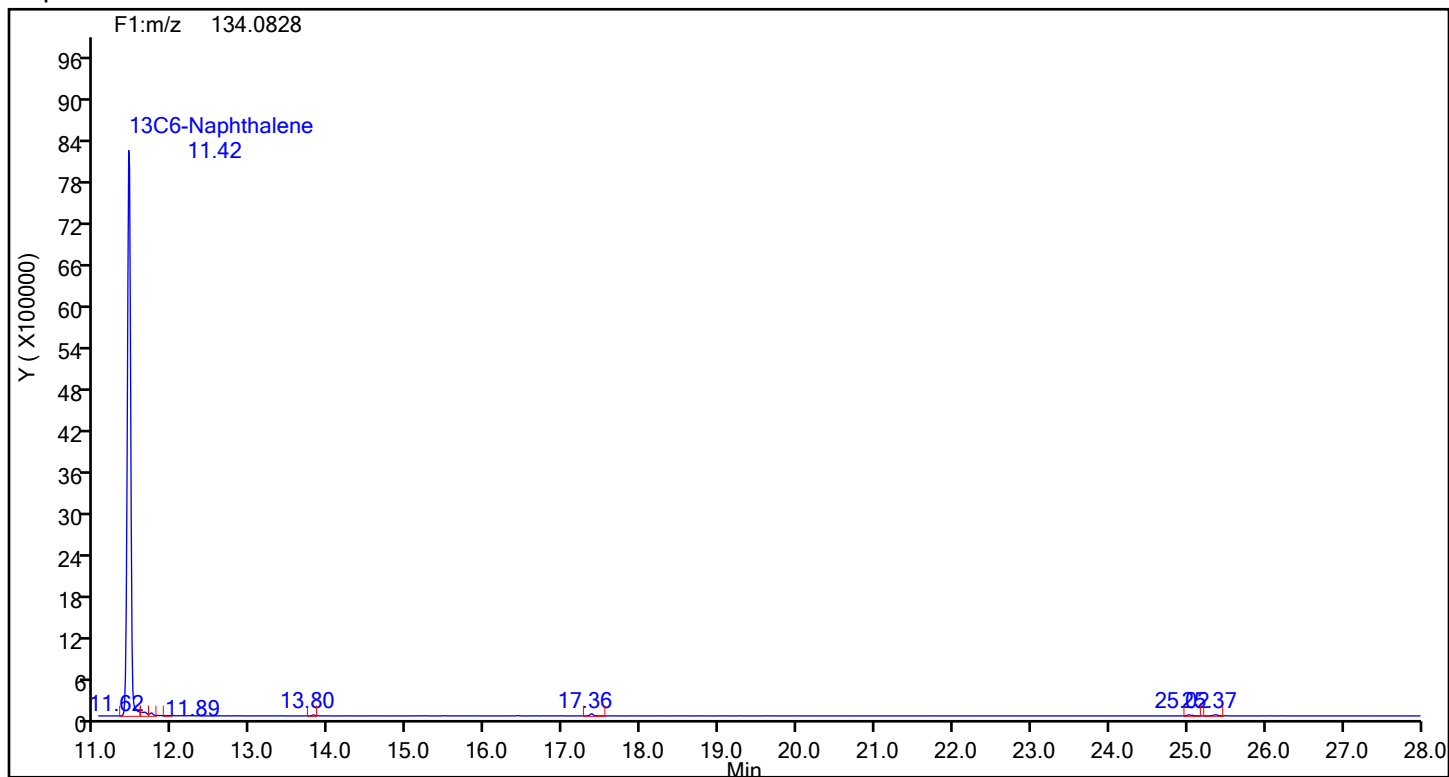
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 89013 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



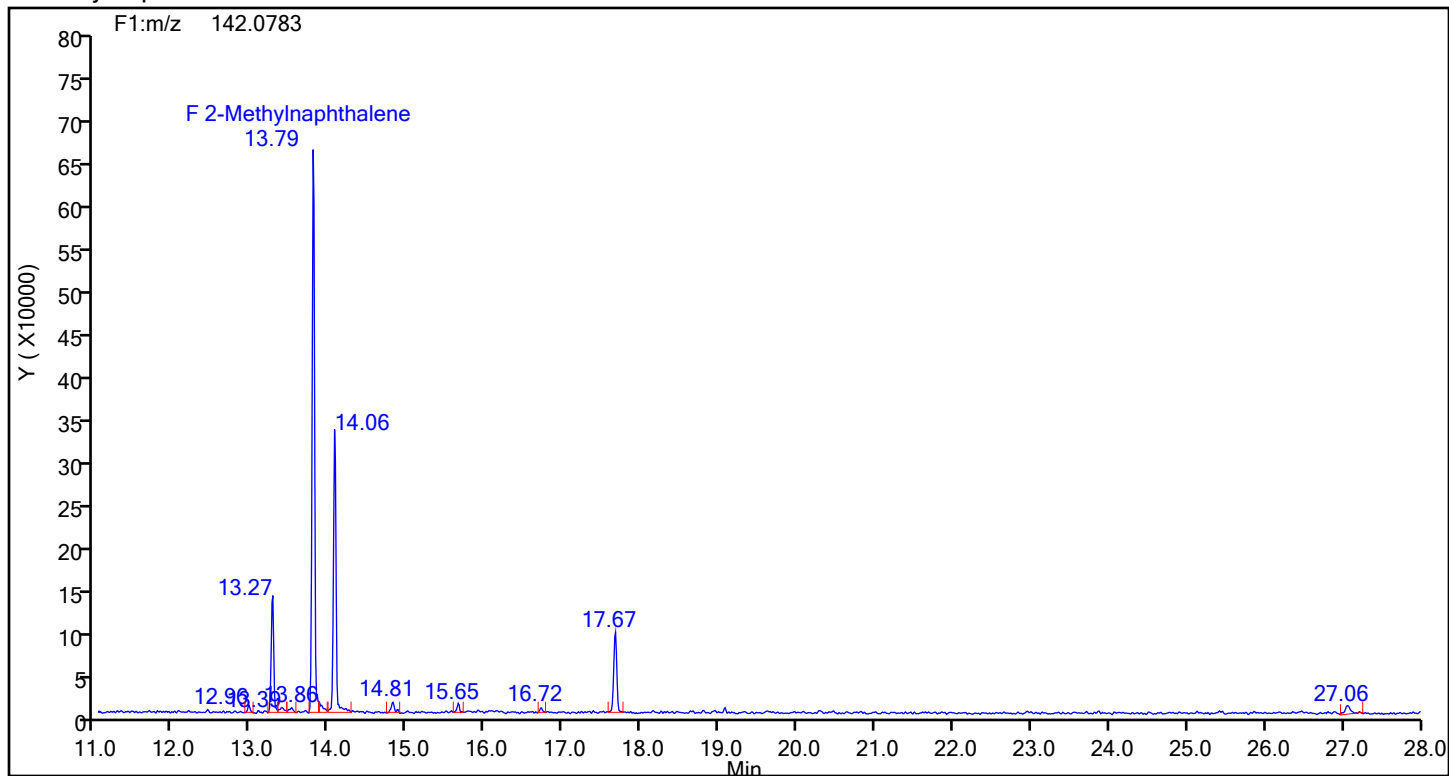
## Naphthalene Standards



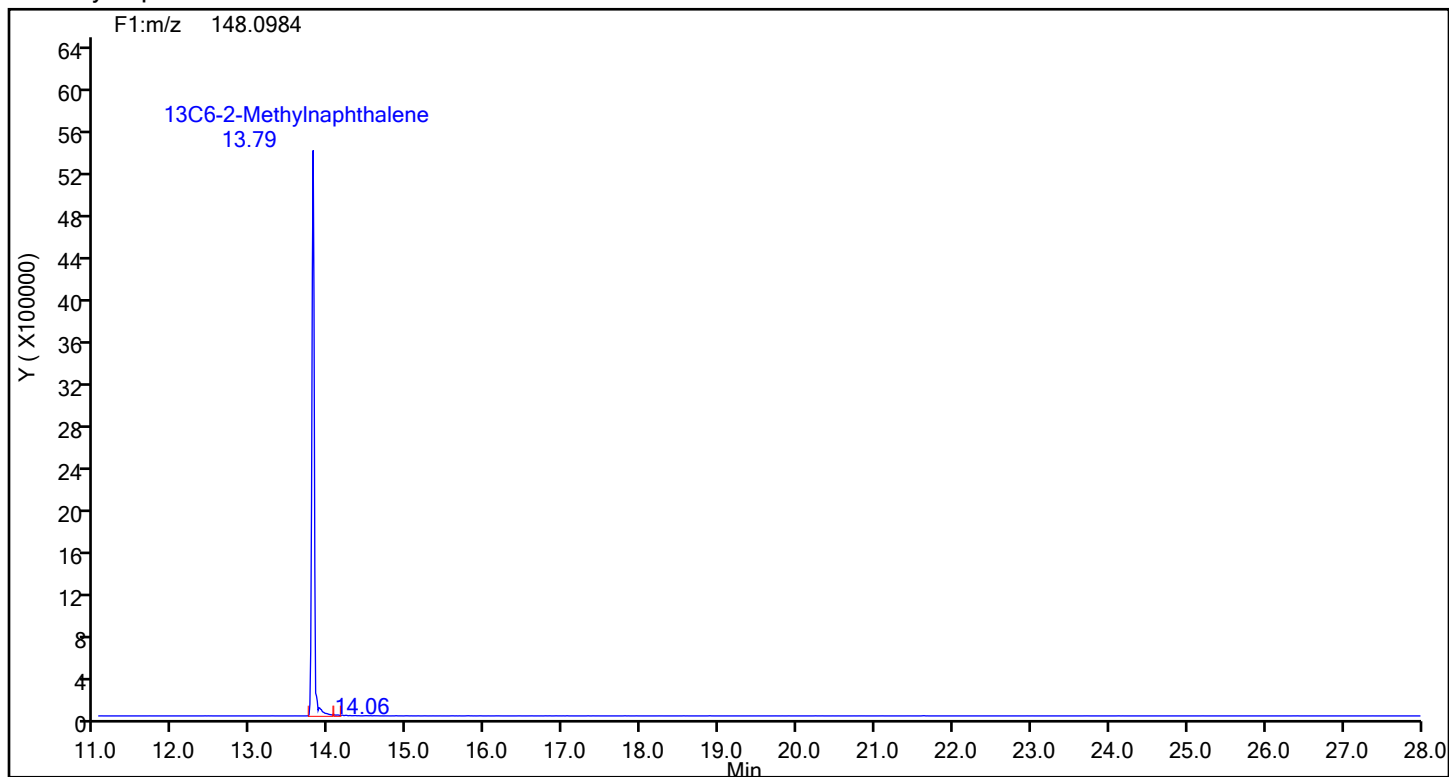
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 89013 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



## 2-Methylnaphthalene Standards



## Eurofins Knoxville

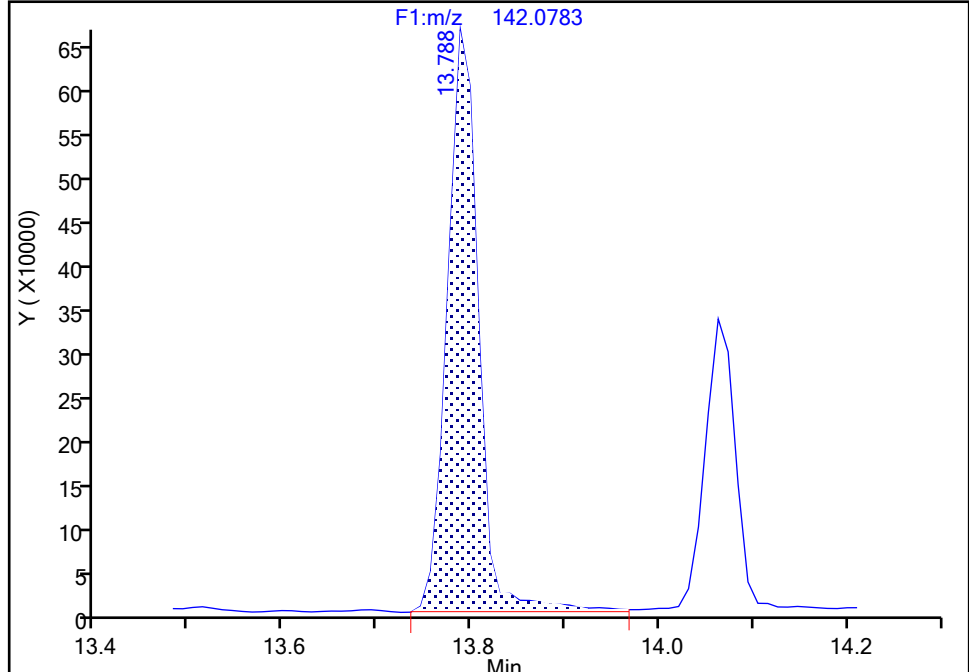
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Instrument ID: D3PAH  
Lims ID: 140-37234-B-14-B Lab Sample ID: 140-37234-14  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

**2-Methylnaphthalene, CAS: 91-57-6**

Signal: 1

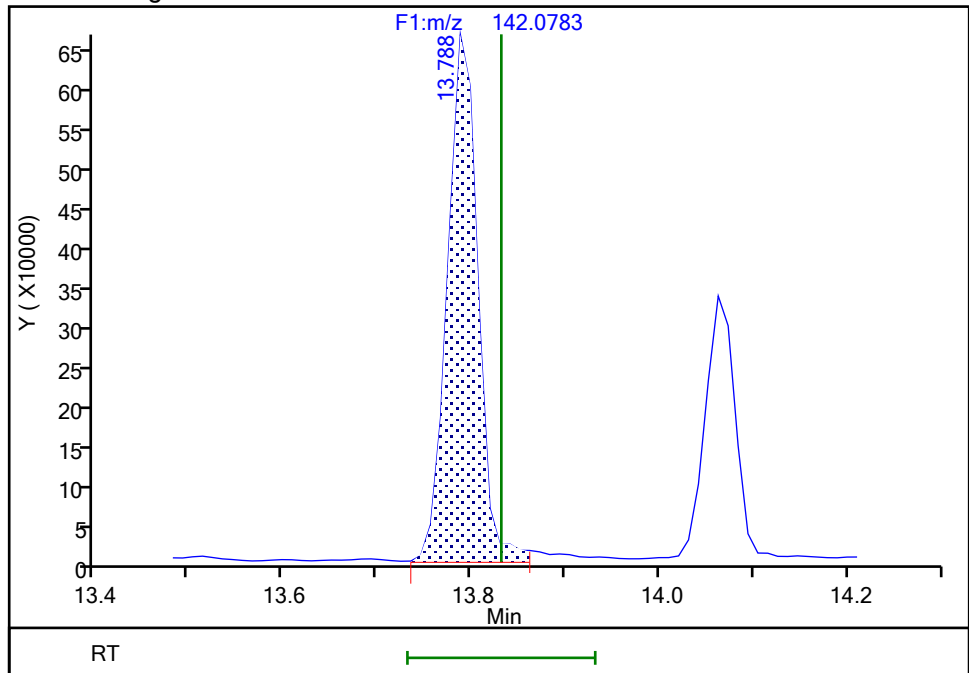
RT: 13.79  
Area: 1522138  
Amount: 9.938873  
Amount Units: pg/ul

## Processing Integration Results



RT: 13.79  
Area: 1484899  
Amount: 9.695720  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:52:57 -04:00:00 (UTC)

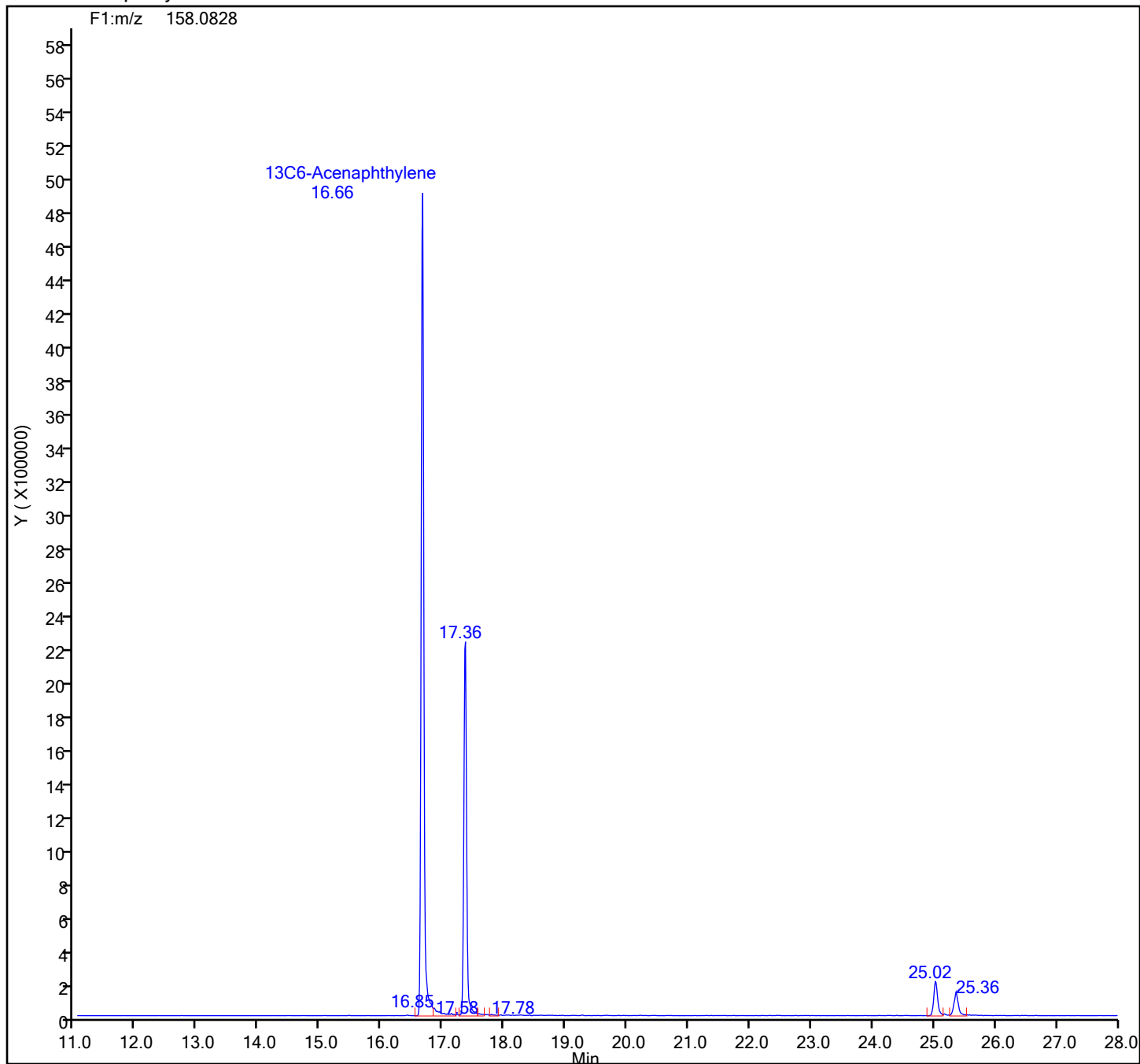
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 89013 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

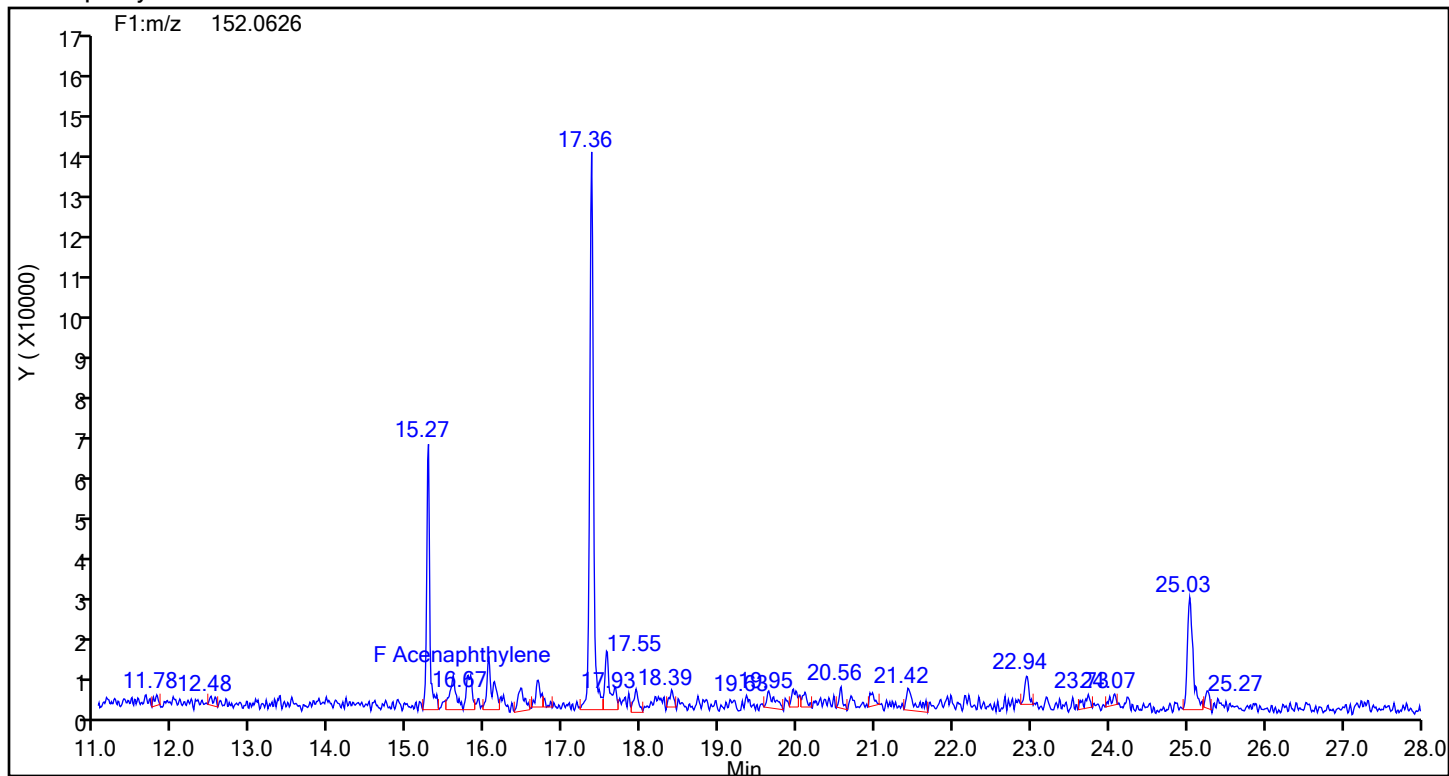
## 13C6-Acenaphthylene Standards



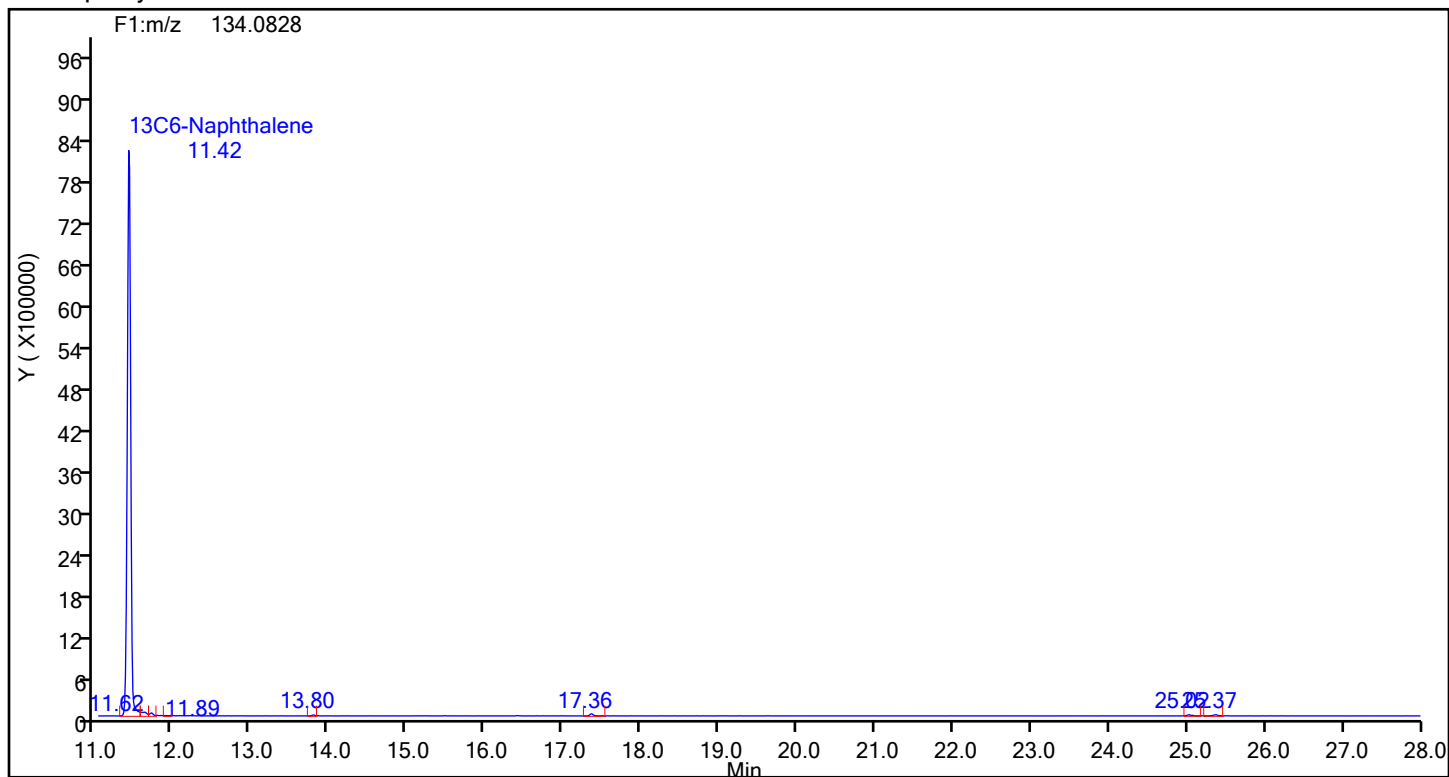
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 89013 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene



## Acenaphthylene Standards



## Eurofins Knoxville

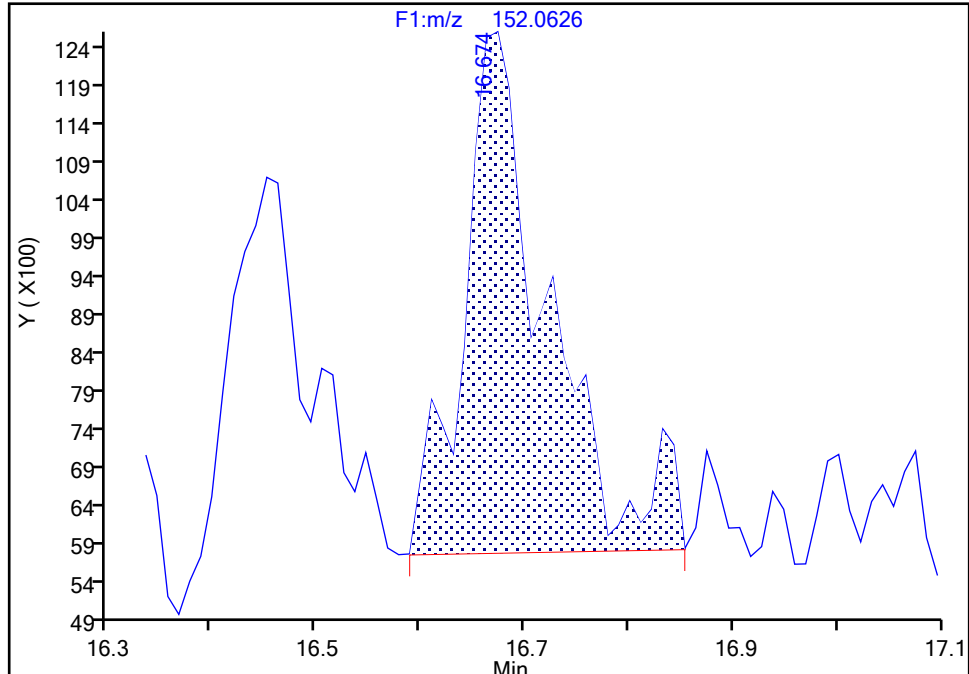
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Instrument ID: D3PAH  
Lims ID: 140-37234-B-14-B Lab Sample ID: 140-37234-14  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Acenaphthylene, CAS: 208-96-8

Signal: 1

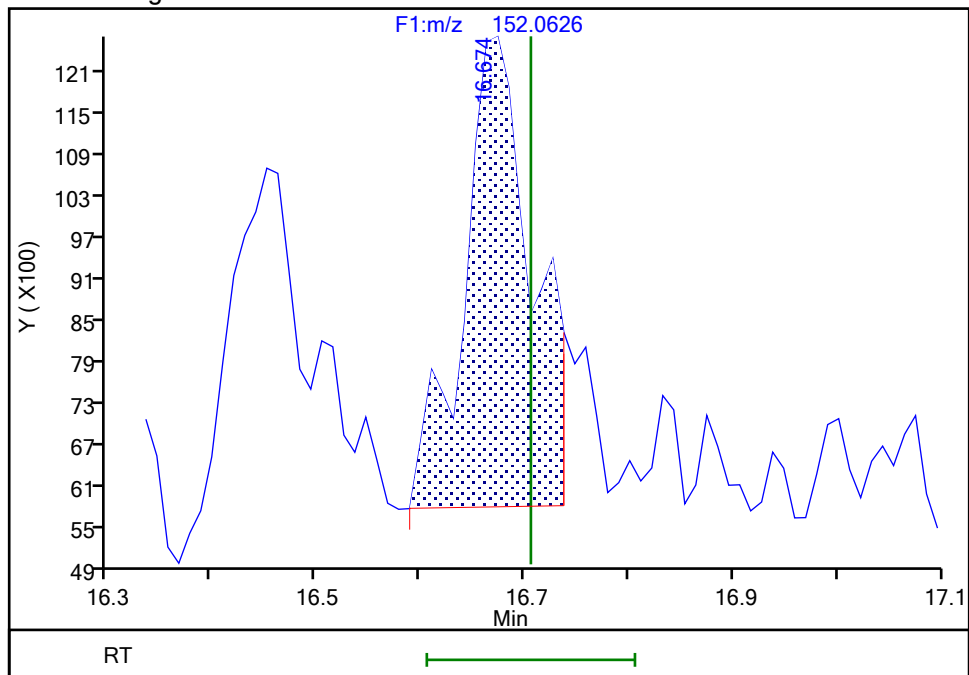
RT: 16.67  
Area: 38117  
Amount: 0.193615  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.67  
Area: 31452  
Amount: 0.159760  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:53:56 -04:00:00 (UTC)

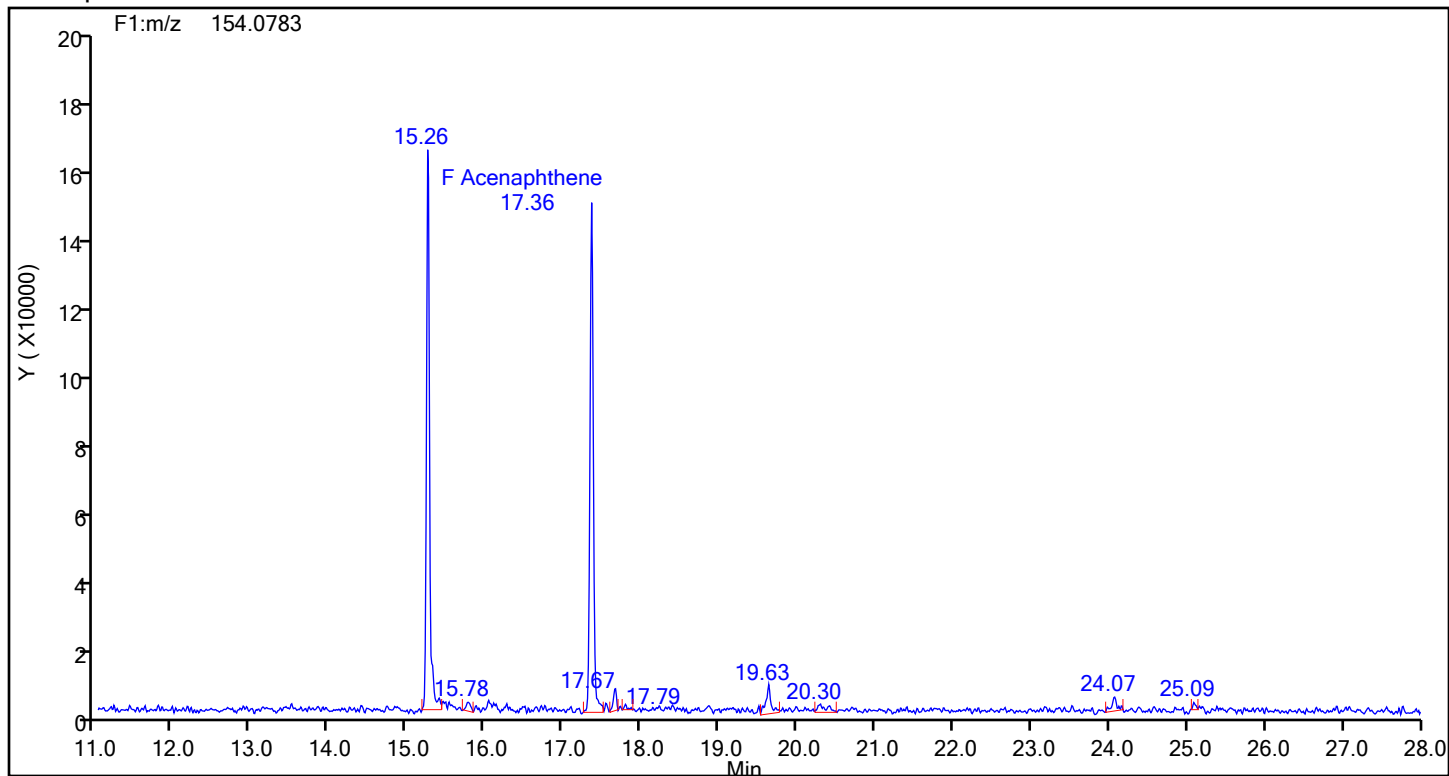
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

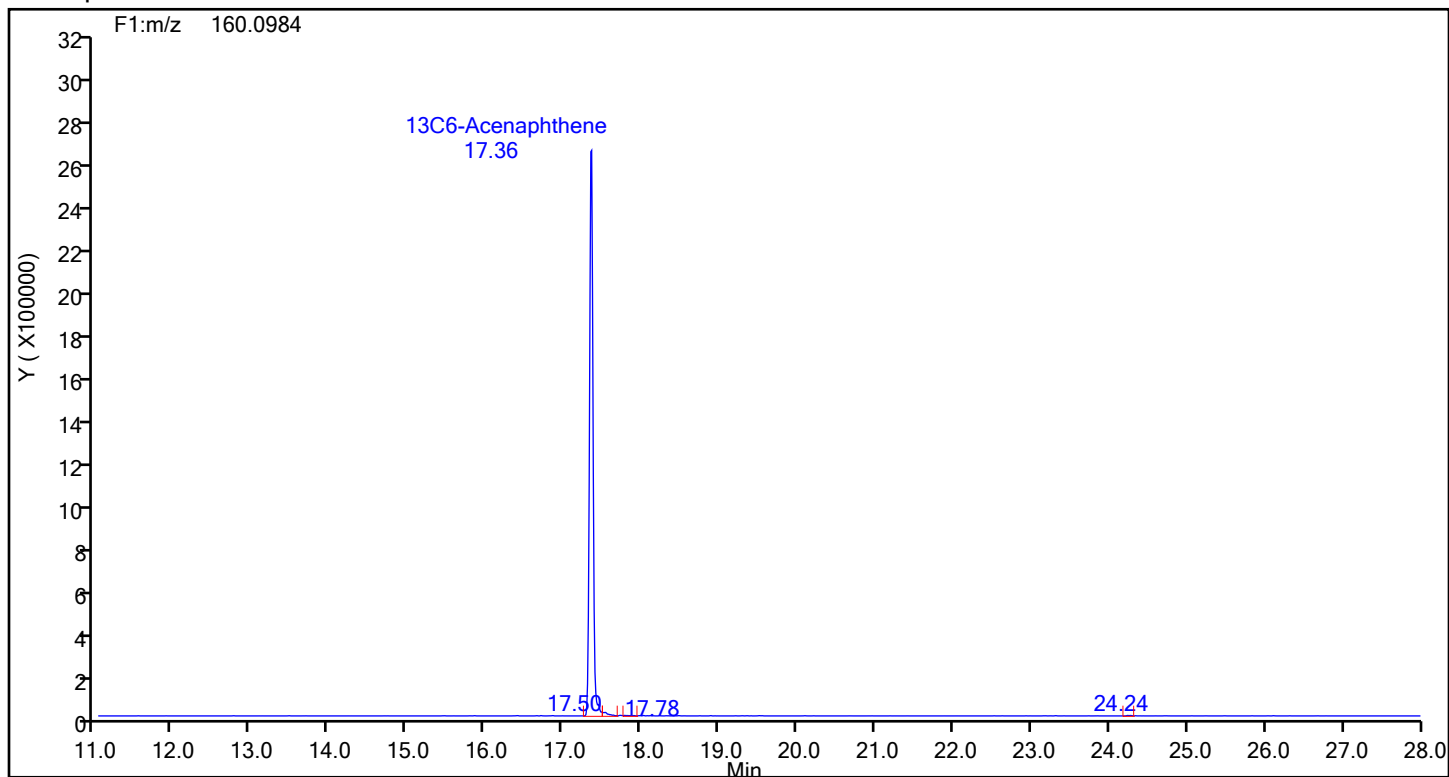
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 89013 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



## Acenaphthene Standards

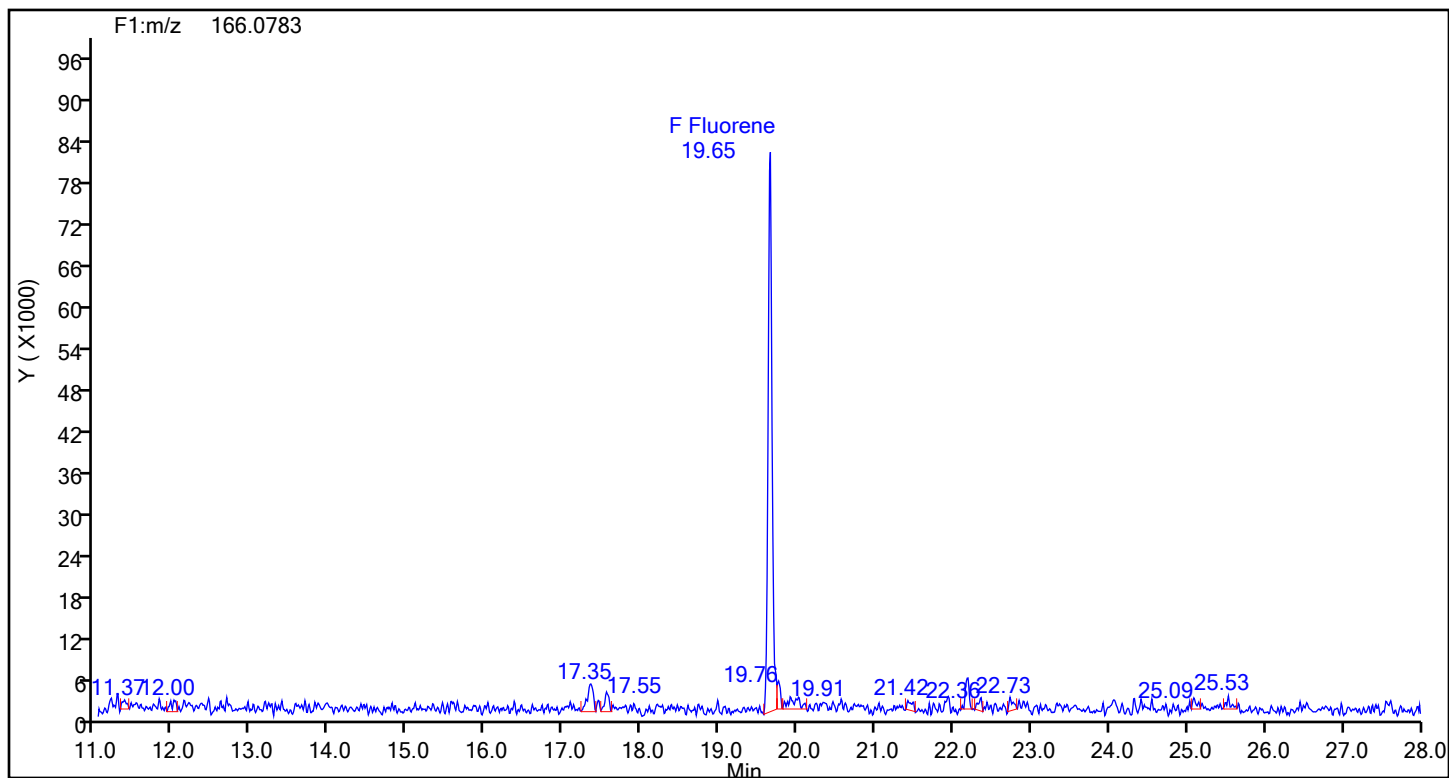




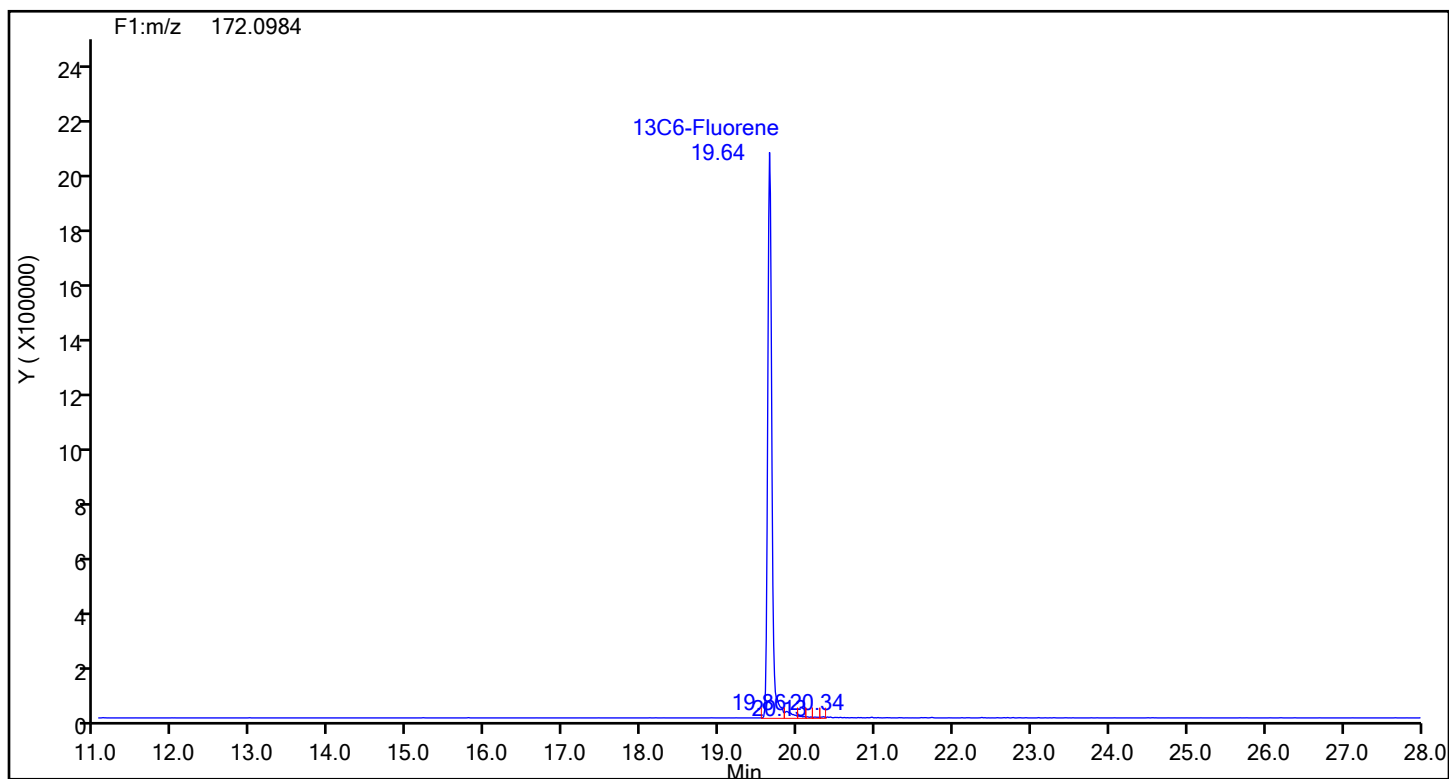
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 89013 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene



## Fluorene Standards



## Eurofins Knoxville

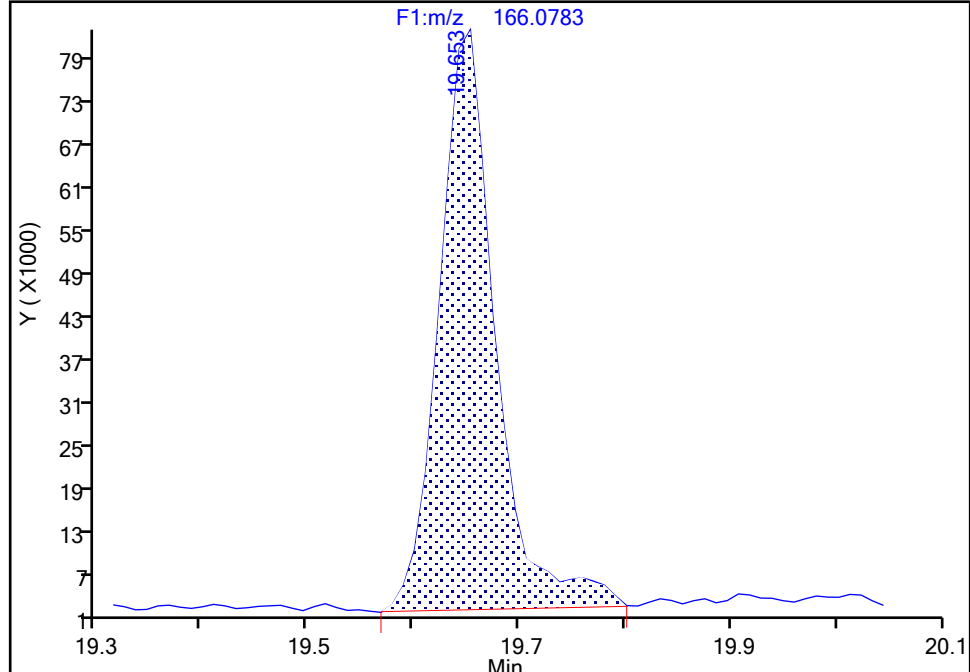
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Instrument ID: D3PAH  
Lims ID: 140-37234-B-14-B Lab Sample ID: 140-37234-14  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Fluorene, CAS: 86-73-7

Signal: 1

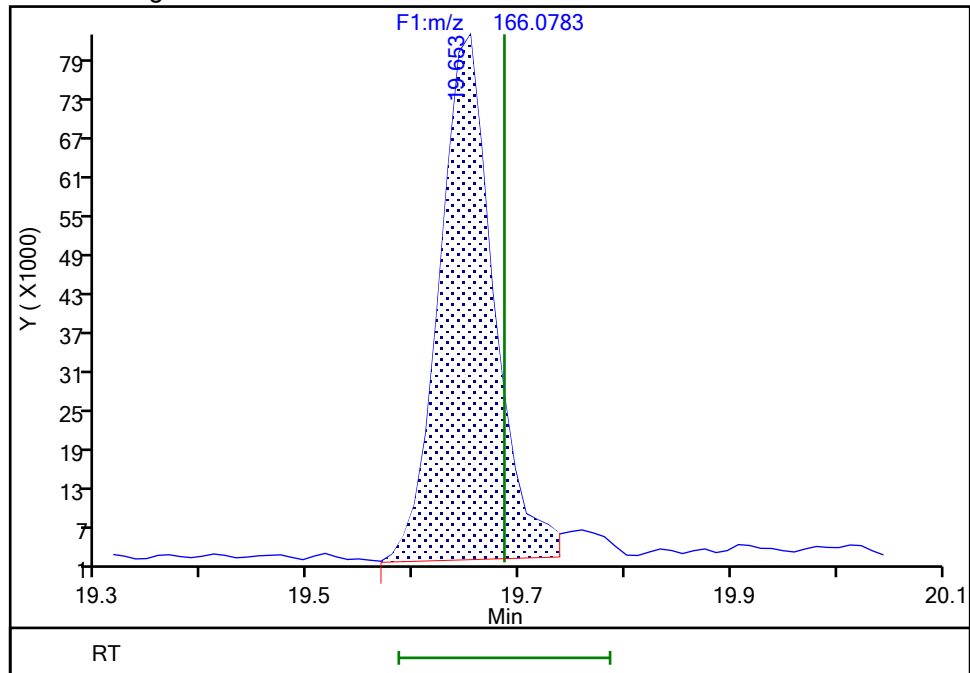
RT: 19.65  
Area: 298860  
Amount: 3.114338  
Amount Units: pg/ul

## Processing Integration Results



RT: 19.65  
Area: 289047  
Amount: 3.012080  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:54:07 -04:00:00 (UTC)

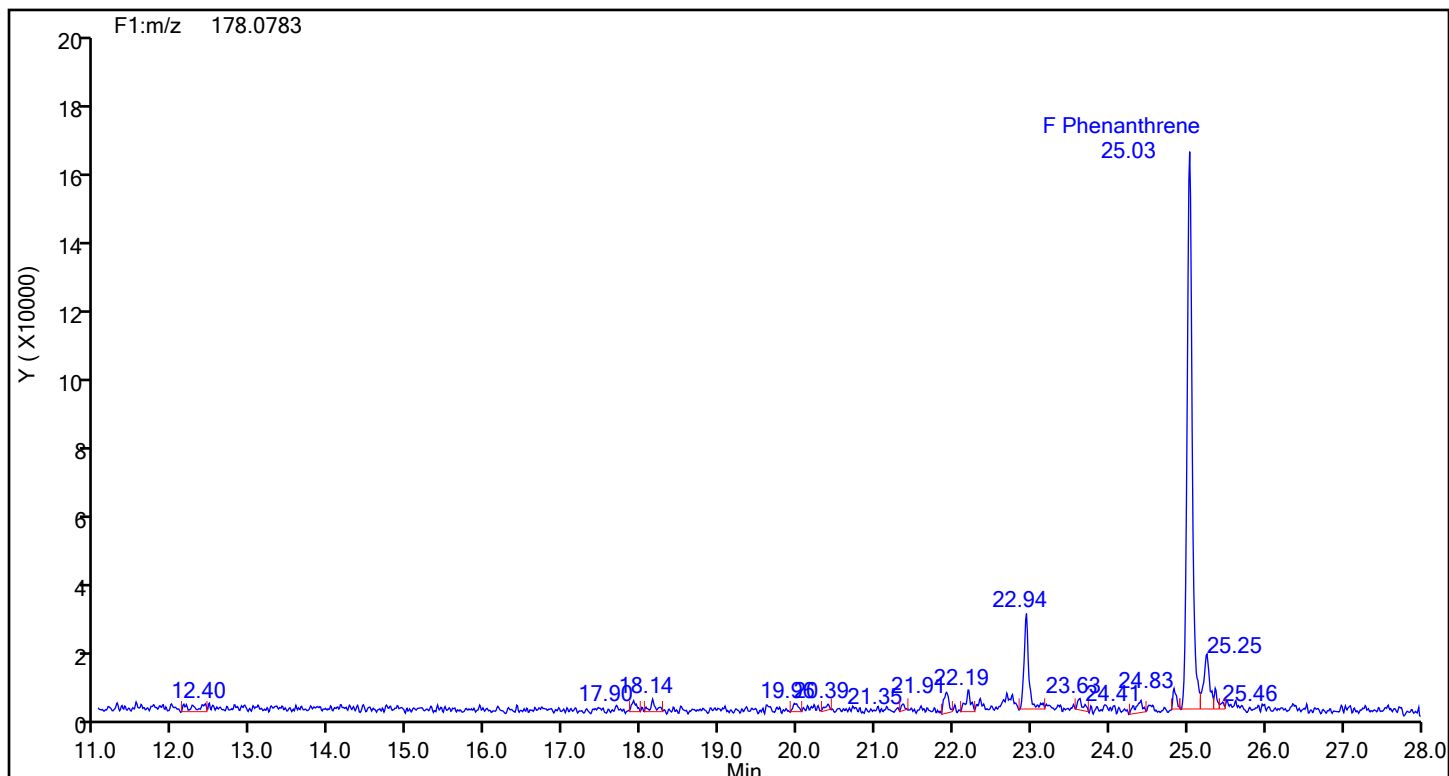
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

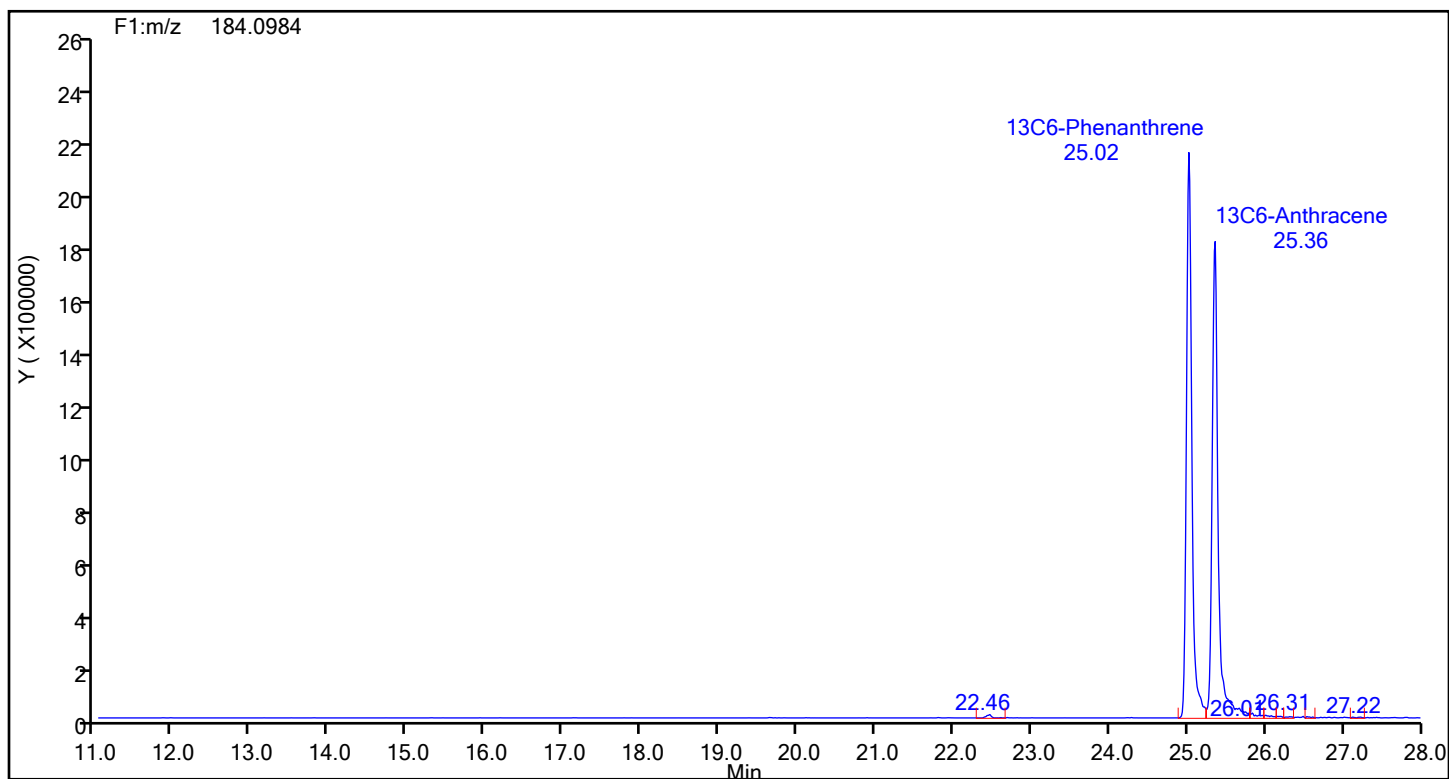
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 89013 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Phenanthrene



## Phenanthrene Standards



## Eurofins Knoxville

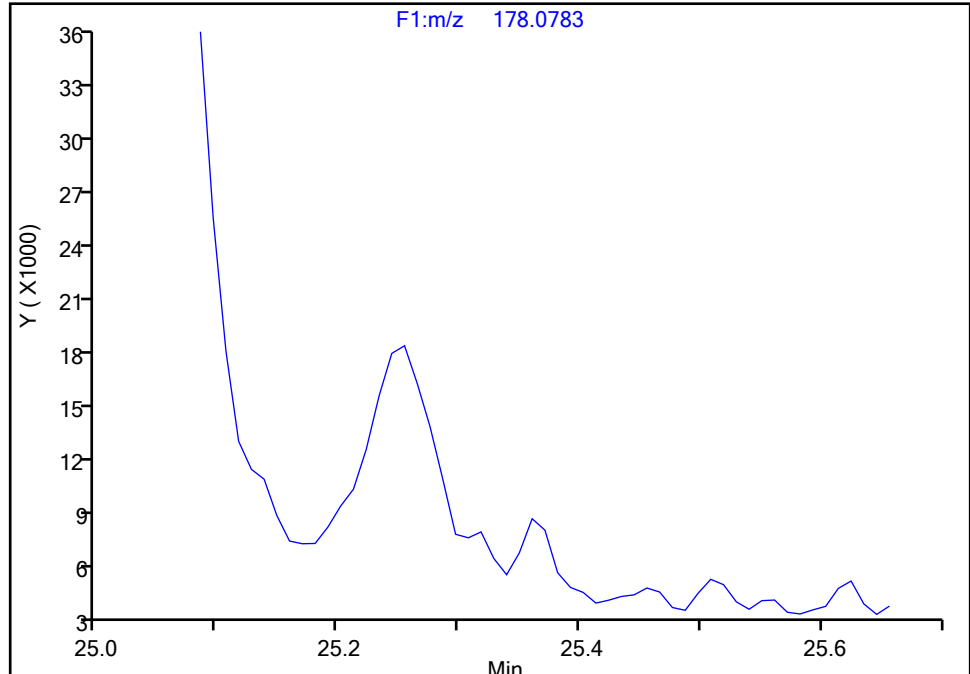
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Instrument ID: D3PAH  
Lims ID: 140-37234-B-14-B Lab Sample ID: 140-37234-14  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Anthracene, CAS: 120-12-7

Signal: 1

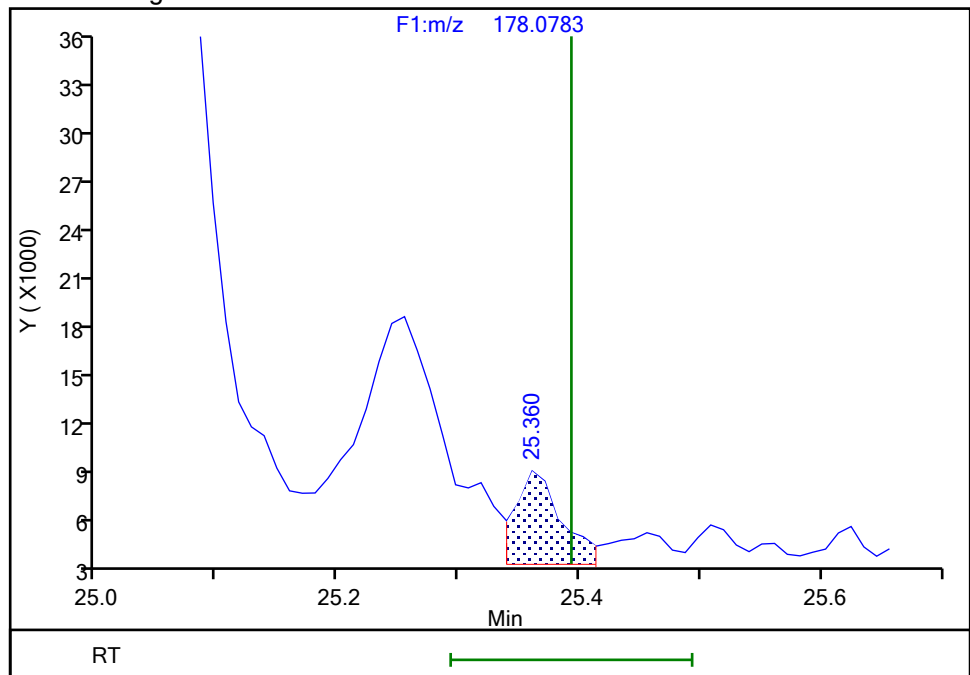
Not Detected  
Expected RT: 25.39

## Processing Integration Results



RT: 25.36  
Area: 15612  
Amount: 0.116627  
Amount Units: pg/ul

## Manual Integration Results



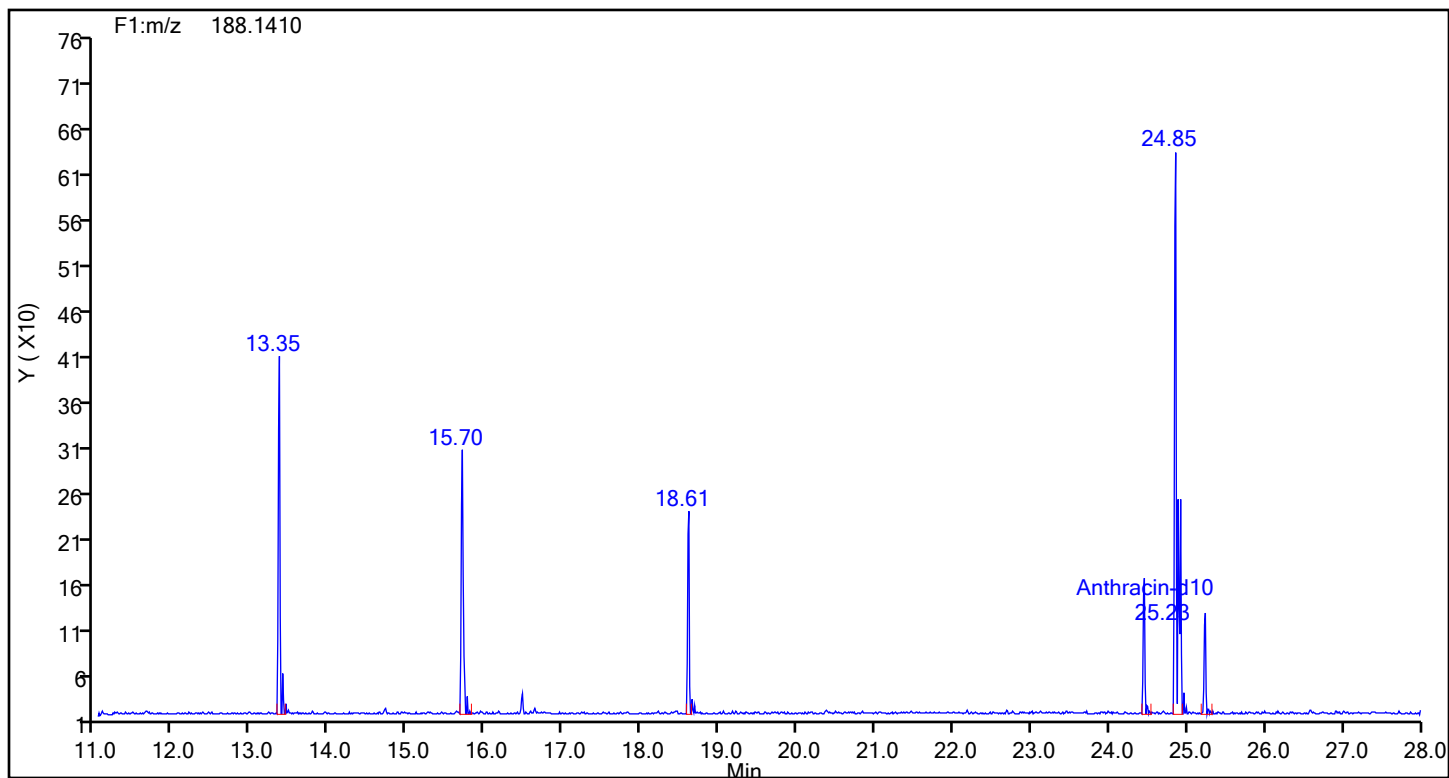
Reviewer: TT6I, 23-Jul-2024 09:52:33 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

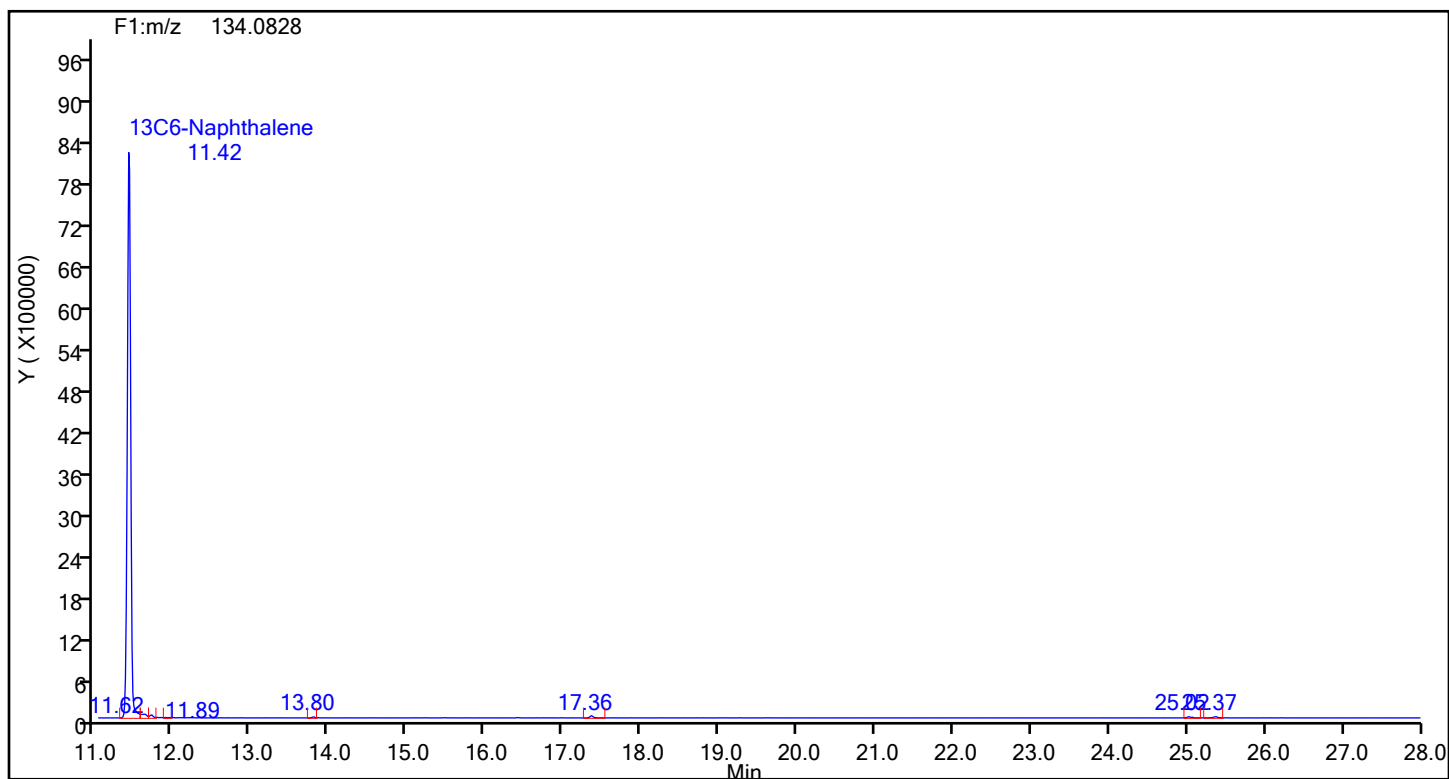
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 89013 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10



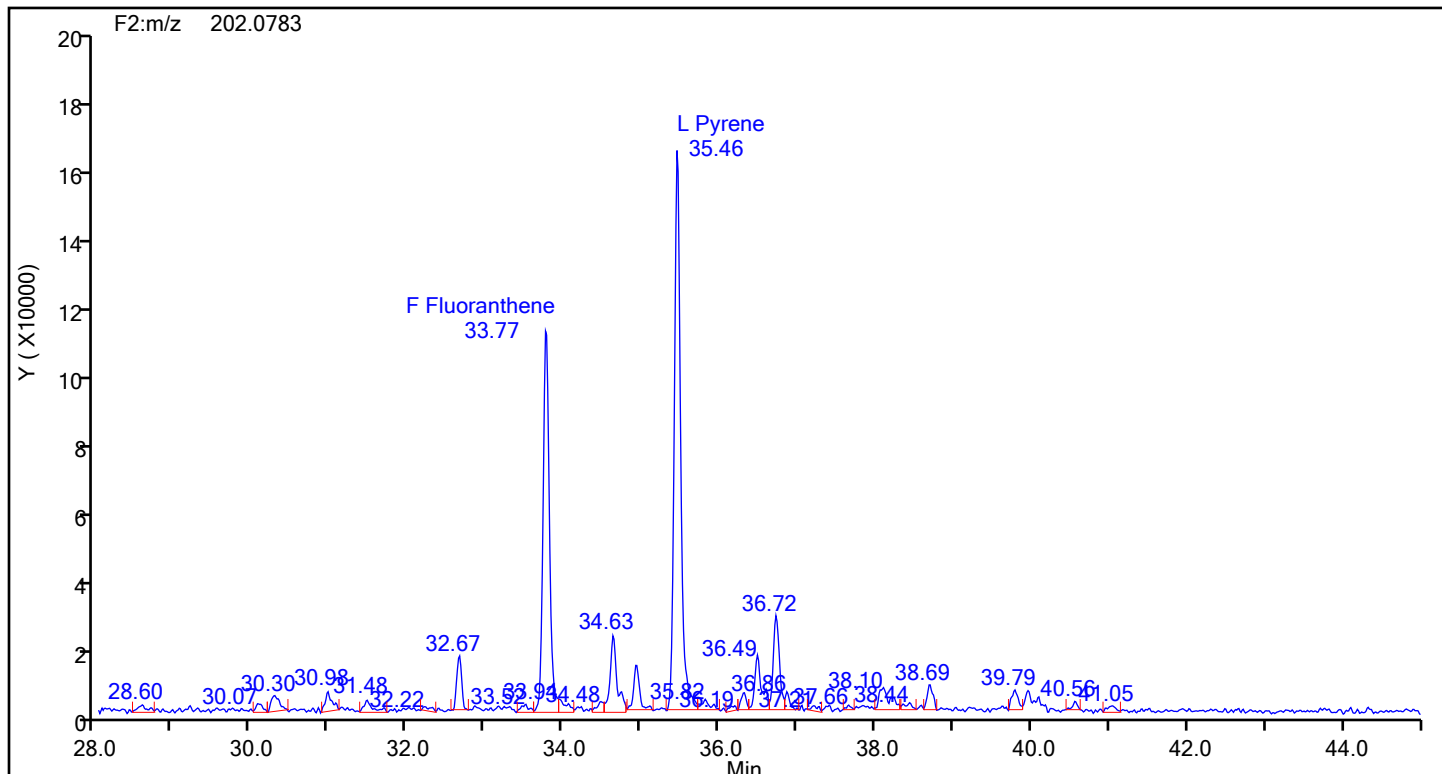
## Anthracin-d10 Standards



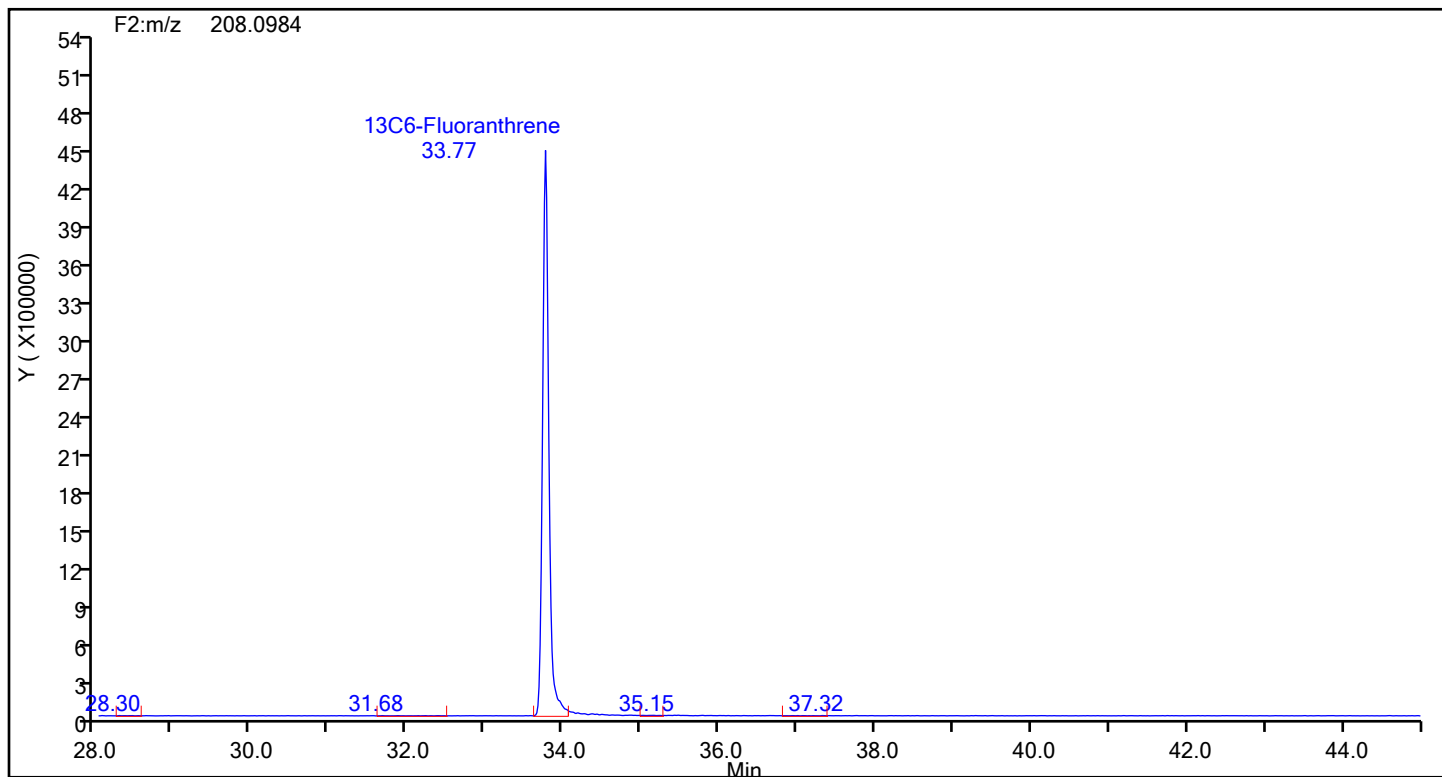
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 89013 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluoranthene



## Fluoranthene Standards



## Eurofins Knoxville

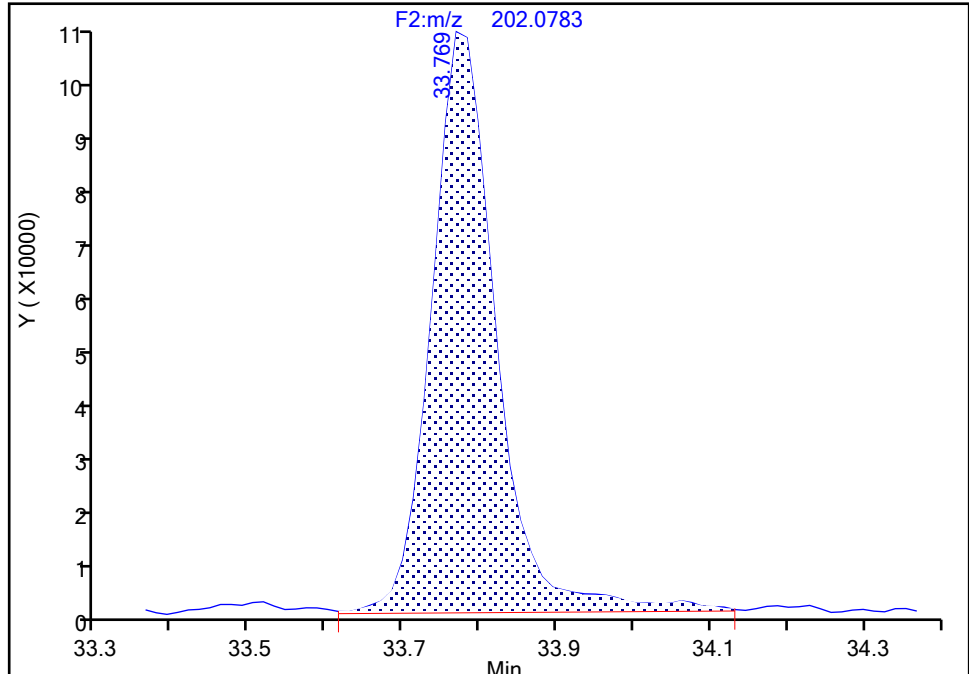
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Instrument ID: D3PAH  
Lims ID: 140-37234-B-14-B Lab Sample ID: 140-37234-14  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F2(28.03 :43.99 )

## Fluoranthene, CAS: 206-44-0

Signal: 1

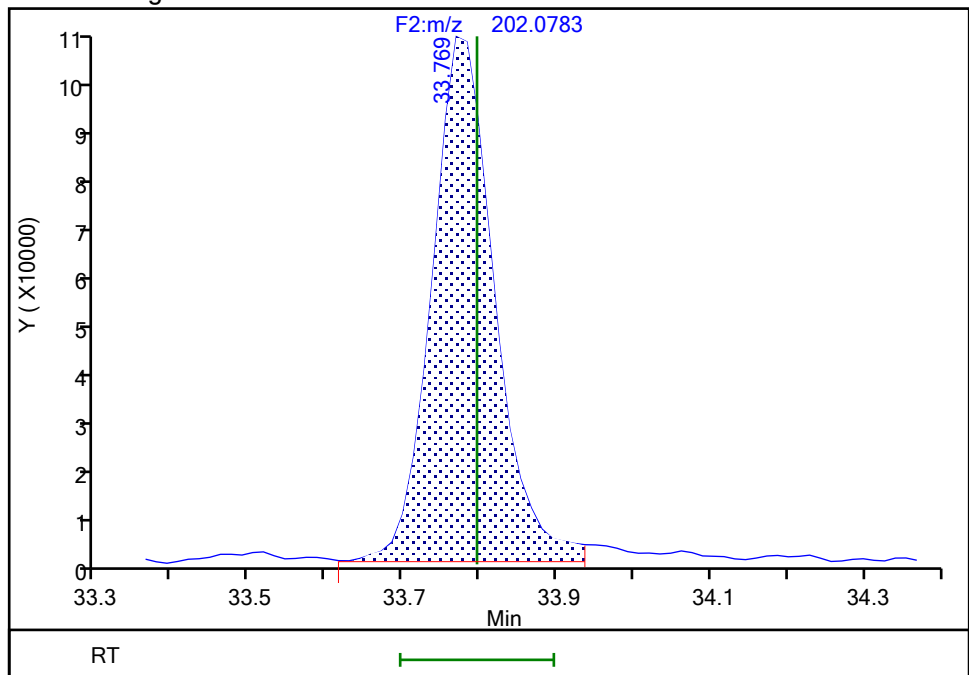
RT: 33.77  
Area: 622441  
Amount: 2.164049  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.77  
Area: 602018  
Amount: 2.093044  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:53:28 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d

Injection Date: 22-Jul-2024 16:06:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED

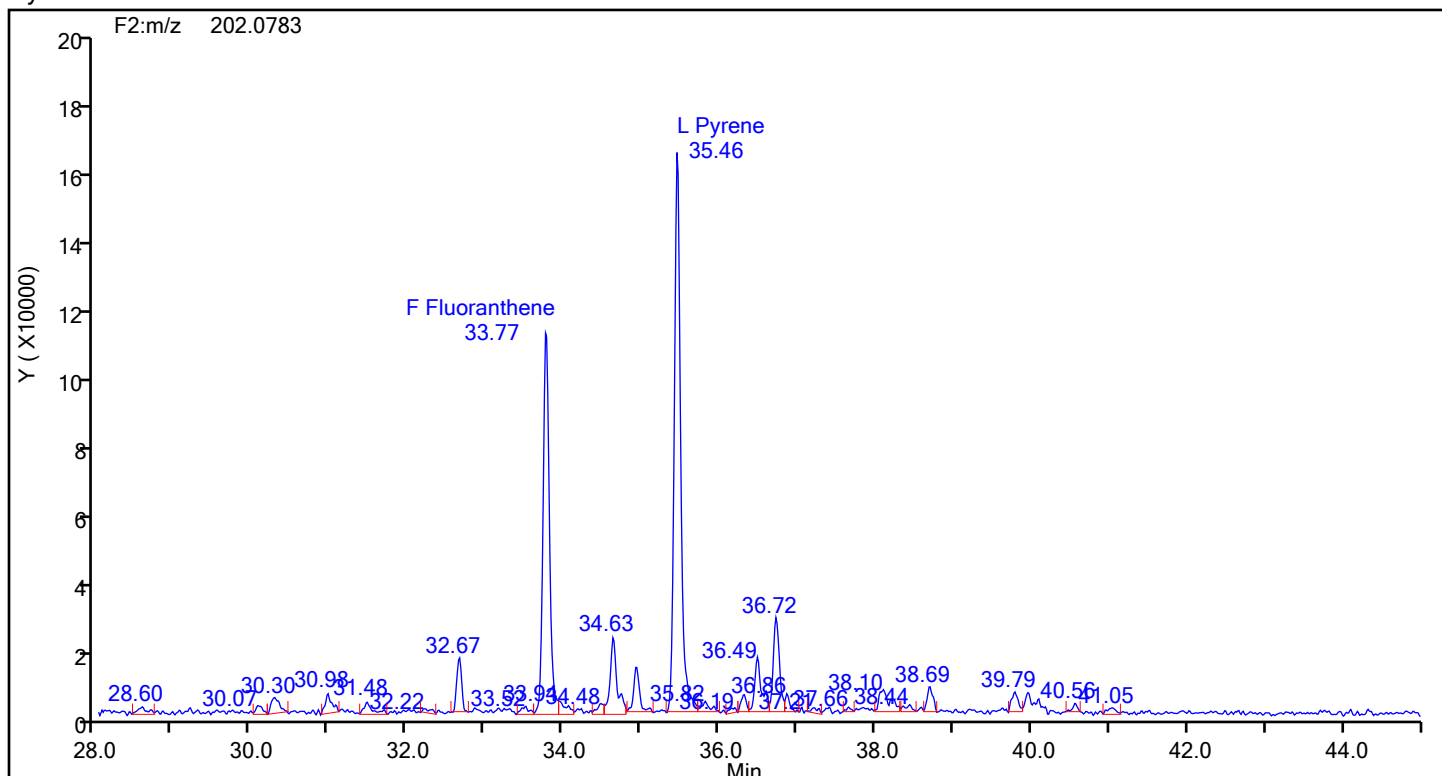
Worklist#: 89013

Sample Line#: 6

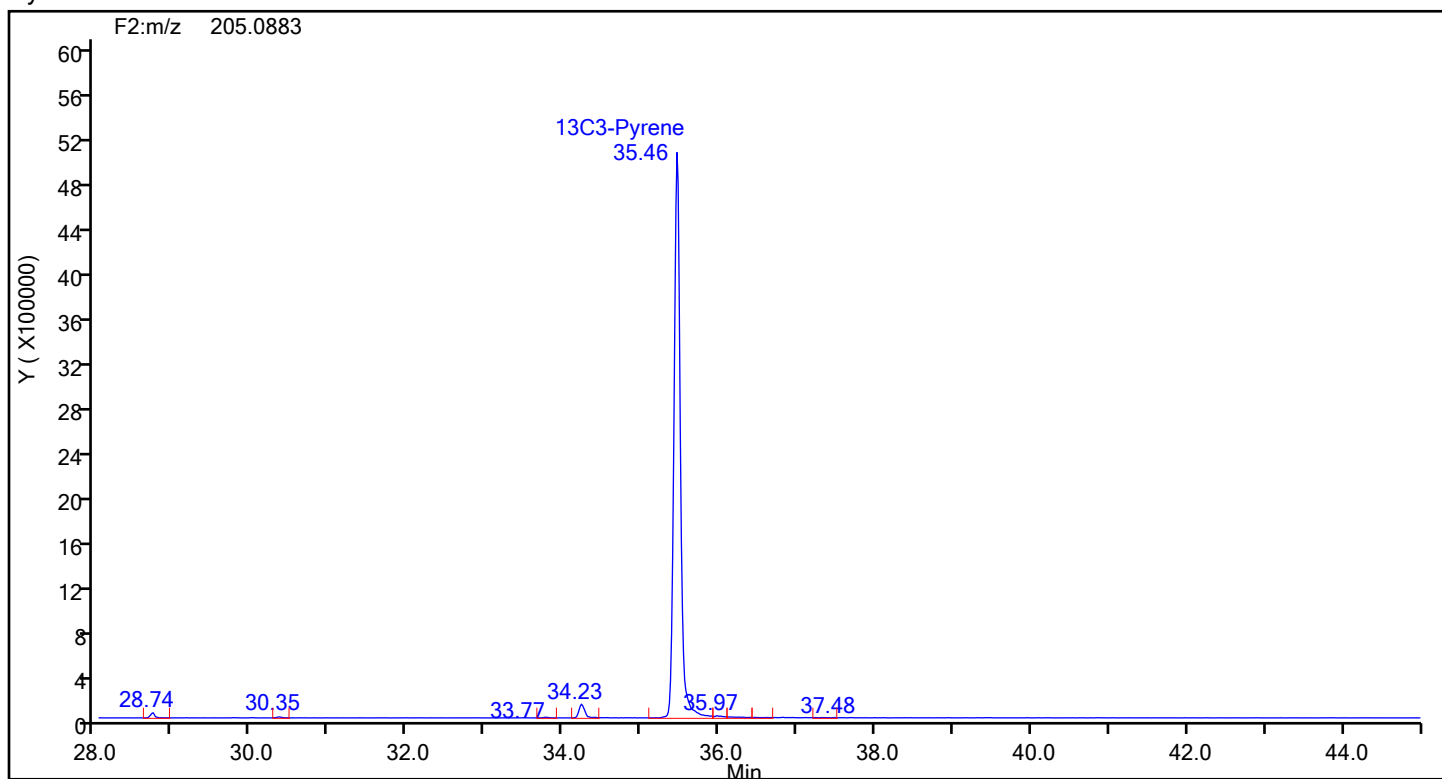
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Pyrene



## Pyrene Standards

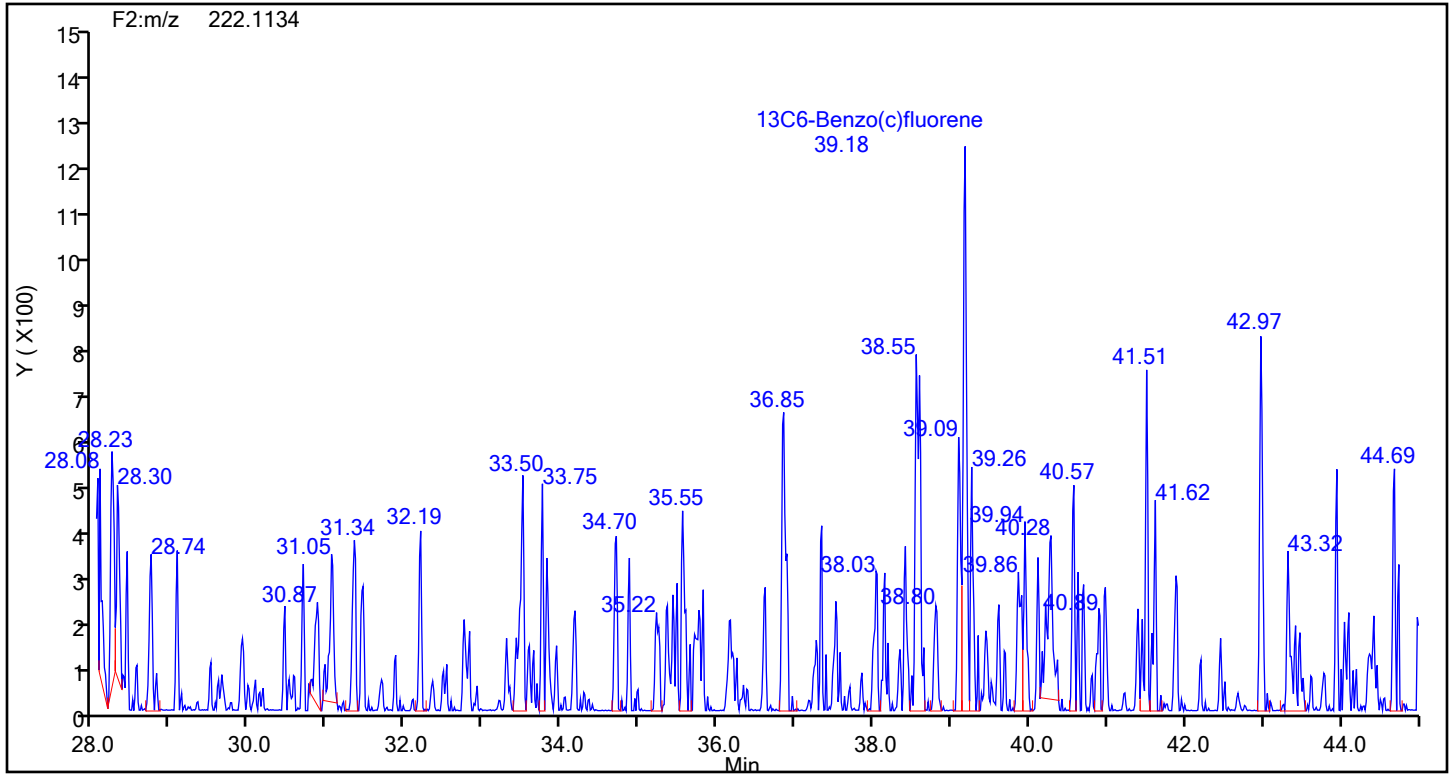




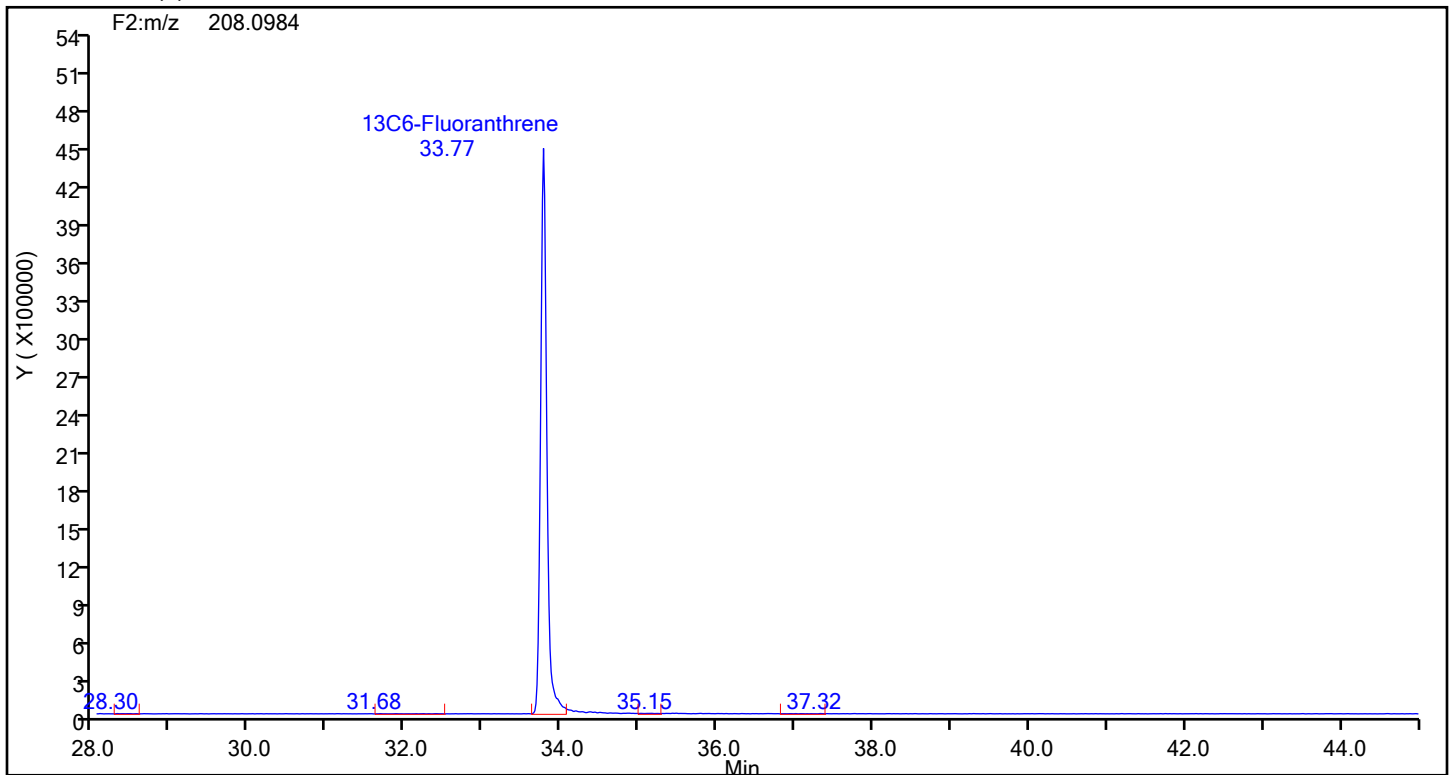
## Eurofins Knoxville

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Injection Date: 22-Jul-2024 16:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 89013 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C6-Benzo(c)fluorene



## 13C6-Benzo(c)fluorene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d

Injection Date: 22-Jul-2024 16:06:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED

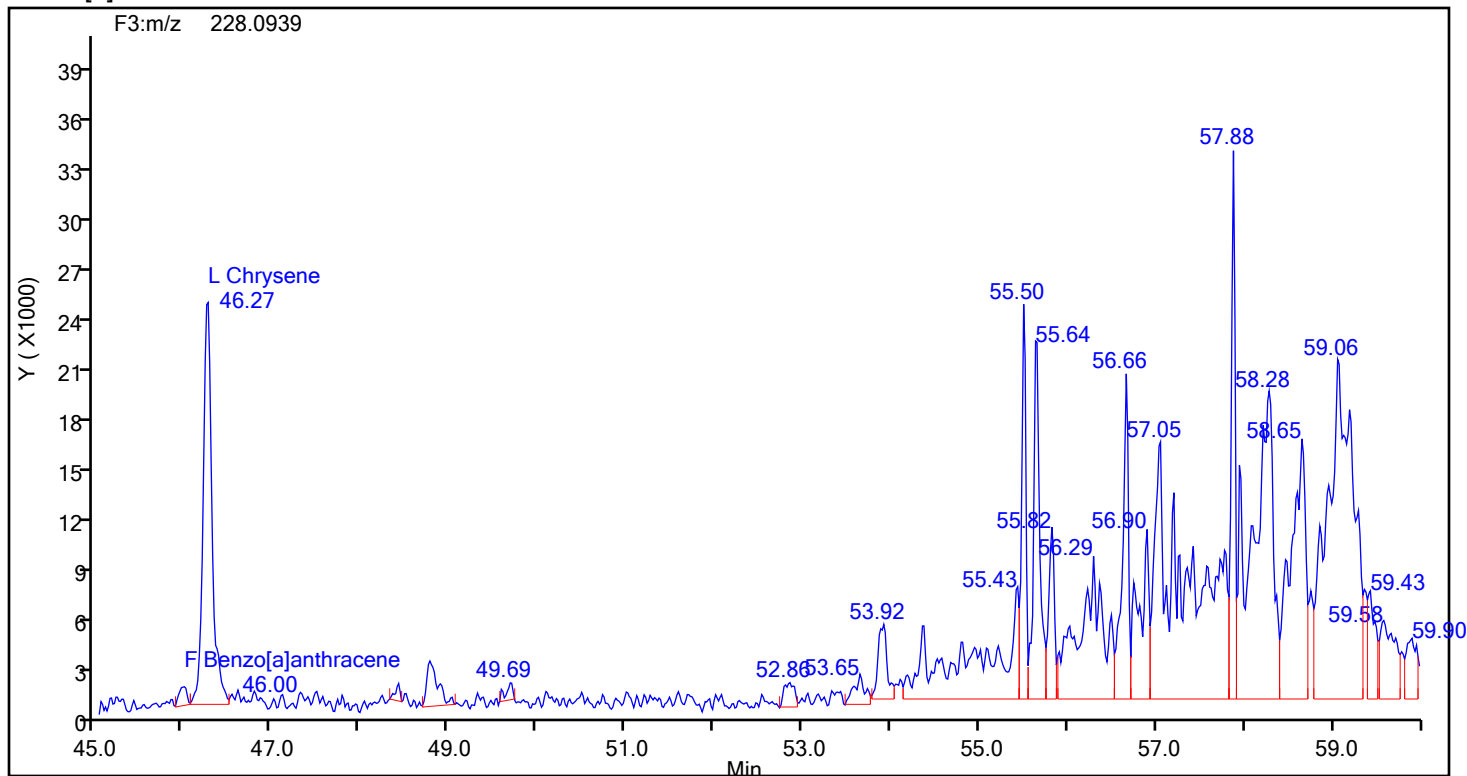
Worklist#: 89013

Sample Line#: 6

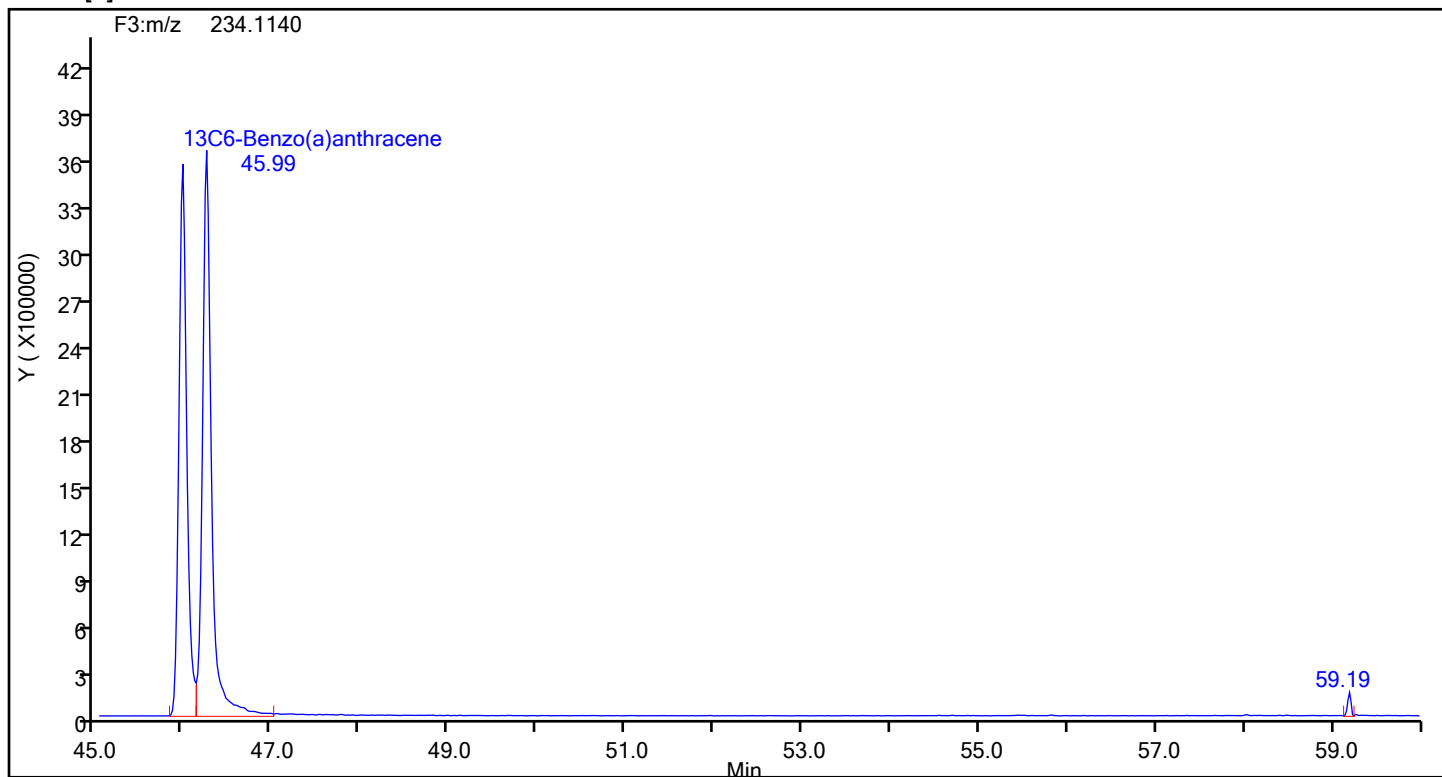
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Benzo[a]anthracene



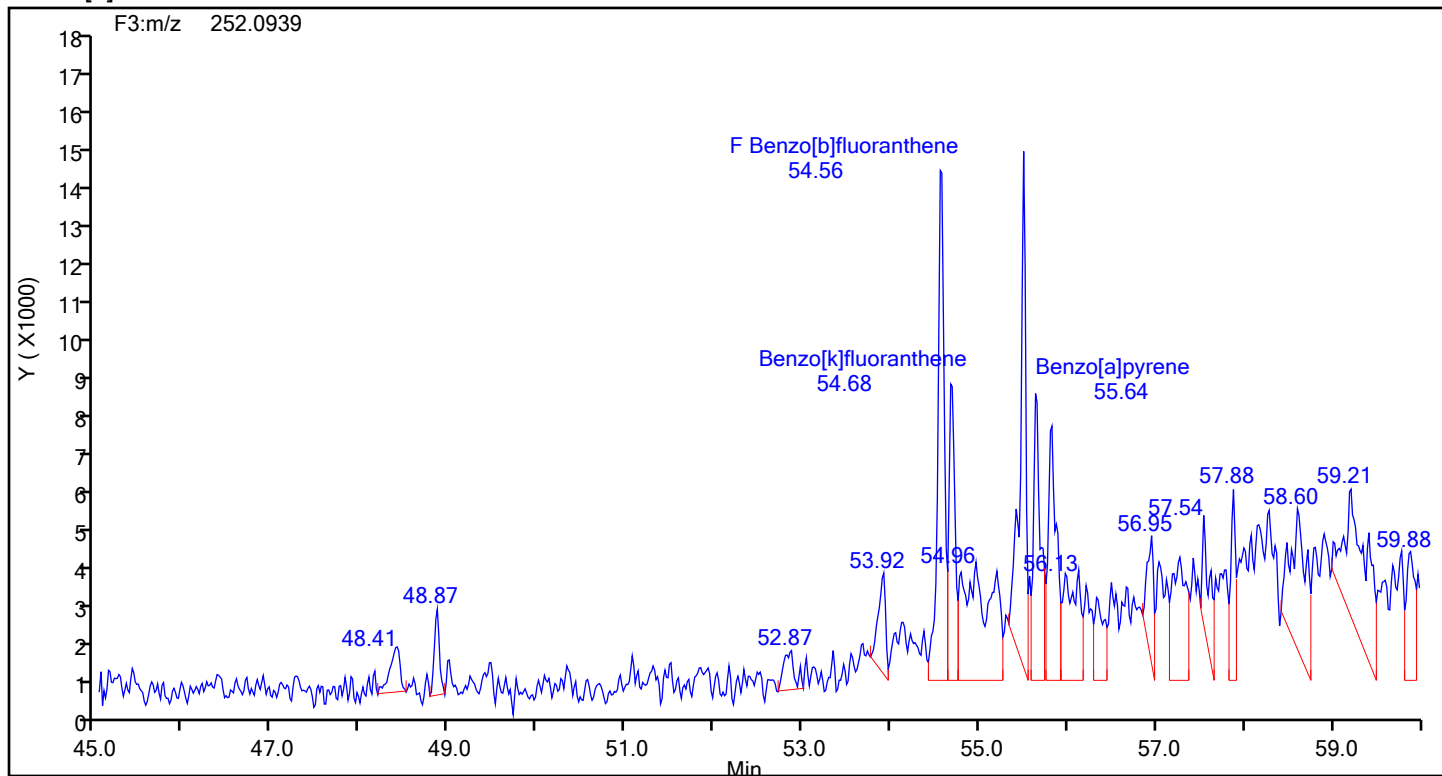
## Benzo[a]anthracene Standards



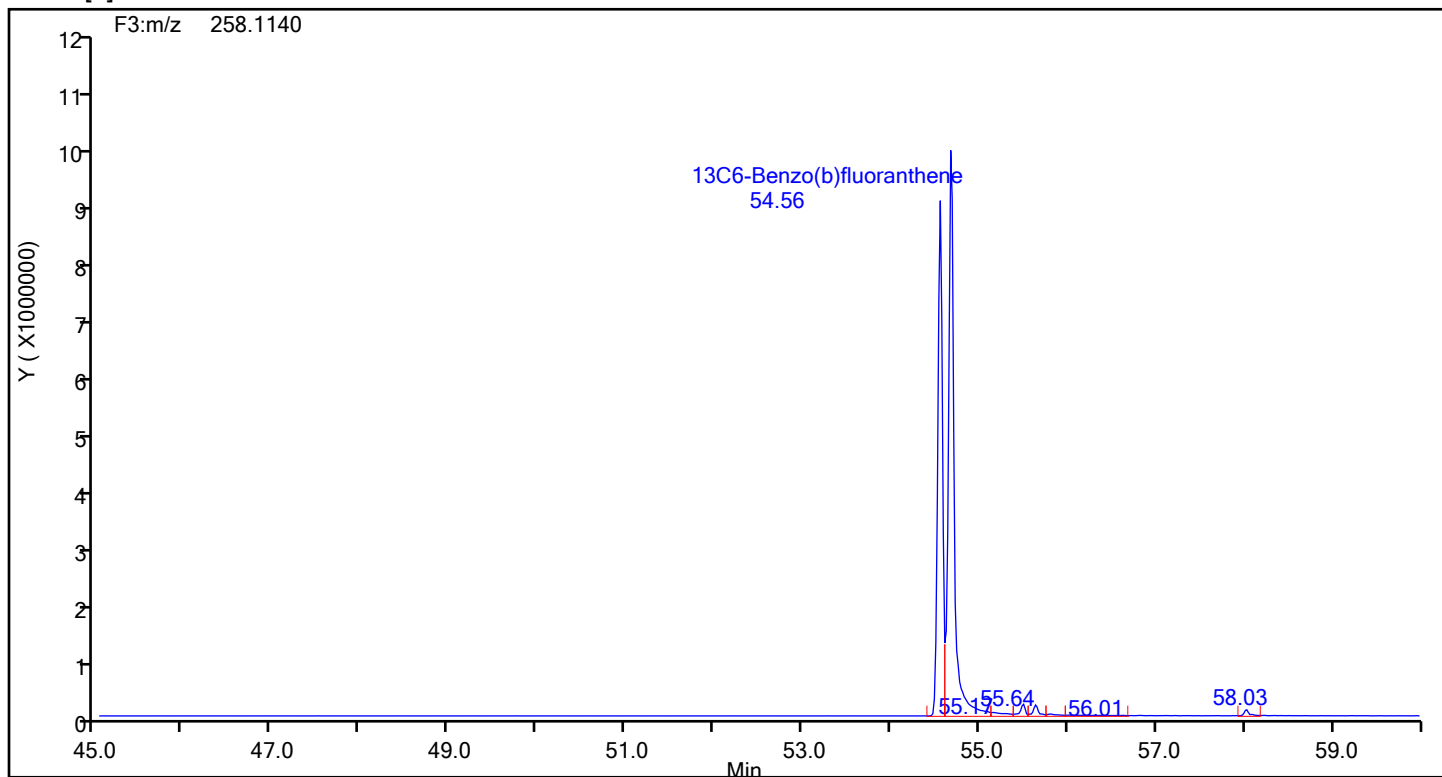
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 89013 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



## Benzo[b]fluoranthene Standards



## Eurofins Knoxville

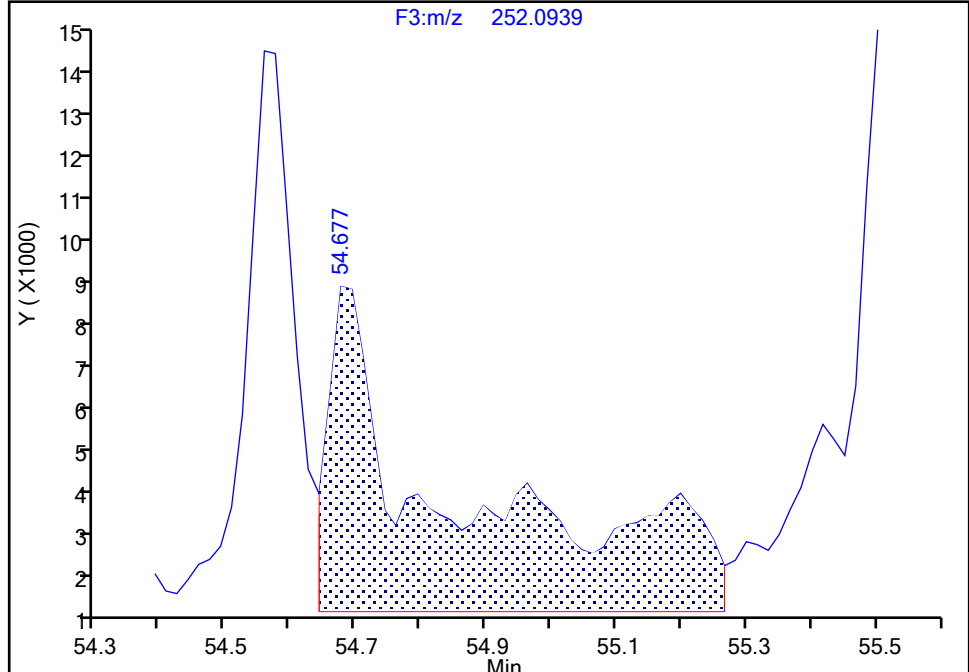
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Instrument ID: D3PAH  
Lims ID: 140-37234-B-14-B Lab Sample ID: 140-37234-14  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

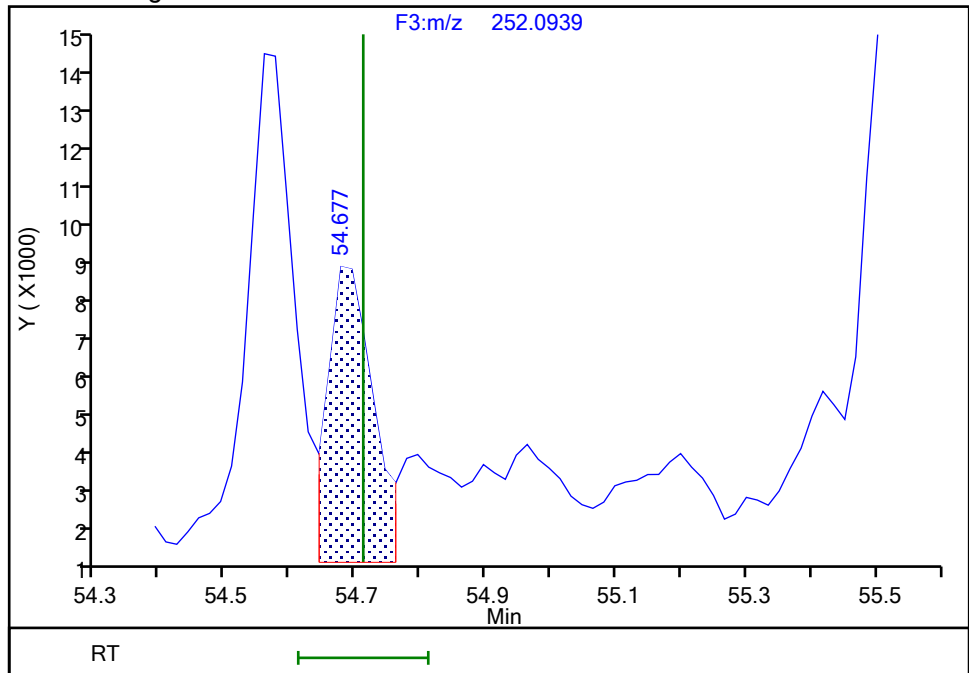
RT: 54.68  
Area: 101631  
Amount: 0.215287  
Amount Units: pg/ul

## Processing Integration Results



RT: 54.68  
Area: 37752  
Amount: 0.079971  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:54:15 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d

Injection Date: 22-Jul-2024 16:06:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED

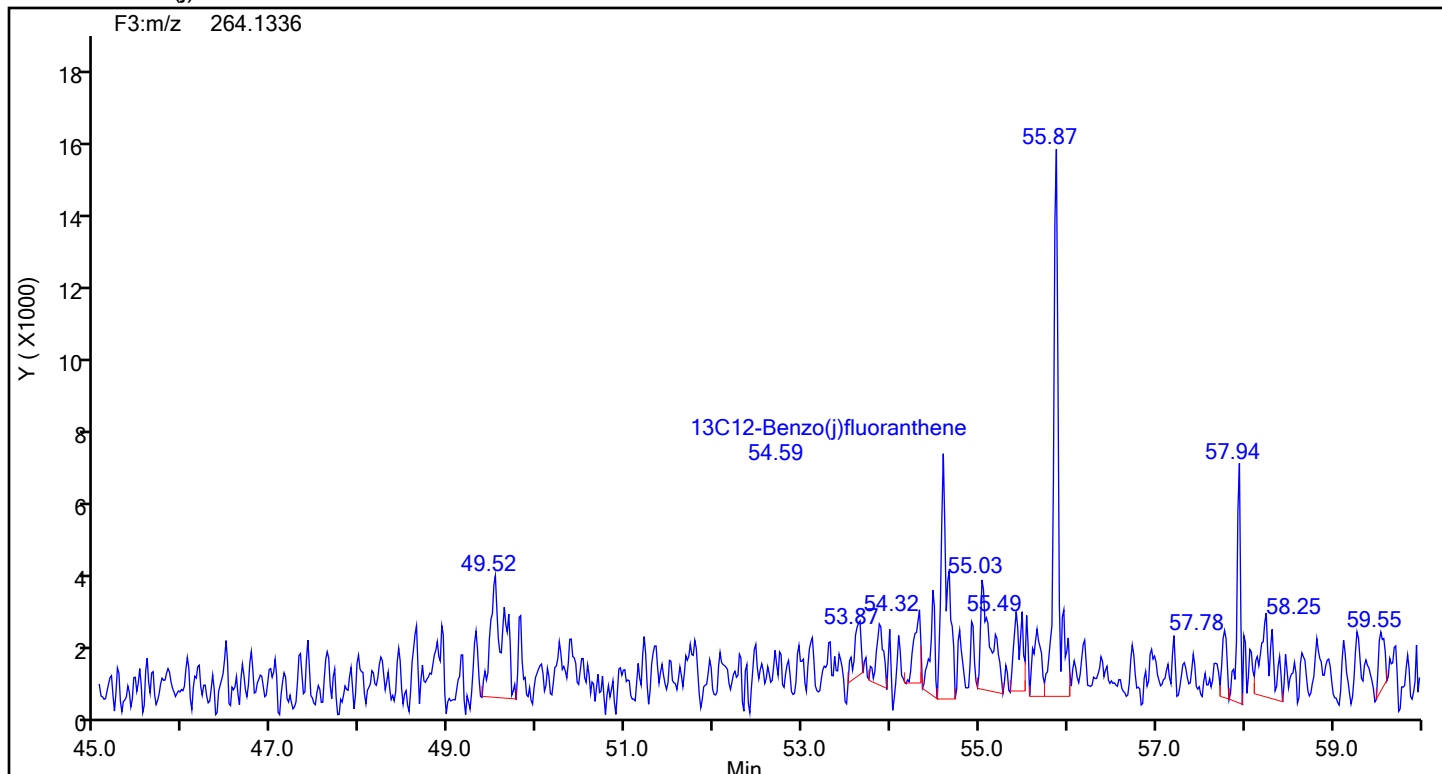
Worklist#: 89013

Sample Line#: 6

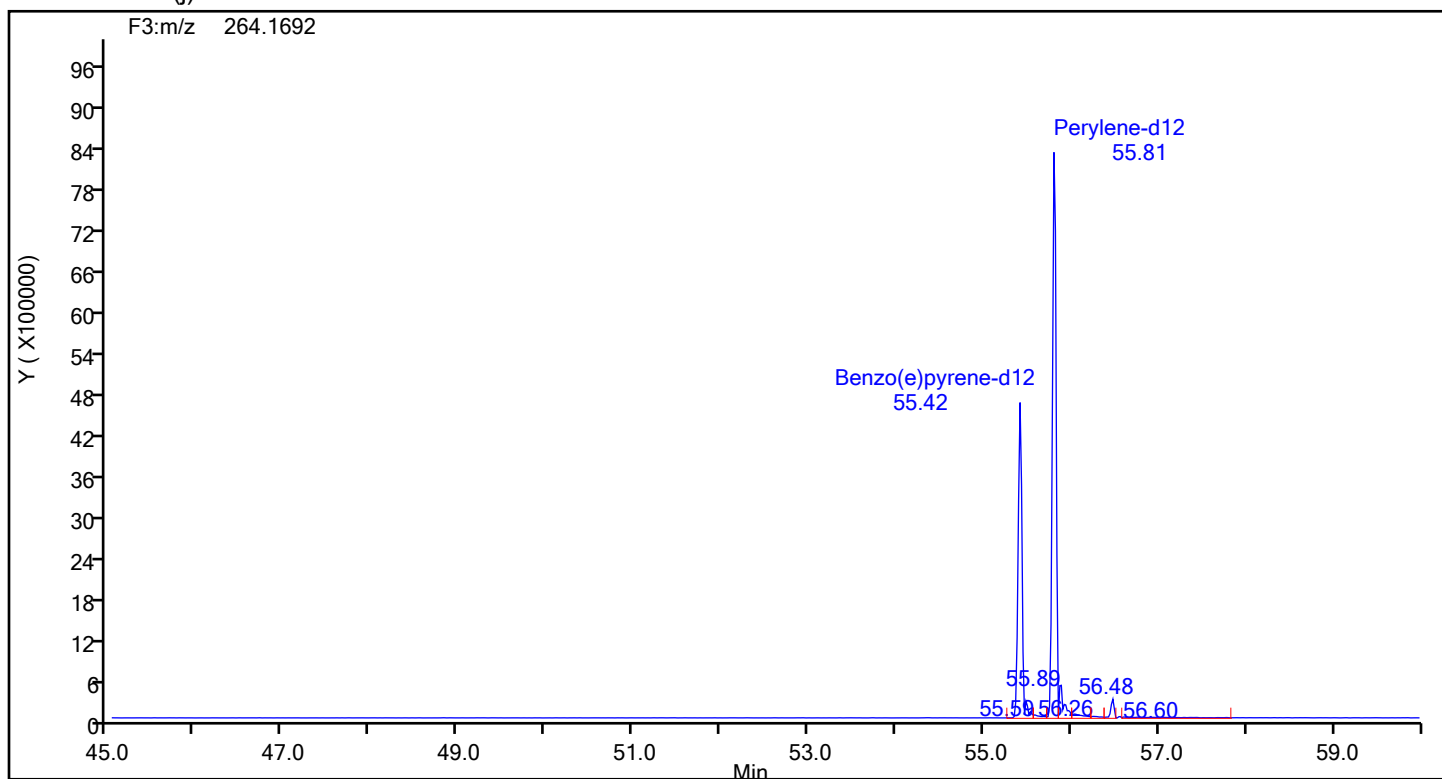
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



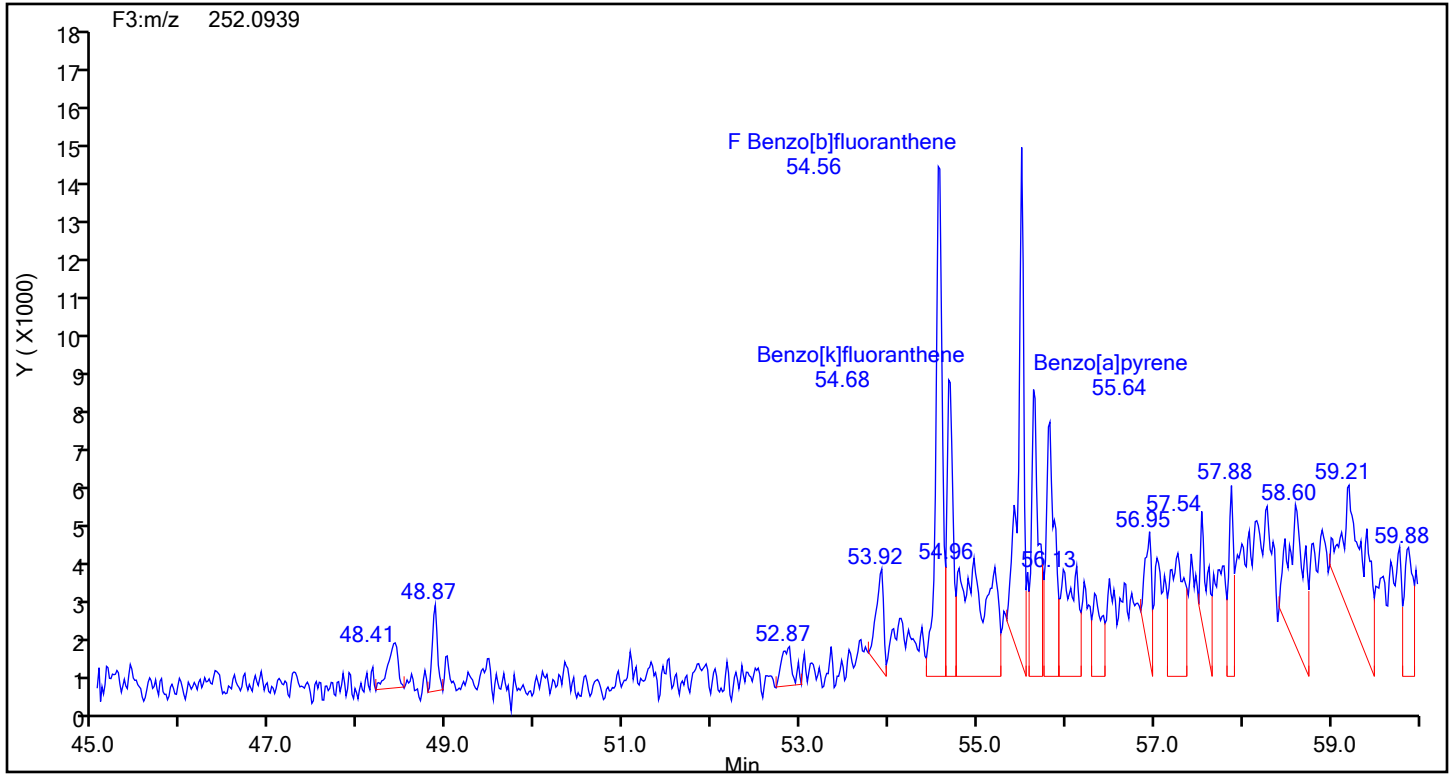
## 13C12-Benzo(j)fluoranthene Standards



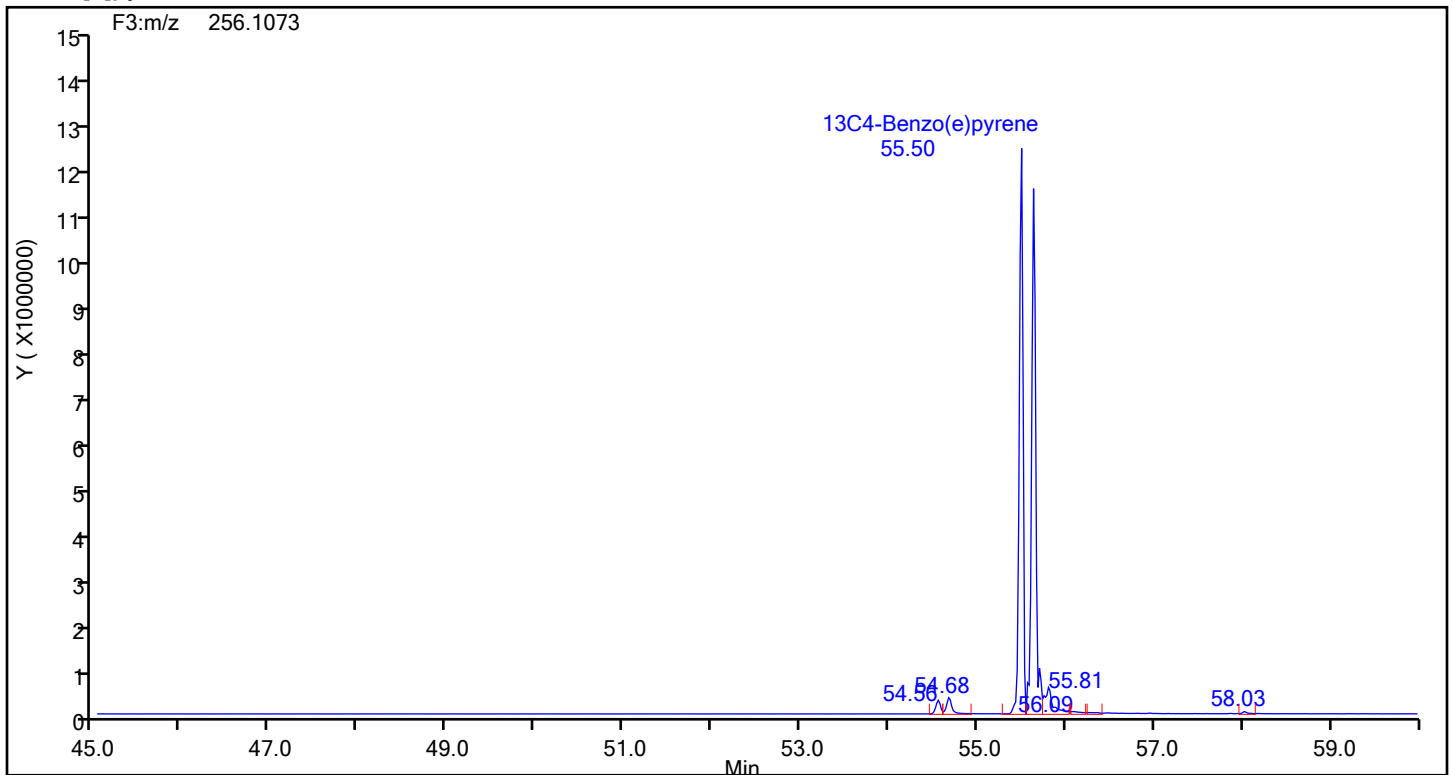
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 89013 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[e]pyrene



## Benzo[e]pyrene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d

Injection Date: 22-Jul-2024 16:06:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED

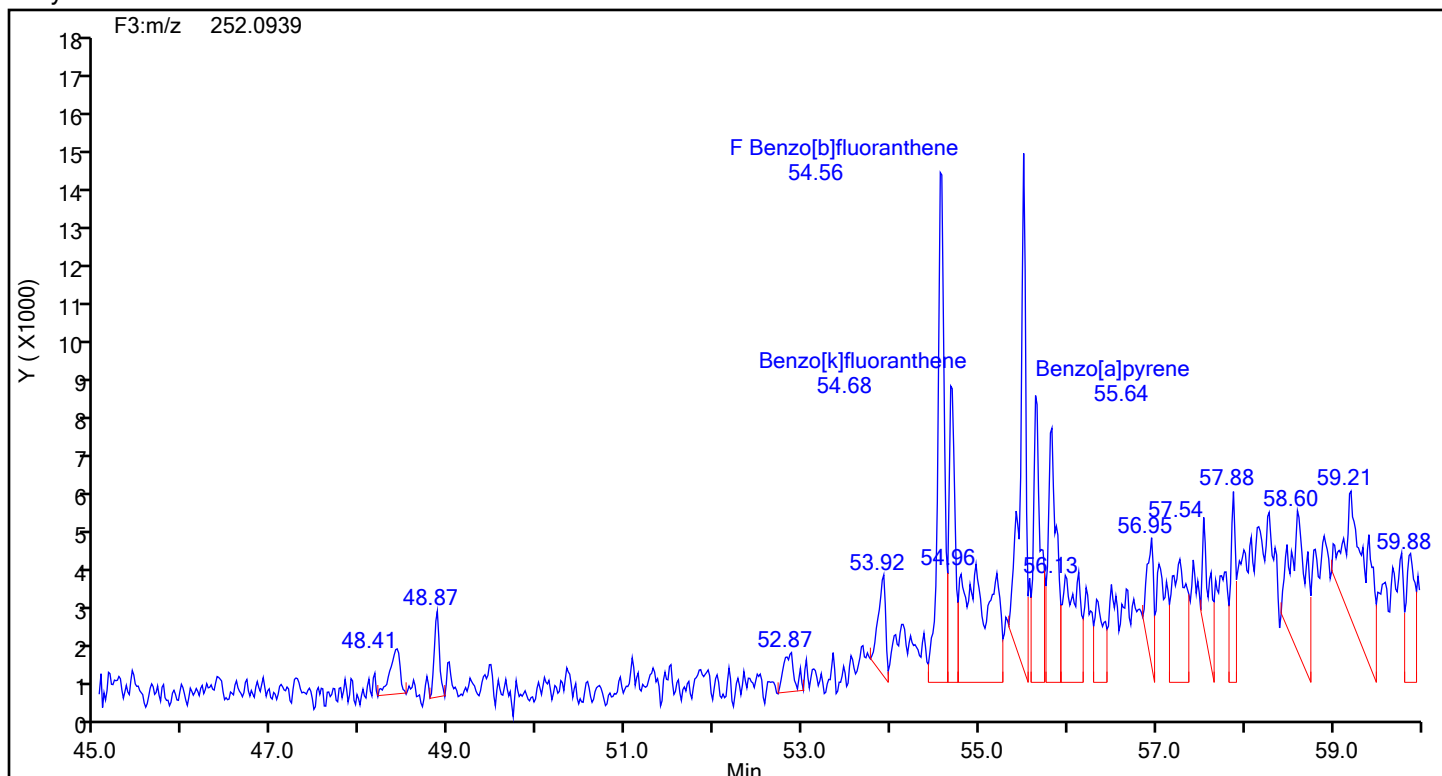
Worklist#: 89013

Sample Line#: 6

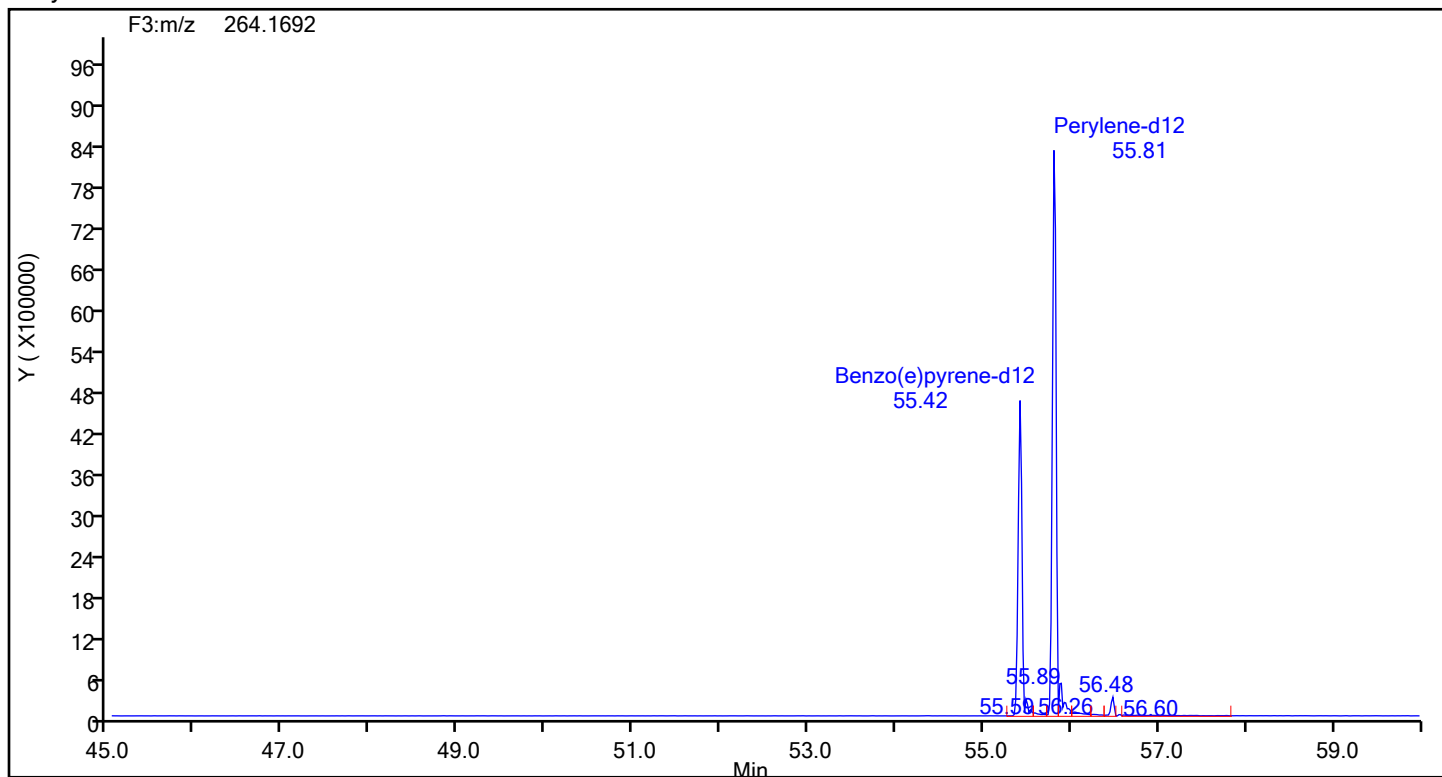
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Perylene



## Perylene Standards



## Eurofins Knoxville

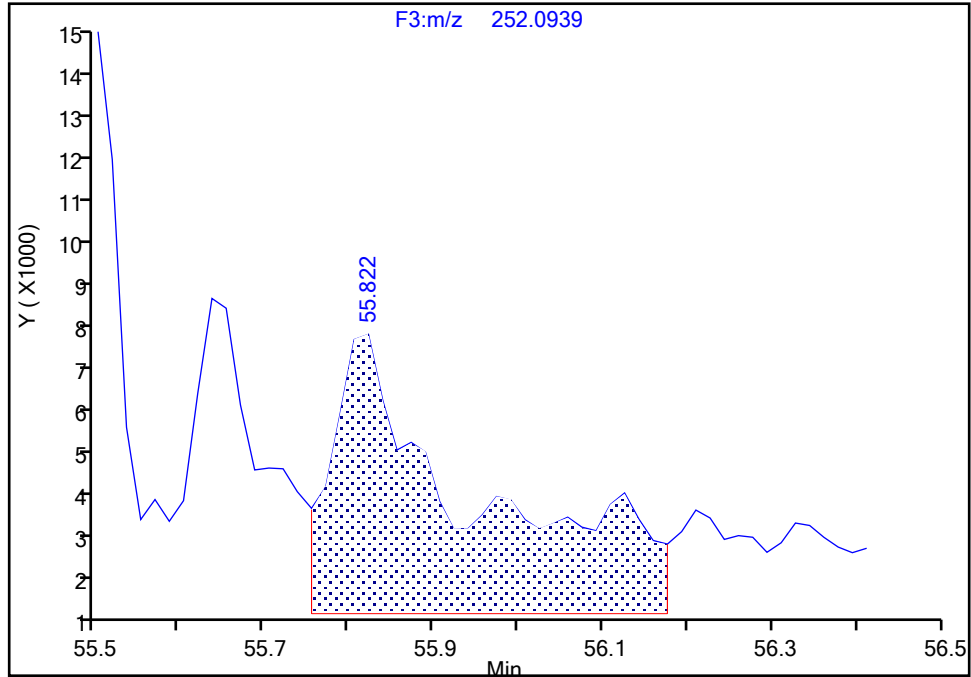
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Instrument ID: D3PAH  
Lims ID: 140-37234-B-14-B Lab Sample ID: 140-37234-14  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Perylene, CAS: 198-55-0

Signal: 1

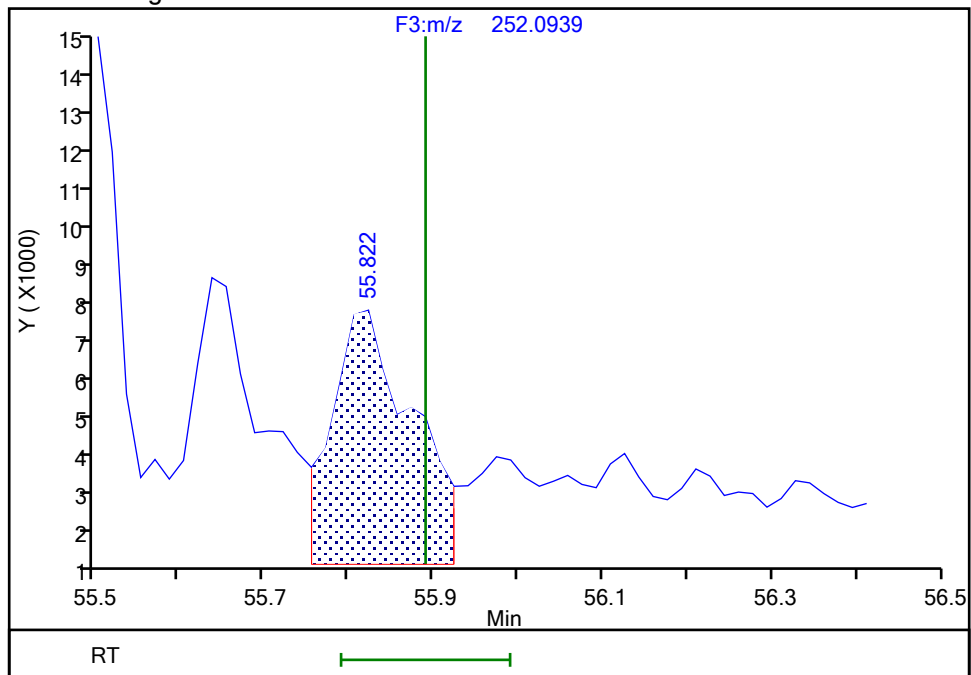
RT: 55.82  
Area: 76147  
Amount: 0.217289  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.82  
Area: 44653  
Amount: 0.127420  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:53:15 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d

Injection Date: 22-Jul-2024 16:06:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED

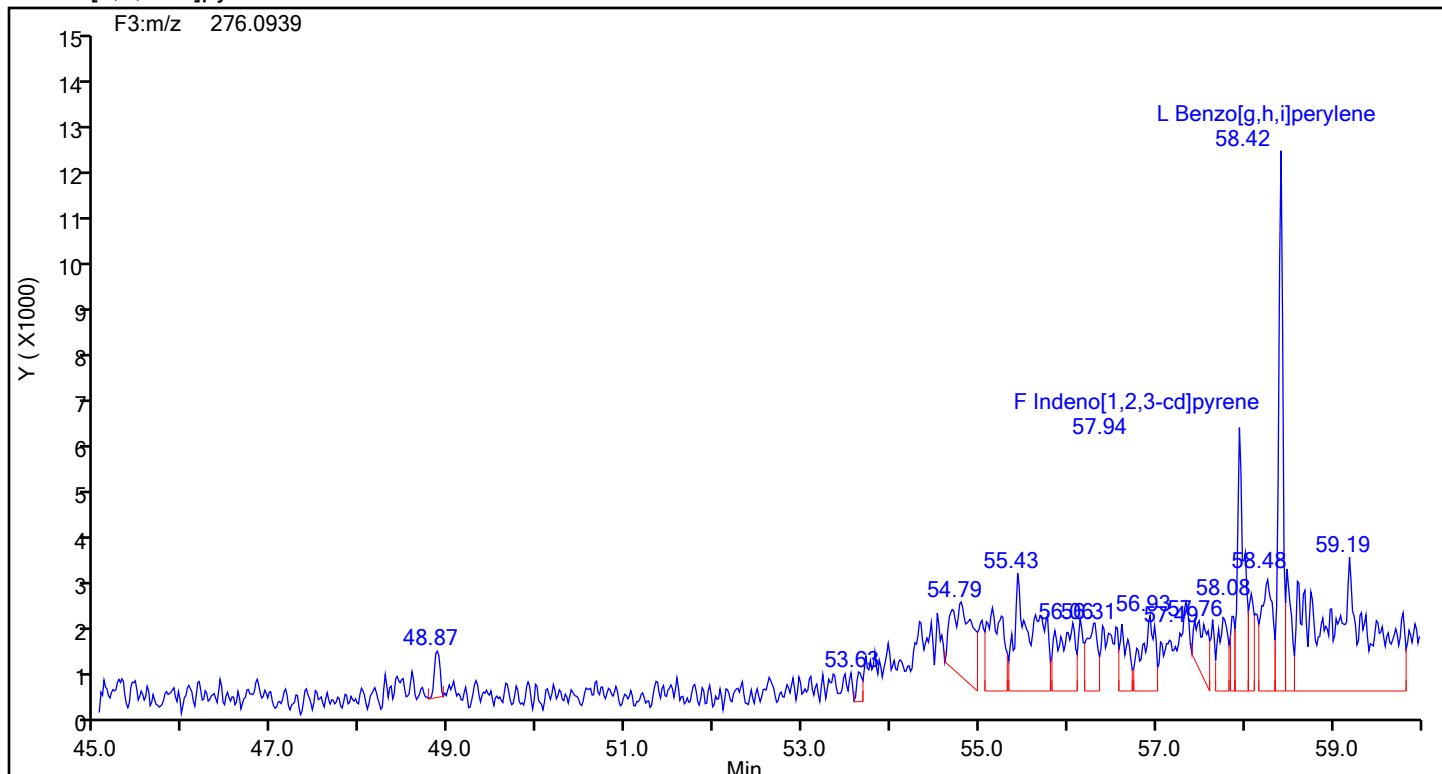
Worklist#: 89013

Sample Line#: 6

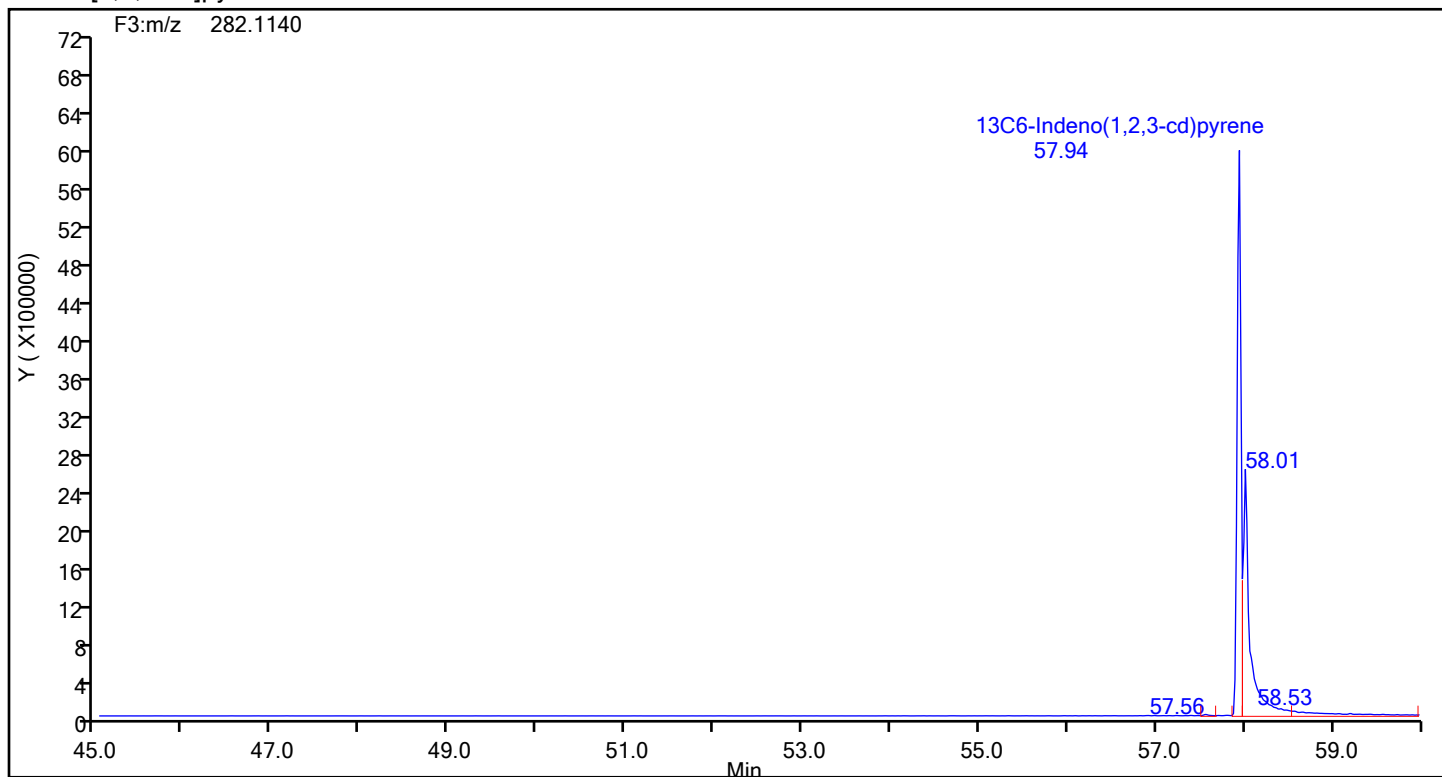
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

Indeno[1,2,3-cd]pyrene



Indeno[1,2,3-cd]pyrene Standards



## Eurofins Knoxville

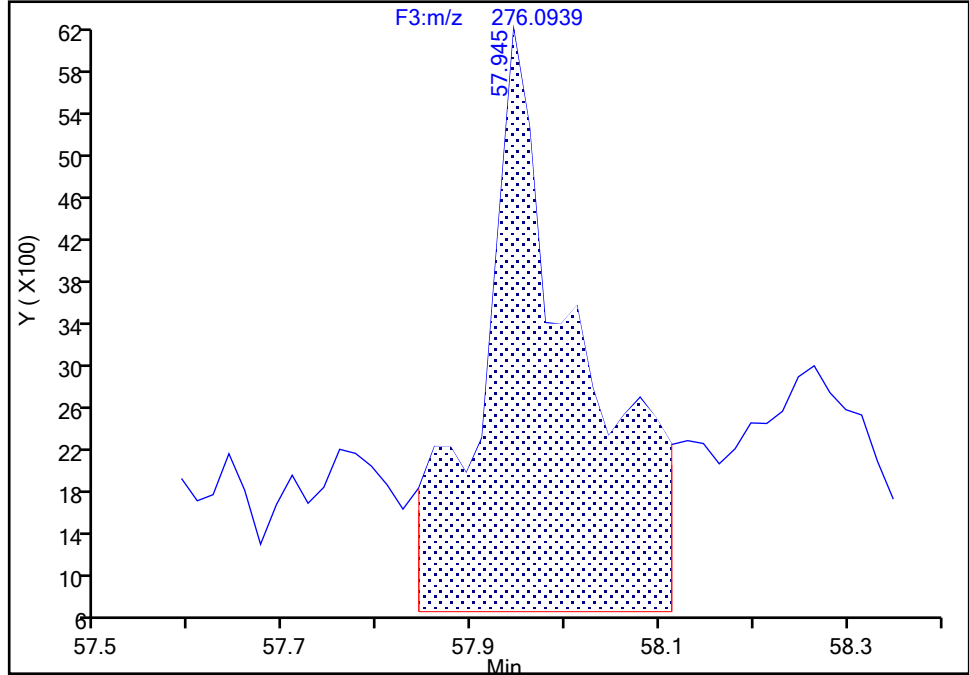
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Instrument ID: D3PAH  
Lims ID: 140-37234-B-14-B Lab Sample ID: 140-37234-14  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

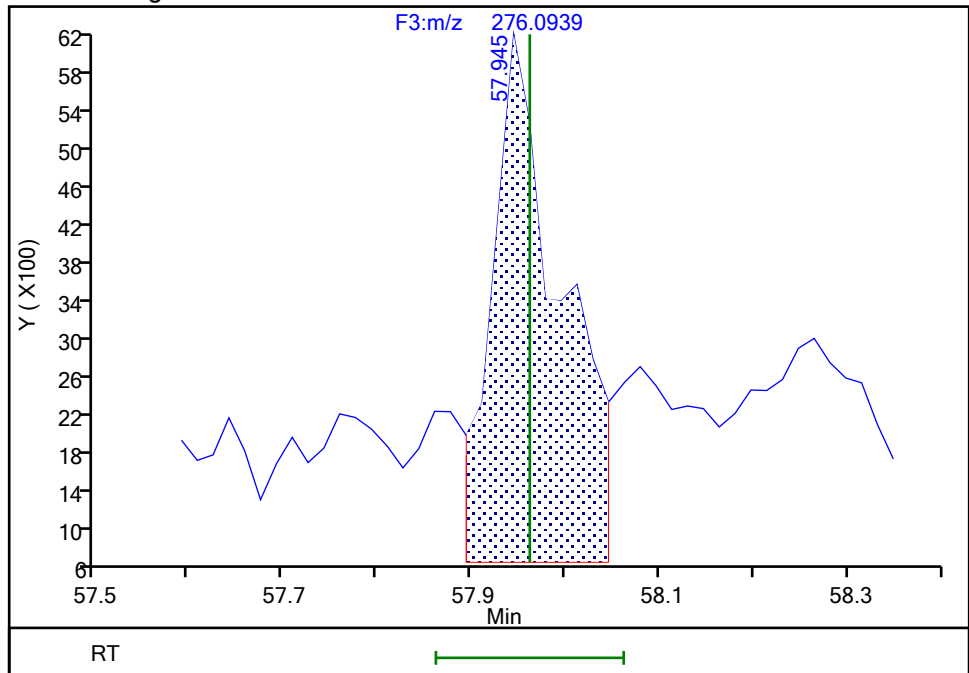
RT: 57.94  
Area: 38925  
Amount: 0.195941  
Amount Units: pg/ul

## Processing Integration Results



RT: 57.94  
Area: 28702  
Amount: 0.144480  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:52:41 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d

Injection Date: 22-Jul-2024 16:06:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED

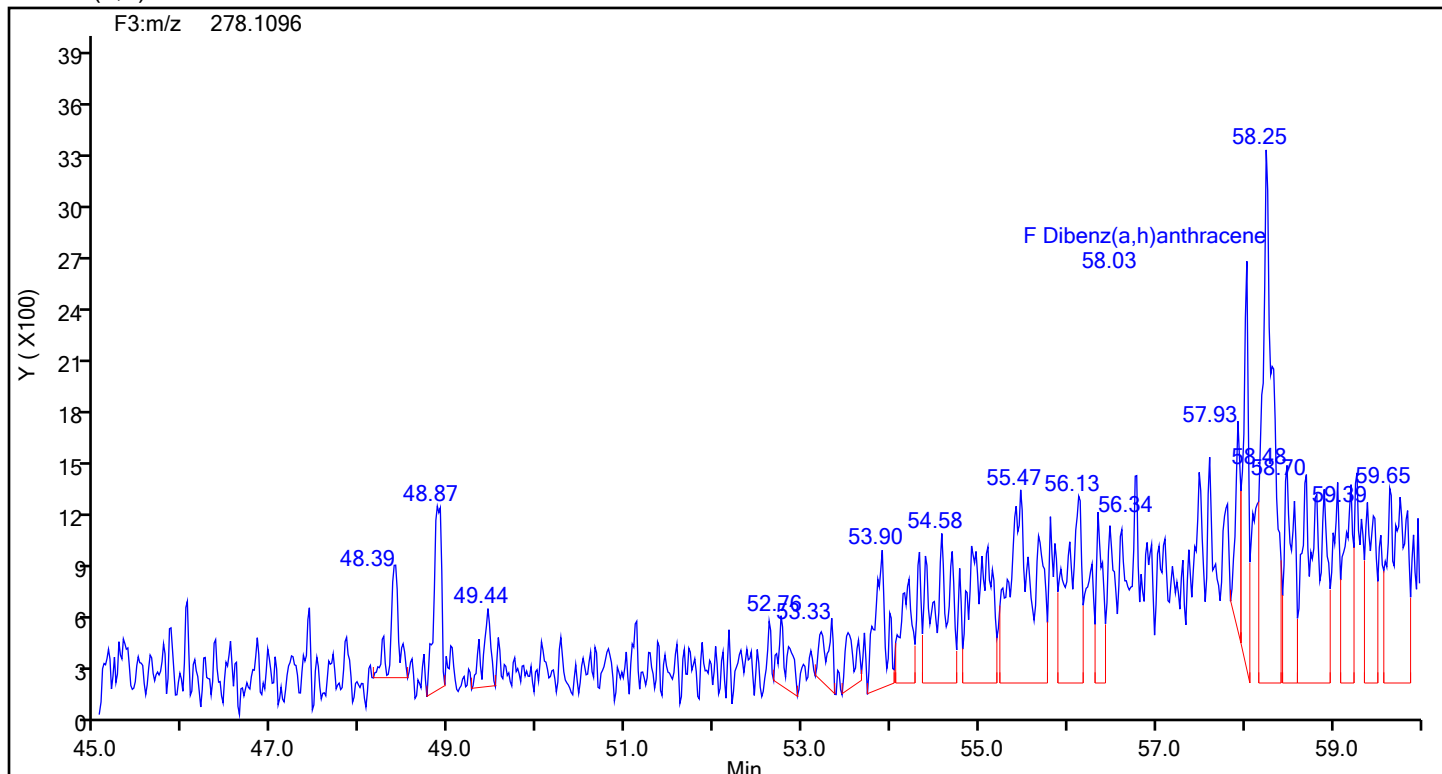
Worklist#: 89013

Sample Line#: 6

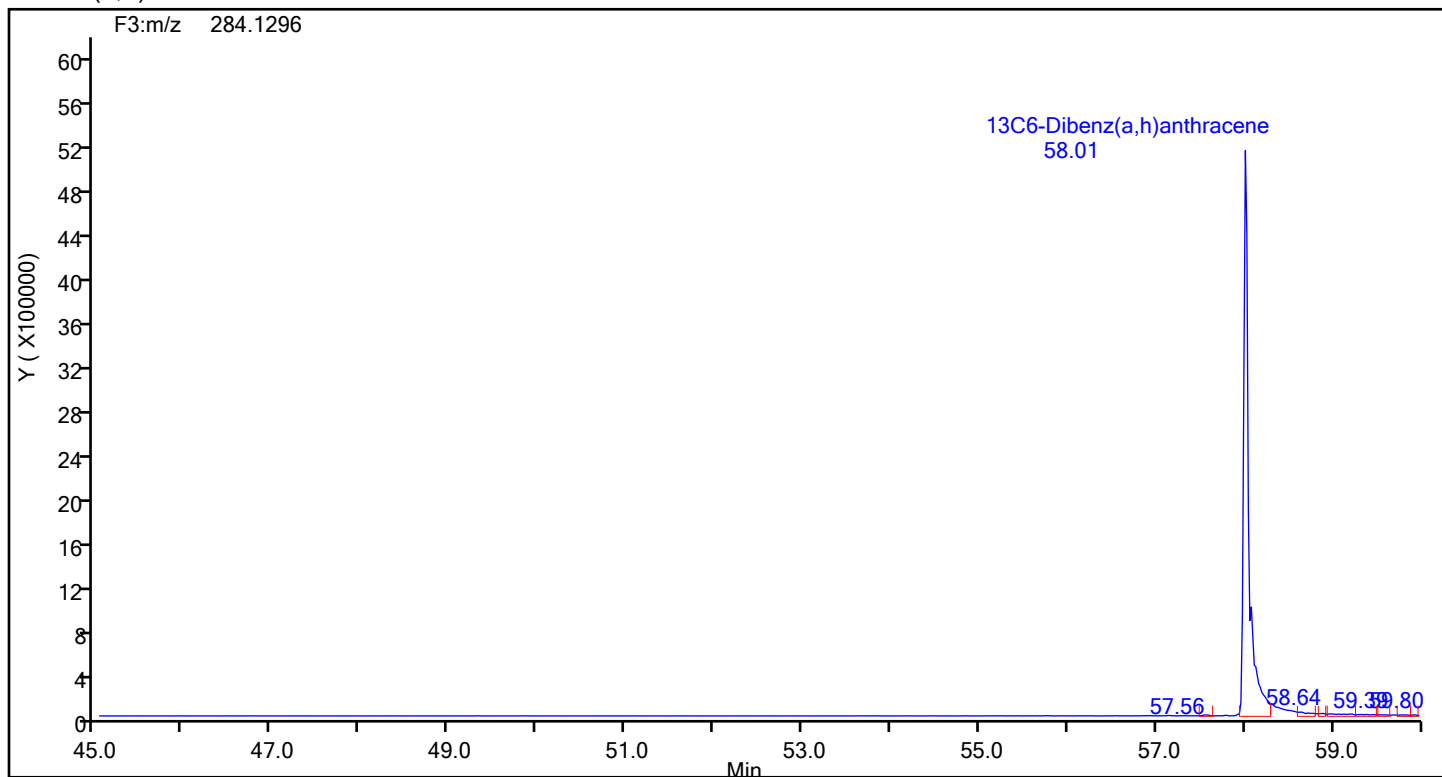
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

Dibenz(a,h)anthracene



Dibenz(a,h)anthracene Standards



## Eurofins Knoxville

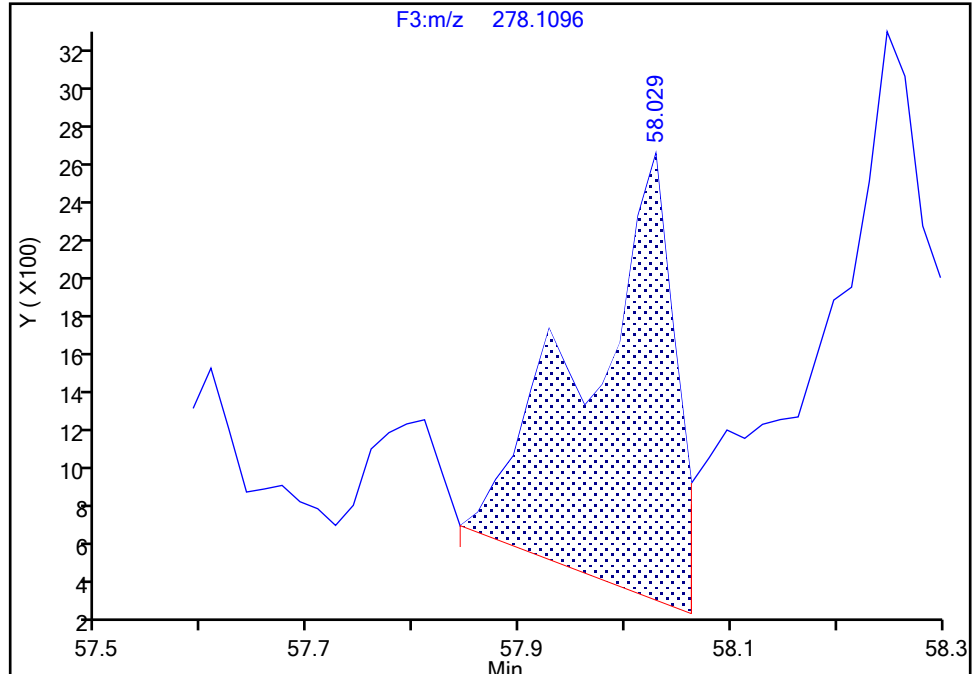
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Instrument ID: D3PAH  
Lims ID: 140-37234-B-14-B Lab Sample ID: 140-37234-14  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

## Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

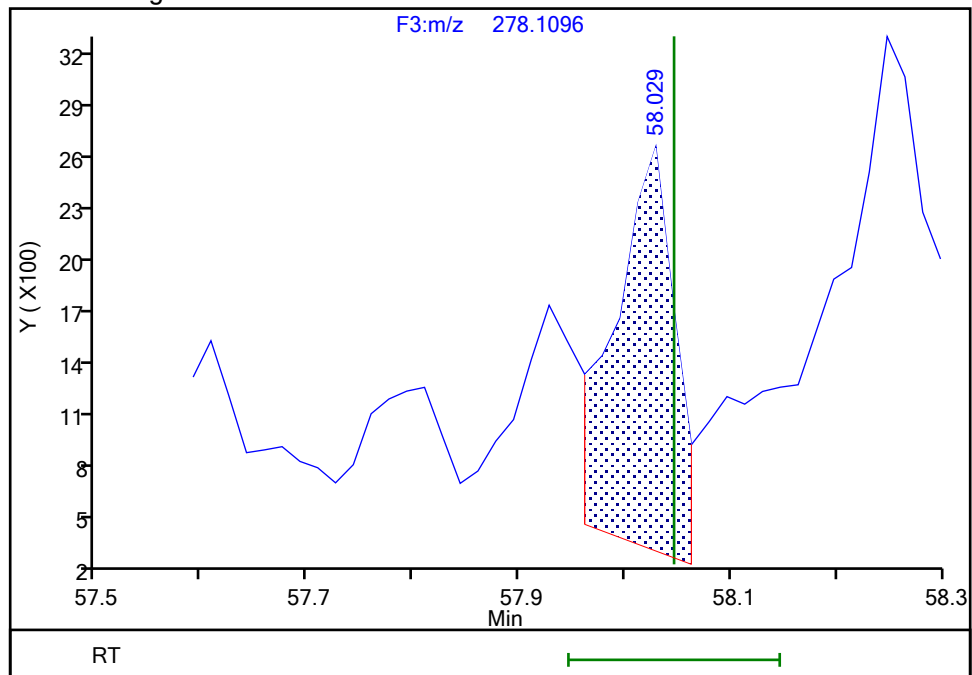
RT: 58.03  
Area: 13542  
Amount: 0.056972  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.03  
Area: 9785  
Amount: 0.041166  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:53:49 -04:00:00 (UTC)

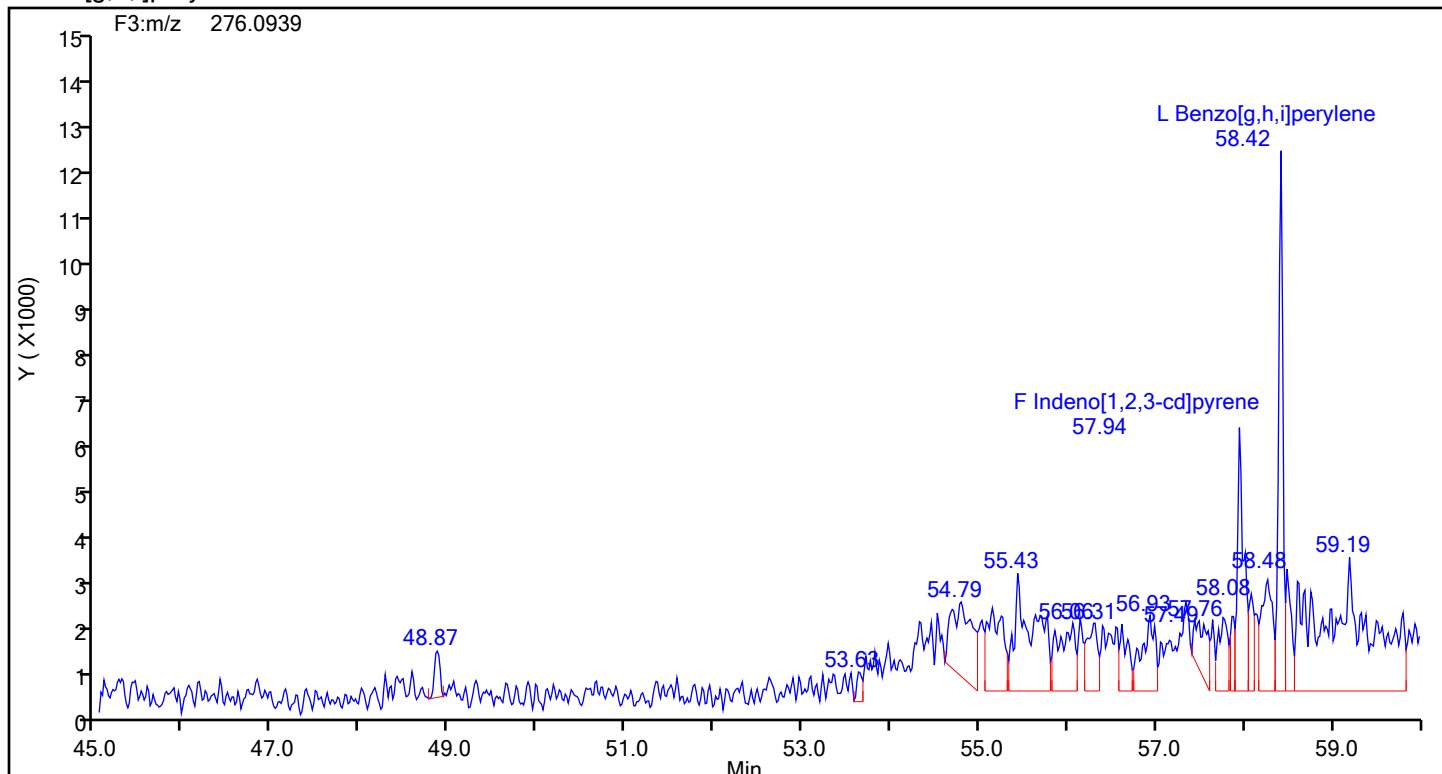
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

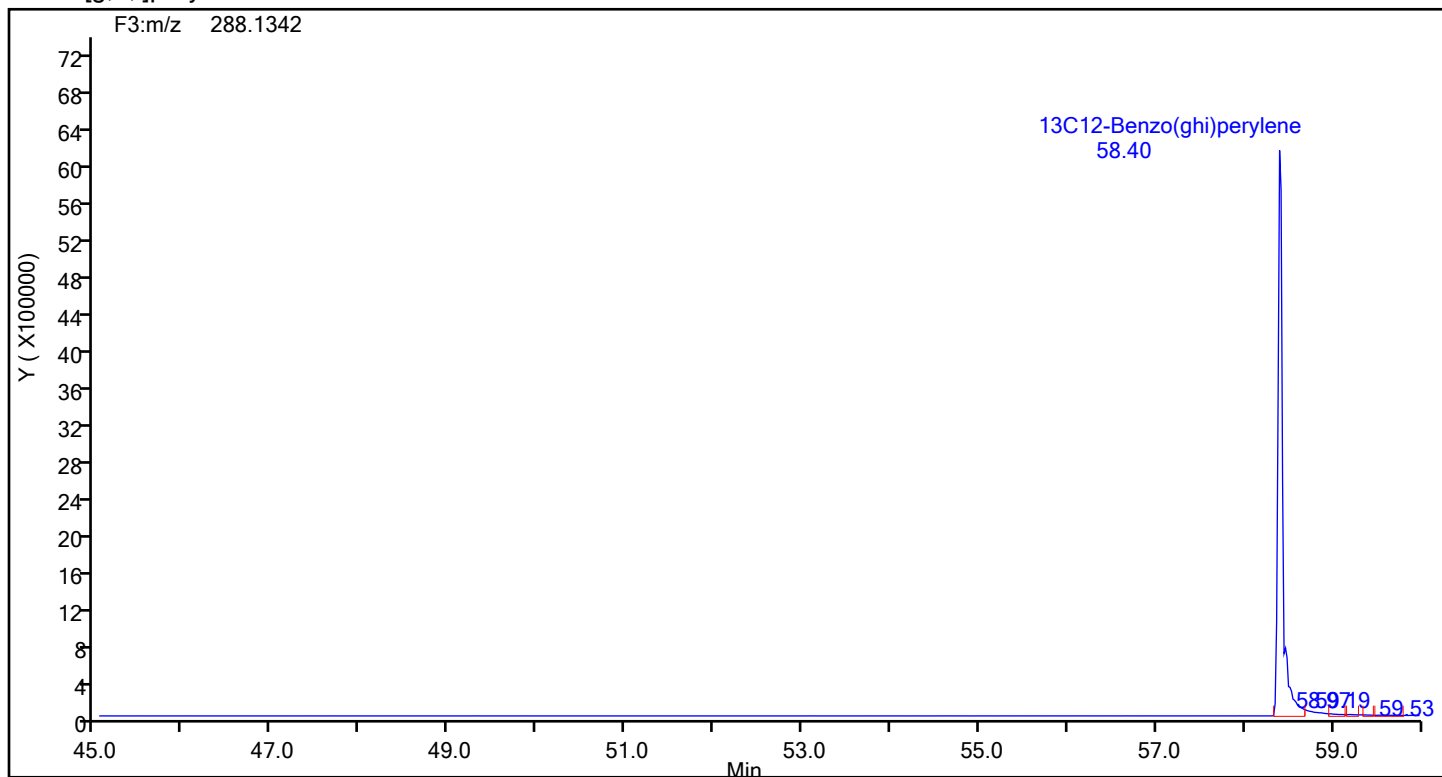
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 89013 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[g,h,i]perylene



## Benzo[g,h,i]perylene Standards



## Eurofins Knoxville

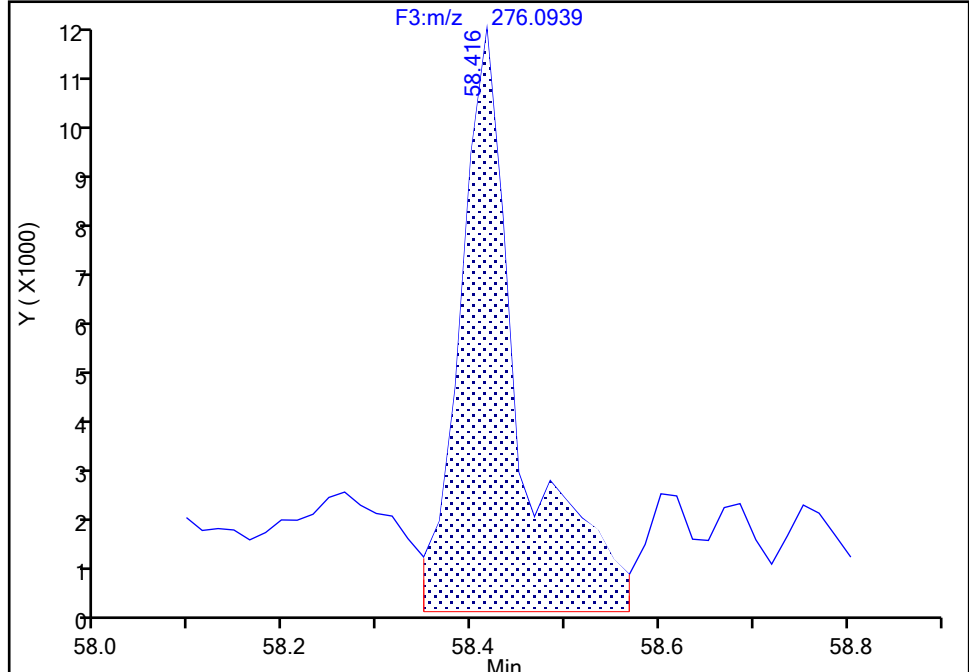
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Injection Date: 22-Jul-2024 16:06:00 Instrument ID: D3PAH  
Lims ID: 140-37234-B-14-B Lab Sample ID: 140-37234-14  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

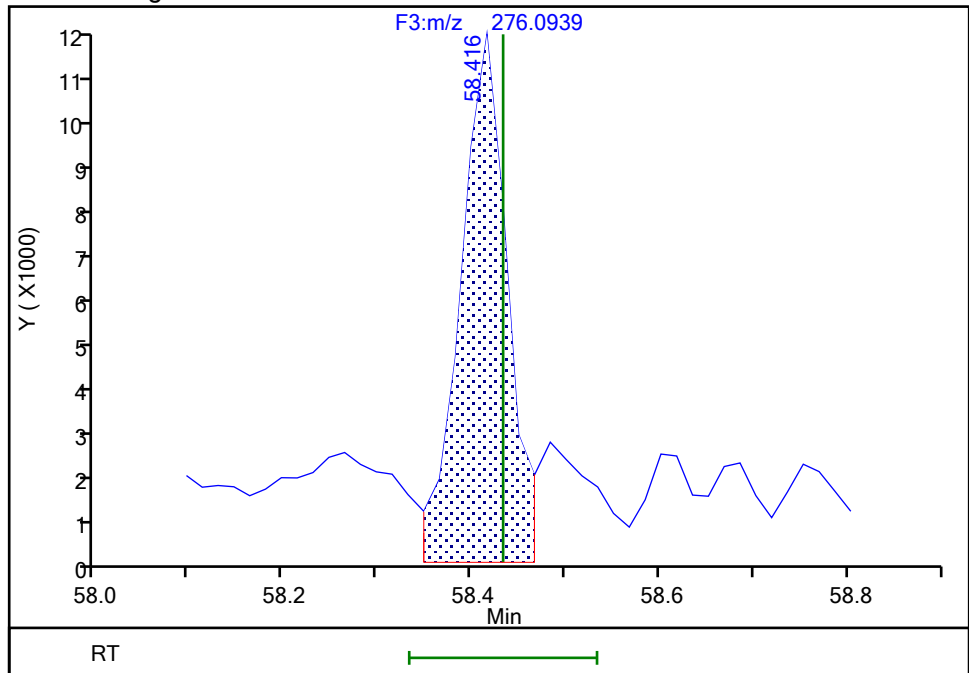
RT: 58.42  
Area: 48488  
Amount: 0.162254  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.42  
Area: 39499  
Amount: 0.132175  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 23-Jul-2024 09:53:38 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\140-37234-b-14-b.d  
Lims ID: 140-37234-B-14-B  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Sample Type: Client  
Inject. Date: 22-Jul-2024 16:06:00      ALS Bottle#: 0      Worklist Smp#: 6  
Injection Vol: 1.0 ul      Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033599-006  
Operator ID: Xcalibur\_System      Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 23-Jul-2024 09:54:26      Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution      Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm)      Det: F1(6.03 :27.99 )  
Process Host: CTX1613

First Level Reviewer: TT6I	Date:	23-Jul-2024 09:54:26		
Compound	Amount Added	Amount Recovered	% Rec.	

FORM VI  
HI-RES PAHS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87843  
SDG No.: \_\_\_\_\_  
Instrument ID: D3PAH GC Column: Rxi-5SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N  
Calibration Start Date: 06/19/2024 16:34 Calibration End Date: 06/20/2024 01:09 Calibration ID: 5149

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-87843/1	d3240619ic1.d
Level 2	IC 140-87843/2	d3240619ic2.d
Level 3	IC 140-87843/3	d3240619ic3.d
Level 4	IC 140-87843/4	d3240619ic4.d
Level 5	IC 140-87843/5	d3240619ic5.d
Level 6	IC 140-87843/6	d3240619ic6.d
Level 7	IC 140-87843/7	d3240619ic7.d
Level 8	IC 140-87843/8	d3240619ic8.d
Level 9	IC 140-87843/9	d3240619ic9.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
Naphthalene	+++++ 1.2740	+++++ 1.1977	+++++ 1.2441	+++++ 1.3662	1.3643	AveI D		1.289 3				5.8		10.0			
2-Methylnaphthalene	+++++ 1.2688	+++++ 1.1855	+++++ 1.2246	+++++ 1.3502	1.3638	AveI D		1.278 6				6.1		10.0			
Acenaphthylene	2.6784 2.2429	2.3828 2.2569	2.2653 2.3046	2.2666 2.5987	2.2990	AveI D		2.366 1				6.8		10.0			
Acenaphthene	+++++ 1.2653	+++++ 1.1998	+++++ 1.1988	1.3821 1.2845	1.2877	AveI D		1.269 7				5.4		10.0			
Fluorene	+++++ 1.2315	+++++ 1.2055	+++++ 1.1992	1.3195 1.2909	1.2723	AveI D		1.253 2				3.9		10.0			
Phenanthrene	+++++ 1.0972	+++++ 1.0506	+++++ 1.0450	1.1979 1.1153	1.1206	AveI D		1.104 4				5.1		10.0			
Anthracene	+++++ 1.3426	1.5578 1.3143	1.3186 1.2821	1.3527 1.3891	1.3116	AveI D		1.358 6				6.4		10.0			
Fluoranthene	+++++ 1.1051	+++++ 1.0896	1.2143 1.1192	1.1513 1.2379	1.1420	AveI D		1.151 3				4.8		10.0			
Pyrene	+++++ 1.0283	+++++ 0.9988	1.1693 1.0231	1.0690 1.1151	1.0527	AveI D		1.065 2				5.6		10.0			
Benzo[a]anthracene	1.0378 0.9499	1.0605 0.9201	0.9423 0.9245	0.9658 1.0128	0.9510	AveI D		0.973 9				5.2		10.0			
Chrysene	+++++ 0.9465	+++++ 0.9264	1.1064 0.9360	0.9877 1.0045	0.9627	AveI D		0.981 5				6.3		10.0			
Benzo[b]fluoranthene	+++++ 1.0793	+++++ 1.0465	+++++ 1.0882	1.1713 1.2553	1.1089	AveI D		1.124 9				6.8		10.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.



FORM VI  
HI-RES PAHS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87843

SDG No.: \_\_\_\_\_

Instrument ID: D3PAH GC Column: Rxi-5SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/19/2024 16:34 Calibration End Date: 06/20/2024 01:09 Calibration ID: 5149

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Benzo[k]fluoranthene	1.2472 1.0508	1.3438 1.0426	1.0689 1.0745	1.1243 1.1190	1.0725	AveI n		1.127 1				9.1		10.0			
Benzo[e]pyrene	++++ 0.9413	++++ 0.9383	1.0083 0.9695	1.0829 1.0972	0.9714	AveI n		1.001 3				6.5		10.0			
Benzo[a]pyrene	1.2413 1.0507	1.2097 1.0601	1.1008 1.0871	1.1041 1.0970	1.0663	AveI n		1.113 0				6.0		10.0			
Perylene	++++ 1.3430	1.6018 1.4021	1.4662 1.4991	1.3101 ++++	1.3924	AveI n		1.430 7				7.0		10.0			
Indeno[1,2,3-cd]pyrene	++++ 1.1372	1.2057 0.9694	1.0985 1.0491	1.0578 1.3169	1.1649	AveI n		1.124 9				9.5		10.0			
Dibenz(a,h)anthracene	1.3561 1.0868	1.2167 1.0261	1.1041 1.0857	1.1015 1.1719	1.0336	AveI n		1.131 4				9.2		10.0			
Benzo[g,h,i]perylene	1.5167 1.1661	1.4345 1.1407	1.2918 1.2066	1.2677 1.3356	1.1941	AveI n		1.283 8				9.9		10.0			
13C6-Naphthalene	3.5973 2.9472	3.4322 3.3920	3.4274 3.3947	3.3734 3.2062	3.6005	Ave		3.374 6				5.9		20.0			
13C6-2-Methylnaphthalene	1.6583 1.5528	1.6409 1.6170	1.5405 1.6352	1.5807 1.5809	1.6213	Ave		1.603 1				2.6		20.0			
13C6-Acenaphthylene	1.6044 1.6538	1.6081 1.6587	1.6082 1.7178	1.6578 1.7056	1.6537	Ave		1.652 0				2.5		20.0			
13C6-Acenaphthene	0.9572 0.9760	0.9381 0.9858	0.9763 1.0256	0.9788 1.0118	0.9629	Ave		0.979 2				2.7		20.0			
13C6-Fluorene	0.8310 0.8771	0.8561 0.9159	0.8654 0.9652	0.8922 0.9362	0.8695	Ave		0.889 8				4.7		20.0			
13C6-Phenanthrene	0.5246 0.5425	0.5288 0.6157	0.5428 0.5975	0.5717 0.6555	0.5727	Ave		0.572 4				7.7		20.0			
13C6-Anthracene	0.4234 0.4320	0.4124 0.4654	0.4314 0.4797	0.4639 0.5202	0.4426	Ave		0.452 3				7.4		20.0			
13C6-Fluoranthrene	1.1421 1.1826	1.1184 1.2233	1.1546 1.2863	1.1716 1.3210	1.1945	Ave		1.199 4				5.6		20.0			
13C3-Pyrene	1.2796 1.3316	1.2672 1.3725	1.2929 1.4321	1.3132 1.5463	1.3256	Ave		1.351 2				6.6		20.0			
13C6-Benzo(a)anthracene	1.5027 1.4059	1.5257 1.4631	1.5230 1.5491	1.5373 1.7000	1.4635	Ave		1.518 9				5.4		20.0			
13C6-Chrysene	1.5556 1.5154	1.6290 1.6008	1.5920 1.6940	1.6297 1.8610	1.5809	Ave		1.628 7				6.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI  
HI-RES PAHS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87843  
SDG No.: \_\_\_\_\_  
Instrument ID: D3PAH GC Column: Rxi-5SilMS ID: 0.25 (mm) Heated Purge: (Y/N) N  
Calibration Start Date: 06/19/2024 16:34 Calibration End Date: 06/20/2024 01:09 Calibration ID: 5149

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
13C6-Benzo(b) fluoranthene	1.3920 1.3858	1.3914 1.4856	1.3818 1.5115	1.4420 1.7208	1.4477	Ave		1.462 1				7.4		20.0			
13C6-Benzo(k) fluoranthene	1.6120 1.6283	1.6254 1.7447	1.6680 1.8711	1.6736 2.2366	1.6964	Ave		1.750 7				11.4		20.0			
13C4-Benzo(e) pyrene	1.5550 1.5552	1.5654 1.5995	1.5939 1.6980	1.6231 1.9720	1.5695	Ave		1.636 8				8.2		20.0			
13C4-Benzo(a) pyrene	1.4368 1.4481	1.4655 1.5126	1.4658 1.6321	1.5002 2.0077	1.4884	Ave		1.550 8				11.7		20.0			
Perylene-d12	1.1189 1.1713	1.1558 1.2079	1.1423 1.2224	1.2123 1.3085	1.1859	Ave		1.191 7				4.7		20.0			
13C6-Indeno(1,2,3-cd) pyrene	0.9703 0.8971	1.0776 1.0949	0.9397 1.0881	1.0292 1.1905	0.9092	Ave		1.021 8				9.7		20.0			
13C6-Dibenz(a,h) anthracene	1.0039 0.9605	1.0767 1.0536	0.9694 1.1147	0.9954 1.3084	1.0148	Ave		1.055 3				10.2		20.0			
13C12-Benzo(ghi) perylene	1.1709 1.2067	1.2991 1.3022	1.1834 1.3399	1.2085 1.5312	1.2320	Ave		1.274 9				8.8		20.0			
Anthracene-d10	0.4088 0.4160	0.4109 0.4400	0.4037 0.4414	0.4246 0.4596	0.4264	Ave		0.425 7				4.3					
13C6-Benzo(c) fluorene	0.5442 0.5354	0.5341 0.5157	0.5189 0.5105	0.4536 0.5004	0.5094	Ave		0.513 6				5.2					
13C12-Benzo(j) fluoranthene	1.2934 1.2806	1.3065 1.3672	1.2863 1.4328	1.2939 1.6483	1.2936	Ave		1.355 8				8.9					

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI  
HI-RES PAHS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87843

SDG No.: \_\_\_\_\_

Instrument ID: D3PAH GC Column: Rxi-5SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/19/2024 16:34 Calibration End Date: 06/20/2024 01:09 Calibration ID: 5149

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-87843/1	d3240619ic1.d
Level 2	IC 140-87843/2	d3240619ic2.d
Level 3	IC 140-87843/3	d3240619ic3.d
Level 4	IC 140-87843/4	d3240619ic4.d
Level 5	IC 140-87843/5	d3240619ic5.d
Level 6	IC 140-87843/6	d3240619ic6.d
Level 7	IC 140-87843/7	d3240619ic7.d
Level 8	IC 140-87843/8	d3240619ic8.d
Level 9	IC 140-87843/9	d3240619ic9.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Naphthalene		AveID	++++ 11077976	++++ 29145441	++++ 66534766	++++ 201858027	7473056	++++ 80.0	++++ 200	++++ 400	++++ 1000	50.0
2-Methylnaphthalene		AveID	++++ 5812992	++++ 13752752	++++ 31544481	++++ 98360151	3363658	++++ 80.0	++++ 200	++++ 400	++++ 1000	50.0
Acenaphthylene		AveID	70974 6459116	133174 15960871	269411 37234784	1541031 121166606	3367785	1.00 80.0	2.00 200	4.00 400	20.0 1000	50.0
Acenaphthene		AveID	++++ 3643698	++++ 8485152	++++ 19367968	939646 59890100	1886298	++++ 80.0	++++ 200	++++ 400	20.0 1000	50.0
Fluorene		AveID	++++ 3186786	++++ 7921341	++++ 18232964	817773 55690348	1683007	++++ 80.0	++++ 200	++++ 400	20.0 1000	50.0
Phenanthrene		AveID	++++ 3681835	++++ 10408886	++++ 23294554	1073406 72771385	2244288	++++ 80.0	++++ 200	++++ 400	20.0 1000	50.0
Anthracene		AveID	++++ 3587223	91204 9842331	160718 22947314	983685 71918449	2030307	++++ 80.0	2.00 200	4.00 400	20.0 1000	50.0
Fluoranthene		AveID	++++ 8083123	++++ 21447849	396095 53709863	2114329 162763939	4770414	++++ 80.0	++++ 200	4.00 400	20.0 1000	50.0
Pyrene		AveID	++++ 8469657	++++ 22057676	427111 54662936	2200520 171639473	4880169	++++ 80.0	++++ 200	4.00 400	20.0 1000	50.0
Benzo[a]anthracene		AveID	78927 6207787	162720 15614632	282836 39547814	1488098 124165534	3701131	1.00 80.0	2.00 200	4.00 400	20.0 1000	50.0
Chrysene		AveID	++++ 6667789	++++ 17201644	347139 43785996	1613361 134817195	4046826	++++ 80.0	++++ 200	4.00 400	20.0 1000	50.0
Benzo[b]fluoranthene		AveID	++++ 6952921	++++ 18032275	++++ 45422181	1692873 155779264	4268765	++++ 80.0	++++ 200	++++ 400	20.0 1000	50.0
Benzo[k]fluoranthene		AveID	101746 7954022	219658 21097665	351417 55519685	1885945 180500584	4838139	1.00 80.0	2.00 200	4.00 400	20.0 1000	50.0
Benzo[e]pyrene		AveID	++++ 6804856	++++ 17407219	++++ 45463447	316746 156044174	4054021	++++ 80.0	++++ 200	4.00 400	20.0 1000	50.0
Benzo[a]pyrene		AveID	90261	178284	318019	1660260	4220425	1.00	2.00	4.00	20.0	50.0

FORM VI  
HI-RES PAHS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87843

SDG No.: \_\_\_\_\_

Instrument ID: D3PAH GC Column: Rxi-5SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/19/2024 16:34 Calibration End Date: 06/20/2024 01:09 Calibration ID: 5149

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
			7072659	18599410	48994654	158831908		80.0	200	400	1000	
Perylene		AveID	+++++	186178	330090	1591843	4390716	+++++	2.00	4.00	20.0	50.0
			7312149	19642615	50605936	+++++		80.0	200	400	+++++	
Indeno[1,2,3-cd]pyrene		AveID	+++++	130664	203445	1091218	2816296	+++++	2.00	4.00	20.0	50.0
			4742305	12310533	31522628	113067905		80.0	200	400	1000	
Dibenz(a,h)anthracene		AveID	68899	131743	210948	1098846	2789079	1.00	2.00	4.00	20.0	50.0
			4852505	12538607	33420949	110582572		80.0	200	400	1000	
Benzo[g,h,i]perylene		AveID	89871	187407	301308	1535539	3911770	1.00	2.00	4.00	20.0	50.0
			6540833	17229589	44647127	147488032		80.0	200	400	1000	
13C6-Naphthalene	ANT	Ave	9958539	10224350	10437430	11716317	10955076	100	100	100	100	100
			10869499	12167731	13369772	14774767		100	100	100	100	
13C6-2-Methylnaphthalene	ANT	Ave	4590652	4888063	4691404	5490022	4932932	100	100	100	100	100
			5726757	5800321	6439882	7285064		100	100	100	100	
13C6-Acenaphthylene	ANT	Ave	4441490	4790245	4897592	5757839	5031692	100	100	100	100	100
			6099396	5949897	6765535	7859583		100	100	100	100	
13C6-Acenaphthene	ANT	Ave	2649873	2794458	2973262	3399456	2929756	100	100	100	100	100
			3599722	3536065	4039150	4662594		100	100	100	100	
13C6-Fluorene	ANT	Ave	2300375	2550369	2635457	3098767	2645576	100	100	100	100	100
			3234715	3285389	3801144	4314043		100	100	100	100	
13C6-Phenanthrene	PYR	Ave	3481612	3753474	3834191	4480403	4005566	100	100	100	100	100
			4194540	4953590	5572957	6524734		100	100	100	100	
13C6-Anthracene	PYR	Ave	2810000	2927417	3047129	3635963	3095933	100	100	100	100	100
			3339808	3744430	4474470	5177443		100	100	100	100	
13C6-Fluoranthrene	PYR	Ave	7580251	7938309	8154780	9182667	8354538	100	100	100	100	100
			9143194	9842103	11997910	13148739		100	100	100	100	
13C3-Pyrene	PYR	Ave	8492459	8994056	9131545	10292274	9271369	100	100	100	100	100
			10295818	11042272	13356986	15391681		100	100	100	100	
13C6-Benzo(a)anthracene	BePdl 2	Ave	7605148	7671524	7504068	7704055	7783391	100	100	100	100	100
			8168778	8485215	10694535	12260100		100	100	100	100	
13C6-Chrysene	BePdl 2	Ave	7872763	8190879	7844204	8166961	8407429	100	100	100	100	100
			8805464	9283915	11695295	13421719		100	100	100	100	
13C6-Benzo(b)fluoranthene	BePdl 2	Ave	7044571	6995957	6808556	7226370	7699352	100	100	100	100	100
			8052237	8615715	10435051	12410189		100	100	100	100	
13C6-Benzo(k)fluoranthene	BePdl 2	Ave	8157925	8172987	8218810	8387092	9021801	100	100	100	100	100
			9461461	10118186	12917530	16130058		100	100	100	100	
13C4-Benzo(e)pyrene	BePdl 2	Ave	7869617	7870944	7853527	8133857	8346864	100	100	100	100	100
			9036295	9276322	11723054	14222064		100	100	100	100	

FORM VI  
HI-RES PAHS BY INTERNAL STANDARD - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87843

SDG No.: \_\_\_\_\_

Instrument ID: D3PAH GC Column: Rxi-5SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/19/2024 16:34 Calibration End Date: 06/20/2024 01:09 Calibration ID: 5149

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
13C4-Benzo(a)pyrene	BePdl 2	Ave	7271246	7368833	7222186	7518310	7915726	100	100	100	100	100
			8413993	8772202	11267474	14479273		100	100	100	100	
Perylene-d12	BePdl 2	Ave	5662636	5811383	5628212	6075448	6306802	100	100	100	100	100
			6805855	7004851	8439141	9436646		100	100	100	100	
13C6-Indeno(1,2,3-cd)pyrene	BePdl 2	Ave	4910654	5418391	4630053	5157889	4835402	100	100	100	100	100
			5212706	6349503	7511958	8585756		100	100	100	100	
13C6-Dibenz(a,h)anthracene	BePdl 2	Ave	5080699	5414078	4776504	4988169	5397040	100	100	100	100	100
			5580937	6110020	7695778	9436274		100	100	100	100	
13C12-Benzo(ghi)perylene	BePdl 2	Ave	5925593	6532018	5830946	6056294	6552075	100	100	100	100	100
			7011632	7551974	9250572	11042946		100	100	100	100	
Anthracene-d10	PYR	Ave	2713232	2916395	2851175	3328133	2982348	100	100	100	100	100
			3216411	3540252	4116582	4574361		100	100	100	100	
13C6-Benzo(c)fluorene	PYR	Ave	3611915	3790719	3665129	3555493	3562609	100	100	100	100	100
			4139575	4148931	4761886	4981238		100	100	100	100	
13C12-Benzo(j)fluoranthene	BePdl 2	Ave	6545559	6569551	6337903	6484034	6879595	100	100	100	100	100
			7440700	7928880	9891565	11887745		100	100	100	100	

Curve Type Legend:

Ave = Average ISTD

AveID = Average isotope dilution

# Resolution Check Report ( DFS SN: 3439 )

Date: 19 Jun 2024 16:18  
MID Experiment: ResCheck\_HRPAH  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43\_HRPAH.lua  
Status: RESOLUTION PASSED

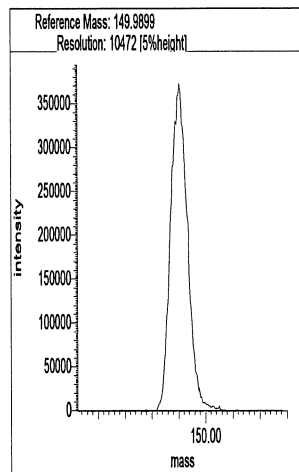
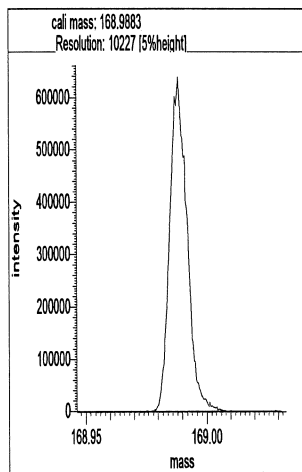
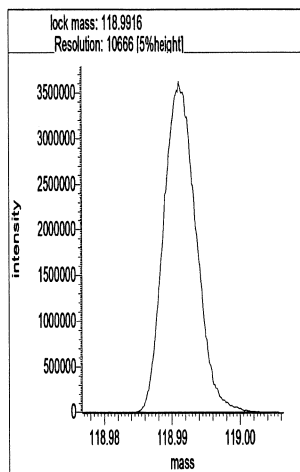
- d3240619.r16

## Segment 1

Lock mass 118.9916 [m/z] Resolution: 10666 [5%height]

Cali. mass 168.9883 [m/z] Resolution: 10227 [5%height]

Ref. mass 149.9899 [m/z] Resolution: 10472 [5%height]

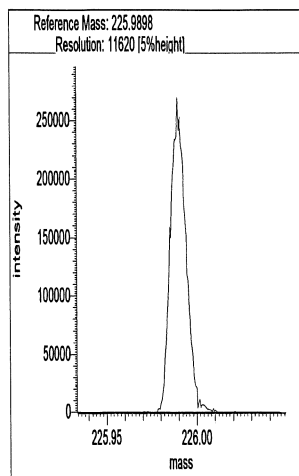
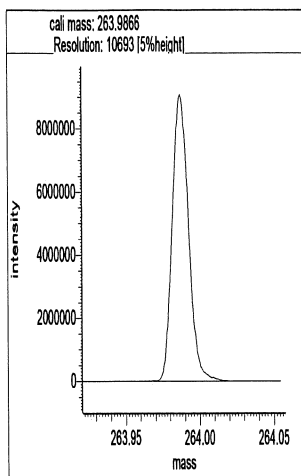
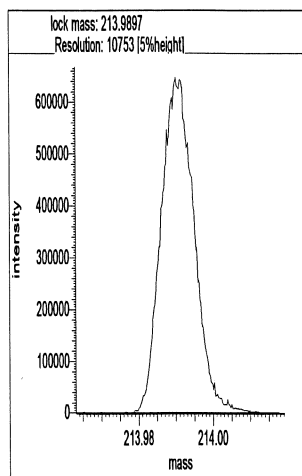


## Segment 2

Lock mass 213.9897 [m/z] Resolution: 10753 [5%height]

Cali. mass 263.9866 [m/z] Resolution: 10693 [5%height]

Ref. mass 225.9898 [m/z] Resolution: 11620 [5%height]

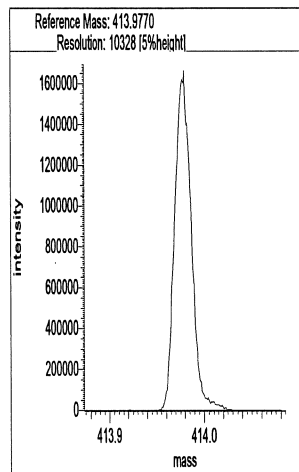
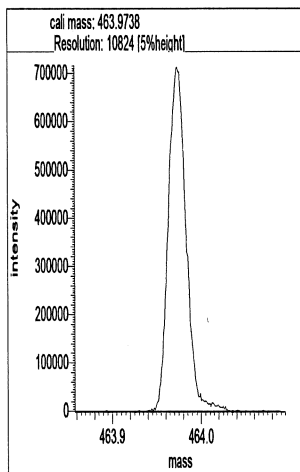
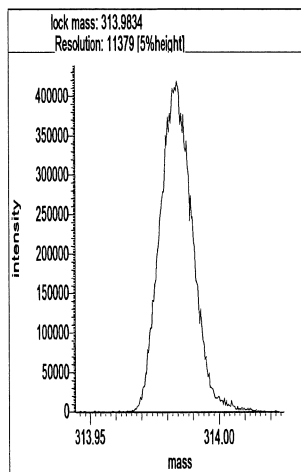


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 11379 [5%height]

Cali. mass 463.9738 [m/z] Resolution: 10824 [5%height]

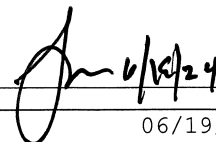
Ref. mass 413.9770 [m/z] Resolution: 10328 [5%height]



## Reports

16:26:06: Peak matching procedure started  
16:26:07:  
16:26:07: Reference mass: 263.98656  
16:26:08: Sample mass: 414.0  
16:26:08:  
16:26:09: Finding reference mass  
16:26:10: Finding sample mass  
16:26:10:  
16:26:16: [1] 413.9781 amu, mean: 413.9781 SD: 0.36 mmu or: 0.88 ppm  
16:26:19: [2] 413.9776 amu, mean: 413.9778 SD: 0.30 mmu or: 0.74 ppm  
16:26:22: [3] 413.9776 amu, mean: 413.9777 SD: 0.34 mmu or: 0.83 ppm  
16:26:25: [4] 413.9773 amu, mean: 413.9776 SD: 0.34 mmu or: 0.83 ppm  
16:26:29: [5] 413.9772 amu, mean: 413.9775 SD: 0.43 mmu or: 1.04 ppm  
16:26:32: [6] 413.9768 amu, mean: 413.9774 SD: 0.42 mmu or: 1.02 ppm  
16:26:35: [7] 413.9770 amu, mean: 413.9774 SD: 0.39 mmu or: 0.95 ppm  
16:26:38: [8] 413.9773 amu, mean: 413.9774 SD: 0.37 mmu or: 0.89 ppm  
16:26:41: [9] 413.9774 amu, mean: 413.9774 SD: 0.38 mmu or: 0.91 ppm  
16:26:44: [10] 413.9778 amu, mean: 413.9774 SD: 0.38 mmu or: 0.92 ppm  
16:26:47: [11] 413.9778 amu, mean: 413.9775  
16:26:48:  
16:26:48: Stop requested. Please wait for procedure to finish.  
16:26:48:  
16:26:51:  
16:26:51: Peakmatching stopped

Signature





Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic1.d  
 Lims ID: IC L1  
 Client ID:  
 Sample Type: IC Calib Level: 1  
 Inject. Date: 19-Jun-2024 16:34:00 ALS Bottle#: 0 Worklist Smp#: 1  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info:  
 Misc. Info.: 140-0033168-001  
 Operator ID: Xcalibur\_System Instrument ID: D3PAH  
 Sublist: chrom-EPA\_23\_\_PAH\*sub1  
 Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
 Limit Group: HR - HRPAL ICAL  
 Last Update: 20-Jun-2024 09:51:31 Calib Date: 20-Jun-2024 01:09:00  
 Integrator: RTE  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
 Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
 Process Host: CTX1686

First Level Reviewer: F9EE

Date: 20-Jun-2024 09:51:31

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:32	9958539		3.3746	106.6	106.6	0.007294	0.007294	107	
Naphthalene	11:33	1255702		1.2893	9.780	9.780	0.0236	0.0236	978	
D 13C6-2-Methylnaphthalene	13:51	4590652		1.6031	103.4	103.4	0.002417	0.002417	103	
2-Methylnaphthalene	13:52	512954		1.2786	8.739	8.739	0.0243	0.0243	874	
D 13C6-Acenaphthylene	16:44	4441490		1.6520	97.1	97.1	0.000761	0.000761	97.12	
Acenaphthylene	16:44	70974		2.3661	1.132	1.132	0.0240	0.0240	113	
* Acenaphthene-d10	17:19	2768301		3.5E+04	100.0	100.0				
D 13C6-Acenaphthene	17:26	2649873		0.9792	97.8	97.8	0.002139	0.002139	97.76	
Acenaphthene	17:27	149559		1.2697	4.445	4.445	0.0292	0.0292	445	
D 13C6-Fluorene	19:44	2300375		0.8898	93.4	93.4	0.001766	0.001766	93.38	
Fluorene	19:44	86461		1.2532	2.999	2.999	0.0396	0.0396	300	
D 13C6-Phenanthrene	25:08	3481612		0.5724	91.6	91.6	0.000997	0.000997	91.64	
Phenanthrene	25:08	126498		1.1044	3.290	3.290	0.0485	0.0485	329	
\$ Anthracin-d10	25:20	2713232		0.4257	96.0	96.0	0.000957	0.000957	96.03	
D 13C6-Anthracene	25:27	2810000		0.4523	93.6	93.6	0.001262	0.001262	93.60	
Anthracene	25:27	49456		1.3586	1.295	1.295	0.0498	0.0498	130	
D 13C6-Fluoranthrene	33:52	7580251		1.1994	95.2	95.2	0.0302	0.0302	95.23	
Fluoranthrene	33:53	126601		1.1513	1.451	1.451	0.0173	0.0173	145	
* Pyrene-d10	35:26	6636938		7.9E+04	100.0	100.0				
D 13C3-Pyrene	35:34	8492459		1.3512	94.7	94.7	0.0178	0.0178	94.70	
Pyrene	35:35	136948		1.0652	1.514	1.514	0.0174	0.0174	151	
\$ 13C6-Benzo(c)fluorene	39:16	3611915		0.5136	106.0	106.0	0.005079	0.005079	106	
D 13C6-Benzo(a)anthracene	46:06	7605148		1.5189	98.9	98.9	0.0172	0.0172	98.93	
Benzo[a]anthracene	46:07	78927		0.9739	1.066	1.066	0.0161	0.0161	107	
D 13C6-Chrysene	46:22	7872763		1.6287	95.5	95.5	0.0160	0.0160	95.51	
Chrysene	46:23	121048		0.9815	1.567	1.567	0.0160	0.0160	157	
D 13C6-Benzo(b)fluoranthene	54:38	7044571		1.4621	95.2	95.2	0.001282	0.001282	95.21	
Benzo[b]fluoranthene	54:38	156279		1.1249	1.972	1.972	0.0112	0.0112	197	
\$ 13C12-Benzo(j)fluoranthene	54:40	6545559		1.3558	95.4	95.4	0.0165	0.0165	95.39	
D 13C6-Benzo(k)fluoranthene	54:46	8157925		1.7507	92.1	92.1	0.001071	0.001071	92.08	
Benzo[k]fluoranthene	54:46	101746		1.1271	1.107	1.107	0.0102	0.0102	111	
* Benzo(e)pyrene-d12	55:29	5060836		5.7E+04	100.0	100.0				
D 13C4-Benzo(e)pyrene	55:34	7869617		1.6368	95.0	95.0	0.0117	0.0117	95.00	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
Benzo[e]pyrene	55:34	98939		1.0013	1.256	1.256	0.009239	0.009239	126	
Benzo[a]pyrene	55:42	90261		1.1130	1.115	1.115	0.009497	0.009497	112	
D 13C4-Benzo(a)pyrene	55:42	7271246		1.5508	92.6	92.6	0.0124	0.0124	92.65	
D Perylene-d12	55:52	5662636		1.1917	93.9	93.9	0.0173	0.0173	93.89	
Perylene	55:56	105365		1.4307	1.301	1.301	0.008225	0.008225	130	
D 13C6-Indeno(1,2,3-cd)pyrene	58:01	4910654		1.0218	95.0	95.0	0.0109	0.0109	94.96	
Indeno[1,2,3-cd]pyrene	58:01	64723		1.1249	1.172	1.172	0.008757	0.008757	117	
D 13C6-Dibenz(a,h)anthracene	58:06	5080699		1.0553	95.1	95.1	0.005829	0.005829	95.13	M
Dibenz(a,h)anthracene	58:06	68899		1.1314	1.199	1.199	0.007519	0.007519	120	
D 13C12-Benzo(ghi)perylene	58:29	5925593		1.2749	91.8	91.8	0.005514	0.005514	91.84	M
Benzo[g,h,i]perylene	58:30	89871		1.2838	1.181	1.181	0.007007	0.007007	118	M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61HRPAHCS1\_00002

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

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Lims ID: IC L1  
Client ID:  
Sample Type: IC Calib Level: 1  
Inject. Date: 19-Jun-2024 16:34:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033168-001  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 20-Jun-2024 09:51:31 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1686

First Level Reviewer: F9EE

Date: 20-Jun-2024 09:51:31

Signal	RT (min.)	Adj RT (min.)	¶ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:32	11:33	-1	0.666	9958539	3339076	94	235	35522		
Naphthalene											
128.0626	11:33	11:34	-1	1.001	1255702	387907	406	1015	955		
13C6-2-Methylnaphthalene											
148.0984	13:51	13:52	-1	0.800	4590652	2078419	15	37	138561		
2-Methylnaphthalene											
142.0783	13:52	13:53	-1	1.001	512954	235496	259	647	909		
13C6-Acenaphthylene											
158.0828	16:44	16:45	-1	0.966	4441490	1551969	5	12	310394		
Acenaphthylene											
152.0626	16:44	16:45	-1	1.000	70974	22149	214	535	104		
Acenaphthene-d10											
164.1404	17:19	17:20	-1		2768301	954801	2	5	477401		
13C6-Acenaphthene											
160.0984	17:26	17:27	-1	1.007	2649873	942829	8	20	117854		
Acenaphthene											
154.0783	17:27	17:27	-1	1.001	149559	50602	140	350	361		
13C6-Fluorene											
172.0984	19:44	19:45	-1	1.139	2300375	659741	6	15	109957		
Fluorene											
166.0783	19:44	19:45	0	1.001	86461	24882	131	327	190		
13C6-Phenanthrene											
184.0984	25:08	25:08	-1	0.709	3481612	802292	3	7	267431		
Phenanthrene											
178.0783	25:08	25:08	-1	1.000	126498	30521	172	430	177		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:20	25:21	-1	0.715	2713232	626252	2	5	313126		
13C6-Anthracene											
184.0984	25:27	25:28	-1	0.718	2810000	635348	3	7	211783		
Anthracene											
178.0783	25:27	25:28	-1	1.000	49456	8992	172	430	52		
13C6-Fluoranthrene											
208.0984	33:52	33:54	-1	0.956	7580251	1465845	178	445	8235		
Fluoranthene											
202.0783	33:53	33:54	-1	1.000	126601	24370	117	292	208		
Pyrene-d10											
212.1404	35:26	35:27	-1		6636938	1226668	11	27	111515		
13C3-Pyrene											
205.0883	35:34	35:35	-1	1.004	8492459	1575711	118	295	13353		
Pyrene											
202.0783	35:35	35:35	-1	1.000	136948	24652	117	292	211		
13C6-Benzo(c)fluorene											
222.1134	39:16	39:18	-1	0.708	3611915	673373	13	32	51798		
13C6-Benzo(a)anthracene											
234.1140	46:06	46:07	-1	1.301	7605148	1311407	178	445	7367		
Benzo[a]anthracene											
228.0939	46:07	46:07	0	1.000	78927	13628	82	205	166		
13C6-Chrysene											
234.1140	46:22	46:24	-1	1.309	7872763	1307149	178	445	7344		
Chrysene											
228.0939	46:23	46:25	-1	1.000	121048	21156	82	205	258		
13C6-Benzo(b)fluoranthene											
258.1140	54:38	54:40	-1	0.985	7044571	1868122	13	32	143702		
Benzo[b]fluoranthene											
252.0939	54:38	54:40	-1	1.000	156279	41853	94	235	445		
13C12-Benzo(j)fluoranthene											
264.1336	54:40	54:42	-1	0.985	6545559	1666162	153	382	10890		
13C6-Benzo(k)fluoranthene											
258.1140	54:46	54:47	-1	0.987	8157925	2035926	13	32	156610		
Benzo[k]fluoranthene											
252.0939	54:46	54:47	-1	1.000	101746	26976	94	235	287		
Benzo(e)pyrene-d12											
264.1692	55:29	55:30	-1		5060836	1707083	141	352	12107		
13C4-Benzo(e)pyrene											
256.1073	55:34	55:35	-1	1.002	7869617	2540474	131	327	19393		
Benzo[e]pyrene											
252.0939	55:34	55:35	-1	1.000	98939	32907	94	235	350		
Benzo[a]pyrene											
252.0939	55:42	55:44	-1	1.000	90261	27237	94	235	290		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C4-Benzo(a)pyrene											
256.1073	55:42	55:44	-1	1.004	7271246	2223191	131	327	16971		
Perylene-d12											
264.1692	55:52	55:54	-1	1.007	5662636	1997049	141	352	14163		
Perylene											
252.0939	55:56	55:58	-1	1.001	105365	30703	94	235	327		
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	58:01	58:02	-1	1.046	4910654	1542898	76	190	20301		
Indeno[1,2,3-cd]pyrene											
276.0939	58:01	58:03	-2	1.000	64723	19980	61	152	328		
13C6-Dibenz(a,h)anthracene											
284.1296	58:06	58:07	-1	1.047	5080699	1316523	42	105	31346		M
Dibenz(a,h)anthracene											
278.1096	58:06	58:07	-1	1.000	68899	18096	45	112	402		M
13C12-Benzo(ghi)perylene											
288.1342	58:29	58:30	-1	1.054	5925593	1689760	48	120	35203		M
Benzo[g,h,i]perylene											
276.0939	58:30	58:31	-1	1.000	89871	23753	61	152	389		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61HRPAHCS1\_00002

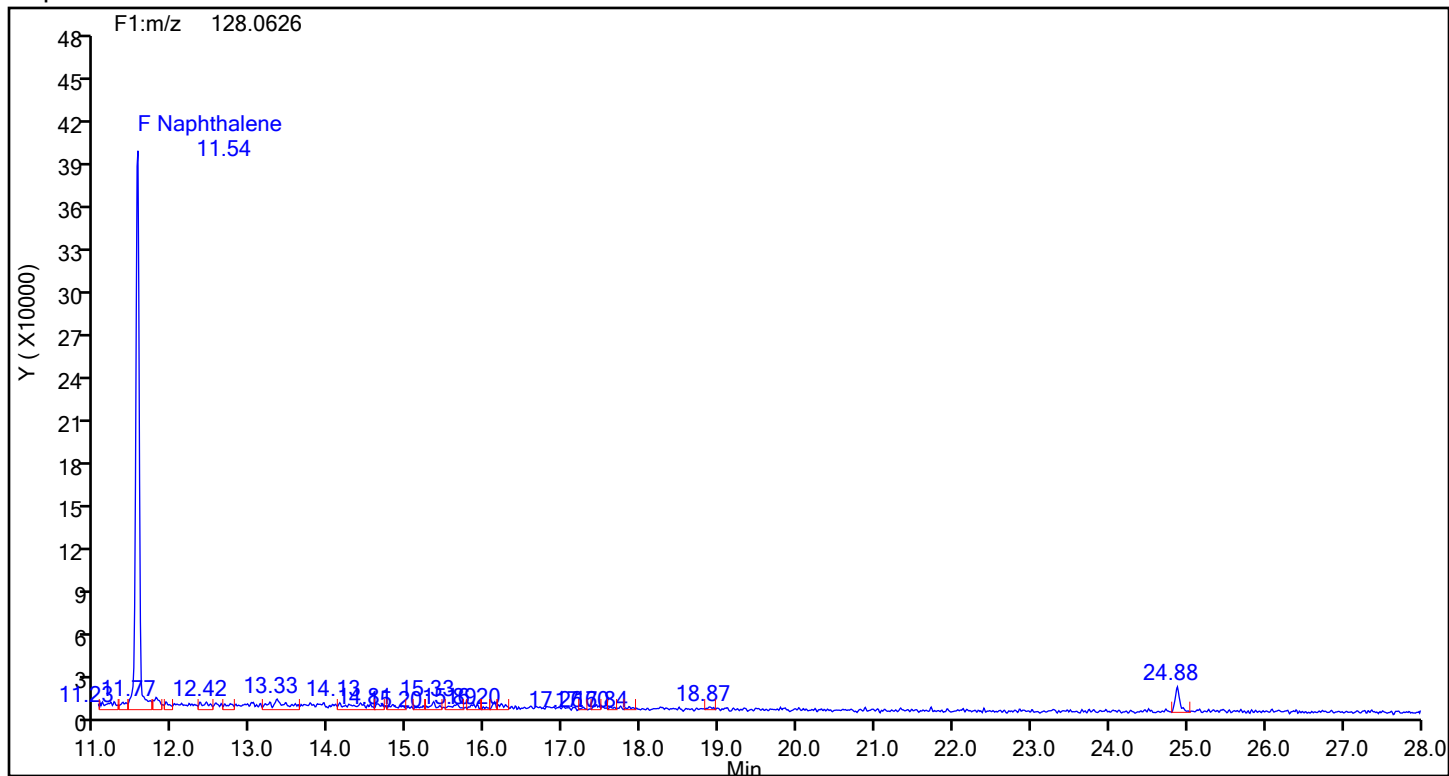
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Units: uL

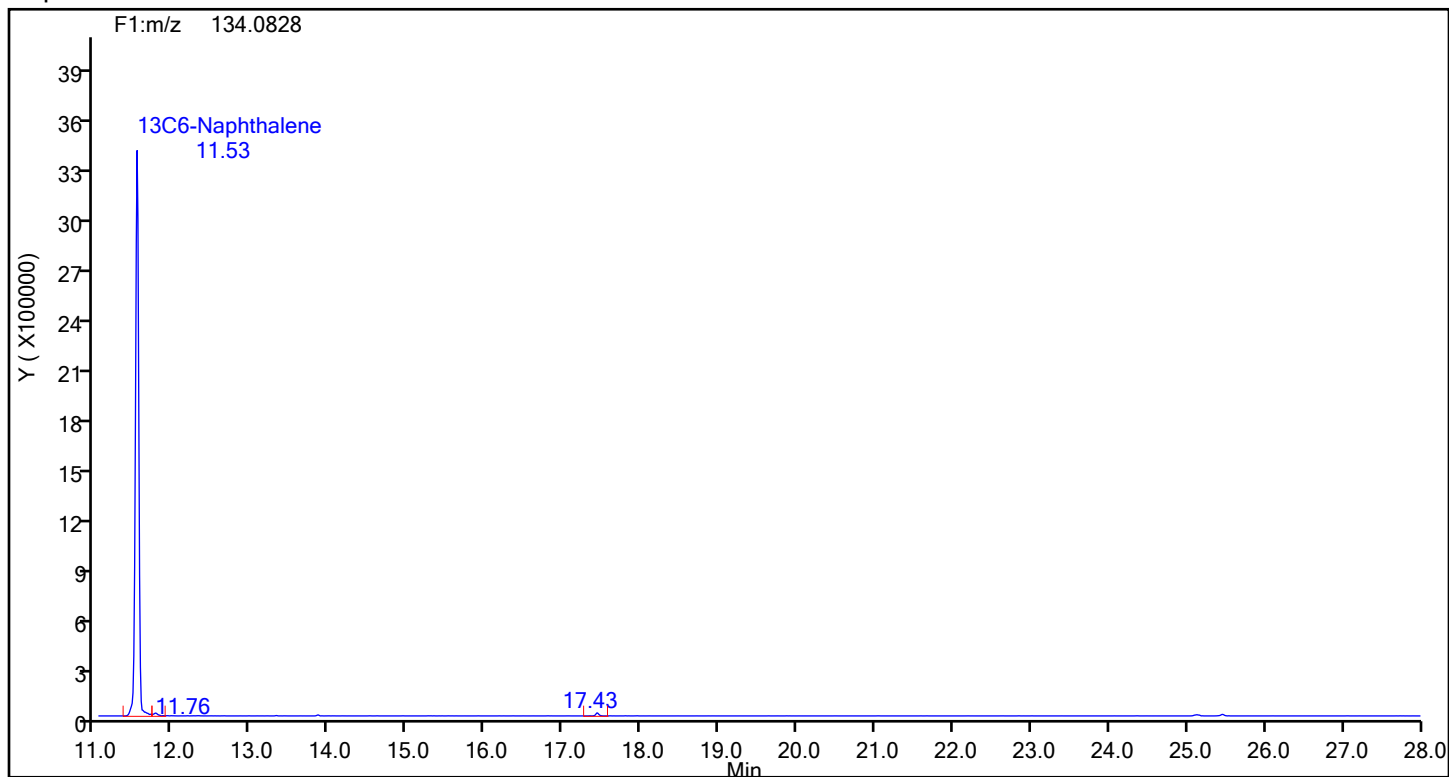
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Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



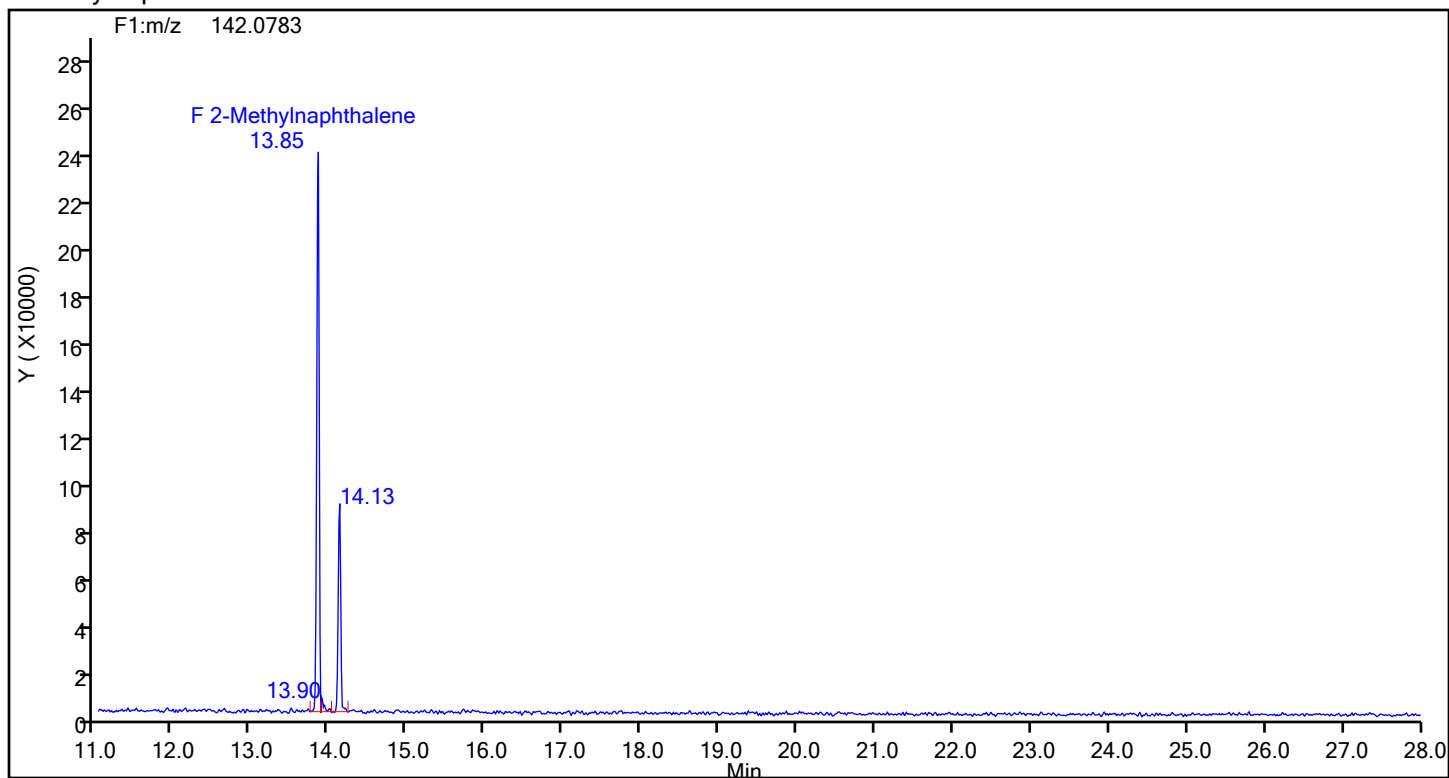
## Naphthalene Standards



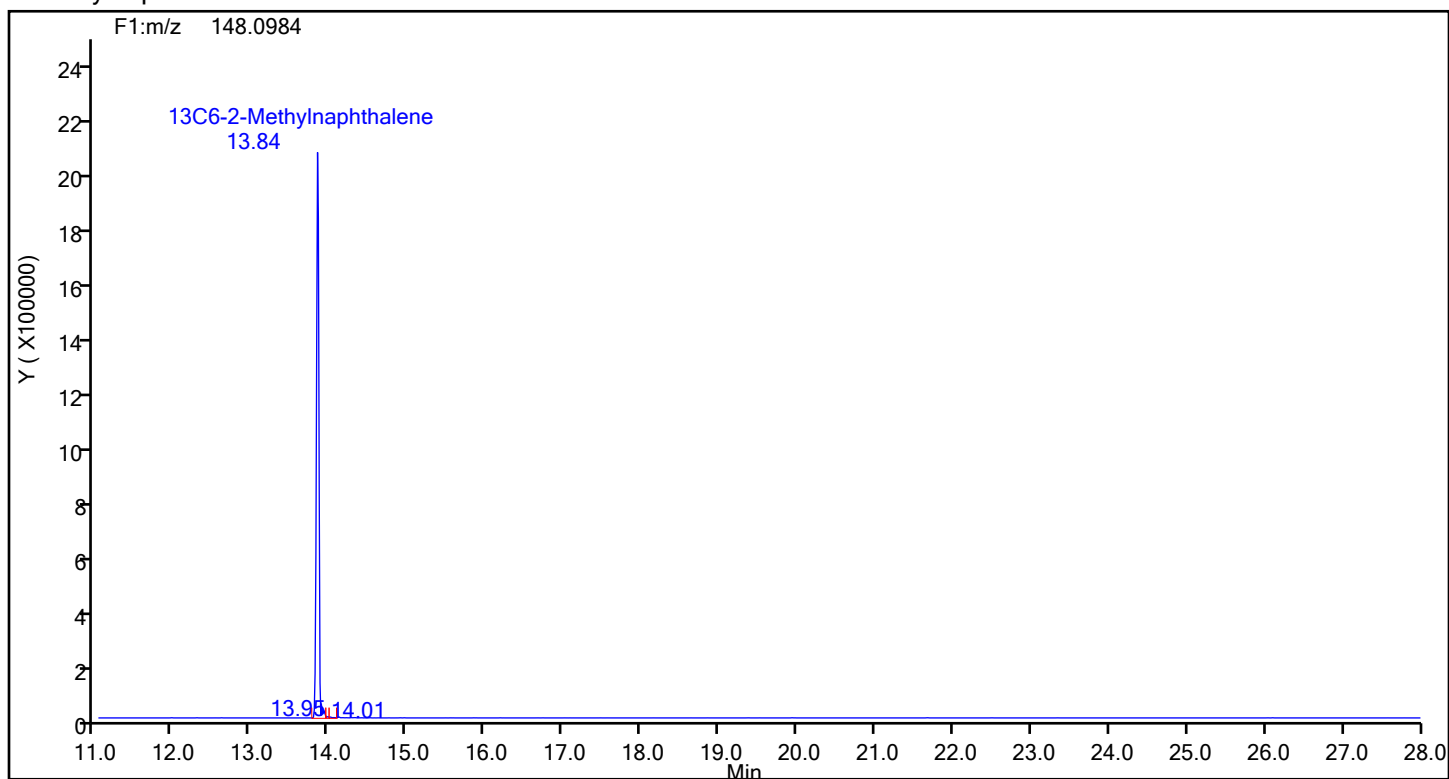
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



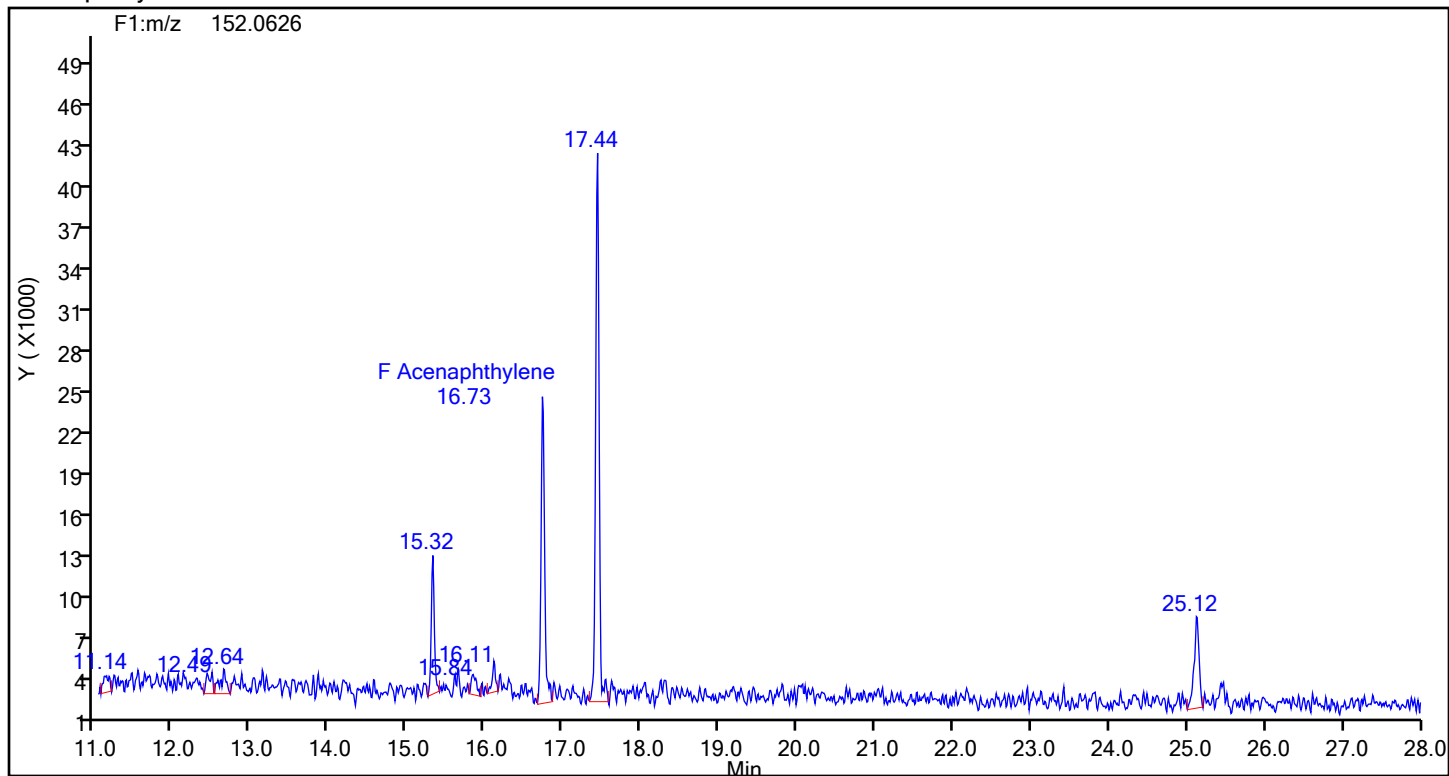
## 2-Methylnaphthalene Standards



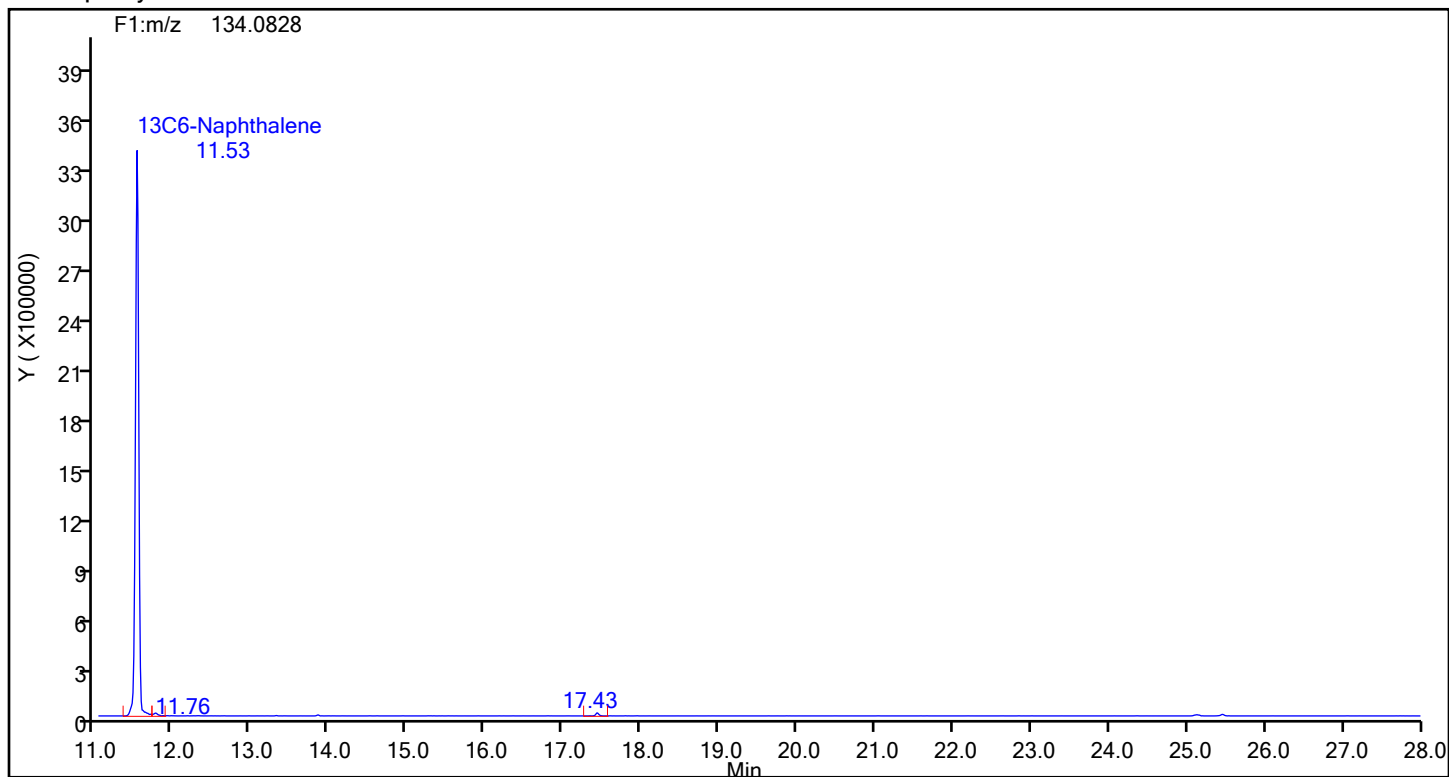
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
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Worklist#: 87843 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene



## Acenaphthylene Standards

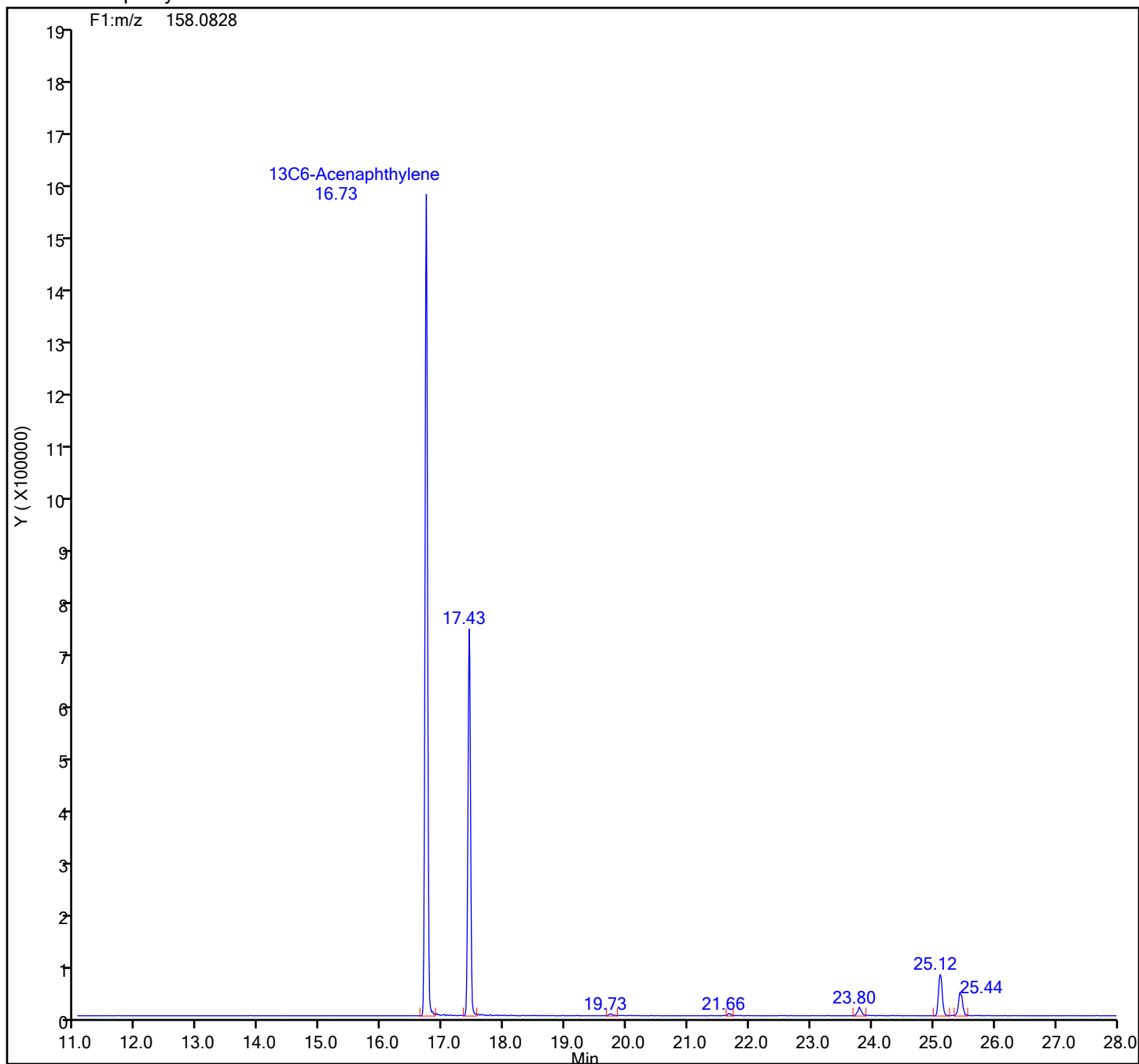




## Eurofins Knoxville

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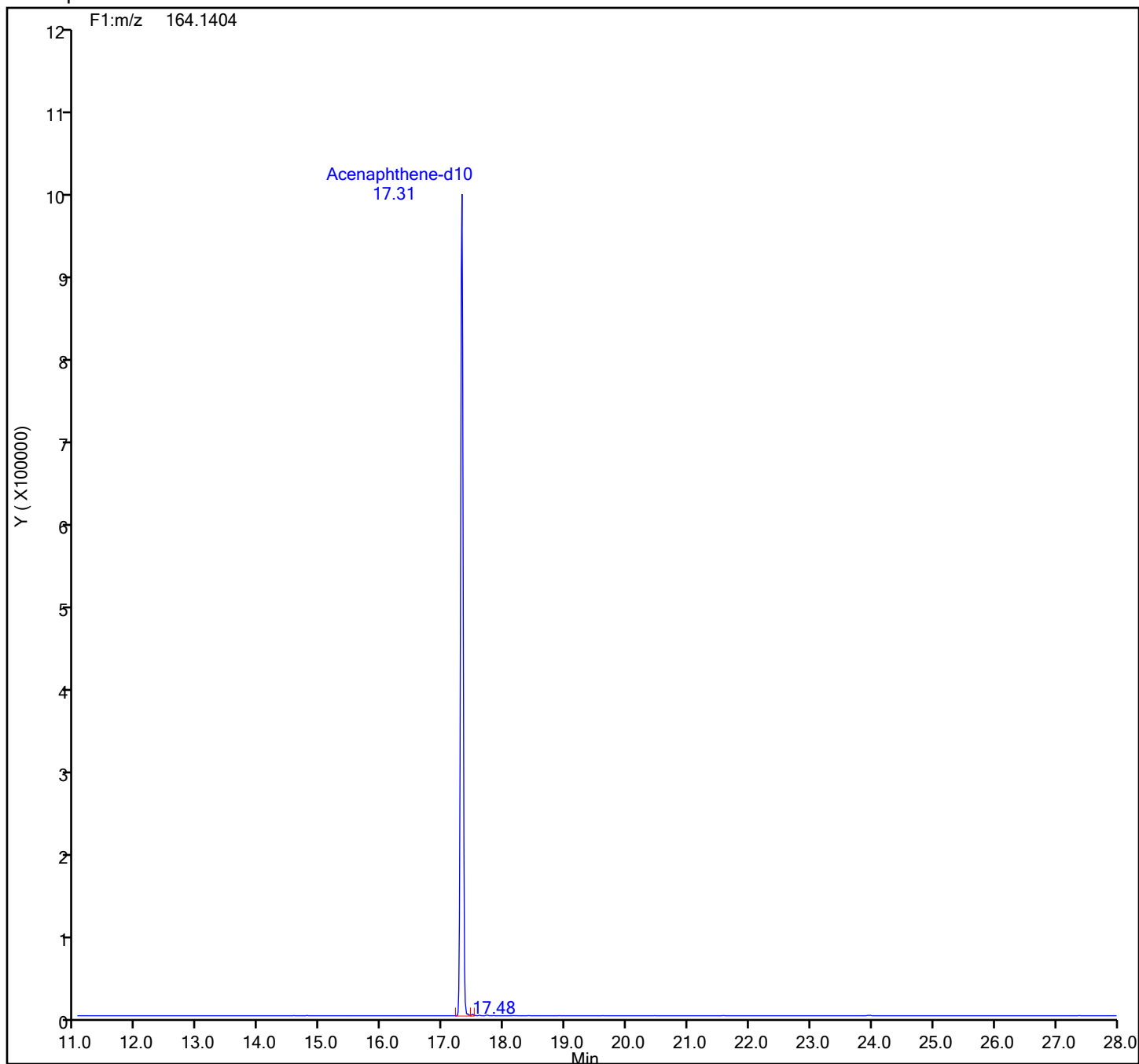
## 13C6-Acenaphthylene Standards



## Eurofins Knoxville

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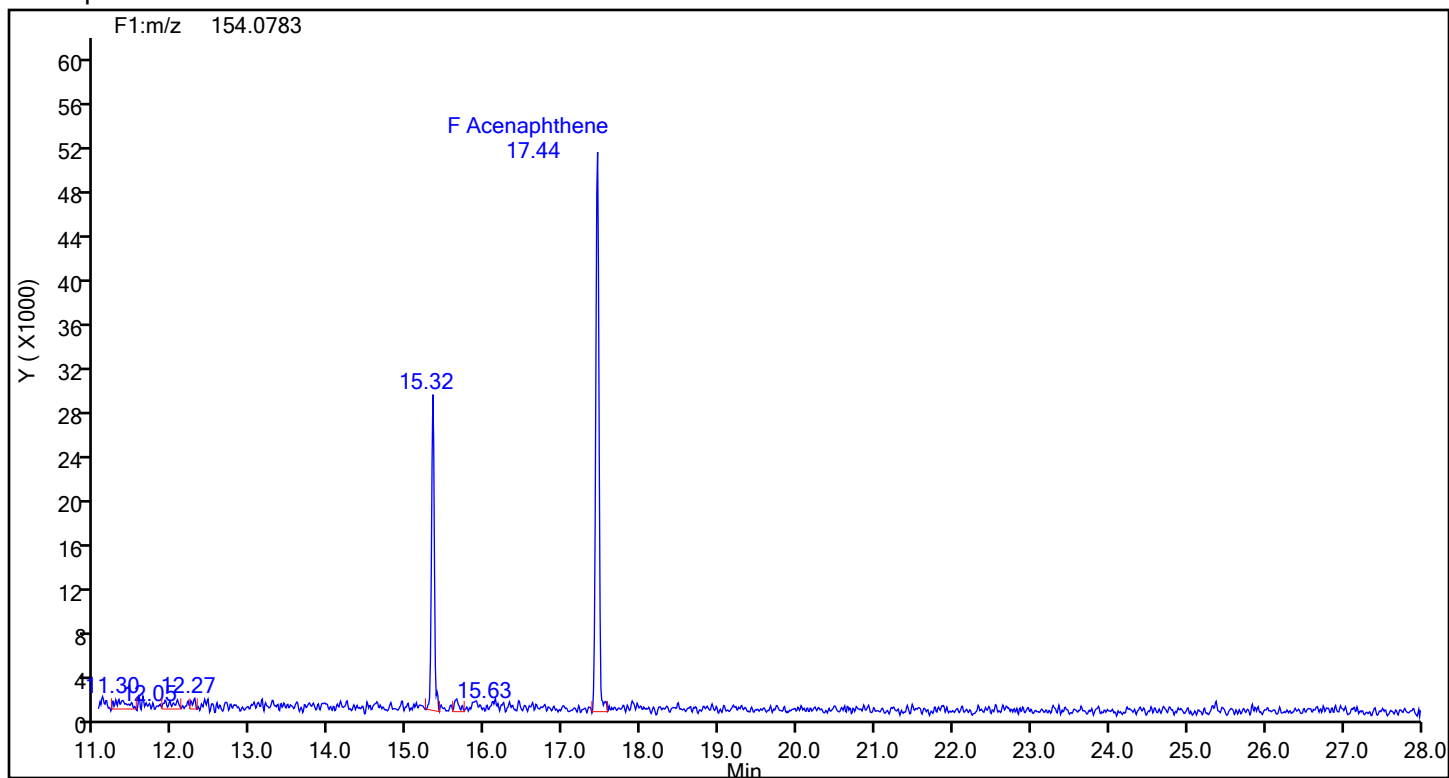
## Acenaphthene-d10 Standards



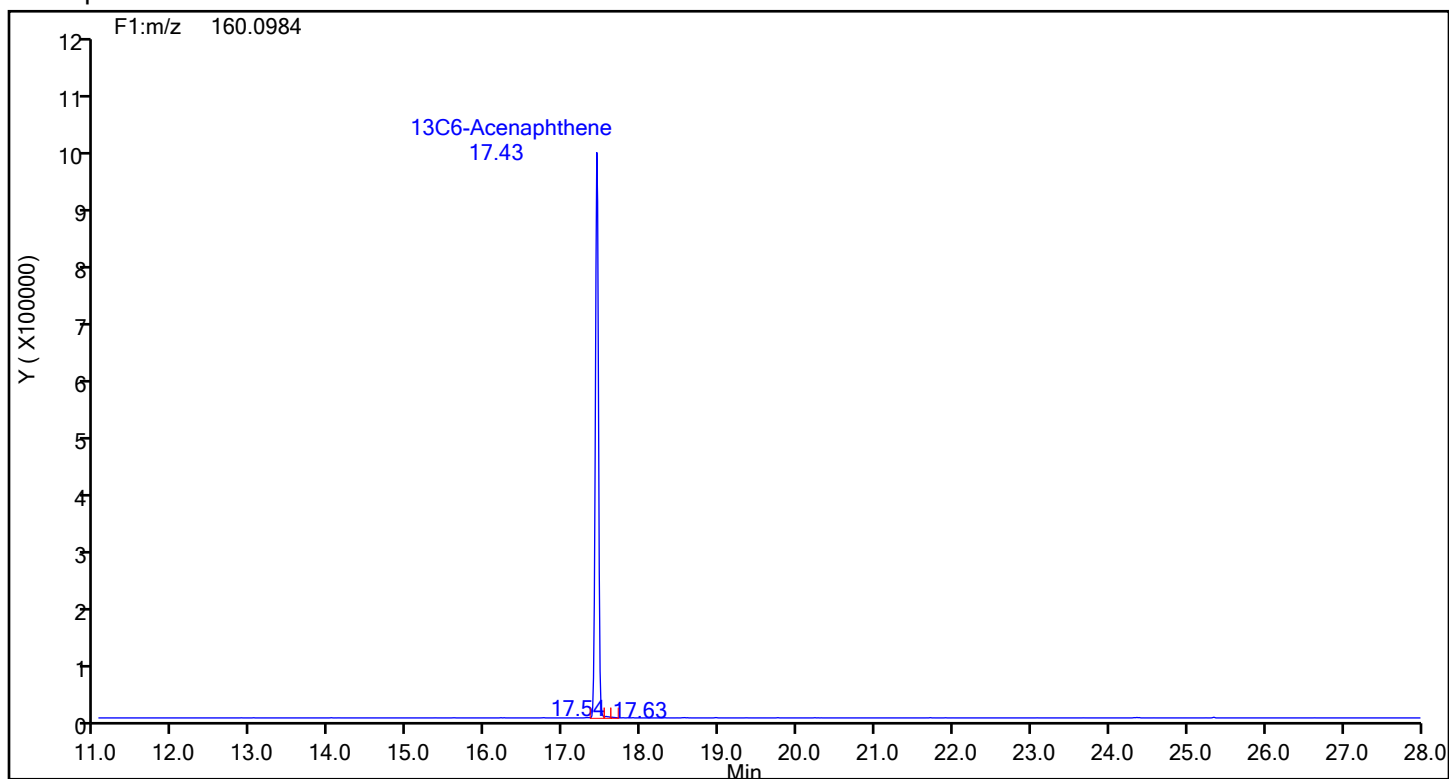
## Eurofins Knoxville

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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



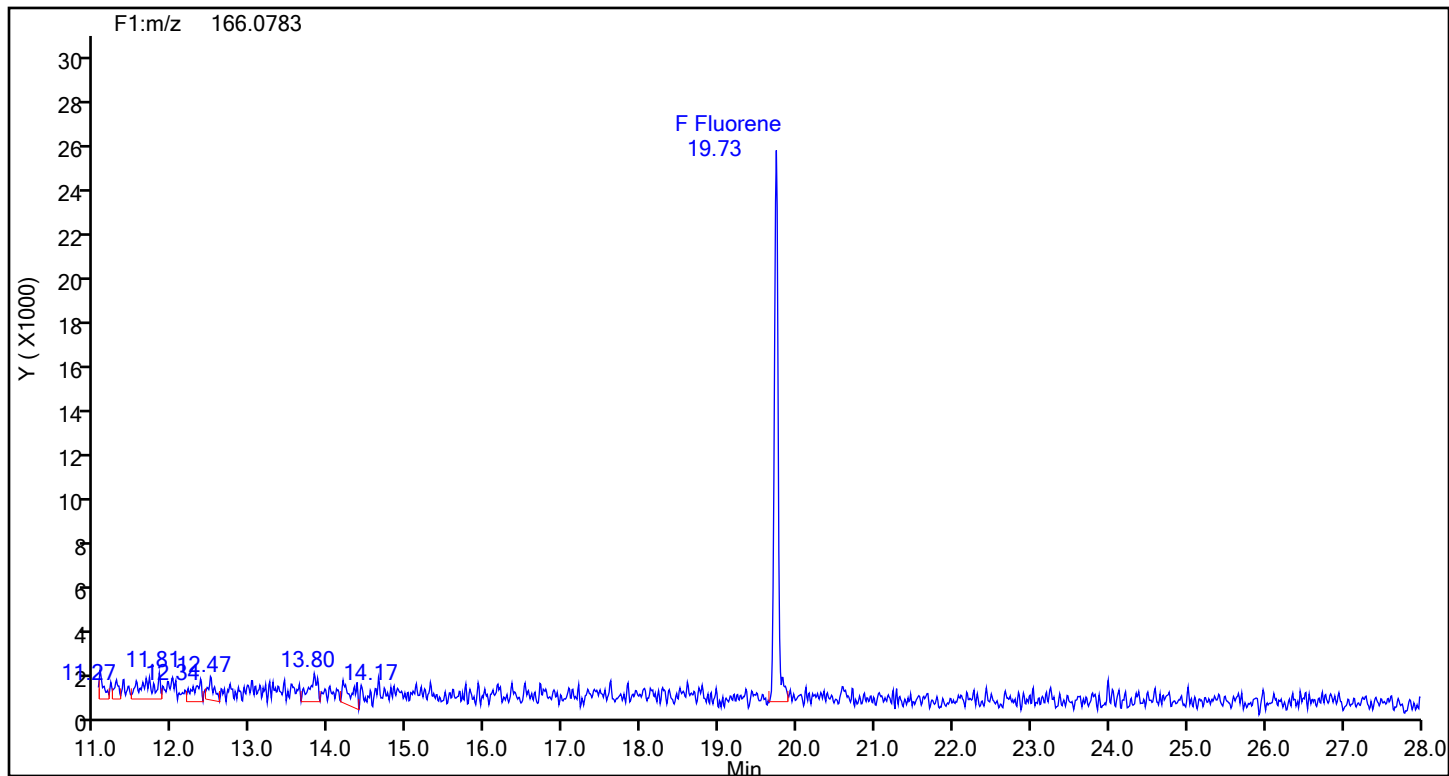
## Acenaphthene Standards



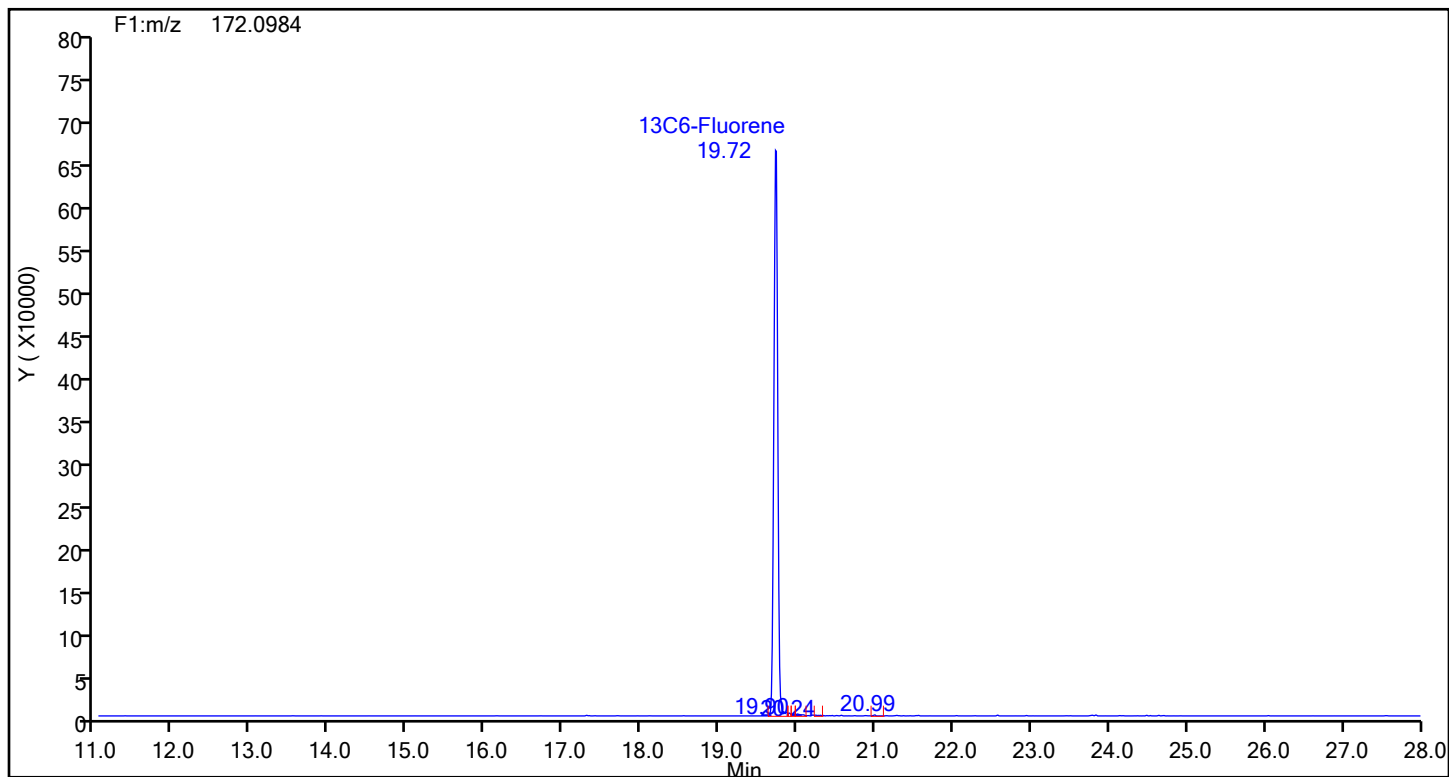
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene

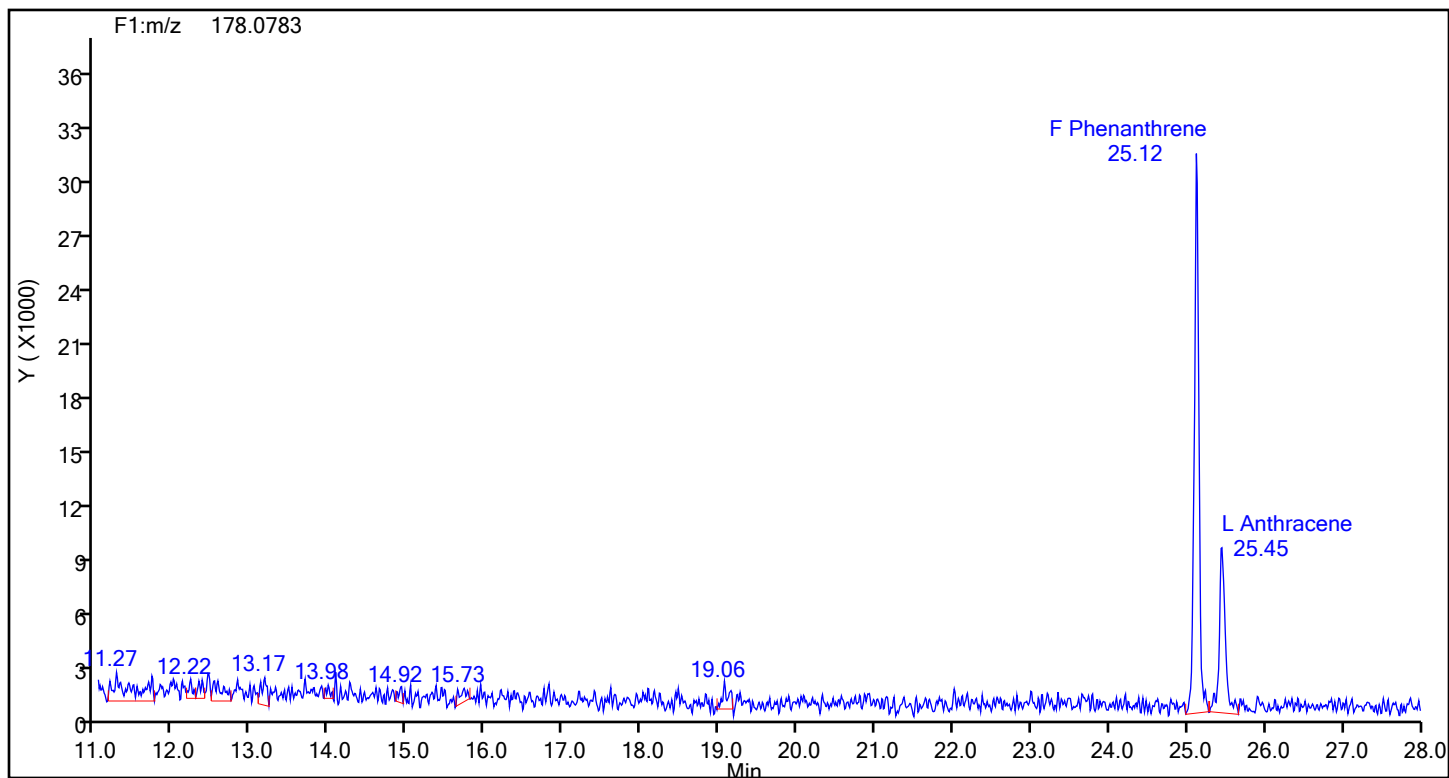


## Fluorene Standards

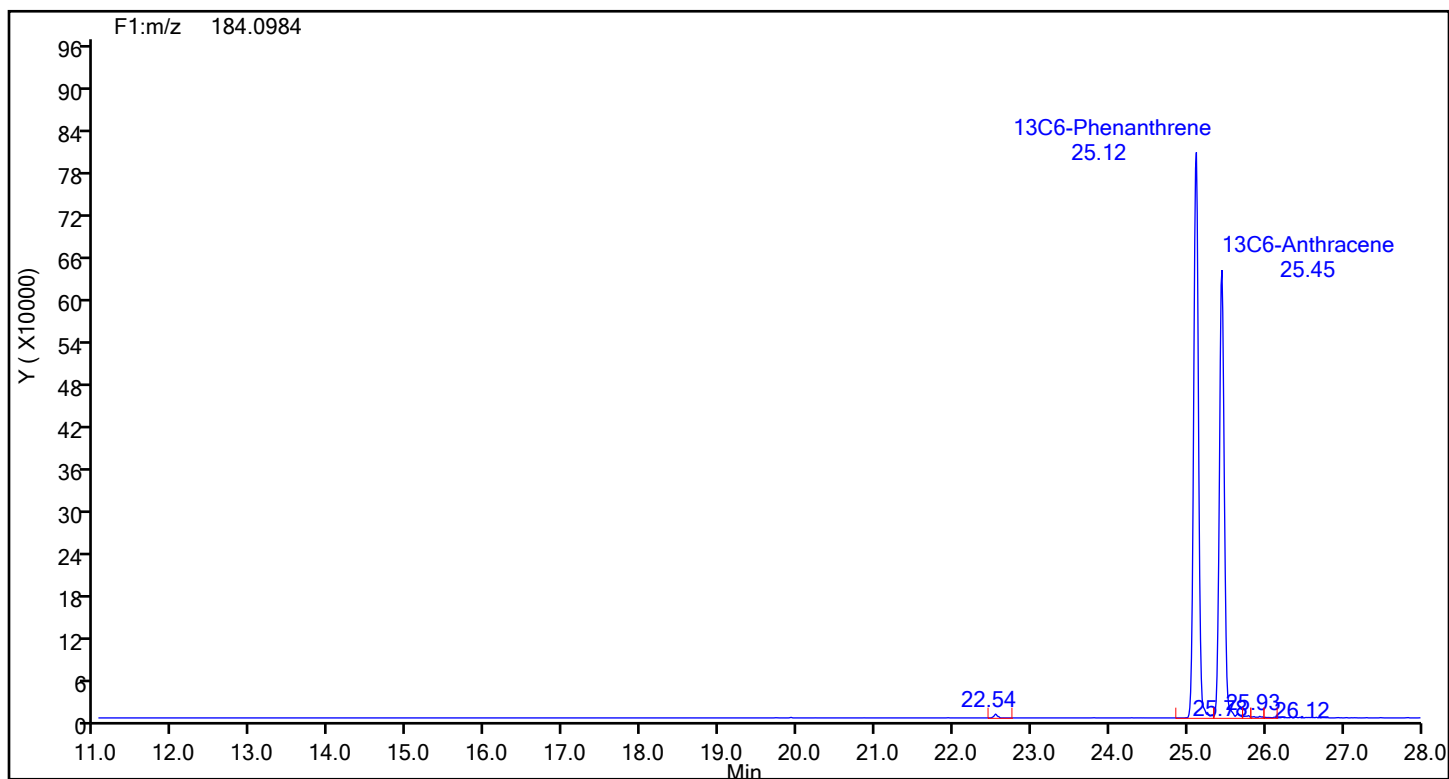


## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Phenanthrene

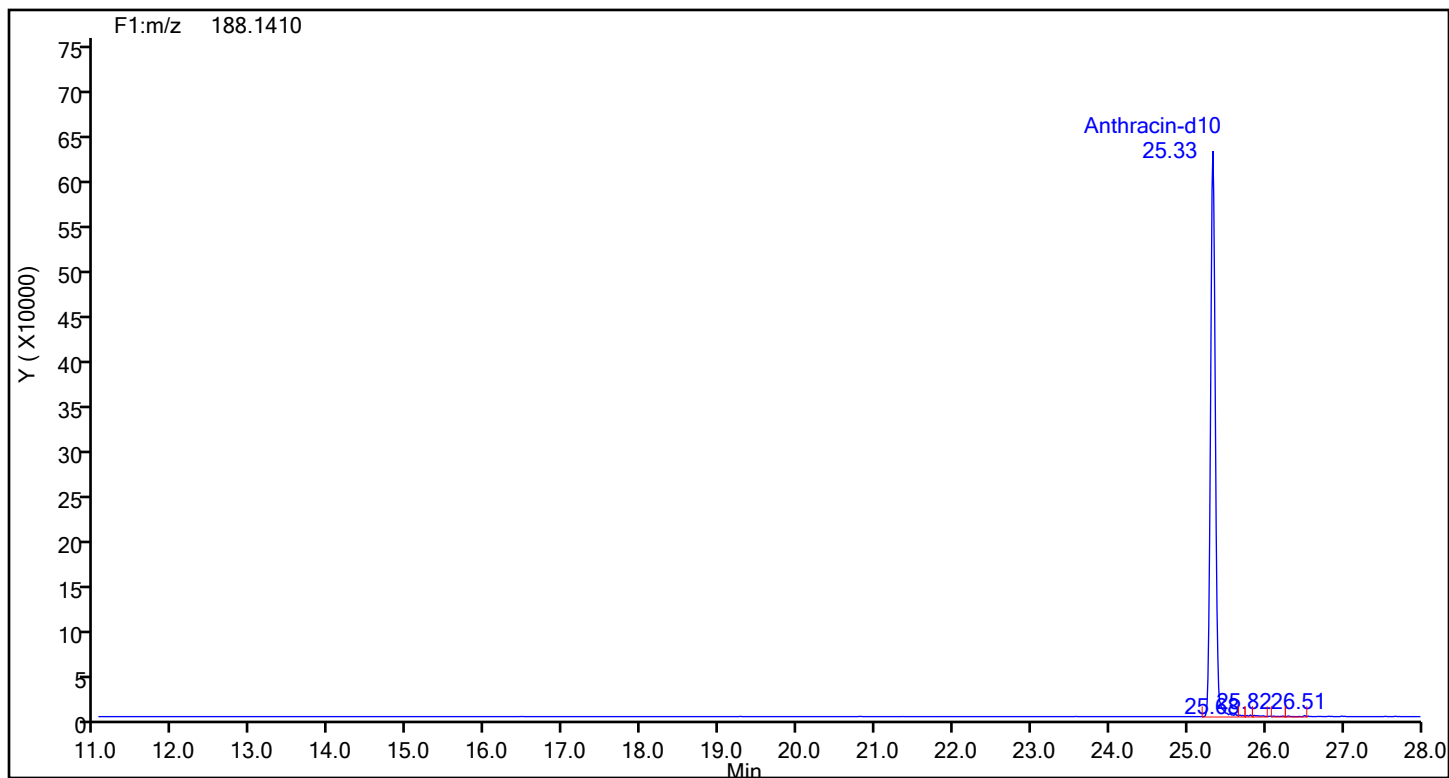


## Phenanthrene Standards

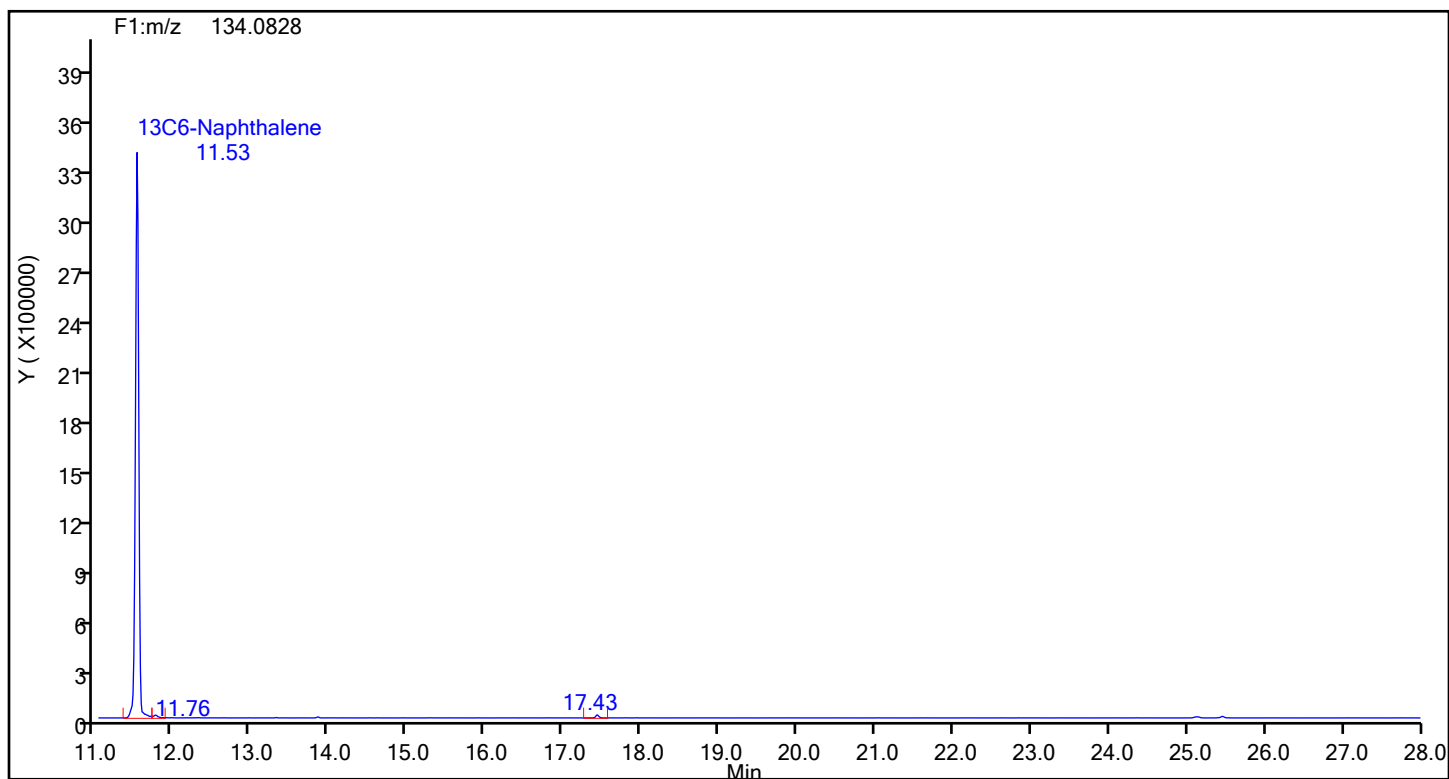


## Eurofins Knoxville

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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
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Anthracin-d10

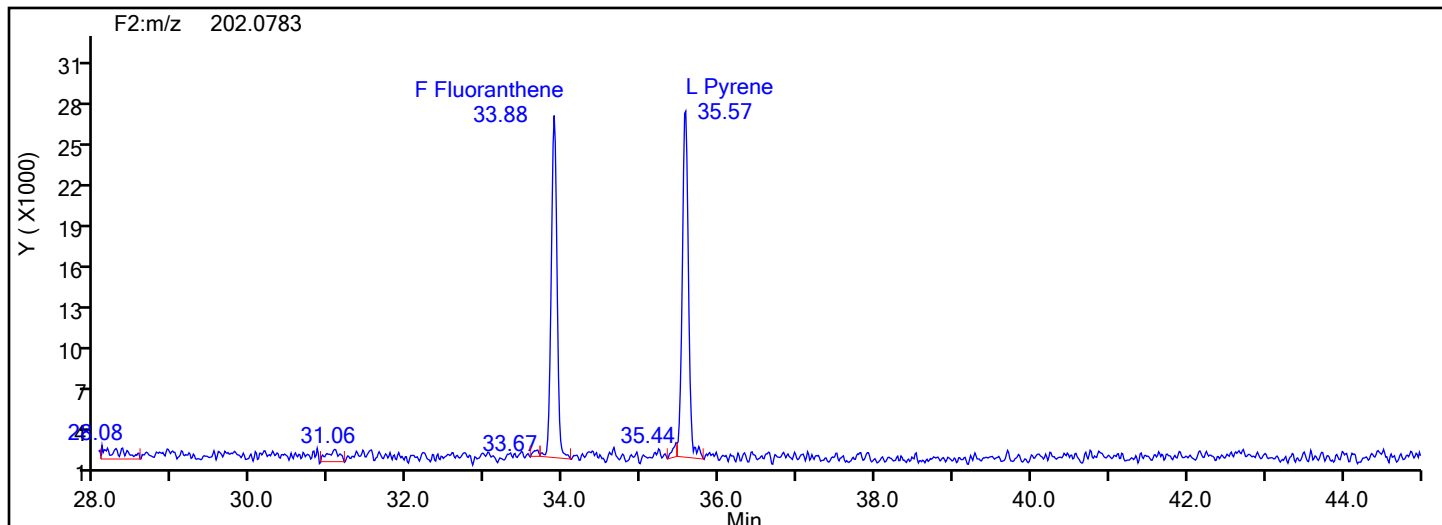


## Anthracin-d10 Standards

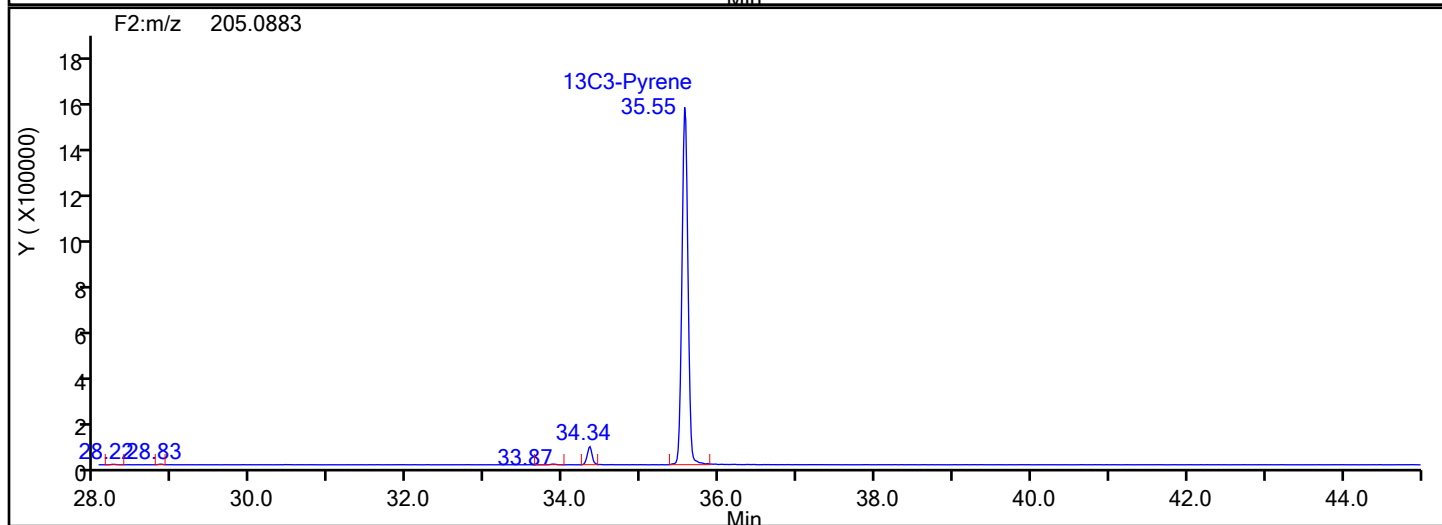
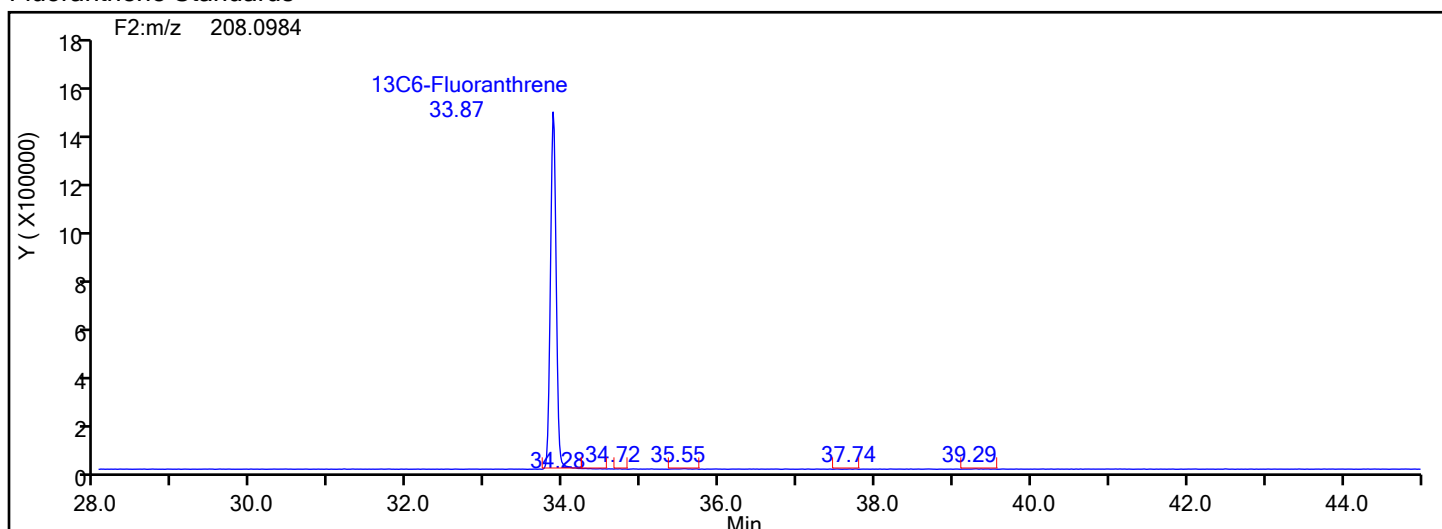


## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Fluoranthene



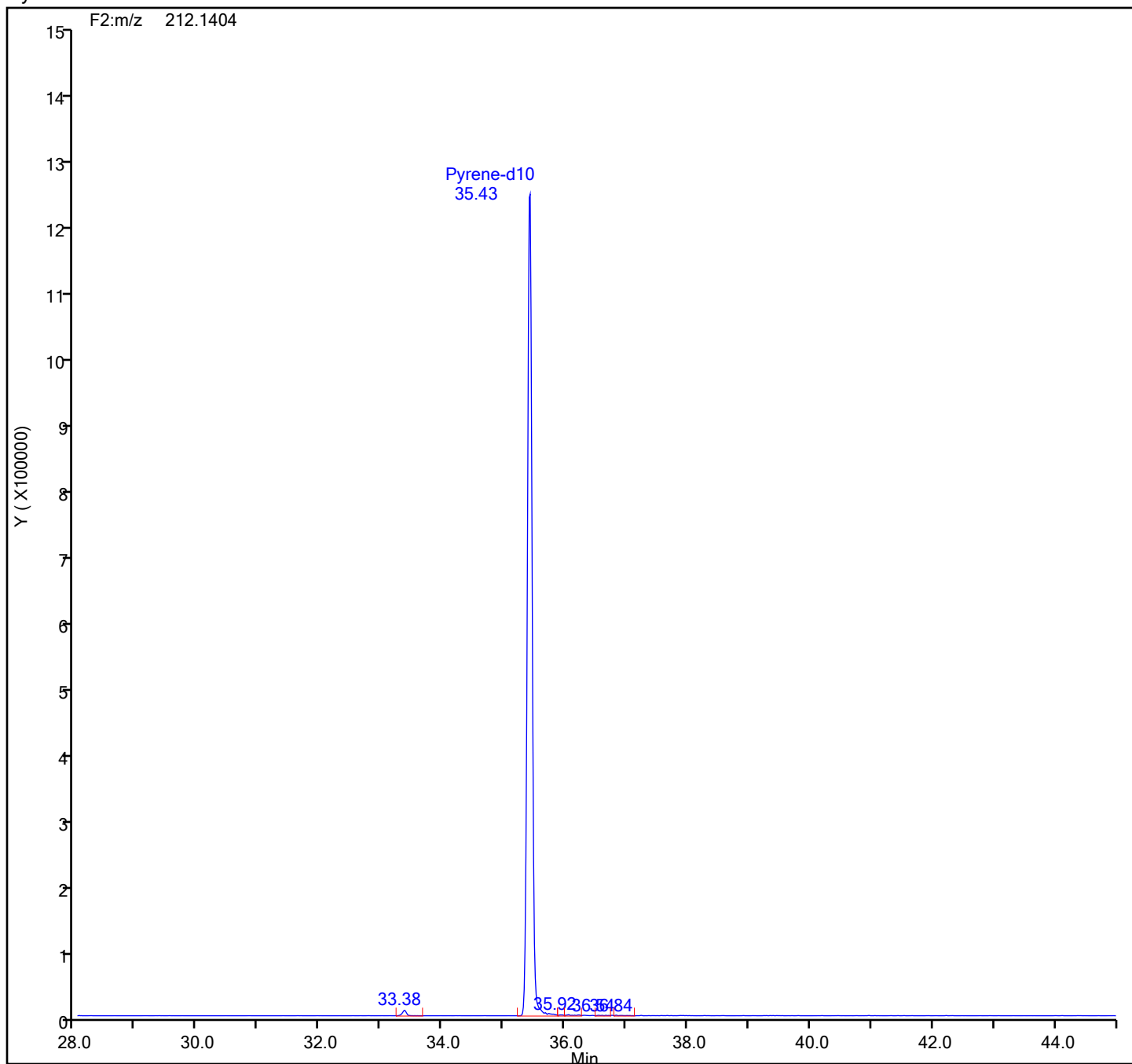
## Fluoranthene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic1.d  
Injection Date: 19-Jun-2024 16:34:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Pyrene-d10 Standards

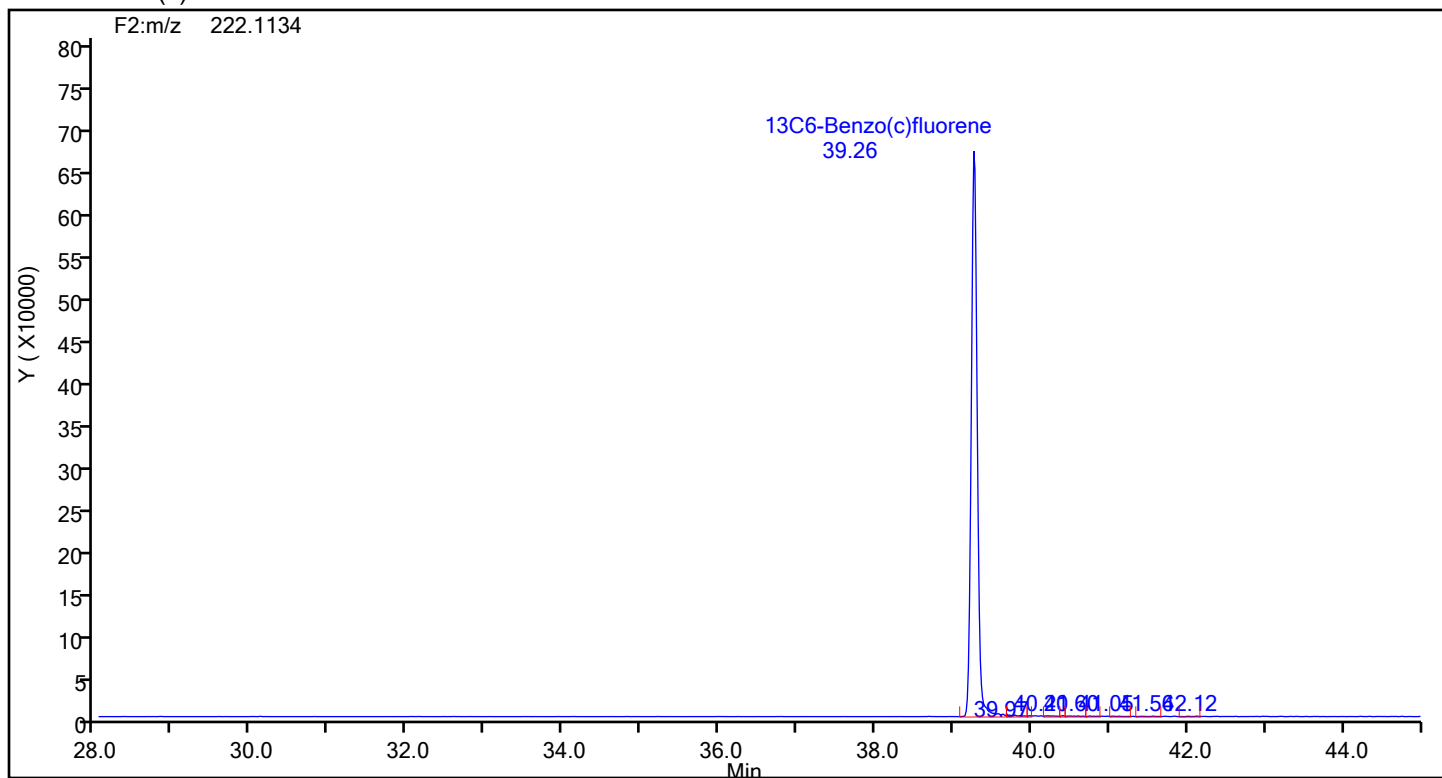




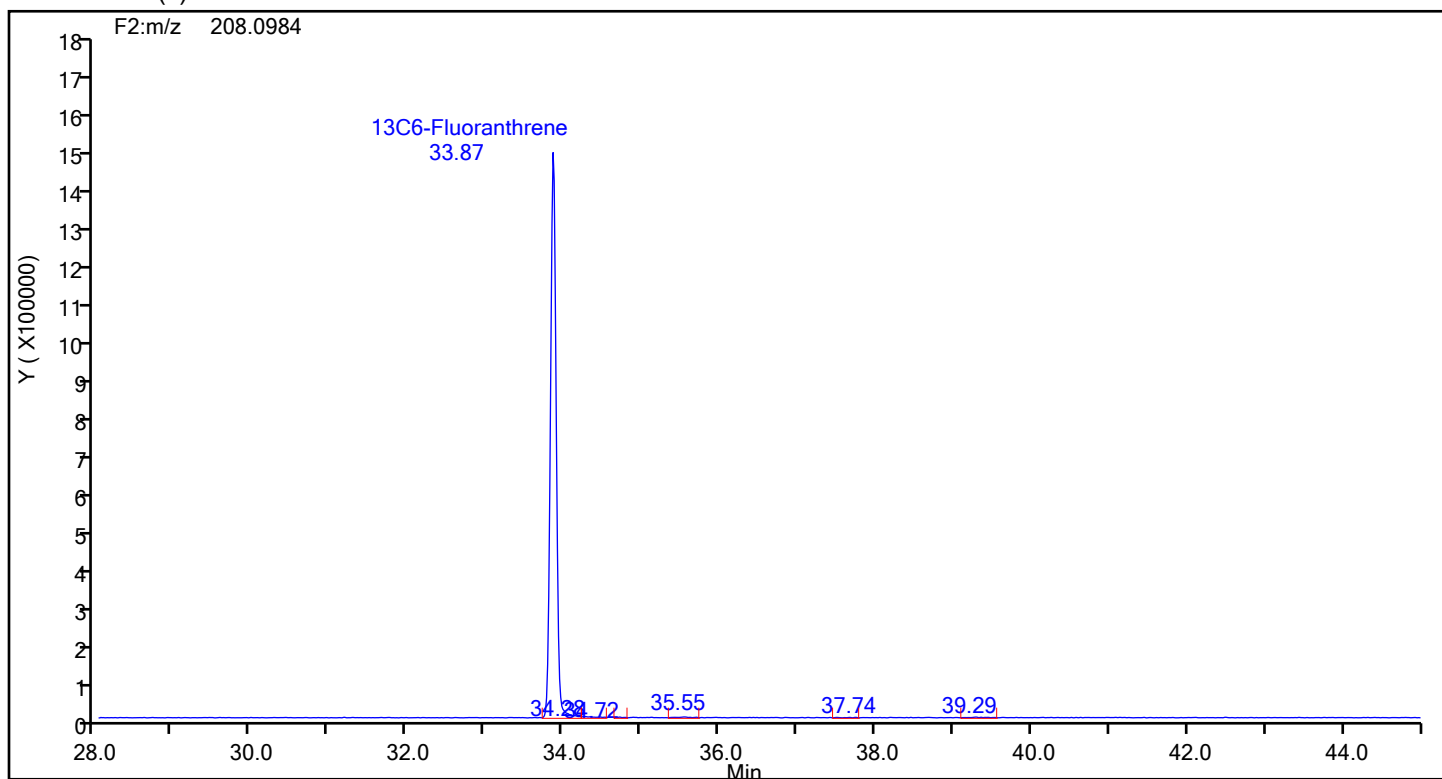
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic1.d  
Injection Date: 19-Jun-2024 16:34:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C6-Benzo(c)fluorene



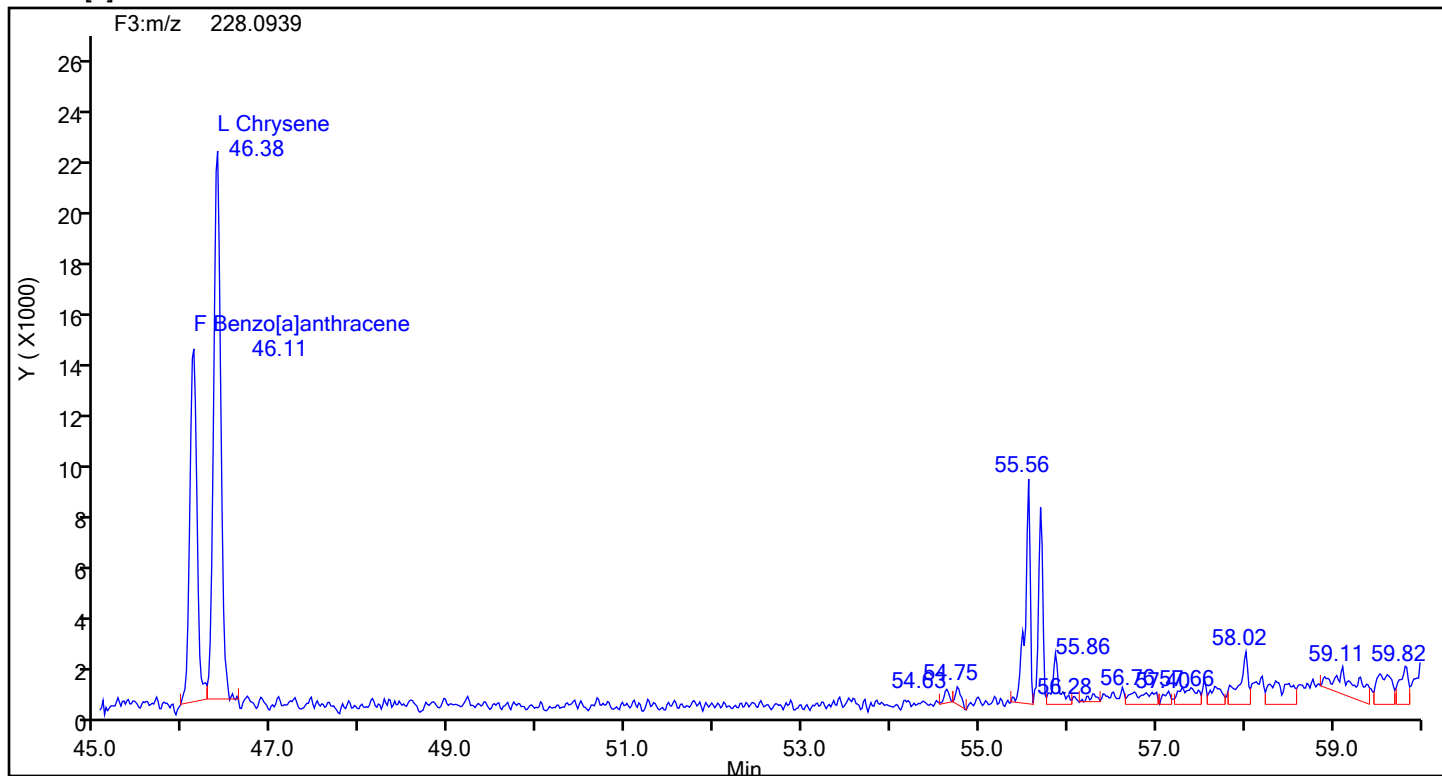
## 13C6-Benzo(c)fluorene Standards



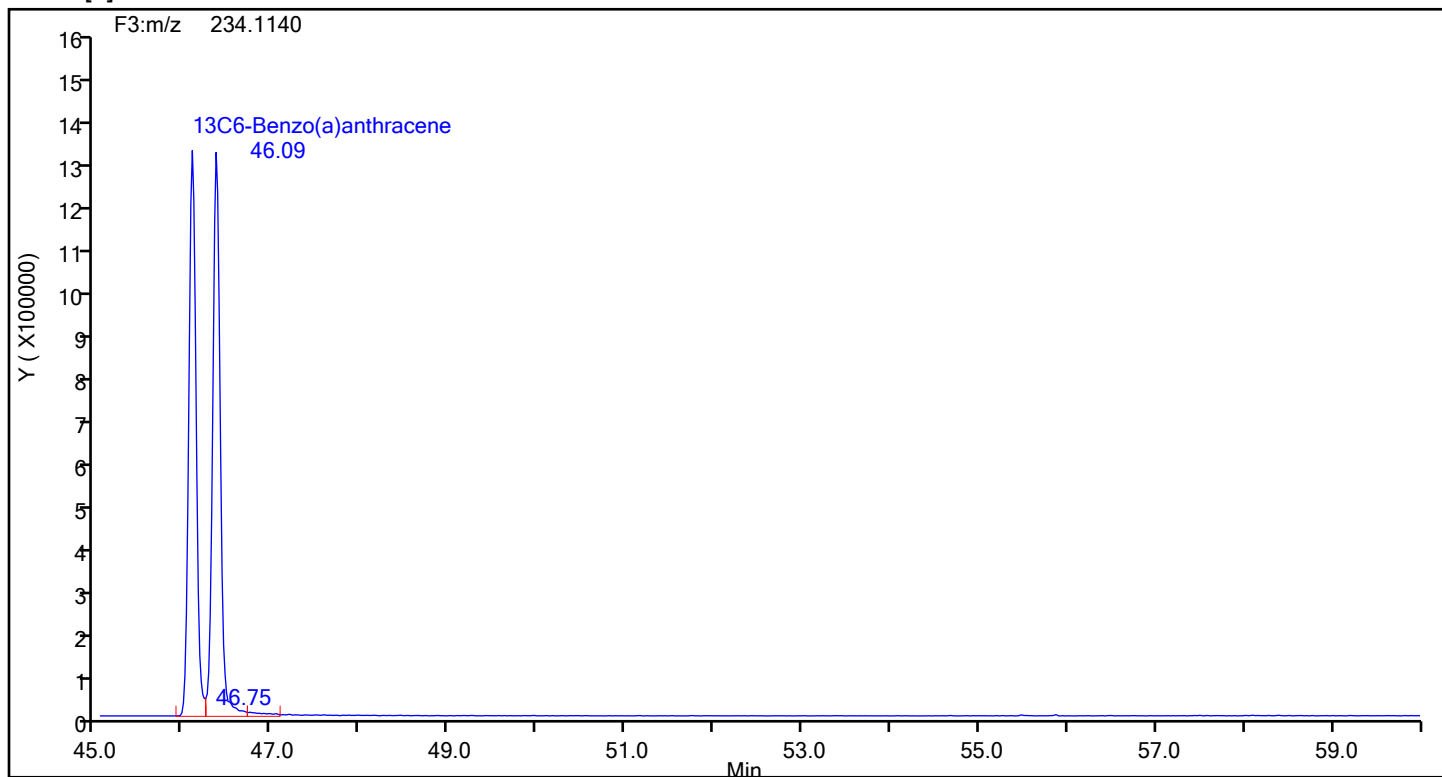
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic1.d  
Injection Date: 19-Jun-2024 16:34:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



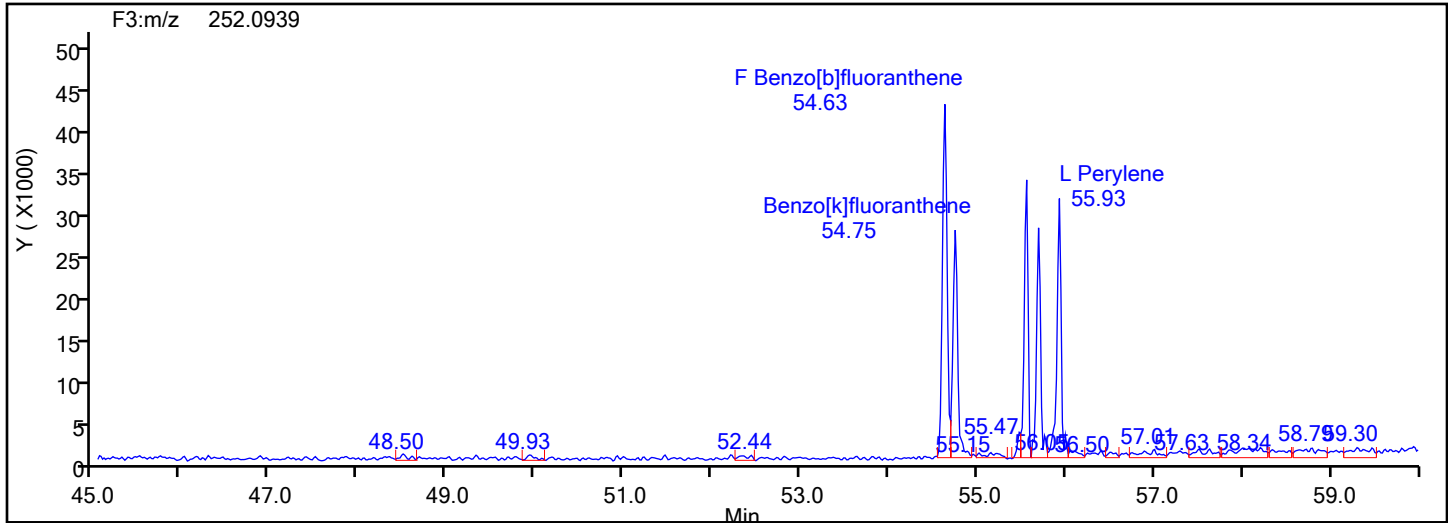
## Benzo[a]anthracene Standards



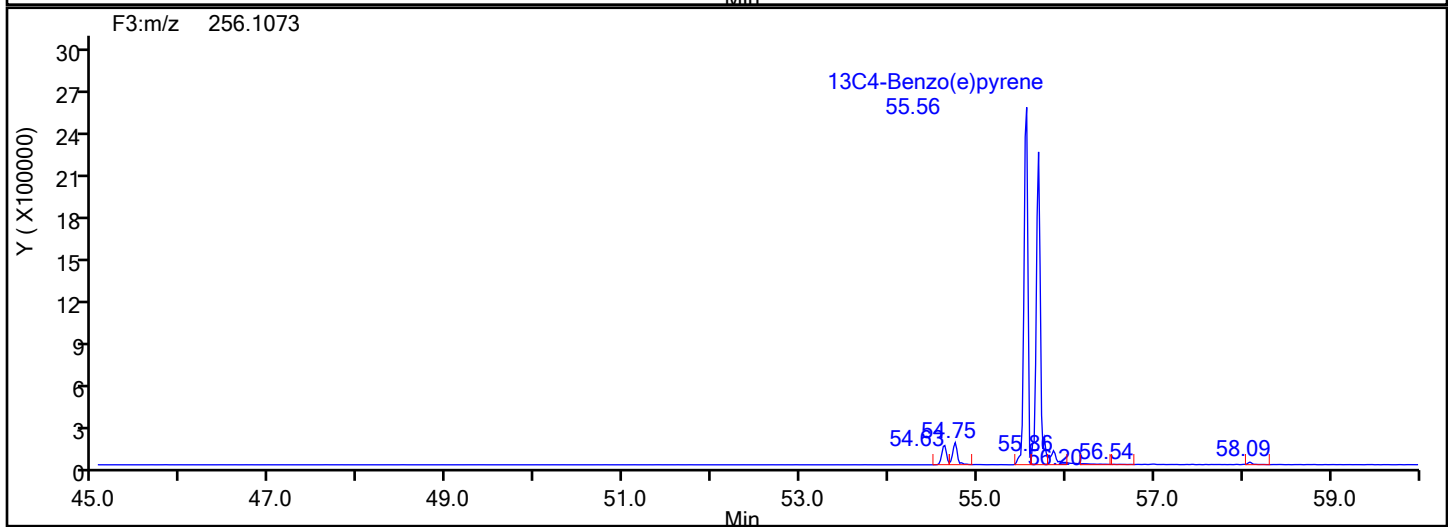
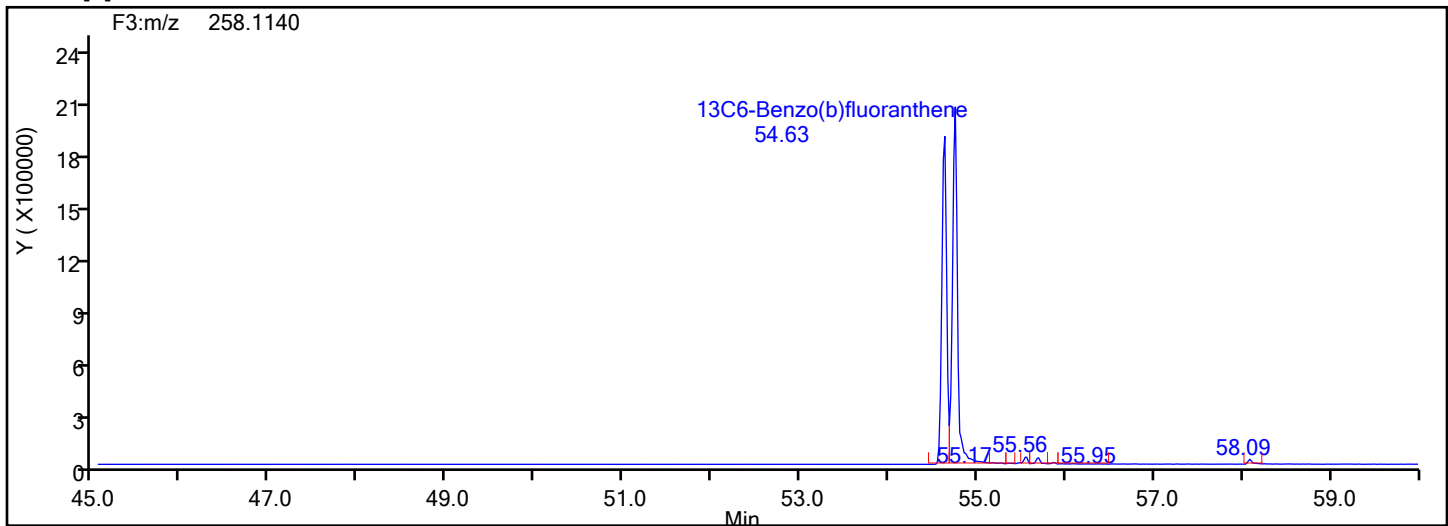
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic1.d  
Injection Date: 19-Jun-2024 16:34:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



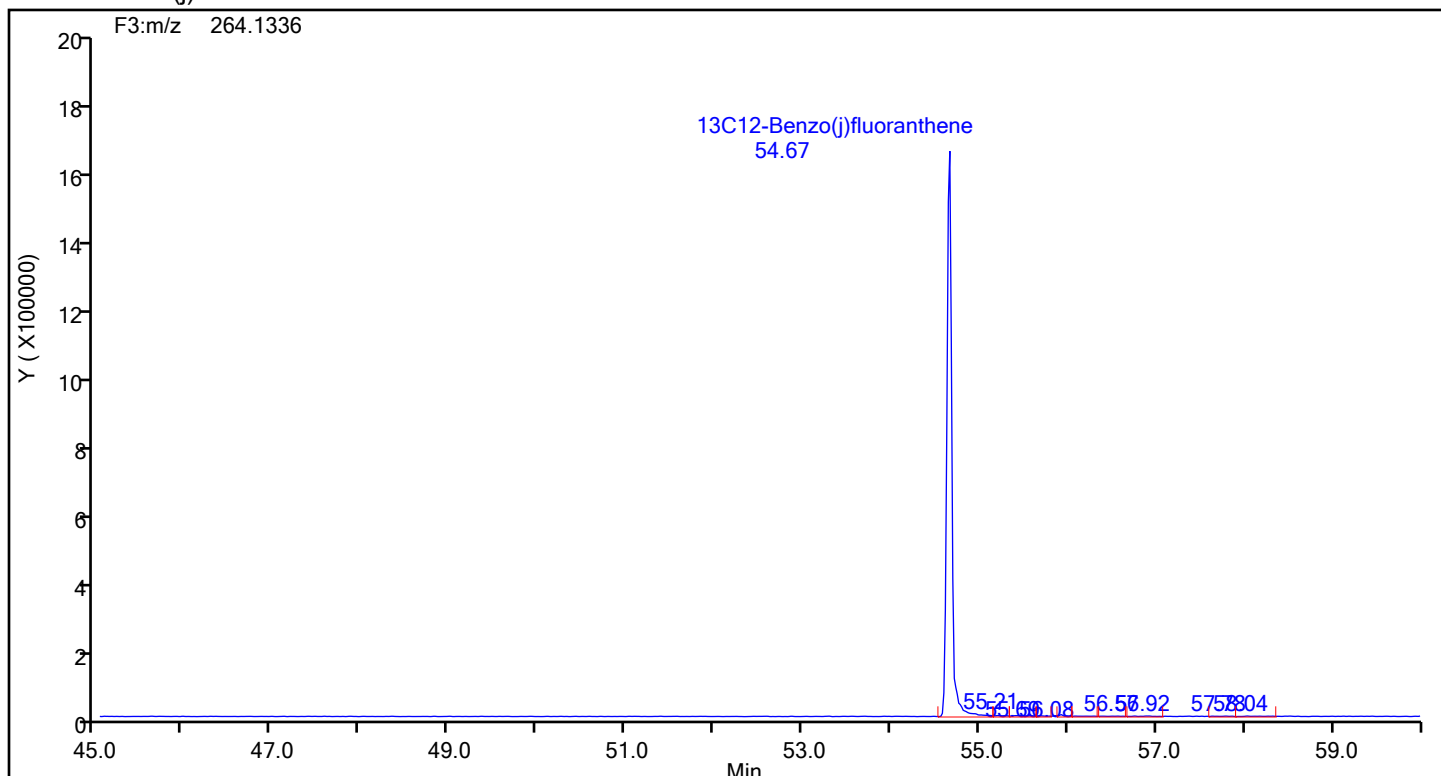
## Benzo[b]fluoranthene Standards



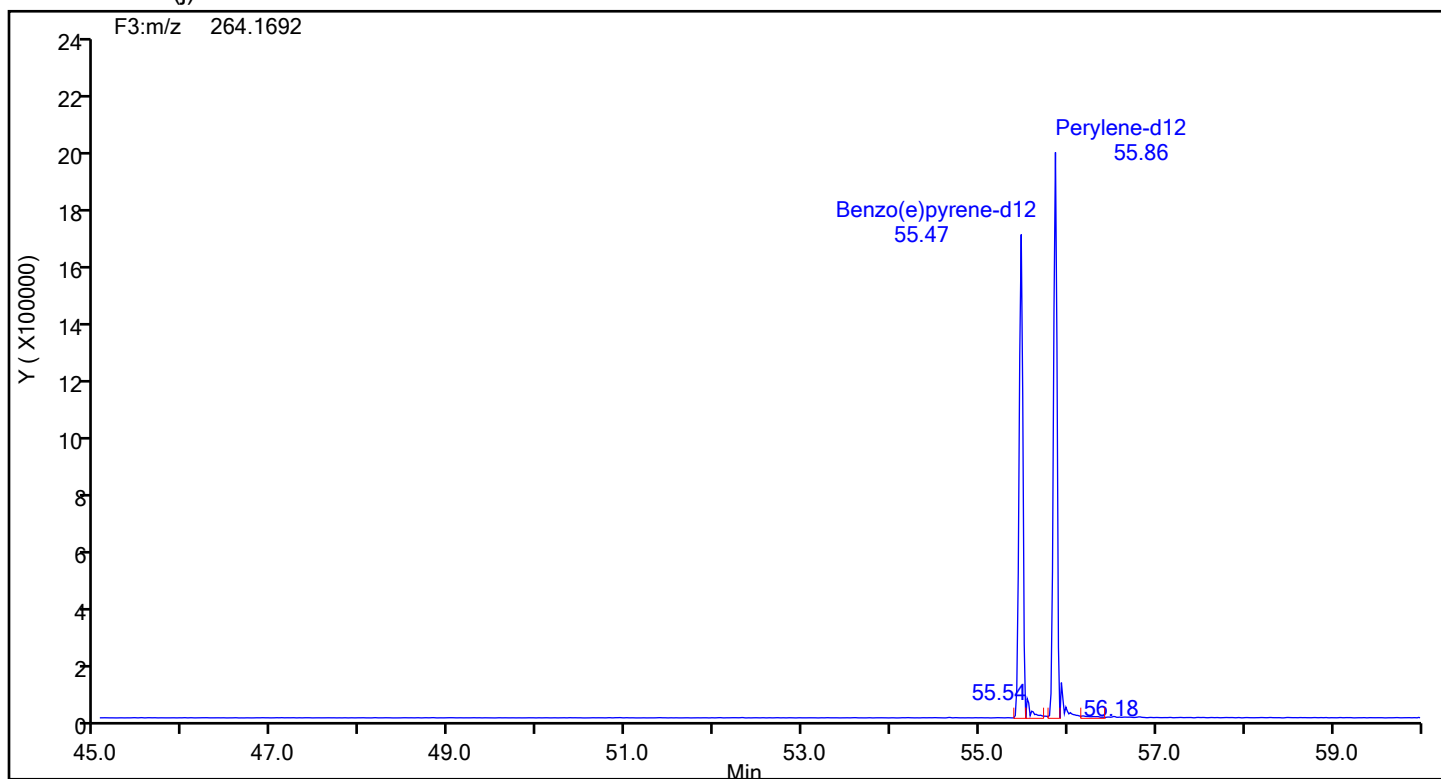
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic1.d  
Injection Date: 19-Jun-2024 16:34:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



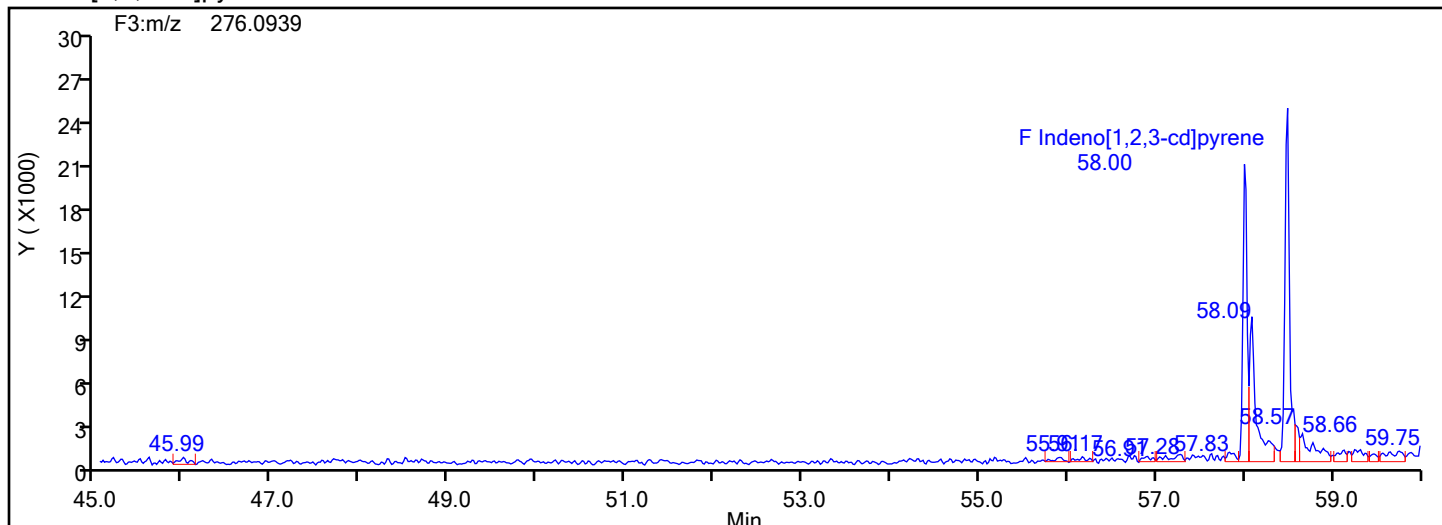
## 13C12-Benzo(j)fluoranthene Standards



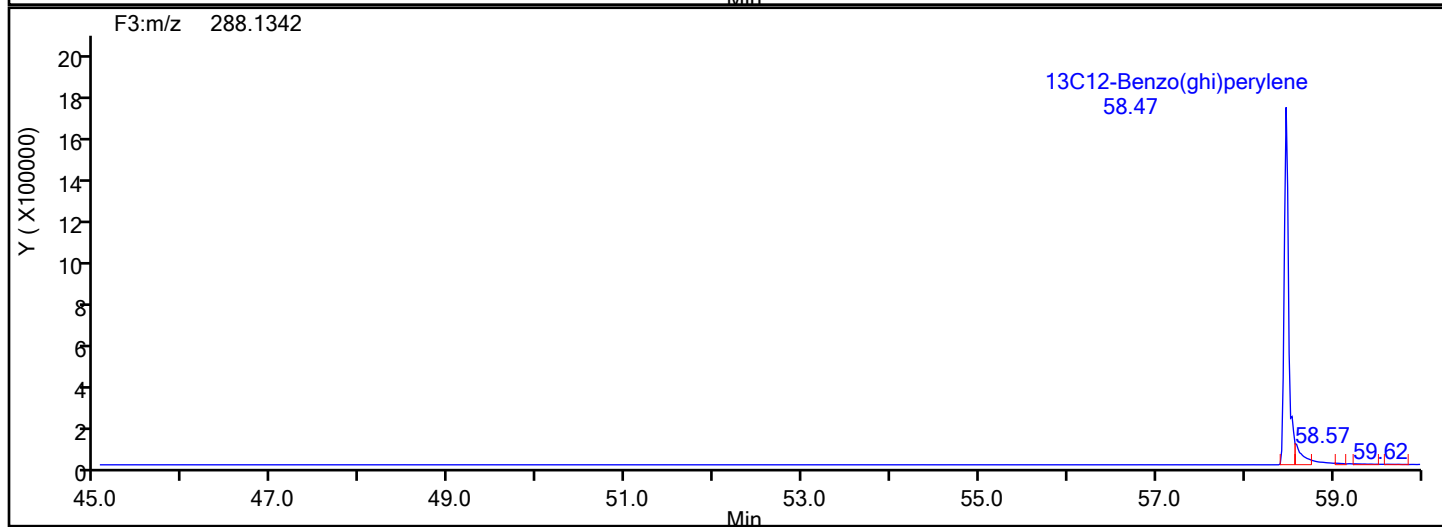
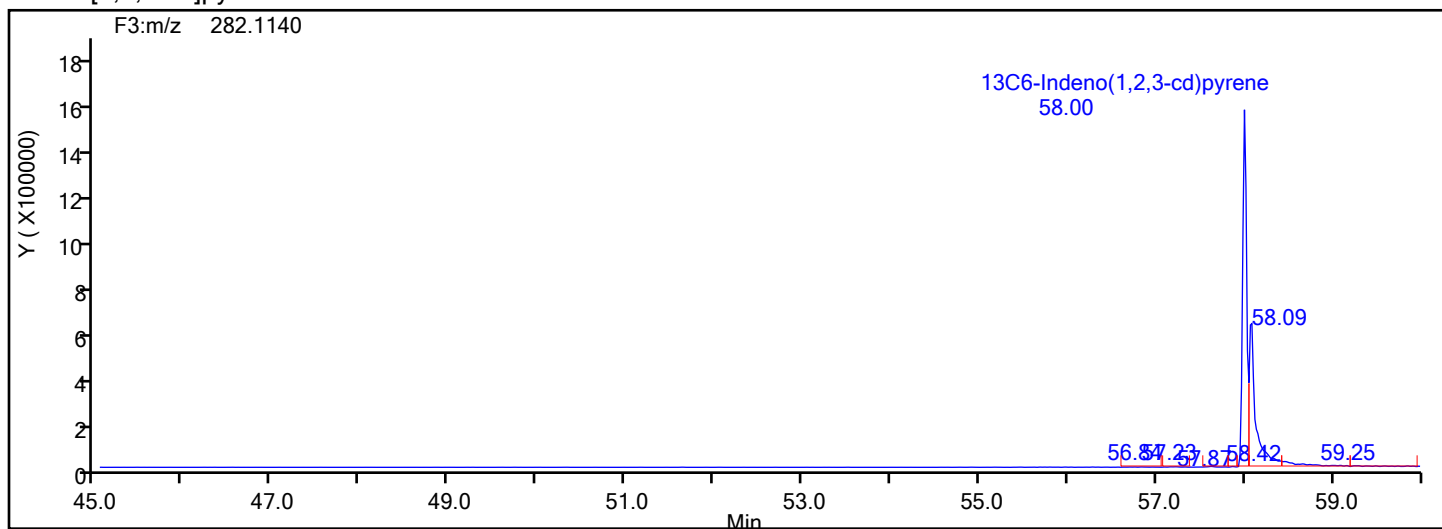
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic1.d  
Injection Date: 19-Jun-2024 16:34:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Indeno[1,2,3-cd]pyrene



## Indeno[1,2,3-cd]pyrene Standards



## Eurofins Knoxville

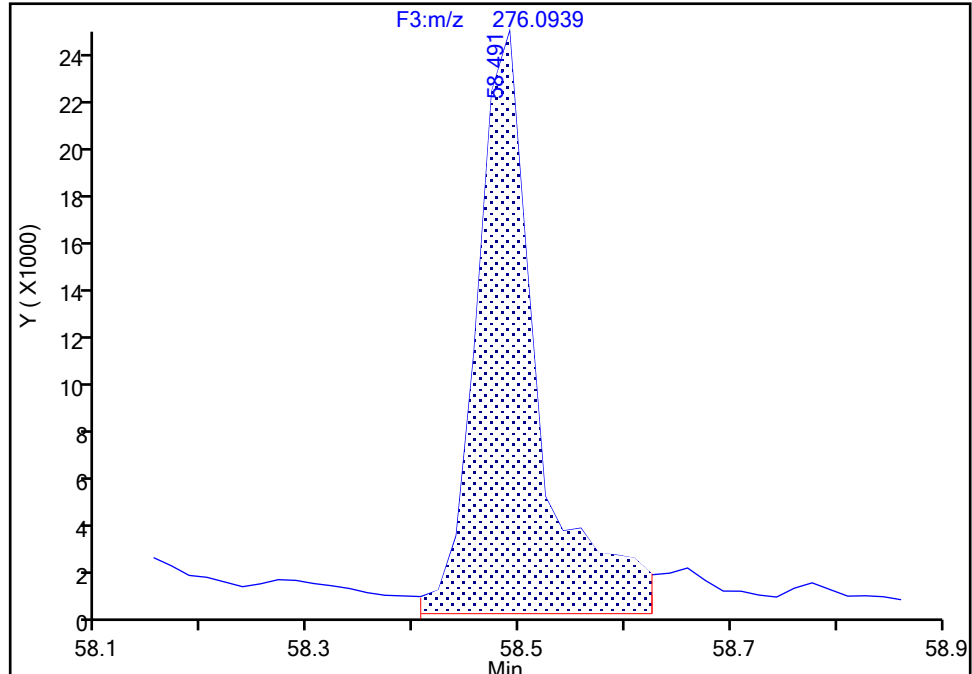
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\20240619ic1.d  
Injection Date: 19-Jun-2024 16:34:00 Instrument ID: D3PAH  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector: F3(44.04 :59.98 )

Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

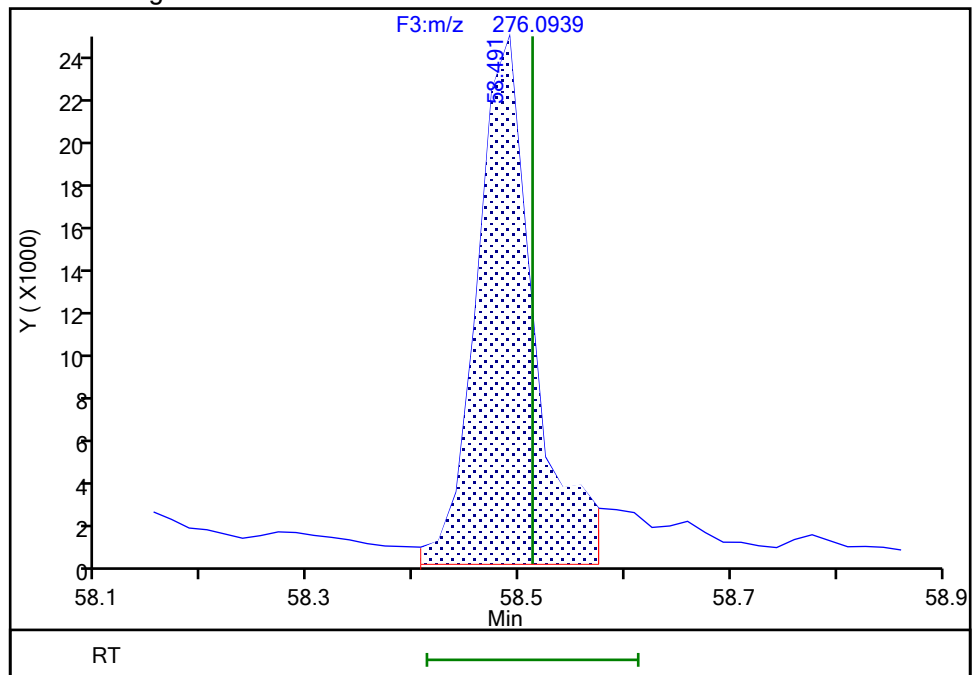
RT: 58.49  
Area: 95023  
Amount: 1.000000  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.49  
Area: 89871  
Amount: 1.181423  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 19-Jun-2024 18:14:20 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

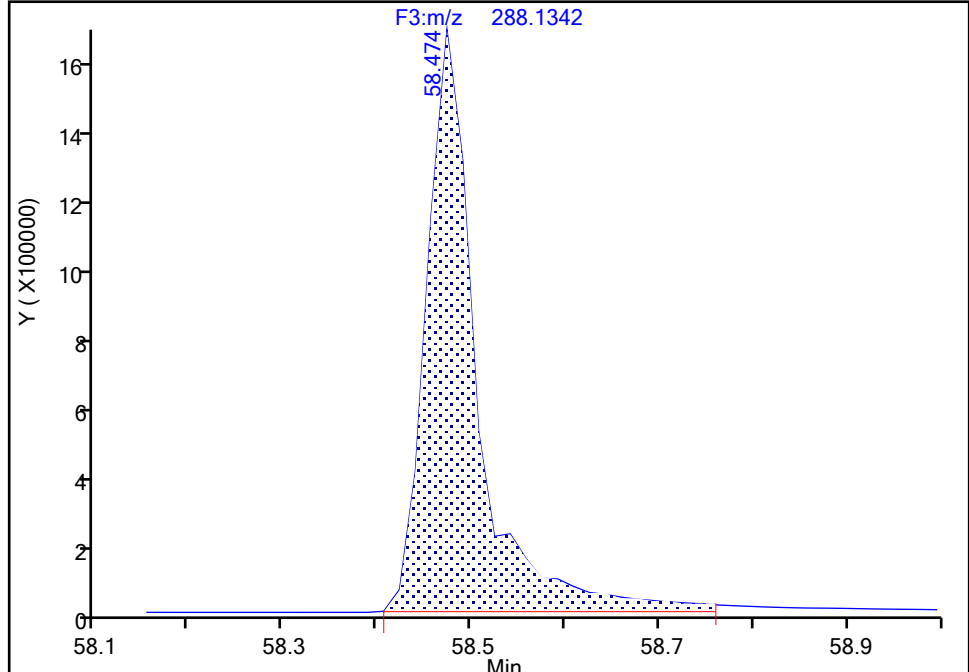
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic1.d  
Injection Date: 19-Jun-2024 16:34:00 Instrument ID: D3PAH  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C12-Benzo(ghi)perylene, CAS: 350820-11-0**

Signal: 1

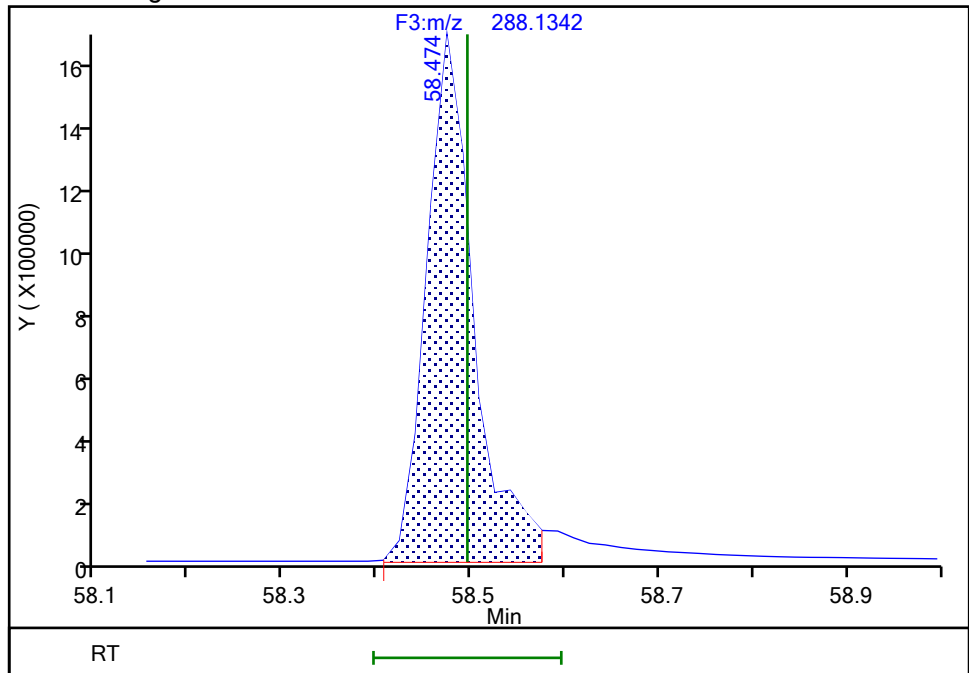
RT: 58.47  
Area: 6416165  
Amount: 100.0000  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.47  
Area: 5925593  
Amount: 91.841777  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 19-Jun-2024 18:14:36 -04:00:00 (UTC)

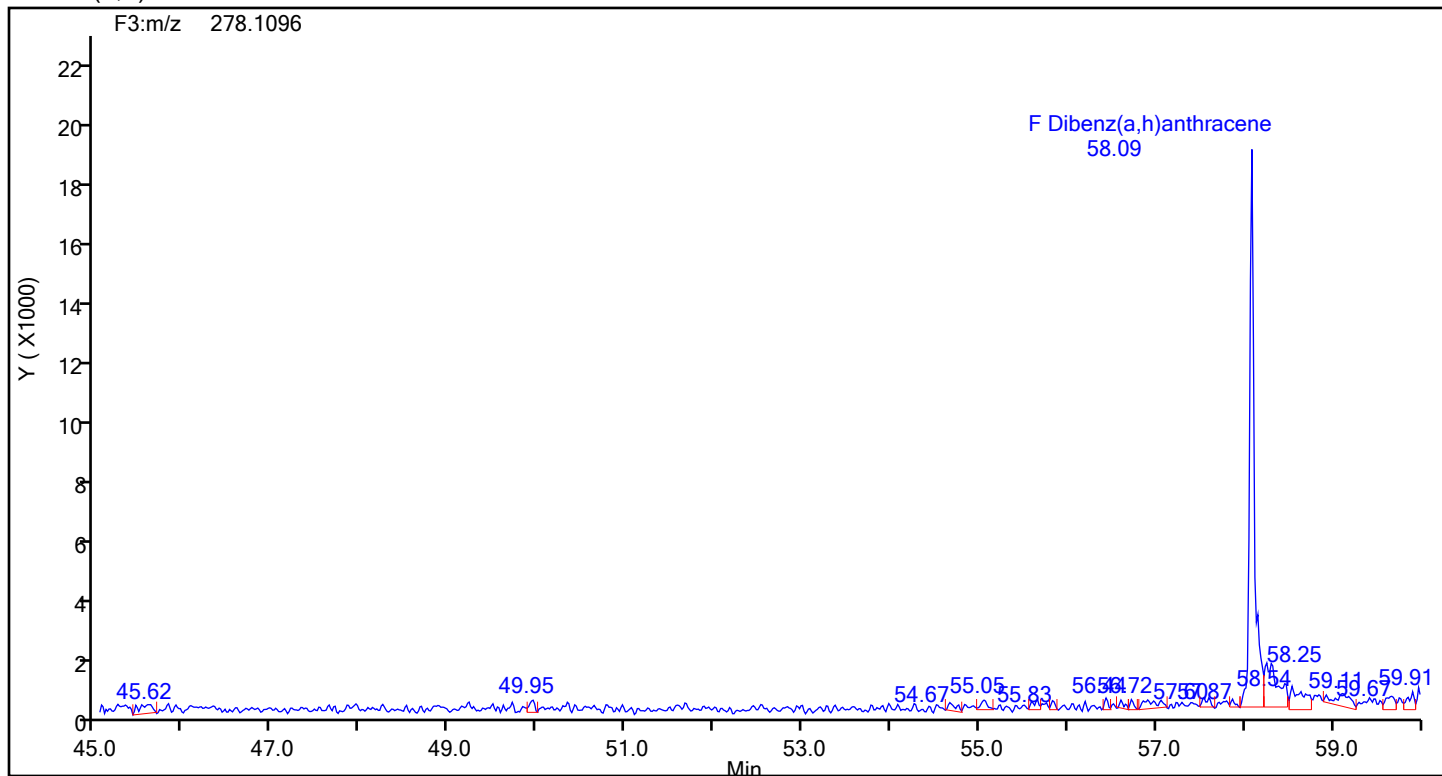
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

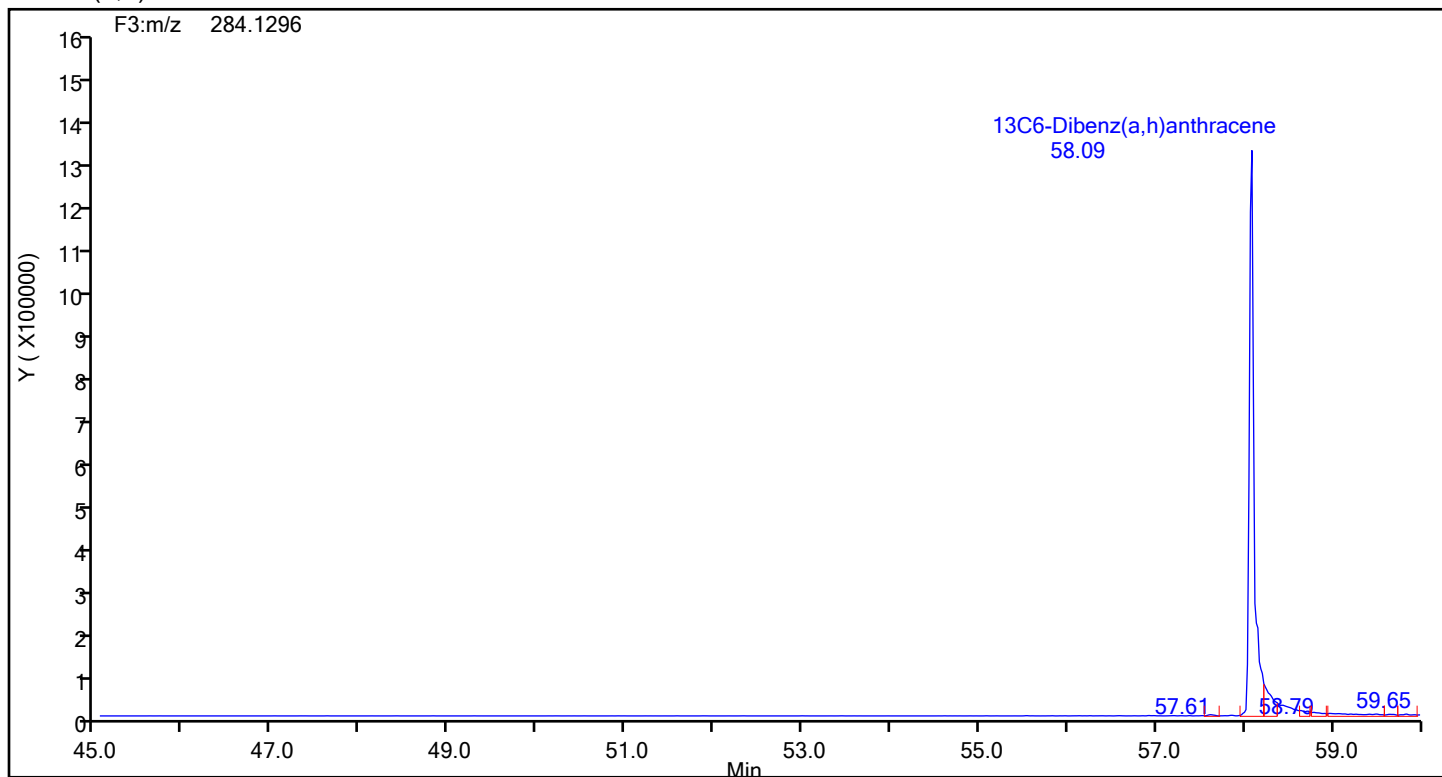
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic1.d  
Injection Date: 19-Jun-2024 16:34:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Dibenz(a,h)anthracene



## Dibenz(a,h)anthracene Standards





## Eurofins Knoxville

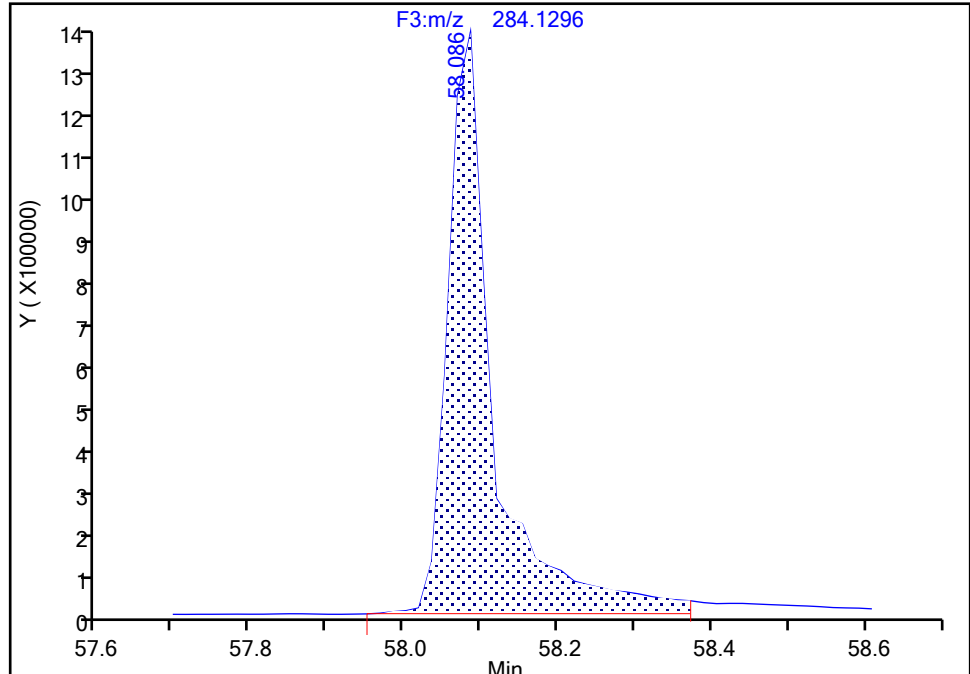
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\ld3240619ic1.d  
Injection Date: 19-Jun-2024 16:34:00 Instrument ID: D3PAH  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C6-Dibenz(a,h)anthracene, CAS: STL03360**

Signal: 1

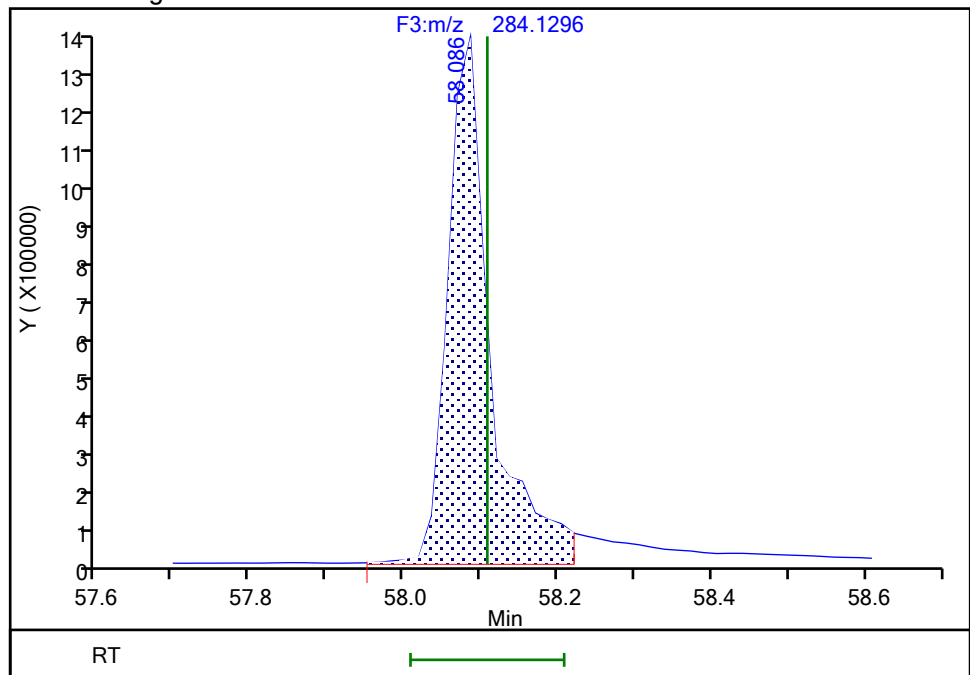
RT: 58.09  
Area: 5487366  
Amount: 100.0000  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.09  
Area: 5080699  
Amount: 95.134127  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 19-Jun-2024 18:15:49 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic2.d  
Lims ID: IC L2  
Client ID:  
Sample Type: IC Calib Level: 2  
Inject. Date: 19-Jun-2024 17:38:00 ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033168-002  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 20-Jun-2024 09:51:35 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last Ical File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1686

First Level Reviewer: F9EE

Date: 19-Jun-2024 18:50:35

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:33	10224350		3.3746	101.7	101.7	0.003634	0.003634	102	
Naphthalene	11:33	1289701		1.2893	9.784	9.784	0.0238	0.0238	489	
D 13C6-2-Methylnaphthalene	13:52	4888063		1.6031	102.4	102.4	0.000734	0.000734	102	
2-Methylnaphthalene	13:53	566769		1.2786	9.069	9.069	0.0258	0.0258	453	
D 13C6-Acenaphthylene	16:45	4790245		1.6520	97.3	97.3	0.002078	0.002078	97.34	
Acenaphthylene	16:45	133174		2.3661	2.014	2.014	0.0260	0.0260	101	
* Acenaphthene-d10	17:20	2978908		3.5E+04	100.0	100.0				
D 13C6-Acenaphthene	17:27	2794458		0.9792	95.8	95.8	0.002705	0.002705	95.80	
Acenaphthene	17:27	191300		1.2697	5.392	5.392	0.0282	0.0282	270	
D 13C6-Fluorene	19:45	2550369		0.8898	96.2	96.2	0.000551	0.000551	96.21	
Fluorene	19:45	116608		1.2532	3.649	3.649	0.0384	0.0384	182	
D 13C6-Phenanthrene	25:08	3753474		0.5724	92.4	92.4	0.001945	0.001945	92.38	
Phenanthrene	25:08	212656		1.1044	5.130	5.130	0.0373	0.0373	256	
\$ Anthracin-d10	25:21	2916395		0.4257	96.5	96.5	0.001743	0.001743	96.52	
D 13C6-Anthracene	25:28	2927417		0.4523	91.2	91.2	0.002461	0.002461	91.18	
Anthracene	25:28	91204		1.3586	2.293	2.293	0.0413	0.0413	115	
D 13C6-Fluoranthrene	33:53	7938309		1.1994	93.2	93.2	0.0223	0.0223	93.25	
Fluoranthene	33:54	290190		1.1513	3.175	3.175	0.0156	0.0156	159	
* Pyrene-d10	35:27	7097800		7.9E+04	100.0	100.0				
D 13C3-Pyrene	35:35	8994056		1.3512	93.8	93.8	0.0147	0.0147	93.78	
Pyrene	35:35	274746		1.0652	2.868	2.868	0.0156	0.0156	143	
\$ 13C6-Benzo(c)fluorene	39:18	3790719		0.5136	104.0	104.0	0.003612	0.003612	104	
D 13C6-Benzo(a)anthracene	46:08	7671524		1.5189	100.4	100.4	0.0158	0.0158	100	
Benzo[a]anthracene	46:08	162720		0.9739	2.178	2.178	0.0170	0.0170	109	
D 13C6-Chrysene	46:24	8190879		1.6287	100.0	100.0	0.0147	0.0147	100	
Chrysene	46:24	225899		0.9815	2.810	2.810	0.0162	0.0162	141	
D 13C6-Benzo(b)fluoranthene	54:40	6995957		1.4621	95.2	95.2	0.000890	0.000890	95.16	
Benzo[b]fluoranthene	54:40	246308		1.1249	3.130	3.130	0.0109	0.0109	156	
\$ 13C12-Benzo(j)fluoranthene	54:42	6569551		1.3558	96.4	96.4	0.0171	0.0171	96.36	
D 13C6-Benzo(k)fluoranthene	54:47	8172987		1.7507	92.8	92.8	0.000743	0.000743	92.85	
Benzo[k]fluoranthene	54:47	219658		1.1271	2.385	2.385	0.009644	0.009644	119	
* Benzo(e)pyrene-d12	55:30	5028172		5.7E+04	100.0	100.0				
D 13C4-Benzo(e)pyrene	55:35	7870944		1.6368	95.6	95.6	0.0115	0.0115	95.63	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
Benzo[e]pyrene	55:35	196775		1.0013	2.497	2.497	0.008899	0.008899	125	
Benzo[a]pyrene	55:44	178284		1.1130	2.174	2.174	0.009155	0.009155	109	
D 13C4-Benzo(a)pyrene	55:44	7368833		1.5508	94.5	94.5	0.0121	0.0121	94.50	
D Perylene-d12	55:54	5811383		1.1917	97.0	97.0	0.0176	0.0176	96.99	
Perylene	55:58	186178		1.4307	2.239	2.239	0.007678	0.007678	112	
D 13C6-Indeno(1,2,3-cd)pyrene	58:02	5418391		1.0218	105.5	105.5	0.0114	0.0114	105	M
Indeno[1,2,3-cd]pyrene	58:02	130664		1.1249	2.144	2.144	0.008694	0.008694	107	
D 13C6-Dibenz(a,h)anthracene	58:07	5414078		1.0553	102.0	102.0	0.005158	0.005158	102	M
Dibenz(a,h)anthracene	58:07	131743		1.1314	2.151	2.151	0.007222	0.007222	108	
D 13C12-Benzo(ghi)perylene	58:30	6532018		1.2749	101.9	101.9	0.005893	0.005893	102	M
Benzo[g,h,i]perylene	58:31	187407		1.2838	2.235	2.235	0.006936	0.006936	112	M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61HRPAHCS2\_00002

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic2.d  
Lims ID: IC L2  
Client ID:  
Sample Type: IC Calib Level: 2  
Inject. Date: 19-Jun-2024 17:38:00 ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033168-002  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 20-Jun-2024 09:51:35 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1686

First Level Reviewer: F9EE

Date: 19-Jun-2024 18:50:35

Signal	RT (min.)	Adj RT (min.)	¶ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:33	11:33	0	0.667	10224350	3453826	50	125	69077		
Naphthalene											
128.0626	11:33	11:34	-1	1.000	1289701	411395	425	1062	968		
13C6-2-Methylnaphthalene											
148.0984	13:52	13:52	0	0.800	4888063	2246421	5	12	449284		
2-Methylnaphthalene											
142.0783	13:53	13:53	0	1.001	566769	245185	296	740	828		
13C6-Acenaphthylene											
158.0828	16:45	16:45	0	0.967	4790245	1639631	14	35	117117		
Acenaphthylene											
152.0626	16:45	16:45	0	1.000	133174	47551	238	595	200		
Acenaphthene-d10											
164.1404	17:20	17:20	-1		2978908	1019441	1	2	1019441		
13C6-Acenaphthene											
160.0984	17:27	17:27	0	1.007	2794458	967942	11	27	87995		
Acenaphthene											
154.0783	17:27	17:27	0	1.000	191300	60528	139	347	435		
13C6-Fluorene											
172.0984	19:45	19:45	0	1.140	2550369	737805	2	5	368903		
Fluorene											
166.0783	19:45	19:45	0	1.000	116608	34760	142	355	245		
13C6-Phenanthrene											
184.0984	25:08	25:08	0	0.709	3753474	874310	6	15	145718		
Phenanthrene											
178.0783	25:08	25:08	0	1.000	212656	49863	144	360	346		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:21	25:21	0	0.715	2916395	679015	4	10	169754		
13C6-Anthracene											
184.0984	25:28	25:28	0	0.718	2927417	641240	6	15	106873		
Anthracene											
178.0783	25:28	25:28	0	1.000	91204	20584	144	360	143		
13C6-Fluoranthrene											
208.0984	33:53	33:54	-1	0.956	7938309	1512092	144	360	10501		
Fluoranthene											
202.0783	33:54	33:54	0	1.000	290190	55341	109	272	508		
Pyrene-d10											
212.1404	35:27	35:27	0		7097800	1347492	10	25	134749		
13C3-Pyrene											
205.0883	35:35	35:35	0	1.004	8994056	1637719	107	267	15306		
Pyrene											
202.0783	35:35	35:35	0	1.000	274746	51021	109	272	468		
13C6-Benzo(c)fluorene											
222.1134	39:18	39:18	0	0.708	3790719	700534	10	25	70053		
13C6-Benzo(a)anthracene											
234.1140	46:08	46:07	0	1.301	7671524	1301970	162	405	8037		
Benzo[a]anthracene											
228.0939	46:08	46:07	0	1.000	162720	26859	86	215	312		
13C6-Chrysene											
234.1140	46:24	46:24	0	1.309	8190879	1355570	162	405	8368		
Chrysene											
228.0939	46:24	46:25	-1	1.000	225899	38492	86	215	448		
13C6-Benzo(b)fluoranthene											
258.1140	54:40	54:40	0	0.985	6995957	1815225	9	22	201692		
Benzo[b]fluoranthene											
252.0939	54:40	54:40	0	1.000	246308	66968	89	222	752		
13C12-Benzo(j)fluoranthene											
264.1336	54:42	54:42	0	0.985	6569551	1634529	157	392	10411		
13C6-Benzo(k)fluoranthene											
258.1140	54:47	54:47	0	0.987	8172987	2042470	9	22	226941		
Benzo[k]fluoranthene											
252.0939	54:47	54:47	0	1.000	219658	52976	89	222	595		
Benzo(e)pyrene-d12											
264.1692	55:30	55:30	0		5028172	1690356	142	355	11904		
13C4-Benzo(e)pyrene											
256.1073	55:35	55:35	0	1.002	7870944	2491423	127	317	19618		
Benzo[e]pyrene											
252.0939	55:35	55:35	0	1.000	196775	66245	89	222	744		
Benzo[a]pyrene											
252.0939	55:44	55:44	0	1.000	178284	53714	89	222	604		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C4-Benzo(a)pyrene											
256.1073	55:44	55:44	0	1.004	7368833	2178757	127	317	17156		
Perylene-d12											
264.1692	55:54	55:54	0	1.007	5811383	2020986	142	355	14232		
Perylene											
252.0939	55:58	55:58	0	1.001	186178	59542	89	222	669		
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	58:02	58:02	0	1.046	5418391	1635908	79	197	20708		M
Indeno[1,2,3-cd]pyrene											
276.0939	58:02	58:03	-1	1.000	130664	41002	64	160	641		
13C6-Dibenz(a,h)anthracene											
284.1296	58:07	58:07	0	1.047	5414078	1370824	37	92	37049		M
Dibenz(a,h)anthracene											
278.1096	58:07	58:07	0	1.000	131743	34780	45	112	773		
13C12-Benzo(ghi)perylene											
288.1342	58:30	58:30	0	1.054	6532018	1796950	51	127	35234		M
Benzo[g,h,i]perylene											
276.0939	58:31	58:31	0	1.000	187407	47113	64	160	736		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61HRPAHCS2\_00002

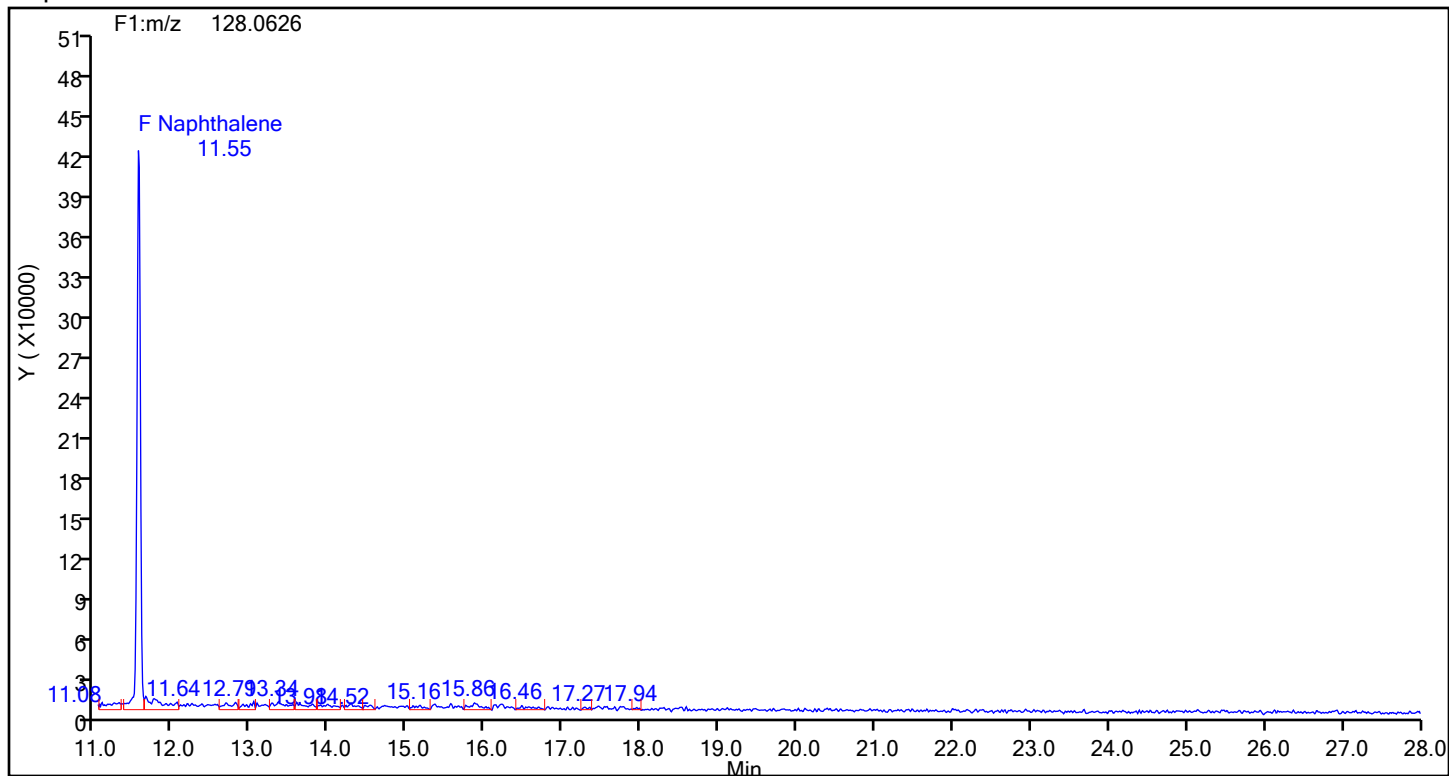
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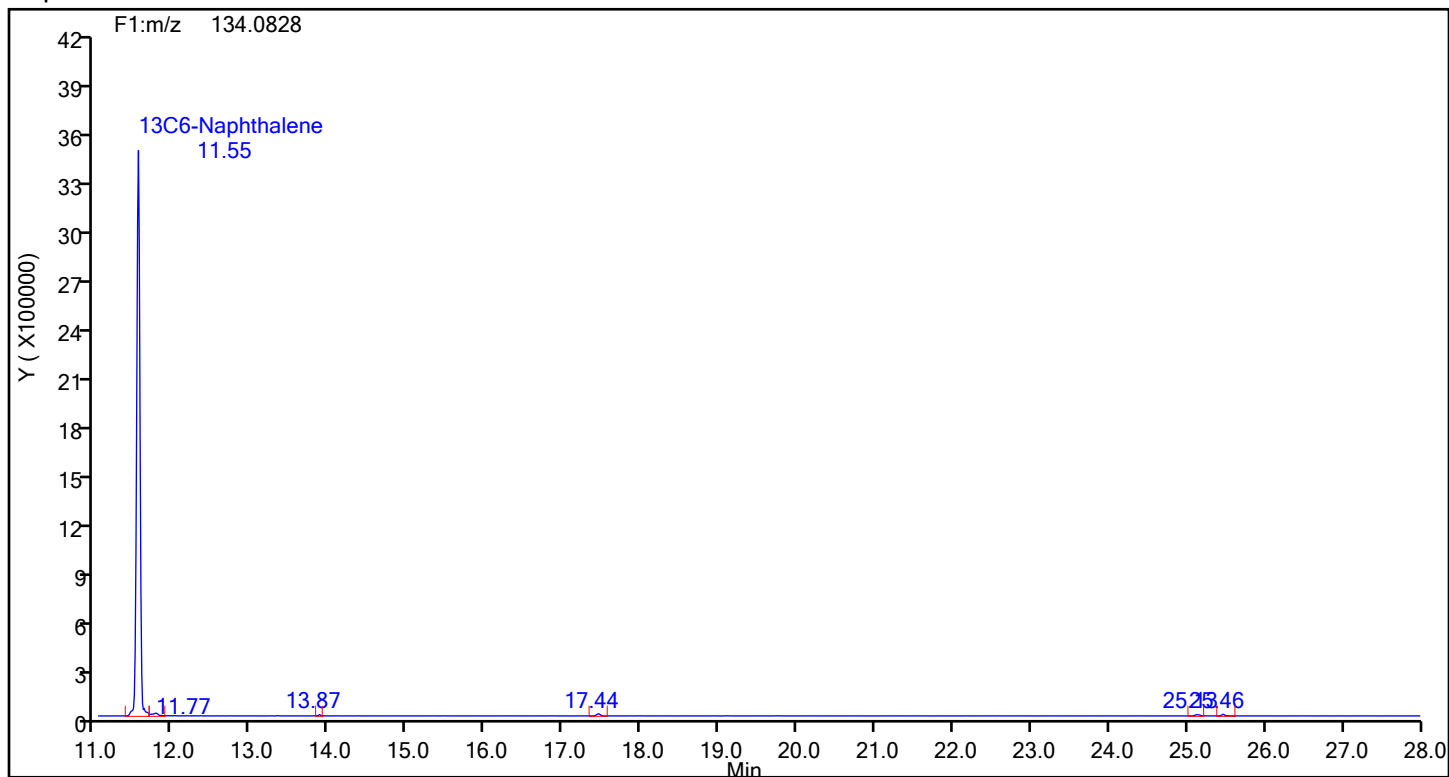
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Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 2  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



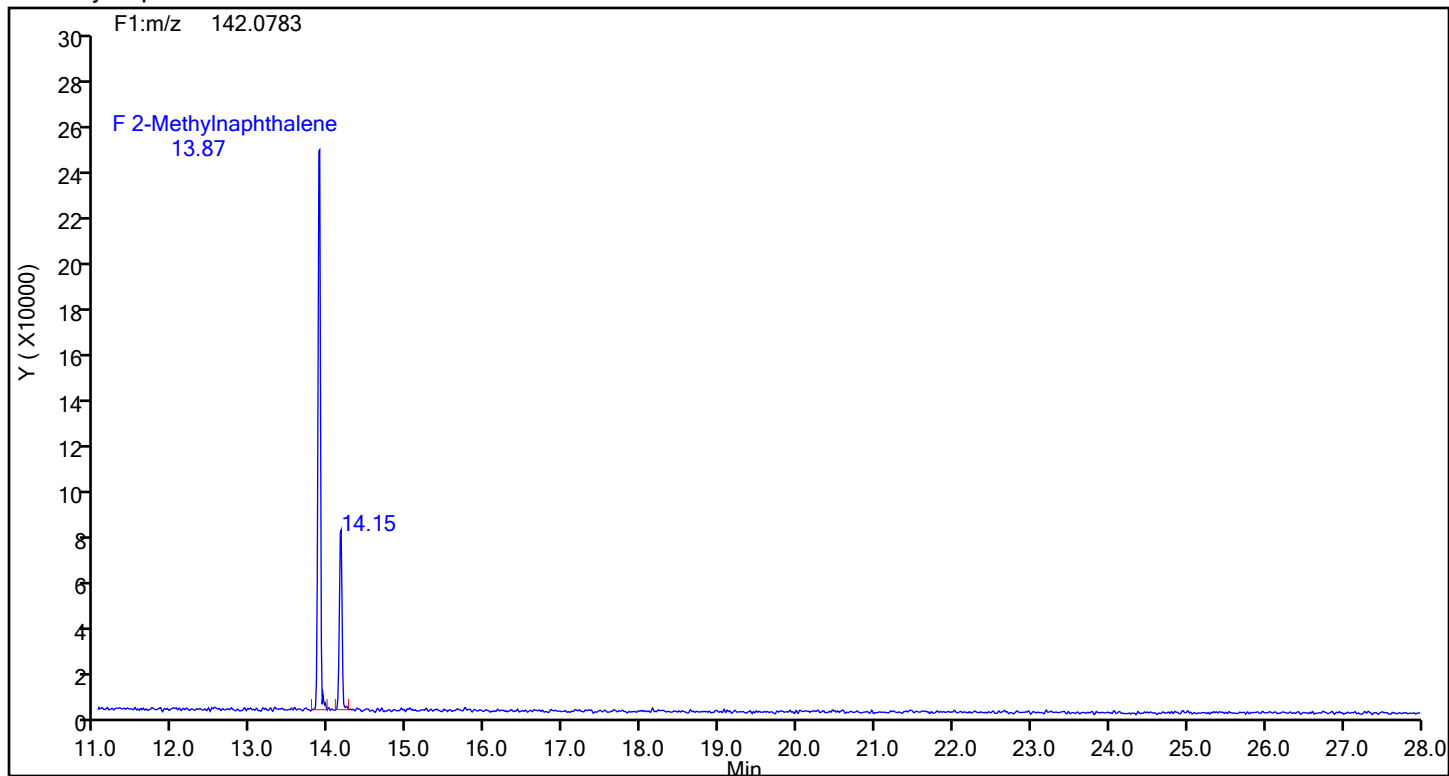
## Naphthalene Standards



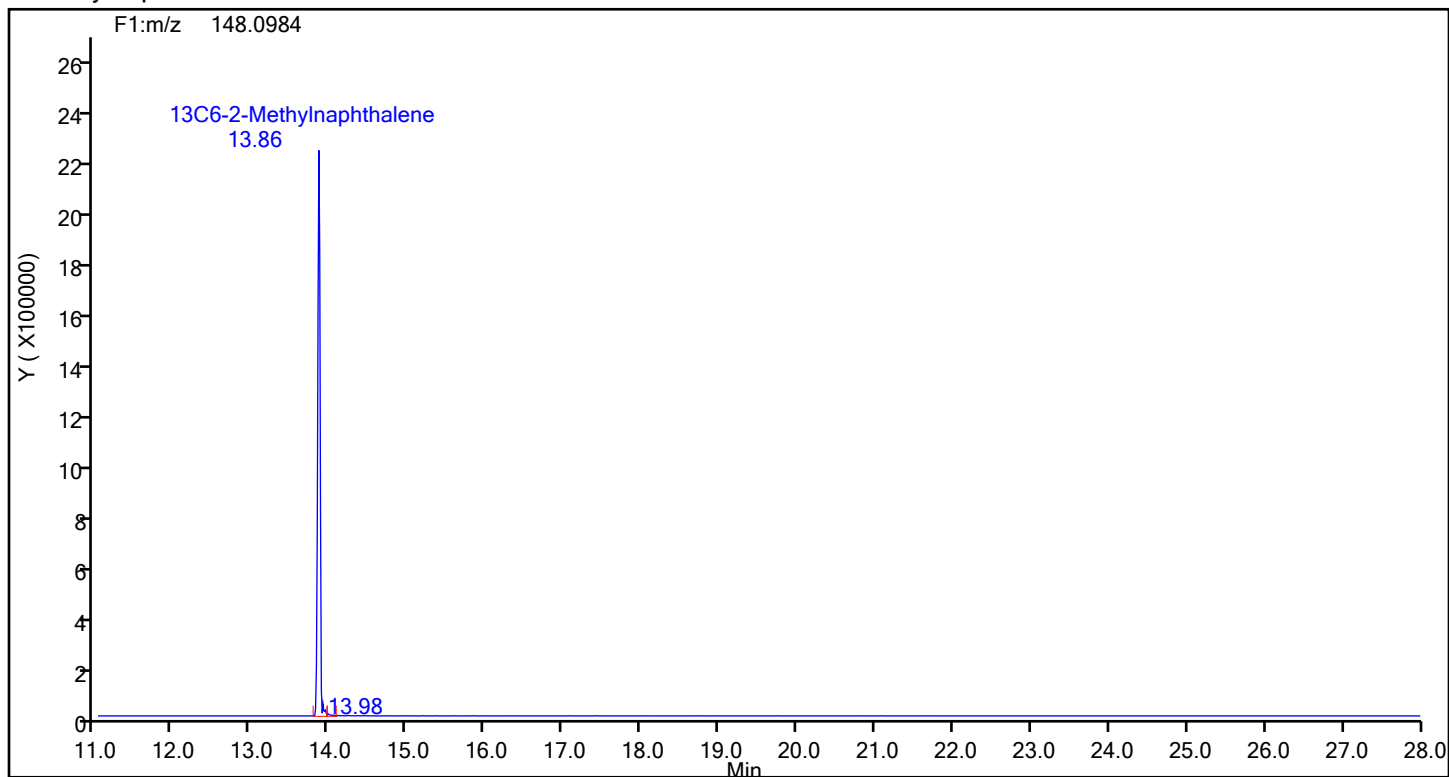
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



## 2-Methylnaphthalene Standards

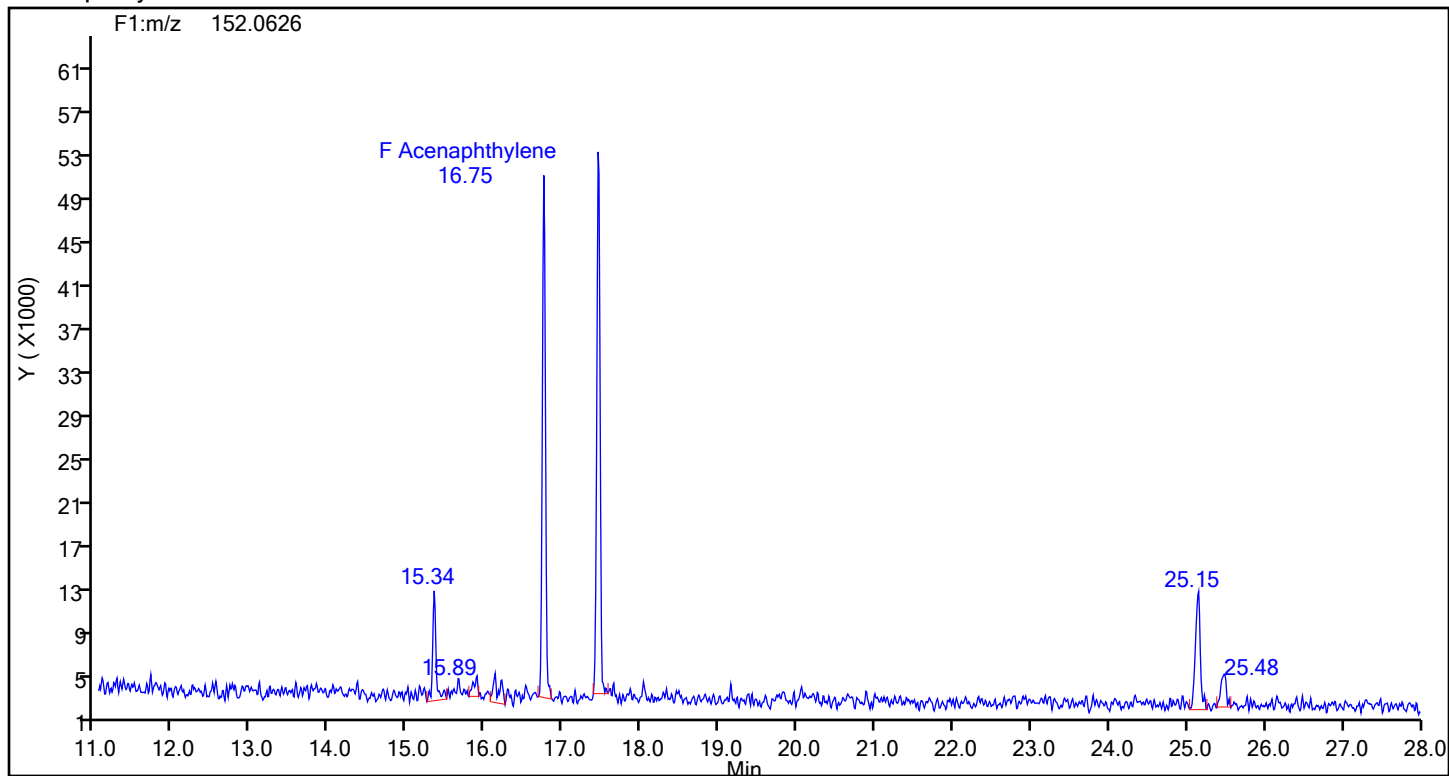




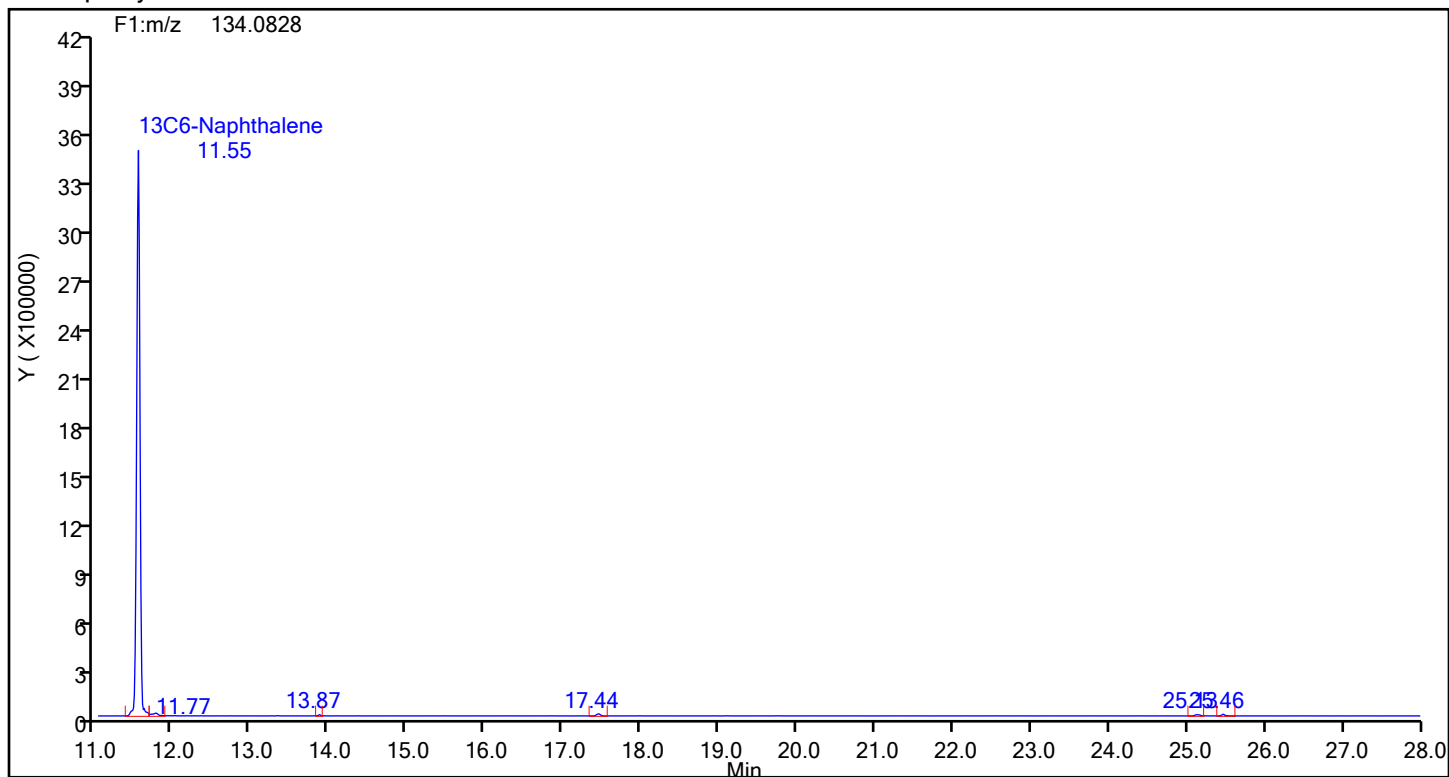
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene



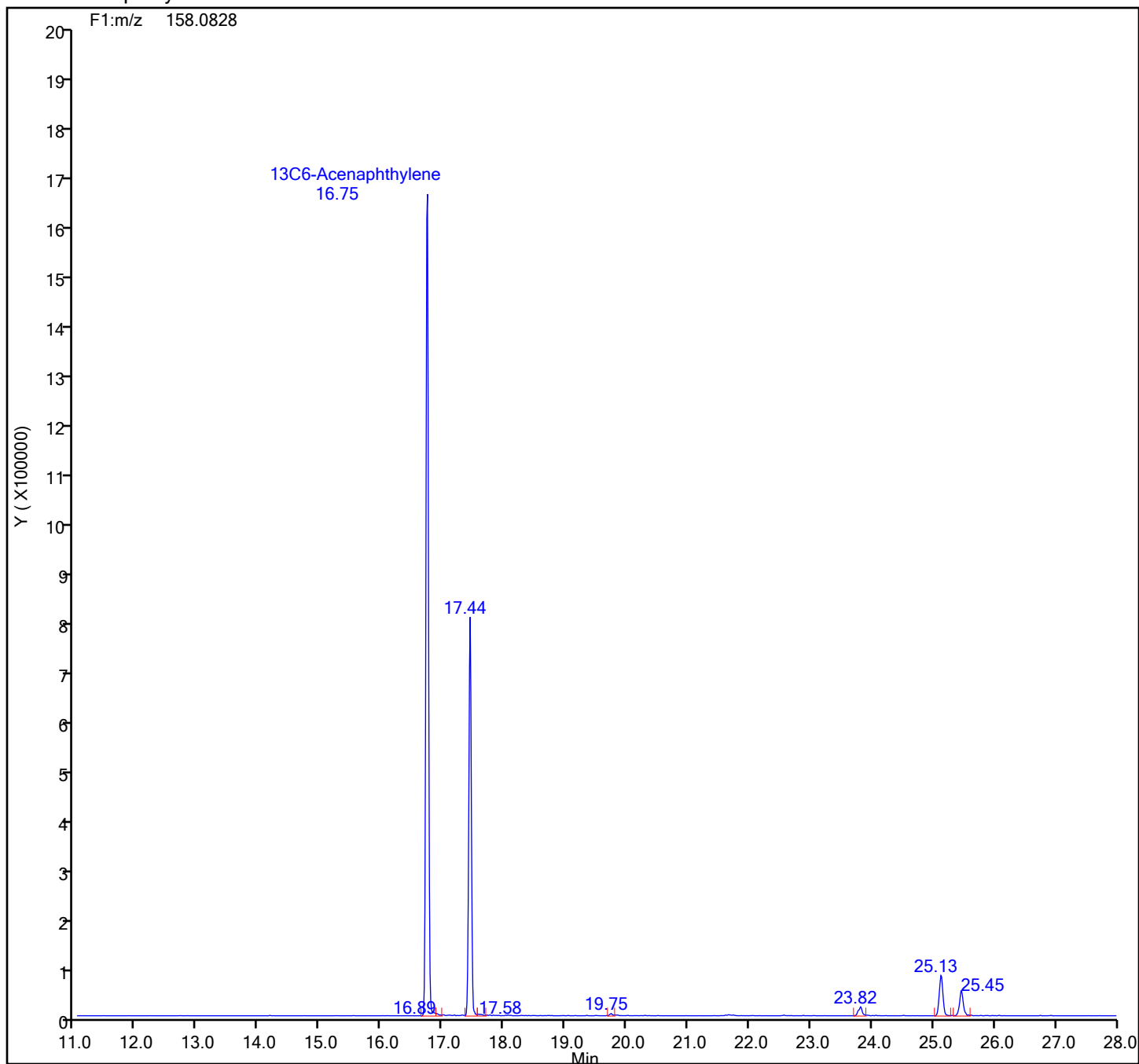
## Acenaphthylene Standards



## Eurofins Knoxville

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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 2  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

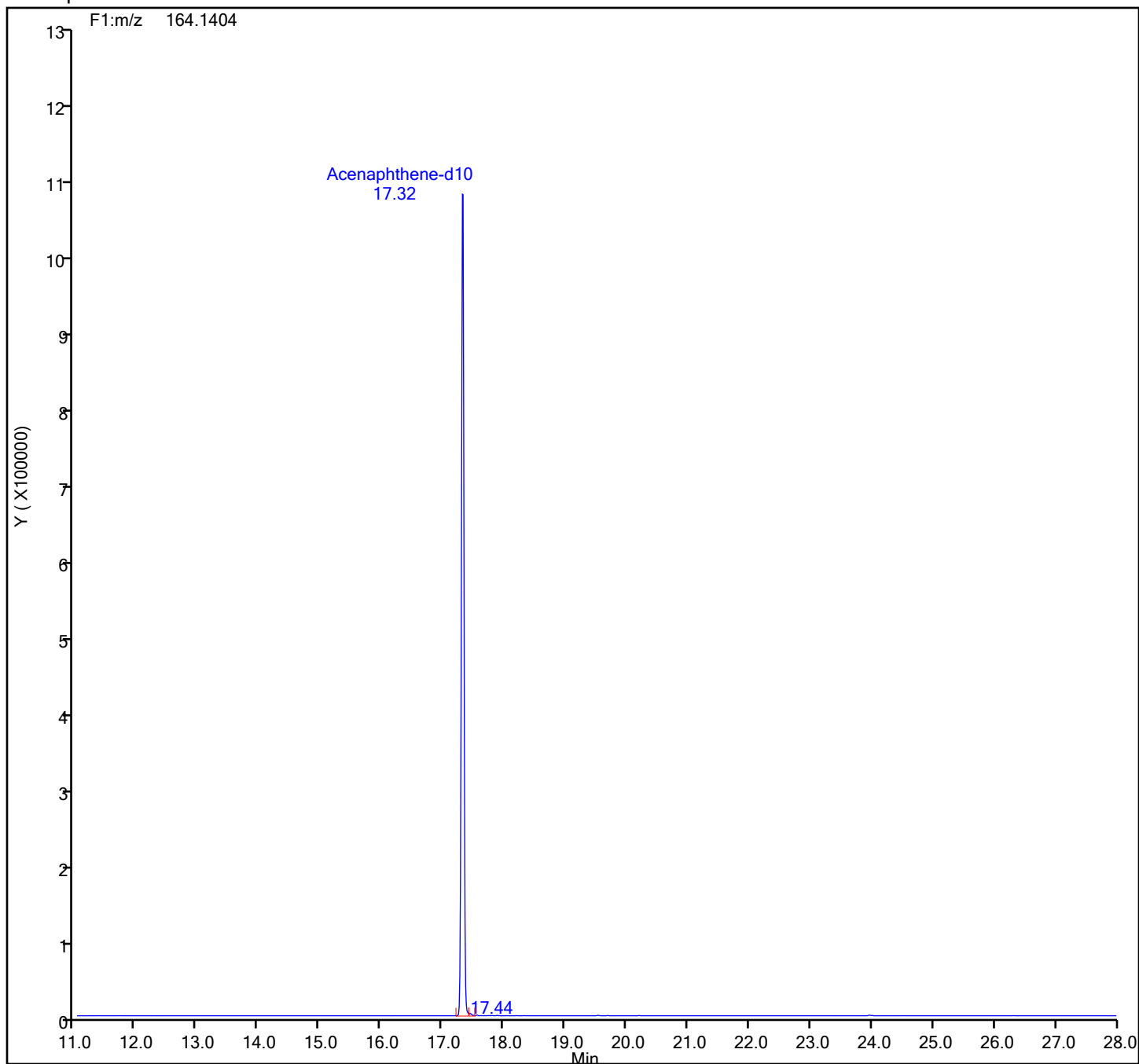
## 13C6-Acenaphthylene Standards



## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
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Worklist#: 87843 Sample Line#: 2  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

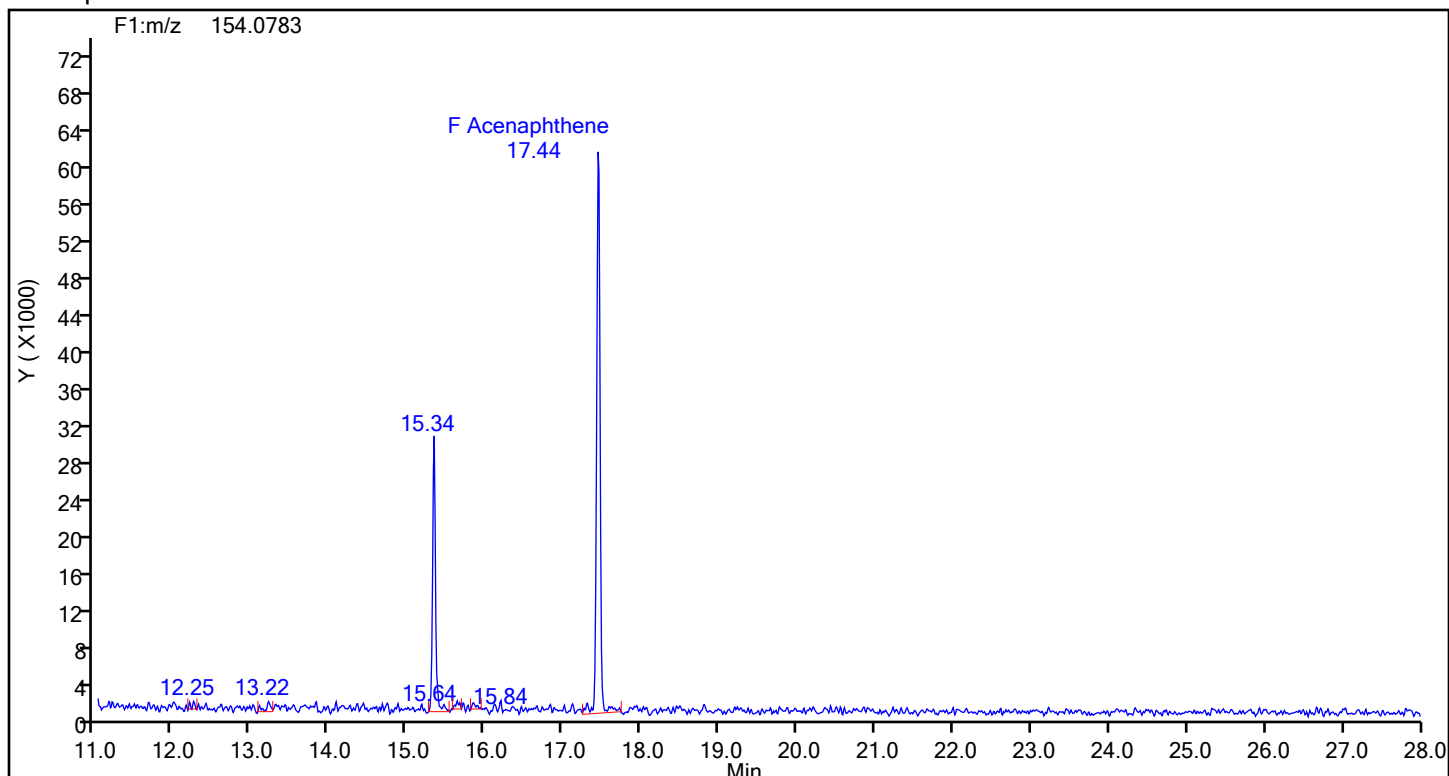
## Acenaphthene-d10 Standards



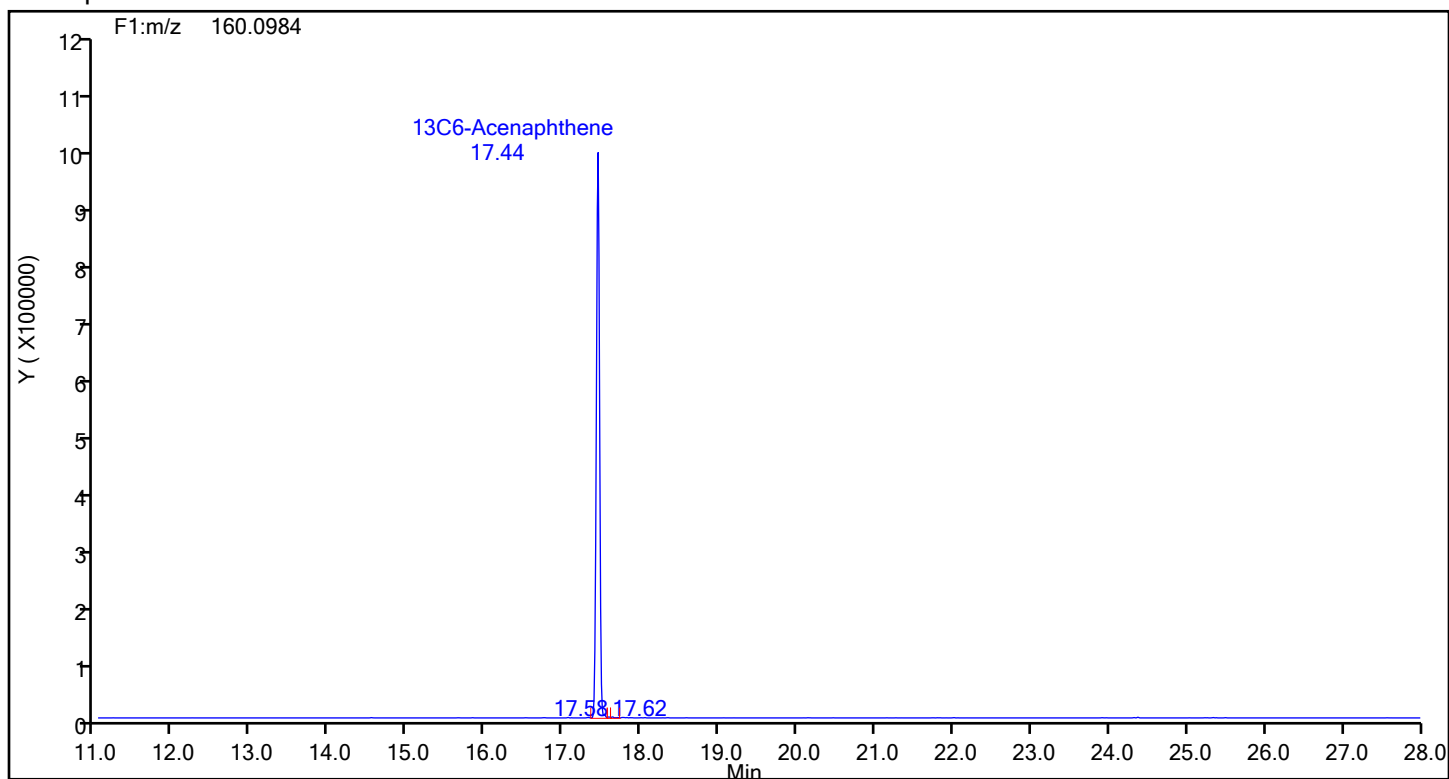
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Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



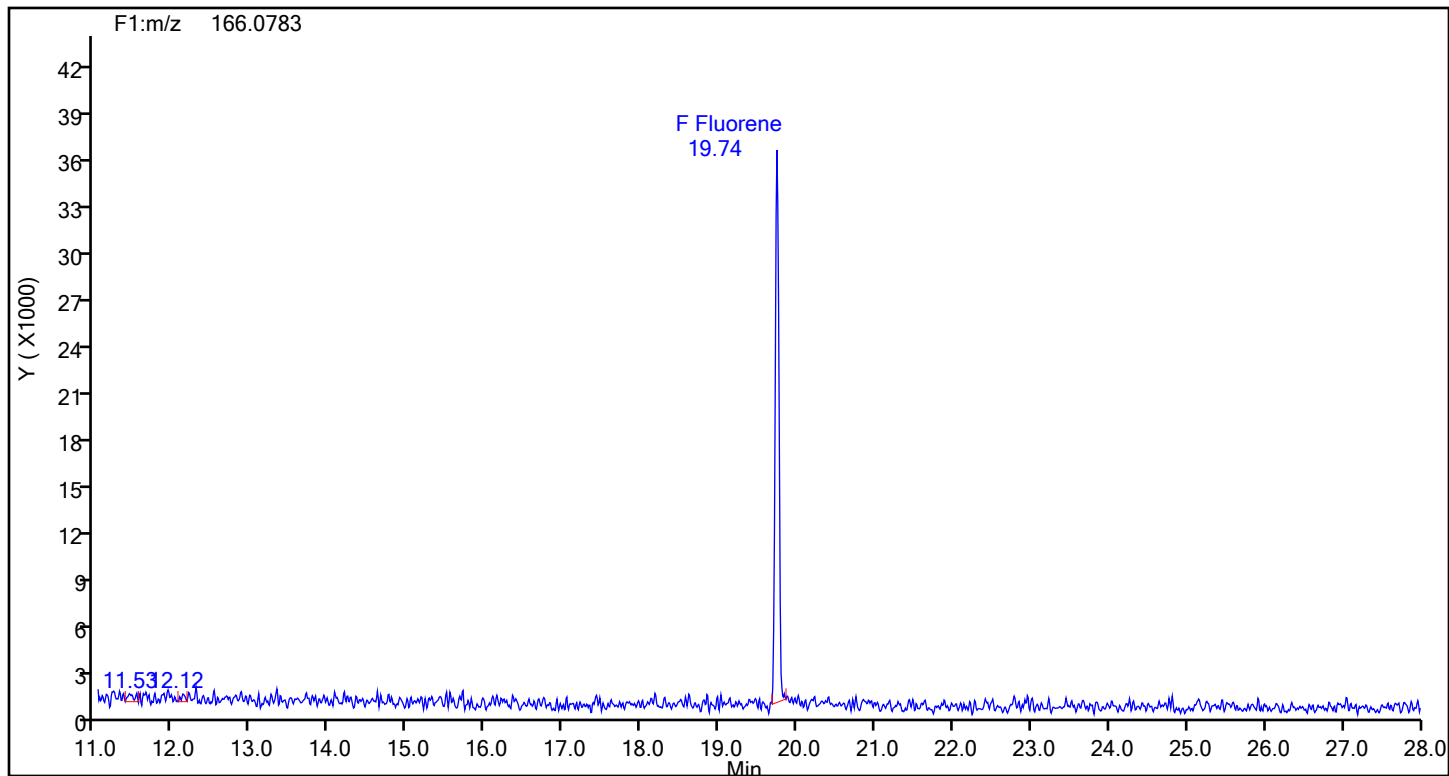
## Acenaphthene Standards



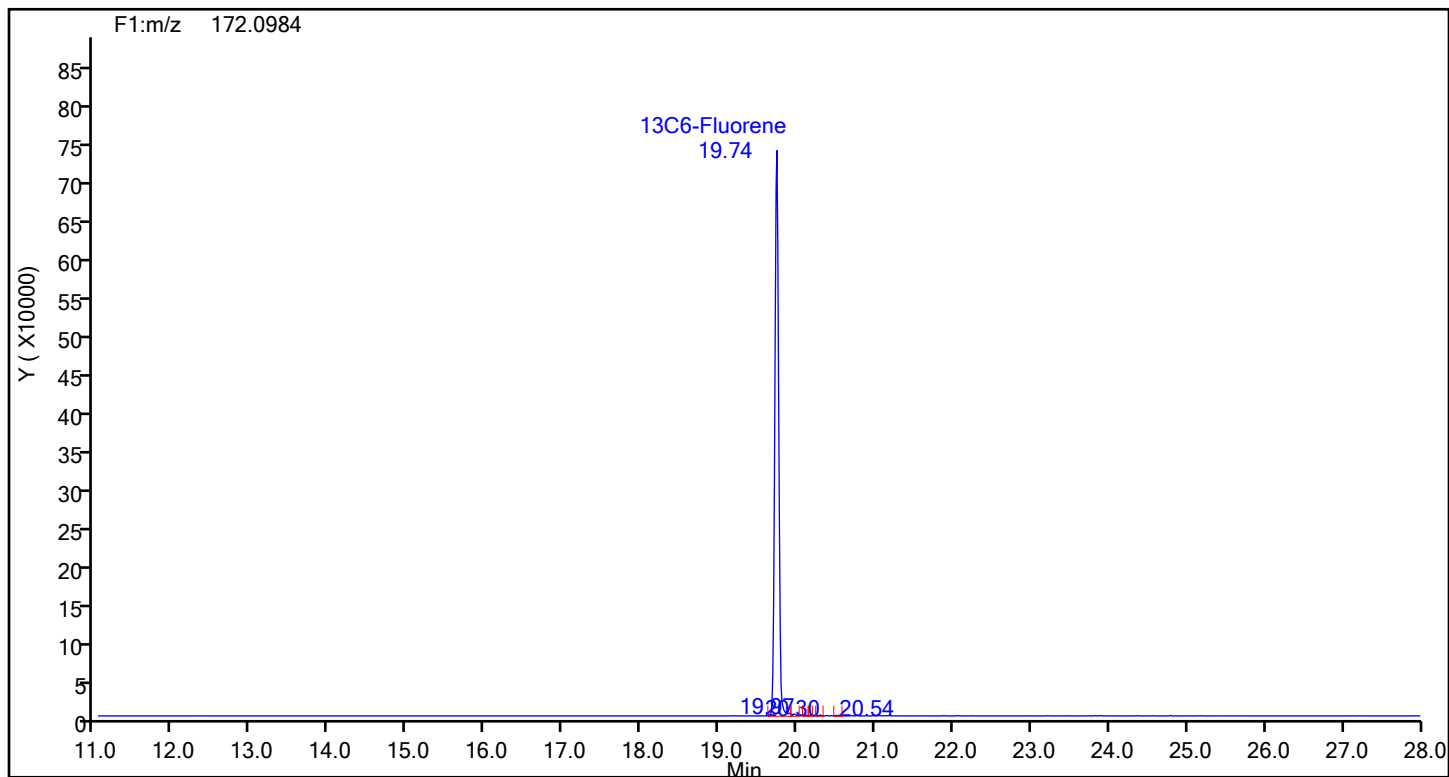
Eurofins Knoxville

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Instrument ID:	D3PAH	Operator ID:	Xcalibur_System
Method:	EPA_23__PAH	Limit Group:	HR - HRPAAH ICAL
Client ID:			
Worklist#:	87843	Sample Line#:	2
Column Type:	Restek-5Sil MS 25um	Column Dia:	0.25 mm
Fluorene			

## Fluorene

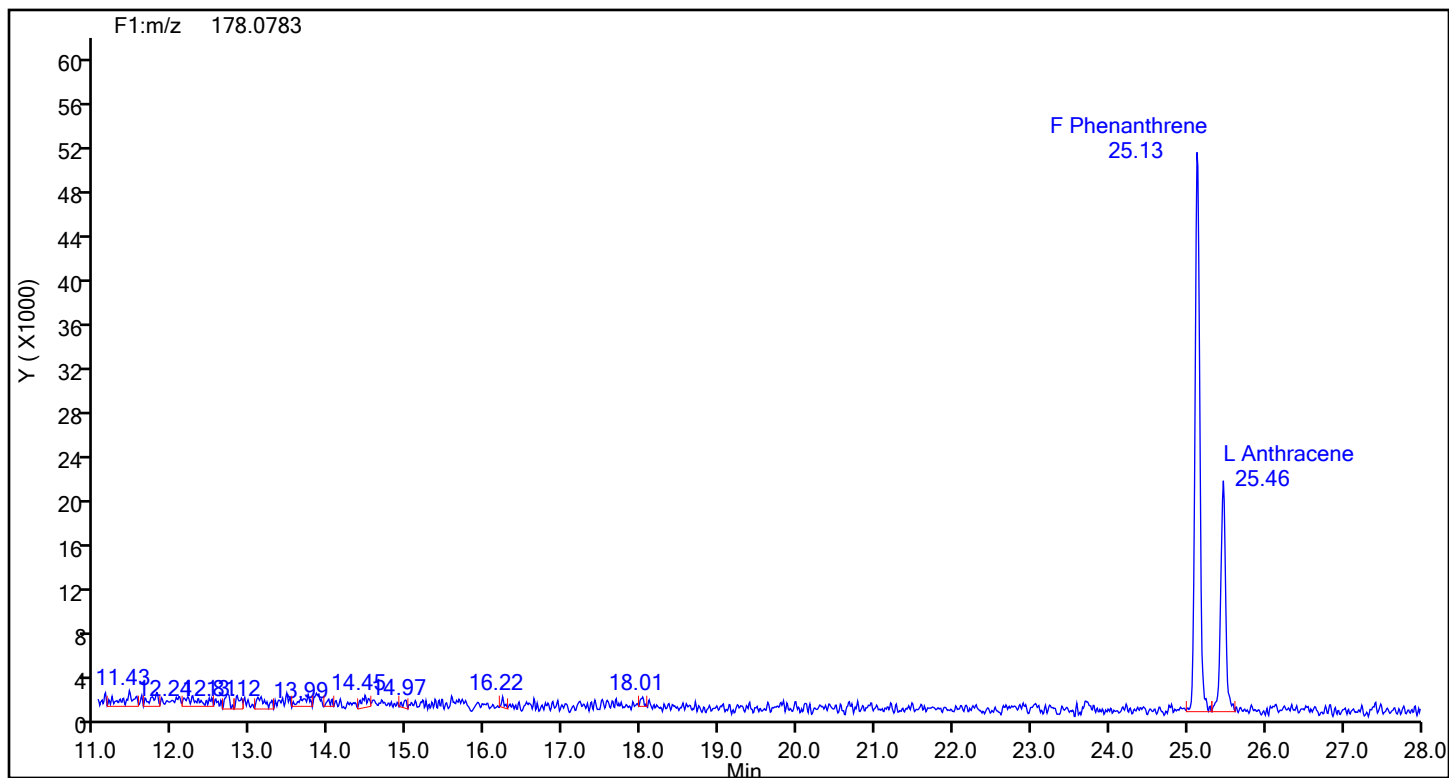


## Fluorene Standards

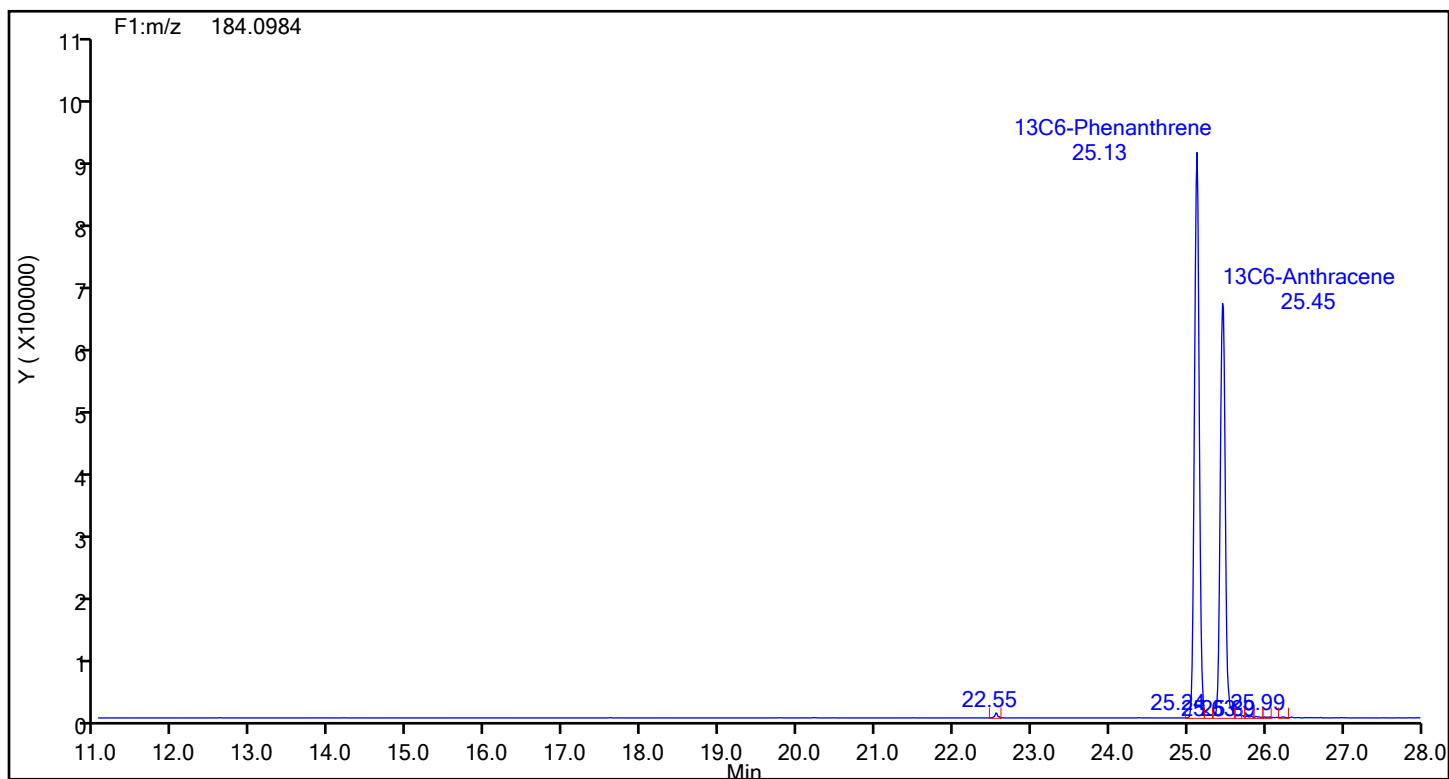


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Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Phenanthrene

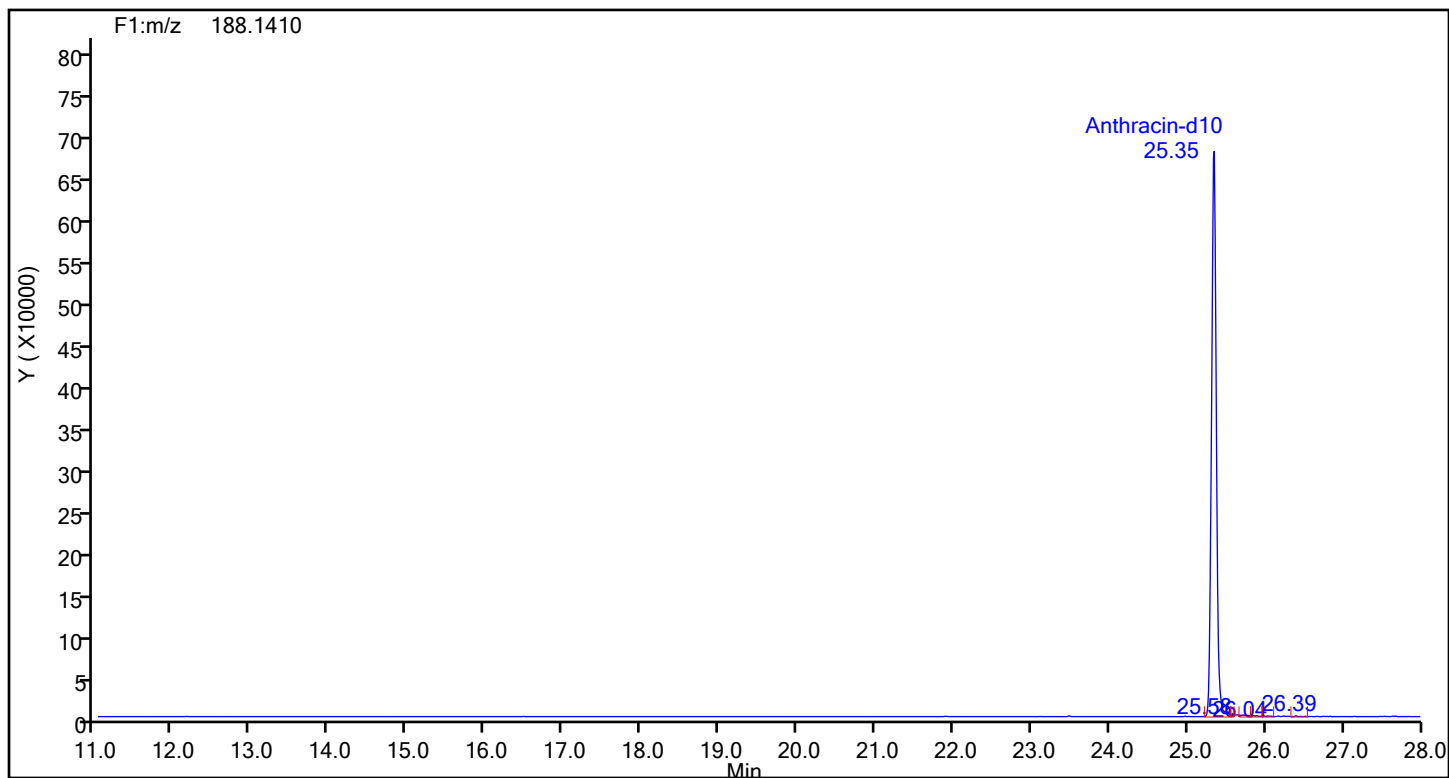


## Phenanthrene Standards

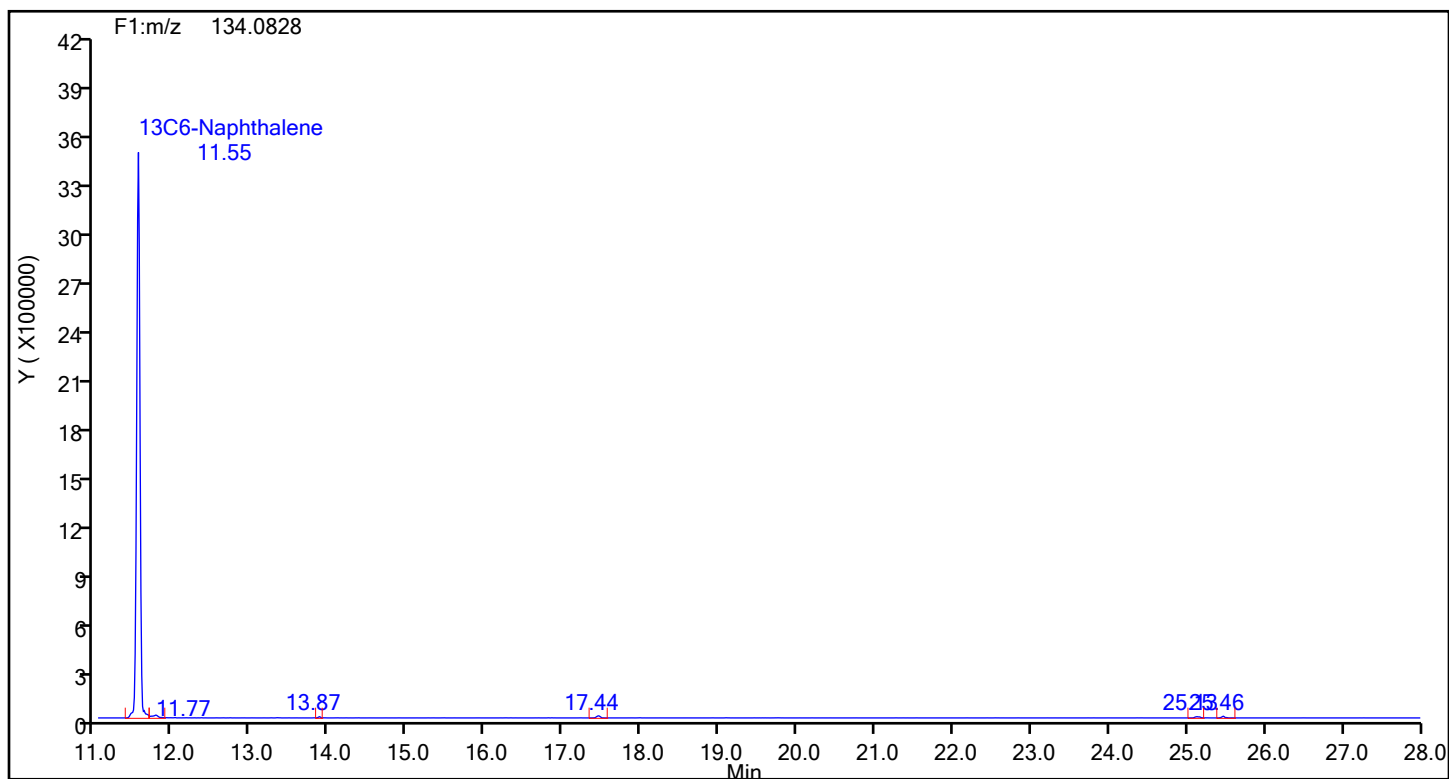


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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10

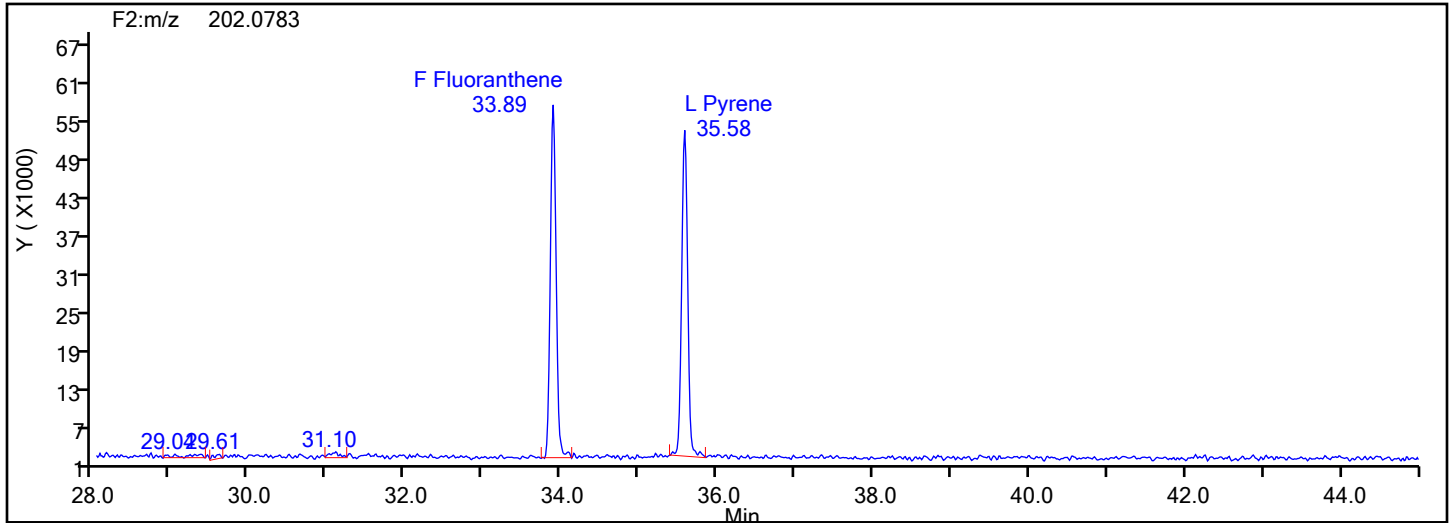


## Anthracin-d10 Standards

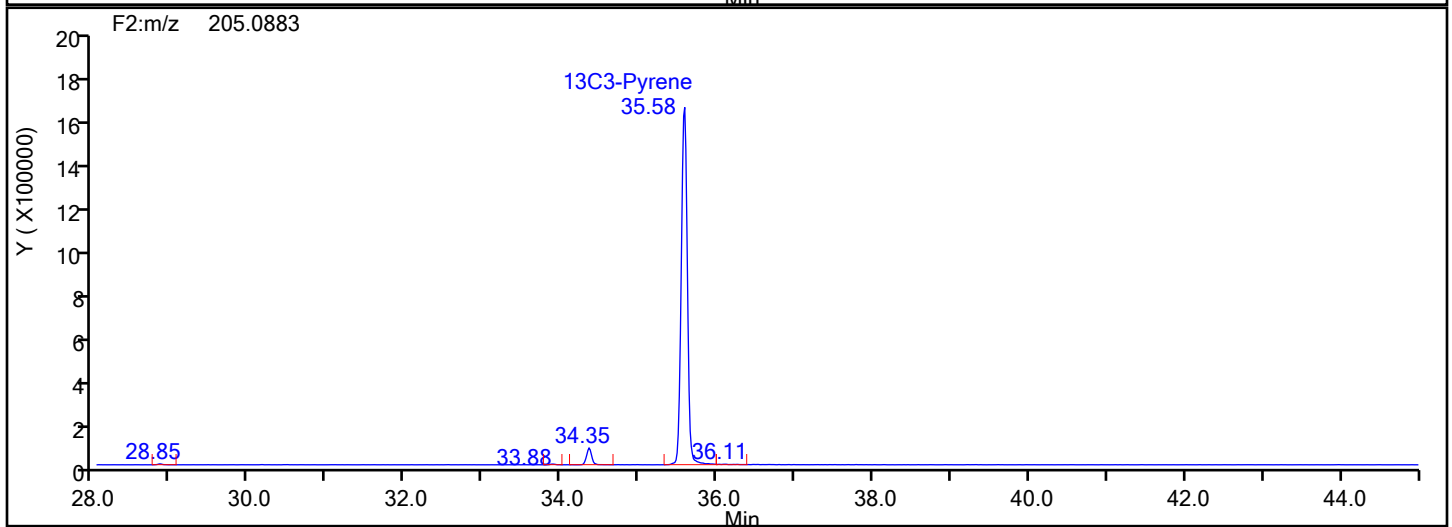
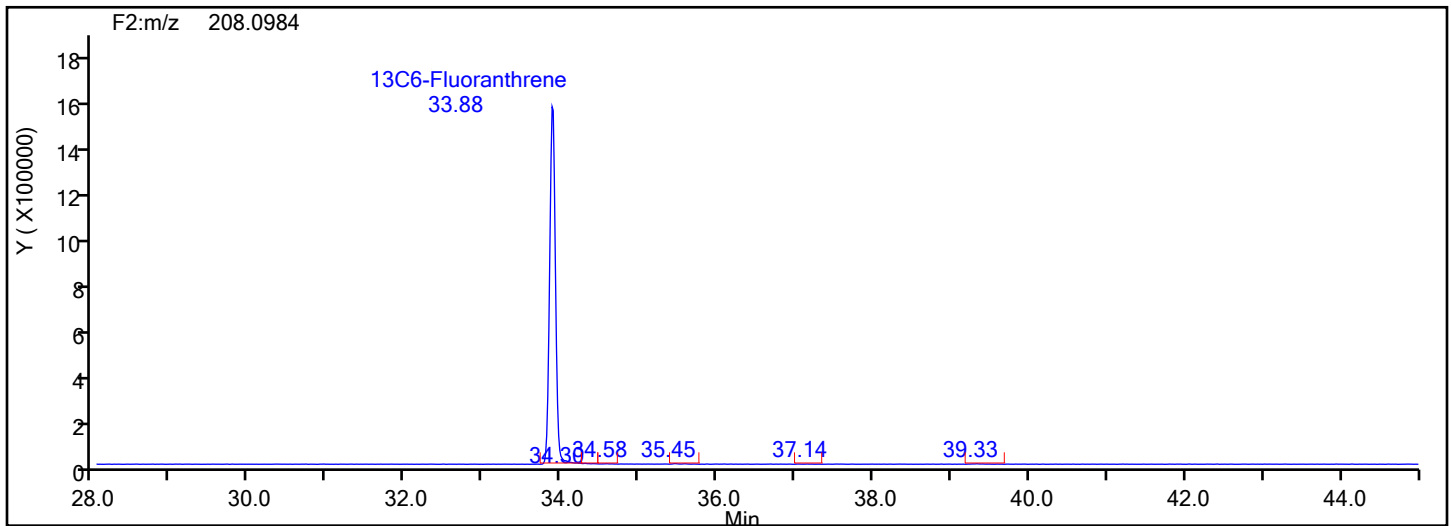


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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Fluoranthene



## Fluoranthene Standards

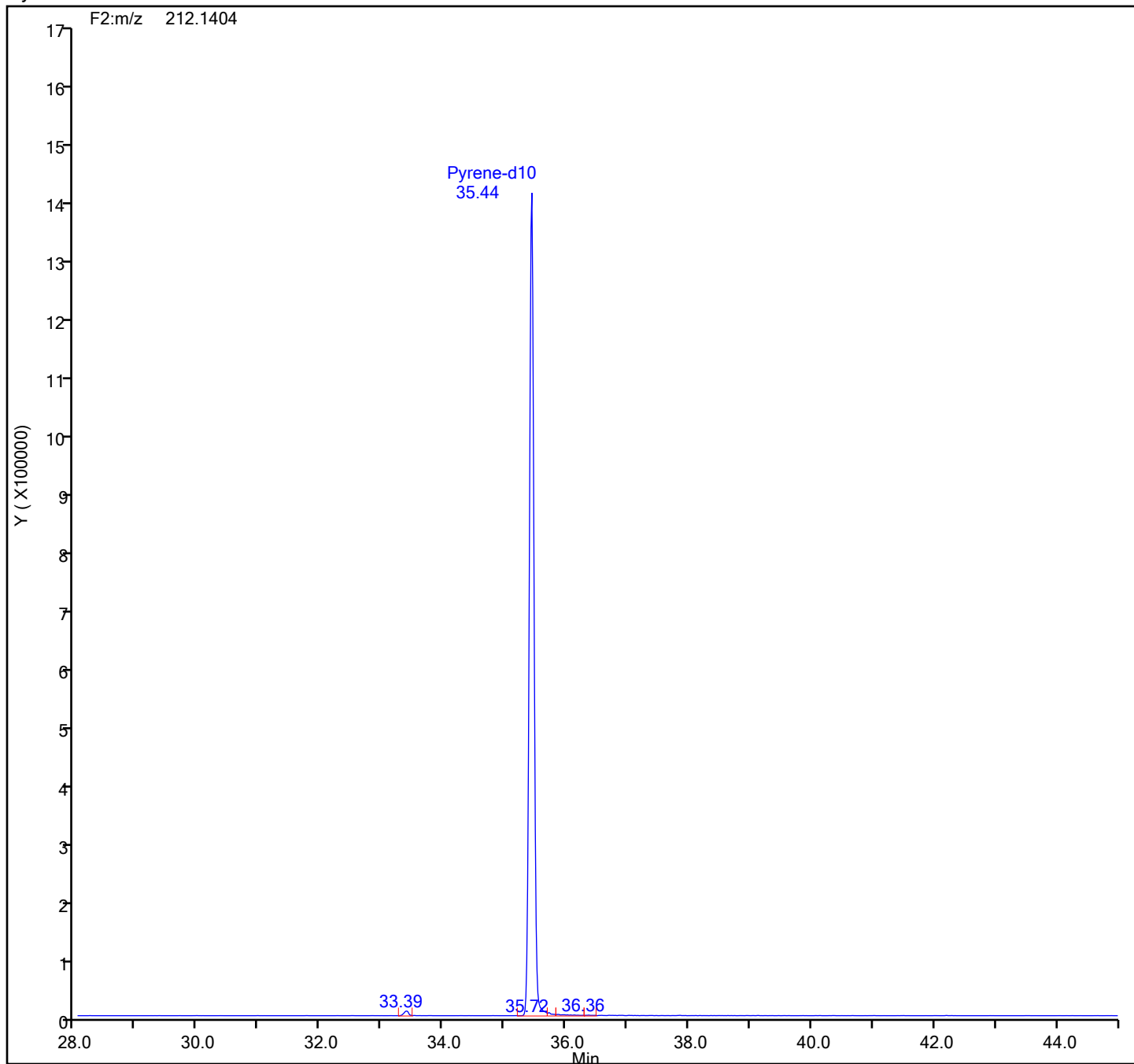




## Eurofins Knoxville

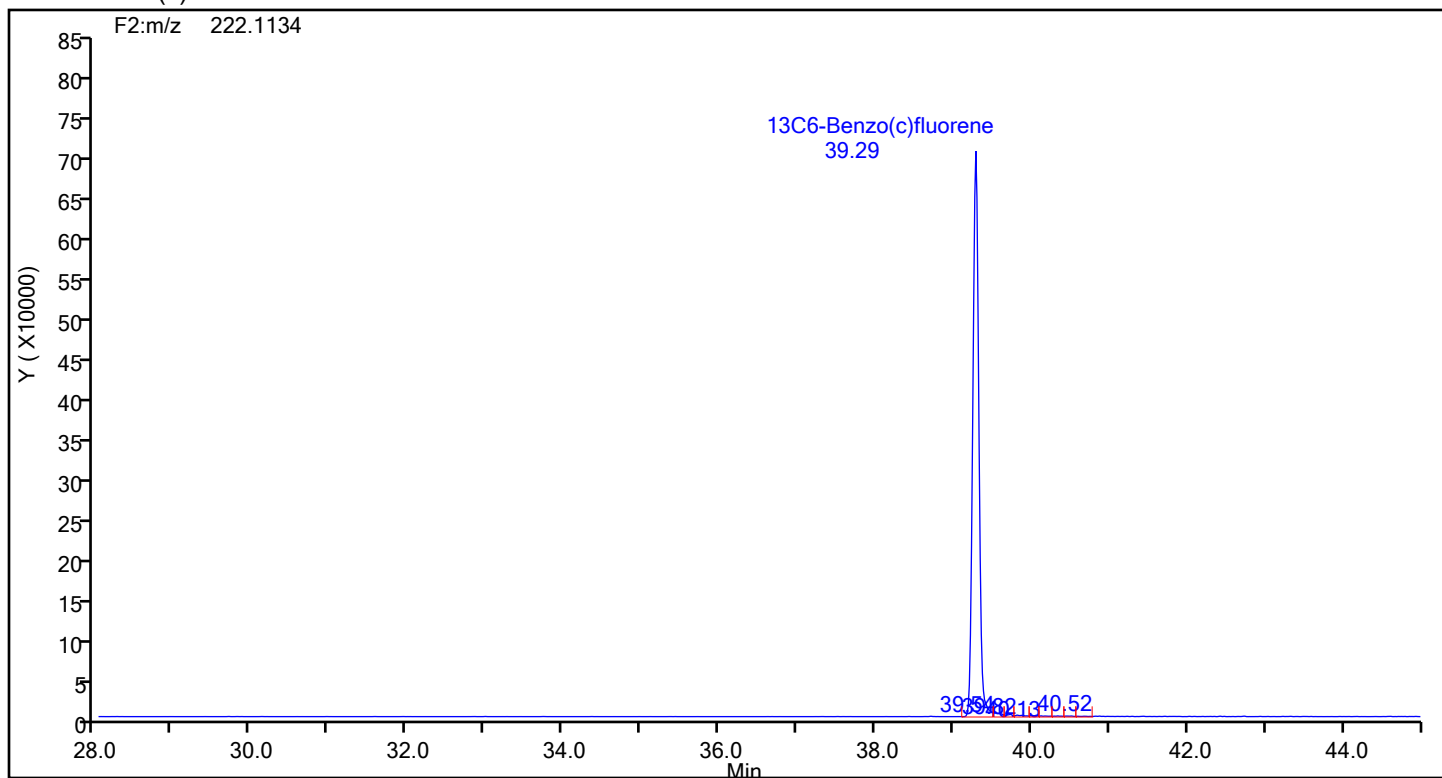
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Pyrene-d10 Standards

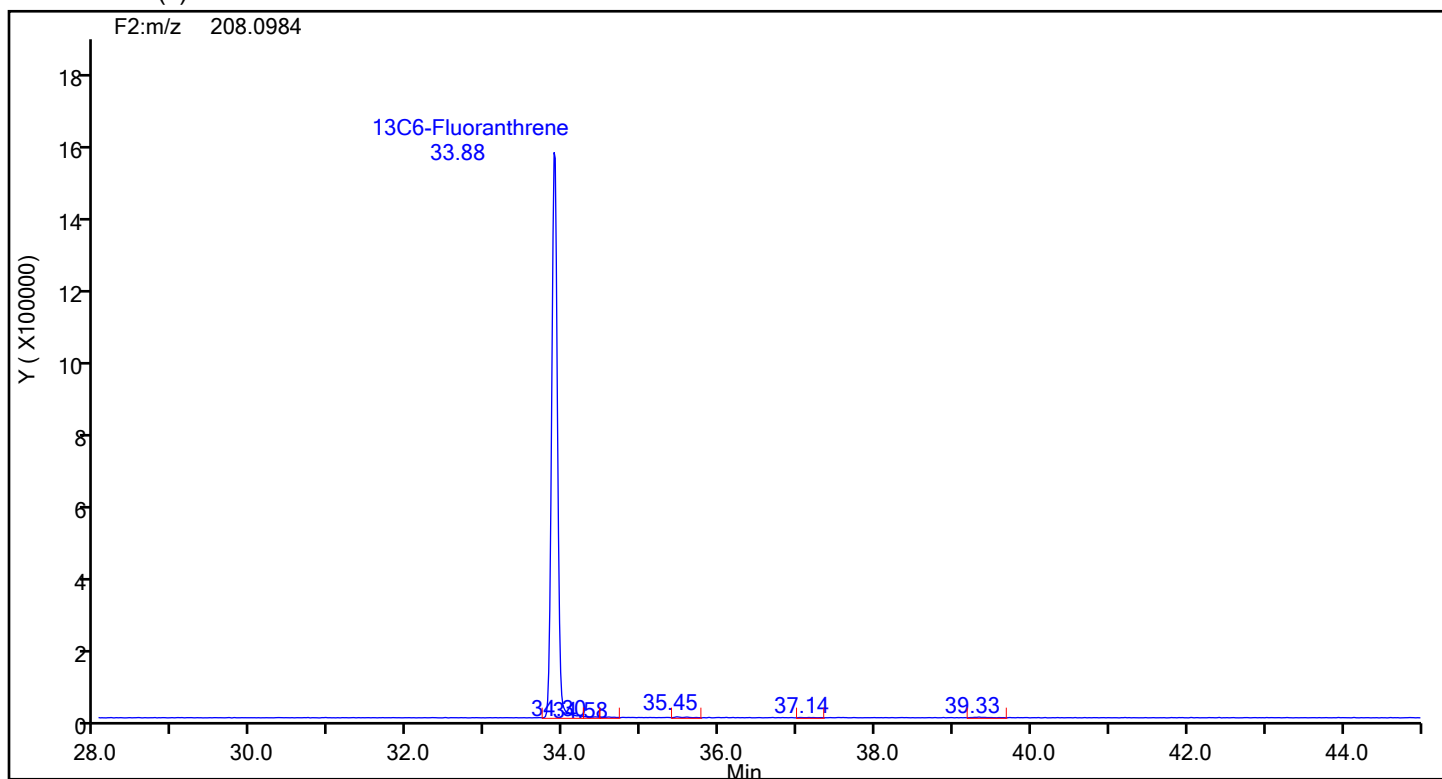


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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
13C6-Benzo(c)fluorene



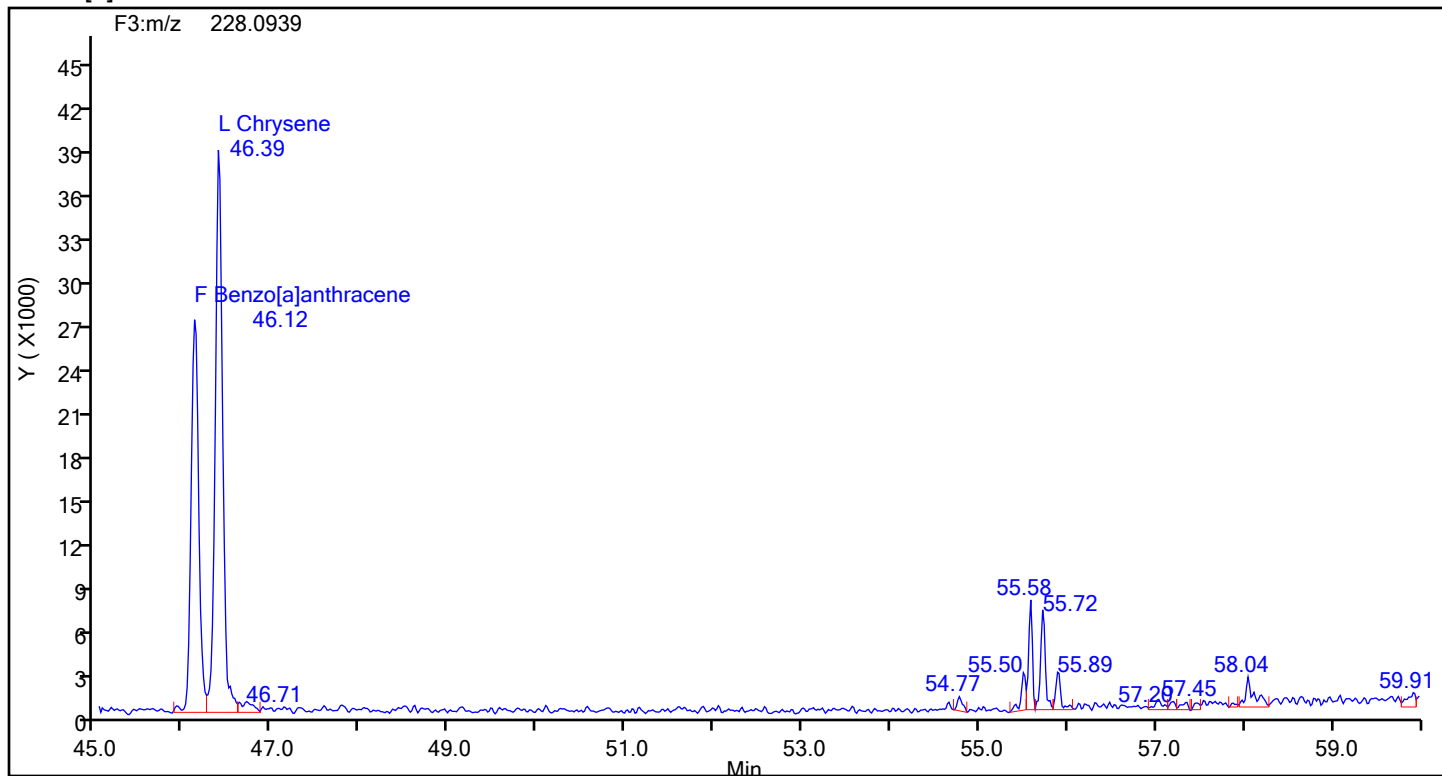
## 13C6-Benzo(c)fluorene Standards



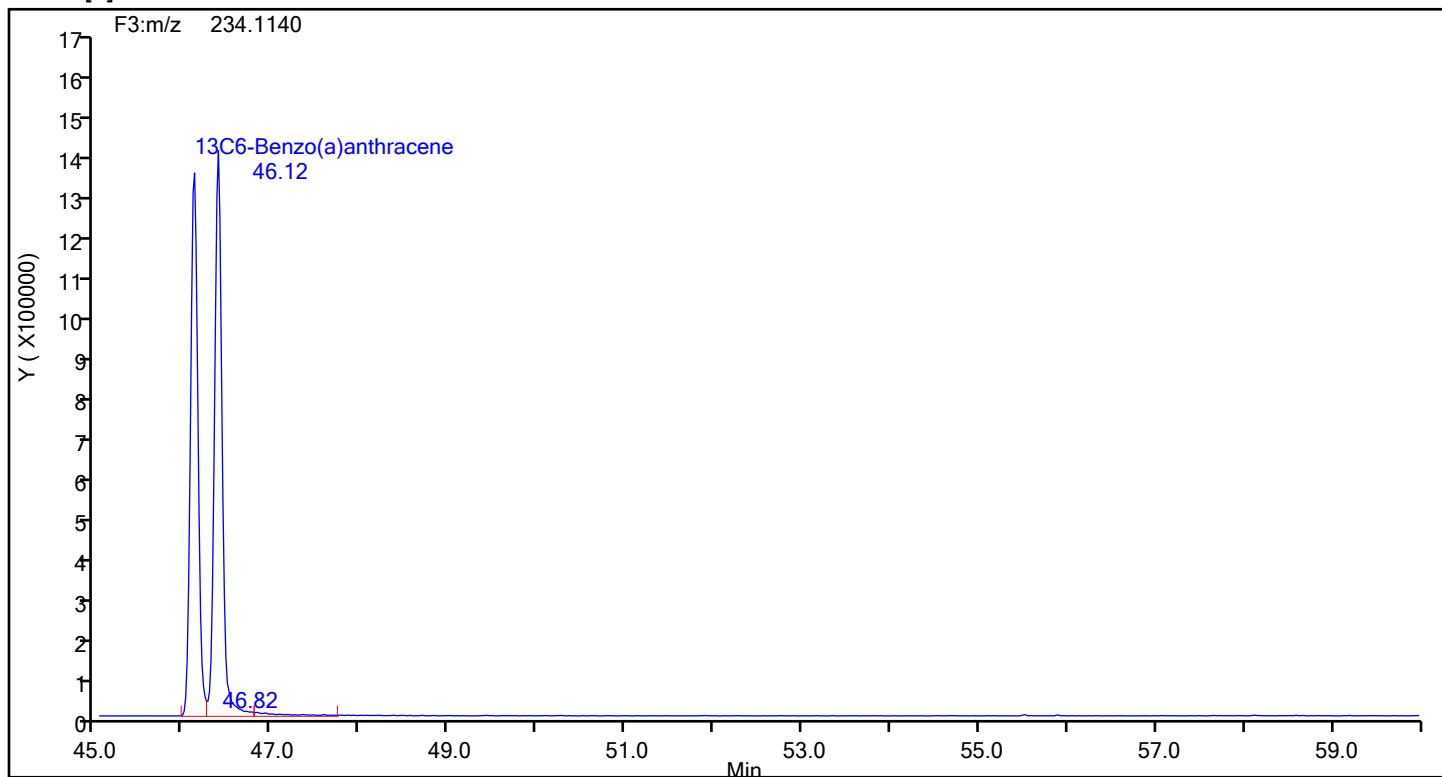
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 2  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



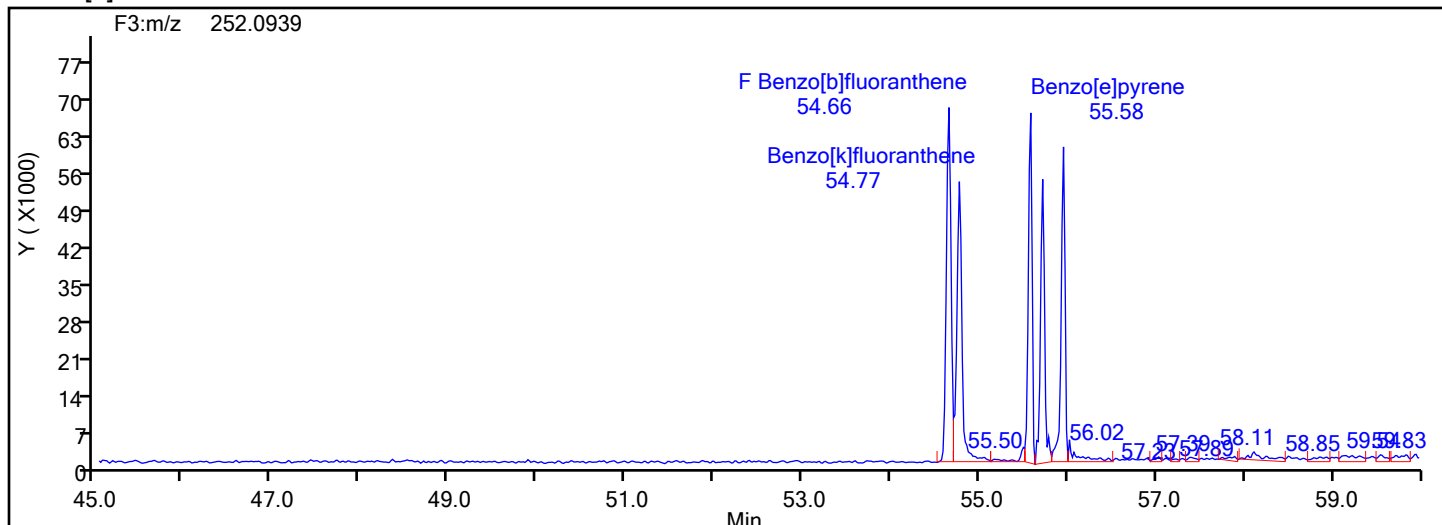
## Benzo[a]anthracene Standards



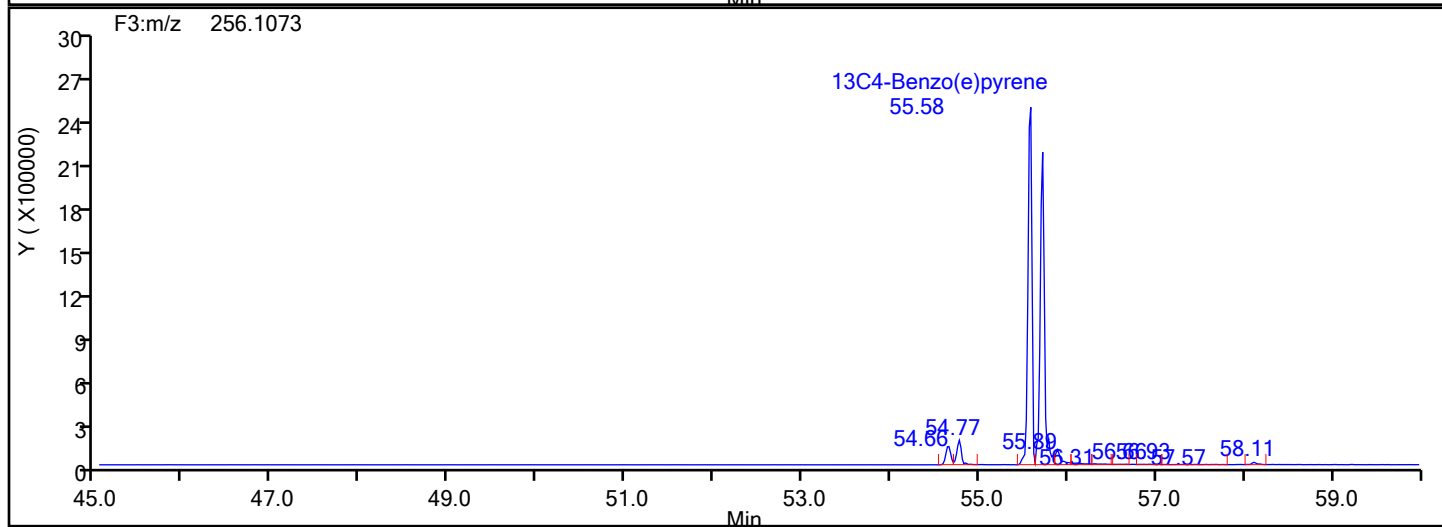
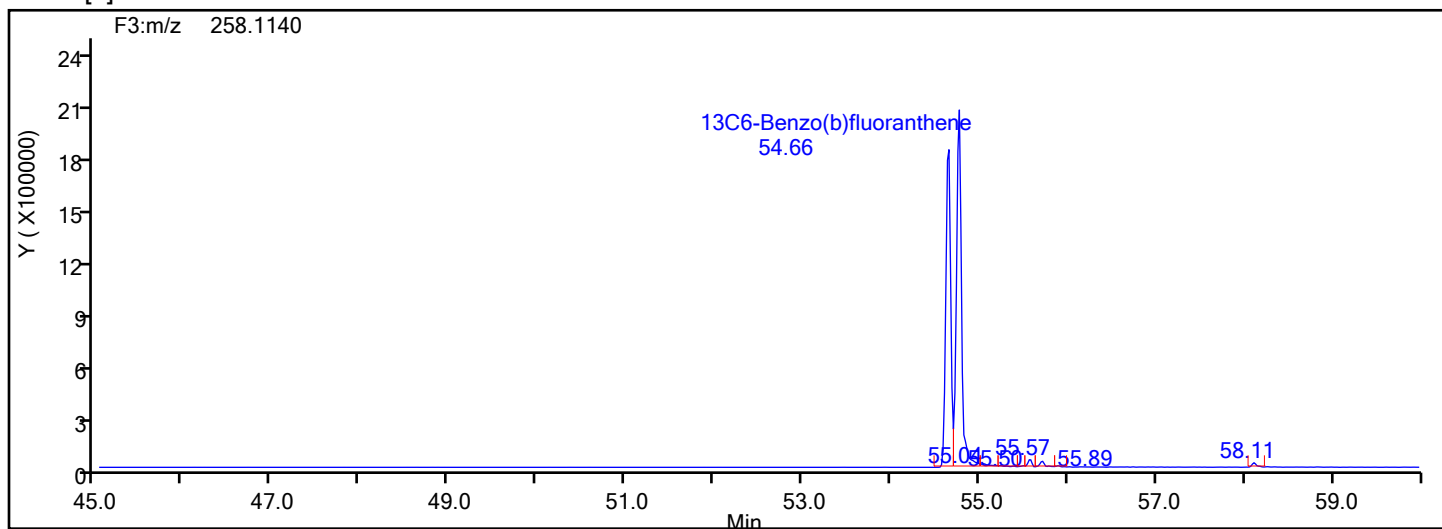
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Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
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Worklist#: 87843 Sample Line#: 2  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



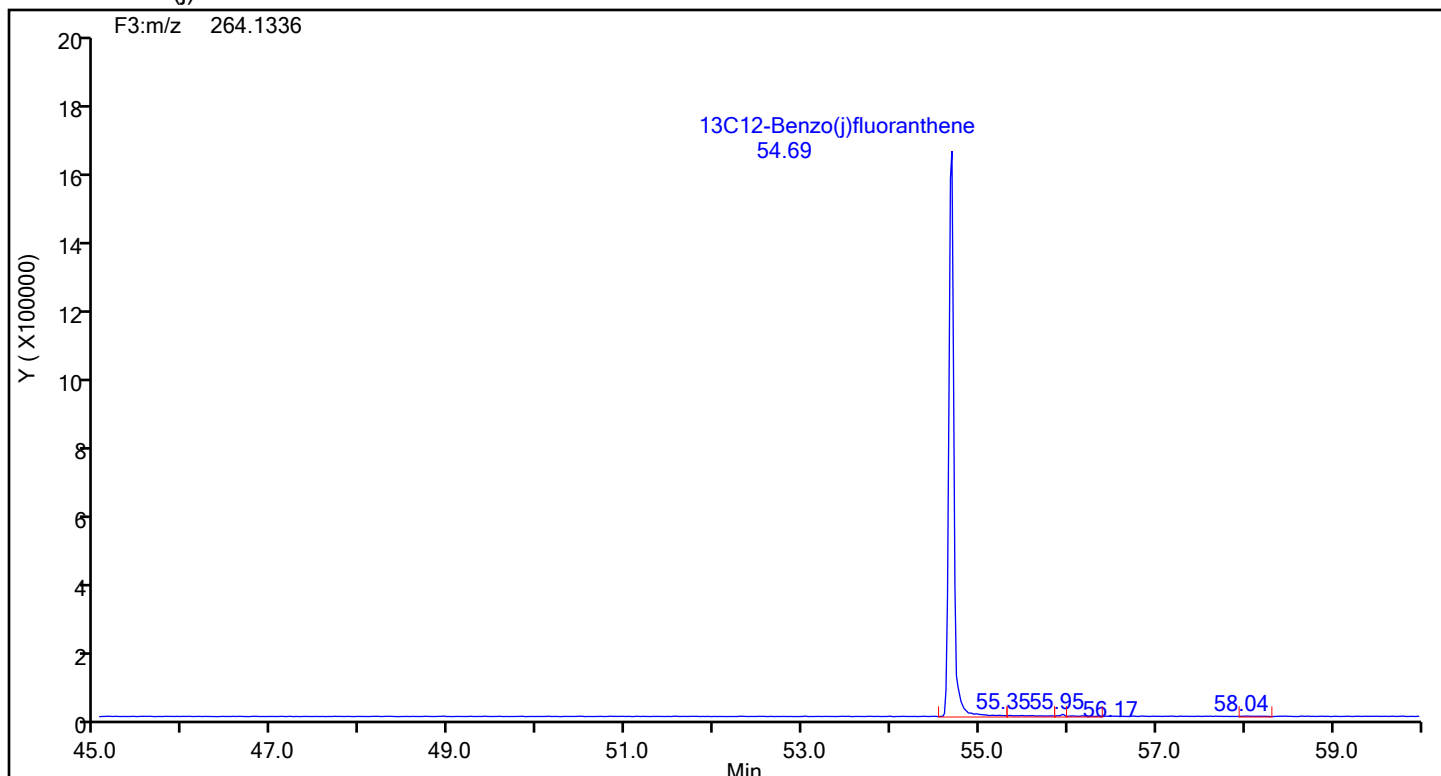
## Benzo[b]fluoranthene Standards



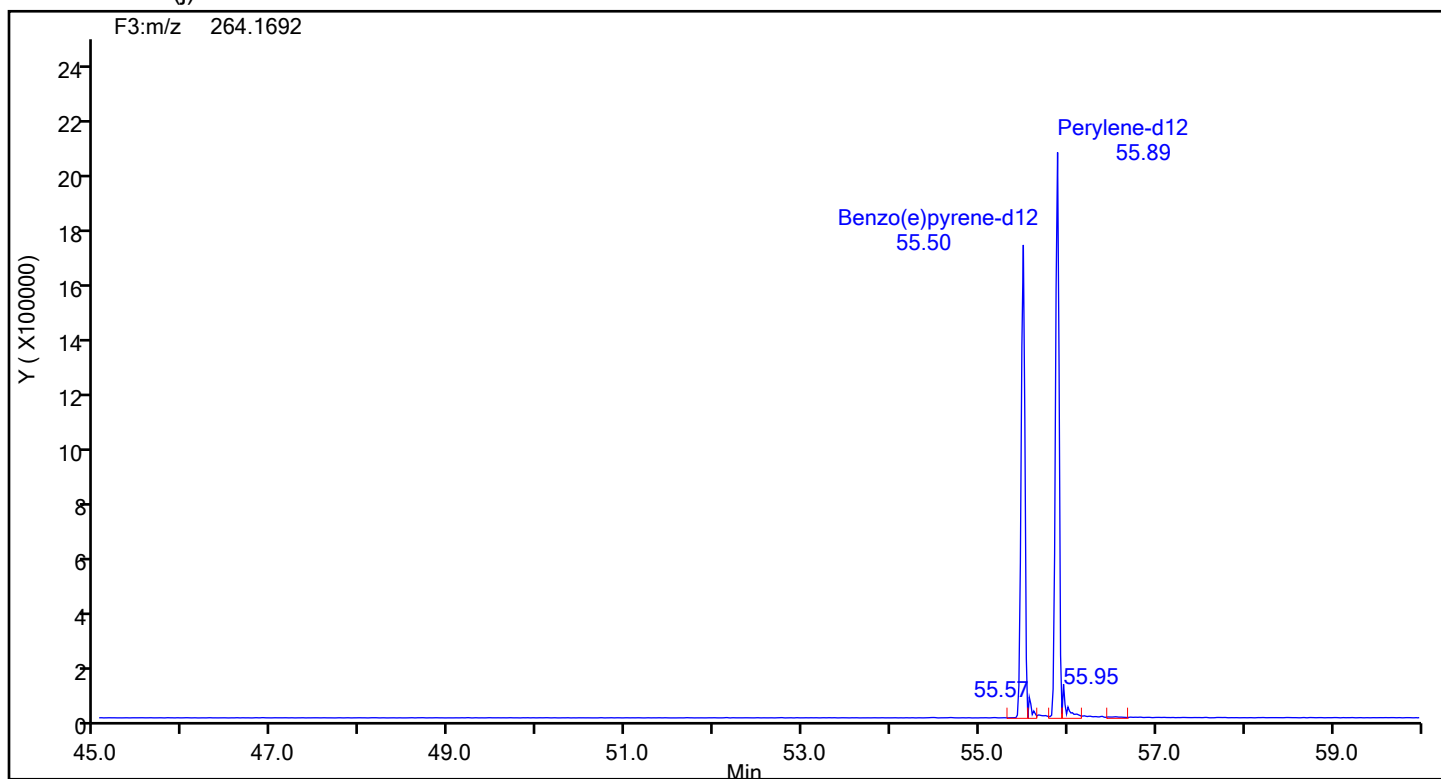
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



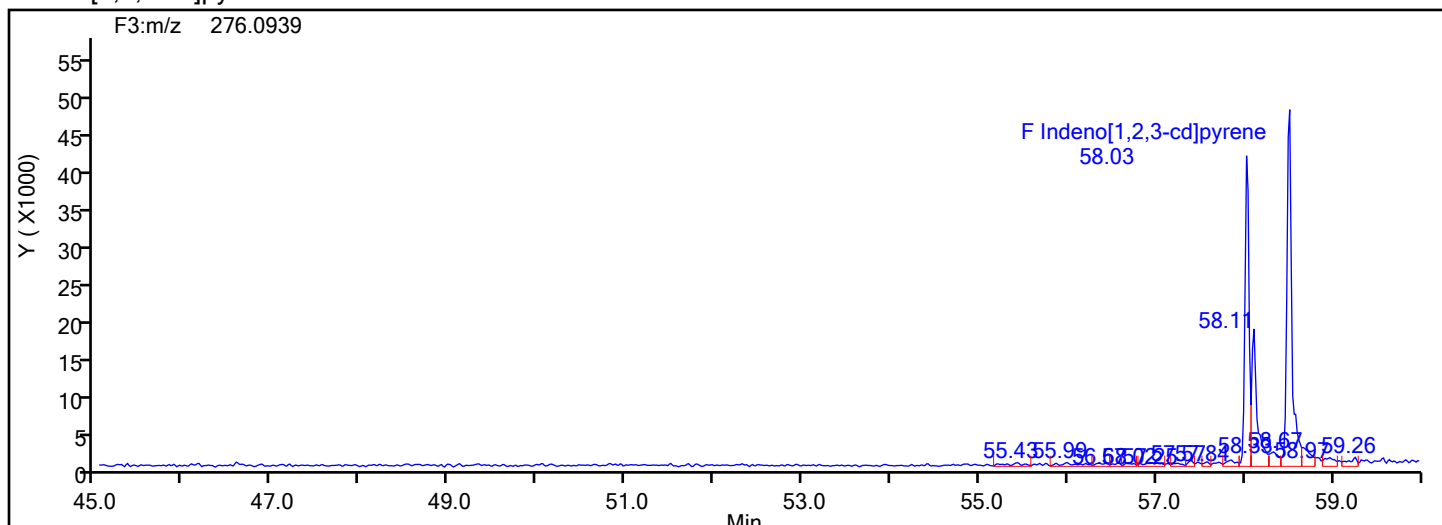
## 13C12-Benzo(j)fluoranthene Standards



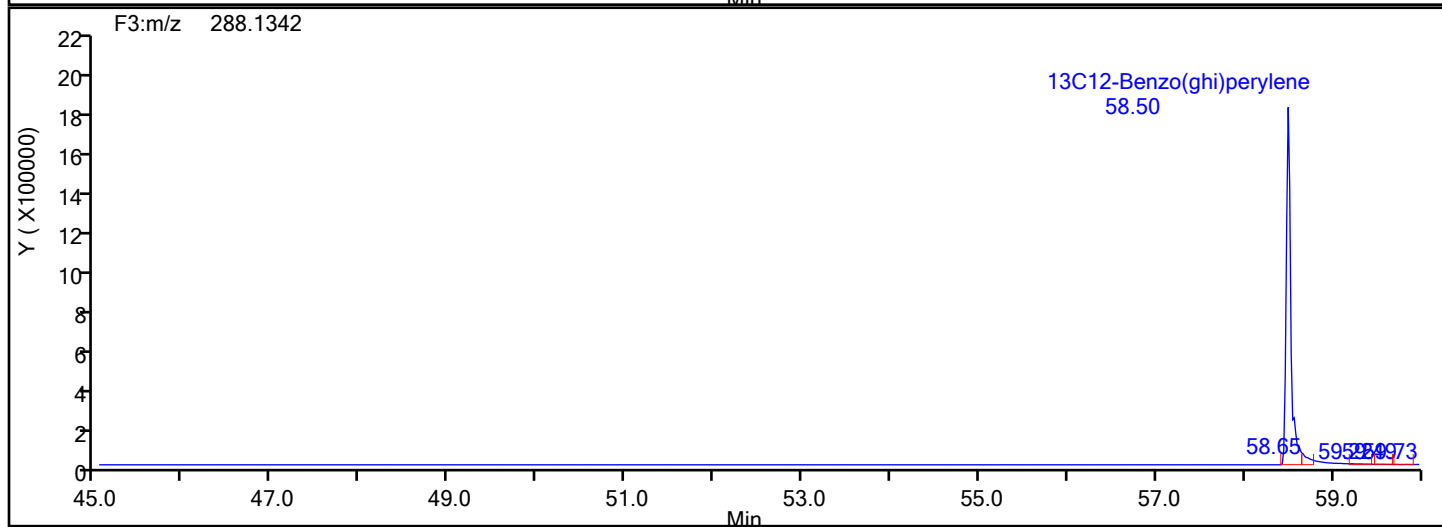
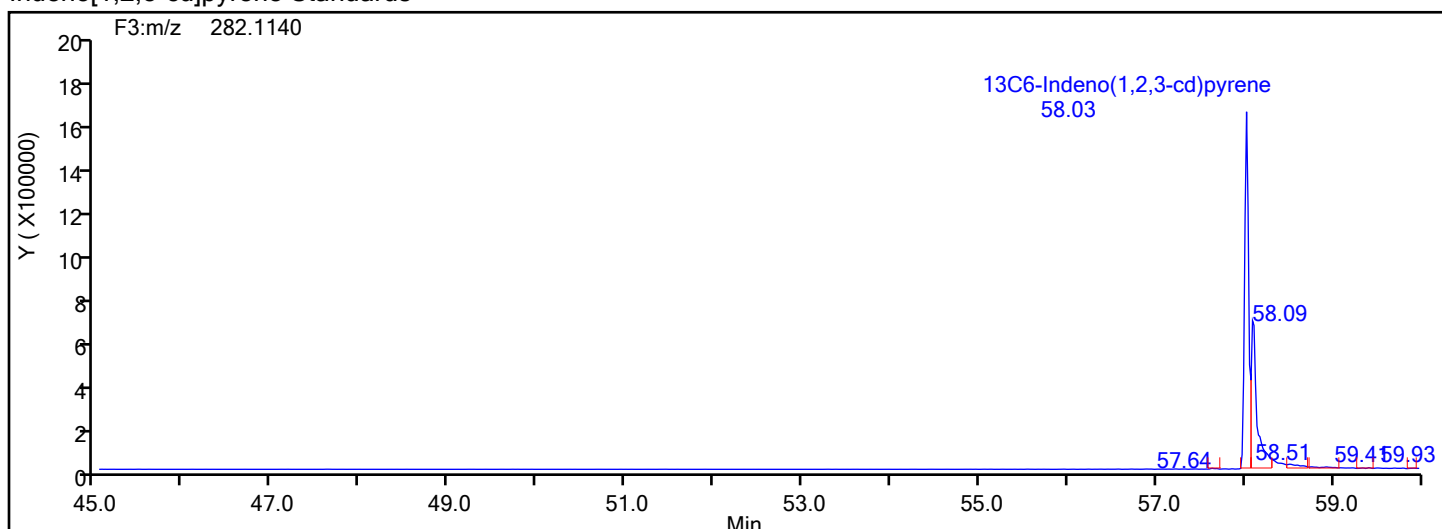
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Client ID:  
Worklist#: 87843 Sample Line#: 2  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Indeno[1,2,3-cd]pyrene



## Indeno[1,2,3-cd]pyrene Standards



## Eurofins Knoxville

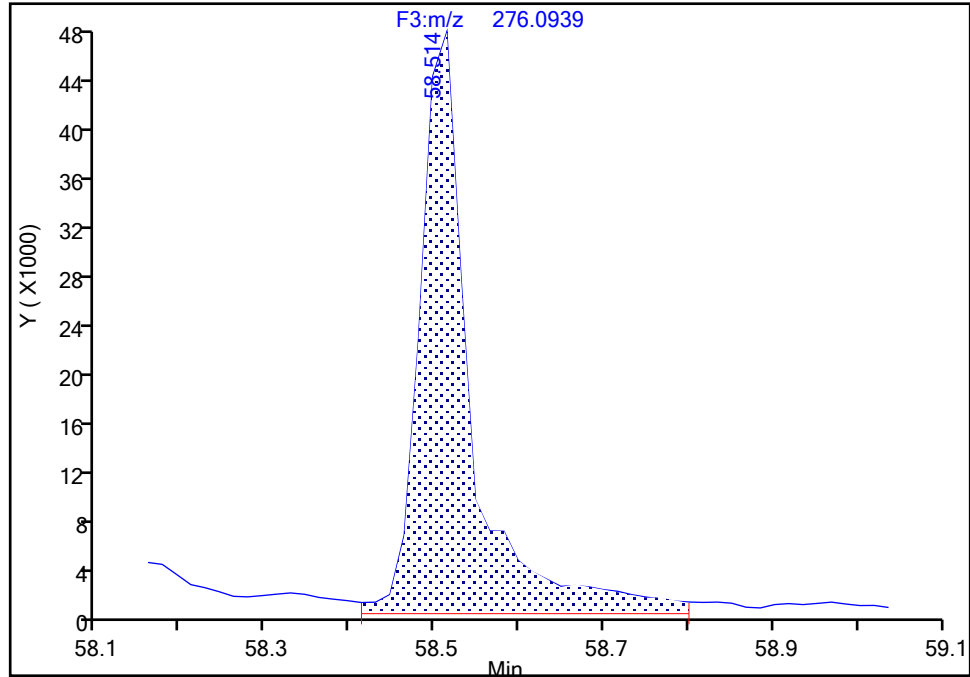
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Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

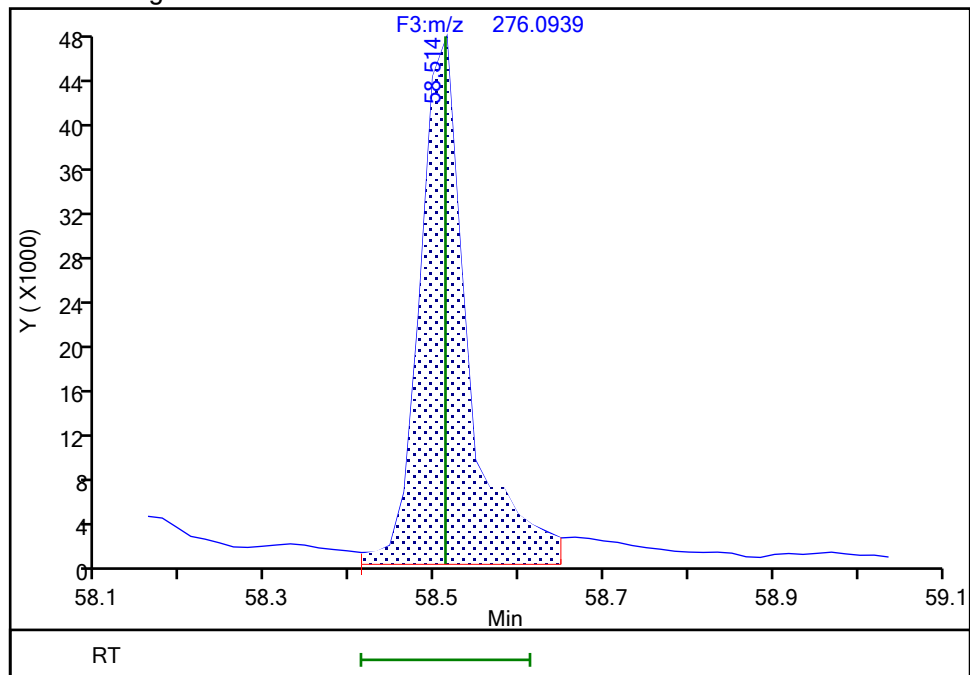
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Amount Units: pg/ul

## Processing Integration Results



RT: 58.51  
Area: 187407  
Amount: 2.234889  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 19-Jun-2024 18:49:22 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

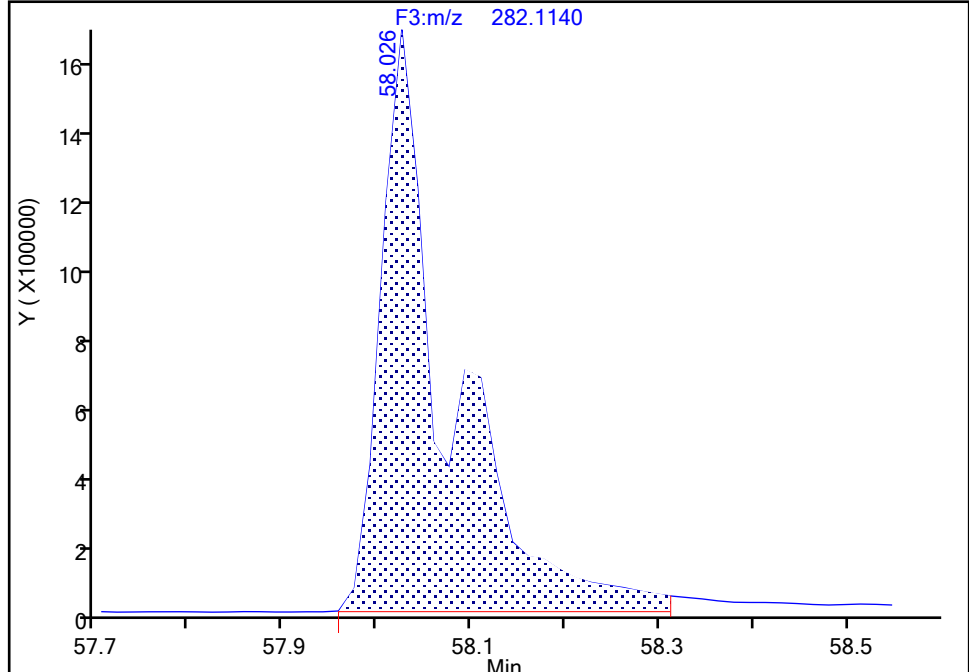
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Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C6-Indeno(1,2,3-cd)pyrene, CAS: 362044-56-2**

Signal: 1

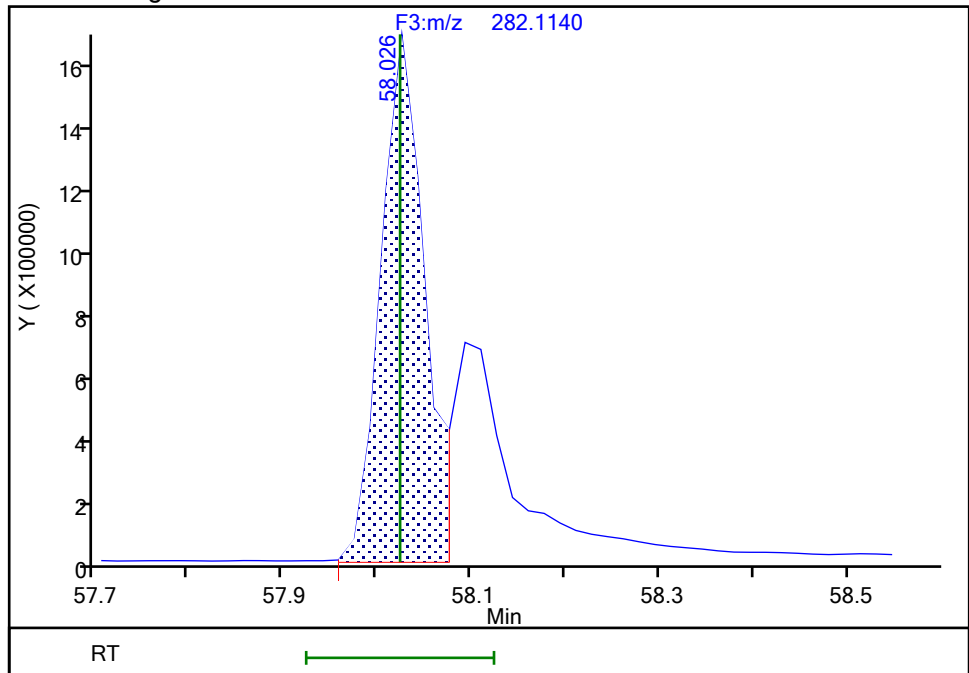
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Amount: 125.6893  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.03  
Area: 5418391  
Amount: 105.4568  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 19-Jun-2024 18:48:52 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration



## Eurofins Knoxville

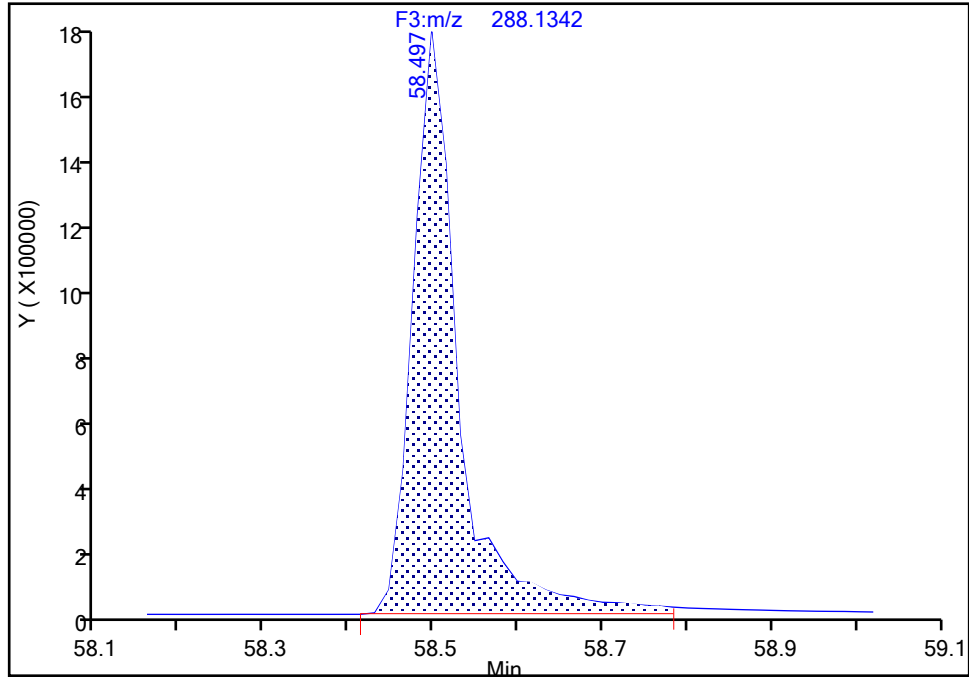
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Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C12-Benzo(ghi)perylene, CAS: 350820-11-0**

Signal: 1

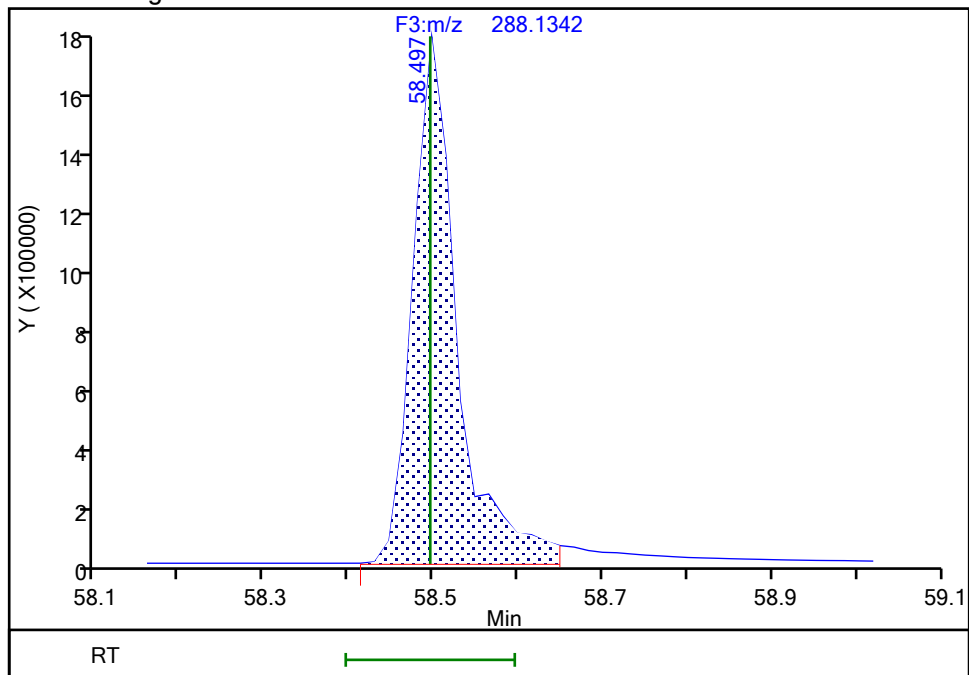
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Amount Units: pg/ul

## Processing Integration Results



RT: 58.50  
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## Manual Integration Results



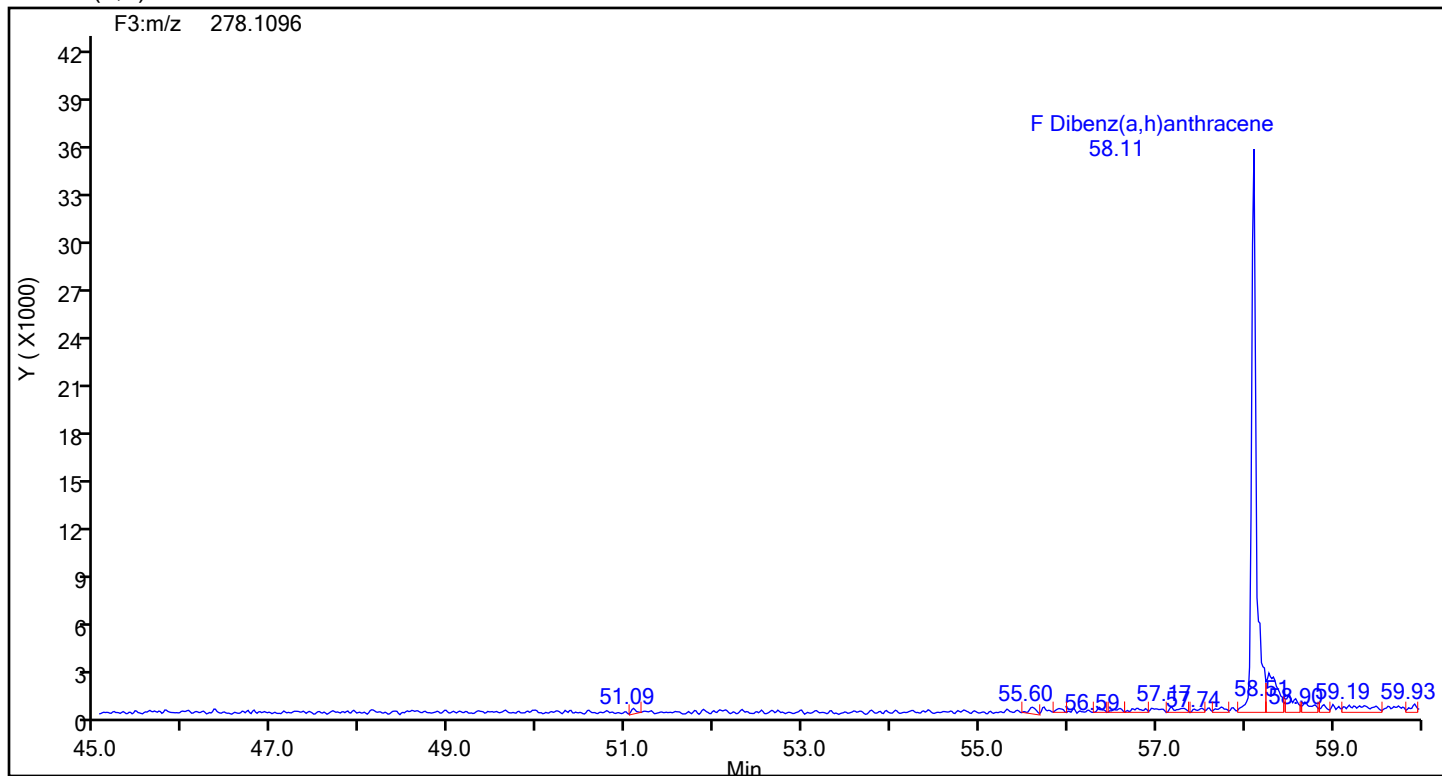
Reviewer: F9EE, 19-Jun-2024 18:49:16 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

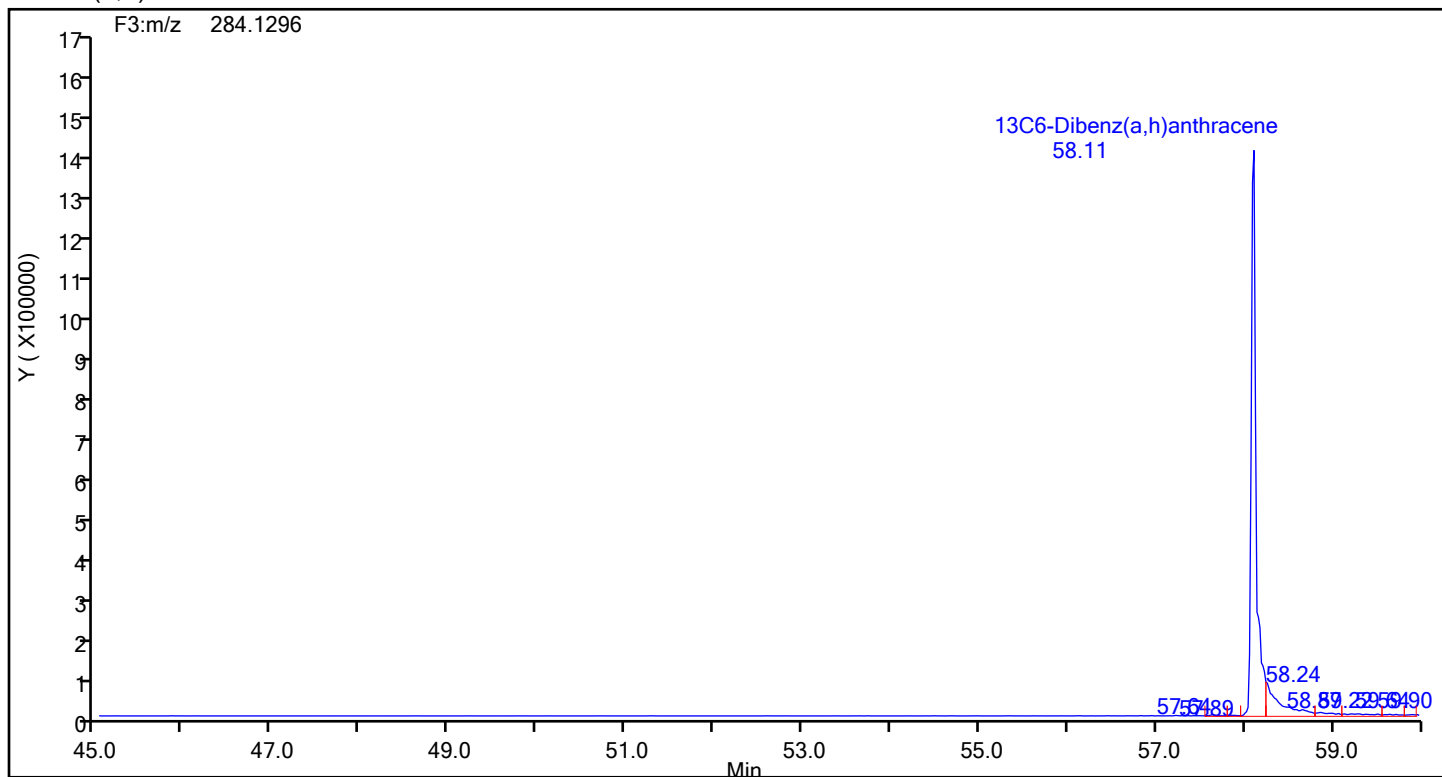
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic2.d  
Injection Date: 19-Jun-2024 17:38:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 2  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Dibenz(a,h)anthracene



## Dibenz(a,h)anthracene Standards



## Eurofins Knoxville

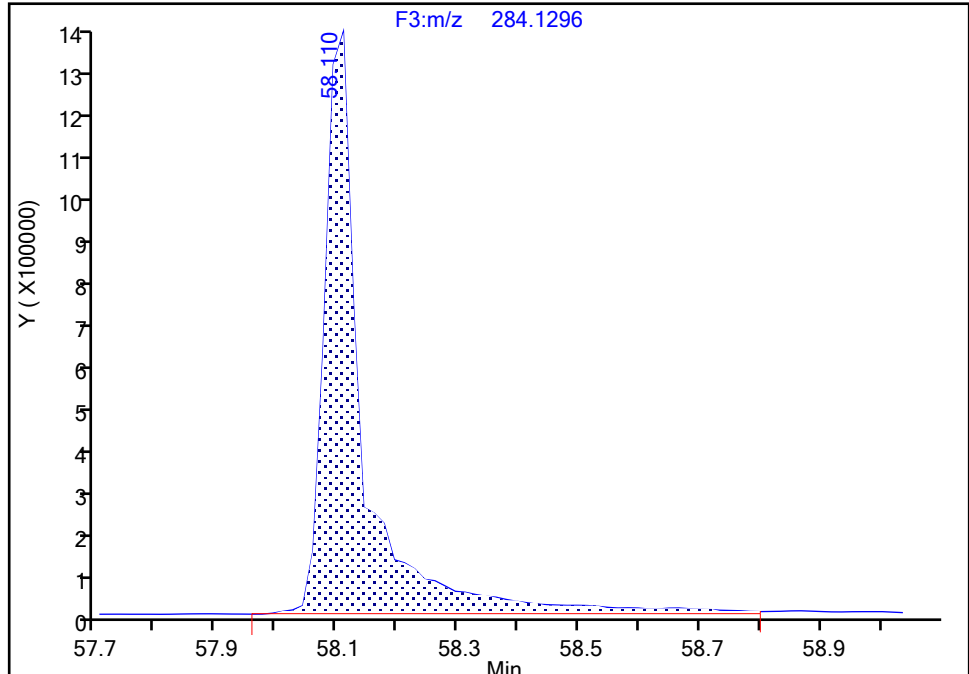
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic2.d  
Injection Date: 19-Jun-2024 17:38:00 Instrument ID: D3PAH  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C6-Dibenz(a,h)anthracene, CAS: STL03360**

Signal: 1

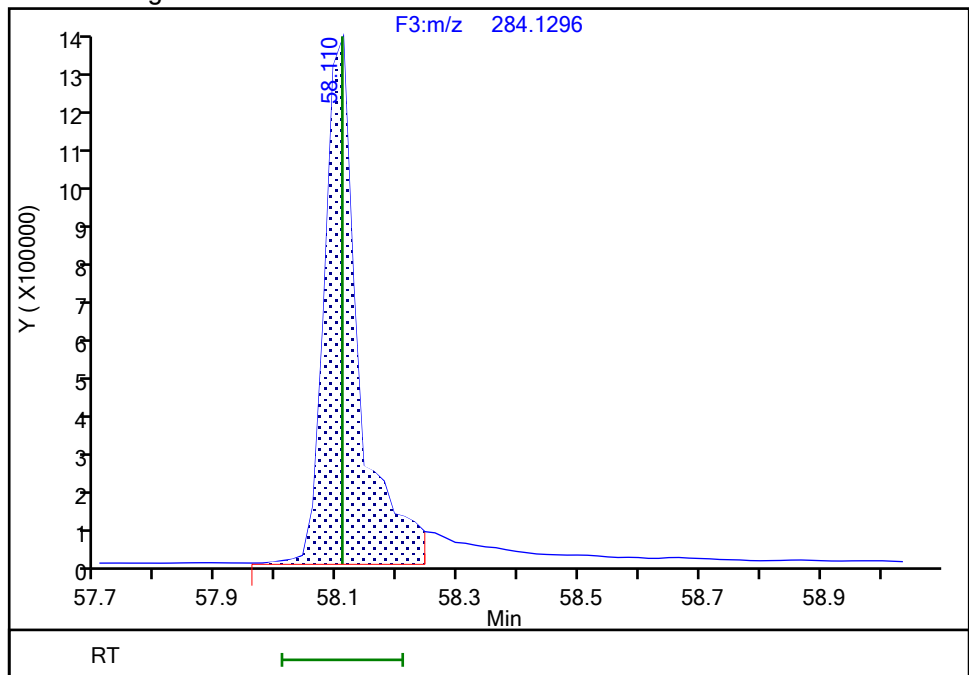
RT: 58.11  
Area: 6236111  
Amount: 110.5300  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.11  
Area: 5414078  
Amount: 102.0351  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 19-Jun-2024 18:49:02 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic3.d  
Lims ID: IC L3  
Client ID:  
Sample Type: IC Calib Level: 3  
Inject. Date: 19-Jun-2024 18:42:00 ALS Bottle#: 0 Worklist Smp#: 3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033168-003  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAL ICAL  
Last Update: 20-Jun-2024 09:51:39 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last Ical File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1686

First Level Reviewer: F9EE

Date: 20-Jun-2024 09:35:17

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:33	10437430		3.3746	101.6	101.6	0.006795	0.006795	102	
Naphthalene	11:34	1556415		1.2893	11.6	11.6	0.0248	0.0248	289	
D 13C6-2-Methylnaphthalene	13:52	4691404		1.6031	96.1	96.1	0.000298	0.000298	96.10	
2-Methylnaphthalene	13:53	659861		1.2786	11.0	11.0	0.0262	0.0262	275	
D 13C6-Acenaphthylene	16:45	4897592		1.6520	97.4	97.4	0.000405	0.000405	97.35	
Acenaphthylene	16:45	269411		2.3661	3.830	3.830	0.0191	0.0191	95.74	
* Acenaphthene-d10	17:20	3045309		3.5E+04	100.0	100.0				
D 13C6-Acenaphthene	17:27	2973262		0.9792	99.7	99.7	0.002634	0.002634	99.71	
Acenaphthene	17:27	257797		1.2697	6.829	6.829	0.0271	0.0271	171	
D 13C6-Fluorene	19:45	2635457		0.8898	97.3	97.3	0.000537	0.000537	97.26	
Fluorene	19:45	181920		1.2532	5.508	5.508	0.0246	0.0246	138	
D 13C6-Phenanthrene	25:08	3834191		0.5724	94.8	94.8	0.004649	0.004649	94.83	
Phenanthrene	25:08	238313		1.1044	5.628	5.628	0.0353	0.0353	141	
\$ Anthracin-d10	25:21	2851175		0.4257	94.8	94.8	0.000357	0.000357	94.82	
D 13C6-Anthracene	25:28	3047129		0.4523	95.4	95.4	0.005883	0.005883	95.37	
Anthracene	25:28	160718		1.3586	3.882	3.882	0.0379	0.0379	97.06	
D 13C6-Fluoranthrene	33:54	8154780		1.1994	96.3	96.3	0.0216	0.0216	96.26	
Fluoranthene	33:54	396095		1.1513	4.219	4.219	0.0179	0.0179	105	
* Pyrene-d10	35:27	7063080		7.9E+04	100.0	100.0				
D 13C3-Pyrene	35:35	9131545		1.3512	95.7	95.7	0.0146	0.0146	95.68	
Pyrene	35:35	427111		1.0652	4.391	4.391	0.0176	0.0176	110	
\$ 13C6-Benzo(c)fluorene	39:18	3665129		0.5136	101.0	101.0	0.005478	0.005478	101	
D 13C6-Benzo(a)anthracene	46:07	7504068		1.5189	100.3	100.3	0.0152	0.0152	100	
Benzo[a]anthracene	46:07	282836		0.9739	3.870	3.870	0.0144	0.0144	96.76	
D 13C6-Chrysene	46:24	7844204		1.6287	97.7	97.7	0.0142	0.0142	97.75	
Chrysene	46:25	347139		0.9815	4.509	4.509	0.0145	0.0145	113	
D 13C6-Benzo(b)fluoranthene	54:40	6808556		1.4621	94.5	94.5	0.001125	0.001125	94.51	
Benzo[b]fluoranthene	54:40	379738		1.1249	4.958	4.958	0.008828	0.008828	124	
\$ 13C12-Benzo(j)fluoranthene	54:42	6337903		1.3558	94.9	94.9	0.0173	0.0173	94.87	
D 13C6-Benzo(k)fluoranthene	54:47	8218810		1.7507	95.3	95.3	0.000940	0.000940	95.28	
Benzo[k]fluoranthene	54:47	351417		1.1271	3.794	3.794	0.007793	0.007793	94.84	
* Benzo(e)pyrene-d12	55:30	4927202		5.7E+04	100.0	100.0				
D 13C4-Benzo(e)pyrene	55:35	7853527		1.6368	97.4	97.4	0.0105	0.0105	97.38	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
Benzo[e]pyrene	55:35	316746		1.0013	4.028	4.028	0.006974	0.006974	101	
Benzo[a]pyrene	55:44	318019		1.1130	3.956	3.956	0.007428	0.007428	98.90	
D 13C4-Benzo(a)pyrene	55:44	7222186		1.5508	94.5	94.5	0.0111	0.0111	94.52	
D Perylene-d12	55:54	5628212		1.1917	95.9	95.9	0.0162	0.0162	95.85	
Perylene	55:58	330090		1.4307	4.099	4.099	0.006406	0.006406	102	
D 13C6-Indeno(1,2,3-cd)pyrene	58:02	4630053		1.0218	92.0	92.0	0.009539	0.009539	91.96	
Indeno[1,2,3-cd]pyrene	58:03	203445		1.1249	3.906	3.906	0.009054	0.009054	97.65	
D 13C6-Dibenz(a,h)anthracene	58:07	4776504		1.0553	91.9	91.9	0.005196	0.005196	91.86	M
Dibenz(a,h)anthracene	58:07	210948		1.1314	3.904	3.904	0.007161	0.007161	97.59	M
D 13C12-Benzo(ghi)perylene	58:30	5830946		1.2749	92.8	92.8	0.003106	0.003106	92.83	M
Benzo[g,h,i]perylene	58:31	301308		1.2838	4.025	4.025	0.007142	0.007142	101	M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61HRPAHCS3\_00003

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic3.d  
Lims ID: IC L3  
Client ID:  
Sample Type: IC Calib Level: 3  
Inject. Date: 19-Jun-2024 18:42:00 ALS Bottle#: 0 Worklist Smp#: 3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033168-003  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 20-Jun-2024 09:51:39 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1686

First Level Reviewer: F9EE

Date: 20-Jun-2024 09:35:17

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:33	11:33	0	0.666	10437430	3484116	96	240	36293		
Naphthalene											
128.0626	11:34	11:34	0	1.001	1556415	509599	446	1115	1143		
13C6-2-Methylnaphthalene											
148.0984	13:52	13:52	0	0.800	4691404	2108259	2	5	1054130		
2-Methylnaphthalene											
142.0783	13:53	13:53	0	1.001	659861	294187	283	707	1040		
13C6-Acenaphthylene											
158.0828	16:45	16:45	0	0.966	4897592	1726905	3	7	575635		
Acenaphthylene											
152.0626	16:45	16:45	0	1.000	269411	95497	187	467	511		
Acenaphthene-d10											
164.1404	17:20	17:20	0		3045309	1046726	6	15	174454		
13C6-Acenaphthene											
160.0984	17:27	17:27	0	1.007	2973262	1032608	11	27	93873		
Acenaphthene											
154.0783	17:27	17:27	0	1.000	257797	90217	142	355	635		
13C6-Fluorene											
172.0984	19:45	19:45	0	1.139	2635457	796176	2	5	398088		
Fluorene											
166.0783	19:45	19:45	0	1.000	181920	53149	98	245	542		
13C6-Phenanthrene											
184.0984	25:08	25:08	0	0.709	3834191	902063	14	35	64433		
Phenanthrene											
178.0783	25:08	25:08	0	1.000	238313	57984	141	352	411		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:21	25:21	0	0.715	2851175	640515	1	2	640515		
13C6-Anthracene											
184.0984	25:28	25:28	0	0.718	3047129	683124	14	35	48795		
Anthracene											
178.0783	25:28	25:28	0	1.000	160718	37402	141	352	265		
13C6-Fluoranthrene											
208.0984	33:54	33:54	0	0.956	8154780	1562778	136	340	11491		
Fluoranthene											
202.0783	33:54	33:54	0	1.000	396095	78237	129	322	606		
Pyrene-d10											
212.1404	35:27	35:27	0		7063080	1315153	50	125	26303		
13C3-Pyrene											
205.0883	35:35	35:35	0	1.004	9131545	1718572	104	260	16525		
Pyrene											
202.0783	35:35	35:35	0	1.000	427111	79383	129	322	615		
13C6-Benzo(c)fluorene											
222.1134	39:18	39:18	0	0.708	3665129	673027	15	37	44868		
13C6-Benzo(a)anthracene											
234.1140	46:07	46:07	0	1.301	7504068	1334701	152	380	8781		
Benzo[a]anthracene											
228.0939	46:07	46:07	0	1.000	282836	50962	75	187	679		
13C6-Chrysene											
234.1140	46:24	46:24	0	1.309	7844204	1313857	152	380	8644		
Chrysene											
228.0939	46:25	46:25	0	1.000	347139	58344	75	187	778		
13C6-Benzo(b)fluoranthene											
258.1140	54:40	54:40	0	0.985	6808556	1812534	11	27	164776		
Benzo[b]fluoranthene											
252.0939	54:40	54:40	0	1.000	379738	101987	72	180	1416		
13C12-Benzo(j)fluoranthene											
264.1336	54:42	54:42	0	0.985	6337903	1650721	154	385	10719		
13C6-Benzo(k)fluoranthene											
258.1140	54:47	54:47	0	0.987	8218810	2049415	11	27	186311		
Benzo[k]fluoranthene											
252.0939	54:47	54:47	0	1.000	351417	91356	72	180	1269		
Benzo(e)pyrene-d12											
264.1692	55:30	55:30	0		4927202	1641398	127	317	12924		
13C4-Benzo(e)pyrene											
256.1073	55:35	55:35	0	1.002	7853527	2577674	113	282	22811		
Benzo[e]pyrene											
252.0939	55:35	55:35	0	1.000	316746	107782	72	180	1497		
Benzo[a]pyrene											
252.0939	55:44	55:44	0	1.000	318019	97222	72	180	1350		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C4-Benzo(a)pyrene											
256.1073	55:44	55:44	0	1.004	7222186	2177246	113	282	19268		
Perylene-d12											
264.1692	55:54	55:54	0	1.007	5628212	1964028	127	317	15465		
Perylene											
252.0939	55:58	55:58	0	1.001	330090	107390	72	180	1492		
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	58:02	58:02	0	1.046	4630053	1423655	64	160	22245		
Indeno[1,2,3-cd]pyrene											
276.0939	58:03	58:03	0	1.000	203445	66835	58	145	1152		
13C6-Dibenz(a,h)anthracene											
284.1296	58:07	58:07	0	1.047	4776504	1357735	36	90	37715		M
Dibenz(a,h)anthracene											
278.1096	58:07	58:07	0	1.000	210948	59990	44	110	1363		M
13C12-Benzo(ghi)perylene											
288.1342	58:30	58:30	0	1.054	5830946	1581495	26	65	60827		M
Benzo[g,h,i]perylene											
276.0939	58:31	58:31	0	1.000	301308	83672	58	145	1443		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61HRPAHCS3\_00003

Amount Added: 20.00

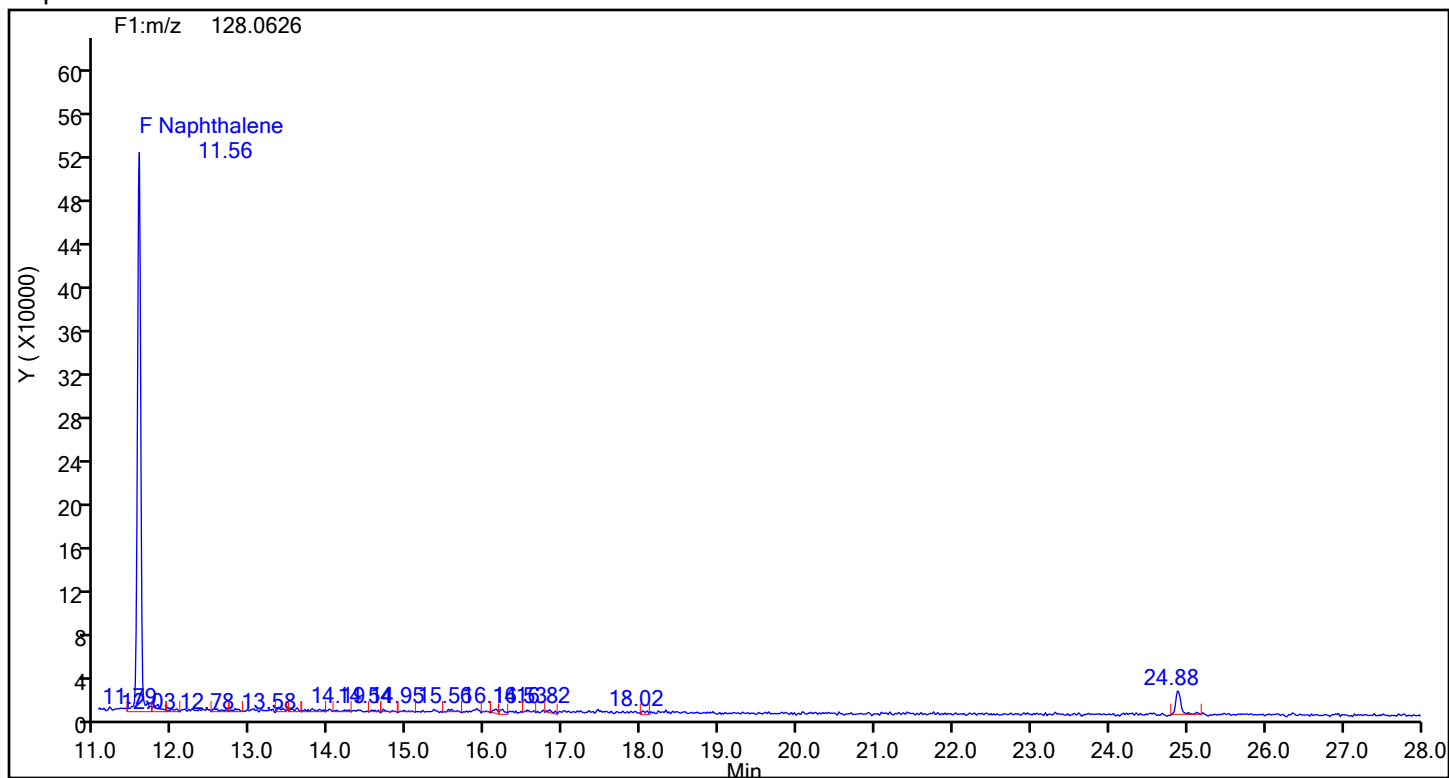
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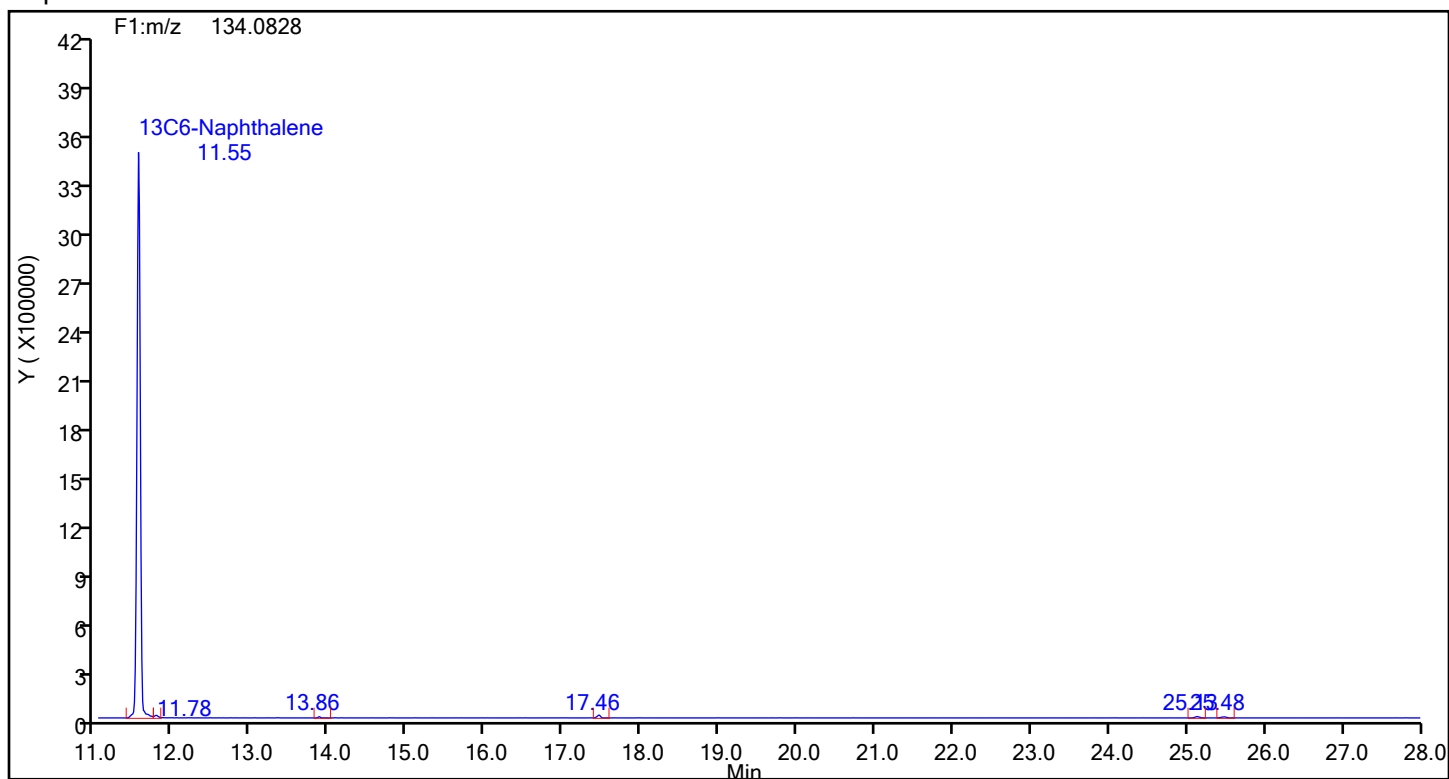
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Injection Date: 19-Jun-2024 18:42:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



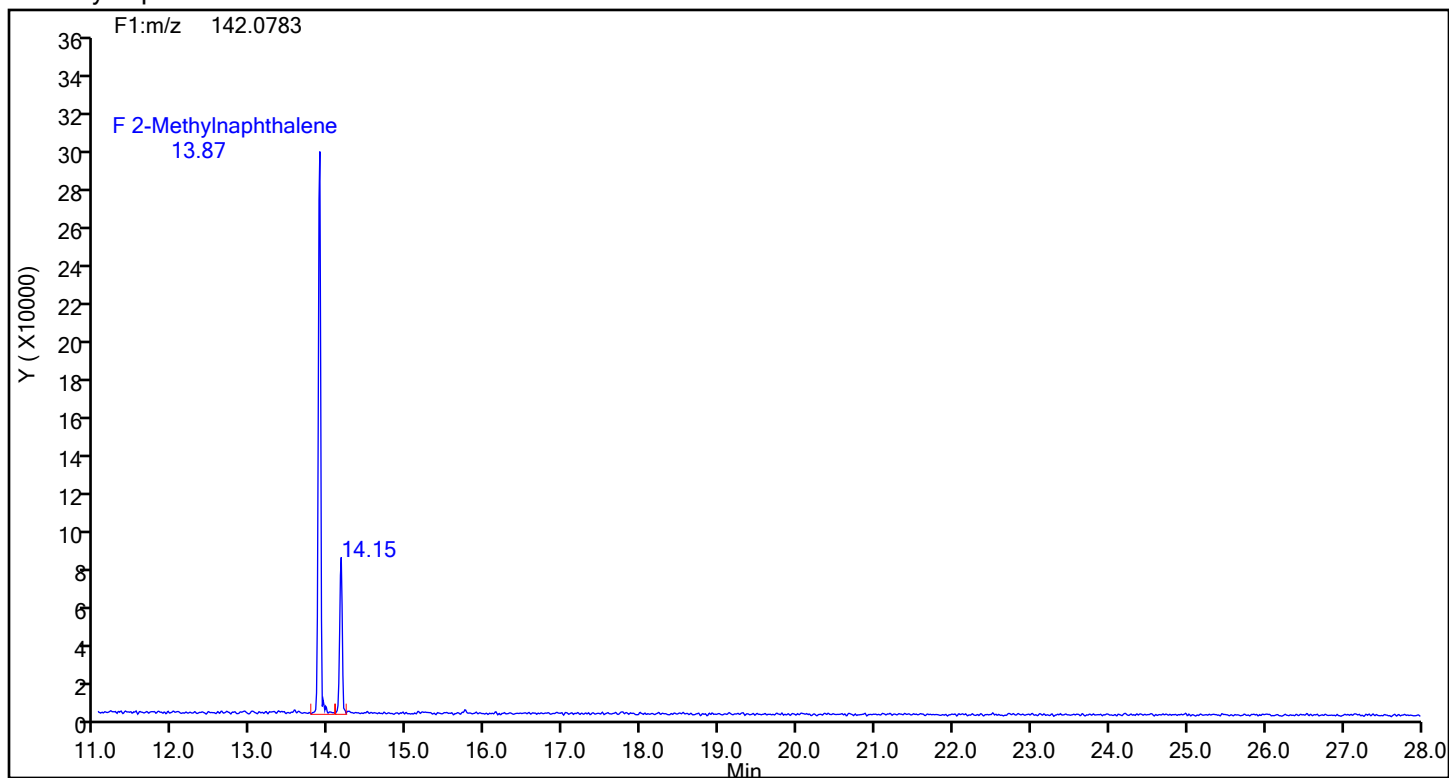
## Naphthalene Standards



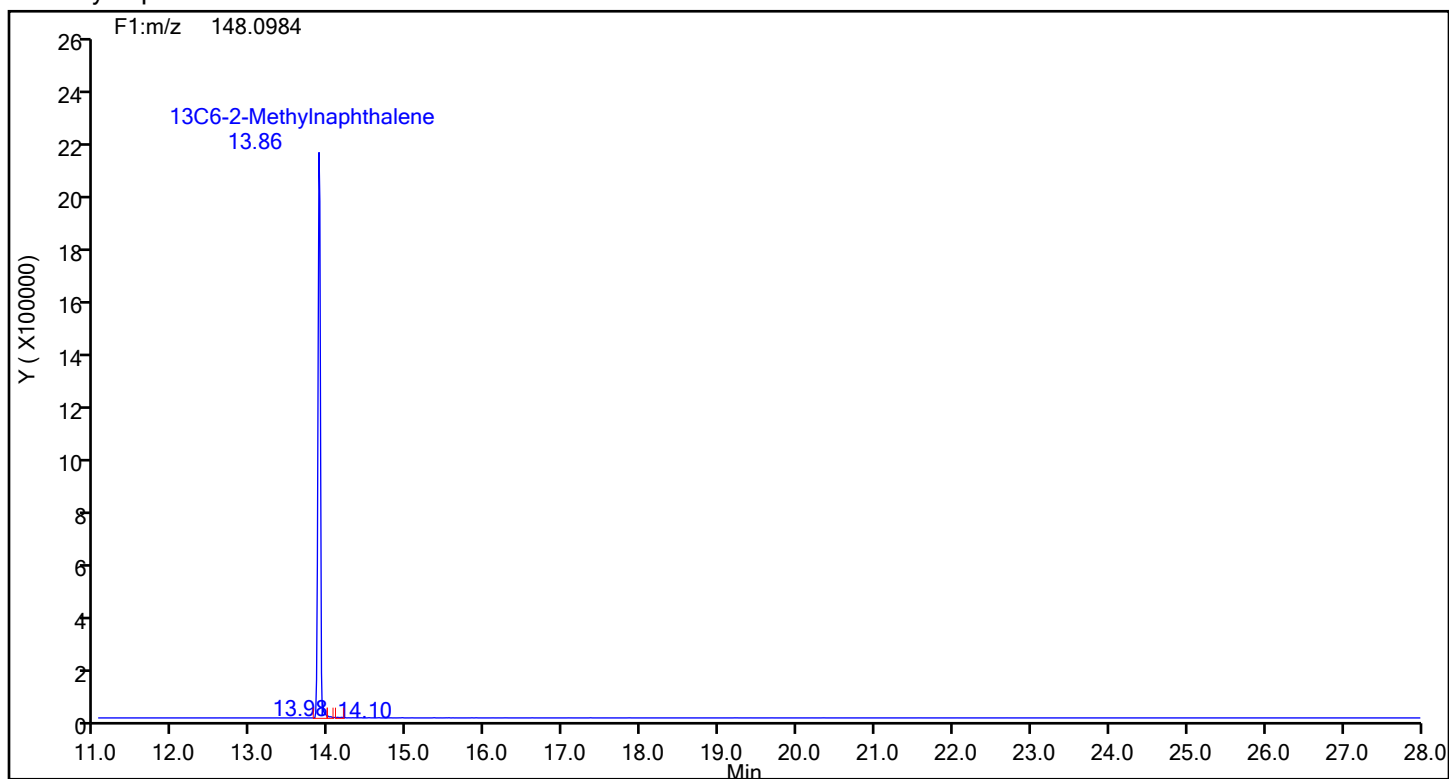
## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



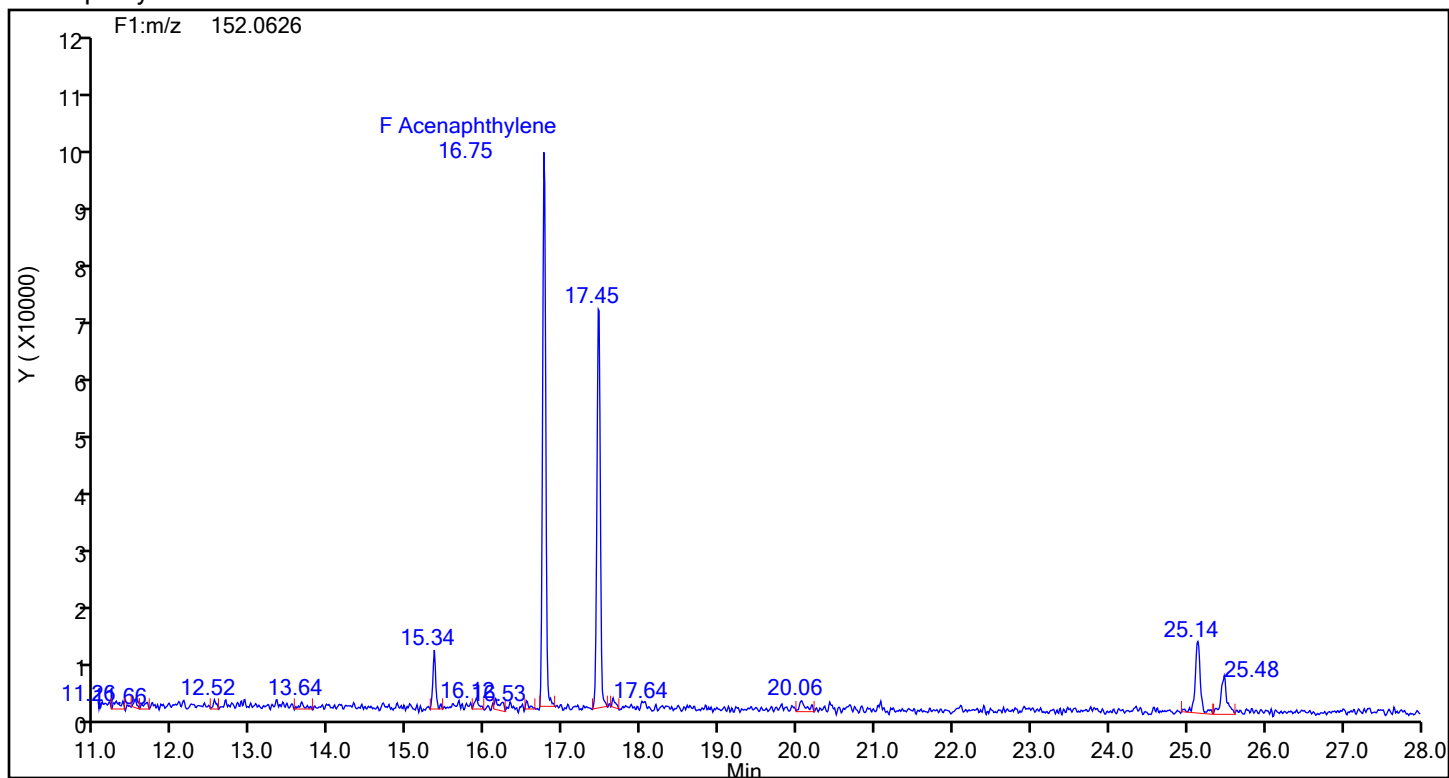
## 2-Methylnaphthalene Standards



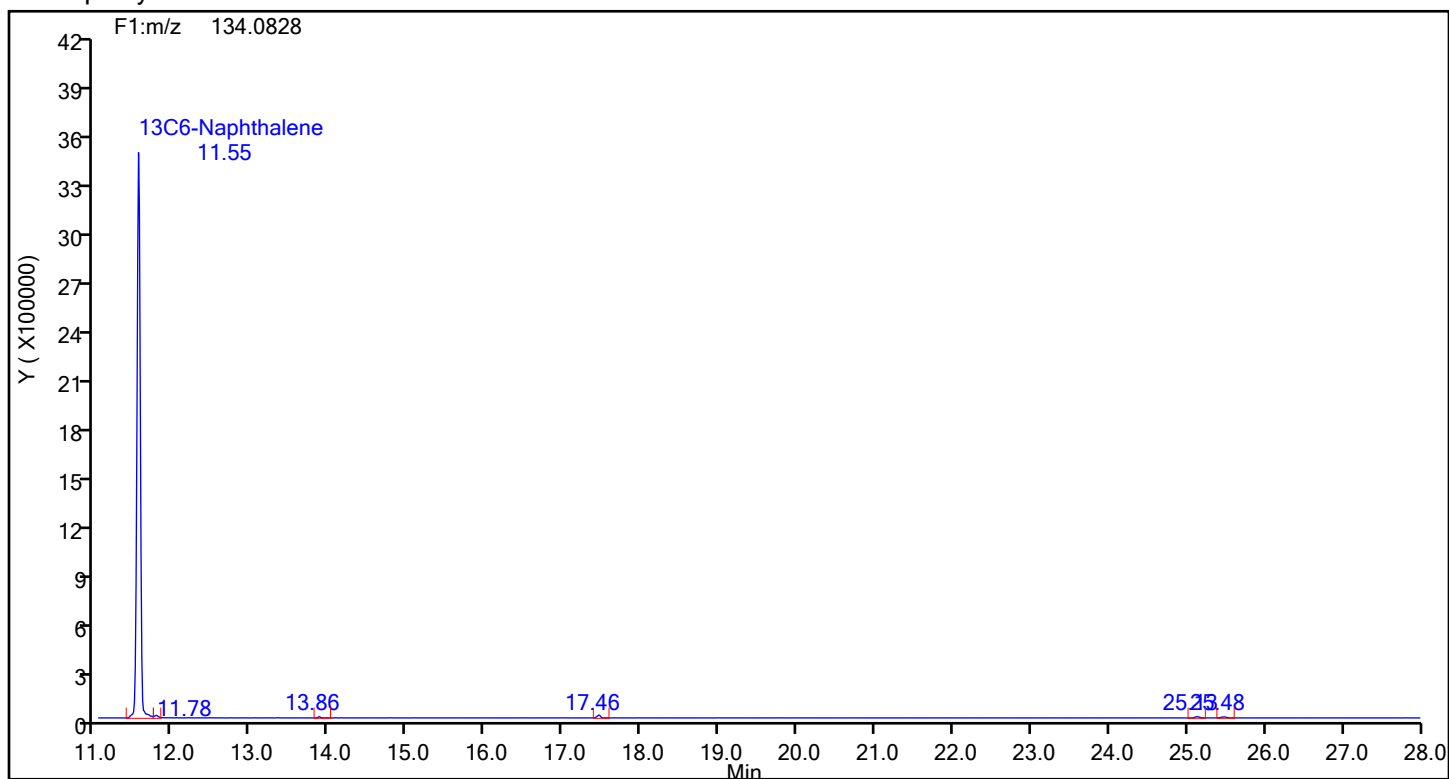
## Eurofins Knoxville

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Injection Date: 19-Jun-2024 18:42:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene



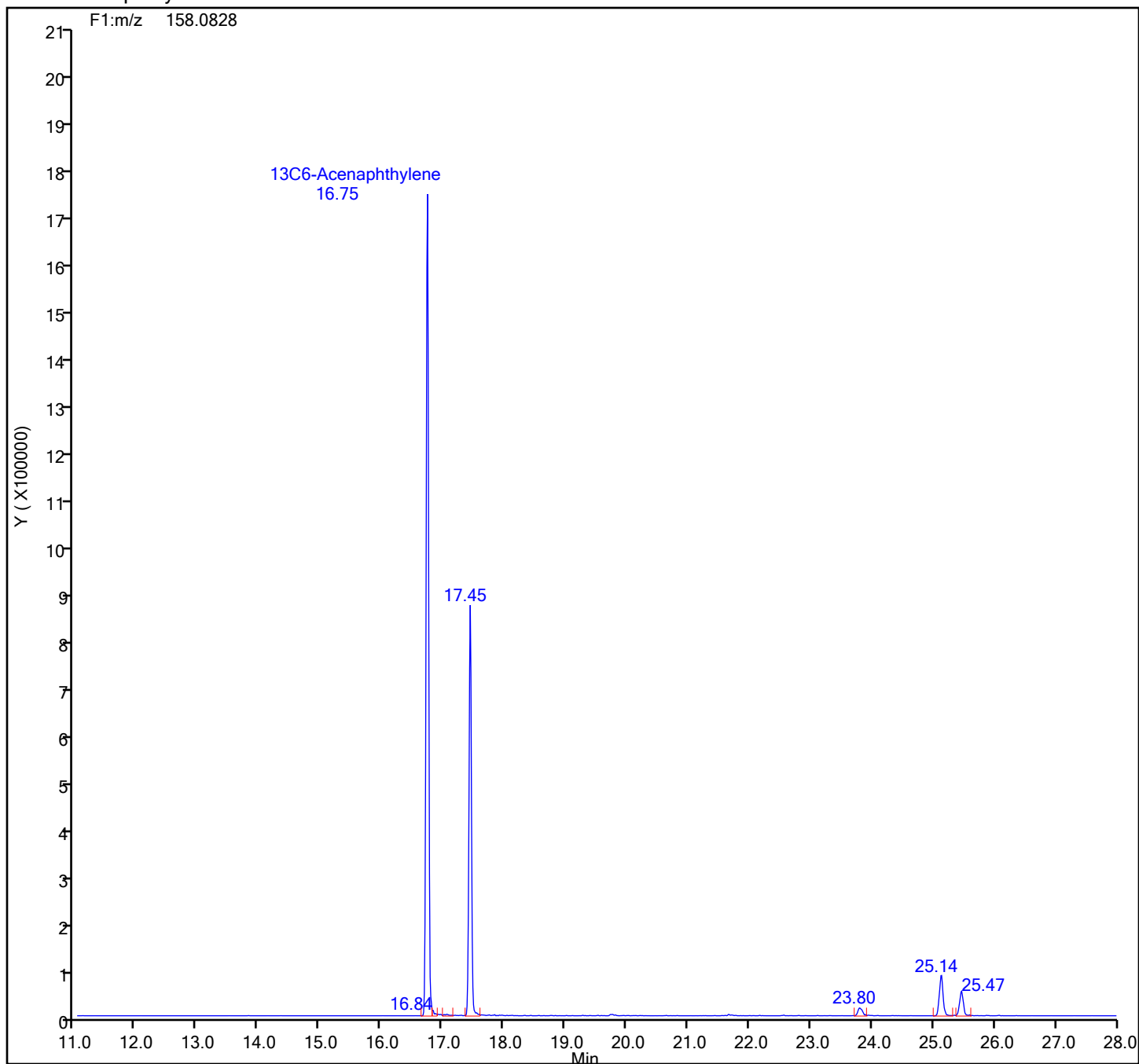
## Acenaphthylene Standards



## Eurofins Knoxville

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Injection Date: 19-Jun-2024 18:42:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

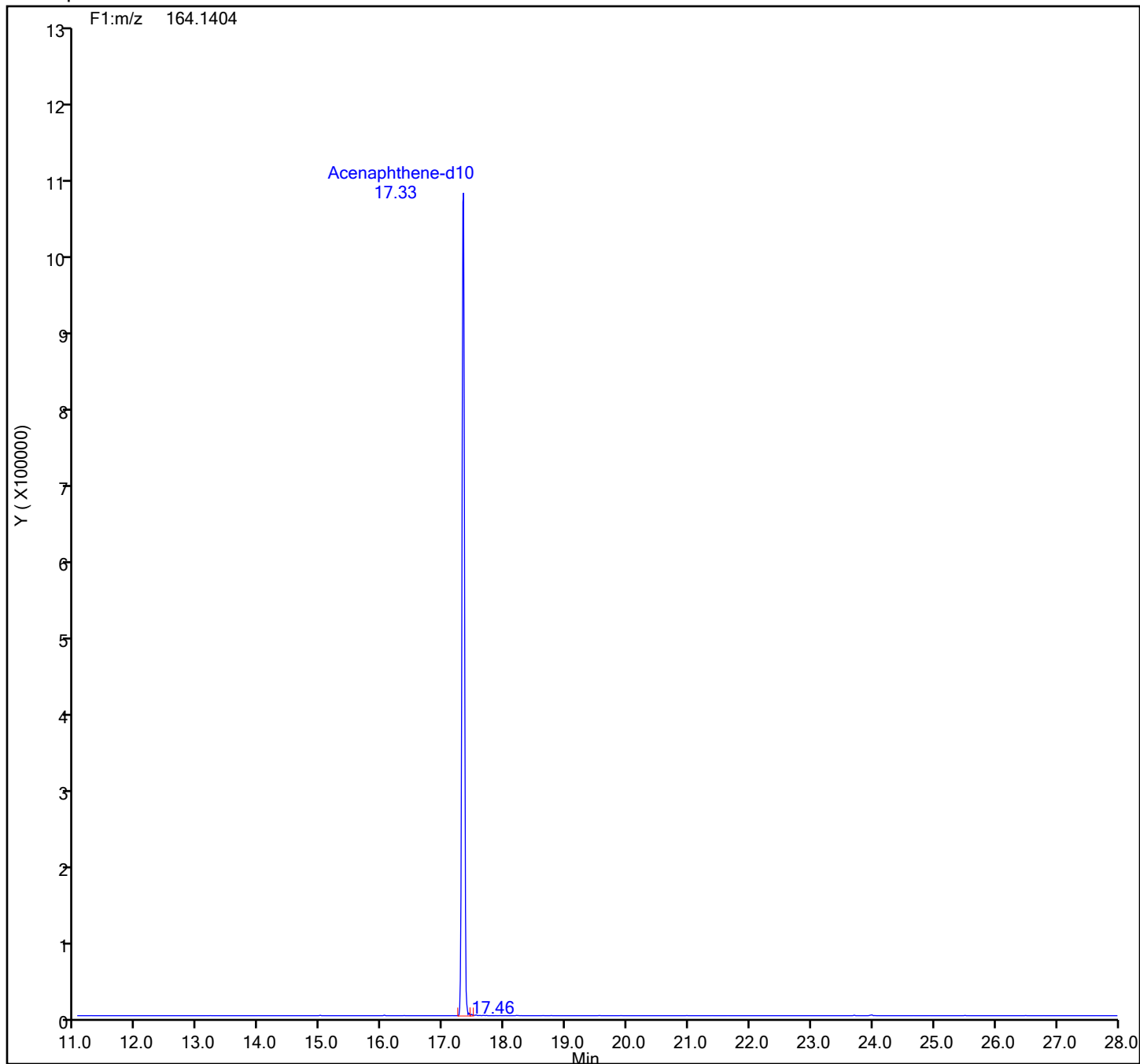
## 13C6-Acenaphthylene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic3.d  
Injection Date: 19-Jun-2024 18:42:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

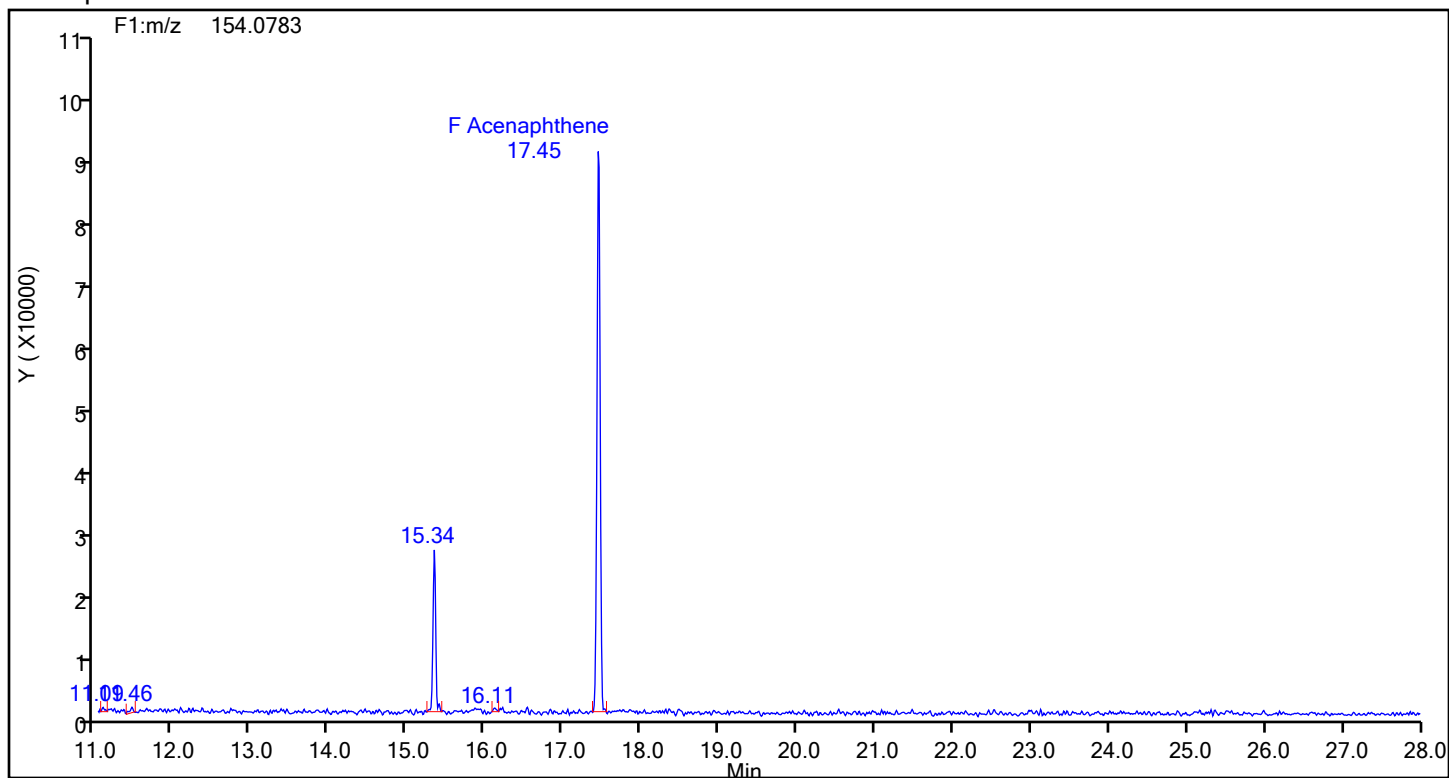
## Acenaphthene-d10 Standards



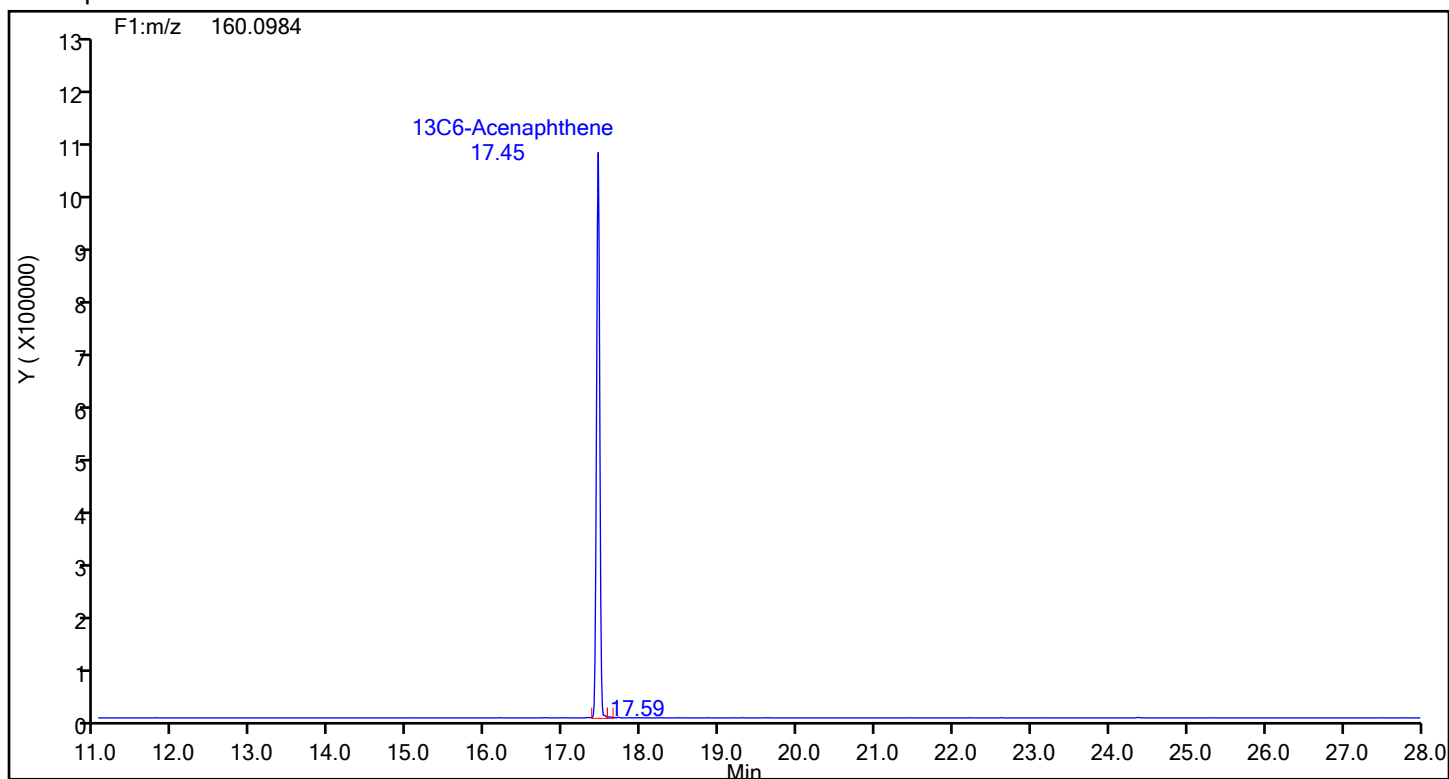
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic3.d  
Injection Date: 19-Jun-2024 18:42:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



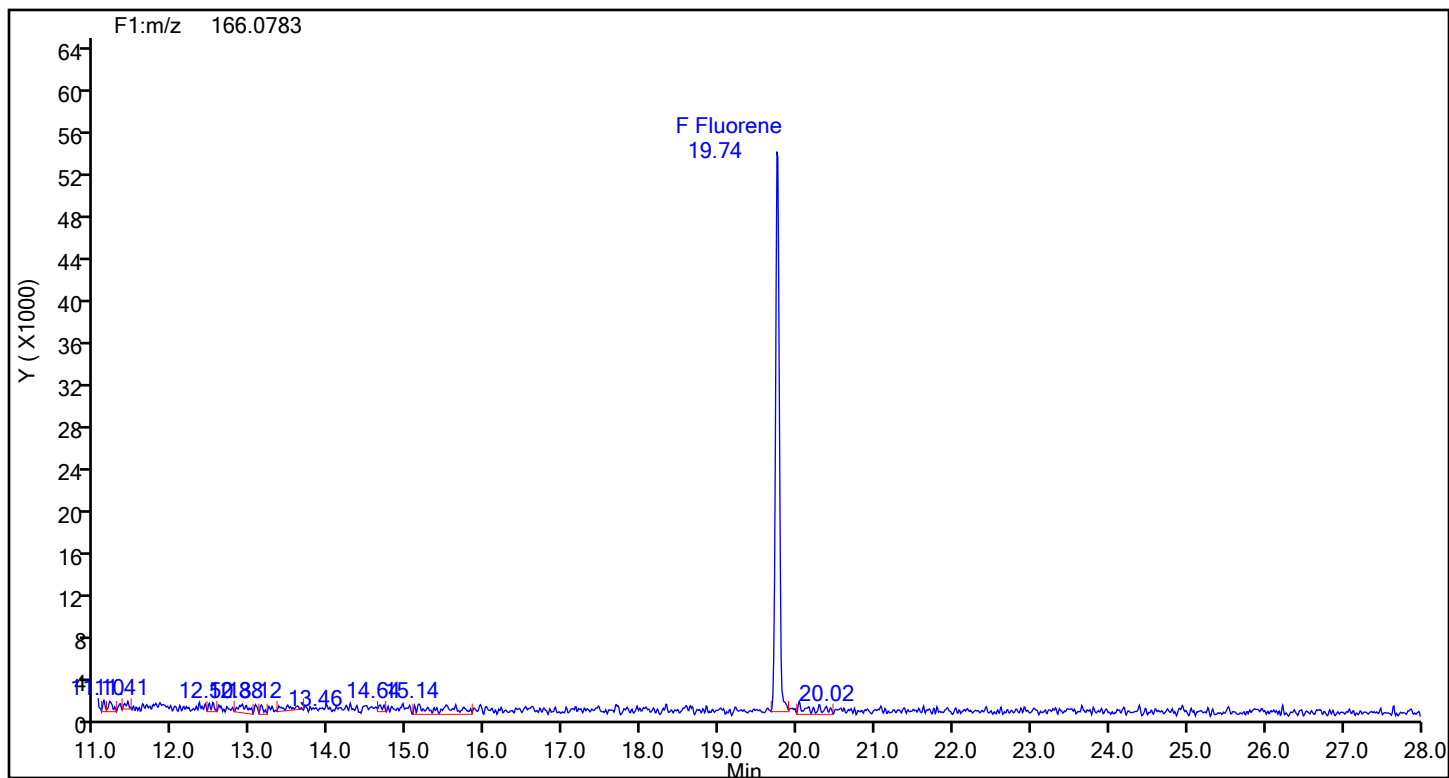
## Acenaphthene Standards



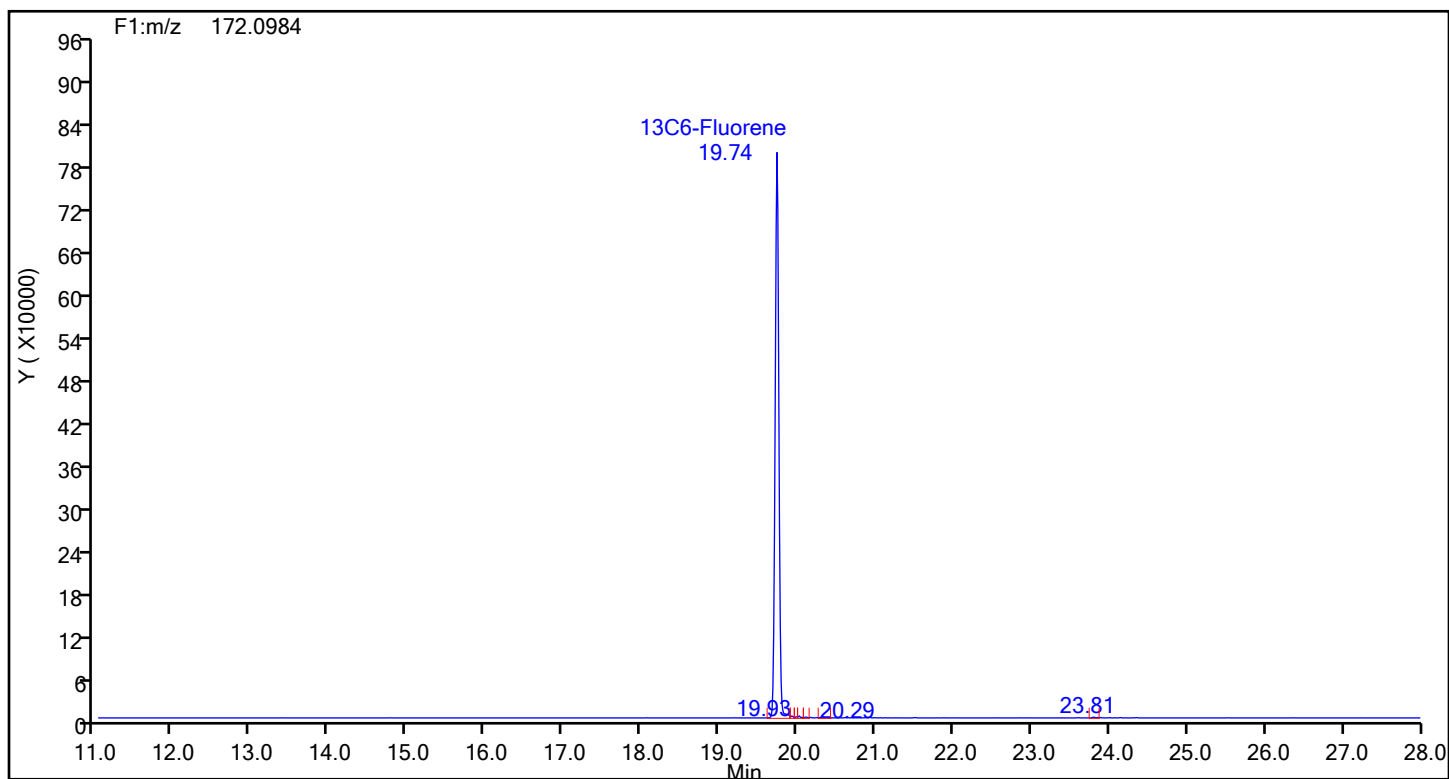
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic3.d  
Injection Date: 19-Jun-2024 18:42:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene

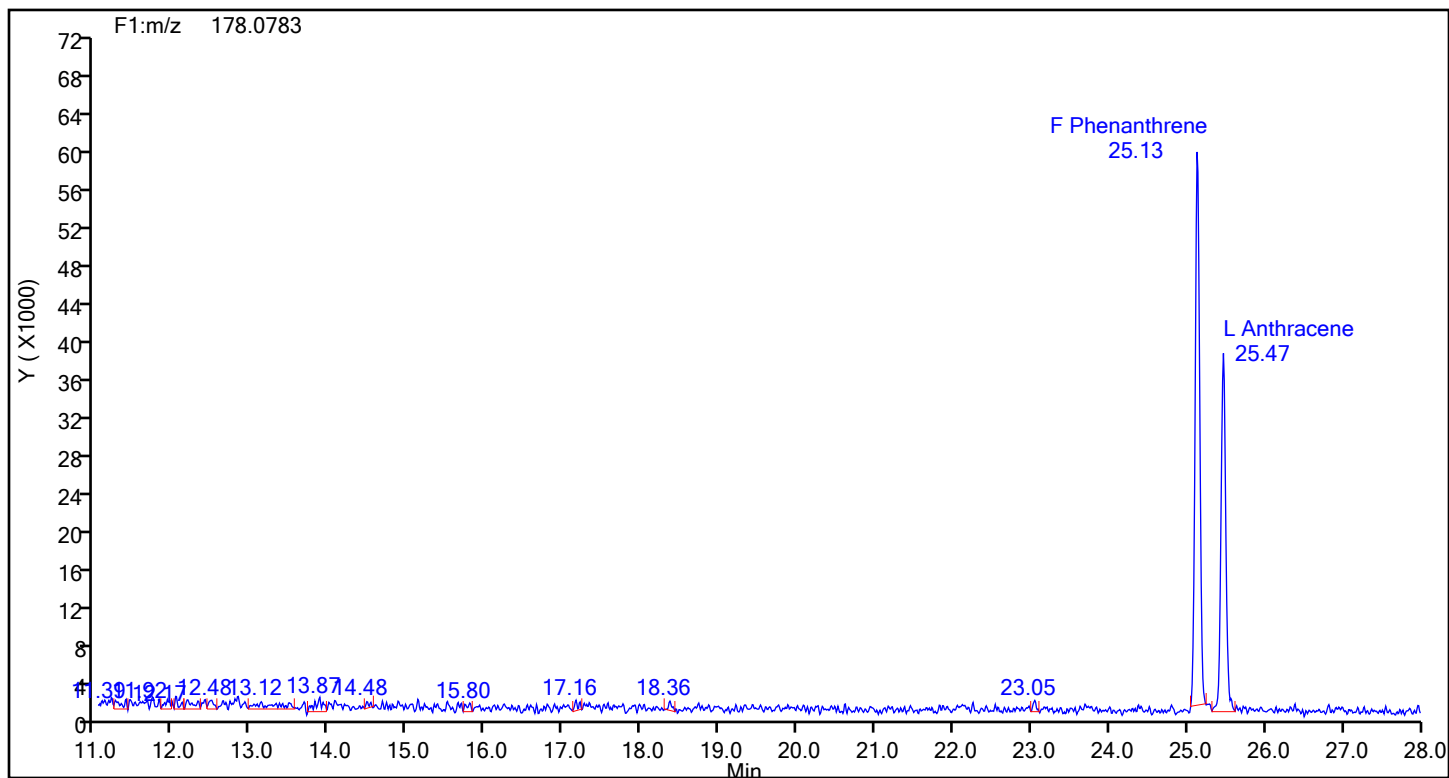


## Fluorene Standards

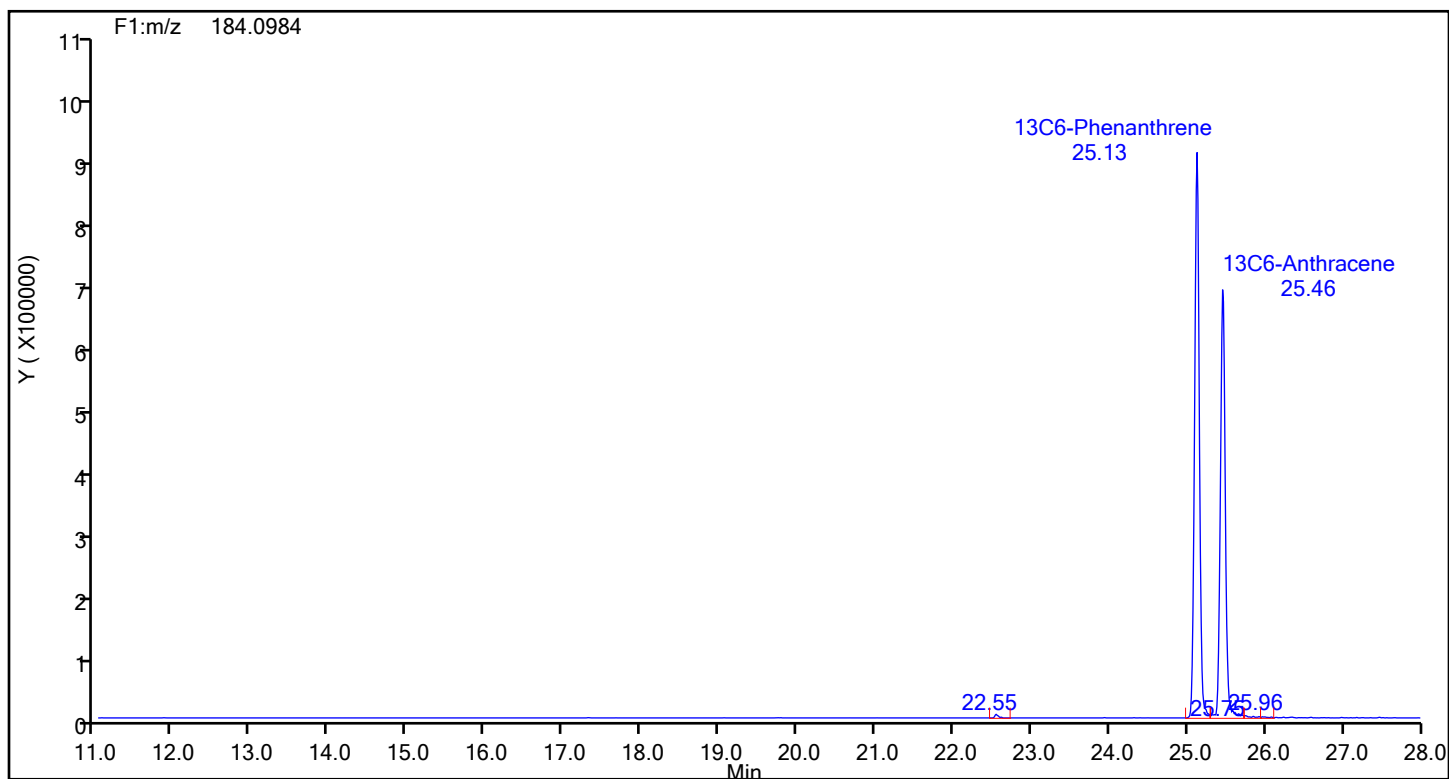


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic3.d  
Injection Date: 19-Jun-2024 18:42:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Phenanthrene



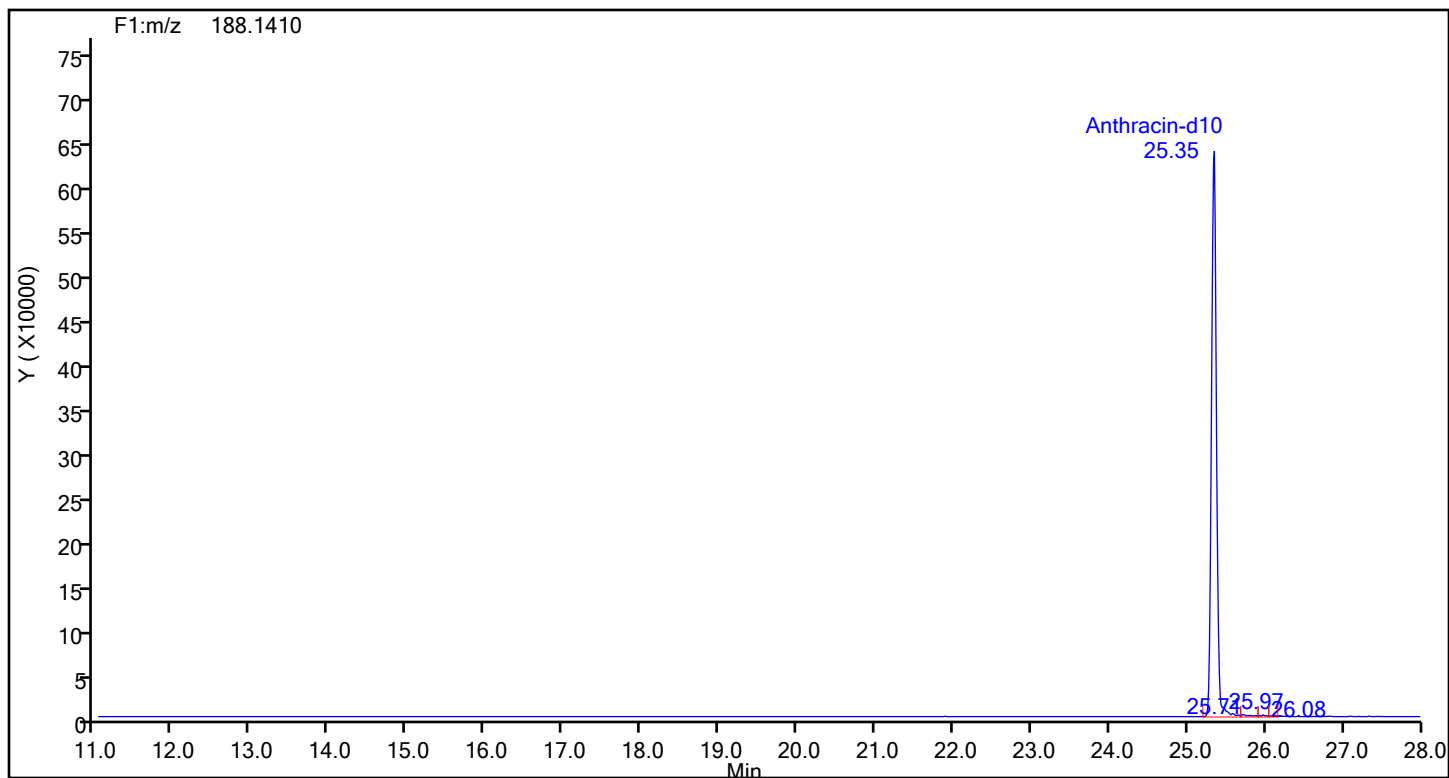
## Phenanthrene Standards



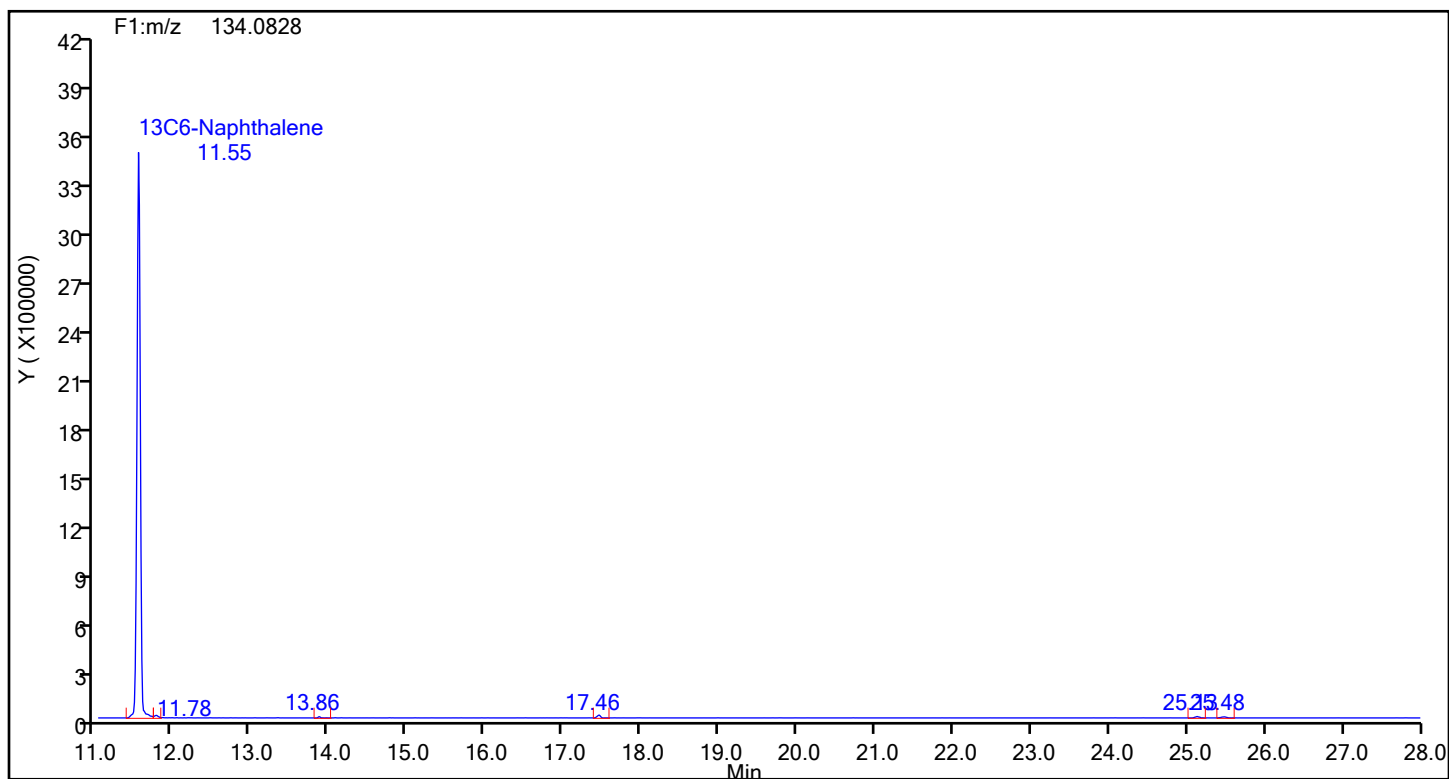


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic3.d  
Injection Date: 19-Jun-2024 18:42:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10

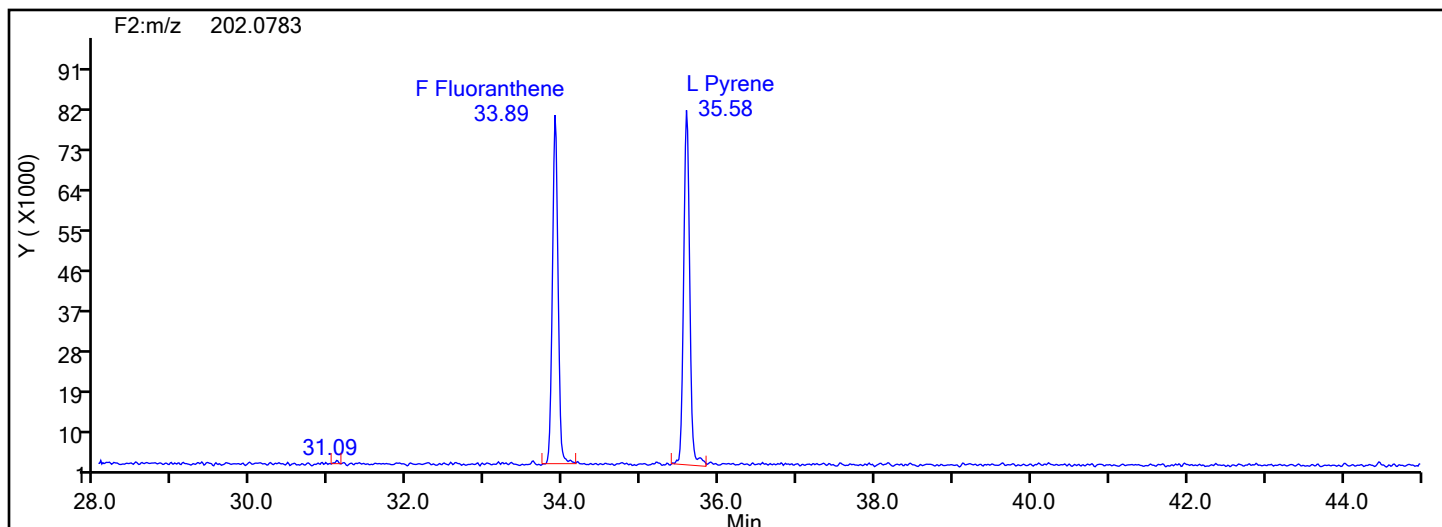


## Anthracin-d10 Standards

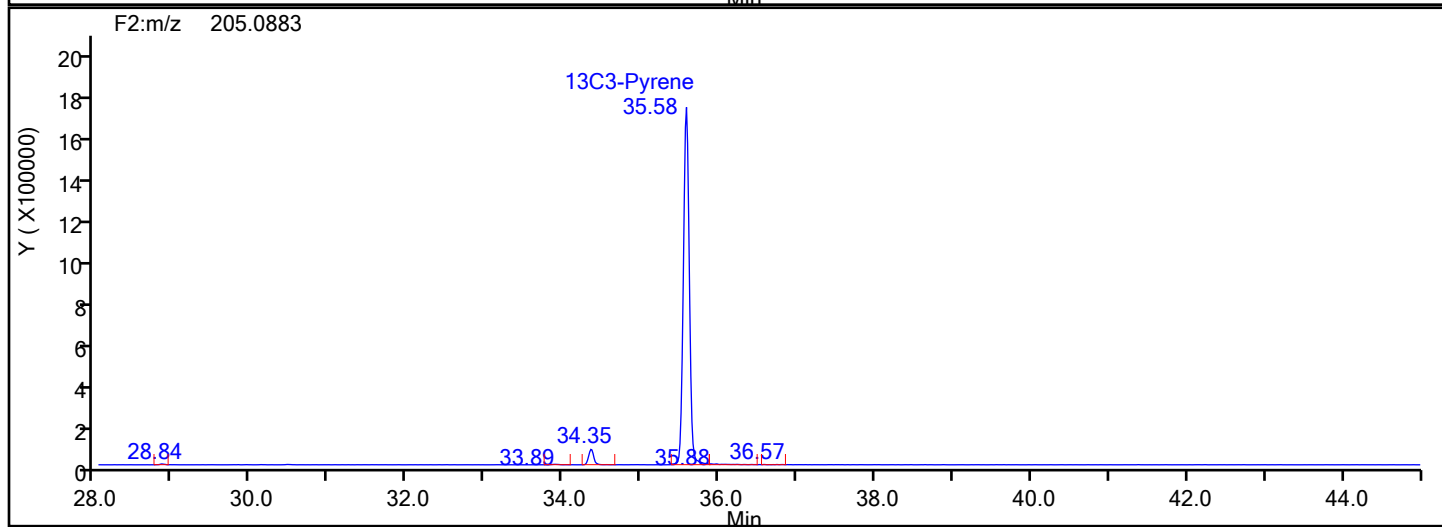
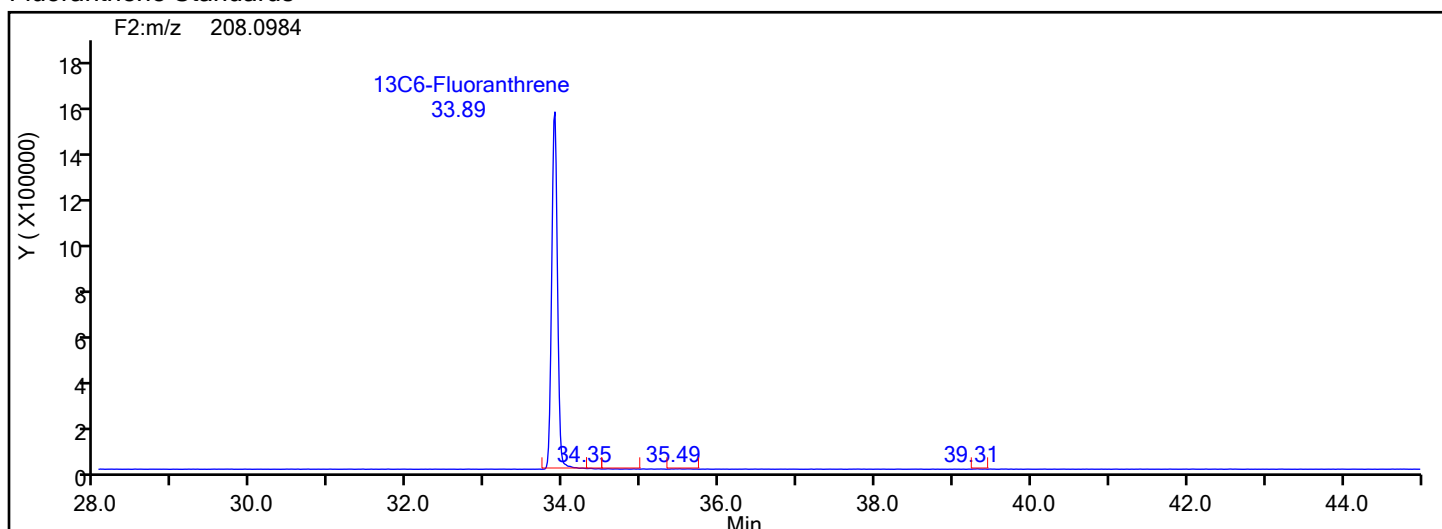


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic3.d  
Injection Date: 19-Jun-2024 18:42:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Fluoranthene



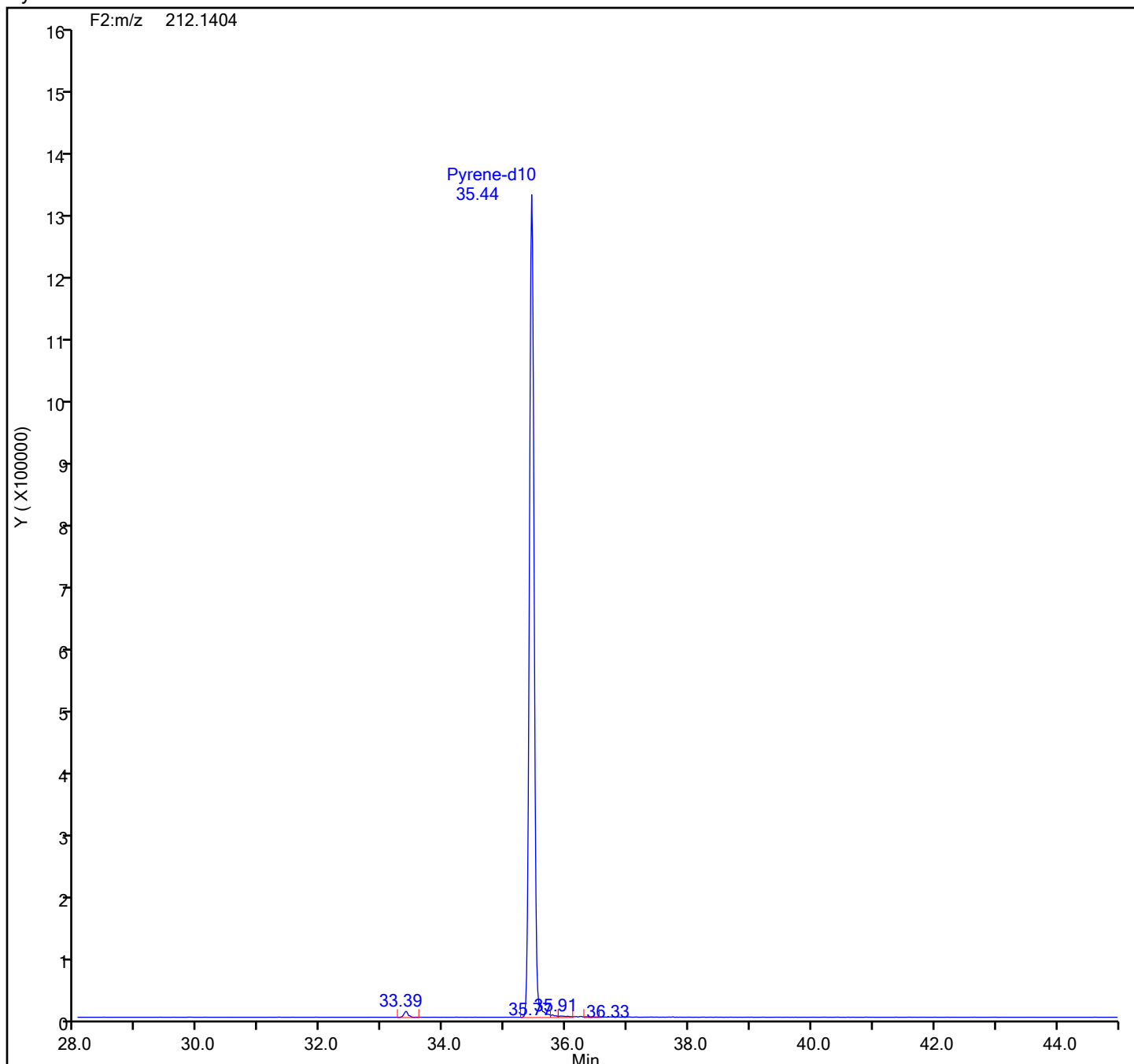
## Fluoranthene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic3.d  
Injection Date: 19-Jun-2024 18:42:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

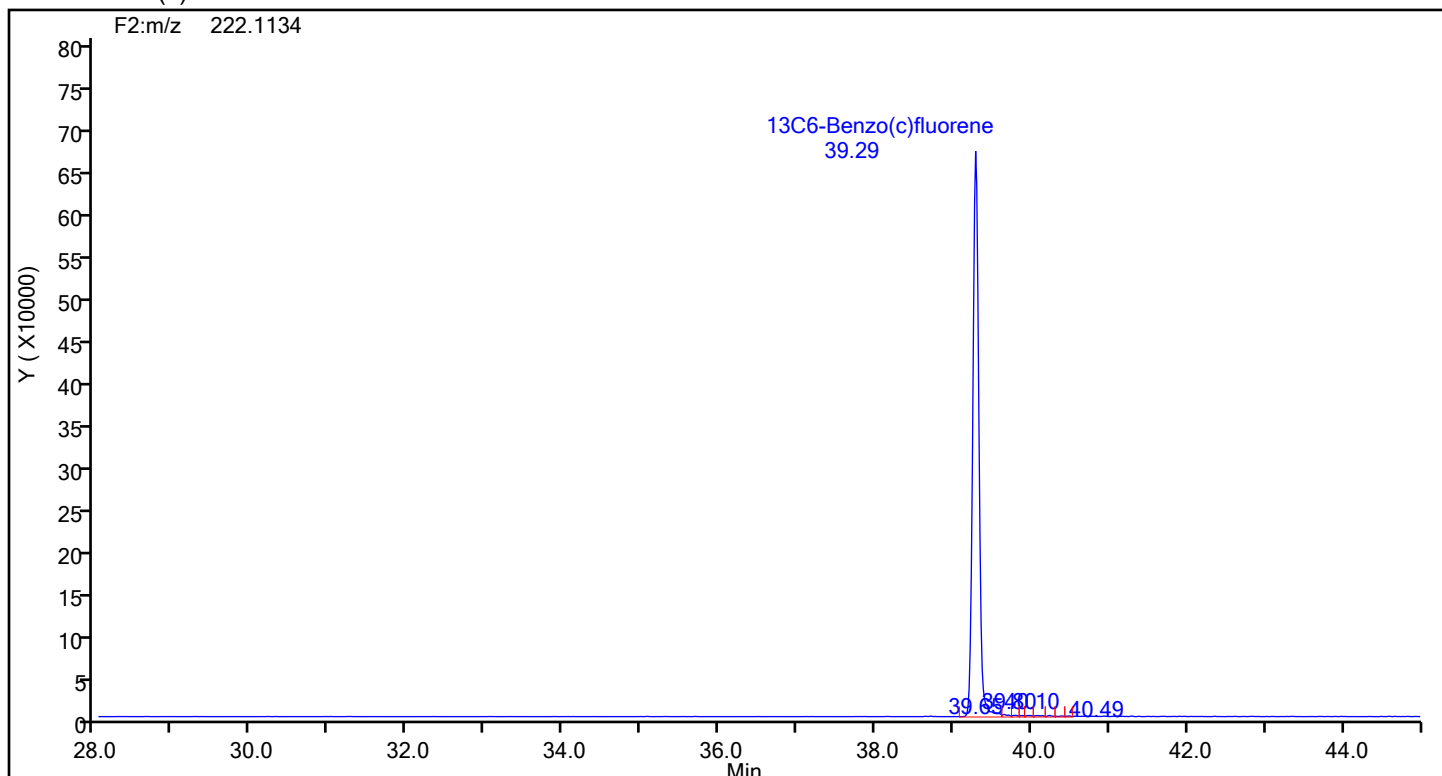
## Pyrene-d10 Standards



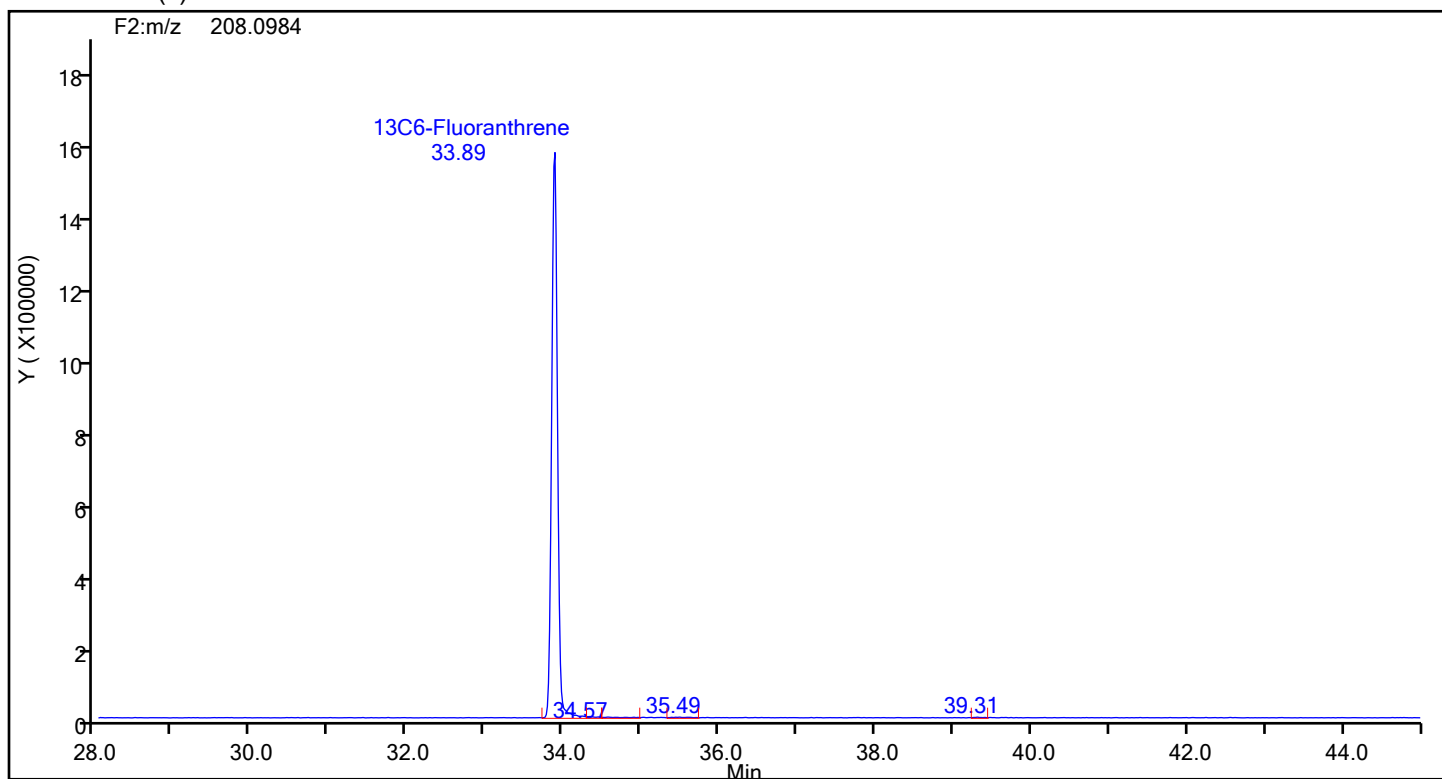
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic3.d  
Injection Date: 19-Jun-2024 18:42:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C6-Benzo(c)fluorene



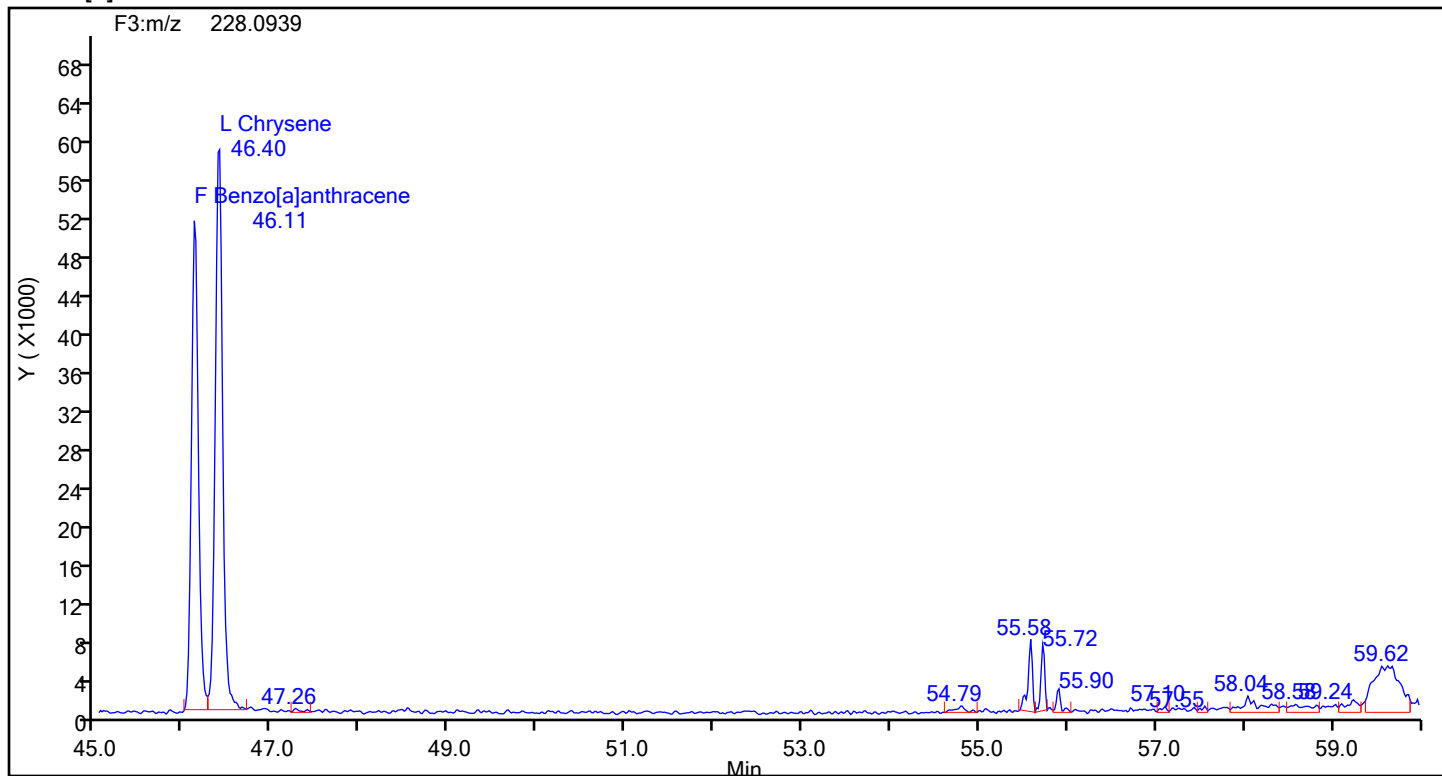
## 13C6-Benzo(c)fluorene Standards



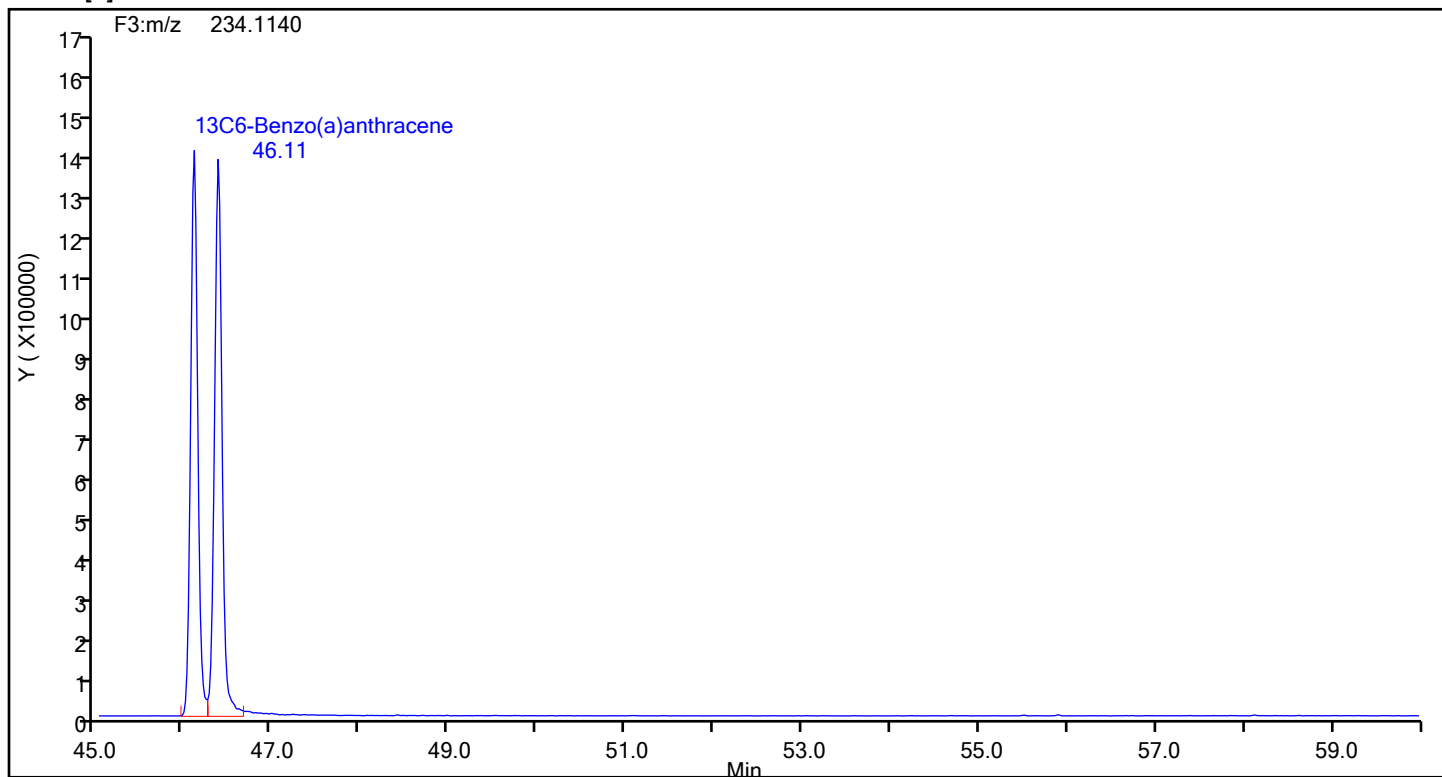
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic3.d  
Injection Date: 19-Jun-2024 18:42:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



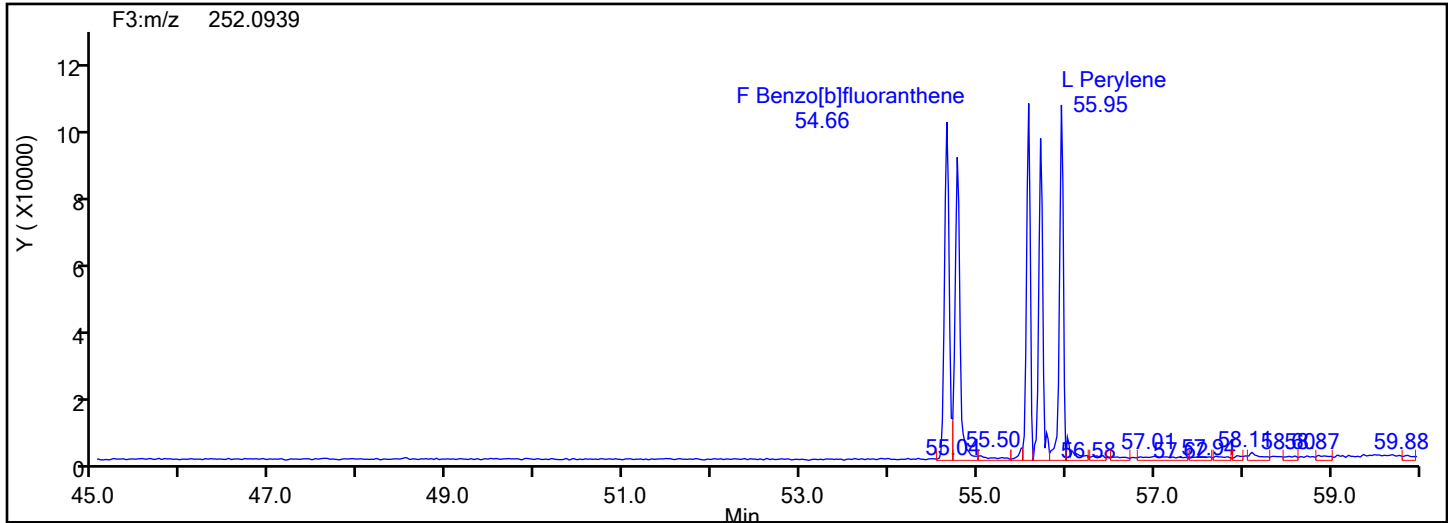
## Benzo[a]anthracene Standards



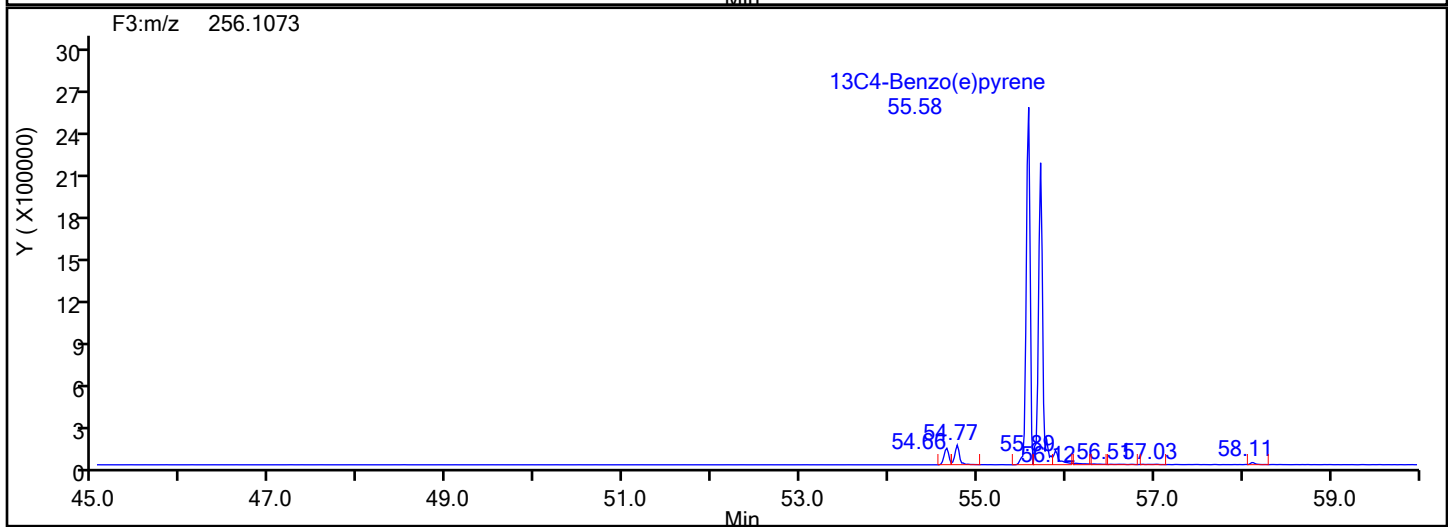
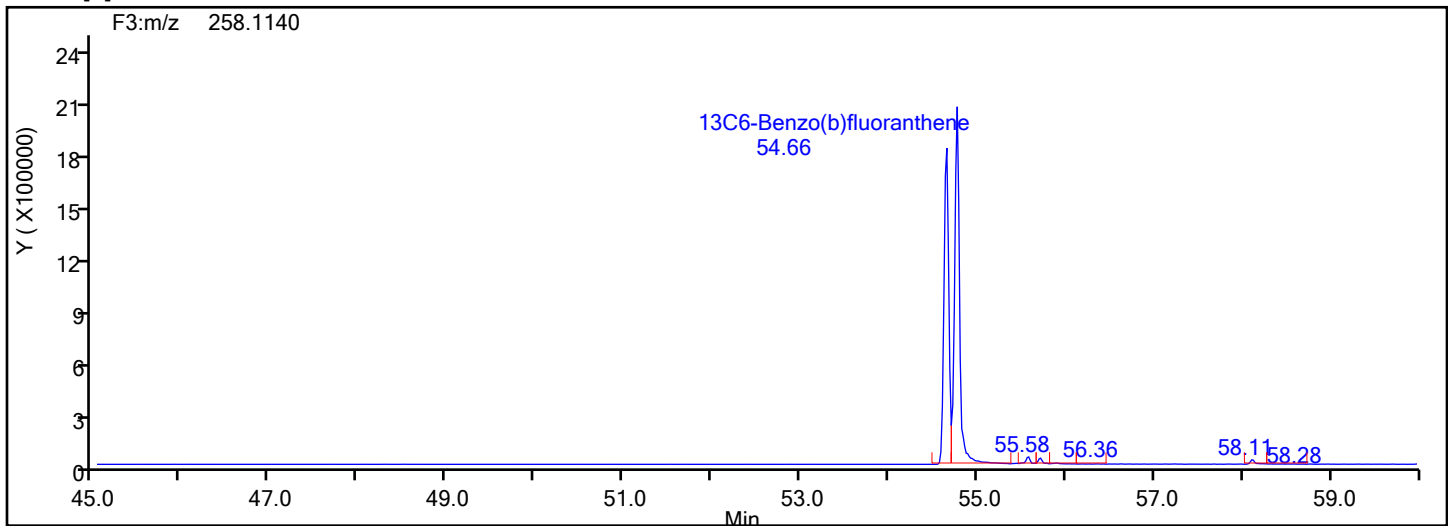
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic3.d  
Injection Date: 19-Jun-2024 18:42:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



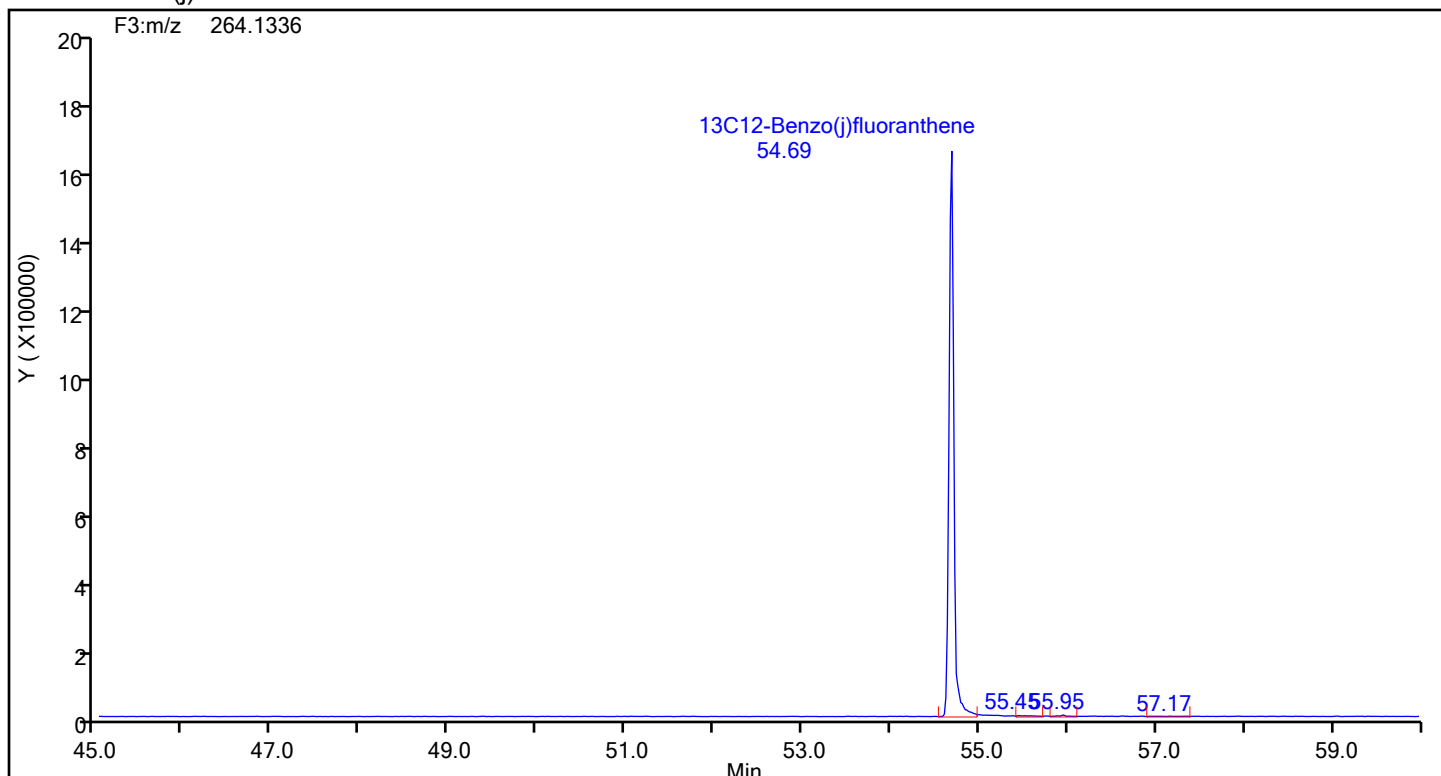
## Benzo[b]fluoranthene Standards



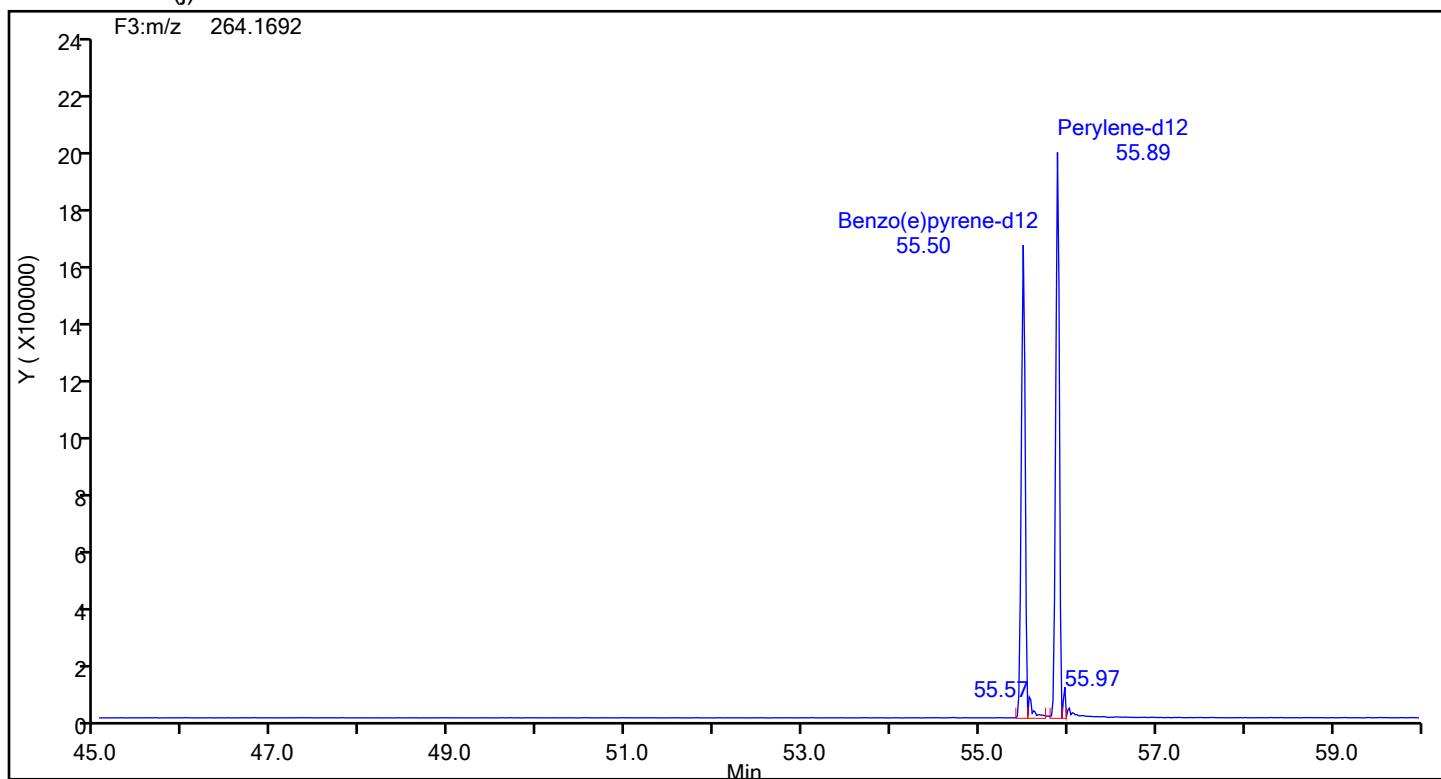
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic3.d  
Injection Date: 19-Jun-2024 18:42:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



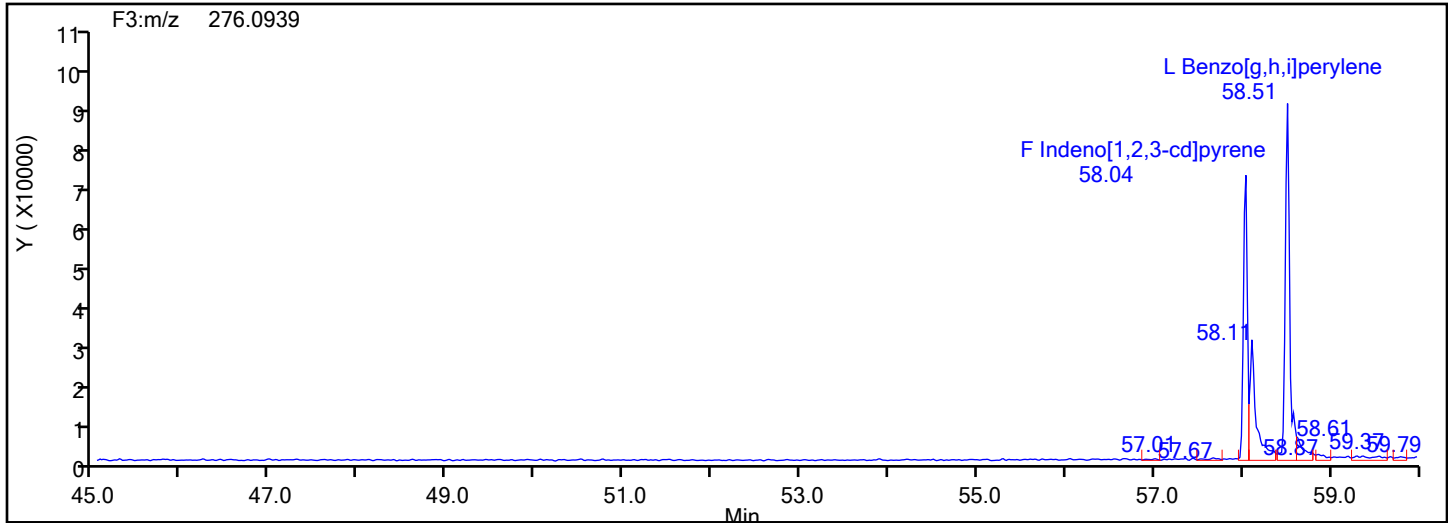
## 13C12-Benzo(j)fluoranthene Standards



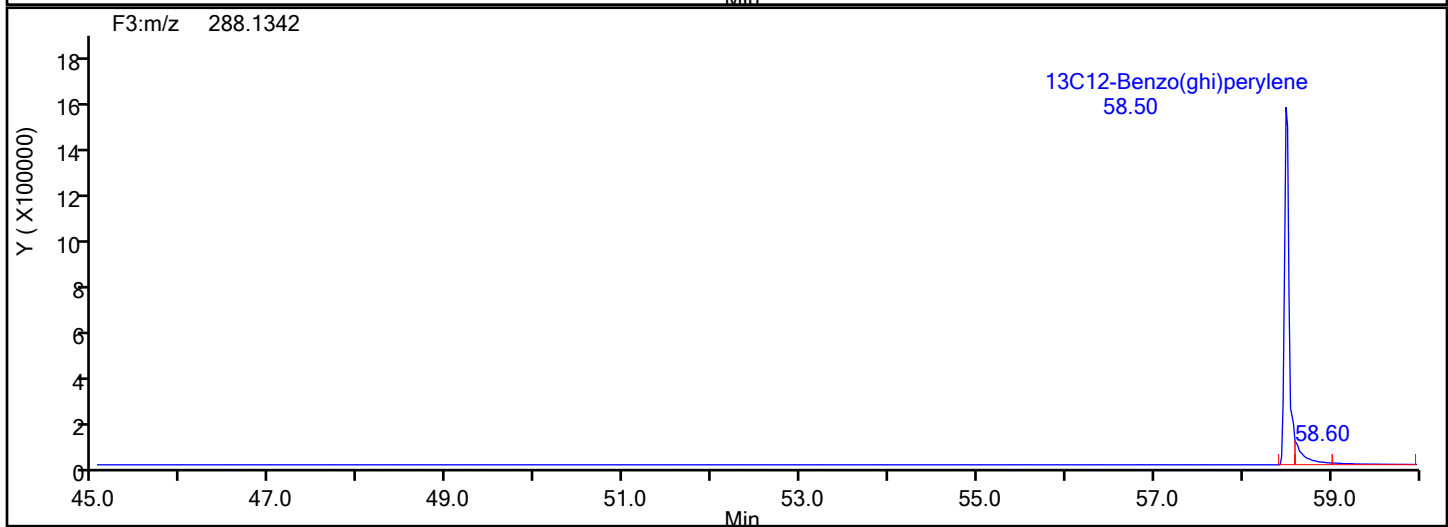
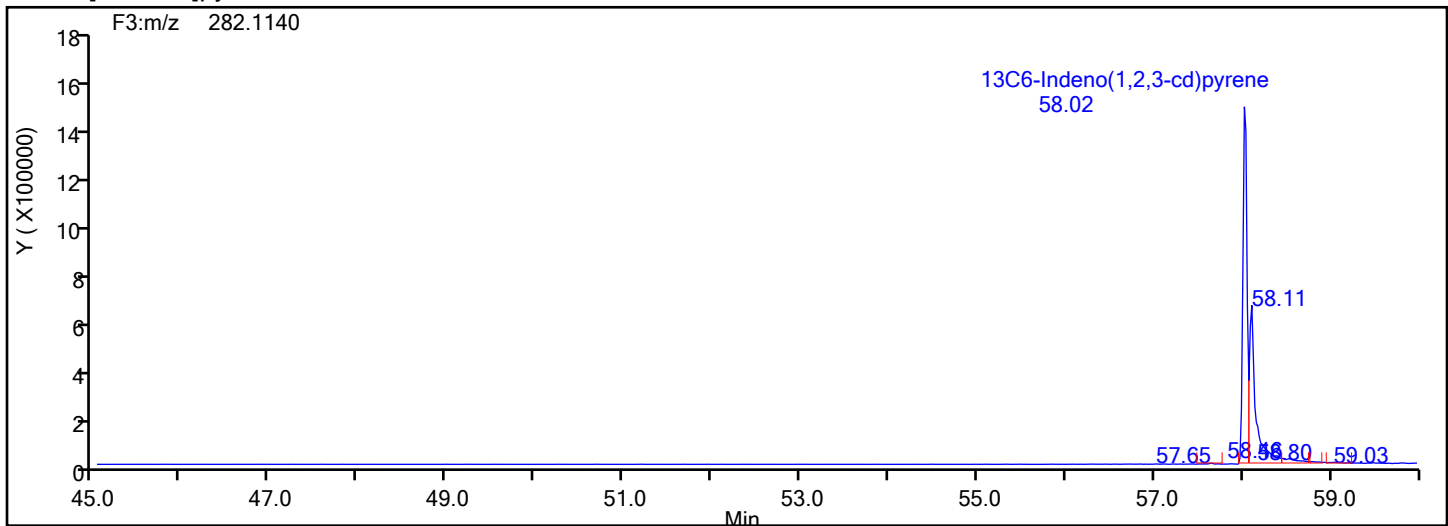
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic3.d  
Injection Date: 19-Jun-2024 18:42:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Indeno[1,2,3-cd]pyrene



## Indeno[1,2,3-cd]pyrene Standards





## Eurofins Knoxville

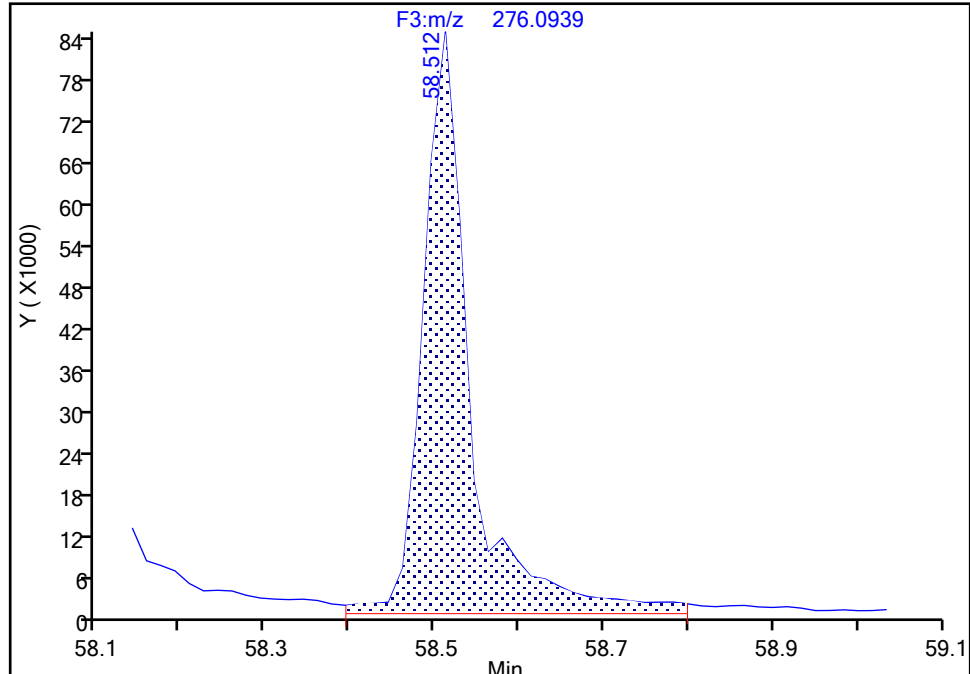
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic3.d  
Injection Date: 19-Jun-2024 18:42:00 Instrument ID: D3PAH  
Lims ID: IC L3  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

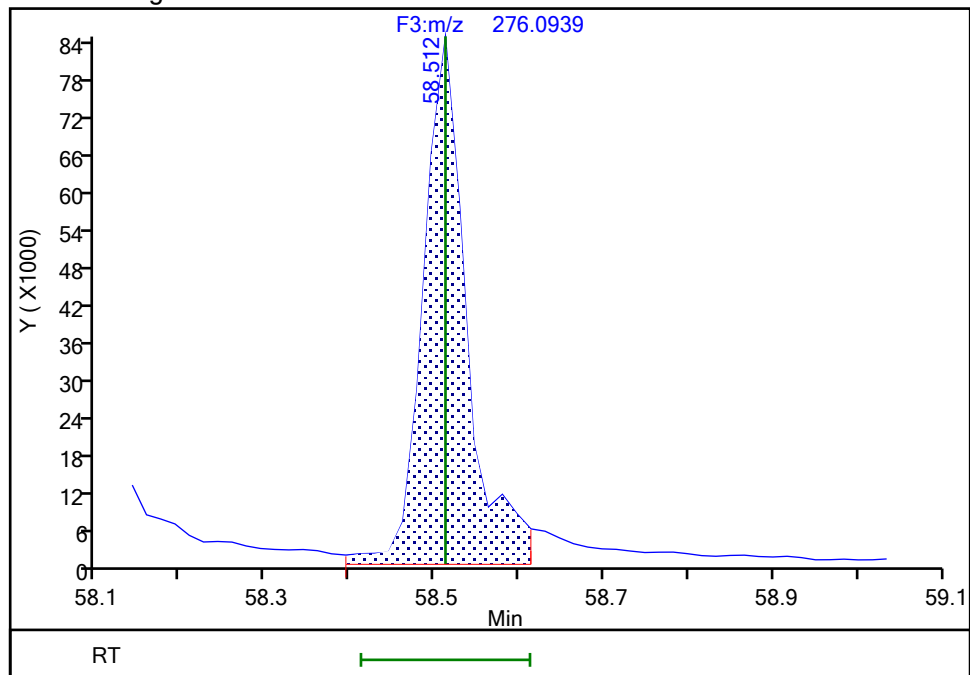
RT: 58.51  
Area: 328057  
Amount: 4.272168  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.51  
Area: 301308  
Amount: 4.025216  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:35:12 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

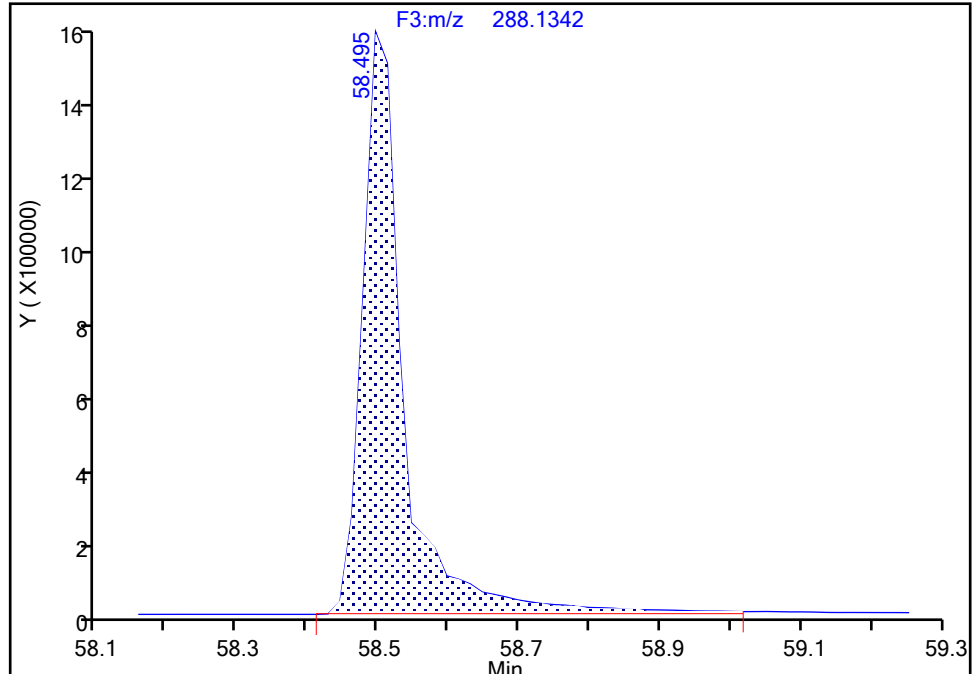
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Injection Date: 19-Jun-2024 18:42:00 Instrument ID: D3PAH  
Lims ID: IC L3  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C12-Benzo(ghi)perylene, CAS: 350820-11-0**

Signal: 1

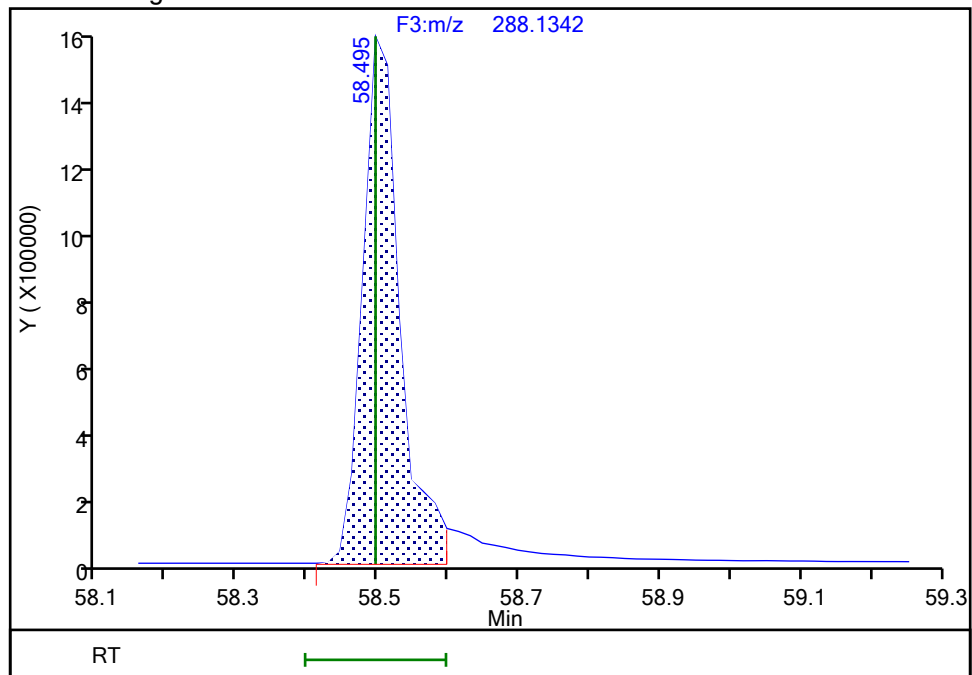
RT: 58.50  
Area: 6519750  
Amount: 97.969907  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.50  
Area: 5830946  
Amount: 92.825945  
Amount Units: pg/ul

## Manual Integration Results



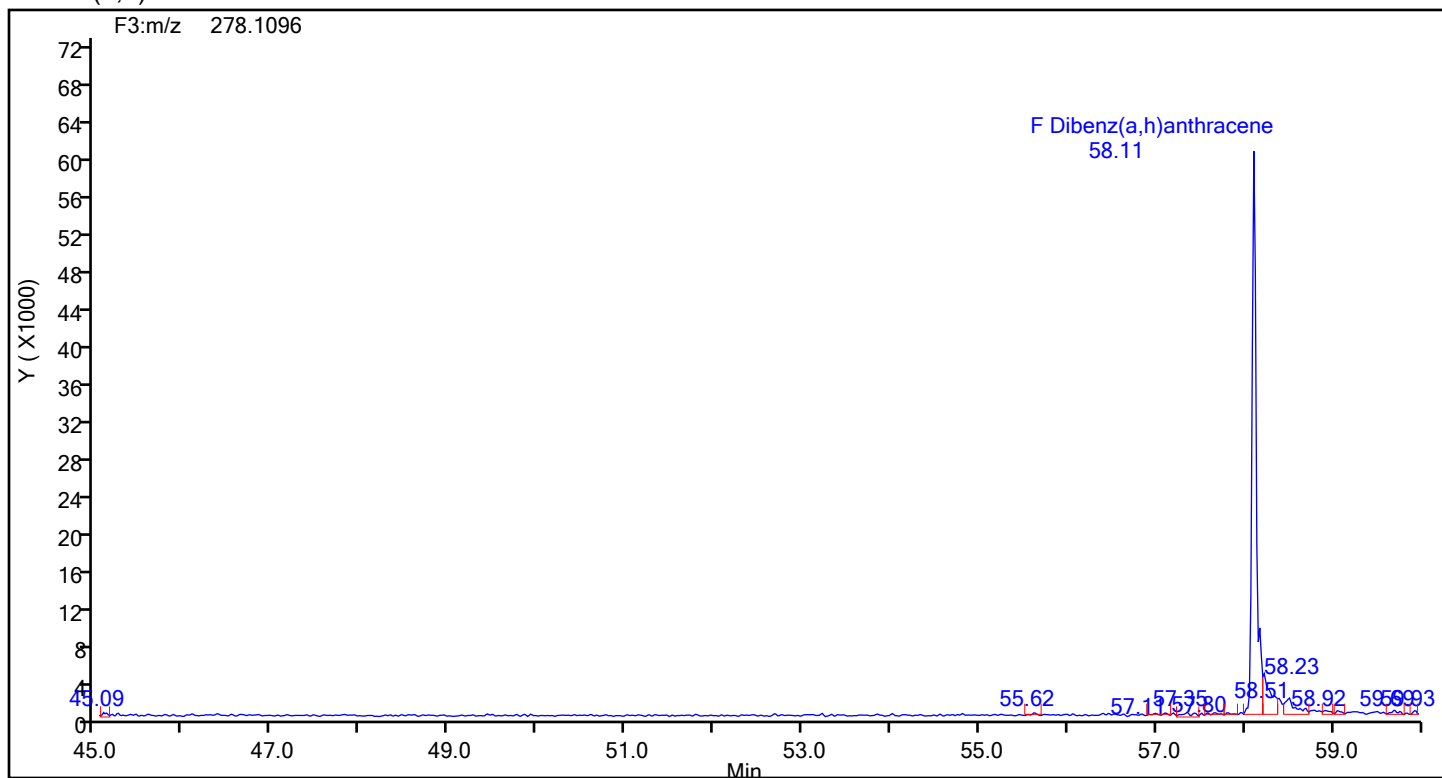
Reviewer: F9EE, 20-Jun-2024 09:35:05 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

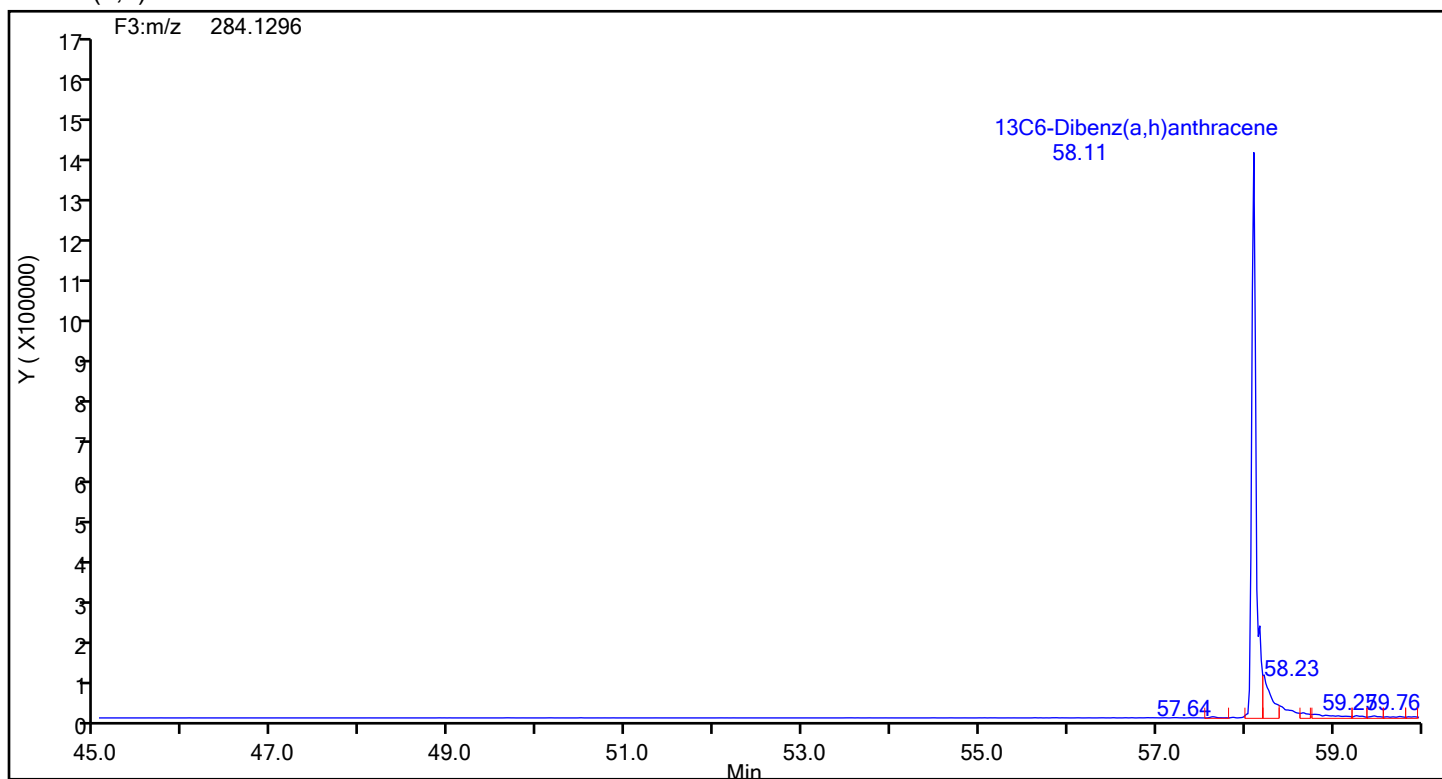
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic3.d  
Injection Date: 19-Jun-2024 18:42:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Dibenz(a,h)anthracene



## Dibenz(a,h)anthracene Standards



## Eurofins Knoxville

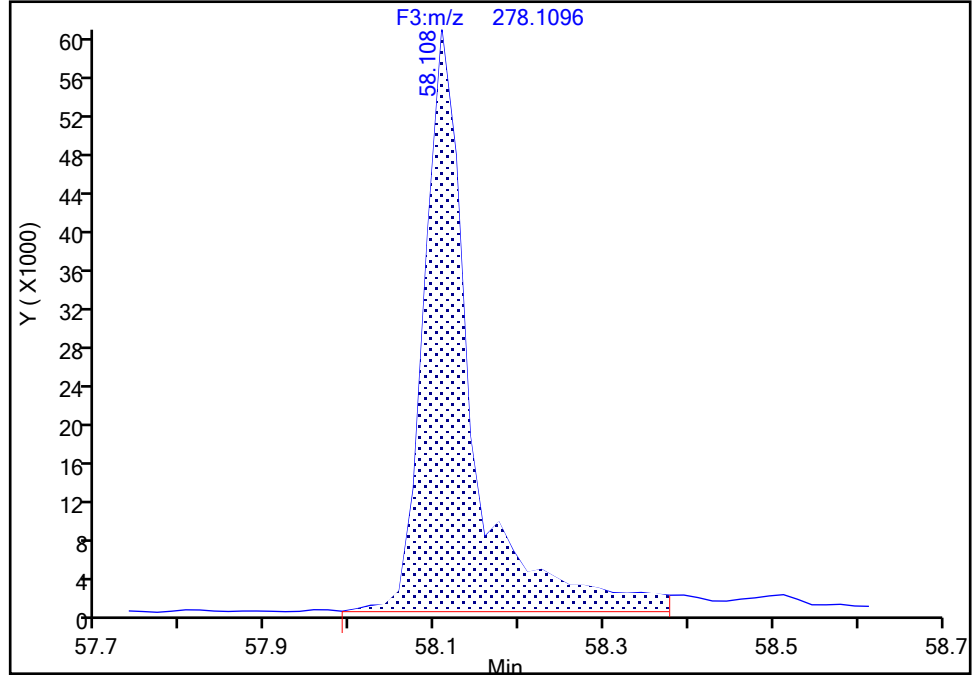
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic3.d  
Injection Date: 19-Jun-2024 18:42:00 Instrument ID: D3PAH  
Lims ID: IC L3  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

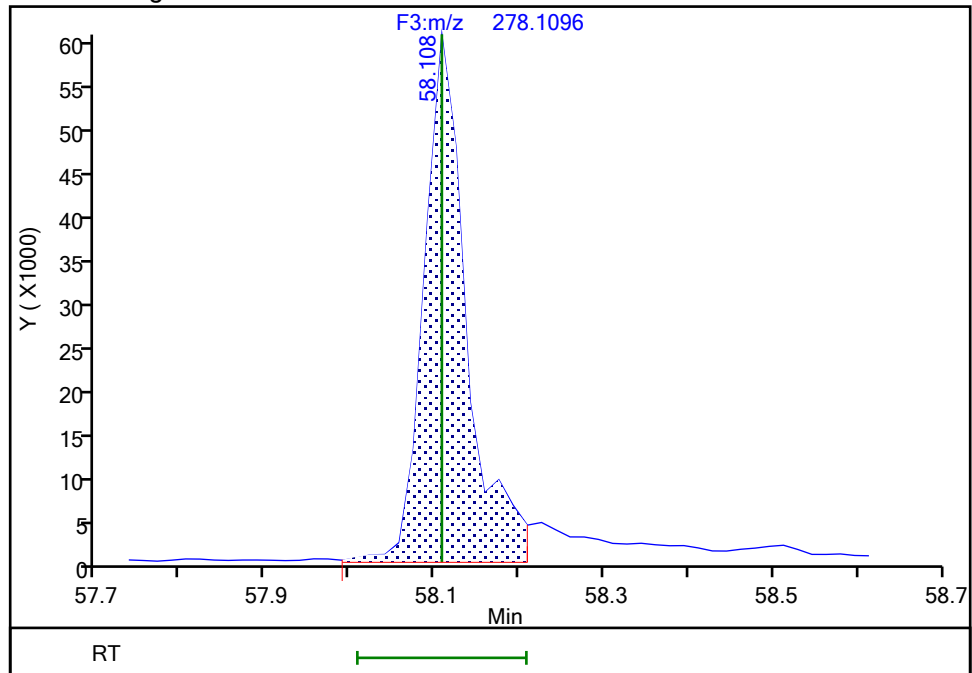
RT: 58.11  
Area: 235967  
Amount: 4.385611  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.11  
Area: 210948  
Amount: 3.903545  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:34:57 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

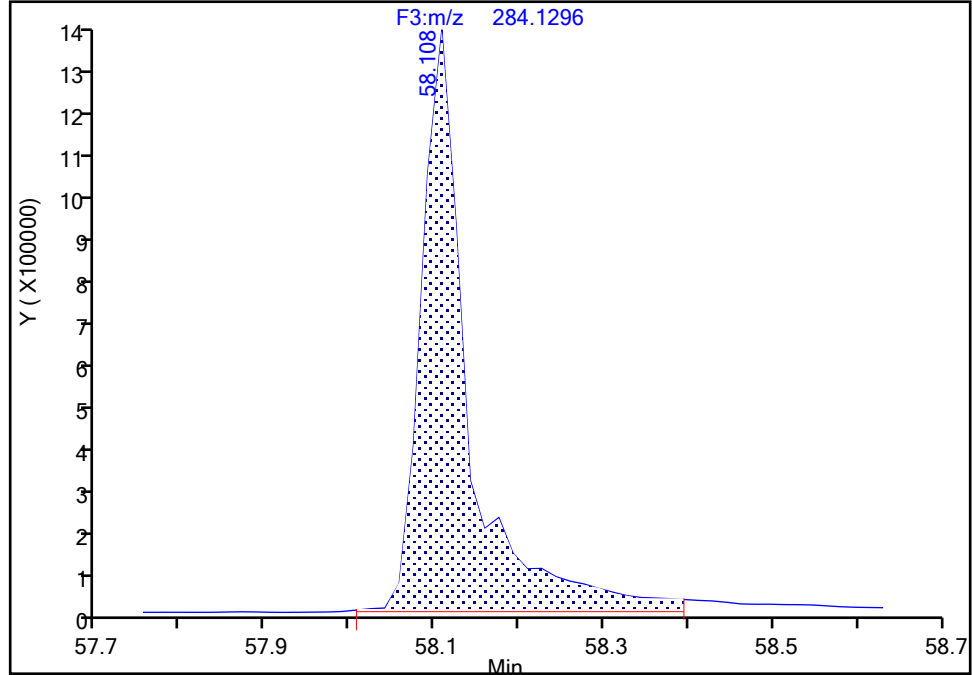
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\ld3240619ic3.d  
Injection Date: 19-Jun-2024 18:42:00 Instrument ID: D3PAH  
Lims ID: IC L3  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C6-Dibenz(a,h)anthracene, CAS: ST03360**

Signal: 1

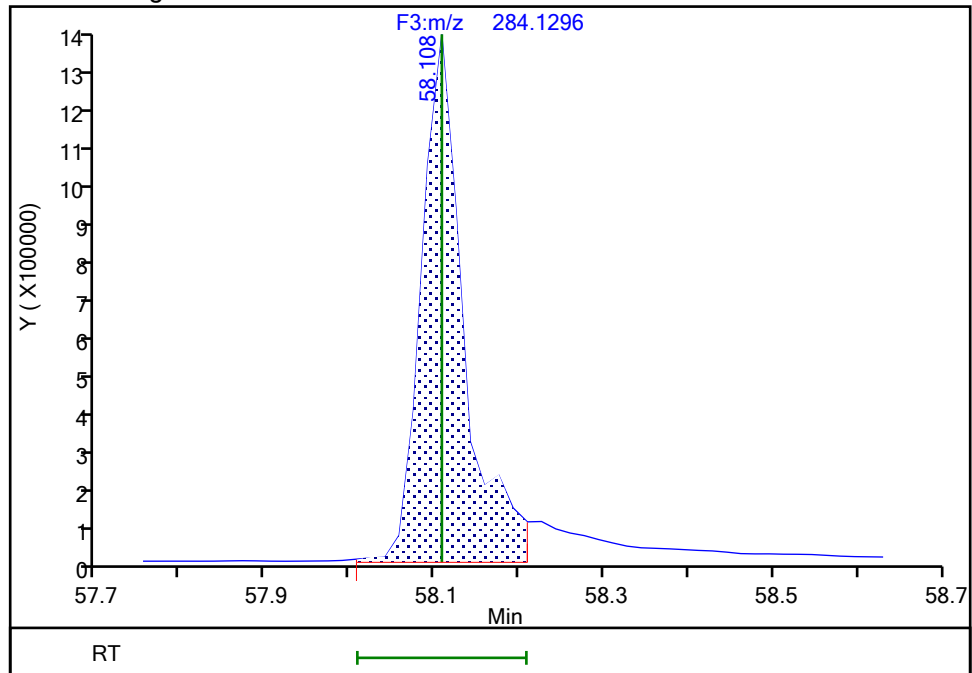
RT: 58.11  
Area: 5362382  
Amount: 91.667227  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.11  
Area: 4776504  
Amount: 91.863907  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:34:51 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic4.d  
 Lims ID: IC L4  
 Client ID:  
 Sample Type: IC Calib Level: 4  
 Inject. Date: 19-Jun-2024 19:47:00 ALS Bottle#: 0 Worklist Smp#: 4  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info:  
 Misc. Info.: 140-0033168-004  
 Operator ID: Xcalibur\_System Instrument ID: D3PAH  
 Sublist: chrom-EPA\_23\_\_PAH\*sub1  
 Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
 Limit Group: HR - HRPAL ICAL  
 Last Update: 20-Jun-2024 09:51:43 Calib Date: 20-Jun-2024 01:09:00  
 Integrator: RTE  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
 Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
 Process Host: CTX1686

First Level Reviewer: F9EE

Date: 20-Jun-2024 09:36:08

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:33	11716317		3.3746	100.0	100.0	0.006040	0.006040	99.97	
Naphthalene	11:33	3903394		1.2893	25.8	25.8	0.0222	0.0222	129	
D 13C6-2-Methylnaphthalene	13:52	5490022		1.6031	98.6	98.6	0.000763	0.000763	98.61	
2-Methylnaphthalene	13:52	1847737		1.2786	26.3	26.3	0.0199	0.0199	132	
D 13C6-Acenaphthylene	16:44	5757839		1.6520	100.4	100.4	0.001086	0.001086	100	
Acenaphthylene	16:45	1541031		2.3661	19.2	19.2	0.0221	0.0221	95.79	
* Acenaphthene-d10	17:19	3473120		3.5E+04	100.0	100.0				
D 13C6-Acenaphthene	17:26	3399456		0.9792	100.0	100.0	0.000999	0.000999	99.96	
Acenaphthene	17:26	939646		1.2697	21.8	21.8	0.0280	0.0280	109	
D 13C6-Fluorene	19:43	3098767		0.8898	100.3	100.3	0.000641	0.000641	100	
Fluorene	19:44	817773		1.2532	21.1	21.1	0.0292	0.0292	105	
D 13C6-Phenanthrene	25:07	4480403		0.5724	99.9	99.9	0.004188	0.004188	99.87	
Phenanthrene	25:07	1073406		1.1044	21.7	21.7	0.0394	0.0394	108	
\$ Anthracin-d10	25:20	3328133		0.4257	99.7	99.7	0.001931	0.001931	99.75	
D 13C6-Anthracene	25:27	3635963		0.4523	102.6	102.6	0.005300	0.005300	103	
Anthracene	25:27	983685		1.3586	19.9	19.9	0.0415	0.0415	99.57	
D 13C6-Fluoranthrene	33:52	9182667		1.1994	97.7	97.7	0.0211	0.0211	97.68	
Fluoranthrene	33:53	2114329		1.1513	20.0	20.0	0.0150	0.0150	100	
* Pyrene-d10	35:26	7837595		7.9E+04	100.0	100.0				
D 13C3-Pyrene	35:34	10292274		1.3512	97.2	97.2	0.0133	0.0133	97.19	
Pyrene	35:34	2200520		1.0652	20.1	20.1	0.0153	0.0153	100	
\$ 13C6-Benzo(c)fluorene	39:17	3555493		0.5136	88.3	88.3	0.003601	0.003601	88.33	
D 13C6-Benzo(a)anthracene	46:07	7704055		1.5189	101.2	101.2	0.0149	0.0149	101	
Benzo[a]anthracene	46:07	1488098		0.9739	19.8	19.8	0.0175	0.0175	99.17	
D 13C6-Chrysene	46:23	8166961		1.6287	100.1	100.1	0.0139	0.0139	100	
Chrysene	46:23	1613361		0.9815	20.1	20.1	0.0169	0.0169	101	
D 13C6-Benzo(b)fluoranthene	54:38	7226370		1.4621	98.6	98.6	0.000823	0.000823	98.63	
Benzo[b]fluoranthene	54:39	1692873		1.1249	20.8	20.8	0.009602	0.009602	104	
\$ 13C12-Benzo(j)fluoranthene	54:40	6484034		1.3558	95.4	95.4	0.0171	0.0171	95.43	
D 13C6-Benzo(k)fluoranthene	54:46	8387092		1.7507	95.6	95.6	0.000687	0.000687	95.60	
Benzo[k]fluoranthene	54:46	1885945		1.1271	20.0	20.0	0.008676	0.008676	99.75	
* Benzo(e)pyrene-d12	55:30	5011388		5.7E+04	100.0	100.0				
D 13C4-Benzo(e)pyrene	55:34	8133857		1.6368	99.2	99.2	0.0104	0.0104	99.16	

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\3240619ic4.d

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
Benzo[e]pyrene	55:35	1761621		1.0013	21.6	21.6	0.007898	0.007898	108	
Benzo[a]pyrene	55:43	1660260		1.1130	19.8	19.8	0.008299	0.008299	99.20	
D 13C4-Benzo(a)pyrene	55:43	7518310		1.5508	96.7	96.7	0.0109	0.0109	96.74	
D Perylene-d12	55:53	6075448		1.1917	101.7	101.7	0.0177	0.0177	102	
Perylene	55:57	1591843		1.4307	18.3	18.3	0.007063	0.007063	91.57	
D 13C6-Indeno(1,2,3-cd)pyrene	58:01	5157889		1.0218	100.7	100.7	0.008657	0.008657	101	M
Indeno[1,2,3-cd]pyrene	58:01	1091218		1.1249	18.8	18.8	0.008244	0.008244	94.03	
D 13C6-Dibenz(a,h)anthracene	58:06	4988169		1.0553	94.3	94.3	0.005702	0.005702	94.32	M
Dibenz(a,h)anthracene	58:06	1098846		1.1314	19.5	19.5	0.006864	0.006864	97.36	M
D 13C12-Benzo(ghi)perylene	58:29	6056294		1.2749	94.8	94.8	0.005995	0.005995	94.79	M
Benzo[g,h,i]perylene	58:30	1535539		1.2838	19.8	19.8	0.006558	0.006558	98.75	M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61HRPAHCS4\_00002

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic4.d  
Lims ID: IC L4  
Client ID:  
Sample Type: IC Calib Level: 4  
Inject. Date: 19-Jun-2024 19:47:00 ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033168-004  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 20-Jun-2024 09:51:43 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1686

First Level Reviewer: F9EE

Date: 20-Jun-2024 09:36:08

Signal	RT (min.)	Adj RT (min.)	¶ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:33	11:33	-1	0.667	11716317	3897082	100	250	38971		
Naphthalene											
128.0626	11:33	11:34	-1	1.000	3903394	1298165	446	1115	2911		
13C6-2-Methylnaphthalene											
148.0984	13:52	13:52	-1	0.800	5490022	2599116	6	15	433186		
2-Methylnaphthalene											
142.0783	13:52	13:53	-1	1.000	1847737	852094	265	662	3215		
13C6-Acenaphthylene											
158.0828	16:44	16:45	-1	0.966	5757839	1994063	9	22	221563		
Acenaphthylene											
152.0626	16:45	16:45	-1	1.000	1541031	557482	237	592	2352		
Acenaphthene-d10											
164.1404	17:19	17:20	-1		3473120	1226490	4	10	306623		
13C6-Acenaphthene											
160.0984	17:26	17:27	-1	1.007	3399456	1131211	5	12	226242		
Acenaphthene											
154.0783	17:26	17:27	-1	1.000	939646	325892	161	402	2024		
13C6-Fluorene											
172.0984	19:43	19:45	-1	1.139	3098767	929479	3	7	309826		
Fluorene											
166.0783	19:44	19:45	-1	1.001	817773	239404	136	340	1760		
13C6-Phenanthrene											
184.0984	25:07	25:08	-1	0.709	4480403	1051309	14	35	75094		
Phenanthrene											
178.0783	25:07	25:08	-1	1.000	1073406	263170	183	457	1438		



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:20	25:21	-1	0.715	3328133	764636	5	12	152927		
13C6-Anthracene											
184.0984	25:27	25:28	-1	0.718	3635963	811406	14	35	57958		
Anthracene											
178.0783	25:27	25:28	-1	1.000	983685	214397	183	457	1172		
13C6-Fluoranthrene											
208.0984	33:52	33:54	-2	0.956	9182667	1761346	148	370	11901		
Fluoranthene											
202.0783	33:53	33:54	-1	1.000	2114329	408256	122	305	3346		
Pyrene-d10											
212.1404	35:26	35:27	-1		7837595	1459989	43	107	33953		
13C3-Pyrene											
205.0883	35:34	35:35	-1	1.004	10292274	1869308	105	262	17803		
Pyrene											
202.0783	35:34	35:35	-1	1.000	2200520	415144	122	305	3403		
13C6-Benzo(c)fluorene											
222.1134	39:17	39:18	-1	0.708	3555493	652637	11	27	59331		
13C6-Benzo(a)anthracene											
234.1140	46:07	46:07	-1	1.301	7704055	1333038	150	375	8887		
Benzo[a]anthracene											
228.0939	46:07	46:07	-1	1.000	1488098	266418	91	227	2928		
13C6-Chrysene											
234.1140	46:23	46:24	-1	1.309	8166961	1365798	150	375	9105		
Chrysene											
228.0939	46:23	46:25	-2	1.000	1613361	277356	91	227	3048		
13C6-Benzo(b)fluoranthene											
258.1140	54:38	54:40	-2	0.985	7226370	1851591	8	20	231449		
Benzo[b]fluoranthene											
252.0939	54:39	54:40	-1	1.000	1692873	471919	80	200	5899		
13C12-Benzo(j)fluoranthene											
264.1336	54:40	54:42	-2	0.985	6484034	1591075	154	385	10332		
13C6-Benzo(k)fluoranthene											
258.1140	54:46	54:47	-1	0.987	8387092	2045378	8	20	255672		
Benzo[k]fluoranthene											
252.0939	54:46	54:47	-1	1.000	1885945	472393	80	200	5905		
Benzo(e)pyrene-d12											
264.1692	55:30	55:30	-1		5011388	1661772	140	350	11870		
13C4-Benzo(e)pyrene											
256.1073	55:34	55:35	-2	1.001	8133857	2529058	113	282	22381		
Benzo[e]pyrene											
252.0939	55:35	55:35	-1	1.000	1761621	581240	80	200	7266		
Benzo[a]pyrene											
252.0939	55:43	55:44	-1	1.000	1660260	495412	80	200	6193		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C4-Benzo(a)pyrene											
256.1073	55:43	55:44	-1	1.004	7518310	2165173	113	282	19161		
Perylene-d12											
264.1692	55:53	55:54	-1	1.007	6075448	1979131	140	350	14137		
Perylene											
252.0939	55:57	55:58	-1	1.001	1591843	541841	80	200	6773		
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	58:01	58:02	-1	1.046	5157889	1584980	59	147	26864		M
Indeno[1,2,3-cd]pyrene											
276.0939	58:01	58:03	-2	1.000	1091218	342666	59	147	5808		
13C6-Dibenz(a,h)anthracene											
284.1296	58:06	58:07	-1	1.047	4988169	1377812	40	100	34445		M
Dibenz(a,h)anthracene											
278.1096	58:06	58:07	-1	1.000	1098846	313712	43	107	7296		M
13C12-Benzo(ghi)perylene											
288.1342	58:29	58:30	-1	1.054	6056294	1746025	51	127	34236		M
Benzo[g,h,i]perylene											
276.0939	58:30	58:31	-1	1.000	1535539	424373	59	147	7193		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61HRPAHCS4\_00002

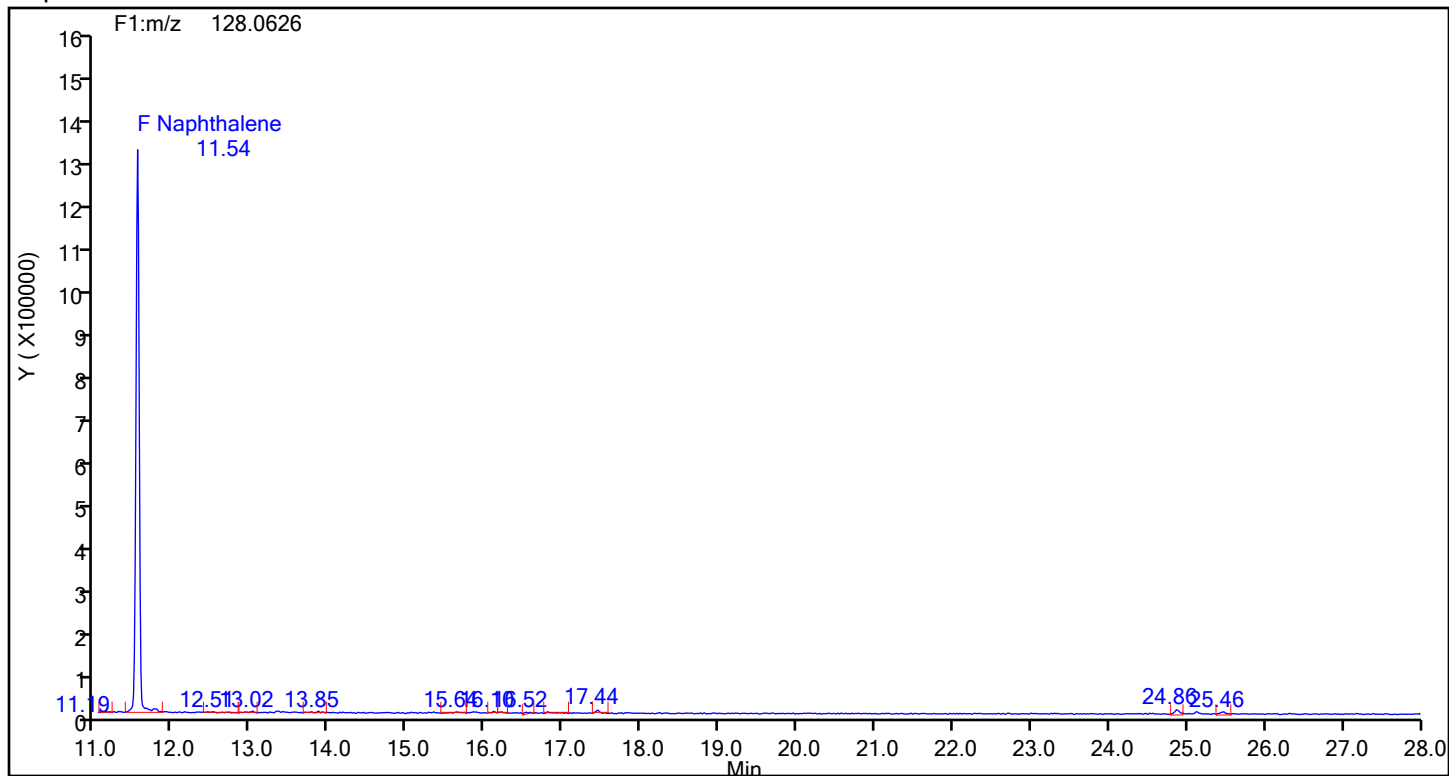
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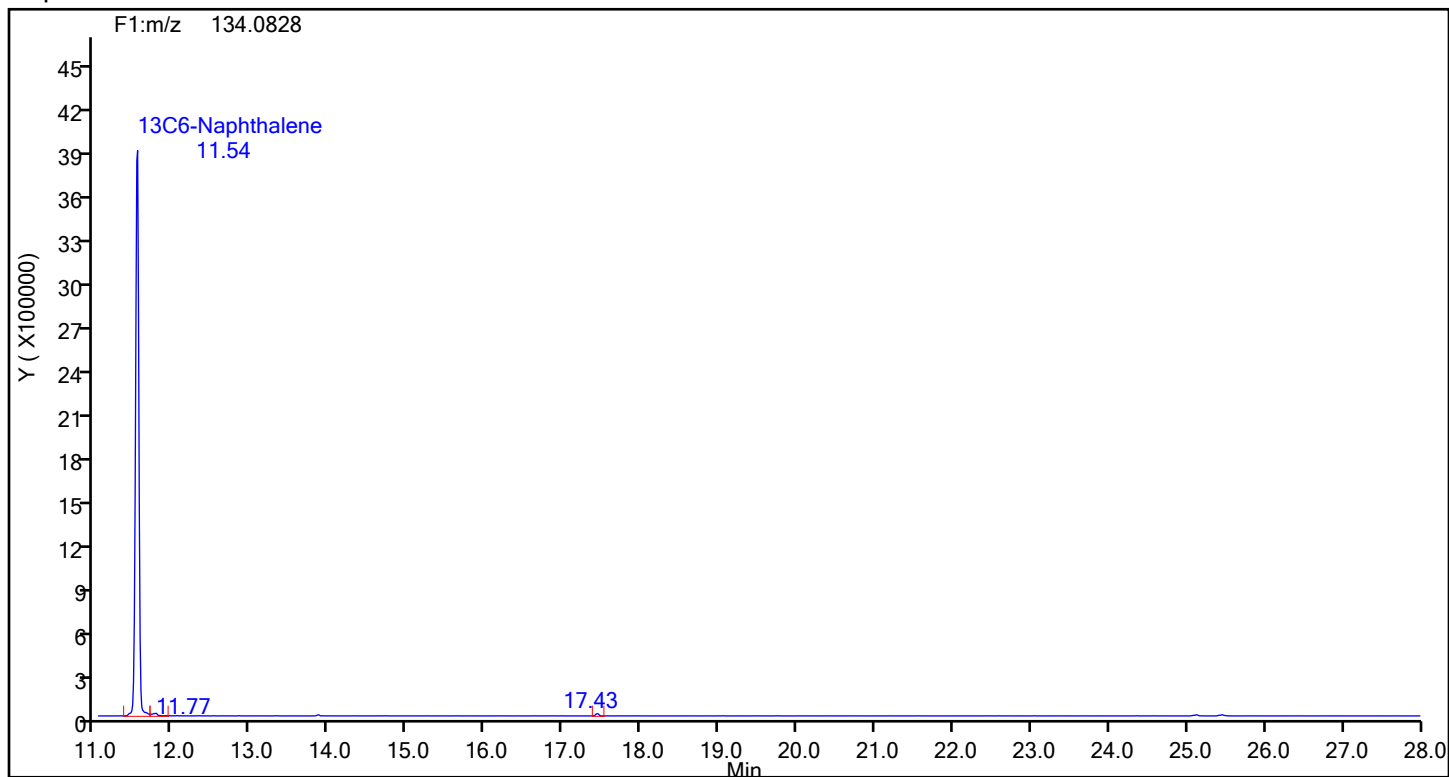
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 4  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



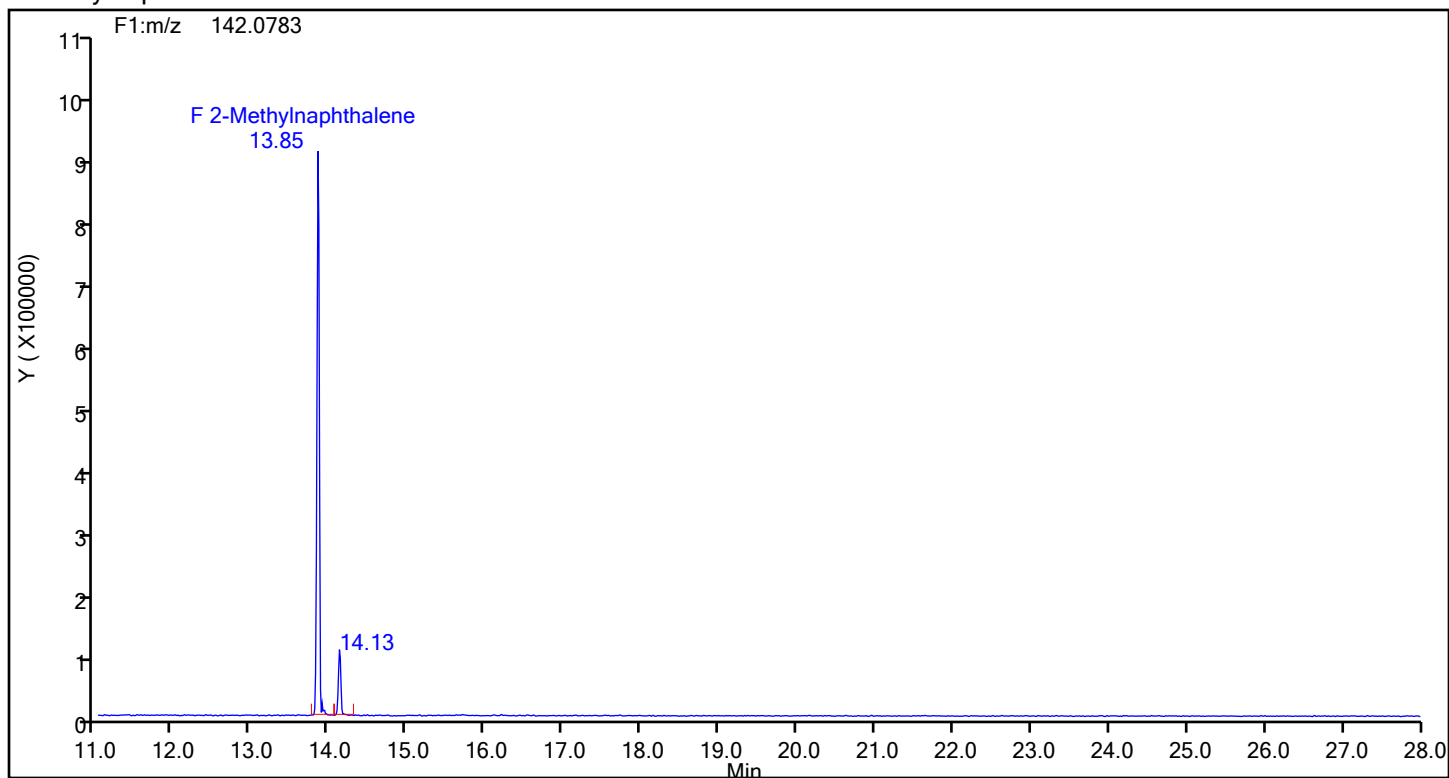
## Naphthalene Standards



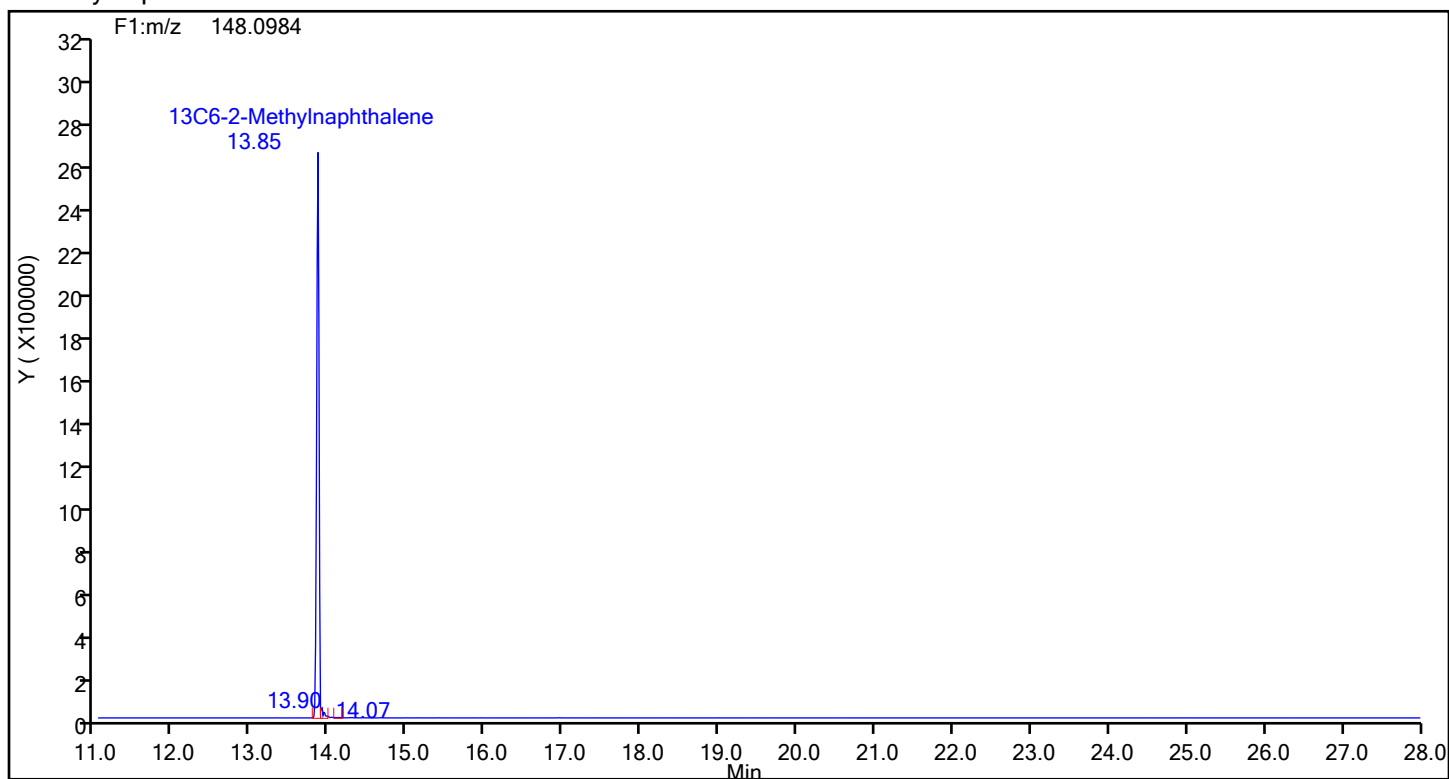
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



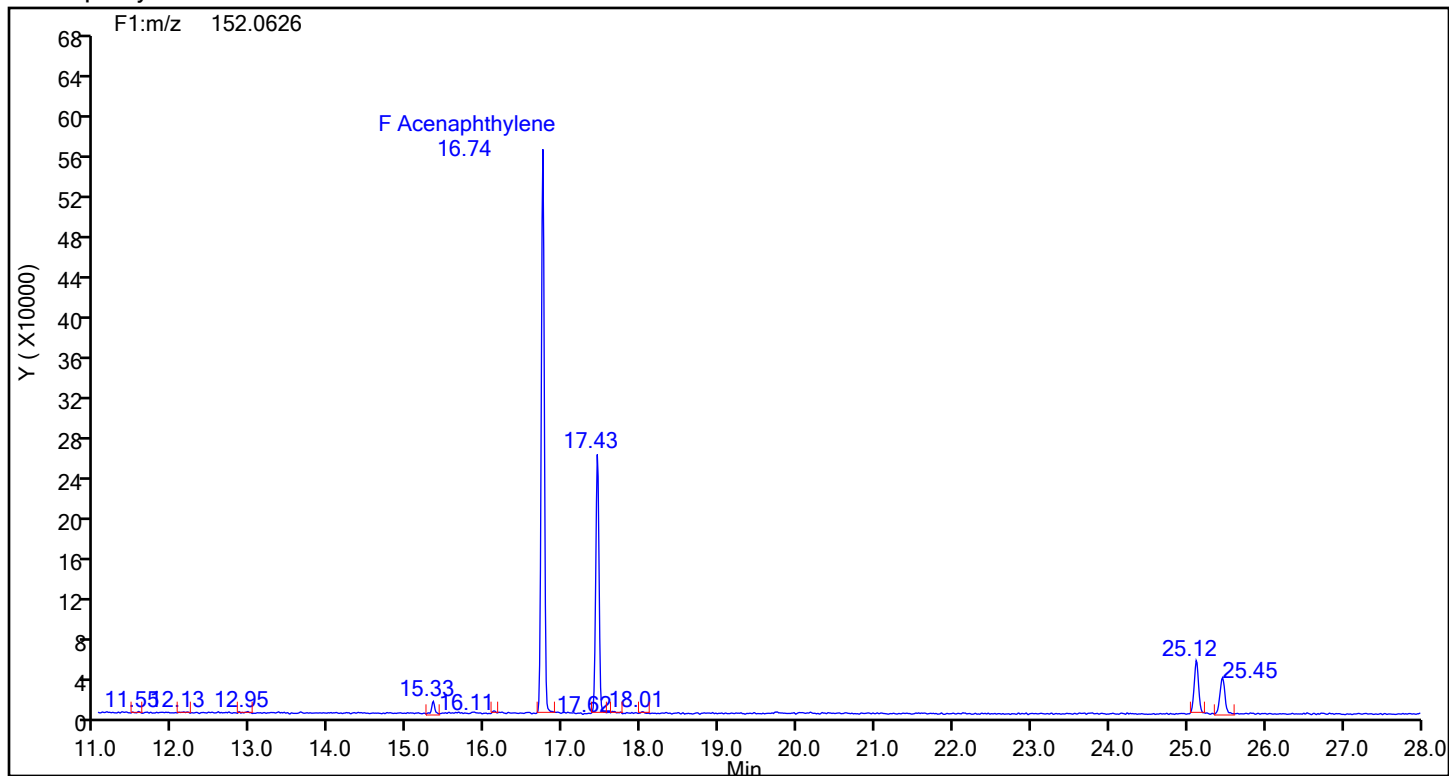
## 2-Methylnaphthalene Standards



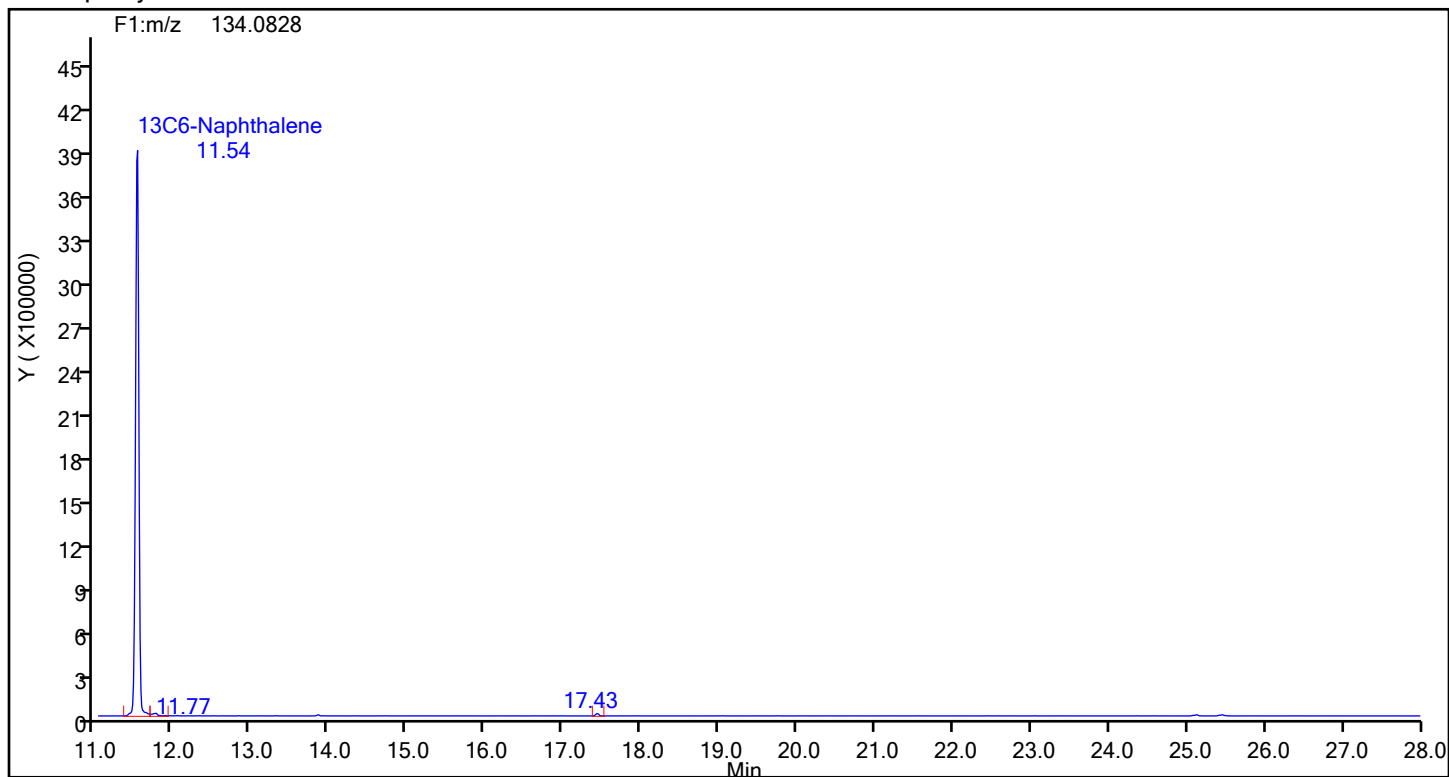
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene



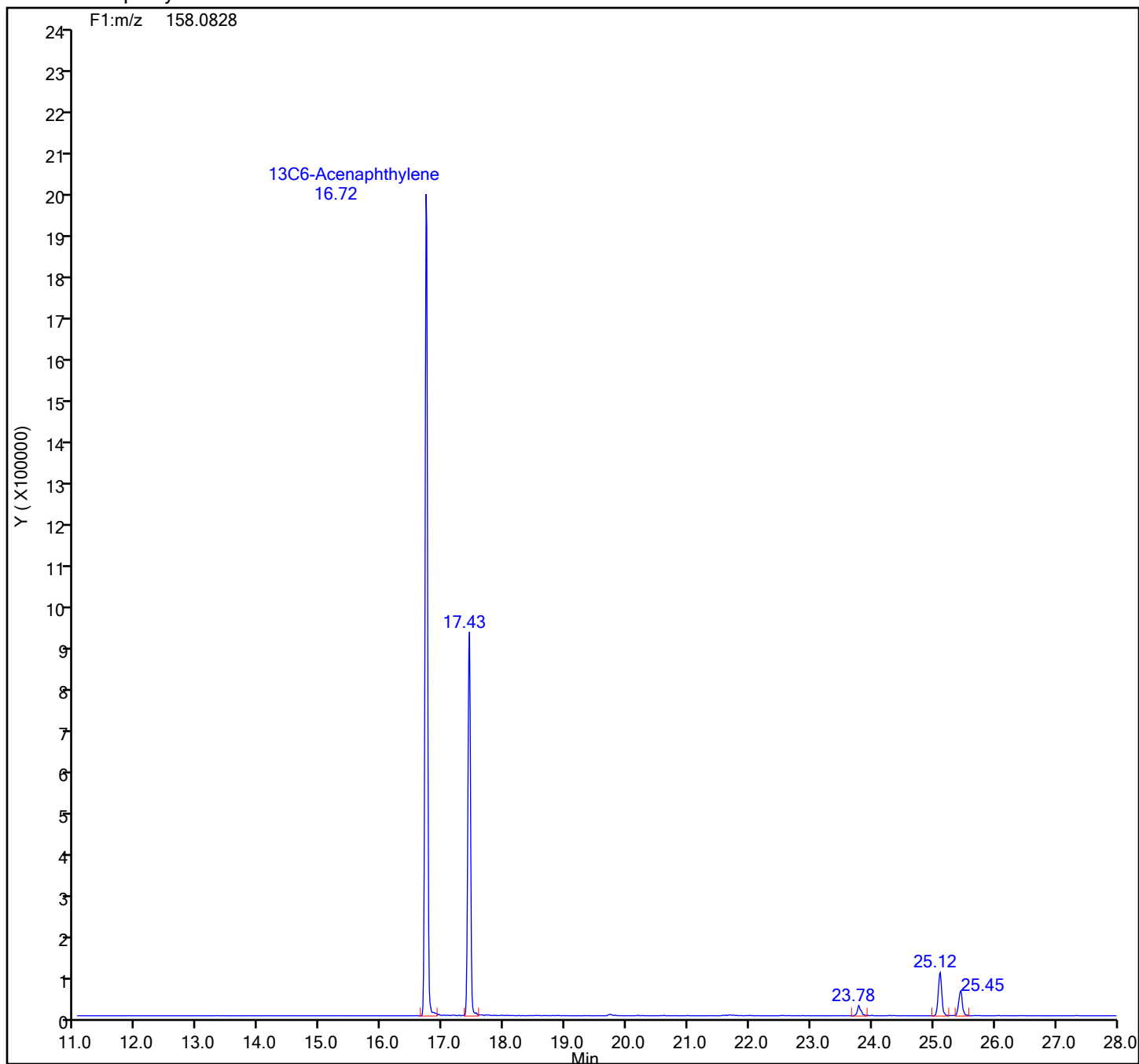
## Acenaphthylene Standards



## Eurofins Knoxville

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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

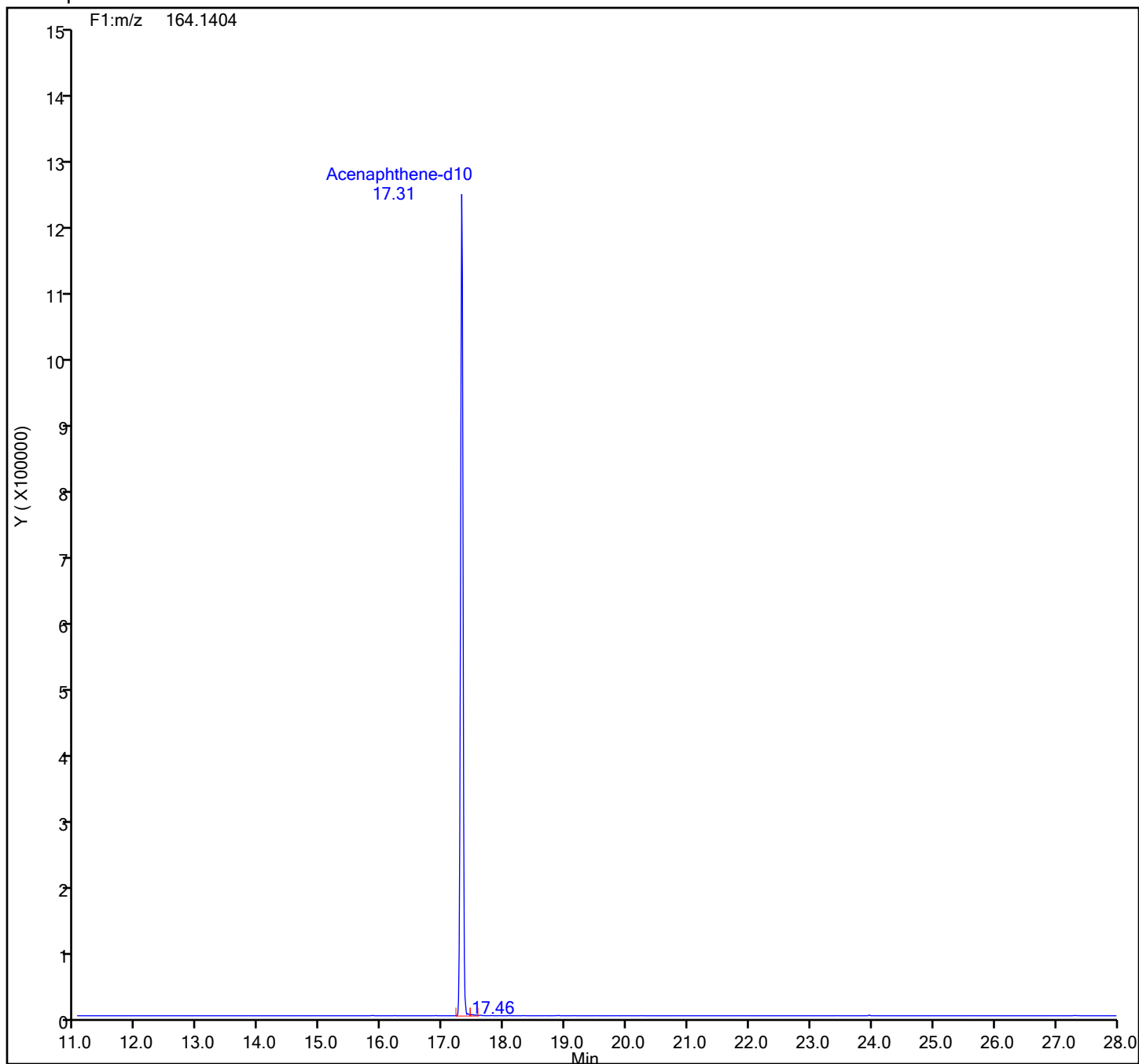
## 13C6-Acenaphthylene Standards



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Client ID:  
Worklist#: 87843 Sample Line#: 4  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

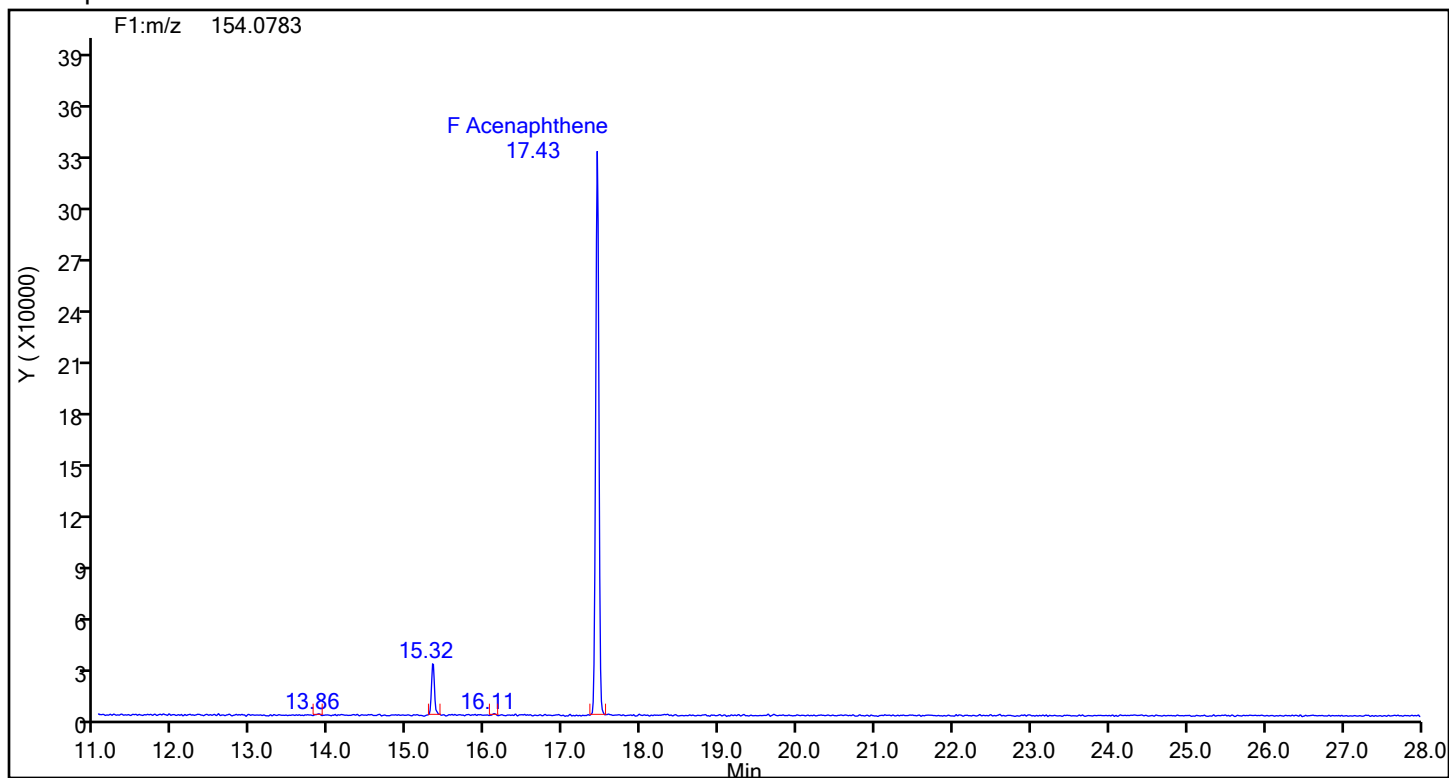
## Acenaphthene-d10 Standards



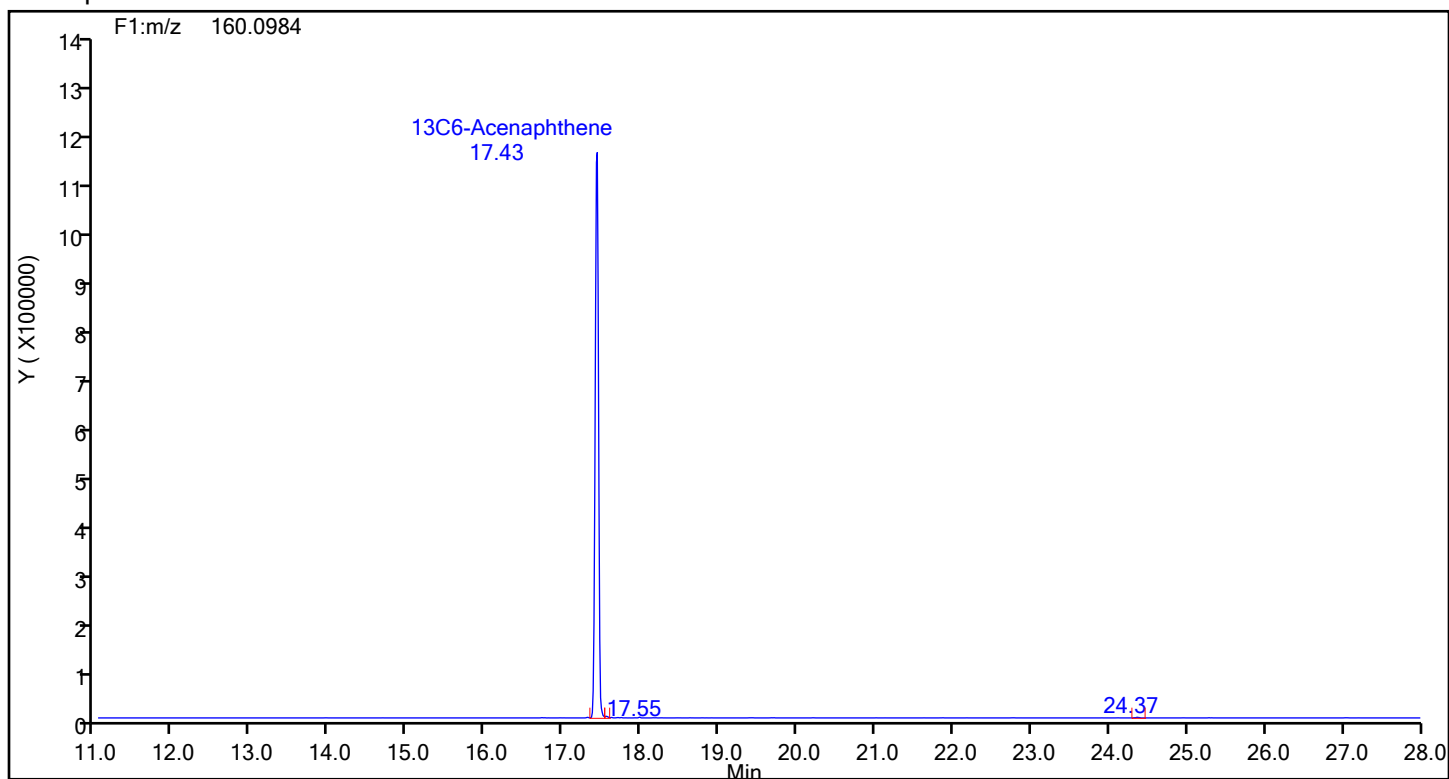
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



## Acenaphthene Standards

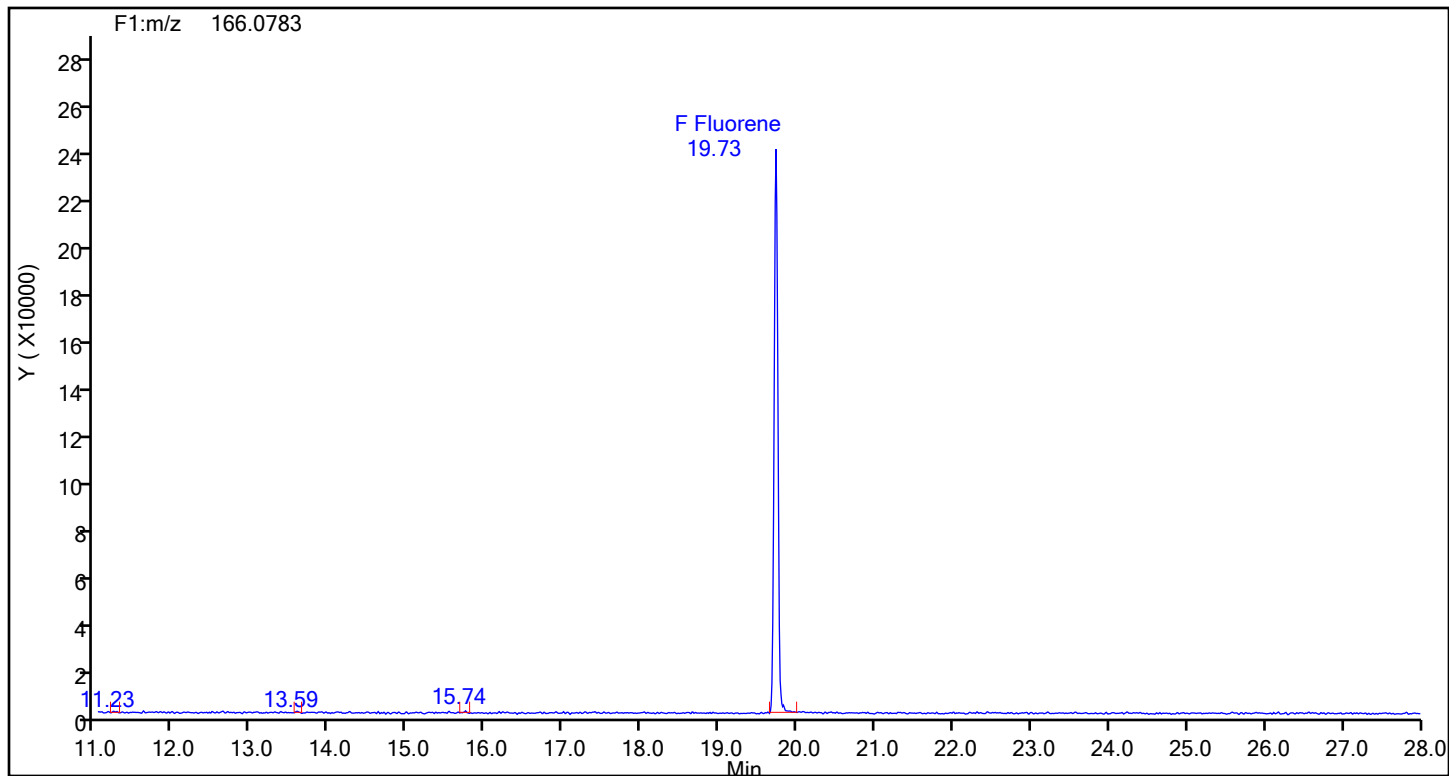




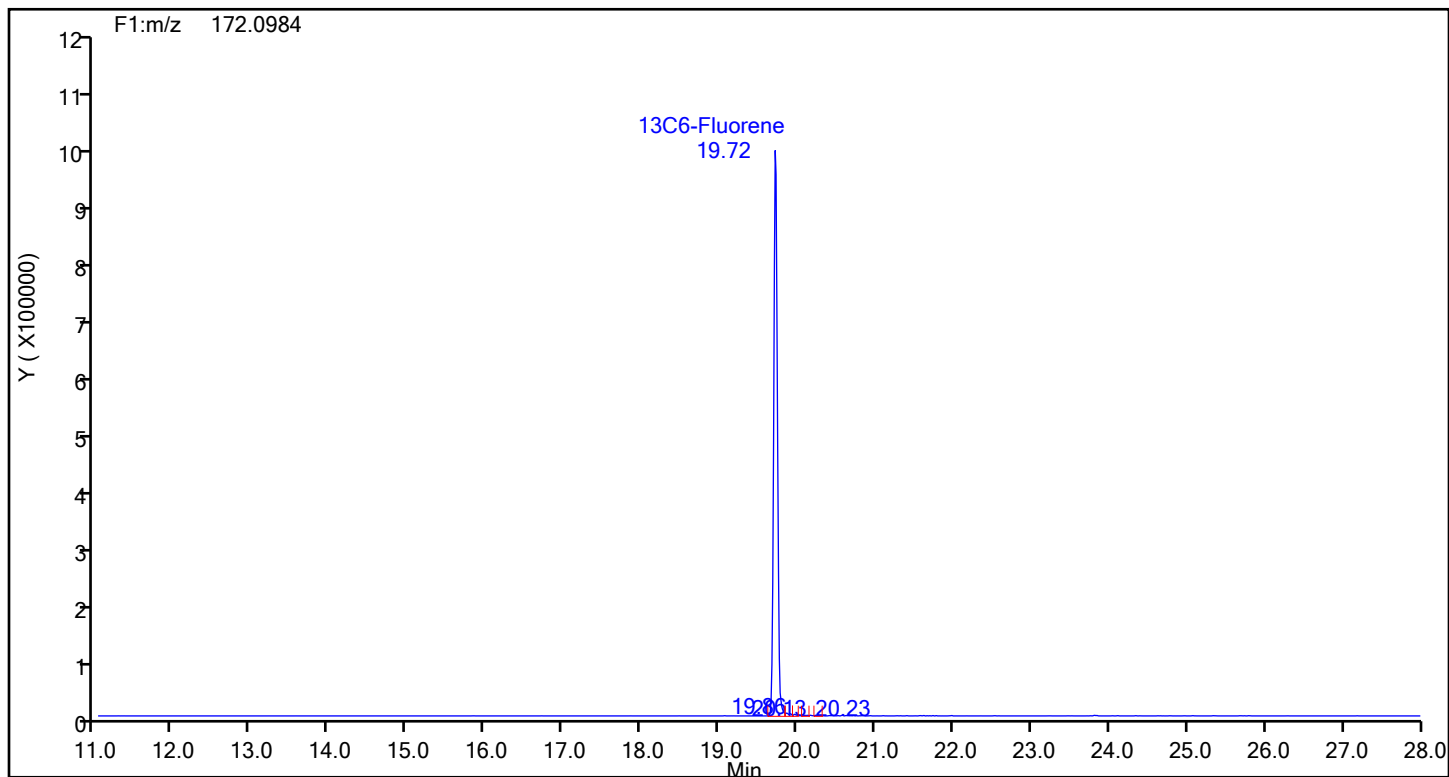
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene

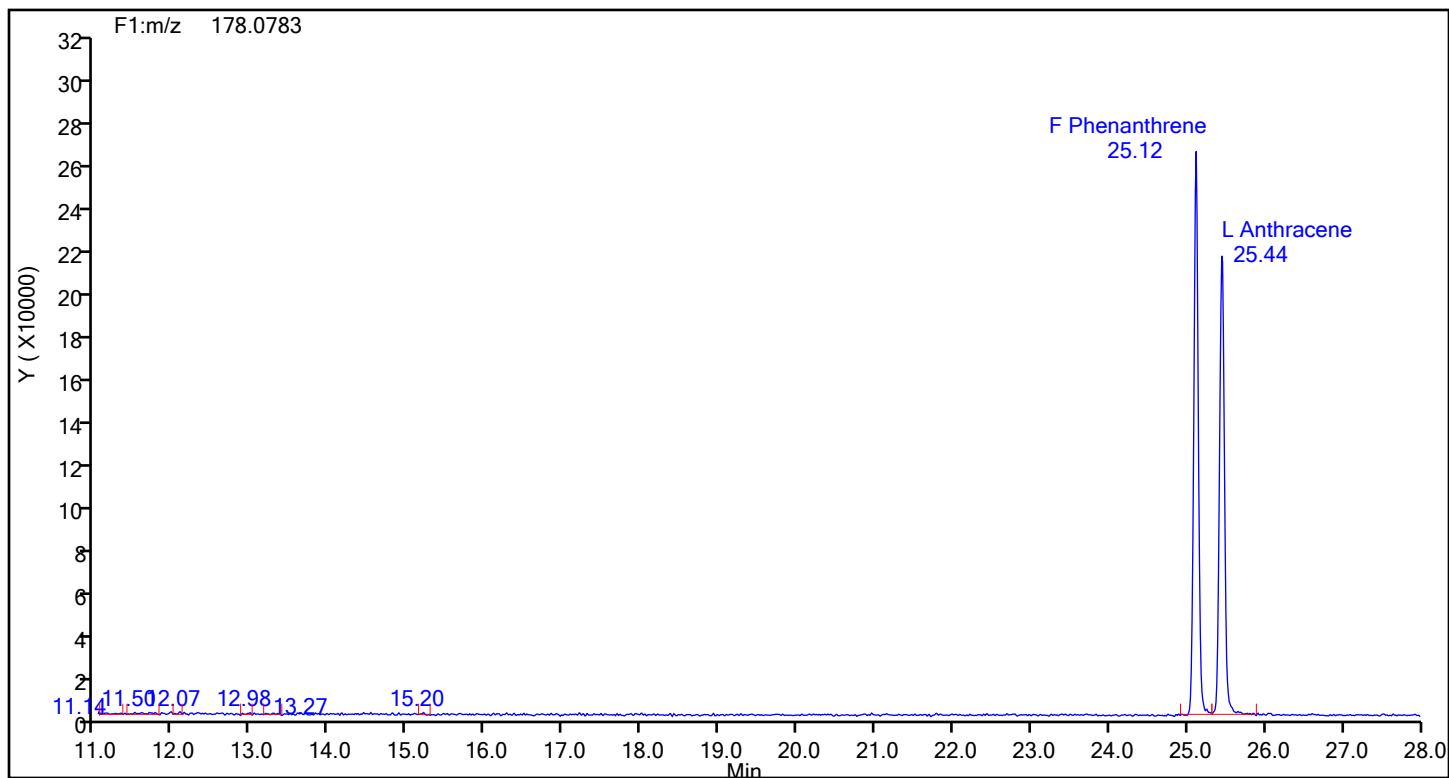


## Fluorene Standards

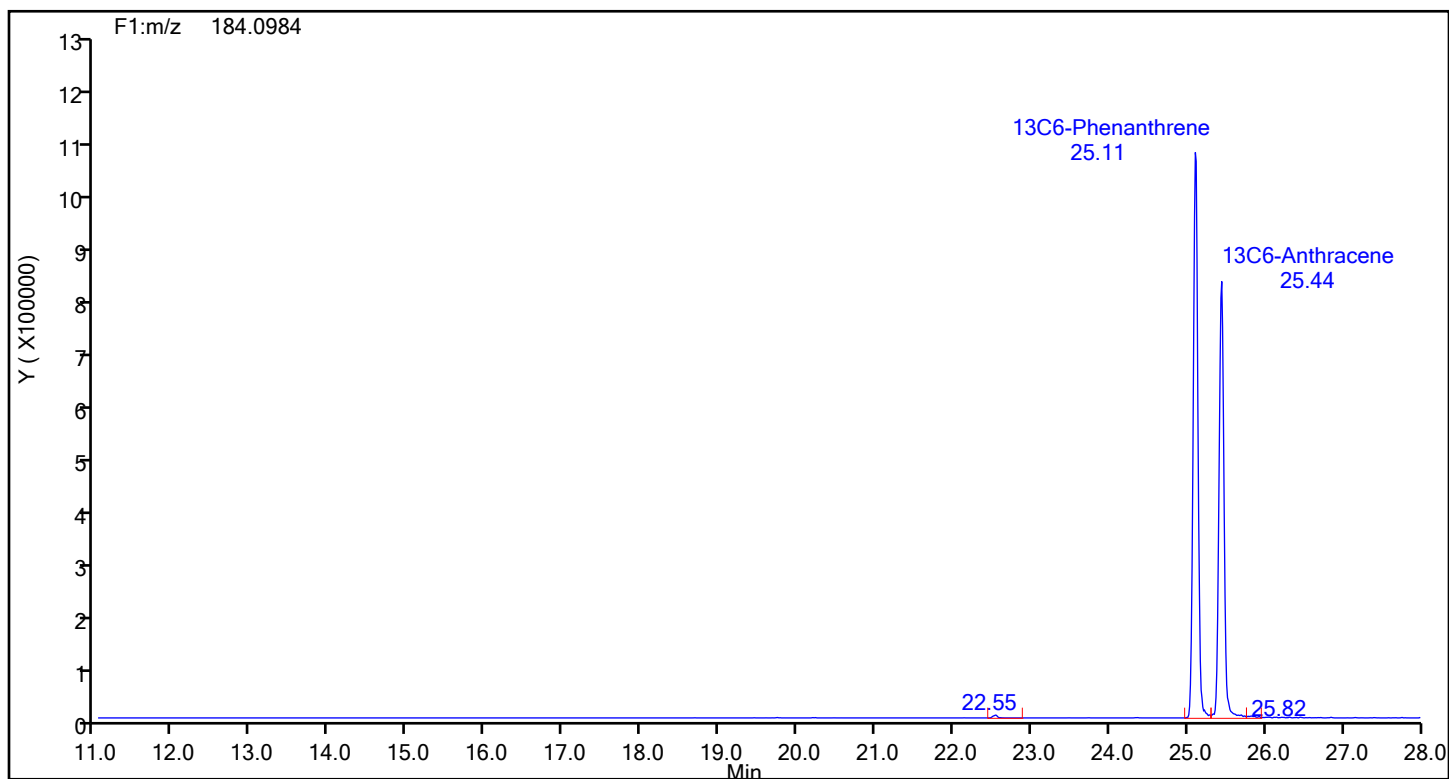


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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
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Phenanthrene

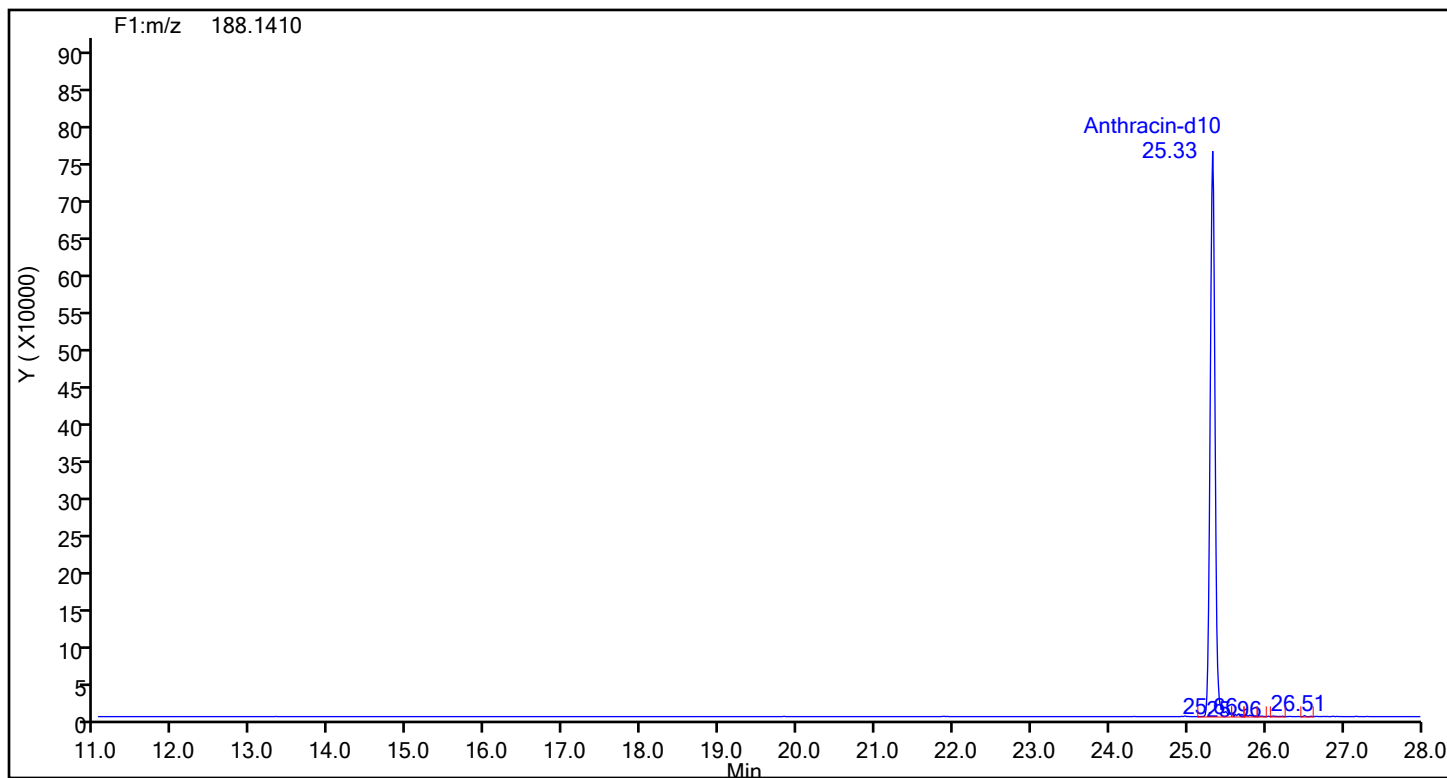


## Phenanthrene Standards

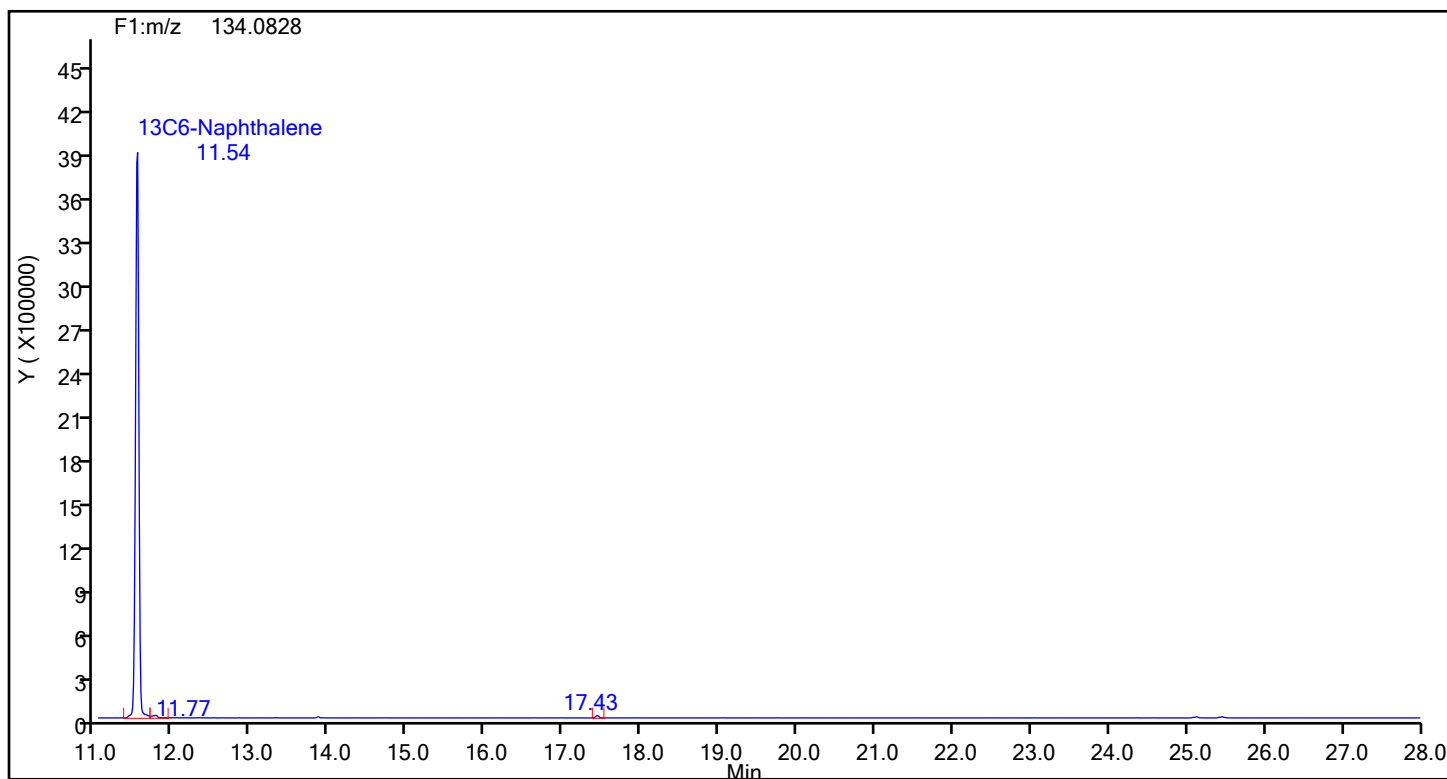


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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
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Worklist#: 87843 Sample Line#: 4  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10

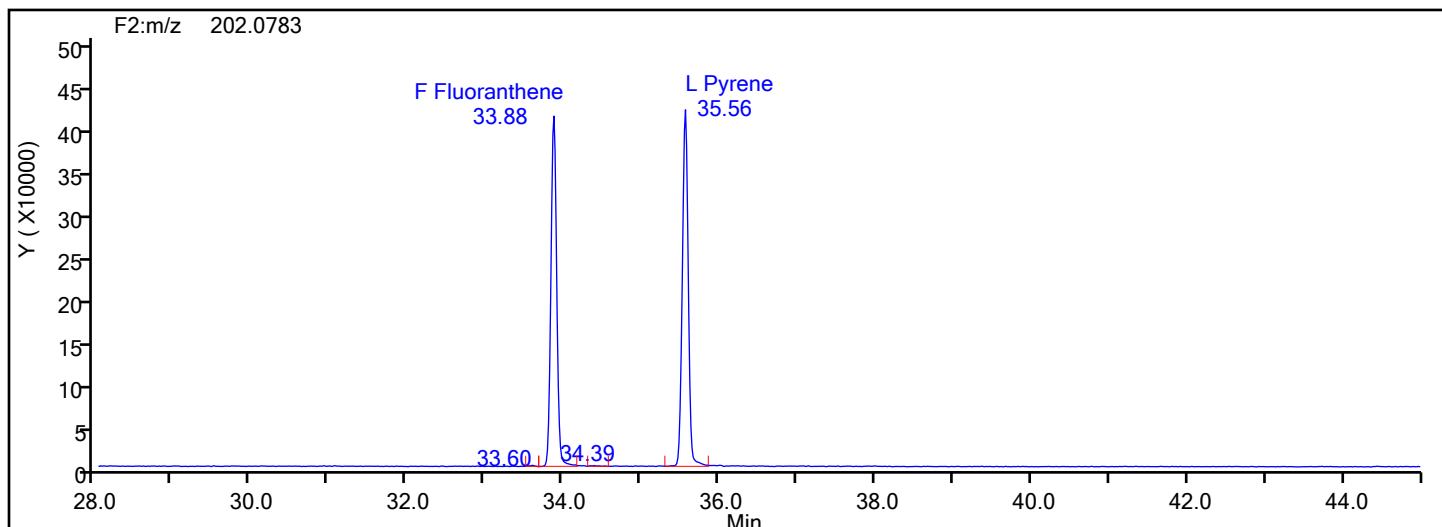


## Anthracin-d10 Standards

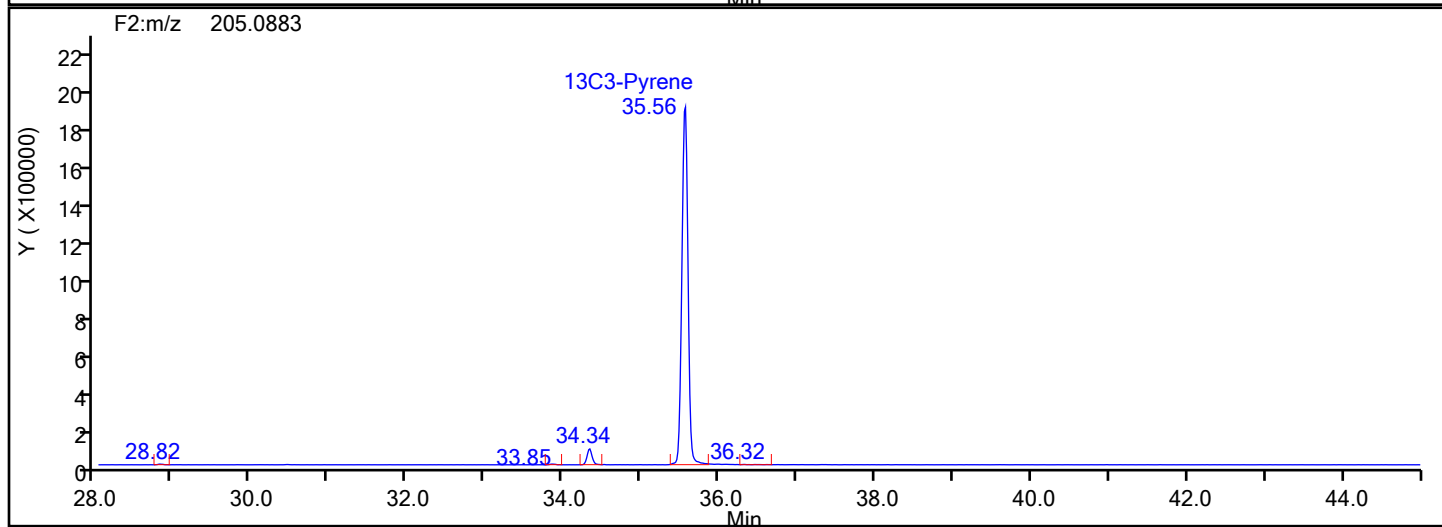
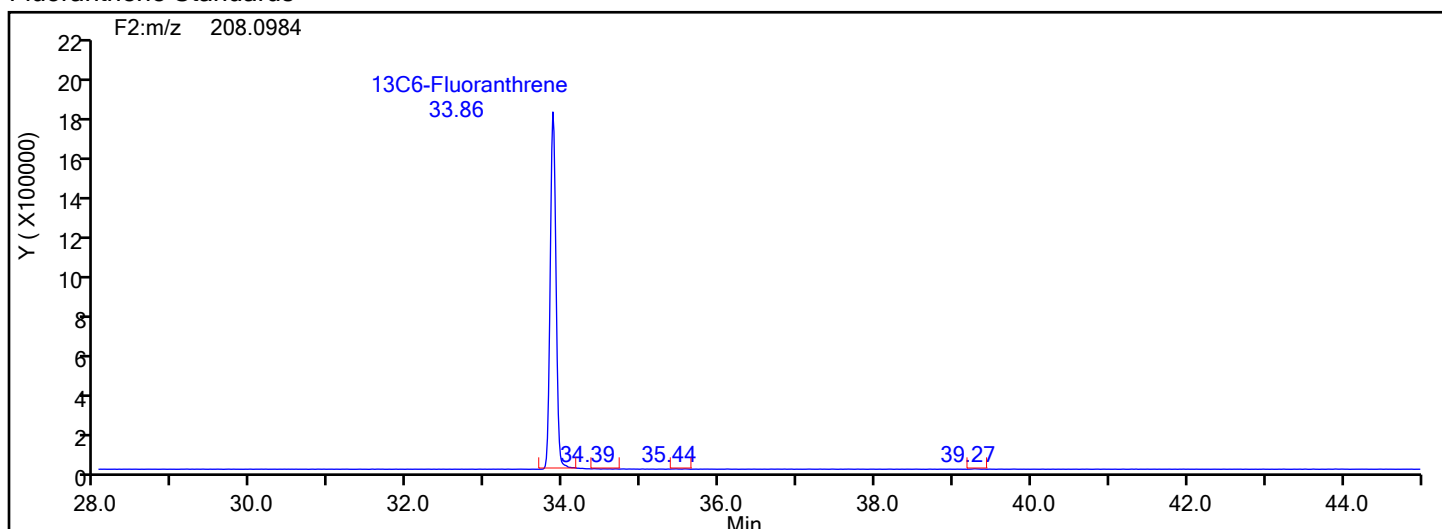


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Worklist#: 87843 Sample Line#: 4  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Fluoranthene



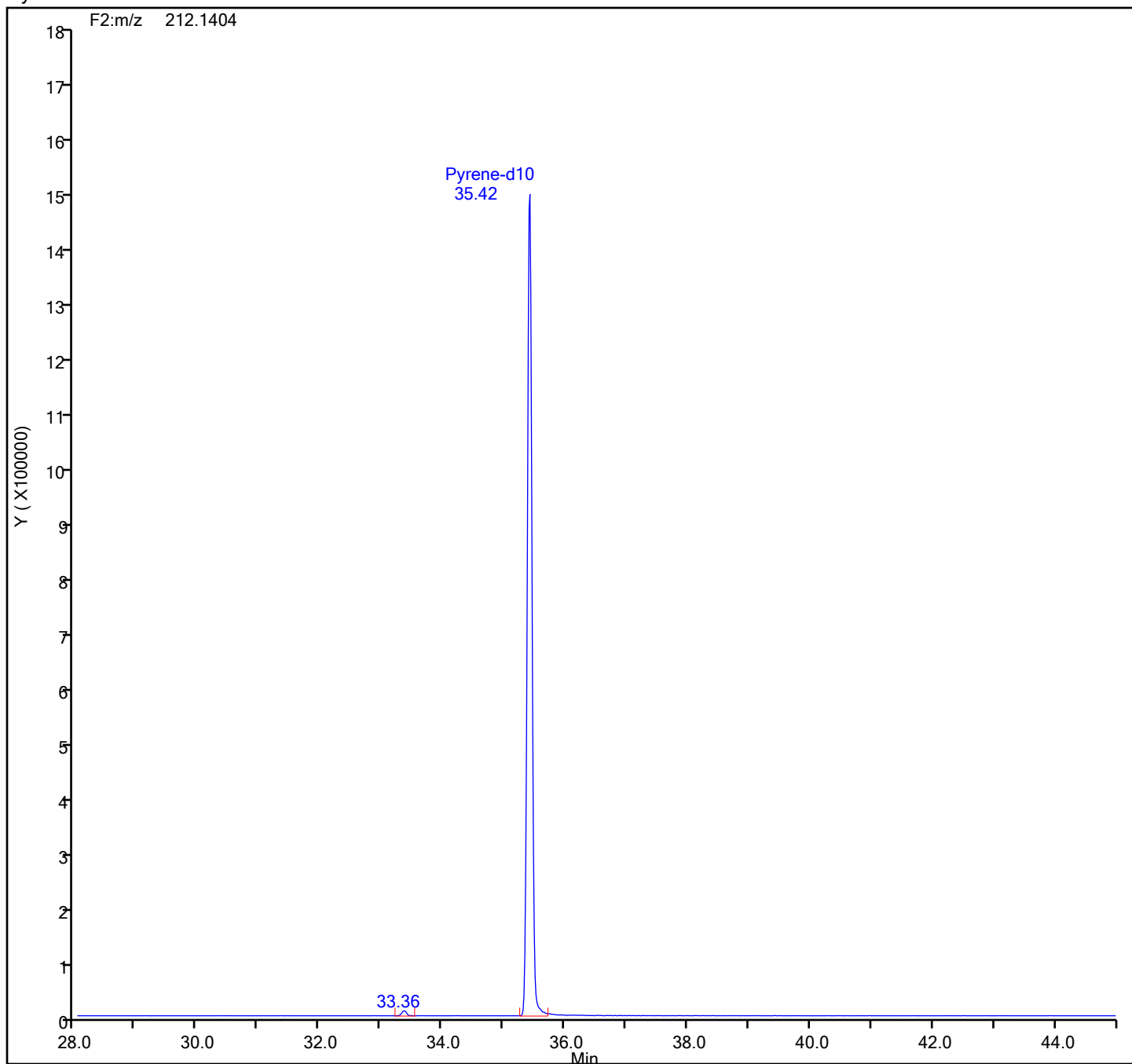
## Fluoranthene Standards



## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
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Client ID:  
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

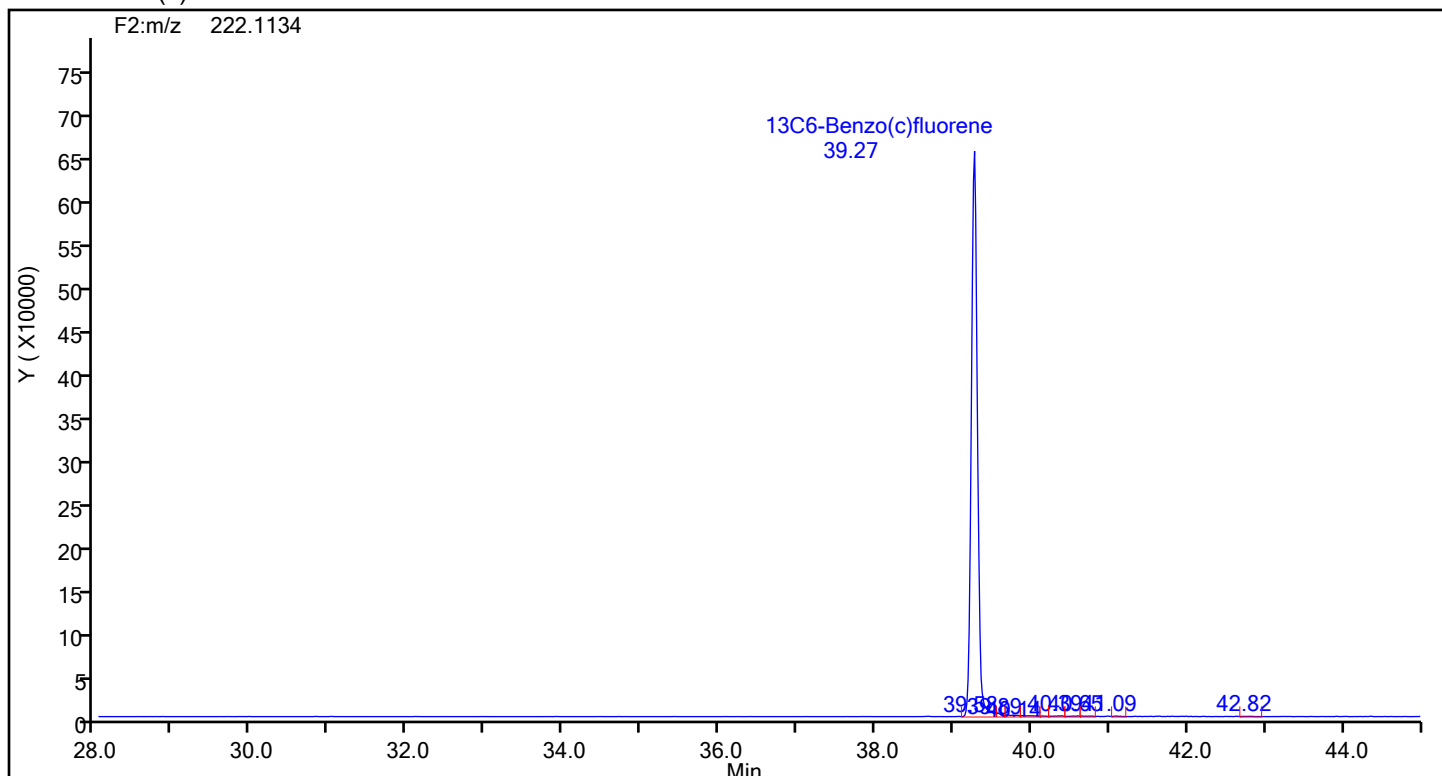
## Pyrene-d10 Standards



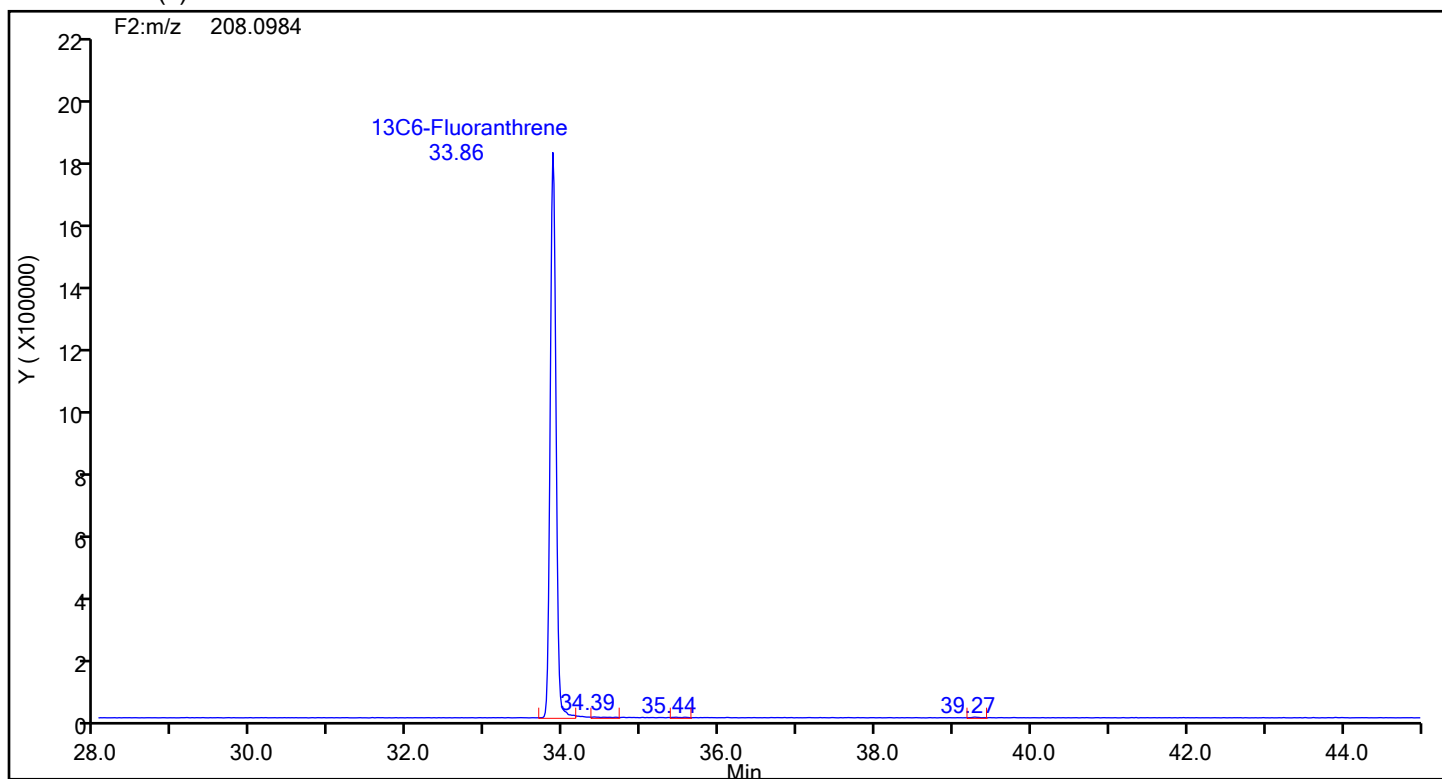
Eurofins Knoxville

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Instrument ID:	D3PAH	Operator ID:	Xcalibur_System
Method:	EPA_23__PAH	Limit Group:	HR - HRPAAH ICAL
Client ID:			
Worklist#:	87843	Sample Line#:	4
Column Type:	Restek-5Sil MS 25um	Column Dia:	0.25 mm
13C6-Benzo(c)fluorene			

13C6-Benzo(c)fluorene



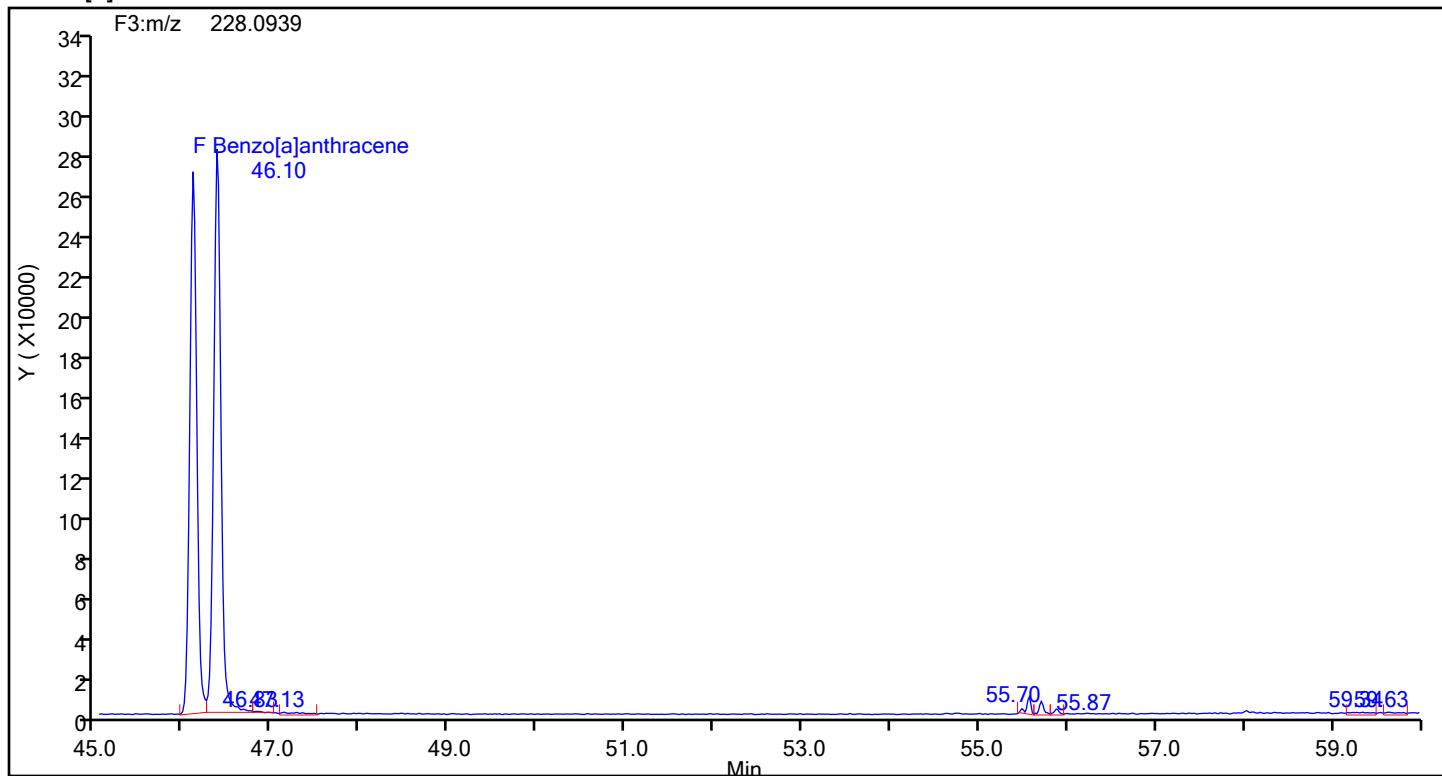
13C6-Benzo(c)fluorene Standards



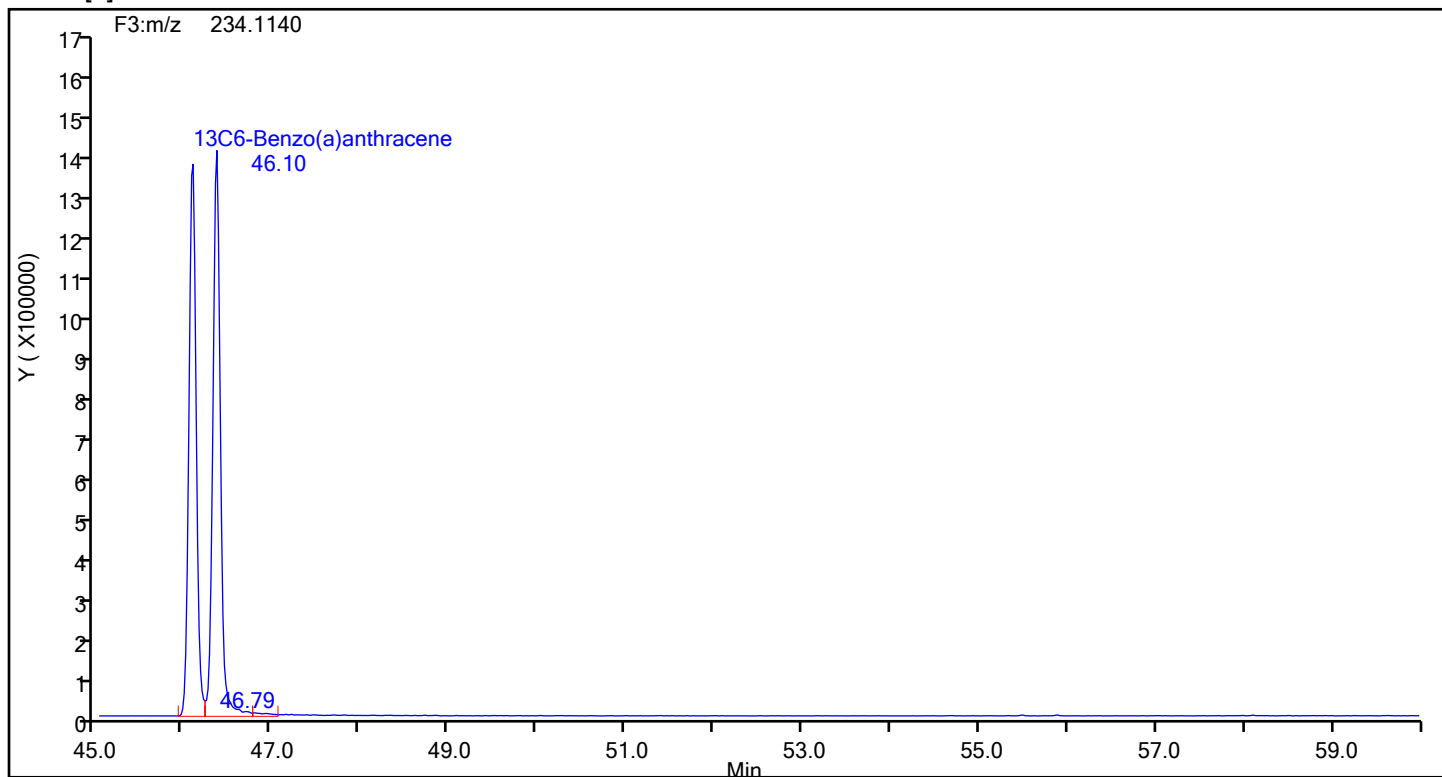
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Method: EPA\_23\_\_PAH Limit Group: HR - HRAH ICAL  
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Worklist#: 87843 Sample Line#: 4  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



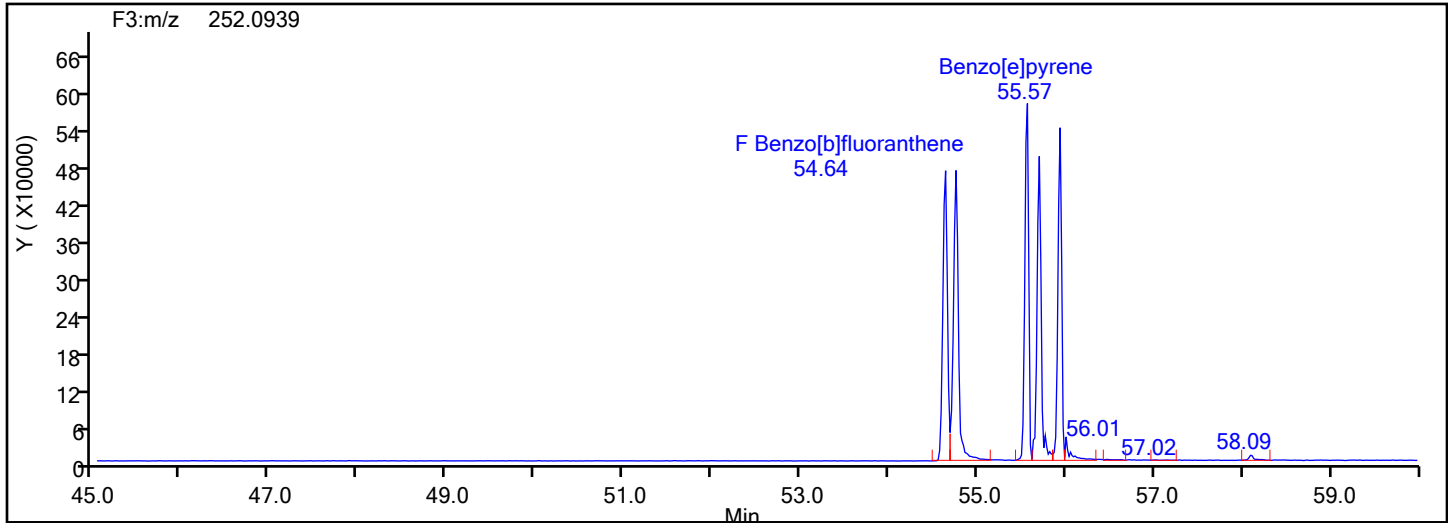
## Benzo[a]anthracene Standards



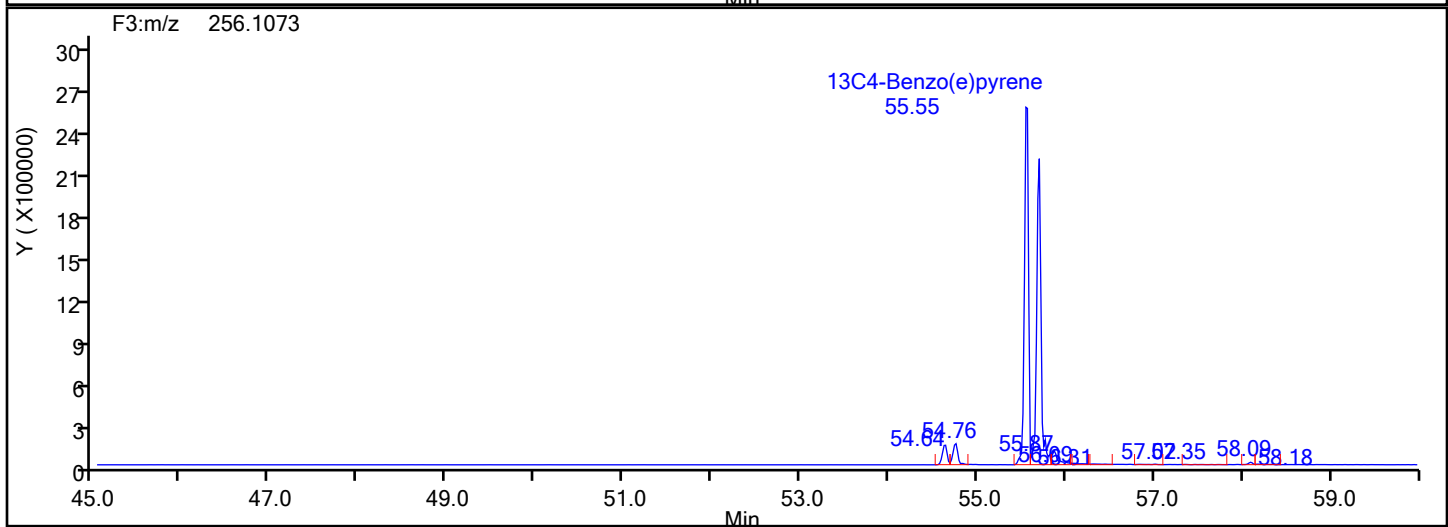
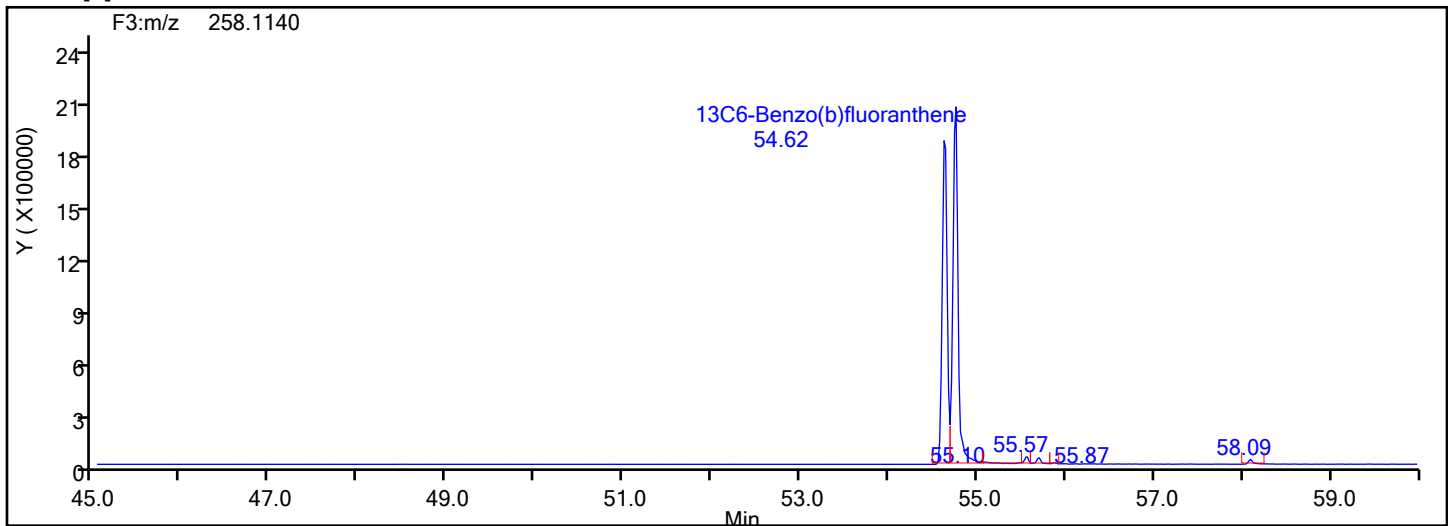
## Eurofins Knoxville

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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 4  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



## Benzo[b]fluoranthene Standards

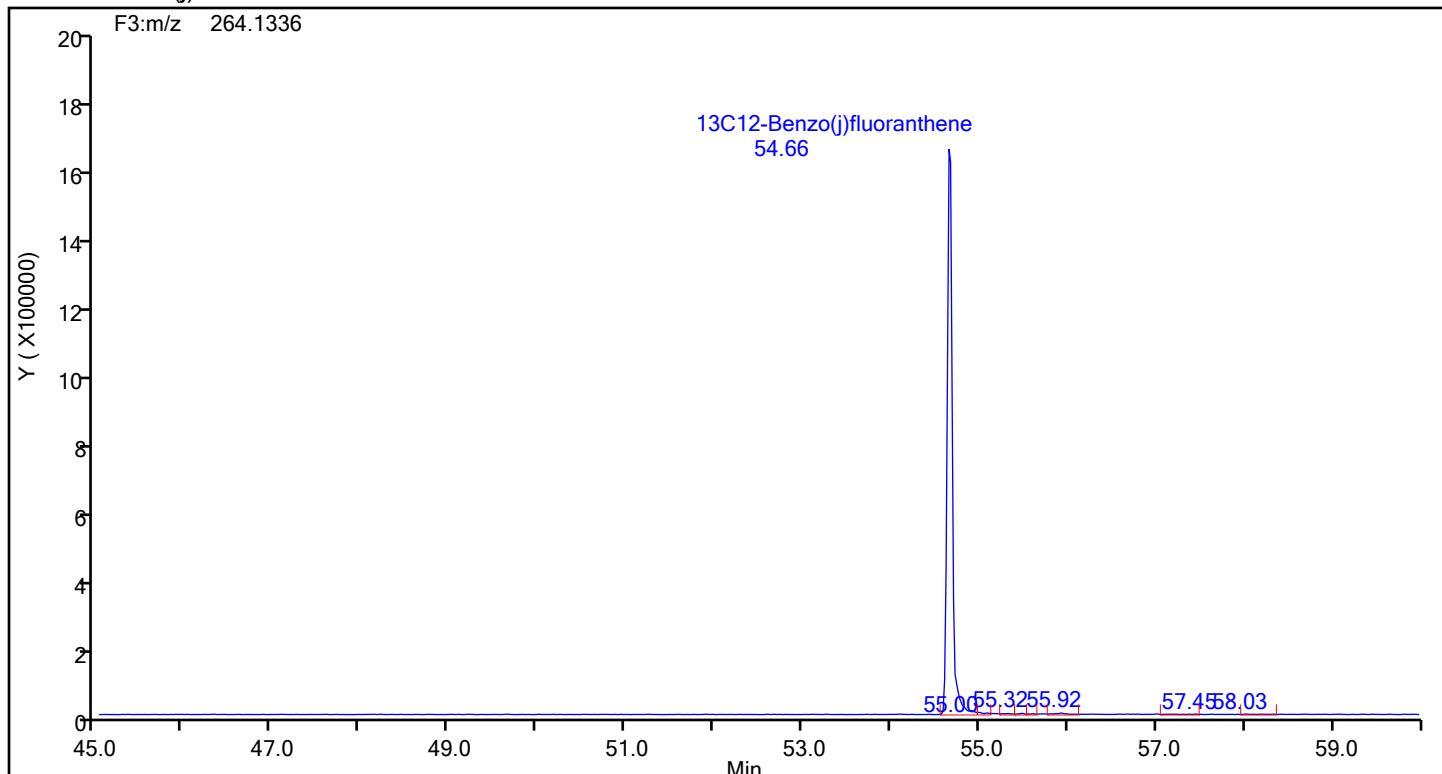




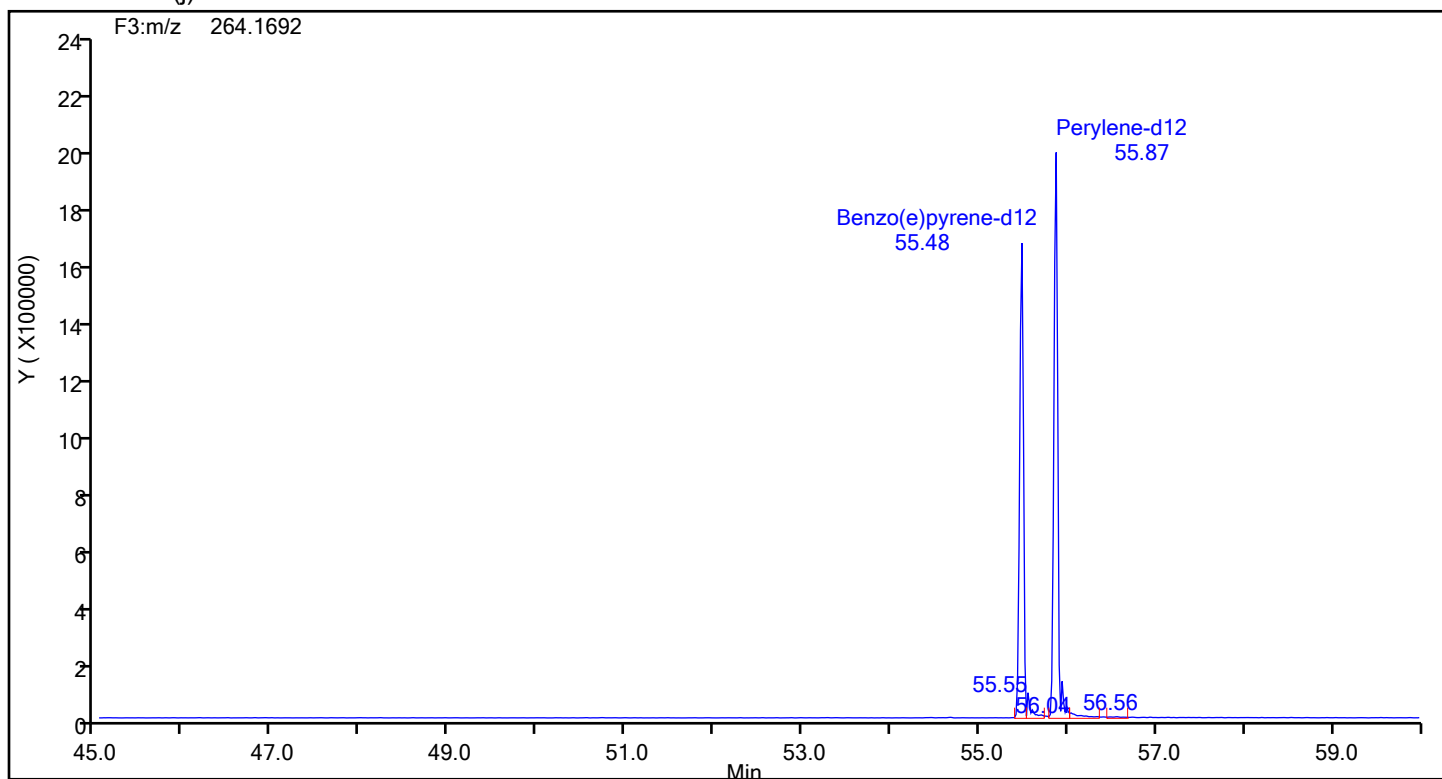
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Client ID:  
Worklist#: 87843 Sample Line#: 4  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



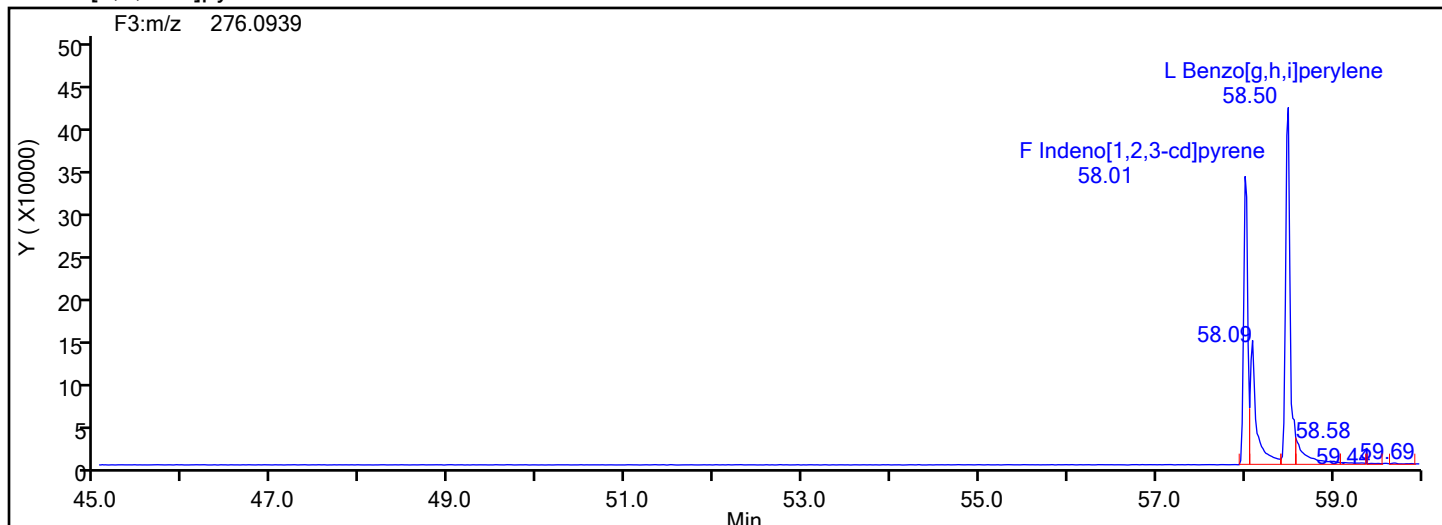
## 13C12-Benzo(j)fluoranthene Standards



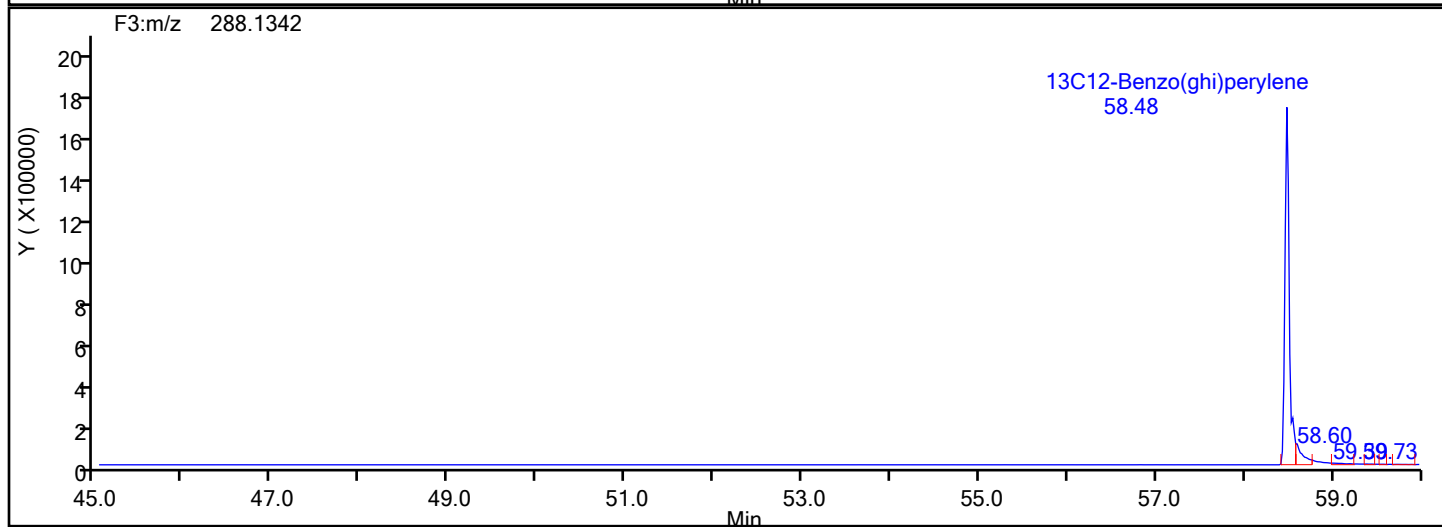
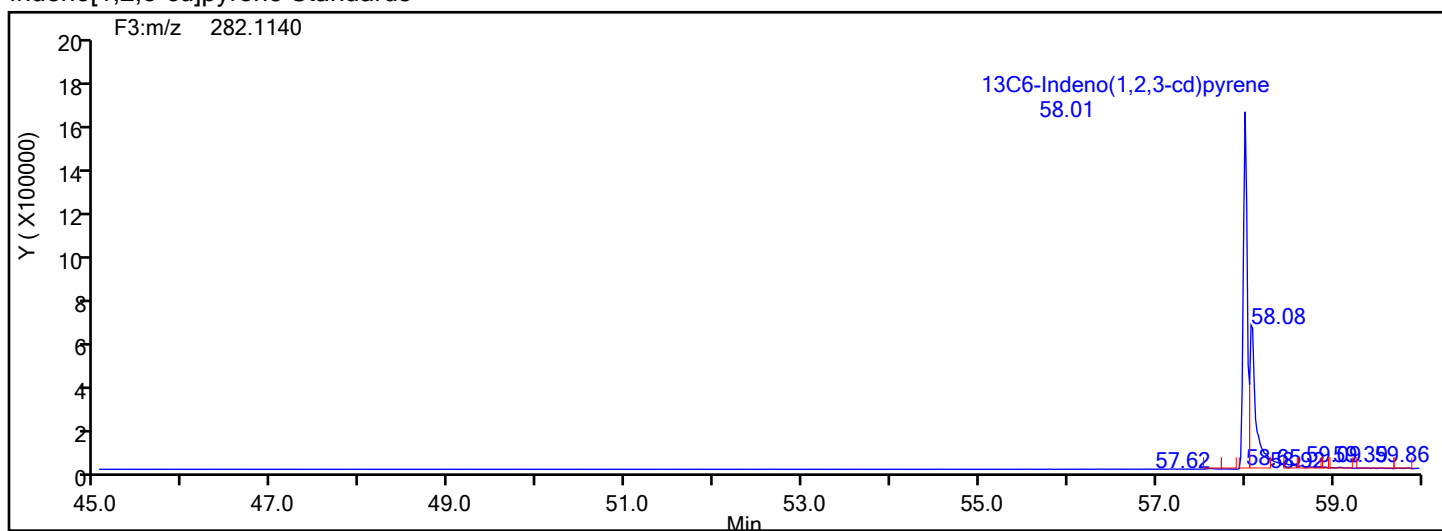
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic4.d  
Injection Date: 19-Jun-2024 19:47:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 4  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Indeno[1,2,3-cd]pyrene



## Indeno[1,2,3-cd]pyrene Standards



## Eurofins Knoxville

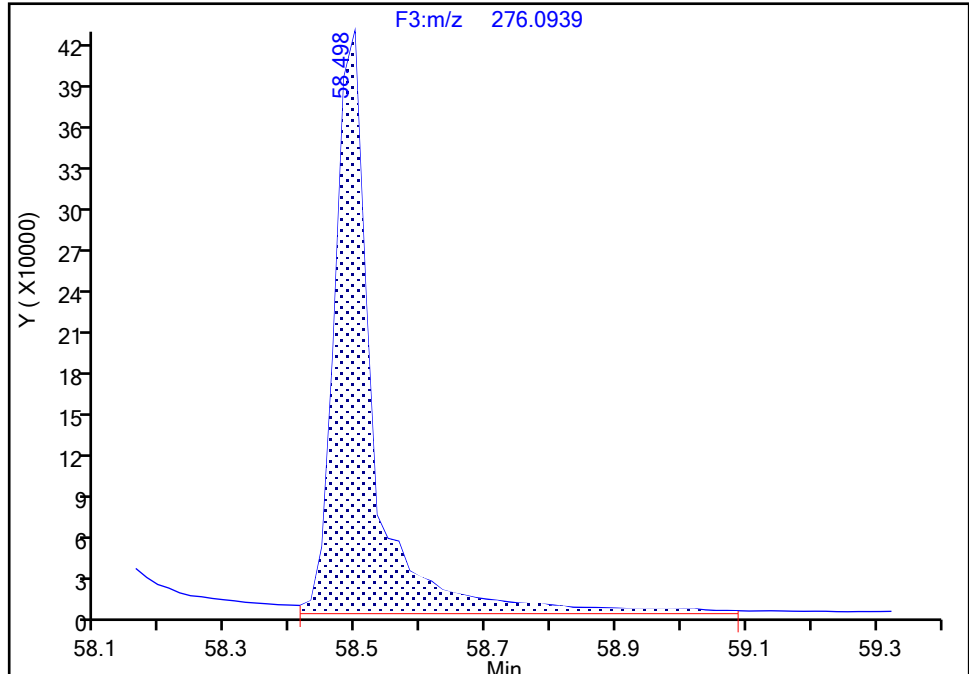
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic4.d  
Injection Date: 19-Jun-2024 19:47:00 Instrument ID: D3PAH  
Lims ID: IC L4  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

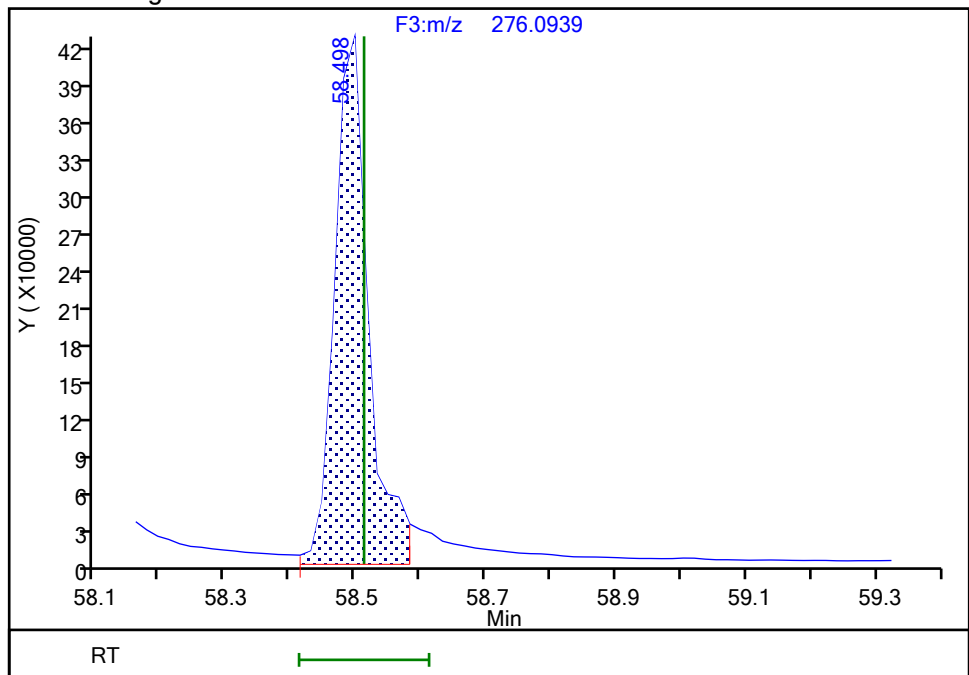
RT: 58.50  
Area: 1774253  
Amount: 22.249831  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.50  
Area: 1535539  
Amount: 19.750198  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:36:04 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

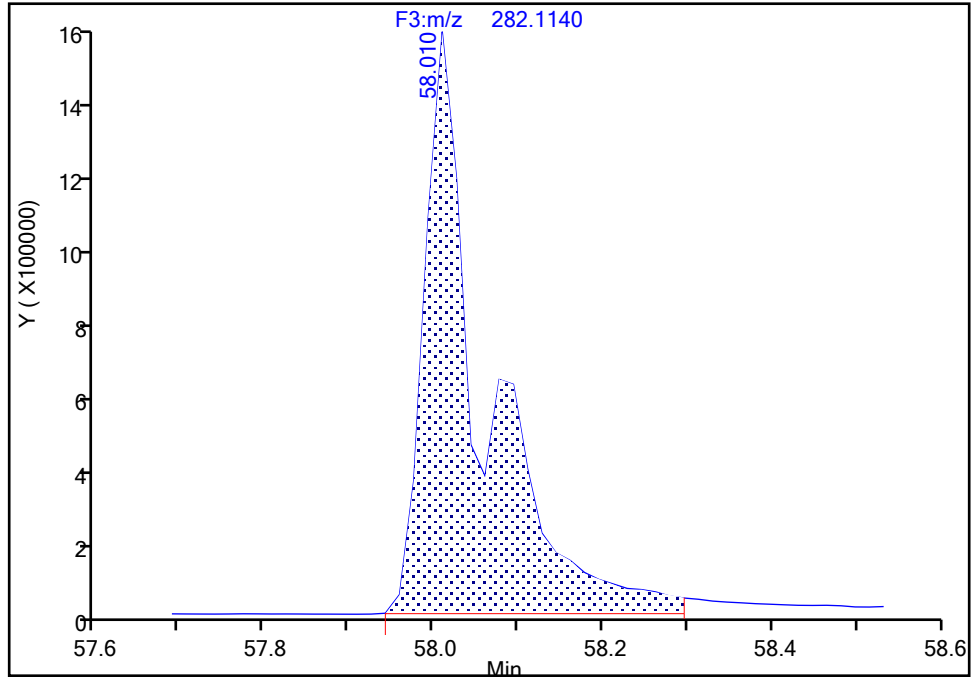
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic4.d  
Injection Date: 19-Jun-2024 19:47:00 Instrument ID: D3PAH  
Lims ID: IC L4  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C6-Indeno(1,2,3-cd)pyrene, CAS: 362044-56-2**

Signal: 1

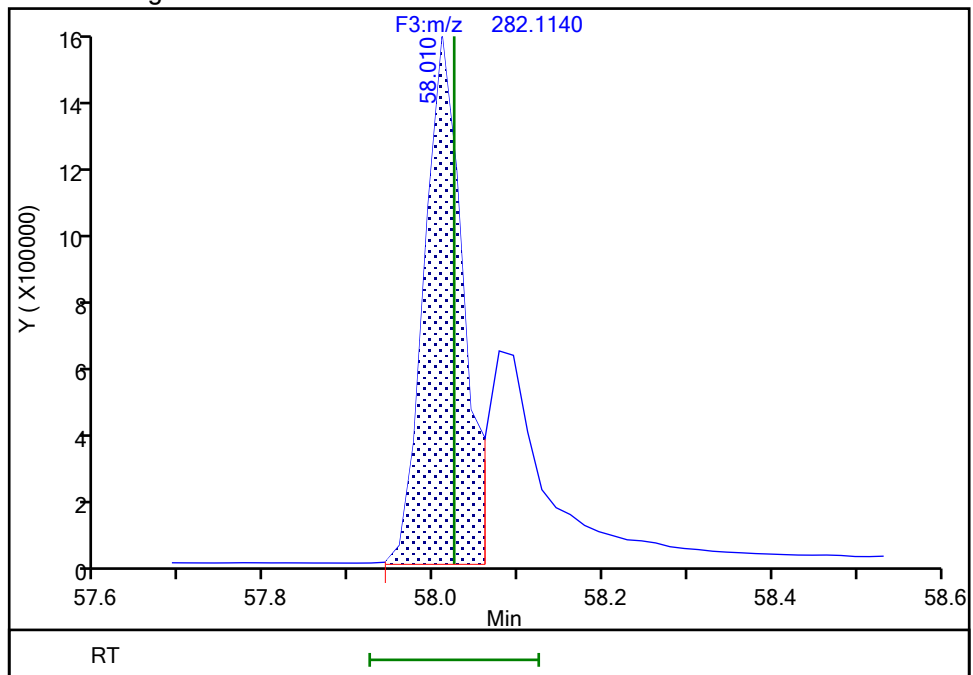
RT: 58.01  
Area: 7944490  
Amount: 138.0523  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.01  
Area: 5157889  
Amount: 100.7229  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:35:29 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

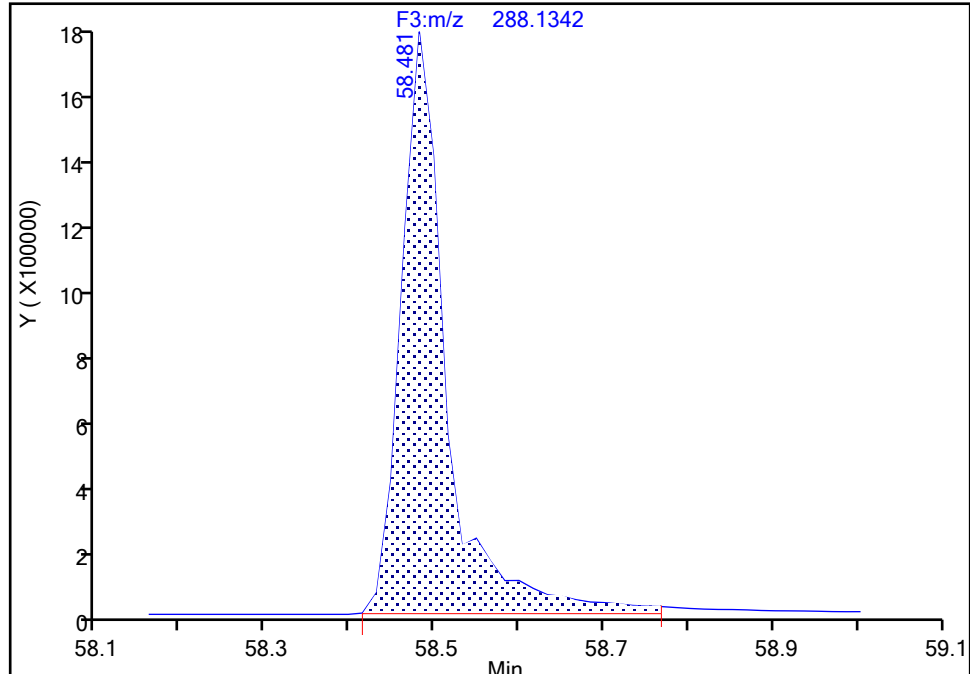
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\ld3240619ic4.d  
Injection Date: 19-Jun-2024 19:47:00 Instrument ID: D3PAH  
Lims ID: IC L4  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C12-Benzo(ghi)perylene, CAS: 350820-11-0**

Signal: 1

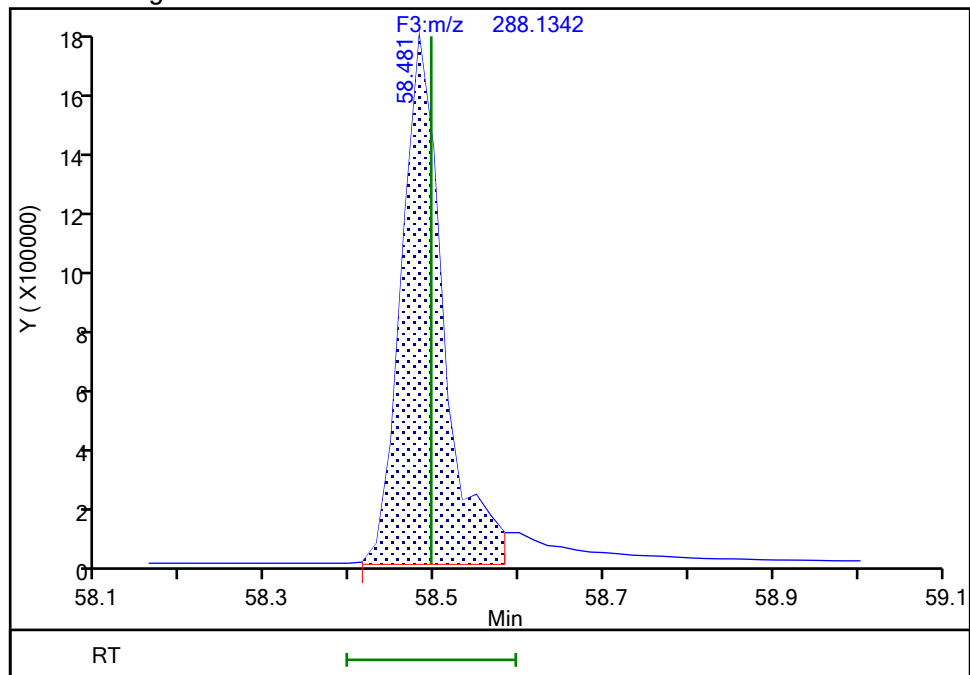
RT: 58.48  
Area: 6560124  
Amount: 98.048209  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.48  
Area: 6056294  
Amount: 94.793737  
Amount Units: pg/ul

## Manual Integration Results



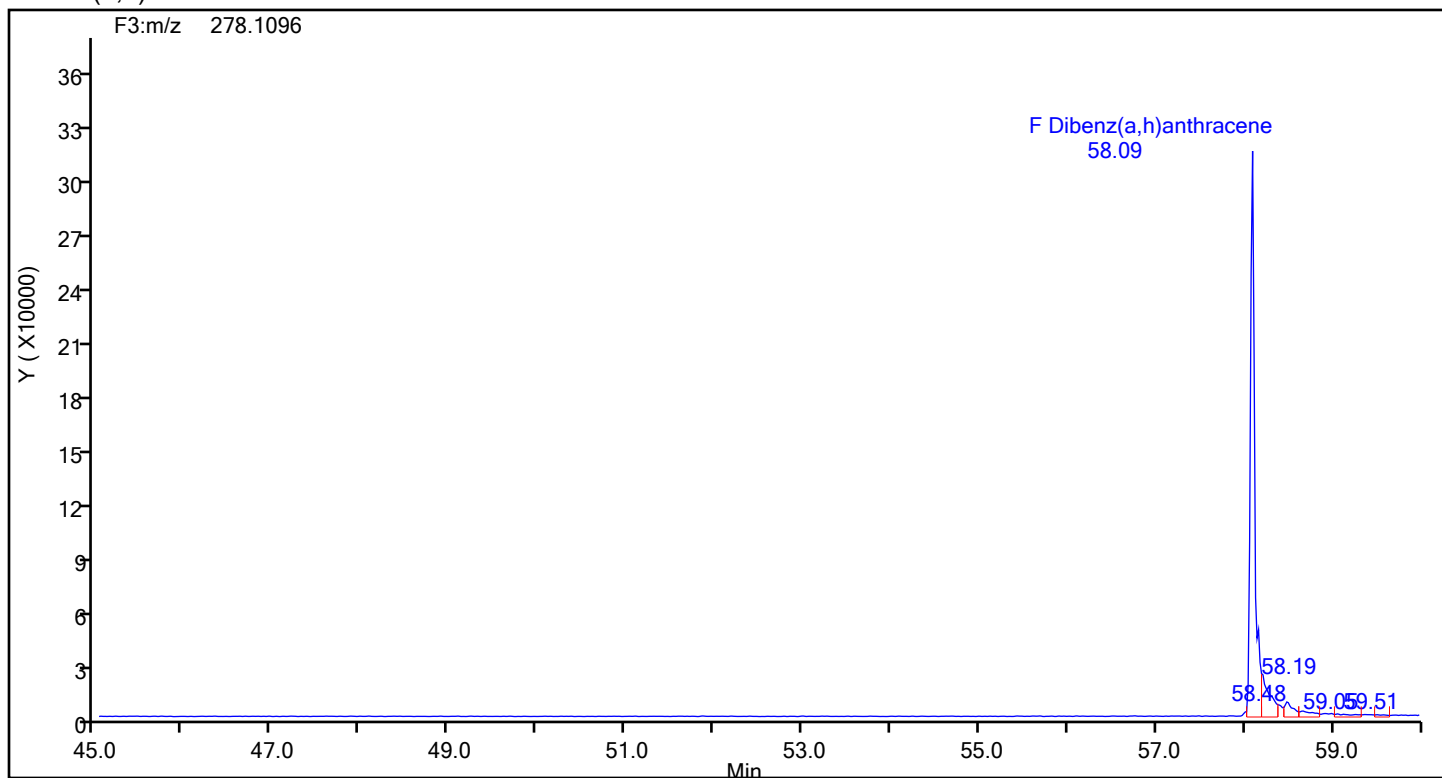
Reviewer: F9EE, 20-Jun-2024 09:35:58 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

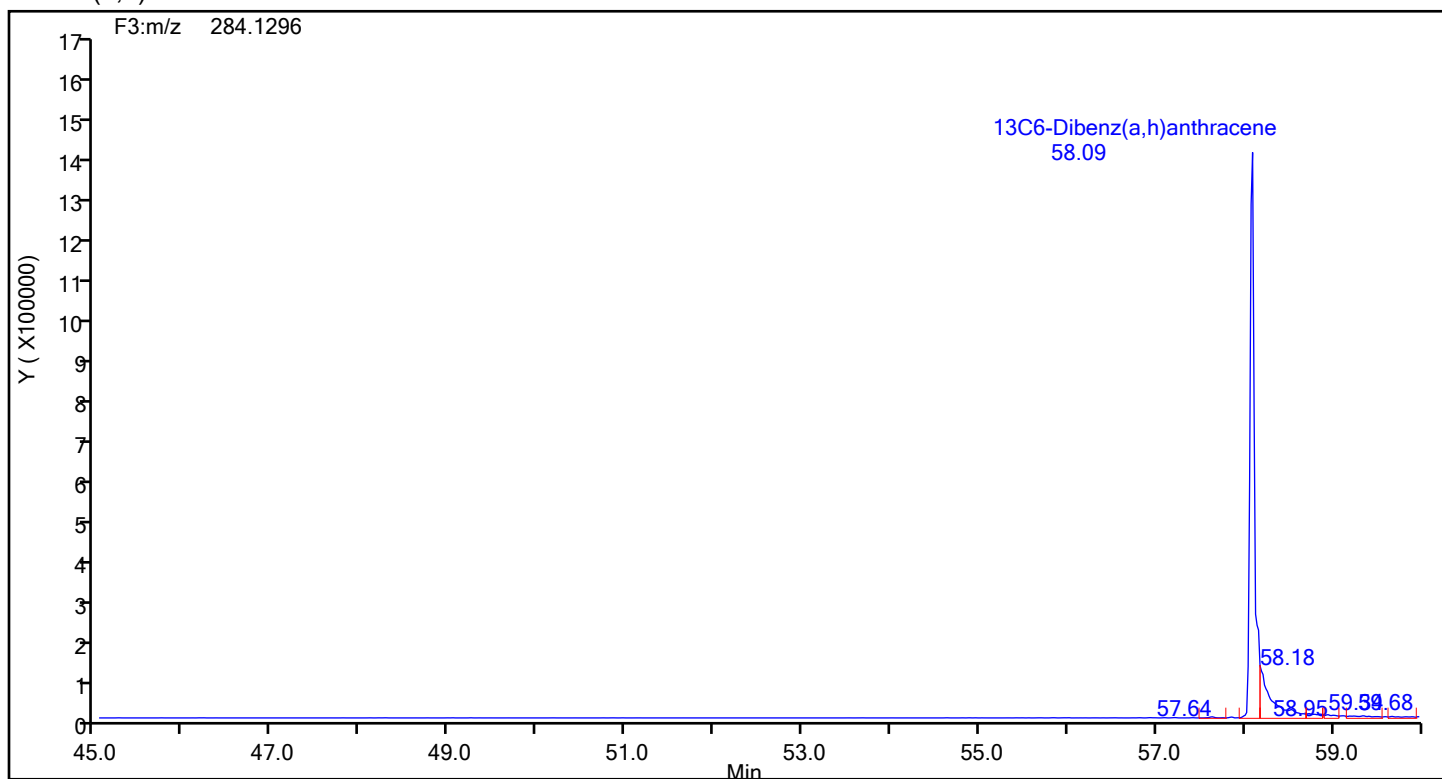
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic4.d  
Injection Date: 19-Jun-2024 19:47:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 4  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Dibenz(a,h)anthracene



## Dibenzo(a,h)anthracene Standards



## Eurofins Knoxville

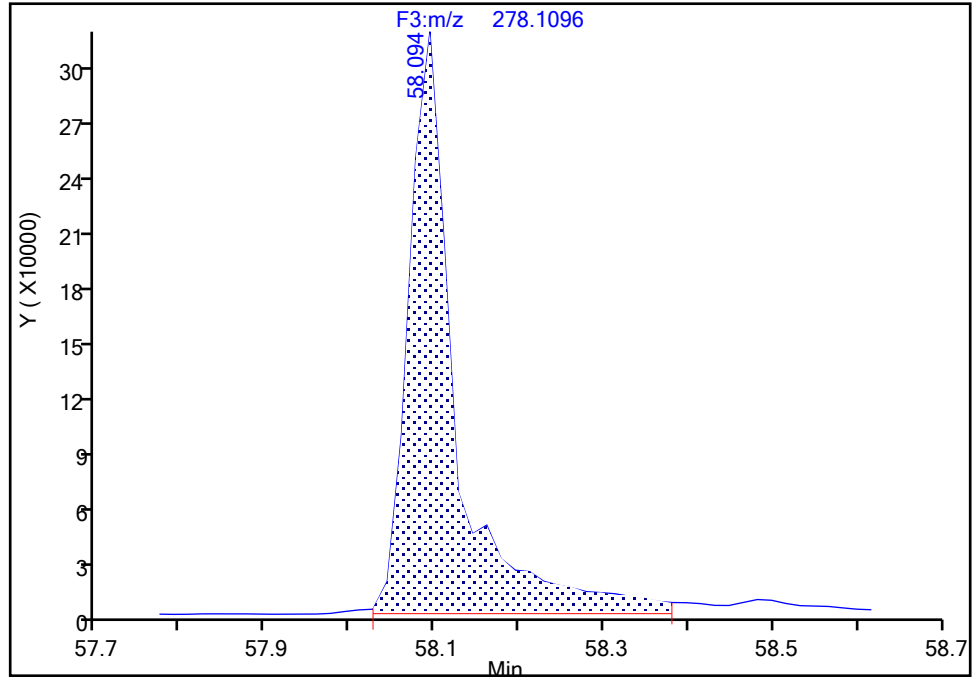
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic4.d  
Injection Date: 19-Jun-2024 19:47:00 Instrument ID: D3PAH  
Lims ID: IC L4  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

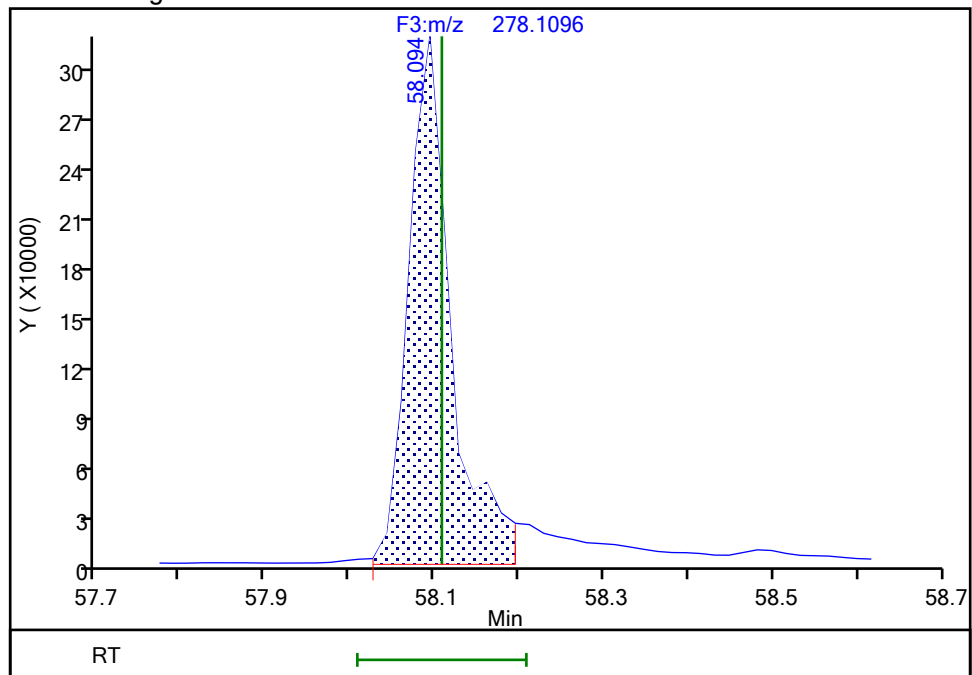
RT: 58.09  
Area: 1232103  
Amount: 21.755514  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.09  
Area: 1098846  
Amount: 19.471060  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:35:50 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

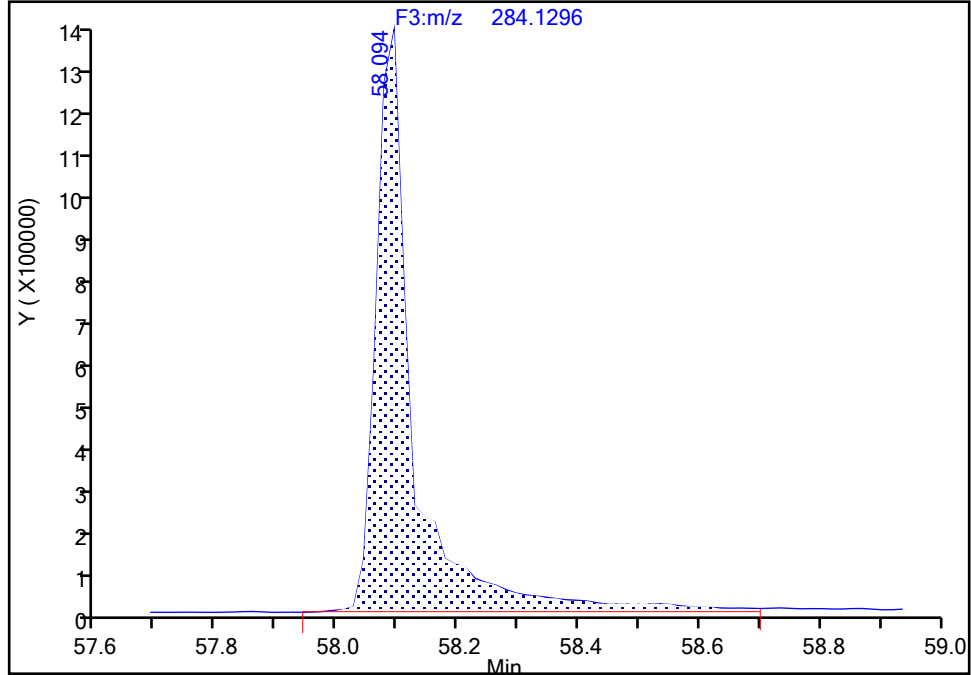
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\ld3240619ic4.d  
Injection Date: 19-Jun-2024 19:47:00 Instrument ID: D3PAH  
Lims ID: IC L4  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C6-Dibenz(a,h)anthracene, CAS: STL03360**

Signal: 1

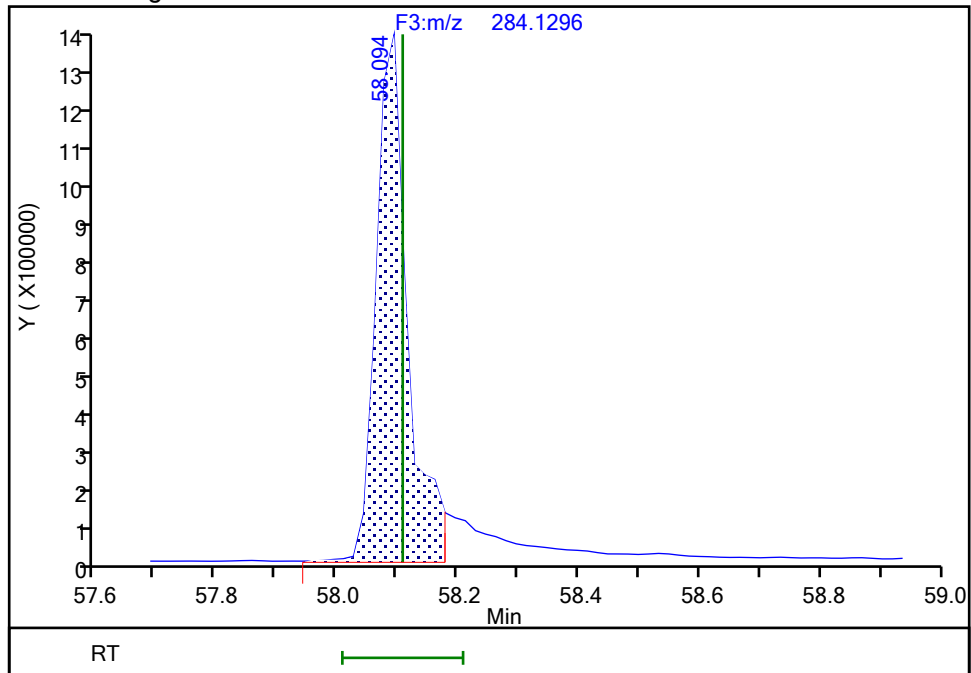
RT: 58.09  
Area: 6017320  
Amount: 102.2732  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.09  
Area: 4988169  
Amount: 94.323143  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:35:42 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration



Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic5.d  
Lims ID: IC L5  
Client ID:  
Sample Type: IC Calib Level: 5  
Inject. Date: 19-Jun-2024 20:51:00 ALS Bottle#: 0 Worklist Smp#: 5  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033168-005  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAL ICAL  
Last Update: 20-Jun-2024 09:51:46 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1686

First Level Reviewer: F9EE

Date: 20-Jun-2024 09:36:48

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:32	10955076		3.3746	106.7	106.7	0.005904	0.005904	107	
Naphthalene	11:33	7473056		1.2893	52.9	52.9	0.0245	0.0245	106	
D 13C6-2-Methylnaphthalene	13:52	4932932		1.6031	101.1	101.1	0.001290	0.001290	101	
2-Methylnaphthalene	13:52	3363658		1.2786	53.3	53.3	0.0222	0.0222	107	
D 13C6-Acenaphthylene	16:44	5031692		1.6520	100.1	100.1	0.000683	0.000683	100	
Acenaphthylene	16:45	3367785		2.3661	48.6	48.6	0.0245	0.0245	97.16	
* Acenaphthene-d10	17:19	3042646		3.5E+04	100.0	100.0				
D 13C6-Acenaphthene	17:26	2929756		0.9792	98.3	98.3	0.001632	0.001632	98.34	
Acenaphthene	17:26	1886298		1.2697	50.7	50.7	0.0296	0.0296	101	
D 13C6-Fluorene	19:43	2645576		0.8898	97.7	97.7	0.000211	0.000211	97.71	
Fluorene	19:44	1683007		1.2532	50.8	50.8	0.0362	0.0362	102	
D 13C6-Phenanthrene	25:07	4005566		0.5724	100.0	100.0	0.003590	0.003590	100	
Phenanthrene	25:07	2244288		1.1044	50.7	50.7	0.0388	0.0388	101	
\$ Anthracin-d10	25:20	2982348		0.4257	100.2	100.2	0.001252	0.001252	100	
D 13C6-Anthracene	25:26	3095933		0.4523	97.9	97.9	0.004543	0.004543	97.86	
Anthracene	25:27	2030307		1.3586	48.3	48.3	0.0433	0.0433	96.54	
D 13C6-Fluoranthrene	33:52	8354538		1.1994	99.6	99.6	0.0211	0.0211	99.59	
Fluoranthrene	33:53	4770414		1.1513	49.6	49.6	0.0165	0.0165	99.19	
* Pyrene-d10	35:25	6994144		7.9E+04	100.0	100.0				
D 13C3-Pyrene	35:34	9271369		1.3512	98.1	98.1	0.0130	0.0130	98.10	
Pyrene	35:34	4880169		1.0652	49.4	49.4	0.0164	0.0164	98.83	
\$ 13C6-Benzo(c)fluorene	39:16	3562609		0.5136	99.2	99.2	0.002964	0.002964	99.18	
D 13C6-Benzo(a)anthracene	46:06	7783391		1.5189	96.4	96.4	0.0149	0.0149	96.35	
Benzo[a]anthracene	46:06	3701131		0.9739	48.8	48.8	0.0259	0.0259	97.66	
D 13C6-Chrysene	46:23	8407429		1.6287	97.1	97.1	0.0139	0.0139	97.06	
Chrysene	46:23	4046826		0.9815	49.0	49.0	0.0248	0.0248	98.09	
D 13C6-Benzo(b)fluoranthene	54:38	7699352		1.4621	99.0	99.0	0.000971	0.000971	99.02	
Benzo[b]fluoranthene	54:39	4268765		1.1249	49.3	49.3	0.008037	0.008037	98.57	
\$ 13C12-Benzo(j)fluoranthene	54:40	6879595		1.3558	95.4	95.4	0.0142	0.0142	95.41	
D 13C6-Benzo(k)fluoranthene	54:46	9021801		1.7507	96.9	96.9	0.000811	0.000811	96.90	
Benzo[k]fluoranthene	54:46	4838139		1.1271	47.6	47.6	0.007450	0.007450	95.16	
* Benzo(e)pyrene-d12	55:29	5318283		5.7E+04	100.0	100.0				
D 13C4-Benzo(e)pyrene	55:33	8346864		1.6368	95.9	95.9	0.0109	0.0109	95.88	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
Benzo[e]pyrene	55:34	4054021		1.0013	48.5	48.5	0.006790	0.006790	97.02	
Benzo[a]pyrene	55:43	4220425		1.1130	47.9	47.9	0.006988	0.006988	95.80	
D 13C4-Benzo(a)pyrene	55:43	7915726		1.5508	96.0	96.0	0.0115	0.0115	95.98	
D Perylene-d12	55:53	6306802		1.1917	99.5	99.5	0.0156	0.0156	99.51	
Perylene	55:57	4390716		1.4307	48.7	48.7	0.006162	0.006162	97.32	
D 13C6-Indeno(1,2,3-cd)pyrene	58:01	4835402		1.0218	89.0	89.0	0.009555	0.009555	88.98	
Indeno[1,2,3-cd]pyrene	58:01	2816296		1.1249	51.8	51.8	0.007698	0.007698	104	
D 13C6-Dibenz(a,h)anthracene	58:06	5397040		1.0553	96.2	96.2	0.004680	0.004680	96.17	M
Dibenz(a,h)anthracene	58:06	2789079		1.1314	45.7	45.7	0.006309	0.006309	91.35	M
D 13C12-Benzo(ghi)perylene	58:29	6552075		1.2749	96.6	96.6	0.005655	0.005655	96.64	M
Benzo[g,h,i]perylene	58:30	3911770		1.2838	46.5	46.5	0.006063	0.006063	93.01	M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61HRPAHCS4a\_00002

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic5.d  
Lims ID: IC L5  
Client ID:  
Sample Type: IC Calib Level: 5  
Inject. Date: 19-Jun-2024 20:51:00 ALS Bottle#: 0 Worklist Smp#: 5  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033168-005  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 20-Jun-2024 09:51:46 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1686

First Level Reviewer: F9EE

Date: 20-Jun-2024 09:36:48

Signal	RT (min.)	Adj RT (min.)	¶ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:32	11:33	-1	0.666	10955076	3690318	85	212	43416		
Naphthalene											
128.0626	11:33	11:34	-1	1.001	7473056	2421498	467	1167	5185		
13C6-2-Methylnaphthalene											
148.0984	13:52	13:52	-1	0.800	4932932	2219700	9	22	246633		
2-Methylnaphthalene											
142.0783	13:52	13:53	-1	1.000	3363658	1603367	252	630	6363		
13C6-Acenaphthylene											
158.0828	16:44	16:45	-1	0.966	5031692	1788464	5	12	357693		
Acenaphthylene											
152.0626	16:45	16:45	-1	1.000	3367785	1171577	235	587	4985		
Acenaphthene-d10											
164.1404	17:19	17:20	-1		3042646	1064056	1	2	1064056		
13C6-Acenaphthene											
160.0984	17:26	17:27	-1	1.007	2929756	1010685	7	17	144384		
Acenaphthene											
154.0783	17:26	17:27	-1	1.001	1886298	641803	152	380	4222		
13C6-Fluorene											
172.0984	19:43	19:45	-1	1.139	2645576	771302	1	2	771302		
Fluorene											
166.0783	19:44	19:45	-1	1.001	1683007	495116	140	350	3537		
13C6-Phenanthrene											
184.0984	25:07	25:08	-1	0.709	4005566	933714	11	27	84883		
Phenanthrene											
178.0783	25:07	25:08	-1	1.000	2244288	517487	160	400	3234		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:20	25:21	-1	0.715	2982348	664576	3	7	221525		
13C6-Anthracene											
184.0984	25:26	25:28	-1	0.718	3095933	679951	11	27	61814		
Anthracene											
178.0783	25:27	25:28	-1	1.000	2030307	457999	160	400	2862		
13C6-Fluoranthrene											
208.0984	33:52	33:54	-2	0.956	8354538	1617360	133	332	12161		
Fluoranthene											
202.0783	33:53	33:54	-1	1.000	4770414	908731	123	307	7388		
Pyrene-d10											
212.1404	35:25	35:27	-2		6994144	1313834	42	105	31282		
13C3-Pyrene											
205.0883	35:34	35:35	-2	1.004	9271369	1754432	92	230	19070		
Pyrene											
202.0783	35:34	35:35	-2	1.000	4880169	909669	123	307	7396		
13C6-Benzo(c)fluorene											
222.1134	39:16	39:18	-2	0.708	3562609	636801	8	20	79600		
13C6-Benzo(a)anthracene											
234.1140	46:06	46:07	-1	1.302	7783391	1336753	160	400	8355		
Benzo[a]anthracene											
228.0939	46:06	46:07	-1	1.000	3701131	660493	135	337	4893		
13C6-Chrysene											
234.1140	46:23	46:24	-1	1.309	8407429	1384733	160	400	8655		
Chrysene											
228.0939	46:23	46:25	-2	1.000	4046826	679022	135	337	5030		
13C6-Benzo(b)fluoranthene											
258.1140	54:38	54:40	-2	0.985	7699352	1991062	10	25	199106		
Benzo[b]fluoranthene											
252.0939	54:39	54:40	-1	1.000	4268765	1153146	72	180	16016		
13C12-Benzo(j)fluoranthene											
264.1336	54:40	54:42	-2	0.985	6879595	1746396	136	340	12841		
13C6-Benzo(k)fluoranthene											
258.1140	54:46	54:47	-1	0.987	9021801	2143610	10	25	214361		
Benzo[k]fluoranthene											
252.0939	54:46	54:47	-1	1.000	4838139	1188451	72	180	16506		
Benzo(e)pyrene-d12											
264.1692	55:29	55:30	-1		5318283	1761536	131	327	13447		
13C4-Benzo(e)pyrene											
256.1073	55:33	55:35	-2	1.001	8346864	2647431	126	315	21011		
Benzo[e]pyrene											
252.0939	55:34	55:35	-1	1.000	4054021	1299546	72	180	18049		
Benzo[a]pyrene											
252.0939	55:43	55:44	-1	1.000	4220425	1260424	72	180	17506		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C4-Benzo(a)pyrene											
256.1073	55:43	55:44	-1	1.004	7915726	2314097	126	315	18366		
Perylene-d12											
264.1692	55:53	55:54	-1	1.007	6306802	2041734	131	327	15586		
Perylene											
252.0939	55:57	55:58	-1	1.001	4390716	1415669	72	180	19662		
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	58:01	58:02	-1	1.046	4835402	1674298	69	172	24265		
Indeno[1,2,3-cd]pyrene											
276.0939	58:01	58:03	-2	1.000	2816296	896117	58	145	15450		
13C6-Dibenz(a,h)anthracene											
284.1296	58:06	58:07	-1	1.047	5397040	1400928	35	87	40027		M
Dibenz(a,h)anthracene											
278.1096	58:06	58:07	-1	1.000	2789079	785976	40	100	19649		M
13C12-Benzo(ghi)perylene											
288.1342	58:29	58:30	-1	1.054	6552075	1862971	51	127	36529		M
Benzo[g,h,i]perylene											
276.0939	58:30	58:31	-1	1.000	3911770	1026772	58	145	17703		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61HRPAHCS4a\_00002

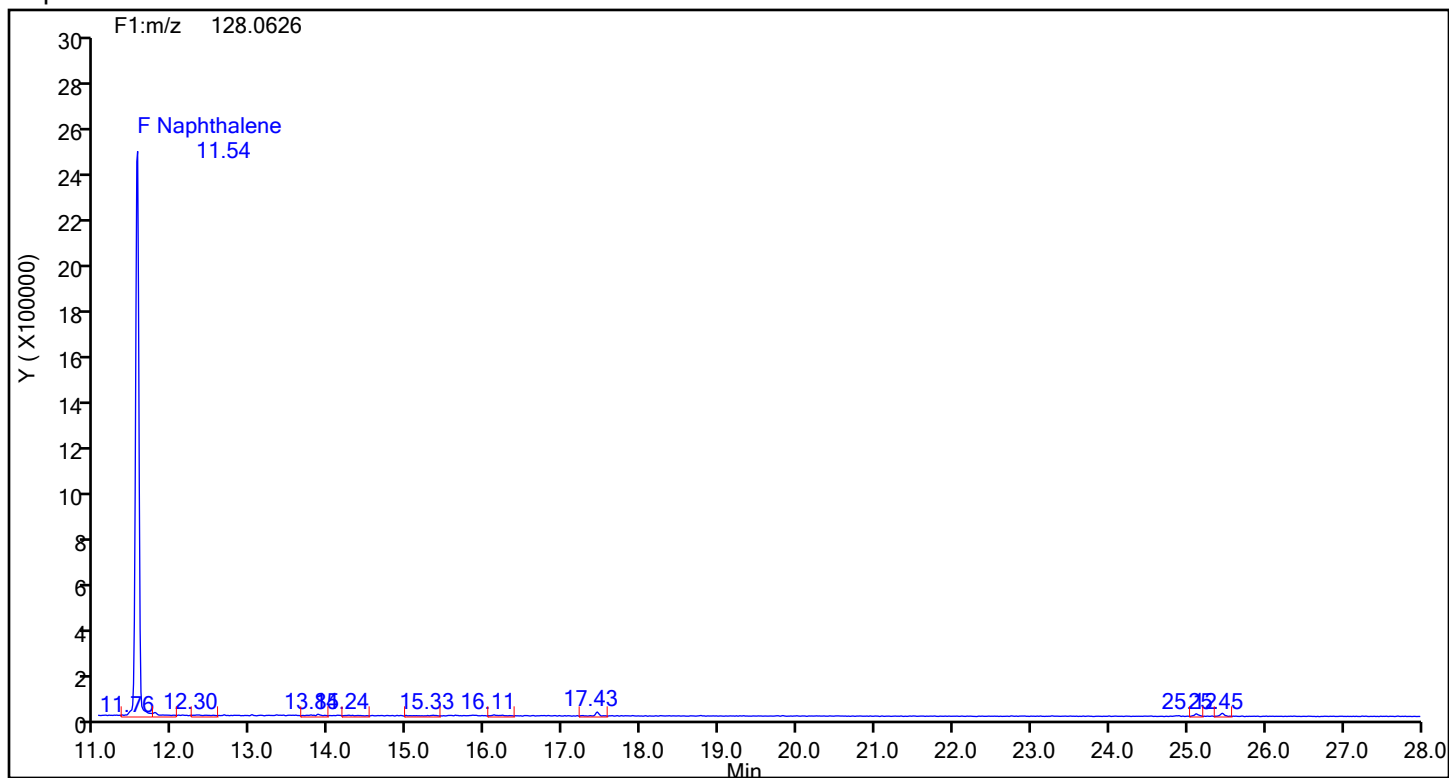
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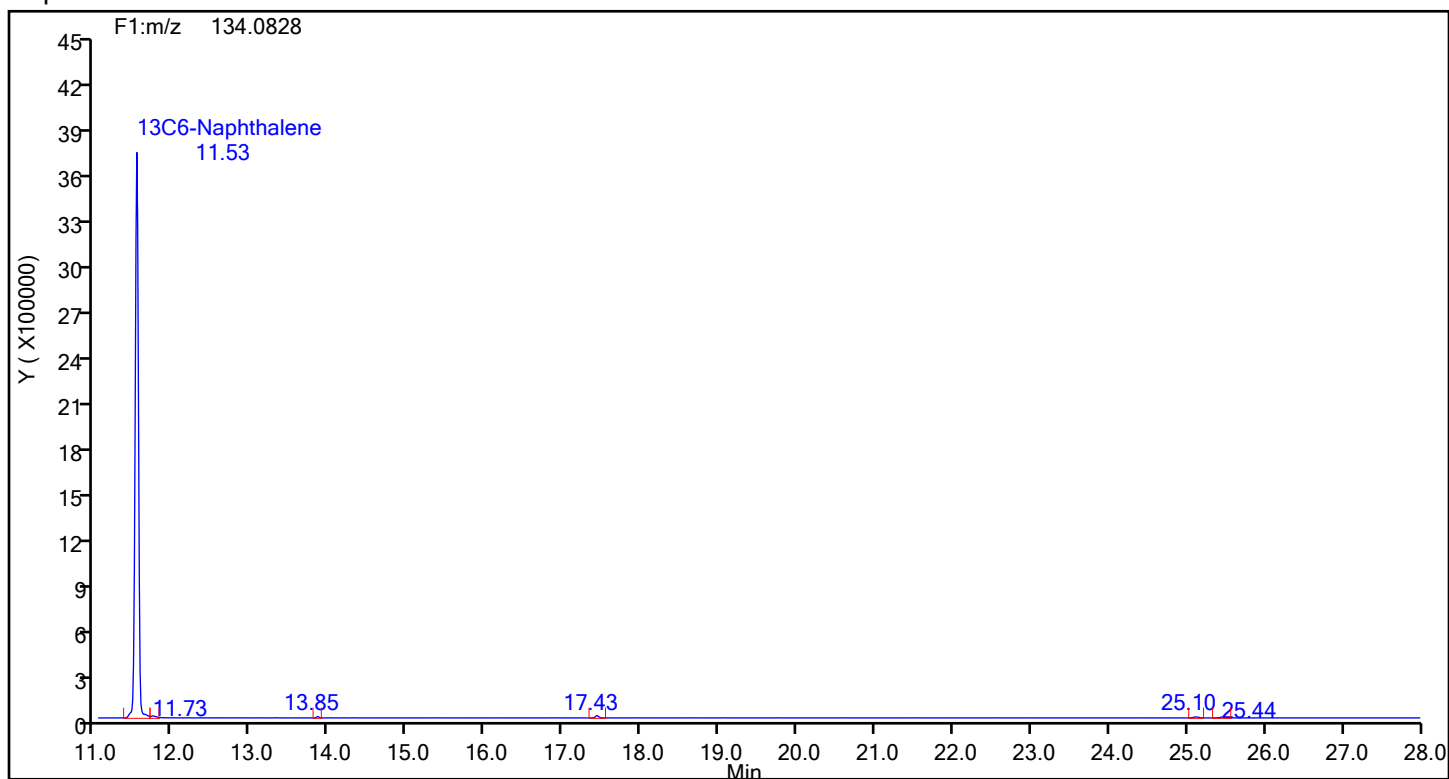
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Injection Date: 19-Jun-2024 20:51:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 5  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



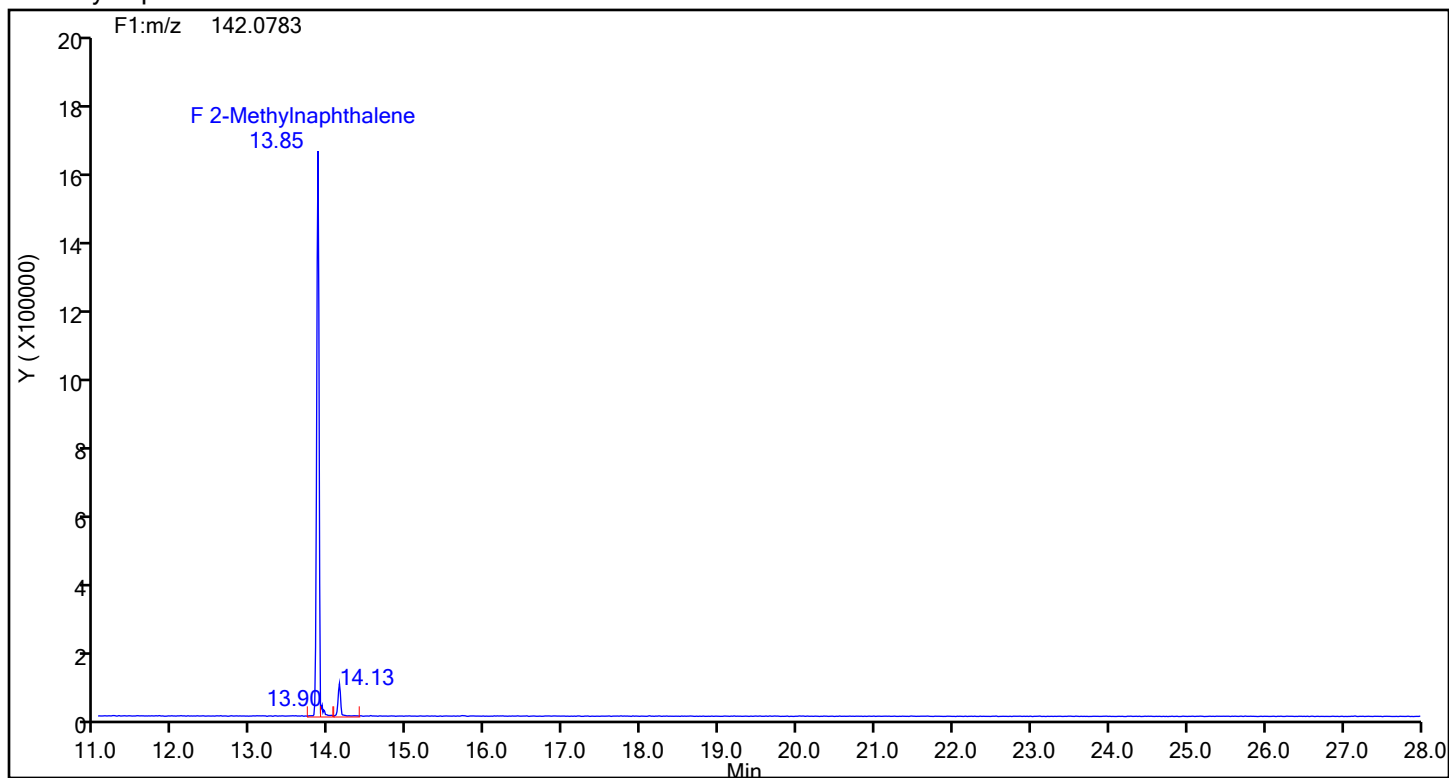
## Naphthalene Standards



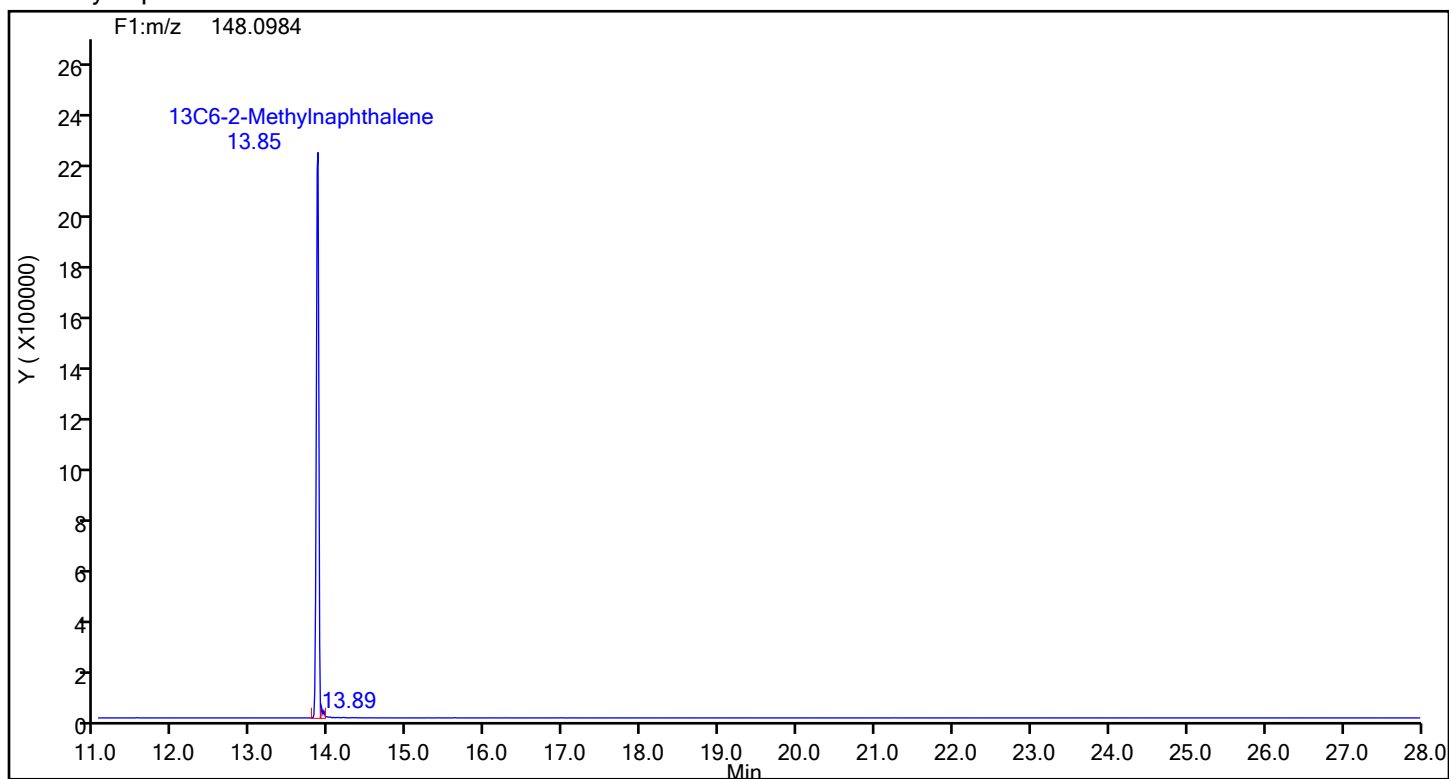
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 5  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



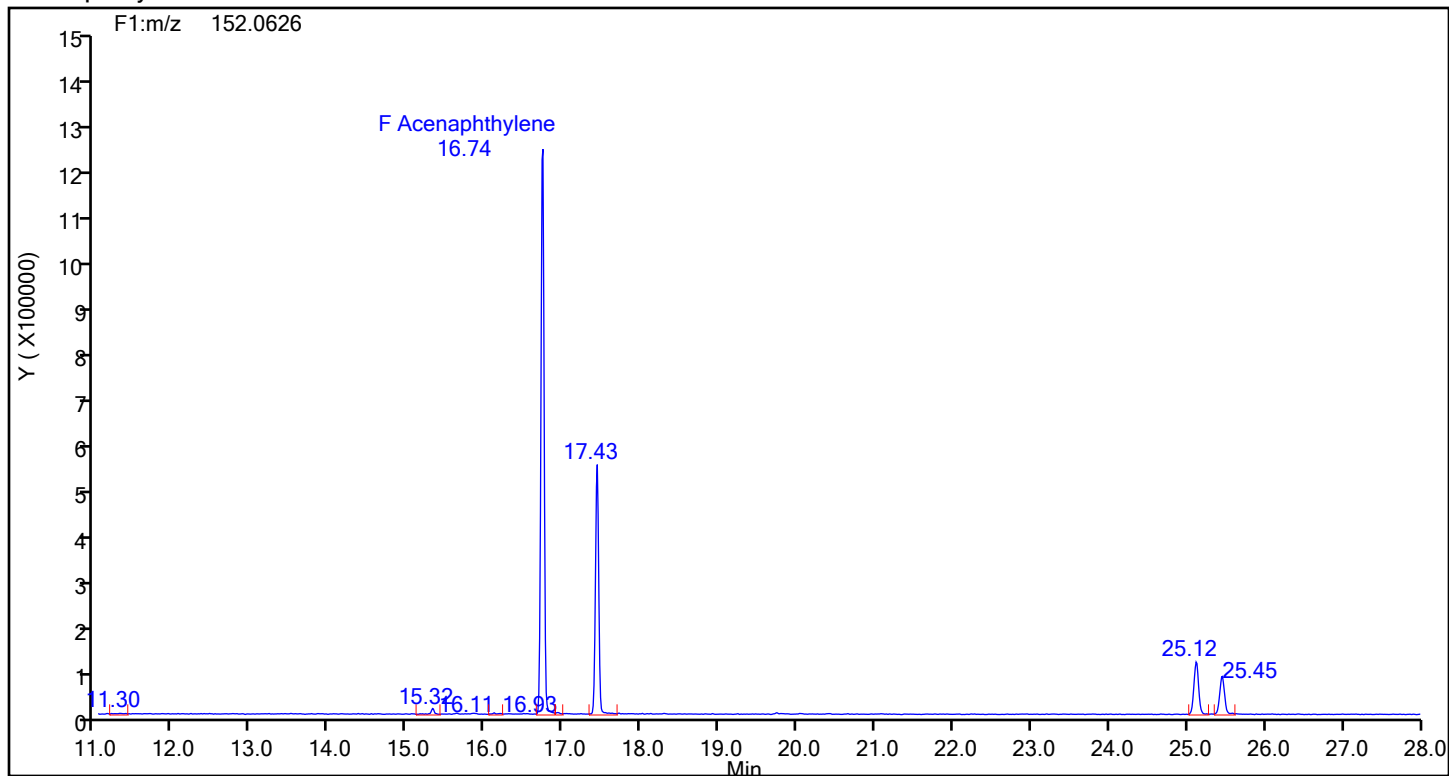
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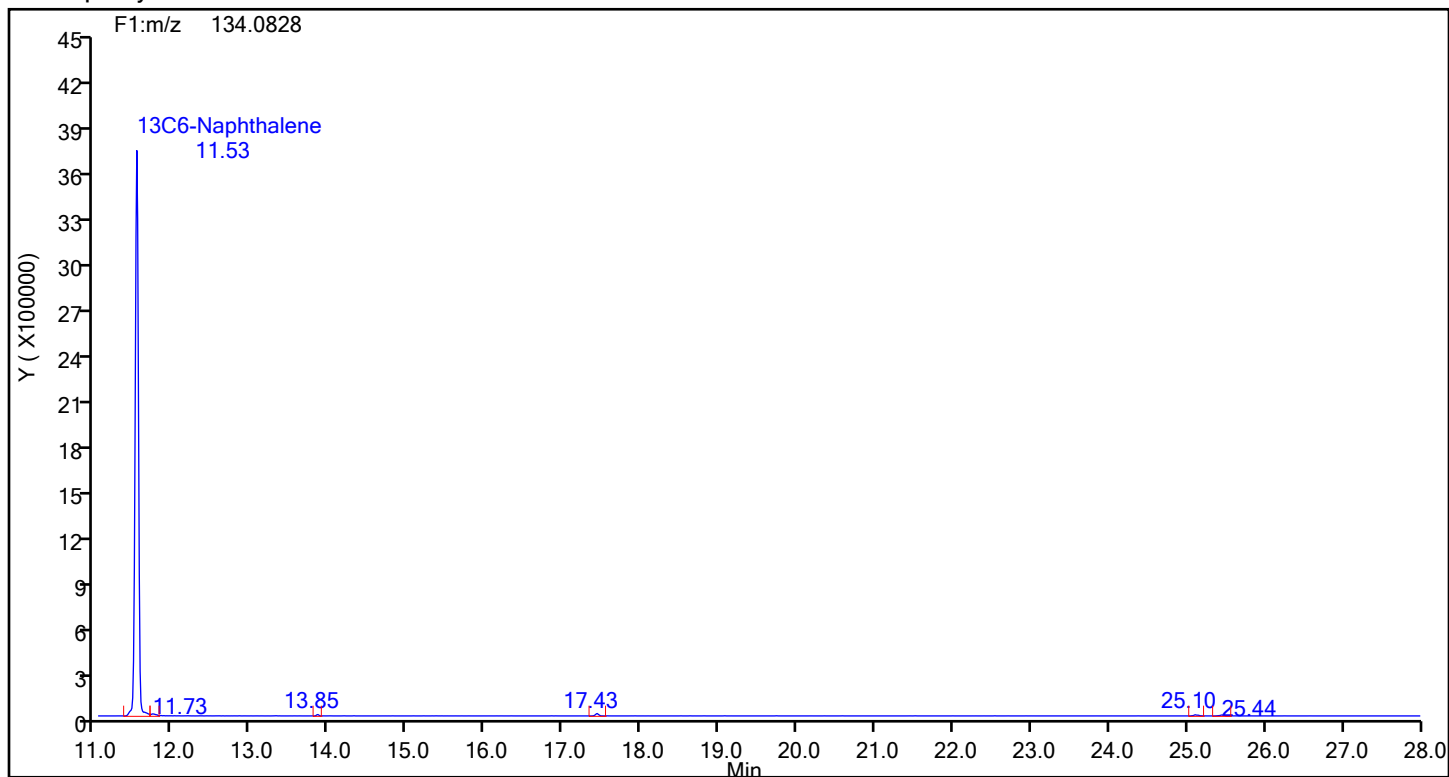
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Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 5  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene



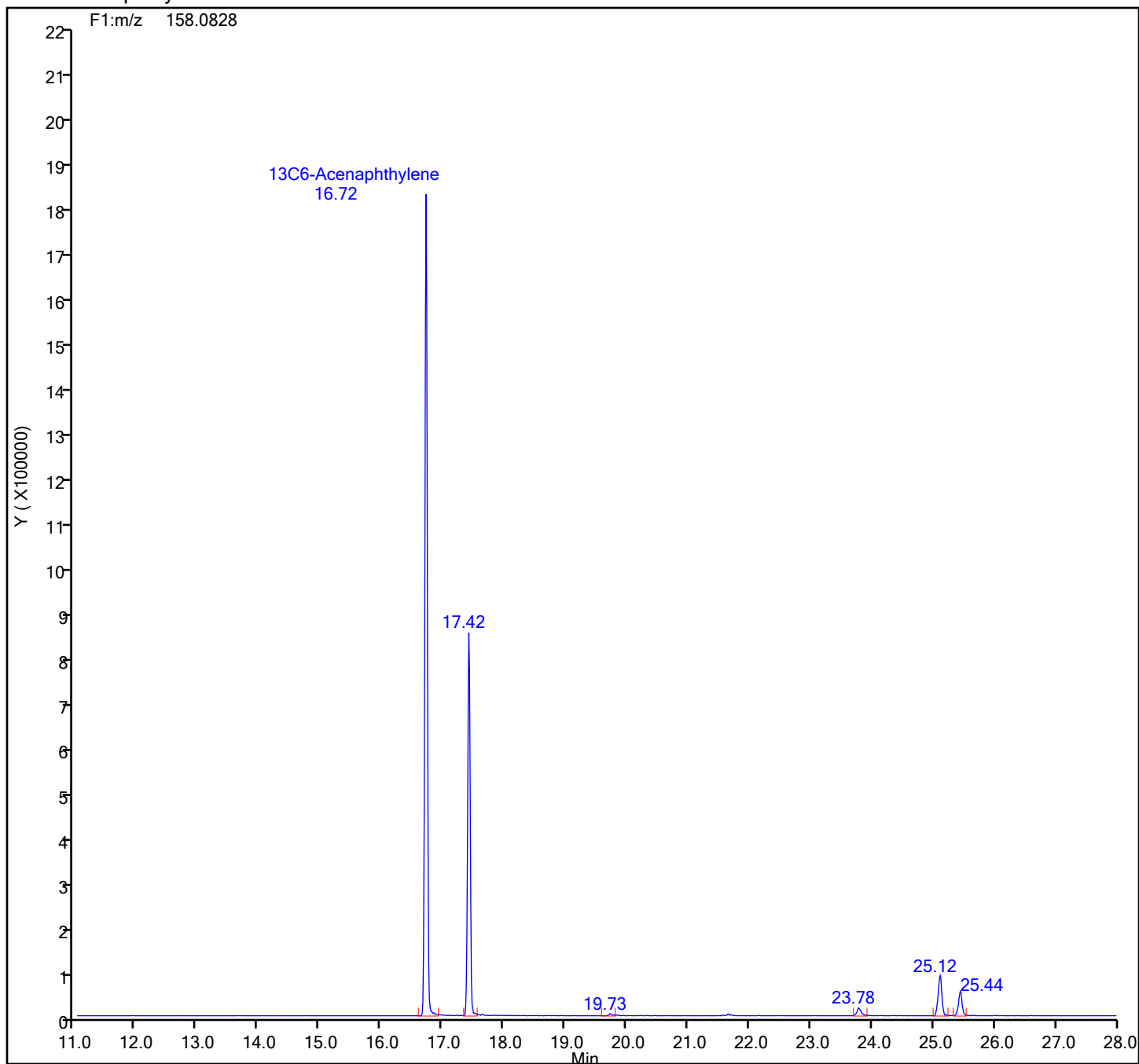
## Acenaphthylene Standards





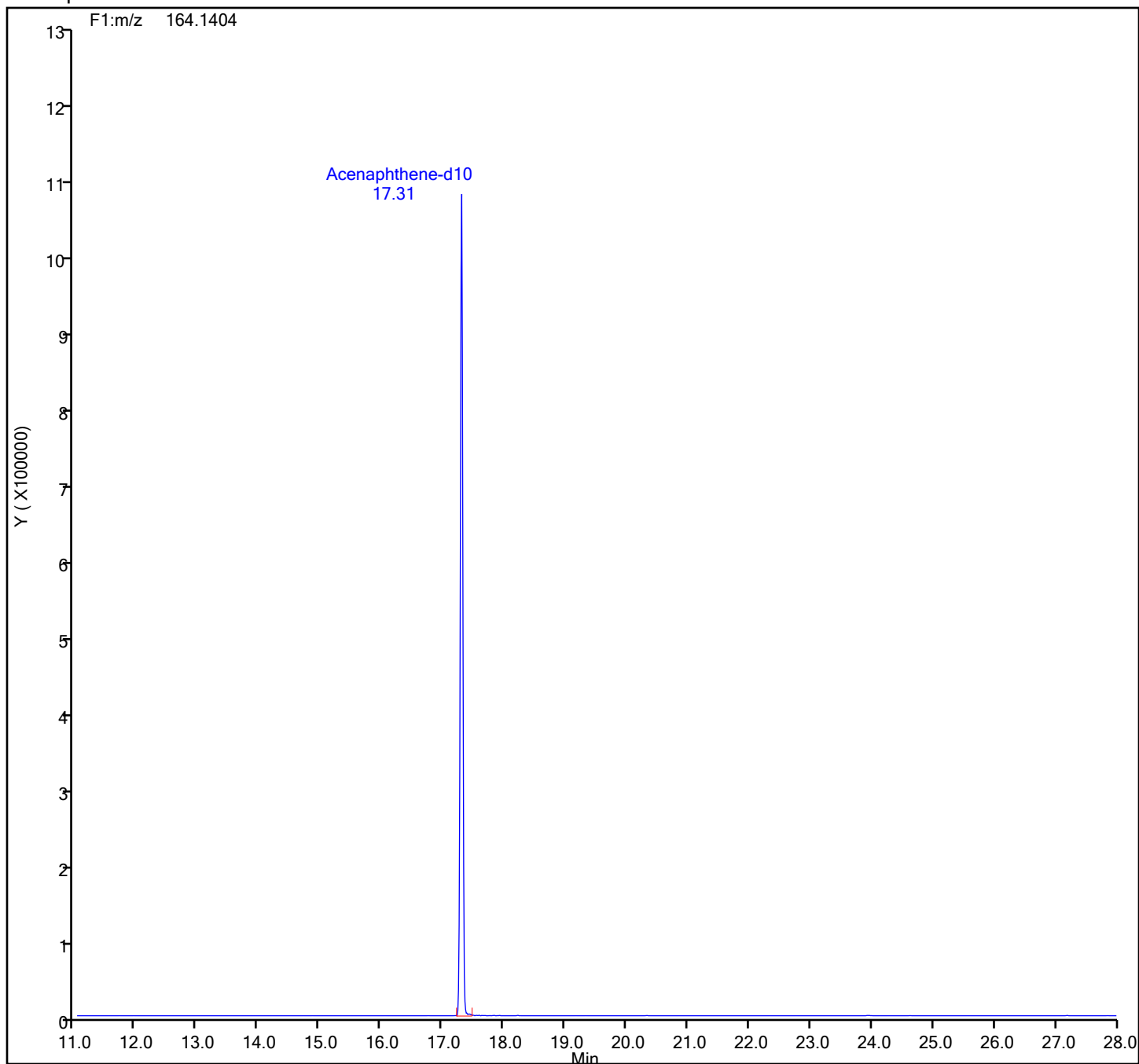
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13C6-Acenaphthylene Standards



## Eurofins Knoxville

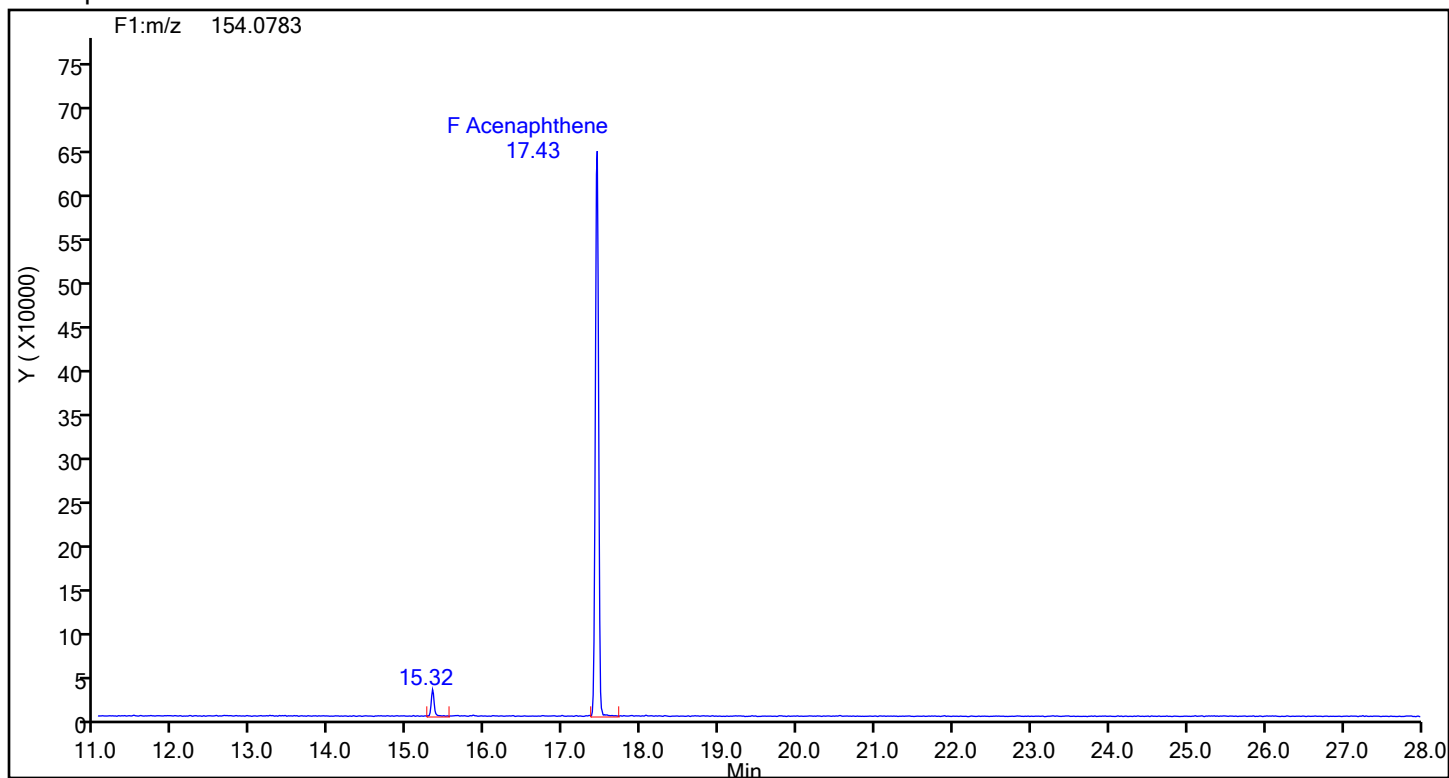
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Acenaphthene-d10 Standards



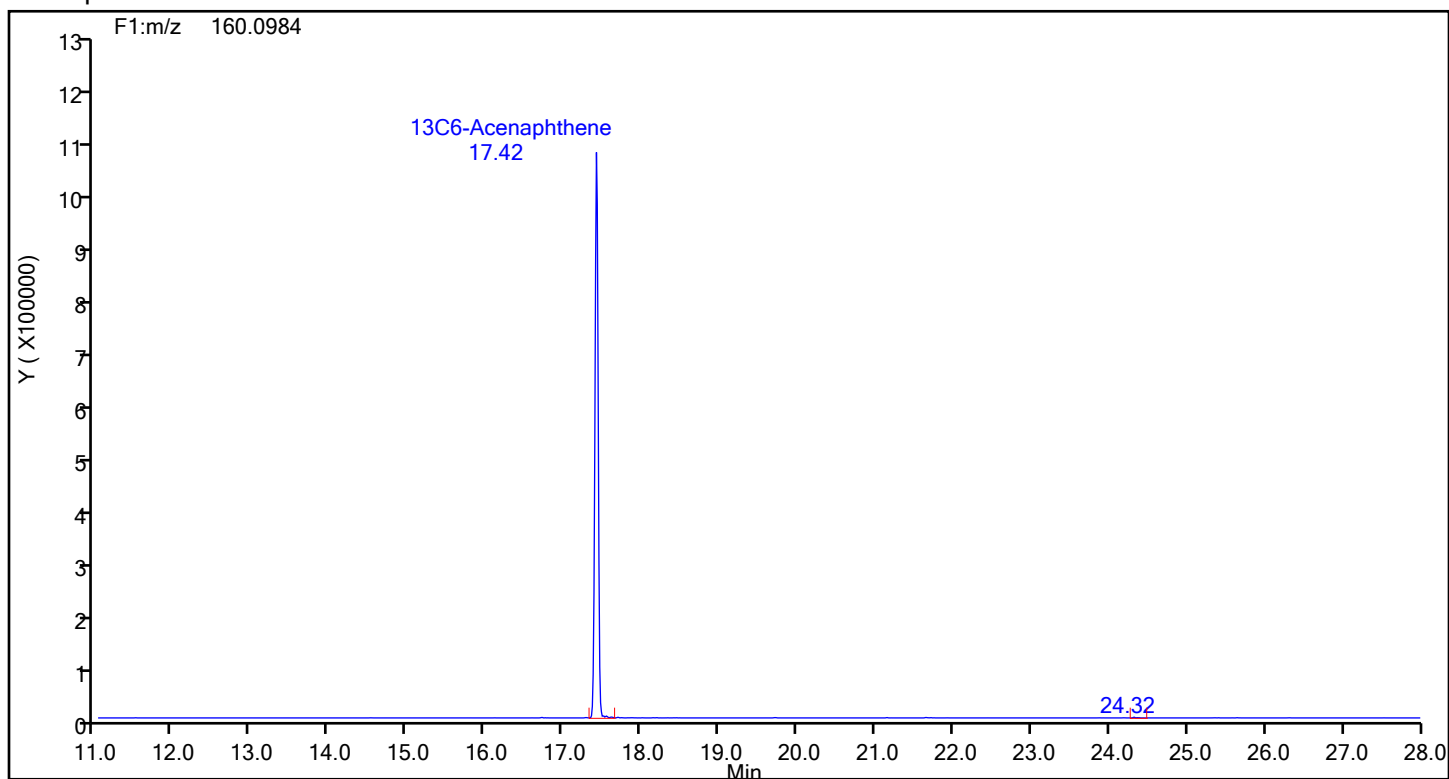
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
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Worklist#: 87843 Sample Line#: 5  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



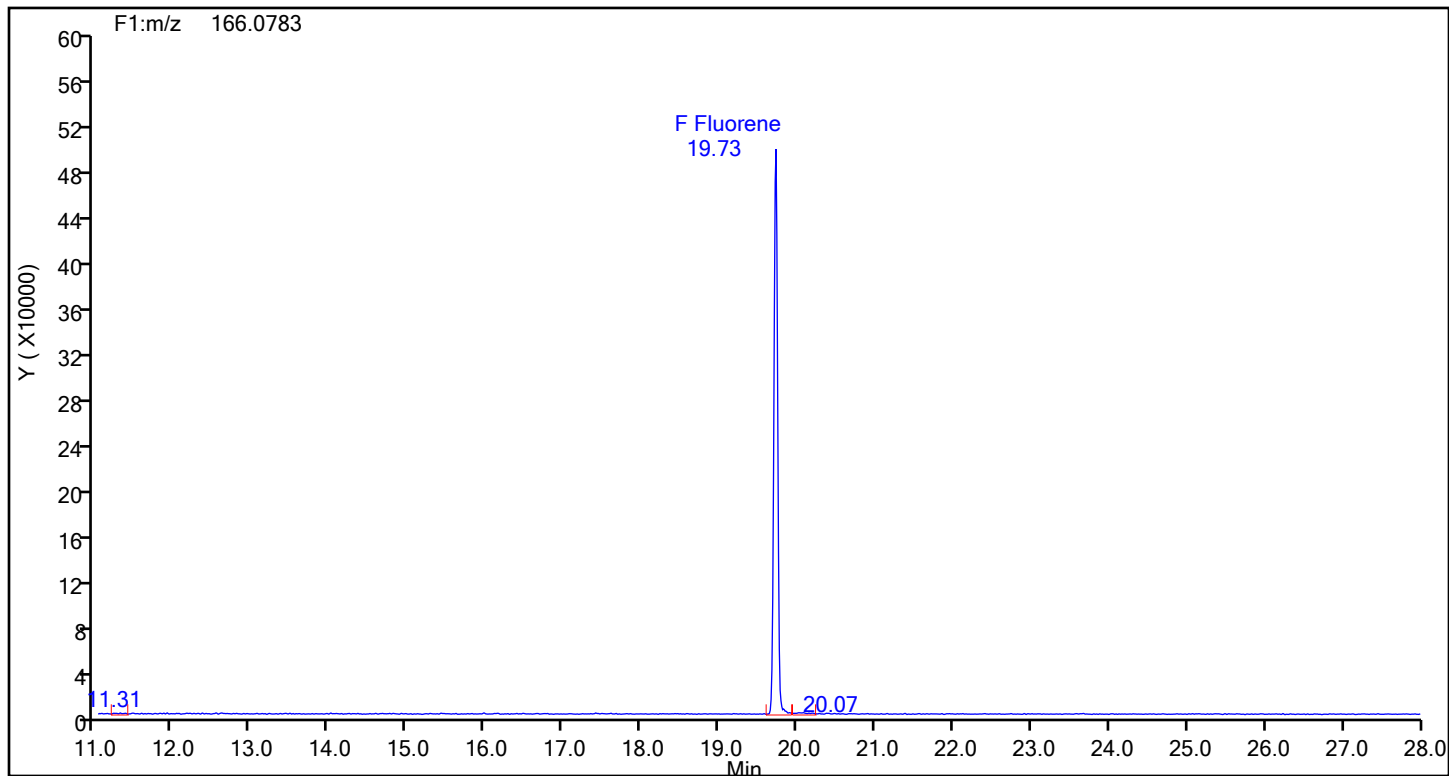
## Acenaphthene Standards



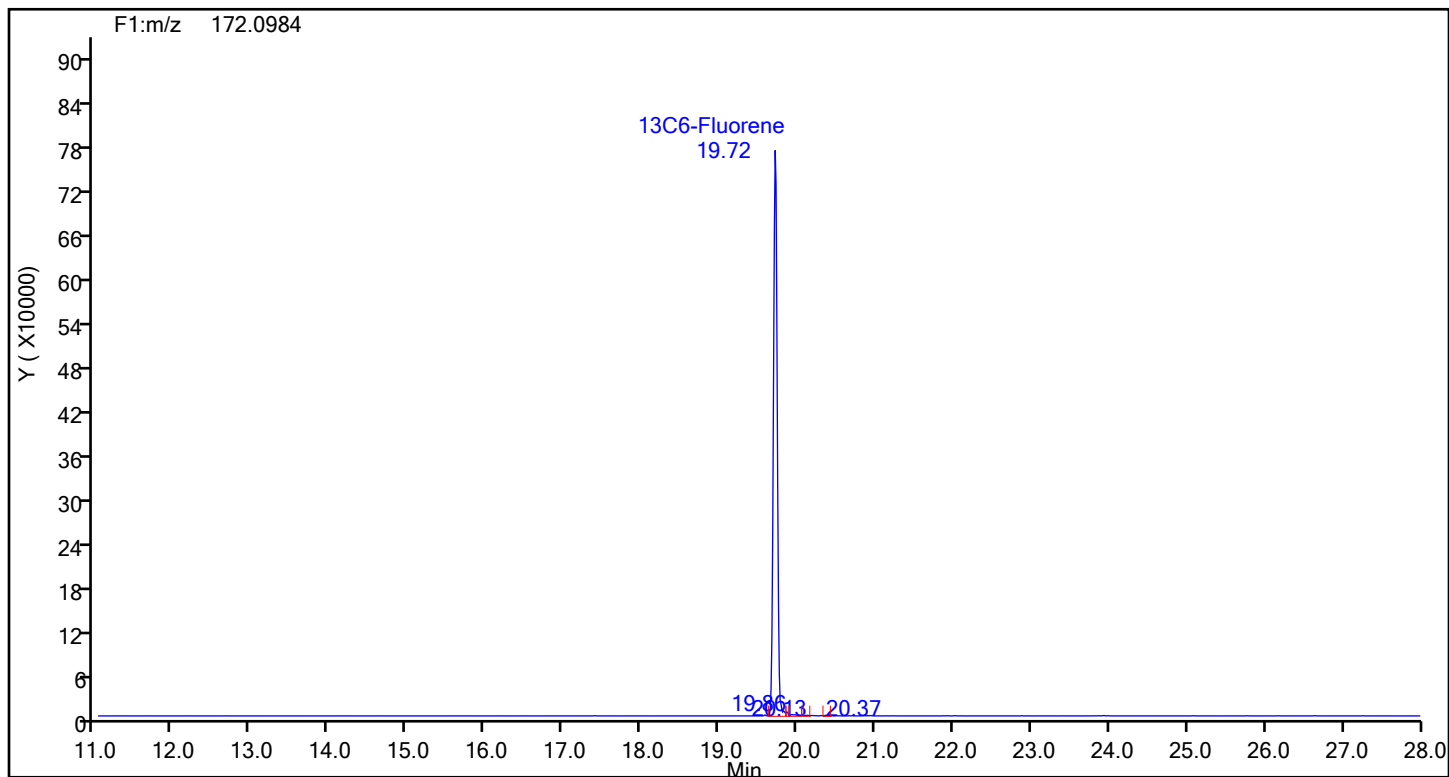
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 5  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene

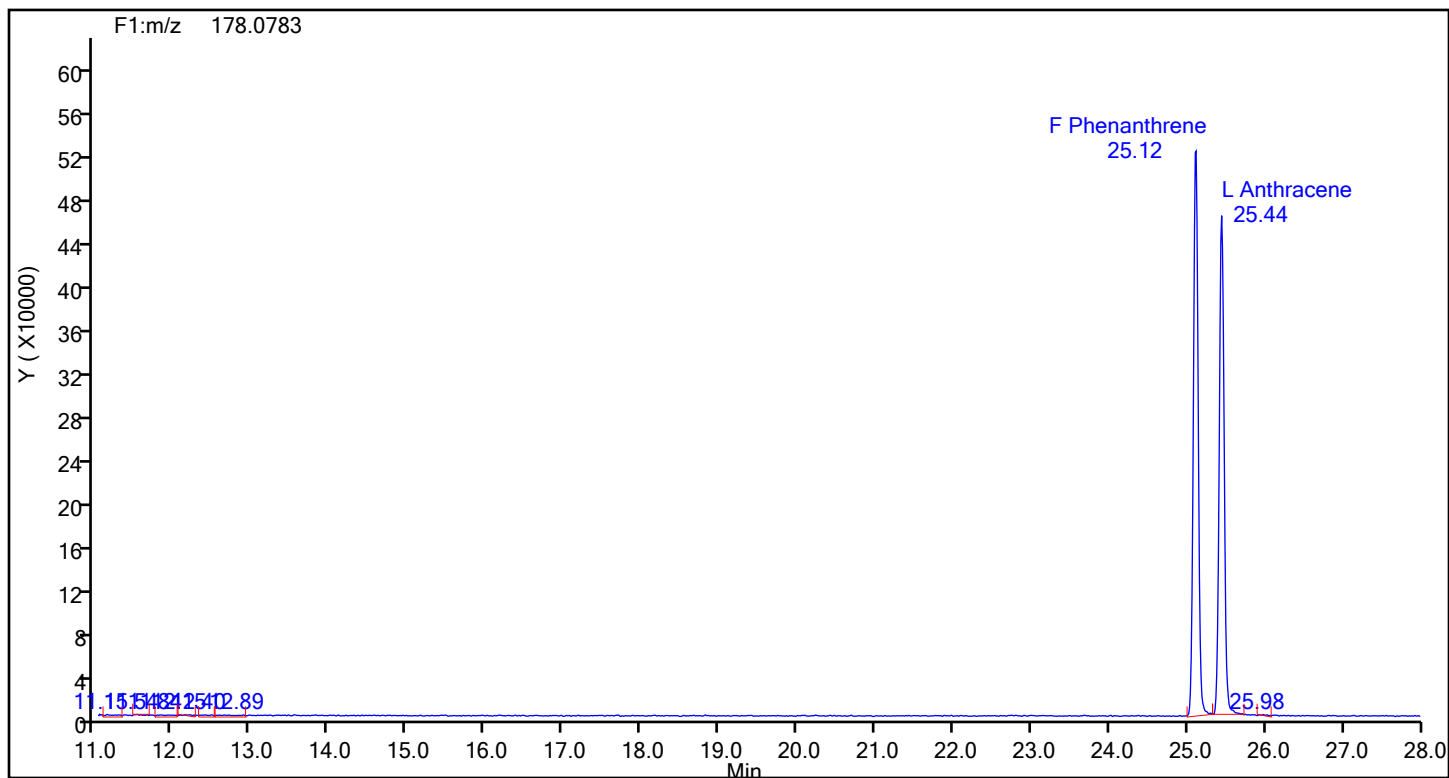


## Fluorene Standards

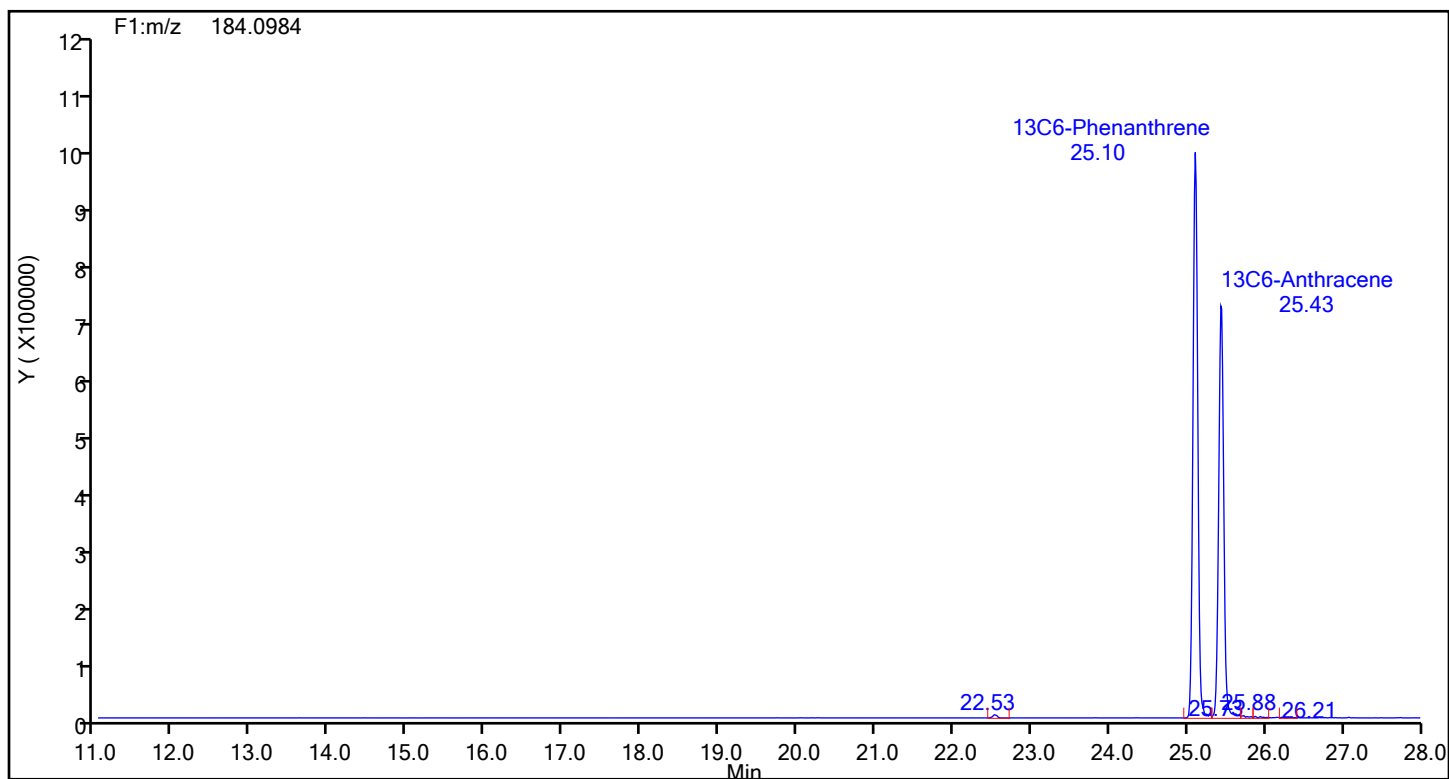


## Eurofins Knoxville

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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Phenanthrene

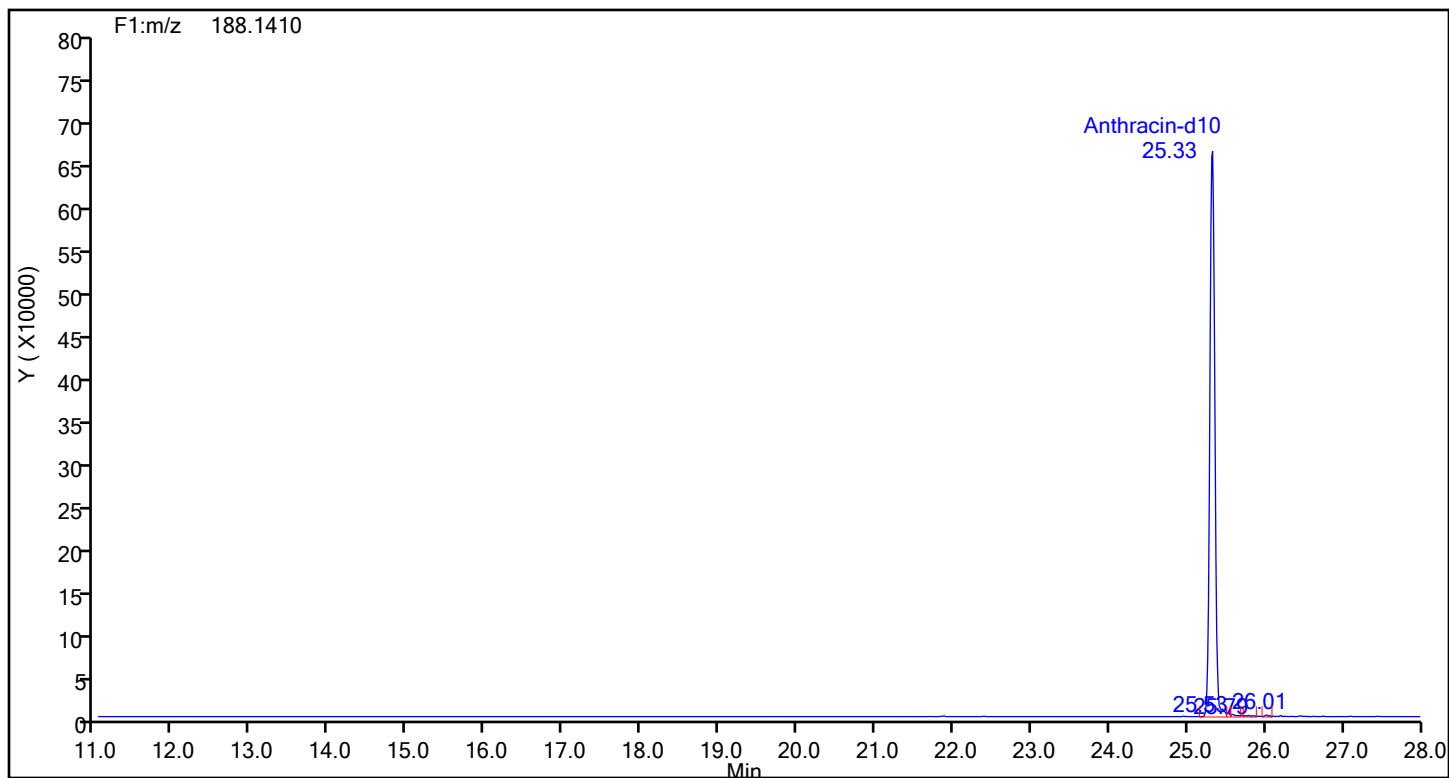


## Phenanthrene Standards

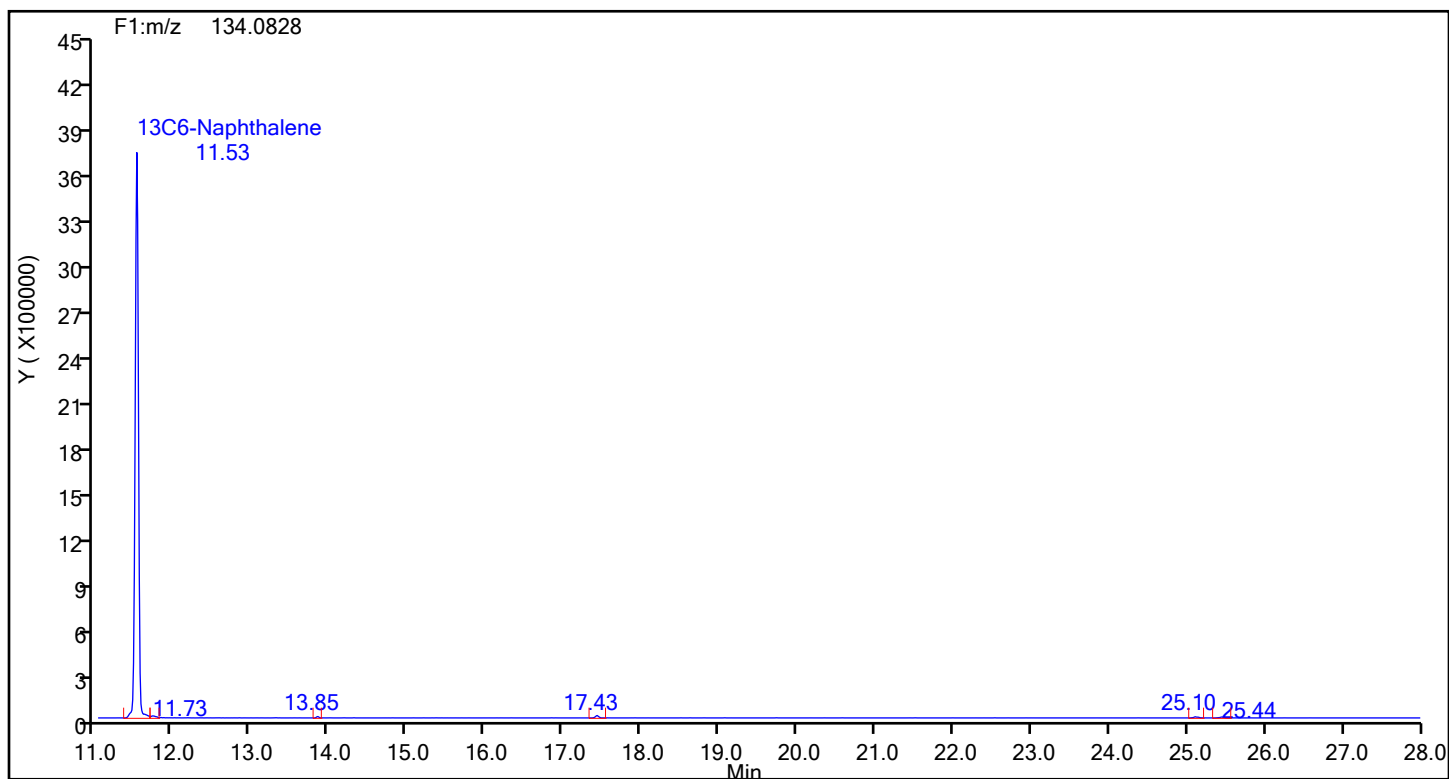


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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10

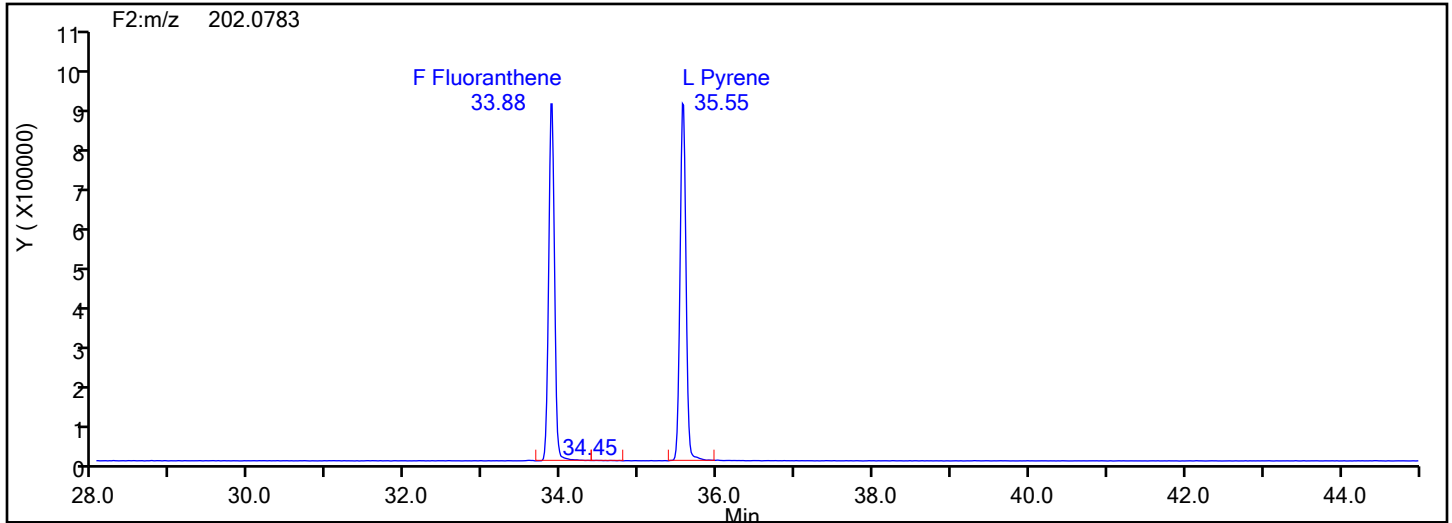


## Anthracin-d10 Standards

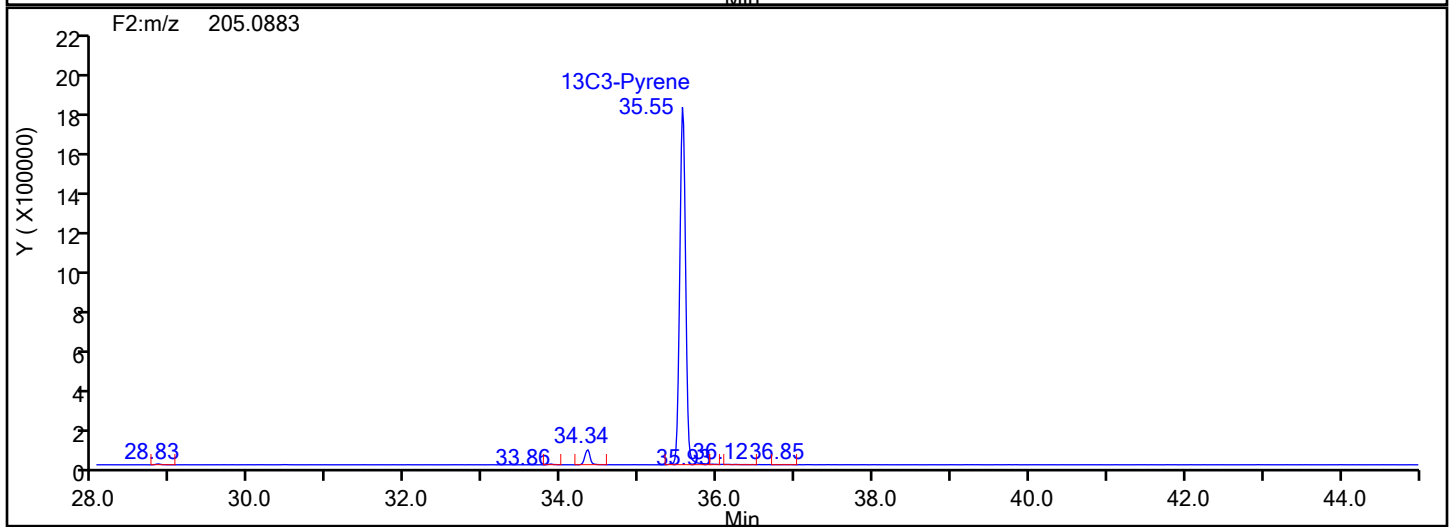
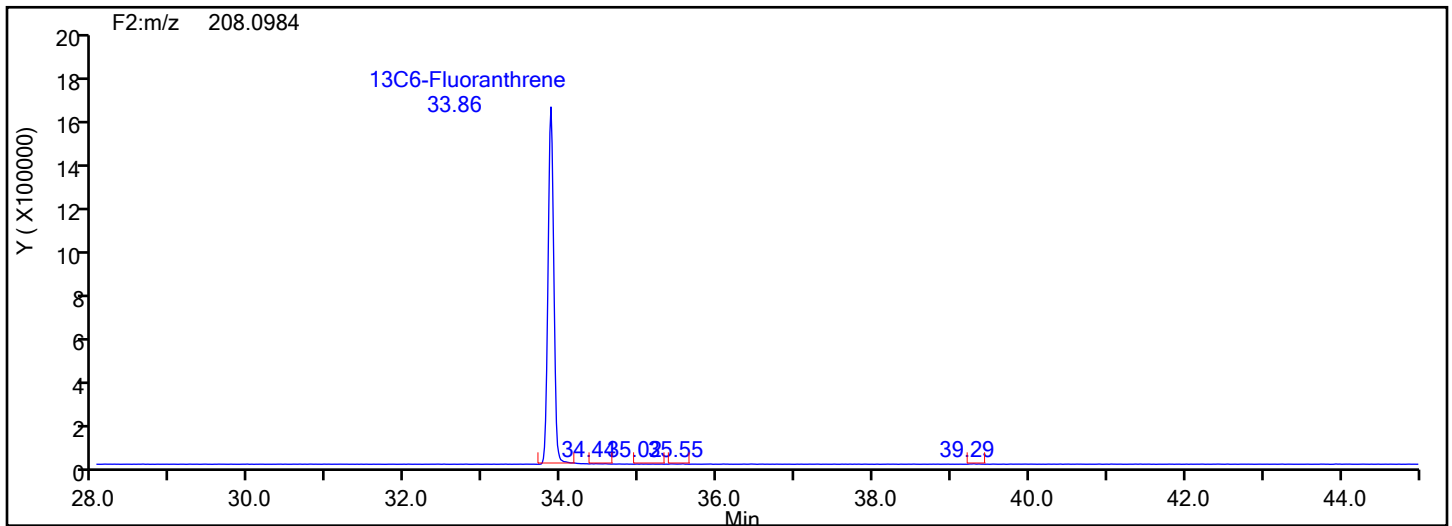


## Eurofins Knoxville

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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Fluoranthene



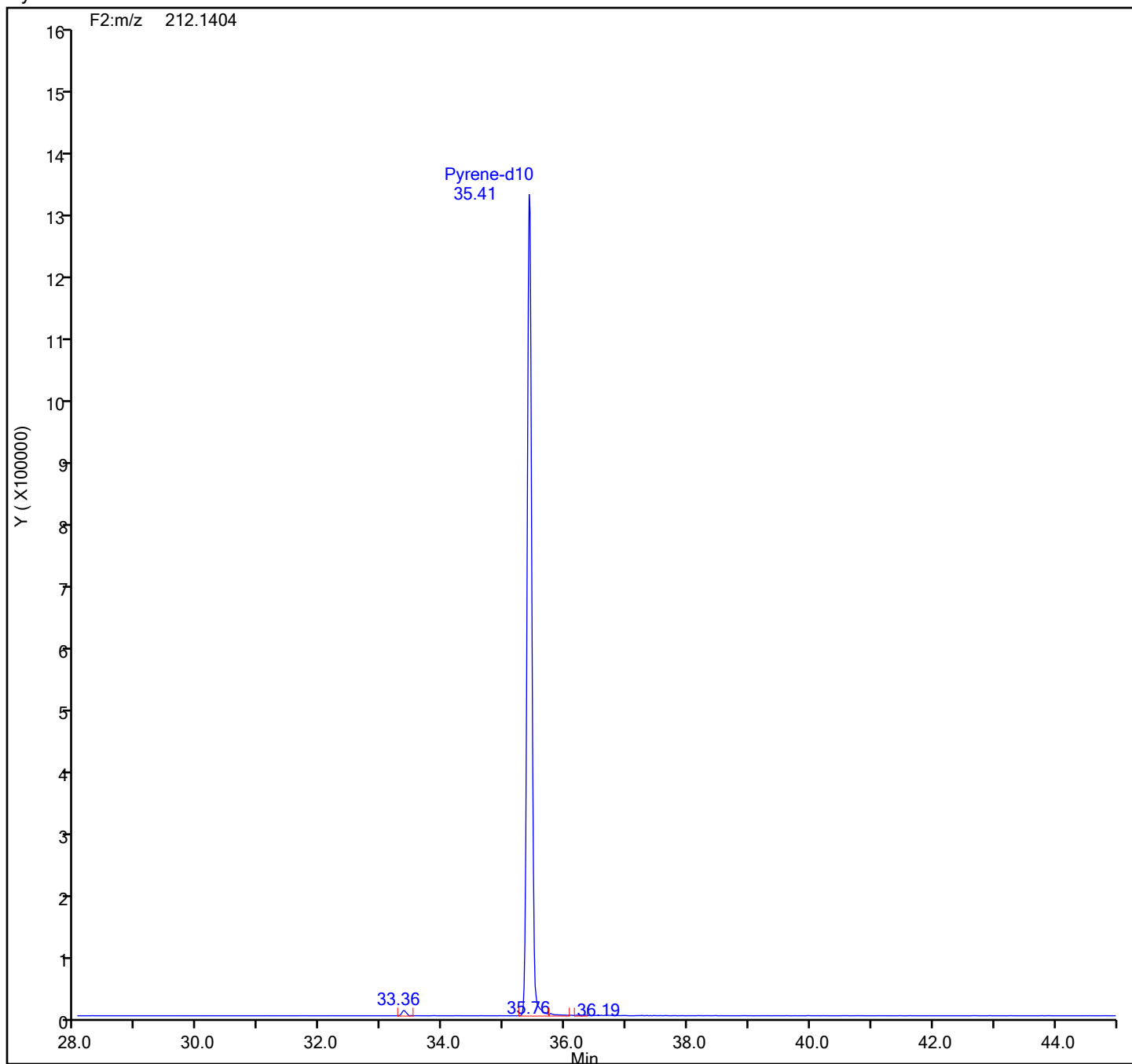
## Fluoranthene Standards



## Eurofins Knoxville

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Worklist#: 87843 Sample Line#: 5  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Pyrene-d10 Standards

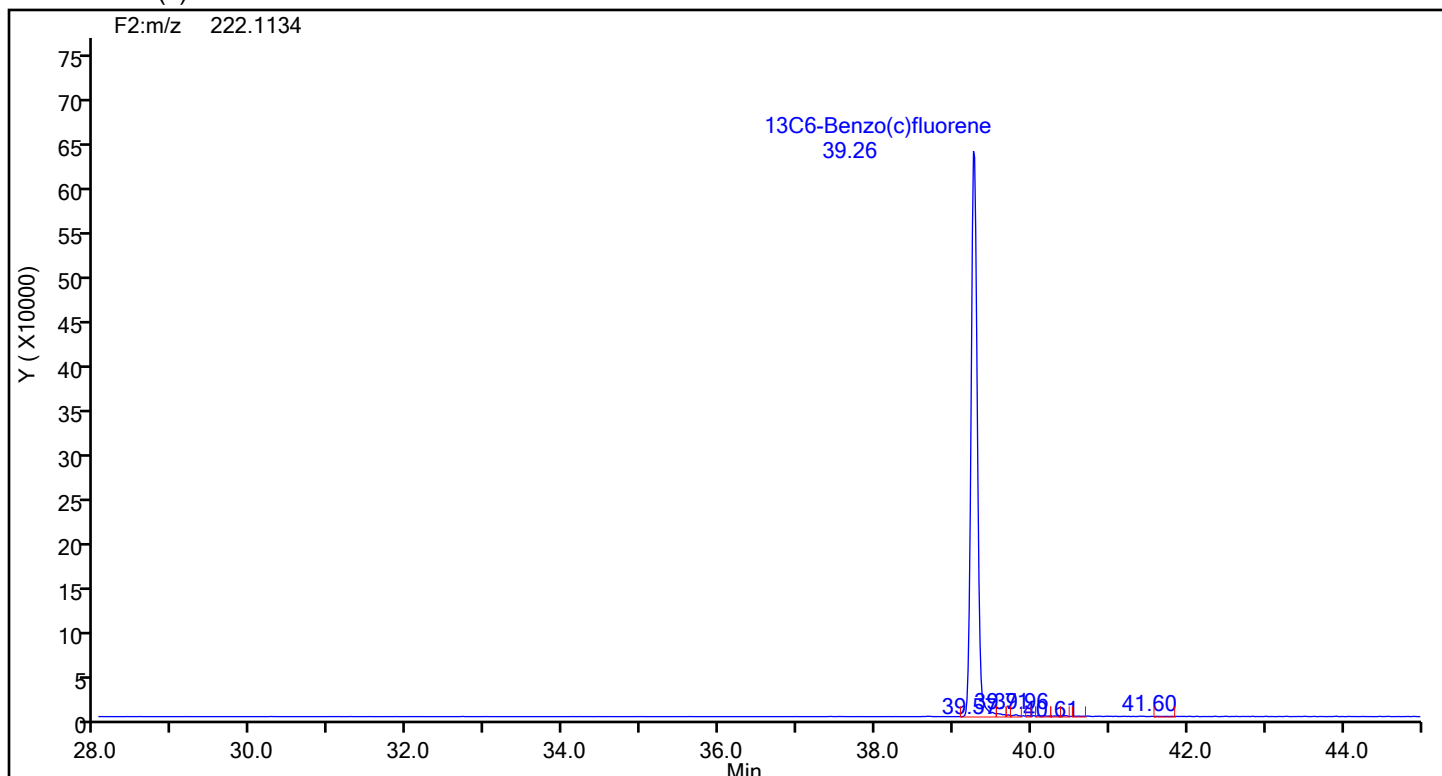




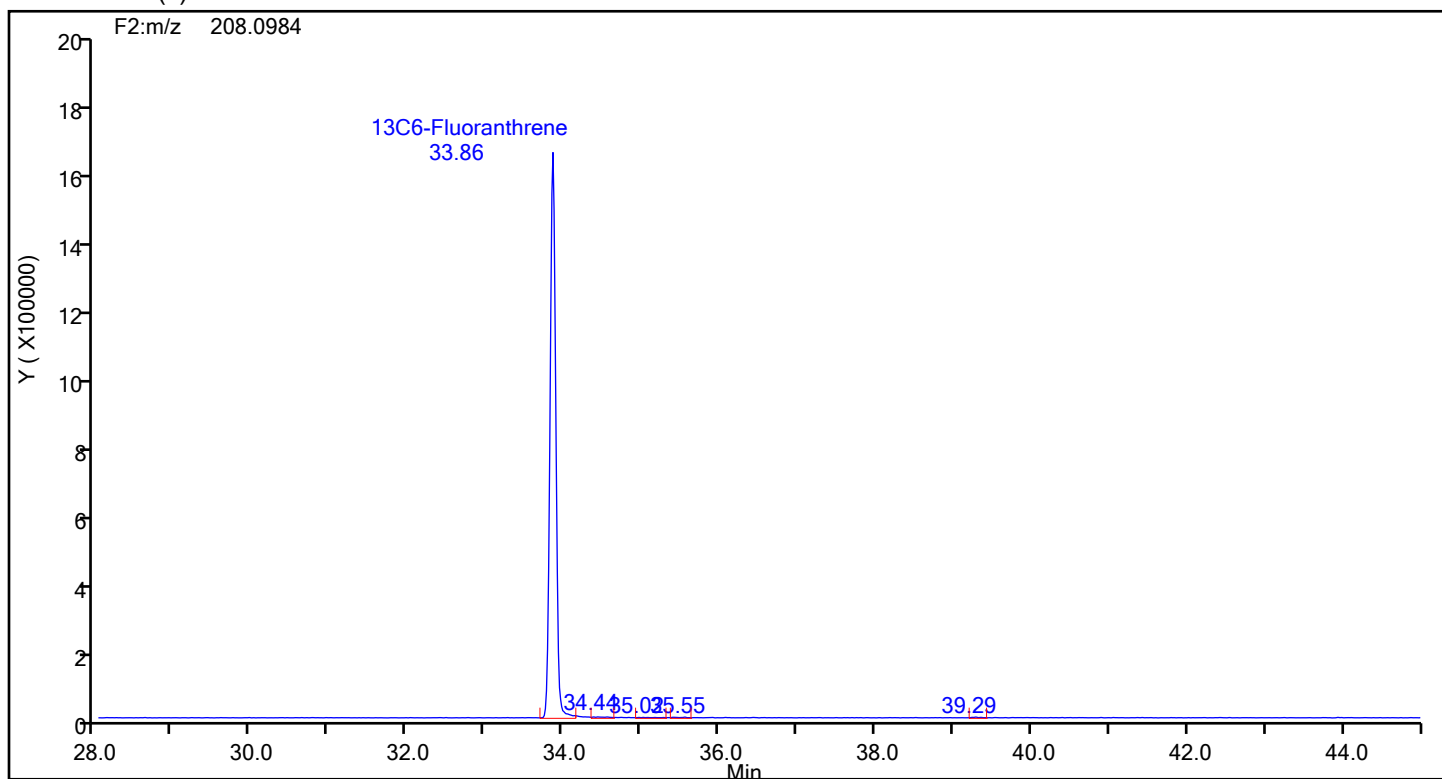
## Eurofins Knoxville

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Client ID:  
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C6-Benzo(c)fluorene



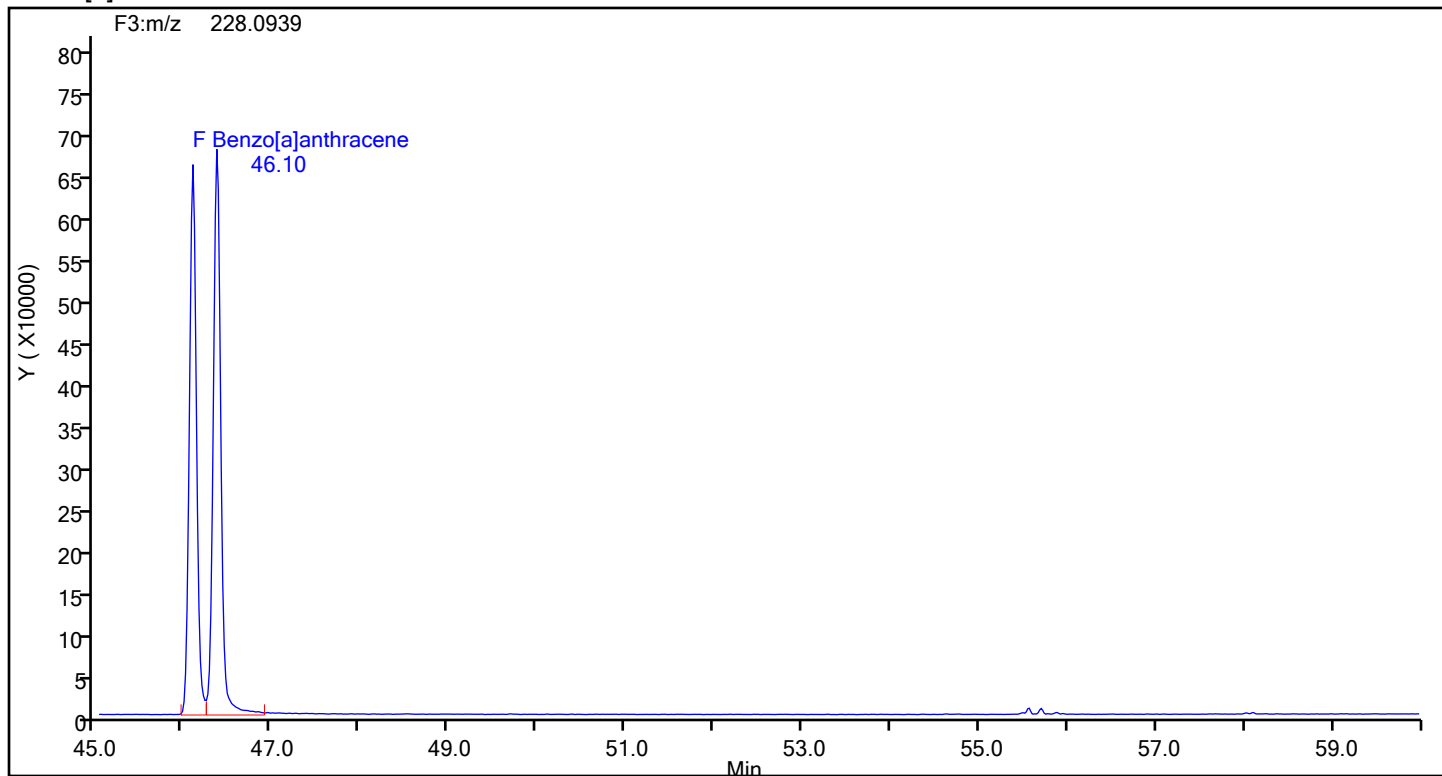
## 13C6-Benzo(c)fluorene Standards



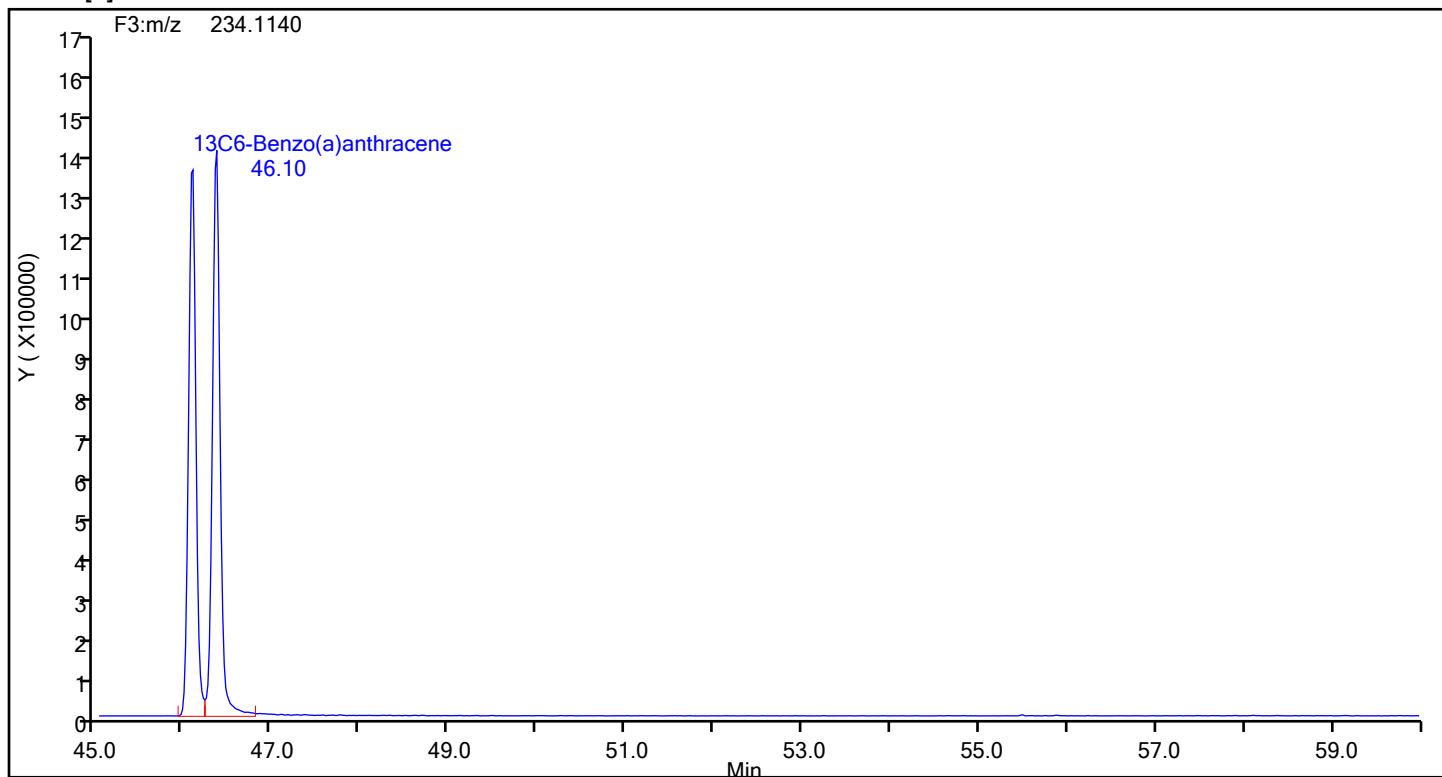
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 5  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



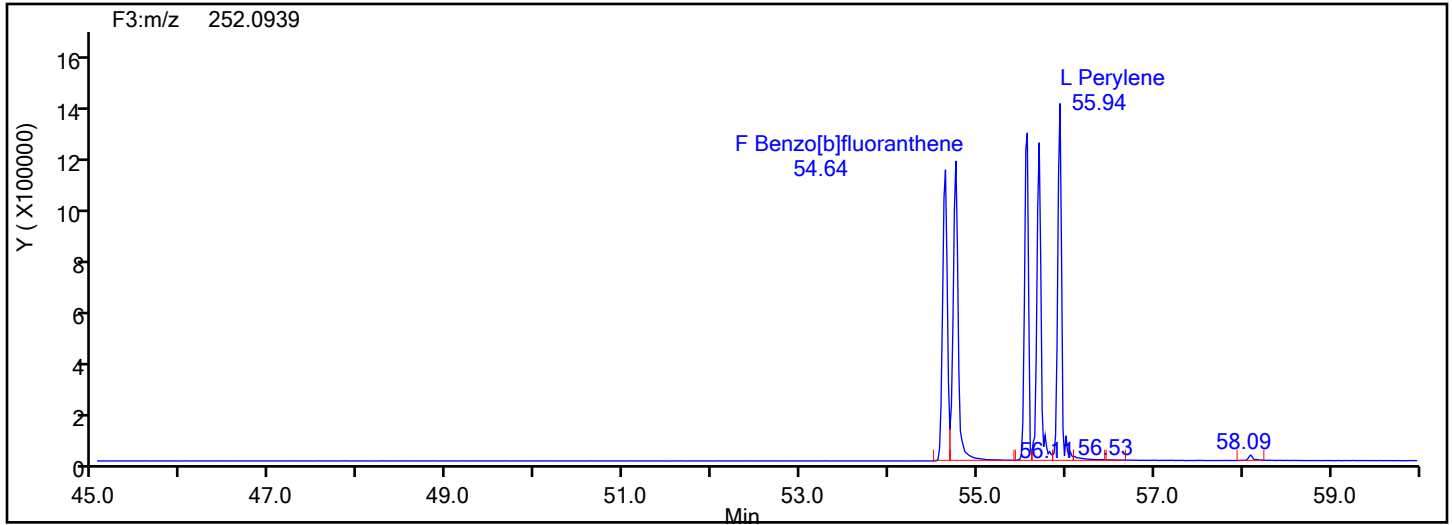
## Benzo[a]anthracene Standards



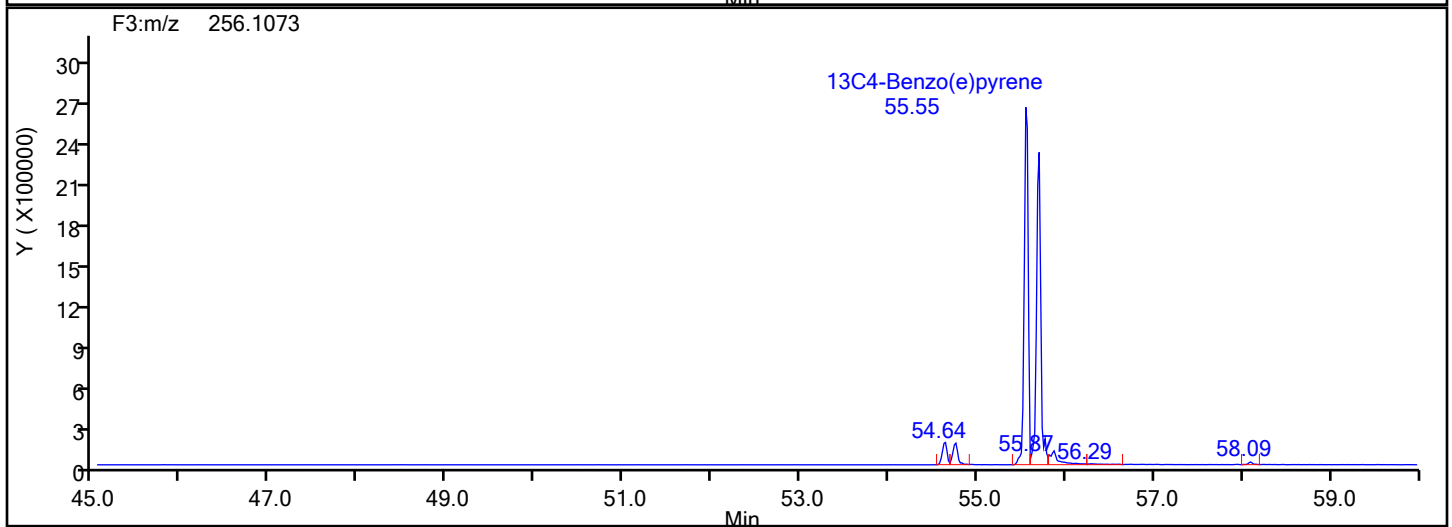
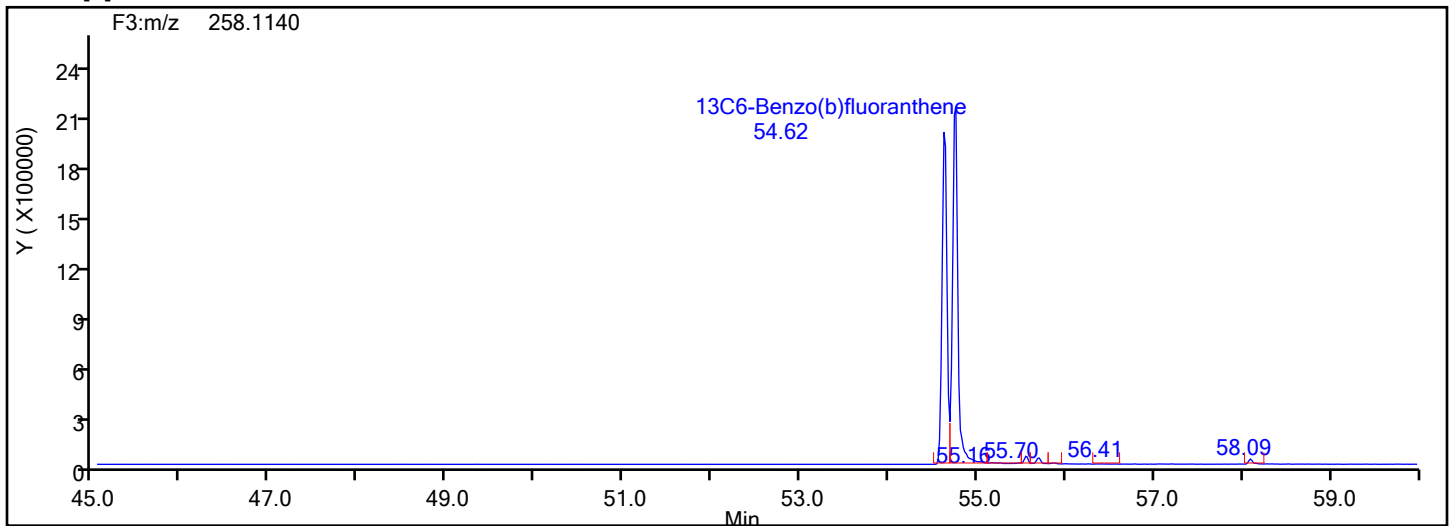
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAL ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 5  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



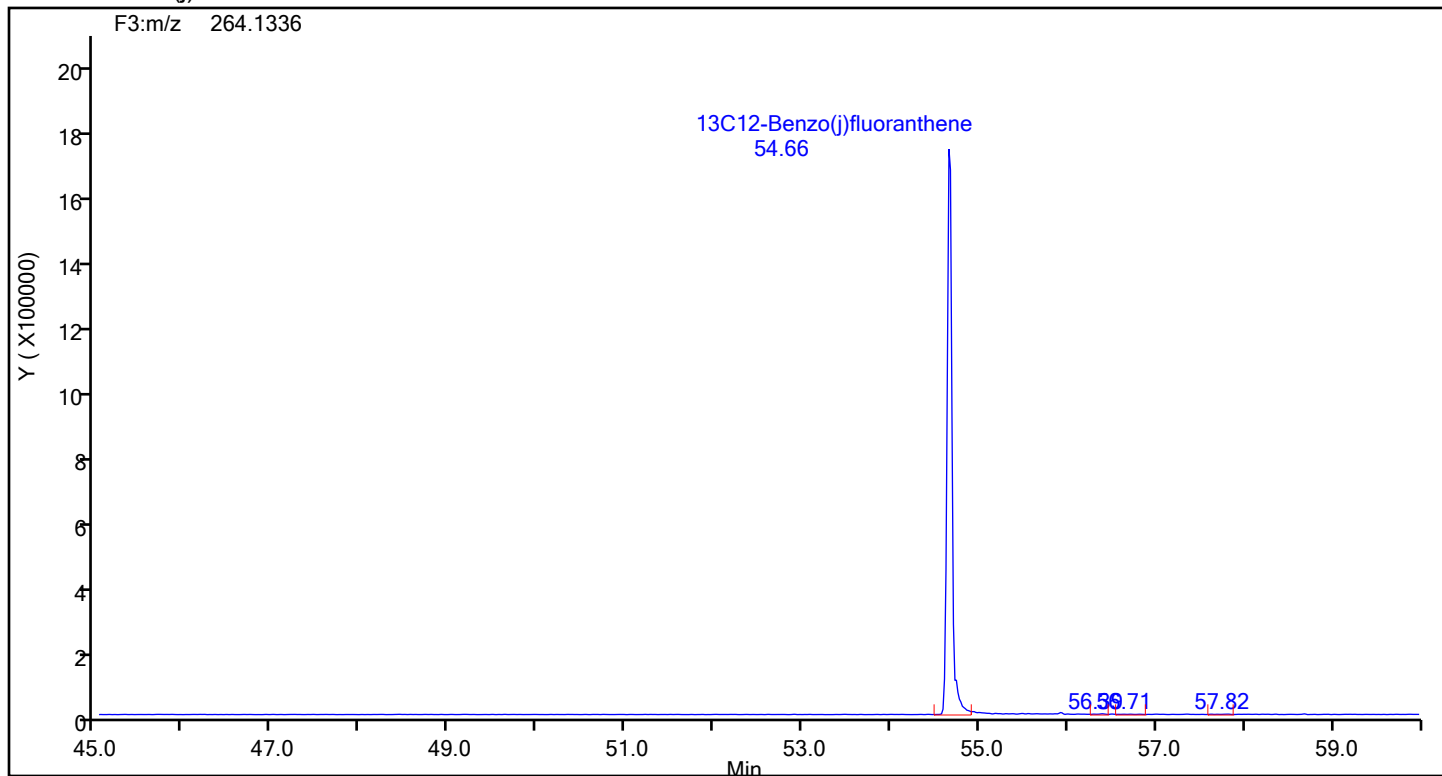
## Benzo[b]fluoranthene Standards



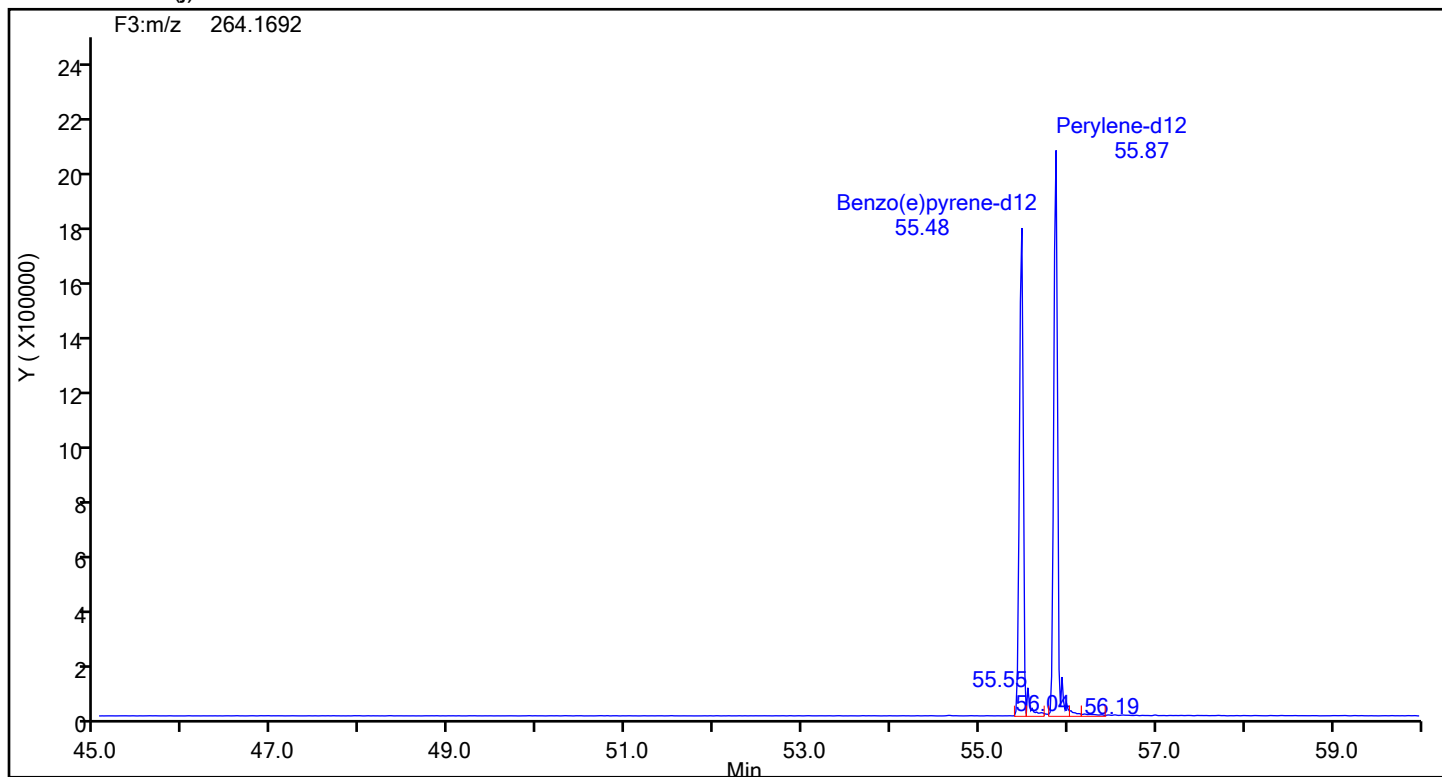
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 5  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



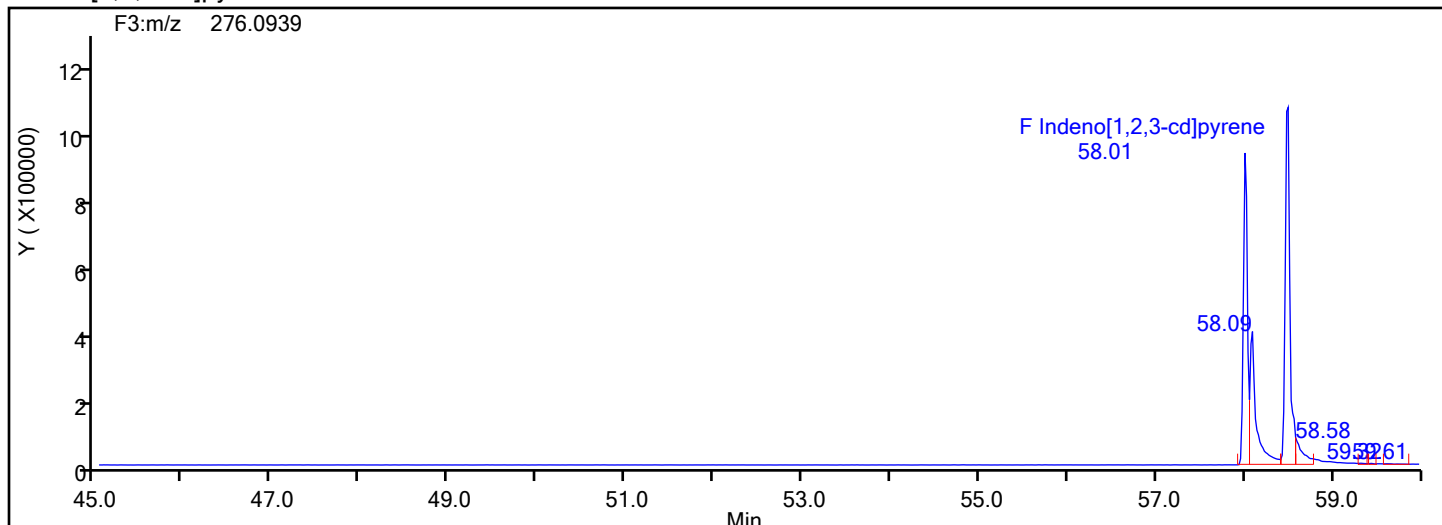
## 13C12-Benzo(j)fluoranthene Standards



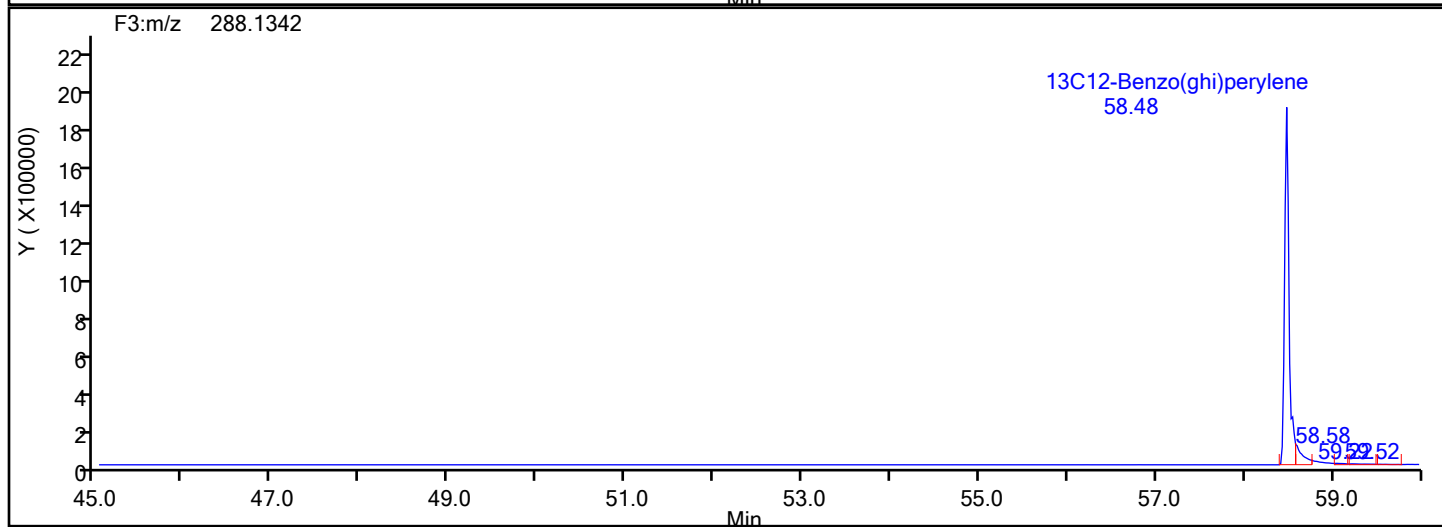
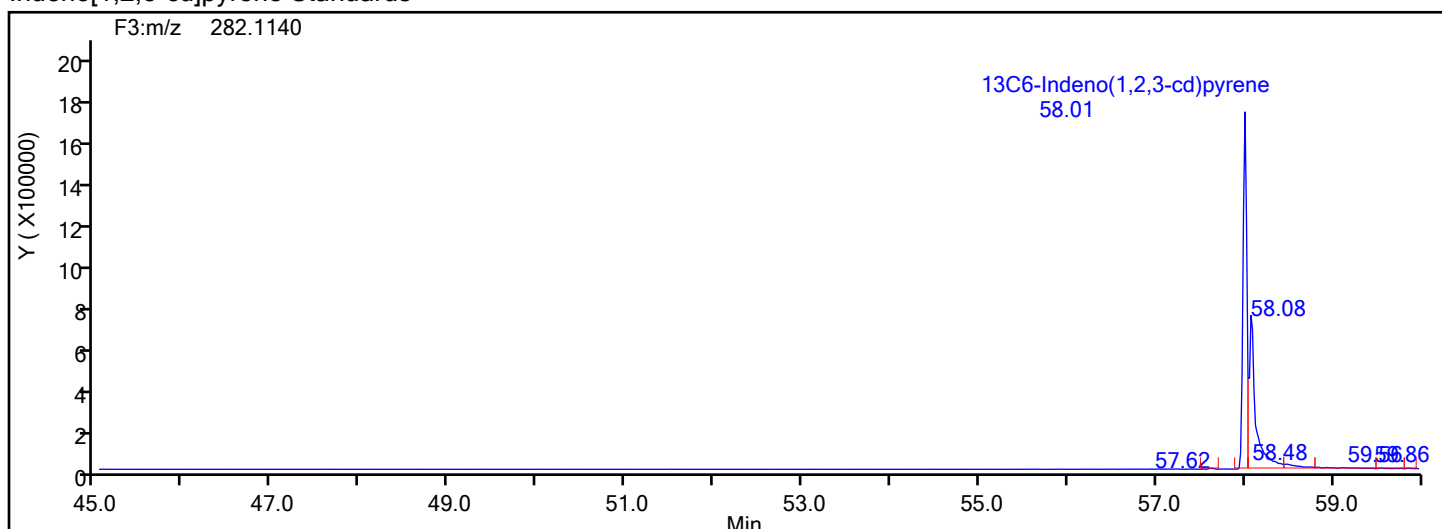
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 5  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Indeno[1,2,3-cd]pyrene



## Indeno[1,2,3-cd]pyrene Standards



## Eurofins Knoxville

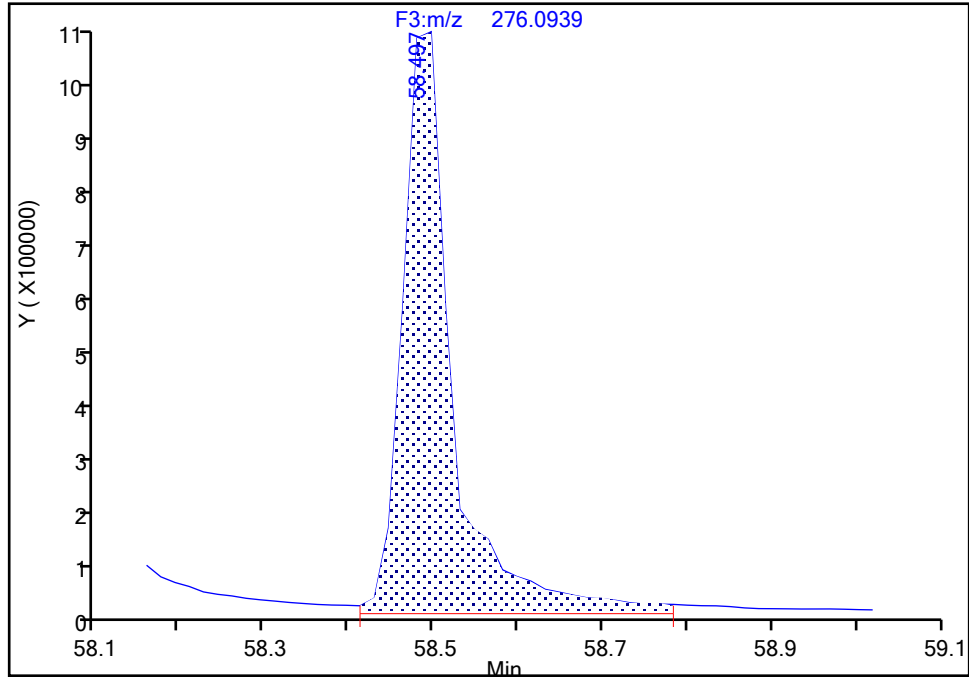
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Lims ID: IC L5  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 5  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

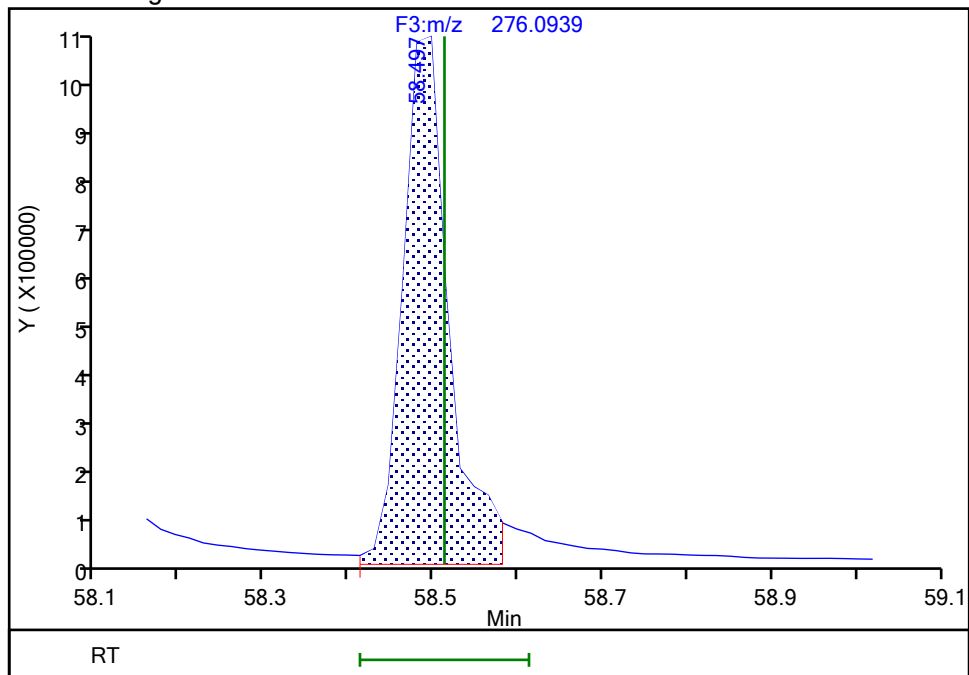
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Amount: 50.251920  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.50  
Area: 3911770  
Amount: 46.506324  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:36:45 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

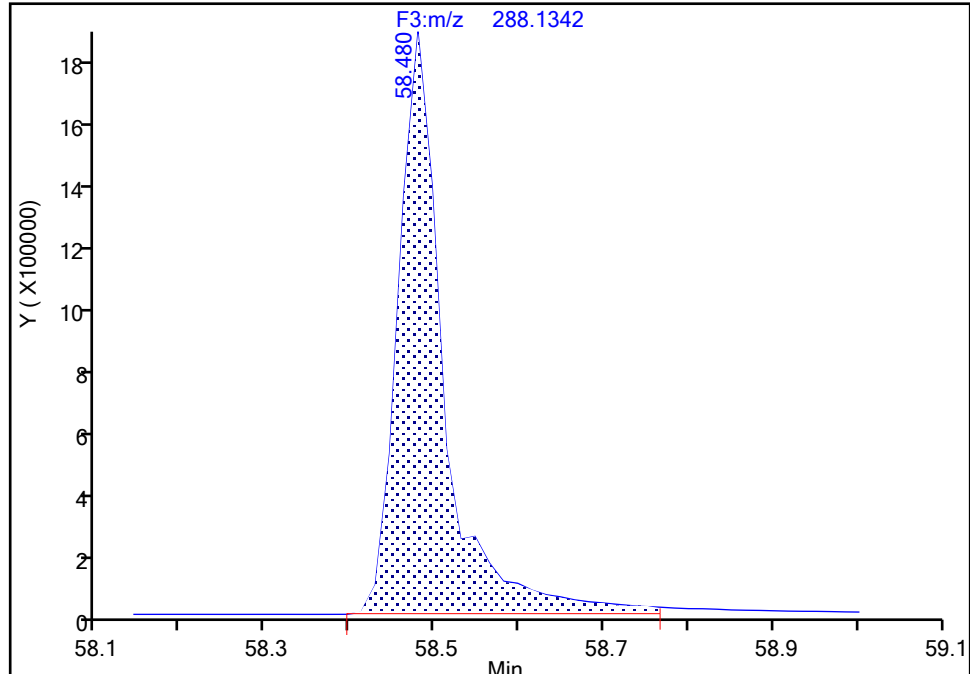
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Lims ID: IC L5  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 5  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C12-Benzo(ghi)perylene, CAS: 350820-11-0**

Signal: 1

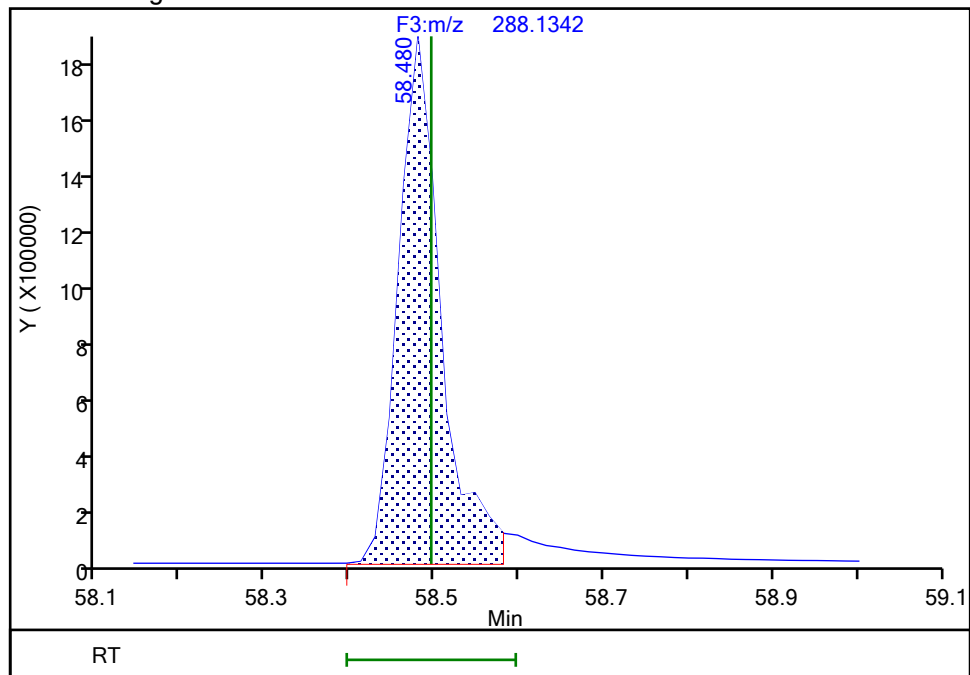
RT: 58.48  
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Amount: 100.4728  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.48  
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Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:36:40 -04:00:00 (UTC)

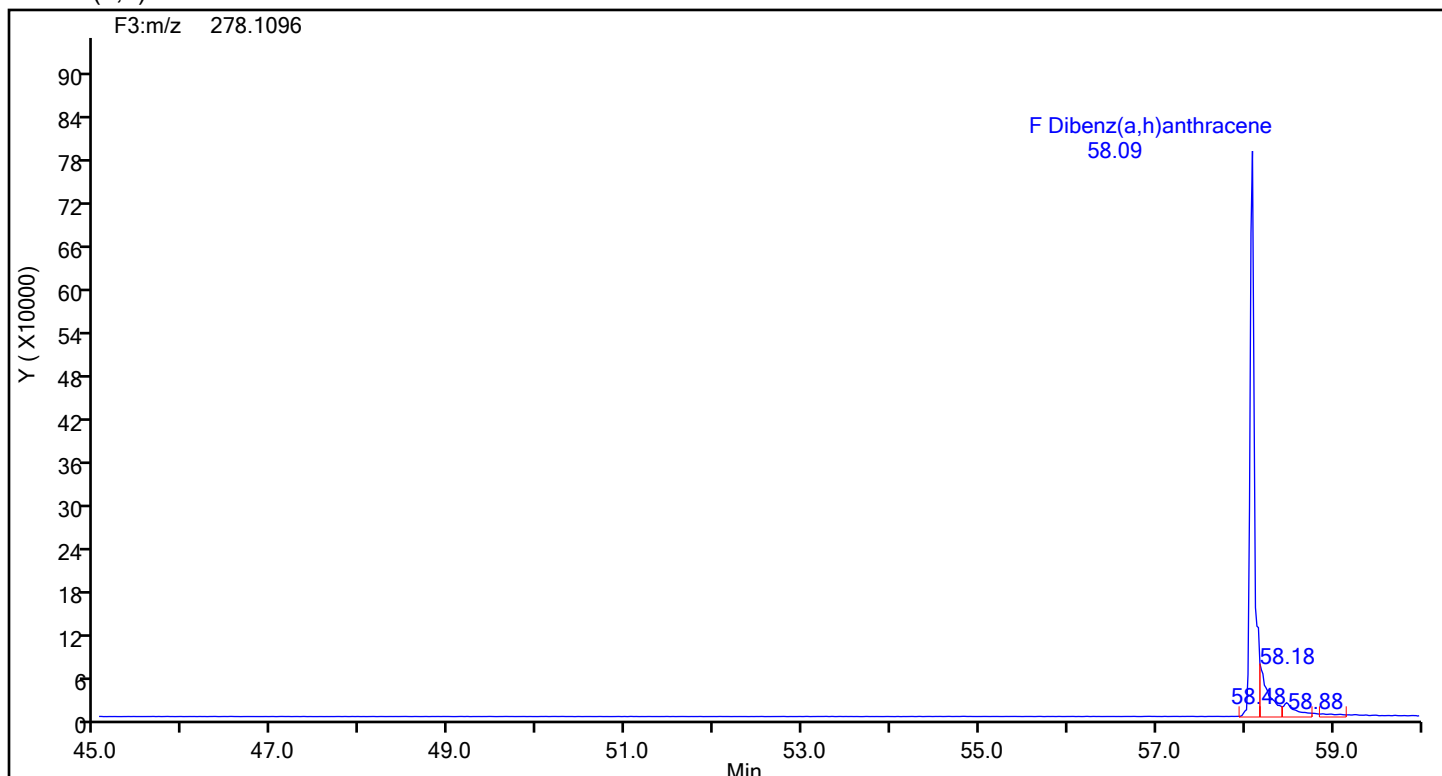
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

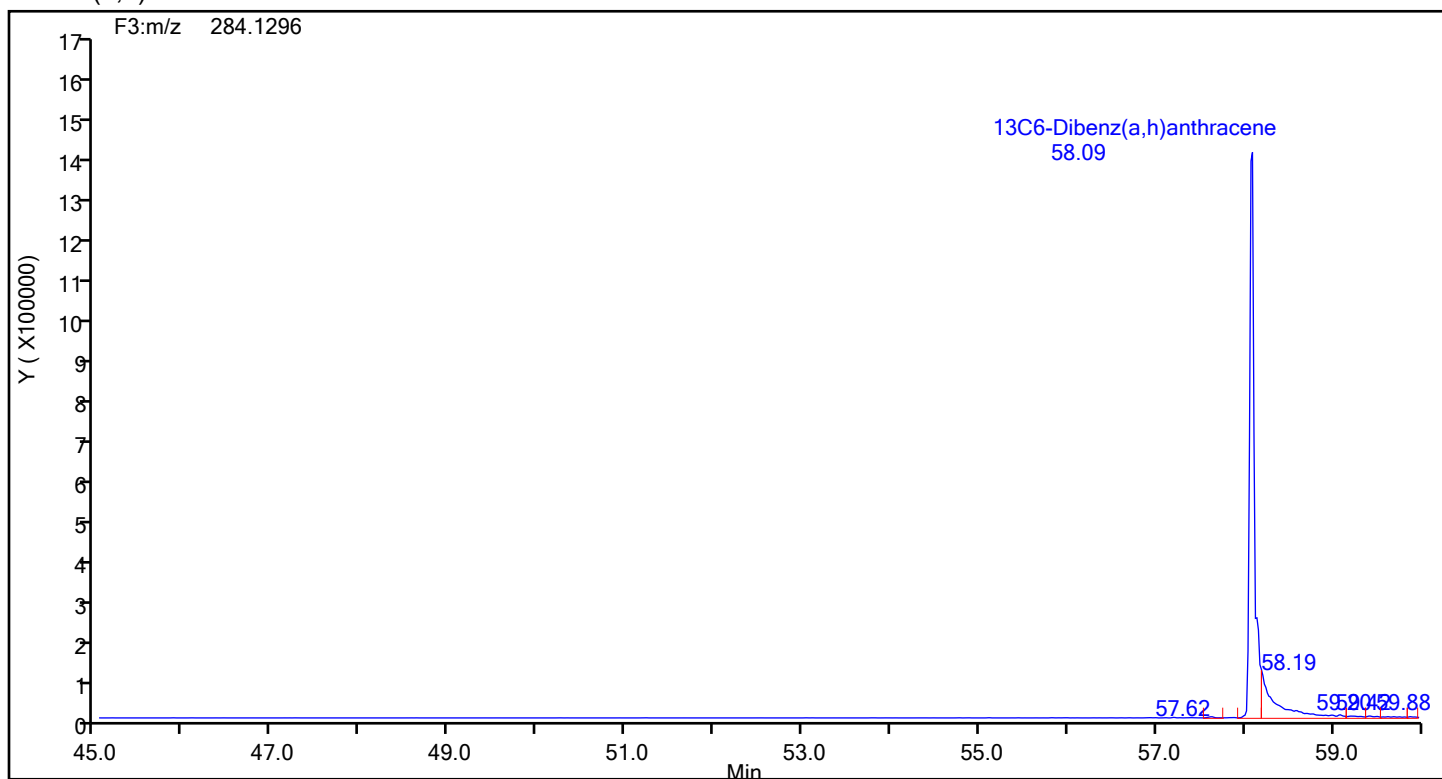
## Eurofins Knoxville

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Injection Date: 19-Jun-2024 20:51:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 5  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Dibenz(a,h)anthracene



## Dibenz(a,h)anthracene Standards





## Eurofins Knoxville

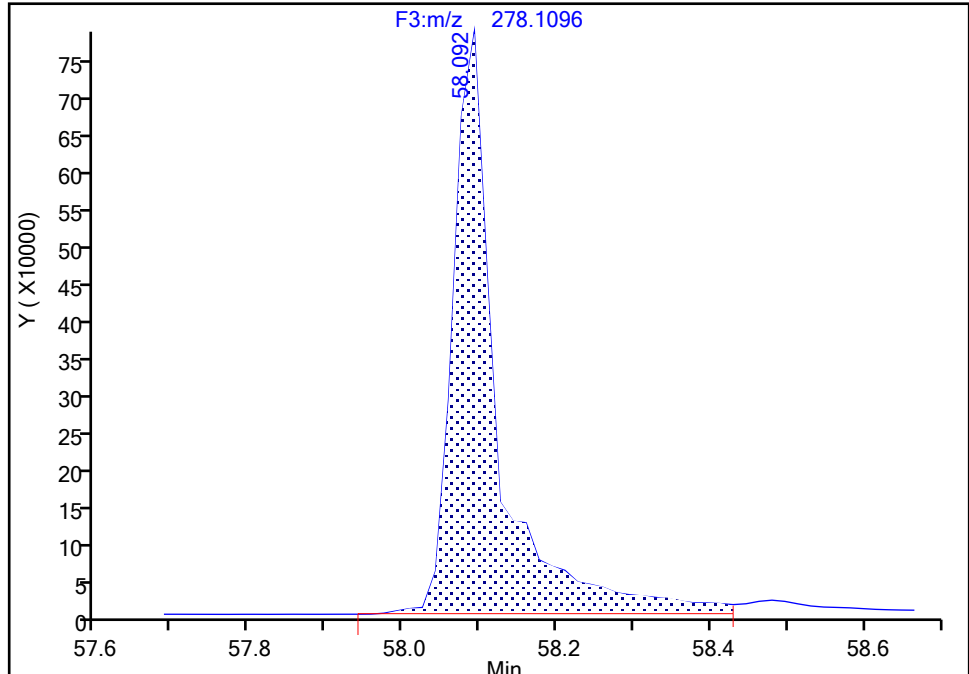
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Injection Date: 19-Jun-2024 20:51:00 Instrument ID: D3PAH  
Lims ID: IC L5  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 5  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

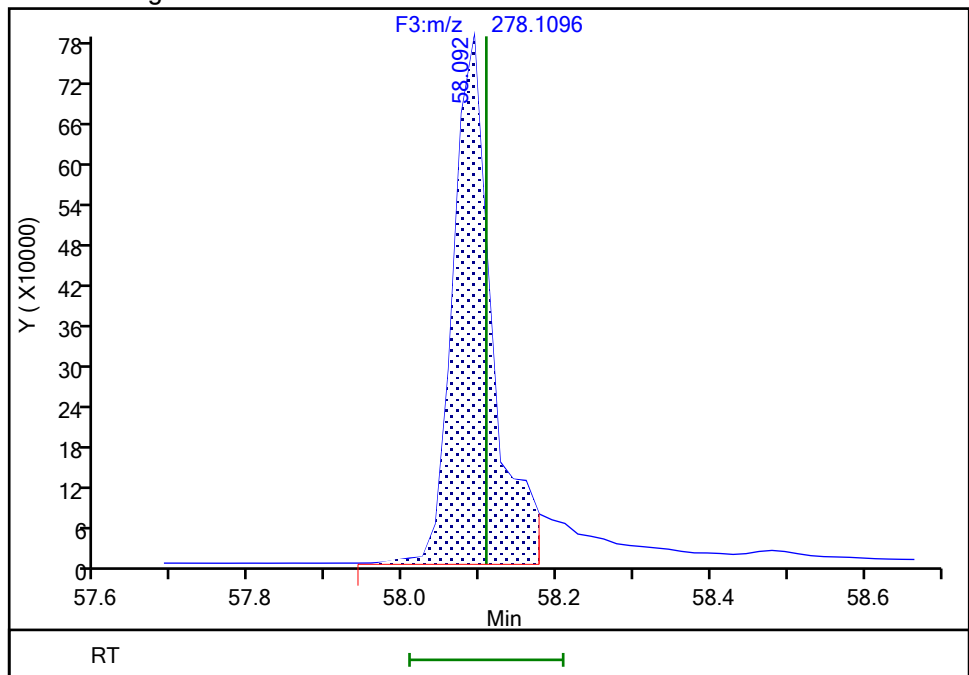
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Amount: 52.313774  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.09  
Area: 2789079  
Amount: 45.677161  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:36:32 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

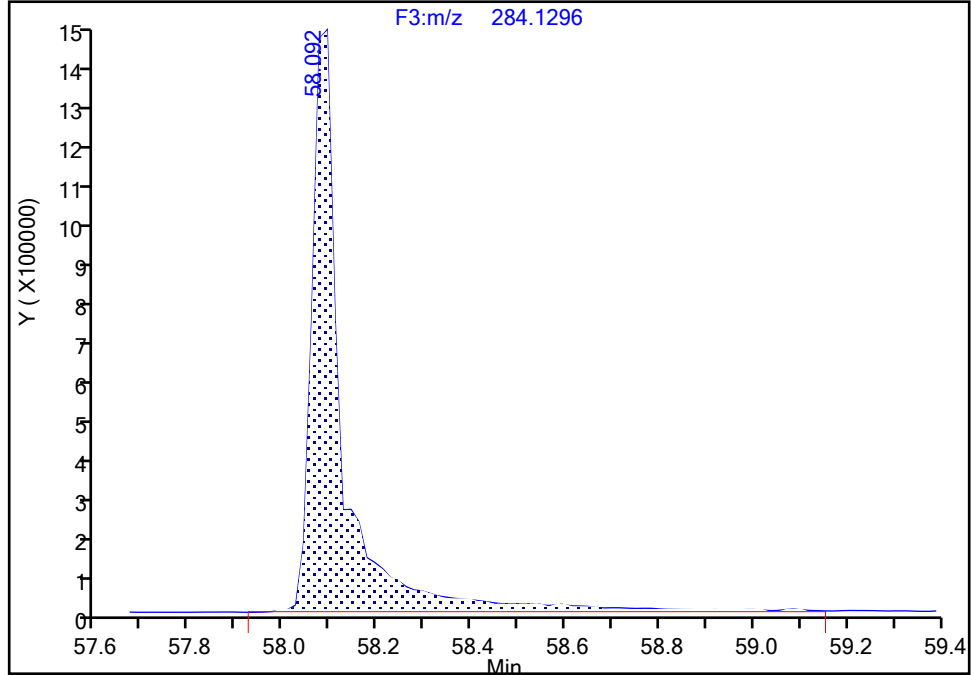
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Lims ID: IC L5  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 5  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C6-Dibenz(a,h)anthracene, CAS: STL03360**

Signal: 1

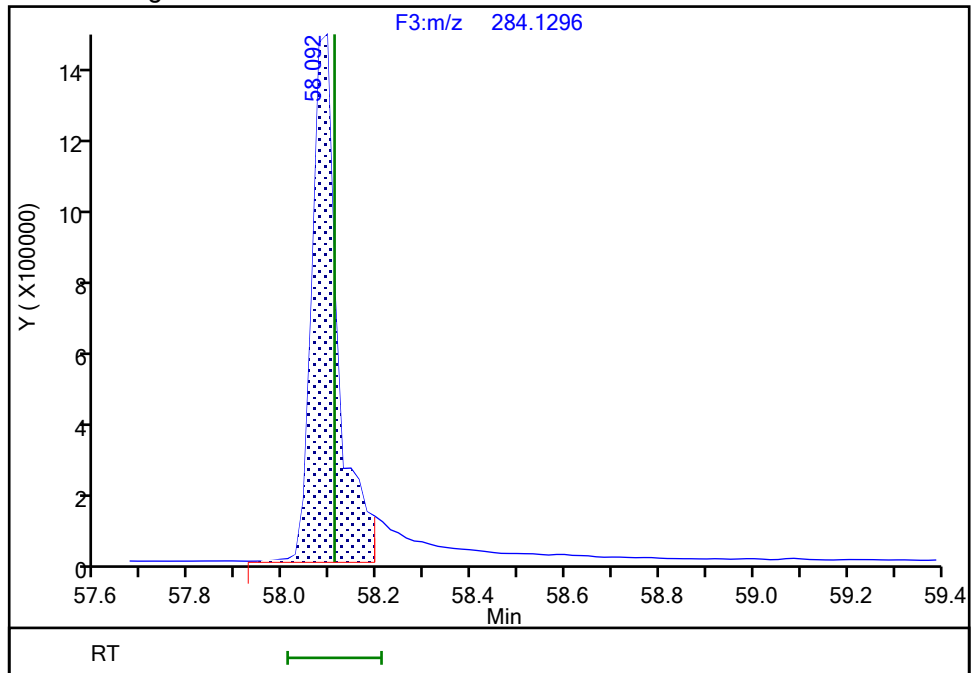
RT: 58.09  
Area: 6571225  
Amount: 107.3286  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.09  
Area: 5397040  
Amount: 96.165507  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:36:25 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic6.d  
Lims ID: IC L6  
Client ID:  
Sample Type: IC Calib Level: 6  
Inject. Date: 19-Jun-2024 21:56:00 ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033168-006  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 20-Jun-2024 09:51:50 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1686

First Level Reviewer: F9EE

Date: 20-Jun-2024 09:37:45

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:32	10869499		3.3746	87.3	87.3	0.005990	0.005990	87.34	
Naphthalene	11:33	11077976		1.2893	79.1	79.1	0.0246	0.0246	98.81	
D 13C6-2-Methylnaphthalene	13:52	5726757		1.6031	96.9	96.9	0.000714	0.000714	96.86	
2-Methylnaphthalene	13:52	5812992		1.2786	79.4	79.4	0.0188	0.0188	99.24	
D 13C6-Acenaphthylene	16:44	6099396		1.6520	100.1	100.1	0.000554	0.000554	100	
Acenaphthylene	16:45	6459116		2.3661	75.8	75.8	0.0194	0.0194	94.79	
* Acenaphthene-d10	17:19	3688074		3.5E+04	100.0	100.0				
D 13C6-Acenaphthene	17:26	3599722		0.9792	99.7	99.7	0.001168	0.001168	99.68	
Acenaphthene	17:27	3643698		1.2697	79.7	79.7	0.0244	0.0244	99.65	
D 13C6-Fluorene	19:44	3234715		0.8898	98.6	98.6	0.000429	0.000429	98.57	
Fluorene	19:44	3186786		1.2532	78.6	78.6	0.0301	0.0301	98.27	
D 13C6-Phenanthrene	25:07	4194540		0.5724	94.8	94.8	0.004224	0.004224	94.77	
Phenanthrene	25:07	3681835		1.1044	79.5	79.5	0.0392	0.0392	99.35	
\$ Anthracin-d10	25:20	3216411		0.4257	97.7	97.7	0.002434	0.002434	97.72	
D 13C6-Anthracene	25:27	3339808		0.4523	95.5	95.5	0.005346	0.005346	95.49	
Anthracene	25:27	3587223		1.3586	79.1	79.1	0.0421	0.0421	98.82	
D 13C6-Fluoranthrene	33:52	9143194		1.1994	98.6	98.6	0.0194	0.0194	98.60	
Fluoranthene	33:53	8083123		1.1513	76.8	76.8	0.0136	0.0136	95.98	
* Pyrene-d10	35:25	7731706		7.9E+04	100.0	100.0				
D 13C3-Pyrene	35:34	10295818		1.3512	98.6	98.6	0.0129	0.0129	98.55	
Pyrene	35:34	8469657		1.0652	77.2	77.2	0.0135	0.0135	96.53	
\$ 13C6-Benzo(c)fluorene	39:17	4139575		0.5136	104.2	104.2	0.002960	0.002960	104	
D 13C6-Benzo(a)anthracene	46:06	8168778		1.5189	92.6	92.6	0.0133	0.0133	92.56	
Benzo[a]anthracene	46:07	6207787		0.9739	78.0	78.0	0.0268	0.0268	97.54	
D 13C6-Chrysene	46:23	8805464		1.6287	93.0	93.0	0.0124	0.0124	93.04	
Chrysene	46:23	6667789		0.9815	77.2	77.2	0.0263	0.0263	96.44	
D 13C6-Benzo(b)fluoranthene	54:38	8052237		1.4621	94.8	94.8	0.000932	0.000932	94.78	
Benzo[b]fluoranthene	54:39	6952921		1.1249	76.8	76.8	0.007696	0.007696	95.95	
\$ 13C12-Benzo(j)fluoranthene	54:40	7440700		1.3558	94.4	94.4	0.0141	0.0141	94.45	
D 13C6-Benzo(k)fluoranthene	54:46	9461461		1.7507	93.0	93.0	0.000778	0.000778	93.01	
Benzo[k]fluoranthene	54:46	7954022		1.1271	74.6	74.6	0.007085	0.007085	93.24	
* Benzo(e)pyrene-d12	55:30	5810473		5.7E+04	100.0	100.0				
D 13C4-Benzo(e)pyrene	55:34	9036295		1.6368	95.0	95.0	0.0133	0.0133	95.01	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
Benzo[e]pyrene	55:35	6804856		1.0013	75.2	75.2	0.006475	0.006475	94.01	
Benzo[a]pyrene	55:43	7072659		1.1130	75.5	75.5	0.006815	0.006815	94.40	
D 13C4-Benzo(a)pyrene	55:43	8413993		1.5508	93.4	93.4	0.0141	0.0141	93.38	
D Perylene-d12	55:53	6805855		1.1917	98.3	98.3	0.0152	0.0152	98.29	
Perylene	55:57	7312149		1.4307	75.1	75.1	0.005707	0.005707	93.87	
D 13C6-Indeno(1,2,3-cd)pyrene	58:01	5212706		1.0218	87.8	87.8	0.009707	0.009707	87.79	
Indeno[1,2,3-cd]pyrene	58:01	4742305		1.1249	80.9	80.9	0.007218	0.007218	101	
D 13C6-Dibenz(a,h)anthracene	58:05	5580937		1.0553	91.0	91.0	0.005784	0.005784	91.02	M
Dibenz(a,h)anthracene	58:06	4852505		1.1314	76.9	76.9	0.006054	0.006054	96.06	M
D 13C12-Benzo(ghi)perylene	58:30	7011632		1.2749	94.7	94.7	0.005558	0.005558	94.65	M
Benzo[g,h,i]perylene	58:30	6540833		1.2838	72.7	72.7	0.005631	0.005631	90.83	M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61HRPAHCS5\_00002

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

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Lims ID: IC L6  
Client ID:  
Sample Type: IC Calib Level: 6  
Inject. Date: 19-Jun-2024 21:56:00 ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033168-006  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 20-Jun-2024 09:51:50 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1686

First Level Reviewer: F9EE

Date: 20-Jun-2024 09:37:45

Signal	RT (min.)	Adj RT (min.)	¶ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:32	11:33	-1	0.666	10869499	3625973	106	265	34207		
Naphthalene											
128.0626	11:33	11:34	-1	1.001	11077976	3692357	461	1152	8009		
13C6-2-Methylnaphthalene											
148.0984	13:52	13:52	-1	0.800	5726757	2589286	6	15	431548		
2-Methylnaphthalene											
142.0783	13:52	13:53	-1	1.000	5812992	2698054	249	622	10836		
13C6-Acenaphthylene											
158.0828	16:44	16:45	-1	0.966	6099396	2156421	5	12	431284		
Acenaphthylene											
152.0626	16:45	16:45	-1	1.000	6459116	2248213	232	580	9691		
Acenaphthene-d10											
164.1404	17:19	17:20	-1		3688074	1311036	1	2	1311036		
13C6-Acenaphthene											
160.0984	17:26	17:27	-1	1.007	3599722	1263507	6	15	210585		
Acenaphthene											
154.0783	17:27	17:27	-1	1.001	3643698	1278130	157	392	8141		
13C6-Fluorene											
172.0984	19:44	19:45	-1	1.139	3234715	932326	2	5	466163		
Fluorene											
166.0783	19:44	19:45	-1	1.001	3186786	933950	141	352	6624		
13C6-Phenanthrene											
184.0984	25:07	25:08	-1	0.709	4194540	970097	14	35	69293		
Phenanthrene											
178.0783	25:07	25:08	-1	1.000	3681835	848869	168	420	5053		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:20	25:21	-1	0.715	3216411	735648	6	15	122608		
13C6-Anthracene											
184.0984	25:27	25:28	-1	0.718	3339808	735076	14	35	52505		
Anthracene											
178.0783	25:27	25:28	-1	1.000	3587223	812516	168	420	4836		
13C6-Fluoranthrene											
208.0984	33:52	33:54	-2	0.956	9143194	1757365	135	337	13018		
Fluoranthene											
202.0783	33:53	33:54	-1	1.000	8083123	1556738	110	275	14152		
Pyrene-d10											
212.1404	35:25	35:27	-2		7731706	1447359	45	112	32164		
13C3-Pyrene											
205.0883	35:34	35:35	-2	1.004	10295818	1911929	101	252	18930		
Pyrene											
202.0783	35:34	35:35	-1	1.000	8469657	1575706	110	275	14325		
13C6-Benzo(c)fluorene											
222.1134	39:17	39:18	-1	0.708	4139575	754812	9	22	83868		
13C6-Benzo(a)anthracene											
234.1140	46:06	46:07	-2	1.301	8168778	1438631	149	372	9655		
Benzo[a]anthracene											
228.0939	46:07	46:07	-1	1.000	6207787	1112833	150	375	7419		
13C6-Chrysene											
234.1140	46:23	46:24	-1	1.310	8805464	1454322	149	372	9761		
Chrysene											
228.0939	46:23	46:25	-2	1.000	6667789	1145408	150	375	7636		
13C6-Benzo(b)fluoranthene											
258.1140	54:38	54:40	-2	0.985	8052237	2102138	10	25	210214		
Benzo[b]fluoranthene											
252.0939	54:39	54:40	-1	1.000	6952921	1836809	73	182	25162		
13C12-Benzo(j)fluoranthene											
264.1336	54:40	54:42	-2	0.985	7440700	1837451	140	350	13125		
13C6-Benzo(k)fluoranthene											
258.1140	54:46	54:47	-1	0.987	9461461	2279319	10	25	227932		
Benzo[k]fluoranthene											
252.0939	54:46	54:47	-1	1.000	7954022	1948646	73	182	26694		
Benzo(e)pyrene-d12											
264.1692	55:30	55:30	-1		5810473	1834824	133	332	13796		
13C4-Benzo(e)pyrene											
256.1073	55:34	55:35	-2	1.001	9036295	2807461	160	400	17547		
Benzo[e]pyrene											
252.0939	55:35	55:35	-1	1.000	6804856	2213216	73	182	30318		
Benzo[a]pyrene											
252.0939	55:43	55:44	-1	1.000	7072659	2089671	73	182	28626		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C4-Benzo(a)pyrene											
256.1073	55:43	55:44	-1	1.004	8413993	2399289	160	400	14996		
Perylene-d12											
264.1692	55:53	55:54	-1	1.007	6805855	2229131	133	332	16760		
Perylene											
252.0939	55:57	55:58	-1	1.001	7312149	2342635	73	182	32091		
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	58:01	58:02	-1	1.046	5212706	1785870	73	182	24464		
Indeno[1,2,3-cd]pyrene											
276.0939	58:01	58:03	-2	1.000	4742305	1516411	58	145	26145		
13C6-Dibenz(a,h)anthracene											
284.1296	58:05	58:07	-2	1.047	5580937	1489164	45	112	33093		M
Dibenz(a,h)anthracene											
278.1096	58:06	58:07	-1	1.000	4852505	1323479	41	102	32280		M
13C12-Benzo(ghi)perylene											
288.1342	58:30	58:30	-1	1.054	7011632	2005951	52	130	38576		M
Benzo[g,h,i]perylene											
276.0939	58:30	58:31	-2	1.000	6540833	1743896	58	145	30067		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61HRPAHCS5\_00002

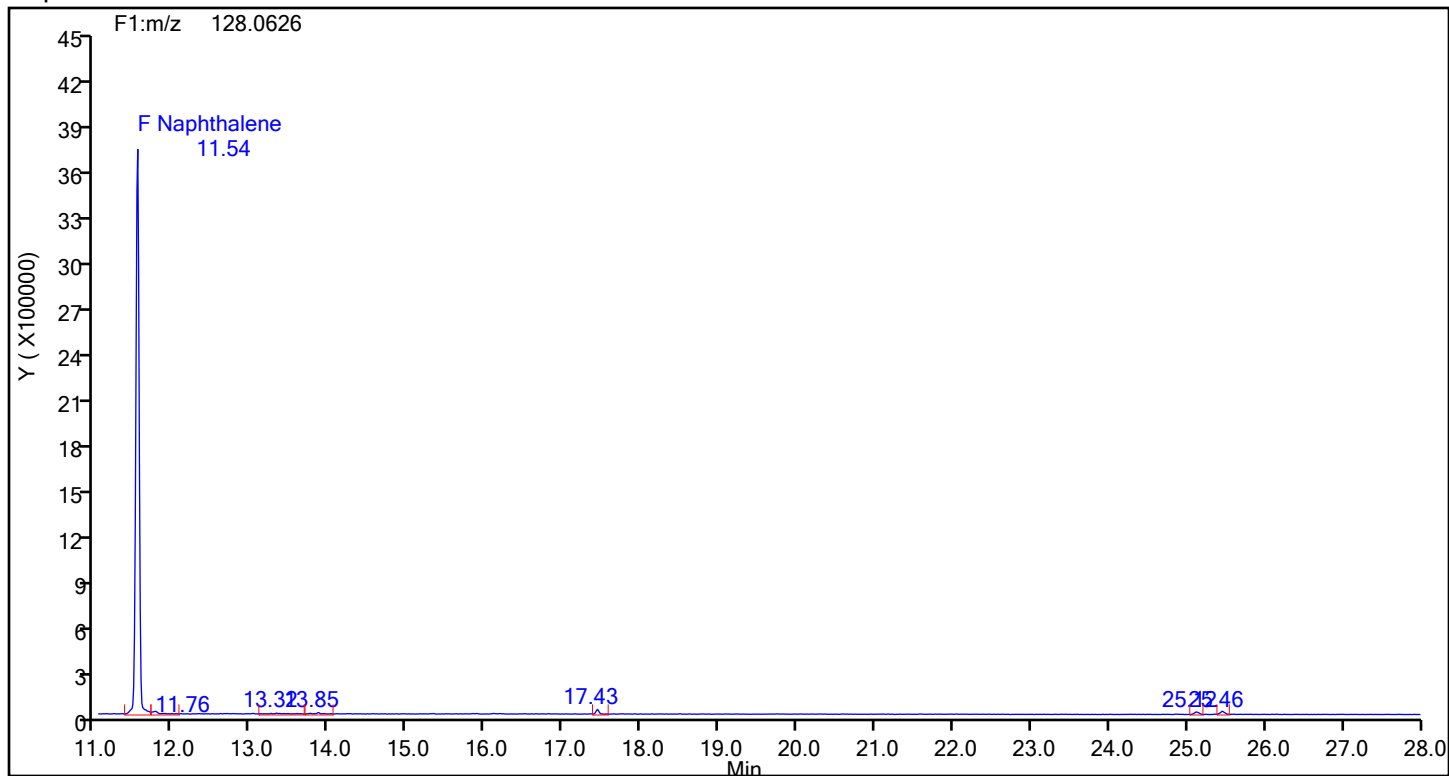
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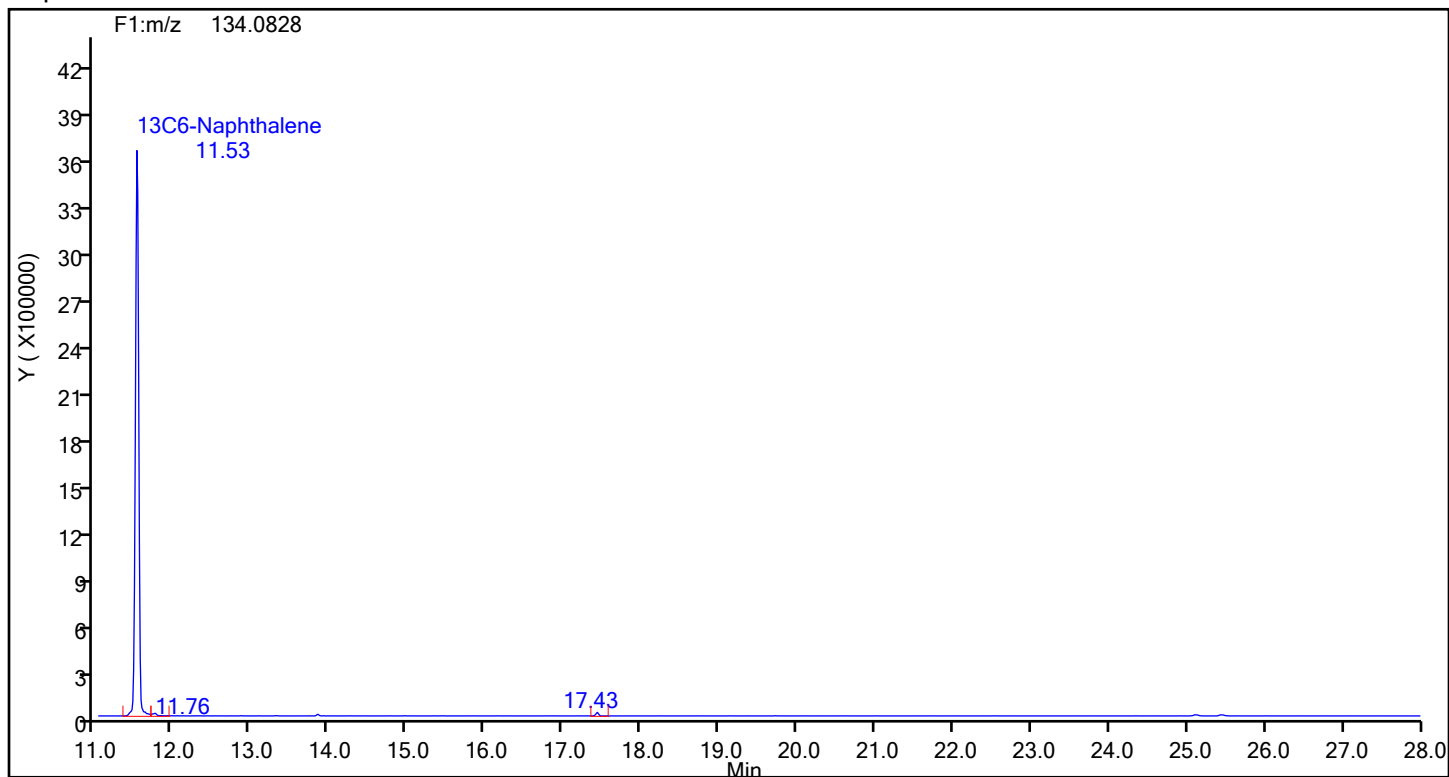
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



## Naphthalene Standards

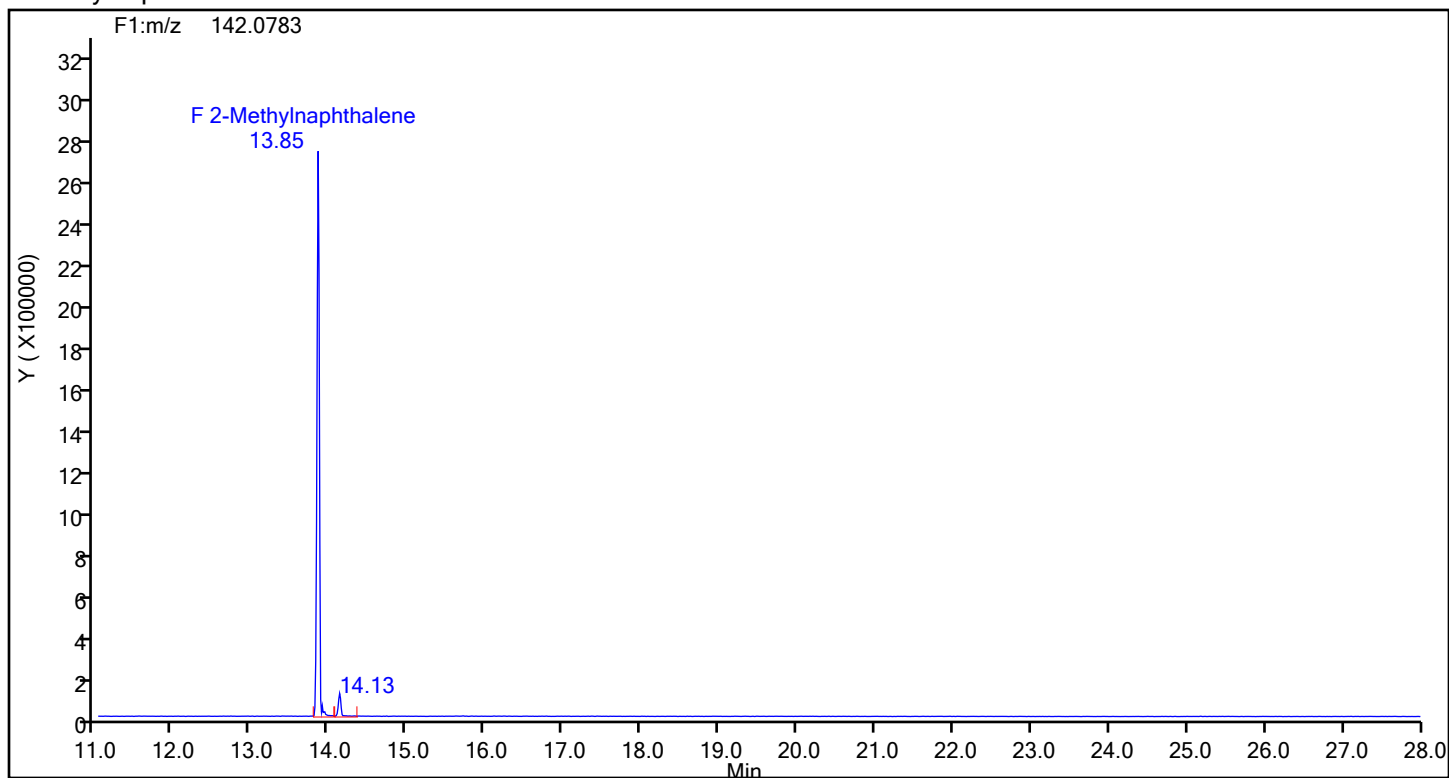




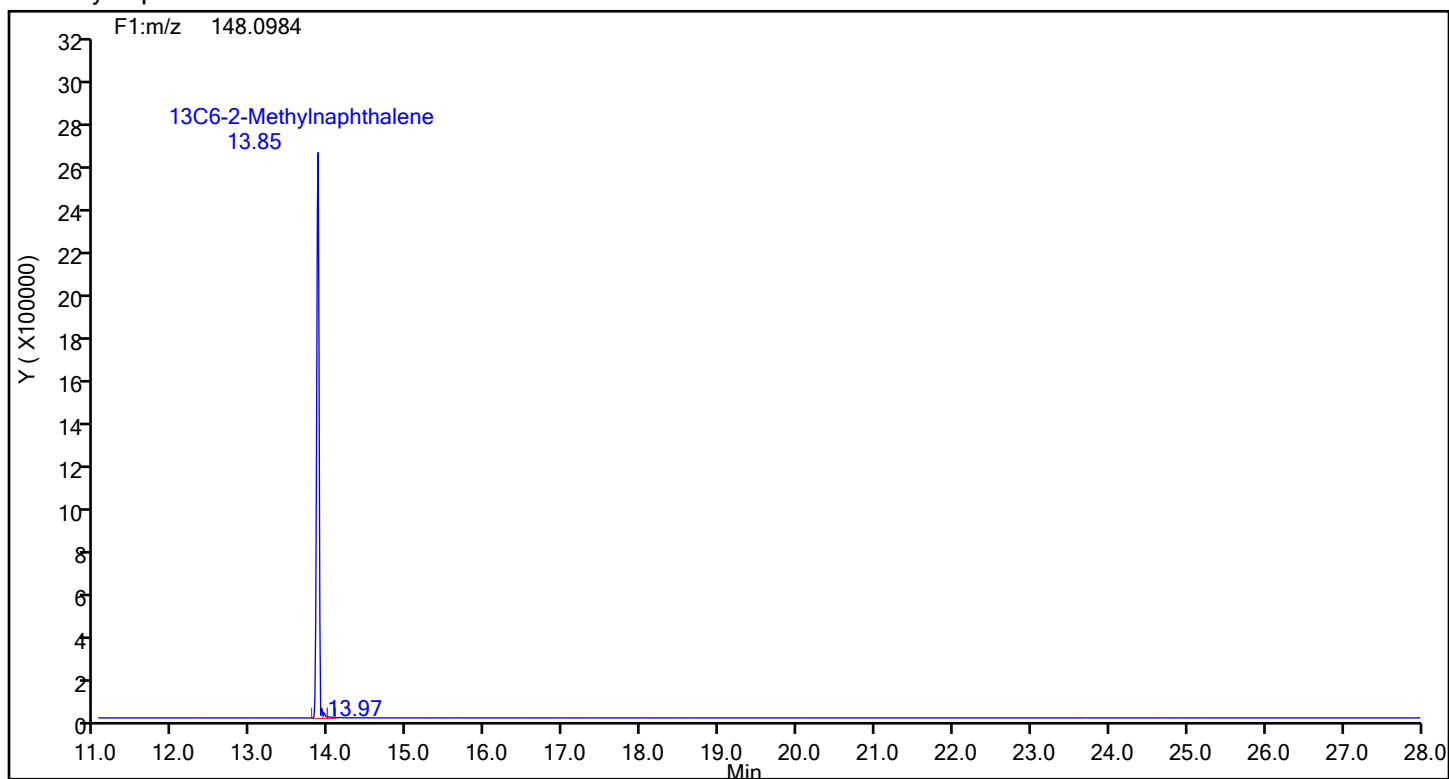
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



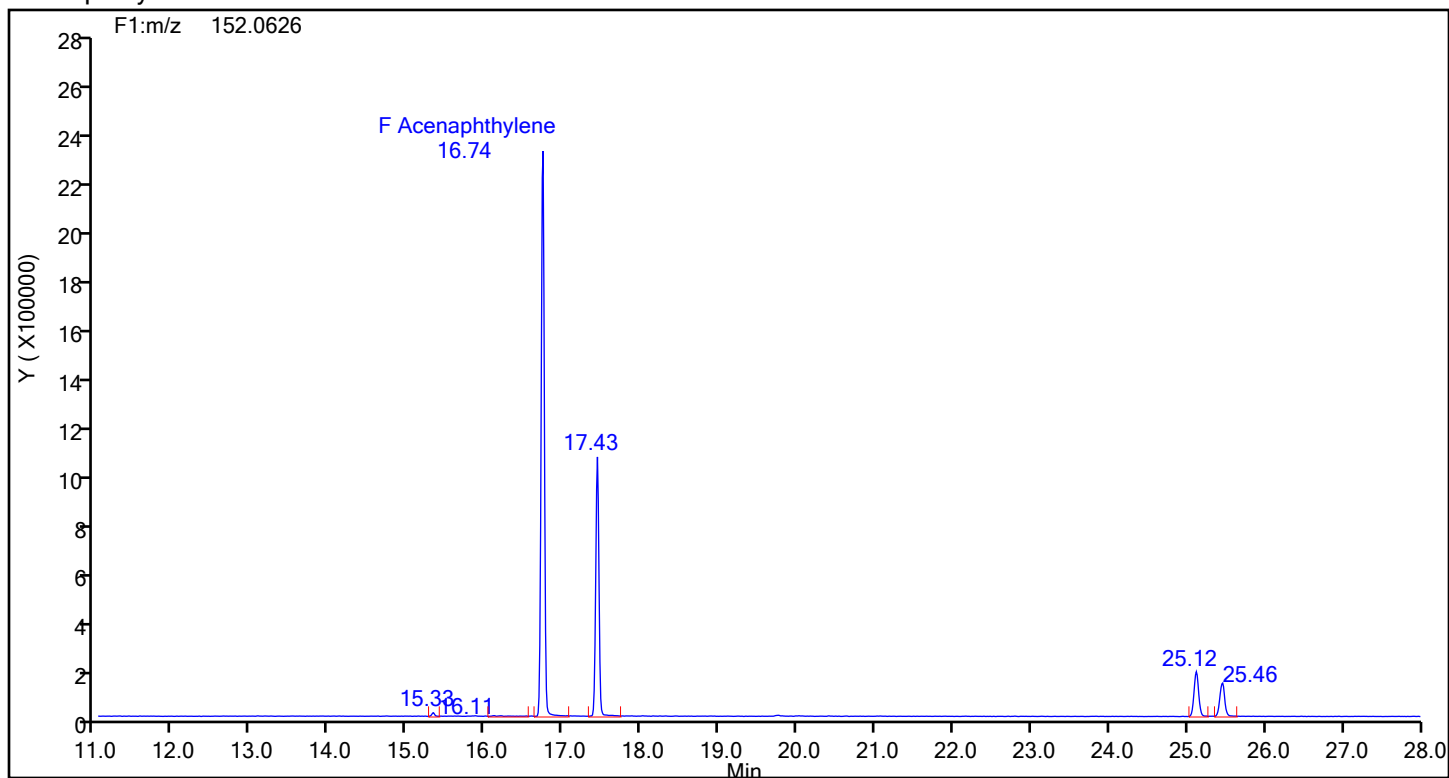
## 2-Methylnaphthalene Standards



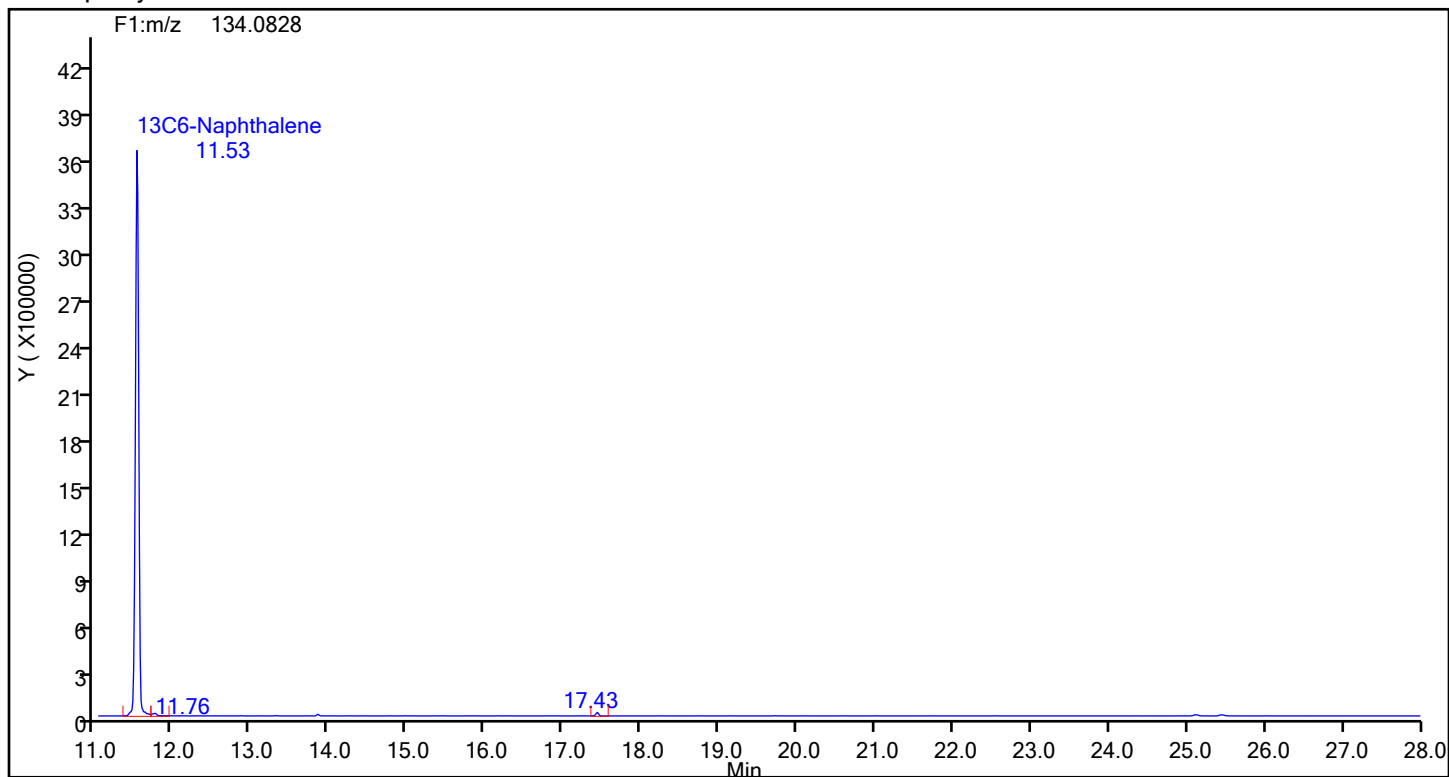
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene



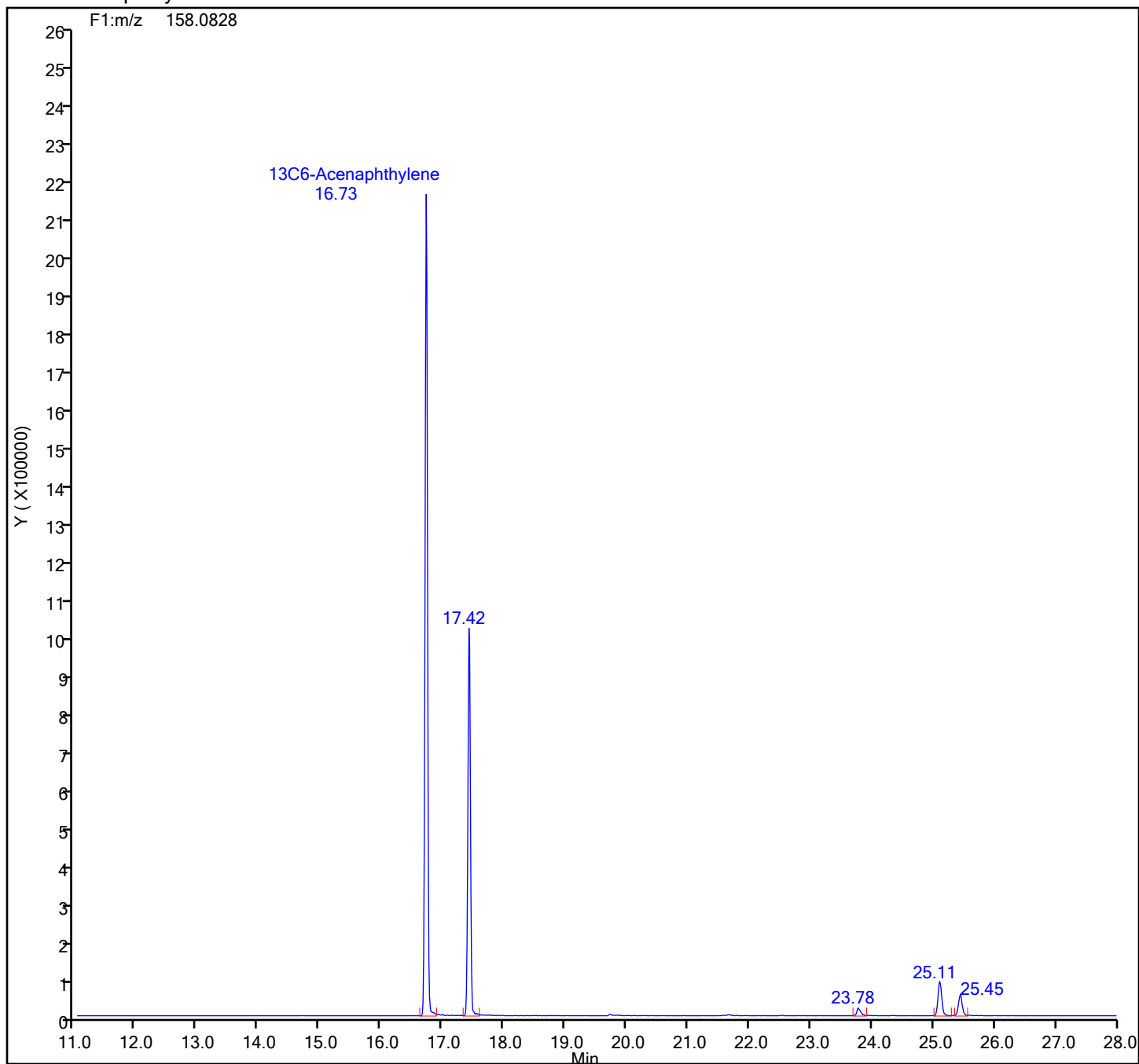
## Acenaphthylene Standards



## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

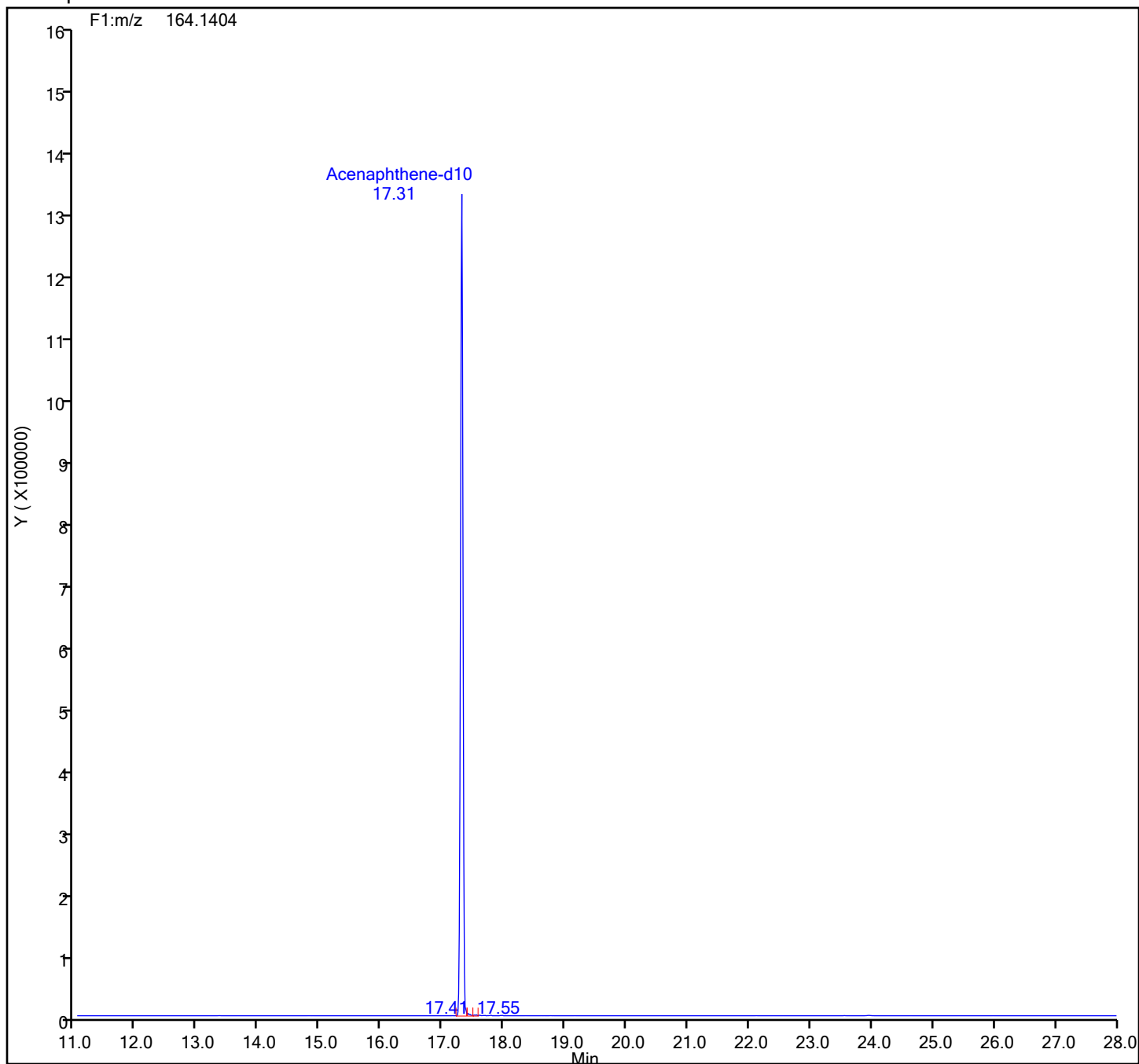
## 13C6-Acenaphthylene Standards



## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

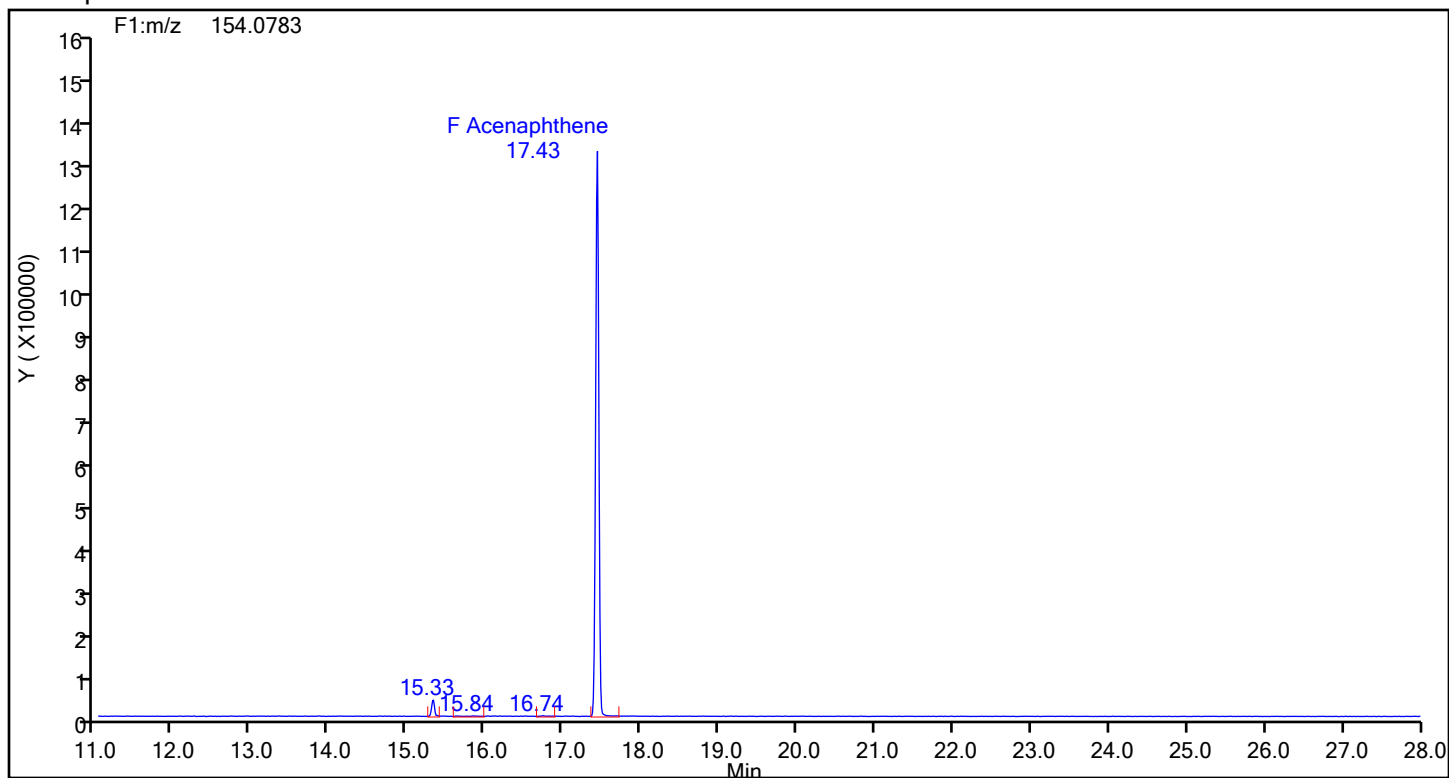
## Acenaphthene-d10 Standards



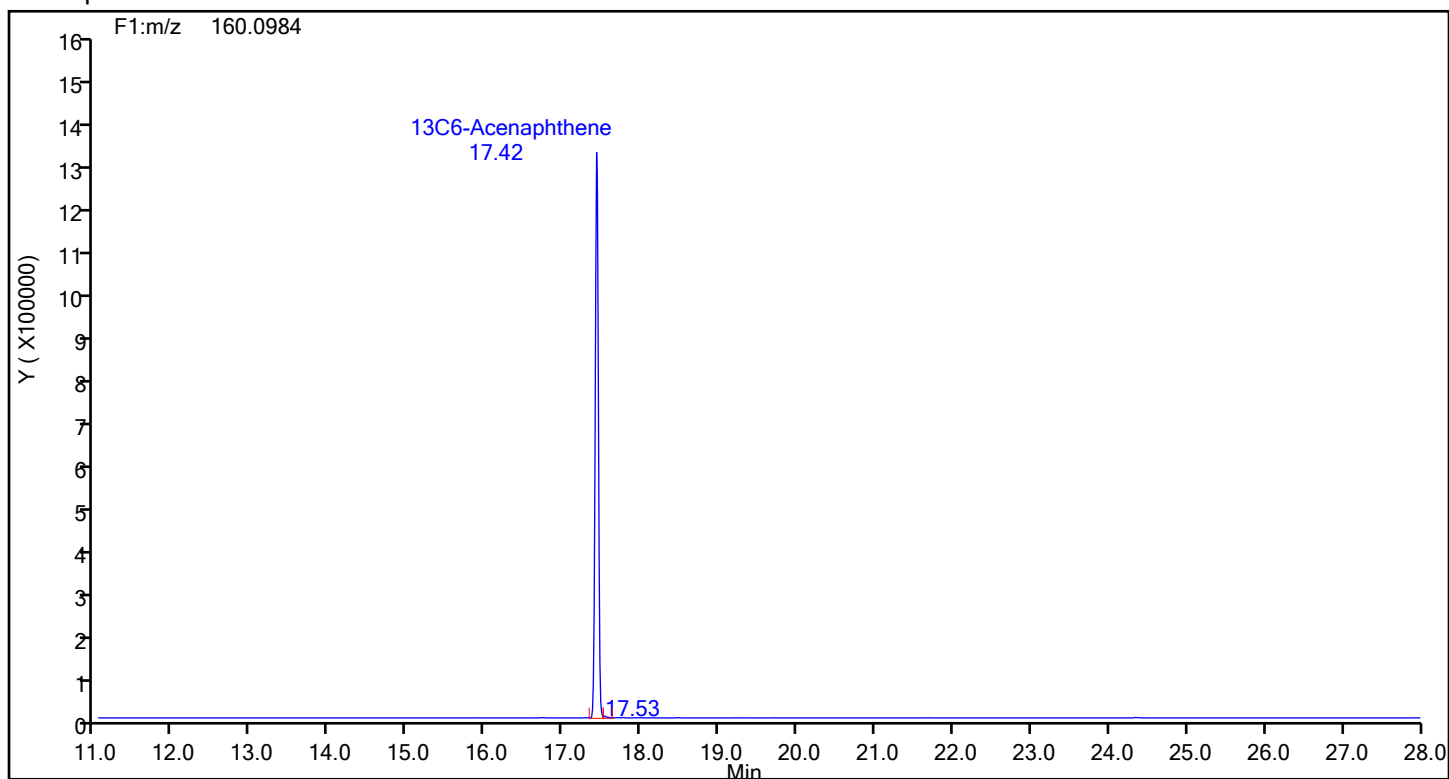
## Eurofins Knoxville

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Injection Date: 19-Jun-2024 21:56:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



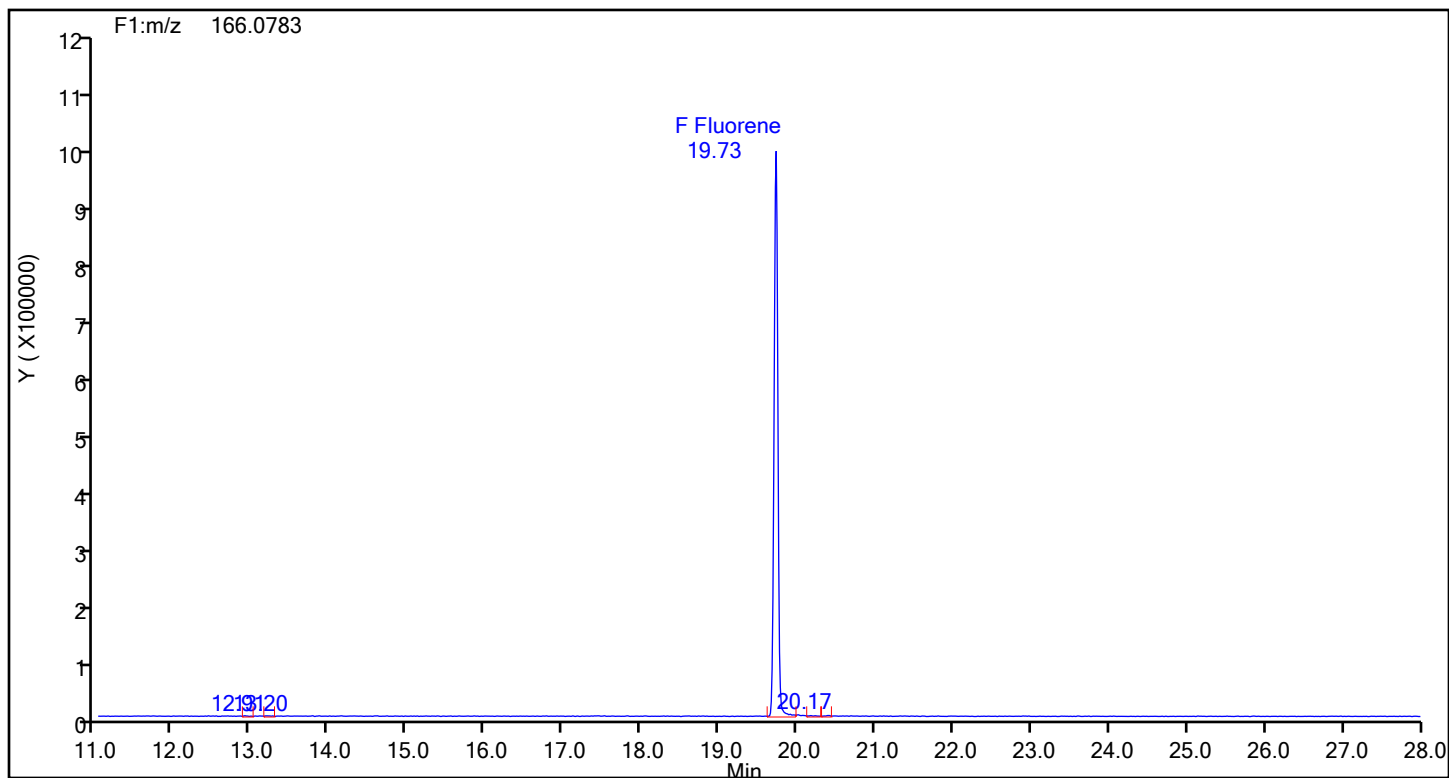
## Acenaphthene Standards



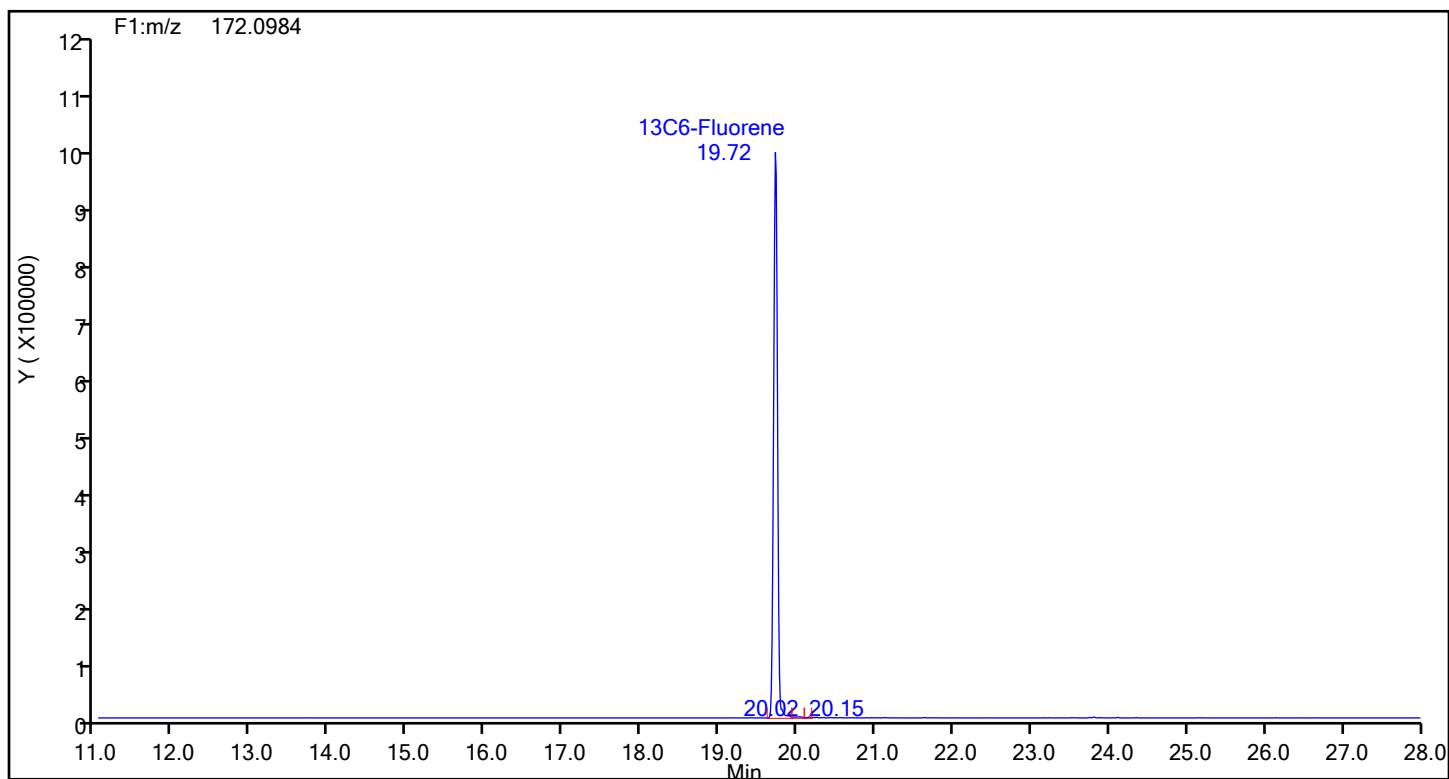
## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene

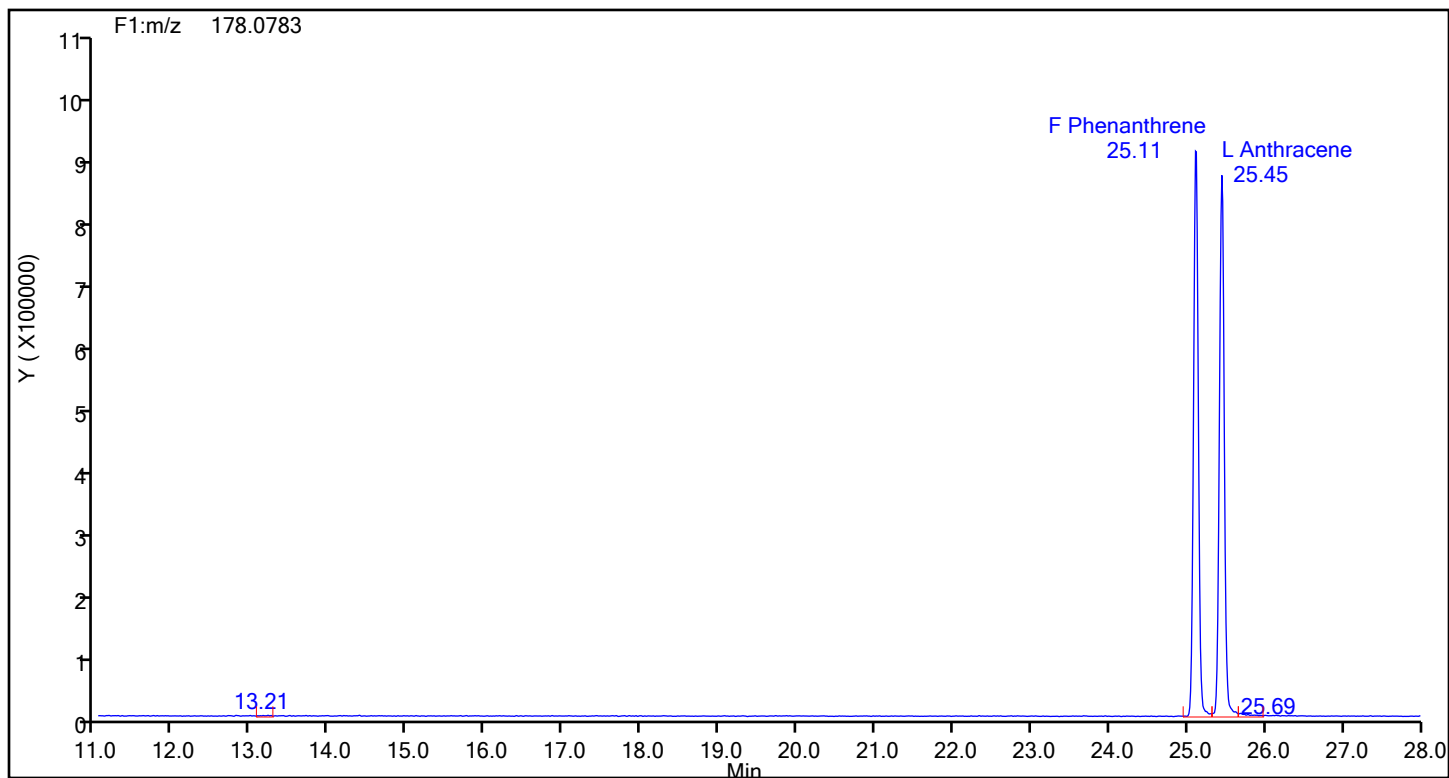


## Fluorene Standards

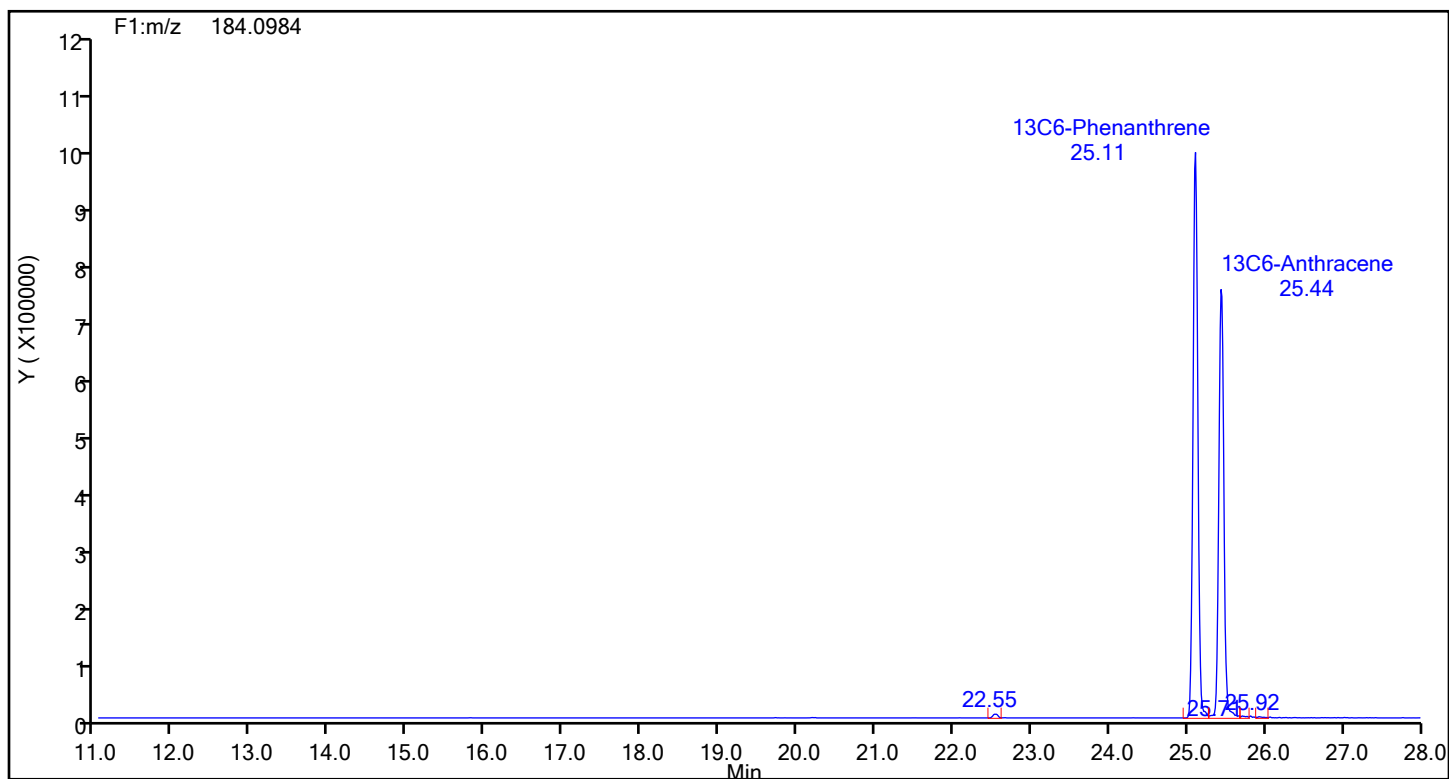


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic6.d  
Injection Date: 19-Jun-2024 21:56:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Phenanthrene

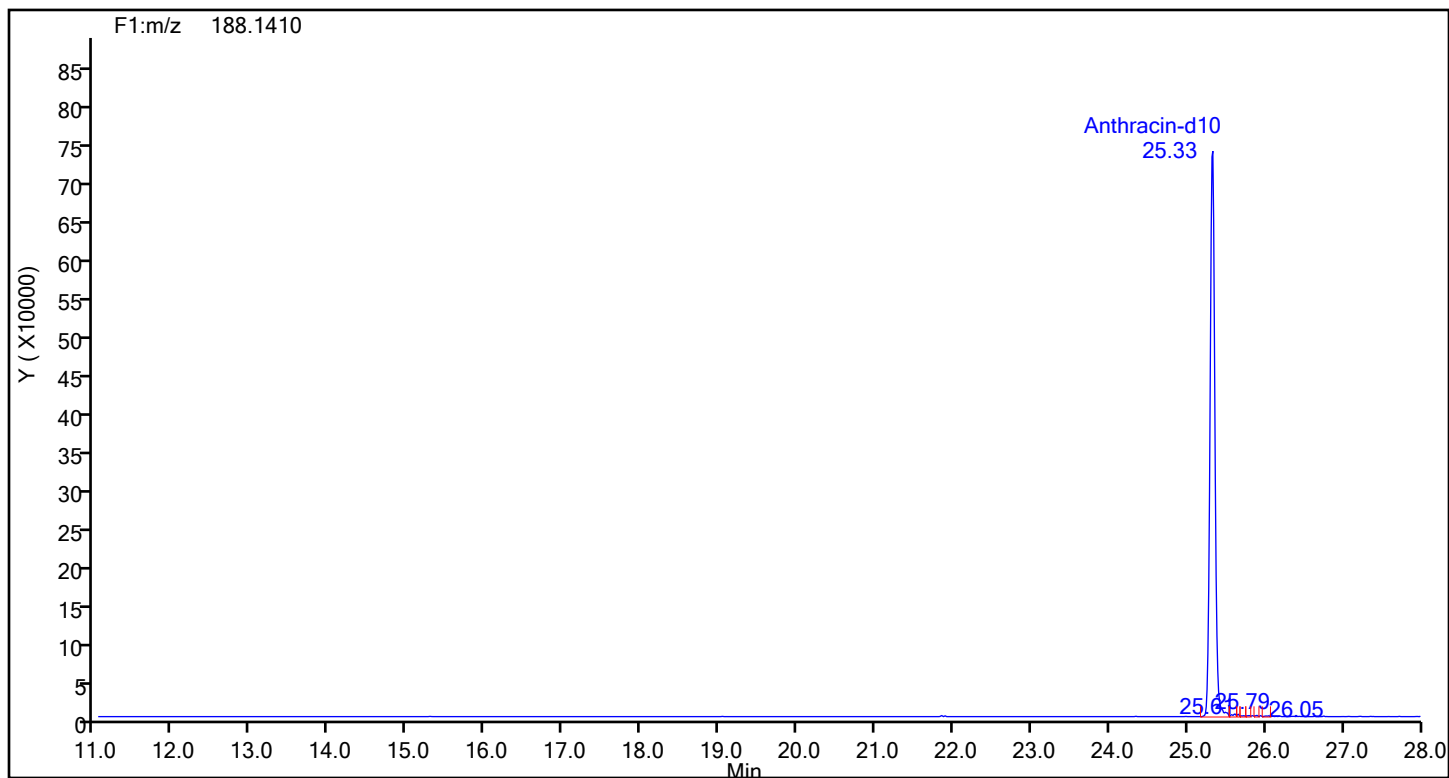


## Phenanthrene Standards

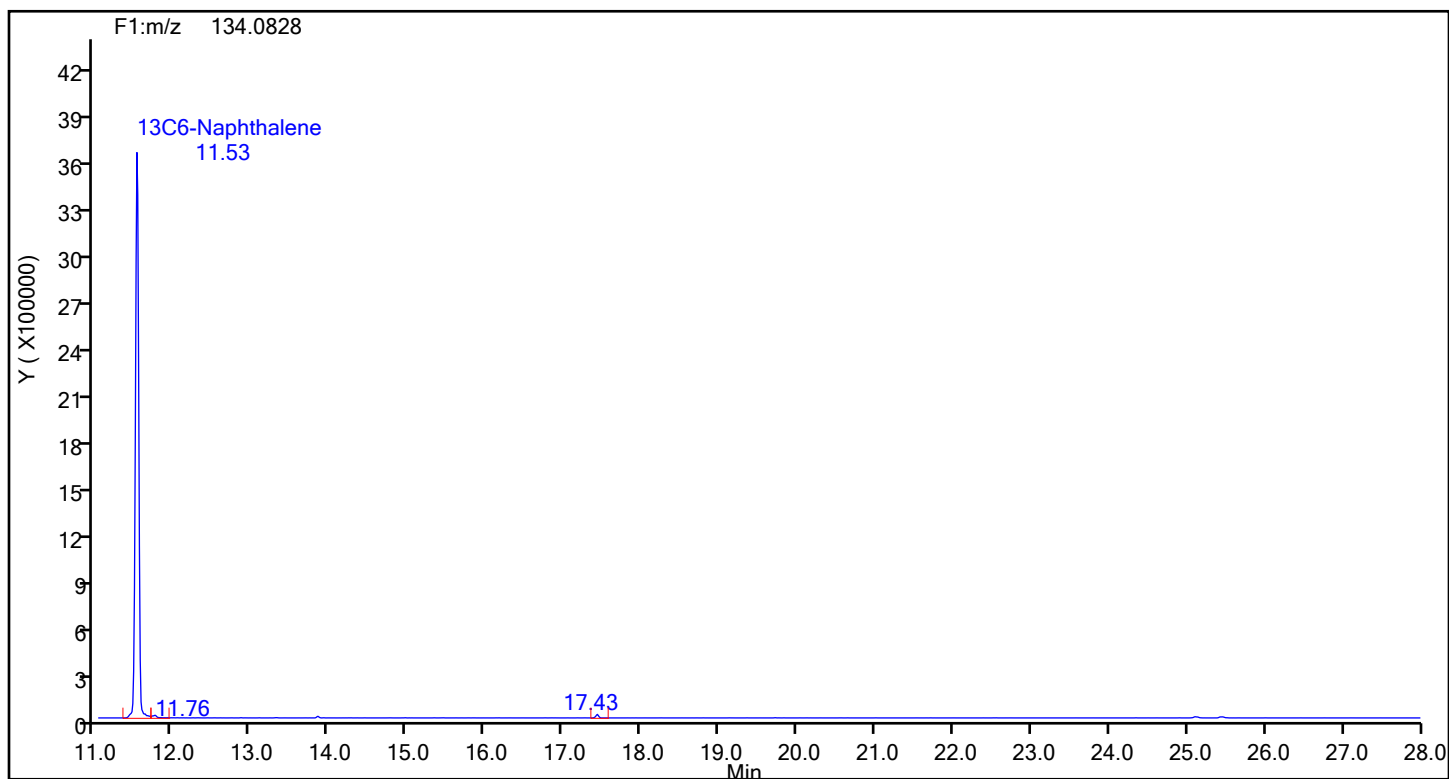


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic6.d  
Injection Date: 19-Jun-2024 21:56:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10



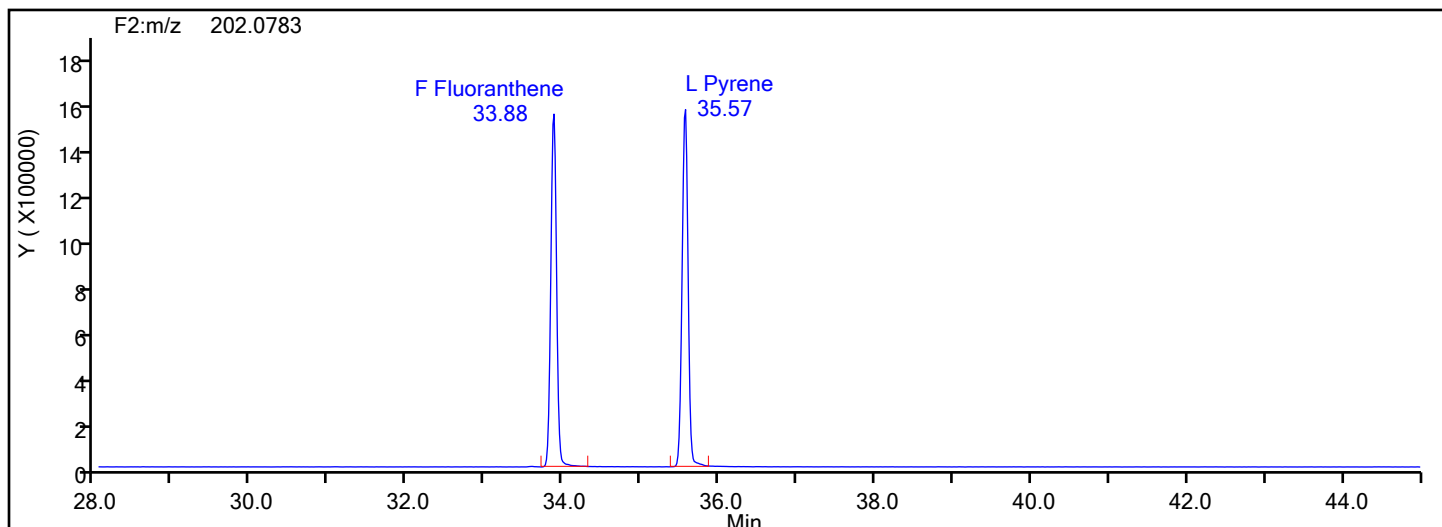
## Anthracin-d10 Standards



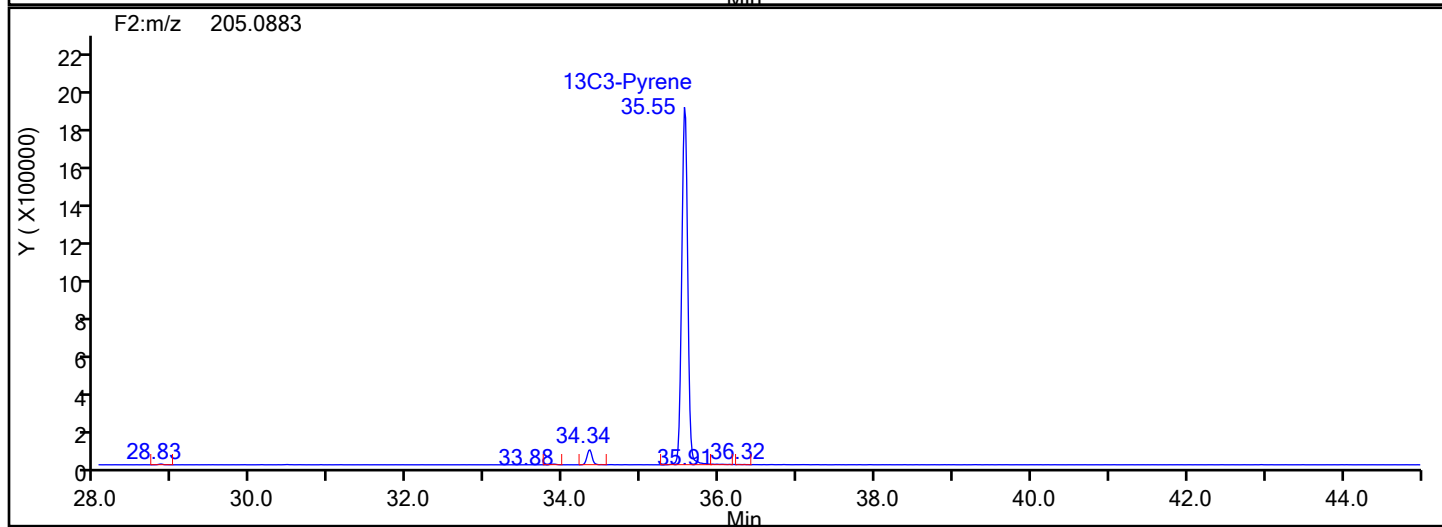
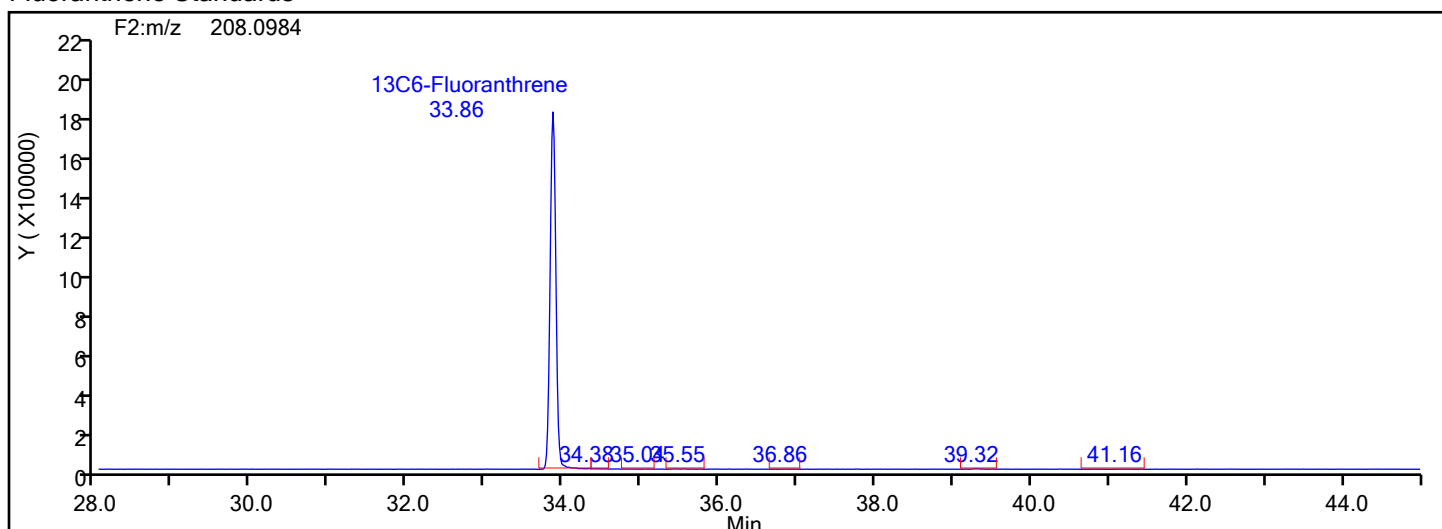


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic6.d  
Injection Date: 19-Jun-2024 21:56:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Fluoranthene



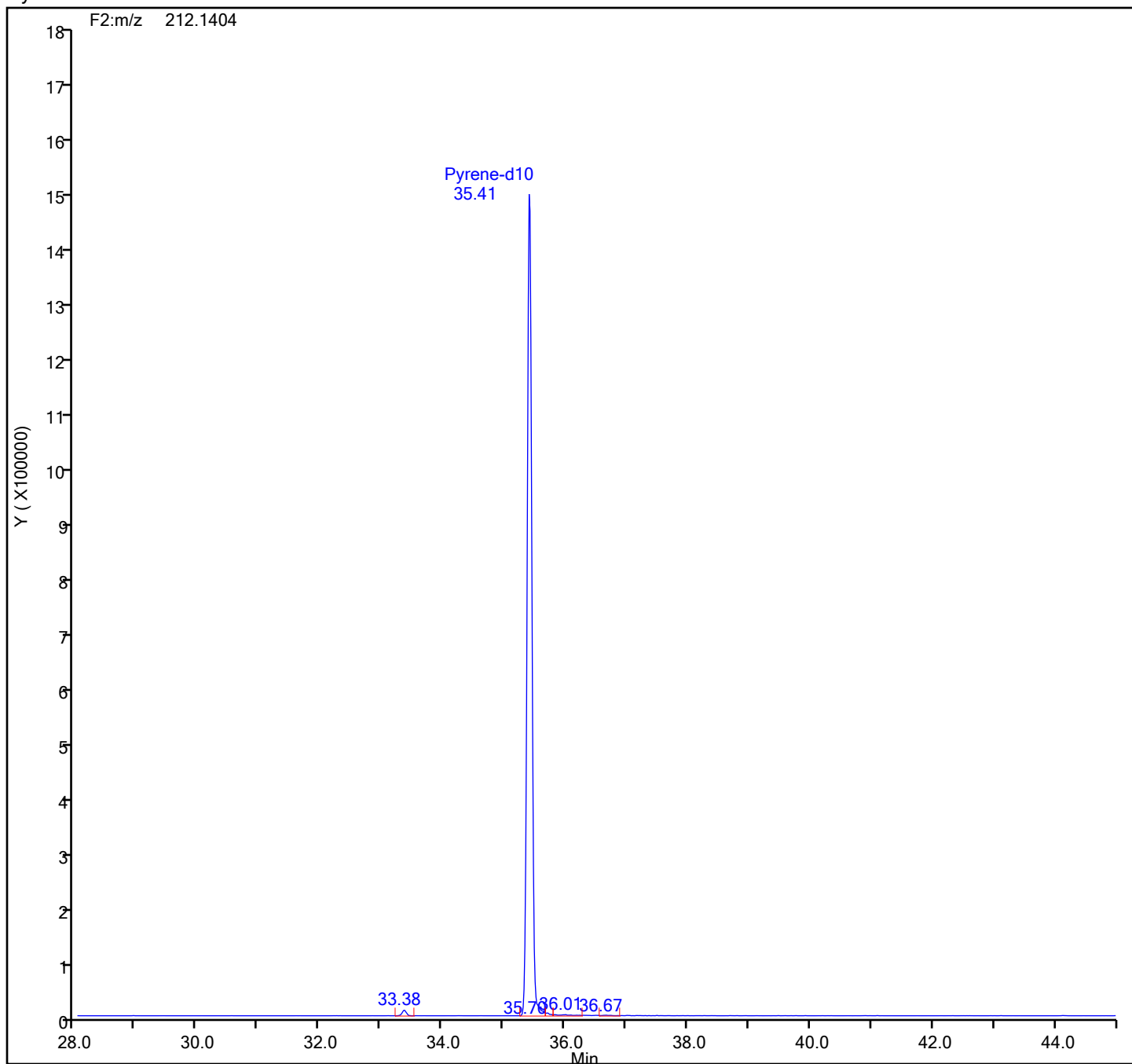
## Fluoranthene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic6.d  
Injection Date: 19-Jun-2024 21:56:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

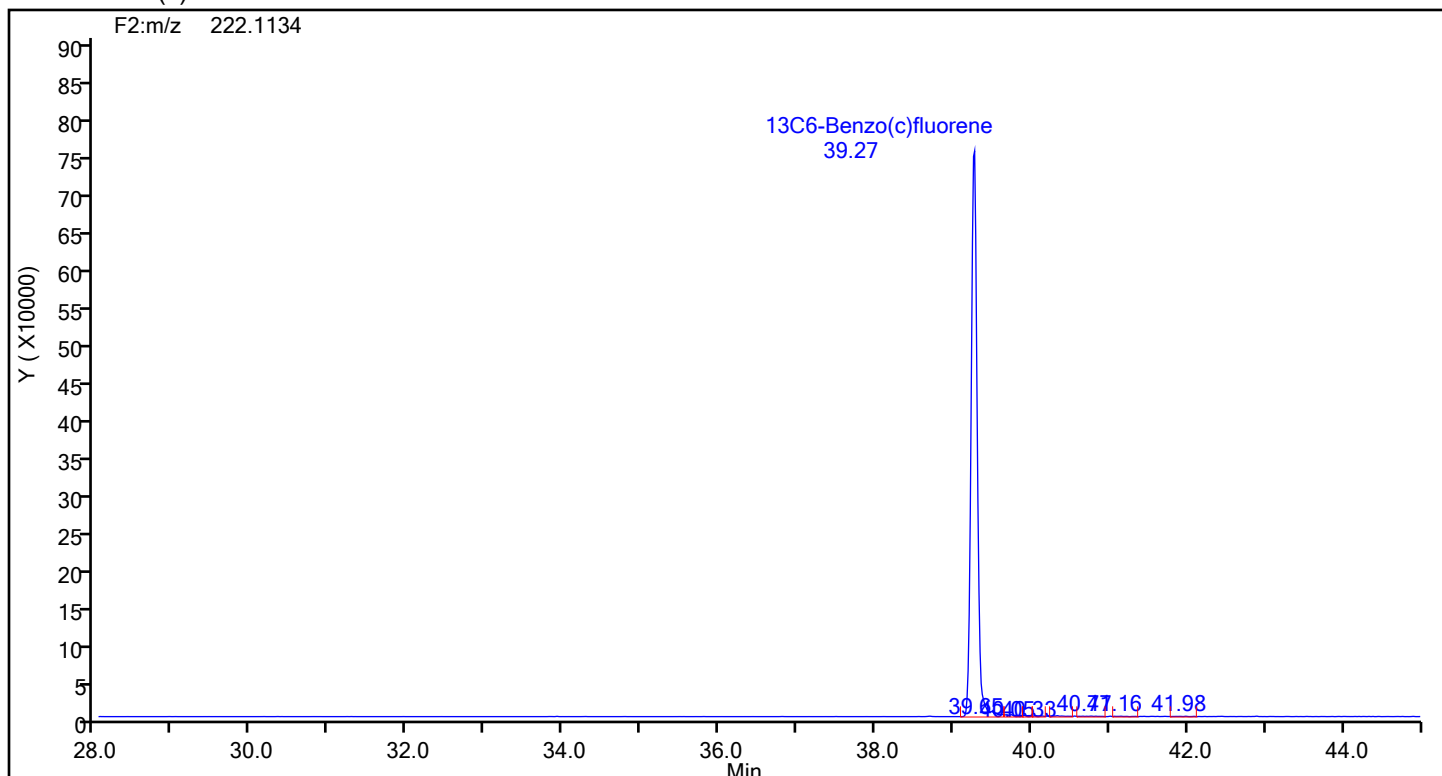
## Pyrene-d10 Standards



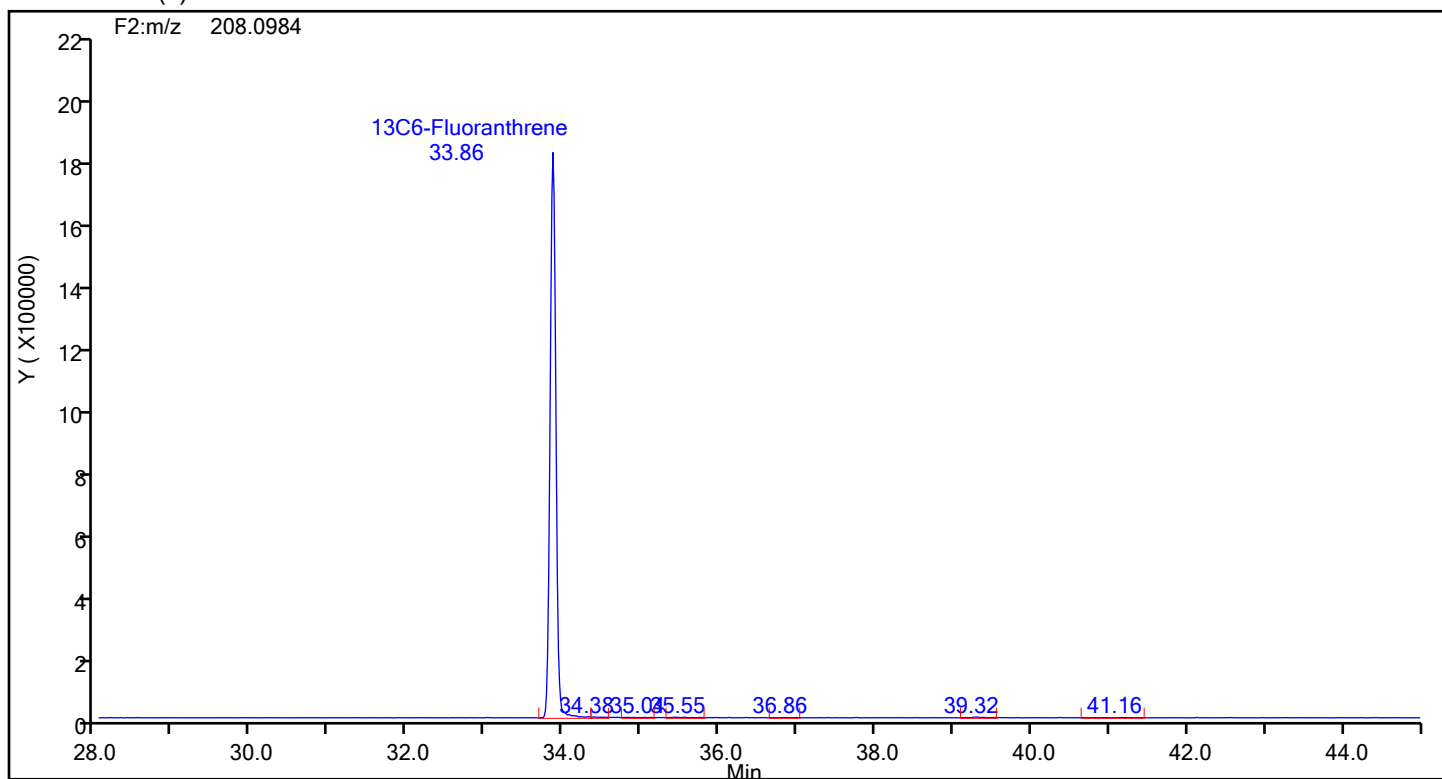
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic6.d  
Injection Date: 19-Jun-2024 21:56:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C6-Benzo(c)fluorene



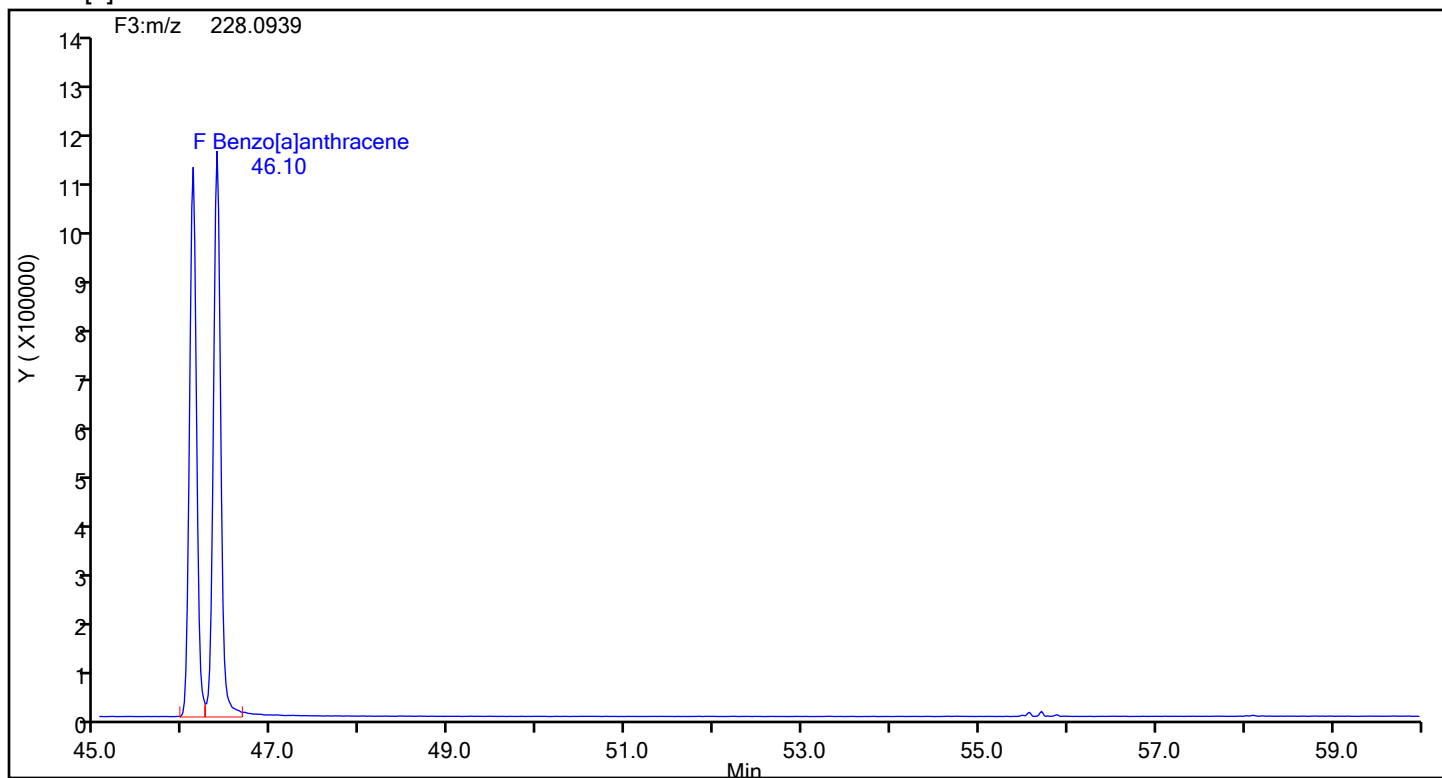
## 13C6-Benzo(c)fluorene Standards



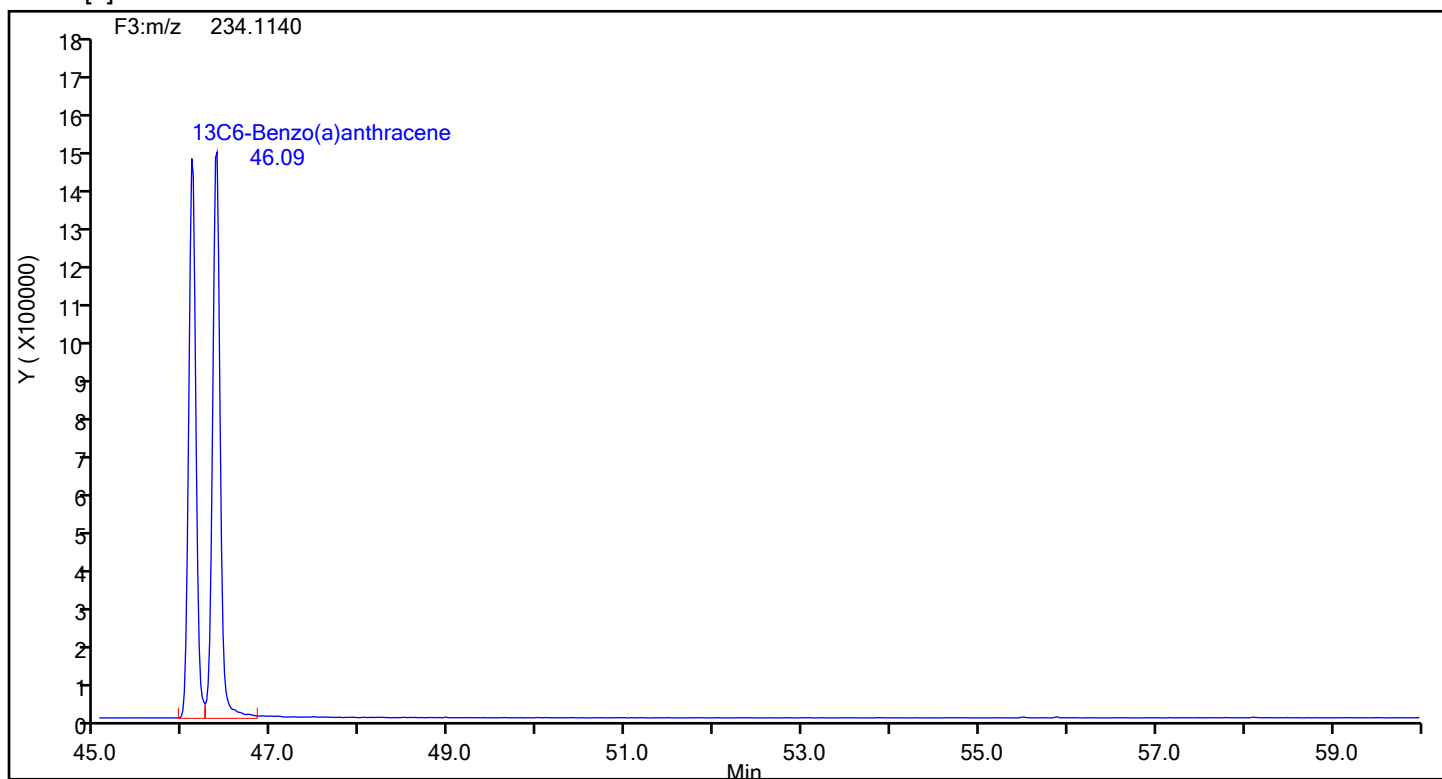
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic6.d  
Injection Date: 19-Jun-2024 21:56:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



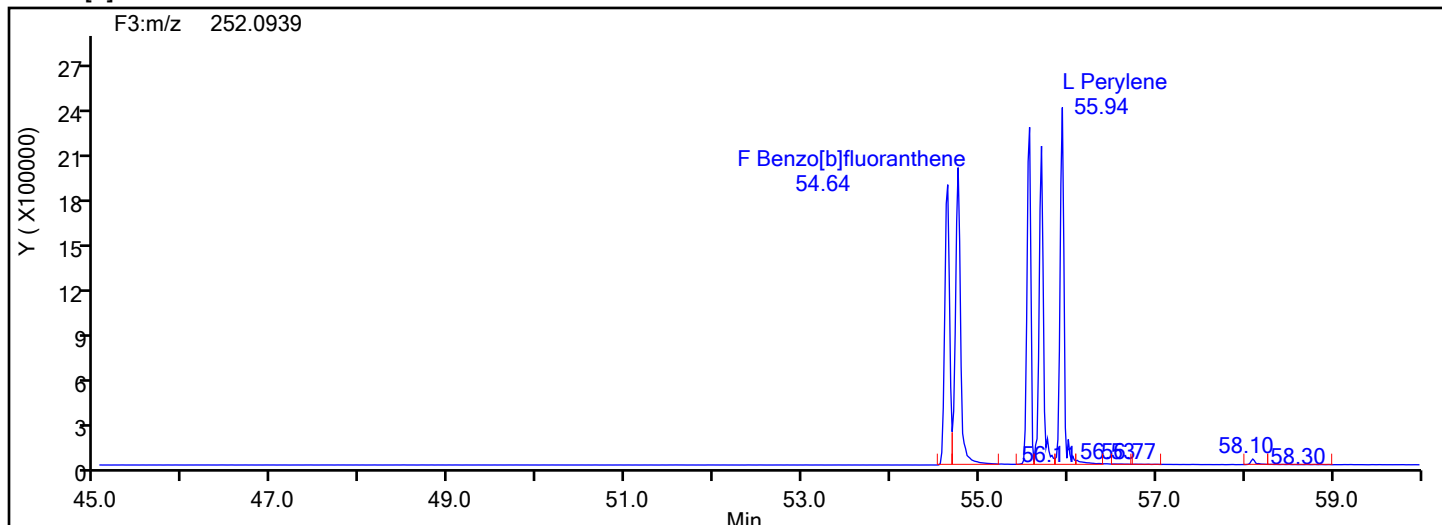
## Benzo[a]anthracene Standards



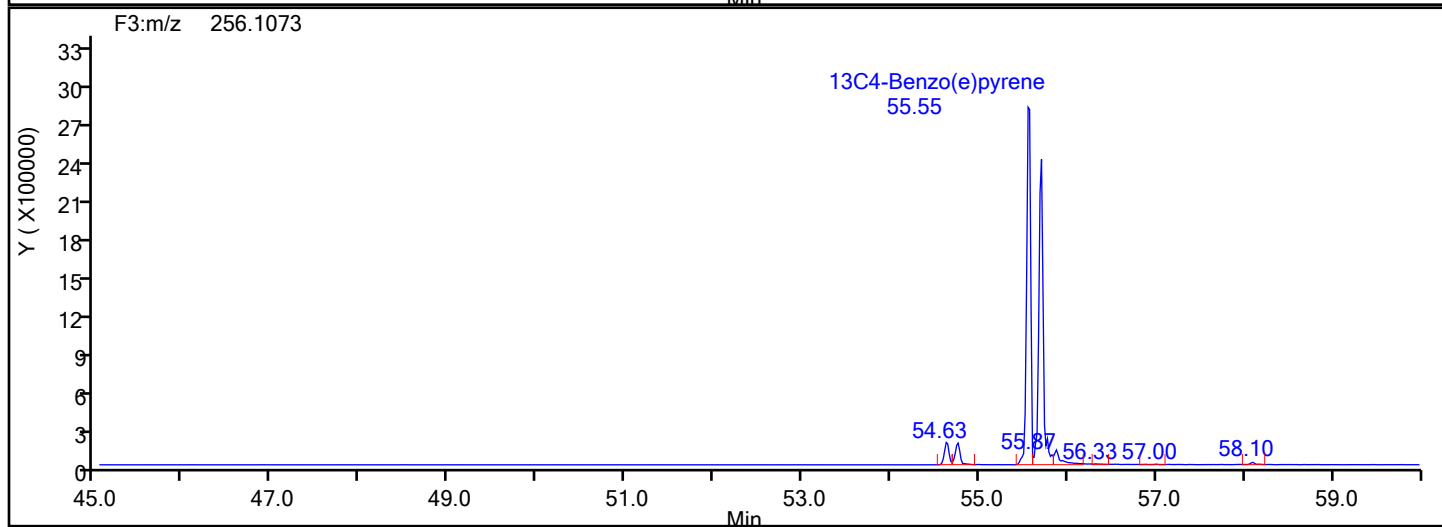
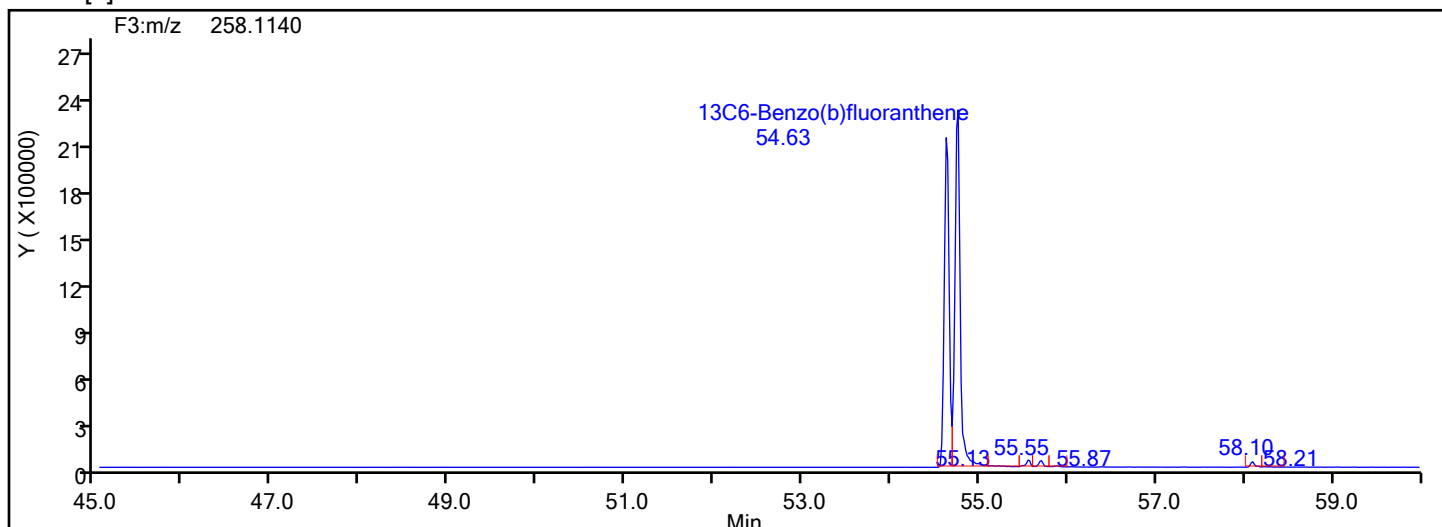
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic6.d  
Injection Date: 19-Jun-2024 21:56:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



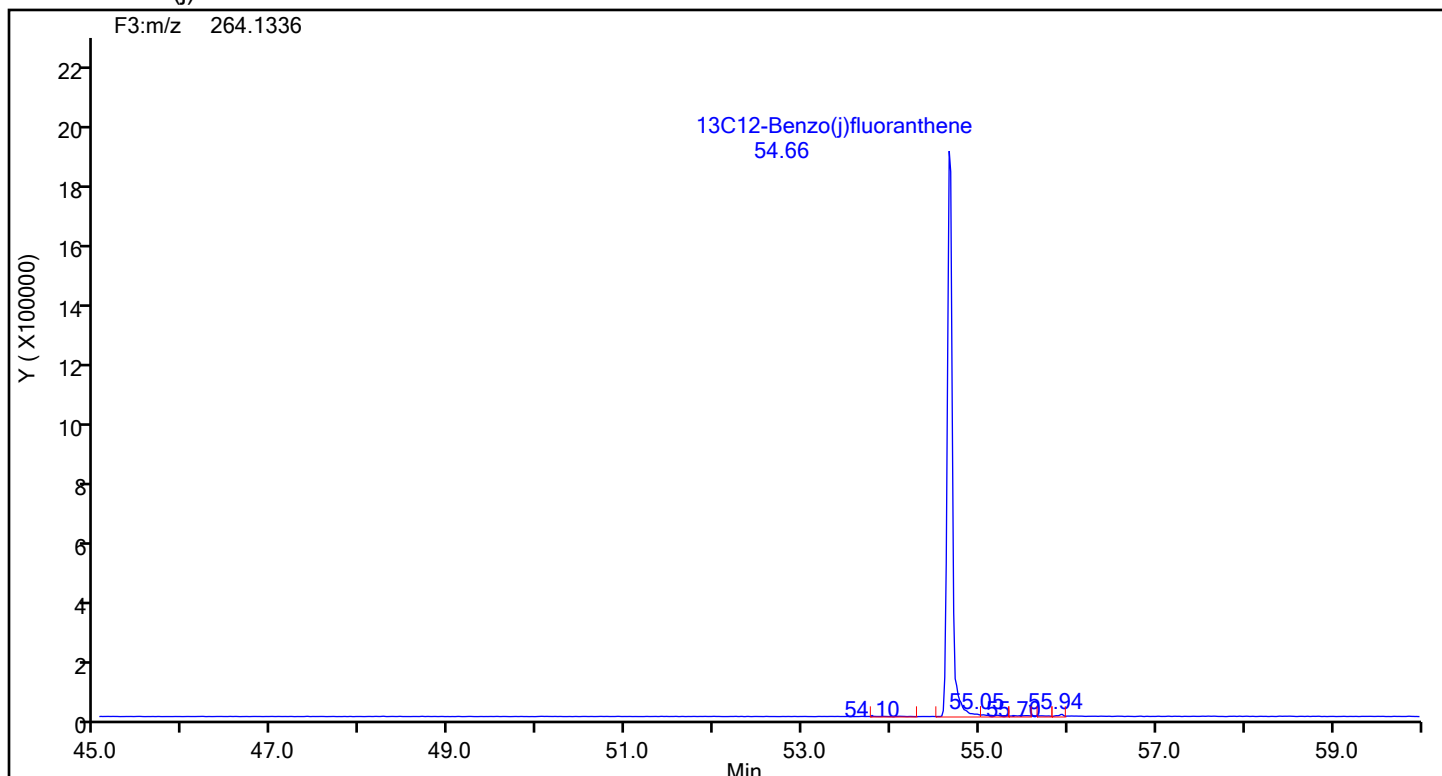
## Benzo[b]fluoranthene Standards



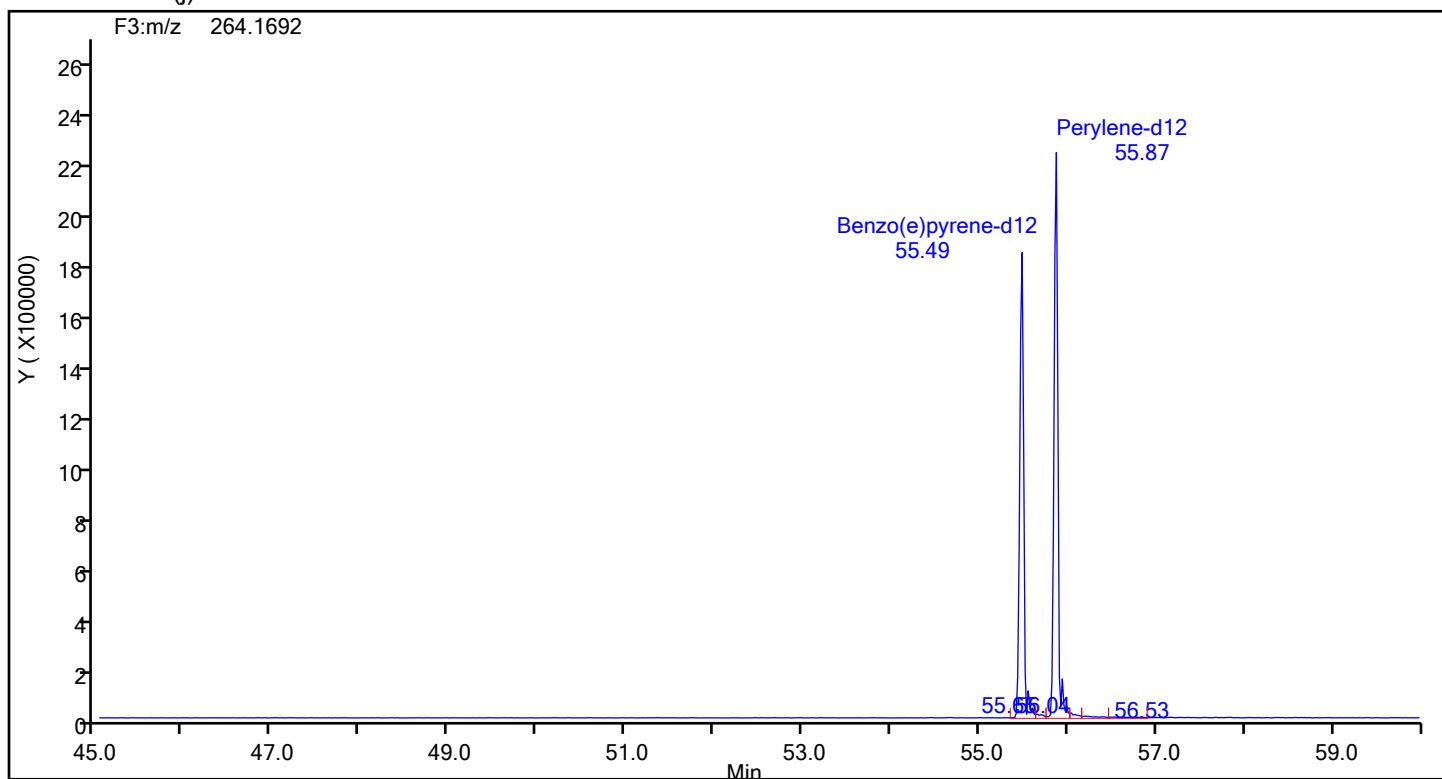
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic6.d  
Injection Date: 19-Jun-2024 21:56:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



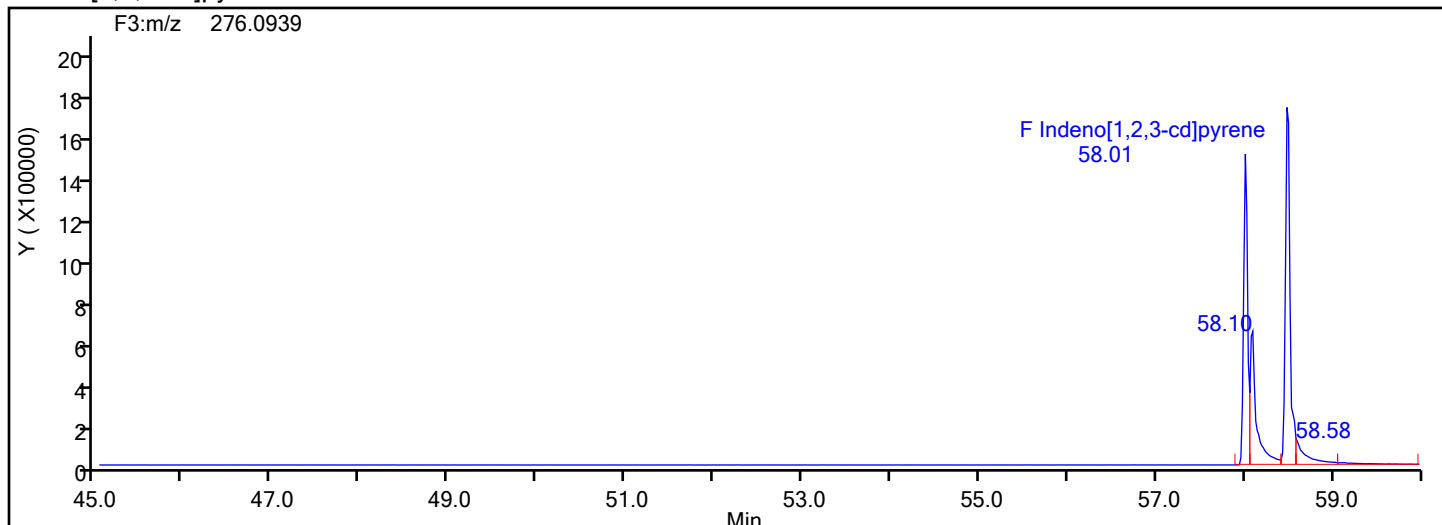
## 13C12-Benzo(j)fluoranthene Standards



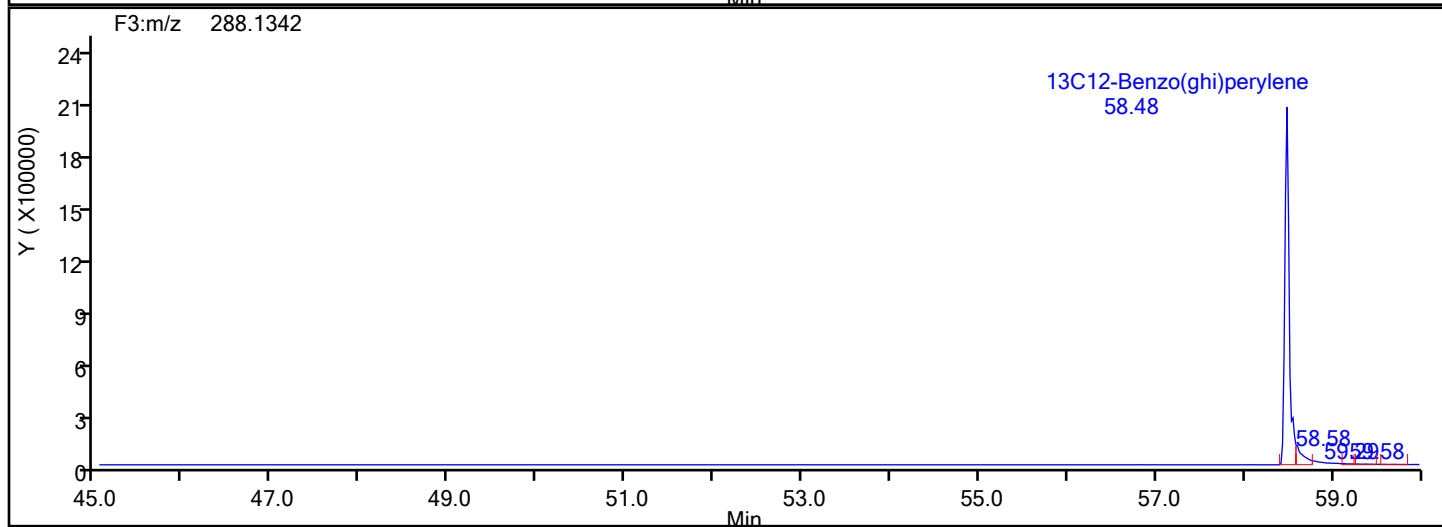
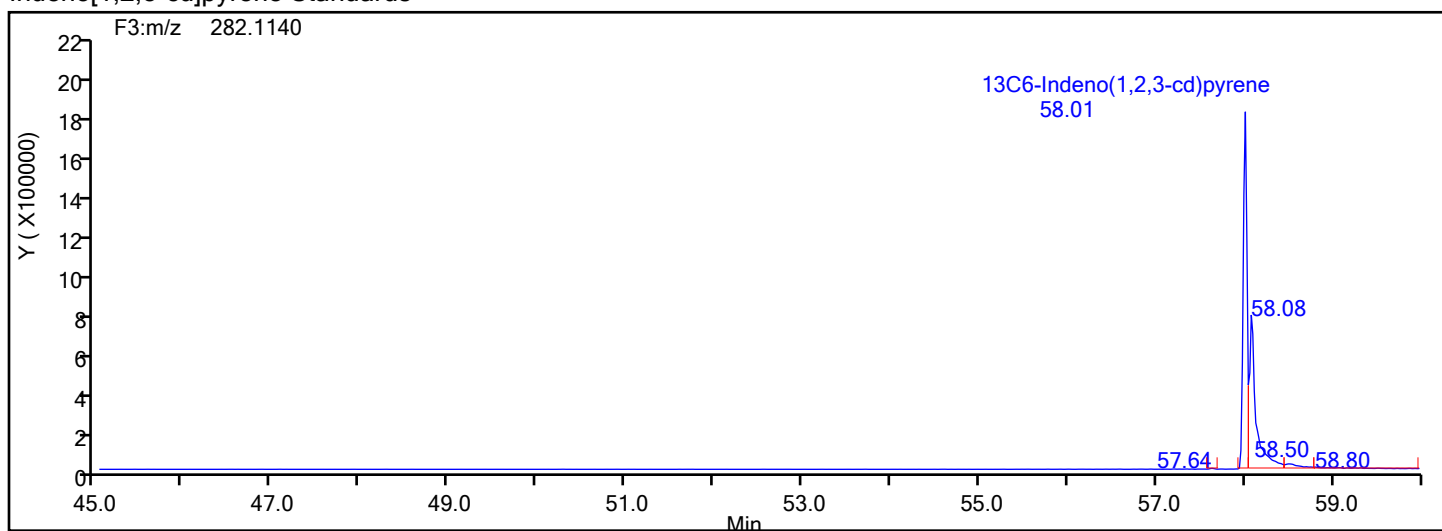
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic6.d  
Injection Date: 19-Jun-2024 21:56:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Indeno[1,2,3-cd]pyrene



## Indeno[1,2,3-cd]pyrene Standards



## Eurofins Knoxville

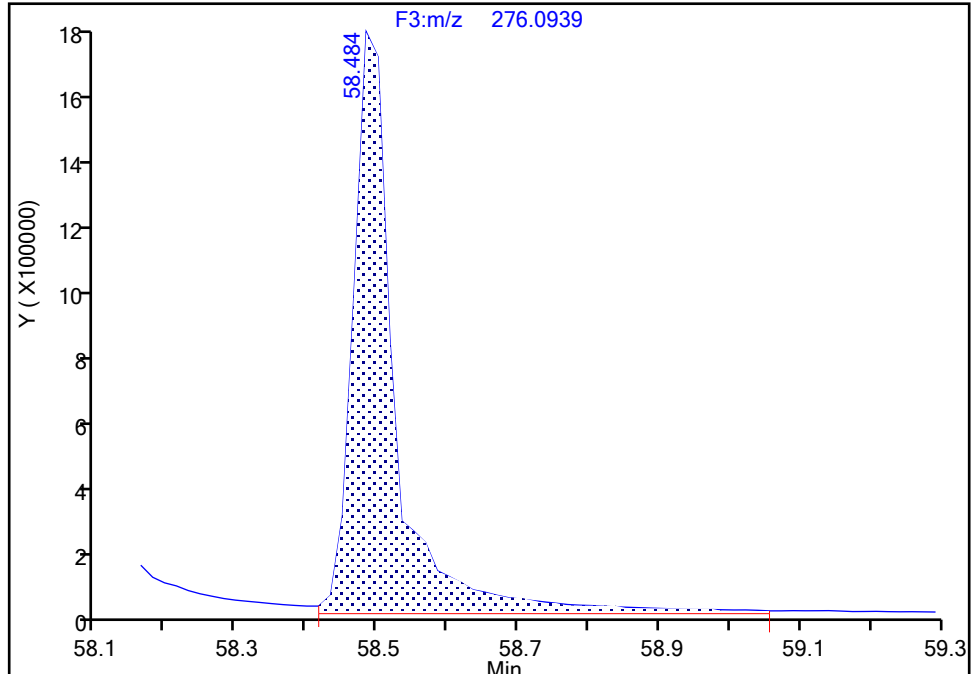
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic6.d  
Injection Date: 19-Jun-2024 21:56:00 Instrument ID: D3PAH  
Lims ID: IC L6  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

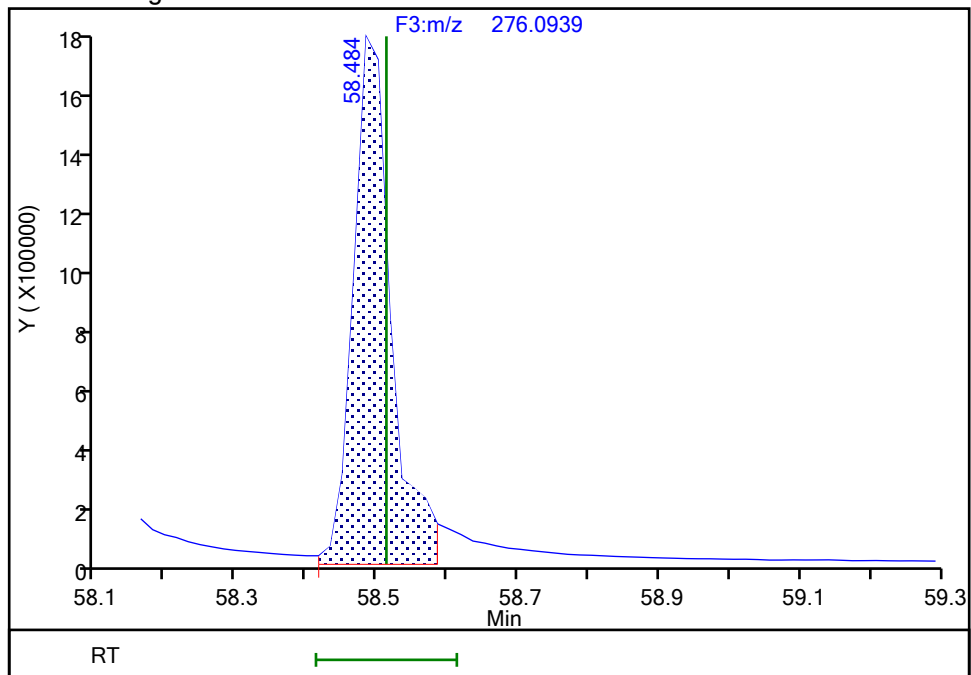
RT: 58.48  
Area: 7480538  
Amount: 81.865828  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.48  
Area: 6540833  
Amount: 72.666042  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:37:40 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration



## Eurofins Knoxville

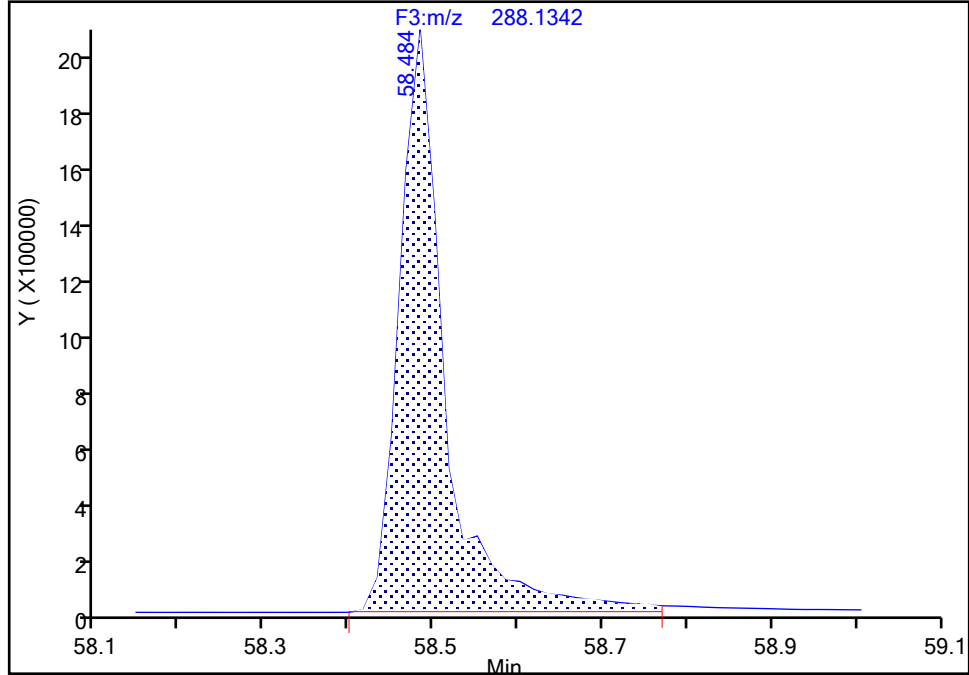
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Injection Date: 19-Jun-2024 21:56:00 Instrument ID: D3PAH  
Lims ID: IC L6  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C12-Benzo(ghi)perylene, CAS: 350820-11-0**

Signal: 1

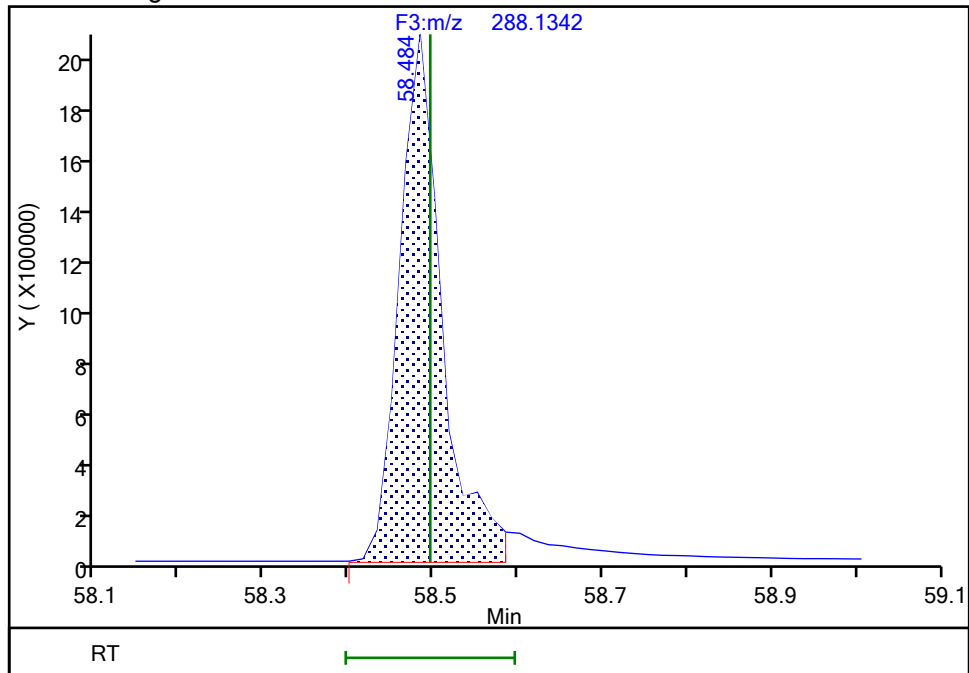
RT: 58.48  
Area: 7561145  
Amount: 99.107109  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.48  
Area: 7011632  
Amount: 94.653865  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:37:17 -04:00:00 (UTC)

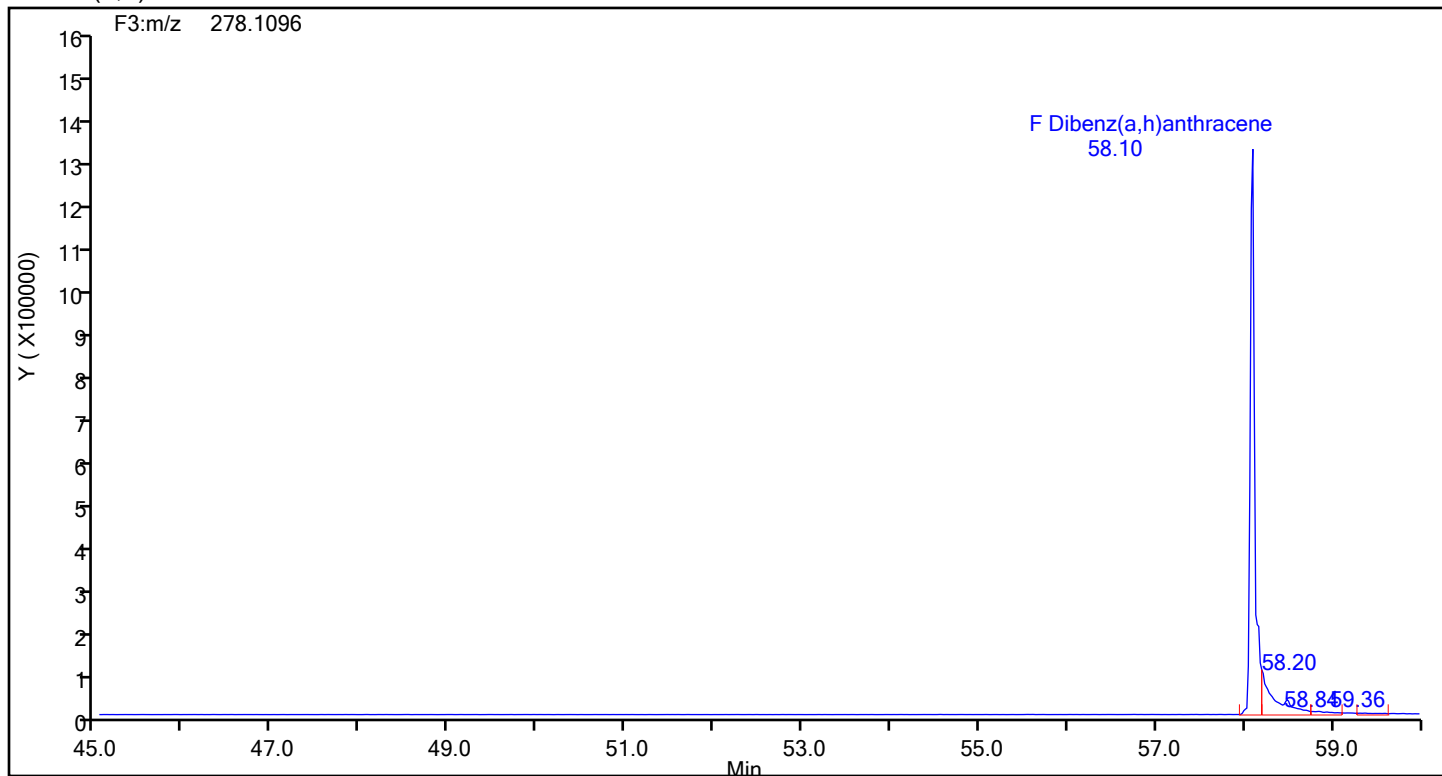
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

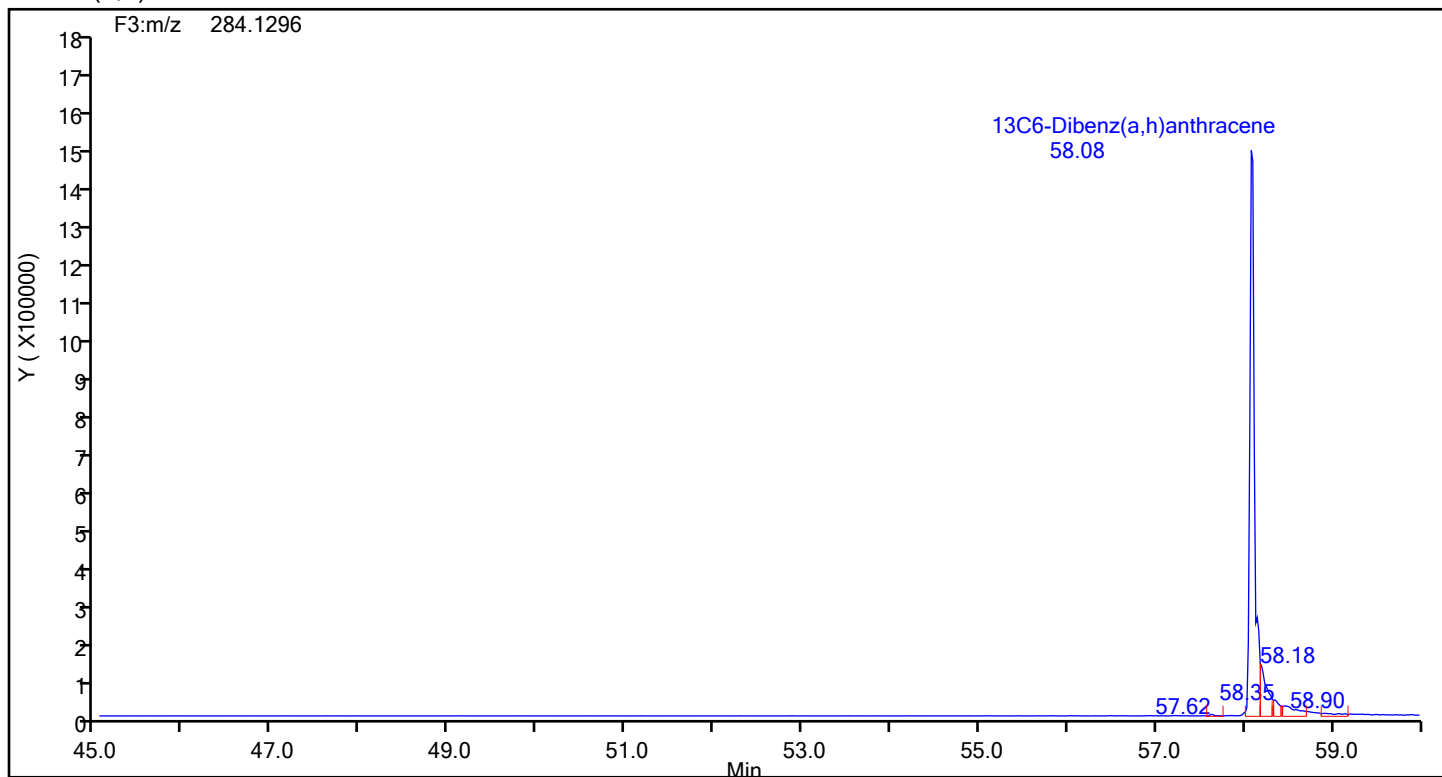
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic6.d  
Injection Date: 19-Jun-2024 21:56:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Dibenz(a,h)anthracene



## Dibenzo(a,h)anthracene Standards



## Eurofins Knoxville

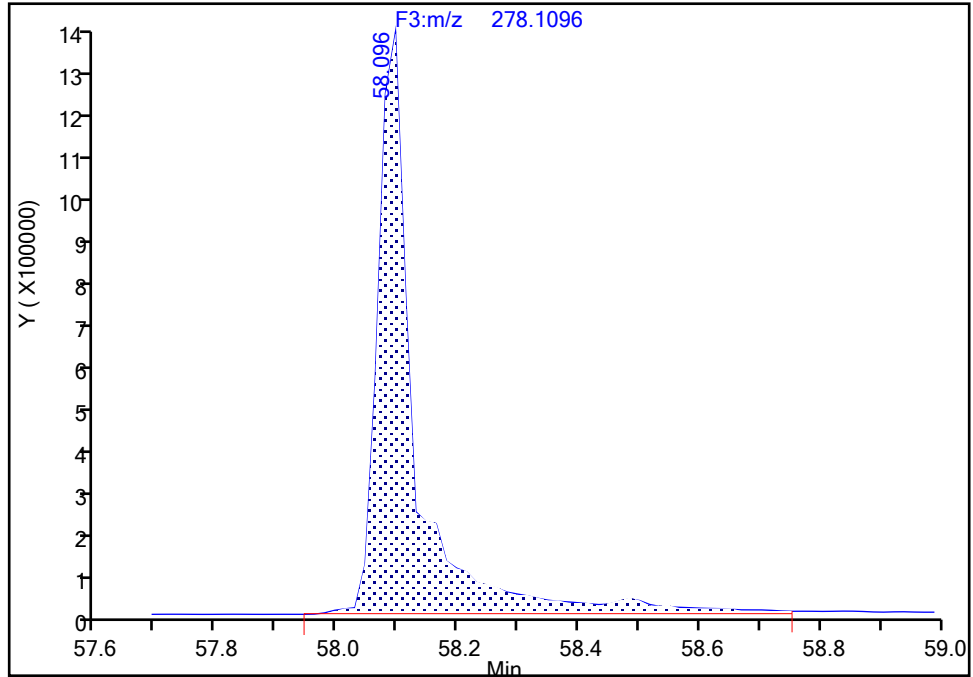
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic6.d  
Injection Date: 19-Jun-2024 21:56:00 Instrument ID: D3PAH  
Lims ID: IC L6  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**Dibenz(a,h)anthracene, CAS: 53-70-3**

Signal: 1

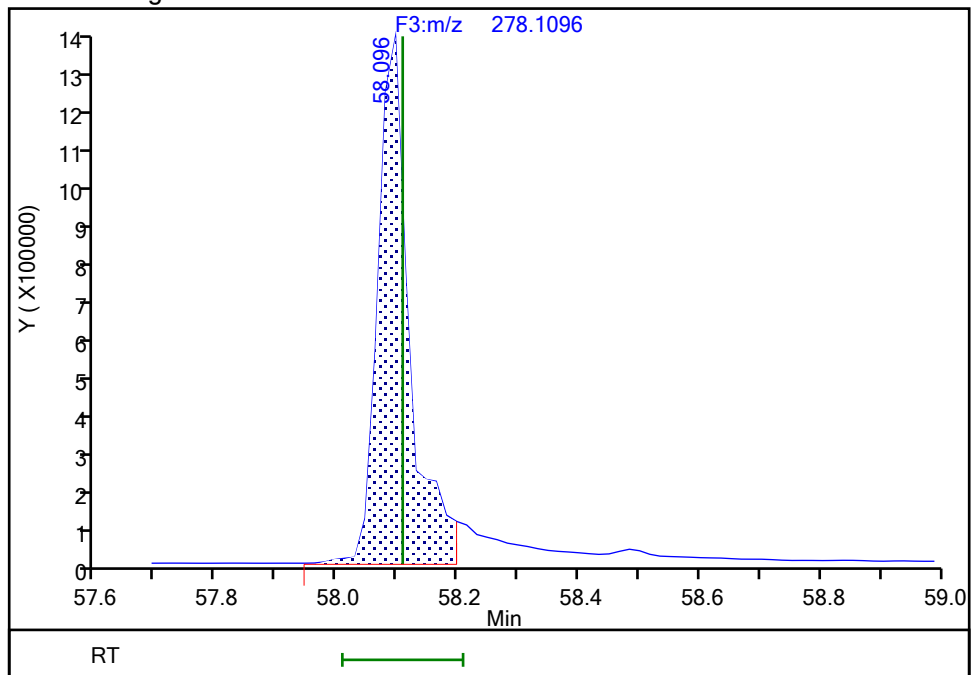
RT: 58.10  
Area: 5801087  
Amount: 91.156405  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.10  
Area: 4852505  
Amount: 76.851579  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:37:09 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

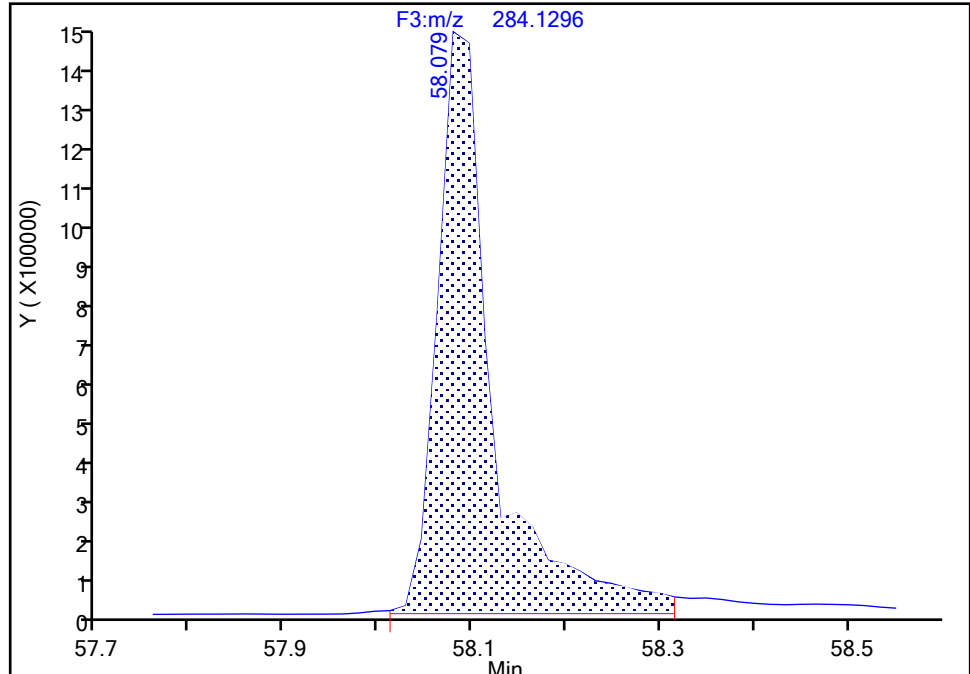
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\ld3240619ic6.d  
Injection Date: 19-Jun-2024 21:56:00 Instrument ID: D3PAH  
Lims ID: IC L6  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C6-Dibenz(a,h)anthracene, CAS: STL03360**

Signal: 1

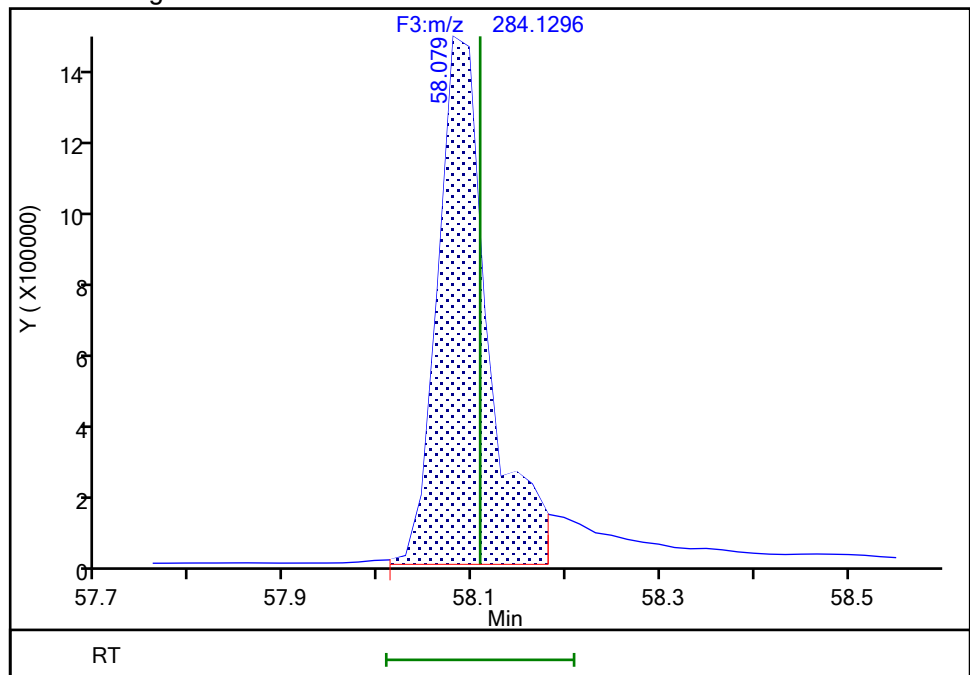
RT: 58.08  
Area: 6188850  
Amount: 94.535163  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.08  
Area: 5580937  
Amount: 91.018729  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:37:03 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic7.d  
Lims ID: IC L7  
Client ID:  
Sample Type: IC Calib Level: 7  
Inject. Date: 19-Jun-2024 23:00:00 ALS Bottle#: 0 Worklist Smp#: 7  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033168-007  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAL ICAL  
Last Update: 20-Jun-2024 09:51:55 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last Ical File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1686

First Level Reviewer: F9EE

Date: 20-Jun-2024 09:34:06

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:33	12167731		3.3746	100.5	100.5	0.005992	0.005992	101	
Naphthalene	11:33	29145441		1.2893	185.8	185.8	0.0302	0.0302	92.89	
D 13C6-2-Methylnaphthalene	13:51	5800321		1.6031	100.9	100.9	0.000868	0.000868	101	
2-Methylnaphthalene	13:52	13752752		1.2786	185.4	185.4	0.0170	0.0170	92.72	
D 13C6-Acenaphthylene	16:45	5949897		1.6520	100.4	100.4	0.001338	0.001338	100	
Acenaphthylene	16:45	15960871		2.3661	190.8	190.8	0.0260	0.0260	95.38	
* Acenaphthene-d10	17:19	3587138		3.5E+04	100.0	100.0				
D 13C6-Acenaphthene	17:26	3536065		0.9792	100.7	100.7	0.001672	0.001672	101	
Acenaphthene	17:26	8485152		1.2697	189.0	189.0	0.0254	0.0254	94.50	
D 13C6-Fluorene	19:44	3285389		0.8898	102.9	102.9	0.000460	0.000460	103	
Fluorene	19:44	7921341		1.2532	192.4	192.4	0.0279	0.0279	96.20	
D 13C6-Phenanthrene	25:07	4953590		0.5724	107.6	107.6	0.004222	0.004222	108	
Phenanthrene	25:07	10408886		1.1044	190.3	190.3	0.0318	0.0318	95.13	
\$ Anthracin-d10	25:20	3540252		0.4257	103.4	103.4	0.001074	0.001074	103	
D 13C6-Anthracene	25:27	3744430		0.4523	102.9	102.9	0.005343	0.005343	103	
Anthracene	25:27	9842331		1.3586	193.5	193.5	0.0340	0.0340	96.74	
D 13C6-Fluoranthrene	33:52	9842103		1.1994	102.0	102.0	0.0188	0.0188	102	
Fluoranthrene	33:53	21447849		1.1513	189.3	189.3	0.0142	0.0142	94.64	
* Pyrene-d10	35:25	8045261		7.9E+04	100.0	100.0				
D 13C3-Pyrene	35:34	11042272		1.3512	101.6	101.6	0.0128	0.0128	102	
Pyrene	35:34	22057676		1.0652	187.5	187.5	0.0142	0.0142	93.76	
\$ 13C6-Benzo(c)fluorene	39:17	4148931		0.5136	100.4	100.4	0.003816	0.003816	100	
D 13C6-Benzo(a)anthracene	46:06	8485215		1.5189	96.3	96.3	0.0132	0.0132	96.33	
Benzo[a]anthracene	46:07	15614632		0.9739	189.0	189.0	0.0283	0.0283	94.48	
D 13C6-Chrysene	46:22	9283915		1.6287	98.3	98.3	0.0123	0.0123	98.29	
Chrysene	46:23	17201644		0.9815	188.8	188.8	0.0268	0.0268	94.39	
D 13C6-Benzo(b)fluoranthene	54:38	8615715		1.4621	101.6	101.6	0.001318	0.001318	102	
Benzo[b]fluoranthene	54:39	18032275		1.1249	186.1	186.1	0.006779	0.006779	93.03	
\$ 13C12-Benzo(j)fluoranthene	54:40	7928880		1.3558	100.8	100.8	0.0149	0.0149	101	
D 13C6-Benzo(k)fluoranthene	54:46	10118186		1.7507	99.7	99.7	0.001101	0.001101	99.66	
Benzo[k]fluoranthene	54:46	21097665		1.1271	185.0	185.0	0.006303	0.006303	92.50	
* Benzo(e)pyrene-d12	55:30	5799368		5.7E+04	100.0	100.0				
D 13C4-Benzo(e)pyrene	55:34	9276322		1.6368	97.7	97.7	0.009757	0.009757	97.72	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
Benzo[e]pyrene	55:35	17407219		1.0013	187.4	187.4	0.005897	0.005897	93.71	
Benzo[a]pyrene	55:43	18599410		1.1130	190.5	190.5	0.005858	0.005858	95.25	
D 13C4-Benzo(a)pyrene	55:43	8772202		1.5508	97.5	97.5	0.0103	0.0103	97.54	
D Perylene-d12	55:53	7004851		1.1917	101.4	101.4	0.0158	0.0158	101	
Perylene	55:57	19642615		1.4307	196.0	196.0	0.005442	0.005442	98.00	
D 13C6-Indeno(1,2,3-cd)pyrene	58:01	6349503		1.0218	107.1	107.1	0.009809	0.009809	107	M
Indeno[1,2,3-cd]pyrene	58:01	12310533		1.1249	172.3	172.3	0.006392	0.006392	86.17	
D 13C6-Dibenz(a,h)anthracene	58:06	6110020		1.0553	99.8	99.8	0.005219	0.005219	99.84	M
Dibenz(a,h)anthracene	58:06	12538607		1.1314	181.4	181.4	0.005625	0.005625	90.69	M
D 13C12-Benzo(ghi)perylene	58:30	7551974		1.2749	102.1	102.1	0.005184	0.005184	102	M
Benzo[g,h,i]perylene	58:31	17229589		1.2838	177.7	177.7	0.004988	0.004988	88.86	M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61HRPAHCS5a\_00002

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic7.d  
Lims ID: IC L7  
Client ID:  
Sample Type: IC Calib Level: 7  
Inject. Date: 19-Jun-2024 23:00:00 ALS Bottle#: 0 Worklist Smp#: 7  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033168-007  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 20-Jun-2024 09:51:55 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1686

First Level Reviewer: F9EE

Date: 20-Jun-2024 09:34:06

Signal	RT (min.)	Adj RT (min.)	¶ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:33	11:33	-1	0.666	12167731	4165041	99	247	42071		
Naphthalene											
128.0626	11:33	11:34	-1	1.000	29145441	9997251	649	1622	15404		
13C6-2-Methylnaphthalene											
148.0984	13:51	13:52	-1	0.800	5800321	2698809	7	17	385544		
2-Methylnaphthalene											
142.0783	13:52	13:53	-1	1.001	13752752	6450856	235	587	27450		
13C6-Acenaphthylene											
158.0828	16:45	16:45	-1	0.966	5949897	2135616	11	27	194147		
Acenaphthylene											
152.0626	16:45	16:45	-1	1.000	15960871	5725962	305	762	18774		
Acenaphthene-d10											
164.1404	17:19	17:20	-1		3587138	1221597	2	5	610799		
13C6-Acenaphthene											
160.0984	17:26	17:27	-1	1.007	3536065	1238157	8	20	154770		
Acenaphthene											
154.0783	17:26	17:27	-1	1.000	8485152	2885513	160	400	18034		
13C6-Fluorene											
172.0984	19:44	19:45	-1	1.139	3285389	978999	2	5	489500		
Fluorene											
166.0783	19:44	19:45	-1	1.000	7921341	2350494	137	342	17157		
13C6-Phenanthrene											
184.0984	25:07	25:08	-1	0.709	4953590	1157531	15	37	77169		
Phenanthrene											
178.0783	25:07	25:08	-1	1.000	10408886	2455362	163	407	15064		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:20	25:21	-1	0.715	3540252	830170	3	7	276723		
13C6-Anthracene											
184.0984	25:27	25:28	-1	0.718	3744430	880289	15	37	58686		
Anthracene											
178.0783	25:27	25:28	-1	1.000	9842331	2230606	163	407	13685		
13C6-Fluoranthrene											
208.0984	33:52	33:54	-2	0.956	9842103	1935757	138	345	14027		
Fluoranthene											
202.0783	33:53	33:54	-1	1.000	21447849	4259881	127	317	33542		
Pyrene-d10											
212.1404	35:25	35:27	-1		8045261	1530843	49	122	31242		
13C3-Pyrene											
205.0883	35:34	35:35	-1	1.004	11042272	2101643	106	265	19827		
Pyrene											
202.0783	35:34	35:35	-1	1.000	22057676	4203969	127	317	33102		
13C6-Benzo(c)fluorene											
222.1134	39:17	39:18	-1	0.708	4148931	752708	12	30	62726		
13C6-Benzo(a)anthracene											
234.1140	46:06	46:07	-2	1.301	8485215	1511187	146	365	10351		
Benzo[a]anthracene											
228.0939	46:07	46:07	-1	1.000	15614632	2786413	167	417	16685		
13C6-Chrysene											
234.1140	46:22	46:24	-2	1.309	9283915	1587692	146	365	10875		
Chrysene											
228.0939	46:23	46:25	-2	1.000	17201644	2935186	167	417	17576		
13C6-Benzo(b)fluoranthene											
258.1140	54:38	54:40	-2	0.985	8615715	2255354	14	35	161097		
Benzo[b]fluoranthene											
252.0939	54:39	54:40	-1	1.000	18032275	4894763	69	172	70939		
13C12-Benzo(j)fluoranthene											
264.1336	54:40	54:42	-2	0.985	7928880	2019955	147	367	13741		
13C6-Benzo(k)fluoranthene											
258.1140	54:46	54:47	-1	0.987	10118186	2421215	14	35	172944		
Benzo[k]fluoranthene											
252.0939	54:46	54:47	-1	1.000	21097665	5269334	69	172	76367		
Benzo(e)pyrene-d12											
264.1692	55:30	55:30	-1		5799368	1815765	137	342	13254		
13C4-Benzo(e)pyrene											
256.1073	55:34	55:35	-2	1.001	9276322	2912882	116	290	25111		
Benzo[e]pyrene											
252.0939	55:35	55:35	-1	1.000	17407219	5763329	69	172	83527		
Benzo[a]pyrene											
252.0939	55:43	55:44	-1	1.000	18599410	5665848	69	172	82114		



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C4-Benzo(a)pyrene											
256.1073	55:43	55:44	-1	1.004	8772202	2638078	116	290	22742		
Perylene-d12											
264.1692	55:53	55:54	-1	1.007	7004851	2209250	137	342	16126		
Perylene											
252.0939	55:57	55:58	-1	1.001	19642615	6384987	69	172	92536		
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	58:01	58:02	0	1.046	6349503	1946937	73	182	26670		M
Indeno[1,2,3-cd]pyrene											
276.0939	58:01	58:03	-1	1.000	12310533	3867925	56	140	69070		
13C6-Dibenz(a,h)anthracene											
284.1296	58:06	58:07	0	1.047	6110020	1681244	40	100	42031		M
Dibenz(a,h)anthracene											
278.1096	58:06	58:07	0	1.000	12538607	3613228	43	107	84029		M
13C12-Benzo(ghi)perylene											
288.1342	58:30	58:30	0	1.054	7551974	2186484	48	120	45552		M
Benzo[g,h,i]perylene											
276.0939	58:31	58:31	0	1.000	17229589	4719941	56	140	84285		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61HRPAHCS5a\_00002

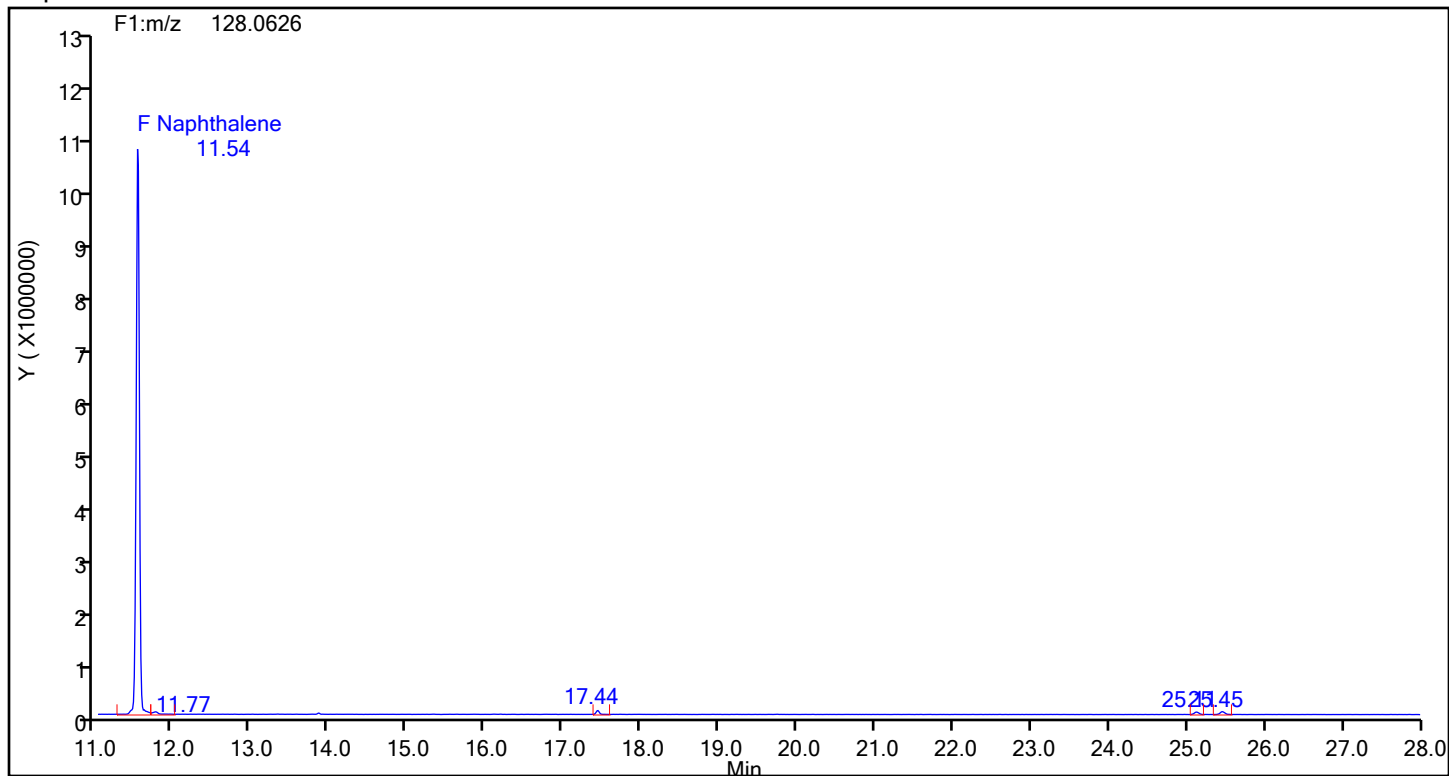
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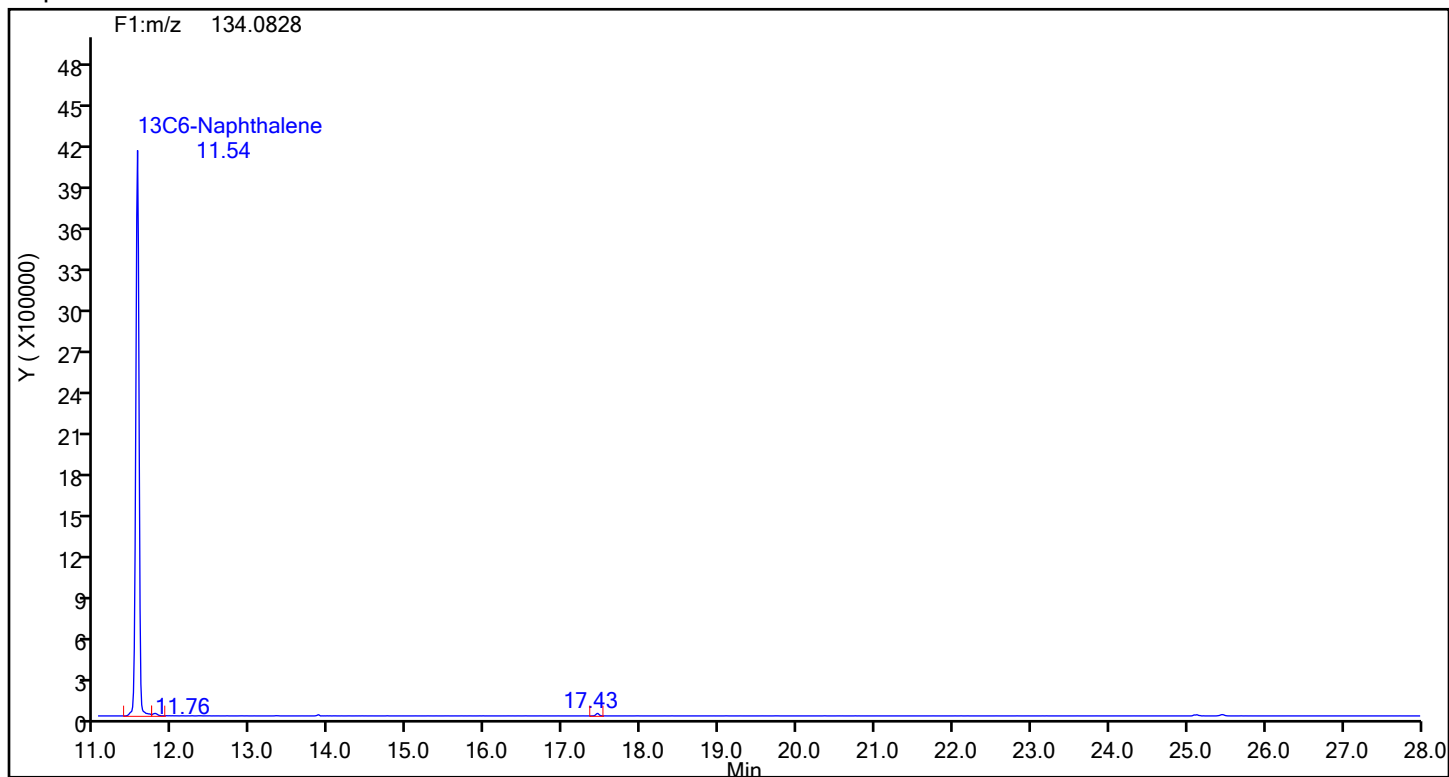
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 7  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



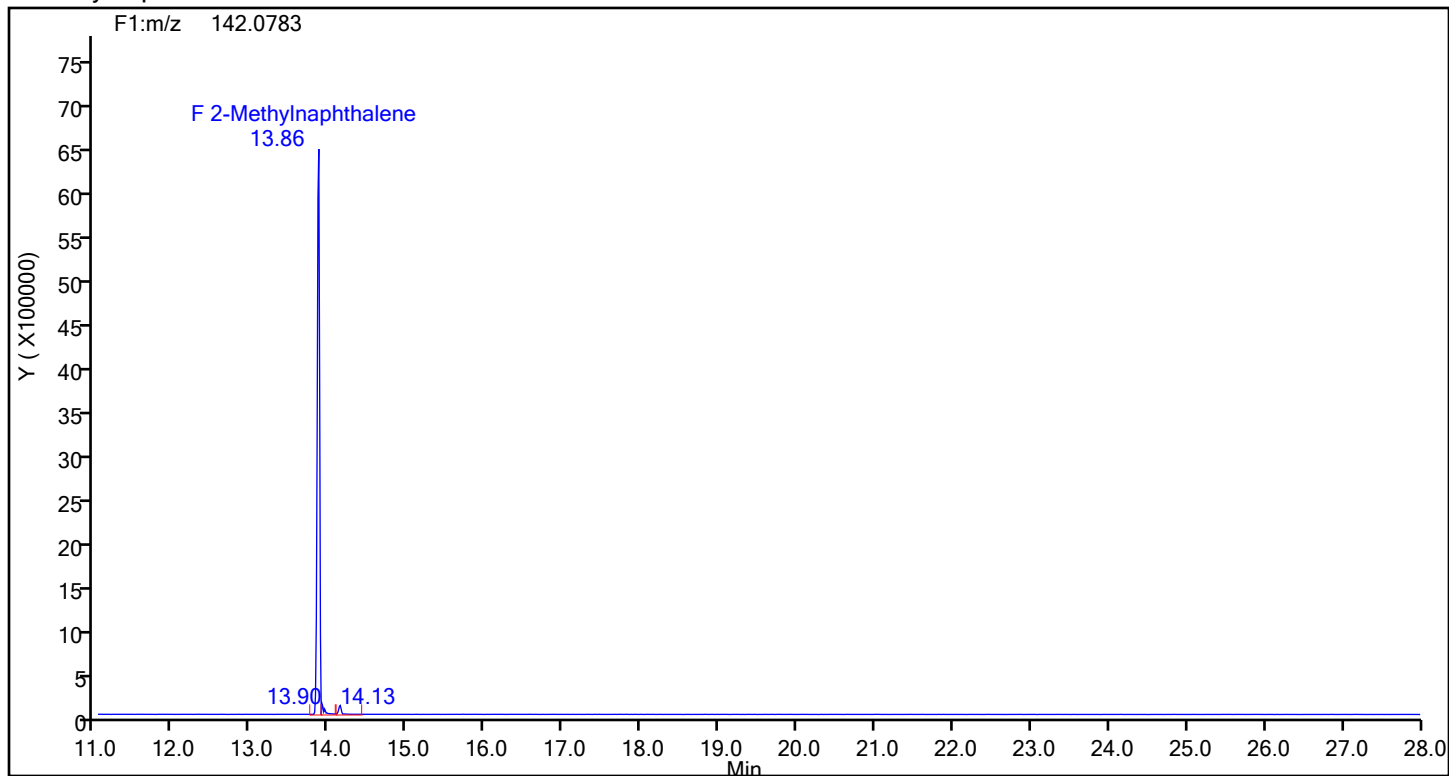
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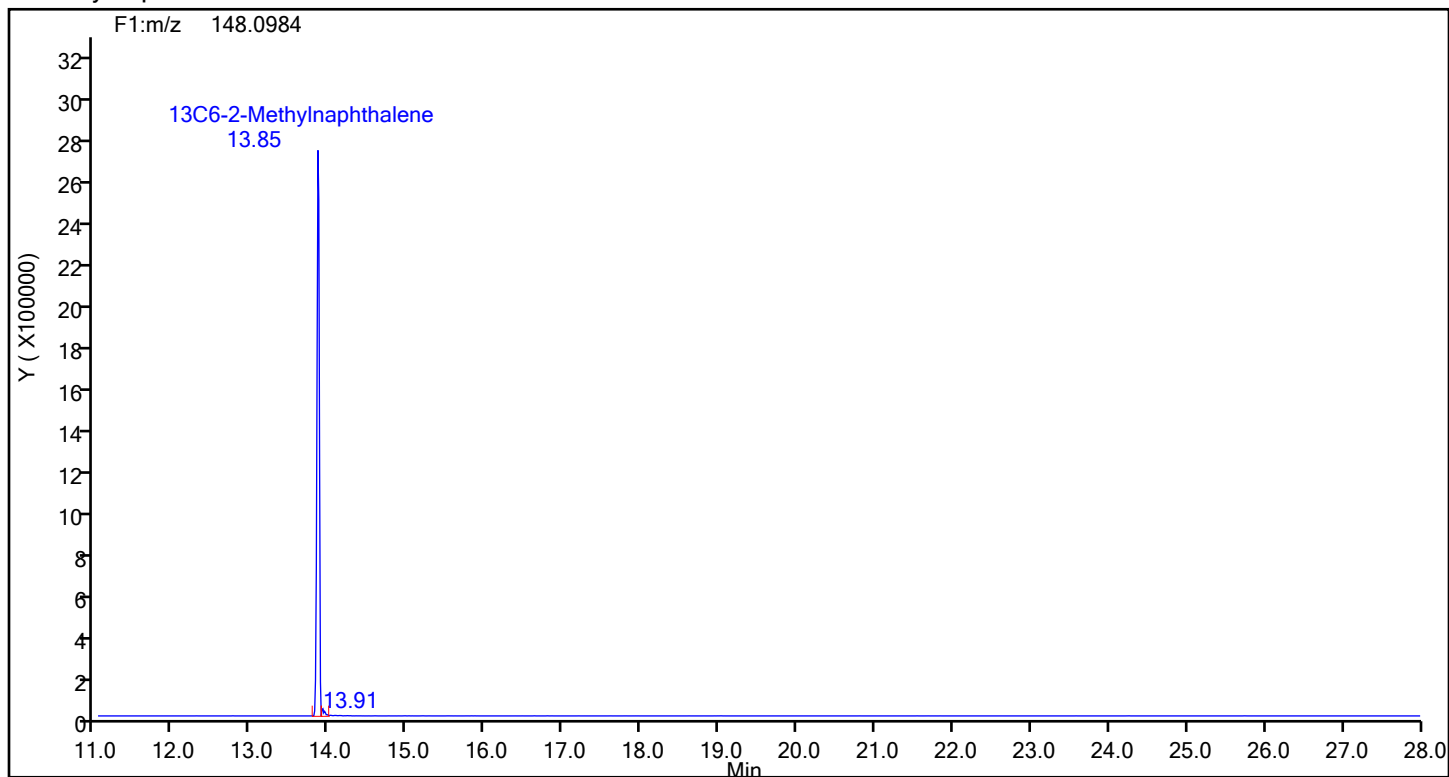
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



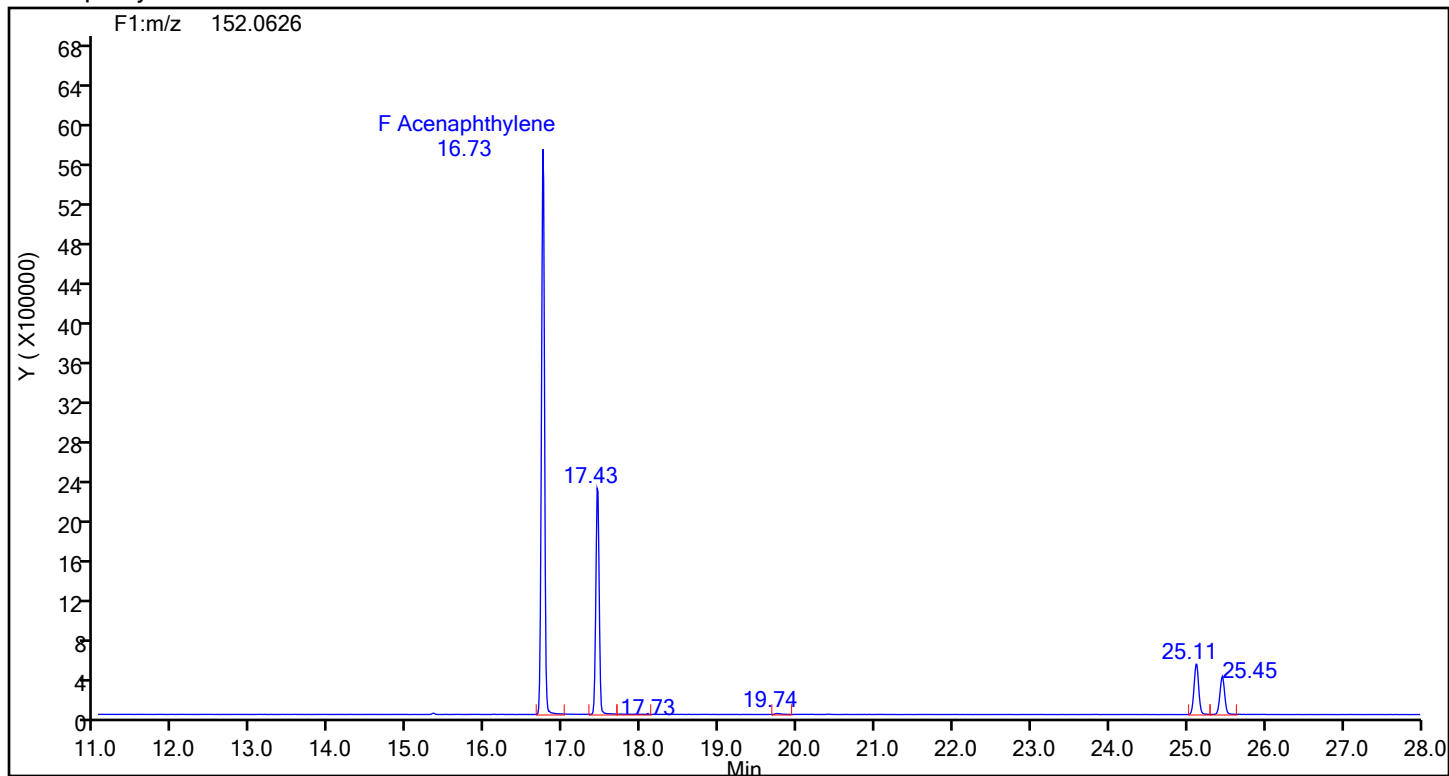
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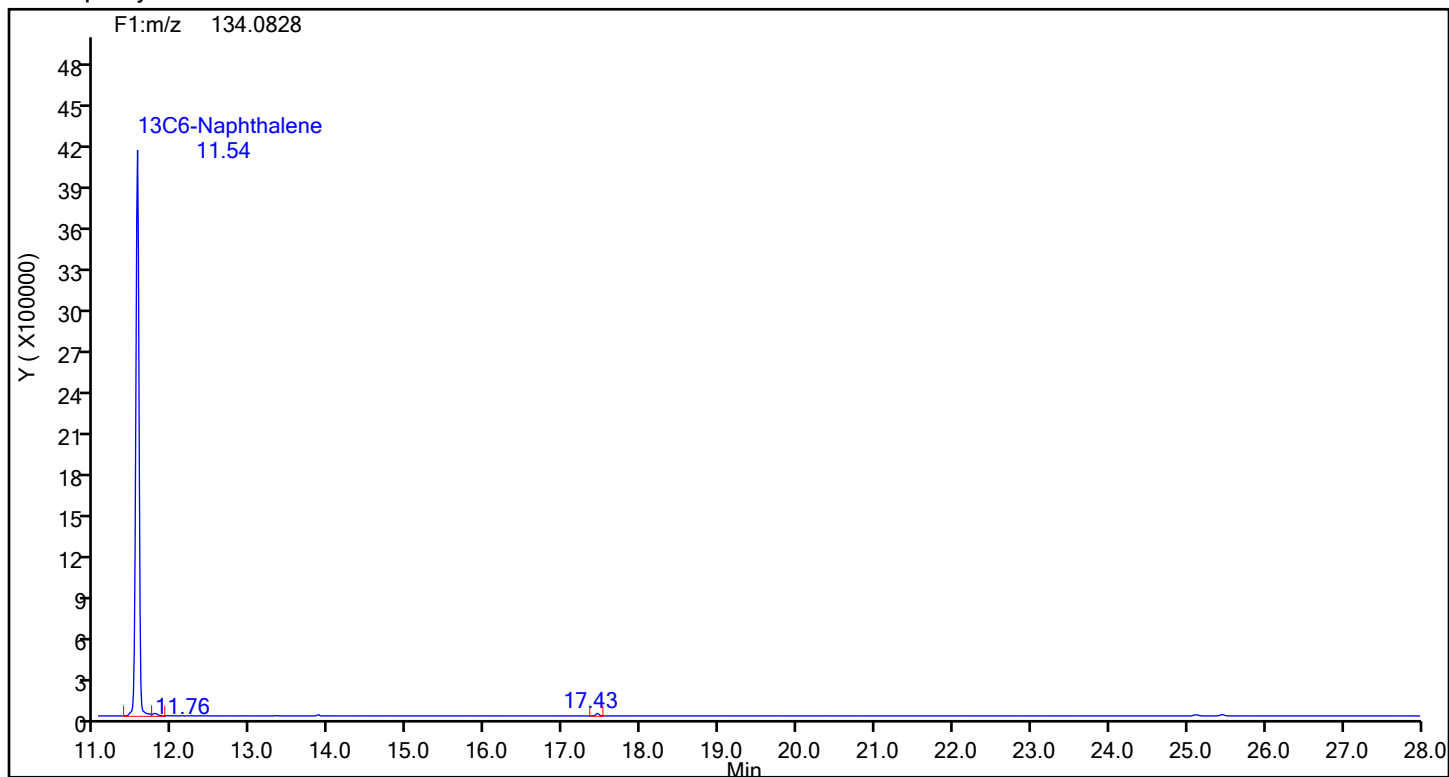
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## Acenaphthylene



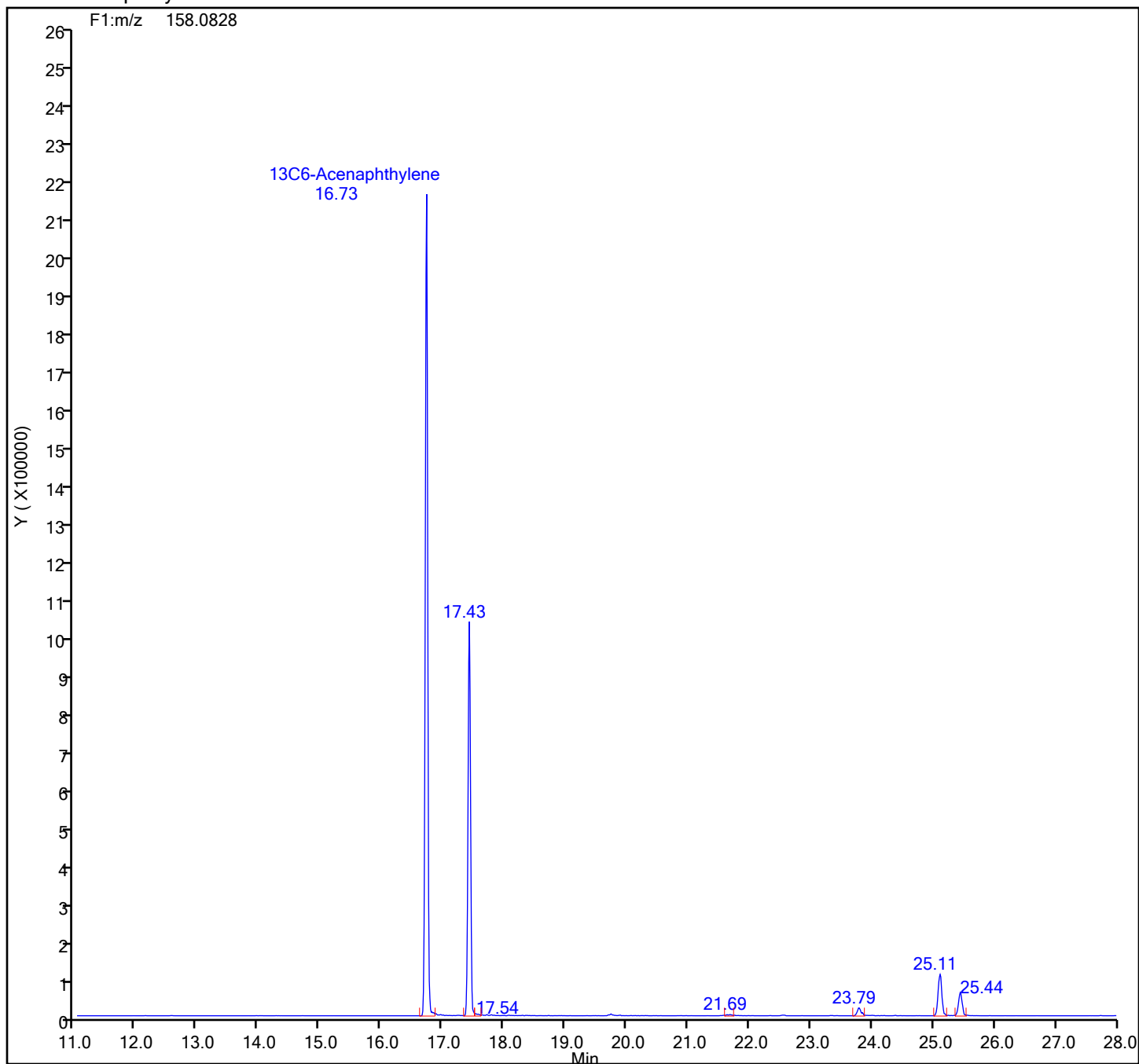
## Acenaphthylene Standards



## Eurofins Knoxville

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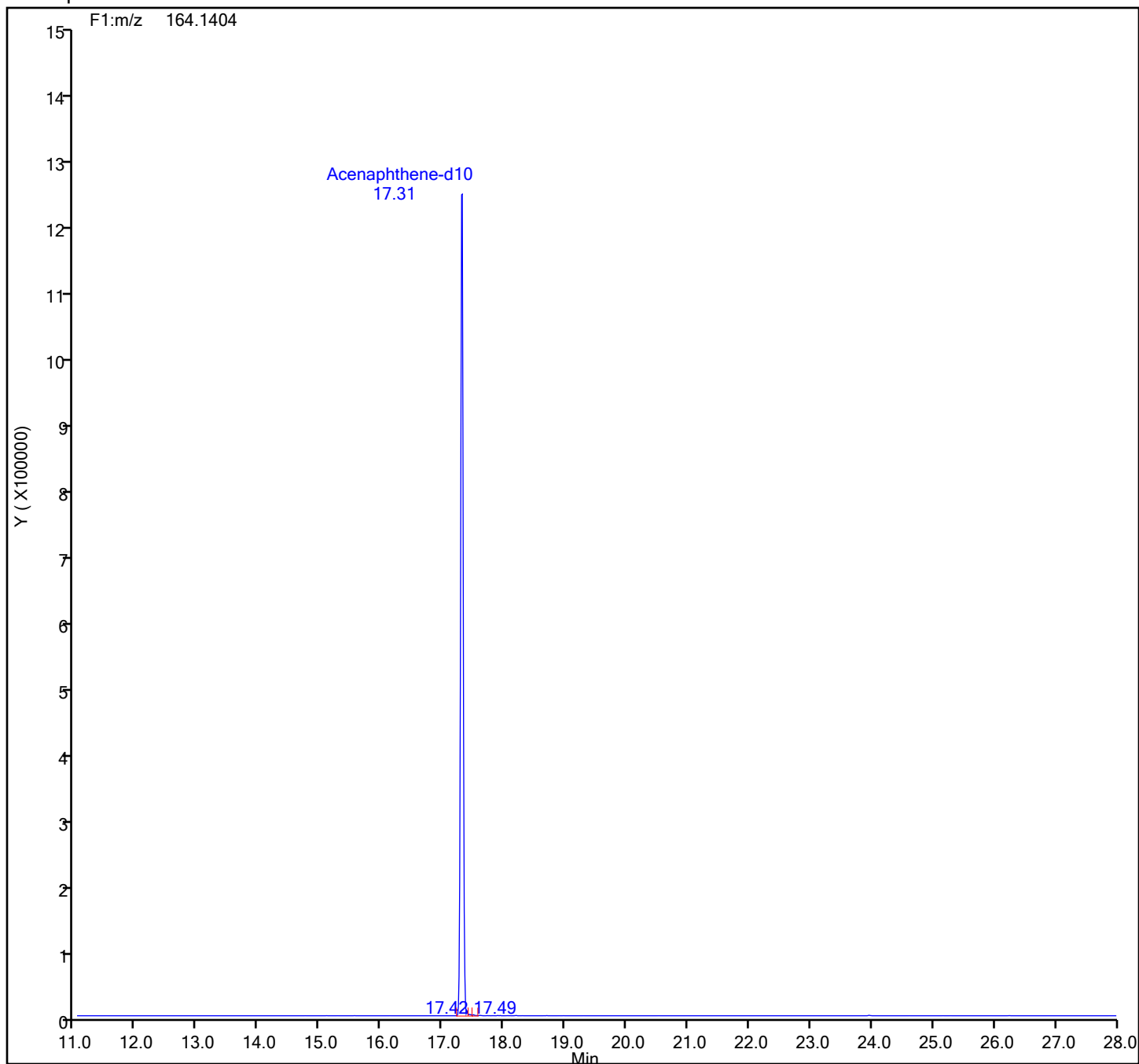
## 13C6-Acenaphthylene Standards



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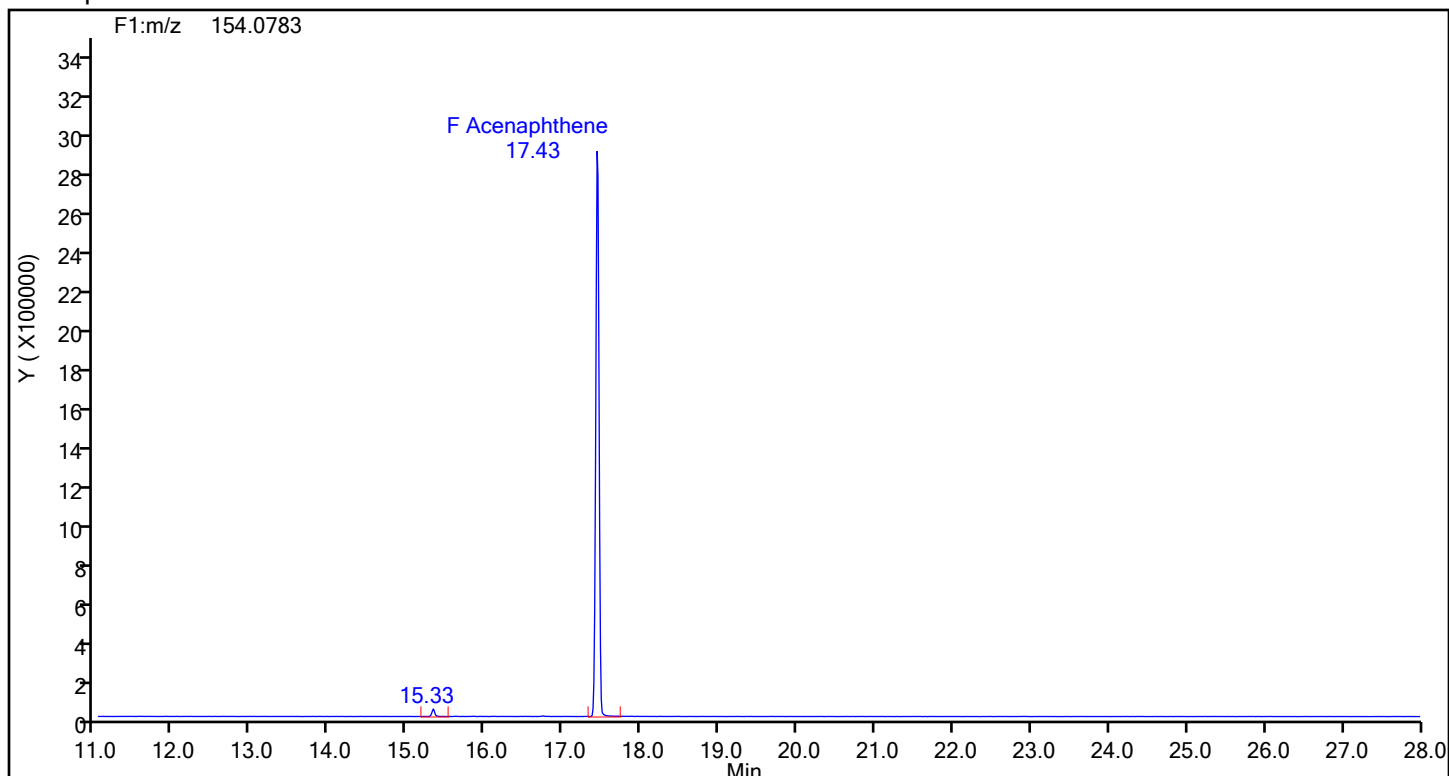
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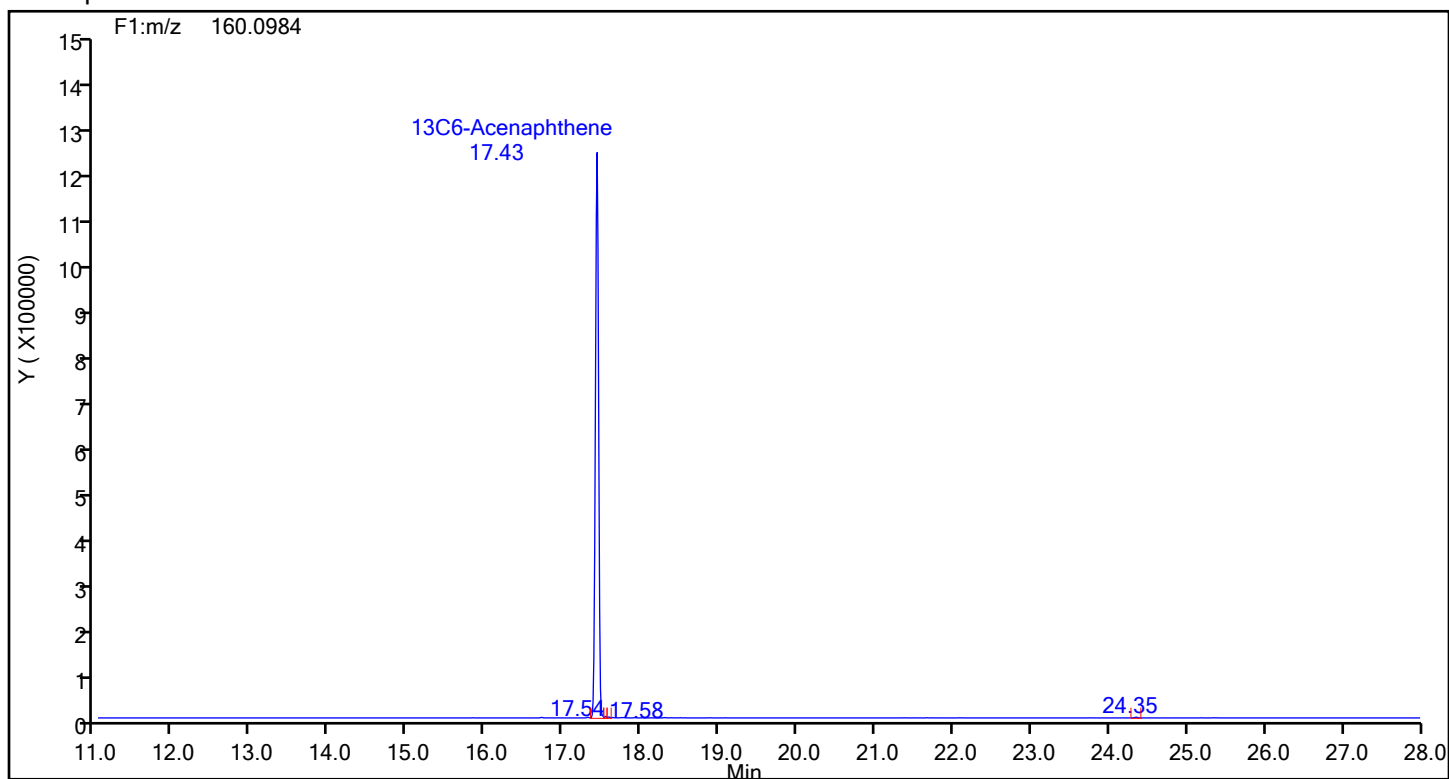
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## Acenaphthene



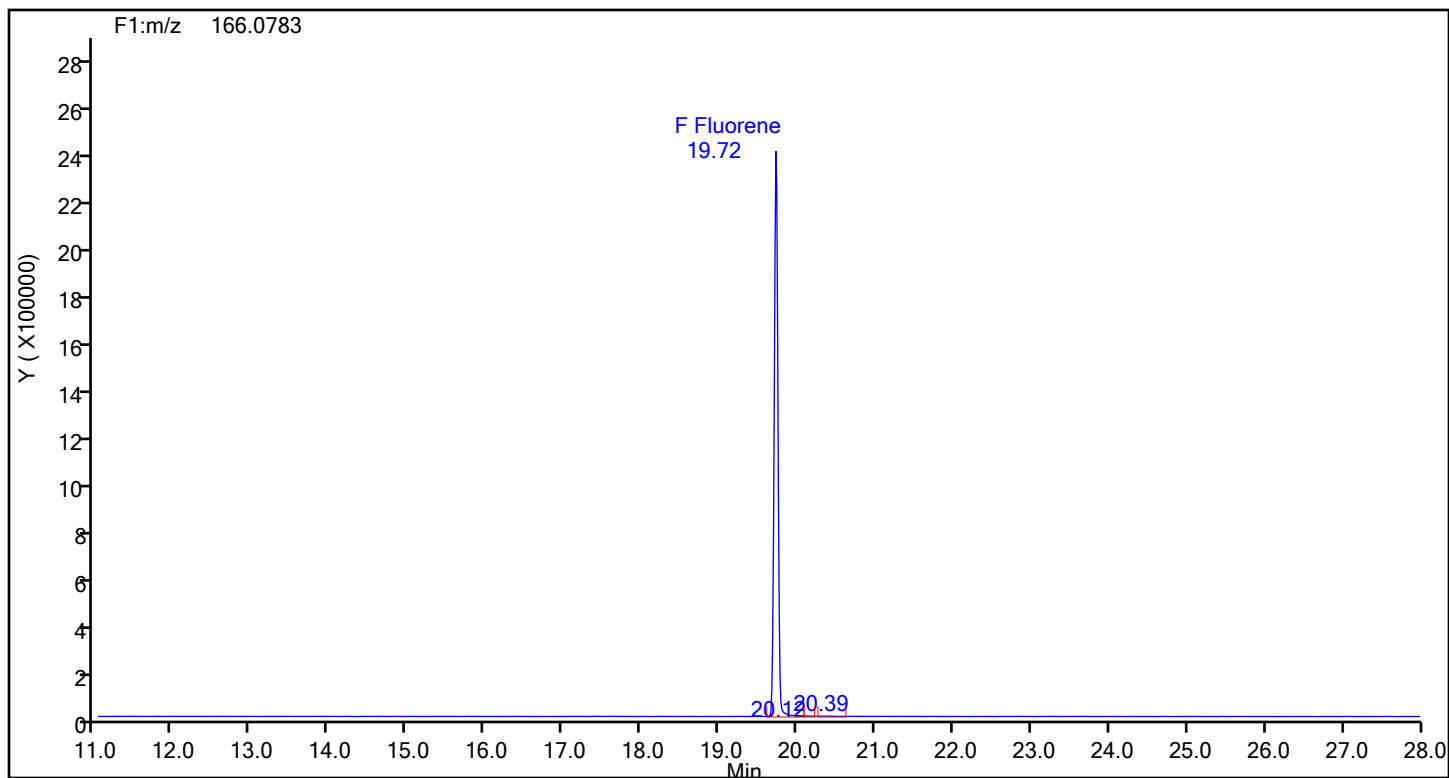
## Acenaphthene Standards



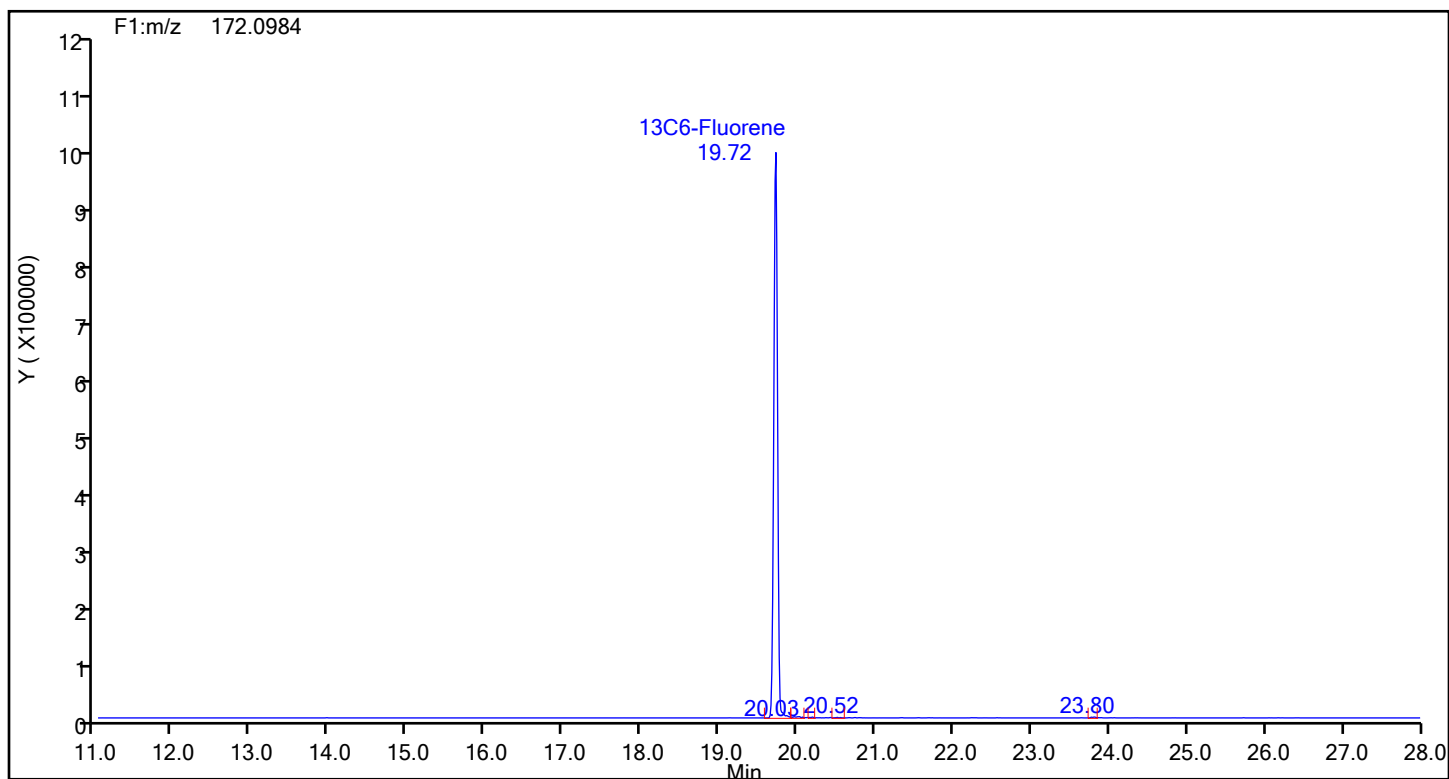
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene



## Fluorene Standards

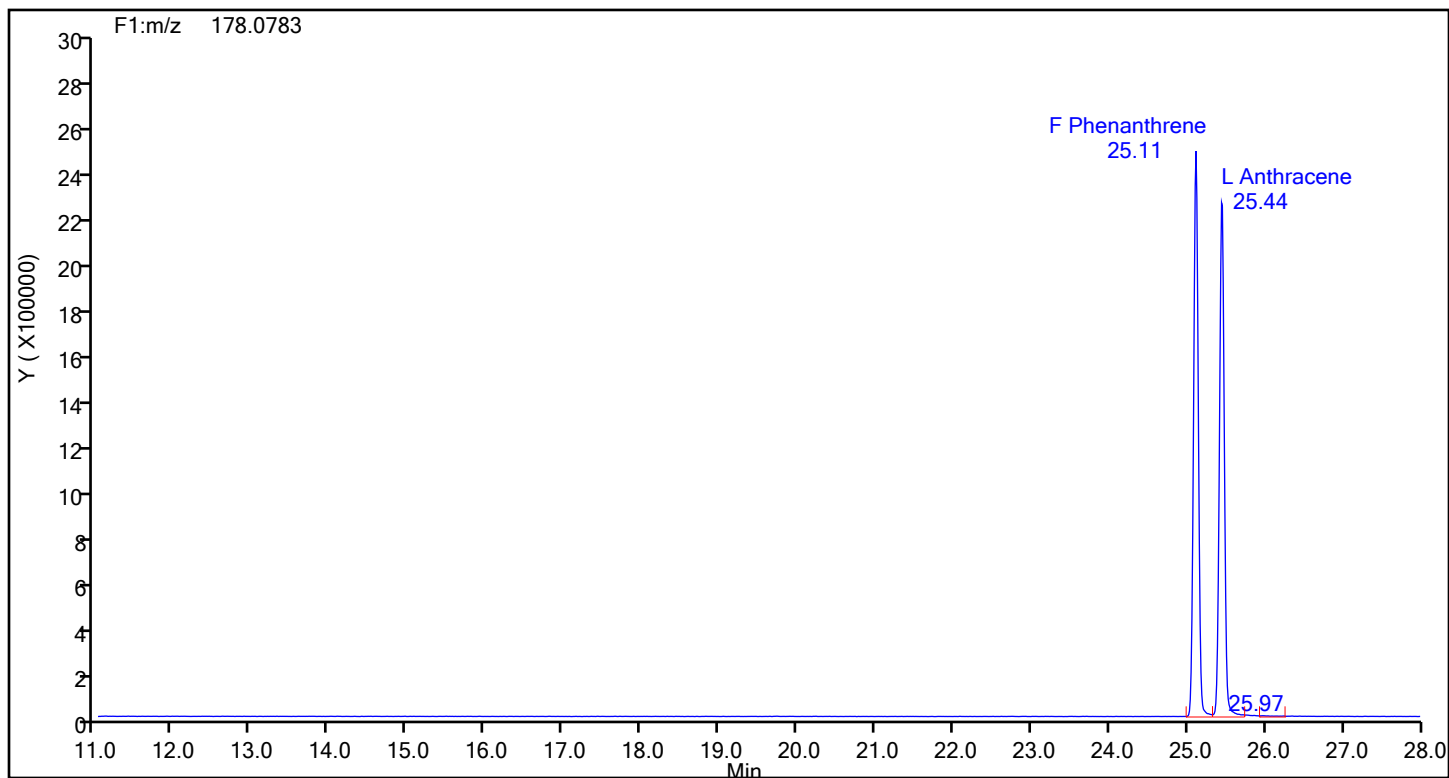




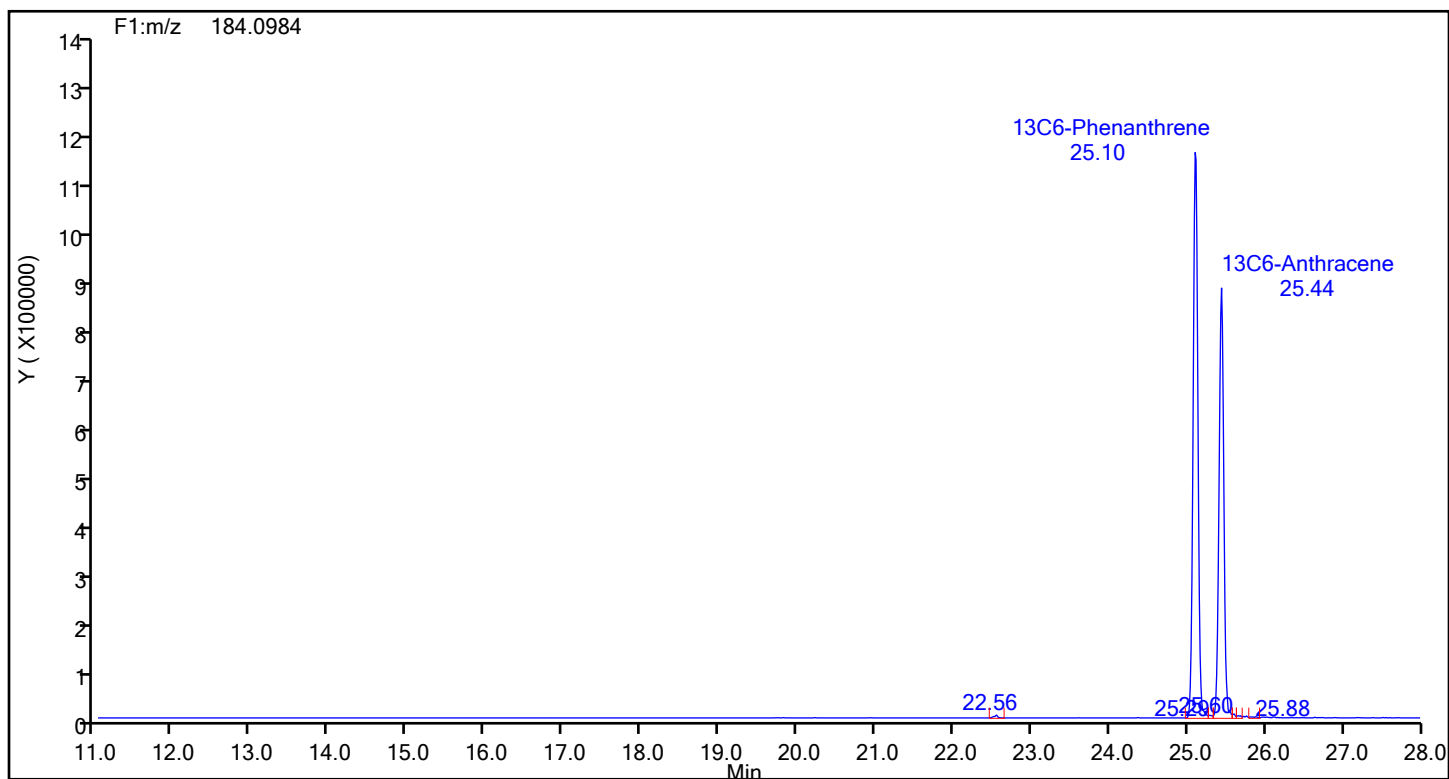
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## Phenanthrene

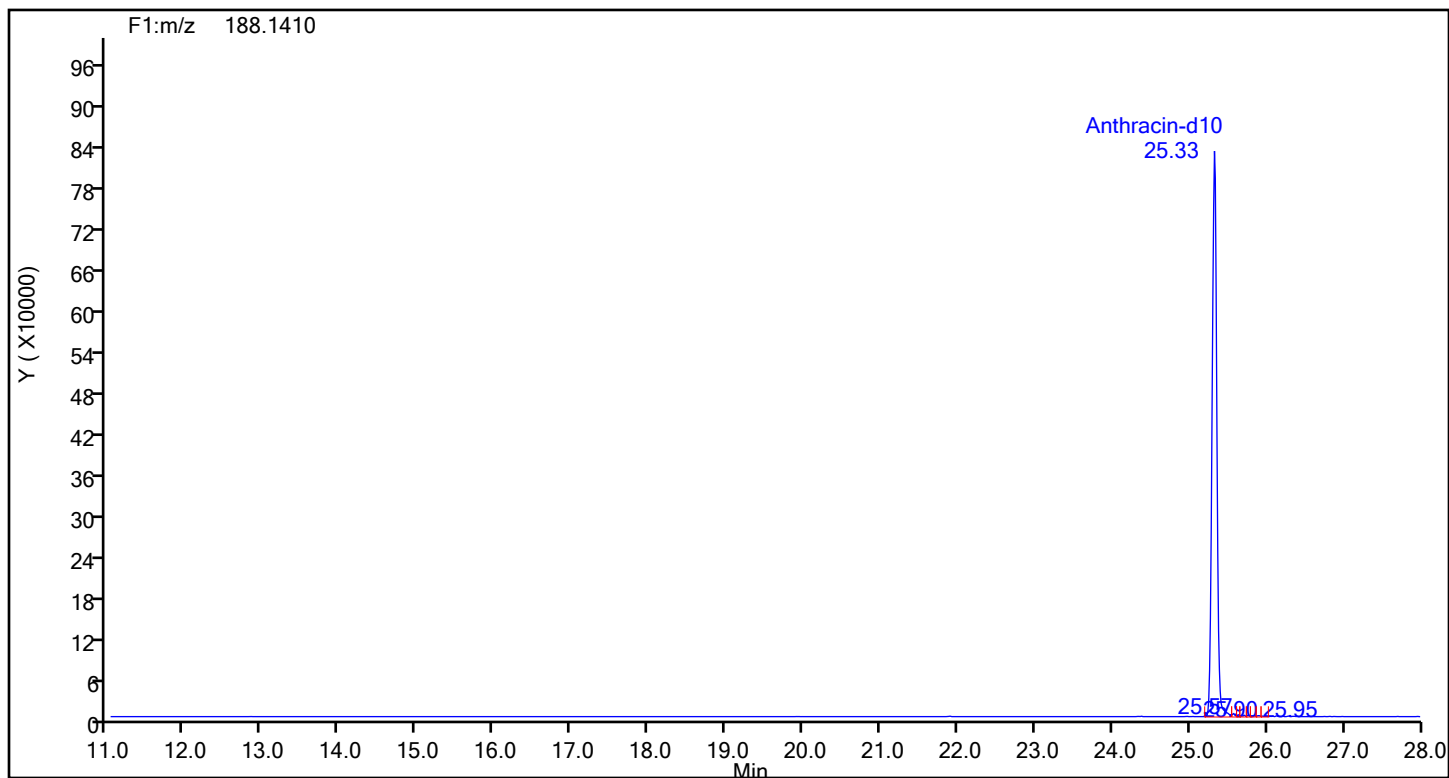


## Phenanthrene Standards

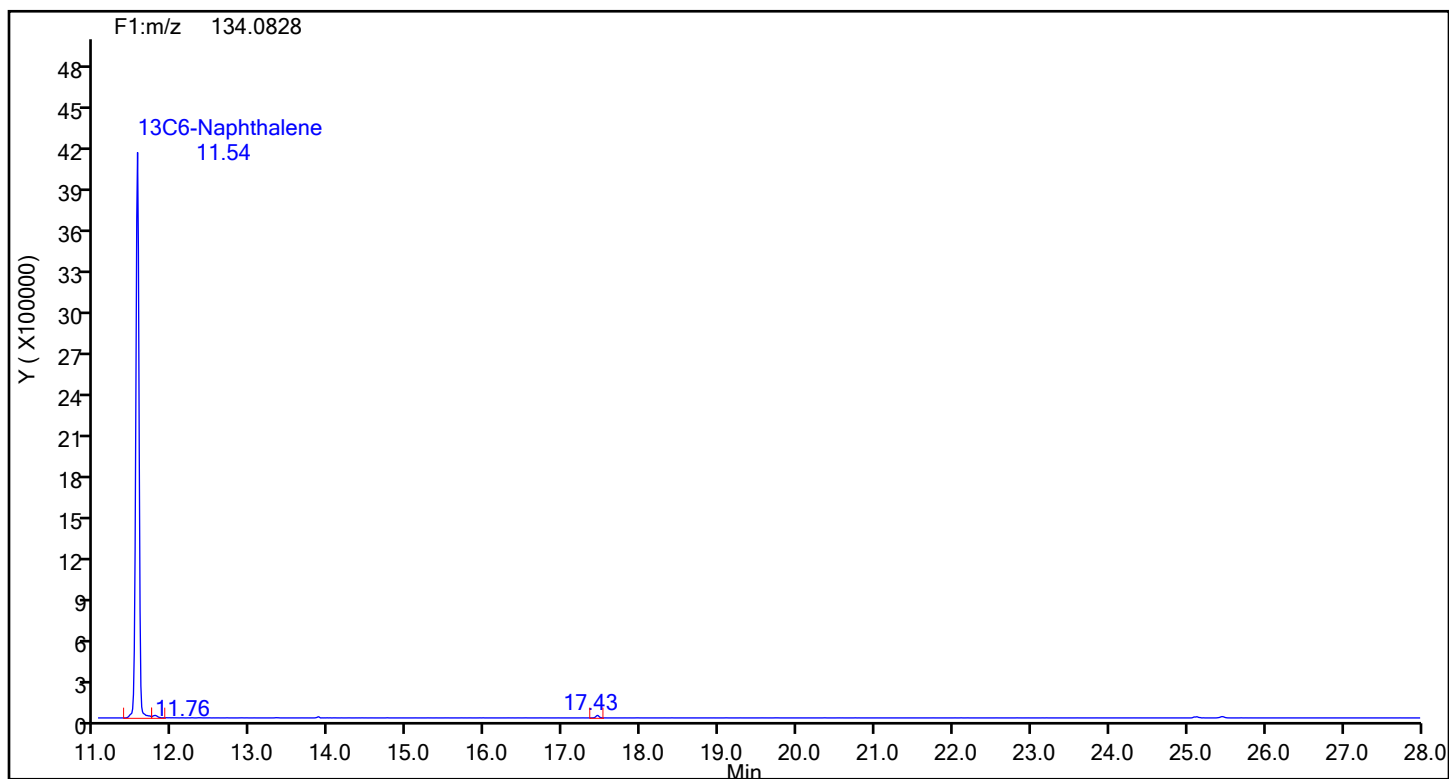


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Anthracin-d10

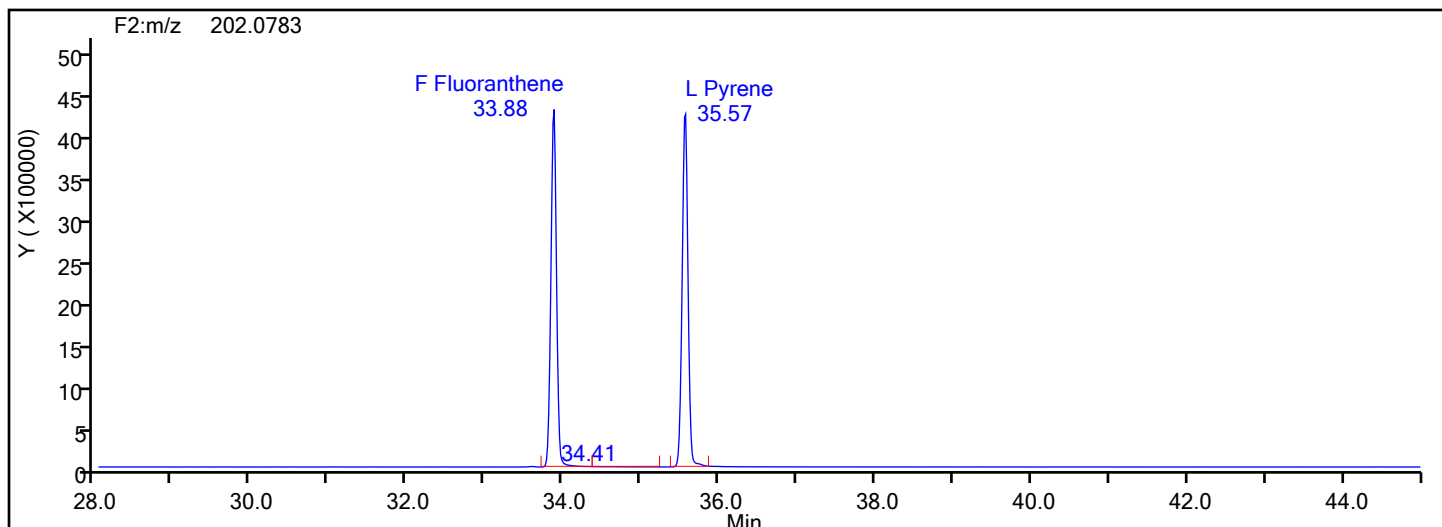


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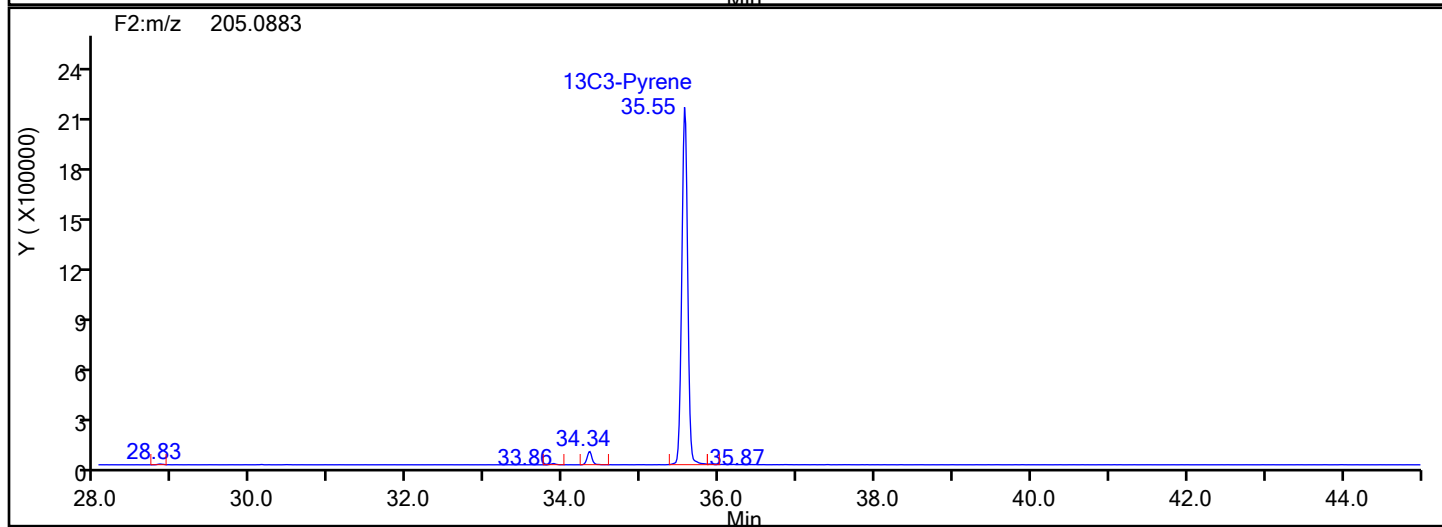
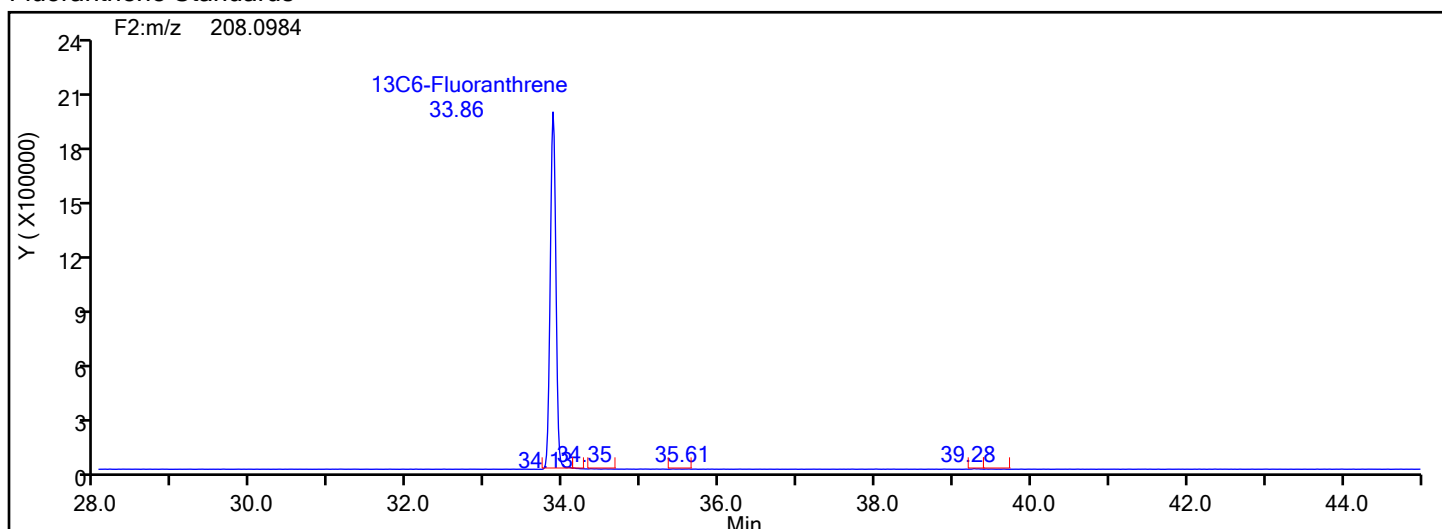


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Fluoranthene



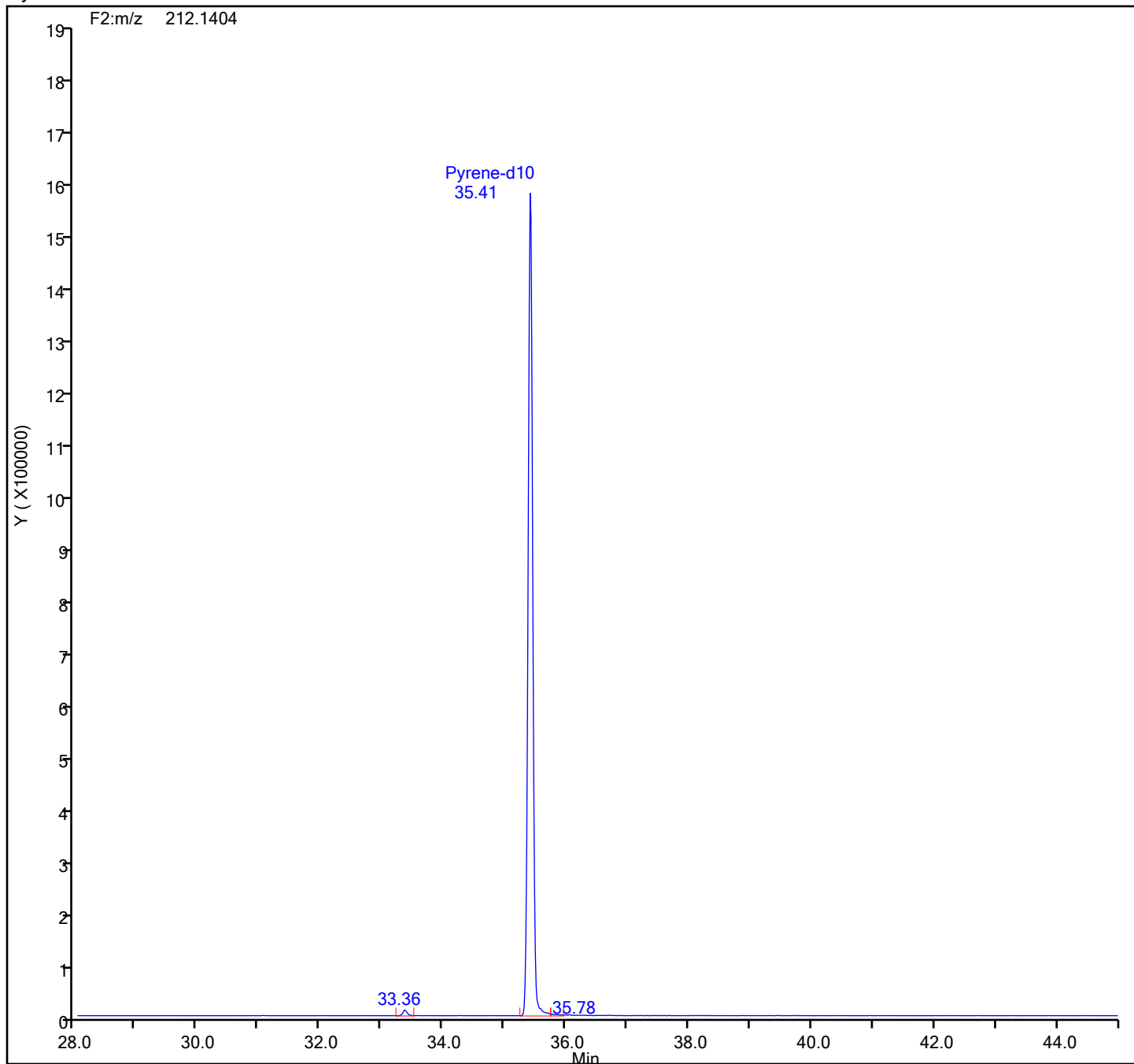
## Fluoranthene Standards



## Eurofins Knoxville

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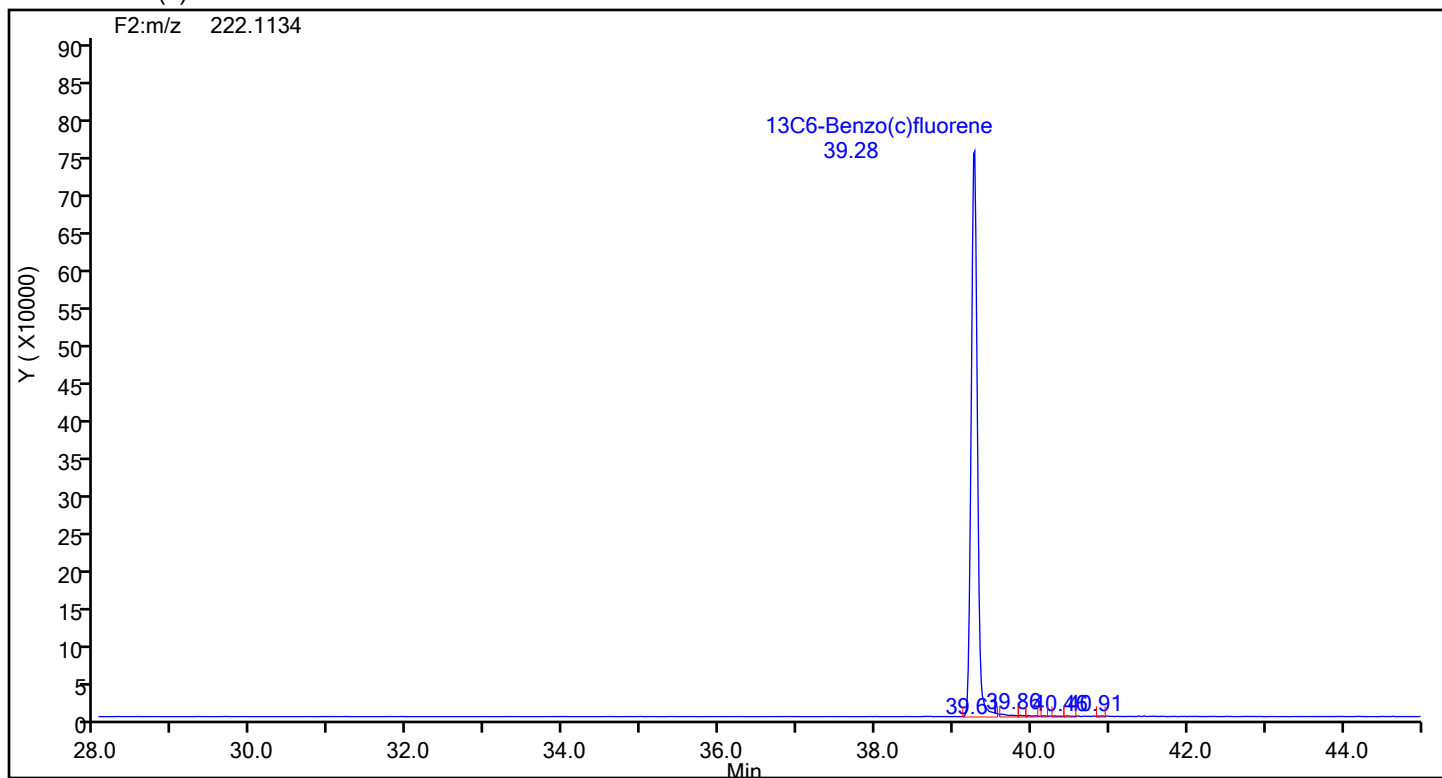
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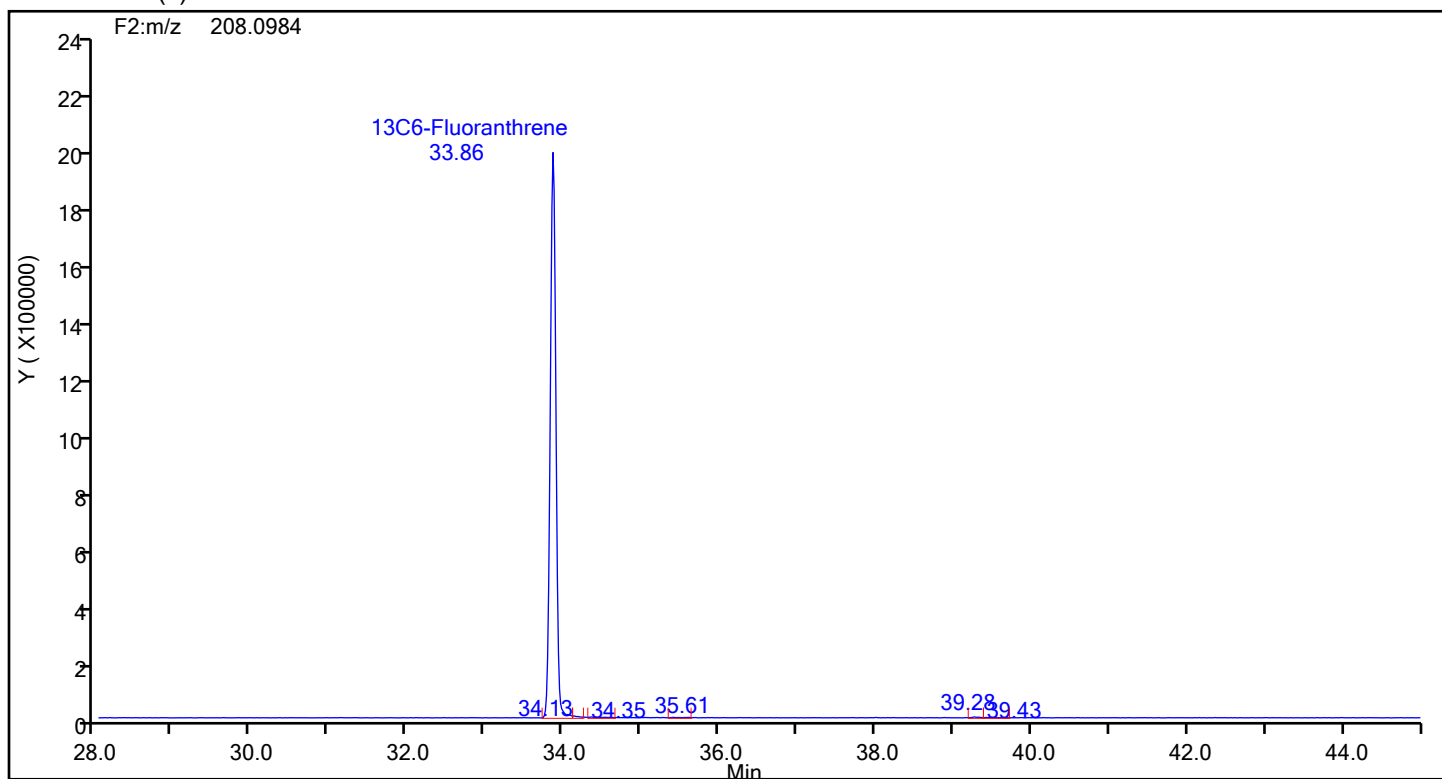
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C6-Benzo(c)fluorene



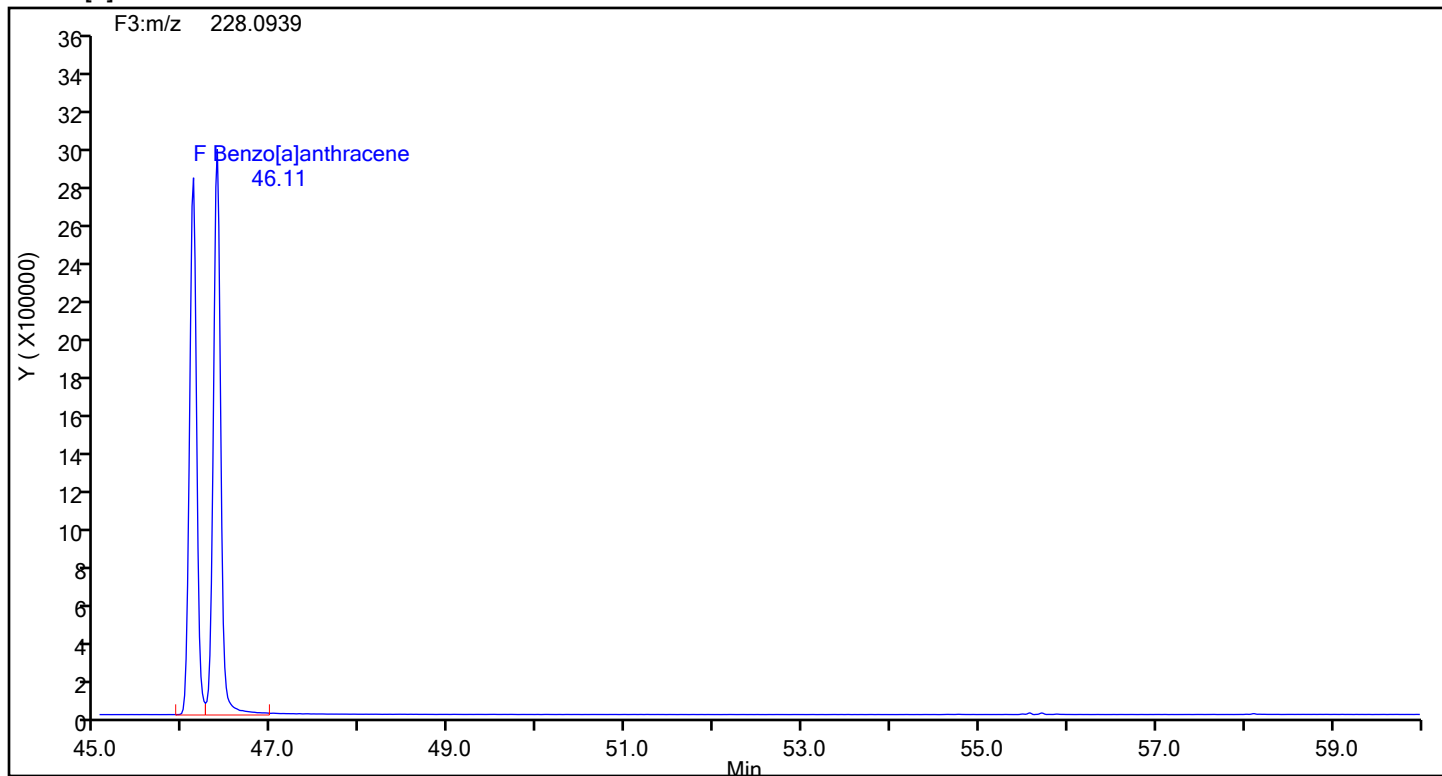
## 13C6-Benzo(c)fluorene Standards



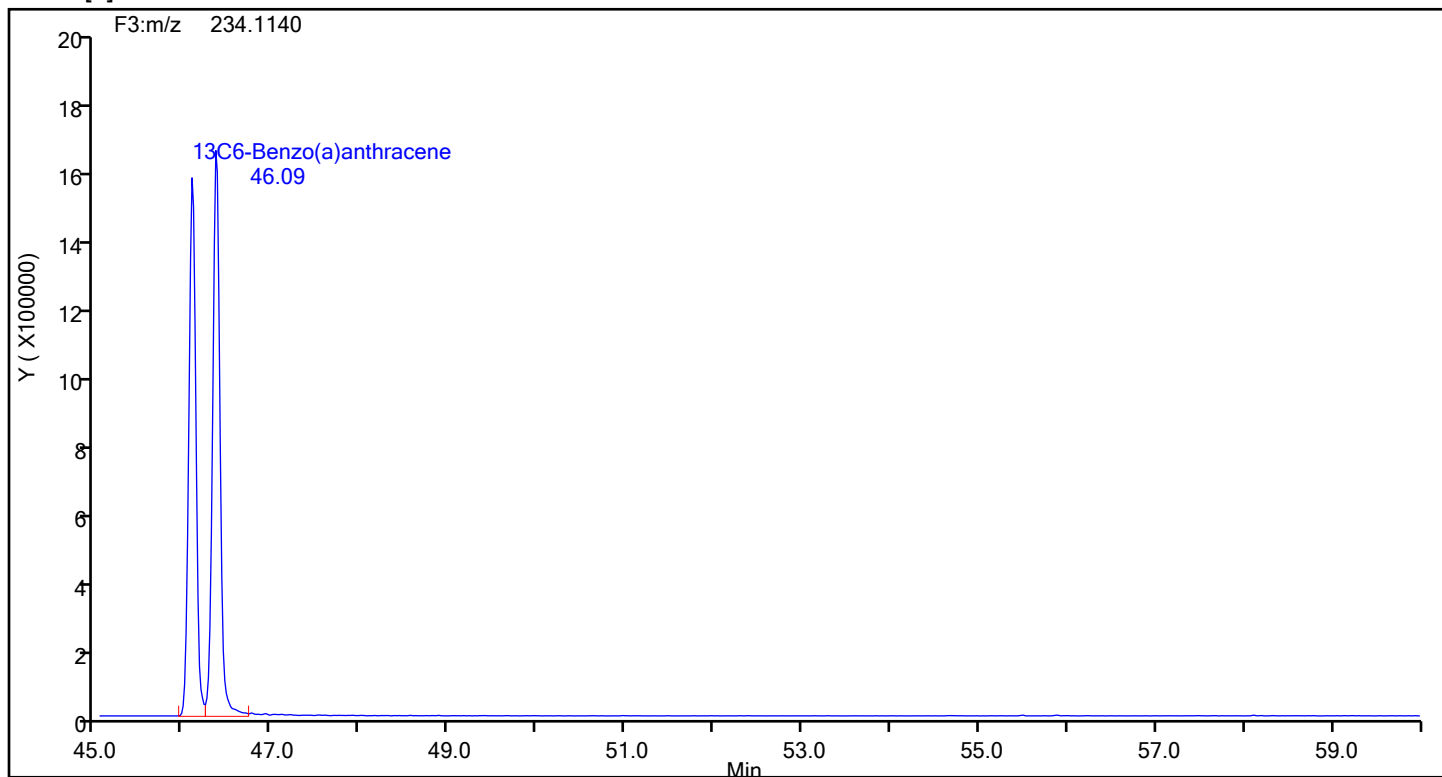
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Worklist#: 87843 Sample Line#: 7  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



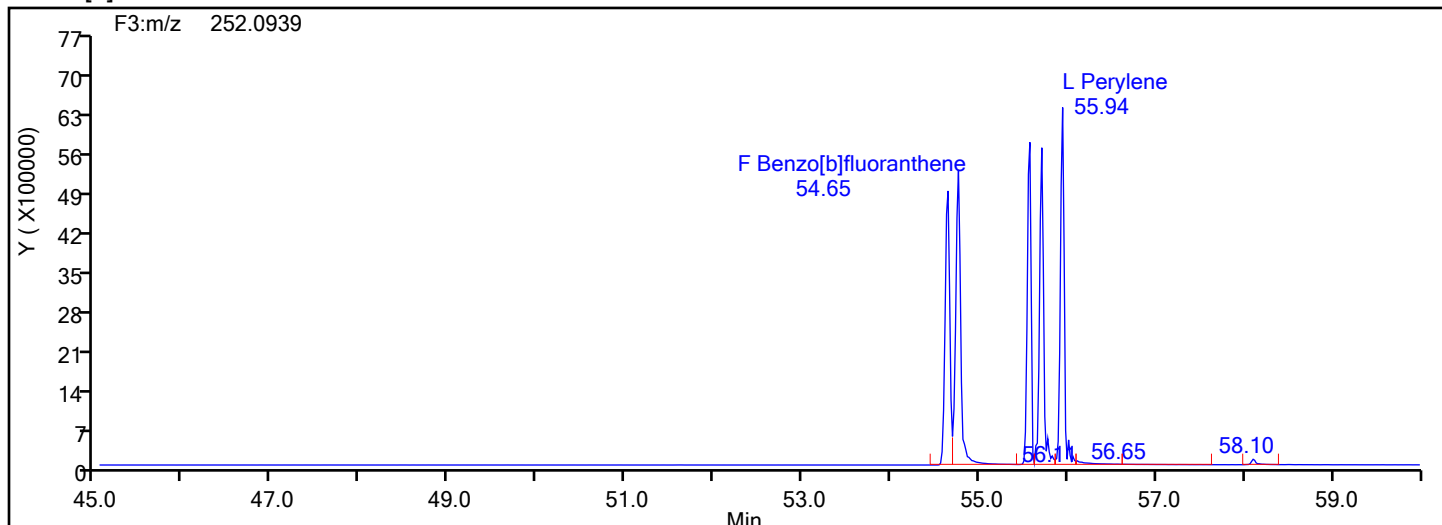
## Benzo[a]anthracene Standards



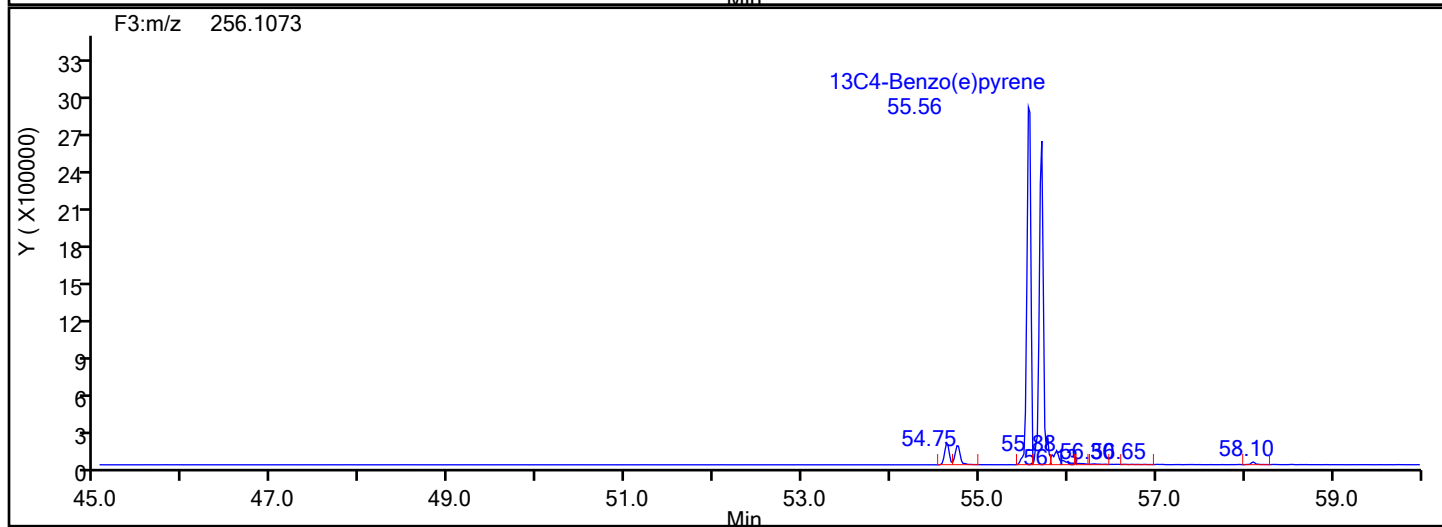
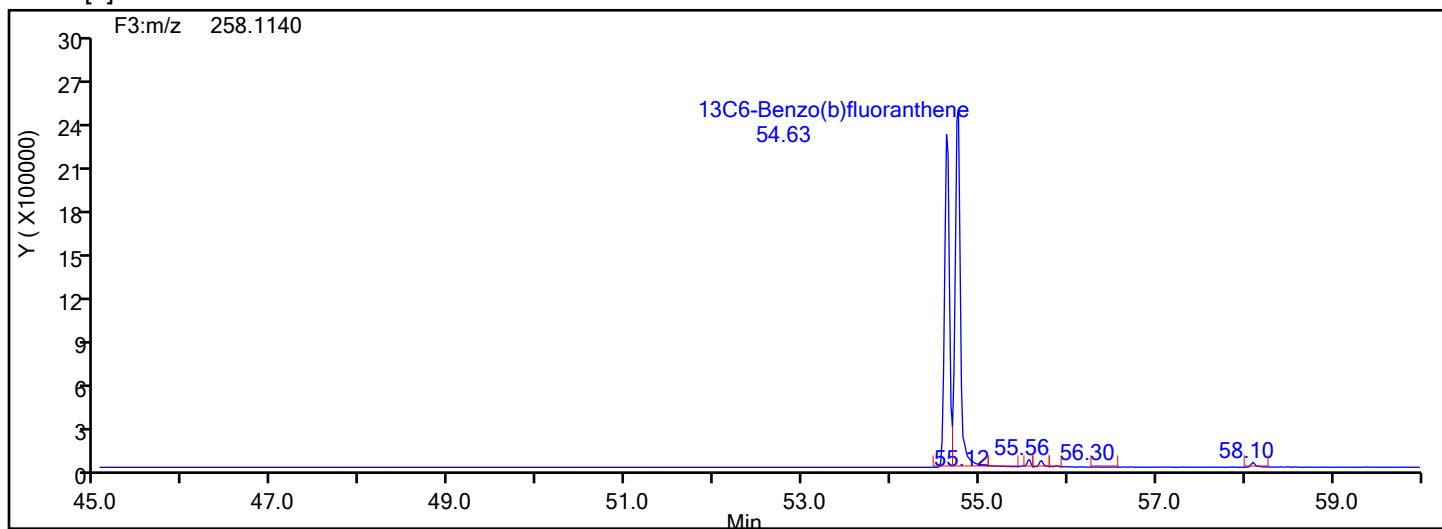
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
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Worklist#: 87843 Sample Line#: 7  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



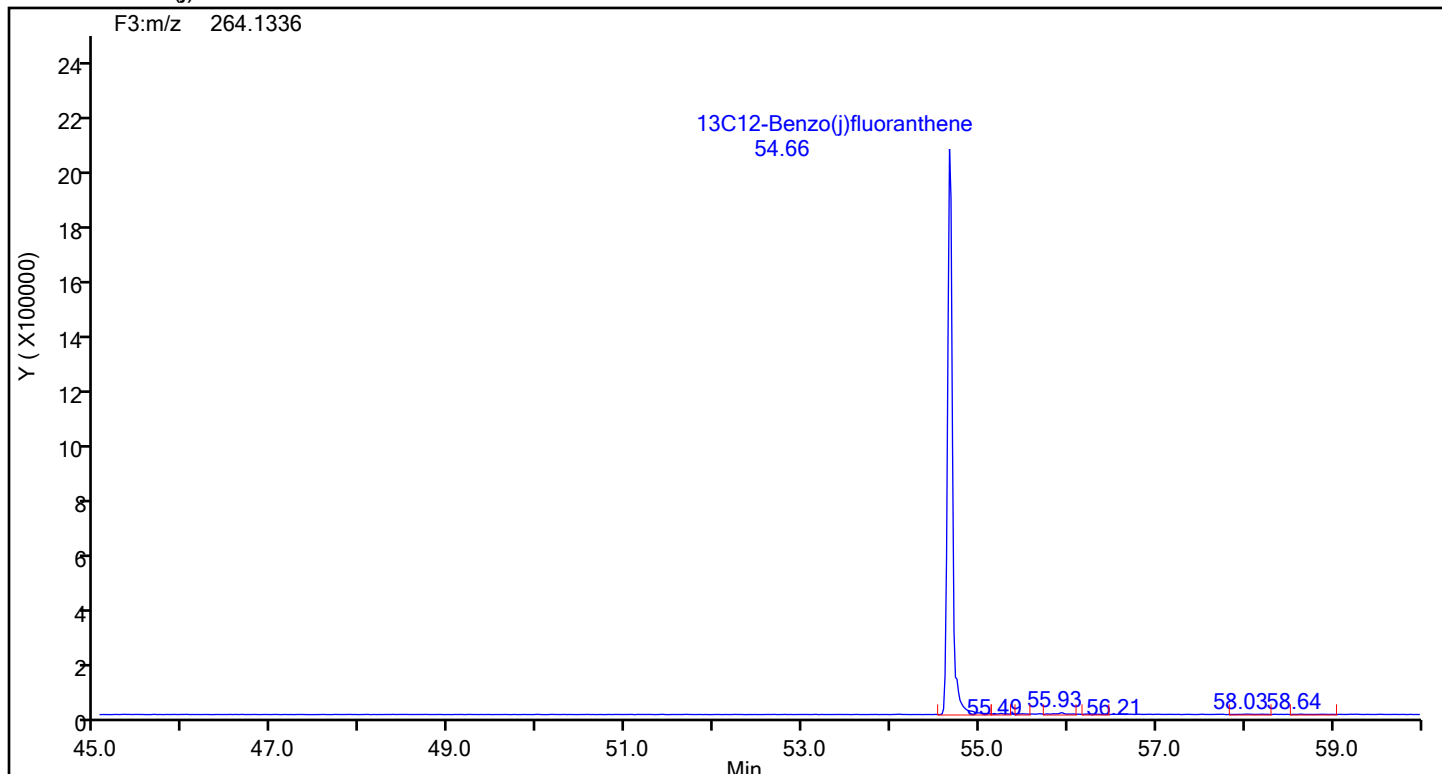
## Benzo[b]fluoranthene Standards



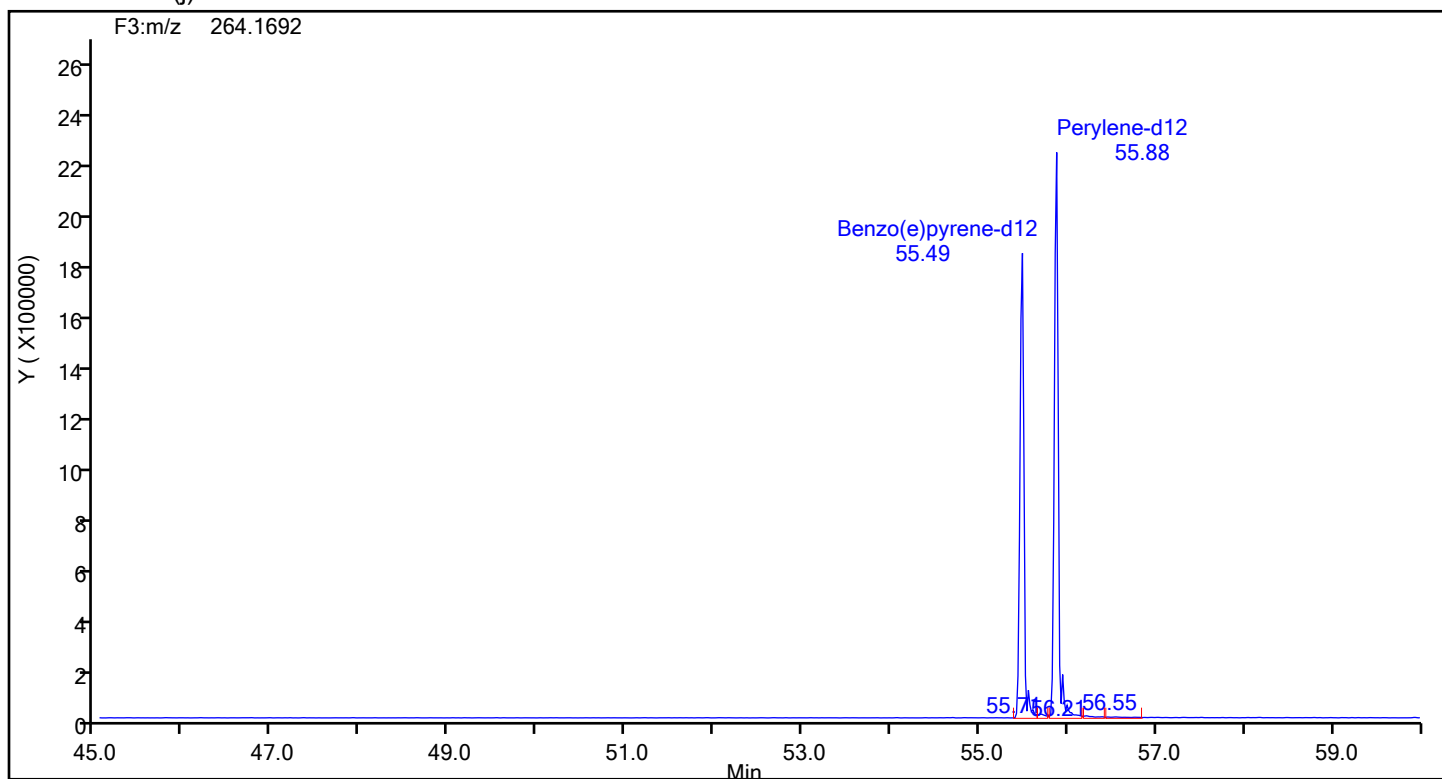
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## 13C12-Benzo(j)fluoranthene



## 13C12-Benzo(j)fluoranthene Standards

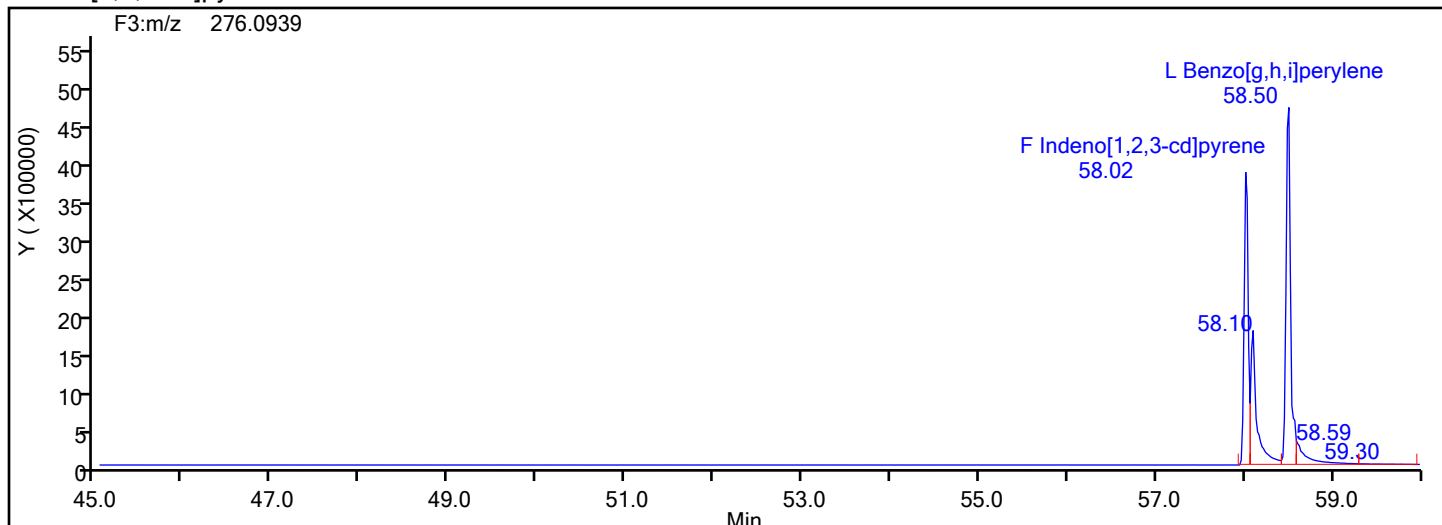




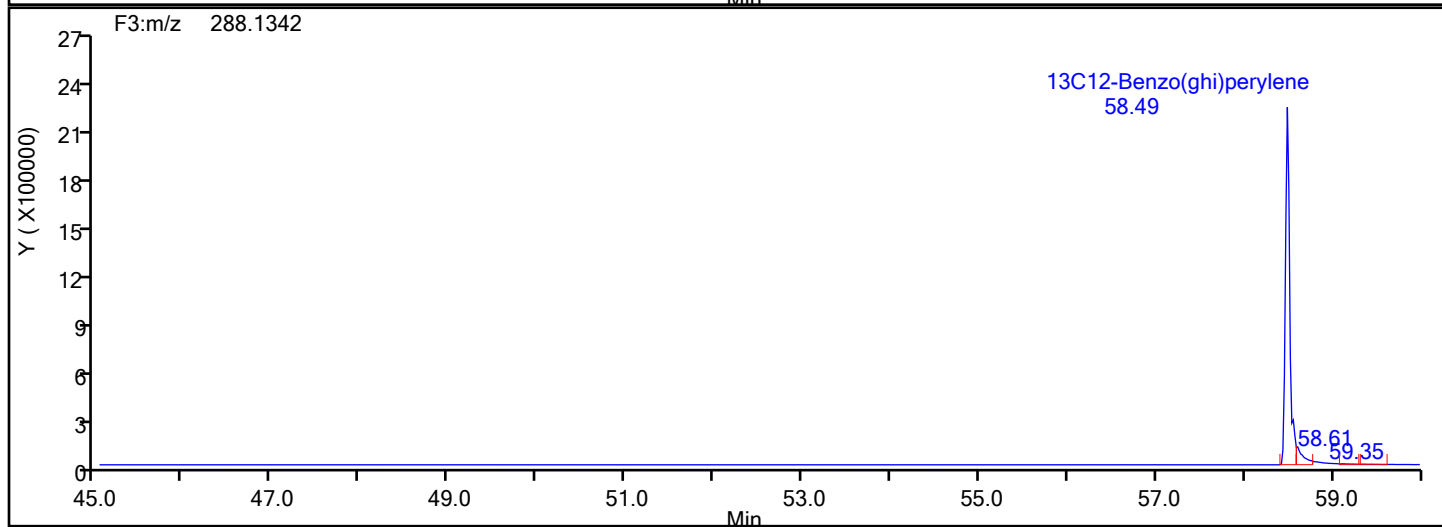
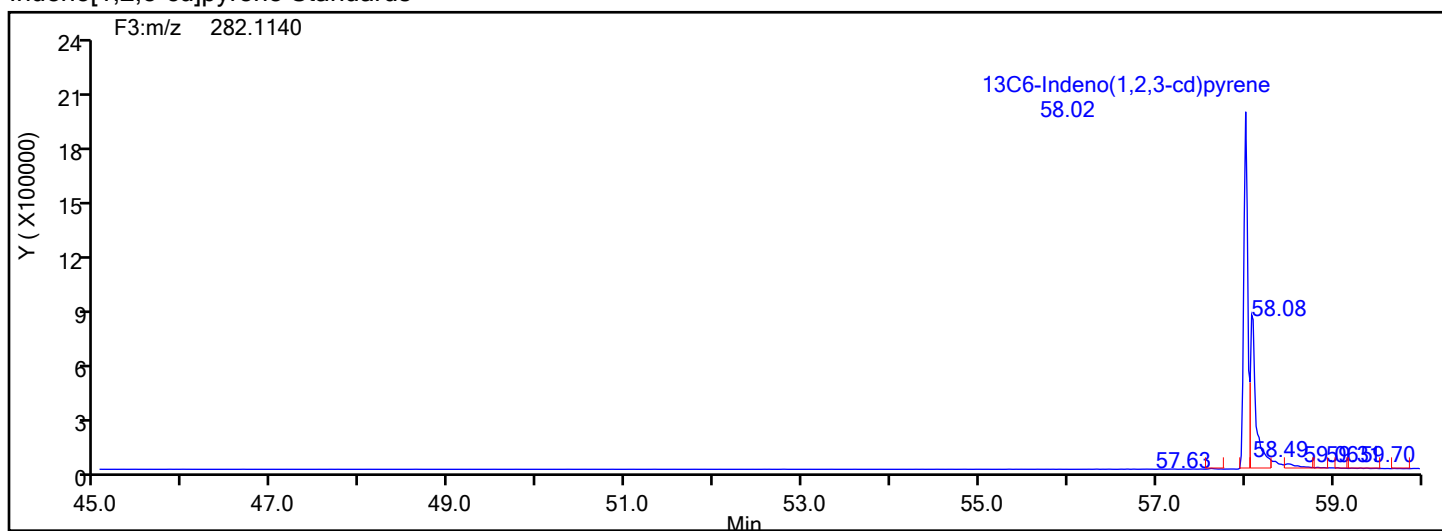
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 7  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Indeno[1,2,3-cd]pyrene



## Indeno[1,2,3-cd]pyrene Standards



## Eurofins Knoxville

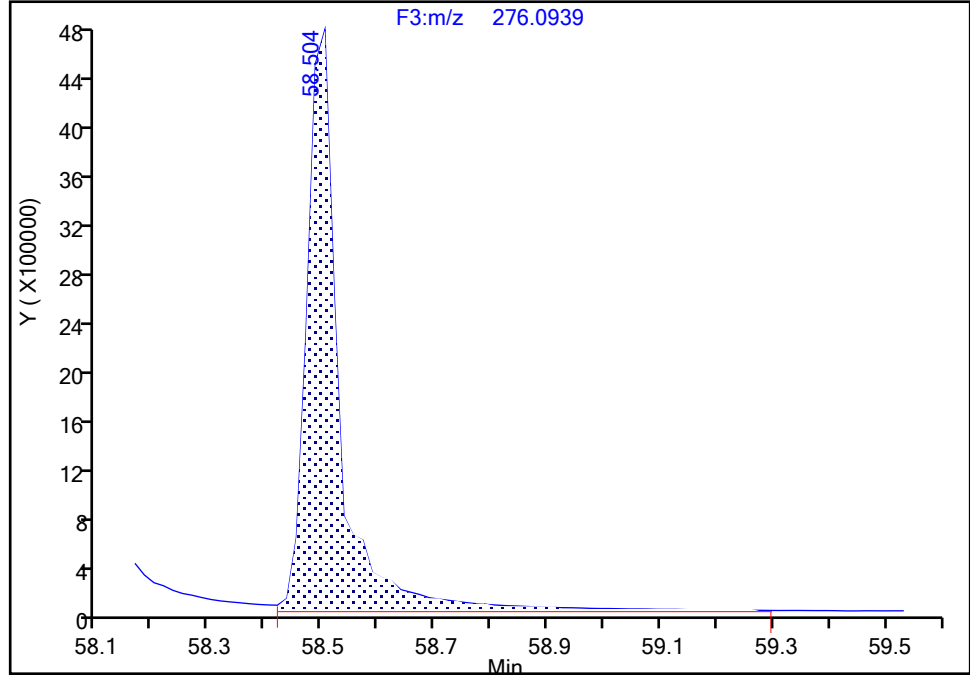
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Lims ID: IC L7  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 7  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

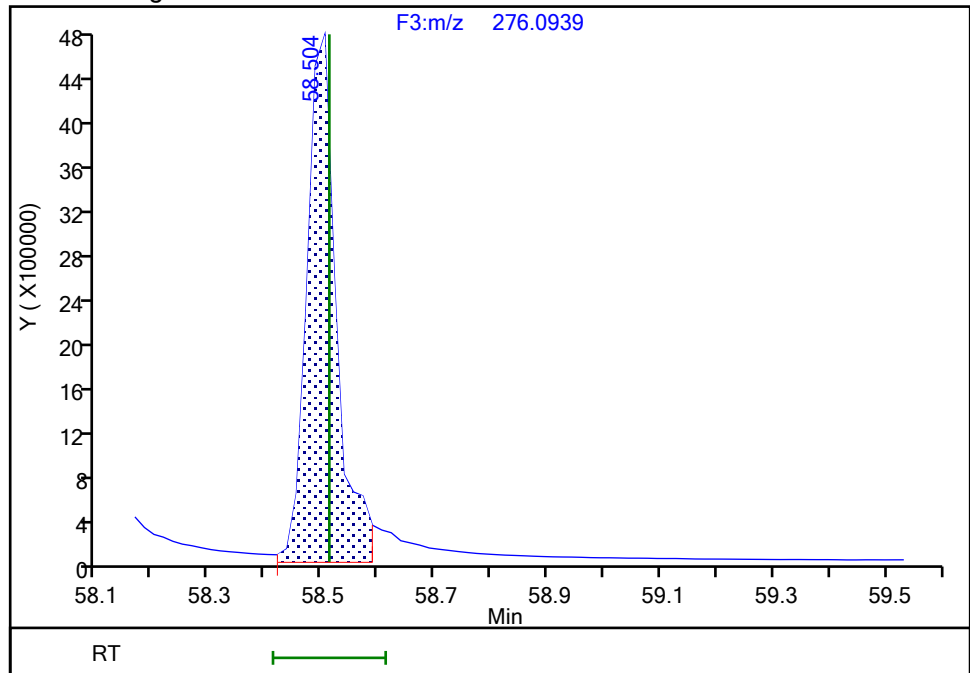
RT: 58.50  
Area: 19808797  
Amount: 202.6337  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.50  
Area: 17229589  
Amount: 177.7182  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:38:32 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

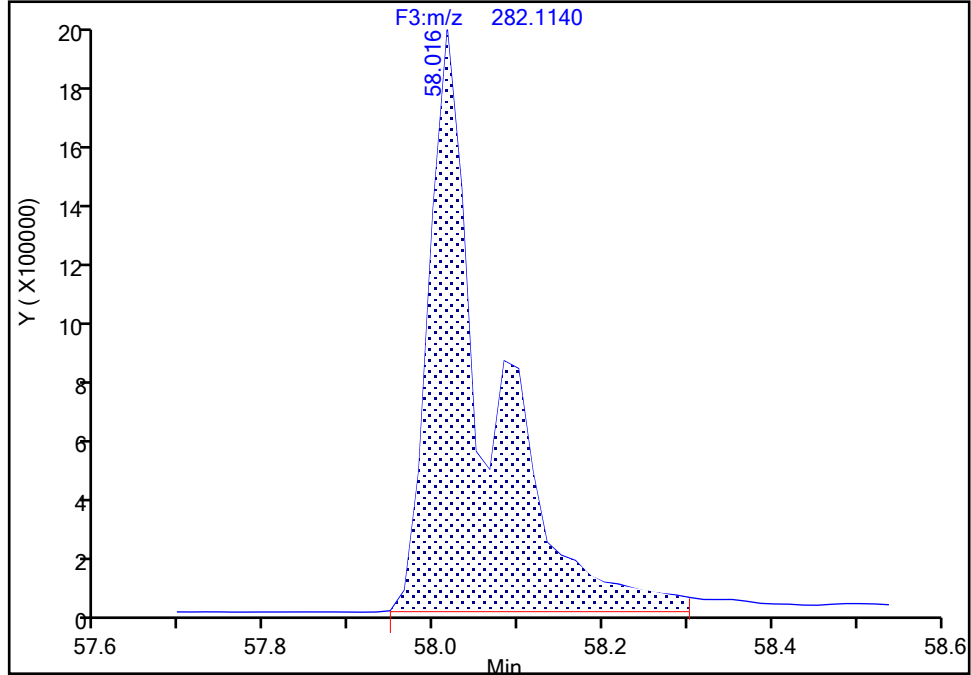
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\3240619ic7.d  
Injection Date: 19-Jun-2024 23:00:00 Instrument ID: D3PAH  
Lims ID: IC L7  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 7  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C6-Indeno(1,2,3-cd)pyrene, CAS: 362044-56-2**

Signal: 1

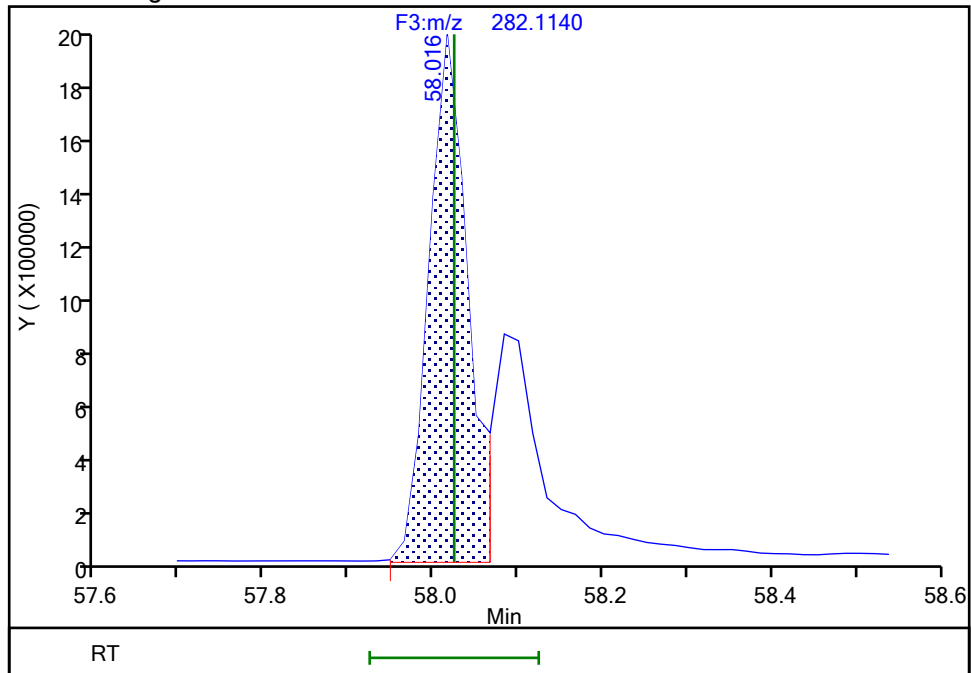
RT: 58.02  
Area: 9726157  
Amount: 154.3529  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.02  
Area: 6349503  
Amount: 107.1454  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:37:58 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

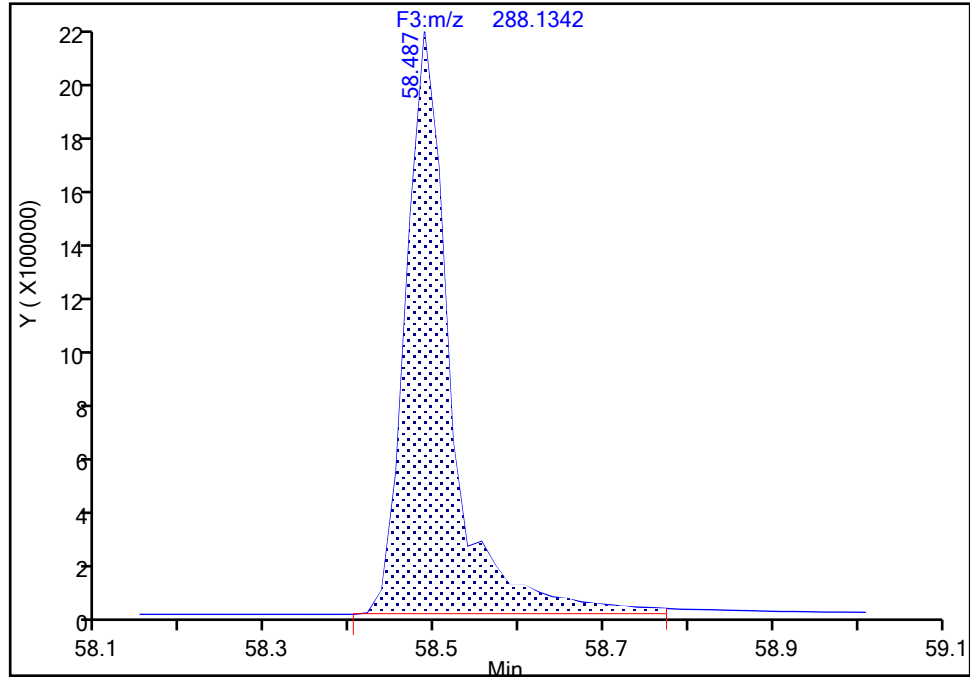
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\ld3240619ic7.d  
Injection Date: 19-Jun-2024 23:00:00 Instrument ID: D3PAH  
Lims ID: IC L7  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 7  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C12-Benzo(ghi)perylene, CAS: 350820-11-0**

Signal: 1

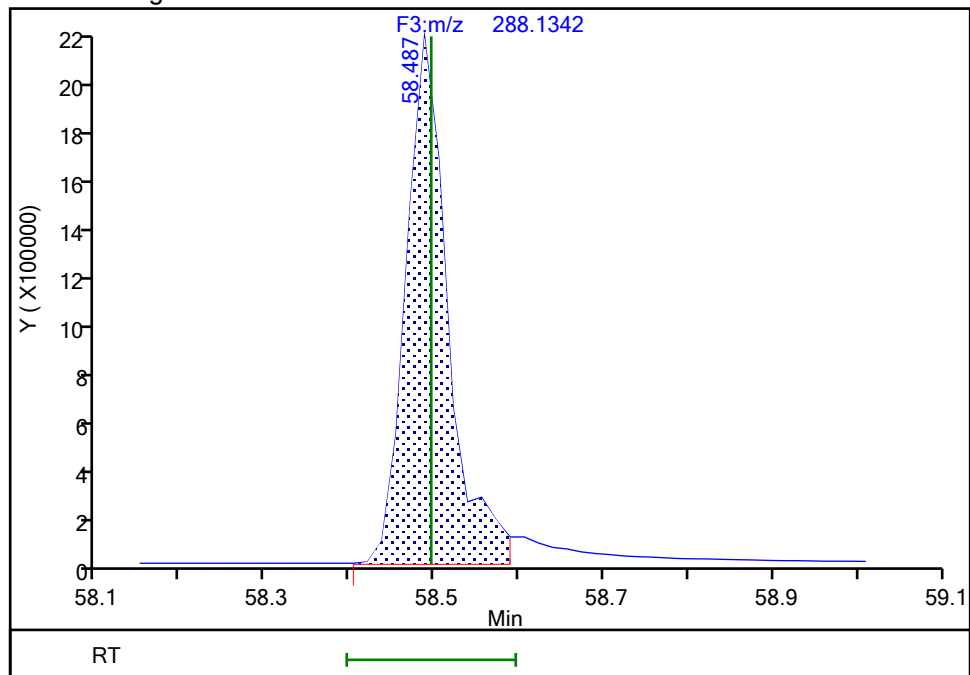
RT: 58.49  
Area: 8100389  
Amount: 107.2367  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.49  
Area: 7551974  
Amount: 102.1435  
Amount Units: pg/ul

## Manual Integration Results



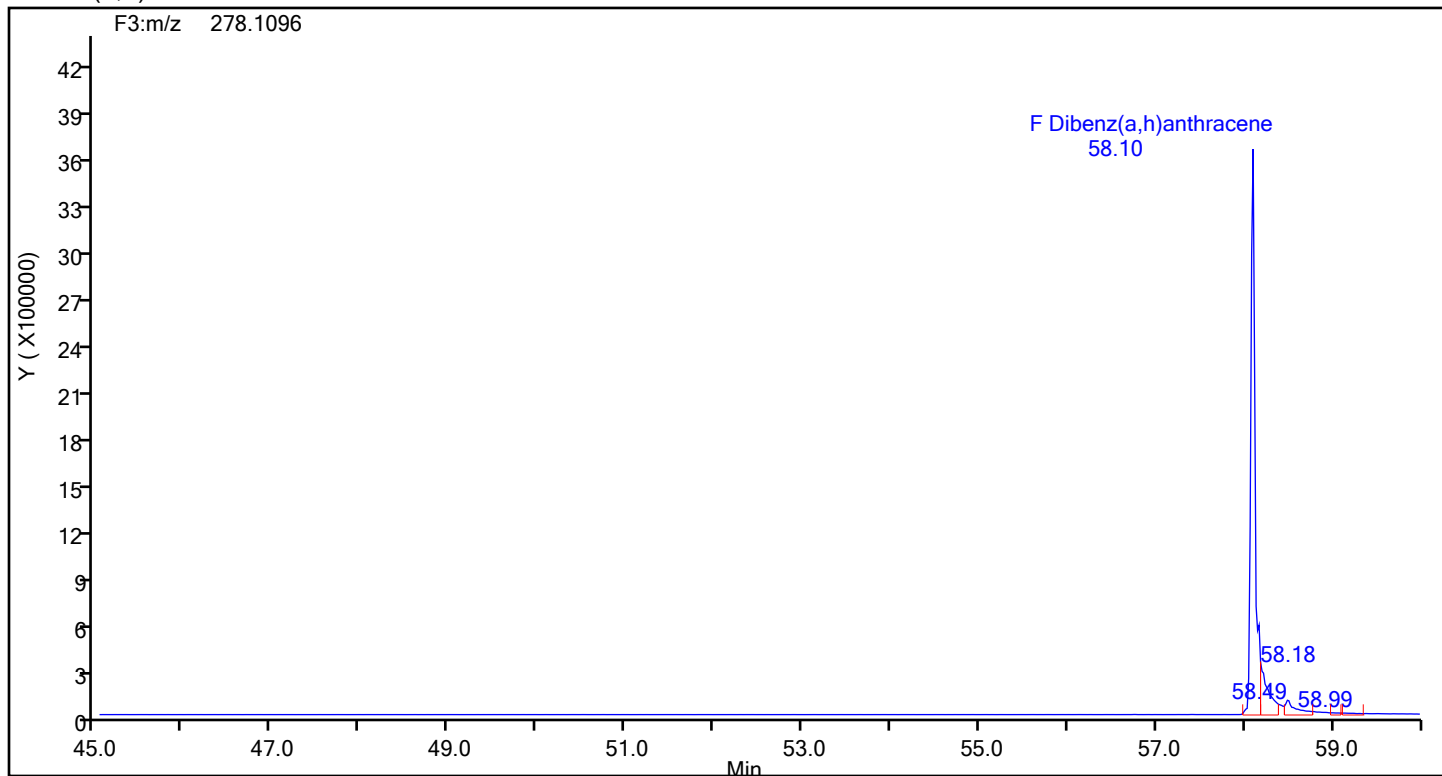
Reviewer: F9EE, 20-Jun-2024 09:38:27 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

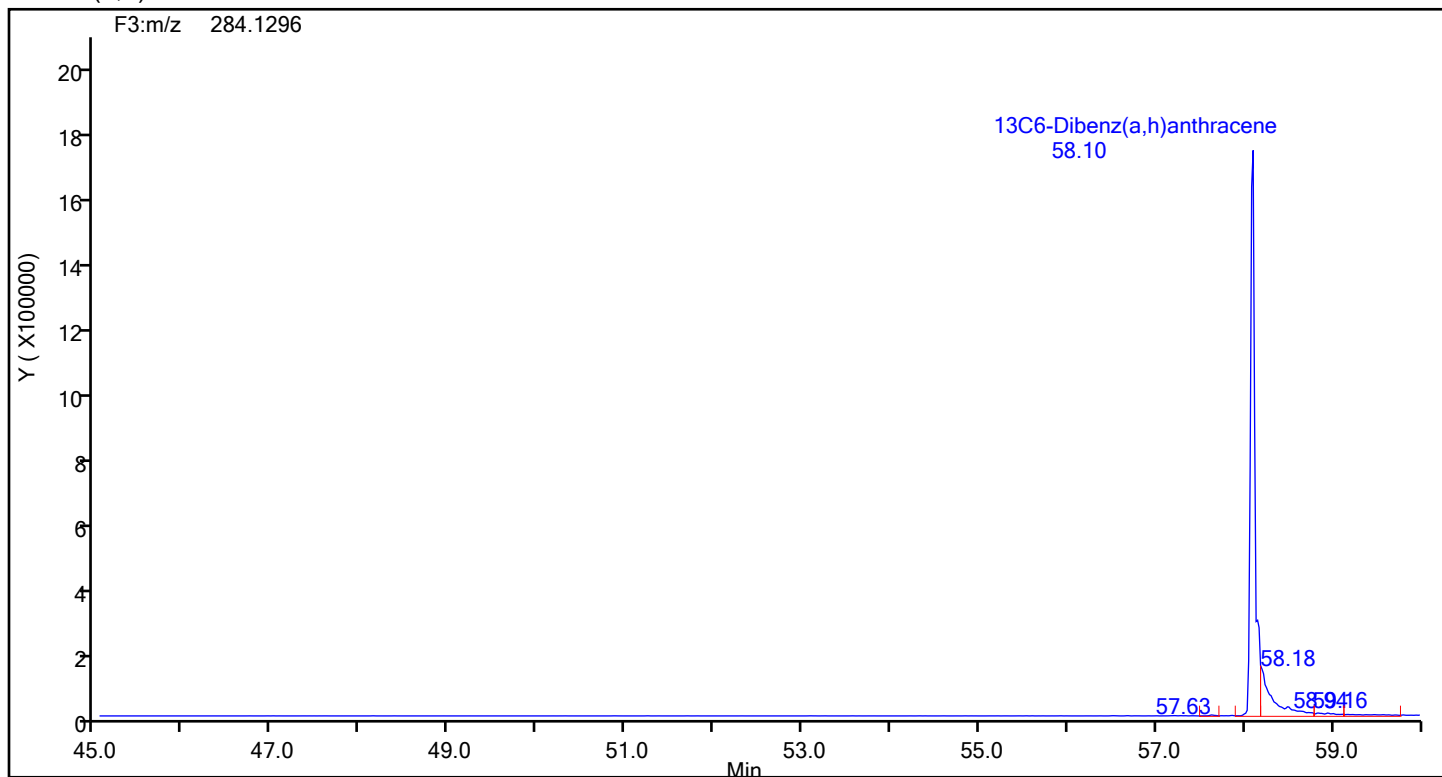
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic7.d  
Injection Date: 19-Jun-2024 23:00:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 7  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Dibenz(a,h)anthracene



## Dibenzo(a,h)anthracene Standards



## Eurofins Knoxville

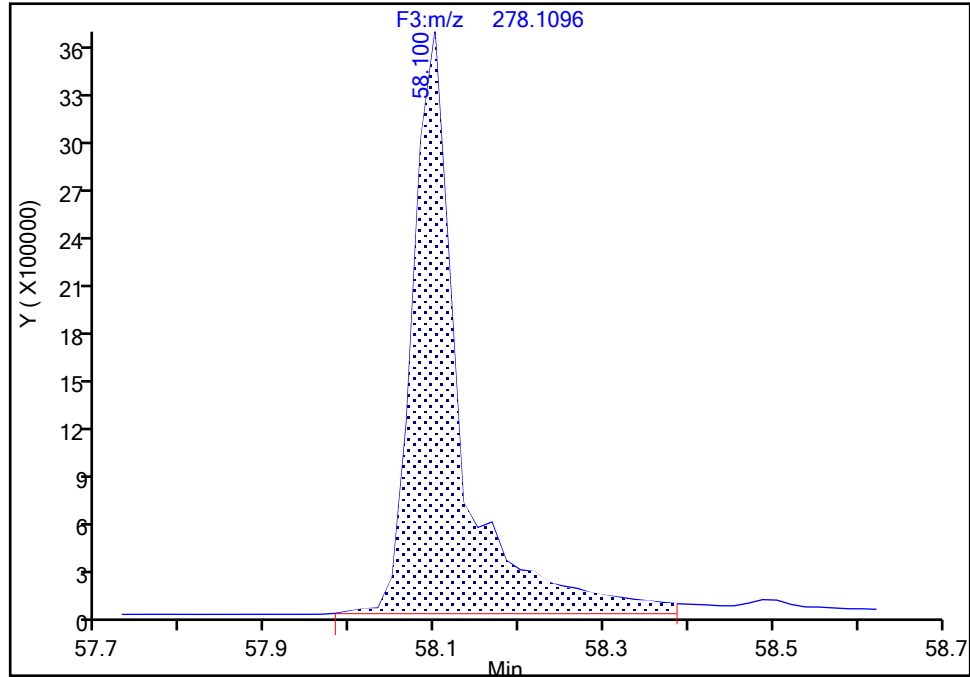
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic7.d  
Injection Date: 19-Jun-2024 23:00:00 Instrument ID: D3PAH  
Lims ID: IC L7  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 7  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**Dibenz(a,h)anthracene, CAS: 53-70-3**

Signal: 1

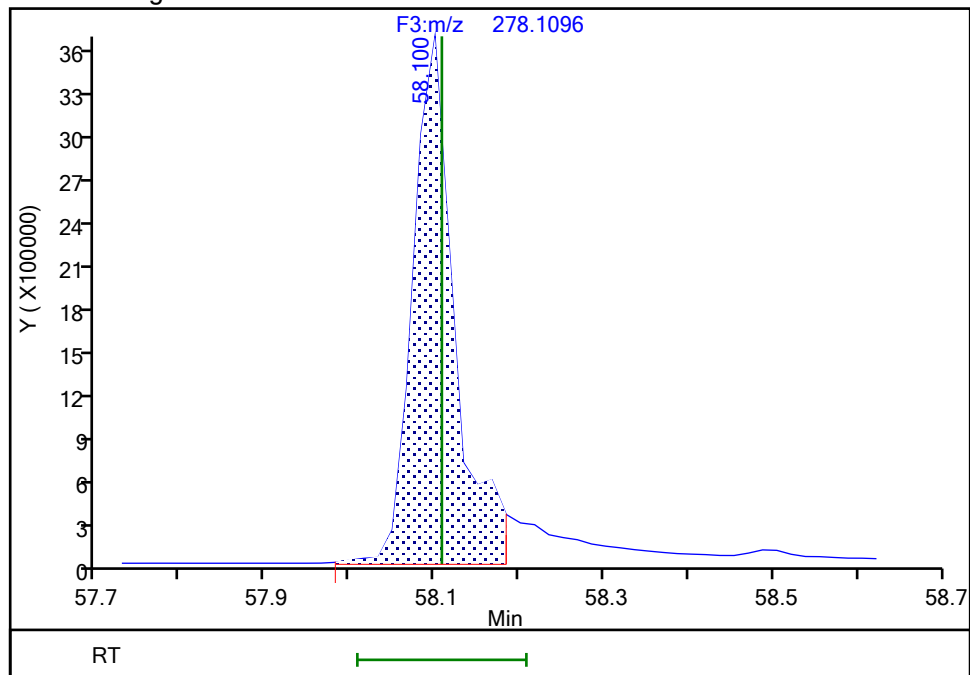
RT: 58.10  
Area: 14258856  
Amount: 204.9671  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.10  
Area: 12538607  
Amount: 181.3847  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:38:20 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

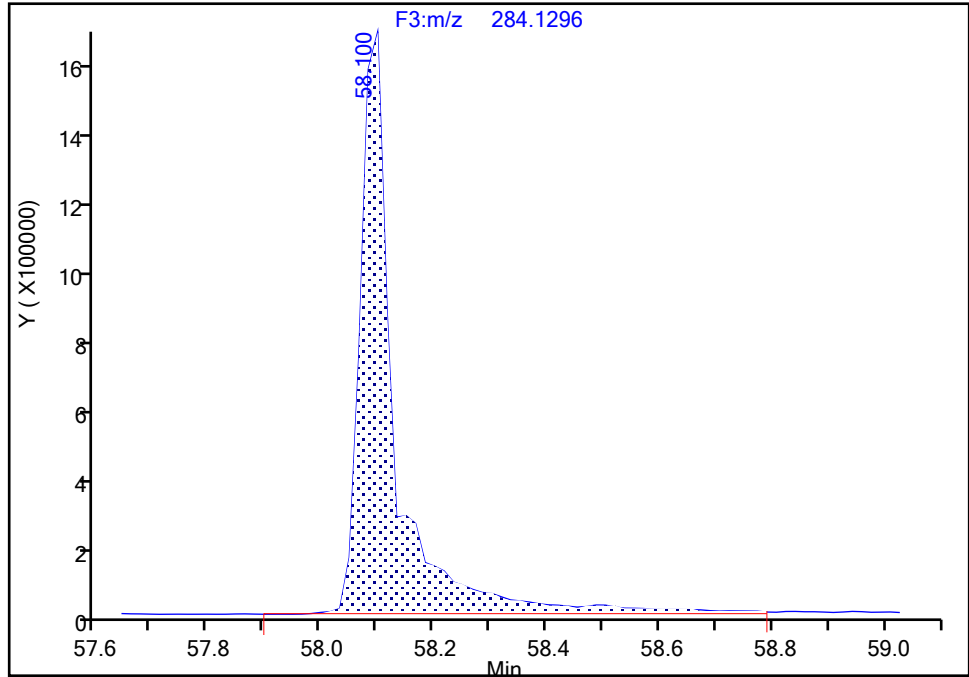
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\3240619ic7.d  
Injection Date: 19-Jun-2024 23:00:00 Instrument ID: D3PAH  
Lims ID: IC L7  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 7  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C6-Dibenz(a,h)anthracene, CAS: STL03360**

Signal: 1

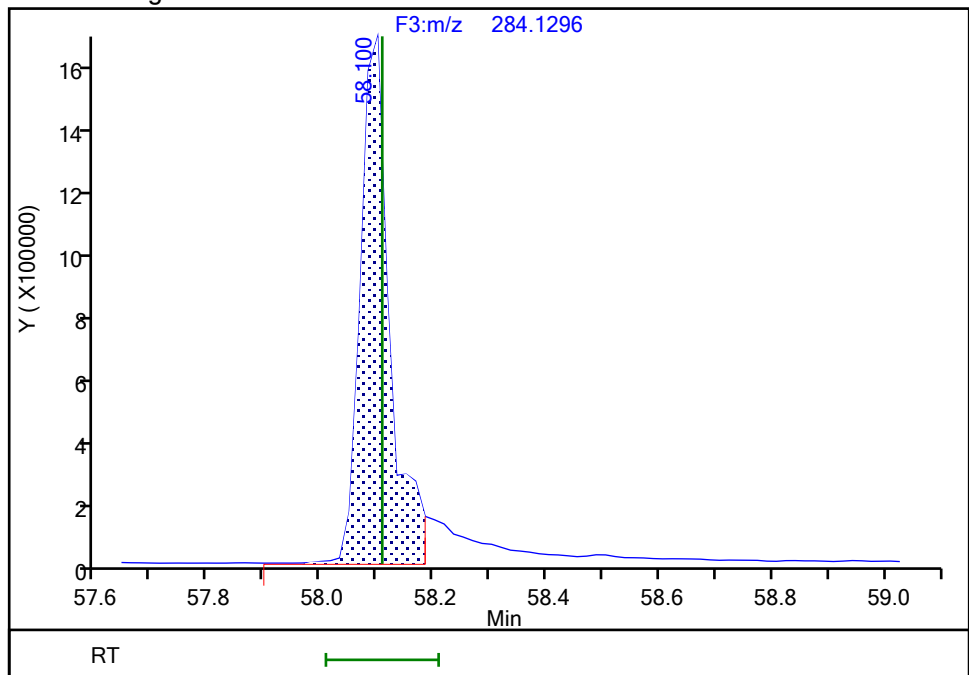
RT: 58.10  
Area: 7350678  
Amount: 113.6700  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.10  
Area: 6110020  
Amount: 99.838282  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:38:14 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic8.d  
Lims ID: IC L8  
Client ID:  
Sample Type: IC Calib Level: 8  
Inject. Date: 20-Jun-2024 00:04:00 ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033168-008  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAL ICAL  
Last Update: 20-Jun-2024 09:51:58 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1686

First Level Reviewer: F9EE

Date: 20-Jun-2024 09:39:08

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:33	13369772		3.3746	100.6	100.6	0.005893	0.005893	101	
Naphthalene	11:33	66534766		1.2893	386.0	386.0	0.0323	0.0323	96.50	
D 13C6-2-Methylnaphthalene	13:51	6439882		1.6031	102.0	102.0	0.000322	0.000322	102	
2-Methylnaphthalene	13:52	31544481		1.2786	383.1	383.1	0.0162	0.0162	95.78	
D 13C6-Acenaphthylene	16:45	6765535		1.6520	104.0	104.0	0.000535	0.000535	104	
Acenaphthylene	16:45	37234784		2.3661	389.6	389.6	0.0219	0.0219	97.40	
* Acenaphthene-d10	17:19	3938389		3.5E+04	100.0	100.0				
D 13C6-Acenaphthene	17:26	4039150		0.9792	104.7	104.7	0.001504	0.001504	105	
Acenaphthene	17:26	19367968		1.2697	377.7	377.7	0.0244	0.0244	94.42	
D 13C6-Fluorene	19:44	3801144		0.8898	108.5	108.5	0.000579	0.000579	108	
Fluorene	19:44	18232964		1.2532	382.8	382.8	0.0243	0.0243	95.69	
D 13C6-Phenanthrene	25:07	5572957		0.5724	104.4	104.4	0.004506	0.004506	104	
Phenanthrene	25:07	23294554		1.1044	378.5	378.5	0.0285	0.0285	94.62	
\$ Anthracin-d10	25:20	4116582		0.4257	103.7	103.7	0.001346	0.001346	104	
D 13C6-Anthracene	25:27	4474470		0.4523	106.1	106.1	0.005702	0.005702	106	
Anthracene	25:27	22947314		1.3586	377.5	377.5	0.0298	0.0298	94.37	
D 13C6-Fluoranthrene	33:52	11997910		1.1994	107.3	107.3	0.0154	0.0154	107	
Fluoranthrene	33:53	53709863		1.1513	388.8	388.8	0.0151	0.0151	97.21	
* Pyrene-d10	35:25	9327125		7.9E+04	100.0	100.0				
D 13C3-Pyrene	35:34	13356986		1.3512	106.0	106.0	0.0107	0.0107	106	
Pyrene	35:34	54662936		1.0652	384.2	384.2	0.0155	0.0155	96.05	
\$ 13C6-Benzo(c)fluorene	39:17	4761886		0.5136	99.4	99.4	0.002790	0.002790	99.41	
D 13C6-Benzo(a)anthracene	46:07	10694535		1.5189	102.0	102.0	0.0121	0.0121	102	
Benzo[a]anthracene	46:07	39547814		0.9739	379.7	379.7	0.0317	0.0317	94.93	
D 13C6-Chrysene	46:23	11695295		1.6287	104.0	104.0	0.0113	0.0113	104	
Chrysene	46:23	43785996		0.9815	381.5	381.5	0.0300	0.0300	95.37	
D 13C6-Benzo(b)fluoranthene	54:39	10435051		1.4621	103.4	103.4	0.000791	0.000791	103	
Benzo[b]fluoranthene	54:39	45422181		1.1249	387.0	387.0	0.005821	0.005821	96.74	
\$ 13C12-Benzo(j)fluoranthene	54:41	9891565		1.3558	105.7	105.7	0.0120	0.0120	106	
D 13C6-Benzo(k)fluoranthene	54:46	12917530		1.7507	106.9	106.9	0.000661	0.000661	107	
Benzo[k]fluoranthene	54:46	55519685		1.1271	381.3	381.3	0.005000	0.005000	95.33	
* Benzo(e)pyrene-d12	55:30	6903874		5.7E+04	100.0	100.0				
D 13C4-Benzo(e)pyrene	55:35	11723054		1.6368	103.7	103.7	0.0104	0.0104	104	



Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
Benzo[e]pyrene	55:35	45463447		1.0013	387.3	387.3	0.004696	0.004696	96.83	
Benzo[a]pyrene	55:43	48994654		1.1130	390.7	390.7	0.004751	0.004751	97.67	
D 13C4-Benzo(a)pyrene	55:43	11267474		1.5508	105.2	105.2	0.0109	0.0109	105	
D Perylene-d12	55:53	8439141		1.1917	102.6	102.6	0.0125	0.0125	103	
Perylene	55:57	50605936		1.4307	419.1	419.1	0.004749	0.004749	105	
D 13C6-Indeno(1,2,3-cd)pyrene	58:01	7511958		1.0218	106.5	106.5	0.007788	0.007788	106	
Indeno[1,2,3-cd]pyrene	58:02	31522628		1.1249	373.0	373.0	0.006078	0.006078	93.26	
D 13C6-Dibenz(a,h)anthracene	58:06	7695778		1.0553	105.6	105.6	0.004384	0.004384	106	M
Dibenz(a,h)anthracene	58:06	33420949		1.1314	383.8	383.8	0.005059	0.005059	95.96	M
D 13C12-Benzo(ghi)perylene	58:29	9250572		1.2749	105.1	105.1	0.002903	0.002903	105	M
Benzo[g,h,i]perylene	58:30	44647127		1.2838	376.0	376.0	0.004798	0.004798	93.99	M

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

61HRPAHCS6\_00002

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic8.d  
 Lims ID: IC L8  
 Client ID:  
 Sample Type: IC Calib Level: 8  
 Inject. Date: 20-Jun-2024 00:04:00 ALS Bottle#: 0 Worklist Smp#: 8  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info:  
 Misc. Info.: 140-0033168-008  
 Operator ID: Xcalibur\_System Instrument ID: D3PAH  
 Sublist: chrom-EPA\_23\_\_PAH\*sub1  
 Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
 Limit Group: HR - HRPAAH ICAL  
 Last Update: 20-Jun-2024 09:51:58 Calib Date: 20-Jun-2024 01:09:00  
 Integrator: RTE  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
 Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
 Process Host: CTX1686

First Level Reviewer: F9EE

Date: 20-Jun-2024 09:39:08

Signal	RT (min.)	Adj RT (min.)	¶ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:33	11:33	-1	0.667	13369772	4560382	108	270	42226		
Naphthalene											
128.0626	11:33	11:34	-1	1.000	66534766	23571526	761	1902	30974		
13C6-2-Methylnaphthalene											
148.0984	13:51	13:52	-1	0.800	6439882	3011483	3	7	1003828		
2-Methylnaphthalene											
142.0783	13:52	13:53	-1	1.001	31544481	14565701	250	625	58263		
13C6-Acenaphthylene											
158.0828	16:45	16:45	-1	0.967	6765535	2390392	5	12	478078		
Acenaphthylene											
152.0626	16:45	16:45	-1	1.000	37234784	13823003	297	742	46542		
Acenaphthene-d10											
164.1404	17:19	17:20	-1		3938389	1357794	4	10	339449		
13C6-Acenaphthene											
160.0984	17:26	17:27	-1	1.007	4039150	1433544	8	20	179193		
Acenaphthene											
154.0783	17:26	17:27	-1	1.000	19367968	7000107	178	445	39326		
13C6-Fluorene											
172.0984	19:44	19:45	-1	1.140	3801144	1141649	3	7	380550		
Fluorene											
166.0783	19:44	19:45	-1	1.000	18232964	5731294	139	347	41232		
13C6-Phenanthrene											
184.0984	25:07	25:08	-1	0.709	5572957	1302616	18	45	72368		
Phenanthrene											
178.0783	25:07	25:08	-1	1.000	23294554	5710557	164	410	34820		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:20	25:21	-1	0.715	4116582	938915	4	10	234729		
13C6-Anthracene											
184.0984	25:27	25:28	-1	0.718	4474470	1011656	18	45	56203		
Anthracene											
178.0783	25:27	25:28	-1	1.000	22947314	5311986	164	410	32390		
13C6-Fluoranthrene											
208.0984	33:52	33:54	-2	0.956	11997910	2409519	129	322	18678		
Fluoranthene											
202.0783	33:53	33:54	-1	1.000	53709863	11141942	168	420	66321		
Pyrene-d10											
212.1404	35:25	35:27	-2		9327125	1744548	56	140	31153		
13C3-Pyrene											
205.0883	35:34	35:35	-2	1.004	13356986	2550188	101	252	25249		
Pyrene											
202.0783	35:34	35:35	-1	1.000	54662936	10863334	168	420	64663		
13C6-Benzo(c)fluorene											
222.1134	39:17	39:18	-1	0.708	4761886	868339	10	25	86834		
13C6-Benzo(a)anthracene											
234.1140	46:07	46:07	-1	1.302	10694535	1918789	159	397	12068		
Benzo[a]anthracene											
228.0939	46:07	46:07	-1	1.000	39547814	7546280	237	592	31841		
13C6-Chrysene											
234.1140	46:23	46:24	-1	1.309	11695295	2008932	159	397	12635		
Chrysene											
228.0939	46:23	46:25	-2	1.000	43785996	7992089	237	592	33722		
13C6-Benzo(b)fluoranthene											
258.1140	54:39	54:40	-1	0.985	10435051	2825469	10	25	282547		
Benzo[b]fluoranthene											
252.0939	54:39	54:40	-1	1.000	45422181	13034981	74	185	176148		
13C12-Benzo(j)fluoranthene											
264.1336	54:41	54:42	-1	0.985	9891565	2522237	141	352	17888		
13C6-Benzo(k)fluoranthene											
258.1140	54:46	54:47	-1	0.987	12917530	3282519	10	25	328252		
Benzo[k]fluoranthene											
252.0939	54:46	54:47	-1	1.000	55519685	14325989	74	185	193595		
Benzo(e)pyrene-d12											
264.1692	55:30	55:30	-1		6903874	2161428	129	322	16755		
13C4-Benzo(e)pyrene											
256.1073	55:35	55:35	-1	1.002	11723054	3934689	147	367	26767		
Benzo[e]pyrene											
252.0939	55:35	55:35	-1	1.000	45463447	15904191	74	185	214922		
Benzo[a]pyrene											
252.0939	55:43	55:44	-1	1.000	48994654	15258523	74	185	206196		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C4-Benzo(a)pyrene											
256.1073	55:43	55:44	-1	1.004	11267474	3498798	147	367	23801		
Perylene-d12											
264.1692	55:53	55:54	-1	1.007	8439141	2723157	129	322	21110		
Perylene											
252.0939	55:57	55:58	-1	1.001	50605936	17778838	74	185	240255		
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	58:01	58:02	-1	1.046	7511958	2369138	69	172	34335		
Indeno[1,2,3-cd]pyrene											
276.0939	58:02	58:03	-1	1.000	31522628	10138502	65	162	155977		
13C6-Dibenz(a,h)anthracene											
284.1296	58:06	58:07	-1	1.047	7695778	2218739	40	100	55468		M
Dibenz(a,h)anthracene											
278.1096	58:06	58:07	-1	1.000	33420949	9833780	51	127	192819		M
13C12-Benzo(ghi)perylene											
288.1342	58:29	58:30	-1	1.054	9250572	2630111	32	80	82191		M
Benzo[g,h,i]perylene											
276.0939	58:30	58:31	-1	1.000	44647127	13129350	65	162	201990		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61HRPAHCS6\_00002

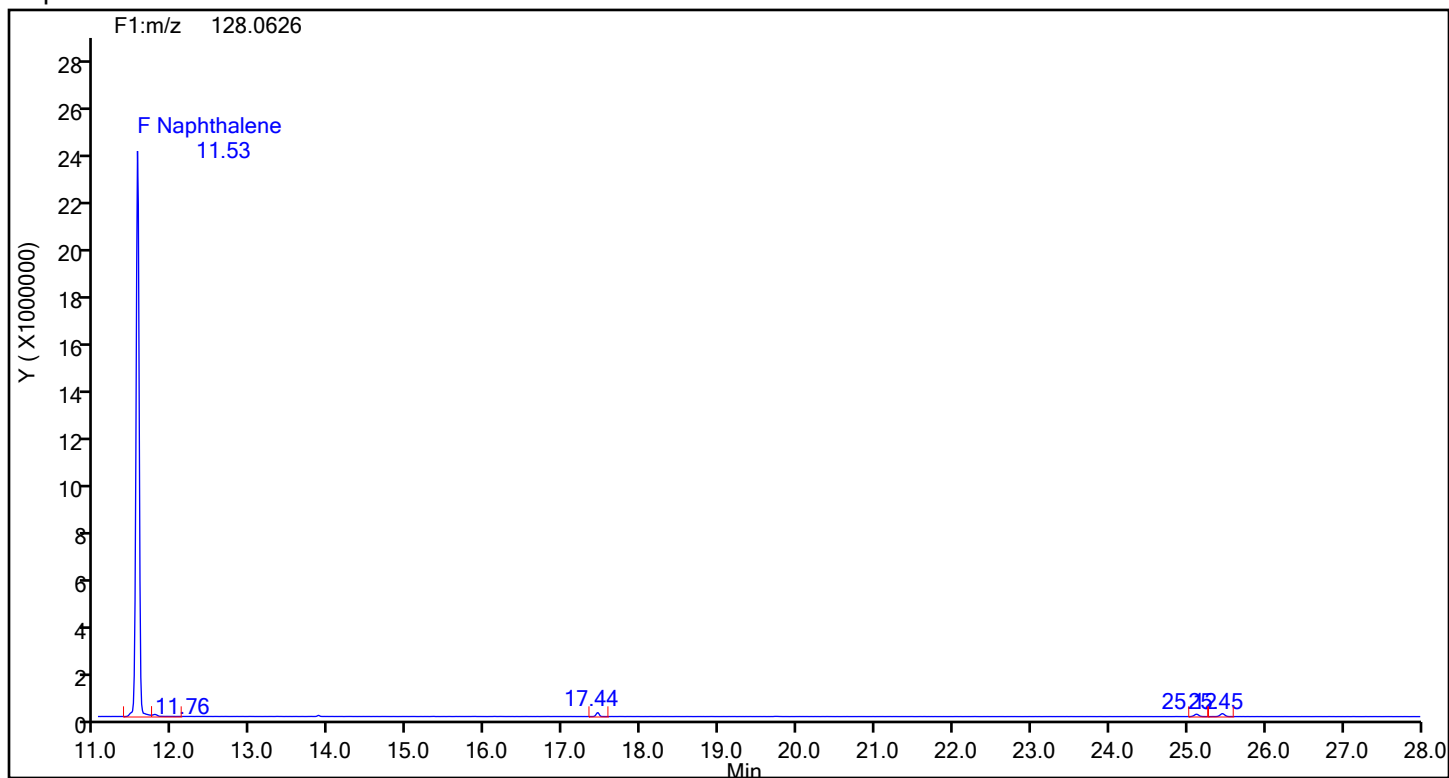
Amount Added: 20.00

Units: uL

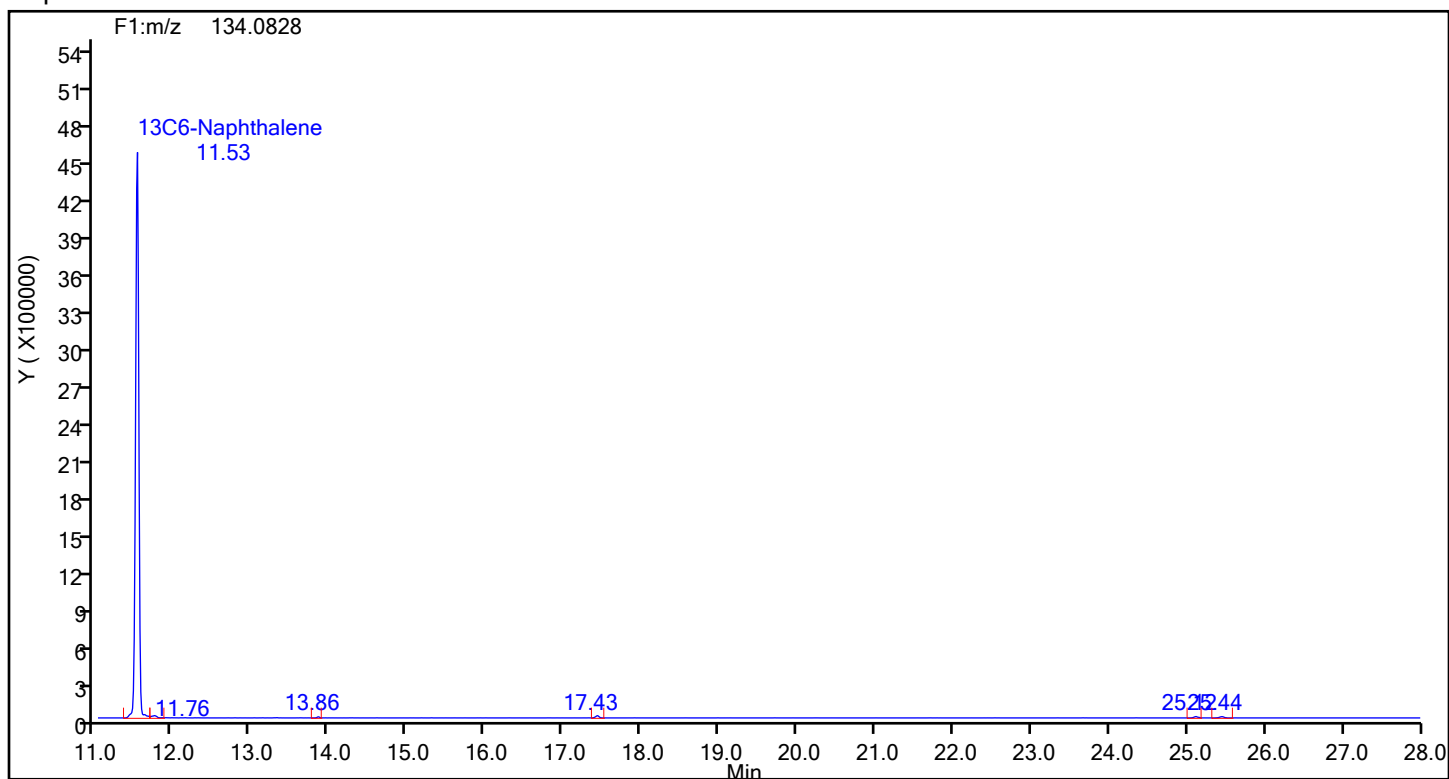
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic8.d  
Injection Date: 20-Jun-2024 00:04:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



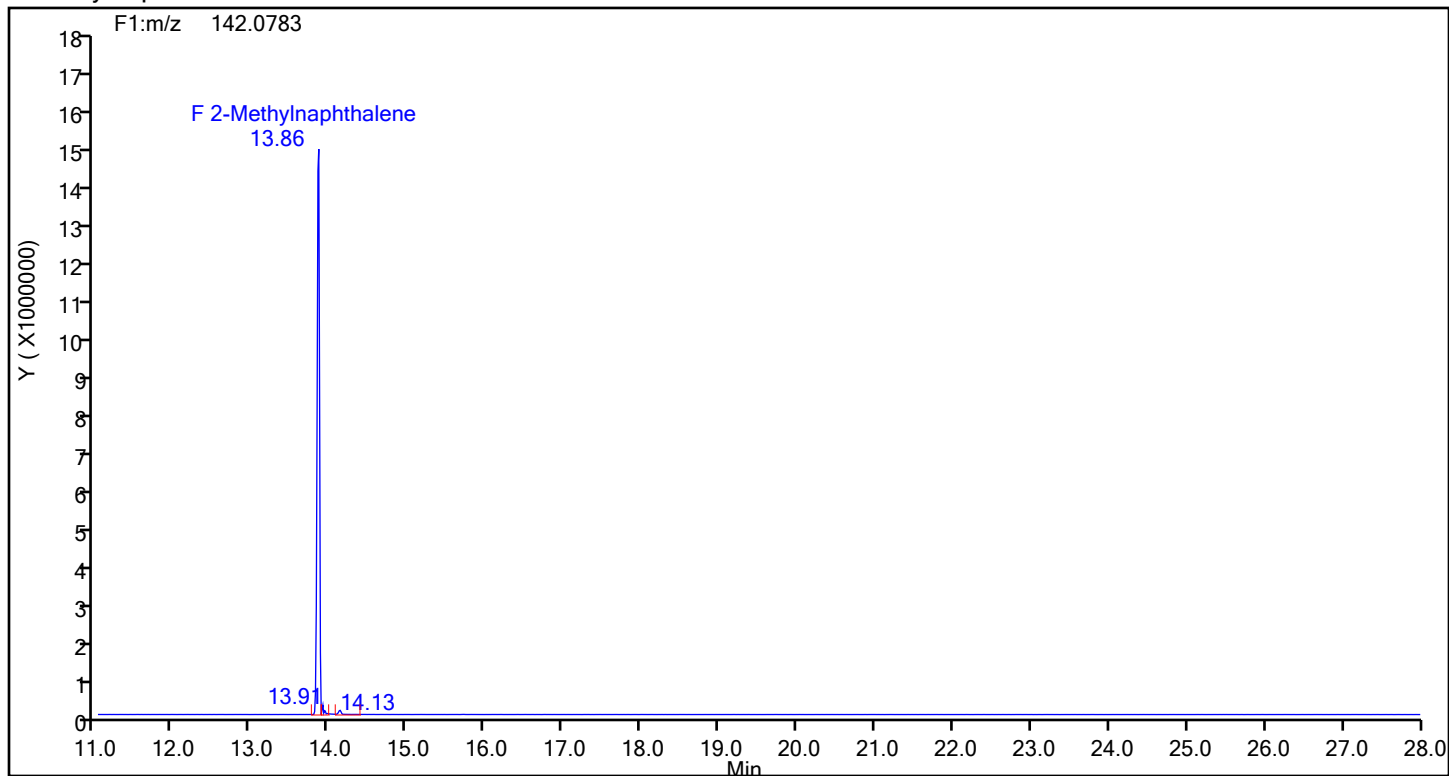
## Naphthalene Standards



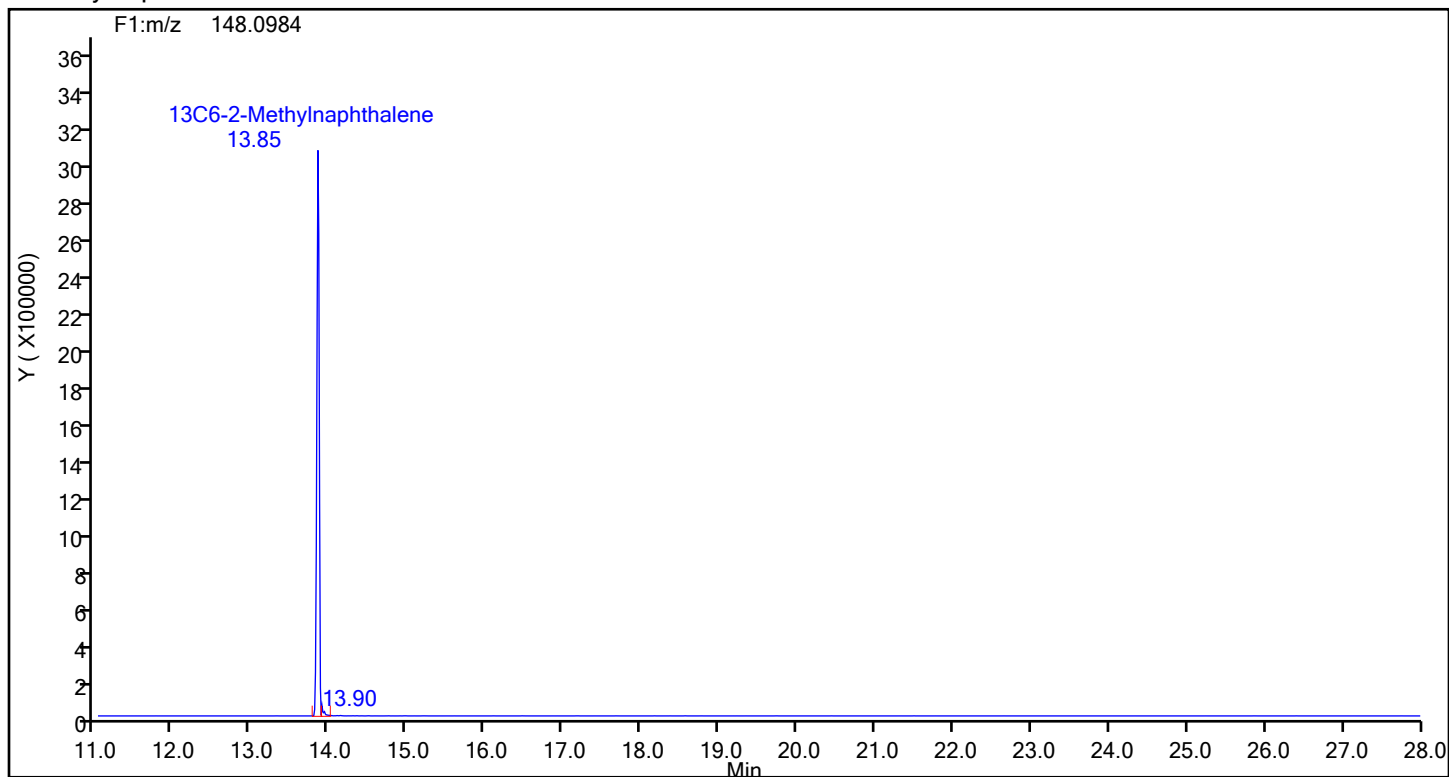
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Injection Date: 20-Jun-2024 00:04:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



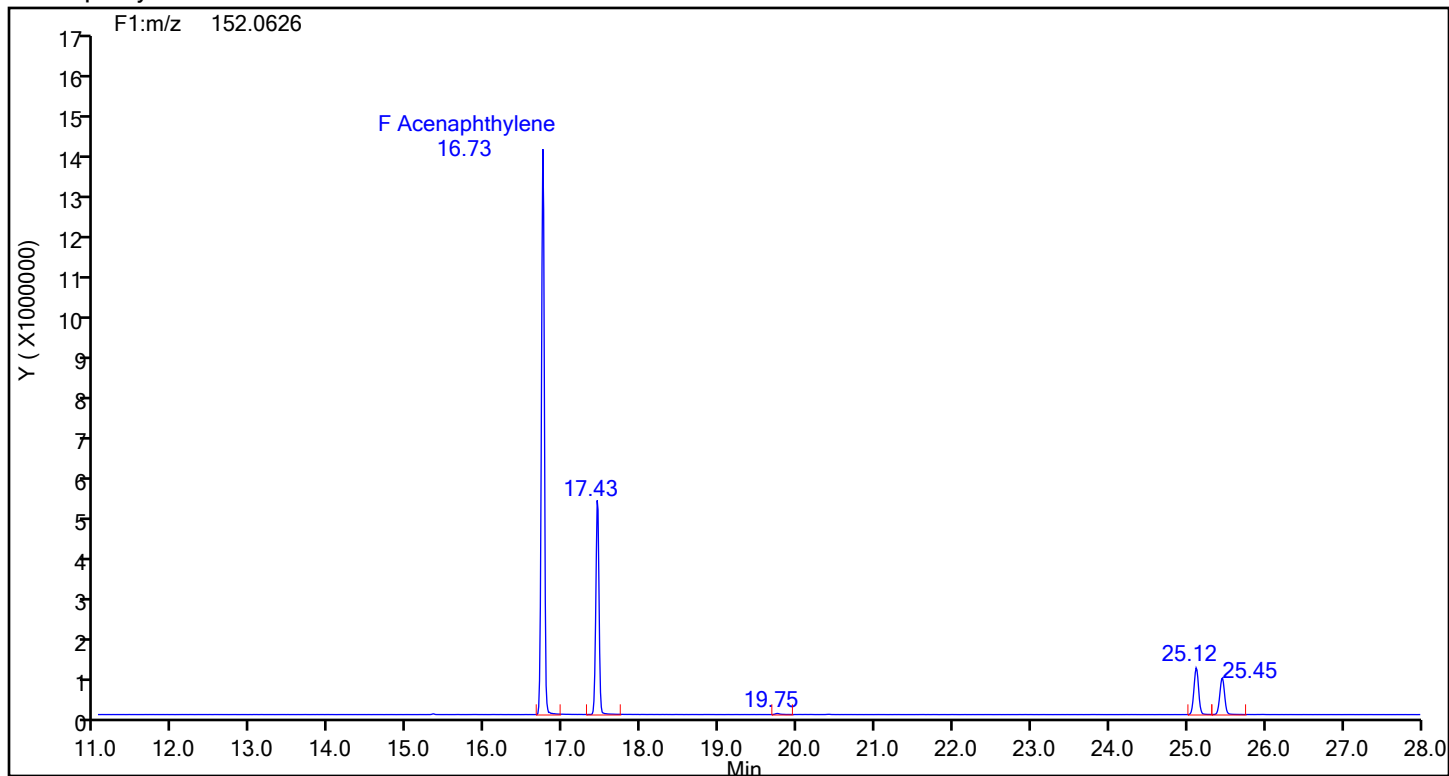
## 2-Methylnaphthalene Standards



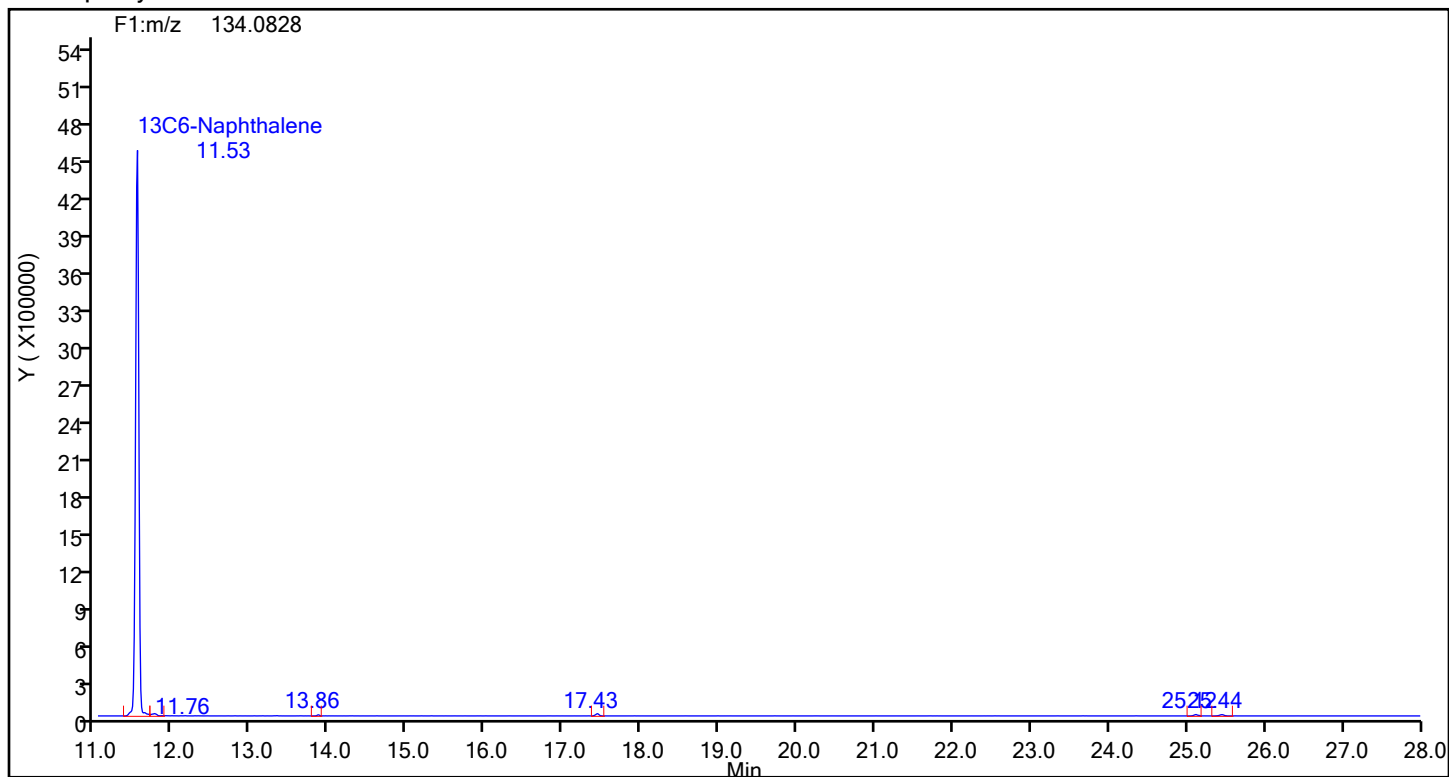
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic8.d  
Injection Date: 20-Jun-2024 00:04:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene

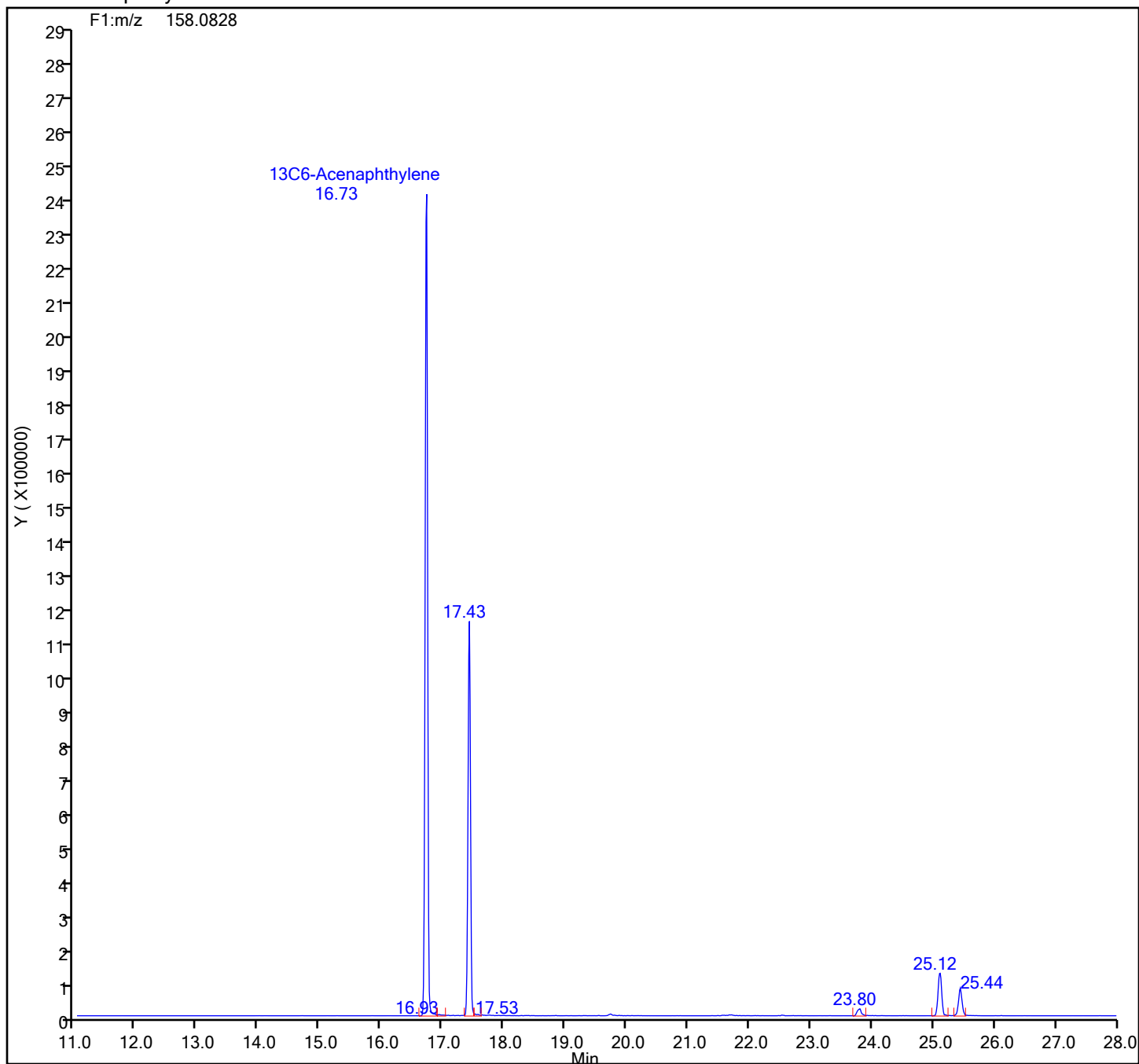


## Acenaphthylene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic8.d  
Injection Date: 20-Jun-2024 00:04:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
13C6-Acenaphthylene Standards

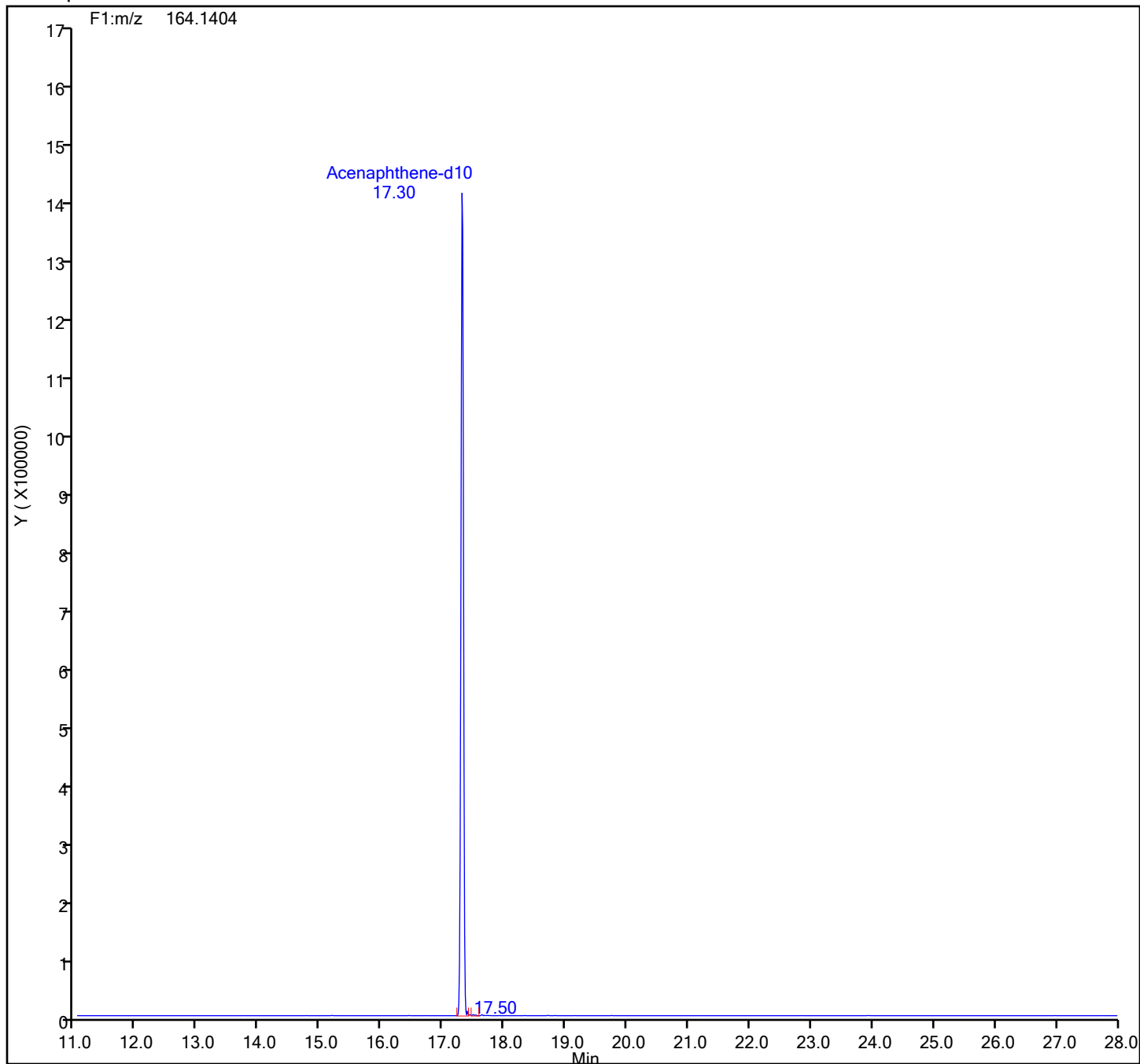




## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic8.d  
Injection Date: 20-Jun-2024 00:04:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

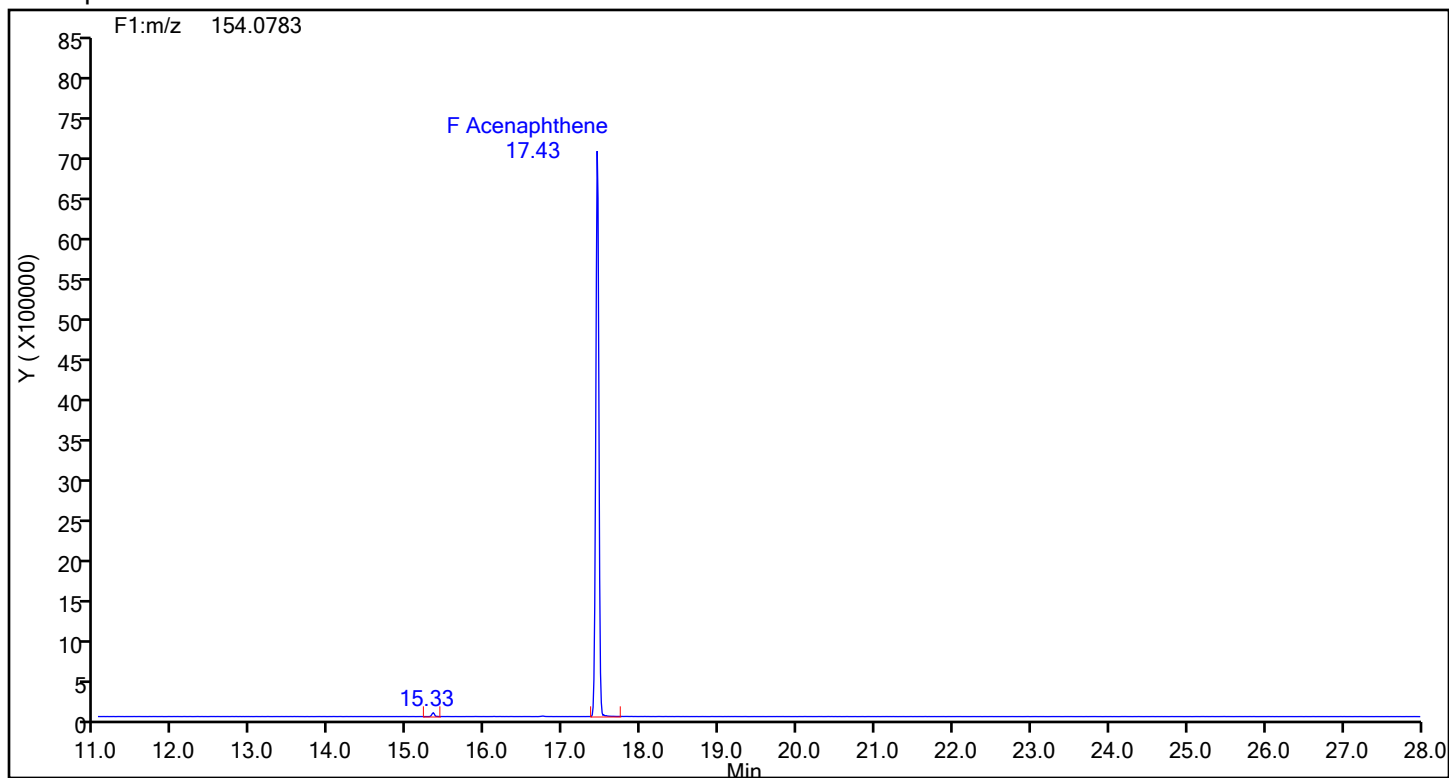
## Acenaphthene-d10 Standards



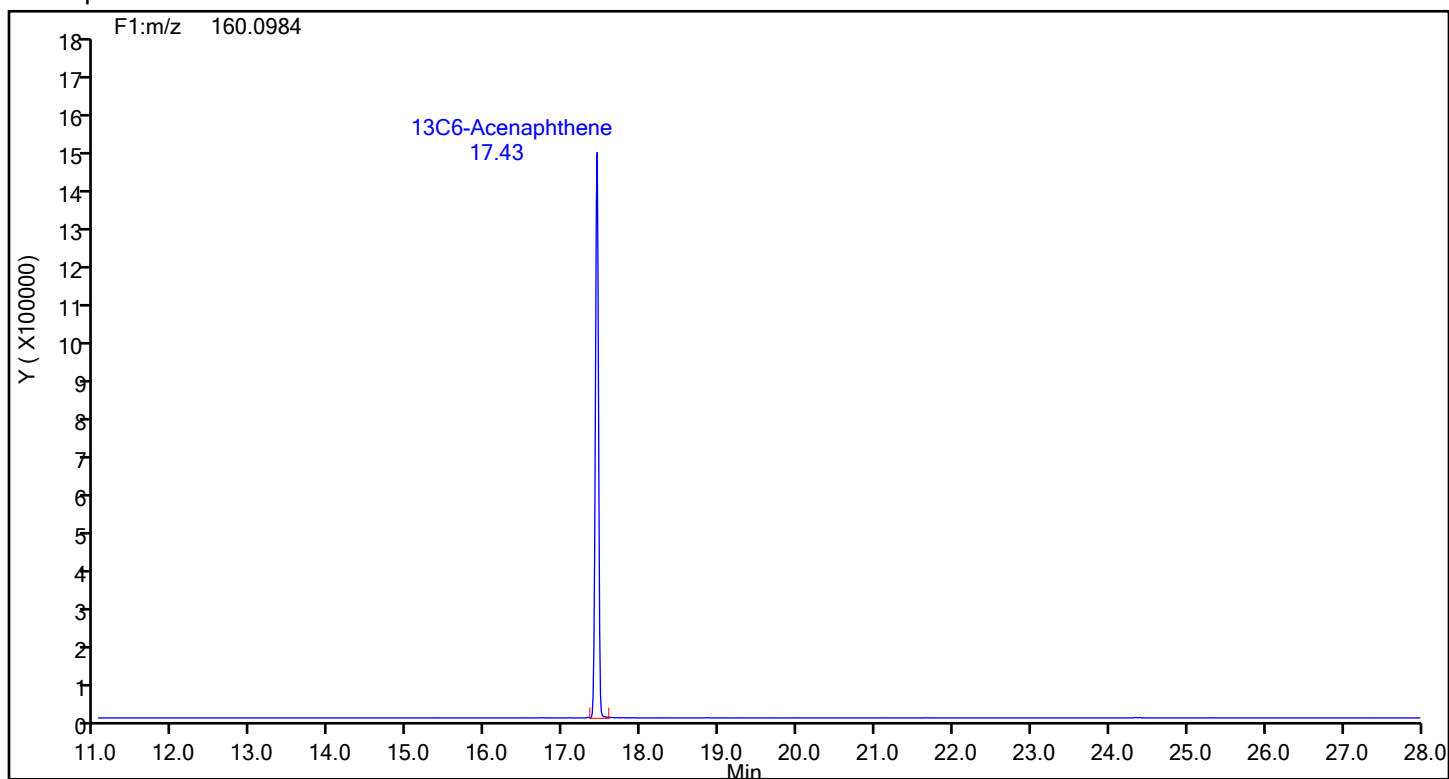
## Eurofins Knoxville

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Injection Date: 20-Jun-2024 00:04:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



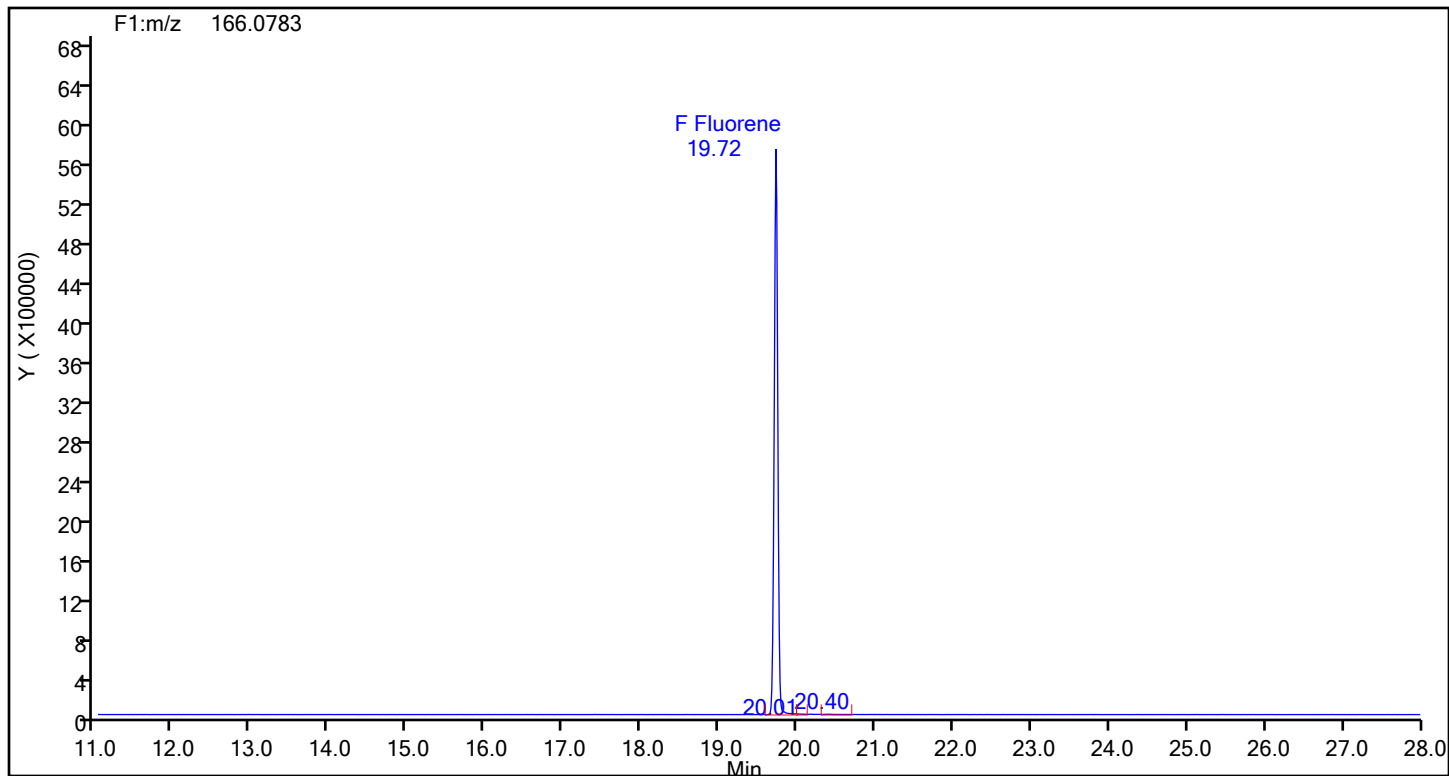
## Acenaphthene Standards



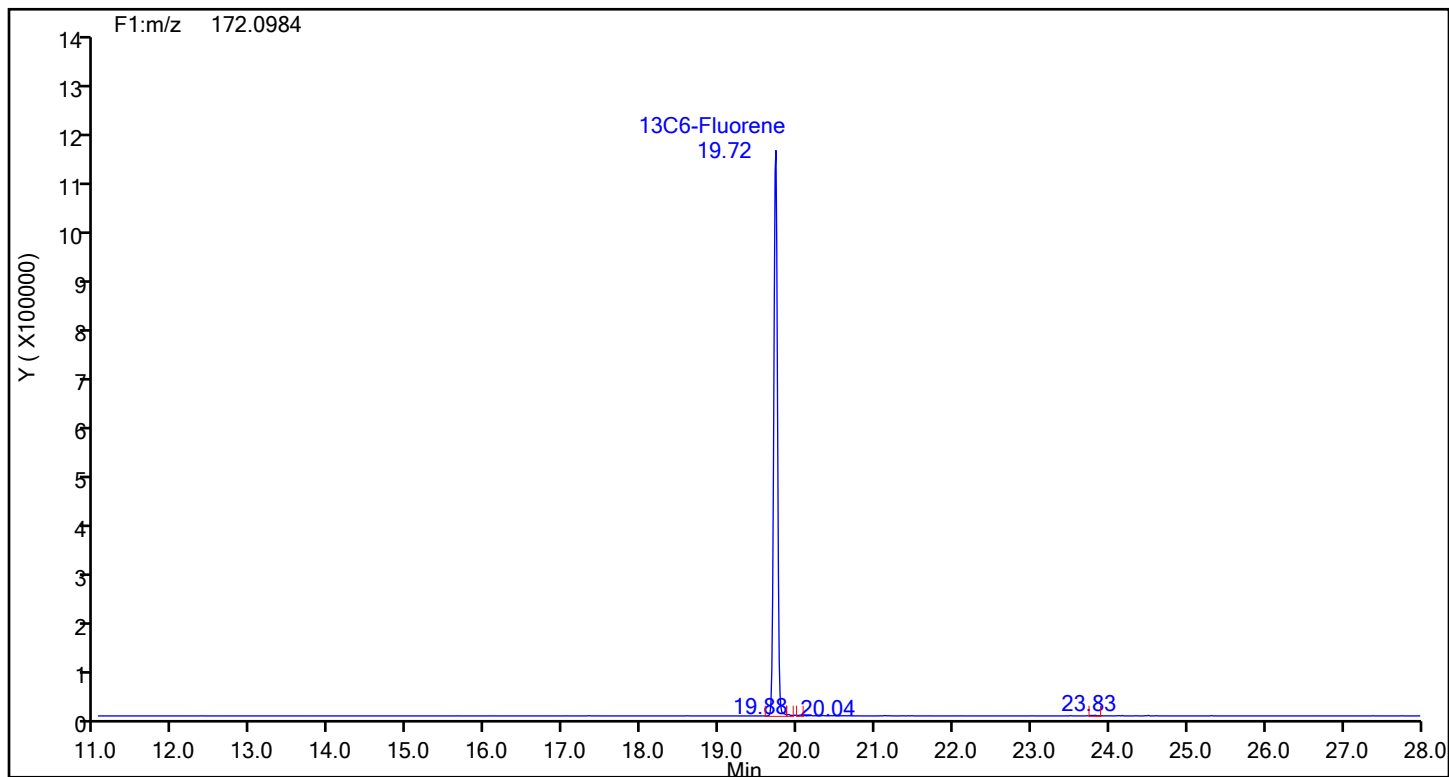
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic8.d  
Injection Date: 20-Jun-2024 00:04:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene

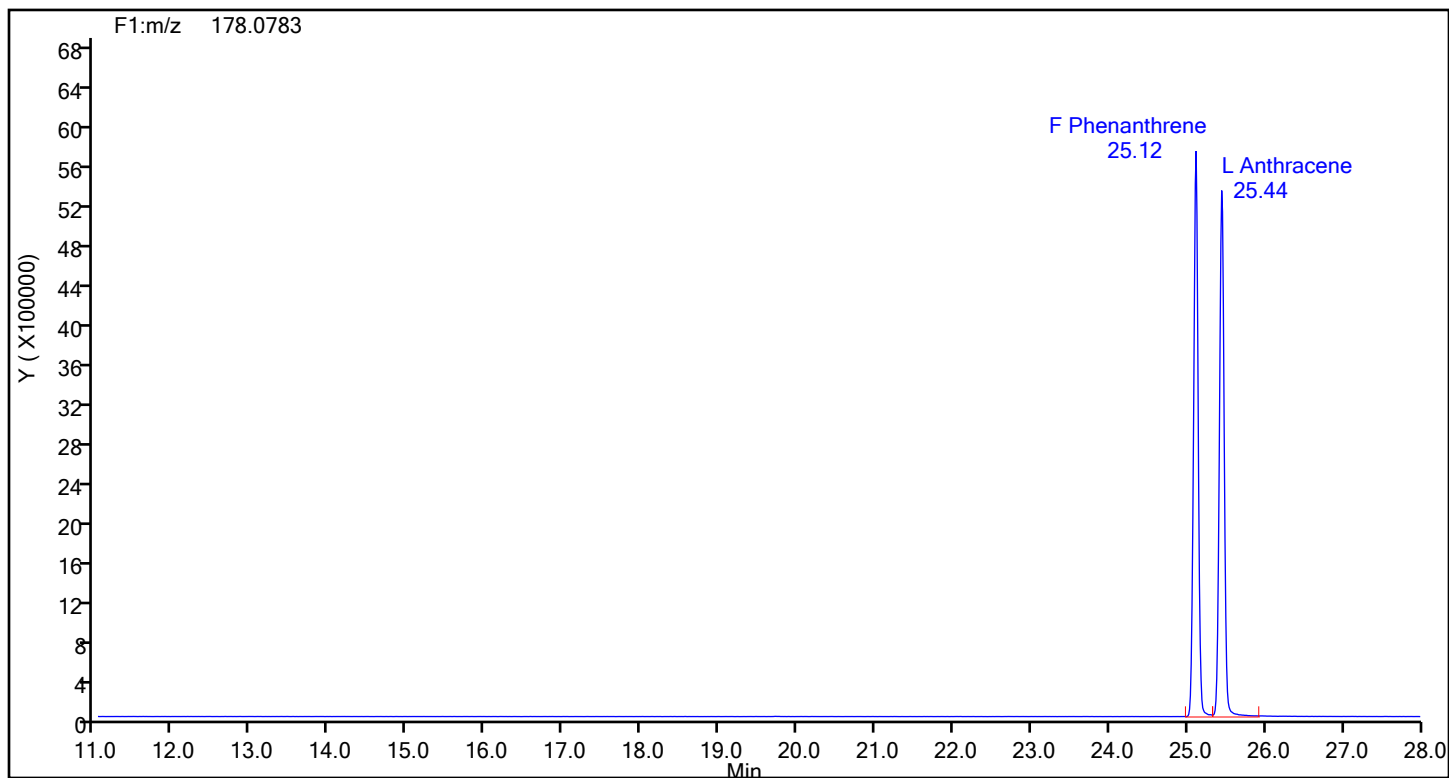


## Fluorene Standards

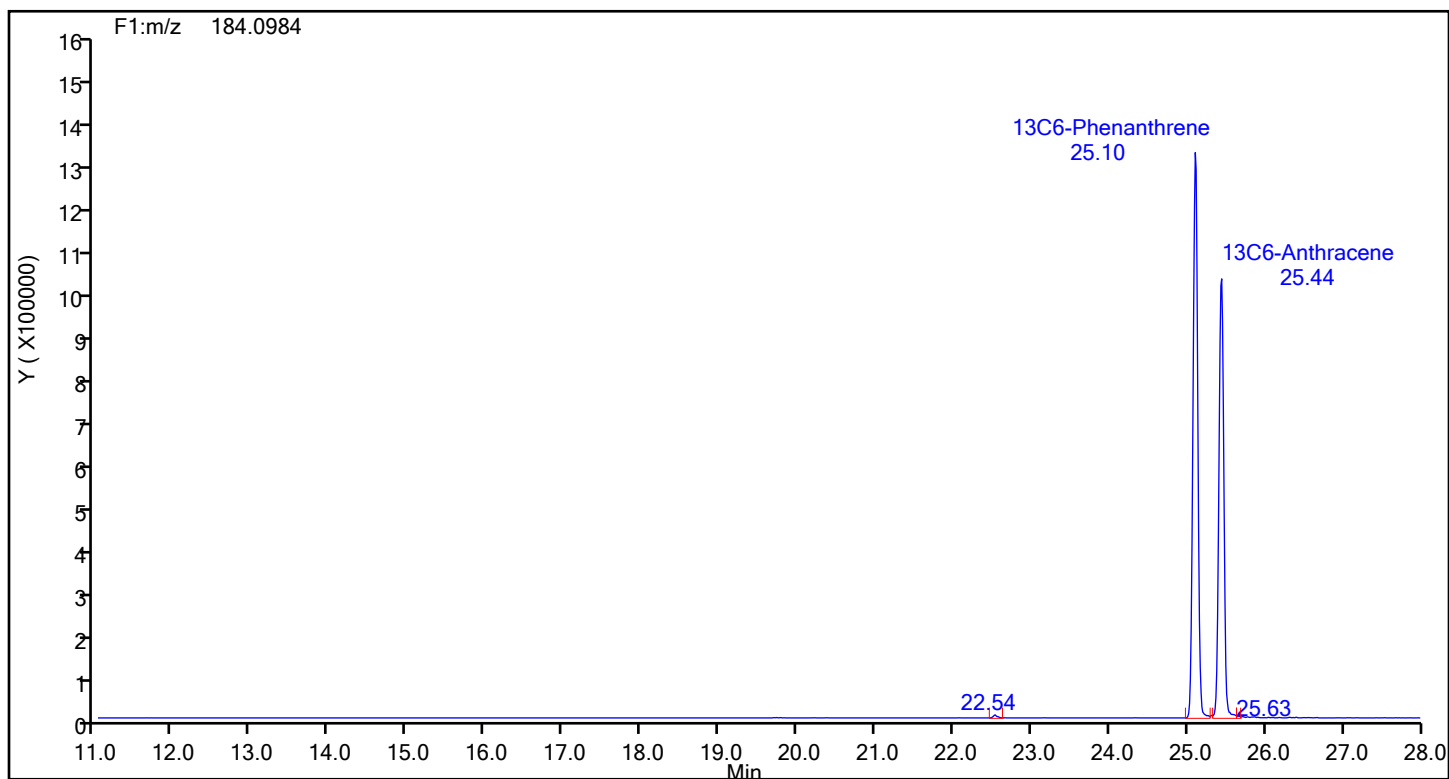


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic8.d  
Injection Date: 20-Jun-2024 00:04:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Phenanthrene

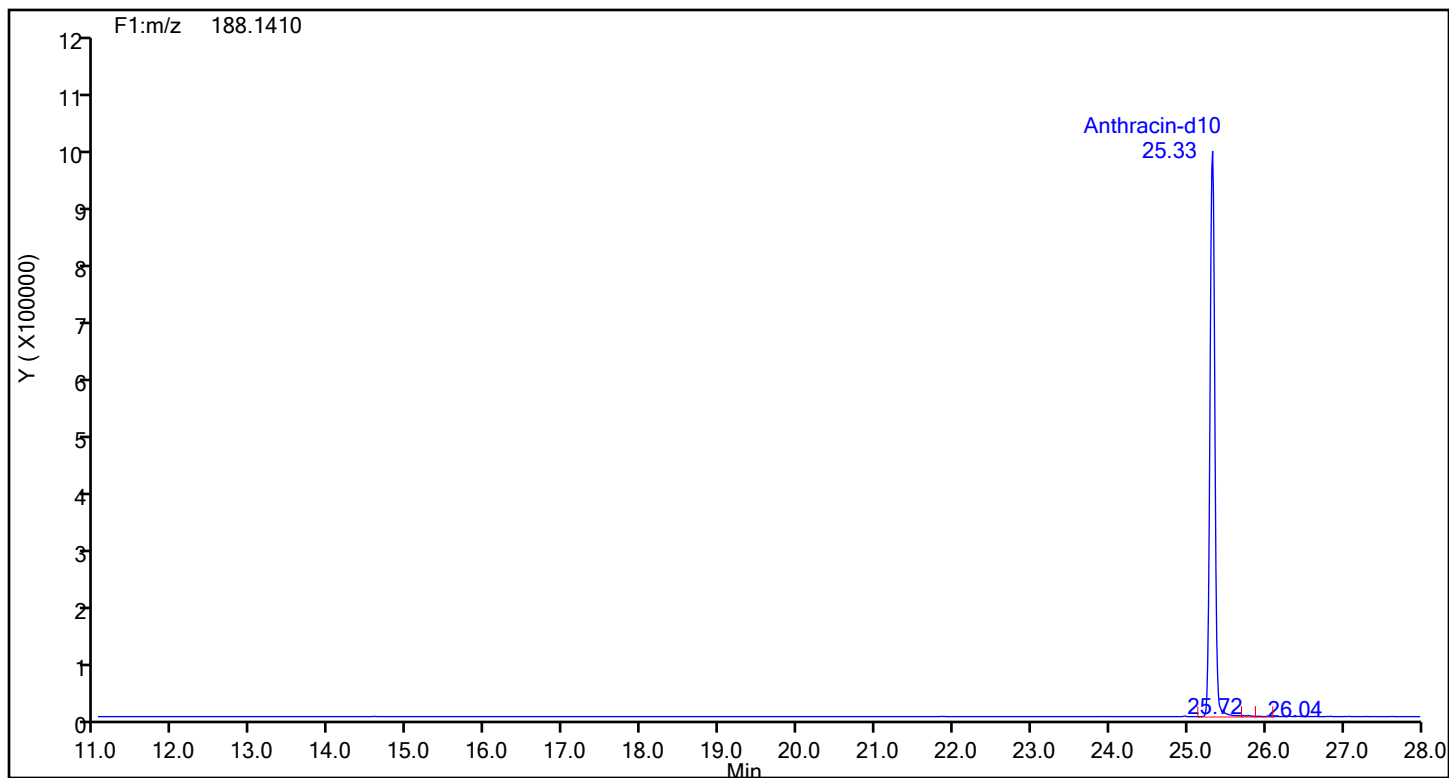


## Phenanthrene Standards

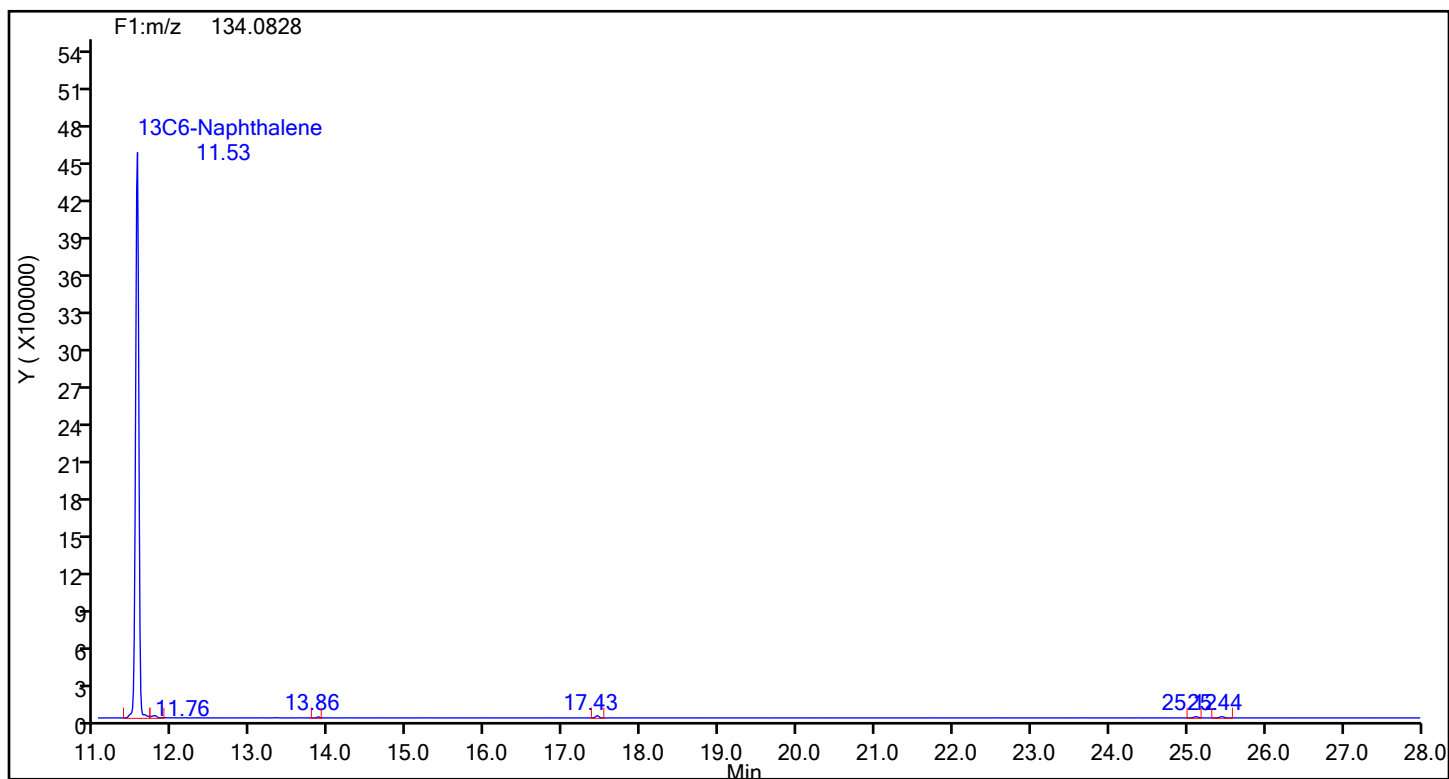


## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10

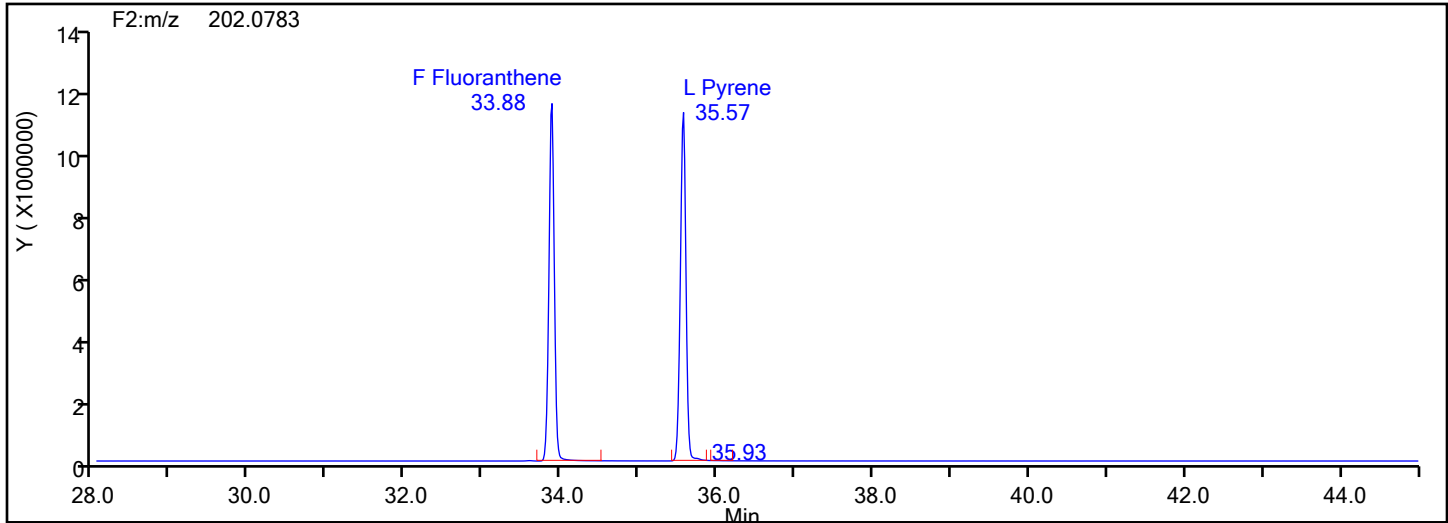


## Anthracin-d10 Standards

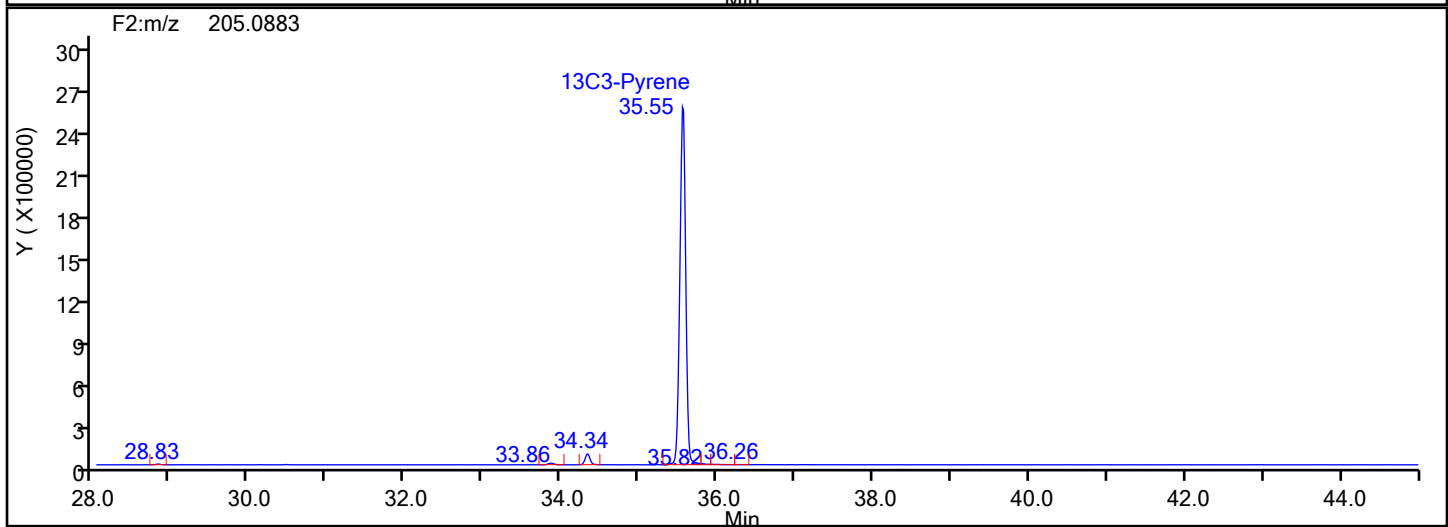
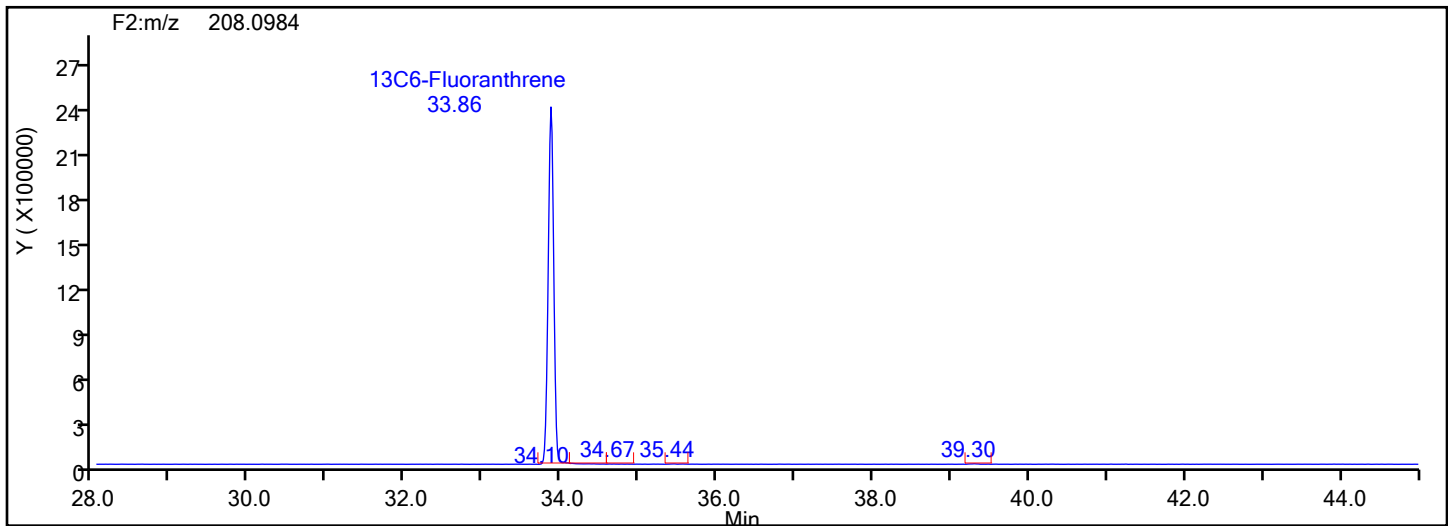


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic8.d  
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Fluoranthene



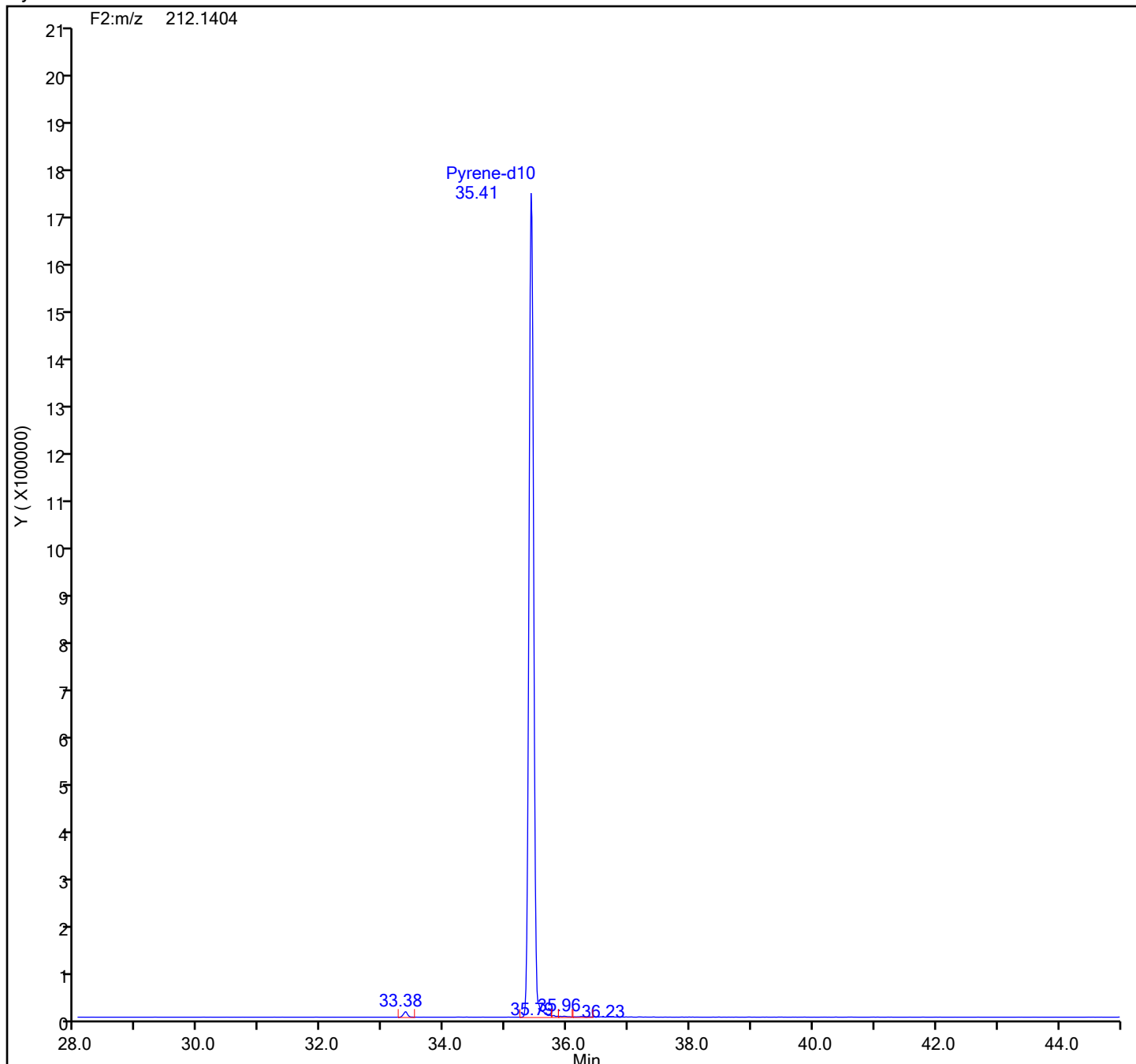
## Fluoranthene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic8.d  
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

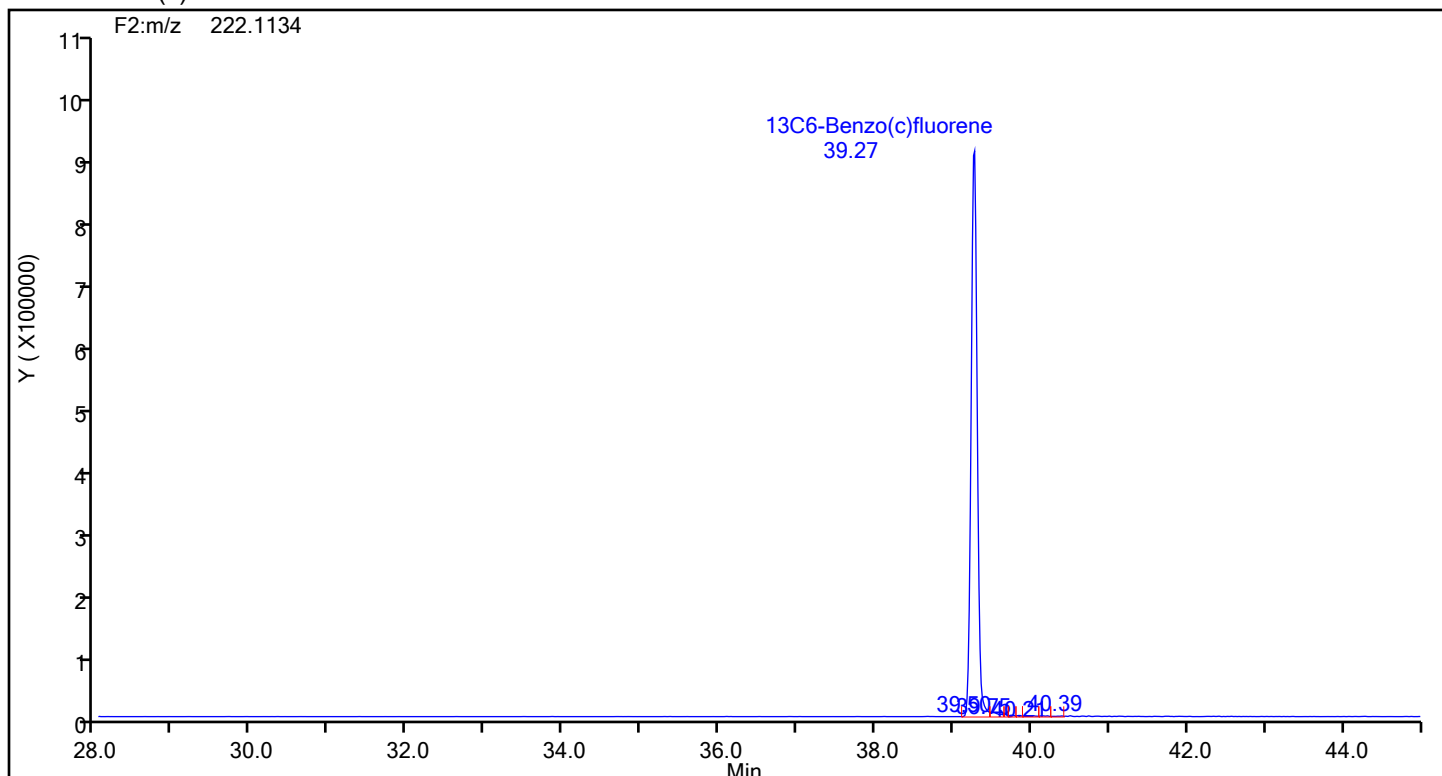
## Pyrene-d10 Standards



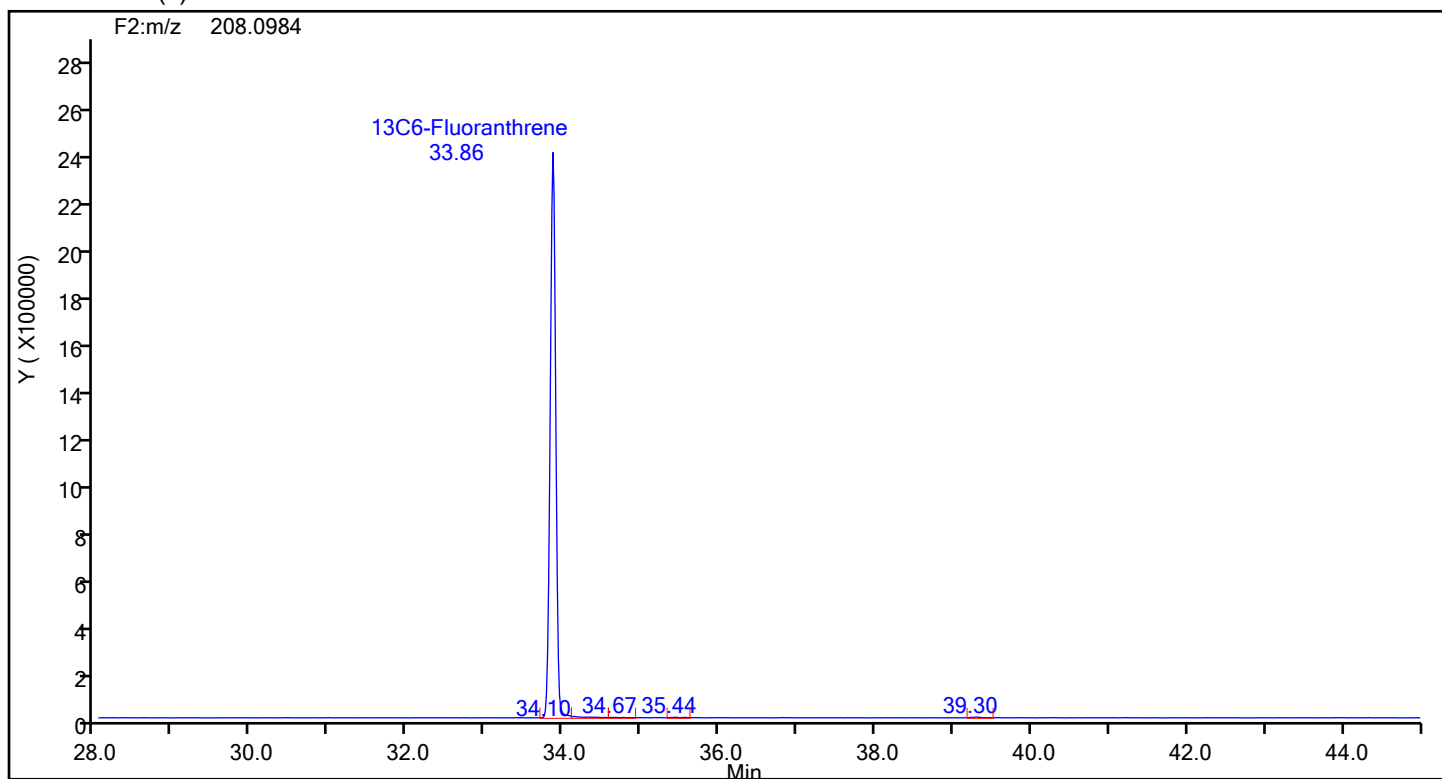
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic8.d  
Injection Date: 20-Jun-2024 00:04:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C6-Benzo(c)fluorene



## 13C6-Benzo(c)fluorene Standards

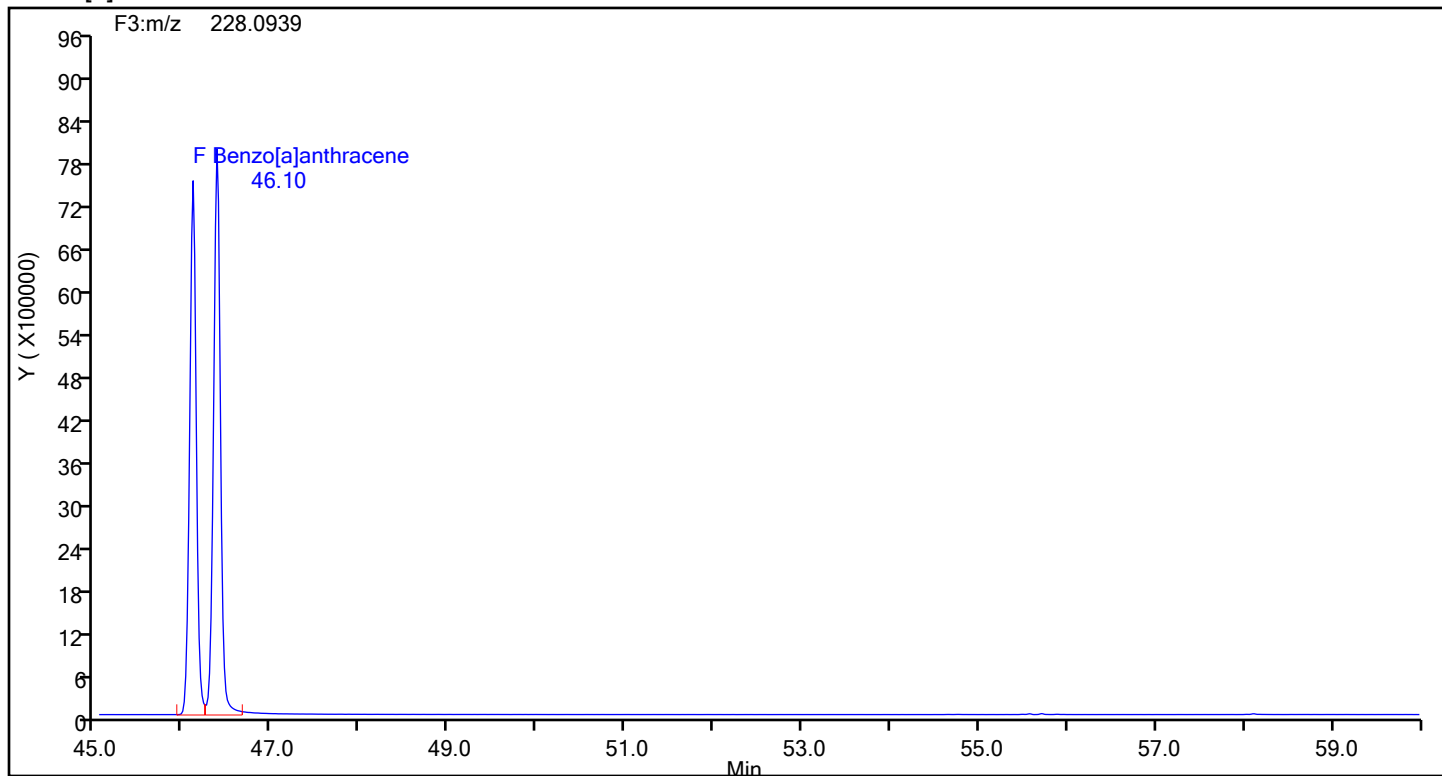




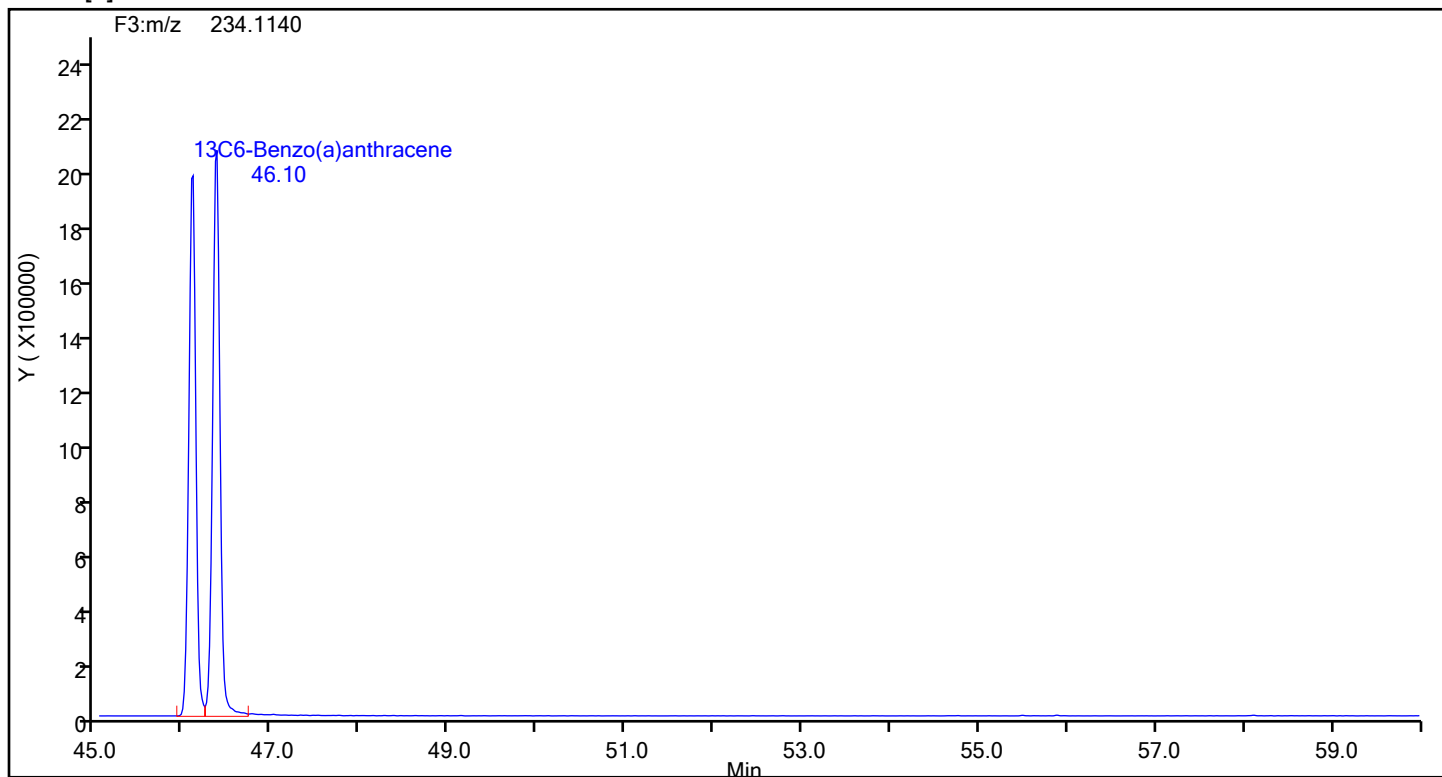
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic8.d  
Injection Date: 20-Jun-2024 00:04:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



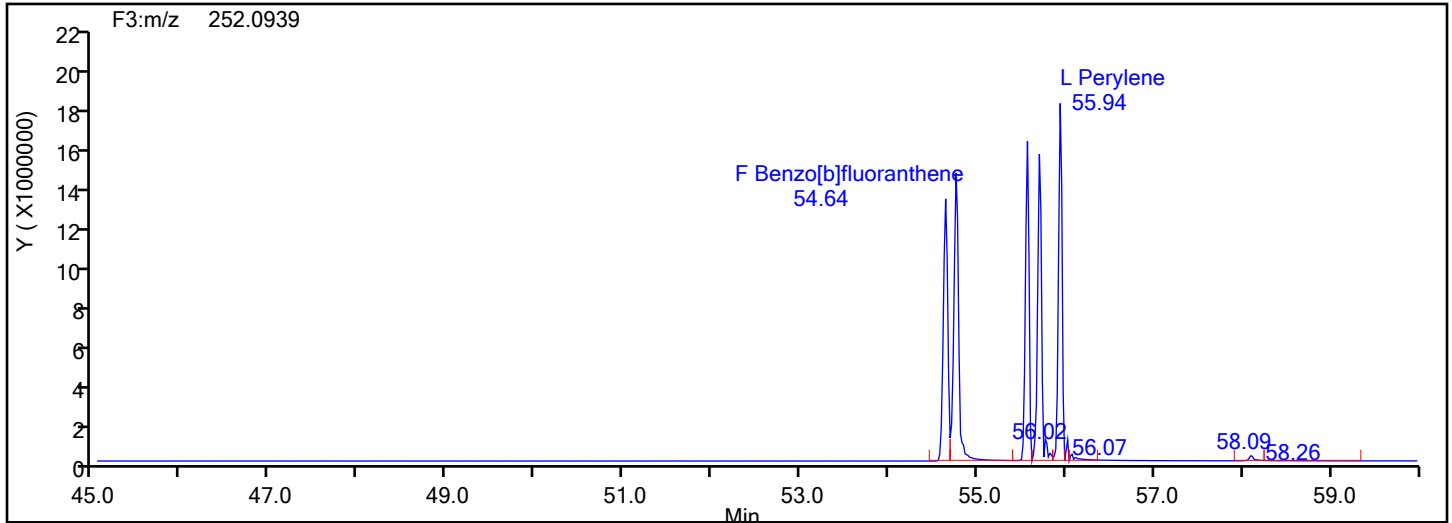
## Benzo[a]anthracene Standards



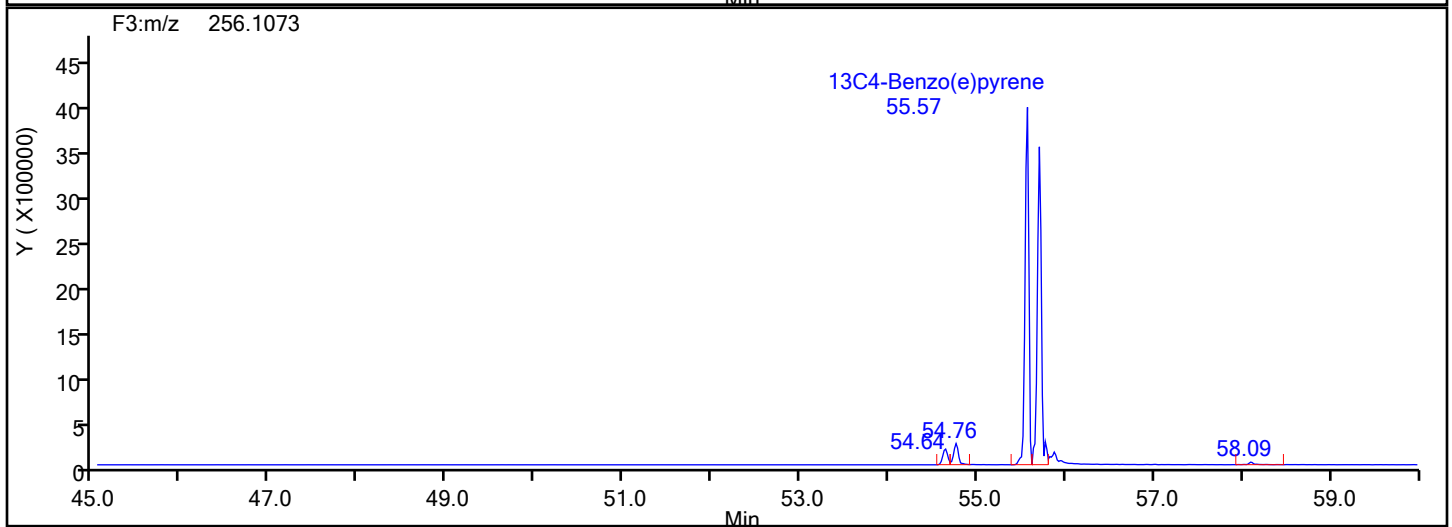
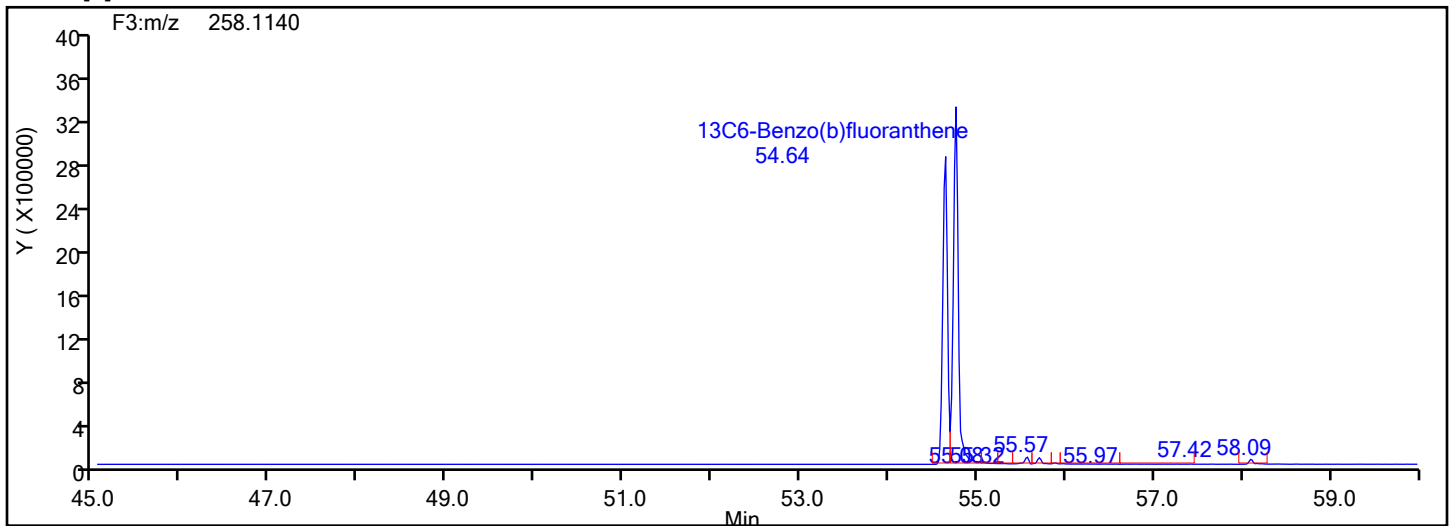
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic8.d  
Injection Date: 20-Jun-2024 00:04:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



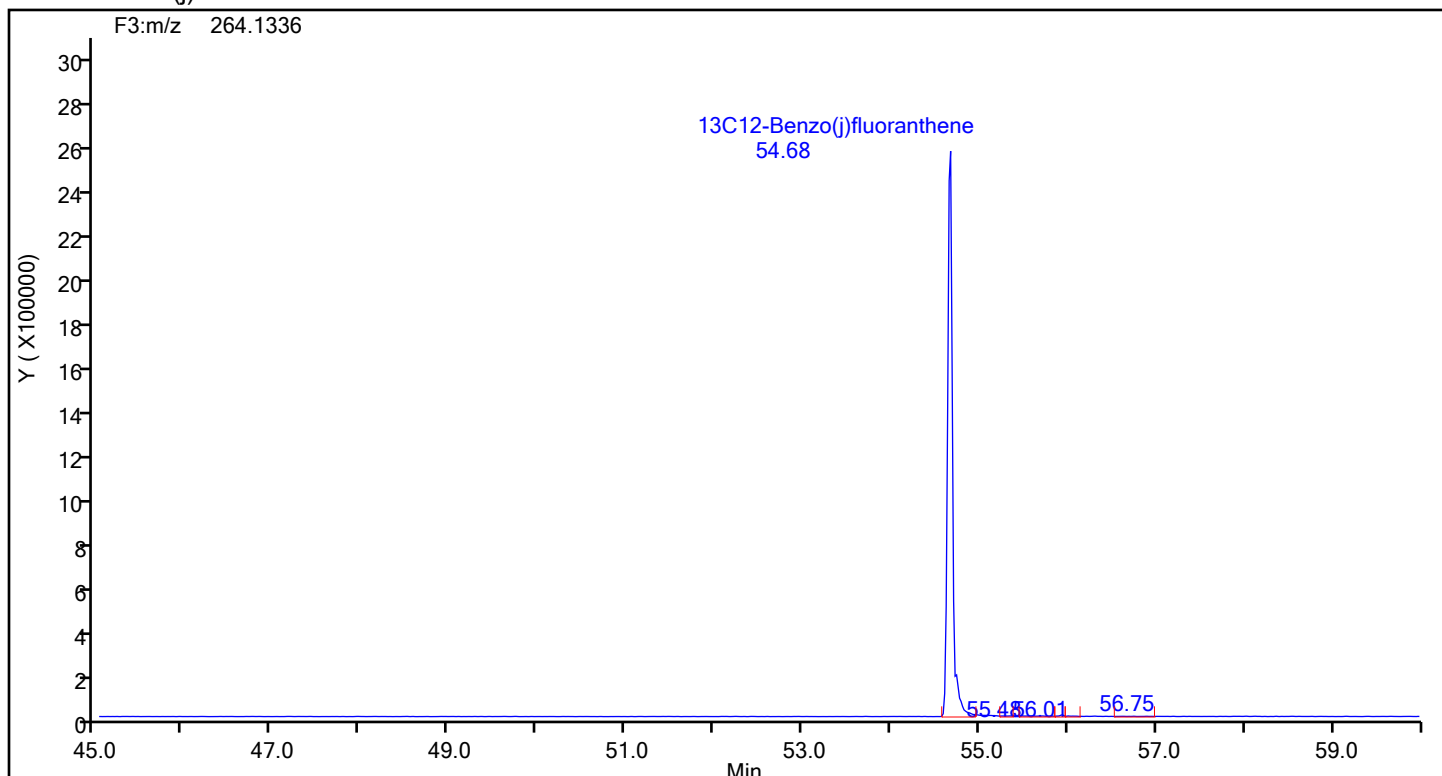
## Benzo[b]fluoranthene Standards



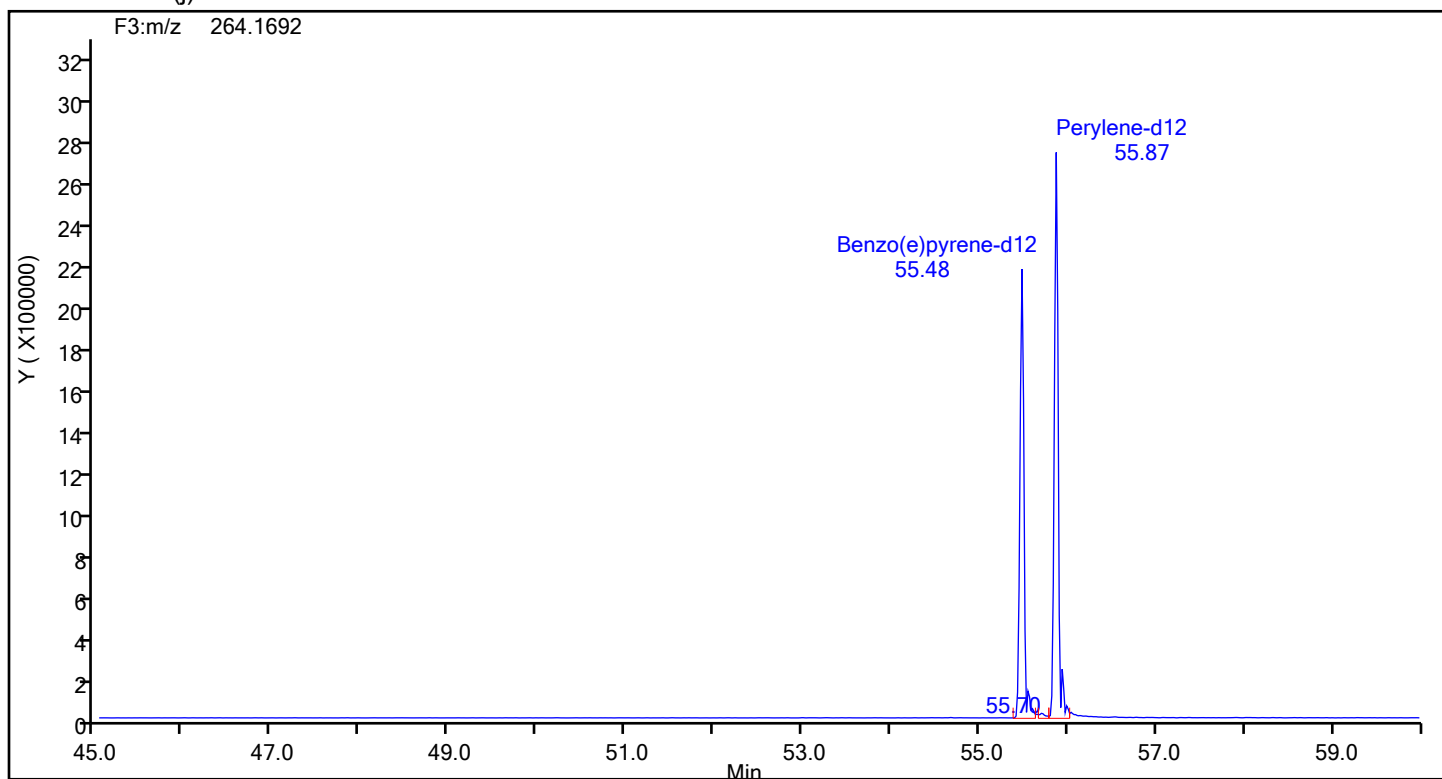
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic8.d  
Injection Date: 20-Jun-2024 00:04:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



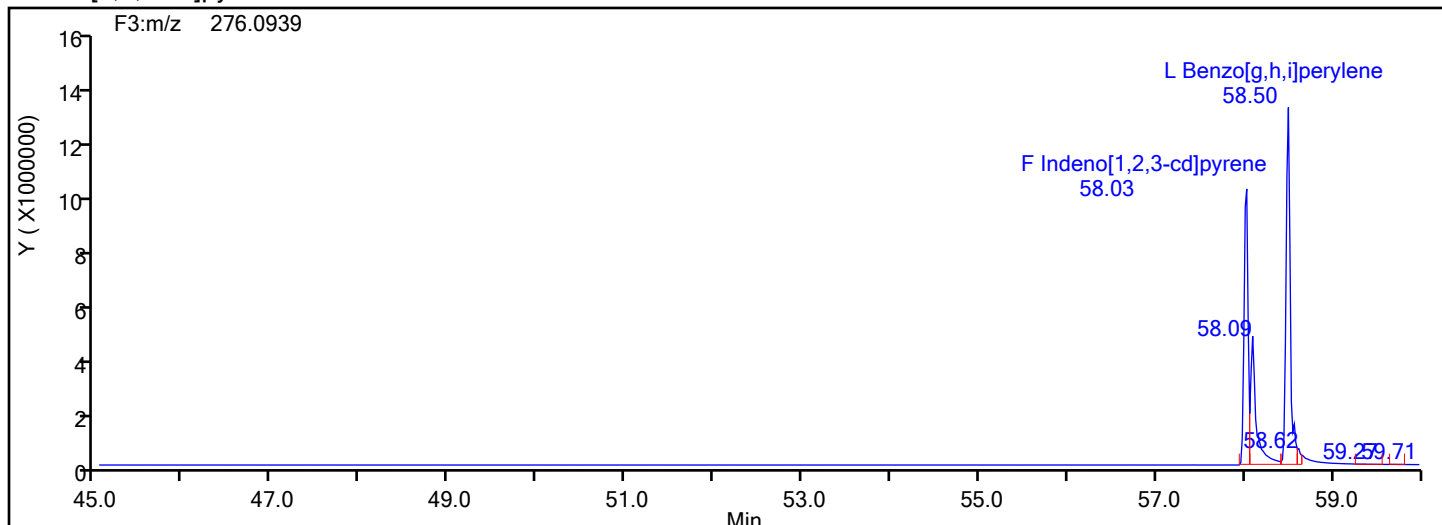
## 13C12-Benzo(j)fluoranthene Standards



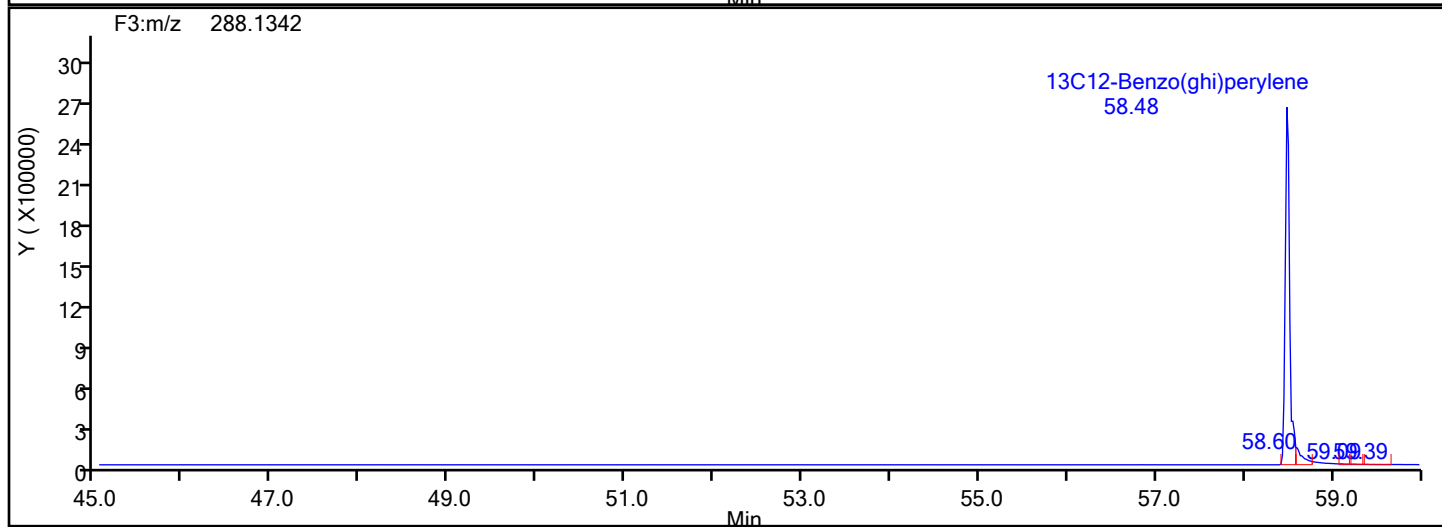
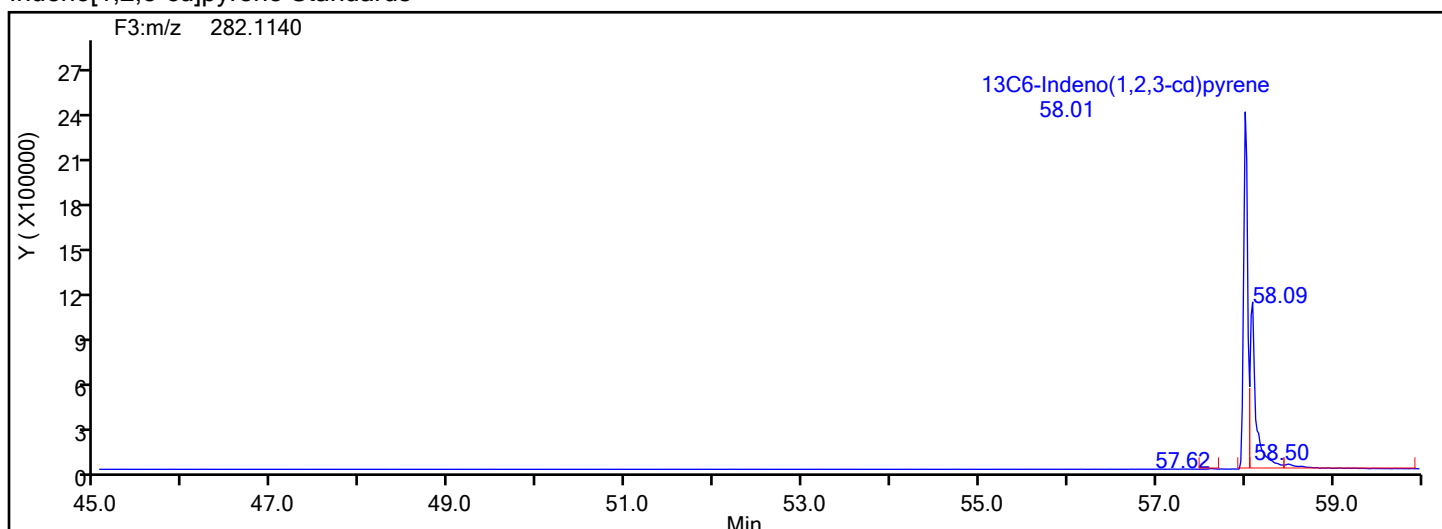
## Eurofins Knoxville

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Injection Date: 20-Jun-2024 00:04:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Indeno[1,2,3-cd]pyrene



## Indeno[1,2,3-cd]pyrene Standards



## Eurofins Knoxville

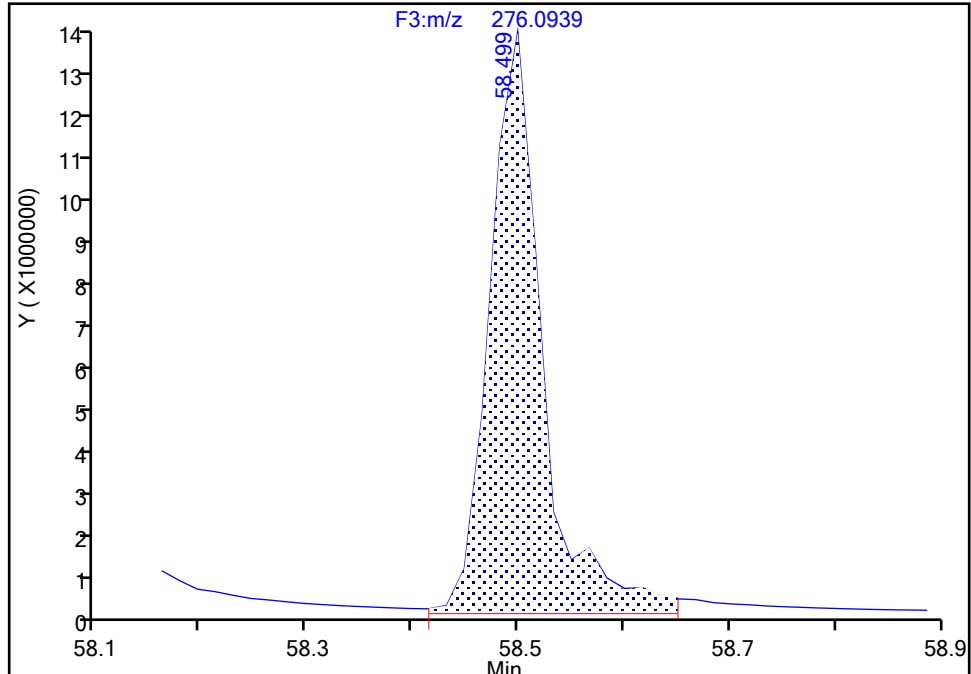
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Injection Date: 20-Jun-2024 00:04:00 Instrument ID: D3PAH  
Lims ID: IC L8  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**Benzo[g,h,i]perylene, CAS: 191-24-2**

Signal: 1

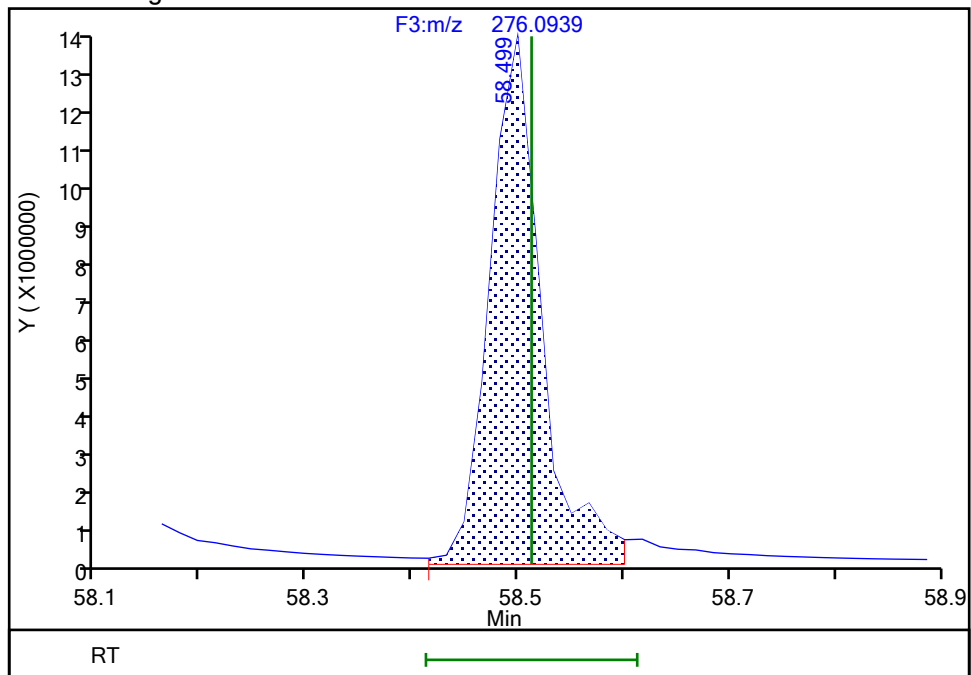
RT: 58.50  
Area: 45816007  
Amount: 385.7539  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.50  
Area: 44647127  
Amount: 375.9607  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:39:06 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

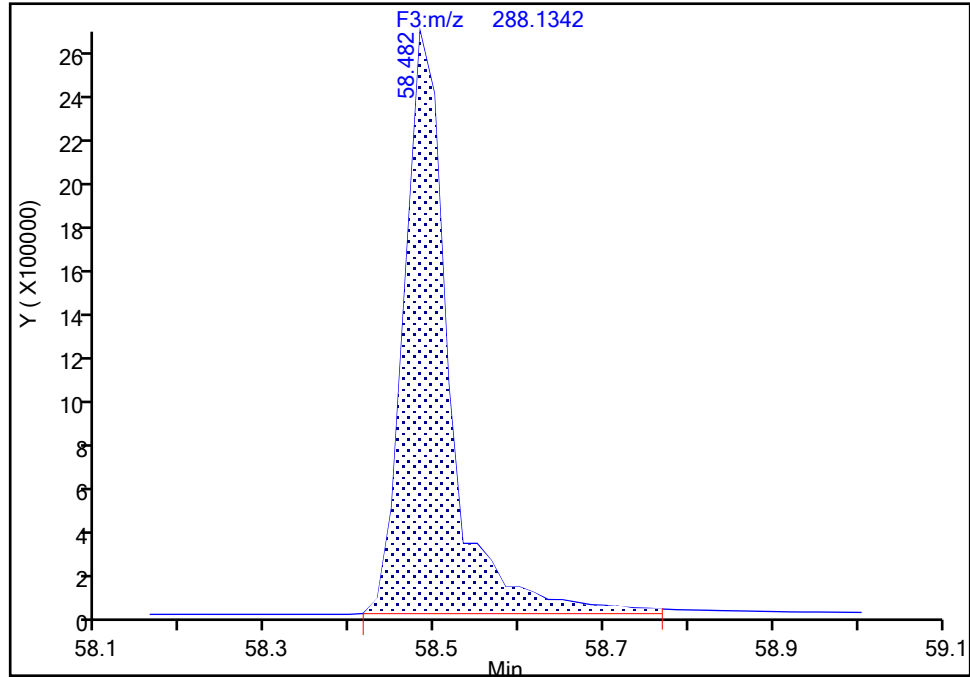
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Injection Date: 20-Jun-2024 00:04:00 Instrument ID: D3PAH  
Lims ID: IC L8  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C12-Benzo(ghi)perylene, CAS: 350820-11-0**

Signal: 1

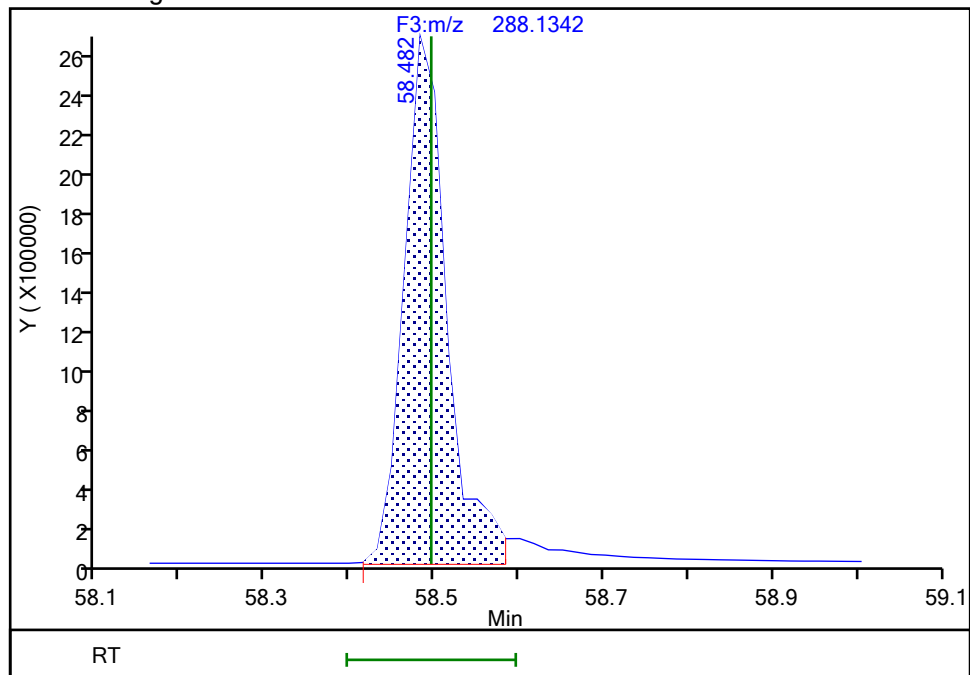
RT: 58.48  
Area: 9855389  
Amount: 110.4885  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.48  
Area: 9250572  
Amount: 105.1009  
Amount Units: pg/ul

## Manual Integration Results



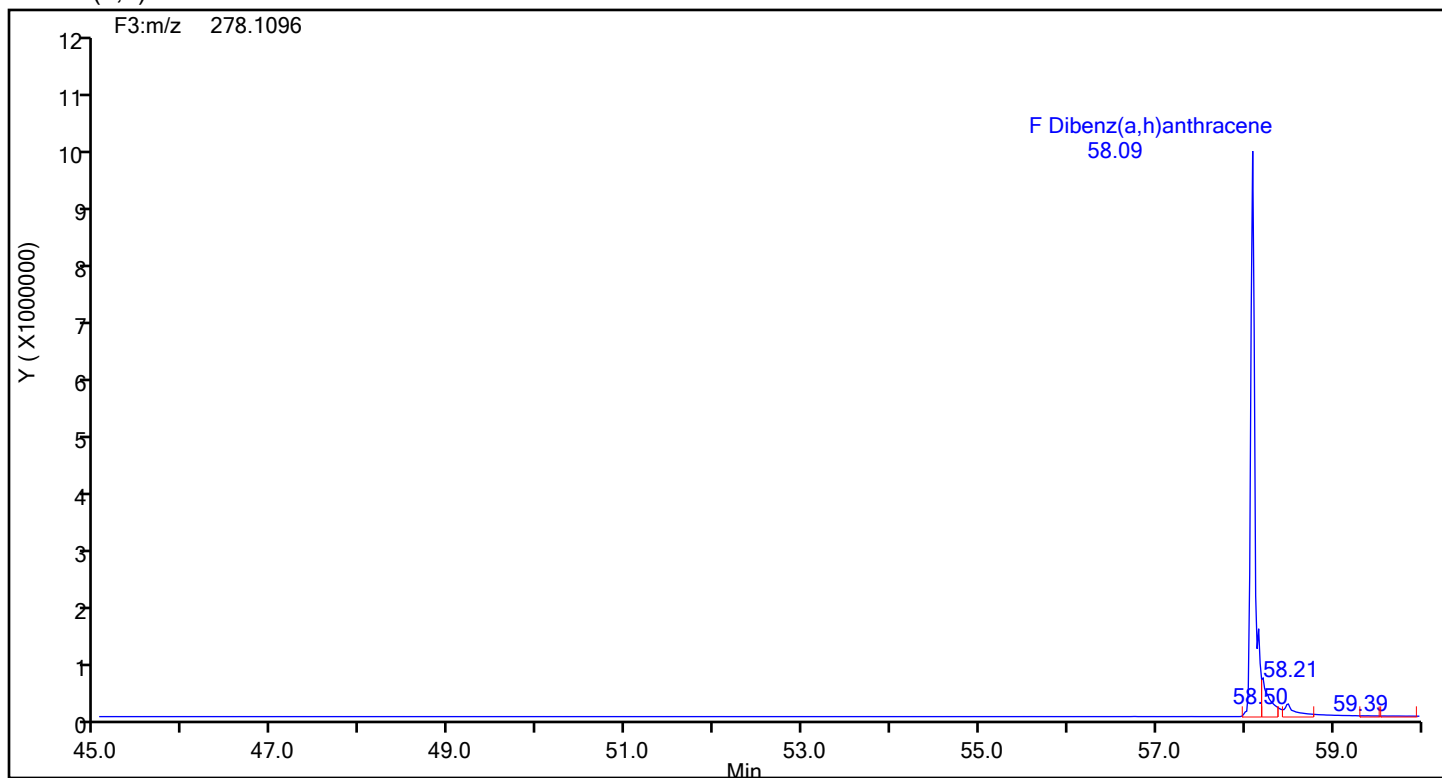
Reviewer: F9EE, 20-Jun-2024 09:39:00 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

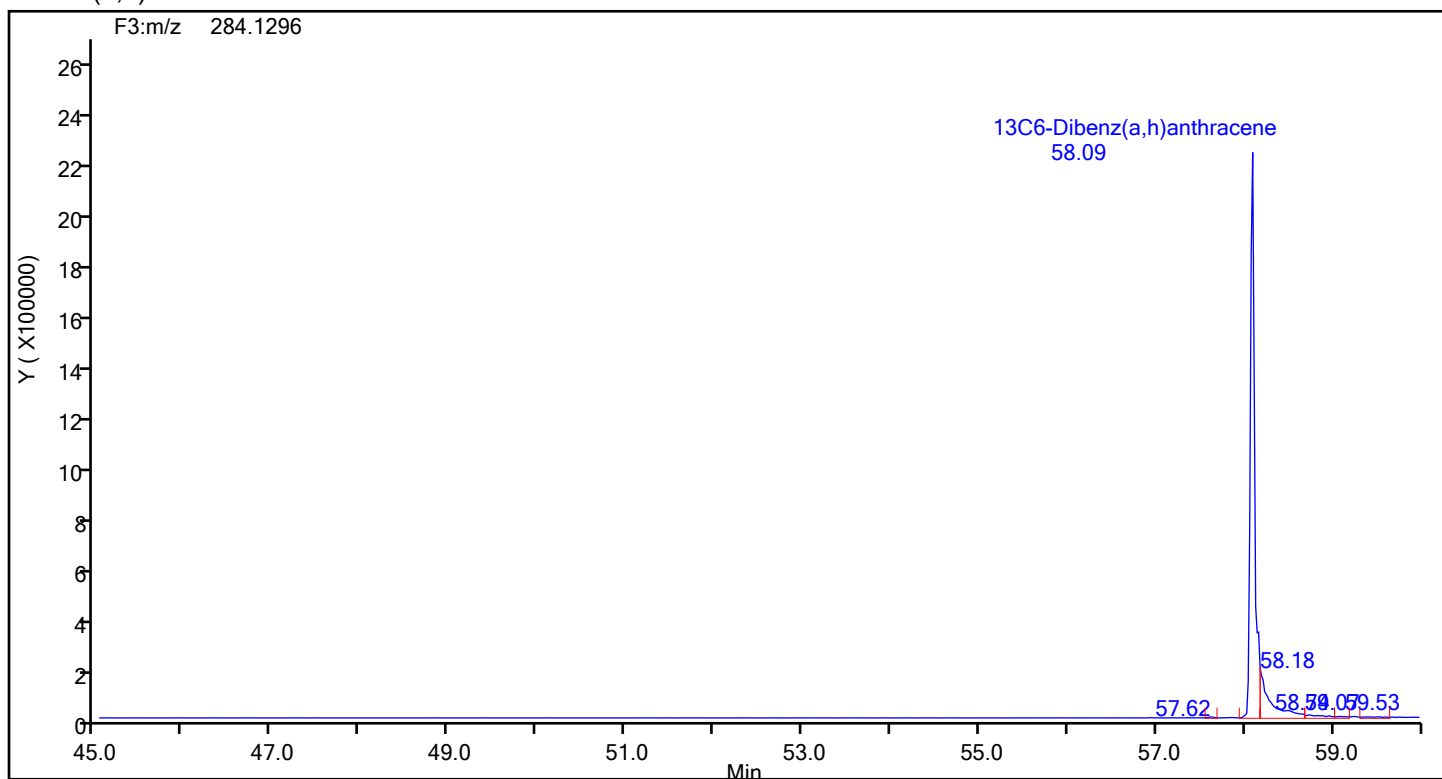
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic8.d  
Injection Date: 20-Jun-2024 00:04:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 8  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Dibenz(a,h)anthracene



## Dibenzo(a,h)anthracene Standards



## Eurofins Knoxville

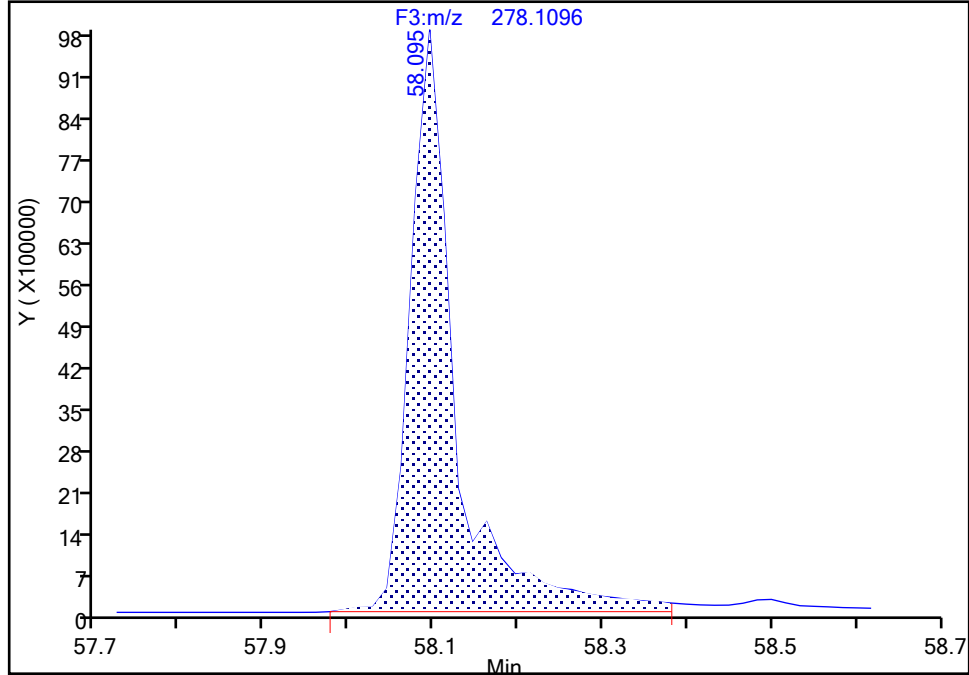
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Injection Date: 20-Jun-2024 00:04:00 Instrument ID: D3PAH  
Lims ID: IC L8  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

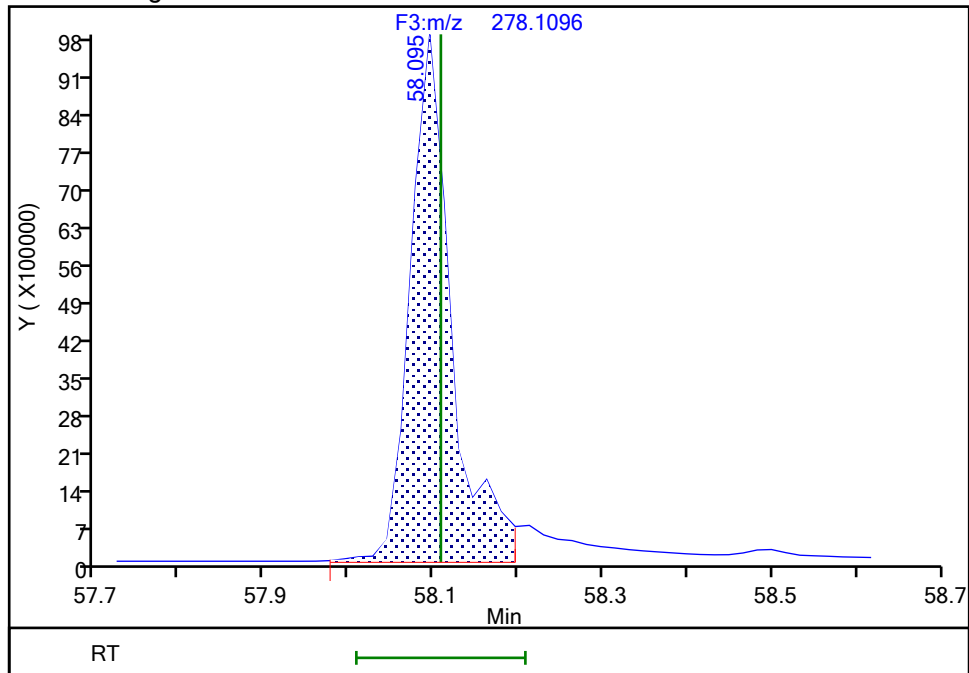
RT: 58.09  
Area: 36901922  
Amount: 419.5312  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.09  
Area: 33420949  
Amount: 383.8488  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:38:52 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration



## Eurofins Knoxville

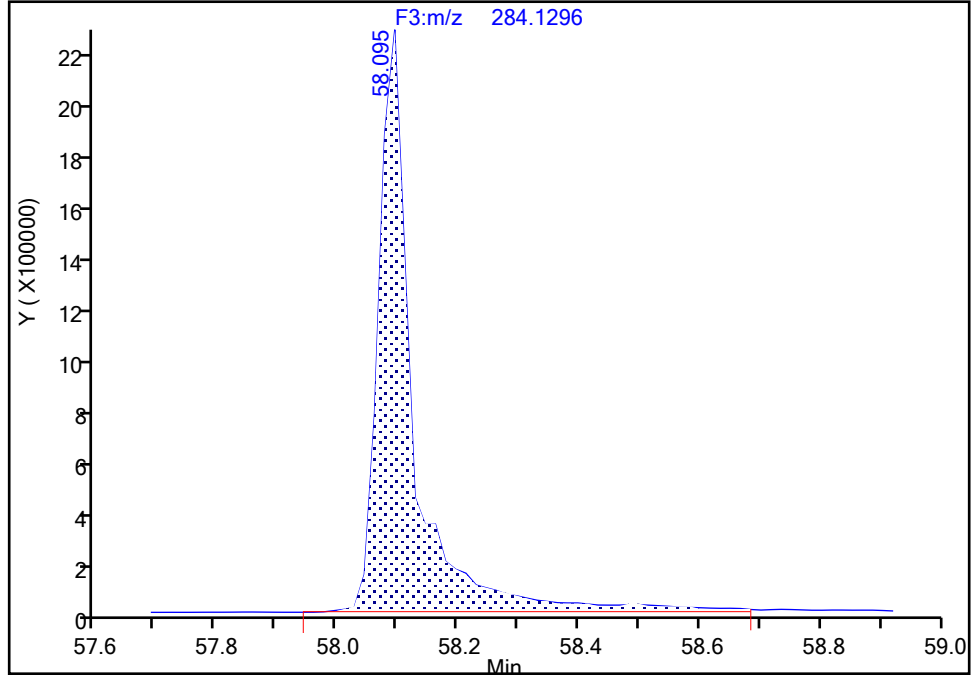
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Injection Date: 20-Jun-2024 00:04:00 Instrument ID: D3PAH  
Lims ID: IC L8  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C6-Dibenz(a,h)anthracene, CAS: ST03360**

Signal: 1

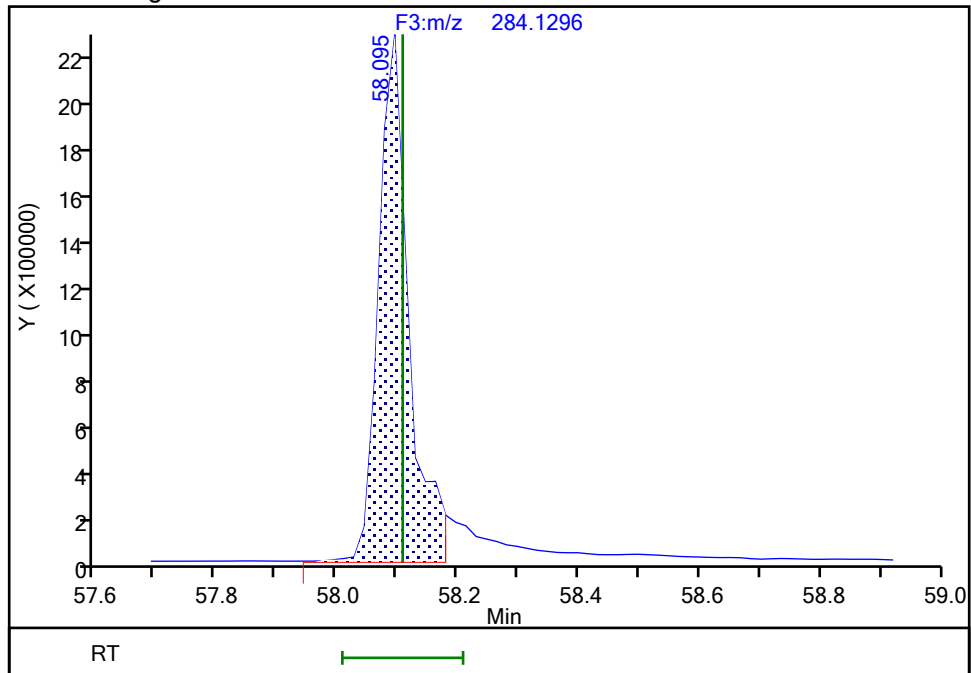
RT: 58.09  
Area: 9058656  
Amount: 120.2342  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.09  
Area: 7695778  
Amount: 105.6318  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:38:47 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Lims ID: IC L9  
Client ID:  
Sample Type: IC Calib Level: 9  
Inject. Date: 20-Jun-2024 01:09:00 ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033168-009  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAL ICAL  
Last Update: 20-Jun-2024 09:52:02 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1686

First Level Reviewer: F9EE

Date: 20-Jun-2024 09:47:32

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:32	14774767		3.3746	95.0	95.0	0.005180	0.005180	95.01	
Naphthalene	11:32	201858027		1.2893	1059.7	1059.7	0.0781	0.0781	106	
D 13C6-2-Methylnaphthalene	13:51	7285064		1.6031	98.6	98.6	0.000456	0.000456	98.62	
2-Methylnaphthalene	13:51	98360151		1.2786	1056.0	1056.0	0.0146	0.0146	106	
D 13C6-Acenaphthylene	16:43	7859583		1.6520	103.2	103.2	0.001106	0.001106	103	
Acenaphthylene	16:44	121166606		2.3661	1098.3	1098.3	0.0245	0.0245	110	
* Acenaphthene-d10	17:18	4608161		3.5E+04	100.0	100.0				
D 13C6-Acenaphthene	17:25	4662594		0.9792	103.3	103.3	0.000933	0.000933	103	
Acenaphthene	17:26	59890100		1.2697	1011.7	1011.7	0.0255	0.0255	101	
D 13C6-Fluorene	19:43	4314043		0.8898	105.2	105.2	0.000342	0.000342	105	
Fluorene	19:43	55690348		1.2532	1030.1	1030.1	0.0231	0.0231	103	
D 13C6-Phenanthrene	25:06	6524734		0.5724	114.5	114.5	0.000939	0.000939	115	
Phenanthrene	25:06	72771385		1.1044	1009.8	1009.8	0.0255	0.0255	101	
\$ Anthracin-d10	25:19	4574361		0.4257	108.0	108.0	0.001262	0.001262	108	
D 13C6-Anthracene	25:26	5177443		0.4523	115.0	115.0	0.001188	0.001188	115	
Anthracene	25:26	71918449		1.3586	1022.4	1022.4	0.0260	0.0260	102	
D 13C6-Fluoranthrene	33:51	13148739		1.1994	110.1	110.1	0.0166	0.0166	110	
Fluoranthene	33:52	162763939		1.1513	1075.2	1075.2	0.0208	0.0208	108	
* Pyrene-d10	35:24	9953605		7.9E+04	100.0	100.0				
D 13C3-Pyrene	35:33	15391681		1.3512	114.4	114.4	0.009623	0.009623	114	
Pyrene	35:33	171639473		1.0652	1046.9	1046.9	0.0202	0.0202	105	
\$ 13C6-Benzo(c)fluorene	39:15	4981238		0.5136	97.4	97.4	0.002825	0.002825	97.44	
D 13C6-Benzo(a)anthracene	46:05	12260100		1.5189	111.9	111.9	0.0105	0.0105	112	
Benzo[a]anthracene	46:05	124165534		0.9739	1039.9	1039.9	0.0444	0.0444	104	
D 13C6-Chrysene	46:21	13421719		1.6287	114.3	114.3	0.009785	0.009785	114	
Chrysene	46:21	134817195		0.9815	1023.5	1023.5	0.0409	0.0409	102	
D 13C6-Benzo(b)fluoranthene	54:38	12410189		1.4621	117.7	117.7	0.000950	0.000950	118	
Benzo[b]fluoranthene	54:38	155779264		1.1249	1115.9	1115.9	0.005269	0.005269	112	
\$ 13C12-Benzo(j)fluoranthene	54:40	11887745		1.3558	121.6	121.6	0.0121	0.0121	122	
D 13C6-Benzo(k)fluoranthene	54:45	16130058		1.7507	127.8	127.8	0.000794	0.000794	128	
Benzo[k]fluoranthene	54:46	180500584		1.1271	992.9	992.9	0.004443	0.004443	99.29	
* Benzo(e)pyrene-d12	55:28	7211924		5.7E+04	100.0	100.0				
D 13C4-Benzo(e)pyrene	55:33	14222064		1.6368	120.5	120.5	0.009604	0.009604	120	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
Benzo[e]pyrene	55:33	156044174		1.0013	1095.8	1095.8	0.004323	0.004323	110	
Benzo[a]pyrene	55:42	158831908		1.1130	985.6	985.6	0.004552	0.004552	98.56	
D 13C4-Benzo(a)pyrene	55:41	14479273		1.5508	129.5	129.5	0.0101	0.0101	129	
D Perylene-d12	55:52	9436646		1.1917	109.8	109.8	0.0128	0.0128	110	
Perylene	55:57	179211720		1.4307	1327.4	1327.4	0.005164	0.005164	133	
D 13C6-Indeno(1,2,3-cd)pyrene	58:01	8585756		1.0218	116.5	116.5	0.007947	0.007947	117	
Indeno[1,2,3-cd]pyrene	58:01	113067905		1.1249	1170.7	1170.7	0.006481	0.006481	117	M
D 13C6-Dibenz(a,h)anthracene	58:05	9436274		1.0553	124.0	124.0	0.005350	0.005350	124	M
Dibenz(a,h)anthracene	58:05	110582572		1.1314	1035.8	1035.8	0.005350	0.005350	104	M
D 13C12-Benzo(ghi)perylene	58:29	11042946		1.2749	120.1	120.1	0.003985	0.003985	120	M
Benzo[g,h,i]perylene	58:29	147488032		1.2838	1040.4	1040.4	0.004891	0.004891	104	M

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

61HRPAHCS7\_00002

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

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Client ID:  
Sample Type: IC Calib Level: 9  
Inject. Date: 20-Jun-2024 01:09:00 ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033168-009  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 20-Jun-2024 09:52:02 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1686

First Level Reviewer: F9EE

Date: 20-Jun-2024 09:47:32

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:32	11:33	-1	0.666	14774767	5075353	115	287	44134		
Naphthalene											
128.0626	11:32	11:34	-2	1.000	201858027	75720333	2044	5110	37045		
13C6-2-Methylnaphthalene											
148.0984	13:51	13:52	-1	0.800	7285064	3487207	5	12	697441		
2-Methylnaphthalene											
142.0783	13:51	13:53	-2	1.000	98360151	48803300	260	650	187705		
13C6-Acenaphthylene											
158.0828	16:43	16:45	-2	0.966	7859583	2853768	12	30	237814		
Acenaphthylene											
152.0626	16:44	16:45	-1	1.000	121166606	45941648	377	942	121861		
Acenaphthene-d10											
164.1404	17:18	17:20	-2		4608161	1641835	1	2	1641835		
13C6-Acenaphthene											
160.0984	17:25	17:27	-2	1.007	4662594	1626235	6	15	271039		
Acenaphthene											
154.0783	17:26	17:27	-1	1.001	59890100	22203742	211	527	105231		
13C6-Fluorene											
172.0984	19:43	19:45	-2	1.139	4314043	1349147	2	5	674574		
Fluorene											
166.0783	19:43	19:45	-1	1.001	55690348	17483856	156	390	112076		
13C6-Phenanthrene											
184.0984	25:06	25:08	-2	0.709	6524734	1529385	4	10	382346		
Phenanthrene											
178.0783	25:06	25:08	-2	1.000	72771385	18115584	172	430	105323		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:19	25:21	-3	0.715	4574361	1065461	4	10	266365		
13C6-Anthracene											
184.0984	25:26	25:28	-2	0.718	5177443	1219654	4	10	304914		
Anthracene											
178.0783	25:26	25:28	-2	1.000	71918449	17498624	172	430	101736		
13C6-Fluoranthrene											
208.0984	33:51	33:54	-3	0.956	13148739	2677473	148	370	18091		
Fluoranthene											
202.0783	33:52	33:54	-2	1.000	162763939	35373186	256	640	138177		
Pyrene-d10											
212.1404	35:24	35:27	-3		9953605	1861110	59	147	31544		
13C3-Pyrene											
205.0883	35:33	35:35	-2	1.004	15391681	2978975	97	242	30711		
Pyrene											
202.0783	35:33	35:35	-2	1.000	171639473	35747469	256	640	139639		
13C6-Benzo(c)fluorene											
222.1134	39:15	39:18	-3	0.708	4981238	919788	11	27	83617		
13C6-Benzo(a)anthracene											
234.1140	46:05	46:07	-2	1.302	12260100	2255206	147	367	15342		
Benzo[a]anthracene											
228.0939	46:05	46:07	-2	1.000	124165534	23766409	390	975	60940		
13C6-Chrysene											
234.1140	46:21	46:24	-2	1.310	13421719	2427915	147	367	16516		
Chrysene											
228.0939	46:21	46:25	-3	1.000	134817195	25201289	390	975	64619		
13C6-Benzo(b)fluoranthene											
258.1140	54:38	54:40	-2	0.985	12410189	3576558	13	32	275120		
Benzo[b]fluoranthene											
252.0939	54:38	54:40	-2	1.000	155779264	44191411	85	212	519899		
13C12-Benzo(j)fluoranthene											
264.1336	54:40	54:42	-2	0.985	11887745	3118662	151	377	20653		
13C6-Benzo(k)fluoranthene											
258.1140	54:45	54:47	-2	0.987	16130058	4233691	13	32	325669		
Benzo[k]fluoranthene											
252.0939	54:46	54:47	-1	1.000	180500584	50269875	85	212	591410		
Benzo(e)pyrene-d12											
264.1692	55:28	55:30	-2		7211924	2302707	141	352	16331		
13C4-Benzo(e)pyrene											
256.1073	55:33	55:35	-2	1.002	14222064	4897285	145	362	33774		
Benzo[e]pyrene											
252.0939	55:33	55:35	-2	1.000	156044174	54451536	85	212	640606		
Benzo[a]pyrene											
252.0939	55:42	55:44	-1	1.000	158831908	53036103	85	212	623954		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C4-Benzo(a)pyrene											
256.1073	55:41	55:44	-2	1.004	14479273	4184053	145	362	28856		
Perylene-d12											
264.1692	55:52	55:54	-2	1.007	9436646	2869477	141	352	20351		
Perylene											
252.0939	55:57	55:58	-1	1.002	179211720	59244250	85	212	696991		
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	58:01	58:02	-1	1.046	8585756	2880154	75	187	38402		
Indeno[1,2,3-cd]pyrene											
276.0939	58:01	58:03	-2	1.000	113067905	36563722	84	210	435282		M
13C6-Dibenz(a,h)anthracene											
284.1296	58:05	58:07	-2	1.047	9436274	2676473	52	130	51471		M
Dibenz(a,h)anthracene											
278.1096	58:05	58:07	-2	1.000	110582572	31259898	65	162	480922		M
13C12-Benzo(ghi)perylene											
288.1342	58:29	58:30	-1	1.054	11042946	3344331	47	117	71156		M
Benzo[g,h,i]perylene											
276.0939	58:29	58:31	-2	1.000	147488032	46166538	84	210	549602		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61HRPAHCS7\_00002

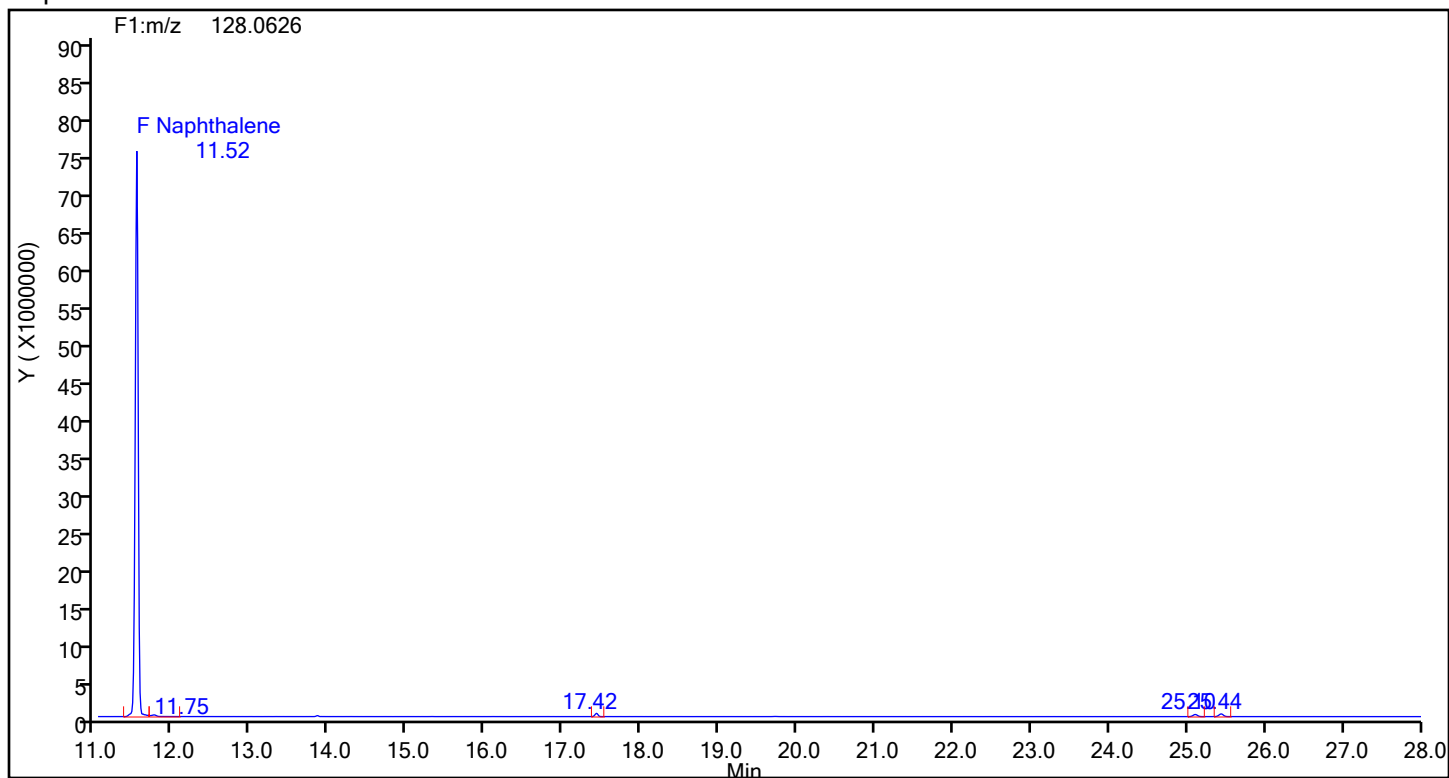
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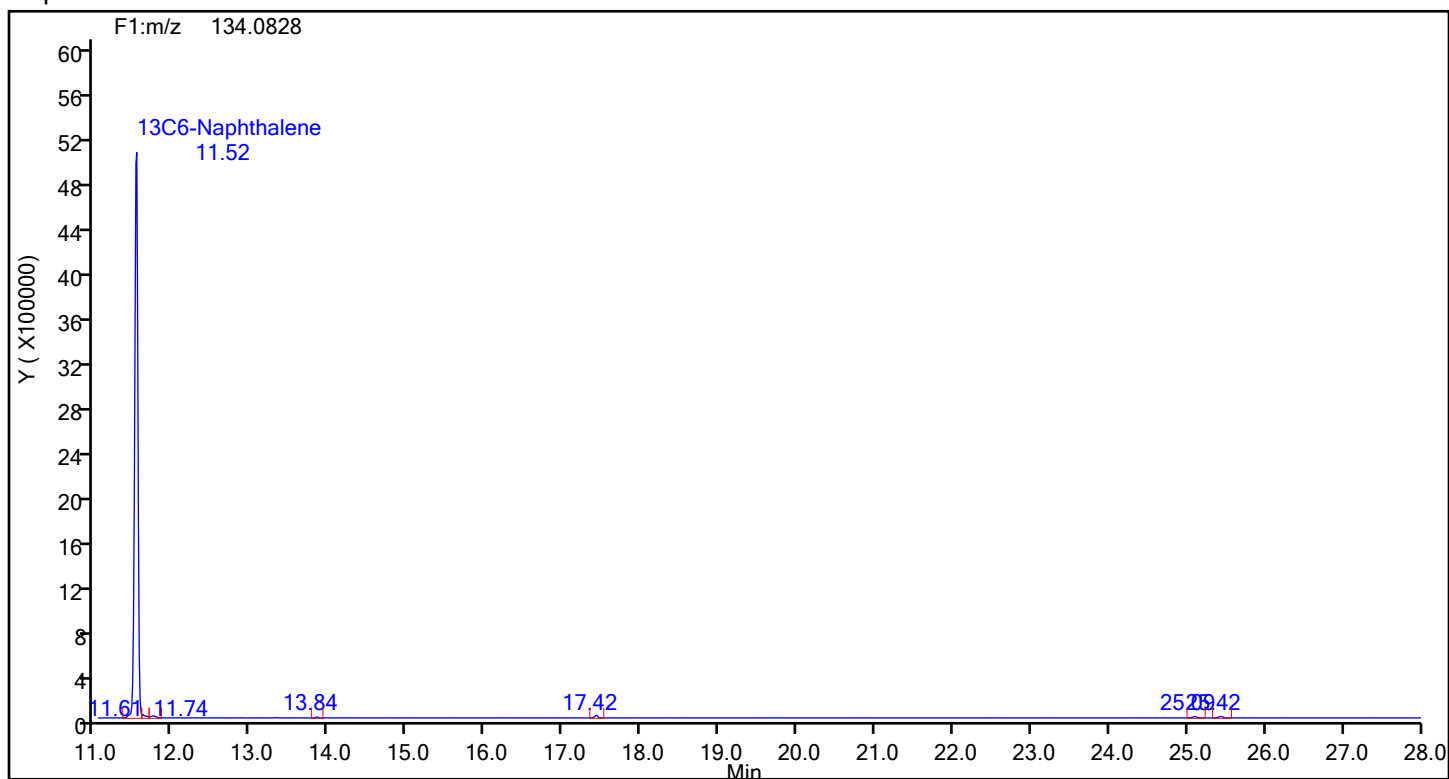
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



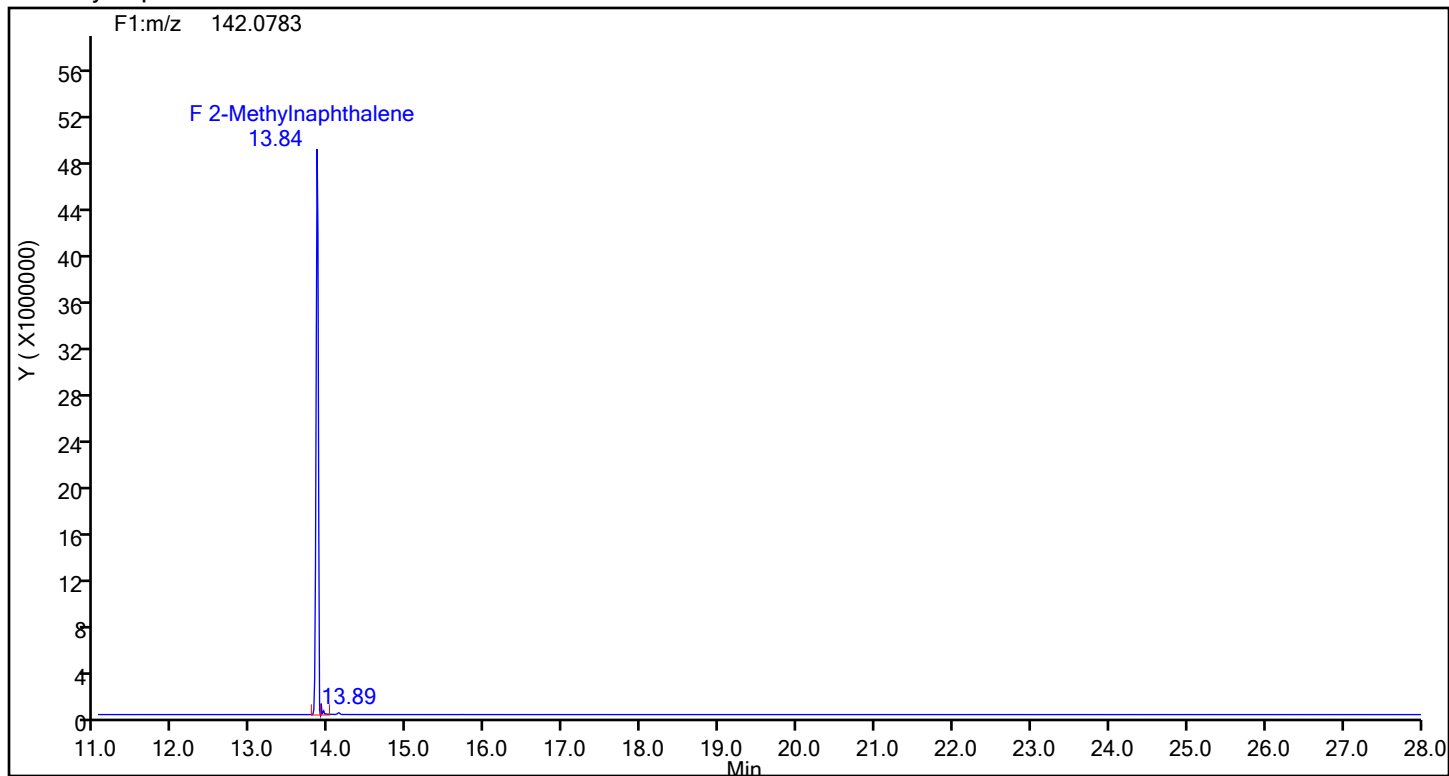
## Naphthalene Standards



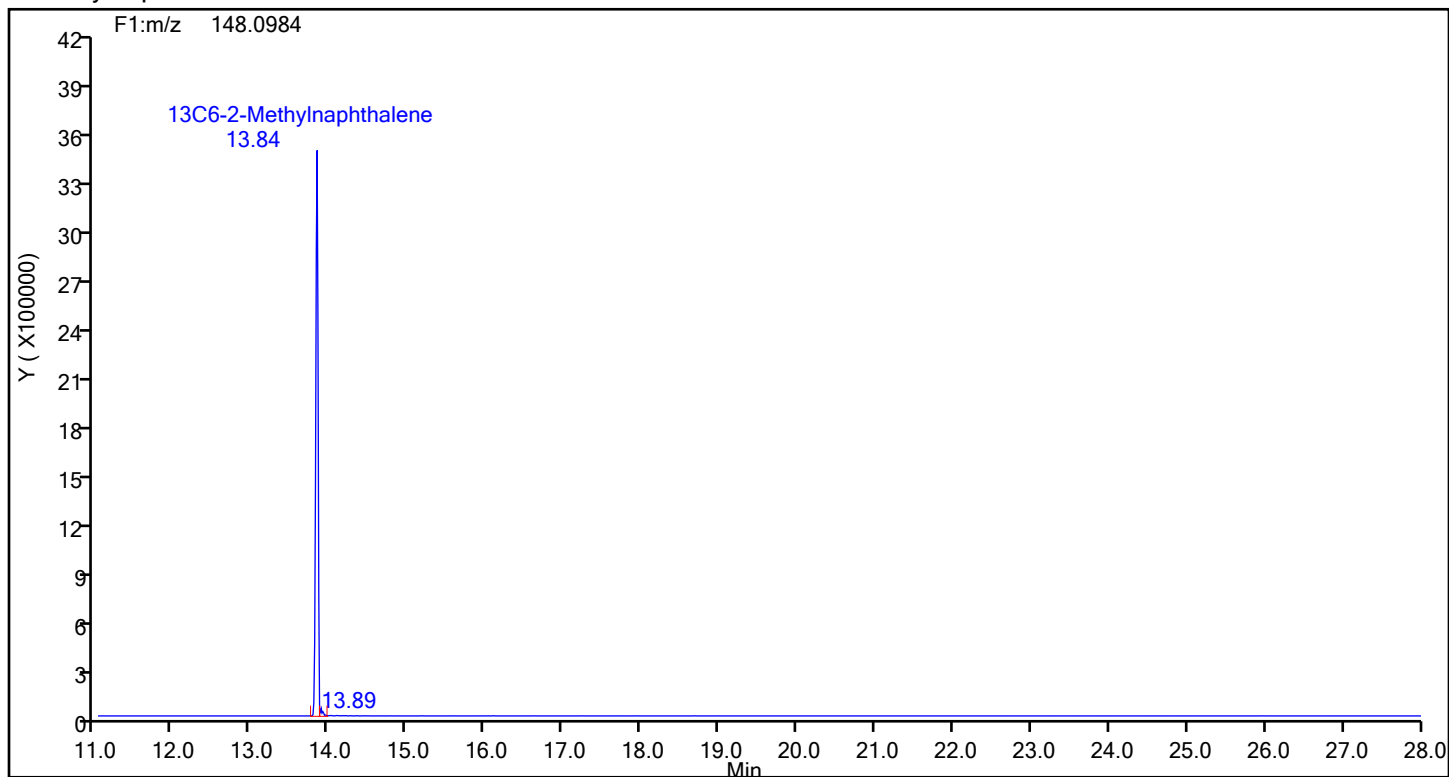
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Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



## 2-Methylnaphthalene Standards

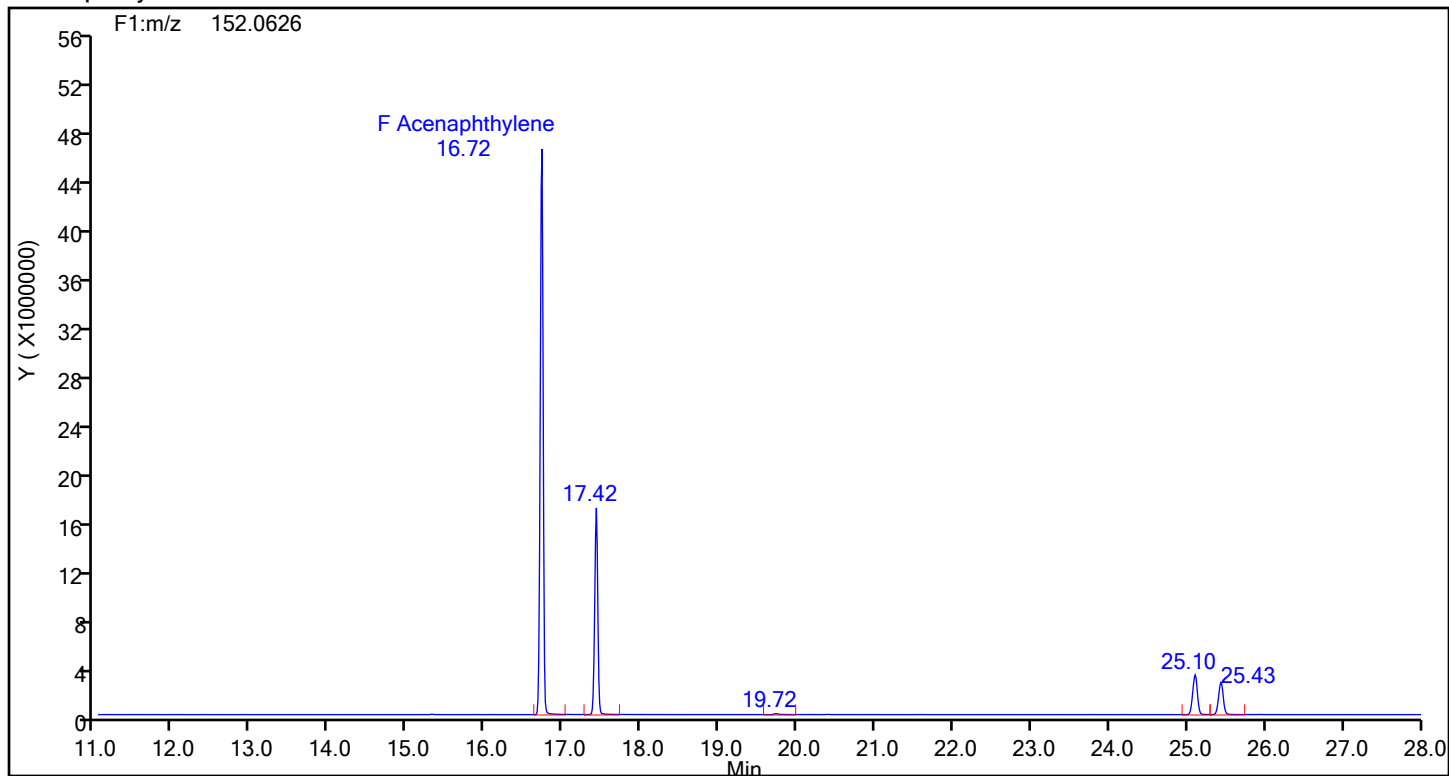




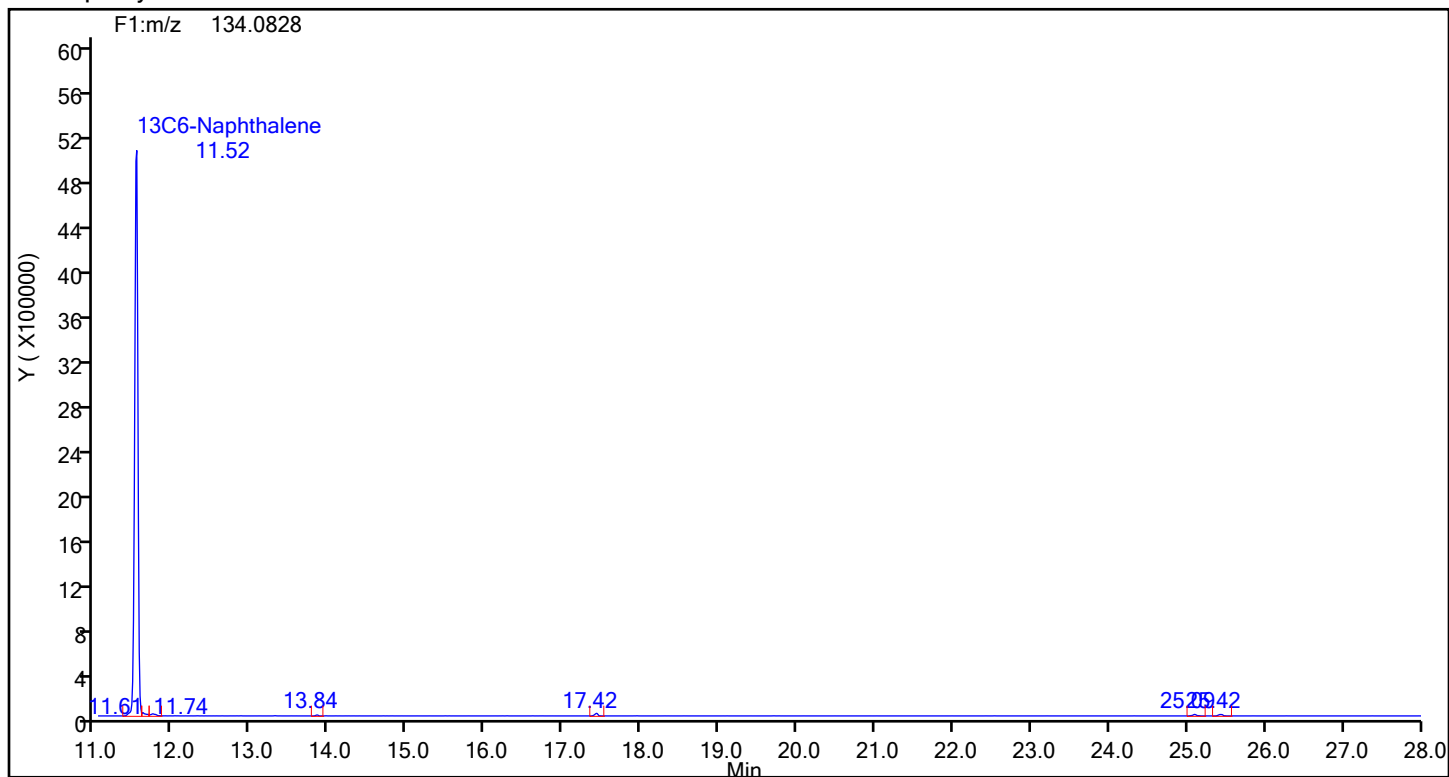
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
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Worklist#: 87843 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene

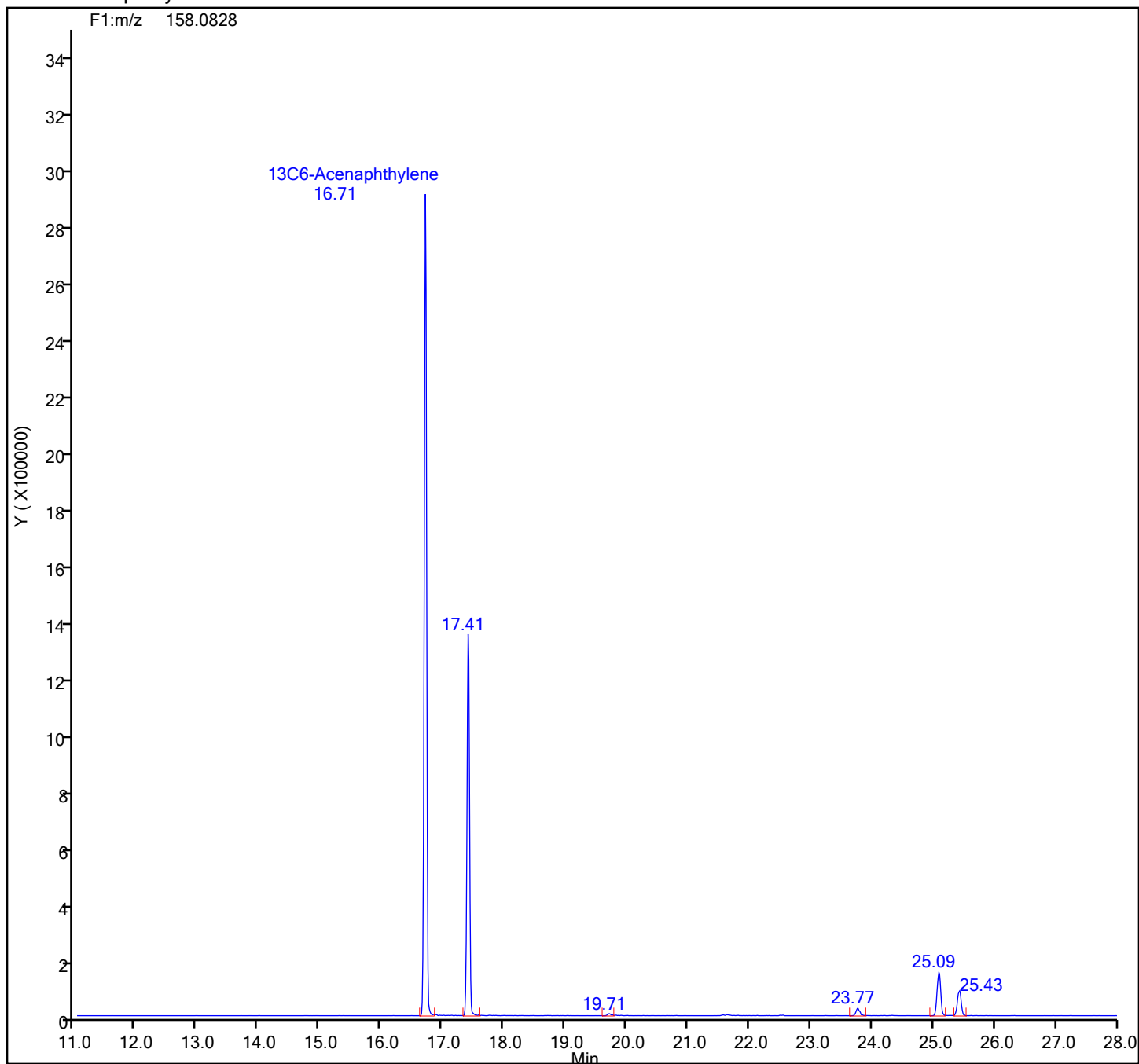


## Acenaphthylene Standards



## Eurofins Knoxville

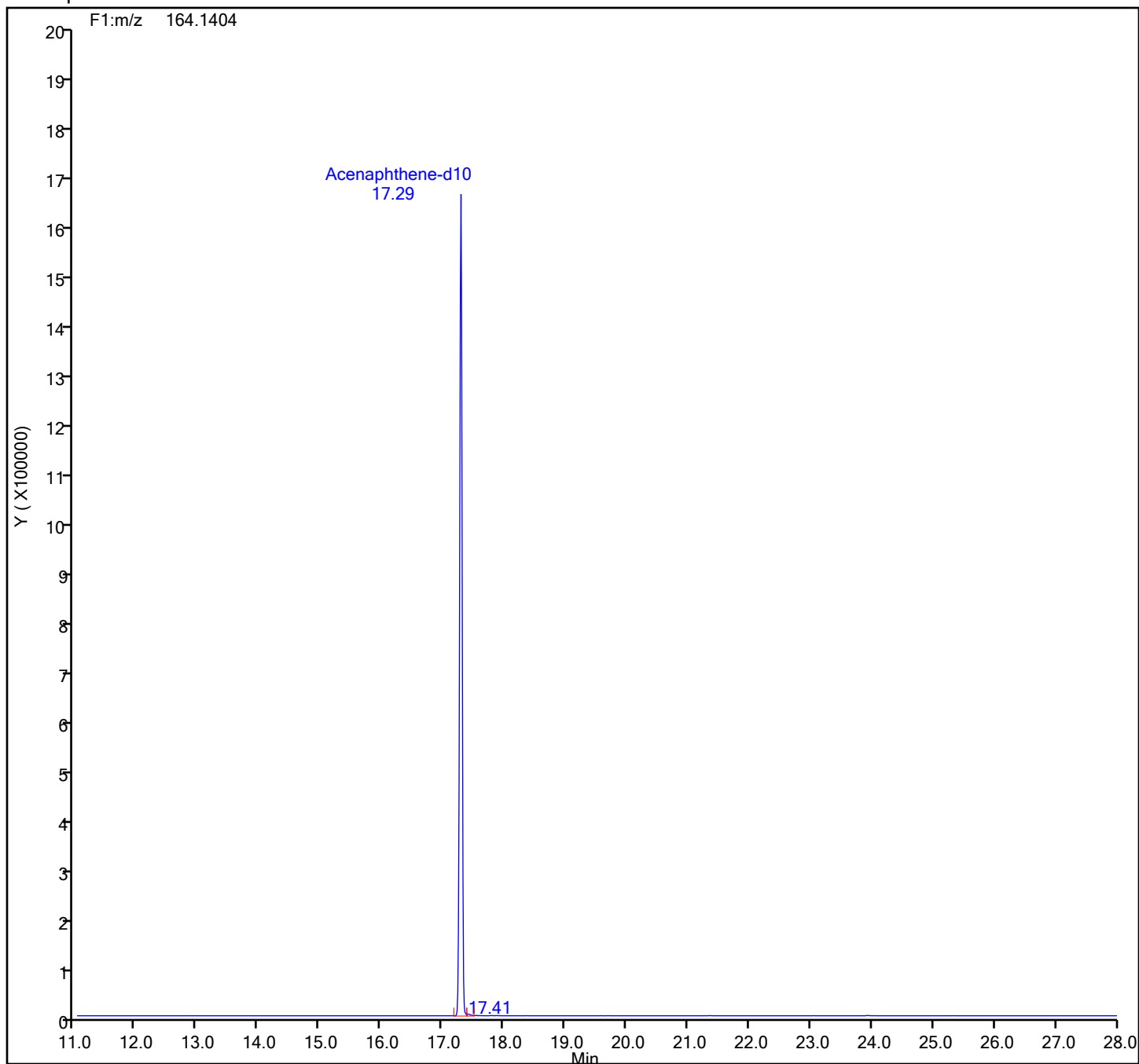
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAL ICAL  
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
13C6-Acenaphthylene Standards



## Eurofins Knoxville

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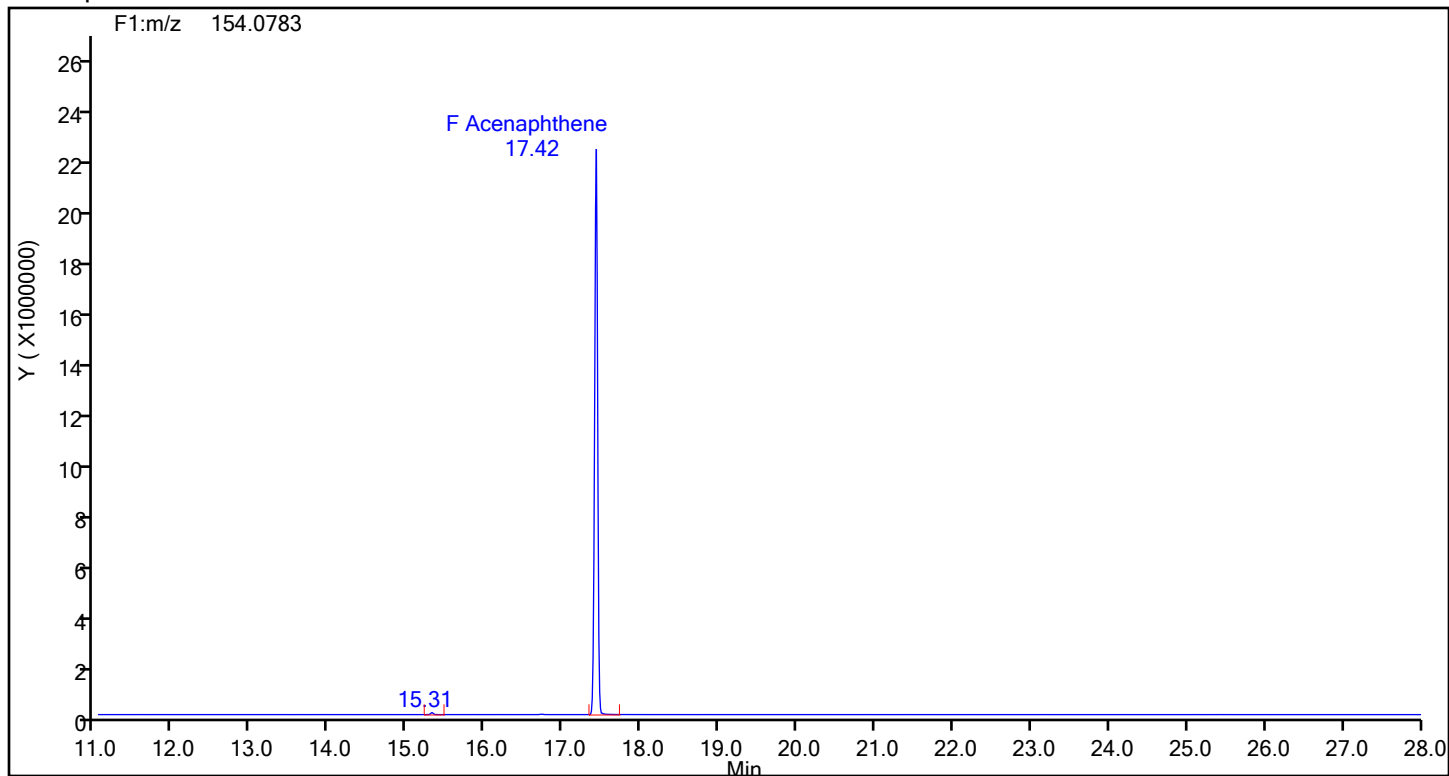
## Acenaphthene-d10 Standards



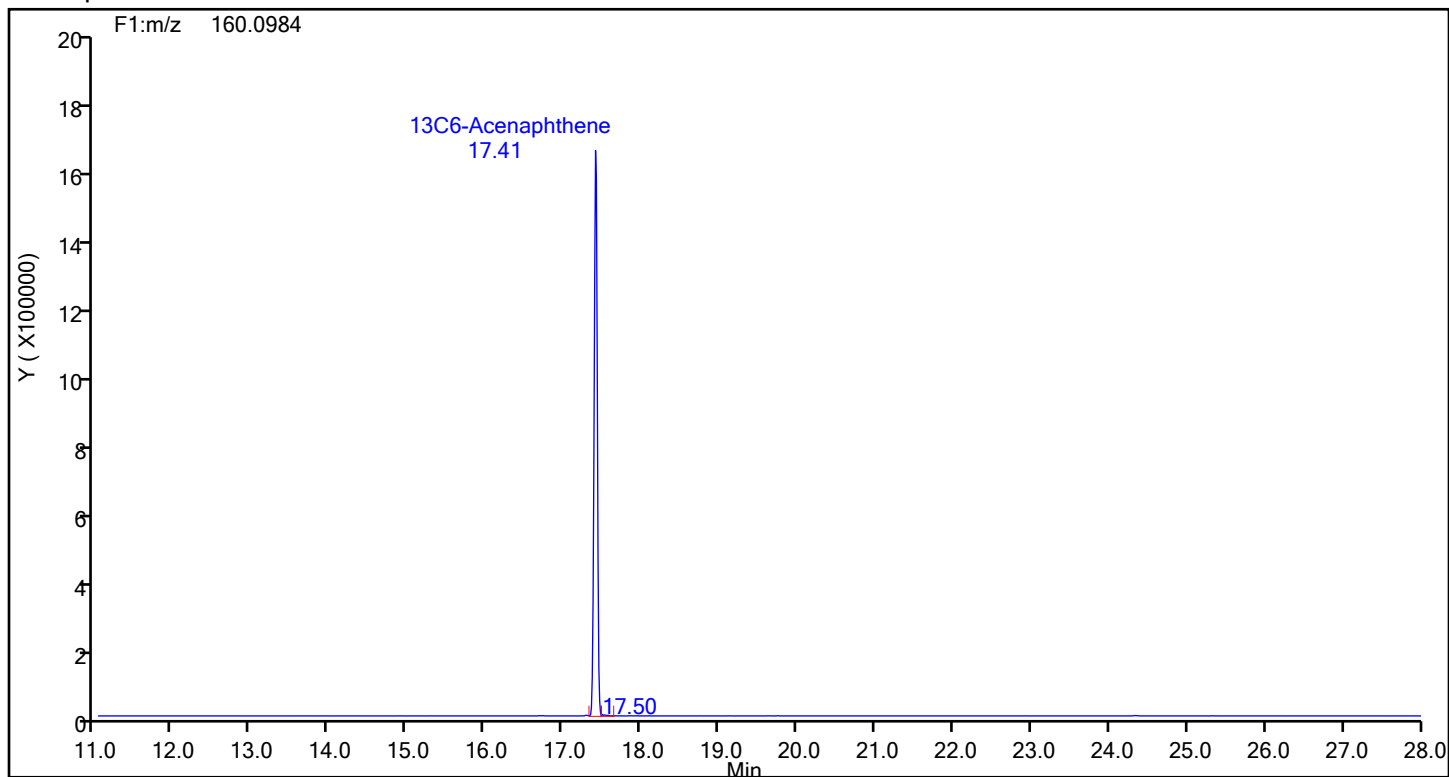
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



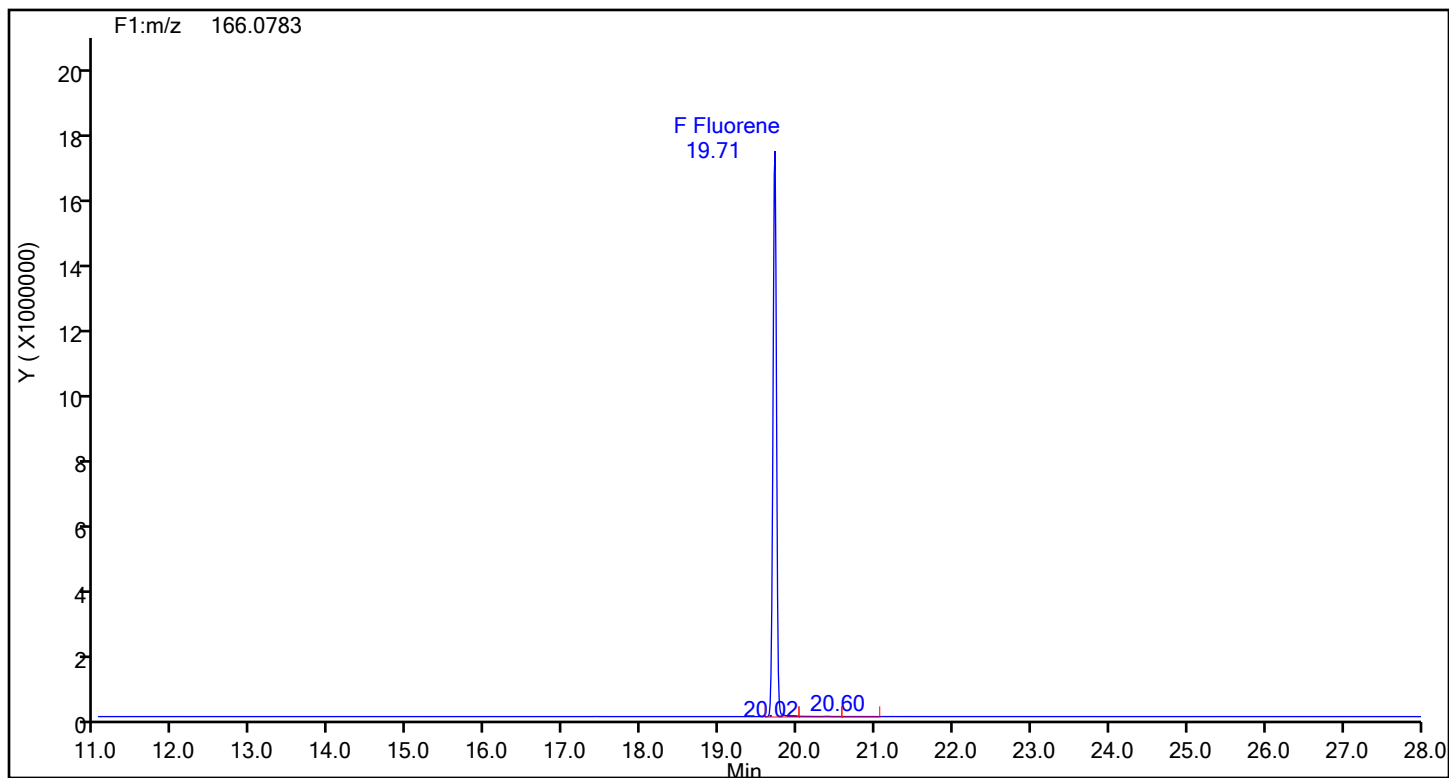
## Acenaphthene Standards



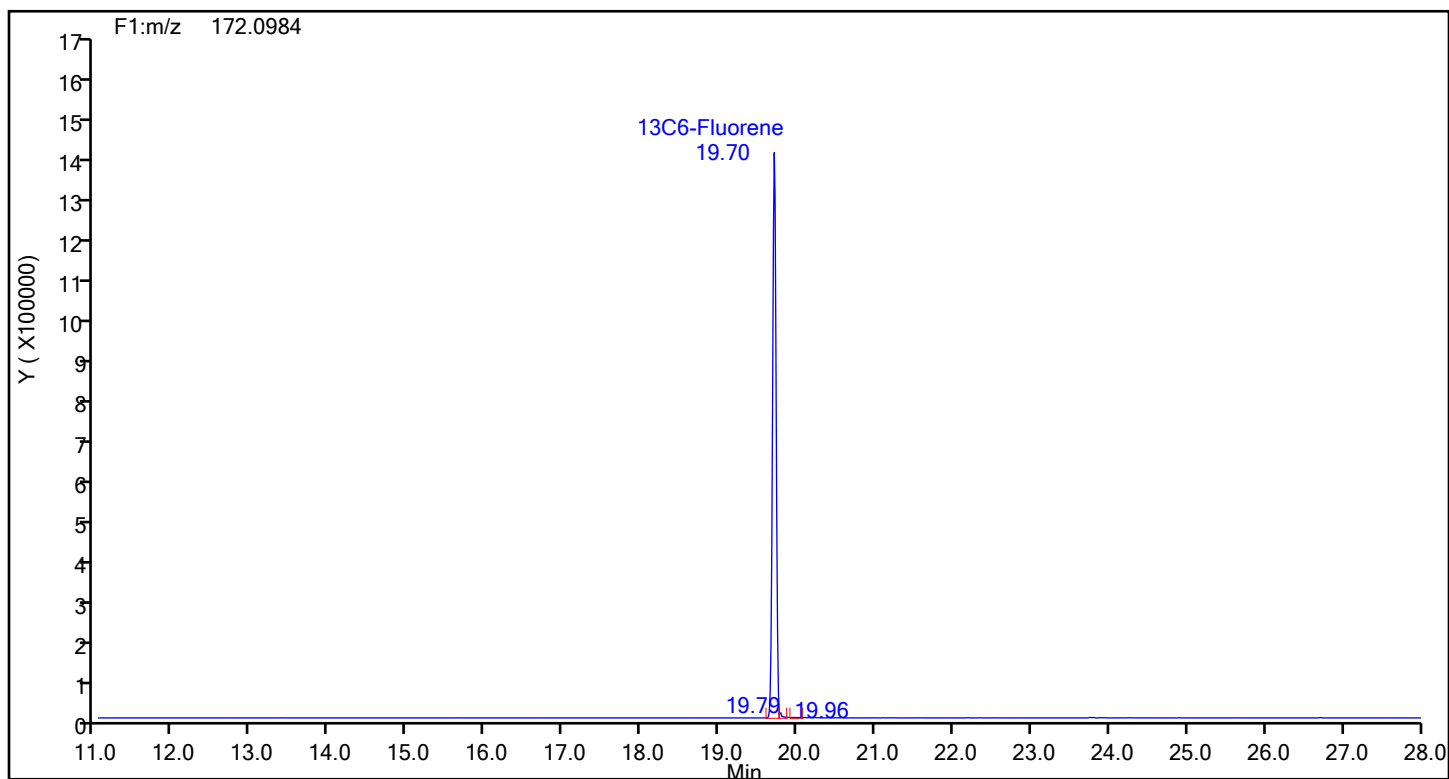
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene



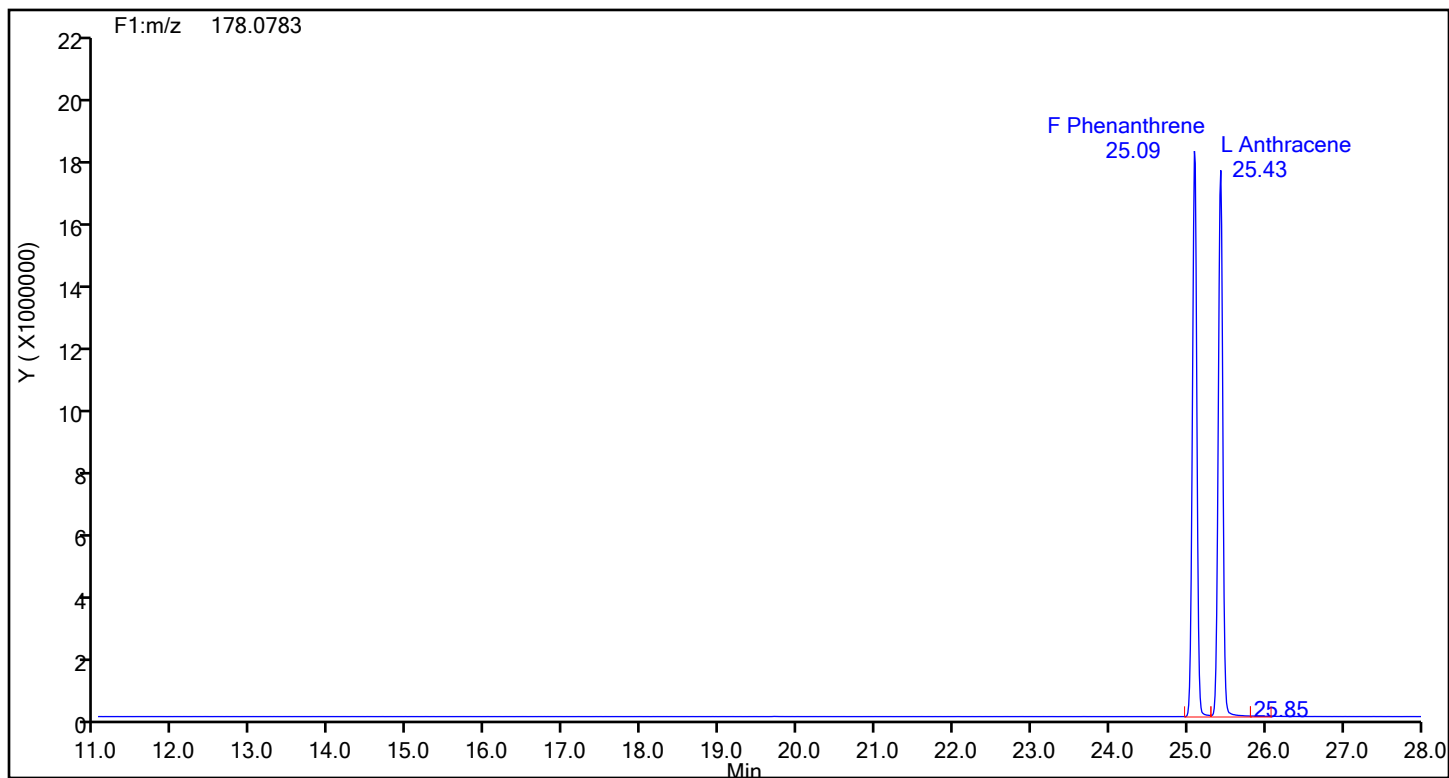
## Fluorene Standards



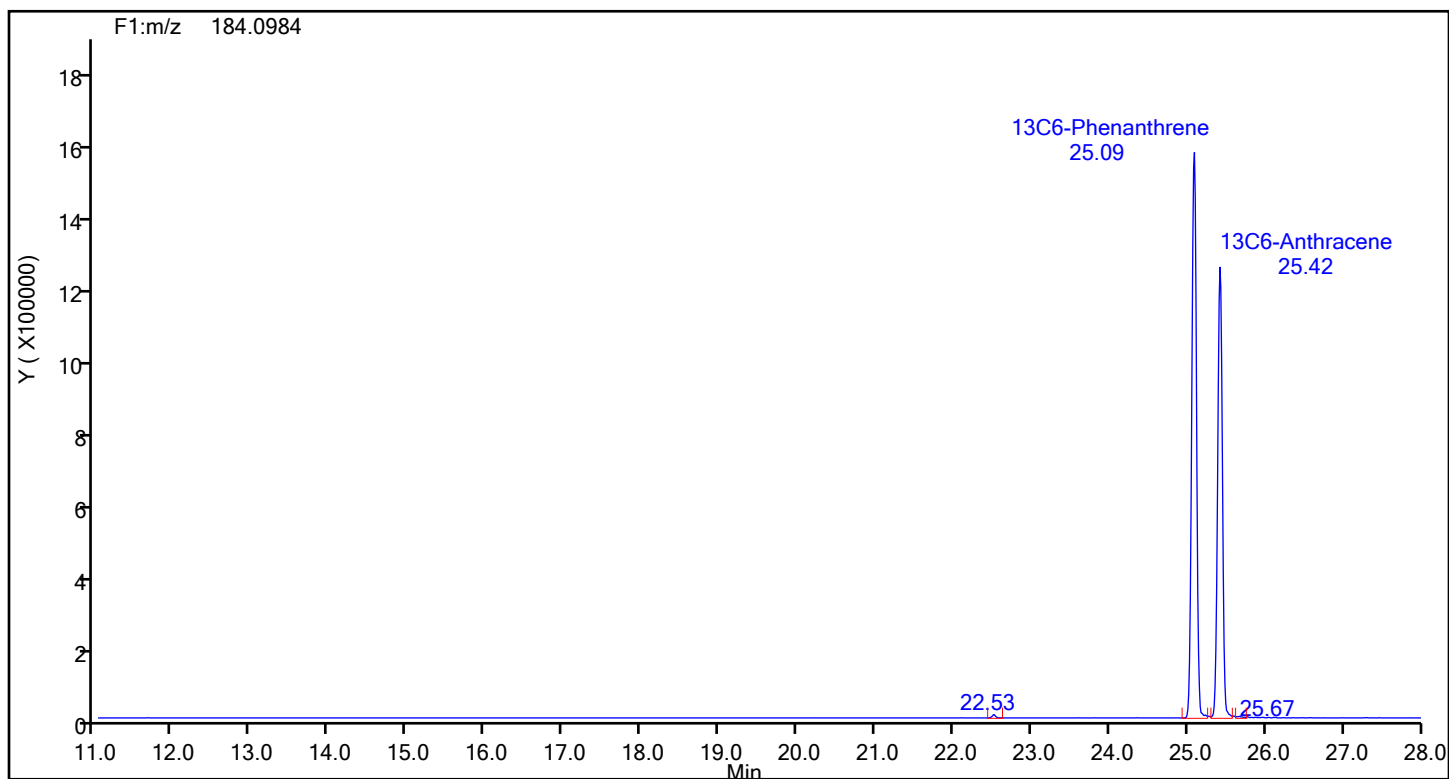
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
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## Phenanthrene

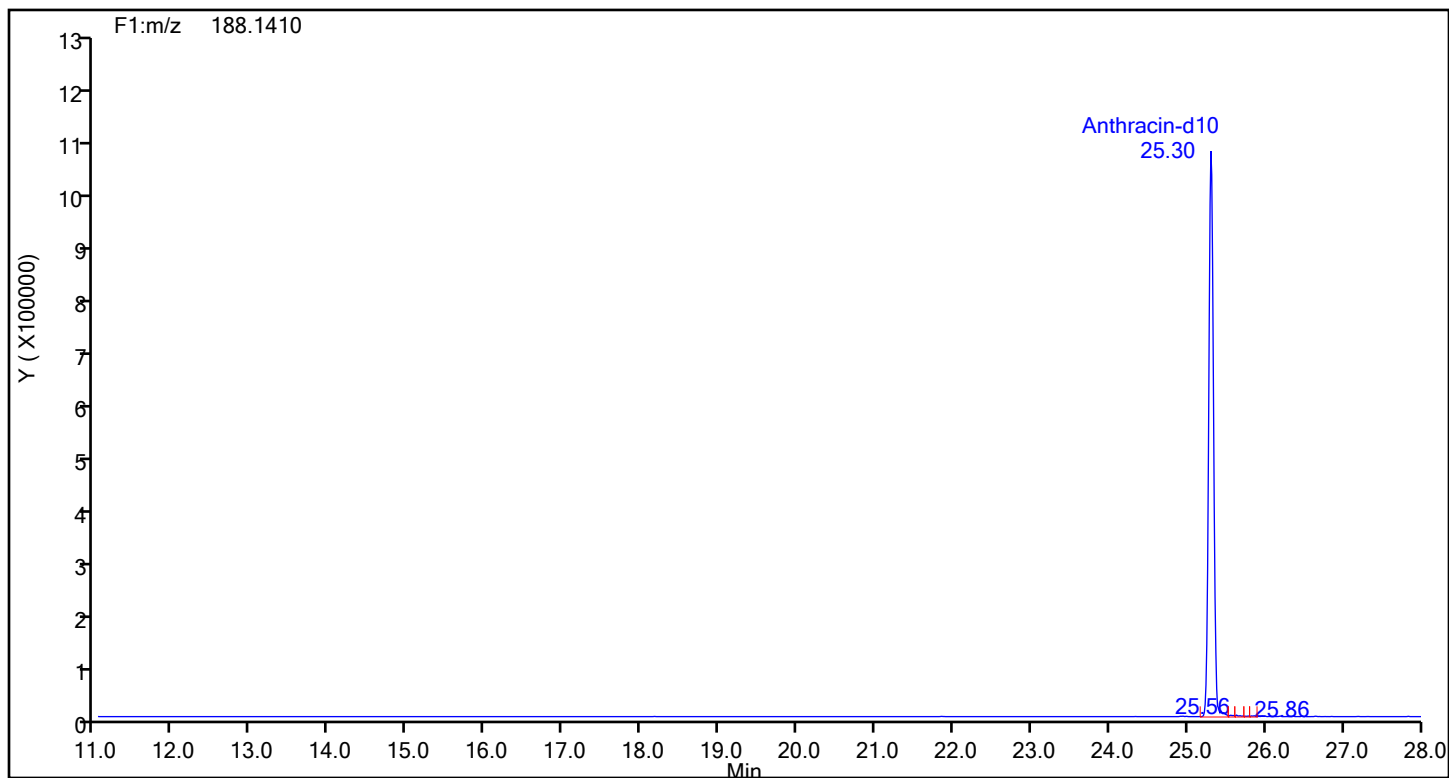


## Phenanthrene Standards

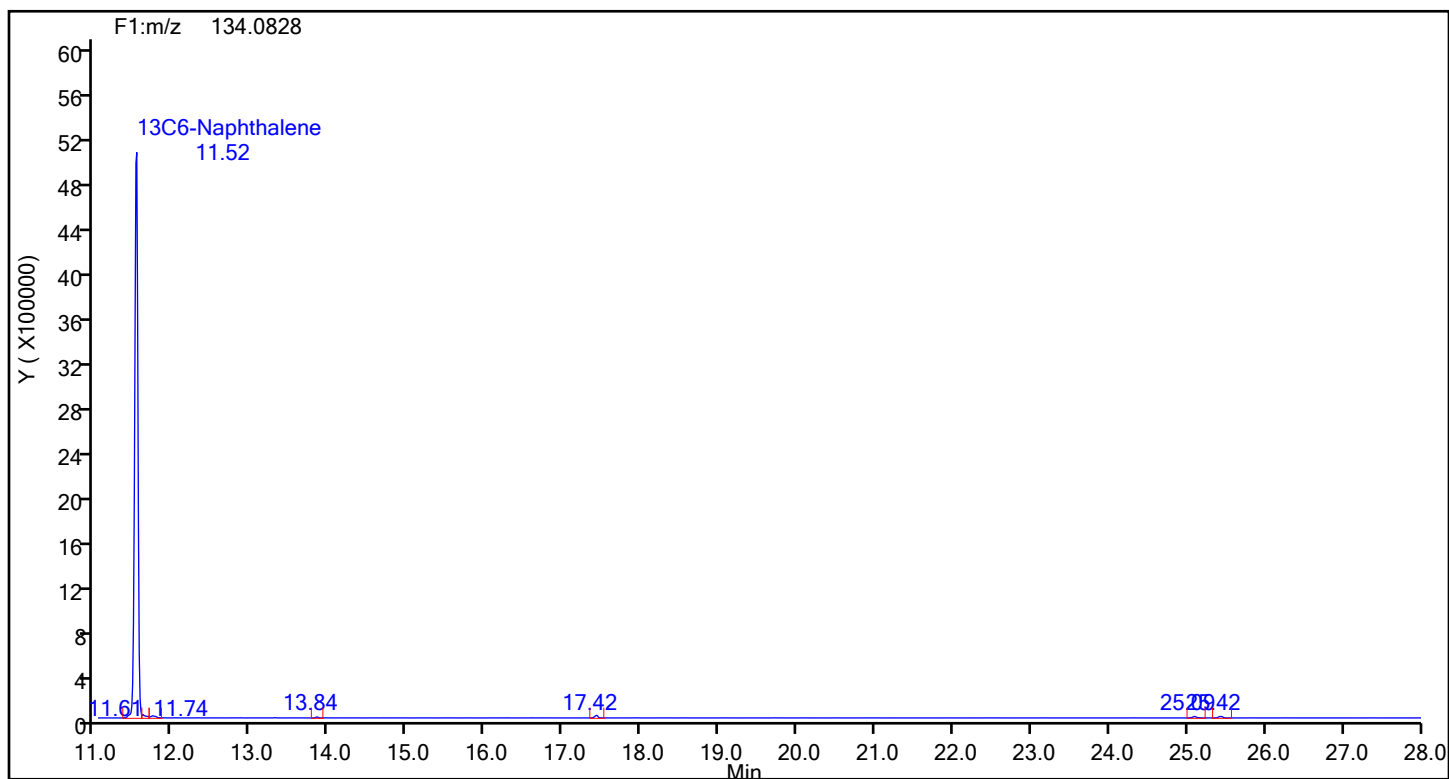


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Client ID:  
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Anthracin-d10

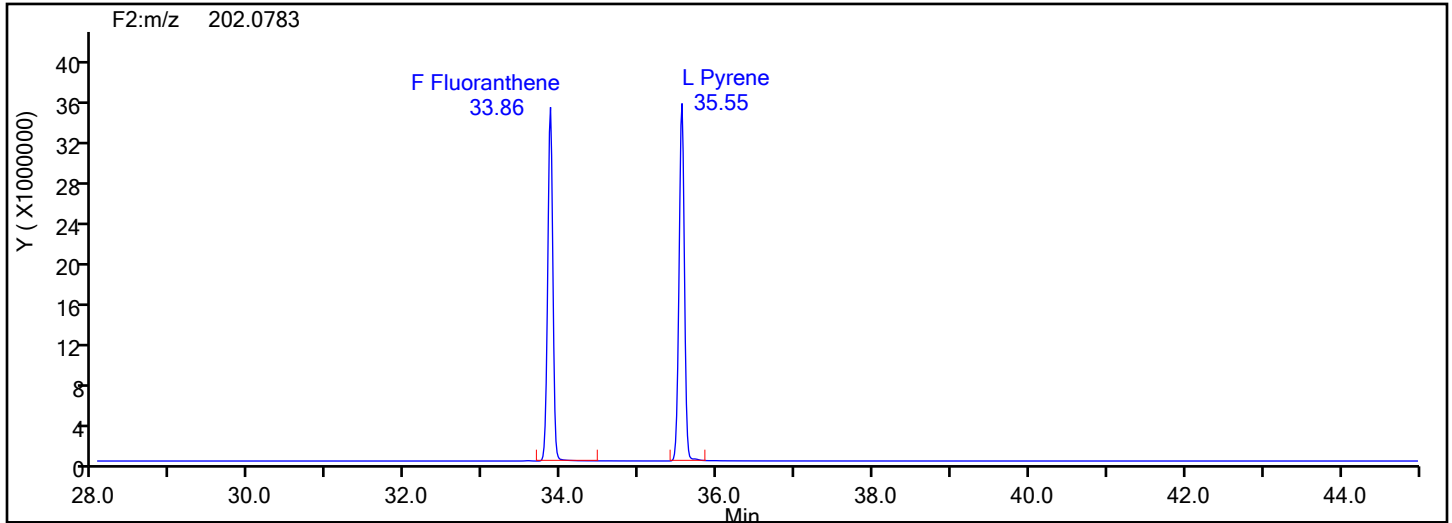


## Anthracin-d10 Standards

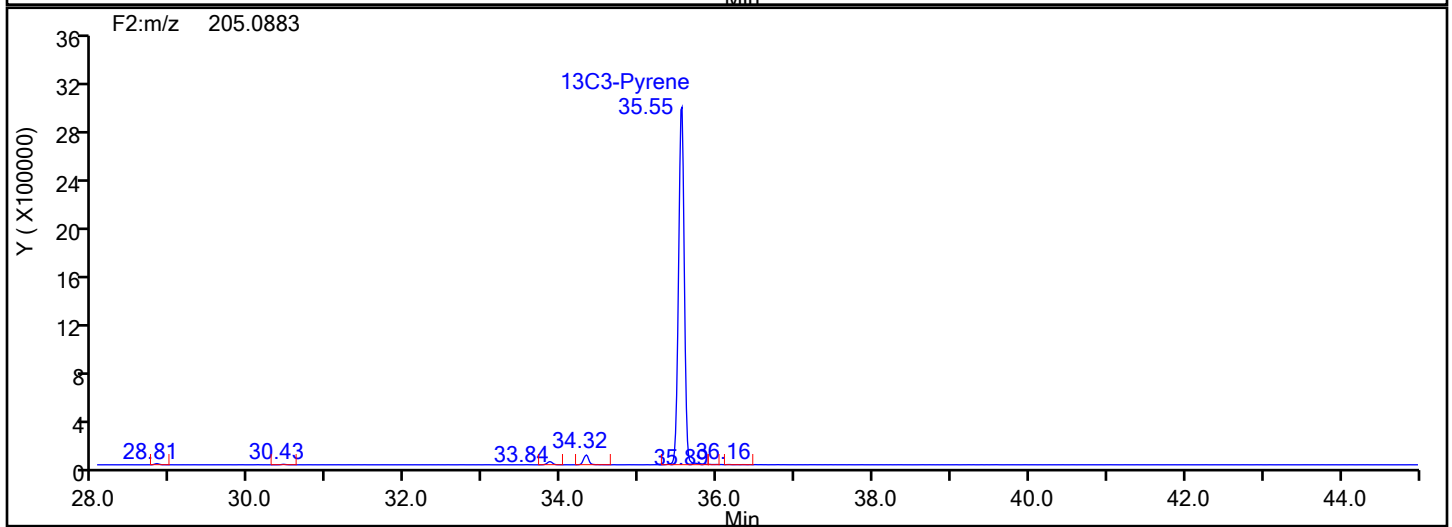
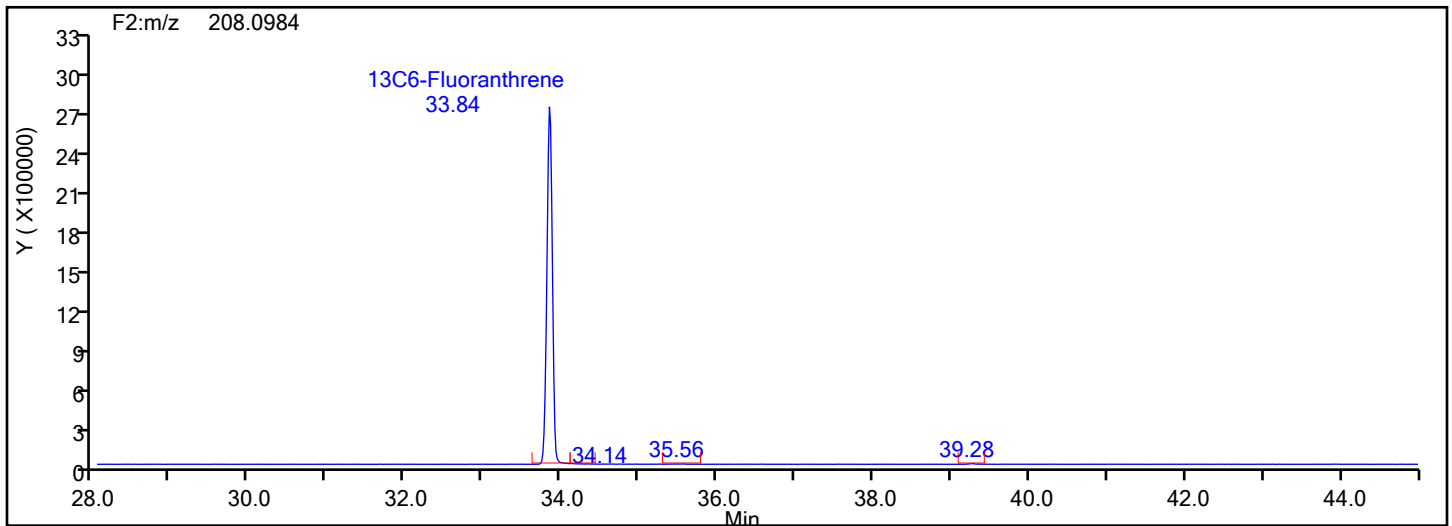


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Injection Date: 20-Jun-2024 01:09:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Fluoranthene



## Fluoranthene Standards

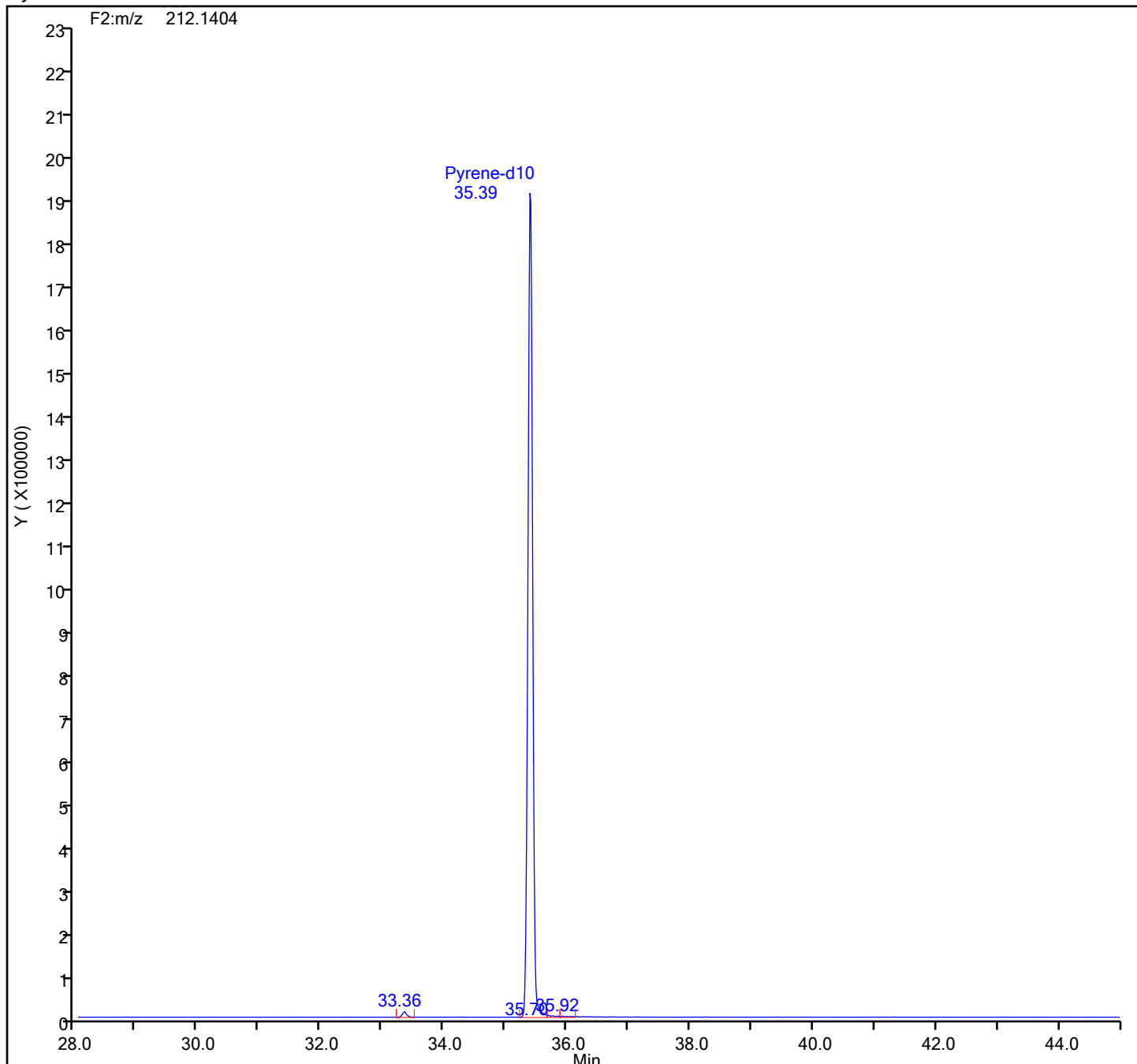




## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Injection Date: 20-Jun-2024 01:09:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

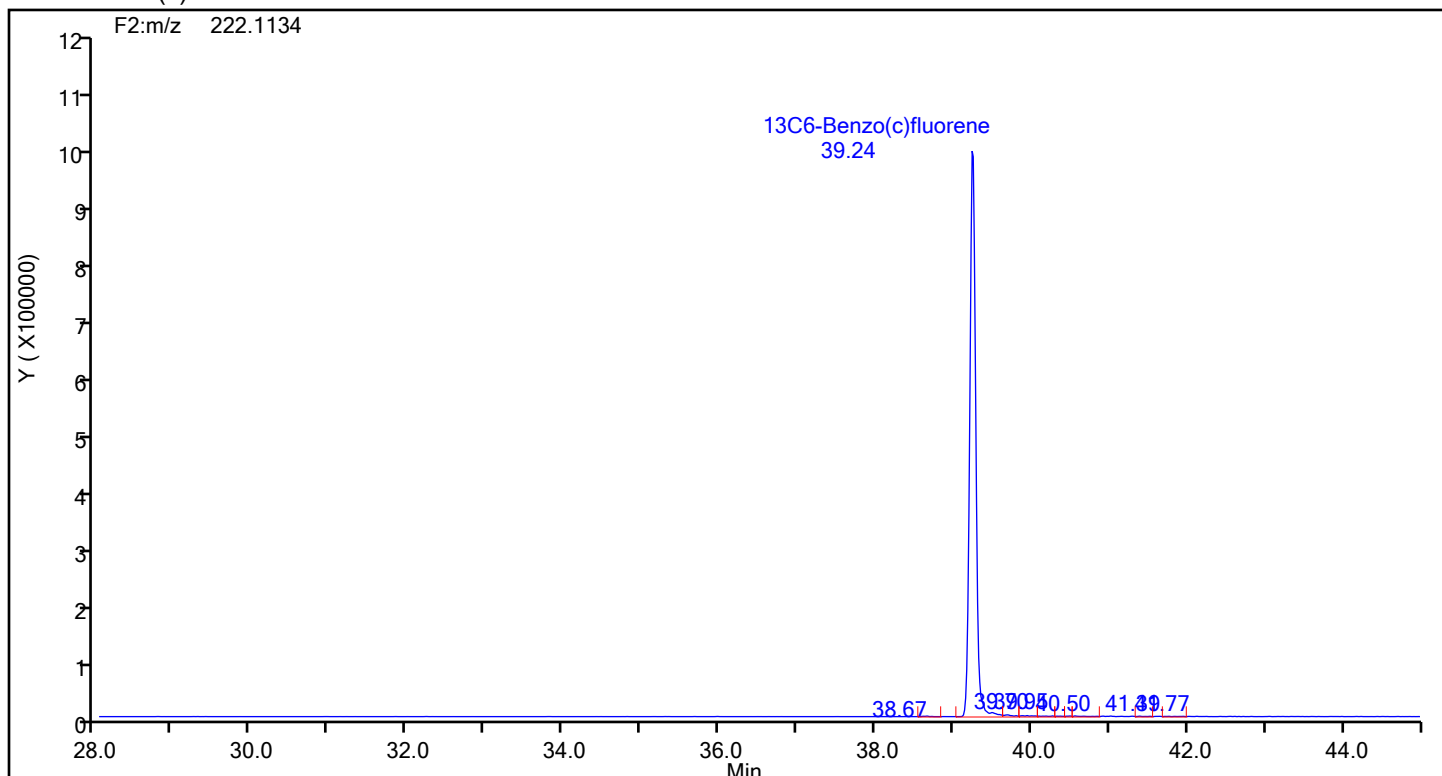
## Pyrene-d10 Standards



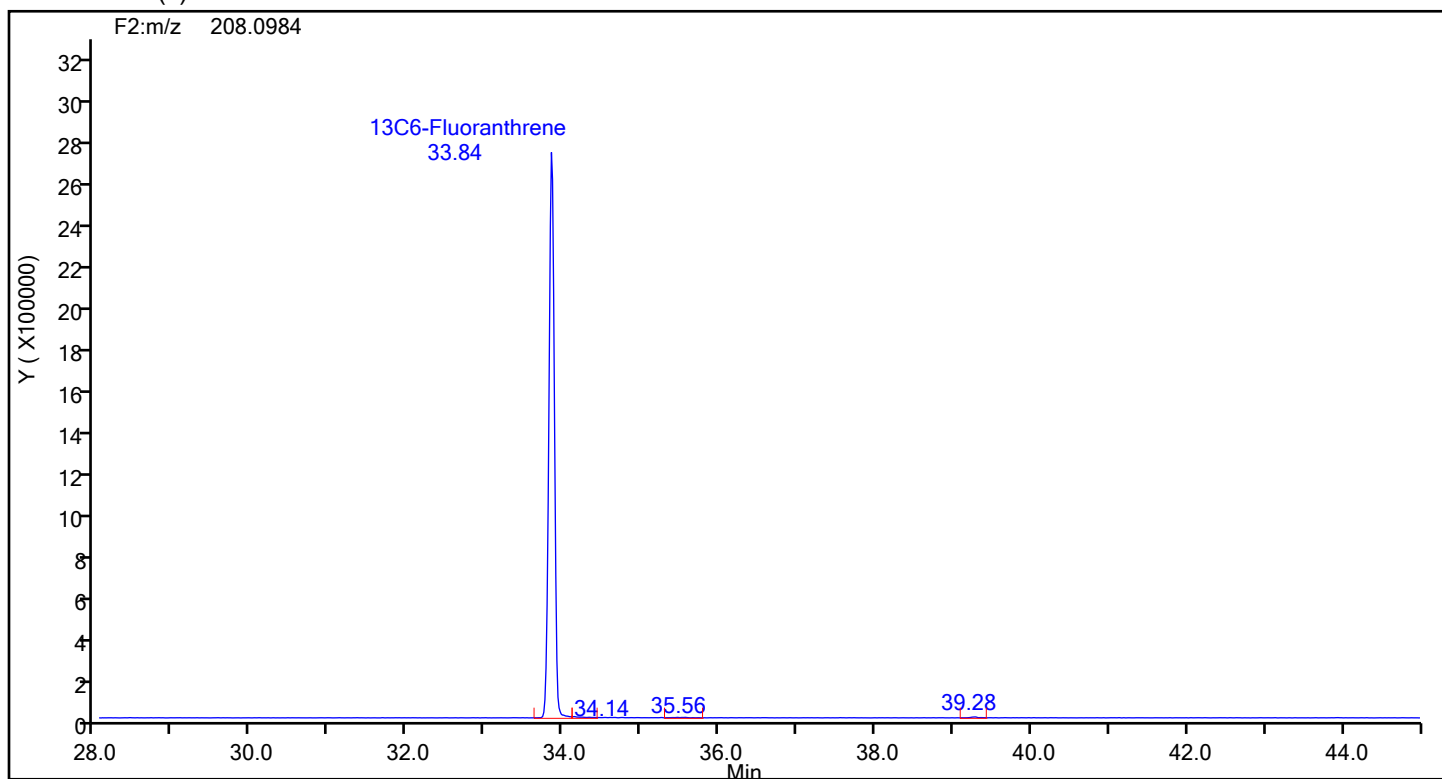
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Injection Date: 20-Jun-2024 01:09:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C6-Benzo(c)fluorene



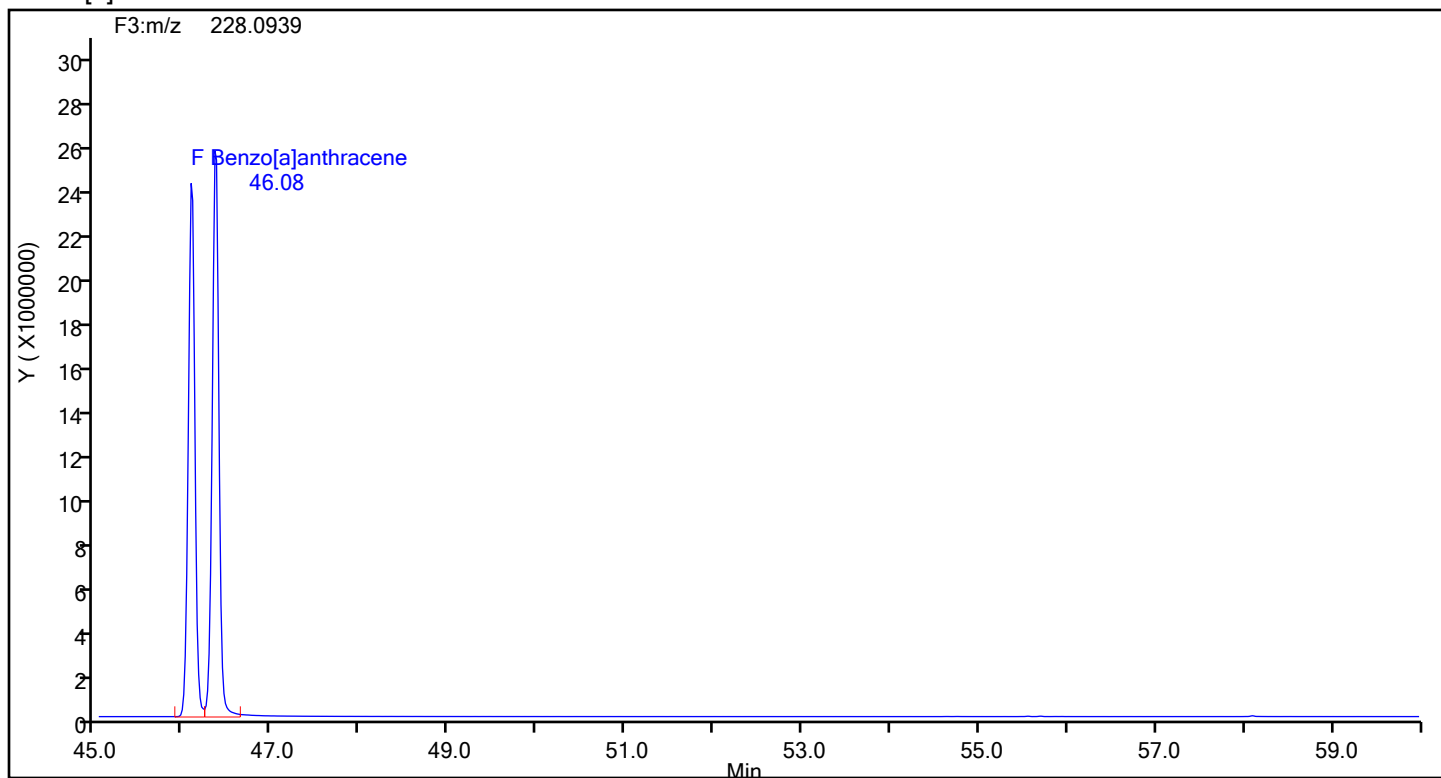
## 13C6-Benzo(c)fluorene Standards



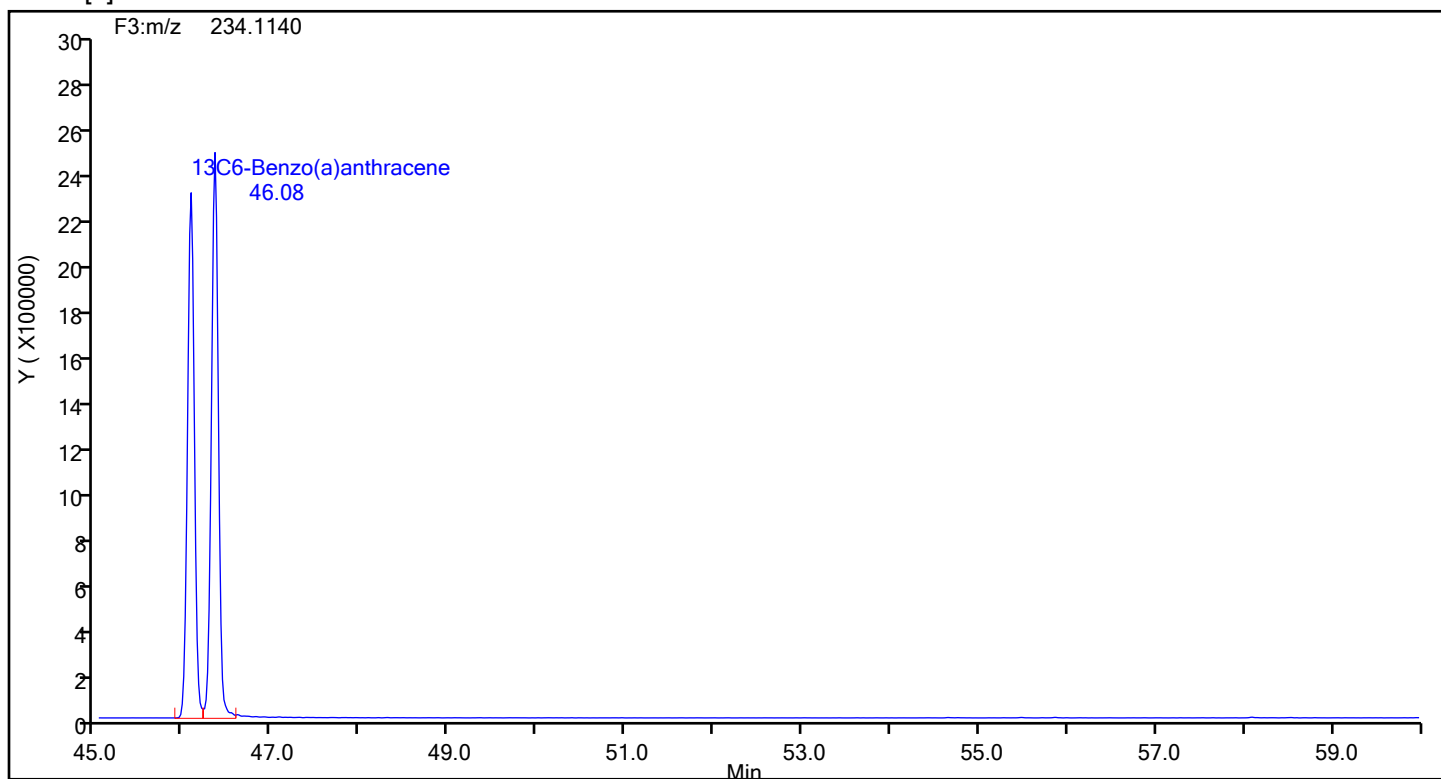
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Injection Date: 20-Jun-2024 01:09:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



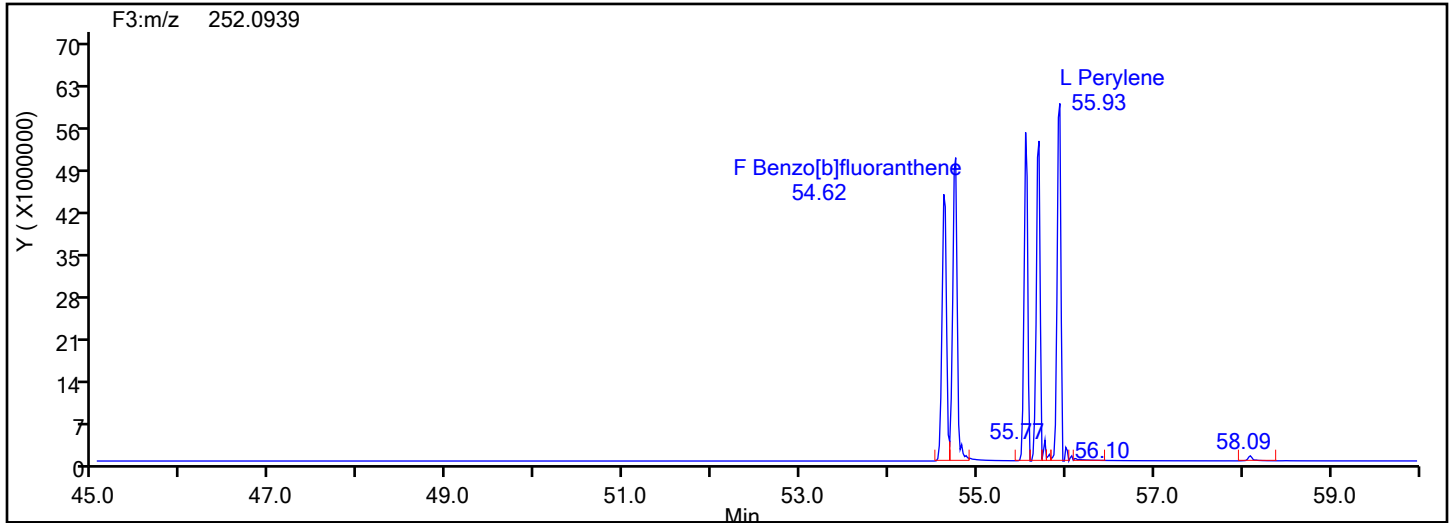
## Benzo[a]anthracene Standards



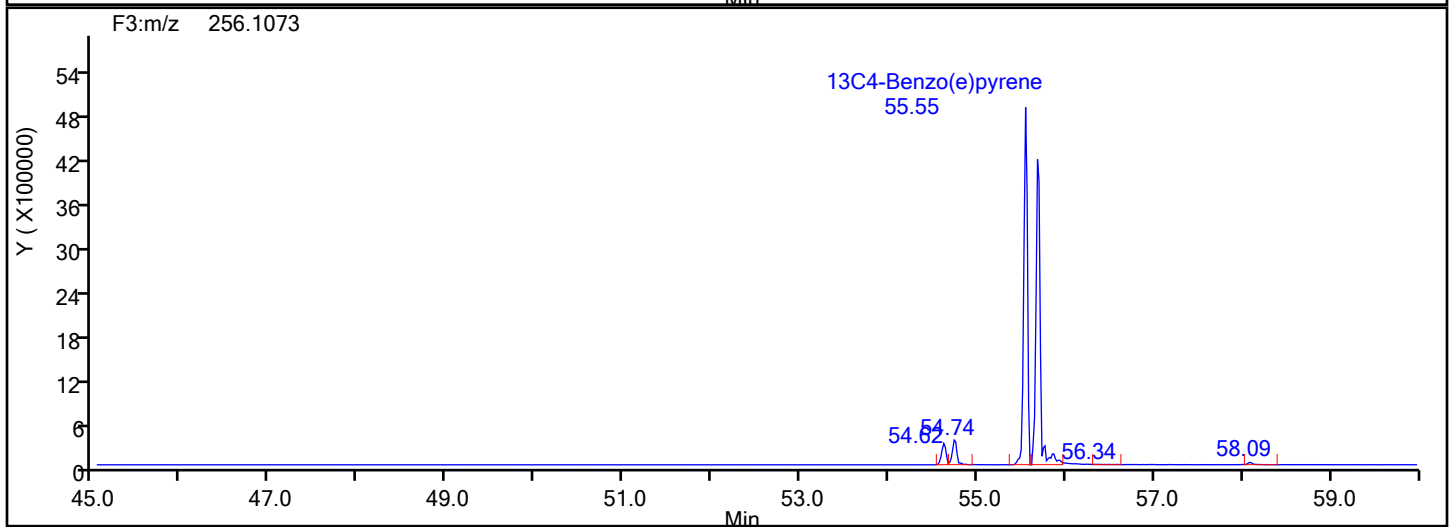
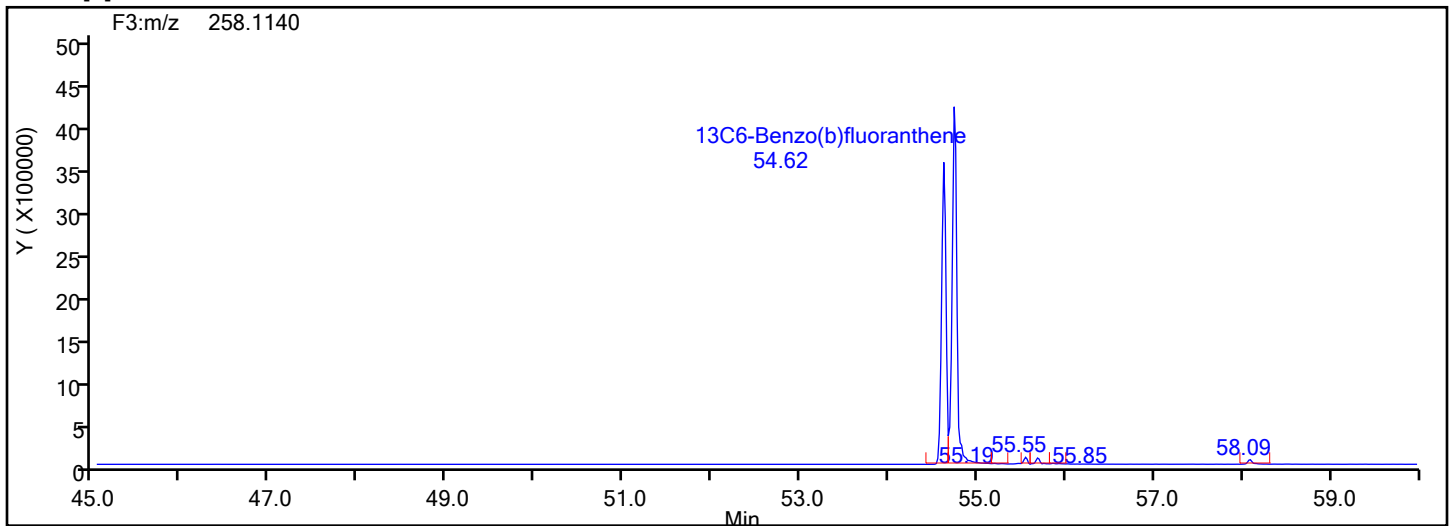
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Injection Date: 20-Jun-2024 01:09:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



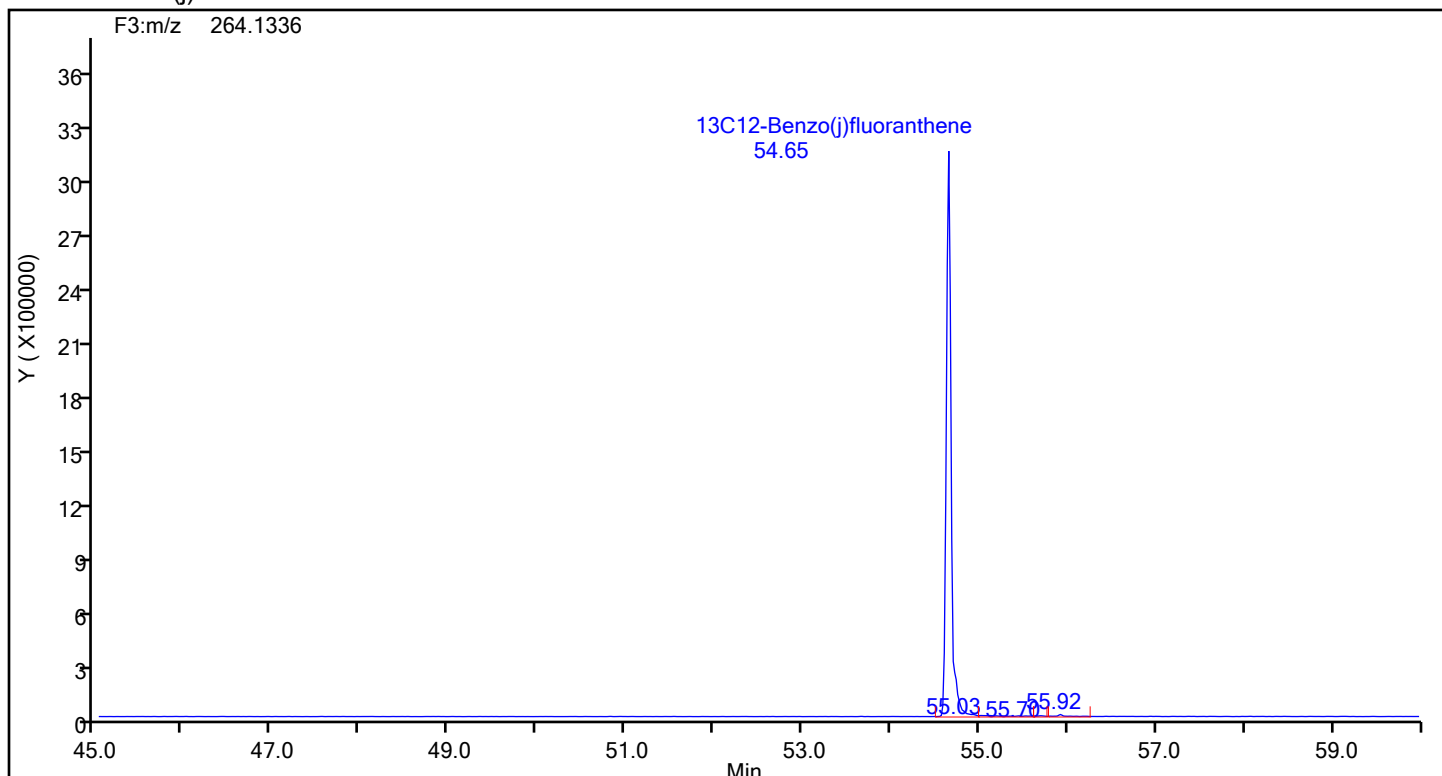
## Benzo[b]fluoranthene Standards



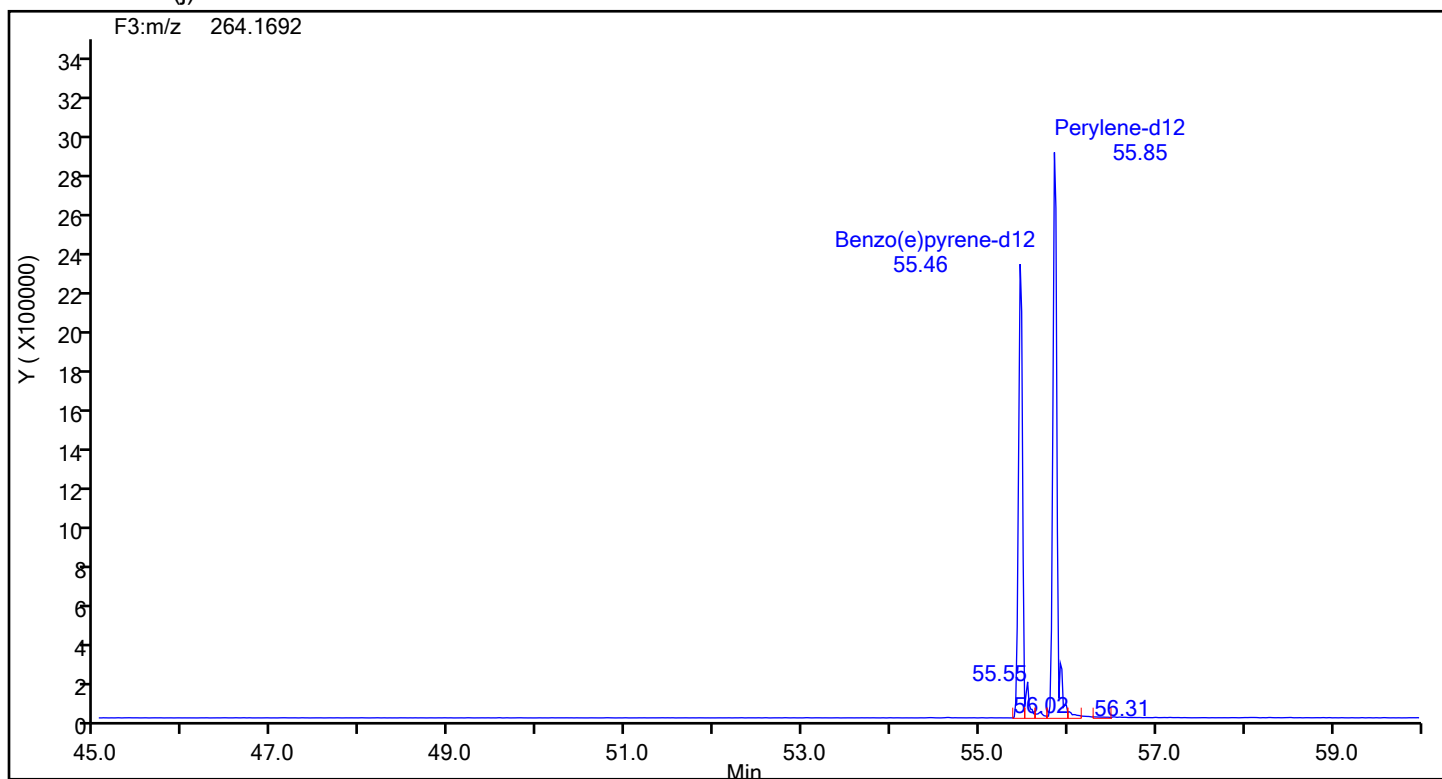
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Injection Date: 20-Jun-2024 01:09:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



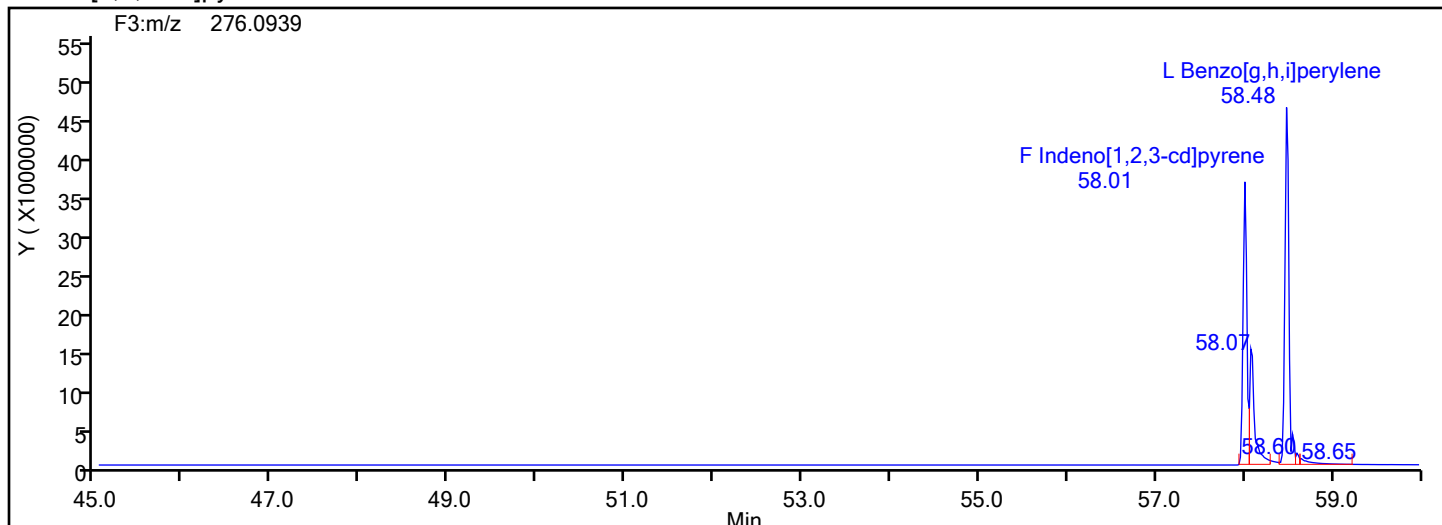
## 13C12-Benzo(j)fluoranthene Standards



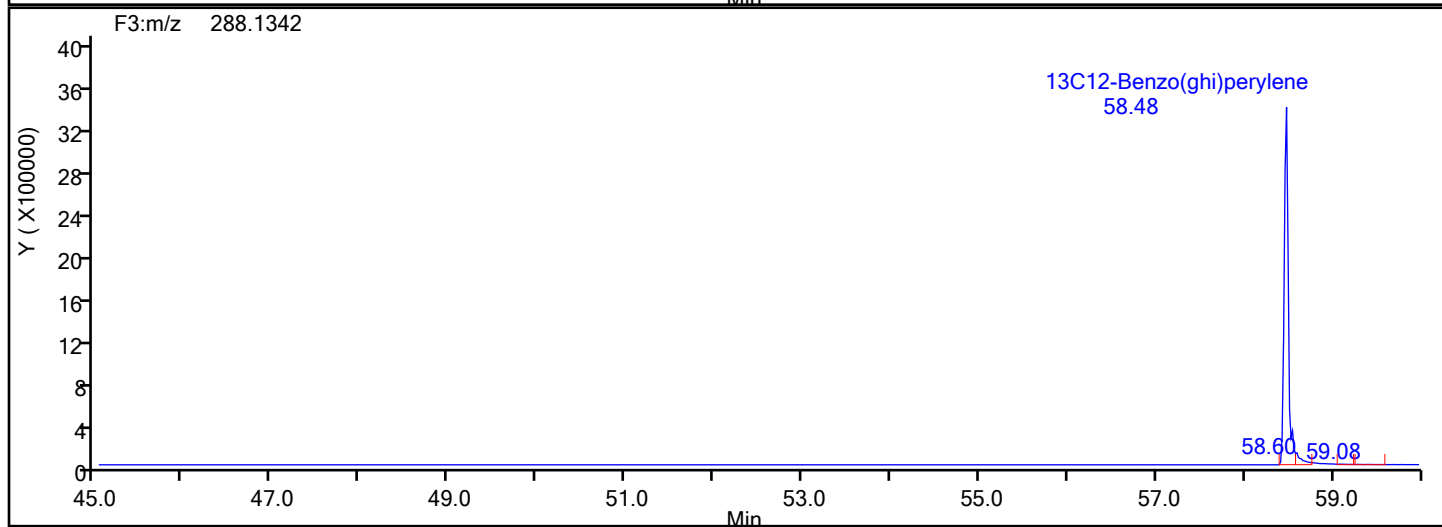
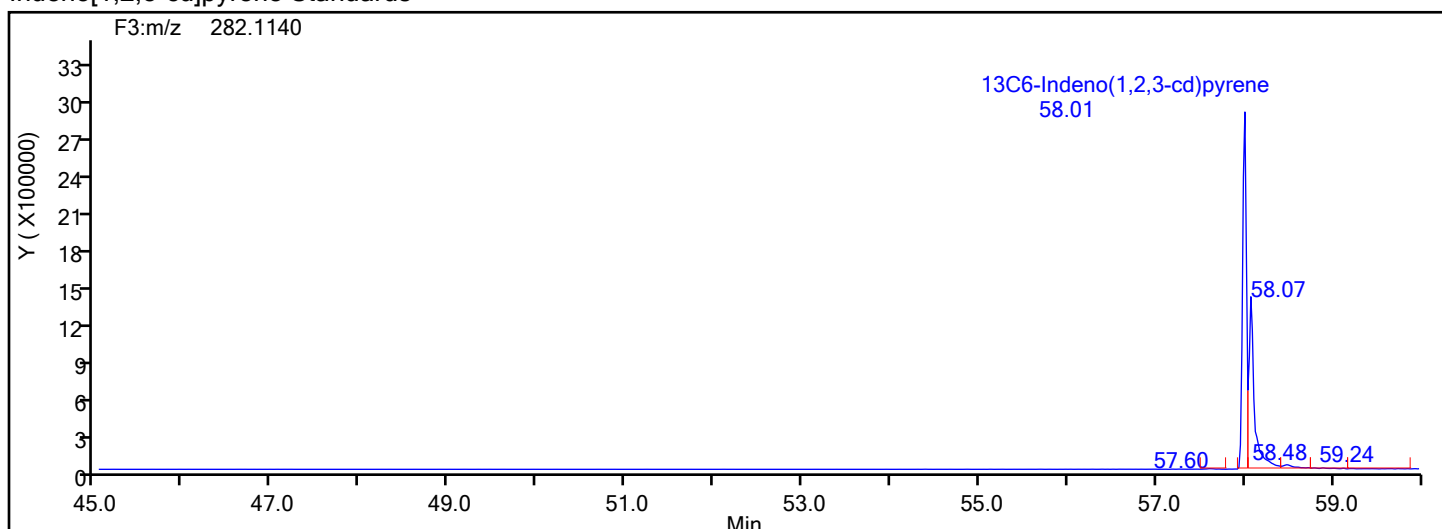
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Injection Date: 20-Jun-2024 01:09:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Indeno[1,2,3-cd]pyrene



## Indeno[1,2,3-cd]pyrene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d

Injection Date: 20-Jun-2024 01:09:00

Instrument ID: D3PAH

Lims ID: IC L9

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 9

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: EPA\_23\_PAH

Limit Group:

HR - HRP AH ICAL

Column: Restek-5Sil MS 25um ( 0.25 mm)

Detector

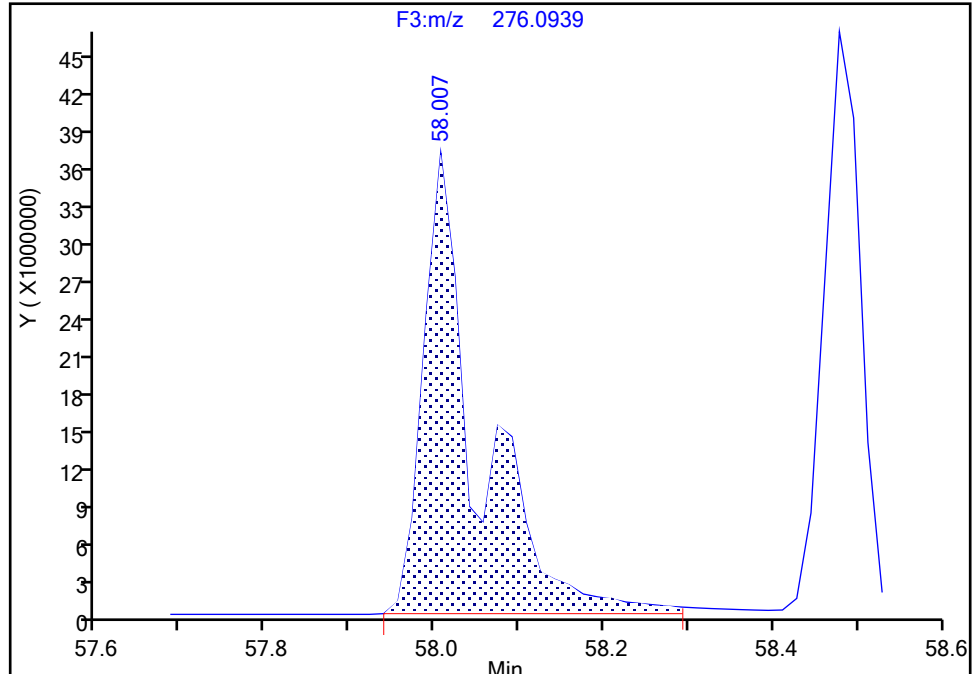
F3(44.04 :59.98 )

Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

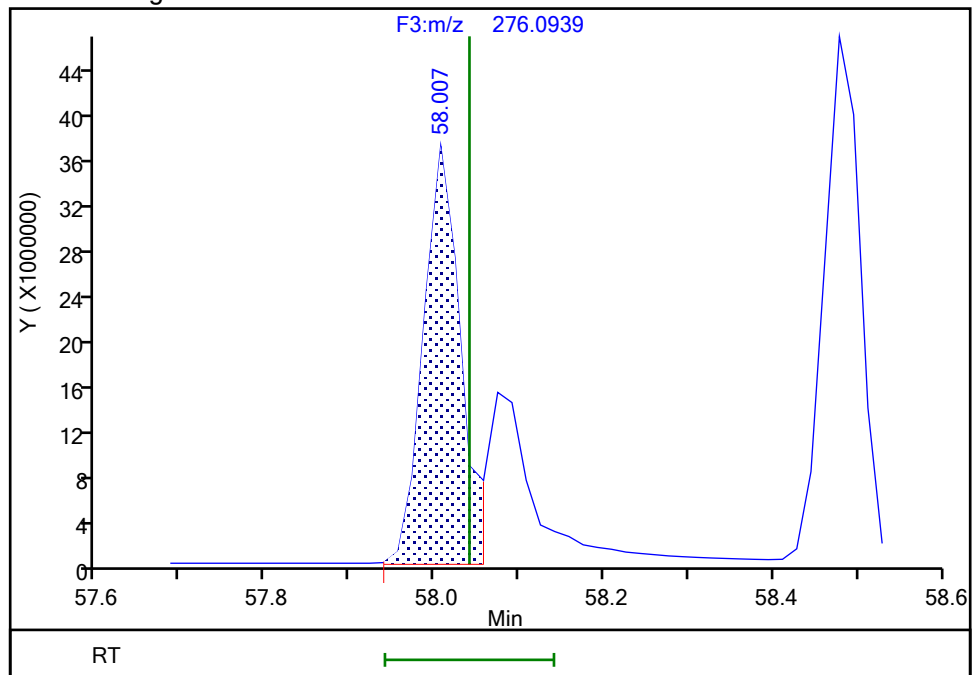
RT: 58.01  
Area: 166292178  
Amount: 1593.7458  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.01  
Area: 113067905  
Amount: 1170.6590  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:39:19 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

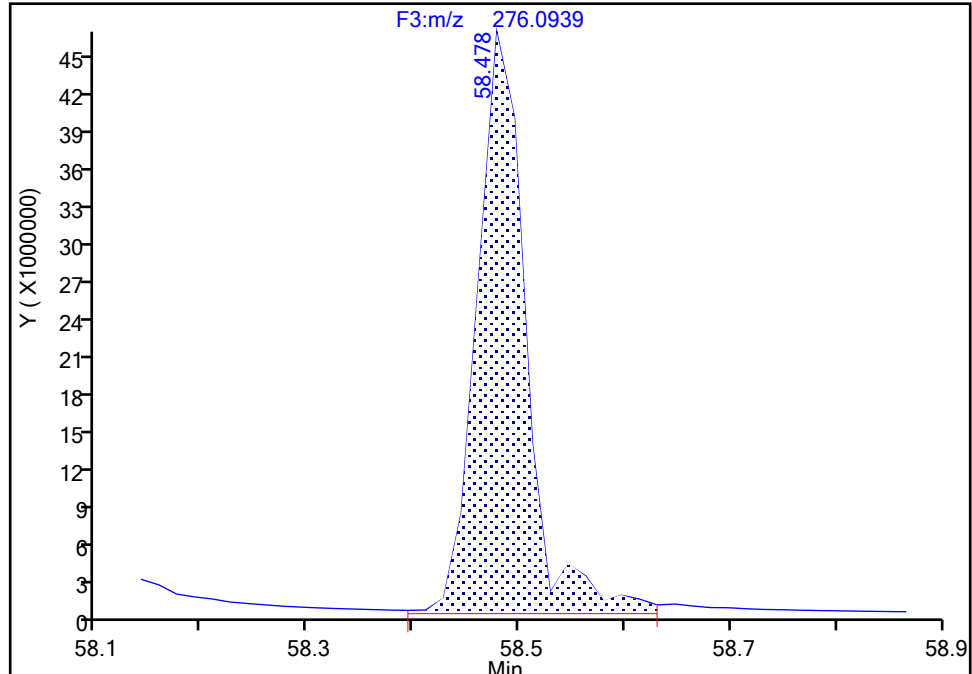
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\3240619ic9.d  
Injection Date: 20-Jun-2024 01:09:00 Instrument ID: D3PAH  
Lims ID: IC L9  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

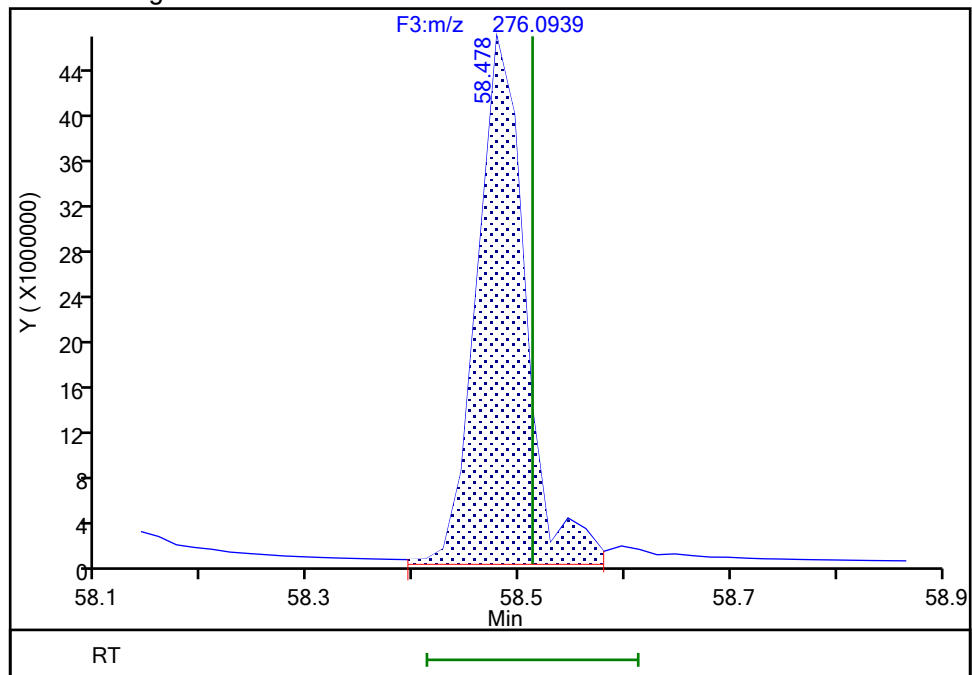
RT: 58.48  
Area: 150426172  
Amount: 1058.6613  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.48  
Area: 147488032  
Amount: 1040.3738  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:39:48 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration



## Eurofins Knoxville

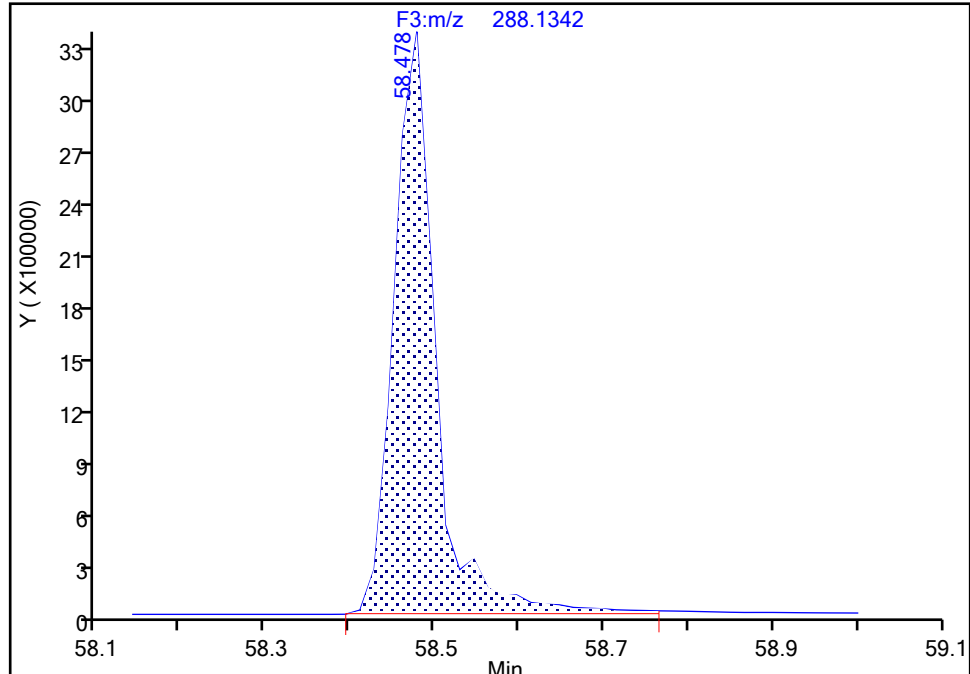
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Injection Date: 20-Jun-2024 01:09:00 Instrument ID: D3PAH  
Lims ID: IC L9  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C12-Benzo(ghi)perylene, CAS: 350820-11-0**

Signal: 1

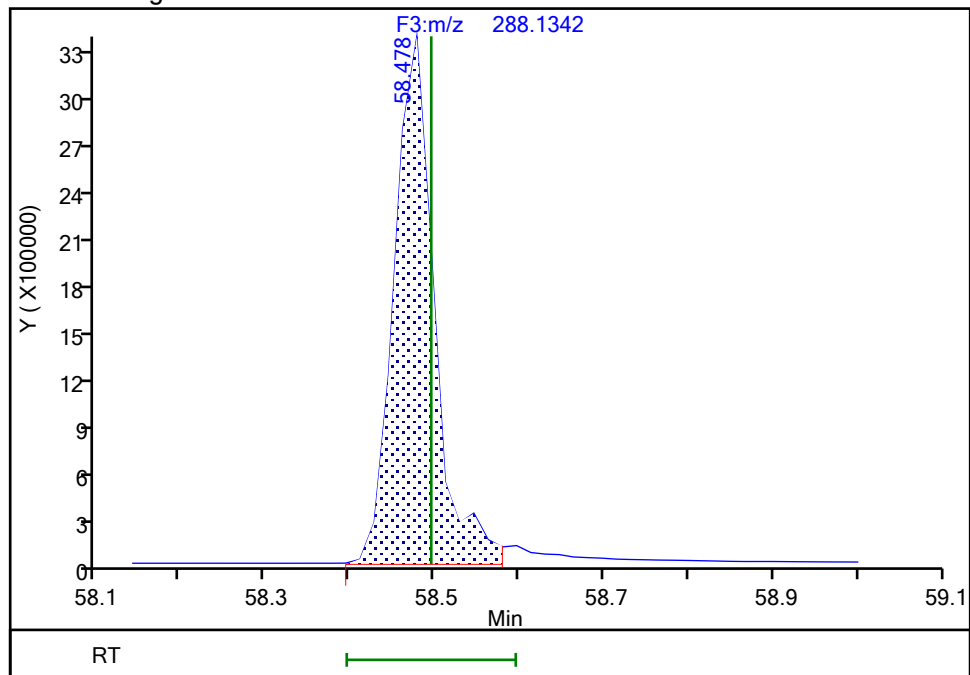
RT: 58.48  
Area: 11522655  
Amount: 124.6011  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.48  
Area: 11042946  
Amount: 120.1060  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:39:41 -04:00:00 (UTC)

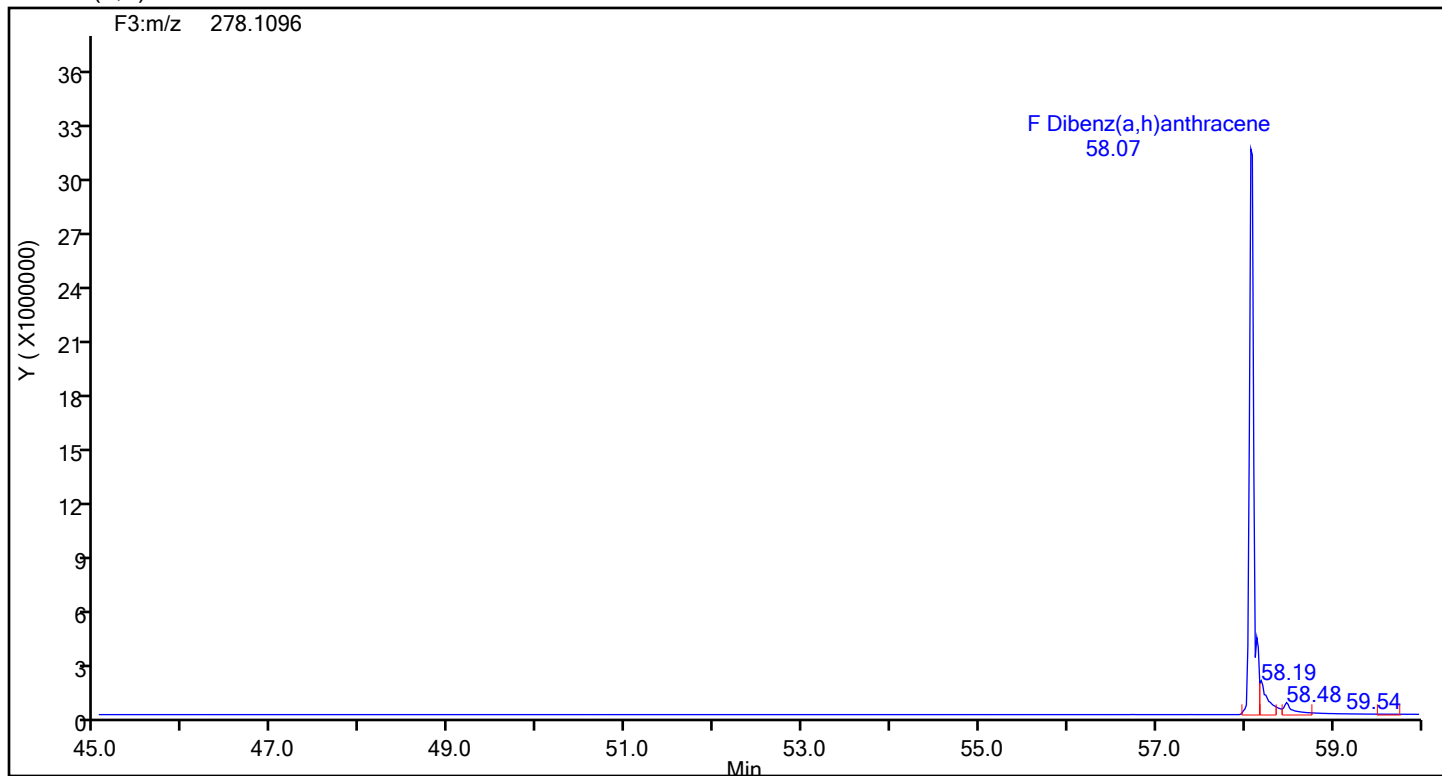
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

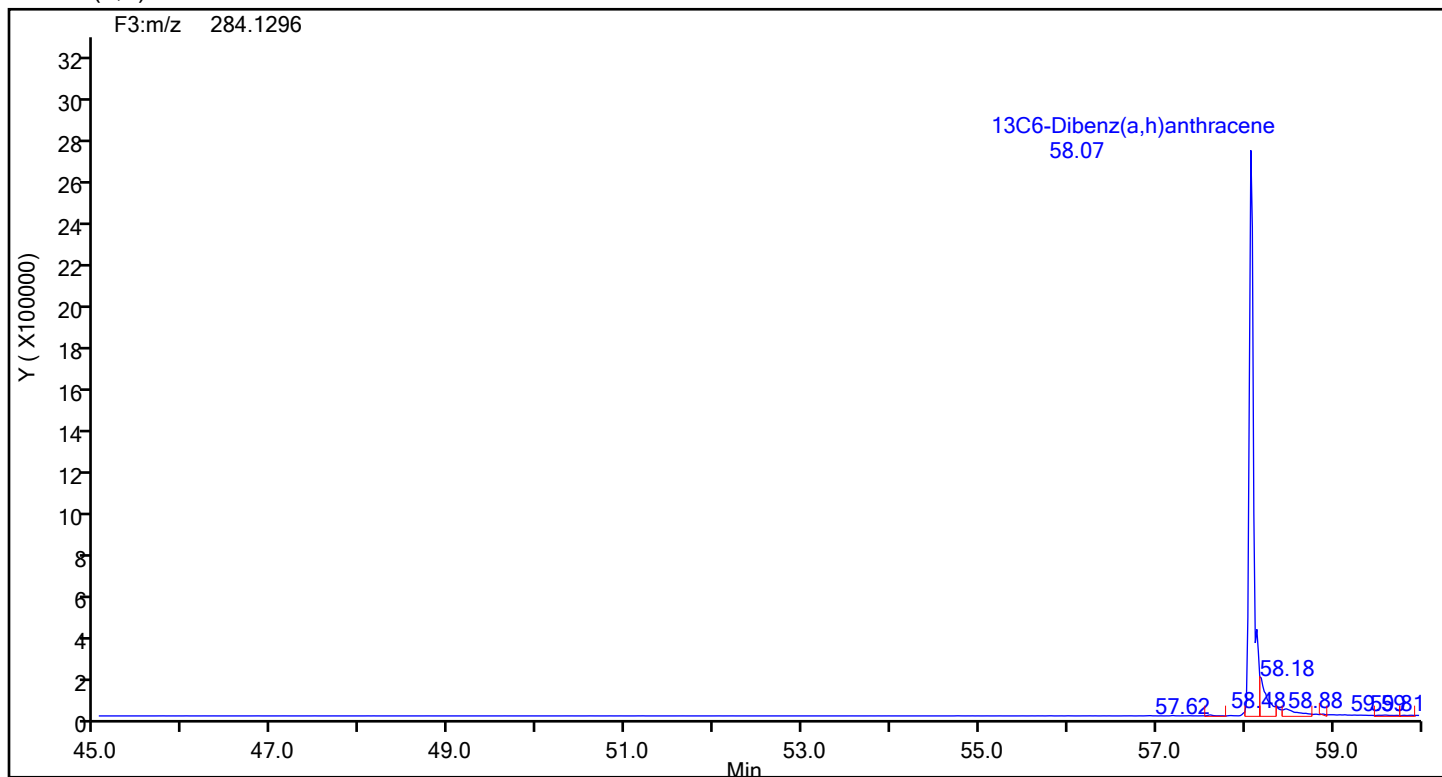
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Injection Date: 20-Jun-2024 01:09:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 9  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Dibenz(a,h)anthracene



## Dibenzo(a,h)anthracene Standards



## Eurofins Knoxville

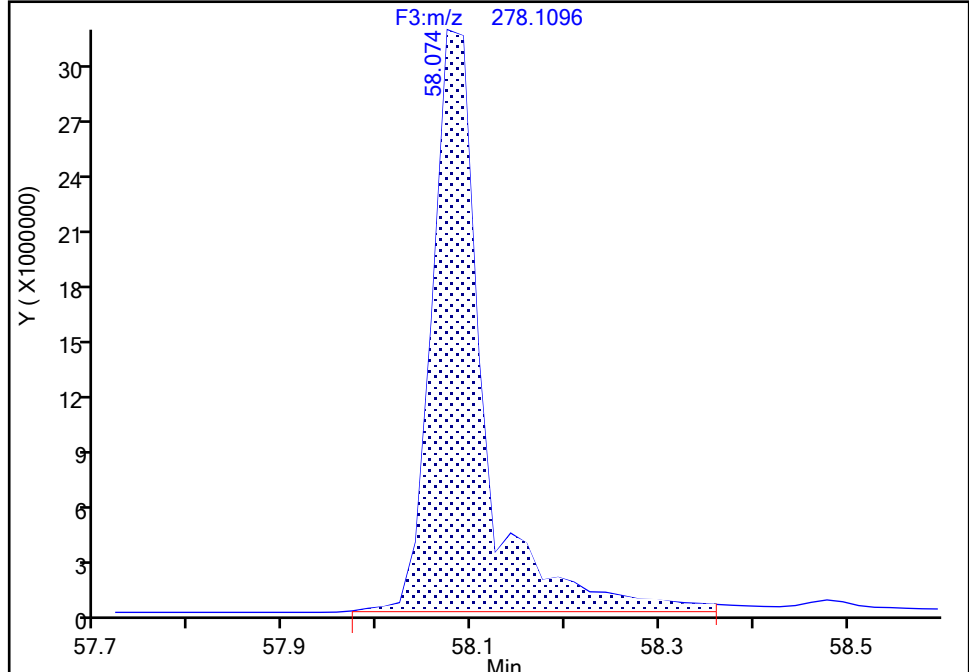
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Injection Date: 20-Jun-2024 01:09:00 Instrument ID: D3PAH  
Lims ID: IC L9  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

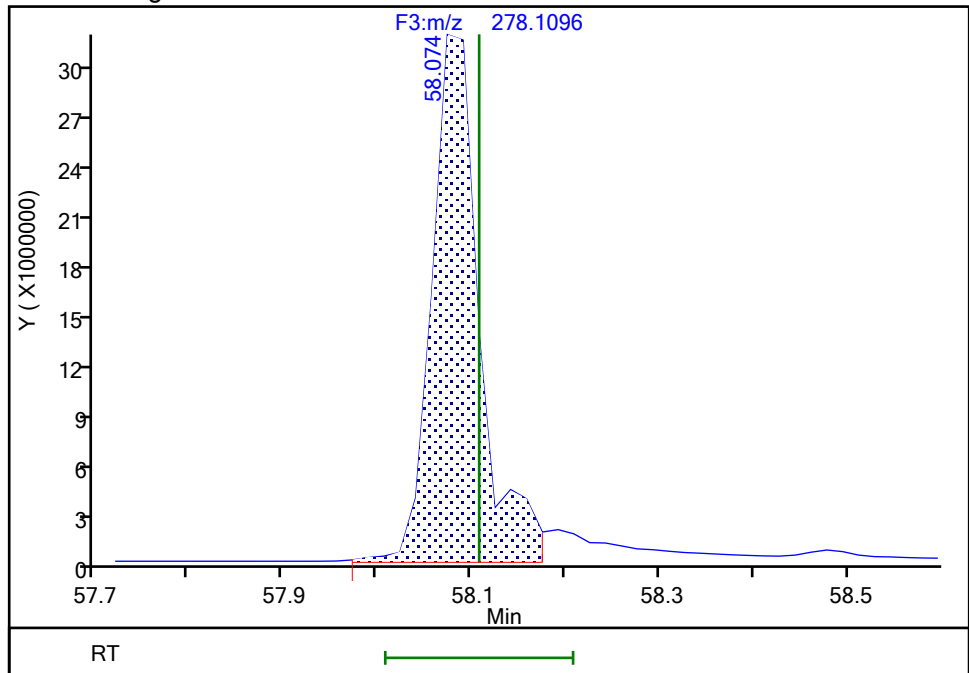
RT: 58.07  
Area: 120391306  
Amount: 1116.2911  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.07  
Area: 110582572  
Amount: 1035.8099  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:39:35 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

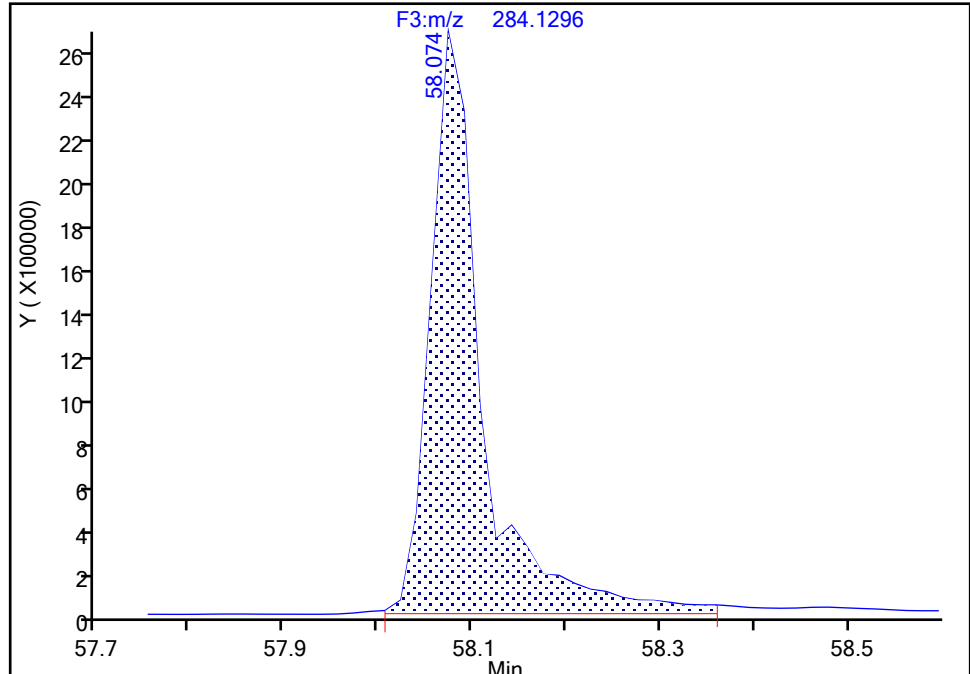
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\ld3240619ic9.d  
Injection Date: 20-Jun-2024 01:09:00 Instrument ID: D3PAH  
Lims ID: IC L9  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C6-Dibenz(a,h)anthracene, CAS: STL03360**

Signal: 1

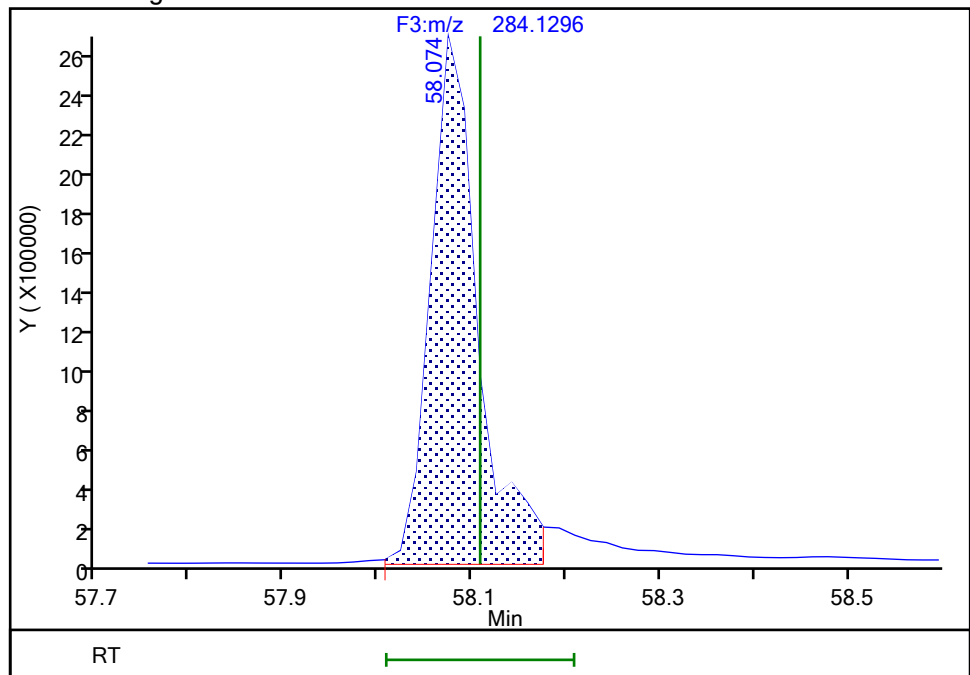
RT: 58.07  
Area: 10350790  
Amount: 134.2139  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.07  
Area: 9436274  
Amount: 123.9894  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:39:27 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

# Calibration

/ 13C12-Benzo(j)fluoranthene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

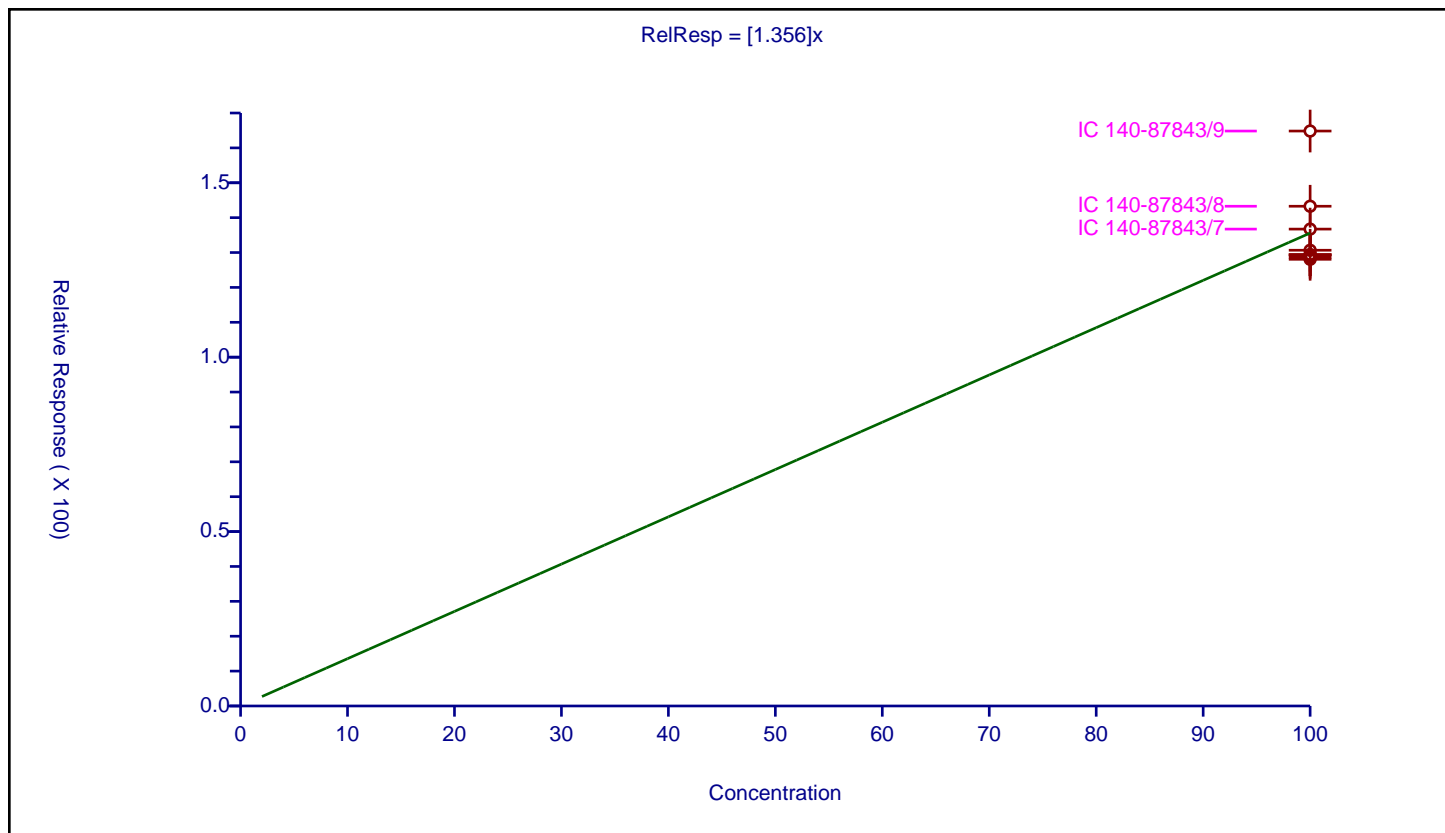
## Curve Coefficients

Intercept: 0  
 Slope: 1.356

## Error Coefficients

Relative Standard Deviation: 8.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	100.0	129.337505	100.0	5060836.0	1.293375	Y
2	IC 140-87843/2	100.0	130.654858	100.0	5028172.0	1.306549	Y
3	IC 140-87843/3	100.0	128.630874	100.0	4927202.0	1.286309	Y
4	IC 140-87843/4	100.0	129.38599	100.0	5011388.0	1.29386	Y
5	IC 140-87843/5	100.0	129.357445	100.0	5318283.0	1.293574	Y
6	IC 140-87843/6	100.0	128.0567	100.0	5810473.0	1.280567	Y
7	IC 140-87843/7	100.0	136.719725	100.0	5799368.0	1.367197	Y
8	IC 140-87843/8	100.0	143.275573	100.0	6903874.0	1.432756	Y
9	IC 140-87843/9	100.0	164.834585	100.0	7211924.0	1.648346	Y



# Calibration

/ 13C6-Benzo(c)fluorene

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

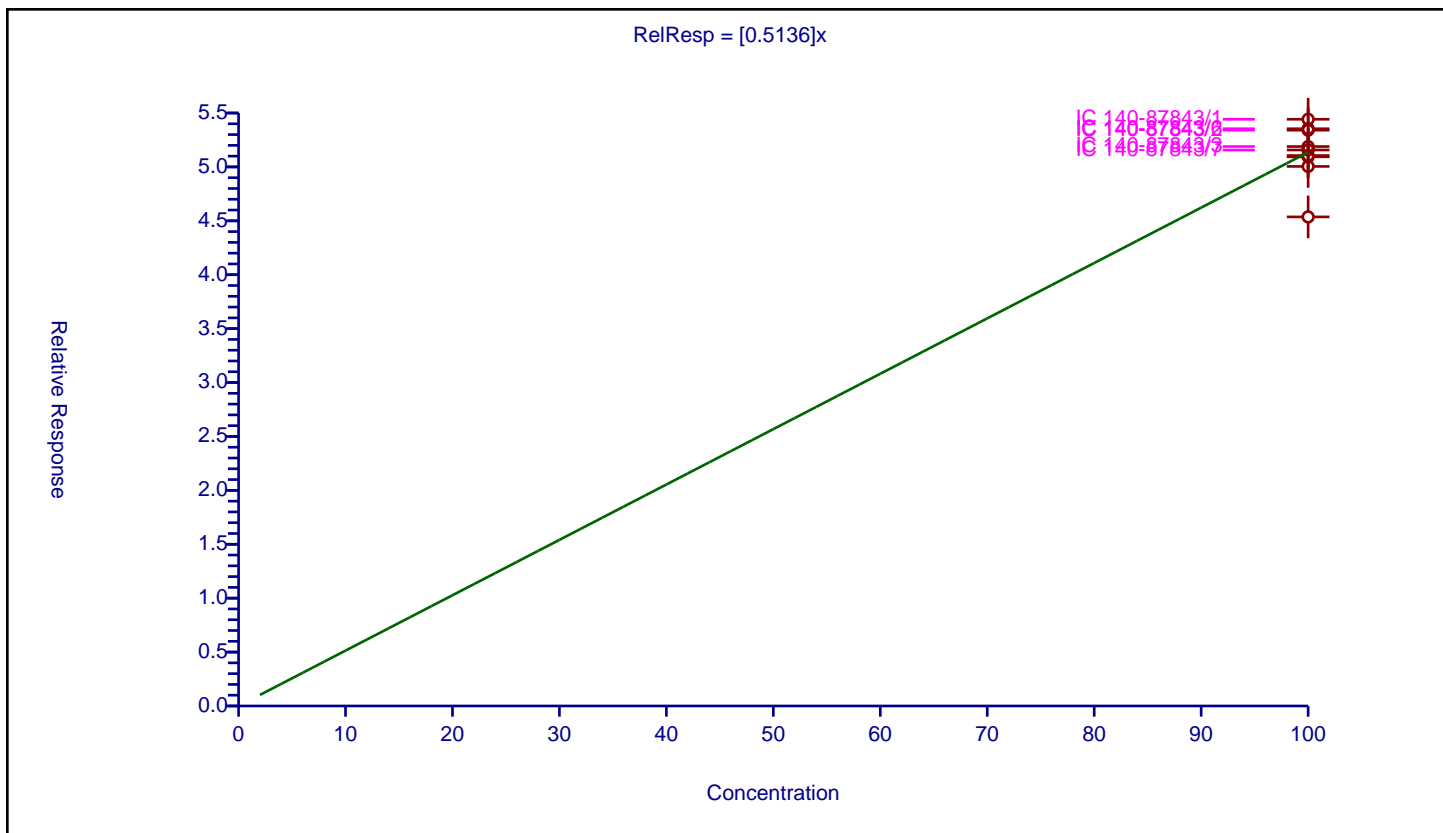
## Curve Coefficients

Intercept: 0  
 Slope: 0.5136

## Error Coefficients

Relative Standard Deviation: 5.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	100.0	54.421406	100.0	6636938.0	0.544214	Y
2	IC 140-87843/2	100.0	53.406957	100.0	7097800.0	0.53407	Y
3	IC 140-87843/3	100.0	51.89137	100.0	7063080.0	0.518914	Y
4	IC 140-87843/4	100.0	45.364592	100.0	7837595.0	0.453646	Y
5	IC 140-87843/5	100.0	50.937027	100.0	6994144.0	0.50937	Y
6	IC 140-87843/6	100.0	53.540254	100.0	7731706.0	0.535403	Y
7	IC 140-87843/7	100.0	51.569874	100.0	8045261.0	0.515699	Y
8	IC 140-87843/8	100.0	51.054167	100.0	9327125.0	0.510542	Y
9	IC 140-87843/9	100.0	50.044562	100.0	9953605.0	0.500446	Y



## Calibration

## / 2-Methylnaphthalene

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

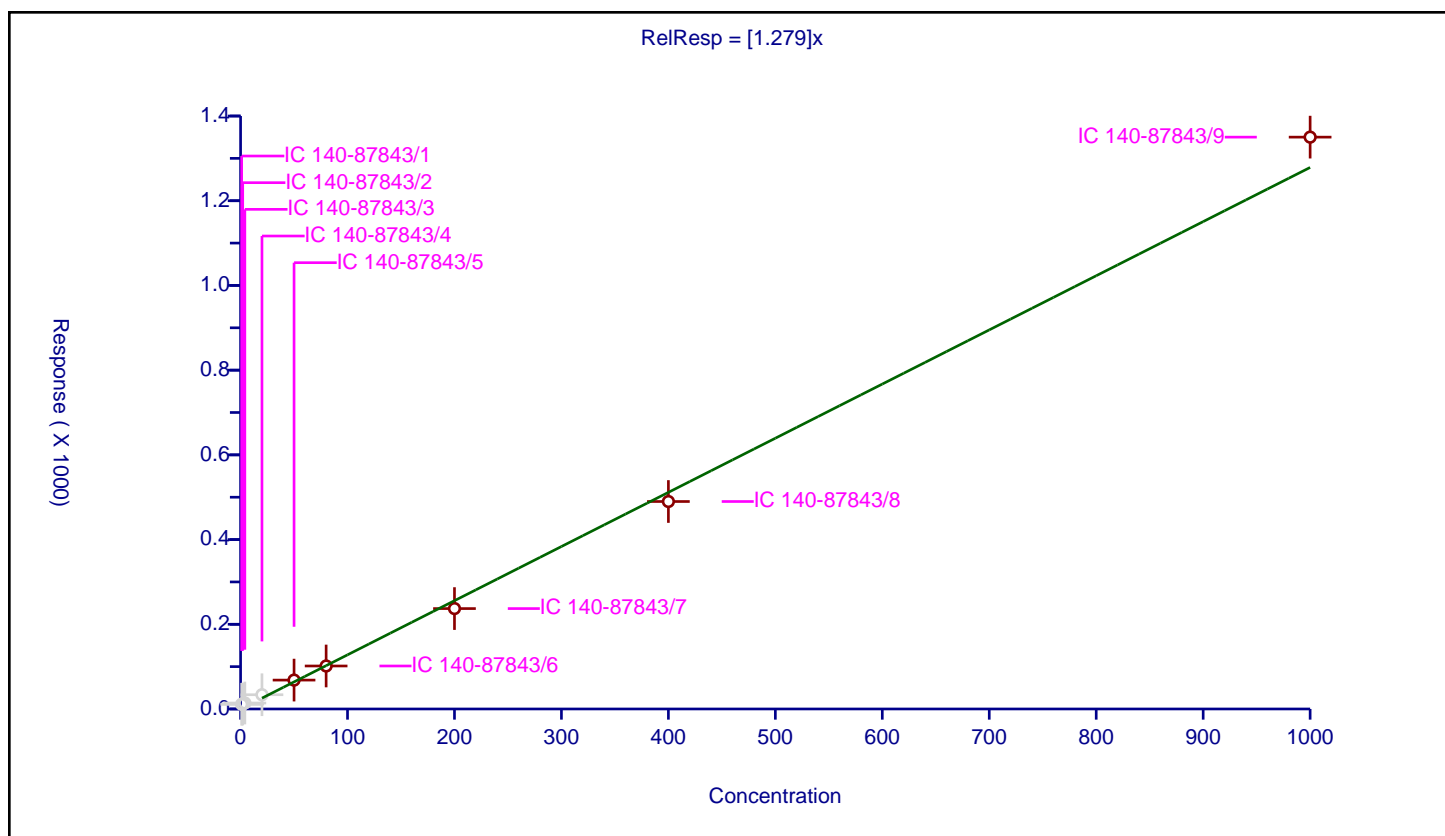
## Curve Coefficients

Intercept: 0  
Slope: 1.279

## Error Coefficients

Relative Standard Deviation: 6.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	1.0	11.173881	100.0	4590652.0	11.173881	N
2	IC 140-87843/2	2.0	11.594961	100.0	4888063.0	5.797481	N
3	IC 140-87843/3	4.0	14.06532	100.0	4691404.0	3.51633	N
4	IC 140-87843/4	20.0	33.656277	100.0	5490022.0	1.682814	N
5	IC 140-87843/5	50.0	68.187804	100.0	4932932.0	1.363756	Y
6	IC 140-87843/6	80.0	101.505826	100.0	5726757.0	1.268823	Y
7	IC 140-87843/7	200.0	237.103291	100.0	5800321.0	1.185516	Y
8	IC 140-87843/8	400.0	489.830109	100.0	6439882.0	1.224575	Y
9	IC 140-87843/9	1000.0	1350.161797	100.0	7285064.0	1.350162	Y



## Calibration

/ Acenaphthene

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

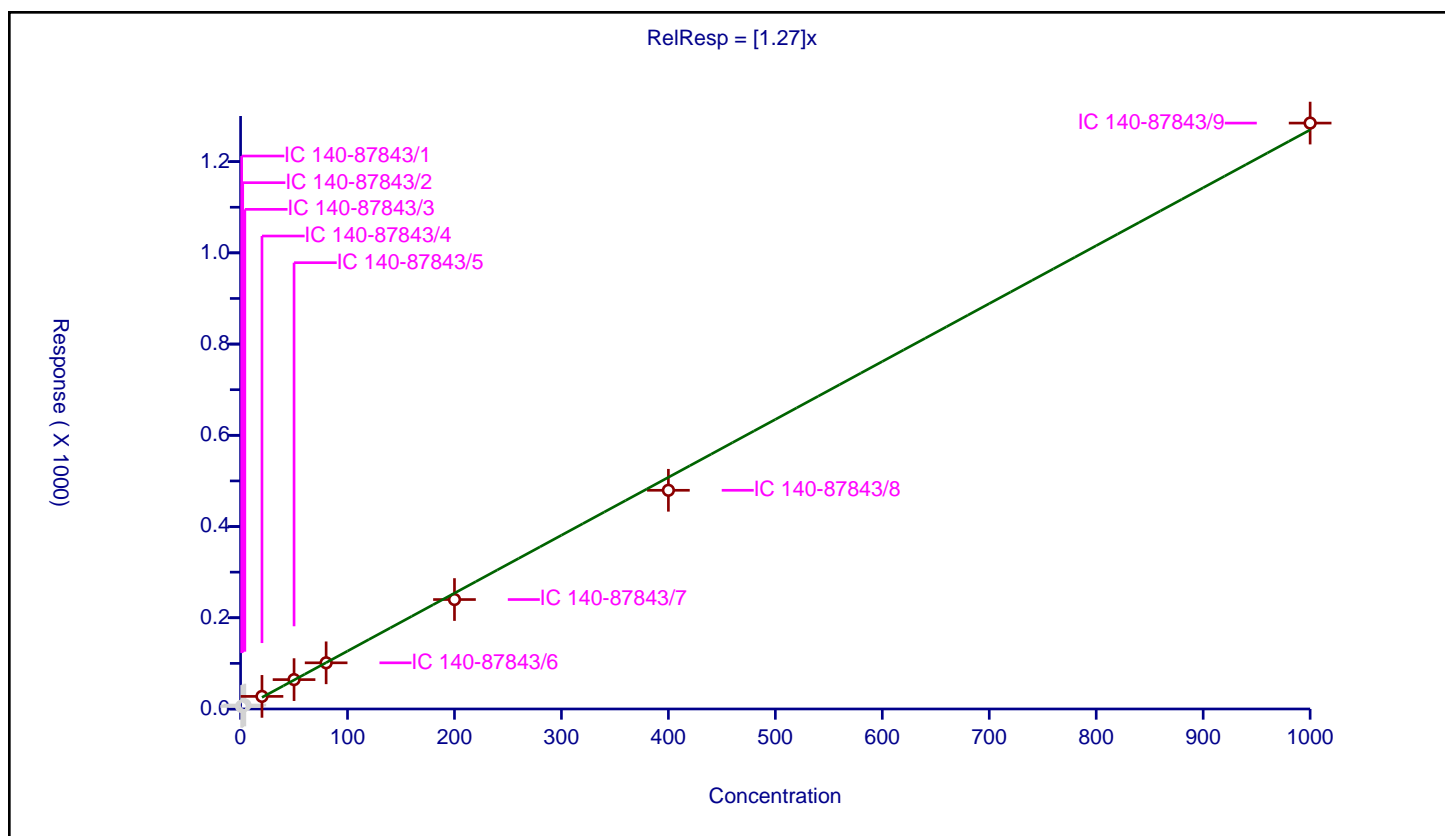
## Curve Coefficients

Intercept: 0  
Slope: 1.27

## Error Coefficients

Relative Standard Deviation: 5.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	1.0	5.644006	100.0	2649873.0	5.644006	N
2	IC 140-87843/2	2.0	6.845692	100.0	2794458.0	3.422846	N
3	IC 140-87843/3	4.0	8.670511	100.0	2973262.0	2.167628	N
4	IC 140-87843/4	20.0	27.64107	100.0	3399456.0	1.382053	Y
5	IC 140-87843/5	50.0	64.384133	100.0	2929756.0	1.287683	Y
6	IC 140-87843/6	80.0	101.22165	100.0	3599722.0	1.265271	Y
7	IC 140-87843/7	200.0	239.960295	100.0	3536065.0	1.199801	Y
8	IC 140-87843/8	400.0	479.506035	100.0	4039150.0	1.198765	Y
9	IC 140-87843/9	1000.0	1284.48027	100.0	4662594.0	1.28448	Y





## Calibration

/ Acenaphthylene

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

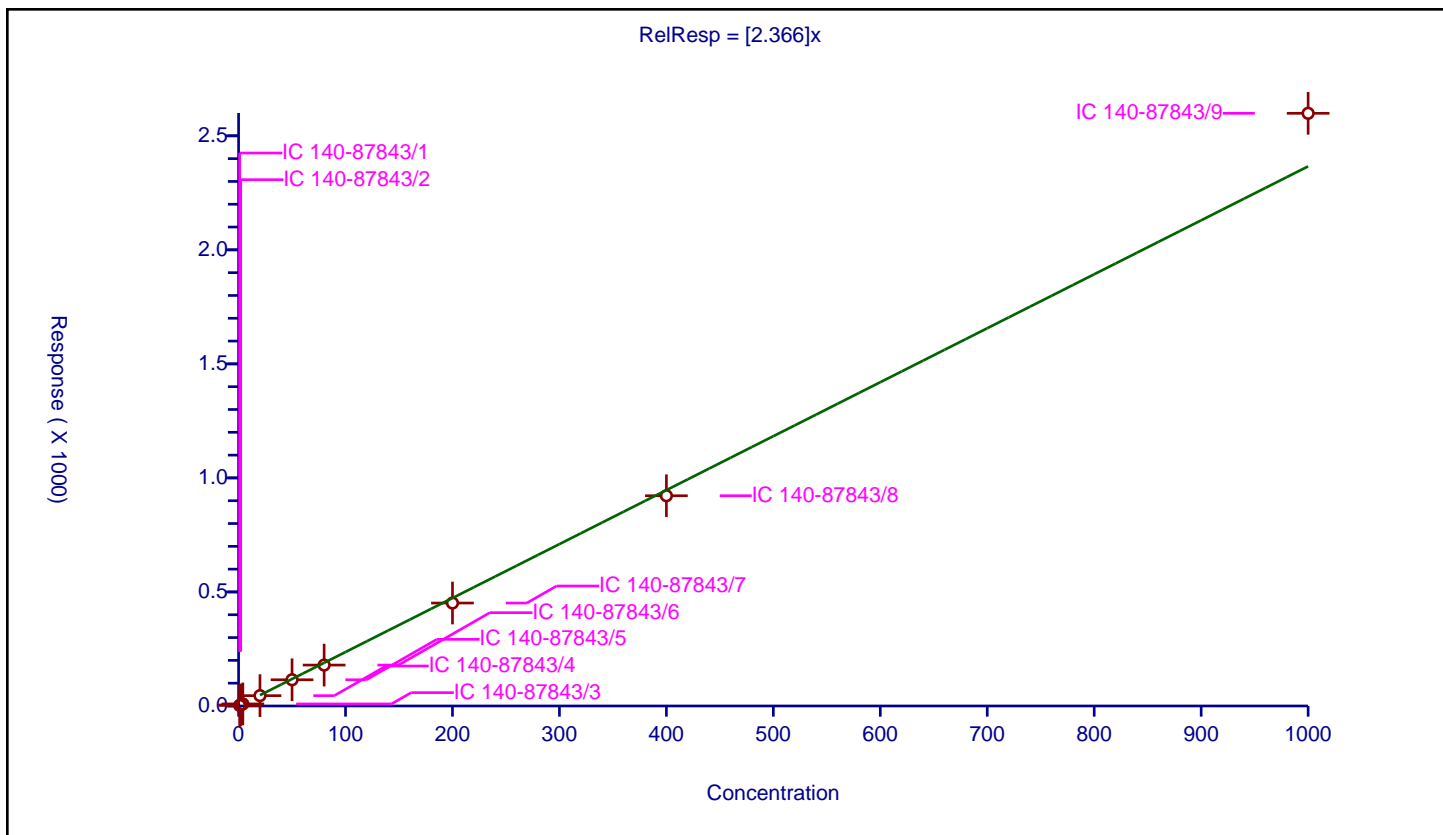
## Curve Coefficients

Intercept: 0  
Slope: 2.366

## Error Coefficients

Relative Standard Deviation: 6.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	1.0	2.678393	100.0	2649873.0	2.678393	Y
2	IC 140-87843/2	2.0	4.765647	100.0	2794458.0	2.382823	Y
3	IC 140-87843/3	4.0	9.061125	100.0	2973262.0	2.265281	Y
4	IC 140-87843/4	20.0	45.331694	100.0	3399456.0	2.266585	Y
5	IC 140-87843/5	50.0	114.95104	100.0	2929756.0	2.299021	Y
6	IC 140-87843/6	80.0	179.433745	100.0	3599722.0	2.242922	Y
7	IC 140-87843/7	200.0	451.373801	100.0	3536065.0	2.256869	Y
8	IC 140-87843/8	400.0	921.847022	100.0	4039150.0	2.304618	Y
9	IC 140-87843/9	1000.0	2598.69519	100.0	4662594.0	2.598695	Y



## Calibration

/ Anthracene

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

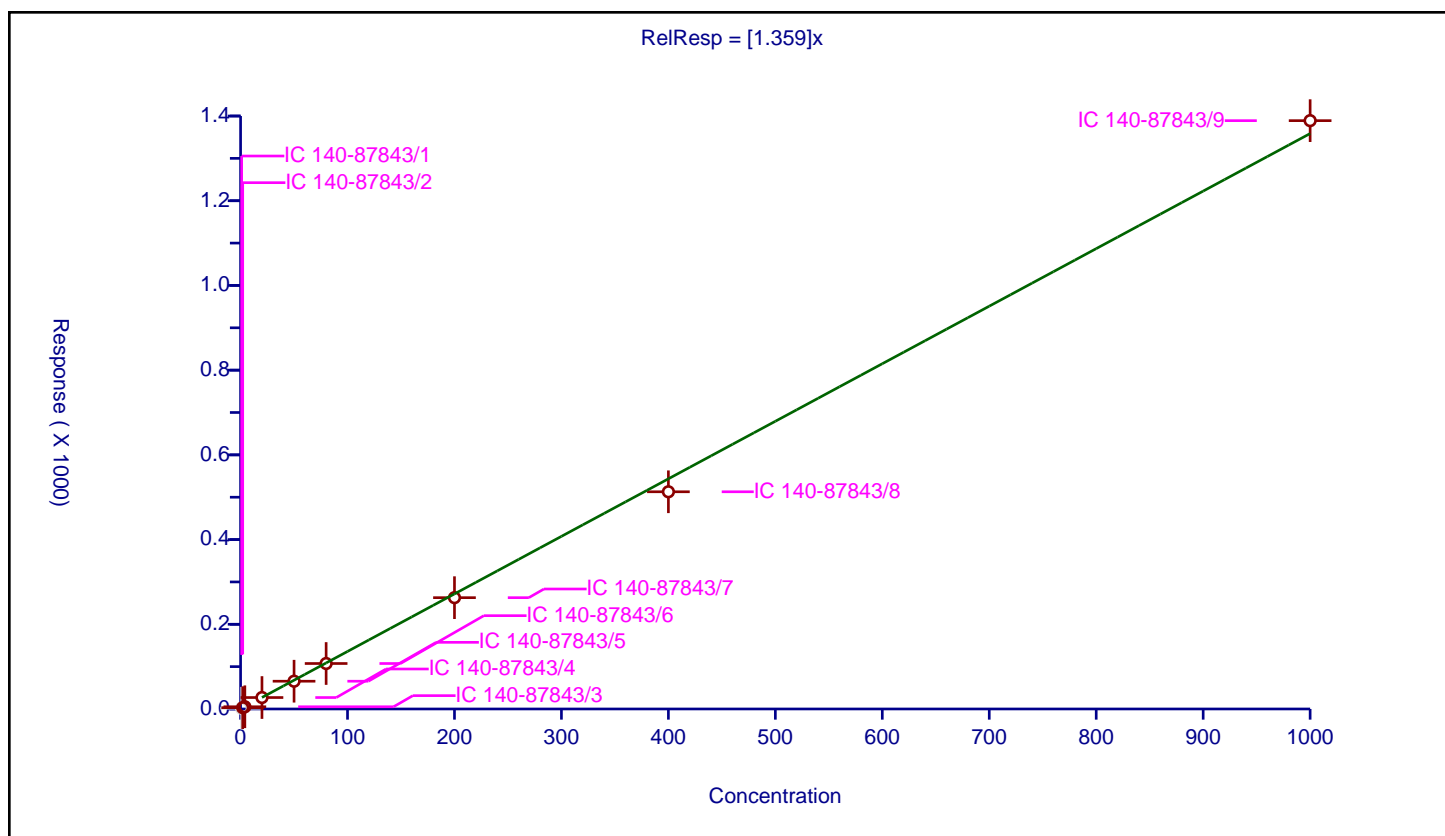
## Curve Coefficients

Intercept: 0  
Slope: 1.359

## Error Coefficients

Relative Standard Deviation: 6.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	1.0	1.76	100.0	2810000.0	1.76	N
2	IC 140-87843/2	2.0	3.115511	100.0	2927417.0	1.557756	Y
3	IC 140-87843/3	4.0	5.274407	100.0	3047129.0	1.318602	Y
4	IC 140-87843/4	20.0	27.054318	100.0	3635963.0	1.352716	Y
5	IC 140-87843/5	50.0	65.579811	100.0	3095933.0	1.311596	Y
6	IC 140-87843/6	80.0	107.408061	100.0	3339808.0	1.342601	Y
7	IC 140-87843/7	200.0	262.852584	100.0	3744430.0	1.314263	Y
8	IC 140-87843/8	400.0	512.849879	100.0	4474470.0	1.282125	Y
9	IC 140-87843/9	1000.0	1389.072733	100.0	5177443.0	1.389073	Y



# Calibration

/ Anthracin-d10

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

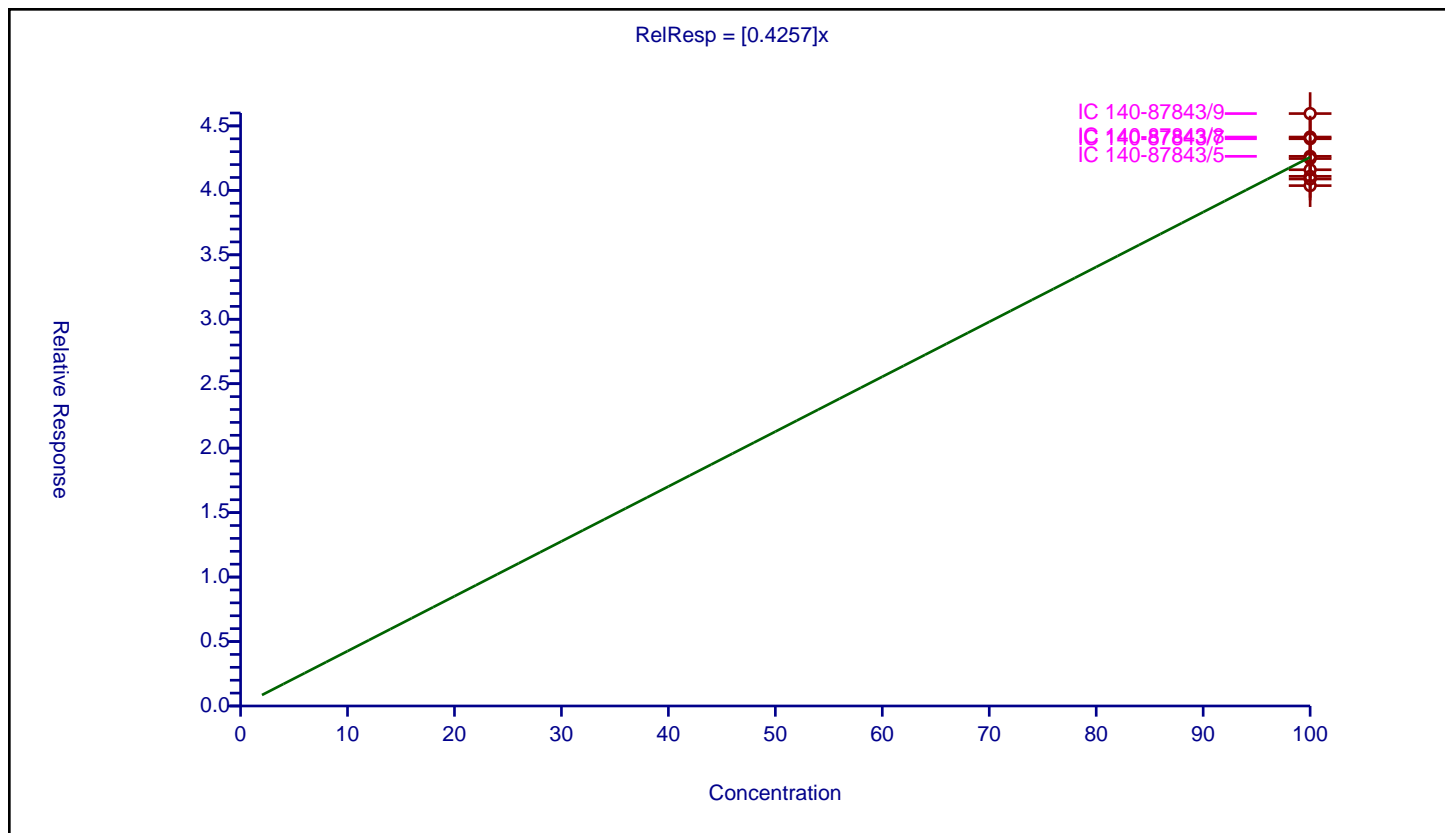
## Curve Coefficients

Intercept: 0  
 Slope: 0.4257

## Error Coefficients

Relative Standard Deviation: 4.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	100.0	40.88078	100.0	6636938.0	0.408808	Y
2	IC 140-87843/2	100.0	41.088718	100.0	7097800.0	0.410887	Y
3	IC 140-87843/3	100.0	40.367304	100.0	7063080.0	0.403673	Y
4	IC 140-87843/4	100.0	42.463702	100.0	7837595.0	0.424637	Y
5	IC 140-87843/5	100.0	42.640643	100.0	6994144.0	0.426406	Y
6	IC 140-87843/6	100.0	41.600276	100.0	7731706.0	0.416003	Y
7	IC 140-87843/7	100.0	44.004191	100.0	8045261.0	0.440042	Y
8	IC 140-87843/8	100.0	44.135594	100.0	9327125.0	0.441356	Y
9	IC 140-87843/9	100.0	45.956827	100.0	9953605.0	0.459568	Y



## Calibration

/ Benzo[a]anthracene

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

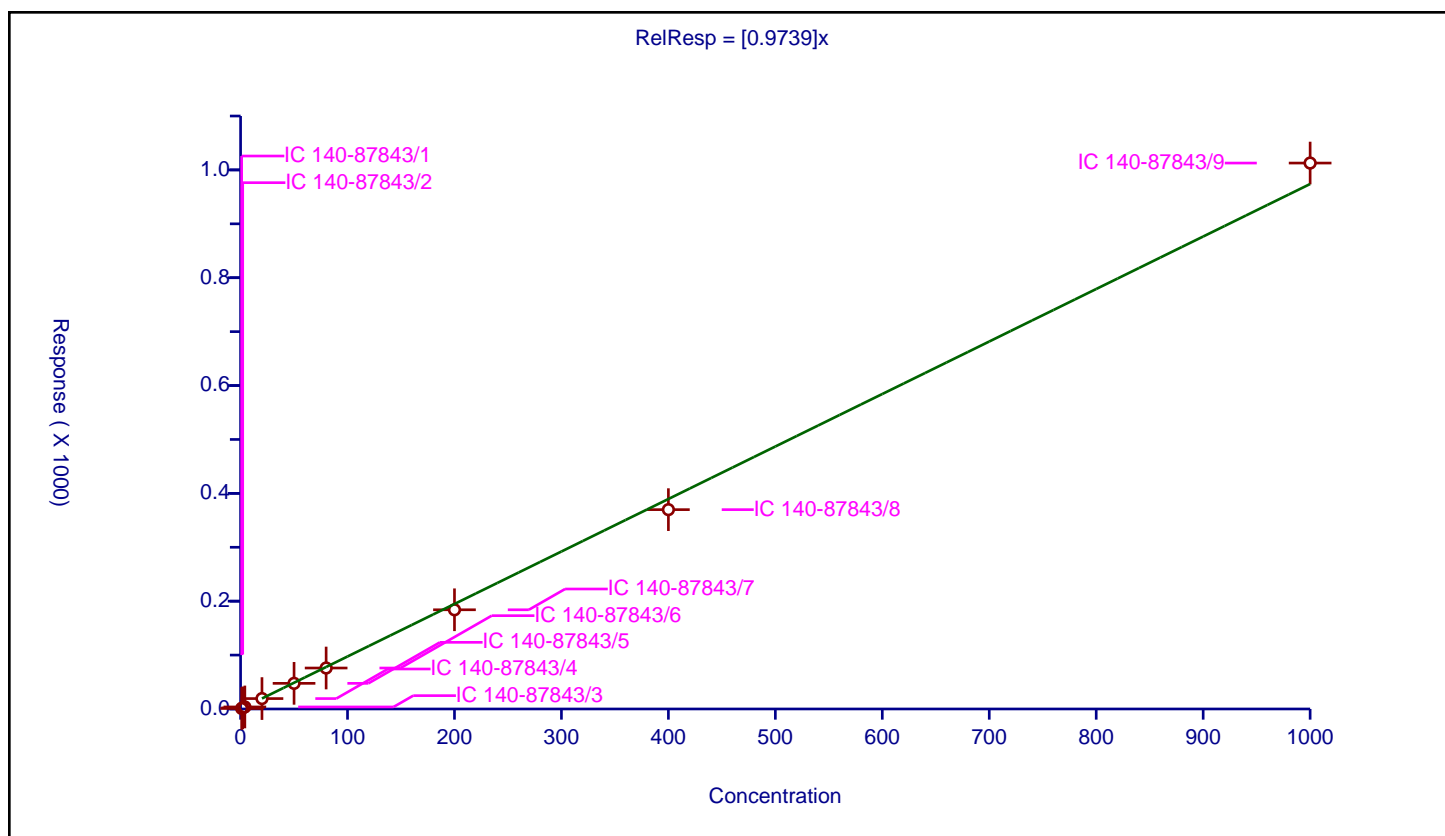
## Curve Coefficients

Intercept: 0  
Slope: 0.9739

## Error Coefficients

Relative Standard Deviation: 5.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	1.0	1.03781	100.0	7605148.0	1.03781	Y
2	IC 140-87843/2	2.0	2.121091	100.0	7671524.0	1.060545	Y
3	IC 140-87843/3	4.0	3.769102	100.0	7504068.0	0.942276	Y
4	IC 140-87843/4	20.0	19.315776	100.0	7704055.0	0.965789	Y
5	IC 140-87843/5	50.0	47.551652	100.0	7783391.0	0.951033	Y
6	IC 140-87843/6	80.0	75.994072	100.0	8168778.0	0.949926	Y
7	IC 140-87843/7	200.0	184.021642	100.0	8485215.0	0.920108	Y
8	IC 140-87843/8	400.0	369.79461	100.0	10694535.0	0.924487	Y
9	IC 140-87843/9	1000.0	1012.761185	100.0	12260100.0	1.012761	Y



## Calibration

/ Benzo[a]pyrene

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

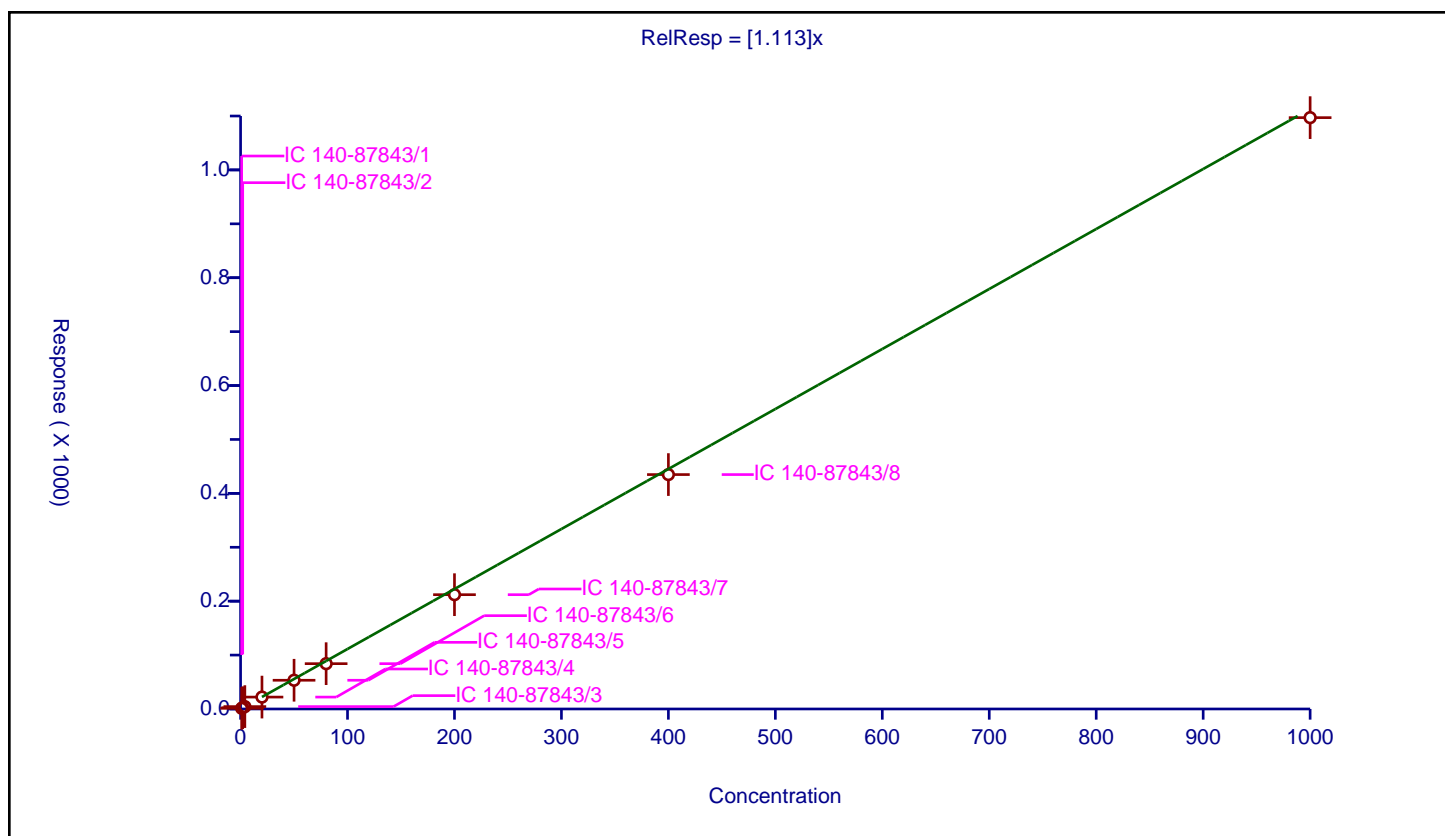
## Curve Coefficients

Intercept: 0  
Slope: 1.113

## Error Coefficients

Relative Standard Deviation: 6.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	1.0	1.241342	100.0	7271246.0	1.241342	Y
2	IC 140-87843/2	2.0	2.419433	100.0	7368833.0	1.209717	Y
3	IC 140-87843/3	4.0	4.403362	100.0	7222186.0	1.100841	Y
4	IC 140-87843/4	20.0	22.082888	100.0	7518310.0	1.104144	Y
5	IC 140-87843/5	50.0	53.316967	100.0	7915726.0	1.066339	Y
6	IC 140-87843/6	80.0	84.058294	100.0	8413993.0	1.050729	Y
7	IC 140-87843/7	200.0	212.026695	100.0	8772202.0	1.060133	Y
8	IC 140-87843/8	400.0	434.832634	100.0	11267474.0	1.087082	Y
9	IC 140-87843/9	1000.0	1096.960517	100.0	14479273.0	1.096961	Y



## Calibration

/ Benzo[b]fluoranthene

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

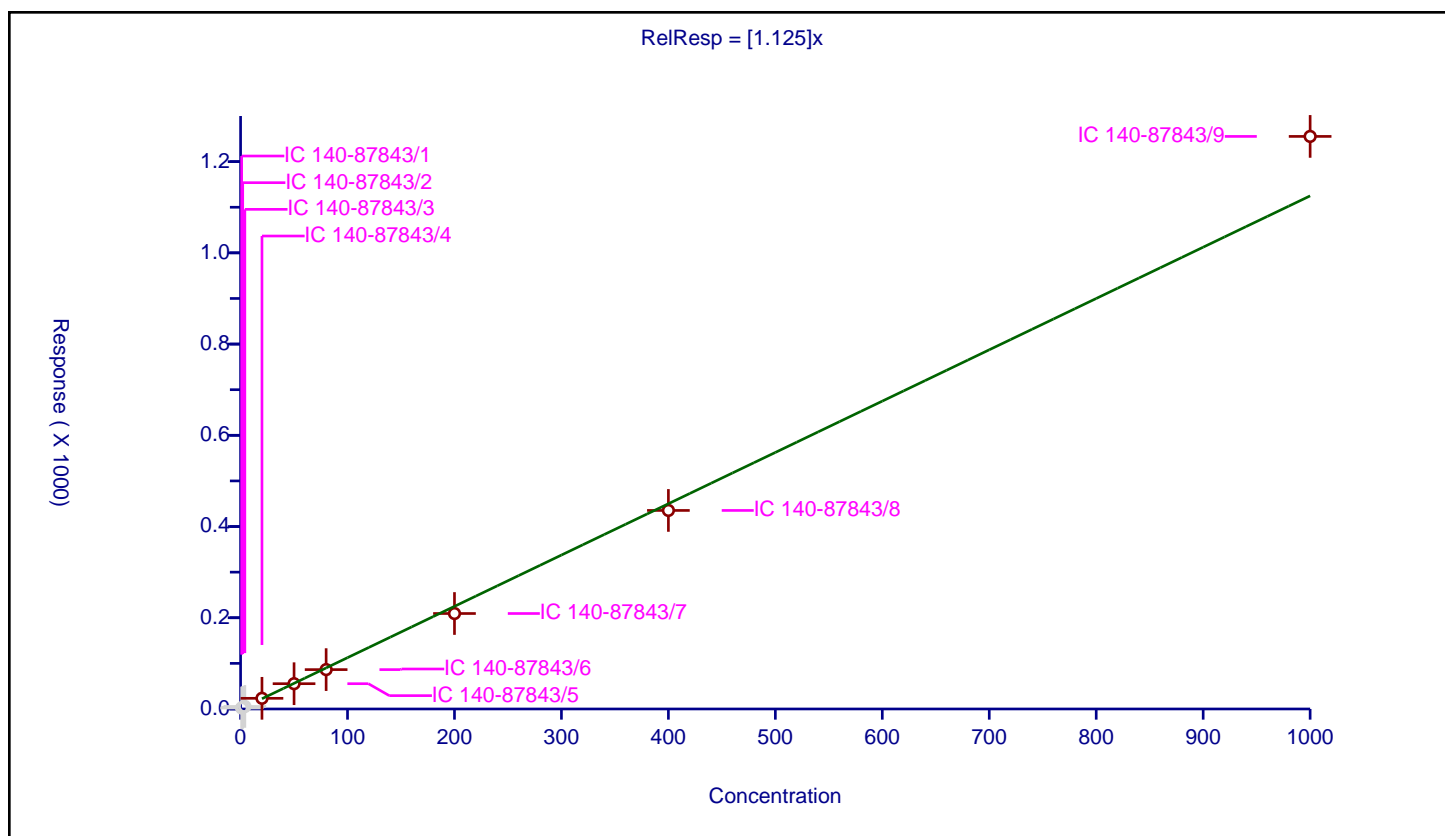
## Curve Coefficients

Intercept: 0  
Slope: 1.125

## Error Coefficients

Relative Standard Deviation: 6.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	1.0	2.218432	100.0	7044571.0	2.218432	N
2	IC 140-87843/2	2.0	3.520719	100.0	6995957.0	1.76036	N
3	IC 140-87843/3	4.0	5.577365	100.0	6808556.0	1.394341	N
4	IC 140-87843/4	20.0	23.426326	100.0	7226370.0	1.171316	Y
5	IC 140-87843/5	50.0	55.443172	100.0	7699352.0	1.108863	Y
6	IC 140-87843/6	80.0	86.347694	100.0	8052237.0	1.079346	Y
7	IC 140-87843/7	200.0	209.295166	100.0	8615715.0	1.046476	Y
8	IC 140-87843/8	400.0	435.284705	100.0	10435051.0	1.088212	Y
9	IC 140-87843/9	1000.0	1255.252954	100.0	12410189.0	1.255253	Y



## Calibration

/ Benzo[e]pyrene

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

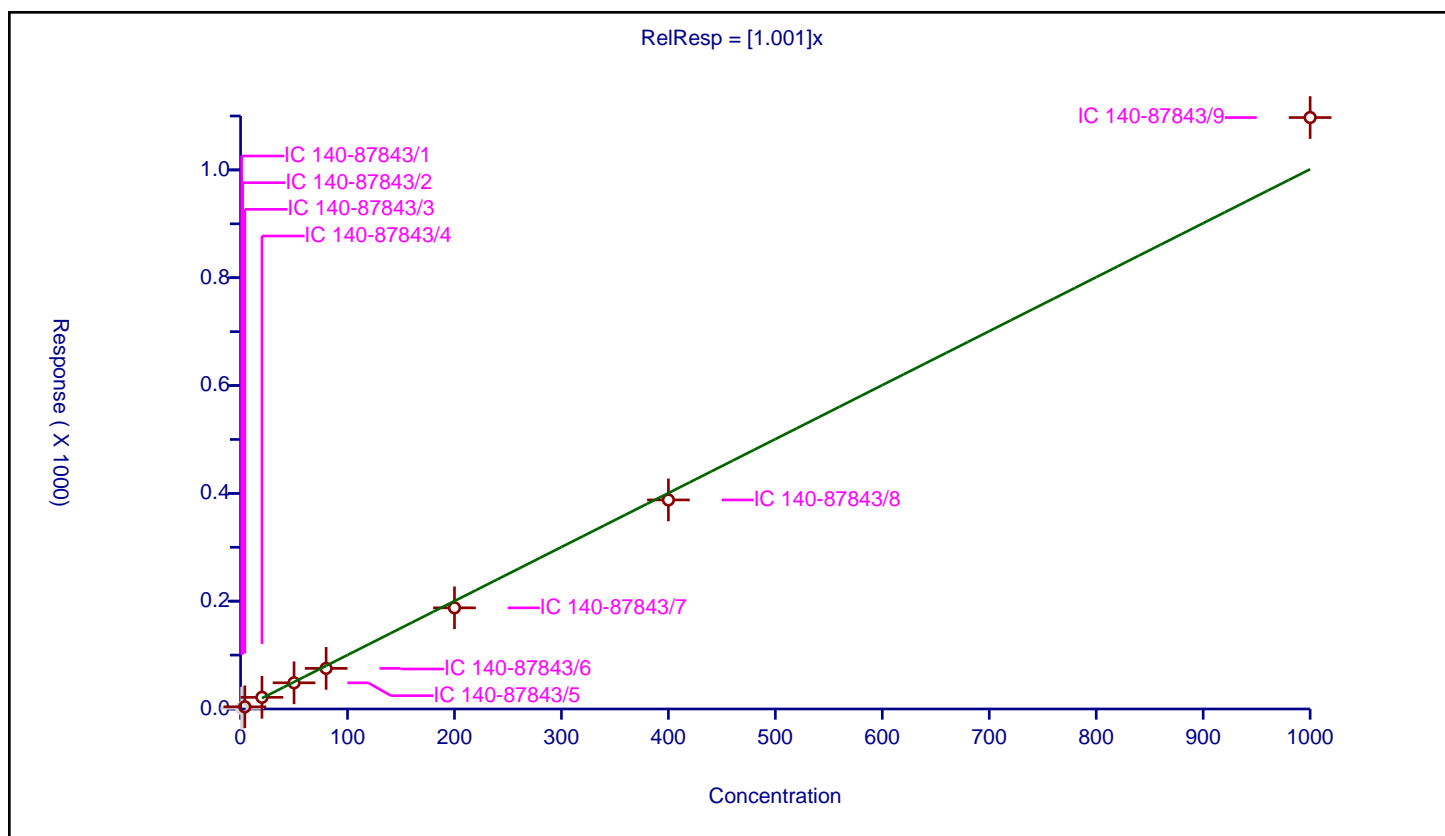
## Curve Coefficients

Intercept: 0  
Slope: 1.001

## Error Coefficients

Relative Standard Deviation: 6.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	1.0	1.257228	100.0	7869617.0	1.257228	N
2	IC 140-87843/2	2.0	2.500018	100.0	7870944.0	1.250009	N
3	IC 140-87843/3	4.0	4.033169	100.0	7853527.0	1.008292	Y
4	IC 140-87843/4	20.0	21.65788	100.0	8133857.0	1.082894	Y
5	IC 140-87843/5	50.0	48.569391	100.0	8346864.0	0.971388	Y
6	IC 140-87843/6	80.0	75.305819	100.0	9036295.0	0.941323	Y
7	IC 140-87843/7	200.0	187.652164	100.0	9276322.0	0.938261	Y
8	IC 140-87843/8	400.0	387.812314	100.0	11723054.0	0.969531	Y
9	IC 140-87843/9	1000.0	1097.197805	100.0	14222064.0	1.097198	Y



## Calibration

/ Benzo[g,h,i]perylene

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

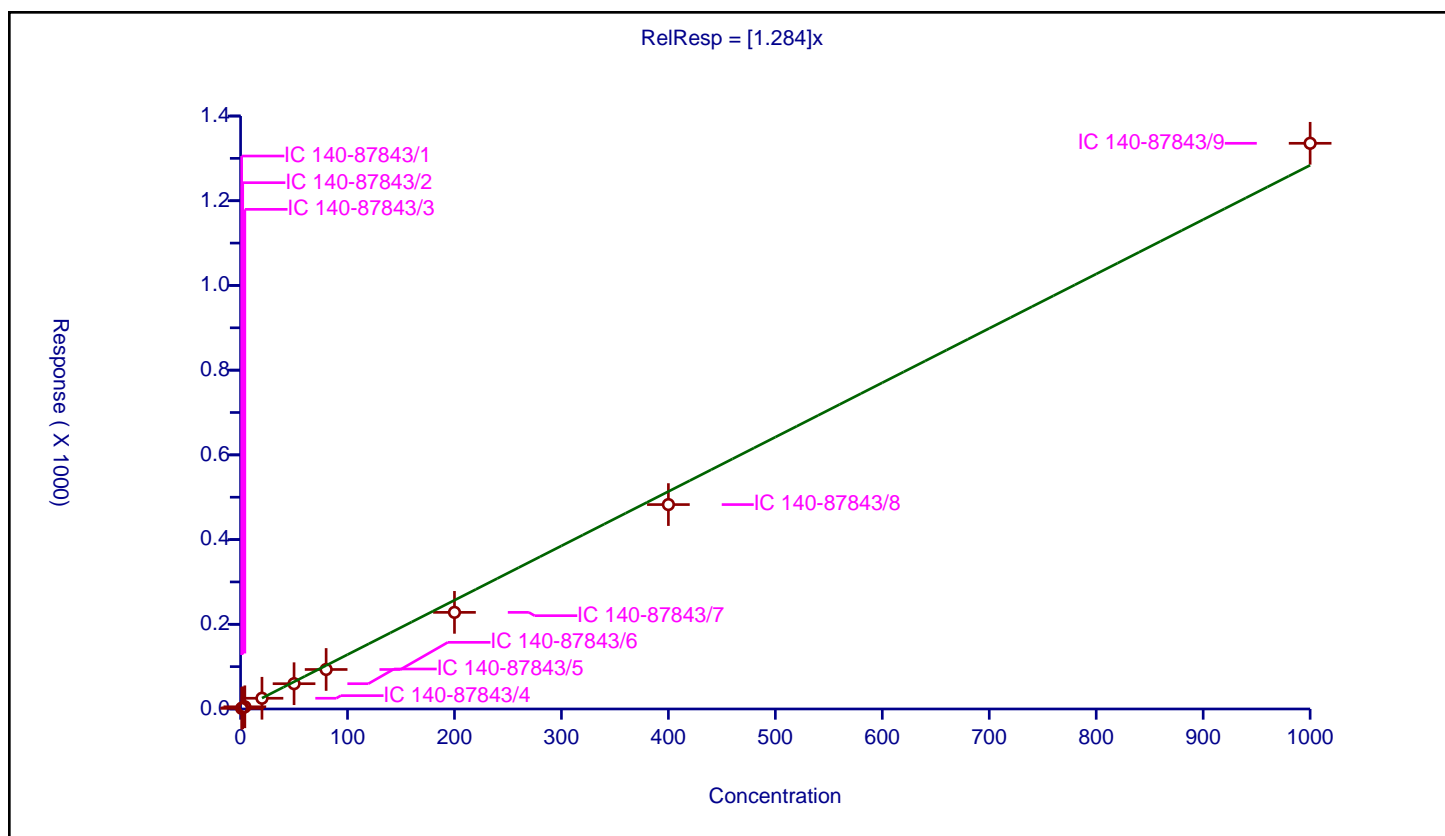
## Curve Coefficients

Intercept: 0  
Slope: 1.284

## Error Coefficients

Relative Standard Deviation: 9.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	1.0	1.516658	100.0	5925593.0	1.516658	Y
2	IC 140-87843/2	2.0	2.869052	100.0	6532018.0	1.434526	Y
3	IC 140-87843/3	4.0	5.167395	100.0	5830946.0	1.291849	Y
4	IC 140-87843/4	20.0	25.354433	100.0	6056294.0	1.267722	Y
5	IC 140-87843/5	50.0	59.702766	100.0	6552075.0	1.194055	Y
6	IC 140-87843/6	80.0	93.285458	100.0	7011632.0	1.166068	Y
7	IC 140-87843/7	200.0	228.146826	100.0	7551974.0	1.140734	Y
8	IC 140-87843/8	400.0	482.641798	100.0	9250572.0	1.206604	Y
9	IC 140-87843/9	1000.0	1335.585921	100.0	11042946.0	1.335586	Y





## Calibration

/ Benzo[k]fluoranthene

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

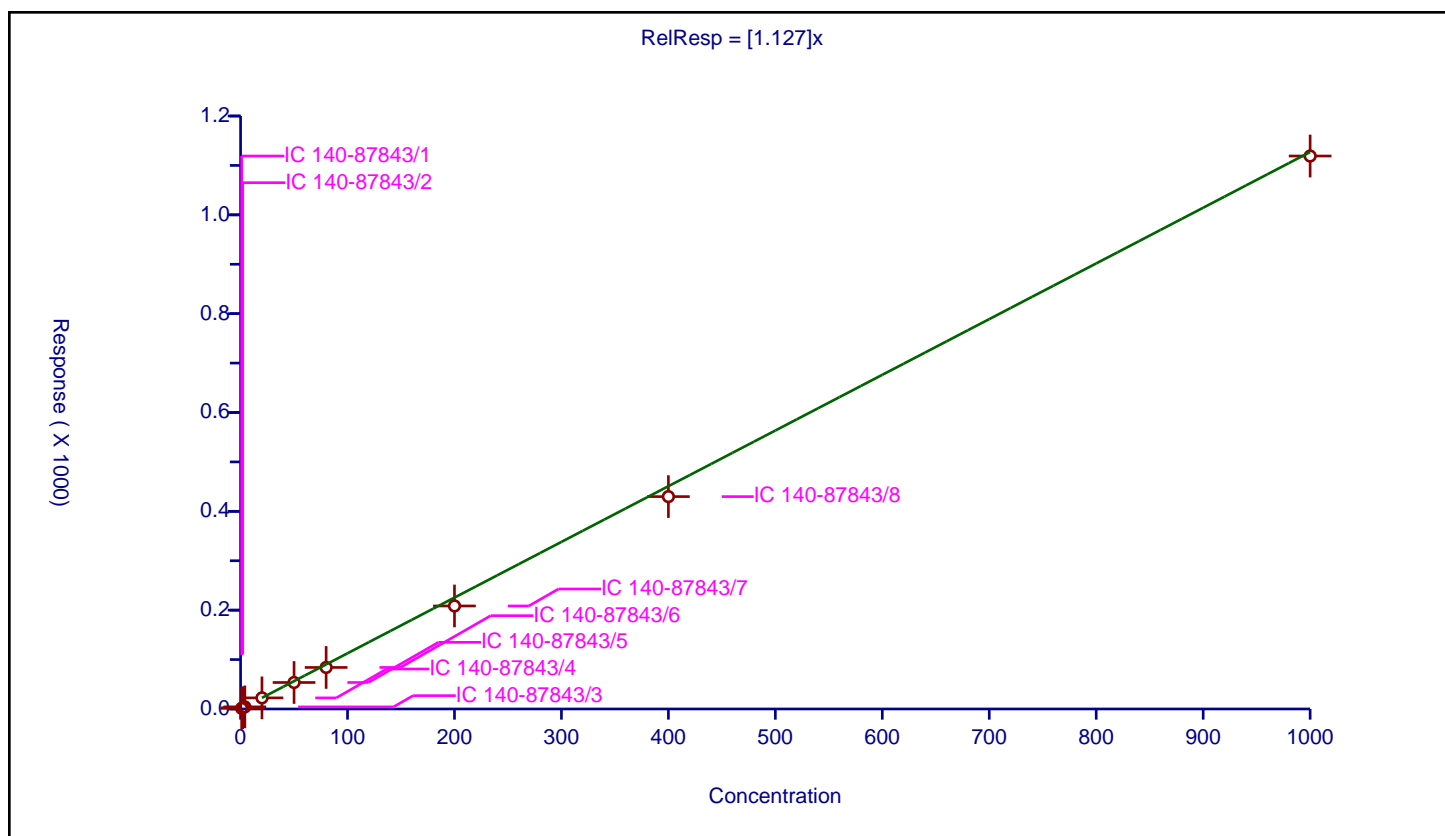
## Curve Coefficients

Intercept: 0  
Slope: 1.127

## Error Coefficients

Relative Standard Deviation: 9.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	1.0	1.247204	100.0	8157925.0	1.247204	Y
2	IC 140-87843/2	2.0	2.68761	100.0	8172987.0	1.343805	Y
3	IC 140-87843/3	4.0	4.275765	100.0	8218810.0	1.068941	Y
4	IC 140-87843/4	20.0	22.48628	100.0	8387092.0	1.124314	Y
5	IC 140-87843/5	50.0	53.627197	100.0	9021801.0	1.072544	Y
6	IC 140-87843/6	80.0	84.067587	100.0	9461461.0	1.050845	Y
7	IC 140-87843/7	200.0	208.512326	100.0	10118186.0	1.042562	Y
8	IC 140-87843/8	400.0	429.801092	100.0	12917530.0	1.074503	Y
9	IC 140-87843/9	1000.0	1119.032455	100.0	16130058.0	1.119032	Y



## Calibration

/ Chrysene

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

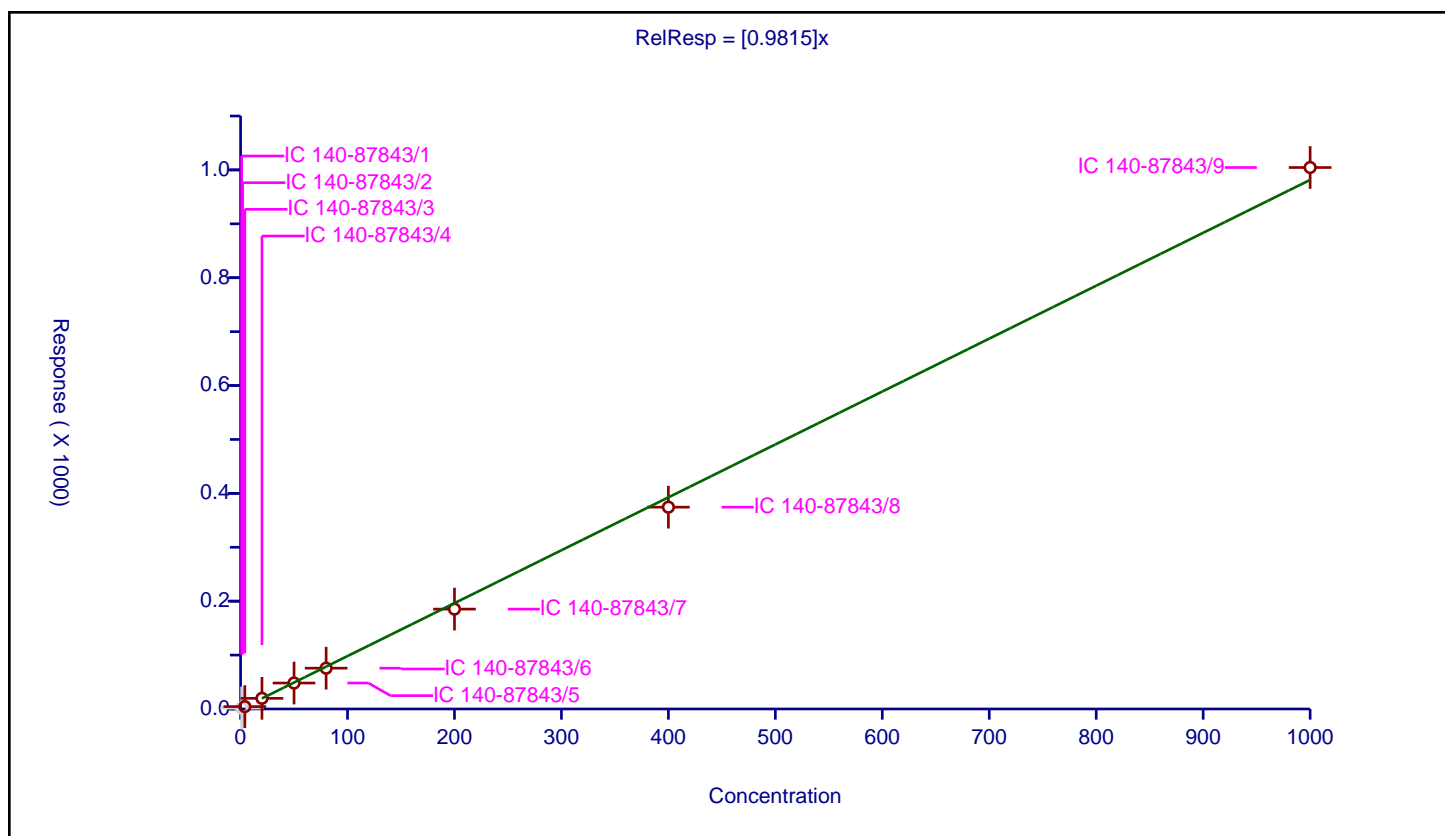
## Curve Coefficients

Intercept: 0  
Slope: 0.9815

## Error Coefficients

Relative Standard Deviation: 6.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	1.0	1.537554	100.0	7872763.0	1.537554	N
2	IC 140-87843/2	2.0	2.757934	100.0	8190879.0	1.378967	N
3	IC 140-87843/3	4.0	4.42542	100.0	7844204.0	1.106355	Y
4	IC 140-87843/4	20.0	19.754729	100.0	8166961.0	0.987736	Y
5	IC 140-87843/5	50.0	48.13393	100.0	8407429.0	0.962679	Y
6	IC 140-87843/6	80.0	75.723312	100.0	8805464.0	0.946541	Y
7	IC 140-87843/7	200.0	185.284376	100.0	9283915.0	0.926422	Y
8	IC 140-87843/8	400.0	374.389838	100.0	11695295.0	0.935975	Y
9	IC 140-87843/9	1000.0	1004.470404	100.0	13421719.0	1.00447	Y



# Calibration

/ Dibenz(a,h)anthracene

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

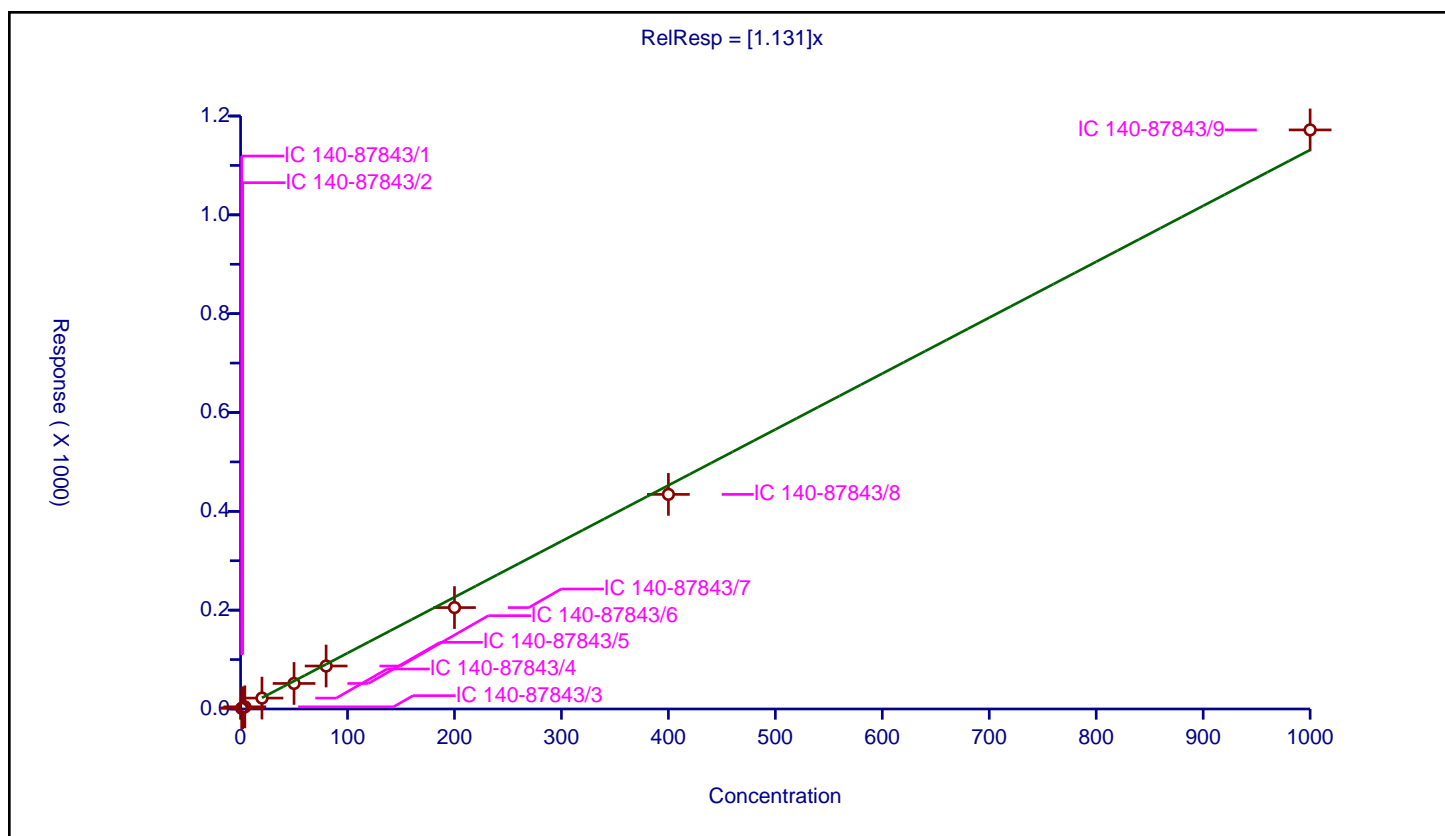
## Curve Coefficients

Intercept: 0  
Slope: 1.131

## Error Coefficients

Relative Standard Deviation: 9.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	1.0	1.356093	100.0	5080699.0	1.356093	Y
2	IC 140-87843/2	2.0	2.433341	100.0	5414078.0	1.216671	Y
3	IC 140-87843/3	4.0	4.416368	100.0	4776504.0	1.104092	Y
4	IC 140-87843/4	20.0	22.029045	100.0	4988169.0	1.101452	Y
5	IC 140-87843/5	50.0	51.677938	100.0	5397040.0	1.033559	Y
6	IC 140-87843/6	80.0	86.947855	100.0	5580937.0	1.086848	Y
7	IC 140-87843/7	200.0	205.213845	100.0	6110020.0	1.026069	Y
8	IC 140-87843/8	400.0	434.276418	100.0	7695778.0	1.085691	Y
9	IC 140-87843/9	1000.0	1171.888099	100.0	9436274.0	1.171888	Y



## Calibration

/ Fluoranthene

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

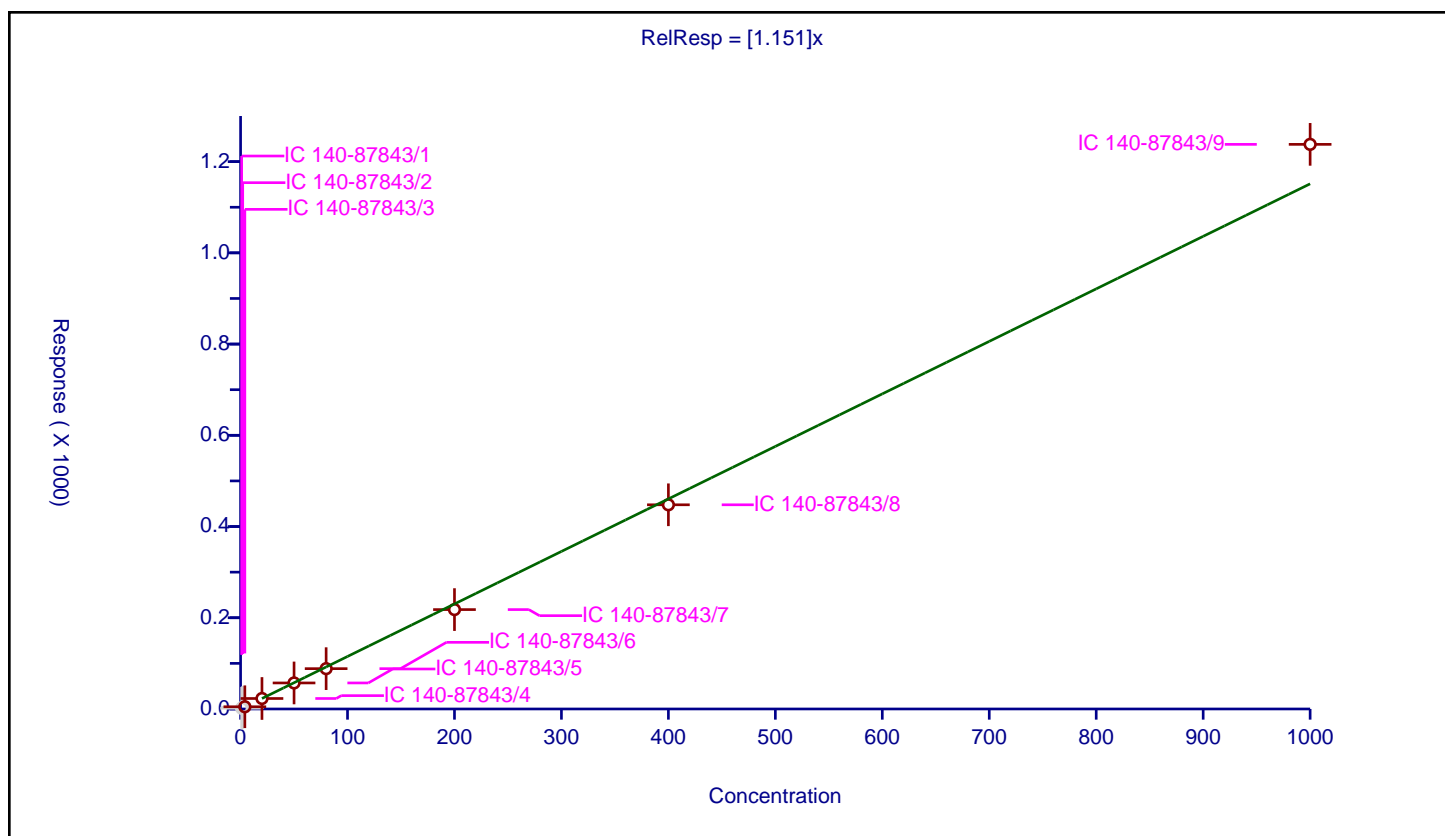
## Curve Coefficients

Intercept: 0  
Slope: 1.151

## Error Coefficients

Relative Standard Deviation: 4.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	1.0	1.670143	100.0	7580251.0	1.670143	N
2	IC 140-87843/2	2.0	3.655564	100.0	7938309.0	1.827782	N
3	IC 140-87843/3	4.0	4.857213	100.0	8154780.0	1.214303	Y
4	IC 140-87843/4	20.0	23.025217	100.0	9182667.0	1.151261	Y
5	IC 140-87843/5	50.0	57.099674	100.0	8354538.0	1.141993	Y
6	IC 140-87843/6	80.0	88.405901	100.0	9143194.0	1.105074	Y
7	IC 140-87843/7	200.0	217.919372	100.0	9842103.0	1.089597	Y
8	IC 140-87843/8	400.0	447.660159	100.0	11997910.0	1.11915	Y
9	IC 140-87843/9	1000.0	1237.867289	100.0	13148739.0	1.237867	Y



## Calibration

/ Fluorene

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

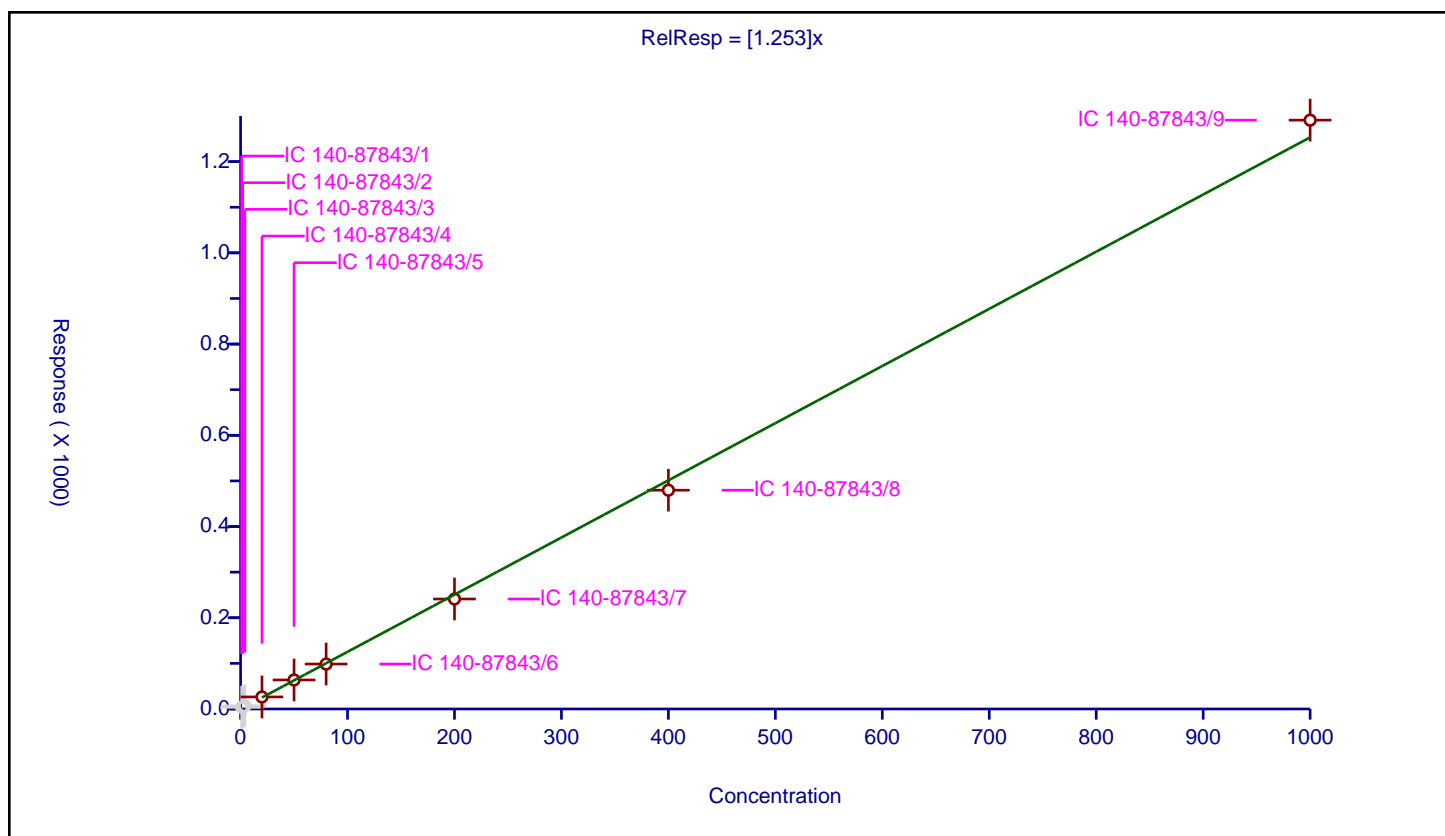
## Curve Coefficients

Intercept: 0  
Slope: 1.253

## Error Coefficients

Relative Standard Deviation: 3.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	1.0	3.758561	100.0	2300375.0	3.758561	N
2	IC 140-87843/2	2.0	4.572201	100.0	2550369.0	2.286101	N
3	IC 140-87843/3	4.0	6.902788	100.0	2635457.0	1.725697	N
4	IC 140-87843/4	20.0	26.390271	100.0	3098767.0	1.319514	Y
5	IC 140-87843/5	50.0	63.615901	100.0	2645576.0	1.272318	Y
6	IC 140-87843/6	80.0	98.518293	100.0	3234715.0	1.231479	Y
7	IC 140-87843/7	200.0	241.108161	100.0	3285389.0	1.205541	Y
8	IC 140-87843/8	400.0	479.670436	100.0	3801144.0	1.199176	Y
9	IC 140-87843/9	1000.0	1290.908505	100.0	4314043.0	1.290909	Y



## Calibration

/ Indeno[1,2,3-cd]pyrene

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

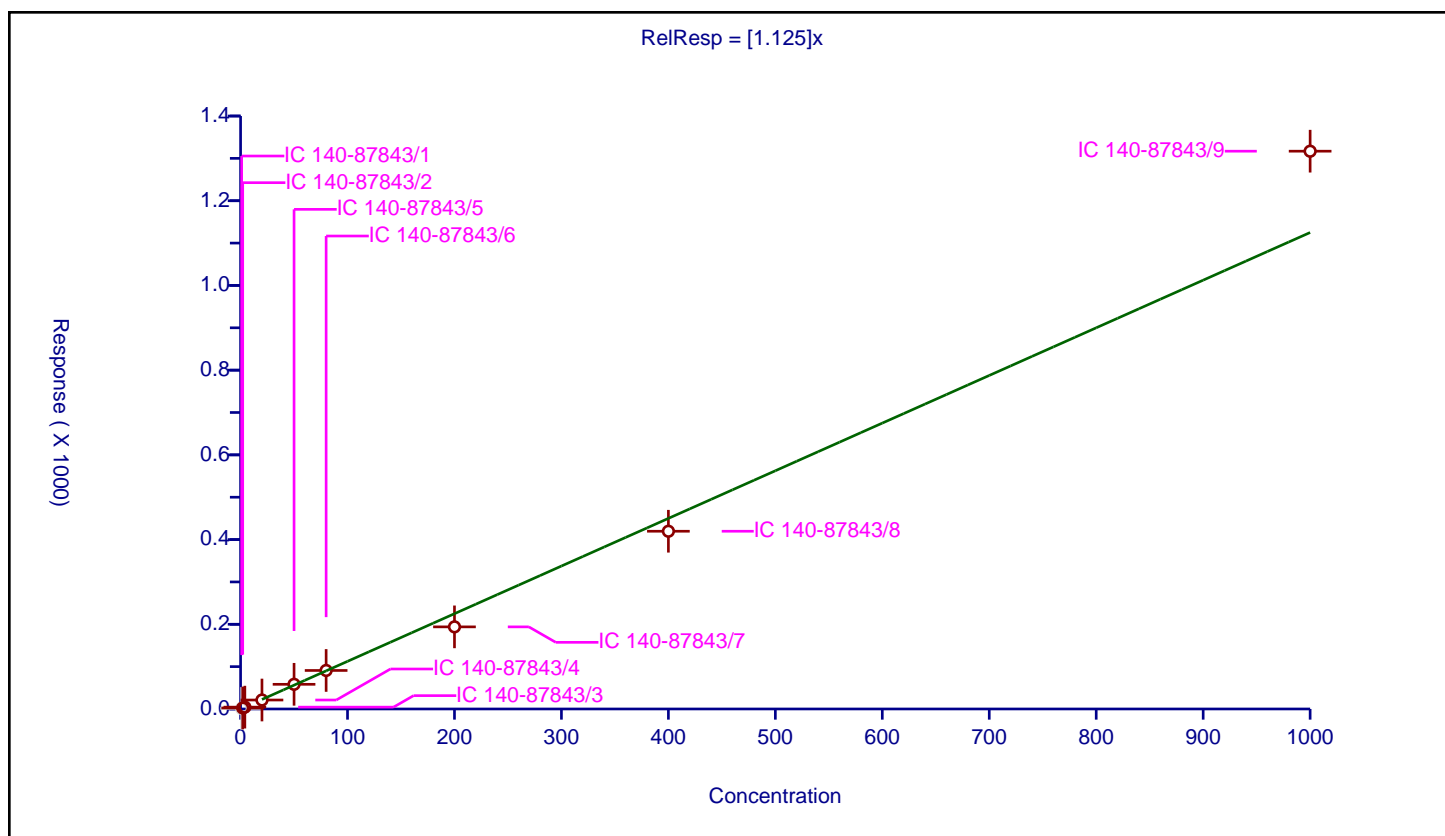
## Curve Coefficients

Intercept: 0  
Slope: 1.125

## Error Coefficients

Relative Standard Deviation: 9.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	1.0	1.318012	100.0	4910654.0	1.318012	N
2	IC 140-87843/2	2.0	2.411491	100.0	5418391.0	1.205745	Y
3	IC 140-87843/3	4.0	4.39401	100.0	4630053.0	1.098503	Y
4	IC 140-87843/4	20.0	21.156291	100.0	5157889.0	1.057815	Y
5	IC 140-87843/5	50.0	58.243265	100.0	4835402.0	1.164865	Y
6	IC 140-87843/6	80.0	90.975877	100.0	5212706.0	1.137198	Y
7	IC 140-87843/7	200.0	193.881836	100.0	6349503.0	0.969409	Y
8	IC 140-87843/8	400.0	419.632644	100.0	7511958.0	1.049082	Y
9	IC 140-87843/9	1000.0	1316.924276	100.0	8585756.0	1.316924	Y



## Calibration

/ Naphthalene

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

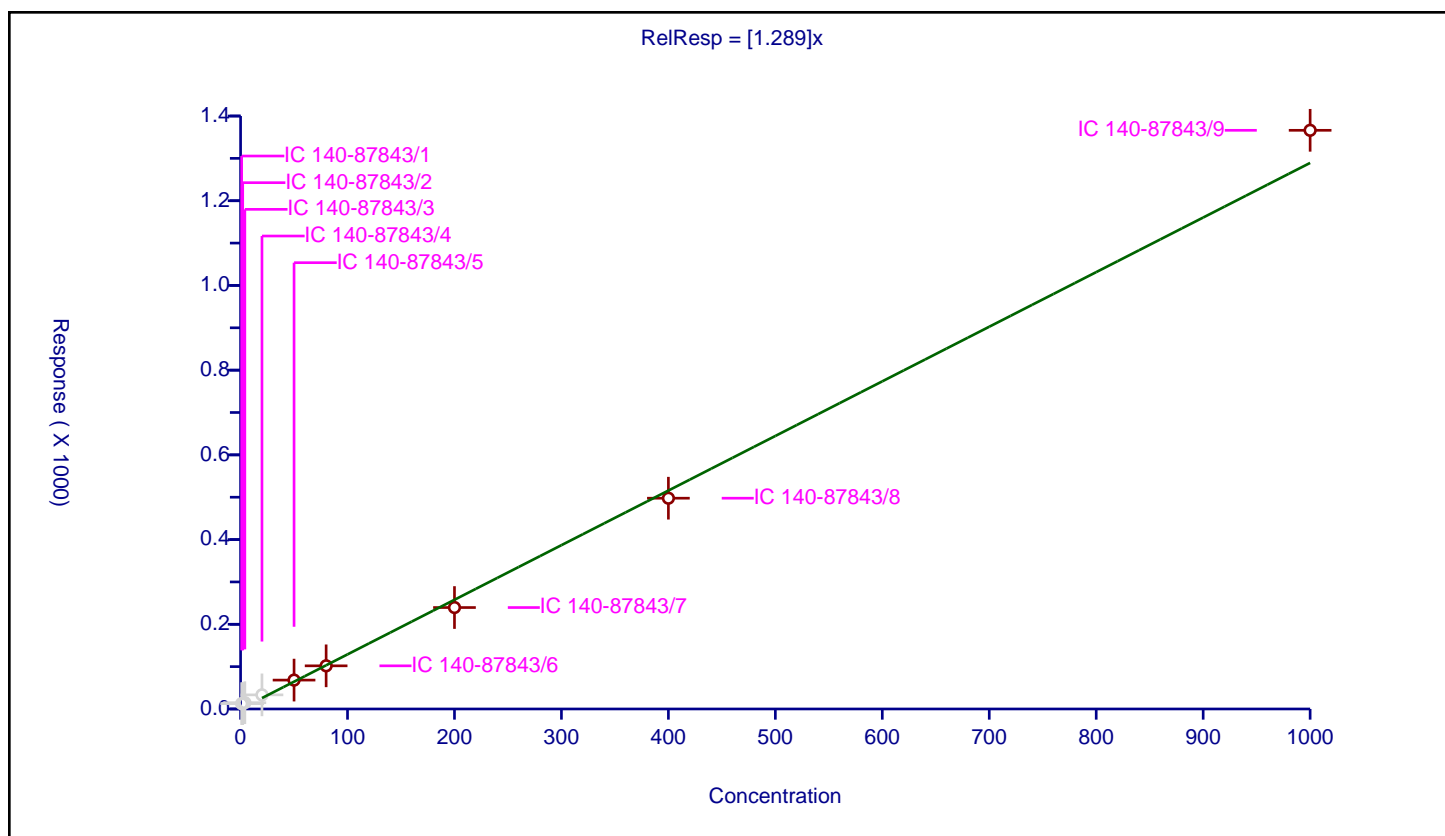
## Curve Coefficients

Intercept: 0  
Slope: 1.289

## Error Coefficients

Relative Standard Deviation: 5.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	1.0	12.609299	100.0	9958539.0	12.609299	N
2	IC 140-87843/2	2.0	12.614015	100.0	10224350.0	6.307007	N
3	IC 140-87843/3	4.0	14.91186	100.0	10437430.0	3.727965	N
4	IC 140-87843/4	20.0	33.315879	100.0	11716317.0	1.665794	N
5	IC 140-87843/5	50.0	68.215465	100.0	10955076.0	1.364309	Y
6	IC 140-87843/6	80.0	101.918	100.0	10869499.0	1.273975	Y
7	IC 140-87843/7	200.0	239.530616	100.0	12167731.0	1.197653	Y
8	IC 140-87843/8	400.0	497.650715	100.0	13369772.0	1.244127	Y
9	IC 140-87843/9	1000.0	1366.234926	100.0	14774767.0	1.366235	Y



## Calibration

/ Perylene

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

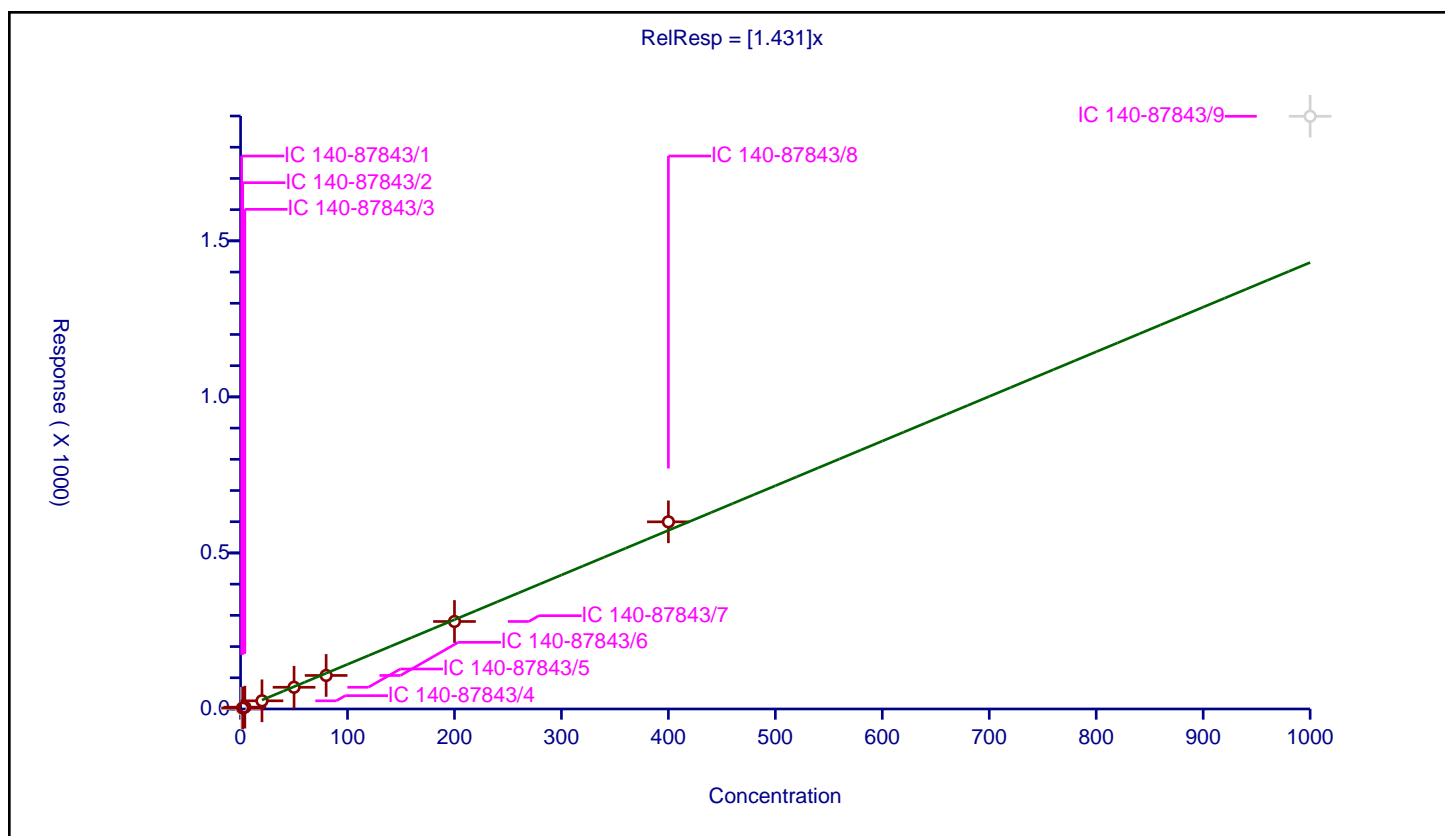
## Curve Coefficients

Intercept: 0  
Slope: 1.431

## Error Coefficients

Relative Standard Deviation: 7.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	1.0	1.860706	100.0	5662636.0	1.860706	N
2	IC 140-87843/2	2.0	3.203678	100.0	5811383.0	1.601839	Y
3	IC 140-87843/3	4.0	5.864918	100.0	5628212.0	1.466229	Y
4	IC 140-87843/4	20.0	26.201245	100.0	6075448.0	1.310062	Y
5	IC 140-87843/5	50.0	69.618739	100.0	6306802.0	1.392375	Y
6	IC 140-87843/6	80.0	107.439095	100.0	6805855.0	1.342989	Y
7	IC 140-87843/7	200.0	280.414458	100.0	7004851.0	1.402072	Y
8	IC 140-87843/8	400.0	599.65743	100.0	8439141.0	1.499144	Y
9	IC 140-87843/9	1000.0	1899.103982	100.0	9436646.0	1.899104	N





## Calibration

/ Phenanthrene

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

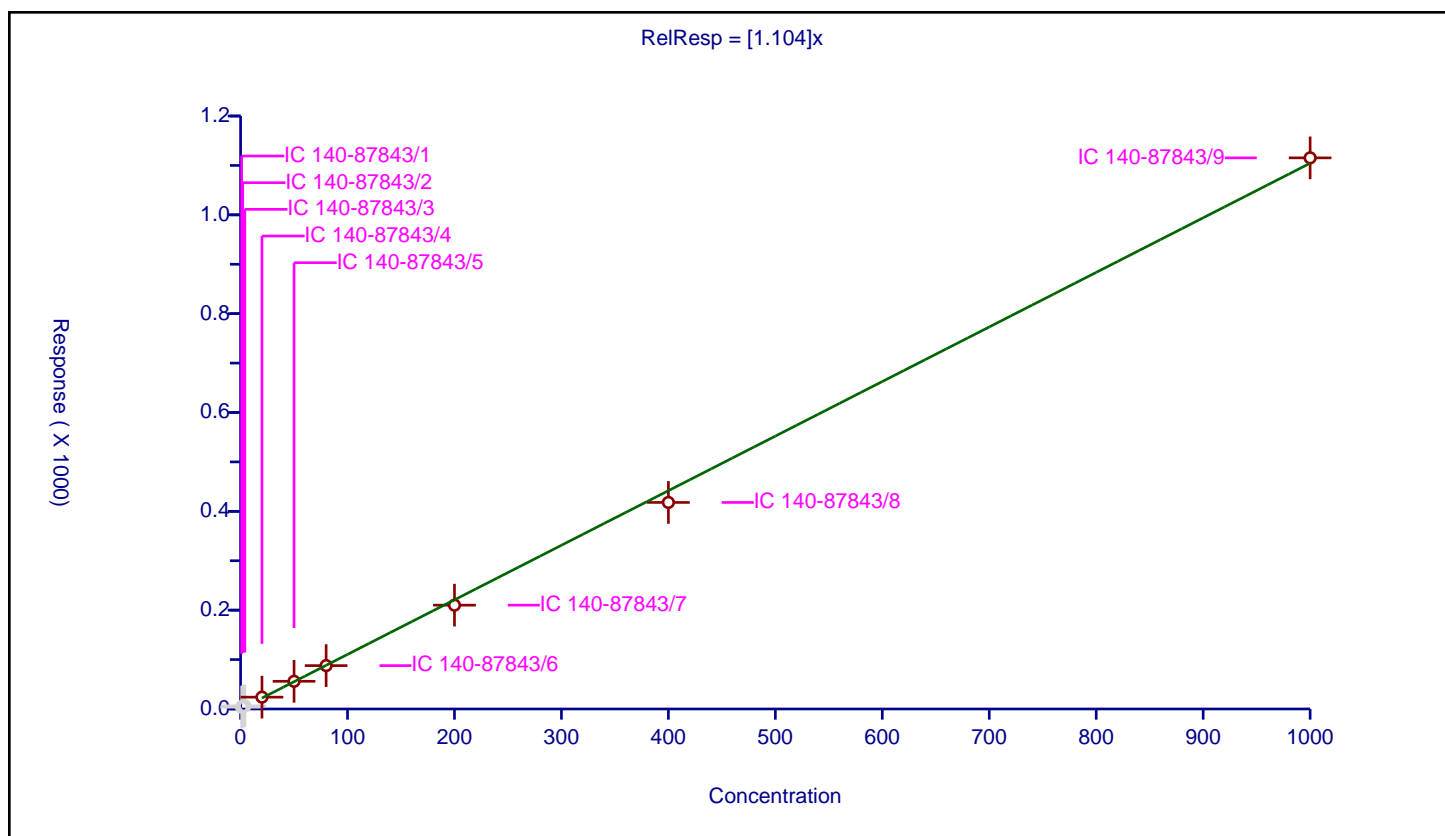
## Curve Coefficients

Intercept: 0  
Slope: 1.104

## Error Coefficients

Relative Standard Deviation: 5.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	1.0	3.633317	100.0	3481612.0	3.633317	N
2	IC 140-87843/2	2.0	5.665578	100.0	3753474.0	2.832789	N
3	IC 140-87843/3	4.0	6.21547	100.0	3834191.0	1.553868	N
4	IC 140-87843/4	20.0	23.9578	100.0	4480403.0	1.19789	Y
5	IC 140-87843/5	50.0	56.029235	100.0	4005566.0	1.120585	Y
6	IC 140-87843/6	80.0	87.776848	100.0	4194540.0	1.097211	Y
7	IC 140-87843/7	200.0	210.128129	100.0	4953590.0	1.050641	Y
8	IC 140-87843/8	400.0	417.99271	100.0	5572957.0	1.044982	Y
9	IC 140-87843/9	1000.0	1115.315735	100.0	6524734.0	1.115316	Y



## Calibration

/ Pyrene

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

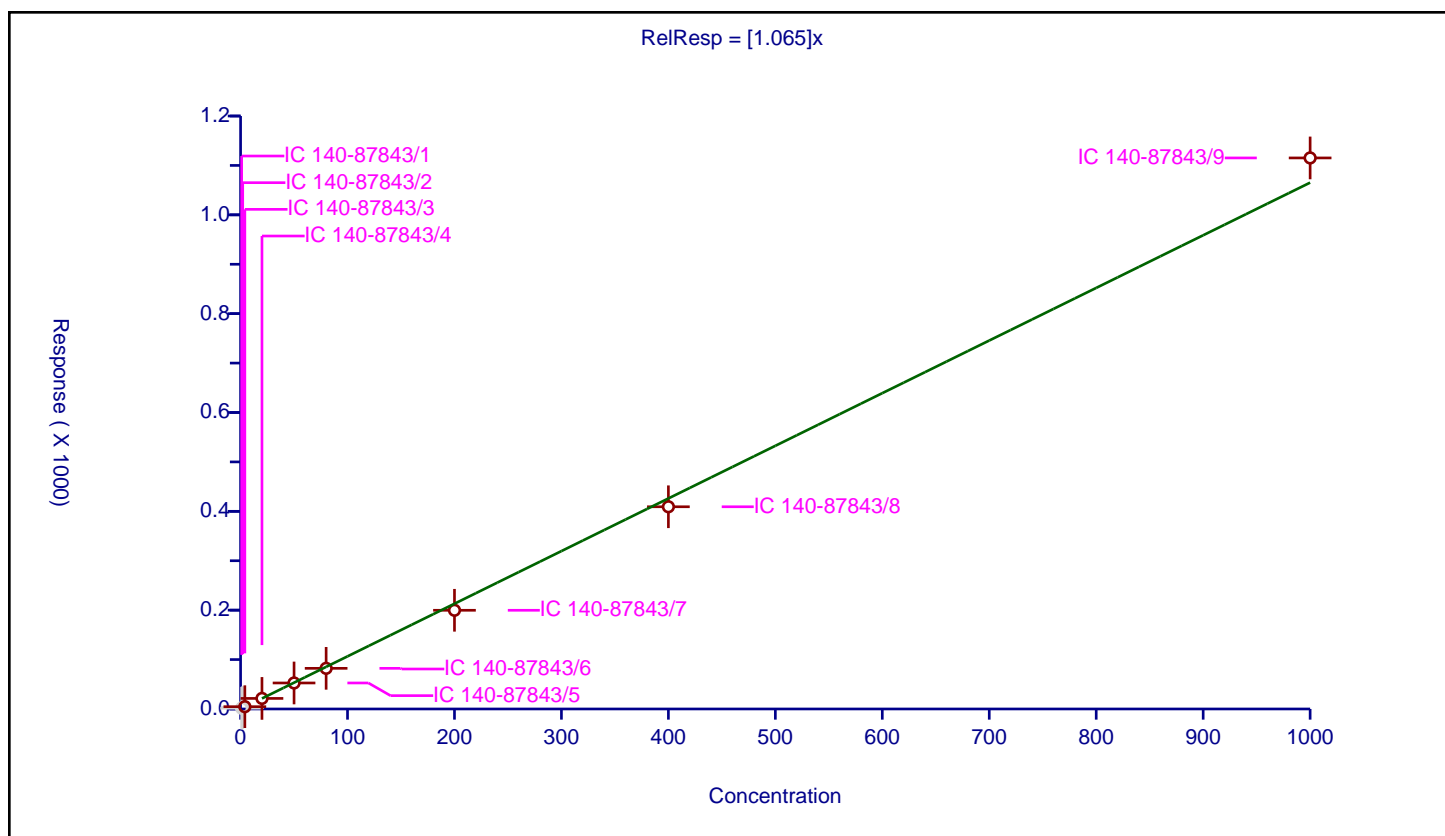
## Curve Coefficients

Intercept: 0  
Slope: 1.065

## Error Coefficients

Relative Standard Deviation: 5.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87843/1	1.0	1.612584	100.0	8492459.0	1.612584	N
2	IC 140-87843/2	2.0	3.054751	100.0	8994056.0	1.527375	N
3	IC 140-87843/3	4.0	4.677314	100.0	9131545.0	1.169328	Y
4	IC 140-87843/4	20.0	21.380309	100.0	10292274.0	1.069015	Y
5	IC 140-87843/5	50.0	52.636984	100.0	9271369.0	1.05274	Y
6	IC 140-87843/6	80.0	82.26308	100.0	10295818.0	1.028289	Y
7	IC 140-87843/7	200.0	199.756681	100.0	11042272.0	0.998783	Y
8	IC 140-87843/8	400.0	409.246038	100.0	13356986.0	1.023115	Y
9	IC 140-87843/9	1000.0	1115.144428	100.0	15391681.0	1.115144	Y



FORM VII  
HI-RES PAHS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 140-87843/10 Calibration Date: 06/20/2024 02:46  
 Instrument ID: D3PAH Calib Start Date: 06/19/2024 16:34  
 GC Column: Rxi-5SilMS 25 ID: 0.25 (mm) Calib End Date: 06/20/2024 01:09  
 Lab File ID: d3240619icv.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
13C6-Naphthalene	Ave	3.375	3.132		92.8	100	-7.2	30.0
13C6-2-Methylnaphthalene	Ave	1.603	1.509		94.1	100	-5.9	30.0
13C6-Acenaphthylene	Ave	1.652	1.696		103	100	2.6	30.0
13C6-Acenaphthene	Ave	0.9792	0.9779		99.9	100	-0.1	30.0
13C6-Fluorene	Ave	0.8898	0.7920		89.0	100	-11.0	30.0
13C6-Phenanthrene	Ave	0.5724	0.6236		109	100	8.9	30.0
13C6-Anthracene	Ave	0.4523	0.4905		108	100	8.4	30.0
13C6-Fluoranthrene	Ave	1.199	1.318		110	100	9.9	30.0
13C3-Pyrene	Ave	1.351	1.457		108	100	7.9	30.0
13C6-Benzo (a) anthracene	Ave	1.519	1.656		109	100	9.0	30.0
13C6-Chrysene	Ave	1.629	1.770		109	100	8.7	30.0
13C6-Benzo (b) fluoranthene	Ave	1.462	1.616		111	100	10.5	30.0
13C6-Benzo (k) fluoranthene	Ave	1.751	1.936		111	100	10.6	30.0
13C4-Benzo (e) pyrene	Ave	1.637	1.838		112	100	12.3	30.0
13C4-Benzo (a) pyrene	Ave	1.551	1.689		109	100	8.9	30.0
Perylene-d12	Ave	1.192	1.234		104	100	3.5	30.0
13C6-Indeno (1,2,3-cd) pyrene	Ave	1.022	1.167		114	100	14.2	30.0
13C6-Dibenz (a,h) anthracene	Ave	1.055	1.350		128	100	27.9	30.0
13C12-Benzo (ghi) perylene	Ave	1.275	1.497		117	100	17.4	30.0

FORM VII  
HI-RES PAHS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: ICV 140-87843/10 Calibration Date: 06/20/2024 02:46  
 Instrument ID: D3PAH Calib Start Date: 06/19/2024 16:34  
 GC Column: Rxi-5SilMS 25 ID: 0.25 (mm) Calib End Date: 06/20/2024 01:09  
 Lab File ID: d3240619icv.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
Naphthalene	AveID	1.289	1.282		497	500	99	70-130
2-Methylnaphthalene	AveID	1.279	1.258		492	500	98	70-130
Acenaphthylene	AveID	2.366	2.441		516	500	103	70-130
Acenaphthene	AveID	1.270	1.246		491	500	98	70-130
Fluorene	AveID	1.253	1.254		500	500	100	70-130
Phenanthrene	AveID	1.104	1.110		503	500	101	70-130
Anthracene	AveID	1.359	1.325		488	500	98	70-130
Fluoranthene	AveID	1.151	1.174		510	500	102	70-130
Pyrene	AveID	1.065	1.115		524	500	105	70-130
Benzo[a]anthracene	AveID	0.9739	0.9740		500	500	100	70-130
Chrysene	AveID	0.9815	1.015		517	500	103	70-130
Benzo[b]fluoranthene	AveID	1.125	1.167		519	500	104	70-130
Benzo[k]fluoranthene	AveID	1.127	1.146		508	500	102	70-130
Benzo[e]pyrene	AveID	1.001	1.252		625	500	125	70-130
Benzo[a]pyrene	AveID	1.113	1.208		543	500	109	70-130
Perylene	AveID	1.431	1.620		566	500	113	70-130
Indeno[1,2,3-cd]pyrene	AveID	1.125	1.094		486	500	97	70-130
Dibenz(a,h)anthracene	AveID	1.131	1.121		495	500	99	70-130
Benzo[g,h,i]perylene	AveID	1.284	1.262		491	500	98	70-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619icv.d  
Lims ID: ICV  
Client ID:  
Sample Type: ICV  
Inject. Date: 20-Jun-2024 02:46:00 ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033168-010  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist:  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 25-Jun-2024 14:12:41 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1632

First Level Reviewer: TT6I

Date: 25-Jun-2024 14:12:41

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:41	13477442		3.3746	92.8	92.8	0.005803	0.005803	92.80	a
Naphthalene	11:41	86402026		1.2893	497.3	497.3	0.0680	0.0680	99.45	a
D 13C6-2-Methylnaphthalene	13:55	6493524		1.6031	94.1	94.1	0.001416	0.001416	94.12	
2-Methylnaphthalene	13:55	40858535		1.2786	492.1	492.1	0.0277	0.0277	98.43	
D 13C6-Acenaphthylene	16:47	7297545		1.6520	102.6	102.6	0.002237	0.002237	103	
Acenaphthylene	16:47	51372833		2.3661	515.9	515.9	0.0307	0.0307	103	
* Acenaphthene-d10	17:21	4303576		3.5E+04	100.0	100.0				
D 13C6-Acenaphthene	17:28	4208528		0.9792	99.9	99.9	0.002649	0.002649	99.87	
Acenaphthene	17:28	26212060		1.2697	490.5	490.5	0.0440	0.0440	98.11	
Fluorene	19:45	21363714		1.2532	500.2	500.2	0.0507	0.0507	100	
D 13C6-Fluorene	19:45	3408512		0.8898	89.0	89.0	0.001603	0.001603	89.01	
D 13C6-Phenanthrene	25:08	5503772		0.5724	108.9	108.9	0.006954	0.006954	109	
Phenanthrene	25:08	30546294		1.1044	502.5	502.5	0.0480	0.0480	101	
D 13C6-Anthracene	25:28	4329635		0.4523	108.4	108.4	0.008801	0.008801	108	
Anthracene	25:29	28688367		1.3586	487.7	487.7	0.0511	0.0511	97.54	
D 13C6-Fluoranthrene	33:53	11635330		1.1994	109.9	109.9	0.0283	0.0283	110	
Fluoranthene	33:54	68280213		1.1513	509.7	509.7	0.0239	0.0239	102	
* Pyrene-d10	35:26	8826302		7.9E+04	100.0	100.0				
D 13C3-Pyrene	35:34	12863803		1.3512	107.9	107.9	0.0150	0.0150	108	
Pyrene	35:35	71732321		1.0652	523.5	523.5	0.0246	0.0246	105	
D 13C6-Benzo(a)anthracene	46:07	11144764		1.5189	109.0	109.0	0.0119	0.0119	109	
Benzo[a]anthracene	46:08	54276958		0.9739	500.1	500.1	0.0462	0.0462	100	
D 13C6-Chrysene	46:24	11912007		1.6287	108.7	108.7	0.0111	0.0111	109	
Chrysene	46:24	60434818		0.9815	516.9	516.9	0.0455	0.0455	103	
D 13C6-Benzo(b)fluoranthene	54:40	10876736		1.4621	110.5	110.5	0.001204	0.001204	111	
Benzo[b]fluoranthene	54:40	63447136		1.1249	518.6	518.6	0.007804	0.007804	104	
D 13C6-Benzo(k)fluoranthene	54:47	13027765		1.7507	110.6	110.6	0.001005	0.001005	111	
Benzo[k]fluoranthene	54:47	74650027		1.1271	508.4	508.4	0.006593	0.006593	102	
* Benzo(e)pyrene-d12	55:31	6729891		5.7E+04	100.0	100.0				
Benzo[e]pyrene	55:36	77451657		1.0013	625.2	625.2	0.006018	0.006018	125	
D 13C4-Benzo(e)pyrene	55:36	12371926		1.6368	112.3	112.3	0.009057	0.009057	112	
Benzo[a]pyrene	55:44	68663102		1.1130	542.7	542.7	0.005983	0.005983	109	
D 13C4-Benzo(a)pyrene	55:44	11367582		1.5508	108.9	108.9	0.009560	0.009560	109	

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\3240619icv.d

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D Perylene-d12	55:54	8303002		1.1917	103.5	103.5	0.0118	0.0118	104	
Perylene	55:58	67252708		1.4307	566.2	566.2	0.006120	0.006120	113	E
D 13C6-Indeno(1,2,3-cd)pyrene	58:02	7856573		1.0218	114.2	114.2	0.0102	0.0102	114	
Indeno[1,2,3-cd]pyrene	58:03	42975857		1.1249	486.3	486.3	0.0191	0.0191	97.25	
D 13C6-Dibenz(a,h)anthracene	58:07	9084543		1.0553	127.9	127.9	0.005211	0.005211	128	
Dibenz(a,h)anthracene	58:07	50916184		1.1314	495.4	495.4	0.009530	0.009530	99.08	
D 13C12-Benzo(ghi)perylene	58:30	10075910		1.2749	117.4	117.4	0.002070	0.002070	117	
Benzo[g,h,i]perylene	58:32	63565210		1.2838	491.4	491.4	0.0150	0.0150	98.28	

### QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Review Flags

a - User Assigned ID

### Reagents:

61HRPAHICVW\_00003

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619icv.d  
Lims ID: ICV  
Client ID:  
Sample Type: ICV  
Inject. Date: 20-Jun-2024 02:46:00 ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033168-010  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist:  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 25-Jun-2024 14:12:41 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1632

First Level Reviewer: TT6I

Date: 25-Jun-2024 14:12:41

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											a
134.0828	11:41	11:33	8	0.673	13477442	4456210	121	302	36828		a
Naphthalene											a
128.0626	11:41	11:34	7	1.000	86402026	29321886	1563	3907	18760		a
13C6-2-Methylnaphthalene											
148.0984	13:55	13:52	2	0.802	6493524	3094767	14	35	221055		
2-Methylnaphthalene											
142.0783	13:55	13:53	2	1.000	40858535	18807631	438	1095	42940		
13C6-Acenaphthylene											
158.0828	16:47	16:45	1	0.967	7297545	2605022	23	57	113262		E
Acenaphthylene											
152.0626	16:47	16:45	1	1.000	51372833	19549495	422	1055	46326		
Acenaphthene-d10											
164.1404	17:21	17:20	1		4303576	1542160	3	7	514053		
13C6-Acenaphthene											
160.0984	17:28	17:27	1	1.007	4208528	1451106	16	40	90694		
Acenaphthene											
154.0783	17:28	17:27	1	1.001	26212060	9398913	324	810	29009		
Fluorene											
166.0783	19:45	19:45	1	1.001	21363714	6510687	261	652	24945		
13C6-Fluorene											
172.0984	19:45	19:45	0	1.138	3408512	1026745	9	22	114083		
13C6-Phenanthrene											
184.0984	25:08	25:08	0	0.709	5503772	1348647	27	67	49950		E
Phenanthrene											
178.0783	25:08	25:08	0	1.000	30546294	7653415	286	715	26760		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Anthracene											
184.0984	25:28	25:28	0	0.719	4329635	1030424	27	67	38164		E
Anthracene											
178.0783	25:29	25:28	0	1.000	28688367	6777672	286	715	23698		
13C6-Fluoranthrene											
208.0984	33:53	33:54	-1	0.956	11635330	2307627	229	572	10077		E
Fluoranthene											
202.0783	33:54	33:54	0	1.000	68280213	14184641	254	635	55845		
Pyrene-d10											
212.1404	35:26	35:27	-1		8826302	1683039	63	157	26715		
13C3-Pyrene											
205.0883	35:34	35:35	-1	1.004	12863803	2422989	136	340	17816		E
Pyrene											
202.0783	35:35	35:35	0	1.000	71732321	14442359	254	635	56860		
13C6-Benzo(a)anthracene											
234.1140	46:07	46:07	-1	1.301	11144764	1990149	164	410	12135		E
Benzo[a]anthracene											
228.0939	46:08	46:07	0	1.000	54276958	10164420	358	895	28392		
13C6-Chrysene											
234.1140	46:24	46:24	0	1.309	11912007	2004525	164	410	12223		E
Chrysene											
228.0939	46:24	46:25	-1	1.000	60434818	10772676	358	895	30091		
13C6-Benzo(b)fluoranthene											
258.1140	54:40	54:40	0	0.985	10876736	2927555	16	40	182972		E
Benzo[b]fluoranthene											
252.0939	54:40	54:40	0	1.000	63447136	18656368	103	257	181130		
13C6-Benzo(k)fluoranthene											
258.1140	54:47	54:47	0	0.987	13027765	3458659	16	40	216166		E
Benzo[k]fluoranthene											
252.0939	54:47	54:47	0	1.000	74650027	20444016	103	257	198486		
Benzo(e)pyrene-d12											
264.1692	55:31	55:30	0		6729891	2273085	128	320	17758		
Benzo[e]pyrene											
252.0939	55:36	55:35	0	1.000	77451657	27919087	103	257	271059		
13C4-Benzo(e)pyrene											
256.1073	55:36	55:35	0	1.002	12371926	4265039	135	337	31593		E
Benzo[a]pyrene											
252.0939	55:44	55:44	0	1.000	68663102	23912192	103	257	232157		
13C4-Benzo(a)pyrene											
256.1073	55:44	55:44	0	1.004	11367582	3859166	135	337	28586		E
Perylene-d12											
264.1692	55:54	55:54	0	1.007	8303002	2935404	128	320	22933		E
Perylene											
252.0939	55:58	55:58	0	1.001	67252708	23209487	103	257	225335		E
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	58:02	58:02	0	1.046	7856573	2415385	95	237	25425		E



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Indeno[1,2,3-cd]pyrene											
276.0939	58:03	58:03	0	1.000	42975857	14664868	208	520	70504		
13C6-Dibenz(a,h)anthracene											
284.1296	58:07	58:07	0	1.047	9084543	2430000	50	125	48600		E
Dibenz(a,h)anthracene											
278.1096	58:07	58:07	0	1.000	50916184	14059570	105	262	133901		
13C12-Benzo(ghi)perylene											
288.1342	58:30	58:30	0	1.054	10075910	2706985	24	60	112791		E
Benzo[g,h,i]perylene											
276.0939	58:32	58:31	0	1.000	63565210	19420580	208	520	93368		

### QC Flag Legend

#### Processing Flags

E - Exceeded Maximum Amount

#### Review Flags

a - User Assigned ID

### Reagents:

61HRPAHICVW\_00003

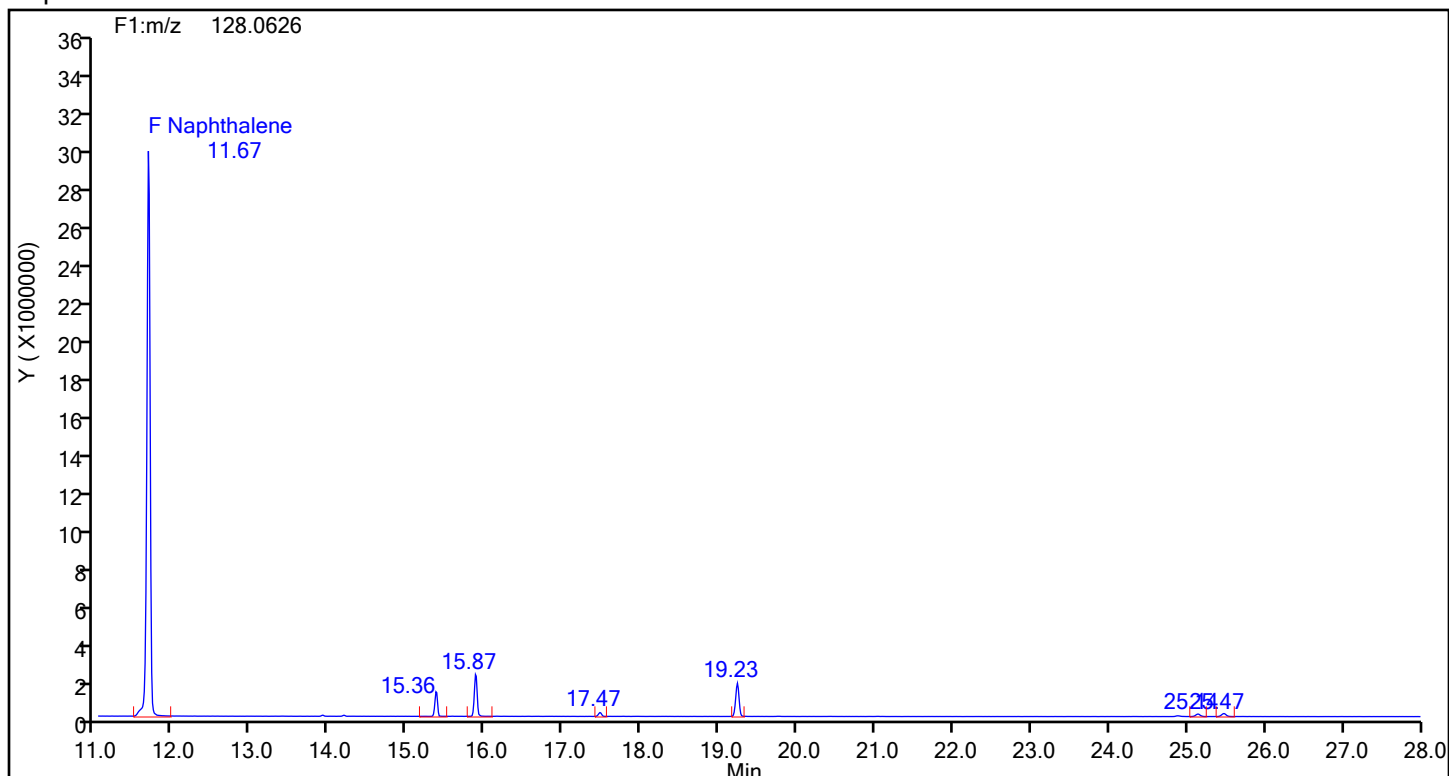
Amount Added: 20.00

Units: uL

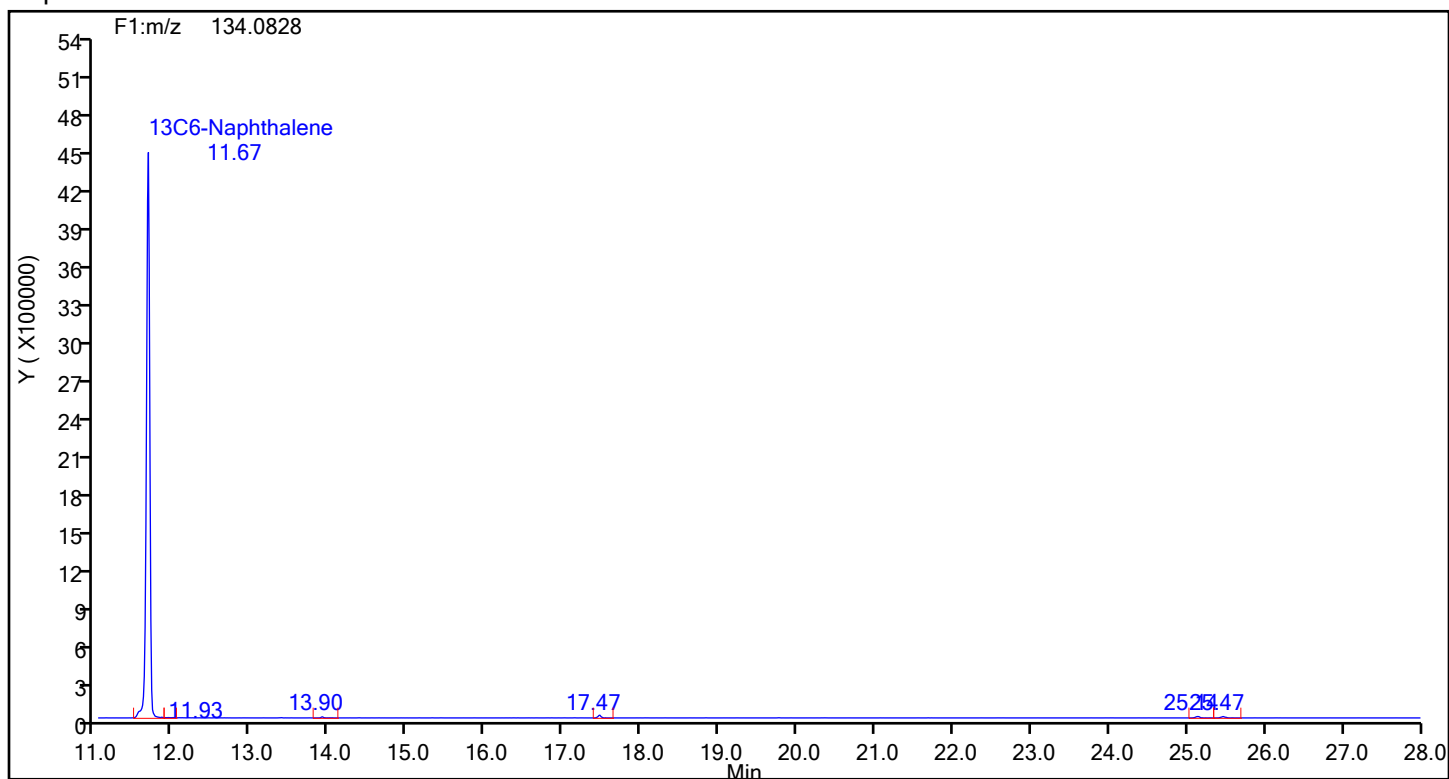
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619icv.d  
Injection Date: 20-Jun-2024 02:46:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



## Naphthalene Standards



## Eurofins Knoxville

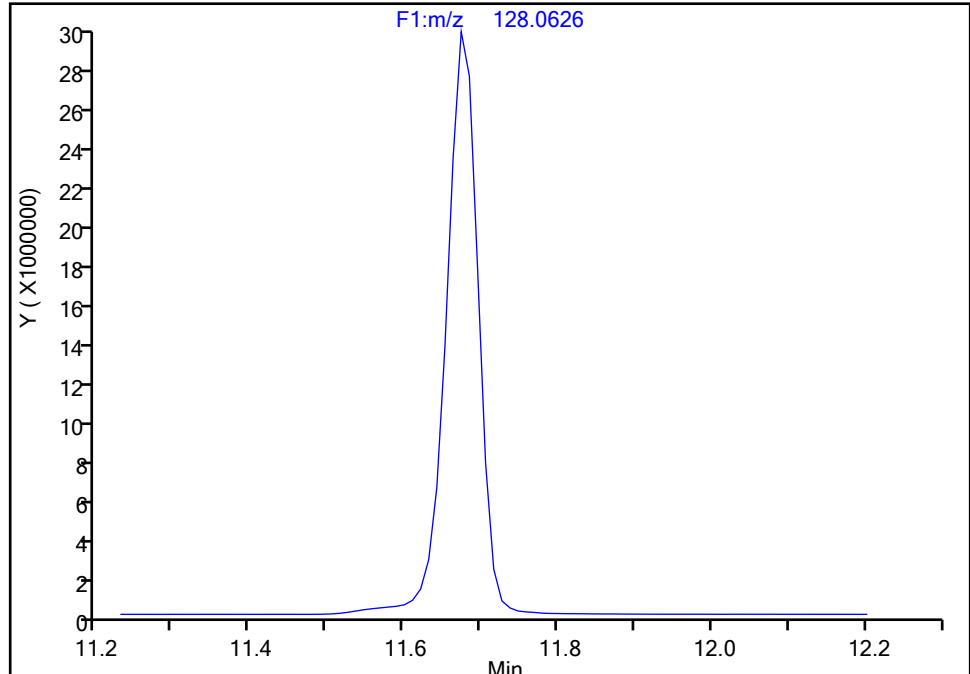
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Injection Date: 20-Jun-2024 02:46:00 Instrument ID: D3PAH  
Lims ID: ICV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

**Naphthalene, CAS: 91-20-3**

Signal: 1

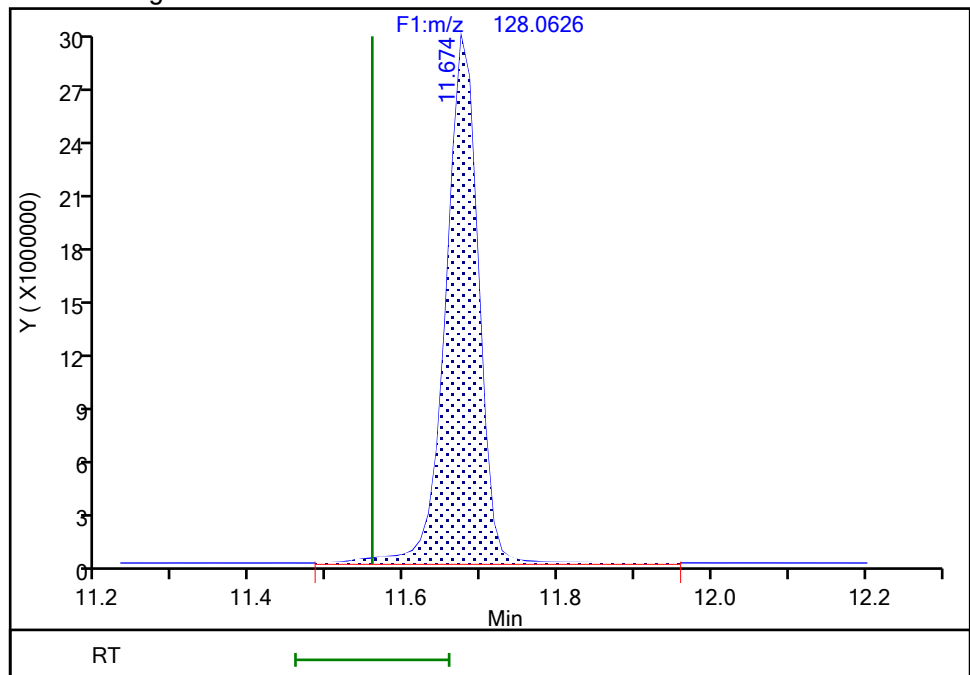
Not Detected  
Expected RT: 11.56

## Processing Integration Results



RT: 11.67  
Area: 86402026  
Amount: 497.2514  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:48:43 -04:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

## Eurofins Knoxville

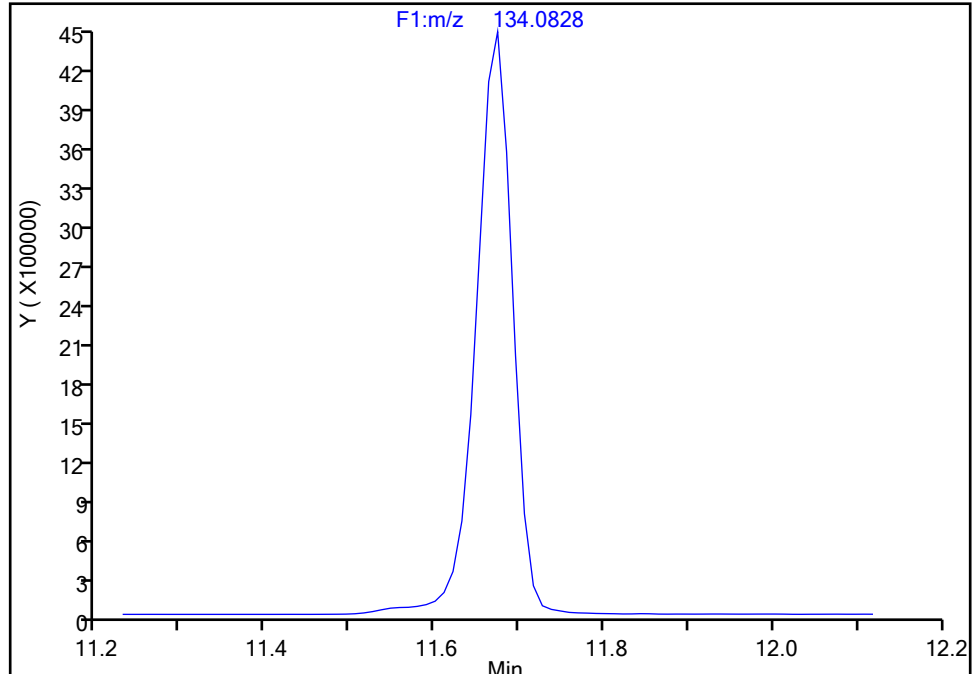
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Injection Date: 20-Jun-2024 02:46:00 Instrument ID: D3PAH  
Lims ID: ICV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

**13C6-Naphthalene, CAS: STL02217**

Signal: 1

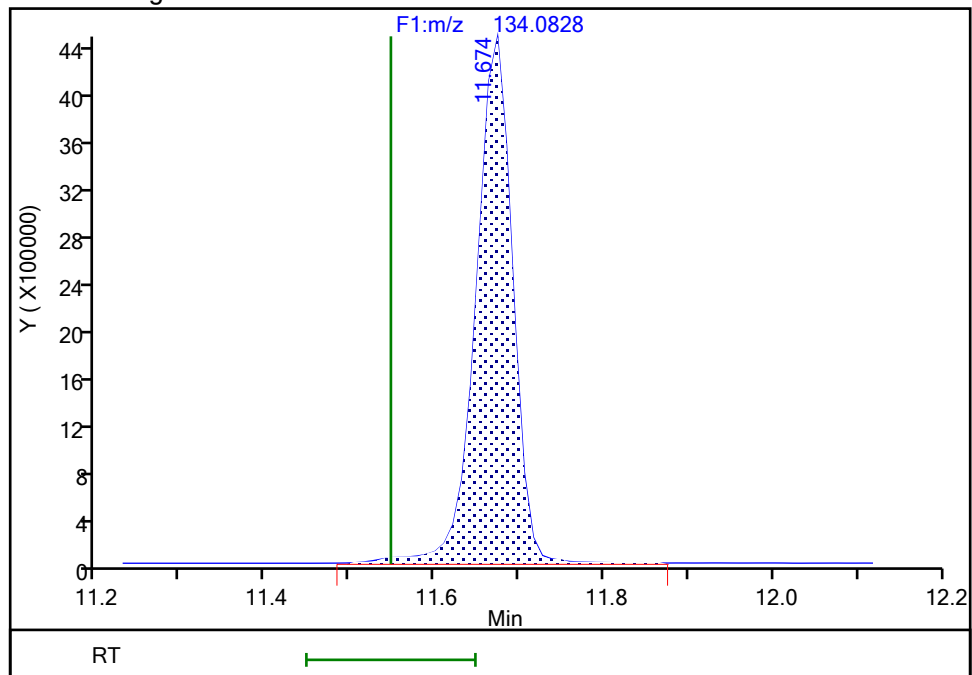
Not Detected  
Expected RT: 11.55

## Processing Integration Results



RT: 11.67  
Area: 13477442  
Amount: 92.802548  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:48:39 -04:00:00 (UTC)

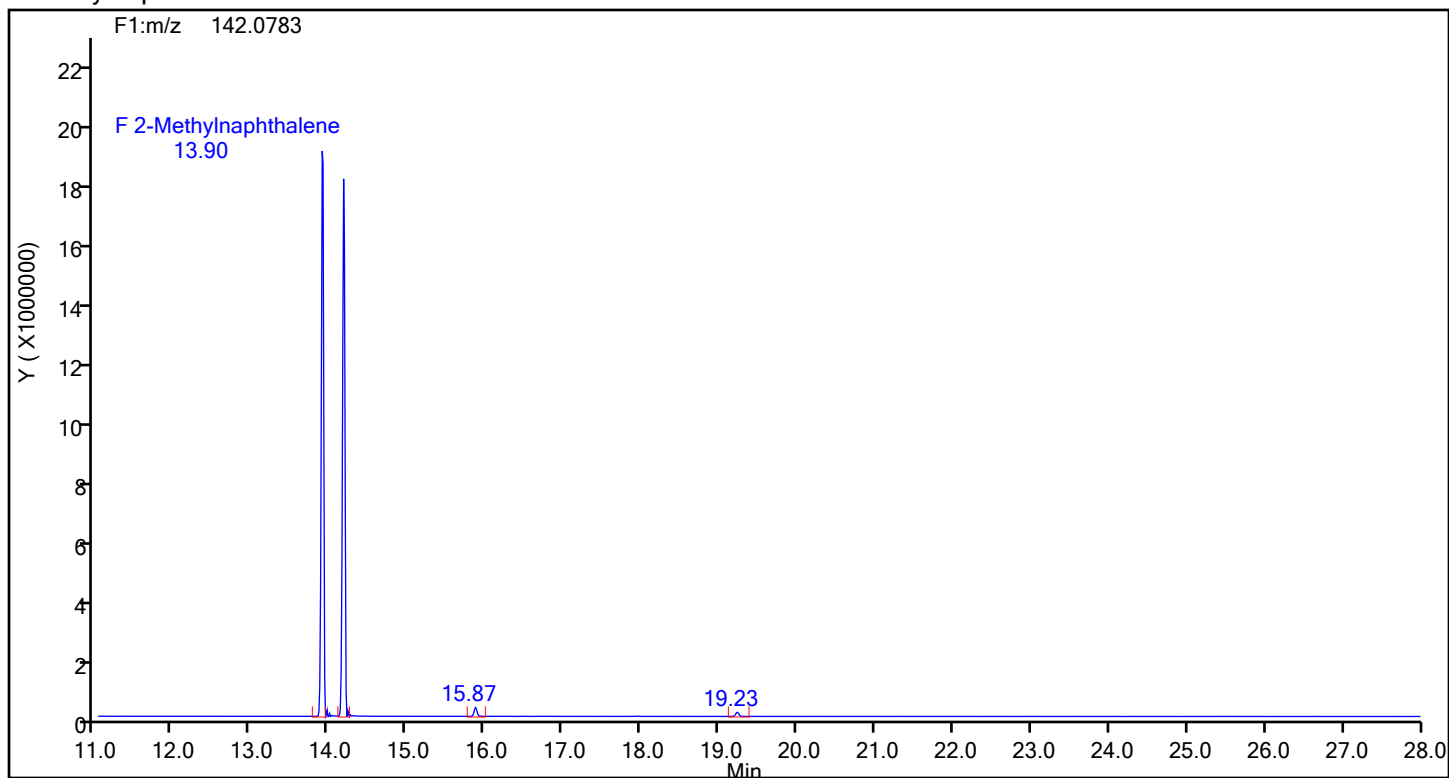
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

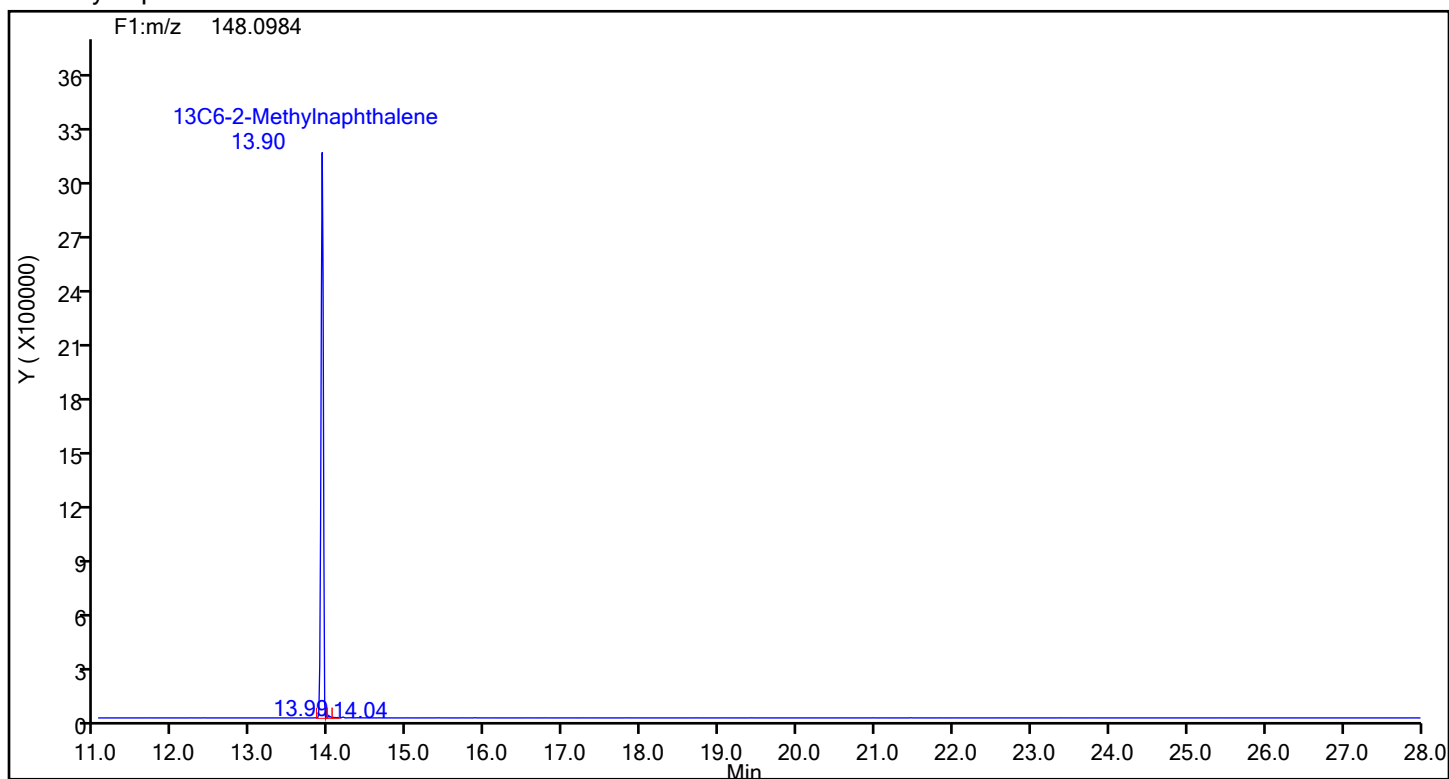
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAL ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



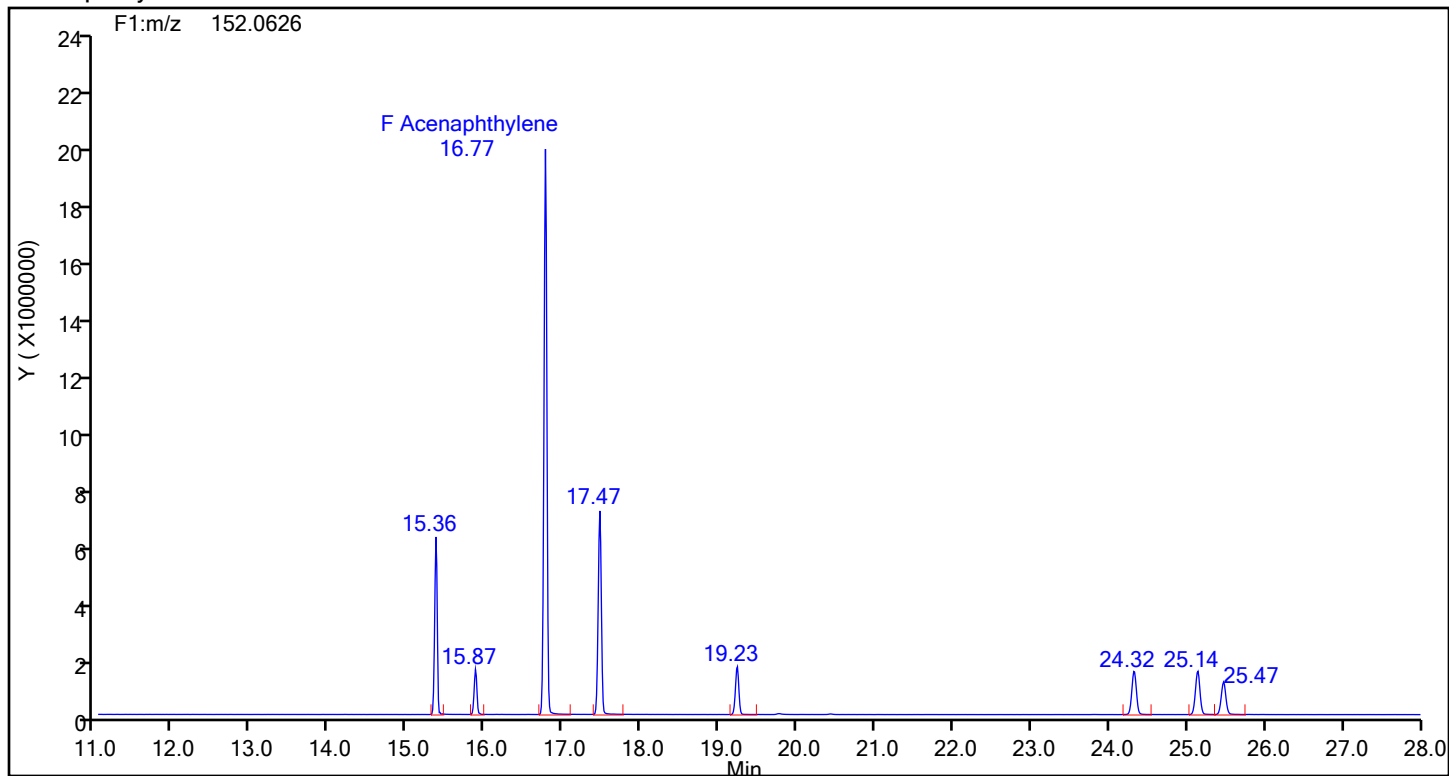
## 2-Methylnaphthalene Standards



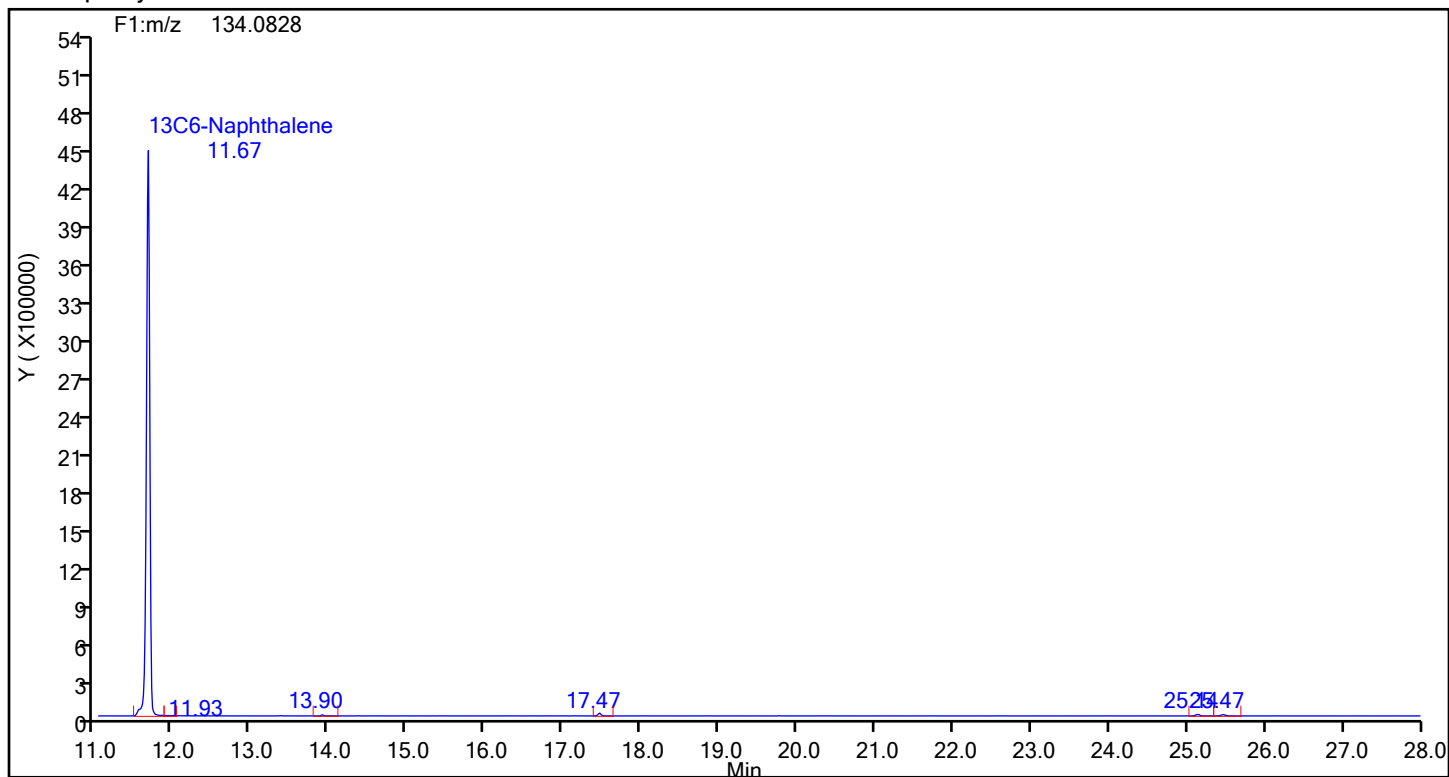
## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene



## Acenaphthylene Standards



## Eurofins Knoxville

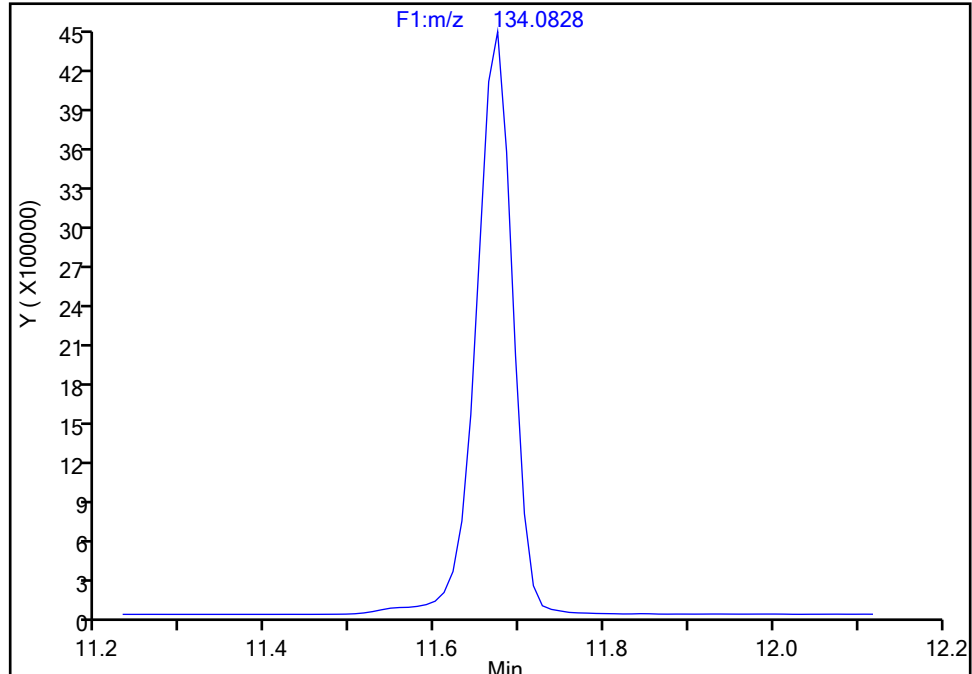
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619icv.d  
Injection Date: 20-Jun-2024 02:46:00 Instrument ID: D3PAH  
Lims ID: ICV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

**13C6-Naphthalene, CAS: STL02217**

Signal: 1

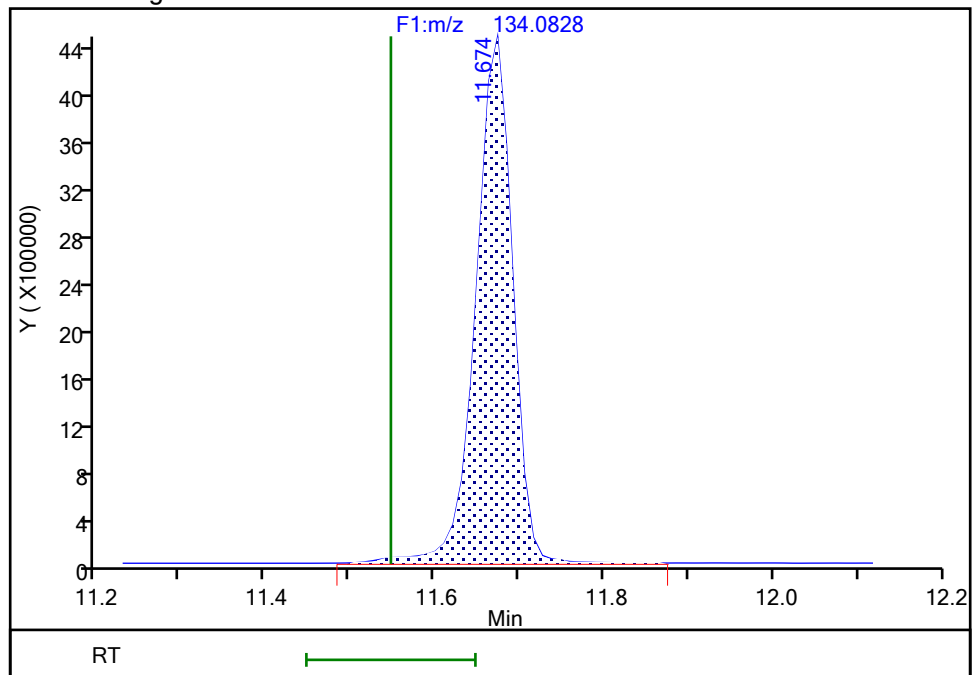
Not Detected  
Expected RT: 11.55

## Processing Integration Results



RT: 11.67  
Area: 13477442  
Amount: 92.802548  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 20-Jun-2024 09:48:39 -04:00:00 (UTC)

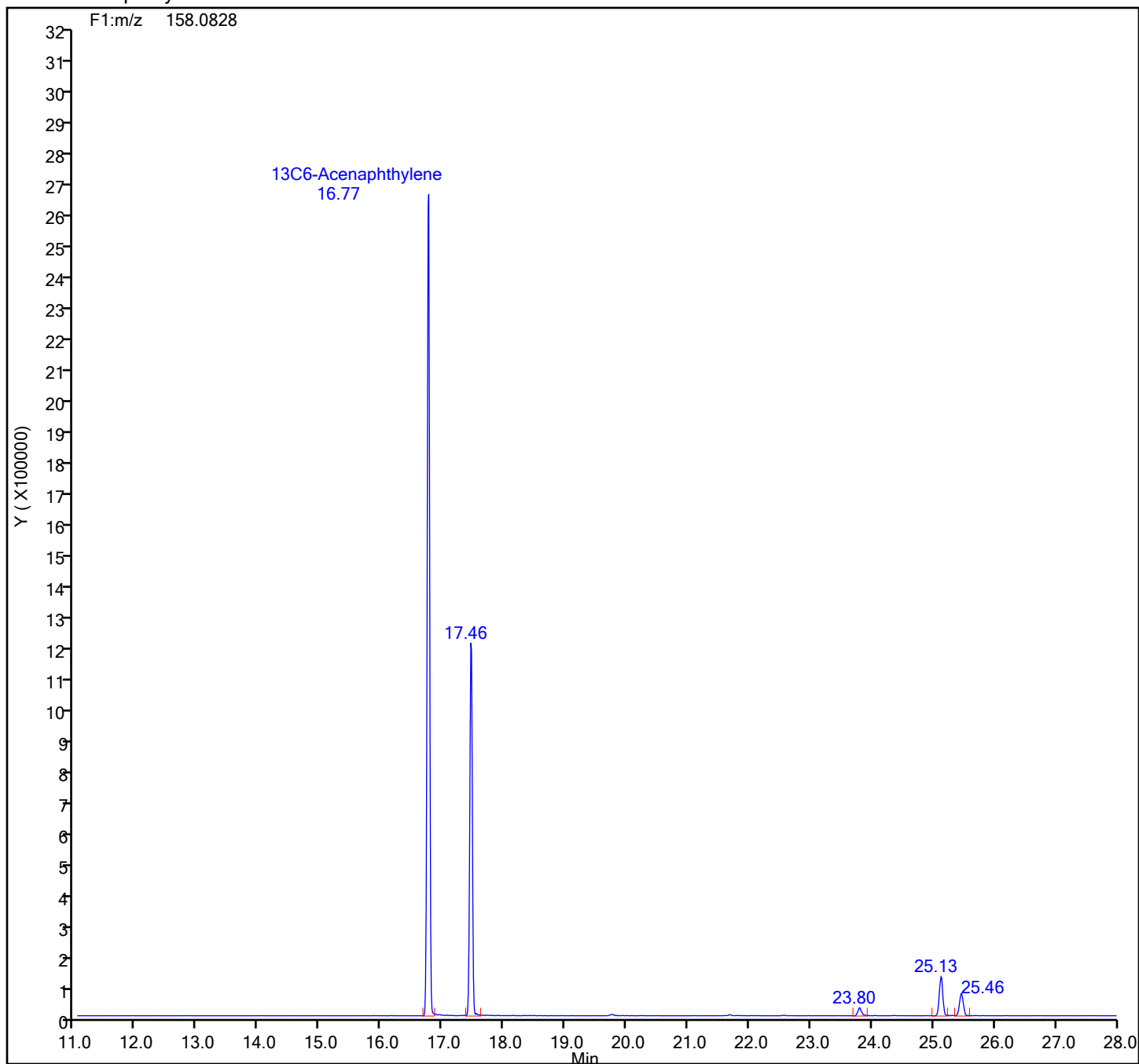
Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C6-Acenaphthylene Standards

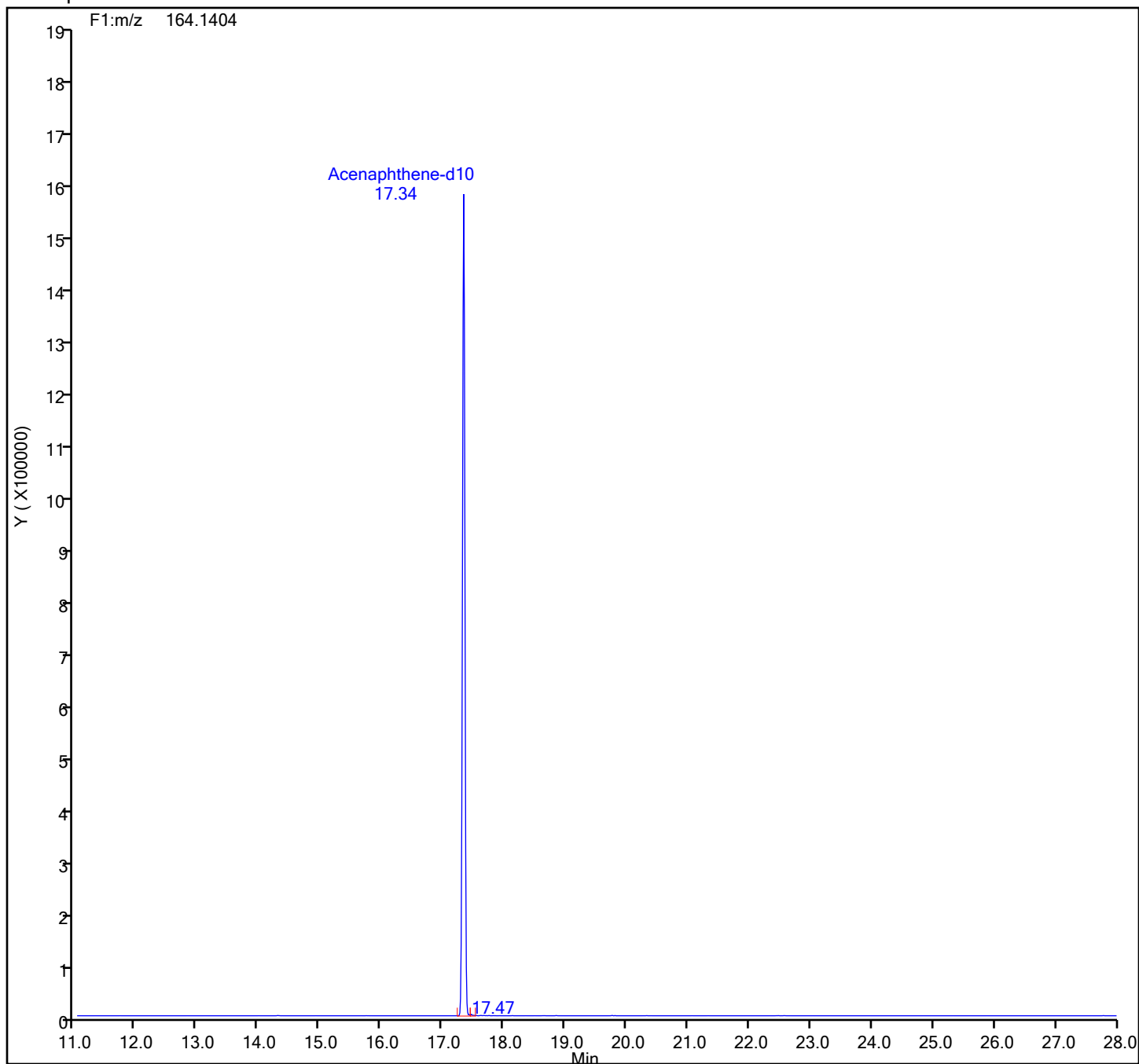




## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

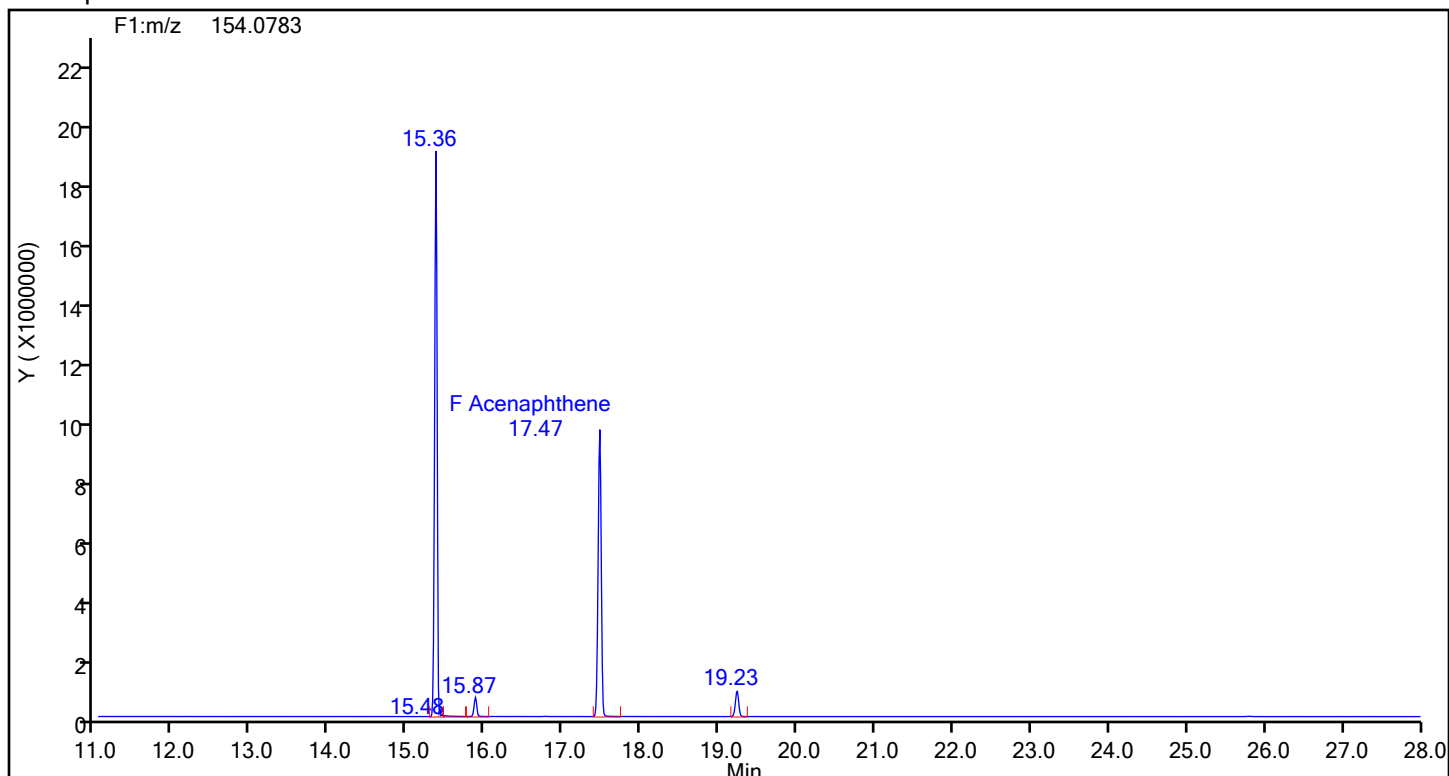
## Acenaphthene-d10 Standards



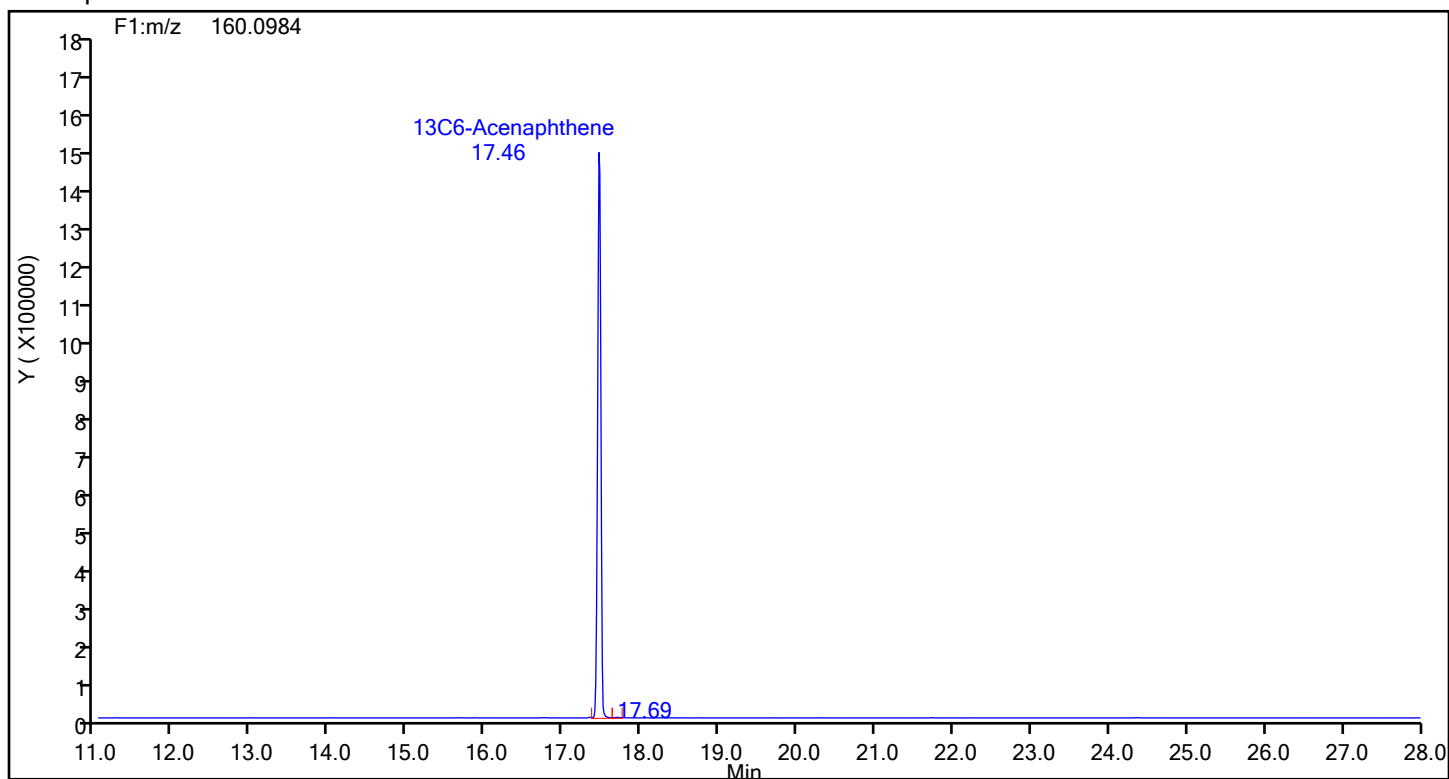
## Eurofins Knoxville

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Injection Date: 20-Jun-2024 02:46:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



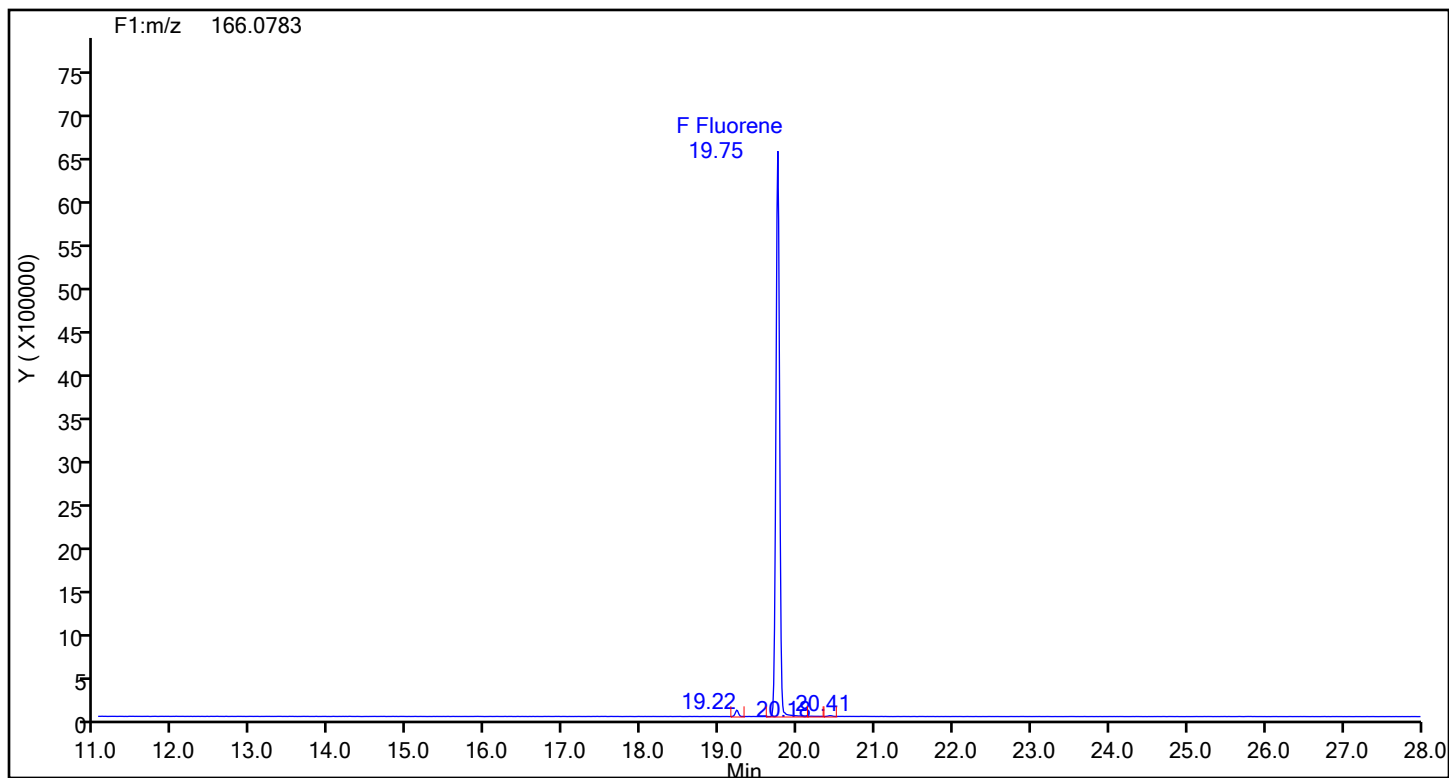
## Acenaphthene Standards



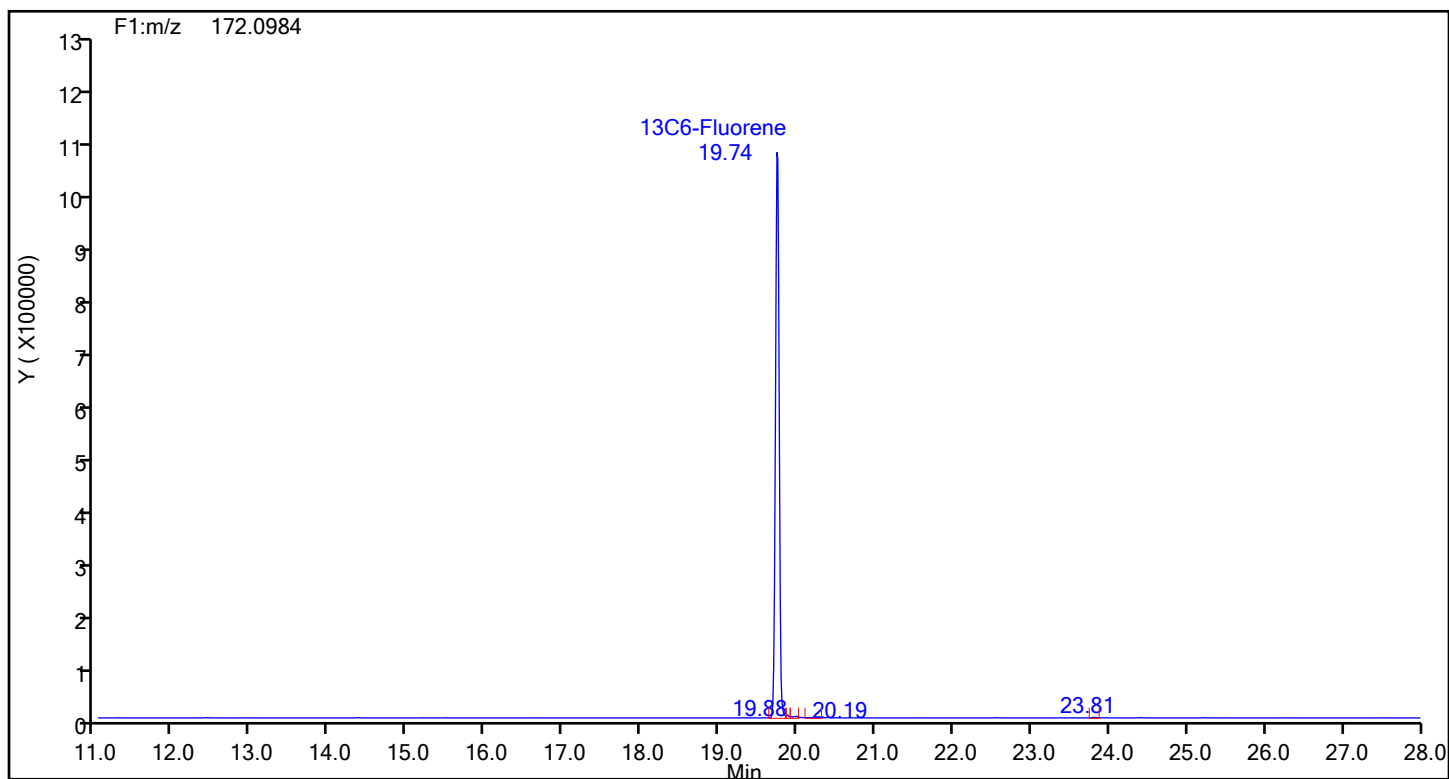
## Eurofins Knoxville

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Injection Date: 20-Jun-2024 02:46:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene

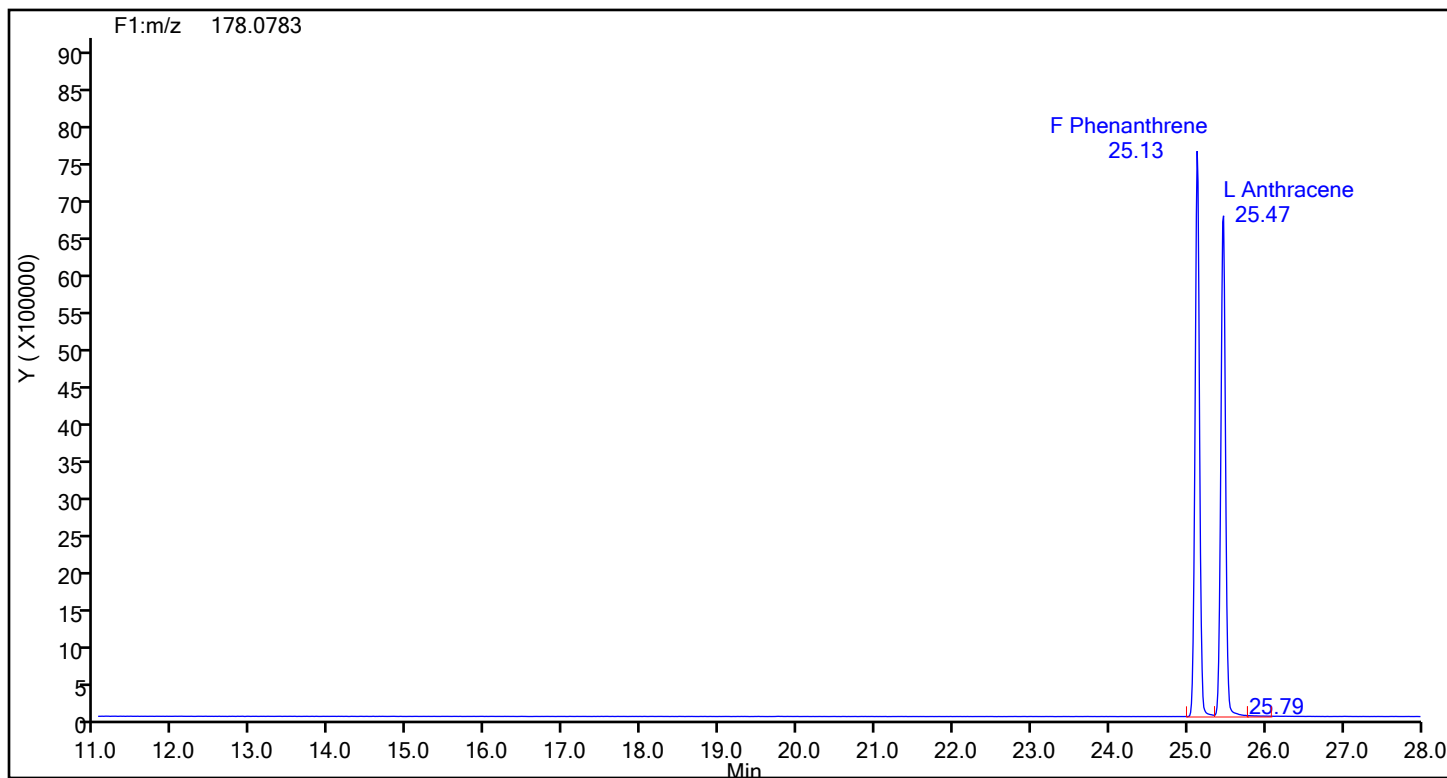


## Fluorene Standards

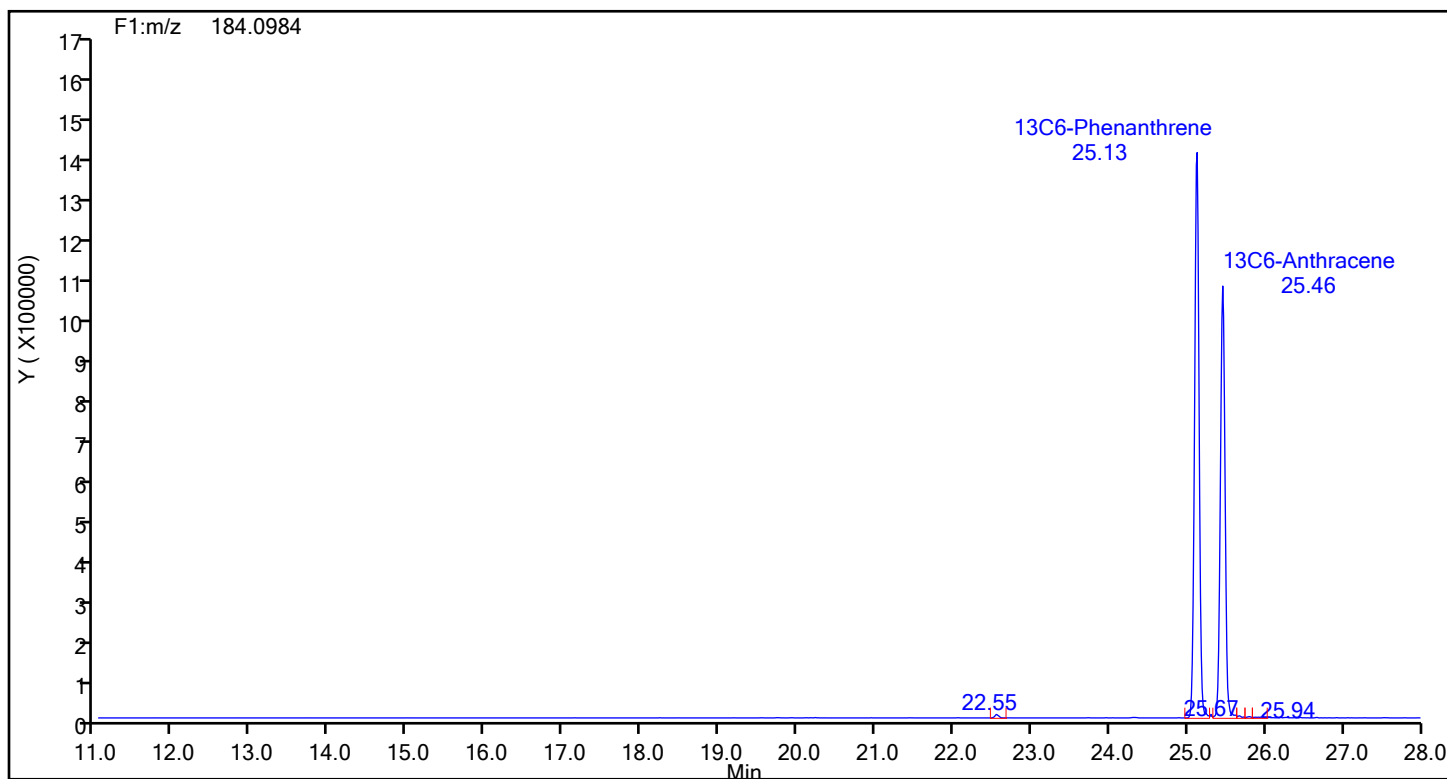


## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Phenanthrene

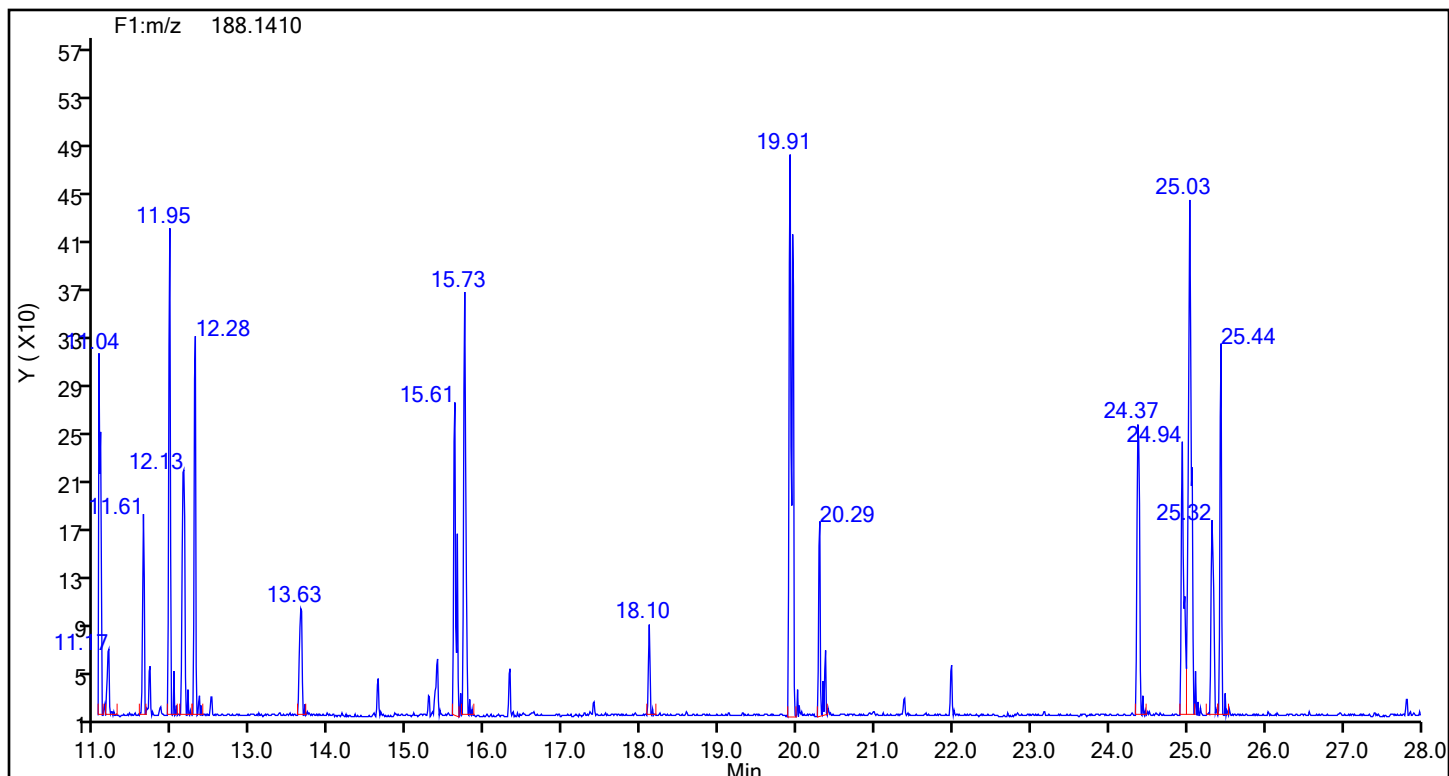


## Phenanthrene Standards

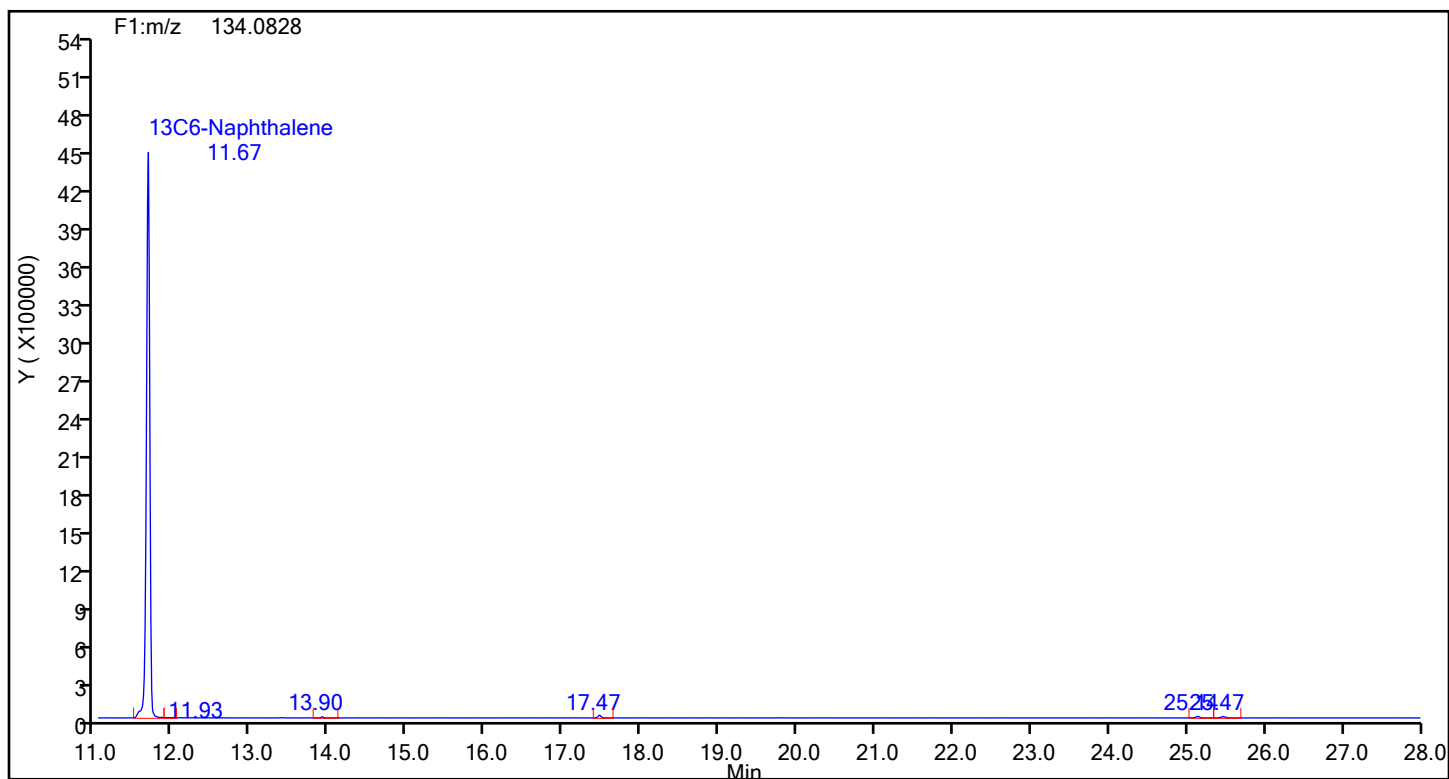


## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10



## Anthracin-d10 Standards



## Eurofins Knoxville

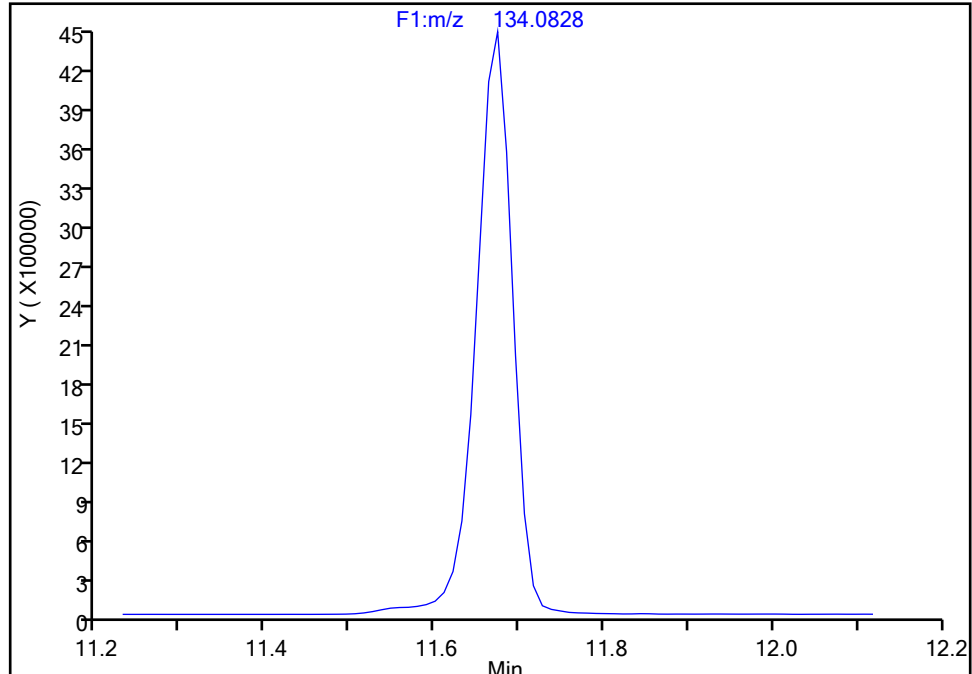
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619icv.d  
Injection Date: 20-Jun-2024 02:46:00 Instrument ID: D3PAH  
Lims ID: ICV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

**13C6-Naphthalene, CAS: STL02217**

Signal: 1

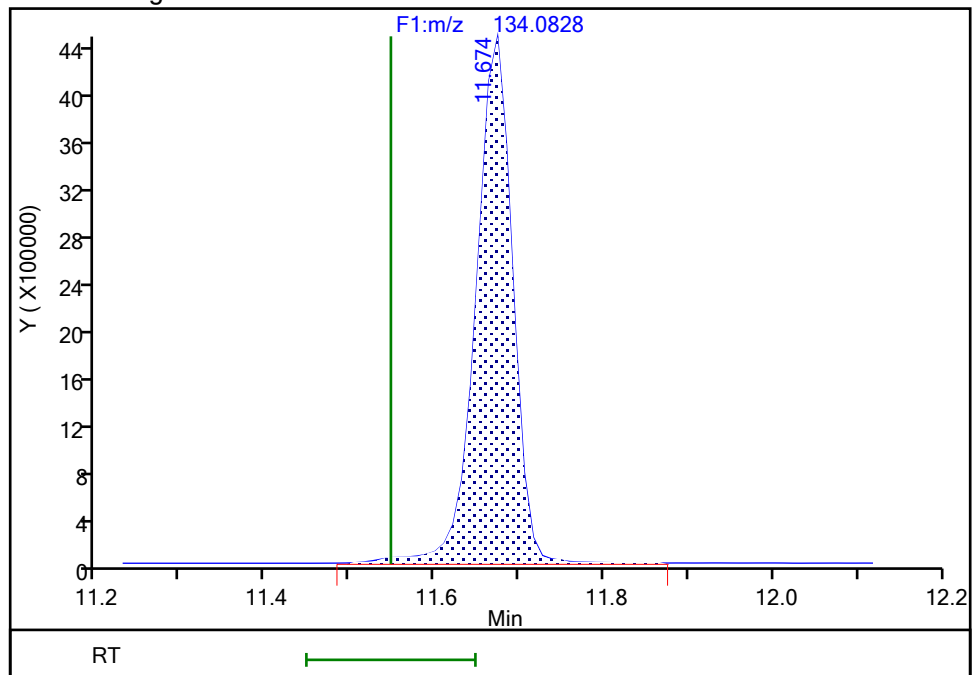
Not Detected  
Expected RT: 11.55

## Processing Integration Results



RT: 11.67  
Area: 13477442  
Amount: 92.802548  
Amount Units: pg/ul

## Manual Integration Results



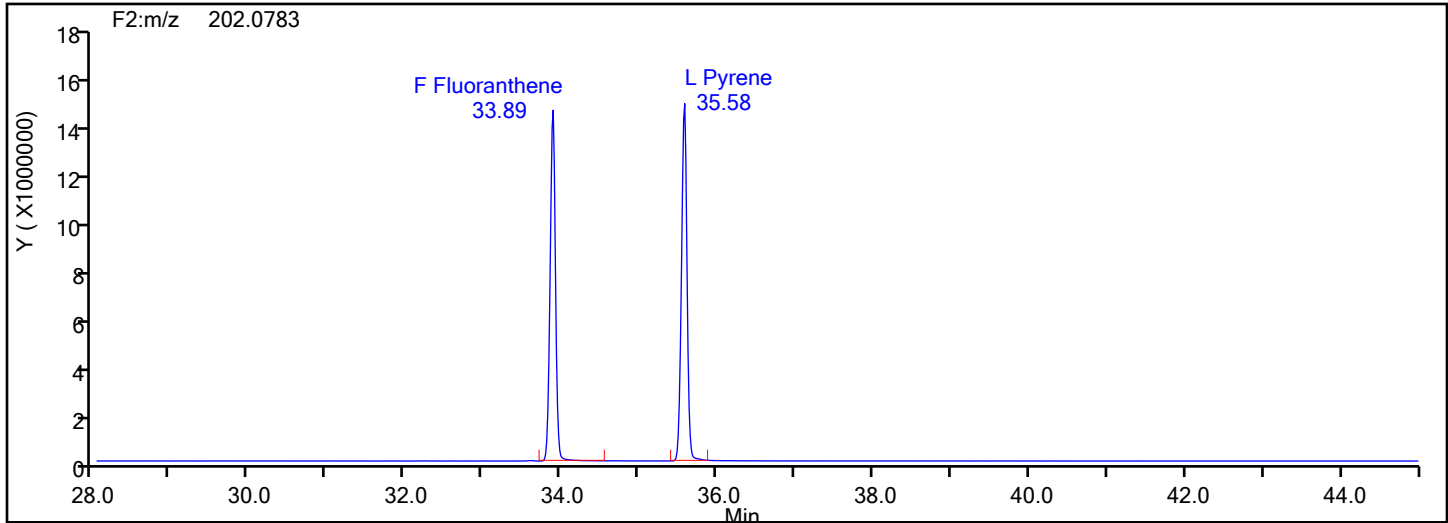
Reviewer: F9EE, 20-Jun-2024 09:48:39 -04:00:00 (UTC)

Audit Action: Assigned Compound ID

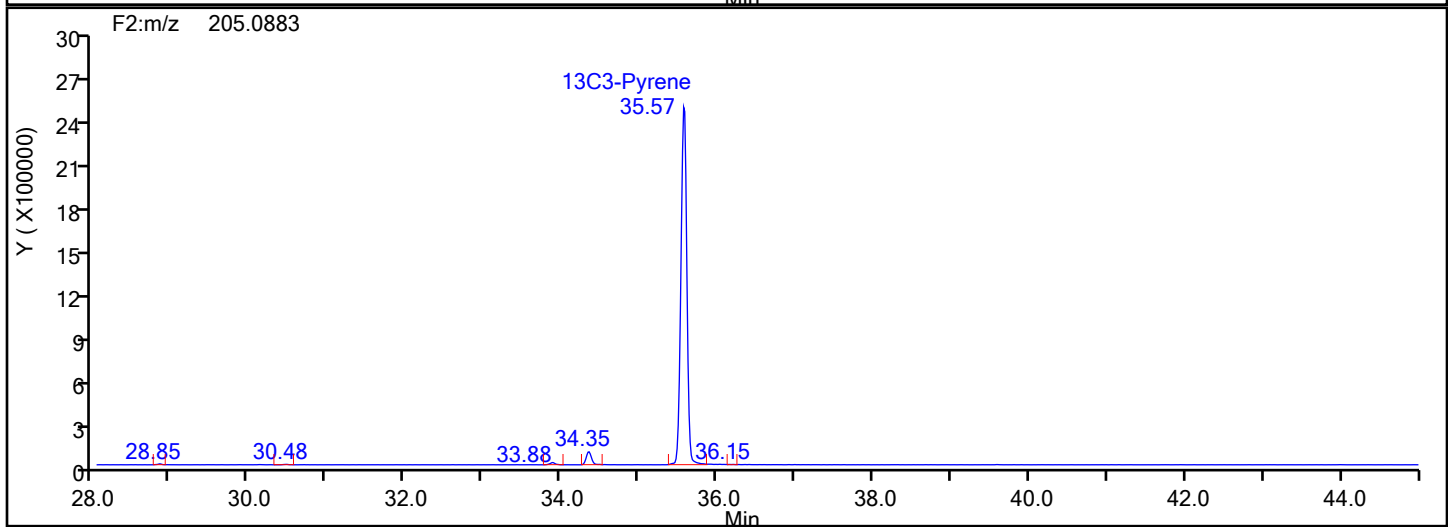
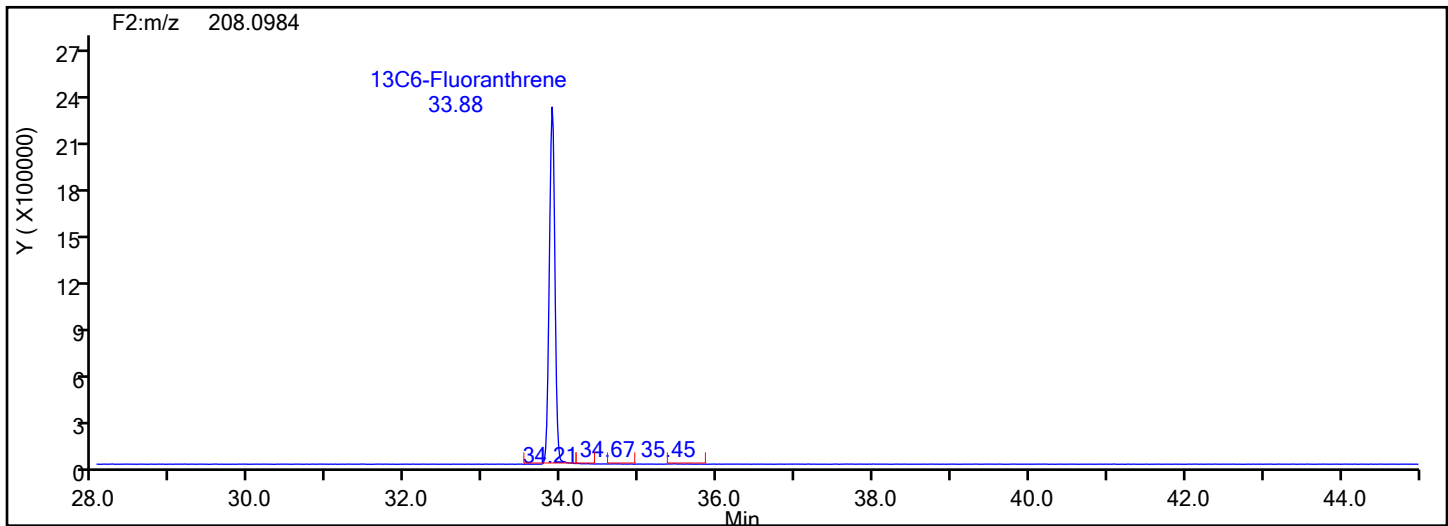
Audit Reason: Incomplete Integration

## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Fluoranthene



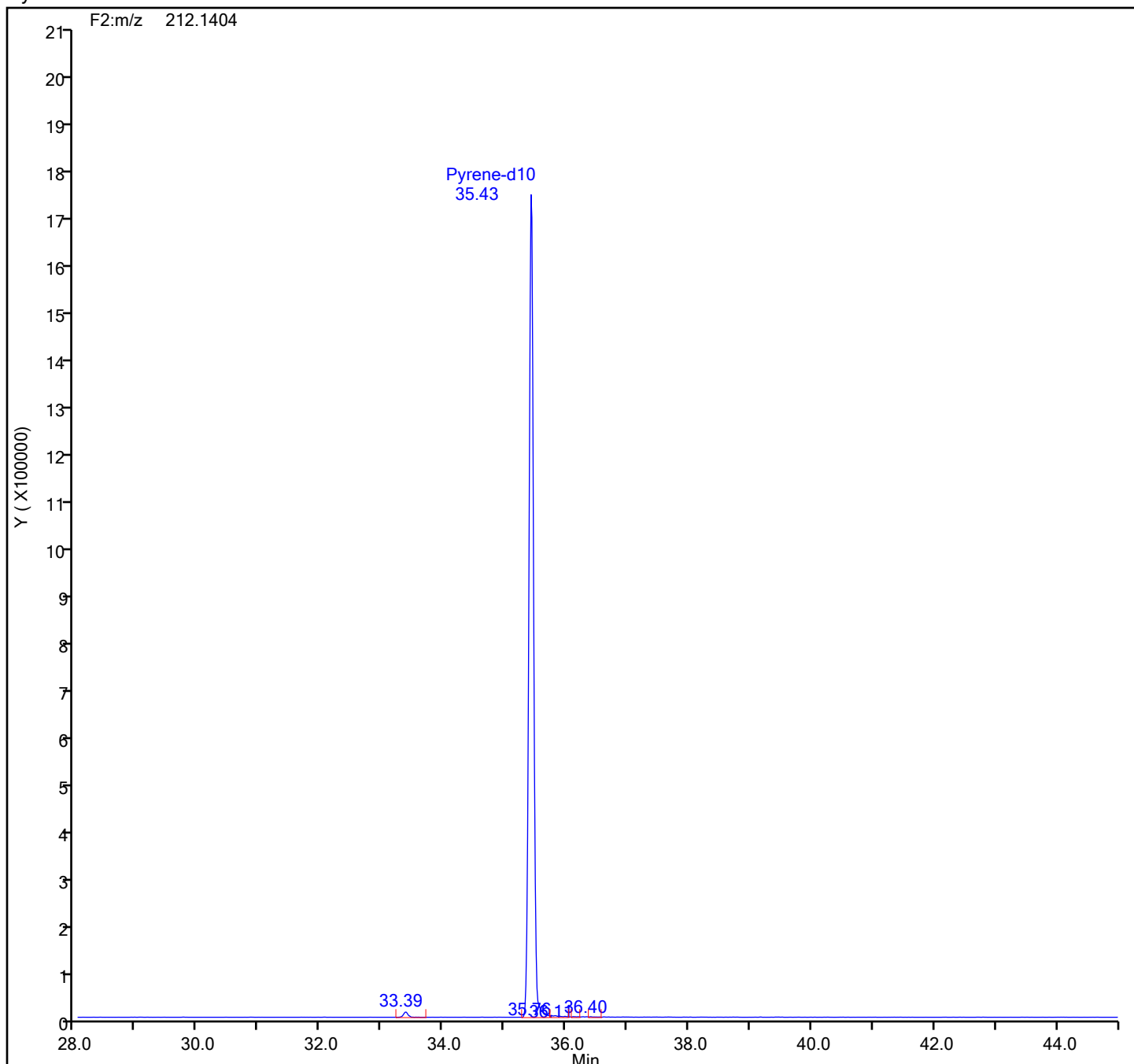
## Fluoranthene Standards



## Eurofins Knoxville

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Injection Date: 20-Jun-2024 02:46:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

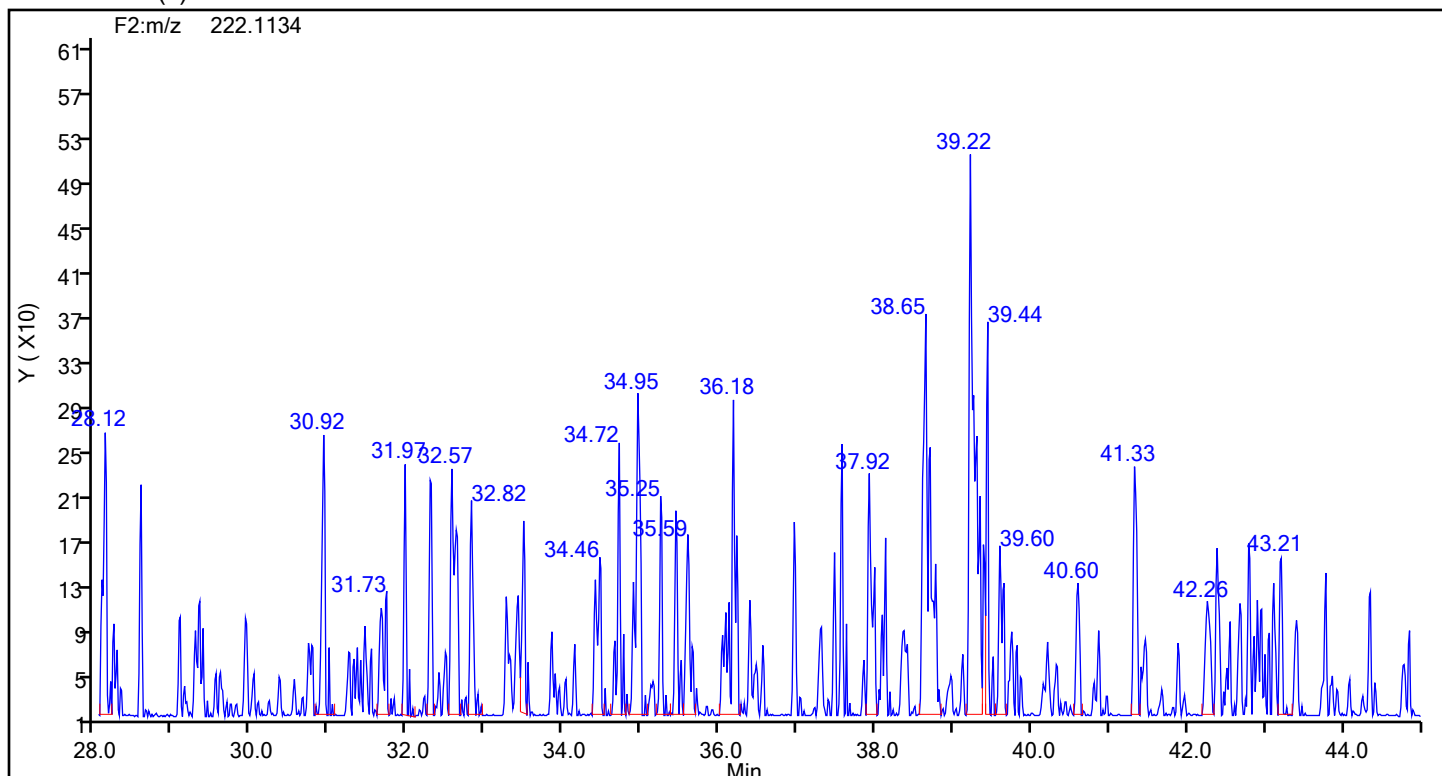
## Pyrene-d10 Standards



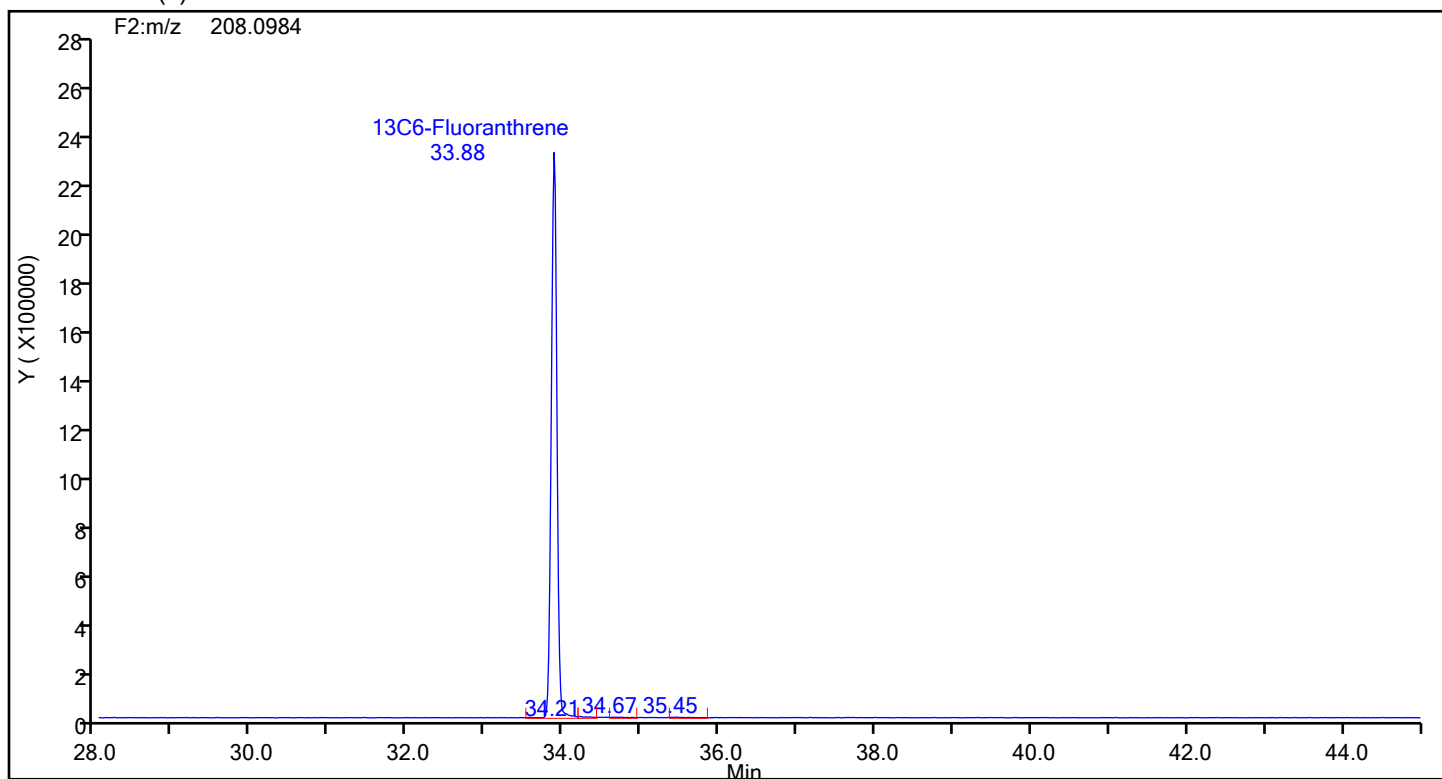


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619icv.d  
Injection Date: 20-Jun-2024 02:46:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
13C6-Benzo(c)fluorene



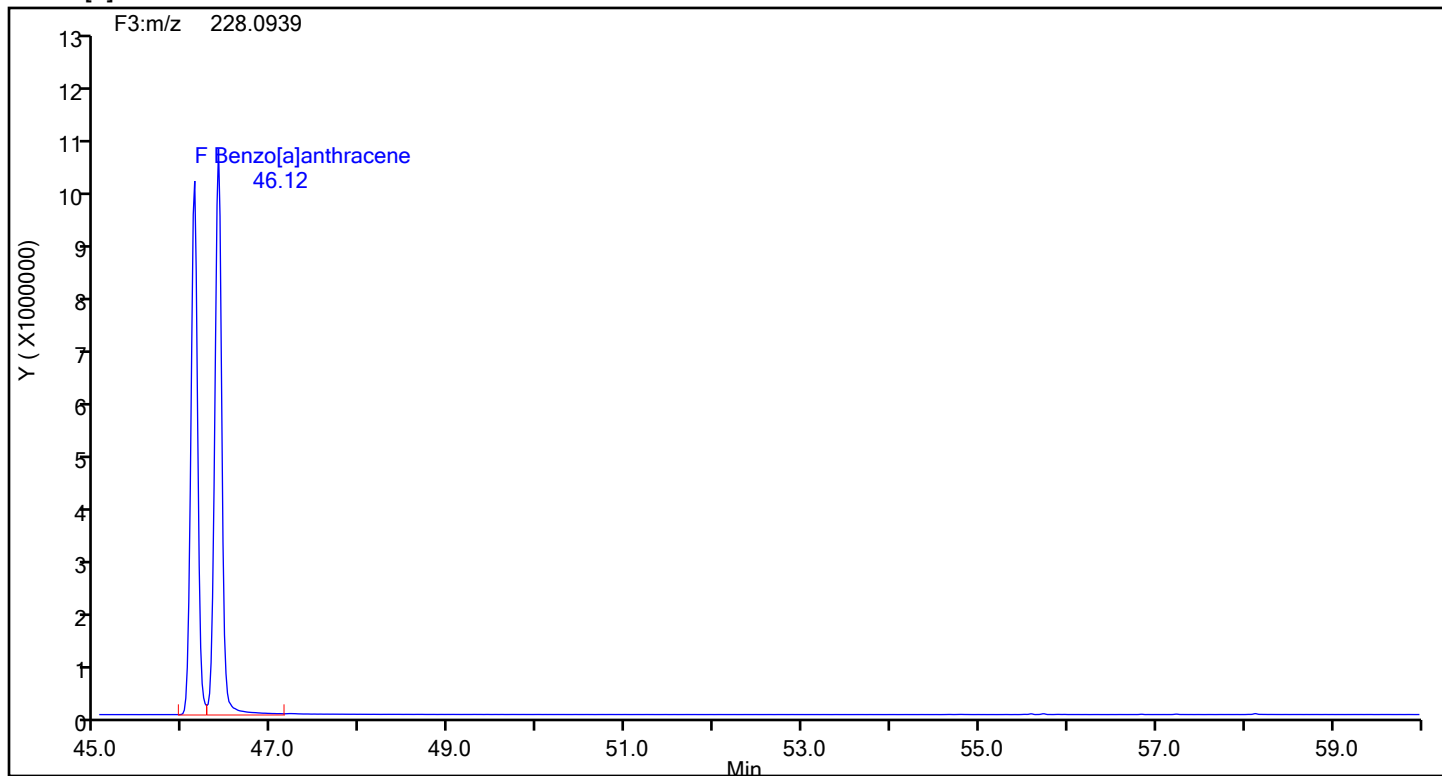
## 13C6-Benzo(c)fluorene Standards



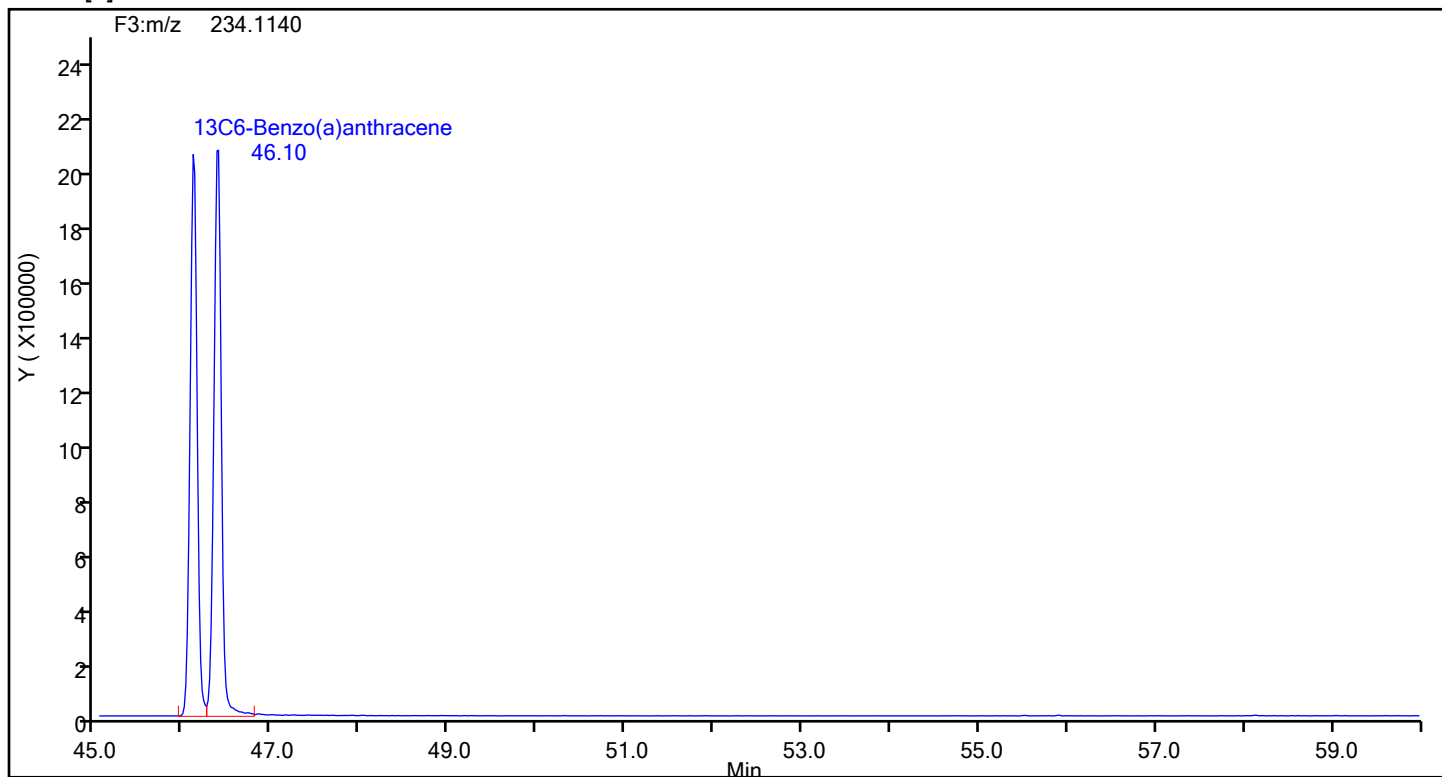
## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



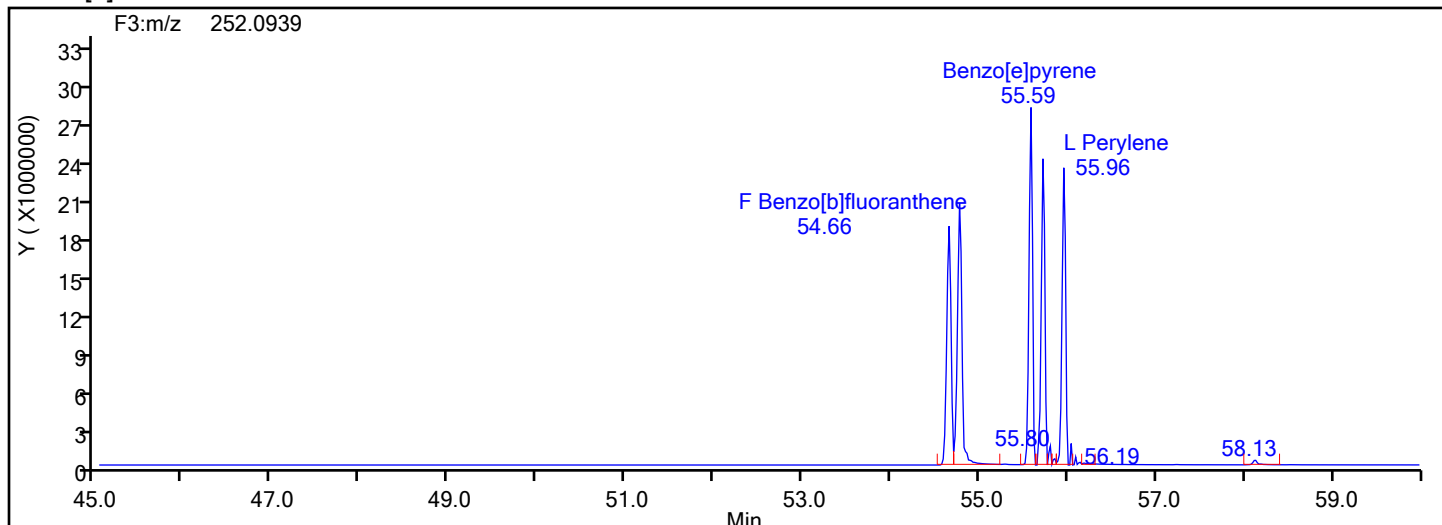
## Benzo[a]anthracene Standards



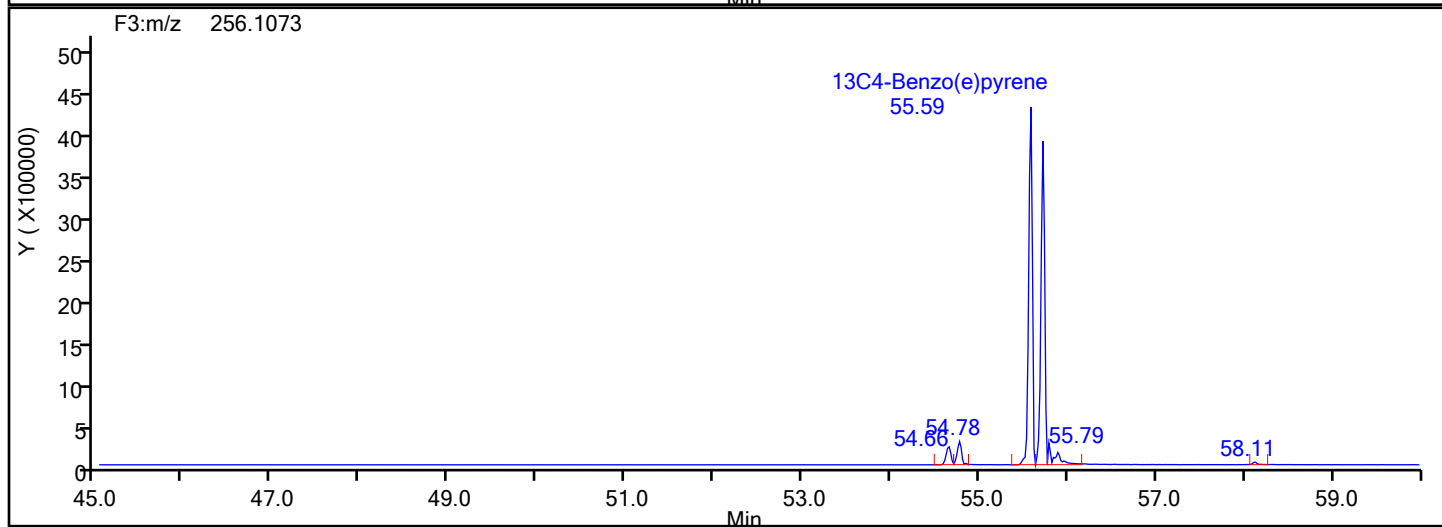
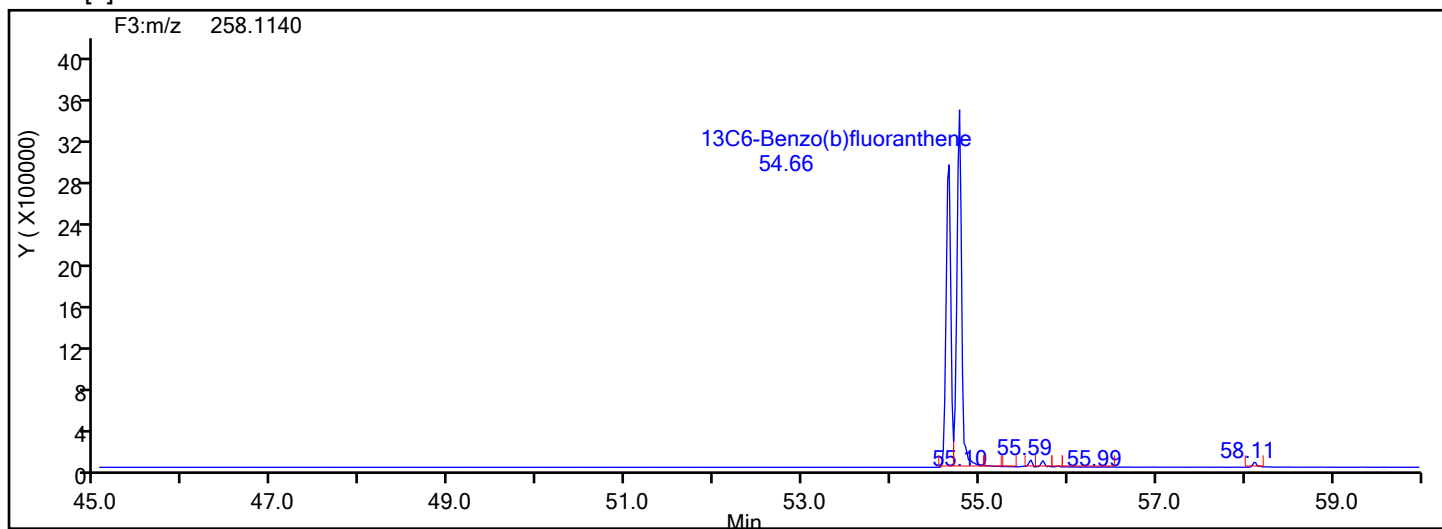
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Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619icv.d  
Injection Date: 20-Jun-2024 02:46:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene

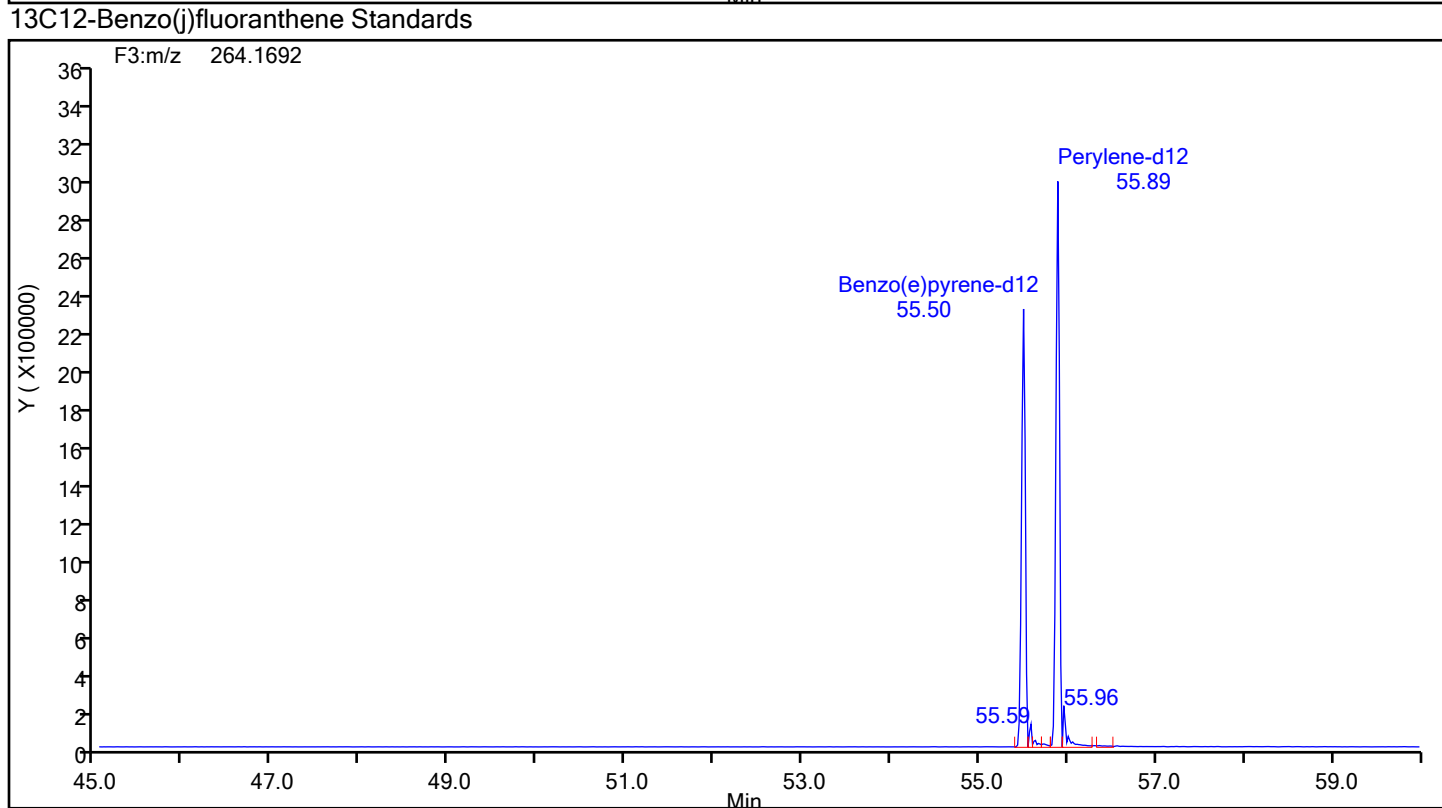
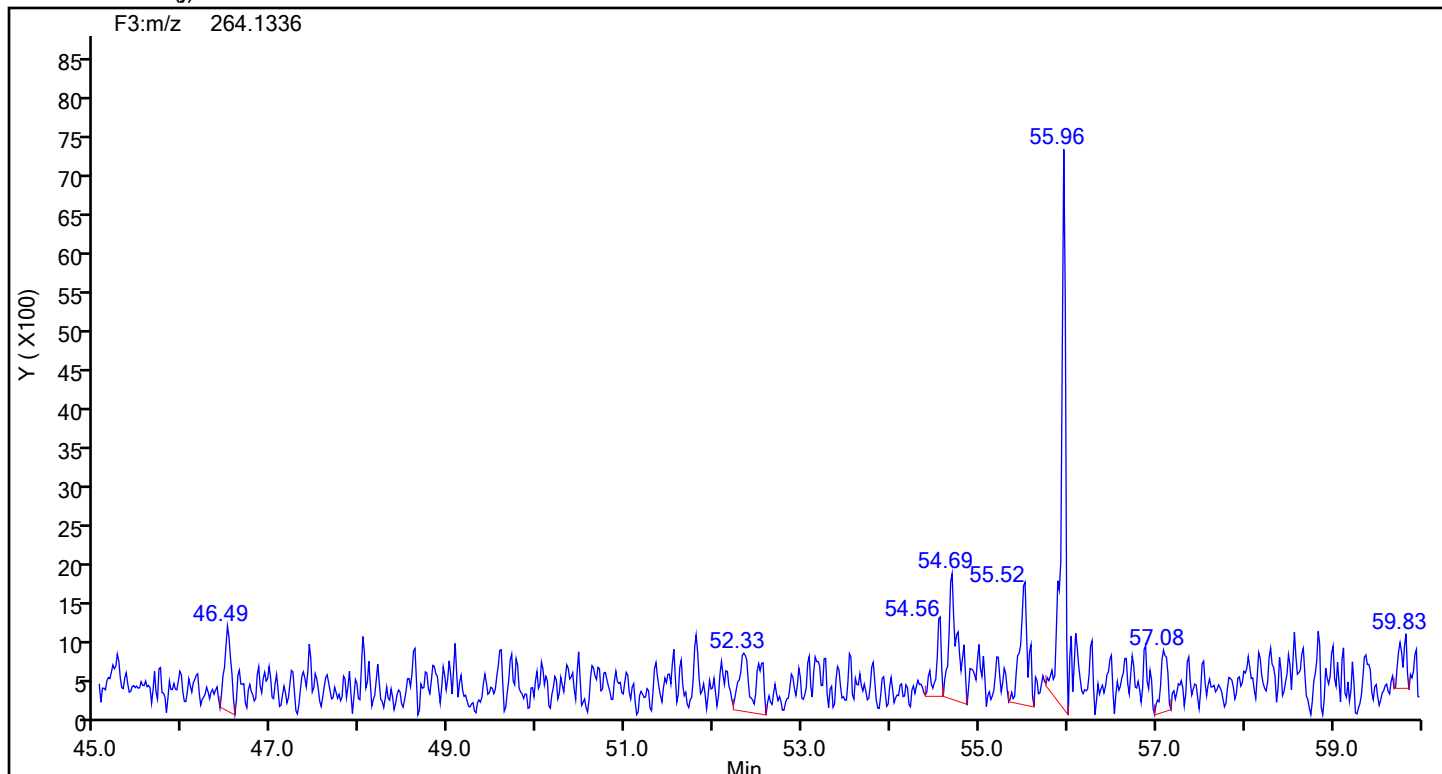


## Benzo[b]fluoranthene Standards



## Eurofins Knoxville

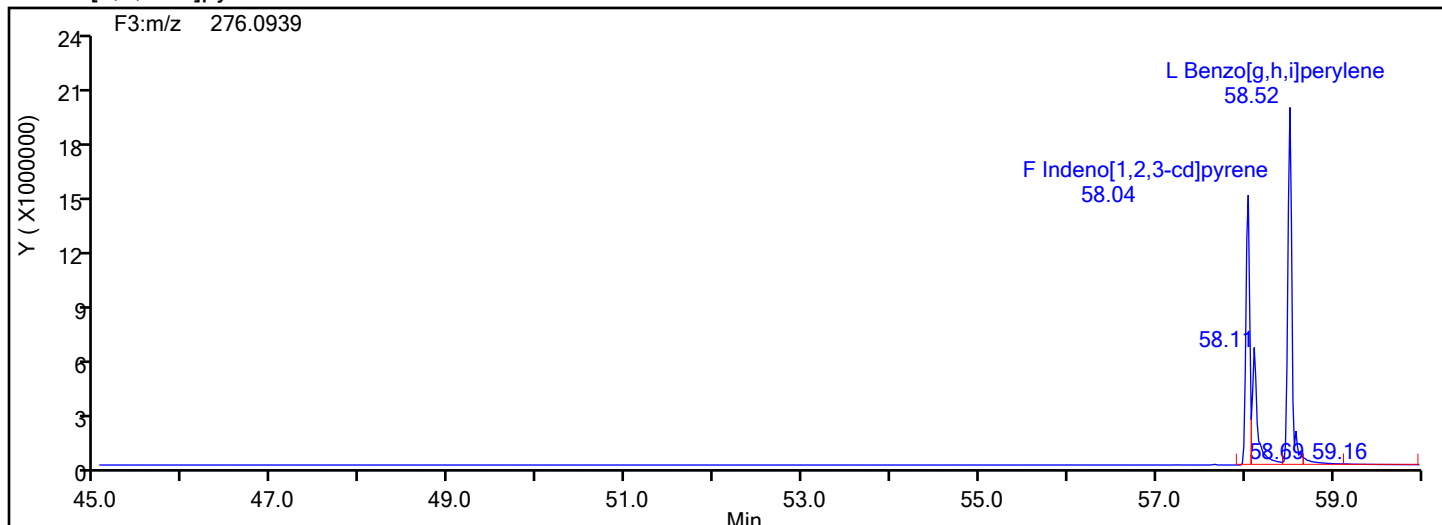
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Injection Date: 20-Jun-2024 02:46:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAL ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
13C12-Benzo(j)fluoranthene



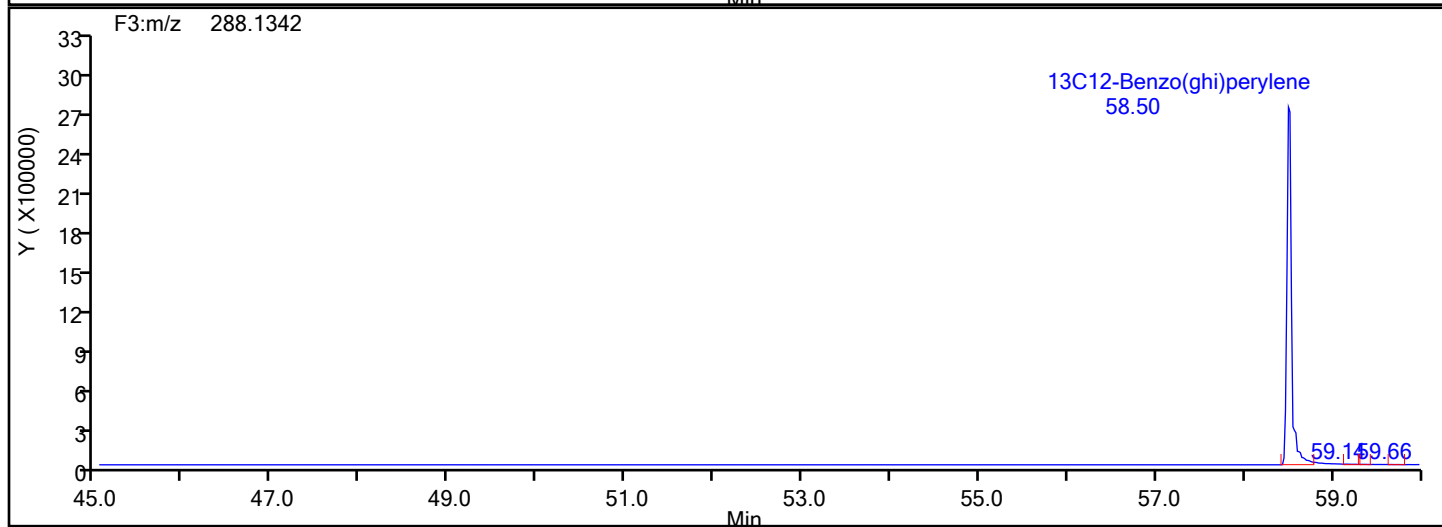
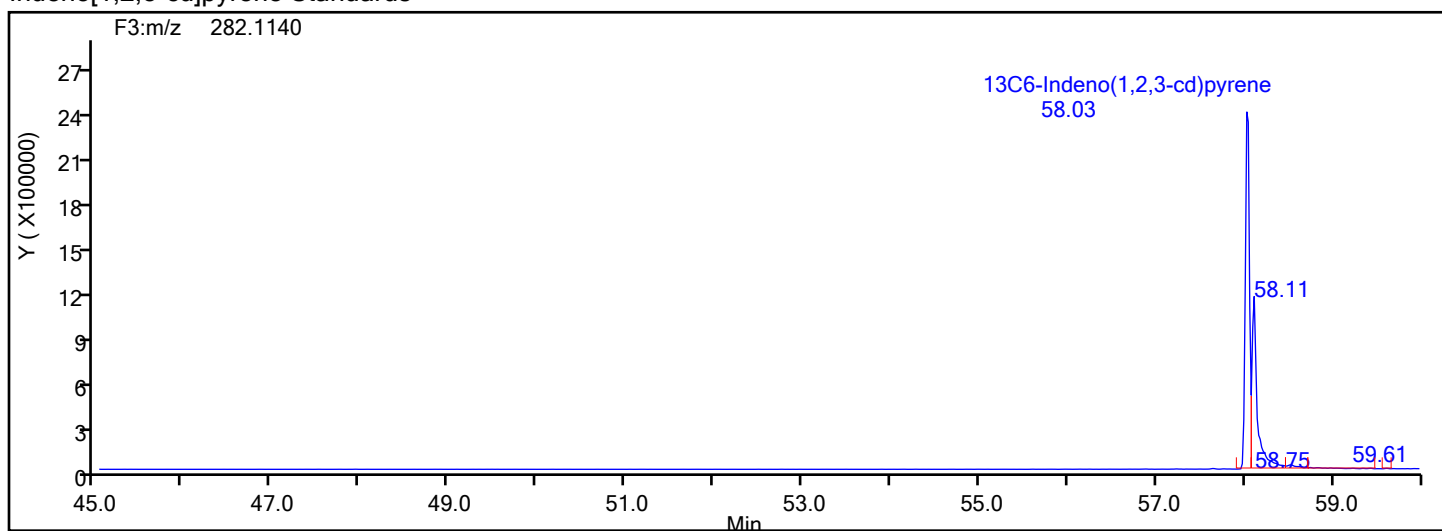
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619icv.d  
Injection Date: 20-Jun-2024 02:46:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Indeno[1,2,3-cd]pyrene

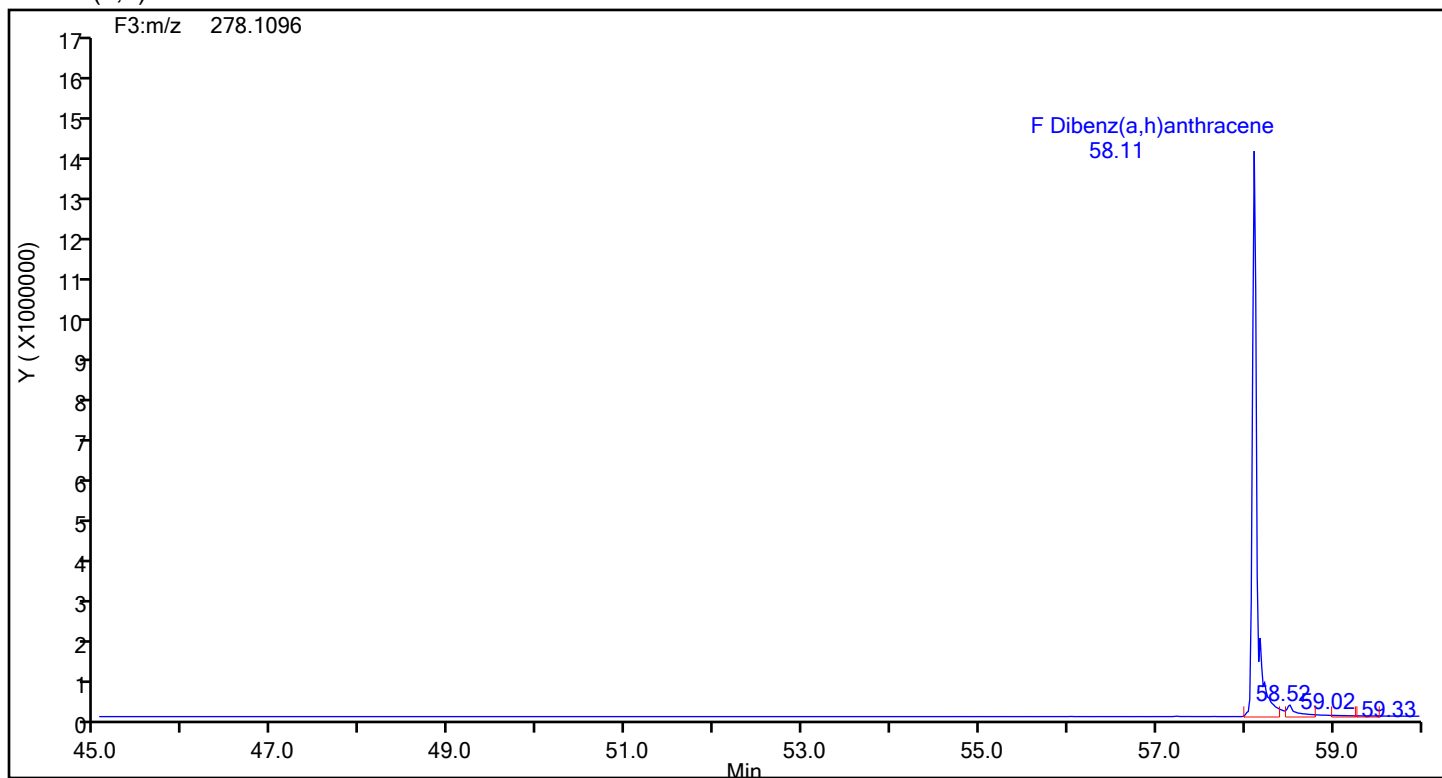


## Indeno[1,2,3-cd]pyrene Standards

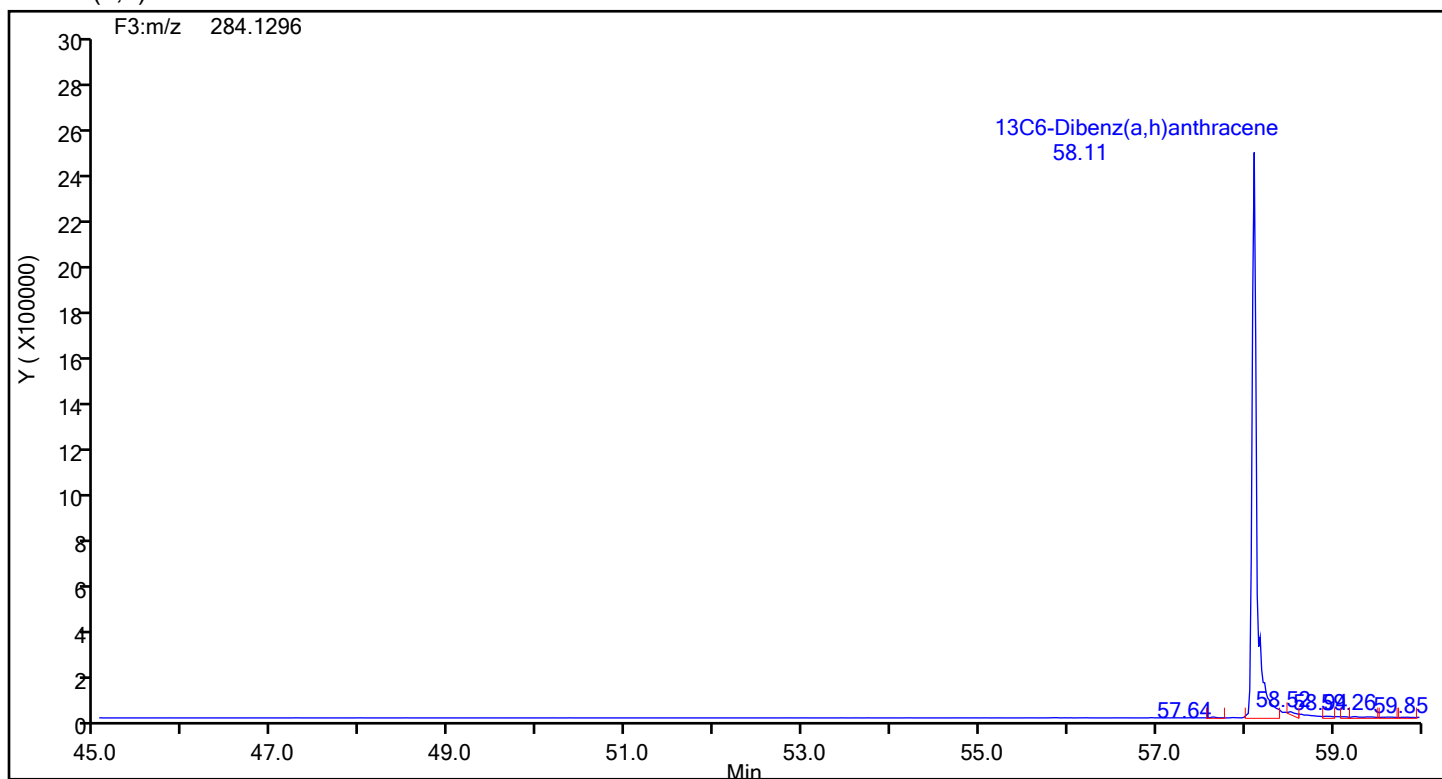


## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 87843 Sample Line#: 10  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Dibenz(a,h)anthracene



## Dibenzo(a,h)anthracene Standards



FORM VII  
HI-RES PAHS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCV 140-88920/1 Calibration Date: 07/18/2024 10:51

Instrument ID: D3PAH Calib Start Date: 06/19/2024 16:34

GC Column: Rxi-5SilMS 25 ID: 0.25 (mm) Calib End Date: 06/20/2024 01:09

Lab File ID: d3240718c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	AveID	1.289	1.272		197	200	-1.4	25.0
2-Methylnaphthalene	AveID	1.279	1.300		203	200	1.7	25.0
Acenaphthylene	AveID	2.366	2.274		192	200	-3.9	25.0
Acenaphthene	AveID	1.270	1.227		193	200	-3.4	25.0
Fluorene	AveID	1.253	1.308		209	200	4.4	25.0
Phenanthrene	AveID	1.104	1.136		206	200	2.9	25.0
Anthracene	AveID	1.359	1.397		206	200	2.8	25.0
Fluoranthene	AveID	1.151	1.174		204	200	2.0	25.0
Pyrene	AveID	1.065	1.066		200	200	0.1	25.0
Benzo[a]anthracene	AveID	0.9739	1.134		233	200	16.4	25.0
Chrysene	AveID	0.9815	1.146		234	200	16.8	25.0
Benzo[b]fluoranthene	AveID	1.125	1.176		209	200	4.5	25.0
Benzo[k]fluoranthene	AveID	1.127	1.124		200	200	-0.2	25.0
Benzo[e]pyrene	AveID	1.001	0.9696		194	200	-3.2	25.0
Benzo[a]pyrene	AveID	1.113	1.085		195	200	-2.5	25.0
Perylene	AveID	1.431	1.621		227	200	13.3	25.0
Indeno[1,2,3-cd]pyrene	AveID	1.125	1.174		209	200	4.3	25.0
Dibenz(a,h)anthracene	AveID	1.131	1.207		214	200	6.7	25.0
Benzo[g,h,i]perylene	AveID	1.284	1.334		208	200	3.9	25.0
13C6-Naphthalene	Ave	3.375	3.355		99.4	100	-0.6	30.0
13C6-2-Methylnaphthalene	Ave	1.603	1.481		92.4	100	-7.6	30.0
13C6-Acenaphthylene	Ave	1.652	1.725		104	100	4.4	30.0
13C6-Acenaphthene	Ave	0.9792	1.017		104	100	3.9	30.0
13C6-Fluorene	Ave	0.8898	0.9810		110	100	10.2	30.0
13C6-Phenanthrene	Ave	0.5724	0.4759		83.1	100	-16.9	30.0
13C6-Anthracene	Ave	0.4523	0.3822		84.5	100	-15.5	30.0
13C6-Fluoranthrene	Ave	1.199	1.312		109	100	9.4	30.0
13C3-Pyrene	Ave	1.351	1.540		114	100	14.0	30.0
13C6-Benzo(a)anthracene	Ave	1.519	1.637		108	100	7.8	30.0
13C6-Chrysene	Ave	1.629	1.816		112	100	11.5	30.0
13C6-Benzo(b)fluoranthene	Ave	1.462	1.545		106	100	5.7	30.0
13C6-Benzo(k)fluoranthene	Ave	1.751	1.815		104	100	3.7	30.0
13C4-Benzo(e)pyrene	Ave	1.637	1.977		121	100	20.8	30.0
13C4-Benzo(a)pyrene	Ave	1.551	1.817		117	100	17.2	30.0
Perylene-d12	Ave	1.192	1.265		106	100	6.1	30.0
13C6-Indeno(1,2,3-cd)pyrene	Ave	1.022	1.278		125	100	25.1	30.0
13C6-Dibenz(a,h)anthracene	Ave	1.055	1.270		120	100	20.3	30.0
13C12-Benzo(ghi)perylene	Ave	1.275	1.247		97.8	100	-2.2	30.0

# Resolution Check Report ( DFS SN: 3439 )

Date: 18 Jul 2024 10:29  
MID Experiment: ResCheck\_HRPAH  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43\_HRPAH.lua  
Status: RESOLUTION PASSED

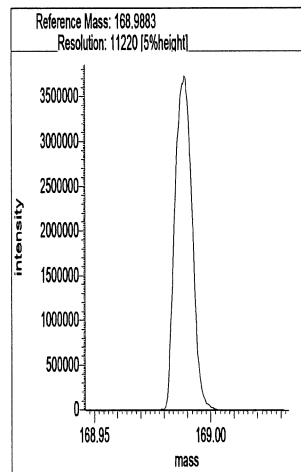
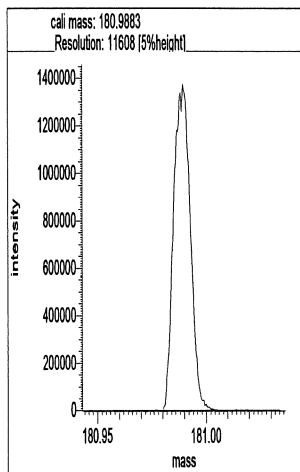
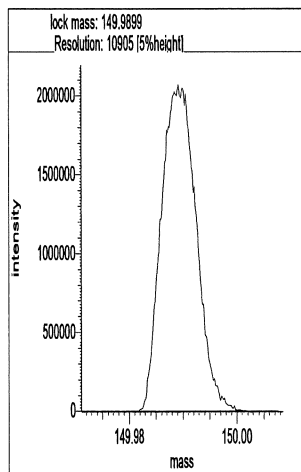
## Segment 1

-d3240718r2

Lock mass 149.9899 [m/z] Resolution: 10905 [5%height]

Cali. mass 180.9883 [m/z] Resolution: 11608 [5%height]

Ref. mass 168.9883 [m/z] Resolution: 11220 [5%height]



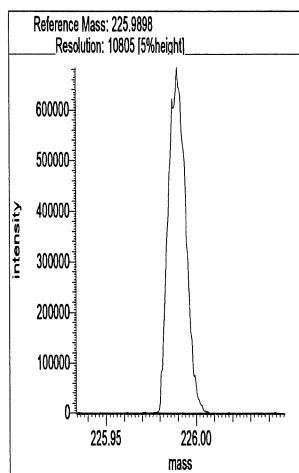
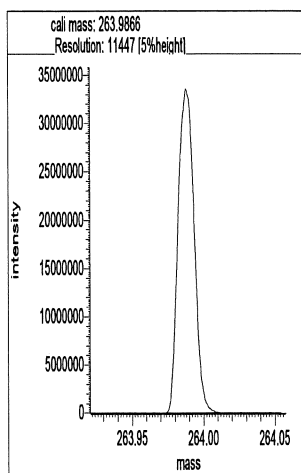
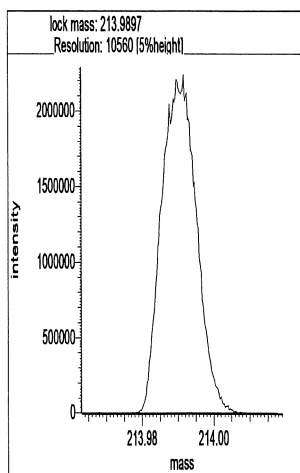
## Segment 2

Lock mass 213.9897 [m/z] Resolution: 10560 [5%height]

Cali. mass 263.9866 [m/z] Resolution: 11447 [5%height]

Ref. mass 225.9898 [m/z] Resolution: 10805 [5%height]



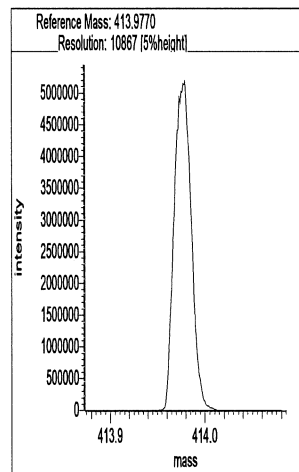
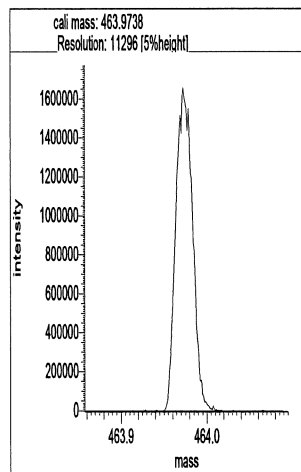
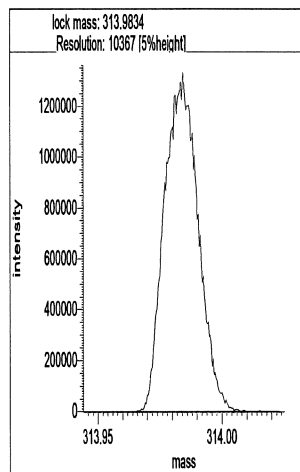


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 10367 [5%height]

Cali. mass 463.9738 [m/z] Resolution: 11296 [5%height]

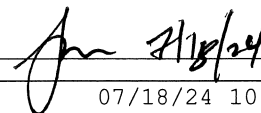
Ref. mass 413.9770 [m/z] Resolution: 10867 [5%height]



## Reports

10:46:49: Peak matching procedure started  
10:46:50:  
10:46:50: Reference mass: 263.98656  
10:46:51: Sample mass: 414.0  
10:46:51:  
10:46:52: Finding reference mass  
10:46:53: Finding sample mass  
10:46:53:  
10:46:59: [1] 413.9773 amu, mean: 413.9773  
10:47:02: [2] 413.9769 amu, mean: 413.9771 SD: 0.28 mmu or: 0.67 ppm  
10:47:05: [3] 413.9770 amu, mean: 413.9771 SD: 0.21 mmu or: 0.51 ppm  
10:47:08: [4] 413.9766 amu, mean: 413.9770 SD: 0.30 mmu or: 0.72 ppm  
10:47:12: [5] 413.9765 amu, mean: 413.9769 SD: 0.34 mmu or: 0.83 ppm  
10:47:15: [6] 413.9762 amu, mean: 413.9768 SD: 0.41 mmu or: 0.99 ppm  
10:47:18: [7] 413.9765 amu, mean: 413.9767 SD: 0.39 mmu or: 0.93 ppm  
10:47:21: [8] 413.9763 amu, mean: 413.9767 SD: 0.39 mmu or: 0.95 ppm  
10:47:24: [9] 413.9761 amu, mean: 413.9766 SD: 0.41 mmu or: 1.00 ppm  
10:47:27: [10] 413.9767 amu, mean: 413.9766 SD: 0.39 mmu or: 0.95 ppm  
10:47:30: [11] 413.9766 amu, mean: 413.9766 SD: 0.37 mmu or: 0.90 ppm  
10:47:30:  
10:47:30: Stop requested. Please wait for procedure to finish.  
10:47:30:  
10:47:34:  
10:47:34: Peakmatching stopped

Signature

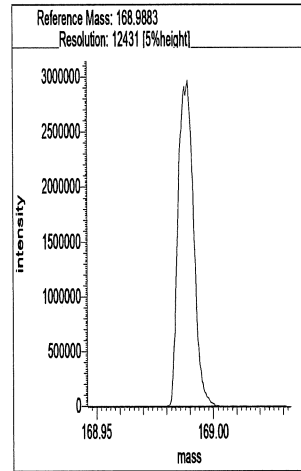
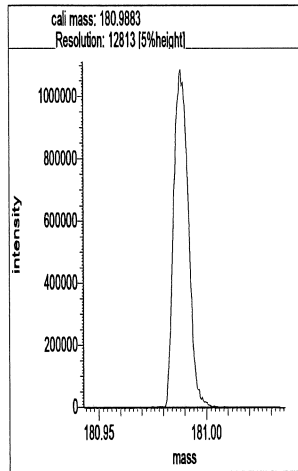
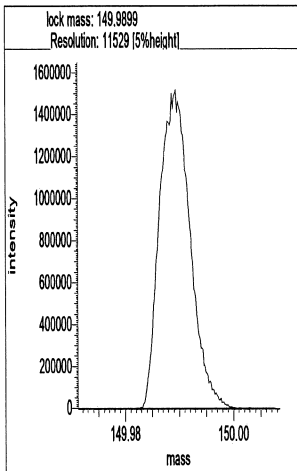


# Resolution Check Report ( DFS SN: 3439 )

Date: 18 Jul 2024 21:24  
MID Experiment: ResCheck\_HRPAH  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43\_HRPAH.lua  
Status: RESOLUTION PASSED

## Segment 1

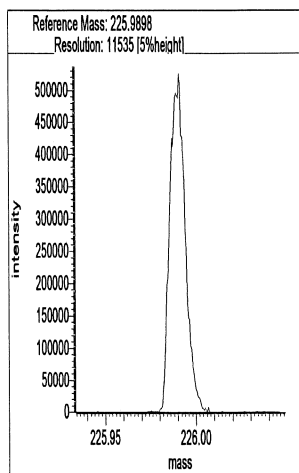
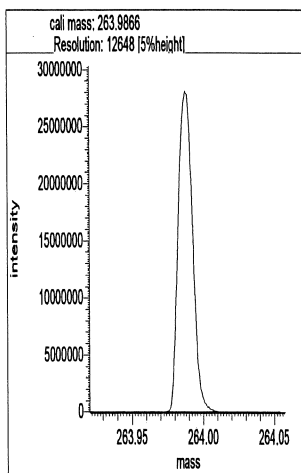
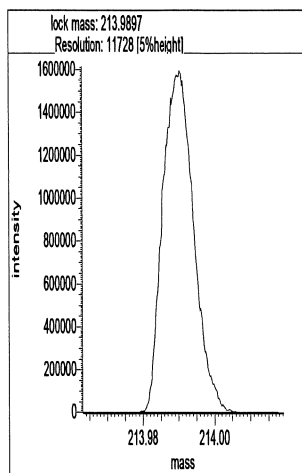
Lock mass 149.9899 [m/z] Resolution: 11529 [5%height]  
Cali. mass 180.9883 [m/z] Resolution: 12813 [5%height]  
Ref. mass 168.9883 [m/z] Resolution: 12431 [5%height]



## Segment 2

Lock mass 213.9897 [m/z] Resolution: 11728 [5%height]  
Cali. mass 263.9866 [m/z] Resolution: 12648 [5%height]  
Ref. mass 225.9898 [m/z] Resolution: 11535 [5%height]

d3240718r3

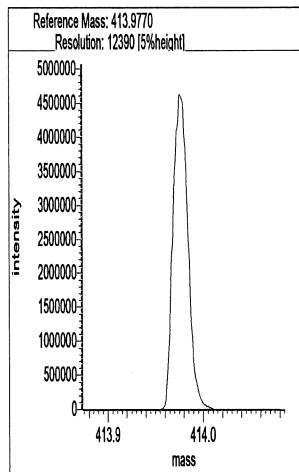
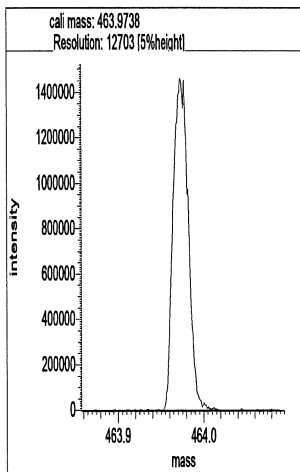
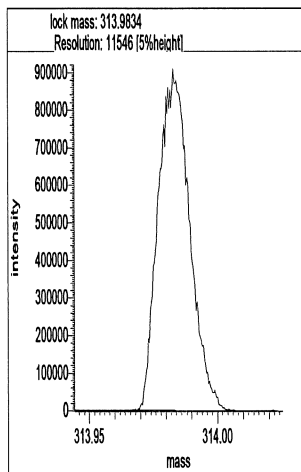


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 11546 [5%height]

Cali. mass 463.9738 [m/z] Resolution: 12703 [5%height]

Ref. mass 413.9770 [m/z] Resolution: 12390 [5%height]



## Reports

21:30:57: Peak matching procedure started  
21:30:57:  
21:30:58: Reference mass: 263.98656  
21:30:58: Sample mass: 414.0  
21:30:59:  
21:30:59: Finding reference mass  
21:31:00: Finding sample mass  
21:31:01:  
21:31:06: [1] 413.9755 amu, mean: 413.9755 SD: 0.16 mmu or: 0.38 ppm  
21:31:09: [2] 413.9753 amu, mean: 413.9754 SD: 0.16 mmu or: 0.38 ppm  
21:31:12: [3] 413.9752 amu, mean: 413.9754 SD: 0.13 mmu or: 0.32 ppm  
21:31:16: [4] 413.9753 amu, mean: 413.9754 SD: 0.11 mmu or: 0.27 ppm  
21:31:19: [5] 413.9754 amu, mean: 413.9754 SD: 0.27 mmu or: 0.64 ppm  
21:31:22: [6] 413.9760 amu, mean: 413.9755 SD: 0.26 mmu or: 0.64 ppm  
21:31:25: [7] 413.9757 amu, mean: 413.9755 SD: 0.30 mmu or: 0.73 ppm  
21:31:29: [8] 413.9760 amu, mean: 413.9756 SD: 0.33 mmu or: 0.80 ppm  
21:31:31: [9] 413.9761 amu, mean: 413.9756 SD: 0.33 mmu or: 0.79 ppm  
21:31:35: [10] 413.9759 amu, mean: 413.9756 SD: 0.31 mmu or: 0.76 ppm  
21:31:38: [11] 413.9755 amu, mean: 413.9756  
21:31:39:  
21:31:39: Stop requested. Please wait for procedure to finish.  
21:31:39:  
21:31:41:  
21:31:41: Peakmatching stopped

Signature

*mdp* 7/18/24

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\d3240718c1a.d  
Lims ID: CCV  
Client ID:  
Sample Type: CCV  
Inject. Date: 18-Jul-2024 10:51:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 18-Jul-2024 12:07:58 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1621

First Level Reviewer: F9EE

Date: 18-Jul-2024 12:07:24

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:25	63523021		3.3746	99.4	99.4	0.006890	0.006890	99.41	
Naphthalene	11:25	161558702		1.2893	197.3	197.3	0.0177	0.0177	98.63	
D 13C6-2-Methylnaphthalene	13:47	28045750		1.6031	92.4	92.4	0.000994	0.000994	92.39	
2-Methylnaphthalene	13:48	72928310		1.2786	203.4	203.4	0.007868	0.007868	102	
D 13C6-Acenaphthylene	16:38	32668595		1.6520	104.4	104.4	0.001487	0.001487	104	
Acenaphthylene	16:39	87608789		2.3661	192.2	192.2	0.0109	0.0109	96.12	
* Acenaphthene-d10	17:13	18935921		3.5E+04	100.0	100.0				
D 13C6-Acenaphthene	17:20	19259735		0.9792	103.9	103.9	0.002235	0.002235	104	
Acenaphthene	17:20	47245965		1.2697	193.2	193.2	0.0123	0.0123	96.60	
Fluorene	19:37	48586647		1.2532	208.7	208.7	0.0126	0.0126	104	
D 13C6-Fluorene	19:37	18575983		0.8898	110.2	110.2	0.001037	0.001037	110	
D 13C6-Phenanthrene	24:58	25916646		0.5724	83.1	83.1	0.001313	0.001313	83.13	
Phenanthrene	24:58	58883335		1.1044	205.7	205.7	0.0146	0.0146	103	
\$ Anthracin-d10	25:10	18815410		0.4257	81.2	81.2	0.000706	0.000706	81.15	
D 13C6-Anthracene	25:17	20818037		0.4523	84.5	84.5	0.001661	0.001661	84.50	
Anthracene	25:17	58159766		1.3586	205.6	205.6	0.0158	0.0158	103	
D 13C6-Fluoranthrene	33:40	71456422		1.1994	109.4	109.4	0.008694	0.008694	109	
Fluoranthene	33:41	167783952		1.1513	203.9	203.9	0.006897	0.006897	102	
* Pyrene-d10	35:13	54463676		7.9E+04	100.0	100.0				
D 13C3-Pyrene	35:21	83873036		1.3512	114.0	114.0	0.0118	0.0118	114	
Pyrene	35:21	178892855		1.0652	200.2	200.2	0.006360	0.006360	100	
\$ 13C6-Benzo(c)fluorene	39:03	25792780		0.5136	92.2	92.2	0.003109	0.003109	92.21	
D 13C6-Benzo(a)anthracene	45:52	79937749		1.5189	107.8	107.8	0.006354	0.006354	108	
Benzo[a]anthracene	45:53	181222668		0.9739	232.8	232.8	0.0266	0.0266	116	
D 13C6-Chrysene	46:08	88662961		1.6287	111.5	111.5	0.005926	0.005926	111	
Chrysene	46:09	203231381		0.9815	233.5	233.5	0.0248	0.0248	117	
D 13C6-Benzo(b)fluoranthene	54:30	75454275		1.4621	105.7	105.7	0.000549	0.000549	106	
Benzo[b]fluoranthene	54:30	177426764		1.1249	209.0	209.0	0.002172	0.002172	105	
\$ 13C12-Benzo(j)fluoranthene	54:32	61885518		1.3558	93.5	93.5	0.006312	0.006312	93.48	
D 13C6-Benzo(k)fluoranthene	54:38	88604977		1.7507	103.7	103.7	0.000459	0.000459	104	
Benzo[k]fluoranthene	54:39	199239189		1.1271	199.5	199.5	0.001881	0.001881	99.75	
* Benzo(e)pyrene-d12	55:23	48828180		5.7E+04	100.0	100.0				
D 13C4-Benzo(e)pyrene	55:28	96526872		1.6368	120.8	120.8	0.001518	0.001518	121	
Benzo[e]pyrene	55:28	187190891		1.0013	193.7	193.7	0.001570	0.001570	96.84	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C4-Benzo(a)pyrene	55:37	88710239		1.5508	117.2	117.2	0.001602	0.001602	117	
Benzo[a]pyrene	55:37	192586625		1.1130	195.0	195.0	0.001516	0.001516	97.52	
D Perylene-d12	55:47	61755807		1.1917	106.1	106.1	0.006777	0.006777	106	
Perylene	55:51	200268409		1.4307	226.7	226.7	0.001639	0.001639	113	
D 13C6-Indeno(1,2,3-cd)pyrene	57:56	62400977		1.0218	125.1	125.1	0.004880	0.004880	125	
Indeno[1,2,3-cd]pyrene	57:56	146498509		1.1249	208.7	208.7	0.001760	0.001760	104	
D 13C6-Dibenz(a,h)anthracene	58:00	61996731		1.0553	120.3	120.3	0.002910	0.002910	120	
Dibenz(a,h)anthracene	58:00	149718757		1.1314	213.5	213.5	0.001345	0.001345	107	
D 13C12-Benzo(ghi)perylene	58:23	60899486		1.2749	97.8	97.8	0.000533	0.000533	97.83	
Benzo[g,h,i]perylene	58:24	162509290		1.2838	207.9	207.9	0.001519	0.001519	104	

## QC Flag Legend

Processing Flags

## Reagents:

61HRPAHCS5a\_00002

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\d3240718c1a.d  
Lims ID: CCV  
Client ID:  
Sample Type: CCV  
Inject. Date: 18-Jul-2024 10:51:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAL ICAL  
Last Update: 18-Jul-2024 12:07:58 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1621

First Level Reviewer: F9EE

Date: 18-Jul-2024 12:07:24

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:25	11:25	0	0.663	63523021	22420621	625	1562	35873		
Naphthalene											
128.0626	11:25	11:25	0	1.000	161558702	58460243	2048	5120	28545		
13C6-2-Methylnaphthalene											
148.0984	13:47	13:47	0	0.801	28045750	13569005	43	107	315558		
2-Methylnaphthalene											
142.0783	13:48	13:48	0	1.001	72928310	34116194	546	1365	62484		
13C6-Acenaphthylene											
158.0828	16:38	16:38	0	0.967	32668595	11986310	66	165	181611		E
Acenaphthylene											
152.0626	16:39	16:39	0	1.000	87608789	32046190	695	1737	46110		
Acenaphthene-d10											
164.1404	17:13	17:13	0		18935921	6718265	25	62	268731		
13C6-Acenaphthene											
160.0984	17:20	17:20	0	1.007	19259735	6722631	59	147	113943		E
Acenaphthene											
154.0783	17:20	17:20	0	1.000	47245965	17133181	419	1047	40891		
Fluorene											
166.0783	19:37	19:37	0	1.000	48586647	15480316	360	900	43001		
13C6-Fluorene											
172.0984	19:37	19:37	0	1.139	18575983	5693010	25	62	227720		E
13C6-Phenanthrene											
184.0984	24:58	24:58	0	0.709	25916646	6412762	32	80	200399		
Phenanthrene											
178.0783	24:58	24:58	0	1.000	58883335	14565209	413	1032	35267		



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:10	25:10	0	0.715	18815410	4321776	13	32	332444		
13C6-Anthracene											
184.0984	25:17	25:17	0	0.718	20818037	4805963	32	80	150186		
Anthracene											
178.0783	25:17	25:17	0	1.000	58159766	13631577	413	1032	33006		
13C6-Fluoranthrene											
208.0984	33:40	33:40	0	0.956	71456422	14418725	444	1110	32475		E
Fluoranthene											
202.0783	33:41	33:41	0	1.000	167783952	35325076	458	1145	77129		
Pyrene-d10											
212.1404	35:13	35:13	0		54463676	10645437	44	110	241942		
13C3-Pyrene											
205.0883	35:21	35:21	0	1.004	83873036	16902445	678	1695	24930		E
Pyrene											
202.0783	35:21	35:21	0	1.000	178892855	35776763	458	1145	78115		
13C6-Benzo(c)fluorene											
222.1134	39:03	39:03	0	0.705	25792780	4764711	68	170	70069		
13C6-Benzo(a)anthracene											
234.1140	45:52	45:52	0	1.303	79937749	15099404	625	1562	24159		E
Benzo[a]anthracene											
228.0939	45:53	45:53	0	1.000	181222668	34547831	1567	3917	22047		
13C6-Chrysene											
234.1140	46:08	46:08	0	1.310	88662961	16063681	625	1562	25702		E
Chrysene											
228.0939	46:09	46:09	0	1.000	203231381	36474710	1567	3917	23277		
13C6-Benzo(b)fluoranthene											
258.1140	54:30	54:30	0	0.984	75454275	21488875	52	130	413248		E
Benzo[b]fluoranthene											
252.0939	54:30	54:30	0	1.000	177426764	52816265	210	525	251506		
13C12-Benzo(j)fluoranthene											
264.1336	54:32	54:32	0	0.985	61885518	18030374	554	1385	32546		
13C6-Benzo(k)fluoranthene											
258.1140	54:38	54:38	0	0.986	88604977	24761579	52	130	476184		E
Benzo[k]fluoranthene											
252.0939	54:39	54:39	0	1.000	199239189	58830623	210	525	280146		
Benzo(e)pyrene-d12											
264.1692	55:23	55:23	0		48828180	16183918	523	1307	30944		
13C4-Benzo(e)pyrene											
256.1073	55:28	55:28	0	1.002	96526872	33406444	161	402	207493		E
Benzo[e]pyrene											
252.0939	55:28	55:28	0	1.000	187190891	63498465	210	525	302374		
13C4-Benzo(a)pyrene											
256.1073	55:37	55:37	0	1.004	88710239	31112940	161	402	193248		E

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Benzo[a]pyrene											
252.0939	55:37	55:37	0	1.000	192586625	71569408	210	525	340807		
Perylene-d12											
264.1692	55:47	55:47	0	1.007	61755807	22387435	523	1307	42806		E
Perylene											
252.0939	55:51	55:51	0	1.001	200268409	74222336	210	525	353440		
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	57:56	57:56	0	1.046	62400977	22329838	323	807	69133		E
Indeno[1,2,3-cd]pyrene											
276.0939	57:56	57:56	0	1.000	146498509	55925818	177	442	315965		
13C6-Dibenz(a,h)anthracene											
284.1296	58:00	58:00	0	1.047	61996731	23330680	199	497	117240		E
Dibenz(a,h)anthracene											
278.1096	58:00	58:00	0	1.000	149718757	54308221	142	355	382452		
13C12-Benzo(ghi)perylene											
288.1342	58:23	58:23	0	1.054	60899486	22667753	44	110	515176		
Benzo[g,h,i]perylene											
276.0939	58:24	58:24	0	1.000	162509290	55904837	177	442	315847		

### QC Flag Legend

Processing Flags

### Reagents:

61HRPAHCS5a\_00002

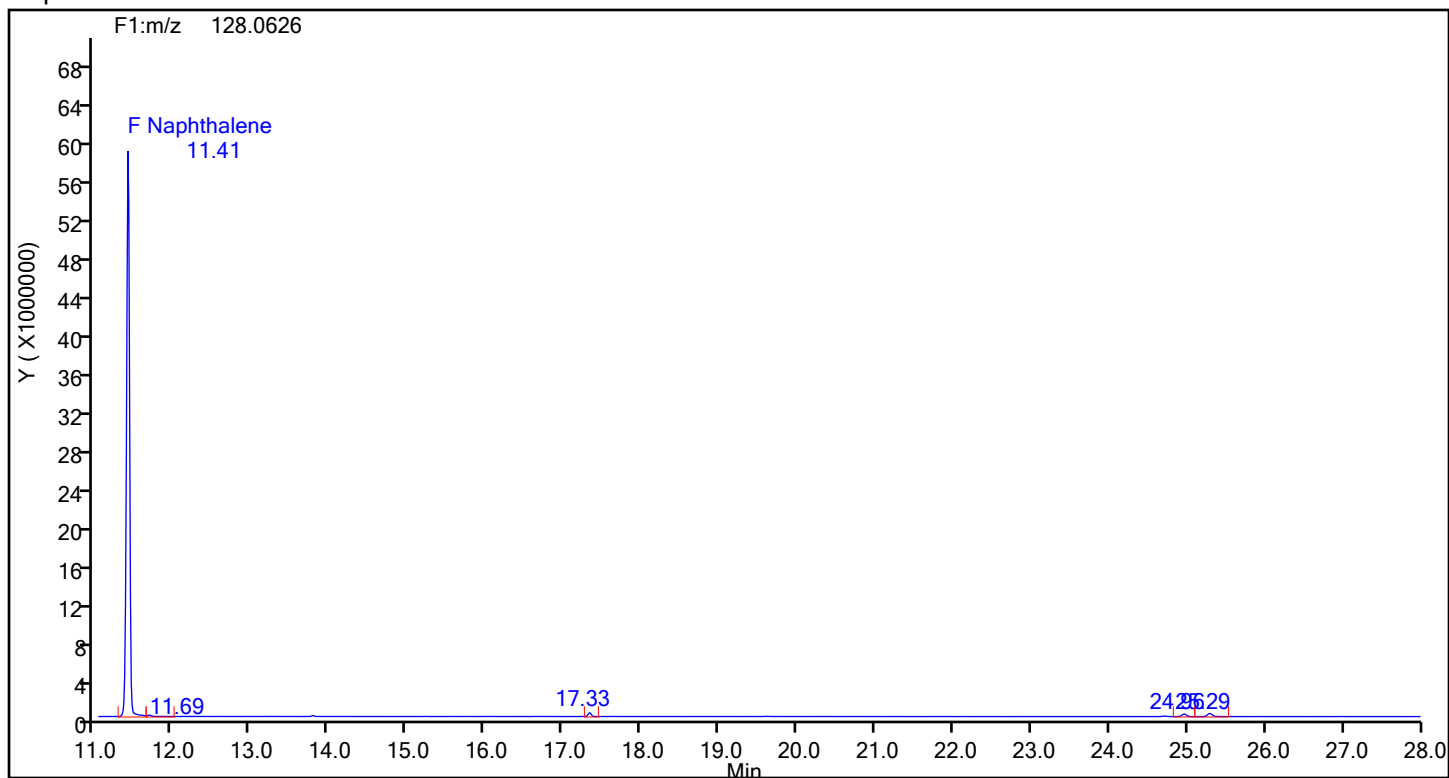
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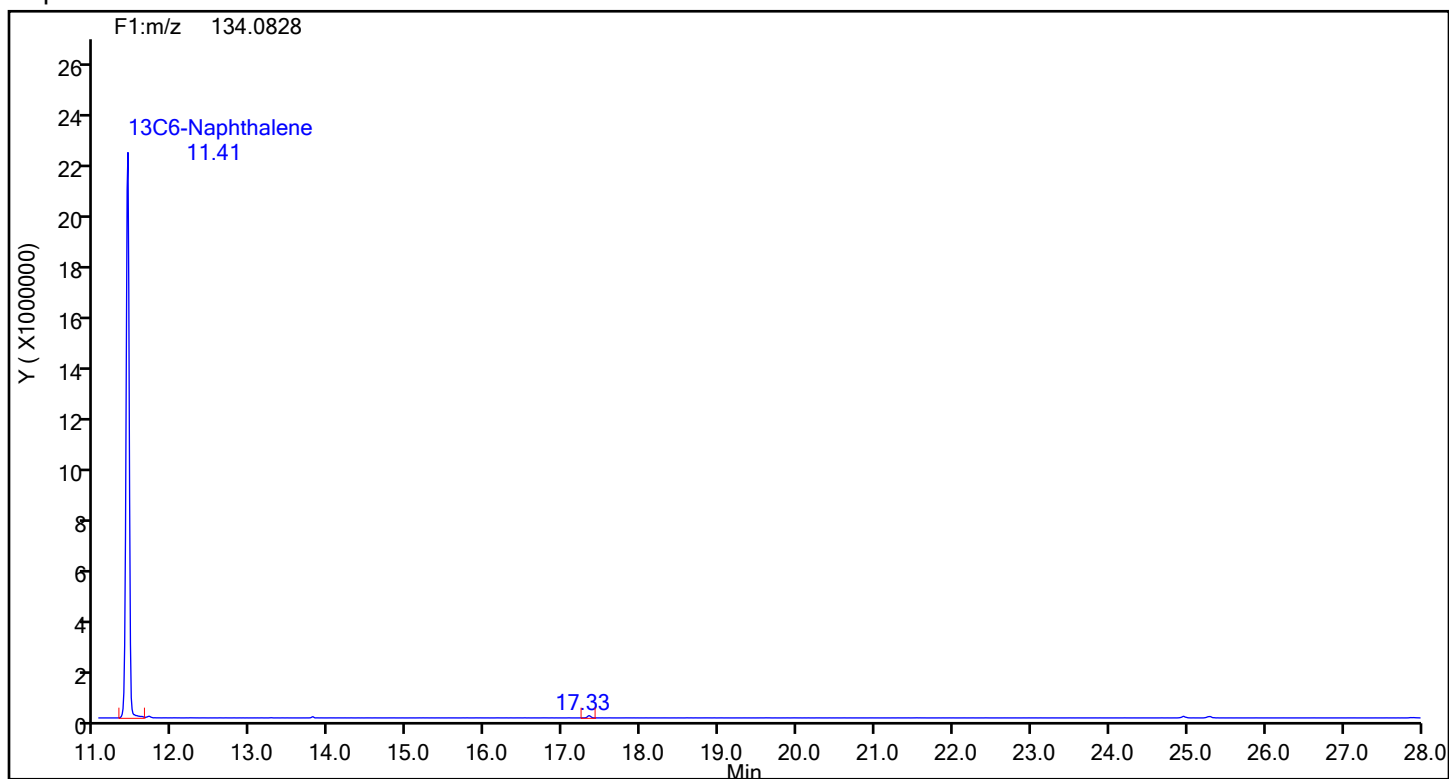
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



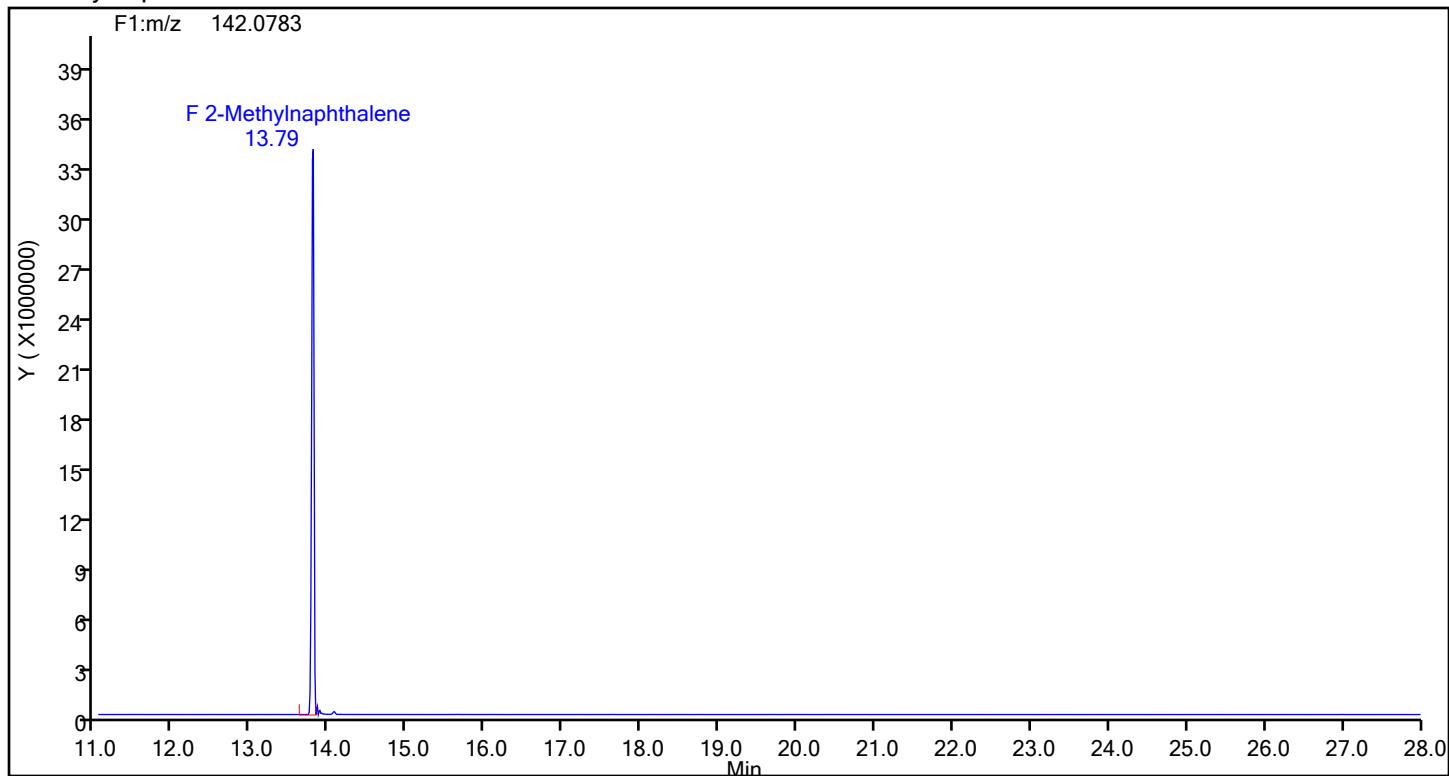
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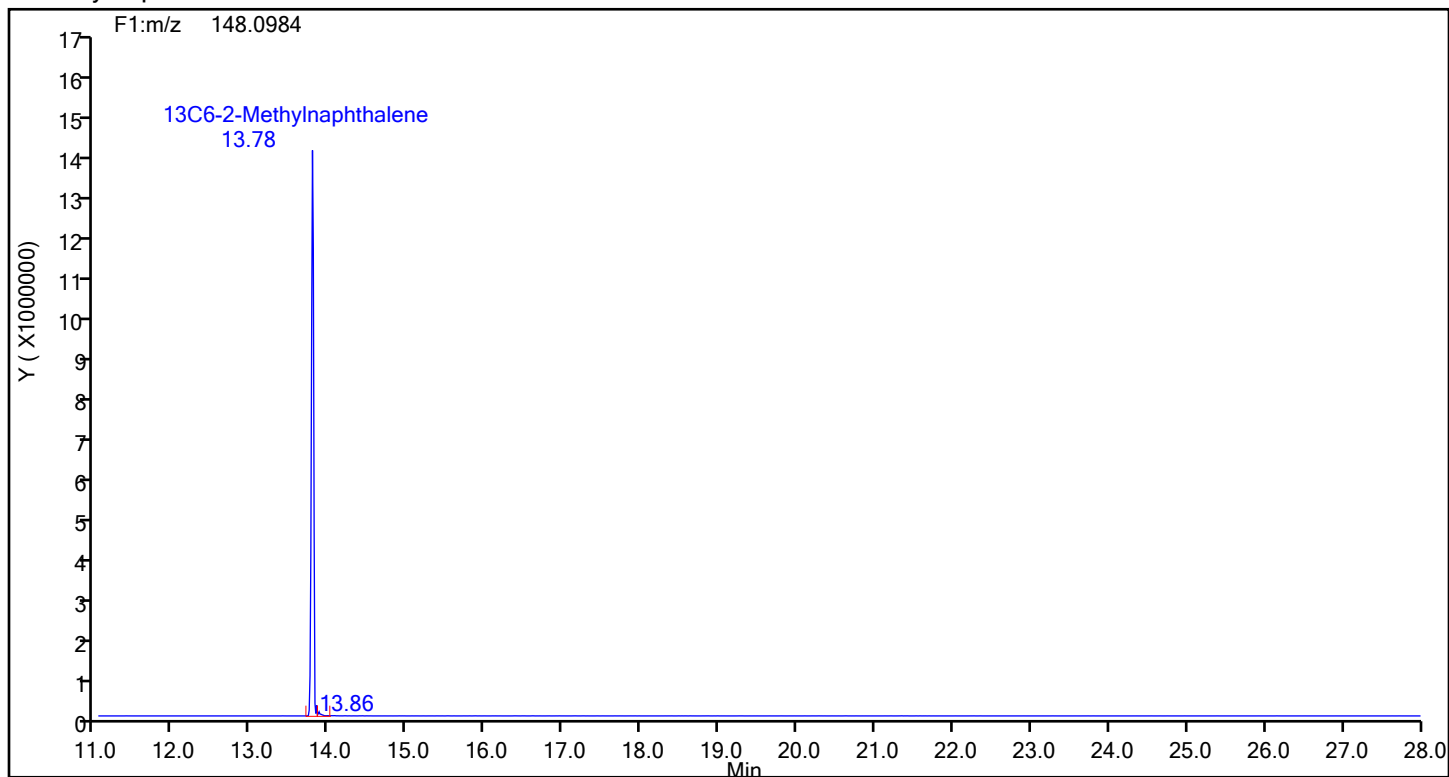
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## 2-Methylnaphthalene

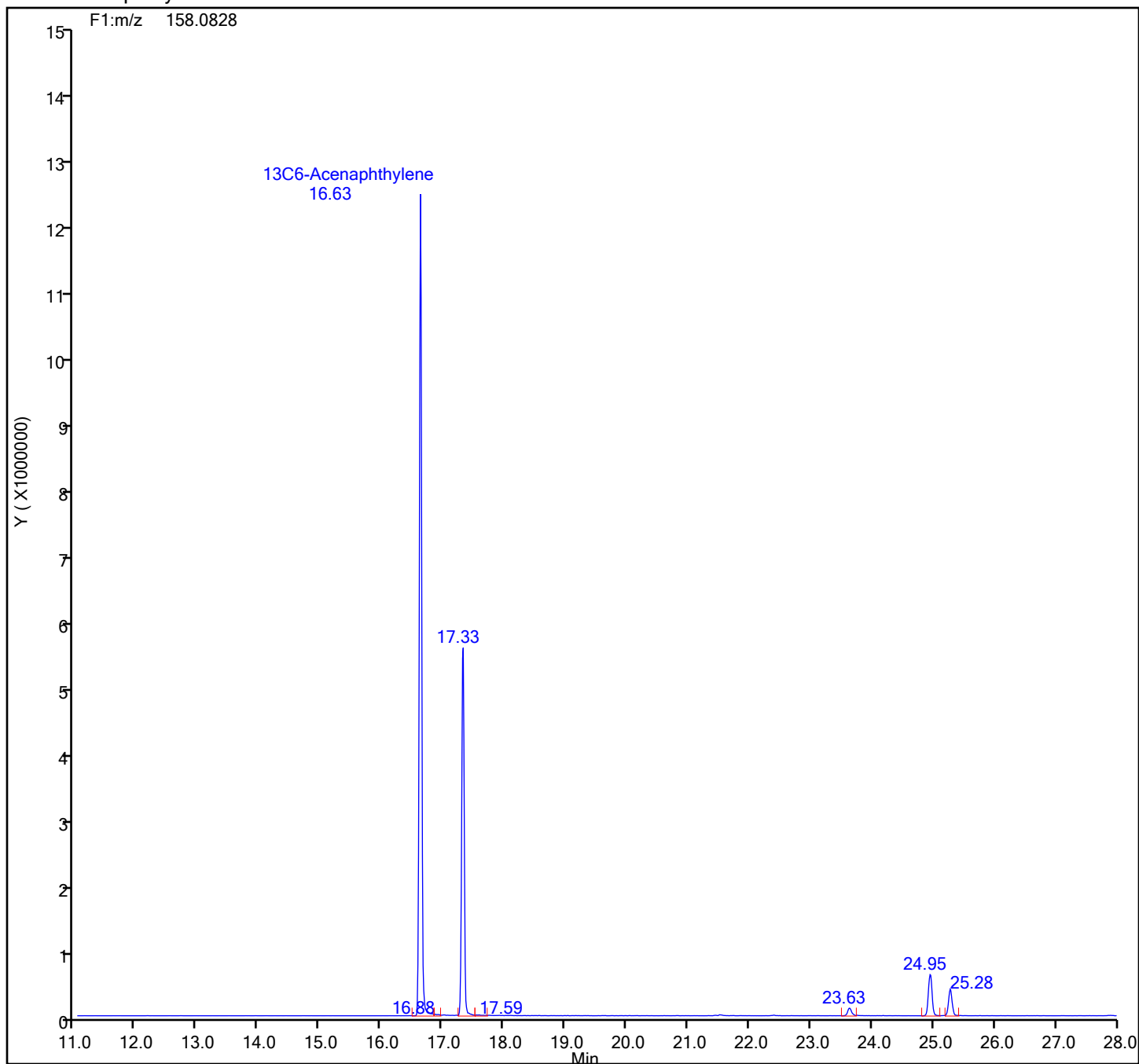


## 2-Methylnaphthalene Standards



## Eurofins Knoxville

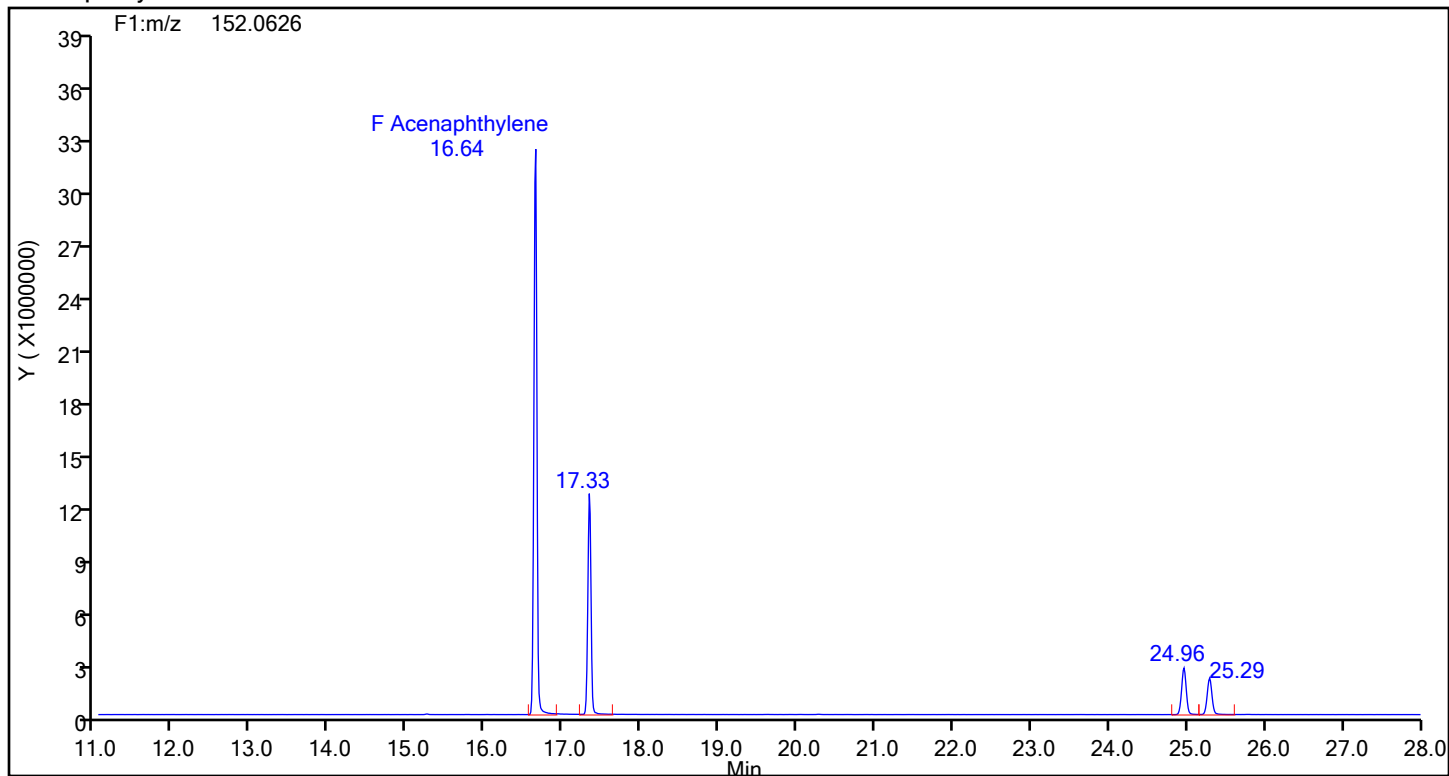
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
13C6-Acenaphthylene Standards



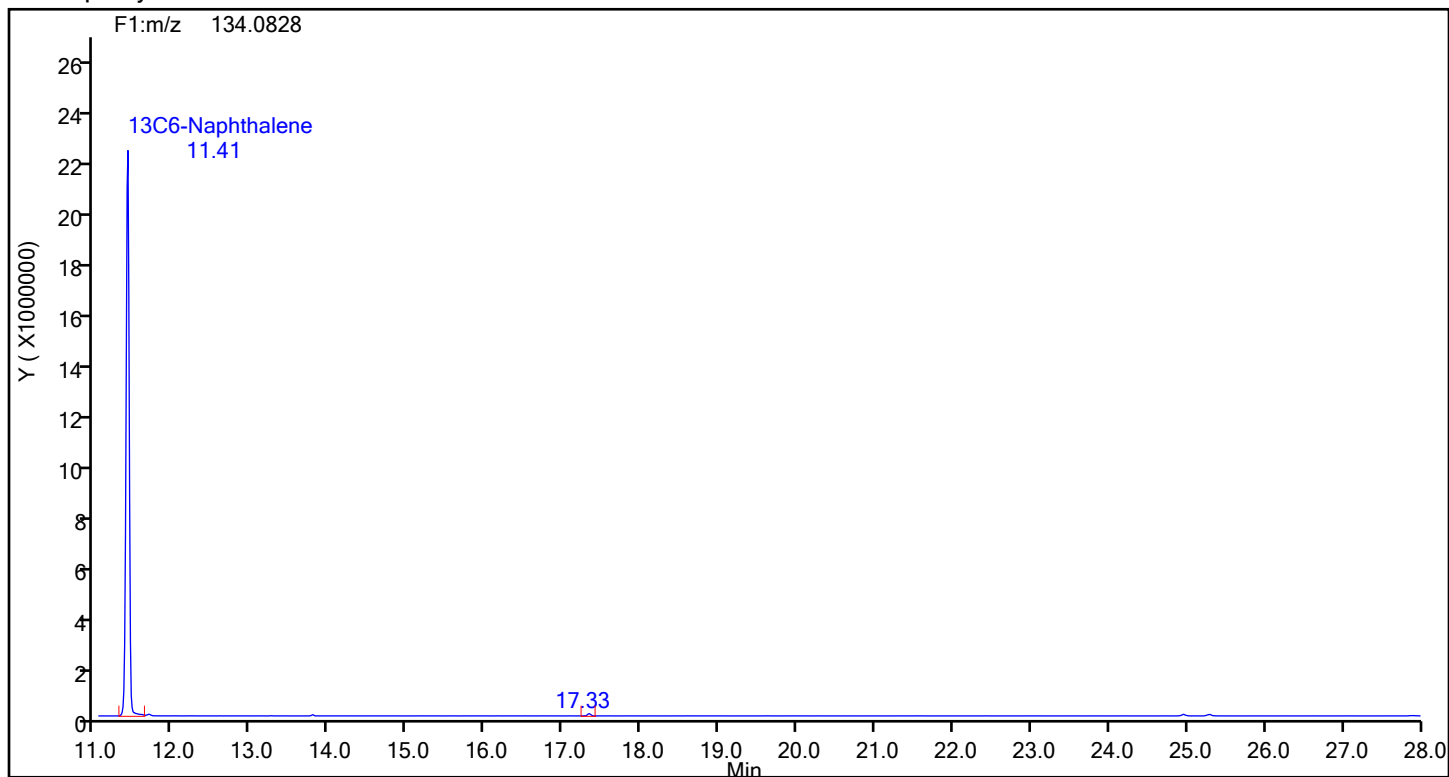
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## Acenaphthylene



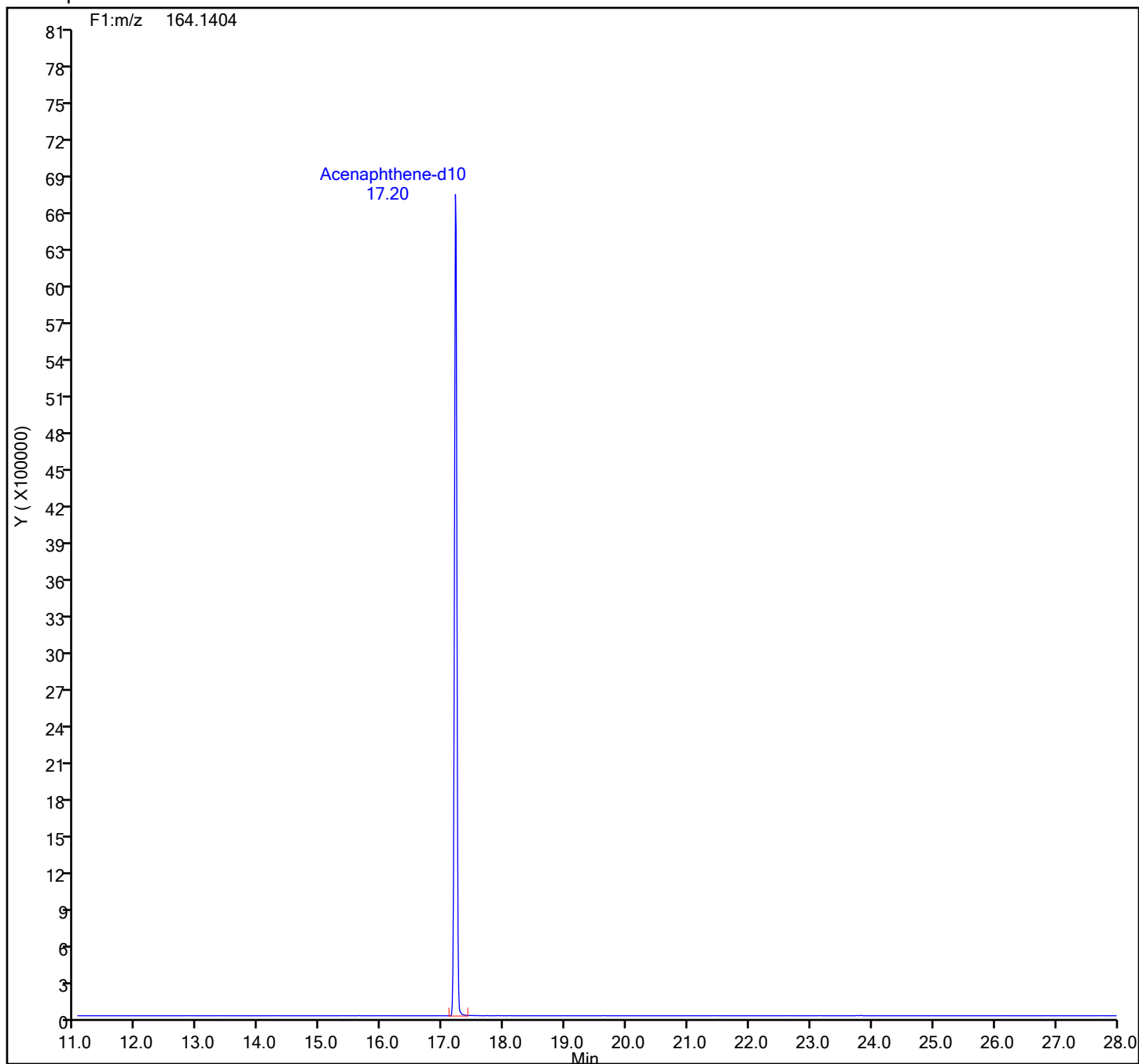
## Acenaphthylene Standards



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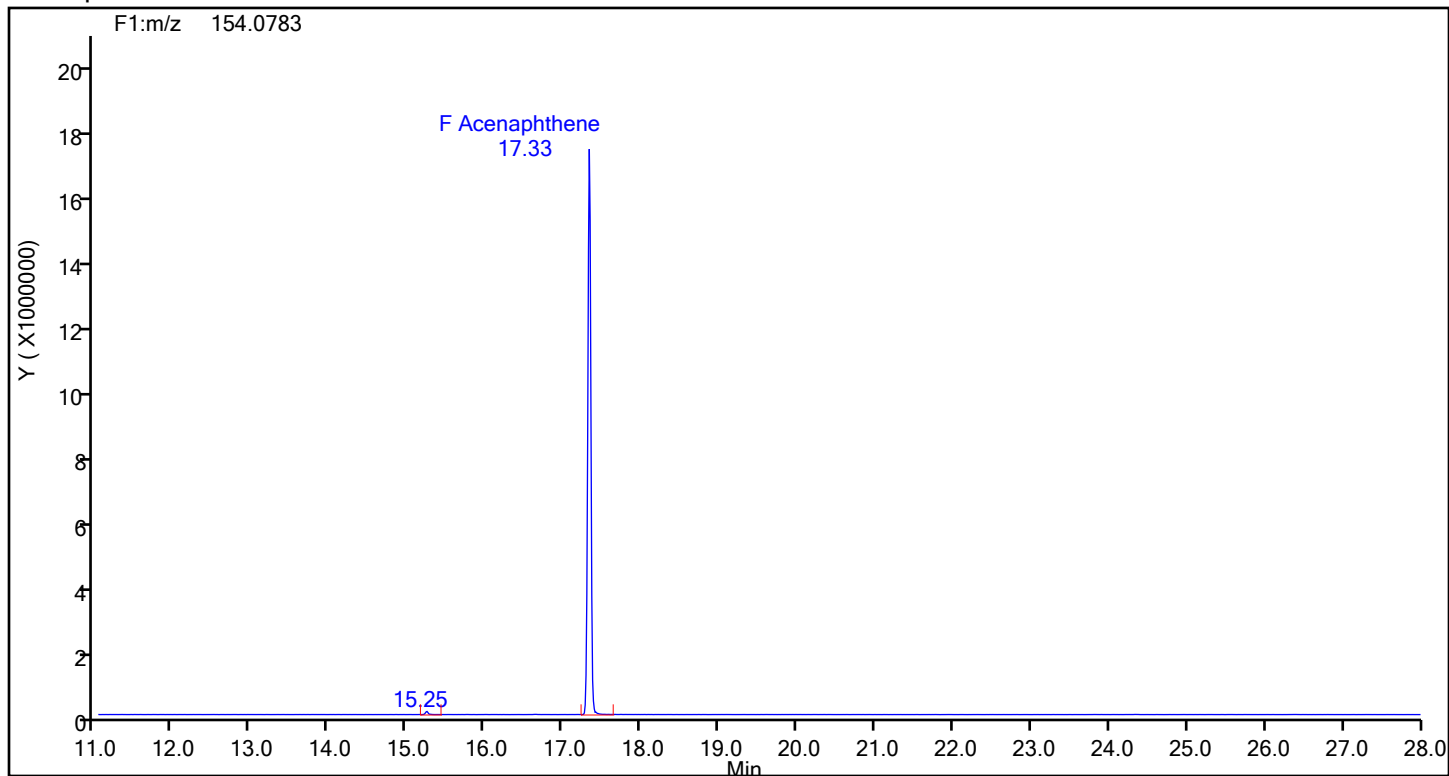
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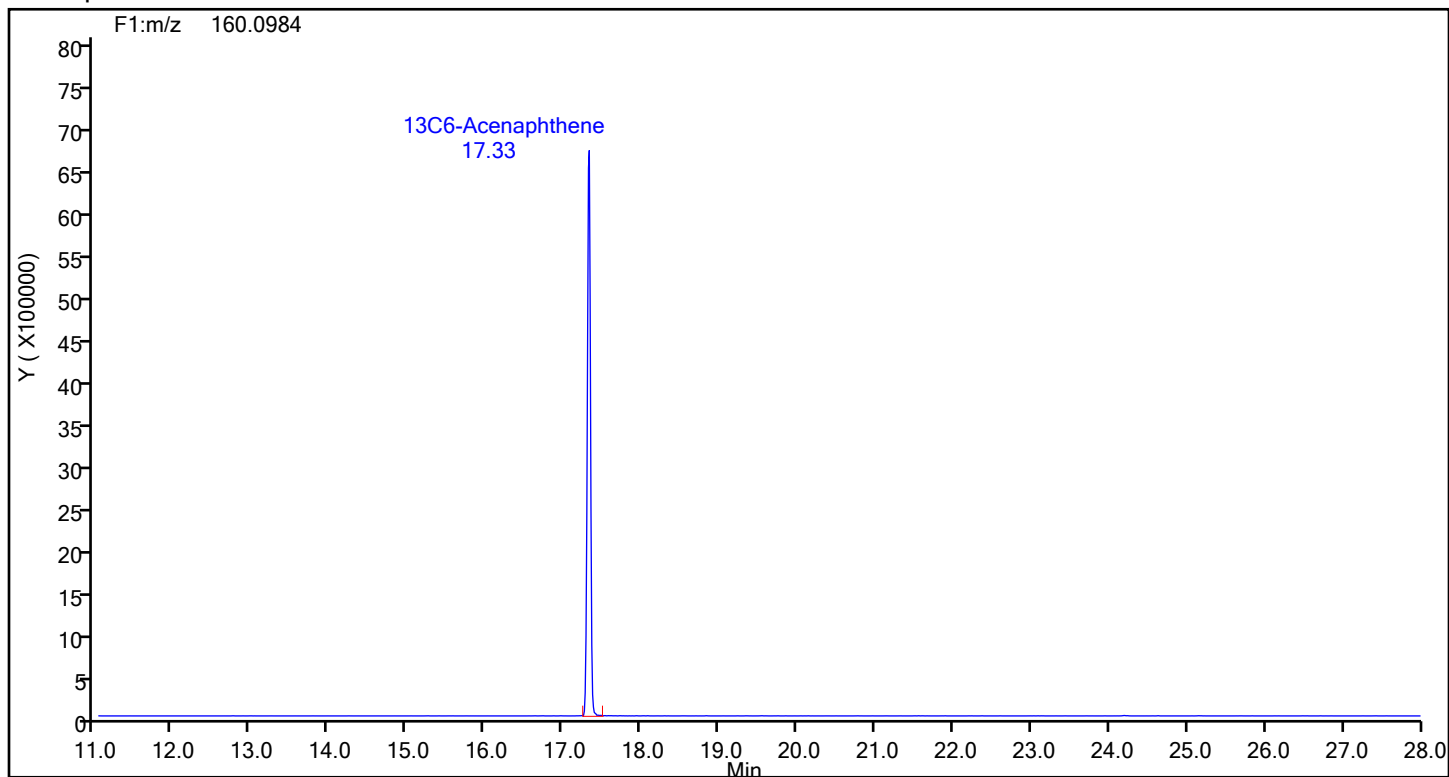
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## Acenaphthene



## Acenaphthene Standards

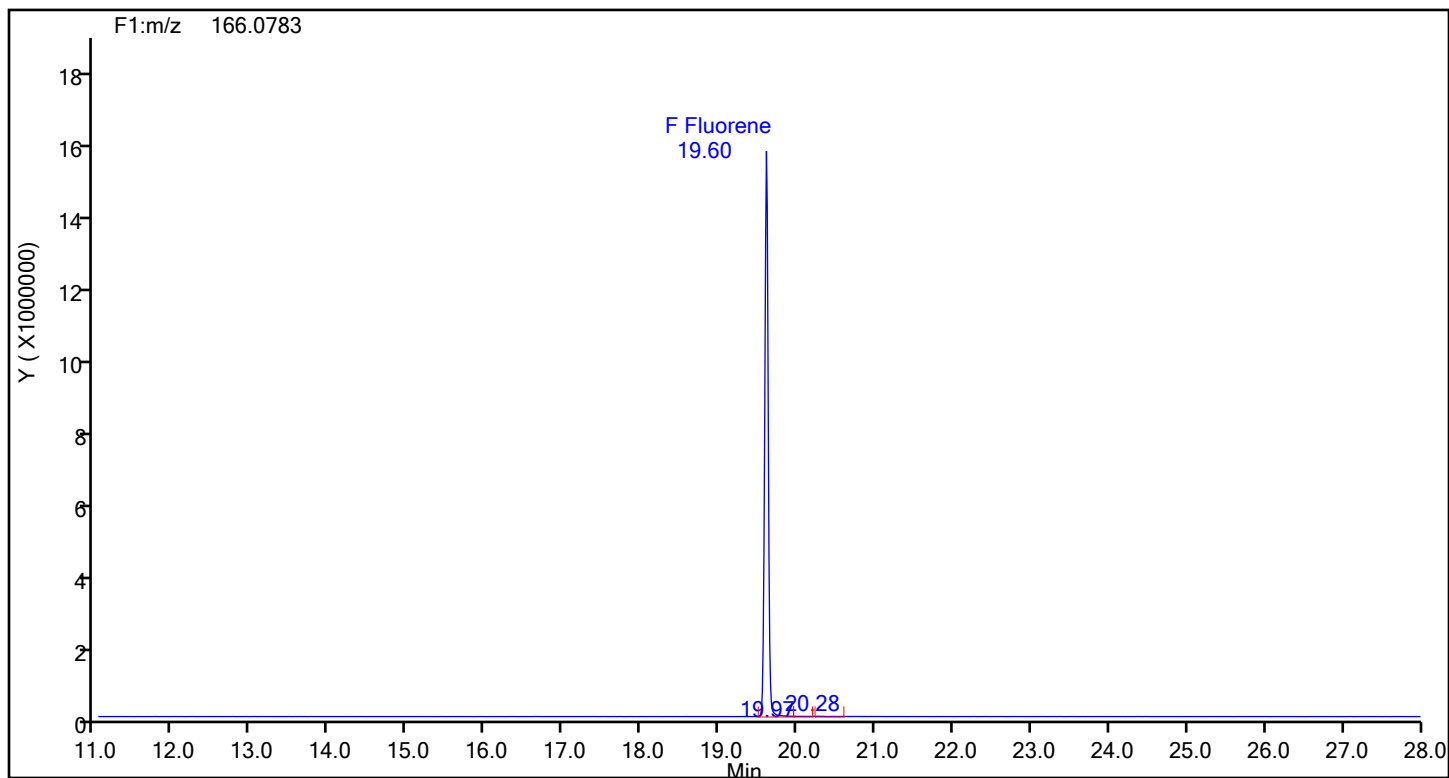




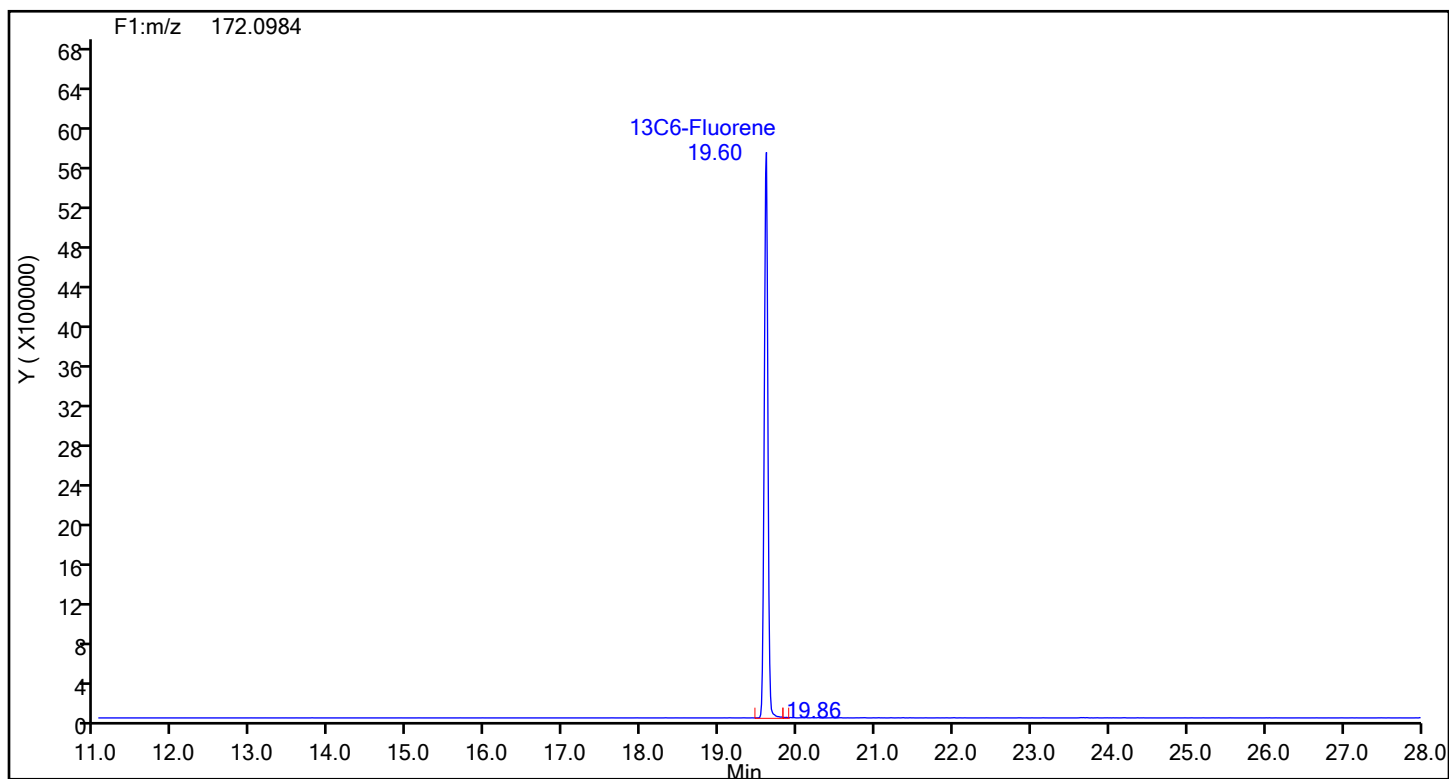
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## Fluorene

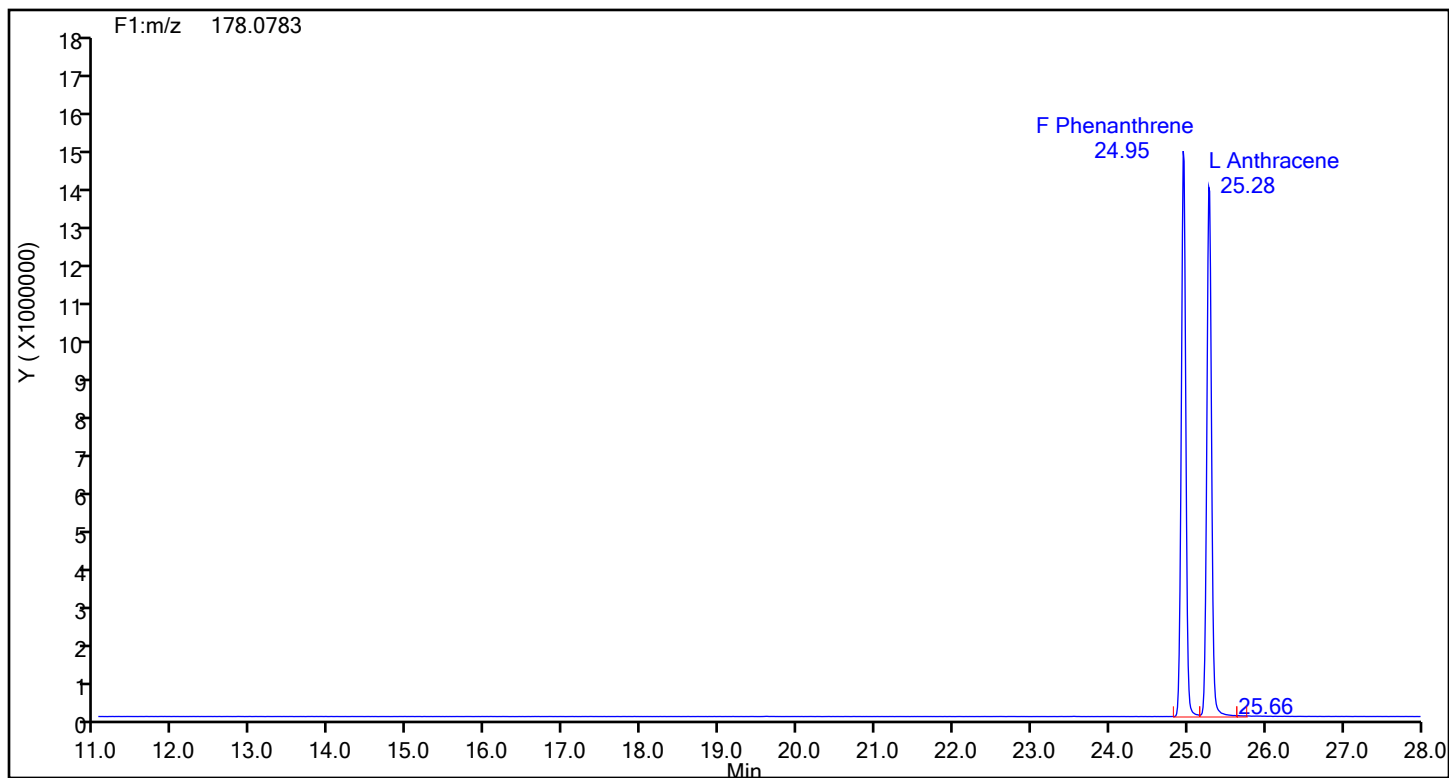


## Fluorene Standards

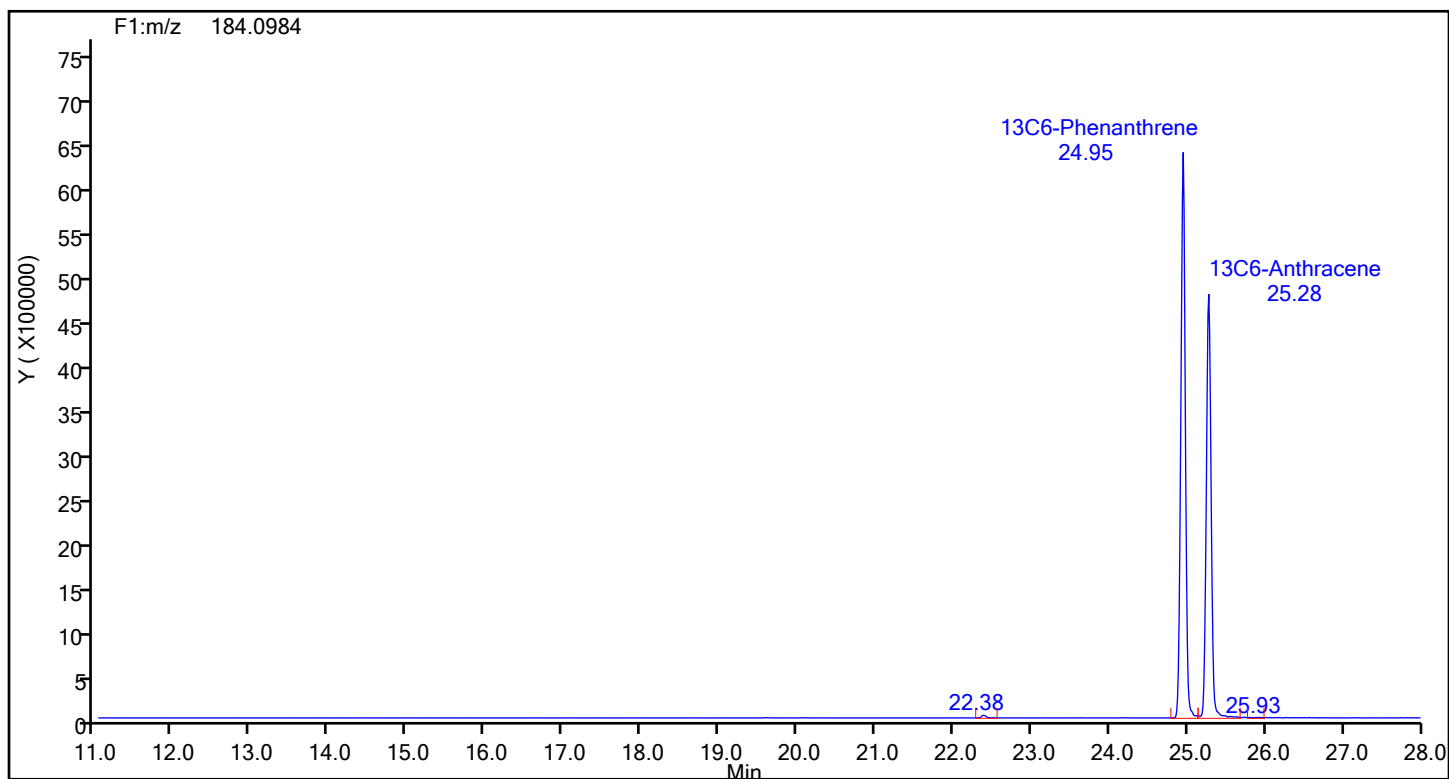


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Phenanthrene

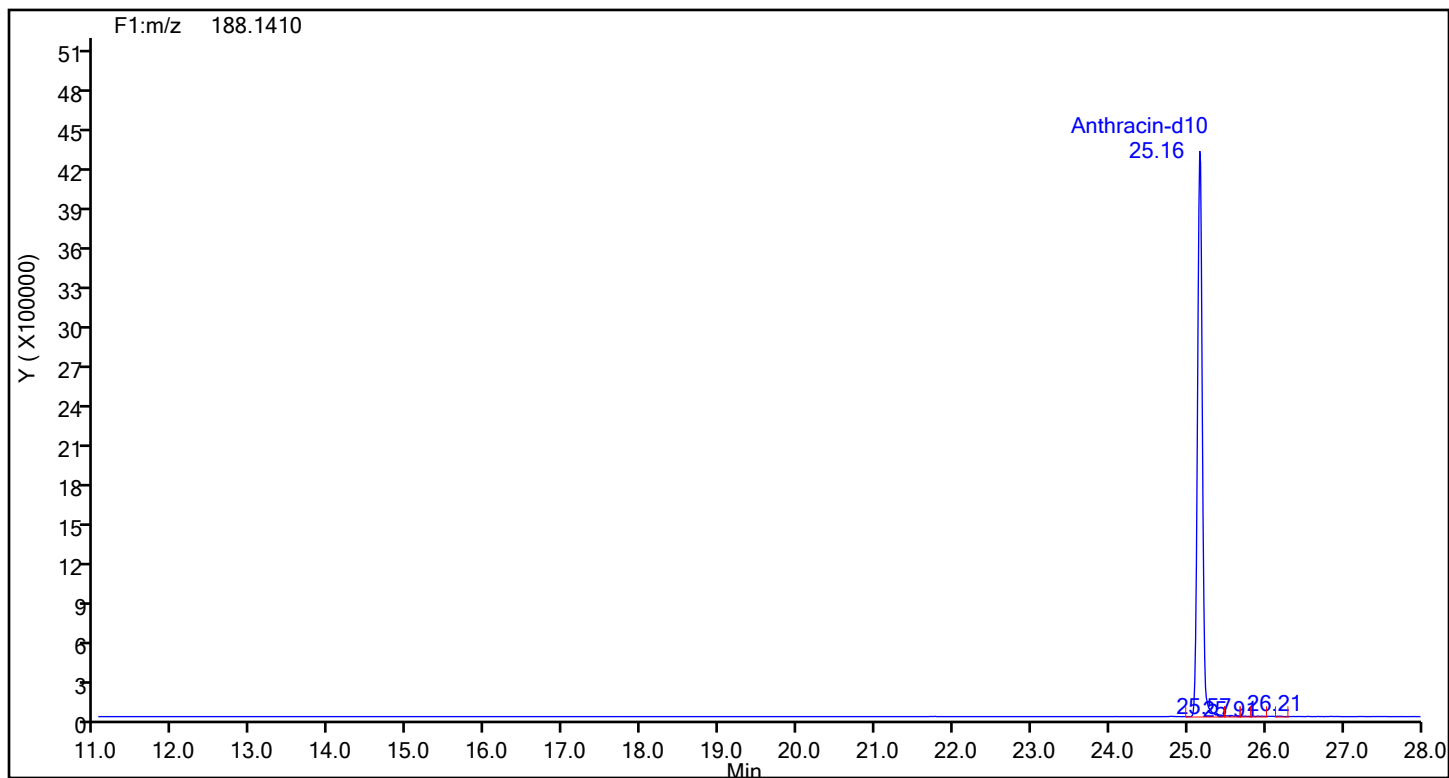


## Phenanthrene Standards

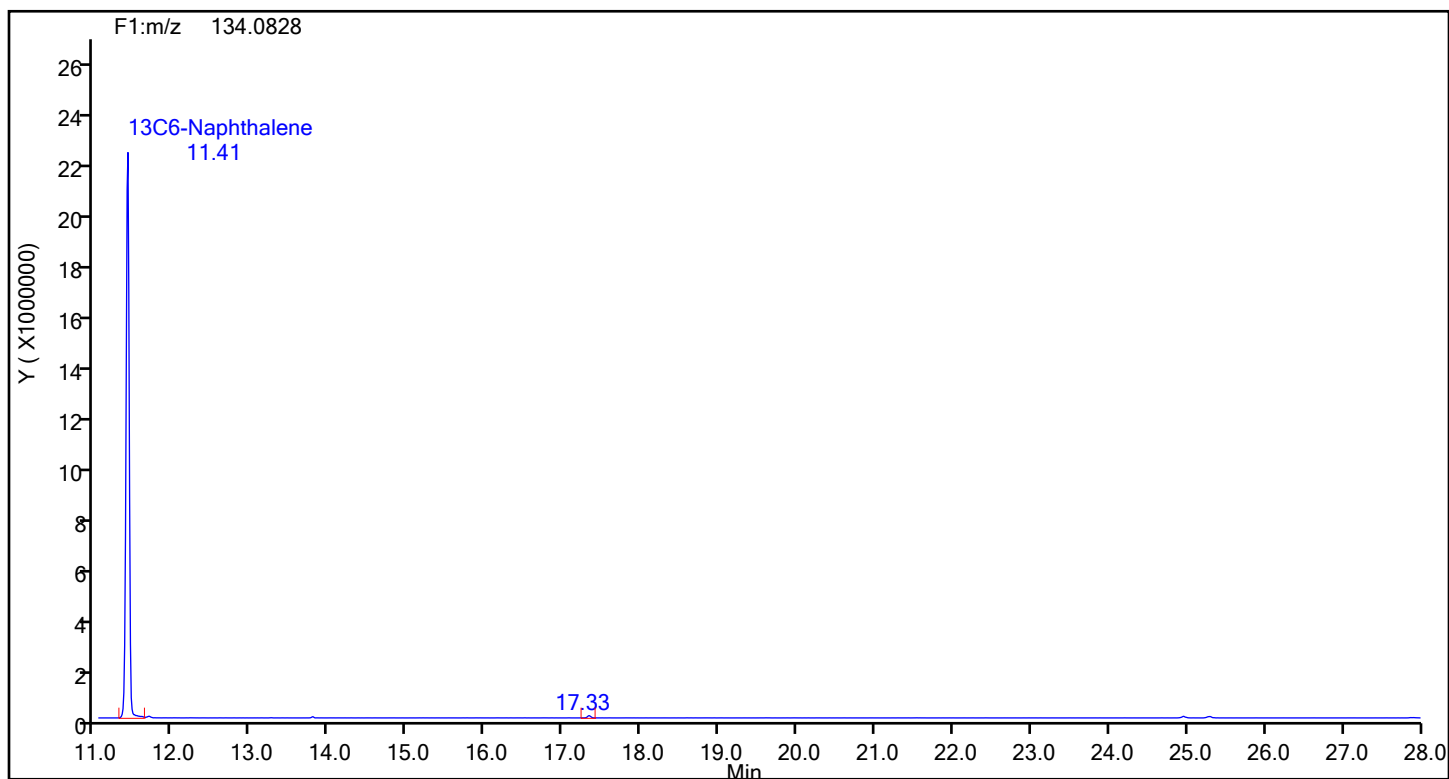


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Anthracin-d10

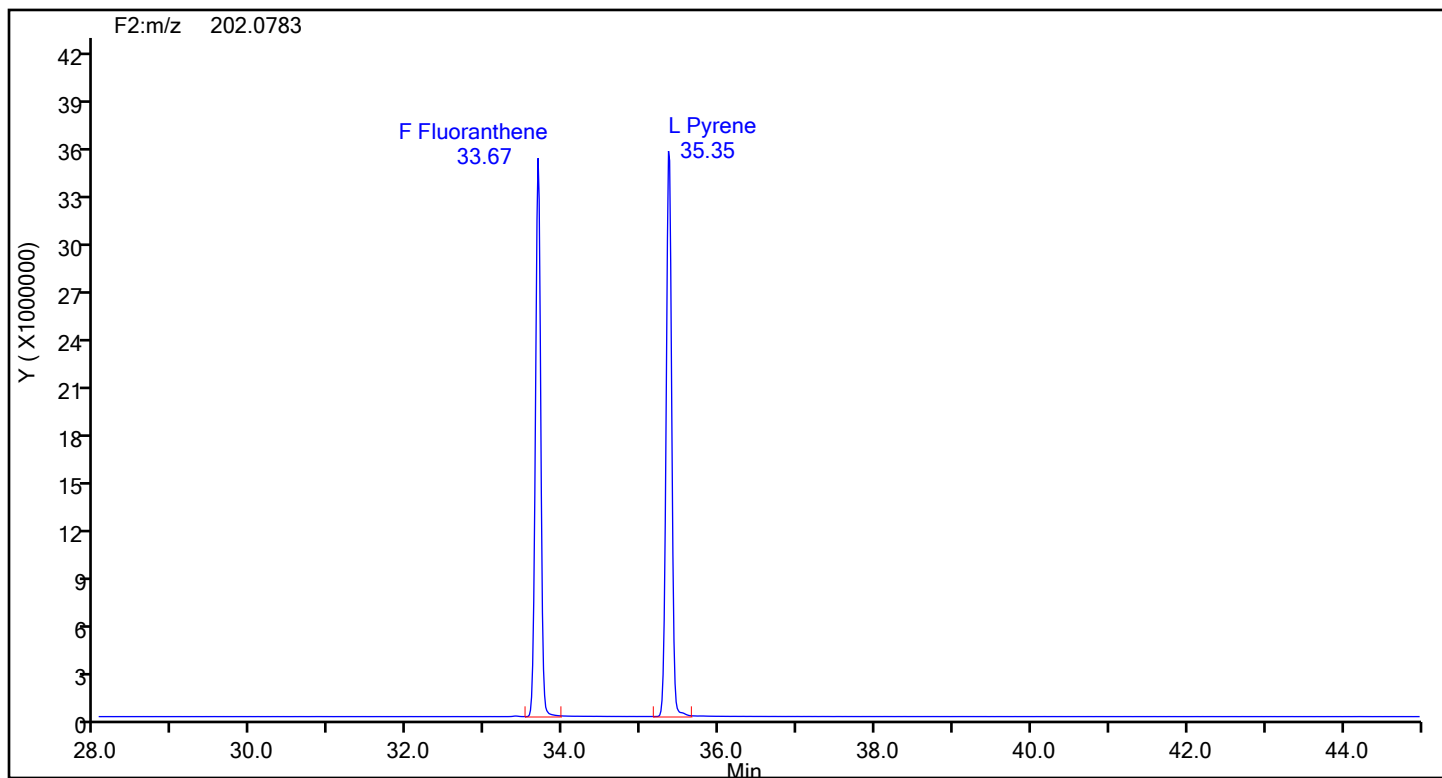


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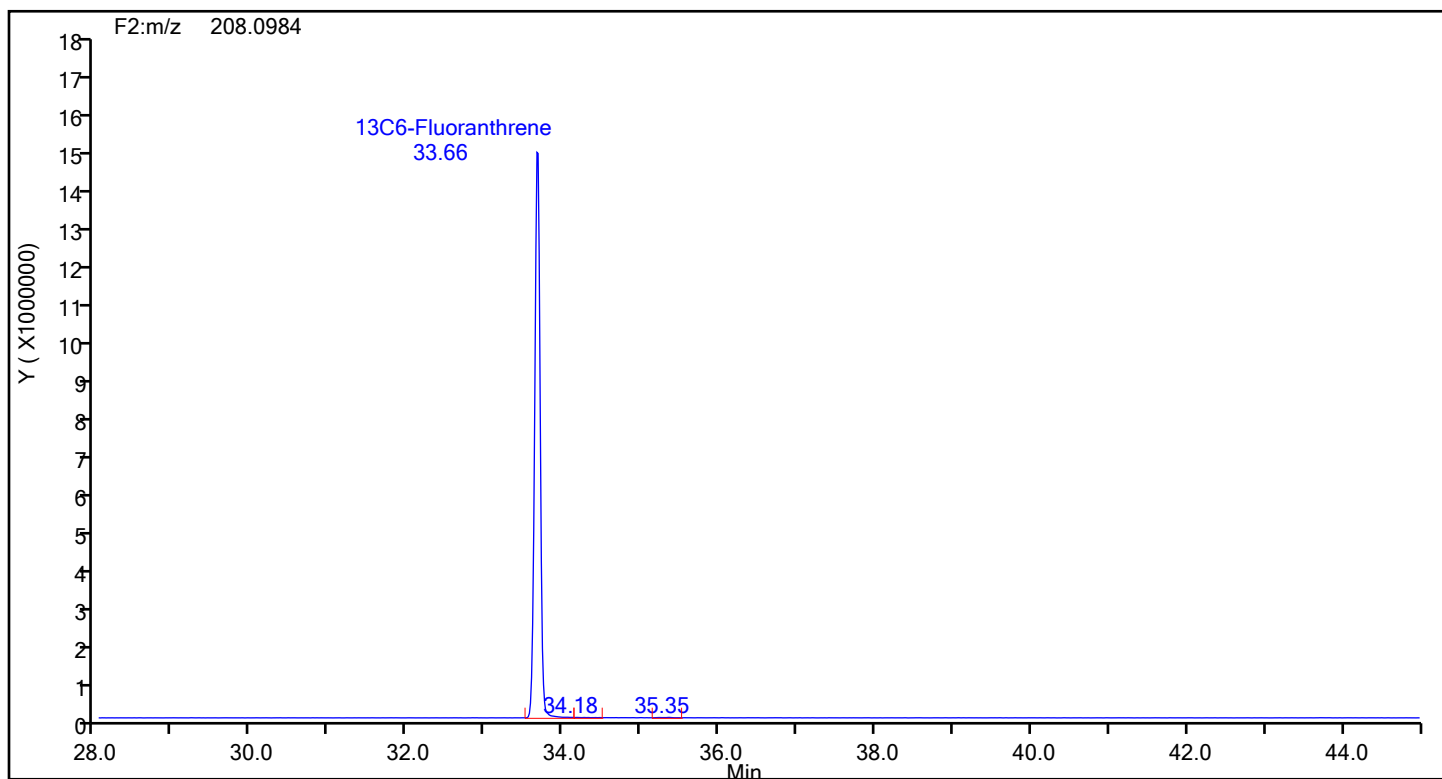


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Fluoranthene



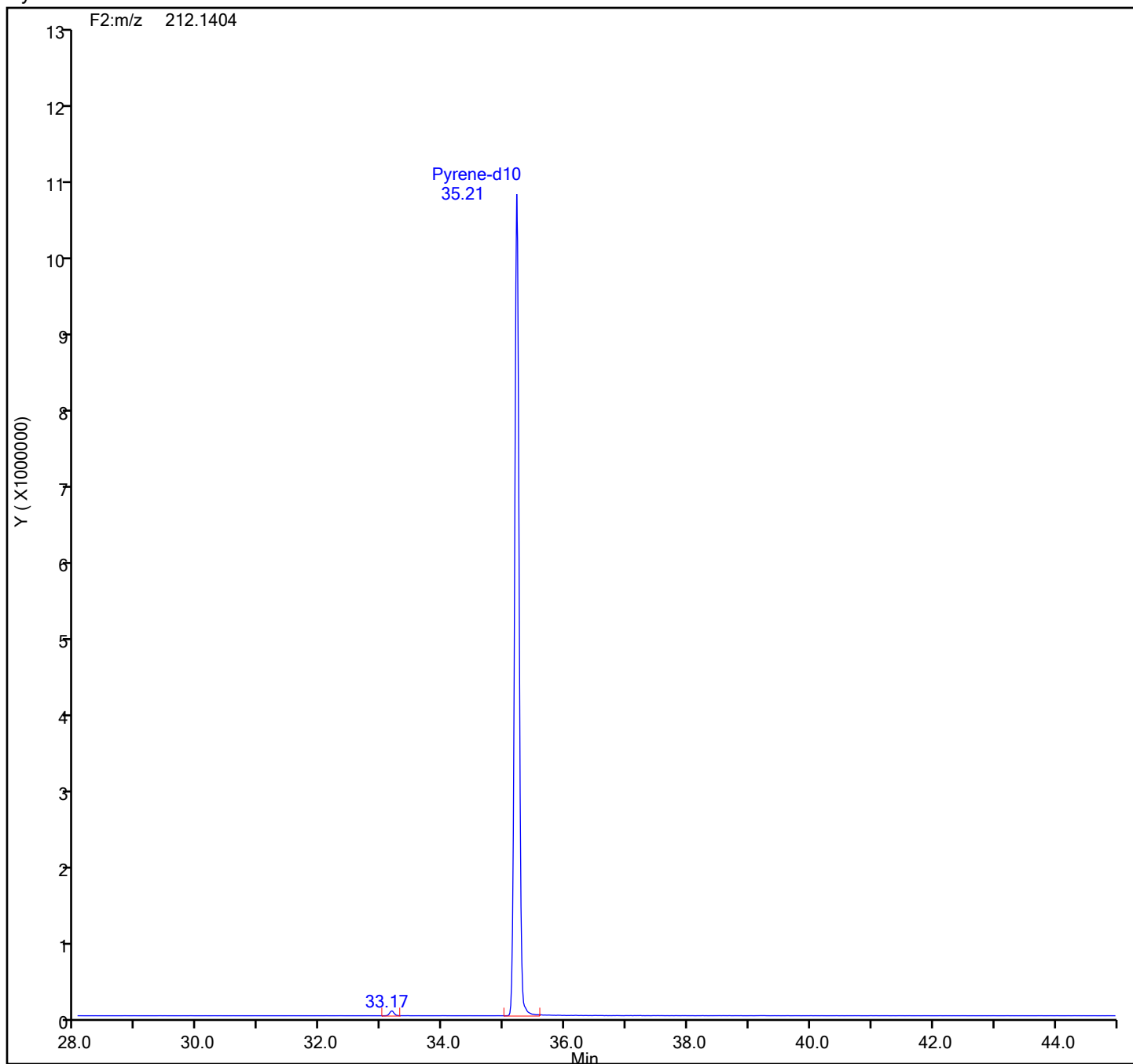
## Fluoranthene Standards



## Eurofins Knoxville

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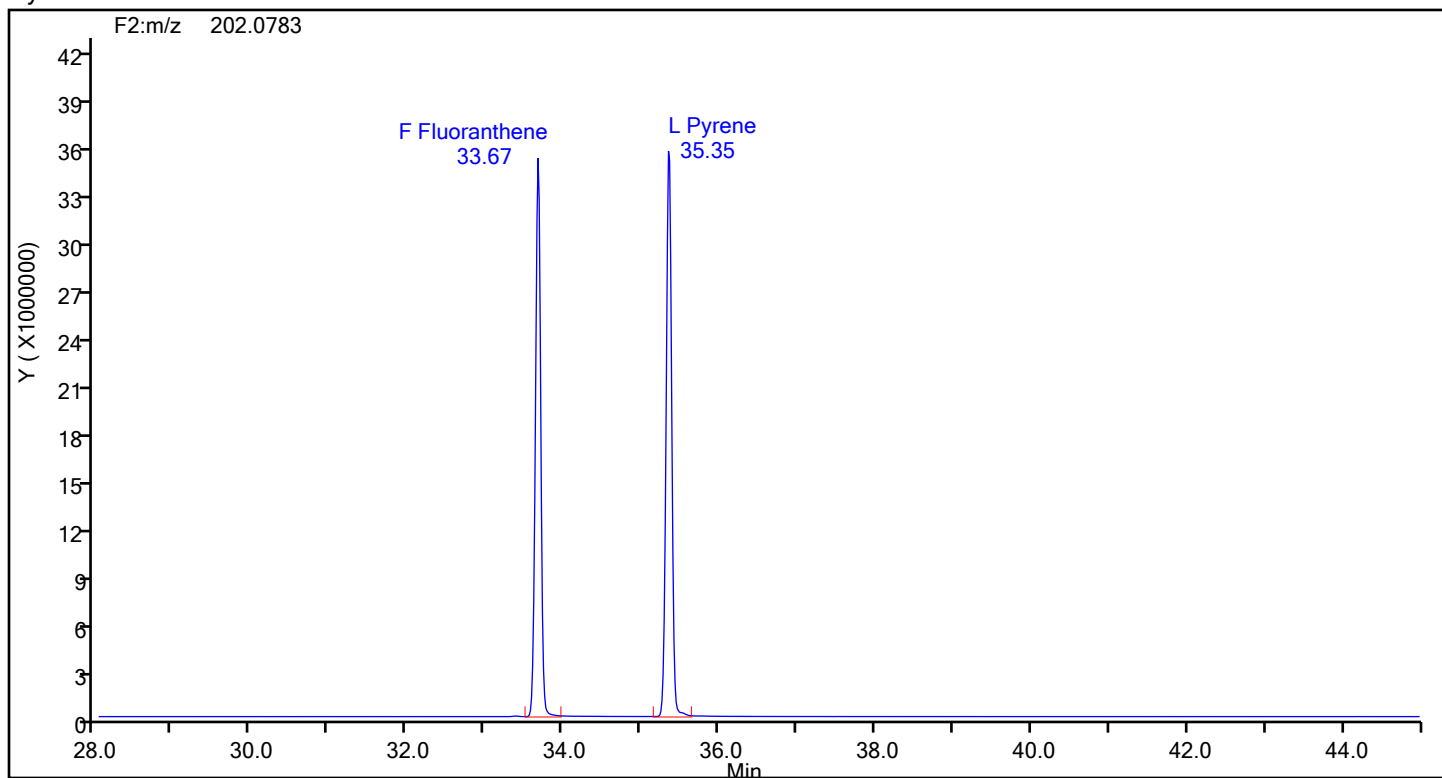
## Pyrene-d10 Standards



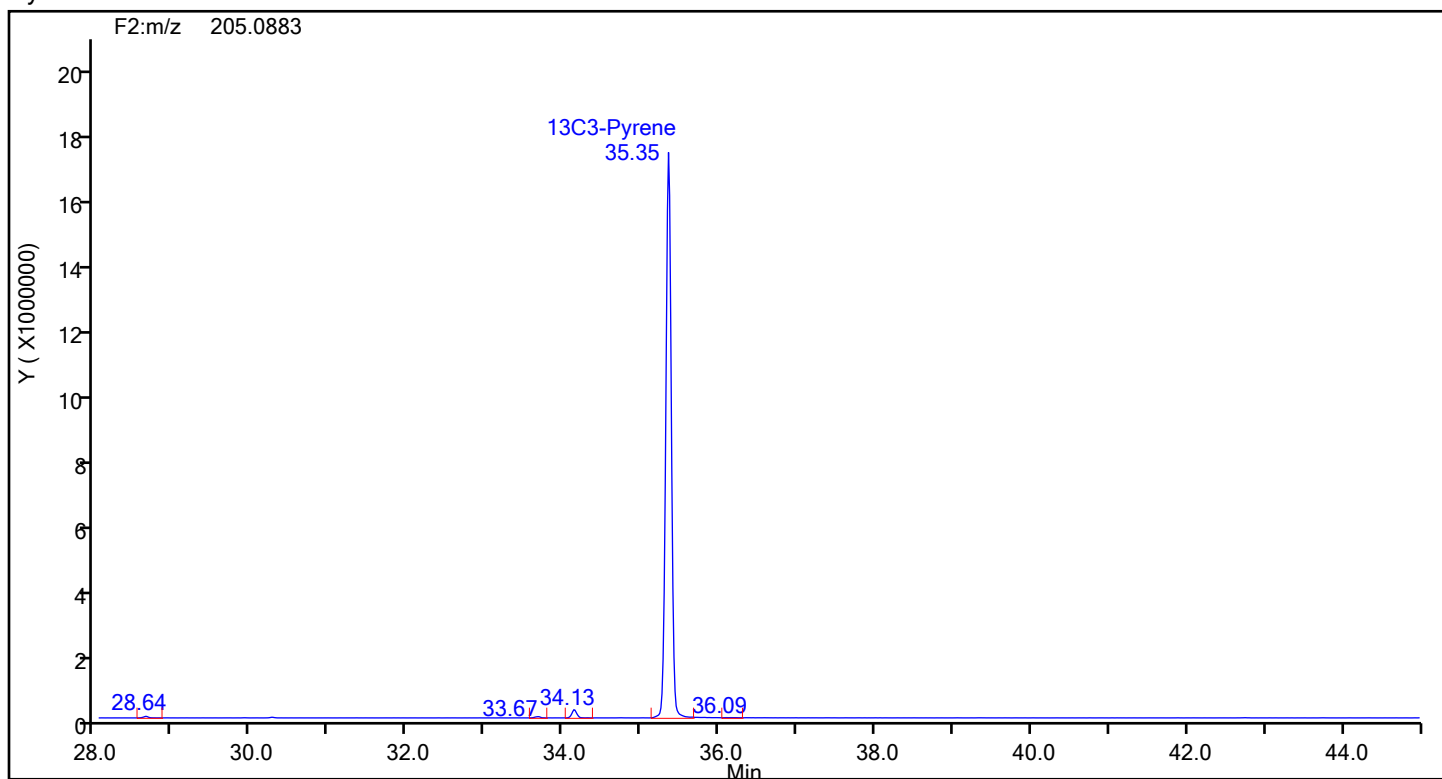
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## Pyrene



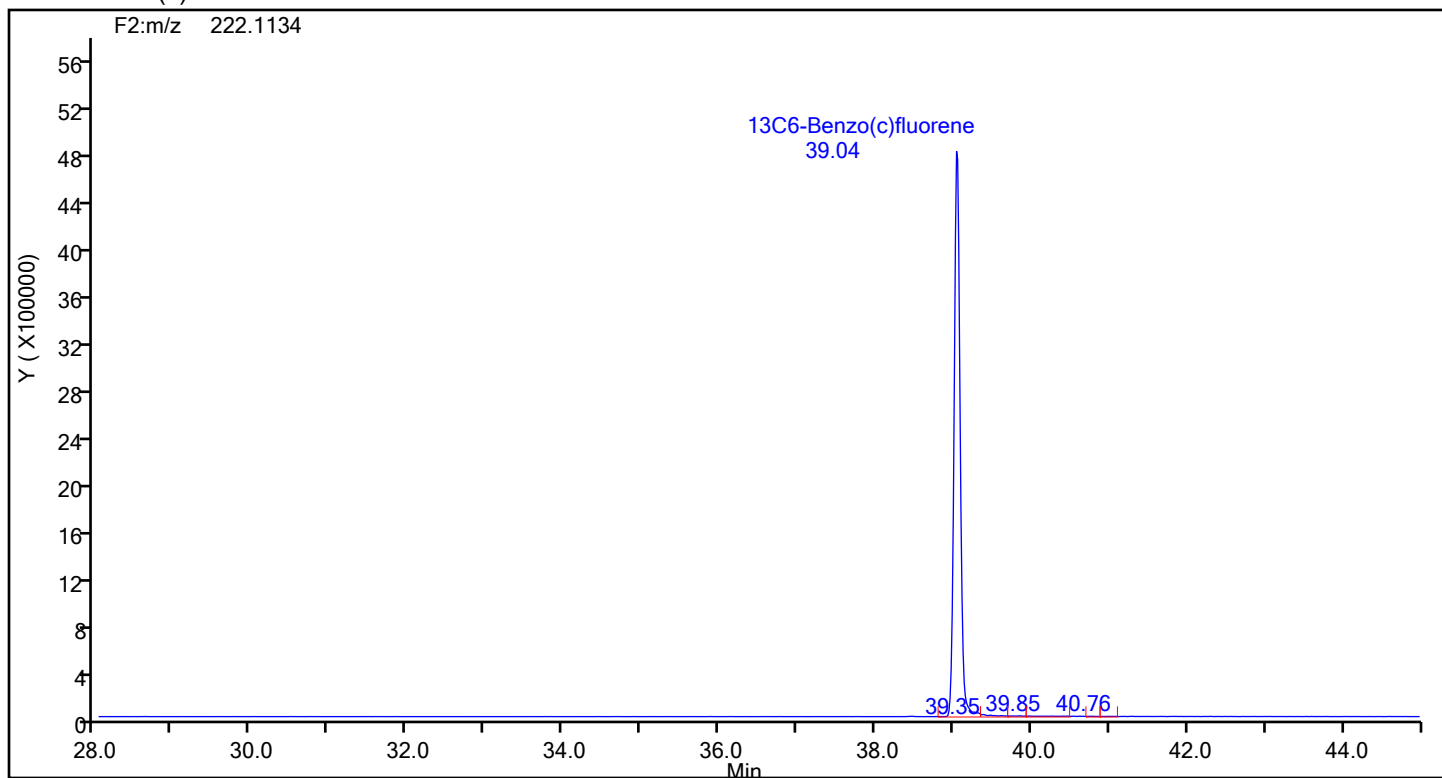
## Pyrene Standards



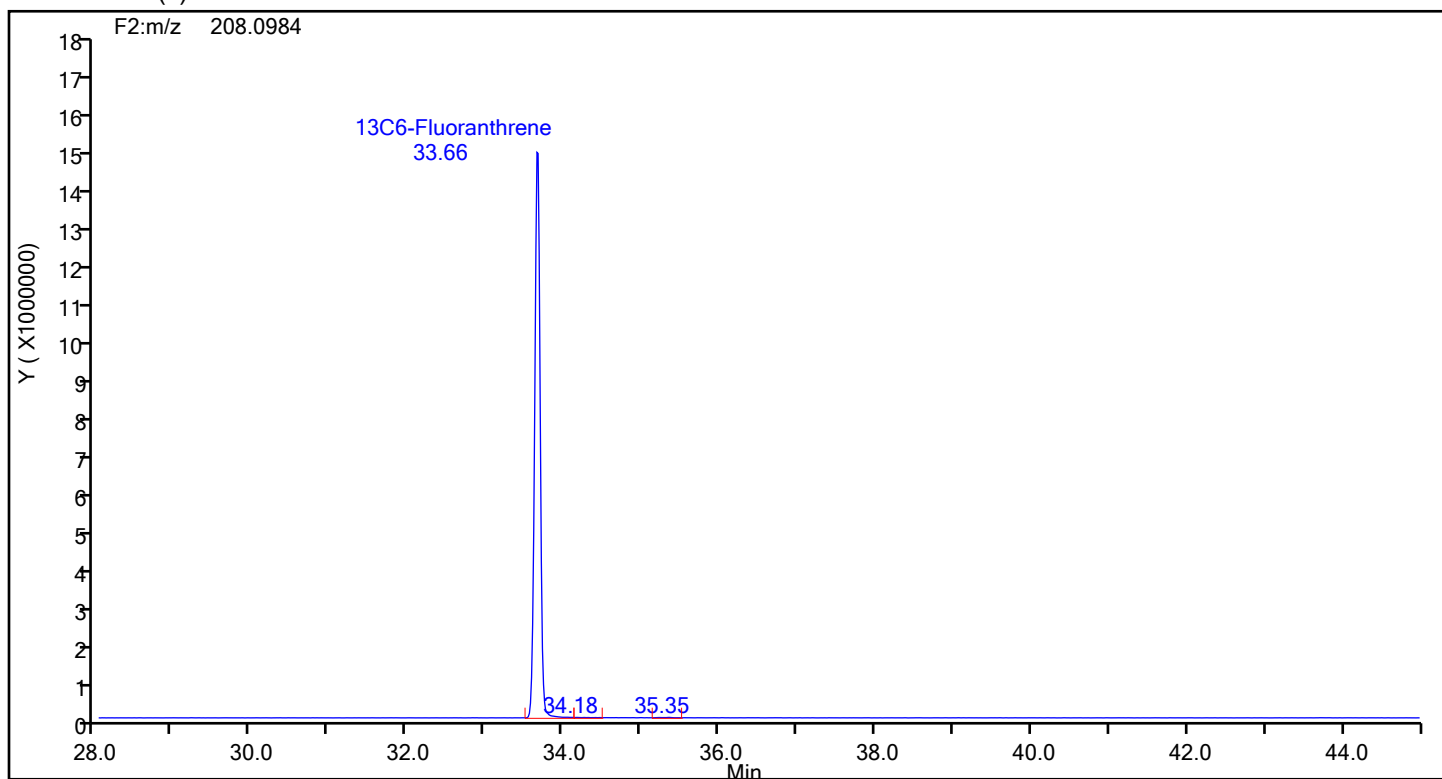
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C6-Benzo(c)fluorene



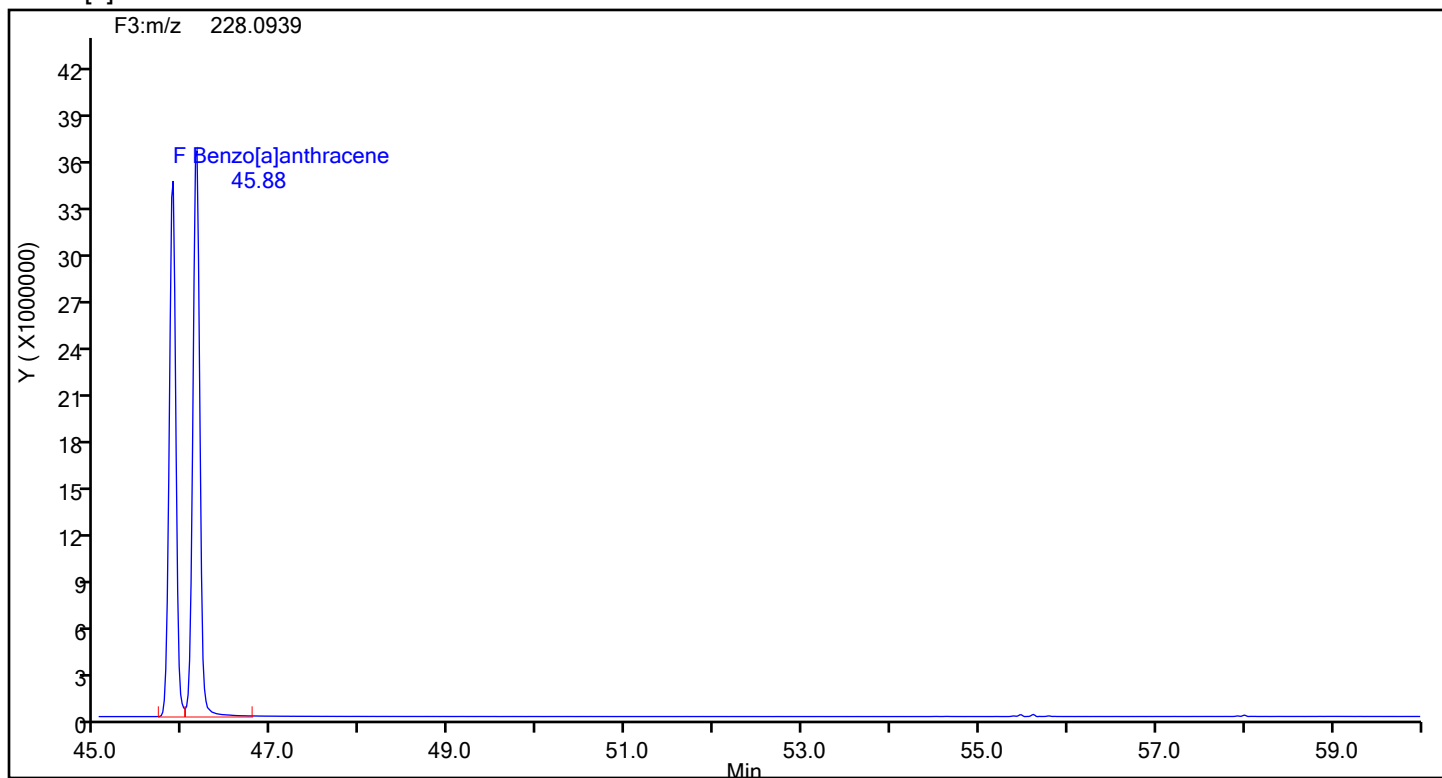
## 13C6-Benzo(c)fluorene Standards



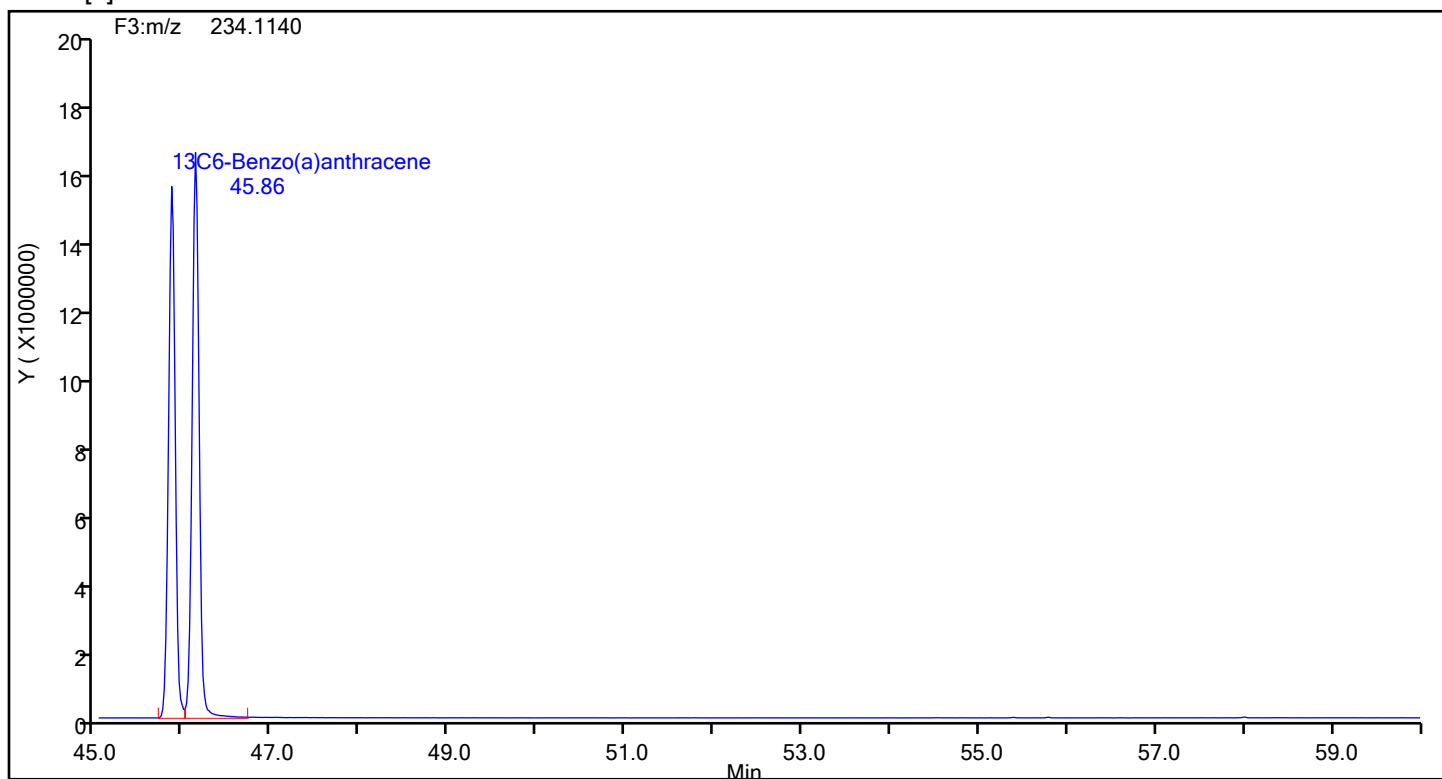
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## Benzo[a]anthracene



## Benzo[a]anthracene Standards

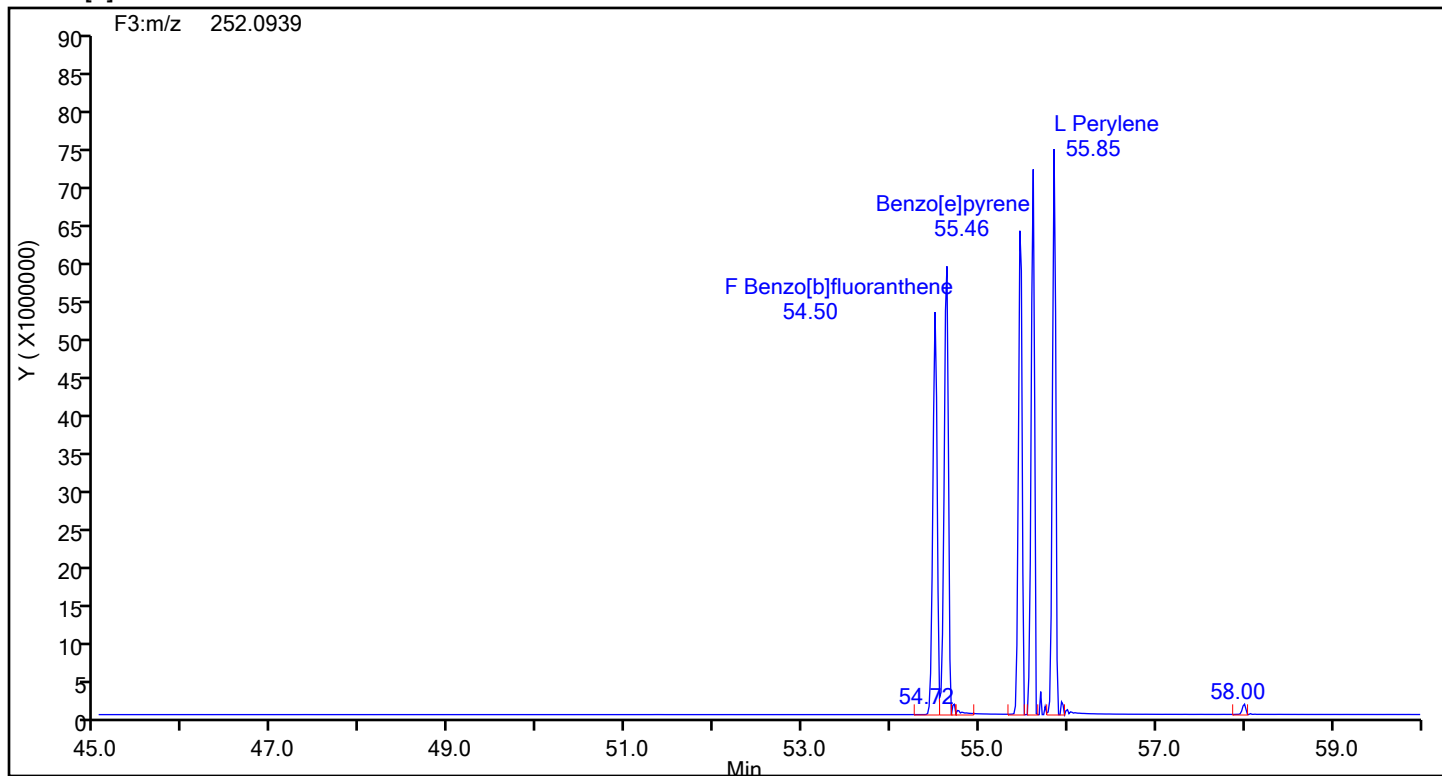




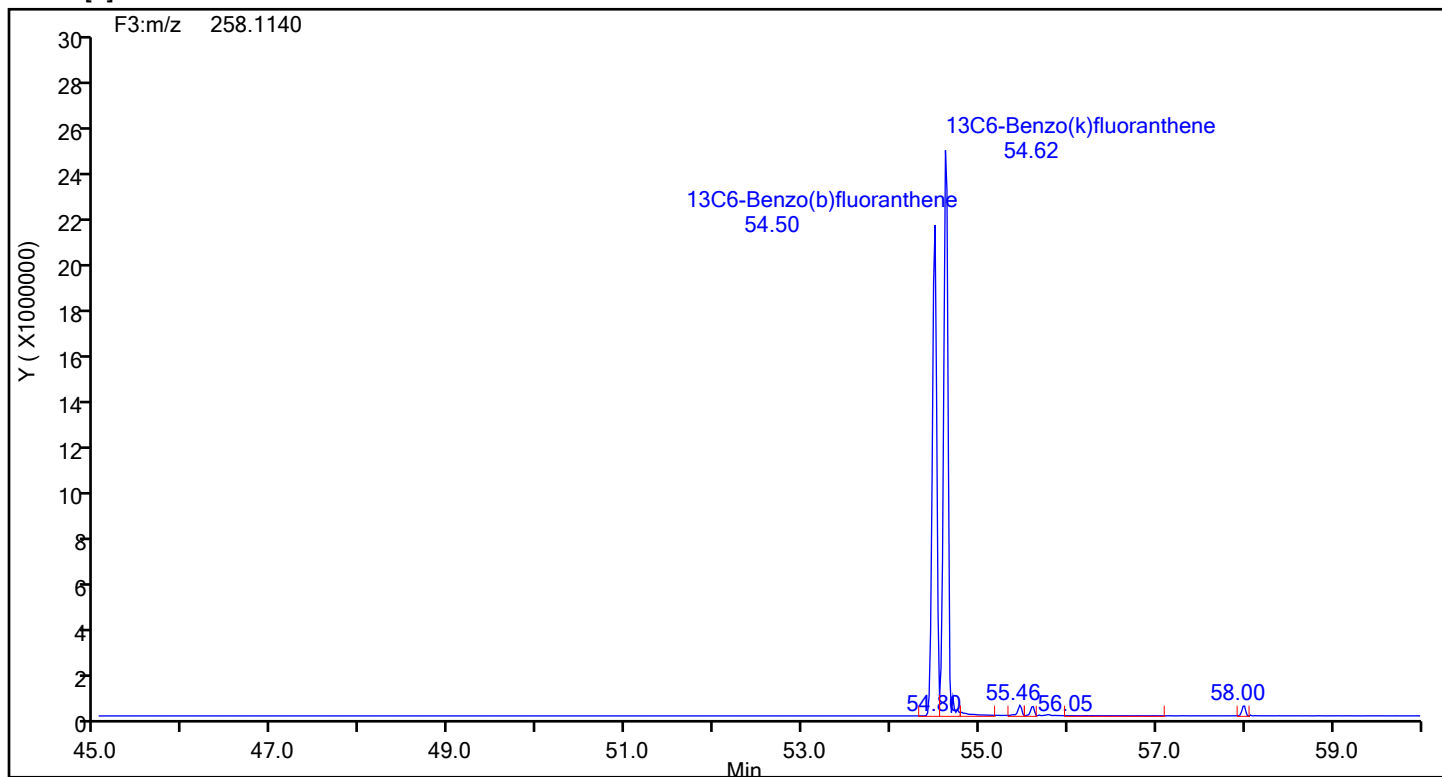
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



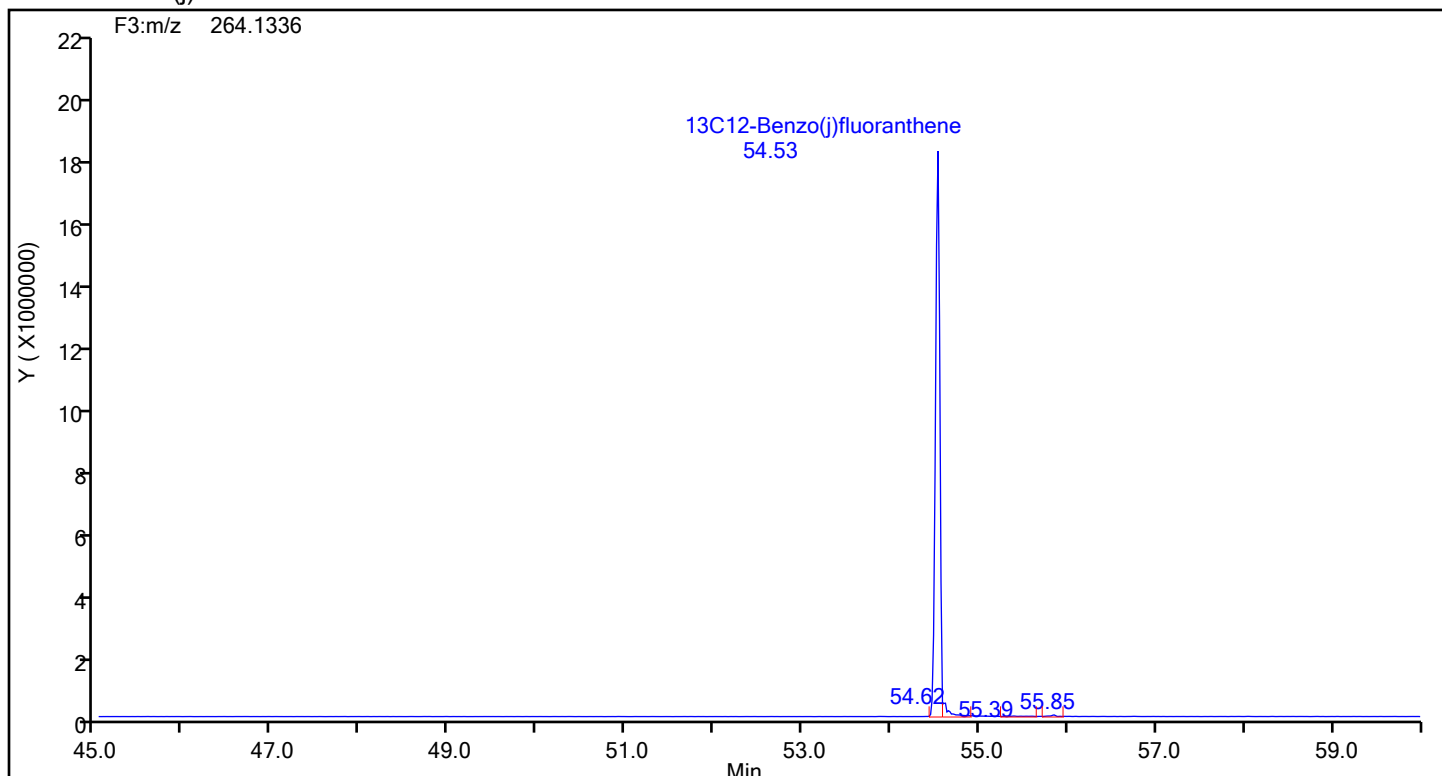
## Benzo[b]fluoranthene Standards



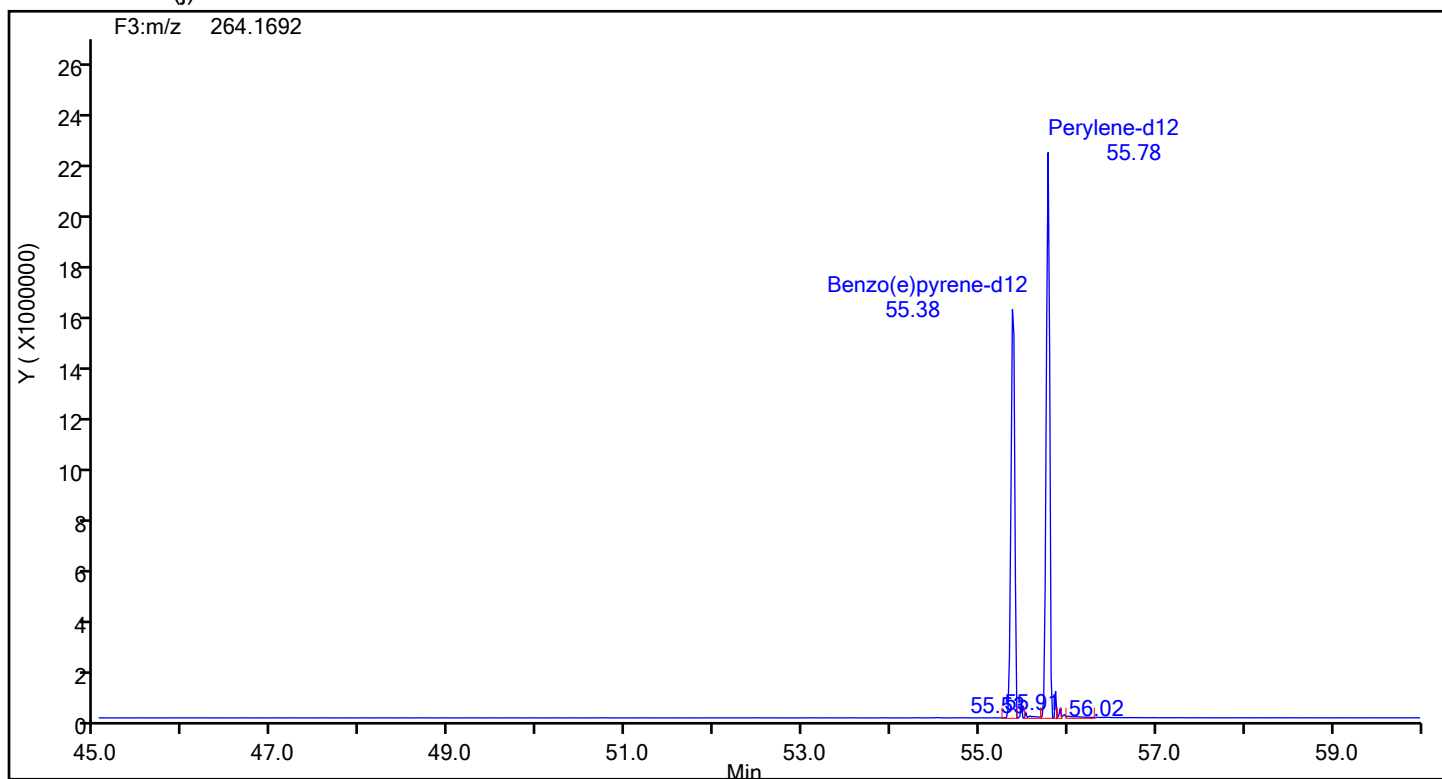
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## 13C12-Benzo(j)fluoranthene



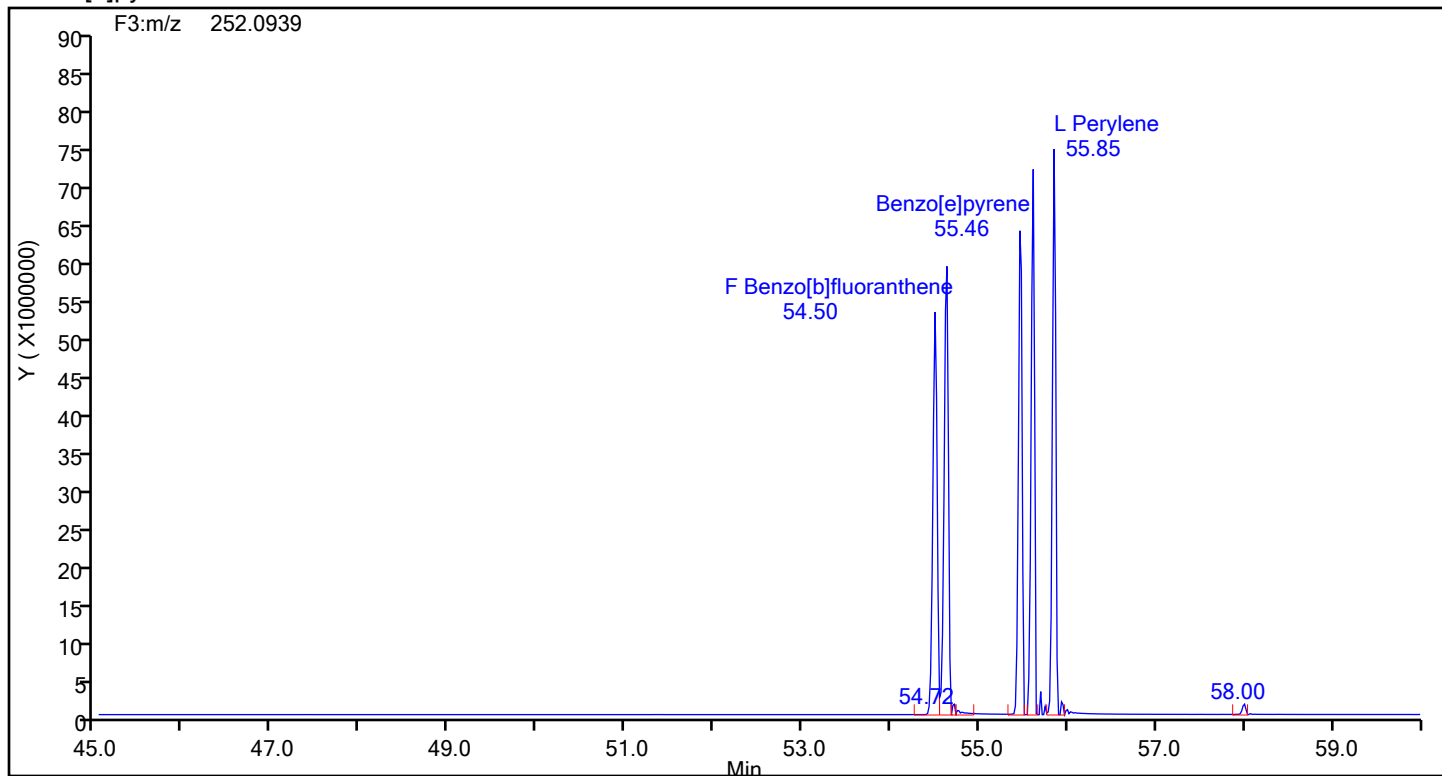
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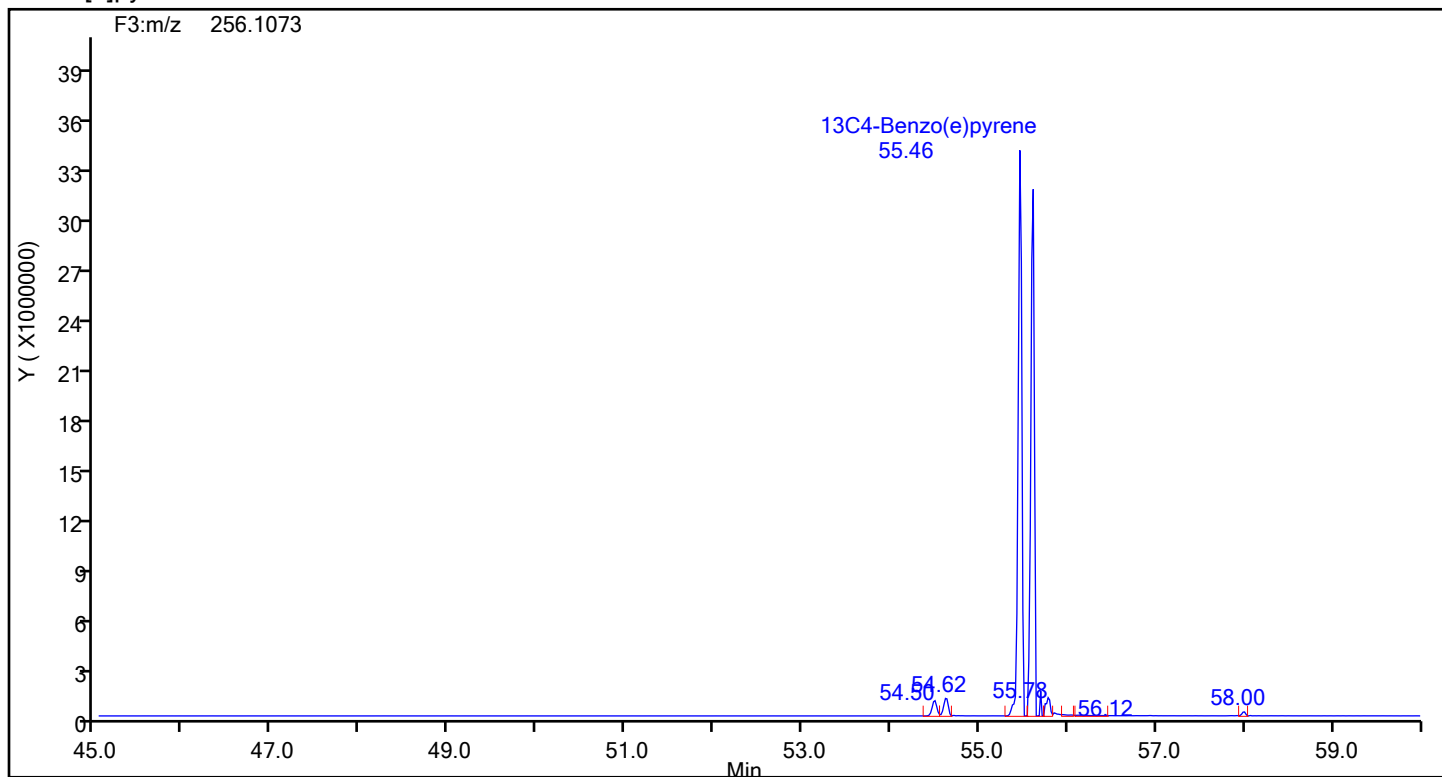
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## Benzo[e]pyrene



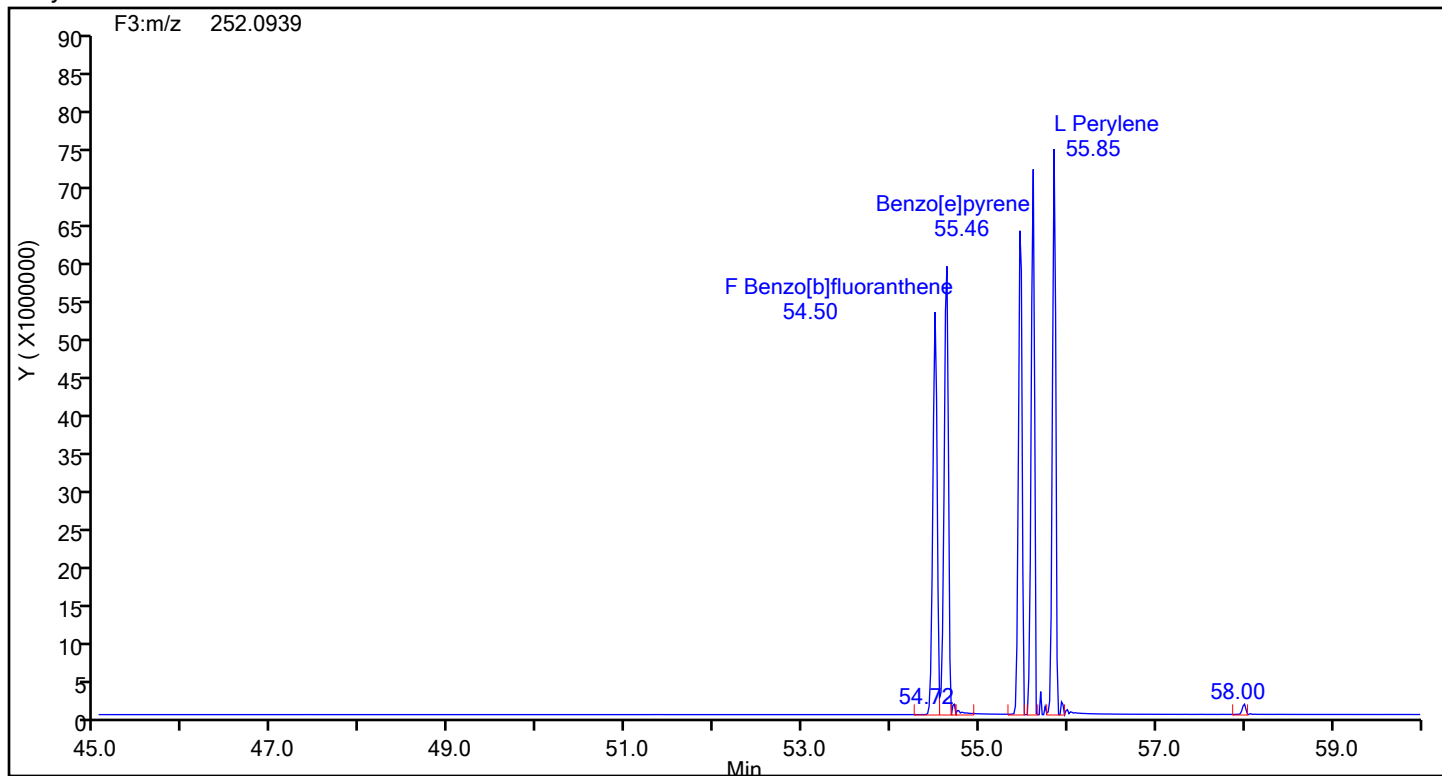
## Benzo[e]pyrene Standards



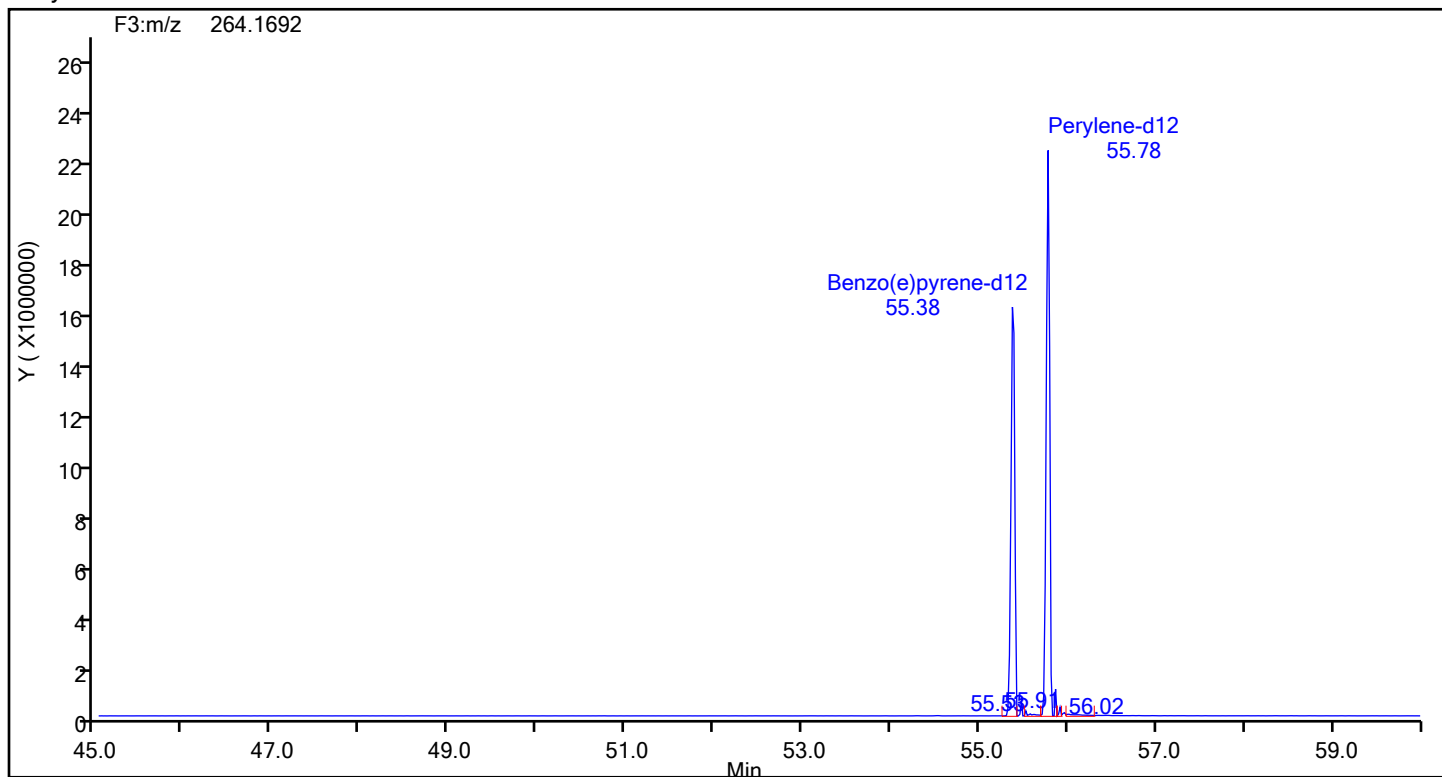
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Perylene



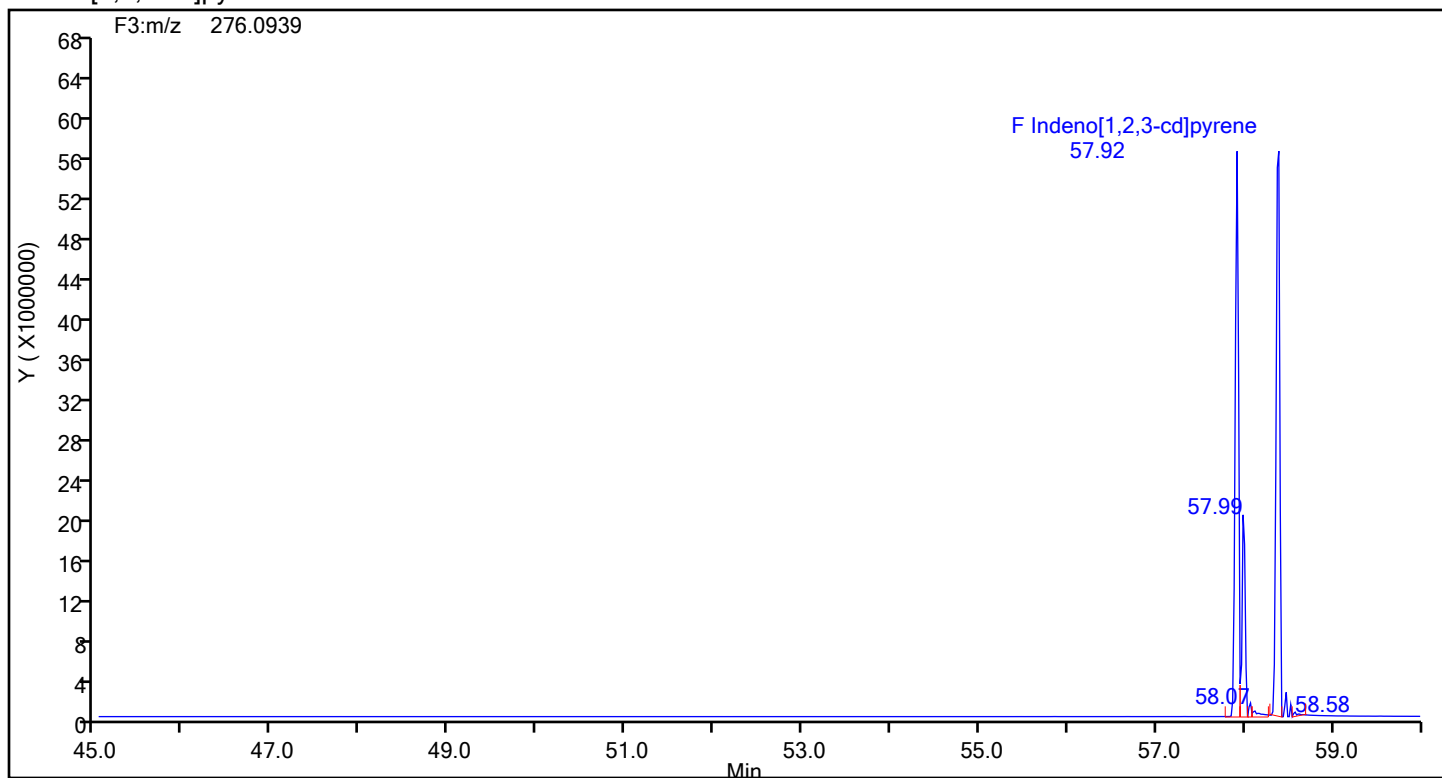
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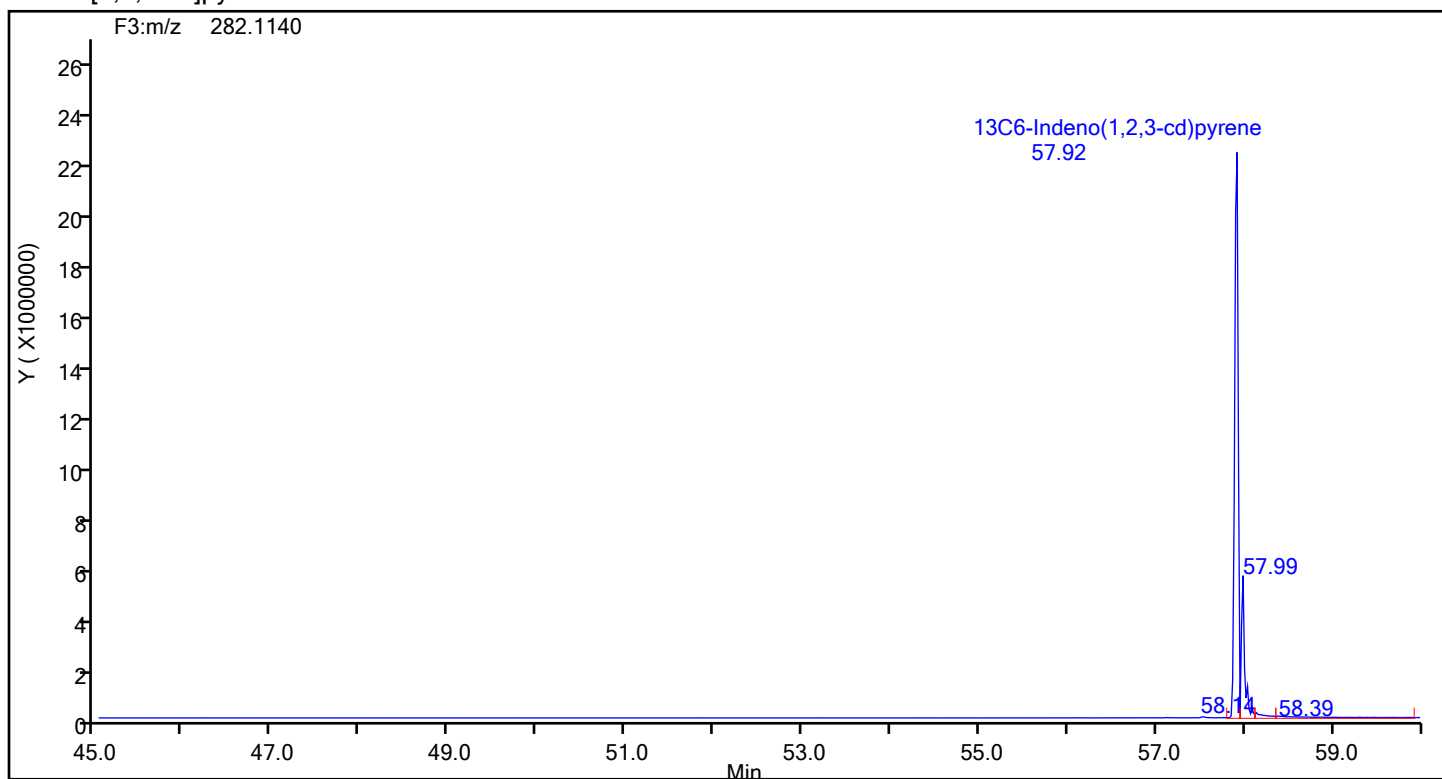
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## Indeno[1,2,3-cd]pyrene

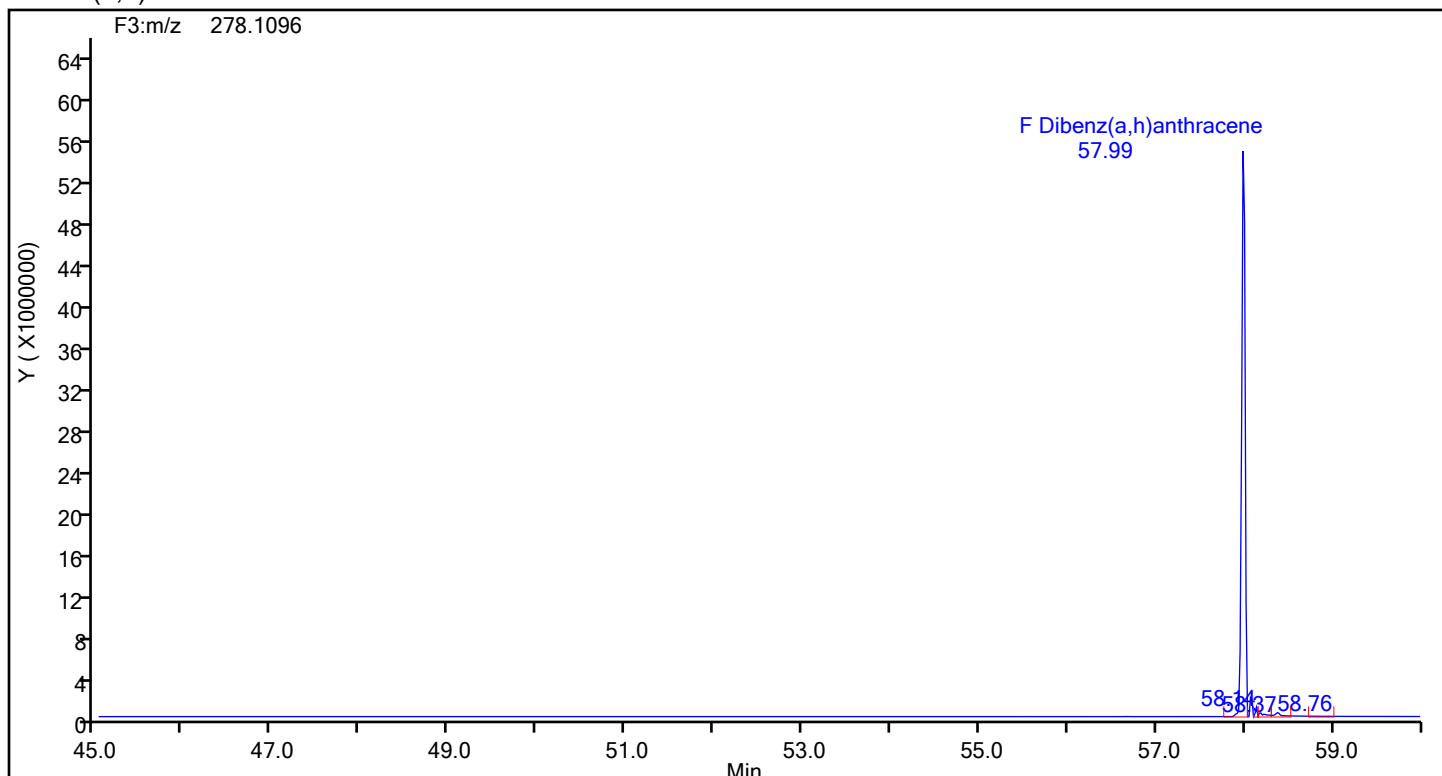


## Indeno[1,2,3-cd]pyrene Standards

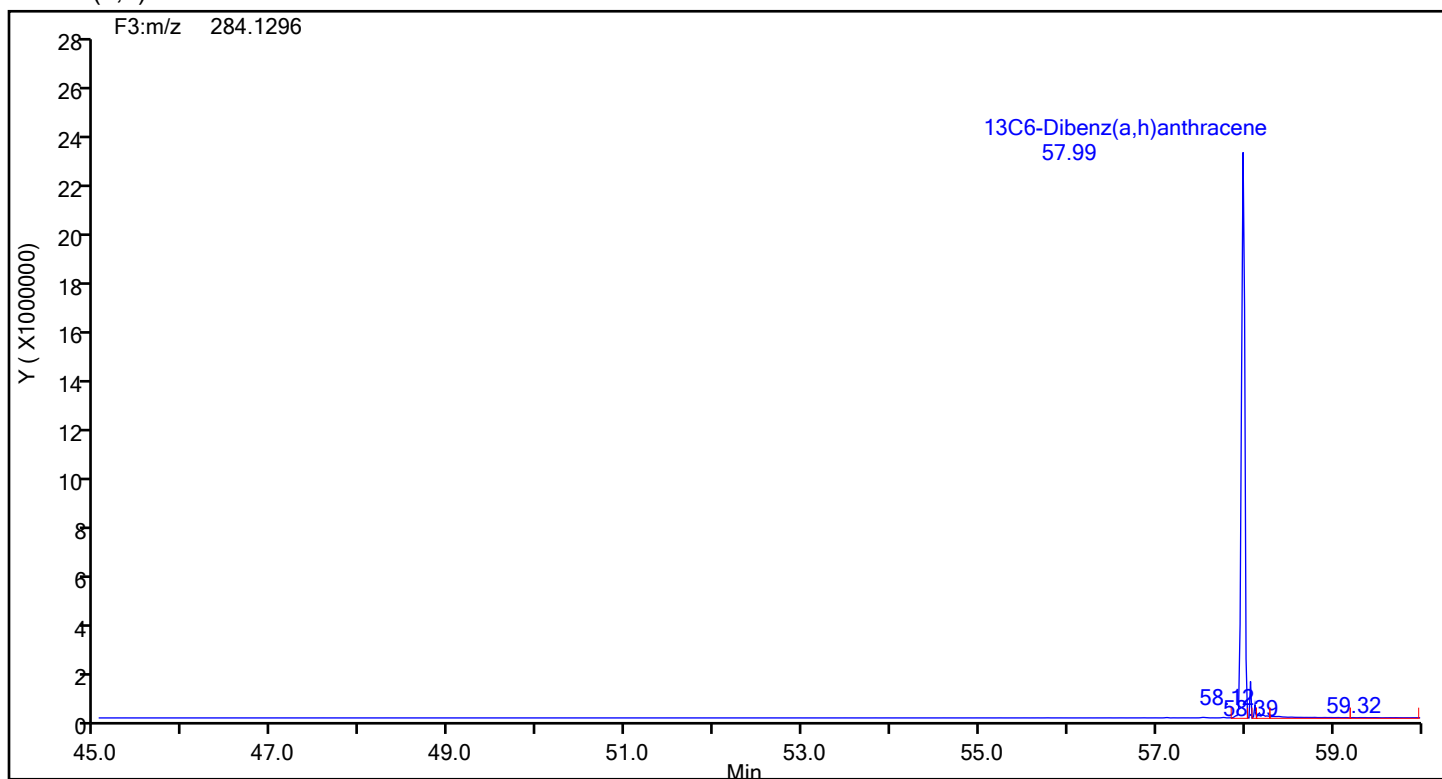


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\d3240718c1a.d  
Injection Date: 18-Jul-2024 10:51:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Dibenz(a,h)anthracene



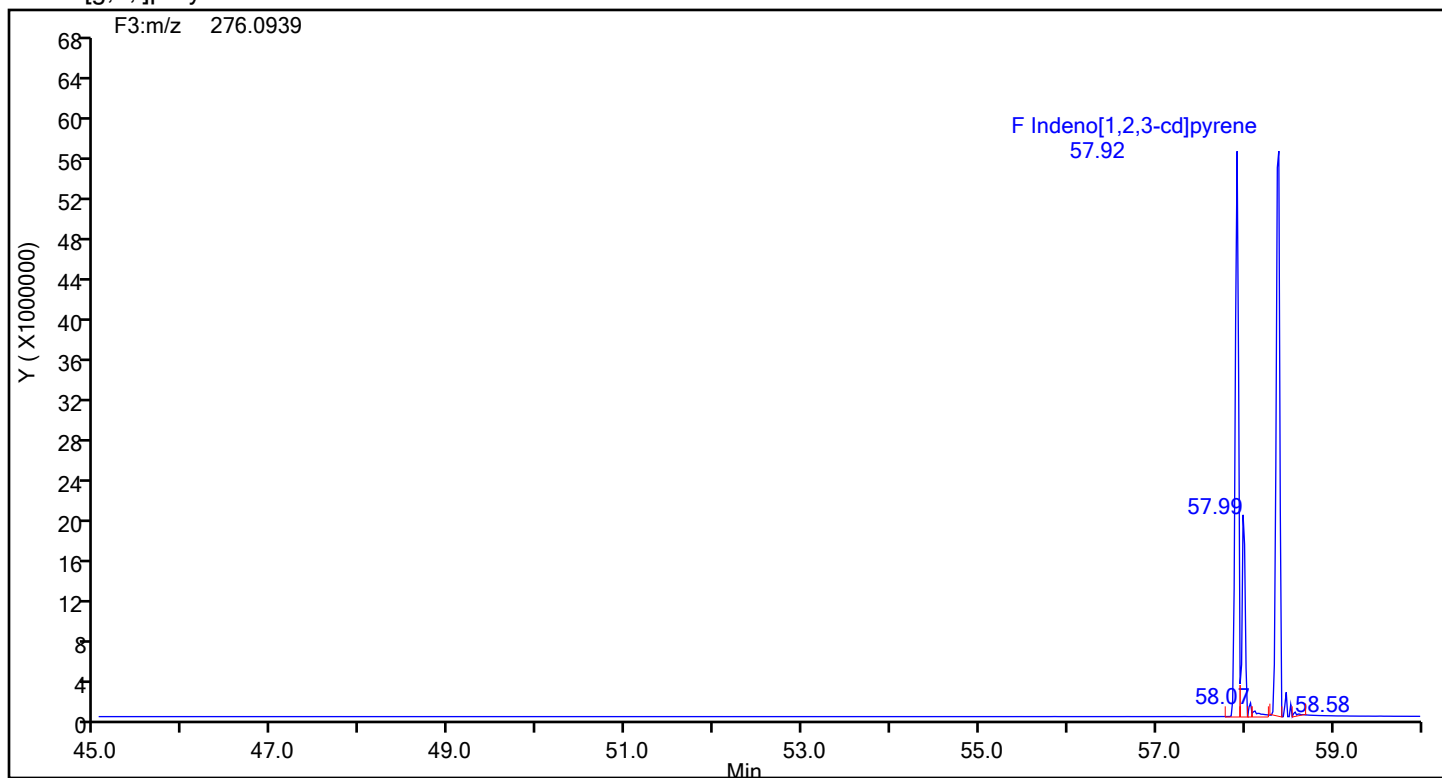
## Dibenzo(a,h)anthracene Standards



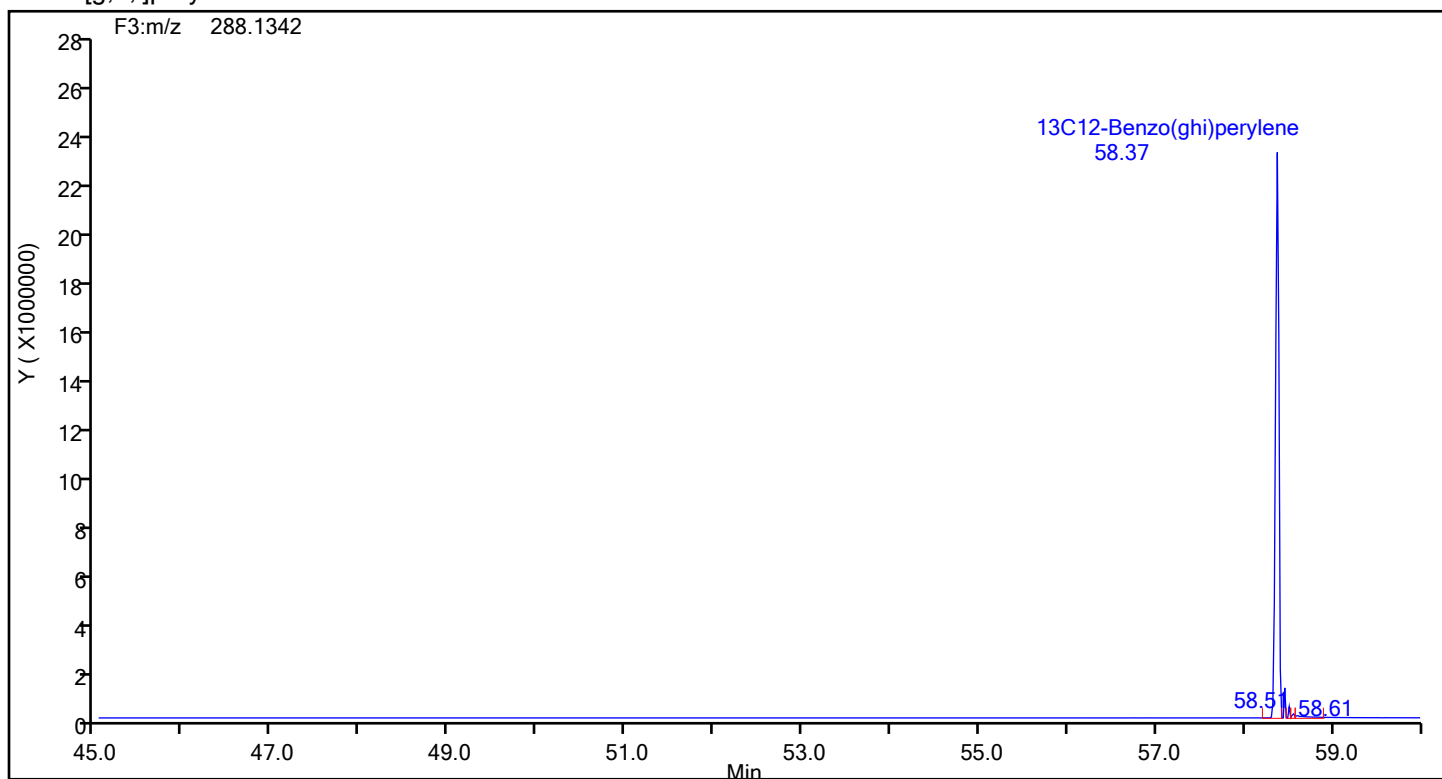
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\d3240718c1a.d  
Injection Date: 18-Jul-2024 10:51:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[g,h,i]perylene



## Benzo[g,h,i]perylene Standards



FORM VII  
HI-RES PAHS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCV 140-88945/1 Calibration Date: 07/18/2024 21:47

Instrument ID: D3PAH Calib Start Date: 06/19/2024 16:34

GC Column: Rxi-5SilMS 25 ID: 0.25 (mm) Calib End Date: 06/20/2024 01:09

Lab File ID: d3240718c2a\_20240718214503.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	AveID	1.289	1.201		186	200	-6.9	25.0
2-Methylnaphthalene	AveID	1.279	1.258		197	200	-1.6	25.0
Acenaphthylene	AveID	2.366	2.187		185	200	-7.6	25.0
Acenaphthene	AveID	1.270	1.211		191	200	-4.6	25.0
Fluorene	AveID	1.253	1.260		201	200	0.5	25.0
Phenanthrene	AveID	1.104	1.131		205	200	2.4	25.0
Anthracene	AveID	1.359	1.401		206	200	3.1	25.0
Fluoranthene	AveID	1.151	1.155		201	200	0.3	25.0
Pyrene	AveID	1.065	1.061		199	200	-0.4	25.0
Benzo[a]anthracene	AveID	0.9739	1.054		217	200	8.3	25.0
Chrysene	AveID	0.9815	1.070		218	200	9.0	25.0
Benzo[b]fluoranthene	AveID	1.125	1.121		199	200	-0.3	25.0
Benzo[k]fluoranthene	AveID	1.127	1.090		193	200	-3.3	25.0
Benzo[e]pyrene	AveID	1.001	0.9876		197	200	-1.4	25.0
Benzo[a]pyrene	AveID	1.113	1.065		191	200	-4.3	25.0
Perylene	AveID	1.431	1.563		219	200	9.2	25.0
Indeno[1,2,3-cd]pyrene	AveID	1.125	1.170		208	200	4.0	25.0
Dibenz(a,h)anthracene	AveID	1.131	1.190		210	200	5.2	25.0
Benzo[g,h,i]perylene	AveID	1.284	1.275		199	200	-0.6	25.0
13C6-Naphthalene	Ave	3.375	2.880		85.3	100	-14.7	30.0
13C6-2-Methylnaphthalene	Ave	1.603	1.400		87.3	100	-12.7	30.0
13C6-Acenaphthylene	Ave	1.652	1.650		99.9	100	-0.1	30.0
13C6-Acenaphthene	Ave	0.9792	1.017		104	100	3.9	30.0
13C6-Fluorene	Ave	0.8898	0.998		112	100	12.1	30.0
13C6-Phenanthrene	Ave	0.5724	0.5299		92.6	100	-7.4	30.0
13C6-Anthracene	Ave	0.4523	0.4107		90.8	100	-9.2	30.0
13C6-Fluoranthrene	Ave	1.199	1.294		108	100	7.9	30.0
13C3-Pyrene	Ave	1.351	1.471		109	100	8.9	30.0
13C6-Benzo(a)anthracene	Ave	1.519	1.205		79.3	100	-20.7	30.0
13C6-Chrysene	Ave	1.629	1.307		80.3	100	-19.8	30.0
13C6-Benzo(b)fluoranthene	Ave	1.462	1.419		97.0	100	-3.0	30.0
13C6-Benzo(k)fluoranthene	Ave	1.751	1.639		93.6	100	-6.4	30.0
13C4-Benzo(e)pyrene	Ave	1.637	1.814		111	100	10.8	30.0
13C4-Benzo(a)pyrene	Ave	1.551	1.615		104	100	4.1	30.0
Perylene-d12	Ave	1.192	1.200		101	100	0.7	30.0
13C6-Indeno(1,2,3-cd)pyrene	Ave	1.022	1.208		118	100	18.2	30.0
13C6-Dibenz(a,h)anthracene	Ave	1.055	1.190		113	100	12.7	30.0
13C12-Benzo(ghi)perylene	Ave	1.275	1.224		96.0	100	-4.0	30.0



# Resolution Check Report ( DFS SN: 3439 )

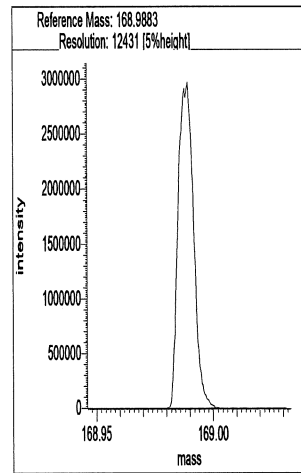
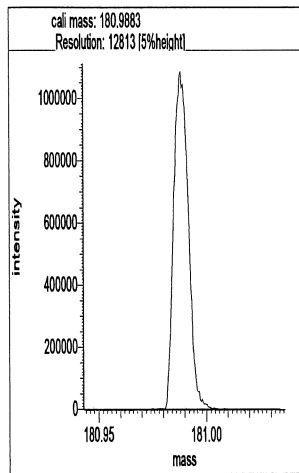
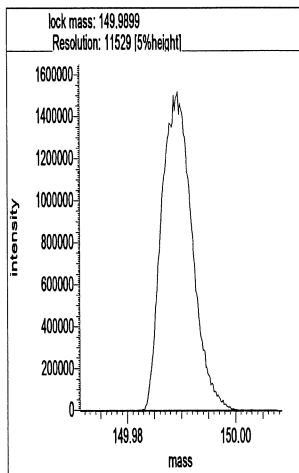
Date: 18 Jul 2024 21:24  
MID Experiment: ResCheck\_HRPAH  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43\_HRPAH.lua  
Status: RESOLUTION PASSED

## Segment 1

Lock mass 149.9899 [m/z] Resolution: 11529 [5%height]

Cali. mass 180.9883 [m/z] Resolution: 12813 [5%height]

Ref. mass 168.9883 [m/z] Resolution: 12431 [5%height]



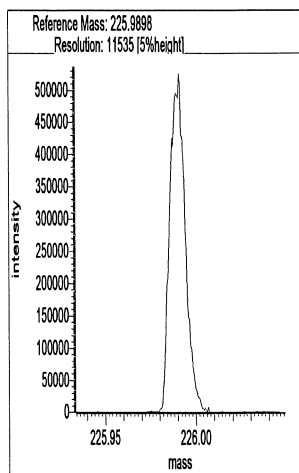
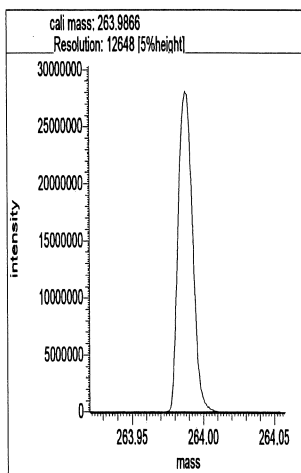
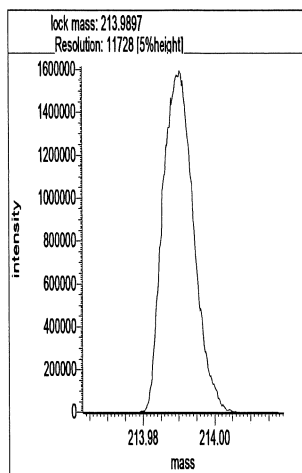
## Segment 2

Lock mass 213.9897 [m/z] Resolution: 11728 [5%height]

Cali. mass 263.9866 [m/z] Resolution: 12648 [5%height]

Ref. mass 225.9898 [m/z] Resolution: 11535 [5%height]

d3240718r3

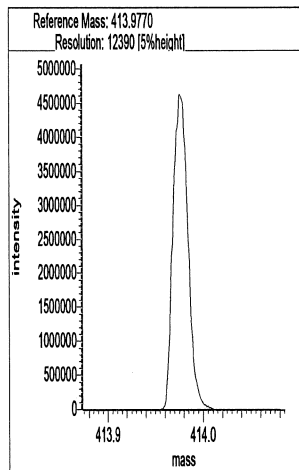
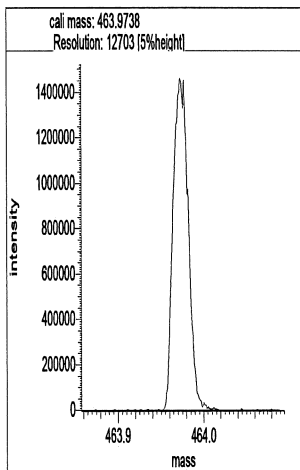
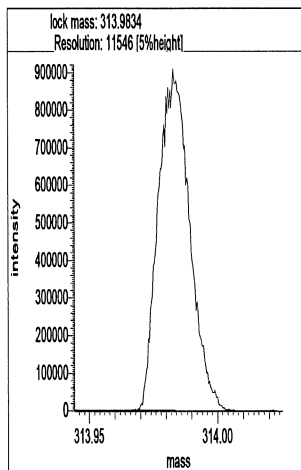


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 11546 [5%height]

Cali. mass 463.9738 [m/z] Resolution: 12703 [5%height]

Ref. mass 413.9770 [m/z] Resolution: 12390 [5%height]



## Reports

21:30:57: Peak matching procedure started  
21:30:57:  
21:30:58: Reference mass: 263.98656  
21:30:58: Sample mass: 414.0  
21:30:59:  
21:30:59: Finding reference mass  
21:31:00: Finding sample mass  
21:31:01:  
21:31:06: [1] 413.9755 amu, mean: 413.9755 SD: 0.16 mmu or: 0.38 ppm  
21:31:09: [2] 413.9753 amu, mean: 413.9754 SD: 0.16 mmu or: 0.38 ppm  
21:31:12: [3] 413.9752 amu, mean: 413.9754 SD: 0.13 mmu or: 0.32 ppm  
21:31:16: [4] 413.9753 amu, mean: 413.9754 SD: 0.11 mmu or: 0.27 ppm  
21:31:19: [5] 413.9754 amu, mean: 413.9754 SD: 0.27 mmu or: 0.64 ppm  
21:31:22: [6] 413.9760 amu, mean: 413.9755 SD: 0.26 mmu or: 0.64 ppm  
21:31:25: [7] 413.9757 amu, mean: 413.9755 SD: 0.30 mmu or: 0.73 ppm  
21:31:29: [8] 413.9760 amu, mean: 413.9756 SD: 0.33 mmu or: 0.80 ppm  
21:31:31: [9] 413.9761 amu, mean: 413.9756 SD: 0.33 mmu or: 0.79 ppm  
21:31:35: [10] 413.9759 amu, mean: 413.9756 SD: 0.31 mmu or: 0.76 ppm  
21:31:38: [11] 413.9755 amu, mean: 413.9756  
21:31:39:  
21:31:39: Stop requested. Please wait for procedure to finish.  
21:31:39:  
21:31:41:  
21:31:41: Peakmatching stopped

Signature

*mdp* 7/18/24

# Resolution Check Report ( DFS SN: 3439 )

Date: 19 Jul 2024 09:06  
MID Experiment: ResCheck\_HRPAH  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43\_HRPAH.lua  
Status: RESOLUTION PASSED

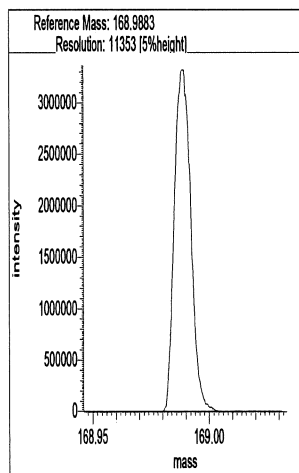
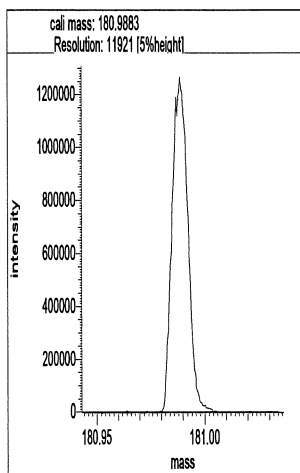
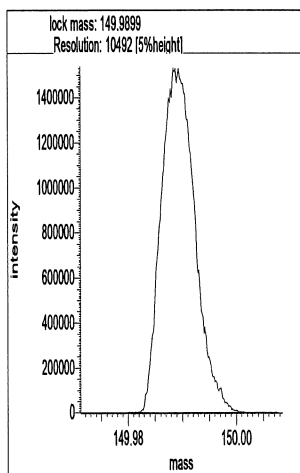
- d3240719r1

## Segment 1

Lock mass 149.9899 [m/z] Resolution: 10492 [5%height]

Cali. mass 180.9883 [m/z] Resolution: 11921 [5%height]

Ref. mass 168.9883 [m/z] Resolution: 11353 [5%height]

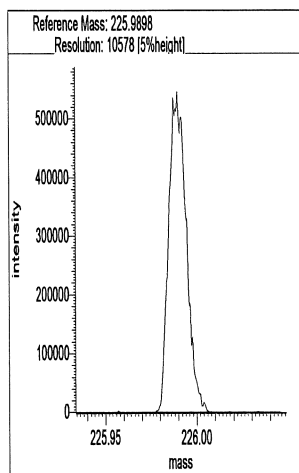
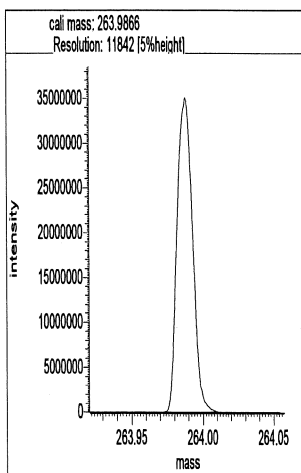
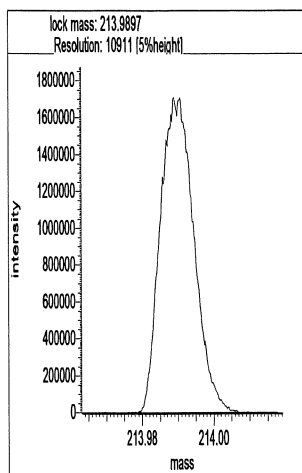


## Segment 2

Lock mass 213.9897 [m/z] Resolution: 10911 [5%height]

Cali. mass 263.9866 [m/z] Resolution: 11842 [5%height]

Ref. mass 225.9898 [m/z] Resolution: 10578 [5%height]

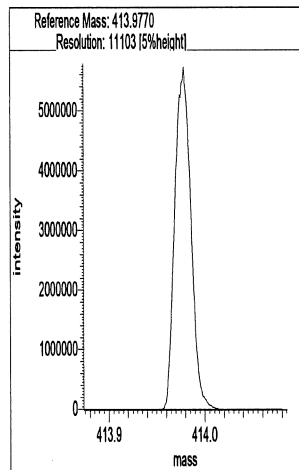
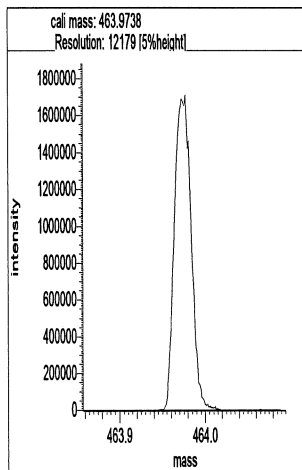
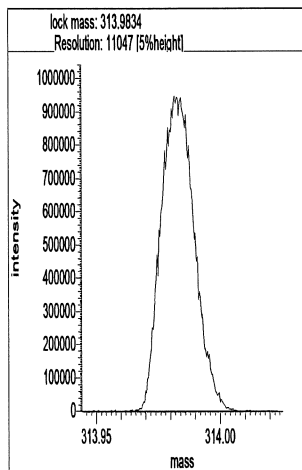


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 11047 [5%height]

Cali. mass 463.9738 [m/z] Resolution: 12179 [5%height]

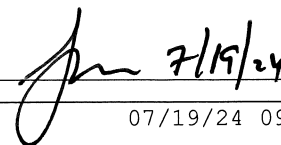
Ref. mass 413.9770 [m/z] Resolution: 11103 [5%height]



## Reports

09:16:35: Peak matching procedure started  
09:16:35:  
09:16:36: Reference mass: 263.98656  
09:16:36: Sample mass: 414.0  
09:16:37:  
09:16:37: Finding reference mass  
09:16:38: Finding sample mass  
09:16:39:  
09:16:44: [1] 413.9744 amu, mean: 413.9744 SD: 0.04 mmu or: 0.09 ppm  
09:16:47: [2] 413.9745 amu, mean: 413.9744 SD: 0.29 mmu or: 0.70 ppm  
09:16:51: [3] 413.9750 amu, mean: 413.9746 SD: 0.34 mmu or: 0.83 ppm  
09:16:54: [4] 413.9751 amu, mean: 413.9747 SD: 0.39 mmu or: 0.94 ppm  
09:16:57: [5] 413.9753 amu, mean: 413.9749 SD: 0.39 mmu or: 0.93 ppm  
09:17:00: [6] 413.9753 amu, mean: 413.9749 SD: 0.41 mmu or: 0.99 ppm  
09:17:03: [7] 413.9755 amu, mean: 413.9750 SD: 0.38 mmu or: 0.92 ppm  
09:17:06: [8] 413.9750 amu, mean: 413.9750 SD: 0.36 mmu or: 0.86 ppm  
09:17:10: [9] 413.9750 amu, mean: 413.9750 SD: 0.38 mmu or: 0.93 ppm  
09:17:13: [10] 413.9744 amu, mean: 413.9749 SD: 0.42 mmu or: 1.01 ppm  
09:17:16: [11] 413.9743 amu, mean: 413.9749  
09:17:16: Stop requested. Please wait for procedure to finish.  
09:17:16:  
09:17:19:  
09:17:19: Peakmatching stopped

Signature

7/19/24

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\d3240718c2a\_20240718214503.d  
Lims ID: CCV  
Client ID:  
Sample Type: CCV  
Inject. Date: 18-Jul-2024 21:47:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033572-001  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 18-Jul-2024 23:16:48 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1654

First Level Reviewer: Q9DB

Date: 18-Jul-2024 23:16:48

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:26	56763043		3.3746	85.3	85.3	0.006547	0.006547	85.34	
Naphthalene	11:26	136318699		1.2893	186.3	186.3	0.0159	0.0159	93.14	
D 13C6-2-Methylnaphthalene	13:48	27589370		1.6031	87.3	87.3	0.000757	0.000757	87.31	
2-Methylnaphthalene	13:48	69418927		1.2786	196.8	196.8	0.006935	0.006935	98.40	
D 13C6-Acenaphthylene	16:38	32530088		1.6520	99.9	99.9	0.001227	0.001227	99.90	
Acenaphthylene	16:39	87710974		2.3661	184.9	184.9	0.009057	0.009057	92.43	
* Acenaphthene-d10	17:13	19711374		3.5E+04	100.0	100.0				
D 13C6-Acenaphthene	17:20	20052106		0.9792	103.9	103.9	0.002990	0.002990	104	
Acenaphthene	17:20	48579133		1.2697	190.8	190.8	0.009533	0.009533	95.40	
D 13C6-Fluorene	19:36	19665005		0.8898	112.1	112.1	0.000754	0.000754	112	
Fluorene	19:36	49548517		1.2532	201.1	201.1	0.009868	0.009868	101	
D 13C6-Phenanthrene	24:57	28447637		0.5724	92.6	92.6	0.003946	0.003946	92.57	
Phenanthrene	24:57	64355337		1.1044	204.8	204.8	0.0127	0.0127	102	
\$ Anthracin-d10	25:10	20303055		0.4257	88.8	88.8	0.000902	0.000902	88.83	
D 13C6-Anthracene	25:17	22050868		0.4523	90.8	90.8	0.004994	0.004994	90.80	
Anthracene	25:17	61769229		1.3586	206.2	206.2	0.0136	0.0136	103	
D 13C6-Fluoranthrene	33:40	69479503		1.1994	107.9	107.9	0.0108	0.0108	108	
Fluoranthrene	33:41	160480234		1.1513	200.6	200.6	0.006419	0.006419	100	
* Pyrene-d10	35:13	53686741		7.9E+04	100.0	100.0				
D 13C3-Pyrene	35:21	78969067		1.3512	108.9	108.9	0.009035	0.009035	109	
Pyrene	35:21	167539318		1.0652	199.2	199.2	0.006419	0.006419	99.59	
\$ 13C6-Benzo(c)fluorene	39:03	27242149		0.5136	98.8	98.8	0.003205	0.003205	98.80	
D 13C6-Benzo(a)anthracene	45:52	64213197		1.5189	79.3	79.3	0.005286	0.005286	79.34	
Benzo[a]anthracene	45:52	135413777		0.9739	216.5	216.5	0.0285	0.0285	108	
D 13C6-Chrysene	46:07	69639510		1.6287	80.2	80.2	0.004929	0.004929	80.25	
Chrysene	46:08	149030267		0.9815	218.0	218.0	0.0267	0.0267	109	
D 13C6-Benzo(b)fluoranthene	54:30	75585318		1.4621	97.0	97.0	0.000781	0.000781	97.03	
Benzo[b]fluoranthene	54:31	169501067		1.1249	199.4	199.4	0.002082	0.002082	99.68	
\$ 13C12-Benzo(j)fluoranthene	54:32	64839468		1.3558	89.8	89.8	0.005174	0.005174	89.75	
D 13C6-Benzo(k)fluoranthene	54:38	87331261		1.7507	93.6	93.6	0.000652	0.000652	93.62	
Benzo[k]fluoranthene	54:38	190312160		1.1271	193.3	193.3	0.001750	0.001750	96.67	
* Benzo(e)pyrene-d12	55:23	53281472		5.7E+04	100.0	100.0				
Benzo[e]pyrene	55:28	190885699		1.0013	197.3	197.3	0.001480	0.001480	98.63	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C4-Benzo(e)pyrene	55:28	96645426		1.6368	110.8	110.8	0.001126	0.001126	111	
D 13C4-Benzo(a)pyrene	55:36	86029741		1.5508	104.1	104.1	0.001188	0.001188	104	
Benzo[a]pyrene	55:37	183208340		1.1130	191.3	191.3	0.001529	0.001529	95.67	
D Perylene-d12	55:48	63923141		1.1917	100.7	100.7	0.005222	0.005222	101	
Perylene	55:52	199797203		1.4307	218.5	218.5	0.001515	0.001515	109	
D 13C6-Indeno(1,2,3-cd)pyrene	57:56	64350241		1.0218	118.2	118.2	0.004730	0.004730	118	
Indeno[1,2,3-cd]pyrene	57:56	150530551		1.1249	207.9	207.9	0.001568	0.001568	104	
D 13C6-Dibenz(a,h)anthracene	58:00	63386595		1.0553	112.7	112.7	0.002987	0.002987	113	
Dibenz(a,h)anthracene	58:00	150873860		1.1314	210.4	210.4	0.001289	0.001289	105	
D 13C12-Benzo(ghi)perylene	58:23	65234050		1.2749	96.0	96.0	0.000465	0.000465	96.03	
Benzo[g,h,i]perylene	58:24	166406444		1.2838	198.7	198.7	0.001290	0.001290	99.35	

## QC Flag Legend

Processing Flags

## Reagents:

61HRPAHCS5a\_00002

Amount Added: 20.00

Units: uL



Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\d3240718c2a\_20240718214503.d  
Lims ID: CCV  
Client ID:  
Sample Type: CCV  
Inject. Date: 18-Jul-2024 21:47:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033572-001  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 18-Jul-2024 23:16:48 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1654

First Level Reviewer: Q9DB

Date: 18-Jul-2024 23:16:48

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:26	11:26	0	0.664	56763043	19913965	619	1547	32171		
Naphthalene											
128.0626	11:26	11:26	0	1.000	136318699	48775320	1635	4087	29832		
13C6-2-Methylnaphthalene											
148.0984	13:48	13:48	0	0.802	27589370	13443565	34	85	395399		
2-Methylnaphthalene											
142.0783	13:48	13:48	0	1.000	69418927	34958264	477	1192	73288		
13C6-Acenaphthylene											
158.0828	16:38	16:38	0	0.967	32530088	12093676	57	142	212170		
Acenaphthylene											
152.0626	16:39	16:39	0	1.000	87710974	32825066	614	1535	53461		
Acenaphthene-d10											
164.1404	17:13	17:13	0		19711374	7002480	23	57	304456		
13C6-Acenaphthene											
160.0984	17:20	17:20	0	1.007	20052106	7162882	82	205	87352		E
Acenaphthene											
154.0783	17:20	17:20	0	1.000	48579133	17841997	347	867	51418		
13C6-Fluorene											
172.0984	19:36	19:36	0	1.139	19665005	5919364	19	47	311546		E
Fluorene											
166.0783	19:36	19:36	0	1.000	49548517	15610746	293	732	53279		
13C6-Phenanthrene											
184.0984	24:57	24:57	0	0.709	28447637	6848697	99	247	69179		
Phenanthrene											
178.0783	24:57	24:57	0	1.000	64355337	16131721	383	957	42119		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:10	25:10	0	0.715	20303055	4745033	17	42	279120		
13C6-Anthracene											
184.0984	25:17	25:17	0	0.718	22050868	5164698	99	247	52169		
Anthracene											
178.0783	25:17	25:17	0	1.000	61769229	14769545	383	957	38563		
13C6-Fluoranthrene											
208.0984	33:40	33:40	0	0.956	69479503	14614058	566	1415	25820		E
Fluoranthene											
202.0783	33:41	33:41	0	1.000	160480234	34453682	432	1080	79754		
Pyrene-d10											
212.1404	35:13	35:13	0		53686741	10935020	42	105	260358		
13C3-Pyrene											
205.0883	35:21	35:21	0	1.004	78969067	15795343	534	1335	29579		E
Pyrene											
202.0783	35:21	35:21	0	1.000	167539318	33768925	432	1080	78169		
13C6-Benzo(c)fluorene											
222.1134	39:03	39:03	0	0.705	27242149	5189168	72	180	72072		
13C6-Benzo(a)anthracene											
234.1140	45:52	45:52	0	1.303	64213197	11715309	596	1490	19657		
Benzo[a]anthracene											
228.0939	45:52	45:52	0	1.000	135413777	26033499	1301	3252	20010		
13C6-Chrysene											
234.1140	46:07	46:07	0	1.310	69639510	12428781	596	1490	20854		
Chrysene											
228.0939	46:08	46:08	0	1.000	149030267	27759907	1301	3252	21337		
13C6-Benzo(b)fluoranthene											
258.1140	54:30	54:30	0	0.984	75585318	21438444	85	212	252217		
Benzo[b]fluoranthene											
252.0939	54:31	54:31	0	1.000	169501067	49546709	201	502	246501		
13C12-Benzo(j)fluoranthene											
264.1336	54:32	54:32	0	0.984	64839468	17535165	521	1302	33657		
13C6-Benzo(k)fluoranthene											
258.1140	54:38	54:38	0	0.986	87331261	25446380	85	212	299369		
Benzo[k]fluoranthene											
252.0939	54:38	54:38	0	1.000	190312160	55081941	201	502	274040		
Benzo(e)pyrene-d12											
264.1692	55:23	55:23	0		53281472	18559190	462	1155	40171		
Benzo[e]pyrene											
252.0939	55:28	55:28	0	1.000	190885699	68695259	201	502	341767		
13C4-Benzo(e)pyrene											
256.1073	55:28	55:28	0	1.002	96645426	33875433	137	342	247266		E
13C4-Benzo(a)pyrene											
256.1073	55:36	55:36	0	1.004	86029741	29506283	137	342	215374		E

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Benzo[a]pyrene											
252.0939	55:37	55:37	0	1.000	183208340	61723904	201	502	307084		
Perylene-d12											
264.1692	55:48	55:48	0	1.007	63923141	23163150	462	1155	50137		E
Perylene											
252.0939	55:52	55:52	0	1.001	199797203	73964032	201	502	367980		
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	57:56	57:56	0	1.046	64350241	22787017	359	897	63474		E
Indeno[1,2,3-cd]pyrene											
276.0939	57:56	57:56	0	1.000	150530551	57386425	161	402	356437		
13C6-Dibenz(a,h)anthracene											
284.1296	58:00	58:00	0	1.047	63386595	23654823	234	585	101089		E
Dibenz(a,h)anthracene											
278.1096	58:00	58:00	0	1.000	150873860	54622047	138	345	395812		
13C12-Benzo(ghi)perylene											
288.1342	58:23	58:23	0	1.054	65234050	24266474	44	110	551511		
Benzo[g,h,i]perylene											
276.0939	58:24	58:24	0	1.000	166406444	56476340	161	402	350785		

### QC Flag Legend

Processing Flags

### Reagents:

61HRPAHCS5a\_00002

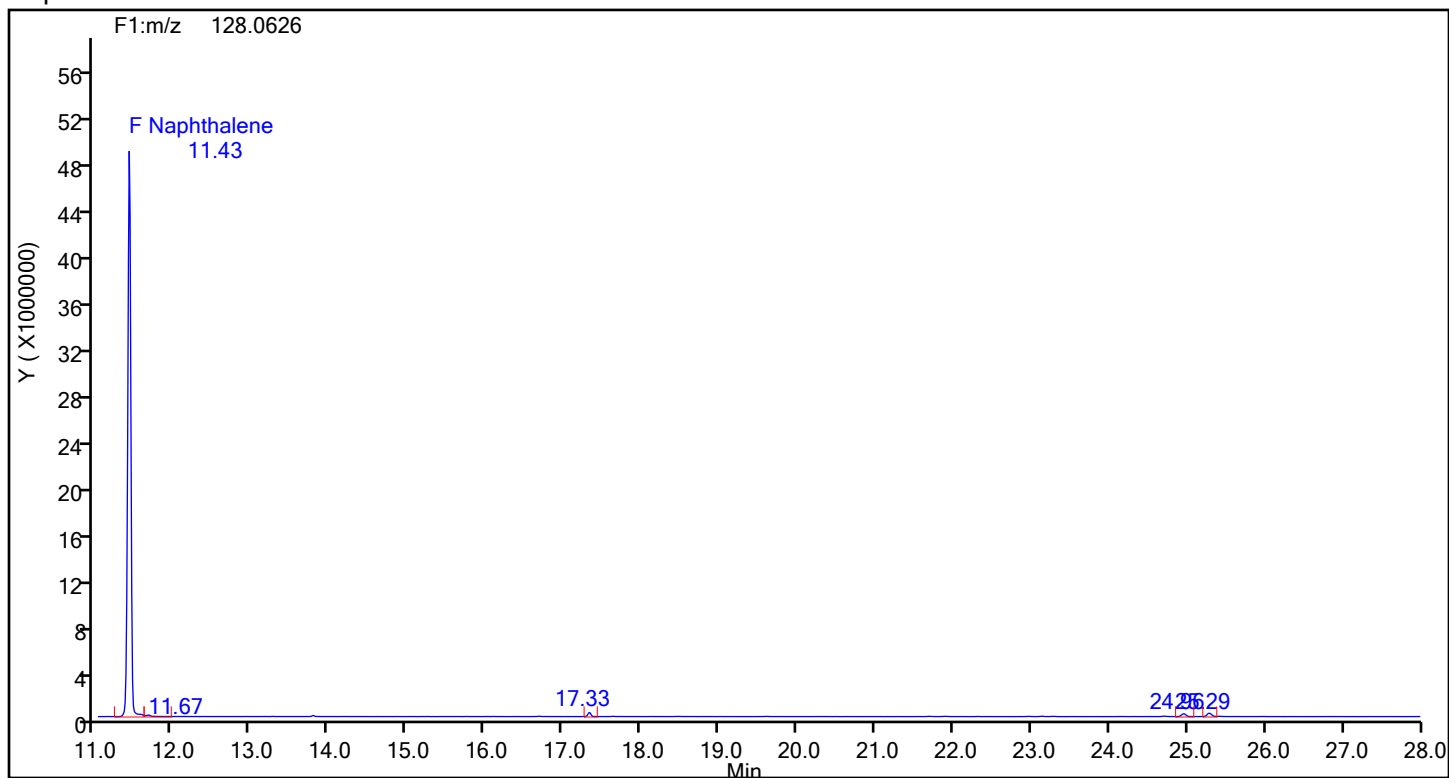
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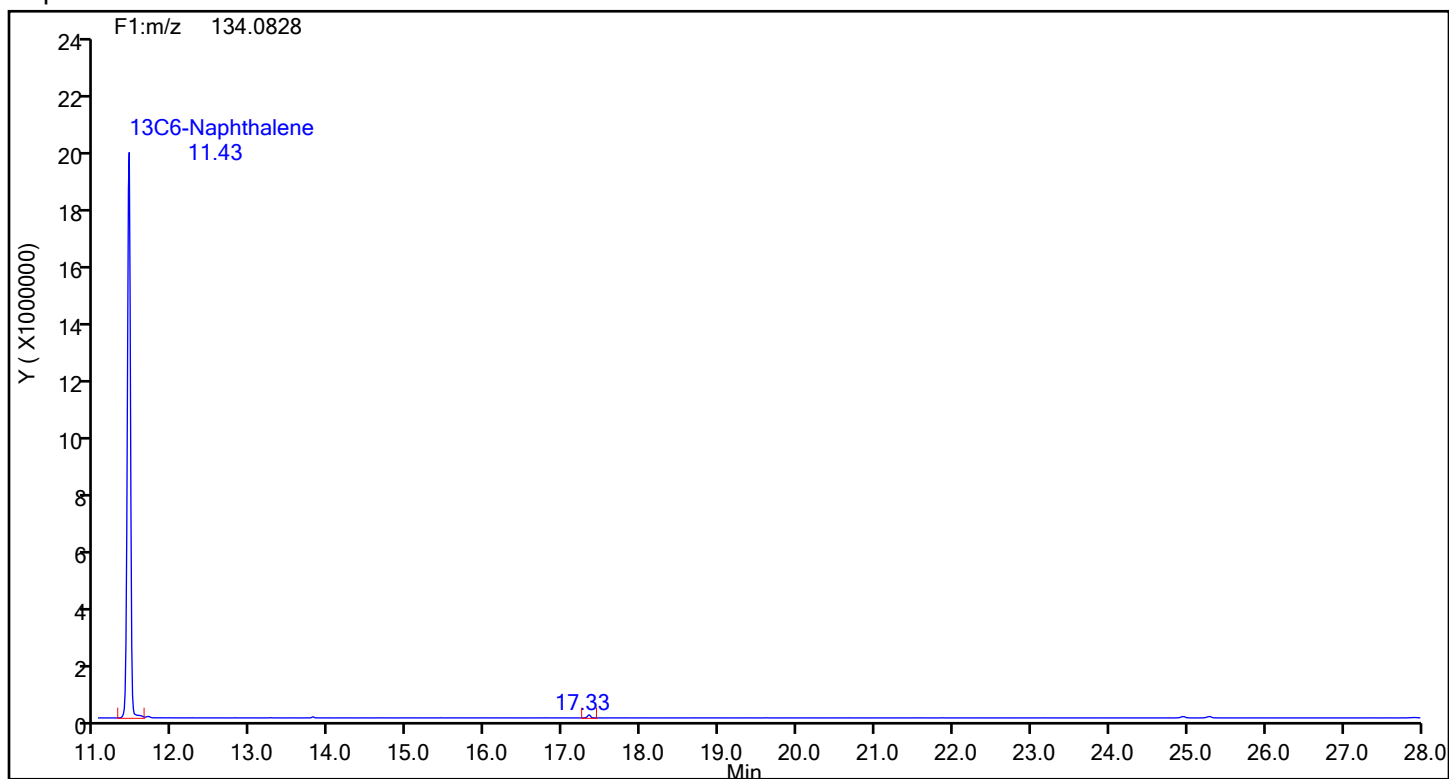
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\d3240718c2a\_20240718214503.d  
Injection Date: 18-Jul-2024 21:47:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88945 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



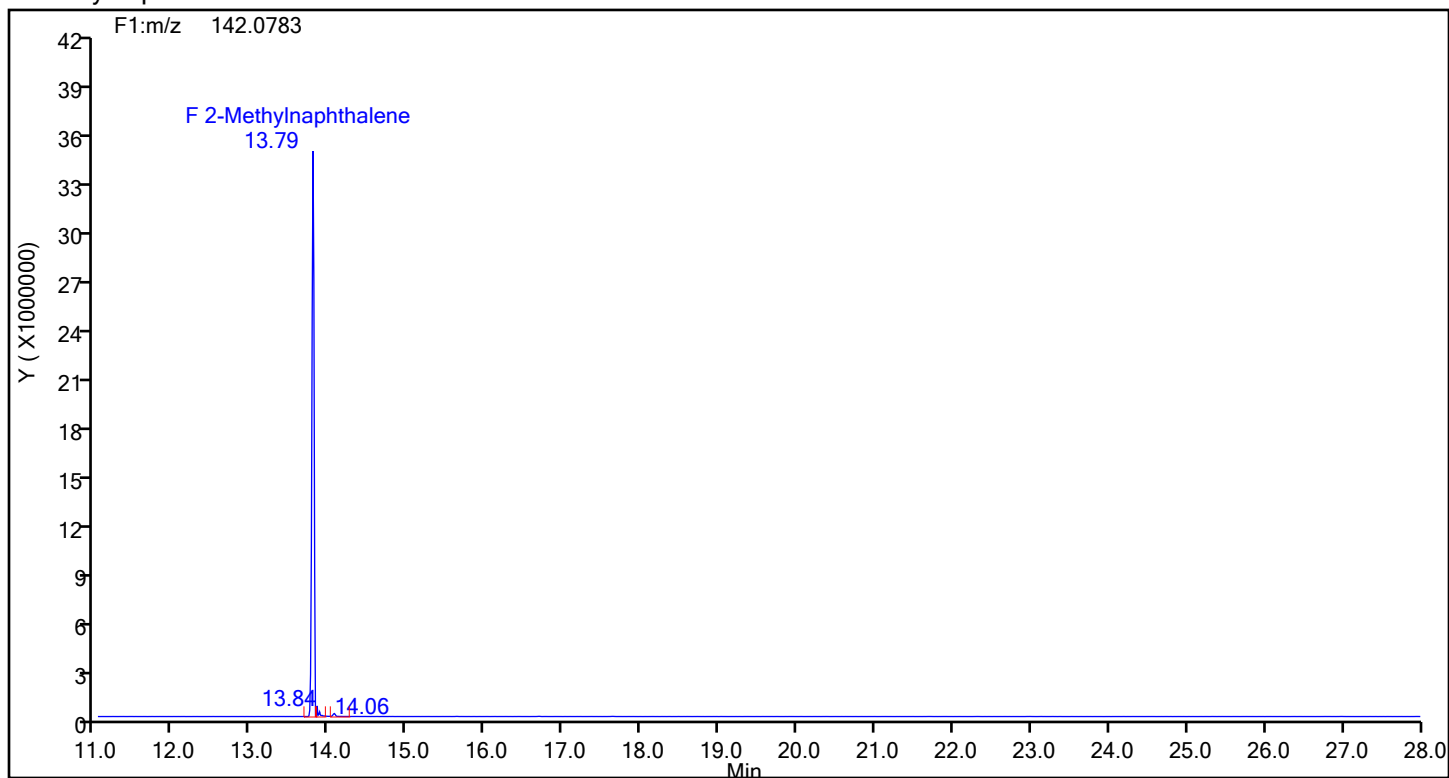
## Naphthalene Standards



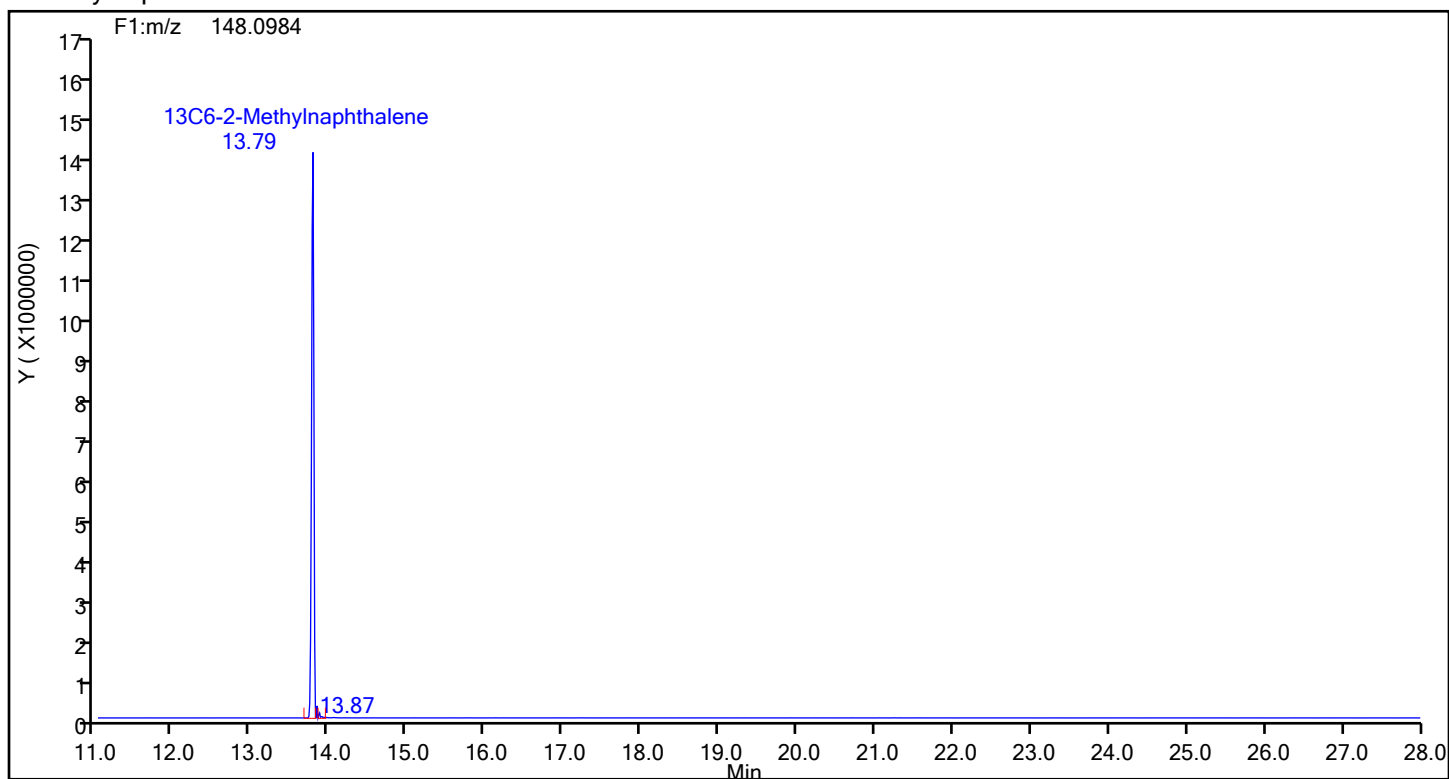
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88945 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



## 2-Methylnaphthalene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\d3240718c2a\_20240718214503.d

Injection Date: 18-Jul-2024 21:47:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

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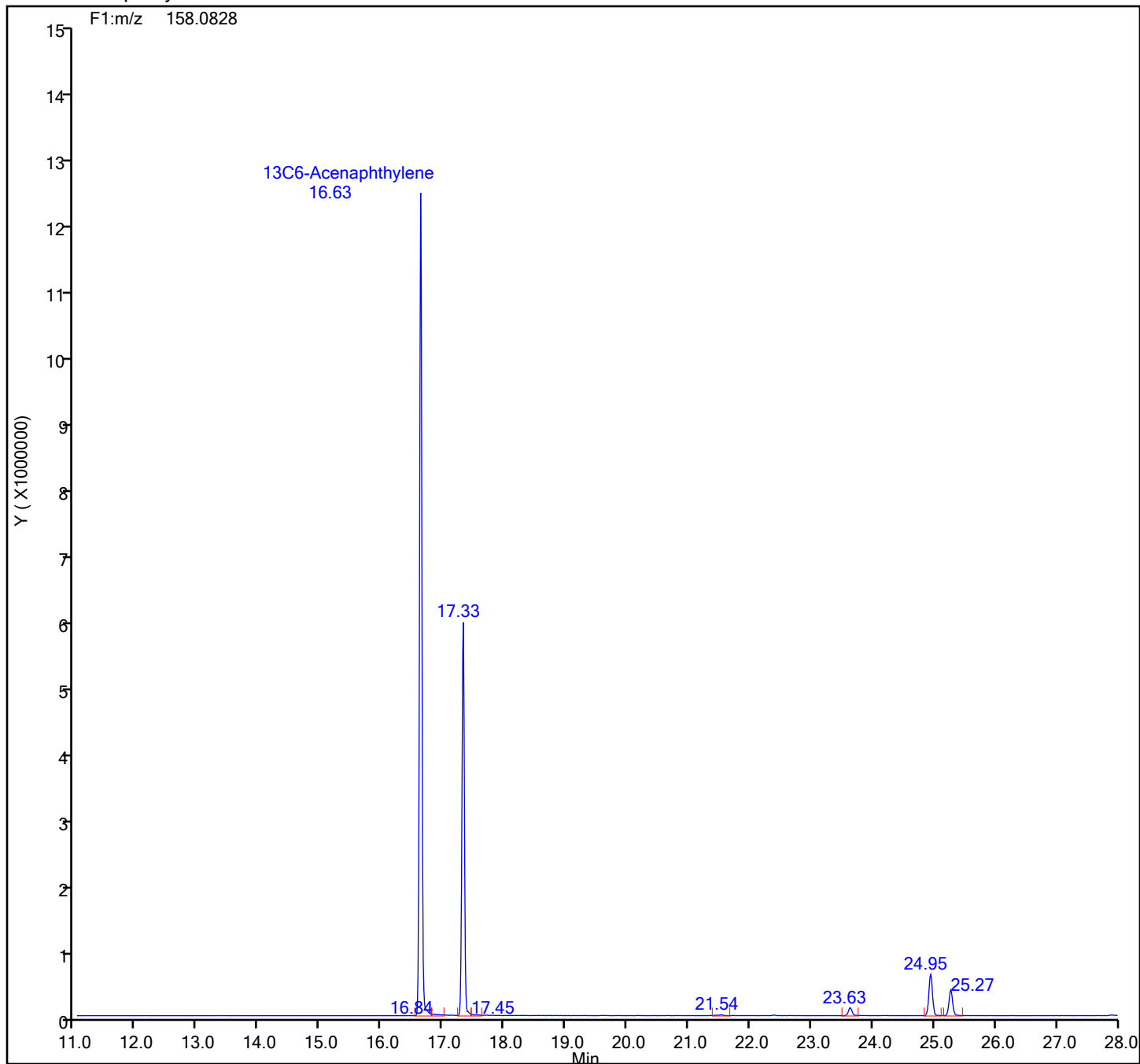
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Sample Line#: 1

Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

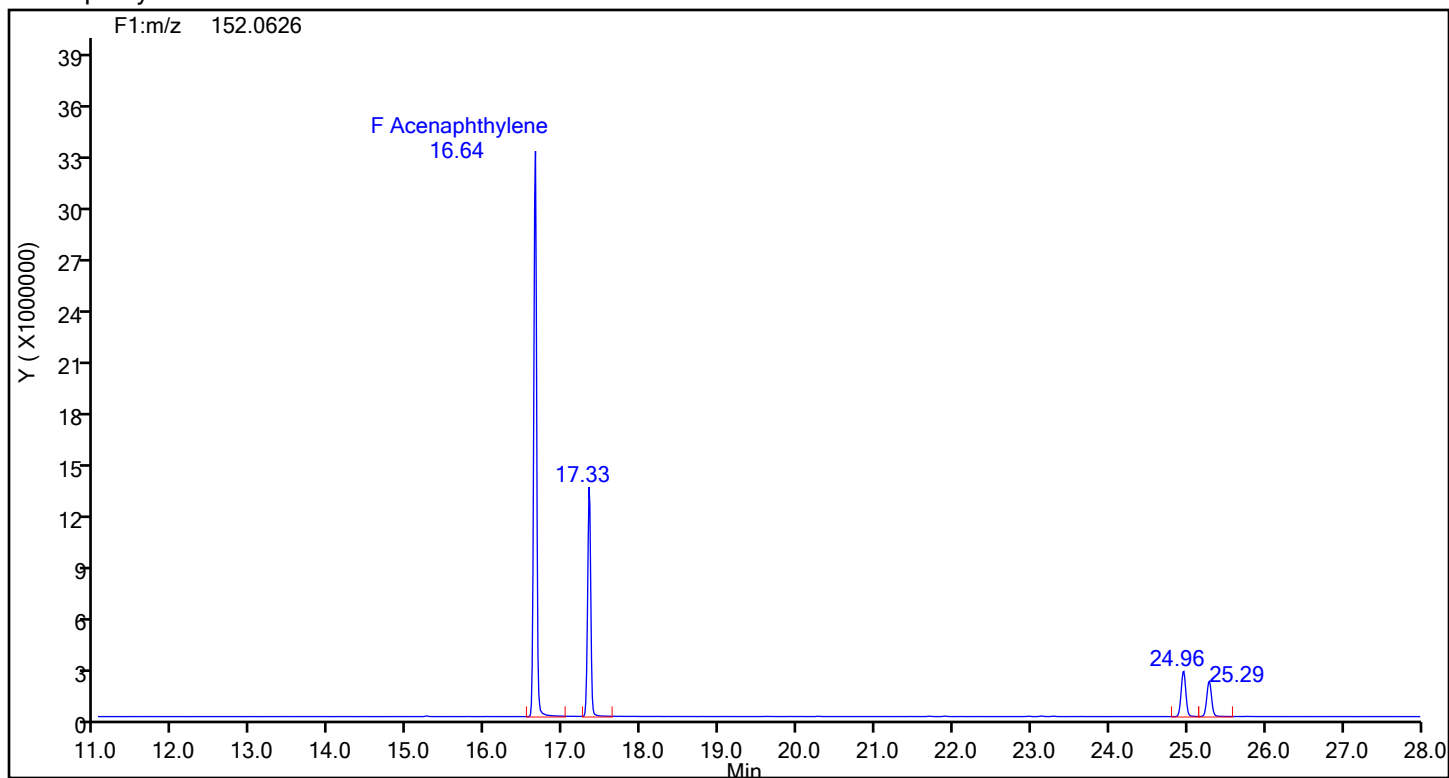
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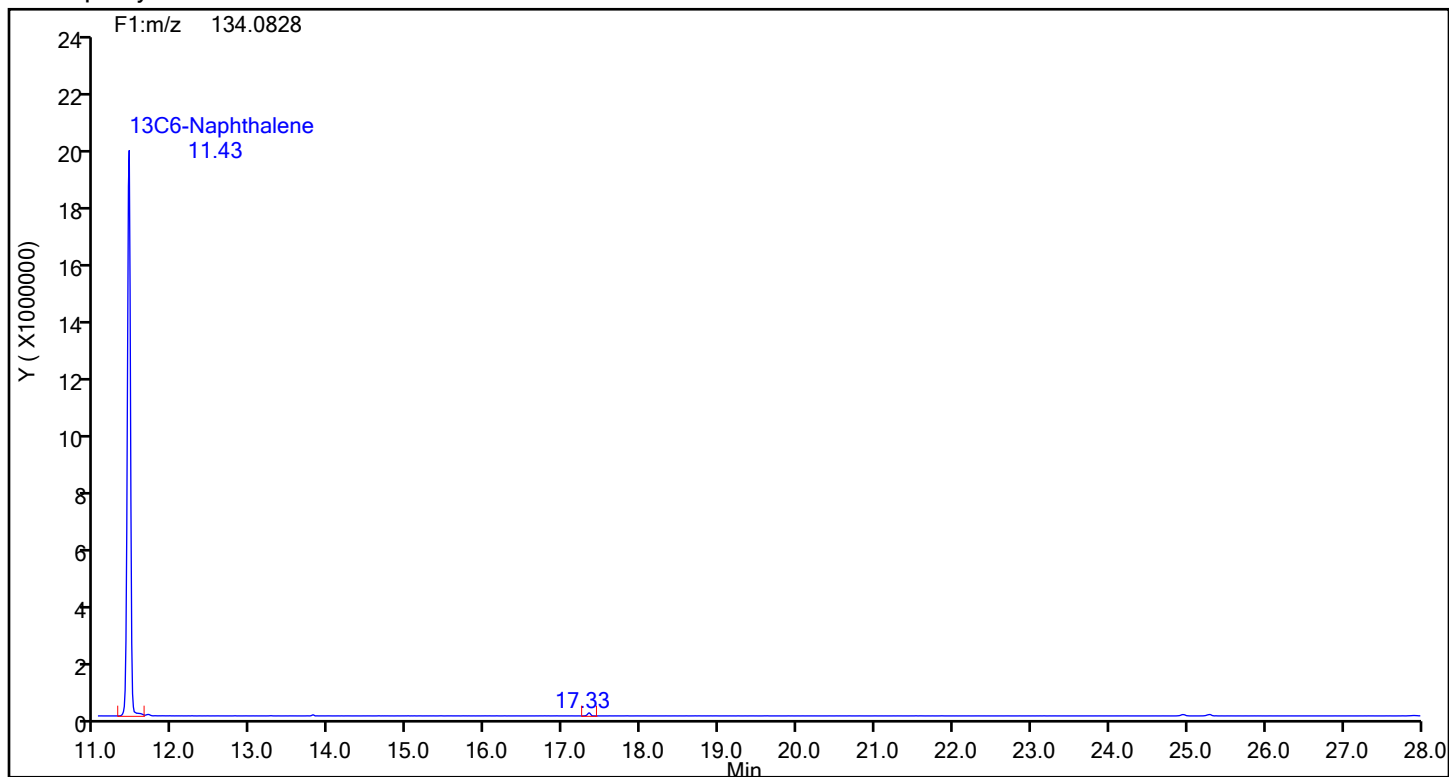
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Client ID:  
Worklist#: 88945 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene



## Acenaphthylene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\d3240718c2a\_20240718214503.d

Injection Date: 18-Jul-2024 21:47:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

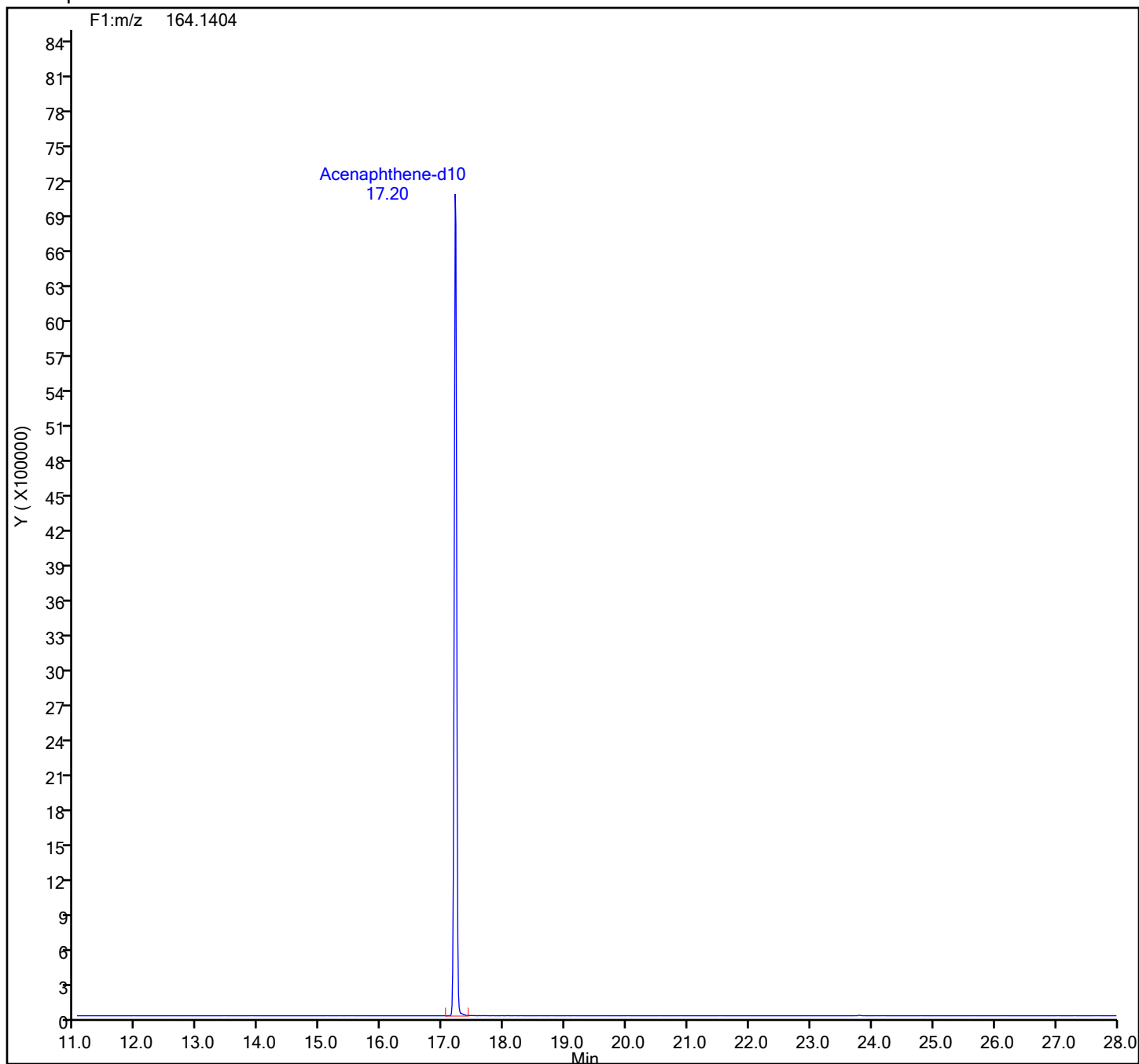
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Sample Line#: 1

Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Acenaphthene-d10 Standards

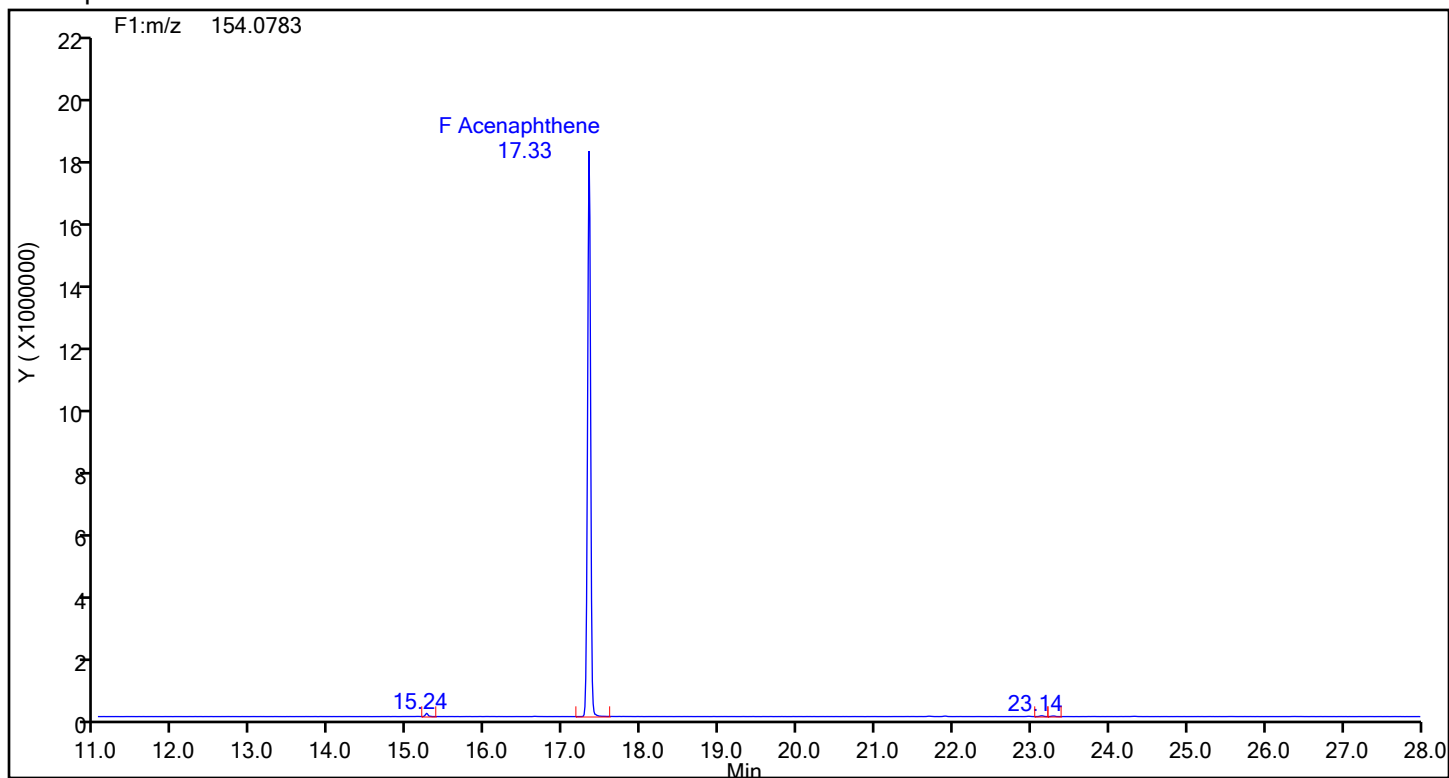




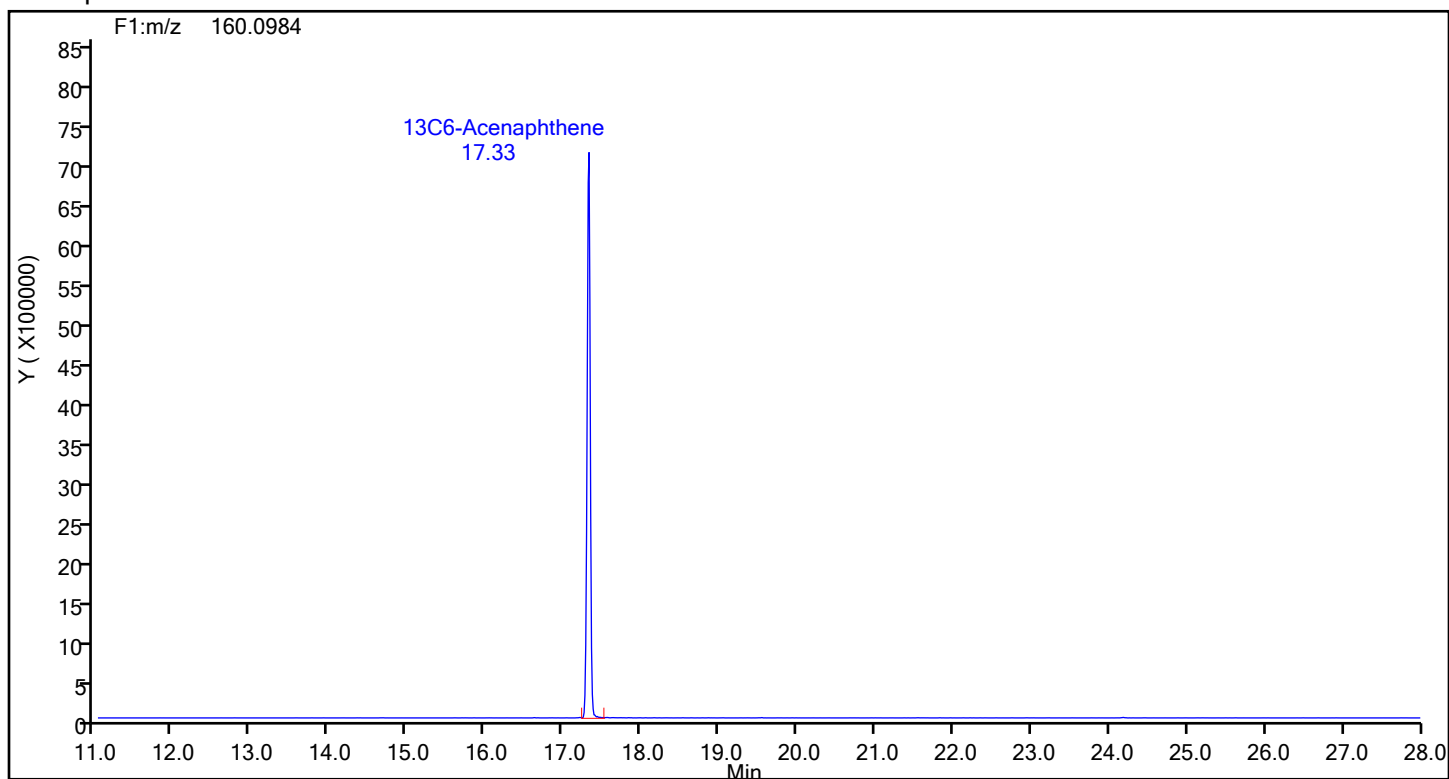
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
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Worklist#: 88945 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



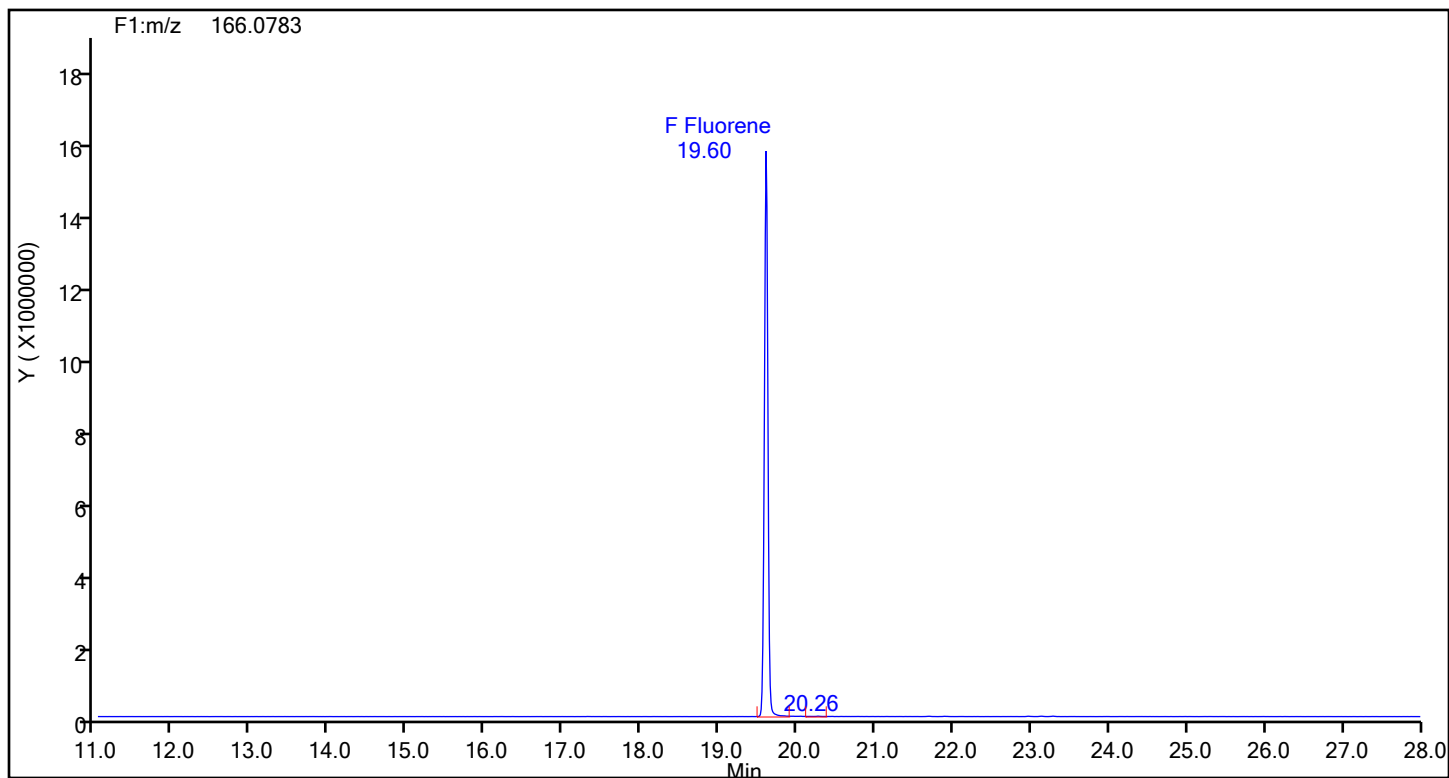
## Acenaphthene Standards



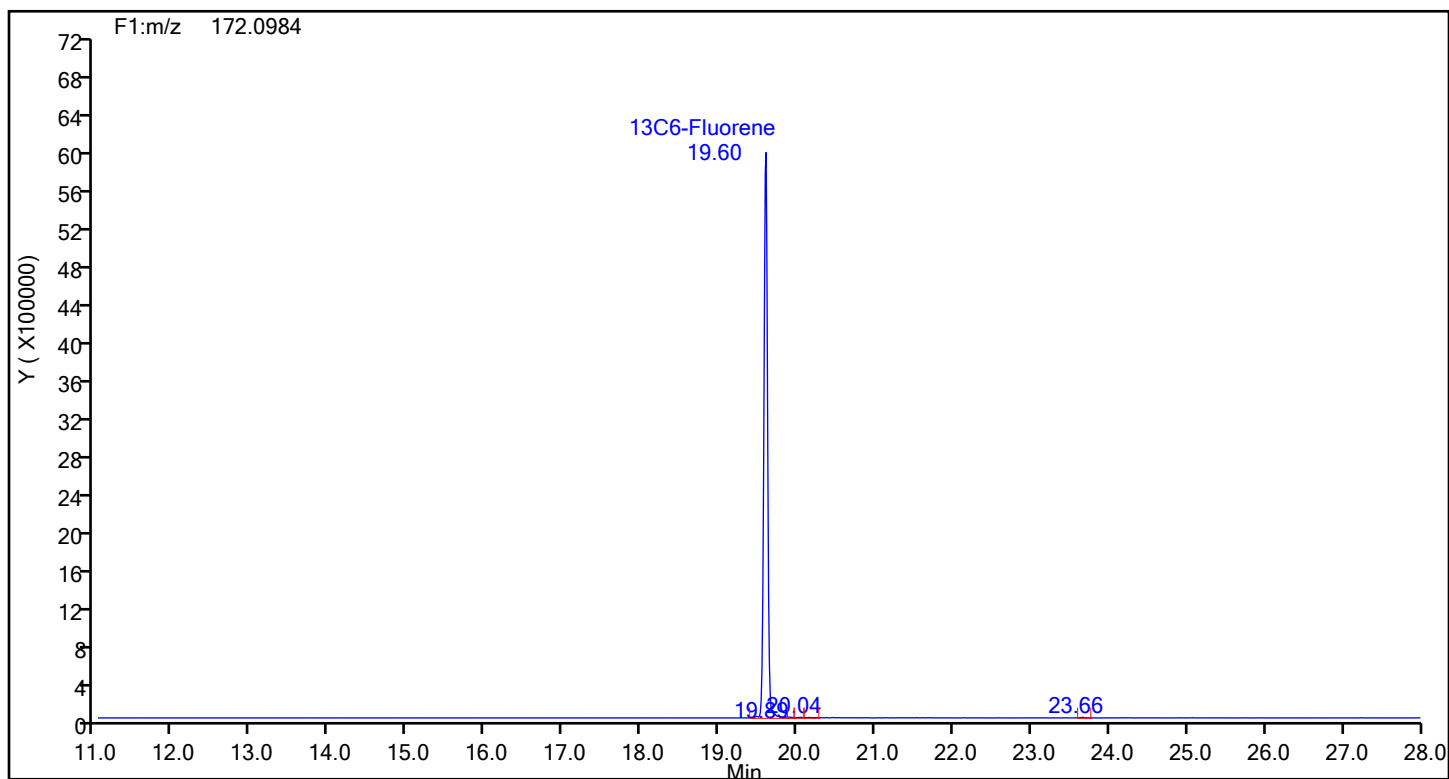
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Client ID:  
Worklist#: 88945 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene



## Fluorene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\d3240718c2a\_20240718214503.d

Injection Date: 18-Jul-2024 21:47:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

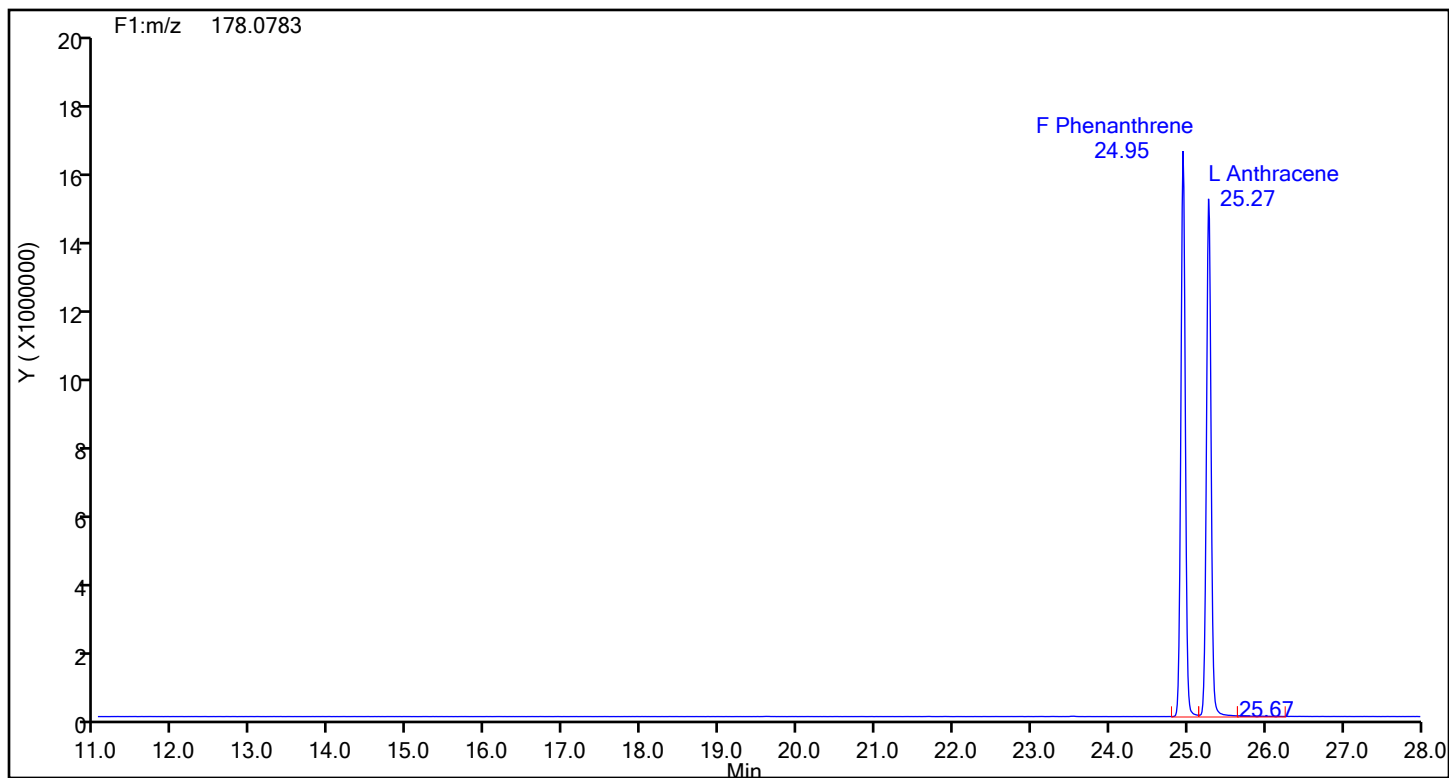
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Sample Line#: 1

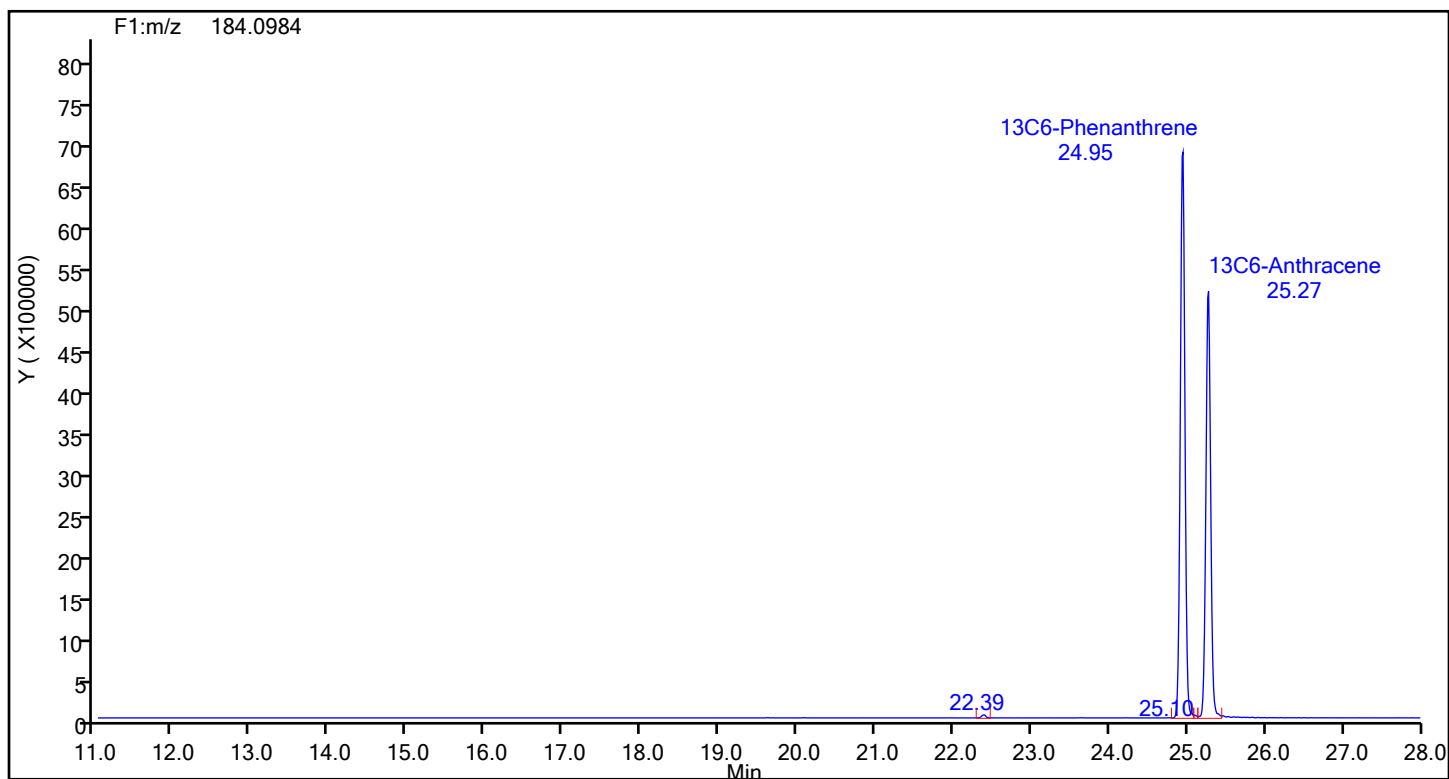
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Phenanthrene

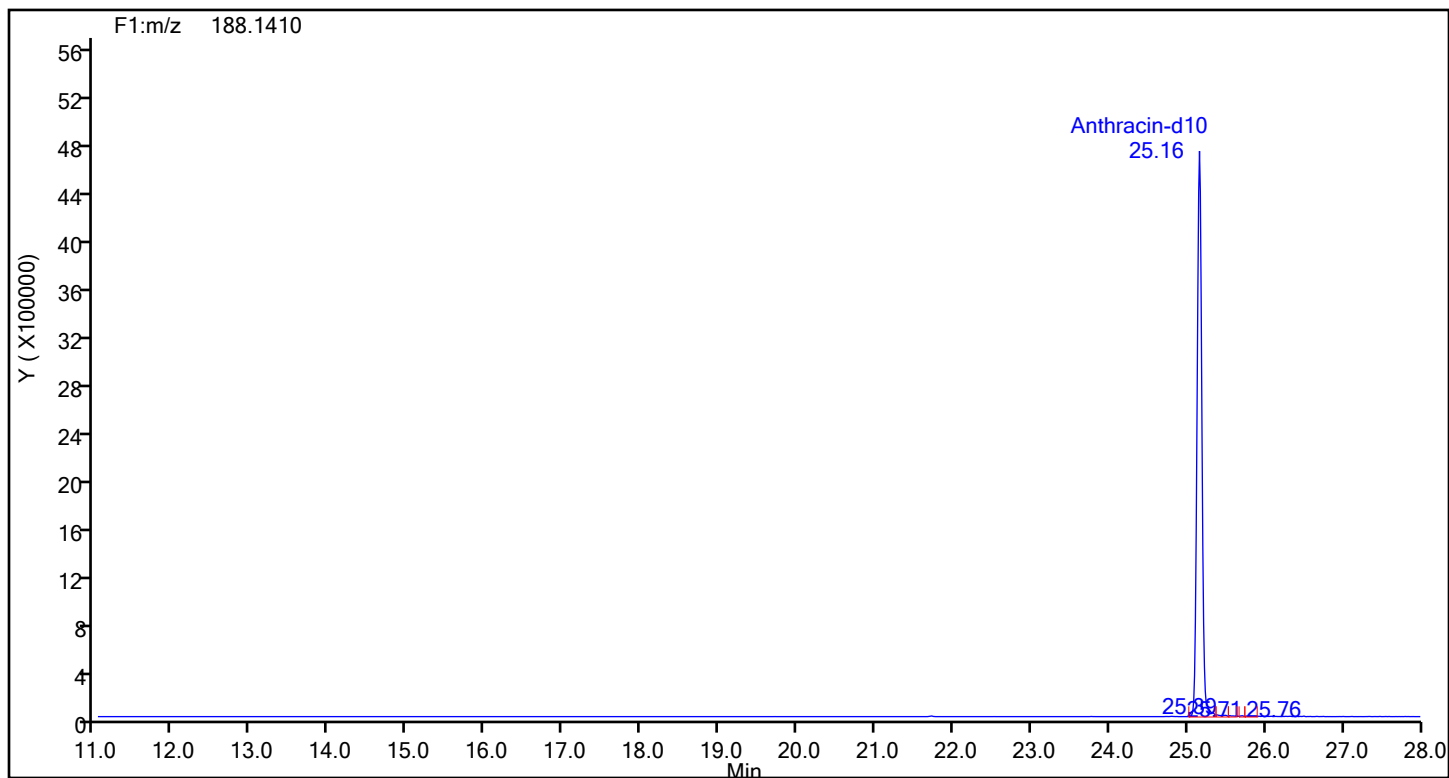


## Phenanthrene Standards

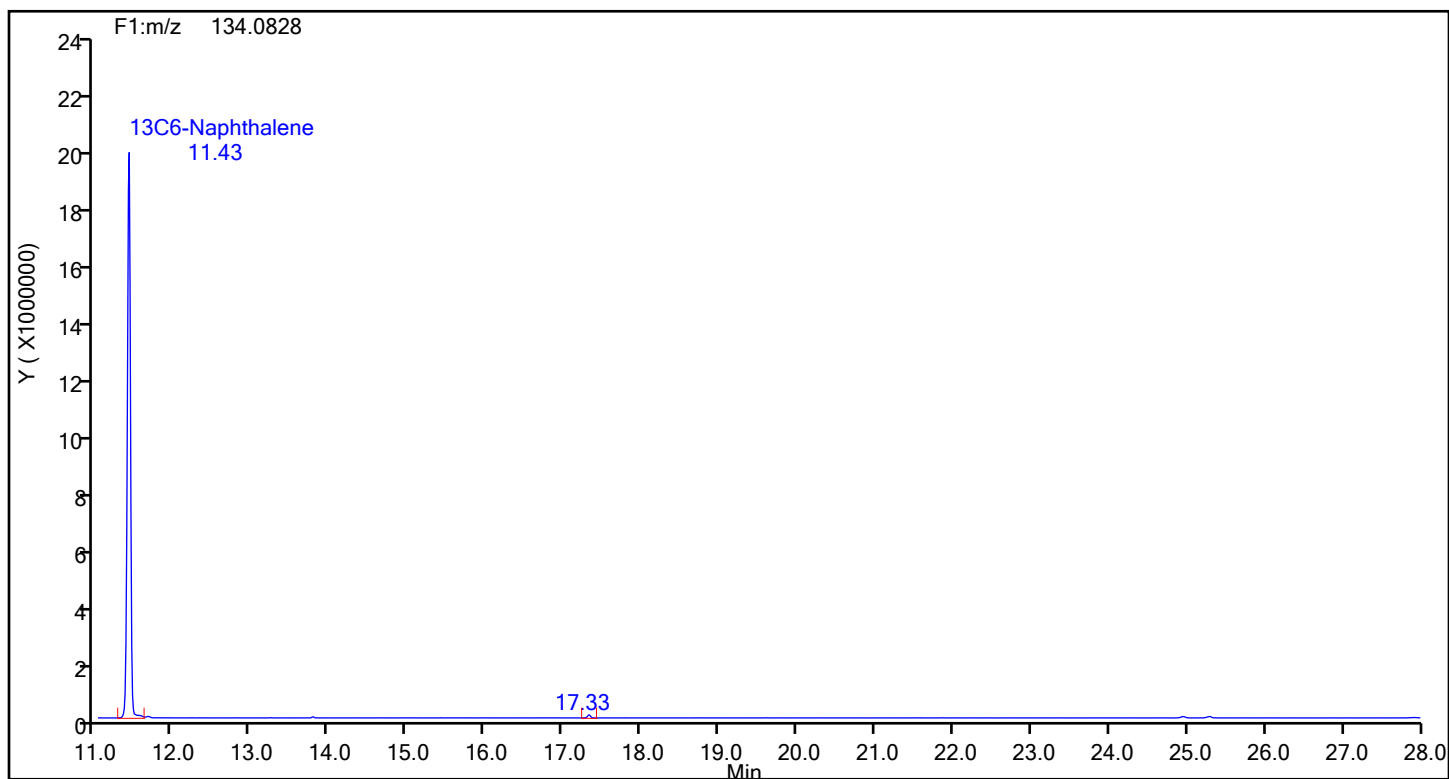


## Eurofins Knoxville

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Injection Date: 18-Jul-2024 21:47:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88945 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10

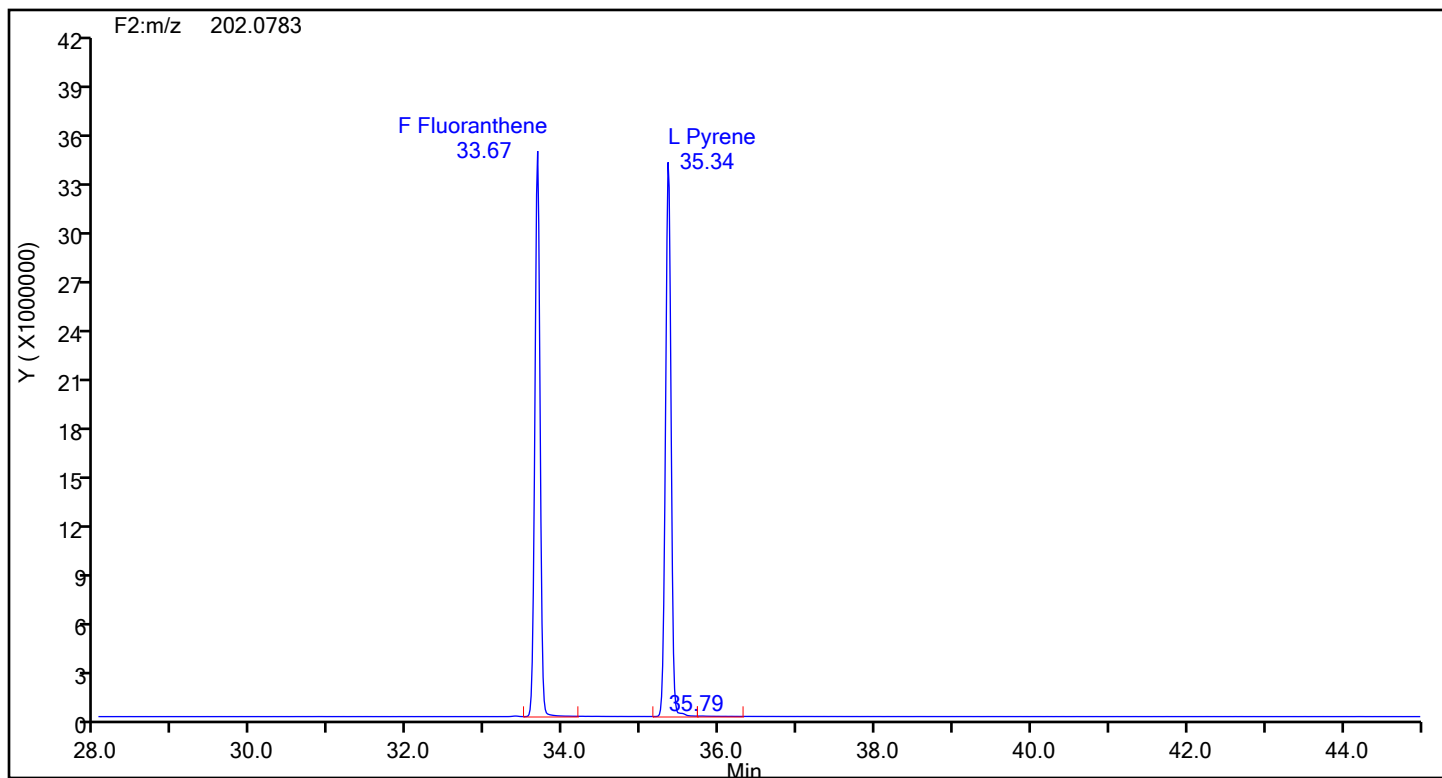


## Anthracin-d10 Standards

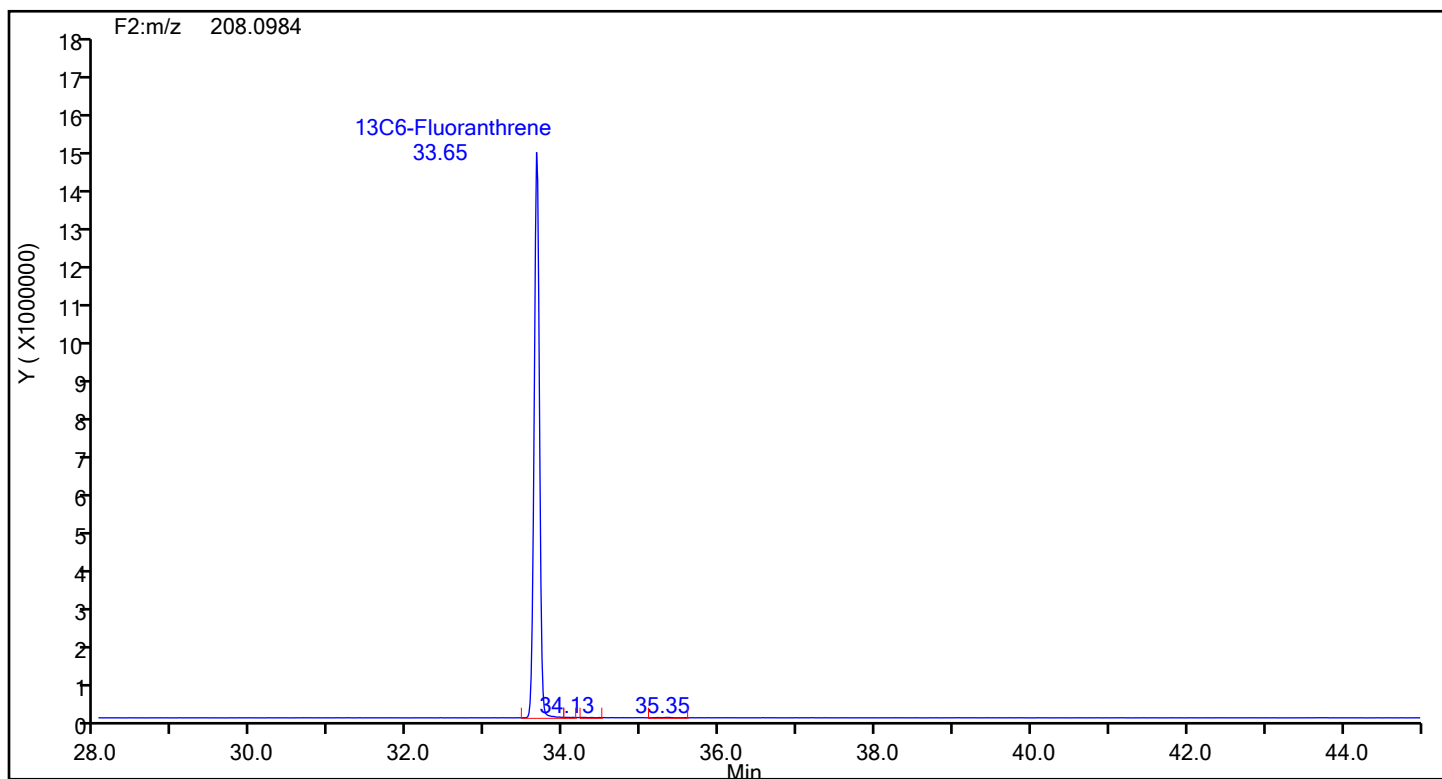


## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88945 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Fluoranthene



## Fluoranthene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\d3240718c2a\_20240718214503.d

Injection Date: 18-Jul-2024 21:47:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

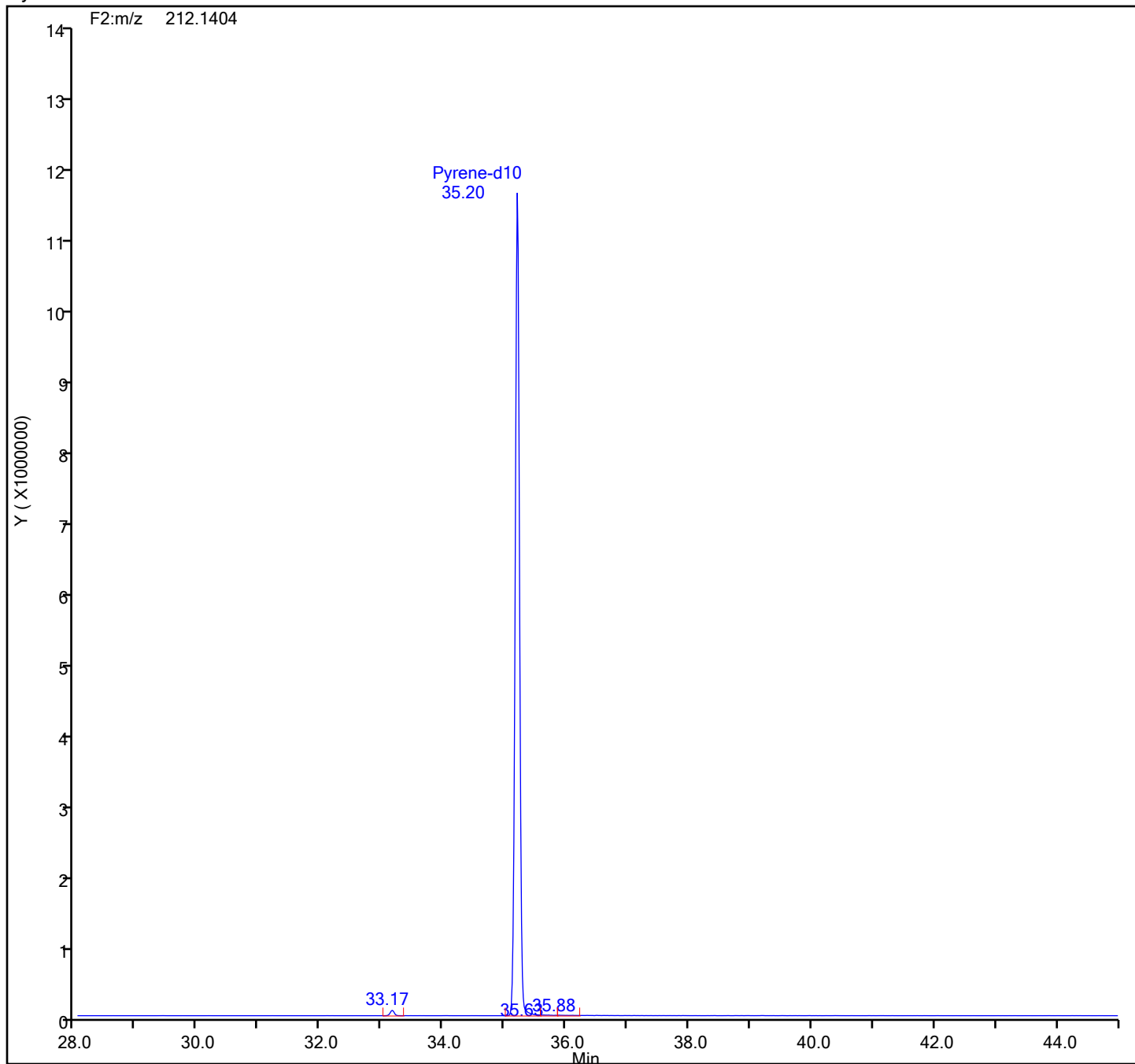
Worklist#: 88945

Sample Line#: 1

Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

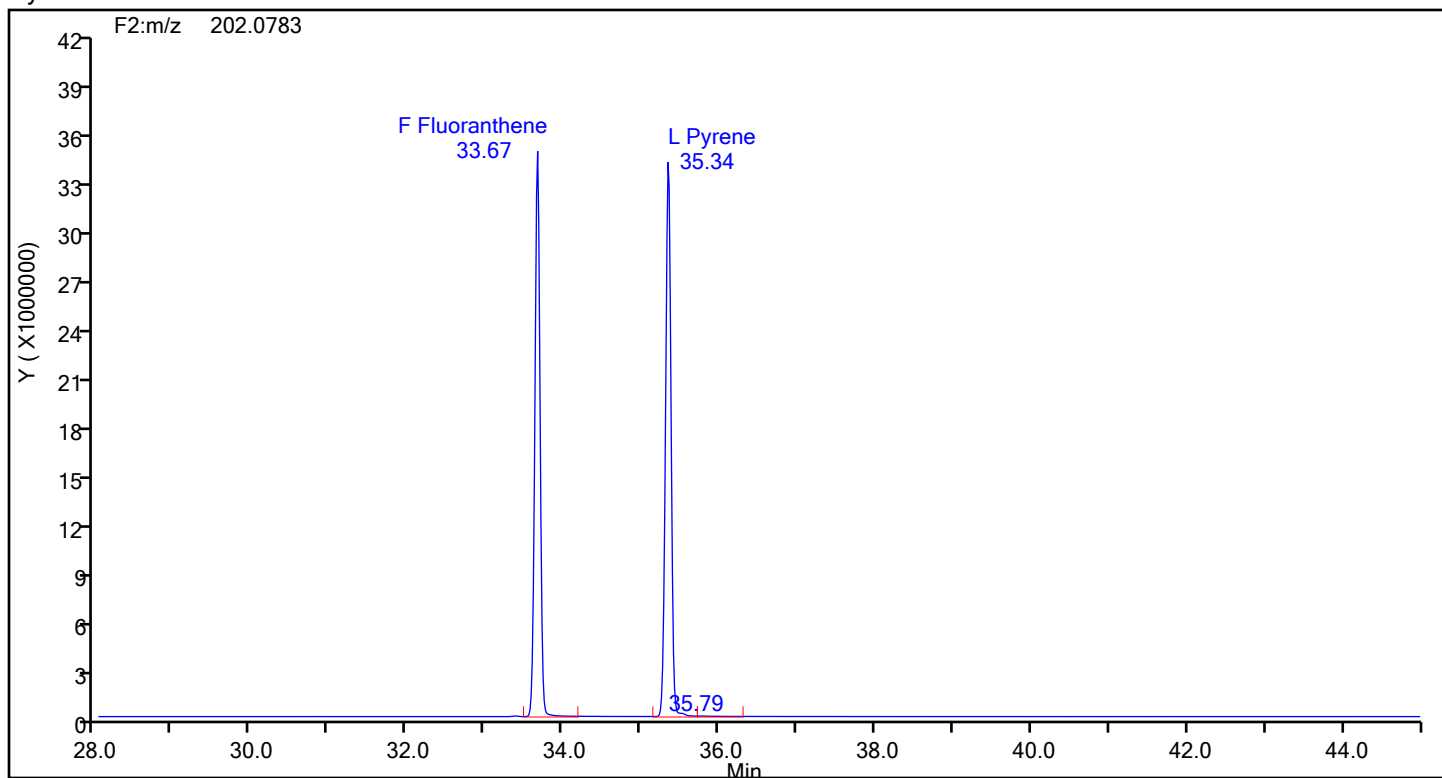
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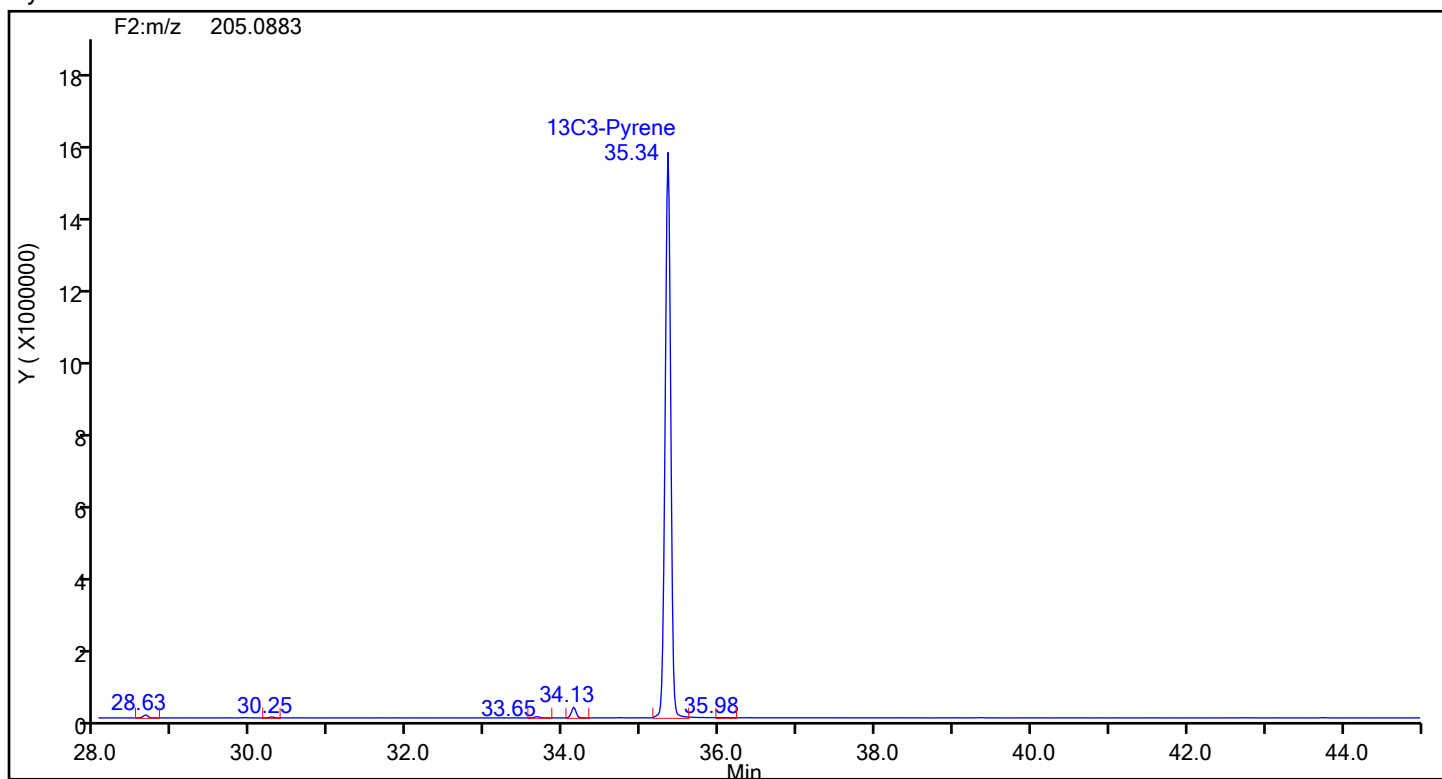
## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88945 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Pyrene



## Pyrene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\d3240718c2a\_20240718214503.d

Injection Date: 18-Jul-2024 21:47:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

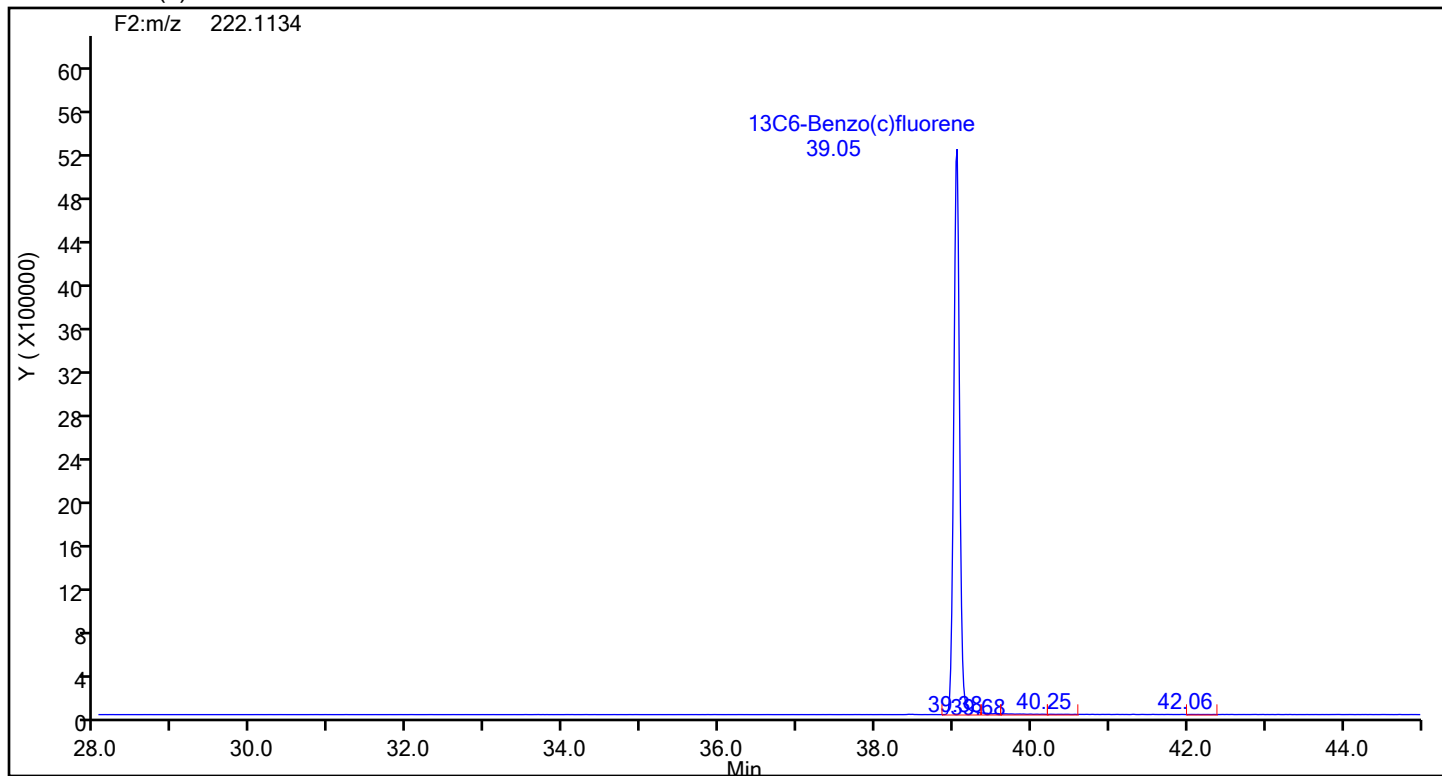
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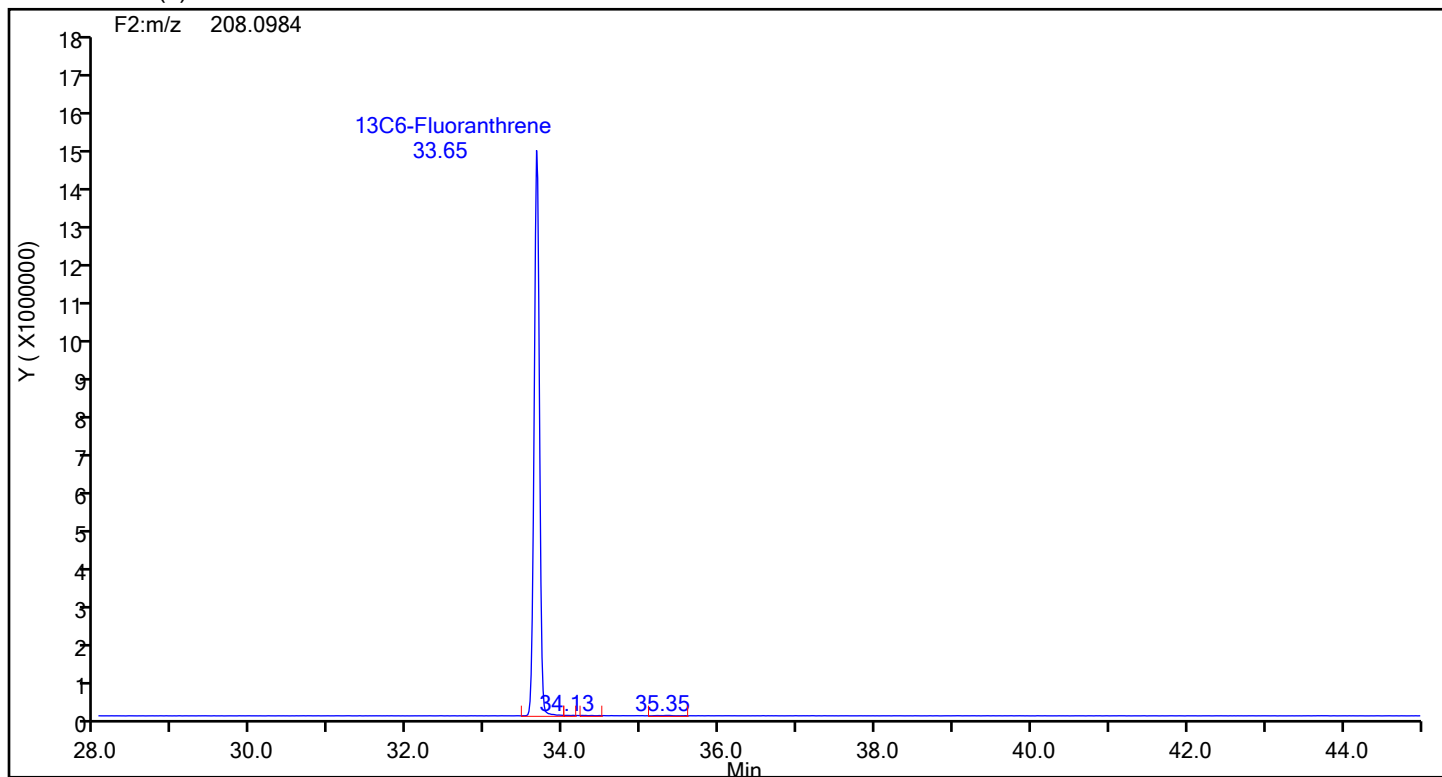
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Column Dia: 0.25 mm

13C6-Benzo(c)fluorene



13C6-Benzo(c)fluorene Standards

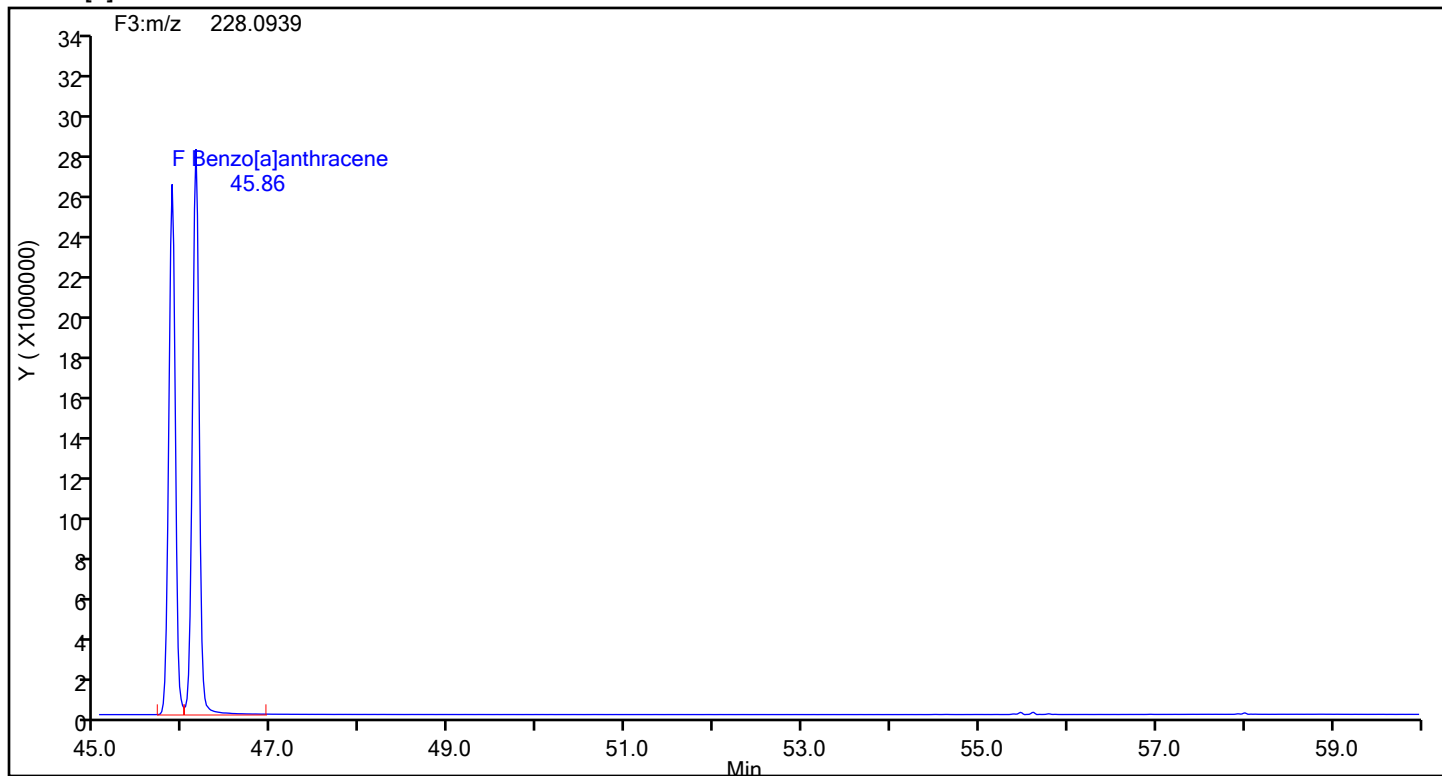




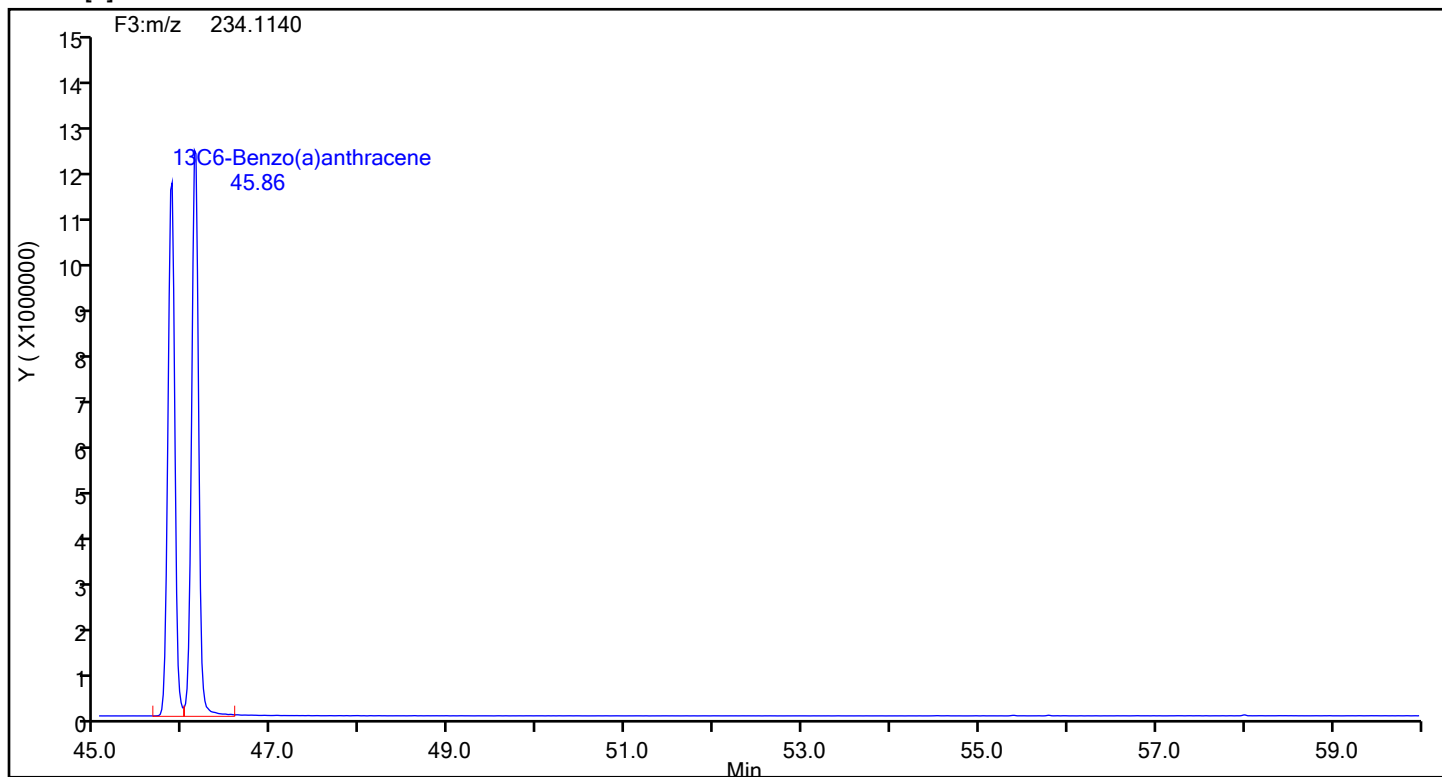
## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88945 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



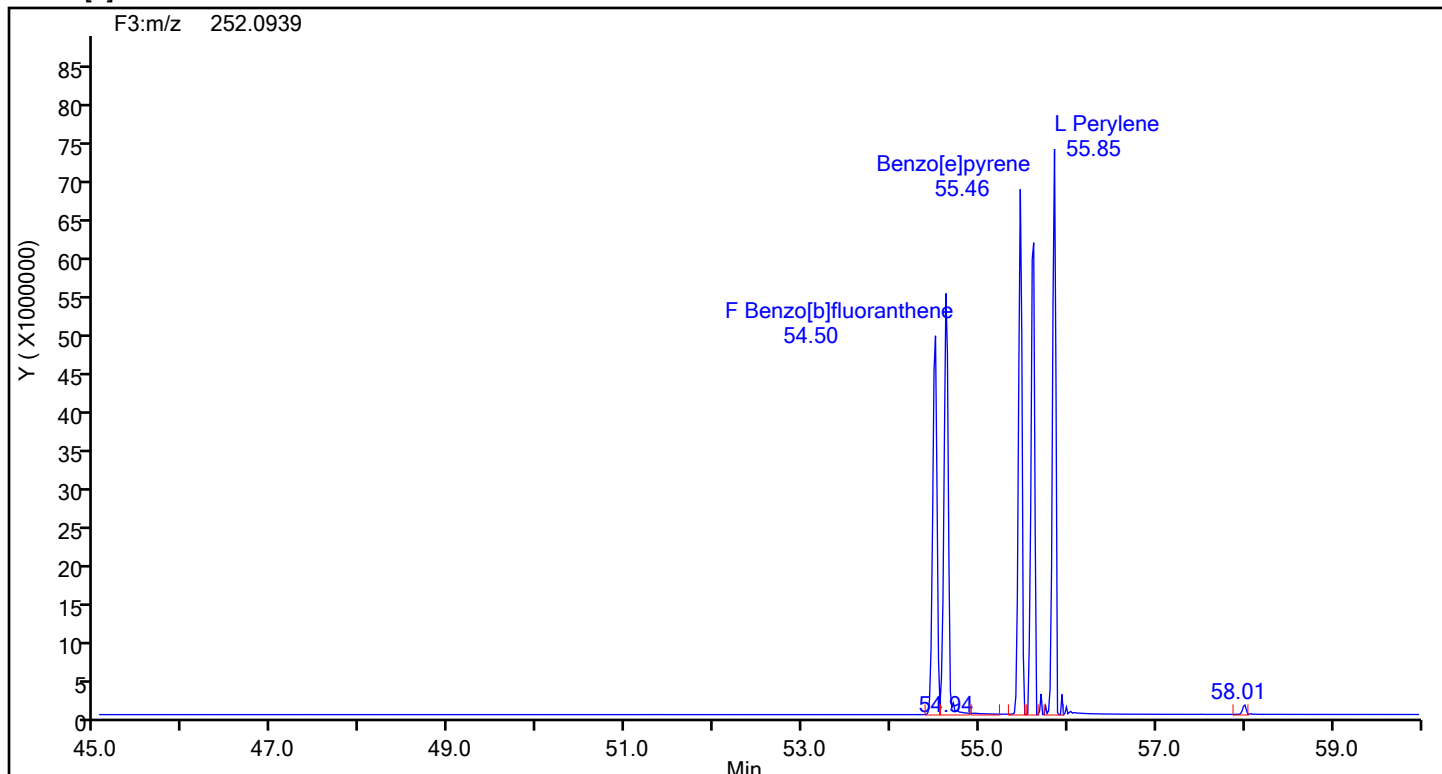
## Benzo[a]anthracene Standards



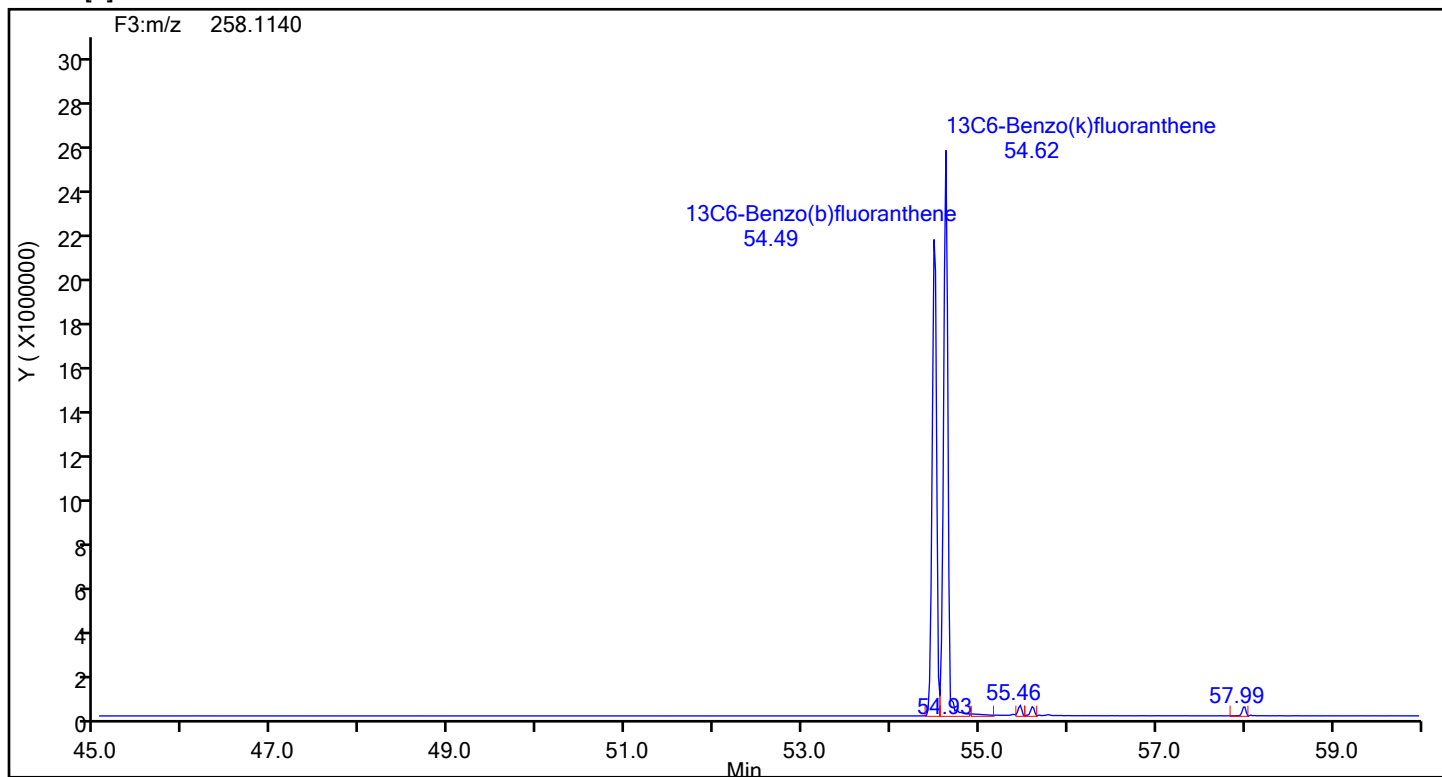
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88945 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



## Benzo[b]fluoranthene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\d3240718c2a\_20240718214503.d

Injection Date: 18-Jul-2024 21:47:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

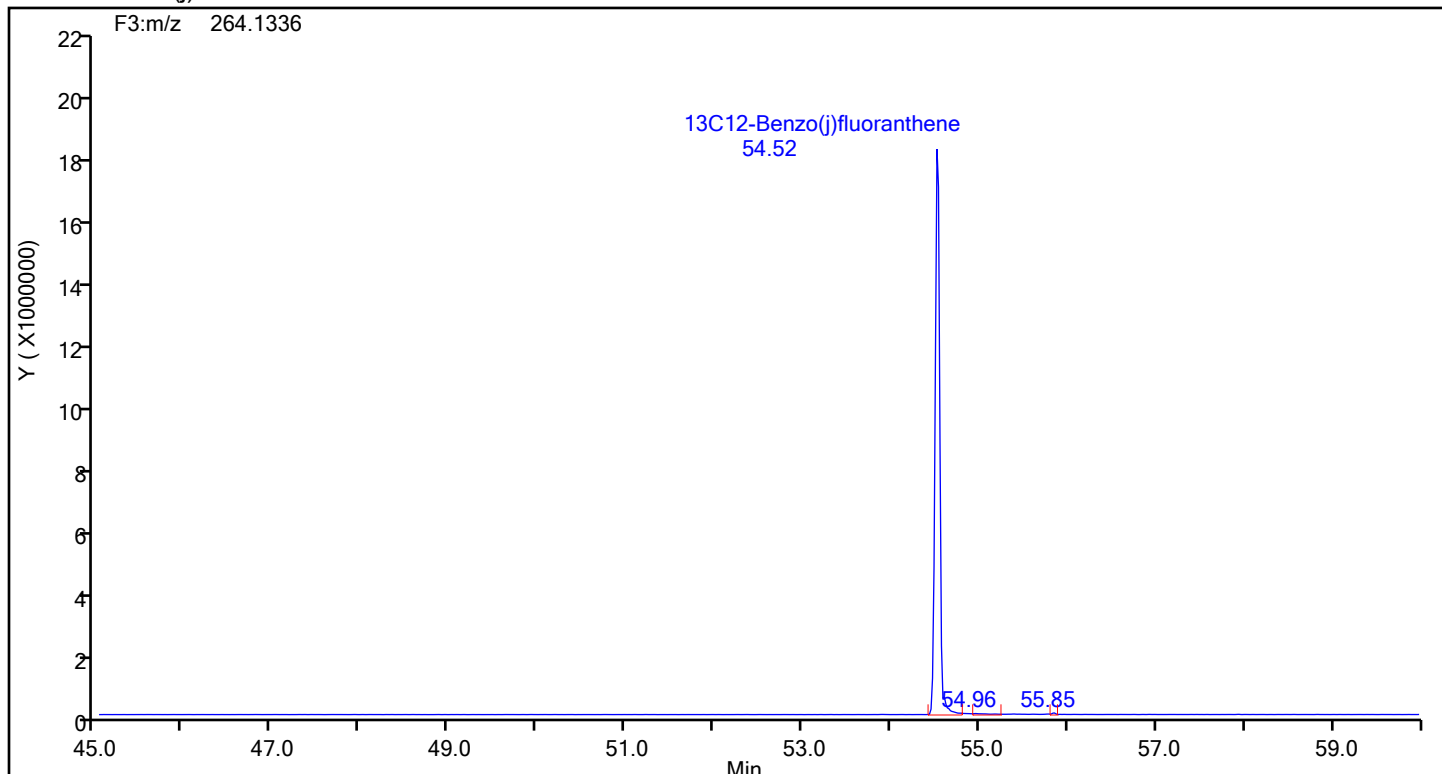
Worklist#: 88945

Sample Line#: 1

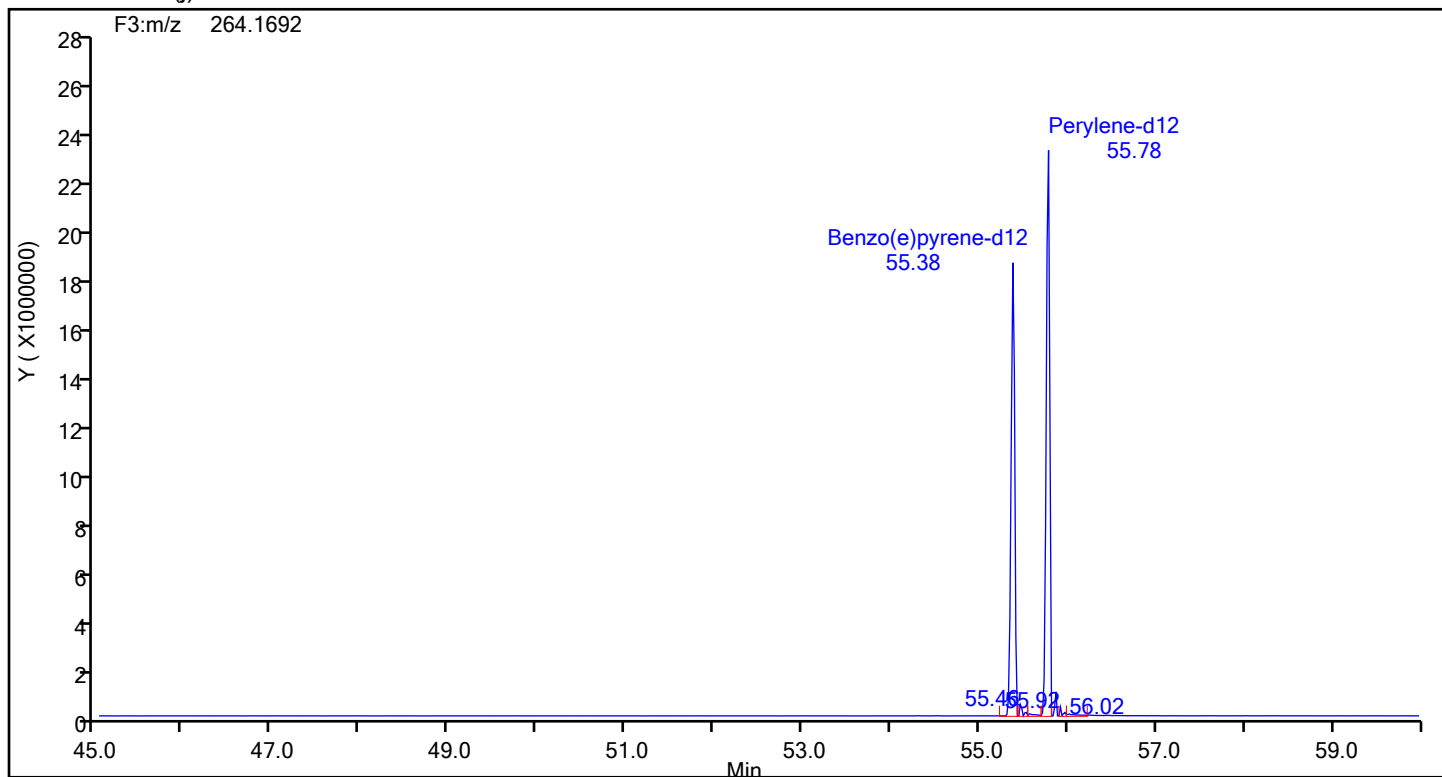
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

13C12-Benzo(j)fluoranthene



13C12-Benzo(j)fluoranthene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\d3240718c2a\_20240718214503.d

Injection Date: 18-Jul-2024 21:47:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

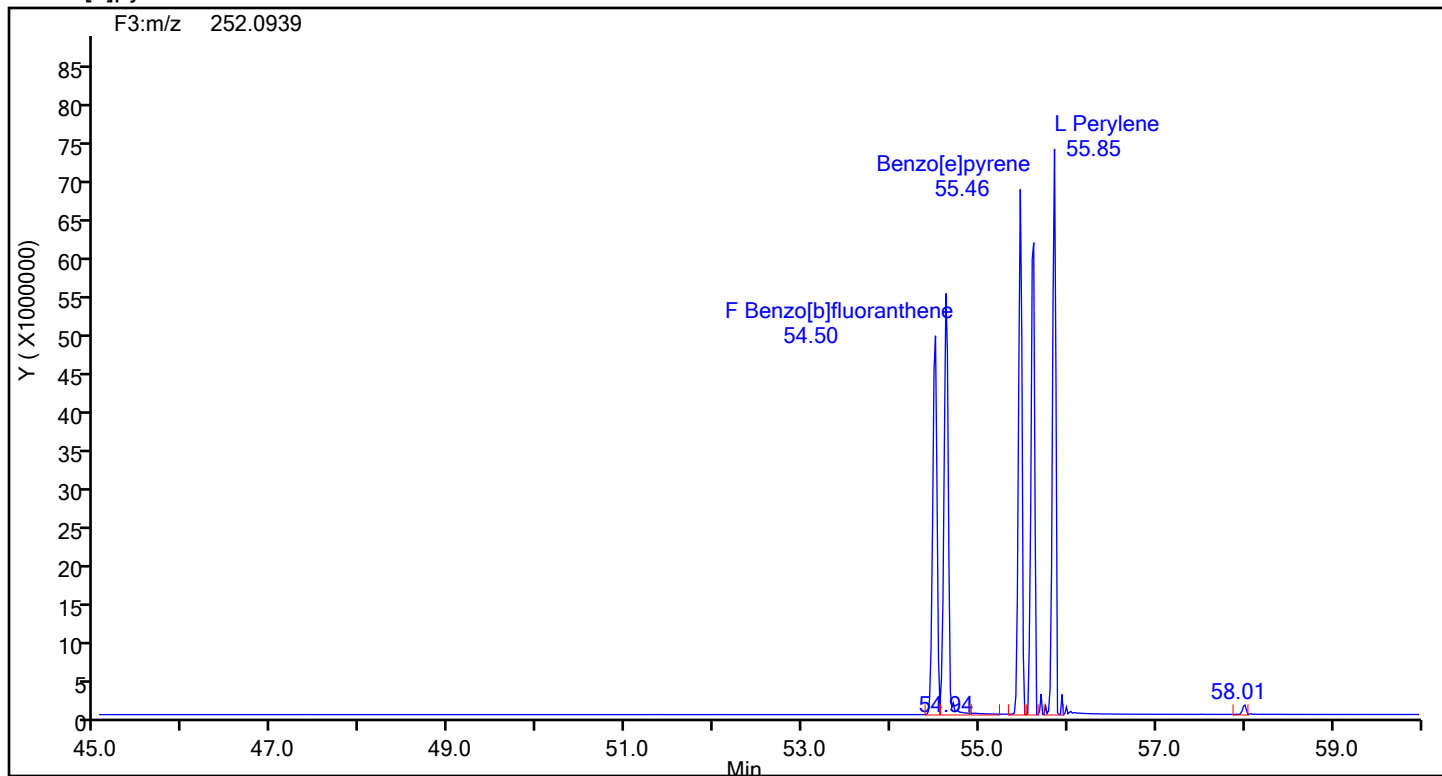
Worklist#: 88945

Sample Line#: 1

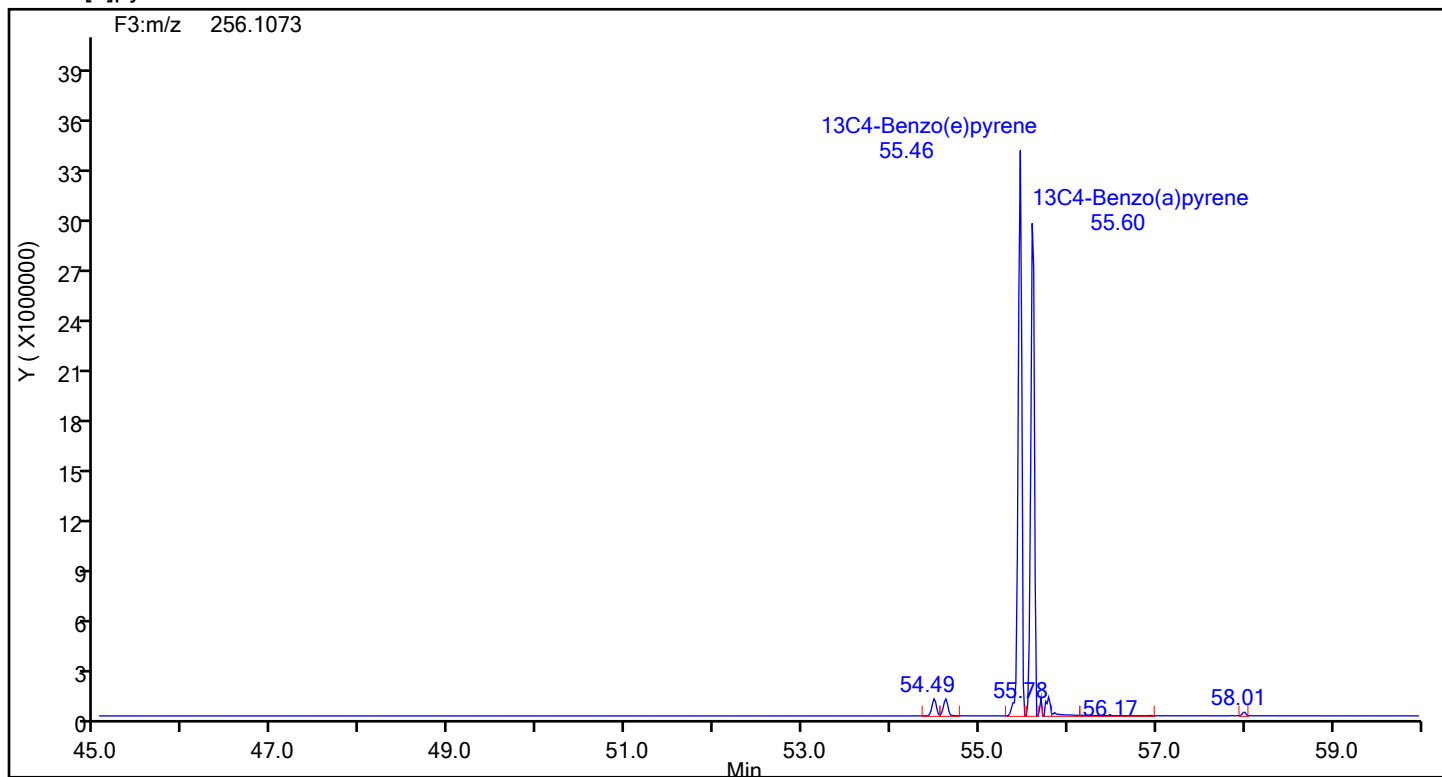
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Benzo[e]pyrene



## Benzo[e]pyrene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\d3240718c2a\_20240718214503.d

Injection Date: 18-Jul-2024 21:47:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

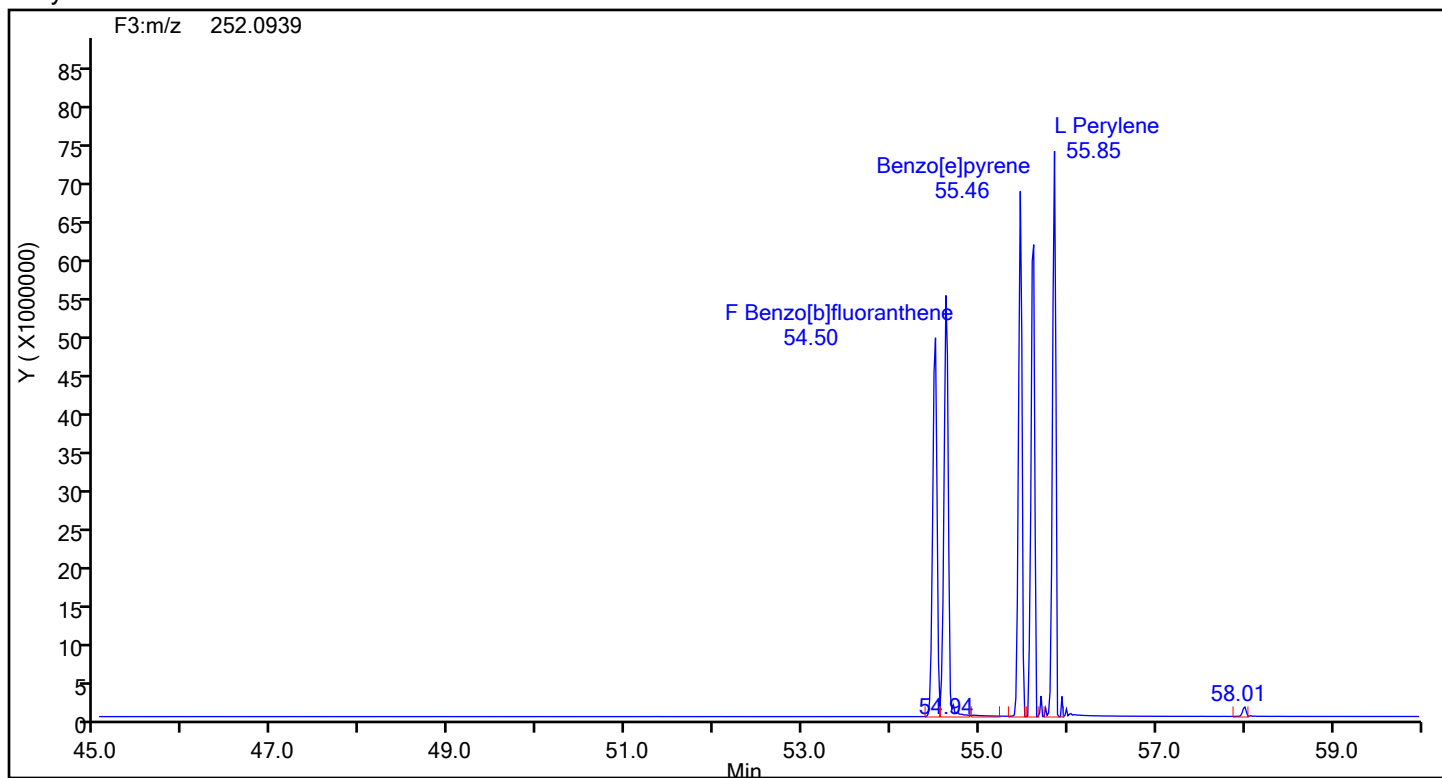
Worklist#: 88945

Sample Line#: 1

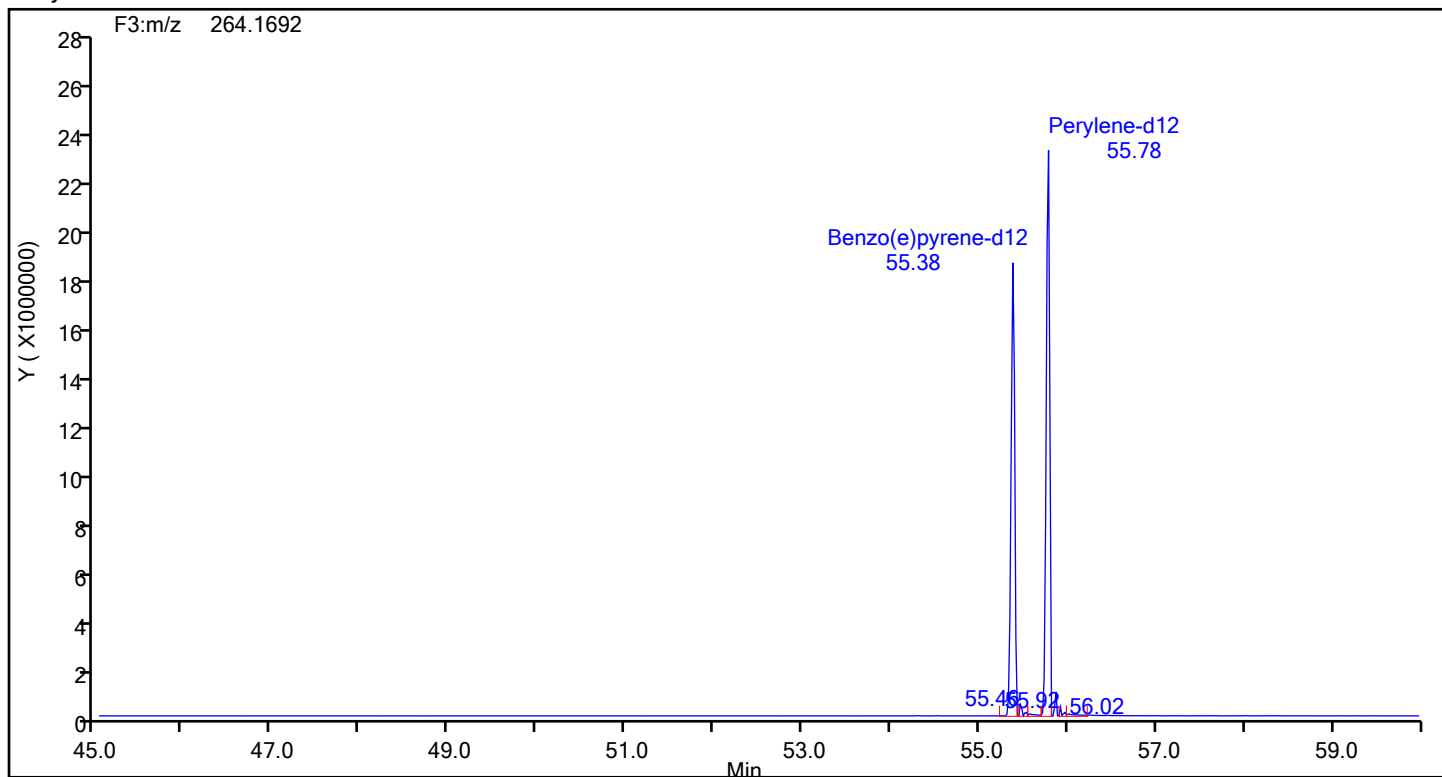
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

Perylene



Perylene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\d3240718c2a\_20240718214503.d

Injection Date: 18-Jul-2024 21:47:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

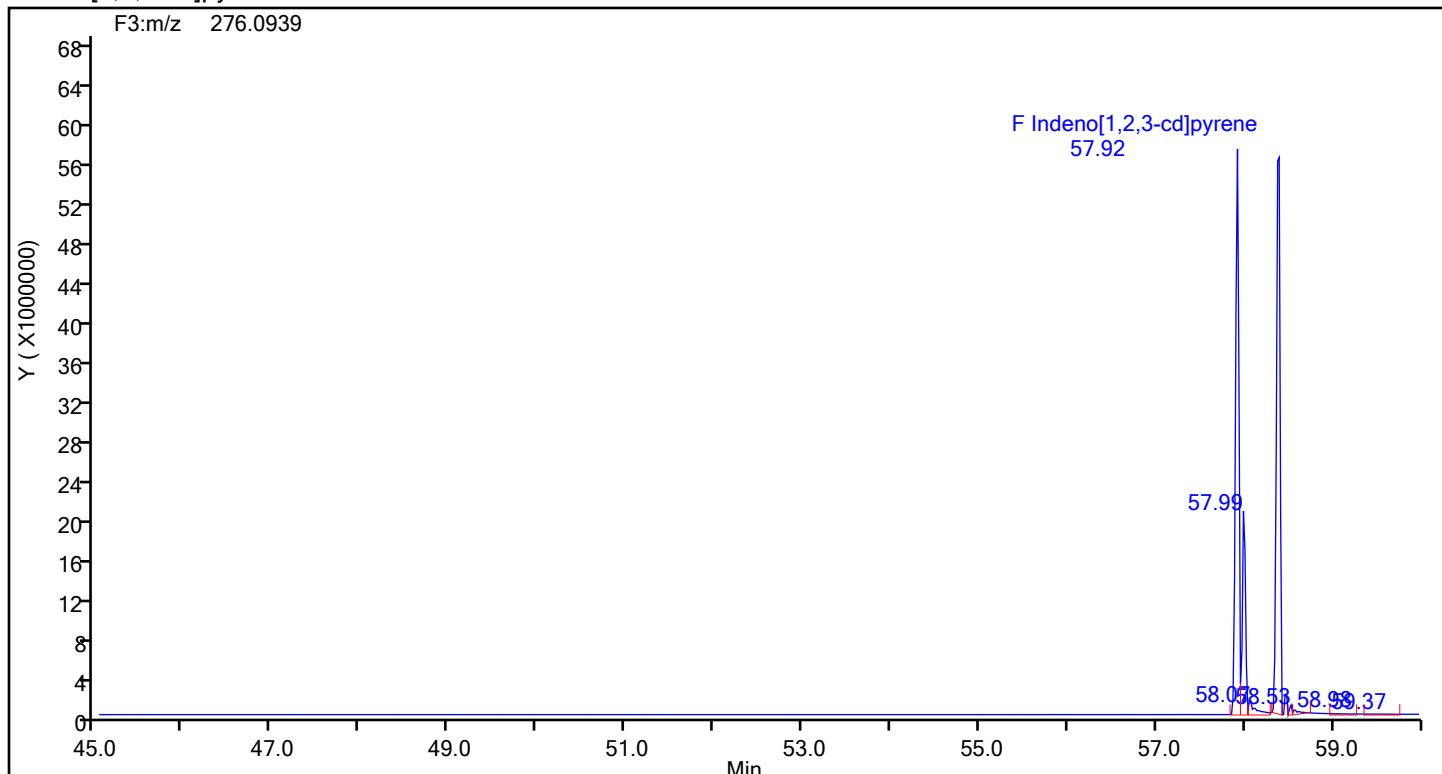
Worklist#: 88945

Sample Line#: 1

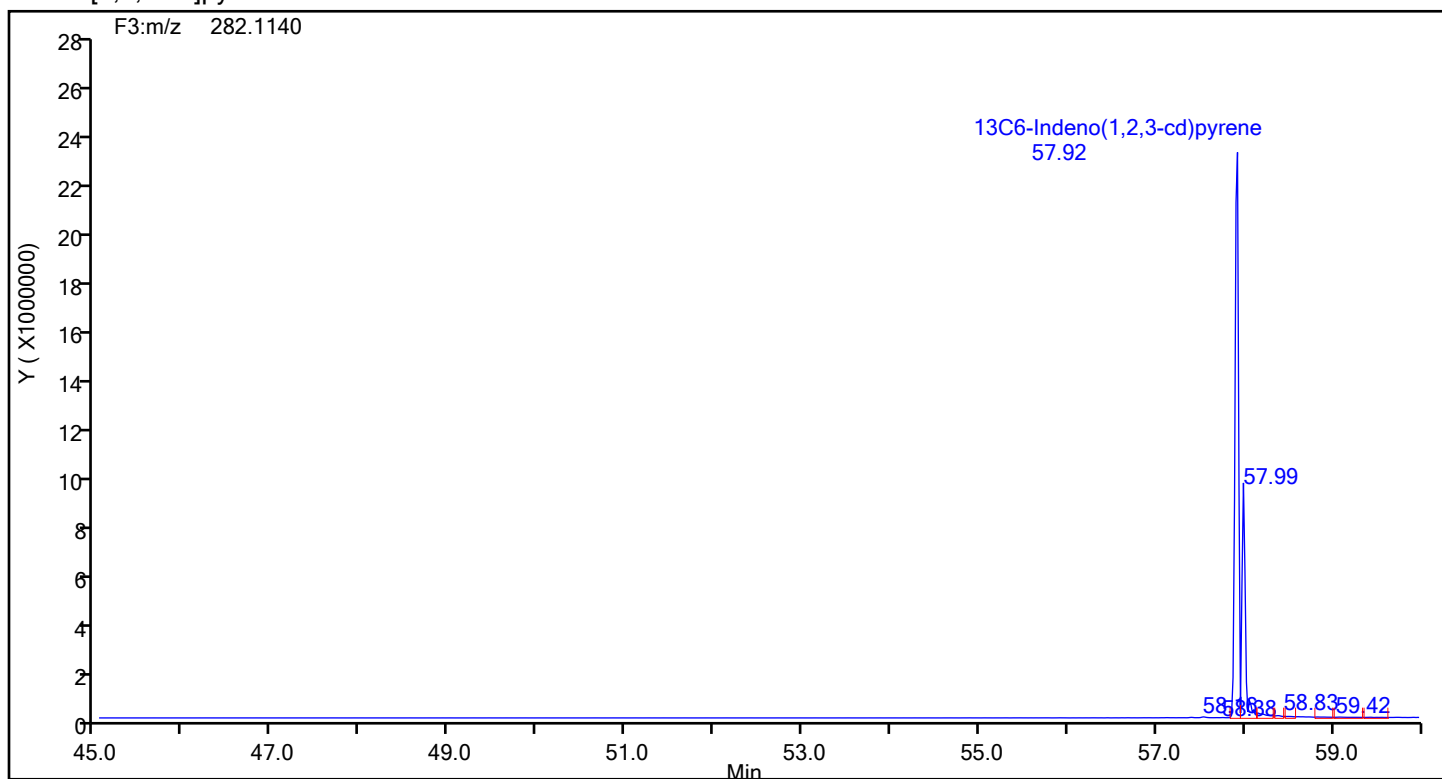
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

Indeno[1,2,3-cd]pyrene



Indeno[1,2,3-cd]pyrene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\d3240718c2a\_20240718214503.d

Injection Date: 18-Jul-2024 21:47:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

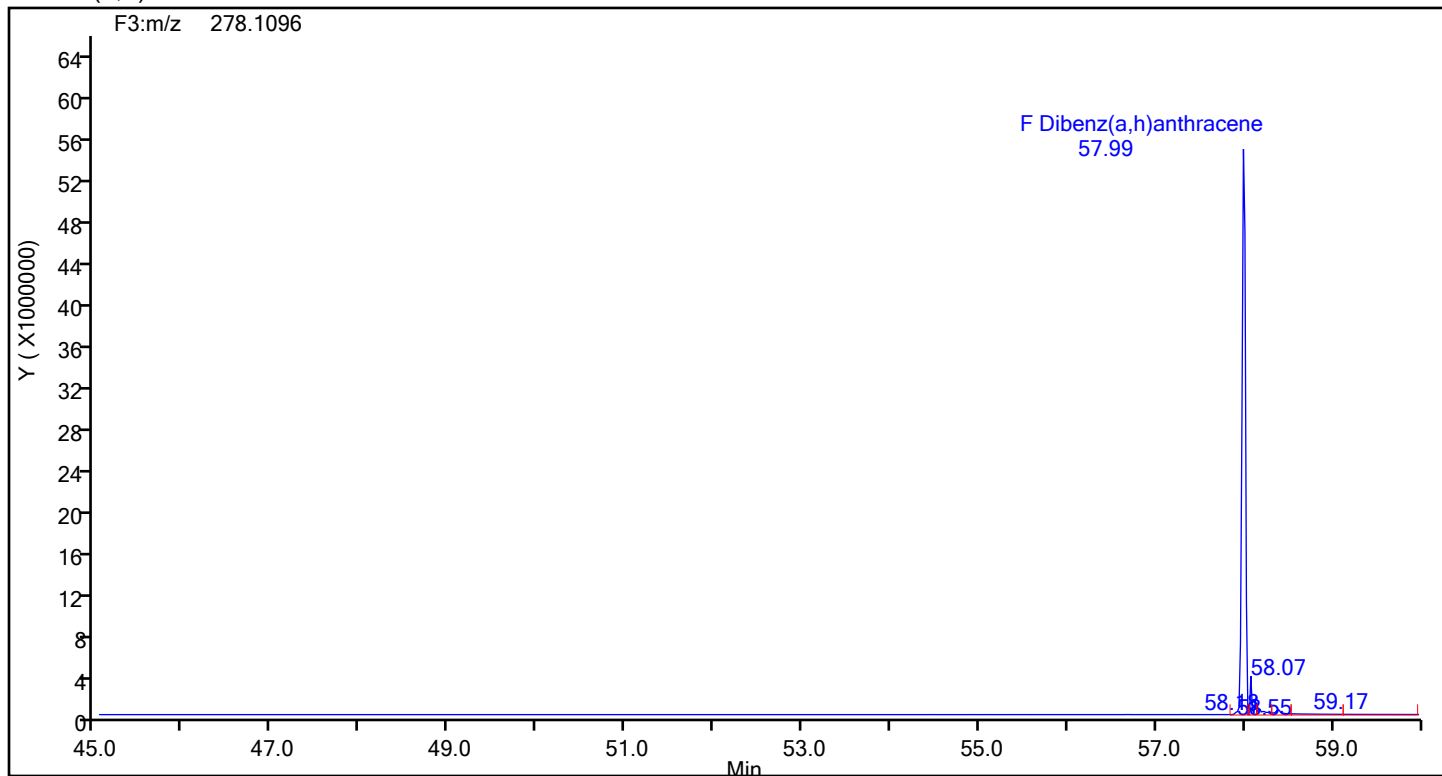
Worklist#: 88945

Sample Line#: 1

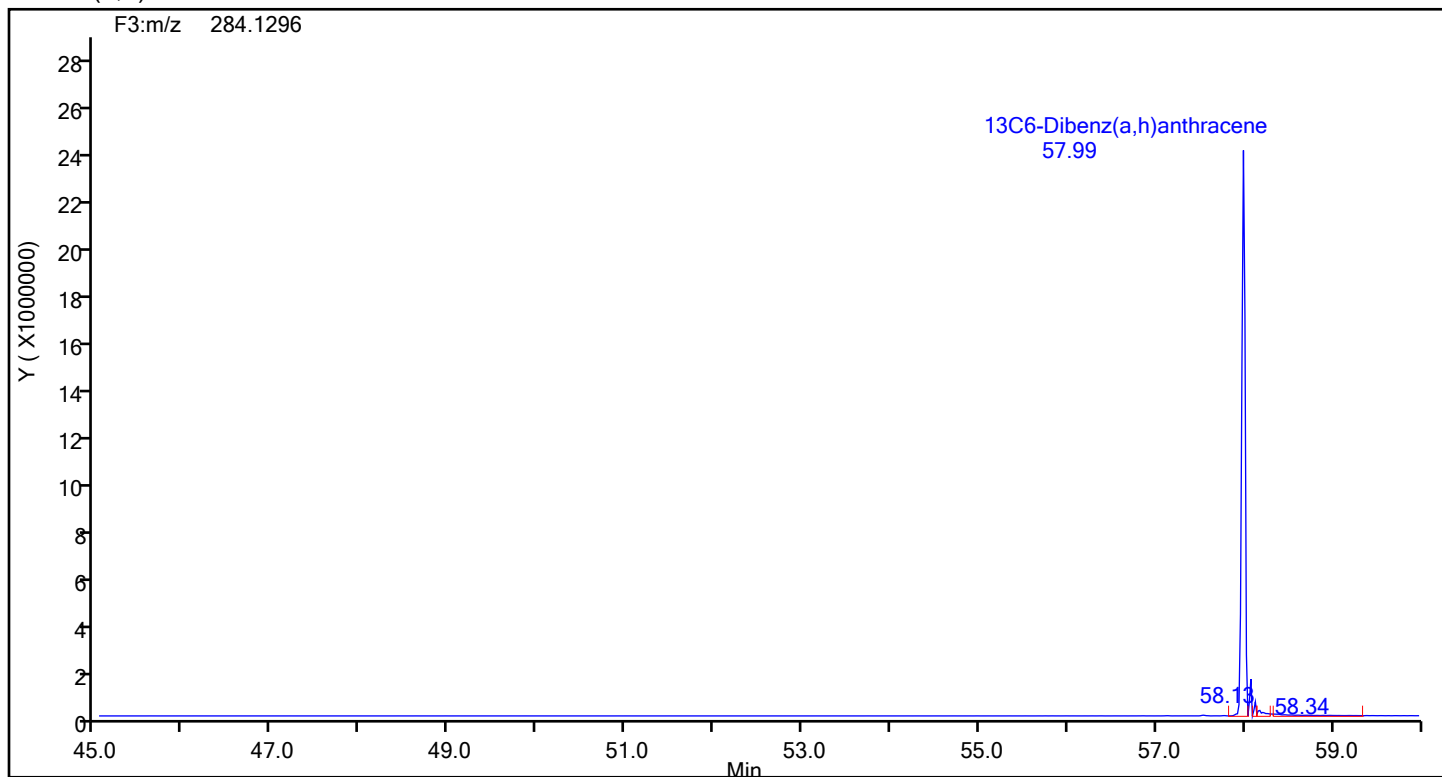
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

Dibenz(a,h)anthracene



Dibenz(a,h)anthracene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\d3240718c2a\_20240718214503.d

Injection Date: 18-Jul-2024 21:47:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

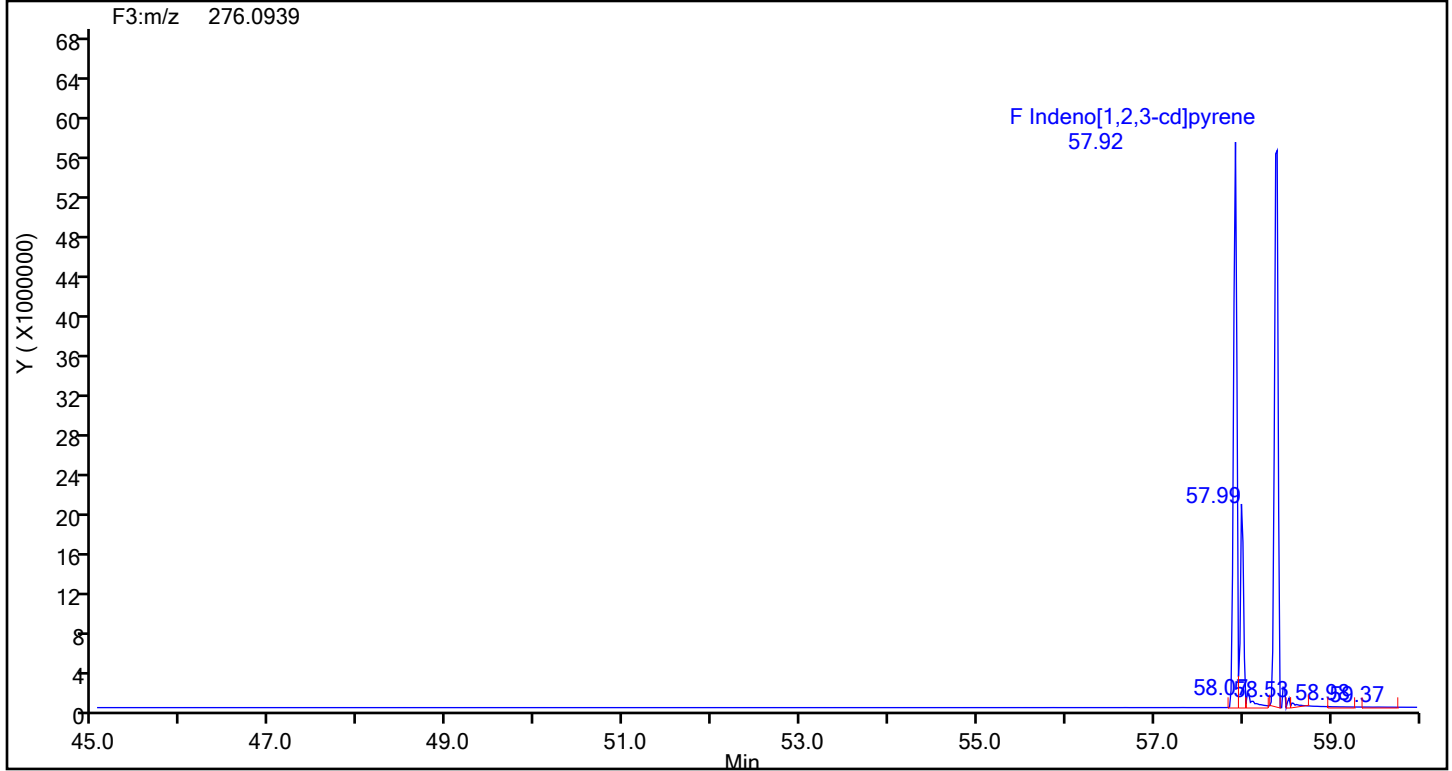
Worklist#: 88945

Sample Line#: 1

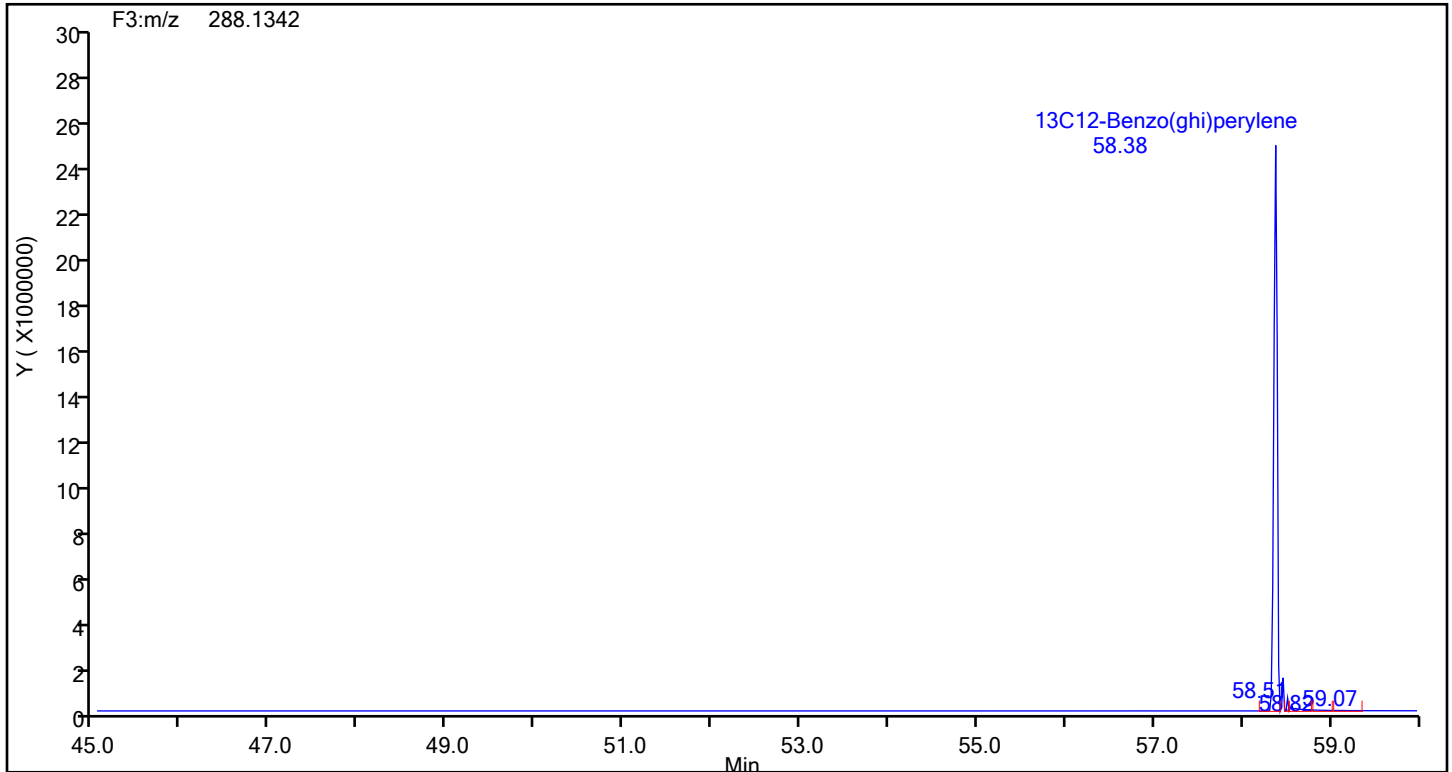
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

Benzo[g,h,i]perylene



Benzo[g,h,i]perylene Standards





FORM VII  
HI-RES PAHS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCV 140-88999/1 Calibration Date: 07/20/2024 02:03

Instrument ID: D3PAH Calib Start Date: 06/19/2024 16:34

GC Column: Rxi-5SilMS 25 ID: 0.25 (mm) Calib End Date: 06/20/2024 01:09

Lab File ID: d3240720c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	AveID	1.289	1.195		185	200	-7.3	25.0
2-Methylnaphthalene	AveID	1.279	1.242		194	200	-2.8	25.0
Acenaphthylene	AveID	2.366	2.377		201	200	0.5	25.0
Acenaphthene	AveID	1.270	1.207		190	200	-4.9	25.0
Fluorene	AveID	1.253	1.303		208	200	4.0	25.0
Phenanthrene	AveID	1.104	1.141		207	200	3.3	25.0
Anthracene	AveID	1.359	1.413		208	200	4.0	25.0
Fluoranthene	AveID	1.151	1.096		190	200	-4.8	25.0
Pyrene	AveID	1.065	1.039		195	200	-2.4	25.0
Benzo[a]anthracene	AveID	0.9739	1.074		221	200	10.3	25.0
Chrysene	AveID	0.9815	1.063		217	200	8.3	25.0
Benzo[b]fluoranthene	AveID	1.125	1.145		204	200	1.8	25.0
Benzo[k]fluoranthene	AveID	1.127	1.072		190	200	-4.9	25.0
Benzo[e]pyrene	AveID	1.001	0.9369		187	200	-6.4	25.0
Benzo[a]pyrene	AveID	1.113	1.119		201	200	0.6	25.0
Perylene	AveID	1.431	1.520		213	200	6.3	25.0
Indeno[1,2,3-cd]pyrene	AveID	1.125	1.199		213	200	6.6	25.0
Dibenz(a,h)anthracene	AveID	1.131	1.060		188	200	-6.3	25.0
Benzo[g,h,i]perylene	AveID	1.284	1.163		181	200	-9.4	25.0
13C6-Naphthalene	Ave	3.375	2.745		81.3	100	-18.7	30.0
13C6-2-Methylnaphthalene	Ave	1.603	1.401		87.4	100	-12.6	30.0
13C6-Acenaphthylene	Ave	1.652	1.727		105	100	4.5	30.0
13C6-Acenaphthene	Ave	0.9792	0.9870		101	100	0.8	30.0
13C6-Fluorene	Ave	0.8898	0.9062		102	100	1.8	30.0
13C6-Phenanthrene	Ave	0.5724	0.4956		86.6	100	-13.4	30.0
13C6-Anthracene	Ave	0.4523	0.4013		88.7	100	-11.3	30.0
13C6-Fluoranthrene	Ave	1.199	1.241		103	100	3.4	30.0
13C3-Pyrene	Ave	1.351	1.356		100	100	0.4	30.0
13C6-Benzo(a)anthracene	Ave	1.519	1.326		87.3	100	-12.7	30.0
13C6-Chrysene	Ave	1.629	1.398		85.8	100	-14.2	30.0
13C6-Benzo(b)fluoranthene	Ave	1.462	1.566		107	100	7.1	30.0
13C6-Benzo(k)fluoranthene	Ave	1.751	1.759		101	100	0.5	30.0
13C4-Benzo(e)pyrene	Ave	1.637	1.842		113	100	12.5	30.0
13C4-Benzo(a)pyrene	Ave	1.551	1.692		109	100	9.1	30.0
Perylene-d12	Ave	1.192	1.271		107	100	6.7	30.0
13C6-Indeno(1,2,3-cd)pyrene	Ave	1.022	1.568		153	100	53.4*	30.0
13C6-Dibenz(a,h)anthracene	Ave	1.055	1.582		150	100	49.9*	30.0
13C12-Benzo(ghi)perylene	Ave	1.275	1.606		126	100	26.0	30.0

# Resolution Check Report ( DFS SN: 3439 )

Date: 20 Jul 2024 01:40  
MID Experiment: ResCheck\_HRPAH  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43\_HRPAH.lua  
Status: RESOLUTION PASSED

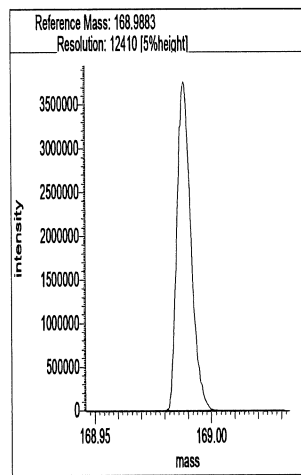
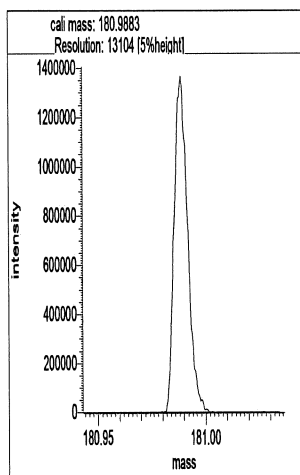
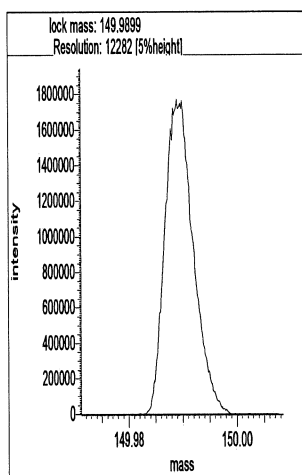
-d3240720r2

## Segment 1

Lock mass 149.9899 [m/z] Resolution: 12282 [5%height]

Cali. mass 180.9883 [m/z] Resolution: 13104 [5%height]

Ref. mass 168.9883 [m/z] Resolution: 12410 [5%height]

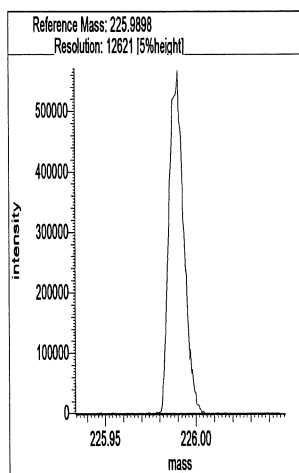
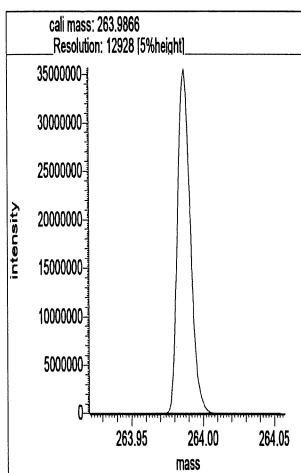
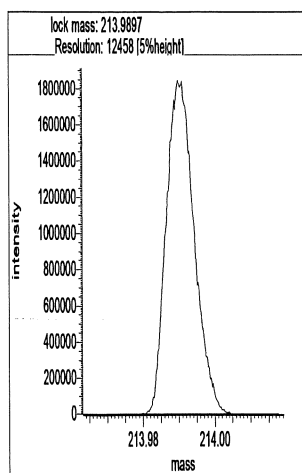


## Segment 2

Lock mass 213.9897 [m/z] Resolution: 12458 [5%height]

Cali. mass 263.9866 [m/z] Resolution: 12928 [5%height]

Ref. mass 225.9898 [m/z] Resolution: 12621 [5%height]

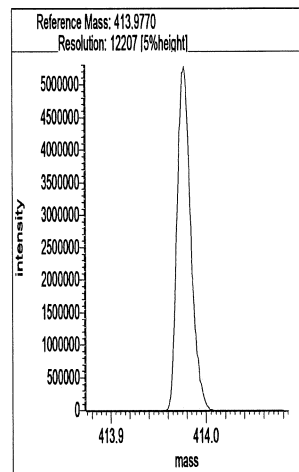
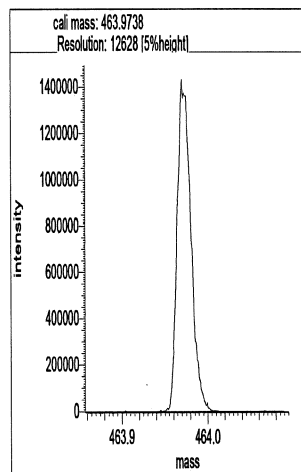
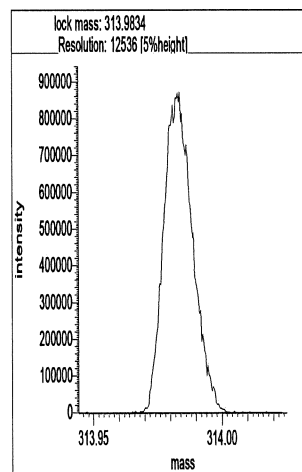


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 12536 [5%height]

Cali. mass 463.9738 [m/z] Resolution: 12628 [5%height]


Ref. mass 413.9770 [m/z] Resolution: 12207 [5%height]



## Reports

01:50:34: Peak matching procedure started  
01:50:34:  
01:50:35: Reference mass: 263.98656  
01:50:35: Sample mass: 414.0  
01:50:36:  
01:50:36: Finding reference mass  
01:50:37: Finding sample mass  
01:50:38:  
01:50:43: [1] 413.9778 amu, mean: 413.9778 SD: 0.09 mmu or: 0.21 ppm  
01:50:46: [2] 413.9776 amu, mean: 413.9777 SD: 0.26 mmu or: 0.63 ppm  
01:50:50: [3] 413.9781 amu, mean: 413.9778 SD: 0.26 mmu or: 0.62 ppm  
01:50:53: [4] 413.9781 amu, mean: 413.9779 SD: 0.24 mmu or: 0.57 ppm  
01:50:56: [5] 413.9781 amu, mean: 413.9780 SD: 0.22 mmu or: 0.54 ppm  
01:50:59: [6] 413.9778 amu, mean: 413.9779 SD: 0.23 mmu or: 0.56 ppm  
01:51:02: [7] 413.9782 amu, mean: 413.9780 SD: 0.23 mmu or: 0.55 ppm  
01:51:05: [8] 413.9782 amu, mean: 413.9780 SD: 0.22 mmu or: 0.52 ppm  
01:51:08: [9] 413.9781 amu, mean: 413.9780 SD: 0.21 mmu or: 0.51 ppm  
01:51:12: [10] 413.9781 amu, mean: 413.9780 SD: 0.25 mmu or: 0.61 ppm  
01:51:15: [11] 413.9775 amu, mean: 413.9780  
01:51:15: Stop requested. Please wait for procedure to finish.  
01:51:15:  
01:51:18:  
01:51:18: Peakmatching stopped

Signature

 7-20-24

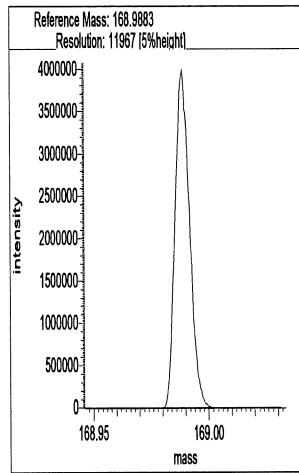
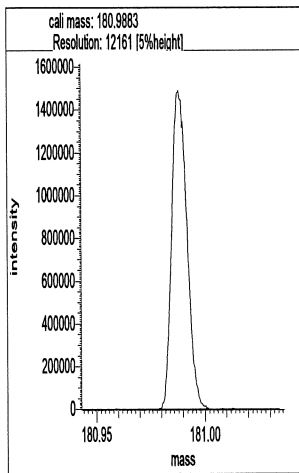
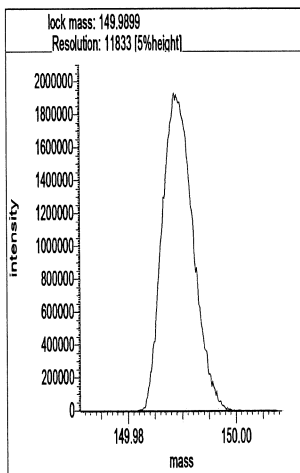
# Resolution Check Report ( DFS SN: 3439 )

Date: 20 Jul 2024 12:39  
MID Experiment: ResCheck\_HRPAH  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43\_HRPAH.lua  
Status: RESOLUTION PASSED

d3240720r3

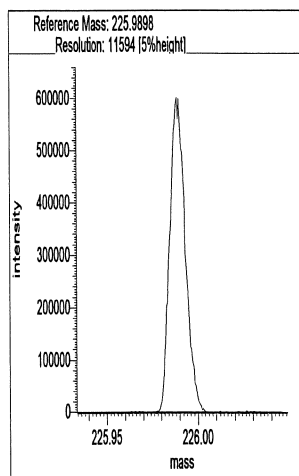
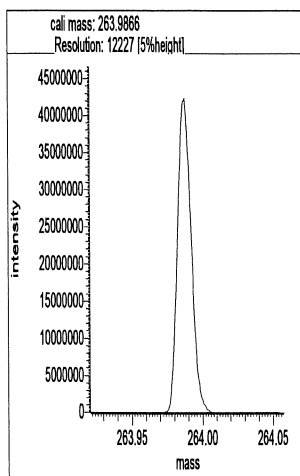
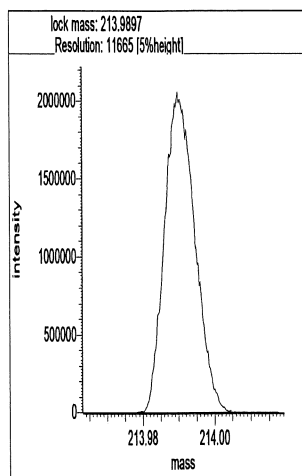
## Segment 1

Lock mass 149.9899 [m/z] Resolution: 11833 [5%height]  
Cali. mass 180.9883 [m/z] Resolution: 12161 [5%height]  
Ref. mass 168.9883 [m/z] Resolution: 11967 [5%height]



## Segment 2

Lock mass 213.9897 [m/z] Resolution: 11665 [5%height]  
Cali. mass 263.9866 [m/z] Resolution: 12227 [5%height]  
Ref. mass 225.9898 [m/z] Resolution: 11594 [5%height]

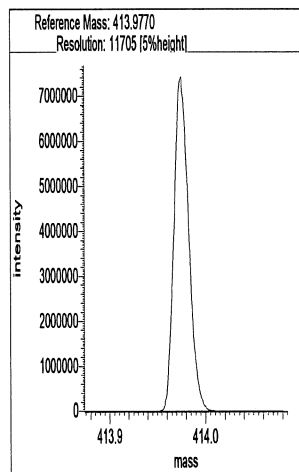
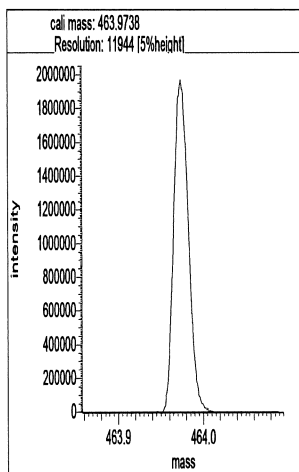
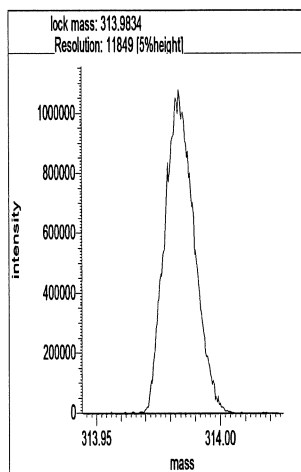


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 11849 [5%height]

Cali. mass 463.9738 [m/z] Resolution: 11944 [5%height]


Ref. mass 413.9770 [m/z] Resolution: 11705 [5%height]



## Reports

12:46:57: Peak matching procedure started  
12:46:57:  
12:46:58: Reference mass: 263.98656  
12:46:58: Sample mass: 414.0  
12:46:59:  
12:46:59: Finding reference mass  
12:47:00: Finding sample mass  
12:47:01:  
12:47:06: [1] 413.9760 amu, mean: 413.9760  
12:47:09: [2] 413.9761 amu, mean: 413.9761 SD: 0.07 mmu or: 0.16 ppm  
12:47:13: [3] 413.9765 amu, mean: 413.9762 SD: 0.27 mmu or: 0.66 ppm  
12:47:16: [4] 413.9762 amu, mean: 413.9762 SD: 0.22 mmu or: 0.54 ppm  
12:47:19: [5] 413.9764 amu, mean: 413.9762 SD: 0.21 mmu or: 0.51 ppm  
12:47:22: [6] 413.9762 amu, mean: 413.9762 SD: 0.19 mmu or: 0.46 ppm  
12:47:25: [7] 413.9763 amu, mean: 413.9763 SD: 0.17 mmu or: 0.42 ppm  
12:47:28: [8] 413.9767 amu, mean: 413.9763 SD: 0.23 mmu or: 0.56 ppm  
12:47:31: [9] 413.9767 amu, mean: 413.9764 SD: 0.24 mmu or: 0.59 ppm  
12:47:34: [10] 413.9768 amu, mean: 413.9764 SD: 0.27 mmu or: 0.64 ppm  
12:47:38: [11] 413.9763 amu, mean: 413.9764 SD: 0.25 mmu or: 0.61 ppm  
12:47:38:  
12:47:38: Stop requested. Please wait for procedure to finish.  
12:47:38:  
12:47:41:  
12:47:41: Peakmatching stopped

Signature

 7/20/24

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\d3240720c1a.d  
Lims ID: CCV  
Client ID:  
Sample Type: CCV  
Inject. Date: 20-Jul-2024 02:03:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033591-001  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAL ICAL  
Last Update: 20-Jul-2024 03:17:16 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1620

First Level Reviewer: V4XA

Date: 20-Jul-2024 03:17:16

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:24	63390709		3.3746	81.3	81.3	0.006545	0.006545	81.34	
Naphthalene	11:25	151440995		1.2893	185.3	185.3	0.0160	0.0160	92.65	
D 13C6-2-Methylnaphthalene	13:46	32361484		1.6031	87.4	87.4	0.001708	0.001708	87.41	
2-Methylnaphthalene	13:46	80395763		1.2786	194.3	194.3	0.006664	0.006664	97.15	
D 13C6-Acenaphthylene	16:38	39878642		1.6520	104.5	104.5	0.003315	0.003315	105	
Acenaphthylene	16:38	108384821		2.3661	200.9	200.9	0.008778	0.008778	100	
* Acenaphthene-d10	17:12	23095163		3.5E+04	100.0	100.0				
D 13C6-Acenaphthene	17:19	22795878		0.9792	100.8	100.8	0.005468	0.005468	101	
Acenaphthene	17:20	55023694		1.2697	190.1	190.1	0.009113	0.009113	95.05	
D 13C6-Fluorene	19:35	20927757		0.8898	101.8	101.8	0.003104	0.003104	102	
Fluorene	19:36	54528354		1.2532	207.9	207.9	0.009652	0.009652	104	
D 13C6-Phenanthrene	24:56	30575339		0.5724	86.6	86.6	0.004314	0.004314	86.57	
Phenanthrene	24:57	69786505		1.1044	206.7	206.7	0.0111	0.0111	103	
\$ Anthracin-d10	25:09	22532204		0.4257	85.8	85.8	0.000903	0.000903	85.79	
D 13C6-Anthracene	25:16	24762418		0.4523	88.7	88.7	0.005459	0.005459	88.73	
Anthracene	25:16	69964604		1.3586	208.0	208.0	0.0117	0.0117	104	
D 13C6-Fluoranthrene	33:40	76548290		1.1994	103.4	103.4	0.006047	0.006047	103	
Fluoranthene	33:40	167835713		1.1513	190.4	190.4	0.005946	0.005946	95.22	
* Pyrene-d10	35:12	61698876		7.9E+04	100.0	100.0				
D 13C3-Pyrene	35:20	83663142		1.3512	100.4	100.4	0.009228	0.009228	100	
Pyrene	35:21	173918555		1.0652	195.2	195.2	0.005878	0.005878	97.58	
\$ 13C6-Benzo(c)fluorene	39:03	32631024		0.5136	103.0	103.0	0.004012	0.004012	103	
D 13C6-Benzo(a)anthracene	45:51	70210475		1.5189	87.3	87.3	0.005894	0.005894	87.28	
Benzo[a]anthracene	45:52	150774323		0.9739	220.5	220.5	0.0206	0.0206	110	
D 13C6-Chrysene	46:07	74027720		1.6287	85.8	85.8	0.005497	0.005497	85.82	
Chrysene	46:08	157346377		0.9815	216.6	216.6	0.0203	0.0203	108	
D 13C6-Benzo(b)fluoranthene	54:29	82936032		1.4621	107.1	107.1	0.001393	0.001393	107	
Benzo[b]fluoranthene	54:29	189886515		1.1249	203.5	203.5	0.001838	0.001838	102	
\$ 13C12-Benzo(j)fluoranthene	54:31	74284704		1.3558	103.5	103.5	0.005362	0.005362	103	
D 13C6-Benzo(k)fluoranthene	54:36	93183662		1.7507	100.5	100.5	0.001163	0.001163	101	
Benzo[k]fluoranthene	54:37	199700771		1.1271	190.1	190.1	0.001783	0.001783	95.07	
* Benzo(e)pyrene-d12	55:23	52960429		5.7E+04	100.0	100.0				
Benzo[e]pyrene	55:27	182789126		1.0013	187.1	187.1	0.001539	0.001539	93.57	



Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C4-Benzo(e)pyrene	55:27	97554726		1.6368	112.5	112.5	0.001972	0.001972	113	
D 13C4-Benzo(a)pyrene	55:36	89621481		1.5508	109.1	109.1	0.002082	0.002082	109	
Benzo[a]pyrene	55:36	200643831		1.1130	201.1	201.1	0.001424	0.001424	101	
D Perylene-d12	55:46	67319415		1.1917	106.7	106.7	0.006101	0.006101	107	
Perylene	55:50	204694832		1.4307	212.5	212.5	0.001446	0.001446	106	
D 13C6-Indeno(1,2,3-cd)pyrene	57:55	83024179		1.0218	153.4	153.4	0.005515	0.005515	153	
Indeno[1,2,3-cd]pyrene	57:55	199038406		1.1249	213.1	213.1	0.001439	0.001439	107	M
D 13C6-Dibenz(a,h)anthracene	57:59	83798095		1.0553	149.9	149.9	0.004373	0.004373	150	
Dibenz(a,h)anthracene	57:59	177731075		1.1314	187.5	187.5	0.001164	0.001164	93.73	
D 13C12-Benzo(ghi)perylene	58:22	85053839		1.2749	126.0	126.0	0.000842	0.000842	126	
Benzo[g,h,i]perylene	58:23	197884039		1.2838	181.2	181.2	0.001263	0.001263	90.62	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61HRPAHCS5a\_00002

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\d3240720c1a.d  
Lims ID: CCV  
Client ID:  
Sample Type: CCV  
Inject. Date: 20-Jul-2024 02:03:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033591-001  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 20-Jul-2024 03:17:16 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1620

First Level Reviewer: V4XA

Date: 20-Jul-2024 03:17:16

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:24	11:24	0	0.663	63390709	22630742	726	1815	31172		
Naphthalene											
128.0626	11:25	11:25	0	1.001	151440995	52218889	1865	4662	27999		
13C6-2-Methylnaphthalene											
148.0984	13:46	13:46	0	0.801	32361484	15140847	90	225	168232		
2-Methylnaphthalene											
142.0783	13:46	13:46	0	1.000	80395763	39843786	516	1290	77217		
13C6-Acenaphthylene											
158.0828	16:38	16:38	0	0.967	39878642	14282479	180	450	79347		E
Acenaphthylene											
152.0626	16:38	16:38	0	1.000	108384821	41119920	680	1700	60470		
Acenaphthene-d10											
164.1404	17:12	17:12	0		23095163	8217912	52	130	158037		
13C6-Acenaphthene											
160.0984	17:19	17:19	0	1.007	22795878	8184830	176	440	46505		E
Acenaphthene											
154.0783	17:20	17:20	0	1.001	55023694	19707768	379	947	51999		
13C6-Fluorene											
172.0984	19:35	19:35	0	1.139	20927757	6531383	91	227	71773		E
Fluorene											
166.0783	19:36	19:36	0	1.001	54528354	16946890	316	790	53629		
13C6-Phenanthrene											
184.0984	24:56	24:56	0	0.708	30575339	7654384	121	302	63259		
Phenanthrene											
178.0783	24:57	24:57	0	1.000	69786505	17707904	377	942	46971		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:09	25:09	0	0.715	22532204	5341641	19	47	281139		
13C6-Anthracene											
184.0984	25:16	25:16	0	0.718	24762418	5907097	121	302	48819		
Anthracene											
178.0783	25:16	25:16	0	1.000	69964604	17292672	377	942	45869		
13C6-Fluoranthrene											
208.0984	33:40	33:40	0	0.956	76548290	15629575	355	887	44027		E
Fluoranthene											
202.0783	33:40	33:40	0	1.000	167835713	35452353	428	1070	82833		
Pyrene-d10											
212.1404	35:12	35:12	0		61698876	12229780	62	155	197255		
13C3-Pyrene											
205.0883	35:20	35:20	0	1.004	83663142	17089776	610	1525	28016		E
Pyrene											
202.0783	35:21	35:21	0	1.000	173918555	35562433	428	1070	83090		
13C6-Benzo(c)fluorene											
222.1134	39:03	39:03	0	0.705	32631024	6014138	101	252	59546		
13C6-Benzo(a)anthracene											
234.1140	45:51	45:51	0	1.303	70210475	13160339	607	1517	21681		
Benzo[a]anthracene											
228.0939	45:52	45:52	0	1.000	150774323	29719050	1057	2642	28116		
13C6-Chrysene											
234.1140	46:07	46:07	0	1.310	74027720	13238931	607	1517	21810		
Chrysene											
228.0939	46:08	46:08	0	1.000	157346377	29922129	1057	2642	28309		
13C6-Benzo(b)fluoranthene											
258.1140	54:29	54:29	0	0.984	82936032	24517074	138	345	177660		E
Benzo[b]fluoranthene											
252.0939	54:29	54:29	0	1.000	189886515	55256821	203	507	272201		
13C12-Benzo(j)fluoranthene											
264.1336	54:31	54:31	0	0.984	74284704	20630349	493	1232	41847		
13C6-Benzo(k)fluoranthene											
258.1140	54:36	54:36	0	0.986	93183662	25226194	138	345	182799		E
Benzo[k]fluoranthene											
252.0939	54:37	54:37	0	1.000	199700771	58558197	203	507	288464		
Benzo(e)pyrene-d12											
264.1692	55:23	55:23	0		52960429	16945093	493	1232	34371		
Benzo[e]pyrene											
252.0939	55:27	55:27	0	1.000	182789126	60118764	203	507	296152		
13C4-Benzo(e)pyrene											
256.1073	55:27	55:27	0	1.001	97554726	32899048	219	547	150224		E
13C4-Benzo(a)pyrene											
256.1073	55:36	55:36	0	1.004	89621481	31986925	219	547	146059		E

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Benzo[a]pyrene											
252.0939	55:36	55:36	0	1.000	200643831	71975680	203	507	354560		
Perylene-d12											
264.1692	55:46	55:46	0	1.007	67319415	24507798	493	1232	49712		E
Perylene											
252.0939	55:50	55:50	0	1.001	204694832	74552785	203	507	367255		
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	57:55	57:55	0	1.046	83024179	30894489	382	955	80876		E
Indeno[1,2,3-cd]pyrene											
276.0939	57:55	57:55	0	1.000	199038406	72468377	200	500	362342		M
13C6-Dibenz(a,h)anthracene											
284.1296	57:59	57:59	0	1.047	83798095	30363773	313	782	97009		E
Dibenz(a,h)anthracene											
278.1096	57:59	57:59	0	1.000	177731075	60617192	160	400	378857		
13C12-Benzo(ghi)perylene											
288.1342	58:22	58:22	0	1.054	85053839	30836262	73	182	422415		E
Benzo[g,h,i]perylene											
276.0939	58:23	58:23	0	1.000	197884039	69992907	200	500	349965		

**QC Flag Legend**

Processing Flags

Review Flags

M - Manually Integrated

**Reagents:**

61HRPAHCS5a\_00002

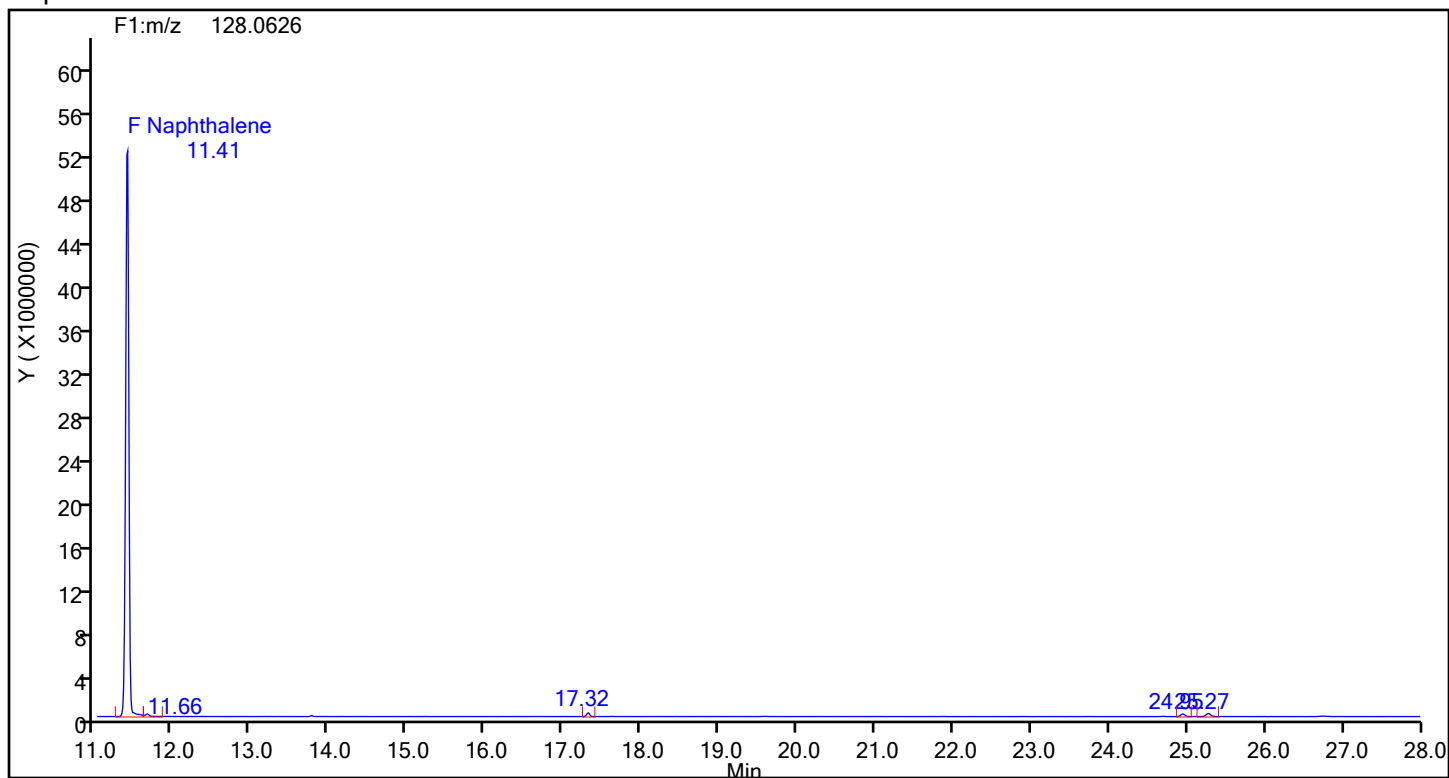
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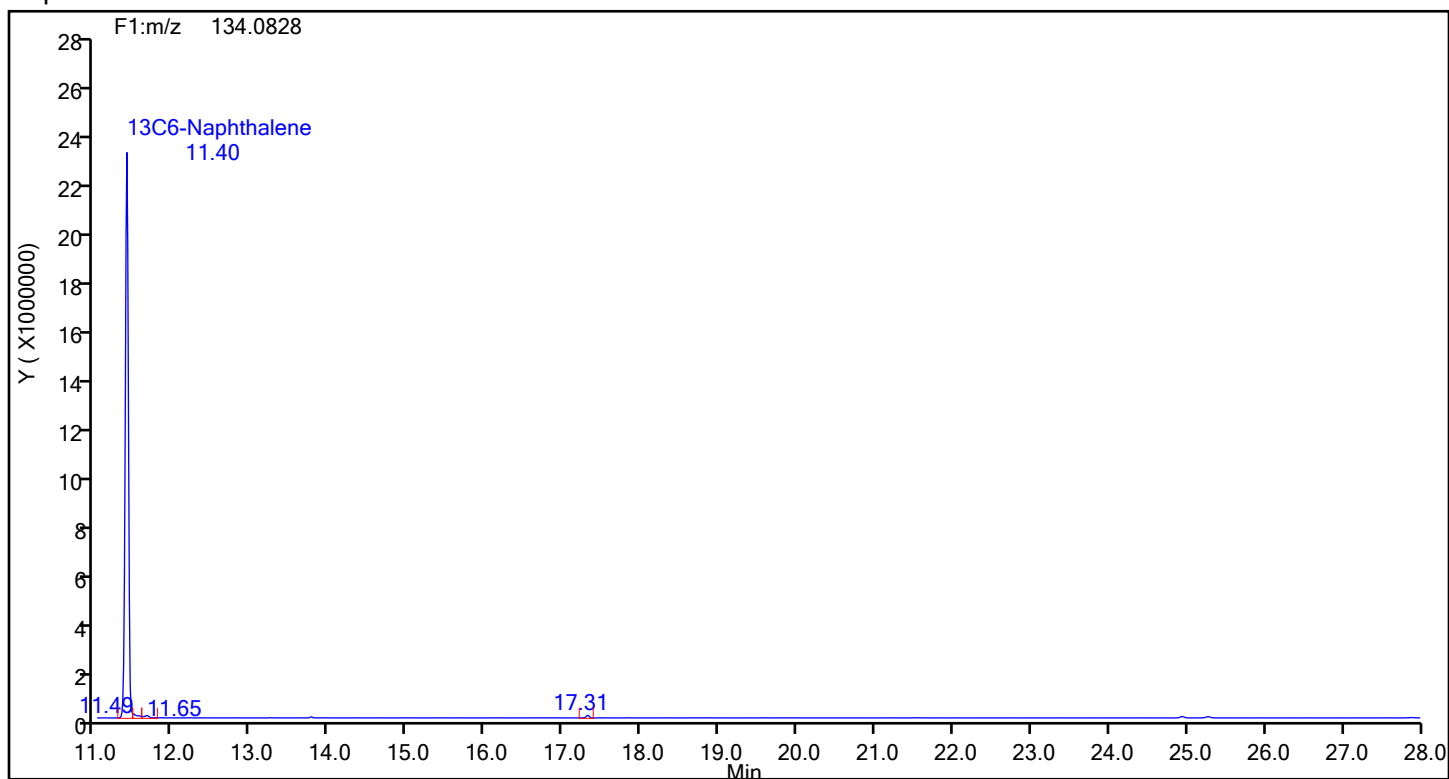
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88999 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



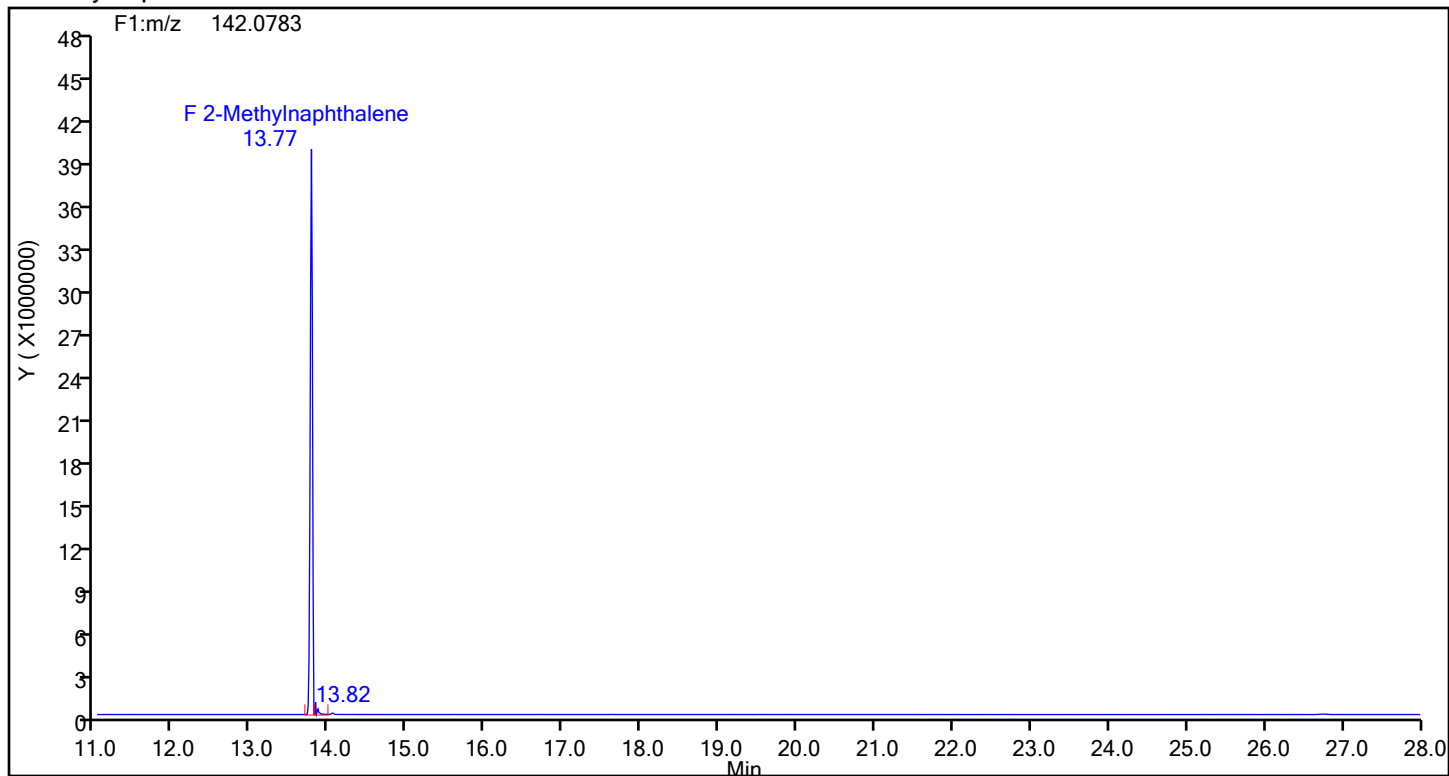
## Naphthalene Standards



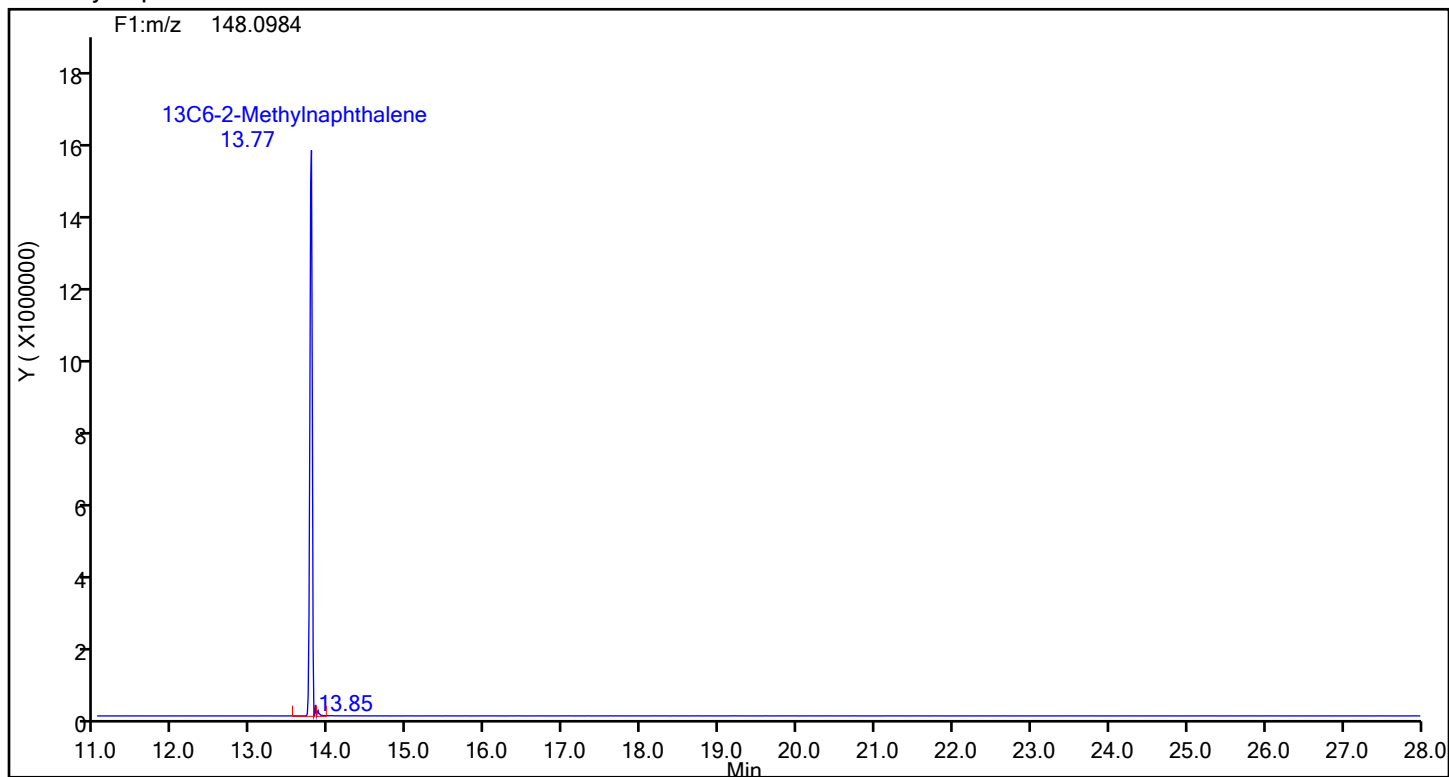
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



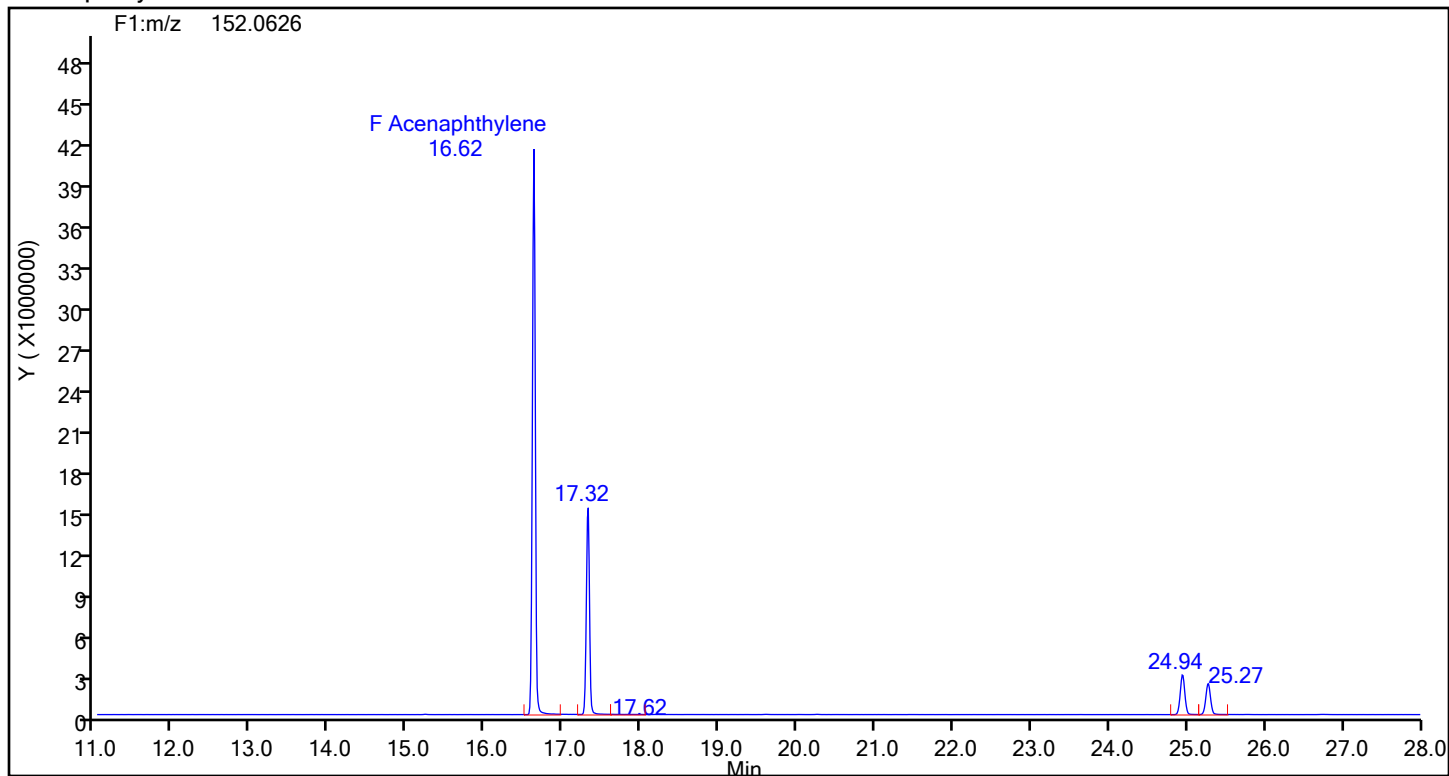
## 2-Methylnaphthalene Standards



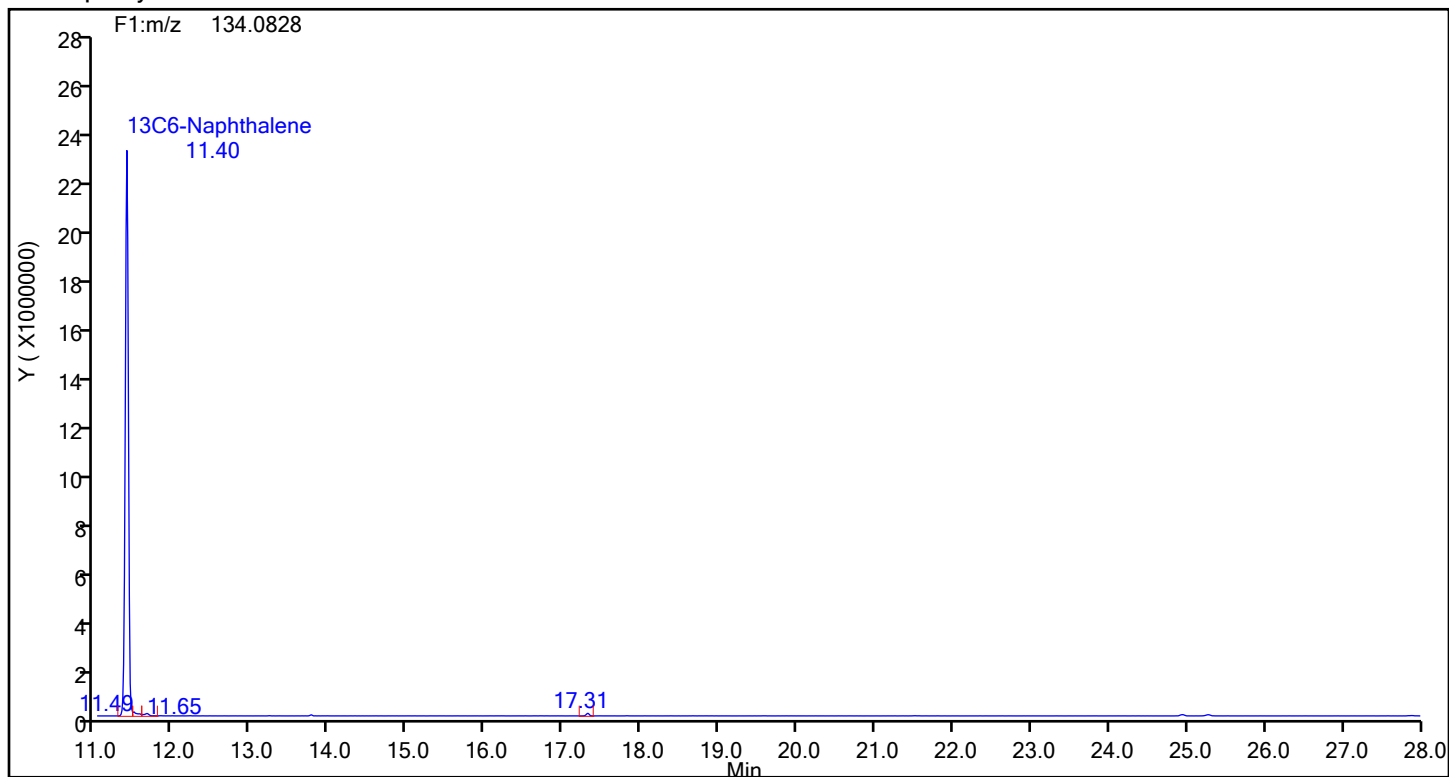
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## Acenaphthylene

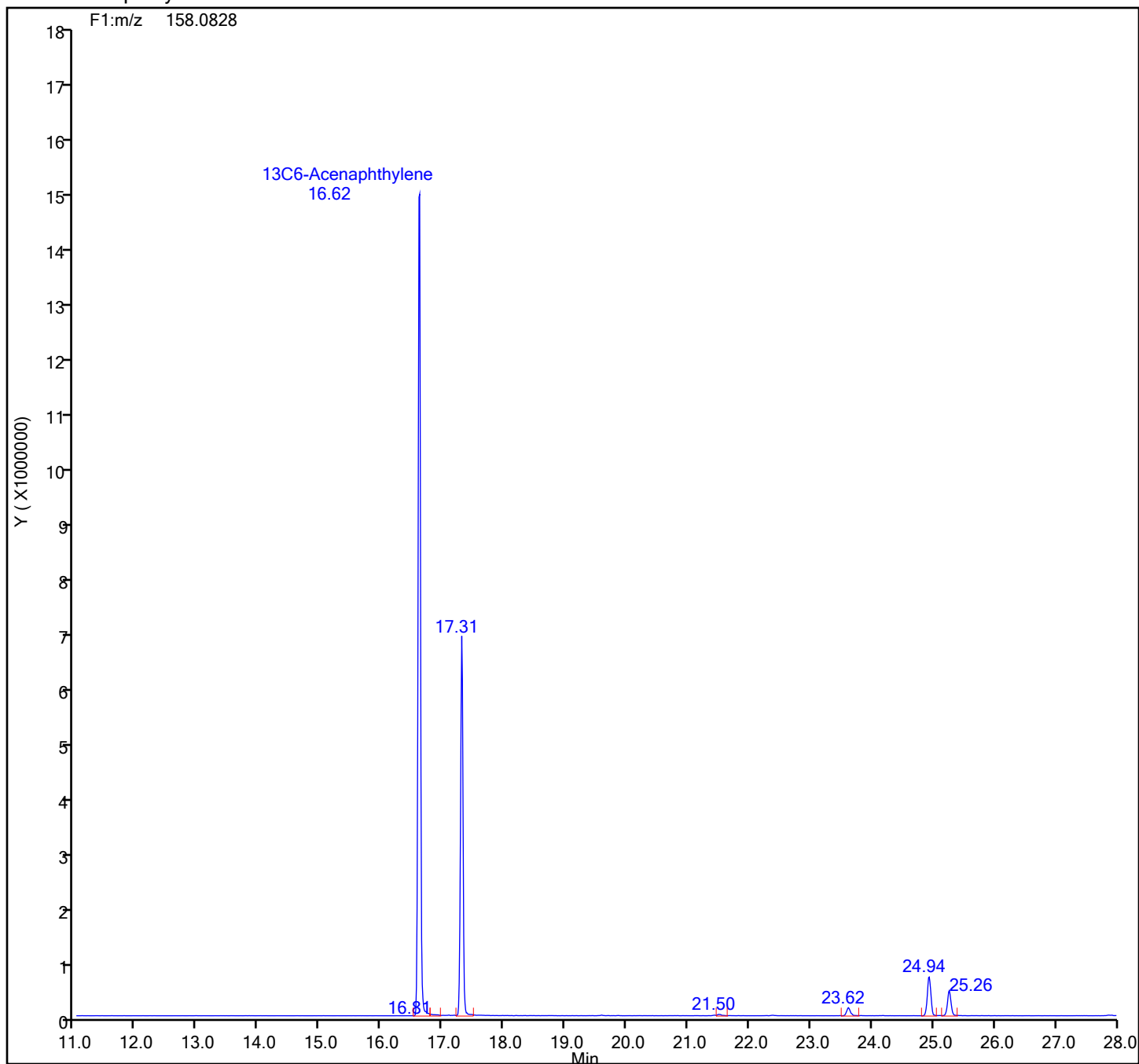


## Acenaphthylene Standards



## Eurofins Knoxville

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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
13C6-Acenaphthylene Standards

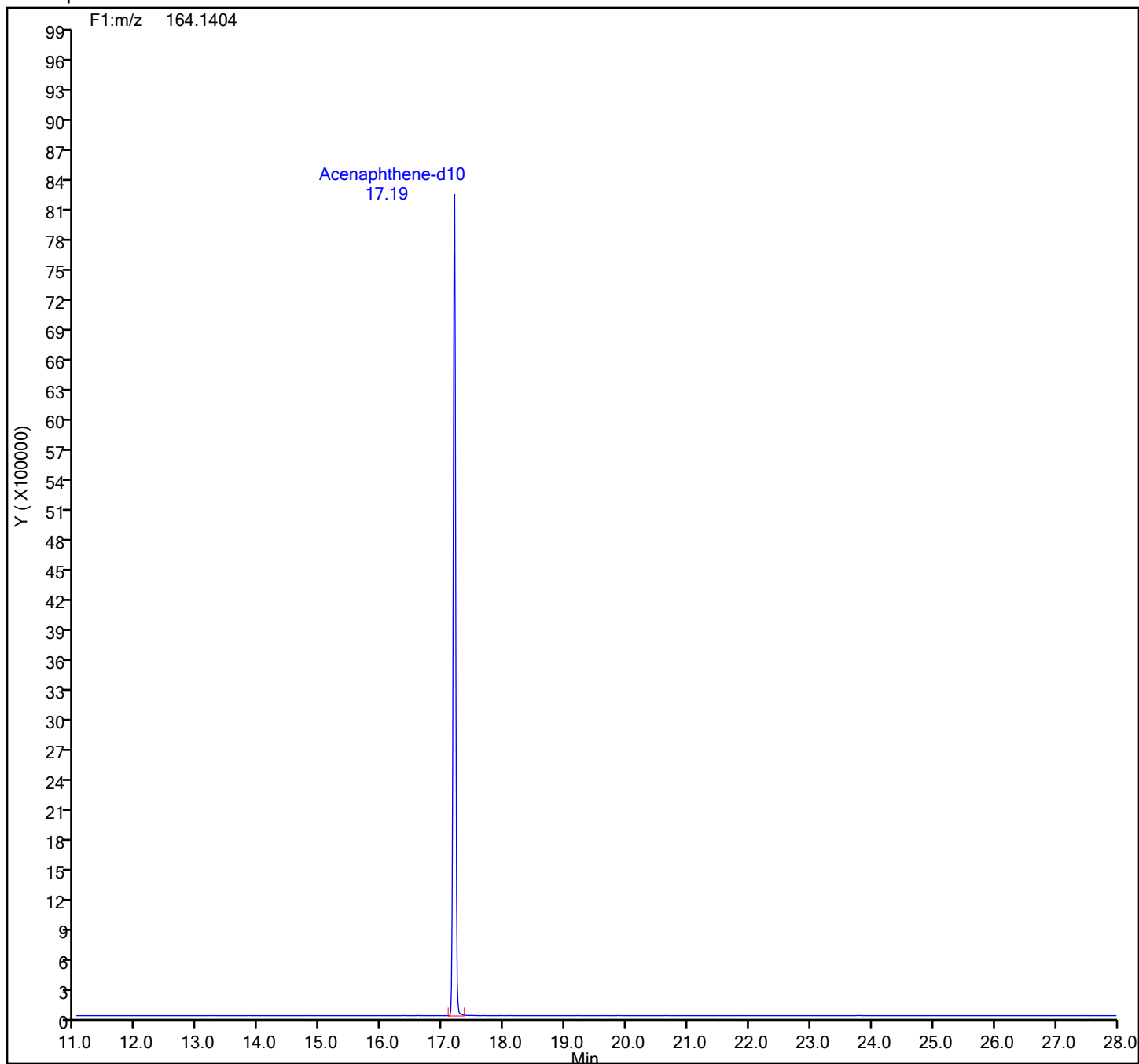




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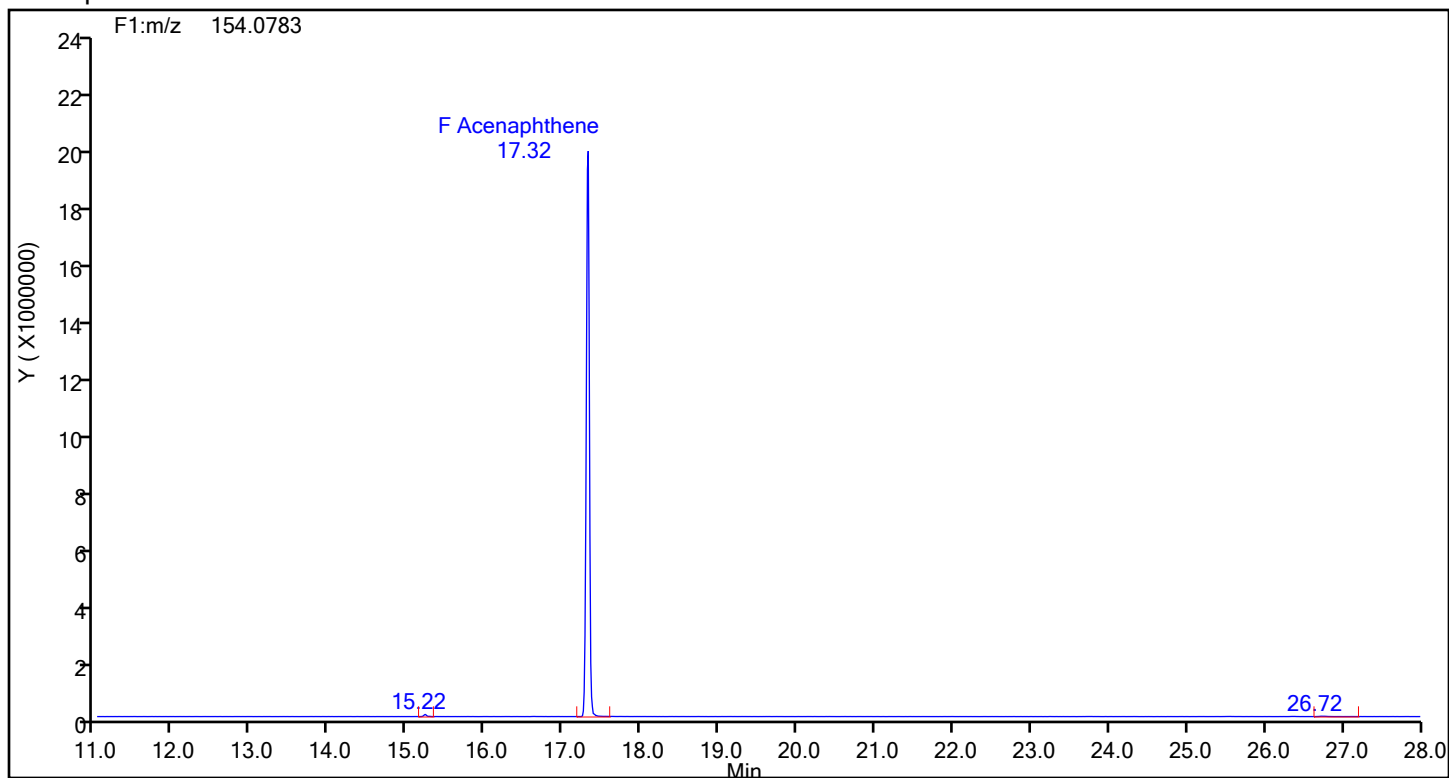
## Acenaphthene-d10 Standards



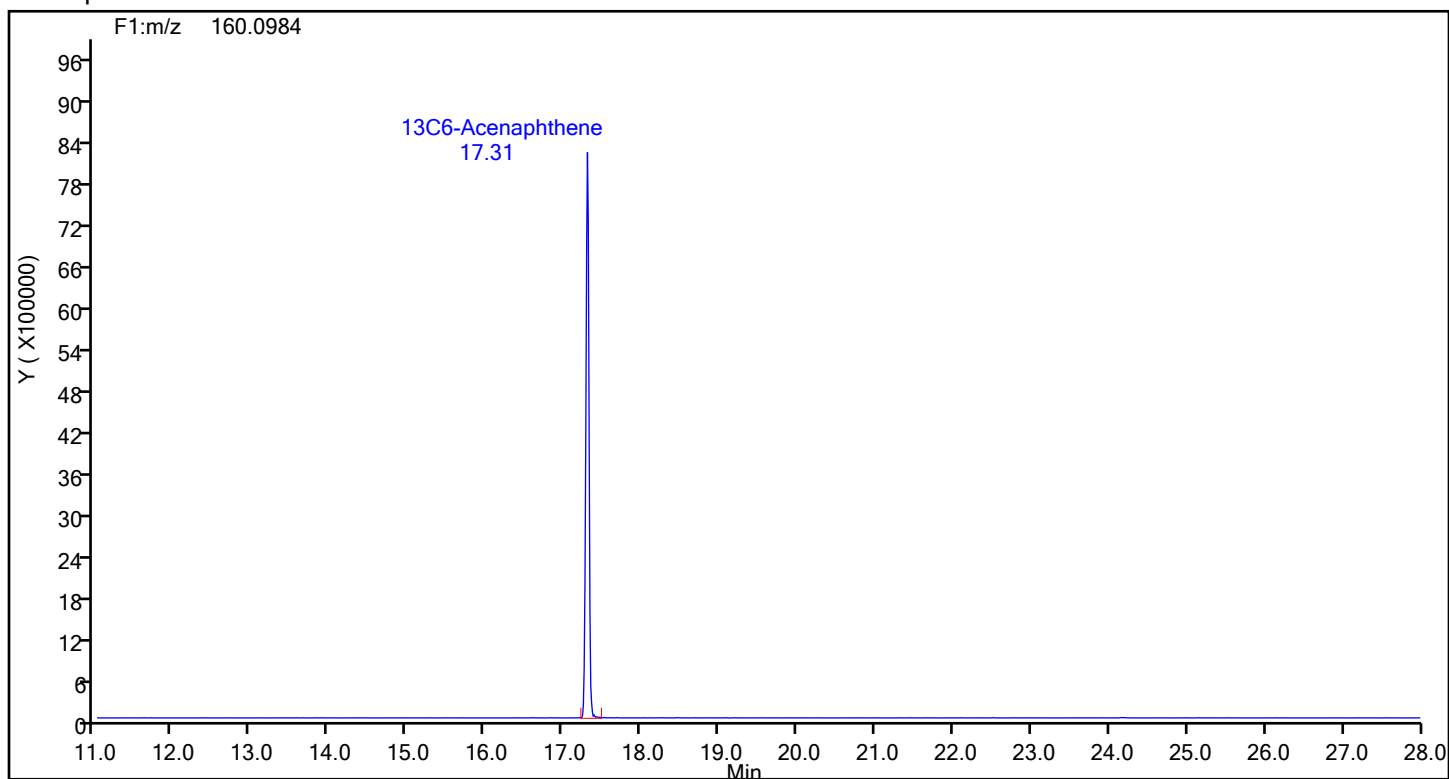
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
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## Acenaphthene



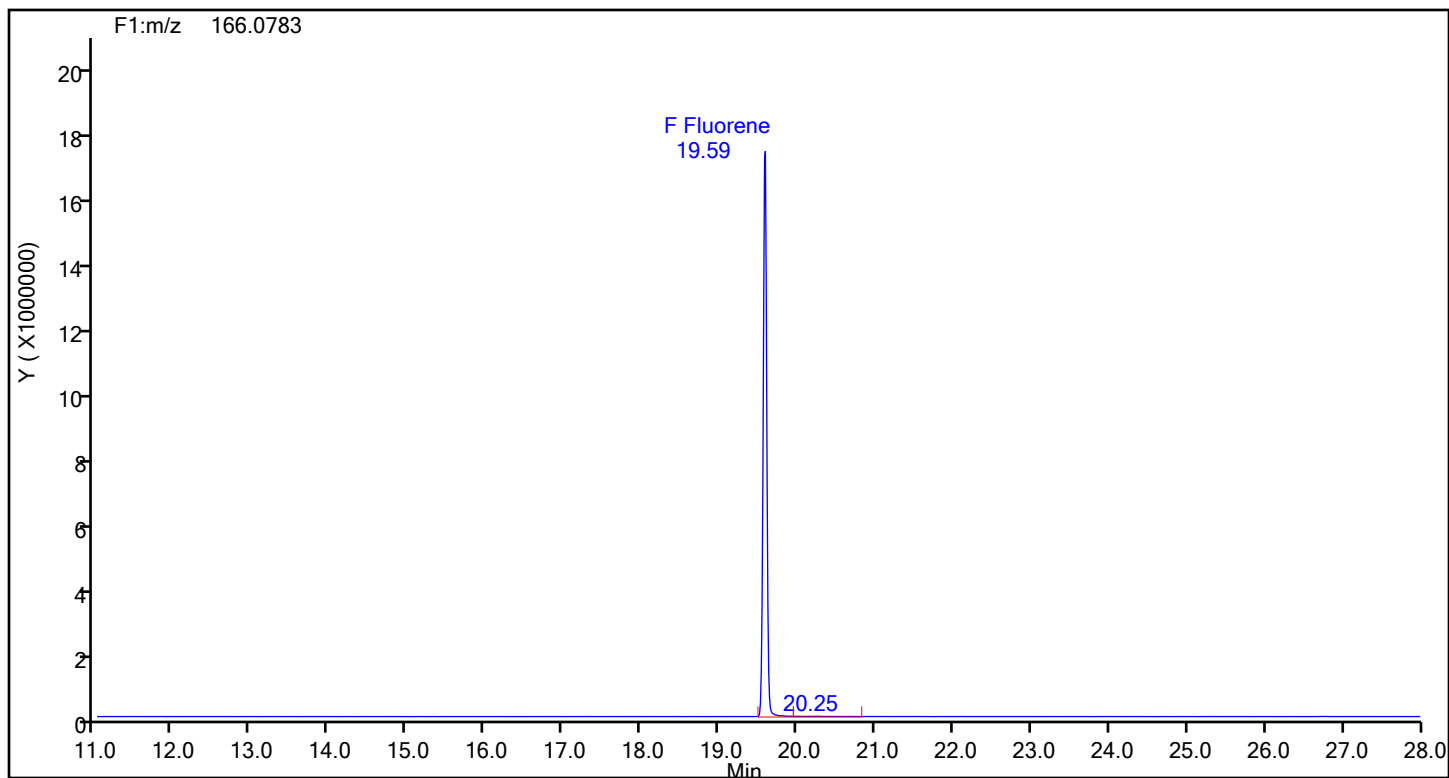
## Acenaphthene Standards



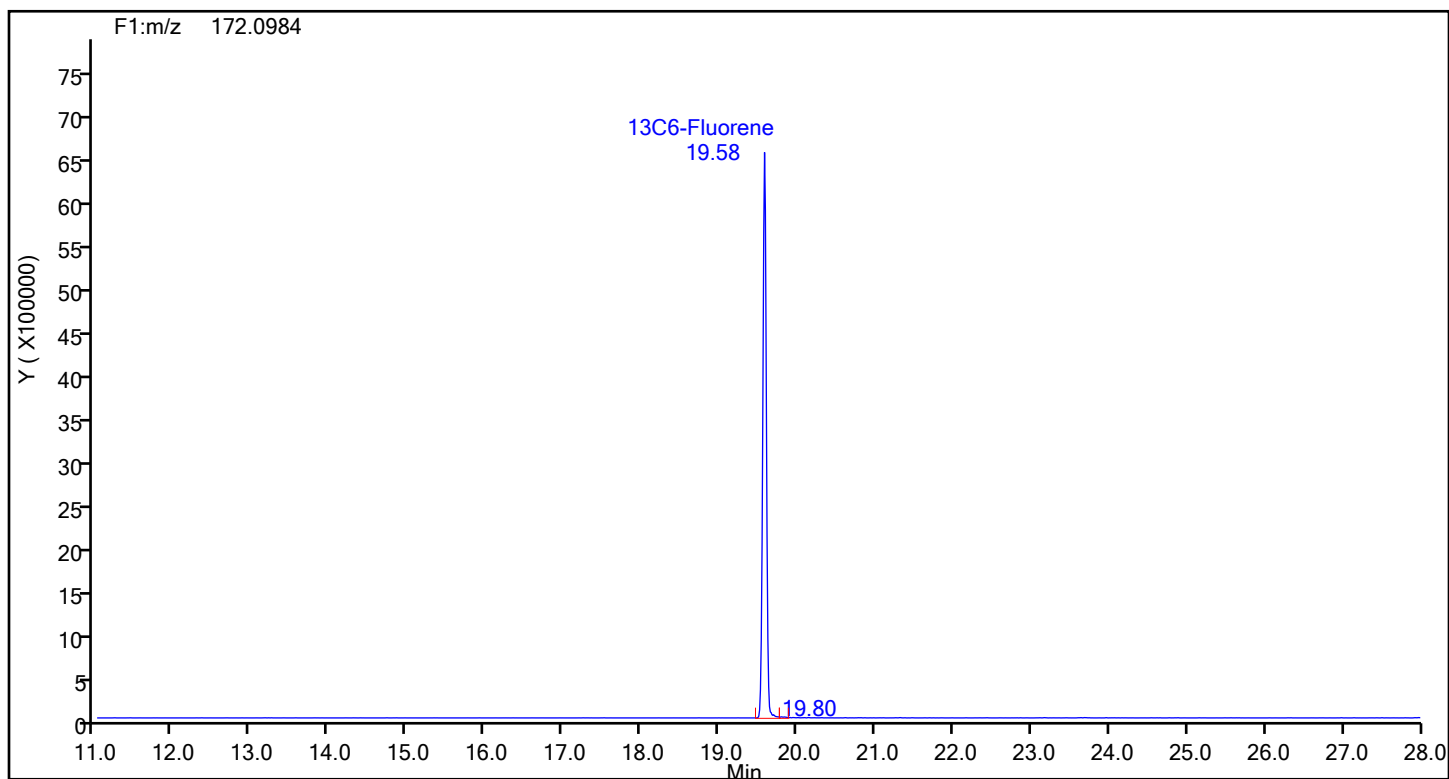
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene

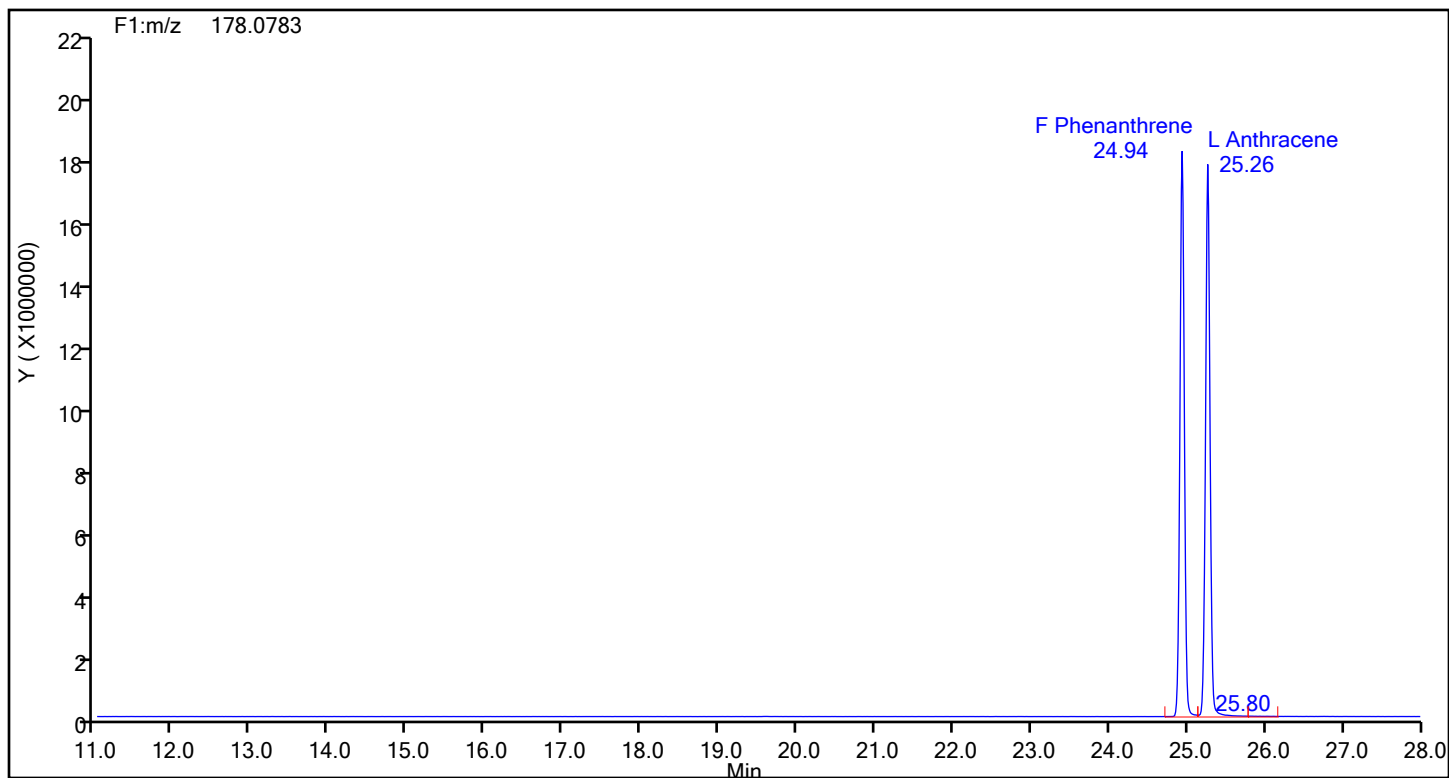


## Fluorene Standards

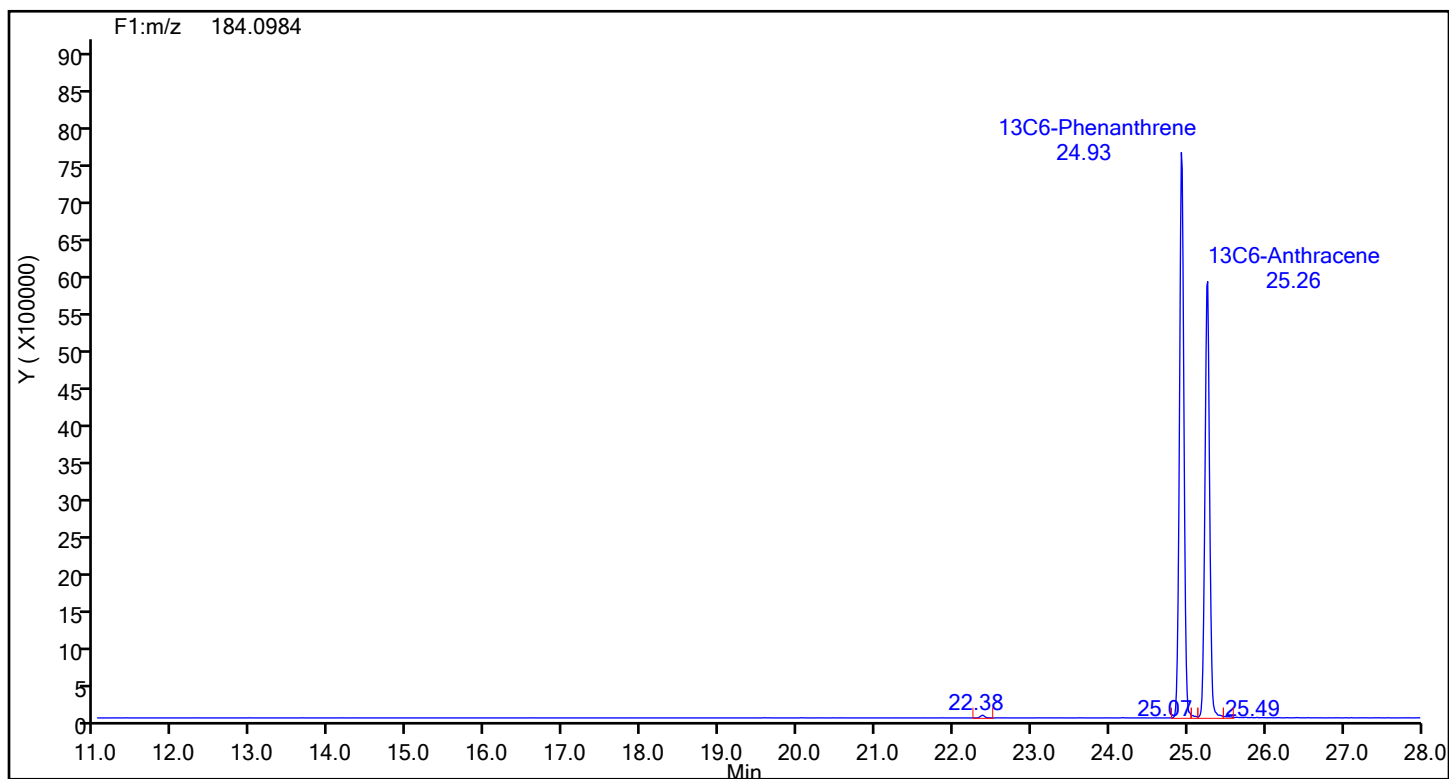


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Phenanthrene

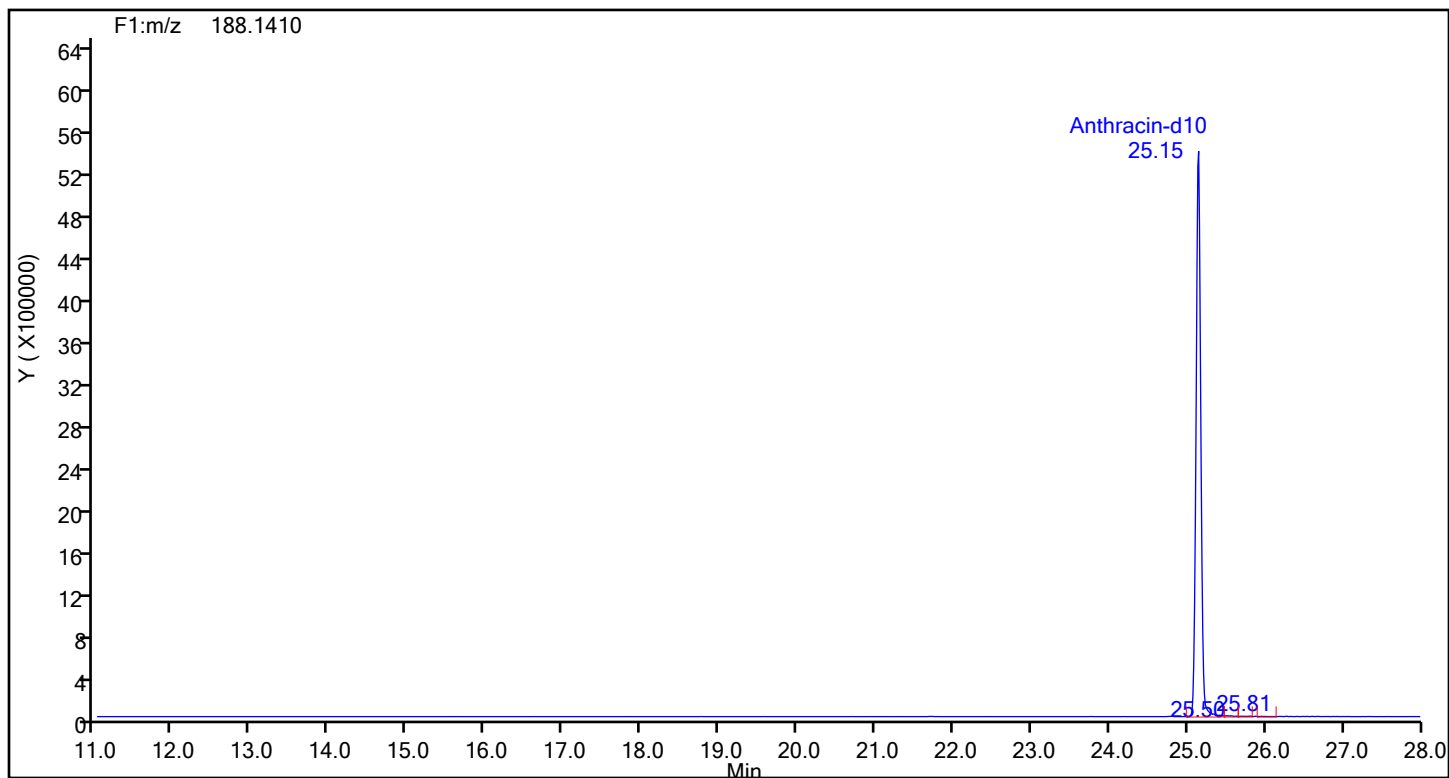


## Phenanthrene Standards

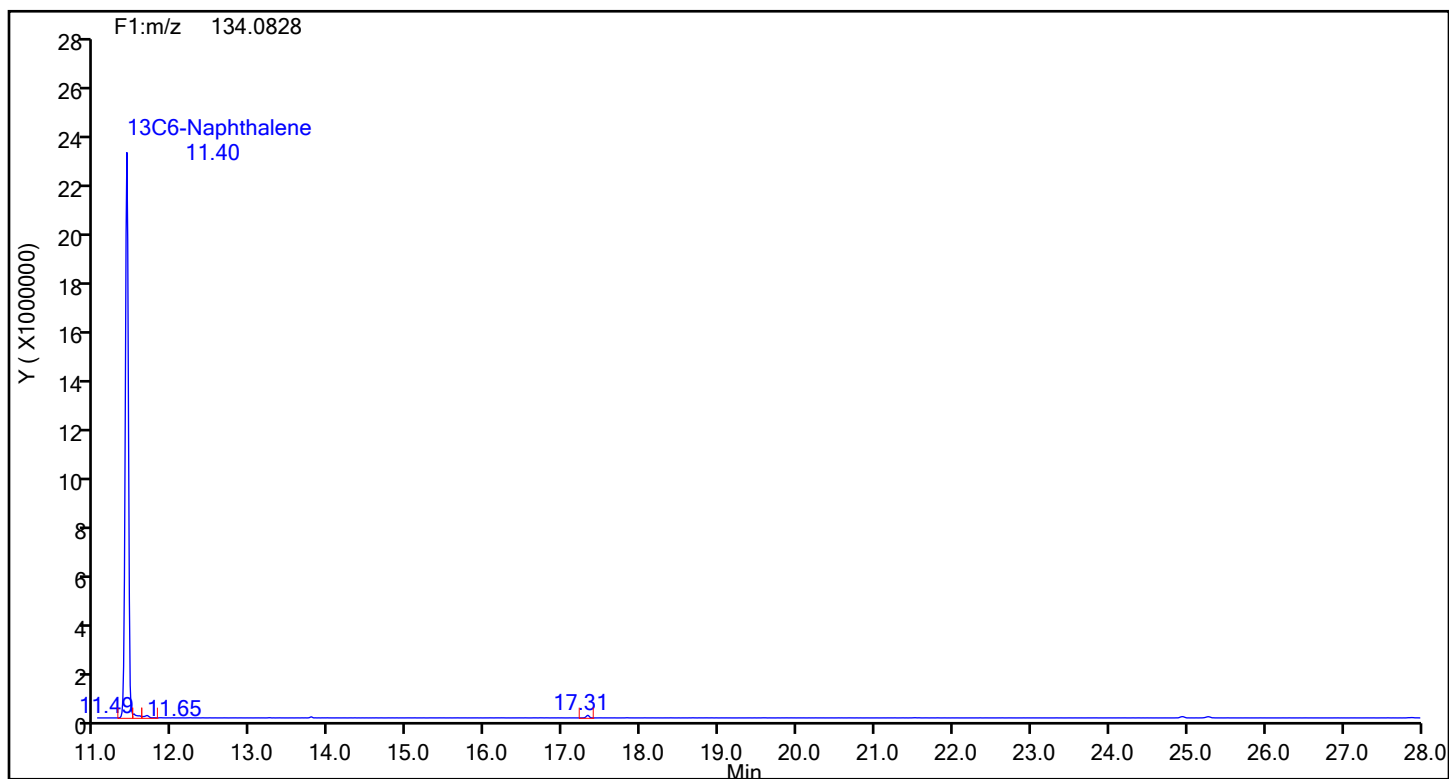


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Anthracin-d10



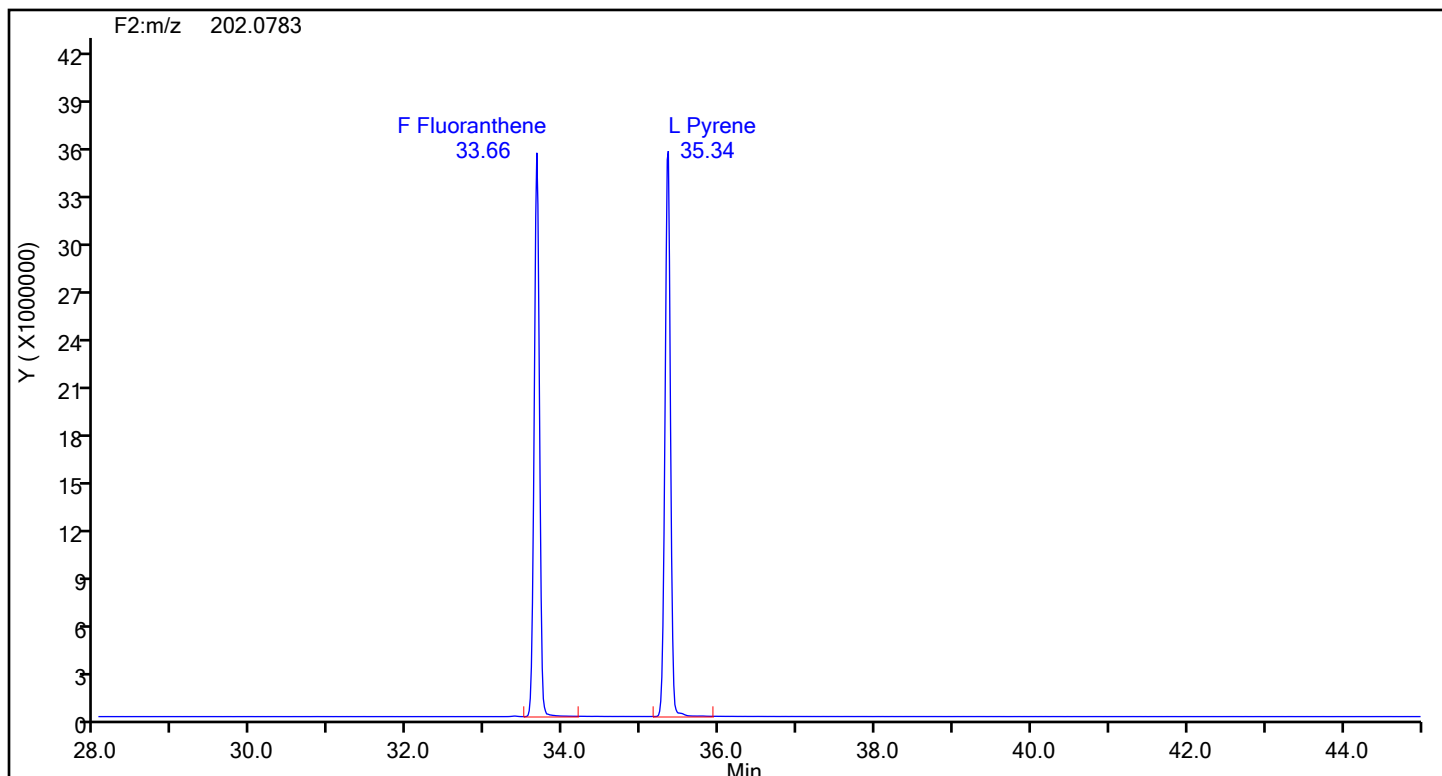
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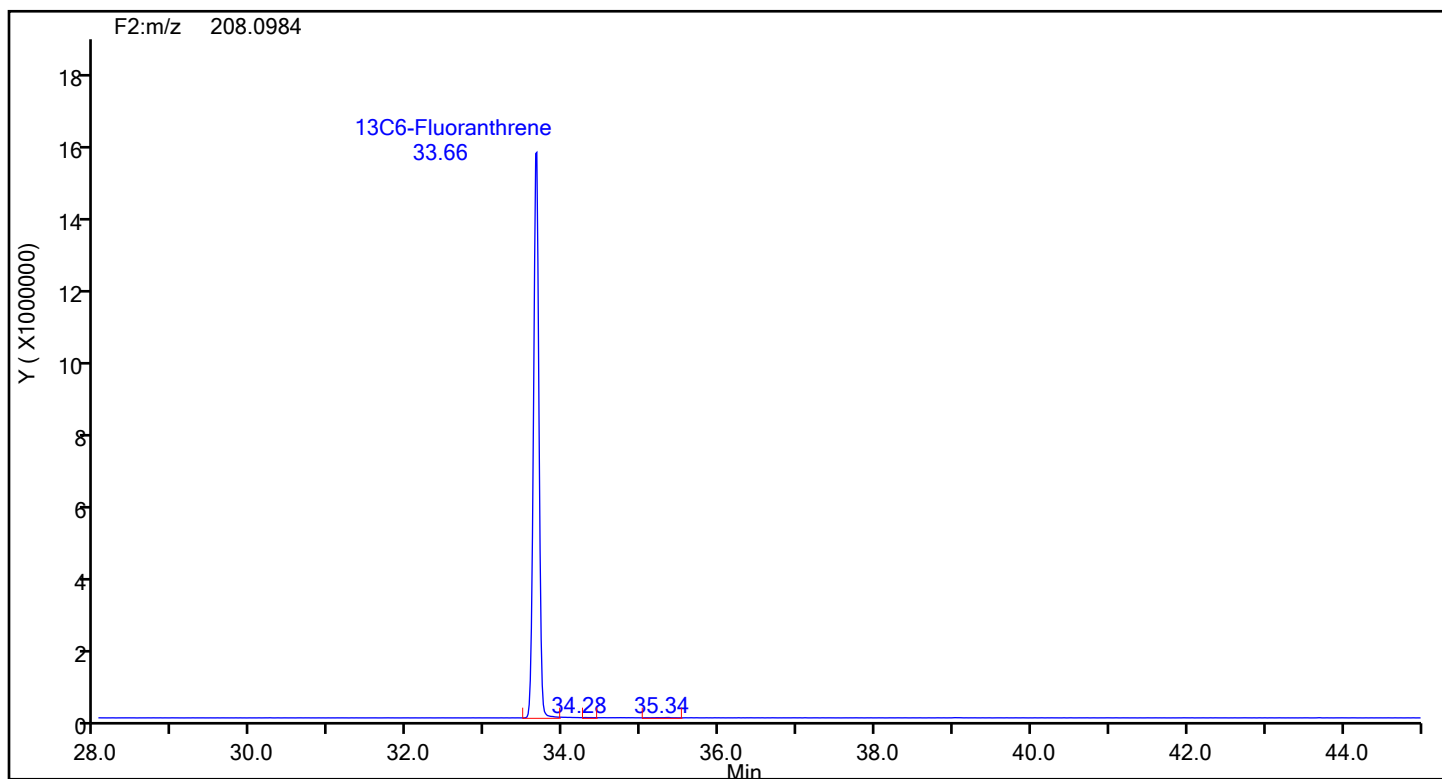
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluoranthene



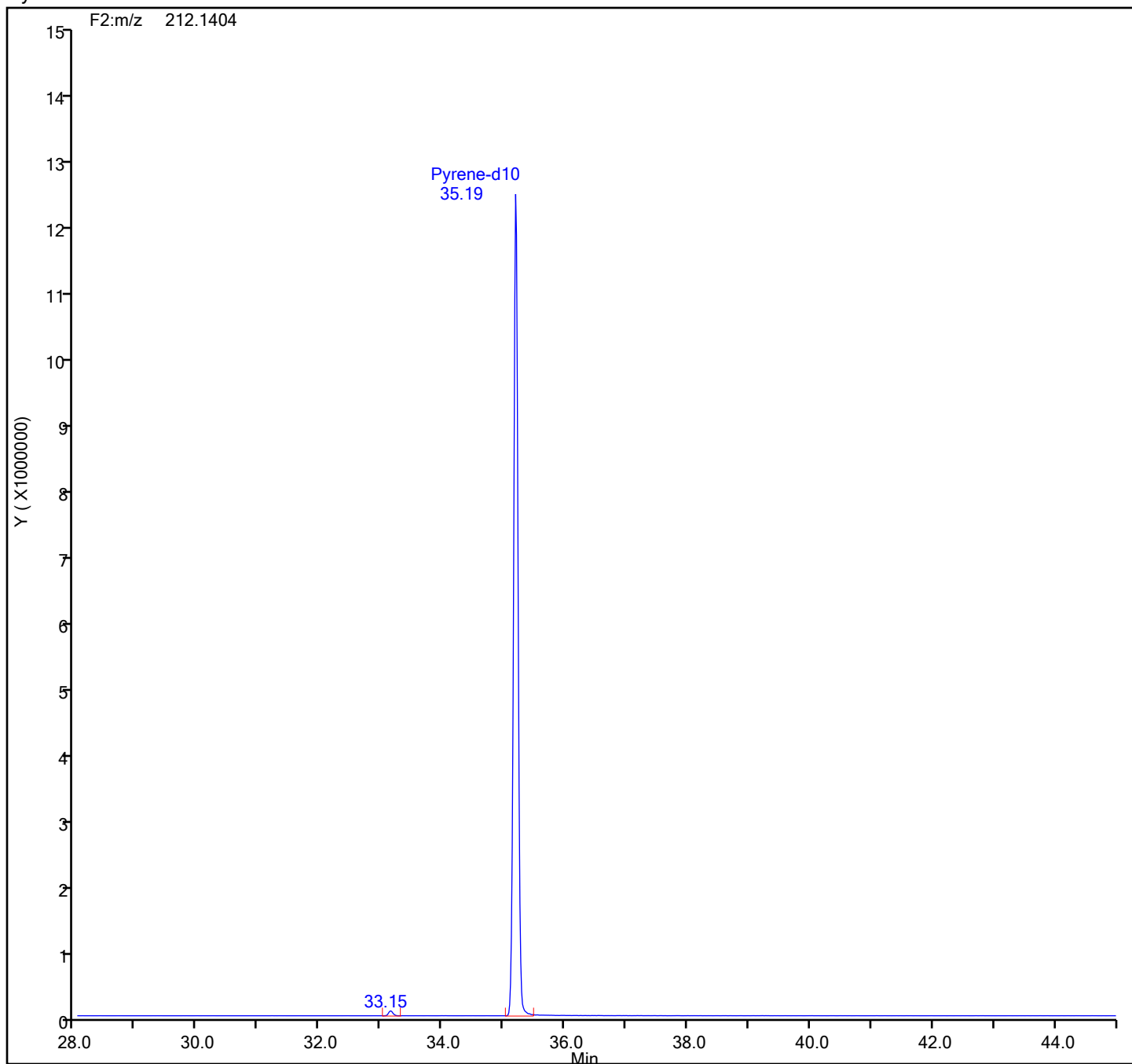
## Fluoranthene Standards



## Eurofins Knoxville

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Client ID:  
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

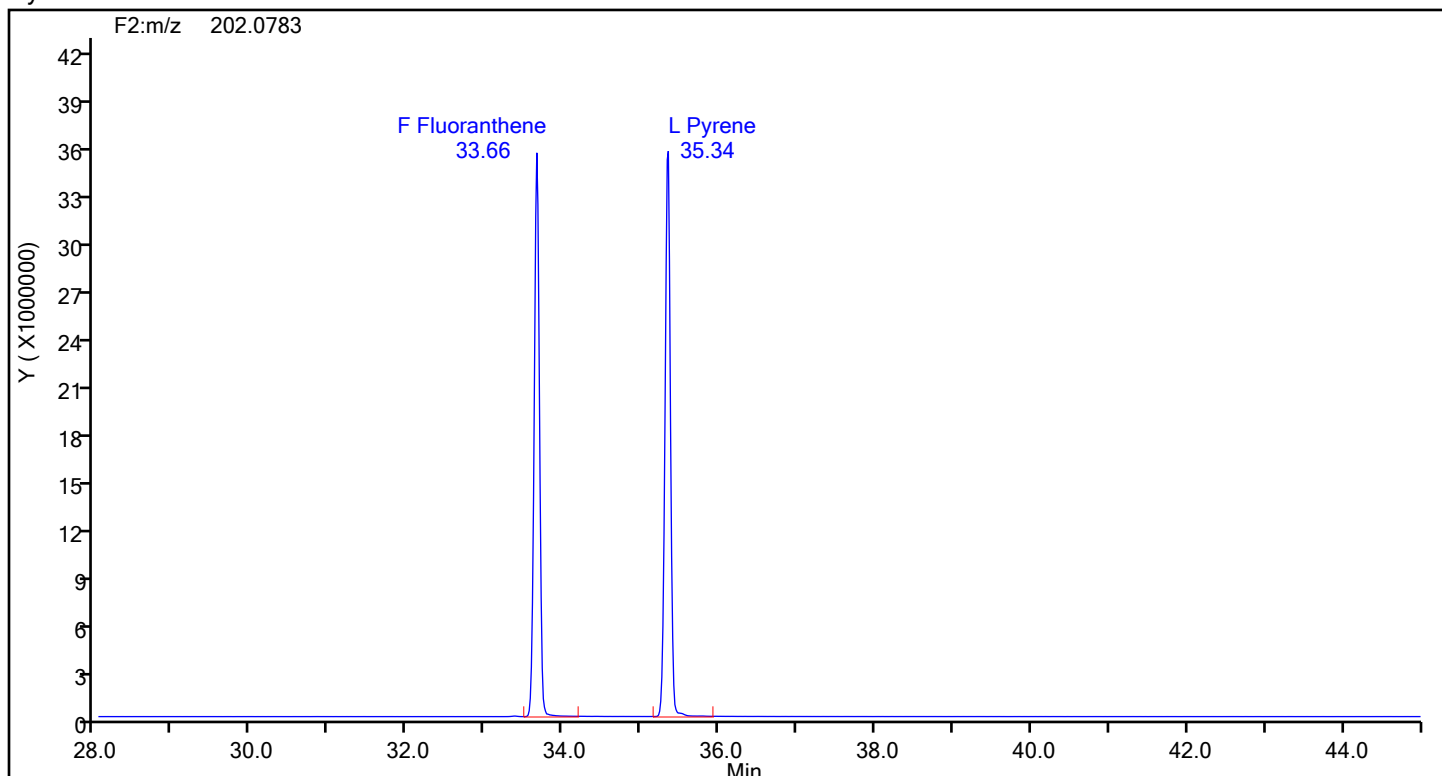
## Pyrene-d10 Standards



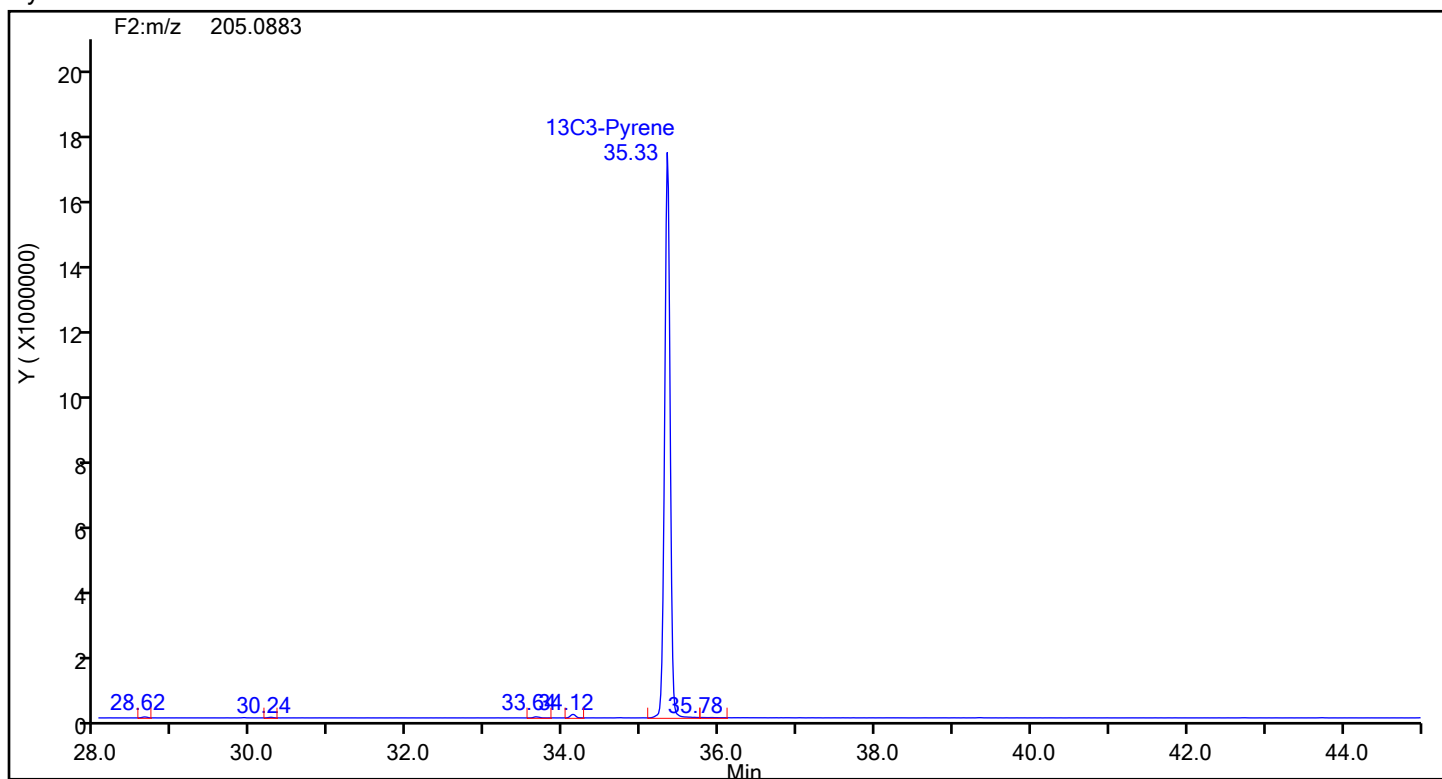
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88999 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Pyrene



## Pyrene Standards

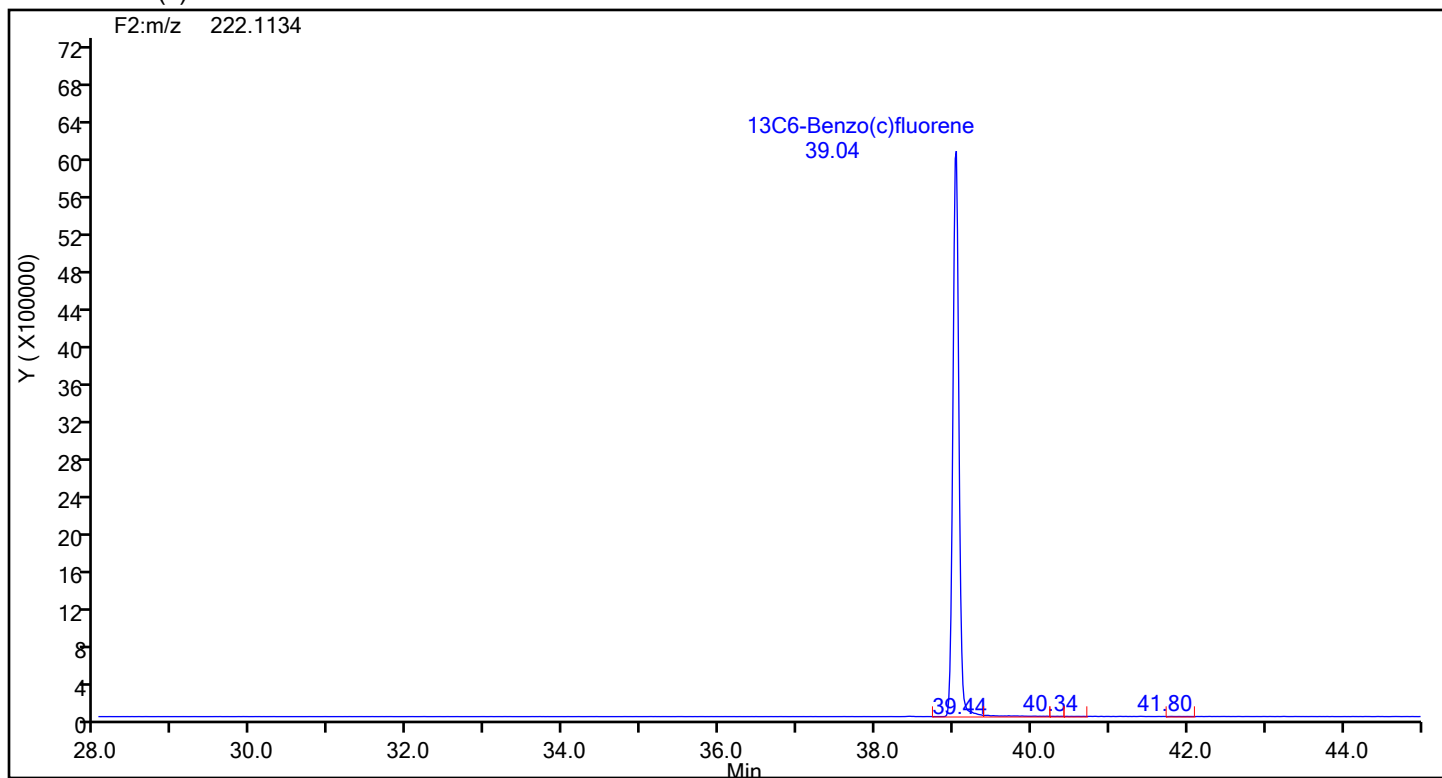




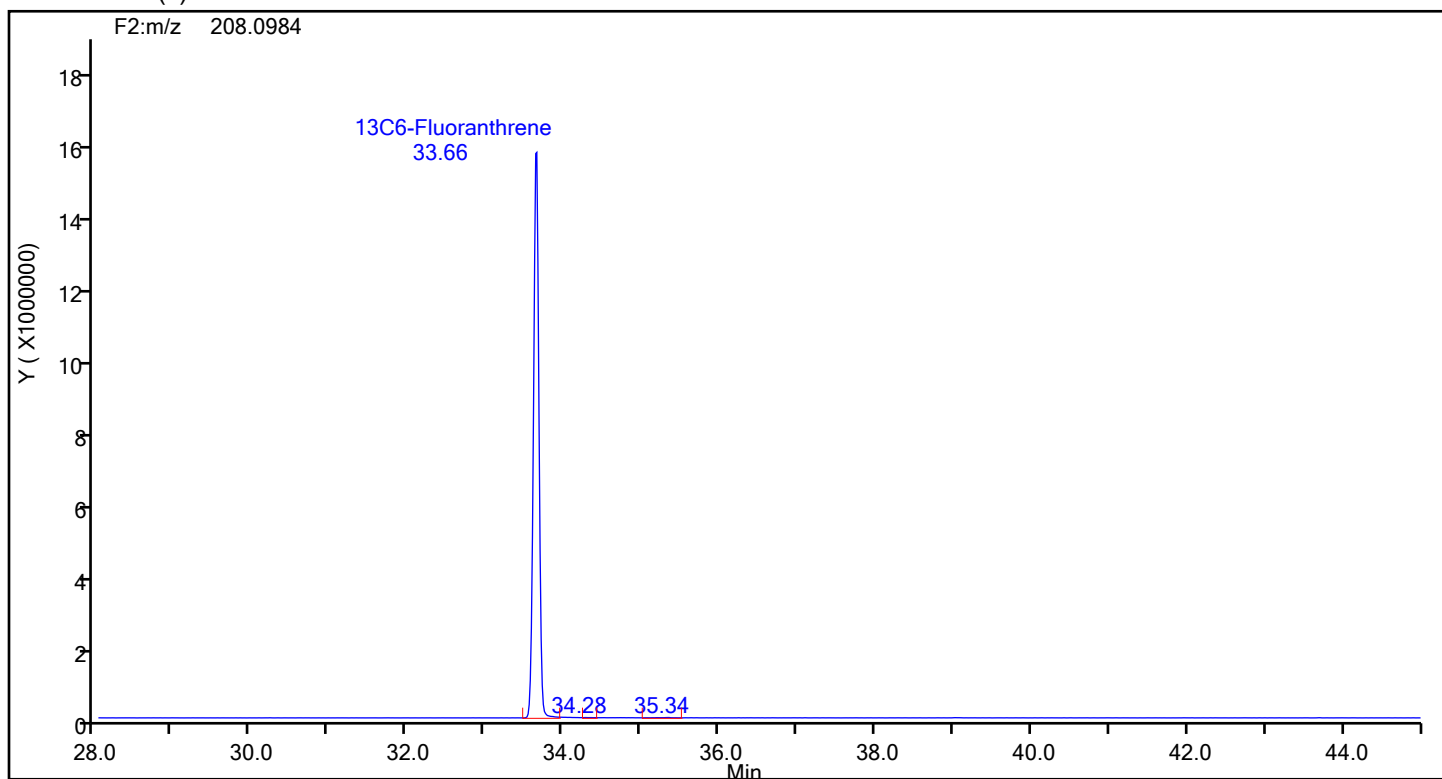
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Worklist#: 88999 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C6-Benzo(c)fluorene



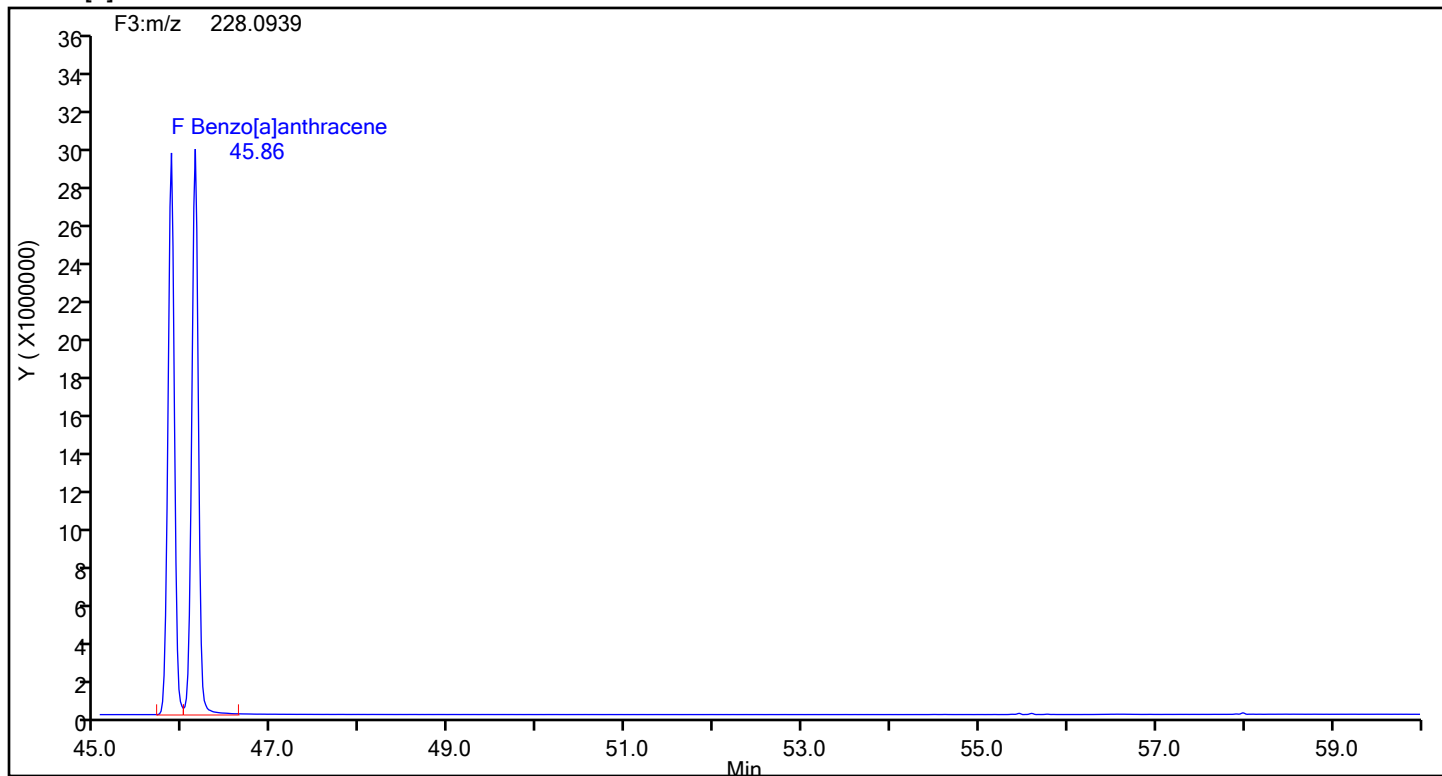
## 13C6-Benzo(c)fluorene Standards



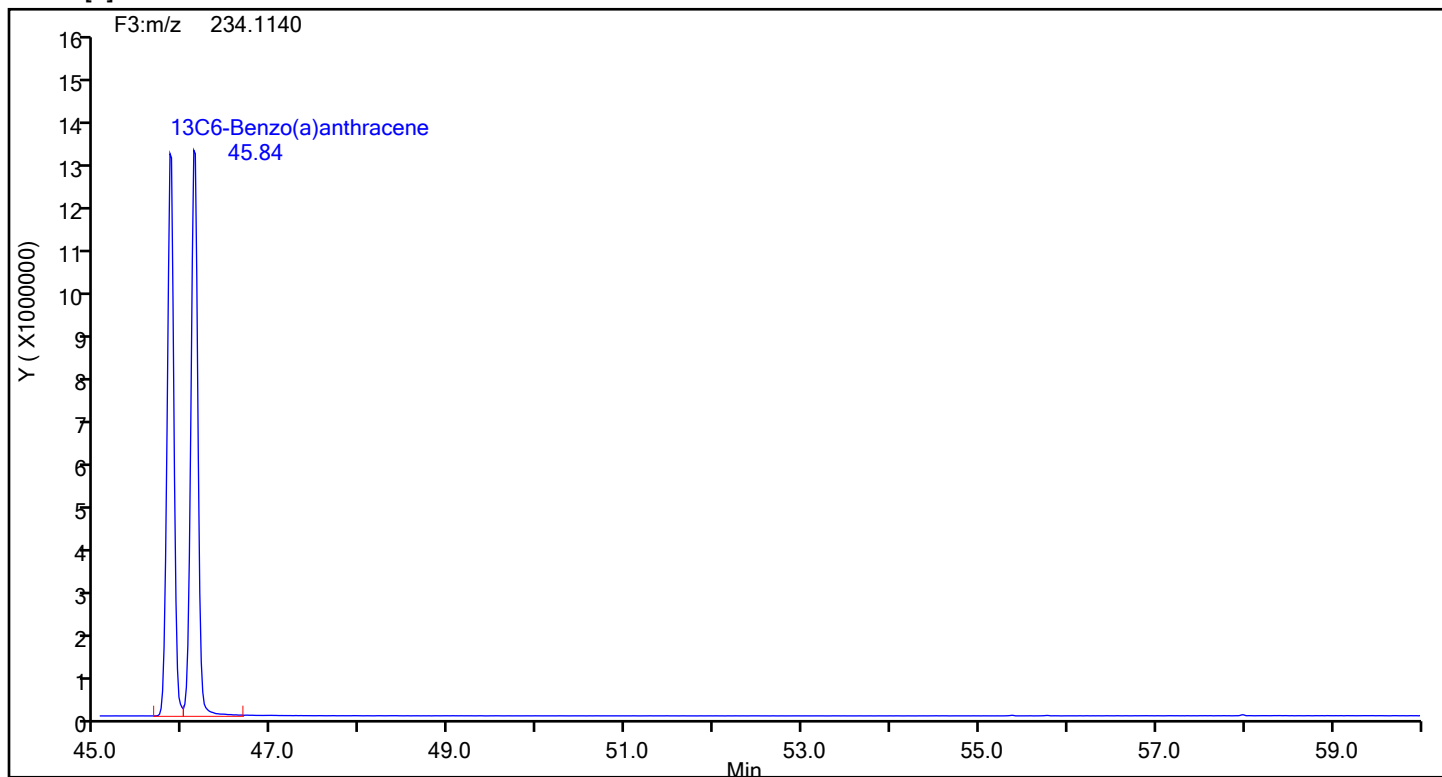
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\d3240720c1a.d  
Injection Date: 20-Jul-2024 02:03:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88999 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



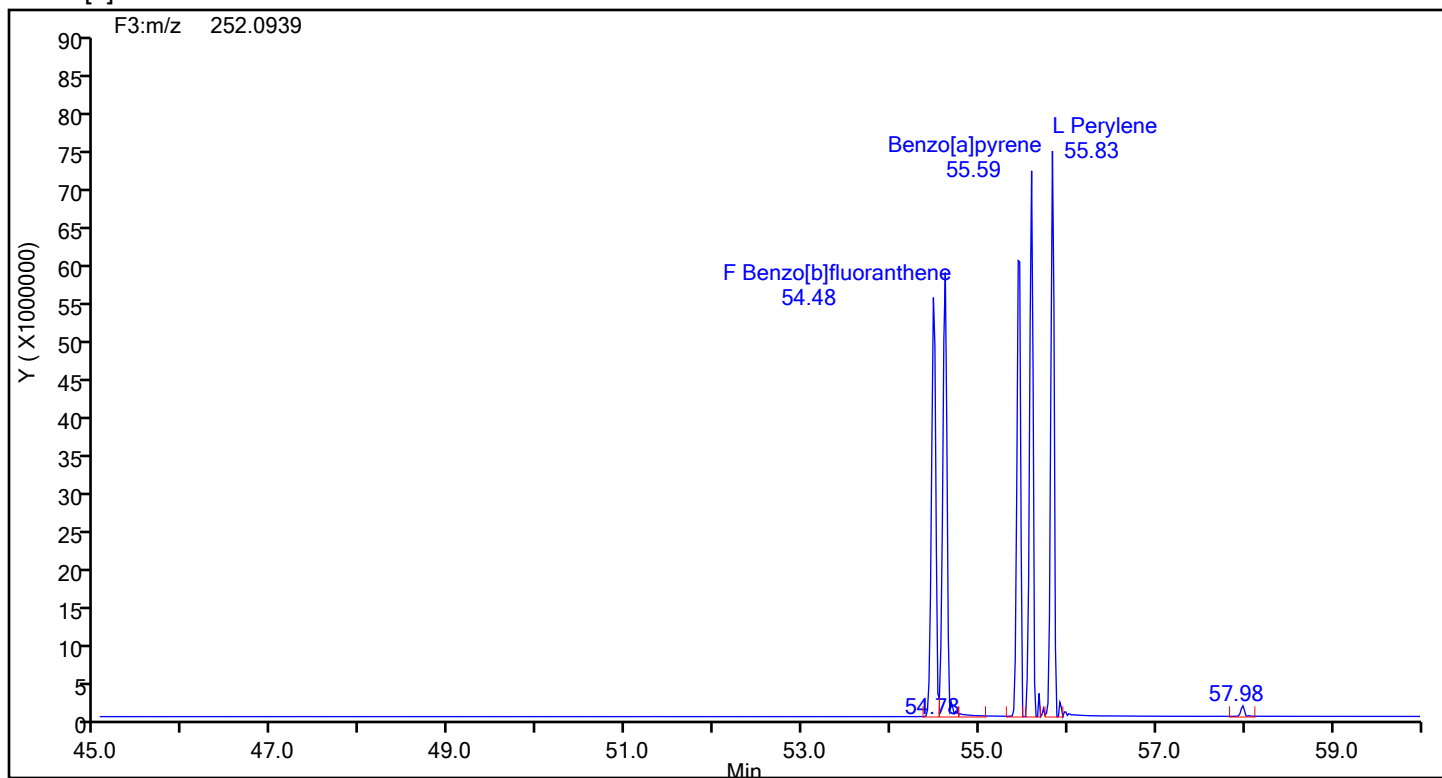
## Benzo[a]anthracene Standards



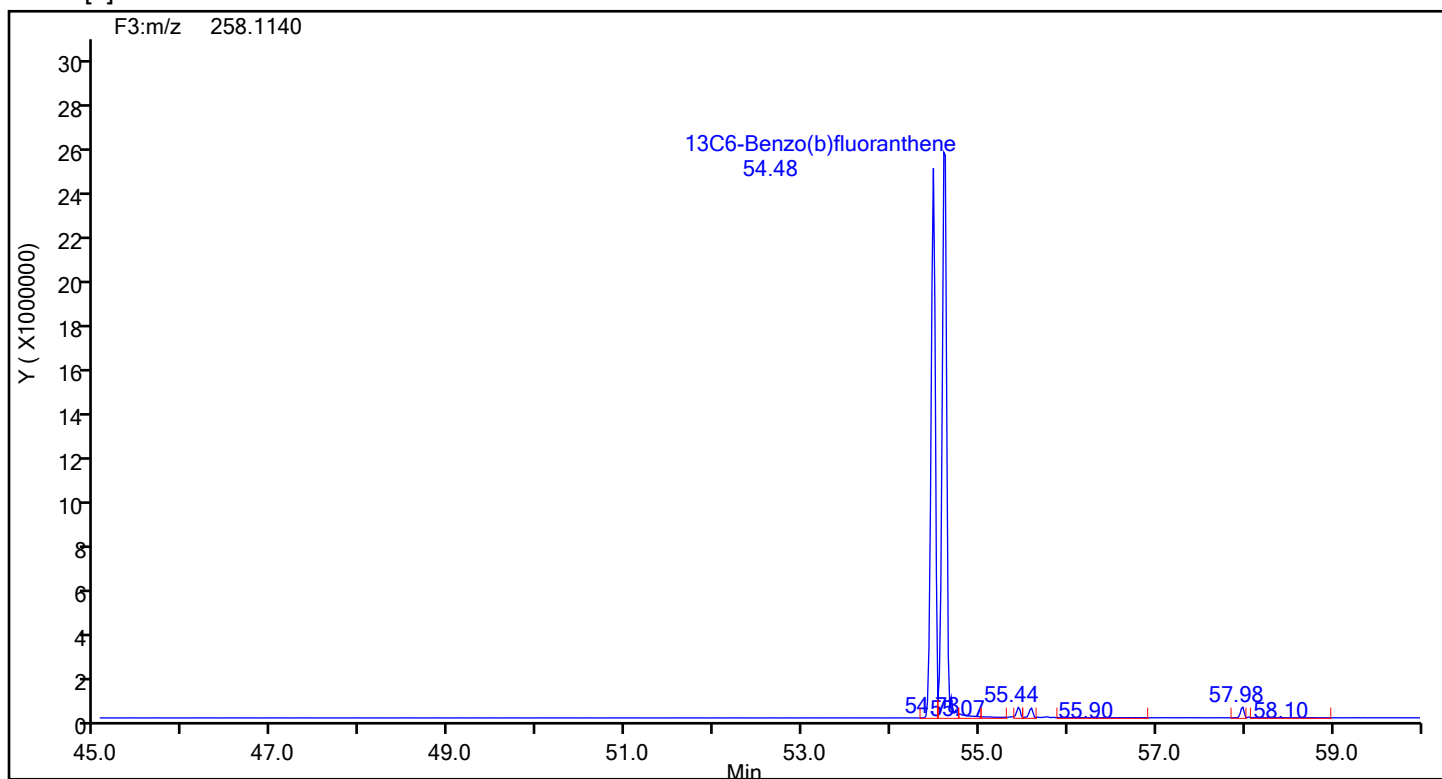
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\d3240720c1a.d  
Injection Date: 20-Jul-2024 02:03:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAL ICAL  
Client ID:  
Worklist#: 88999 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



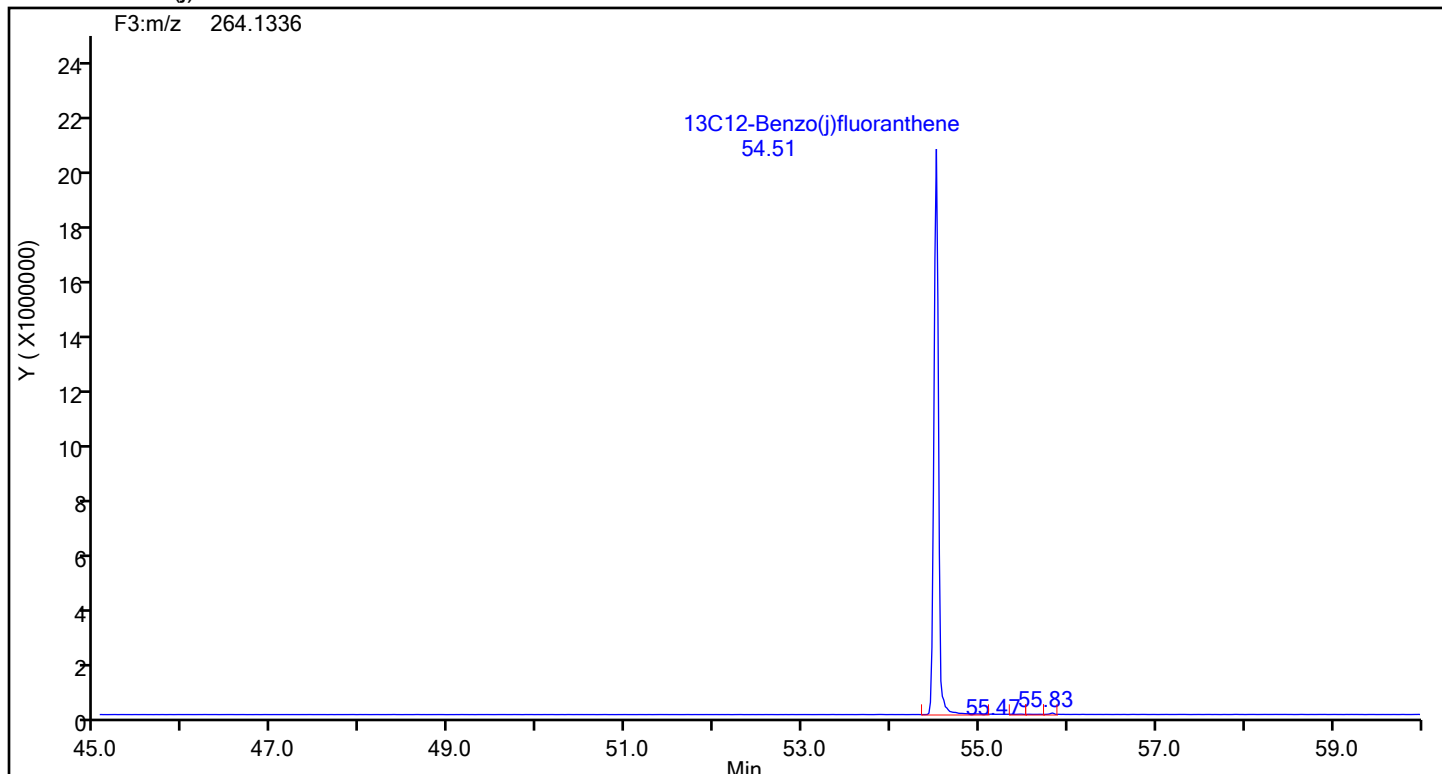
## Benzo[b]fluoranthene Standards



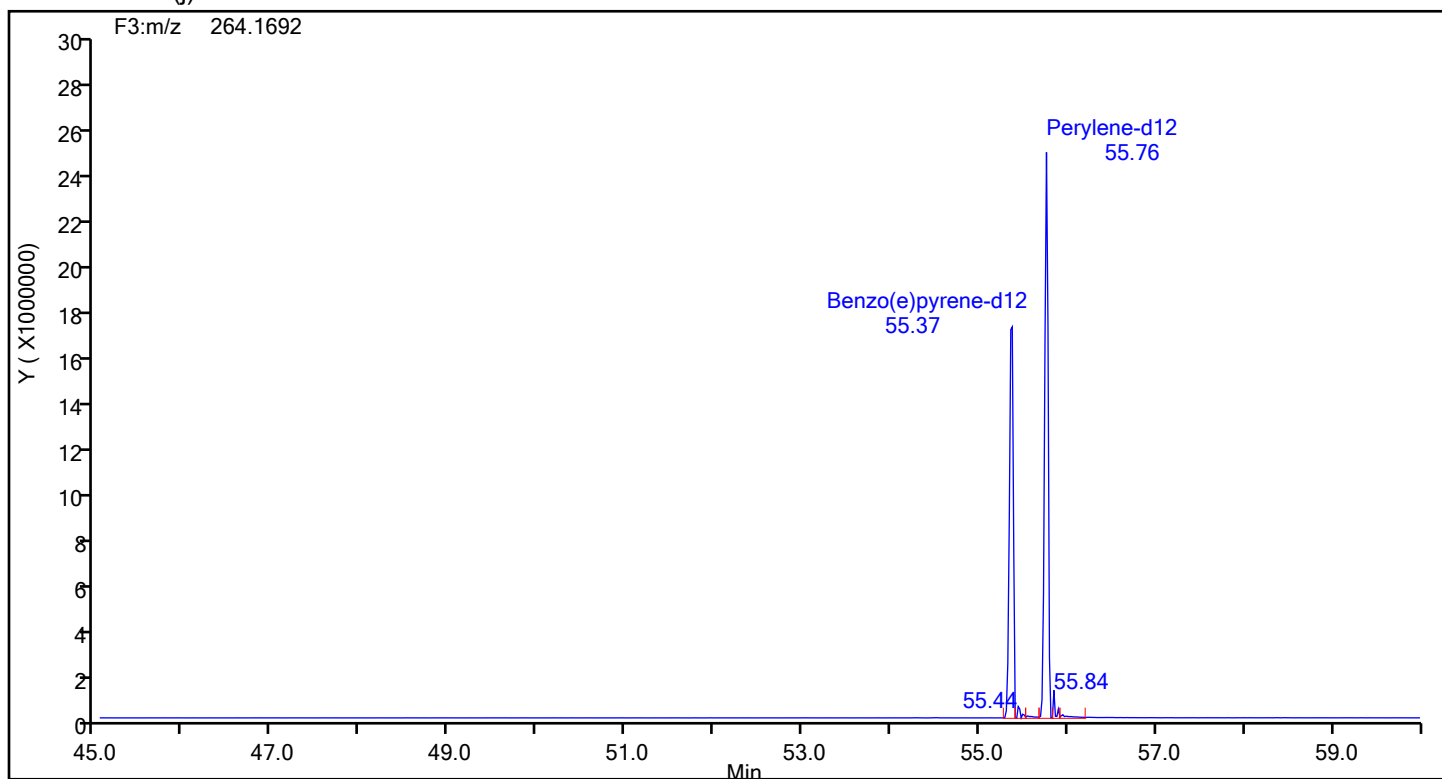
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\d3240720c1a.d  
Injection Date: 20-Jul-2024 02:03:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88999 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



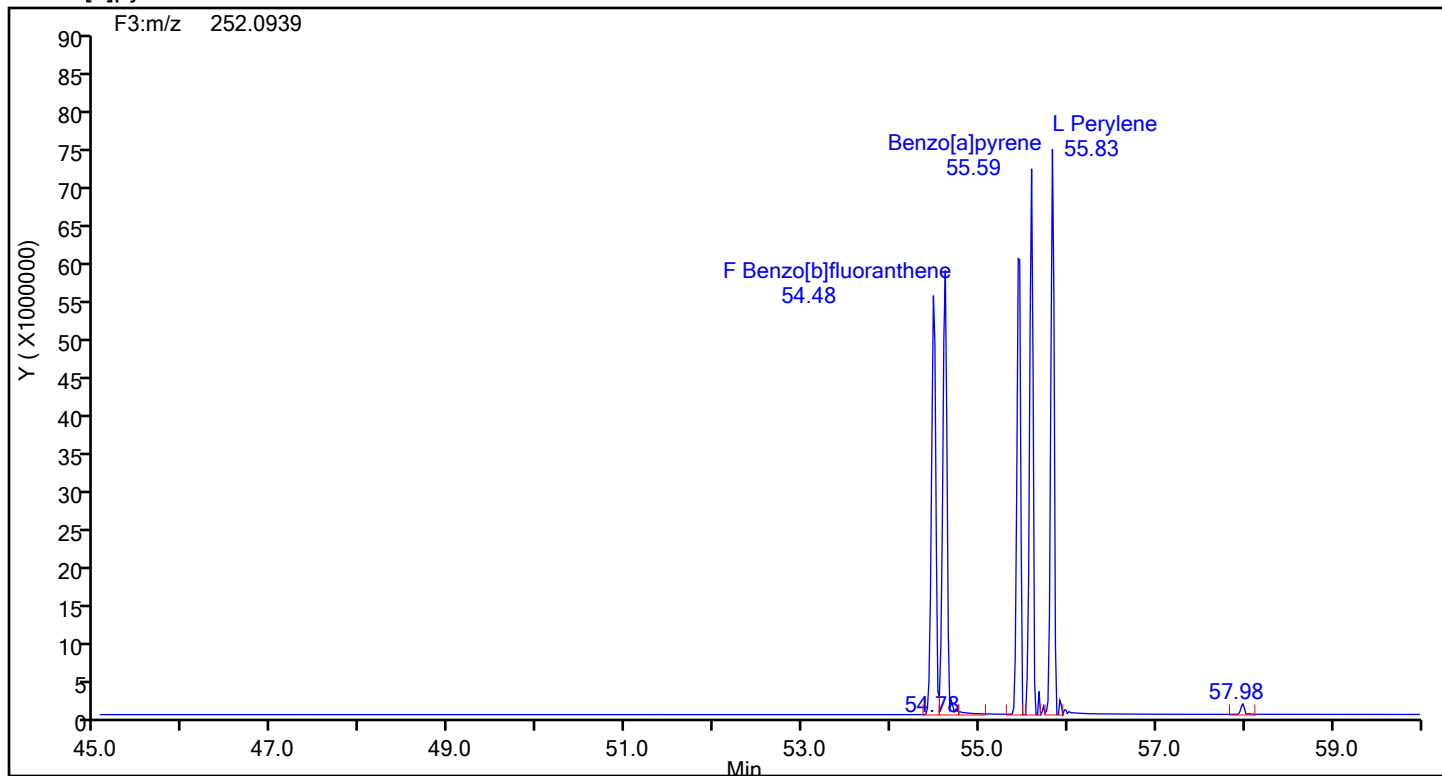
## 13C12-Benzo(j)fluoranthene Standards



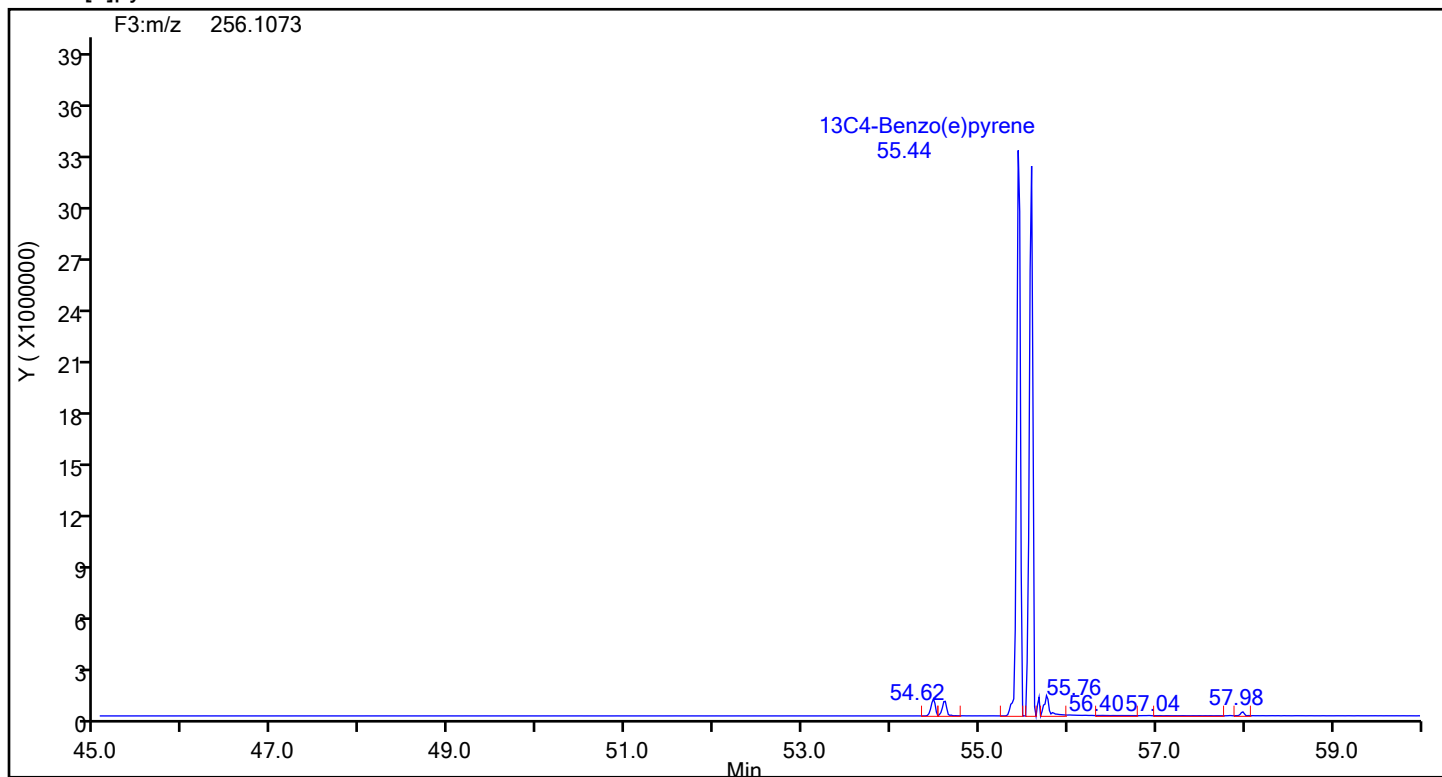
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\d3240720c1a.d  
Injection Date: 20-Jul-2024 02:03:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88999 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[e]pyrene



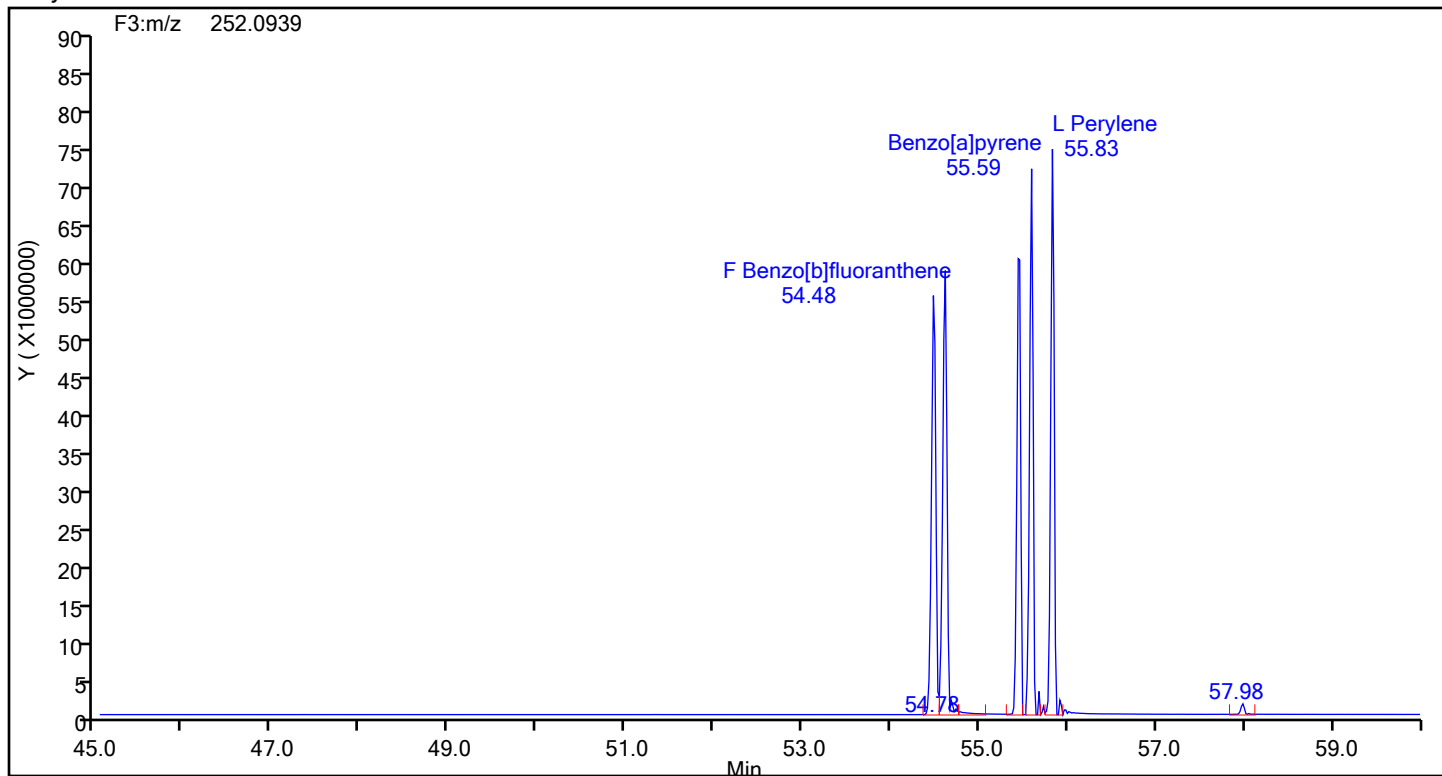
## Benzo[e]pyrene Standards



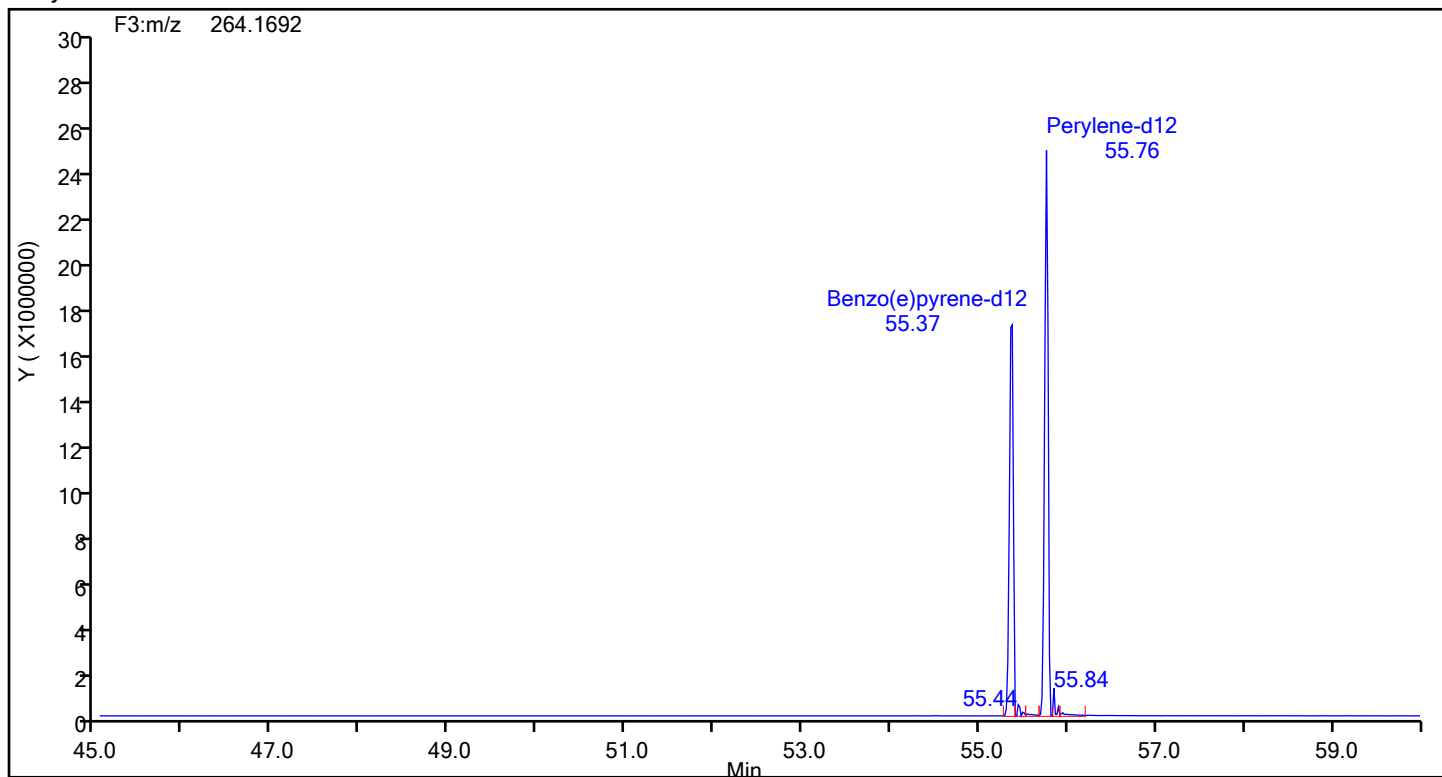
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\d3240720c1a.d  
Injection Date: 20-Jul-2024 02:03:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAL ICAL  
Client ID:  
Worklist#: 88999 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Perylene

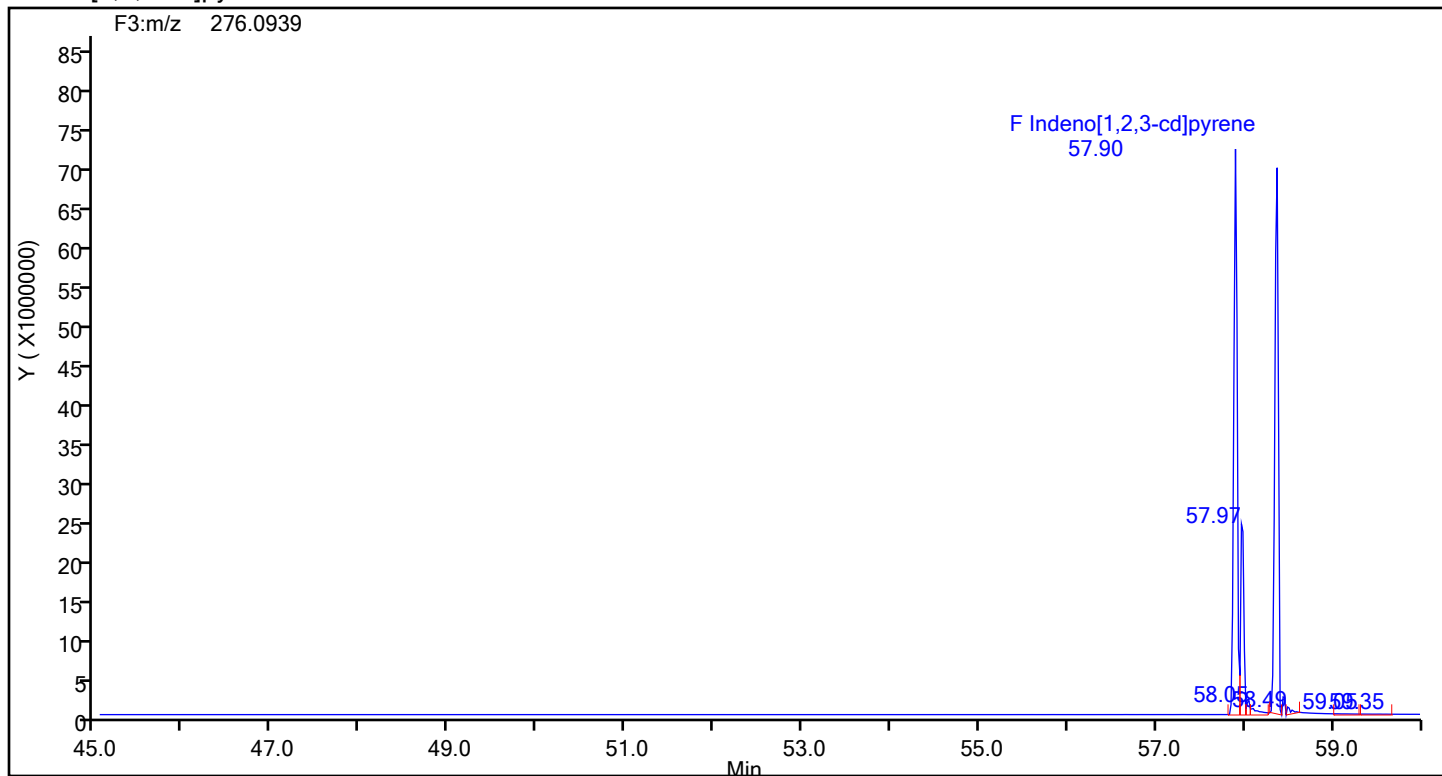


## Perylene Standards

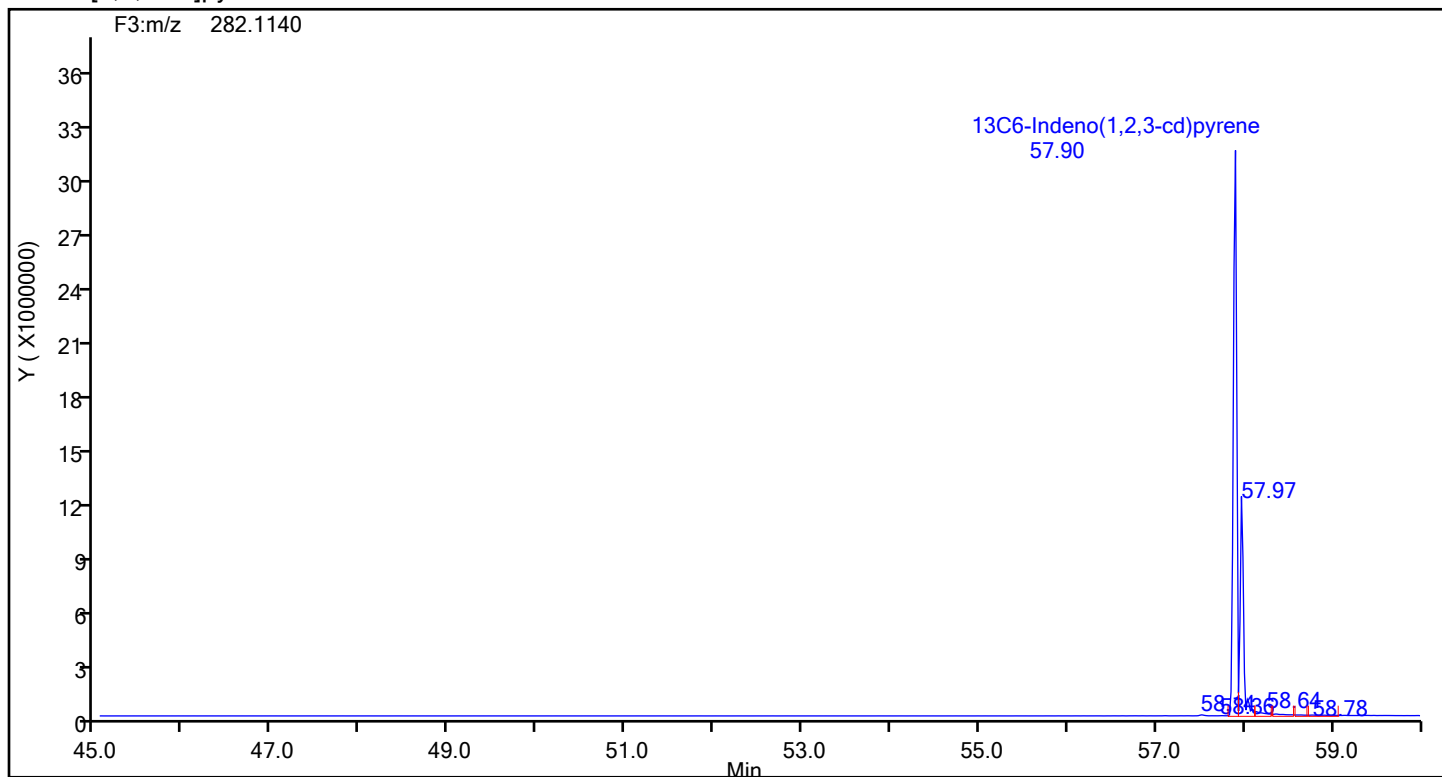


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\d3240720c1a.d  
Injection Date: 20-Jul-2024 02:03:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88999 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Indeno[1,2,3-cd]pyrene



## Indeno[1,2,3-cd]pyrene Standards



## Eurofins Knoxville

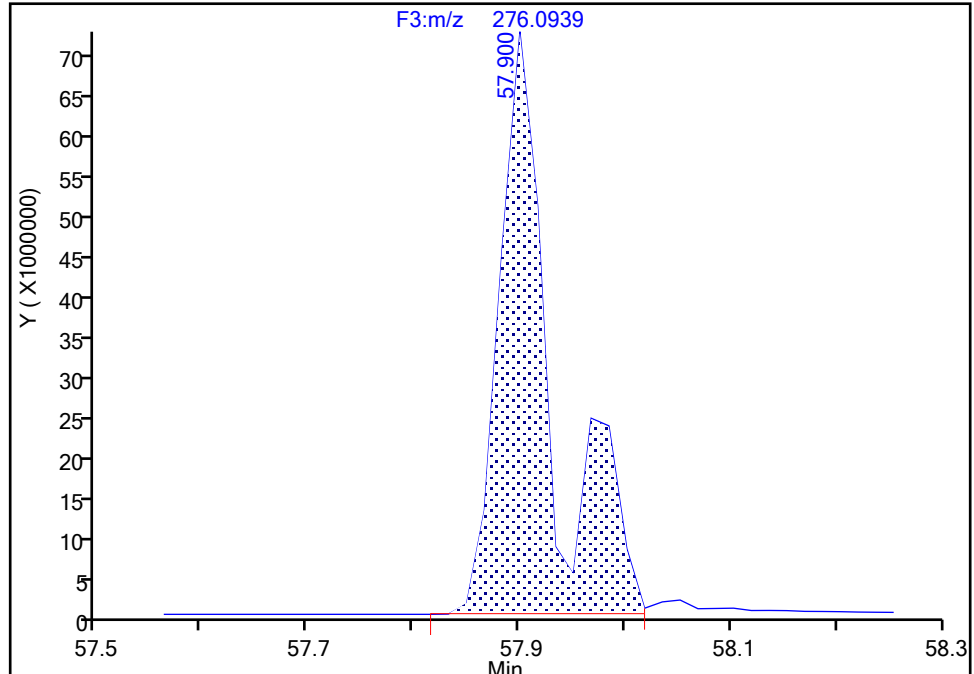
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\d3240720c1a.d  
Injection Date: 20-Jul-2024 02:03:00 Instrument ID: D3PAH  
Lims ID: CCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Indeno[1,2,3-cd]pyrene, CAS: 193-39-5

Signal: 1

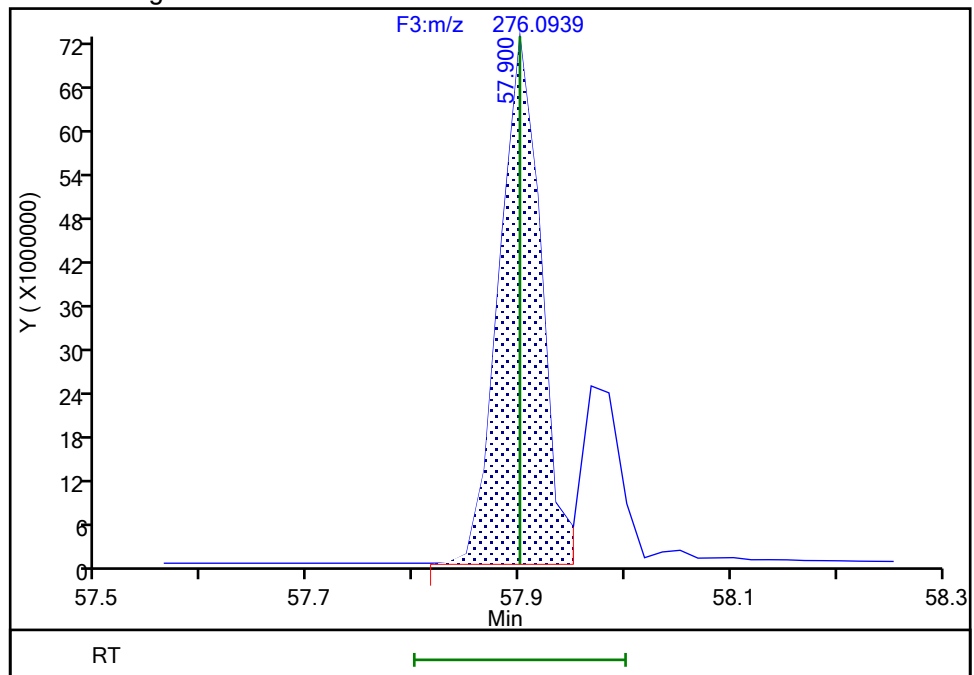
RT: 57.90  
Area: 255468229  
Amount: 273.5281  
Amount Units: pg/ul

## Processing Integration Results



RT: 57.90  
Area: 199038406  
Amount: 213.1091  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 20-Jul-2024 03:11:03 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

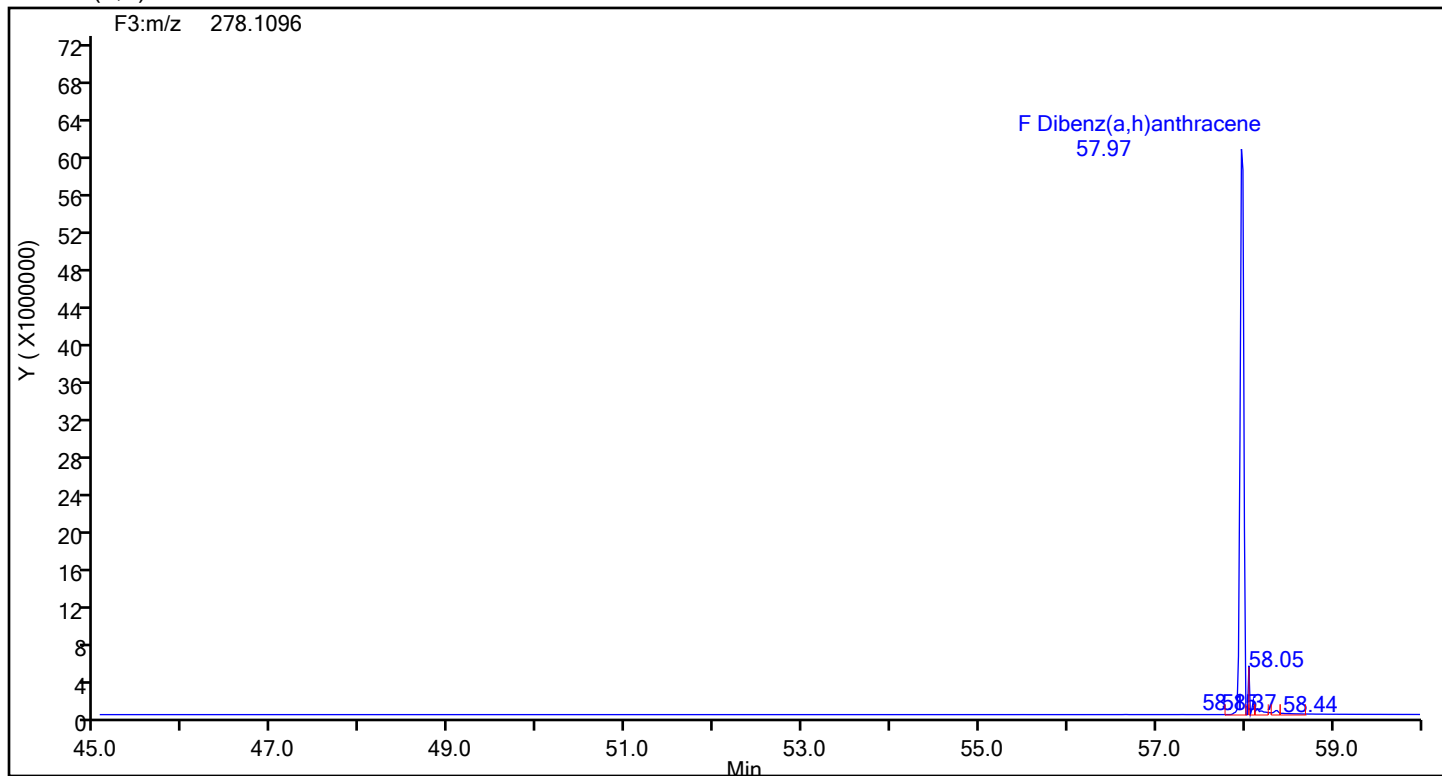
Audit Reason: Split Peak



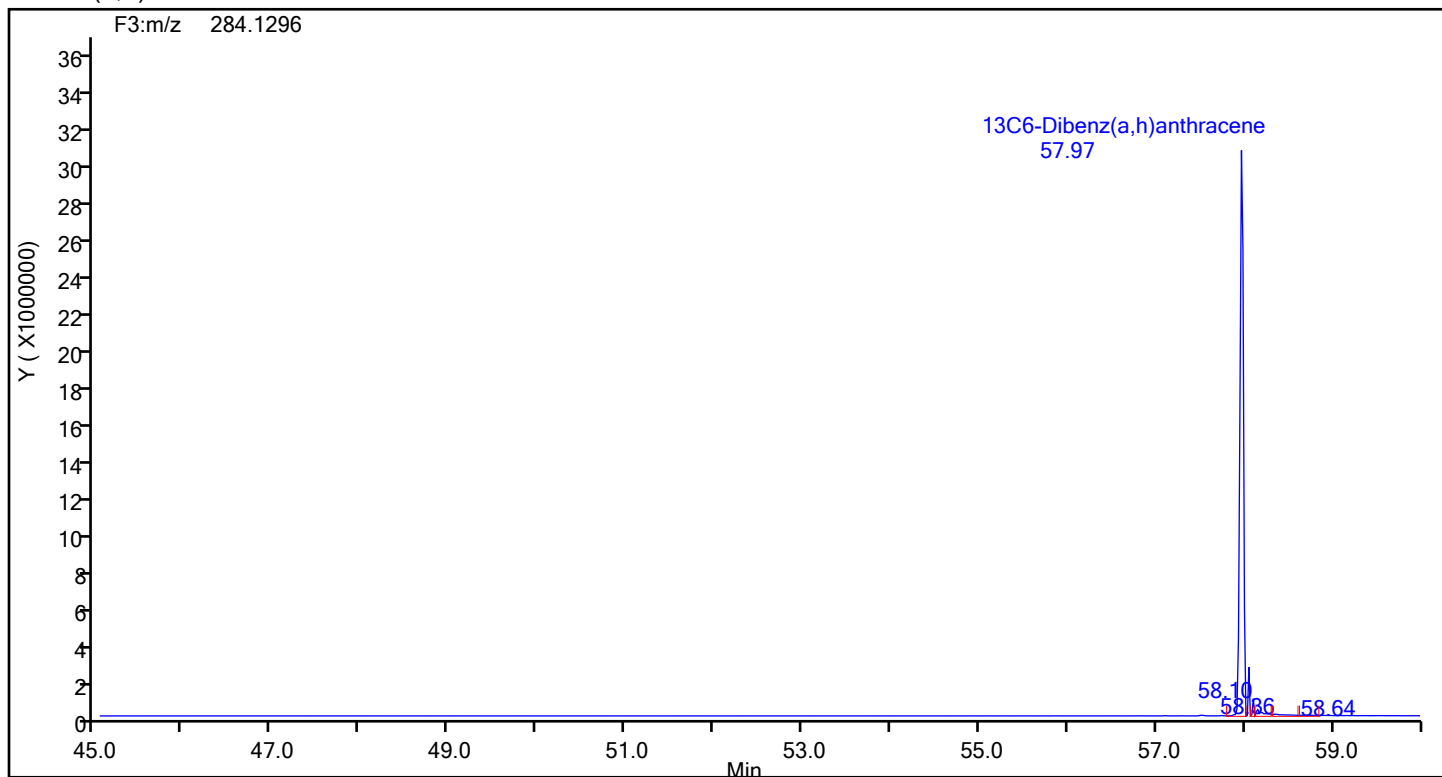
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\d3240720c1a.d  
Injection Date: 20-Jul-2024 02:03:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88999 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Dibenz(a,h)anthracene



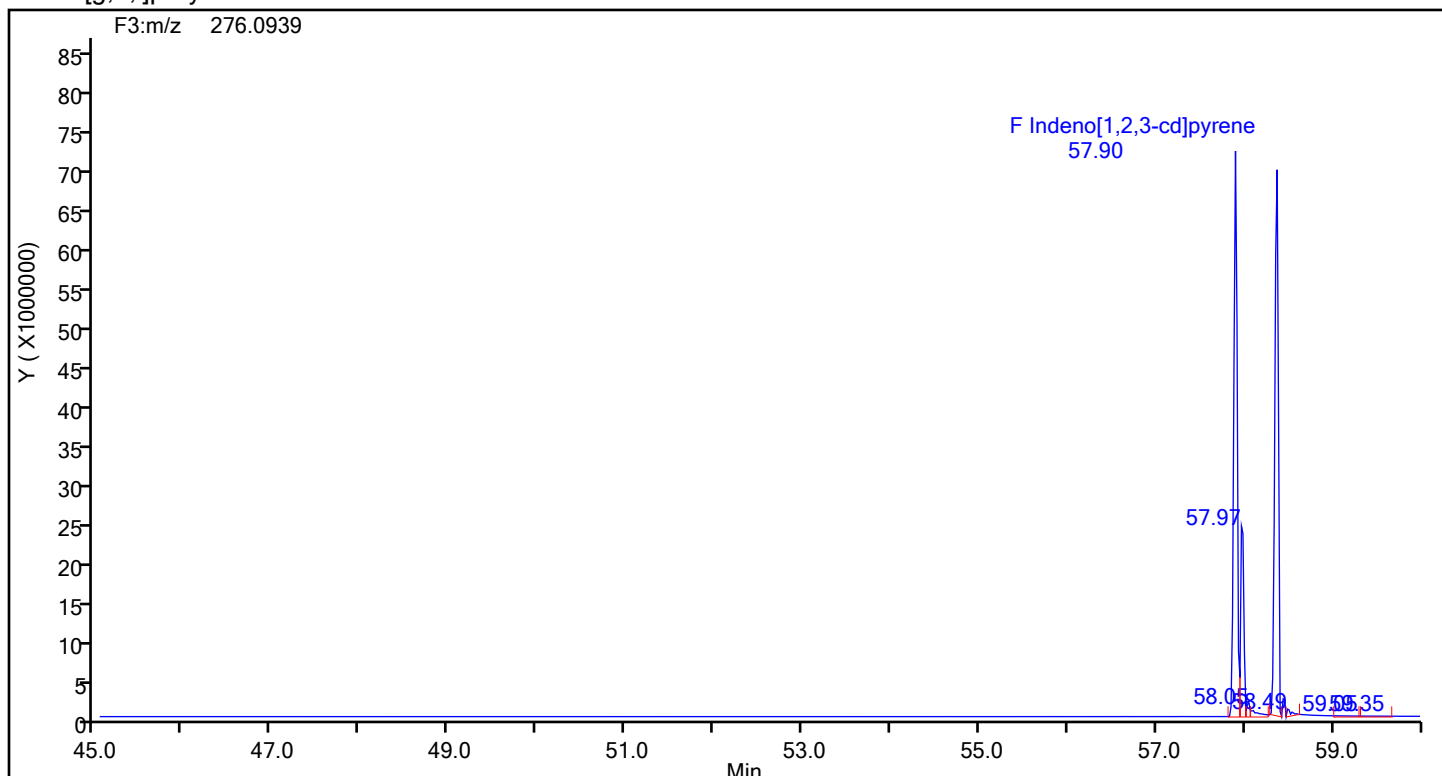
## Dibenz(a,h)anthracene Standards



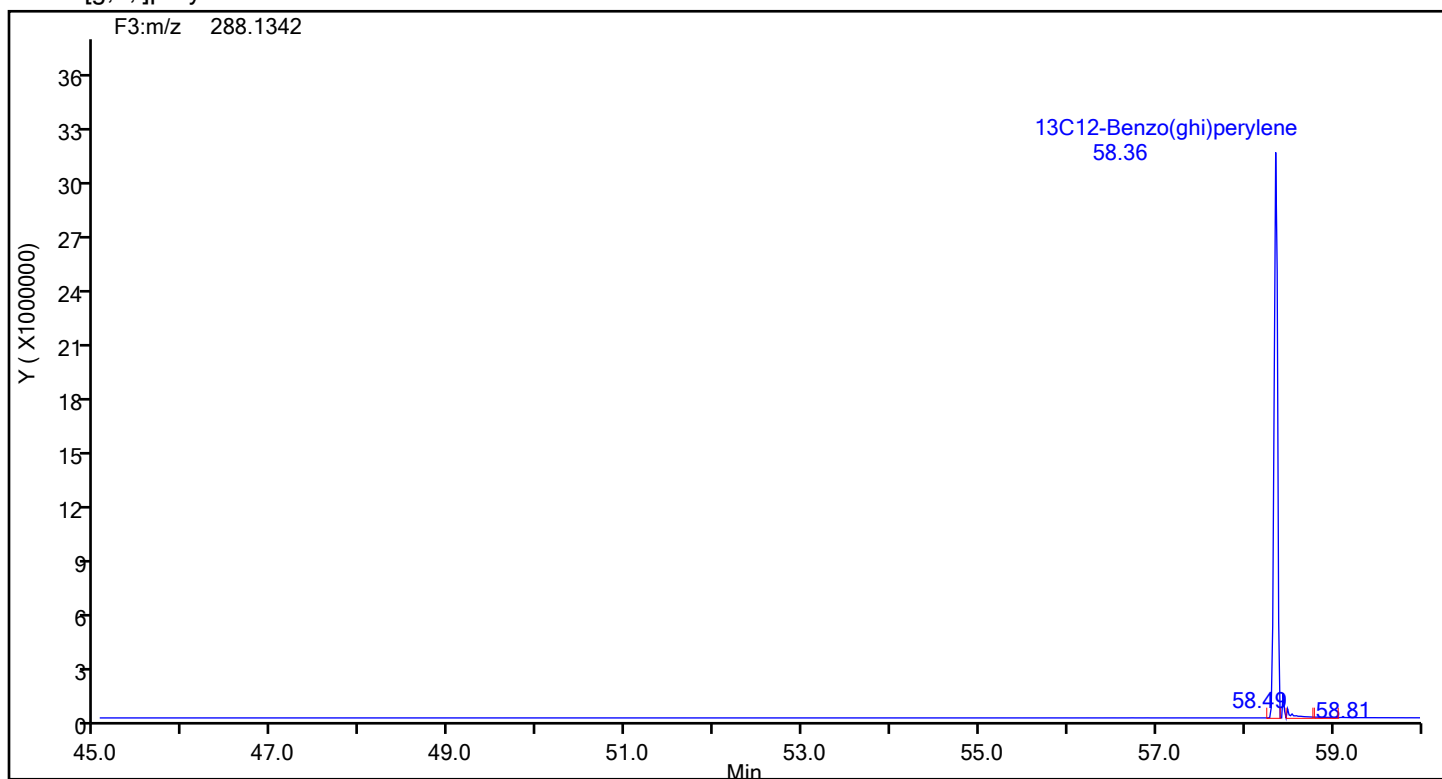
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240719-33591.b\d3240720c1a.d  
Injection Date: 20-Jul-2024 02:03:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88999 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[g,h,i]perylene



## Benzo[g,h,i]perylene Standards



FORM VII  
HI-RES PAHS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCV 140-89013/1 Calibration Date: 07/22/2024 13:06

Instrument ID: D3PAH Calib Start Date: 06/19/2024 16:34

GC Column: Rxi-5SilMS 25 ID: 0.25 (mm) Calib End Date: 06/20/2024 01:09

Lab File ID: d3240722c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	AveID	1.289	1.232		191	200	-4.4	25.0
2-Methylnaphthalene	AveID	1.279	1.195		187	200	-6.6	25.0
Acenaphthylene	AveID	2.366	2.185		185	200	-7.7	25.0
Acenaphthene	AveID	1.270	1.189		187	200	-6.3	25.0
Fluorene	AveID	1.253	1.259		201	200	0.4	25.0
Phenanthrene	AveID	1.104	1.125		204	200	1.8	25.0
Anthracene	AveID	1.359	1.364		201	200	0.4	25.0
Fluoranthene	AveID	1.151	1.148		199	200	-0.3	25.0
Pyrene	AveID	1.065	1.045		196	200	-1.9	25.0
Benzo[a]anthracene	AveID	0.9739	1.058		217	200	8.6	25.0
Chrysene	AveID	0.9815	1.051		214	200	7.1	25.0
Benzo[b]fluoranthene	AveID	1.125	1.139		202	200	1.2	25.0
Benzo[k]fluoranthene	AveID	1.127	1.043		185	200	-7.5	25.0
Benzo[e]pyrene	AveID	1.001	0.9611		192	200	-4.0	25.0
Benzo[a]pyrene	AveID	1.113	1.087		195	200	-2.4	25.0
Perylene	AveID	1.431	1.600		224	200	11.9	25.0
Indeno[1,2,3-cd]pyrene	AveID	1.125	1.168		208	200	3.8	25.0
Dibenz(a,h)anthracene	AveID	1.131	1.104		195	200	-2.4	25.0
Benzo[g,h,i]perylene	AveID	1.284	1.359		212	200	5.8	25.0
13C6-Naphthalene	Ave	3.375	3.264		96.7	100	-3.3	30.0
13C6-2-Methylnaphthalene	Ave	1.603	1.476		92.1	100	-7.9	30.0
13C6-Acenaphthylene	Ave	1.652	1.681		102	100	1.8	30.0
13C6-Acenaphthene	Ave	0.9792	1.008		103	100	2.9	30.0
13C6-Fluorene	Ave	0.8898	0.8864		99.6	100	-0.4	30.0
13C6-Phenanthrene	Ave	0.5724	0.5262		91.9	100	-8.1	30.0
13C6-Anthracene	Ave	0.4523	0.4194		92.7	100	-7.3	30.0
13C6-Fluoranthrene	Ave	1.199	1.204		100	100	0.4	30.0
13C3-Pyrene	Ave	1.351	1.418		105	100	5.0	30.0
13C6-Benzo(a)anthracene	Ave	1.519	1.391		91.6	100	-8.4	30.0
13C6-Chrysene	Ave	1.629	1.665		102	100	2.2	30.0
13C6-Benzo(b)fluoranthene	Ave	1.462	1.542		106	100	5.5	30.0
13C6-Benzo(k)fluoranthene	Ave	1.751	1.911		109	100	9.1	30.0
13C4-Benzo(e)pyrene	Ave	1.637	1.856		113	100	13.4	30.0
13C4-Benzo(a)pyrene	Ave	1.551	1.644		106	100	6.0	30.0
Perylene-d12	Ave	1.192	1.237		104	100	3.8	30.0
13C6-Indeno(1,2,3-cd)pyrene	Ave	1.022	1.158		113	100	13.3	30.0
13C6-Dibenz(a,h)anthracene	Ave	1.055	1.355		128	100	28.4	30.0
13C12-Benzo(ghi)perylene	Ave	1.275	1.293		101	100	1.4	30.0

# Resolution Check Report ( DFS SN: 3439 )

Date: 22 Jul 2024 12:48  
MID Experiment: ResCheck\_HRPAH  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43\_HRPAH.lua  
Status: RESOLUTION PASSED

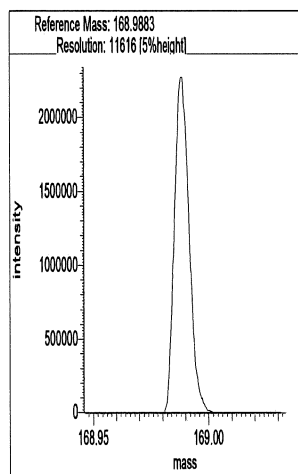
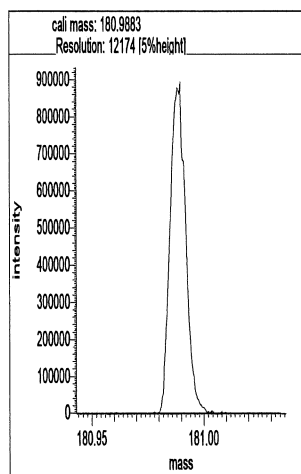
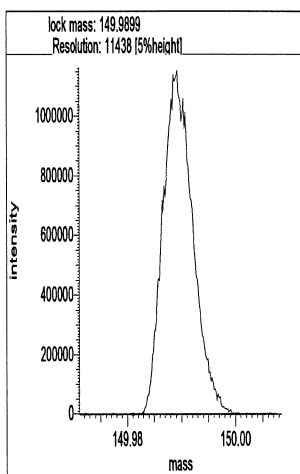
## Segment 1

-d3240722r3

Lock mass 149.9899 [m/z] Resolution: 11438 [5%height]

Cali. mass 180.9883 [m/z] Resolution: 12174 [5%height]

Ref. mass 168.9883 [m/z] Resolution: 11616 [5%height]

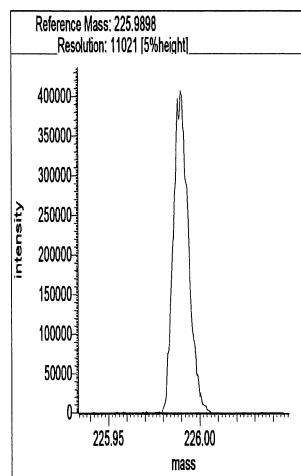
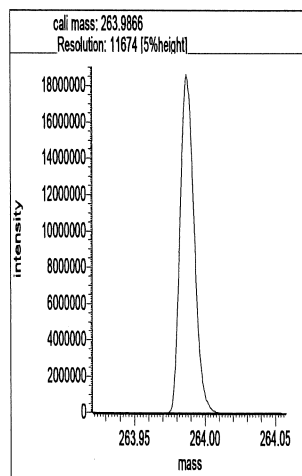
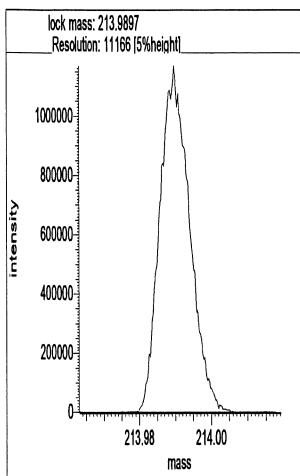


## Segment 2

Lock mass 213.9897 [m/z] Resolution: 11166 [5%height]

Cali. mass 263.9866 [m/z] Resolution: 11674 [5%height]

Ref. mass 225.9898 [m/z] Resolution: 11021 [5%height]

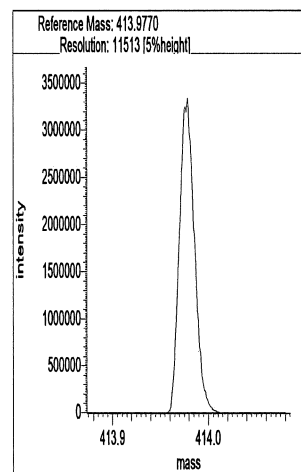
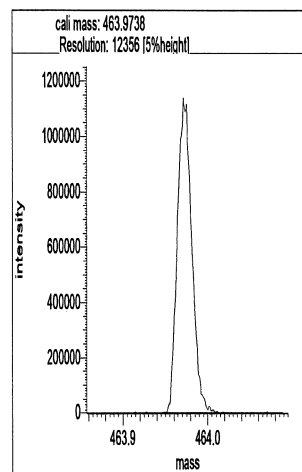
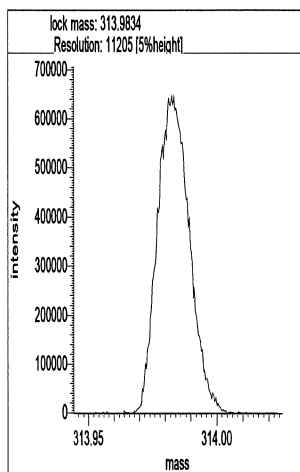


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 11205 [5%height]

Cali. mass 463.9738 [m/z] Resolution: 12356 [5%height]


Ref. mass 413.9770 [m/z] Resolution: 11513 [5%height]



## Reports

13:03:26: Peak matching procedure started  
13:03:27:  
13:03:27: Reference mass: 263.98656  
13:03:28: Sample mass: 414.0  
13:03:28:  
13:03:29: Finding reference mass  
13:03:30: Finding sample mass  
13:03:30:  
13:03:36: [1] 413.9728 amu, mean: 413.9728  
13:03:39: [2] 413.9726 amu, mean: 413.9727 SD: 0.12 mmu or: 0.28 ppm  
13:03:42: [3] 413.9726 amu, mean: 413.9726 SD: 0.11 mmu or: 0.27 ppm  
13:03:45: [4] 413.9725 amu, mean: 413.9726 SD: 0.11 mmu or: 0.26 ppm  
13:03:49: [5] 413.9727 amu, mean: 413.9726 SD: 0.11 mmu or: 0.26 ppm  
13:03:52: [6] 413.9727 amu, mean: 413.9726 SD: 0.10 mmu or: 0.24 ppm  
13:03:55: [7] 413.9732 amu, mean: 413.9727 SD: 0.21 mmu or: 0.51 ppm  
13:03:58: [8] 413.9731 amu, mean: 413.9728 SD: 0.24 mmu or: 0.58 ppm  
13:04:01: [9] 413.9731 amu, mean: 413.9728 SD: 0.25 mmu or: 0.61 ppm  
13:04:04: [10] 413.9733 amu, mean: 413.9729 SD: 0.29 mmu or: 0.70 ppm  
13:04:08: [11] 413.9728 amu, mean: 413.9729 SD: 0.28 mmu or: 0.67 ppm  
13:04:08:  
13:04:08: Stop requested. Please wait for procedure to finish.  
13:04:08:  
13:04:11:  
13:04:11: Peakmatching stopped

Signature

 7/22/24

Date: 22 Jul 2024 23:42  
MID Experiment: ResCheck\_HRPAH  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43\_HRPAH.lua  
Status: RESOLUTION PASSED

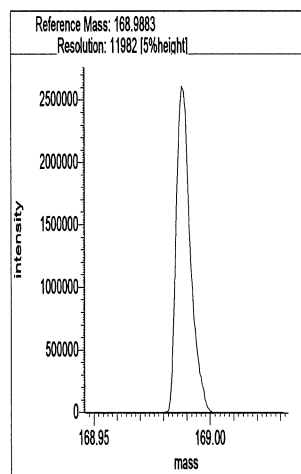
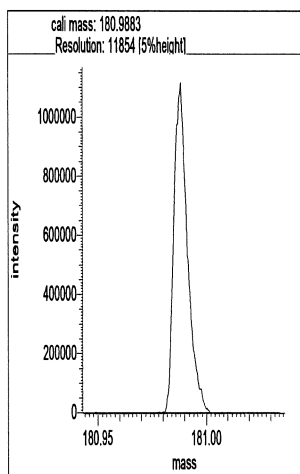
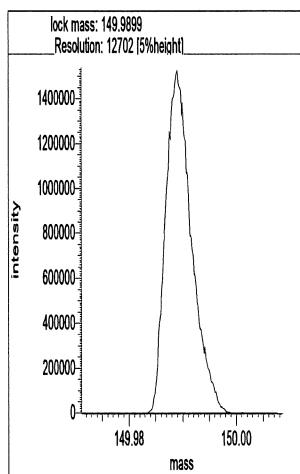
→ d3240722r4

### Segment 1

Lock mass 149.9899 [m/z] Resolution: 12702 [5%height]

Cali. mass 180.9883 [m/z] Resolution: 11854 [5%height]

Ref. mass 168.9883 [m/z] Resolution: 11982 [5%height]

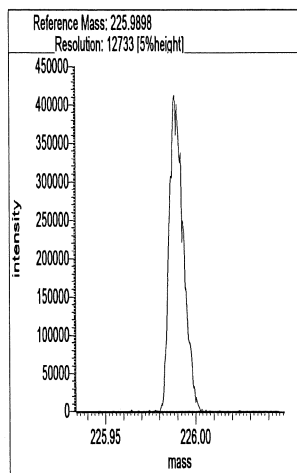
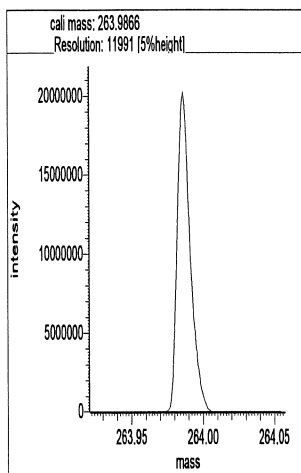
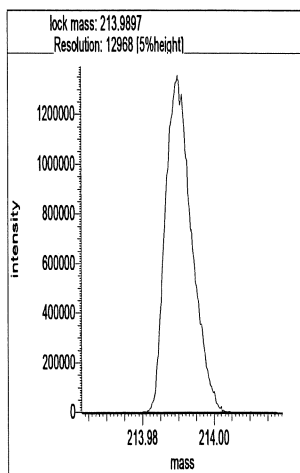


### Segment 2

Lock mass 213.9897 [m/z] Resolution: 12968 [5%height]

Cali. mass 263.9866 [m/z] Resolution: 11991 [5%height]

Ref. mass 225.9898 [m/z] Resolution: 12733 [5%height]

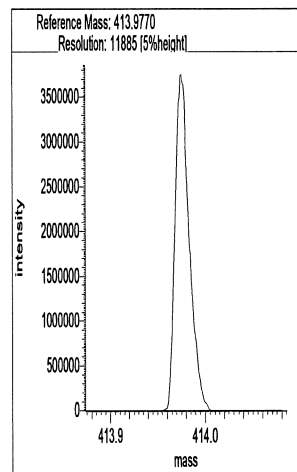
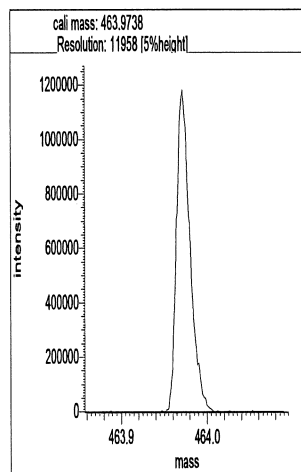
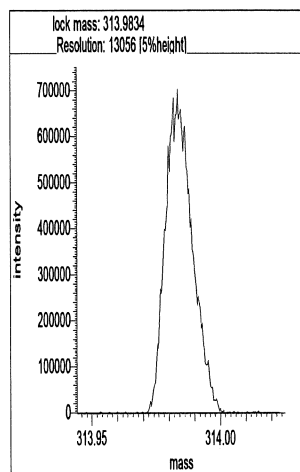


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 13056 [5%height]

Cali. mass 463.9738 [m/z] Resolution: 11958 [5%height]

Ref. mass 413.9770 [m/z] Resolution: 11885 [5%height]

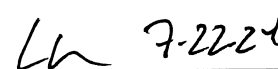




## Reports

23:49:18: Peak matching procedure started  
23:49:18:  
23:49:19: Reference mass: 263.98656  
23:49:19: Sample mass: 414.0  
23:49:20:  
23:49:20: Finding reference mass  
23:49:21: Finding sample mass  
23:49:22:  
23:49:27: [1] 413.9726 amu, mean: 413.9726 SD: 0.15 mmu or: 0.36 ppm  
23:49:30: [2] 413.9728 amu, mean: 413.9727 SD: 0.25 mmu or: 0.60 ppm  
23:49:33: [3] 413.9731 amu, mean: 413.9729 SD: 0.22 mmu or: 0.54 ppm  
23:49:37: [4] 413.9730 amu, mean: 413.9729 SD: 0.22 mmu or: 0.53 ppm  
23:49:40: [5] 413.9731 amu, mean: 413.9730 SD: 0.20 mmu or: 0.49 ppm  
23:49:43: [6] 413.9731 amu, mean: 413.9730 SD: 0.20 mmu or: 0.49 ppm  
23:49:46: [7] 413.9732 amu, mean: 413.9730 SD: 0.20 mmu or: 0.47 ppm  
23:49:49: [8] 413.9732 amu, mean: 413.9730 SD: 0.20 mmu or: 0.47 ppm  
23:49:53: [9] 413.9732 amu, mean: 413.9731 SD: 0.23 mmu or: 0.55 ppm  
23:49:56: [10] 413.9735 amu, mean: 413.9731 SD: 0.27 mmu or: 0.66 ppm  
23:49:59: [11] 413.9737 amu, mean: 413.9731  
23:50:00:  
23:50:00: Stop requested. Please wait for procedure to finish.  
23:50:00:  
23:50:02: [12] 413.9730 amu, mean: 413.9731 SD: 0.26 mmu or: 0.64 ppm  
23:50:03:  
23:50:04: Peakmatching stopped

Signature

Handwritten signature in black ink, appearing to be 'Lh 7-2224'.

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\d3240722c1a.d  
Lims ID: CCV  
Client ID:  
Sample Type: CCV  
Inject. Date: 22-Jul-2024 13:06:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033599-001  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAL ICAL  
Last Update: 22-Jul-2024 14:10:25 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1639

First Level Reviewer: F9EE

Date: 22-Jul-2024 14:09:47

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:30	49340426		3.3746	96.7	96.7	0.005414	0.005414	96.73	
Naphthalene	11:30	121615351		1.2893	191.2	191.2	0.0213	0.0213	95.59	
D 13C6-2-Methylnaphthalene	13:50	22316166		1.6031	92.1	92.1	0.000878	0.000878	92.10	
2-Methylnaphthalene	13:50	53326705		1.2786	186.9	186.9	0.008420	0.008420	93.45	
D 13C6-Acenaphthylene	16:42	25415052		1.6520	101.8	101.8	0.002566	0.002566	102	
Acenaphthylene	16:43	66582740		2.3661	184.7	184.7	0.0107	0.0107	92.35	
* Acenaphthene-d10	17:16	15115671		3.5E+04	100.0	100.0				
D 13C6-Acenaphthene	17:24	15235480		0.9792	102.9	102.9	0.003432	0.003432	103	
Acenaphthene	17:24	36236421		1.2697	187.3	187.3	0.0124	0.0124	93.66	
D 13C6-Fluorene	19:41	13398559		0.8898	99.6	99.6	0.001317	0.001317	99.61	
Fluorene	19:42	33728752		1.2532	200.9	200.9	0.0157	0.0157	100	
D 13C6-Phenanthrene	25:04	19295874		0.5724	91.9	91.9	0.005166	0.005166	91.92	
Phenanthrene	25:04	43402782		1.1044	203.7	203.7	0.0178	0.0178	102	
\$ Anthracin-d10	25:16	14725989		0.4257	94.3	94.3	0.001032	0.001032	94.33	
D 13C6-Anthracene	25:23	15380471		0.4523	92.7	92.7	0.006537	0.006537	92.72	
Anthracene	25:24	41952732		1.3586	200.8	200.8	0.0191	0.0191	100	
D 13C6-Fluoranthrene	33:48	44162167		1.1994	100.4	100.4	0.0139	0.0139	100	
Fluoranthrene	33:48	101374850		1.1513	199.4	199.4	0.007482	0.007482	99.69	
* Pyrene-d10	35:21	36669933		7.9E+04	100.0	100.0				
D 13C3-Pyrene	35:29	52014062		1.3512	105.0	105.0	0.009447	0.009447	105	
Pyrene	35:29	108688863		1.0652	196.2	196.2	0.007054	0.007054	98.08	
\$ 13C6-Benzo(c)fluorene	39:11	18050331		0.5136	95.8	95.8	0.003477	0.003477	95.84	
D 13C6-Benzo(a)anthracene	46:01	38260534		1.5189	91.6	91.6	0.008522	0.008522	91.55	
Benzo[a]anthracene	46:01	80929305		0.9739	217.2	217.2	0.0249	0.0249	109	
D 13C6-Chrysene	46:17	45812032		1.6287	102.2	102.2	0.007947	0.007947	102	
Chrysene	46:17	96293893		0.9815	214.2	214.2	0.0219	0.0219	107	
D 13C6-Benzo(b)fluoranthene	54:35	42422099		1.4621	105.5	105.5	0.000963	0.000963	105	
Benzo[b]fluoranthene	54:35	96597060		1.1249	202.4	202.4	0.003005	0.003005	101	
\$ 13C12-Benzo(j)fluoranthene	54:37	39824249		1.3558	106.8	106.8	0.007446	0.007446	107	
D 13C6-Benzo(k)fluoranthene	54:42	52567773		1.7507	109.1	109.1	0.000804	0.000804	109	
Benzo[k]fluoranthene	54:43	109616171		1.1271	185.0	185.0	0.002642	0.002642	92.51	
* Benzo(e)pyrene-d12	55:27	27513027		5.7E+04	100.0	100.0				
D 13C4-Benzo(e)pyrene	55:32	51067939		1.6368	113.4	113.4	0.002316	0.002316	113	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
Benzo[e]pyrene	55:32	98164523		1.0013	192.0	192.0	0.002294	0.002294	95.99	
D 13C4-Benzo(a)pyrene	55:40	45219607		1.5508	106.0	106.0	0.002445	0.002445	106	
Benzo[a]pyrene	55:40	98264668		1.1130	195.2	195.2	0.002369	0.002369	97.62	
D Perylene-d12	55:50	34036010		1.1917	103.8	103.8	0.007426	0.007426	104	
Perylene	55:54	108936204		1.4307	223.7	223.7	0.002458	0.002458	112	
D 13C6-Indeno(1,2,3-cd)pyrene	57:58	31863036		1.0218	113.3	113.3	0.006042	0.006042	113	
Indeno[1,2,3-cd]pyrene	57:58	74429360		1.1249	207.6	207.6	0.002649	0.002649	104	
D 13C6-Dibenz(a,h)anthracene	58:02	37292903		1.0553	128.4	128.4	0.003151	0.003151	128	
Dibenz(a,h)anthracene	58:03	82362913		1.1314	195.2	195.2	0.002117	0.002117	97.60	
D 13C12-Benzo(ghi)perylene	58:27	35575342		1.2749	101.4	101.4	0.000739	0.000739	101	
Benzo[g,h,i]perylene	58:27	96664890		1.2838	211.7	211.7	0.002297	0.002297	106	

## QC Flag Legend

Processing Flags

## Reagents:

61HRPAHCS5a\_00002

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

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Lims ID: CCV  
Client ID:  
Sample Type: CCV  
Inject. Date: 22-Jul-2024 13:06:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033599-001  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 22-Jul-2024 14:10:25 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1639

First Level Reviewer: F9EE

Date: 22-Jul-2024 14:09:47

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:30	11:30	0	0.665	49340426	16849881	374	935	45053		
Naphthalene											
128.0626	11:30	11:30	0	1.000	121615351	42392800	1851	4627	22903		
13C6-2-Methylnaphthalene											
148.0984	13:50	13:50	0	0.800	22316166	9892589	29	72	341124		
2-Methylnaphthalene											
142.0783	13:50	13:50	0	1.001	53326705	25634824	426	1065	60176		
13C6-Acenaphthylene											
158.0828	16:42	16:42	0	0.967	25415052	8884941	87	217	102126		E
Acenaphthylene											
152.0626	16:43	16:43	0	1.000	66582740	22953630	536	1340	42824		
Acenaphthene-d10											
164.1404	17:16	17:16	0		15115671	5118121	5	12	1023624		
13C6-Acenaphthene											
160.0984	17:24	17:24	0	1.007	15235480	5311762	69	172	76982		E
Acenaphthene											
154.0783	17:24	17:24	0	1.000	36236421	12516371	334	835	37474		
13C6-Fluorene											
172.0984	19:41	19:41	0	1.140	13398559	3832920	24	60	159705		
Fluorene											
166.0783	19:42	19:42	0	1.001	33728752	9997225	301	752	33213		
13C6-Phenanthrene											
184.0984	25:04	25:04	0	0.709	19295874	4396447	81	202	54277		
Phenanthrene											
178.0783	25:04	25:04	0	1.000	43402782	10165516	346	865	29380		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:16	25:16	0	0.715	14725989	3166062	12	30	263839		
13C6-Anthracene											
184.0984	25:23	25:23	0	0.718	15380471	3329946	81	202	41110		
Anthracene											
178.0783	25:24	25:24	0	1.000	41952732	9342220	346	865	27001		
13C6-Fluoranthrene											
208.0984	33:48	33:48	0	0.956	44162167	8555261	457	1142	18720		E
Fluoranthene											
202.0783	33:48	33:48	0	1.000	101374850	19590768	295	737	66409		
Pyrene-d10											
212.1404	35:21	35:21	0		36669933	6830970	34	85	200911		
13C3-Pyrene											
205.0883	35:29	35:29	0	1.004	52014062	9808870	349	872	28106		E
Pyrene											
202.0783	35:29	35:29	0	1.000	108688863	20860656	295	737	70714		
13C6-Benzo(c)fluorene											
222.1134	39:11	39:11	0	0.707	18050331	3073745	49	122	62729		
13C6-Benzo(a)anthracene											
234.1140	46:01	46:01	0	1.302	38260534	6801134	478	1195	14228		
Benzo[a]anthracene											
228.0939	46:01	46:01	0	1.000	80929305	14563137	659	1647	22099		
13C6-Chrysene											
234.1140	46:17	46:17	0	1.309	45812032	7659874	478	1195	16025		E
Chrysene											
228.0939	46:17	46:17	0	1.000	96293893	16145721	659	1647	24500		
13C6-Benzo(b)fluoranthene											
258.1140	54:35	54:35	0	0.985	42422099	11891436	52	130	228682		E
Benzo[b]fluoranthene											
252.0939	54:35	54:35	0	1.000	96597060	26861708	161	402	166843		
13C12-Benzo(j)fluoranthene											
264.1336	54:37	54:37	0	0.985	39824249	10618973	373	932	28469		
13C6-Benzo(k)fluoranthene											
258.1140	54:42	54:42	0	0.987	52567773	13498092	52	130	259579		E
Benzo[k]fluoranthene											
252.0939	54:43	54:43	0	1.000	109616171	27830668	161	402	172861		
Benzo(e)pyrene-d12											
264.1692	55:27	55:27	0		27513027	9232240	327	817	28233		
13C4-Benzo(e)pyrene											
256.1073	55:32	55:32	0	1.002	51067939	17504237	140	350	125030		E
Benzo[e]pyrene											
252.0939	55:32	55:32	0	1.000	98164523	34989588	161	402	217327		
13C4-Benzo(a)pyrene											
256.1073	55:40	55:40	0	1.004	45219607	15244781	140	350	108891		E

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Benzo[a]pyrene											
252.0939	55:40	55:40	0	1.000	98264668	32866968	161	402	204143		
Perylene-d12											
264.1692	55:50	55:50	0	1.007	34036010	11433793	327	817	34966		E
Perylene											
252.0939	55:54	55:54	0	1.001	108936204	36441988	161	402	226348		
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	57:58	57:58	0	1.046	31863036	11242563	228	570	49309		E
Indeno[1,2,3-cd]pyrene											
276.0939	57:58	57:58	0	1.000	74429360	24531729	134	335	183073		
13C6-Dibenz(a,h)anthracene											
284.1296	58:02	58:02	0	1.047	37292903	10104789	123	307	82153		E
Dibenz(a,h)anthracene											
278.1096	58:03	58:03	0	1.000	82362913	22383499	97	242	230758		
13C12-Benzo(ghi)perylene											
288.1342	58:27	58:27	0	1.054	35575342	11360665	35	87	324590		E
Benzo[g,h,i]perylene											
276.0939	58:27	58:27	0	1.000	96664890	30488593	134	335	227527		

### QC Flag Legend

Processing Flags

### Reagents:

61HRPAHCS5a\_00002

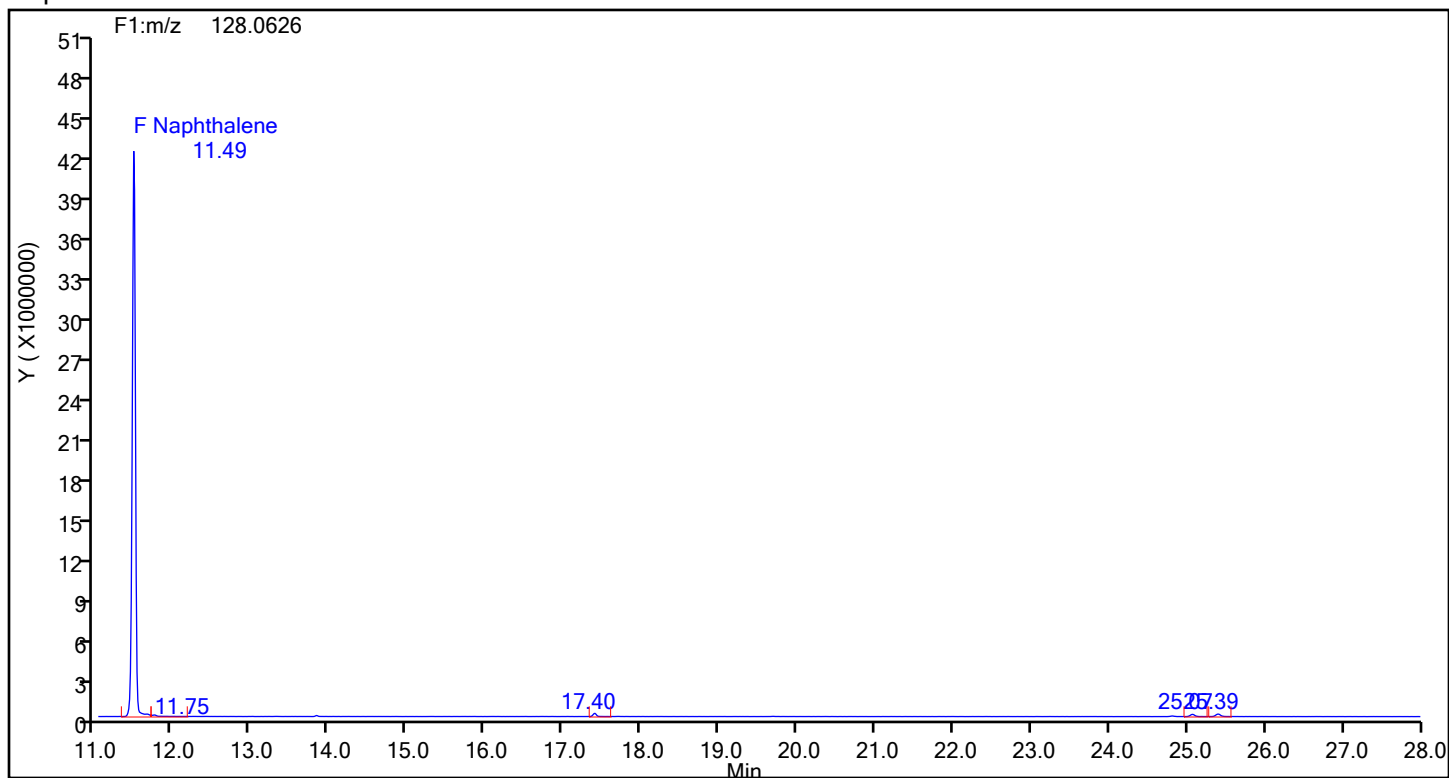
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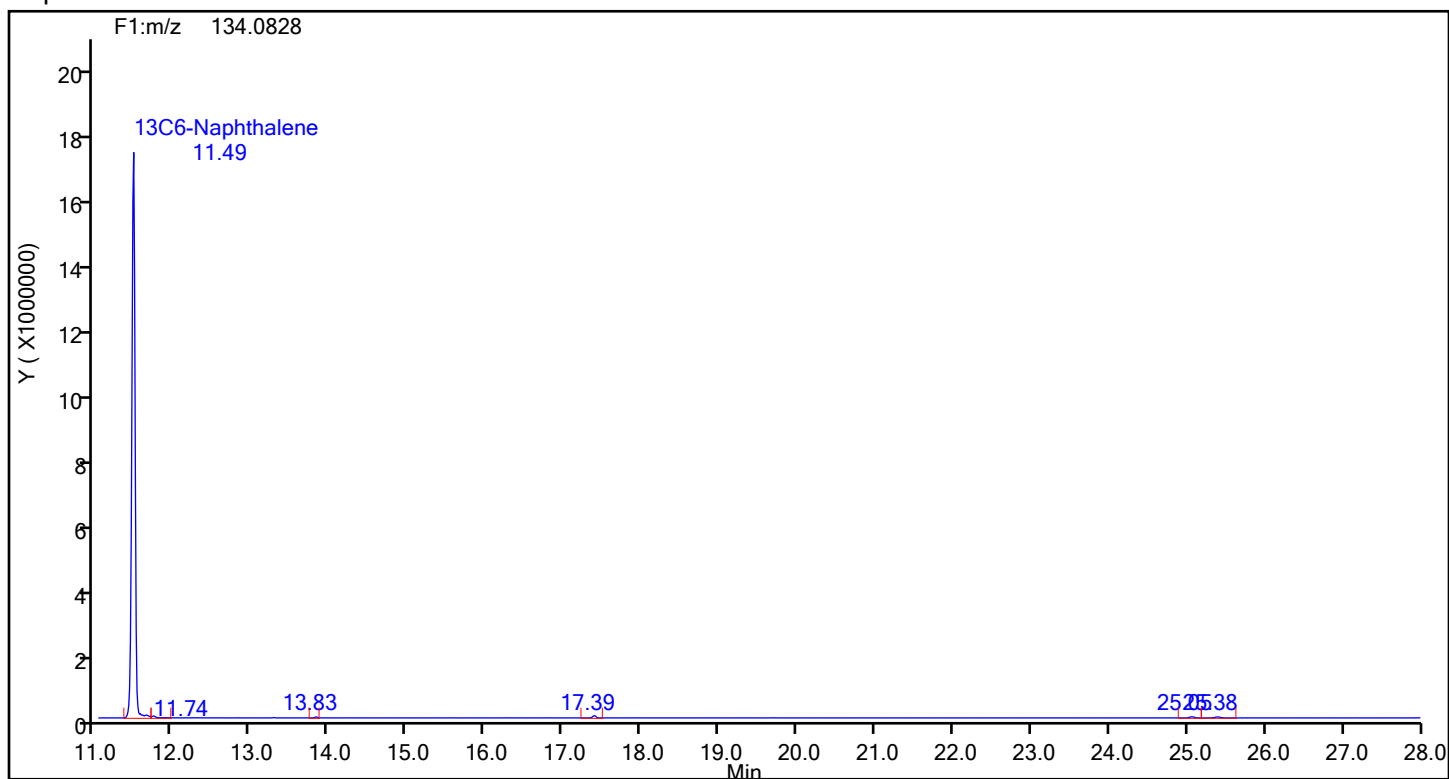
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



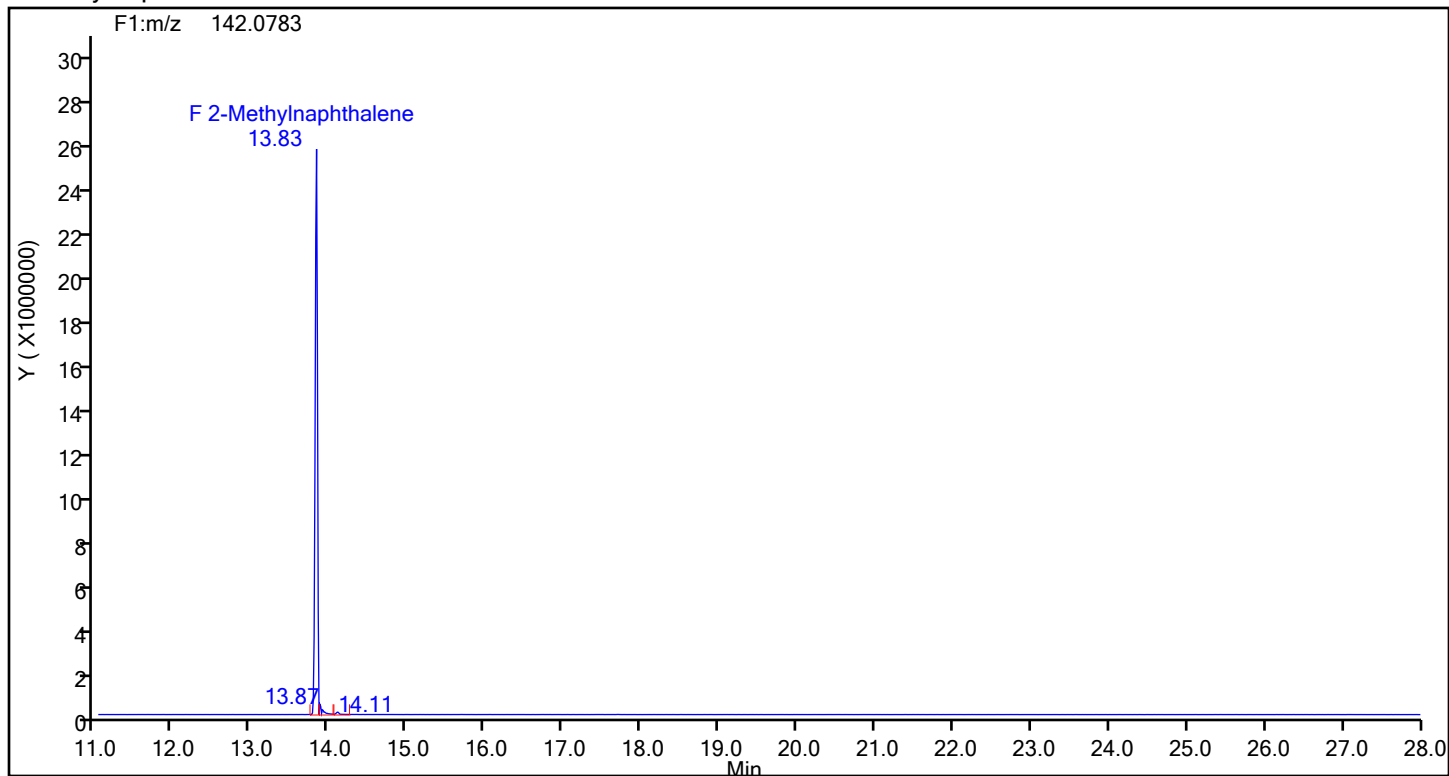
## Naphthalene Standards



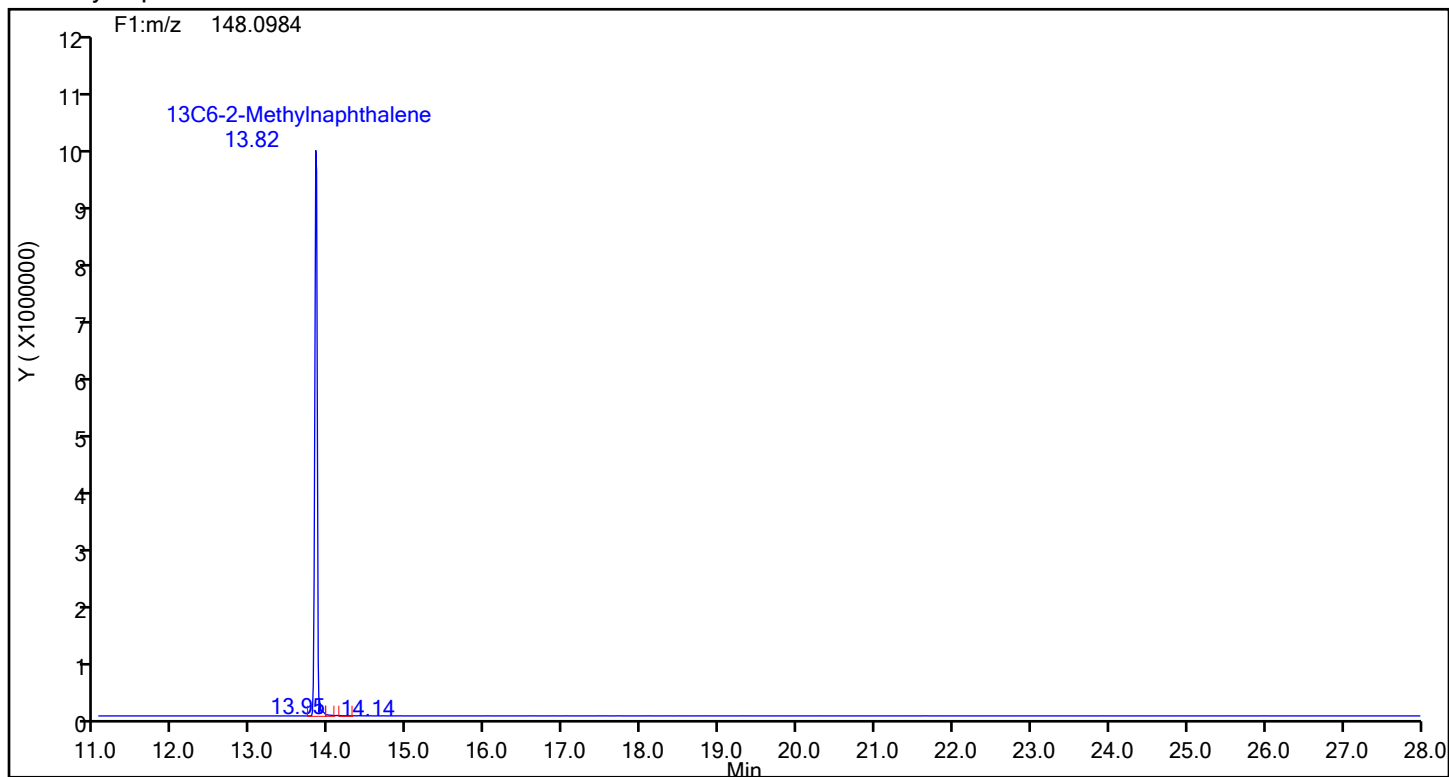
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Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



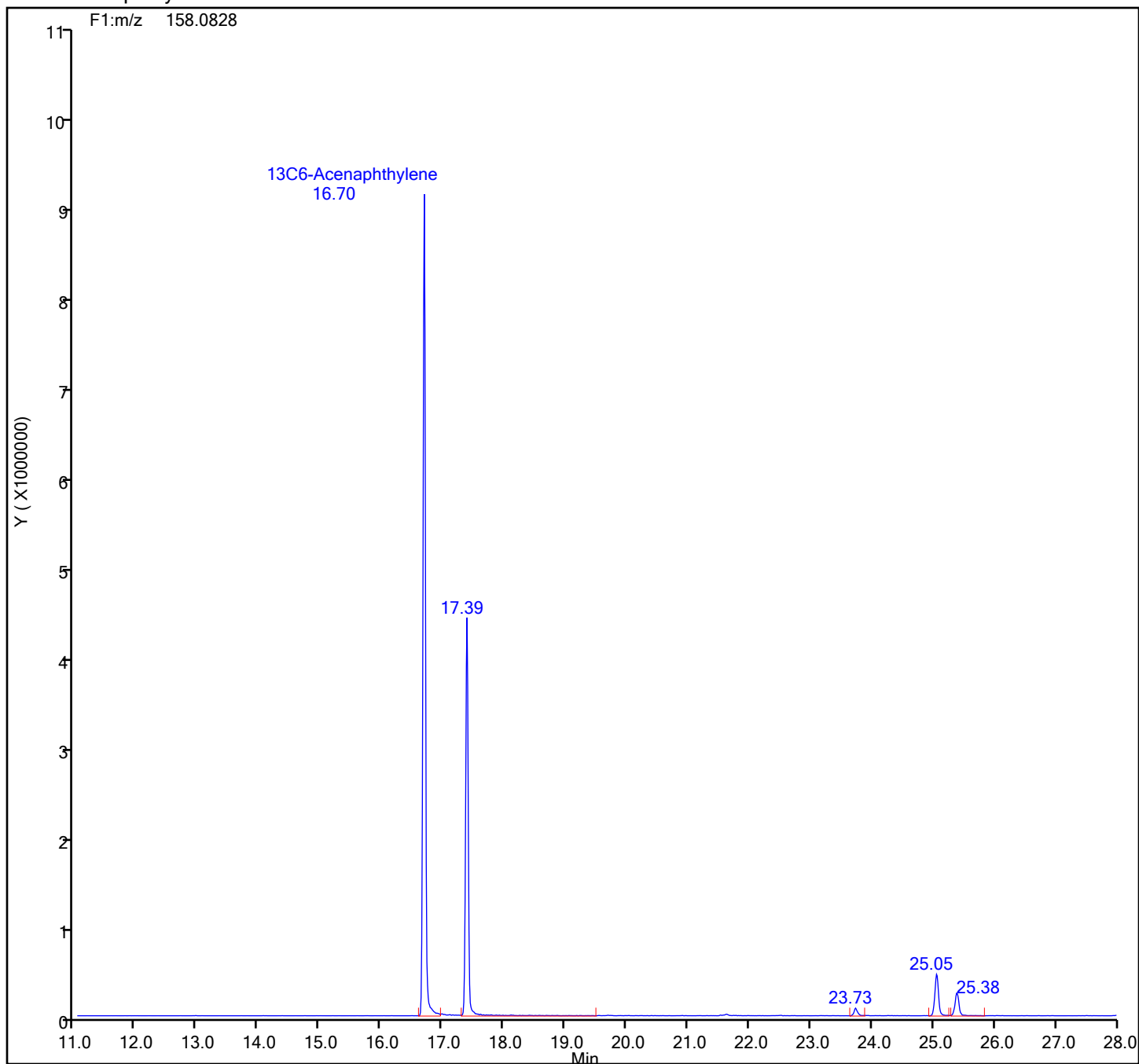
## 2-Methylnaphthalene Standards





## Eurofins Knoxville

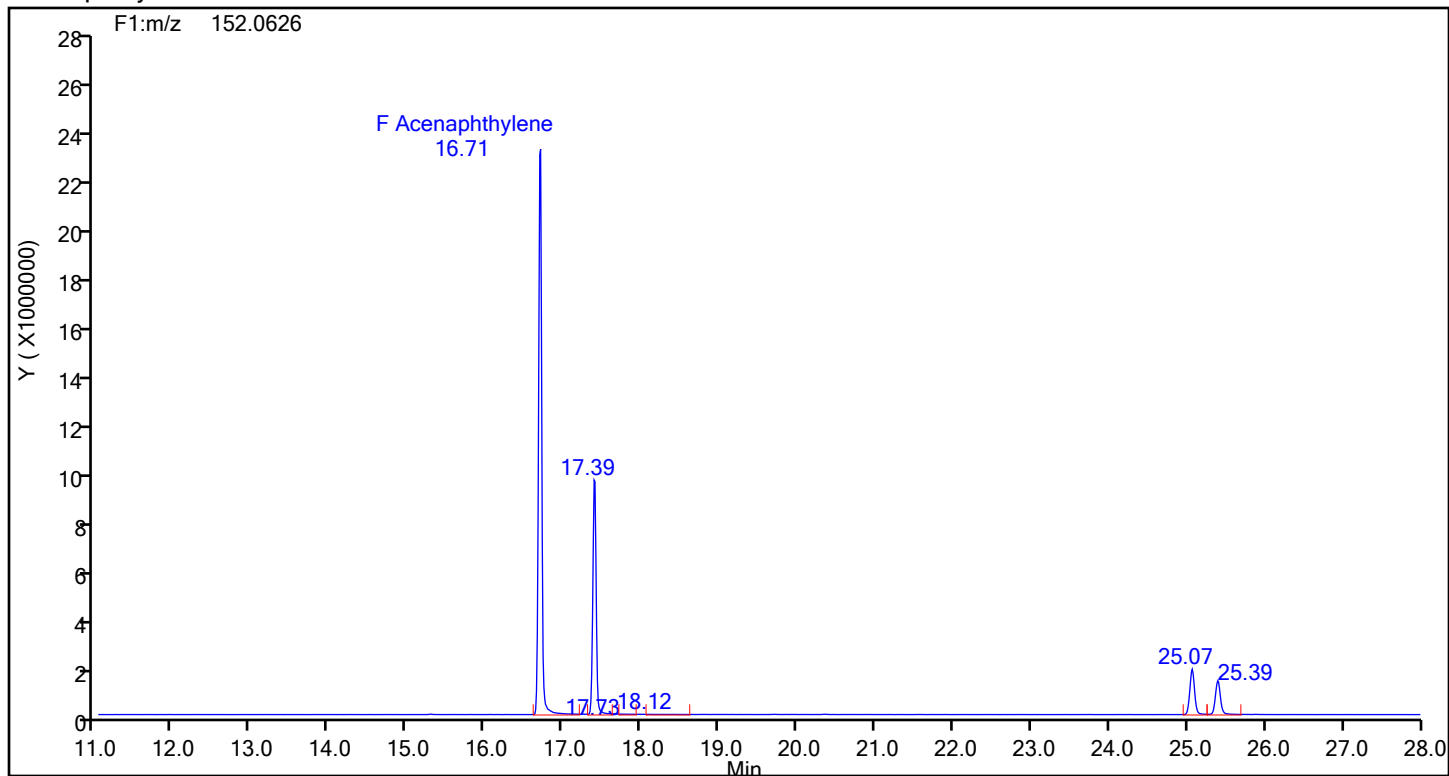
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
13C6-Acenaphthylene Standards



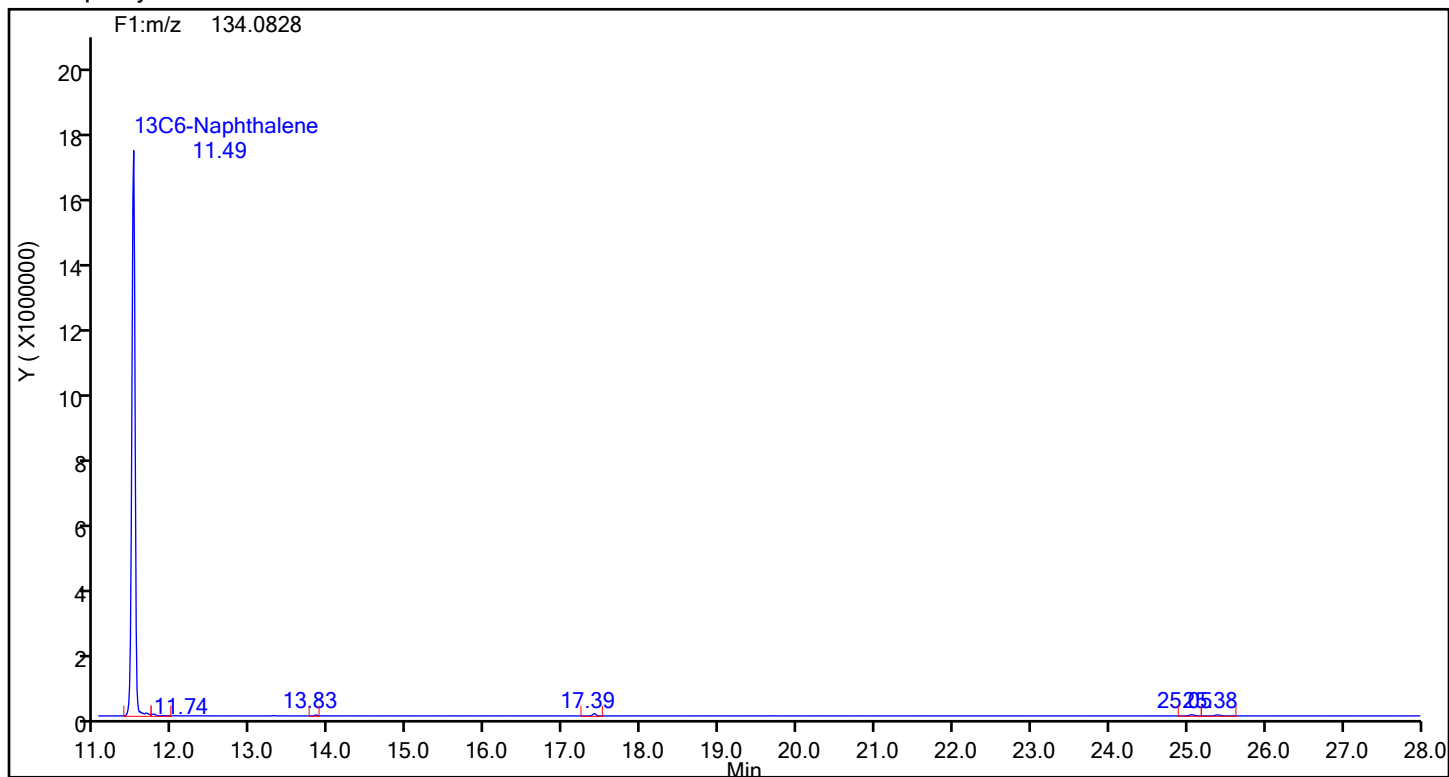
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
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## Acenaphthylene



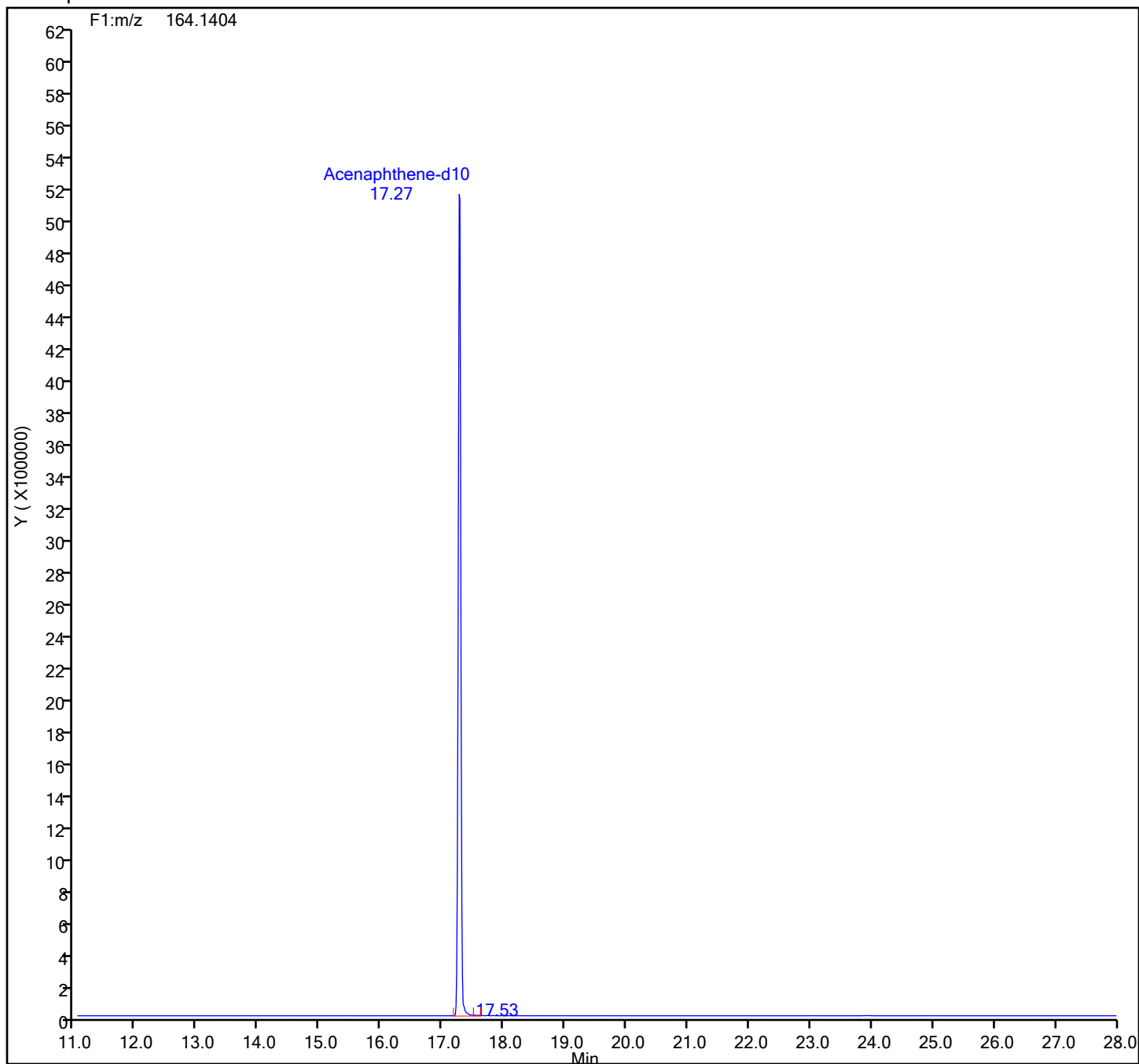
## Acenaphthylene Standards



## Eurofins Knoxville

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Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

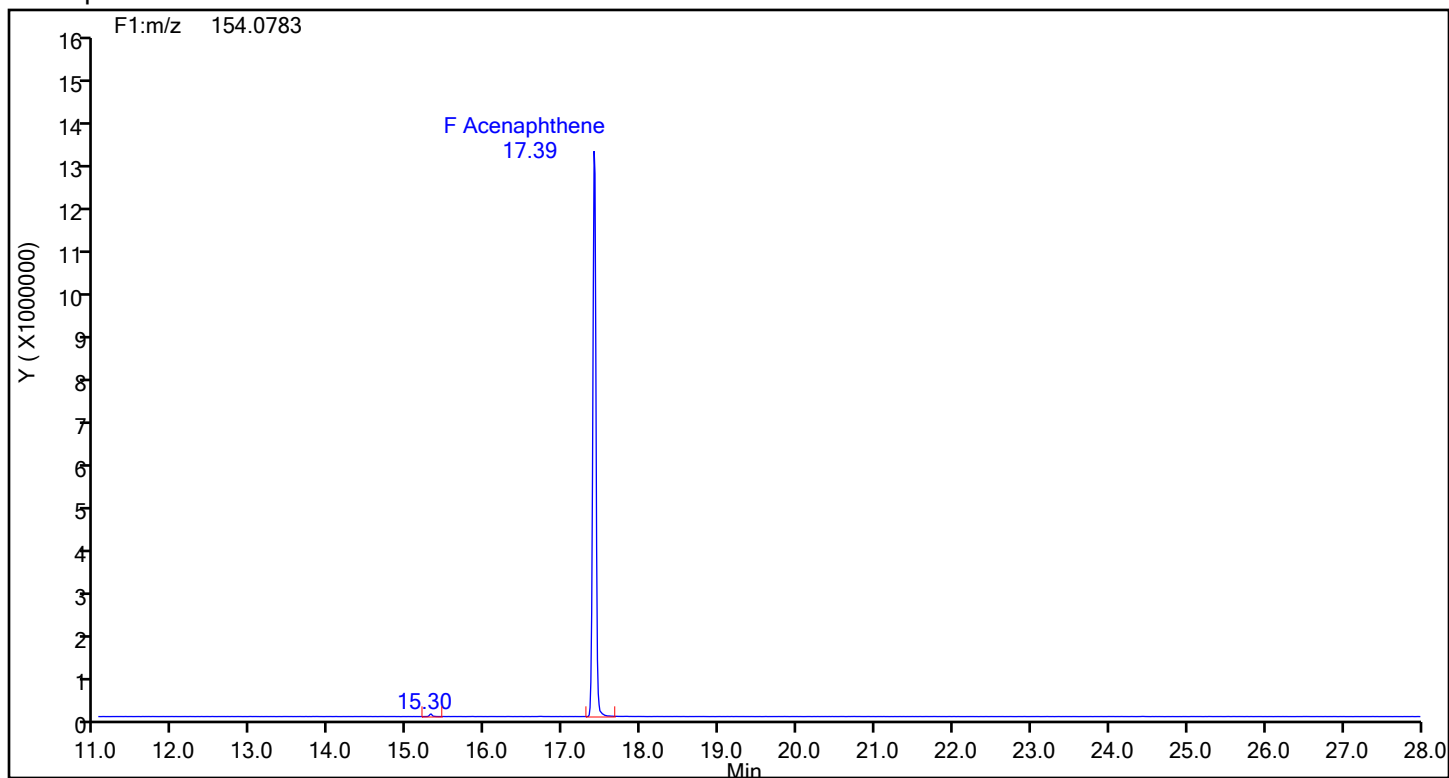
## Acenaphthene-d10 Standards



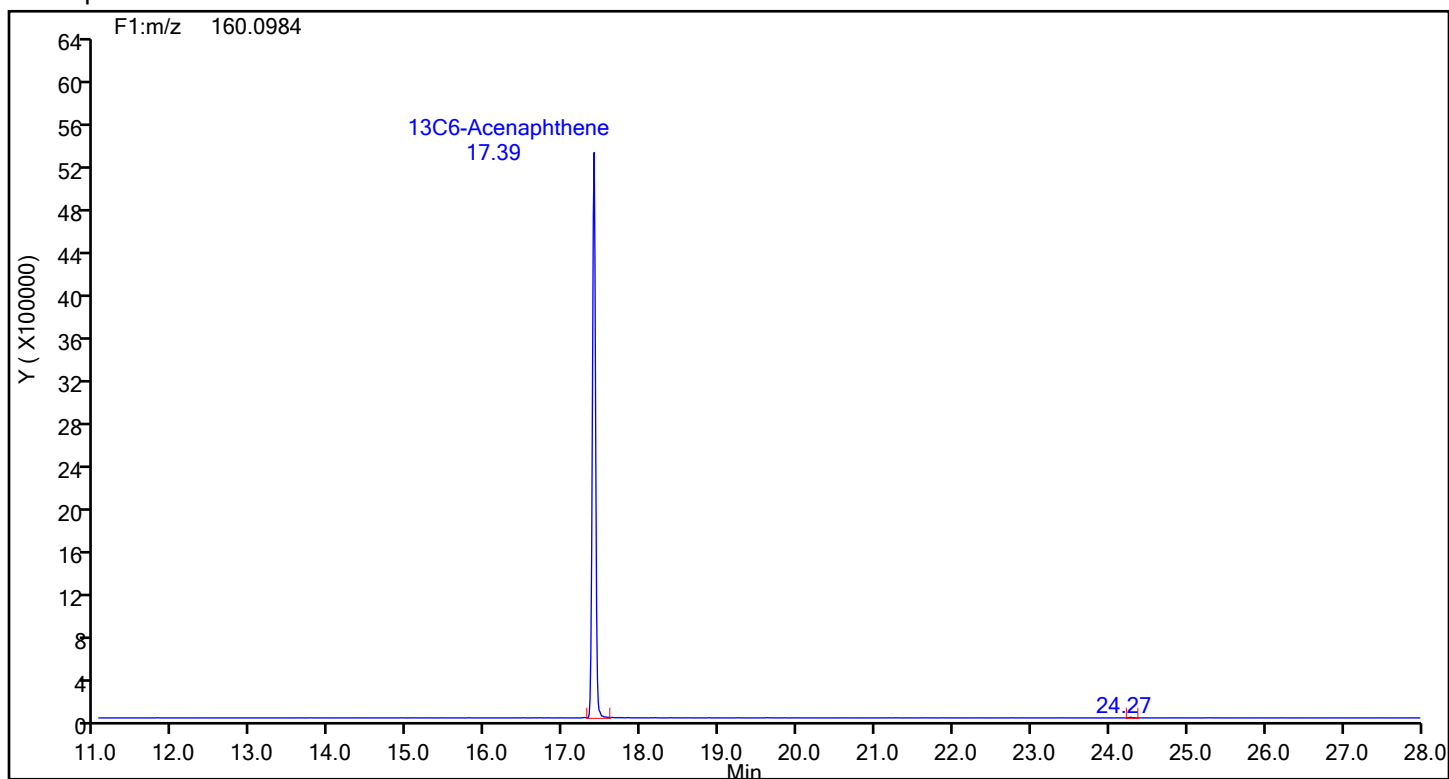
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



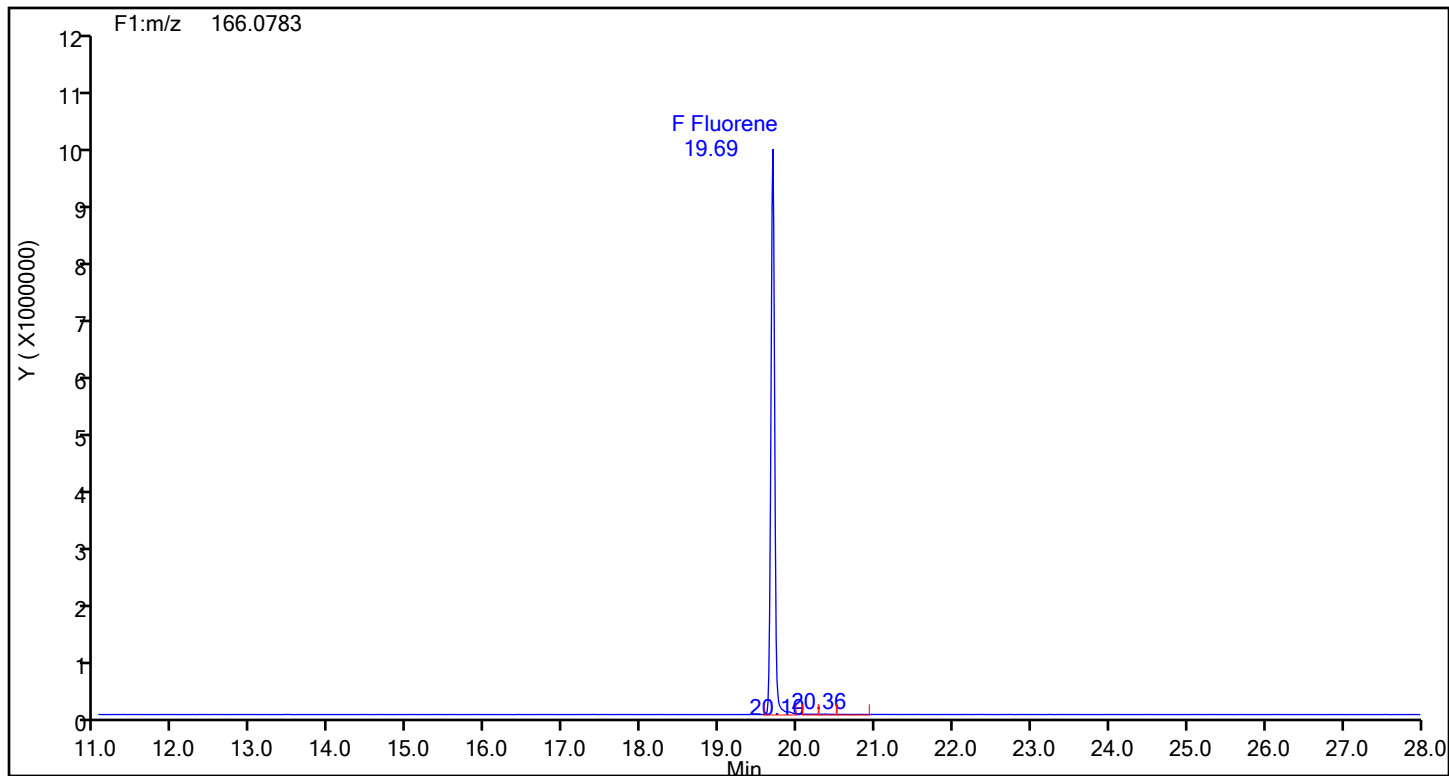
## Acenaphthene Standards



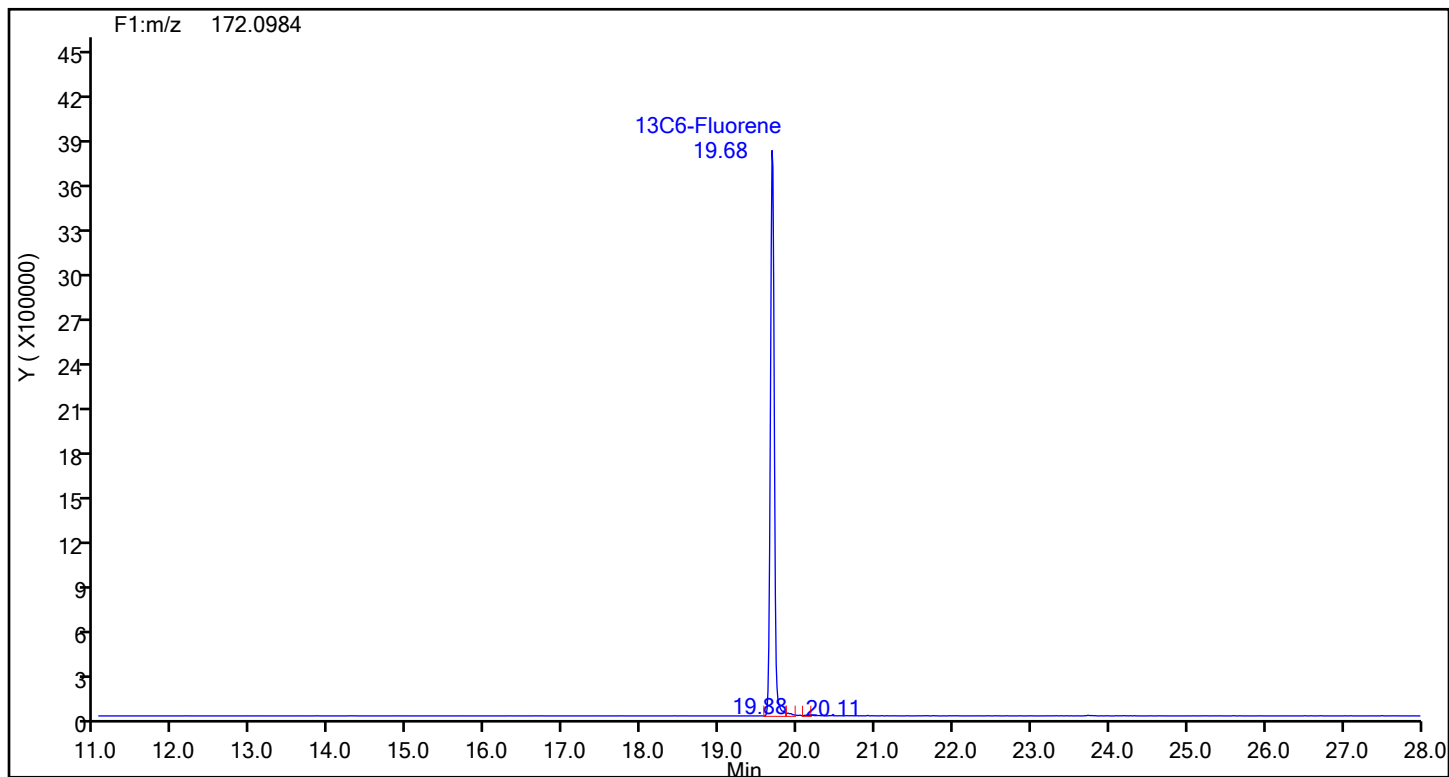
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene

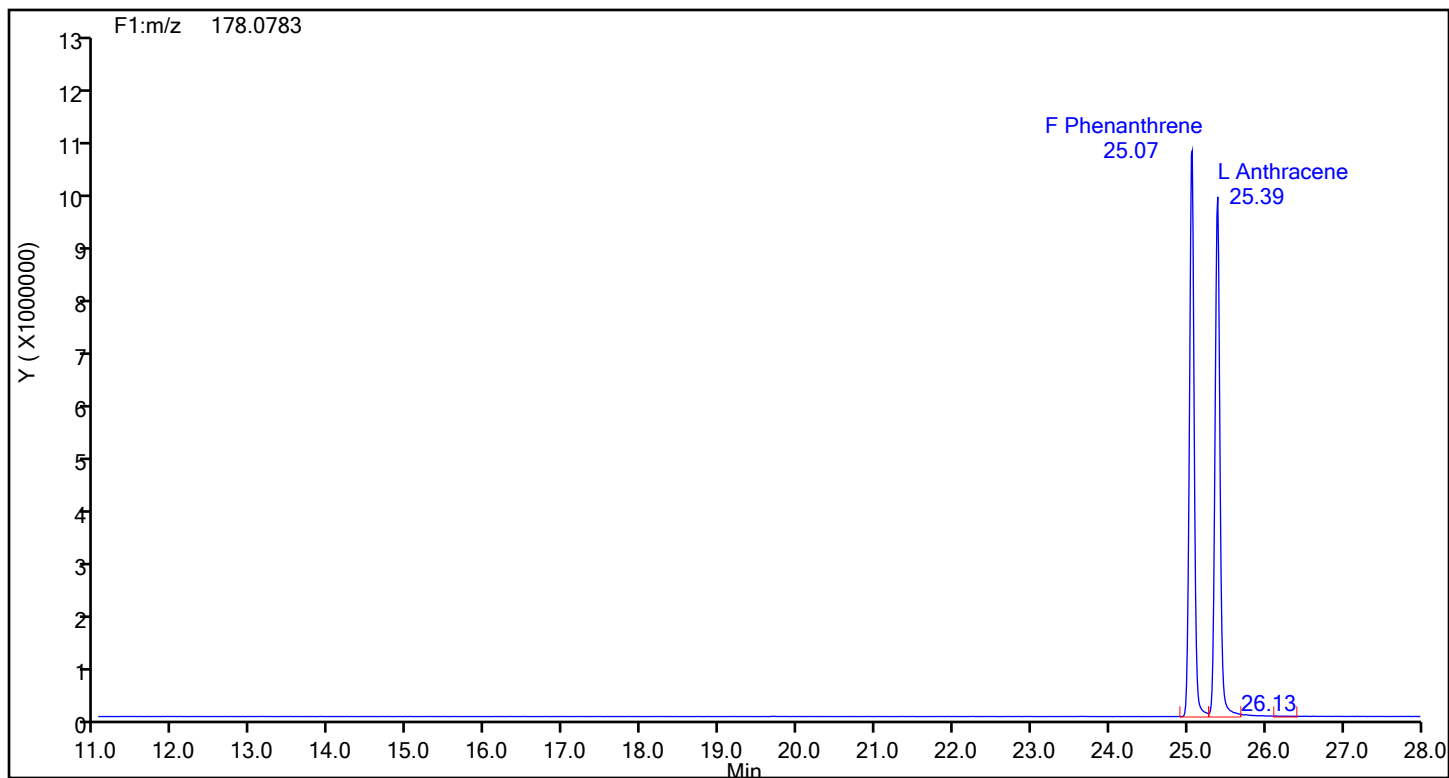


## Fluorene Standards

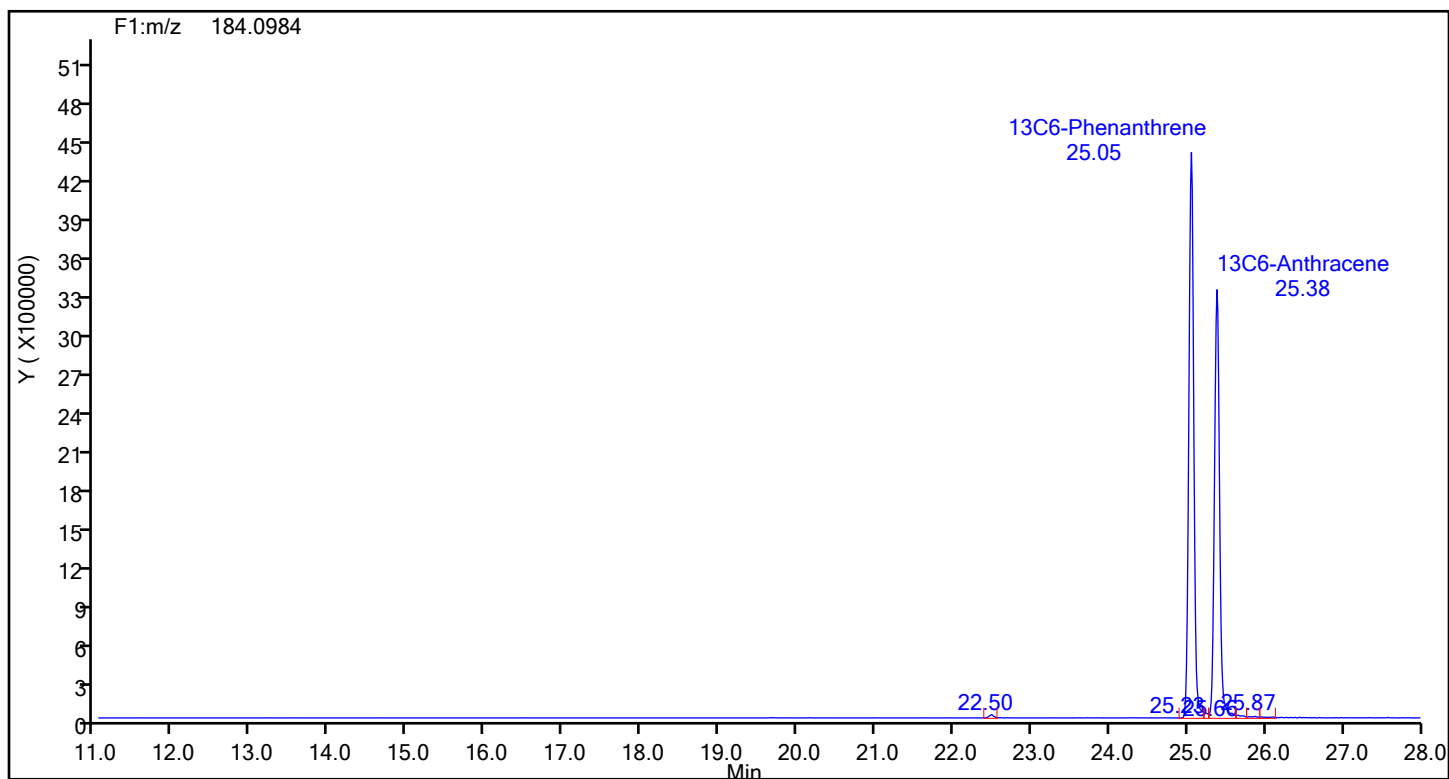


## Eurofins Knoxville

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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Phenanthrene

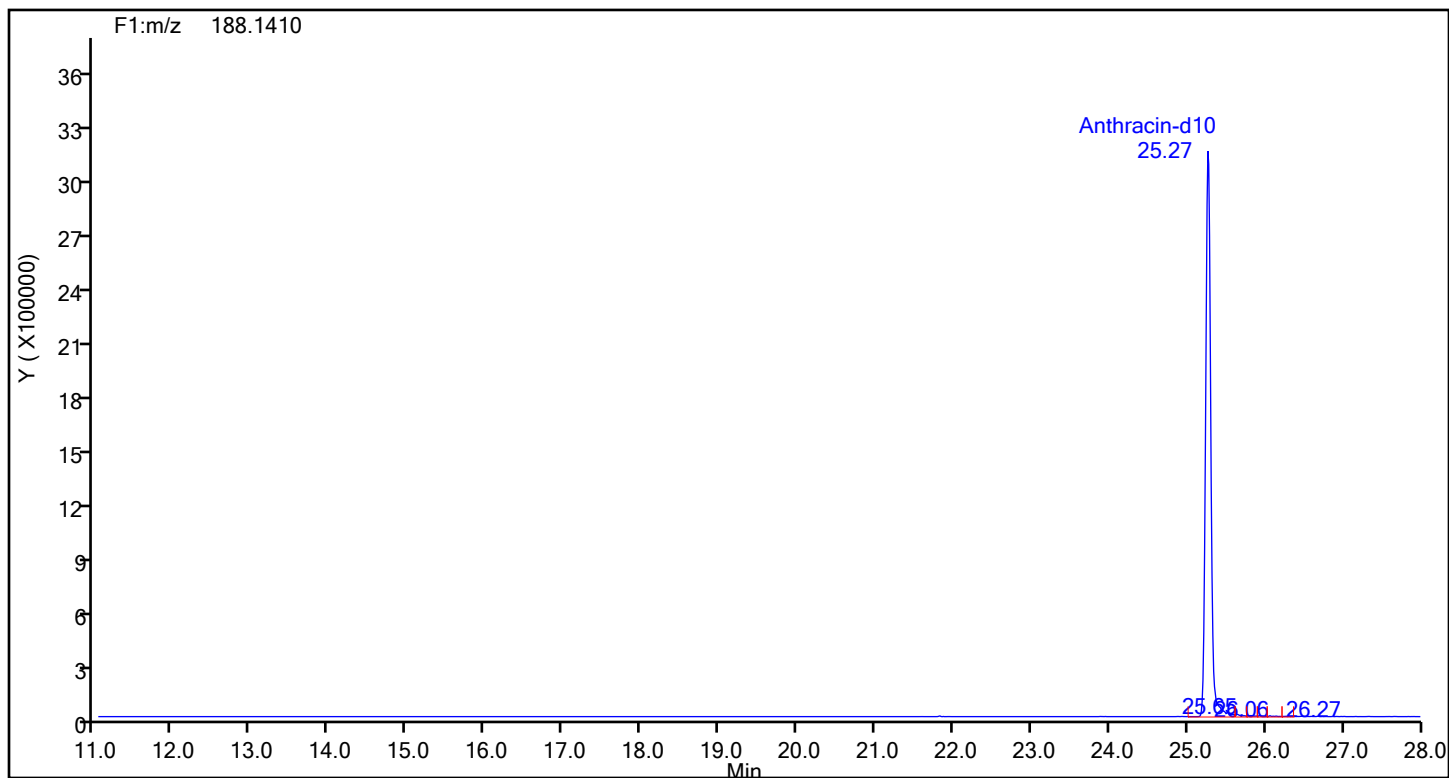


## Phenanthrene Standards

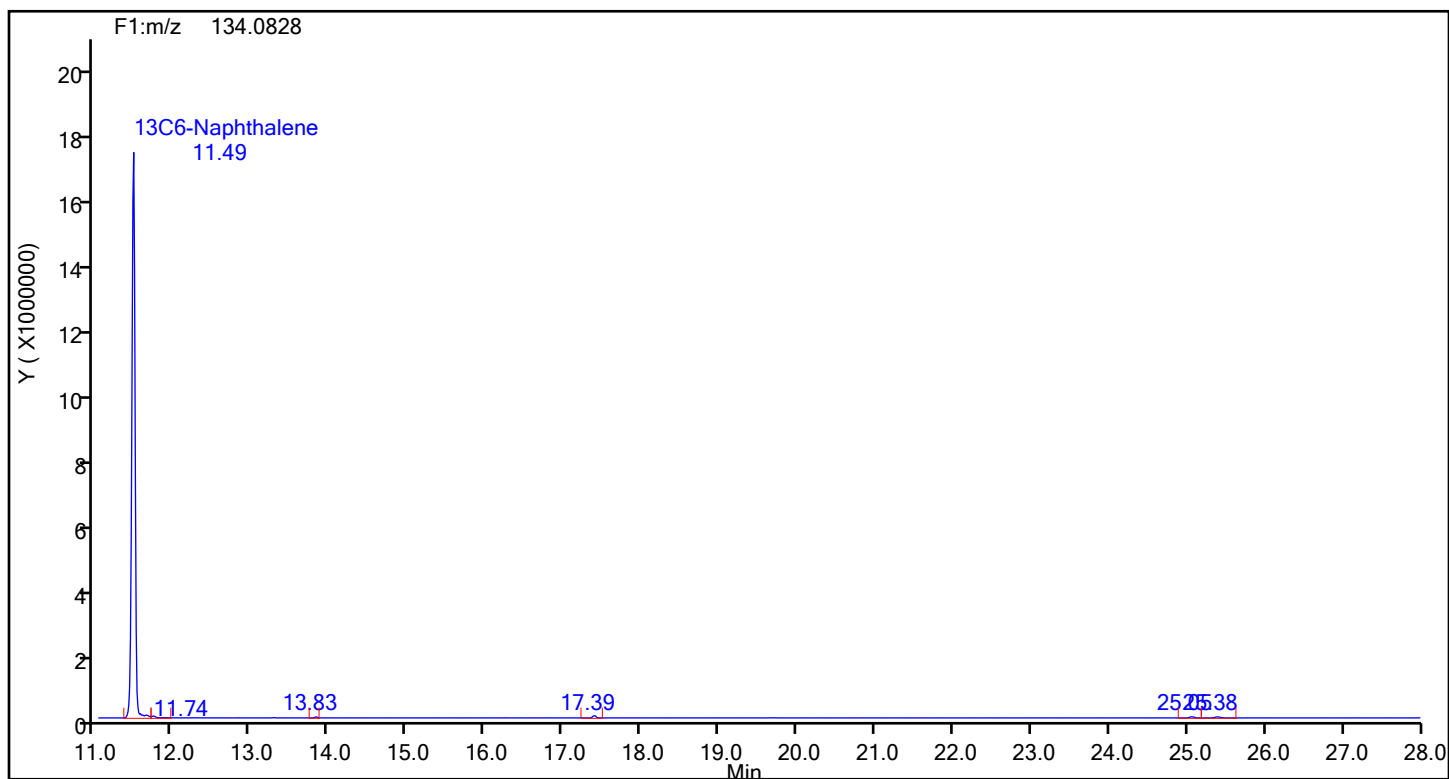


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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10

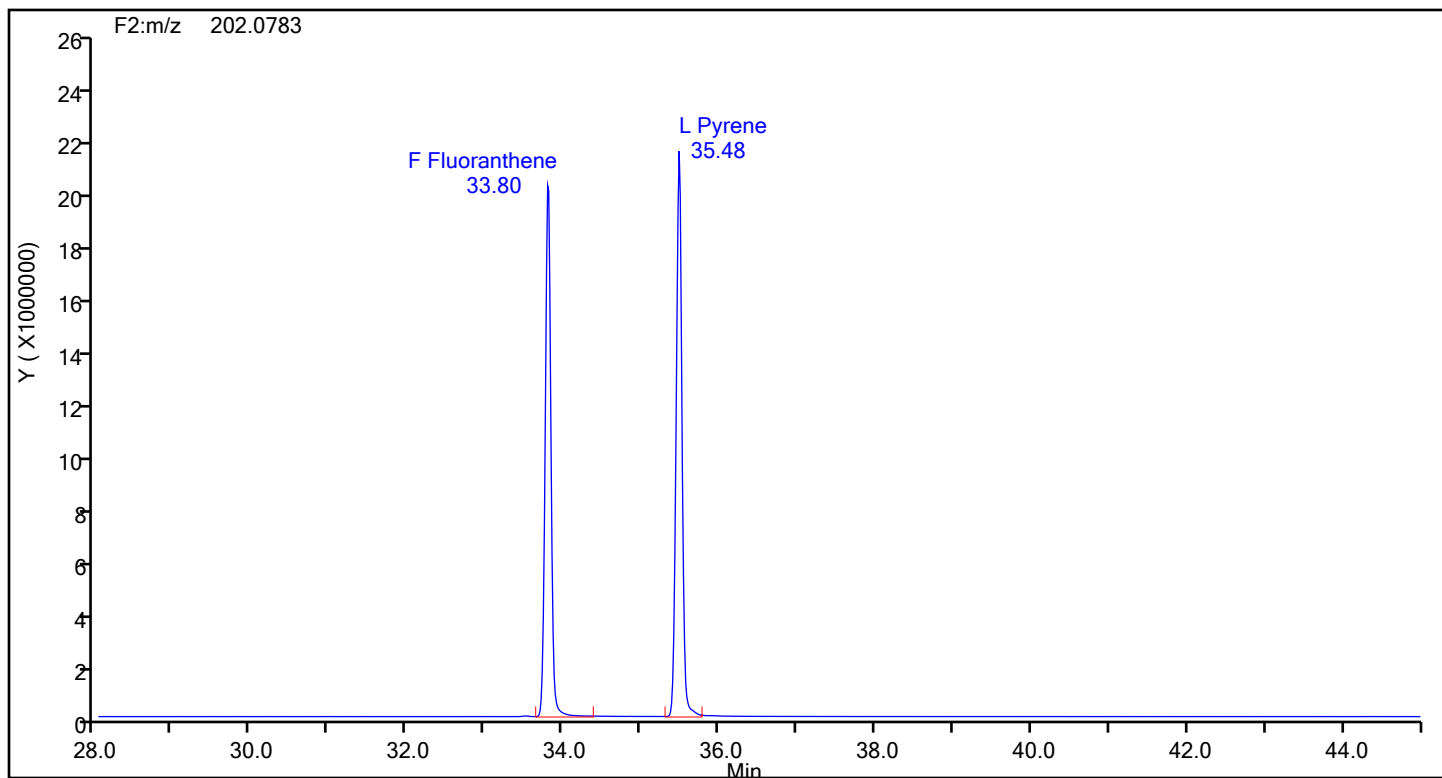


## Anthracin-d10 Standards

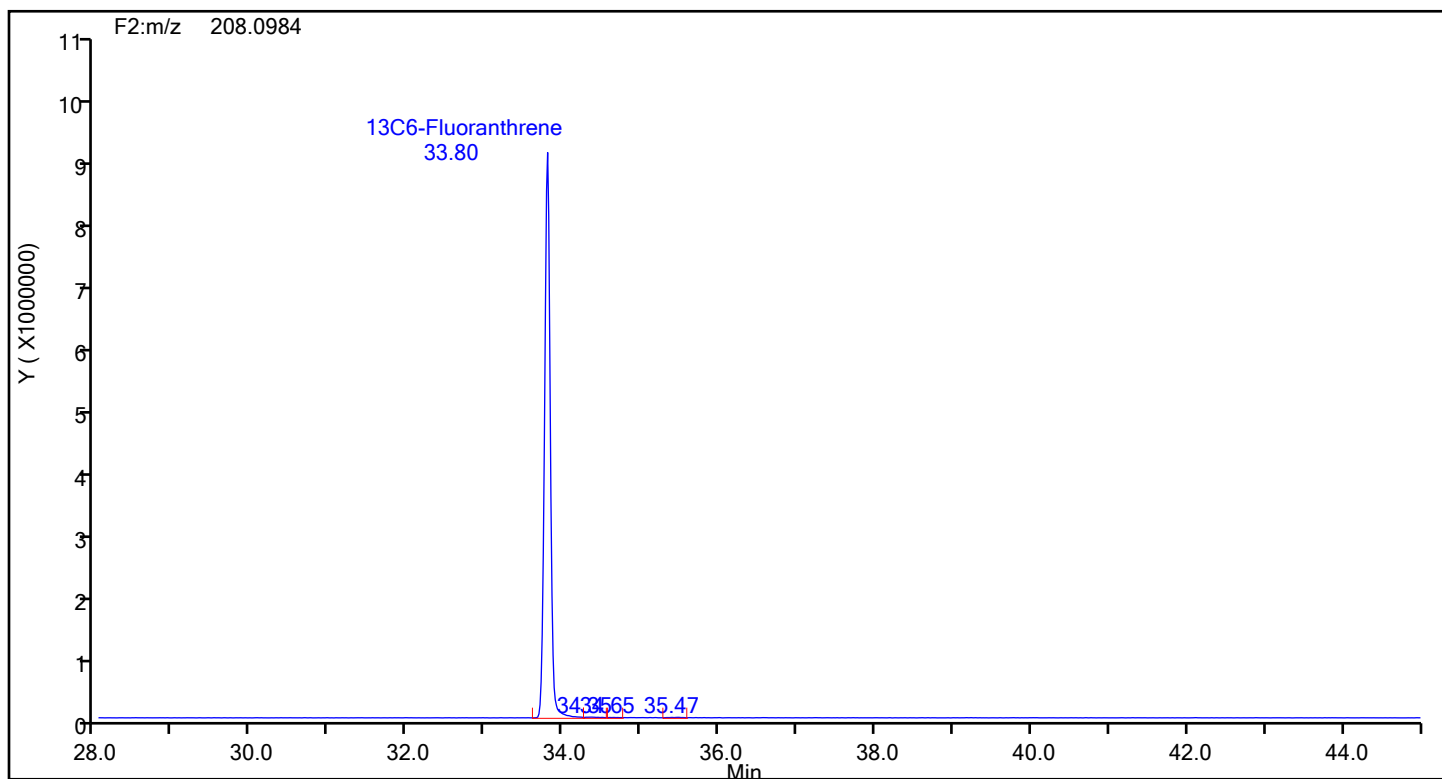


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\d3240722c1a.d  
Injection Date: 22-Jul-2024 13:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Fluoranthene



## Fluoranthene Standards

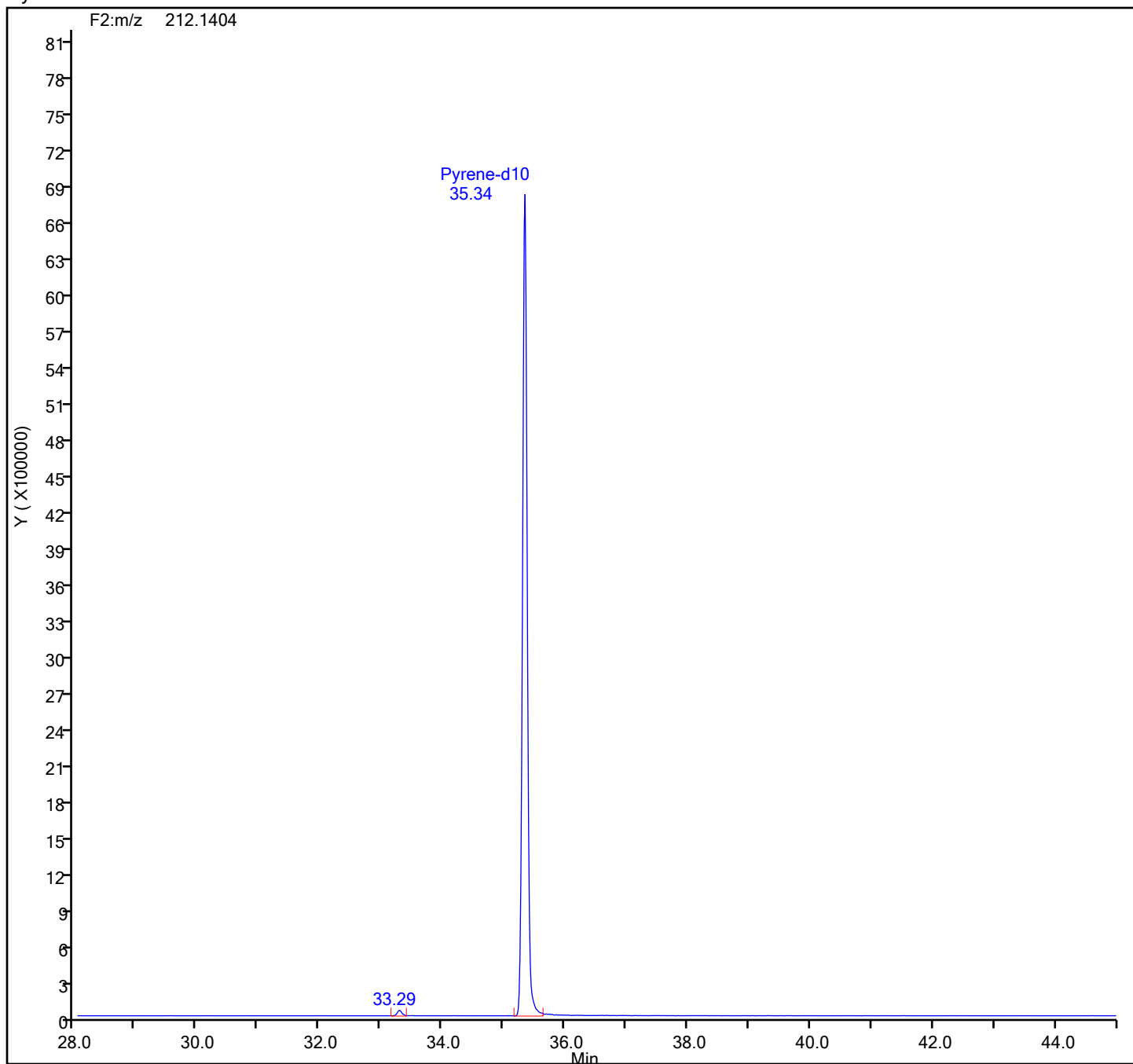




## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\d3240722c1a.d  
Injection Date: 22-Jul-2024 13:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

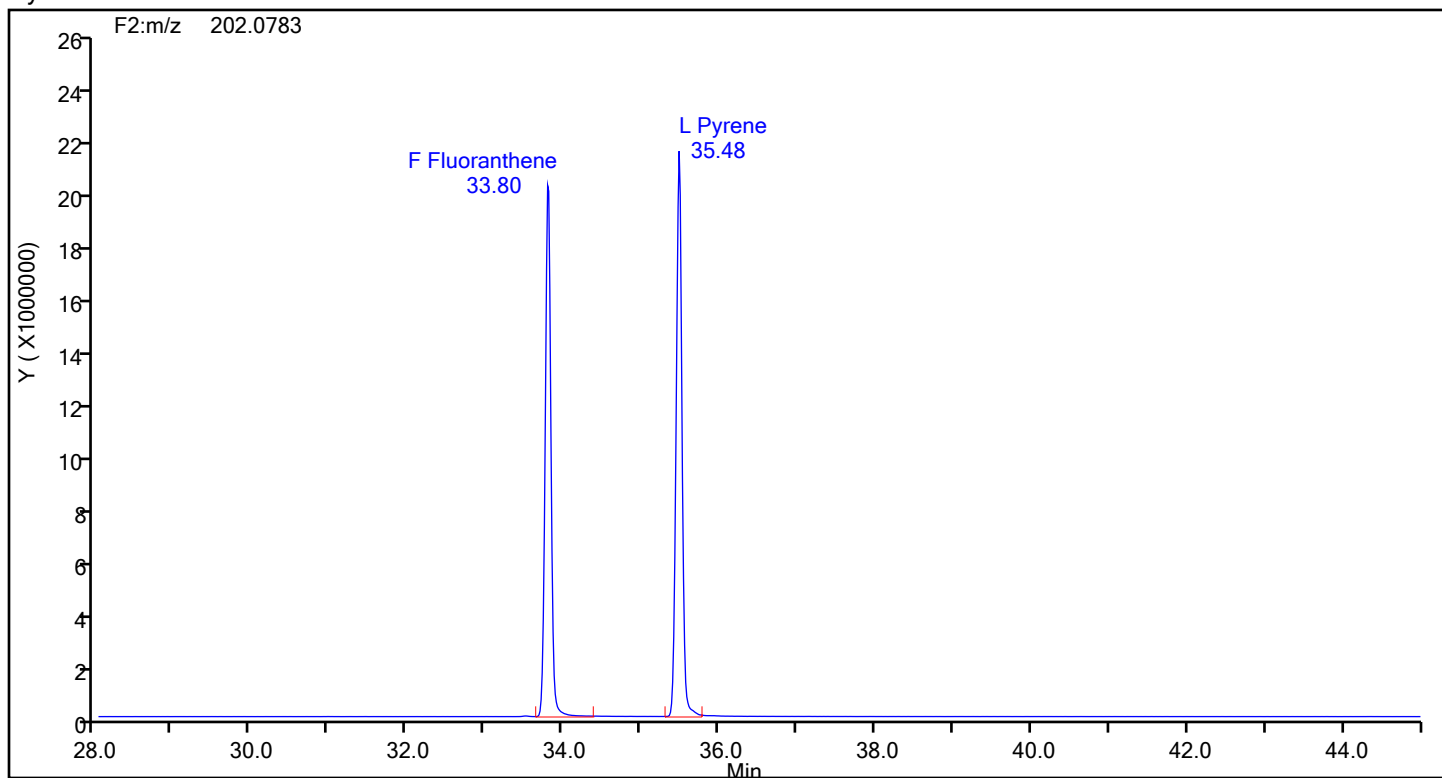
## Pyrene-d10 Standards



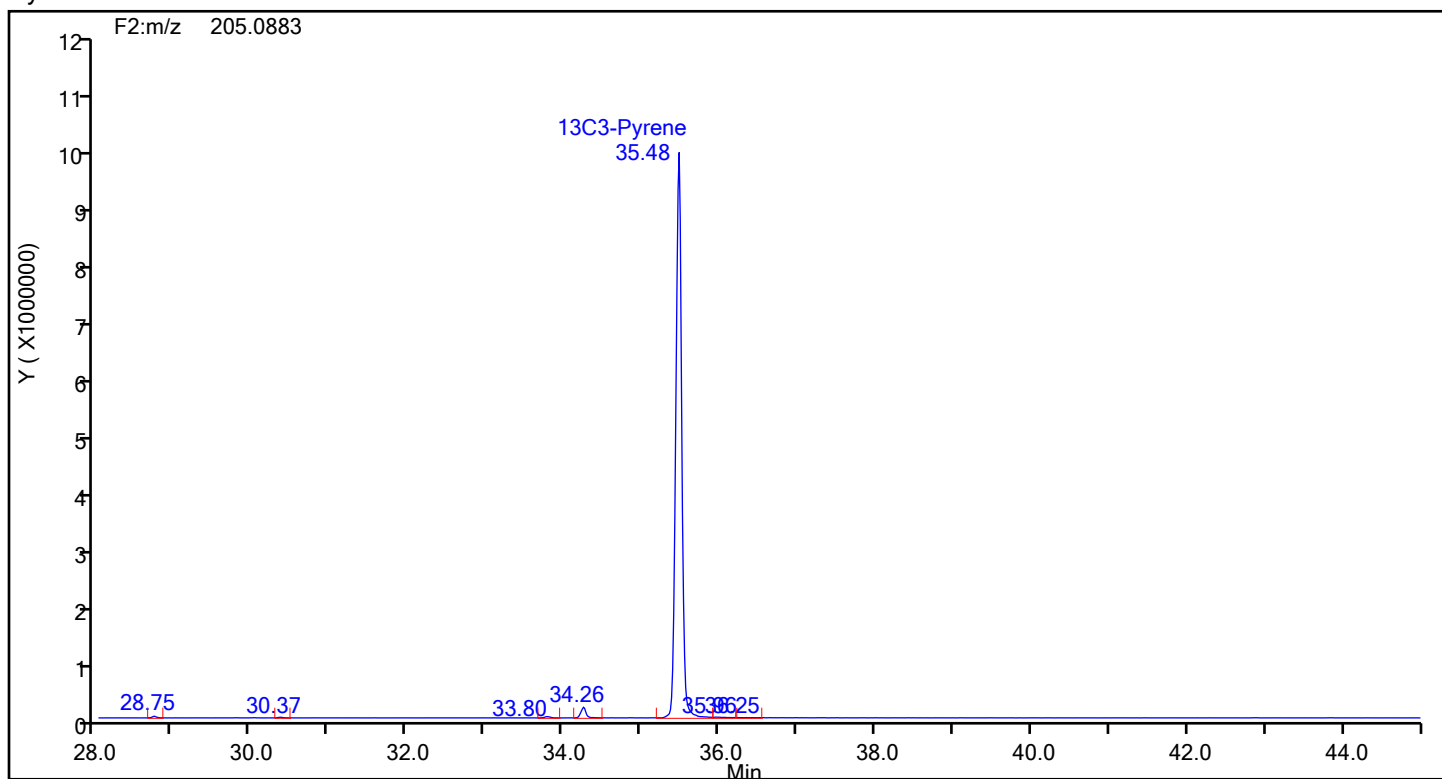
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\d3240722c1a.d  
Injection Date: 22-Jul-2024 13:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Pyrene

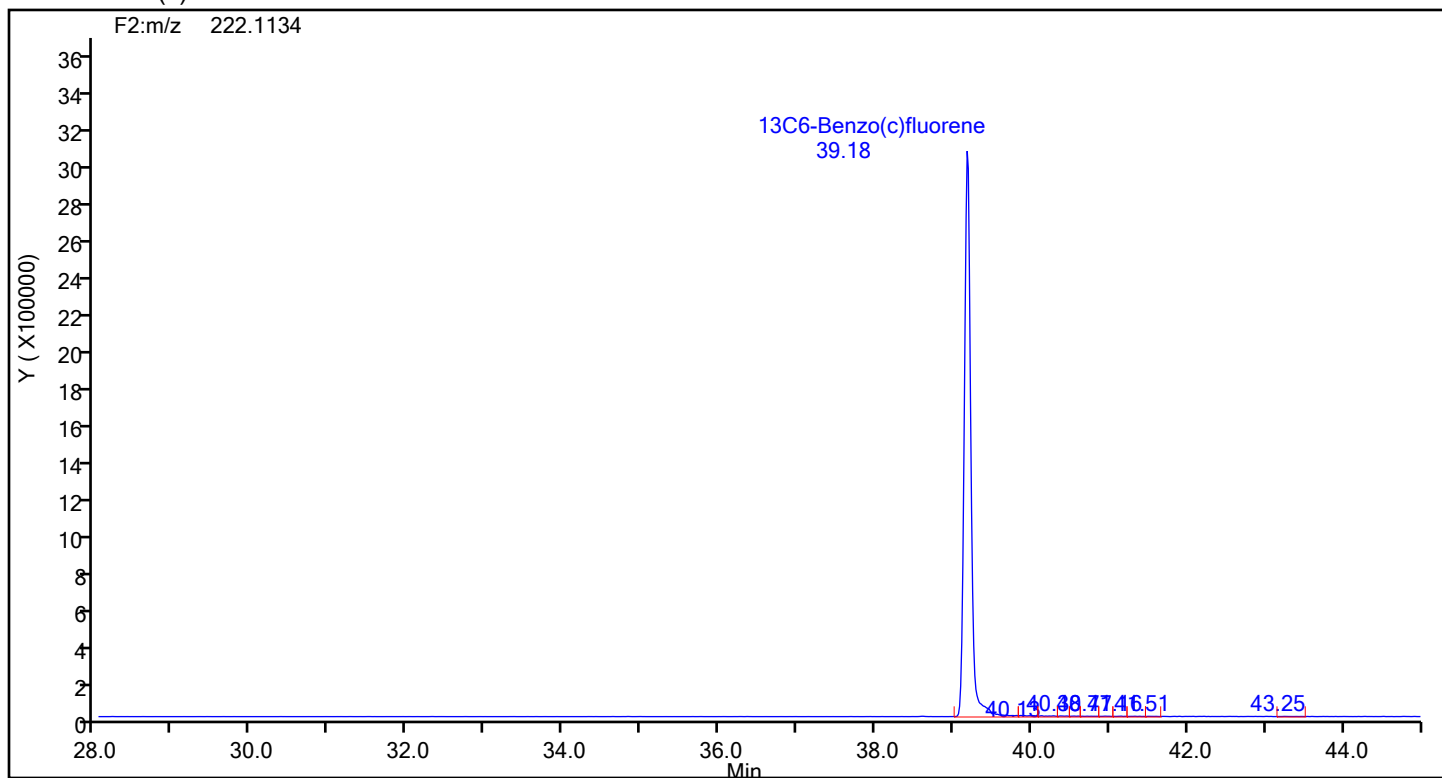


## Pyrene Standards

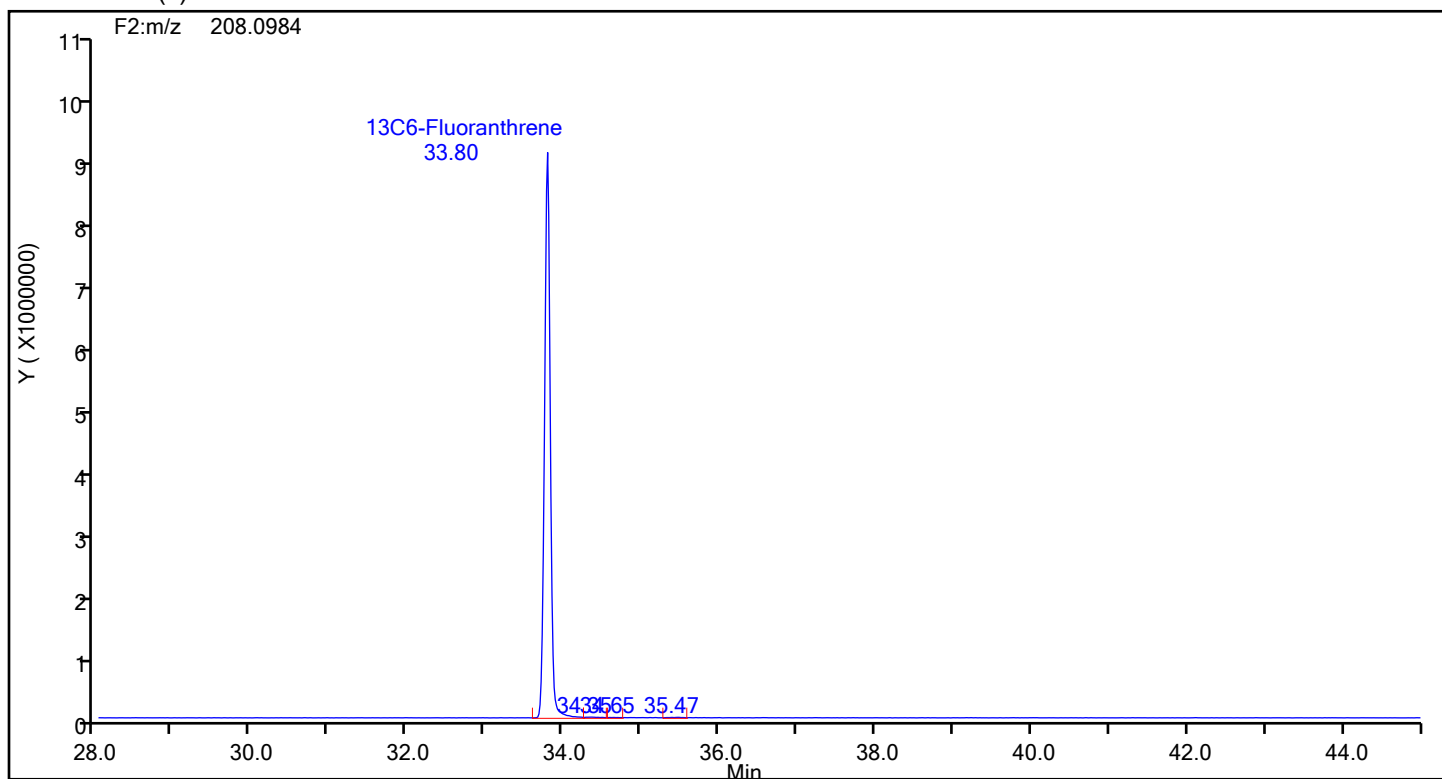


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\d3240722c1a.d  
Injection Date: 22-Jul-2024 13:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
13C6-Benzo(c)fluorene



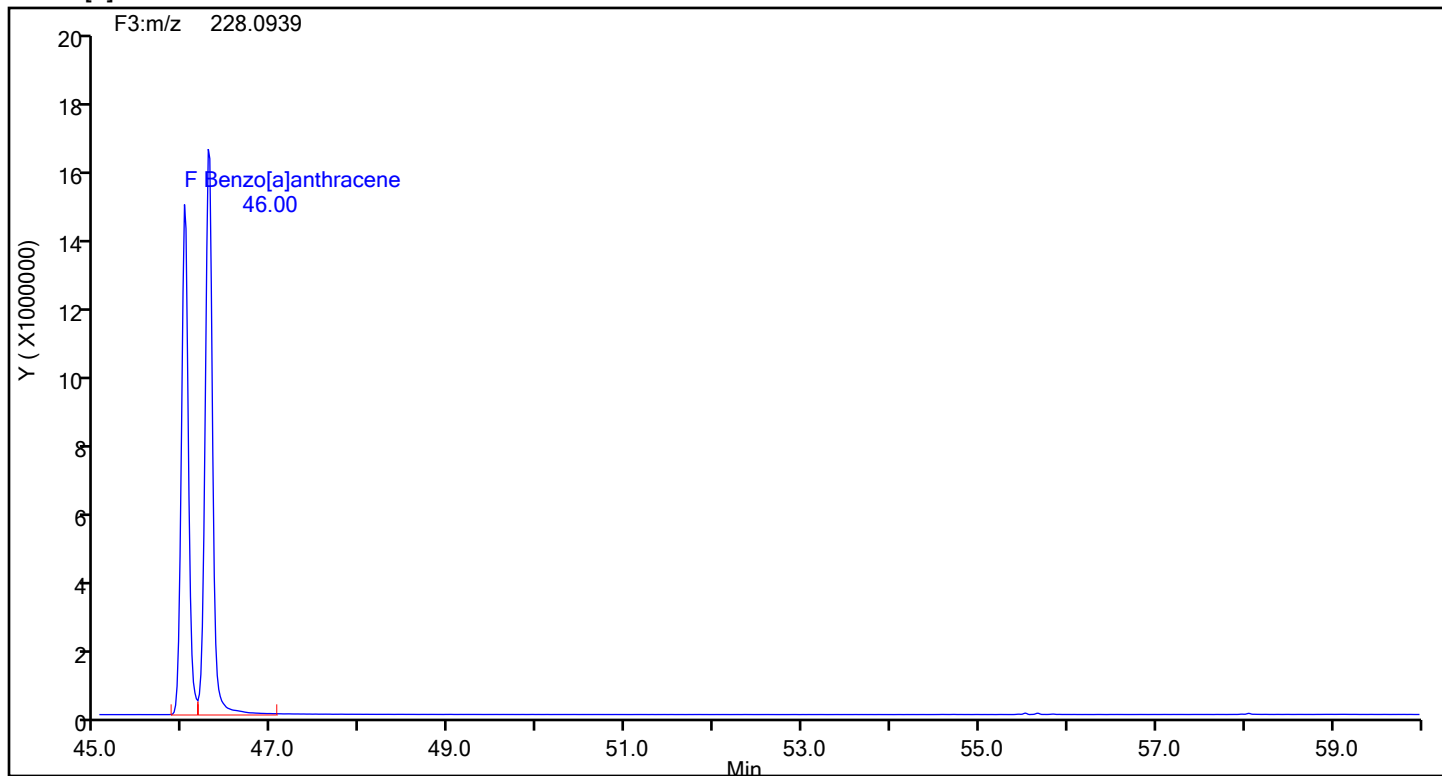
## 13C6-Benzo(c)fluorene Standards



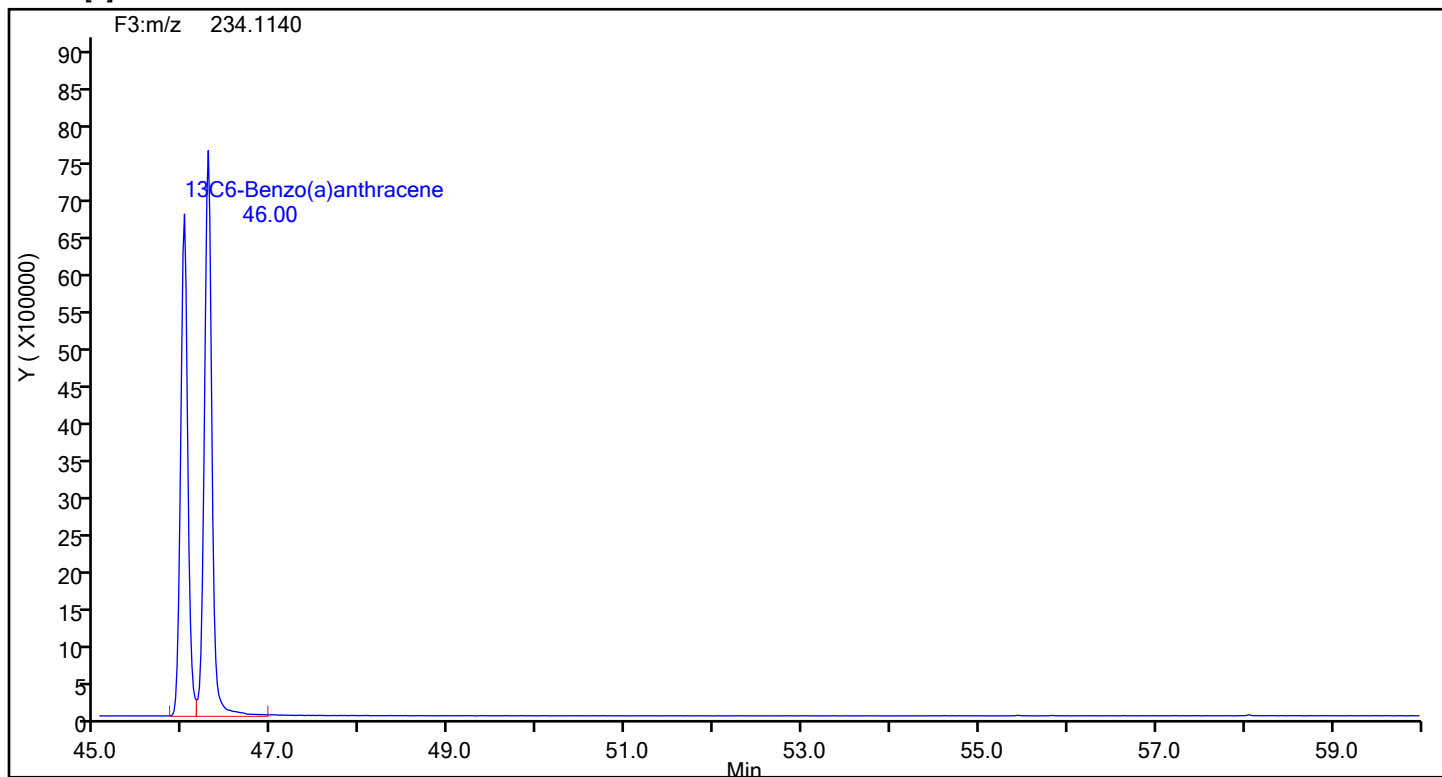
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\d3240722c1a.d  
Injection Date: 22-Jul-2024 13:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



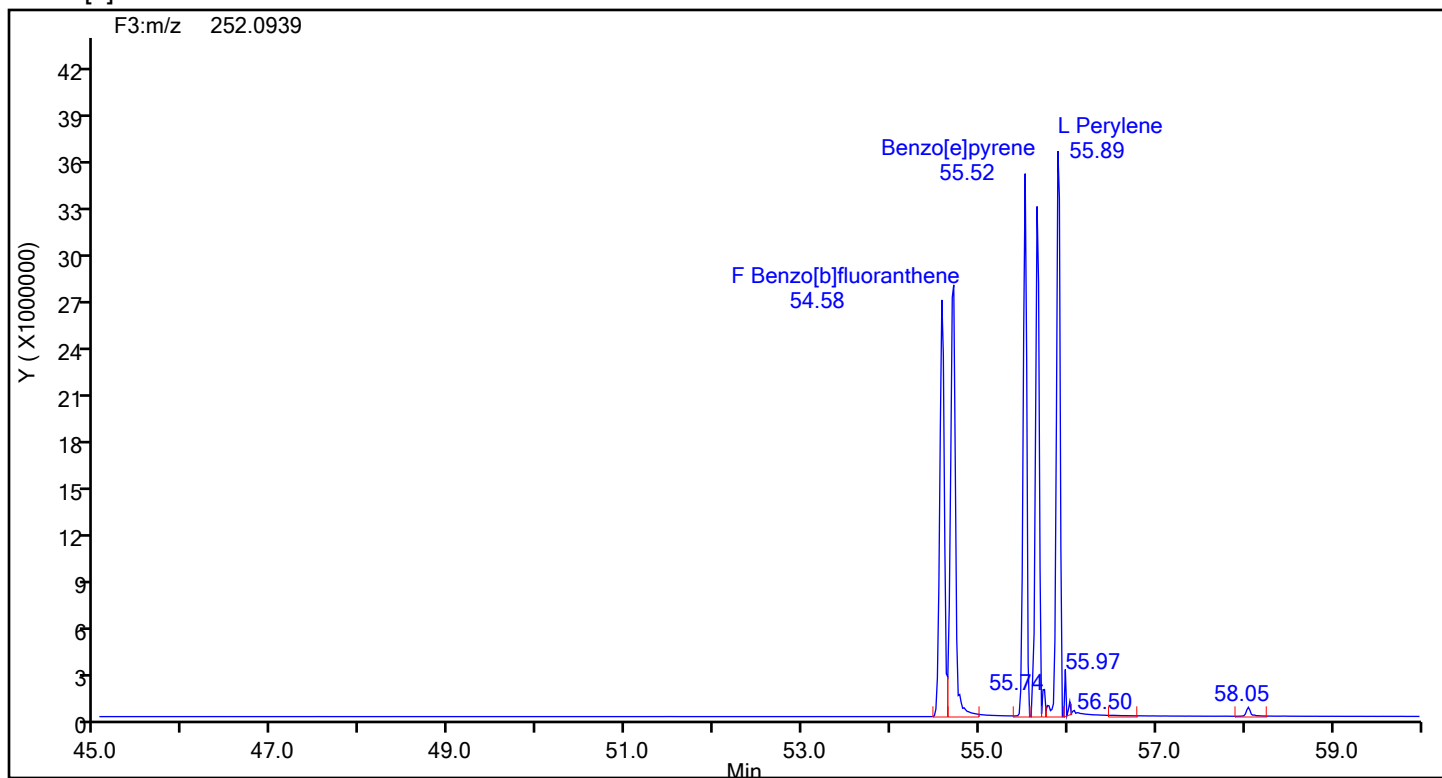
## Benzo[a]anthracene Standards



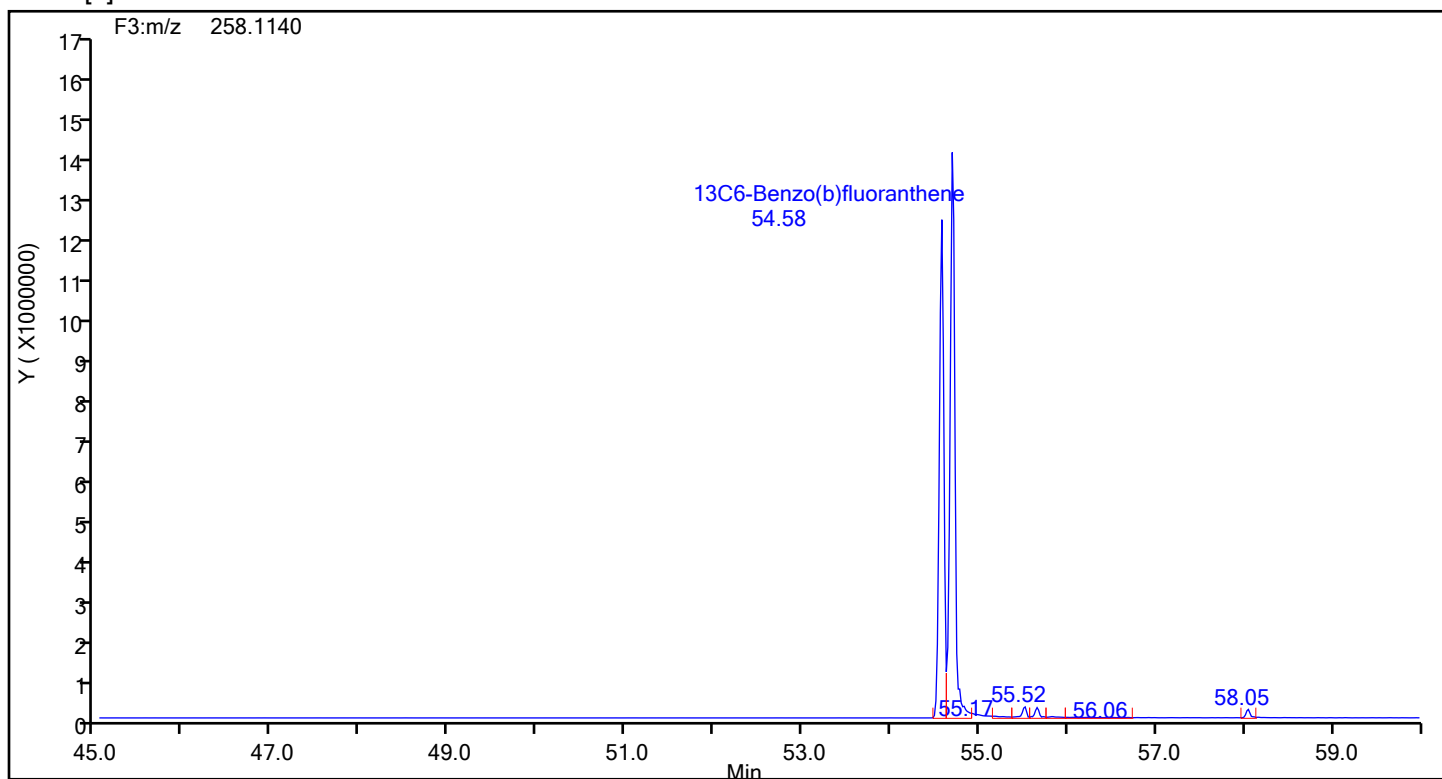
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\d3240722c1a.d  
Injection Date: 22-Jul-2024 13:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



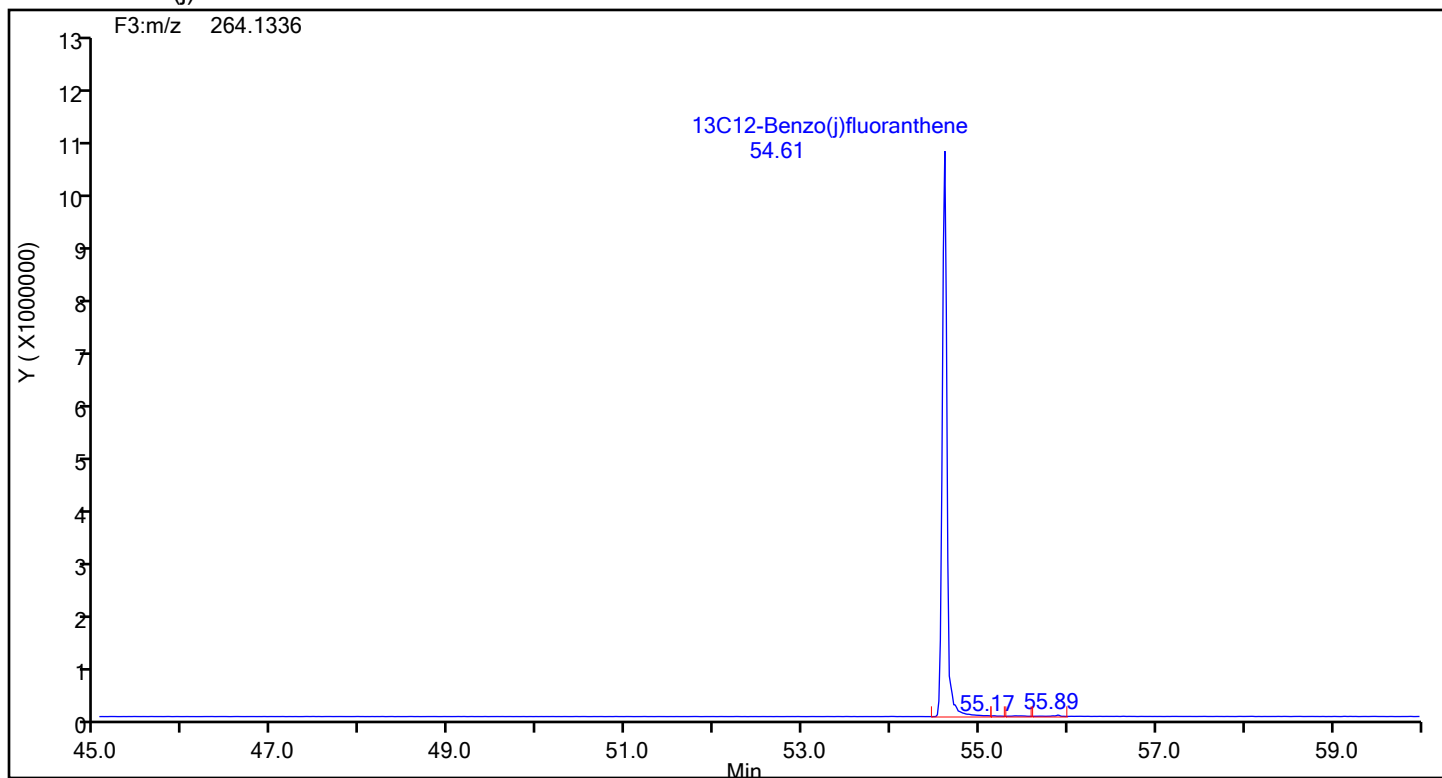
## Benzo[b]fluoranthene Standards



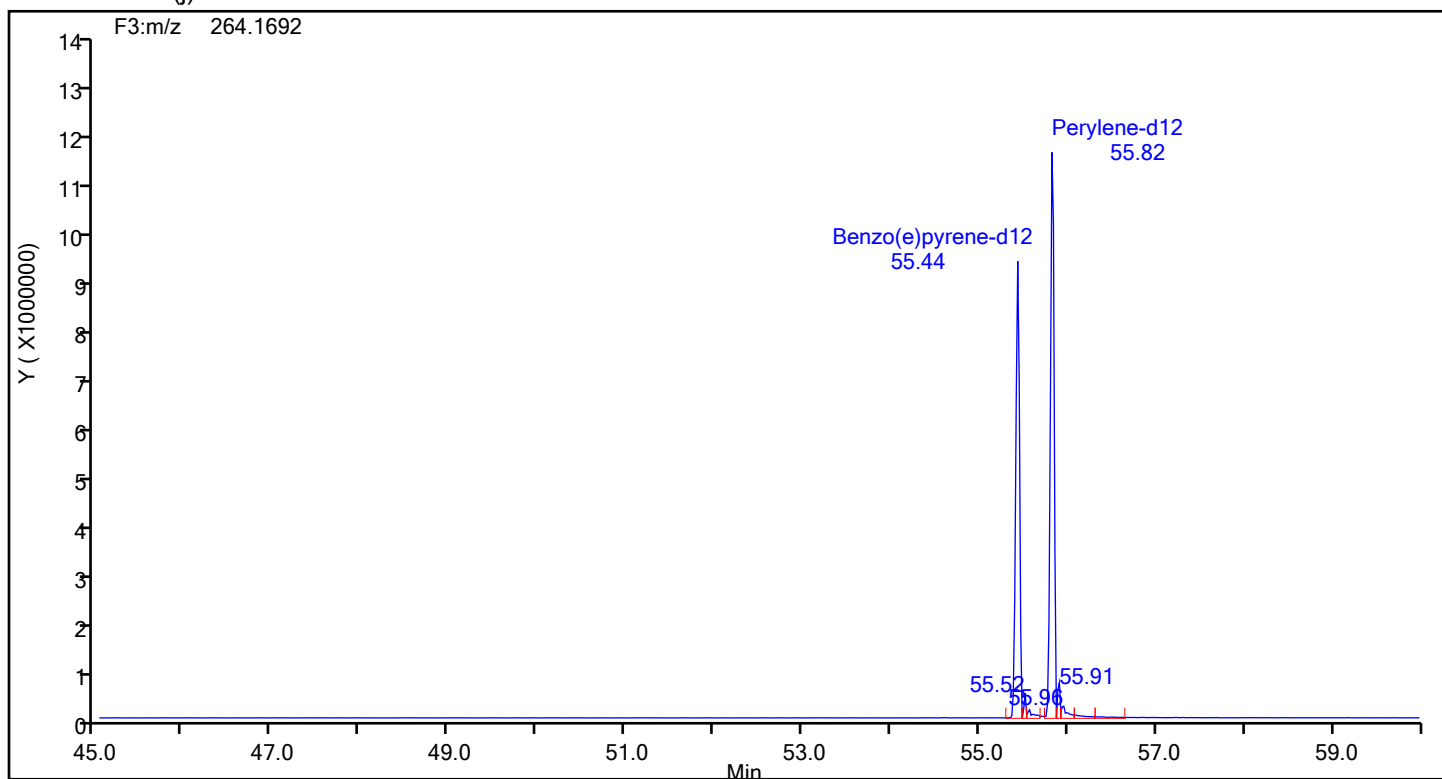
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\d3240722c1a.d  
Injection Date: 22-Jul-2024 13:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



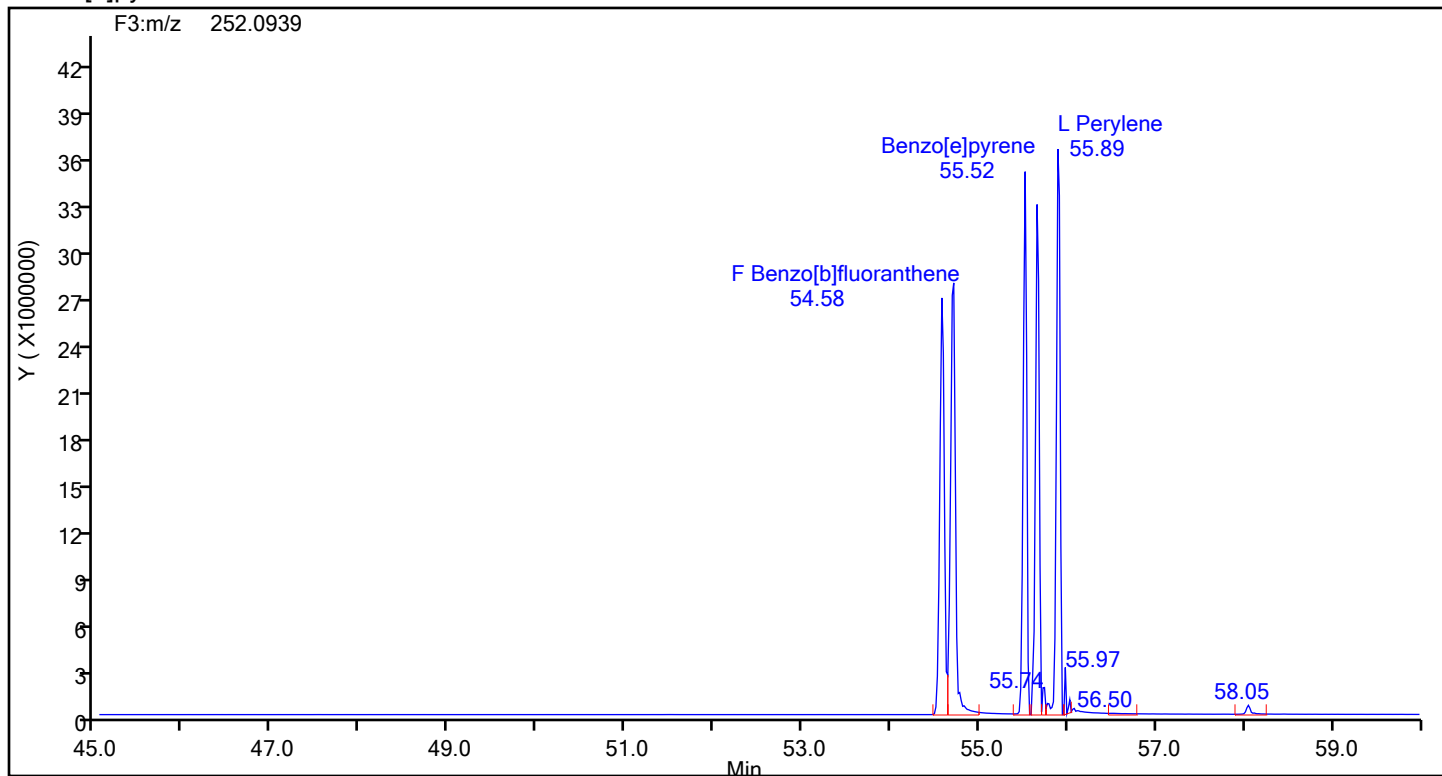
## 13C12-Benzo(j)fluoranthene Standards



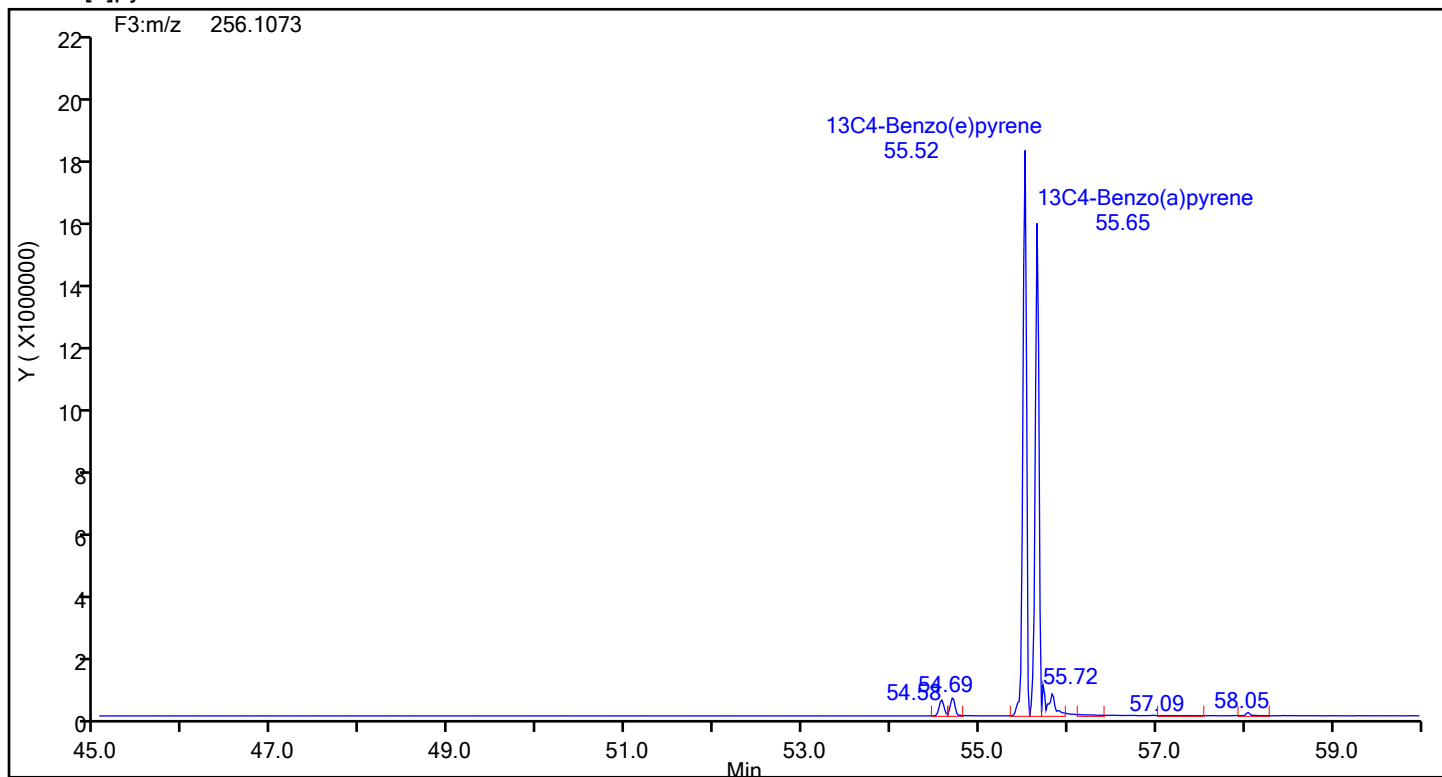
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\d3240722c1a.d  
Injection Date: 22-Jul-2024 13:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[e]pyrene

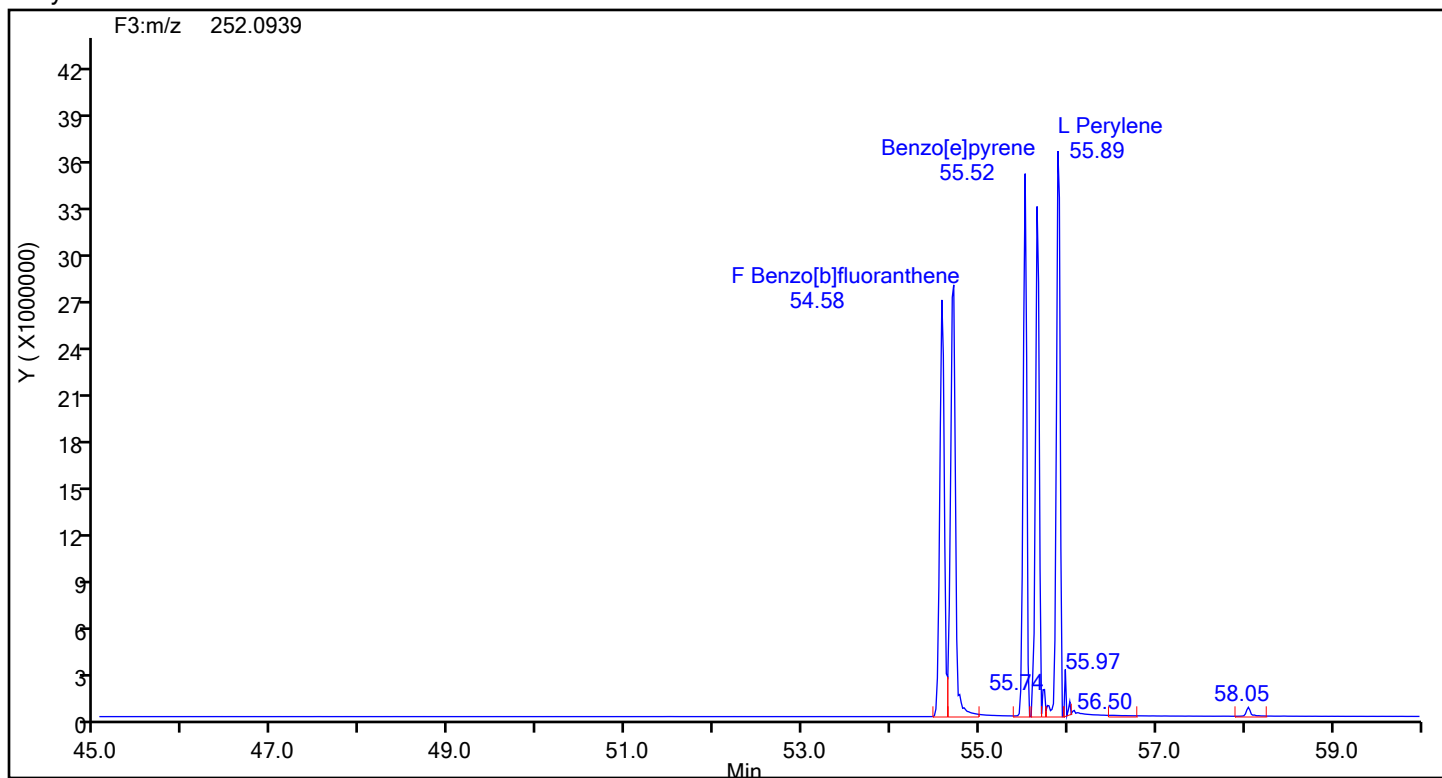


## Benzo[e]pyrene Standards

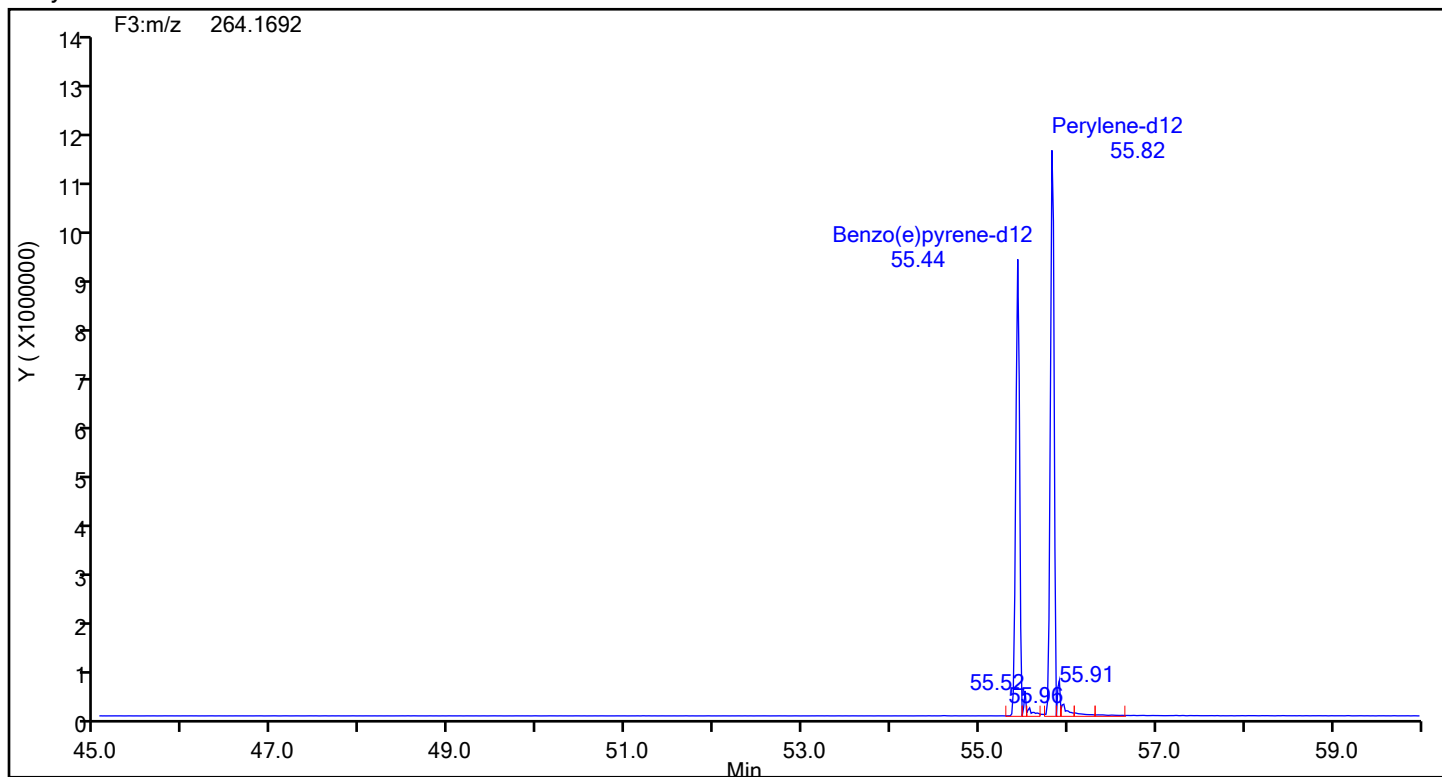


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\d3240722c1a.d  
Injection Date: 22-Jul-2024 13:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Perylene



## Perylene Standards

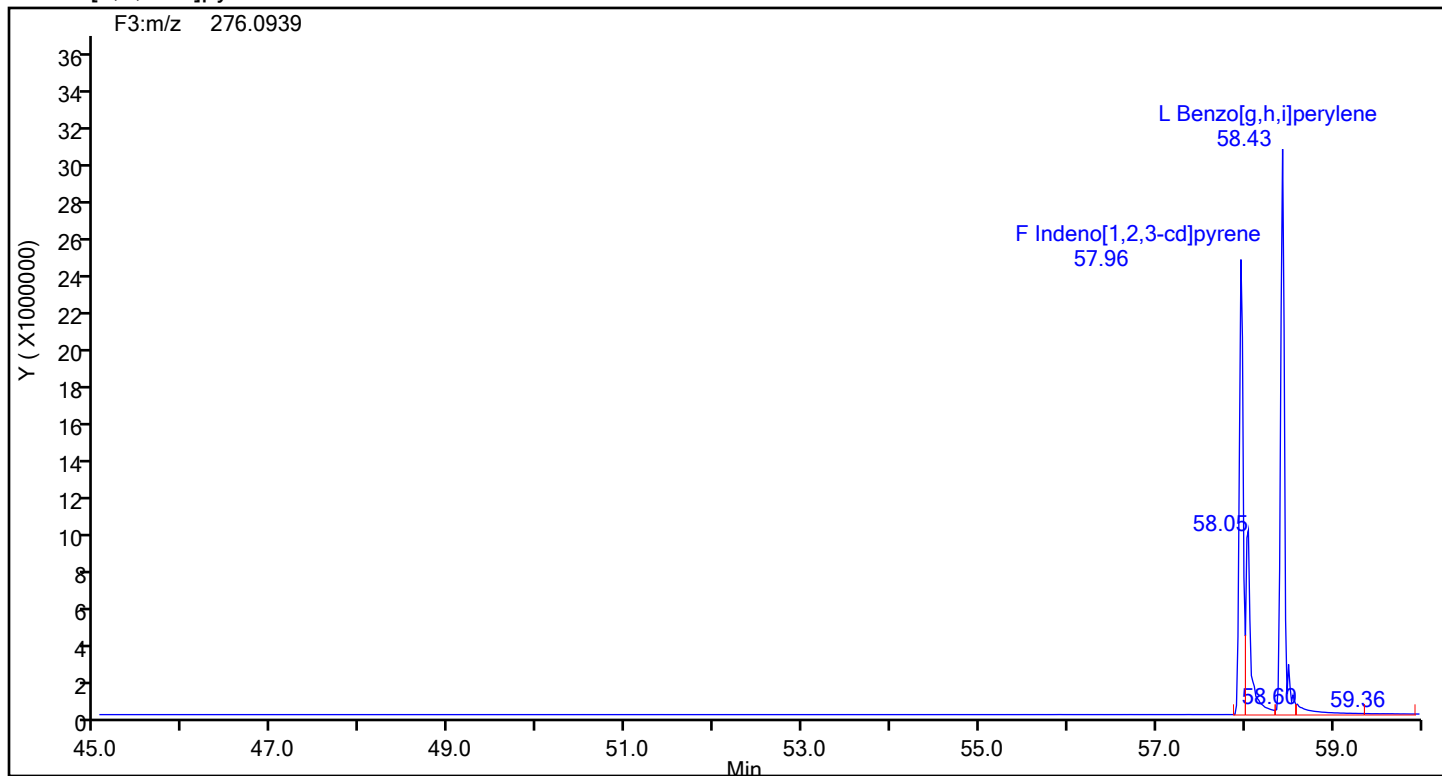




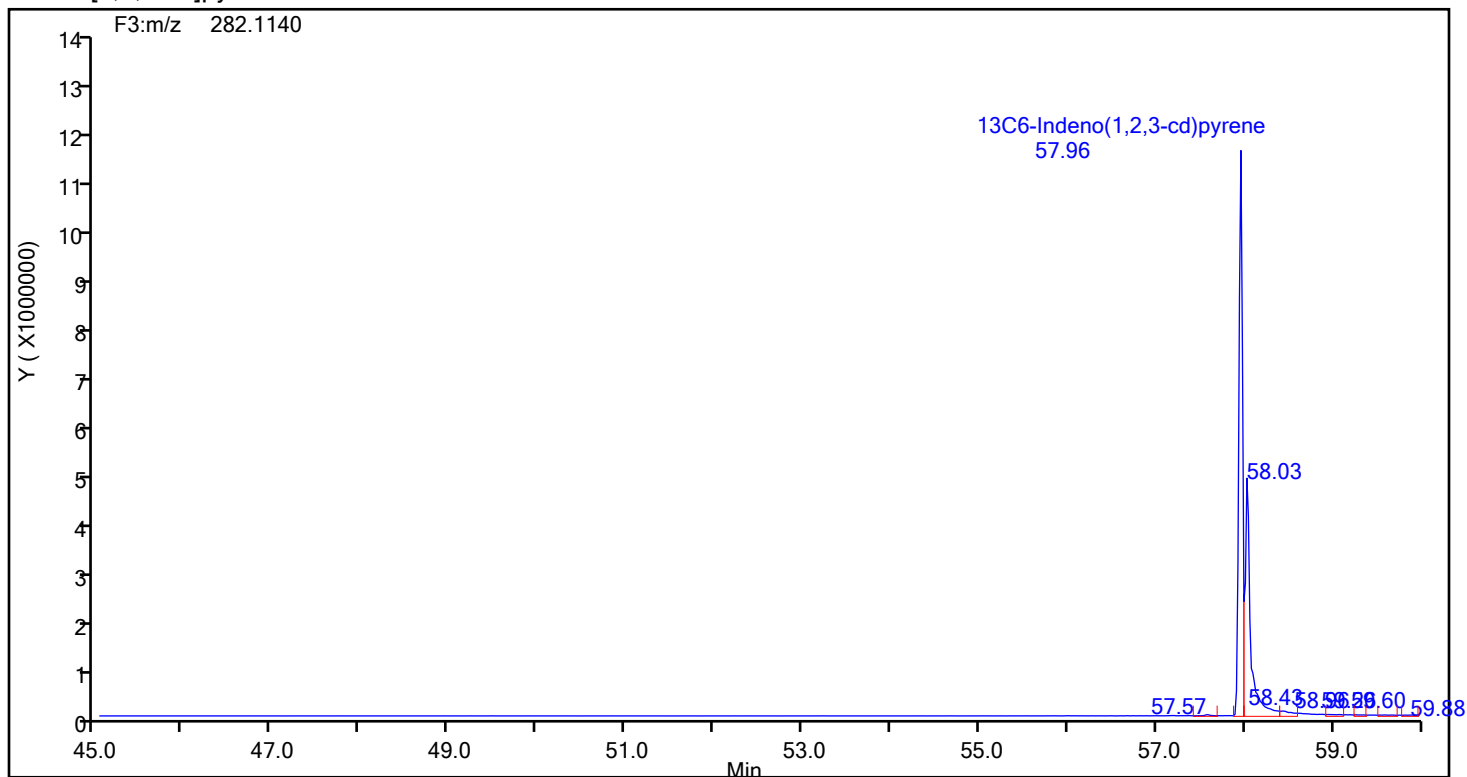
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\d3240722c1a.d  
Injection Date: 22-Jul-2024 13:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Indeno[1,2,3-cd]pyrene

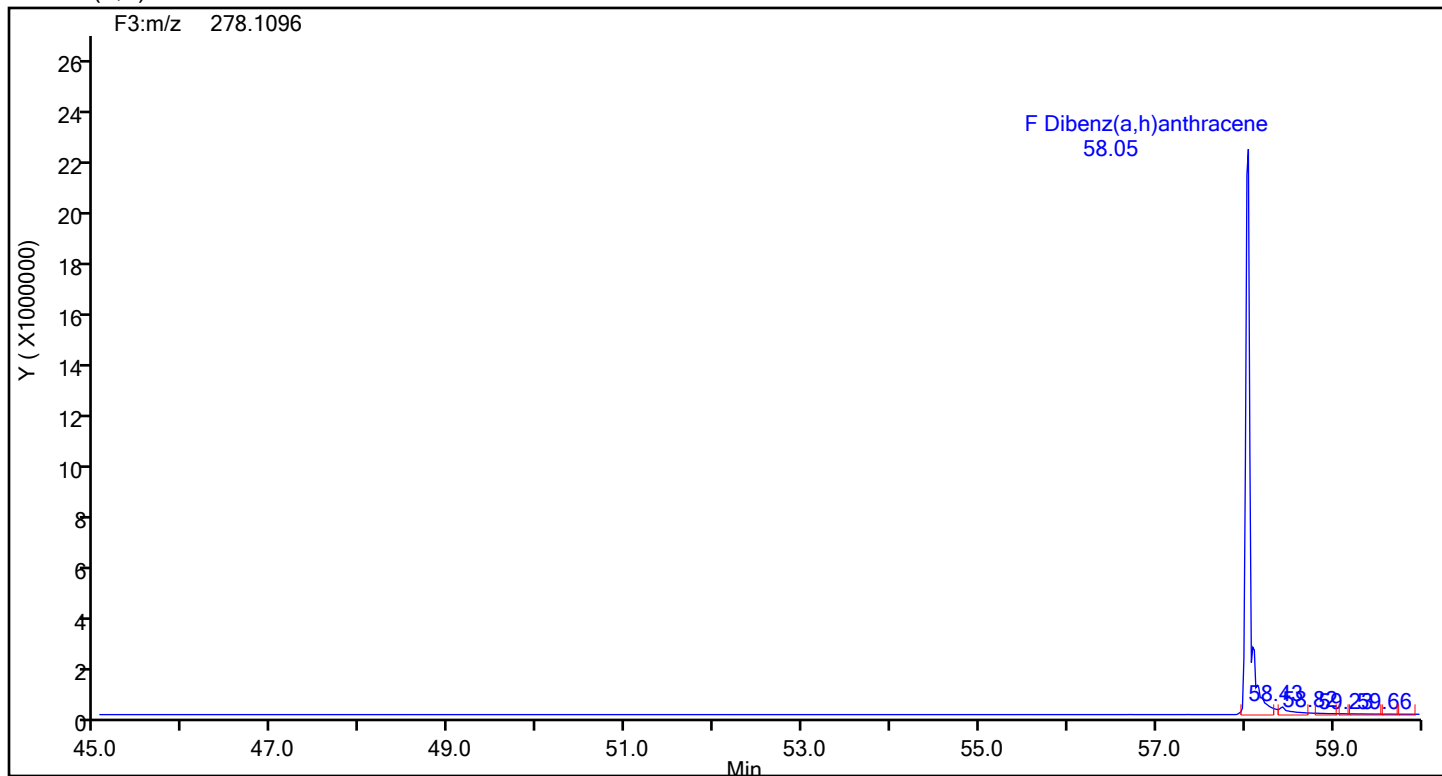


## Indeno[1,2,3-cd]pyrene Standards

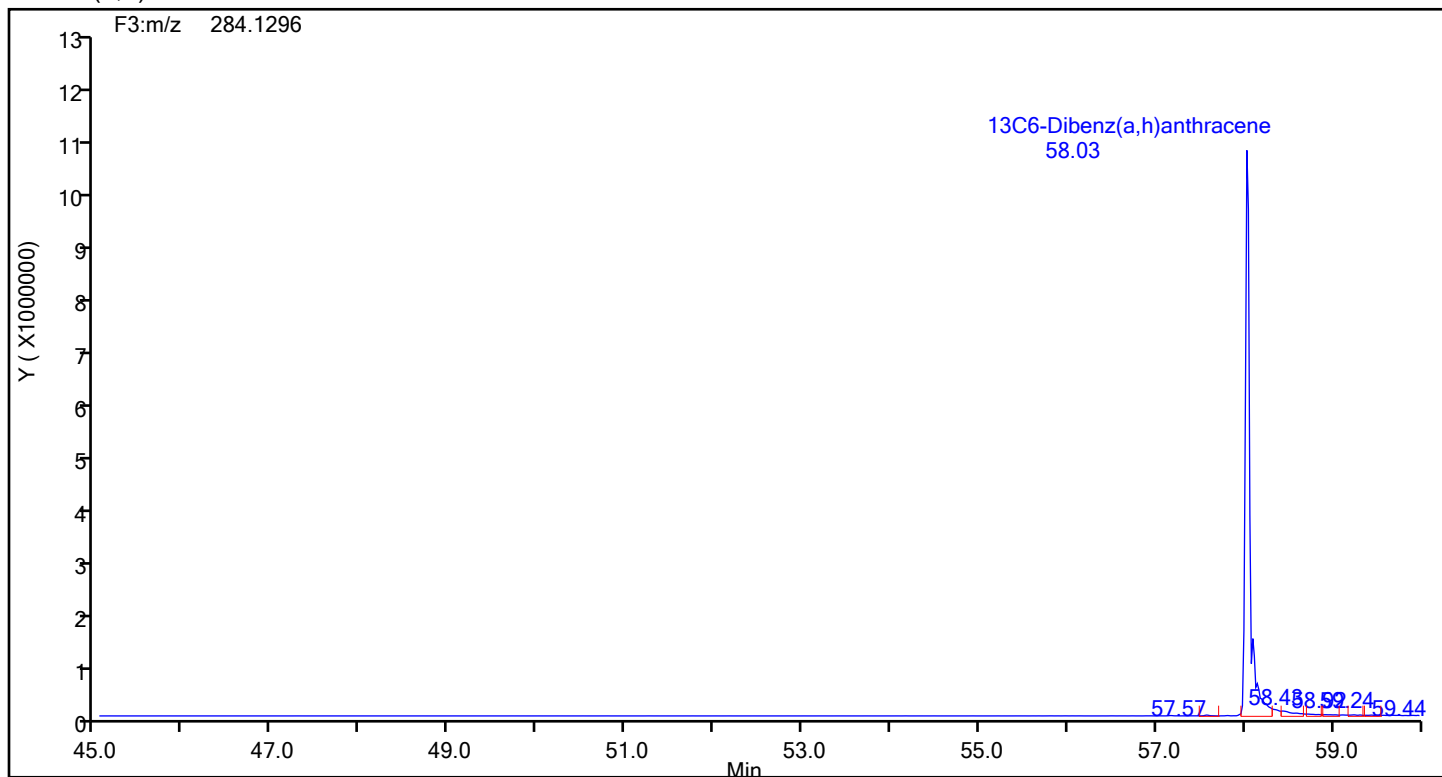


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\d3240722c1a.d  
Injection Date: 22-Jul-2024 13:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Dibenz(a,h)anthracene



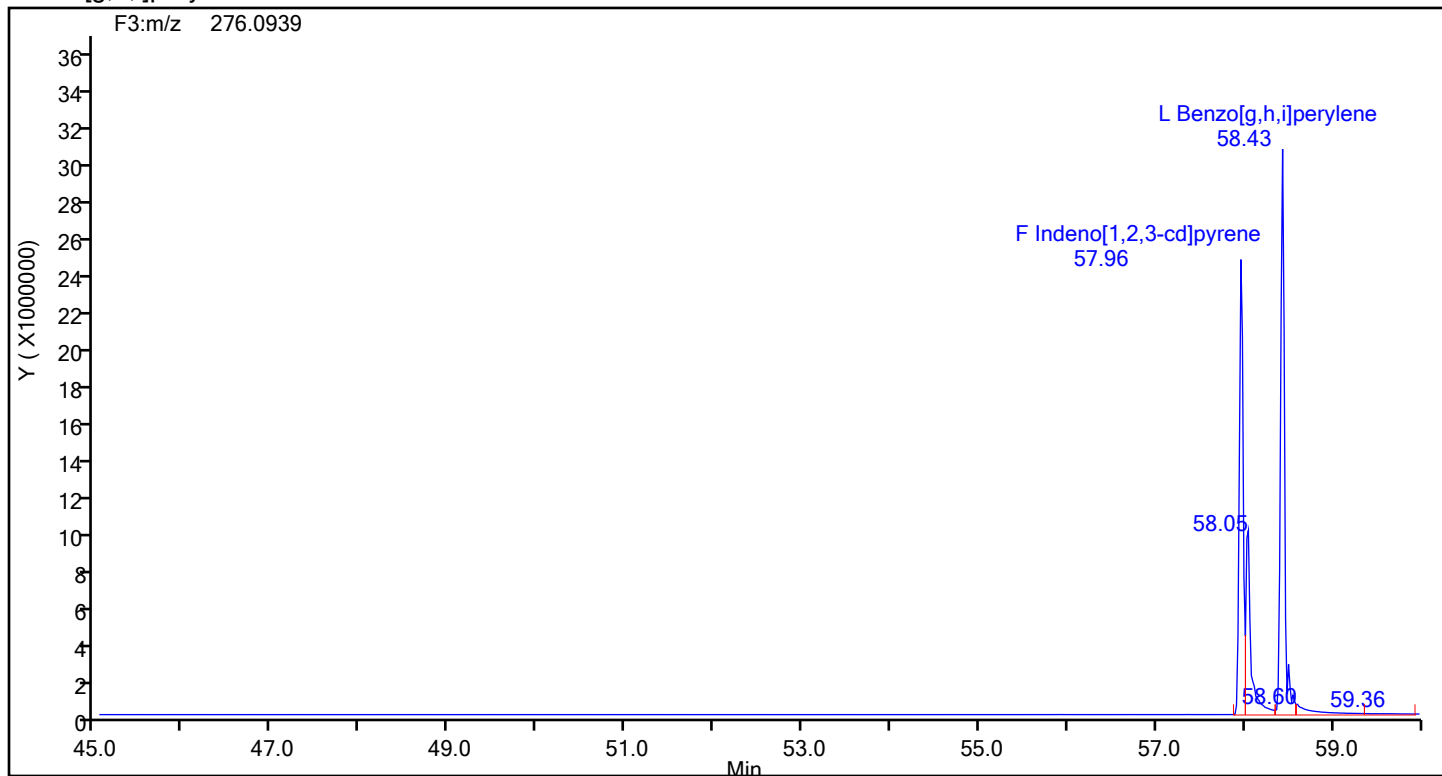
## Dibenzo(a,h)anthracene Standards



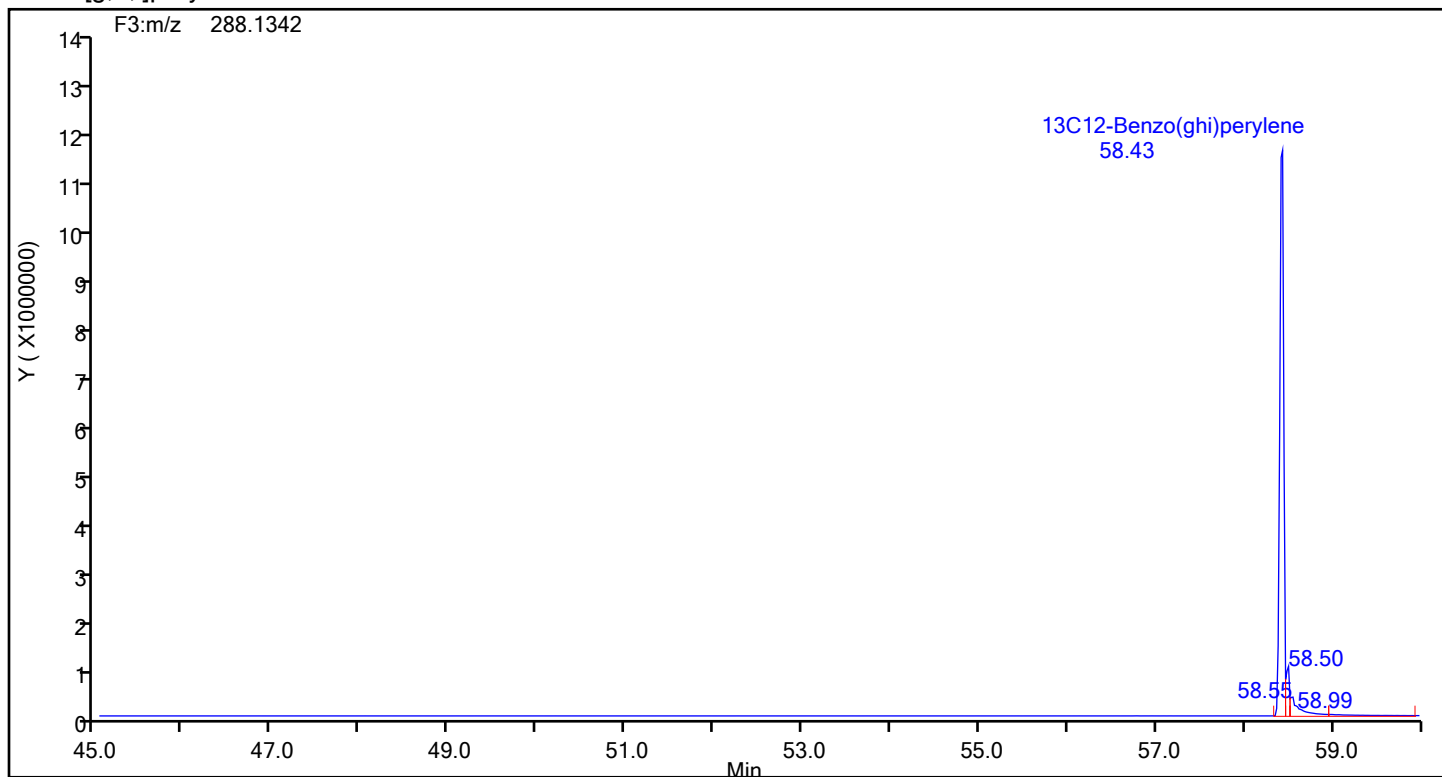
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240721-33599.b\d3240722c1a.d  
Injection Date: 22-Jul-2024 13:06:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAL ICAL  
Client ID:  
Worklist#: 89013 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[g,h,i]perylene



## Benzo[g,h,i]perylene Standards



FORM VII  
HI-RES PAHS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: CCV 140-89076/1 Calibration Date: 07/22/2024 23:53

Instrument ID: D3PAH Calib Start Date: 06/19/2024 16:34

GC Column: Rxi-5SilMS 25 ID: 0.25 (mm) Calib End Date: 06/20/2024 01:09

Lab File ID: d3240722c2a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Naphthalene	AveID	1.289	1.223		190	200	-5.1	25.0
2-Methylnaphthalene	AveID	1.279	1.252		196	200	-2.1	25.0
Acenaphthylene	AveID	2.366	2.491		211	200	5.3	25.0
Acenaphthene	AveID	1.270	1.224		193	200	-3.6	25.0
Fluorene	AveID	1.253	1.286		205	200	2.6	25.0
Phenanthrene	AveID	1.104	1.150		208	200	4.1	25.0
Anthracene	AveID	1.359	1.425		210	200	4.9	25.0
Fluoranthene	AveID	1.151	1.163		202	200	1.0	25.0
Pyrene	AveID	1.065	1.043		196	200	-2.1	25.0
Benzo[a]anthracene	AveID	0.9739	1.032		212	200	6.0	25.0
Chrysene	AveID	0.9815	1.027		209	200	4.6	25.0
Benzo[b]fluoranthene	AveID	1.125	1.161		206	200	3.2	25.0
Benzo[k]fluoranthene	AveID	1.127	1.034		184	200	-8.2	25.0
Benzo[e]pyrene	AveID	1.001	0.9716		194	200	-3.0	25.0
Benzo[a]pyrene	AveID	1.113	1.159		208	200	4.2	25.0
Perylene	AveID	1.431	1.532		214	200	7.1	25.0
Indeno[1,2,3-cd]pyrene	AveID	1.125	1.111		198	200	-1.2	25.0
Dibenz(a,h)anthracene	AveID	1.131	1.110		196	200	-1.9	25.0
Benzo[g,h,i]perylene	AveID	1.284	1.185		185	200	-7.7	25.0
13C6-Naphthalene	Ave	3.375	3.508		104	100	3.9	30.0
13C6-2-Methylnaphthalene	Ave	1.603	1.594		99.5	100	-0.5	30.0
13C6-Acenaphthylene	Ave	1.652	1.849		112	100	11.9	30.0
13C6-Acenaphthene	Ave	0.9792	1.007		103	100	2.9	30.0
13C6-Fluorene	Ave	0.8898	0.9186		103	100	3.2	30.0
13C6-Phenanthrene	Ave	0.5724	0.4766		83.3	100	-16.7	30.0
13C6-Anthracene	Ave	0.4523	0.3755		83.0	100	-17.0	30.0
13C6-Fluoranthrene	Ave	1.199	1.232		103	100	2.7	30.0
13C3-Pyrene	Ave	1.351	1.458		108	100	7.9	30.0
13C6-Benzo(a)anthracene	Ave	1.519	1.408		92.7	100	-7.3	30.0
13C6-Chrysene	Ave	1.629	1.514		92.9	100	-7.1	30.0
13C6-Benzo(b)fluoranthene	Ave	1.462	1.451		99.2	100	-0.8	30.0
13C6-Benzo(k)fluoranthene	Ave	1.751	1.794		103	100	2.5	30.0
13C4-Benzo(e)pyrene	Ave	1.637	1.751		107	100	7.0	30.0
13C4-Benzo(a)pyrene	Ave	1.551	1.589		103	100	2.5	30.0
Perylene-d12	Ave	1.192	1.267		106	100	6.3	30.0
13C6-Indeno(1,2,3-cd)pyrene	Ave	1.022	1.410		138	100	38.0*	30.0
13C6-Dibenz(a,h)anthracene	Ave	1.055	1.347		128	100	27.6	30.0
13C12-Benzo(ghi)perylene	Ave	1.275	1.527		120	100	19.8	30.0

Date: 22 Jul 2024 23:42  
MID Experiment: ResCheck\_HRPAH  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43\_HRPAH.lua  
Status: RESOLUTION PASSED

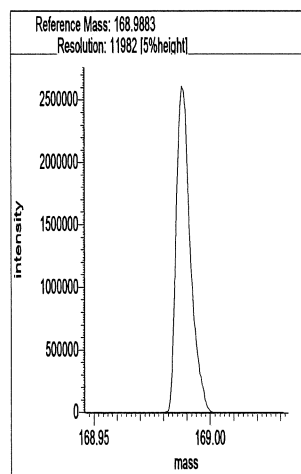
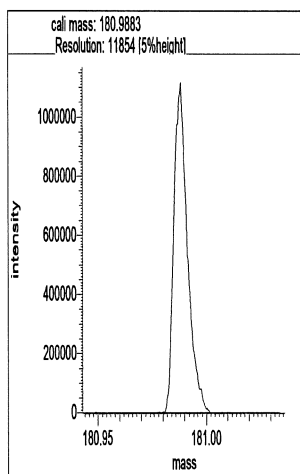
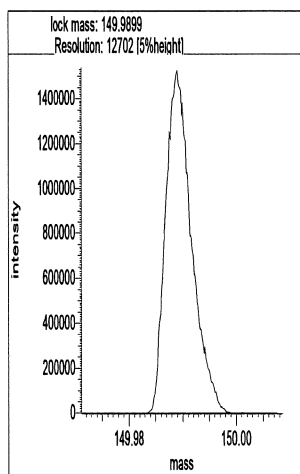
→ d3240722r4

### Segment 1

Lock mass 149.9899 [m/z] Resolution: 12702 [5%height]

Cali. mass 180.9883 [m/z] Resolution: 11854 [5%height]

Ref. mass 168.9883 [m/z] Resolution: 11982 [5%height]

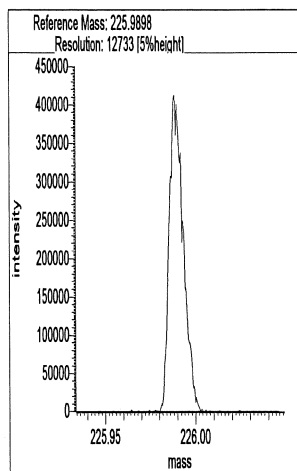
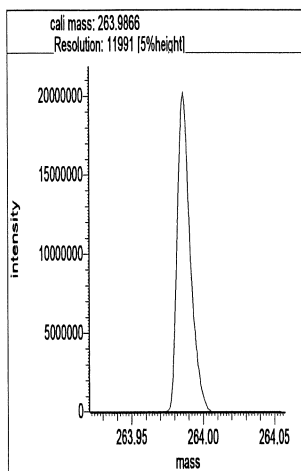
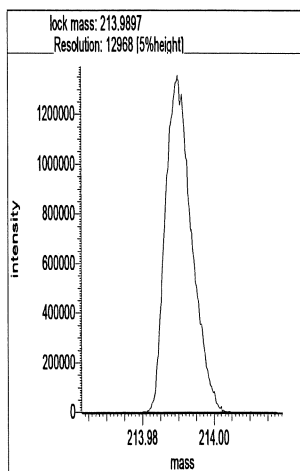


### Segment 2

Lock mass 213.9897 [m/z] Resolution: 12968 [5%height]

Cali. mass 263.9866 [m/z] Resolution: 11991 [5%height]

Ref. mass 225.9898 [m/z] Resolution: 12733 [5%height]

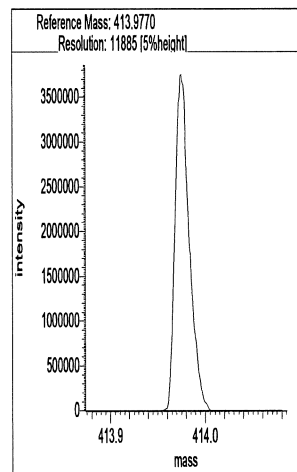
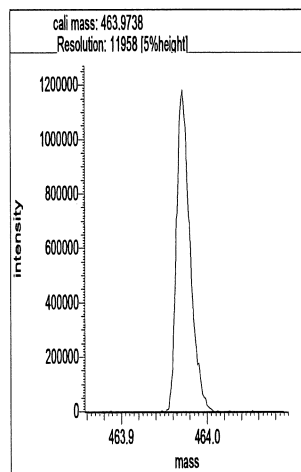
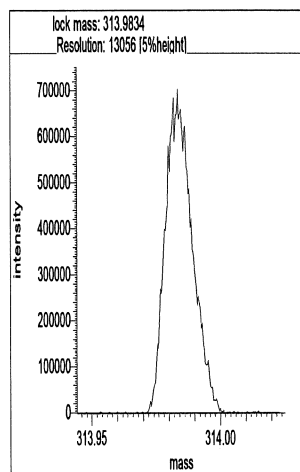


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 13056 [5%height]

Cali. mass 463.9738 [m/z] Resolution: 11958 [5%height]

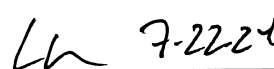
Ref. mass 413.9770 [m/z] Resolution: 11885 [5%height]



## Reports

23:49:18: Peak matching procedure started  
23:49:18:  
23:49:19: Reference mass: 263.98656  
23:49:19: Sample mass: 414.0  
23:49:20:  
23:49:20: Finding reference mass  
23:49:21: Finding sample mass  
23:49:22:  
23:49:27: [1] 413.9726 amu, mean: 413.9726 SD: 0.15 mmu or: 0.36 ppm  
23:49:30: [2] 413.9728 amu, mean: 413.9727 SD: 0.25 mmu or: 0.60 ppm  
23:49:33: [3] 413.9731 amu, mean: 413.9729 SD: 0.22 mmu or: 0.54 ppm  
23:49:37: [4] 413.9730 amu, mean: 413.9729 SD: 0.22 mmu or: 0.53 ppm  
23:49:40: [5] 413.9731 amu, mean: 413.9730 SD: 0.20 mmu or: 0.49 ppm  
23:49:43: [6] 413.9731 amu, mean: 413.9730 SD: 0.20 mmu or: 0.49 ppm  
23:49:46: [7] 413.9732 amu, mean: 413.9730 SD: 0.20 mmu or: 0.47 ppm  
23:49:49: [8] 413.9732 amu, mean: 413.9730 SD: 0.20 mmu or: 0.47 ppm  
23:49:53: [9] 413.9732 amu, mean: 413.9731 SD: 0.23 mmu or: 0.55 ppm  
23:49:56: [10] 413.9735 amu, mean: 413.9731 SD: 0.27 mmu or: 0.66 ppm  
23:49:59: [11] 413.9737 amu, mean: 413.9731  
23:50:00:  
23:50:00: Stop requested. Please wait for procedure to finish.  
23:50:00:  
23:50:02: [12] 413.9730 amu, mean: 413.9731 SD: 0.26 mmu or: 0.64 ppm  
23:50:03:  
23:50:04: Peakmatching stopped

Signature

Handwritten signature in black ink, appearing to be 'Lh 7-2224'.

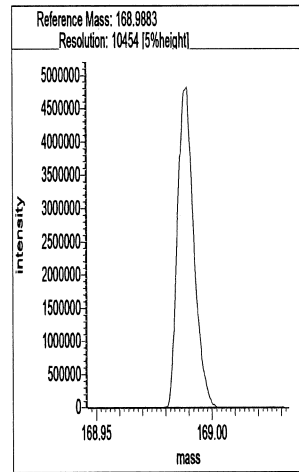
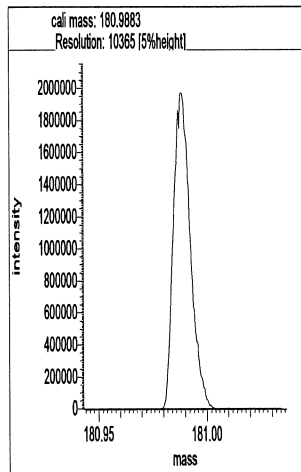
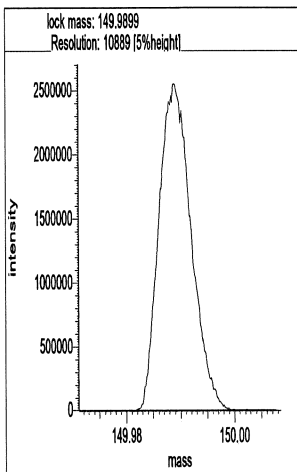
# Resolution Check Report ( DFS SN: 3439 )

Date: 23 Jul 2024 11:27  
MID Experiment: ResCheck\_HRPAH  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43\_HRPAH.lua  
Status: RESOLUTION PASSED

d3240723r1

## Segment 1

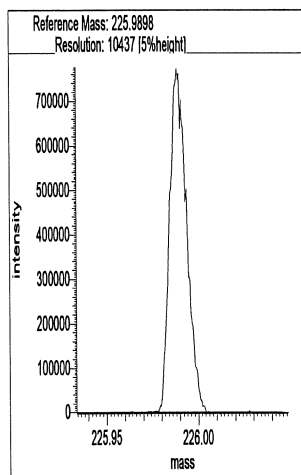
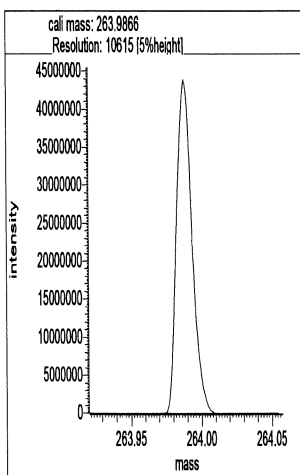
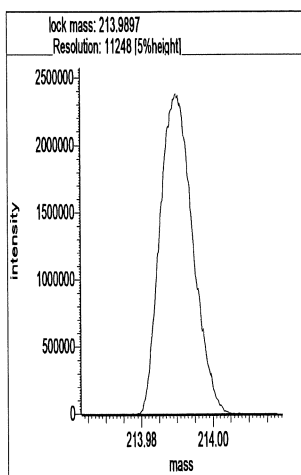
Lock mass 149.9899 [m/z] Resolution: 10889 [5%height]  
Cali. mass 180.9883 [m/z] Resolution: 10365 [5%height]  
Ref. mass 168.9883 [m/z] Resolution: 10454 [5%height]



## Segment 2

Lock mass 213.9897 [m/z] Resolution: 11248 [5%height]  
Cali. mass 263.9866 [m/z] Resolution: 10615 [5%height]  
Ref. mass 225.9898 [m/z] Resolution: 10437 [5%height]



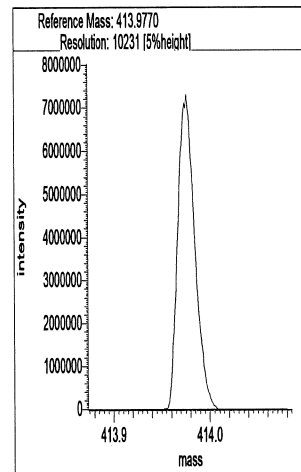
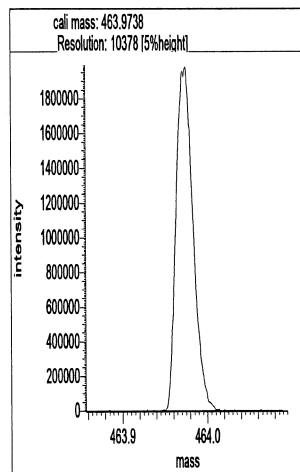
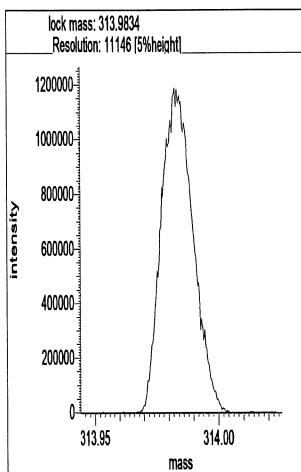


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 11146 [5%height]

Cali. mass 463.9738 [m/z] Resolution: 10378 [5%height]

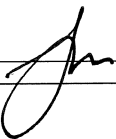
Ref. mass 413.9770 [m/z] Resolution: 10231 [5%height]



## Reports

12:08:58: Peak matching procedure started  
12:08:58:  
12:08:59: Reference mass: 263.98656  
12:08:59: Sample mass: 414.0  
12:09:00:  
12:09:00: Finding reference mass  
12:09:01: Finding sample mass  
12:09:02:  
12:09:07: [1] 413.9634 amu, mean: 413.9634 SD: 0.21 mmu or: 0.50 ppm  
12:09:10: [2] 413.9637 amu, mean: 413.9635 SD: 0.22 mmu or: 0.53 ppm  
12:09:14: [3] 413.9638 amu, mean: 413.9636 SD: 0.29 mmu or: 0.71 ppm  
12:09:17: [4] 413.9641 amu, mean: 413.9637 SD: 0.27 mmu or: 0.65 ppm  
12:09:20: [5] 413.9639 amu, mean: 413.9638 SD: 0.24 mmu or: 0.58 ppm  
12:09:23: [6] 413.9638 amu, mean: 413.9638 SD: 0.34 mmu or: 0.82 ppm  
12:09:26: [7] 413.9644 amu, mean: 413.9639 SD: 0.41 mmu or: 0.99 ppm  
12:09:29: [8] 413.9646 amu, mean: 413.9640 SD: 0.46 mmu or: 1.10 ppm  
12:09:33: [9] 413.9647 amu, mean: 413.9640 SD: 0.53 mmu or: 1.28 ppm  
12:09:36: [10] 413.9650 amu, mean: 413.9641 SD: 0.55 mmu or: 1.32 ppm  
12:09:39: [11] 413.9649 amu, mean: 413.9642  
12:09:40:  
12:09:40: Stop requested. Please wait for procedure to finish.  
12:09:40:  
12:09:42:  
12:09:42: Peakmatching stopped

Signature

 7/23/24

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Lims ID: CCV  
Client ID:  
Sample Type: CCV  
Inject. Date: 22-Jul-2024 23:53:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033622-001  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 23-Jul-2024 01:09:08 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1621

First Level Reviewer: V4XA

Date: 23-Jul-2024 01:09:08

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:30	53759637		3.3746	103.9	103.9	0.004562	0.004562	104	
Naphthalene	11:31	131526746		1.2893	189.8	189.8	0.0229	0.0229	94.88	
D 13C6-2-Methylnaphthalene	13:51	24434737		1.6031	99.5	99.5	0.000631	0.000631	99.46	
2-Methylnaphthalene	13:51	61174620		1.2786	195.8	195.8	0.0122	0.0122	97.91	
D 13C6-Acenaphthylene	16:43	28337100		1.6520	111.9	111.9	0.000746	0.000746	112	
Acenaphthylene	16:43	76919869		2.3661	210.6	210.6	0.0143	0.0143	105	
* Acenaphthene-d10	17:18	15325592		3.5E+04	100.0	100.0				
D 13C6-Acenaphthene	17:25	15437360		0.9792	102.9	102.9	0.001353	0.001353	103	
Acenaphthene	17:25	37794293		1.2697	192.8	192.8	0.0161	0.0161	96.41	
D 13C6-Fluorene	19:41	14077708		0.8898	103.2	103.2	0.000558	0.000558	103	
Fluorene	19:42	36201127		1.2532	205.2	205.2	0.0193	0.0193	103	
D 13C6-Phenanthrene	25:04	19504880		0.5724	83.3	83.3	0.003050	0.003050	83.25	
Phenanthrene	25:04	44842518		1.1044	208.2	208.2	0.0240	0.0240	104	
\$ Anthracin-d10	25:17	14381228		0.4257	82.5	82.5	0.000789	0.000789	82.54	
D 13C6-Anthracene	25:24	15369256		0.4523	83.0	83.0	0.003860	0.003860	83.02	
Anthracene	25:24	43804985		1.3586	209.8	209.8	0.0262	0.0262	105	
D 13C6-Fluoranthrene	33:48	50432161		1.1994	102.7	102.7	0.009878	0.009878	103	
Fluoranthrene	33:49	117305303		1.1513	202.0	202.0	0.009875	0.009875	101	
* Pyrene-d10	35:21	40928125		7.9E+04	100.0	100.0				
D 13C3-Pyrene	35:30	59666746		1.3512	107.9	107.9	0.0133	0.0133	108	
Pyrene	35:30	124470327		1.0652	195.8	195.8	0.009389	0.009389	97.92	
\$ 13C6-Benzo(c)fluorene	39:12	21309451		0.5136	101.4	101.4	0.002223	0.002223	101	
D 13C6-Benzo(a)anthracene	46:01	50692053		1.5189	92.7	92.7	0.007694	0.007694	92.71	
Benzo[a]anthracene	46:01	104618956		0.9739	211.9	211.9	0.0256	0.0256	106	
D 13C6-Chrysene	46:16	54485962		1.6287	92.9	92.9	0.007176	0.007176	92.93	
Chrysene	46:17	111904046		0.9815	209.3	209.3	0.0249	0.0249	105	
D 13C6-Benzo(b)fluoranthene	54:36	52214236		1.4621	99.2	99.2	0.000759	0.000759	99.21	
Benzo[b]fluoranthene	54:36	121253909		1.1249	206.4	206.4	0.003686	0.003686	103	
\$ 13C12-Benzo(j)fluoranthene	54:38	47242706		1.3558	96.8	96.8	0.006989	0.006989	96.80	
D 13C6-Benzo(k)fluoranthene	54:43	64578229		1.7507	102.5	102.5	0.000634	0.000634	102	
Benzo[k]fluoranthene	54:44	133596547		1.1271	183.5	183.5	0.003164	0.003164	91.77	
* Benzo(e)pyrene-d12	55:27	35997377		5.7E+04	100.0	100.0				
Benzo[e]pyrene	55:32	122515517		1.0013	194.1	194.1	0.002814	0.002814	97.04	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C4-Benzo(e)pyrene	55:32	63048915		1.6368	107.0	107.0	0.001834	0.001834	107	
D 13C4-Benzo(a)pyrene	55:40	57192219		1.5508	102.5	102.5	0.001936	0.001936	102	
Benzo[a]pyrene	55:41	132609095		1.1130	208.3	208.3	0.002992	0.002992	104	
D Perylene-d12	55:52	45599876		1.1917	106.3	106.3	0.007458	0.007458	106	
Perylene	55:56	139737111		1.4307	214.2	214.2	0.002732	0.002732	107	
D 13C6-Indeno(1,2,3-cd)pyrene	57:59	50764169		1.0218	138.0	138.0	0.004912	0.004912	138	
Indeno[1,2,3-cd]pyrene	58:00	112810399		1.1249	197.5	197.5	0.002832	0.002832	98.77	
D 13C6-Dibenz(a,h)anthracene	58:04	48481138		1.0553	127.6	127.6	0.003665	0.003665	128	M
Dibenz(a,h)anthracene	58:04	107652101		1.1314	196.3	196.3	0.002234	0.002234	98.13	M
D 13C12-Benzo(ghi)perylene	58:27	54973536		1.2749	119.8	119.8	0.000660	0.000660	120	
Benzo[g,h,i]perylene	58:27	130290500		1.2838	184.6	184.6	0.002366	0.002366	92.31	

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Reagents:

61HRPAHCS5a\_00002

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Lims ID: CCV  
Client ID:  
Sample Type: CCV  
Inject. Date: 22-Jul-2024 23:53:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033622-001  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Sublist: chrom-EPA\_23\_\_PAH\*sub1  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAL ICAL  
Last Update: 23-Jul-2024 01:09:08 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1621

First Level Reviewer: V4XA

Date: 23-Jul-2024 01:09:08

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:30	11:30	0	0.665	53759637	18541550	335	837	55348		E
Naphthalene											
128.0626	11:31	11:31	0	1.001	131526746	45502224	2192	5480	20758		
13C6-2-Methylnaphthalene											
148.0984	13:51	13:51	0	0.801	24434737	11666413	22	55	530292		
2-Methylnaphthalene											
142.0783	13:51	13:51	0	1.000	61174620	28503307	727	1817	39207		
13C6-Acenaphthylene											
158.0828	16:43	16:43	0	0.966	28337100	9819373	27	67	363681		E
Acenaphthylene											
152.0626	16:43	16:43	0	1.000	76919869	28055229	714	1785	39293		
Acenaphthene-d10											
164.1404	17:18	17:18	0		15325592	5436454	1	2	5436454		
13C6-Acenaphthene											
160.0984	17:25	17:25	0	1.007	15437360	5284001	29	72	182207		E
Acenaphthene											
154.0783	17:25	17:25	0	1.001	37794293	12846927	433	1082	29670		
13C6-Fluorene											
172.0984	19:41	19:41	0	1.139	14077708	3989078	11	27	362644		E
Fluorene											
166.0783	19:42	19:42	0	1.001	36201127	10740920	386	965	27826		
13C6-Phenanthrene											
184.0984	25:04	25:04	0	0.709	19504880	4420651	52	130	85013		
Phenanthrene											
178.0783	25:04	25:04	0	1.000	44842518	10297166	469	1172	21956		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10											
188.1410	25:17	25:17	0	0.715	14381228	3123673	10	25	312367		
13C6-Anthracene											
184.0984	25:24	25:24	0	0.718	15369256	3294051	52	130	63347		
Anthracene											
178.0783	25:24	25:24	0	1.000	43804985	9345870	469	1172	19927		
13C6-Fluoranthrene											
208.0984	33:48	33:48	0	0.956	50432161	9850718	353	882	27906		E
Fluoranthene											
202.0783	33:49	33:49	0	1.000	117305303	22636651	448	1120	50528		
Pyrene-d10											
212.1404	35:21	35:21	0		40928125	7444948	27	67	275739		
13C3-Pyrene											
205.0883	35:30	35:30	0	1.004	59666746	11199161	537	1342	20855		E
Pyrene											
202.0783	35:30	35:30	0	1.000	124470327	23487761	448	1120	52428		
13C6-Benzo(c)fluorene											
222.1134	39:12	39:12	0	0.707	21309451	3542669	34	85	104196		
13C6-Benzo(a)anthracene											
234.1140	46:01	46:01	0	1.302	50692053	8766362	556	1390	15767		
Benzo[a]anthracene											
228.0939	46:01	46:01	0	1.000	104618956	18912268	874	2185	21639		
13C6-Chrysene											
234.1140	46:16	46:16	0	1.309	54485962	8928922	556	1390	16059		
Chrysene											
228.0939	46:17	46:17	0	1.000	111904046	19249932	874	2185	22025		
13C6-Benzo(b)fluoranthene											
258.1140	54:36	54:36	0	0.985	52214236	14711191	53	132	277570		
Benzo[b]fluoranthene											
252.0939	54:36	54:36	0	1.000	121253909	33664717	244	610	137970		
13C12-Benzo(j)fluoranthene											
264.1336	54:38	54:38	0	0.985	47242706	12909858	451	1127	28625		
13C6-Benzo(k)fluoranthene											
258.1140	54:43	54:43	0	0.987	64578229	17104023	53	132	322717		E
Benzo[k]fluoranthene											
252.0939	54:44	54:44	0	1.000	133596547	36377805	244	610	149089		
Benzo(e)pyrene-d12											
264.1692	55:27	55:27	0		35997377	11893609	423	1057	28117		
Benzo[e]pyrene											
252.0939	55:32	55:32	0	1.000	122515517	42636340	244	610	174739		
13C4-Benzo(e)pyrene											
256.1073	55:32	55:32	0	1.002	63048915	21649832	143	357	151397		E
13C4-Benzo(a)pyrene											
256.1073	55:40	55:40	0	1.004	57192219	18314304	143	357	128072		E

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Benzo[a]pyrene											
252.0939	55:41	55:41	0	1.000	132609095	42233089	244	610	173086		
Perylene-d12											
264.1692	55:52	55:52	0	1.007	45599876	15604682	423	1057	36891		E
Perylene											
252.0939	55:56	55:56	0	1.001	139737111	50104525	244	610	205346		
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	57:59	57:59	0	1.046	50764169	17169644	239	597	71840		E
Indeno[1,2,3-cd]pyrene											
276.0939	58:00	58:00	0	1.000	112810399	38033747	219	547	173670		
13C6-Dibenz(a,h)anthracene											
284.1296	58:04	58:04	0	1.047	48481138	16020340	184	460	87067		M
Dibenz(a,h)anthracene											
278.1096	58:04	58:04	0	1.000	107652101	37051200	162	405	228711		EM
13C12-Benzo(ghi)perylene											
288.1342	58:27	58:27	0	1.054	54973536	18007436	40	100	450186		M
Benzo[g,h,i]perylene											
276.0939	58:27	58:27	0	1.000	130290500	44794400	219	547	204541		E

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61HRPAHCS5a\_00002

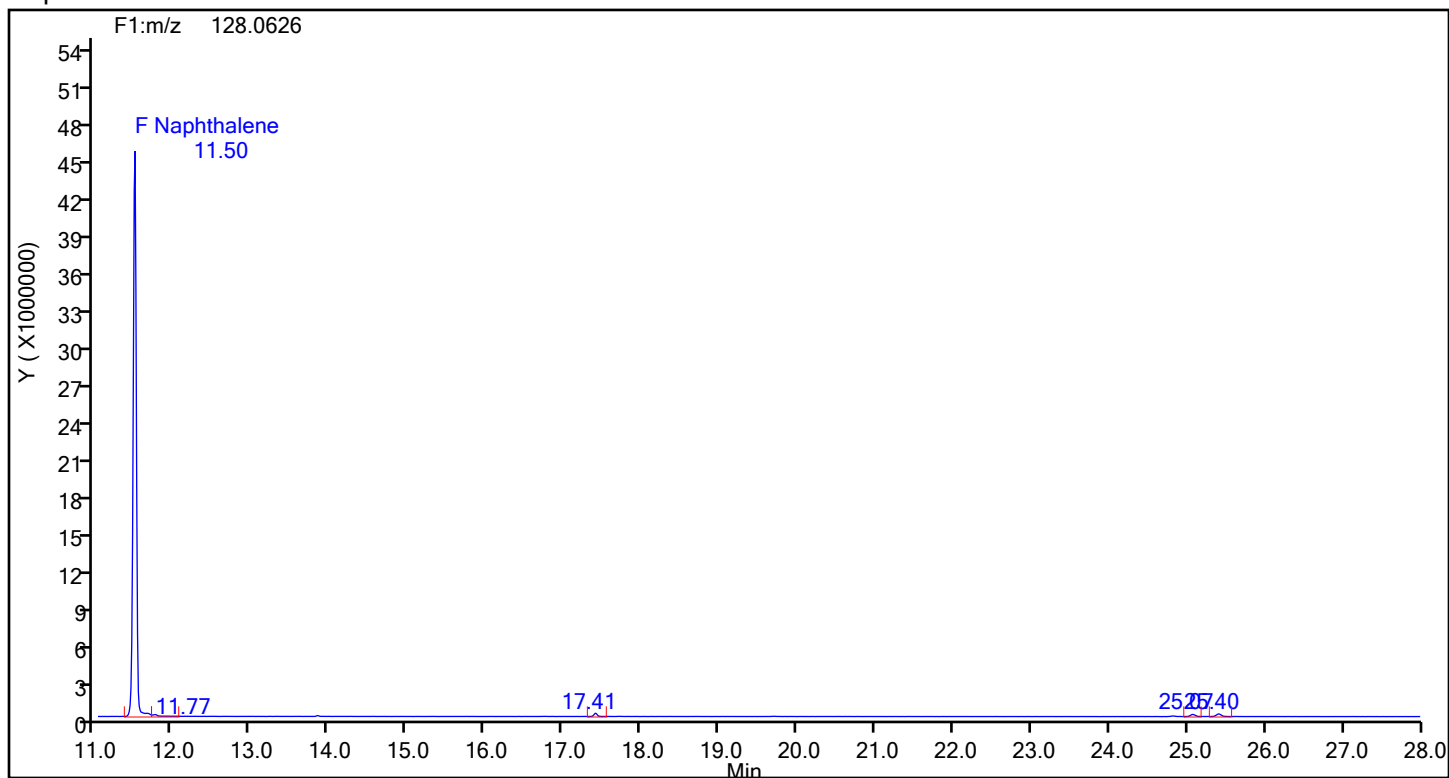
Amount Added: 20.00

Units: uL

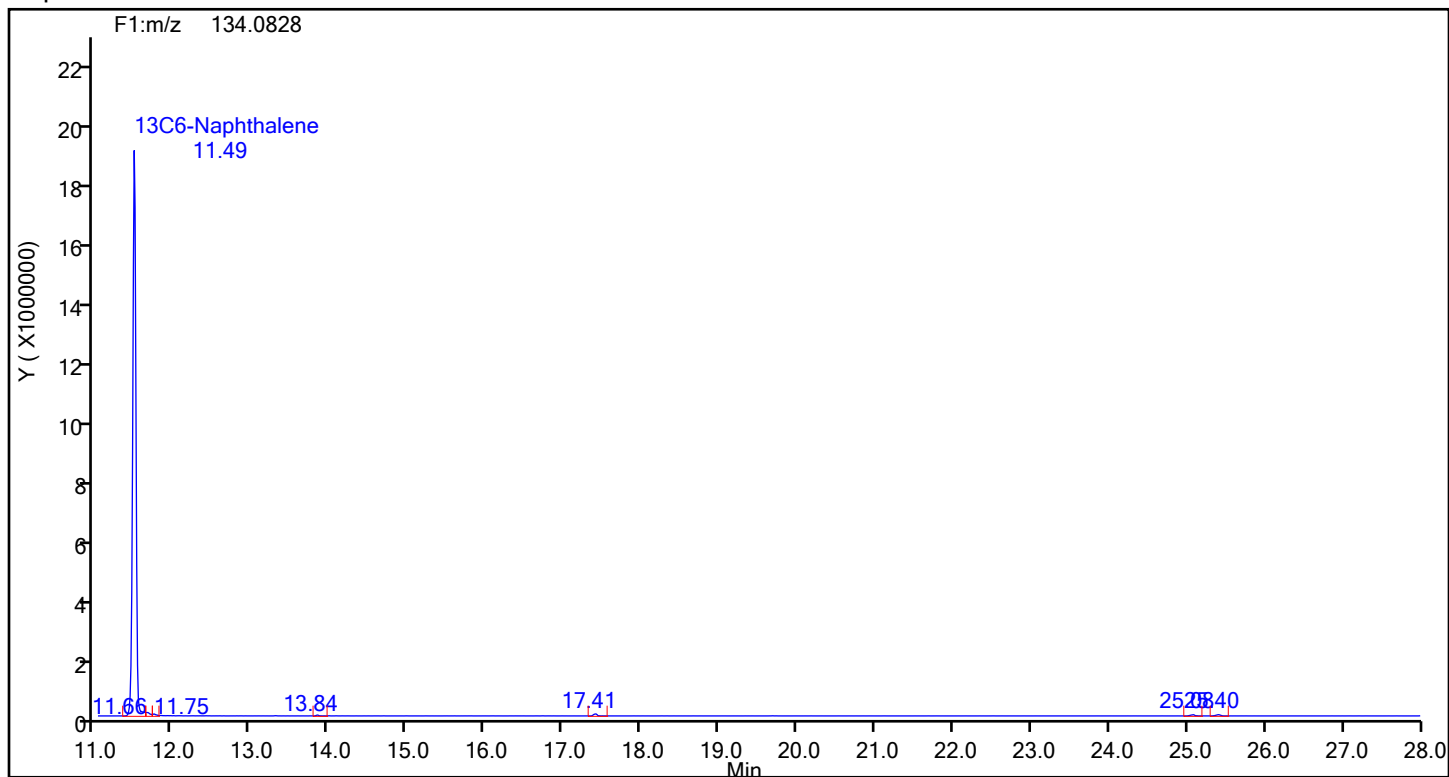
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



## Naphthalene Standards

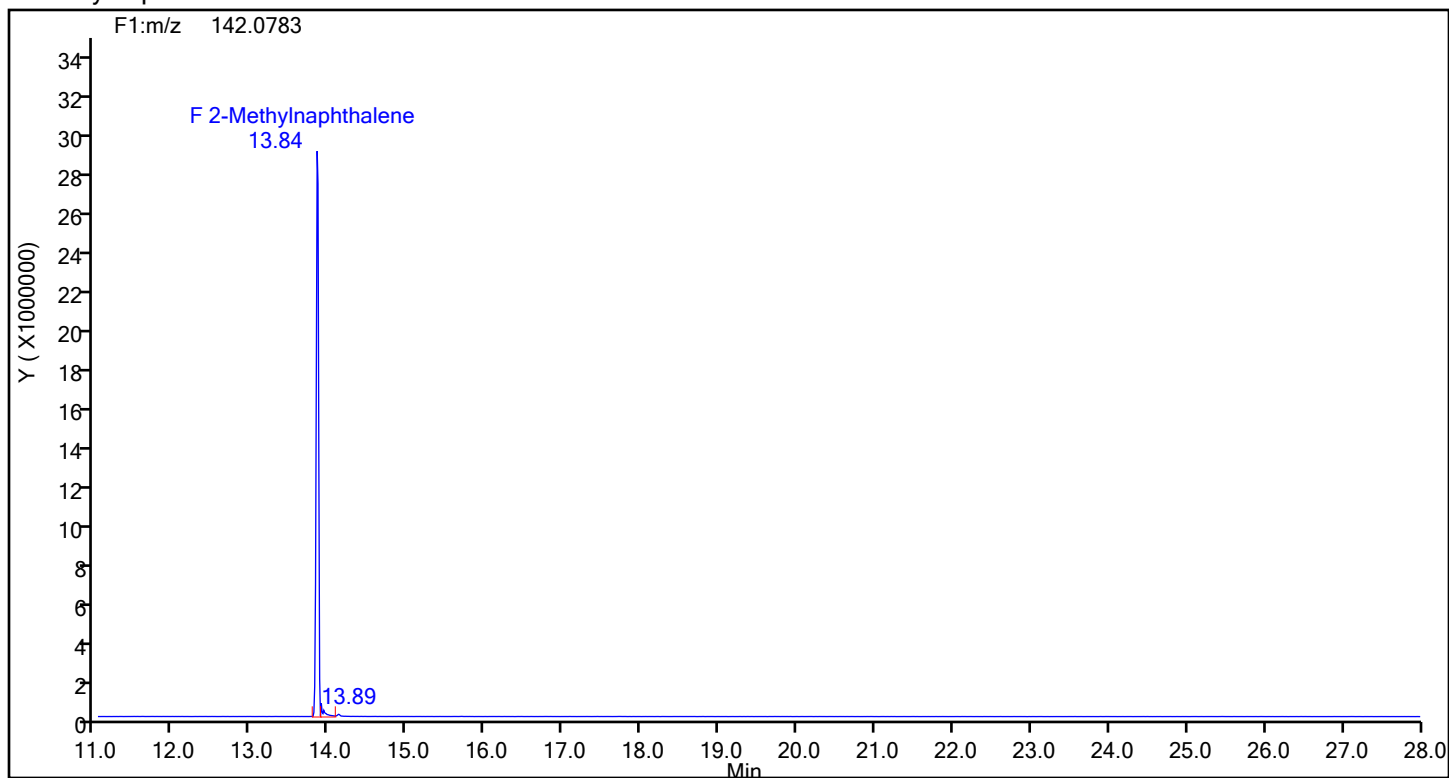




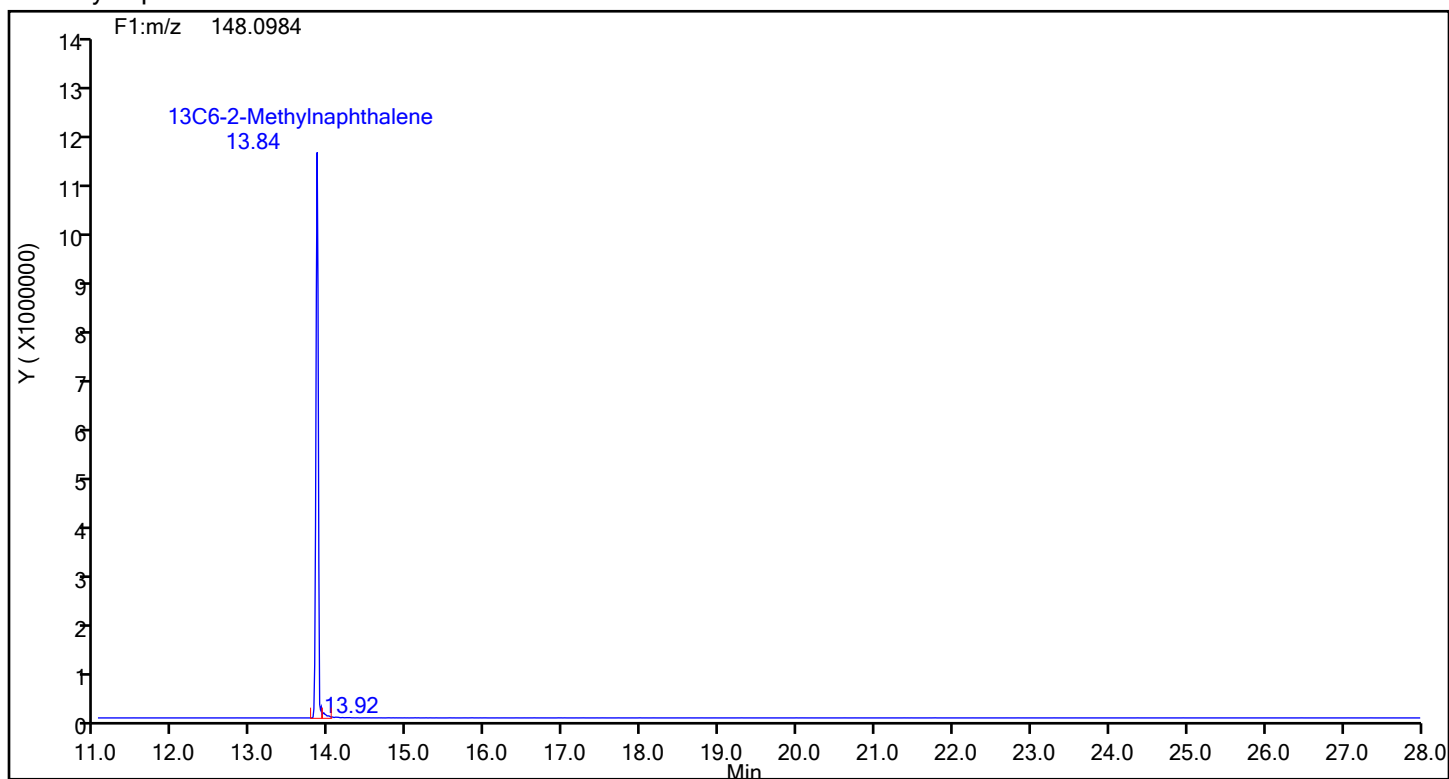
## Eurofins Knoxville

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Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene

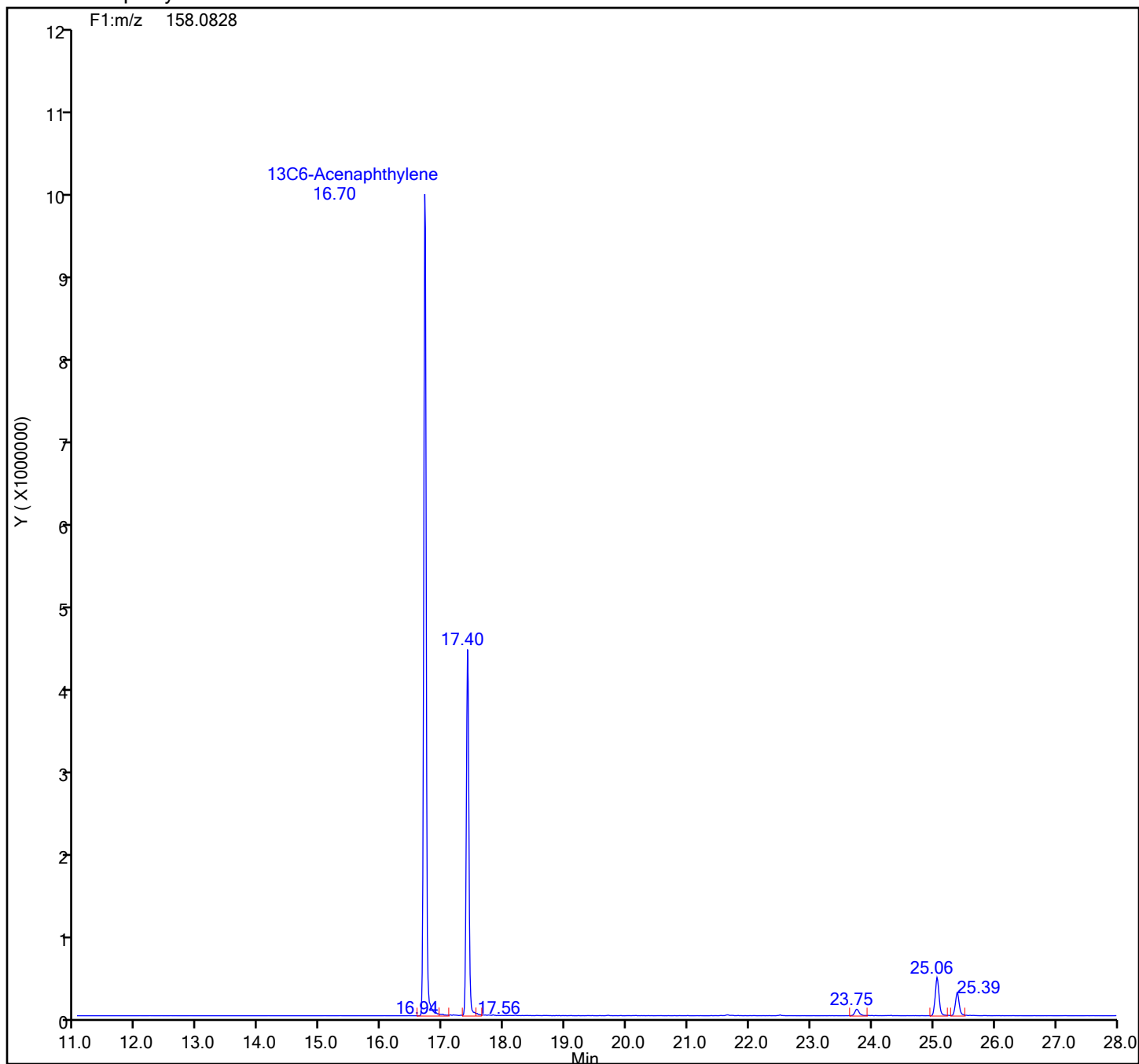


## 2-Methylnaphthalene Standards



## Eurofins Knoxville

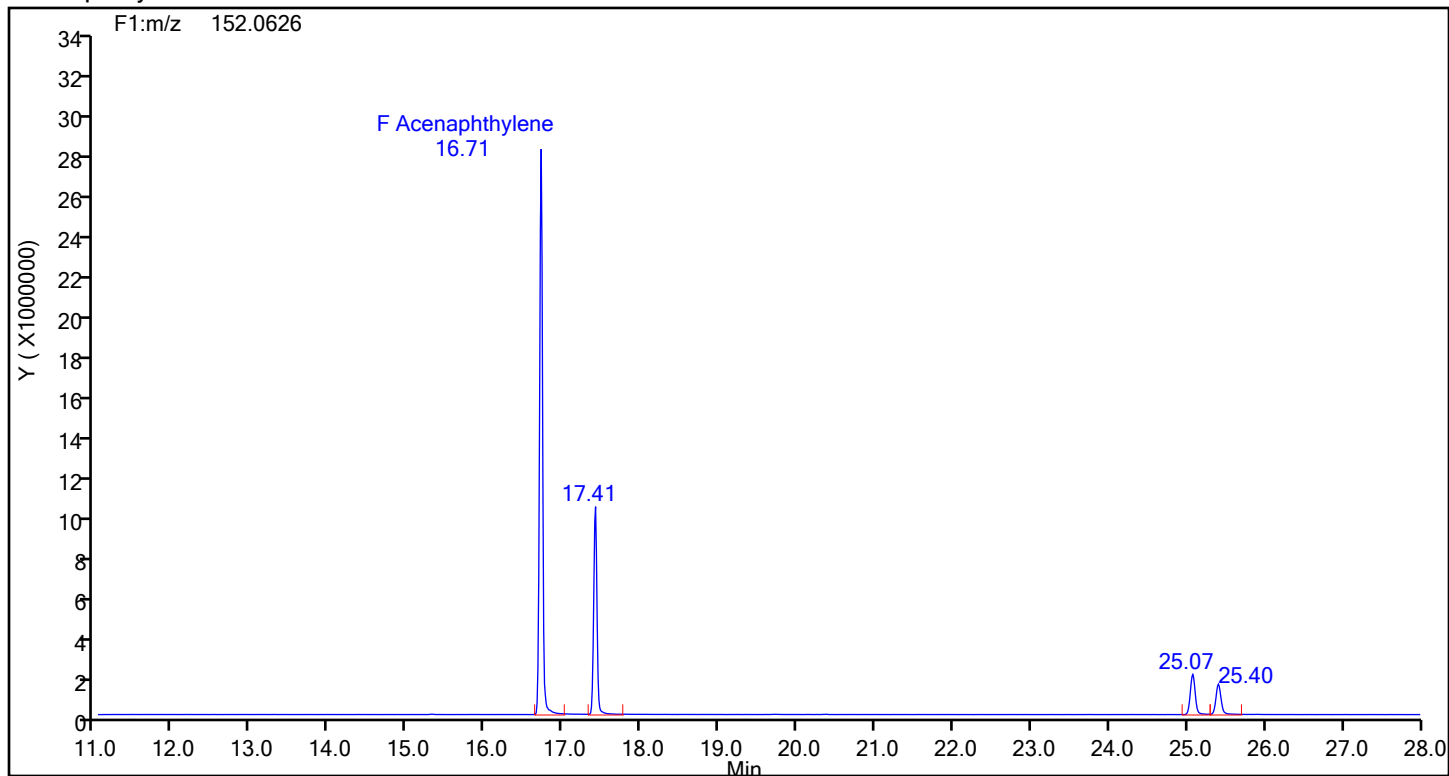
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Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
13C6-Acenaphthylene Standards



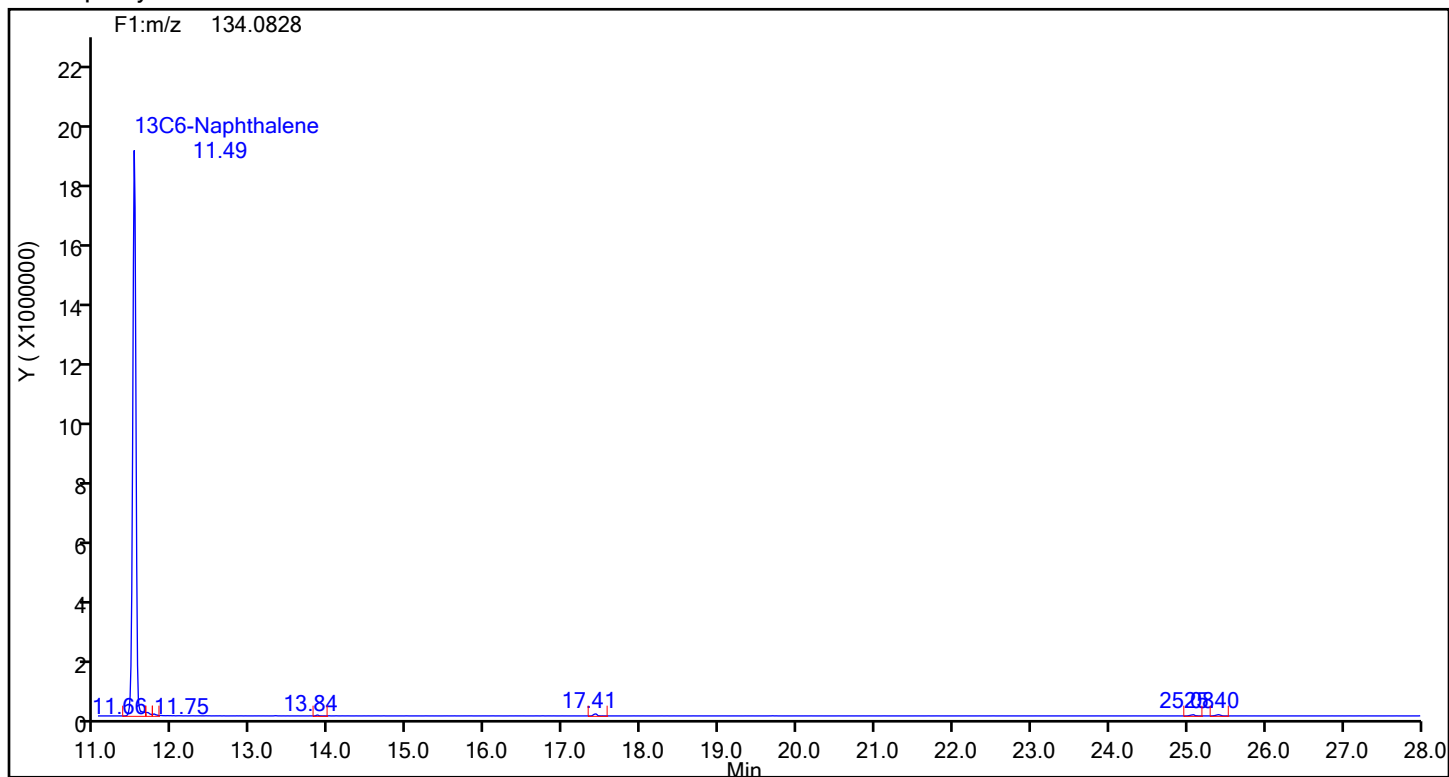
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene



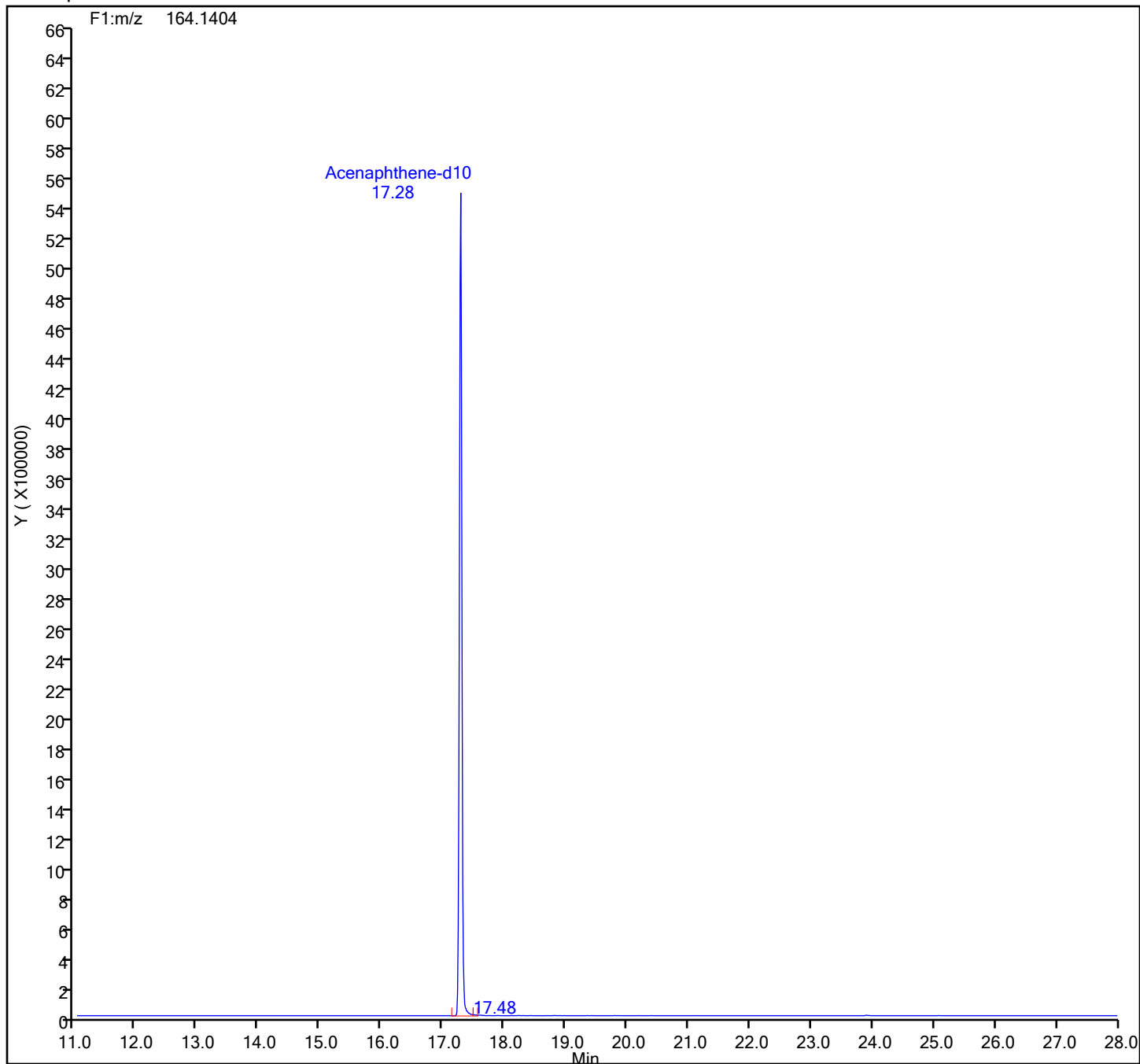
## Acenaphthylene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

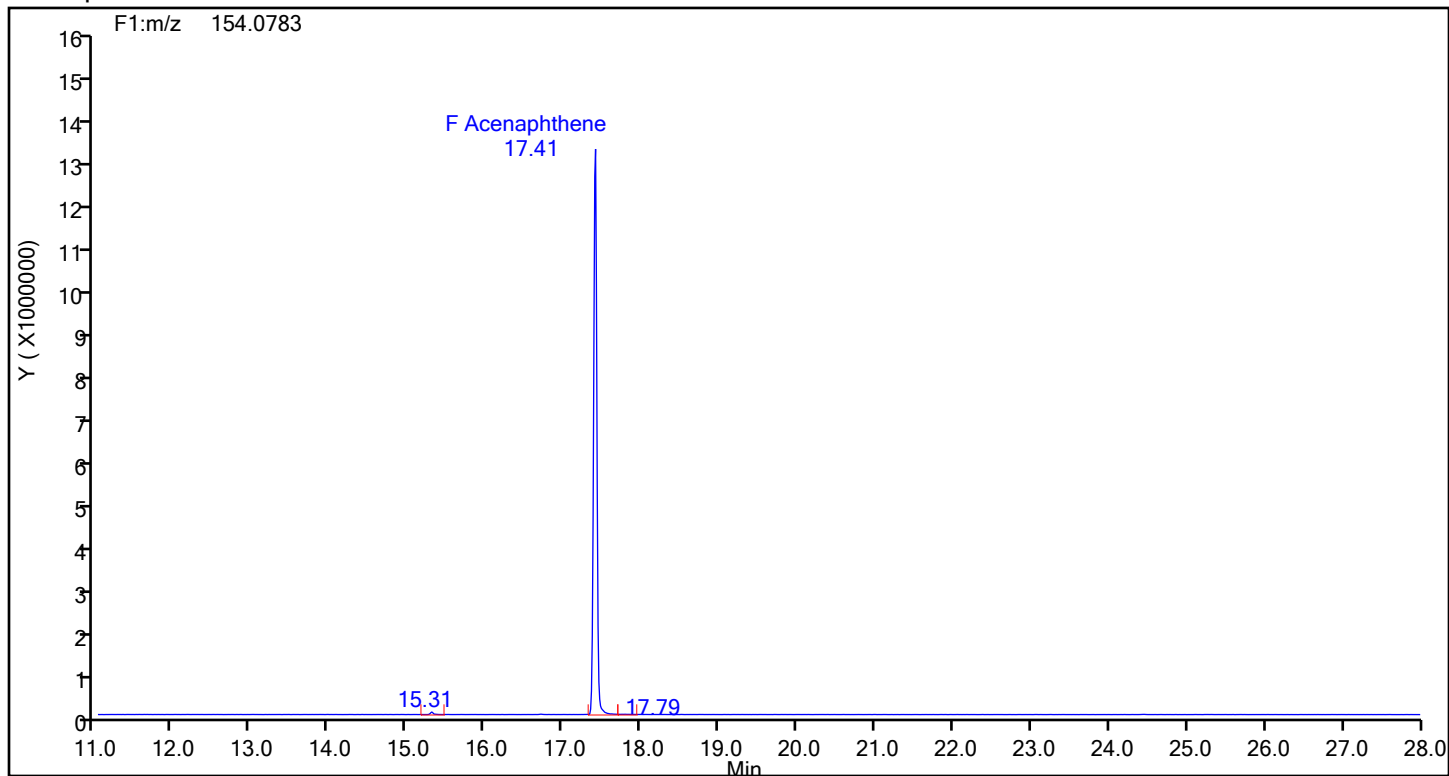
## Acenaphthene-d10 Standards



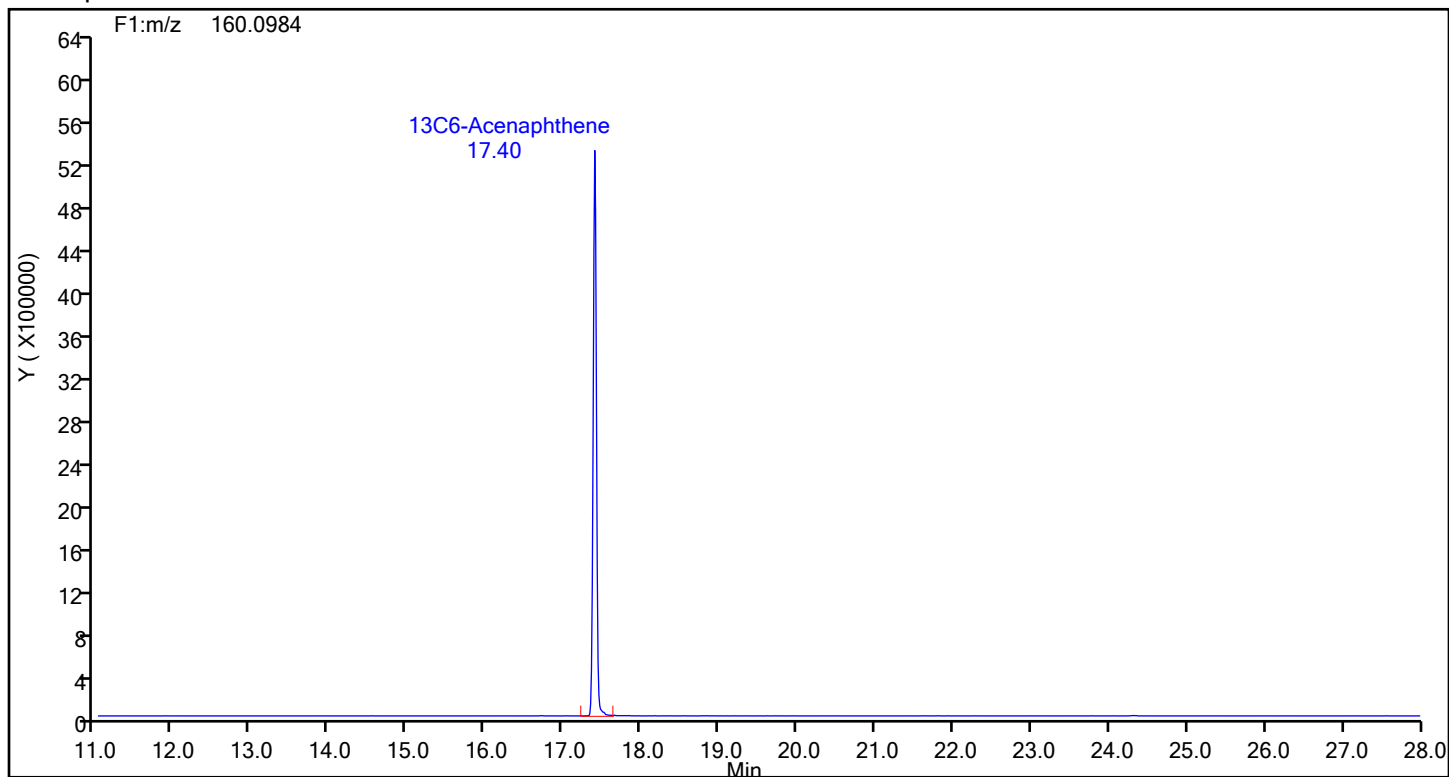
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



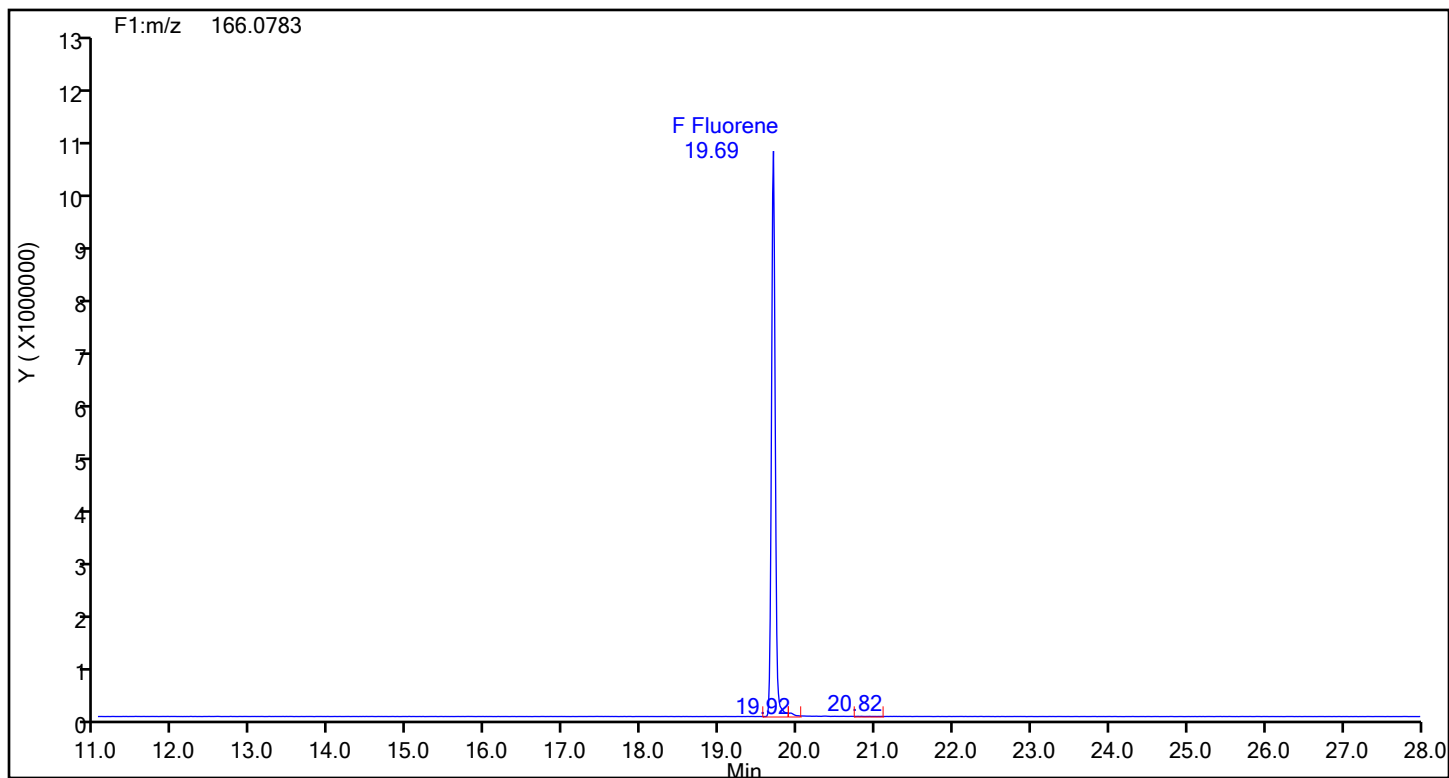
## Acenaphthene Standards



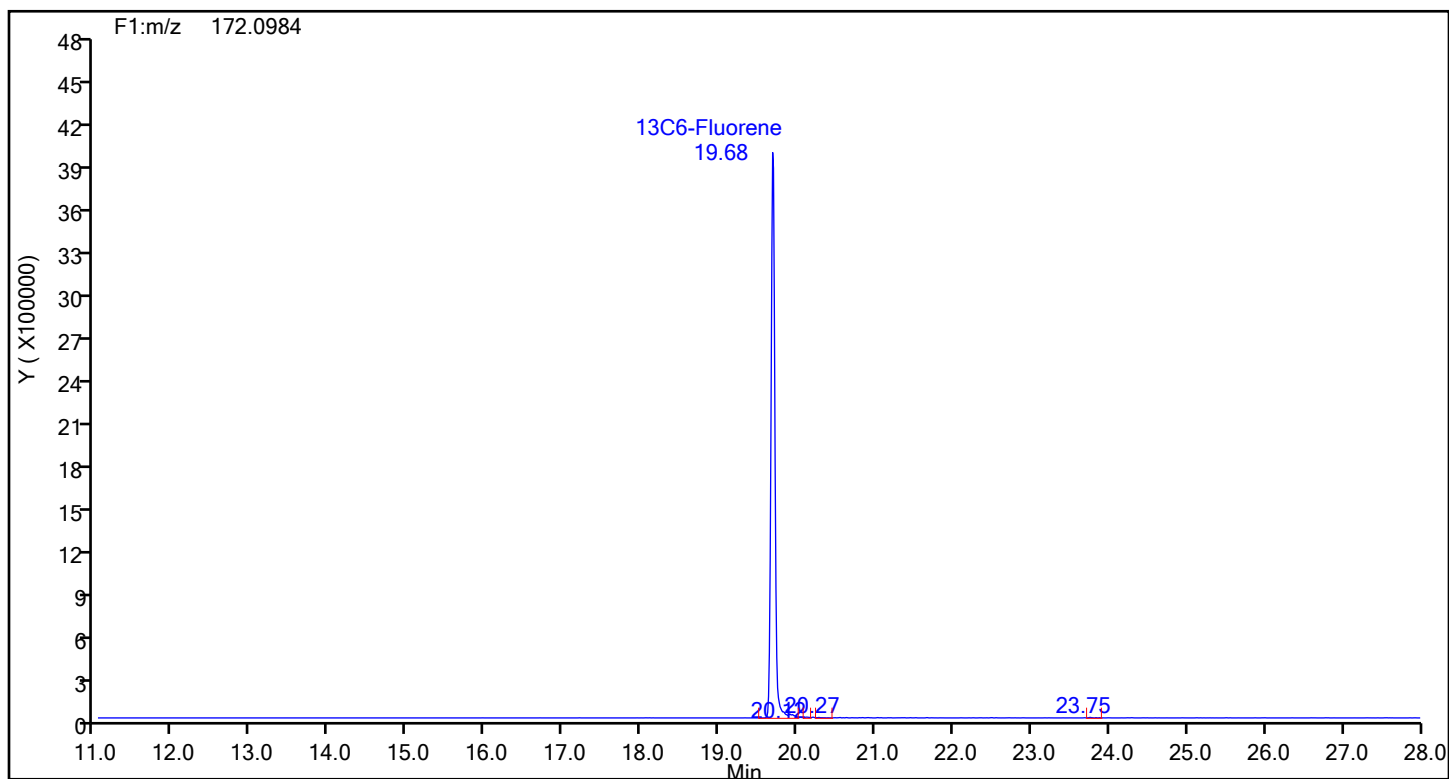
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene

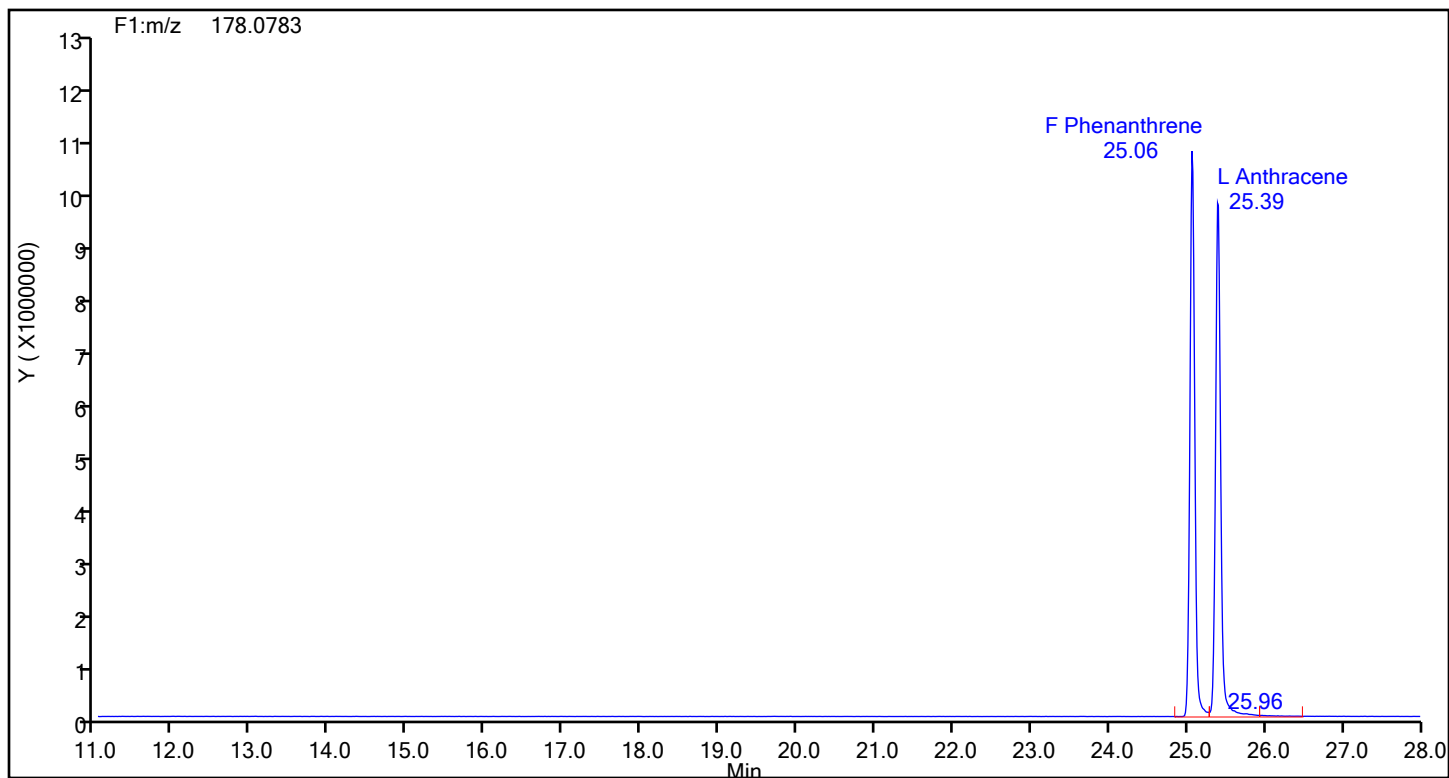


## Fluorene Standards

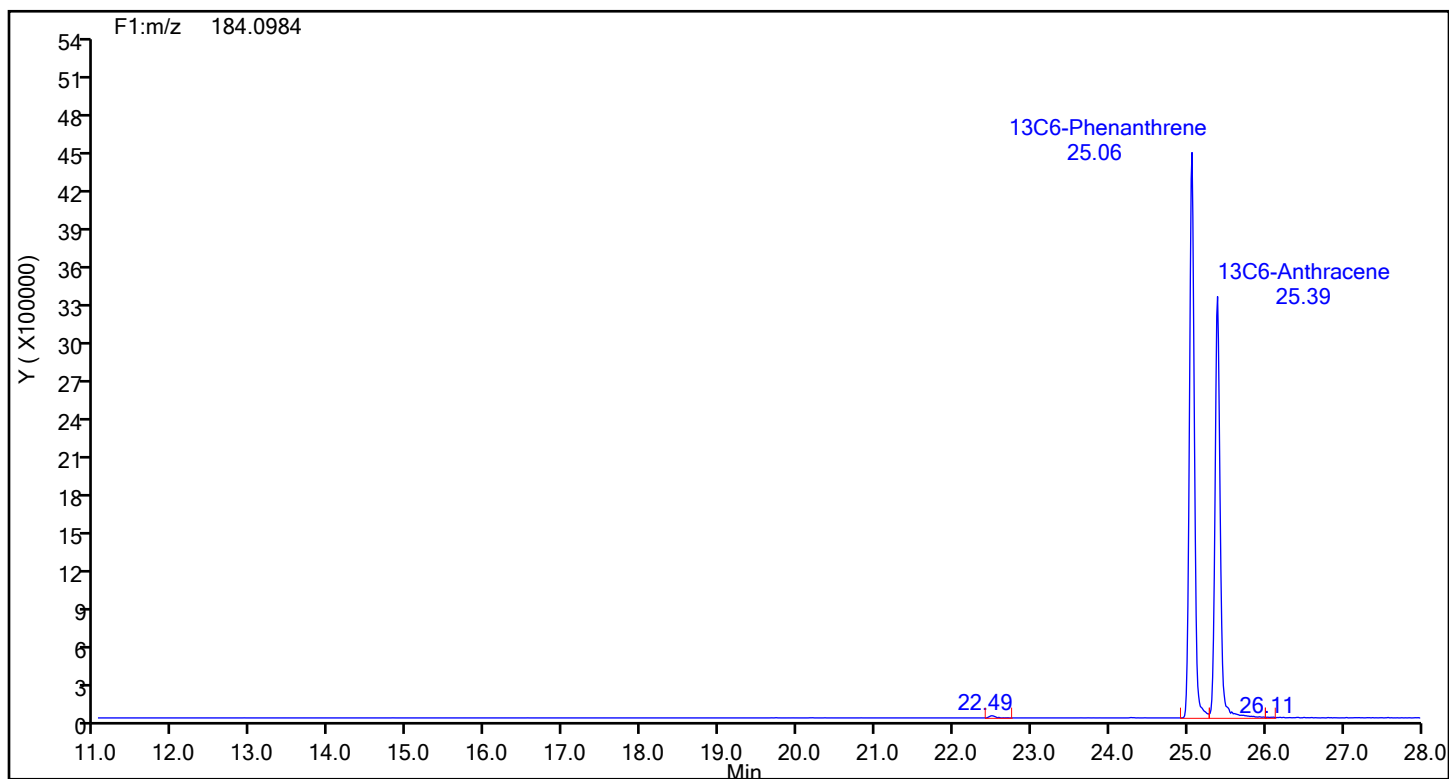


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Phenanthrene

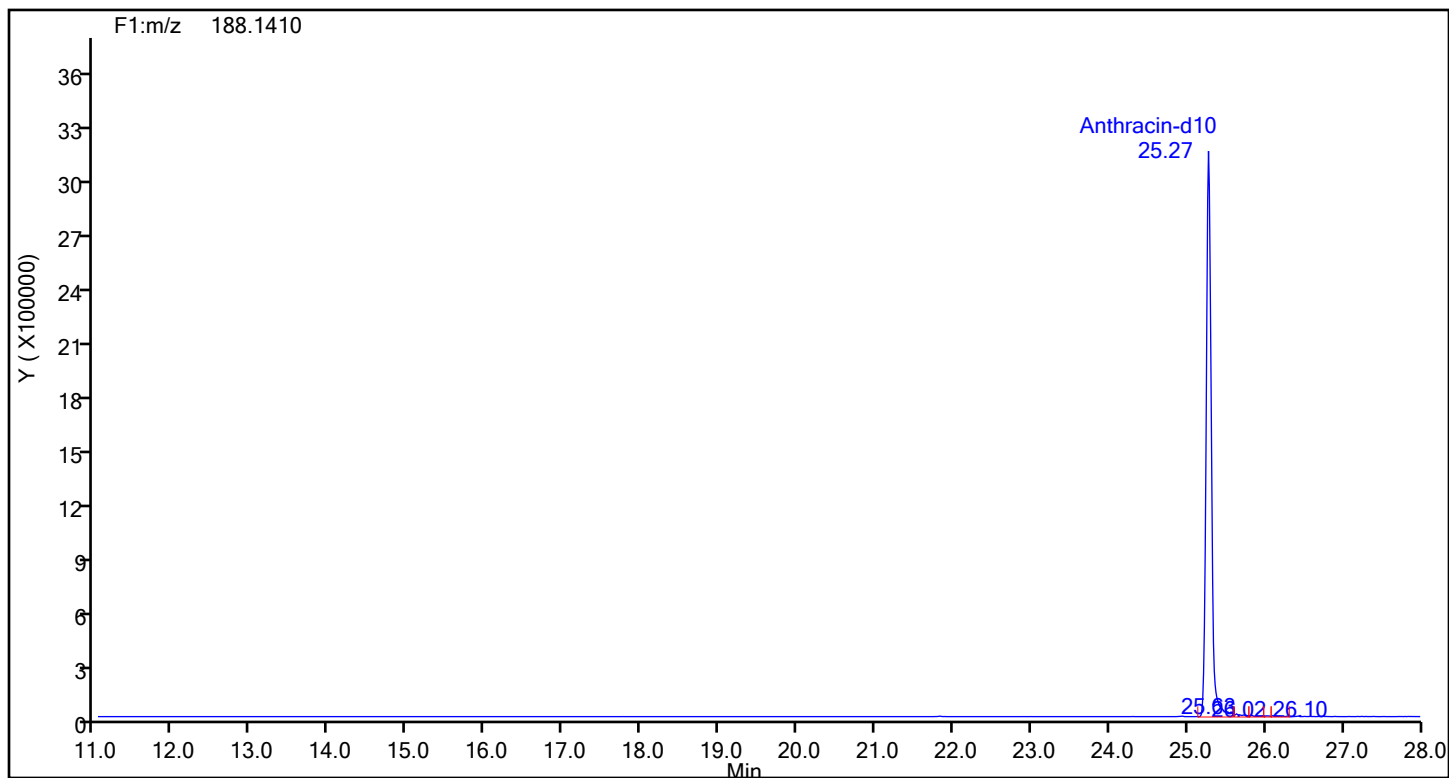


## Phenanthrene Standards

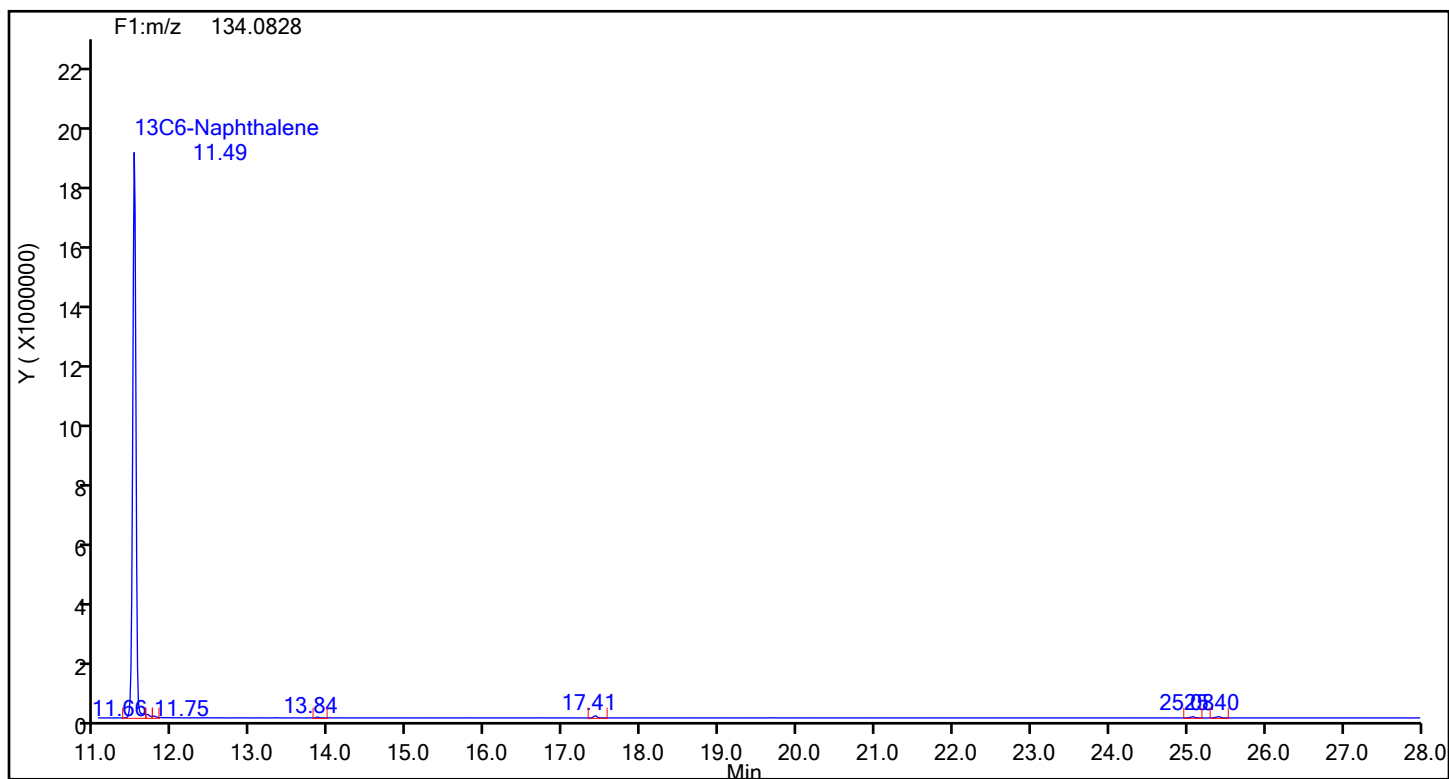


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10



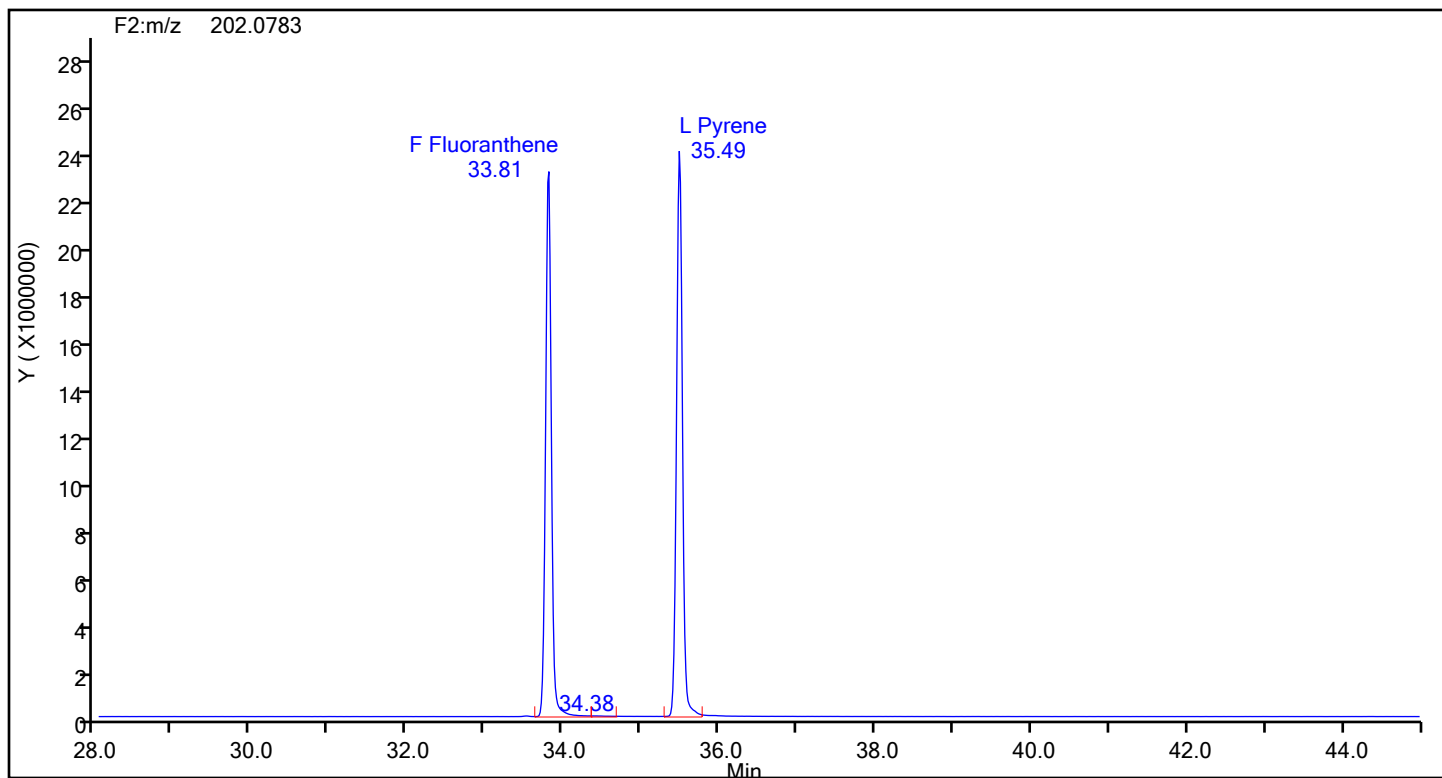
## Anthracin-d10 Standards



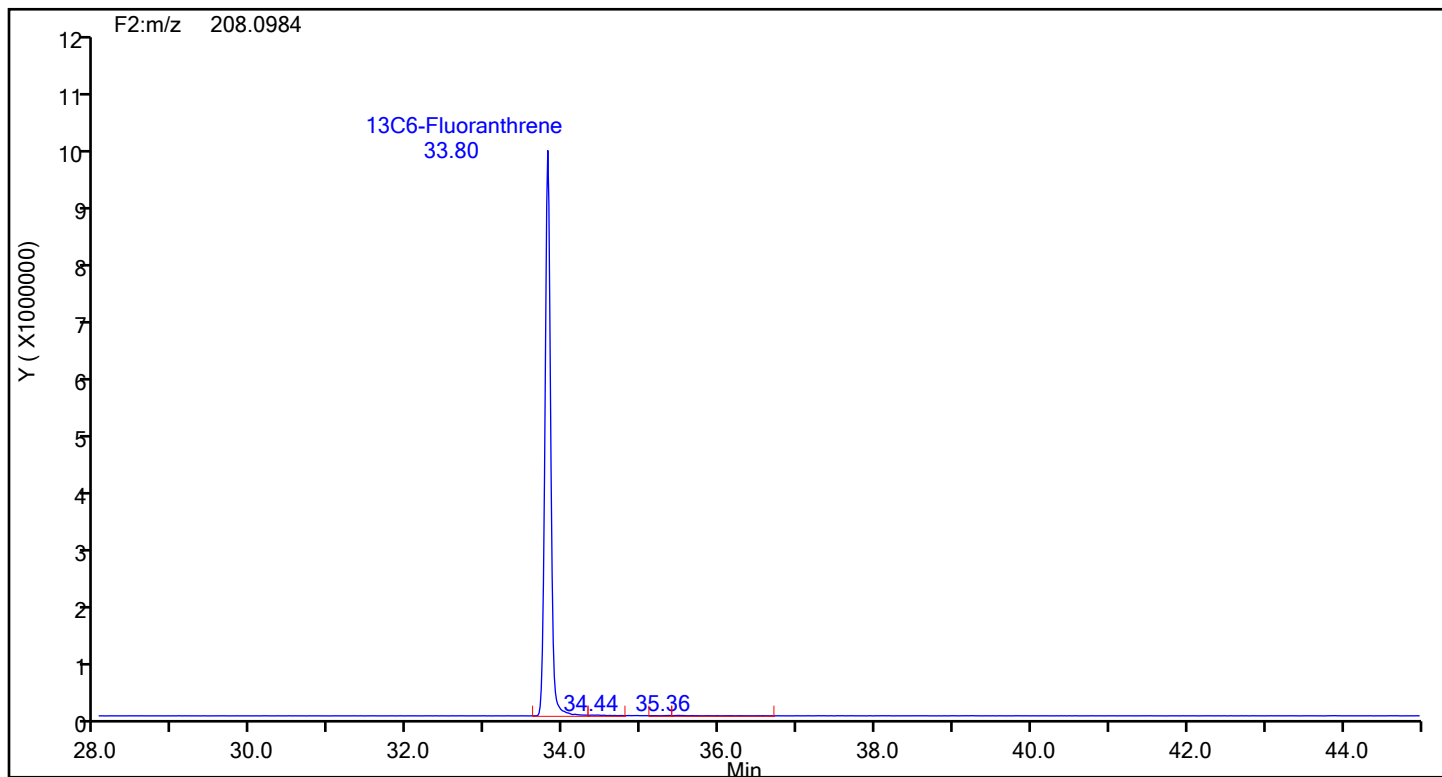


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Fluoranthene



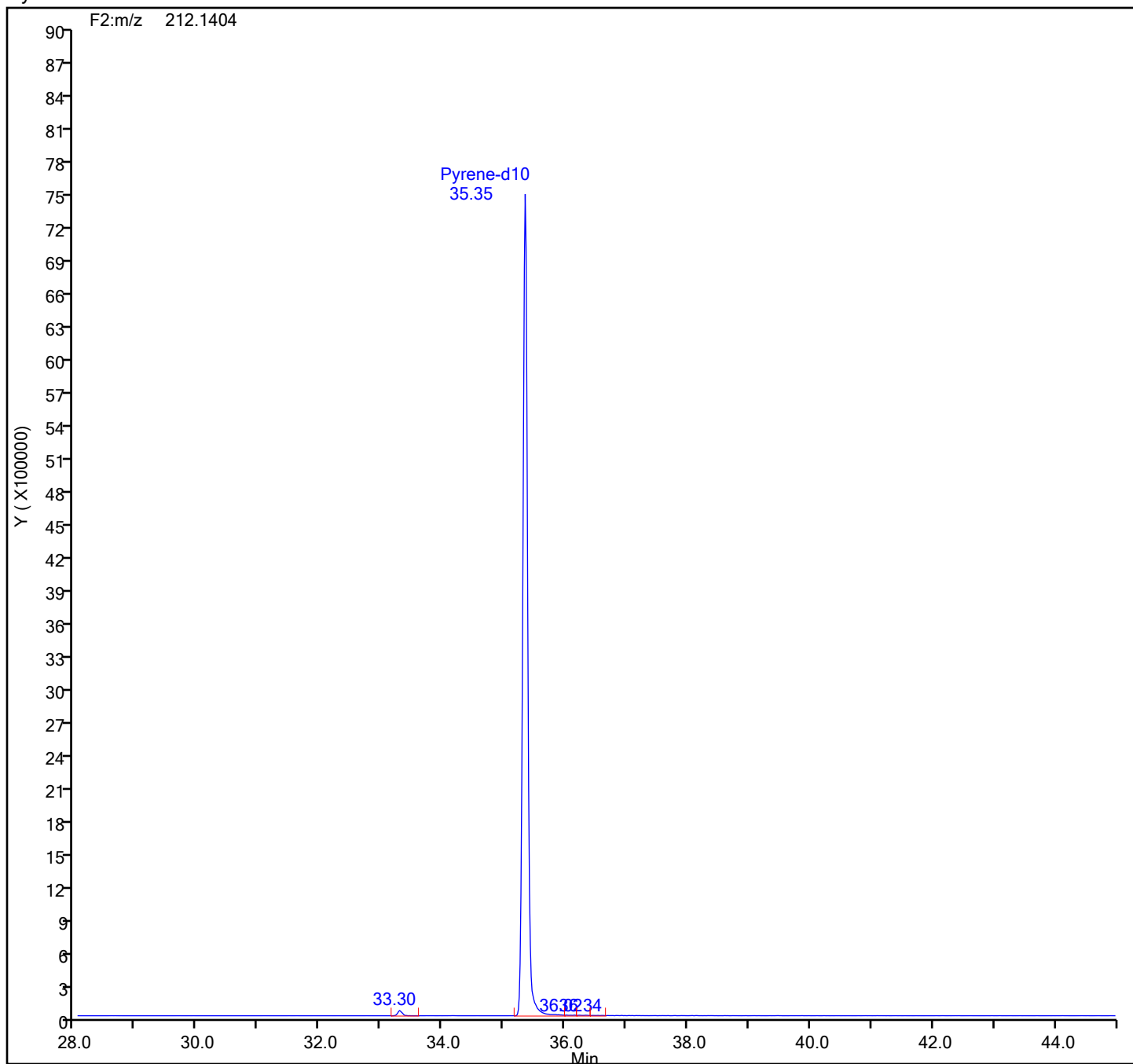
## Fluoranthene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

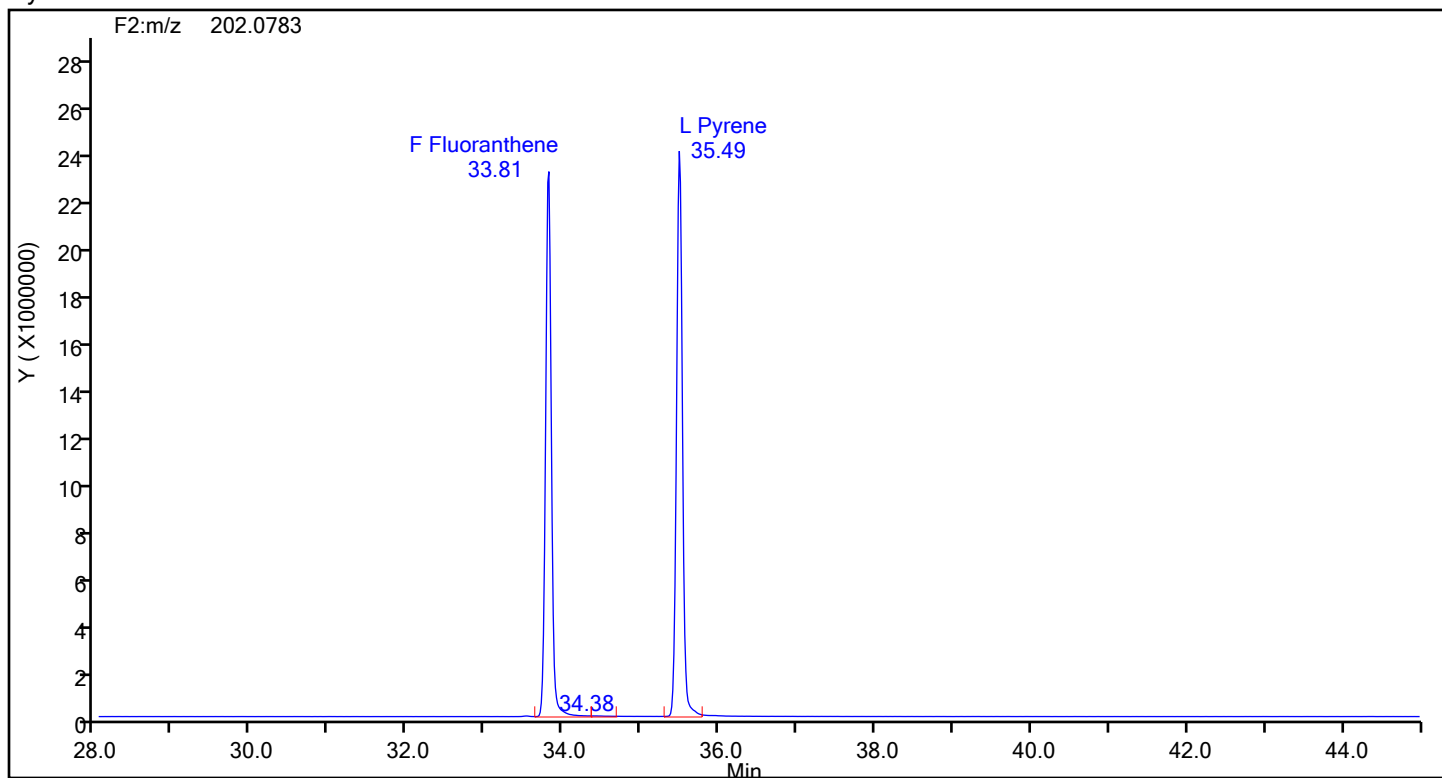
## Pyrene-d10 Standards



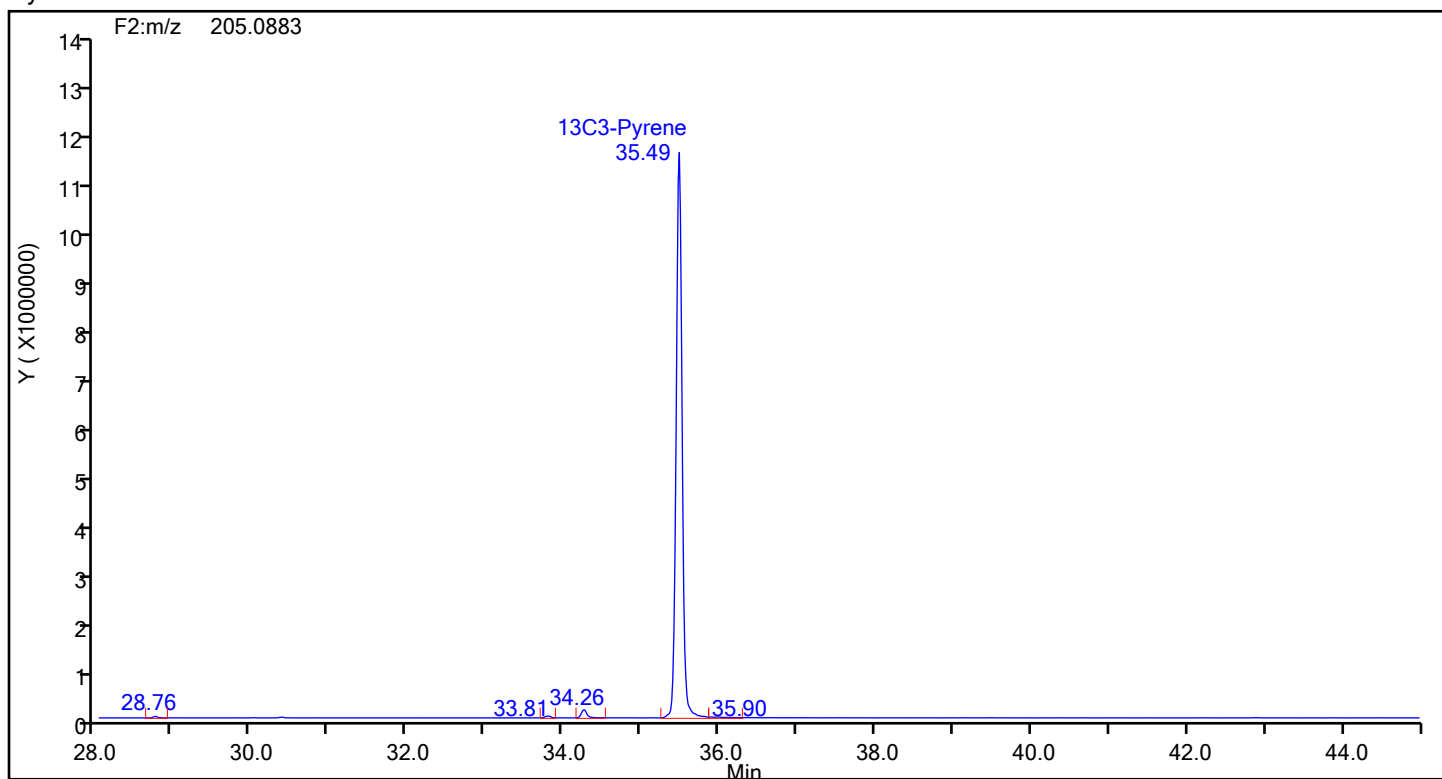
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Pyrene

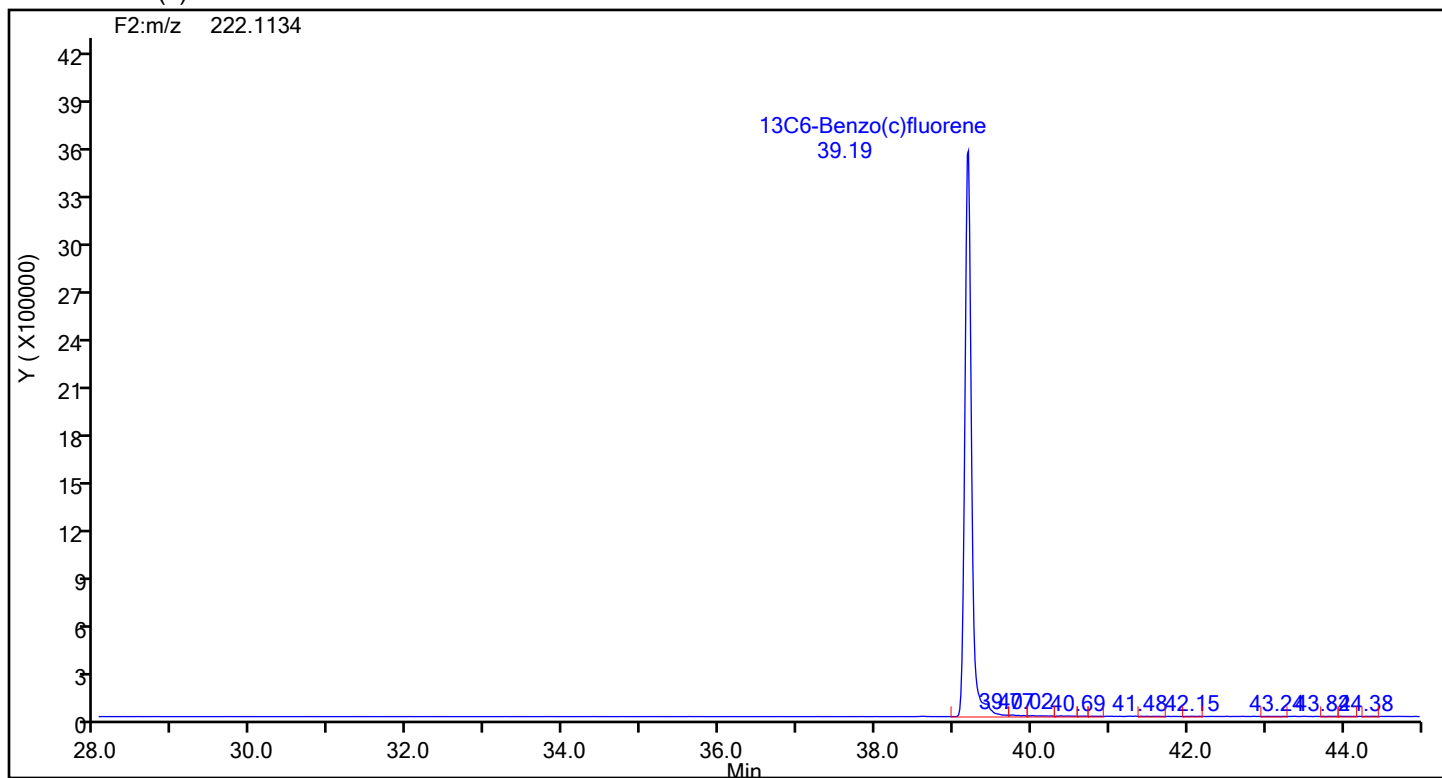


## Pyrene Standards

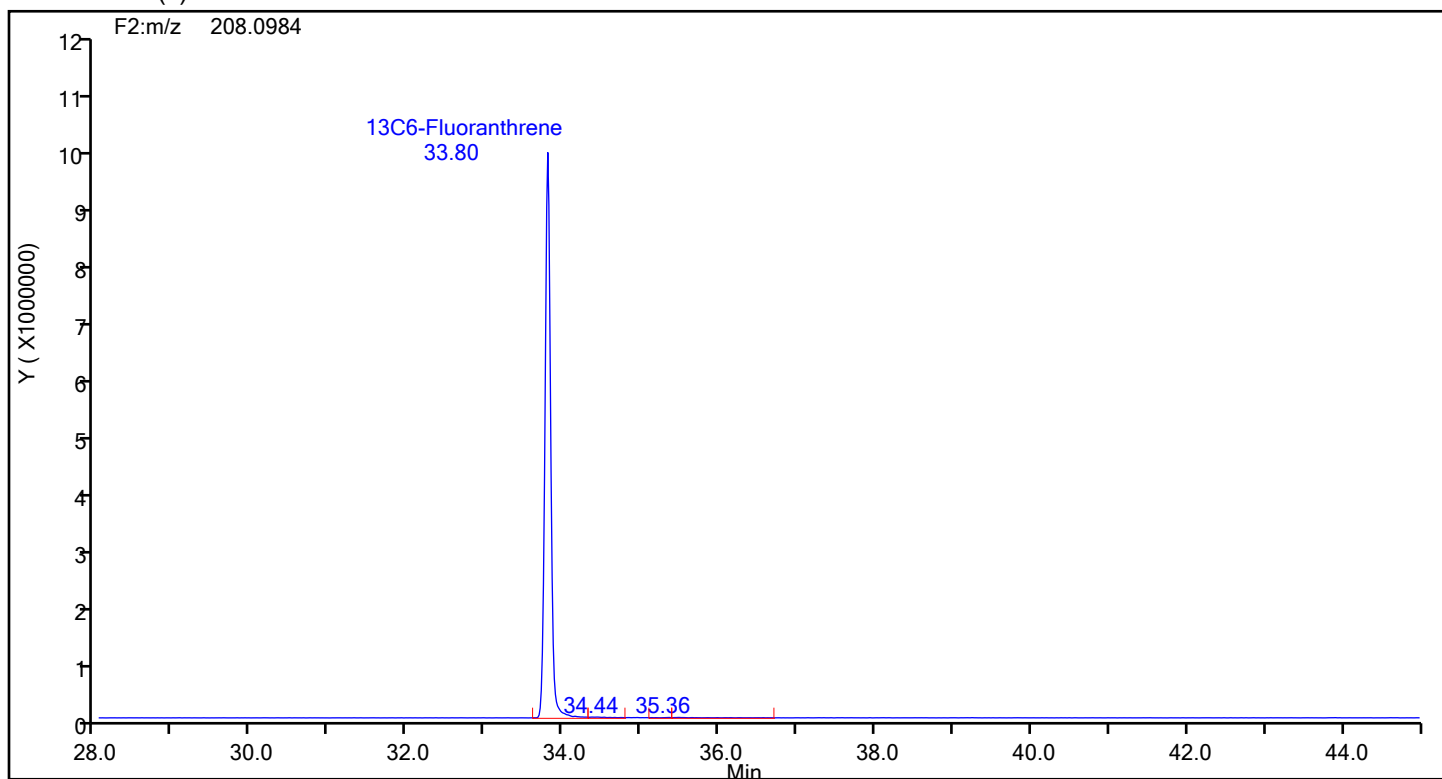


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
13C6-Benzo(c)fluorene



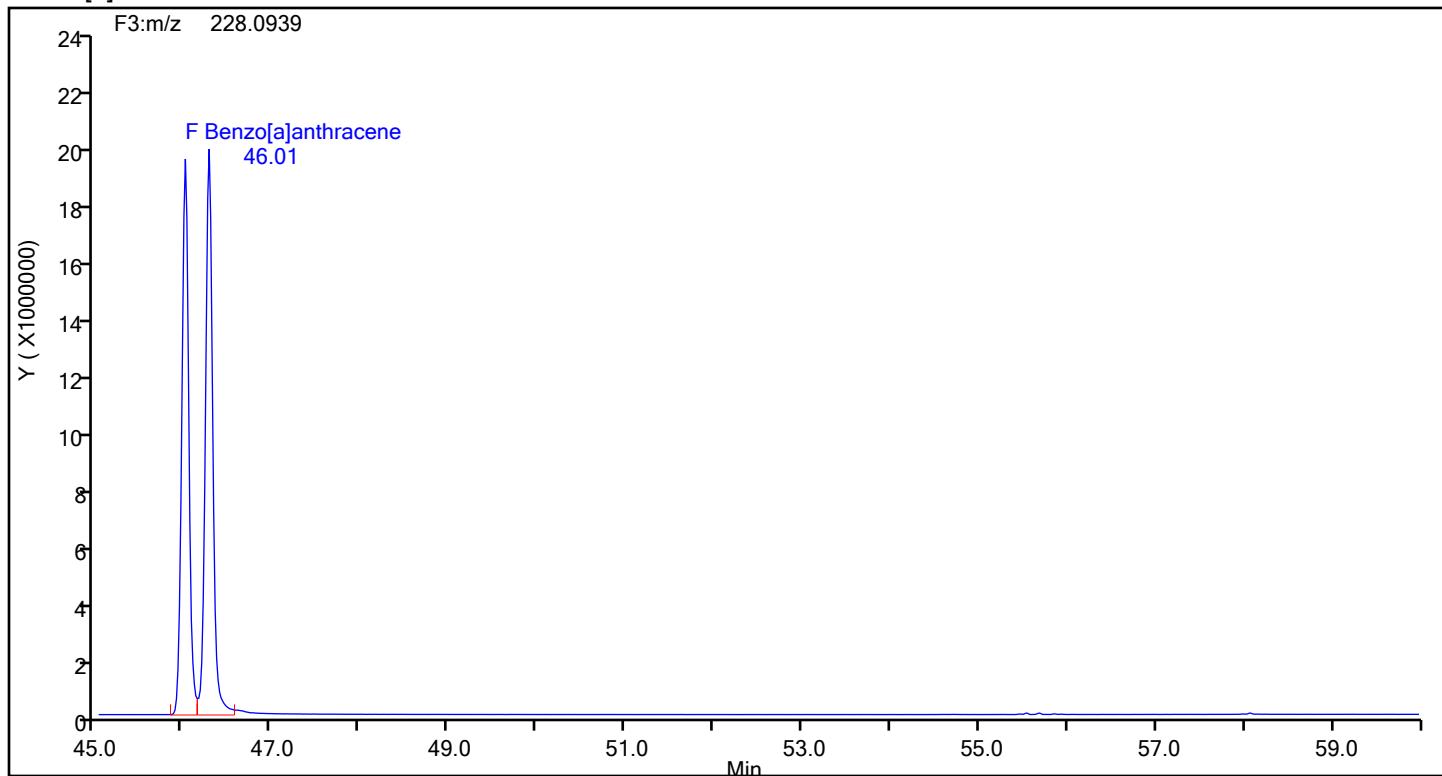
## 13C6-Benzo(c)fluorene Standards



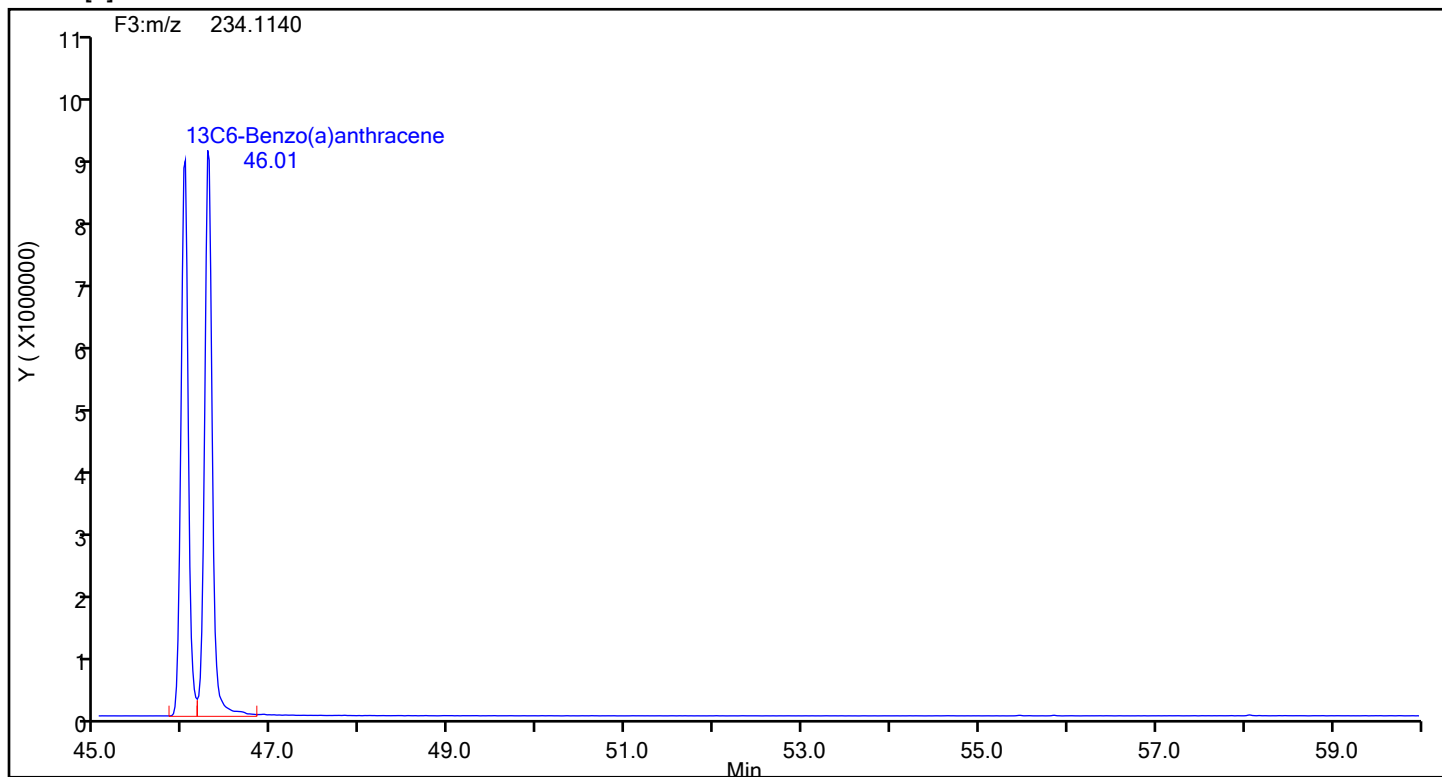
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[a]anthracene



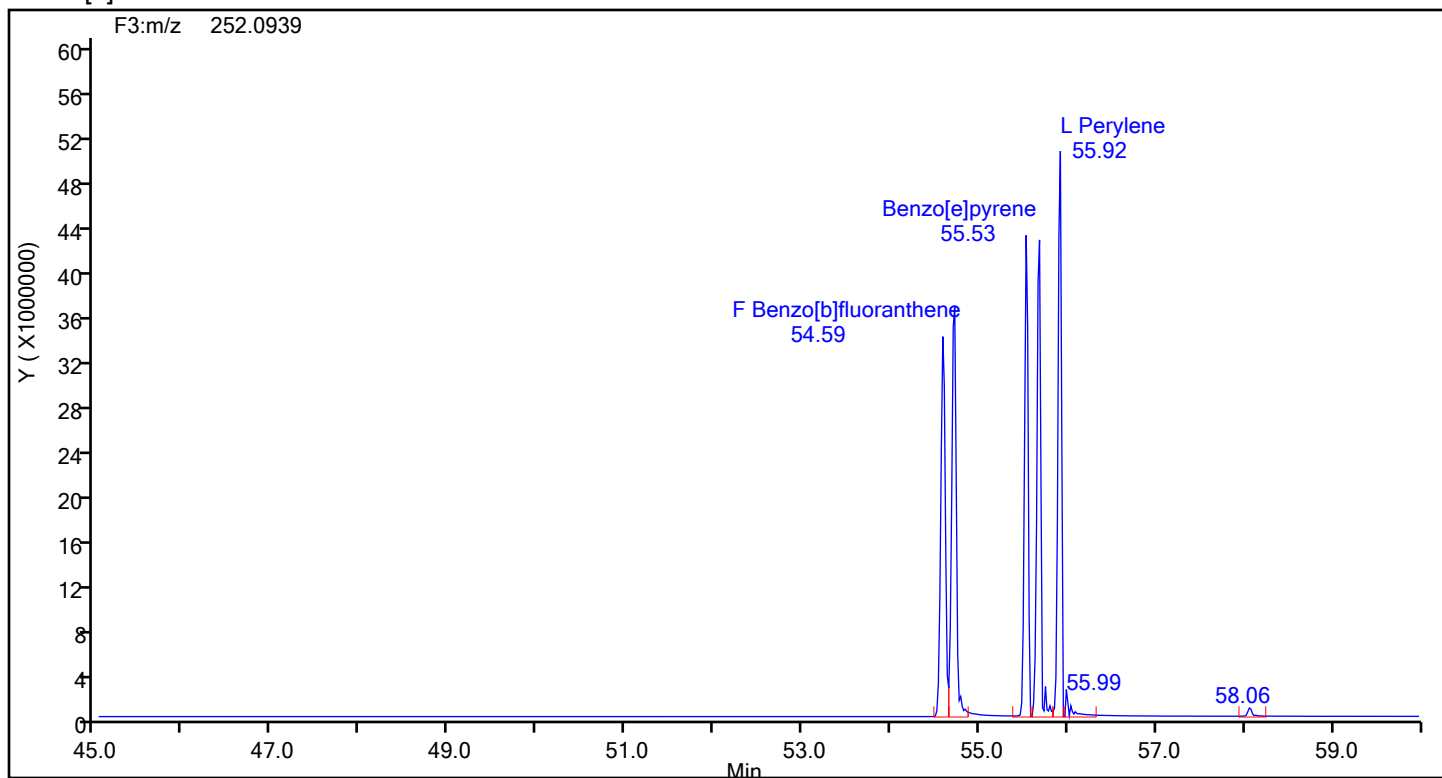
## Benzo[a]anthracene Standards



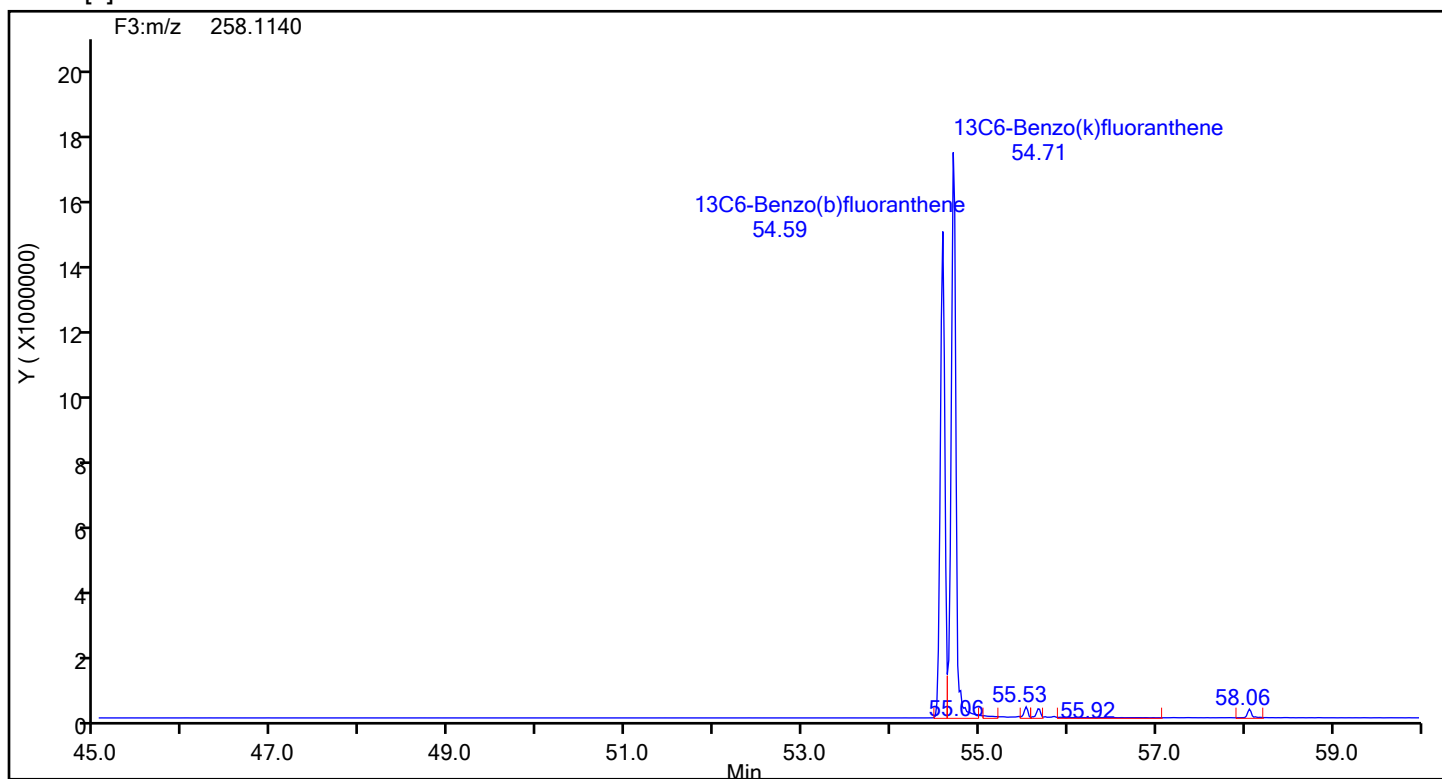
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



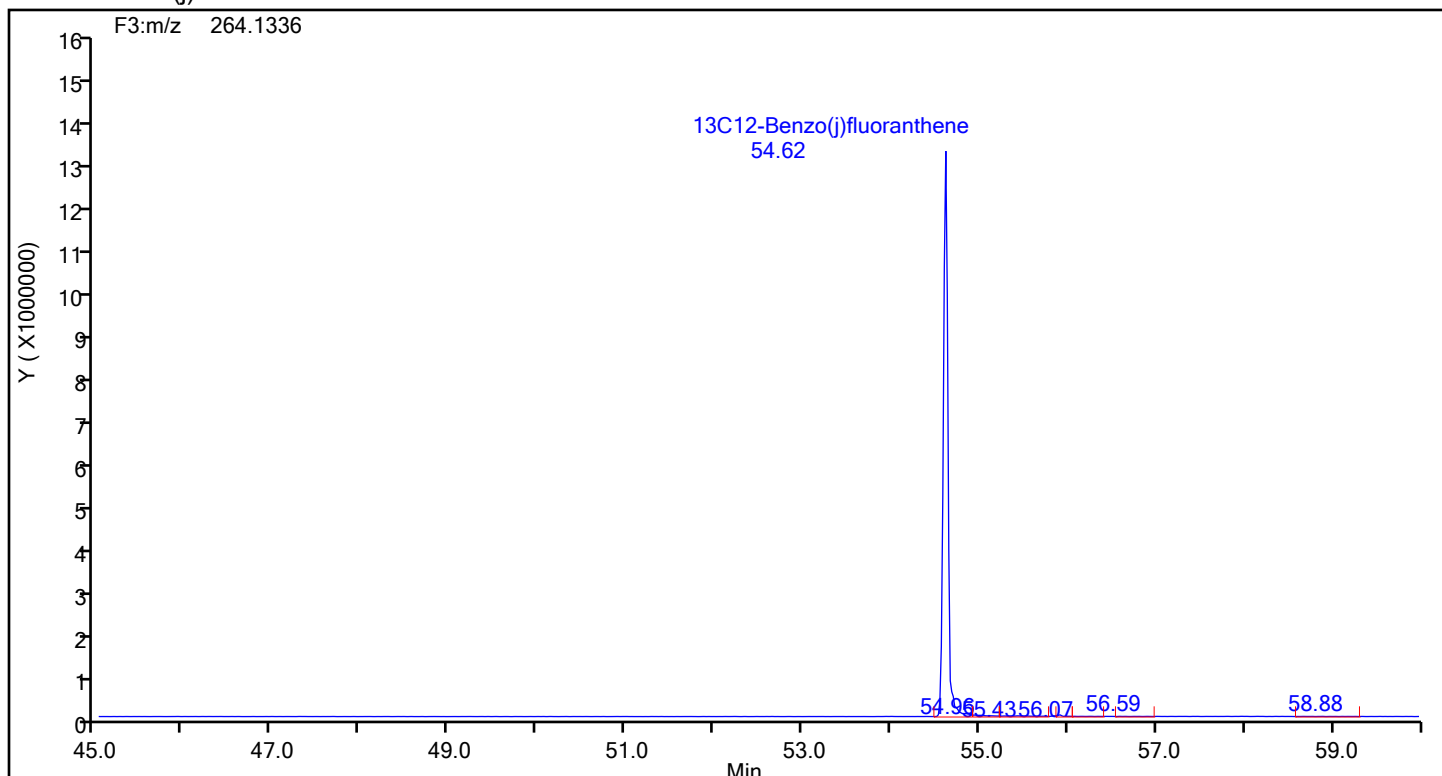
## Benzo[b]fluoranthene Standards



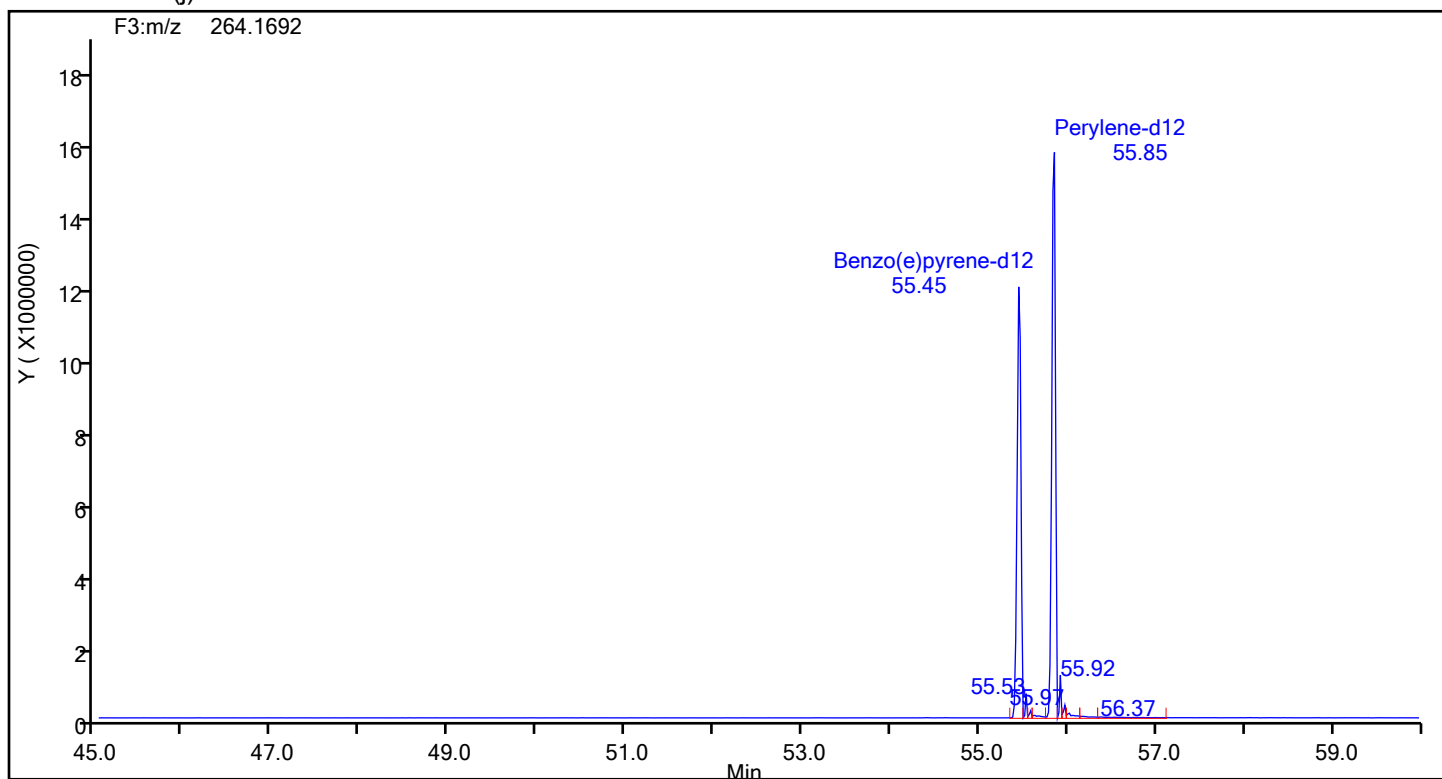
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 13C12-Benzo(j)fluoranthene



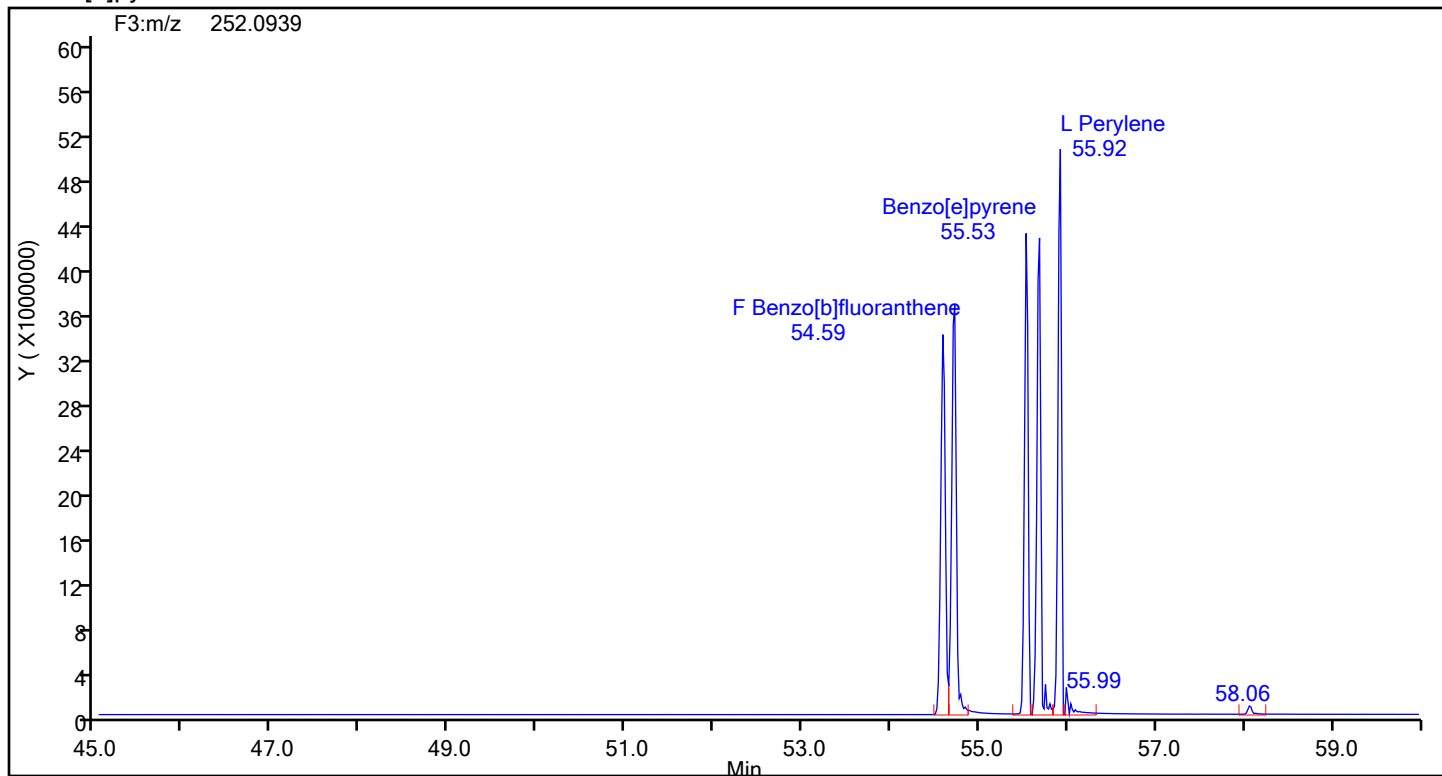
## 13C12-Benzo(j)fluoranthene Standards



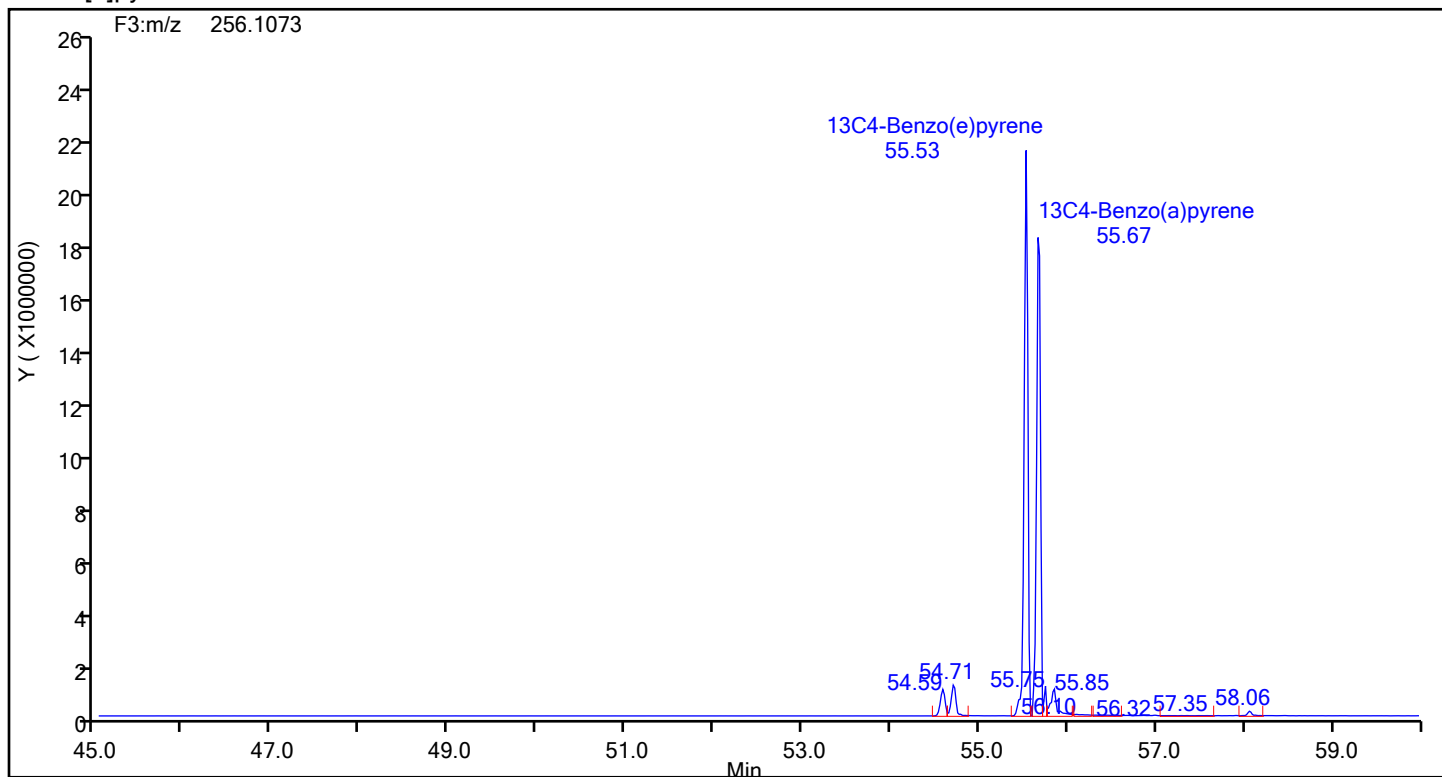
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[e]pyrene



## Benzo[e]pyrene Standards

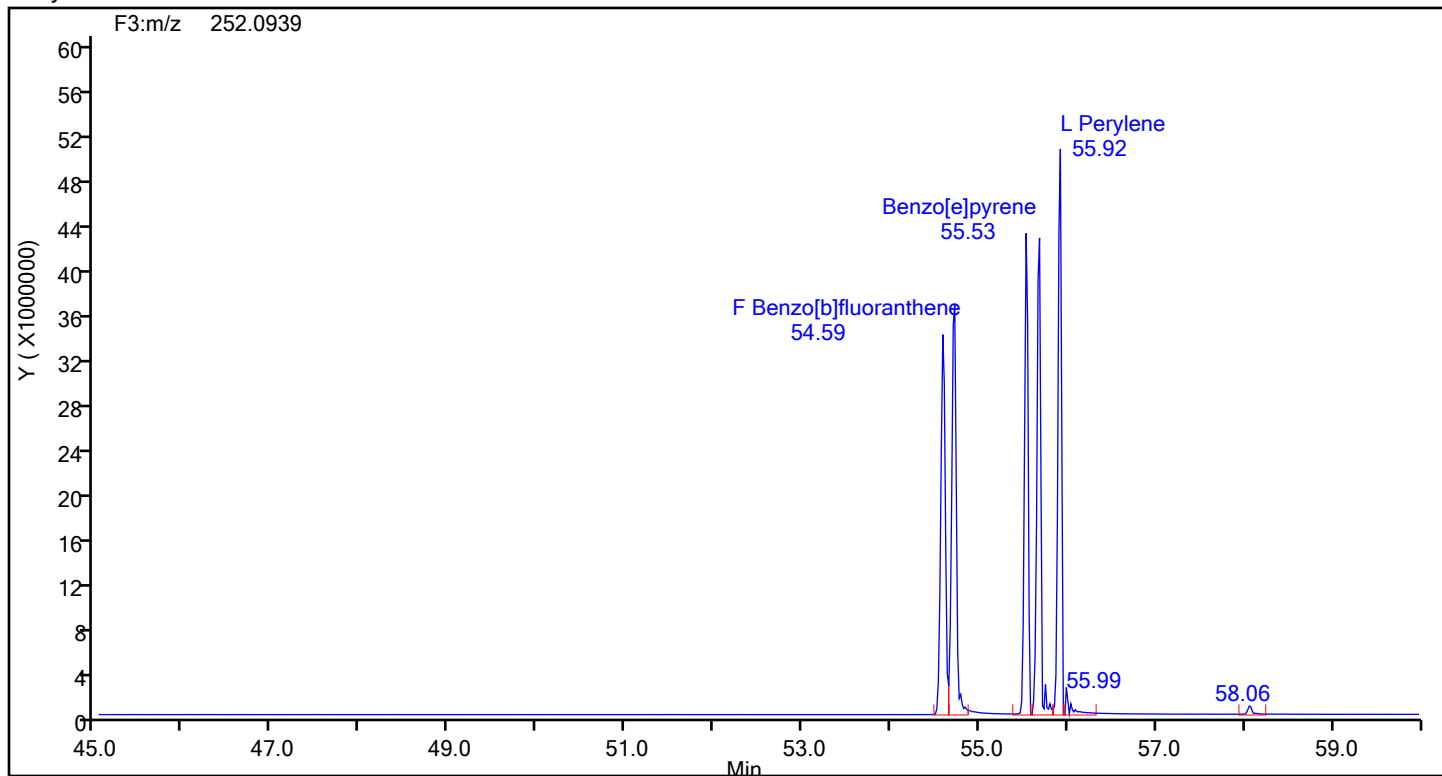




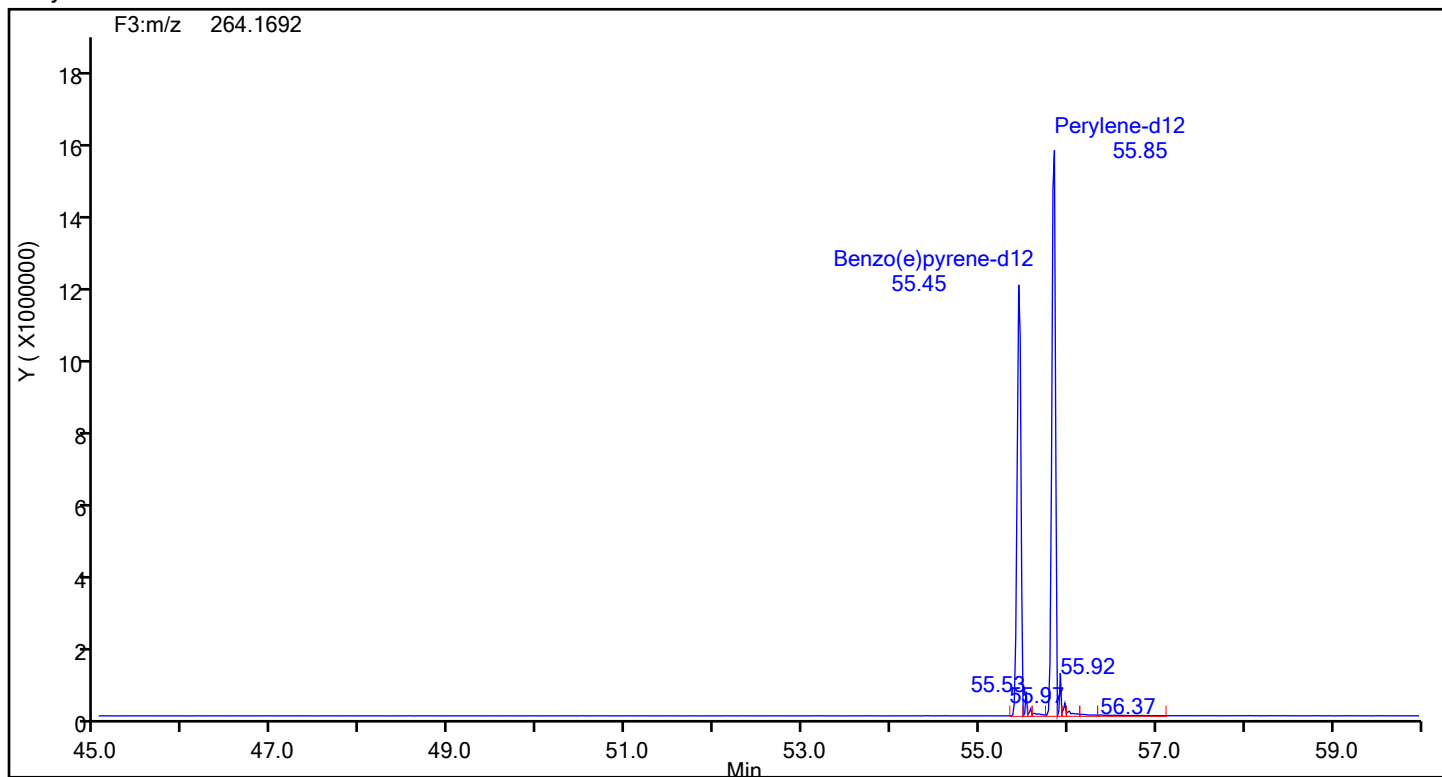
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Perylene



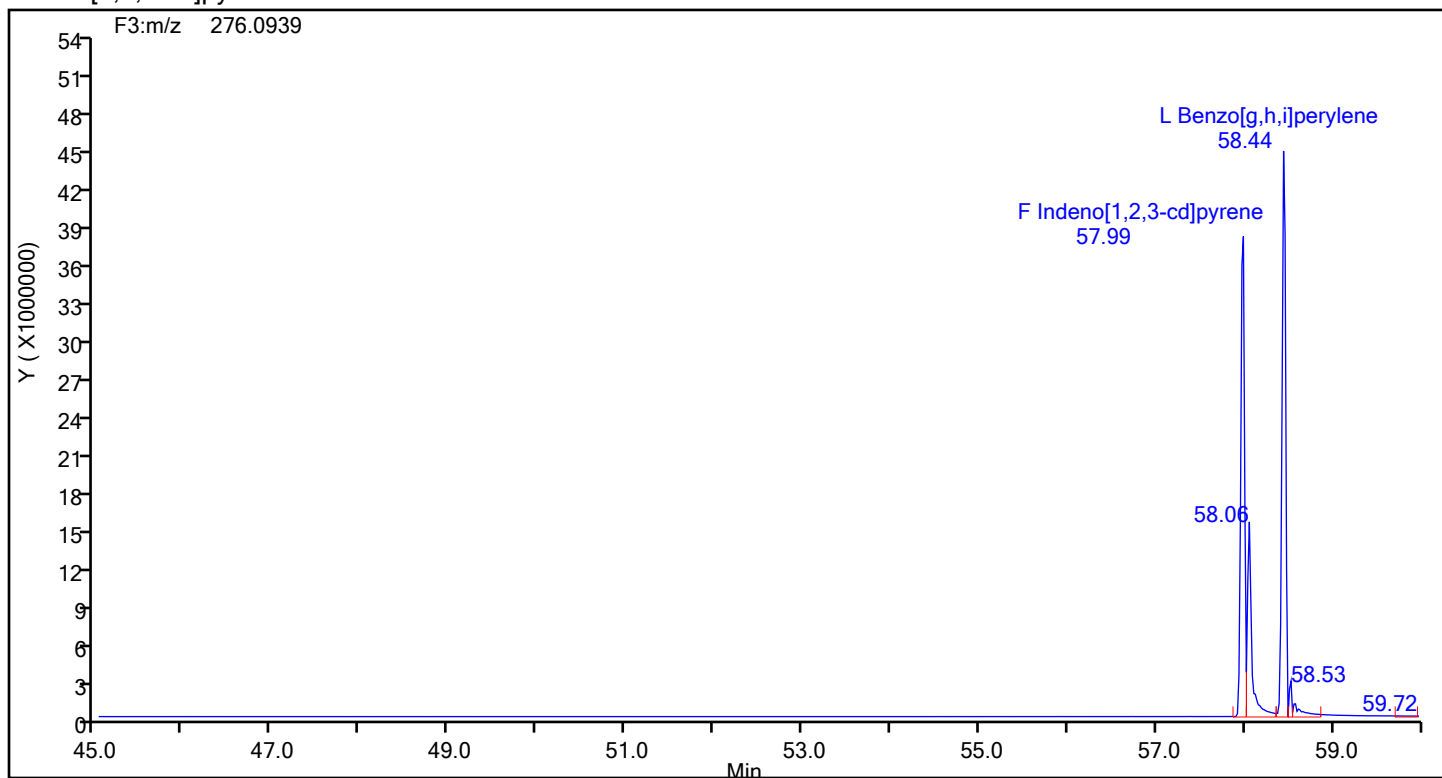
## Perylene Standards



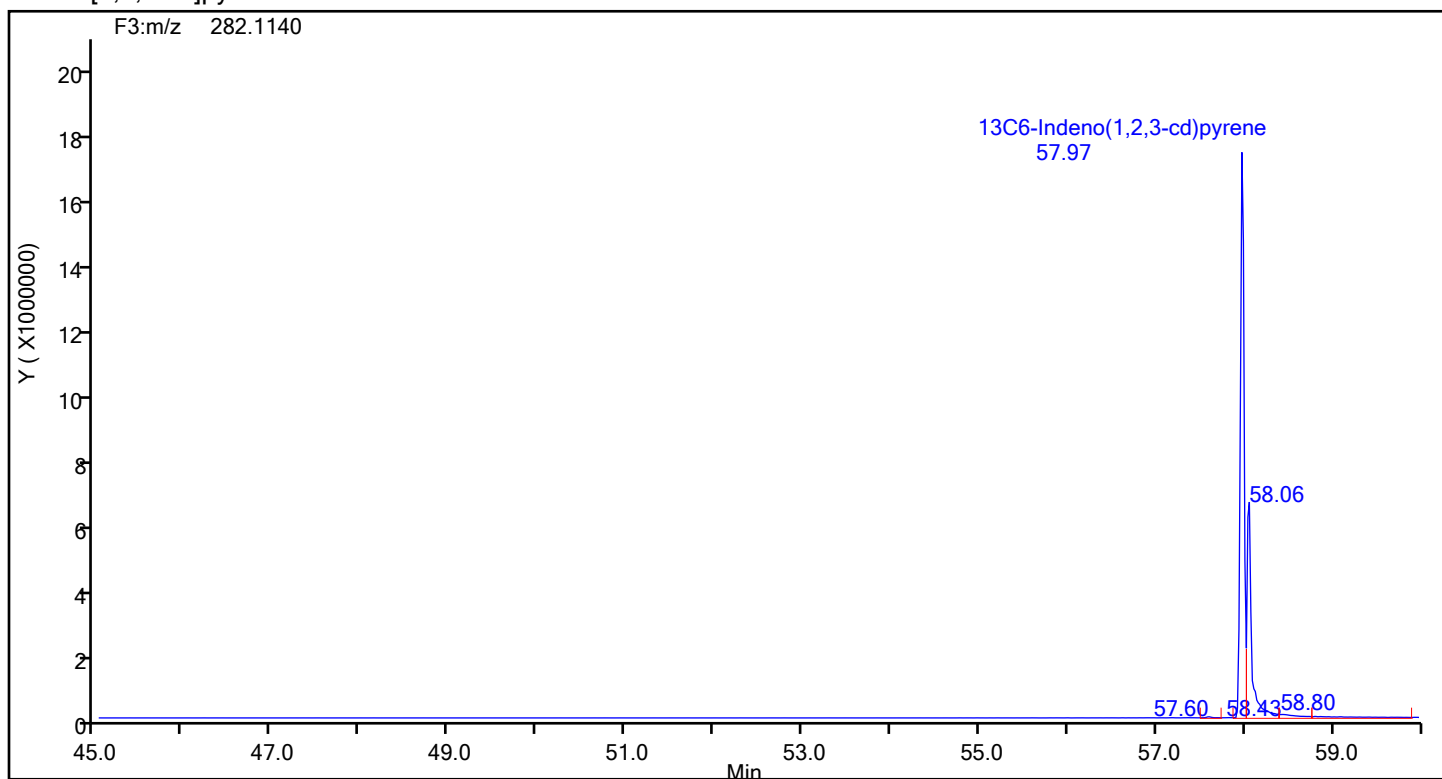
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Indeno[1,2,3-cd]pyrene



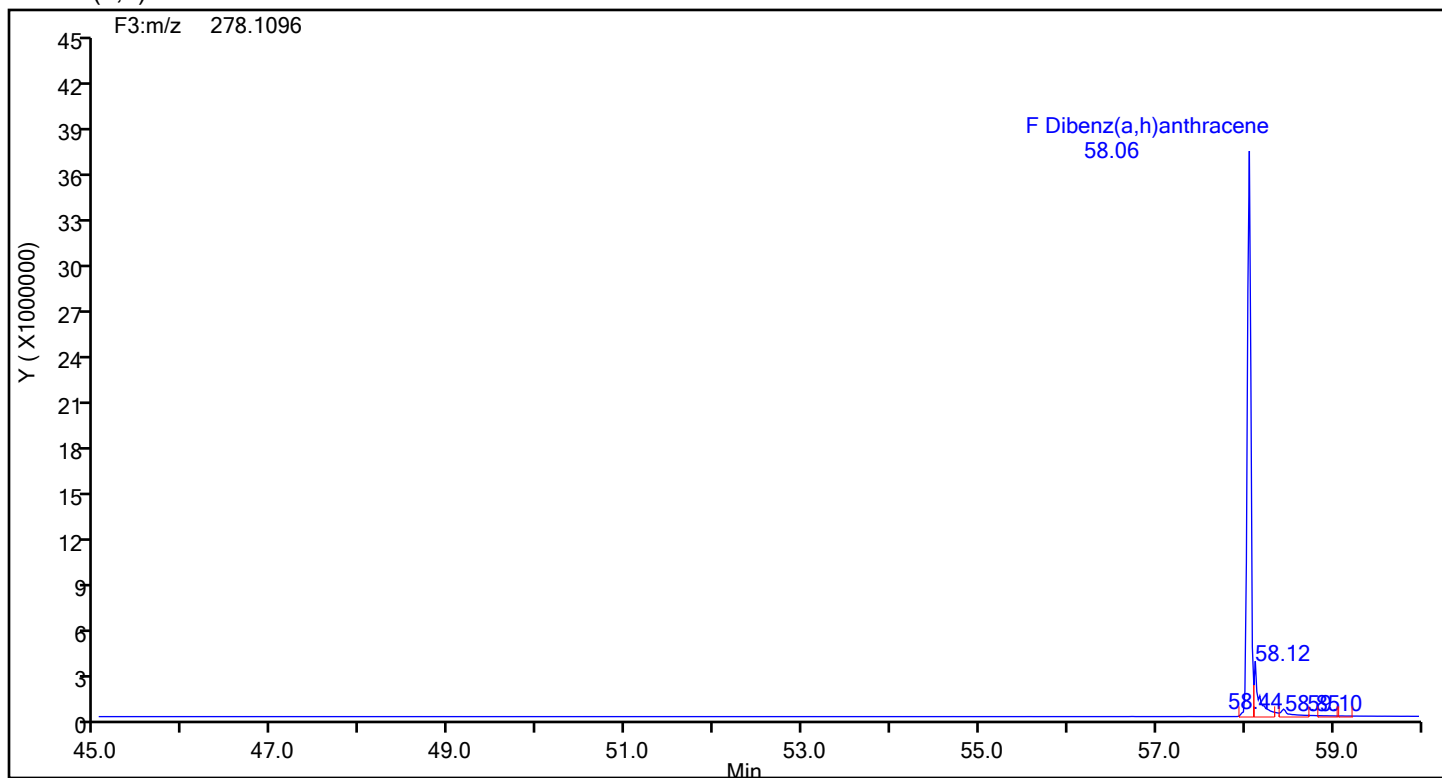
## Indeno[1,2,3-cd]pyrene Standards



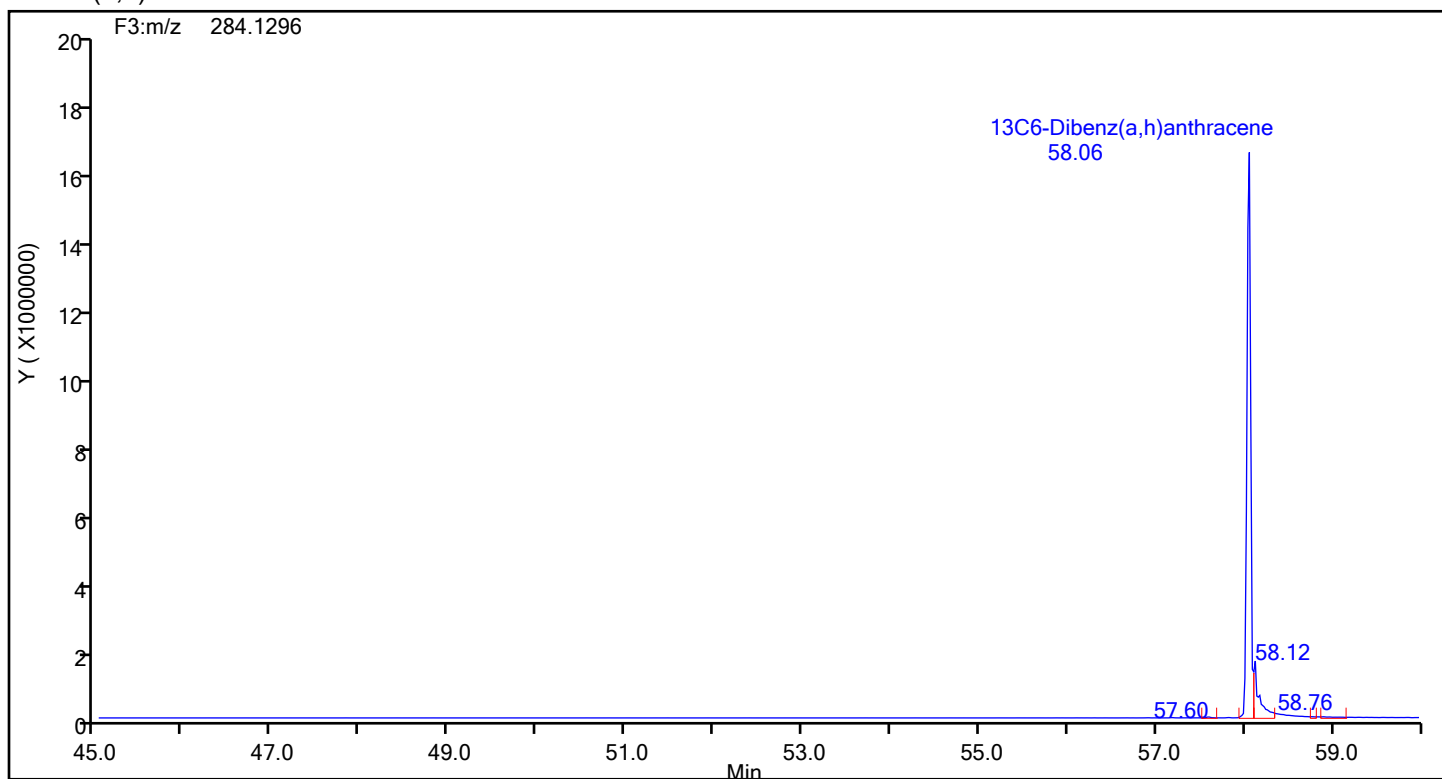
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Dibenz(a,h)anthracene



## Dibenz(a,h)anthracene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d

Injection Date: 22-Jul-2024 23:53:00

Instrument ID: D3PAH

Lims ID: CCV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: EPA\_23\_PAH

Limit Group:

HR - HRP AH ICAL

Column: Restek-5Sil MS 25um ( 0.25 mm)

Detector

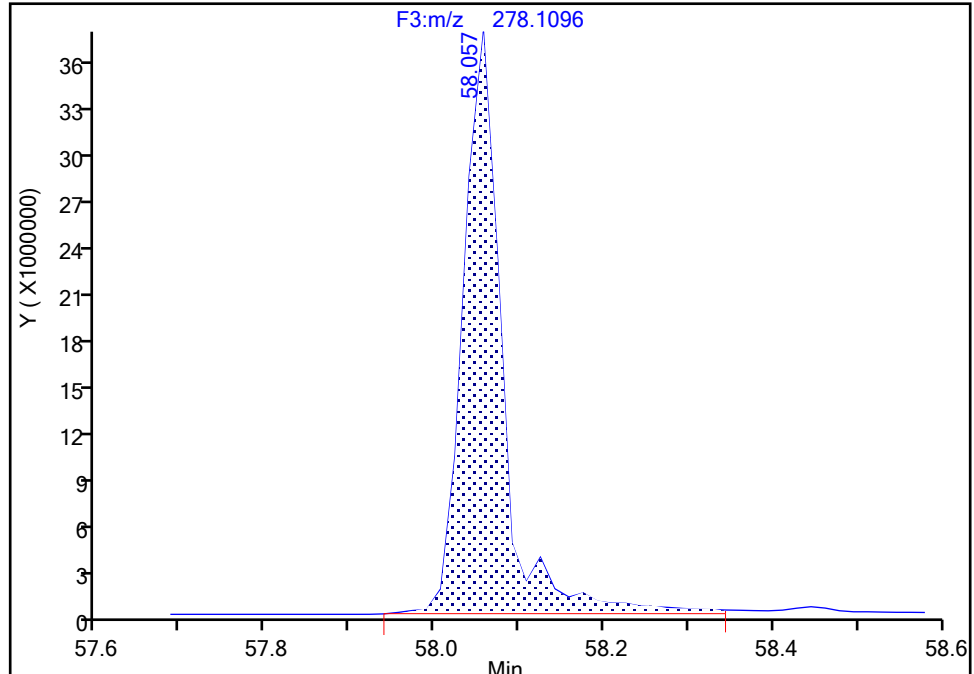
F3(44.04 :59.98 )

**Dibenz(a,h)anthracene, CAS: 53-70-3**

Signal: 1

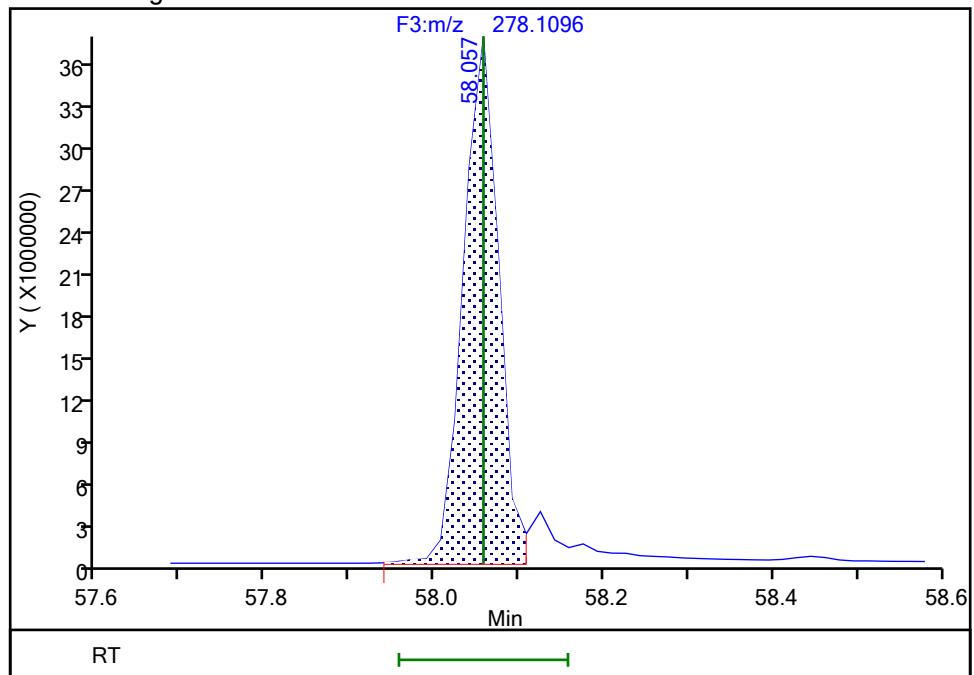
RT: 58.06  
Area: 120400885  
Amount: 219.5082  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.06  
Area: 107652101  
Amount: 196.2653  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 23-Jul-2024 01:00:24 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d

Injection Date: 22-Jul-2024 23:53:00

Instrument ID: D3PAH

Lims ID: CCV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: EPA\_23\_PAH

Limit Group:

HR - HRP AH ICAL

Column: Restek-5Sil MS 25um ( 0.25 mm)

Detector

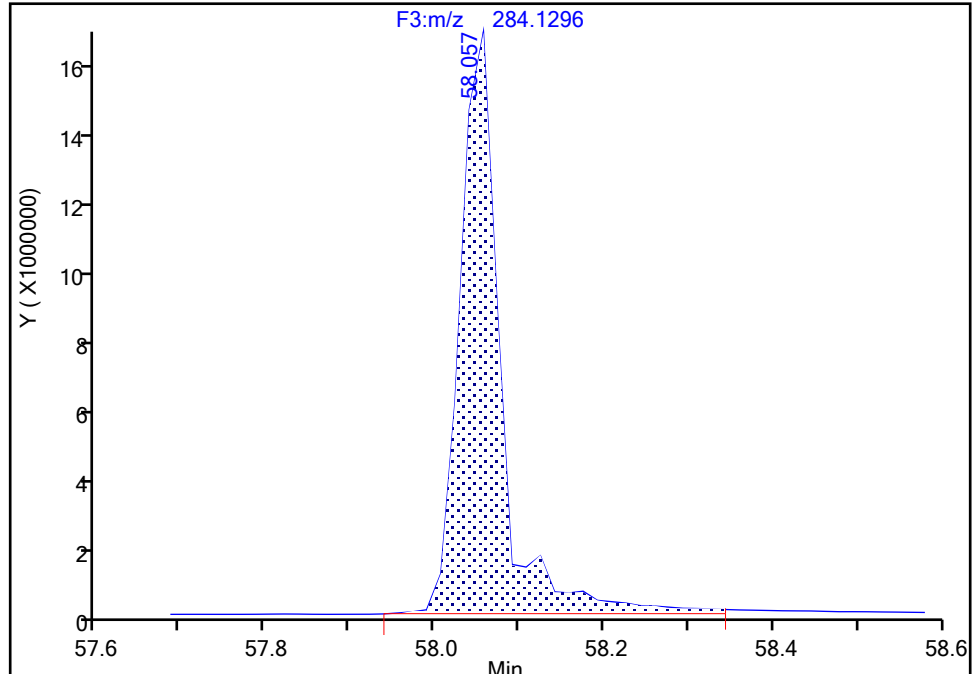
F3(44.04 :59.98 )

**13C6-Dibenz(a,h)anthracene, CAS: ST03360**

Signal: 1

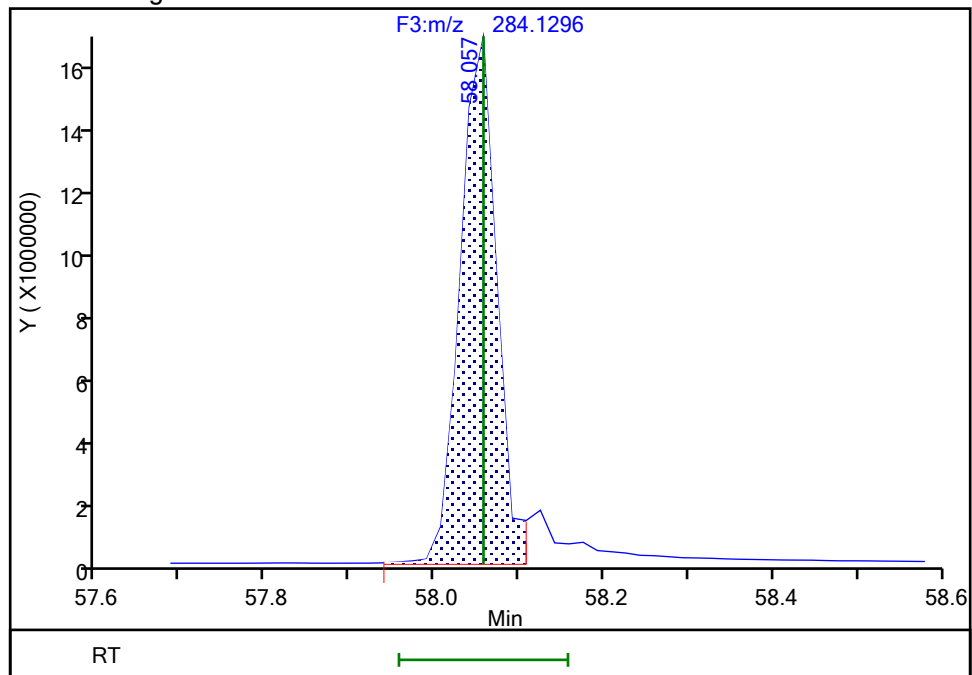
RT: 58.06  
Area: 54270634  
Amount: 142.8661  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.06  
Area: 48481138  
Amount: 127.6254  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 23-Jul-2024 00:58:19 -04:00:00 (UTC)

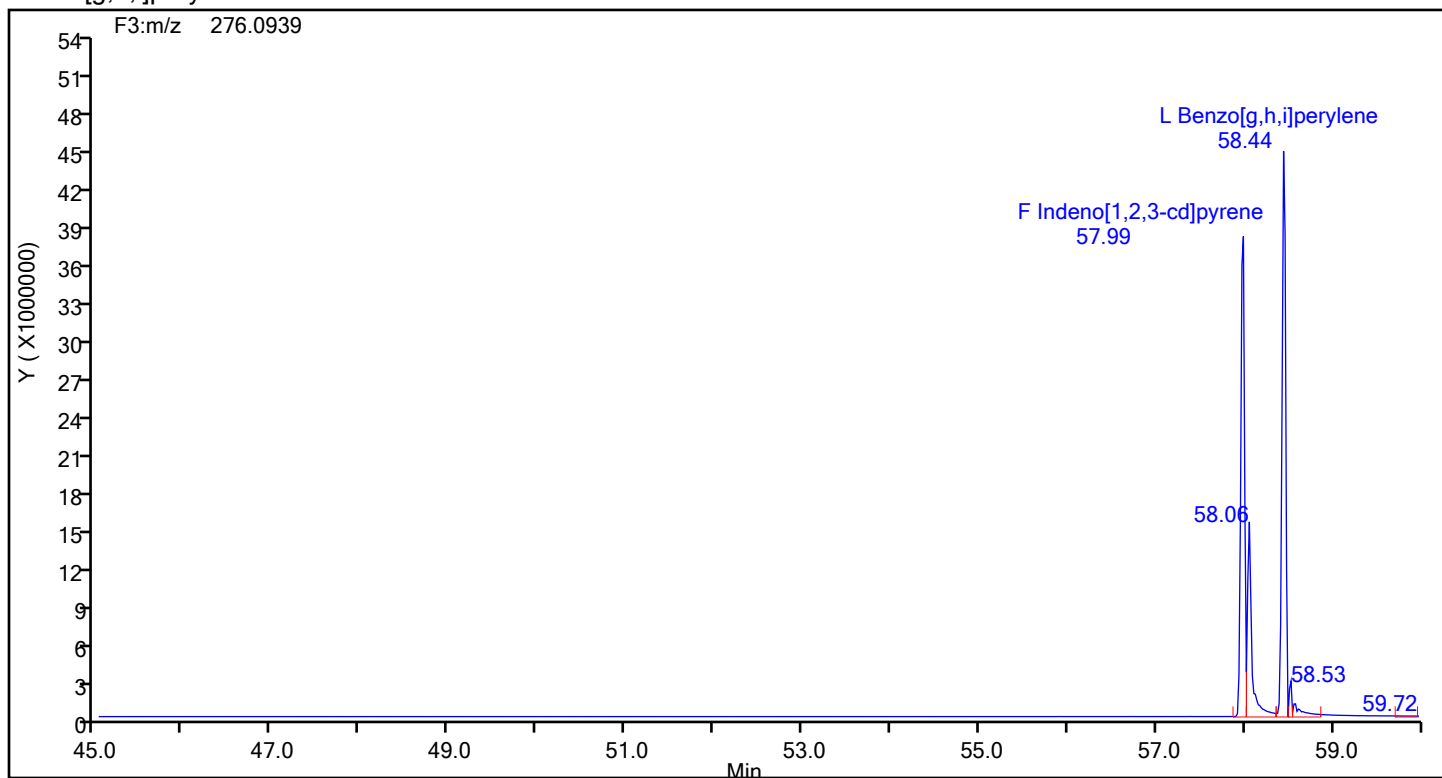
Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

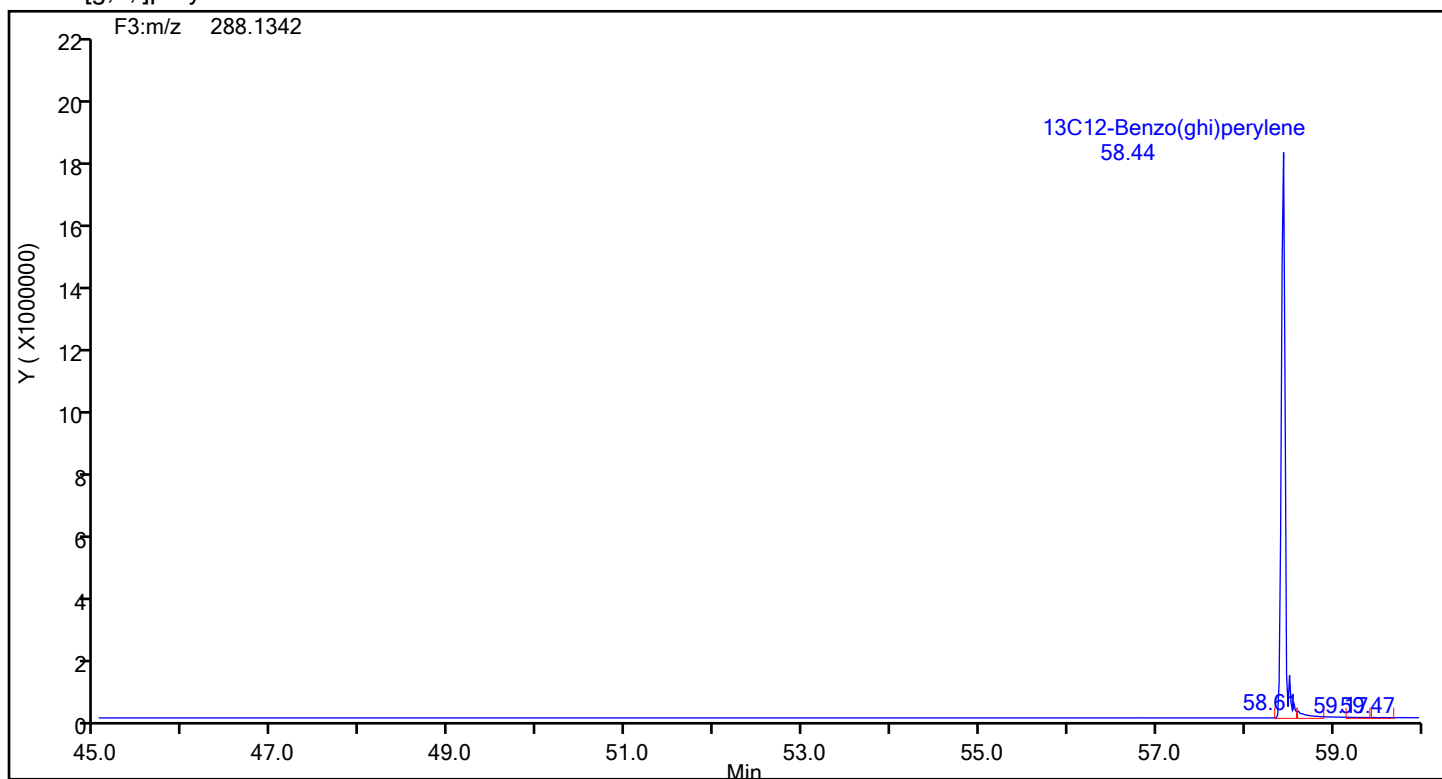
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240722-33622.b\d3240722c2a.d  
Injection Date: 22-Jul-2024 23:53:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 89076 Sample Line#: 1  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[g,h,i]perylene



## Benzo[g,h,i]perylene Standards



FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>MB 140-88192/21-B</u>
Matrix: <u>Air</u>	Lab File ID: <u>mb140-8819221-b_20240719005604</u>
Analysis Method: <u>23</u>	Date Collected: _____
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/19/2024 00:57</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88945</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
91-20-3	Naphthalene	1119		75.0	75.0	0.0862
91-57-6	2-Methylnaphthalene	20.85	J	75.0	75.0	0.0421
208-96-8	Acenaphthylene	0.6786	J	3.00	3.00	0.0314
83-32-9	Acenaphthene	8.559	J	30.0	30.0	0.0426
86-73-7	Fluorene	7.319	J	30.0	30.0	0.0447
85-01-8	Phenanthrene	18.18		6.00	6.00	0.0509
120-12-7	Anthracene	0.6294	J	30.0	30.0	0.0484
206-44-0	Fluoranthene	15.46		6.00	6.00	0.0445
129-00-0	Pyrene	55.75		6.00	6.00	0.0418
56-55-3	Benzo[a]anthracene	0.1461	J	6.00	6.00	0.0525
218-01-9	Chrysene	1.403	J	6.00	6.00	0.0542
205-99-2	Benzo[b]fluoranthene	0.7774	J	30.0	30.0	0.00941
207-08-9	Benzo[k]fluoranthene	0.1864	J	6.00	6.00	0.00948
192-97-2	Benzo[e]pyrene	1.607	J	6.00	6.00	0.00870
50-32-8	Benzo[a]pyrene	1.130	J	3.00	3.00	0.00791
198-55-0	Perylene	0.3756	J	3.00	3.00	0.00747
193-39-5	Indeno[1,2,3-cd]pyrene	0.9852	J	3.00	3.00	0.00865
53-70-3	Dibenz(a,h)anthracene	0.1901	J	6.00	6.00	0.00432
191-24-2	Benzo[g,h,i]perylene	4.009	J	6.00	6.00	0.00706

FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>MB 140-88192/21-B</u>
Matrix: <u>Air</u>	Lab File ID: <u>mb140-8819221-b_20240719005604</u>
Analysis Method: <u>23</u>	Date Collected: _____
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/19/2024 00:57</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88945</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02217	13C6-Naphthalene	72		20-130
STL03357	13C6-2-Methylnaphthalene	67		20-130
189811-56-1	13C6-Acenaphthylene	93		20-130
189811-57-2	13C6-Acenaphthene	84		20-130
STL00616	13C6-Fluorene	96		20-130
1397194-60-3	13C6-Fluoranthrene	93		20-130
1397214-90-2	13C3-Pyrene	94		20-130
917378-11-1	13C6-Benzo (a) anthracene	78		20-130
1397177-72-8	13C6-Chrysene	76		20-130
STL03358	13C6-Benzo (b) fluoranthene	96		20-130
1397194-60-3	13C6-Benzo (k) fluoranthene	94		20-130
STL03382	13C4-Benzo (e) pyrene	87		20-130
STL03359	13C4-Benzo (a) pyrene	89		20-130
1520-96-3	Perylene-d12	92		20-130
362044-56-2	13C6-Indeno (1,2,3-cd) pyrene	99		20-130
STL03360	13C6-Dibenz (a,h) anthracene	99		20-130
350820-11-0	13C12-Benzo (ghi) perylene	86		20-130
189811-60-7	13C6-Anthracene	92		20-130
1189955-53-0	13C6-Phenanthrene	79		20-130



Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Lims ID: MB 140-88192/21-B  
Client ID:  
Sample Type: MB  
Inject. Date: 19-Jul-2024 00:57:00 ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033572-006  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 20-Jul-2024 10:15:05 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1689

First Level Reviewer: TT6I

Date: 20-Jul-2024 10:15:05

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:23	23801382		3.3746	72.2	72.2	0.005475	0.005475	72.24	
Naphthalene	11:24	228928425		1.2893	746.0	746.0	0.0575	0.0575		
D 13C6-2-Methylnaphthalene	13:46	10428265		1.6031	66.6	66.6	0.001256	0.001256	66.63	
2-Methylnaphthalene	13:46	1853158		1.2786	13.9	13.9	0.0281	0.0281		
D 13C6-Acenaphthylene	16:38	15059325		1.6520	93.4	93.4	0.001546	0.001546	93.36	
Acenaphthylene	16:38	86208		2.3661	0.4524	0.4524	0.0209	0.0209		
* Acenaphthene-d10	17:12	4881786		3.5E+04	50.0	50.0				
D 13C6-Acenaphthene	17:19	8053617		0.9792	84.2	84.2	0.002761	0.002761	84.24	
Acenaphthene	17:19	583444		1.2697	5.706	5.706	0.0284	0.0284		
D 13C6-Fluorene	19:36	8310597		0.8898	95.7	95.7	0.000844	0.000844	95.66	
Fluorene	19:36	508189		1.2532	4.880	4.880	0.0298	0.0298		
D 13C6-Phenanthrene	24:57	11515942		0.5724	79.5	79.5	0.001690	0.001690	79.49	
Phenanthrene	24:57	1541665		1.1044	12.1	12.1	0.0340	0.0340		
\$ Anthracin-d10	25:10						0.000505	0.000505		
D 13C6-Anthracene	25:16	10509286		0.4523	91.8	91.8	0.002139	0.002139	91.80	
Anthracene	25:16	59905		1.3586	0.4196	0.4196	0.0323	0.0323		M
D 13C6-Fluoranthrene	33:39	28335198		1.1994	93.3	93.3	0.0169	0.0169	93.35	
Fluoranthene	33:40	3362179		1.1513	10.3	10.3	0.0297	0.0297		
* Pyrene-d10	35:12	12654264		7.9E+04	50.0	50.0				
D 13C3-Pyrene	35:20	32069833		1.3512	93.8	93.8	0.0206	0.0206	93.78	
Pyrene	35:20	12697269		1.0652	37.2	37.2	0.0278	0.0278		
\$ 13C6-Benzo(c)fluorene	39:05	1090		0.5136	0.008386	0.008386	0.003977	0.003977		
D 13C6-Benzo(a)anthracene	45:51	28825959		1.5189	78.2	78.2	0.0107	0.0107	78.18	
Benzo[a]anthracene	45:52	27346		0.9739	0.0974	0.0974	0.0350	0.0350		M
D 13C6-Chrysene	46:08	30132714		1.6287	76.2	76.2	0.0100	0.0100	76.22	
Chrysene	46:08	276545		0.9815	0.9351	0.9351	0.0361	0.0361		
D 13C6-Benzo(b)fluoranthene	54:30	33968675		1.4621	95.7	95.7	0.001949	0.001949	95.71	
Benzo[b]fluoranthene	54:30	198030		1.1249	0.5182	0.5182	0.006274	0.006274		
\$ 13C12-Benzo(j)fluoranthene	54:32						0.0113	0.0113		
D 13C6-Benzo(k)fluoranthene	54:37	40056551		1.7507	94.3	94.3	0.001628	0.001628	94.26	
Benzo[k]fluoranthene	54:38	56095		1.1271	0.1242	0.1242	0.006317	0.006317		M
* Benzo(e)pyrene-d12	55:24	12137008		5.7E+04	50.0	50.0				
Benzo[e]pyrene	55:29	370222		1.0013	1.071	1.071	0.005801	0.005801		
D 13C4-Benzo(e)pyrene	55:28	34509000		1.6368	86.9	86.9	0.003499	0.003499	86.85	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C4-Benzo(a)pyrene	55:37	33531570		1.5508	89.1	89.1	0.003693	0.003693	89.08	
Benzo[a]pyrene	55:37	281173		1.1130	0.7534	0.7534	0.005272	0.005272		
D Perylene-d12	55:47	26662301		1.1917	92.2	92.2	0.0128	0.0128	92.17	
Perylene	55:52	95514		1.4307	0.2504	0.2504	0.004977	0.004977		M
D 13C6-Indeno(1,2,3-cd)pyrene	57:55	24537881		1.0218	98.9	98.9	0.009082	0.009082	98.93	
Indeno[1,2,3-cd]pyrene	57:56	181295		1.1249	0.6568	0.6568	0.005769	0.005769		
D 13C6-Dibenz(a,h)anthracene	58:00	25258515		1.0553	98.6	98.6	0.004899	0.004899	98.61	
Dibenz(a,h)anthracene	58:00	36216		1.1314	0.1267	0.1267	0.002882	0.002882		M
D 13C12-Benzo(ghi)perylene	58:23	26730705		1.2749	86.4	86.4	0.001248	0.001248	86.38	M
Benzo[g,h,i]perylene	58:23	917159		1.2838	2.673	2.673	0.004709	0.004709		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Lims ID: MB 140-88192/21-B  
Client ID:  
Sample Type: MB  
Inject. Date: 19-Jul-2024 00:57:00 ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033572-006  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 20-Jul-2024 10:15:05 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1689

First Level Reviewer: TT61

Date: 20-Jul-2024 10:15:05

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:23	11:25	-3	0.662	23801382	8288289	246	615	33692		
Naphthalene											
128.0626	11:24	11:24	-2	1.001	228928425	80163586	2456	6140	32640		
13C6-2-Methylnaphthalene											
148.0984	13:46	13:46	-1	0.801	10428265	4815760	27	67	178362		
2-Methylnaphthalene											
142.0783	13:46	13:46	-1	1.000	1853158	814659	692	1730	1177		
13C6-Acenaphthylene											
158.0828	16:38	16:36	-1	0.967	15059325	5182501	34	85	152427		
Acenaphthylene											
152.0626	16:38	16:39	-1	1.000	86208	25104	530	1325	47		
Acenaphthene-d10											
164.1404	17:12	17:13	-1		4881786	1664223	11	27	151293		
13C6-Acenaphthene											
160.0984	17:19	17:18	-1	1.007	8053617	2673178	36	90	74255		
Acenaphthene											
154.0783	17:19	17:18	-1	1.000	583444	200167	386	965	519		
13C6-Fluorene											
172.0984	19:36	19:34	-1	1.140	8310597	2277301	10	25	227730		
Fluorene											
166.0783	19:36	19:34	-1	1.000	508189	145723	340	850	429		
13C6-Phenanthrene											
184.0984	24:57	24:56	-1	0.709	11515942	2457893	18	45	136550		
Phenanthrene											
178.0783	24:57	24:55	-1	1.000	1541665	346535	369	922	939		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Anthracin-d10	188.1410	25:10					4	10			
13C6-Anthracene	184.0984	25:16	25:15	-1	0.718	10509286	2104012	18	45	116890	
Anthracene	178.0783	25:16	25:16	-1	1.000	59905	14628	369	922	40	M
13C6-Fluoranthrene	208.0984	33:39	33:38	-1	0.956	28335198	5128817	378	945	13568	M
Fluoranthene	202.0783	33:40	33:38	-1	1.000	3362179	605248	701	1752	863	
Pyrene-d10	212.1404	35:12	35:13	-1		12654264	2325638	19	47	122402	
13C3-Pyrene	205.0883	35:20	35:19	-1	1.004	32069833	5907795	519	1297	11383	
Pyrene	202.0783	35:20	35:19	-1	1.000	12697269	2266526	701	1752	3233	
13C6-Benzo(c)fluorene	222.1134	39:05	39:03	2	0.706	1090	521	38	95	14	
13C6-Benzo(a)anthracene	234.1140	45:51	45:49	-1	1.303	28825959	4832022	492	1230	9821	
Benzo[a]anthracene	228.0939	45:52	45:52	0	1.000	27346	5332	659	1647	8	M
13C6-Chrysene	234.1140	46:08	46:05	0	1.311	30132714	4647964	492	1230	9447	M
Chrysene	228.0939	46:08	46:07	-1	1.000	276545	42162	659	1647	64	
13C6-Benzo(b)fluoranthene	258.1140	54:30	54:29	0	0.984	33968675	9139682	86	215	106275	
Benzo[b]fluoranthene	252.0939	54:30	54:30	-1	1.000	198030	41204	258	645	160	
13C12-Benzo(j)fluoranthene	264.1336	54:32					462	1155			
13C6-Benzo(k)fluoranthene	258.1140	54:37	54:37	-1	0.986	40056551	9059554	86	215	105344	
Benzo[k]fluoranthene	252.0939	54:38	54:38	0	1.000	56095	12857	258	645	50	M
Benzo(e)pyrene-d12	264.1692	55:24	55:23	0		12137008	3771545	461	1152	8181	M
Benzo[e]pyrene	252.0939	55:29	55:27	0	1.000	370222	118638	258	645	460	
13C4-Benzo(e)pyrene	256.1073	55:28	55:27	-1	1.001	34509000	11105006	173	432	64191	
13C4-Benzo(a)pyrene	256.1073	55:37	55:35	0	1.004	33531570	10992110	173	432	63538	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Benzo[a]pyrene											
252.0939	55:37	55:37	-1	1.000	281173	76431	258	645	296		
Perylene-d12											
264.1692	55:47	55:46	-1	1.007	26662301	9058346	461	1152	19649		
Perylene											
252.0939	55:52	55:52	0	1.002	95514	23773	258	645	92		M
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	57:55	57:55	-1	1.046	24537881	7936026	280	700	28343		
Indeno[1,2,3-cd]pyrene											
276.0939	57:56	57:55	0	1.000	181295	50472	206	515	245		
13C6-Dibenz(a,h)anthracene											
284.1296	58:00	57:59	0	1.047	25258515	6962397	156	390	44631		
Dibenz(a,h)anthracene											
278.1096	58:00	58:00	0	1.000	36216	9268	91	227	102		M
13C12-Benzo(ghi)perylene											
288.1342	58:23	58:23	0	1.054	26730705	8520023	48	120	177501		M
Benzo[g,h,i]perylene											
276.0939	58:23	58:23	-1	1.000	917159	298692	206	515	1450		M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d

Injection Date: 19-Jul-2024 00:57:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

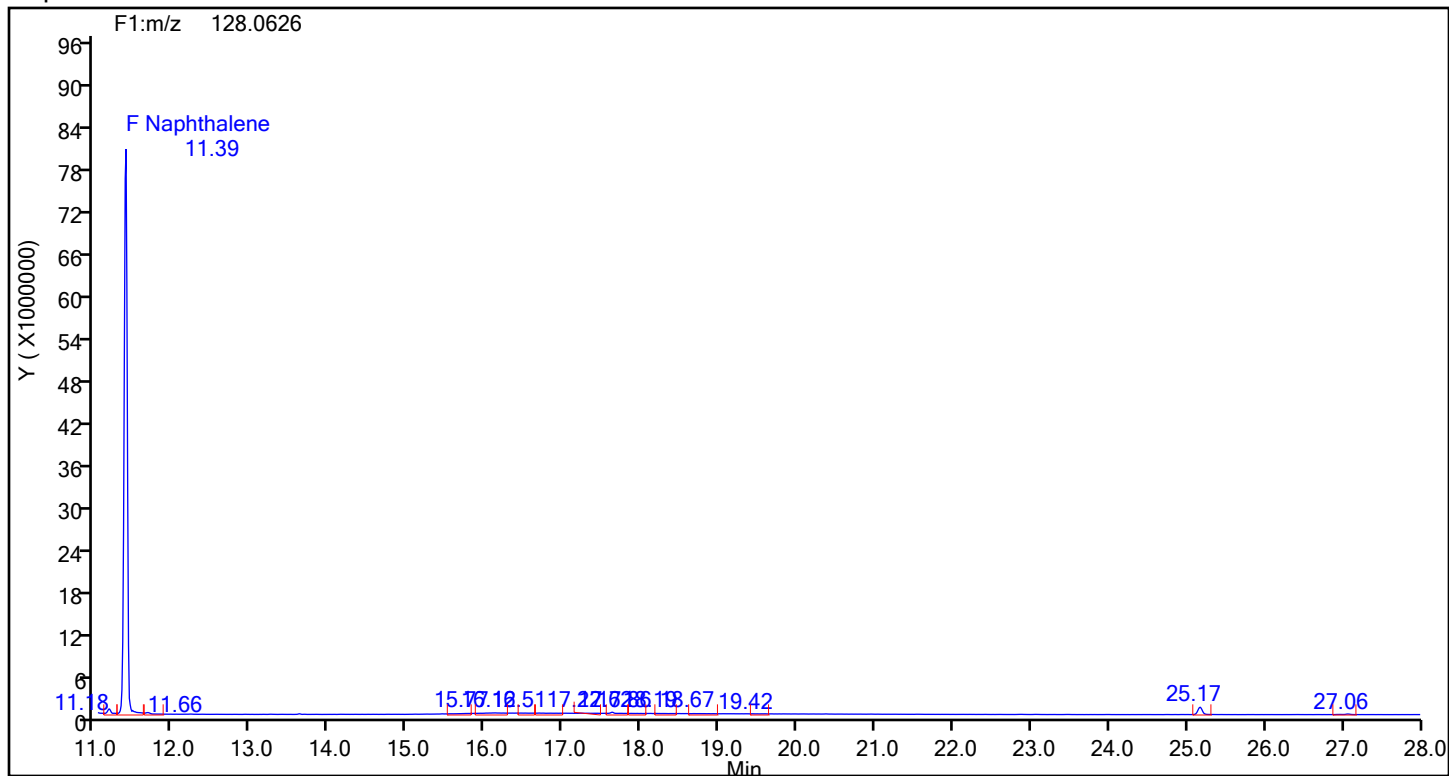
Worklist#: 88945

Sample Line#: 6

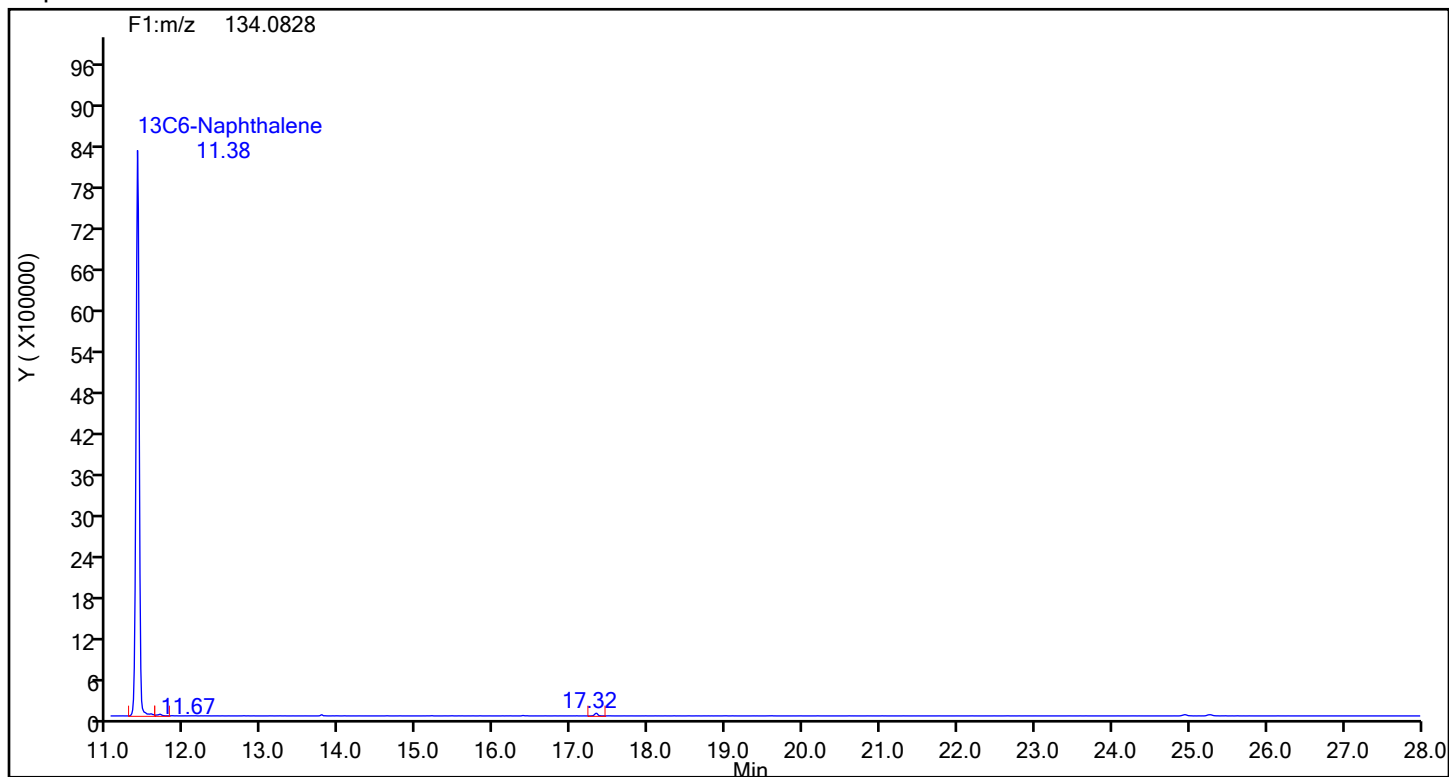
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Naphthalene



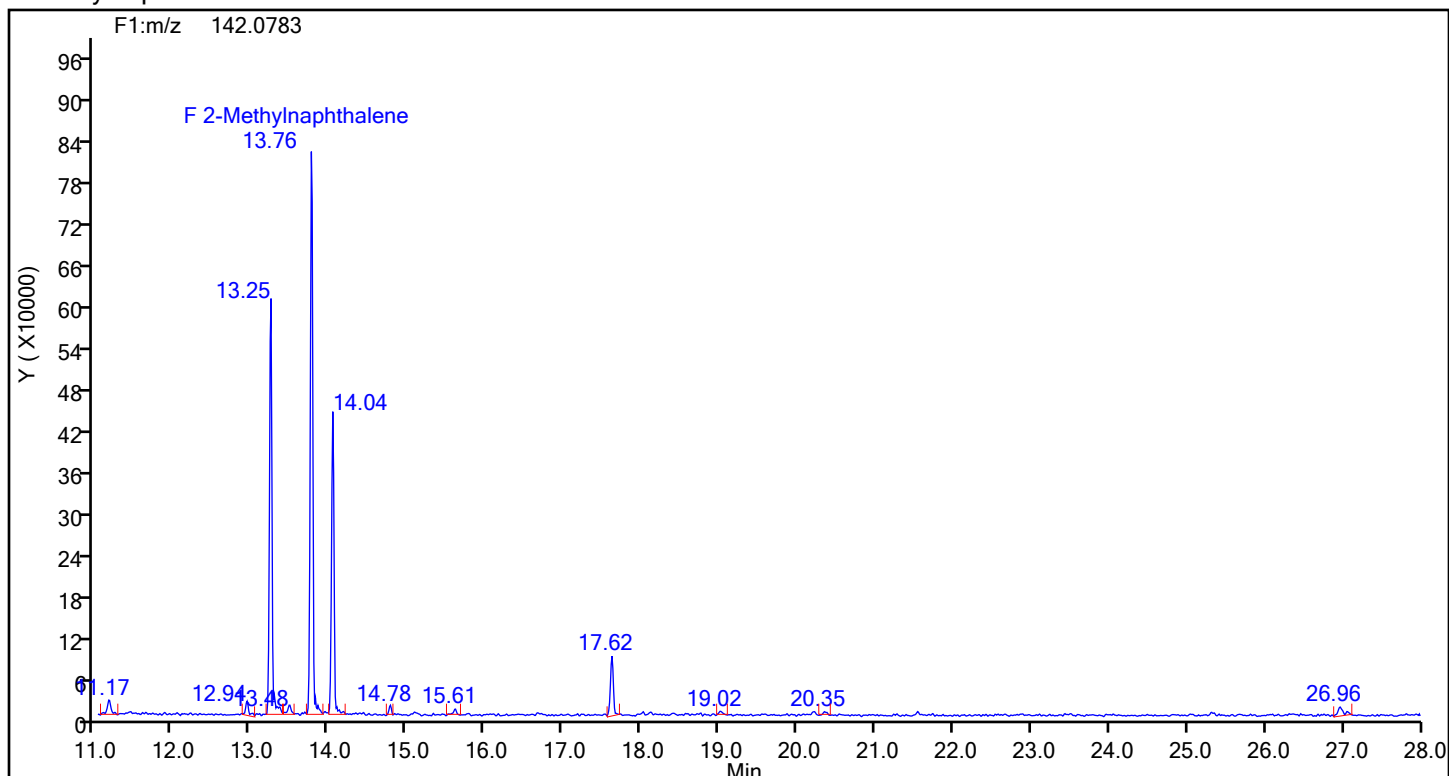
## Naphthalene Standards



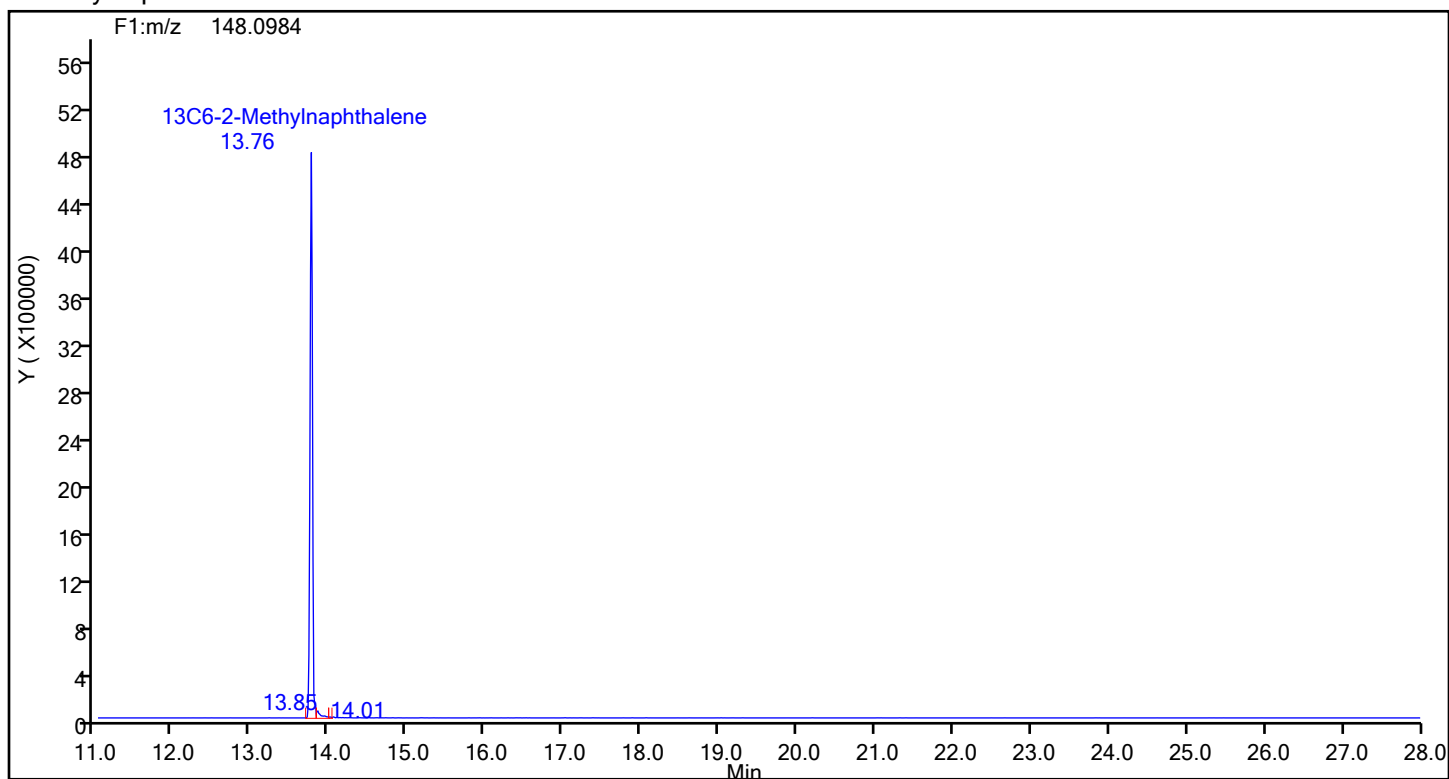
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Injection Date: 19-Jul-2024 00:57:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88945 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



## 2-Methylnaphthalene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d

Injection Date: 19-Jul-2024 00:57:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

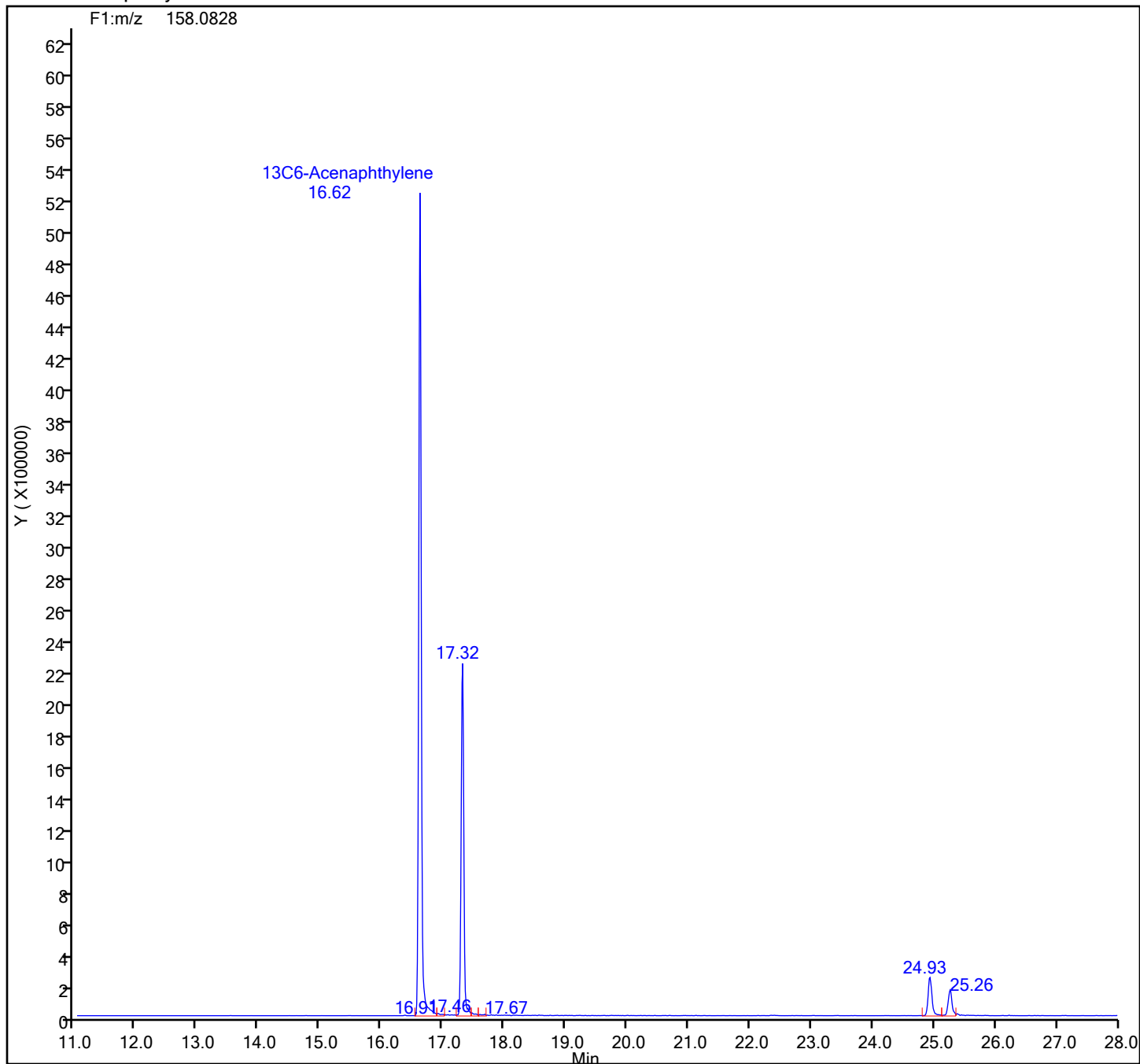
Worklist#: 88945

Sample Line#: 6

Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## 13C6-Acenaphthylene Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d

Injection Date: 19-Jul-2024 00:57:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

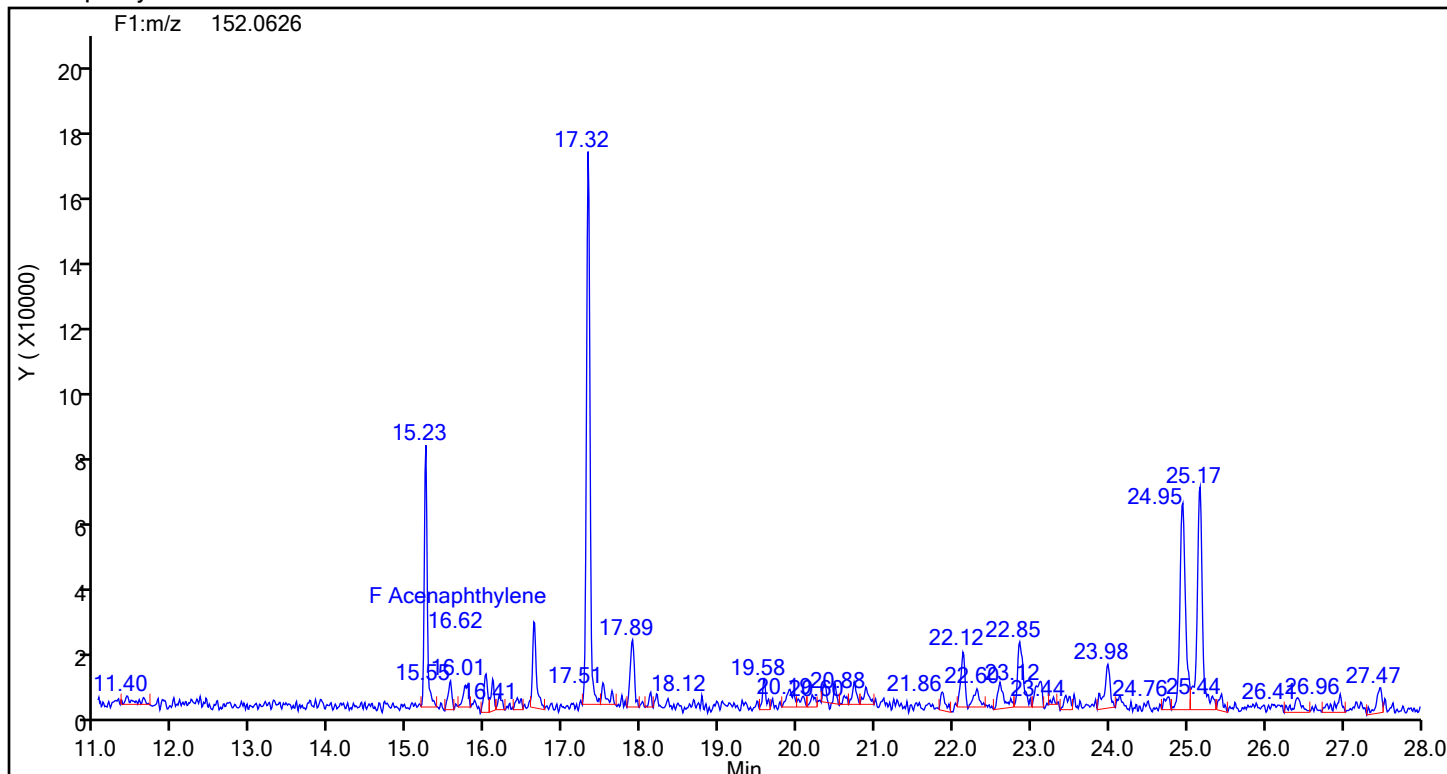
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Sample Line#: 6

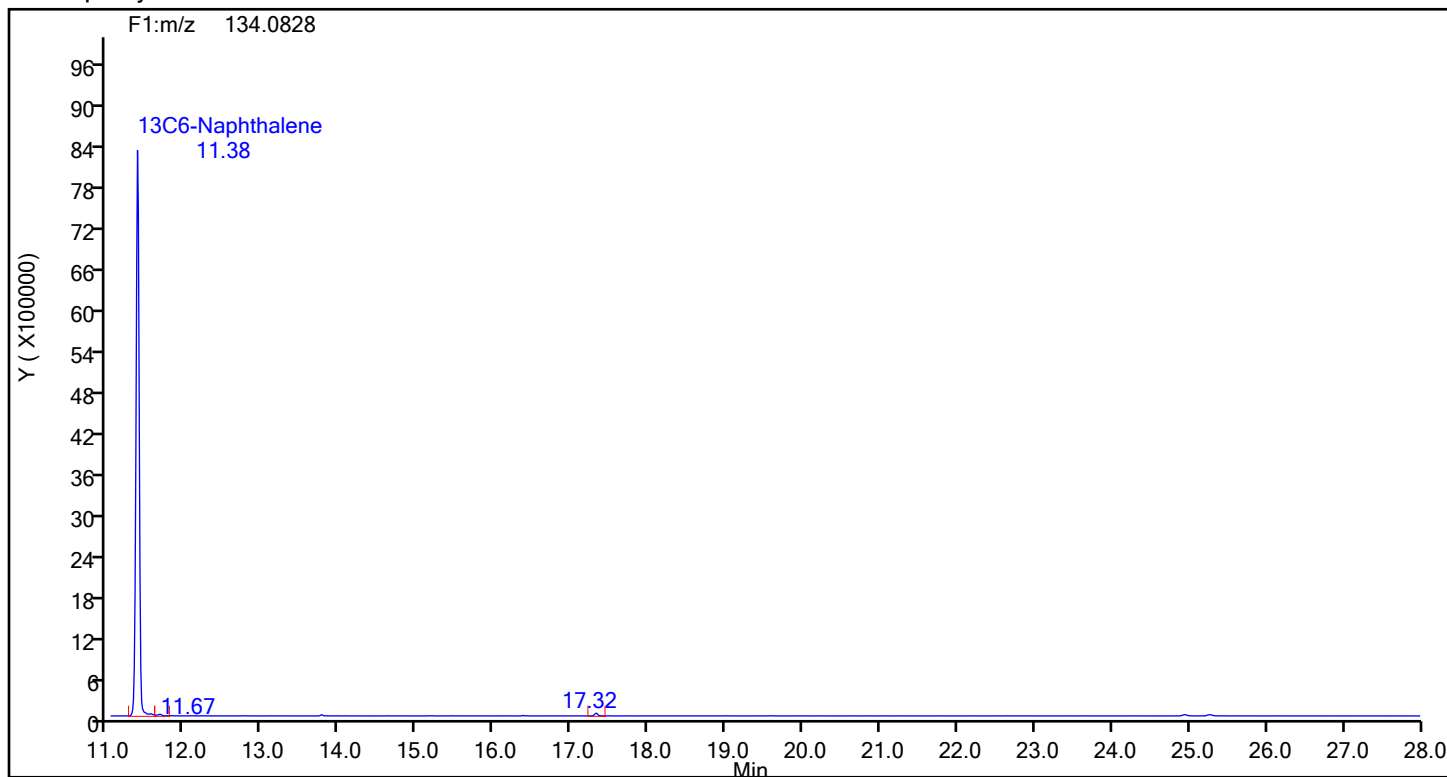
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Acenaphthylene



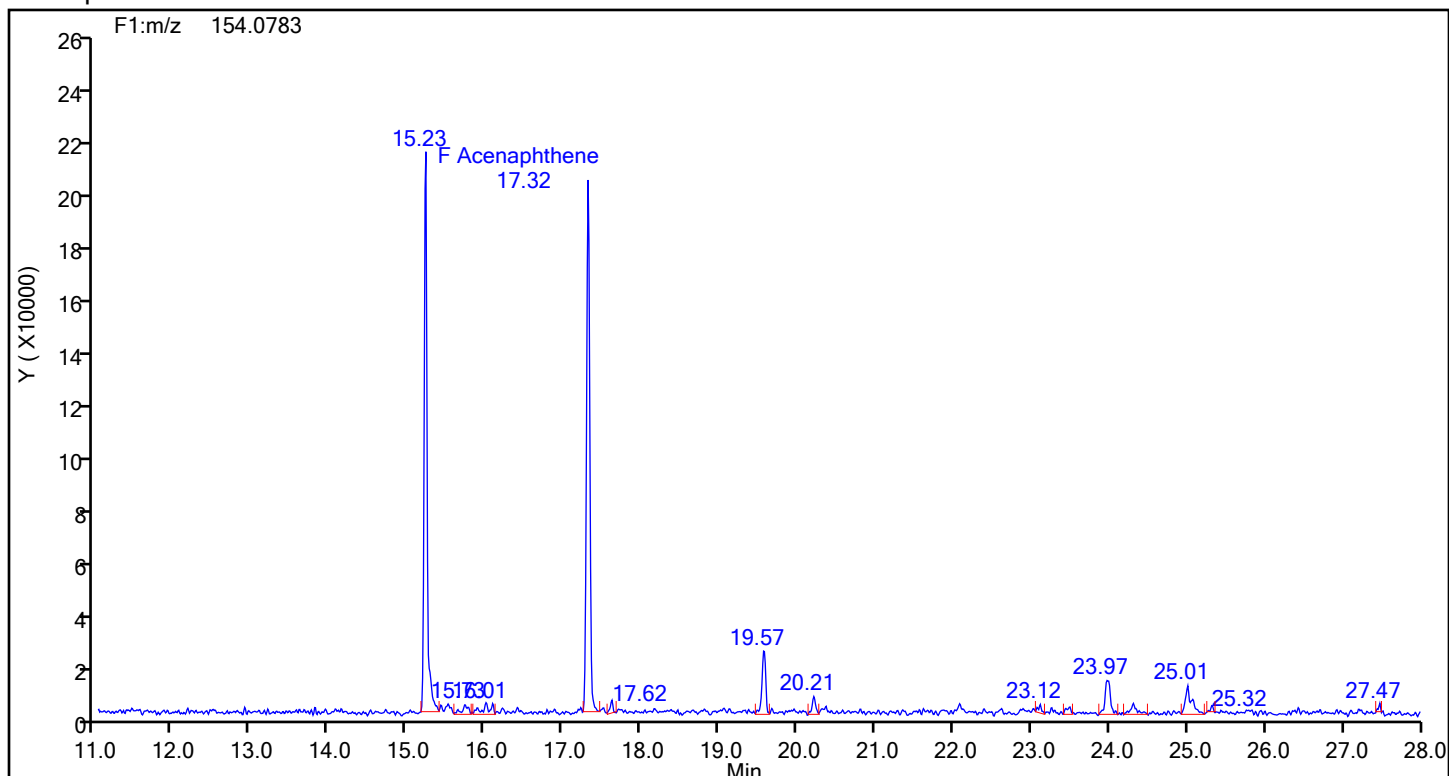
## Acenaphthylene Standards



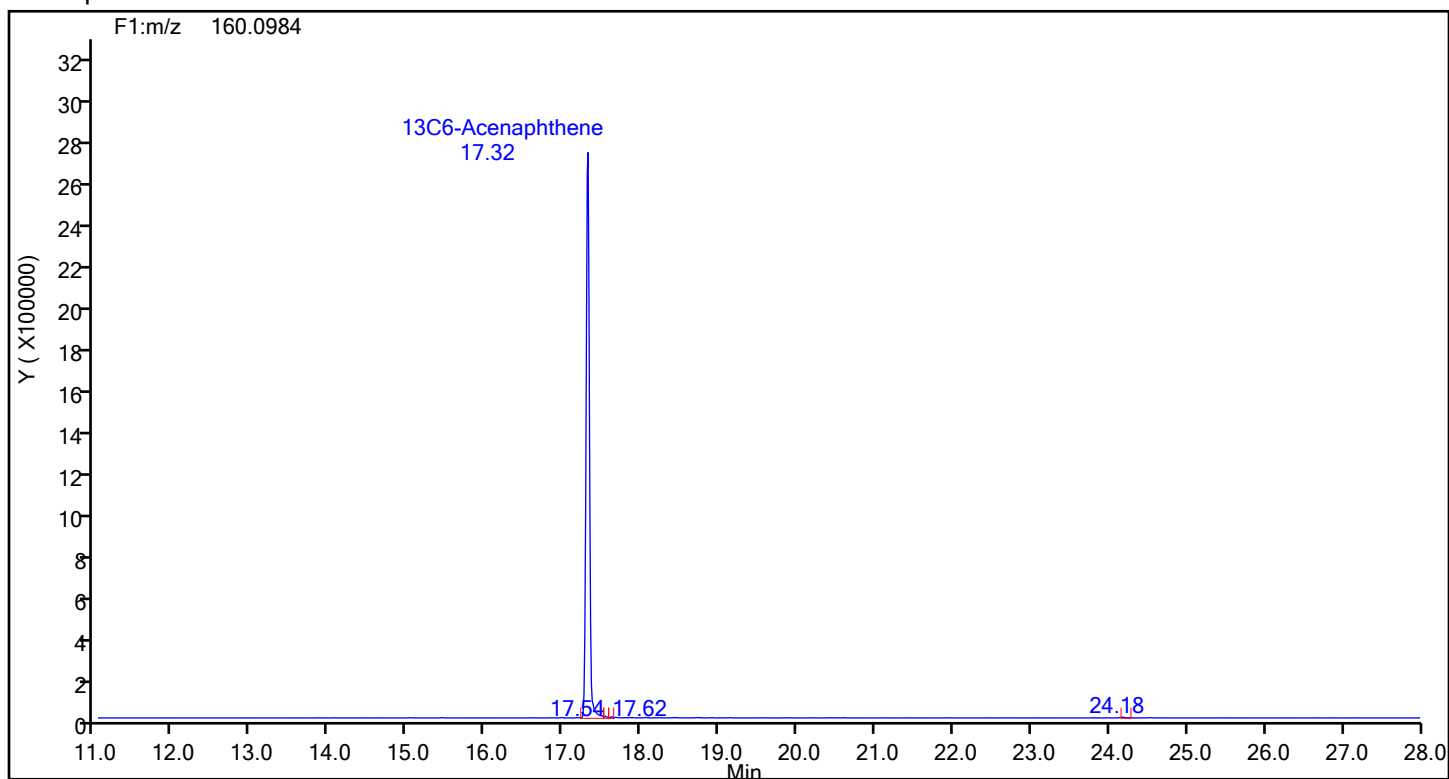
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Injection Date: 19-Jul-2024 00:57:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88945 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



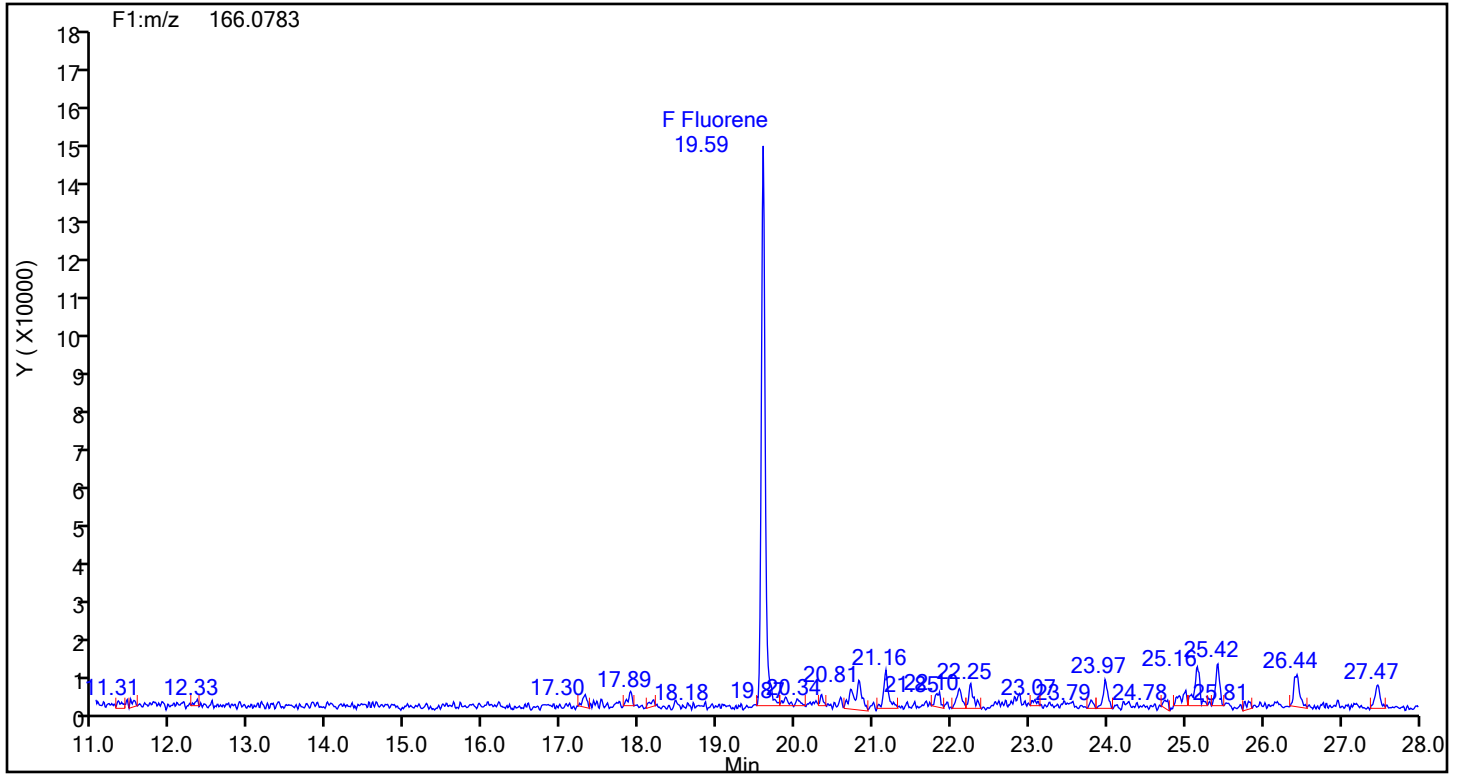
## Acenaphthene Standards



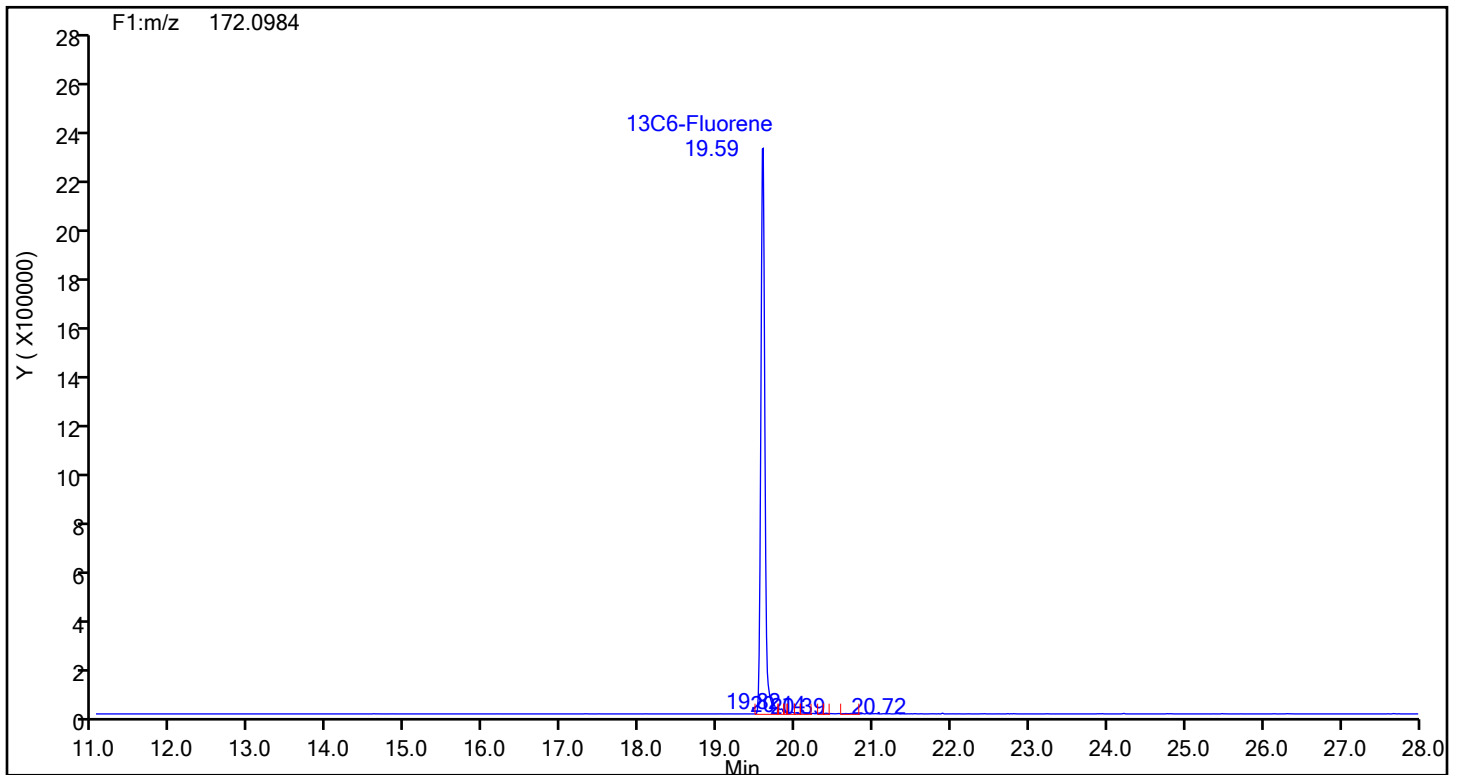
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Injection Date: 19-Jul-2024 00:57:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88945 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene

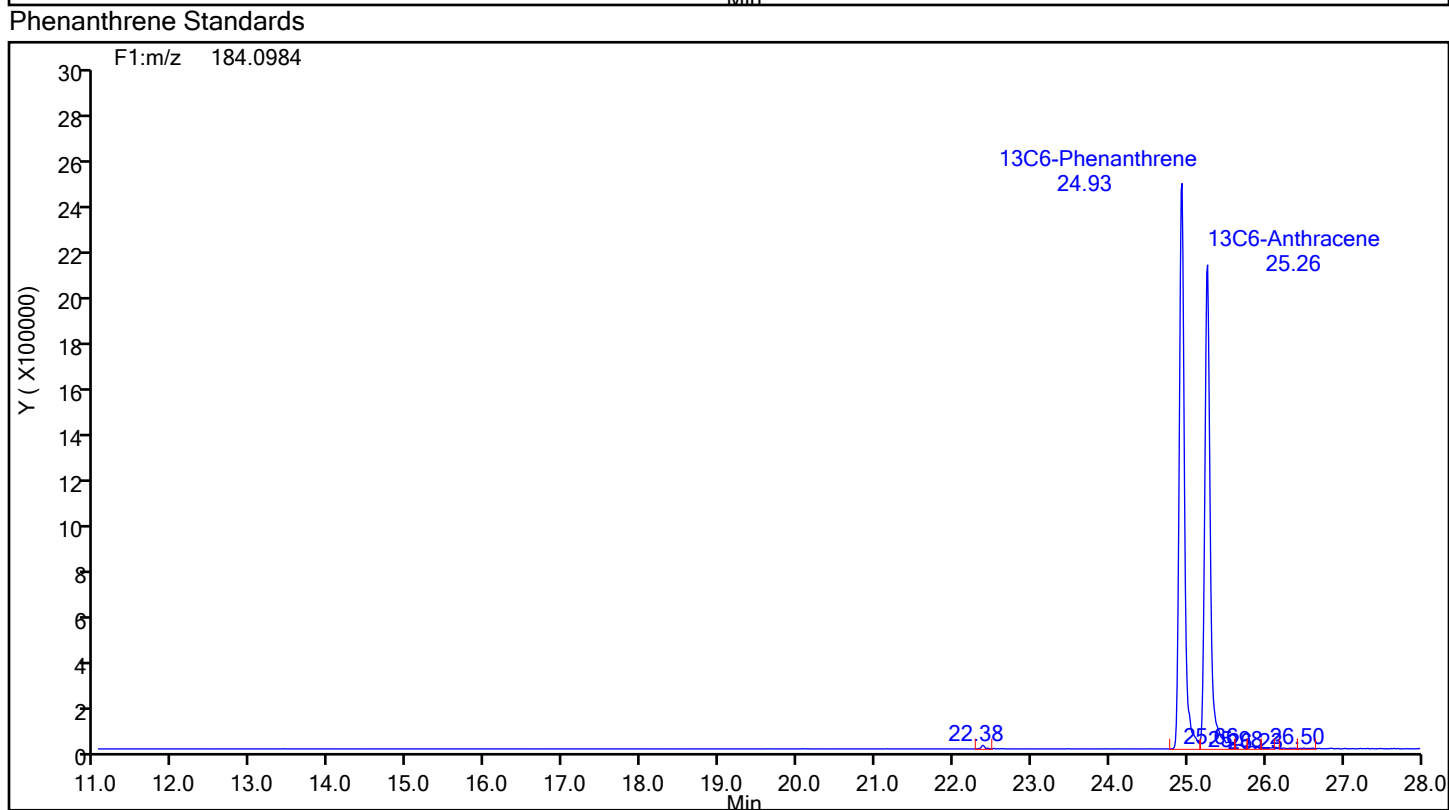
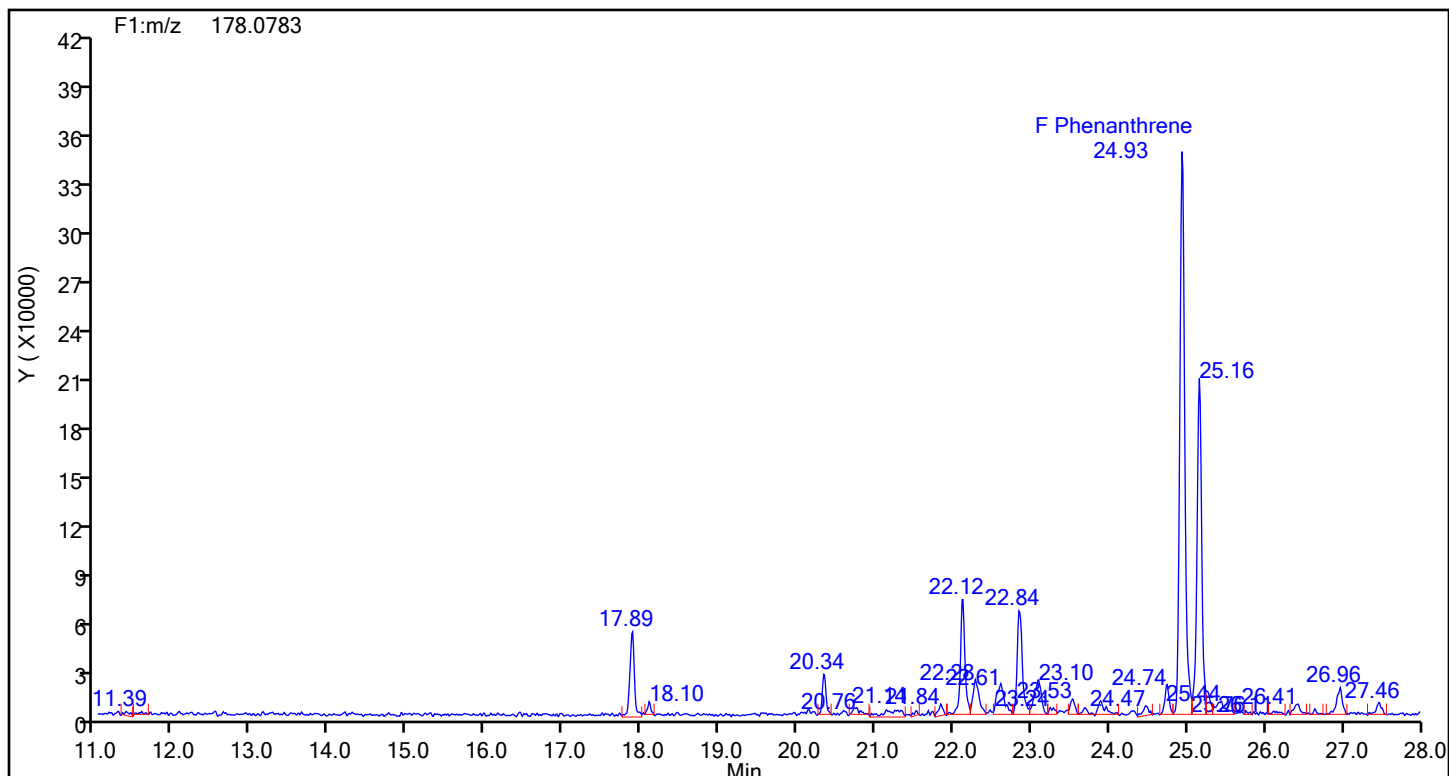


## Fluorene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Injection Date: 19-Jul-2024 00:57:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88945 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Phenanthrene



## Eurofins Knoxville

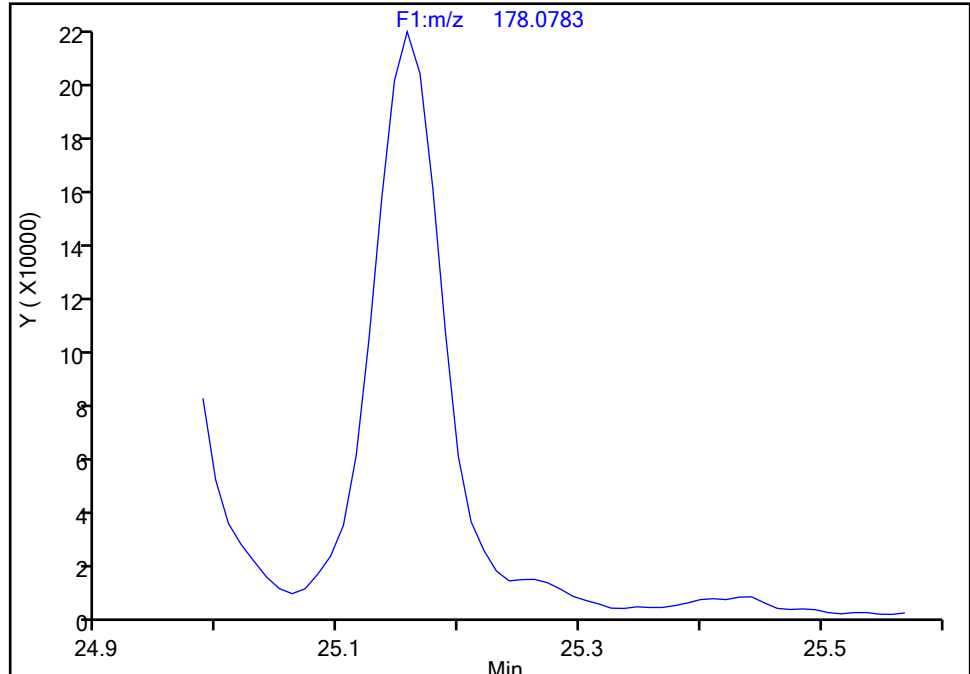
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Injection Date: 19-Jul-2024 00:57:00 Instrument ID: D3PAH  
Lims ID: MB 140-88192/21-B  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F1(6.03 :27.99 )

## Anthracene, CAS: 120-12-7

Signal: 1

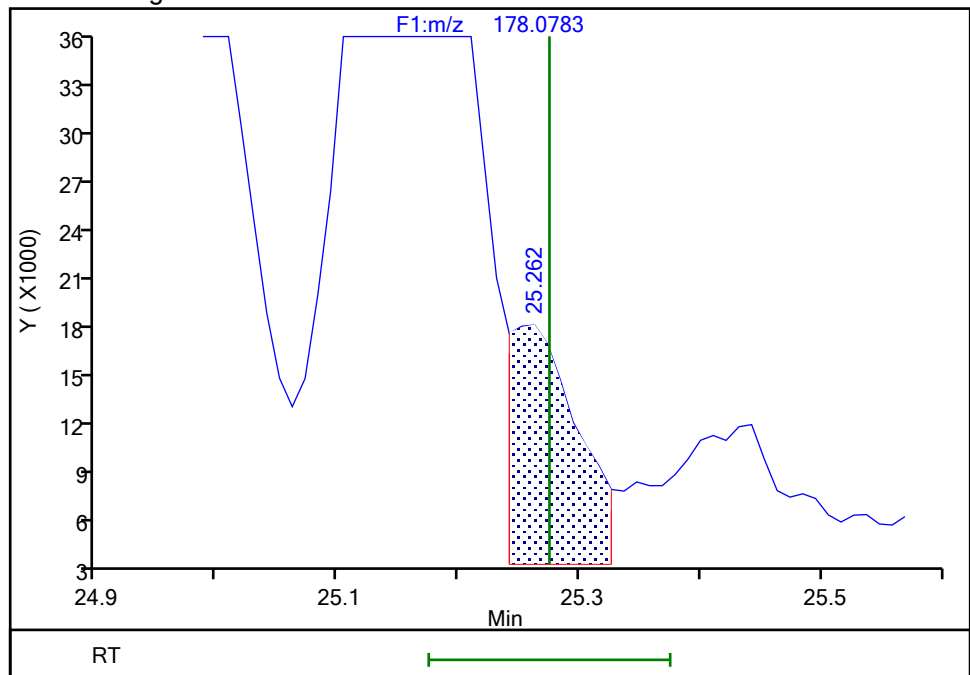
Not Detected  
Expected RT: 25.27

## Processing Integration Results



RT: 25.26  
Area: 59905  
Amount: 0.419567  
Amount Units: pg/ul

## Manual Integration Results



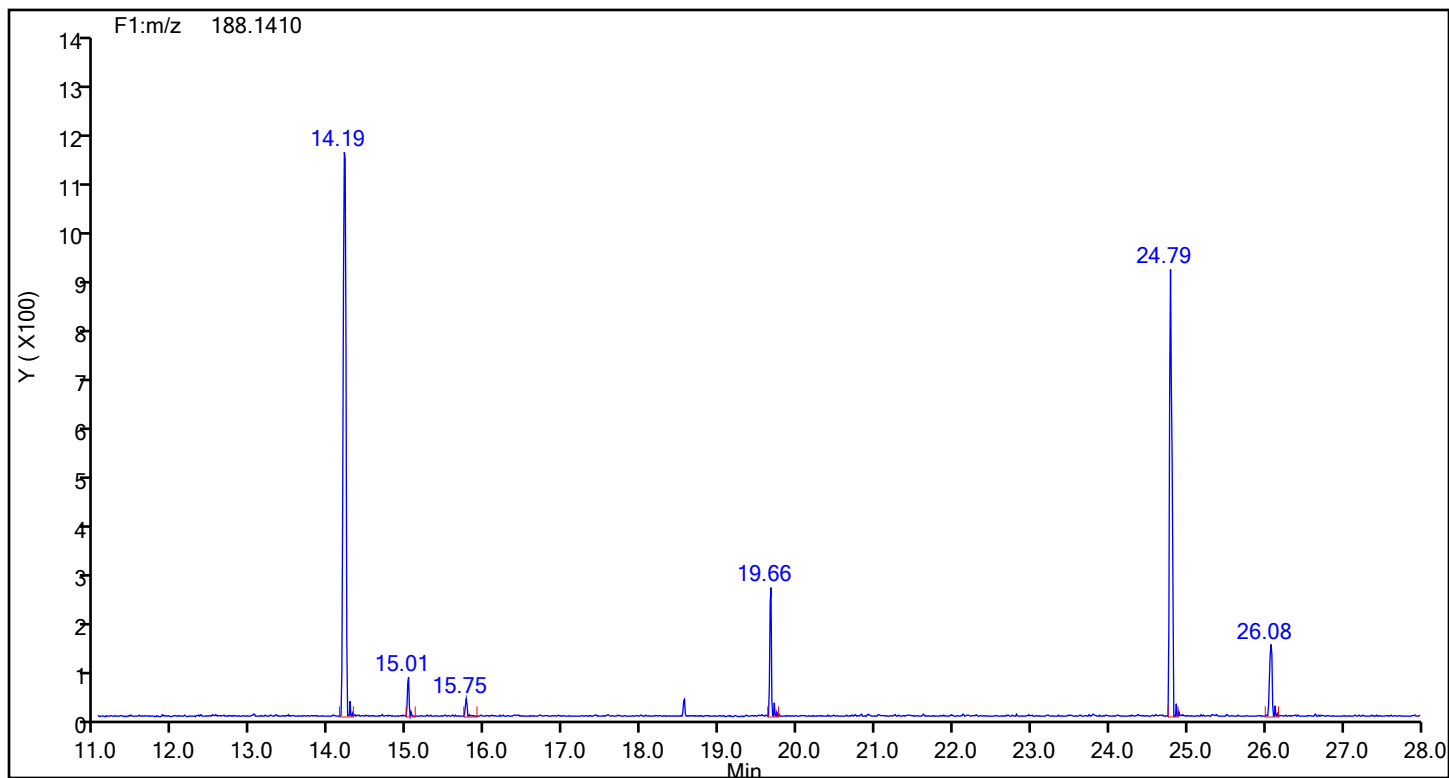
Reviewer: TT6I, 20-Jul-2024 10:14:53 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

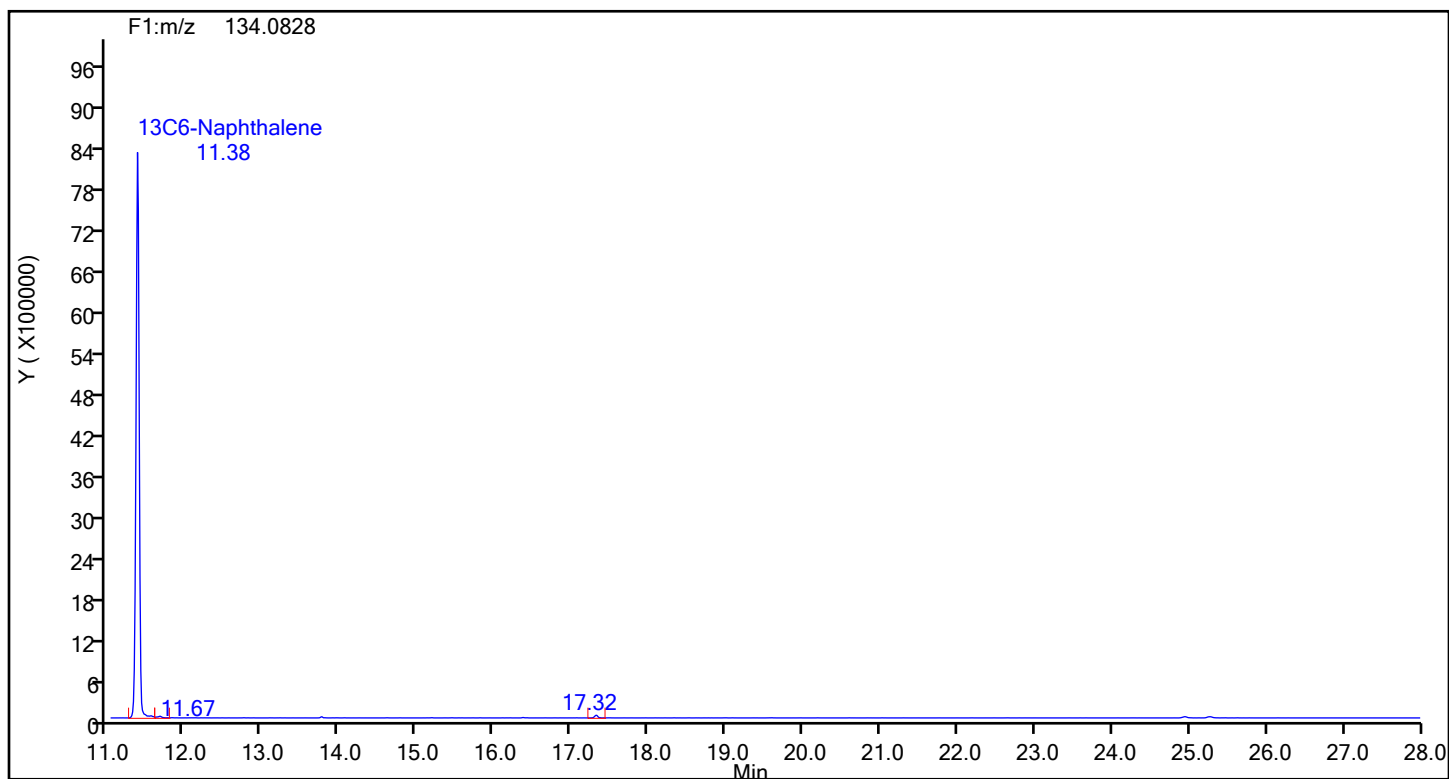
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Injection Date: 19-Jul-2024 00:57:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88945 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10

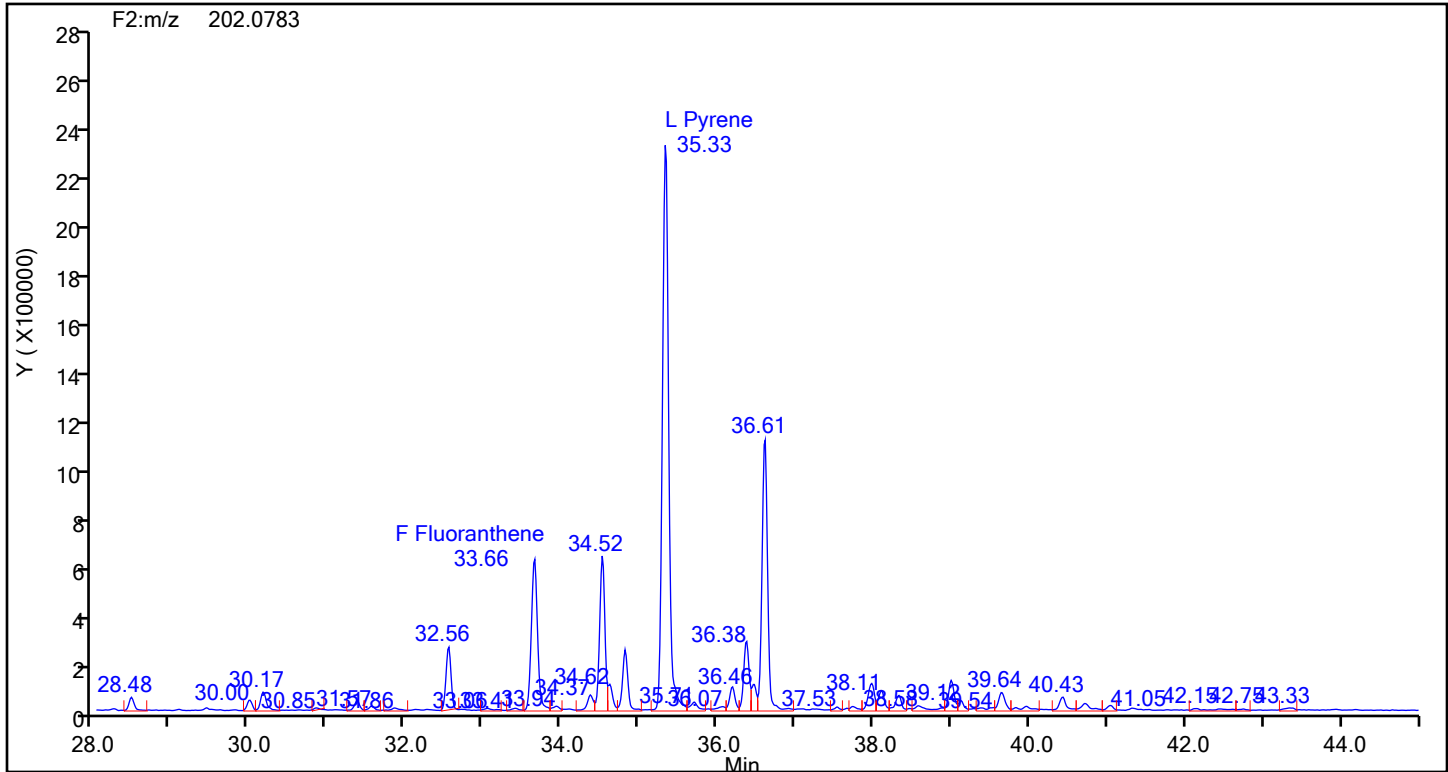


## Anthracin-d10 Standards

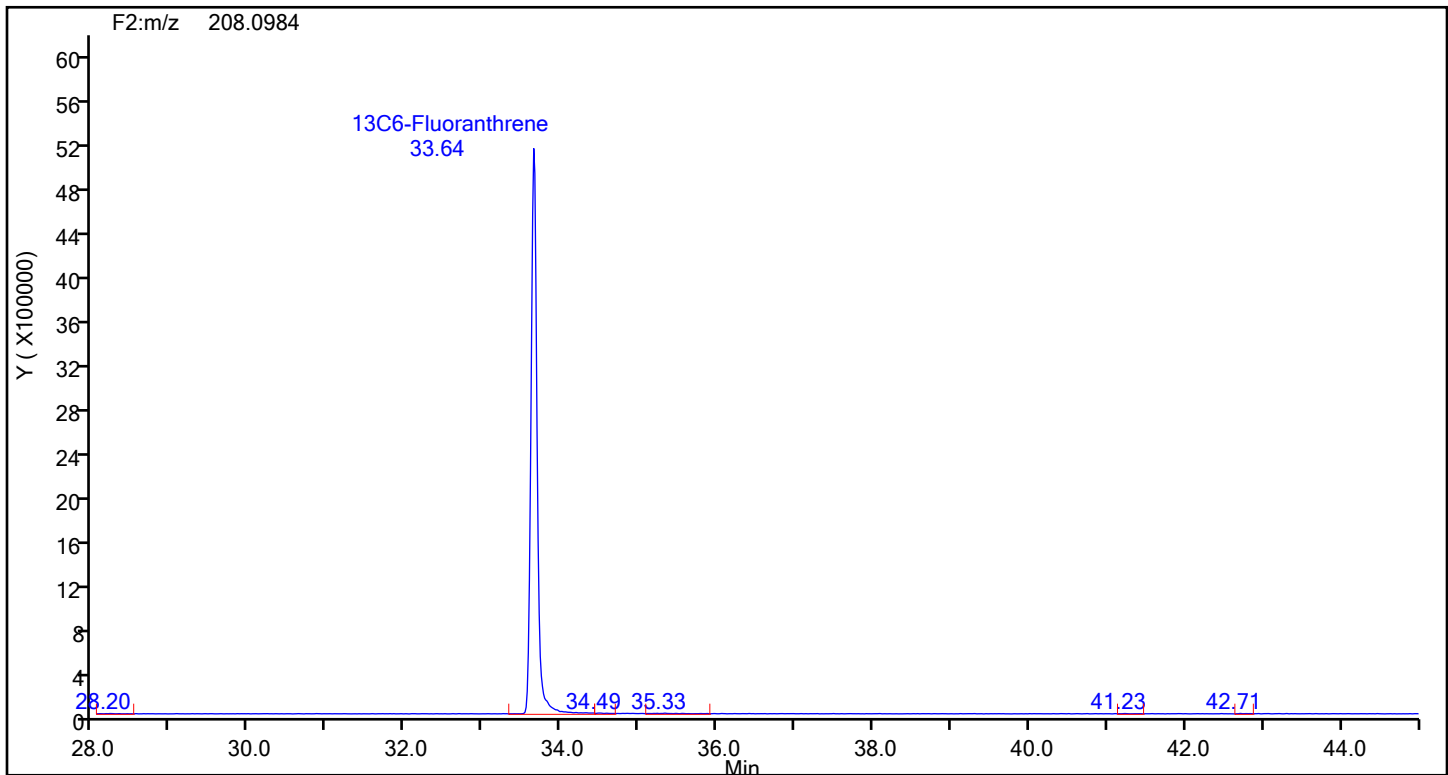


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Injection Date: 19-Jul-2024 00:57:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88945 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Fluoranthene



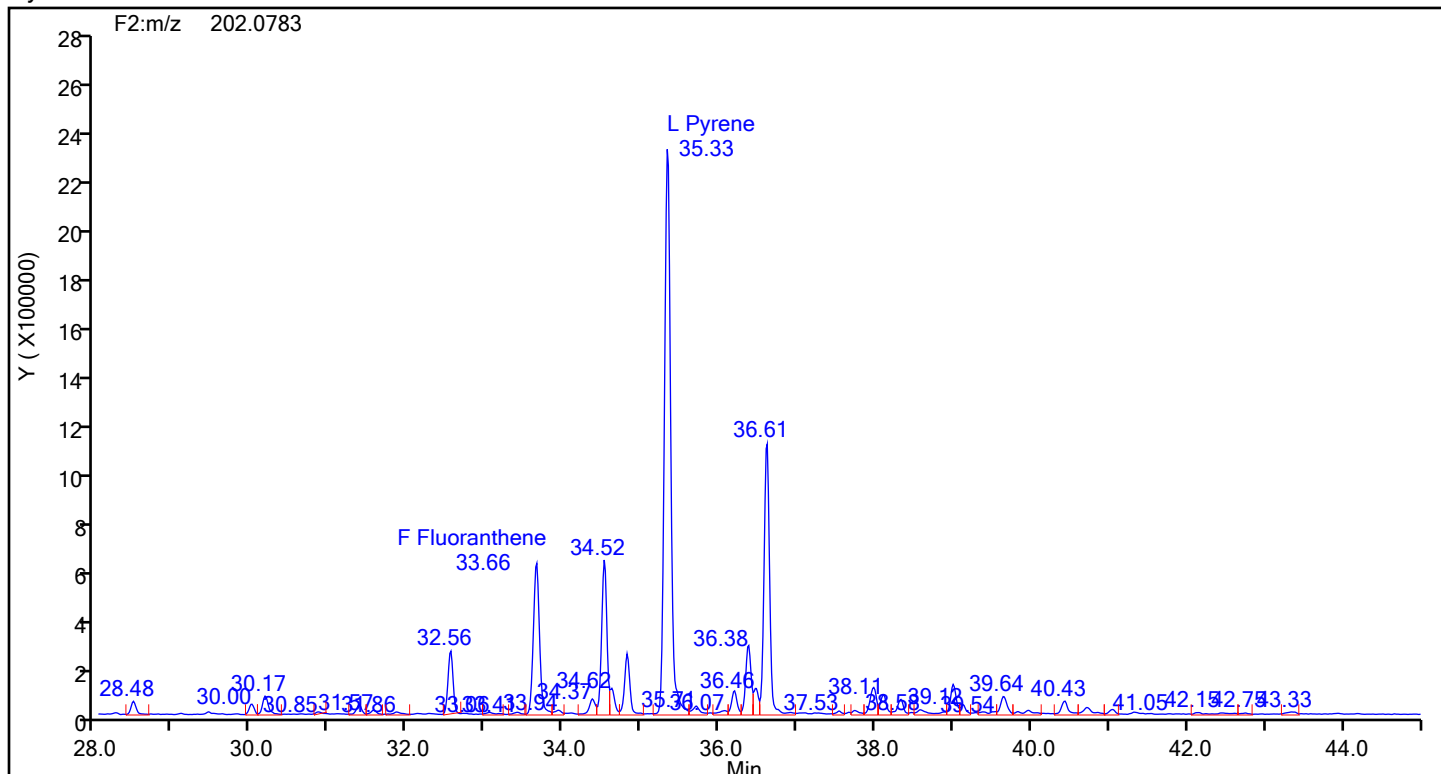
## Fluoranthene Standards



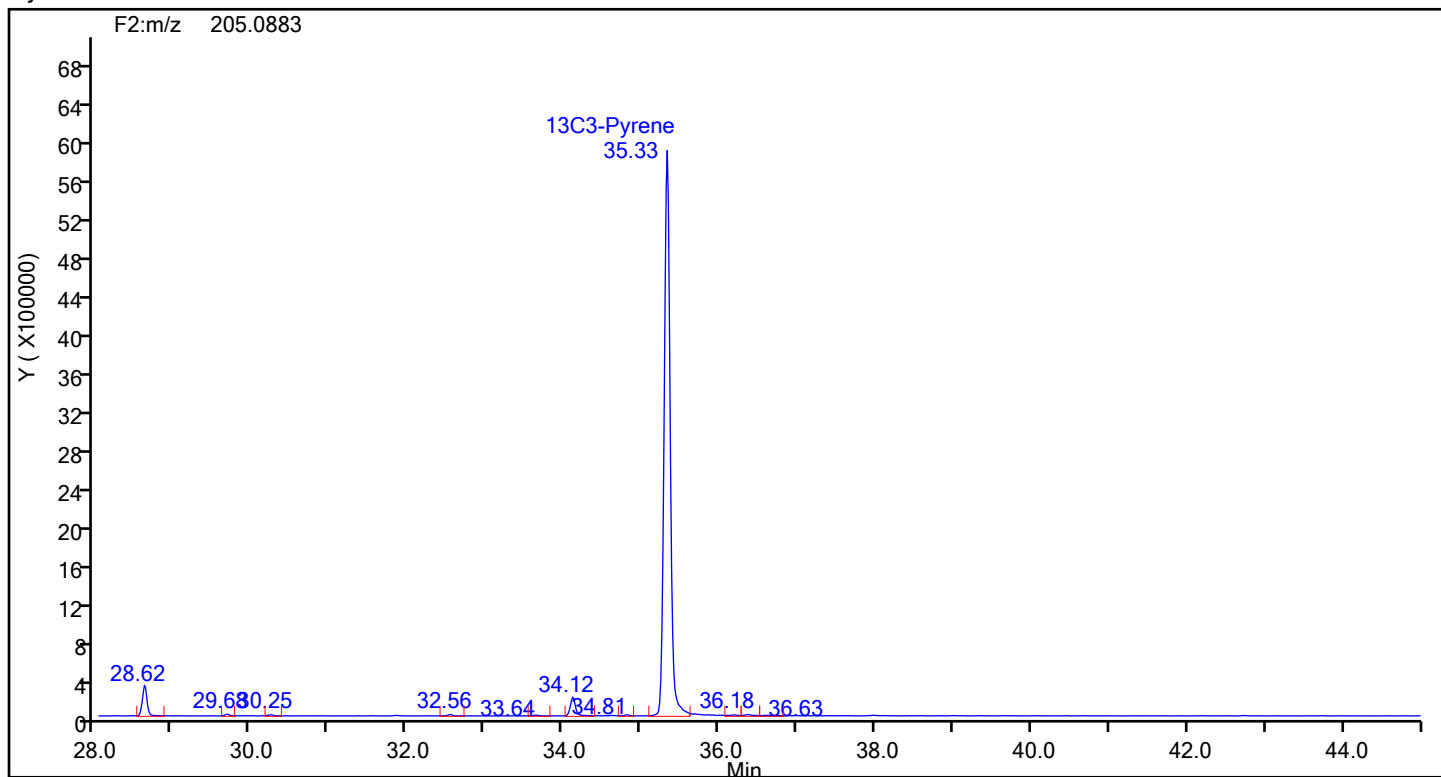
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Injection Date: 19-Jul-2024 00:57:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88945 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Pyrene



## Pyrene Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d

Injection Date: 19-Jul-2024 00:57:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

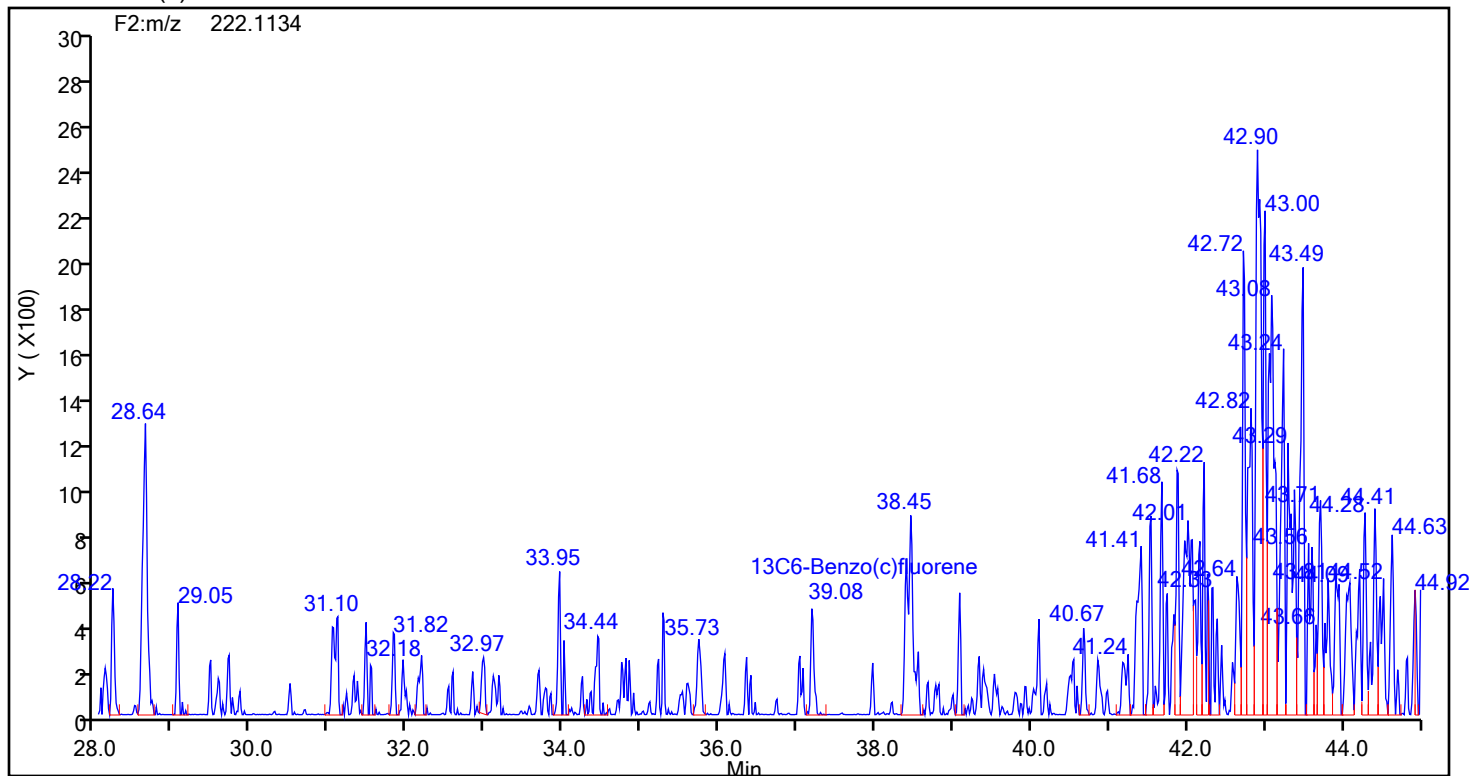
Worklist#: 88945

Sample Line#: 6

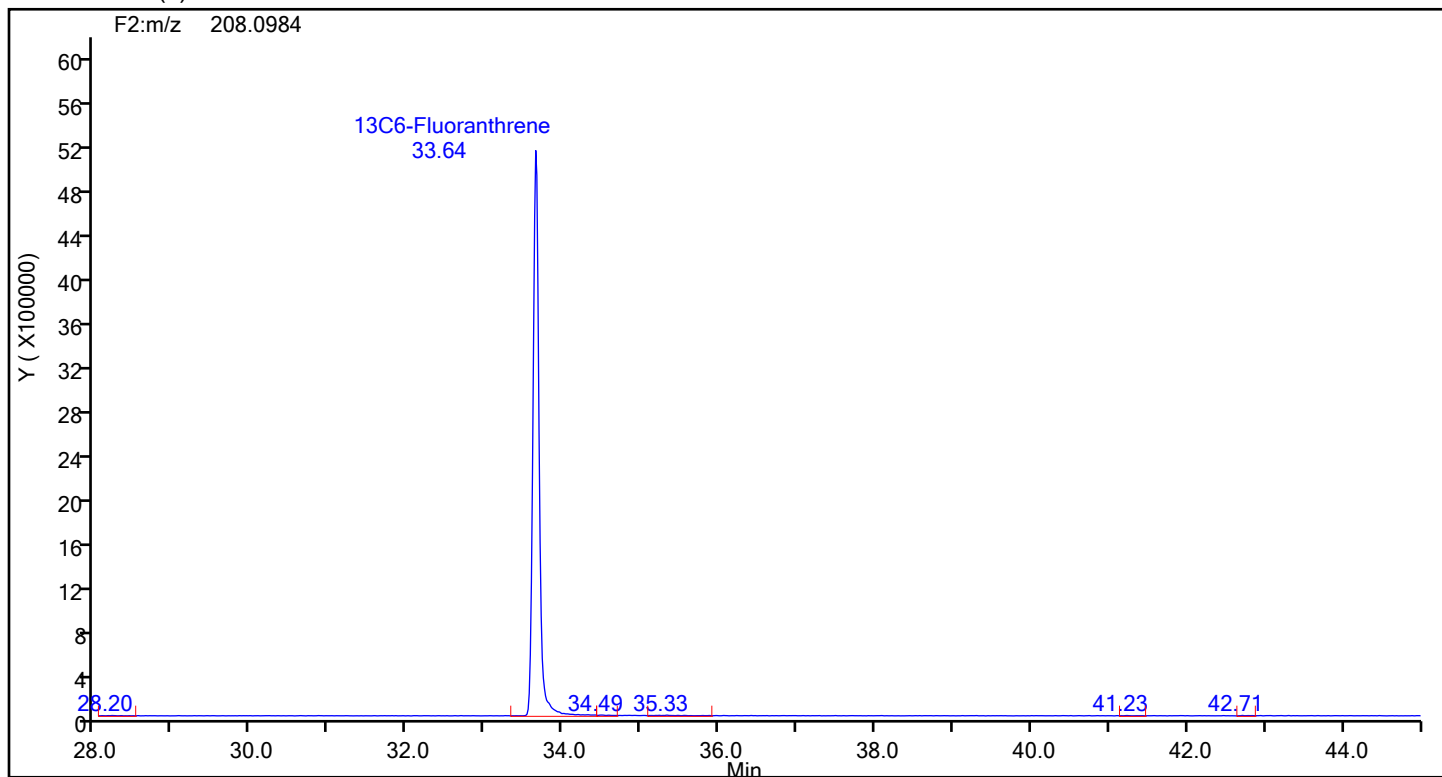
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

13C6-Benzo(c)fluorene



13C6-Benzo(c)fluorene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d

Injection Date: 19-Jul-2024 00:57:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

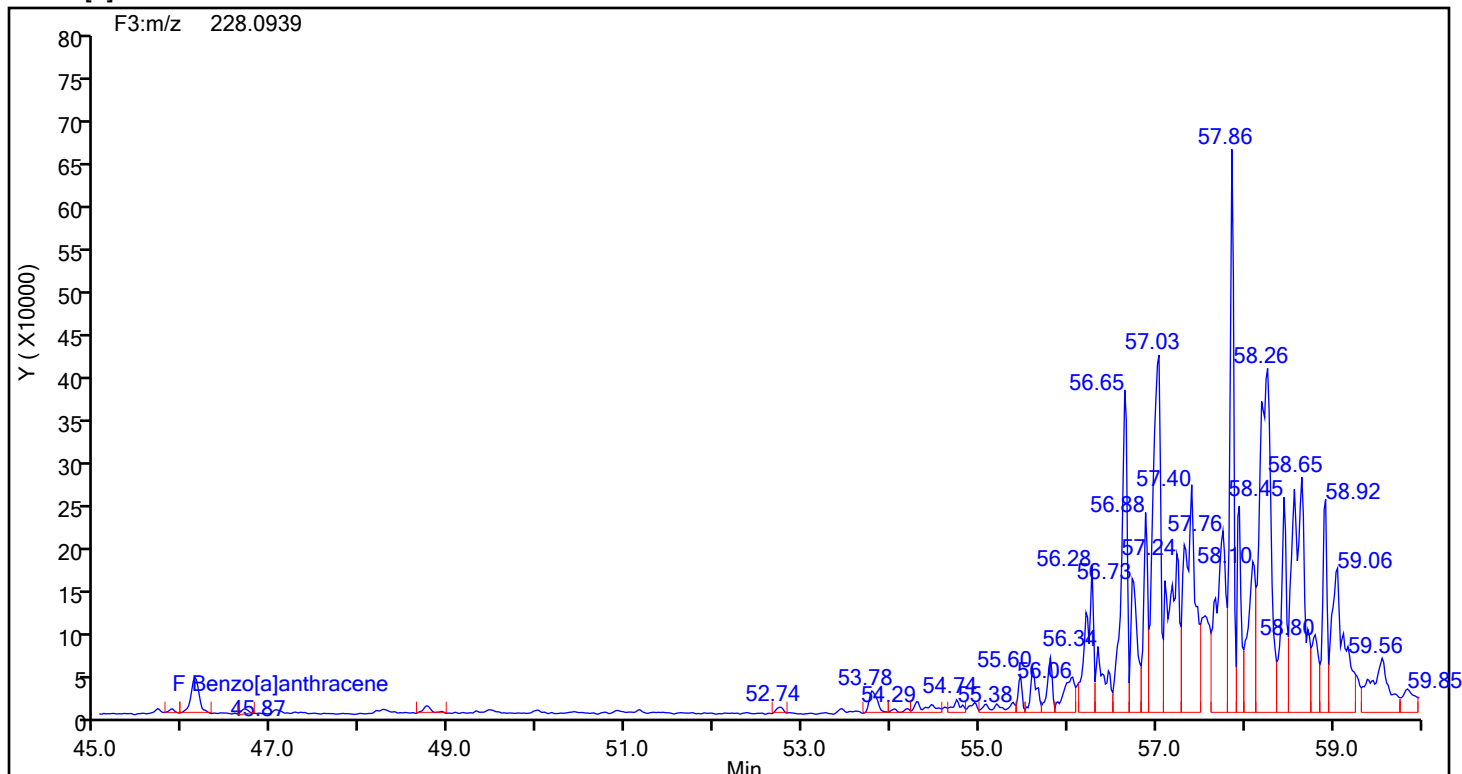
Worklist#: 88945

Sample Line#: 6

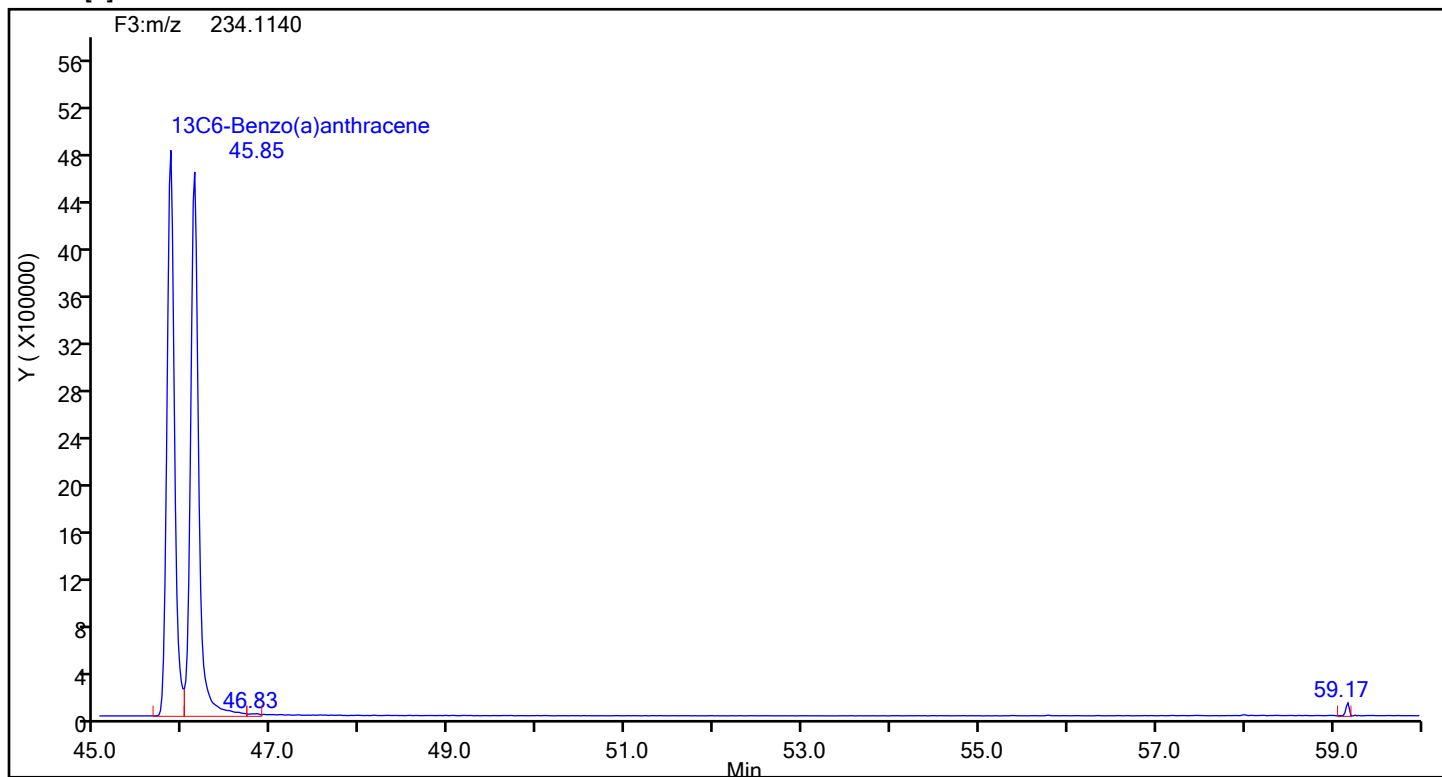
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Benzo[a]anthracene



## Benzo[a]anthracene Standards



## Eurofins Knoxville

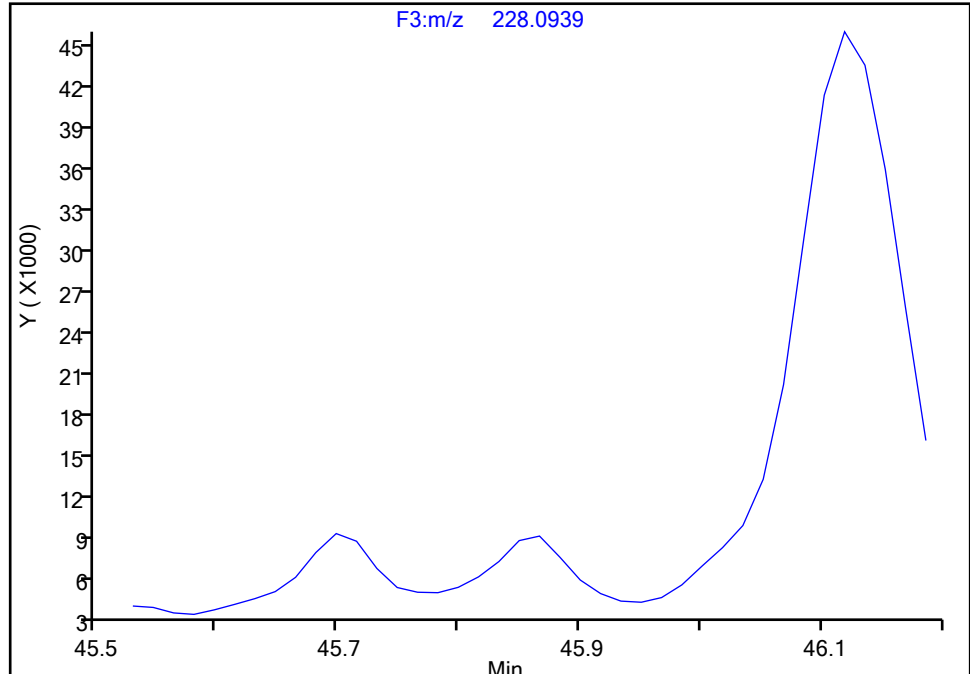
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Injection Date: 19-Jul-2024 00:57:00 Instrument ID: D3PAH  
Lims ID: MB 140-88192/21-B  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**Benzo[a]anthracene, CAS: 56-55-3**

Signal: 1

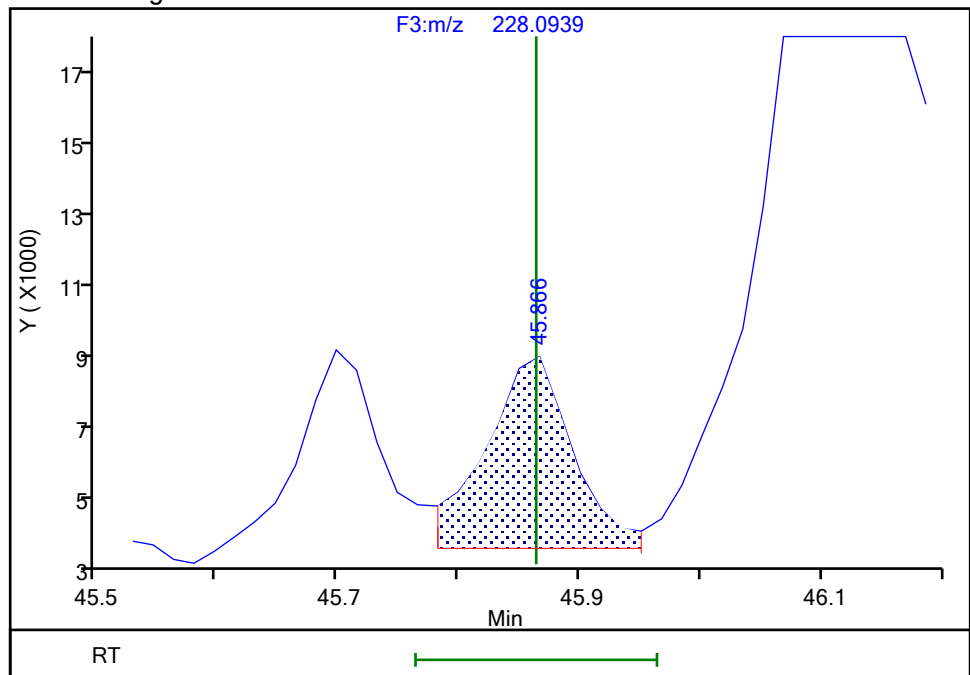
Not Detected  
Expected RT: 45.86

## Processing Integration Results



RT: 45.87  
Area: 27346  
Amount: 0.097412  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 10:08:17 -04:00:00 (UTC)

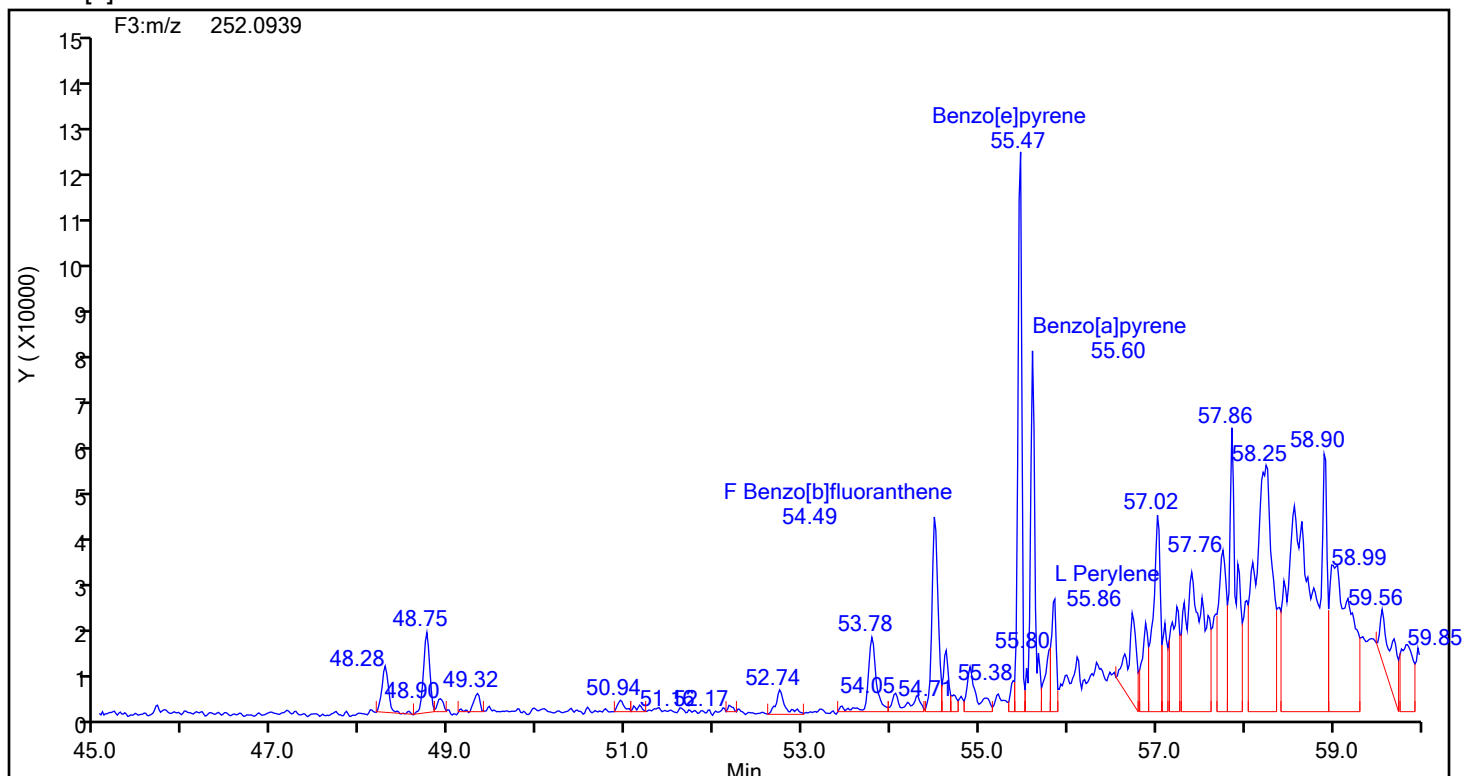
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

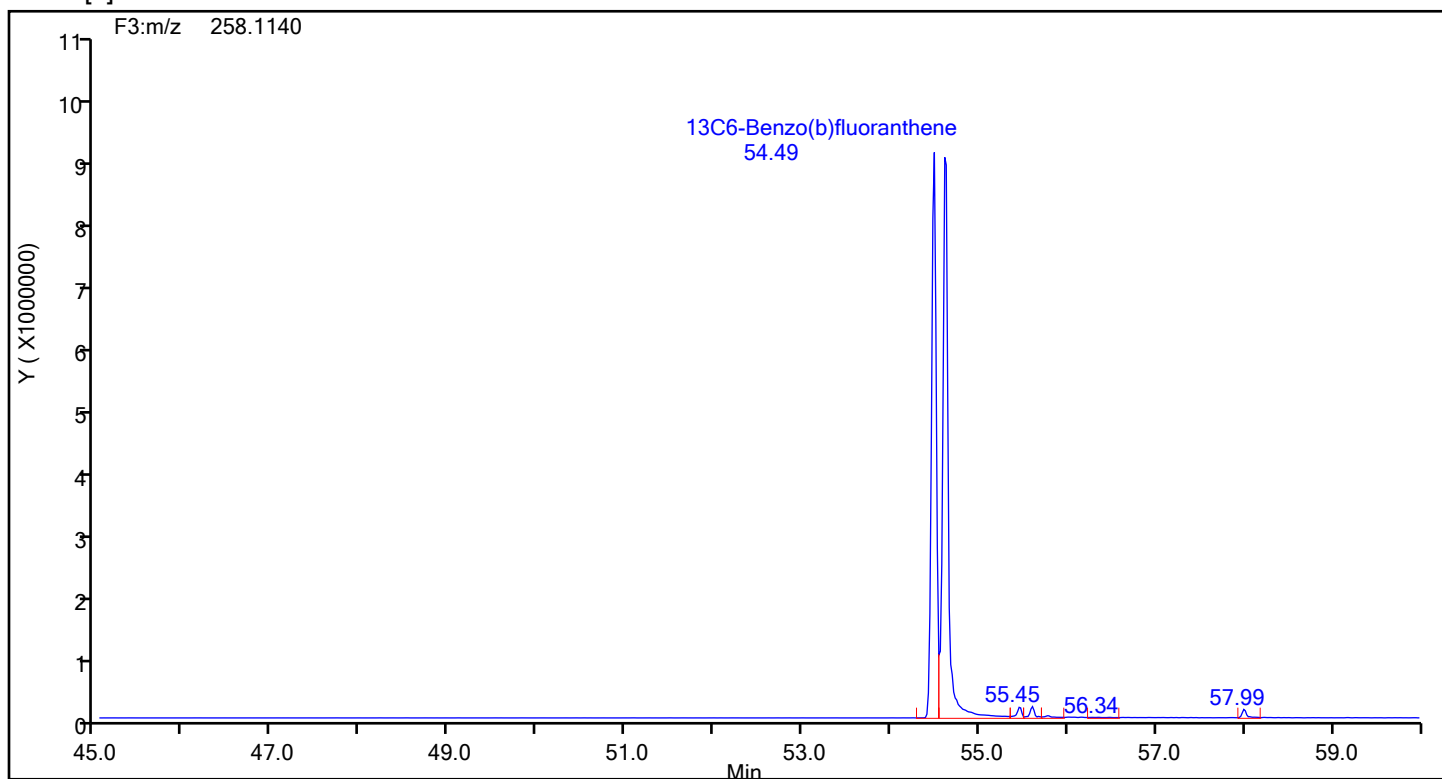
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Injection Date: 19-Jul-2024 00:57:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88945 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



## Benzo[b]fluoranthene Standards



## Eurofins Knoxville

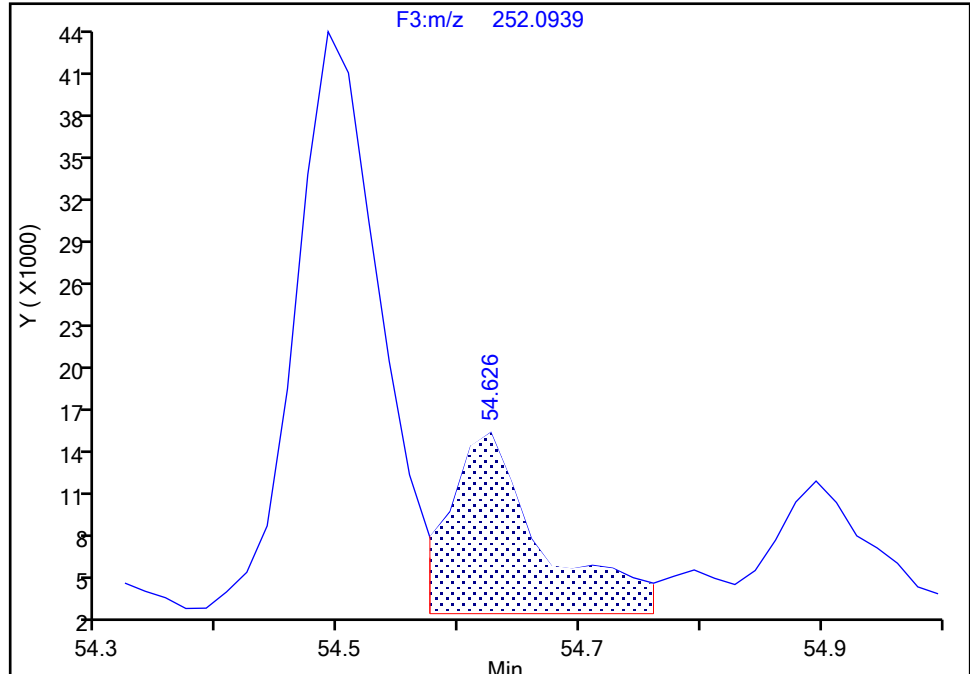
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Injection Date: 19-Jul-2024 00:57:00 Instrument ID: D3PAH  
Lims ID: MB 140-88192/21-B  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Benzo[k]fluoranthene, CAS: 207-08-9

Signal: 1

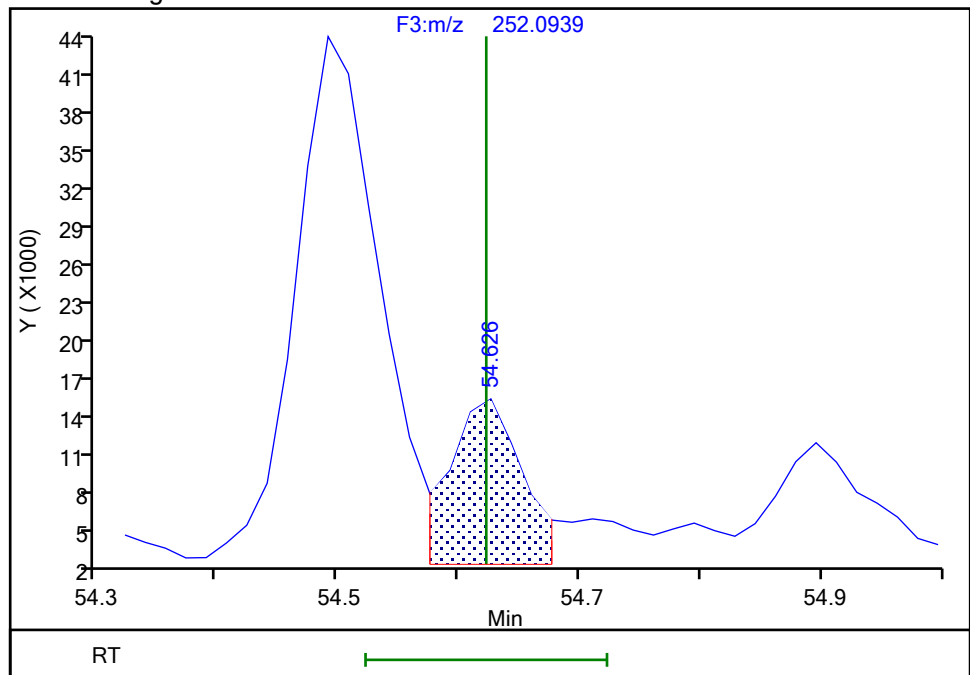
RT: 54.63  
Area: 67133  
Amount: 0.148698  
Amount Units: pg/ul

## Processing Integration Results



RT: 54.63  
Area: 56095  
Amount: 0.124249  
Amount Units: pg/ul

## Manual Integration Results



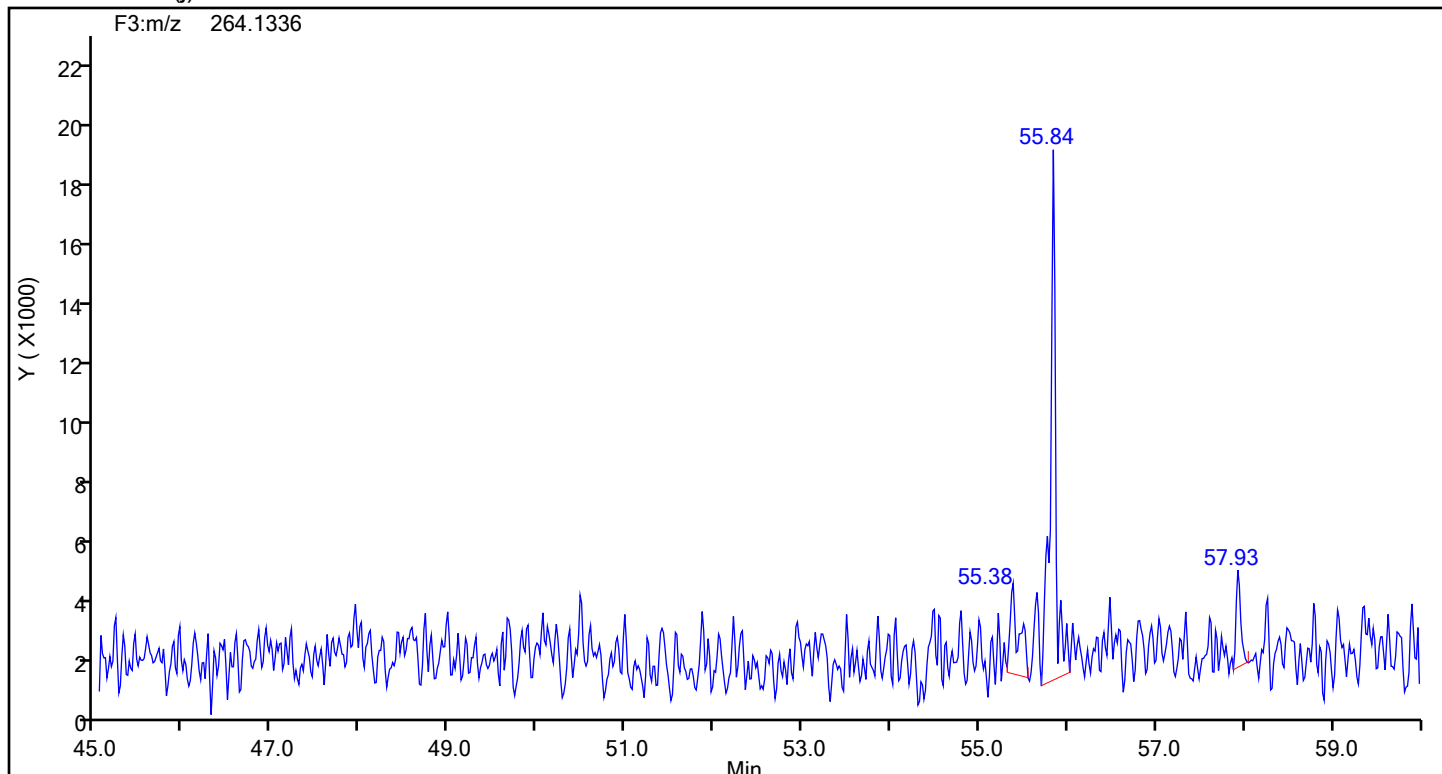
Reviewer: TT6I, 20-Jul-2024 10:08:36 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

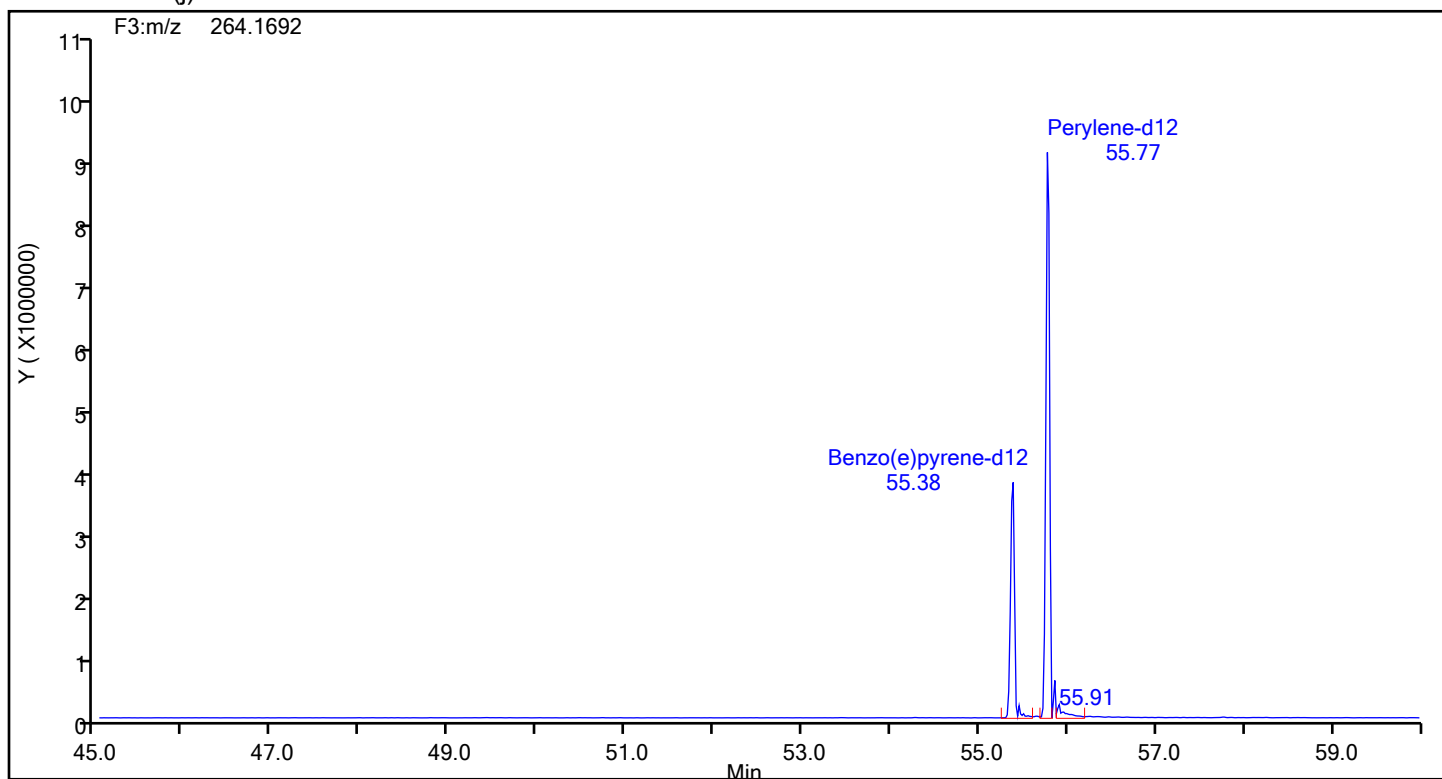
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Injection Date: 19-Jul-2024 00:57:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAL ICAL  
Client ID:  
Worklist#: 88945 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
13C12-Benzo(j)fluoranthene



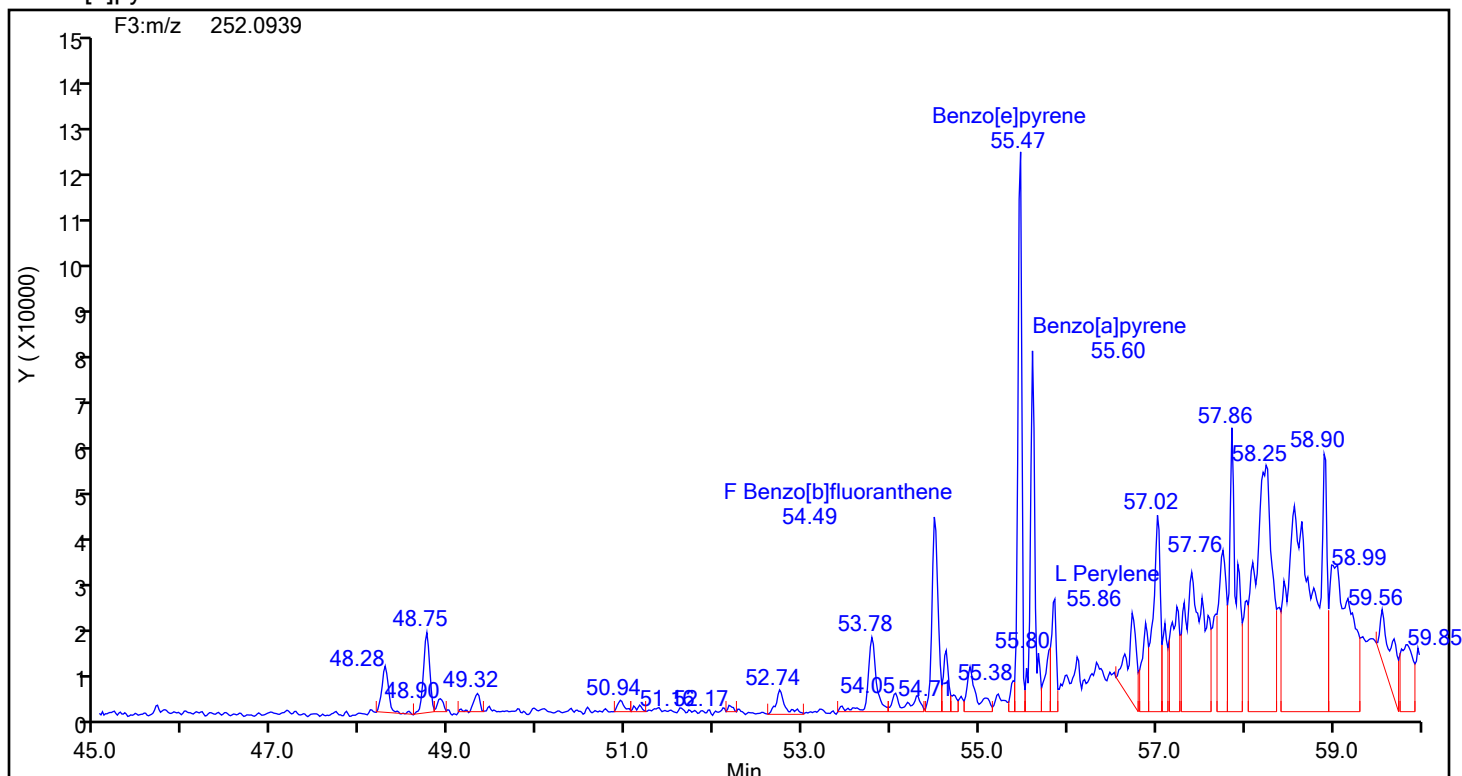
## 13C12-Benzo(j)fluoranthene Standards



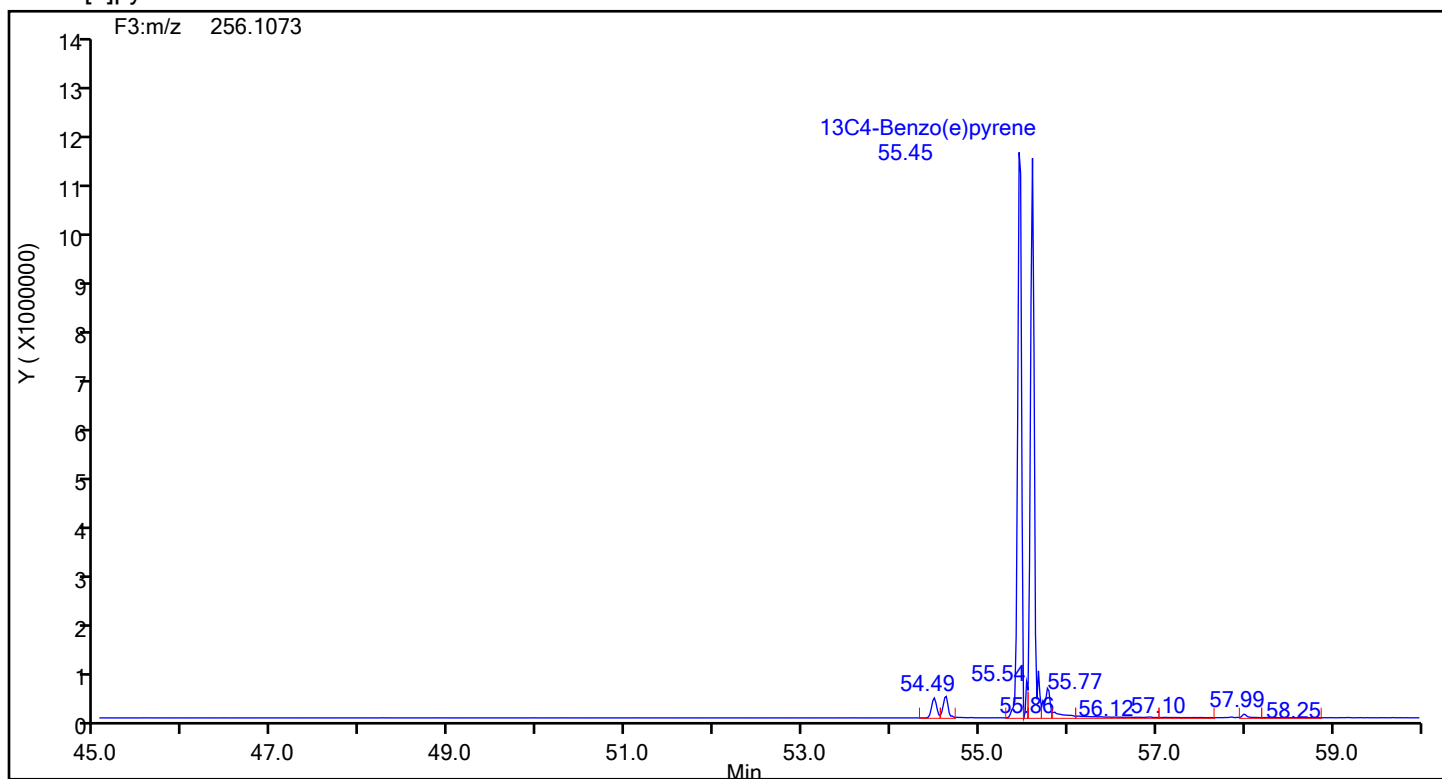
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Injection Date: 19-Jul-2024 00:57:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88945 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[e]pyrene



## Benzo[e]pyrene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d

Injection Date: 19-Jul-2024 00:57:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

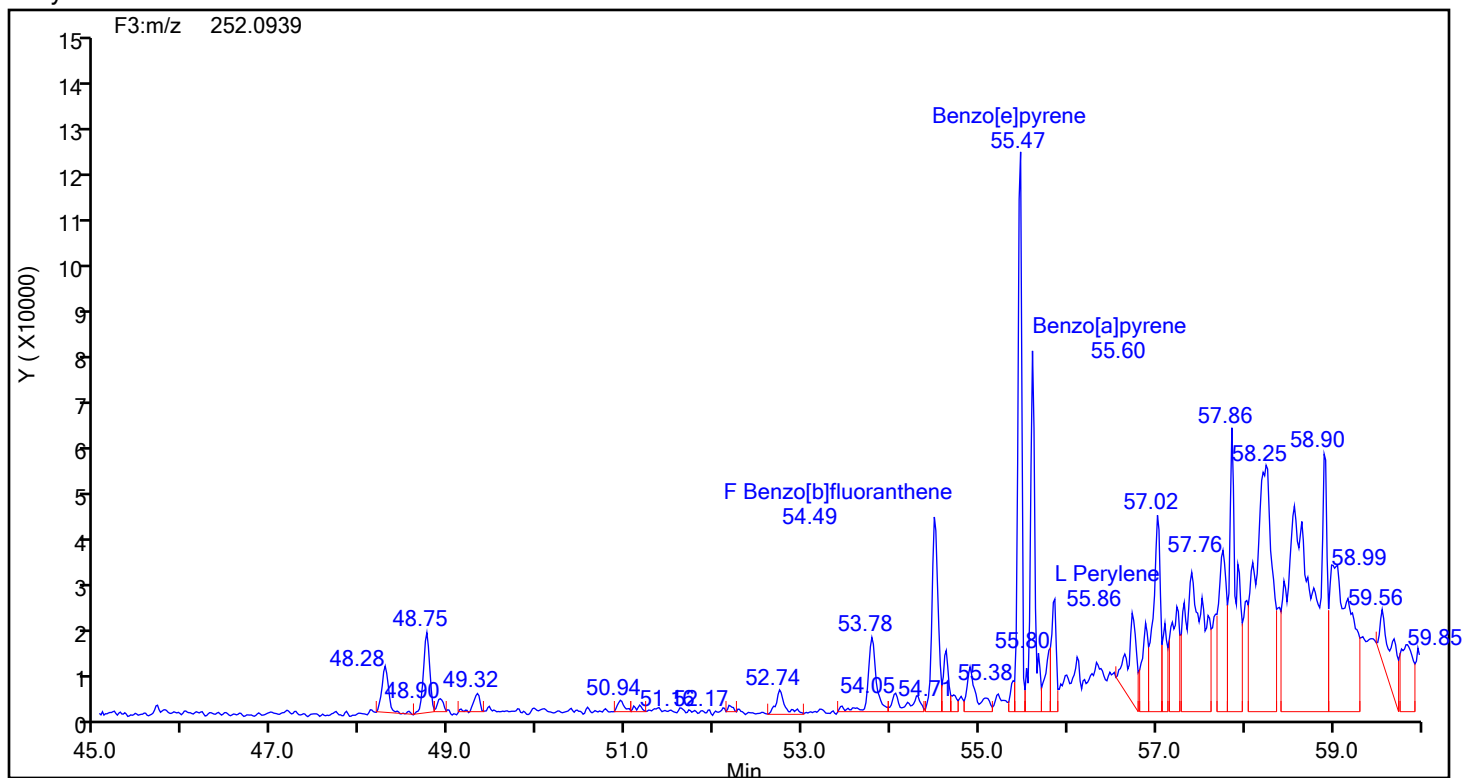
Worklist#: 88945

Sample Line#: 6

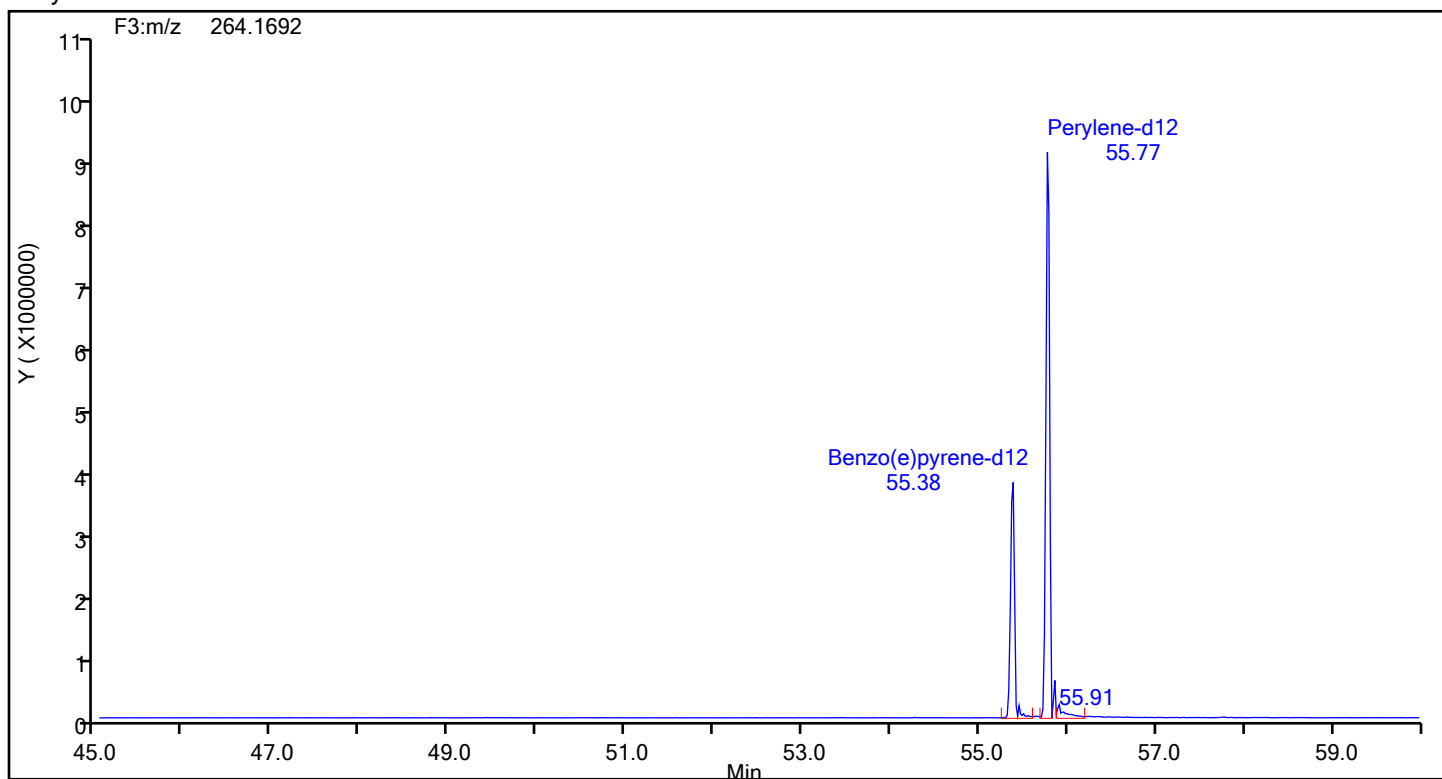
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Perylene



## Perylene Standards





## Eurofins Knoxville

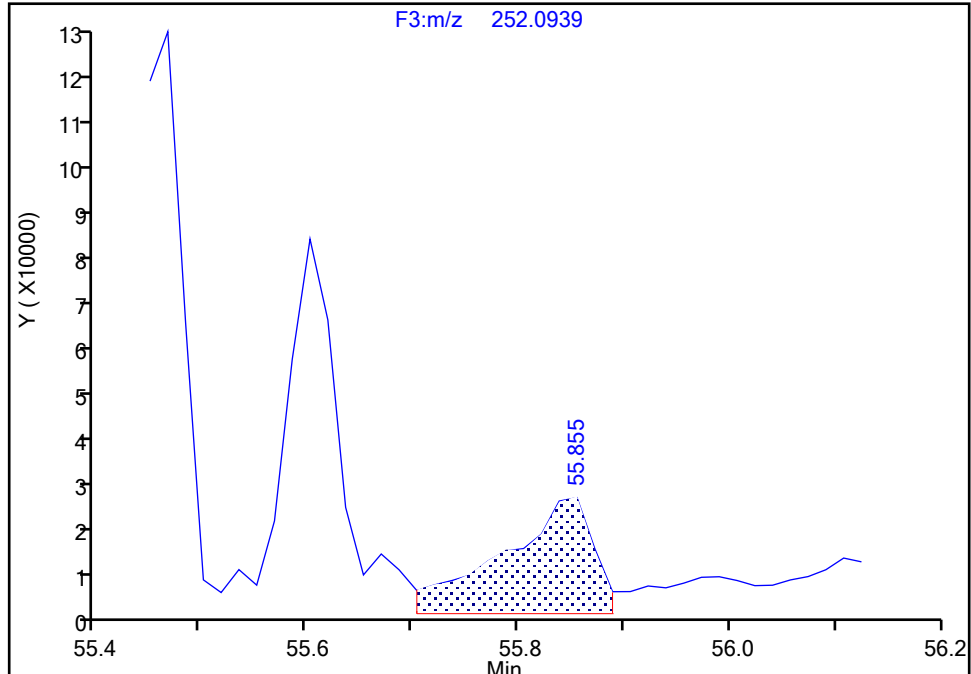
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Injection Date: 19-Jul-2024 00:57:00 Instrument ID: D3PAH  
Lims ID: MB 140-88192/21-B  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Perylene, CAS: 198-55-0

Signal: 1

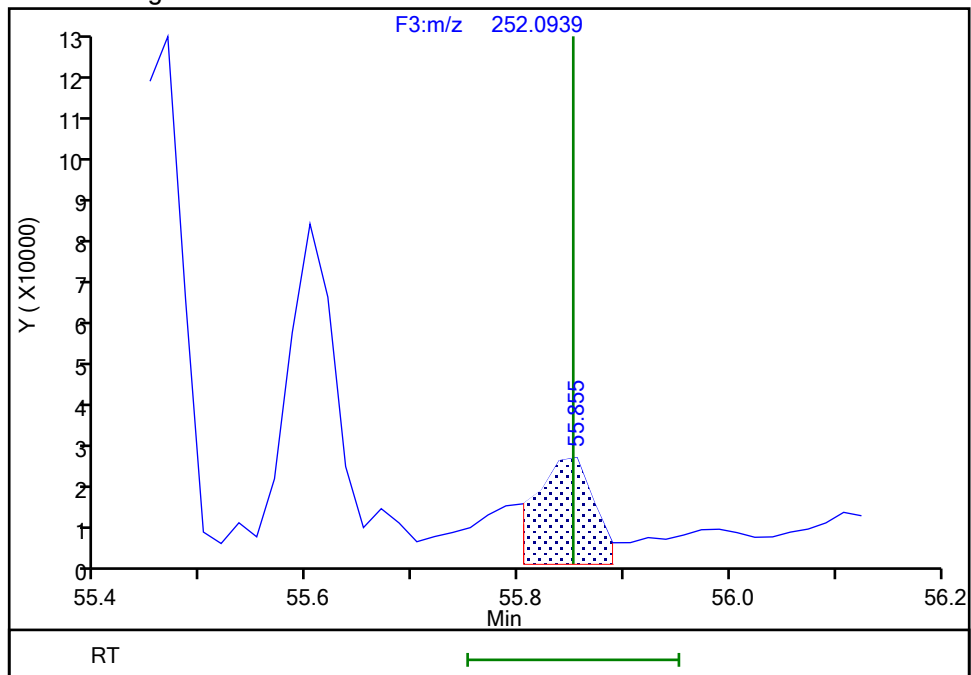
RT: 55.86  
Area: 140896  
Amount: 0.369369  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.86  
Area: 95514  
Amount: 0.250397  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 10:07:42 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d

Injection Date: 19-Jul-2024 00:57:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

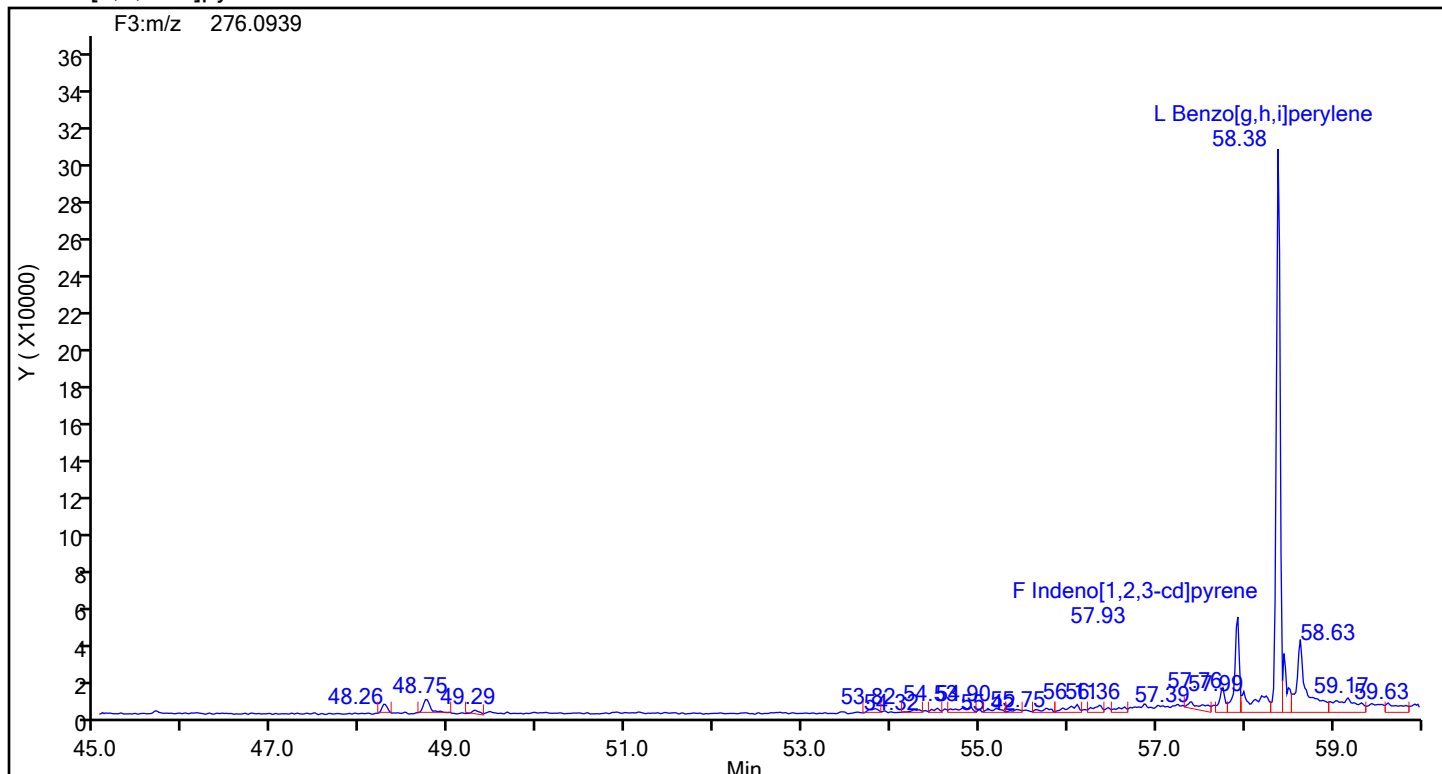
Worklist#: 88945

Sample Line#: 6

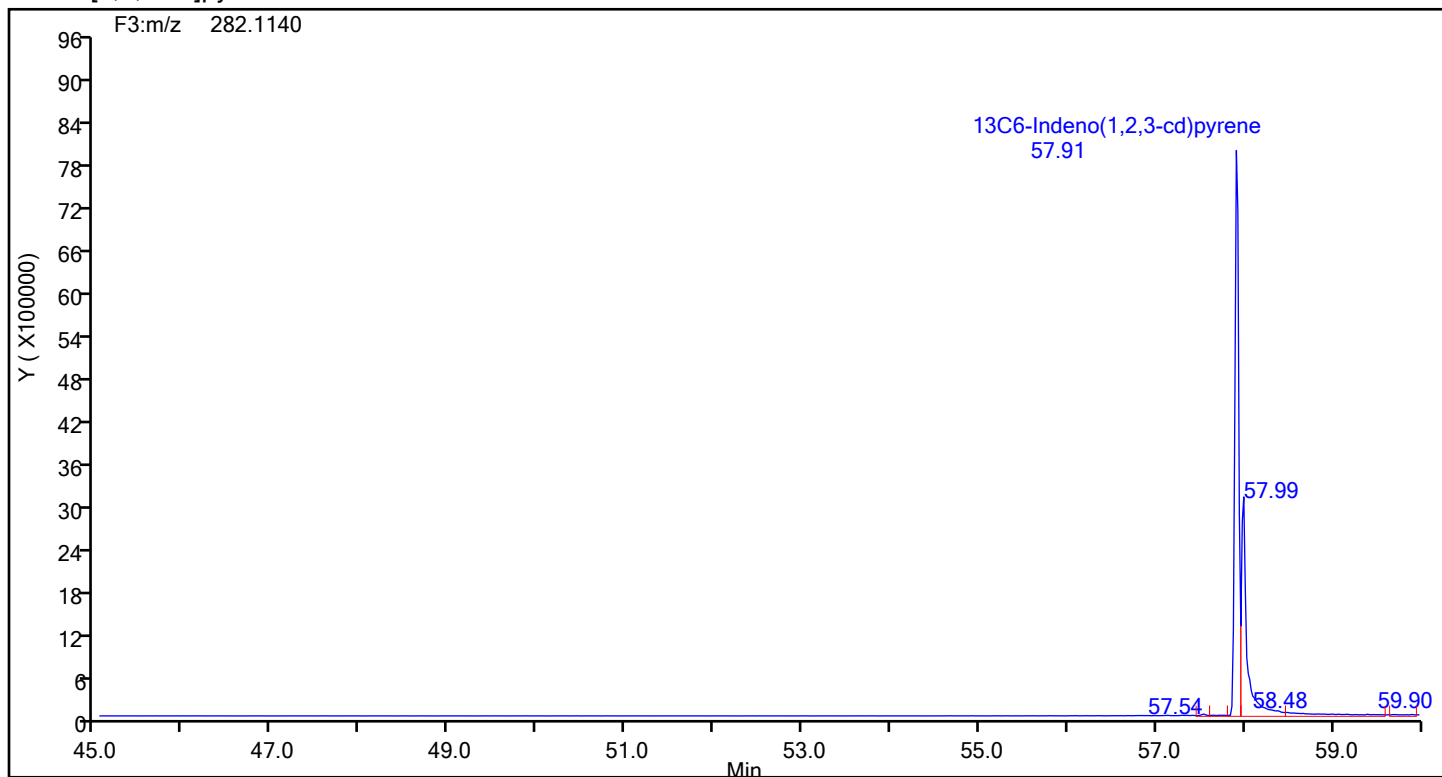
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

Indeno[1,2,3-cd]pyrene

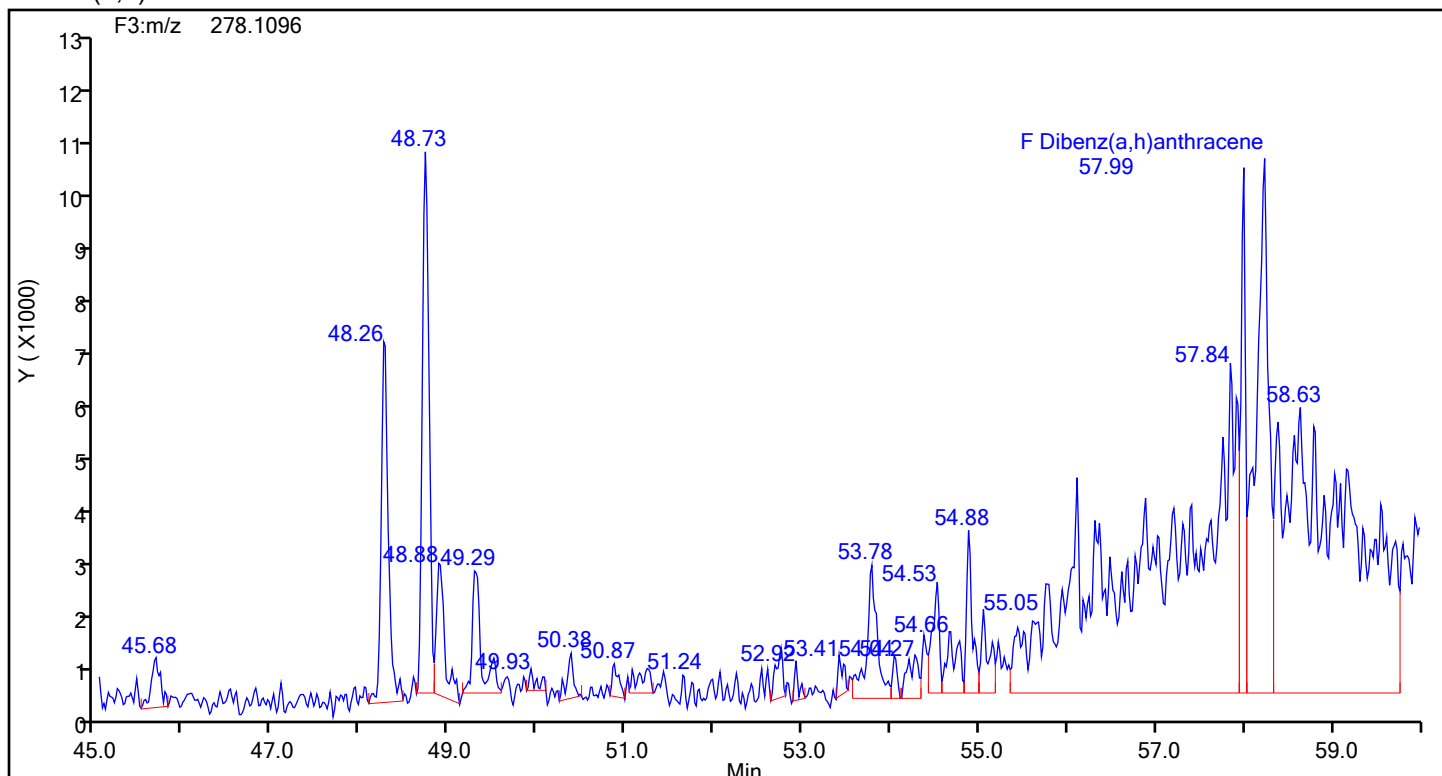


Indeno[1,2,3-cd]pyrene Standards

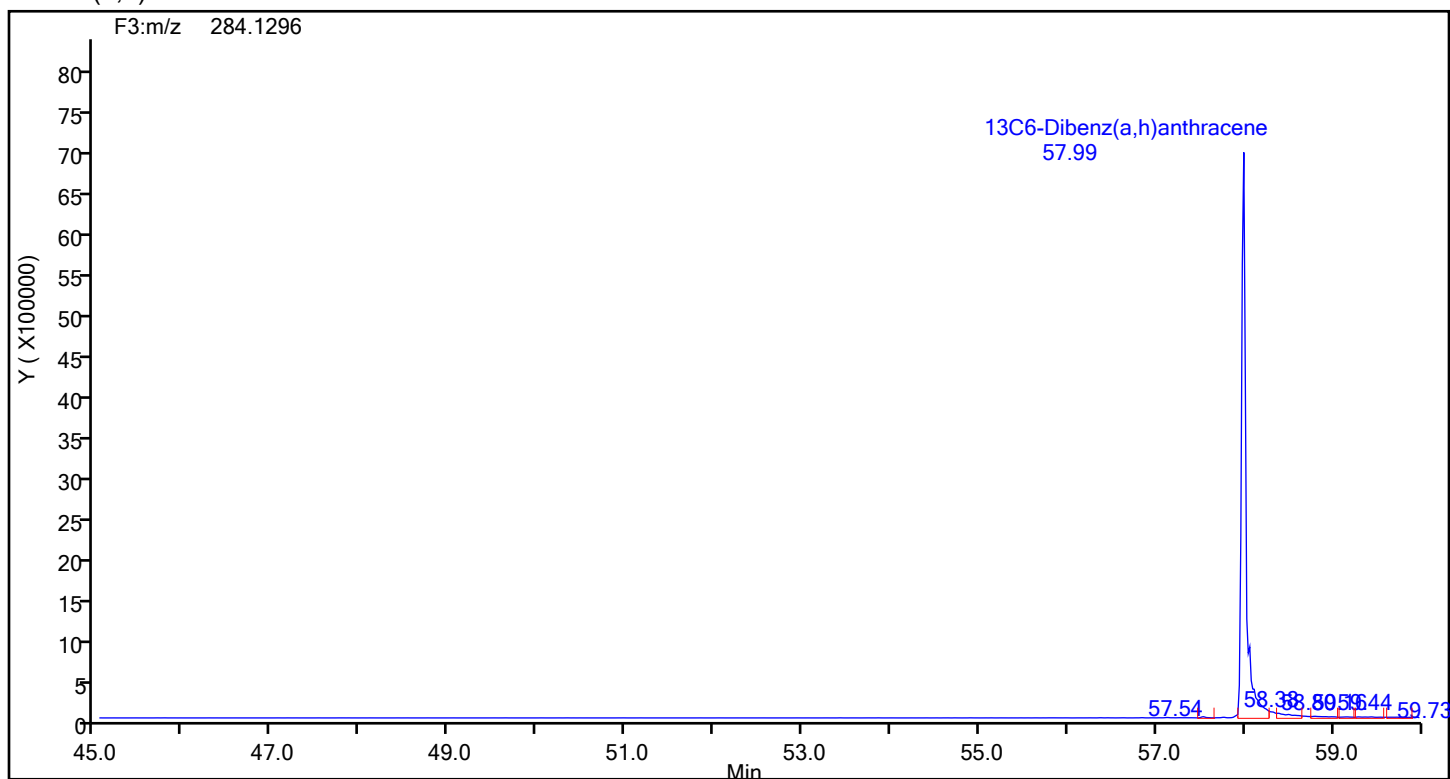


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Injection Date: 19-Jul-2024 00:57:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88945 Sample Line#: 6  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Dibenz(a,h)anthracene



## Dibenzo(a,h)anthracene Standards



## Eurofins Knoxville

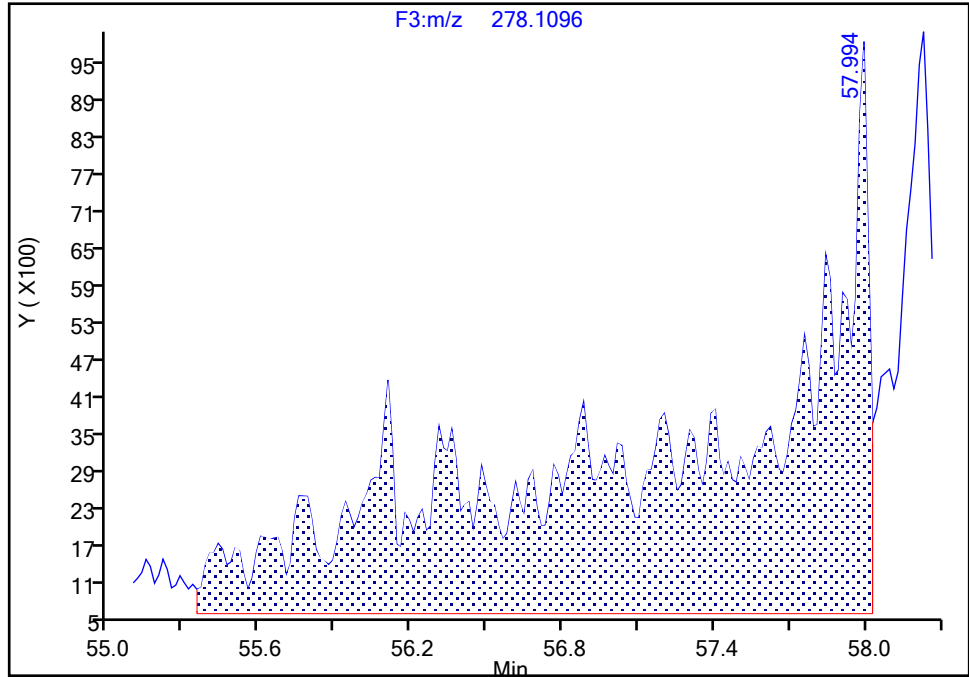
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Injection Date: 19-Jul-2024 00:57:00 Instrument ID: D3PAH  
Lims ID: MB 140-88192/21-B  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

## Dibenz(a,h)anthracene, CAS: 53-70-3

Signal: 1

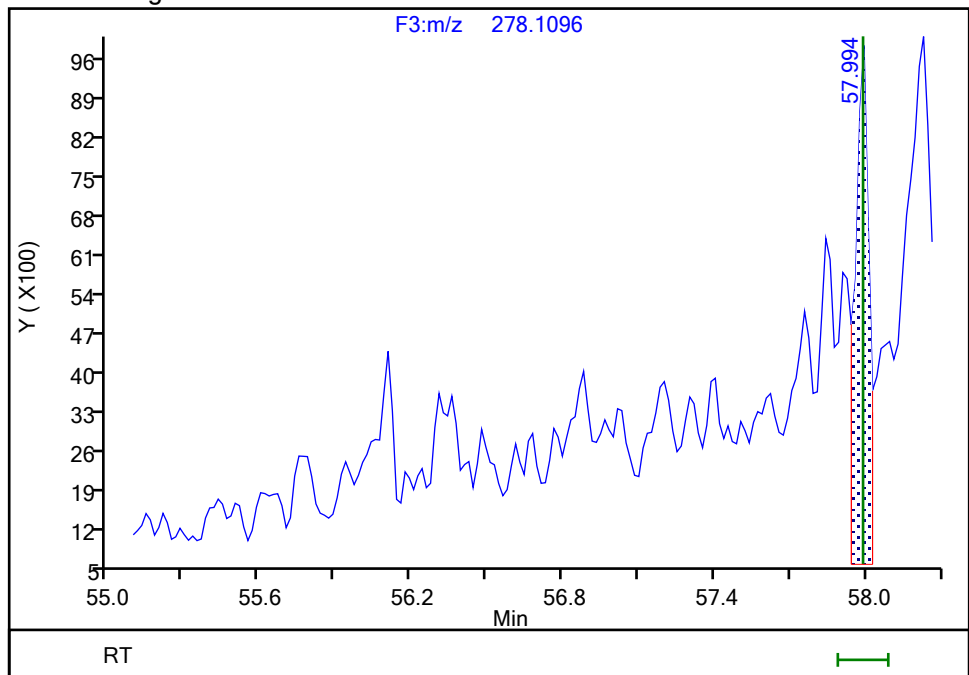
RT: 57.99  
Area: 366947  
Amount: 1.284072  
Amount Units: pg/ul

## Processing Integration Results



RT: 57.99  
Area: 36216  
Amount: 0.126732  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 10:08:01 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d

Injection Date: 19-Jul-2024 00:57:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

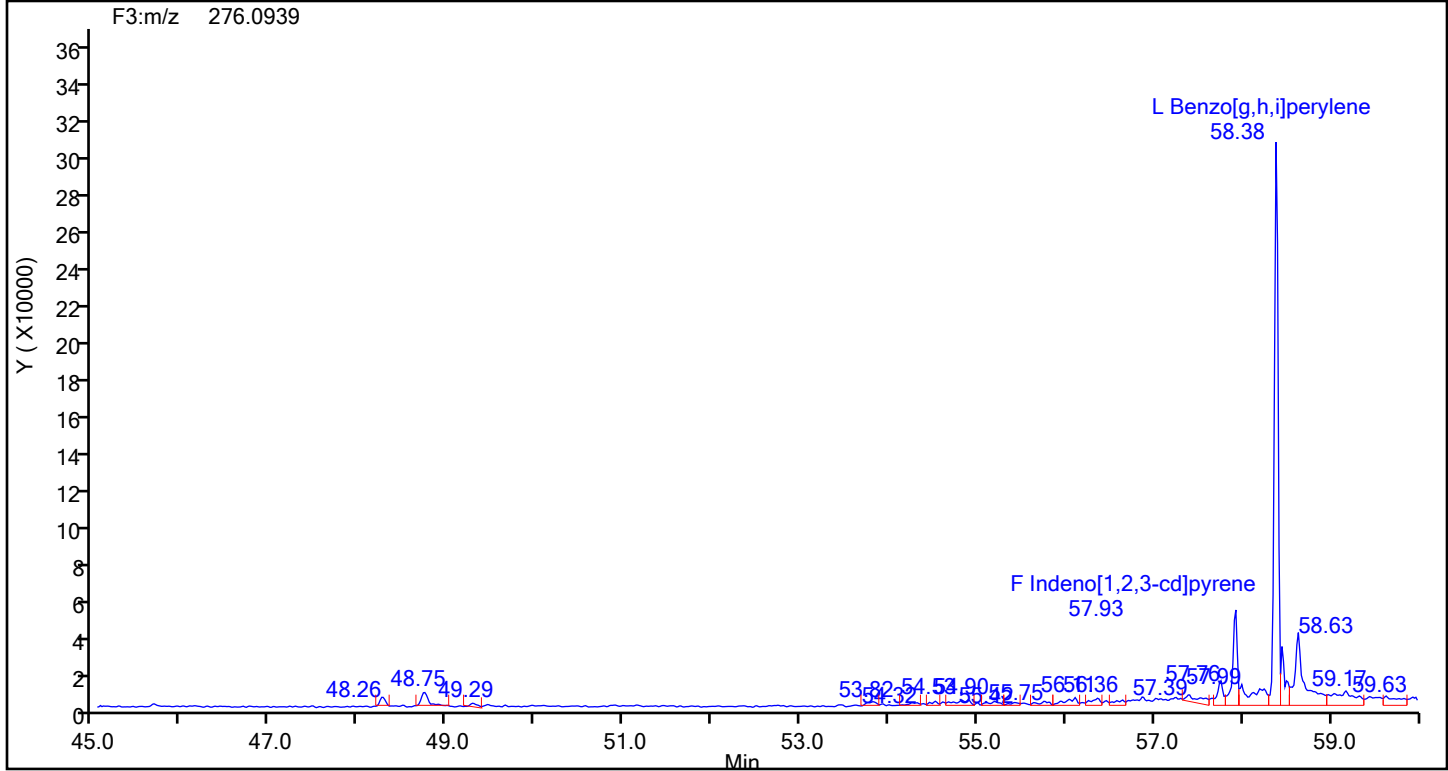
Worklist#: 88945

Sample Line#: 6

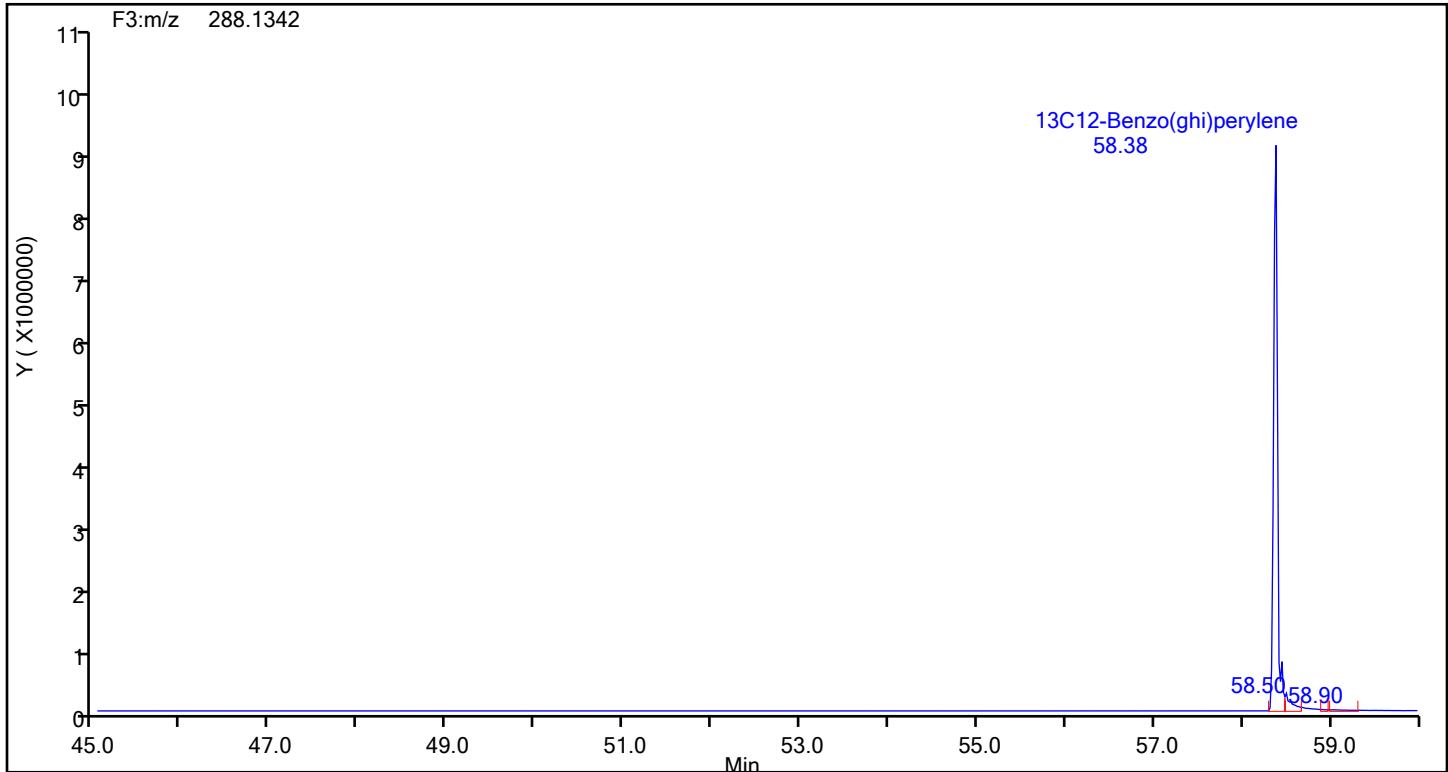
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Benzo[g,h,i]perylene



## Benzo[g,h,i]perylene Standards



## Eurofins Knoxville

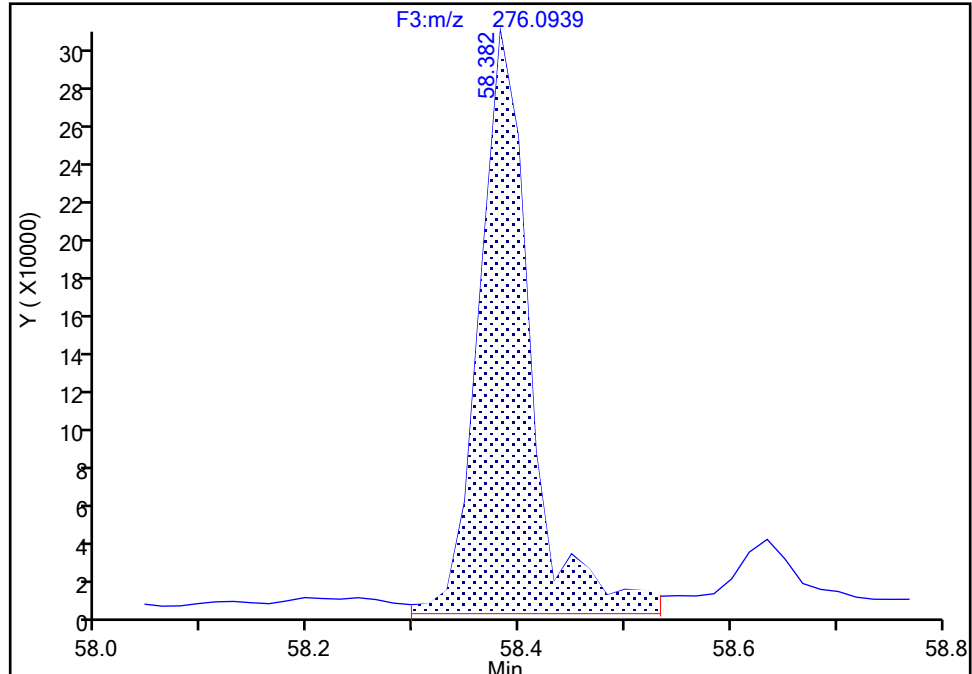
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Injection Date: 19-Jul-2024 00:57:00 Instrument ID: D3PAH  
Lims ID: MB 140-88192/21-B  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRP AH ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

Benzo[g,h,i]perylene, CAS: 191-24-2

Signal: 1

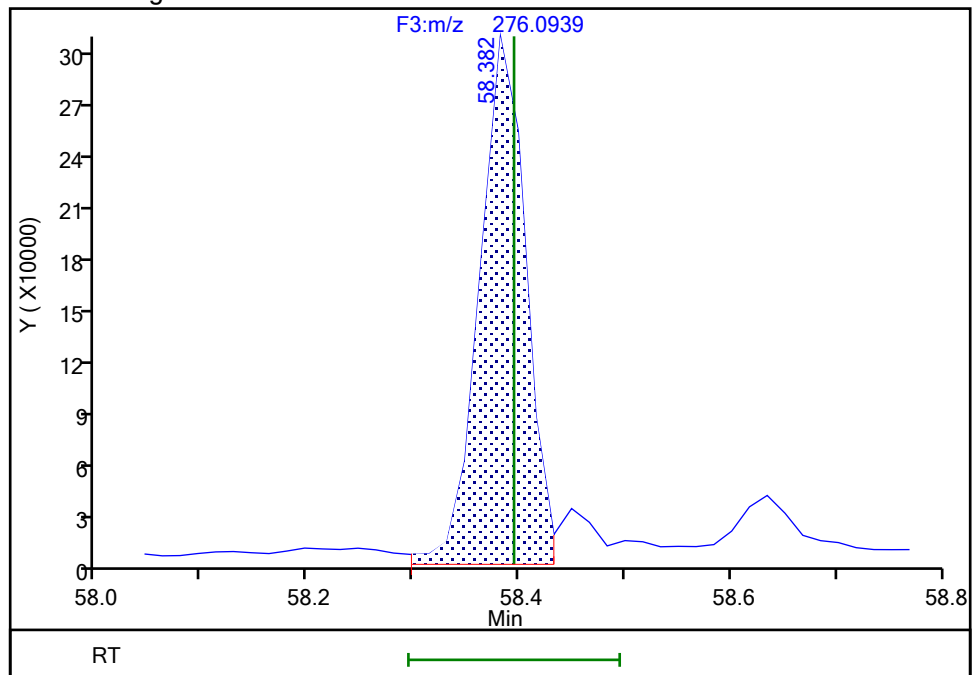
RT: 58.38  
Area: 1009303  
Amount: 2.813956  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.38  
Area: 917159  
Amount: 2.672710  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 10:07:55 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

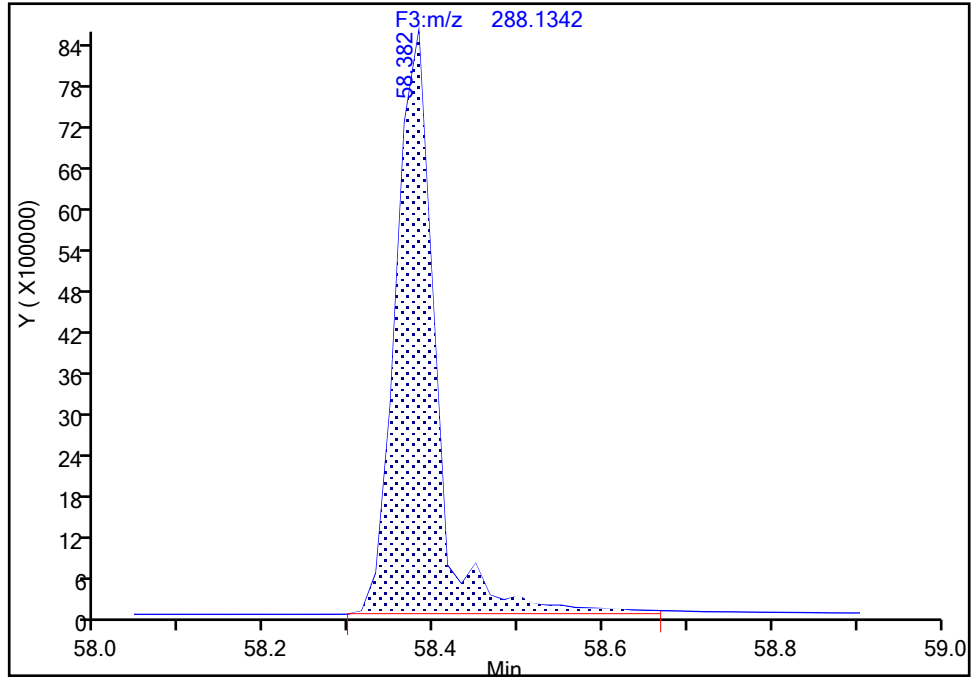
Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Injection Date: 19-Jul-2024 00:57:00 Instrument ID: D3PAH  
Lims ID: MB 140-88192/21-B  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Column: Restek-5Sil MS 25um ( 0.25 mm) Detector F3(44.04 :59.98 )

**13C12-Benzo(ghi)perylene, CAS: 350820-11-0**

Signal: 1

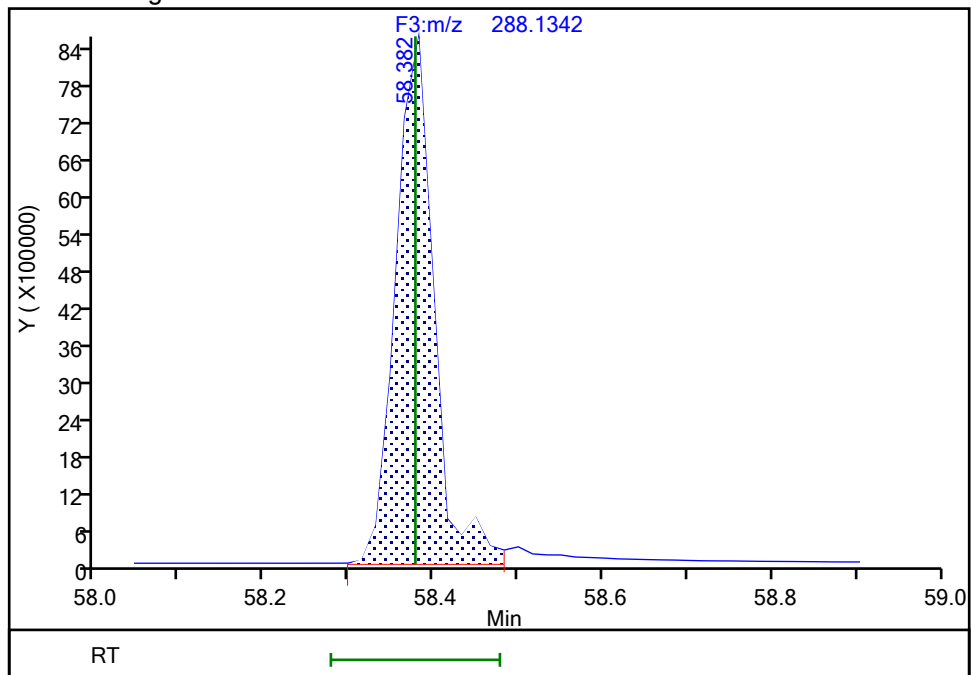
RT: 58.38  
Area: 27939703  
Amount: 90.284017  
Amount Units: pg/ul

## Processing Integration Results



RT: 58.38  
Area: 26730705  
Amount: 86.377276  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 20-Jul-2024 10:08:26 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\mb140-8819221-b\_20240719005604.d  
Lims ID: MB 140-88192/21-B  
Client ID:  
Sample Type: MB  
Inject. Date: 19-Jul-2024 00:57:00 ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033572-006  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33572.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 20-Jul-2024 10:15:05 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1689

First Level Reviewer: TT6I

Date: 20-Jul-2024 10:15:05

Compound	Amount Added	Amount Recovered	% Rec.
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FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>LCS 140-88192/19-B</u>
Matrix: <u>Air</u>	Lab File ID: <u>lcs140-8819219-b.d</u>
Analysis Method: <u>23</u>	Date Collected: _____
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/18/2024 12:24</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88920</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
91-20-3	Naphthalene	1224	++	75.0	75.0	0.0928
91-57-6	2-Methylnaphthalene	163.8		75.0	75.0	0.0451
208-96-8	Acenaphthylene	125.0		3.00	3.00	0.0386
83-32-9	Acenaphthene	141.4		30.0	30.0	0.0447
86-73-7	Fluorene	147.0		30.0	30.0	0.0477
85-01-8	Phenanthrene	164.4		6.00	6.00	0.0670
120-12-7	Anthracene	131.1		30.0	30.0	0.0667
206-44-0	Fluoranthene	159.9		6.00	6.00	0.0909
129-00-0	Pyrene	202.9		6.00	6.00	0.0874
56-55-3	Benzo[a]anthracene	162.5		6.00	6.00	0.106
218-01-9	Chrysene	160.9		6.00	6.00	0.106
205-99-2	Benzo[b]fluoranthene	143.0		30.0	30.0	0.0151
207-08-9	Benzo[k]fluoranthene	132.3		6.00	6.00	0.0145
192-97-2	Benzo[e]pyrene	146.0		6.00	6.00	0.0132
50-32-8	Benzo[a]pyrene	129.5		3.00	3.00	0.0126
198-55-0	Perylene	137.5		3.00	3.00	0.0120
193-39-5	Indeno[1,2,3-cd]pyrene	148.1		3.00	3.00	0.00992
53-70-3	Dibenz(a,h)anthracene	146.9		6.00	6.00	0.00923
191-24-2	Benzo[g,h,i]perylene	145.8		6.00	6.00	0.00863

FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>LCS 140-88192/19-B</u>
Matrix: <u>Air</u>	Lab File ID: <u>lcs140-8819219-b.d</u>
Analysis Method: <u>23</u>	Date Collected: _____
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1 (Sample)</u>	Date Analyzed: <u>07/18/2024 12:24</u>
Con. Extract Vol.: <u>30 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1 (uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88920</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02217	13C6-Naphthalene	82		20-130
STL03357	13C6-2-Methylnaphthalene	70		20-130
189811-56-1	13C6-Acenaphthylene	91		20-130
189811-57-2	13C6-Acenaphthene	84		20-130
STL00616	13C6-Fluorene	91		20-130
1397194-60-3	13C6-Fluoranthrene	91		20-130
1397214-90-2	13C3-Pyrene	93		20-130
917378-11-1	13C6-Benzo (a) anthracene	94		20-130
1397177-72-8	13C6-Chrysene	91		20-130
STL03358	13C6-Benzo (b) fluoranthene	103		20-130
1397194-60-3	13C6-Benzo (k) fluoranthene	94		20-130
STL03382	13C4-Benzo (e) pyrene	92		20-130
STL03359	13C4-Benzo (a) pyrene	95		20-130
1520-96-3	Perylene-d12	95		20-130
362044-56-2	13C6-Indeno (1,2,3-cd) pyrene	103		20-130
STL03360	13C6-Dibenz (a,h) anthracene	90		20-130
350820-11-0	13C12-Benzo (ghi) perylene	82		20-130
189811-60-7	13C6-Anthracene	78		20-130
1189955-53-0	13C6-Phenanthrene	68		20-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d  
Lims ID: LCS 140-88192/19-B  
Client ID:  
Sample Type: LCS  
Inject. Date: 18-Jul-2024 12:24:00 ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033564-002  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAL ICAL  
Last Update: 18-Jul-2024 16:25:46 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1654

First Level Reviewer: Q9DB

Date: 18-Jul-2024 16:25:46

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:22	24542147		3.3746	82.2	82.2	0.007481	0.007481	82.20	
Naphthalene	11:22	258145410		1.2893	815.9	815.9	0.0619	0.0619	816	
D 13C6-2-Methylnaphthalene	13:46	9972337		1.6031	70.3	70.3	0.001752	0.001752	70.31	
2-Methylnaphthalene	13:46	13924434		1.2786	109.2	109.2	0.0301	0.0301	109	
D 13C6-Acenaphthylene	16:38	13321028		1.6520	91.1	91.1	0.002775	0.002775	91.14	
Acenaphthylene	16:38	14394395		2.3661	83.3	83.3	0.0257	0.0257	83.34	
* Acenaphthene-d10	17:12	4423572		3.5E+04	50.0	50.0				
D 13C6-Acenaphthene	17:19	7299305		0.9792	84.3	84.3	0.003363	0.003363	84.26	
Acenaphthene	17:19	8737327		1.2697	94.3	94.3	0.0298	0.0298	94.28	
Fluorene	19:36	8753220		1.2532	98.0	98.0	0.0318	0.0318	98.00	
D 13C6-Fluorene	19:36	7127188		0.8898	90.5	90.5	0.000798	0.000798	90.53	
D 13C6-Phenanthrene	24:57	9947686		0.5724	67.7	67.7	0.003537	0.003537	67.69	
Phenanthrene	24:57	12040851		1.1044	109.6	109.6	0.0447	0.0447	110	
D 13C6-Anthracene	25:16	9028277		0.4523	77.7	77.7	0.004476	0.004476	77.74	
Anthracene	25:17	10720953		1.3586	87.4	87.4	0.0445	0.0445	87.41	
D 13C6-Fluoranthrene	33:40	28121730		1.1994	91.3	91.3	0.0152	0.0152	91.33	
Fluoranthene	33:40	34518978		1.1513	106.6	106.6	0.0606	0.0606	107	
* Pyrene-d10	35:13	12836230		7.9E+04	50.0	50.0				
D 13C3-Pyrene	35:21	32219217		1.3512	92.9	92.9	0.0181	0.0181	92.88	
Pyrene	35:21	46424034		1.0652	135.3	135.3	0.0583	0.0583	135	
D 13C6-Benzo(a)anthracene	45:51	33736552		1.5189	94.5	94.5	0.0110	0.0110	94.47	
Benzo[a]anthracene	45:52	35585367		0.9739	108.3	108.3	0.0707	0.0707	108	
D 13C6-Chrysene	46:08	34912110		1.6287	91.2	91.2	0.0103	0.0103	91.17	
Chrysene	46:09	36752193		0.9815	107.3	107.3	0.0705	0.0705	107	
D 13C6-Benzo(b)fluoranthene	54:30	35542520		1.4621	103.4	103.4	0.001495	0.001495	103	
Benzo[b]fluoranthene	54:30	38121369		1.1249	95.3	95.3	0.0100	0.0100	95.35	
D 13C6-Benzo(k)fluoranthene	54:37	38825282		1.7507	94.3	94.3	0.001249	0.001249	94.33	
Benzo[k]fluoranthene	54:38	38607773		1.1271	88.2	88.2	0.009640	0.009640	88.23	
* Benzo(e)pyrene-d12	55:22	11755008		5.7E+04	50.0	50.0				
D 13C4-Benzo(e)pyrene	55:27	35554698		1.6368	92.4	92.4	0.003495	0.003495	92.39	
Benzo[e]pyrene	55:27	34659992		1.0013	97.4	97.4	0.008810	0.008810	97.36	
D 13C4-Benzo(a)pyrene	55:37	34735790		1.5508	95.3	95.3	0.003689	0.003689	95.27	
Benzo[a]pyrene	55:37	33383129		1.1130	86.3	86.3	0.008427	0.008427	86.35	
D Perylene-d12	55:47	26623551		1.1917	95.0	95.0	0.0140	0.0140	95.03	
Perylene	55:51	34912686		1.4307	91.7	91.7	0.008023	0.008023	91.66	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Indeno(1,2,3-cd)pyrene	57:55	24673123		1.0218	102.7	102.7	0.007841	0.007841	103	
Indeno[1,2,3-cd]pyrene	57:55	27407024		1.1249	98.7	98.7	0.006616	0.006616	98.74	M
D 13C6-Dibenz(a,h)anthracene	57:59	22384023		1.0553	90.2	90.2	0.004863	0.004863	90.22	
Dibenz(a,h)anthracene	57:59	24793101		1.1314	97.9	97.9	0.006153	0.006153	97.90	
D 13C12-Benzo(ghi)perylene	58:22	24649993		1.2749	82.2	82.2	0.001078	0.001078	82.24	
Benzo[g,h,i]perylene	58:23	30767196		1.2838	97.2	97.2	0.005756	0.005756	97.23	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d  
 Lims ID: LCS 140-88192/19-B  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 18-Jul-2024 12:24:00 ALS Bottle#: 0 Worklist Smp#: 2  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info:  
 Misc. Info.: 140-0033564-002  
 Operator ID: Xcalibur\_System Instrument ID: D3PAH  
 Method: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\EPA\_23\_\_PAH.m  
 Limit Group: HR - HRPAL ICAL  
 Last Update: 18-Jul-2024 16:25:46 Calib Date: 20-Jun-2024 01:09:00  
 Integrator: RTE  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
 Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
 Process Host: CTX1654

First Level Reviewer: Q9DB

Date: 18-Jul-2024 16:25:46

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:22	11:24	-3	0.661	24542147	8359535	313	782	26708		
Naphthalene											
128.0626	11:22	11:21	-3	1.000	258145410	85440138	2667	6667	32036		
13C6-2-Methylnaphthalene											
148.0984	13:46	13:46	-1	0.800	9972337	4476537	35	87	127901		
2-Methylnaphthalene											
142.0783	13:46	13:46	-1	1.001	13924434	6355513	688	1720	9238		
13C6-Acenaphthylene											
158.0828	16:38	16:37	-1	0.967	13321028	4623016	57	142	81106		
Acenaphthylene											
152.0626	16:38	16:39	-1	1.000	14394395	4865331	596	1490	8163		
Acenaphthene-d10											
164.1404	17:12	17:13	-1		4423572	1548909	25	62	61956		
13C6-Acenaphthene											
160.0984	17:19	17:19	-1	1.007	7299305	2447777	41	102	59702		
Acenaphthene											
154.0783	17:19	17:18	-1	1.000	8737327	2966082	371	927	7995		
Fluorene											
166.0783	19:36	19:35	-1	1.000	8753220	2492904	330	825	7554		
13C6-Fluorene											
172.0984	19:36	19:35	-1	1.140	7127188	2072007	9	22	230223		
13C6-Phenanthrene											
184.0984	24:57	24:57	-1	0.708	9947686	2303908	39	97	59075		
Phenanthrene											
178.0783	24:57	24:56	0	1.000	12040851	2694486	455	1137	5922		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Anthracene											
184.0984	25:16	25:16	-1	0.718	9028277	1881037	39	97	48232		
Anthracene											
178.0783	25:17	25:15	0	1.000	10720953	2230140	455	1137	4901		
13C6-Fluoranthrene											
208.0984	33:40	33:39	0	0.956	28121730	5522331	349	872	15823		
Fluoranthene											
202.0783	33:40	33:40	0	1.000	34518978	6833830	1541	3852	4435		
Pyrene-d10											
212.1404	35:13	35:13	0		12836230	2395396	25	62	95816		
13C3-Pyrene											
205.0883	35:21	35:20	0	1.004	32219217	6203011	469	1172	13226		
Pyrene											
202.0783	35:21	35:20	0	1.000	46424034	8969610	1541	3852	5821		
13C6-Benzo(a)anthracene											
234.1140	45:51	45:51	-1	1.303	33736552	5963999	511	1277	11671		
Benzo[a]anthracene											
228.0939	45:52	45:53	-1	1.000	35585367	6200403	1642	4105	3776		
13C6-Chrysene											
234.1140	46:08	46:07	-1	1.310	34912110	5933299	511	1277	11611		
Chrysene											
228.0939	46:09	46:09	-1	1.000	36752193	6299218	1642	4105	3836		
13C6-Benzo(b)fluoranthene											
258.1140	54:30	54:30	-1	0.984	35542520	9671045	67	167	144344		E
Benzo[b]fluoranthene											
252.0939	54:30	54:29	-1	1.000	38121369	10386232	437	1092	23767		
13C6-Benzo(k)fluoranthene											
258.1140	54:37	54:37	-1	0.986	38825282	10050949	67	167	150014		
Benzo[k]fluoranthene											
252.0939	54:38	54:38	-1	1.000	38607773	10267192	437	1092	23495		
Benzo(e)pyrene-d12											
264.1692	55:22	55:23	-1		11755008	3819019	510	1275	7488		
13C4-Benzo(e)pyrene											
256.1073	55:27	55:28	-1	1.002	35554698	12379050	175	437	70737		
Benzo[e]pyrene											
252.0939	55:27	55:28	-1	1.000	34659992	11872964	437	1092	27169		
13C4-Benzo(a)pyrene											
256.1073	55:37	55:37	-1	1.004	34735790	11642352	175	437	66528		
Benzo[a]pyrene											
252.0939	55:37	55:36	-1	1.000	33383129	11503056	437	1092	26323		
Perylene-d12											
264.1692	55:47	55:47	-1	1.007	26623551	9513965	510	1275	18655		
Perylene											
252.0939	55:51	55:51	-1	1.001	34912686	12406517	437	1092	28390		
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	57:55	57:55	-1	1.046	24673123	8732827	245	612	35644		E

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Indeno[1,2,3-cd]pyrene											M
276.0939	57:55	57:55	-1	1.000	27407024	9904512	260	650	38094		M
13C6-Dibenz(a,h)anthracene											
284.1296	57:59	57:59	-1	1.047	22384023	7972976	157	392	50783		
Dibenz(a,h)anthracene											
278.1096	57:59	57:59	-1	1.000	24793101	8509579	222	555	38331		
13C12-Benzo(ghi)perylene											
288.1342	58:22	58:22	-1	1.054	24649993	8796617	42	105	209443		
Benzo[g,h,i]perylene											
276.0939	58:23	58:23	-1	1.000	30767196	10394240	260	650	39978		

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d

Injection Date: 18-Jul-2024 12:24:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

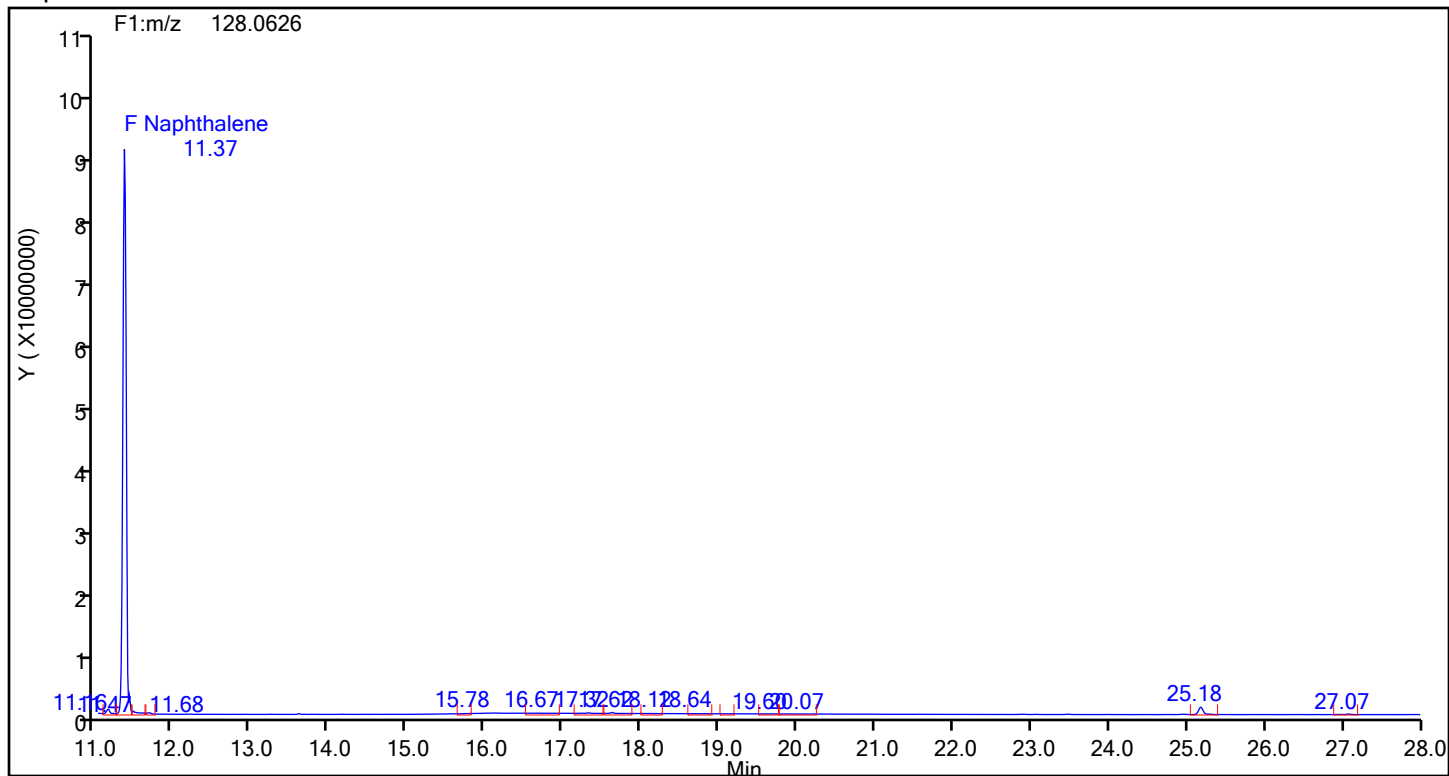
Worklist#: 88920

Sample Line#: 2

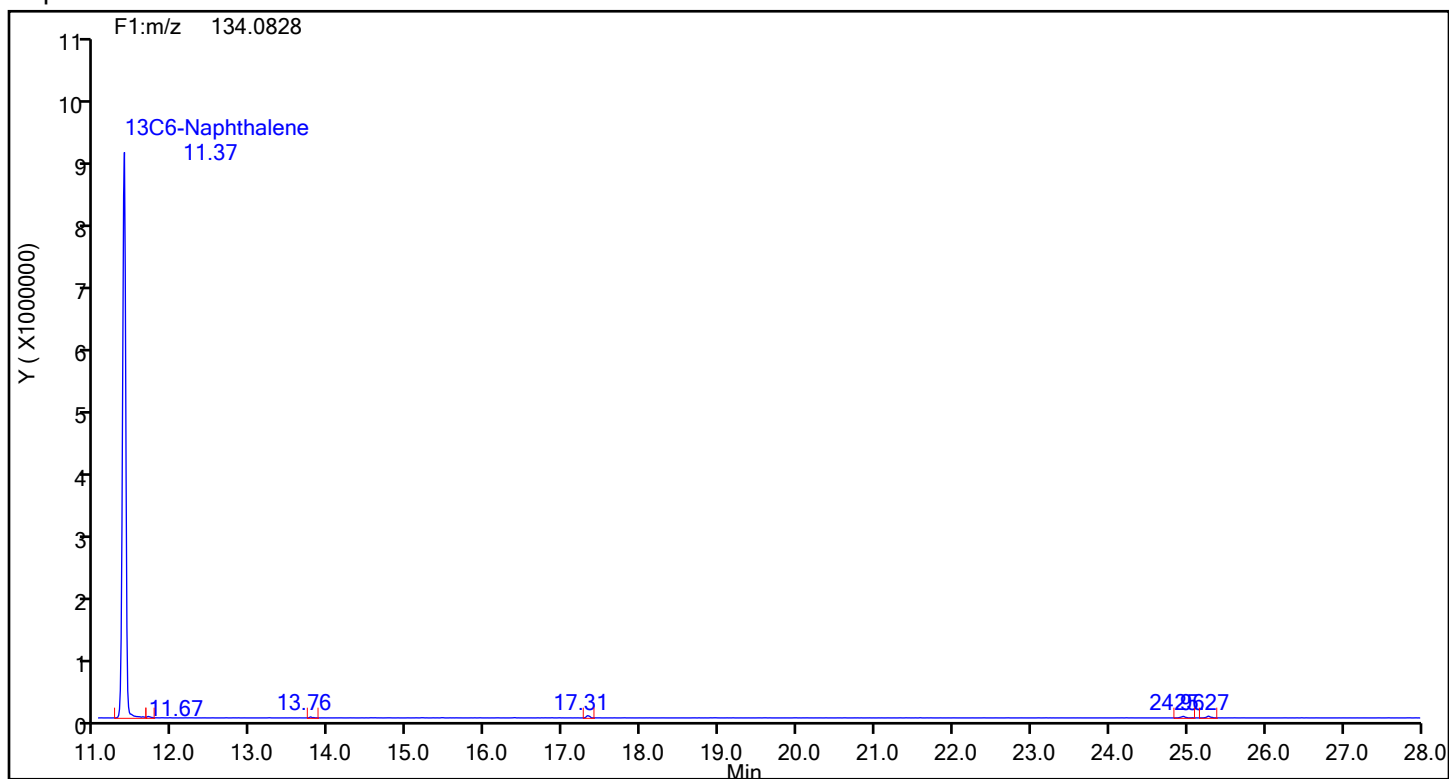
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Naphthalene



## Naphthalene Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d

Injection Date: 18-Jul-2024 12:24:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

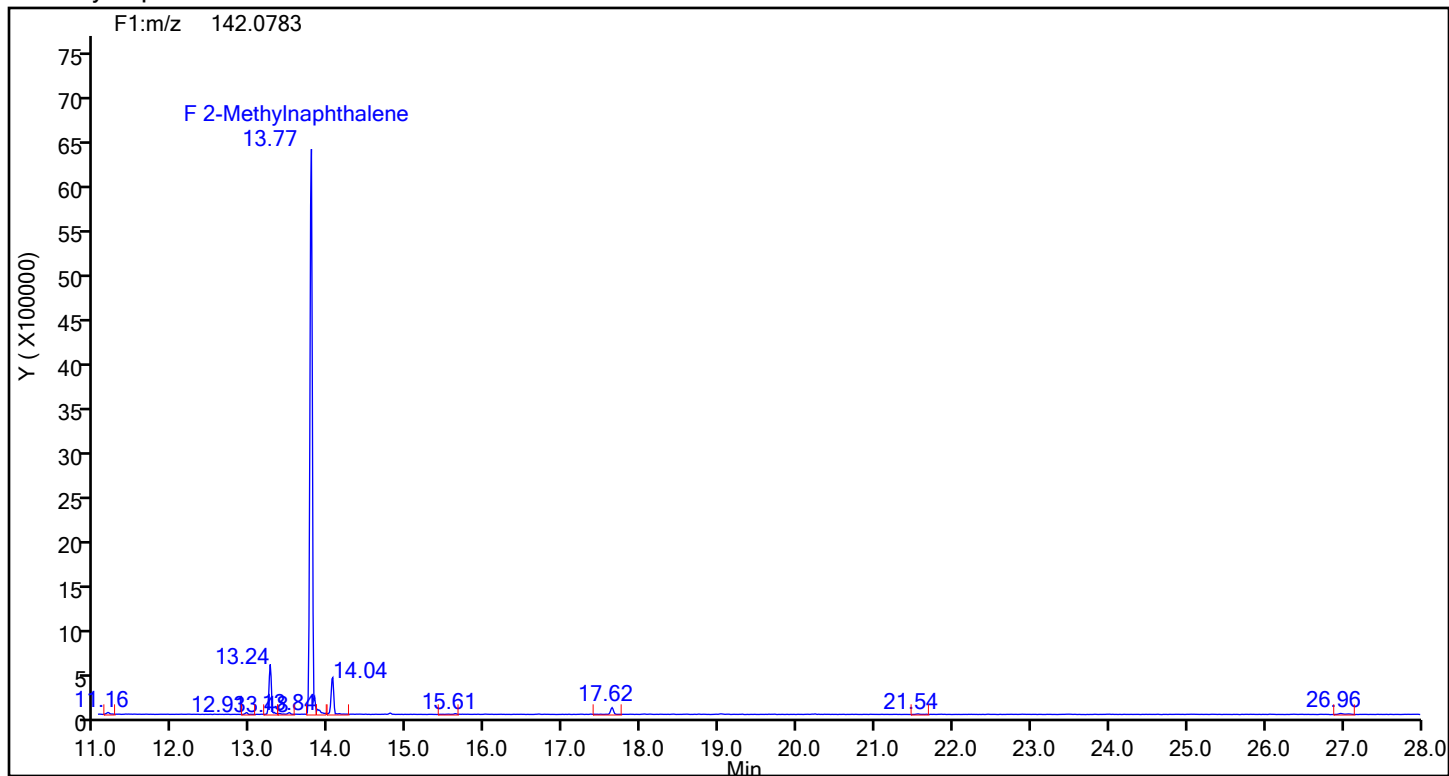
Worklist#: 88920

Sample Line#: 2

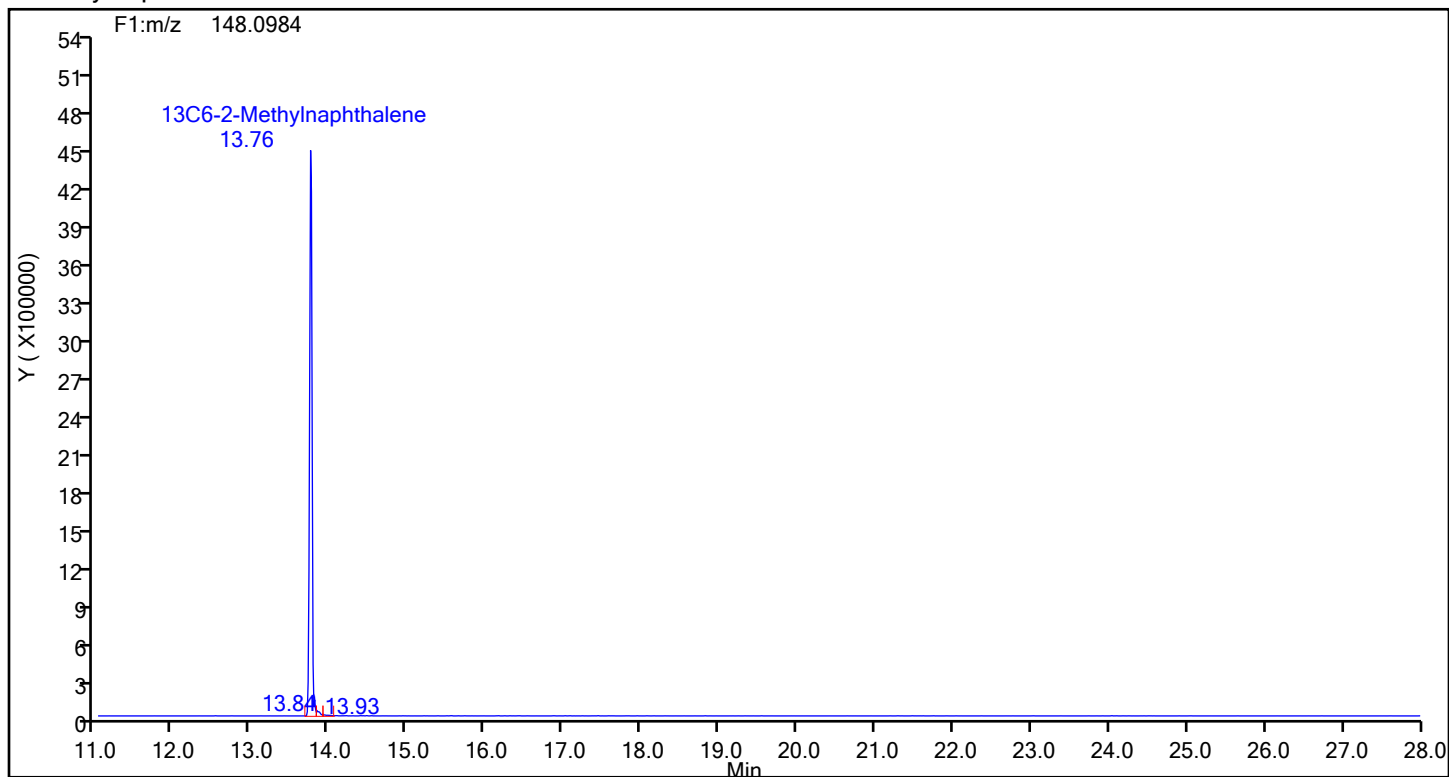
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## 2-Methylnaphthalene



## 2-Methylnaphthalene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d

Injection Date: 18-Jul-2024 12:24:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

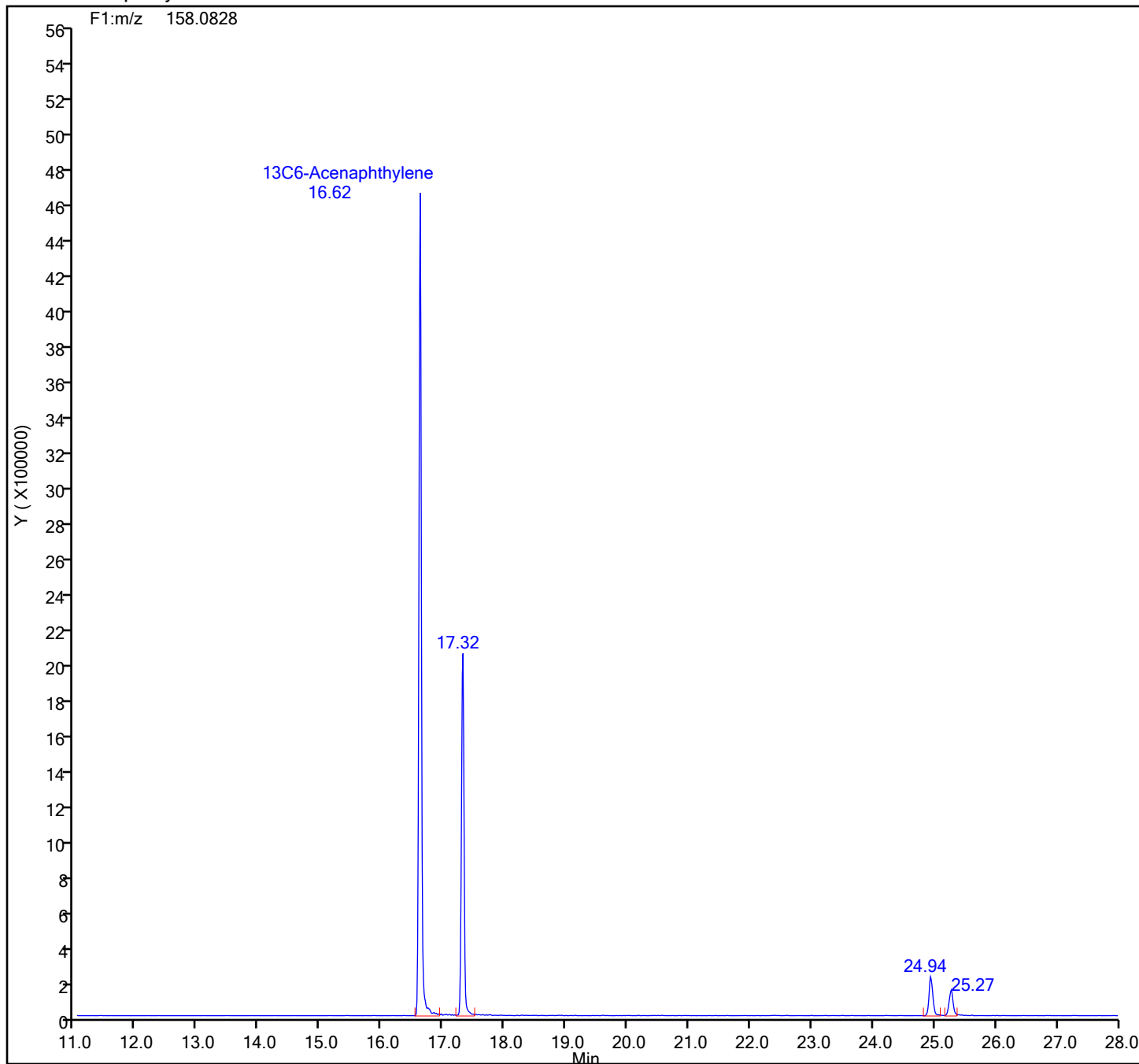
Worklist#: 88920

Sample Line#: 2

Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

13C6-Acenaphthylene Standards



## Eurofins Knoxville

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Injection Date: 18-Jul-2024 12:24:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

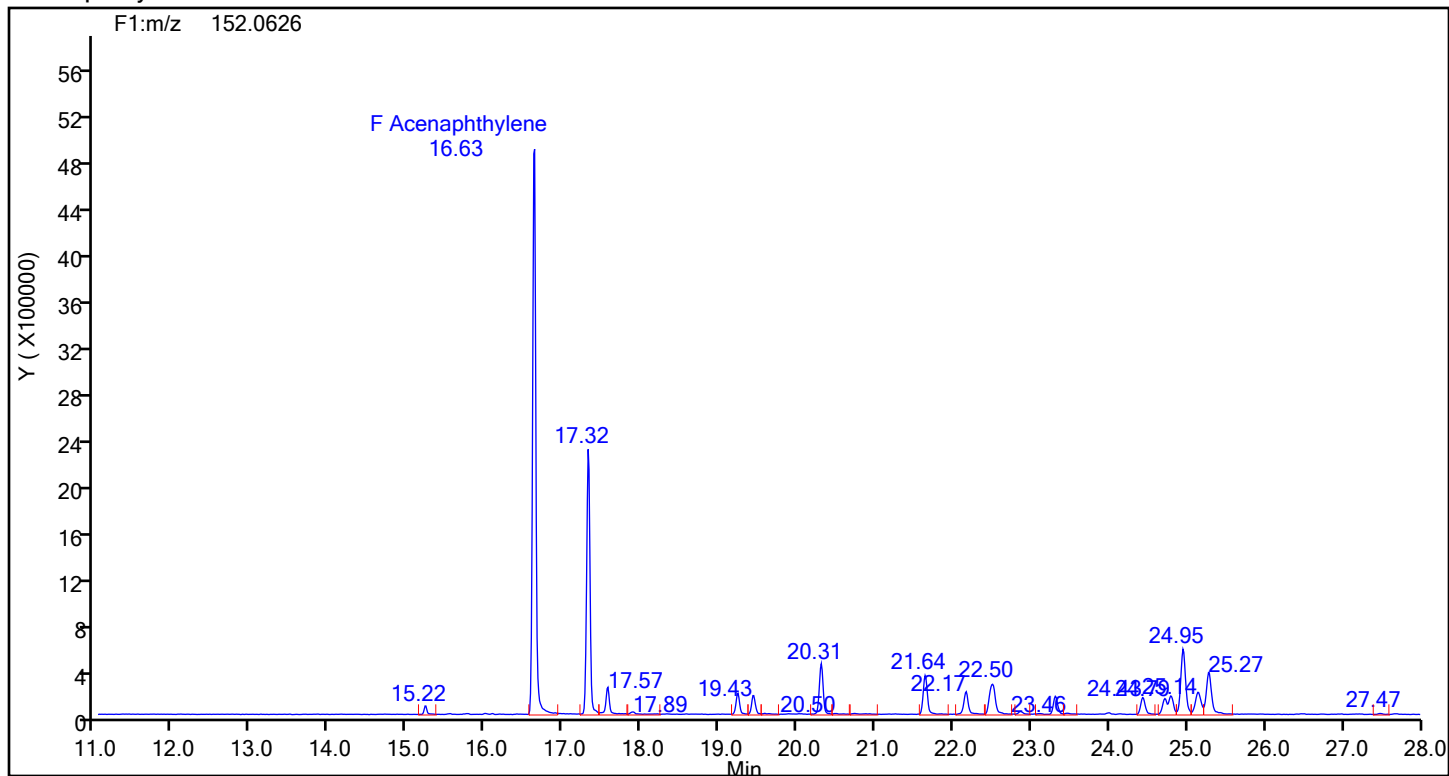
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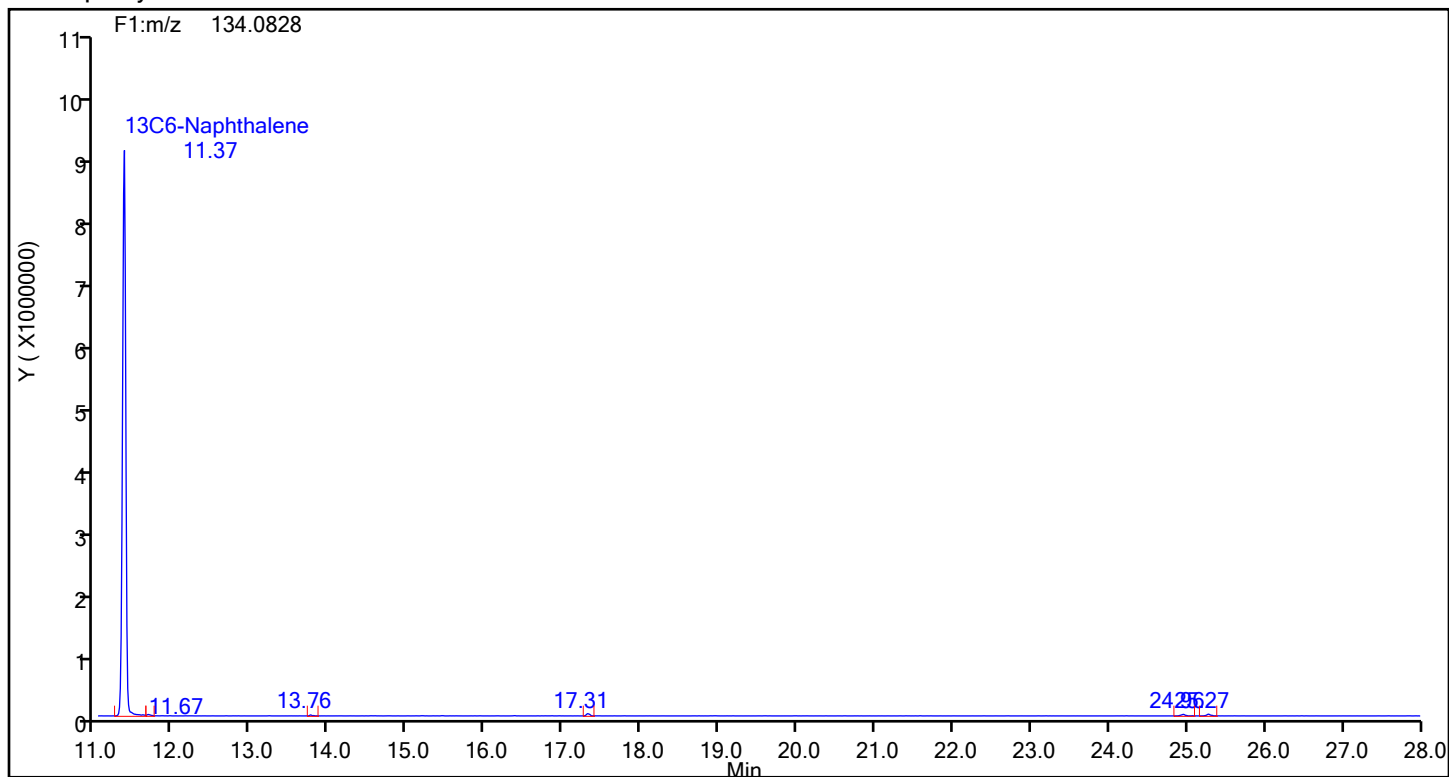
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Column Dia: 0.25 mm

## Acenaphthylene



## Acenaphthylene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d

Injection Date: 18-Jul-2024 12:24:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

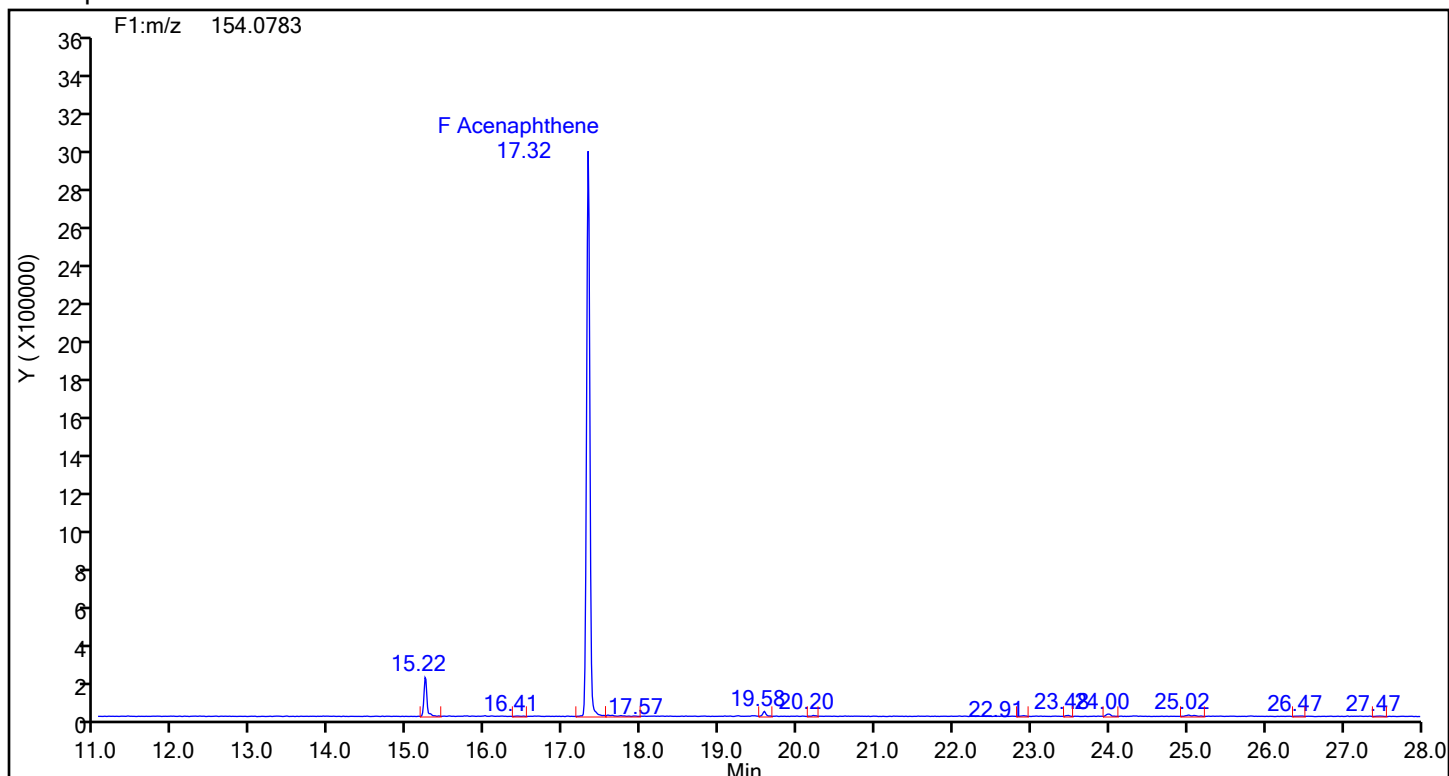
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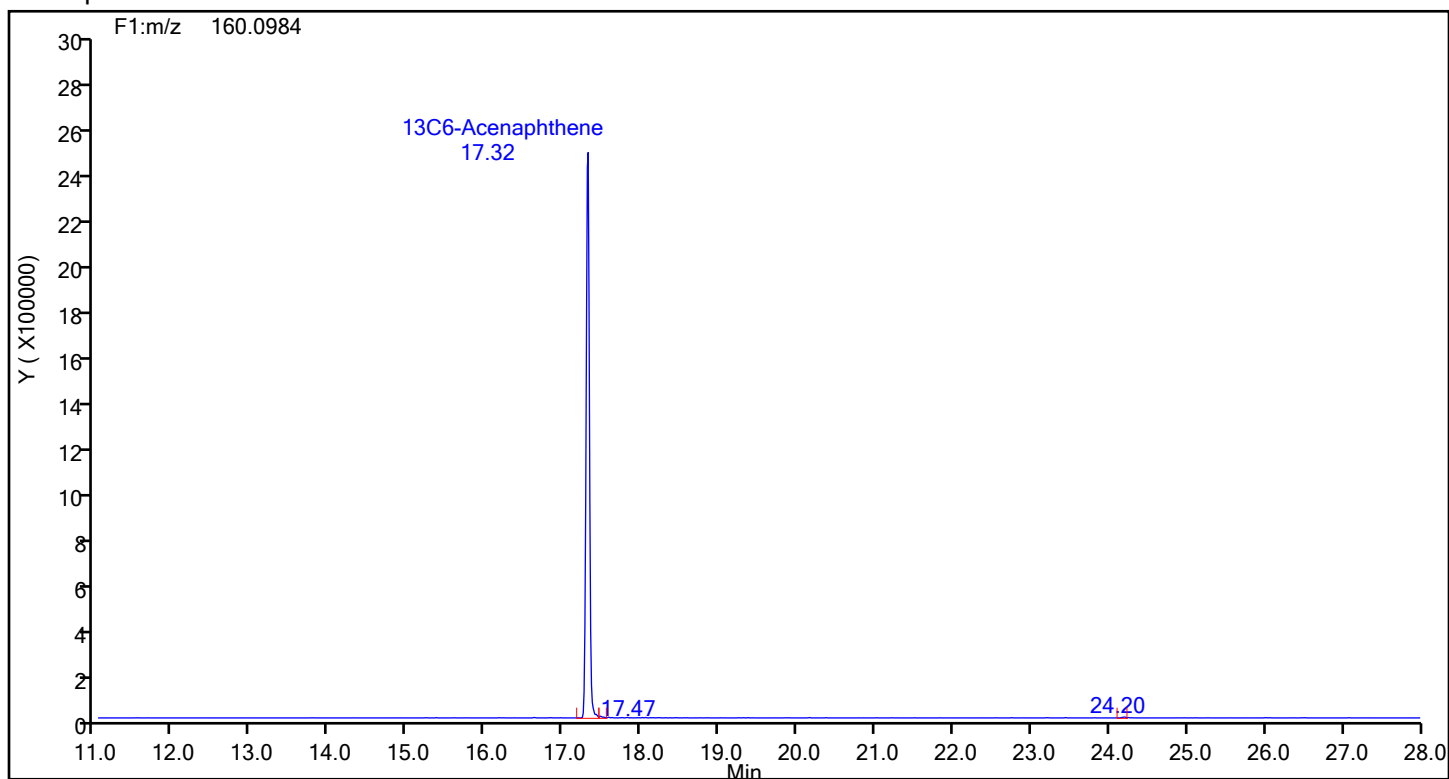
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Acenaphthene



## Acenaphthene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d

Injection Date: 18-Jul-2024 12:24:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

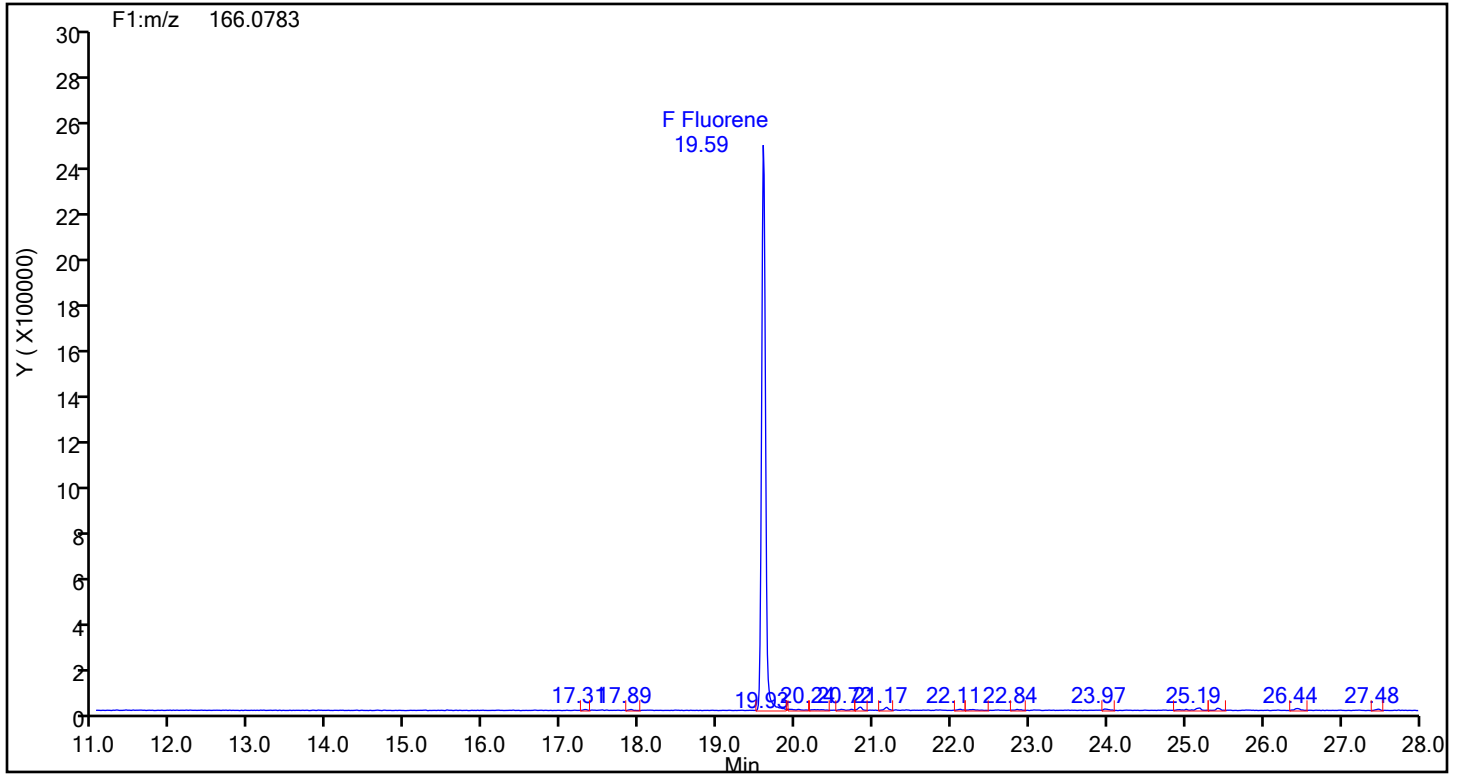
Worklist#: 88920

Sample Line#: 2

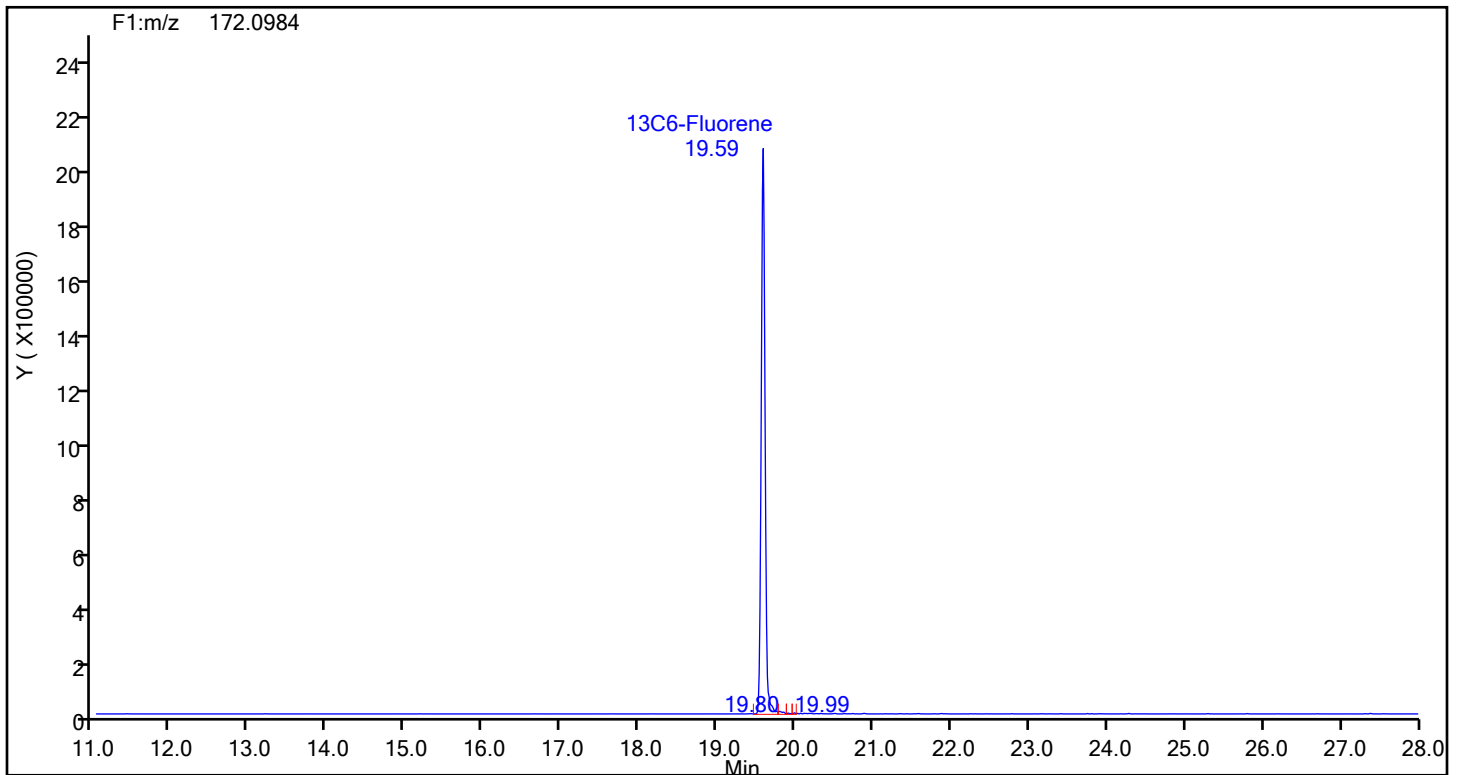
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Fluorene



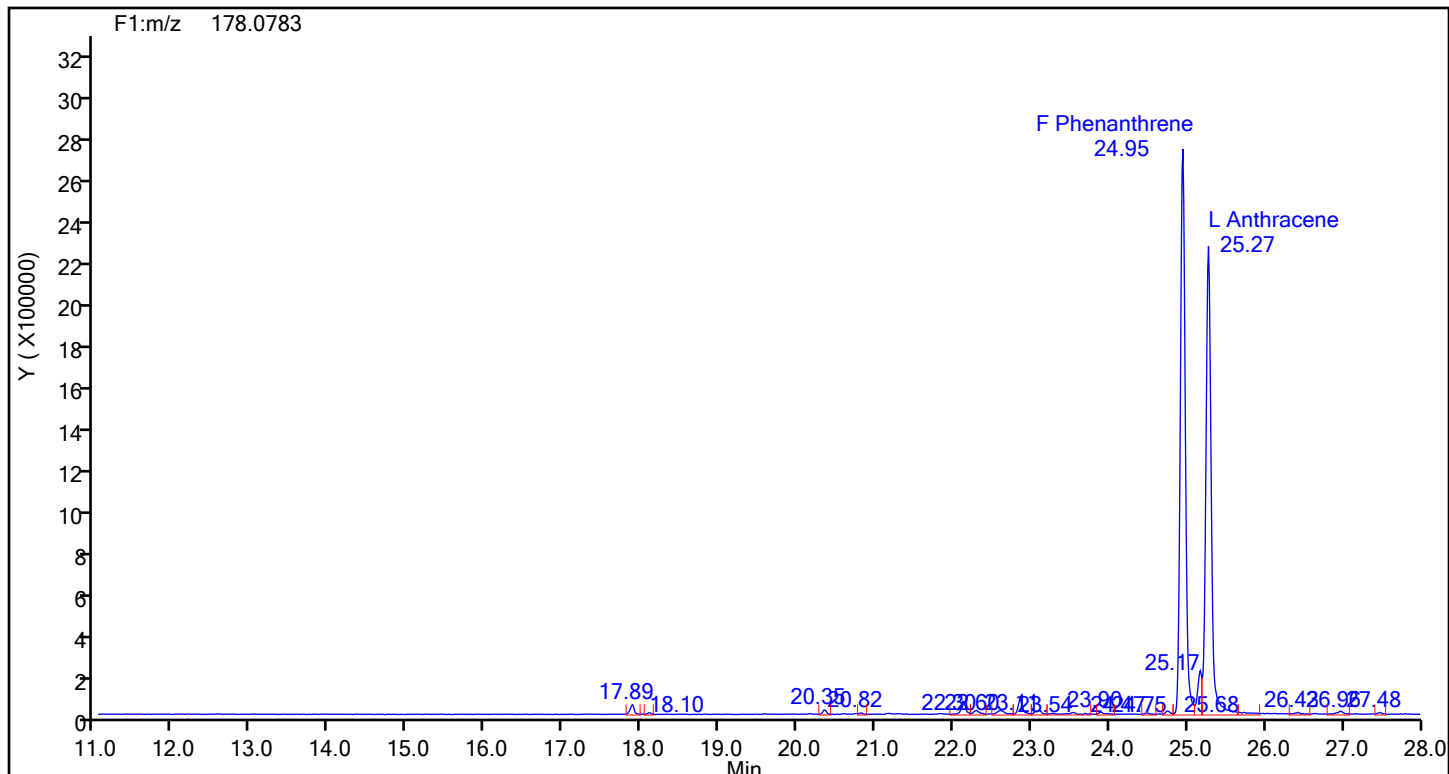
## Fluorene Standards



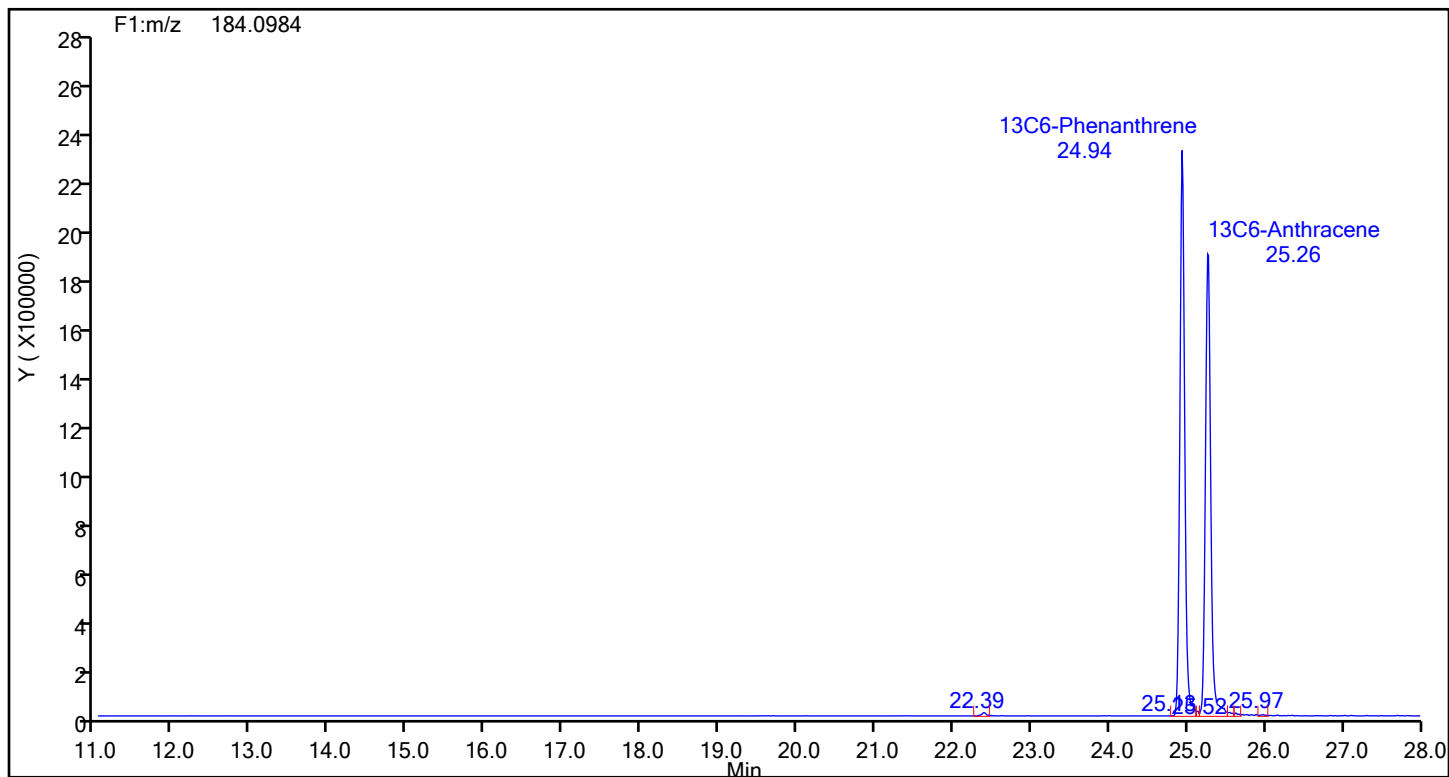
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d  
Injection Date: 18-Jul-2024 12:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 2  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Phenanthrene

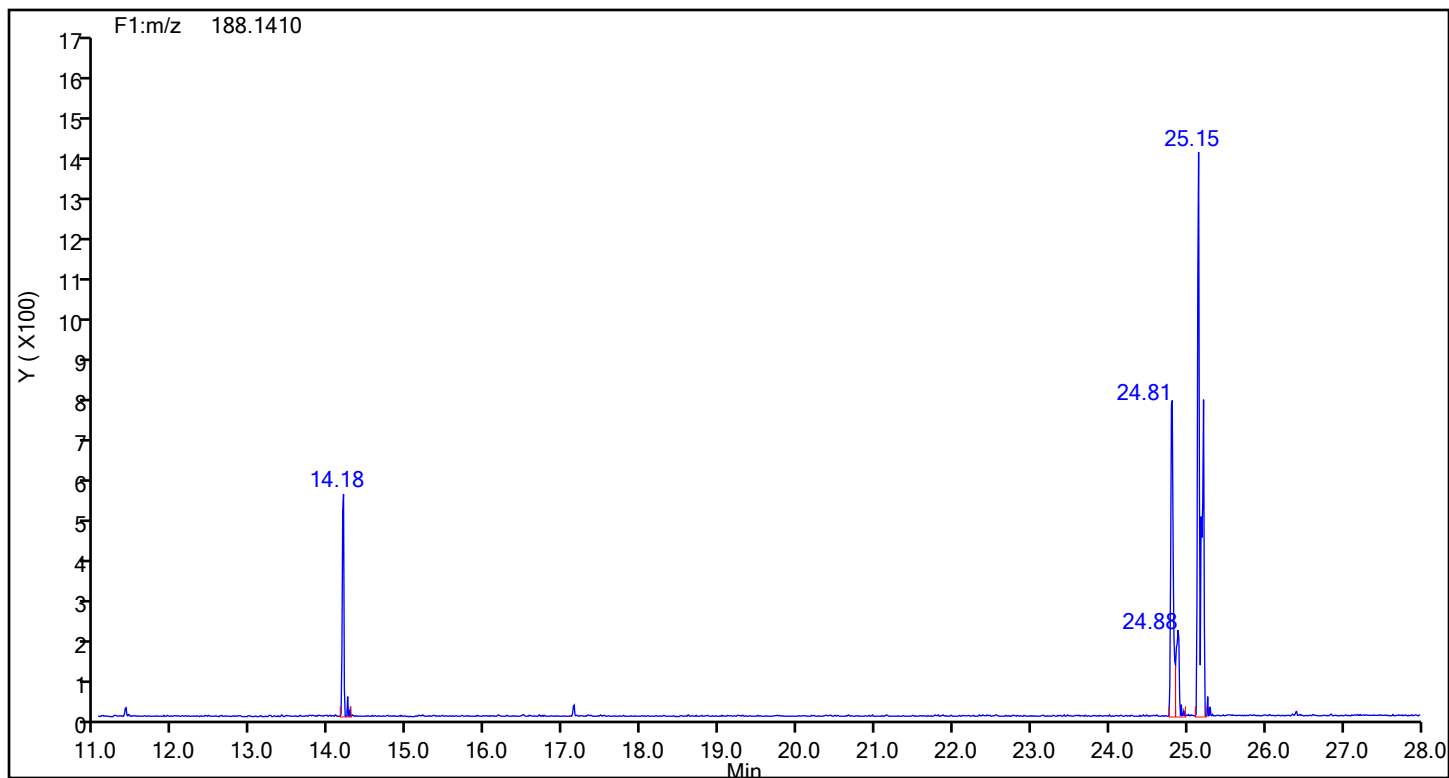


## Phenanthrene Standards

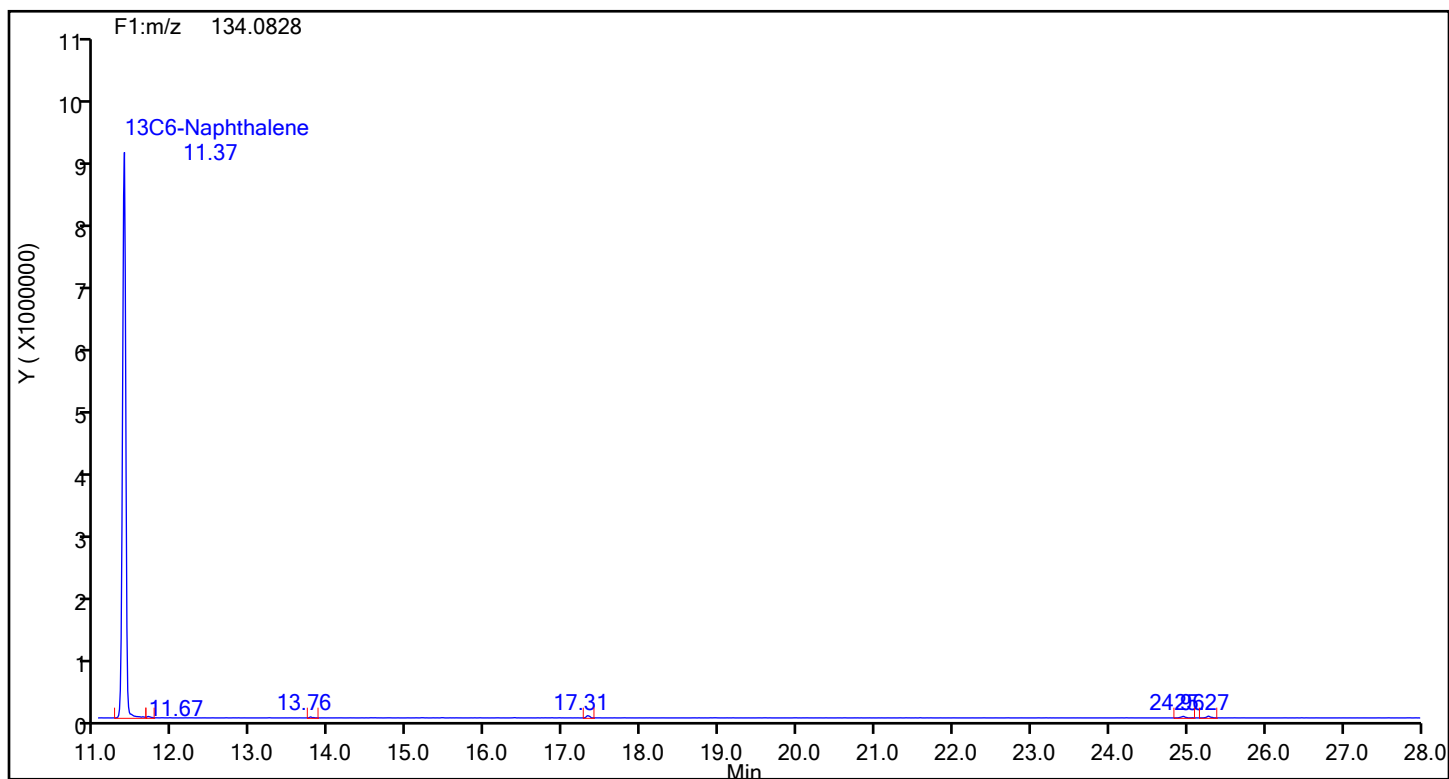


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d  
Injection Date: 18-Jul-2024 12:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 2  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10



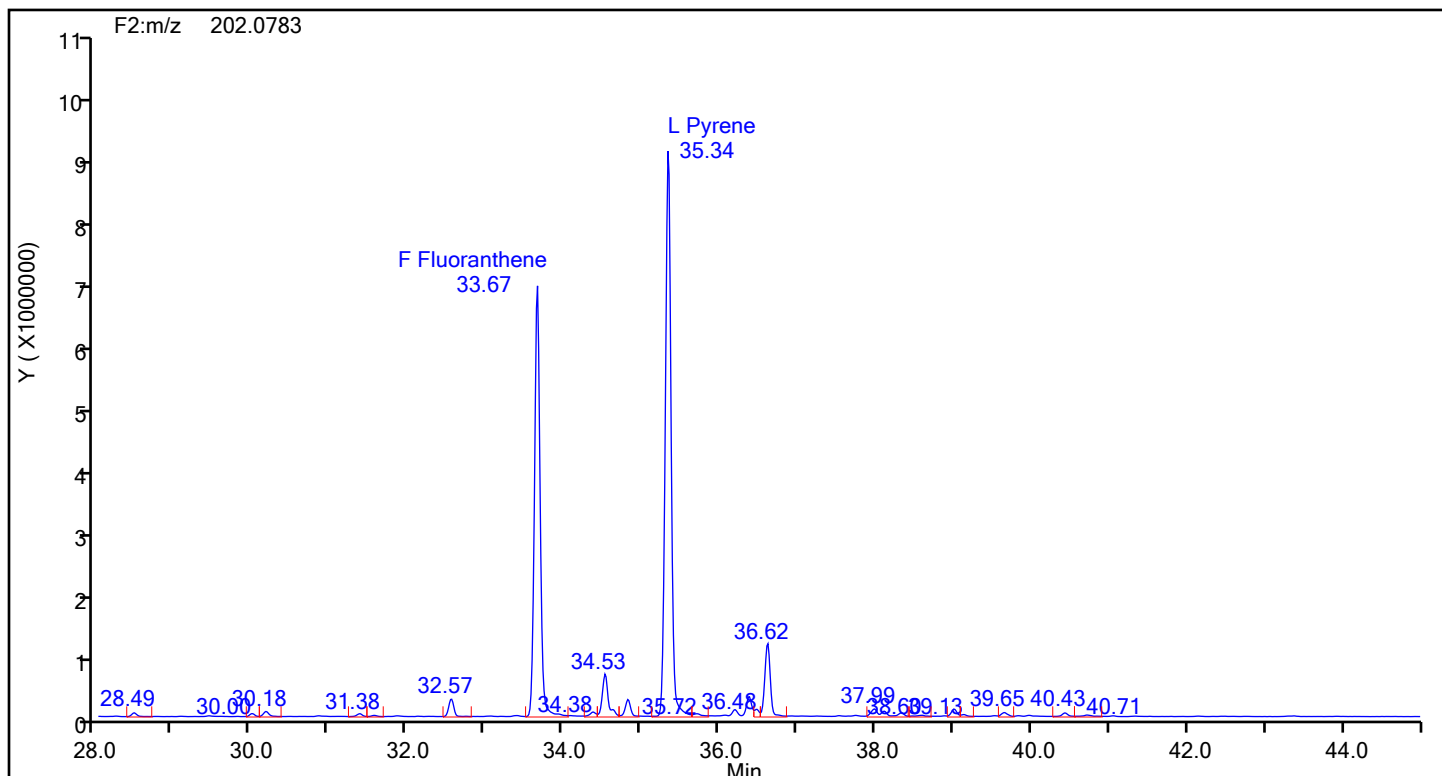
## Anthracin-d10 Standards



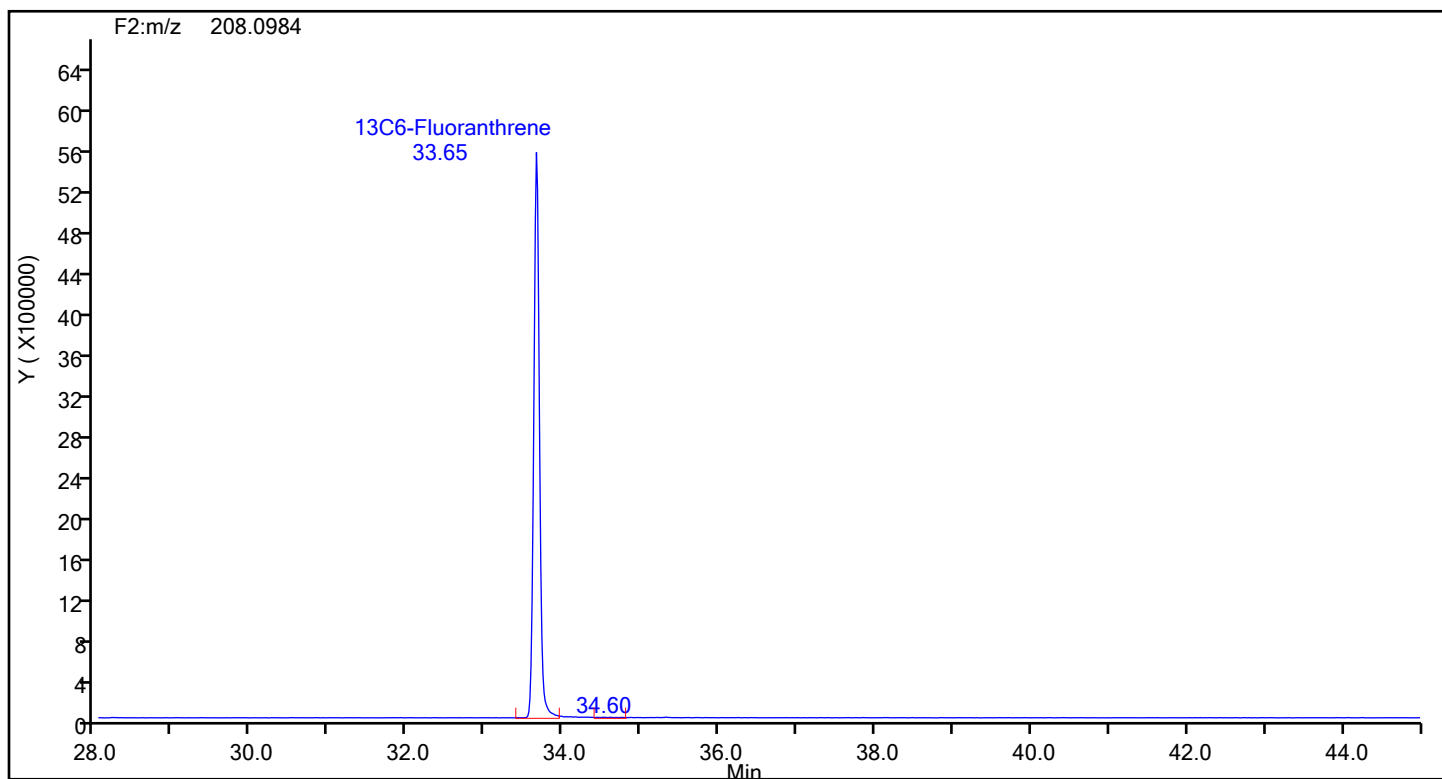
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d  
Injection Date: 18-Jul-2024 12:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 2  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluoranthene



## Fluoranthene Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d

Injection Date: 18-Jul-2024 12:24:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

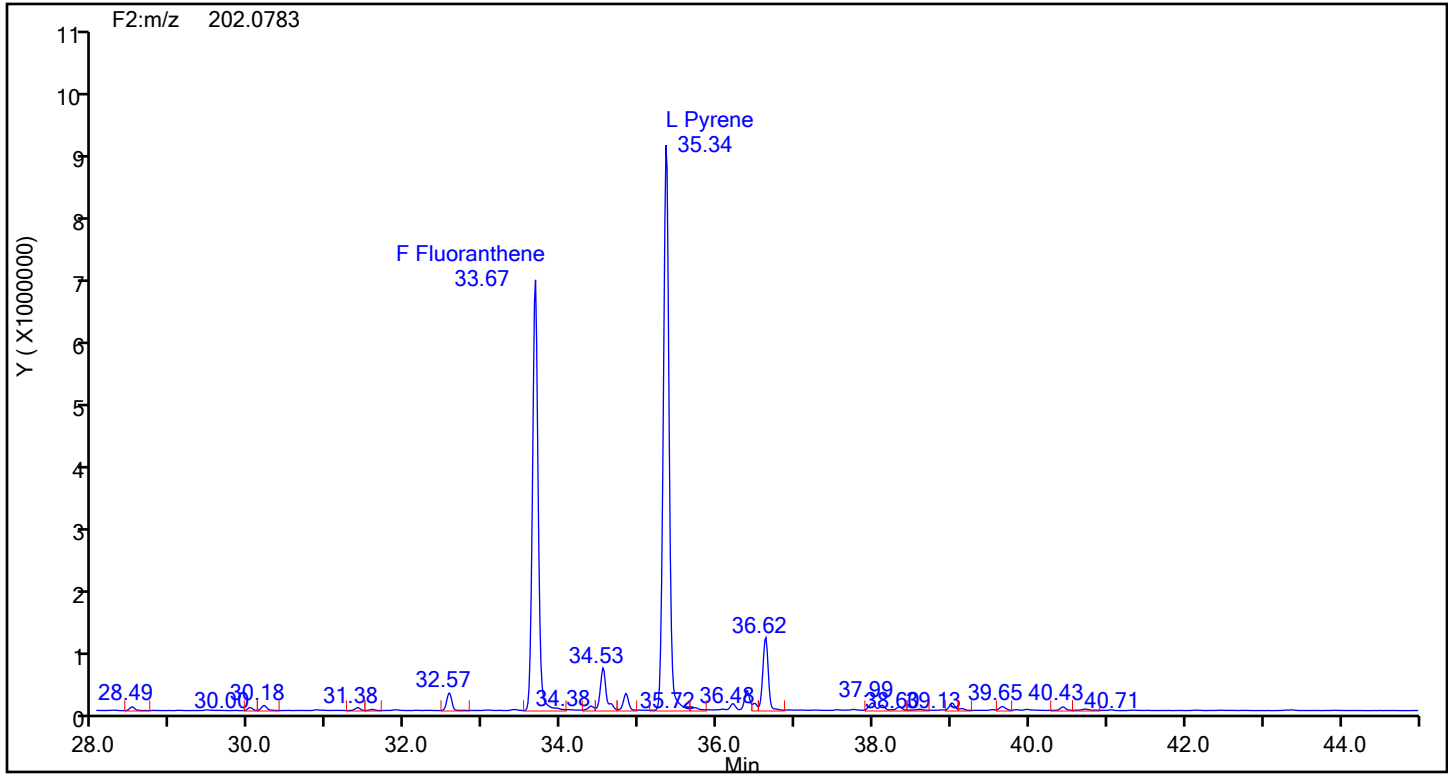
Worklist#: 88920

Sample Line#: 2

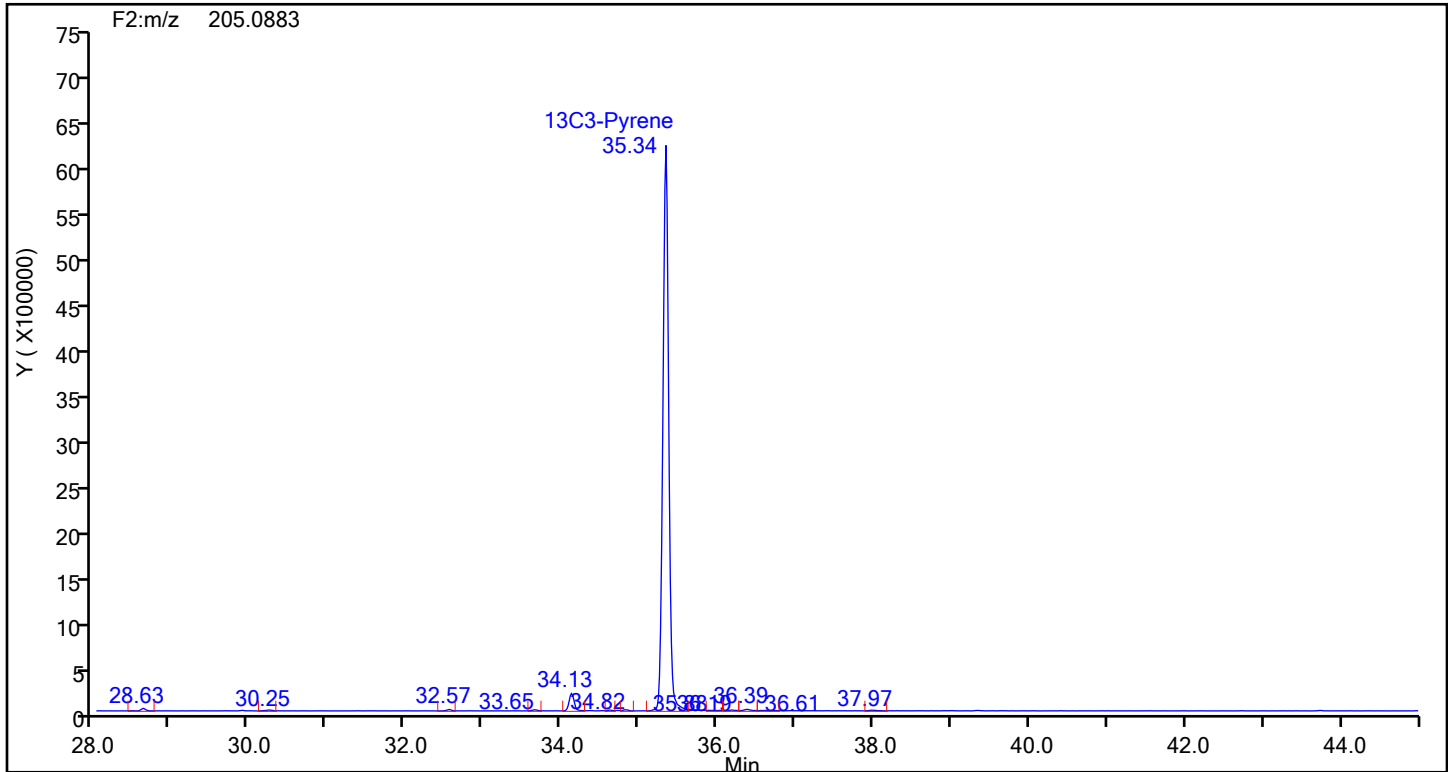
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Pyrene



## Pyrene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d

Injection Date: 18-Jul-2024 12:24:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

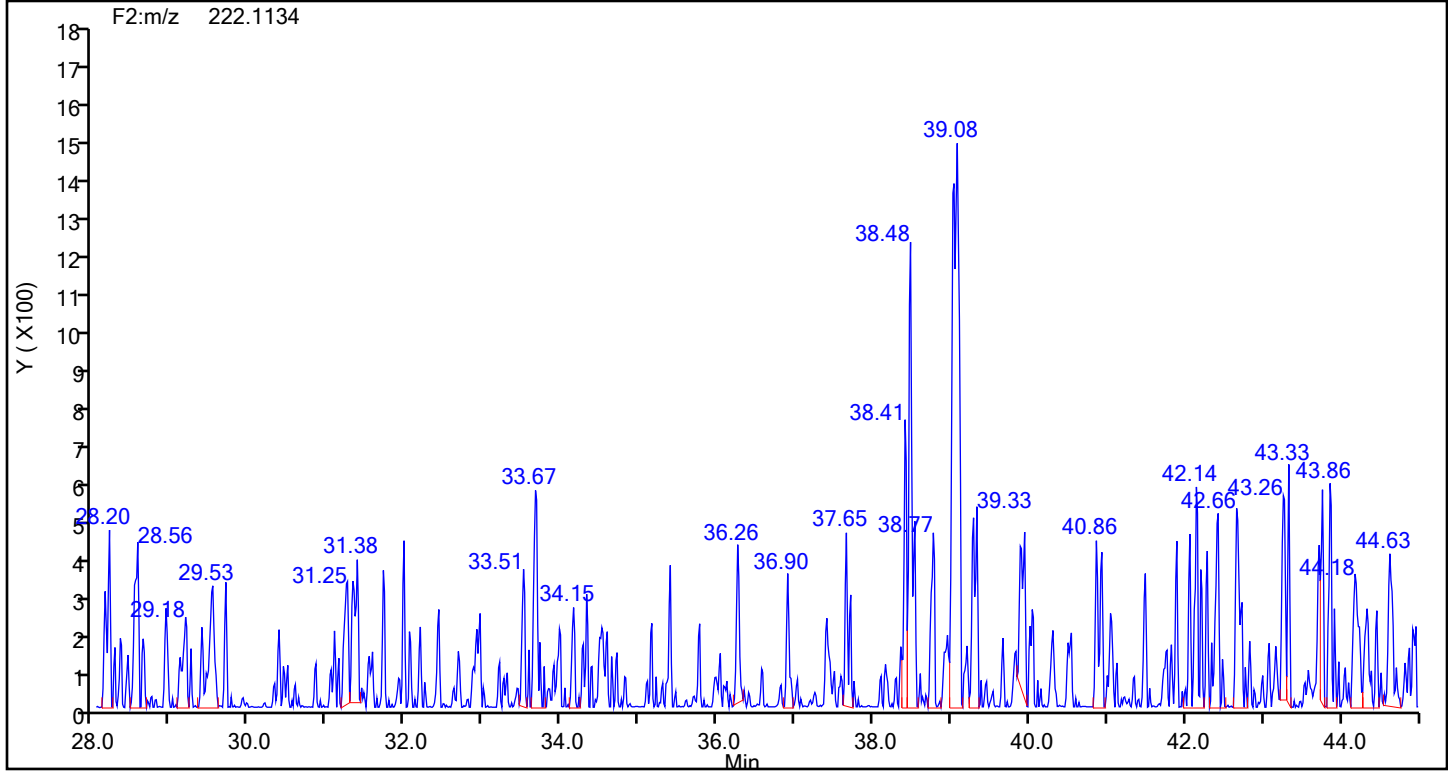
Worklist#: 88920

Sample Line#: 2

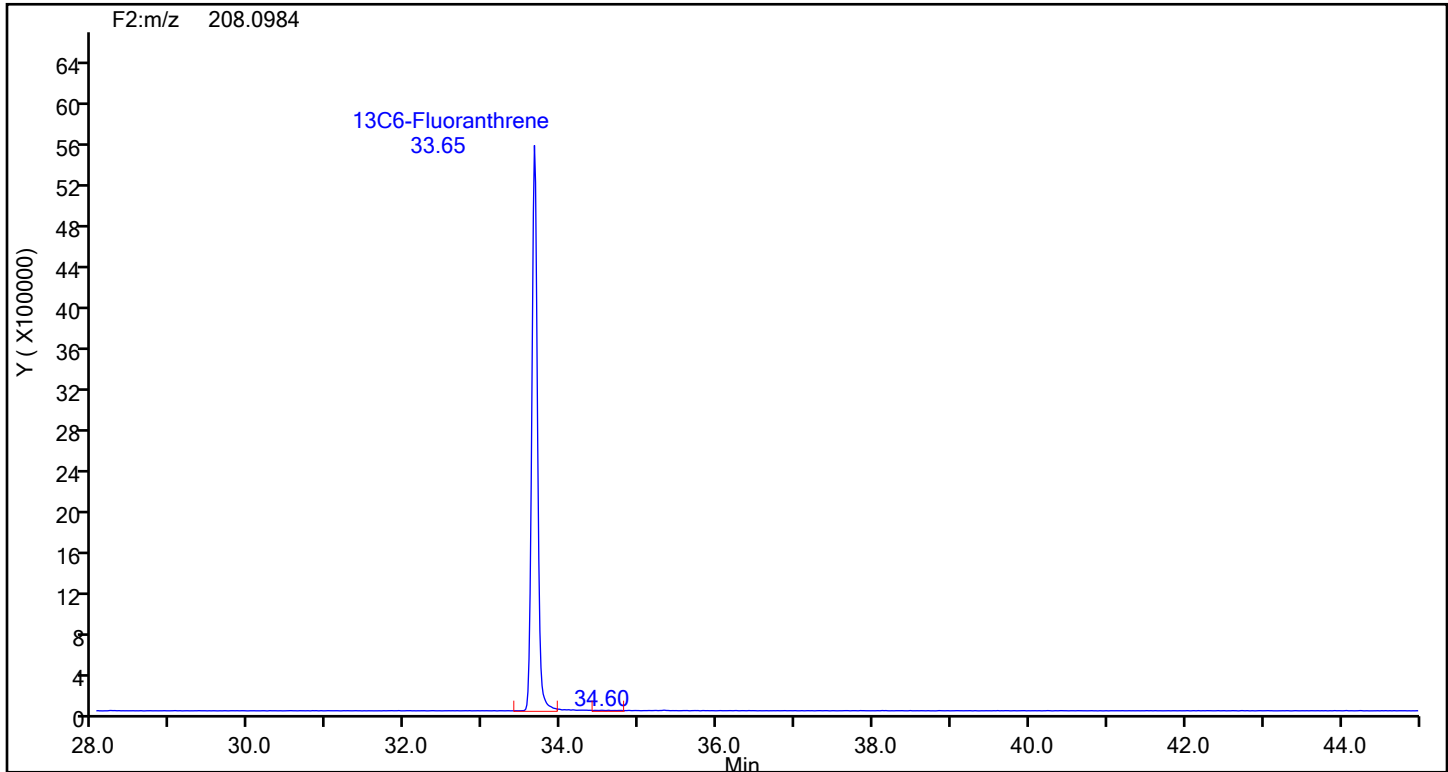
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

13C6-Benzo(c)fluorene



13C6-Benzo(c)fluorene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d

Injection Date: 18-Jul-2024 12:24:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

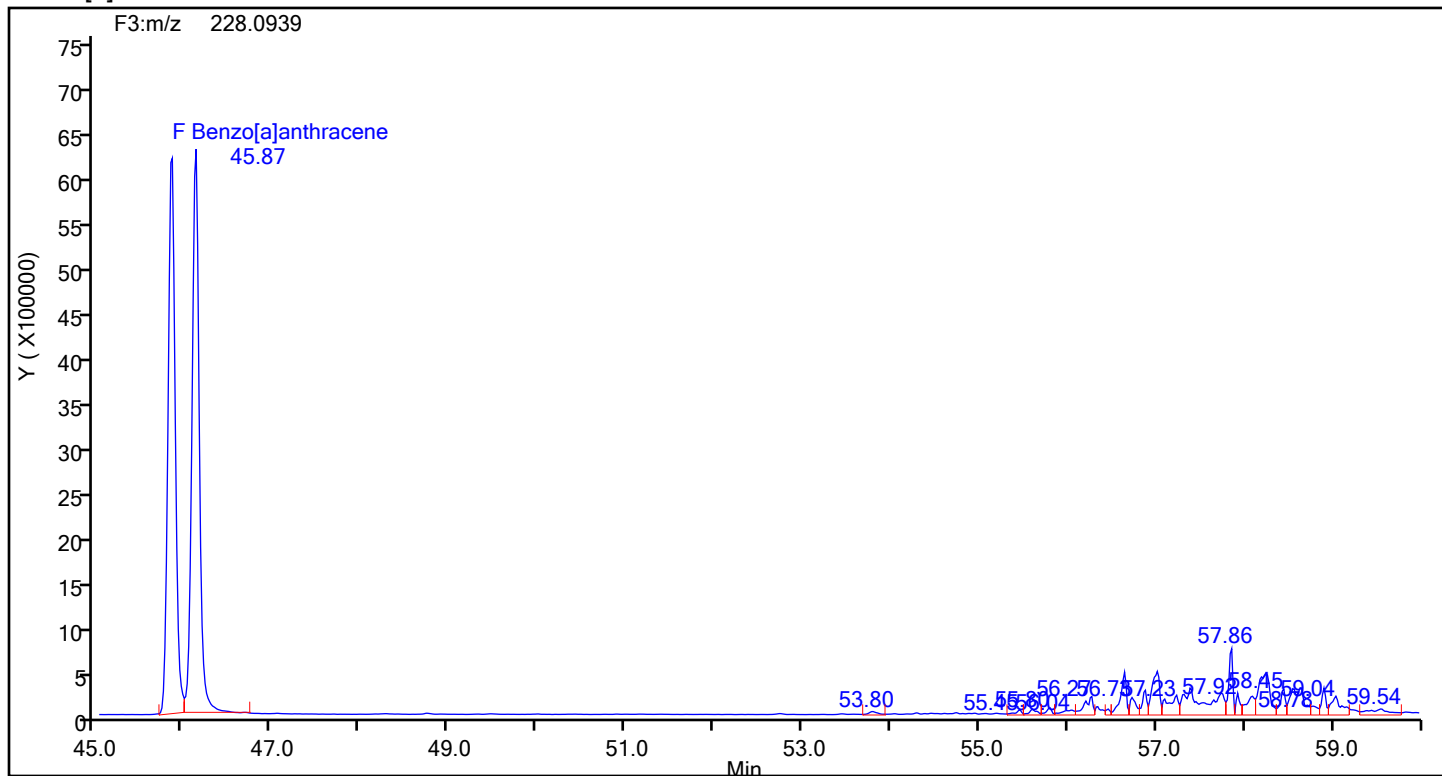
Worklist#: 88920

Sample Line#: 2

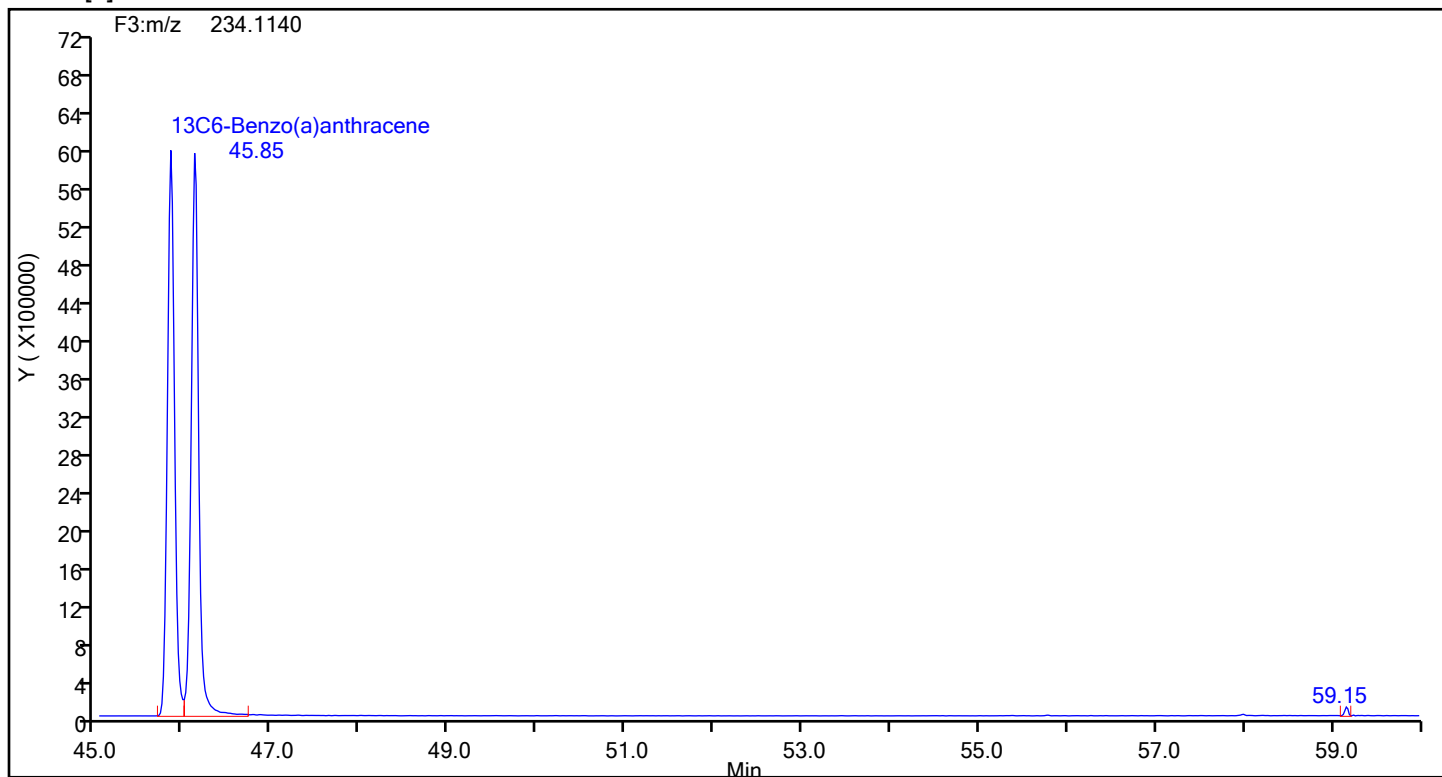
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

## Benzo[a]anthracene



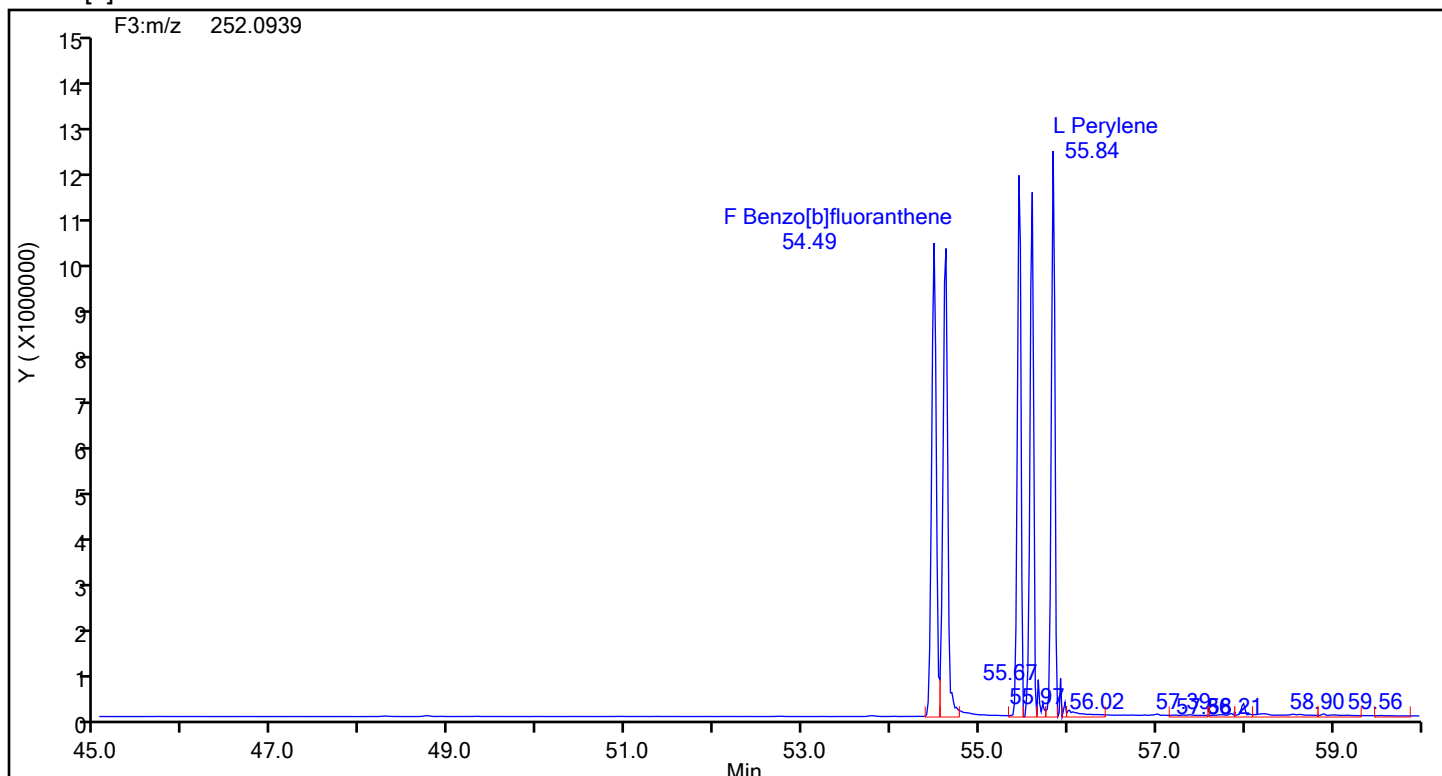
## Benzo[a]anthracene Standards



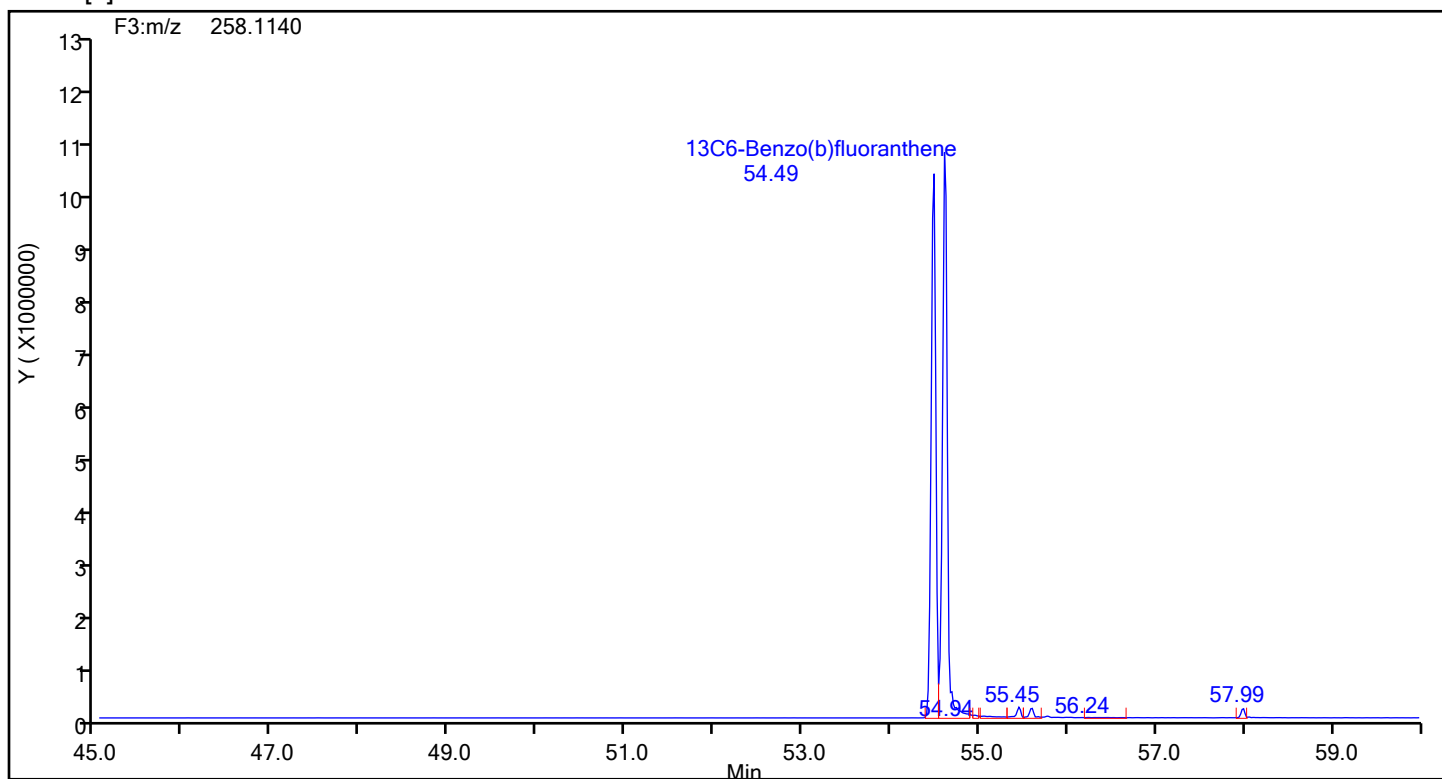
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d  
Injection Date: 18-Jul-2024 12:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAL ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 2  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene



## Benzo[b]fluoranthene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d

Injection Date: 18-Jul-2024 12:24:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

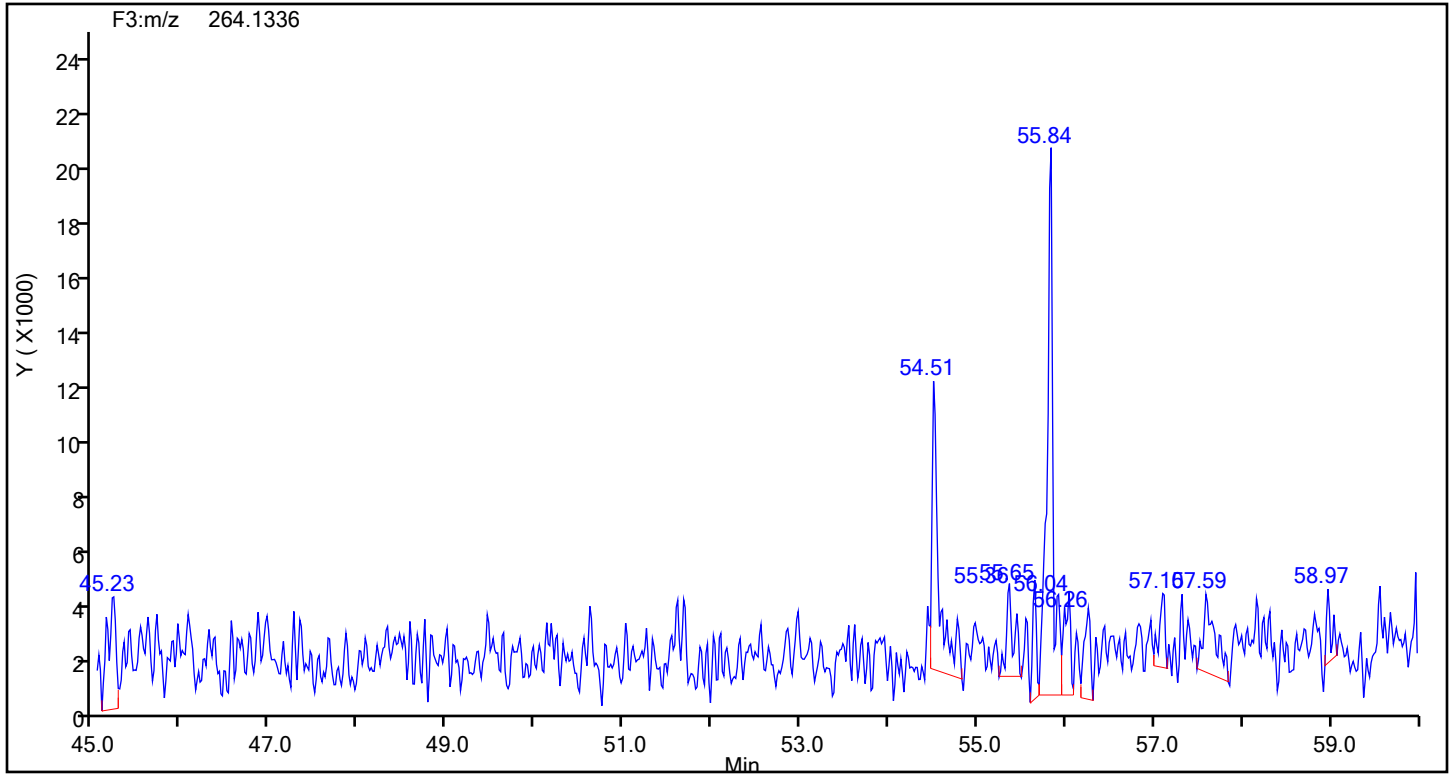
Worklist#: 88920

Sample Line#: 2

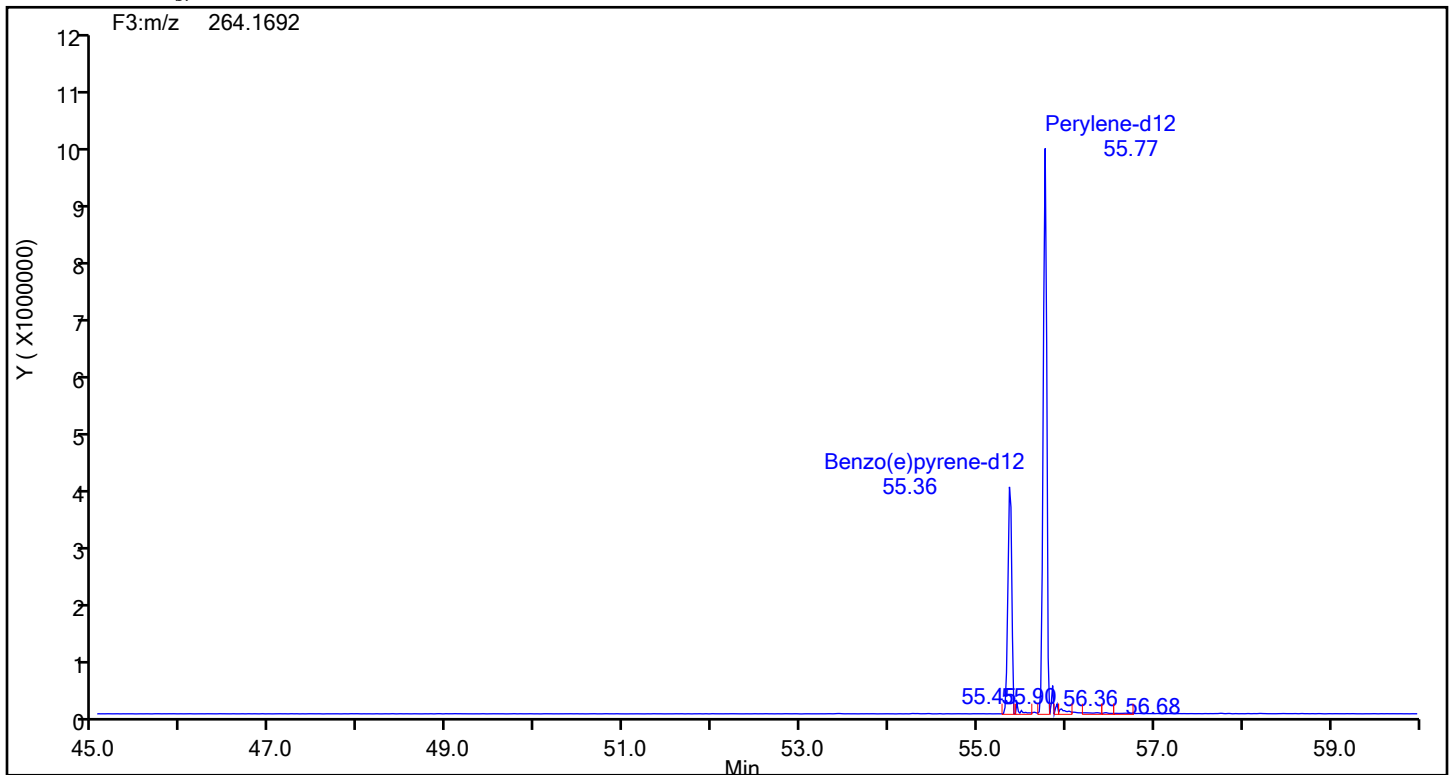
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

13C12-Benzo(j)fluoranthene



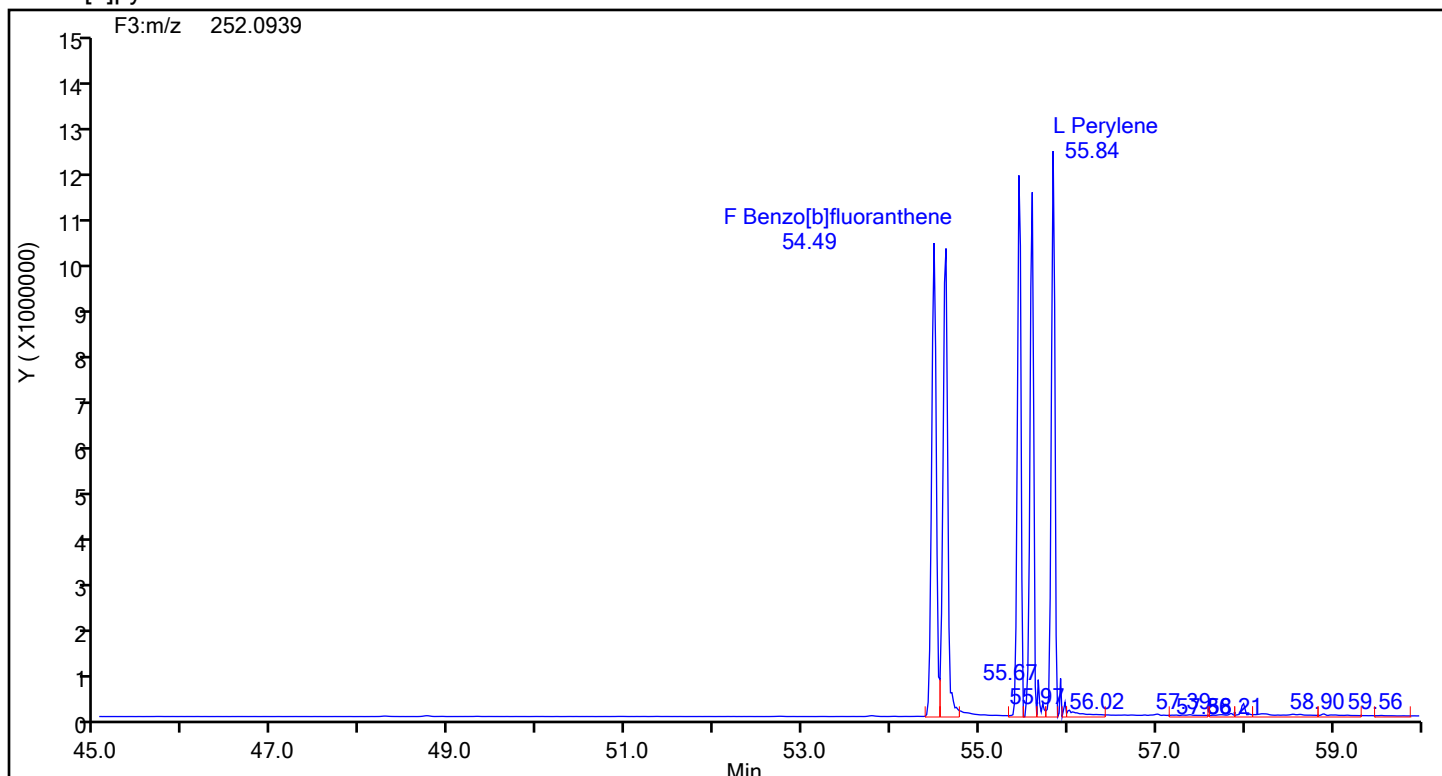
13C12-Benzo(j)fluoranthene Standards



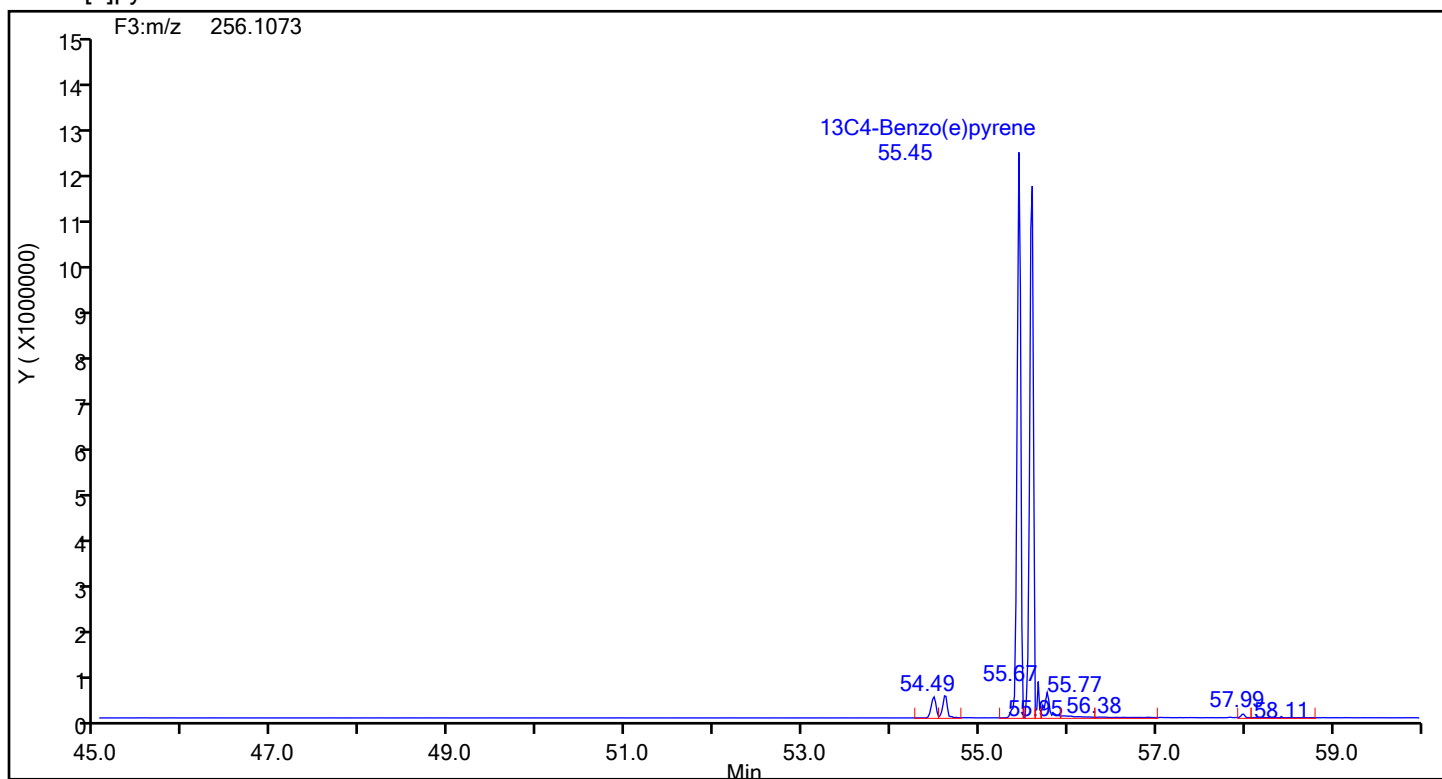
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d  
Injection Date: 18-Jul-2024 12:24:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAL ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 2  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[e]pyrene



## Benzo[e]pyrene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d

Injection Date: 18-Jul-2024 12:24:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

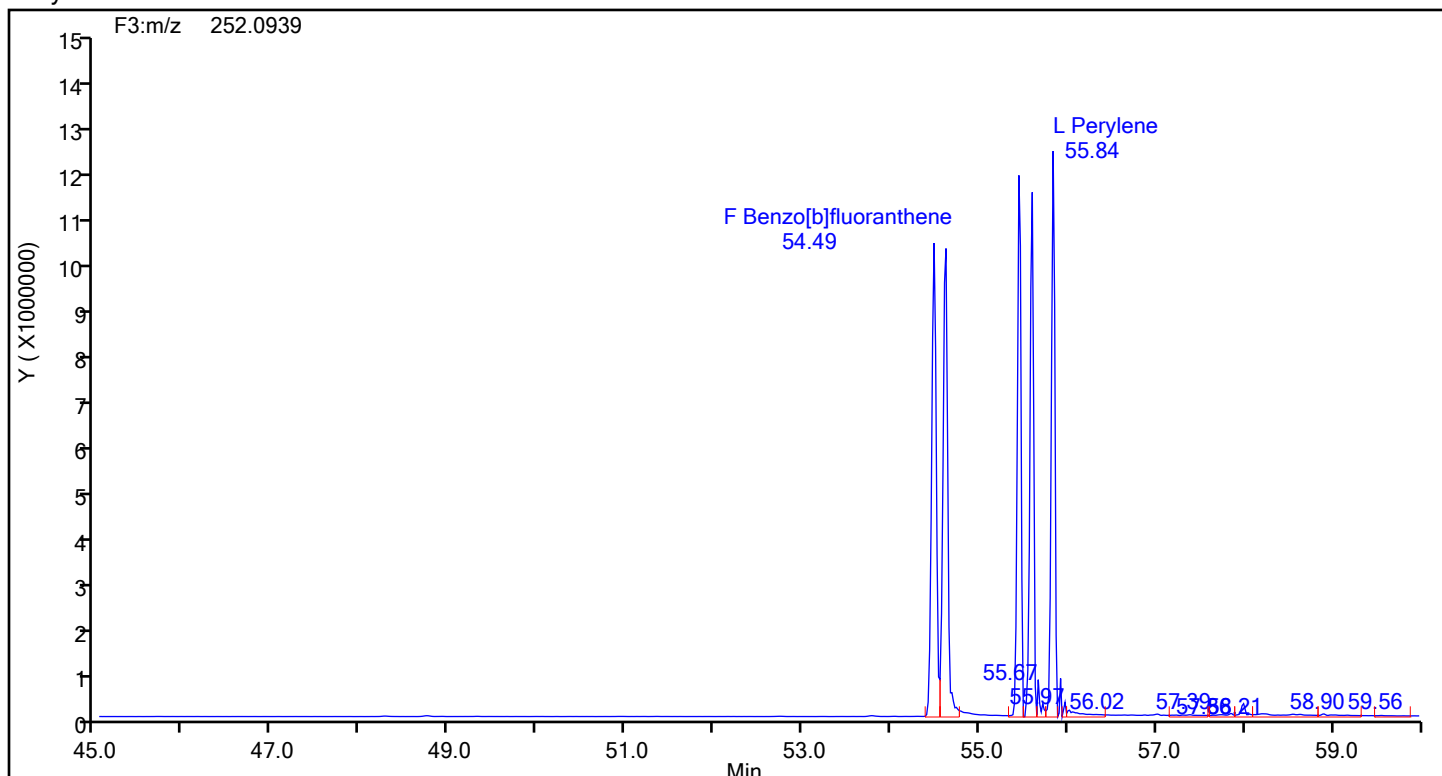
Worklist#: 88920

Sample Line#: 2

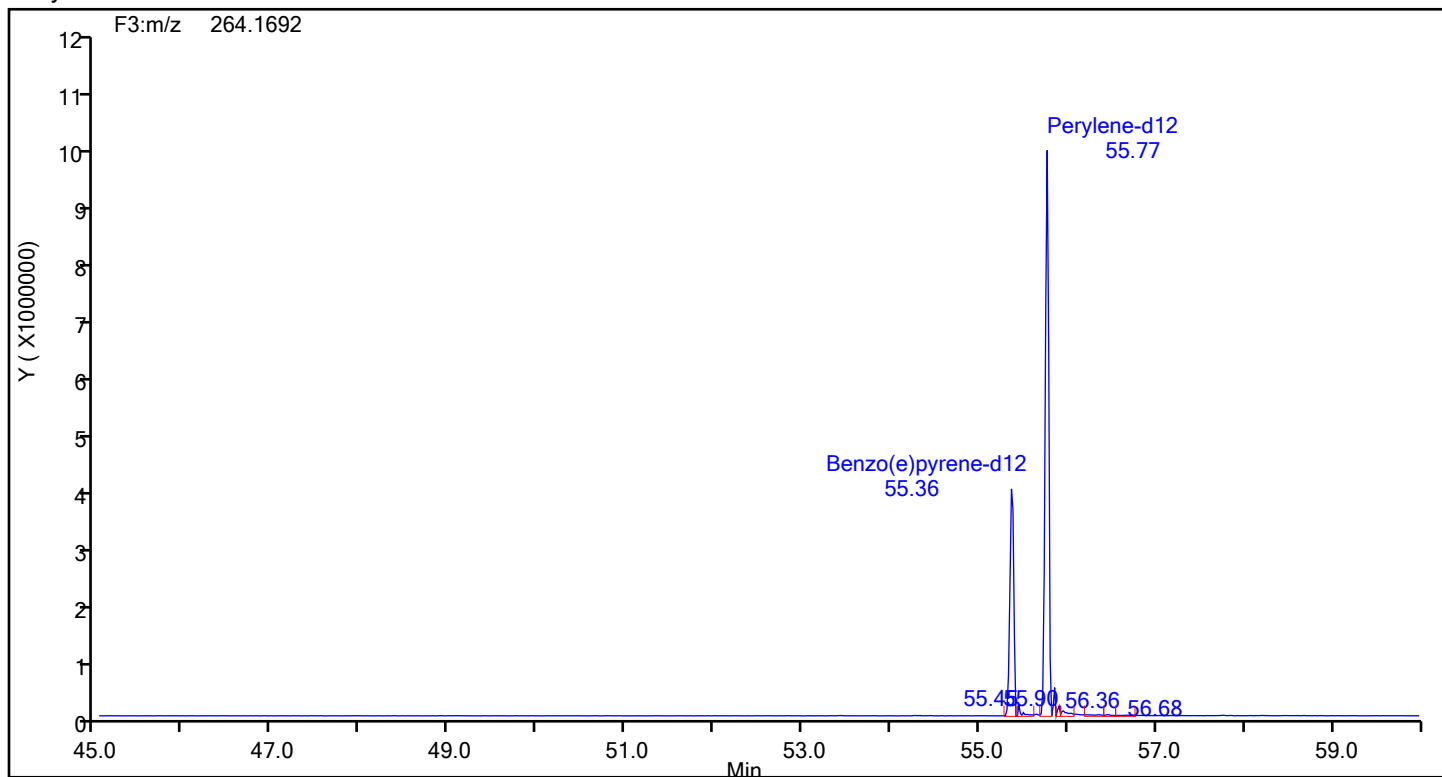
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

Perylene



Perylene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d

Injection Date: 18-Jul-2024 12:24:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

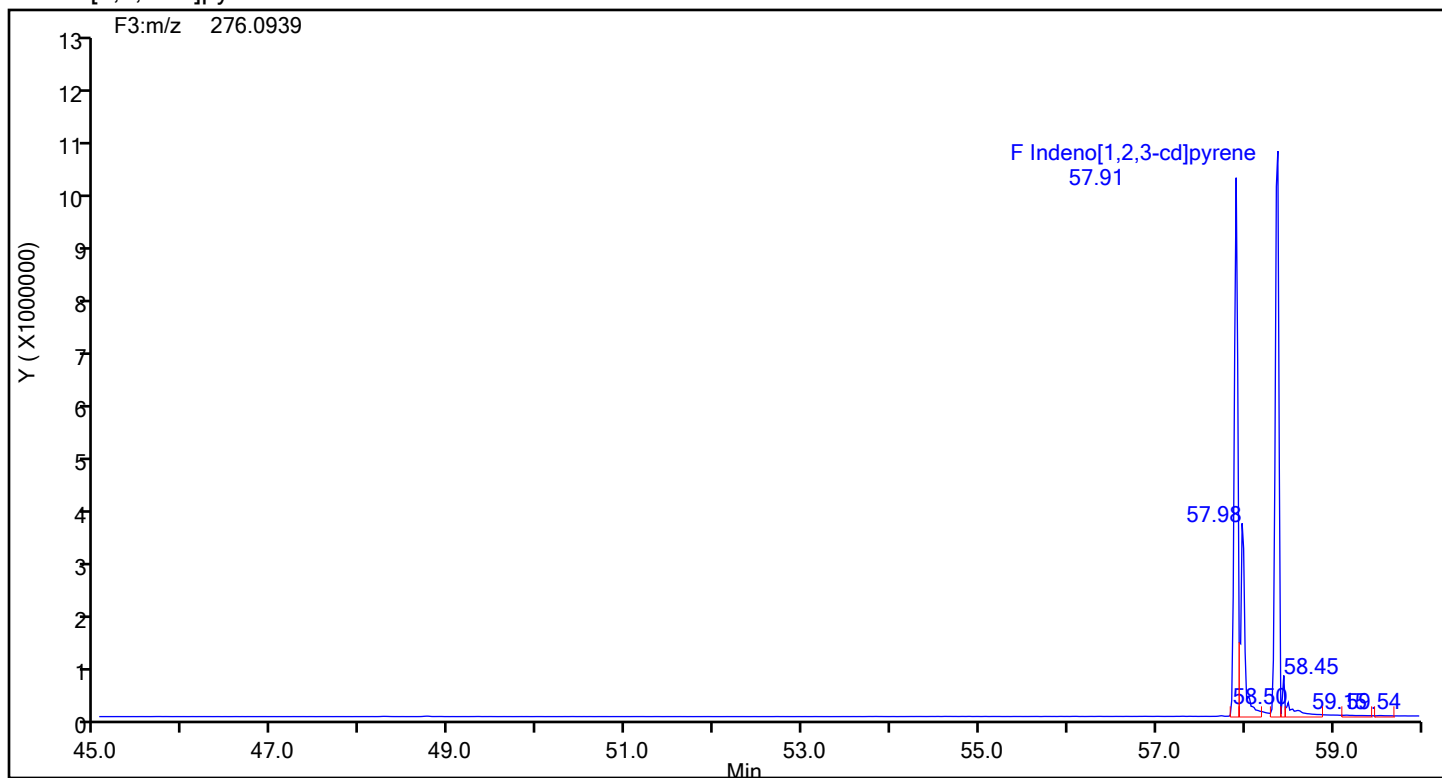
Worklist#: 88920

Sample Line#: 2

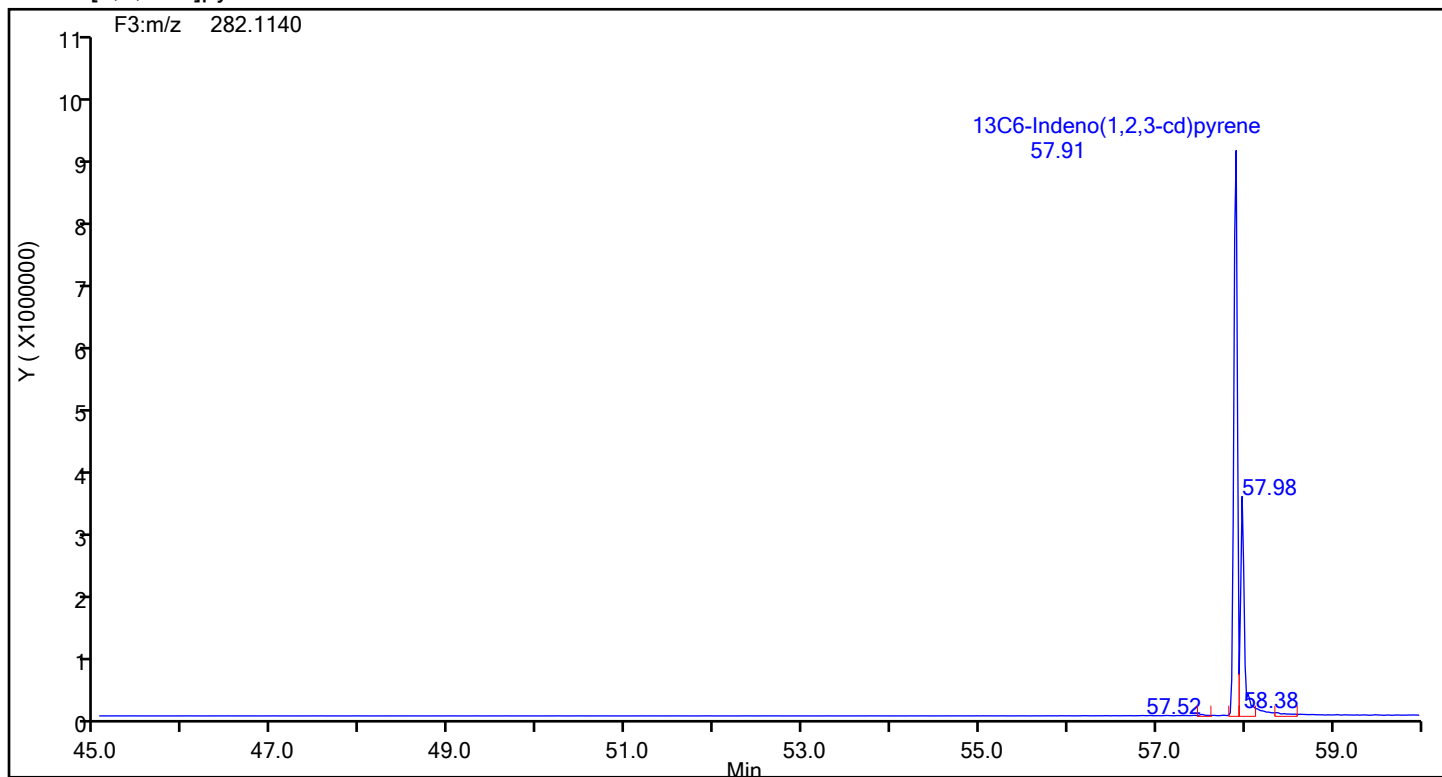
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

Indeno[1,2,3-cd]pyrene



Indeno[1,2,3-cd]pyrene Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d

Injection Date: 18-Jul-2024 12:24:00

Instrument ID: D3PAH

Lims ID: LCS 140-88192/19-B

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Column: Restek-5Sil MS 25um ( 0.25 mm)

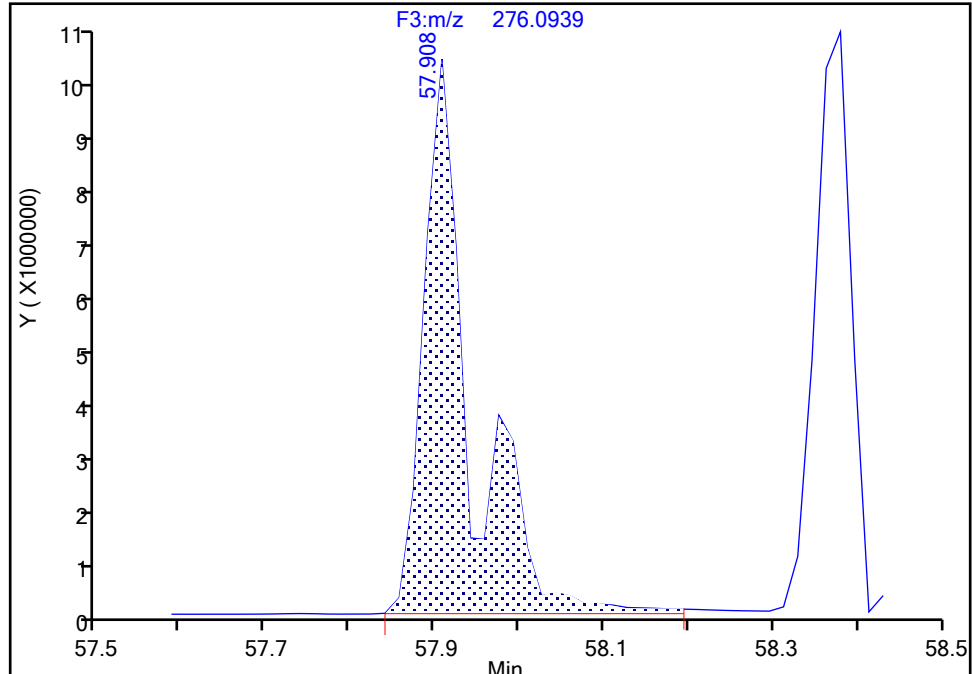
Detector F3(44.04 :59.98 )

**Indeno[1,2,3-cd]pyrene, CAS: 193-39-5**

Signal: 1

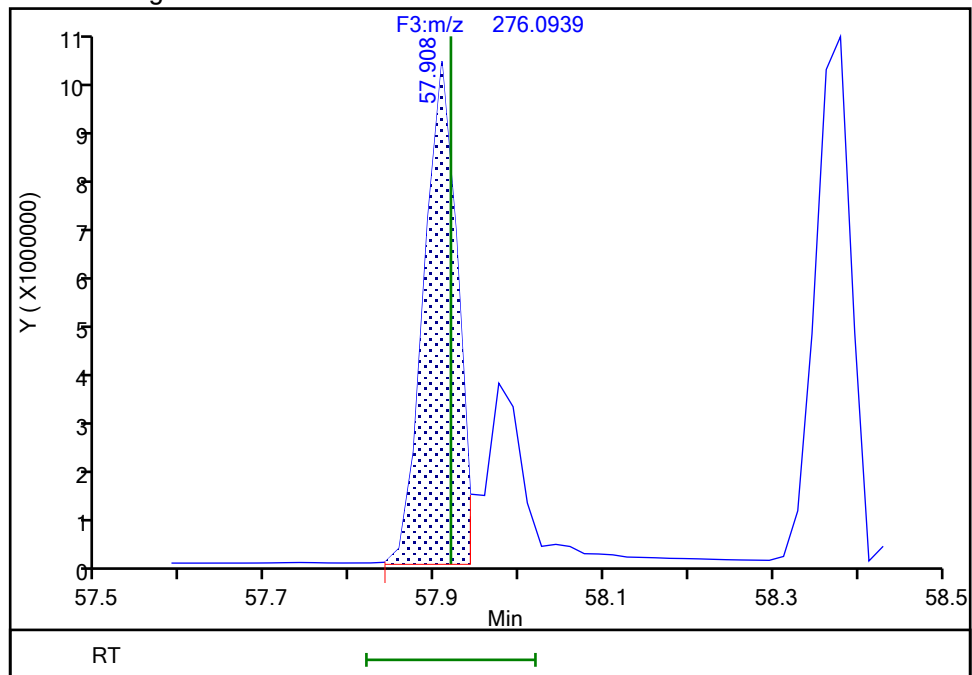
RT: 57.91  
Area: 38742476  
Amount: 139.5831  
Amount Units: pg/ul

## Processing Integration Results



RT: 57.91  
Area: 27407024  
Amount: 98.743239  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: Q9DB, 18-Jul-2024 16:25:30 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d

Injection Date: 18-Jul-2024 12:24:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

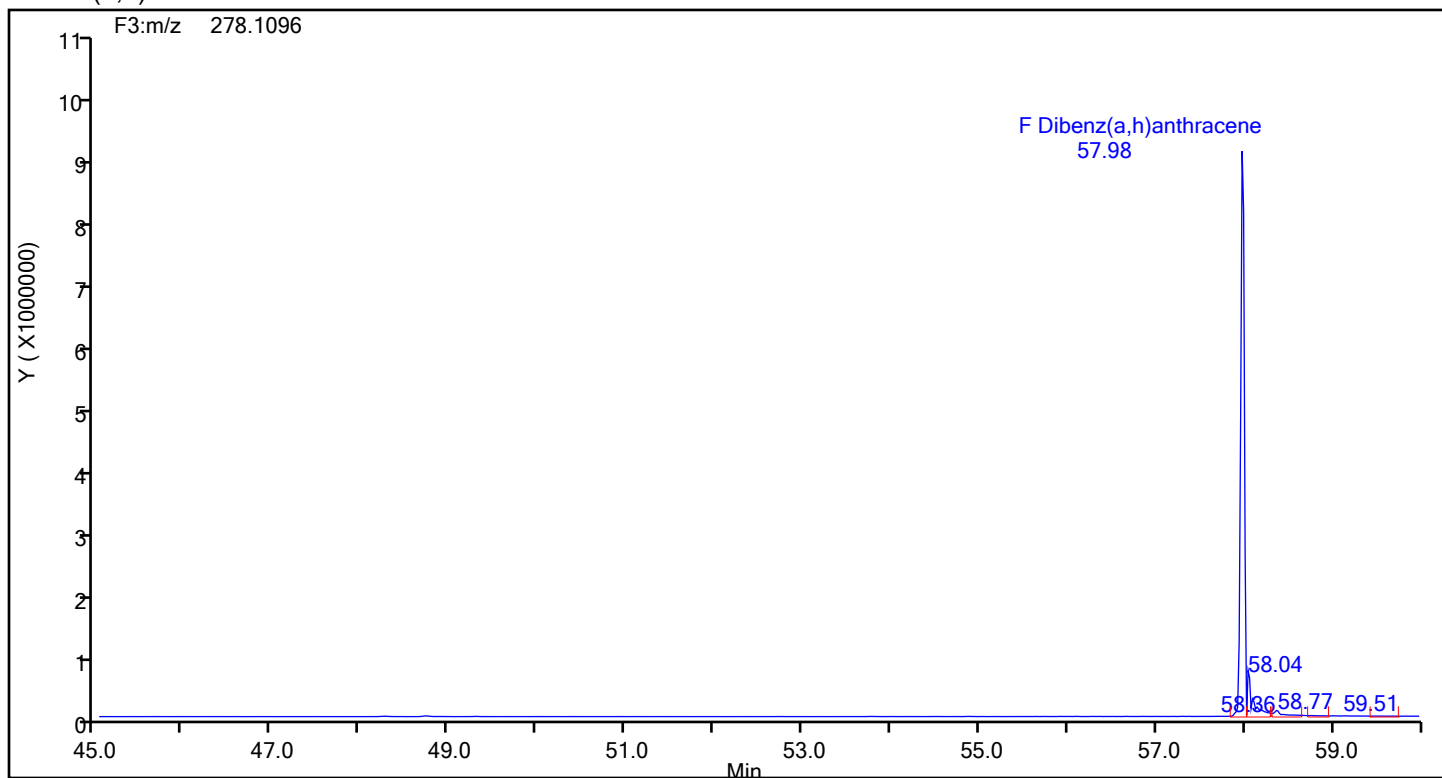
Worklist#: 88920

Sample Line#: 2

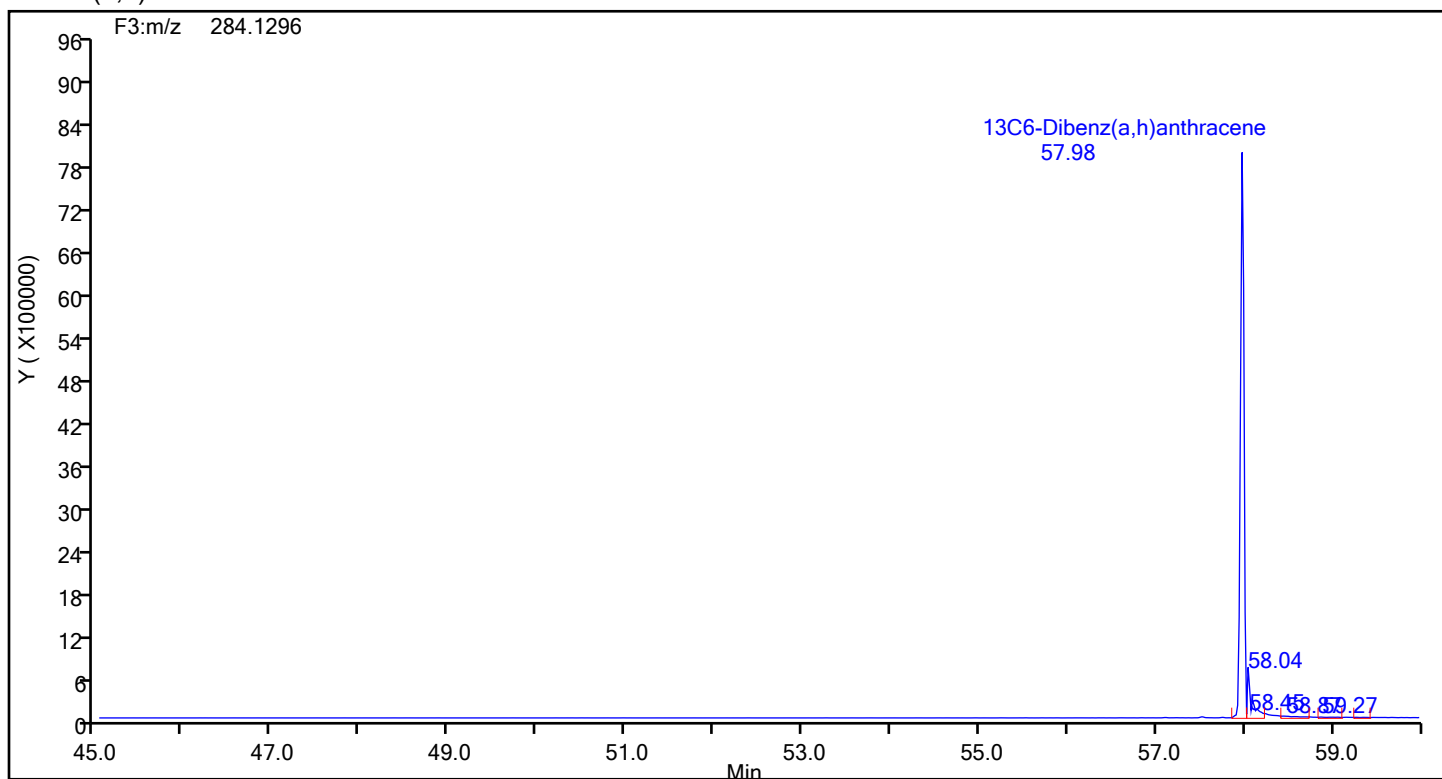
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

Dibenz(a,h)anthracene



Dibenz(a,h)anthracene Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcs140-8819219-b.d

Injection Date: 18-Jul-2024 12:24:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

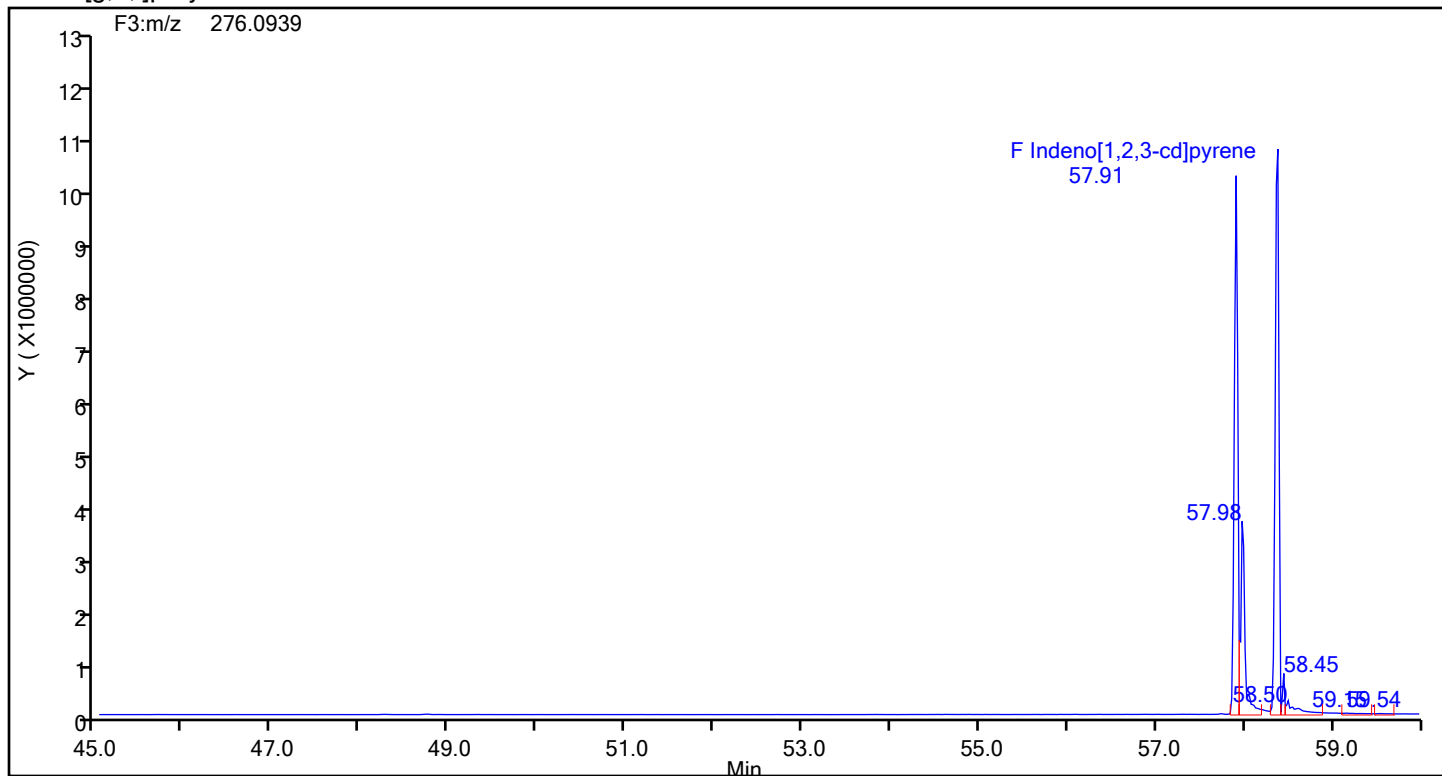
Worklist#: 88920

Sample Line#: 2

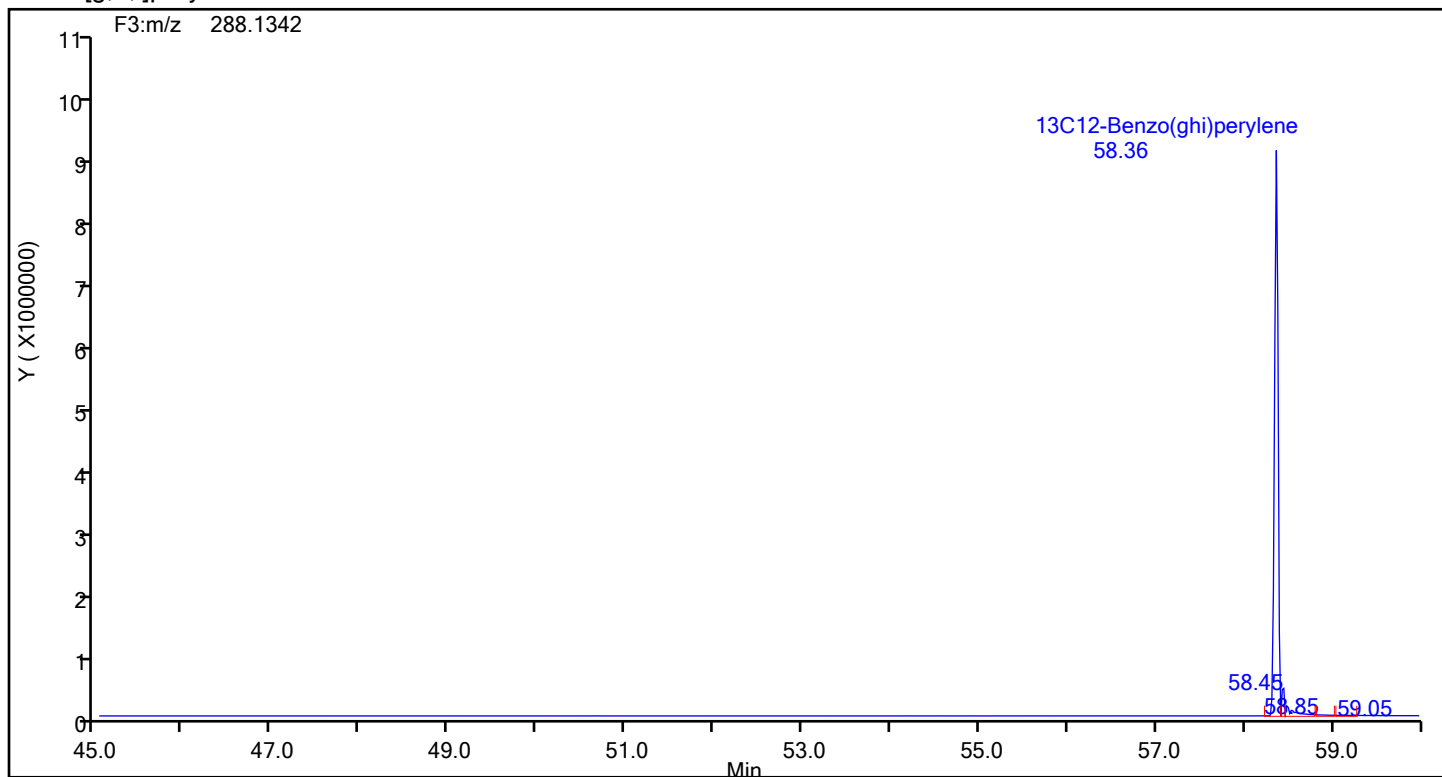
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

Benzo[g,h,i]perylene



Benzo[g,h,i]perylene Standards



FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>LCSD 140-88192/20-B</u>
Matrix: <u>Air</u>	Lab File ID: <u>lcsd140-8819220-b.d</u>
Analysis Method: <u>23</u>	Date Collected: _____
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1 (Sample)</u>	Date Analyzed: <u>07/18/2024 13:28</u>
Con. Extract Vol.: <u>30 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1 (uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88920</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
91-20-3	Naphthalene	1037	++	75.0	75.0	0.0798
91-57-6	2-Methylnaphthalene	153.8		75.0	75.0	0.0433
208-96-8	Acenaphthylene	121.9		3.00	3.00	0.0407
83-32-9	Acenaphthene	135.5		30.0	30.0	0.0450
86-73-7	Fluorene	140.8		30.0	30.0	0.0505
85-01-8	Phenanthrene	158.6		6.00	6.00	0.0780
120-12-7	Anthracene	126.8		30.0	30.0	0.0735
206-44-0	Fluoranthene	153.2		6.00	6.00	0.0747
129-00-0	Pyrene	190.9		6.00	6.00	0.0740
56-55-3	Benzo[a]anthracene	160.0		6.00	6.00	0.155
218-01-9	Chrysene	161.0		6.00	6.00	0.155
205-99-2	Benzo[b]fluoranthene	142.3		30.0	30.0	0.0137
207-08-9	Benzo[k]fluoranthene	138.9		6.00	6.00	0.0124
192-97-2	Benzo[e]pyrene	144.6		6.00	6.00	0.0112
50-32-8	Benzo[a]pyrene	129.1		3.00	3.00	0.0109
198-55-0	Perylene	135.0		3.00	3.00	0.0109
193-39-5	Indeno[1,2,3-cd]pyrene	144.5		3.00	3.00	0.00941
53-70-3	Dibenz(a,h)anthracene	147.5		6.00	6.00	0.00839
191-24-2	Benzo[g,h,i]perylene	146.7		6.00	6.00	0.00788

FORM I  
HI-RES PAHS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>LCSD 140-88192/20-B</u>
Matrix: <u>Air</u>	Lab File ID: <u>lcsd140-8819220-b.d</u>
Analysis Method: <u>23</u>	Date Collected: _____
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:06</u>
Sample wt/vol: <u>1 (Sample)</u>	Date Analyzed: <u>07/18/2024 13:28</u>
Con. Extract Vol.: <u>30 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1 (uL)</u>	GC Column: <u>Rxi-5SilMS 25</u> ID: <u>0.25 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88920</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88192</u>	Instrument ID: <u>Excalibur D3PAH DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
STL02217	13C6-Naphthalene	83		20-130
STL03357	13C6-2-Methylnaphthalene	73		20-130
189811-56-1	13C6-Acenaphthylene	90		20-130
189811-57-2	13C6-Acenaphthene	84		20-130
STL00616	13C6-Fluorene	91		20-130
1397194-60-3	13C6-Fluoranthrene	91		20-130
1397214-90-2	13C3-Pyrene	91		20-130
917378-11-1	13C6-Benzo (a) anthracene	91		20-130
1397177-72-8	13C6-Chrysene	88		20-130
STL03358	13C6-Benzo (b) fluoranthene	99		20-130
1397194-60-3	13C6-Benzo (k) fluoranthene	92		20-130
STL03382	13C4-Benzo (e) pyrene	92		20-130
STL03359	13C4-Benzo (a) pyrene	93		20-130
1520-96-3	Perylene-d12	96		20-130
362044-56-2	13C6-Indeno (1,2,3-cd) pyrene	104		20-130
STL03360	13C6-Dibenz (a,h) anthracene	98		20-130
350820-11-0	13C12-Benzo (ghi) perylene	81		20-130
189811-60-7	13C6-Anthracene	80		20-130
1189955-53-0	13C6-Phenanthrene	70		20-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcsd140-8819220-b.d  
 Lims ID: LCSD 140-88192/20-B  
 Client ID:  
 Sample Type: LCSD  
 Inject. Date: 18-Jul-2024 13:28:00 ALS Bottle#: 0 Worklist Smp#: 3  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info:  
 Misc. Info.: 140-0033564-003  
 Operator ID: Xcalibur\_System Instrument ID: D3PAH  
 Method: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\EPA\_23\_\_PAH.m  
 Limit Group: HR - HRPAL ICAL  
 Last Update: 18-Jul-2024 16:25:46 Calib Date: 20-Jun-2024 01:09:00  
 Integrator: RTE  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
 Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
 Process Host: CTX1654

First Level Reviewer: Q9DB

Date: 18-Jul-2024 16:26:32

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Naphthalene	11:21	25352950		3.3746	82.8	82.8	0.006108	0.006108	82.84	
Naphthalene	11:21	225886496		1.2893	691.1	691.1	0.0532	0.0532	691	
D 13C6-2-Methylnaphthalene	13:45	10541480		1.6031	72.5	72.5	0.000964	0.000964	72.51	
2-Methylnaphthalene	13:45	13816218		1.2786	102.5	102.5	0.0288	0.0288	103	
D 13C6-Acenaphthylene	16:36	13556107		1.6520	90.5	90.5	0.003025	0.003025	90.48	
Acenaphthylene	16:37	14407090		2.3661	81.3	81.3	0.0271	0.0271	81.29	
* Acenaphthene-d10	17:11	4534581		3.5E+04	50.0	50.0				
D 13C6-Acenaphthene	17:18	7490411		0.9792	84.3	84.3	0.004364	0.004364	84.35	
Acenaphthene	17:18	8591078		1.2697	90.3	90.3	0.0300	0.0300	90.33	
Fluorene	19:35	8628455		1.2532	93.9	93.9	0.0337	0.0337	93.90	
D 13C6-Fluorene	19:35	7332969		0.8898	90.9	90.9	0.001662	0.001662	90.87	
D 13C6-Phenanthrene	24:56	10031218		0.5724	70.4	70.4	0.001349	0.001349	70.41	
Phenanthrene	24:56	11715882		1.1044	105.7	105.7	0.0520	0.0520	106	
D 13C6-Anthracene	25:15	8957144		0.4523	79.6	79.6	0.001708	0.001708	79.57	
Anthracene	25:16	10285731		1.3586	84.5	84.5	0.0490	0.0490	84.52	
D 13C6-Fluoranthrene	33:39	27281206		1.1994	91.4	91.4	0.0156	0.0156	91.40	
Fluoranthene	33:40	32084518		1.1513	102.1	102.1	0.0498	0.0498	102	
* Pyrene-d10	35:12	12443582		7.9E+04	50.0	50.0				
D 13C3-Pyrene	35:20	30519034		1.3512	90.8	90.8	0.0166	0.0166	90.76	
Pyrene	35:20	41378193		1.0652	127.3	127.3	0.0493	0.0493	127	
D 13C6-Benzo(a)anthracene	45:52	31747277		1.5189	91.4	91.4	0.0109	0.0109	91.41	
Benzo[a]anthracene	45:52	32974822		0.9739	106.7	106.7	0.1035	0.1035	107	
D 13C6-Chrysene	46:08	32821454		1.6287	88.1	88.1	0.0101	0.0101	88.13	
Chrysene	46:08	34567623		0.9815	107.3	107.3	0.1032	0.1032	107	
D 13C6-Benzo(b)fluoranthene	54:29	33179426		1.4621	99.2	99.2	0.001941	0.001941	99.24	
Benzo[b]fluoranthene	54:30	35419681		1.1249	94.9	94.9	0.009109	0.009109	94.90	
D 13C6-Benzo(k)fluoranthene	54:37	36923938		1.7507	92.2	92.2	0.001621	0.001621	92.24	
Benzo[k]fluoranthene	54:37	38548998		1.1271	92.6	92.6	0.008284	0.008284	92.63	
* Benzo(e)pyrene-d12	55:23	11433165		5.7E+04	50.0	50.0				
D 13C4-Benzo(e)pyrene	55:28	34262392		1.6368	91.5	91.5	0.002774	0.002774	91.54	
Benzo[e]pyrene	55:28	33064073		1.0013	96.4	96.4	0.007482	0.007482	96.38	
D 13C4-Benzo(a)pyrene	55:36	32894837		1.5508	92.8	92.8	0.002928	0.002928	92.76	
Benzo[a]pyrene	55:36	31502062		1.1130	86.0	86.0	0.007244	0.007244	86.04	
D Perylene-d12	55:47	26184827		1.1917	96.1	96.1	0.0133	0.0133	96.09	
Perylene	55:51	33714979		1.4307	90.0	90.0	0.007286	0.007286	90.00	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D 13C6-Indeno(1,2,3-cd)pyrene	57:54	24190675		1.0218	103.5	103.5	0.007032	0.007032	104	
Indeno[1,2,3-cd]pyrene	57:55	26218152		1.1249	96.3	96.3	0.006274	0.006274	96.34	
D 13C6-Dibenz(a,h)anthracene	57:59	23587806		1.0553	97.8	97.8	0.004792	0.004792	97.75	
Dibenz(a,h)anthracene	57:59	26248951		1.1314	98.4	98.4	0.005593	0.005593	98.36	
D 13C12-Benzo(ghi)perylene	58:22	23645070		1.2749	81.1	81.1	0.001012	0.001012	81.11	
Benzo[g,h,i]perylene	58:22	29692792		1.2838	97.8	97.8	0.005256	0.005256	97.82	

## QC Flag Legend

Processing Flags

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

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Lims ID: LCSD 140-88192/20-B  
Client ID:  
Sample Type: LCSD  
Inject. Date: 18-Jul-2024 13:28:00 ALS Bottle#: 0 Worklist Smp#: 3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033564-003  
Operator ID: Xcalibur\_System Instrument ID: D3PAH  
Method: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\EPA\_23\_\_PAH.m  
Limit Group: HR - HRPAAH ICAL  
Last Update: 18-Jul-2024 16:25:46 Calib Date: 20-Jun-2024 01:09:00  
Integrator: RTE  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D3PAH\20240619-33168.b\d3240619ic9.d  
Column 1 : Restek-5Sil MS 25um ( 0.25 mm) Det: F1(6.03 :27.99 )  
Process Host: CTX1654

First Level Reviewer: Q9DB

Date: 18-Jul-2024 16:26:32

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Naphthalene											
134.0828	11:21	11:24	-4	0.660	25352950	8865306	251	627	35320		
Naphthalene											
128.0626	11:21	11:21	-4	1.000	225886496	79102018	2432	6080	32526		
13C6-2-Methylnaphthalene											
148.0984	13:45	13:46	-2	0.800	10541480	4832033	19	47	254318		
2-Methylnaphthalene											
142.0783	13:45	13:46	-3	1.000	13816218	6373075	713	1782	8938		
13C6-Acenaphthylene											
158.0828	16:36	16:37	-2	0.966	13556107	4680576	61	152	76731		
Acenaphthylene											
152.0626	16:37	16:39	-2	1.000	14407090	5030672	660	1650	7622		
Acenaphthene-d10											
164.1404	17:11	17:13	-1		4534581	1520978	19	47	80051		
13C6-Acenaphthene											
160.0984	17:18	17:19	-2	1.007	7490411	2571487	52	130	49452		
Acenaphthene											
154.0783	17:18	17:18	-2	1.000	8591078	2873307	392	980	7330		
Fluorene											
166.0783	19:35	19:35	-2	1.000	8628455	2417473	359	897	6734		
13C6-Fluorene											
172.0984	19:35	19:35	-2	1.139	7332969	2124832	18	45	118046		
13C6-Phenanthrene											
184.0984	24:56	24:57	-2	0.708	10031218	2161774	14	35	154412		
Phenanthrene											
178.0783	24:56	24:56	-1	1.000	11715882	2569352	497	1242	5170		



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
13C6-Anthracene											
184.0984	25:15	25:16	-2	0.717	8957144	1866499	14	35	133321		
Anthracene											
178.0783	25:16	25:15	-1	1.000	10285731	2052899	497	1242	4131		
13C6-Fluoranthrene											
208.0984	33:39	33:39	-1	0.956	27281206	5146794	339	847	15182		
Fluoranthene											
202.0783	33:40	33:40	-1	1.000	32084518	5987907	1180	2950	5074		
Pyrene-d10											
212.1404	35:12	35:13	-1		12443582	2265408	18	45	125856		
13C3-Pyrene											
205.0883	35:20	35:20	-1	1.004	30519034	5613932	407	1017	13793		
Pyrene											
202.0783	35:20	35:20	-1	1.000	41378193	7706050	1180	2950	6531		
13C6-Benzo(a)anthracene											
234.1140	45:52	45:51	0	1.303	31747277	5444751	512	1280	10634		
Benzo[a]anthracene											
228.0939	45:52	45:53	-1	1.000	32974822	5689506	2195	5487	2592		
13C6-Chrysene											
234.1140	46:08	46:07	0	1.311	32821454	5418983	512	1280	10584		
Chrysene											
228.0939	46:08	46:09	-1	1.000	34567623	5750028	2195	5487	2620		
13C6-Benzo(b)fluoranthene											
258.1140	54:29	54:30	-1	0.984	33179426	8783084	88	220	99808		
Benzo[b]fluoranthene											
252.0939	54:30	54:29	0	1.000	35419681	9392631	360	900	26091		
13C6-Benzo(k)fluoranthene											
258.1140	54:37	54:37	0	0.986	36923938	9639148	88	220	109536		
Benzo[k]fluoranthene											
252.0939	54:37	54:38	-1	1.000	38548998	9590775	360	900	26641		
Benzo(e)pyrene-d12											
264.1692	55:23	55:23	0		11433165	3875798	492	1230	7878		
13C4-Benzo(e)pyrene											
256.1073	55:28	55:28	0	1.002	34262392	12013983	141	352	85206		
Benzo[e]pyrene											
252.0939	55:28	55:28	0	1.000	33064073	11666213	360	900	32406		
13C4-Benzo(a)pyrene											
256.1073	55:36	55:37	-1	1.004	32894837	11163116	141	352	79171		
Benzo[a]pyrene											
252.0939	55:36	55:36	-1	1.000	31502062	10239593	360	900	28443		
Perylene-d12											
264.1692	55:47	55:47	0	1.007	26184827	8634293	492	1230	17549		
Perylene											
252.0939	55:51	55:51	0	1.001	33714979	12006135	360	900	33350		
13C6-Indeno(1,2,3-cd)pyrene											
282.1140	57:54	57:55	-1	1.046	24190675	8033539	223	557	36025		E

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
Indeno[1,2,3-cd]pyrene											
276.0939	57:55	57:55	0	1.000	26218152	9362427	227	567	41244		
13C6-Dibenz(a,h)anthracene											
284.1296	57:59	57:59	0	1.047	23587806	7775799	157	392	49527		
Dibenz(a,h)anthracene											
278.1096	57:59	57:59	0	1.000	26248951	8575703	197	492	43531		
13C12-Benzo(ghi)perylene											
288.1342	58:22	58:22	0	1.054	23645070	8403067	40	100	210077		
Benzo[g,h,i]perylene											
276.0939	58:22	58:23	-1	1.000	29692792	10068063	227	567	44353		

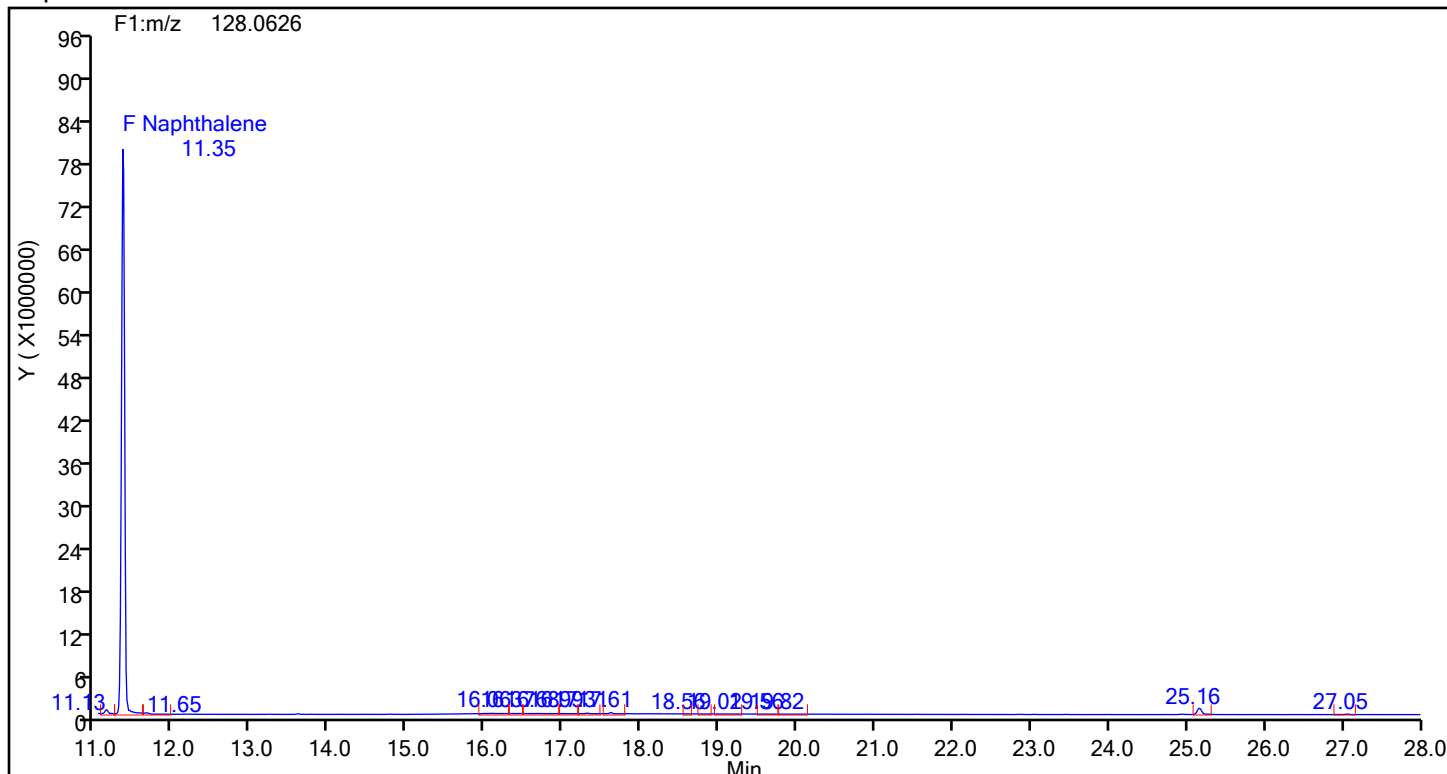
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Processing Flags

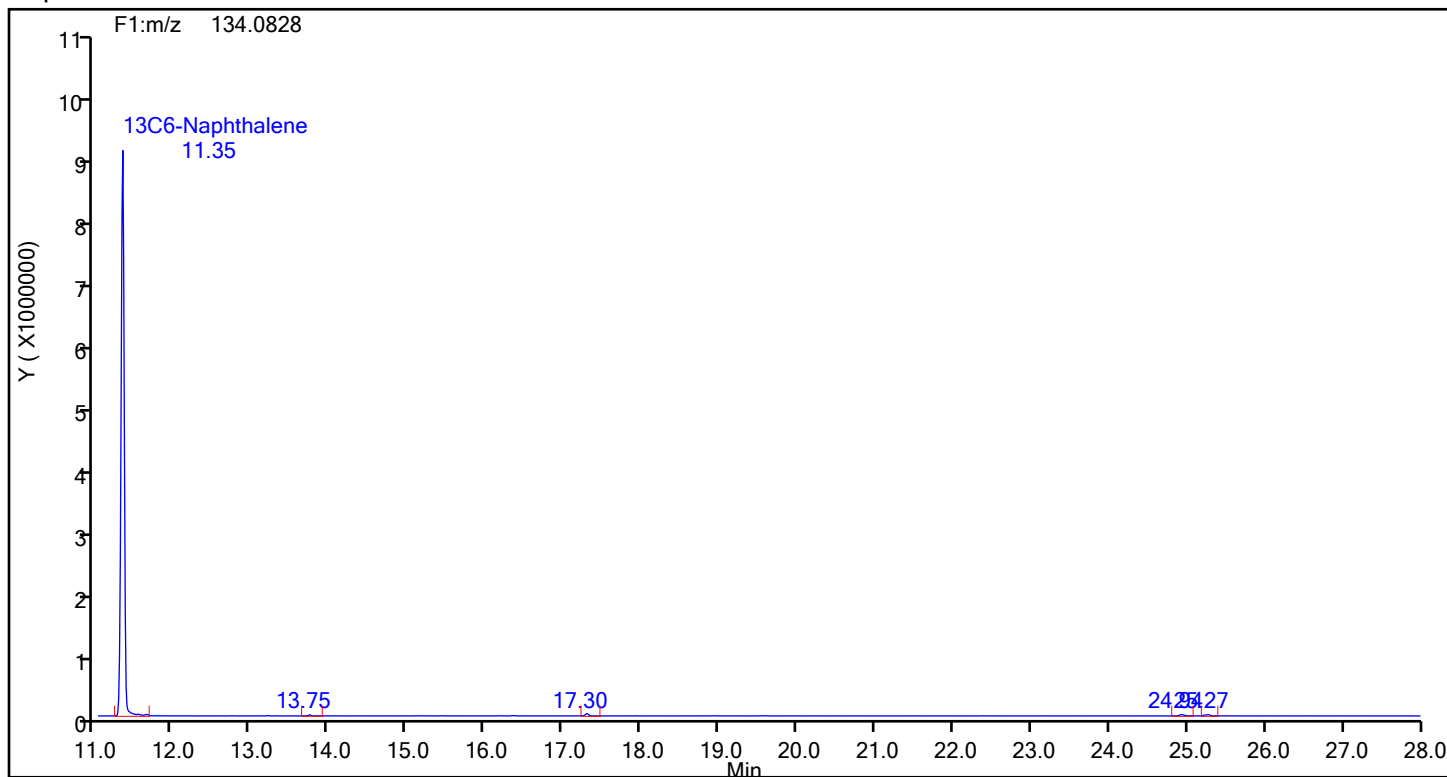
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Naphthalene



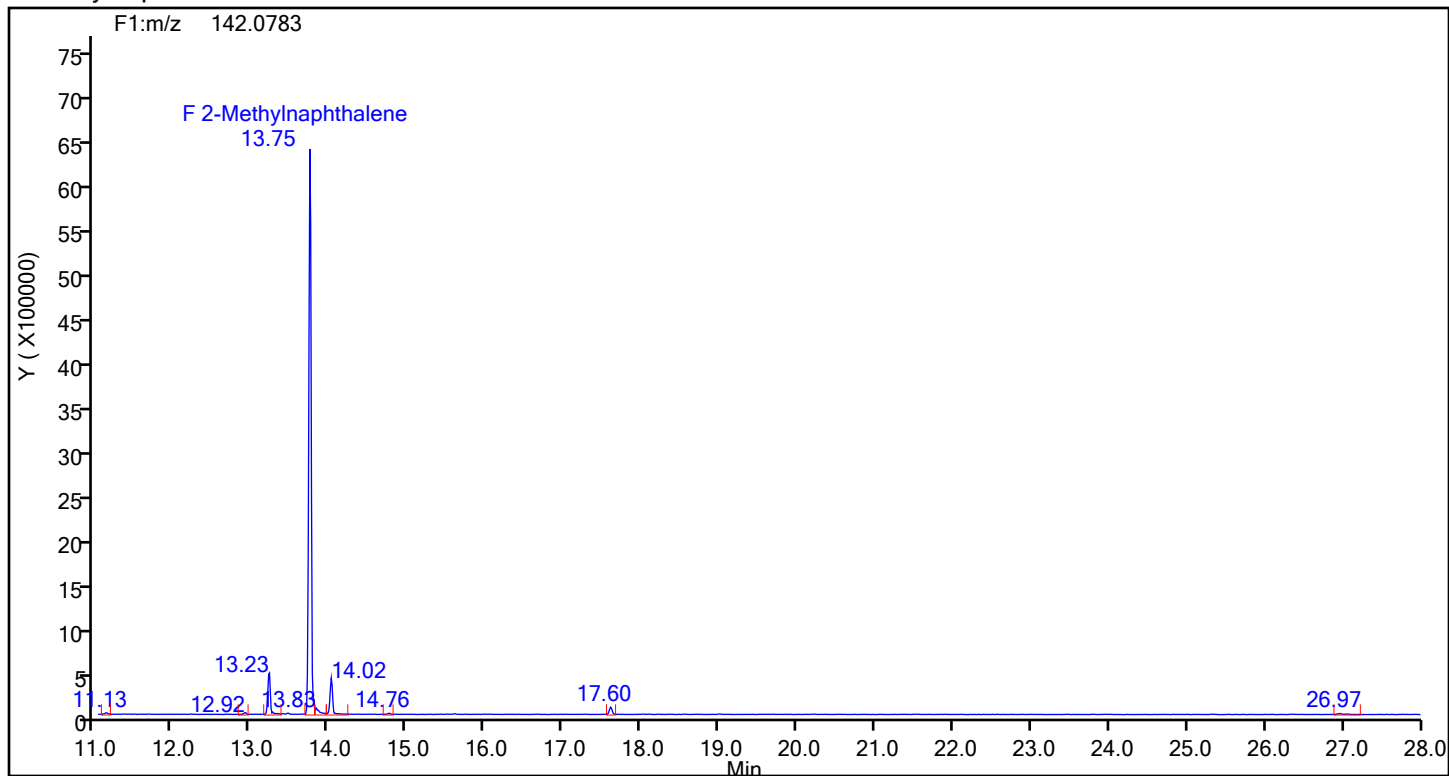
## Naphthalene Standards



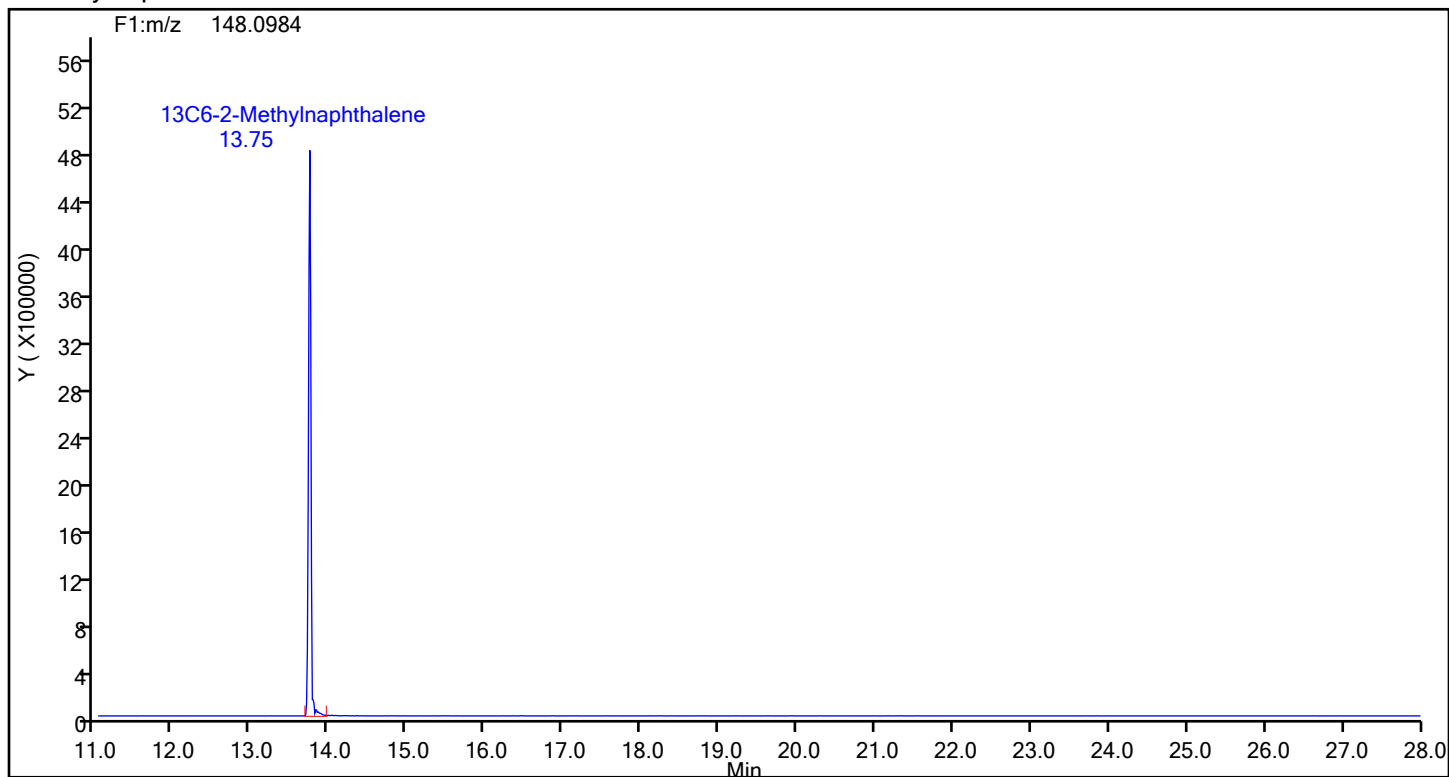
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## 2-Methylnaphthalene



## 2-Methylnaphthalene Standards



## Eurofins Knoxville

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Injection Date: 18-Jul-2024 13:28:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA\_23\_\_PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

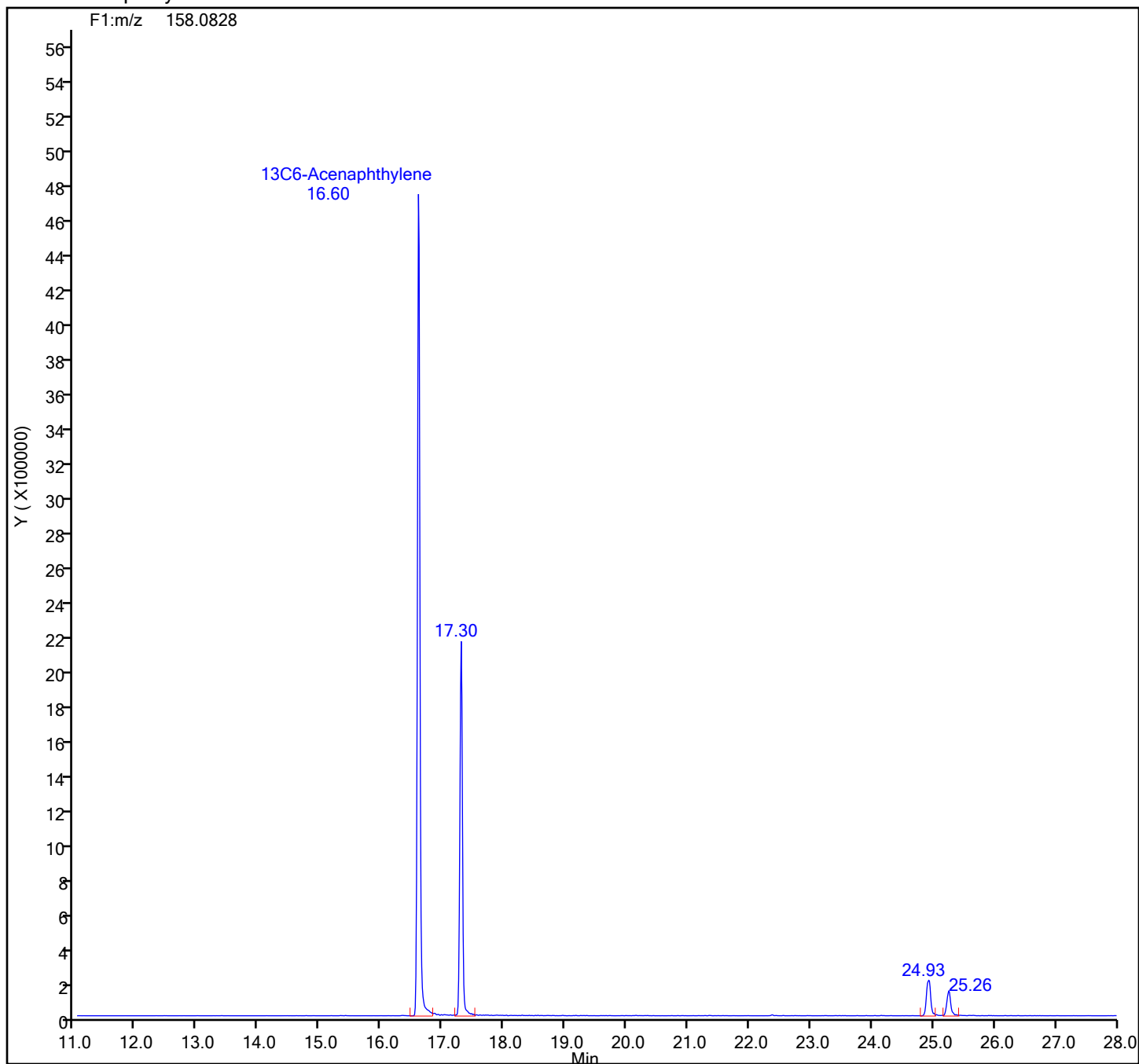
Worklist#: 88920

Sample Line#: 3

Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

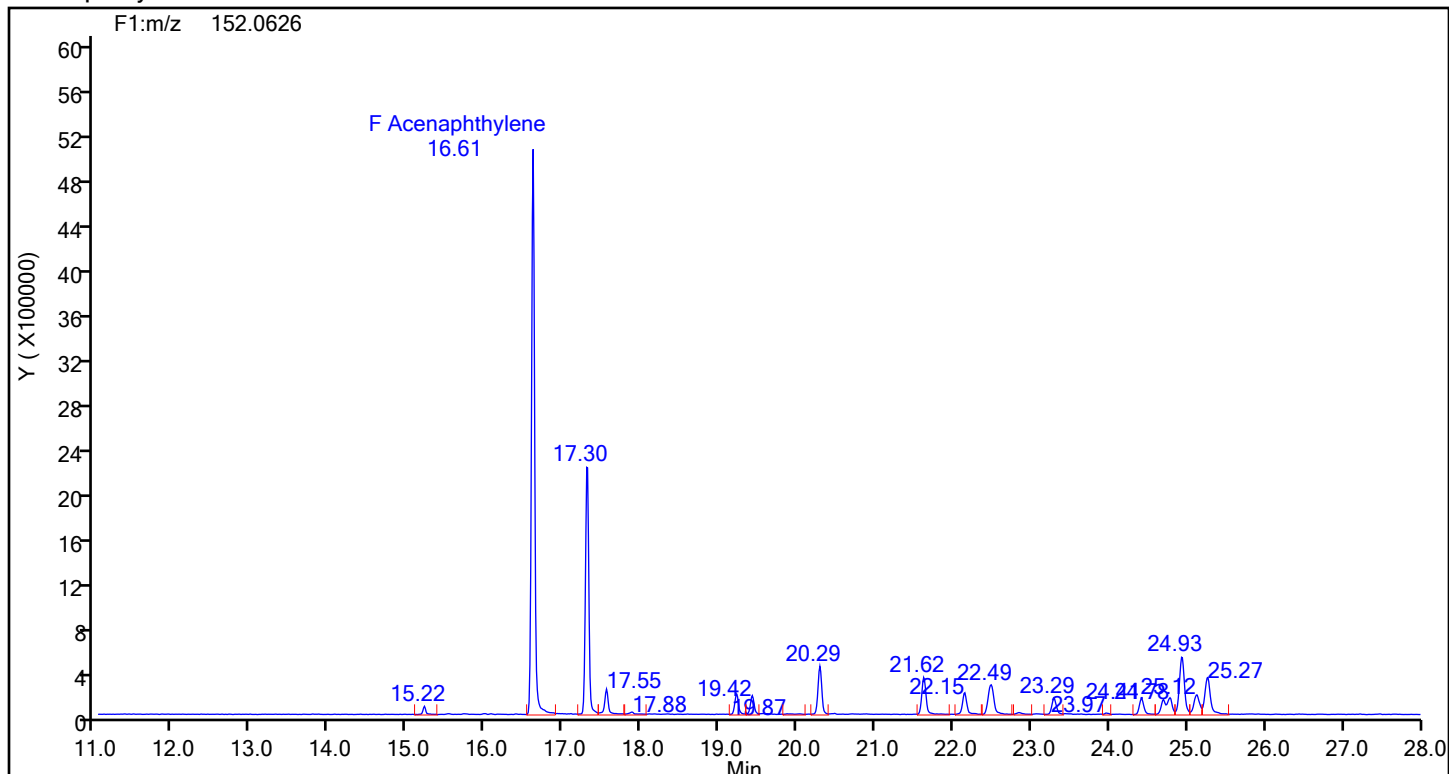
## 13C6-Acenaphthylene Standards



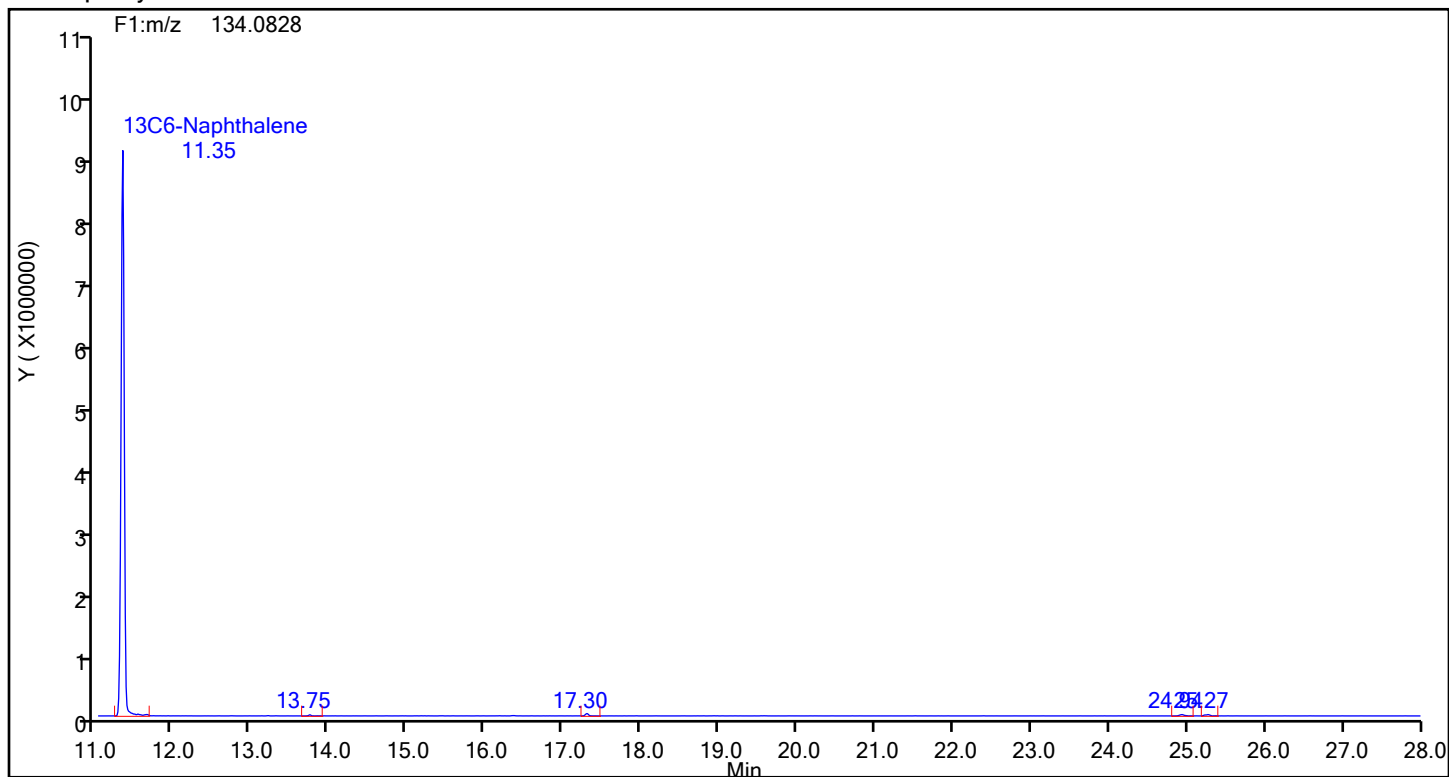
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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthylene



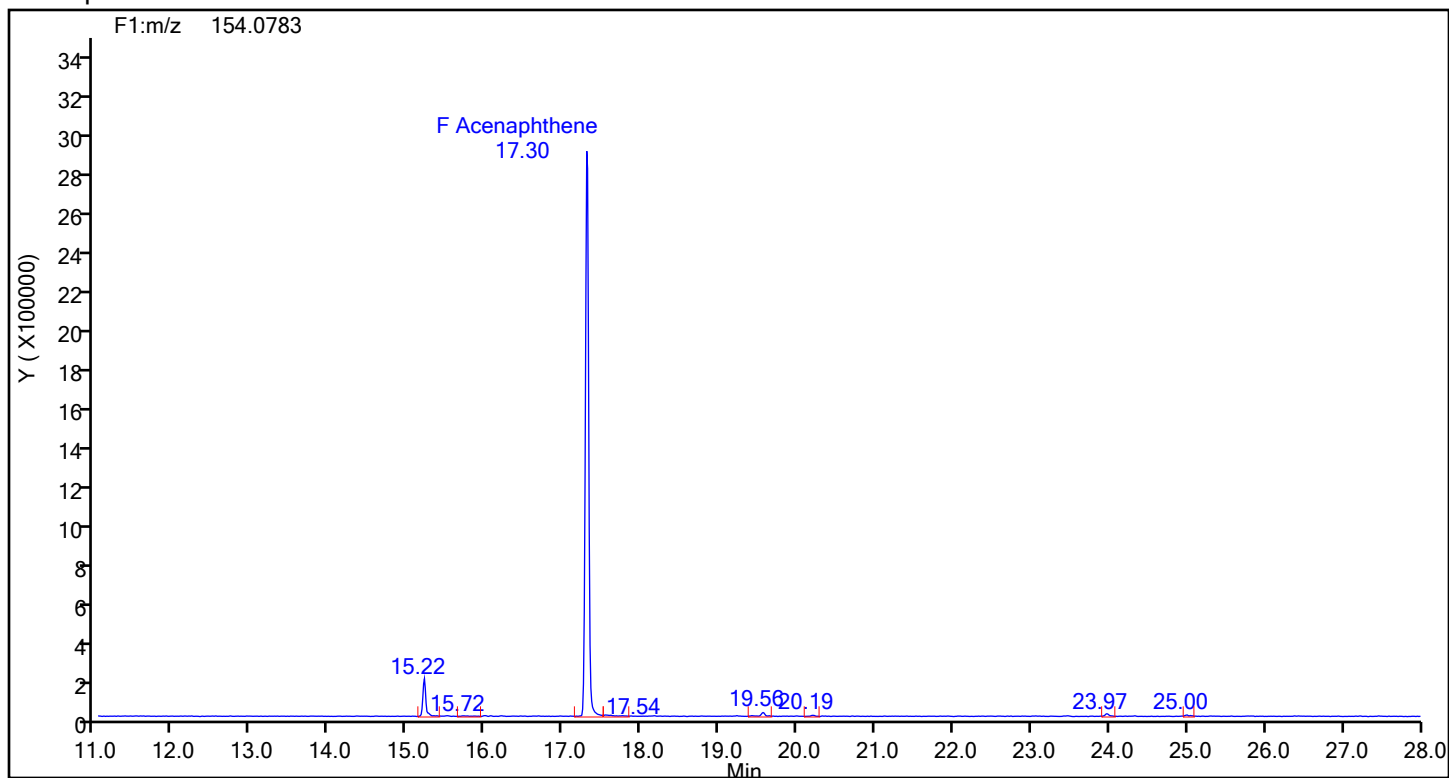
## Acenaphthylene Standards



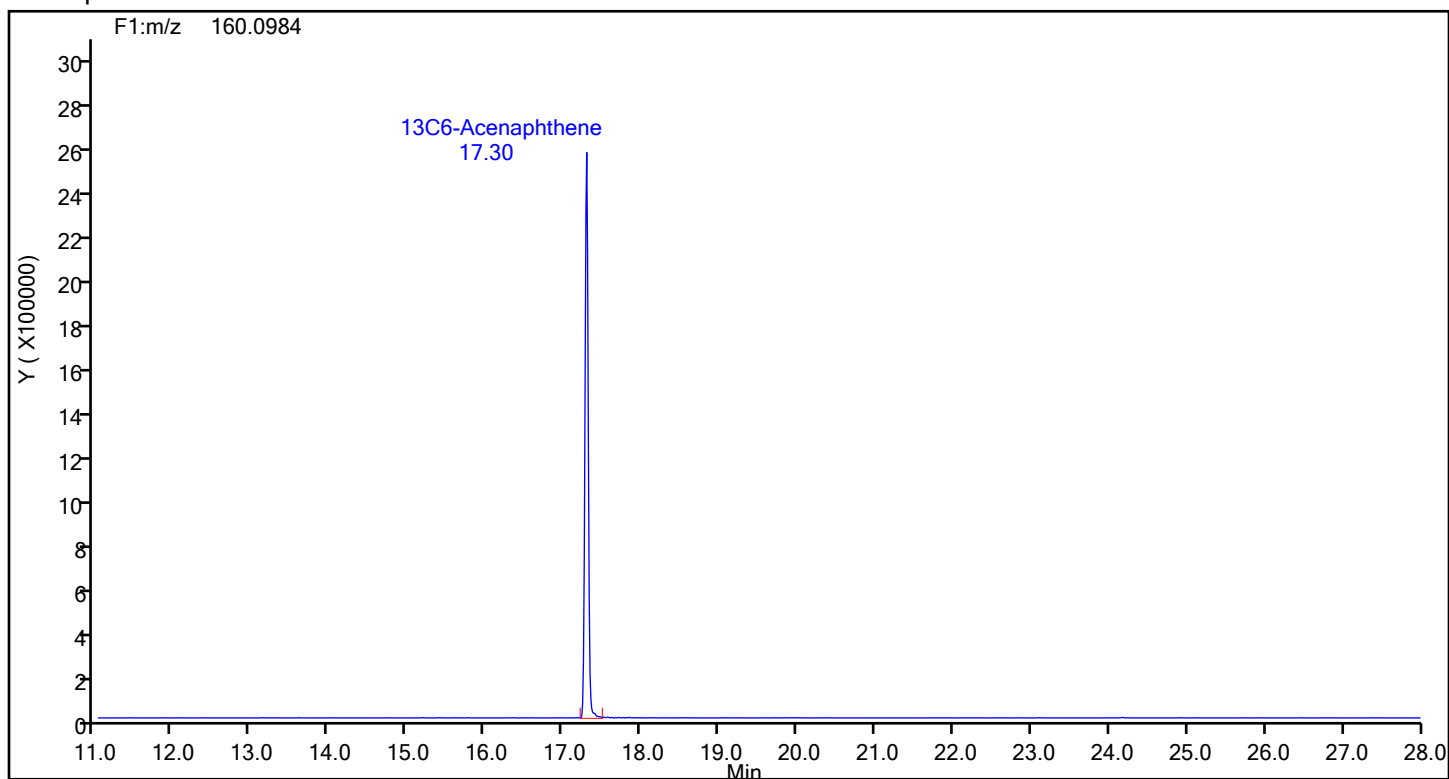
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Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Acenaphthene



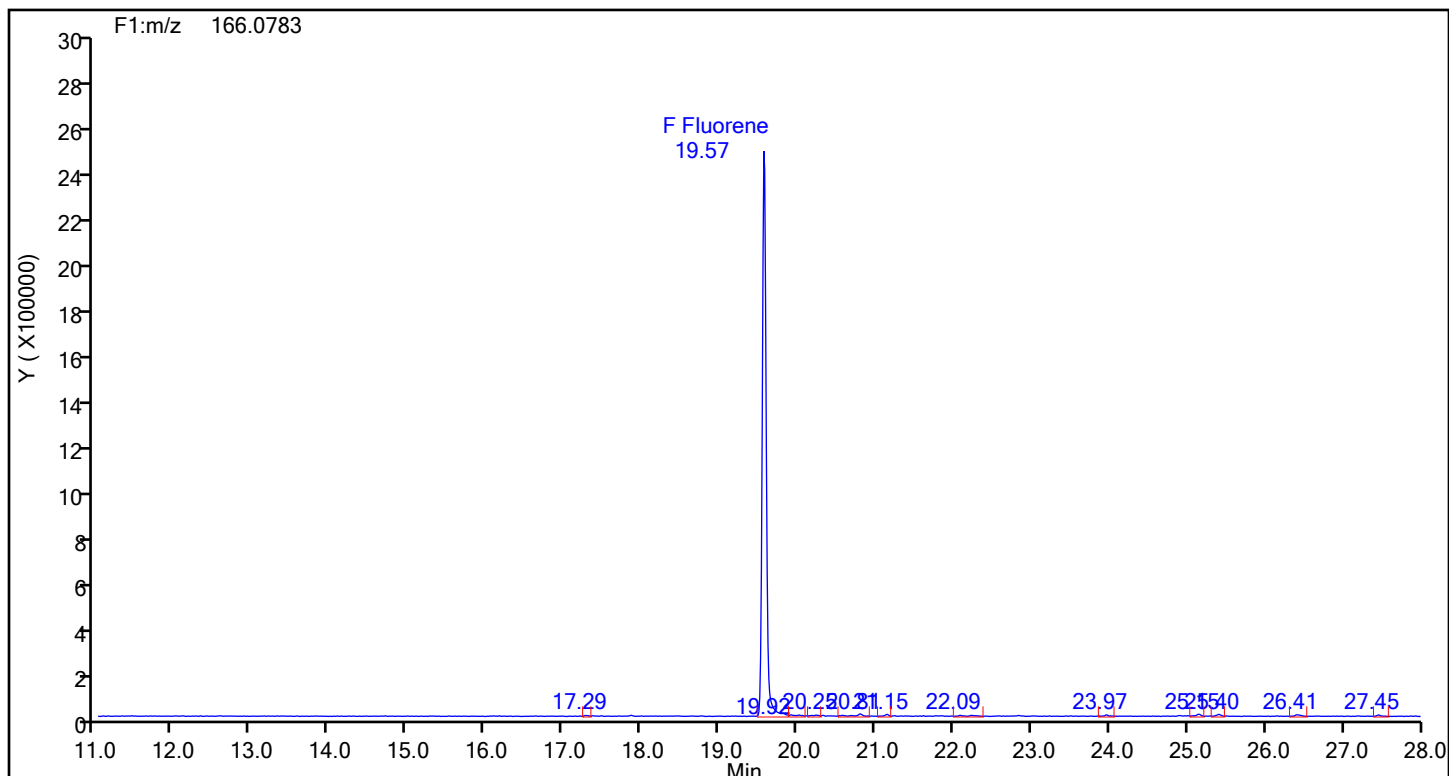
## Acenaphthene Standards



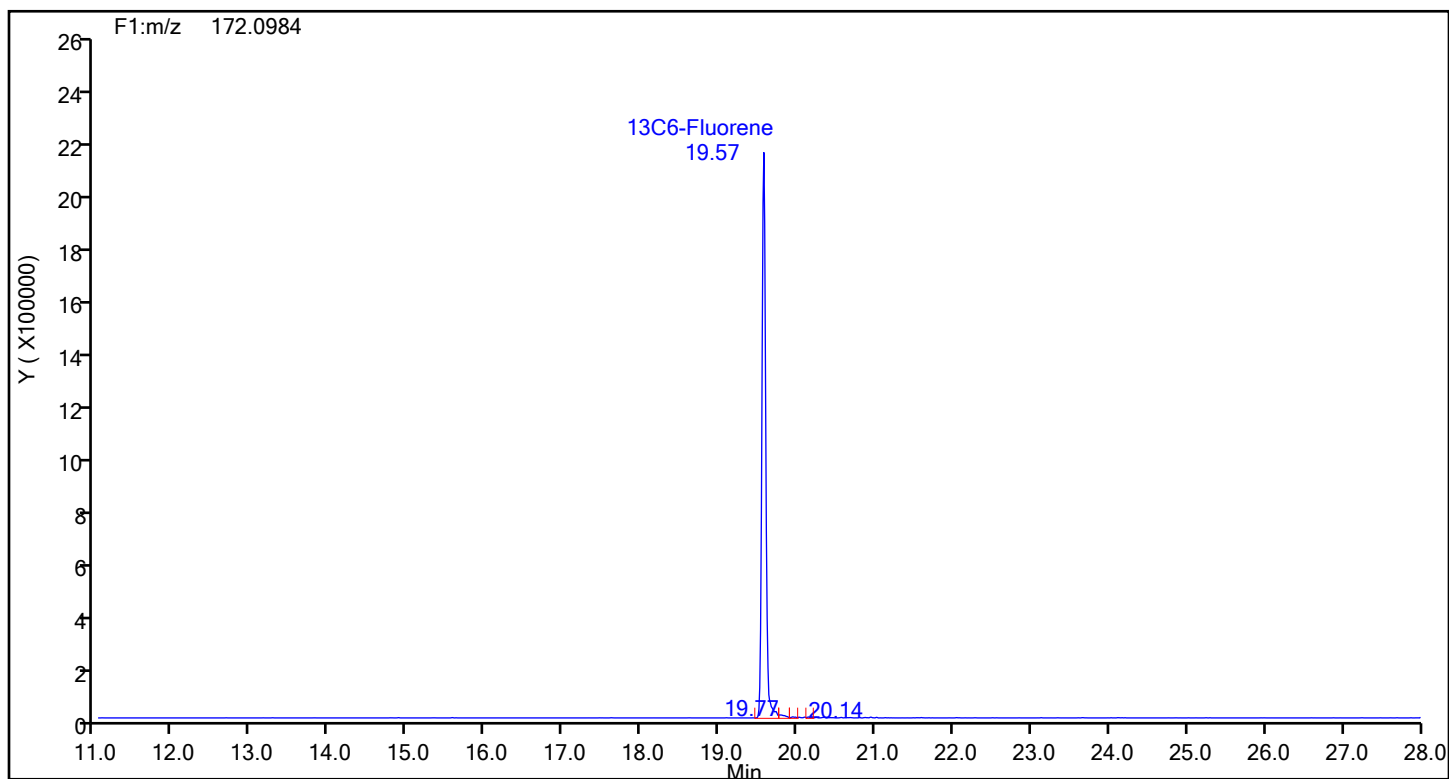
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Fluorene



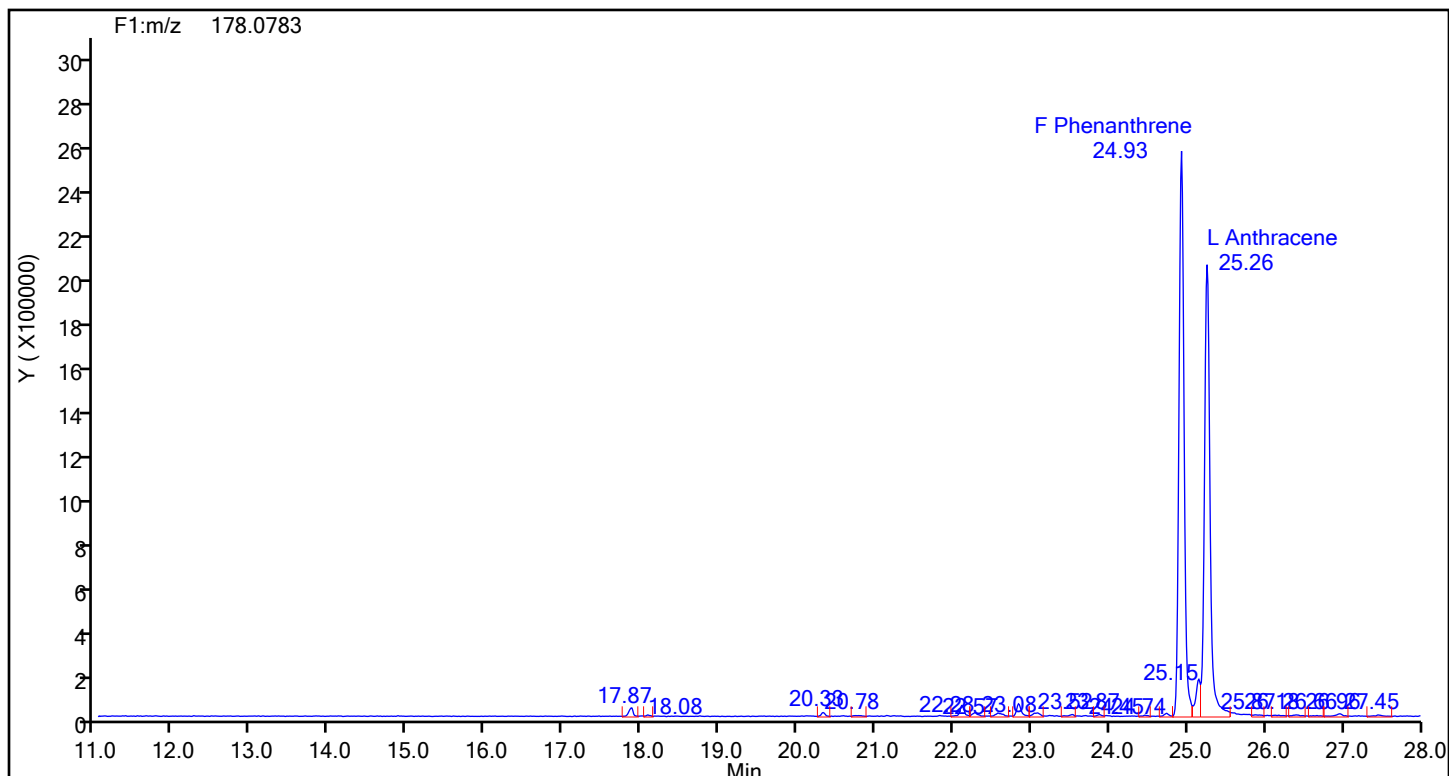
## Fluorene Standards



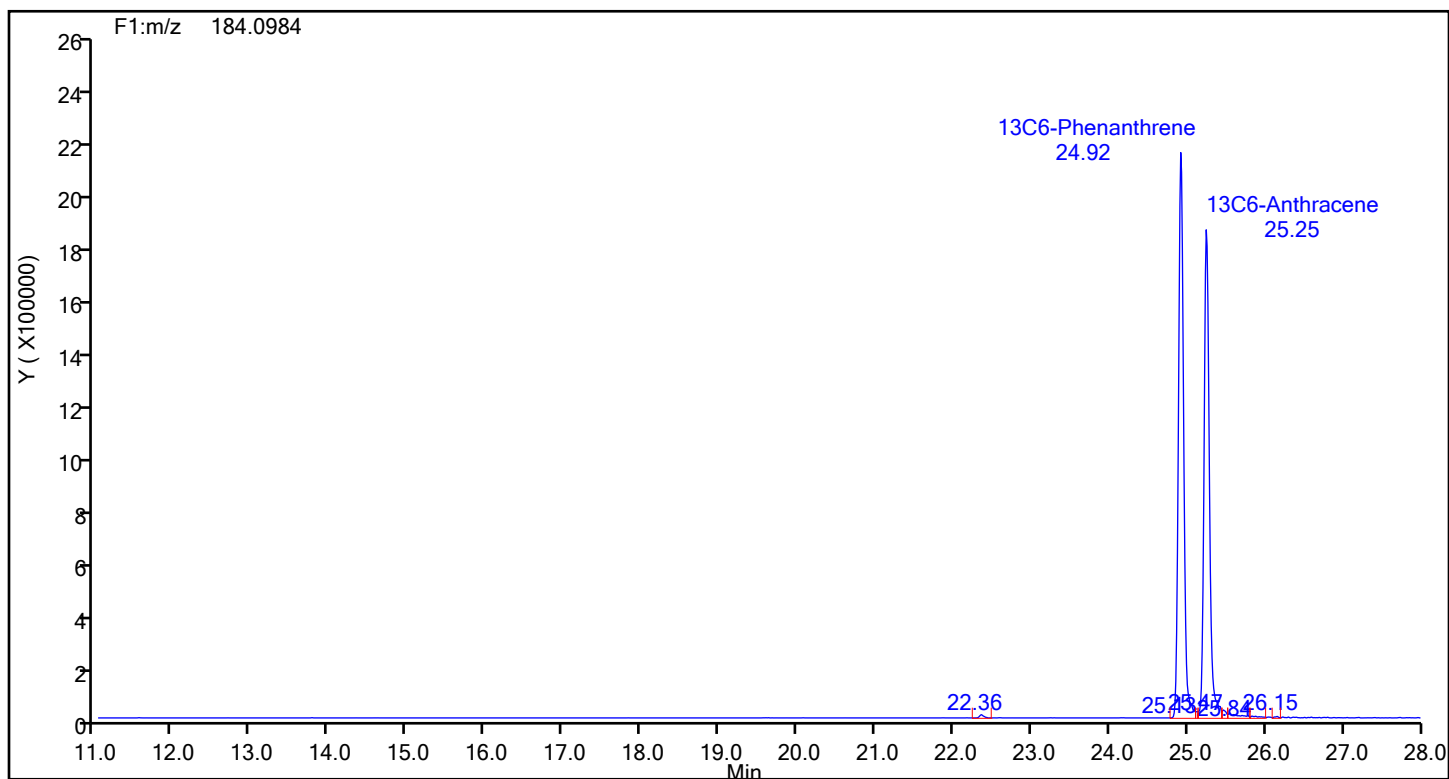


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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Phenanthrene

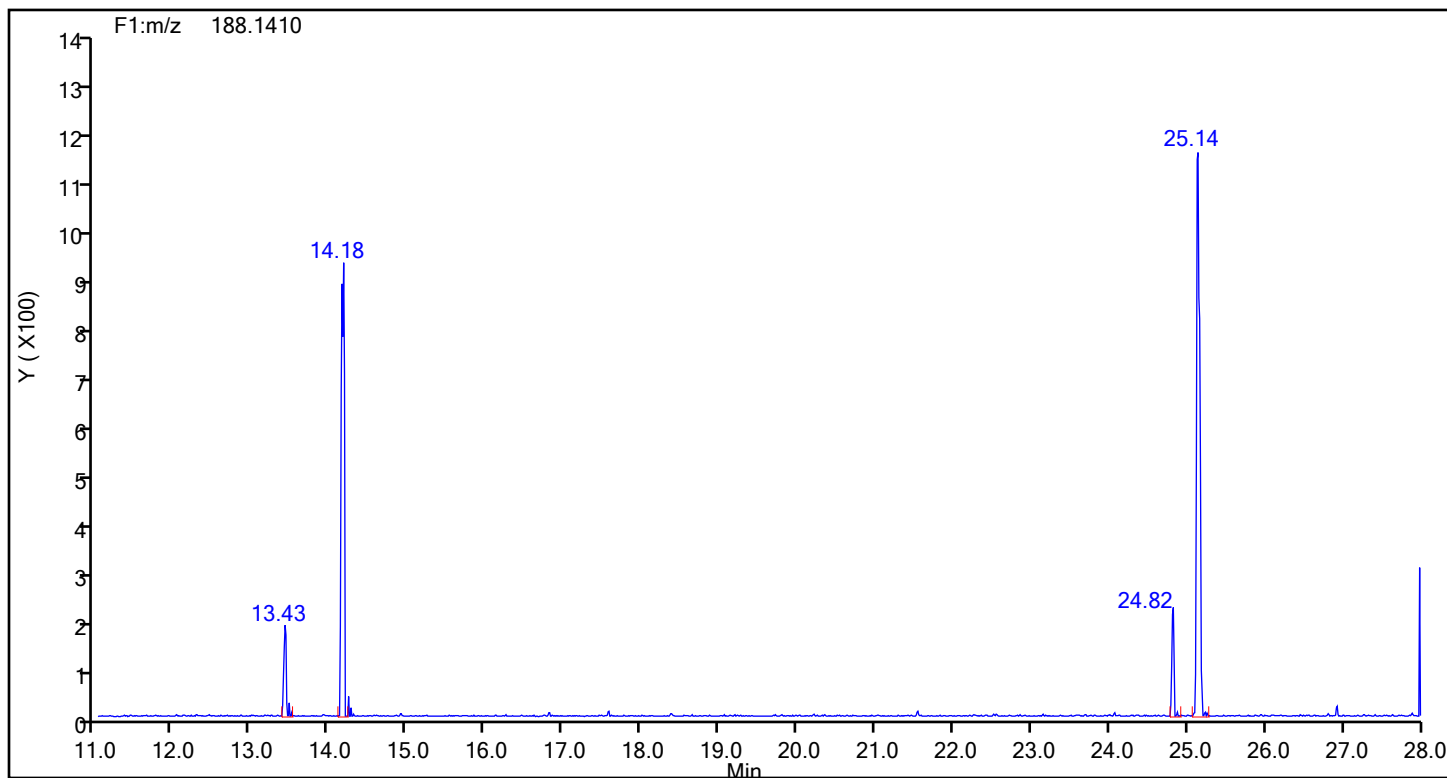


## Phenanthrene Standards

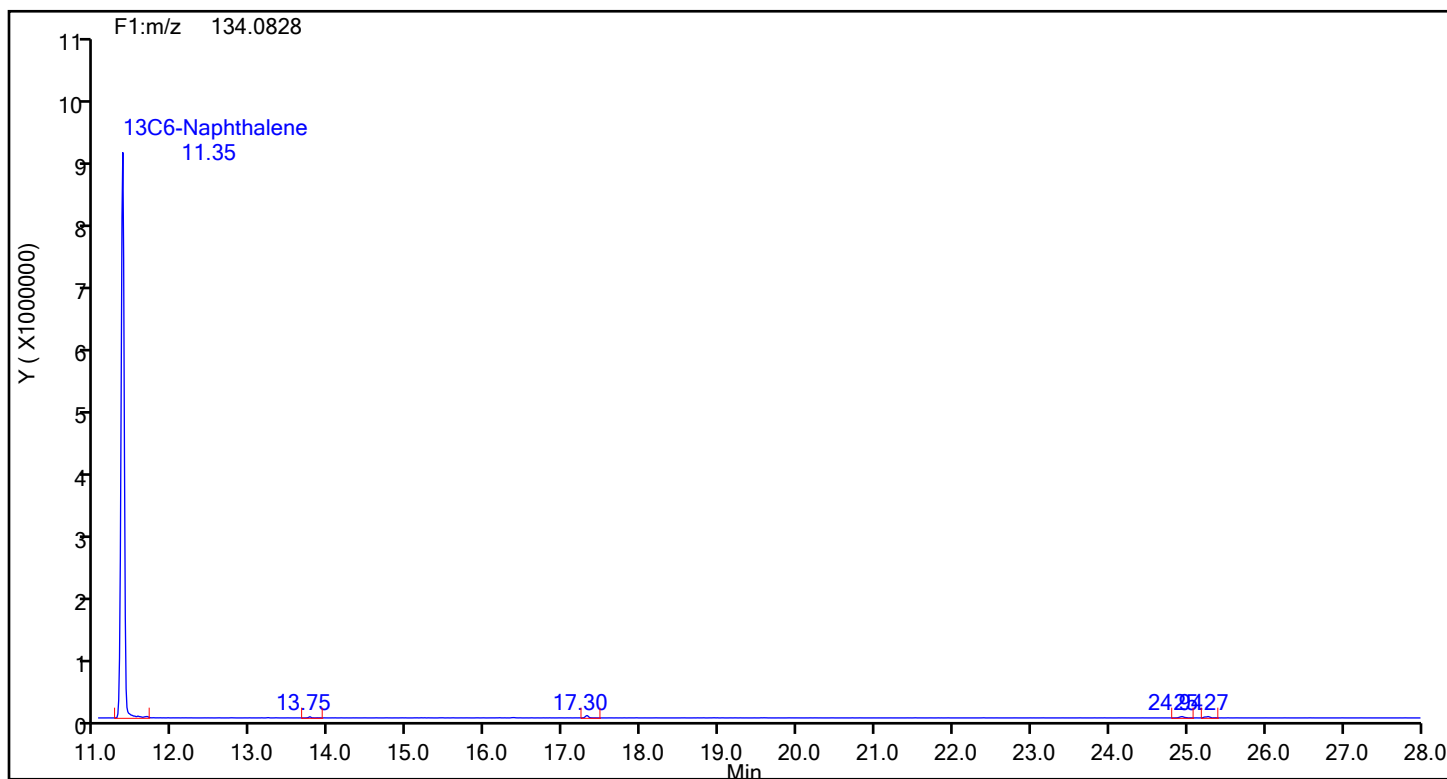


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Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Anthracin-d10

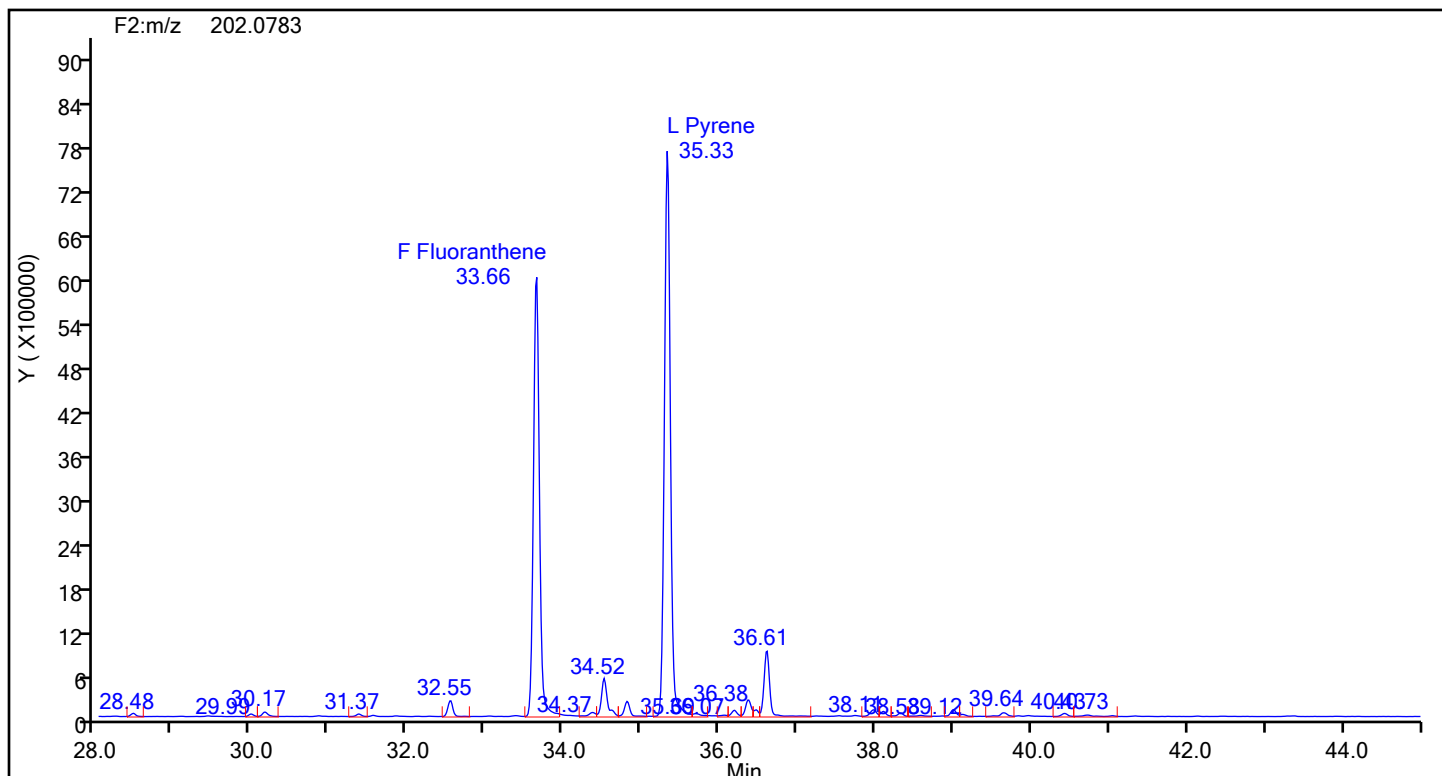


## Anthracin-d10 Standards

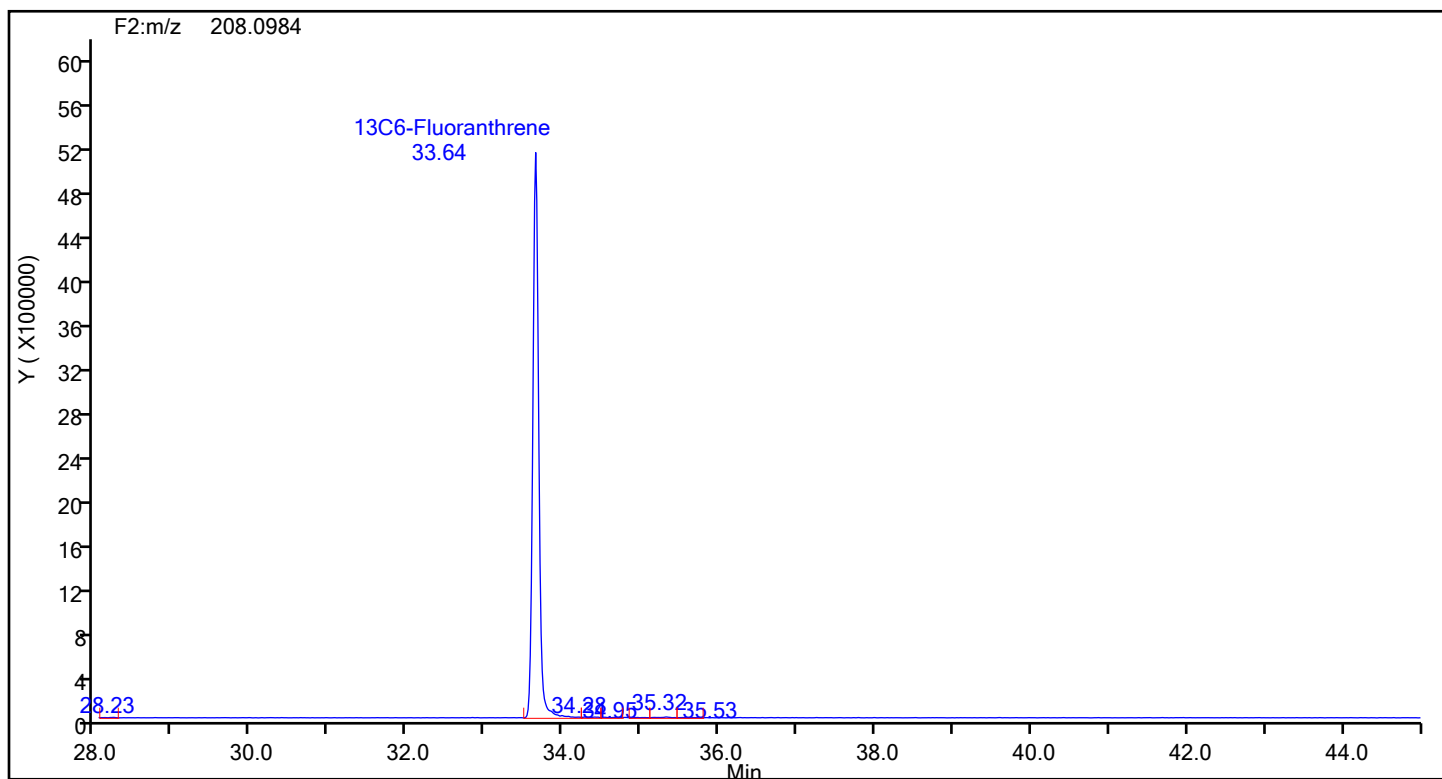


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Worklist#: 88920 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
Fluoranthene



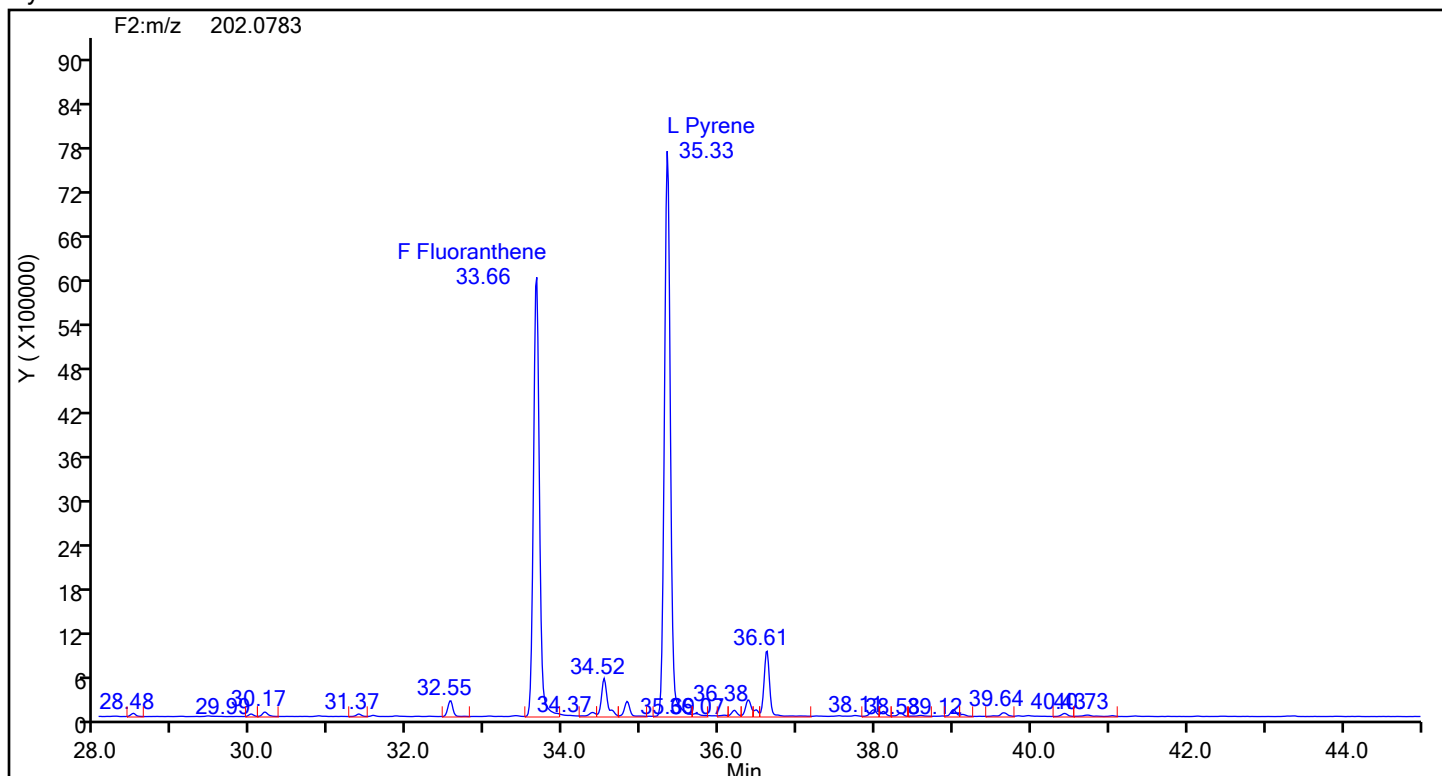
## Fluoranthene Standards



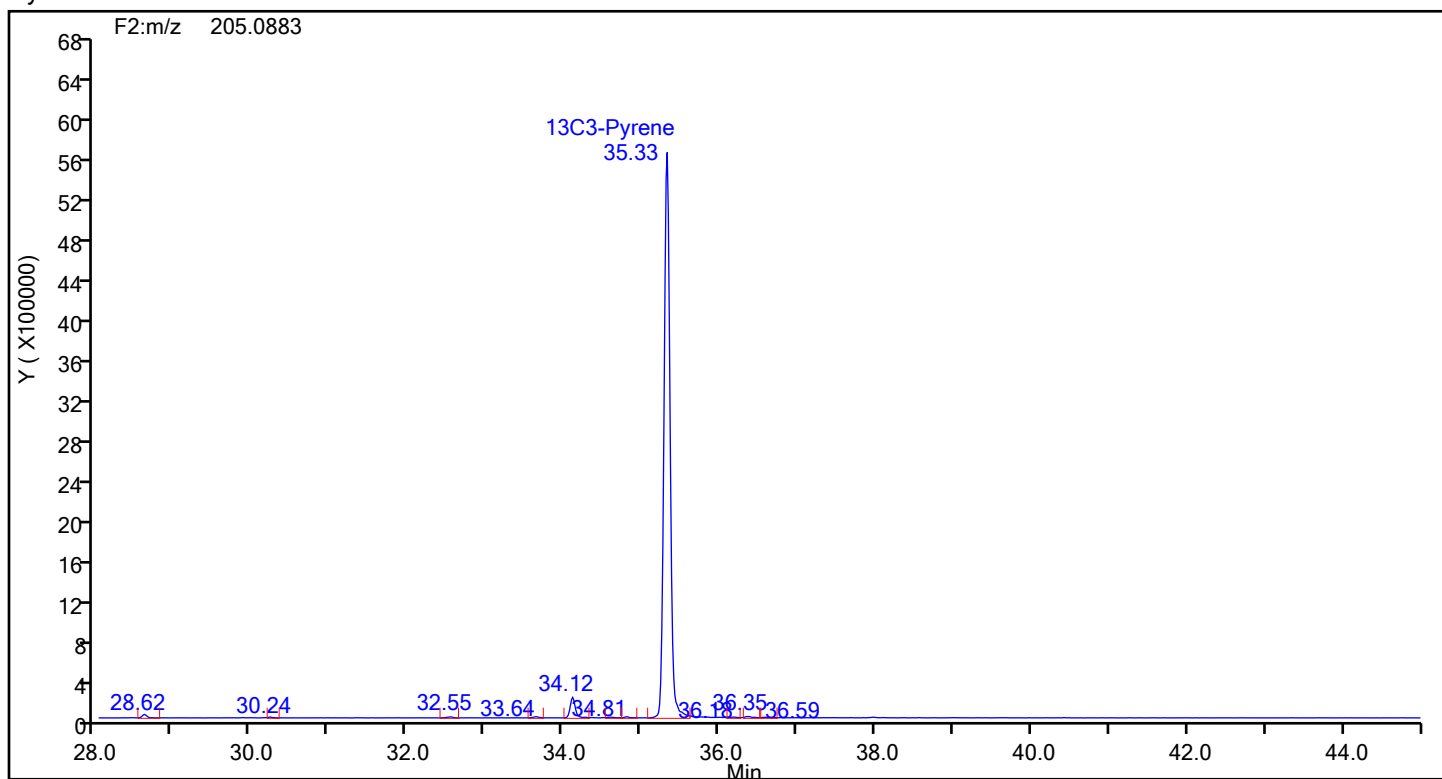
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Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Pyrene

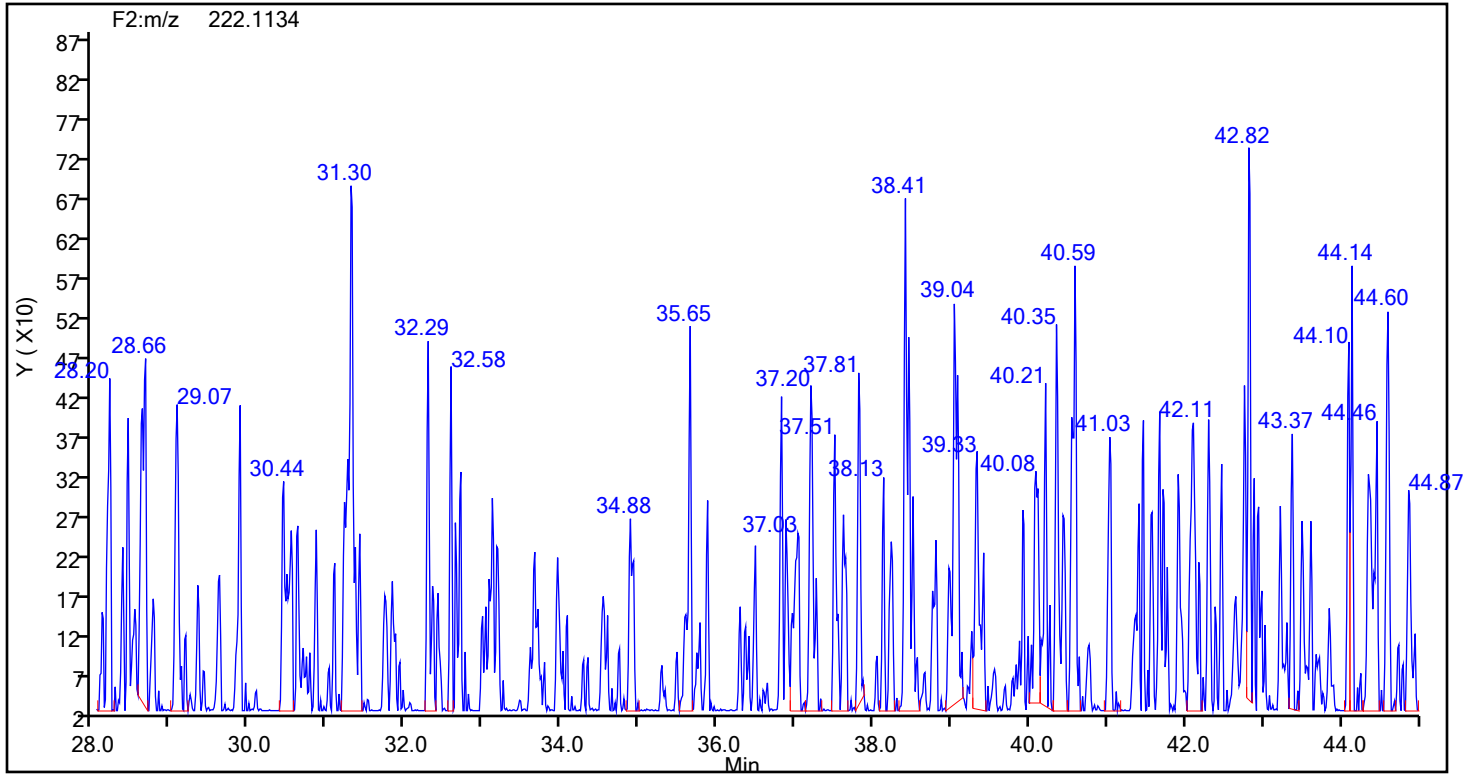


## Pyrene Standards

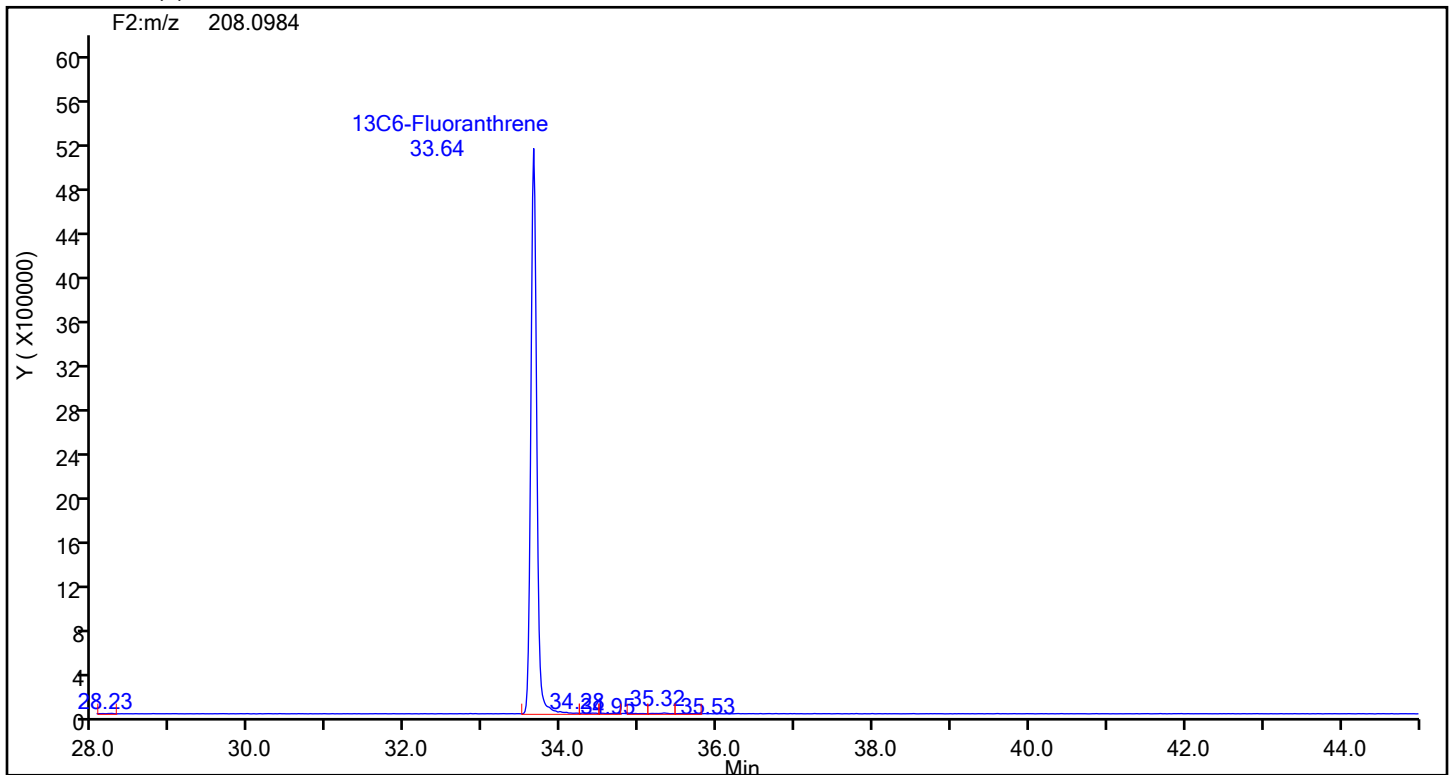


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Client ID:  
Worklist#: 88920 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
13C6-Benzo(c)fluorene



## 13C6-Benzo(c)fluorene Standards



Eurofins Knoxville

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Injection Date: 18-Jul-2024 13:28:00

Injection Vol: 1.0 ul

Instrument ID: D3PAH

Operator ID: Xcalibur\_System

Method: EPA 23 PAH

Limit Group: HR - HRPAAH ICAL

Client ID:

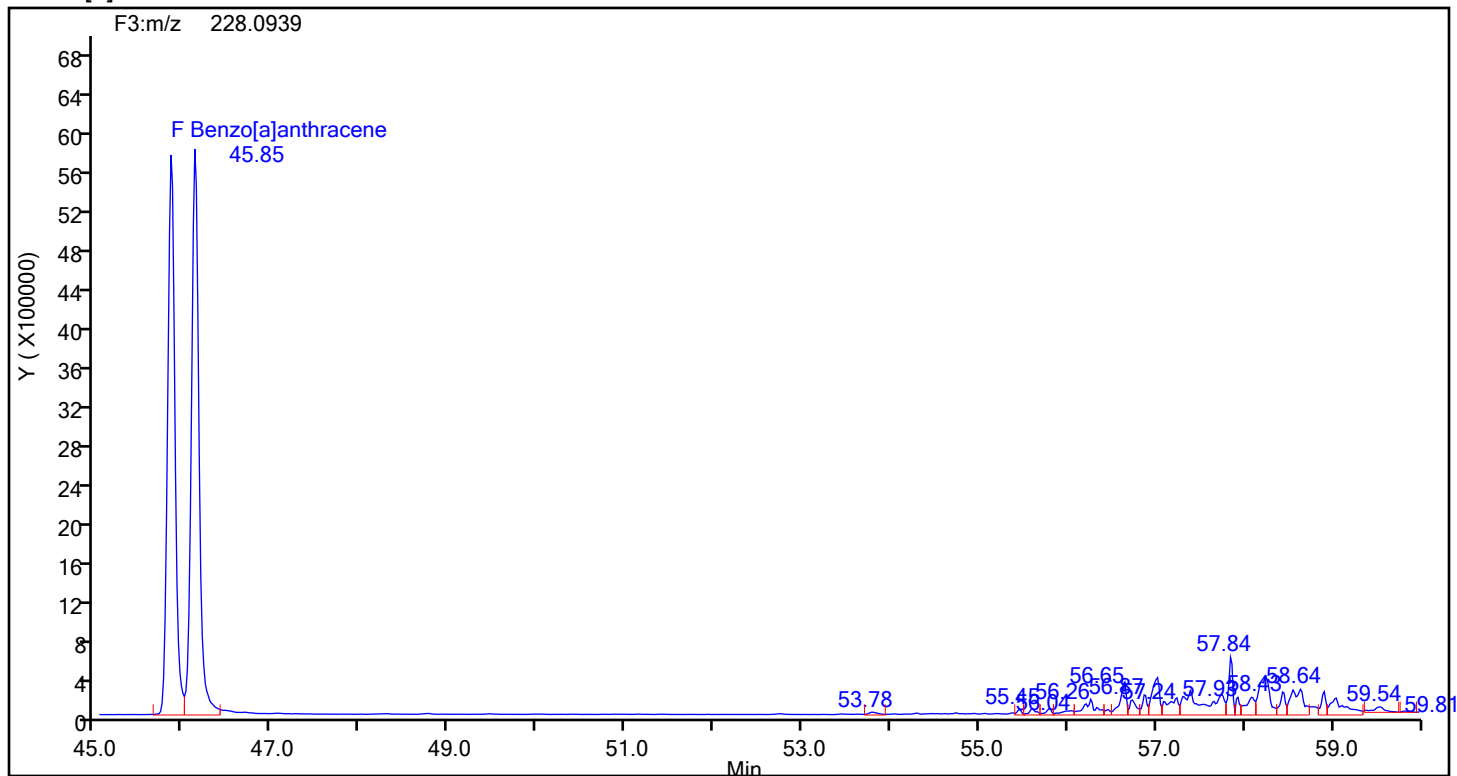
Worklist#: 88920

Sample Line#: 3

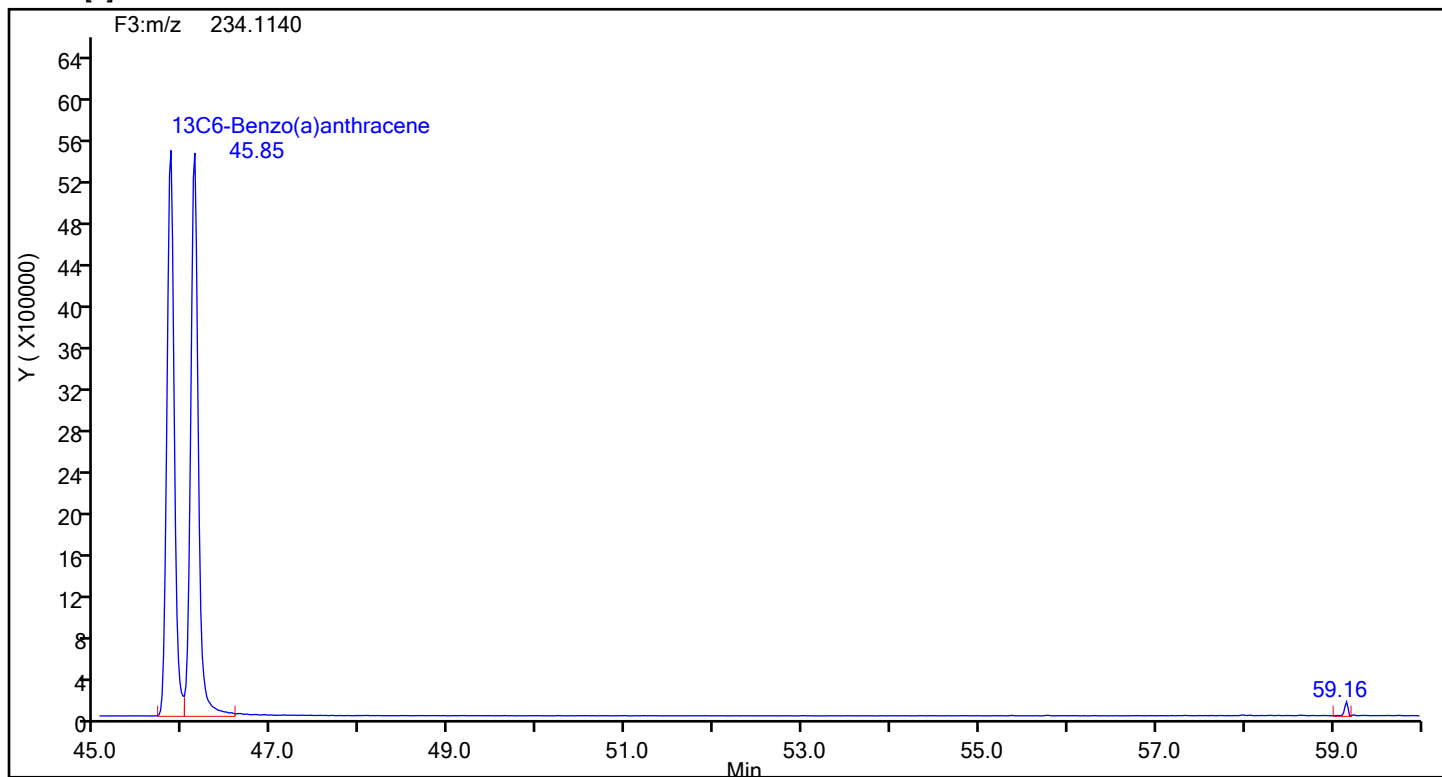
Column Type: Restek-5Sil MS 25um

Column Dia: 0.25 mm

Benzo[a]anthracene



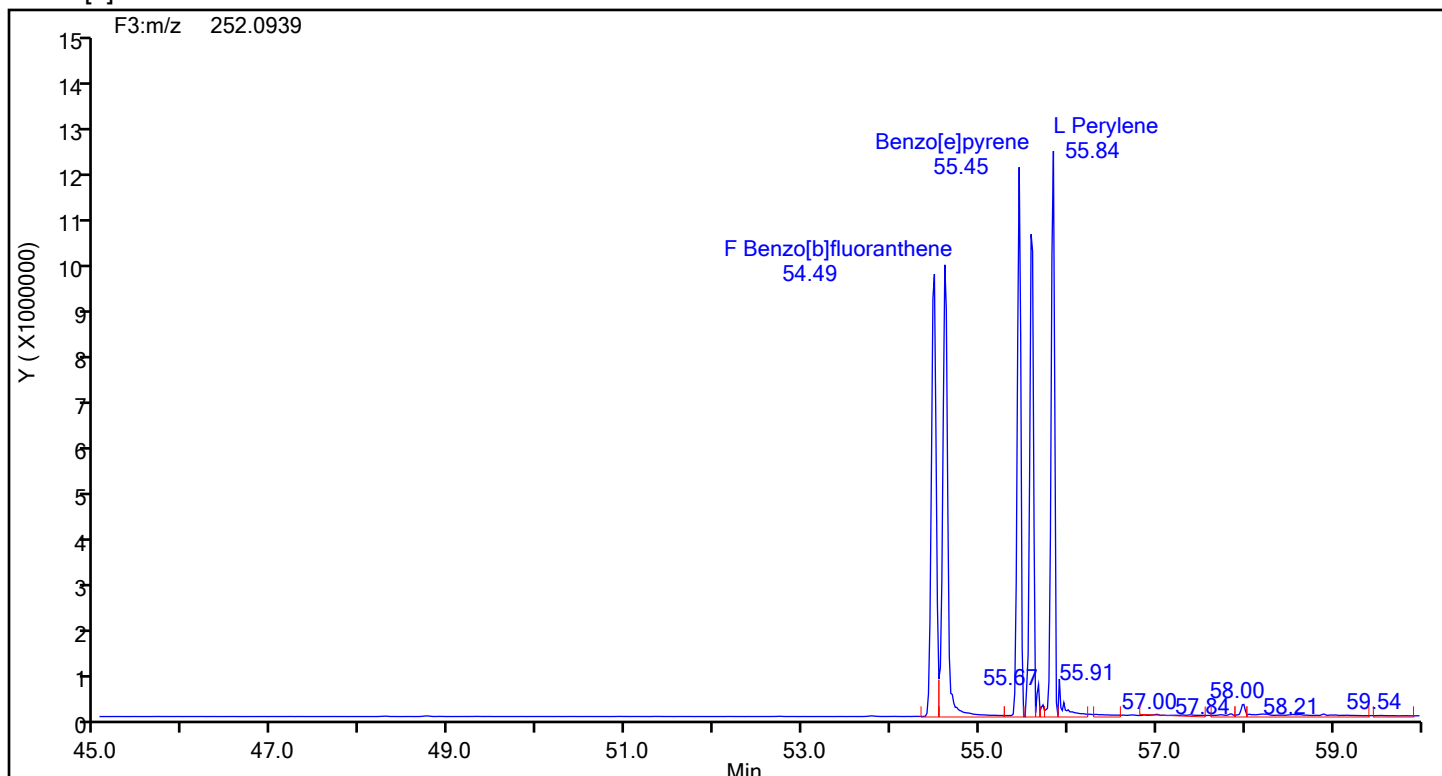
### Benzo[a]anthracene Standards



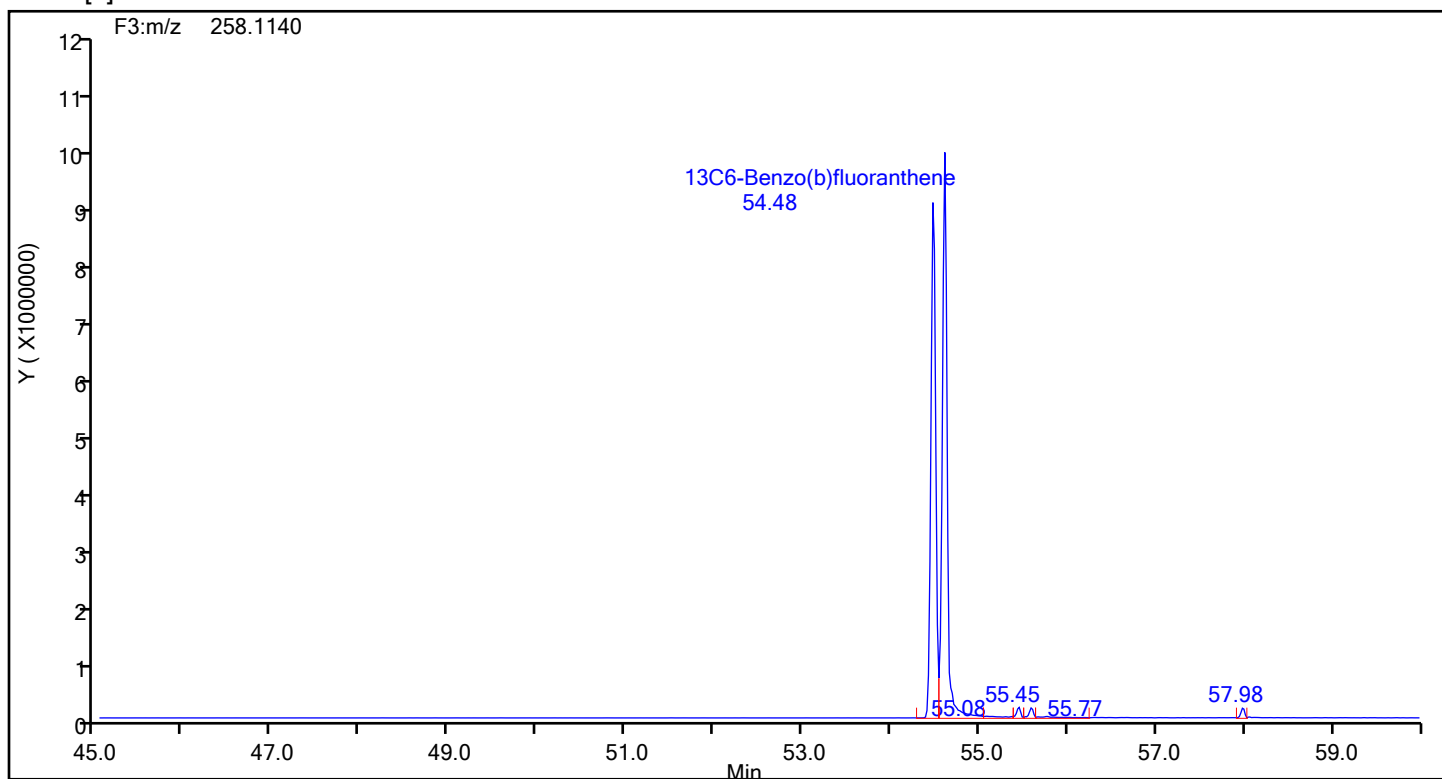
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcsd140-8819220-b.d  
Injection Date: 18-Jul-2024 13:28:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAL ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[b]fluoranthene

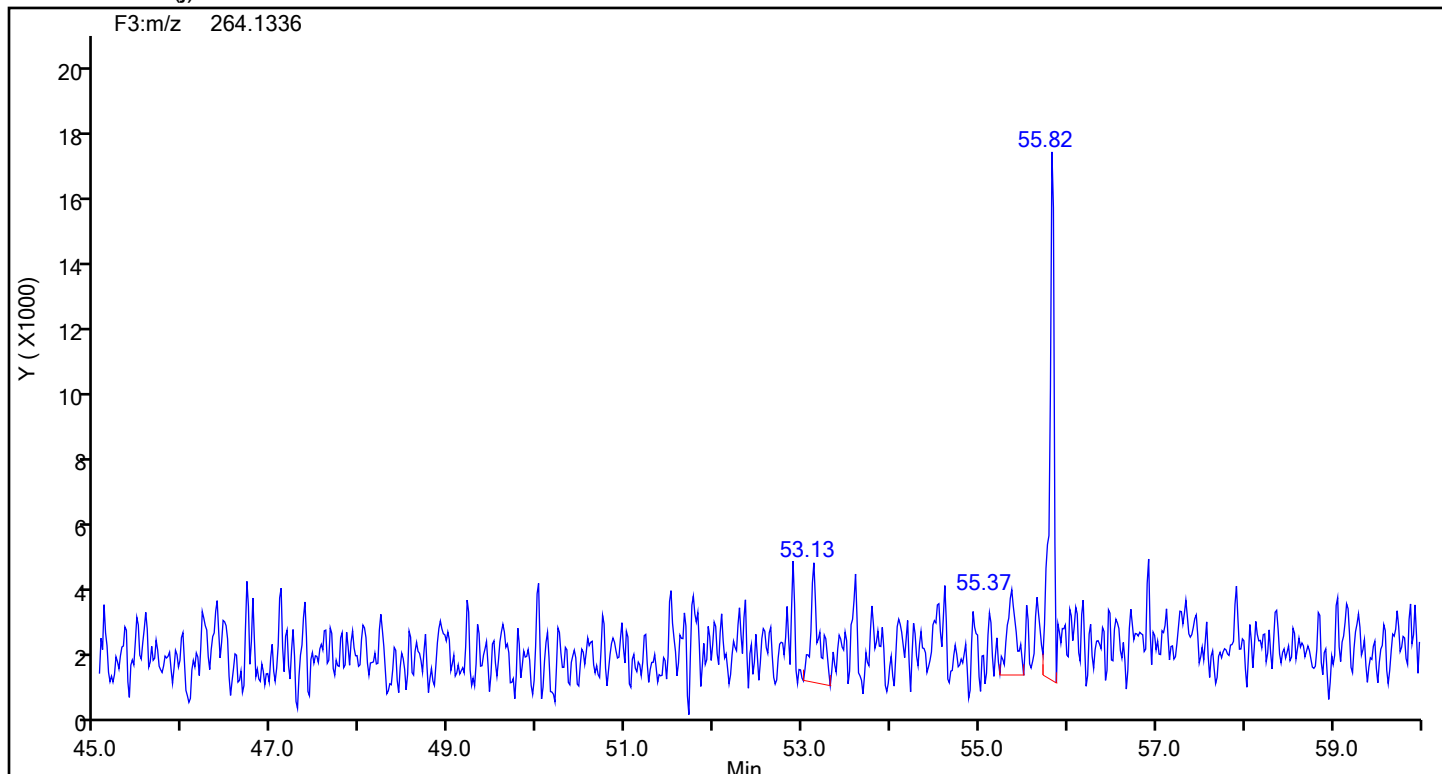


## Benzo[b]fluoranthene Standards

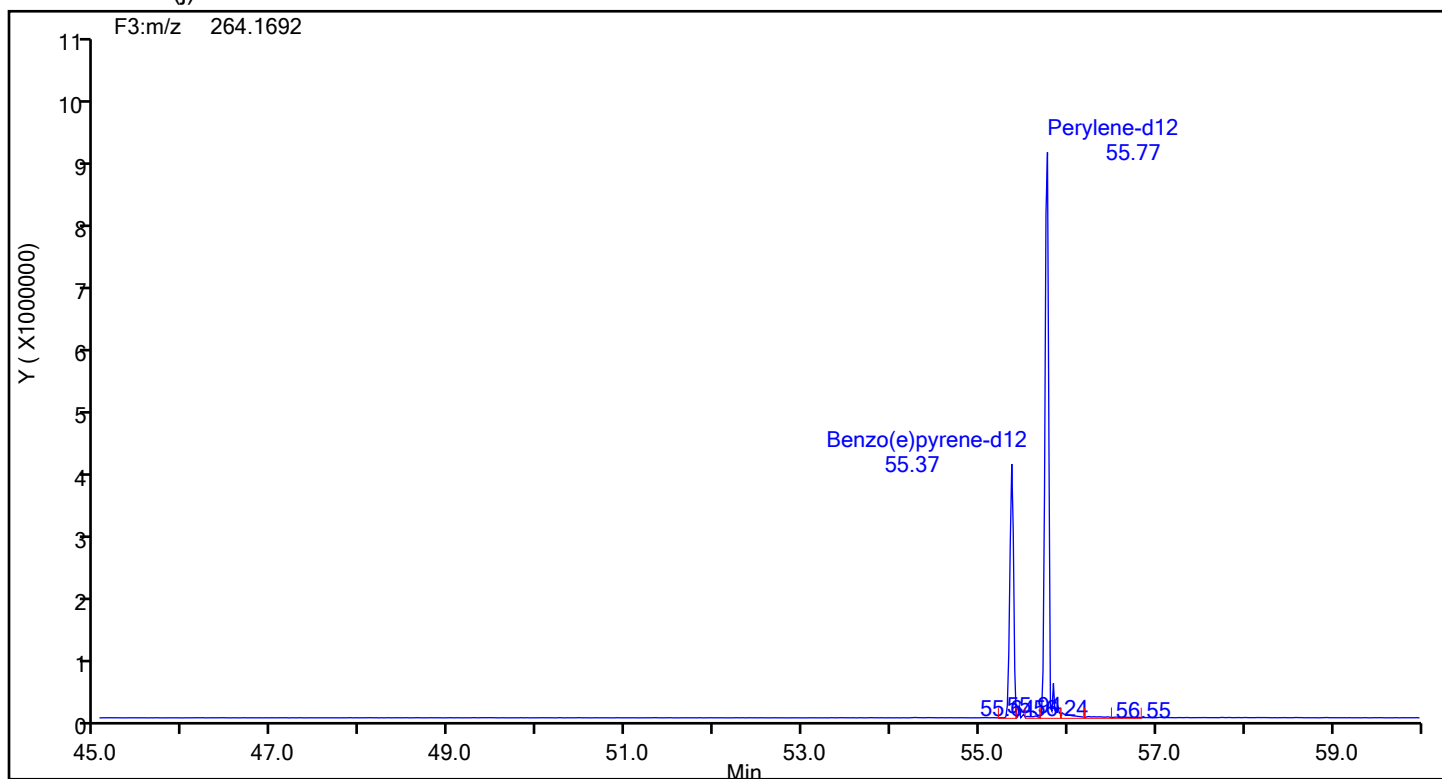


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcsd140-8819220-b.d  
Injection Date: 18-Jul-2024 13:28:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm  
13C12-Benzo(j)fluoranthene



## 13C12-Benzo(j)fluoranthene Standards

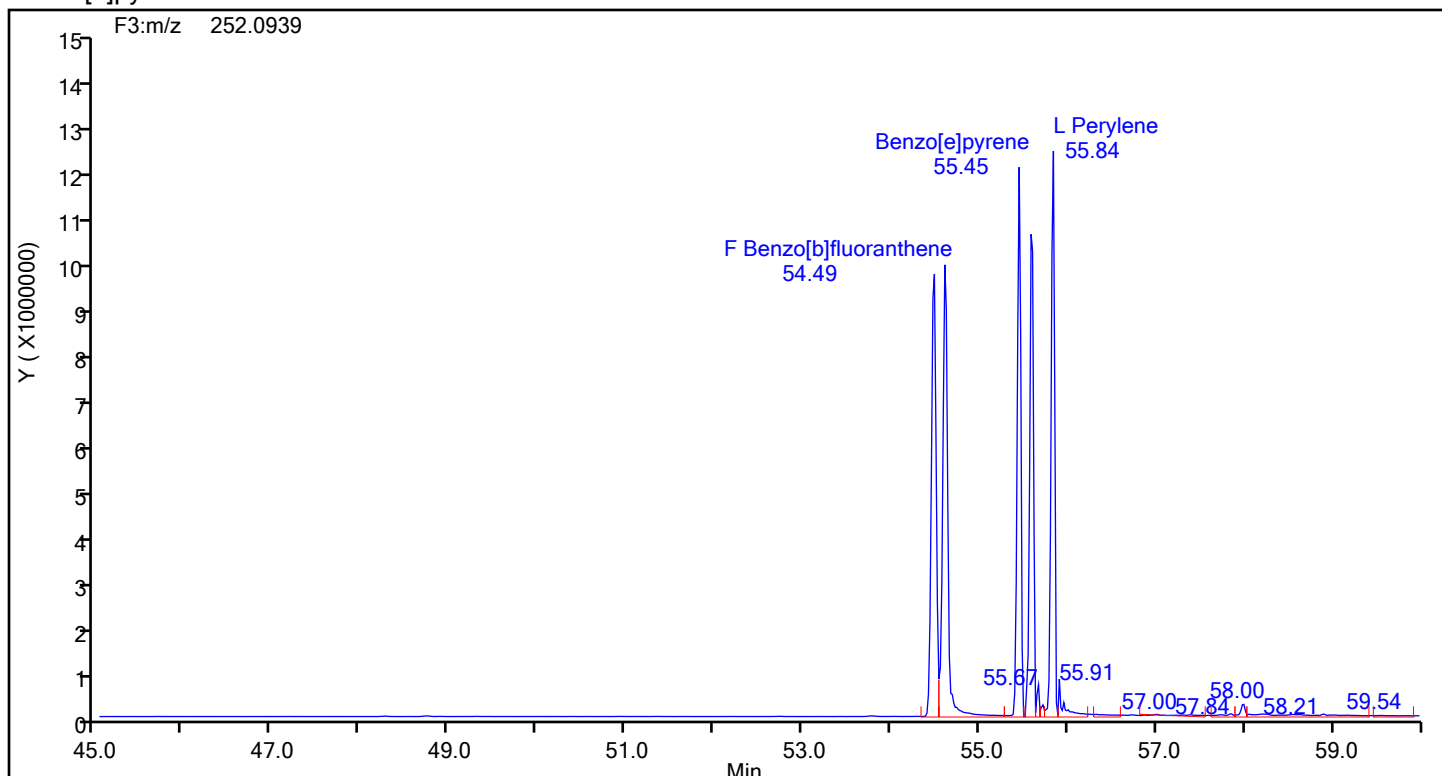




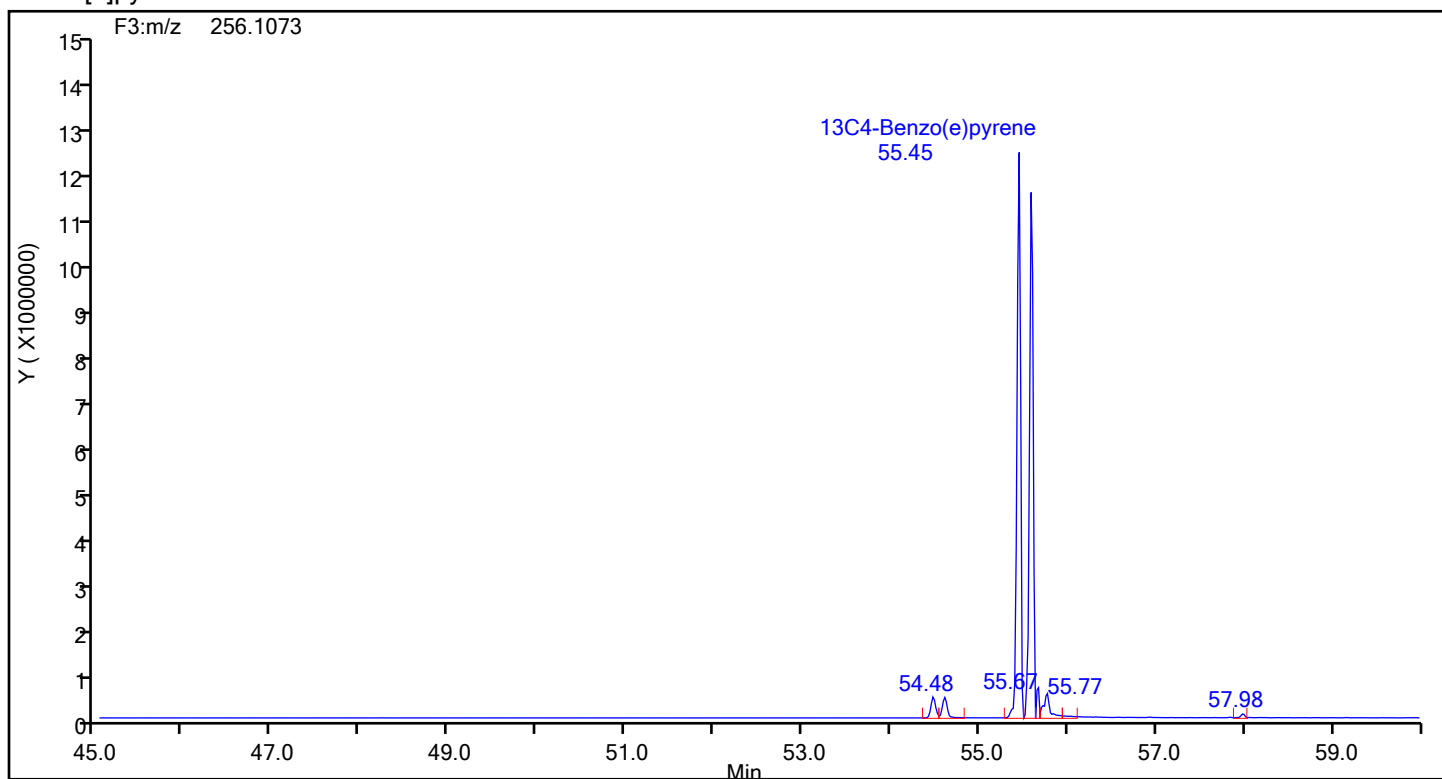
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcsd140-8819220-b.d  
Injection Date: 18-Jul-2024 13:28:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[e]pyrene



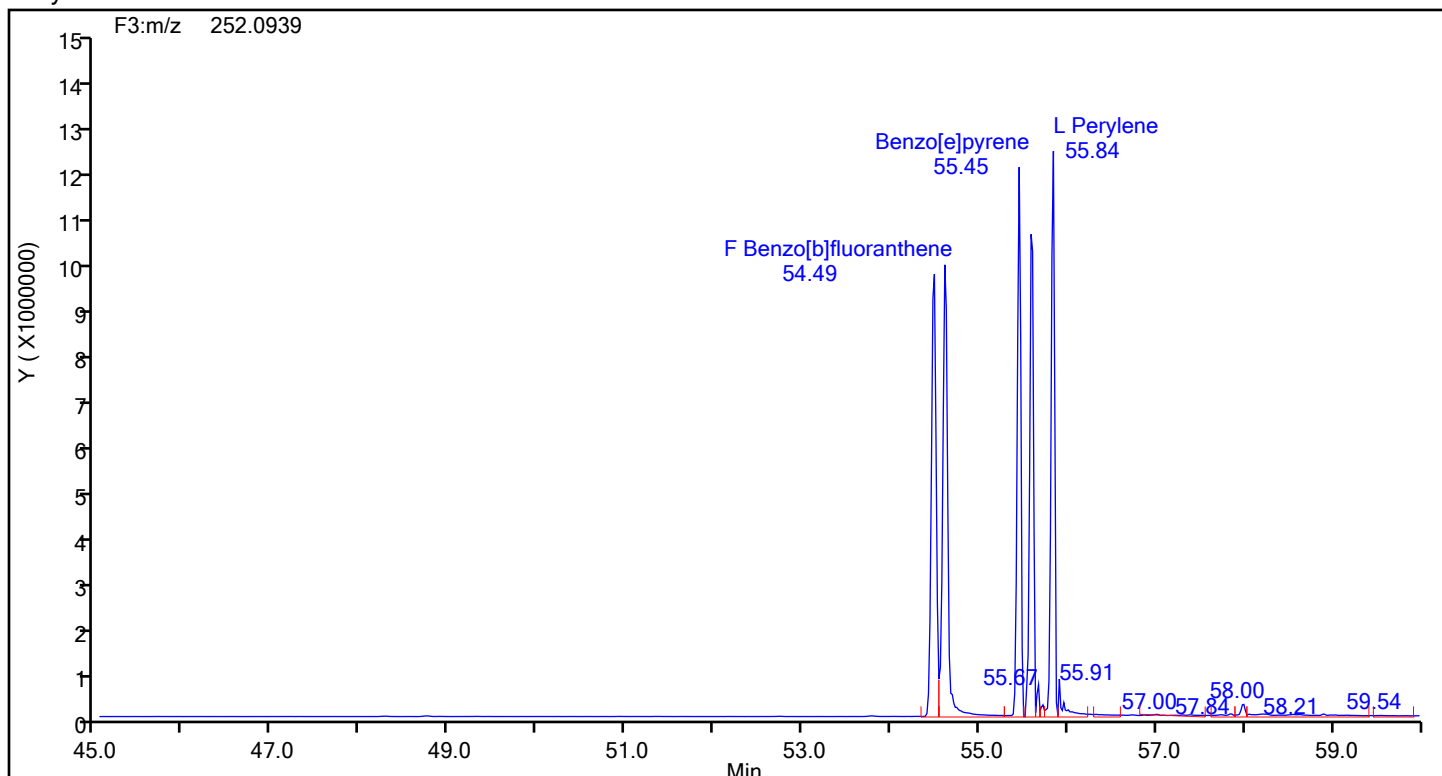
## Benzo[e]pyrene Standards



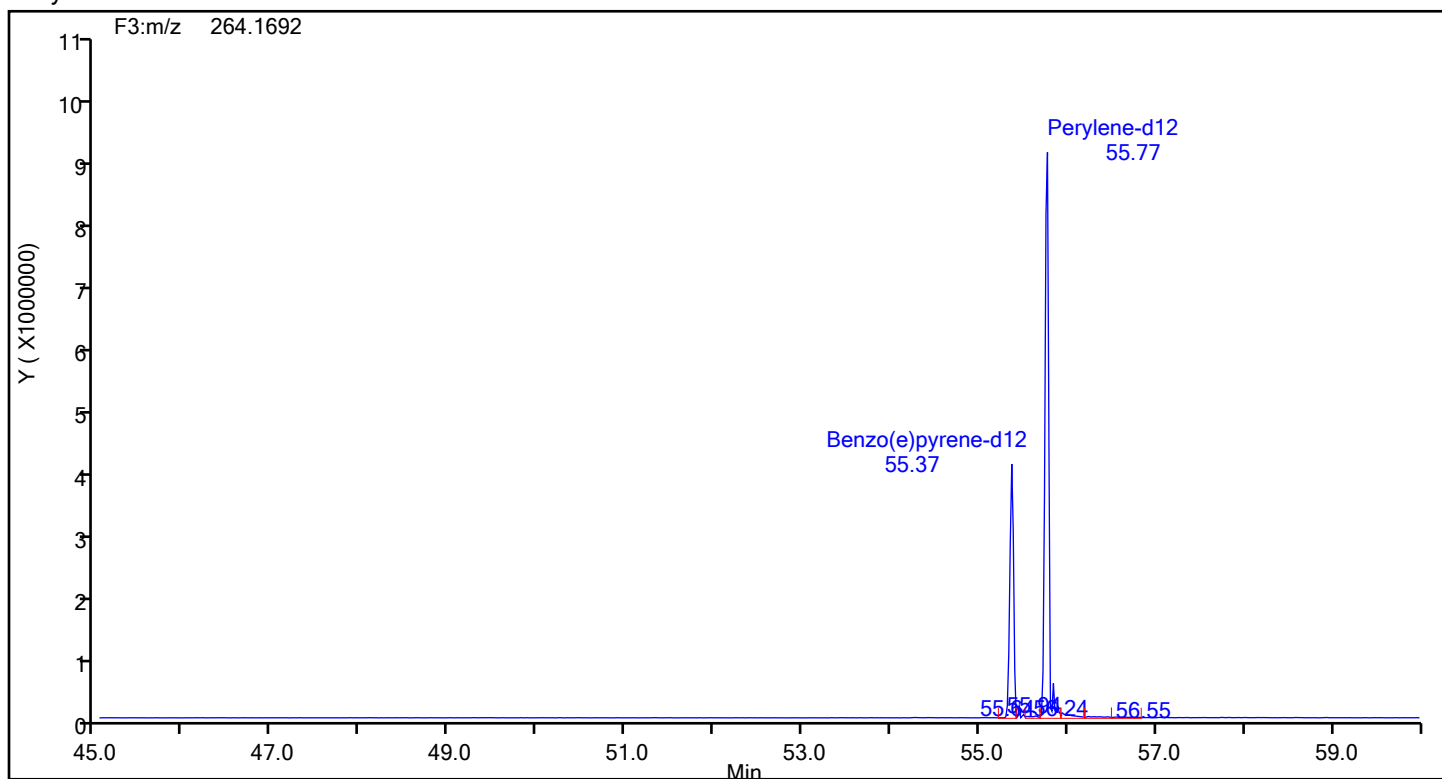
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcsd140-8819220-b.d  
Injection Date: 18-Jul-2024 13:28:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Perylene



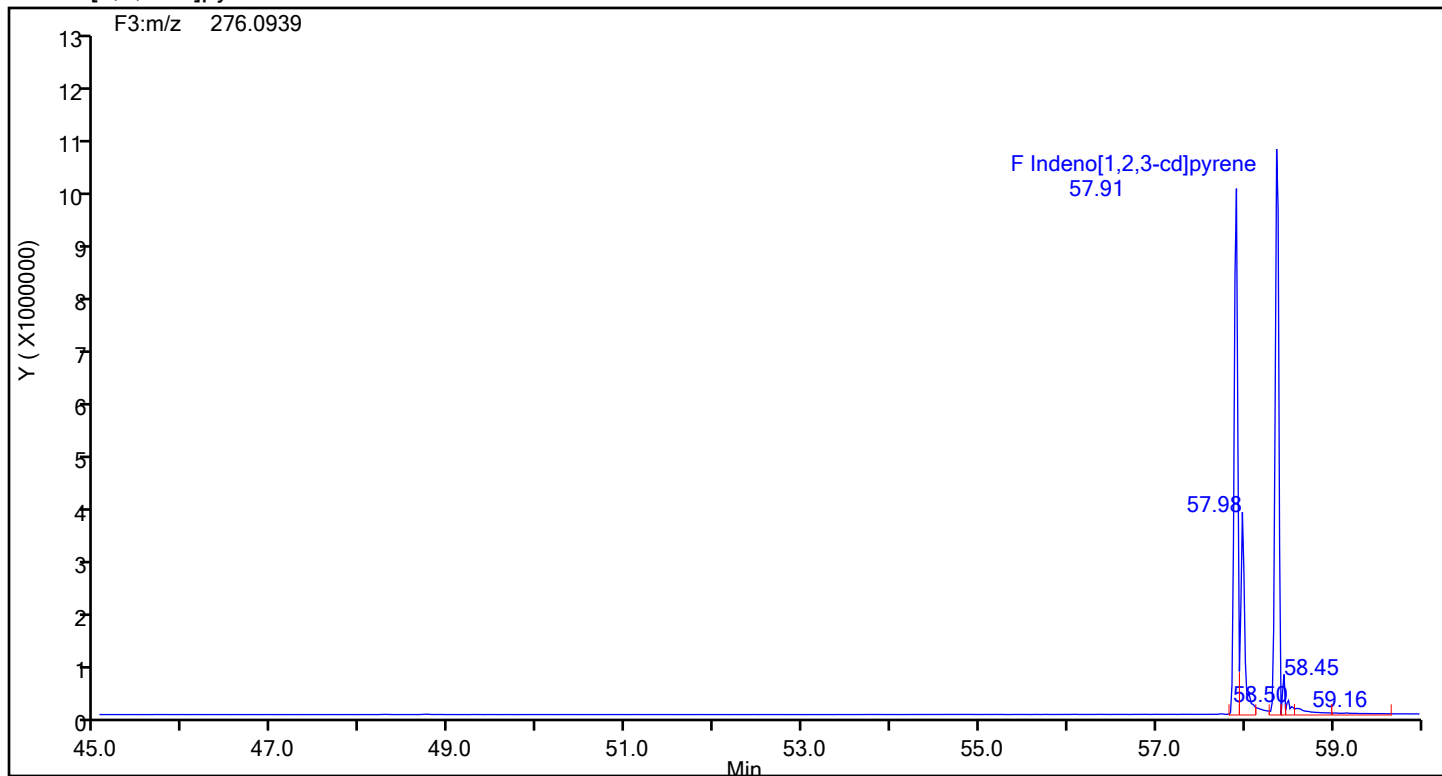
## Perylene Standards



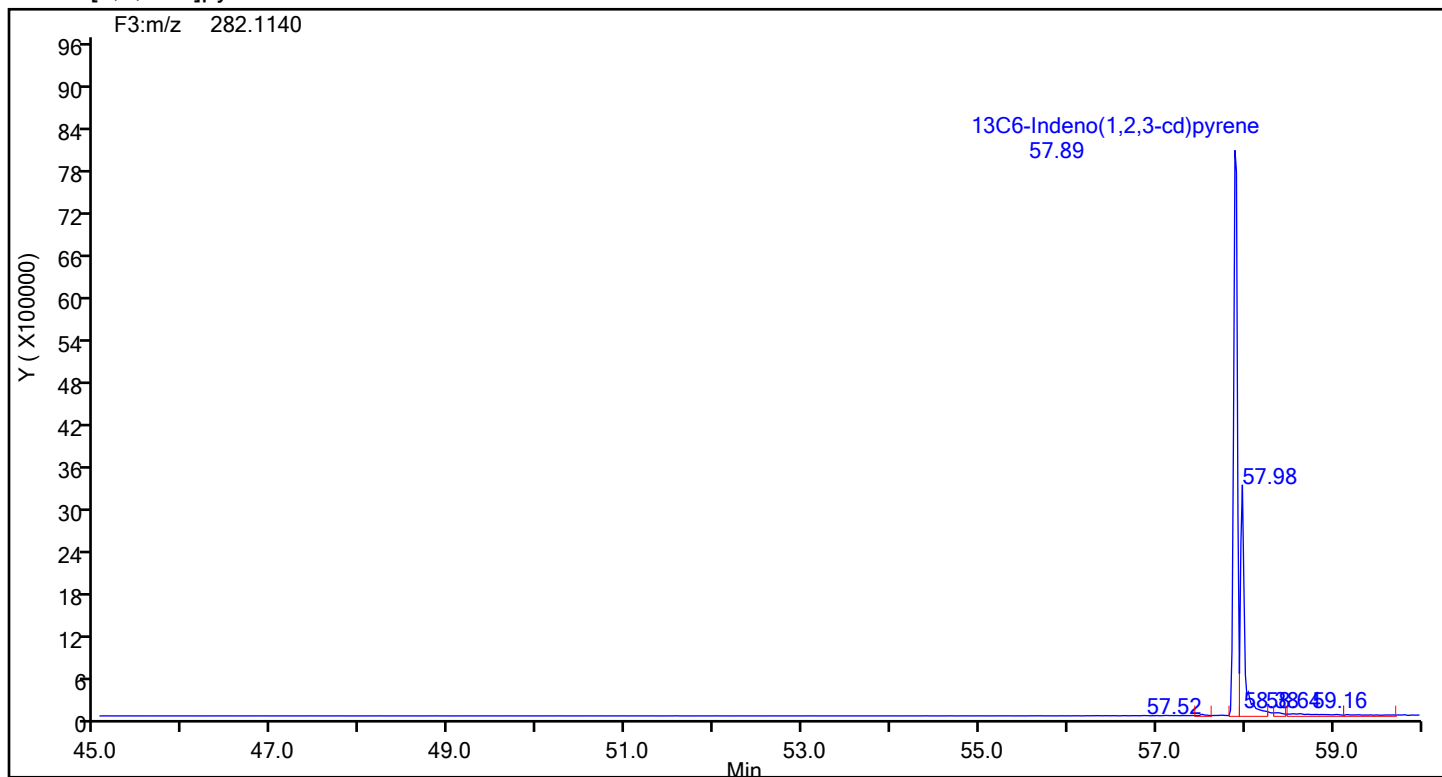
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcsd140-8819220-b.d  
Injection Date: 18-Jul-2024 13:28:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Indeno[1,2,3-cd]pyrene



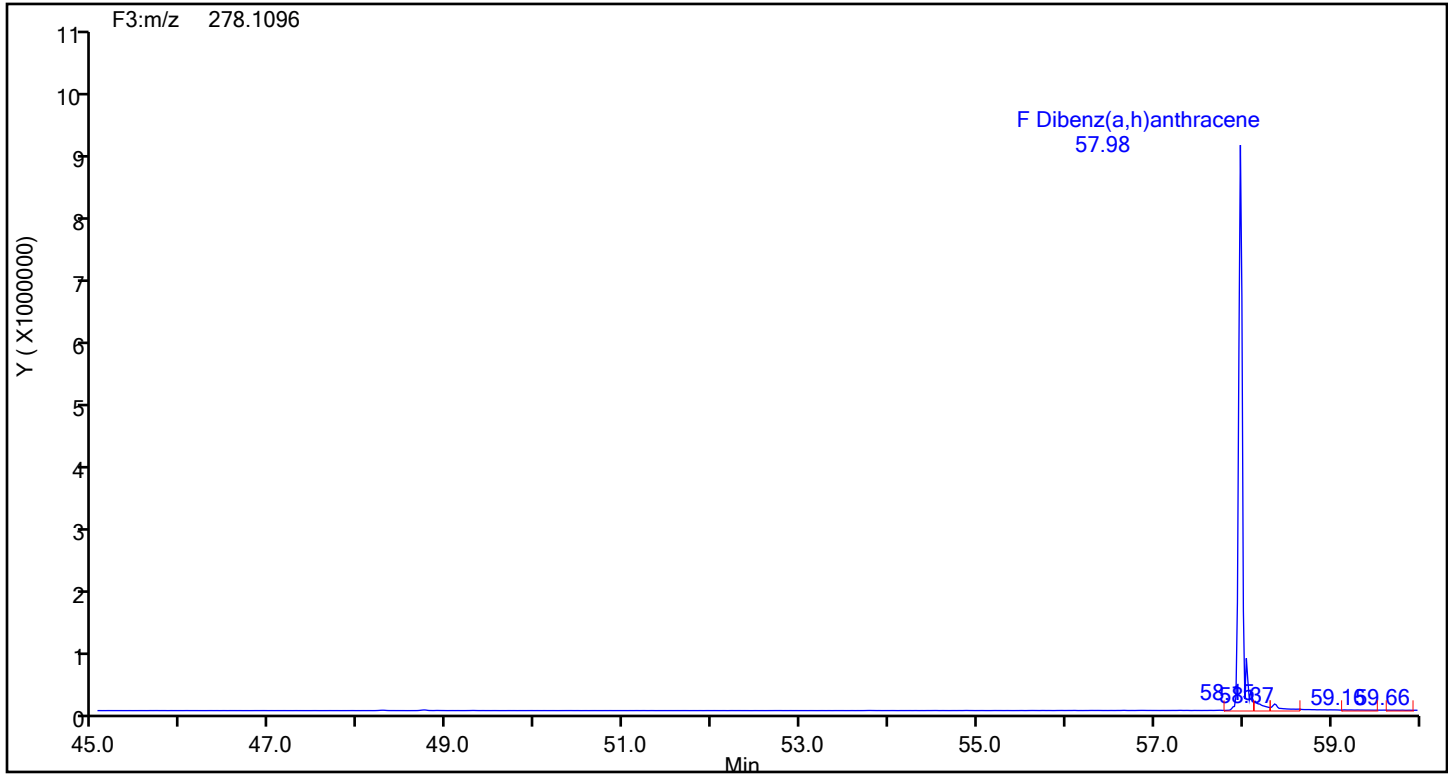
## Indeno[1,2,3-cd]pyrene Standards



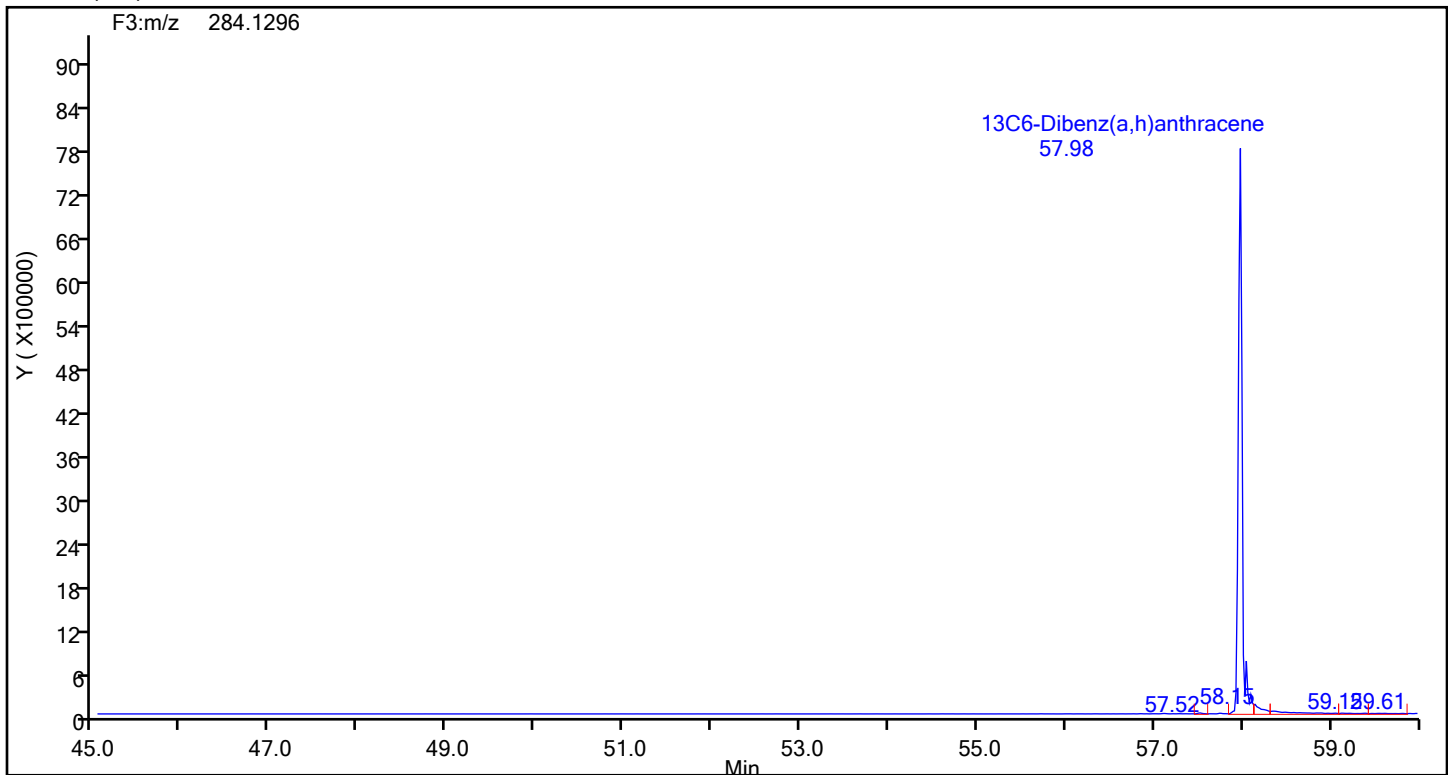
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcsd140-8819220-b.d  
Injection Date: 18-Jul-2024 13:28:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Dibenz(a,h)anthracene



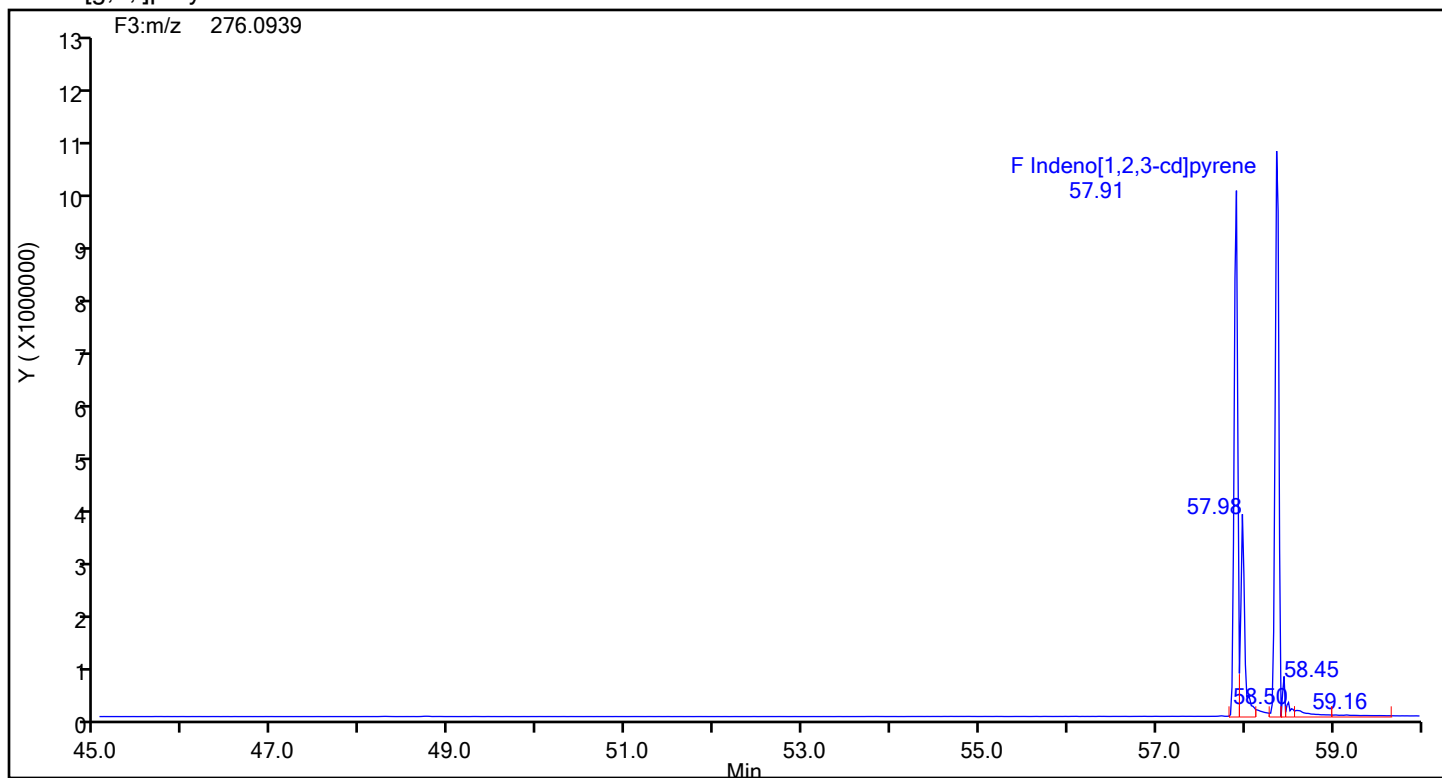
## Dibenz(a,h)anthracene Standards



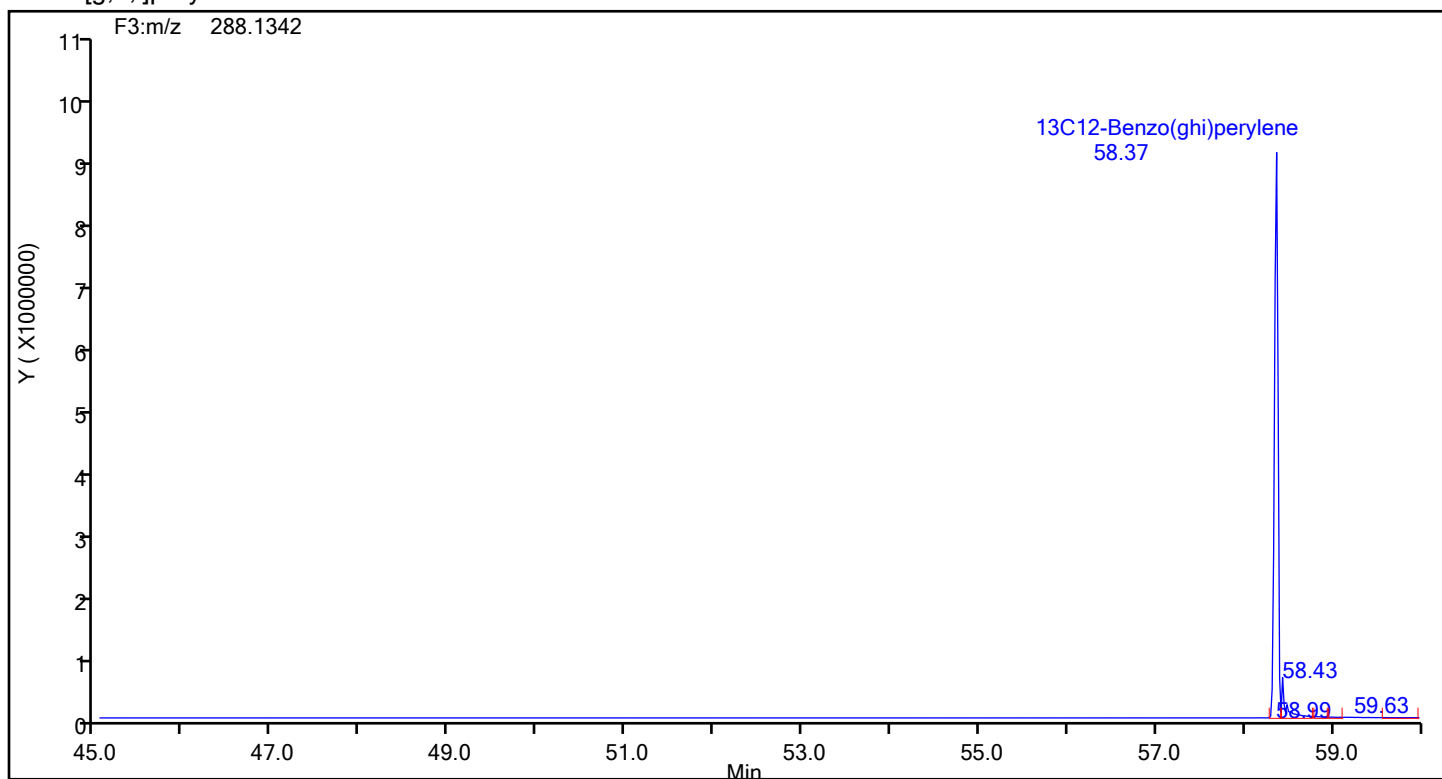
## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D3PAH\20240718-33564.b\lcsd140-8819220-b.d  
Injection Date: 18-Jul-2024 13:28:00 Injection Vol: 1.0 ul  
Instrument ID: D3PAH Operator ID: Xcalibur\_System  
Method: EPA\_23\_\_PAH Limit Group: HR - HRPAAH ICAL  
Client ID:  
Worklist#: 88920 Sample Line#: 3  
Column Type: Restek-5Sil MS 25um Column Dia: 0.25 mm

## Benzo[g,h,i]perylene



## Benzo[g,h,i]perylene Standards



HI-RES PAHS ANALYSIS RUN LOG

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D3PAH Start Date: 06/19/2024 16:34

Analysis Batch Number: 87843 End Date: 06/20/2024 02:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 140-87843/1		06/19/2024 16:34	1	d3240619ic1.d	Rxi-5SilMS 25 0.25 (mm)
IC 140-87843/2		06/19/2024 17:38	1	d3240619ic2.d	Rxi-5SilMS 25 0.25 (mm)
IC 140-87843/3		06/19/2024 18:42	1	d3240619ic3.d	Rxi-5SilMS 25 0.25 (mm)
IC 140-87843/4		06/19/2024 19:47	1	d3240619ic4.d	Rxi-5SilMS 25 0.25 (mm)
IC 140-87843/5		06/19/2024 20:51	1	d3240619ic5.d	Rxi-5SilMS 25 0.25 (mm)
IC 140-87843/6		06/19/2024 21:56	1	d3240619ic6.d	Rxi-5SilMS 25 0.25 (mm)
IC 140-87843/7		06/19/2024 23:00	1	d3240619ic7.d	Rxi-5SilMS 25 0.25 (mm)
IC 140-87843/8		06/20/2024 00:04	1	d3240619ic8.d	Rxi-5SilMS 25 0.25 (mm)
IC 140-87843/9		06/20/2024 01:09	1	d3240619ic9.d	Rxi-5SilMS 25 0.25 (mm)
ICV 140-87843/10		06/20/2024 02:46	1	d3240619icv.d	Rxi-5SilMS 25 0.25 (mm)

## Eurofins TestAmerica Knoxville Initial Calibration Review Checklist

Method: 1699 by KNOX-ID-0019, Rev. 0

11RPAH

Instrument:	D3PAH		1699 Pesticide
Analysis Date:	4/20/24	TALS Batch / Event #	82843 / 5149
Mass Res Check Time:	11:18		/
Chrom WL#:	33168		/

Chrom Worklist/Peak Review	1 <sup>st</sup>	Comments/NCM#	2 <sup>nd</sup>
1.Re-read each limit group in the Chrom method.	✓		
2.Are the reagents & init./final vol. correct?	✓		/
3.First levels "unlock/clear" or "unlock/clear by sublist" as appropriate?	✓		/
4.Are the Cal Levels & groups correct in WL?	✓		/
5.Was the mass resolution documented at the beginning of the initial calibration?	✓		/
6.Was the instrument resolution <del>&gt;8,000</del> <b>&gt;10,000</b> throughout the FC43?	✓		/
7.Was the measured exact mass within 5 ppm at reduced accelerating voltage?	✓		/
8.Have the ICAL mixes 1-9 been analyzed using the installed column to assign method retention times and MID switch points?	✓		/
9.Are the calibration standard solutions at the concentrations specified in the SOP?	✓	x in development	/
10.At least 5 points used in the calibration (6 for quadratic)?			/
11.Does the lowest active point support the RL?	✗	NA in development	/
<del>12.Was the absolute retention time for Methoxychlor greater than 39 minutes in the CSS standard?</del>	NA		/
13.Were all standards injected within 12 hours of the time of the mass resolution check?	✓		/
14.Was the ICAL high point standard checked for saturation?	✓		/
15.Is the S/N for all labeled analytes $\geq 10:1$ ? Is the S/N for targets $\geq$ the RL $\geq 6:1$ ? Is the S/N for targets $<$ RL $\geq 3:1$ ?	✓		/
<del>16.Are the ion abundance ratios for all native and labeled compounds within the limits?</del>	NA	single im	/
17.If manual integrations were performed, are they appropriate with proper reason given?	✓		/
<del>18.Was the Endrin and 4,4'-DDT breakdown check analyzed after the ICAL and breakdown less than 20%?</del>	NA		/

Chrom MLG Review	1 <sup>st</sup>	Comments/NCM#	2 <sup>nd</sup>
19.Are ICAL start/end dates/times correct on summary?	✓		/
20.Is the % RSD acceptable (within <del>55%</del> <b>20%</b> ) for all labeled standards?	✓		/
21.Is the % RSD acceptable for all native analytes (within 20% calculated by IDAs, and within <del>25%</del> <b>10%</b> when not calculated by IDAs)?	✓		/
22.Is the readback for each point within criteria? ( $\leq 30\%$ for all points $>$ RL, $\leq 50\%$ for points at RL and lower)	✓		/
23.Was an ICV analyzed and meet the limits according the SOP?	✓		/
24.Is low level standard at or below RL?	NA	x in development	/
25.Lock the Chrom method and upload ICAL & ICV.	✓		/

Continued on next page

## Eurofins TestAmerica Knoxville Initial Calibration Review Checklist

Method: ~~1699~~ by ~~KNOX-ID-0019~~, Rev. 0

HRPAH

TALS MLG Review		1 <sup>st</sup>	Comments	2 <sup>nd</sup>
26. Graphics uploaded?		/		/
27. All points are in the most recent active calibration event #?		✓		✓
28. Verify the reagents have not expired.		✓		✓
29. Was the mass resolution check <del>AND</del> breakdown check scanned and attached?		✓		✓
30. If criteria not met, was a NCM generated?		NA		✓
31. After review in TALS, approve the calibration in TALS		✓		✓
32. Checklist scanned & attached properly?		-N/A-		✓
1 <sup>st</sup> Level	Date:	6/20/24	2 <sup>nd</sup> Level	Date: 6-20-24
Comments:		Comments:		



# HI-RES PAHS ANALYSIS RUN LOG

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D3PAH Start Date: 07/18/2024 10:51

Analysis Batch Number: 88920 End Date: 07/18/2024 16:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 140-88920/1		07/18/2024 10:51	1	d3240718c1a.d	Rxi-5SilMS 25 0.25 (mm)
LCS 140-88192/19-B		07/18/2024 12:24	1	lcs140-8819219-b.d	Rxi-5SilMS 25 0.25 (mm)
LCSD 140-88192/20-B		07/18/2024 13:28	1	lcsd140-8819220-b.d	Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/18/2024 16:26	1		Rxi-5SilMS 25 0.25 (mm)

**Eurofins TestAmerica Knoxville Data Review / Narrative Checklist**  
**Method EPA-23-PAH \*SOP IN PROGRESS\***

Instrument:	D3PAH	Start mass Res:	10:29
Analysis Date:	7/6/24	End Mass Res:	21:24
Chrom WL #:	33564	ICAL Chrom WL #:	33168
TALS Batch #:	88920	ICAL TALS Batch / Event #:	87843 / 5149
CS3 File name:	d3240718c1a		

CCV Chrom/Worklist Review	1 <sup>st</sup>	Comments/NCM #	2 <sup>nd</sup>
1. Was the mass resolution documented at both the beginning and end of the 12 hour shift?	✓		✓
2. Were all standards & samples injected within the 12 hour clock?	✓		✓
3. Was the instrument resolution >10,000 in the center of each m/z range for the FC43 masses as listed in the SOP.	✓		✓
4. Was the measured exact mass within 5 ppm at reduced accelerating voltage?	✓		✓
5. Are the reagents used in the WL correct?	✓		✓
6. Were the MID switch points set to encompass the retention time of each MID group?	✓		✓
7. Was the continuing calibration performed at the beginning of the 12 hour period after successful mass resolution?	✓		✓
8. Manual integrations properly performed and correct reason given?	✓		✓
9. Have the retention times been updated by the first CCV? And the method saved as Most Recent Method?	✓		✓
10. Is the S/N for all target and labeled analytes ≥ 10:1?	✓		✓
11. Were the absolute retention times of all labeled IDAs within ± 15 seconds of the retention times obtained during initial calibration?	NA	RT CRITERIA IN PROGRESS	NA
12. Are RRTs of all unlabeled analytes within their respective RRT limits?	✓		✓
13. Are % D within ± 30% for all labeled IDA's?	✓		✓
14. Are % D within ± 25% for all natives?	✓		✓

Batch Chrom/TALS review	1 <sup>st</sup>	Comments/NCM #	2 <sup>nd</sup>
1. Were the prep factors and dilution factors verified?	✓		✓
2. Method blank or instrument blank analyzed before first sample in sequence?	NA	Only used for LCS/LCSD	NA
3. Are all target analytes in the method blank < RL	NA	<input type="checkbox"/> MB Rpt ND (NCM# _____) <input type="checkbox"/> MB-Rpt.10x (NCM# _____) <input type="checkbox"/> MB-insuff samp (NCM# _____)	NA
4. Method blank IDA, IS, and Surrogate (if applicable) recoveries within QC limits?	NA	<input type="checkbox"/> IDA – High (NCM# _____) <input type="checkbox"/> IDA – Low - S/N 10:1 (NCM# _____)	NA
5. LCS done per batch and criteria met for natives, IDA, IS and Surrogates?	✓	<input checked="" type="checkbox"/> LCS/D-Insuff smp (NCM# 57533 ) <input type="checkbox"/> LCS/D-Insuff smp - CONSUMED (NCM# _____) <input type="checkbox"/> LCS/D %R High < RL in smp (NCM# _____) <input type="checkbox"/> LCS/D out-RX HT out (NCM# _____) <input type="checkbox"/> LCS/D-%RPD (%R OK) (NCM# _____)	✓
6. All runs - peaks ID'd correctly and false positives removed?	✓		✓
7. Manual integrations properly performed correctly and correct reason given?	✓		✓

**Eurofins TestAmerica Knoxville Data Review / Narrative Checklist**  
**Method EPA-23-PAH \*SOP IN PROGRESS\***

8. Are sample IDA recoveries within QC limits as specified within limits? "cn" See case narrative	✓	<input type="checkbox"/> IDA – High (1) no effect (NCM# _____) Samples _____ Samples _____ _____ _____ _____ <input type="checkbox"/> IDA – (2) matrix, low bias (NCM# _____) Samples _____ Samples _____ _____ _____ _____	<input type="checkbox"/> IDA – Low - S/N > 10:1 – OK (NCM# _____) Samples _____ Samples _____ _____ _____ _____ <input type="checkbox"/> IDA – Low - S/N < 10:1 "cn" (NCM# _____) Samples _____ Samples _____ _____ _____ _____	✓
9. Were peaks ≥ 2.5 S/N, which did not meet one or more of the criteria listed in of the SOP calculated and reported as EMPCs?	✓			✓

Batch TALS Review	1st	Comments/NCM #	2nd
10. Graphics uploaded?	✓		✓
11. Sample special instructions verified?	✓		✓
12. Was the mass resolution checks?	✓		✓
13. Sample analyses done within preparation and analytical HT? (Check for H-flag in sample result in AD II.)	✓	<input type="checkbox"/> Holding Time-Initial Analysis (NCM# _____) <input type="checkbox"/> Holding Time-Reanalysis (NCM# _____) <input type="checkbox"/> NCM#140-11724: Add to Case Narrative if Manual Integrations Performed (NCM# _____) <input type="checkbox"/> Narrate reasons for multiple analyses of samples (NCM# _____)	✓
14. Are non-detects that are G-qualified narrated? (RL elevated to the EDL due to sample matrix).	N/A	<input type="checkbox"/> (NCM# _____)	N/A
15. Are all positive within the upper calibration range?	✓	<input type="checkbox"/> ICAL-Range Exceed;No Sat. (NCM# _____)	✓
16. Was a Post Dilution Spike technique used?	N/A	<input type="checkbox"/> Dilution-Respoke IDA (NCM# _____)	N/A
17. Suffixes assigned properly when needed (DL/RE)?	N/A		N/A
18. Samples not reported set to "Acceptable" or "Rejected"	N/A		N/A
19. Samples linked to correct method blank & LCS/D & MS/D? And QC verified to be at primary?	✓		✓
20. Verify reagents have not expired.	✓		✓
21. Is the correct ICV from the ICAL linked?	✓		✓
22. Checklist scanned & attached properly?	✓		✓

1 <sup>st</sup> level: <b>map</b>	Date <b>7-19-24</b>	2 <sup>nd</sup> level: <b>MAC by map</b>	Date <b>7-21-24</b>
Comments:			

HI-RES PAHS ANALYSIS RUN LOG

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D3PAH Start Date: 07/18/2024 21:47

Analysis Batch Number: 88945 End Date: 07/19/2024 07:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 140-88945/1		07/18/2024 21:47	1	d3240718c2a_20240718214503.d	Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/18/2024 23:41	1		Rxi-5SilMS 25 0.25 (mm)
MB 140-88192/21-B		07/19/2024 00:57	1	mb140-8819221-b_20240719005604.d	Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/19/2024 02:02	10		Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/19/2024 03:06	20		Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/19/2024 04:10	10		Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/19/2024 05:15	10		Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/19/2024 06:19	10		Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/19/2024 07:23	1		Rxi-5SilMS 25 0.25 (mm)

**Eurofins TestAmerica Knoxville Data Review / Narrative Checklist**  
**Method EPA-23-PAH \*SOP IN PROGRESS\***

Instrument:	D3PAH 7-18-24	Start mass Res:	21:24
Analysis Date:	7-18-24	End Mass Res:	09:06
Chrom WL #:	33572	ICAL Chrom WL #:	33168
TALS Batch #:	88945	ICAL TALS Batch / Event #:	87843 / 5149
CS3 File name:	d3240718c2a		

CCV Chrom/Worklist Review	1 <sup>st</sup>	Comments/NCM #	2 <sup>nd</sup>
1. Was the mass resolution documented at both the beginning and end of the 12 hour shift?	✓		✓
2. Were all standards & samples injected within the 12 hour clock?	✓		✓
3. Was the instrument resolution >10,000 in the center of each m/z range for the FC43 masses as listed in the SOP.	✓		✓
4. Was the measured exact mass within 5 ppm at reduced accelerating voltage?	✓		✓
5. Are the reagents used in the WL correct?	✓		✓
6. Were the MID switch points set to encompass the retention time of each MID group?	✓		✓
7. Was the continuing calibration performed at the beginning of the 12 hour period after successful mass resolution?	✓		✓
8. Manual integrations properly performed and correct reason given?	✓		✓
9. Have the retention times been updated by the first CCV? And the method saved as Most Recent Method?	✓		✓
10. Is the S/N for all target and labeled analytes ≥ 10:1?			✓
11. Were the absolute retention times of all labeled IDAs within ± 15 seconds of the retention times obtained during initial calibration?	NA	RT CRITERIA IN PROGRESS	NA
12. Are RRTs of all unlabeled analytes within their respective RRT limits?	✓		✓
13. Are % D within ± 30% for all labeled IDA's?	✓		✓
14. Are % D within ± 25% for all natives?	✓		✓

Batch Chrom/TALS review	1 <sup>st</sup>	Comments/NCM #	2 <sup>nd</sup>
1. Were the prep factors and dilution factors verified?	✓		✓
2. Method blank or instrument blank analyzed before first sample in sequence?	✓		✓
3. Are all target analytes in the method blank < RL	✓N	<input type="checkbox"/> MB Rpt ND (NCM# _____) <input type="checkbox"/> MB-Rpt.10x (NCM# _____) <input checked="" type="checkbox"/> MB-insuff samp (NCM# 57534)	✓N
4. Method blank IDA, IS, and Surrogate (if applicable) recoveries within QC limits?	✓	<input type="checkbox"/> IDA – High (NCM# _____) <input type="checkbox"/> IDA – Low - S/N 10:1 (NCM# _____)	✓
5. LCS done per batch and criteria met for natives, IDA, IS and Surrogates?	✓	<input type="checkbox"/> LCS/D-Insuff smp (NCM# _____) <input type="checkbox"/> LCS/D-Insuff smp - CONSUMED (NCM# _____) <input type="checkbox"/> LCS/D %R High < RL in smp (NCM# _____) <input type="checkbox"/> LCS/D out-RX HT out (NCM# _____) <input type="checkbox"/> LCS/D-%RPD (%R OK) (NCM# _____)	✓
6. All runs - peaks ID'd correctly and false positives removed?	✓		✓
7. Manual integrations properly performed correctly and correct reason given?	✓		✓

## Eurofins TestAmerica Knoxville Data Review / Narrative Checklist

## Method EPA-23-PAH \*SOP IN PROGRESS\*

8. Are sample IDA recoveries within QC limits as specified within limits? "cn" See case narrative	✓ N	<input checked="" type="checkbox"/> IDA – High (1) no effect (NCM# <u>51535</u> ) Samples <u>6, 8, 9, 10</u> Samples <u>11</u>  <input type="checkbox"/> IDA – (2) matrix, low bias (NCM# _____) Samples _____ Samples _____ _____ _____	<input type="checkbox"/> IDA – Low - S/N > 10:1 – OK (NCM# _____) Samples _____ Samples _____ _____ _____  <input type="checkbox"/> IDA – Low - S/N < 10:1 "cn" (NCM# _____) Samples _____ Samples _____ _____ _____	✓ N
9. Were peaks $\geq 2.5$ S/N, which did not meet one or more of the criteria listed in of the SOP calculated and reported as EMPCs?	✓			✓

Batch TALS Review	1st	Comments/NCM #	2nd
10. Graphics uploaded?	✓		✓
11. Sample special instructions verified?	✓		✓
12. Was the mass resolution checks?	✓		✓
13. Sample analyses done within preparation and analytical HT? (Check for H-flag in sample result in AD II.)	✓	<input type="checkbox"/> Holding Time-Initial Analysis (NCM# _____) <input type="checkbox"/> Holding Time-Reanalysis (NCM# _____) <input type="checkbox"/> NCM#140-11724: Add to Case Narrative if Manual Integrations Performed (NCM# _____) <input type="checkbox"/> Narrate reasons for multiple analyses of samples (NCM# _____)	✓
14. Are non-detects that are G-qualified narrated? (RL elevated to the EDL due to sample matrix).	N/A	<input type="checkbox"/> (NCM# _____)	N/A
15. Are all positive within the upper calibration range?	✓	<input type="checkbox"/> ICAL-Range Exceed; No Sat. (NCM# _____)	✓
16. Was a Post Dilution Spike technique used?	N/A	<input type="checkbox"/> Dilution-Respike IDA (NCM# _____)	N/A
17. Suffixes assigned properly when needed (DL/RE)?	N/A		N/A
18. Samples not reported set to "Acceptable" or "Rejected"	✓		✓
19. Samples linked to correct method blank & LCS/D & MS/D? And QC verified to be at primary?	✓		✓
20. Verify reagents have not expired.	✓		✓
21. Is the correct ICV from the ICAL linked?	✓		✓
22. Checklist scanned & attached properly?			✓

1 <sup>st</sup> level: <u>MAC by mcl</u>	Date <u>7-21-24</u>	2 <sup>nd</sup> level: <u>mcl</u>	Date <u>7-21-24</u>
Comments:			

HI-RES PAHS ANALYSIS RUN LOG

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D3PAH Start Date: 07/20/2024 02:03

Analysis Batch Number: 88999 End Date: 07/20/2024 11:35

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 140-88999/1		07/20/2024 02:03	1	d3240720c1a.d	Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/20/2024 04:05	1		Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/20/2024 05:09	10		Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/20/2024 06:13	10		Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/20/2024 07:18	10		Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/20/2024 08:22	10		Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/20/2024 09:27	10		Rxi-5SilMS 25 0.25 (mm)
140-37234-1	M23 F-10 BOILER RUN 2 COMBINED	07/20/2024 10:31	10	140-37234-a-1-c .d	Rxi-5SilMS 25 0.25 (mm)
140-37234-2	M23 F-10 BOILER RUN 3 COMBINED	07/20/2024 11:35	10	140-37234-A-2-C 240720133022.d	Rxi-5SilMS 25 0.25 (mm)

**Eurofins TestAmerica Knoxville Data Review / Narrative Checklist**  
**Method EPA-23-PAH \*SOP IN PROGRESS\***

Instrument:	D3 PAH	Start mass Res:	1:40
Analysis Date:	7-20-24	End Mass Res:	12:39
Chrom WL #:	33591	ICAL Chrom WL #:	33168
TALS Batch #:	88999	ICAL TALS Batch / Event #:	87843 / 5149
CS3 File name:	13240720C1a		

CCV Chrom/Worklist Review	1 <sup>st</sup>	Comments/NCM #	2 <sup>nd</sup>
1. Was the mass resolution documented at both the beginning and end of the 12 hour shift?	✓		✓
2. Were all standards & samples injected within the 12 hour clock?	✓		✓
3. Was the instrument resolution >10,000 in the center of each m/z range for the FC43 masses as listed in the SOP.	✓		✓
4. Was the measured exact mass within 5 ppm at reduced accelerating voltage?	✓		✓
5. Are the reagents used in the WL correct?	✓		✓
6. Were the MID switch points set to encompass the retention time of each MID group?	✓		✓
7. Was the continuing calibration performed at the beginning of the 12 hour period after successful mass resolution?	✓		✓
8. Manual integrations properly performed and correct reason given?	✓		✓
9. Have the retention times been updated by the first CCV? And the method saved as Most Recent Method?	✓		✓
10. Is the S/N for all target and labeled analytes $\geq 10:1$ ?	✓		✓
11. Were the absolute retention times of all labeled IDAs within $\pm 15$ seconds of the retention times obtained during initial calibration?	NA	RT CRITERIA IN PROGRESS	NA
12. Are RRTs of all unlabeled analytes within their respective RRT limits?	✓		✓
13. Are % D within $\pm 30\%$ for all labeled IDA's?	No	13CG-Indeno(1,2,3-cd)pyrene and	✓
14. Are % D within $\pm 25\%$ for all natives?	✓	13CG-Dibenz(a,h)anthracene outside 30% ; Natives within limits. NCM# 57414	✓

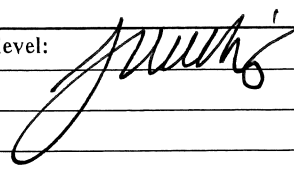
Batch Chrom/TALS review	1 <sup>st</sup>	Comments/NCM #	2 <sup>nd</sup>
1. Were the prep factors and dilution factors verified?	✓		✓
2. Method blank or instrument blank analyzed before first sample in sequence?	✓		✓
3. Are all target analytes in the method blank < RL	✓	<input type="checkbox"/> MB Rpt ND (NCM# _____) <input type="checkbox"/> MB-Rpt.10x (NCM# _____) <input type="checkbox"/> MB-insuff samp (NCM# _____)	✓
4. Method blank IDA, IS, and Surrogate (if applicable) recoveries within QC limits?	✓	<input type="checkbox"/> IDA - High (NCM# _____) <input type="checkbox"/> IDA - Low - S/N 10:1 (NCM# _____)	✓
5. LCS done per batch and criteria met for natives, IDA, IS and Surrogates?	✓	<input type="checkbox"/> LCS/D-Insuff smp (NCM# _____) <input type="checkbox"/> LCS/D-Insuff smp - CONSUMED (NCM# _____) <input type="checkbox"/> LCS/D %R High < RL in smp (NCM# _____) <input type="checkbox"/> LCS/D out-RX HT out (NCM# _____) <input type="checkbox"/> LCS/D-%RPD (%R OK) (NCM# _____)	✓
6. All runs - peaks ID'd correctly and false positives removed?	✓		✓
7. Manual integrations properly performed correctly and correct reason given?	✓		✓



**Eurofins TestAmerica Knoxville Data Review / Narrative Checklist**  
**Method EPA-23-PAH \*SOP IN PROGRESS\***

8. Are sample IDA recoveries within QC limits as specified within limits? "cn" See case narrative	N	<input type="checkbox"/> IDA – High (1) no effect (NCM# _____) Samples _____ Samples _____ _____ _____ _____ <input type="checkbox"/> IDA – (2) matrix, low bias (NCM# _____) Samples _____ Samples _____ _____ _____ _____	<input checked="" type="checkbox"/> IDA – Low - S/N > 10:1 – OK (NCM# <u>57536</u> ) Samples _____ Samples _____ <u>140-37232-2,5,6,7,8</u> <u>140-37234-1,2</u> _____ <input type="checkbox"/> IDA – Low - S/N < 10:1 "cn" (NCM# _____) Samples _____ Samples _____ _____ _____ _____	✓
9. Were peaks ≥ 2.5 S/N, which did not meet one or more of the criteria listed in of the SOP calculated and reported as EMPCs?	✓			✓

Batch TALS Review	1st	Comments/NCM #	2nd
10. Graphics uploaded?	✓		✓
11. Sample special instructions verified?	✓		✓
12. Was the mass resolution checks?	✓		✓
13. Sample analyses done within preparation and analytical HT? (Check for H-flag in sample result in AD II.)	✓	<input type="checkbox"/> Holding Time-Initial Analysis (NCM# _____) <input type="checkbox"/> Holding Time-Reanalysis (NCM# _____) <input type="checkbox"/> NCM# 140-11724: Add to Case Narrative if Manual Integrations Performed (NCM# _____) <input type="checkbox"/> Narrate reasons for multiple analyses of samples (NCM# _____)	✓
14. Are non-detects that are G-qualified narrated? (RL elevated to the EDL due to sample matrix).	NA	<input type="checkbox"/> (NCM# _____)	✓
15. Are all positive within the upper calibration range?	✓	<input type="checkbox"/> ICAL-Range Exceed; No Sat. (NCM# _____)	✓
16. Was a Post Dilution Spike technique used?	NA	<input type="checkbox"/> Dilution-Respike IDA (NCM# _____)	✓
17. Suffixes assigned properly when needed (DL/RE)?	✓		✓
18. Samples not reported set to "Acceptable" or "Rejected"	✓		✓
19. Samples linked to correct method blank & LCS/D & MS/D? And QC verified to be at primary?	✓		✓
20. Verify reagents have not expired.	✓		✓
21. Is the correct ICV from the ICAL linked?	✓		✓
22. Checklist scanned & attached properly?	✓		✓

1 <sup>st</sup> level: <u>MAC by BKK</u>	Date: <u>7/20/24</u>	2 <sup>nd</sup> level: 	Date: <u>7/21/24</u>
Comments:			

HI-RES PAHS ANALYSIS RUN LOG

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D3PAH Start Date: 07/22/2024 13:06

Analysis Batch Number: 89013 End Date: 07/22/2024 22:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 140-89013/1		07/22/2024 13:06	1	d3240722c1a.d	Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/22/2024 15:02	1		Rxi-5SilMS 25 0.25 (mm)
140-37234-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	07/22/2024 16:06	1	140-37234-b-14- b.d	Rxi-5SilMS 25 0.25 (mm)
140-37234-8	M23 F-10 BOILER BT COMBINED	07/22/2024 17:11	10	140-37234-a-8-c .d	Rxi-5SilMS 25 0.25 (mm)
140-37234-3	M23 F-10 BOILER RUN 4 COMBINED	07/22/2024 18:15	10	140-37234-a-3-c .d	Rxi-5SilMS 25 0.25 (mm)
140-37234-4	M23 F-10 BOILER RUN 5 COMBINED	07/22/2024 19:20	10	140-37234-a-4-c .d	Rxi-5SilMS 25 0.25 (mm)
140-37234-5	M23 F-10 BOILER RUN 6 COMBINED	07/22/2024 20:24	10	140-37234-a-5-c .d	Rxi-5SilMS 25 0.25 (mm)
140-37234-7	M23 F-10 BOILER RUN 8 COMBINED	07/22/2024 22:33	10	140-37234-a-7-c .d	Rxi-5SilMS 25 0.25 (mm)

**Eurofins TestAmerica Knoxville Data Review / Narrative Checklist**  
**Method EPA-23-PAH \*SOP IN PROGRESS\***

Instrument:	142PAH	Start mass Res:	12:48
Analysis Date:	7/22/24	End Mass Res:	23:42
Chrom WL #:	33555	ICAL Chrom WL #:	33168
TALS Batch #:	89013	ICAL TALS Batch / Event #:	87843 / 5149
CS3 File name:	d3240722c1a		

CCV Chrom/Worklist Review	1 <sup>st</sup>	Comments/NCM #	2 <sup>nd</sup>
1. Was the mass resolution documented at both the beginning and end of the 12 hour shift?	✓		✓
2. Were all standards & samples injected within the 12 hour clock?	✓		✓
3. Was the instrument resolution >10,000 in the center of each m/z range for the FC43 masses as listed in the SOP.	✓		✓
4. Was the measured exact mass within 5 ppm at reduced accelerating voltage?	✓		✓
5. Are the reagents used in the WL correct?	✓		✓
6. Were the MID switch points set to encompass the retention time of each MID group?	✓		✓
7. Was the continuing calibration performed at the beginning of the 12 hour period after successful mass resolution?	✓		✓
8. Manual integrations properly performed and correct reason given?	NA		✓
9. Have the retention times been updated by the first CCV? And the method saved as Most Recent Method?	✓		✓
10. Is the S/N for all target and labeled analytes ≥ 10:1?	✓		✓
11. Were the absolute retention times of all labeled IDAs within ± 15 seconds of the retention times obtained during initial calibration?	NA	RT CRITERIA IN PROGRESS	NA
12. Are RRTs of all unlabeled analytes within their respective RRT limits?	✓		✓
13. Are % D within ± 30% for all labeled IDA's?	✓		✓
14. Are % D within ± 25% for all natives?	✓		✓

Batch Chrom/TALS review	1 <sup>st</sup>	Comments/NCM #	2 <sup>nd</sup>
1. Were the prep factors and dilution factors verified?	✓		✓
2. Method blank or instrument blank analyzed before first sample in sequence?	✓		✓
3. Are all target analytes in the method blank < RL	✓	<input type="checkbox"/> MB Rpt ND (NCM# _____) <input type="checkbox"/> MB-Rpt.10x (NCM# _____) <input type="checkbox"/> MB-insuff samp (NCM# _____)	✓
4. Method blank IDA, IS, and Surrogate (if applicable) recoveries within QC limits?	✓	<input type="checkbox"/> IDA – High (NCM# _____) <input type="checkbox"/> IDA – Low - S/N 10:1 (NCM# _____)	✓
5. LCS done per batch and criteria met for natives, IDA, IS and Surrogates?	✓	<input type="checkbox"/> LCS/D-Insuff smp (NCM# _____) <input type="checkbox"/> LCS/D-Insuff smp - CONSUMED (NCM# _____) <input type="checkbox"/> LCS/D %R High < RL in smp (NCM# _____) <input type="checkbox"/> LCS/D out-RX HT out (NCM# _____) <input type="checkbox"/> LCS/D-%RPD (%R OK) (NCM# _____)	✓
6. All runs - peaks ID'd correctly and false positives removed?	✓		✓
7. Manual integrations properly performed correctly and correct reason given?	✓		✓

**Eurofins TestAmerica Knoxville Data Review / Narrative Checklist**  
**Method EPA-23-PAH \*SOP IN PROGRESS\***

8. Are sample IDA recoveries within QC limits as specified within limits? "cn" See case narrative	<b>NO</b>	<input type="checkbox"/> IDA – High (1) no effect (NCM# _____) Samples _____ Samples _____ _____ _____ <input type="checkbox"/> IDA – (2) matrix, low bias (NCM# _____) Samples _____ Samples _____ _____ _____	<input type="checkbox"/> IDA – Low - S/N > 10:1 – OK (NCM# <u>52596</u> ) Samples _____ Samples _____ <u>140-37234-3</u> <input type="checkbox"/> IDA – Low - S/N < 10:1 "cn" (NCM# _____) Samples _____ Samples _____	✓
9. Were peaks $\geq 2.5$ S/N, which did not meet one or more of the criteria listed in of the SOP calculated and reported as EMPCs?	✓			✓

Batch TALS Review	1st	Comments/NCM #	2nd
10. Graphics uploaded?	✓		✓
11. Sample special instructions verified?	✓		✓
12. Was the mass resolution checks?	✓		✓
13. Sample analyses done within preparation and analytical HT? (Check for H-flag in sample result in AD II.)	✓	<input type="checkbox"/> Holding Time-Initial Analysis (NCM# _____) <input type="checkbox"/> Holding Time-Reanalysis (NCM# _____) <input type="checkbox"/> NCM#140-11724: Add to Case Narrative if Manual Integrations Performed (NCM# _____) <input type="checkbox"/> Narrate reasons for multiple analyses of samples (NCM# _____)	✓
14. Are non-detects that are G-qualified narrated? (RL elevated to the EDL due to sample matrix).	NA	<input type="checkbox"/> (NCM# _____)	✓
15. Are all positive within the upper calibration range?	✓	<input type="checkbox"/> ICAL-Range Exceed;No Sat. (NCM# _____)	✓
16. Was a Post Dilution Spike technique used?	NA	<input type="checkbox"/> Dilution-Respike IDA (NCM# _____)	✓
17. Suffixes assigned properly when needed (DL/RE)?	NA		✓
18. Samples not reported set to "Acceptable" or "Rejected"	NA		✓
19. Samples linked to correct method blank & LCS/D & MS/D? And QC verified to be at primary?	✓		✓
20. Verify reagents have not expired.	✓		✓
21. Is the correct ICV from the ICAL linked?	✓		✓
22. Checklist scanned & attached properly?	✓		✓
1st level: <u>MSD by Jm</u>	Date <u>2/23/24</u>	2nd level: <u>Jm</u>	Date <u>2/24/24</u>
Comments:			

HI-RES PAHS ANALYSIS RUN LOG

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D3PAH Start Date: 07/22/2024 23:53

Analysis Batch Number: 89076 End Date: 07/23/2024 10:26

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
CCV 140-89076/1		07/22/2024 23:53	1	d3240722c2a.d	Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/23/2024 01:02	1		Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/23/2024 02:07	1		Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/23/2024 04:00	1		Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/23/2024 05:04	1		Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/23/2024 06:08	1		Rxi-5SilMS 25 0.25 (mm)
140-37234-6	M23 F-10 BOILER RUN 7 COMBINED	07/23/2024 07:13	10	140-37234-a-6-c -10x.d	Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/23/2024 08:17	10		Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/23/2024 09:22	10		Rxi-5SilMS 25 0.25 (mm)
ZZZZZ		07/23/2024 10:26	10		Rxi-5SilMS 25 0.25 (mm)

**Eurofins TestAmerica Knoxville Data Review / Narrative Checklist**  
**Method EPA-23-PAH \*SOP IN PROGRESS\***

Instrument:	D3 PAH	Start mass Res:	23:42
Analysis Date:	7-22-24	End Mass Res:	11:27
Chrom WL #:	33622	ICAL Chrom WL #:	33168
TALS Batch #:	89076	ICAL TALS Batch / Event #:	87843 / 5149
CS3 File name:	d3240722C2a		

CCV Chrom/Worklist Review	1 <sup>st</sup>	Comments/NCM #	2 <sup>nd</sup>
1. Was the mass resolution documented at both the beginning and end of the 12 hour shift?	✓		✓
2. Were all standards & samples injected within the 12 hour clock?	✓		✓
3. Was the instrument resolution >10,000 in the center of each m/z range for the FC43 masses as listed in the SOP.	✓		✓
4. Was the measured exact mass within 5 ppm at reduced accelerating voltage?	✓		✓
5. Are the reagents used in the WL correct?	✓		✓
6. Were the MID switch points set to encompass the retention time of each MID group?	✓		✓
7. Was the continuing calibration performed at the beginning of the 12 hour period after successful mass resolution?	✓		✓
8. Manual integrations properly performed and correct reason given?	✓		✓
9. Have the retention times been updated by the first CCV? And the method saved as Most Recent Method?	✓		✓
10. Is the S/N for all target and labeled analytes ≥ 10:1?	✓		✓
11. Were the absolute retention times of all labeled IDAs within ± 15 seconds of the retention times obtained during initial calibration?	NA	RT CRITERIA IN PROGRESS	NA
12. Are RRTs of all unlabeled analytes within their respective RRT limits?	✓		✓
13. Are % D within ± 30% for all labeled IDA's?	NO	13CL Indent (1,2,3-cl) pyrene 38% D;	✓
14. Are % D within ± 25% for all natives?	✓	Indeno (1,2,3-cl) pyrene -1% D (within limits) NCM 140 - 57414	✓

Batch Chrom/TALS review	1 <sup>st</sup>	Comments/NCM #	2 <sup>nd</sup>
1. Were the prep factors and dilution factors verified?	✓		✓
2. Method blank or instrument blank analyzed before first sample in sequence?	✓		✓
3. Are all target analytes in the method blank < RL	NO	<input type="checkbox"/> MB Rpt ND (NCM# _____) <input type="checkbox"/> MB-Rpt.10x (NCM# _____) <input checked="" type="checkbox"/> MB-insuff samp (NCM# 57401)	✓
4. Method blank IDA, IS, and Surrogate (if applicable) recoveries within QC limits?	✓	<input type="checkbox"/> IDA - High (NCM# _____) <input type="checkbox"/> IDA - Low - S/N 10:1 (NCM# _____)	✓
5. LCS done per batch and criteria met for natives, IDA, IS and Surrogates?	✓	<input type="checkbox"/> LCS/D-Insuff smp (NCM# _____) <input type="checkbox"/> LCS/D-Insuff smp - CONSUMED (NCM# _____) <input type="checkbox"/> LCS/D %R High < RL in smp (NCM# _____) <input type="checkbox"/> LCS/D out-RX HT out (NCM# _____) <input type="checkbox"/> LCS/D-%RPD (%R OK) (NCM# _____)	✓
6. All runs - peaks ID'd correctly and false positives removed?	✓		✓
7. Manual integrations properly performed correctly and correct reason given?	✓		✓

**Eurofins TestAmerica Knoxville Data Review / Narrative Checklist**  
**Method EPA-23-PAH \*SOP IN PROGRESS\***

8. Are sample IDA recoveries within QC limits as specified within limits? "cn" See case narrative	20	<input type="checkbox"/> IDA – High (1) no effect (NCM# _____) Samples _____ Samples _____ _____ _____ <input type="checkbox"/> IDA – (2) matrix, low bias (NCM# _____) Samples _____ Samples _____ _____ _____ _____	<input checked="" type="checkbox"/> IDA – Low - S/N > 10:1 – OK (NCM# <u>57602</u> ) Samples _____ Samples _____ <u>140-36944-1,2,3</u> <u>140-37234-6</u> <input type="checkbox"/> IDA – Low - S/N < 10:1 "cn" (NCM# _____) Samples _____ Samples _____ _____ _____ _____	/
9. Were peaks ≥ 2.5 S/N, which did not meet one or more of the criteria listed in of the SOP calculated and reported as EMPCs?	/			/

Batch TALS Review	1st	Comments/NCM #	2nd
10. Graphics uploaded?	/		/
11. Sample special instructions verified?	/		/
12. Was the mass resolution checks?	/		/
13. Sample analyses done within preparation and analytical HT? (Check for H-flag in sample result in AD II.)	ND	<input checked="" type="checkbox"/> Holding Time-Initial Analysis (NCM# <u>57294</u> ) <input type="checkbox"/> Holding Time-Reanalysis (NCM# _____) <input type="checkbox"/> NCM#140-11724: Add to Case Narrative if Manual Integrations Performed (NCM# _____) <input type="checkbox"/> Narrate reasons for multiple analyses of samples (NCM# _____)	/
14. Are non-detects that are G-qualified narrated? (RL elevated to the EDL due to sample matrix).	NA	<input type="checkbox"/> (NCM# _____)	/
15. Are all positive within the upper calibration range?	/	<input type="checkbox"/> ICAL-Range Exceed;No Sat. (NCM# _____)	/
16. Was a Post Dilution Spike technique used?	NA	<input type="checkbox"/> Dilution-Respike IDA (NCM# _____)	/
17. Suffixes assigned properly when needed (DL/RE)?	NA		/
18. Samples not reported set to "Acceptable" or "Rejected"	NA		/
19. Samples linked to correct method blank & LCS/D & MS/D? And QC verified to be at primary?	/		/
20. Verify reagents have not expired.	/		/
21. Is the correct ICV from the ICAL linked?	/		/
22. Checklist scanned & attached properly?	/		/
1 <sup>st</sup> level: <u>MSD J 2</u>	Date: <u>7/23/24</u>	2 <sup>nd</sup> level: <u>J Muller</u>	Date: <u>7/23/24</u>
Comments:			

HI-RES PAHS BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Batch Number: 87843 Batch Start Date: 06/19/24 16:34 Batch Analyst: Nordquist, Jon M

Batch Method: 23 Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	61HRPAHCS1 00002	61HRPAHCS2 00002	61HRPAHCS3 00003	61HRPAHCS4 00002	61HRPAHCS4a 00002	61HRPAHCS5 00002
IC 140-87843/1		23			20 uL					
IC 140-87843/2		23				20 uL				
IC 140-87843/3		23					20 uL			
IC 140-87843/4		23						20 uL		
IC 140-87843/5		23							20 uL	
IC 140-87843/6		23								20 uL
IC 140-87843/7		23								
IC 140-87843/8		23								
IC 140-87843/9		23								
ICV 140-87843/10		23								

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	61HRPAHCS5a 00002	61HRPAHCS6 00002	61HRPAHCS7 00002	61HRPAHICVW 00003		
IC 140-87843/1		23								
IC 140-87843/2		23								
IC 140-87843/3		23								
IC 140-87843/4		23								
IC 140-87843/5		23								
IC 140-87843/6		23								
IC 140-87843/7		23			20 uL					
IC 140-87843/8		23				20 uL				
IC 140-87843/9		23					20 uL			
ICV 140-87843/10		23						20 uL		

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.



HI-RES PAHS BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Batch Number: 88192 Batch Start Date: 06/27/24 14:06 Batch Analyst: Stockton, Samuel

Batch Method: Combined Prep Batch End Date: 07/01/24 12:00

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	BotlFullWt	BotlEmptyWt	BotlVol	VolumeCollect	VolCondUsed	InitialAmount
140-37234-A-1	M23 F-10 BOILER RUN 2 COMBINED	Combined Prep, Split, 23	Air	T	1207.1 g	450.7 g	756.4 mL	756.4 mL	756.4 mL	1 Sample
140-37234-A-2	M23 F-10 BOILER RUN 3 COMBINED	Combined Prep, Split, 23	Air	T	1226.3 g	450.8 g	775.5 mL	775.5 mL	775.5 mL	1 Sample
140-37234-A-3	M23 F-10 BOILER RUN 4 COMBINED	Combined Prep, Split, 23	Air	T	1185.5 g	450.4 g	735.1 mL	735.1 mL	735.1 mL	1 Sample
140-37234-A-4	M23 F-10 BOILER RUN 5 COMBINED	Combined Prep, Split, 23	Air	T	1248.7 g	451.6 g	797.1 mL	797.1 mL	797.1 mL	1 Sample
140-37234-A-5	M23 F-10 BOILER RUN 6 COMBINED	Combined Prep, Split, 23	Air	T	1257.1 g	450.9 g	806.2 mL	806.2 mL	806.2 mL	1 Sample
140-37234-A-6	M23 F-10 BOILER RUN 7 COMBINED	Combined Prep, Split, 23	Air	T	1293.0 g	450.6 g	842.4 mL	842.4 mL	842.4 mL	1 Sample
140-37234-A-7	M23 F-10 BOILER RUN 8 COMBINED	Combined Prep, Split, 23	Air	T	1266.2 g	450.4 g	815.8 mL	815.8 mL	815.8 mL	1 Sample
140-37234-A-8	M23 F-10 BOILER BT COMBINED	Combined Prep, Split, 23	Air	T	388.0 g	179.6 g	208.4 mL	208.4 mL	208.4 mL	1 Sample
140-37234-B-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	Combined Prep, Split, 23	Air	T						1 Sample
LCS 140-88192/19		Combined Prep, Split, 23					1000 mL	1000 mL	1000 mL	1 Sample
LCSD 140-88192/20		Combined Prep, Split, 23					1000 mL	1000 mL	1000 mL	1 Sample
MB 140-88192/21		Combined Prep, Split, 23					1000 mL	1000 mL	1000 mL	1 Sample

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	HRPAH_IDA_WK 00003	HRPAH_NAT_WK 00001	HRPAH_PEFR_WK 00001	HRPAH_PSAS_WK 00005	
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The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HI-RES PAHS BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Batch Number: 88192 Batch Start Date: 06/27/24 14:06 Batch Analyst: Stockton, Samuel

Batch Method: Combined Prep Batch End Date: 07/01/24 12:00

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	HRPAH_IDA_WK 00003	HRPAH_NAT_WK 00001	HRPAH_PEFR_WK 00001	HRPAH_PSAS_WK 00005	
140-37234-A-1	M23 F-10 BOILER RUN 2 COMBINED	Combined Prep, Split, 23	Air	T	30 mL	3 mL		300 uL	300 uL	
140-37234-A-2	M23 F-10 BOILER RUN 3 COMBINED	Combined Prep, Split, 23	Air	T	30 mL	3 mL		300 uL	300 uL	
140-37234-A-3	M23 F-10 BOILER RUN 4 COMBINED	Combined Prep, Split, 23	Air	T	30 mL	3 mL		300 uL	300 uL	
140-37234-A-4	M23 F-10 BOILER RUN 5 COMBINED	Combined Prep, Split, 23	Air	T	30 mL	3 mL		300 uL	300 uL	
140-37234-A-5	M23 F-10 BOILER RUN 6 COMBINED	Combined Prep, Split, 23	Air	T	30 mL	3 mL		300 uL	300 uL	
140-37234-A-6	M23 F-10 BOILER RUN 7 COMBINED	Combined Prep, Split, 23	Air	T	30 mL	3 mL		300 uL	300 uL	
140-37234-A-7	M23 F-10 BOILER RUN 8 COMBINED	Combined Prep, Split, 23	Air	T	30 mL	3 mL		300 uL	300 uL	
140-37234-A-8	M23 F-10 BOILER BT COMBINED	Combined Prep, Split, 23	Air	T	30 mL	3 mL		300 uL	300 uL	
140-37234-B-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	Combined Prep, Split, 23	Air	T	30 mL	3 mL				
LCS 140-88192/19		Combined Prep, Split, 23			30 mL	3 mL	3 mL			
LCSD 140-88192/20		Combined Prep, Split, 23			30 mL	3 mL	3 mL			
MB 140-88192/21		Combined Prep, Split, 23			30 mL	3 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# HI-RES PAHS BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Batch Number: 88192 Batch Start Date: 06/27/24 14:06 Batch Analyst: Stockton, Samuel

Batch Method: Combined Prep Batch End Date: 07/01/24 12:00

Batch Notes	
MeCL2 ID	241700
Na2SO4 ID	692772
Sulfuric Acid ID	682487
Hexane ID	241438
Analyst ID - TA Reagent Drop	ss
Analyst ID - IDA Reagent Drop	ss
Analyst ID - TA Reagent Drop Witness	dm
Analyst ID - IDA Reagent Drop Witness	dm
Analyst ID - Extraction	ss
Extraction 1 Start Time	15:30
First Extraction Start Date	06/28/2024
Extraction 1 End Time	09:11
First Extraction End Date	06/29/2024 09:11
Analyst ID - Concentration	ss
Concentration Date	07/01/2024

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HI-RES PAHS BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Batch Number: 88337 Batch Start Date: 07/02/24 10:15 Batch Analyst: Reilly, Delaney E

Batch Method: Split Batch End Date: 07/16/24 12:18

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	HRPAH_REC_WK 00001			
140-37234-A-1-A	M23 F-10 BOILER RUN 2 COMBINED	Split, 23	Air	T	10 mL	500 uL	500 uL			
140-37234-A-2-A	M23 F-10 BOILER RUN 3 COMBINED	Split, 23	Air	T	10 mL	500 uL	500 uL			
140-37234-A-3-A	M23 F-10 BOILER RUN 4 COMBINED	Split, 23	Air	T	10 mL	500 uL	500 uL			
140-37234-A-4-A	M23 F-10 BOILER RUN 5 COMBINED	Split, 23	Air	T	10 mL	500 uL	500 uL			
140-37234-A-5-A	M23 F-10 BOILER RUN 6 COMBINED	Split, 23	Air	T	10 mL	500 uL	500 uL			
140-37234-A-6-A	M23 F-10 BOILER RUN 7 COMBINED	Split, 23	Air	T	10 mL	500 uL	500 uL			
140-37234-A-7-A	M23 F-10 BOILER RUN 8 COMBINED	Split, 23	Air	T	10 mL	500 uL	500 uL			
140-37234-A-8-A	M23 F-10 BOILER BT COMBINED	Split, 23	Air	T	10 mL	500 uL	500 uL			
140-37234-B-14-A	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	Split, 23	Air	T	10 mL	500 uL	500 uL			
LCS 140-88192/19-A		Split, 23			10 mL	500 uL	500 uL			
LCSD 140-88192/20-A		Split, 23			10 mL	500 uL	500 uL			
MB 140-88192/21-A		Split, 23			10 mL	500 uL	500 uL			

Batch Notes	
Analyst ID - Concentration	cas
Silica Gel ID	707020
Na2SO4 ID	692772
Hexane ID	241348
40% DCM:Hexane ID	697600
Analyst ID - IS Reagent Drop	caa
Analyst ID - IS Reagent Drop Witness	caa
Batch Comment	Archived samples used, see NCMs.

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# HI-RES PAHS BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Batch Number: 88337 Batch Start Date: 07/02/24 10:15 Batch Analyst: Reilly, Delaney E

Batch Method: Split Batch End Date: 07/16/24 12:18

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

## Eurofins Knoxville Extraction Sheet

88192

88337

Comb\_HRMS\_Prep→

88337 cas 7/12

5:10pm

Delivered: RLG 7/10/24

initials/date/time

Received: \_\_\_\_\_

initials/date/time

[illegible]

CAA  
7/16  
7/2024 2:18 PM

Printed: \_\_\_\_\_

Case - 205 CAA  
7/10 - 1/12 7/15  
LS)

8572 CWS  
712 TPO

CMS 357/1  
6/38  
23 PAH Combined

OP155r0 052024 EPA

[illegible]55  
6/28

OP155r0 052024

Printed: 6/27/2024 2:18 PM

## Eurofins Knoxville Prep Batch Review Checklist

Batch # 88192  
Split Batch # 88337

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd Level
1. Were the samples extracted within the required holding times?		✓		If No, NCM #: _____	✓
2. Are the final extracts free of water, precipitates, multiple phases, and for HRMS - color?		✓			✓
3. Were all project specific requirements met?		✓			✓
4. Were the correct start and completion dates entered into TALS?		✓			✓
5. Are the spike IDs and volumes correct in TALS for the method?		✓			✓
6. Does the prep batch paperwork package contain all required documentation which has been properly and completely filled out, including: <ul style="list-style-type: none"> <li>Extraction Benchsheet (Excel)</li> <li>Batch Worksheets (ANLY)</li> <li>Verify Protocol #'s (compare excel sheet to TALS)</li> <li>Was the Excel Extraction Benchsheet and Prep Batch Review Checklist scanned and attached to batch in TALS?</li> </ul>		✓			✓
7. Did extracts go through GPC cleanup? Has the following nonconformance been associated with all extracts?	✓	CAA ✓		If Yes, <input type="checkbox"/> Clean-up Required - GPC (NCM# _____)	✓
8. Are all additional nonconformances documented appropriately?		✓		140-57267 If Yes, NCM#: <u>140-57229</u>	✓
Analyst : <u>CAA</u> Date: <u>7/16/24</u>					
Comments:					
2nd Level Reviewer: <u>RKG</u> Date: <u>7/16/24</u>					
Comments:					

# Method 23 Revised (PCBs)

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Chlorinated Biphenyl Congeners  
(Stationary Source) by HRGC/HRMS



FORM II  
HI-RES PCBS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): SPB-Octyl ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	PCB153L #	PCB79L #	PCB8L #	PCB95L #	PCB1L #	PCB3L #	PCB4L #	PCB19L #
M23 F-10 BOILER RUN 6 COMBINED	140-37234-5	0 S1-	0 S1-	0 S1-	0 S1-	62	65	65	74

	QC LIMITS
PCB153L = PCB-153L	70-130
PCB79L = PCB-79L	70-130
PCB8L = PCB-8L	70-130
PCB95L = PCB-95L	70-130
PCB1L = PCB-1L	20-145
PCB3L = PCB-3L	20-145
PCB4L = PCB-4L	20-145
PCB19L = PCB-19L	20-145

# Column to be used to flag recovery values

FORM II  
HI-RES PCBS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): SPB-Octyl ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	PCB15L #	PCB54L #	PCB28L #	PCB104L #	PCB37L #	PCB155L #	PCB81L #	PCB77L #
M23 F-10 BOILER RUN 6 COMBINED	140-37234-5	84	86	78	97	80	95	83	83

	QC LIMITS
PCB15L = PCB-15L	20-145
PCB54L = PCB-54L	20-145
PCB28L = PCB-28L	20-130
PCB104L = PCB-104L	20-145
PCB37L = PCB-37L	20-145
PCB155L = PCB-155L	20-145
PCB81L = PCB-81L	20-145
PCB77L = PCB-77L	20-145

# Column to be used to flag recovery values

FORM II  
HI-RES PCBS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): SPB-Octyl ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	PCB111L #	PCB123L #	PCB118L #	PCB188L #	PCB114L #	PCB105L #	PCB178L #	PCB126L #
M23 F-10 BOILER RUN 6 COMBINED	140-37234-5	81	95	88	101	95	92	87	90

	QC LIMITS
PCB111L = PCB-111L	20-130
PCB123L = PCB-123L	20-145
PCB118L = PCB-118L	20-145
PCB188L = PCB-188L	20-145
PCB114L = PCB-114L	20-145
PCB105L = PCB-105L	20-145
PCB178L = PCB-178L	20-130
PCB126L = PCB-126L	20-145

# Column to be used to flag recovery values

FORM II  
HI-RES PCBS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): SPB-Octyl ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	PCB202L #	PCB167L #	PCB156L #	PCB157L #	PCB170L #	PCB169L #	PCB208L #	PCB189L #
M23 F-10 BOILER RUN 6 COMBINED	140-37234-5	96	91	97	C 97 C15 6	97	94	90	95

	QC LIMITS
PCB202L = PCB-202L	20-145
PCB167L = PCB-167L	20-145
PCB156L = PCB-156L	20-145
PCB157L = PCB-157L	20-145
PCB170L = PCB-170L	20-145
PCB169L = PCB-169L	20-145
PCB208L = PCB-208L	20-145
PCB189L = PCB-189L	20-145

# Column to be used to flag recovery values

FORM II  
HI-RES PCBS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): SPB-Octyl ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	PCB205L #	PCB206L #	PCB209L #
M23 F-10 BOILER RUN 6 COMBINED	140-37234-5	99	102	112

	<u>QC LIMITS</u>
PCB205L = PCB-205L	20-145
PCB206L = PCB-206L	20-145
PCB209L = PCB-209L	20-145

# Column to be used to flag recovery values

FORM II  
HI-RES PCBS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): SPB-Octyl ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	PCB1L #	PCB3L #	PCB4L #	PCB19L #	PCB15L #	PCB54L #	PCB28L #	PCB104L #
	LCS 140-88193/19-B	74	73	72	68	71	78	67	74
	LCSD 140-88193/20-B	67	70	65	66	69	75	66	72

PCB1L = PCB-1L  
PCB3L = PCB-3L  
PCB4L = PCB-4L  
PCB19L = PCB-19L  
PCB15L = PCB-15L  
PCB54L = PCB-54L  
PCB28L = PCB-28L  
PCB104L = PCB-104L

QC LIMITS

15-145  
15-145  
15-145  
15-145  
15-145  
15-145  
15-145  
15-145  
40-145

# Column to be used to flag recovery values

FORM II  
HI-RES PCBS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): SPB-Octyl ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	PCB37L #	PCB155L #	PCB81L #	PCB77L #	PCB111L #	PCB123L #	PCB118L #	PCB188L #
	LCS 140-88193/19-B	73	74	78	79	72	79	81	77
	LCSD 140-88193/20-B	72	70	77	78	69	76	77	73

PCB37L = PCB-37L  
PCB155L = PCB-155L  
PCB81L = PCB-81L  
PCB77L = PCB-77L  
PCB111L = PCB-111L  
PCB123L = PCB-123L  
PCB118L = PCB-118L  
PCB188L = PCB-188L

QC LIMITS

15-145  
40-145  
40-145  
40-145  
40-145  
40-145  
40-145  
40-145

# Column to be used to flag recovery values

FORM II  
HI-RES PCBS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): SPB-Octyl ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	PCB114L #	PCB105L #	PCB178L #	PCB126L #	PCB202L #	PCB167L #	PCB156L #	PCB157L #
	LCS 140-88193/19-B	80	85	70	84	79	83	86 C	86 C <sup>15</sup> <sub>6</sub>
	LCSD 140-88193/20-B	77	82	68	84	76	81	84 C	84 C <sup>15</sup> <sub>6</sub>

	<u>QC LIMITS</u>
PCB114L = PCB-114L	40-145
PCB105L = PCB-105L	40-145
PCB178L = PCB-178L	40-145
PCB126L = PCB-126L	40-145
PCB202L = PCB-202L	40-145
PCB167L = PCB-167L	40-145
PCB156L = PCB-156L	40-145
PCB157L = PCB-157L	40-145

# Column to be used to flag recovery values



FORM II  
HI-RES PCBS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): SPB-Octyl ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	PCB170L #	PCB169L #	PCB208L #	PCB189L #	PCB205L #	PCB206L #	PCB209L #
	LCS 140-88193/19-B	86	86	86	86	86	88	96
	LCSD 140-88193/20-B	83	86	83	82	81	87	94

	QC LIMITS
PCB170L = PCB-170L	40-145
PCB169L = PCB-169L	40-145
PCB208L = PCB-208L	40-145
PCB189L = PCB-189L	40-145
PCB205L = PCB-205L	40-145
PCB206L = PCB-206L	40-145
PCB209L = PCB-209L	40-145

# Column to be used to flag recovery values

FORM II 23

FORM II  
HI-RES PCBS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): SPB-Octyl ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	PCB1L #	PCB3L #	PCB4L #	PCB19L #	PCB15L #	PCB54L #	PCB28L #	PCB104L #
M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	140-37234-14	72	71	72	73	72	83	73	82
	MB 140-88193/21-B	69	76	66	69	72	80	72	80

	QC LIMITS
PCB1L = PCB-1L	20-145
PCB3L = PCB-3L	20-145
PCB4L = PCB-4L	20-145
PCB19L = PCB-19L	20-145
PCB15L = PCB-15L	20-145
PCB54L = PCB-54L	20-145
PCB28L = PCB-28L	20-130
PCB104L = PCB-104L	20-145

# Column to be used to flag recovery values

FORM II  
HI-RES PCBS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): SPB-Octyl ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	PCB37L #	PCB155L #	PCB81L #	PCB77L #	PCB111L #	PCB123L #	PCB118L #	PCB188L #
M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	140-37234-14	76	80	83	85	78	83	87	82
	MB 140-88193/21-B	75	77	80	80	73	82	83	80

	<u>QC LIMITS</u>
PCB37L = PCB-37L	20-145
PCB155L = PCB-155L	20-145
PCB81L = PCB-81L	20-145
PCB77L = PCB-77L	20-145
PCB111L = PCB-111L	20-130
PCB123L = PCB-123L	20-145
PCB118L = PCB-118L	20-145
PCB188L = PCB-188L	20-145

# Column to be used to flag recovery values

FORM II  
HI-RES PCBS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): SPB-Octyl ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	PCB114L #	PCB105L #	PCB178L #	PCB126L #	PCB202L #	PCB167L #	PCB156L #	PCB157L #
M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	140-37234-14	84	87	77	88	83	86	89 C	89 C15 6
	MB 140-88193/21-B	82	87	75	88	81	83	88 C	88 C15 6

	<u>QC LIMITS</u>
PCB114L = PCB-114L	20-145
PCB105L = PCB-105L	20-145
PCB178L = PCB-178L	20-130
PCB126L = PCB-126L	20-145
PCB202L = PCB-202L	20-145
PCB167L = PCB-167L	20-145
PCB156L = PCB-156L	20-145
PCB157L = PCB-157L	20-145

# Column to be used to flag recovery values

FORM II  
HI-RES PCBS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): SPB-Octyl ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	PCB170L #	PCB169L #	PCB208L #	PCB189L #	PCB205L #	PCB206L #	PCB209L #
M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	140-37234-14	87	91	88	90	91	94	108
	MB 140-88193/21-B	86	90	90	88	91	93	102

	QC LIMITS
PCB170L = PCB-170L	20-145
PCB169L = PCB-169L	20-145
PCB208L = PCB-208L	20-145
PCB189L = PCB-189L	20-145
PCB205L = PCB-205L	20-145
PCB206L = PCB-206L	20-145
PCB209L = PCB-209L	20-145

# Column to be used to flag recovery values

FORM II  
HI-RES PCBS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): SPB-Octyl ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	PCB1L #	PCB3L #	PCB4L #	PCB8L #	PCB19L #	PCB15L #	PCB54L #	PCB28L #
M23 F-10 BOILER RUN 2 COMBINED	140-37234-1	60	70	71	101	82	84 S	102	75
M23 F-10 BOILER RUN 3 COMBINED	140-37234-2	62	66	66	114	66	87	82	76
M23 F-10 BOILER RUN 4 COMBINED	140-37234-3	55	57	63	108	67	80	84	71
M23 F-10 BOILER RUN 5 COMBINED	140-37234-4	59	60	63	116	67	75	78	73
M23 F-10 BOILER RUN 7 COMBINED	140-37234-6	56	63	60	115	69	85	81	77
M23 F-10 BOILER RUN 8 COMBINED	140-37234-7	56	59	61	112	69	80	84	74
M23 F-10 BOILER BT COMBINED	140-37234-8	52	57	56	111	64	74	77	66

QC LIMITS

PCB1L = PCB-1L	20-145
PCB3L = PCB-3L	20-145
PCB4L = PCB-4L	20-145
PCB8L = PCB-8L	70-130
PCB19L = PCB-19L	20-145
PCB15L = PCB-15L	20-145
PCB54L = PCB-54L	20-145
PCB28L = PCB-28L	20-130

# Column to be used to flag recovery values

FORM II  
HI-RES PCBS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): SPB-Octyl ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	PCB104L #	PCB37L #	PCB95L #	PCB155L #	PCB79L #	PCB81L #	PCB77L #	PCB111L #
M23 F-10 BOILER RUN 2 COMBINED	140-37234-1	86	81	114	94	109	89	91	79
M23 F-10 BOILER RUN 3 COMBINED	140-37234-2	85	82	114	93	109	88	90	77
M23 F-10 BOILER RUN 4 COMBINED	140-37234-3	92	80	110	95	110	85	86	79
M23 F-10 BOILER RUN 5 COMBINED	140-37234-4	86	74	118	90	111	80	80	80
M23 F-10 BOILER RUN 7 COMBINED	140-37234-6	88	77	122	91	112	83	85	79
M23 F-10 BOILER RUN 8 COMBINED	140-37234-7	82	71	121	85	115	82	82	77
M23 F-10 BOILER BT COMBINED	140-37234-8	77	70	119	84	117	79	80	76

QC LIMITS

PCB104L = PCB-104L	20-145
PCB37L = PCB-37L	20-145
PCB95L = PCB-95L	70-130
PCB155L = PCB-155L	20-145
PCB79L = PCB-79L	70-130
PCB81L = PCB-81L	20-145
PCB77L = PCB-77L	20-145
PCB111L = PCB-111L	20-130

# Column to be used to flag recovery values

FORM II  
HI-RES PCBS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): SPB-Octyl ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	PCB123L #	PCB118L #	PCB188L #	PCB114L #	PCB105L #	PCB153L #	PCB178L #	PCB126L #
M23 F-10 BOILER RUN 2 COMBINED	140-37234-1	100	86	102	100	91	102	87	93
M23 F-10 BOILER RUN 3 COMBINED	140-37234-2	96	91	98	100	92	102	86	91
M23 F-10 BOILER RUN 4 COMBINED	140-37234-3	93	88	96	94	91	98	82	91
M23 F-10 BOILER RUN 5 COMBINED	140-37234-4	87	86	90	87	89	101	79	84
M23 F-10 BOILER RUN 7 COMBINED	140-37234-6	90	85	94	91	91	106	87	89
M23 F-10 BOILER RUN 8 COMBINED	140-37234-7	89	92	98	91	90	114	86	91
M23 F-10 BOILER BT COMBINED	140-37234-8	89	82	95	91	85	103	81	84

QC LIMITS

PCB123L = PCB-123L	20-145
PCB118L = PCB-118L	20-145
PCB188L = PCB-188L	20-145
PCB114L = PCB-114L	20-145
PCB105L = PCB-105L	20-145
PCB153L = PCB-153L	70-130
PCB178L = PCB-178L	20-130
PCB126L = PCB-126L	20-145

# Column to be used to flag recovery values



FORM II  
HI-RES PCBS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): SPB-Octyl ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	PCB202L #	PCB167L #	PCB156L #	PCB157L #	PCB170L #	PCB169L #	PCB208L #	PCB189L #
M23 F-10 BOILER RUN 2 COMBINED	140-37234-1	88	88	98	C 98 C15 6	90	87	99	98
M23 F-10 BOILER RUN 3 COMBINED	140-37234-2	92	92	95	C 95 C15 6	91	89	92	91
M23 F-10 BOILER RUN 4 COMBINED	140-37234-3	99	93	99	C 99 C15 6	96	95	103	96
M23 F-10 BOILER RUN 5 COMBINED	140-37234-4	91	88	92	C 92 C15 6	93	91	87	90
M23 F-10 BOILER RUN 7 COMBINED	140-37234-6	94	85	85	C 85 C15 6	90	87	86	92
M23 F-10 BOILER RUN 8 COMBINED	140-37234-7	91	84	86	C 86 C15 6	88	85	88	95
M23 F-10 BOILER BT COMBINED	140-37234-8	83	84	97	C 97 C15 6	86	83	89	91

QC LIMITS

PCB202L = PCB-202L	20-145
PCB167L = PCB-167L	20-145
PCB156L = PCB-156L	20-145
PCB157L = PCB-157L	20-145
PCB170L = PCB-170L	20-145
PCB169L = PCB-169L	20-145
PCB208L = PCB-208L	20-145
PCB189L = PCB-189L	20-145

# Column to be used to flag recovery values

FORM II  
HI-RES PCBS SURROGATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Matrix: Air Level: Low

GC Column (1): SPB-Octyl ID: 0.25 (mm)

Client Sample ID	Lab Sample ID	PCB205L #	PCB206L #	PCB209L #
M23 F-10 BOILER RUN 2 COMBINED	140-37234-1	95	97	106
M23 F-10 BOILER RUN 3 COMBINED	140-37234-2	94	92	107
M23 F-10 BOILER RUN 4 COMBINED	140-37234-3	100	108	123
M23 F-10 BOILER RUN 5 COMBINED	140-37234-4	93	94	105
M23 F-10 BOILER RUN 7 COMBINED	140-37234-6	89	95	113
M23 F-10 BOILER RUN 8 COMBINED	140-37234-7	92	103	120
M23 F-10 BOILER BT COMBINED	140-37234-8	88	91	102

	<u>QC LIMITS</u>
PCB205L = PCB-205L	20-145
PCB206L = PCB-206L	20-145
PCB209L = PCB-209L	20-145

# Column to be used to flag recovery values

FORM III  
HI-RES PCBS LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Air Level: Low Lab File ID: lcs140-8819319-b.d  
 Lab ID: LCS 140-88193/19-B Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ng/Sample)	LCS CONCENTRATION (ng/Sample)	LCS % REC	QC LIMITS REC	#
PCB-77	15.0	13.34	89	60-135	
PCB-81	15.0	13.65	91	60-135	
PCB-105	15.0	14.04	94	60-135	
PCB-114	15.0	13.87	92	60-135	
PCB-118	15.0	13.37	89	60-135	
PCB-123	15.0	14.01	93	60-135	
PCB-126	15.0	14.13	94	60-135	
PCB-156	30.0	28.29	94	60-135	C
PCB-157	30.0	28.29	94	60-135	C156
PCB-167	15.0	13.90	93	60-135	
PCB-169	15.0	14.12	94	60-135	
PCB-189	15.0	14.59	97	60-135	
PCB-206	15.0	13.02	87	60-135	
PCB-209	15.0	14.30	95	60-135	
PCB-1L	30.0	22.06	74	15-145	
PCB-3L	30.0	21.96	73	15-145	
PCB-4L	30.0	21.46	72	15-145	
PCB-15L	30.0	21.35	71	15-145	
PCB-19L	30.0	20.44	68	15-145	
PCB-37L	30.0	22.01	73	15-145	
PCB-54L	30.0	23.29	78	15-145	
PCB-77L	30.0	23.75	79	40-145	
PCB-81L	30.0	23.34	78	40-145	
PCB-104L	30.0	22.25	74	40-145	
PCB-105L	30.0	25.50	85	40-145	
PCB-114L	30.0	23.99	80	40-145	
PCB-118L	30.0	24.21	81	40-145	
PCB-123L	30.0	23.57	79	40-145	
PCB-126L	30.0	25.18	84	40-145	
PCB-155L	30.0	22.18	74	40-145	
PCB-156L	60.0	51.52	86	40-145	C
PCB-157L	60.0	51.52	86	40-145	C156
PCB-167L	30.0	24.77	83	40-145	
PCB-169L	30.0	25.88	86	40-145	
PCB-170L	30.0	25.67	86	40-145	
PCB-188L	30.0	23.09	77	40-145	
PCB-189L	30.0	25.72	86	40-145	
PCB-202L	30.0	23.66	79	40-145	
PCB-205L	30.0	25.92	86	40-145	
PCB-206L	30.0	26.38	88	40-145	
PCB-208L	30.0	25.89	86	40-145	
PCB-209L	30.0	28.72	96	40-145	

# Column to be used to flag recovery and RPD values

FORM III 23

FORM III  
HI-RES PCBS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
 SDG No.: \_\_\_\_\_  
 Matrix: Air Level: Low Lab File ID: lcsd140-8819320-b.d  
 Lab ID: LCSD 140-88193/20-B Client ID: \_\_\_\_\_

COMPOUND	SPIKE ADDED (ng/Sample)	LCSD CONCENTRATION (ng/Sample)	LCSD % REC	% RPD	QC LIMITS		#
					RPD	REC	
PCB-77	15.0	13.57	90	2	50	60-135	
PCB-81	15.0	13.54	90	1	50	60-135	
PCB-105	15.0	13.85	92	1	50	60-135	
PCB-114	15.0	13.99	93	1	50	60-135	
PCB-118	15.0	13.80	92	3	50	60-135	
PCB-123	15.0	13.15	88	6	50	60-135	
PCB-126	15.0	14.15	94	0	50	60-135	
PCB-156	30.0	28.43	95	0	50	60-135	C
PCB-157	30.0	28.43	95	0	50	60-135	C156
PCB-167	15.0	13.86	92	0	50	60-135	
PCB-169	15.0	13.79	92	2	50	60-135	
PCB-189	15.0	14.28	95	2	50	60-135	
PCB-206	15.0	13.16	88	1	50	60-135	
PCB-209	15.0	14.25	95	0	50	60-135	
PCB-1L	30.0	19.95	67			15-145	
PCB-3L	30.0	21.07	70			15-145	
PCB-4L	30.0	19.57	65			15-145	
PCB-15L	30.0	20.69	69			15-145	
PCB-19L	30.0	19.74	66			15-145	
PCB-37L	30.0	21.55	72			15-145	
PCB-54L	30.0	22.54	75			15-145	
PCB-77L	30.0	23.45	78			40-145	
PCB-81L	30.0	23.13	77			40-145	
PCB-104L	30.0	21.46	72			40-145	
PCB-105L	30.0	24.53	82			40-145	
PCB-114L	30.0	23.15	77			40-145	
PCB-118L	30.0	23.06	77			40-145	
PCB-123L	30.0	22.76	76			40-145	
PCB-126L	30.0	25.25	84			40-145	
PCB-155L	30.0	21.15	70			40-145	
PCB-156L	60.0	50.53	84			40-145	C
PCB-157L	60.0	50.53	84			40-145	C156
PCB-167L	30.0	24.27	81			40-145	
PCB-169L	30.0	25.68	86			40-145	
PCB-170L	30.0	24.86	83			40-145	
PCB-188L	30.0	21.91	73			40-145	
PCB-189L	30.0	24.63	82			40-145	
PCB-202L	30.0	22.93	76			40-145	
PCB-205L	30.0	24.36	81			40-145	
PCB-206L	30.0	26.17	87			40-145	
PCB-208L	30.0	24.85	83			40-145	
PCB-209L	30.0	28.18	94			40-145	

# Column to be used to flag recovery and RPD values

FORM IV  
HI-RES PCBS METHOD BLANK SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
 SDG No.: \_\_\_\_\_  
 Lab File ID: mb140-8819321-b.d Lab Sample ID: MB 140-88193/21-B  
 Matrix: Air Date Extracted: 06/27/2024 14:35  
 Instrument ID: D2D Date Analyzed: 07/15/2024 16:31  
 Level: (Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-88193/19-B	lcs140-8819319-b.d	07/15/2024 13:44
	LCSD 140-88193/20-B	lcsd140-8819320-b.d	07/15/2024 14:45
M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	140-37234-14	140-37234-a-14-b.d	07/16/2024 14:38
M23 F-10 BOILER BT COMBINED	140-37234-8	140-37234-a-8-d.d	07/16/2024 15:40
M23 F-10 BOILER RUN 2 COMBINED	140-37234-1	140-37234-a-1-d.d	07/16/2024 16:41
M23 F-10 BOILER RUN 3 COMBINED	140-37234-2	140-37234-a-2-d5x_20240716193645.d	07/16/2024 19:38
M23 F-10 BOILER RUN 5 COMBINED	140-37234-4	140-37234-a-4-d5x.d	07/16/2024 21:40
M23 F-10 BOILER RUN 6 COMBINED	140-37234-5	140-37234-a-5-d-5x.d	07/17/2024 04:20
M23 F-10 BOILER RUN 7 COMBINED	140-37234-6	140-37234-a-6-d-5x.d	07/17/2024 05:21
M23 F-10 BOILER RUN 8 COMBINED	140-37234-7	140-37234-a-7-d-5x.d	07/17/2024 06:22
M23 F-10 BOILER RUN 4 COMBINED	140-37234-3	140-37234-a-3-d5xrr.d	07/17/2024 19:36

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 2</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-1</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-1-d.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/05/2024 17:53</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/16/2024 16:41</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88809</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
34883-43-7	PCB-8	1.65		0.600	0.132	0.0138
37680-65-2	PCB-18	0.668	S C	0.600	0.285	0.0155
7012-37-5	PCB-28	1.30	C20 B	0.600	0.252	0.0159
41464-39-5	PCB-44	4.05	C B	0.900	0.390	0.0222
35693-99-3	PCB-52	0.793		0.300	0.132	0.0235
32598-10-0	PCB-66	0.295	J	0.300	0.120	0.0172
32598-13-3	PCB-77	0.0918	J q	0.300	0.126	0.0196
70362-50-4	PCB-81	ND		0.300	0.0960	0.0204
37680-73-2	PCB-101	0.363	J C90	0.900	0.390	0.00476
32598-14-4	PCB-105	ND		0.300	0.102	0.0671
74472-37-0	PCB-114	ND		0.300	0.165	0.0650
31508-00-6	PCB-118	0.117	J q	0.300	0.183	0.0693
65510-44-3	PCB-123	ND		0.300	0.171	0.0686
57465-28-8	PCB-126	ND		0.300	0.123	0.0764
38380-07-3	PCB-128	0.00613	J q C B	0.600	0.204	0.00239
35065-28-2	PCB-138	0.103	J C129	1.20	0.510	0.00248
35065-27-1	PCB-153	0.115	J C B	0.600	0.249	0.00214
38380-08-4	PCB-156	0.00289	J q C	0.600	0.255	0.00245
69782-90-7	PCB-157	0.00289	J q C156	0.600	0.255	0.00245
52663-72-6	PCB-167	ND		0.300	0.180	0.00178
32774-16-6	PCB-169	ND		0.300	0.123	0.00184
35065-30-6	PCB-170	0.00447	J	0.300	0.132	0.000261
35065-29-3	PCB-180	0.0271	J q C	0.600	0.204	0.000187
52663-68-0	PCB-187	0.0246	J	0.300	0.126	0.000198
39635-31-9	PCB-189	ND		0.300	0.147	0.00386
52663-78-2	PCB-195	ND		0.300	0.159	0.00154
40186-72-9	PCB-206	ND		0.300	0.171	0.0240
2051-24-3	PCB-209	ND		0.300	0.138	0.00178

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 2</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-1</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-1-d.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/05/2024 17:53</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/16/2024 16:41</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88809</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
234432-85-0	PCB-1L	60		20-145
208263-77-8	PCB-3L	70		20-145
234432-86-1	PCB-4L	71		20-145
208263-67-6	PCB-15L	84	S	20-145
234432-87-2	PCB-19L	82		20-145
208263-79-0	PCB-37L	81		20-145
234432-88-3	PCB-54L	102		20-145
105600-23-5	PCB-77L	91		20-145
208461-24-9	PCB-81L	89		20-145
234432-89-4	PCB-104L	86		20-145
208263-62-1	PCB-105L	91		20-145
208263-63-2	PCB-114L	100		20-145
104130-40-7	PCB-118L	86		20-145
208263-64-3	PCB-123L	100		20-145
208263-65-4	PCB-126L	93		20-145
234432-90-7	PCB-155L	94		20-145
208263-68-7	PCB-156L	98	C	20-145
235416-30-5	PCB-157L	98	C156	20-145
208263-69-8	PCB-167L	88		20-145
208263-70-1	PCB-169L	87		20-145
160901-80-4	PCB-170L	90		20-145
234432-91-8	PCB-188L	102		20-145
208263-73-4	PCB-189L	98		20-145
105600-26-8	PCB-202L	88		20-145
234446-64-1	PCB-205L	95		20-145
208263-75-6	PCB-206L	97		20-145
234432-92-9	PCB-208L	99		20-145
105600-27-9	PCB-209L	106		20-145

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: M23 F-10 BOILER RUN 2 Lab Sample ID: 140-37234-1  
COMBINED  
Matrix: Air Lab File ID: 140-37234-a-1-d.d  
Analysis Method: 23 Date Collected: 06/05/2024 17:53  
Extract. Method: Combined Prep Date Extracted: 06/27/2024 14:35  
Sample wt/vol: 1(Sample) Date Analyzed: 07/16/2024 16:41  
Con. Extract Vol.: 30 (mL) Dilution Factor: 1  
Injection Volume: 1 (uL) GC Column: SPB-Octyl ID: 0.25 (mm)  
% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
Cleanup Factor: \_\_\_\_\_ Level: (low/med) Low  
Analysis Batch No.: 88809 Units: ng/Sample  
Preparation Batch No.: 88193 Instrument ID: Excalibur D2D DFS

CAS NO.	SURROGATE	%REC	Q	LIMITS
208263-76-7	PCB-28L	75		20-130
235416-29-2	PCB-111L	79		20-130
232919-67-4	PCB-178L	87		20-130
STL01600	PCB-8L	101		70-130
STL01603	PCB-79L	109		70-130
STL01604	PCB-95L	114		70-130
STL01606	PCB-153L	102		70-130



Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-1-d.d  
 Lims ID: 140-37234-A-1-D  
 Client ID: M23 F-10 BOILER RUN 2 COMBINED  
 Sample Type: Client  
 Inject. Date: 16-Jul-2024 16:41:00 ALS Bottle#: 0 Worklist Smp#: 8  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info:  
 Misc. Info.: 140-0033521-008  
 Operator ID: Xcalibur\_System Instrument ID: D2D  
 Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\PCBs\_D2D.m  
 Limit Group: HR - EPA\_23 PCB ICAL  
 Last Update: 17-Jul-2024 12:21:41 Calib Date: 31-May-2024 21:13:00  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
 Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
 Process Host: CTX1616

First Level Reviewer: TT6I

Date: 17-Jul-2024 11:47:26

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D PCB-1L	11:38	6275620	3.20	1.6108	60.4	60.4	0.4056	0.4056	60.36	
D PCB-3L	13:47	7215314	3.19	1.5891	70.3	70.3	0.4111	0.4111	70.34	
S Total Dichlorobiphenyls					5.498	5.498	0.0461	0.0461		
D PCB-4L	14:02	2971437	1.59	0.6475	71.1	71.1	0.1603	0.1603	71.09	
* PCB-9L	16:00	6454637	1.63		100.0	100.0				
\$ PCB-8L	16:52	2689556	1.58	1.2066	50.7	50.7	0.1446	0.1446	101	a
D PCB-15L	20:02	5825586	1.62	1.0789	83.7	83.7	0.0962	0.0962	83.65	
PCB-8	16:53	384255	1.46	1.5889	5.498	5.498	0.0461	0.0461		M
D PCB-19L	17:11	2033587	1.06	0.6285	81.7	81.7	0.5004	0.5004	81.67	
* PCB-32L	20:29	3961725	1.08		100.0	100.0				
* PCB-31L	22:41	11243317	1.04		100.0	100.0				
\$ PCB-28L	22:58	8816645	1.06	1.0494	74.7	74.7	0.1185	0.1185	74.73	
D PCB-37L	26:57	7953555	1.05	0.8749	80.9	80.9	0.1421	0.1421	80.85	
PCB-18	19:10	79885	1.16	1.7652	2.225	2.225	0.0516	0.0516		a
PCB-30 (C18)	19:10	79885	1.16	1.7652	2.225	2.225	0.0516	0.0516		a
PCB-20	22:59	404083	1.06	1.1718	4.336	4.336	0.0530	0.0530		
PCB-28 (C20)	22:59	404083	1.06	1.1718	4.336	4.336	0.0530	0.0530		
S Total Tetrachlorobiphenyls					17.5	17.4	0.0685	0.0685		RQ
D PCB-54L	20:20	2251013	0.80	0.5562	102.2	102.2	0.0660	0.0660	102	
* PCB-52L	24:47	5613112	0.80		100.0	100.0				
\$ PCB-79L	32:40	3556056	0.82	1.0018	54.7	54.7	0.3834	0.3834	109	
D PCB-81L	33:40	6263059	0.80	1.2470	89.5	89.5	0.3108	0.3108	89.48	
D PCB-77L	34:14	6725339	0.81	1.3212	90.7	90.7	0.2934	0.2934	90.69	
PCB-52	24:49	157871	0.80	0.9194	2.644	2.644	0.0783	0.0783		a
PCB-44	25:49	853430	0.78	0.9731	13.5	13.5	0.0740	0.0740		M
PCB-47 (C44)	25:49	853430	0.78	0.9731	13.5	13.5	0.0740	0.0740		M
PCB-65 (C44)	25:49	853430	0.78	0.9731	13.5	13.5	0.0740	0.0740		M
PCB-66	29:52	80257	0.70	1.2583	0.9822	0.9822	0.0572	0.0572		
PCB-81	33:40						0.0679	0.0679		
PCB-77	34:15	22308	0.77	1.0836	0.3616	0.3061	0.0653	0.0653		RQM
S Total Pentachlorobiphenyls					1.890	1.801	0.1950	0.1950		RQ
D PCB-104L	25:43	4105247	1.56	1.2161	85.6	85.6	0.0463	0.0463	85.59	
\$ PCB-95L	28:40	1686651	1.59	0.7218	56.9	56.9	0.0701	0.0701	114	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-101L	31:35	3944278	1.61		100.0	100.0				
\$ PCB-111L	34:15	4258818	1.56	1.3699	78.8	78.8	0.0411	0.0411	78.82	
D PCB-123L	36:13	6680565	1.55	0.9731	99.6	99.6	0.8530	0.8530	99.65	
D PCB-118L	36:32	5959404	1.58	1.0102	85.6	85.6	0.8217	0.8217	85.63	
D PCB-114L	37:04	6839676	1.60	0.9949	99.8	99.8	0.8344	0.8344	99.79	
D PCB-105L	37:43	5949615	1.58	0.9514	90.8	90.8	0.8725	0.8725	90.77	
* PCB-127L	39:11	6889322	1.60		100.0	100.0				
D PCB-126L	40:48	6078447	1.59	0.9439	93.5	93.5	0.8795	0.8795	93.48	
PCB-90	31:36	47408	1.47	0.9550	1.209	1.209	0.0159	0.0159		
PCB-101 (C90)	31:36	47408	1.47	0.9550	1.209	1.209	0.0159	0.0159		
PCB-113 (C90)	31:36	47408	1.47	0.9550	1.209	1.209	0.0159	0.0159		
PCB-123	36:13						0.2285	0.2285		
PCB-118	36:33	27909	1.55	1.2055	0.4776	0.3885	0.2310	0.2310		RQM
PCB-114	37:04						0.2166	0.2166		
PCB-105	37:46	14341	1.73	1.1879	0.2029	0.2029	0.2235	0.2235		nM
PCB-126	40:49						0.2545	0.2545		
S Total Hexachlorobiphenyls					0.7896	0.7566	0.007268	0.007268		RQ
D PCB-155L	31:20	4031138	1.28	1.0851	94.2	94.2	0.0451	0.0451	94.18	
\$ PCB-153L	38:23	2418144	1.31	0.9169	51.0	51.0	0.7900	0.7900	102	
* PCB-138L	39:39	4538878	1.26		100.0	100.0				
D PCB-167L	42:38	5014381	1.27	1.2572	87.9	87.9	0.5388	0.5388	87.87	
D PCB-156L	43:48	10731450	1.28	1.2106	195.3	195.3	0.5596	0.5596	97.65	
D PCB-157L (C156L)	43:48	10731450	1.28	1.2106	195.3	195.3	0.5596	0.5596	97.65	
D PCB-169L	47:01	4922183	1.26	1.2439	87.2	87.2	0.5446	0.5446	87.18	
PCB-153	38:24	21749	1.13	1.0938	0.3848	0.3848	0.007149	0.007149		
PCB-168 (C153)	38:24	21749	1.13	1.0938	0.3848	0.3848	0.007149	0.007149		
PCB-129	39:41	16711	1.38	0.9464	0.3417	0.3417	0.008262	0.008262		M
PCB-138 (C129)	39:41	16711	1.38	0.9464	0.3417	0.3417	0.008262	0.008262		M
PCB-160 (C129)	39:41	16711	1.38	0.9464	0.3417	0.3417	0.008262	0.008262		M
PCB-163 (C129)	39:41	16711	1.38	0.9464	0.3417	0.3417	0.008262	0.008262		M
PCB-128	40:58	1037	1.24	0.9829	0.0426	0.0204	0.007955	0.007955		RQM
PCB-166 (C128)	40:58	1037	1.24	0.9829	0.0426	0.0204	0.007955	0.007955		RQM
PCB-167	42:39						0.005919	0.005919		
PCB-156	43:47	573	1.24	1.1104	0.0204	0.009617	0.008180	0.008180		RQM
PCB-157 (C156)	43:47	573	1.24	1.1104	0.0204	0.009617	0.008180	0.008180		RQM
PCB-169	47:02						0.006144	0.006144		
S Total Heptachlorobiphenyls					0.2021	0.1871	0.003755	0.003755		RQ
D PCB-188L	37:03	4527535	1.06	1.3133	101.9	101.9	0.0610	0.0610	102	
\$ PCB-178L	40:06	3023631	1.07	1.0313	86.7	86.7	0.0777	0.0777	86.65	
* PCB-180L	45:10	3383298	1.07		100.0	100.0				
D PCB-170L	46:26	2543620	1.07	0.8362	89.9	89.9	0.0958	0.0958	89.91	
D PCB-189L	49:31	5452079	1.06	1.4414	98.3	98.3	0.4235	0.4235	98.32	
PCB-187	41:01	3188	1.18	1.1018	0.0818	0.0818	0.000659	0.000659		M
PCB-180	45:12	3731	1.05	1.1676	0.1053	0.0904	0.000622	0.000622		RQ
PCB-193 (C180)	45:12	3731	1.05	1.1676	0.1053	0.0904	0.000622	0.000622		RQ
PCB-170	46:28	450	0.94	1.1865	0.0149	0.0149	0.000869	0.000869		
PCB-189	49:33						0.0129	0.0129		
S Total Octachlorobiphenyls							0.005127	0.005127		
D PCB-202L	42:24	2918491	0.88	0.9818	87.9	87.9	0.0132	0.0132	87.86	
* PCB-194L	51:38	3846940	0.92		100.0	100.0				
D PCB-205L	52:06	4325687	0.91	1.1786	95.4	95.4	0.0541	0.0541	95.41	
PCB-195	49:19						0.005127	0.005127		
S Total Nonachlorobiphenyls							0.0800	0.0800		
D PCB-208L	49:03	3637834	0.79	0.9576	98.8	98.8	0.1607	0.1607	98.75	
D PCB-206L	53:51	2601239	0.79	0.6947	97.3	97.3	0.2216	0.2216	97.34	
PCB-206	53:52						0.0800	0.0800		
D PCB-209L	55:27	2726339	0.71	0.6669	106.3	106.3	0.0624	0.0624	106	
DCB Decachlorobiphenyl	55:30						0.005925	0.005925		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
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S Polychlorinated biphenyls, Total

25.9

0.0515

0.0515

RQ

### QC Flag Legend

#### Processing Flags

R - Failed Signal Ratio Test

n - Failed Sig-To-Noise Test

Q - EMPC-Estimated Max. Possible Conc.

#### Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-1-d.d  
Lims ID: 140-37234-A-1-D  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Sample Type: Client  
Inject. Date: 16-Jul-2024 16:41:00 ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033521-008  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 12:21:41 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICAL File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: TT6I

Date: 17-Jul-2024 11:47:26

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:38	11:38	-1	0.727	4781321	1859686	1181	2952	1575		
202.0766	11:38	11:38	-1	0.727	1494299	578619	3647	9117	159	3.20(2.66-3.60)	
PCB-3L											
200.0795	13:47	13:47	-1	0.861	5491834	1763216	1181	2952	1493		
202.0766	13:47	13:47	-1	0.861	1723480	543932	3647	9117	149	3.19(2.66-3.60)	
PCB-4L											
234.0406	14:02	14:02	-1	0.877	1822544	604132	556	1390	1087		
236.0376	14:02	14:02	-1	0.877	1148893	382345	211	527	1812	1.59(1.33-1.79)	
PCB-9L											
234.0406	16:00	16:00	1		3997912	1149602	556	1390	2068		
236.0376	16:00	16:00	1		2456725	697751	211	527	3307	1.63(1.33-1.79)	
PCB-8L											
234.0406	16:52	16:52	2	1.202	1645771	394623	556	1390	710		a
236.0376	16:52	16:52	2	1.202	1043785	241362	211	527	1144	1.58(1.33-1.79)	a
PCB-15L											
234.0406	20:02	19:55	8	1.252	3601067	746507	556	1390	1343		
236.0376	20:02	19:55	8	1.252	2224519	464529	211	527	2202	1.62(1.33-1.79)	
PCB-8											
222.0003	16:53	16:50	2	1.203	228130	54354	129	322	421		M
223.9974	16:53	16:50	2	1.203	156125	37392	193	482	194	1.46(1.33-1.79)	M
PCB-19L											
268.0016	17:11	17:08	2	0.839	1046836	249566	522	1305	478		
269.9986	17:11	17:08	2	0.838	986751	230320	797	1992	289	1.06(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-32L											
268.0016	20:29	20:22	7		2052603	542024	522	1305	1038		
269.9986	20:29	20:22	7		1909122	506256	797	1992	635	1.08(0.88-1.20)	
PCB-31L											
268.0016	22:41	22:37	3		5742201	1388696	925	2312	1501		
269.9986	22:41	22:37	3		5501116	1340170	432	1080	3102	1.04(0.88-1.20)	
PCB-28L											
268.0016	22:58	22:54	3	1.012	4533966	1045404	925	2312	1130		
269.9986	22:58	22:54	3	1.012	4282679	986674	432	1080	2284	1.06(0.88-1.20)	
PCB-37L											
268.0016	26:57	26:54	1	1.188	4068205	833809	925	2312	901		
269.9986	26:57	26:54	1	1.188	3885350	799932	432	1080	1852	1.05(0.88-1.20)	
PCB-18											
255.9613	19:10	19:00	12	1.115	42951	8970	114	285	79		a
257.9584	19:10	19:00	13	1.115	36934	7459	61	152	122	1.16(0.88-1.20)	a
PCB-30 (C18)											
255.9613	19:10	19:00	12	1.115	42951	8970	114	285	79		a
257.9584	19:10	19:00	13	1.115	36934	7459	61	152	122	1.16(0.88-1.20)	a
PCB-20											
255.9613	22:59	22:56	2	0.853	207613	47724	220	550	217		
257.9584	22:59	22:56	2	0.853	196470	43215	186	465	232	1.06(0.88-1.20)	
PCB-28 (C20)											
255.9613	22:59	22:56	2	0.853	207613	47724	220	550	217		
257.9584	22:59	22:56	2	0.853	196470	43215	186	465	232	1.06(0.88-1.20)	
PCB-54L											
301.9626	20:20	20:12	7	0.820	1000148	226241	97	242	2332		
303.9597	20:20	20:12	7	0.820	1250865	283988	57	142	4982	0.80(0.65-0.89)	
PCB-52L											
301.9626	24:47	24:45	2		2500486	546691	910	2275	601		
303.9597	24:47	24:45	2		3112626	687847	1004	2510	685	0.80(0.65-0.89)	
PCB-79L											
301.9626	32:40	32:40	1	0.970	1597141	305500	910	2275	336		
303.9597	32:40	32:40	0	0.970	1958915	373874	1004	2510	372	0.82(0.65-0.89)	
PCB-81L											
301.9626	33:40	33:37	1	1.359	2790159	548655	910	2275	603		
303.9597	33:40	33:37	1	1.359	3472900	674949	1004	2510	672	0.80(0.65-0.89)	
PCB-77L											
301.9626	34:14	34:12	0	1.382	3011151	570355	910	2275	627		
303.9597	34:14	34:12	0	1.382	3714188	697646	1004	2510	695	0.81(0.65-0.89)	
PCB-52											
289.9224	24:49	24:46	3	1.221	70364	14902	117	292	127		a
291.9194	24:49	24:46	3	1.221	87507	20040	242	605	83	0.80(0.65-0.89)	a
PCB-44											
289.9224	25:49	25:49	3	1.270	373102	79040	117	292	676		M
291.9194	25:49	25:49	3	1.270	480328	101874	242	605	421	0.78(0.65-0.89)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-47 (C44)											M
289.9224	25:49	25:49	3	1.270	373102	79040	117	292	676		M
291.9194	25:49	25:49	3	1.270	480328	101874	242	605	421	0.78(0.65-0.89)	M
PCB-65 (C44)											M
289.9224	25:49	25:49	3	1.270	373102	79040	117	292	676		M
291.9194	25:49	25:49	3	1.270	480328	101874	242	605	421	0.78(0.65-0.89)	M
PCB-66											
289.9224	29:52	29:50	0	0.887	33097	7800	117	292	67		
291.9194	29:52	29:50	0	0.887	47160	9833	242	605	41	0.70(0.65-0.89)	
PCB-81											
289.9224	33:41						117	292			
291.9194	33:41						242	605			
PCB-77											RQM
289.9224	34:15	34:17	0	1.000	9705	2032	117	292	17		M
291.9194	34:15	34:17	0	1.000	16647	2404	242	605	10	0.58(0.65-0.89)	M
Empc Correction					12603	2638	242	605	11		
PCB-104L											
337.9207	25:43	25:40	2	0.814	2500427	554981	107	267	5187		
339.9178	25:43	25:40	2	0.814	1604820	348706	76	190	4588	1.56(1.32-1.78)	
PCB-95L											
337.9207	28:40	28:39	1	1.115	1034276	225070	107	267	2103		
339.9178	28:40	28:39	1	1.115	652375	140699	76	190	1851	1.59(1.32-1.78)	
PCB-101L											
337.9207	31:35	31:34	1		2431632	505782	107	267	4727		
339.9178	31:35	31:34	1		1512646	305987	76	190	4026	1.61(1.32-1.78)	
PCB-111L											
337.9207	34:15	34:12	2	1.085	2597915	518650	107	267	4847		
339.9178	34:15	34:12	2	1.085	1660903	327066	76	190	4304	1.56(1.32-1.78)	
PCB-123L											
337.9207	36:13	36:11	1	1.146	4064001	800177	2669	6672	300		
339.9178	36:13	36:11	1	1.146	2616564	512652	1844	4610	278	1.55(1.32-1.78)	
PCB-118L											
337.9207	36:32	36:30	1	1.157	3652423	709922	2669	6672	266		
339.9178	36:32	36:30	1	1.157	2306981	445037	1844	4610	241	1.58(1.32-1.78)	
PCB-114L											
337.9207	37:04	37:02	1	1.173	4213780	840845	2669	6672	315		
339.9178	37:04	37:02	1	1.173	2625896	529123	1844	4610	287	1.60(1.32-1.78)	
PCB-105L											
337.9207	37:43	37:41	1	1.194	3639938	739802	2669	6672	277		
339.9178	37:43	37:41	1	1.194	2309677	471616	1844	4610	256	1.58(1.32-1.78)	
PCB-127L											
337.9207	39:11	39:10	1		4234819	837738	2669	6672	314		
339.9178	39:11	39:10	1		2654503	521398	1844	4610	283	1.60(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-126L											
337.9207	40:48	40:46	0	1.292	3728945	705636	2669	6672	264		
339.9178	40:48	40:46	0	1.292	2349502	445947	1844	4610	242	1.59(1.32-1.78)	
PCB-90											
325.8804	31:36	31:37	2	1.229	28192	5814	40	100	145		
327.8775	31:37	31:37	3	1.230	19216	3845	15	37	256	1.47(1.32-1.78)	
PCB-101 (C90)											
325.8804	31:36	31:37	2	1.229	28192	5814	40	100	145		
327.8775	31:37	31:37	3	1.230	19216	3845	15	37	256	1.47(1.32-1.78)	
PCB-113 (C90)											
325.8804	31:36	31:37	2	1.229	28192	5814	40	100	145		
327.8775	31:37	31:37	3	1.230	19216	3845	15	37	256	1.47(1.32-1.78)	
PCB-123											
325.8804	36:12						914	2285			
327.8775	36:12						373	932			
PCB-118											
325.8804	36:33	36:32	1	1.000	23370	5803	914	2285	6		RQM
	Empc Correction				16964	4344	914	2285	5		M
327.8775	36:34	36:32	1	1.001	10945	2803	373	932	8	2.14(1.32-1.78)	
PCB-114											
325.8804	37:03						914	2285			
327.8775	37:03						373	932			
PCB-105											
325.8804	37:46	37:43	2	1.001	9088	1830	914	2285	2		nM
327.8775	37:44	37:43	0	1.000	5253	1110	373	932	3	1.73(1.32-1.78)	M
PCB-126											
325.8804	40:49						914	2285			
327.8775	40:49						373	932			
PCB-155L											
371.8817	31:20	31:18	1	0.790	2264121	457445	105	262	4357		
373.8788	31:20	31:18	1	0.790	1767017	355252	54	135	6579	1.28(1.05-1.43)	
PCB-153L											
371.8817	38:23	38:23	1	0.900	1369463	268830	1356	3390	198		
373.8788	38:23	38:23	1	0.900	1048681	211432	1053	2632	201	1.31(1.05-1.43)	
PCB-138L											
371.8817	39:39	39:38	1		2532518	493402	1356	3390	364		
373.8788	39:39	39:38	1		2006360	395520	1053	2632	376	1.26(1.05-1.43)	
PCB-167L											
371.8817	42:38	42:36	1	1.075	2803265	549374	1356	3390	405		
373.8788	42:38	42:36	1	1.075	2211116	434817	1053	2632	413	1.27(1.05-1.43)	
PCB-156L											
371.8817	43:48	43:47	1	1.105	6033567	807631	1356	3390	596		
373.8788	43:48	43:47	1	1.105	4697883	623586	1053	2632	592	1.28(1.05-1.43)	
PCB-157L (C156L)											
371.8817	43:48	43:47	1	1.105	6033567	807631	1356	3390	596		
373.8788	43:48	43:47	1	1.105	4697883	623586	1053	2632	592	1.28(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-169L											
371.8817	47:01	47:00	1	1.186	2744372	507040	1356	3390	374		
373.8788	47:01	47:00	1	1.186	2177811	402823	1053	2632	383	1.26(1.05-1.43)	
PCB-153											
359.8415	38:24	38:24	-2	0.901	11540	1929	25	62	77		
361.8385	38:26	38:24	0	0.901	10209	1842	1	2	1842	1.13(1.05-1.43)	
PCB-168 (C153)											
359.8415	38:24	38:24	-2	0.901	11540	1929	25	62	77		
361.8385	38:26	38:24	0	0.901	10209	1842	1	2	1842	1.13(1.05-1.43)	
PCB-129											
359.8415	39:41	39:39	1	0.931	9699	1503	25	62	60		M
361.8385	39:39	39:39	-1	0.930	7012	1148	1	2	1148	1.38(1.05-1.43)	M
PCB-138 (C129)											
359.8415	39:41	39:39	1	0.931	9699	1503	25	62	60		M
361.8385	39:39	39:39	-1	0.930	7012	1148	1	2	1148	1.38(1.05-1.43)	M
PCB-160 (C129)											
359.8415	39:41	39:39	1	0.931	9699	1503	25	62	60		M
361.8385	39:39	39:39	-1	0.930	7012	1148	1	2	1148	1.38(1.05-1.43)	M
PCB-163 (C129)											
359.8415	39:41	39:39	1	0.931	9699	1503	25	62	60		M
361.8385	39:39	39:39	-1	0.930	7012	1148	1	2	1148	1.38(1.05-1.43)	M
PCB-128											
359.8415	40:58	40:53	5	0.961	1703	482	25	62	19		RQM
	Empc Correction				574	179	25	62	7		
361.8385	41:01	40:53	8	0.962	463	145	1	2	145	3.68(1.05-1.43)	M
PCB-166 (C128)											
359.8415	40:58	40:53	5	0.961	1703	482	25	62	19		RQM
	Empc Correction				574	179	25	62	7		
361.8385	41:01	40:53	8	0.962	463	145	1	2	145	3.68(1.05-1.43)	M
PCB-167											
359.8415	42:39						25	62			
361.8385	42:39						1	2			
PCB-156											
359.8415	43:47	43:47	-2	0.999	959	196	25	62	8		RQM
	Empc Correction				317	74	25	62	3		
361.8385	43:45	43:47	-3	0.999	256	60	1	2	60	3.75(1.05-1.43)	M
PCB-157 (C156)											
359.8415	43:47	43:47	-2	0.999	959	196	25	62	8		RQM
	Empc Correction				317	74	25	62	3		
361.8385	43:45	43:47	-3	0.999	256	60	1	2	60	3.75(1.05-1.43)	M
PCB-169											
359.8415	47:02						25	62			
361.8385	47:02						1	2			
PCB-188L											
405.8428	37:03	37:01	1	0.820	2333068	467704	183	457	2556		
407.8398	37:03	37:01	1	0.820	2194467	424722	33	82	12870	1.06(0.89-1.21)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-178L											
405.8428	40:06	40:04	1	0.888	1561438	300424	183	457	1642		
407.8398	40:06	40:04	1	0.888	1462193	277871	33	82	8420	1.07(0.89-1.21)	
PCB-180L											
405.8428	45:10	45:10	1		1745841	346533	183	457	1894		
407.8398	45:10	45:10	1		1637457	327254	33	82	9917	1.07(0.89-1.21)	
PCB-170L											
405.8428	46:26	46:25	0	1.028	1317262	249365	183	457	1363		
407.8398	46:26	46:25	0	1.028	1226358	235515	33	82	7137	1.07(0.89-1.21)	
PCB-189L											
405.8428	49:31	49:31	-1	1.096	2800879	522321	1143	2857	457		
407.8398	49:31	49:31	-1	1.096	2651200	486033	618	1545	786	1.06(0.89-1.21)	
PCB-187											
393.8025	41:01	41:00	1	1.107	1725	592	1	2	592		M
395.7995	41:03	41:00	3	1.108	1463	254	1	2	254	1.18(0.89-1.21)	M
PCB-180											
393.8025	45:12	45:09	2	0.913	1911	446	1	2	446		RQ
395.7995	45:11	45:09	1	0.912	2437	602	1	2	602	0.78(0.89-1.21)	
Empc Correction					1820	424	1	2	424		
PCB-193 (C180)											
393.8025	45:12	45:09	2	0.913	1911	446	1	2	446		RQ
395.7995	45:11	45:09	1	0.912	2437	602	1	2	602	0.78(0.89-1.21)	
Empc Correction					1820	424	1	2	424		
PCB-170											
393.8025	46:28	46:26	1	0.938	218	108	1	2	108		
395.7995	46:29	46:26	2	0.939	232	98	1	2	98	0.94(0.89-1.21)	
PCB-189											
393.8025	49:32						27	67			
395.7995	49:32						23	57			
PCB-202L											
439.8038	42:24	42:23	0	0.821	1368763	271772	1	2	271772		
441.8008	42:24	42:23	0	0.821	1549728	313202	34	85	9212	0.88(0.76-1.02)	
PCB-194L											
439.8038	51:38	51:38	0		1840558	351438	109	272	3224		
441.8008	51:38	51:38	0		2006382	369744	75	187	4930	0.92(0.76-1.02)	
PCB-205L											
439.8038	52:06	52:05	-1	1.009	2061873	396914	109	272	3641		
441.8008	52:06	52:05	-1	1.009	2263814	429212	75	187	5723	0.91(0.76-1.02)	
PCB-195											
427.7635	49:18						8	20			
429.7606	49:18						6	15			
PCB-208L											
473.7648	49:03	49:02	0	0.950	1610861	306061	246	615	1244		
475.7619	49:03	49:02	0	0.950	2026973	386422	198	495	1952	0.79(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-206L											
473.7648	53:51	53:51	-1	1.043	1148756	223740	246	615	910		
475.7619	53:51	53:51	-1	1.043	1452483	279519	198	495	1412	0.79(0.65-0.89)	
PCB-206											
461.7246	53:51						32	80			
463.7216	53:51						183	457			
PCB-209L											
507.7258	55:27	55:27	-1	1.074	1129207	202217	61	152	3315		
509.7229	55:27	55:27	-1	1.074	1597132	288596	59	147	4891	0.71(0.59-0.79)	
DCB Decachlorobiphenyl											
495.6856	55:29						3	7			
497.6826	55:29						10	25			

### QC Flag Legend

#### Processing Flags

R - Failed Signal Ratio Test

n - Failed Sig-To-Noise Test

Q - EMPC-Estimated Max. Possible Conc.

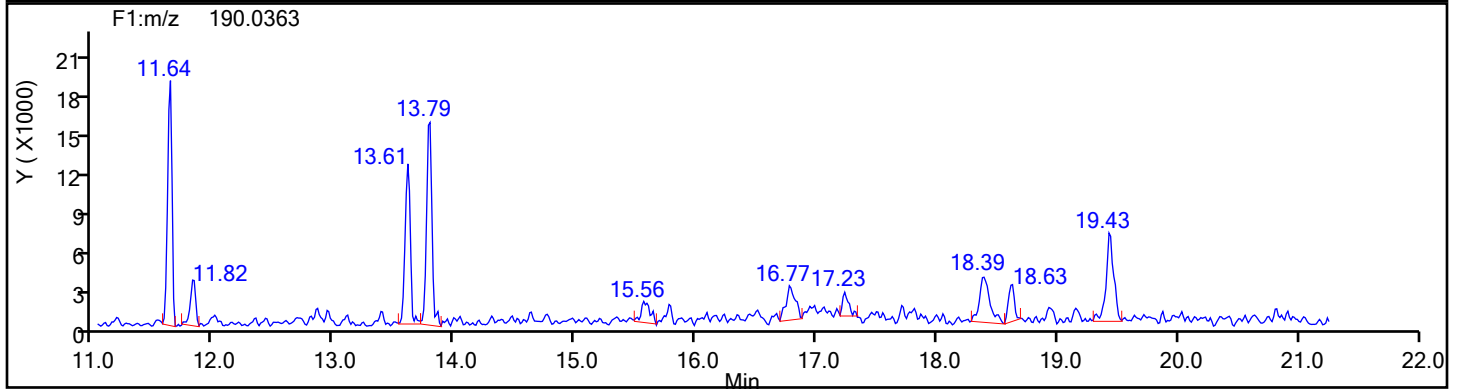
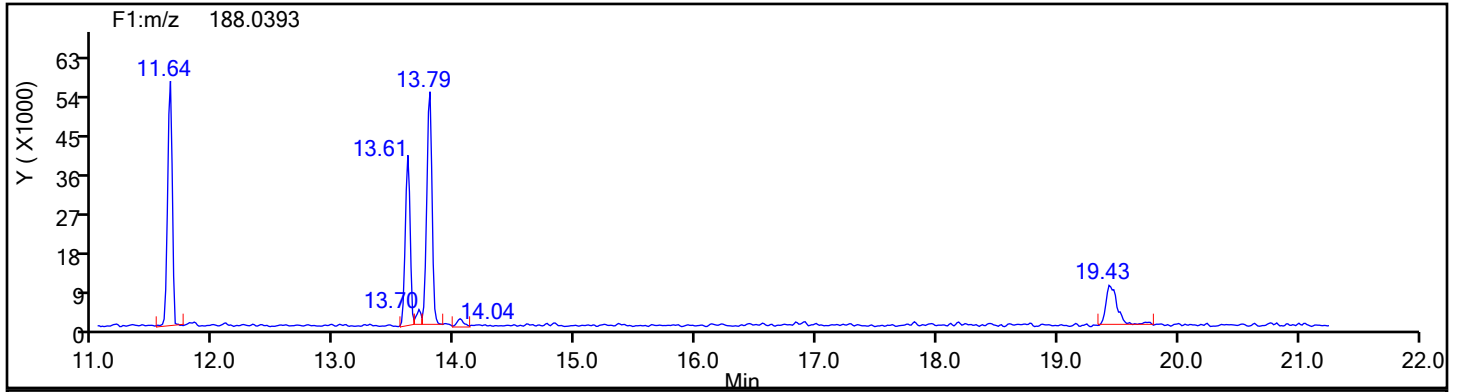
#### Review Flags

M - Manually Integrated

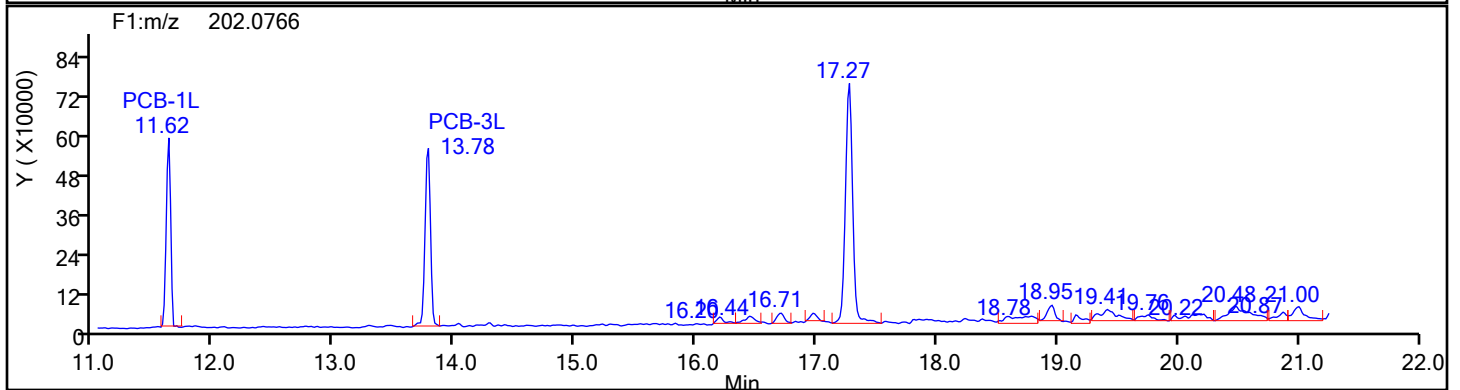
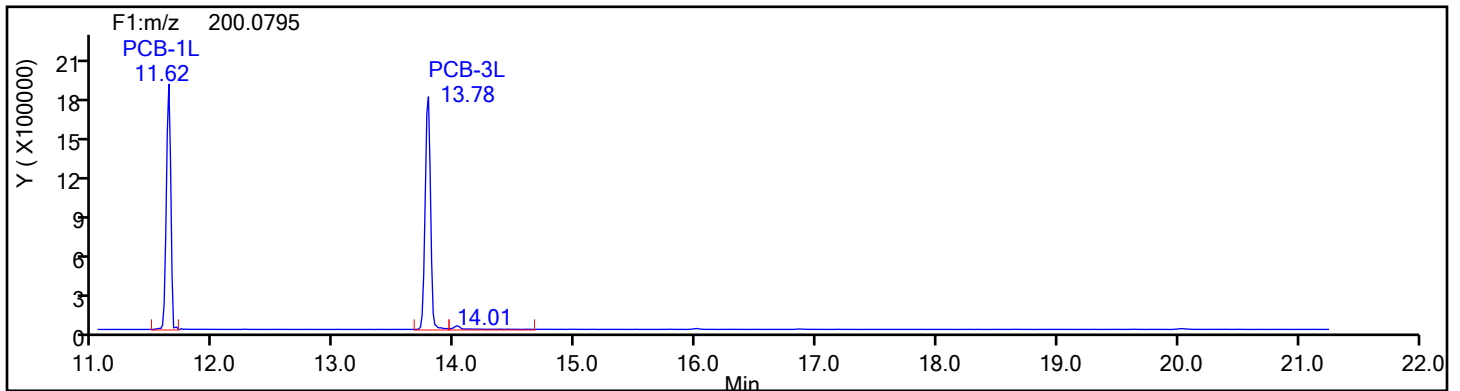
a - User Assigned ID

## Eurofins Knoxville

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Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
MoPCB F1

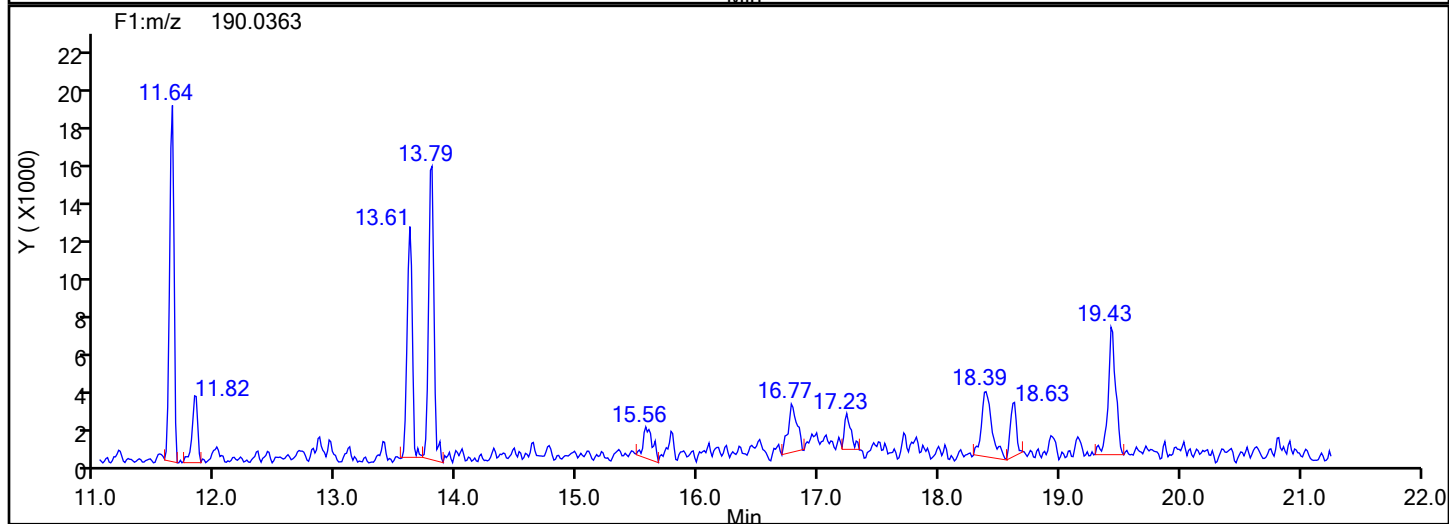
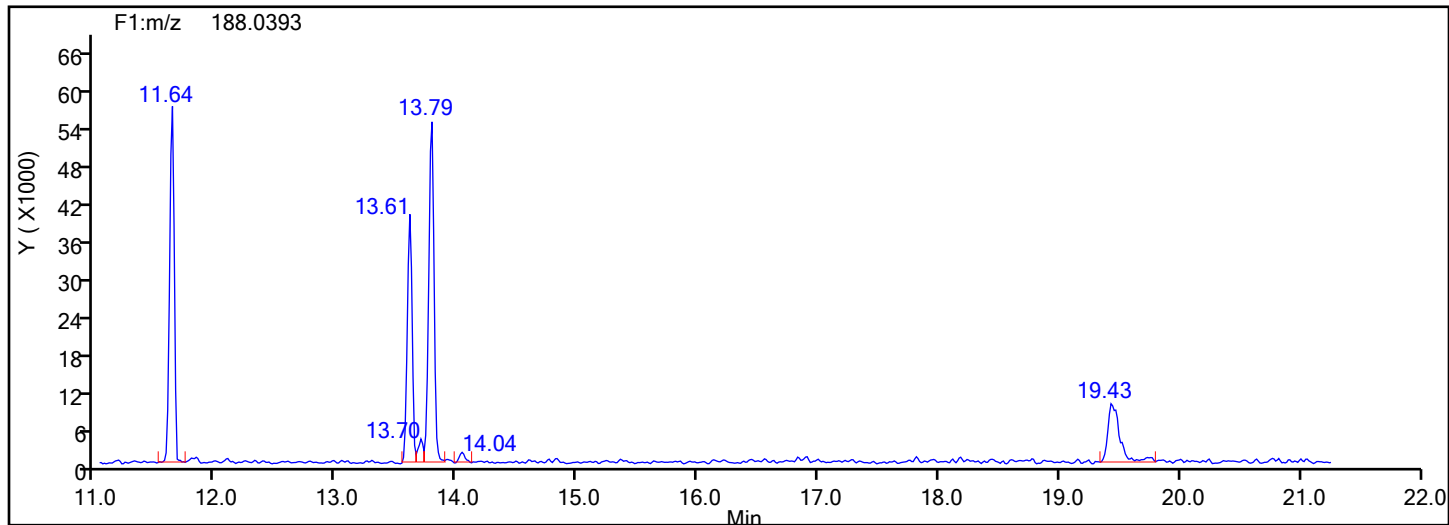


## MoPCB F1 Standards

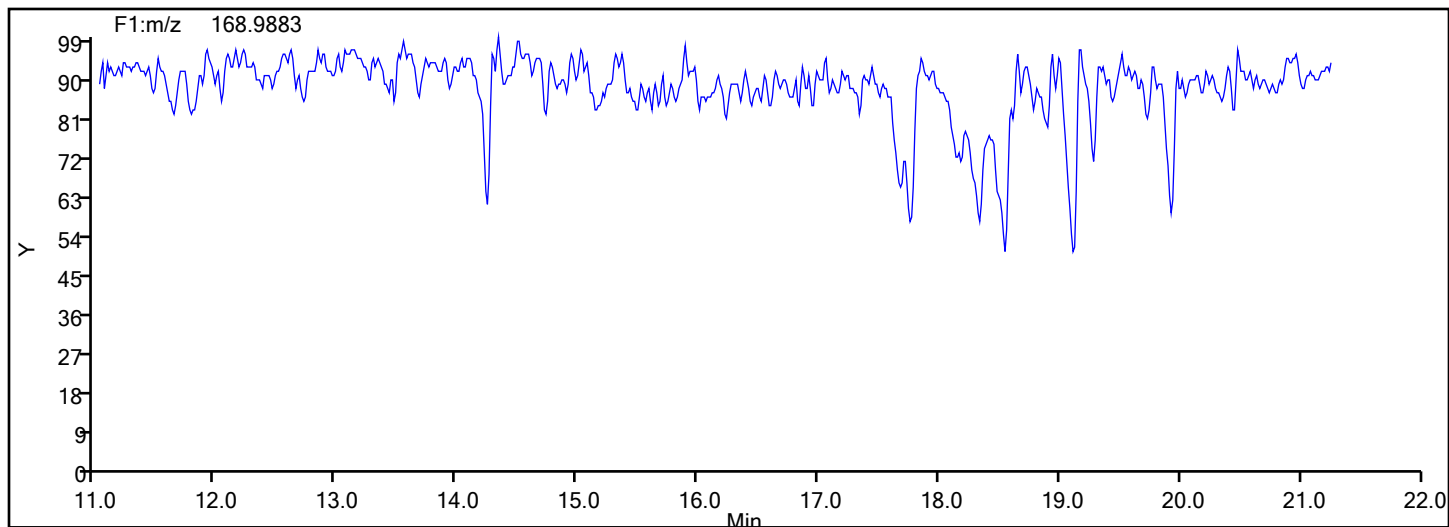


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
MoPCB F1

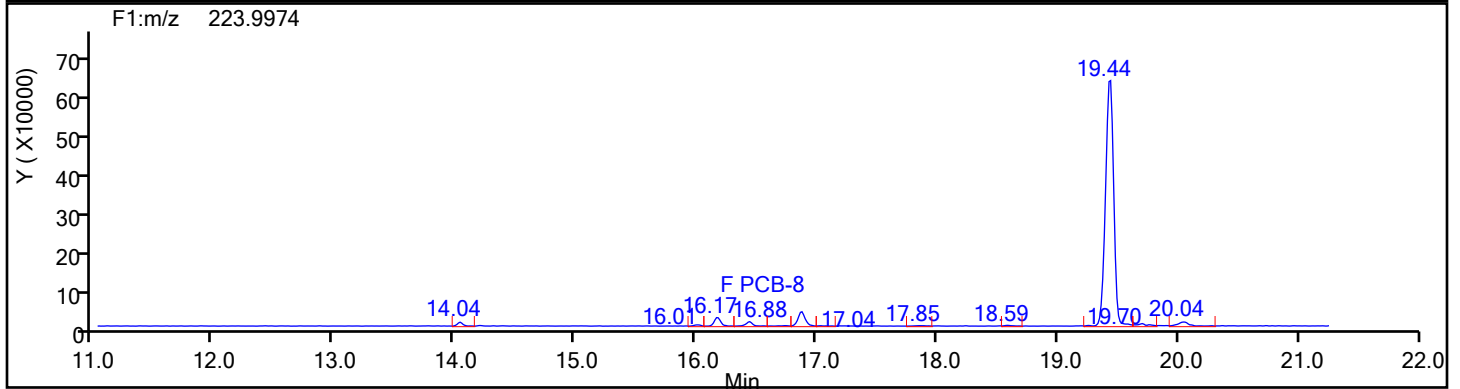
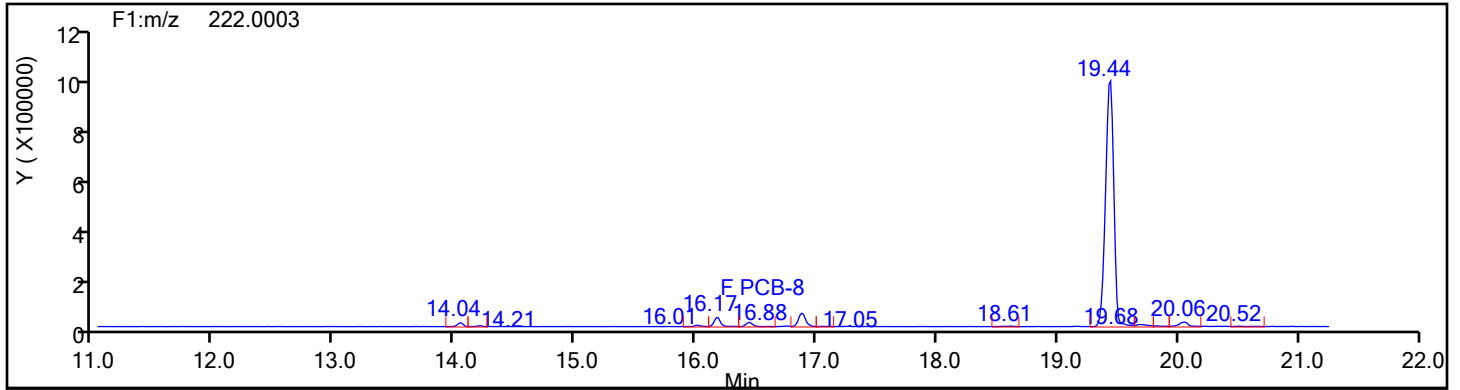


## MoPCB F1 Lock Mass

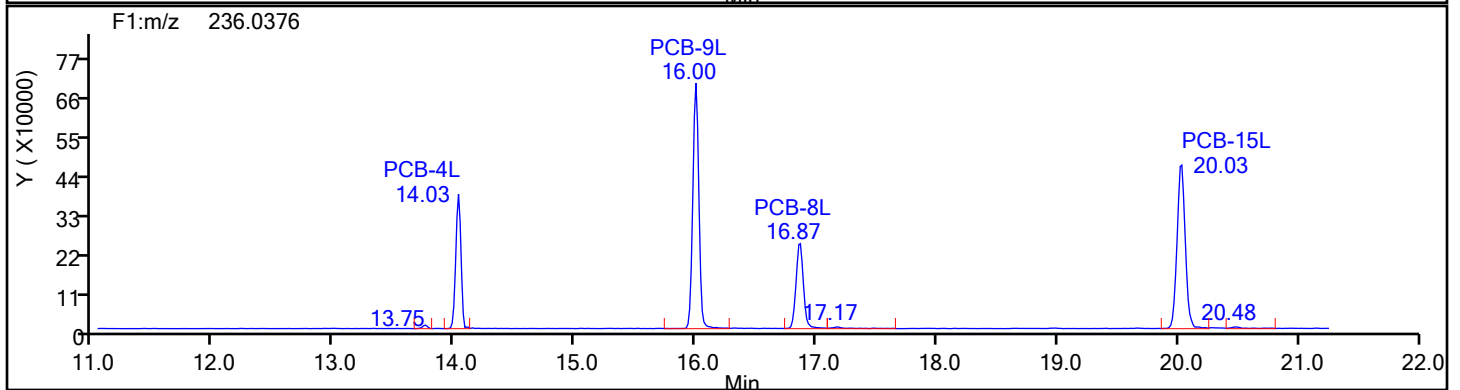
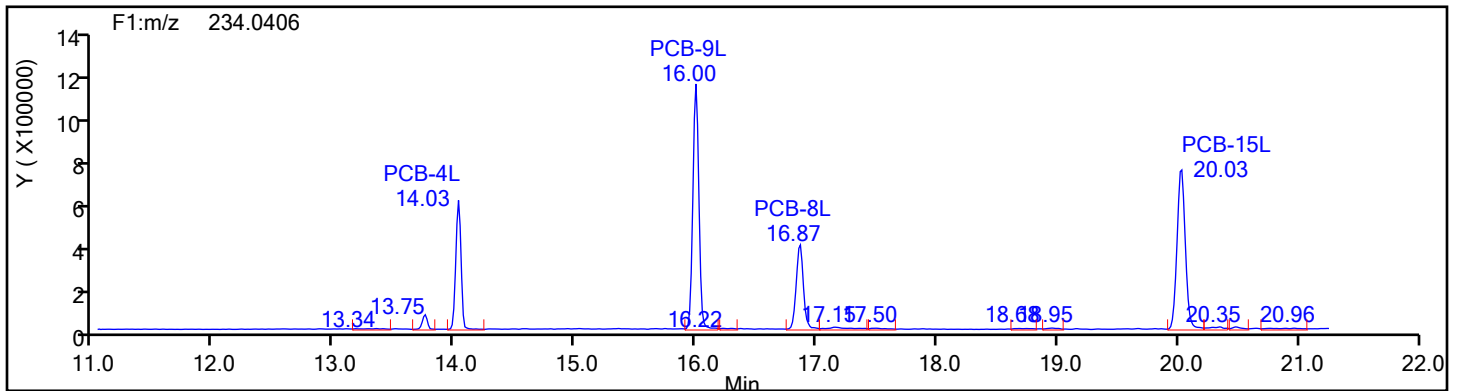


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DiPCB F1

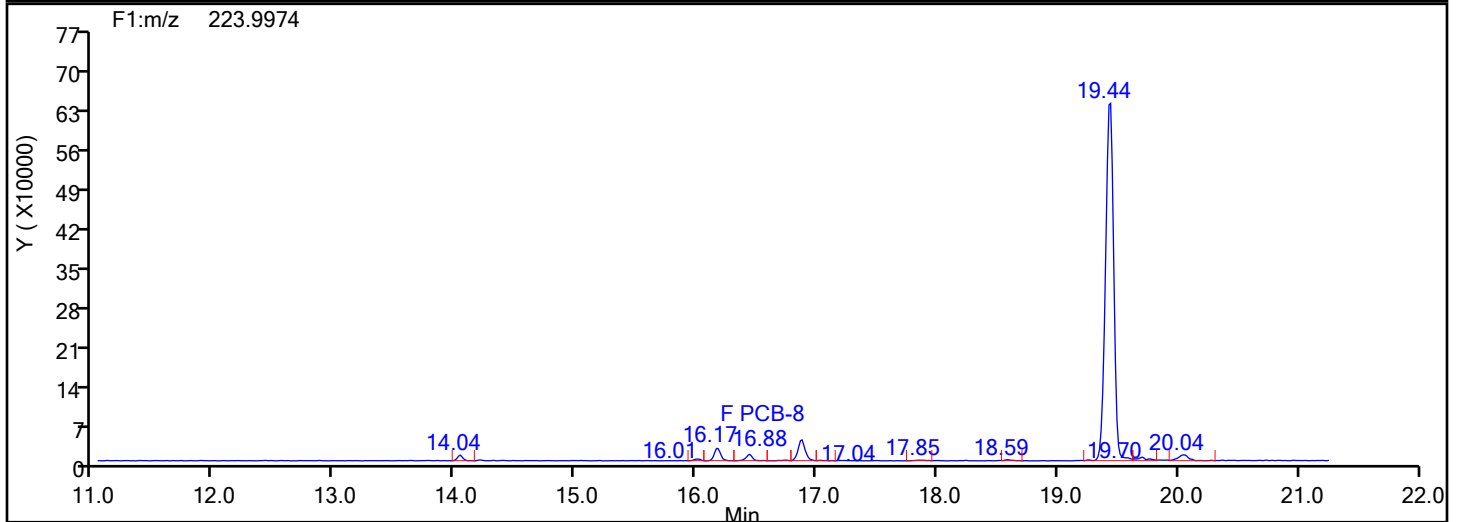
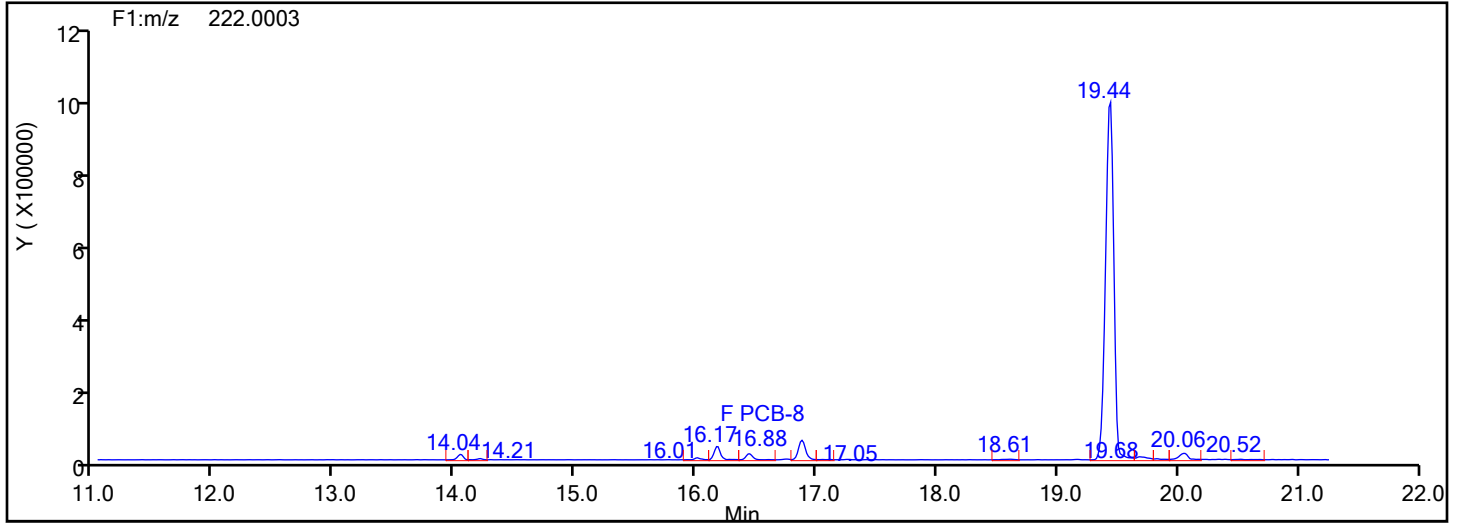


## DiPCB F1 Standards

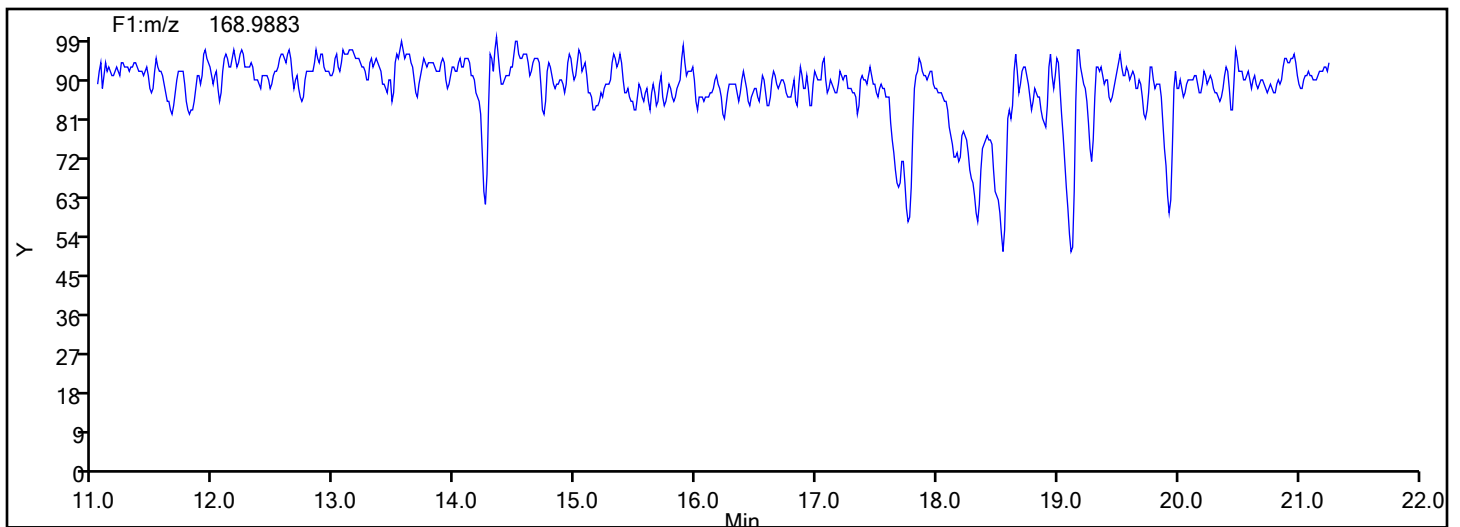


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DiPCB F1



## DiPCB F1 Lock Mass



## Eurofins Knoxville

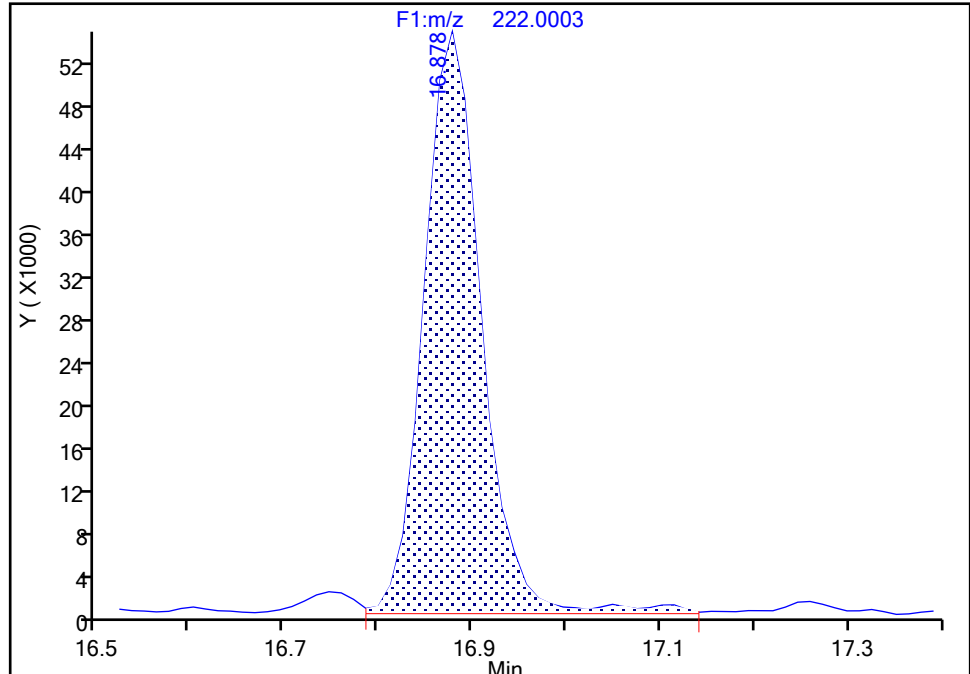
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Injection Date: 16-Jul-2024 16:41:00 Instrument ID: D2D  
Lims ID: 140-37234-A-1-D Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F1(11.07 :21.70 )

PCB-8, CAS: 34883-43-7

Signal: 1

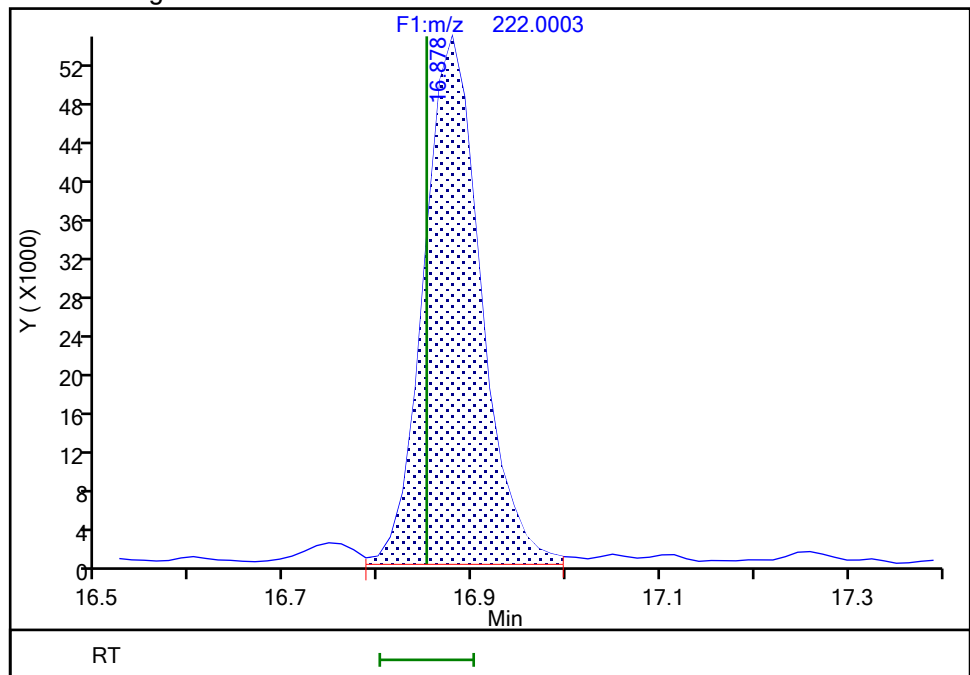
RT: 16.88  
Area: 233759  
Amount: 5.640659  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.88  
Area: 228130  
Amount: 5.498229  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 11:41:06 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

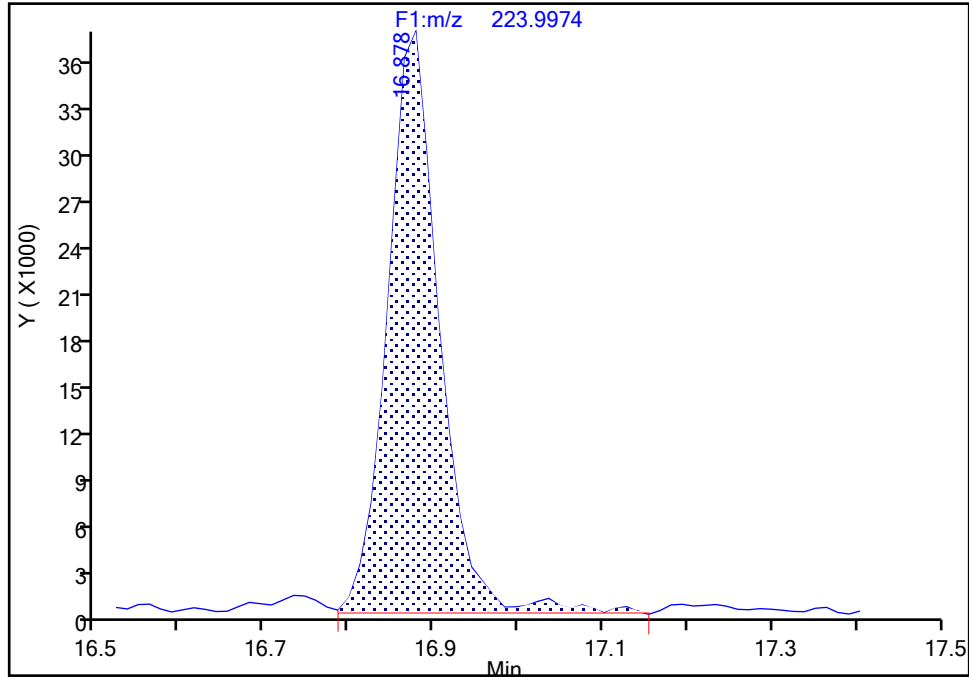
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Injection Date: 16-Jul-2024 16:41:00 Instrument ID: D2D  
Lims ID: 140-37234-A-1-D Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F1(11.07 :21.70 )

PCB-8, CAS: 34883-43-7

Signal: 2

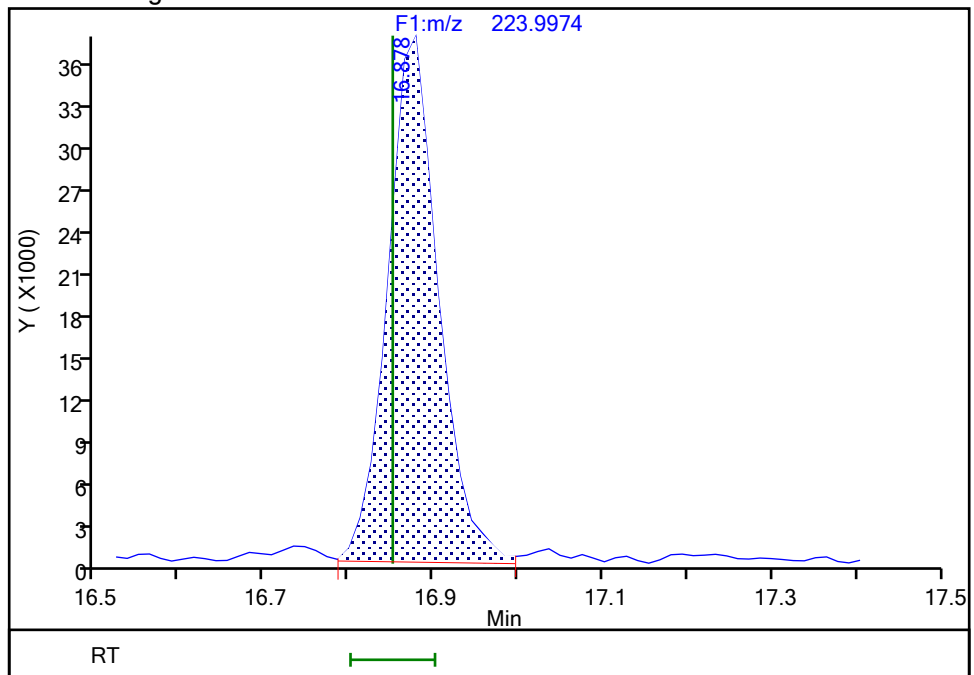
RT: 16.88  
Area: 160450  
Amount: 5.640659  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.88  
Area: 156125  
Amount: 5.498229  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 11:41:08 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration



## Eurofins Knoxville

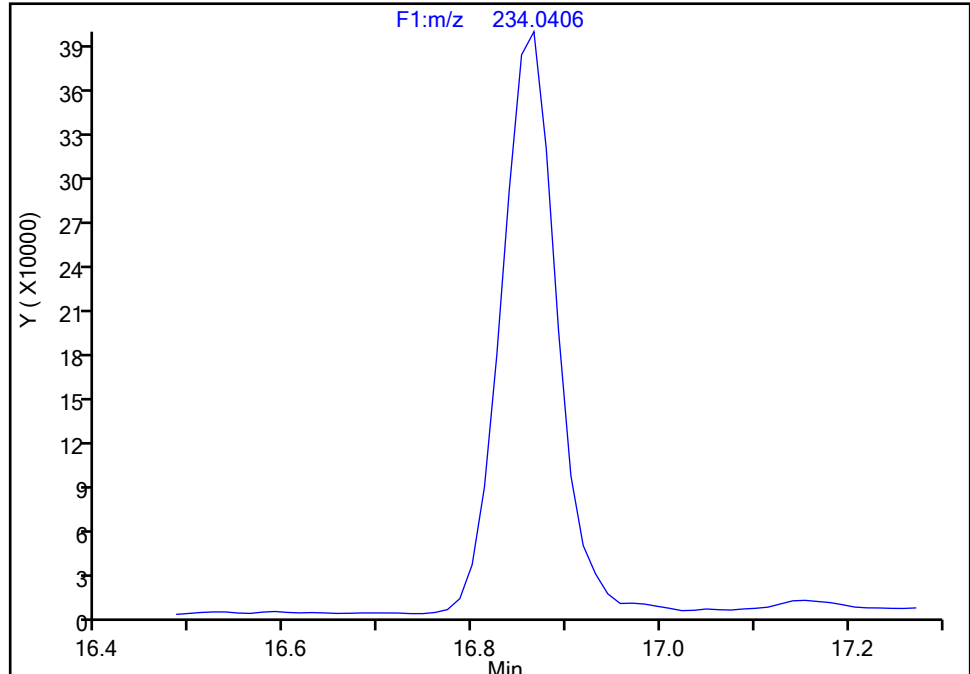
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Injection Date: 16-Jul-2024 16:41:00 Instrument ID: D2D  
Lims ID: 140-37234-A-1-D Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F1(11.07 :21.70 )

PCB-8L, CAS: STL01600

Signal: 1

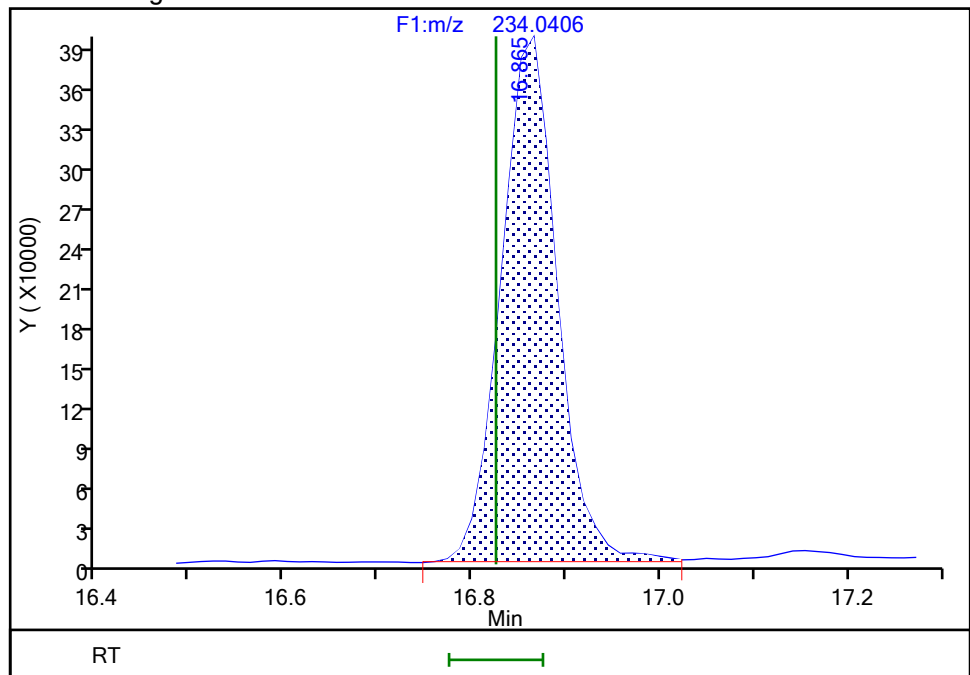
Not Detected  
Expected RT: 16.82

## Processing Integration Results



RT: 16.87  
Area: 1645771  
Amount: 50.676583  
Amount Units: pg/ul

## Manual Integration Results



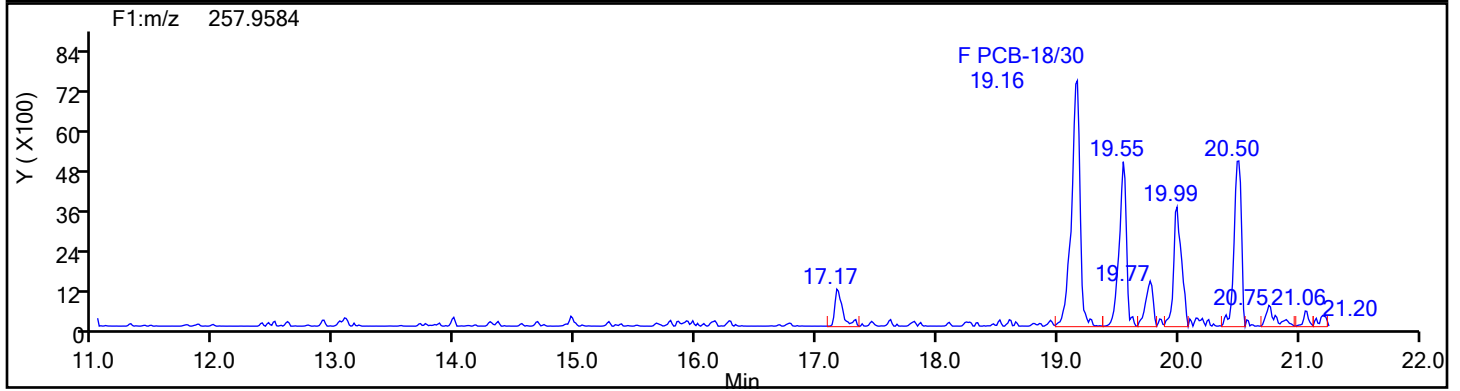
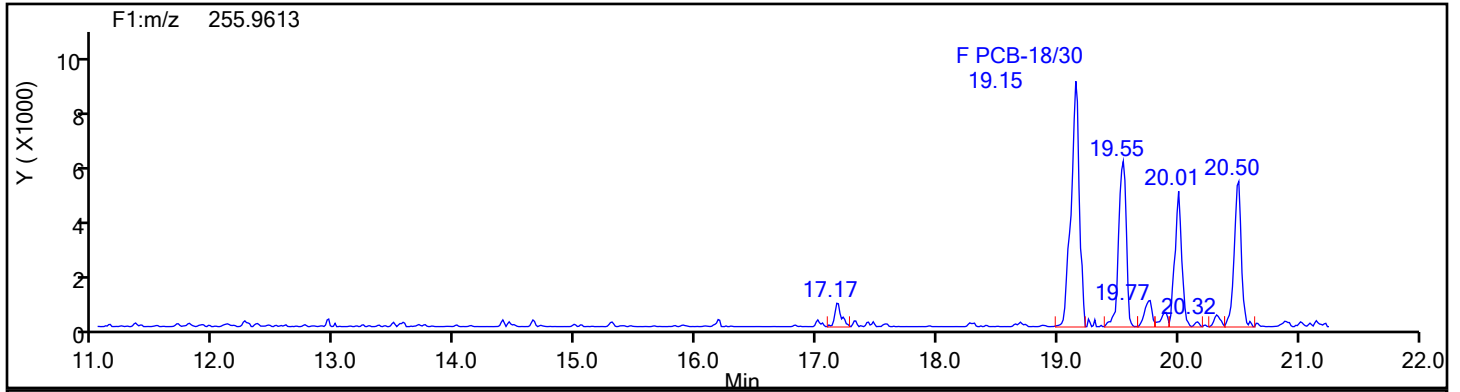
Reviewer: TT6I, 17-Jul-2024 12:21:38 -04:00:00 (UTC)

Audit Action: Assigned Compound ID

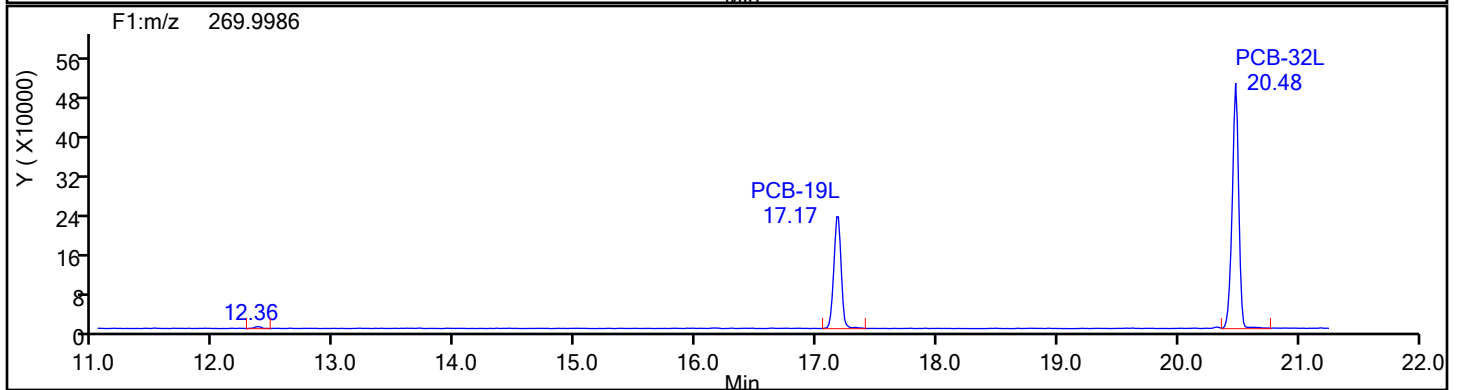
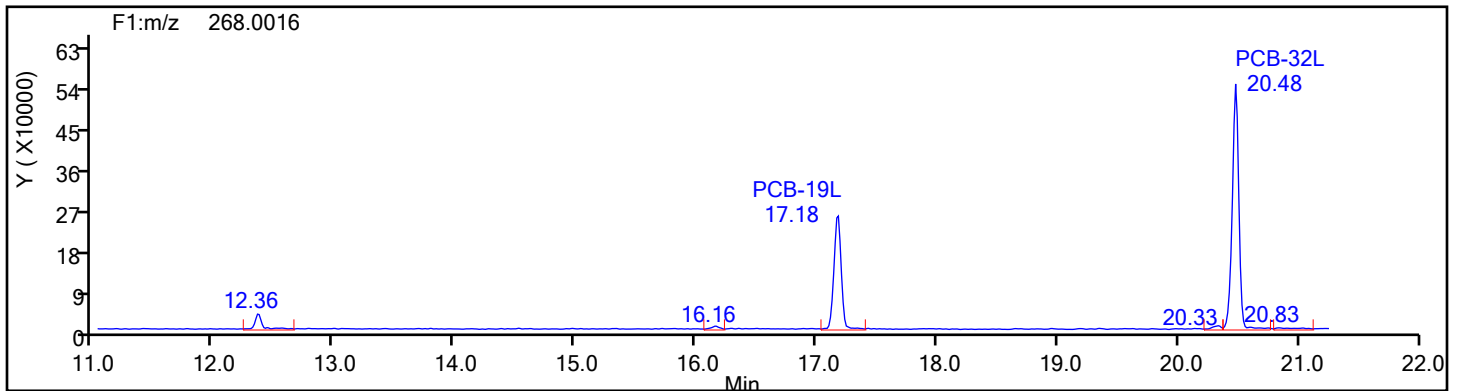
Audit Reason: Incomplete Integration

## Eurofins Knoxville

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Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F1

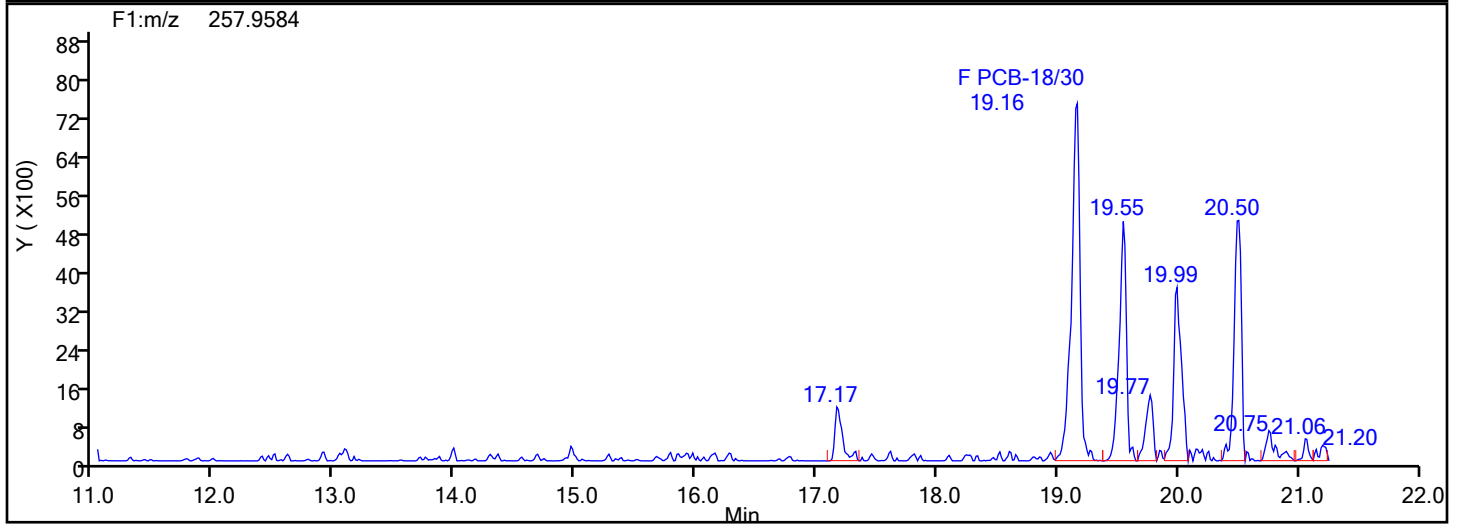
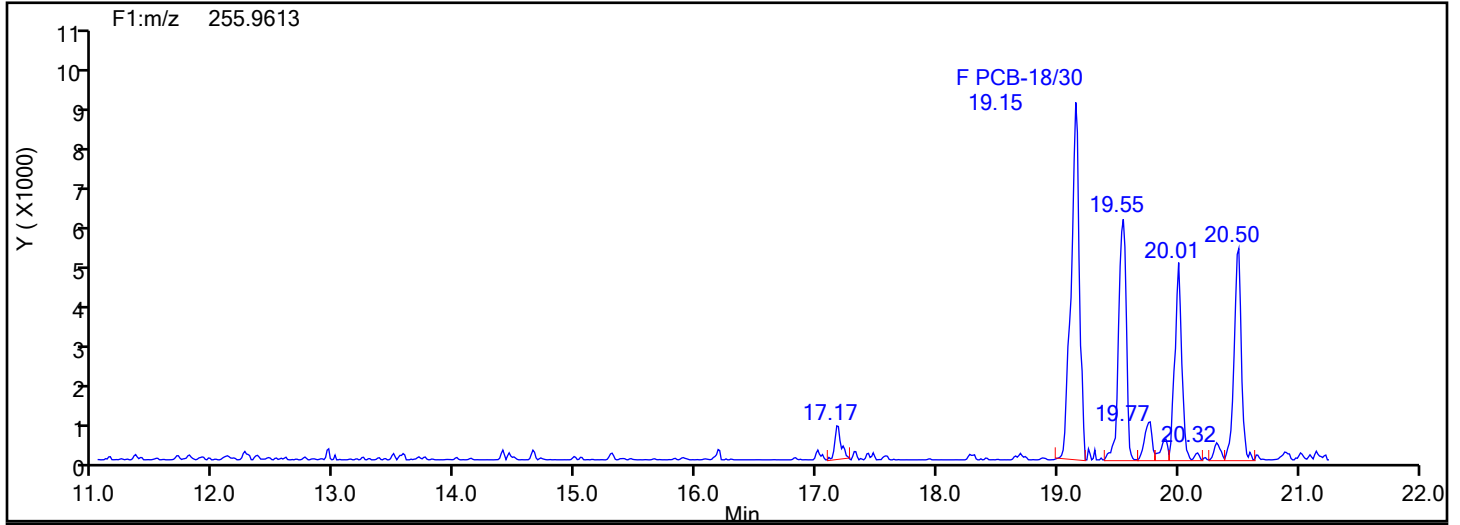


## TriPCB F1 Standards

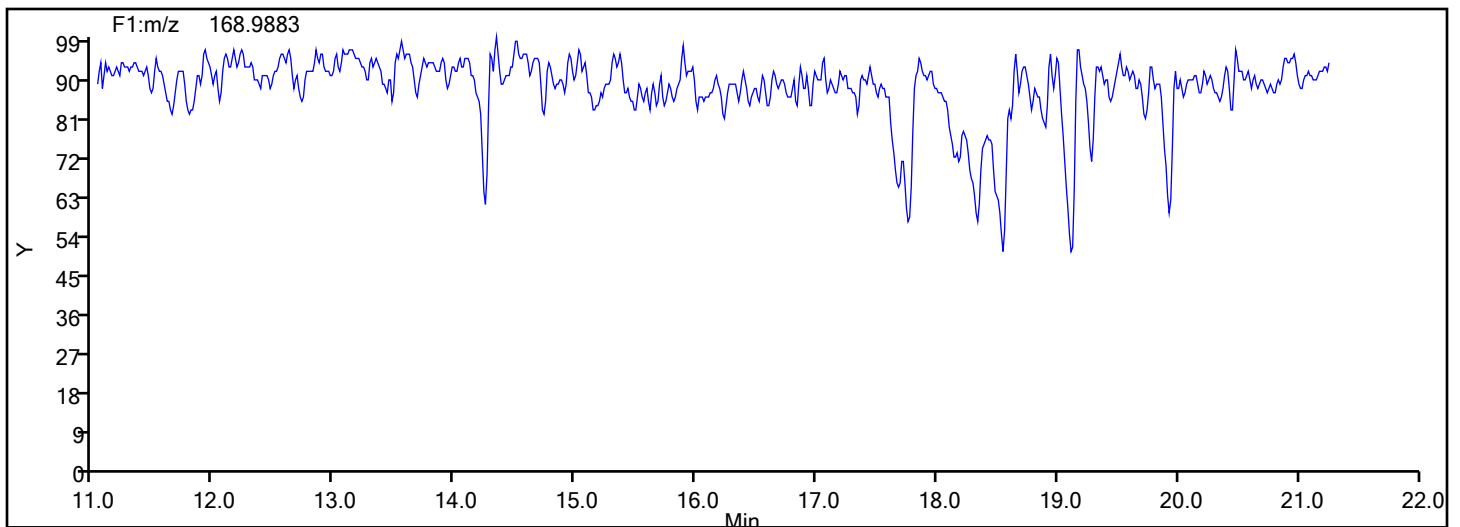


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F1



## TriPCB F1 Lock Mass



## Eurofins Knoxville

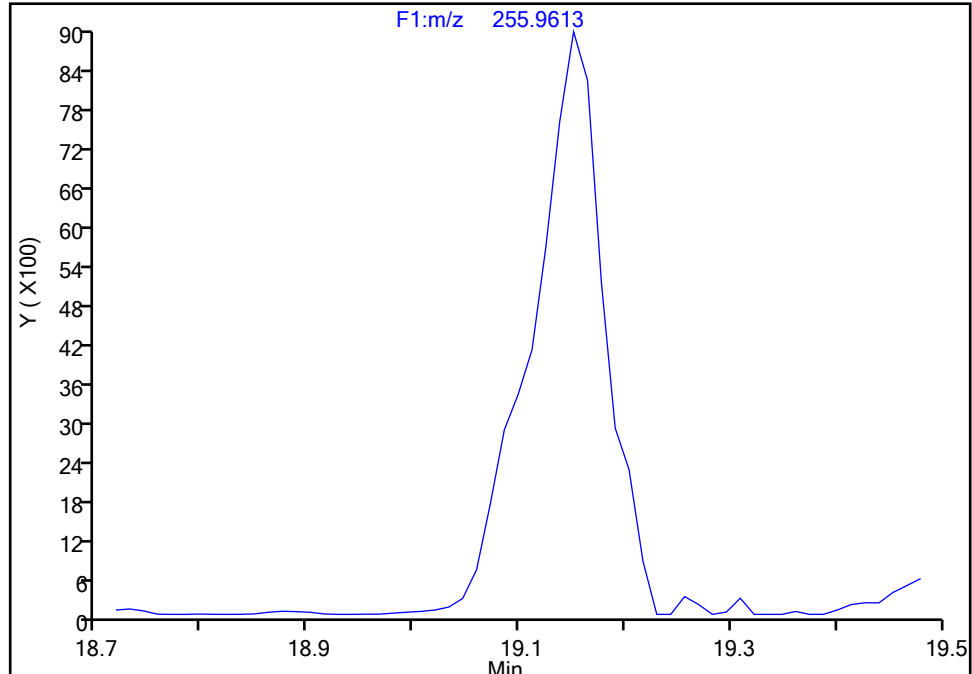
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Injection Date: 16-Jul-2024 16:41:00 Instrument ID: D2D  
Lims ID: 140-37234-A-1-D Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F1(11.07 :21.70 )

PCB-18/30, CAS: STL01798

Signal: 1

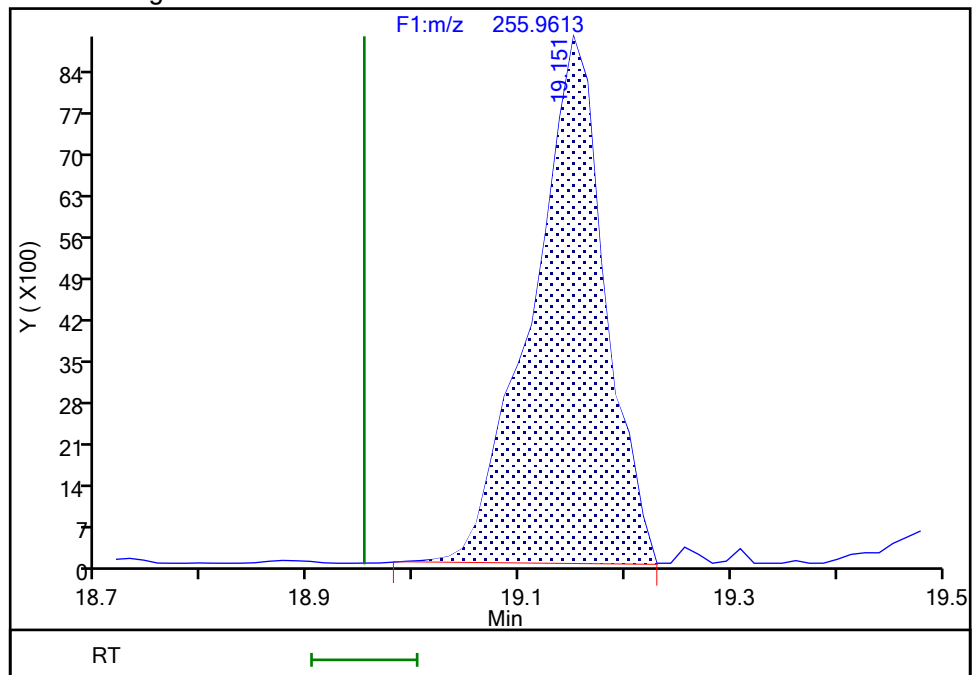
Not Detected  
Expected RT: 18.95

## Processing Integration Results



RT: 19.15  
Area: 42951  
Amount: 2.225379  
Amount Units: pg/ul

## Manual Integration Results



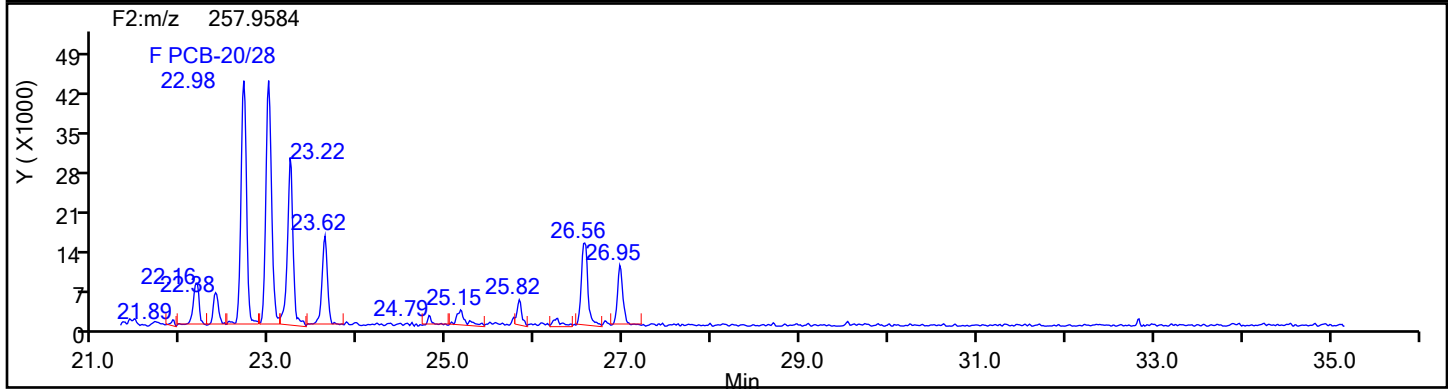
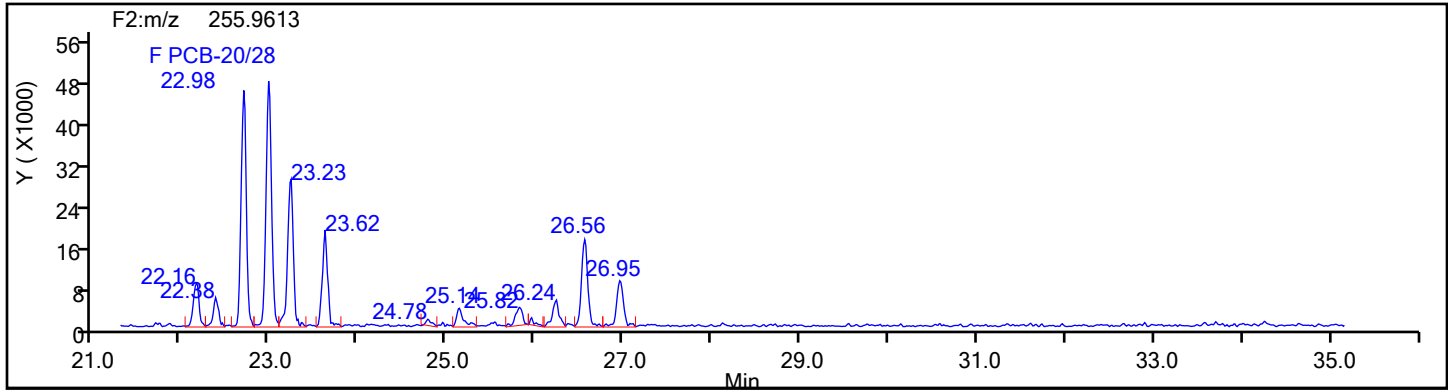
Reviewer: TT6I, 17-Jul-2024 11:41:24 -04:00:00 (UTC)

Audit Action: Assigned Compound ID

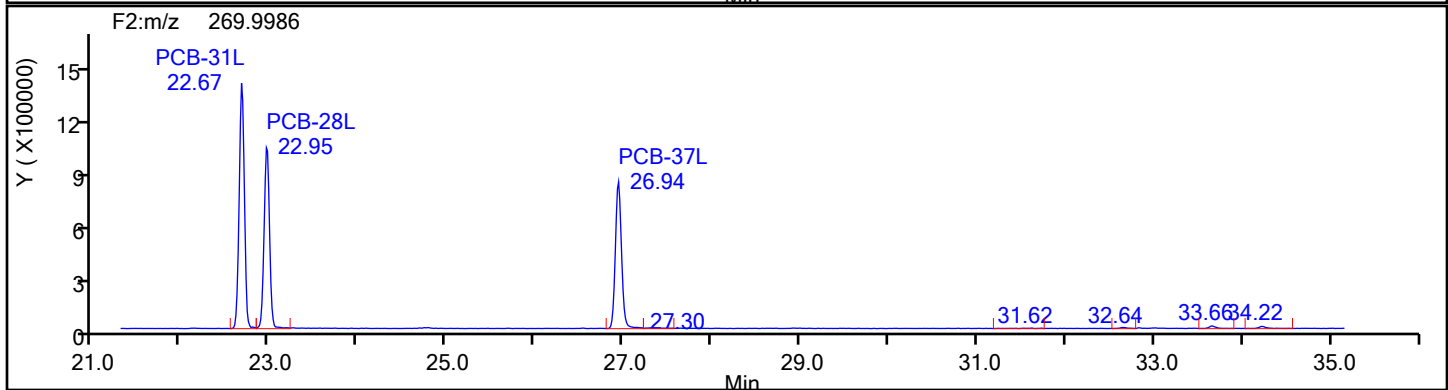
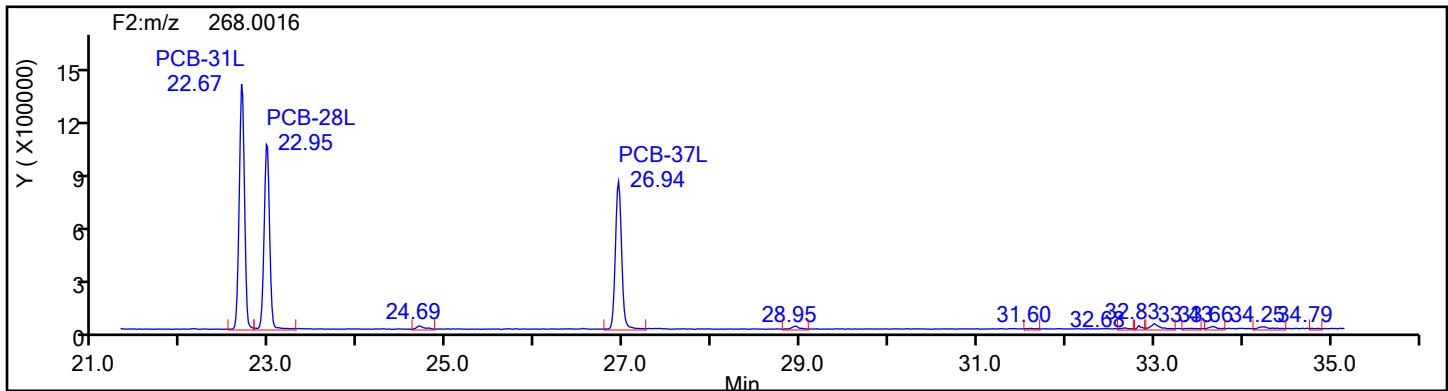
Audit Reason: Incomplete Integration

## Eurofins Knoxville

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Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F2

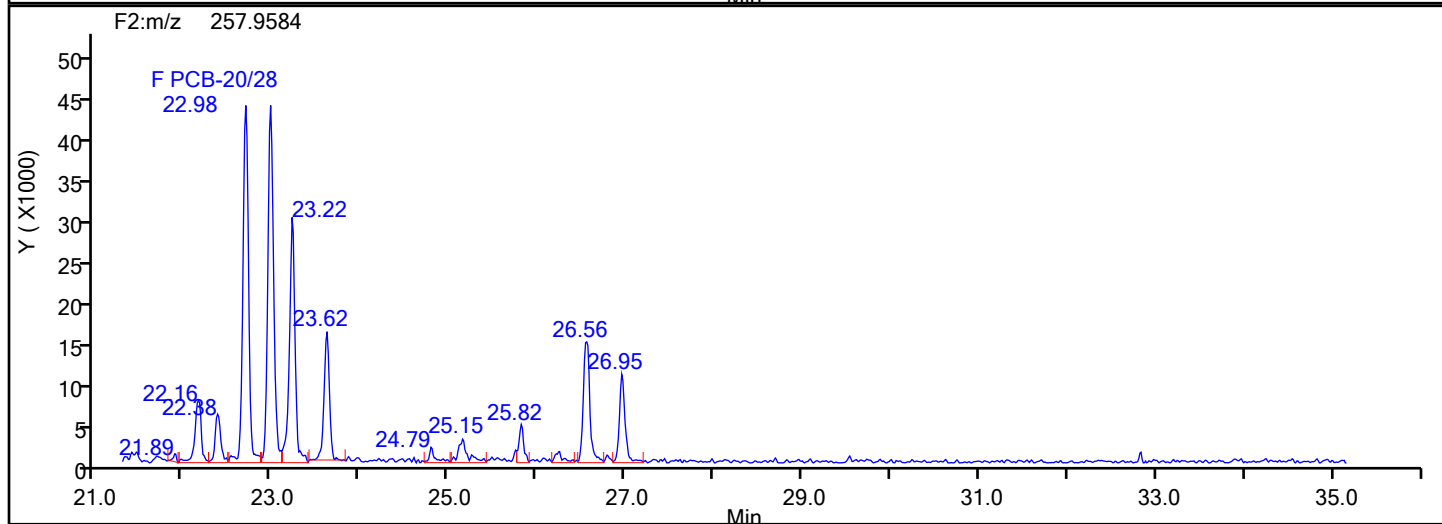
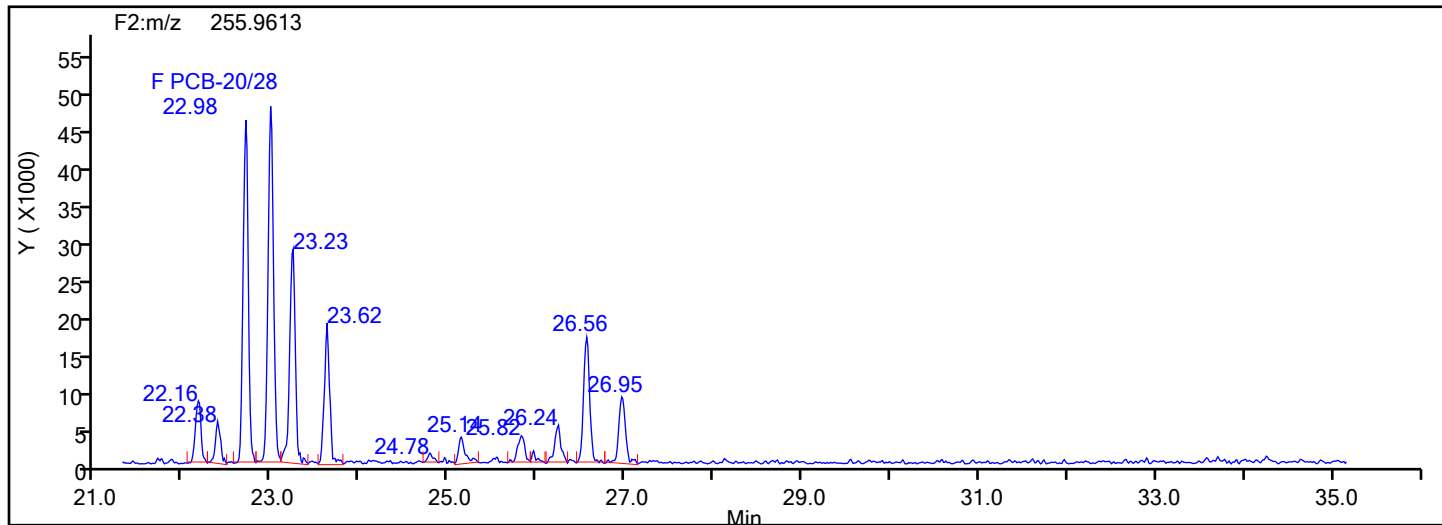


## TriPCB F2 Standards

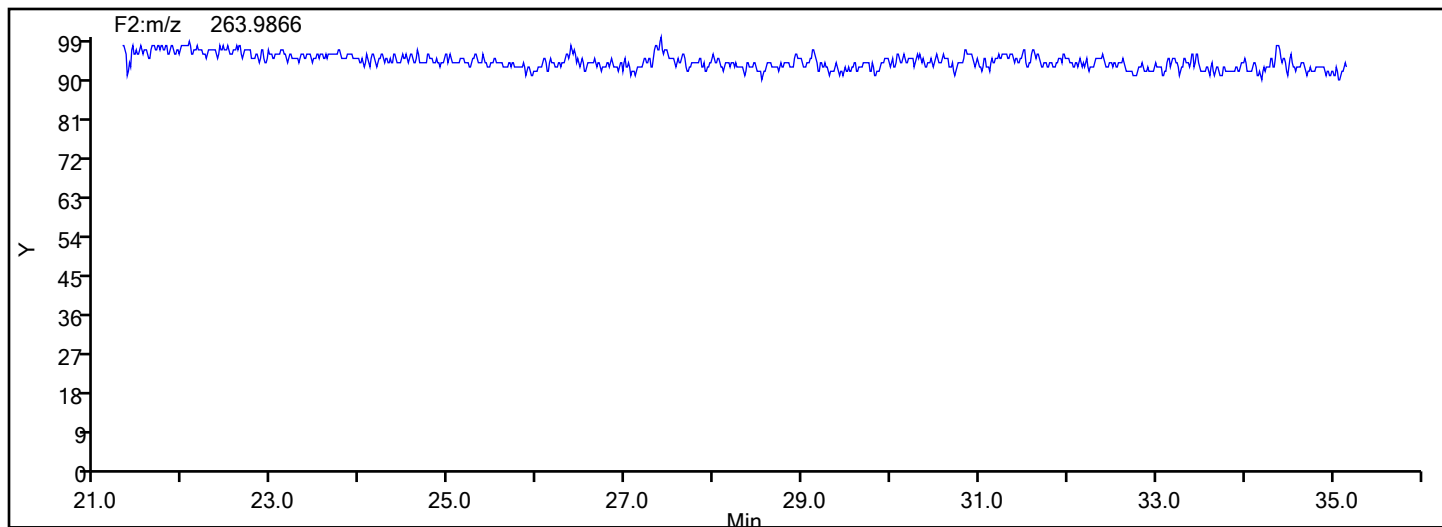


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F2

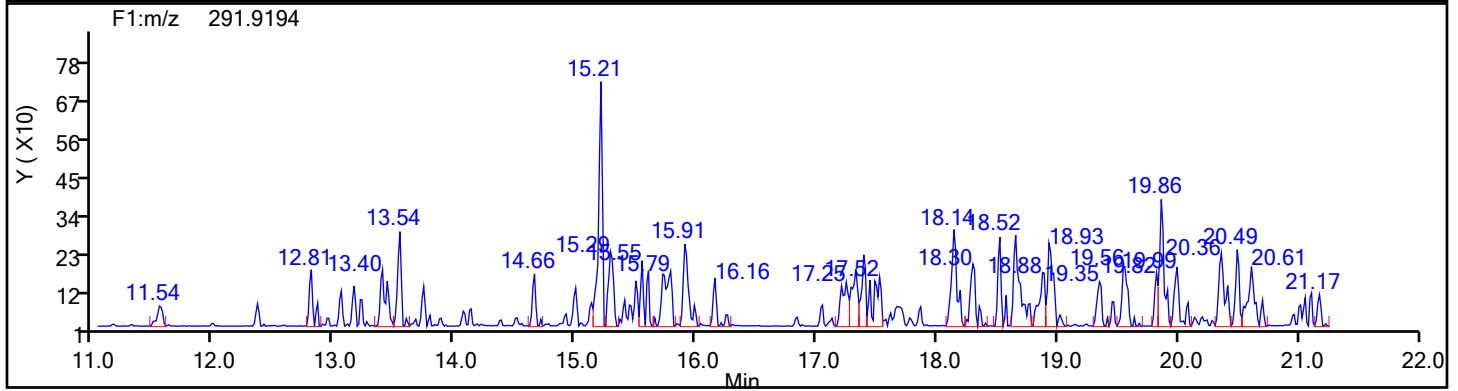
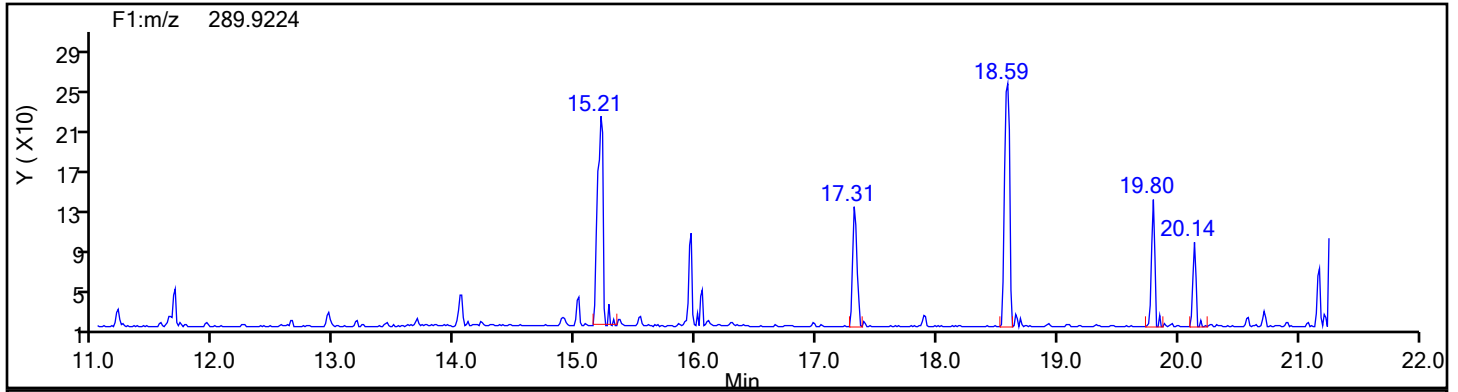


## TriPCB F2 Lock Mass

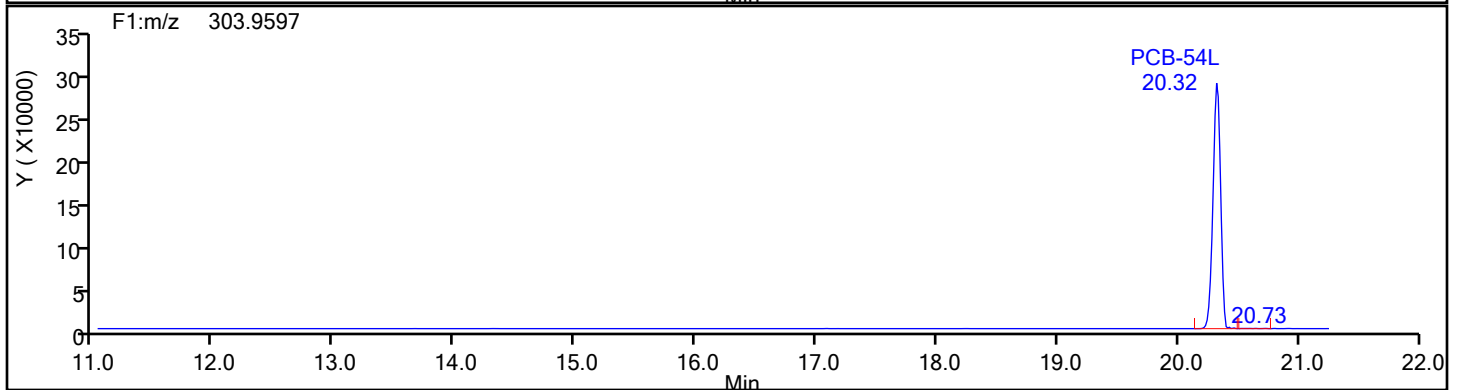
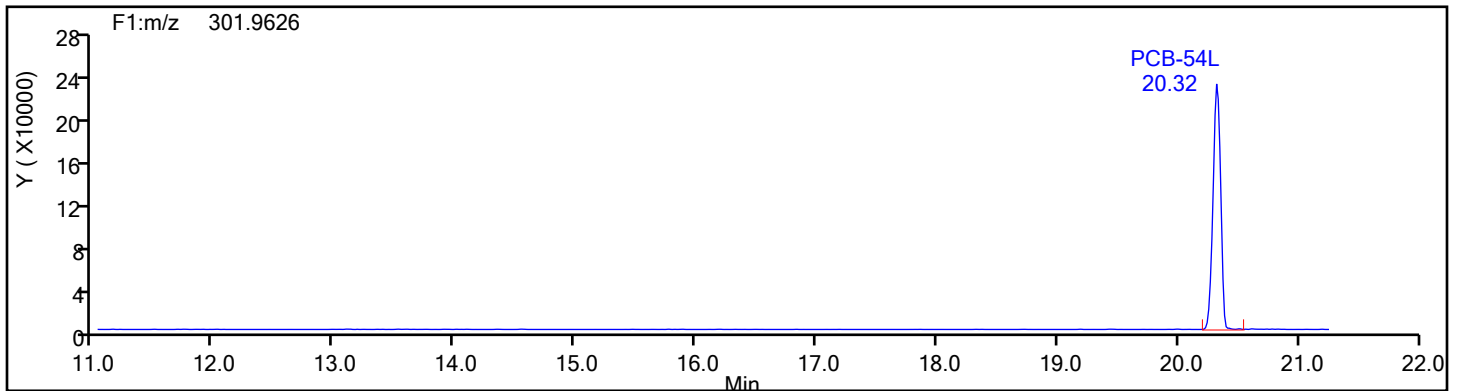


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1

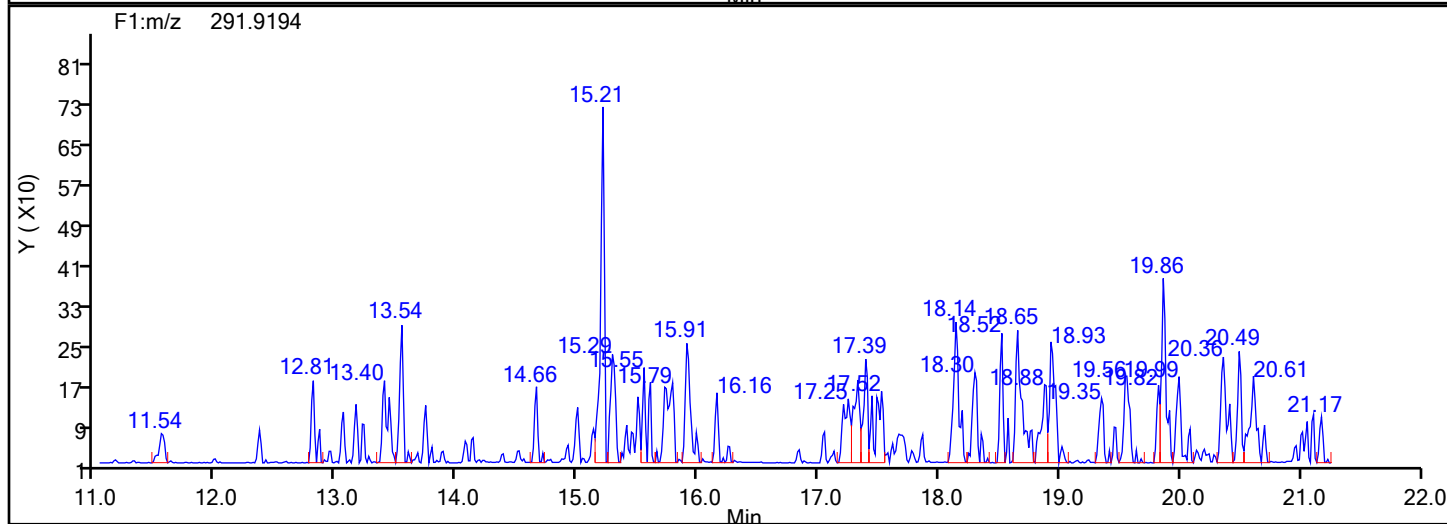
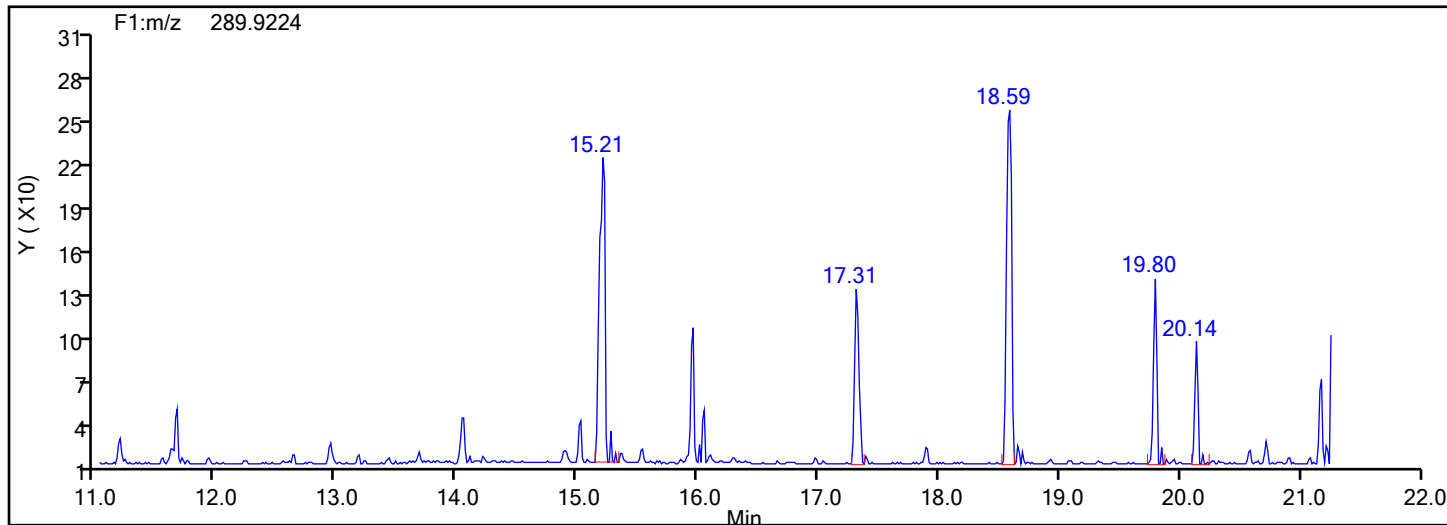


## TePCB F1 Standards

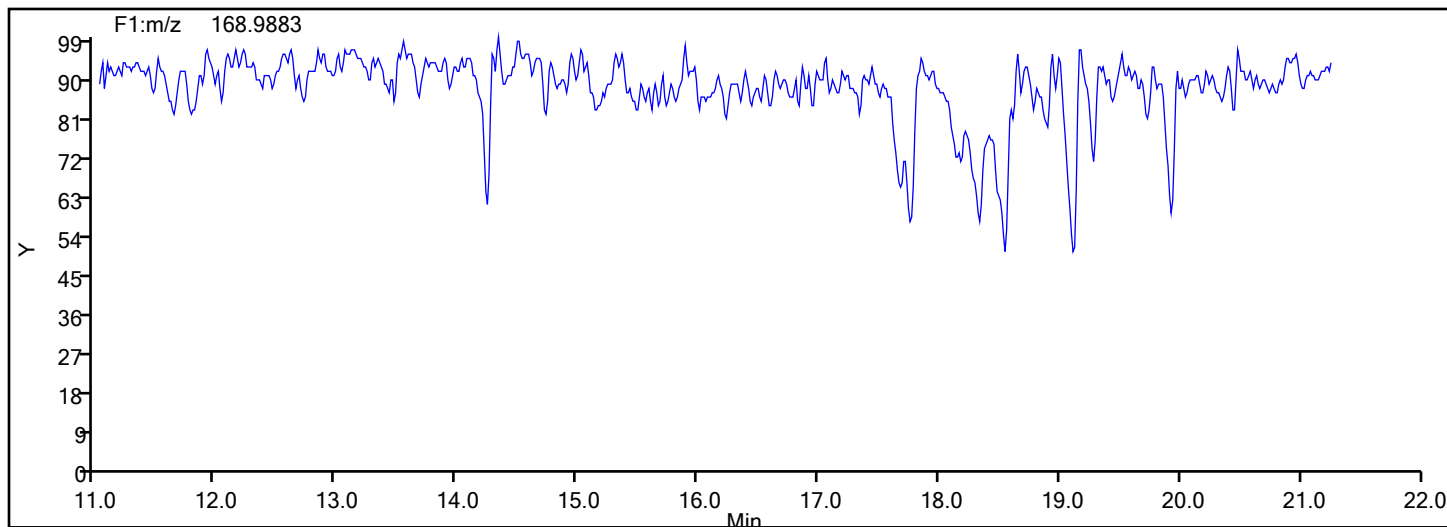


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1



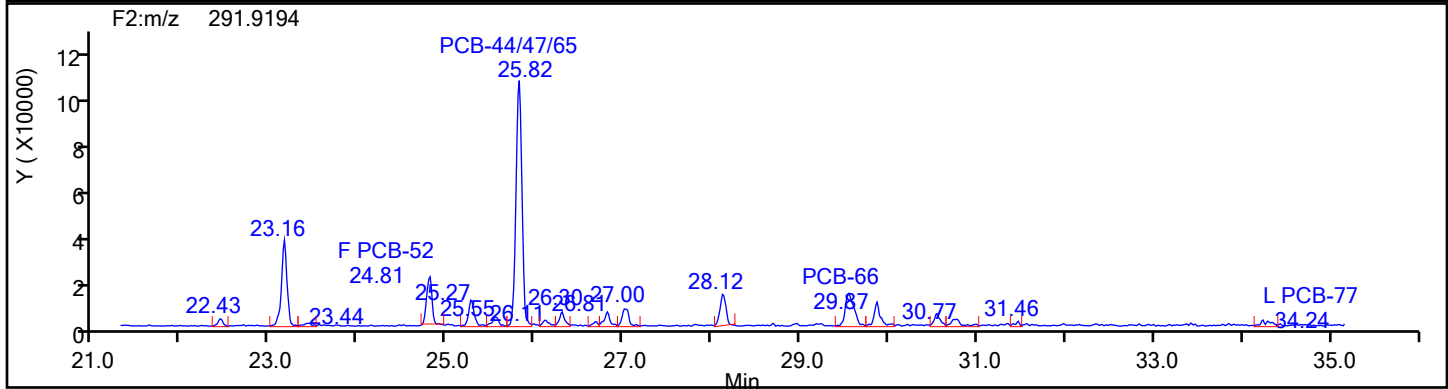
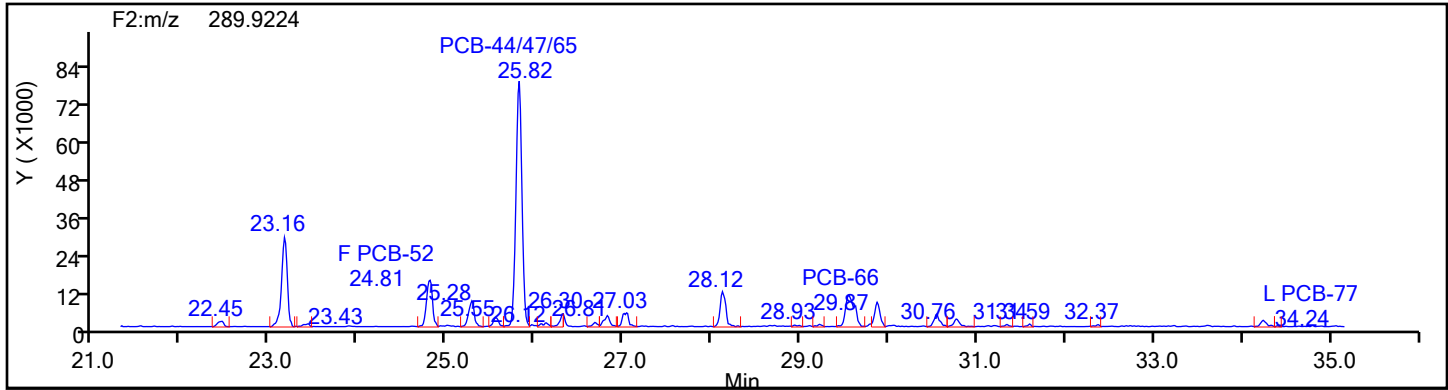
## TePCB F1 Lock Mass



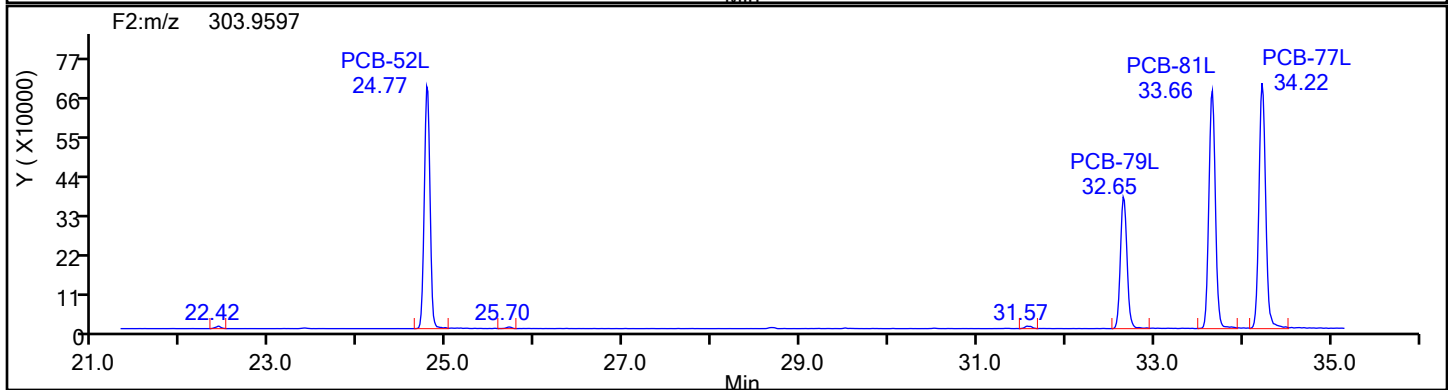
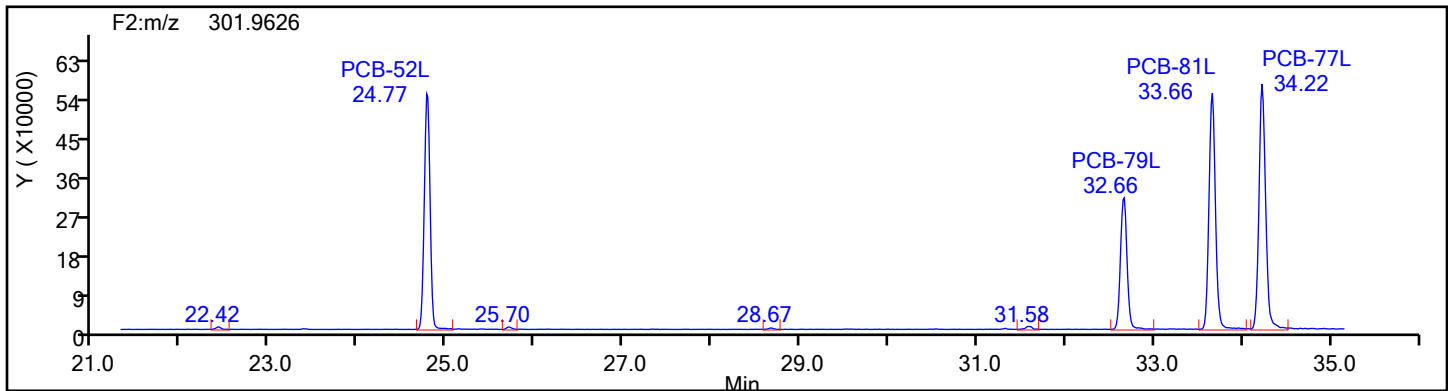


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F2

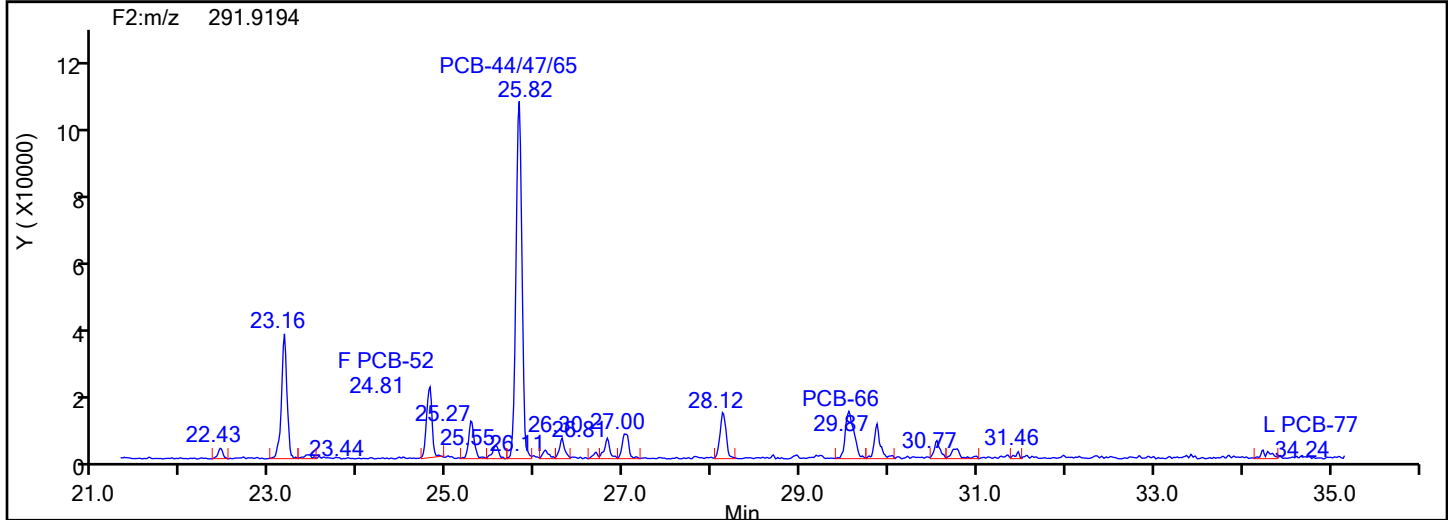
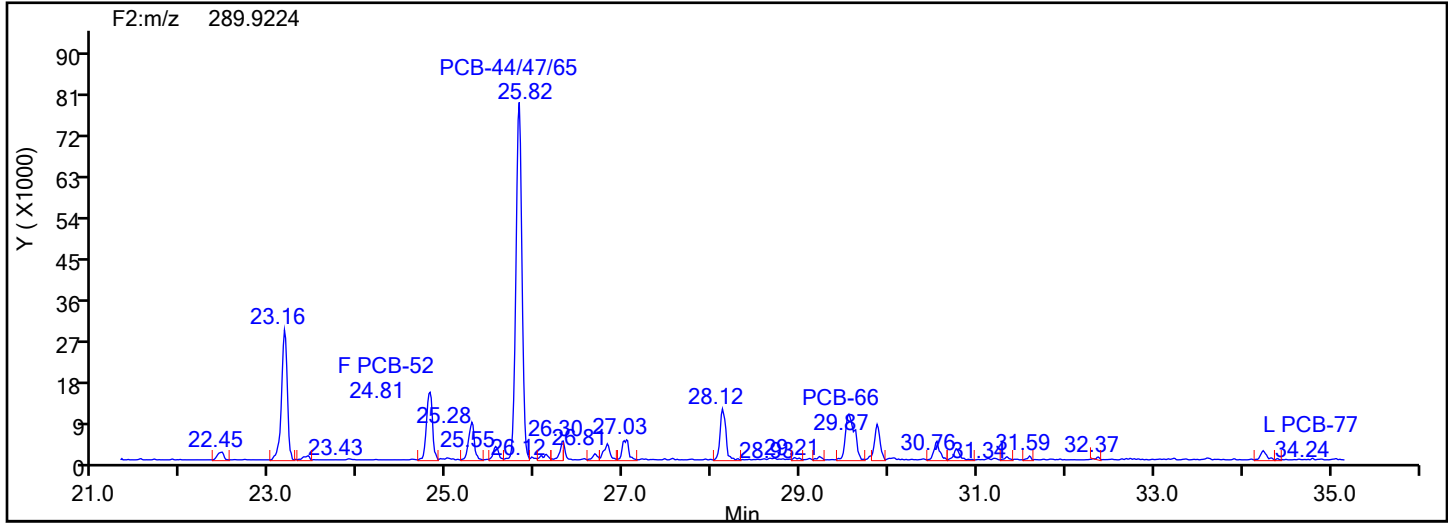


## TePCB F2 Standards

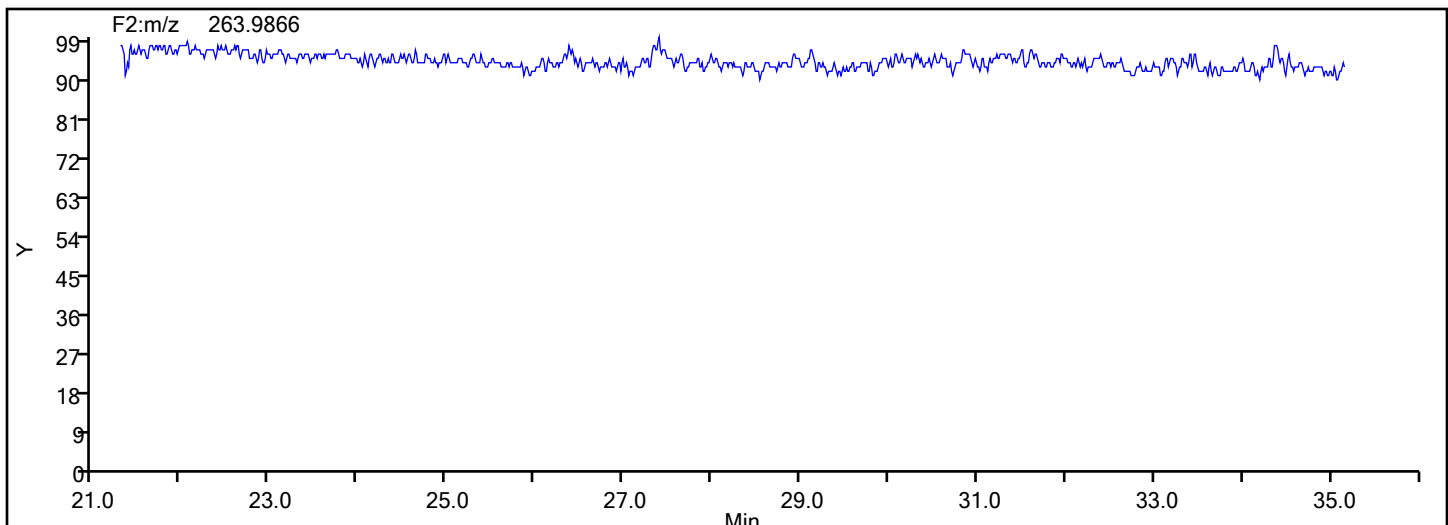


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F2



## TePCB F2 Lock Mass



## Eurofins Knoxville

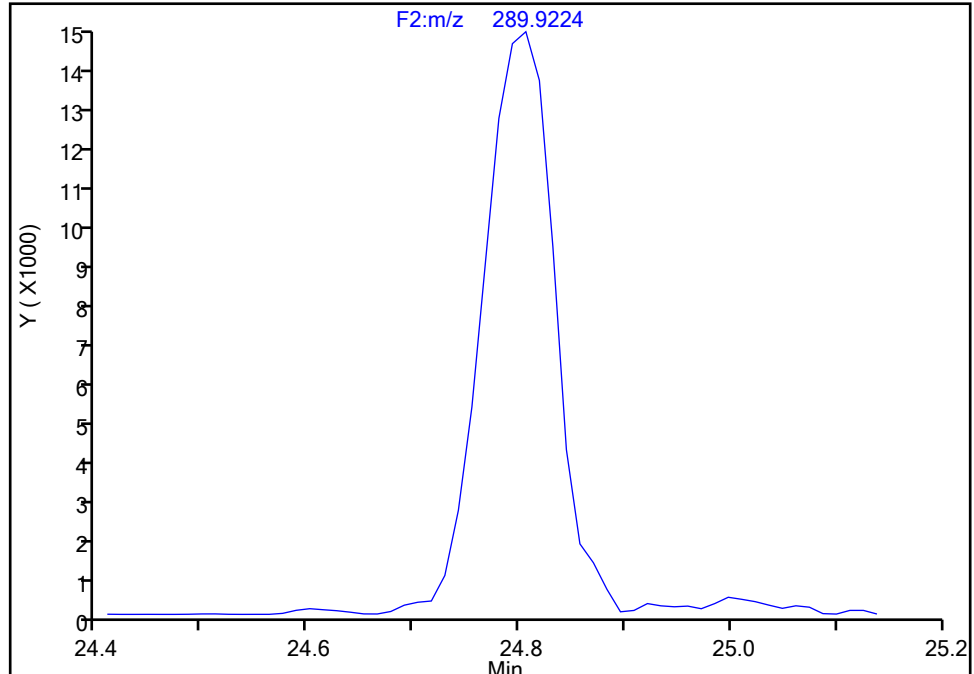
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Injection Date: 16-Jul-2024 16:41:00 Instrument ID: D2D  
Lims ID: 140-37234-A-1-D Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

**PCB-52, CAS: 35693-99-3**

Signal: 1

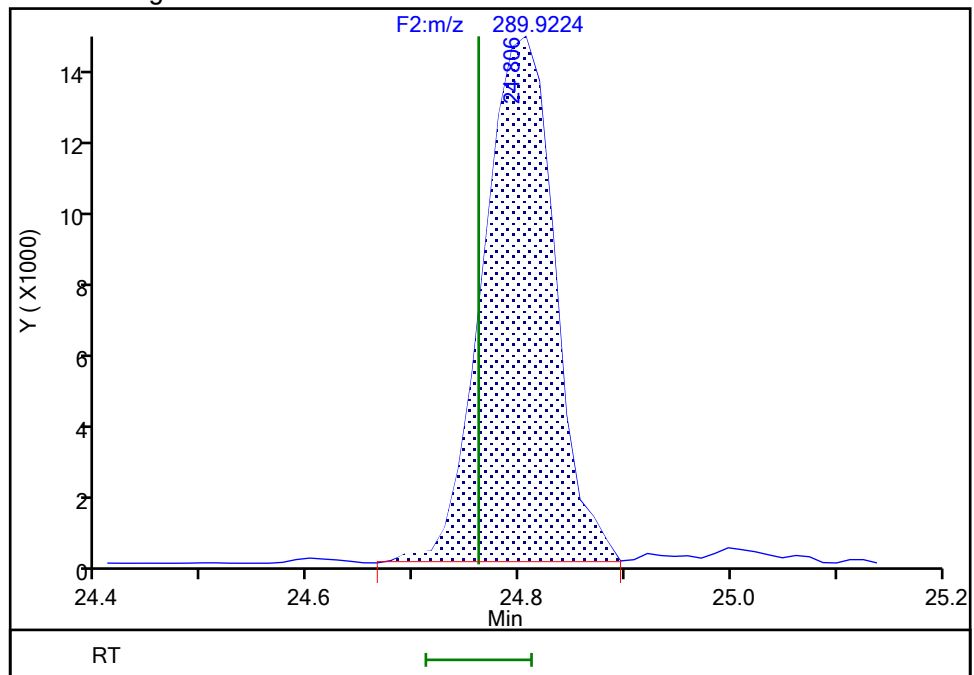
Not Detected  
Expected RT: 24.76

## Processing Integration Results



RT: 24.81  
Area: 70364  
Amount: 2.643994  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 11:43:29 -04:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

## Eurofins Knoxville

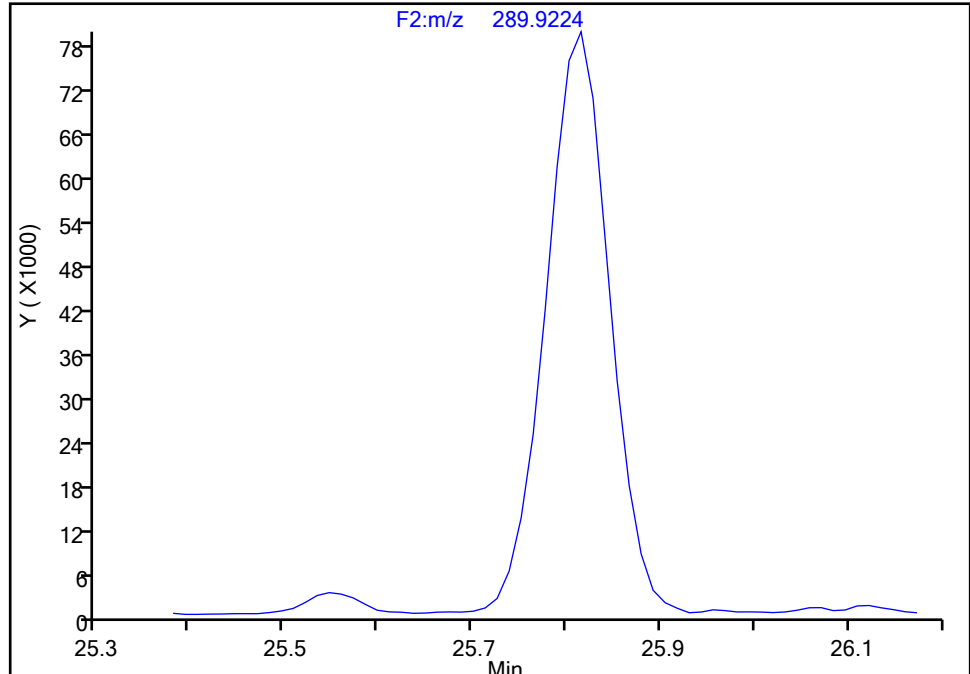
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Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

PCB-44/47/65, CAS: STL01803

Signal: 1

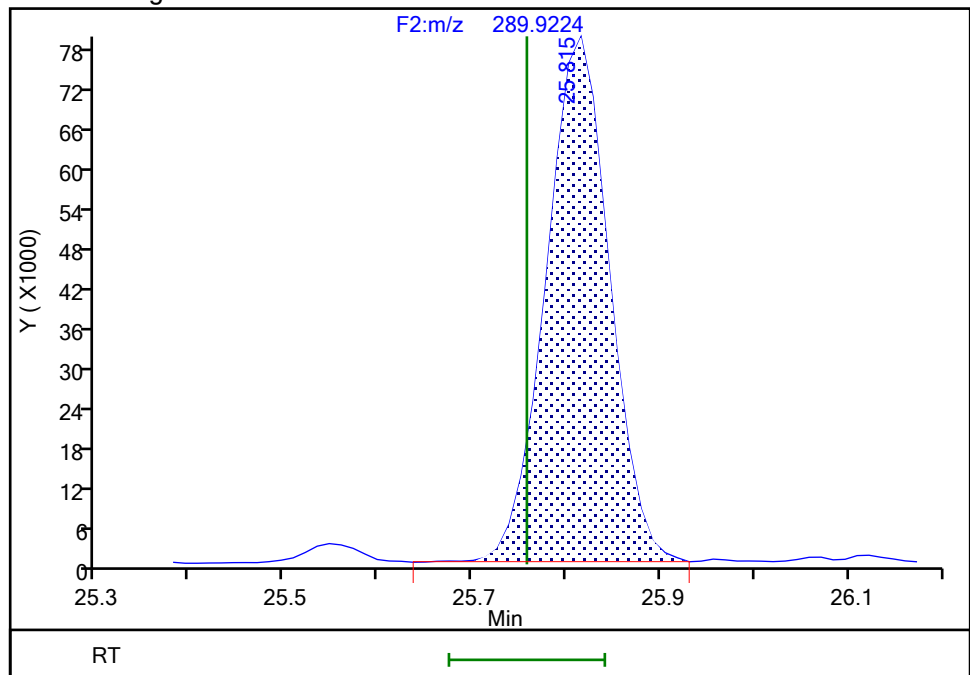
Not Detected  
Expected RT: 25.76

## Processing Integration Results



RT: 25.82  
Area: 373102  
Amount: 13.504720  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 11:43:39 -04:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

## Eurofins Knoxville

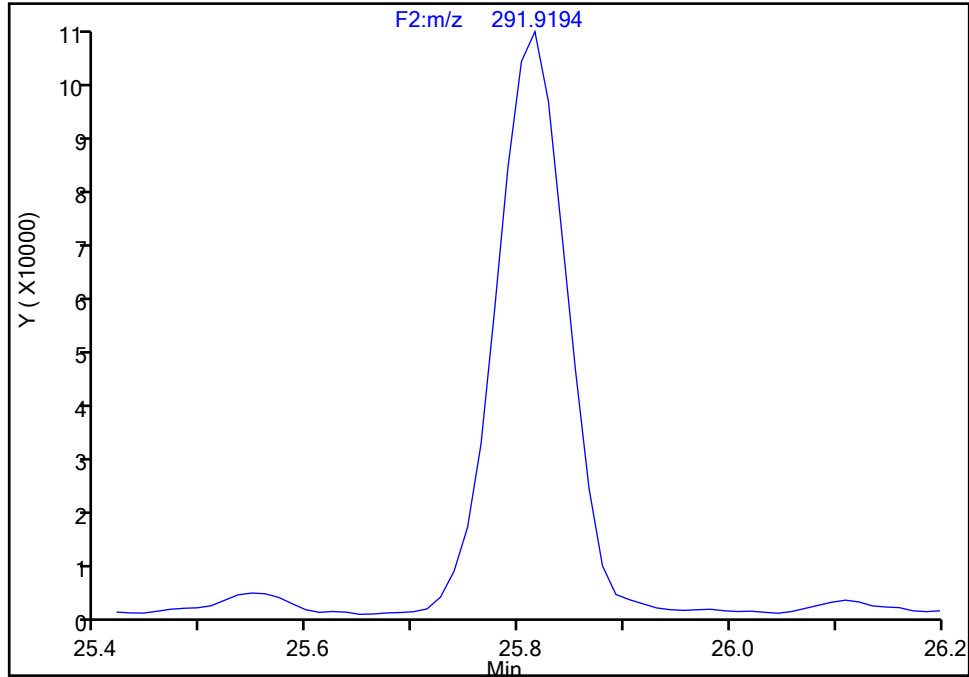
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Lims ID: 140-37234-A-1-D Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

PCB-44/47/65, CAS: STL01803

Signal: 2

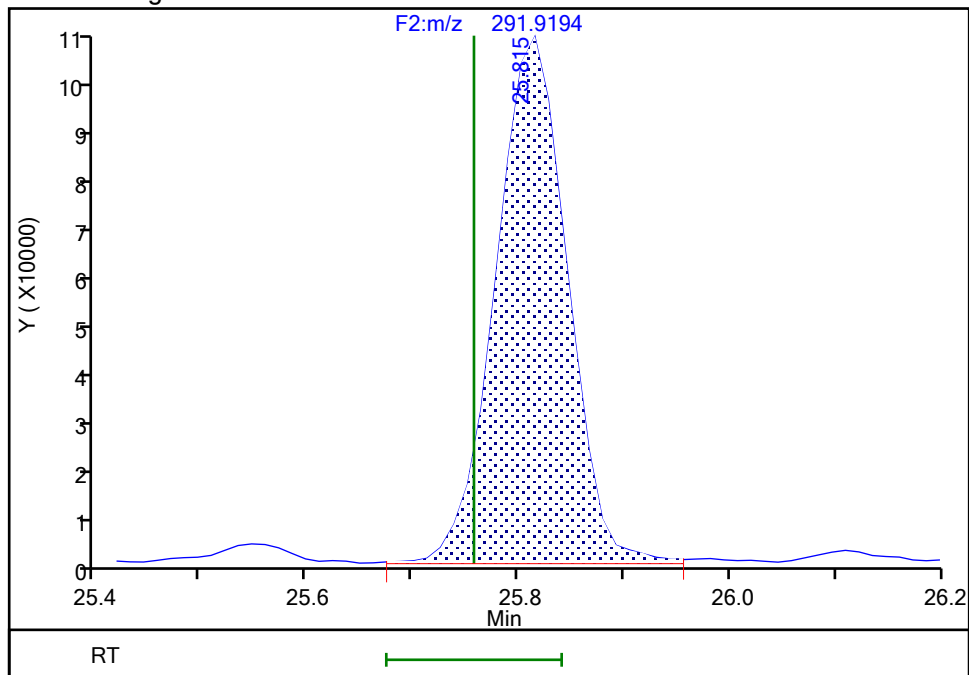
Not Detected  
Expected RT: 25.76

## Processing Integration Results



RT: 25.82  
Area: 480328  
Amount: 13.504720  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 11:43:47 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

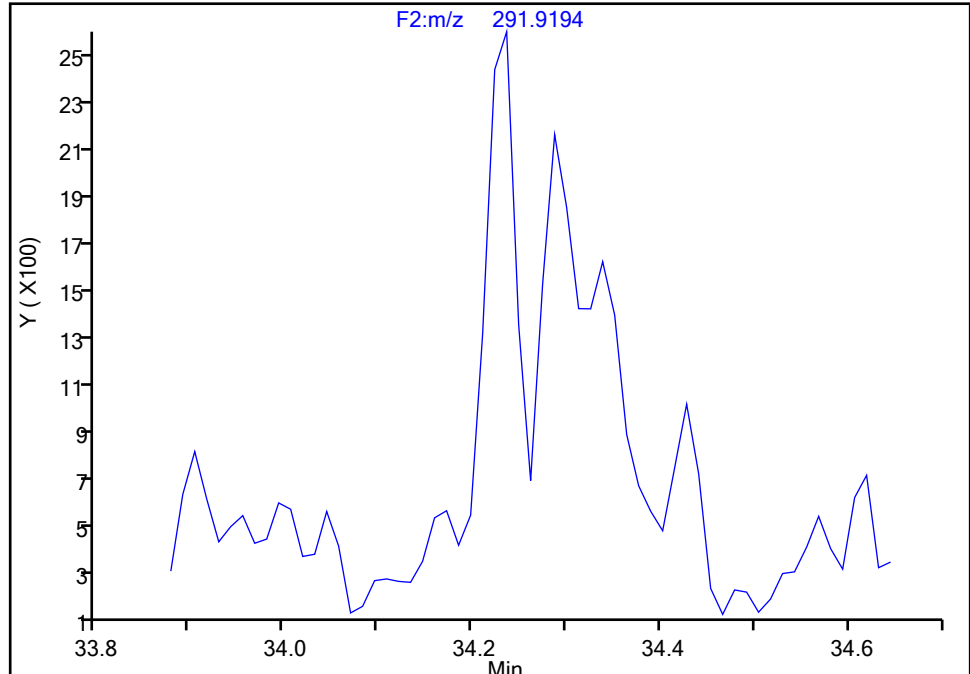
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Lims ID: 140-37234-A-1-D Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

**PCB-77, CAS: 32598-13-3**

Signal: 2

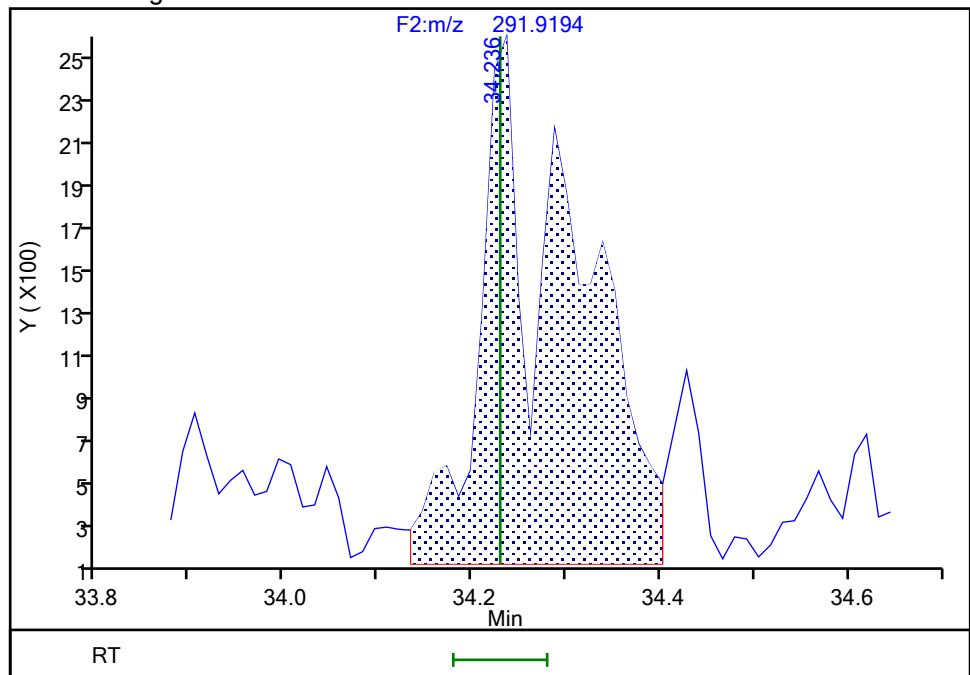
Not Detected  
Expected RT: 34.23

## Processing Integration Results



## Manual Integration Results

RT: 34.24  
Area: 16647  
Amount: 0.361607  
Amount Units: pg/ul



Reviewer: TT6I, 17-Jul-2024 11:44:36 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

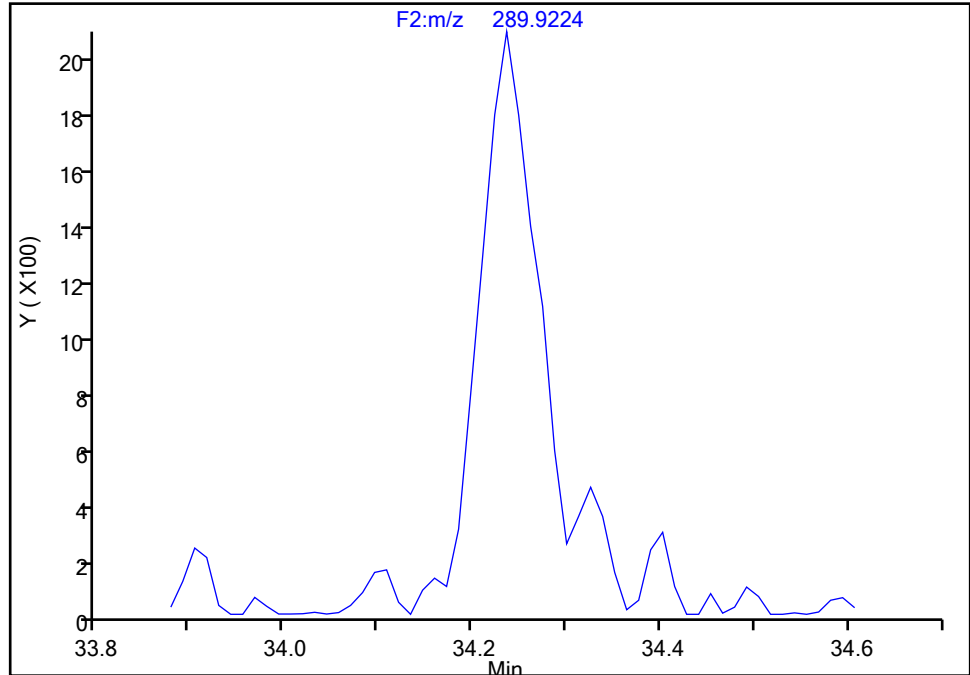
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Lims ID: 140-37234-A-1-D Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-77, CAS: 32598-13-3**

Signal: 1

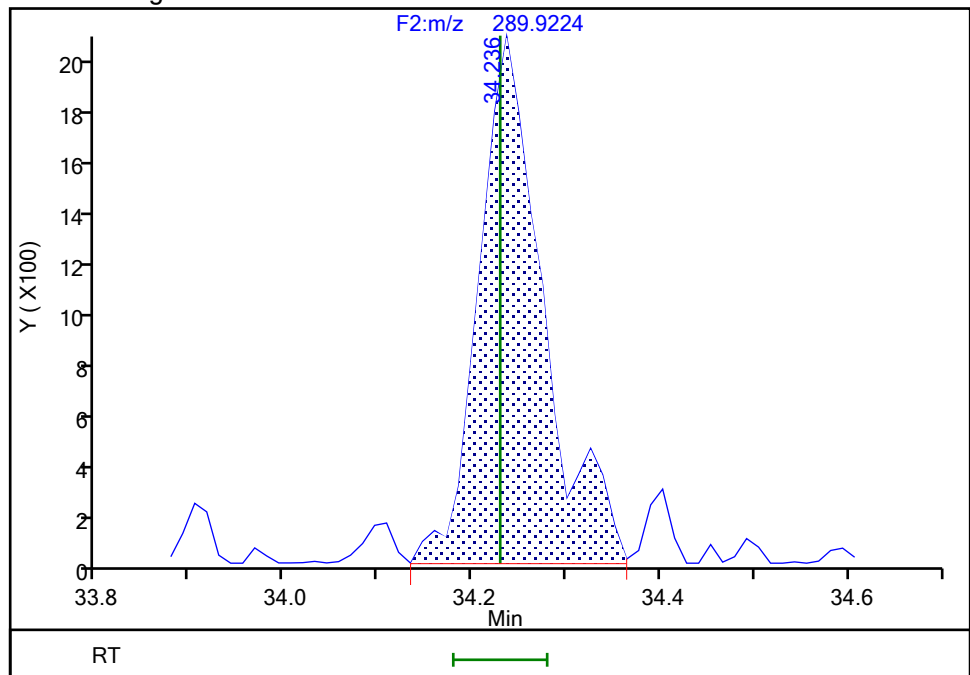
Not Detected  
Expected RT: 34.23

## Processing Integration Results



## Manual Integration Results

RT: 34.24  
Area: 9705  
Amount: 0.361607  
Amount Units: pg/ul



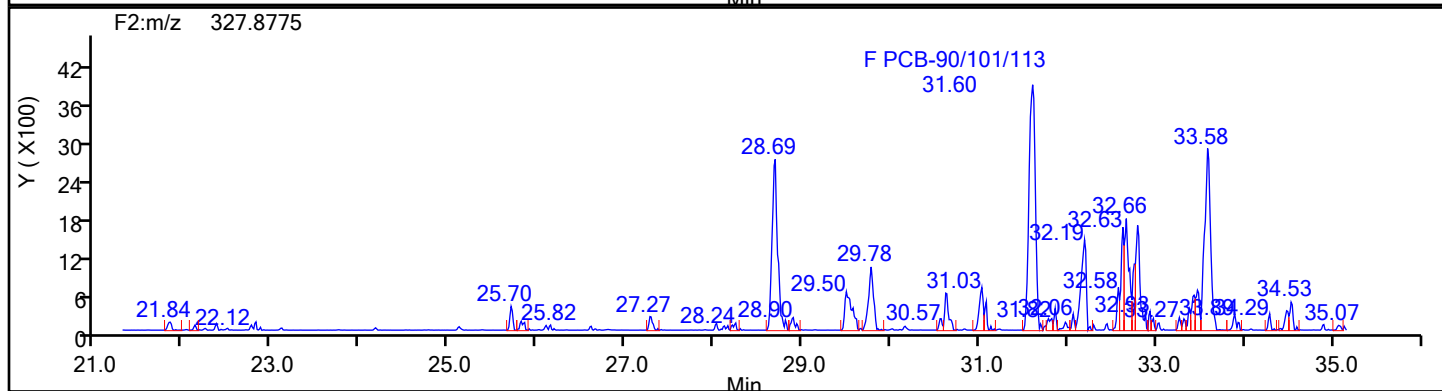
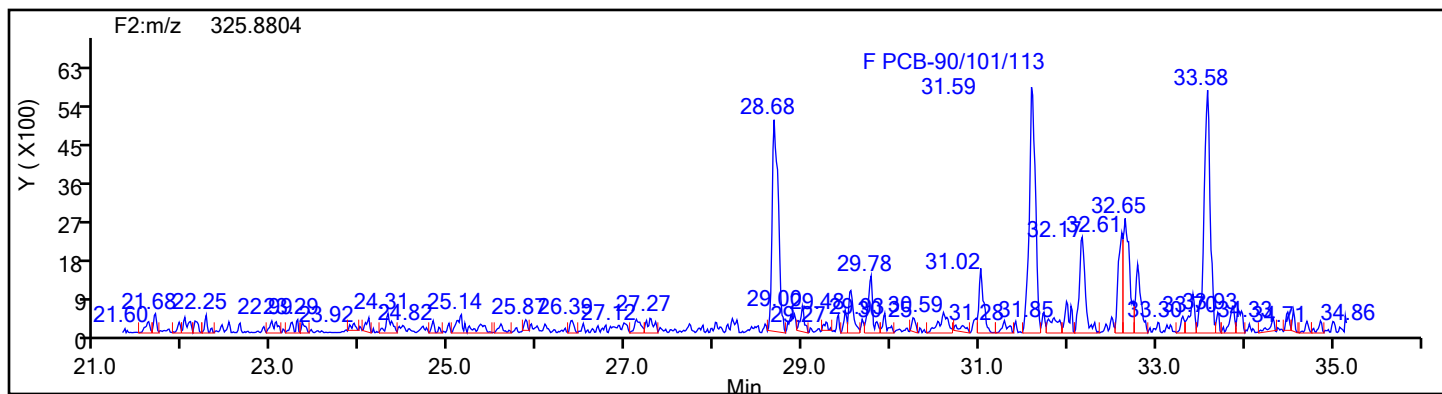
Reviewer: TT6I, 17-Jul-2024 11:44:42 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

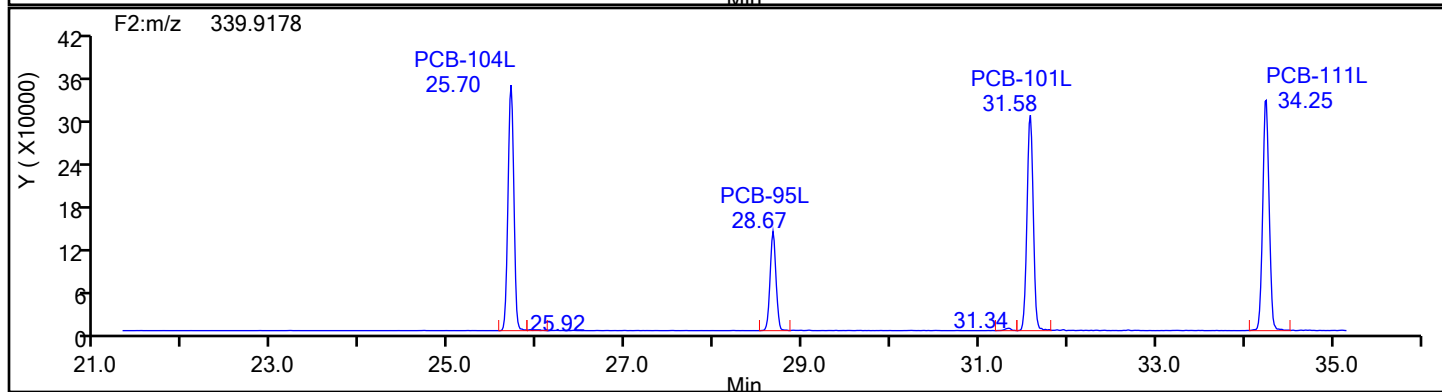
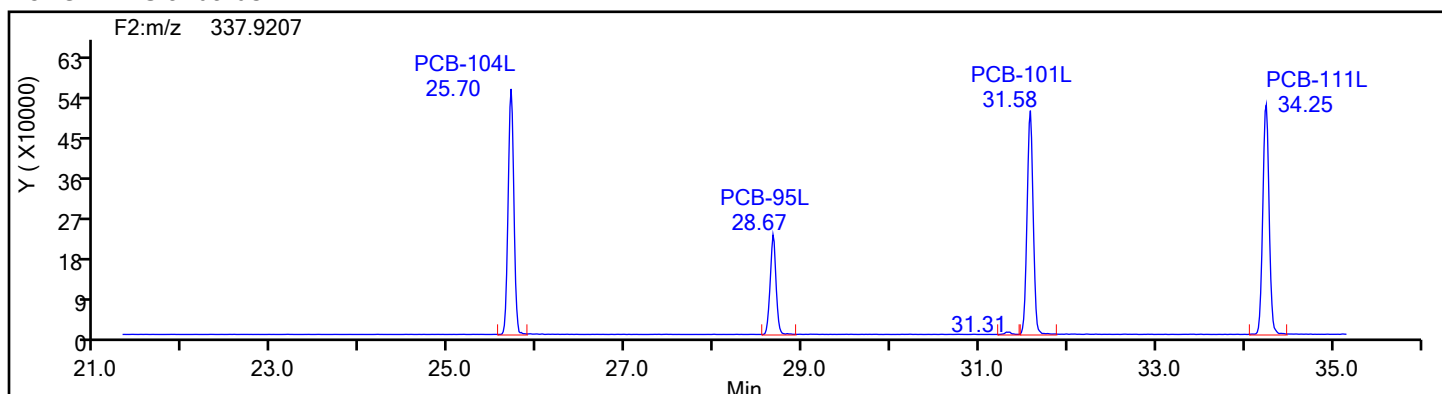
Audit Reason: Incomplete Integration

## Eurofins Knoxville

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Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2



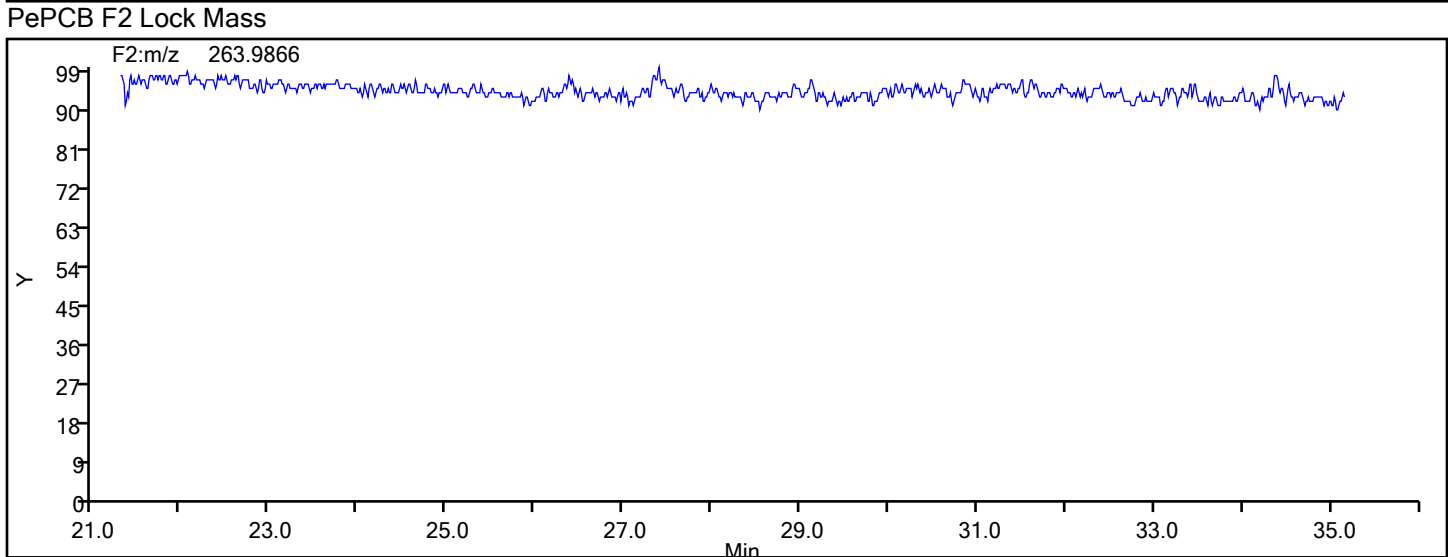
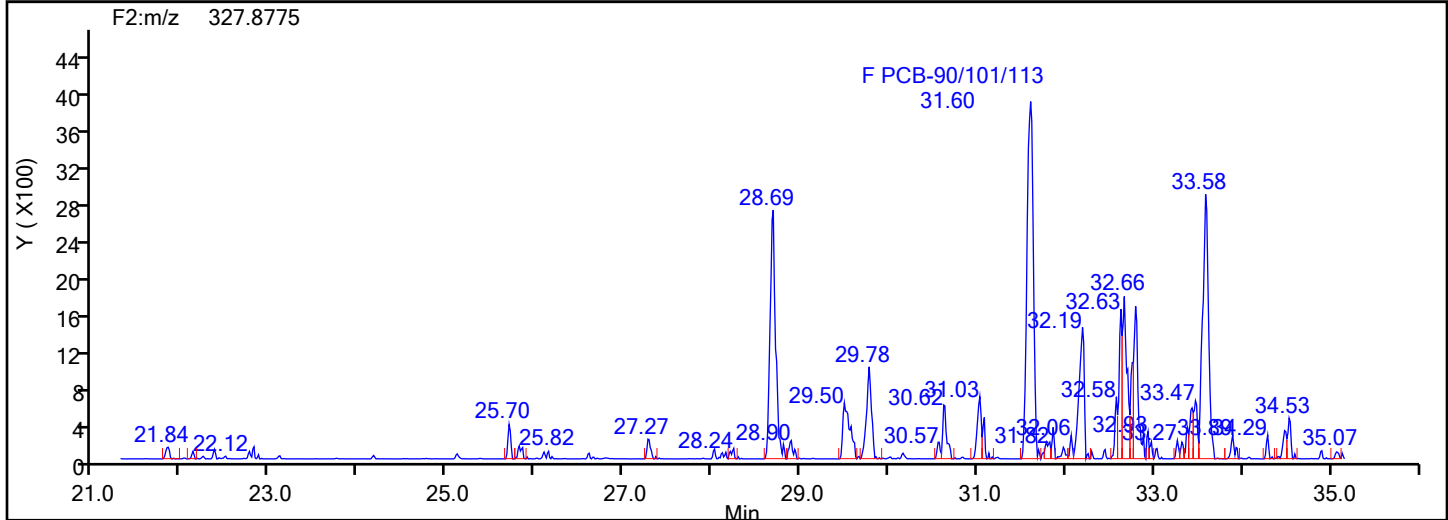
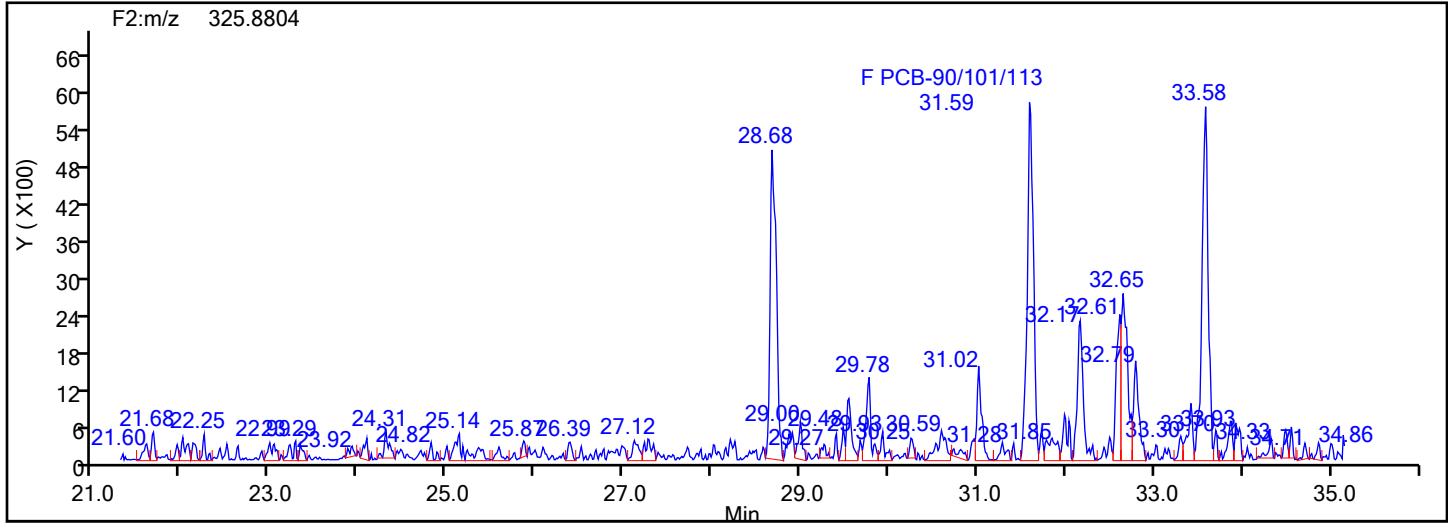
## PePCB F2 Standards





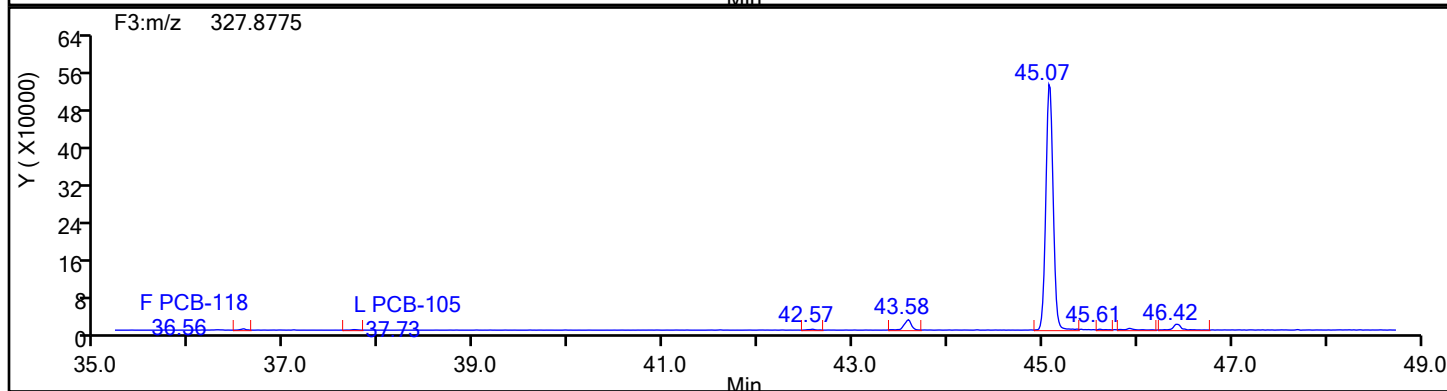
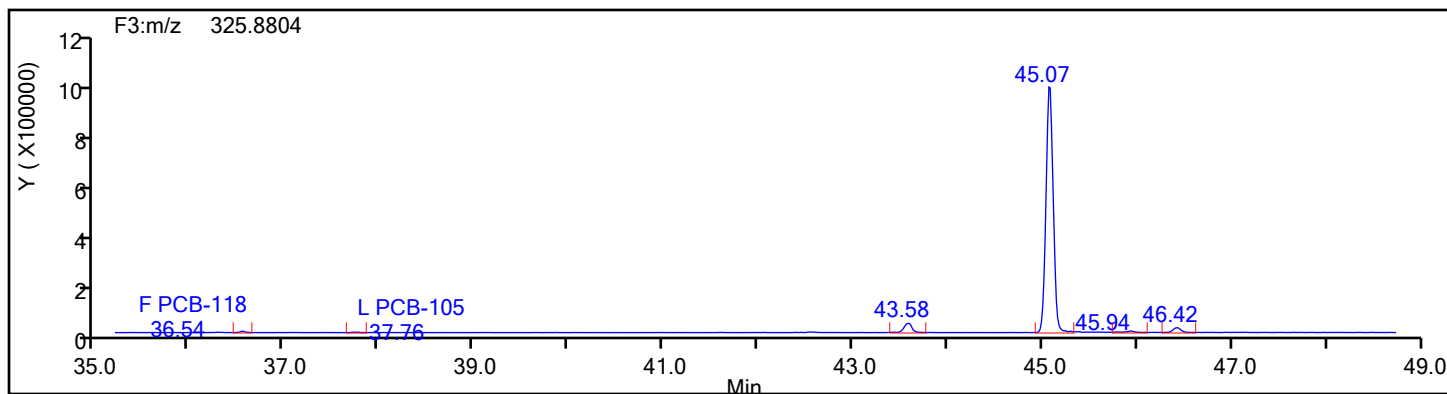
## Eurofins Knoxville

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Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2

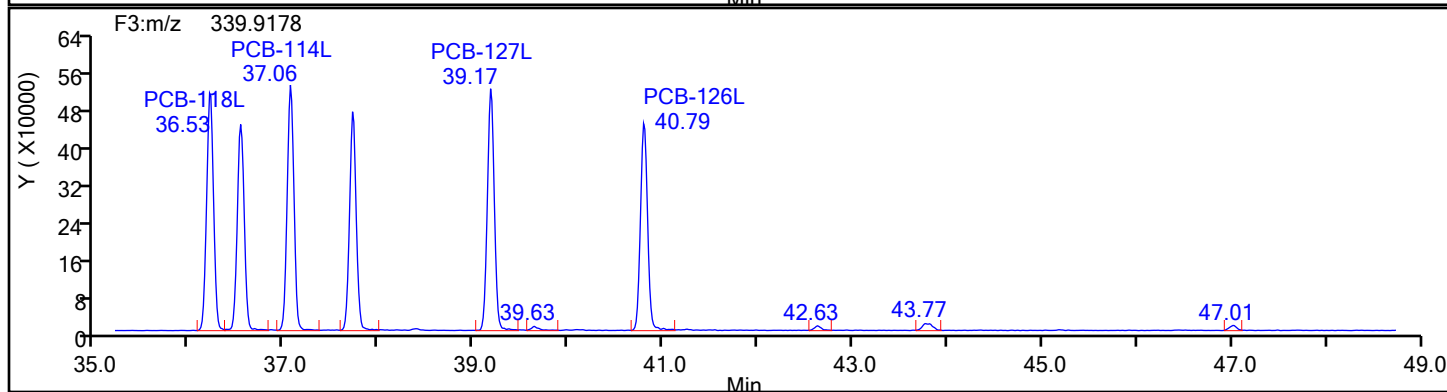
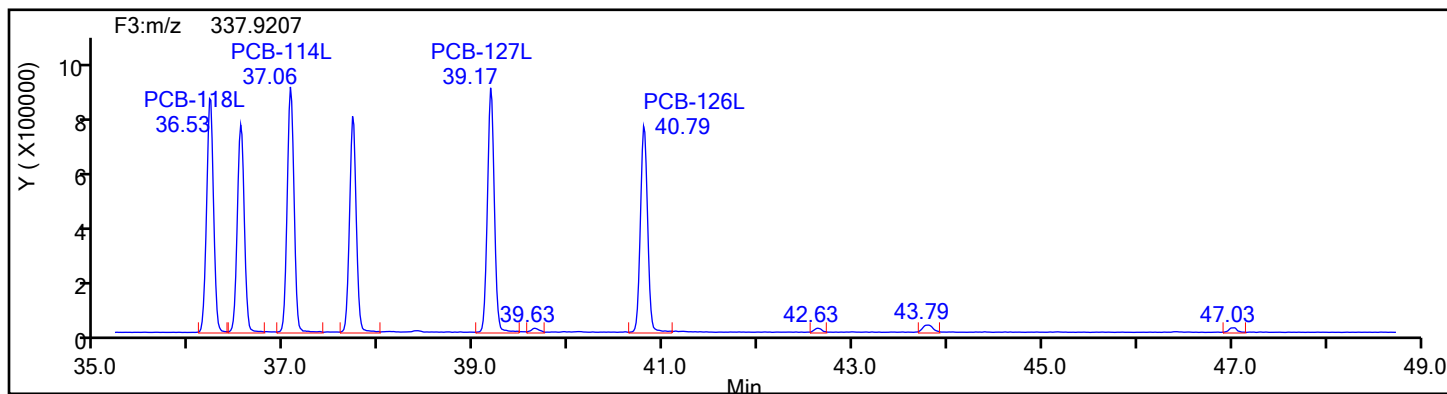


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
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PePCB F3

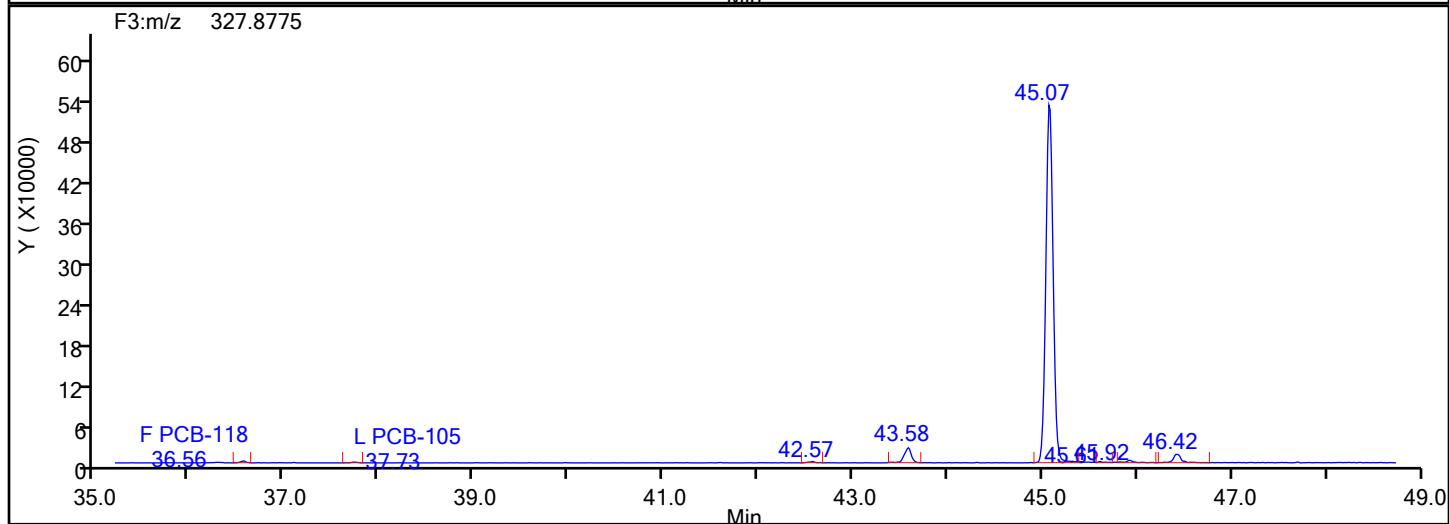
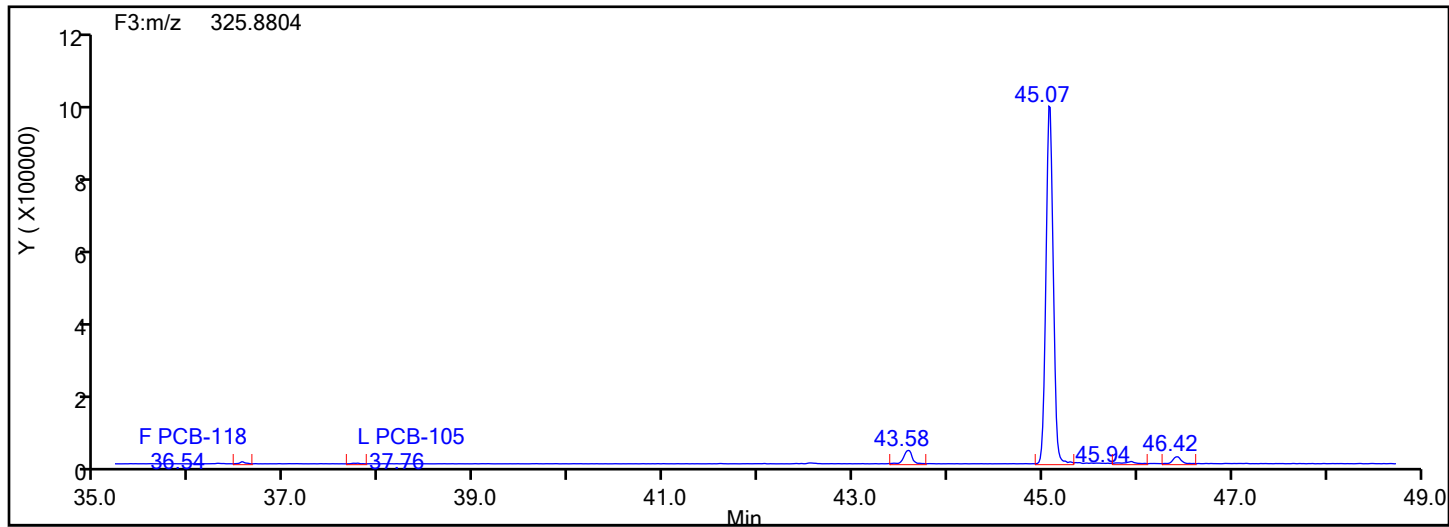


## PePCB F3 Standards

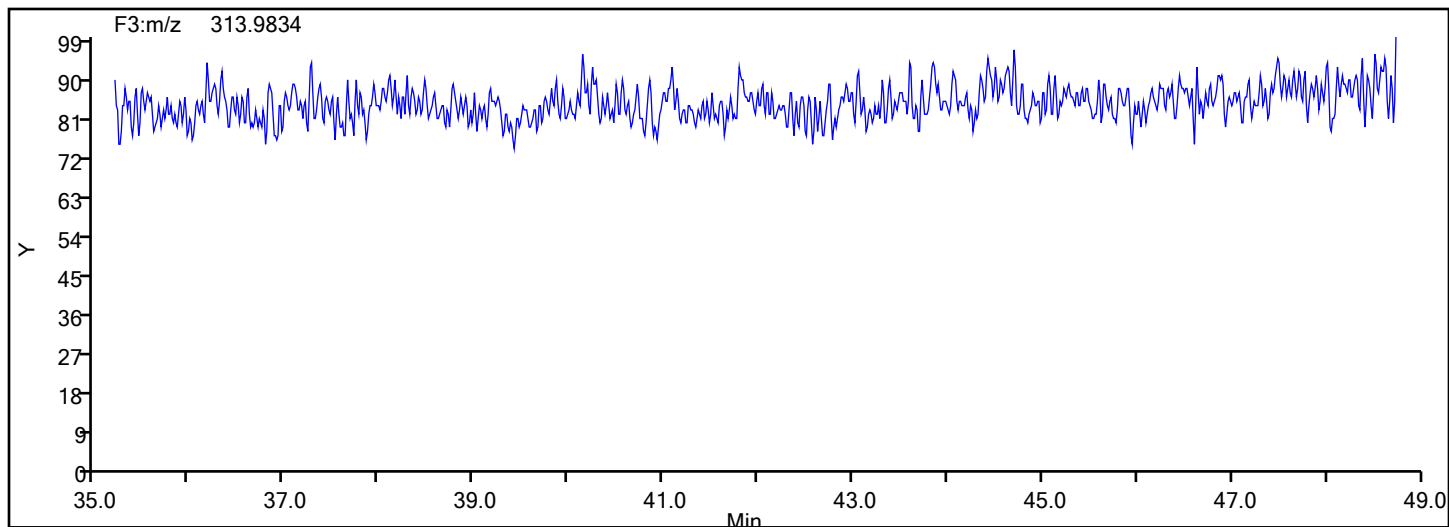


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F3



## PePCB F3 Lock Mass



## Eurofins Knoxville

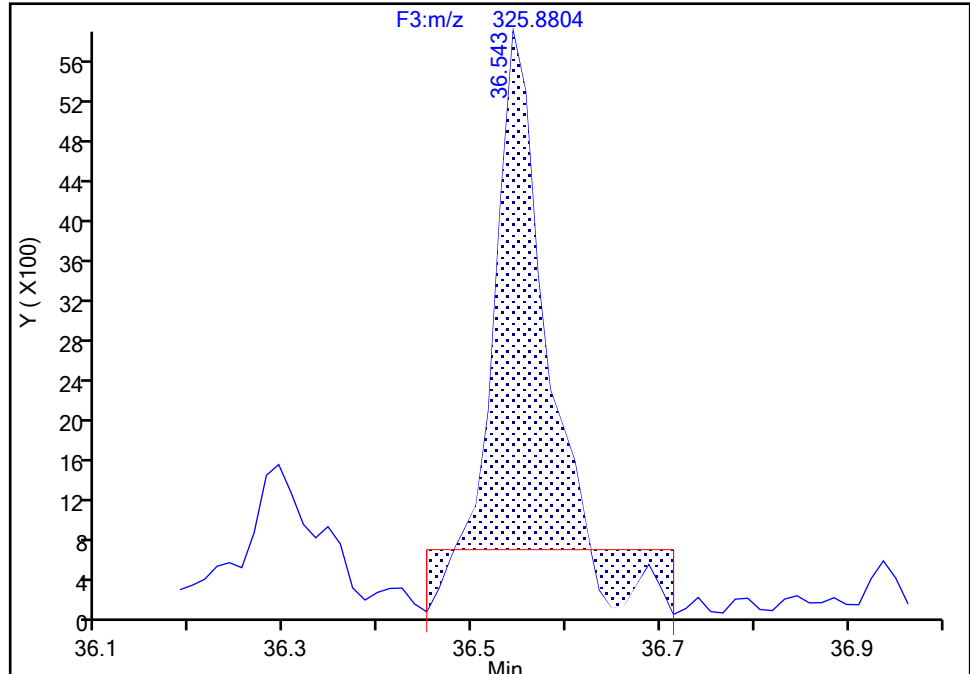
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Injection Date: 16-Jul-2024 16:41:00 Instrument ID: D2D  
Lims ID: 140-37234-A-1-D Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F3(35.64 :49.10 )

PCB-118, CAS: 31508-00-6

Signal: 1

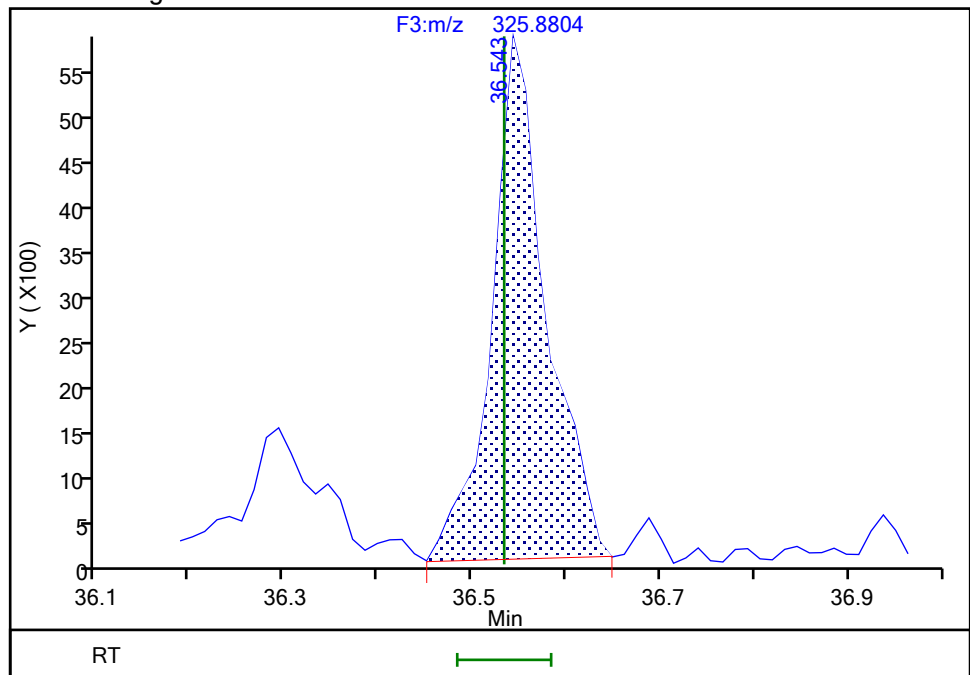
RT: 36.54  
Area: 14591  
Amount: 0.355440  
Amount Units: pg/ul

## Processing Integration Results



RT: 36.54  
Area: 23370  
Amount: 0.477637  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 11:45:17 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

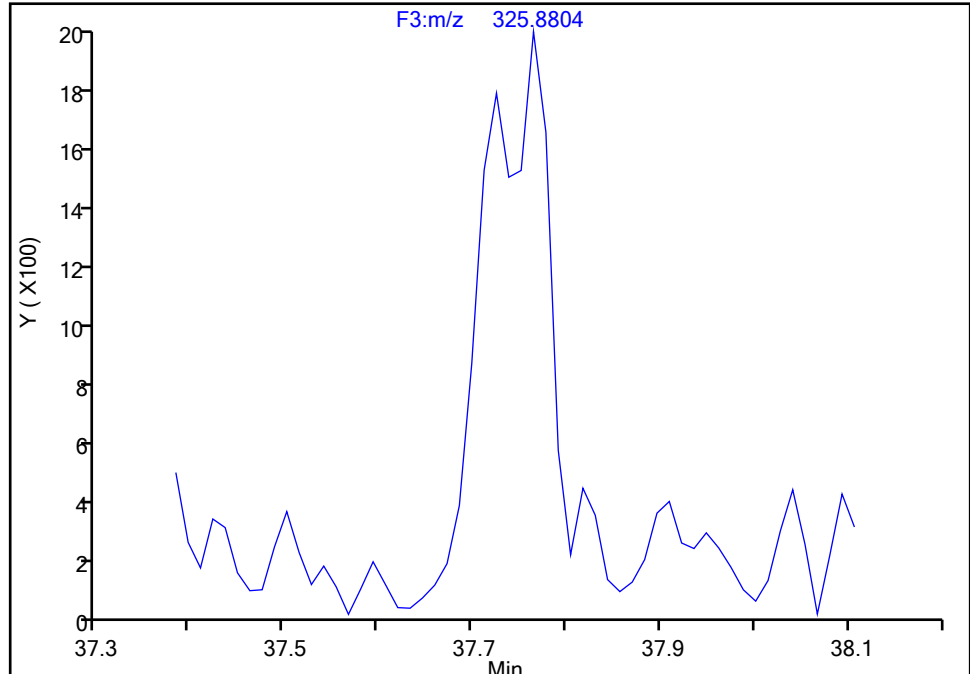
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Injection Date: 16-Jul-2024 16:41:00 Instrument ID: D2D  
Lims ID: 140-37234-A-1-D Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F3(35.64 :49.10 )

PCB-105, CAS: 32598-14-4

Signal: 1

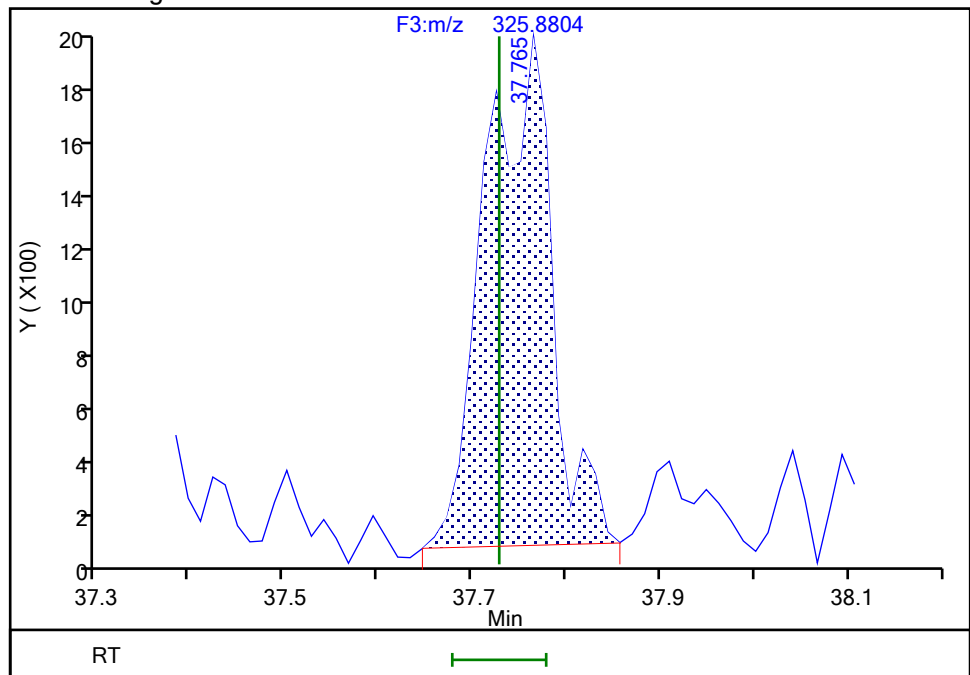
Not Detected  
Expected RT: 37.73

## Processing Integration Results



RT: 37.76  
Area: 9088  
Amount: 0.202911  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 11:45:46 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

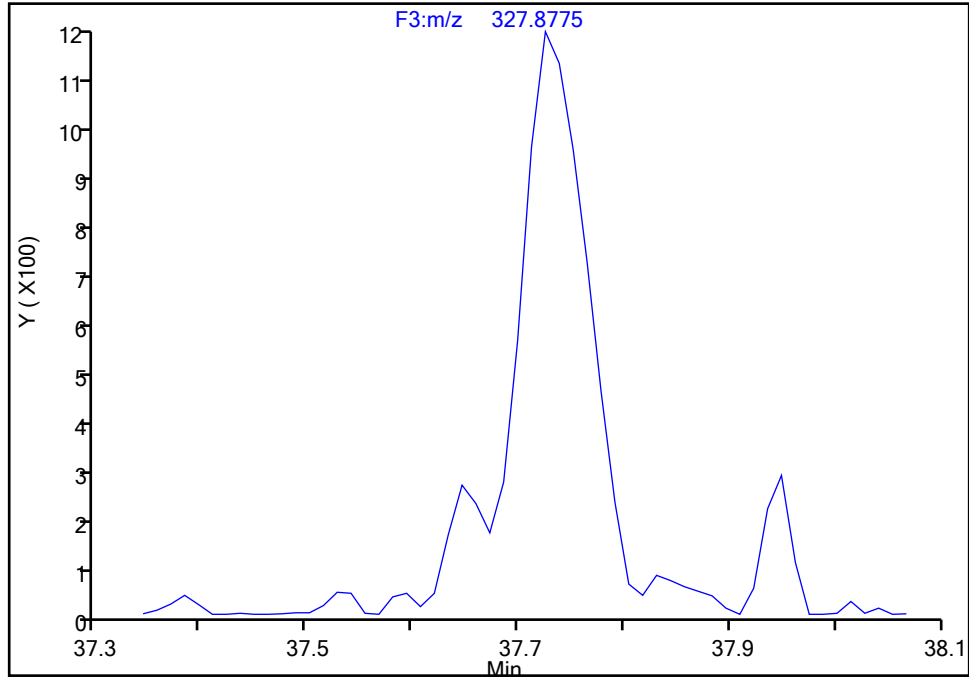
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Injection Date: 16-Jul-2024 16:41:00 Instrument ID: D2D  
Lims ID: 140-37234-A-1-D Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-105, CAS: 32598-14-4

Signal: 2

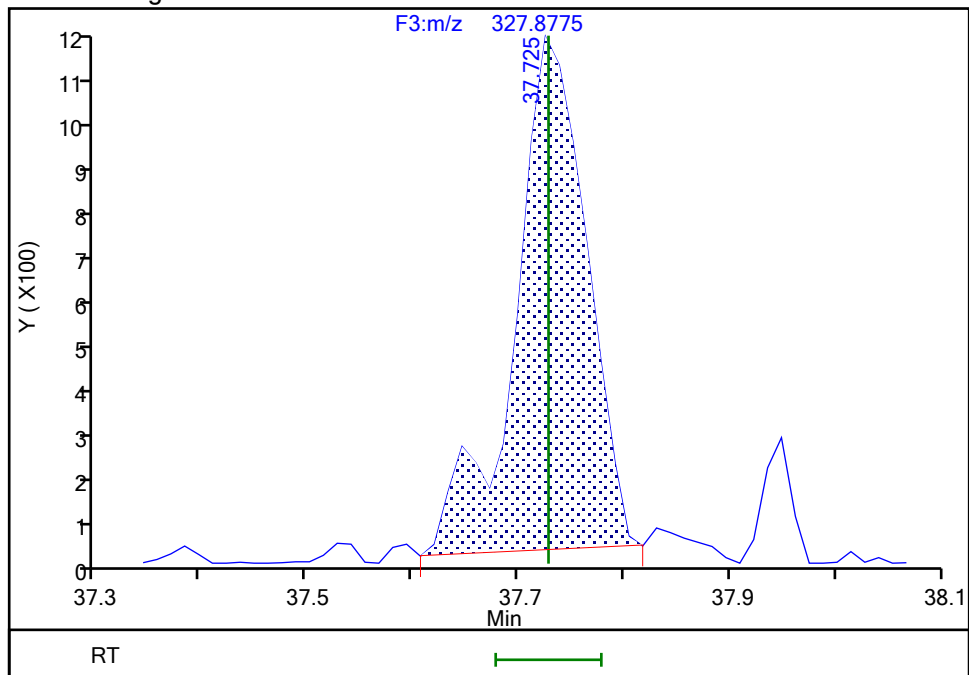
Not Detected  
Expected RT: 37.73

## Processing Integration Results



## Manual Integration Results

RT: 37.73  
Area: 5253  
Amount: 0.202911  
Amount Units: pg/ul



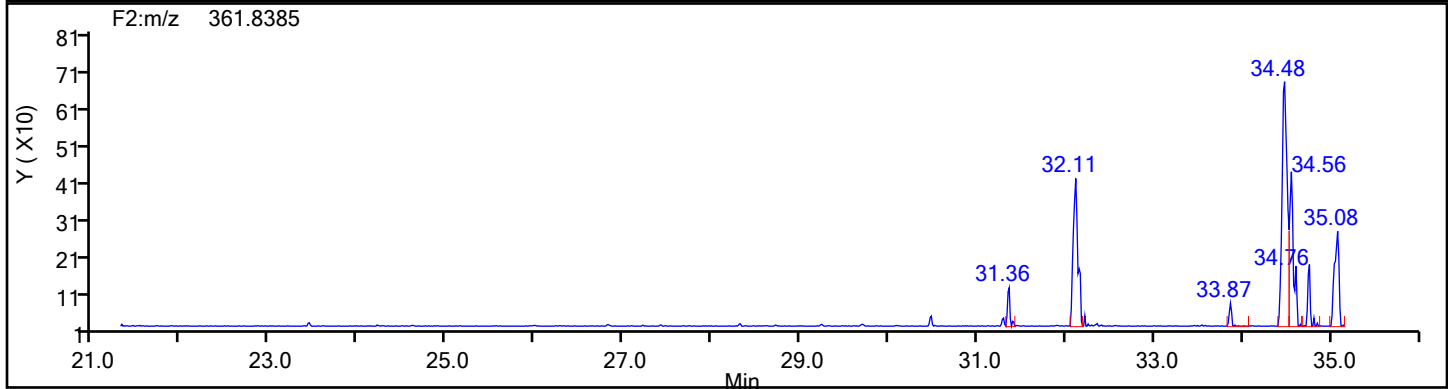
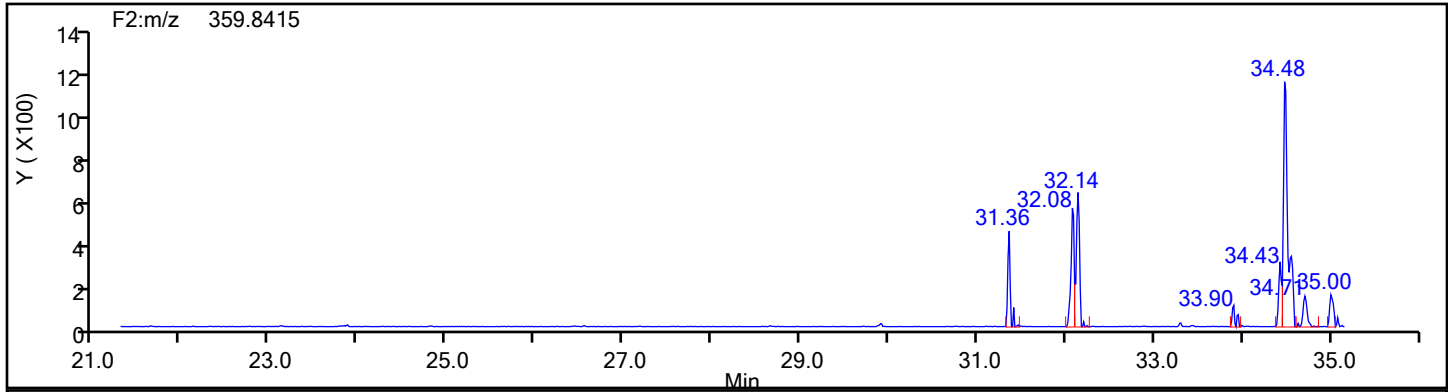
Reviewer: TT6I, 17-Jul-2024 11:45:51 -04:00:00 (UTC)

Audit Action: Manually Integrated

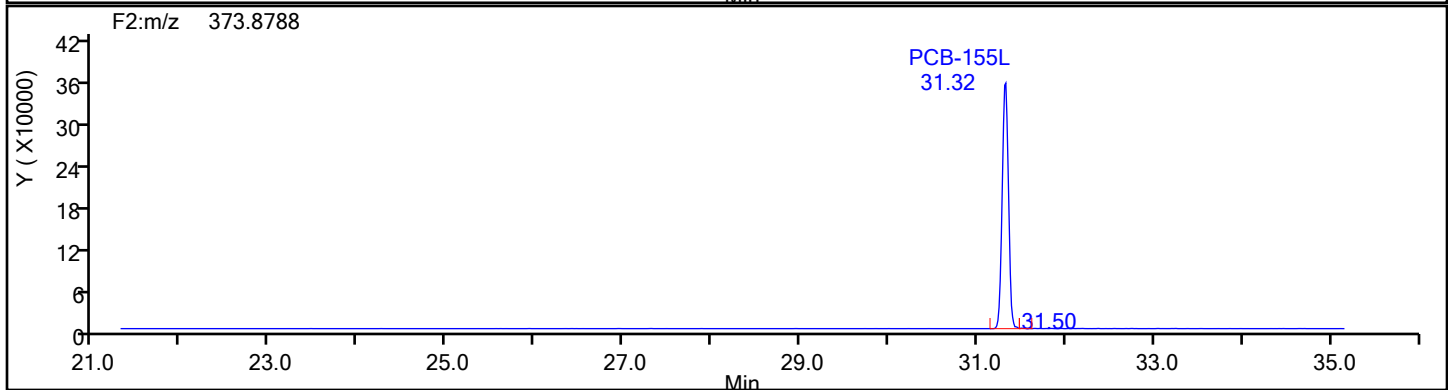
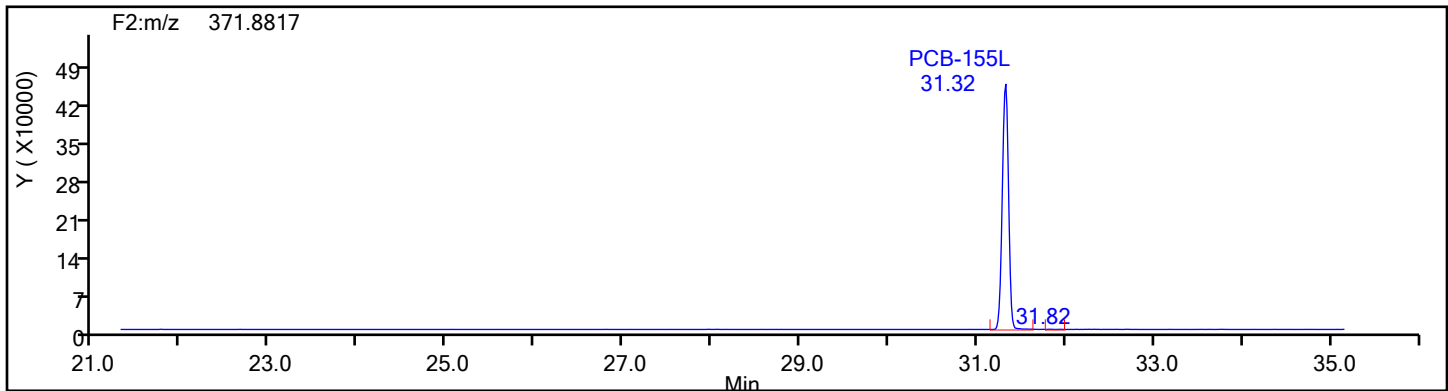
Audit Reason: Incomplete Integration

## Eurofins Knoxville

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Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2

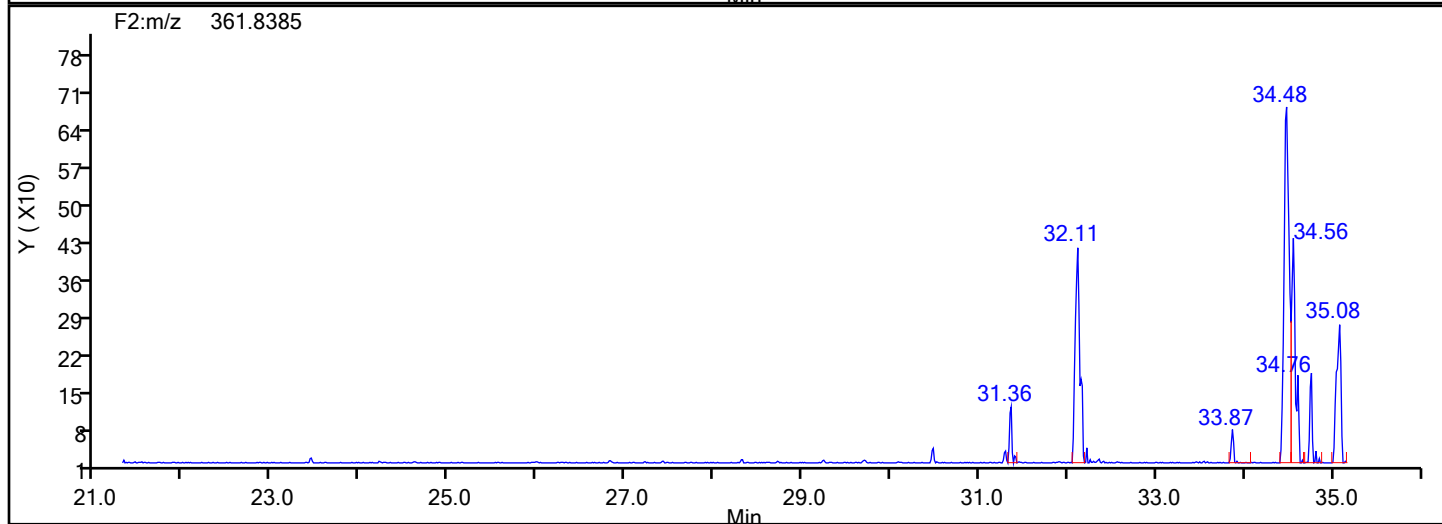
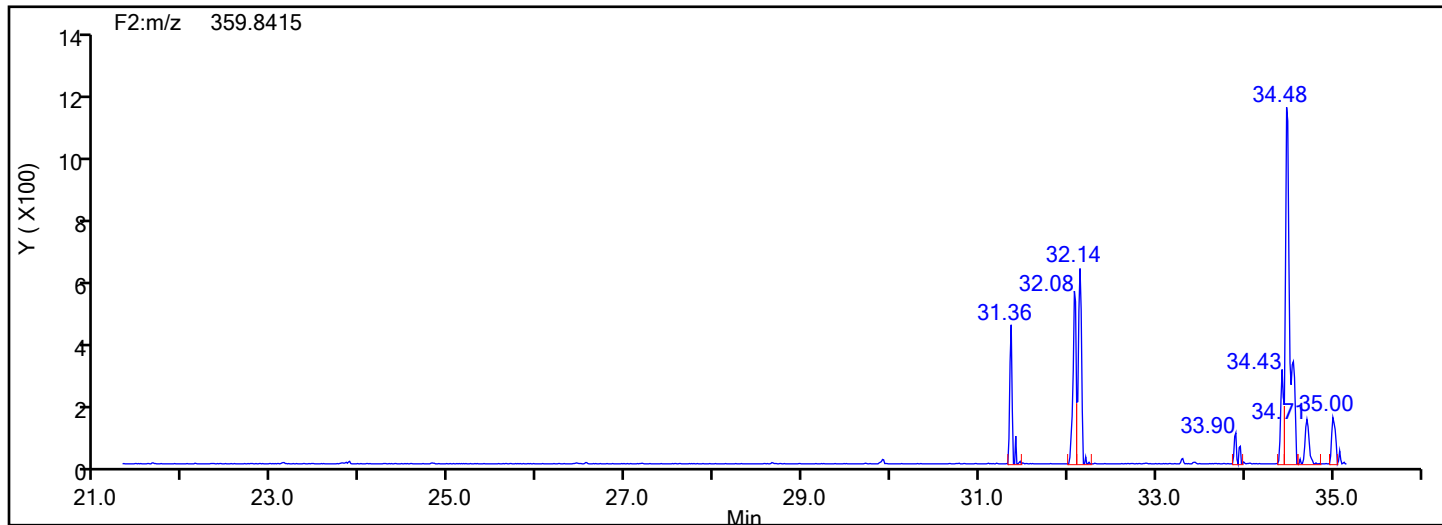


## HxPCB F2 Standards

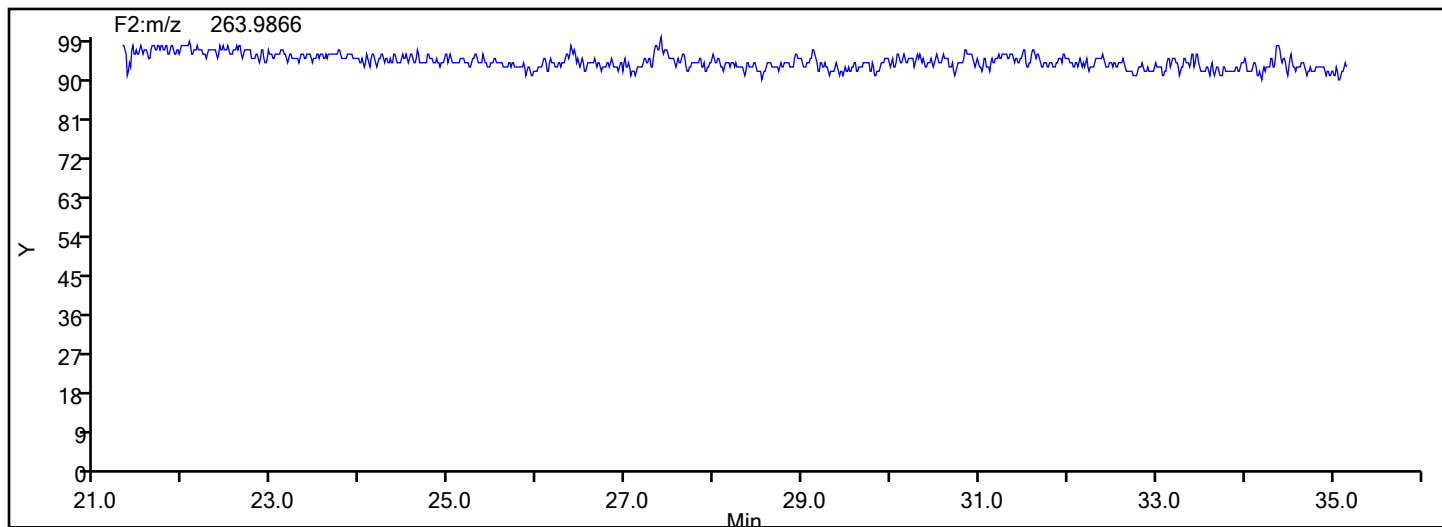


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-1-d.d  
Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2



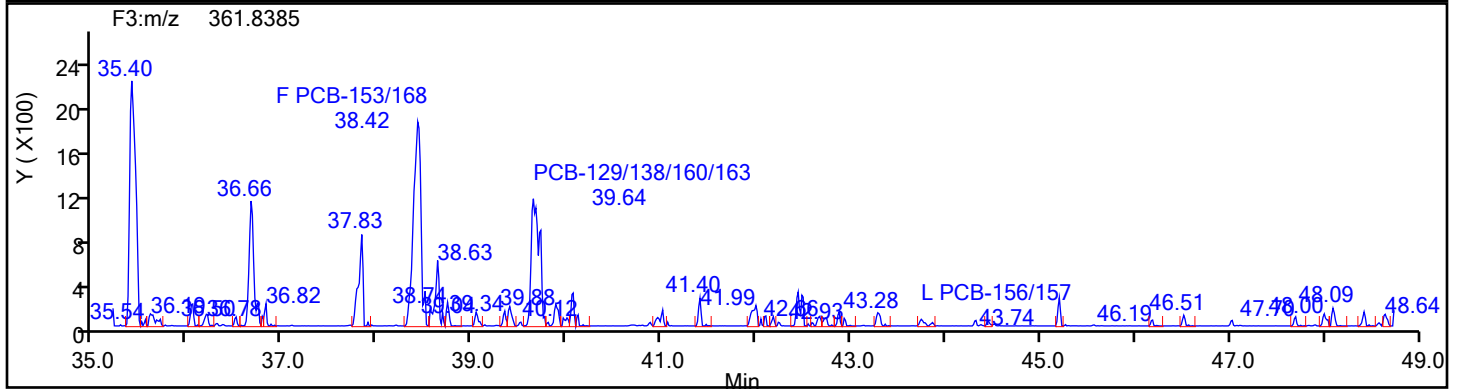
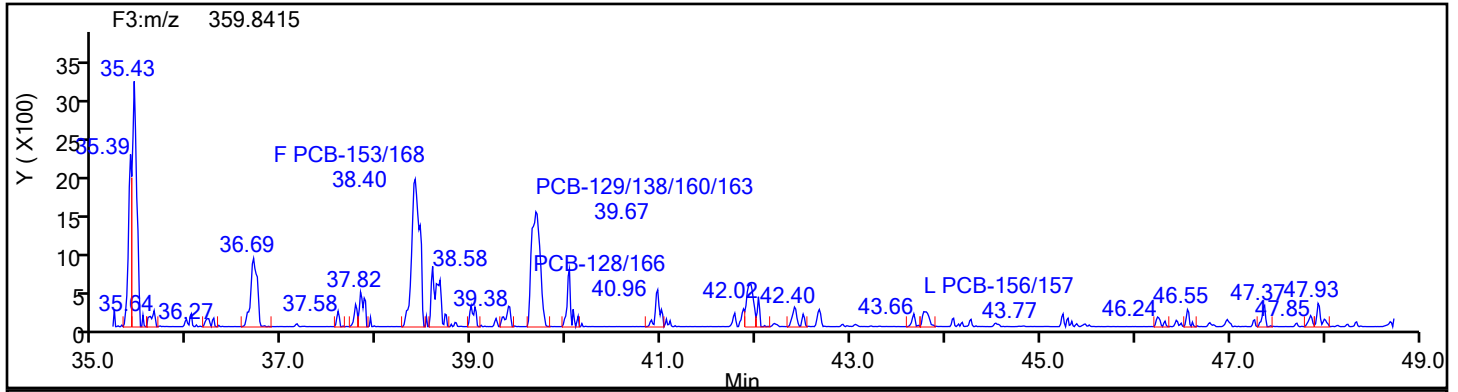
## HxPCB F2 Lock Mass



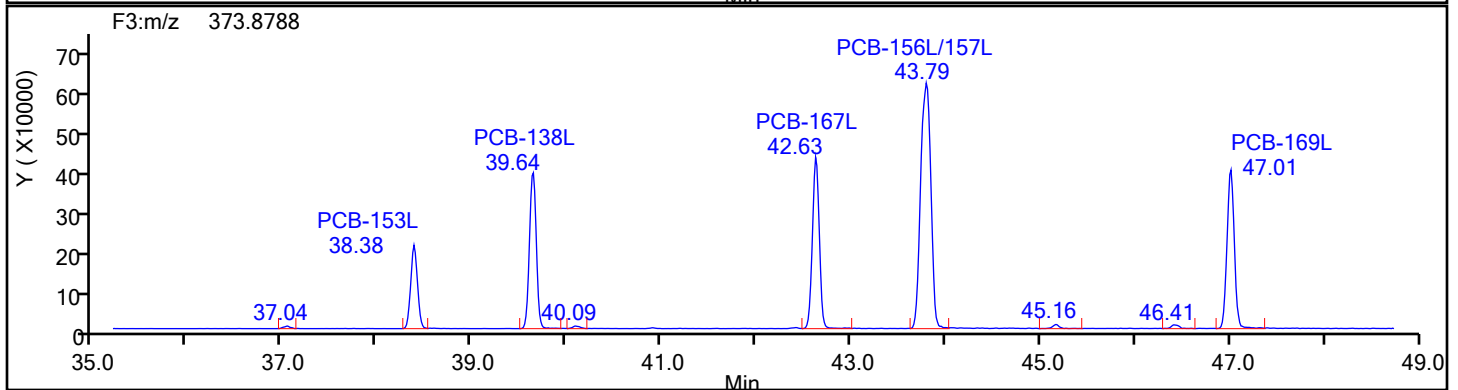
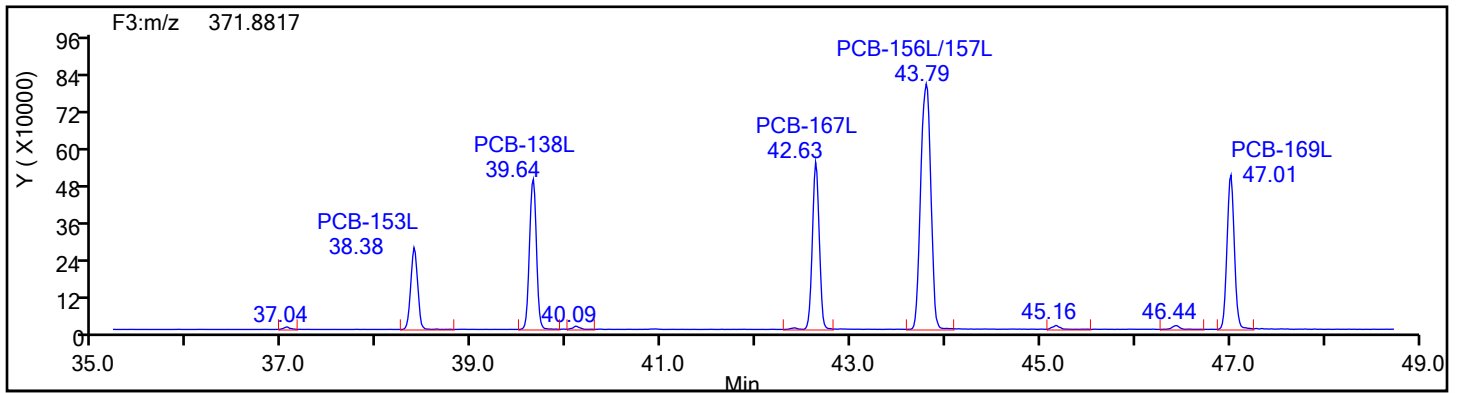


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-1-d.d  
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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F3

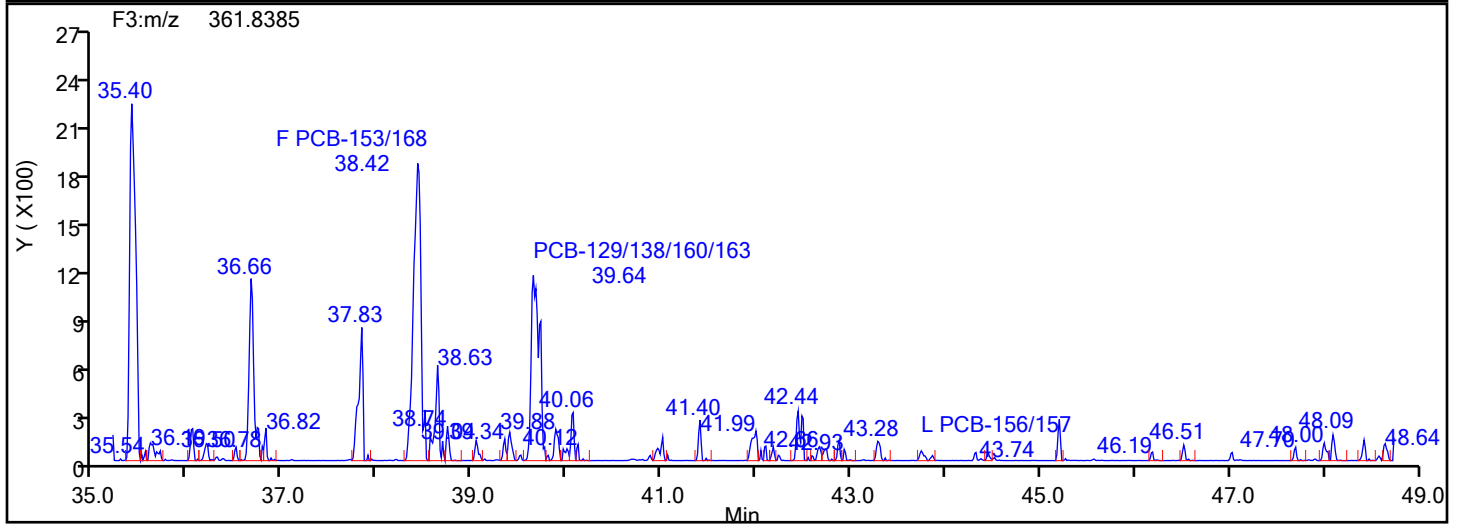
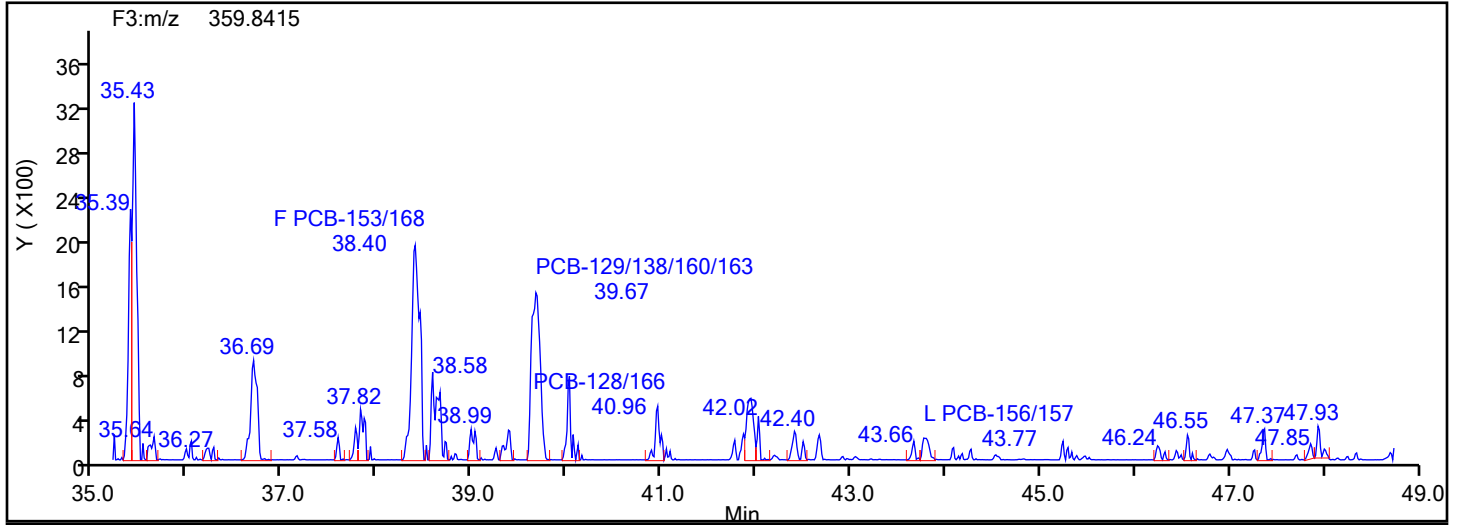


## HxPCB F3 Standards

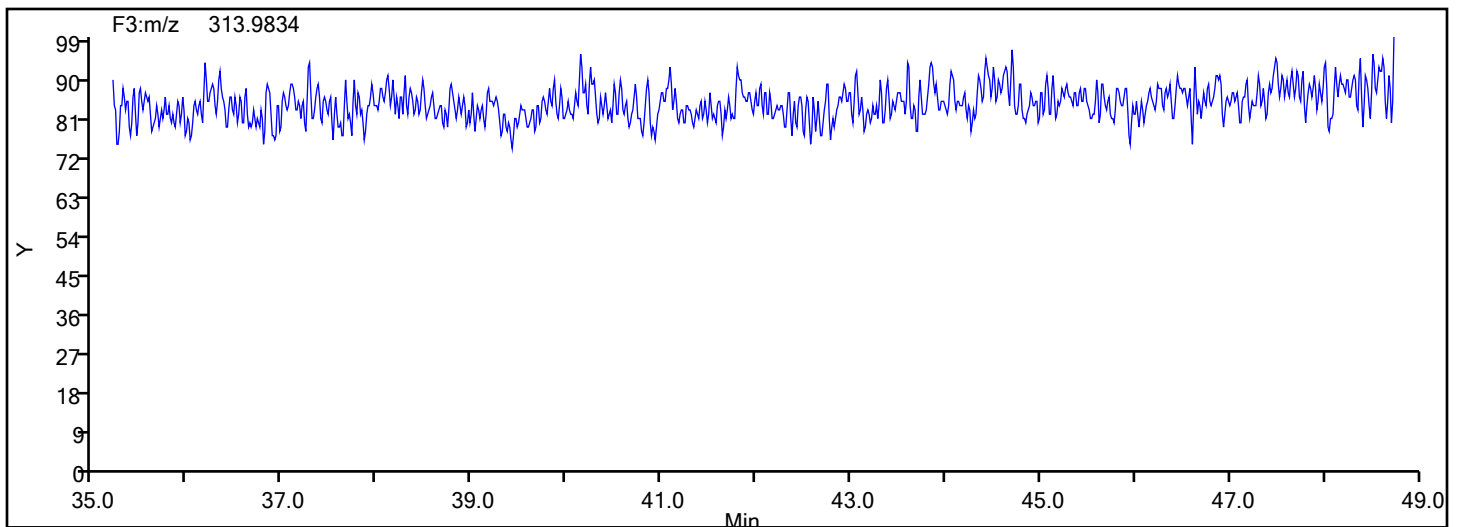


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F3



## HxPCB F3 Lock Mass



## Eurofins Knoxville

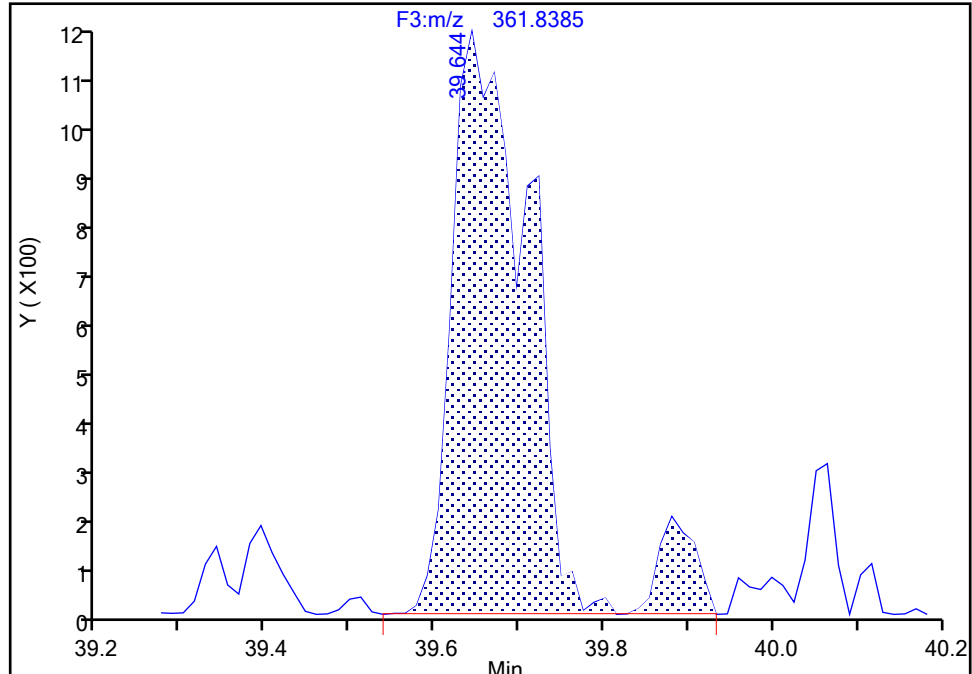
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Injection Date: 16-Jul-2024 16:41:00 Instrument ID: D2D  
Lims ID: 140-37234-A-1-D Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 2

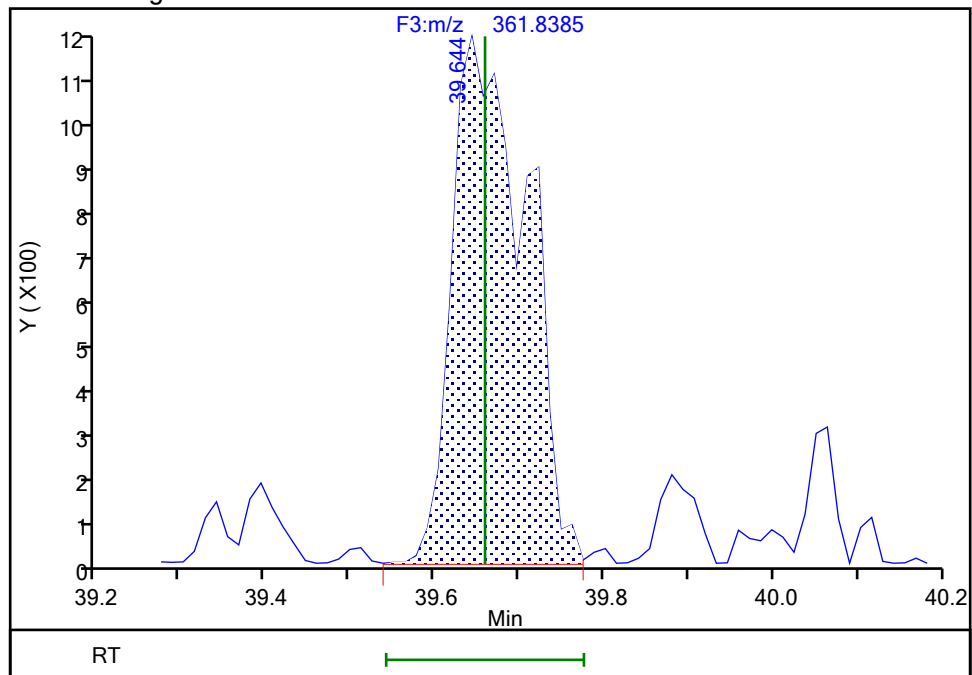
RT: 39.64  
Area: 7645  
Amount: 0.354678  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.64  
Area: 7012  
Amount: 0.341733  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 11:46:10 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

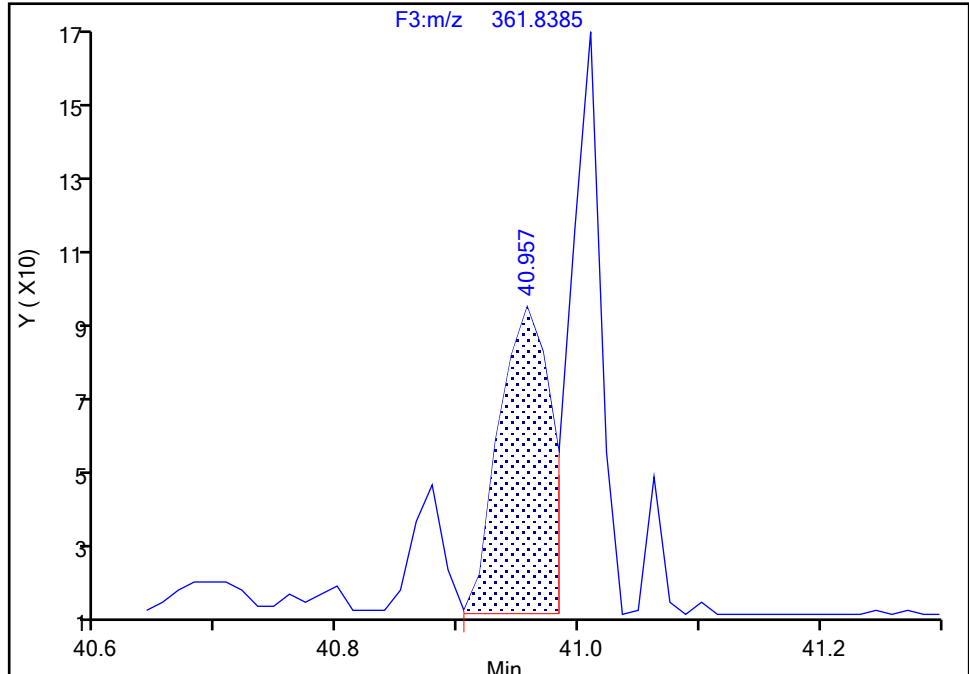
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Injection Date: 16-Jul-2024 16:41:00 Instrument ID: D2D  
Lims ID: 140-37234-A-1-D Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F3(35.64 :49.10 )

**PCB-128/166, CAS: STL01816**

Signal: 2

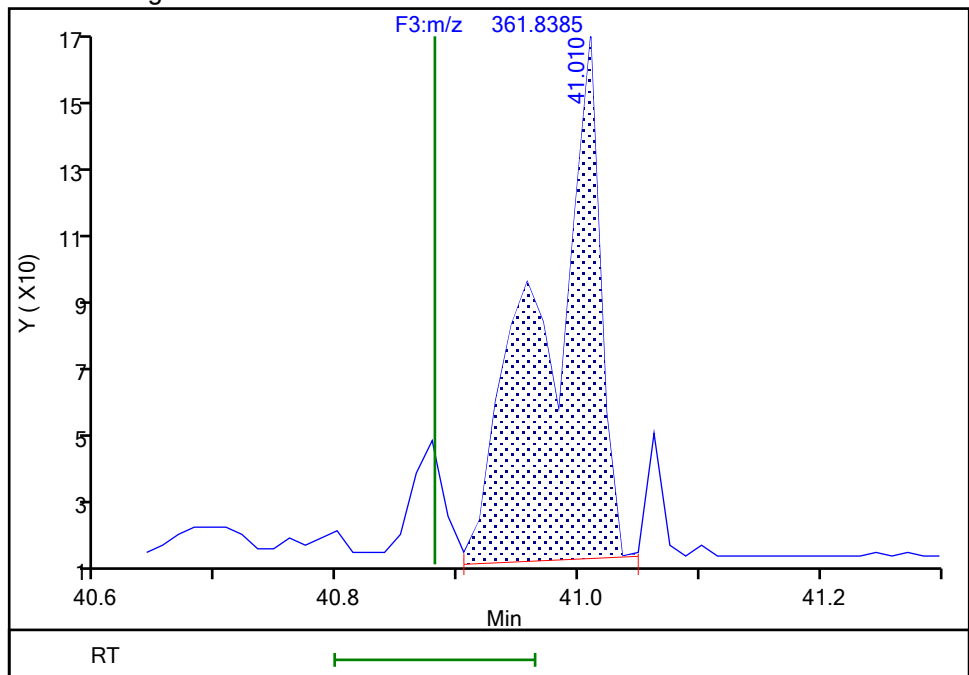
RT: 40.96  
Area: 219  
Amount: 0.037843  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.01  
Area: 463  
Amount: 0.042647  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 11:46:23 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

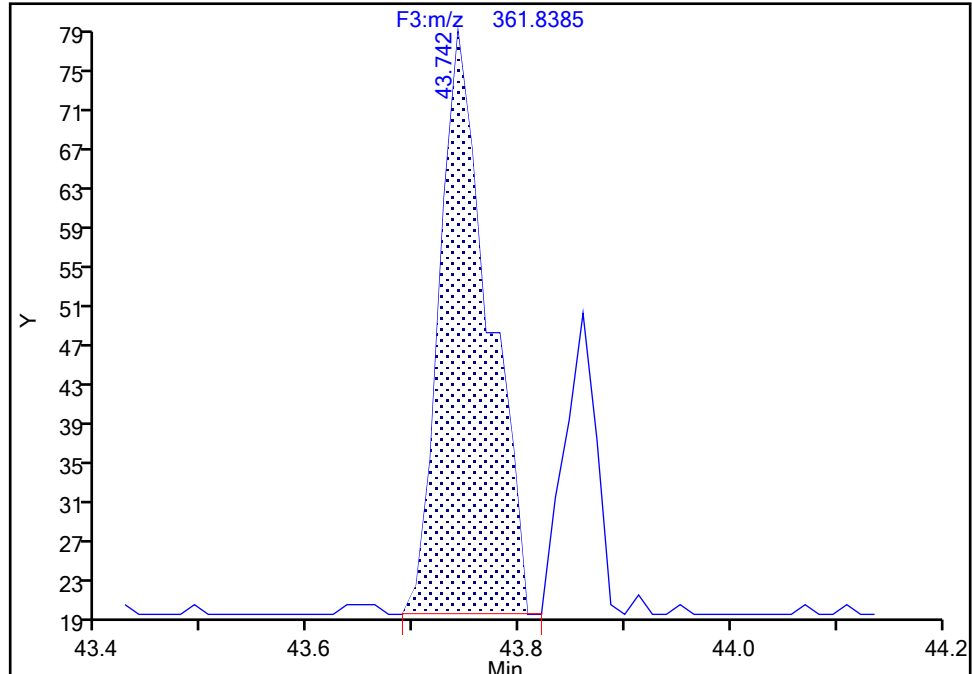
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Injection Date: 16-Jul-2024 16:41:00 Instrument ID: D2D  
Lims ID: 140-37234-A-1-D Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-156/157, CAS: STL01792

Signal: 2

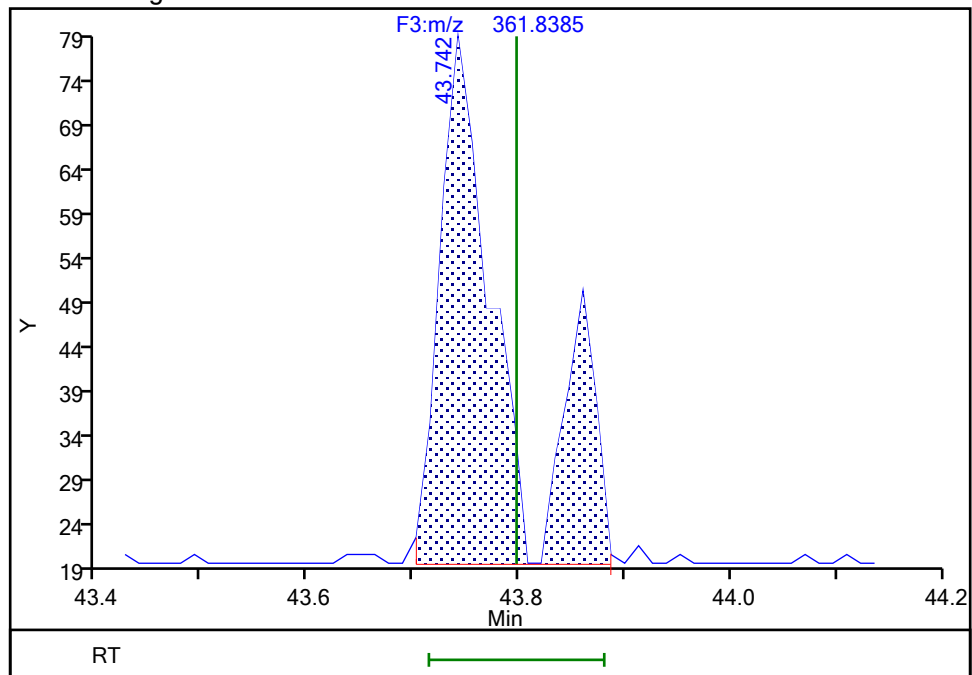
RT: 43.74  
Area: 193  
Amount: 0.019335  
Amount Units: pg/ul

## Processing Integration Results



RT: 43.74  
Area: 256  
Amount: 0.020392  
Amount Units: pg/ul

## Manual Integration Results



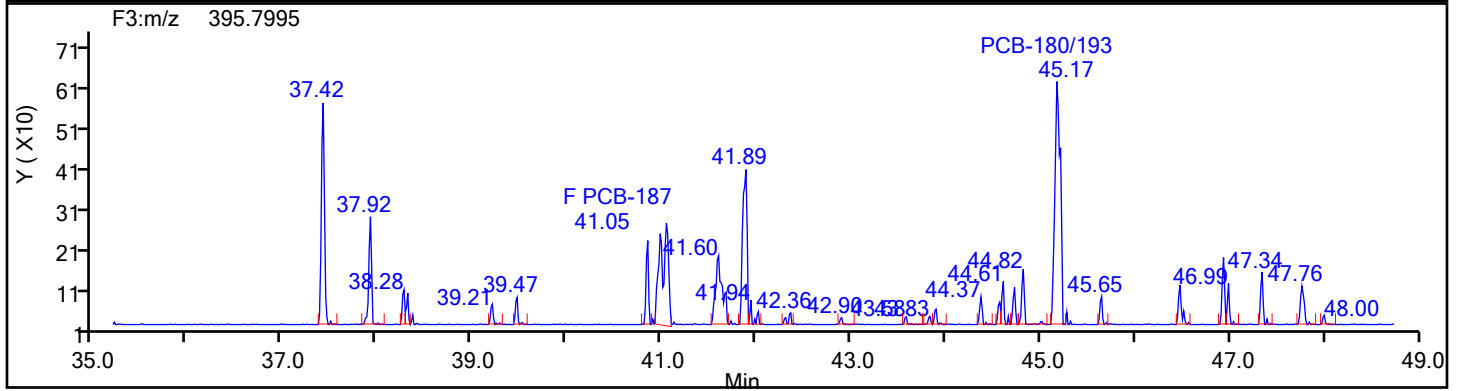
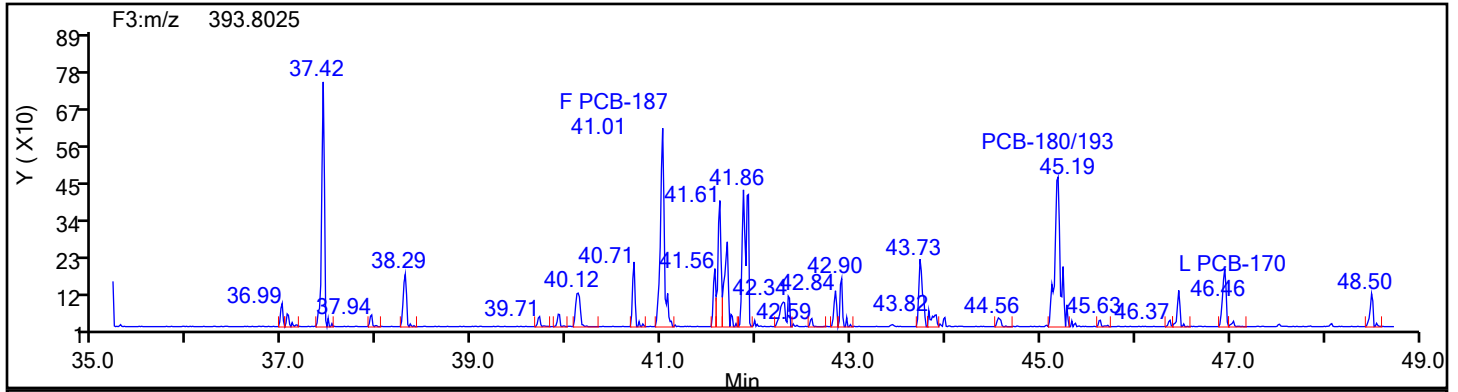
Reviewer: TT6I, 17-Jul-2024 11:46:37 -04:00:00 (UTC)

Audit Action: Manually Integrated

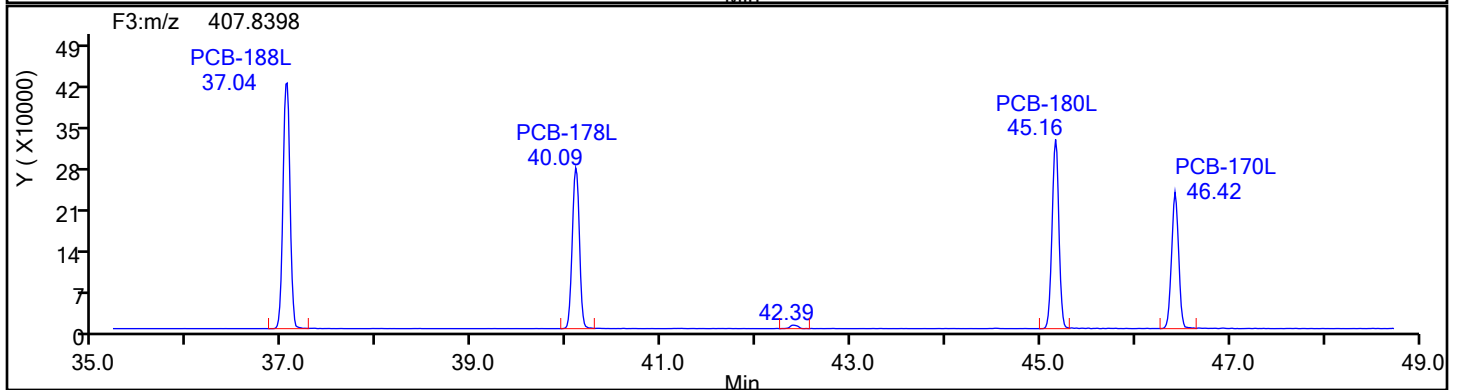
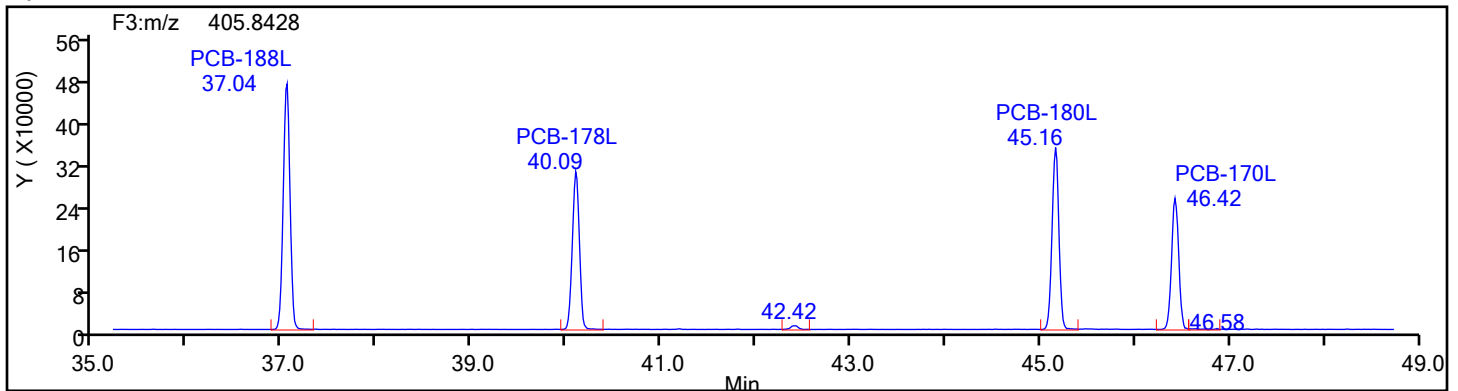
Audit Reason: Incomplete Integration

## Eurofins Knoxville

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Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F3

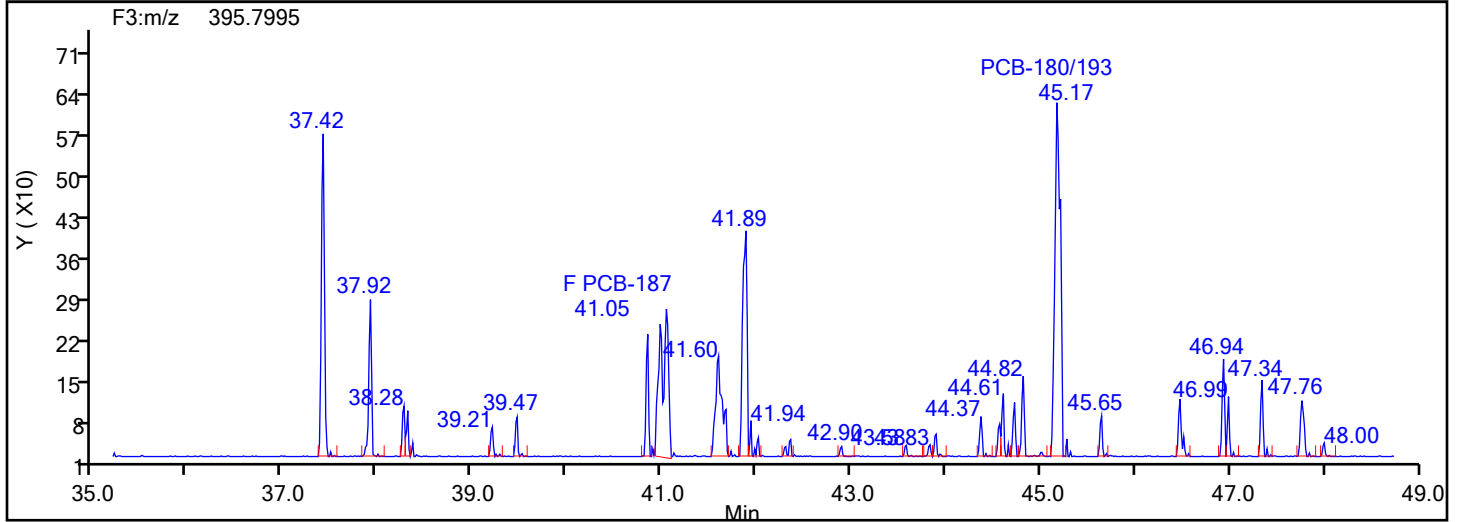
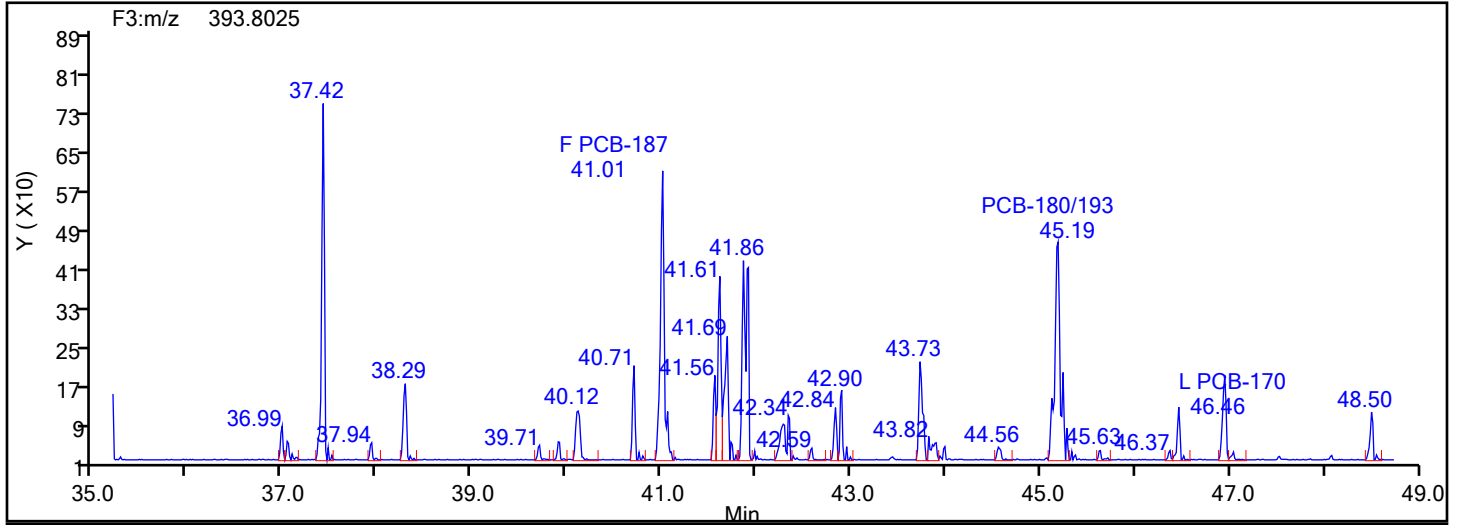


## HpPCB F3 Standards

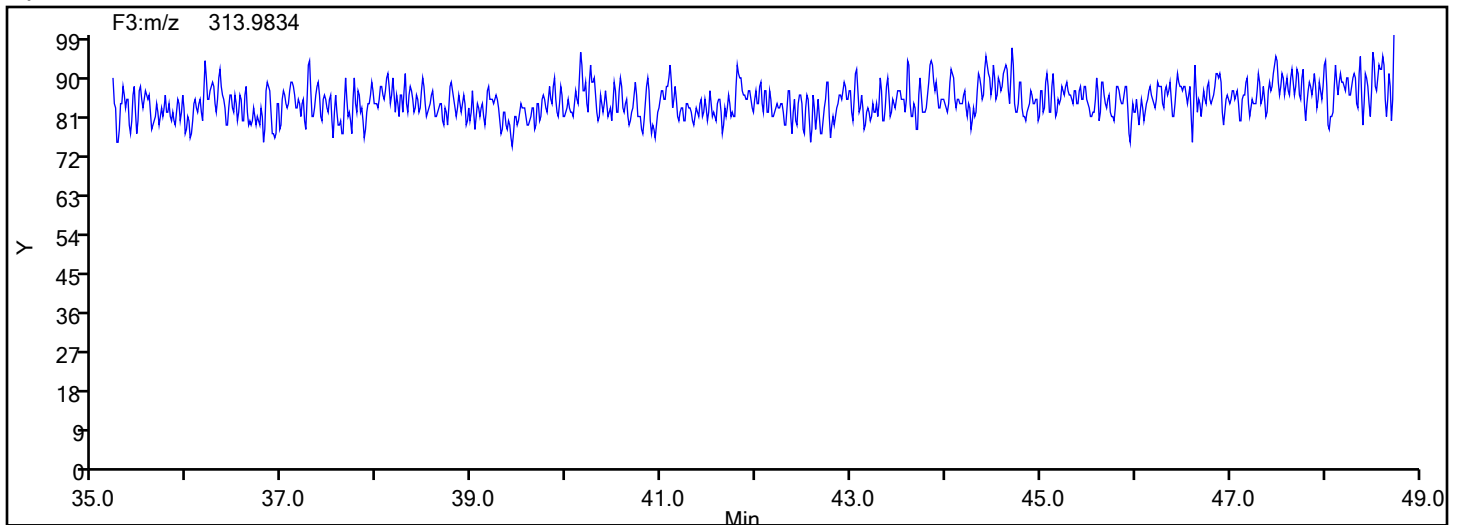


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F3



## HpPCB F3 Lock Mass



## Eurofins Knoxville

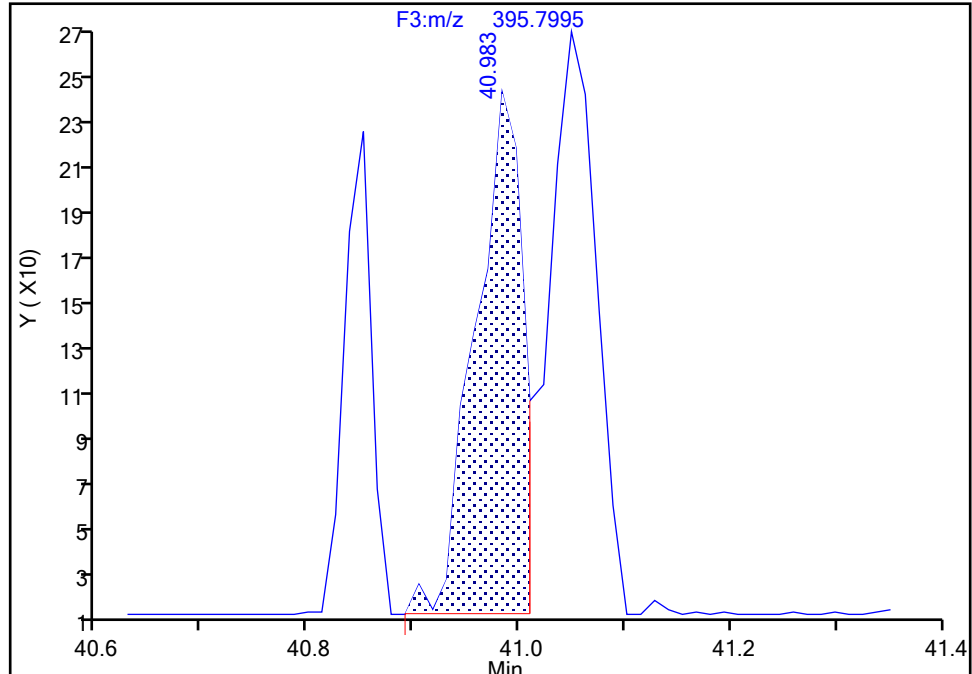
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Injection Date: 16-Jul-2024 16:41:00 Instrument ID: D2D  
Lims ID: 140-37234-A-1-D Lab Sample ID: 140-37234-1  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F3(35.64 :49.10 )

**PCB-187, CAS: 52663-68-0**

Signal: 2

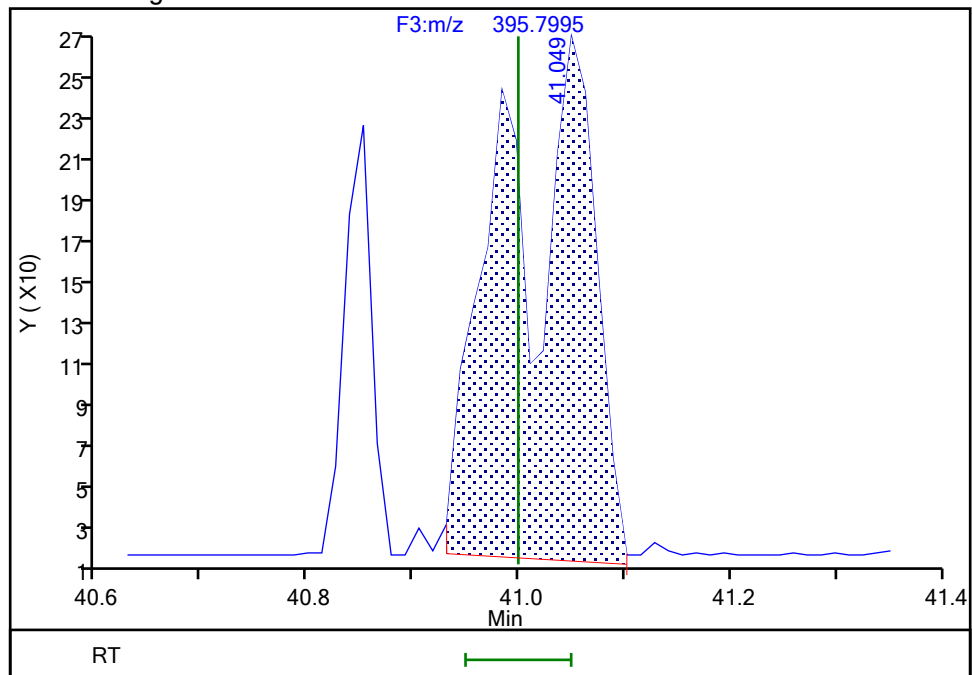
RT: 40.98  
Area: 679  
Amount: 0.061711  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.05  
Area: 1463  
Amount: 0.081836  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 11:46:55 -04:00:00 (UTC)

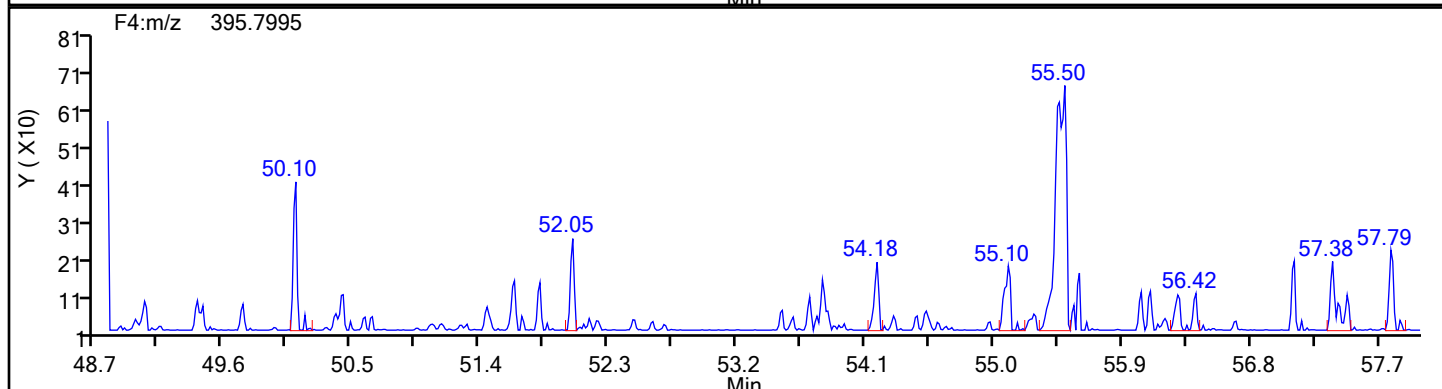
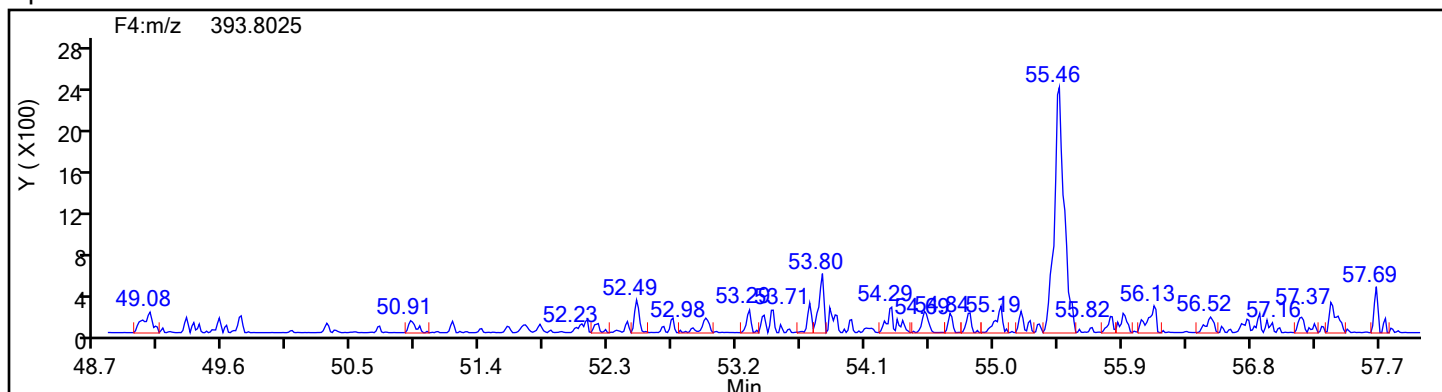
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

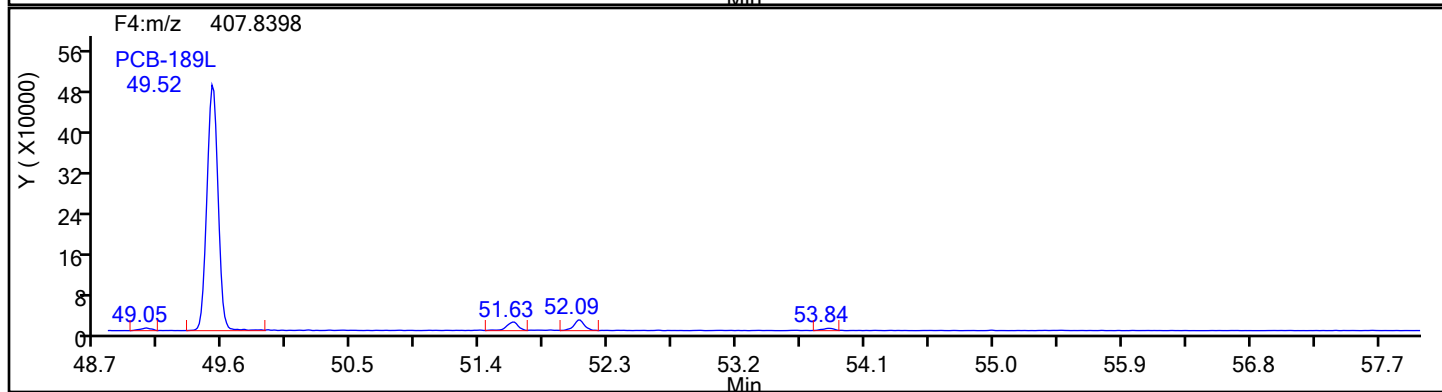
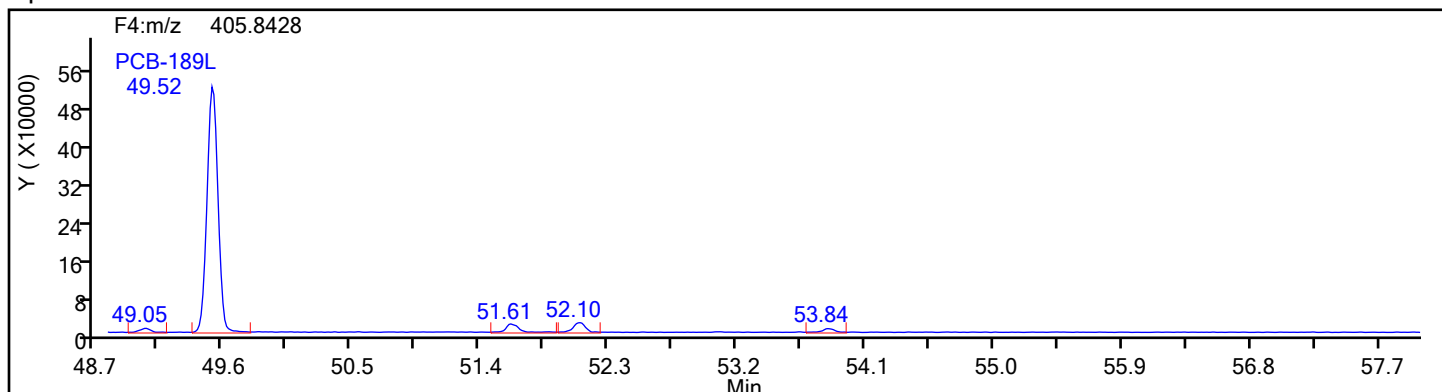


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-1-d.d  
Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F4

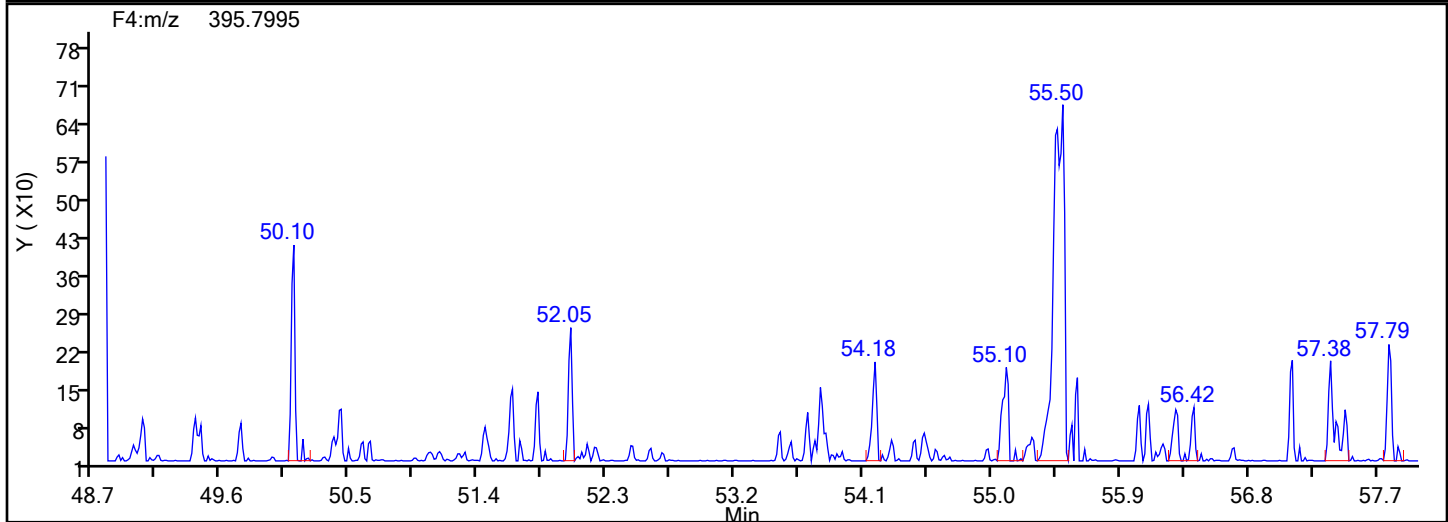
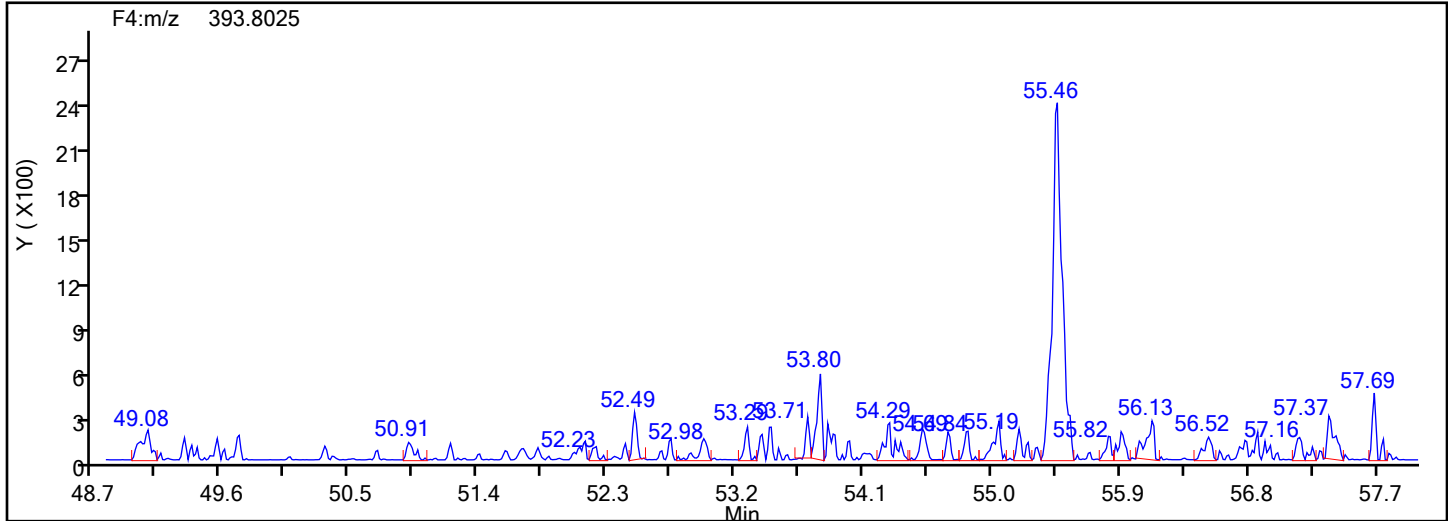


## HpPCB F4 Standards

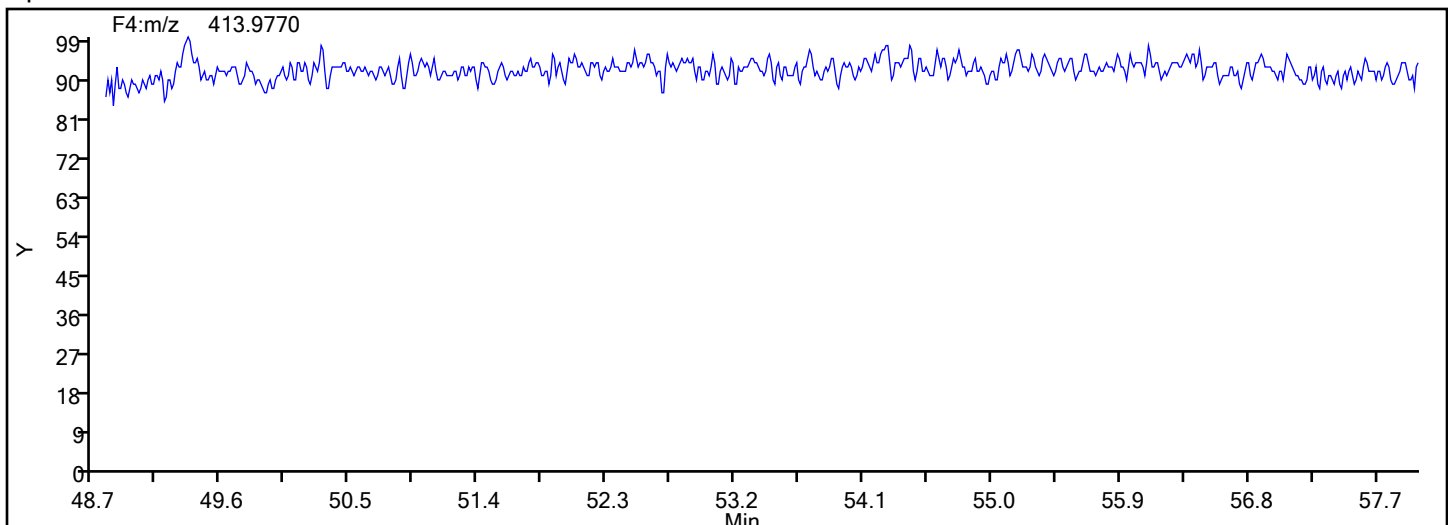


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-1-d.d  
Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F4

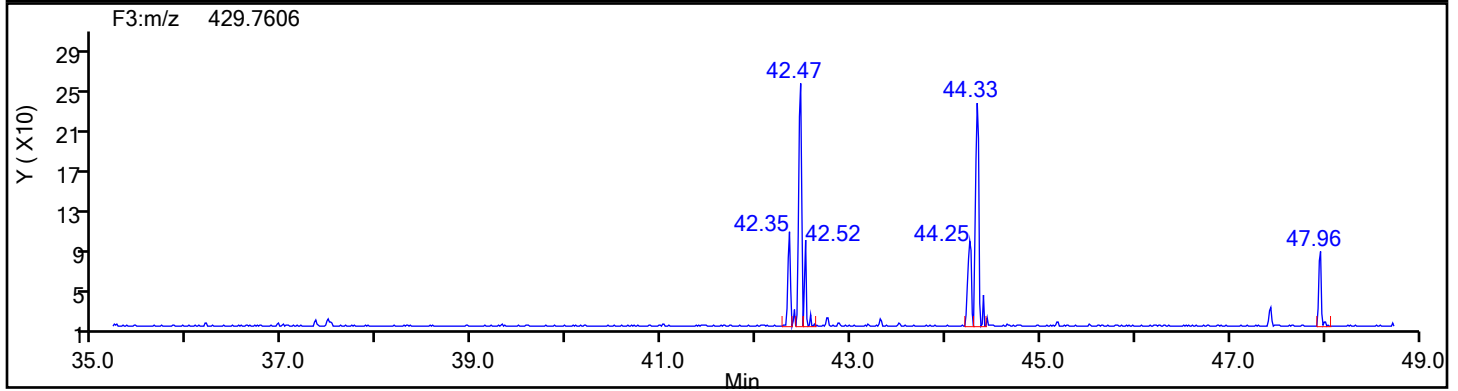
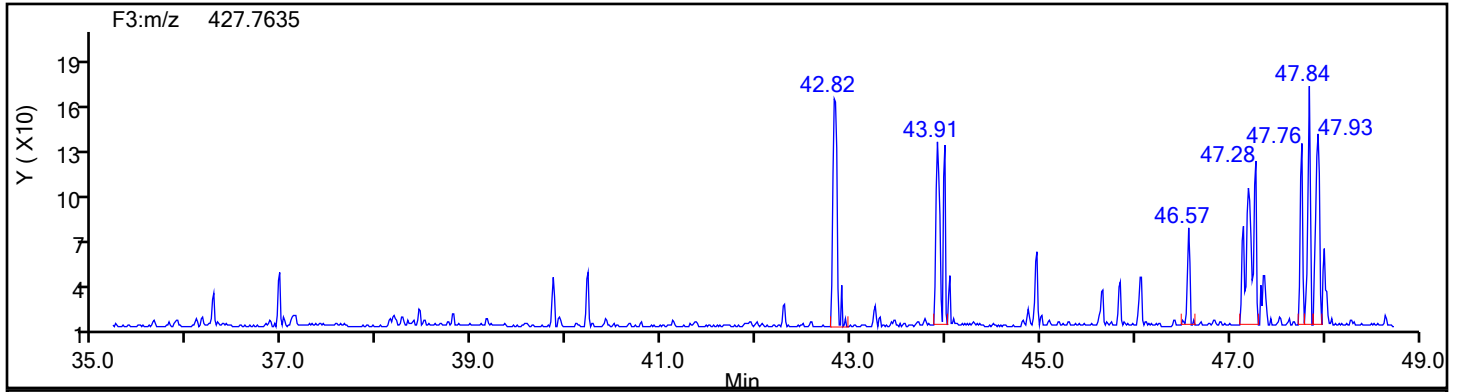


## HpPCB F4 Lock Mass

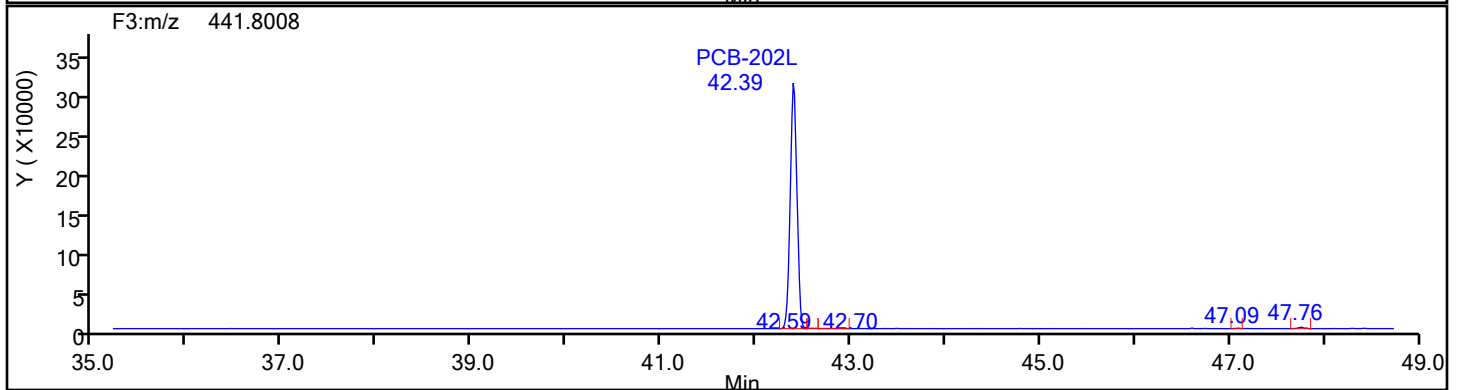
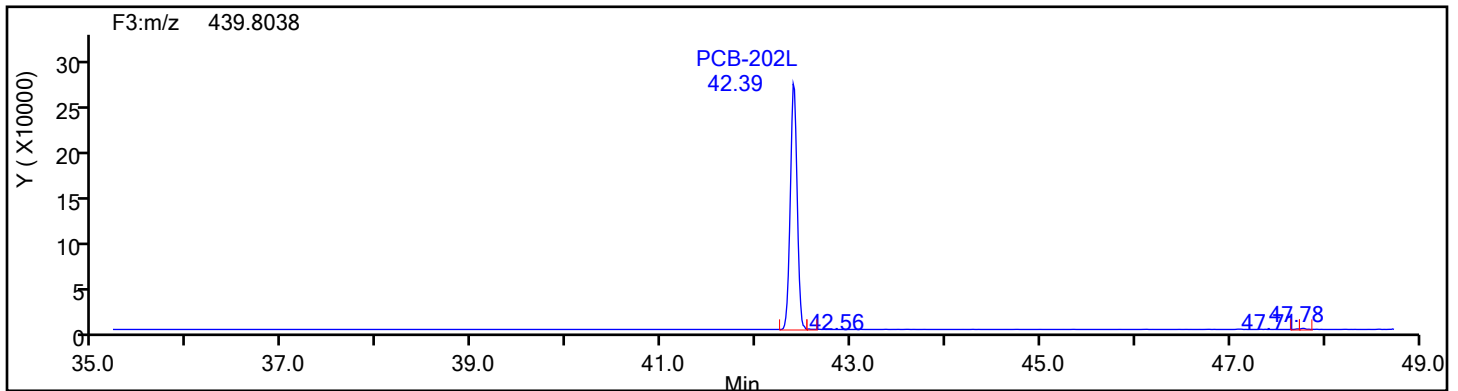


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-1-d.d  
Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3

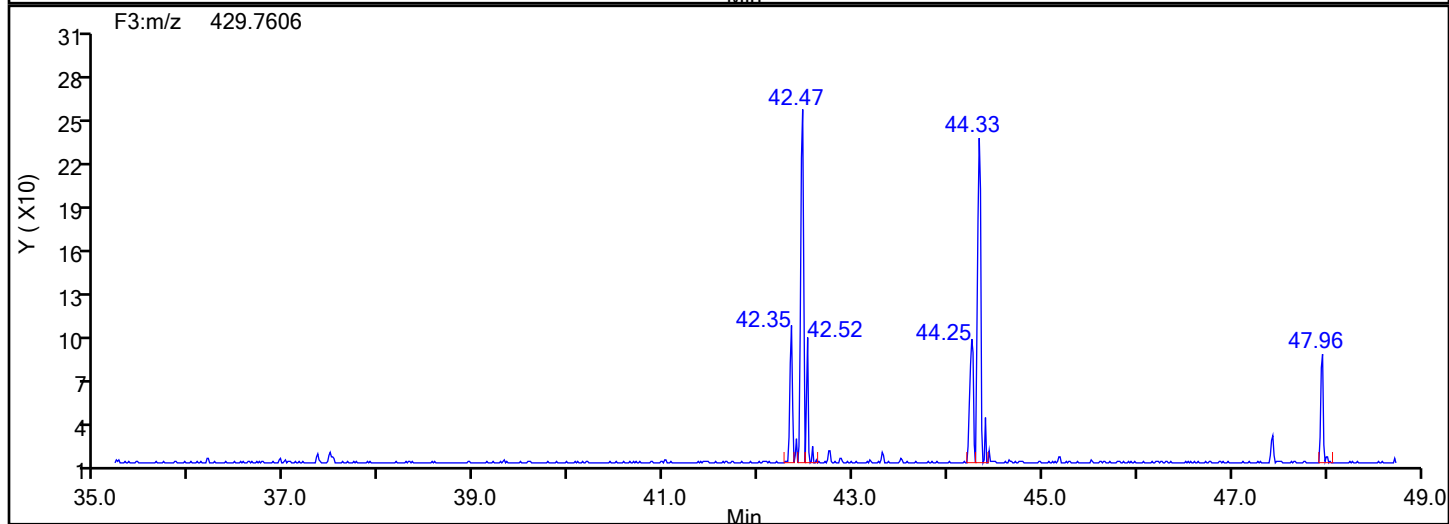
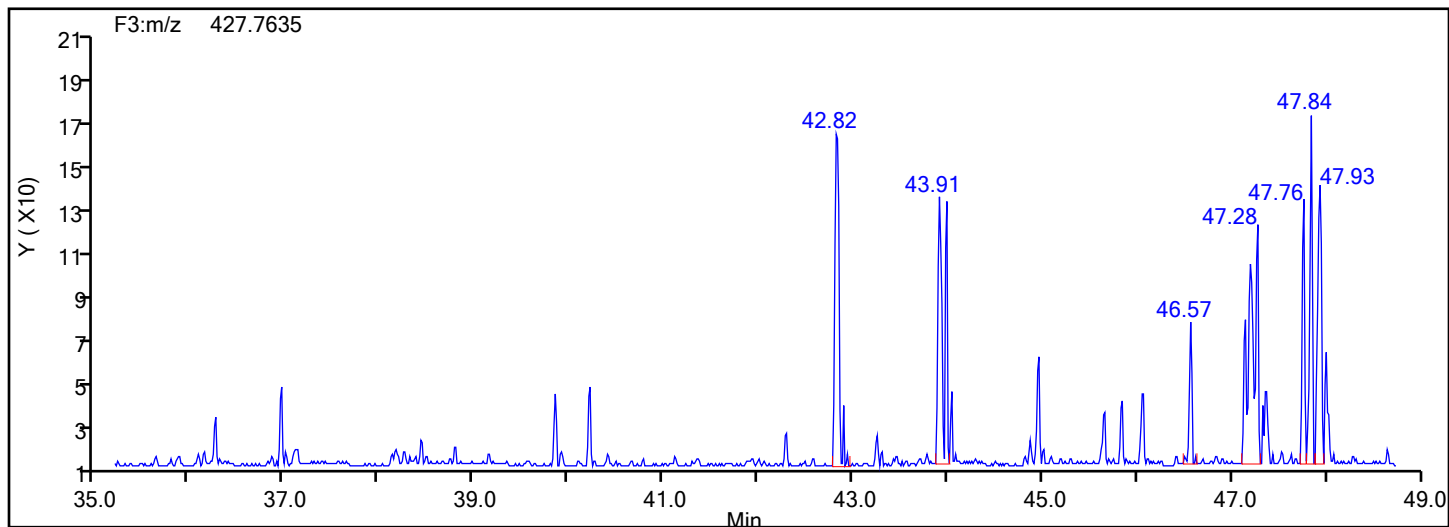


## OcPCB F3 Standards

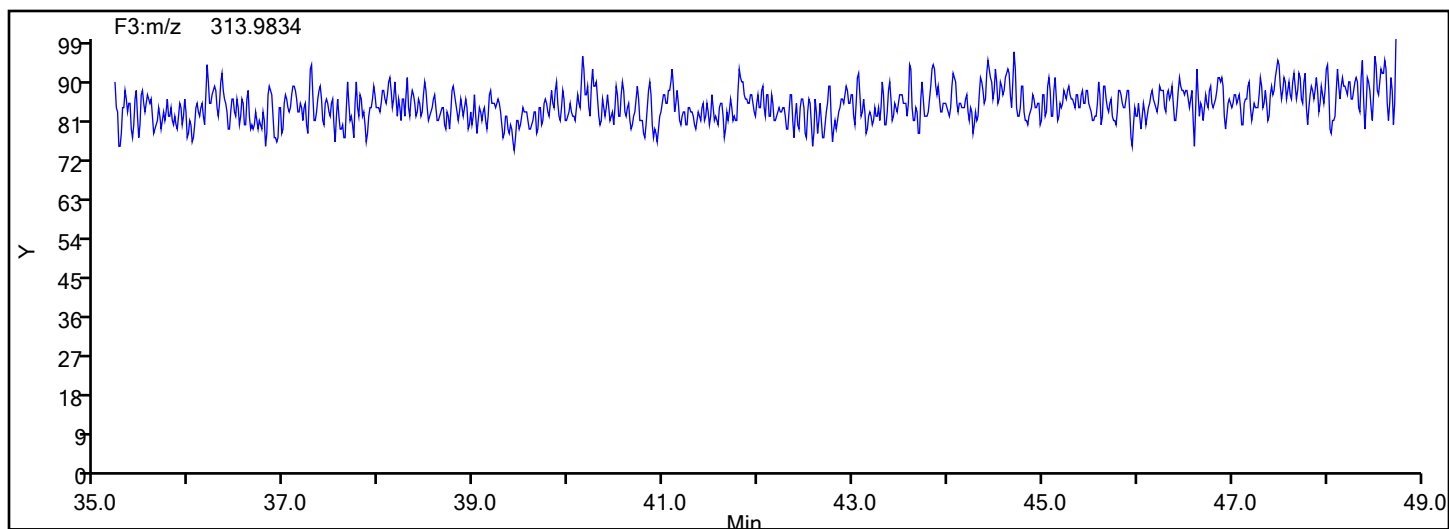


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-1-d.d  
Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3

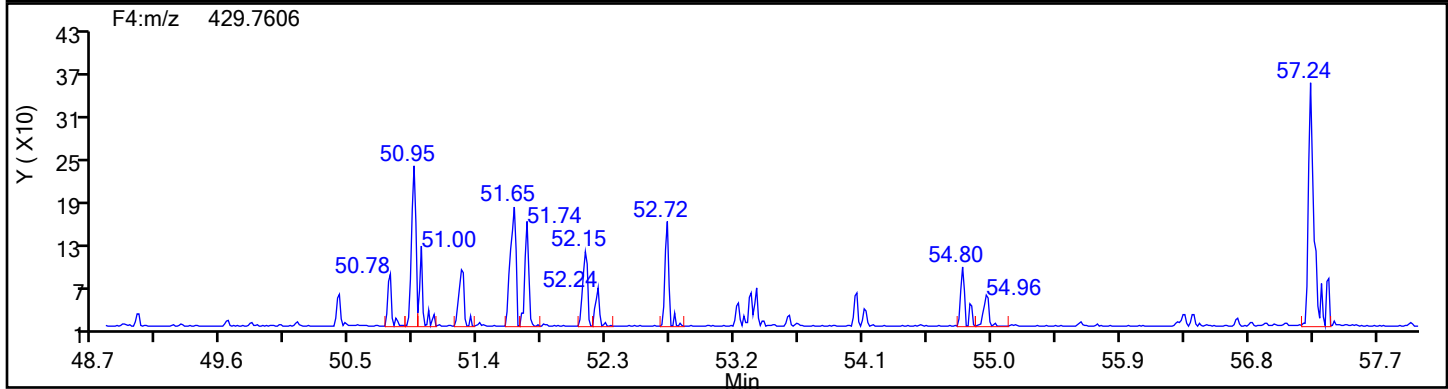
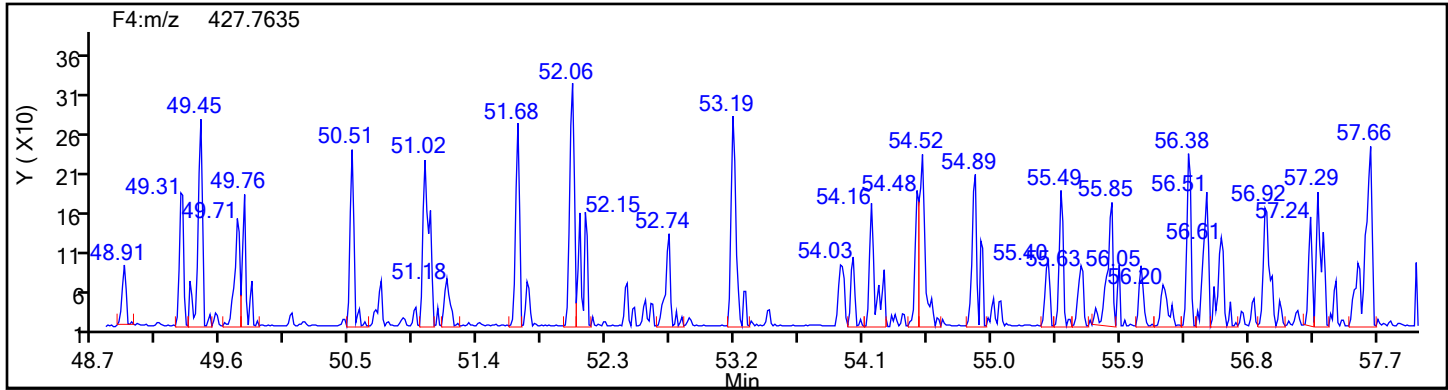


## OcPCB F3 Lock Mass

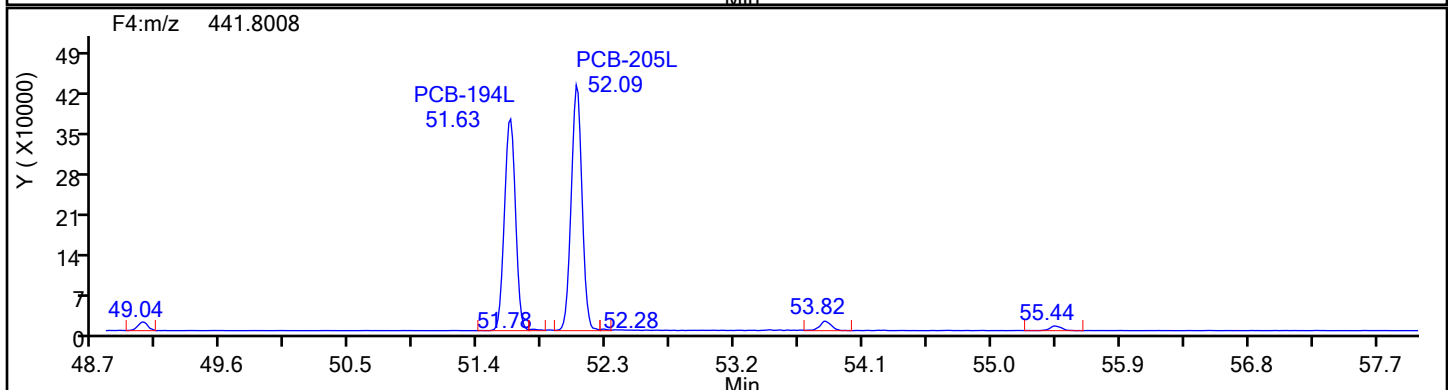
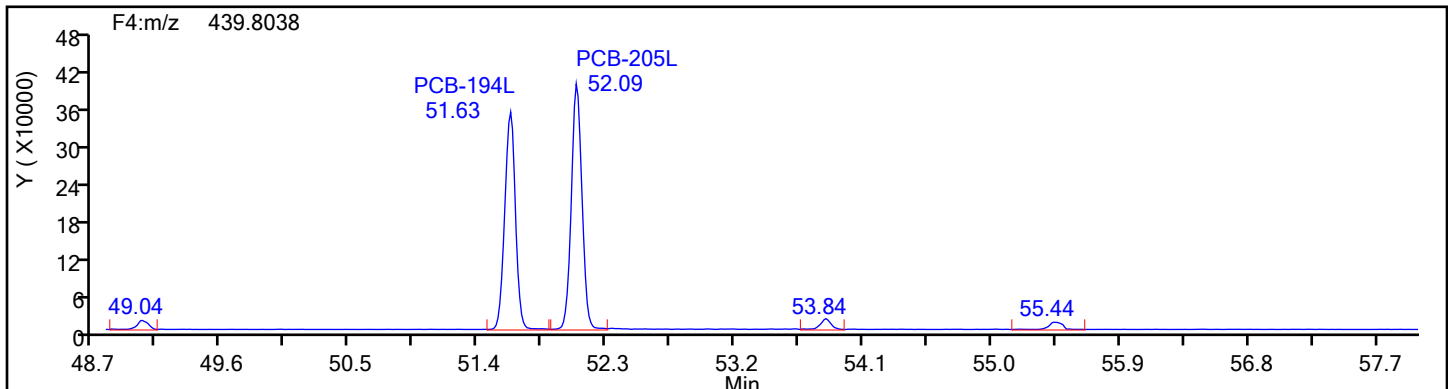


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-1-d.d  
Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4

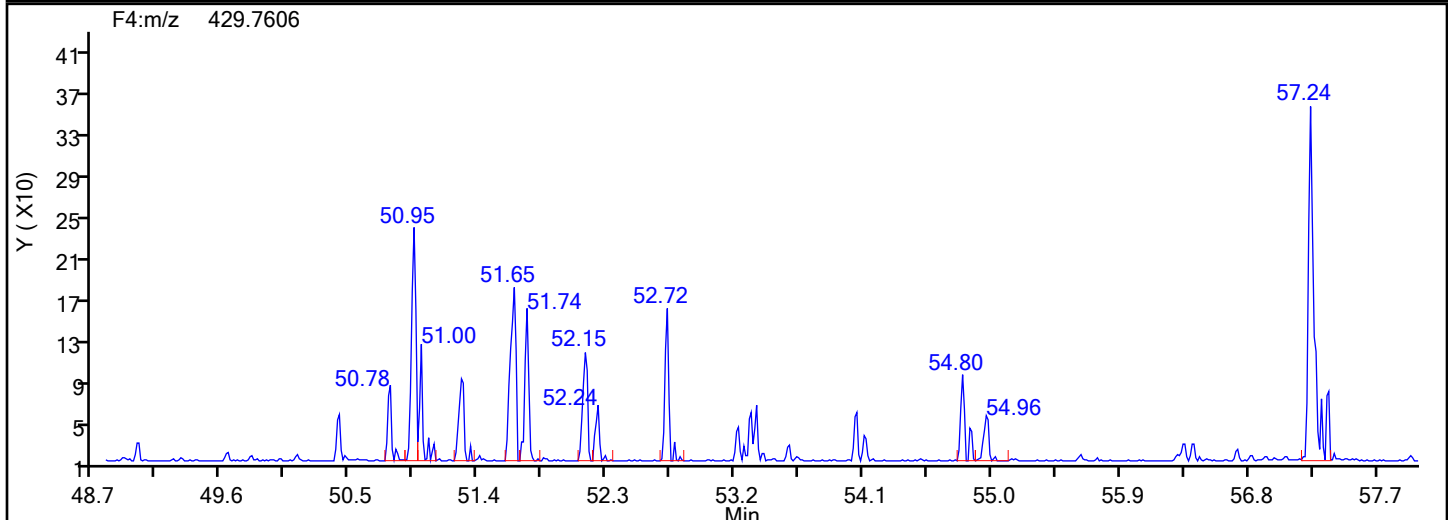
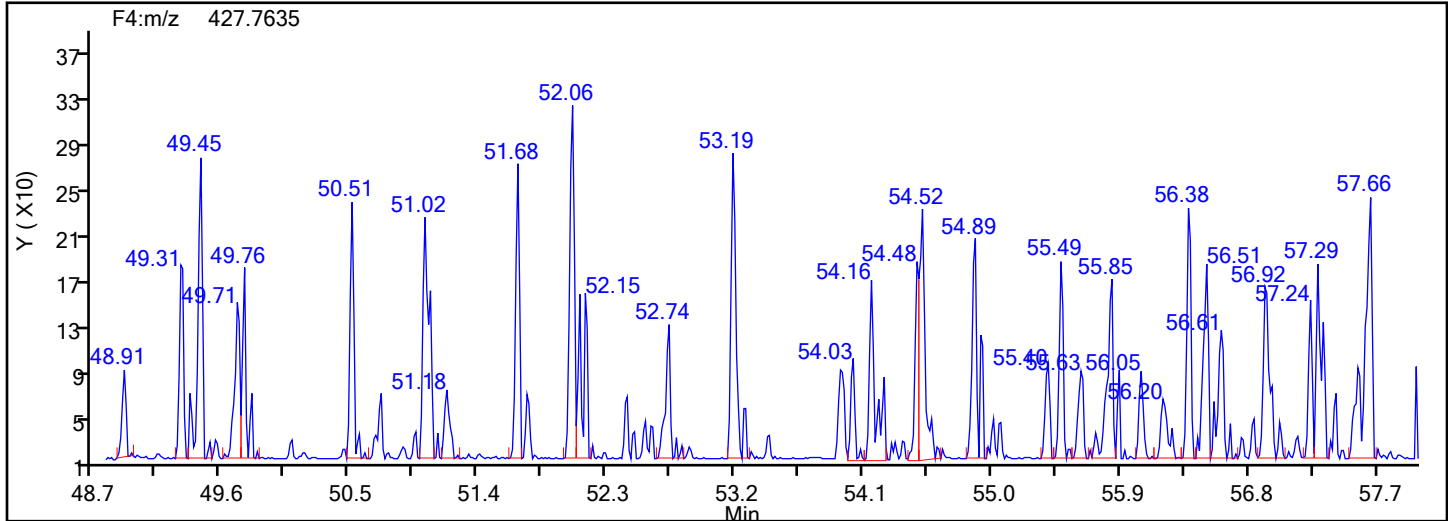


## OcPCB F4 Standards

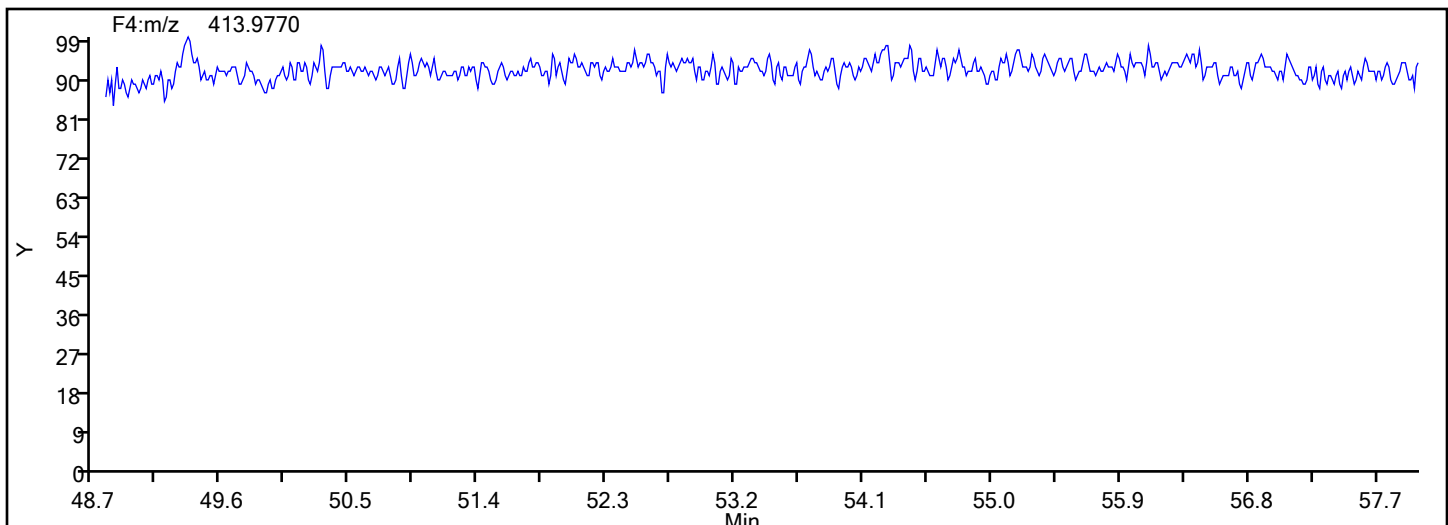


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-1-d.d  
Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4

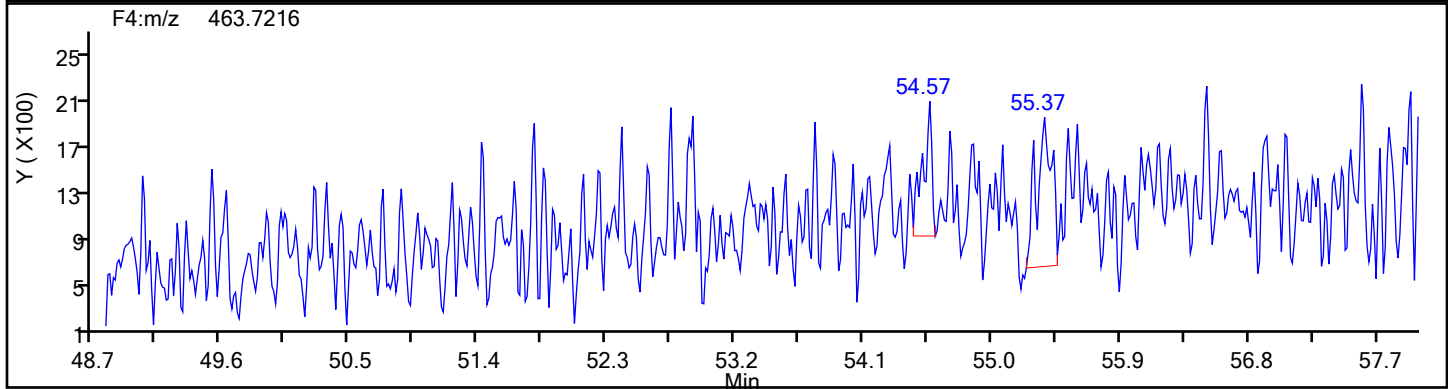
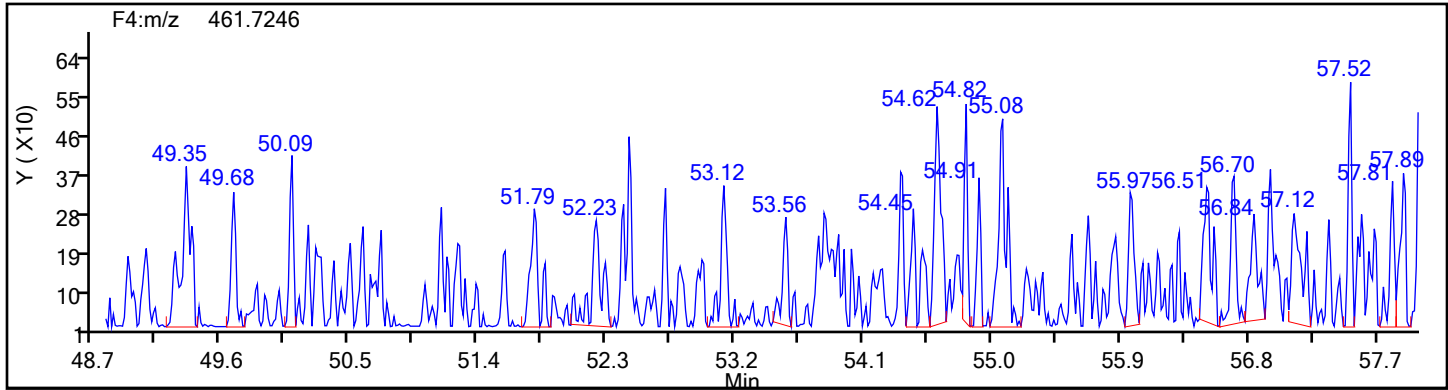


## OcPCB F4 Lock Mass

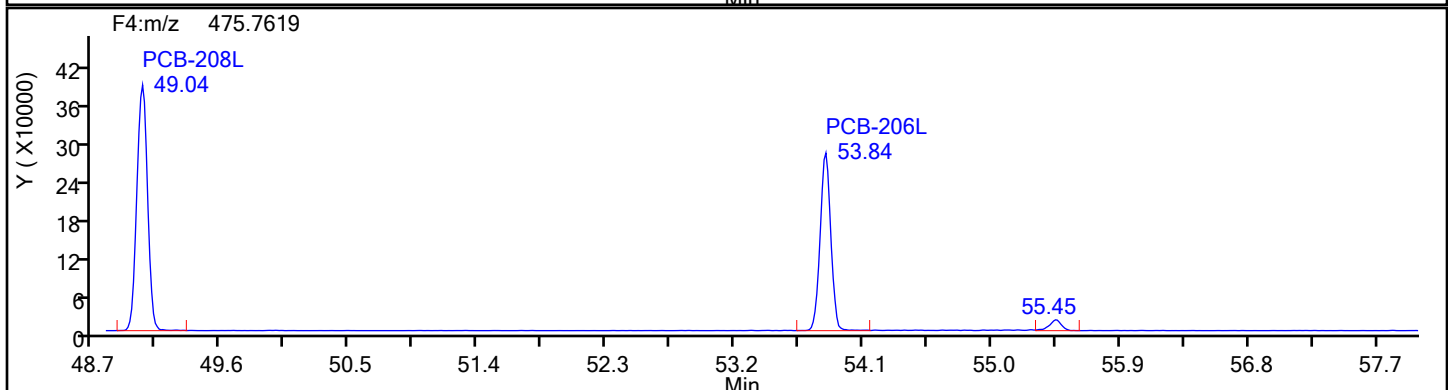
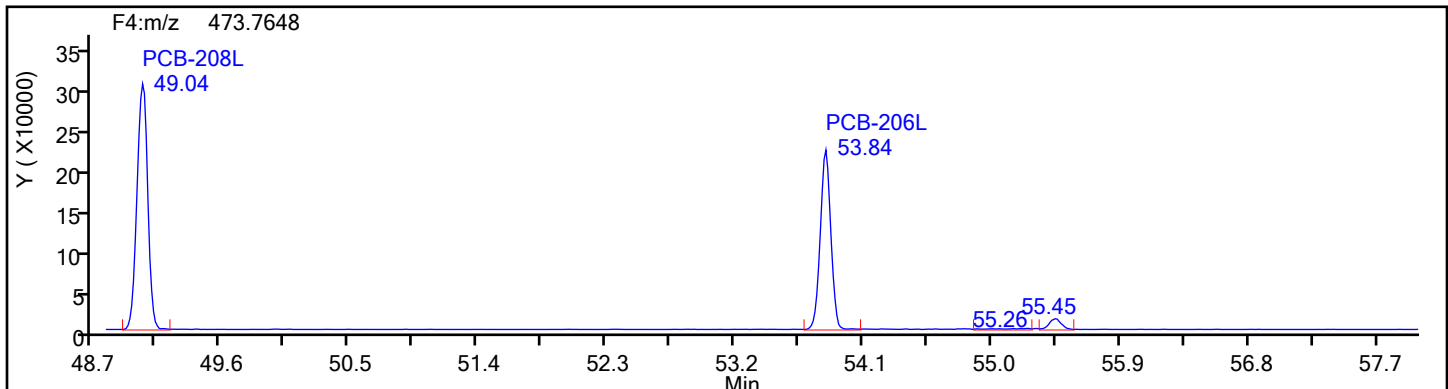


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-1-d.d  
Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4

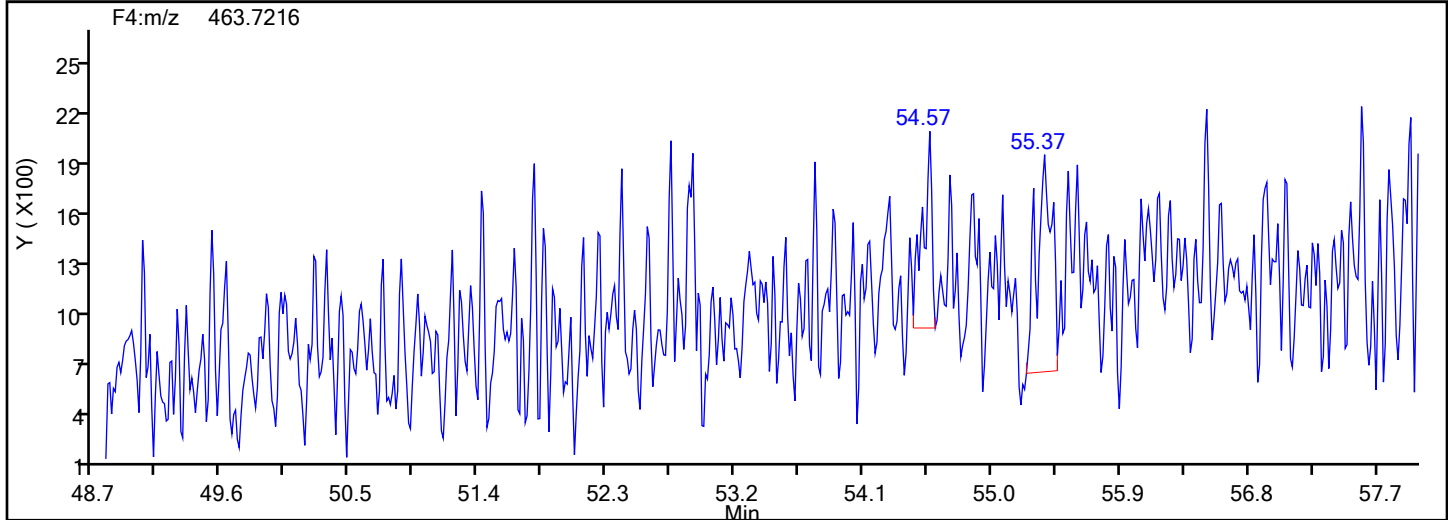
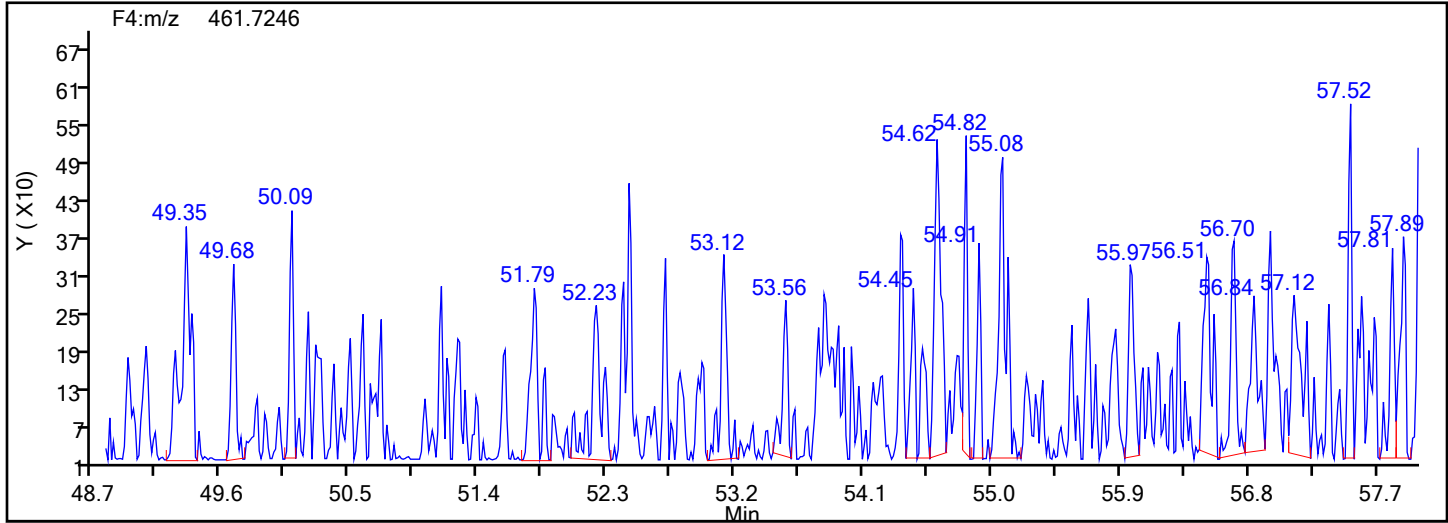


## NoPCB F4 Standards

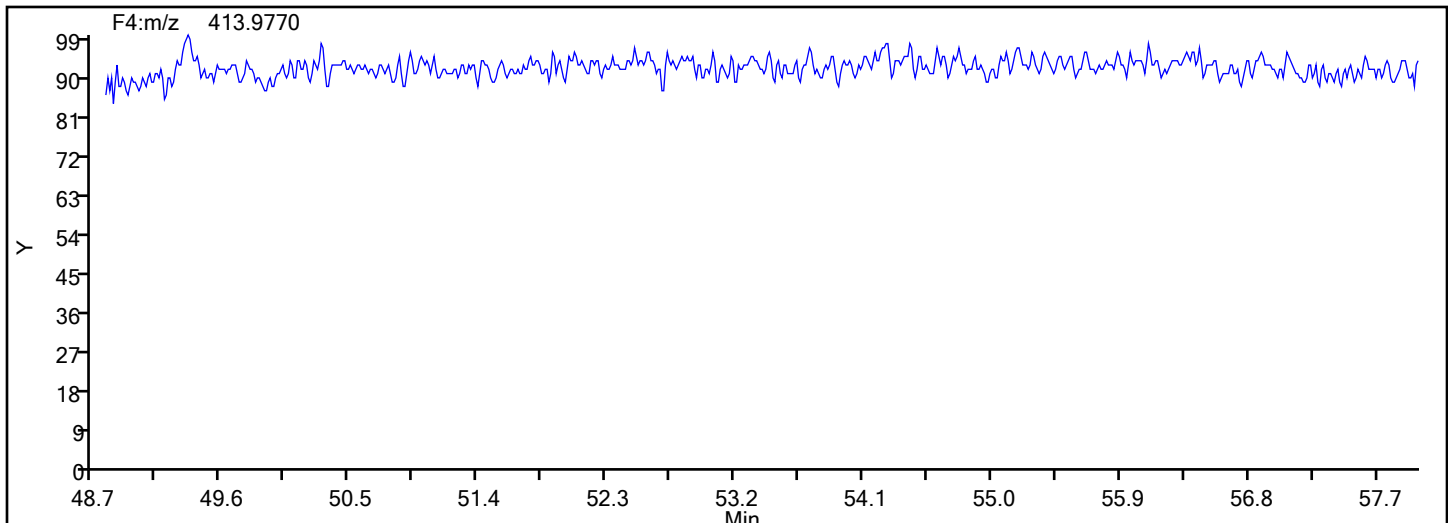


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-1-d.d  
Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4



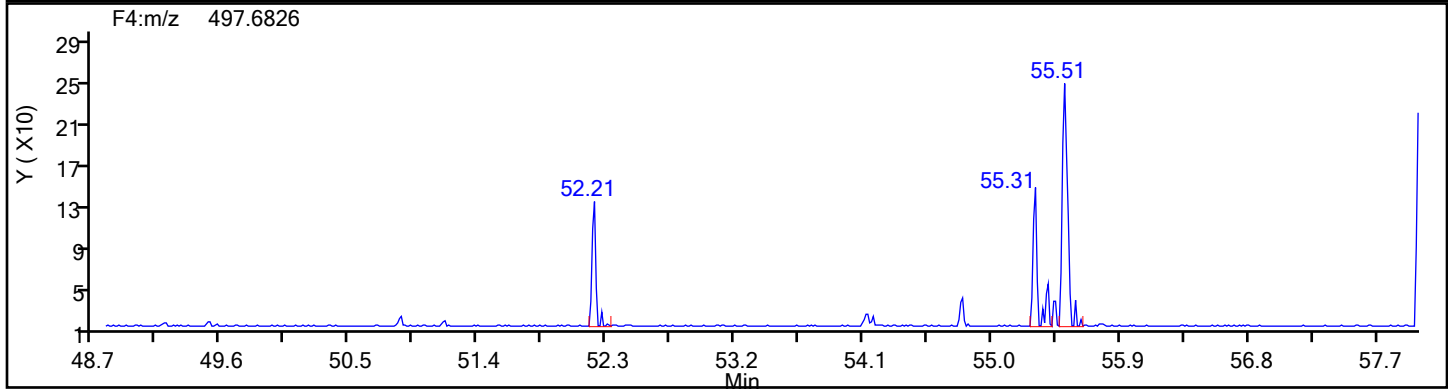
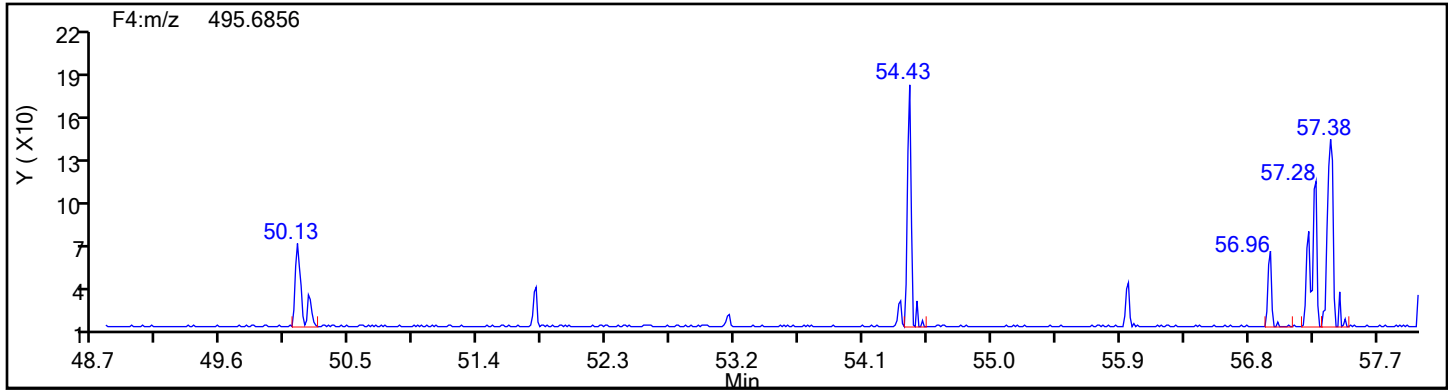
## NoPCB F4 Lock Mass



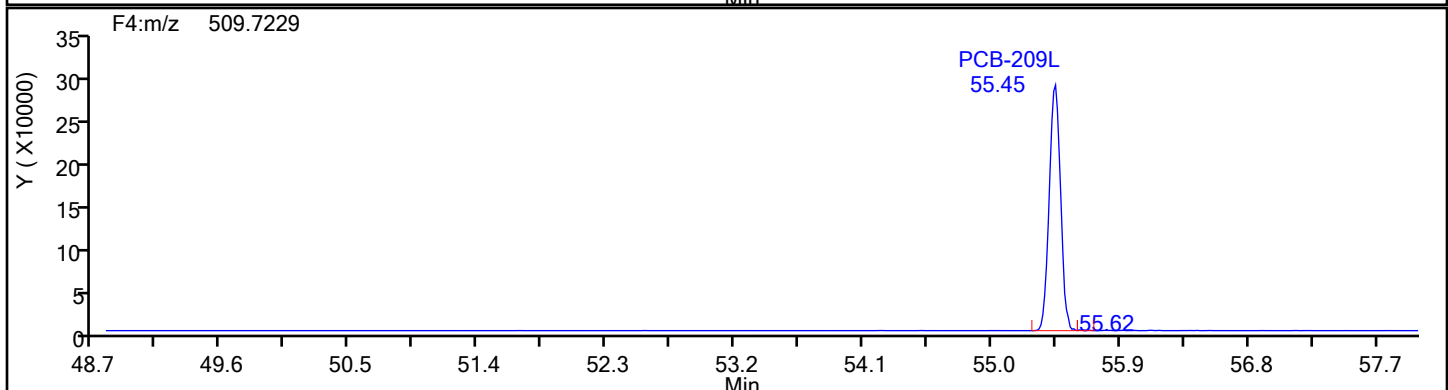
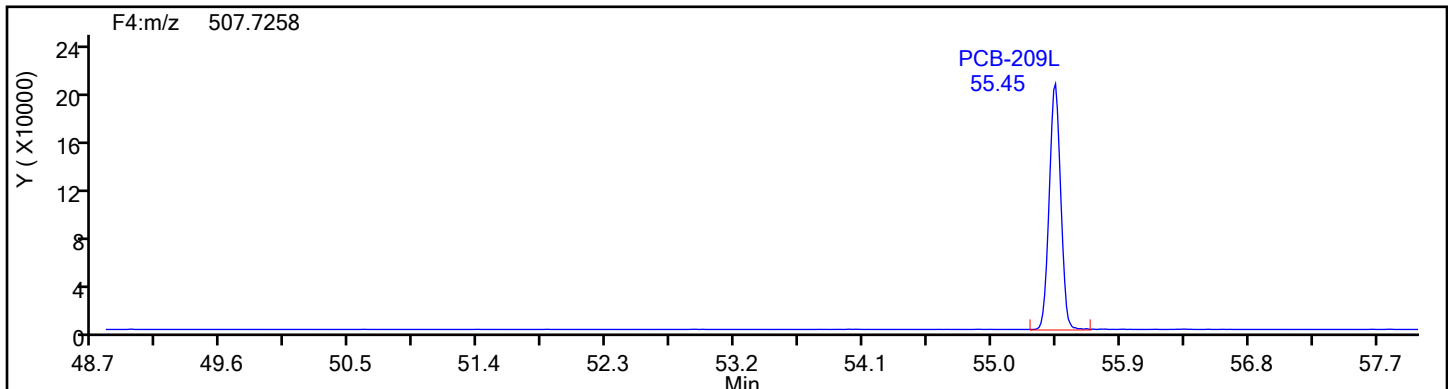


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-1-d.d  
Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4

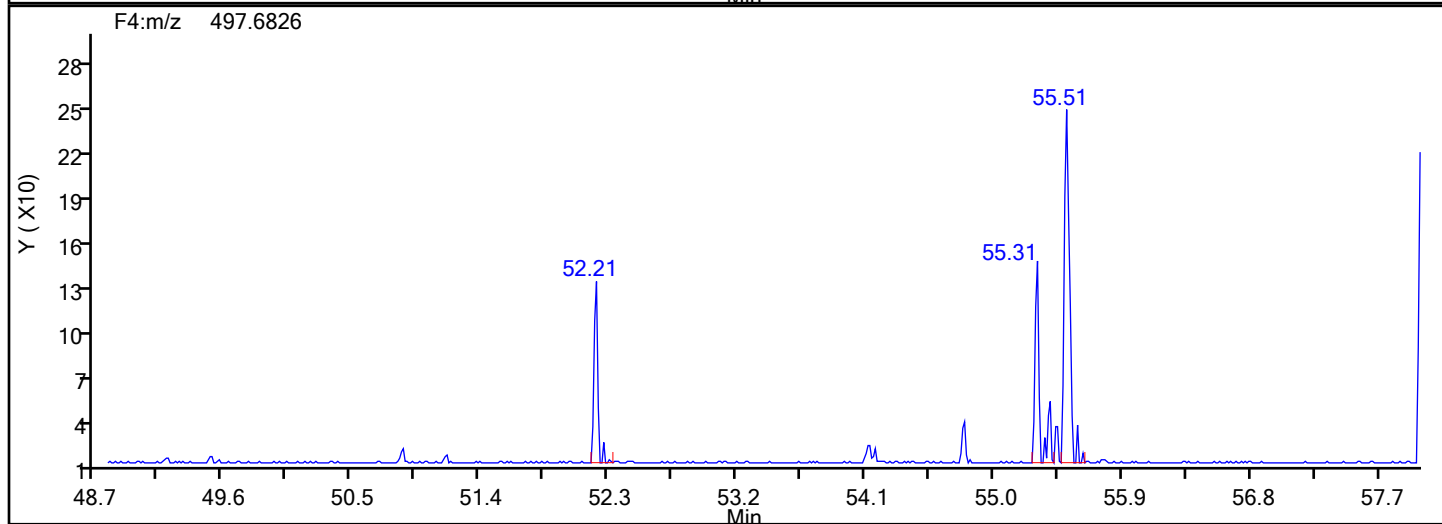
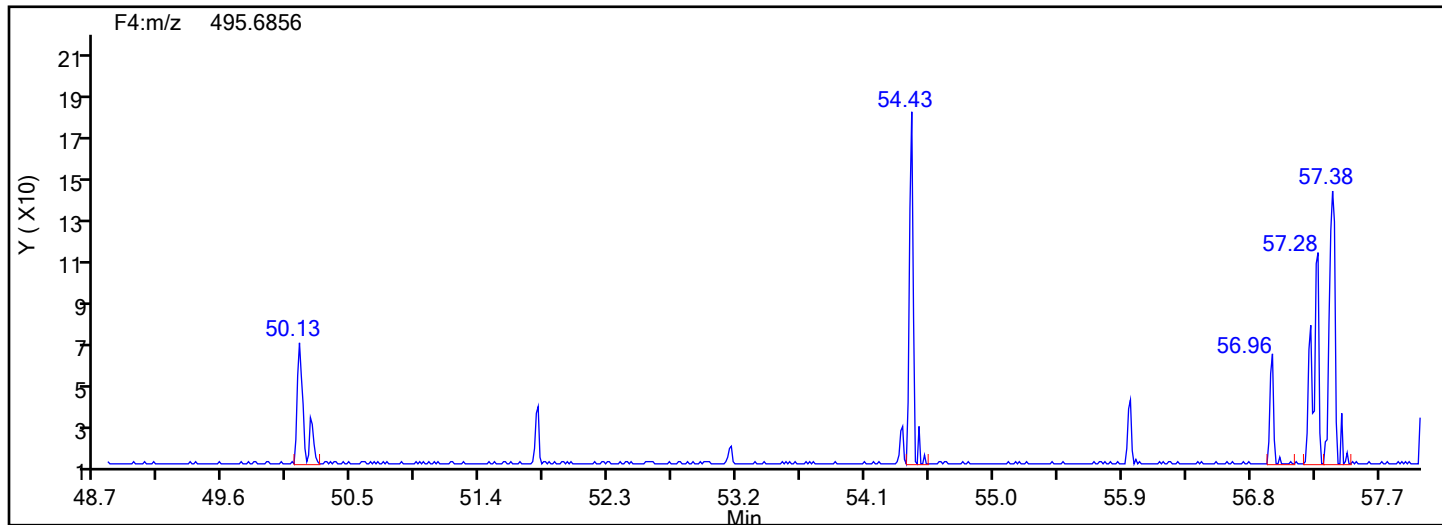


## DePCB F4 Standards

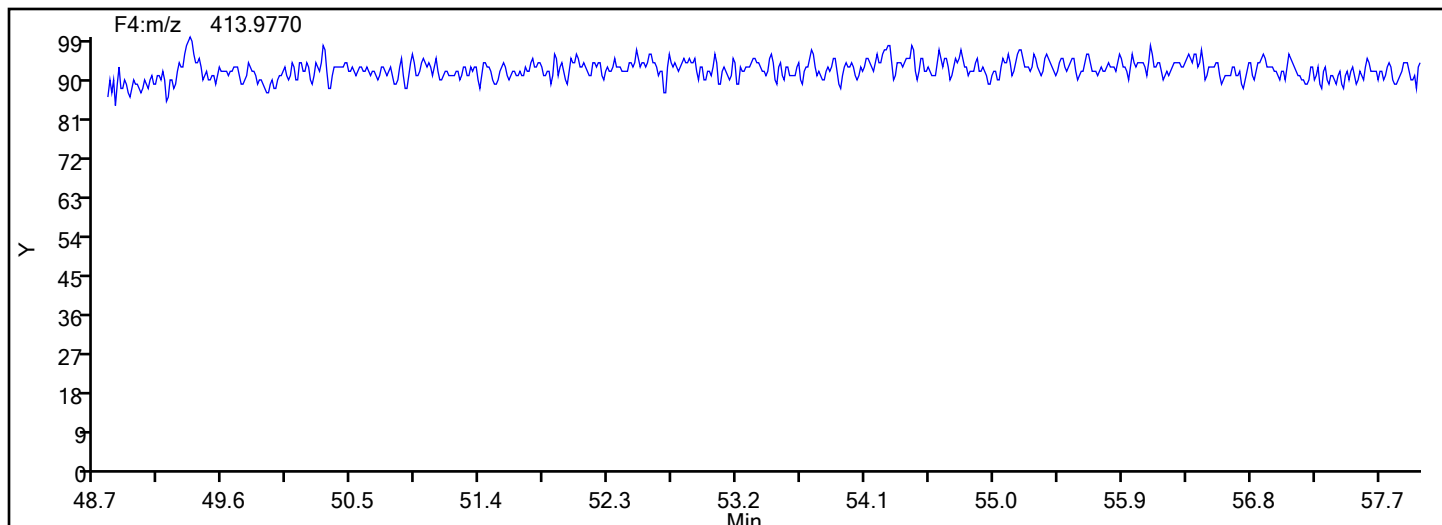


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-1-d.d  
Injection Date: 16-Jul-2024 16:41:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Worklist#: 88809 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4



## DePCB F4 Lock Mass



Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-1-d.d  
Lims ID: 140-37234-A-1-D  
Client ID: M23 F-10 BOILER RUN 2 COMBINED  
Sample Type: Client  
Inject. Date: 16-Jul-2024 16:41:00 ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033521-008  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 12:21:41 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: TT6I

Date: 17-Jul-2024 11:47:26

Compound	Amount Added	Amount Recovered	% Rec.
PCB-8L	50.0	50.7	101.35
PCB-28L	100.0	74.7	74.73
PCB-79L	50.0	54.7	109.31
PCB-95L	50.0	56.9	113.84
PCB-111L	100.0	78.8	78.82
PCB-153L	50.0	51.0	102.08
PCB-178L	100.0	86.7	86.65

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 3</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-2</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-2-d5x_202407161936</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/06/2024 11:33</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/16/2024 19:38</u>
Con. Extract Vol.: <u>30 (mL)</u>	Dilution Factor: <u>5</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88809</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
34883-43-7	PCB-8	1.76	J	3.00	0.660	0.0977
37680-65-2	PCB-18	0.837	J C	3.00	1.43	0.00774
7012-37-5	PCB-28	1.15	J B C20	3.00	1.26	0.0573
41464-39-5	PCB-44	4.41	J C B	4.50	1.95	0.0454
35693-99-3	PCB-52	0.819	J	1.50	0.660	0.0481
32598-10-0	PCB-66	0.262	J	1.50	0.600	0.0351
32598-13-3	PCB-77	0.0829	J q	1.50	0.630	0.0406
70362-50-4	PCB-81	ND		1.50	0.480	0.0411
37680-73-2	PCB-101	0.451	J C90	4.50	1.95	0.0154
32598-14-4	PCB-105	ND		1.50	0.510	0.0807
74472-37-0	PCB-114	ND		1.50	0.825	0.0754
31508-00-6	PCB-118	0.138	J	1.50	0.915	0.0735
65510-44-3	PCB-123	ND		1.50	0.855	0.0846
57465-28-8	PCB-126	ND		1.50	0.615	0.100
38380-07-3	PCB-128	ND	C	3.00	1.02	0.0190
35065-28-2	PCB-138	0.101	J C129 q	6.00	2.55	0.0197
35065-27-1	PCB-153	0.0985	J C B q	3.00	1.25	0.0170
38380-08-4	PCB-156	ND	C	3.00	1.28	0.0199
69782-90-7	PCB-157	ND	C156	3.00	1.28	0.0199
52663-72-6	PCB-167	ND		1.50	0.900	0.0135
32774-16-6	PCB-169	ND		1.50	0.615	0.0149
35065-30-6	PCB-170	ND		1.50	0.660	0.00150
35065-29-3	PCB-180	ND	C	3.00	1.02	0.00110
52663-68-0	PCB-187	ND		1.50	0.630	0.00117
39635-31-9	PCB-189	ND		1.50	0.735	0.0175
52663-78-2	PCB-195	ND		1.50	0.795	0.0101
40186-72-9	PCB-206	ND		1.50	0.855	0.298
2051-24-3	PCB-209	ND		1.50	0.690	0.00286

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 3</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-2</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-2-d5x_202407161936</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/06/2024 11:33</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/16/2024 19:38</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>5</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88809</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
234432-85-0	PCB-1L	62		20-145
208263-77-8	PCB-3L	66		20-145
234432-86-1	PCB-4L	66		20-145
208263-67-6	PCB-15L	87		20-145
234432-87-2	PCB-19L	66		20-145
208263-79-0	PCB-37L	82		20-145
234432-88-3	PCB-54L	82		20-145
105600-23-5	PCB-77L	90		20-145
208461-24-9	PCB-81L	88		20-145
234432-89-4	PCB-104L	85		20-145
208263-62-1	PCB-105L	92		20-145
208263-63-2	PCB-114L	100		20-145
104130-40-7	PCB-118L	91		20-145
208263-64-3	PCB-123L	96		20-145
208263-65-4	PCB-126L	91		20-145
234432-90-7	PCB-155L	93		20-145
208263-68-7	PCB-156L	95	C	20-145
235416-30-5	PCB-157L	95	C156	20-145
208263-69-8	PCB-167L	92		20-145
208263-70-1	PCB-169L	89		20-145
160901-80-4	PCB-170L	91		20-145
234432-91-8	PCB-188L	98		20-145
208263-73-4	PCB-189L	91		20-145
105600-26-8	PCB-202L	92		20-145
234446-64-1	PCB-205L	94		20-145
208263-75-6	PCB-206L	92		20-145
234432-92-9	PCB-208L	92		20-145
105600-27-9	PCB-209L	107		20-145

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: M23 F-10 BOILER RUN 3 Lab Sample ID: 140-37234-2  
COMBINED  
Matrix: Air Lab File ID: 140-37234-a-2-d5x\_202407161936  
Analysis Method: 23 Date Collected: 06/06/2024 11:33  
Extract. Method: Combined Prep Date Extracted: 06/27/2024 14:35  
Sample wt/vol: 1(Sample) Date Analyzed: 07/16/2024 19:38  
Con. Extract Vol.: 30 (mL) Dilution Factor: 5  
Injection Volume: 1 (uL) GC Column: SPB-Octyl ID: 0.25 (mm)  
% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
Cleanup Factor: \_\_\_\_\_ Level: (low/med) Low  
Analysis Batch No.: 88809 Units: ng/Sample  
Preparation Batch No.: 88193 Instrument ID: Excalibur D2D DFS

CAS NO.	SURROGATE	%REC	Q	LIMITS
208263-76-7	PCB-28L	76		20-130
235416-29-2	PCB-111L	77		20-130
232919-67-4	PCB-178L	86		20-130
STL01600	PCB-8L	114		70-130
STL01603	PCB-79L	109		70-130
STL01604	PCB-95L	114		70-130
STL01606	PCB-153L	102		70-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-2-d5x\_20240716193645.d  
 Lims ID: 140-37234-A-2-D  
 Client ID: M23 F-10 BOILER RUN 3 COMBINED  
 Sample Type: Client  
 Inject. Date: 16-Jul-2024 19:38:00 ALS Bottle#: 0 Worklist Smp#: 9  
 Injection Vol: 1.0 ul Dil. Factor: 5.0000  
 Sample Info:  
 Misc. Info.: 140-0033521-009  
 Operator ID: Xcalibur\_System Instrument ID: D2D  
 Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\PCBs\_D2D.m  
 Limit Group: HR - EPA\_23 PCB ICAL  
 Last Update: 17-Jul-2024 11:53:40 Calib Date: 31-May-2024 21:13:00  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
 Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
 Process Host: CTX1616

First Level Reviewer: TT6I

Date: 17-Jul-2024 11:53:40

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D PCB-1L	11:40	1307022	2.98	1.6108	12.4	12.4	0.2251	0.2251	61.98	
D PCB-3L	13:48	1363162	3.32	1.5891	13.1	13.1	0.2281	0.2281	65.53	
S Total Dichlorobiphenyls					1.173	1.173	0.0652	0.0652		
D PCB-4L	14:03	556786	1.54	0.6475	13.1	13.1	0.1771	0.1771	65.68	
* PCB-9L	16:01	1309109	1.66		20.0	20.0				
\$ PCB-8L	16:51	614689	1.59	1.2066	11.4	11.4	0.1531	0.1531	114	
D PCB-15L	19:56	1231604	1.73	1.0789	17.4	17.4	0.1063	0.1063	87.20	
PCB-8	16:52	83305	1.76	1.5889	1.173	1.173	0.0652	0.0652		
D PCB-19L	17:09	409035	1.16	0.6285	13.3	13.3	0.5361	0.5361	66.47	
* PCB-32L	20:24	979062	1.11		20.0	20.0				M
* PCB-31L	22:38	2066510	1.05		20.0	20.0				
\$ PCB-28L	22:55	1642223	1.04	1.0494	15.1	15.1	0.1018	0.1018	75.73	
D PCB-37L	26:55	1484914	1.09	0.8749	16.4	16.4	0.1221	0.1221	82.13	
PCB-18	19:03	20142	1.12	1.7652	0.5579	0.5579	0.005161	0.005161		Ma
PCB-30 (C18)	19:03	20142	1.12	1.7652	0.5579	0.5579	0.005161	0.005161		Ma
PCB-20	22:57	66828	1.13	1.1718	0.7681	0.7681	0.0382	0.0382		
PCB-28 (C20)	22:57	66828	1.13	1.1718	0.7681	0.7681	0.0382	0.0382		
S Total Tetrachlorobiphenyls					3.730	3.716	0.0280	0.0280		RQ
D PCB-54L	20:14	446188	0.84	0.5562	16.4	16.4	0.0417	0.0417	81.93	
* PCB-52L	24:45	1026260	0.81		20.0	20.0				
\$ PCB-79L	32:39	636613	0.79	1.0018	10.9	10.9	0.1271	0.1271	109	
D PCB-81L	33:39	1120912	0.78	1.2470	17.5	17.5	0.0886	0.0886	87.59	
D PCB-77L	34:13	1217973	0.83	1.3212	18.0	18.0	0.0836	0.0836	89.83	
PCB-52	24:46	29345	0.65	0.9194	0.5458	0.5458	0.0321	0.0321		M
PCB-44	25:48	167297	0.72	0.9731	2.940	2.940	0.0303	0.0303		
PCB-47 (C44)	25:48	167297	0.72	0.9731	2.940	2.940	0.0303	0.0303		
PCB-65 (C44)	25:48	167297	0.72	0.9731	2.940	2.940	0.0303	0.0303		
PCB-66	29:52	12837	0.87	1.2583	0.1745	0.1745	0.0234	0.0234		M
PCB-81	33:40						0.0274	0.0274		
PCB-77	34:16	3648	0.77	1.0836	0.0692	0.0553	0.0271	0.0271		RQM
S Total Pentachlorobiphenyls					0.3924	0.3924	0.0477	0.0477		
D PCB-104L	25:40	731234	1.62	1.2161	16.9	16.9	0.0434	0.0434	84.56	
\$ PCB-95L	28:39	300020	1.64	0.7218	11.4	11.4	0.0631	0.0631	114	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-101L	31:34	711081	1.64		20.0	20.0				
\$ PCB-111L	34:13	752558	1.60	1.3699	15.5	15.5	0.0385	0.0385	77.26	
D PCB-123L	36:12	1095481	1.64	0.9731	19.1	19.1	0.2670	0.2670	95.59	
D PCB-118L	36:31	1087075	1.62	1.0102	18.3	18.3	0.2573	0.2573	91.38	
D PCB-114L	37:02	1175075	1.57	0.9949	20.1	20.1	0.2612	0.2612	100	
D PCB-105L	37:43	1032298	1.61	0.9514	18.4	18.4	0.2731	0.2731	92.14	
* PCB-127L	39:10	1177601	1.64		20.0	20.0				
D PCB-126L	40:47	1009074	1.59	0.9439	18.2	18.2	0.2753	0.2753	90.79	
PCB-90	31:37	10489	1.64	0.9550	0.3004	0.3004	0.0102	0.0102		M
PCB-101 (C90)	31:37	10489	1.64	0.9550	0.3004	0.3004	0.0102	0.0102		M
PCB-113 (C90)	31:37	10489	1.64	0.9550	0.3004	0.3004	0.0102	0.0102		M
PCB-123	36:13						0.0564	0.0564		
PCB-118	36:33	6029	1.53	1.2055	0.0920	0.0920	0.0490	0.0490		M
PCB-114	37:04						0.0503	0.0503		
PCB-105	37:44						0.0538	0.0538		
PCB-126	40:49						0.0668	0.0668		
S Total Hexachlorobiphenyls					0.1549	0.1332	0.0116	0.0116		RQ
D PCB-155L	31:18	720999	1.25	1.0851	18.7	18.7	0.0549	0.0549	93.44	
\$ PCB-153L	38:22	416402	1.27	0.9169	10.2	10.2	0.1643	0.1643	102	
* PCB-138L	39:38	779067	1.28		20.0	20.0				
D PCB-167L	42:37	896335	1.31	1.2572	18.3	18.3	0.1098	0.1098	91.51	
D PCB-156L	43:48	1787223	1.30	1.2106	37.9	37.9	0.1141	0.1141	94.75	
D PCB-157L (C156L)	43:48	1787223	1.30	1.2106	37.9	37.9	0.1141	0.1141	94.75	
D PCB-169L	47:01	865190	1.36	1.2439	17.9	17.9	0.1110	0.1110	89.28	
PCB-153	38:23	3187	1.24	1.0938	0.0726	0.0657	0.0114	0.0114		RQ
PCB-168 (C153)	38:23	3187	1.24	1.0938	0.0726	0.0657	0.0114	0.0114		RQ
PCB-129	39:39	2836	1.24	0.9464	0.0822	0.0676	0.0131	0.0131		RQ
PCB-138 (C129)	39:39	2836	1.24	0.9464	0.0822	0.0676	0.0131	0.0131		RQ
PCB-160 (C129)	39:39	2836	1.24	0.9464	0.0822	0.0676	0.0131	0.0131		RQ
PCB-163 (C129)	39:39	2836	1.24	0.9464	0.0822	0.0676	0.0131	0.0131		RQ
PCB-128	40:53						0.0126	0.0126		
PCB-166 (C128)	40:53						0.0126	0.0126		
PCB-167	42:39						0.008993	0.008993		
PCB-156	43:48						0.0133	0.0133		
PCB-157 (C156)	43:48						0.0133	0.0133		
PCB-169	47:02						0.0099	0.0099		
S Total Heptachlorobiphenyls							0.0117	0.0117		
D PCB-188L	37:02	745576	1.08	1.3133	19.5	19.5	0.0184	0.0184	97.70	
\$ PCB-178L	40:04	513618	1.05	1.0313	17.1	17.1	0.0234	0.0234	85.71	
* PCB-180L	45:09	581043	1.12		20.0	20.0				
D PCB-170L	46:25	440179	1.11	0.8362	18.1	18.1	0.0289	0.0289	90.59	
D PCB-189L	49:31	982585	1.06	1.4414	18.3	18.3	0.3314	0.3314	91.26	
PCB-187	41:00						0.000778	0.000778		
PCB-180	45:10						0.000734	0.000734		
PCB-193 (C180)	45:10						0.000734	0.000734		
PCB-170	46:27						0.001000	0.001000		
PCB-189	49:33						0.0117	0.0117		
S Total Octachlorobiphenyls							0.006760	0.006760		
D PCB-202L	42:22	523850	0.90	0.9818	18.4	18.4	0.0156	0.0156	91.83	
* PCB-194L	51:37	746977	0.93		20.0	20.0				
D PCB-205L	52:05	824350	0.91	1.1786	18.7	18.7	0.1793	0.1793	93.64	
PCB-195	49:19						0.006760	0.006760		
S Total Nonachlorobiphenyls							0.1989	0.1989		
D PCB-208L	49:02	655290	0.78	0.9576	18.3	18.3	0.3531	0.3531	91.61	
D PCB-206L	53:50	476673	0.84	0.6947	18.4	18.4	0.4868	0.4868	91.86	
PCB-206	53:52						0.1989	0.1989		
D PCB-209L	55:27	532915	0.70	0.6669	21.4	21.4	0.0467	0.0467	107	
DCB Decachlorobiphenyl	55:30						0.001906	0.001906		



Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
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S Polychlorinated biphenyls, Total

5.450

0.0465

0.0465

RQ

### QC Flag Legend

#### Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

#### Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-2-d5x\_20240716193645.d  
Lims ID: 140-37234-A-2-D  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Sample Type: Client  
Inject. Date: 16-Jul-2024 19:38:00 ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Sample Info:  
Misc. Info.: 140-0033521-009  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 11:53:40 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICAL File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: TT6I

Date: 17-Jul-2024 11:53:40

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:40	11:38	1	0.728	978332	391104	439	1097	891		
202.0766	11:40	11:38	1	0.728	328690	133516	2230	5575	60	2.98(2.66-3.60)	
PCB-3L											
200.0795	13:48	13:47	0	0.862	1047484	324228	439	1097	739		
202.0766	13:48	13:47	0	0.862	315678	101630	2230	5575	46	3.32(2.66-3.60)	
PCB-4L											
234.0406	14:03	14:02	0	0.878	337677	112424	676	1690	166		
236.0376	14:03	14:02	0	0.878	219109	71087	168	420	423	1.54(1.33-1.79)	
PCB-9L											
234.0406	16:01	16:00	1		817456	229934	676	1690	340		
236.0376	16:01	16:00	1		491653	138133	168	420	822	1.66(1.33-1.79)	
PCB-8L											
234.0406	16:51	16:49	1	1.199	376924	98047	676	1690	145		
236.0376	16:51	16:49	1	1.199	237765	62088	168	420	370	1.59(1.33-1.79)	
PCB-15L											
234.0406	19:56	19:53	2	1.246	780154	168133	676	1690	249		
236.0376	19:56	19:53	2	1.246	451450	105095	168	420	626	1.73(1.33-1.79)	
PCB-8											
222.0003	16:52	16:53	0	1.200	53167	15676	181	452	87		
223.9974	16:52	16:53	0	1.200	30138	8322	292	730	29	1.76(1.33-1.79)	
PCB-19L											
268.0016	17:09	17:08	0	0.841	219255	61567	365	912	169		
269.9986	17:09	17:08	0	0.841	189780	52585	1234	3085	43	1.16(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-32L											M
268.0016	20:24	20:22	2		515425	124342	365	912	341		M
269.9986	20:24	20:22	2		463637	112913	1234	3085	92	1.11(0.88-1.20)	
PCB-31L											
268.0016	22:38	22:37	0		1059112	248587	680	1700	366		
269.9986	22:38	22:37	0		1007398	239093	362	905	660	1.05(0.88-1.20)	
PCB-28L											
268.0016	22:55	22:54	0	1.013	836643	188350	680	1700	277		
269.9986	22:55	22:54	0	1.013	805580	177238	362	905	490	1.04(0.88-1.20)	
PCB-37L											
268.0016	26:55	26:54	0	1.190	772859	136124	680	1700	200		
269.9986	26:55	26:54	0	1.190	712055	134406	362	905	371	1.09(0.88-1.20)	
PCB-18											Ma
255.9613	19:03	19:04	5	1.110	10624	2671	11	27	243		M
257.9584	19:04	19:04	6	1.111	9518	2430	10	25	243	1.12(0.88-1.20)	M
PCB-30 (C18)											Ma
255.9613	19:03	19:04	5	1.110	10624	2671	11	27	243		M
257.9584	19:04	19:04	6	1.111	9518	2430	10	25	243	1.12(0.88-1.20)	M
PCB-20											
255.9613	22:57	22:56	0	0.852	35415	7540	170	425	44		
257.9584	22:56	22:56	-1	0.852	31413	6383	72	180	89	1.13(0.88-1.20)	
PCB-28 (C20)											
255.9613	22:57	22:56	0	0.852	35415	7540	170	425	44		
257.9584	22:56	22:56	-1	0.852	31413	6383	72	180	89	1.13(0.88-1.20)	
PCB-54L											
301.9626	20:14	20:12	1	0.817	204097	49911	80	200	624		
303.9597	20:14	20:12	1	0.817	242091	59563	30	75	1985	0.84(0.65-0.89)	
PCB-52L											
301.9626	24:45	24:45	0		459603	104802	208	520	504		
303.9597	24:45	24:45	0		566657	123703	297	742	417	0.81(0.65-0.89)	
PCB-79L											
301.9626	32:39	32:40	0	0.970	281590	52917	208	520	254		
303.9597	32:39	32:40	0	0.970	355023	66349	297	742	223	0.79(0.65-0.89)	
PCB-81L											
301.9626	33:39	33:37	0	1.360	491801	85742	208	520	412		
303.9597	33:39	33:37	0	1.360	629111	111377	297	742	375	0.78(0.65-0.89)	
PCB-77L											
301.9626	34:13	34:12	0	1.383	552273	87411	208	520	420		
303.9597	34:13	34:12	0	1.383	665700	111828	297	742	377	0.83(0.65-0.89)	
PCB-52											M
289.9224	24:46	24:46	0	1.224	11599	2700	50	125	54		
291.9194	24:46	24:46	0	1.224	17746	4403	67	167	66	0.65(0.65-0.89)	M
PCB-44											
289.9224	25:48	25:49	2	1.275	69928	13858	50	125	277		
291.9194	25:47	25:49	1	1.275	97369	20618	67	167	308	0.72(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-47 (C44)											
289.9224	25:48	25:49	2	1.275	69928	13858	50	125	277		
291.9194	25:47	25:49	1	1.275	97369	20618	67	167	308	0.72(0.65-0.89)	
PCB-65 (C44)											
289.9224	25:48	25:49	2	1.275	69928	13858	50	125	277		
291.9194	25:47	25:49	1	1.275	97369	20618	67	167	308	0.72(0.65-0.89)	
PCB-66											
289.9224	29:52	29:52	0	0.888	5961	1289	50	125	26		M
291.9194	29:50	29:52	-2	0.887	6876	1407	67	167	21	0.87(0.65-0.89)	M
PCB-81											
289.9224	33:41						50	125			
291.9194	33:41						67	167			
PCB-77											
289.9224	34:16	34:13	1	1.001	1587	481	50	125	10		RQM
291.9194	34:13	34:13	-1	1.000	2977	627	67	167	9	0.53(0.65-0.89)	M
Empc Correction					2061	624	67	167	9		
PCB-104L											
337.9207	25:40	25:40	0	0.813	451769	99341	130	325	764		
339.9178	25:40	25:40	0	0.813	279465	64122	19	47	3375	1.62(1.32-1.78)	
PCB-95L											
337.9207	28:39	28:39	0	1.116	186276	39354	130	325	303		
339.9178	28:38	28:39	-1	1.116	113744	24966	19	47	1314	1.64(1.32-1.78)	
PCB-101L											
337.9207	31:34	31:34	0		441666	85460	130	325	657		
339.9178	31:34	31:34	0		269415	55444	19	47	2918	1.64(1.32-1.78)	
PCB-111L											
337.9207	34:13	34:12	0	1.084	462936	90398	130	325	695		
339.9178	34:13	34:12	0	1.084	289622	56578	19	47	2978	1.60(1.32-1.78)	
PCB-123L											
337.9207	36:12	36:11	0	1.147	680301	128770	744	1860	173		
339.9178	36:12	36:11	0	1.147	415180	79611	396	990	201	1.64(1.32-1.78)	
PCB-118L											
337.9207	36:31	36:30	0	1.157	672017	132468	744	1860	178		
339.9178	36:31	36:30	0	1.157	415058	80890	396	990	204	1.62(1.32-1.78)	
PCB-114L											
337.9207	37:02	37:02	-1	1.174	717527	139109	744	1860	187		
339.9178	37:02	37:02	-1	1.174	457548	92140	396	990	233	1.57(1.32-1.78)	
PCB-105L											
337.9207	37:43	37:41	0	1.195	636212	122282	744	1860	164		
339.9178	37:43	37:41	0	1.195	396086	74989	396	990	189	1.61(1.32-1.78)	
PCB-127L											
337.9207	39:10	39:10	0		732139	138524	744	1860	186		
339.9178	39:10	39:10	0		445462	80818	396	990	204	1.64(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-126L											
337.9207	40:47	40:46	-1	1.292	618931	106574	744	1860	143		
339.9178	40:47	40:46	-1	1.292	390143	65400	396	990	165	1.59(1.32-1.78)	
PCB-90											
325.8804	31:37	31:37	3	1.232	6510	1019	24	60	42		M
327.8775	31:35	31:37	1	1.230	3979	692	8	20	87	1.64(1.32-1.78)	M
PCB-101 (C90)											
325.8804	31:37	31:37	3	1.232	6510	1019	24	60	42		M
327.8775	31:35	31:37	1	1.230	3979	692	8	20	87	1.64(1.32-1.78)	M
PCB-113 (C90)											
325.8804	31:37	31:37	3	1.232	6510	1019	24	60	42		M
327.8775	31:35	31:37	1	1.230	3979	692	8	20	87	1.64(1.32-1.78)	M
PCB-123											
325.8804	36:13						136	340			
327.8775	36:13						116	290			
PCB-118											
325.8804	36:33	36:33	1	1.001	3646	796	136	340	6		M
327.8775	36:33	36:33	1	1.001	2383	710	116	290	6	1.53(1.32-1.78)	M
PCB-114											
325.8804	37:03						136	340			
327.8775	37:03						116	290			
PCB-105											
325.8804	37:44						136	340			
327.8775	37:44						116	290			
PCB-126											
325.8804	40:48						136	340			
327.8775	40:48						116	290			
PCB-155L											
371.8817	31:18	31:18	0	0.790	400008	80635	87	217	927		
373.8788	31:18	31:18	0	0.790	320991	66008	81	202	815	1.25(1.05-1.43)	
PCB-153L											
371.8817	38:22	38:23	-1	0.900	232839	43199	356	890	121		
373.8788	38:23	38:23	0	0.900	183563	35515	56	140	634	1.27(1.05-1.43)	
PCB-138L											
371.8817	39:38	39:38	-1		437699	83651	356	890	235		
373.8788	39:38	39:38	-1		341368	65510	56	140	1170	1.28(1.05-1.43)	
PCB-167L											
371.8817	42:37	42:36	0	1.076	508546	96704	356	890	272		
373.8788	42:37	42:36	0	1.076	387789	72710	56	140	1298	1.31(1.05-1.43)	
PCB-156L											
371.8817	43:48	43:47	0	1.105	1011349	131918	356	890	371		
373.8788	43:47	43:47	-1	1.105	775874	98318	56	140	1756	1.30(1.05-1.43)	
PCB-157L (C156L)											
371.8817	43:48	43:47	0	1.105	1011349	131918	356	890	371		
373.8788	43:47	43:47	-1	1.105	775874	98318	56	140	1756	1.30(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	⌈ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-169L											
371.8817	47:01	47:00	0	1.186	499105	82522	356	890	232		
373.8788	47:00	47:00	-1	1.186	366085	64917	56	140	1159	1.36(1.05-1.43)	
PCB-153											
359.8415	38:23	38:26	-3	0.900	2100	425	14	35	30		RQ
	Empc Correction				1764	349	14	35	25		
361.8385	38:24	38:26	-2	0.901	1423	282	20	50	14	1.48(1.05-1.43)	
PCB-168 (C153)											
359.8415	38:23	38:26	-3	0.900	2100	425	14	35	30		RQ
	Empc Correction				1764	349	14	35	25		
361.8385	38:24	38:26	-2	0.901	1423	282	20	50	14	1.48(1.05-1.43)	
PCB-129											
359.8415	39:39	39:39	-1	0.930	1570	329	14	35	24		RQ
361.8385	39:40	39:39	0	0.931	1883	485	20	50	24	0.83(1.05-1.43)	
	Empc Correction				1266	265	20	50	13		
PCB-138 (C129)											
359.8415	39:39	39:39	-1	0.930	1570	329	14	35	24		RQ
361.8385	39:40	39:39	0	0.931	1883	485	20	50	24	0.83(1.05-1.43)	
	Empc Correction				1266	265	20	50	13		
PCB-160 (C129)											
359.8415	39:39	39:39	-1	0.930	1570	329	14	35	24		RQ
361.8385	39:40	39:39	0	0.931	1883	485	20	50	24	0.83(1.05-1.43)	
	Empc Correction				1266	265	20	50	13		
PCB-163 (C129)											
359.8415	39:39	39:39	-1	0.930	1570	329	14	35	24		RQ
361.8385	39:40	39:39	0	0.931	1883	485	20	50	24	0.83(1.05-1.43)	
	Empc Correction				1266	265	20	50	13		
PCB-128											
359.8415	41:01						14	35			
361.8385	41:01						20	50			
PCB-166 (C128)											
359.8415	41:01						14	35			
361.8385	41:01						20	50			
PCB-167											
359.8415	42:39						14	35			
361.8385	42:39						20	50			
PCB-156											
359.8415	43:48						14	35			
361.8385	43:48						20	50			
PCB-157 (C156)											
359.8415	43:48						14	35			
361.8385	43:48						20	50			
PCB-169											
359.8415	47:02						14	35			
361.8385	47:02						20	50			
PCB-188L											
405.8428	37:02	37:01	0	0.820	386631	80344	54	135	1488		
407.8398	37:02	37:01	0	0.820	358945	68731	1	2	68731	1.08(0.89-1.21)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-178L											
405.8428	40:04	40:04	-1	0.888	262708	51313	54	135	950		
407.8398	40:04	40:04	-1	0.888	250910	47708	1	2	47708	1.05(0.89-1.21)	
PCB-180L											
405.8428	45:09	45:10	-1		307174	59786	54	135	1107		
407.8398	45:09	45:10	-1		273869	53773	1	2	53773	1.12(0.89-1.21)	
PCB-170L											
405.8428	46:25	46:25	-1	1.028	231580	44227	54	135	819		
407.8398	46:25	46:25	-1	1.028	208599	40083	1	2	40083	1.11(0.89-1.21)	
PCB-189L											
405.8428	49:31	49:31	-1	1.097	504996	92211	822	2055	112		
407.8398	49:31	49:31	-1	1.097	477589	88871	527	1317	169	1.06(0.89-1.21)	
PCB-187											
393.8025	41:00						1	2			
395.7995	41:00						1	2			
PCB-180											
393.8025	45:10						1	2			
395.7995	45:10						1	2			
PCB-193 (C180)											
393.8025	45:10						1	2			
395.7995	45:10						1	2			
PCB-170											
393.8025	46:27						1	2			
395.7995	46:27						1	2			
PCB-189											
393.8025	49:32						24	60			
395.7995	49:32						17	42			
PCB-202L											
439.8038	42:22	42:23	-2	0.821	247940	46281	29	72	1596		
441.8008	42:22	42:23	-2	0.821	275910	54075	6	15	9013	0.90(0.76-1.02)	
PCB-194L											
439.8038	51:37	51:38	-1		359185	67880	361	902	188		
441.8008	51:37	51:38	-1		387792	73303	236	590	311	0.93(0.76-1.02)	
PCB-205L											
439.8038	52:05	52:05	-1	1.009	393441	79108	361	902	219		
441.8008	52:05	52:05	-1	1.009	430909	82004	236	590	347	0.91(0.76-1.02)	
PCB-195											
427.7635	49:18						8	20			
429.7606	49:18						10	25			
PCB-208L											
473.7648	49:02	49:02	-1	0.950	287477	54265	412	1030	132		
475.7619	49:02	49:02	-1	0.950	367813	69878	543	1357	129	0.78(0.65-0.89)	
PCB-206L											
473.7648	53:50	53:51	-1	1.043	218114	41661	412	1030	101		
475.7619	53:50	53:51	-1	1.043	258559	48378	543	1357	89	0.84(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
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## PCB-206

461.7246	53:51						91	227			
463.7216	53:51						387	967			

## PCB-209L

507.7258	55:27	55:27	-1	1.074	220034	38720	68	170	569		
509.7229	55:27	55:27	-1	1.074	312881	56629	20	50	2831	0.70(0.59-0.79)	

## DCB Decachlorobiphenyl

495.6856	55:29						1	2			
497.6826	55:29						3	7			

## QC Flag Legend

## Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

## Review Flags

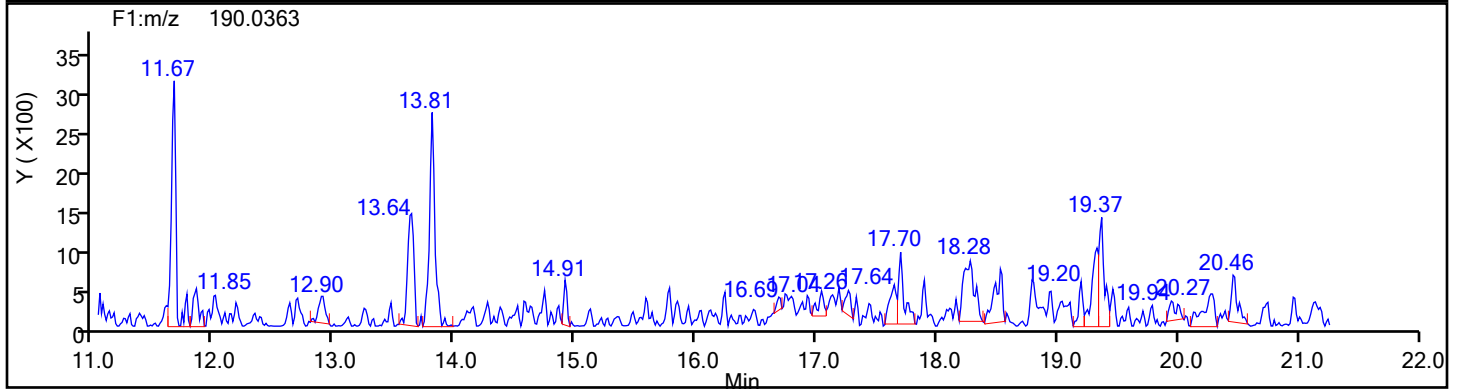
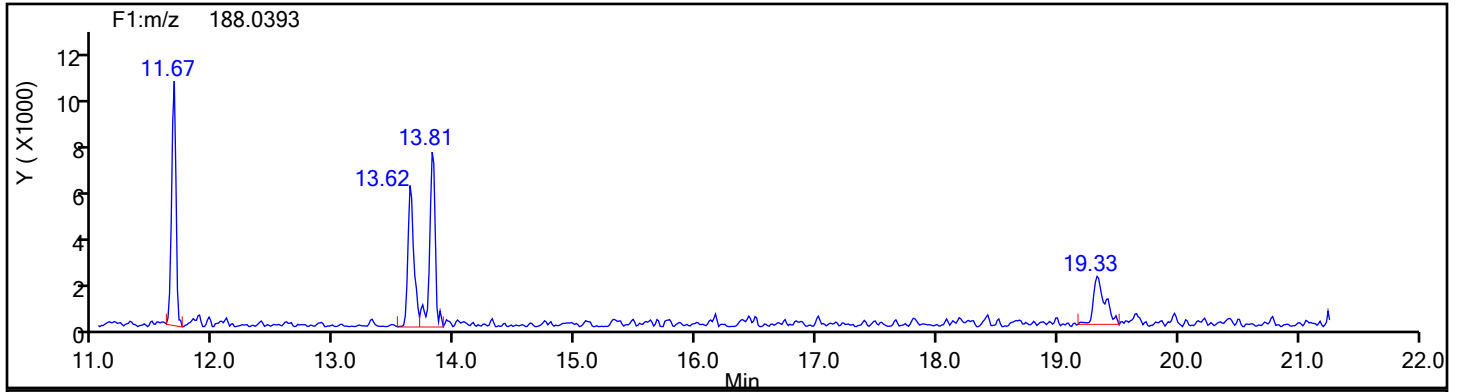
M - Manually Integrated

a - User Assigned ID

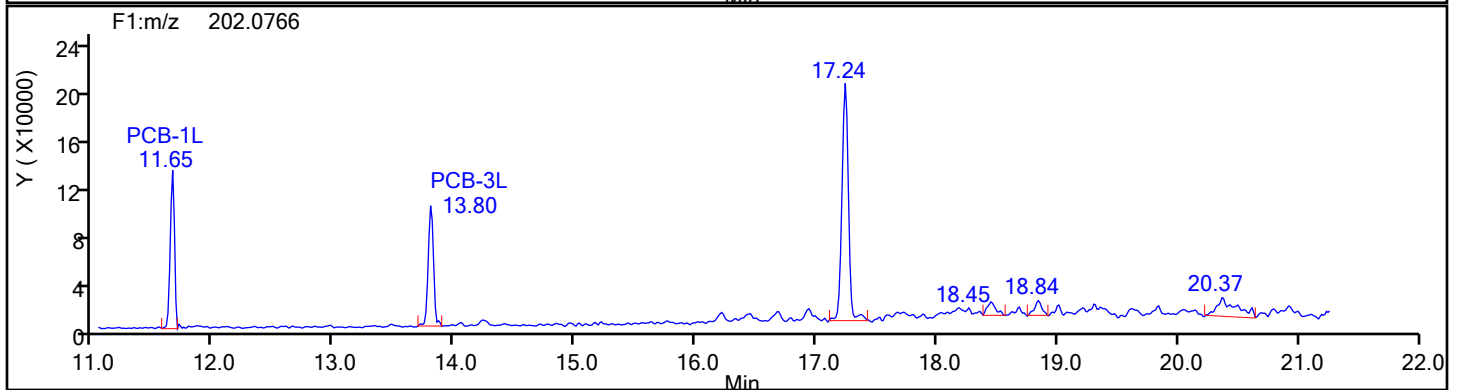
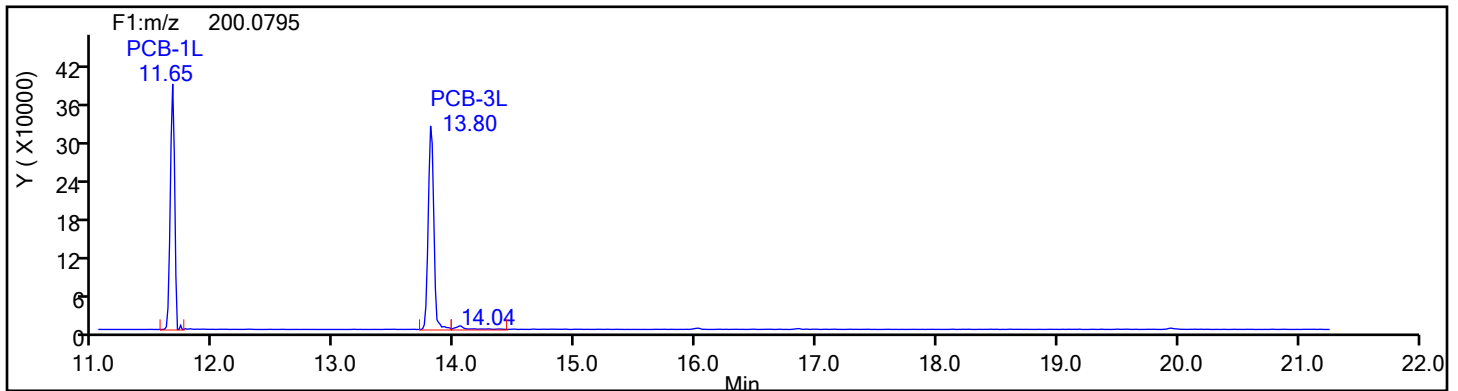


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 19:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
MoPCB F1

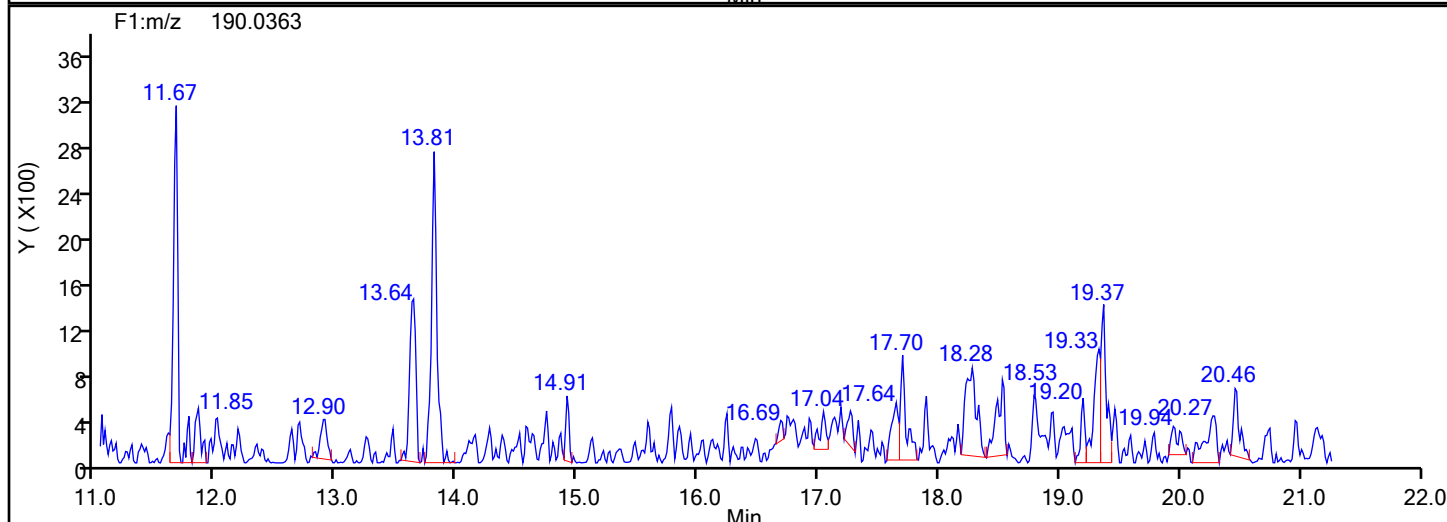
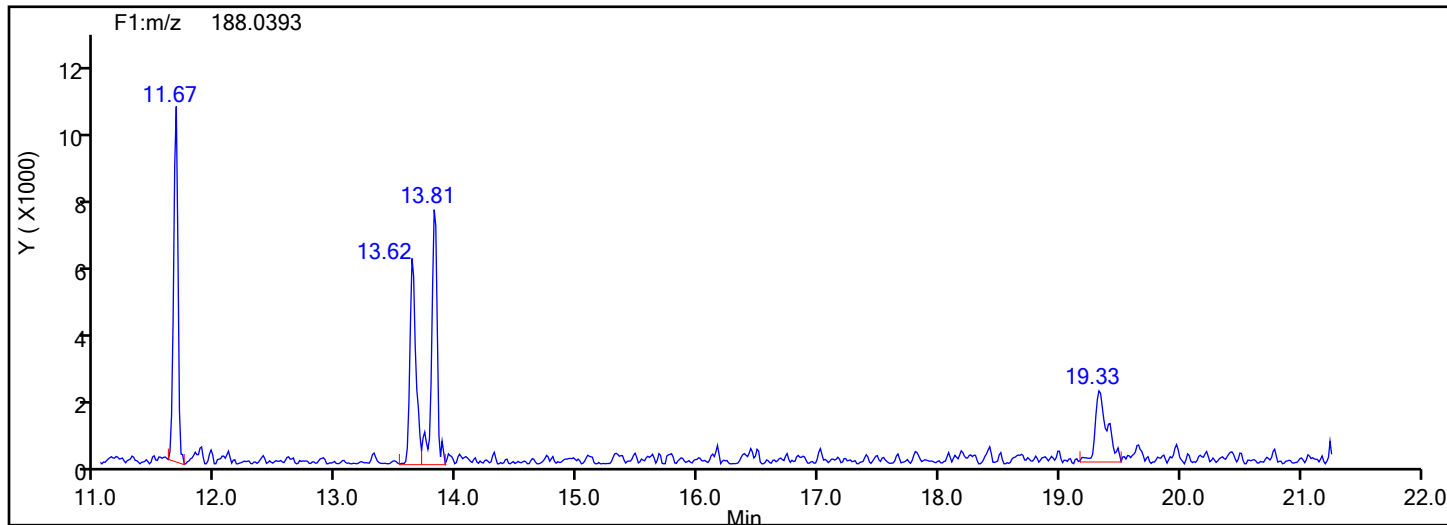


## MoPCB F1 Standards

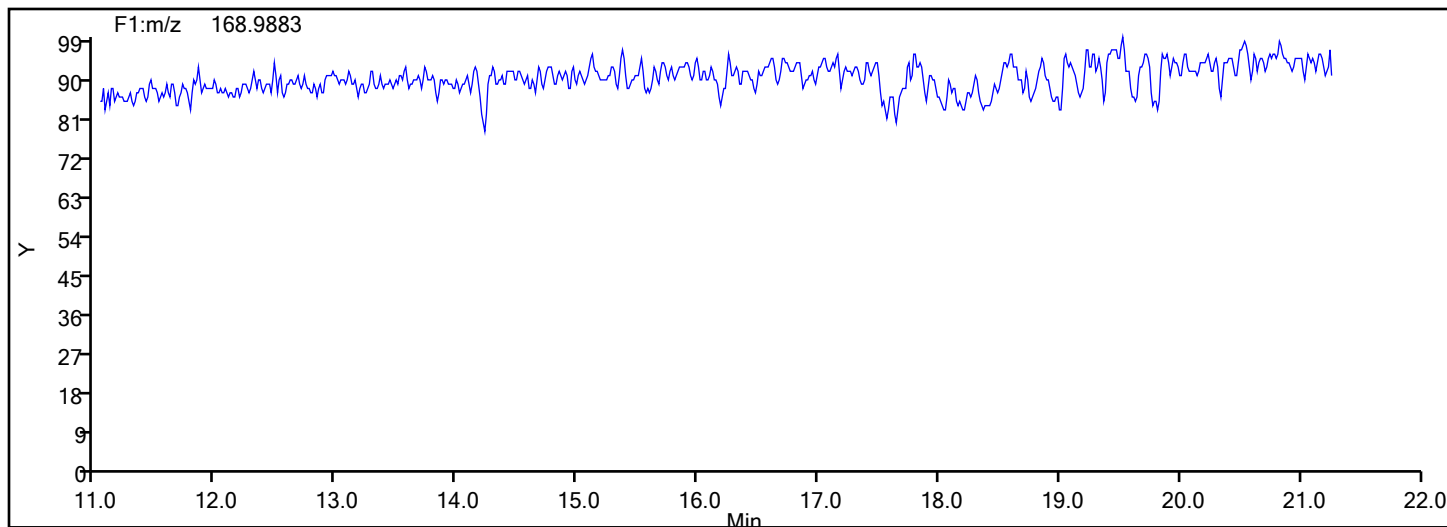


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Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
MoPCB F1

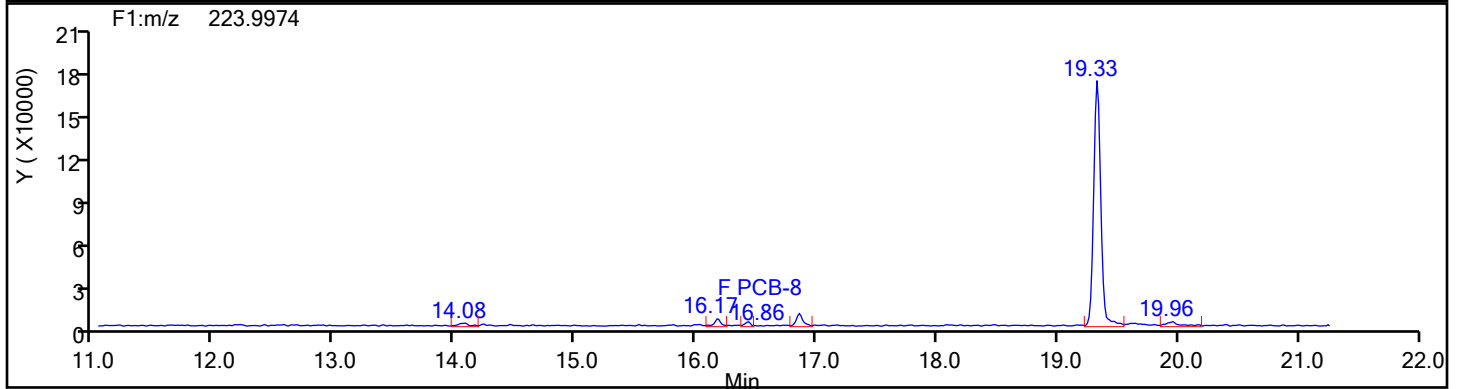
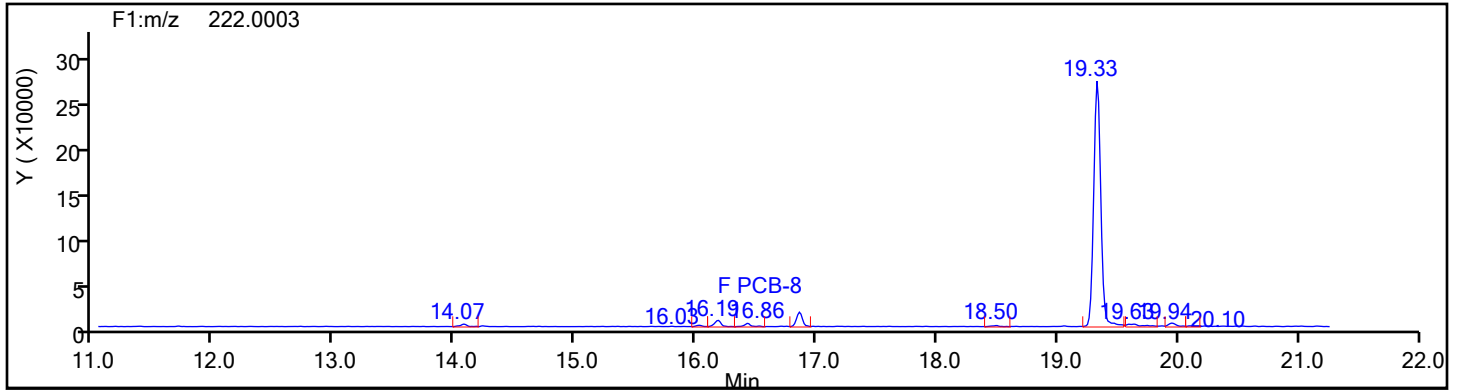


## MoPCB F1 Lock Mass

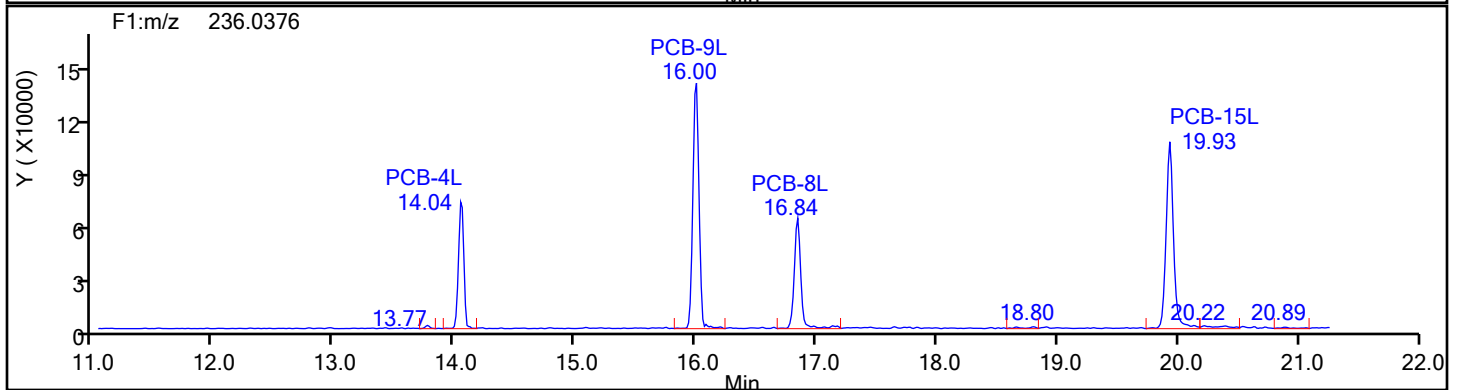
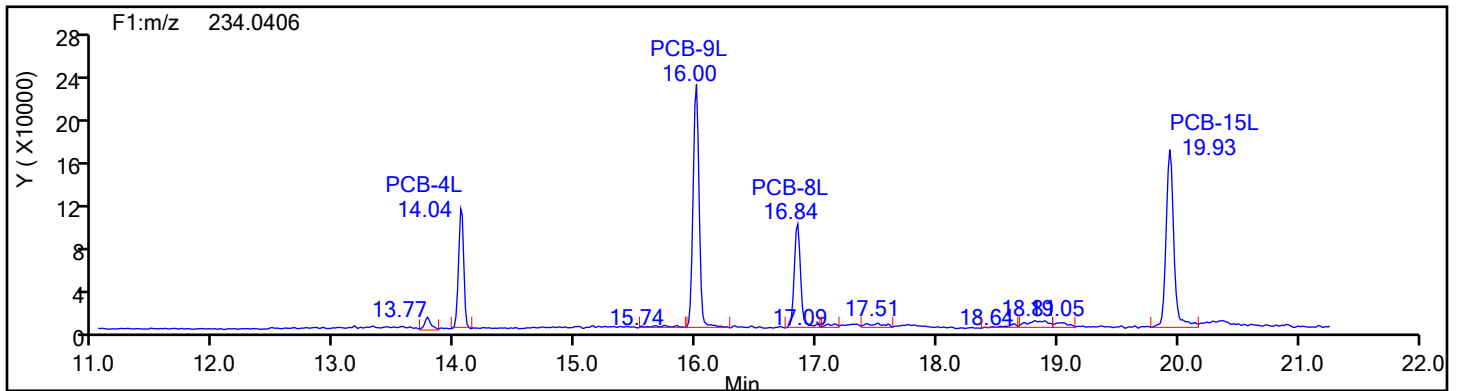


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DiPCB F1

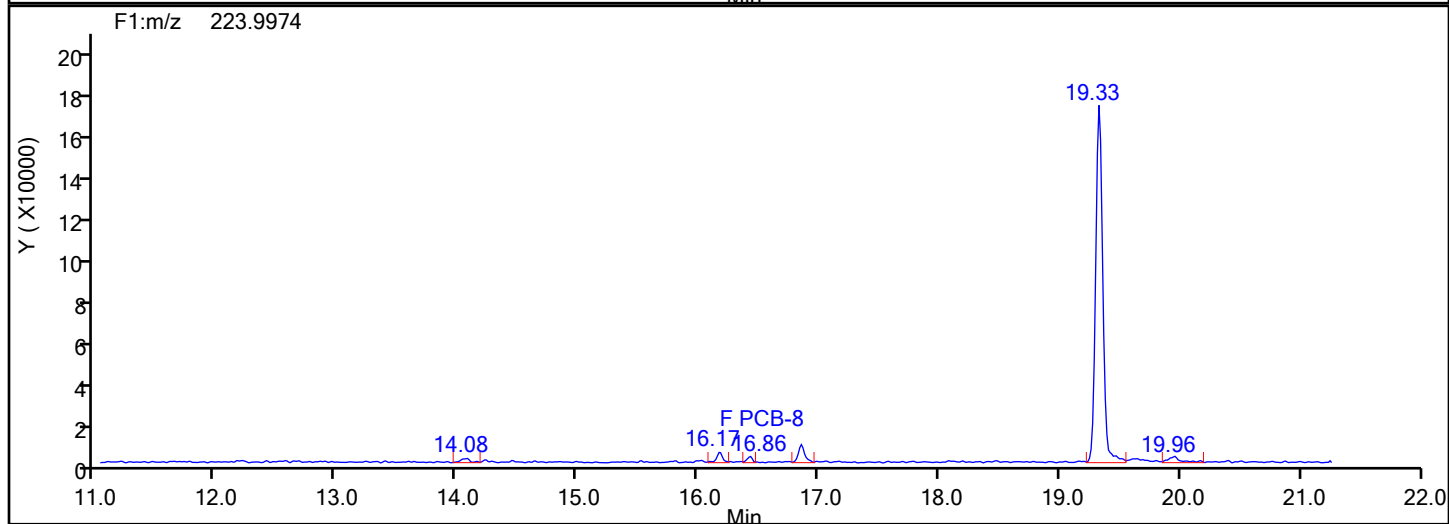
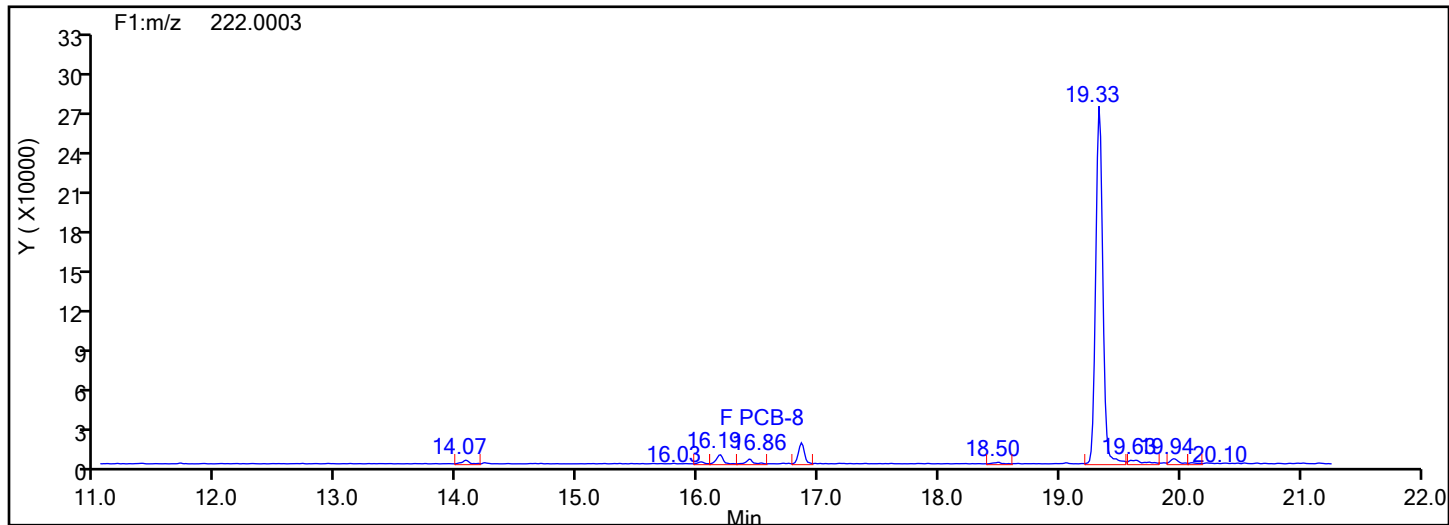


## DiPCB F1 Standards

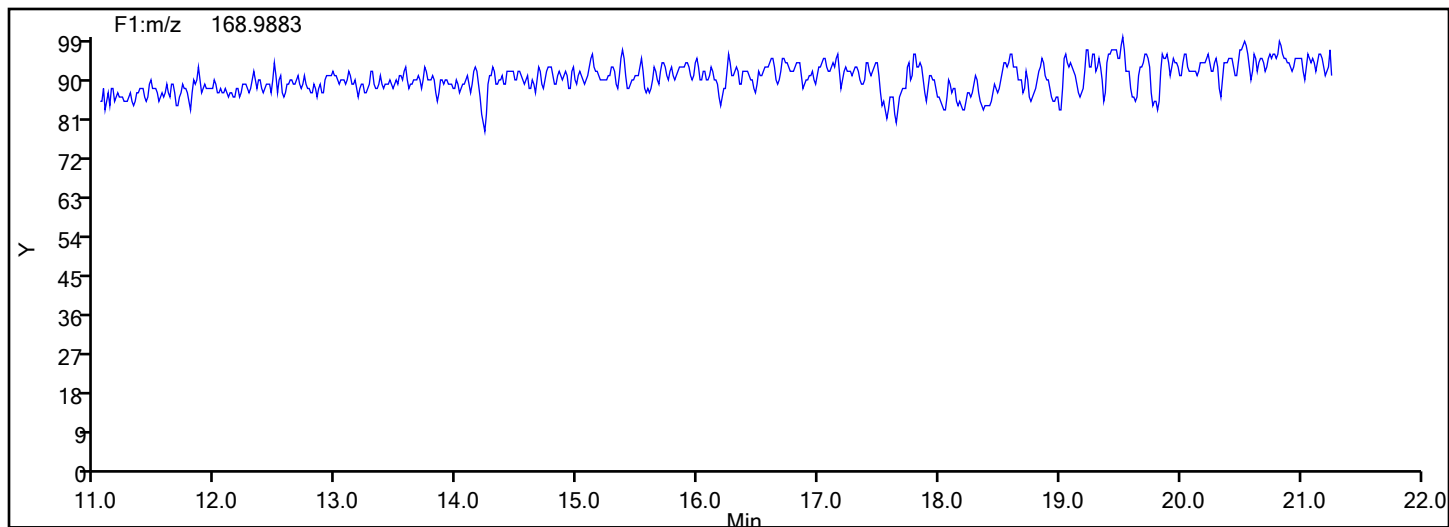


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Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DiPCB F1

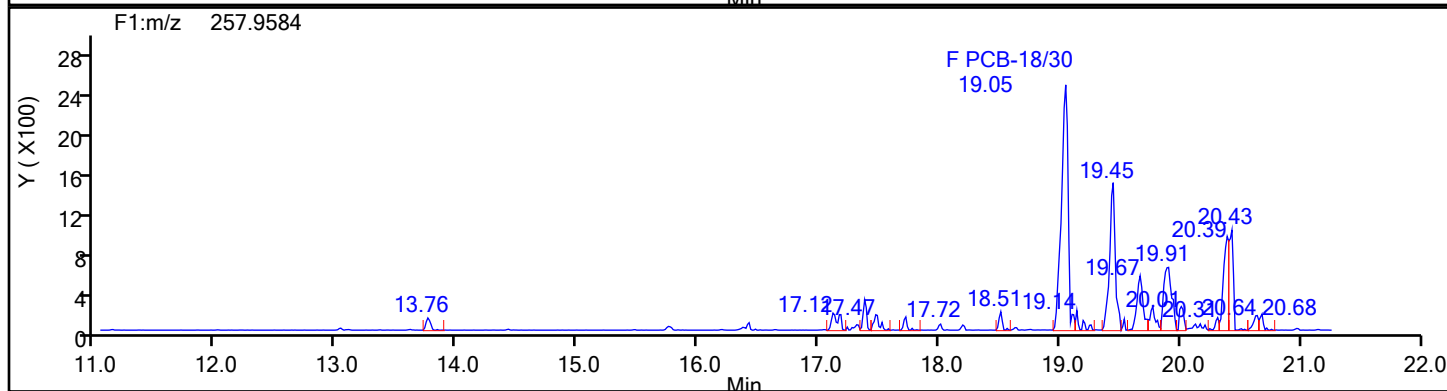
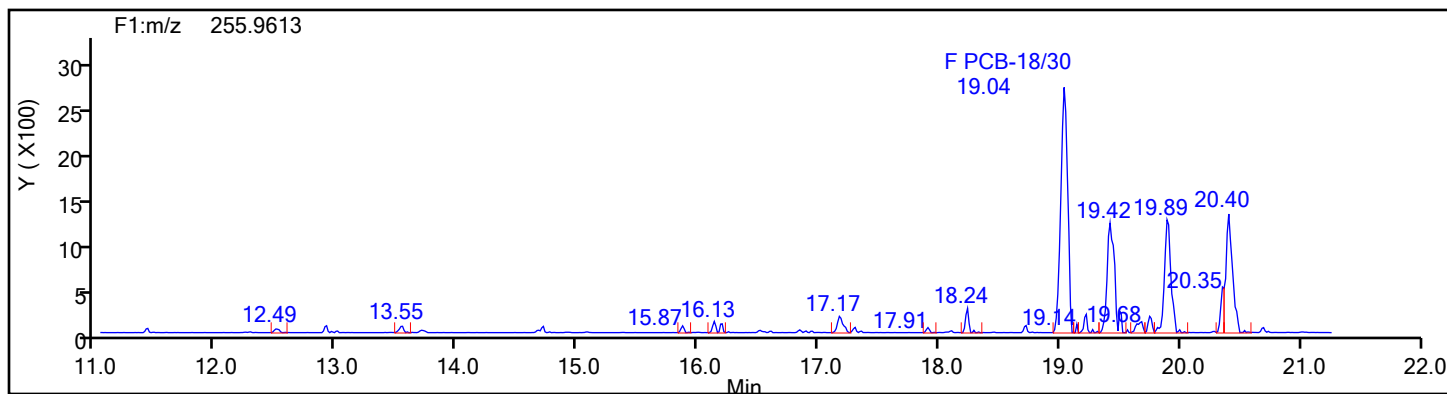


## DiPCB F1 Lock Mass

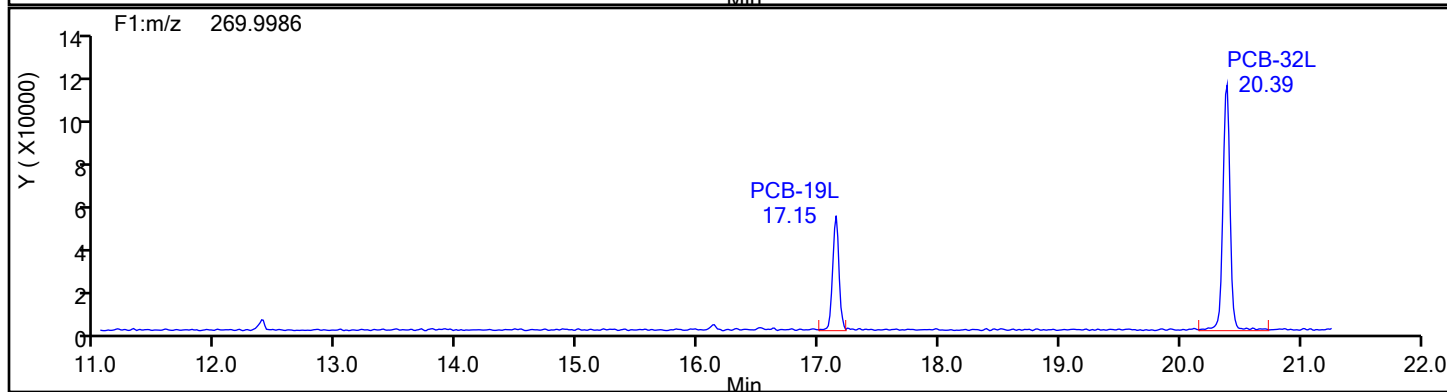
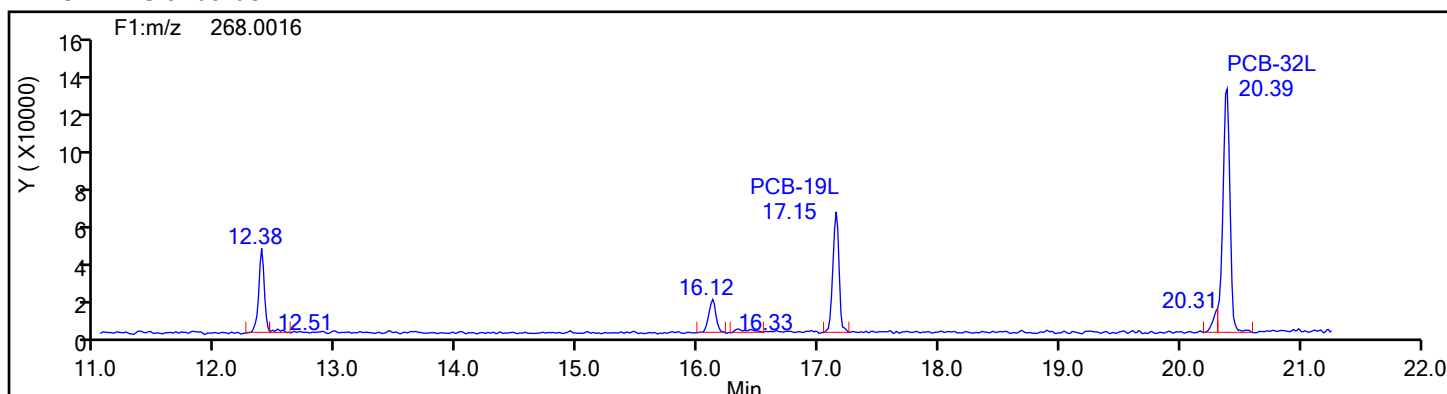


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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
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Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F1

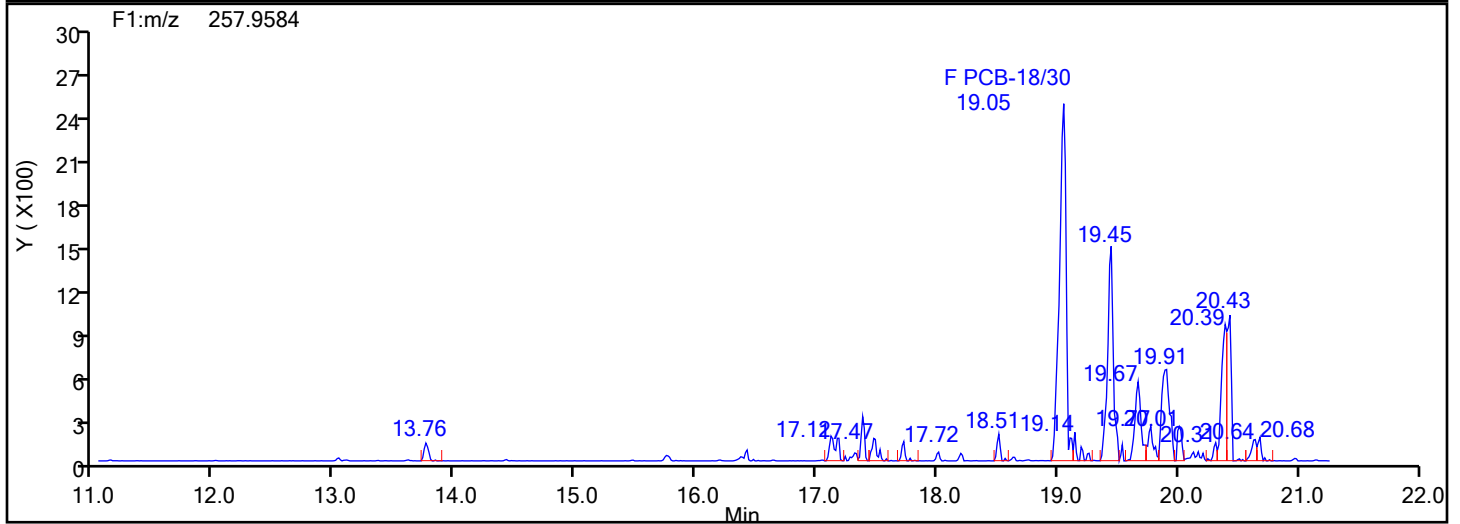
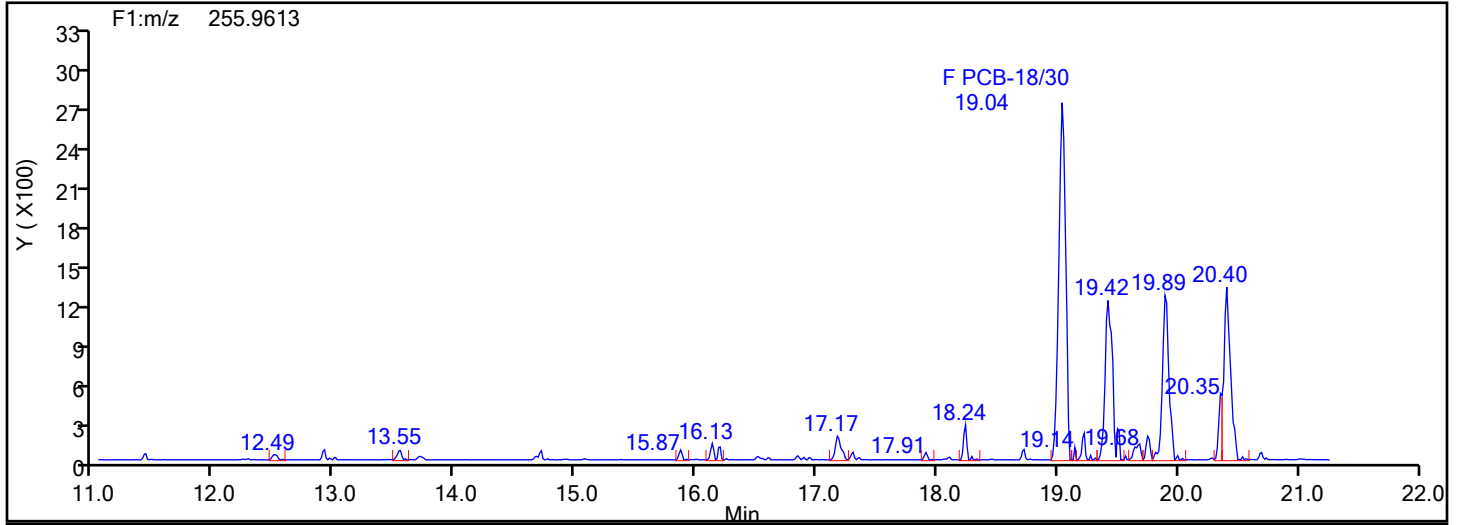


## TriPCB F1 Standards

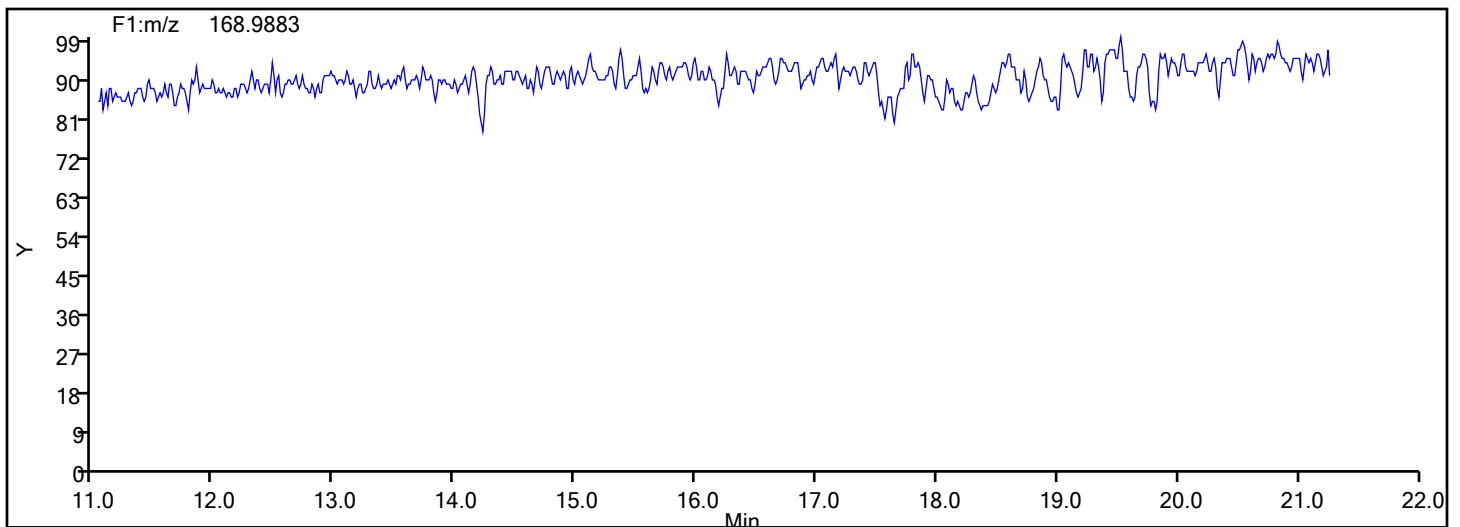


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Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F1



## TriPCB F1 Lock Mass



## Eurofins Knoxville

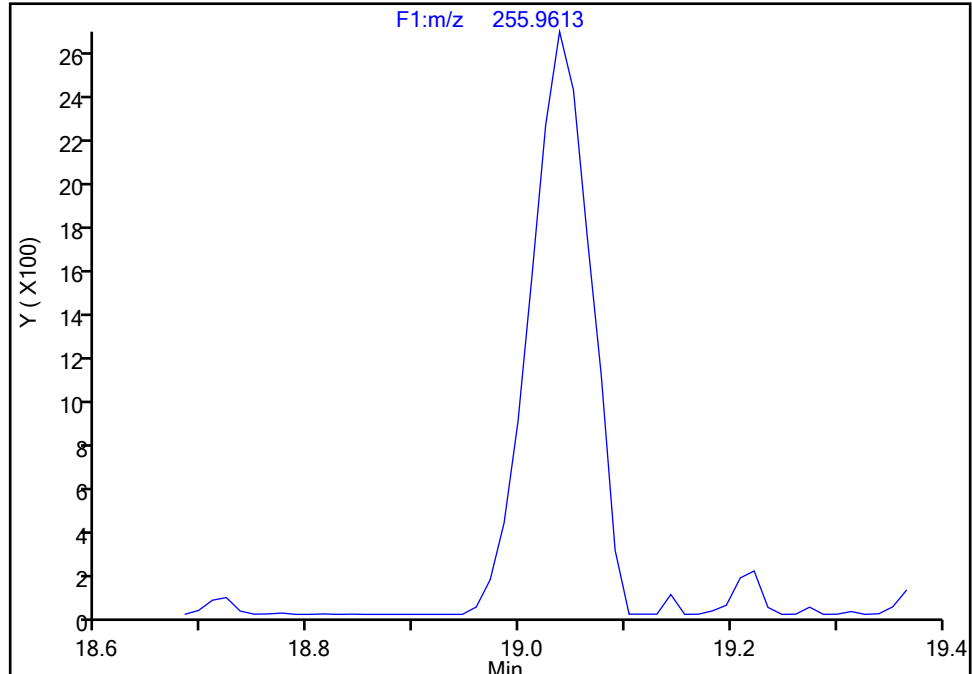
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Lims ID: 140-37234-A-2-D Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F1(11.07 :21.70 )

PCB-18/30, CAS: STL01798

Signal: 1

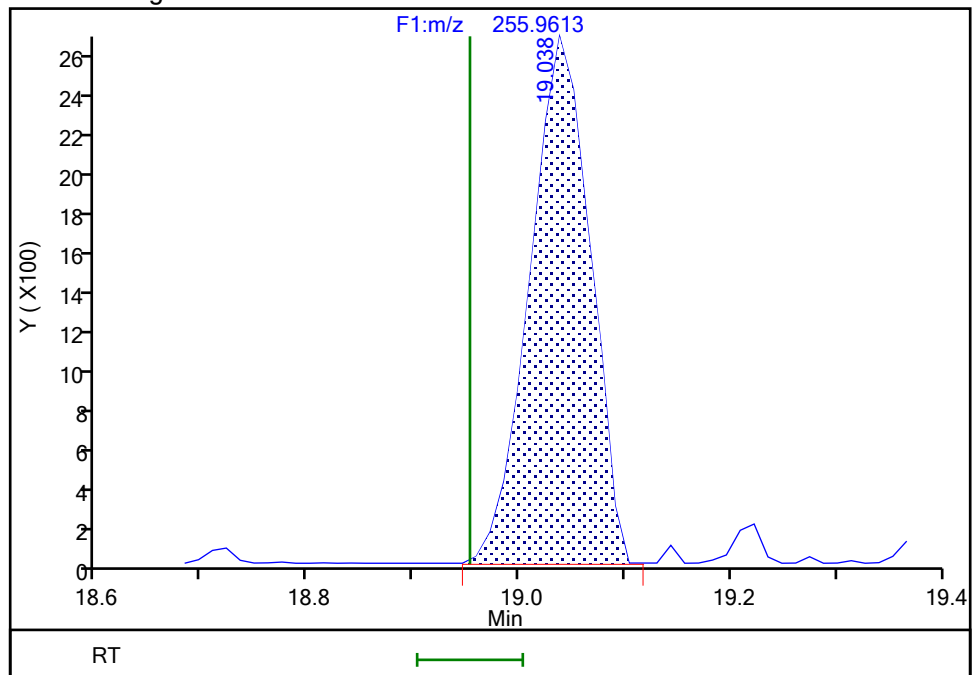
Not Detected  
Expected RT: 18.95

## Processing Integration Results



RT: 19.04  
Area: 10624  
Amount: 0.557922  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 11:49:16 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

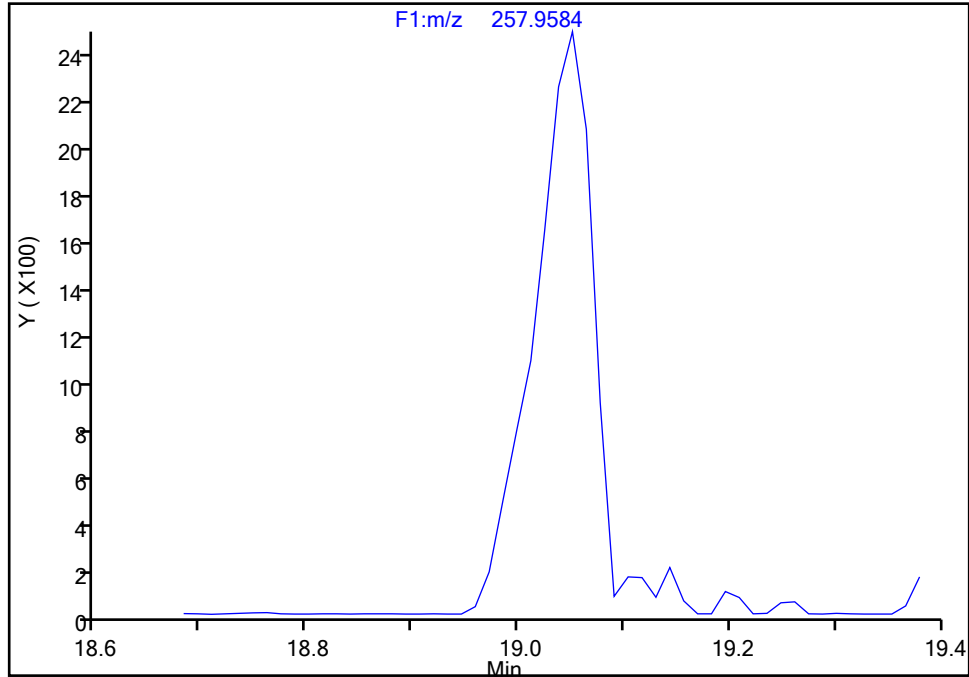
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Lims ID: 140-37234-A-2-D Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F1(11.07 :21.70 )

PCB-18/30, CAS: STL01798

Signal: 2

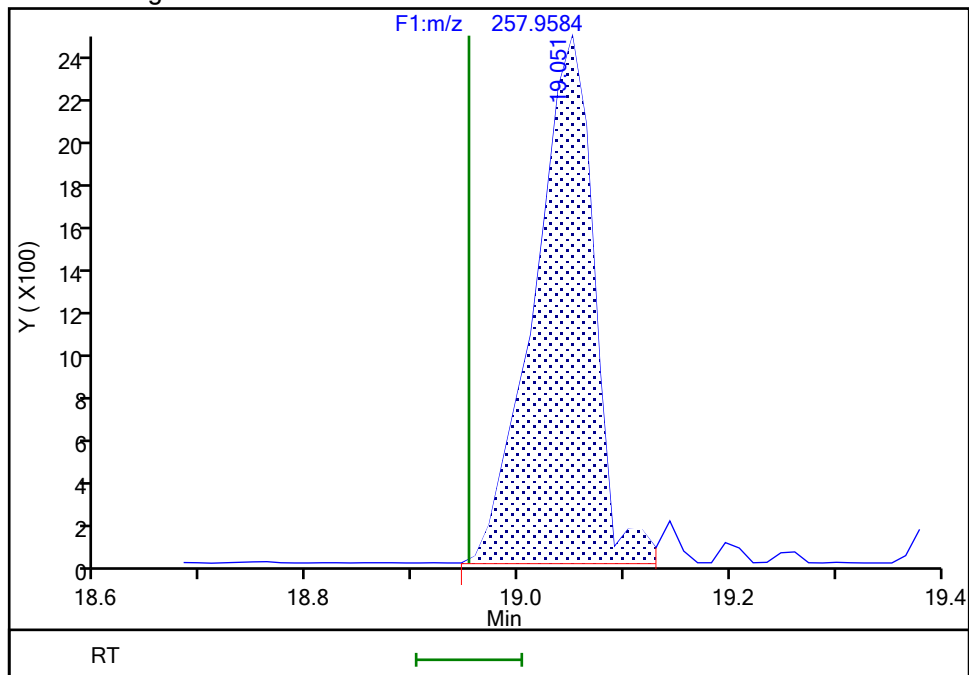
Not Detected  
Expected RT: 18.95

## Processing Integration Results



RT: 19.05  
Area: 9518  
Amount: 0.557922  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 11:49:18 -04:00:00 (UTC)

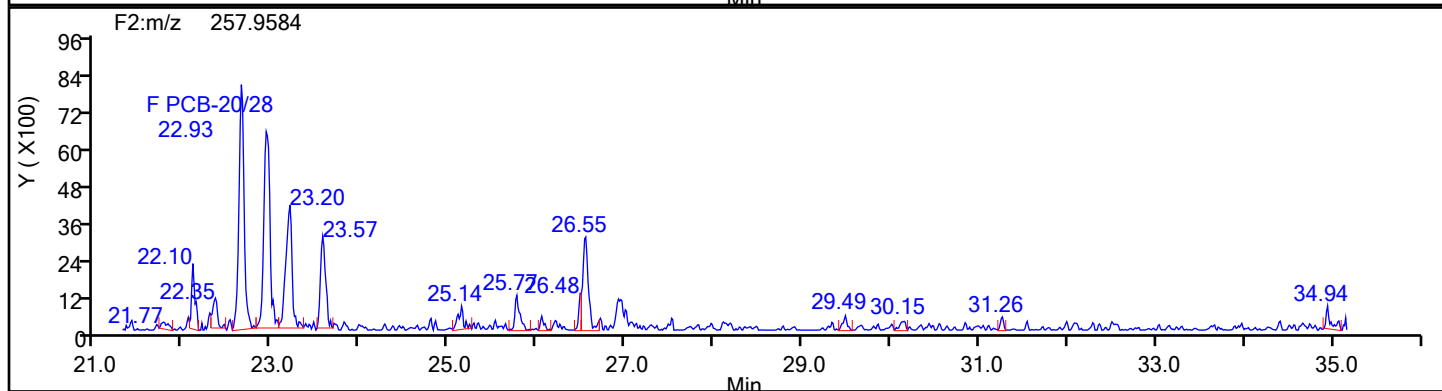
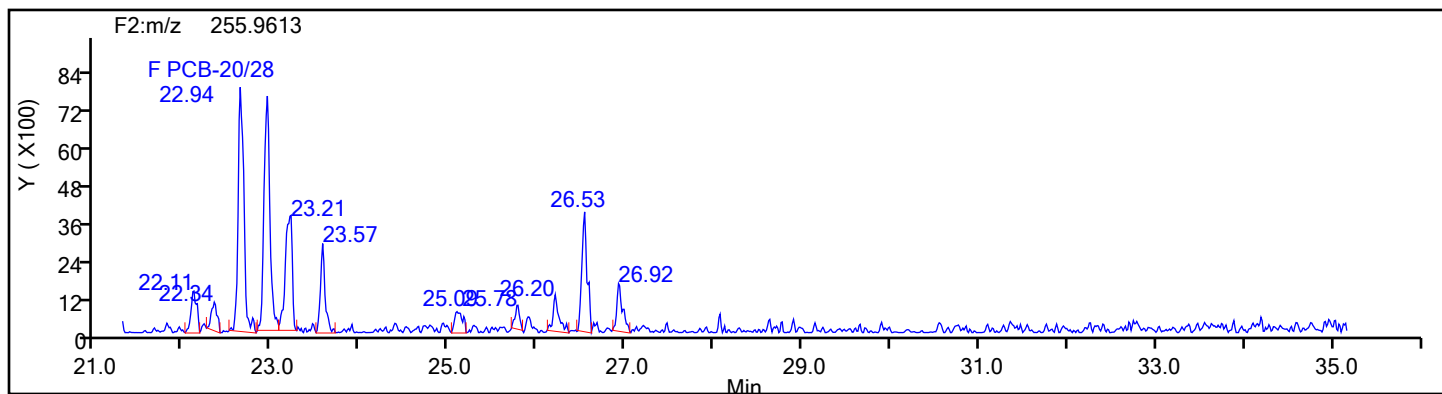
Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

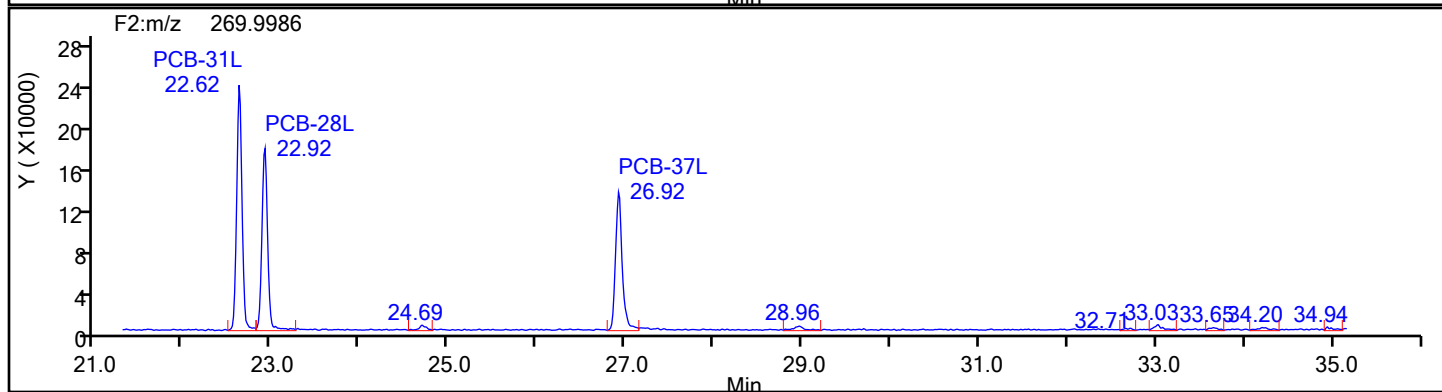
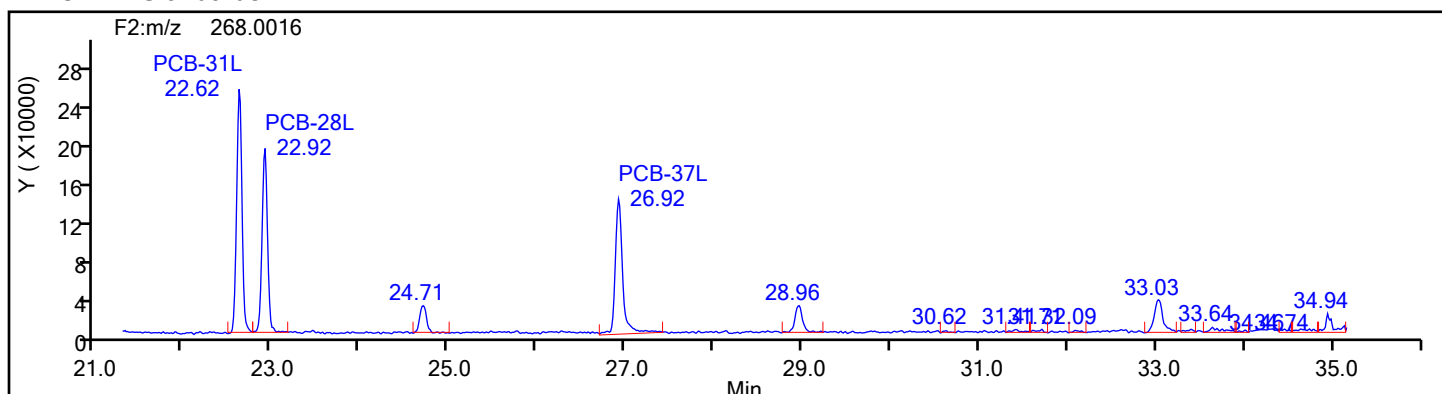


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F2

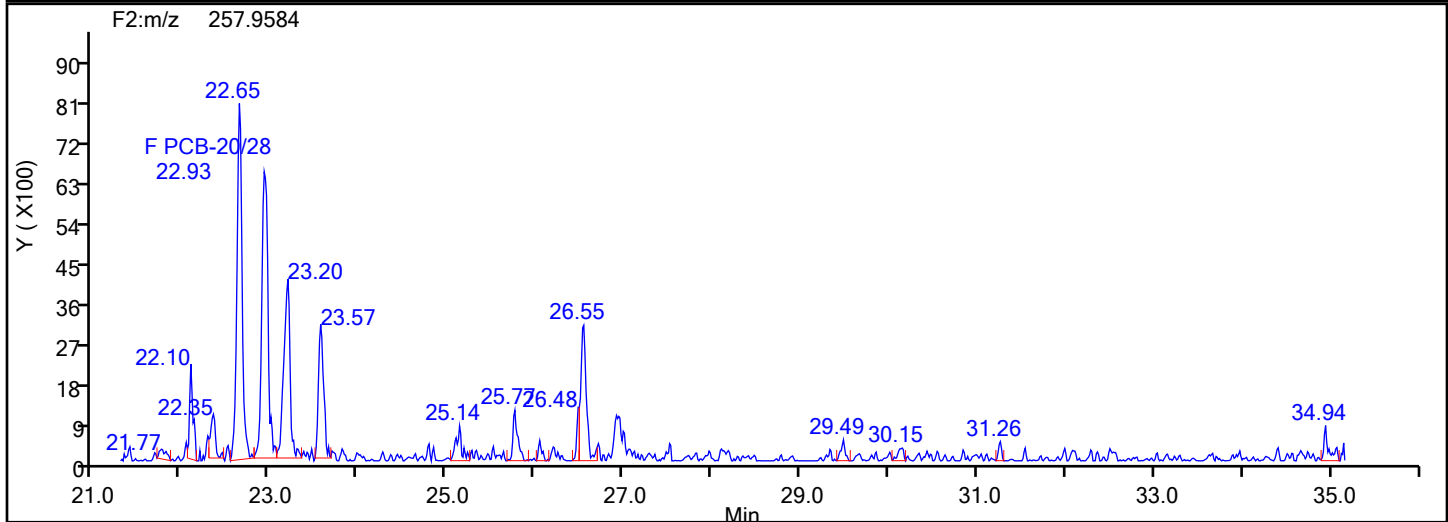
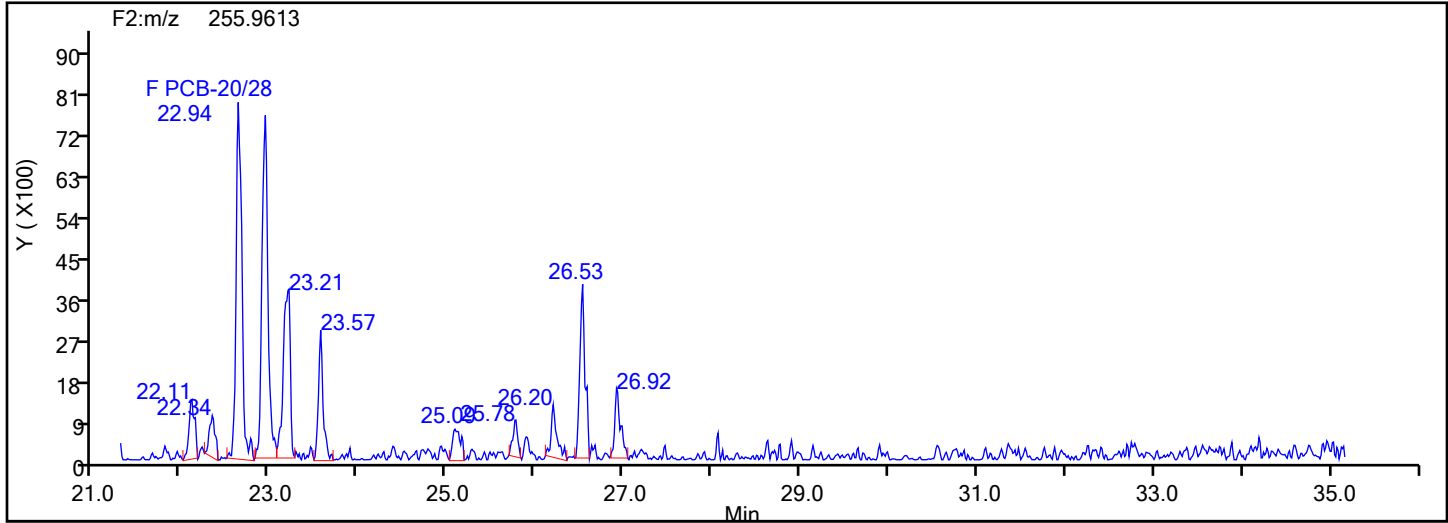


## TriPCB F2 Standards

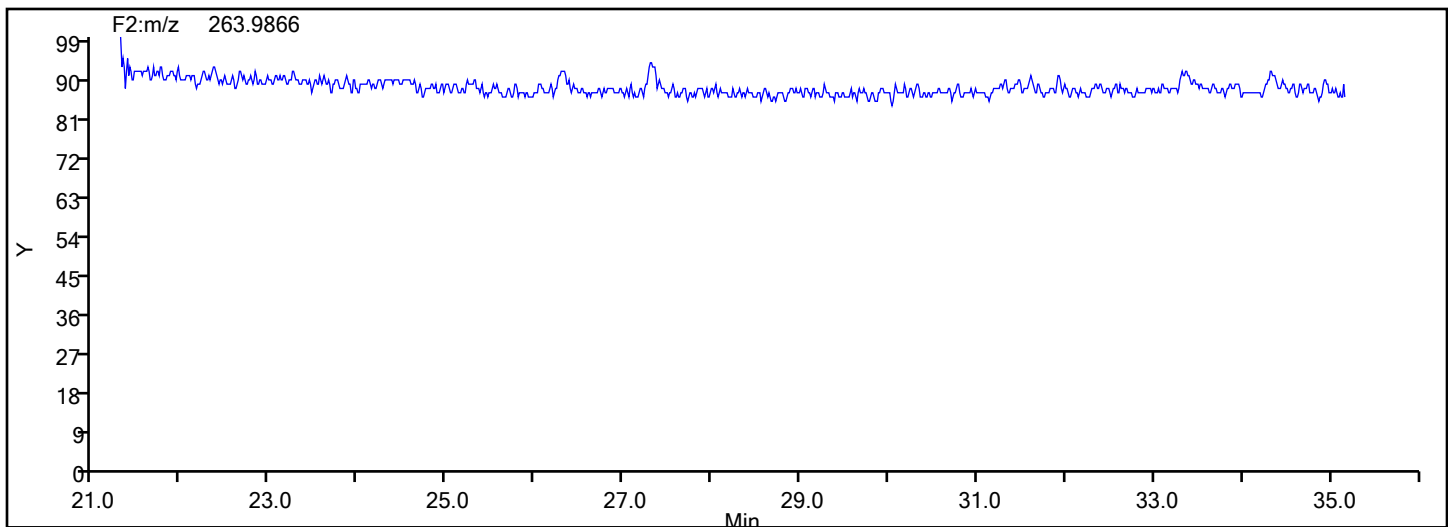


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
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Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F2

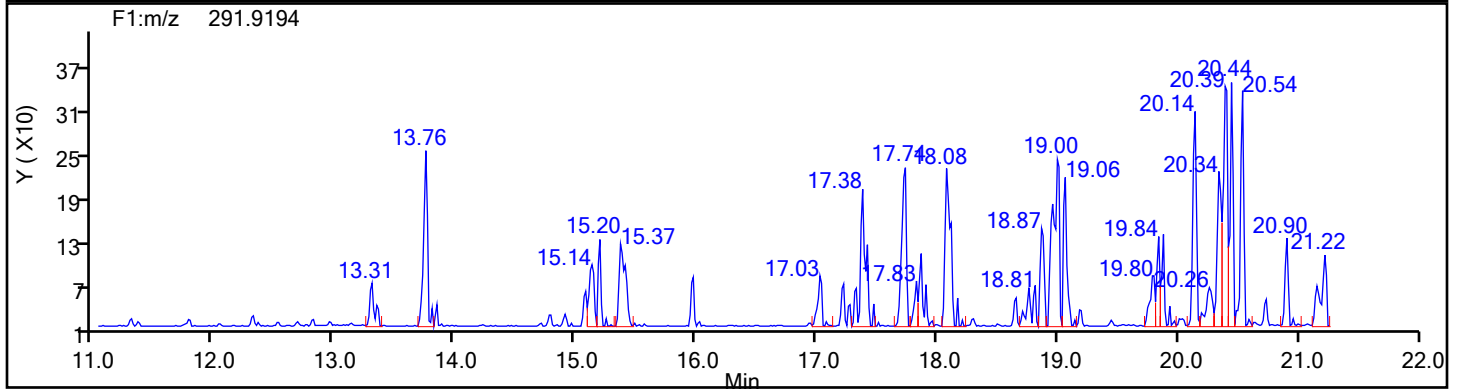
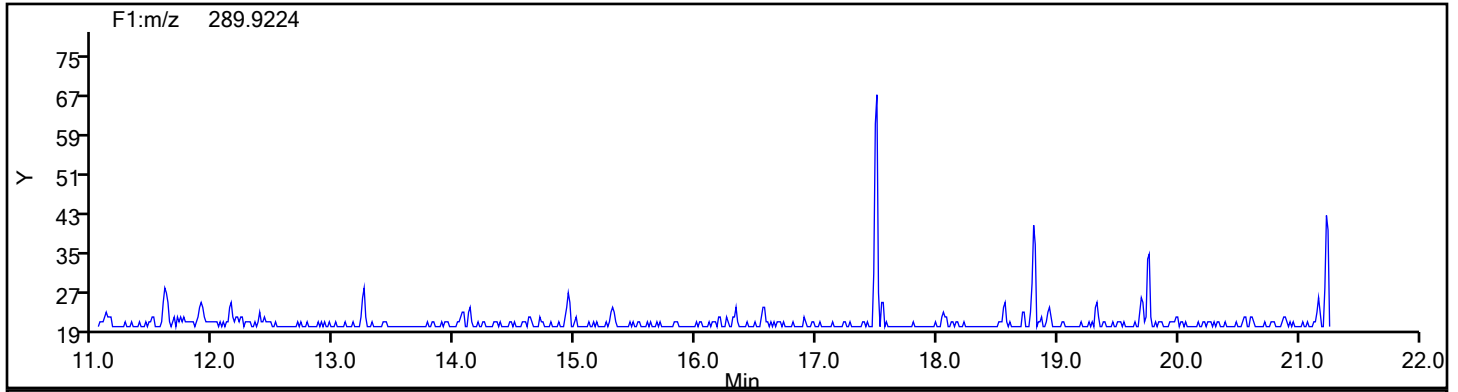


## TriPCB F2 Lock Mass

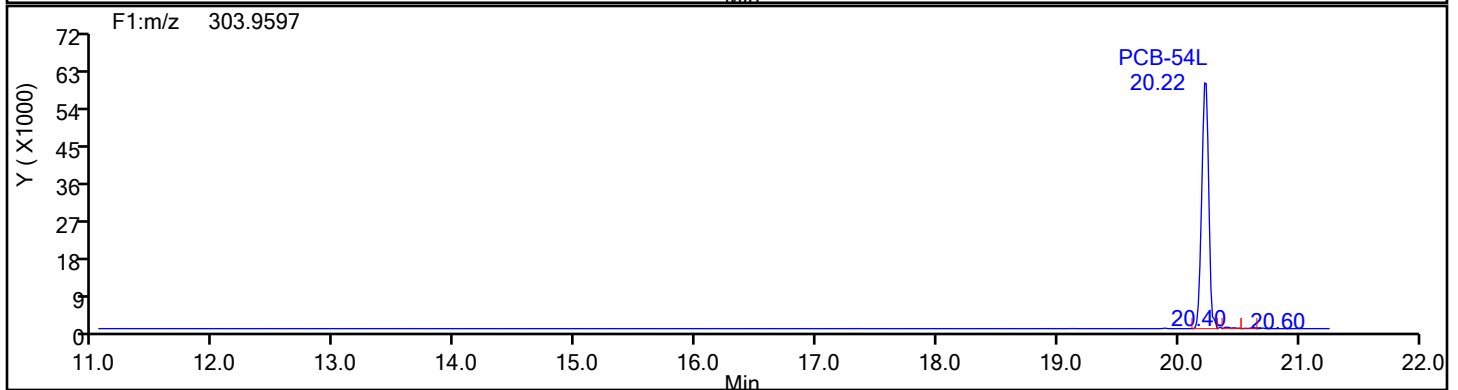
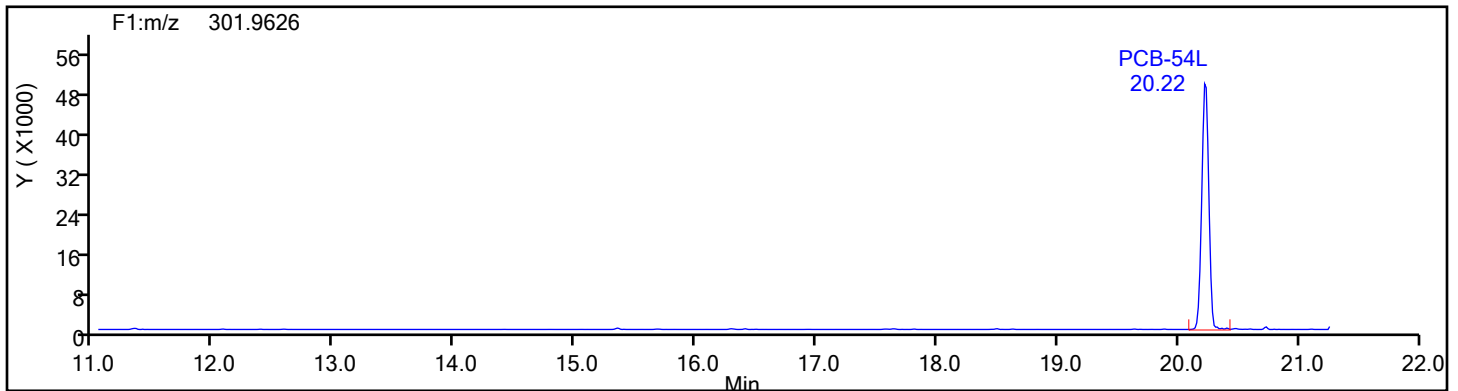


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1

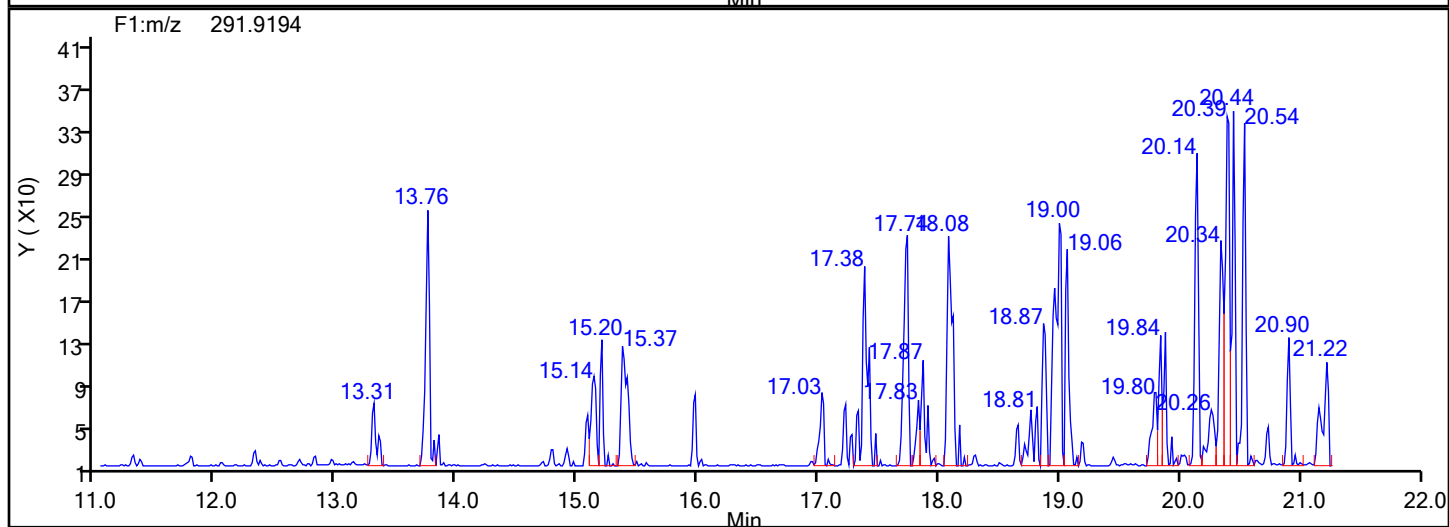
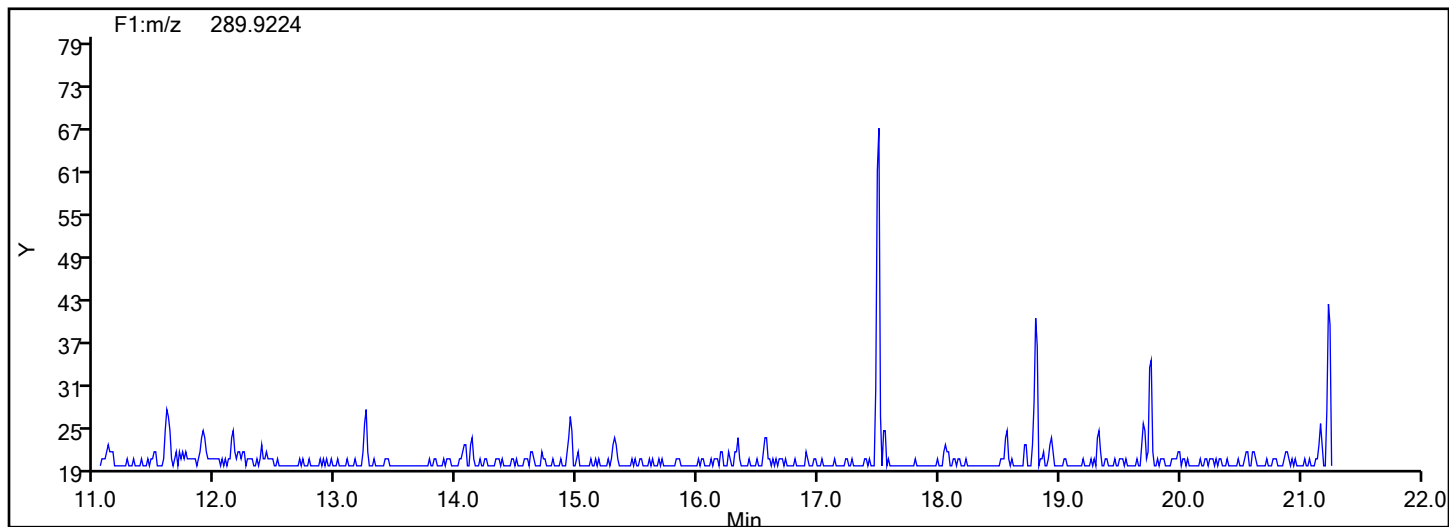


## TePCB F1 Standards

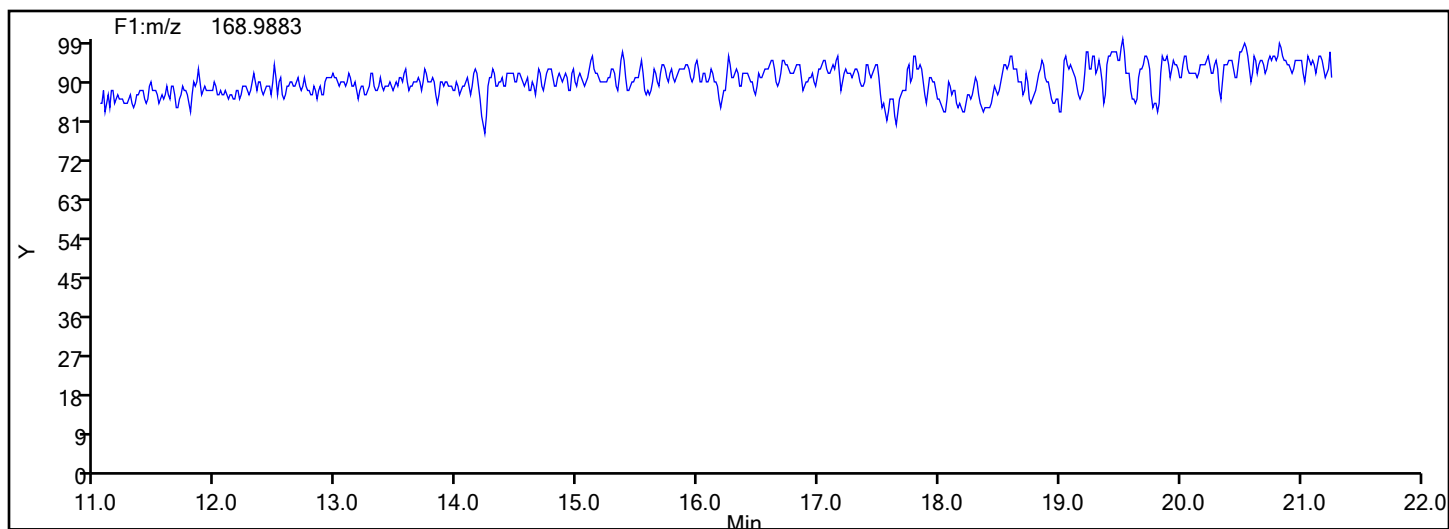


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Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1

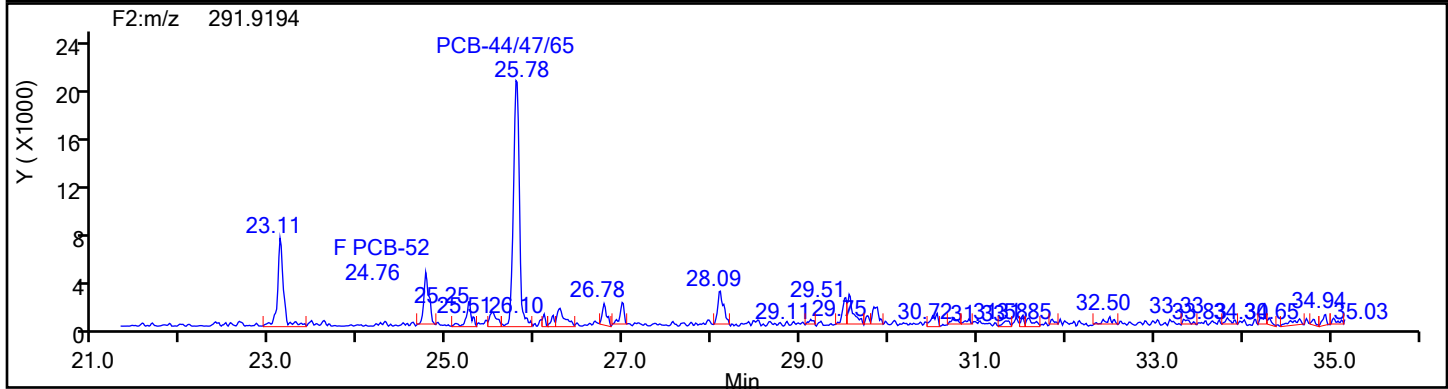
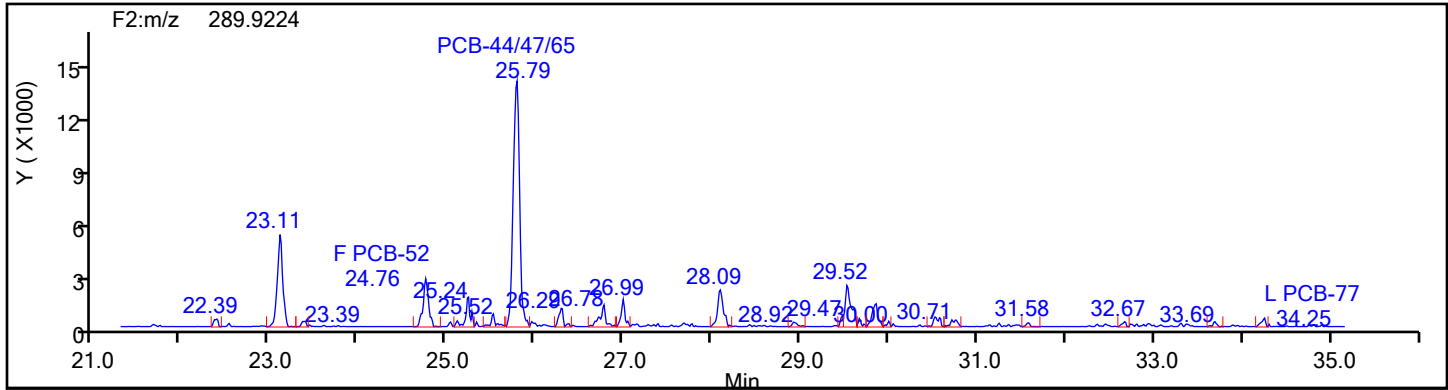


## TePCB F1 Lock Mass

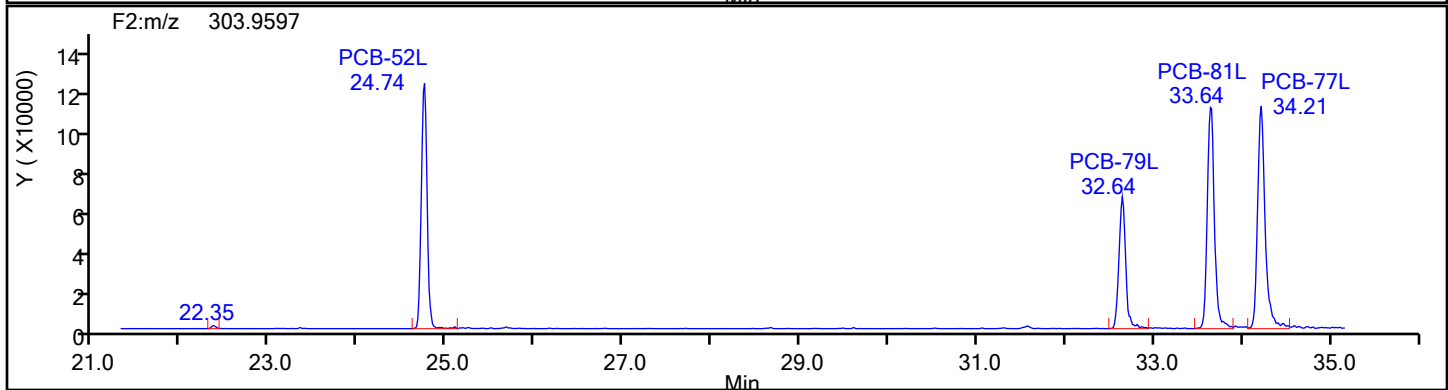
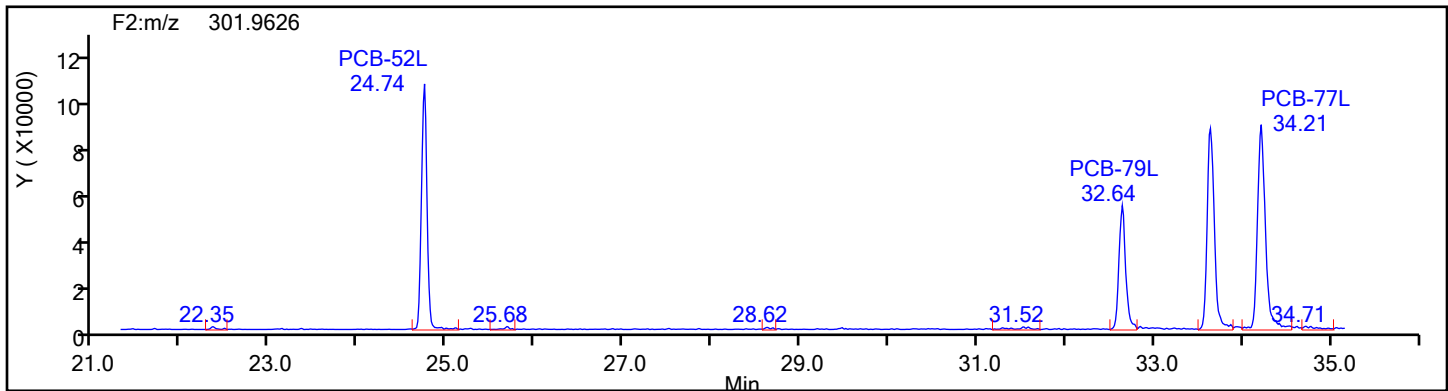


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 19:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F2

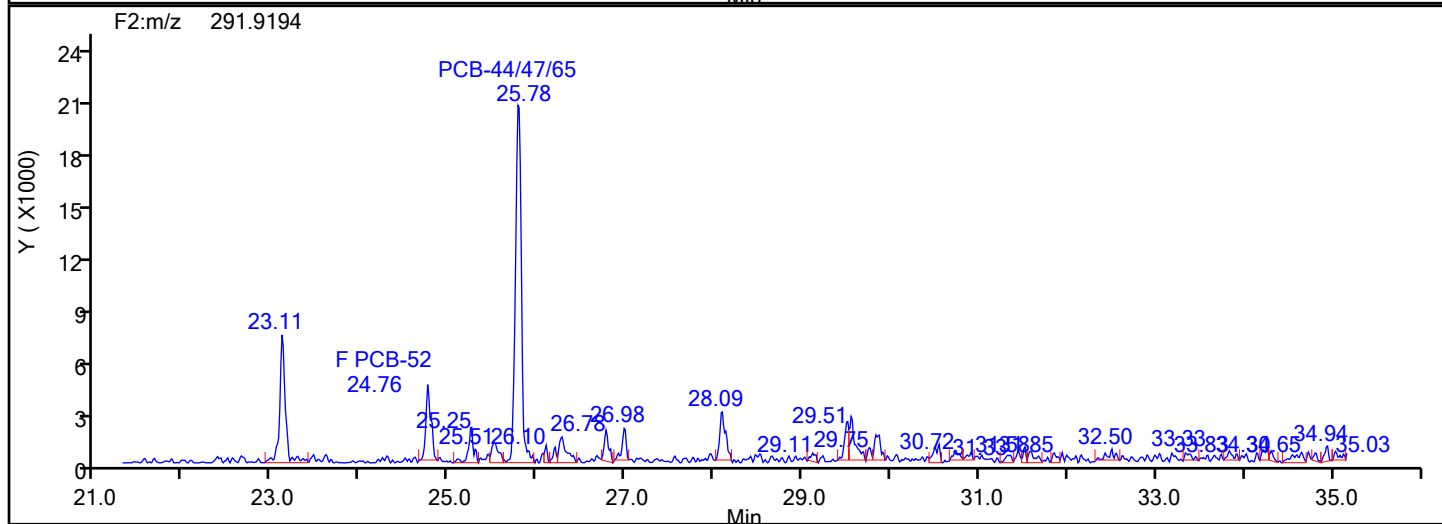
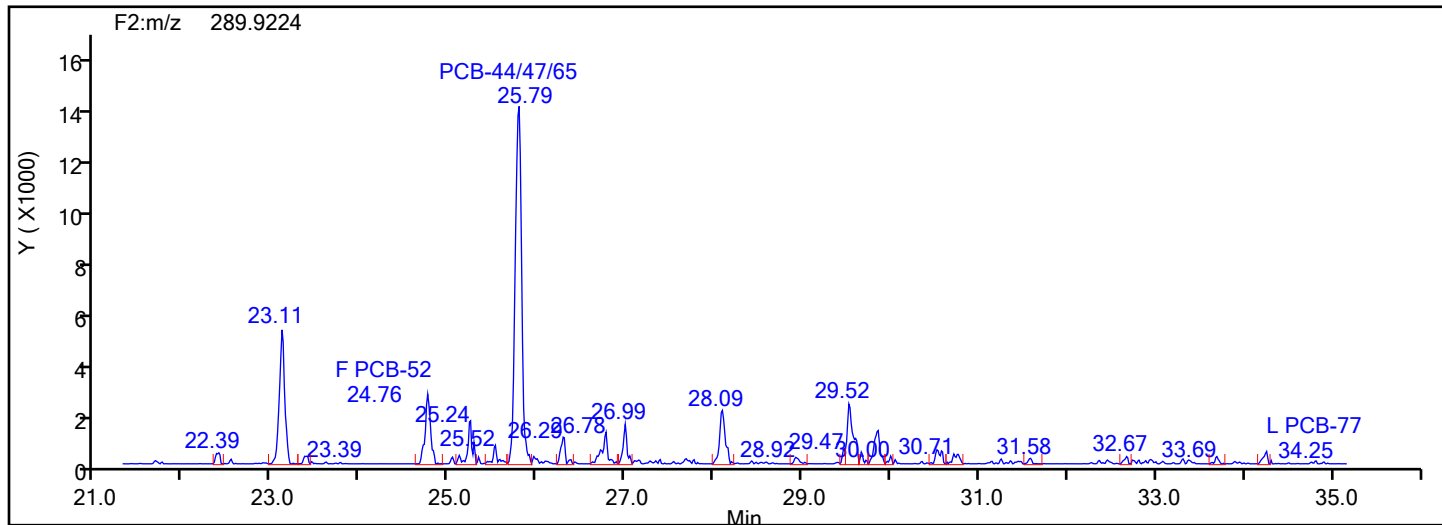


## TePCB F2 Standards

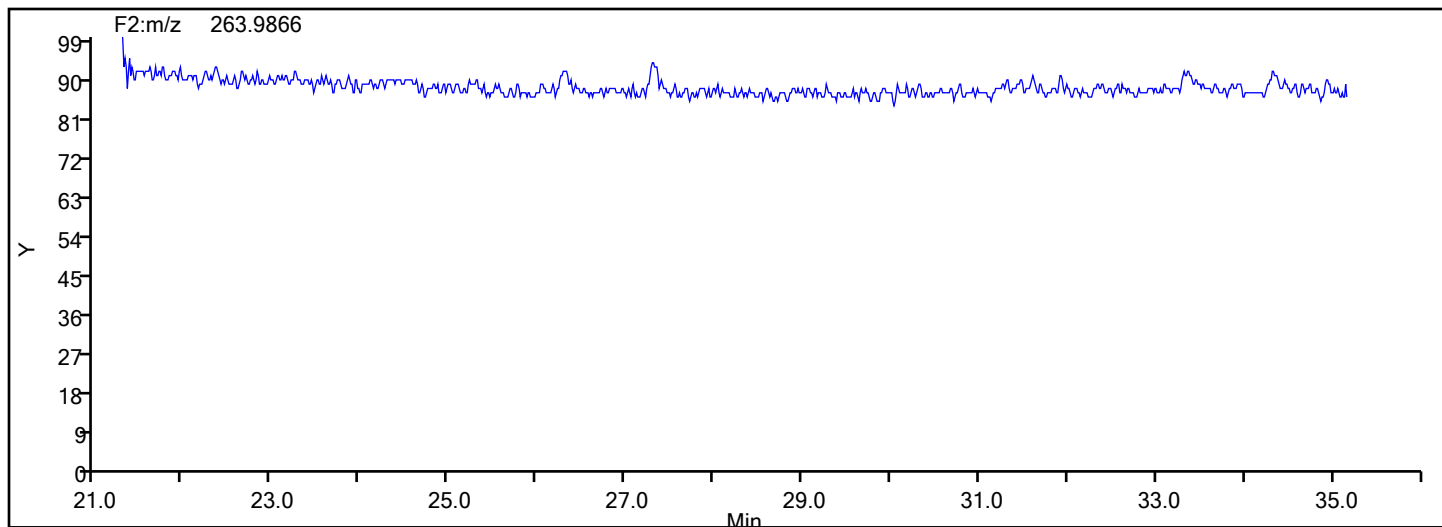


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 19:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F2



## TePCB F2 Lock Mass



## Eurofins Knoxville

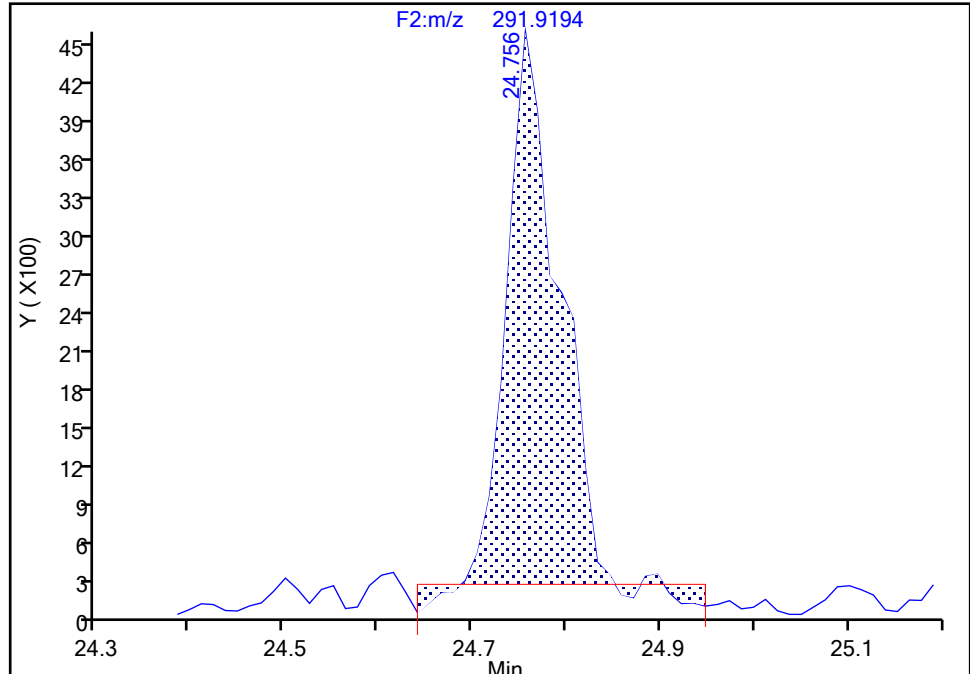
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Injection Date: 16-Jul-2024 19:38:00 Instrument ID: D2D  
Lims ID: 140-37234-A-2-D Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

PCB-52, CAS: 35693-99-3

Signal: 2

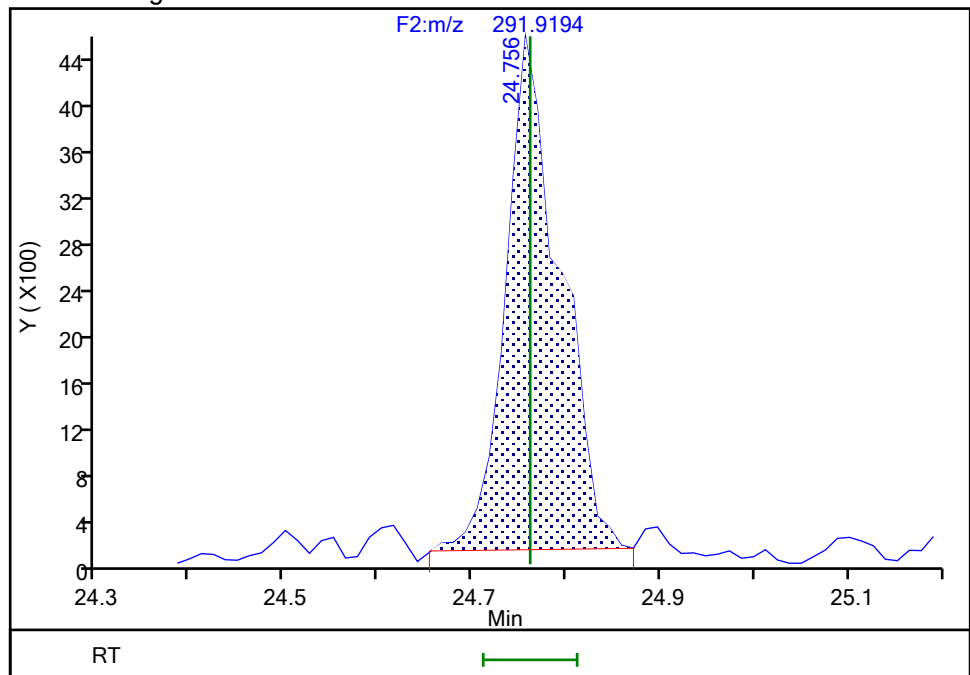
RT: 24.76  
Area: 15824  
Amount: 0.510094  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.76  
Area: 17746  
Amount: 0.545845  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 11:49:50 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

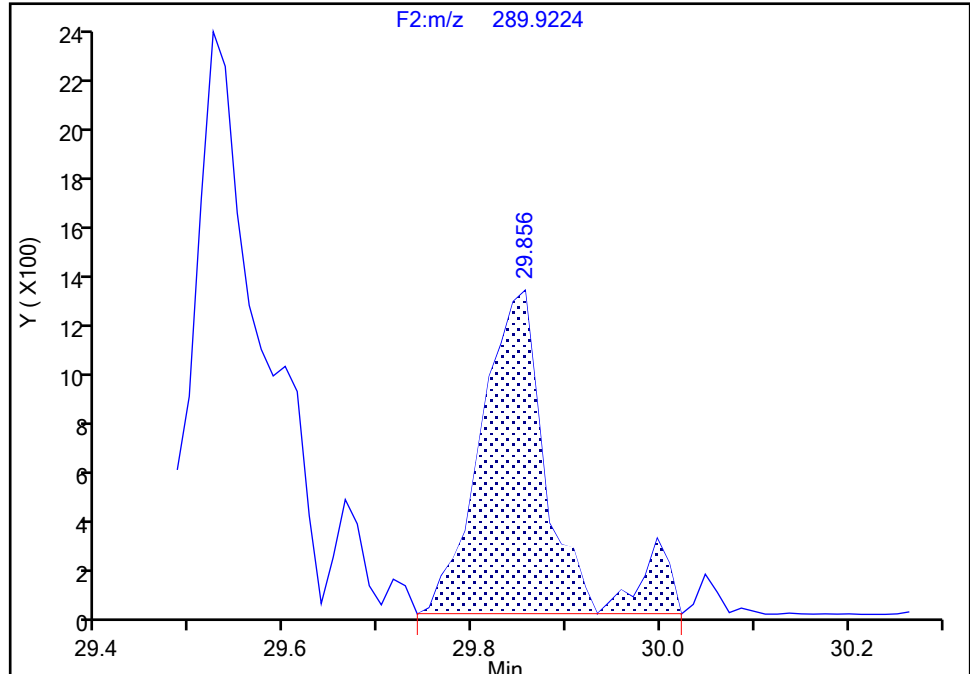
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Injection Date: 16-Jul-2024 19:38:00 Instrument ID: D2D  
Lims ID: 140-37234-A-2-D Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

PCB-66, CAS: 32598-10-0

Signal: 1

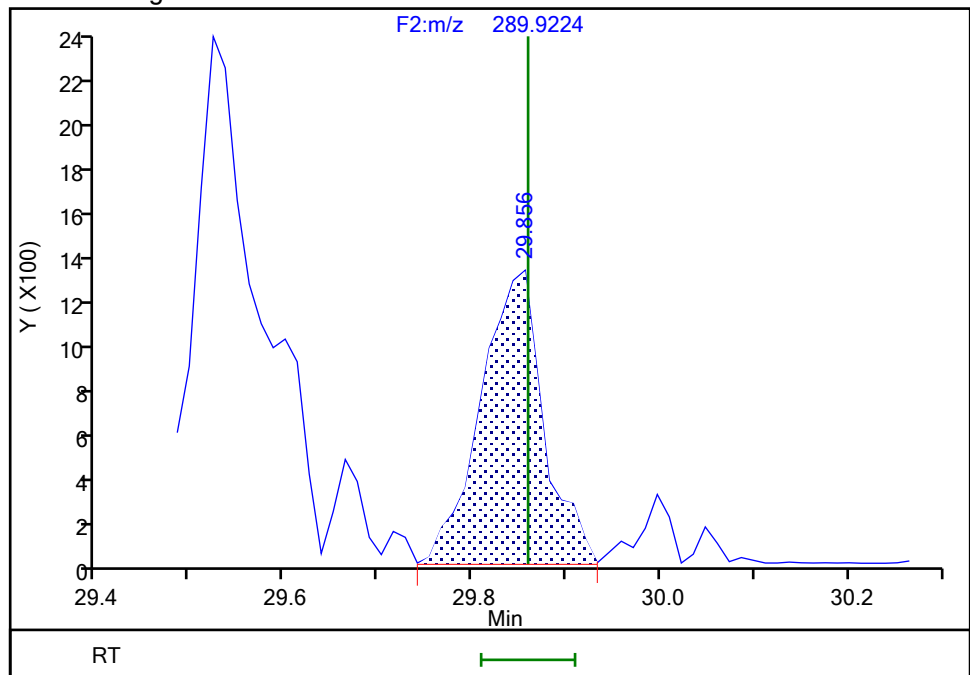
RT: 29.86  
Area: 6629  
Amount: 0.183560  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.86  
Area: 5961  
Amount: 0.174481  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 11:50:08 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration



## Eurofins Knoxville

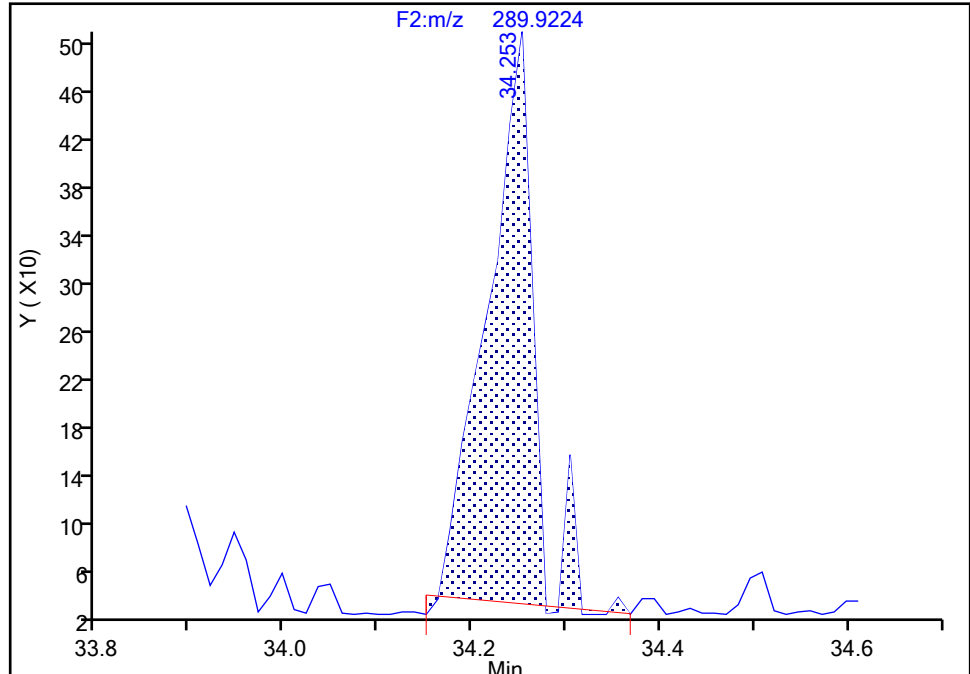
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Injection Date: 16-Jul-2024 19:38:00 Instrument ID: D2D  
Lims ID: 140-37234-A-2-D Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

PCB-77, CAS: 32598-13-3

Signal: 1

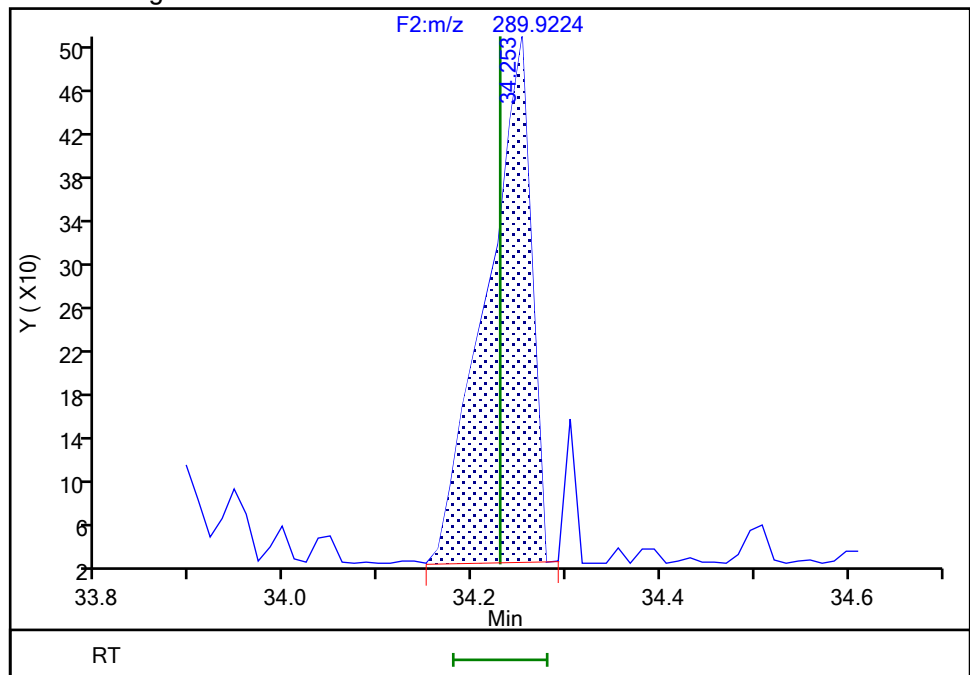
RT: 34.25  
Area: 1610  
Amount: 0.072346  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.25  
Area: 1587  
Amount: 0.069163  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 11:50:23 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

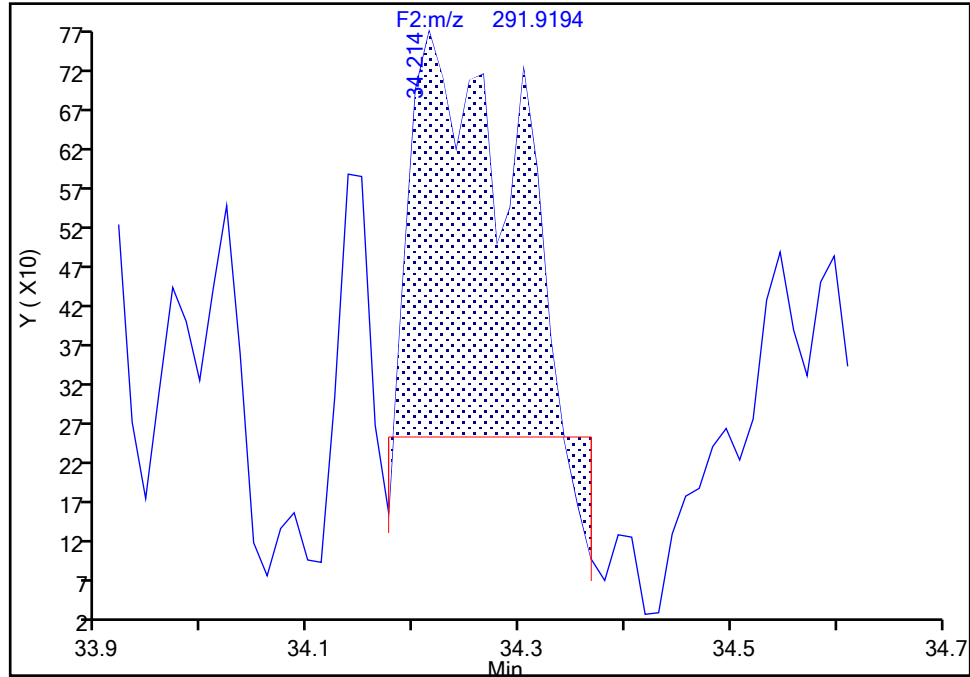
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Injection Date: 16-Jul-2024 19:38:00 Instrument ID: D2D  
Lims ID: 140-37234-A-2-D Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

PCB-77, CAS: 32598-13-3

Signal: 2

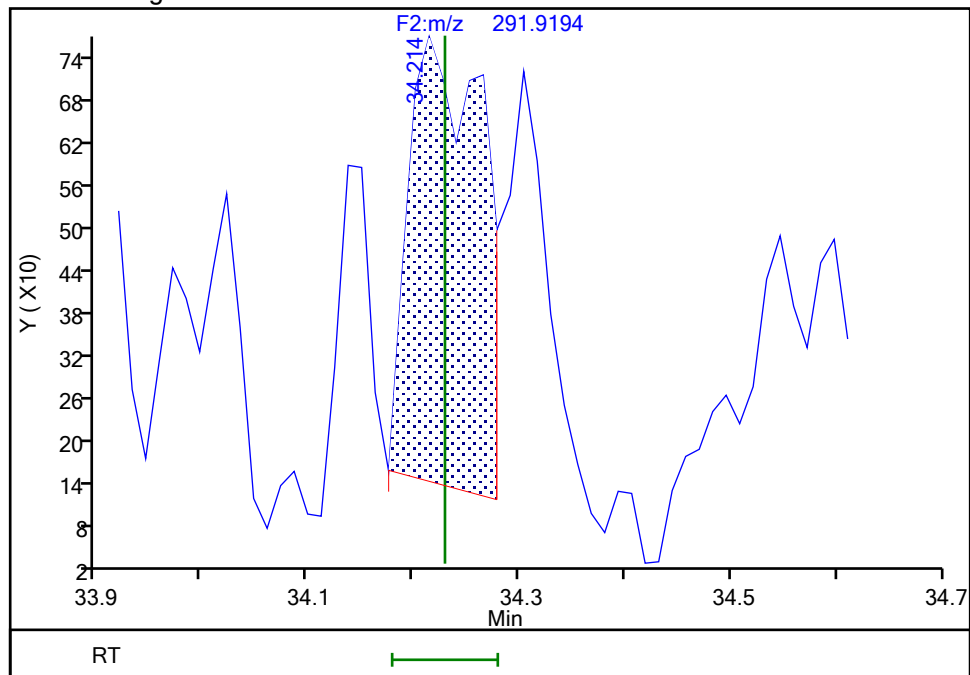
RT: 34.21  
Area: 3164  
Amount: 0.072346  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.21  
Area: 2977  
Amount: 0.069163  
Amount Units: pg/ul

## Manual Integration Results



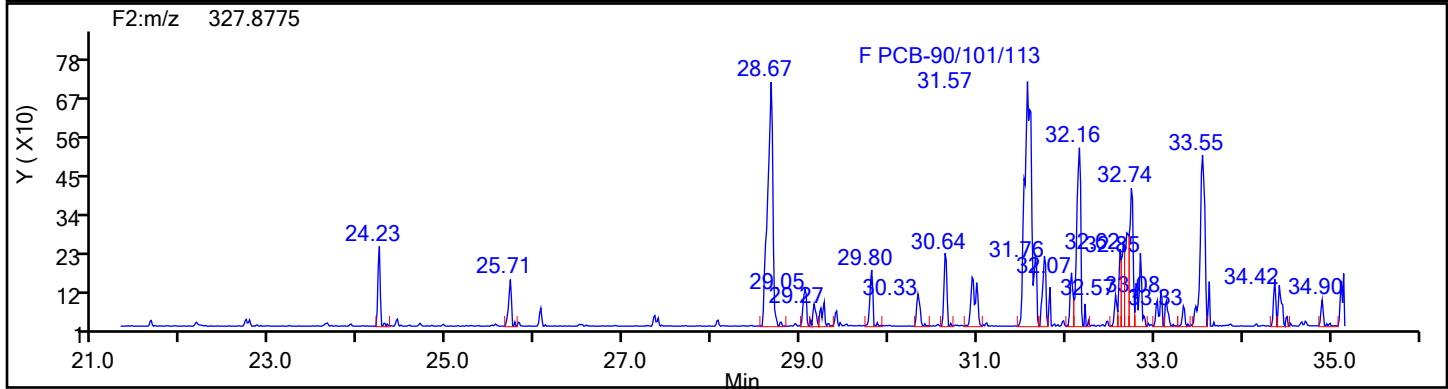
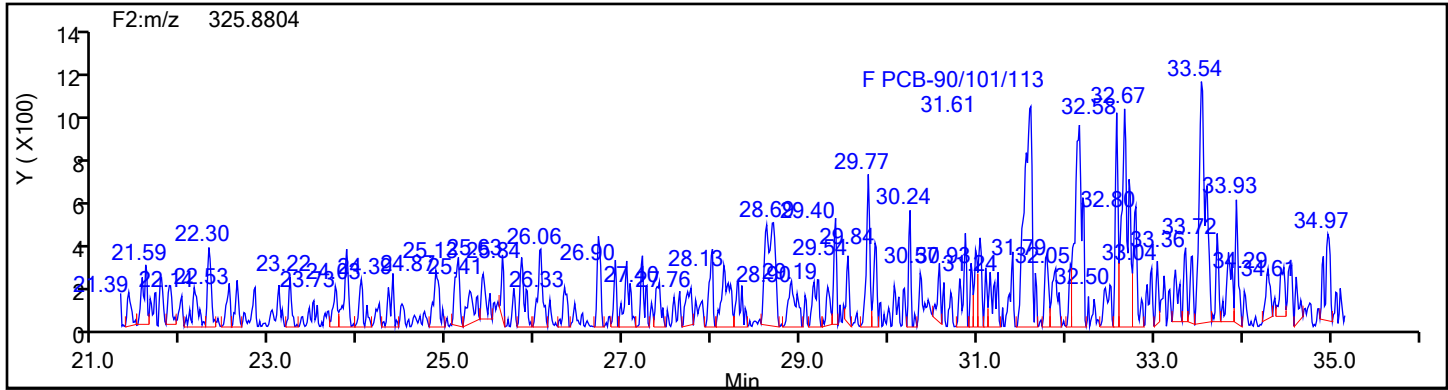
Reviewer: TT6I, 17-Jul-2024 11:50:31 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

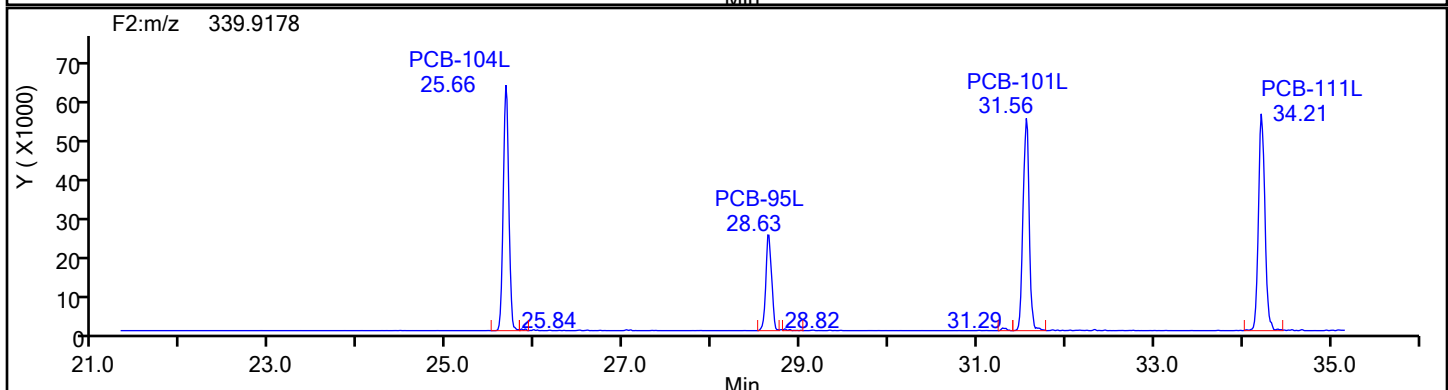
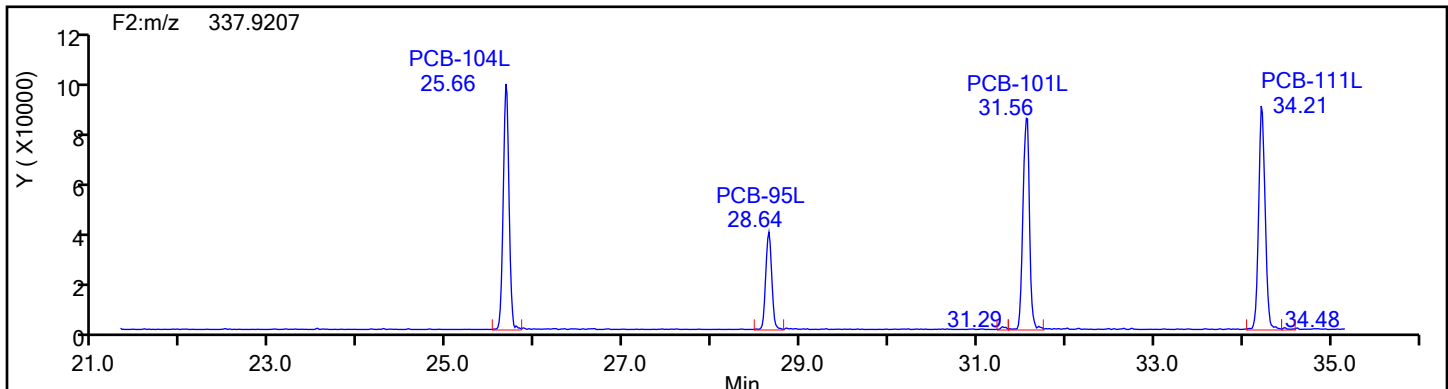
Audit Reason: Incomplete Integration

## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2

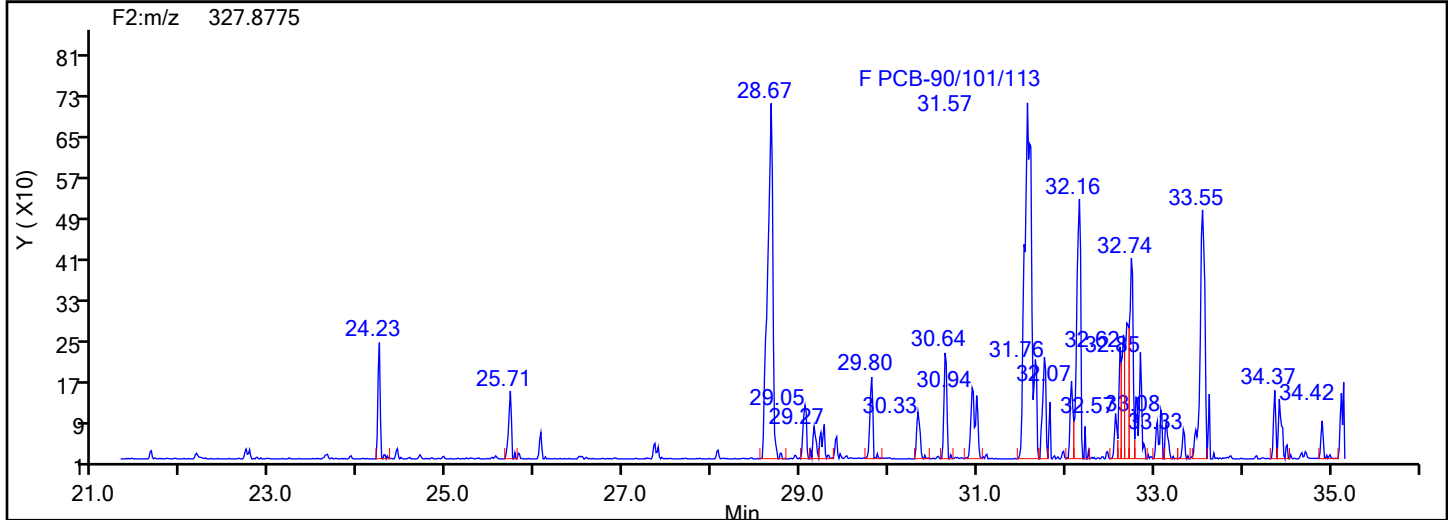
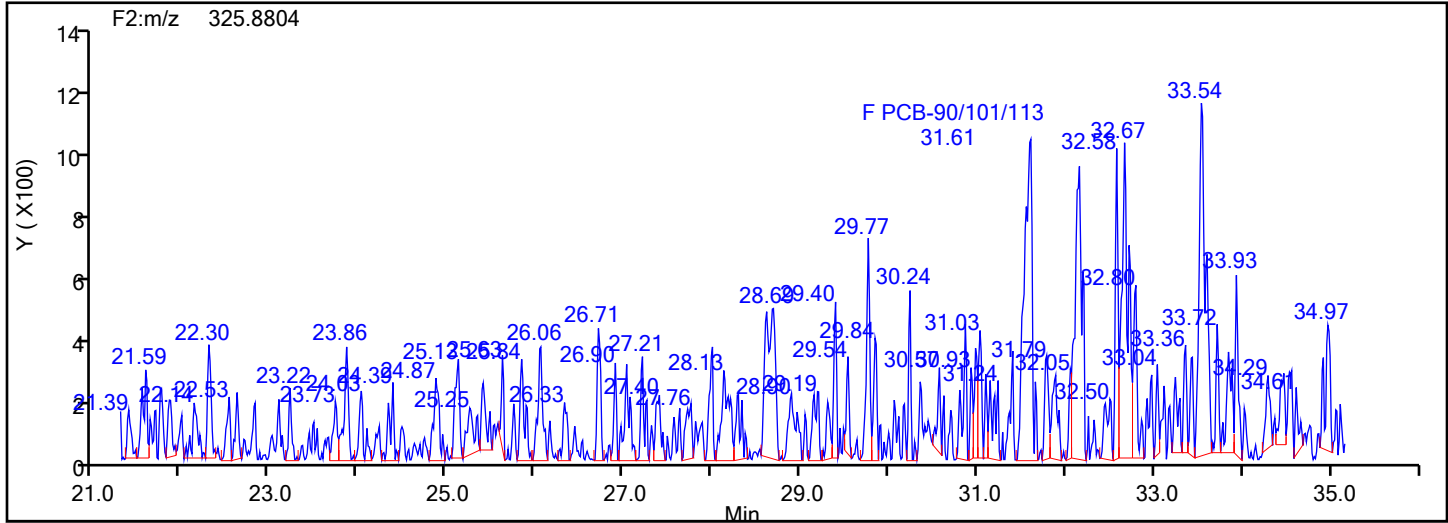


## PePCB F2 Standards

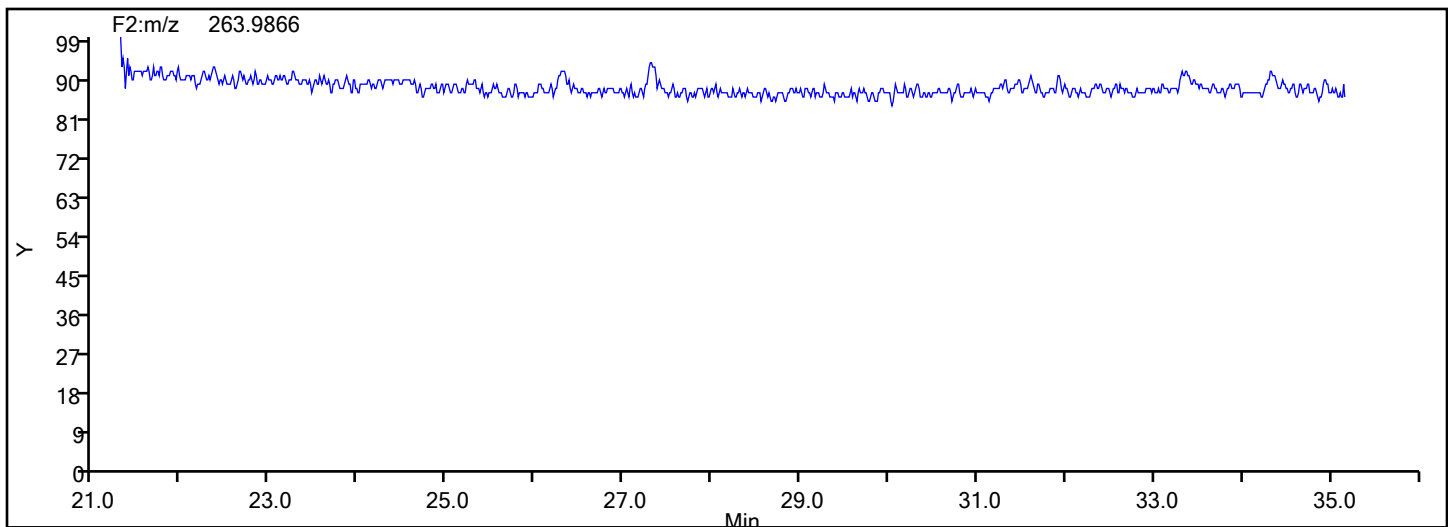


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-2-d5x\_20240716193645.d  
Injection Date: 16-Jul-2024 19:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2



## PePCB F2 Lock Mass



## Eurofins Knoxville

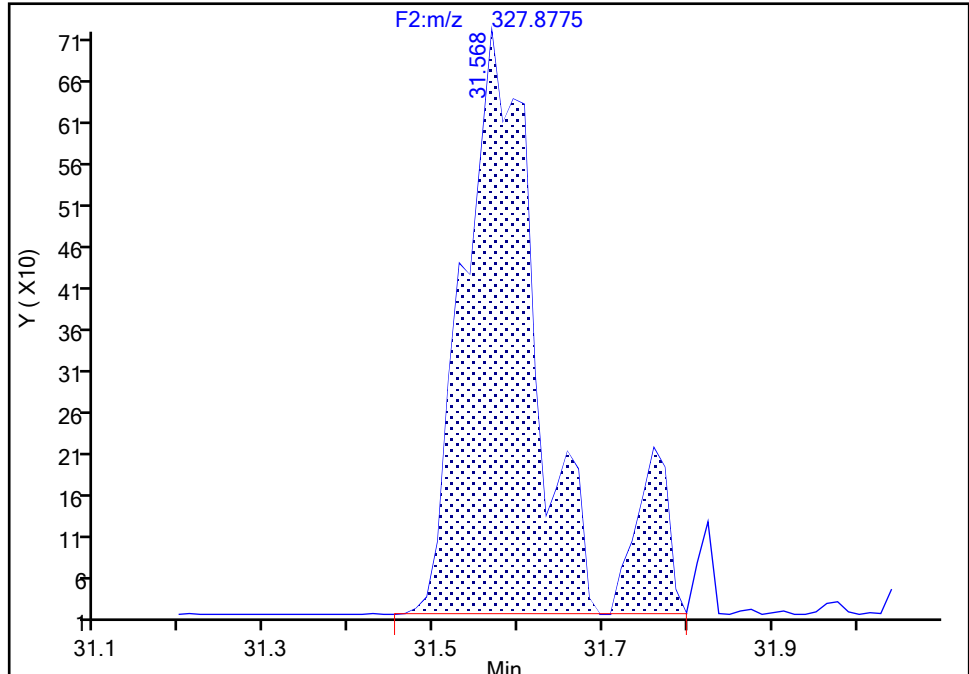
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Injection Date: 16-Jul-2024 19:38:00 Instrument ID: D2D  
Lims ID: 140-37234-A-2-D Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

PCB-90/101/113, CAS: STL01813

Signal: 2

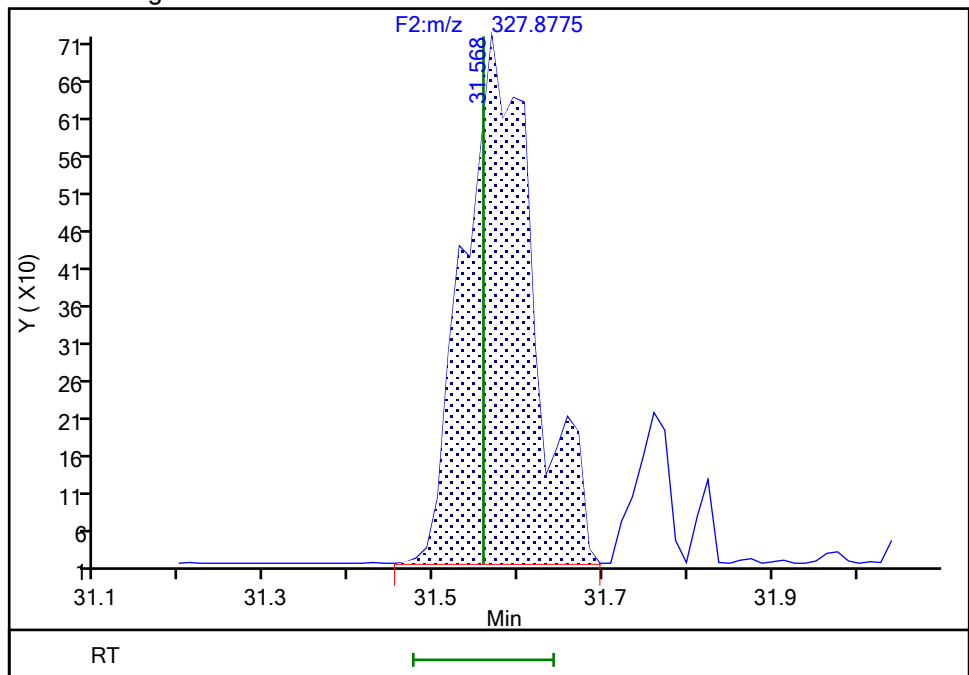
RT: 31.57  
Area: 4505  
Amount: 0.228433  
Amount Units: pg/ul

## Processing Integration Results



RT: 31.57  
Area: 3979  
Amount: 0.300405  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 11:50:51 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

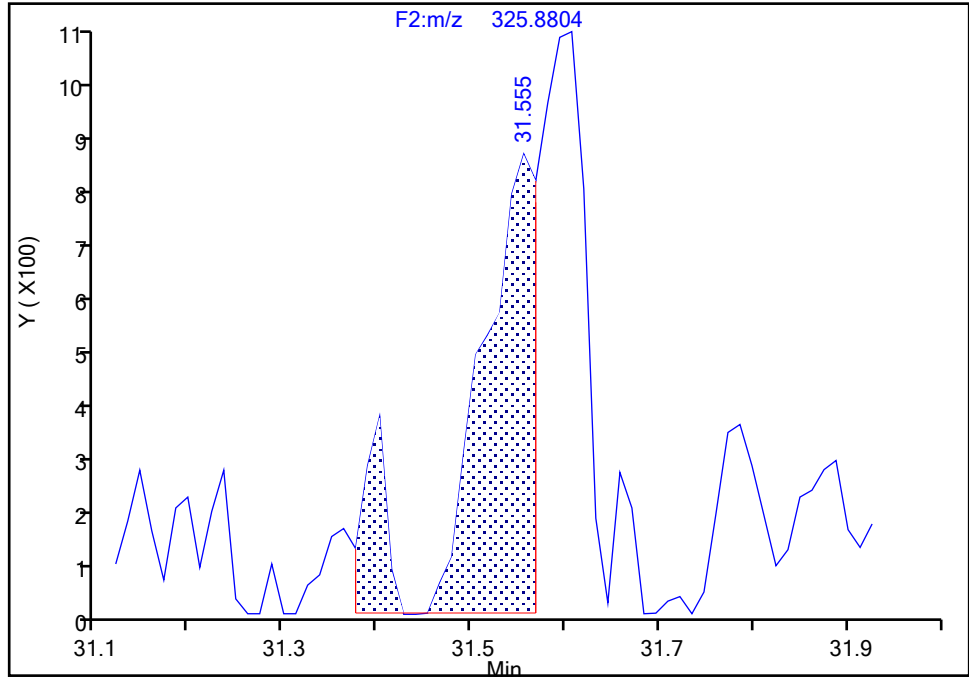
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Injection Date: 16-Jul-2024 19:38:00 Instrument ID: D2D  
Lims ID: 140-37234-A-2-D Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

**PCB-90/101/113, CAS: STL01813**

Signal: 1

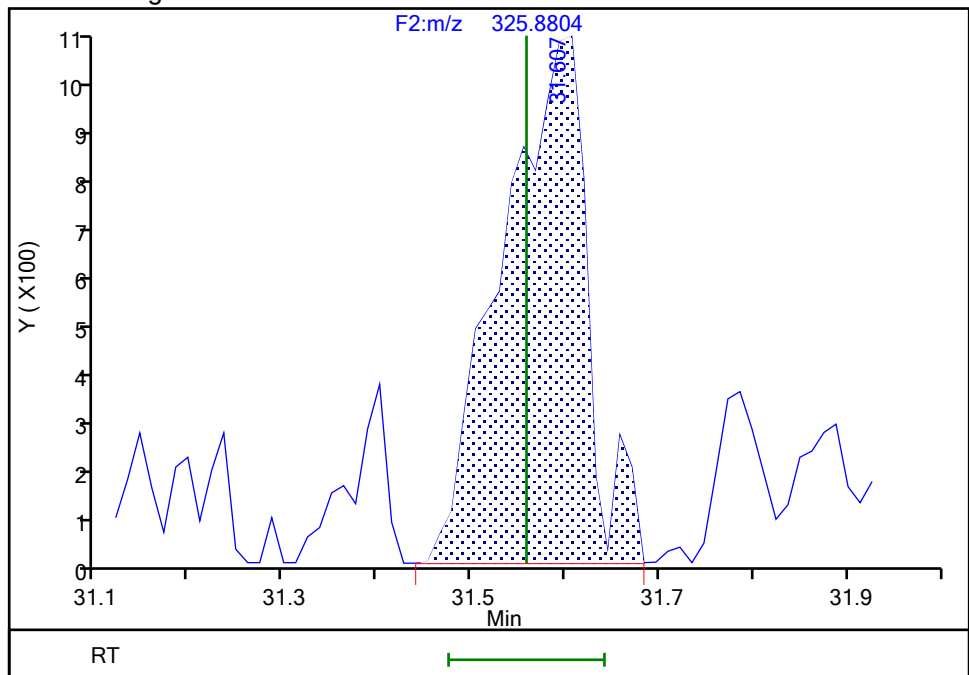
RT: 31.56  
Area: 3471  
Amount: 0.228433  
Amount Units: pg/ul

## Processing Integration Results



RT: 31.61  
Area: 6510  
Amount: 0.300405  
Amount Units: pg/ul

## Manual Integration Results



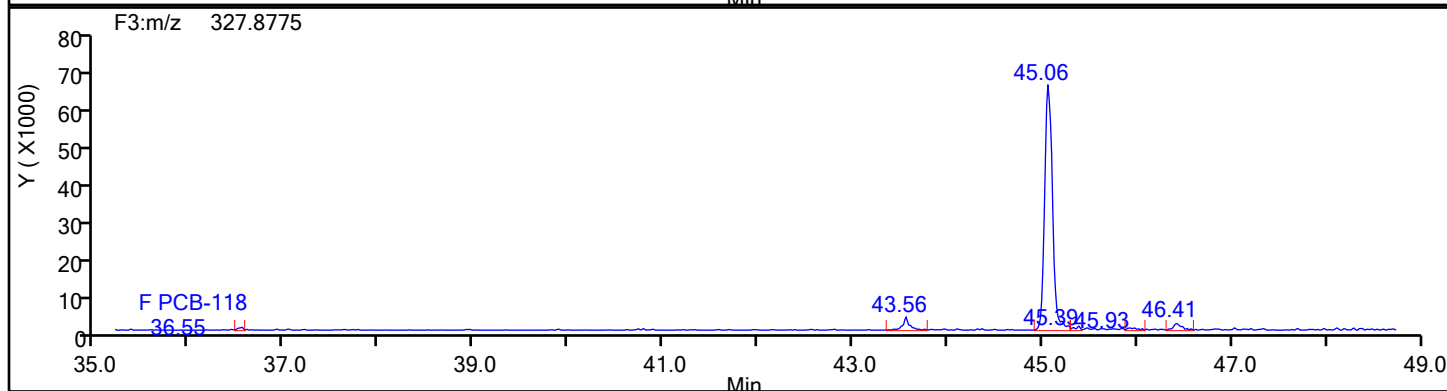
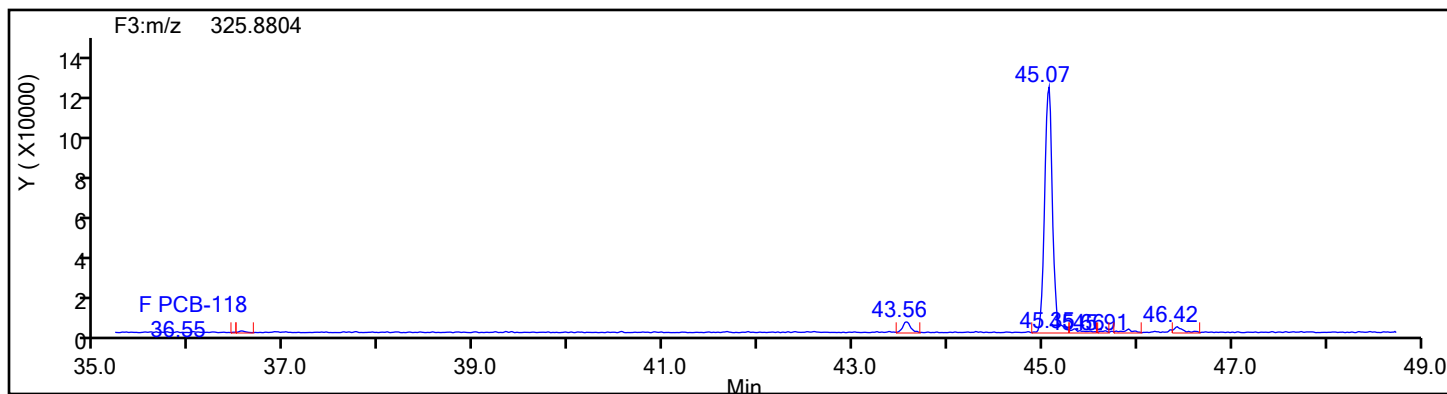
Reviewer: TT6I, 17-Jul-2024 11:50:55 -04:00:00 (UTC)

Audit Action: Manually Integrated

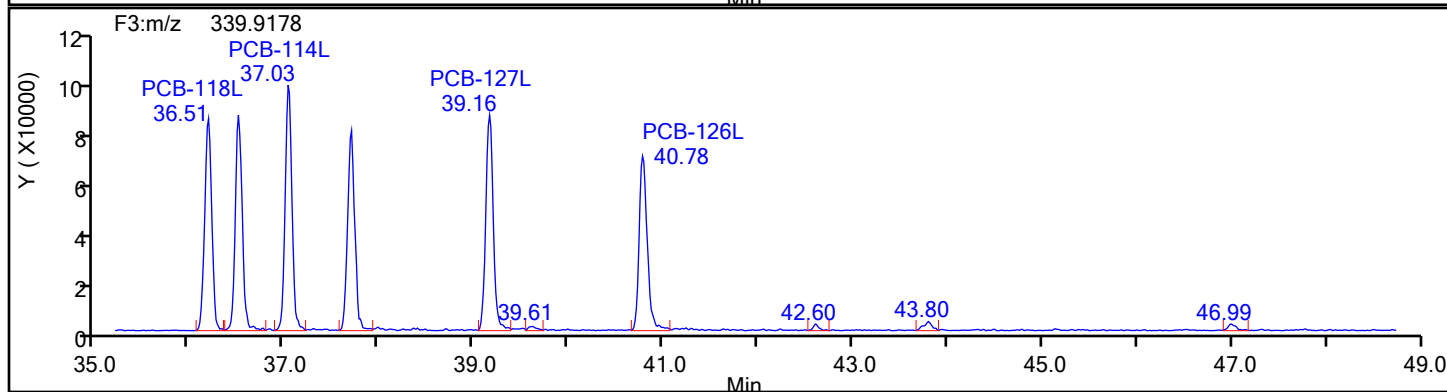
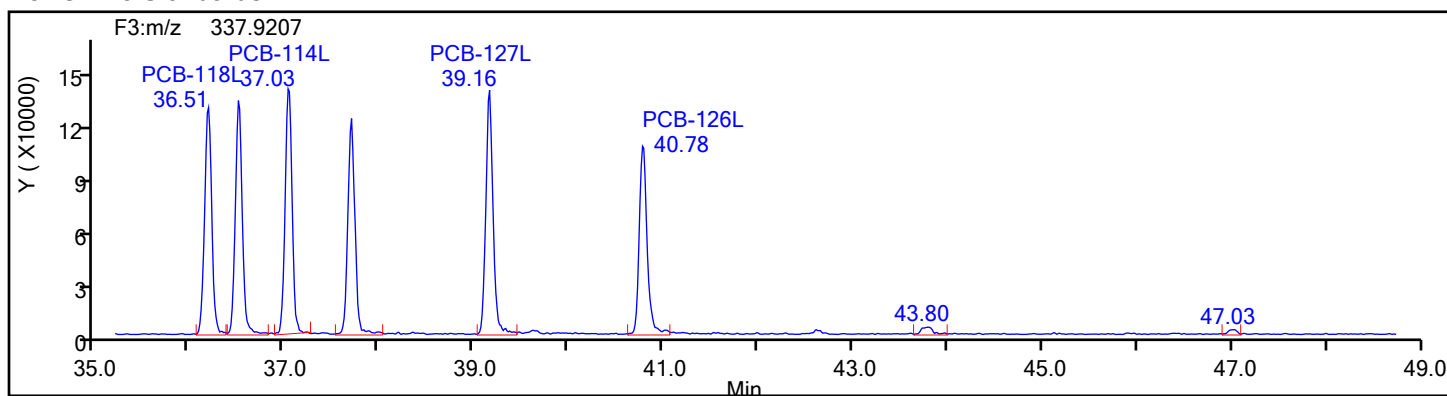
Audit Reason: Incomplete Integration

## Eurofins Knoxville

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Injection Date: 16-Jul-2024 19:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F3

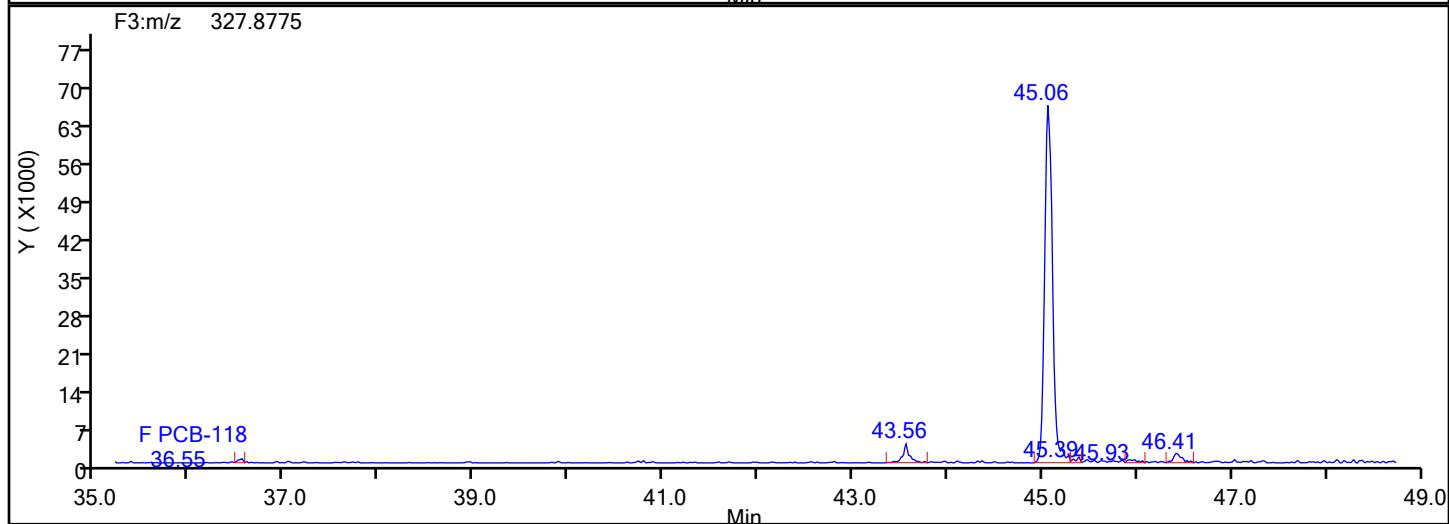
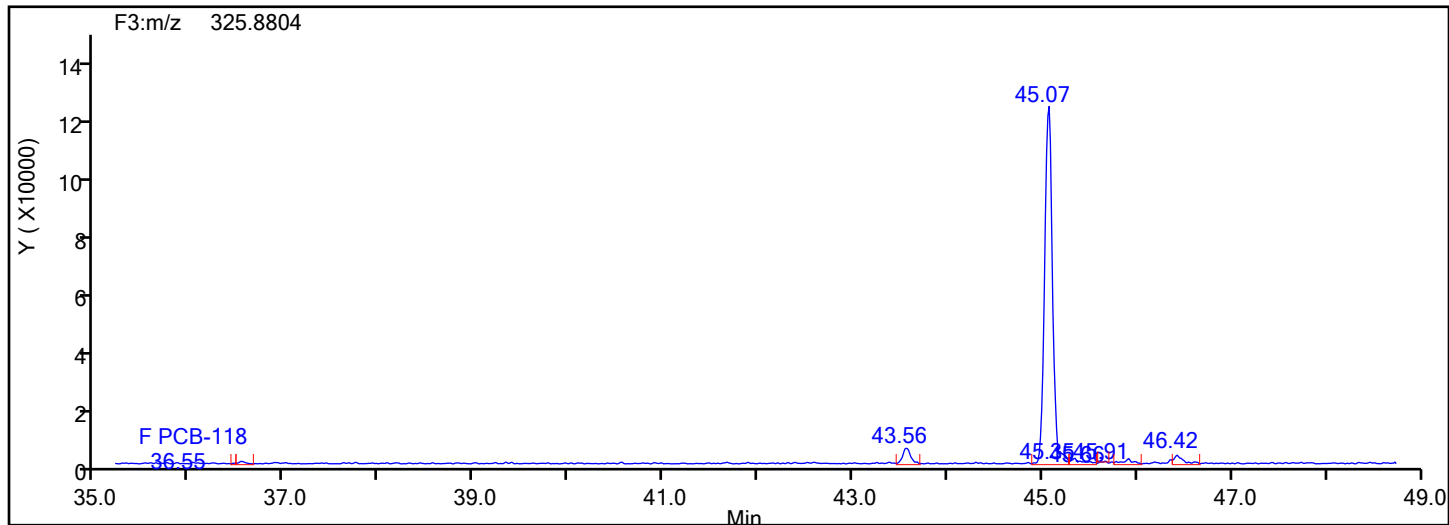


## PePCB F3 Standards

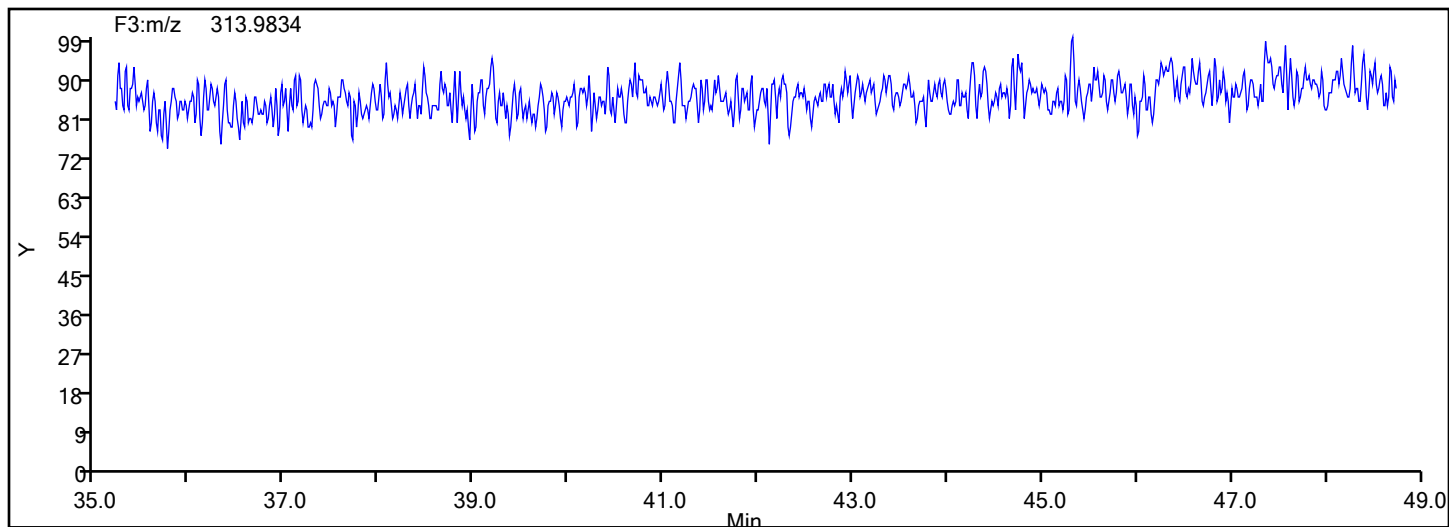


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 19:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F3



## PePCB F3 Lock Mass





## Eurofins Knoxville

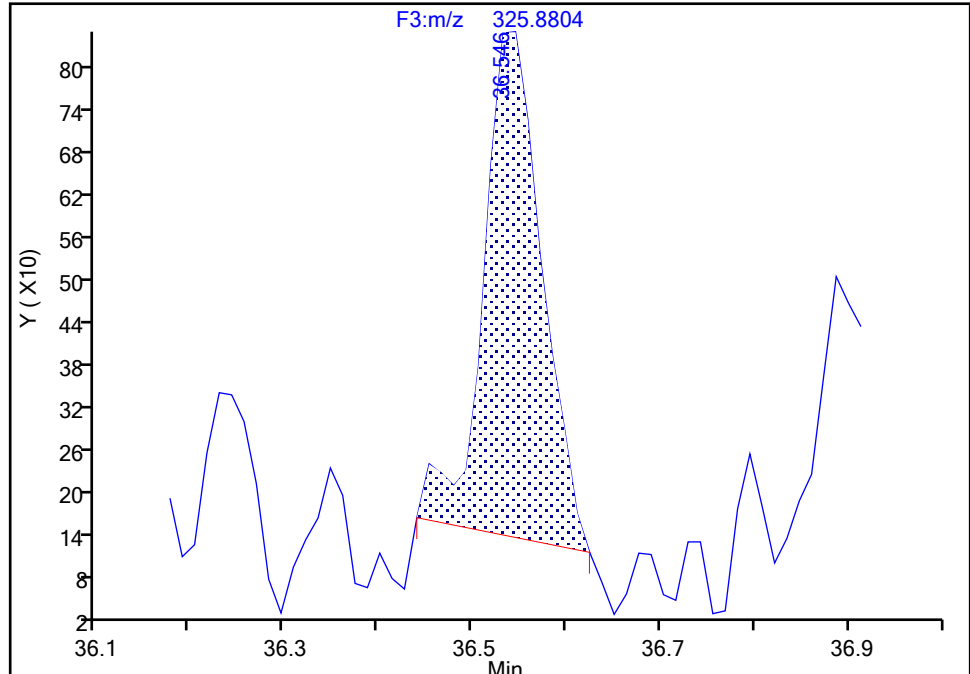
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-2-d5x\_20240716193645.d  
Injection Date: 16-Jul-2024 19:38:00 Instrument ID: D2D  
Lims ID: 140-37234-A-2-D Lab Sample ID: 140-37234-2  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F3(35.64 :49.10 )

PCB-118, CAS: 31508-00-6

Signal: 1

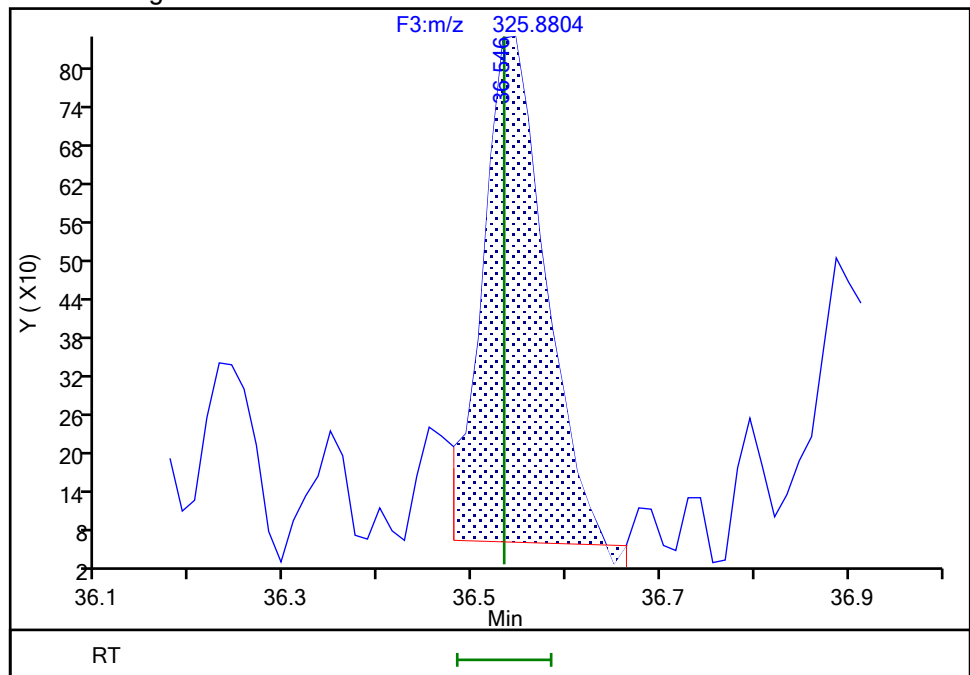
RT: 36.55  
Area: 3122  
Amount: 0.084013  
Amount Units: pg/ul

## Processing Integration Results



RT: 36.55  
Area: 3646  
Amount: 0.092009  
Amount Units: pg/ul

## Manual Integration Results



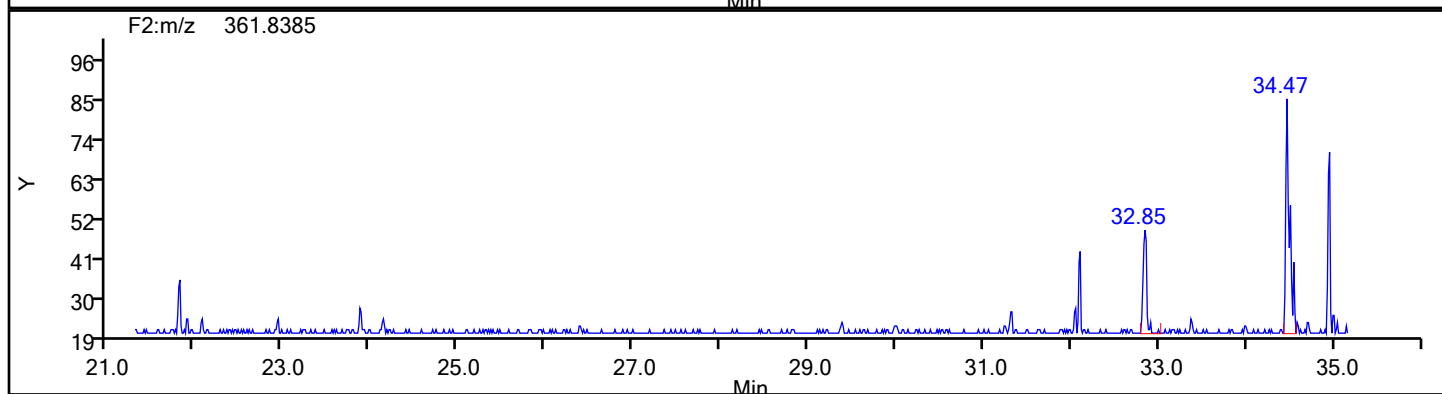
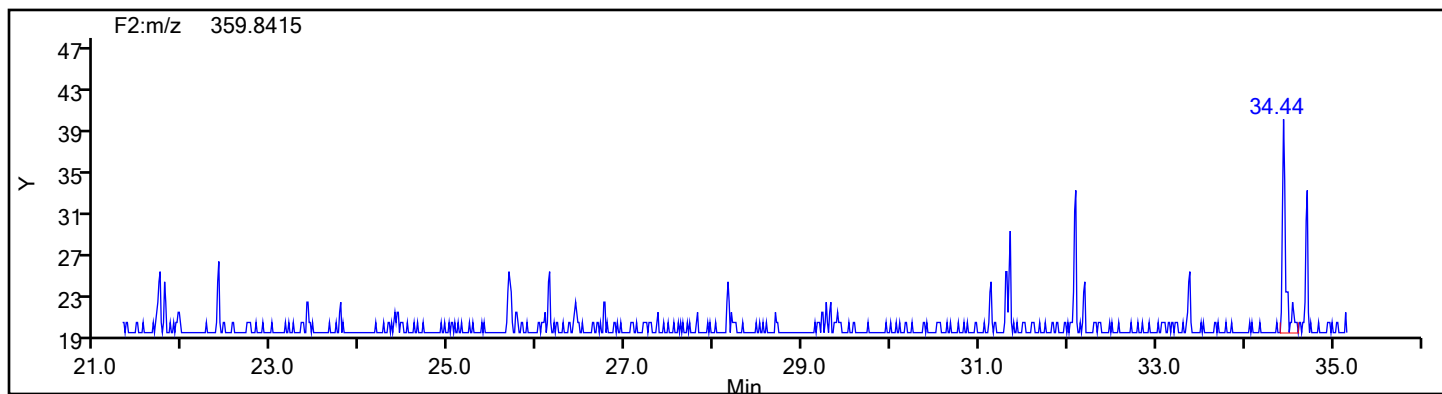
Reviewer: TT6I, 17-Jul-2024 11:51:19 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

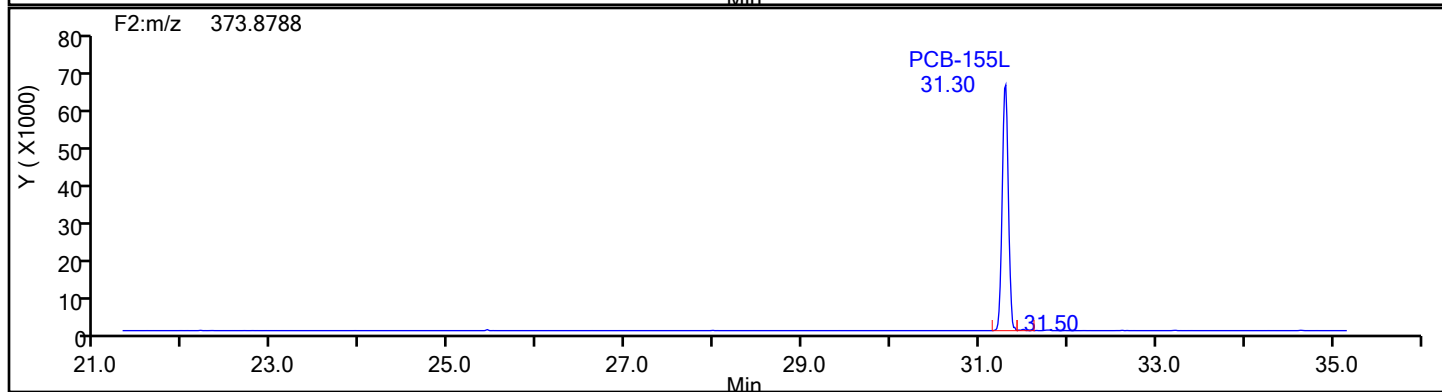
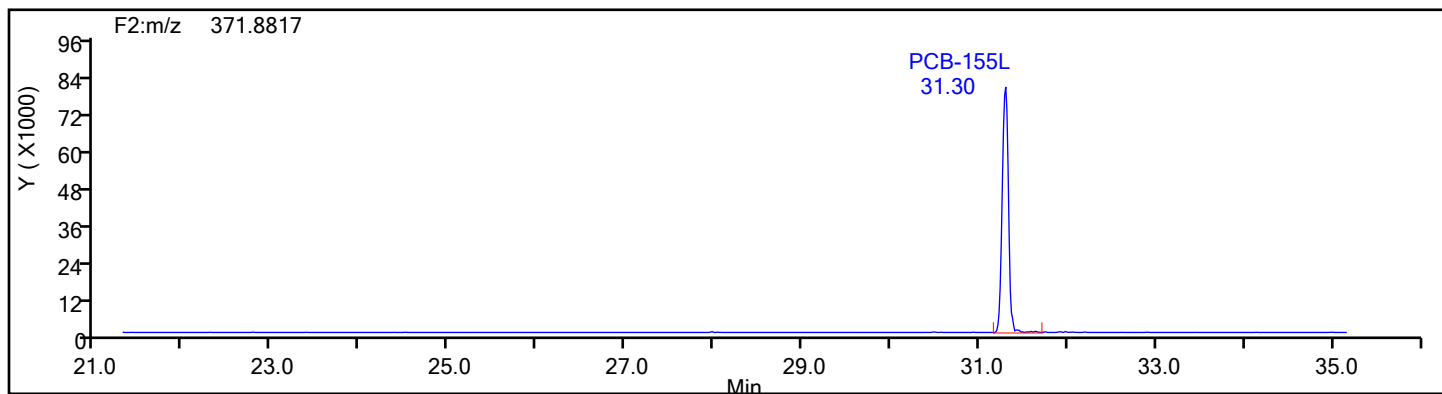
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-2-d5x\_20240716193645.d  
Injection Date: 16-Jul-2024 19:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2

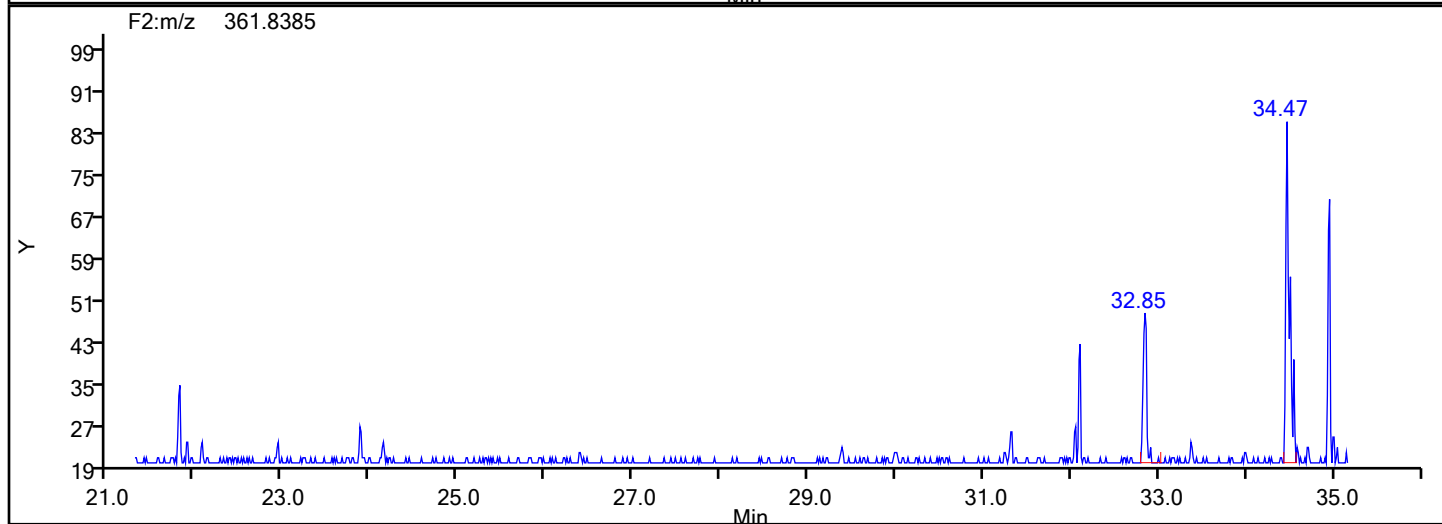
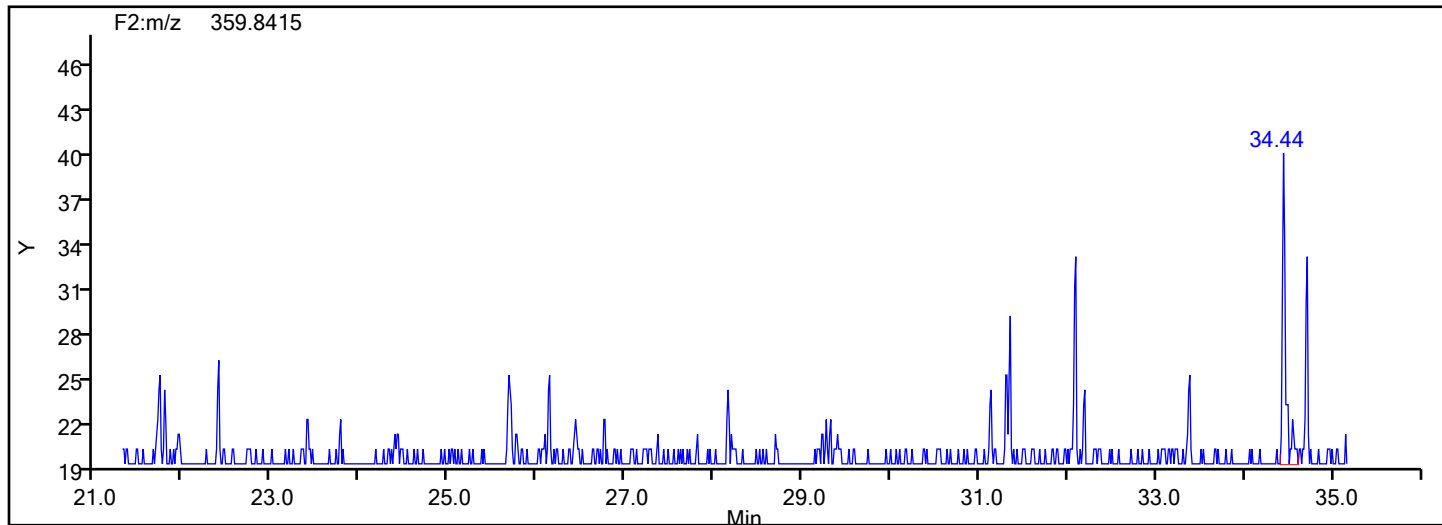


## HxPCB F2 Standards

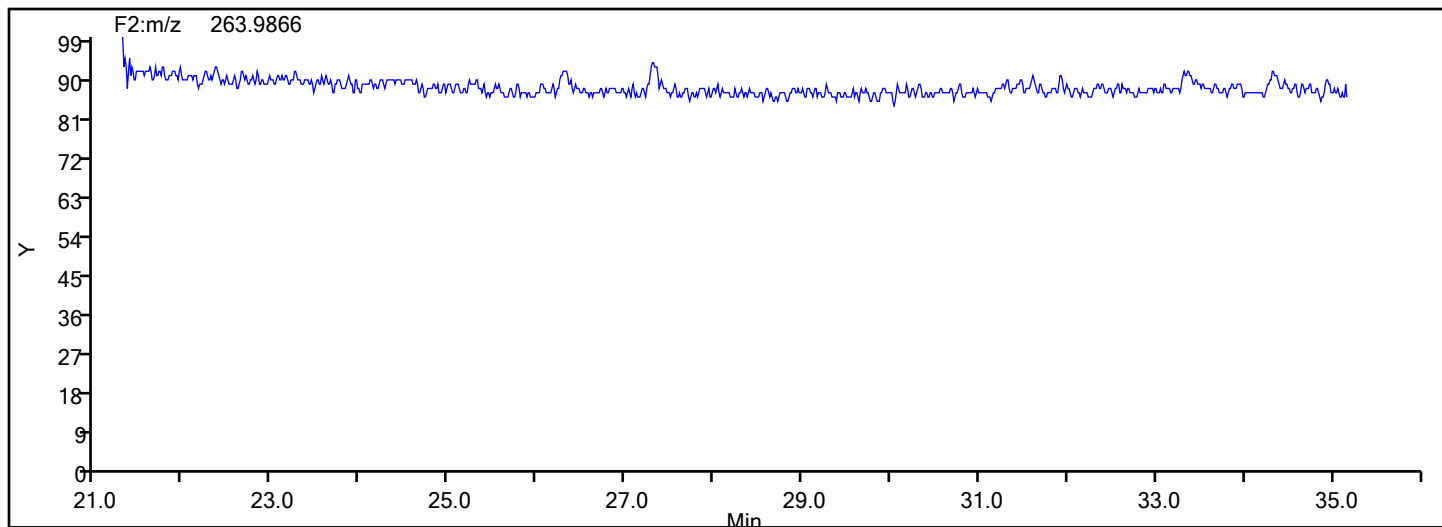


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-2-d5x\_20240716193645.d  
Injection Date: 16-Jul-2024 19:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2

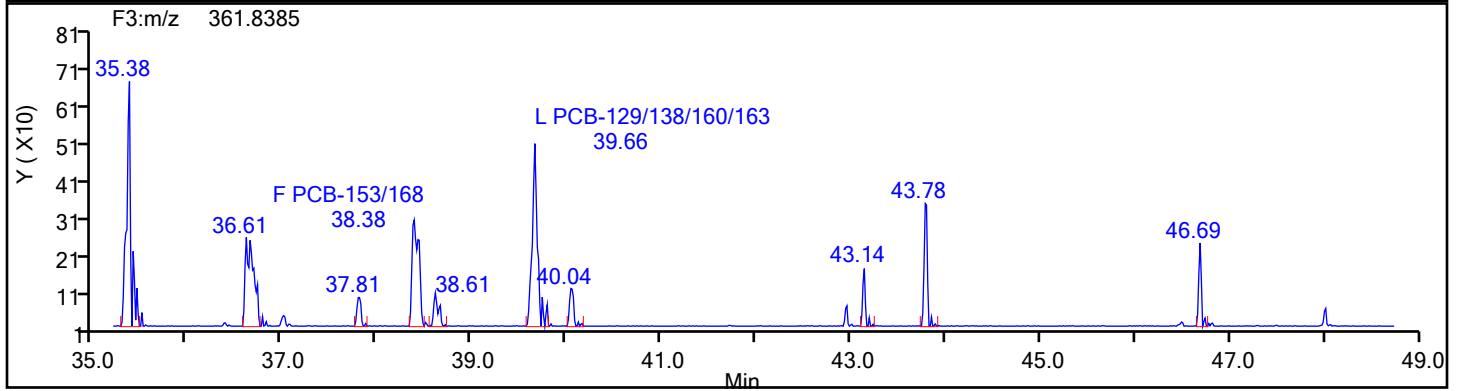
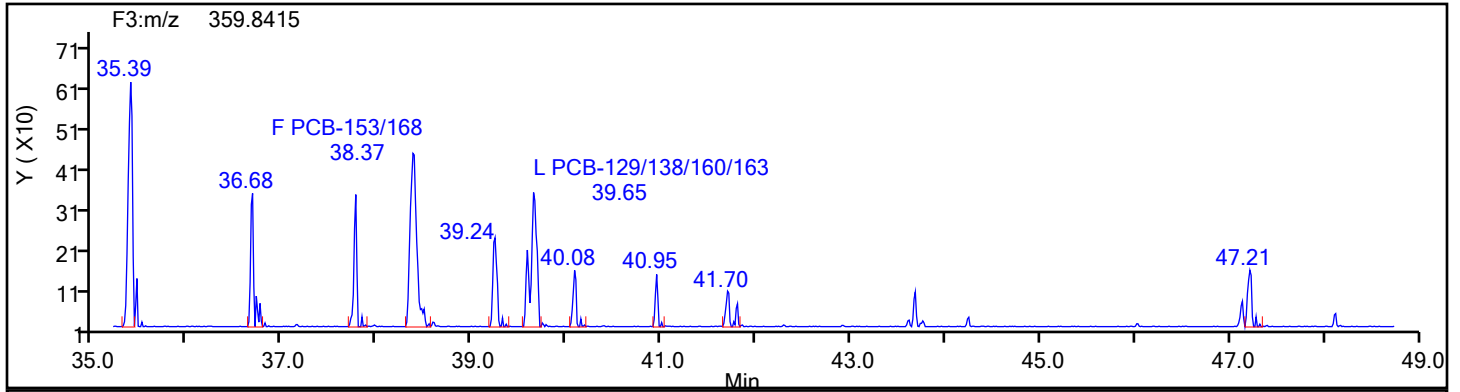


## HxPCB F2 Lock Mass

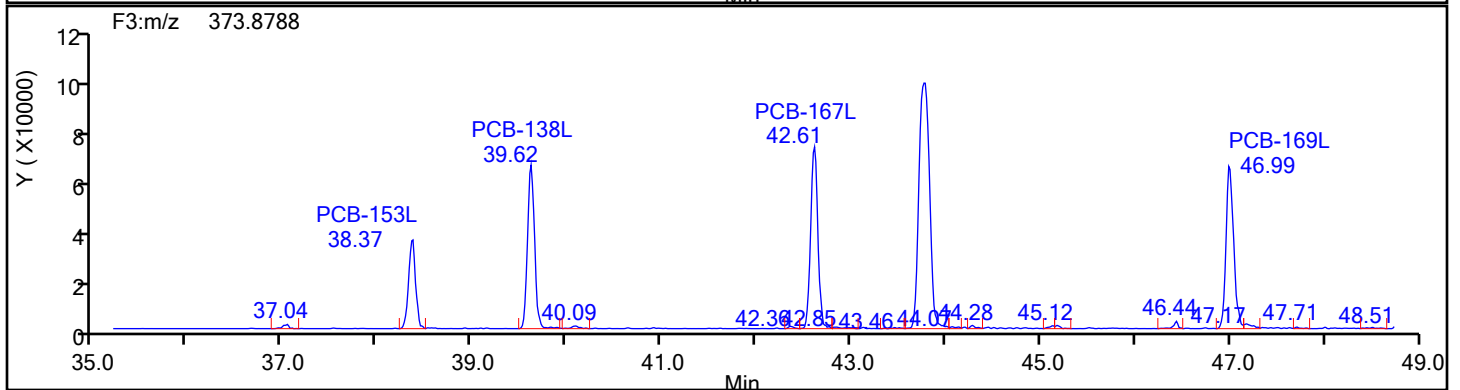
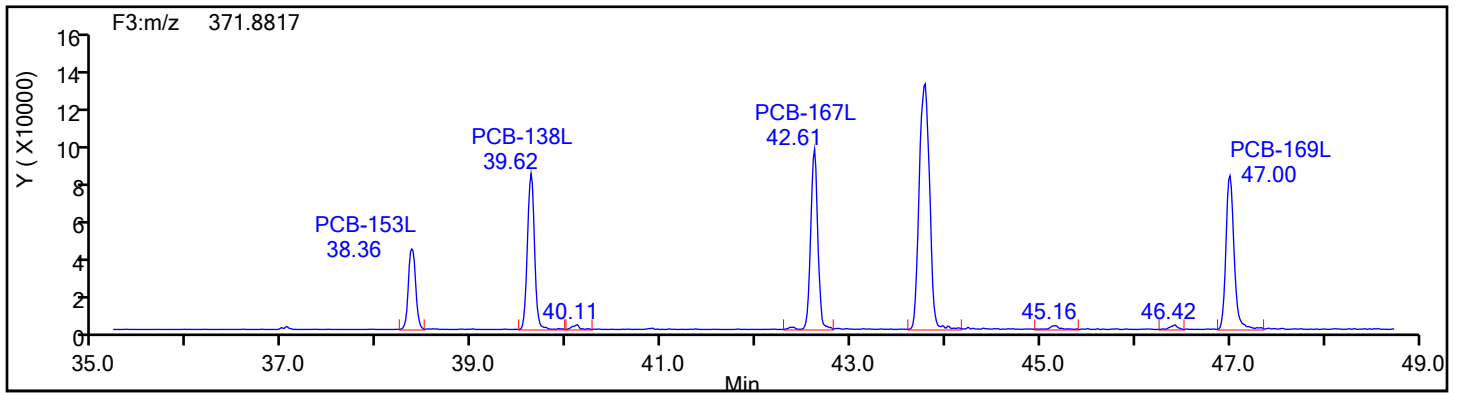


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-2-d5x\_20240716193645.d  
Injection Date: 16-Jul-2024 19:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F3

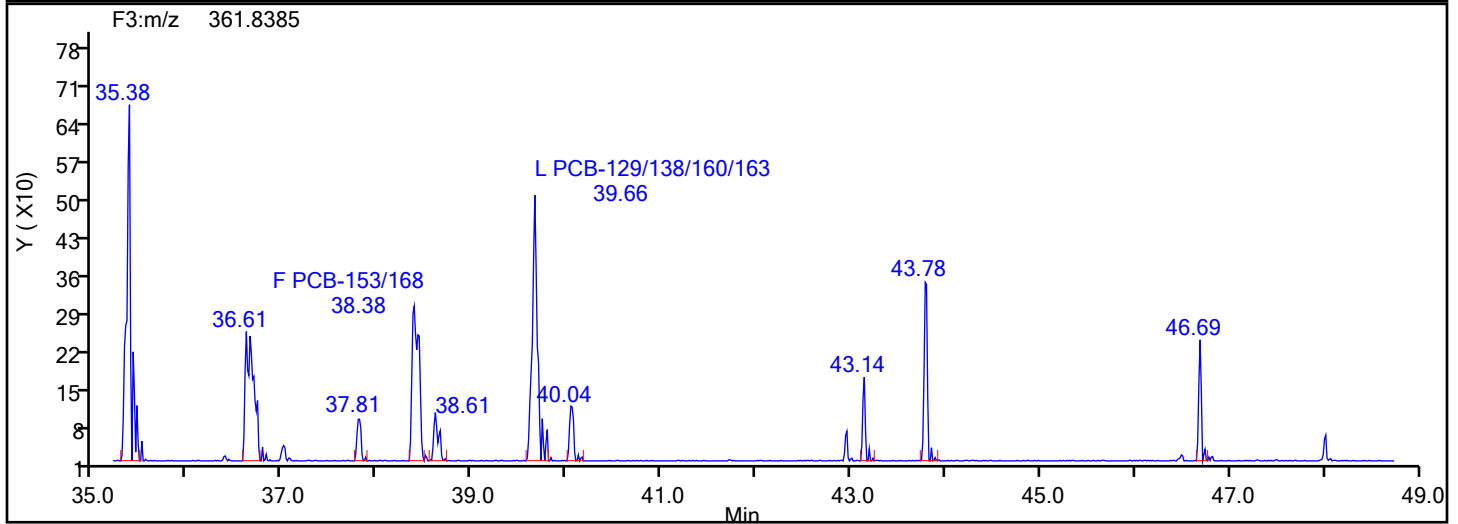
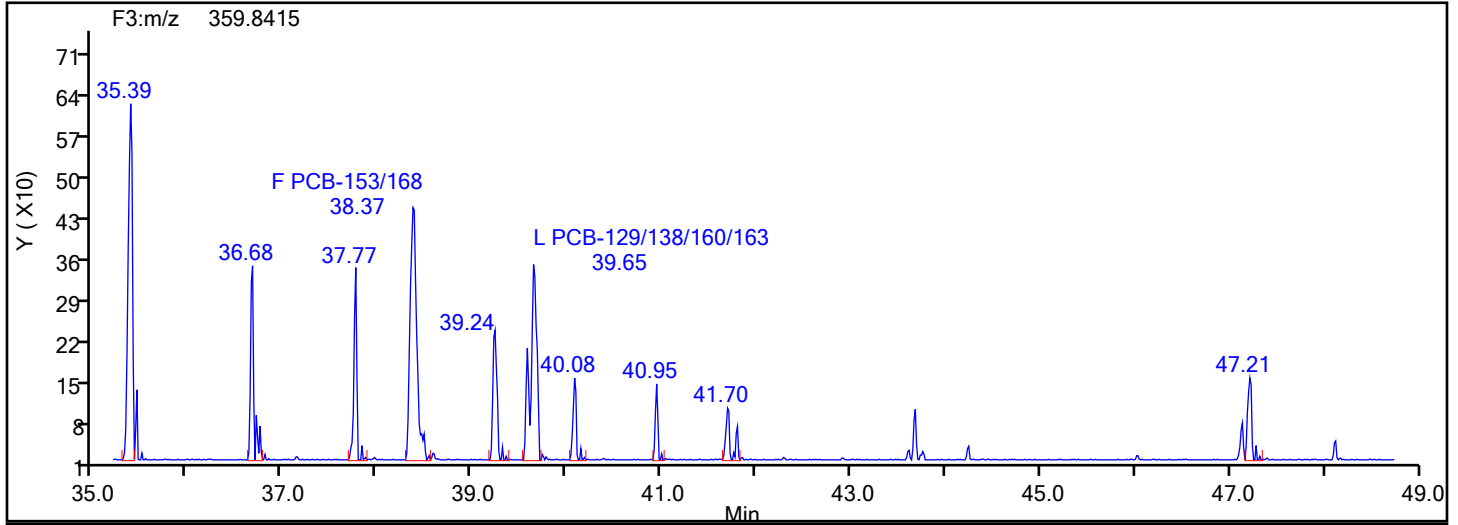


## HxPCB F3 Standards

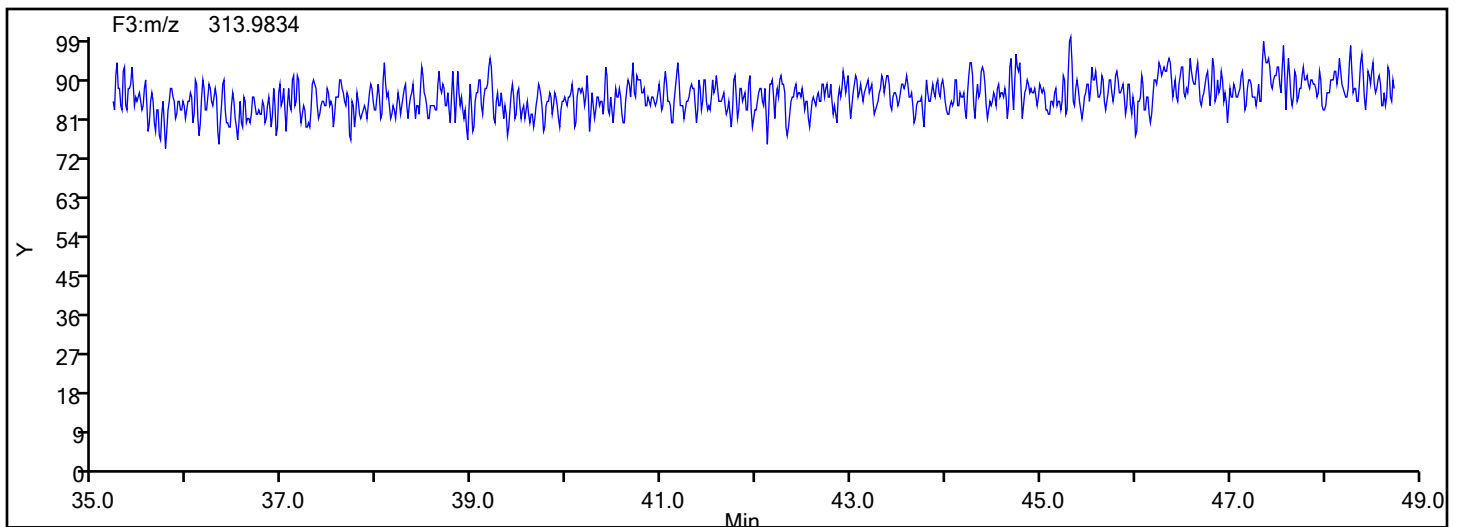


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 19:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F3

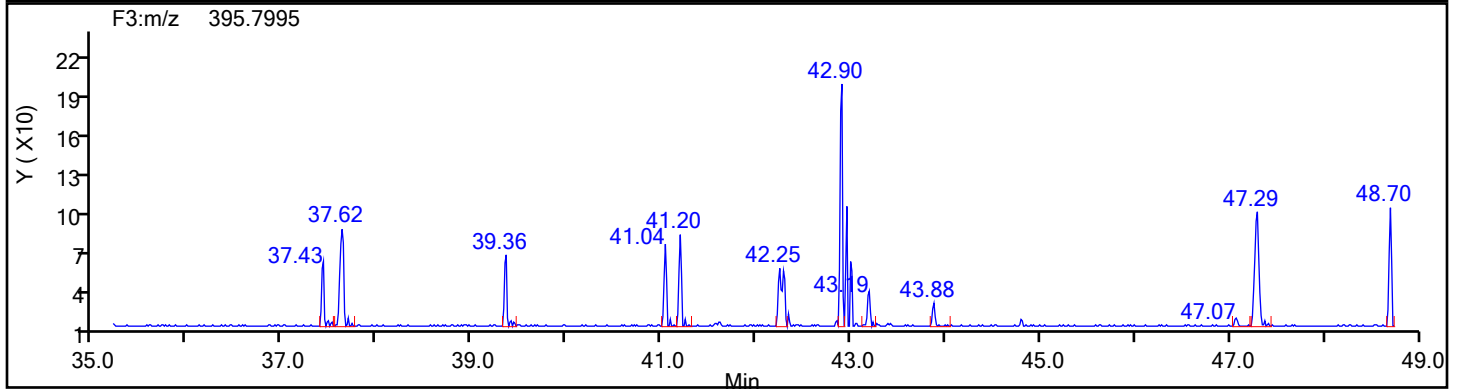
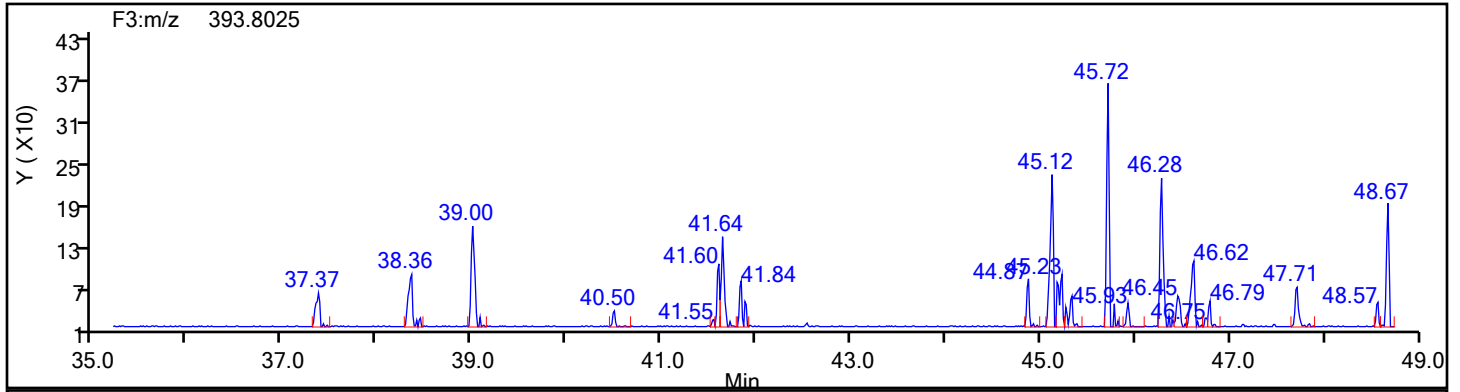


## HxPCB F3 Lock Mass

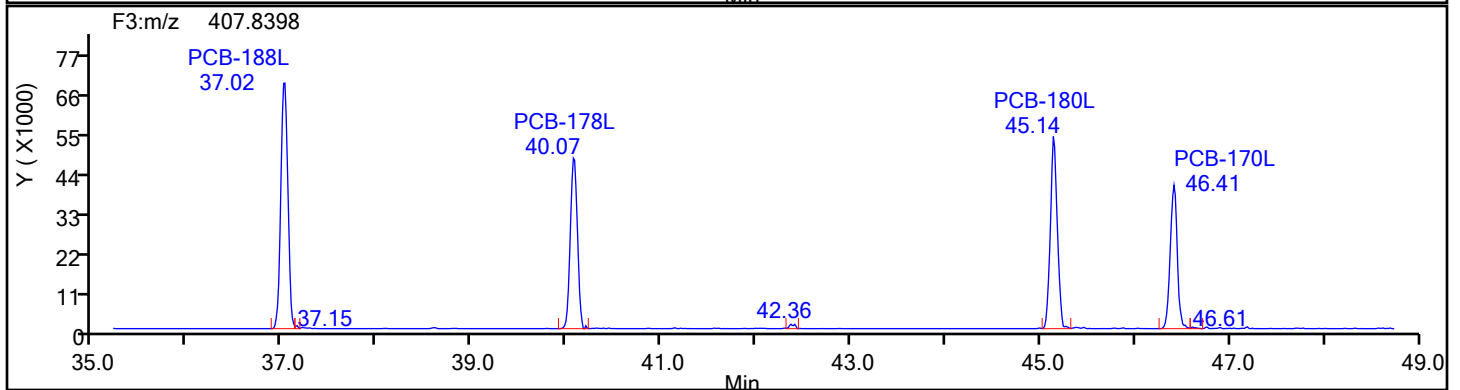
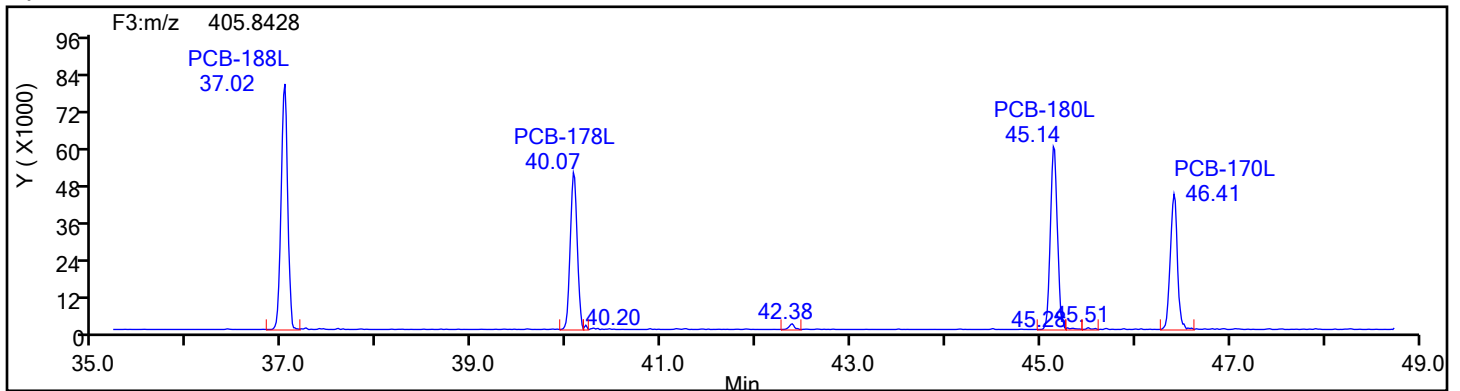


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 19:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F3

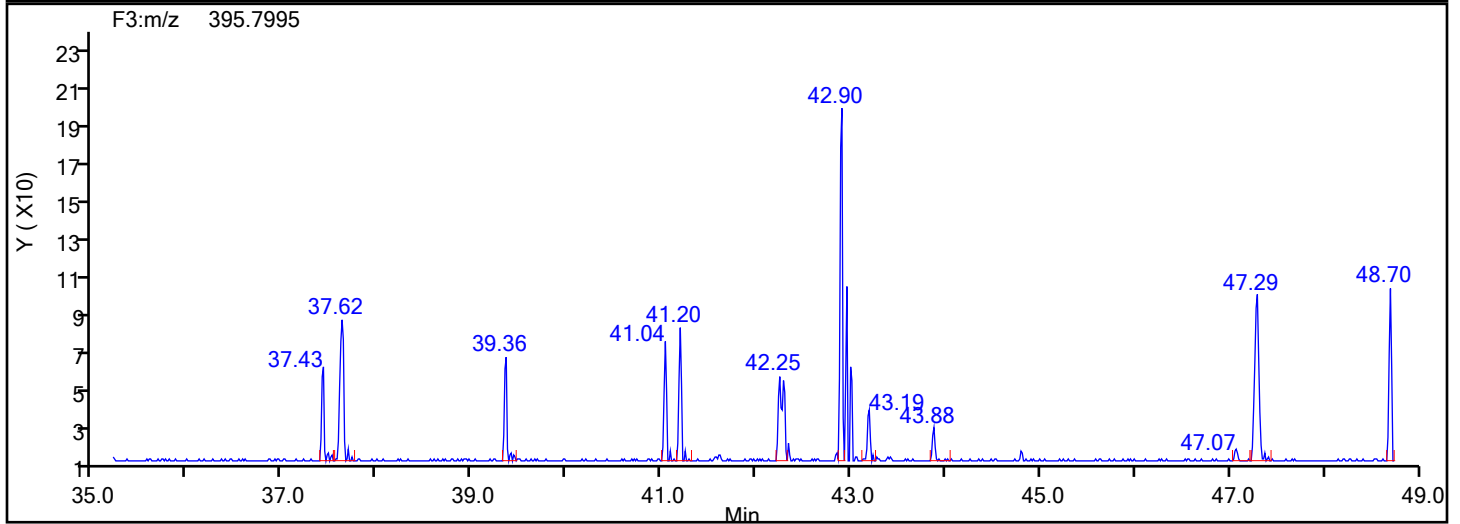
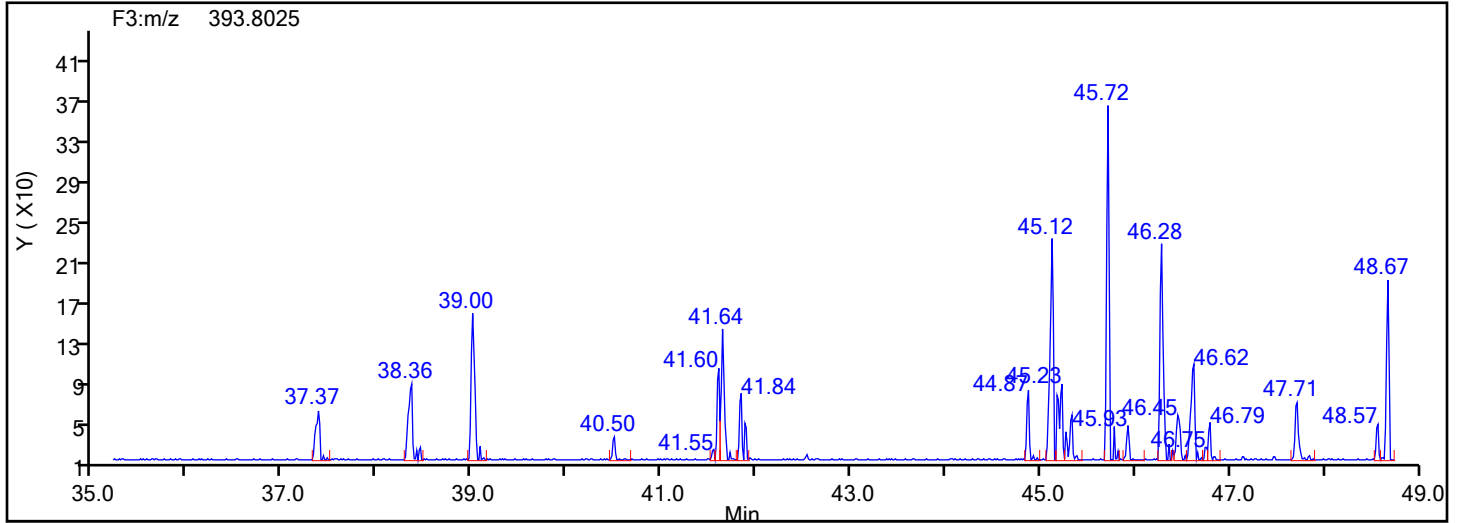


## HpPCB F3 Standards

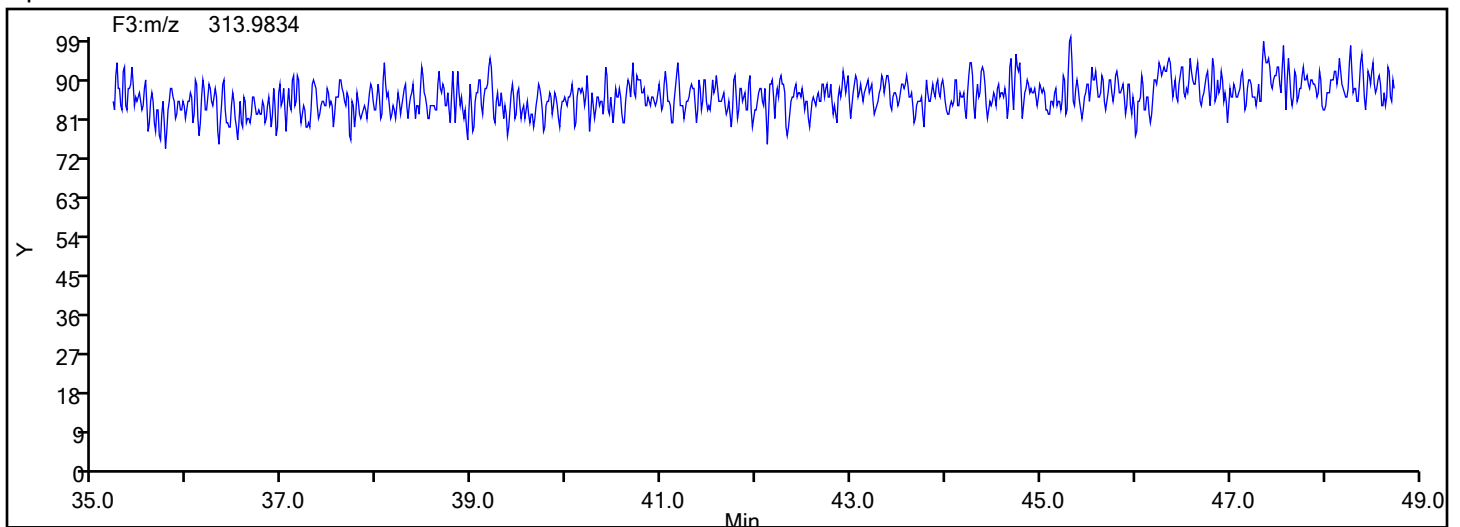


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F3

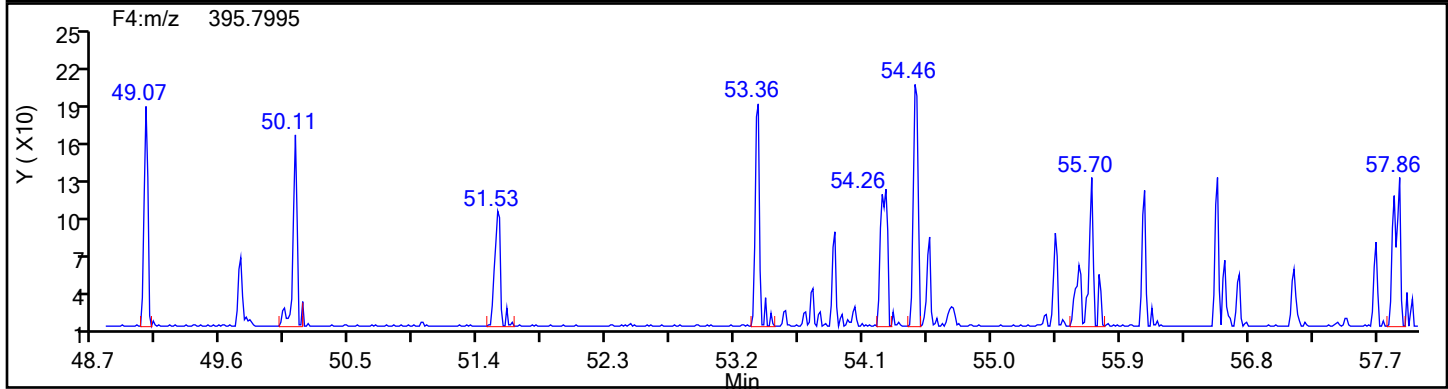
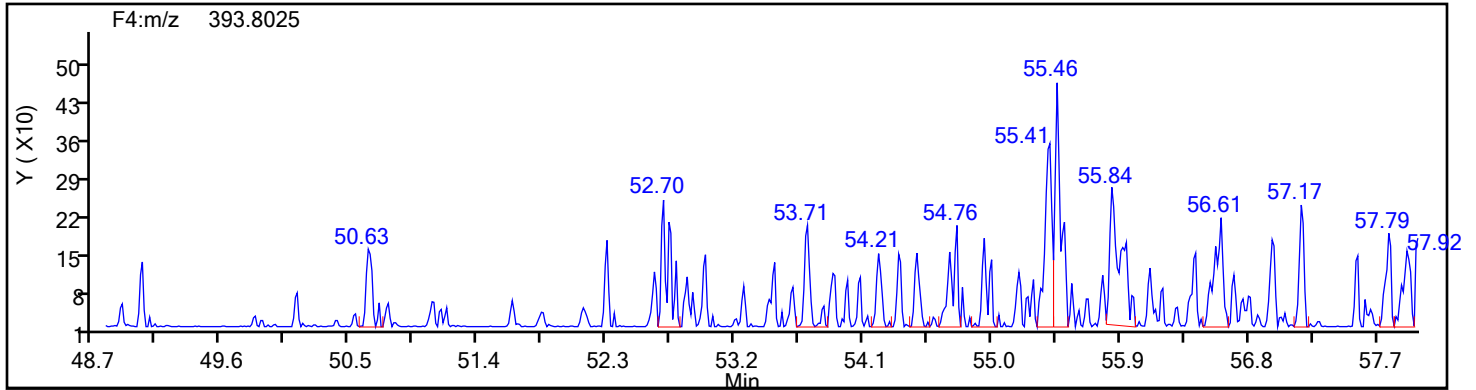


## HpPCB F3 Lock Mass

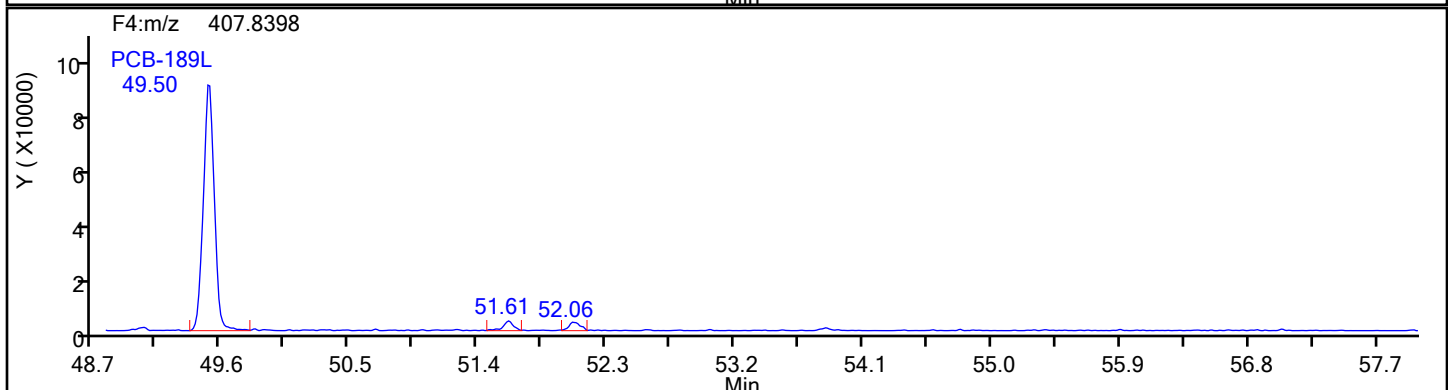
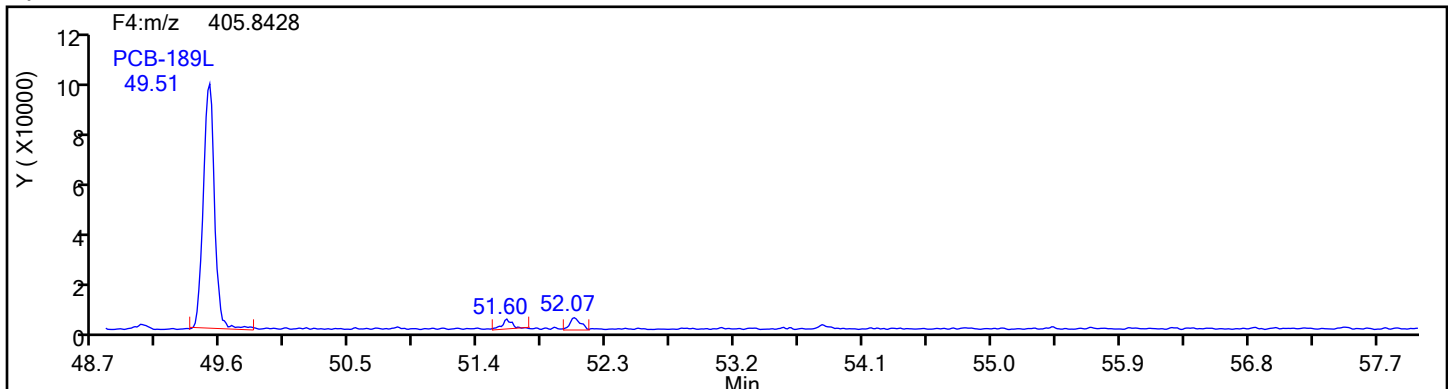


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 19:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F4



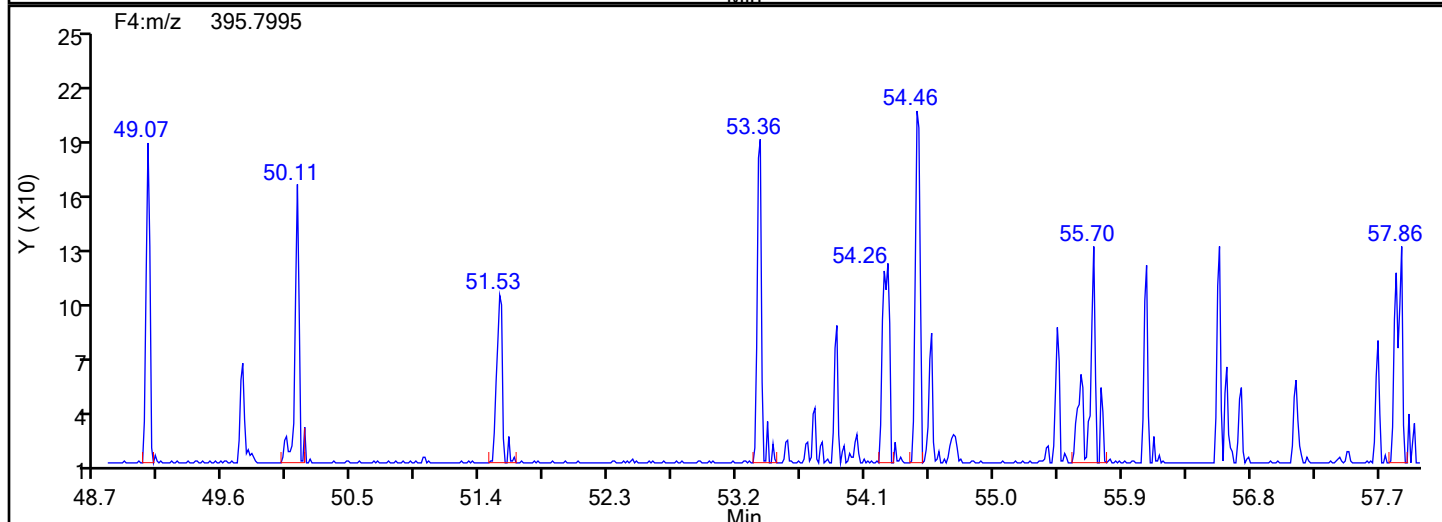
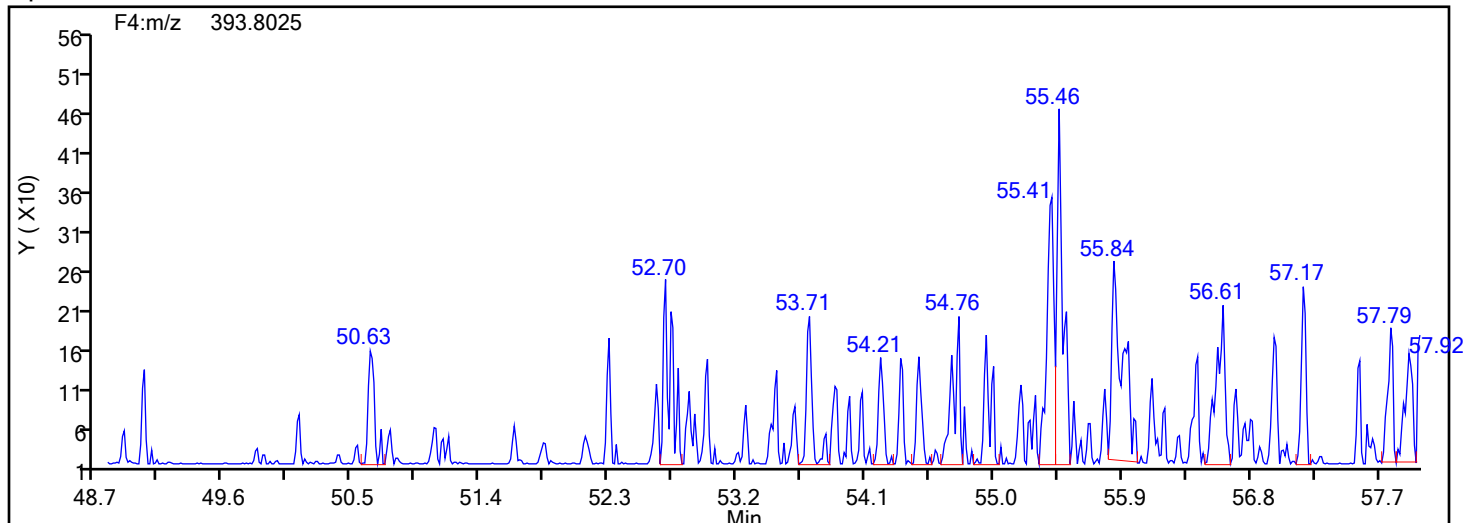
## HpPCB F4 Standards



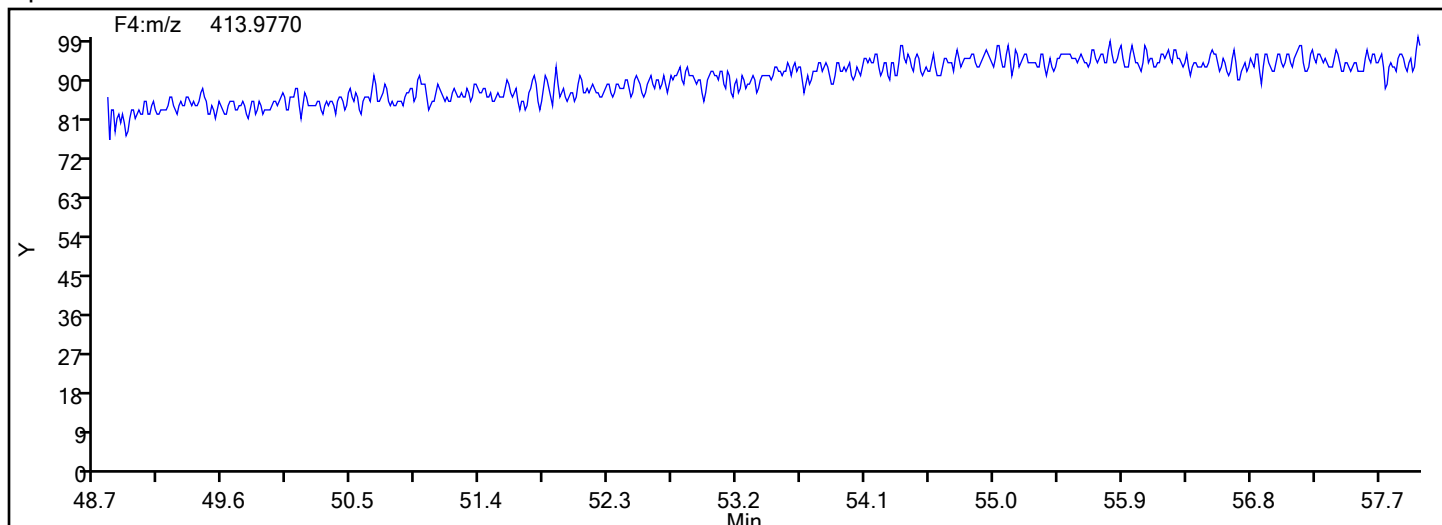


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 19:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F4

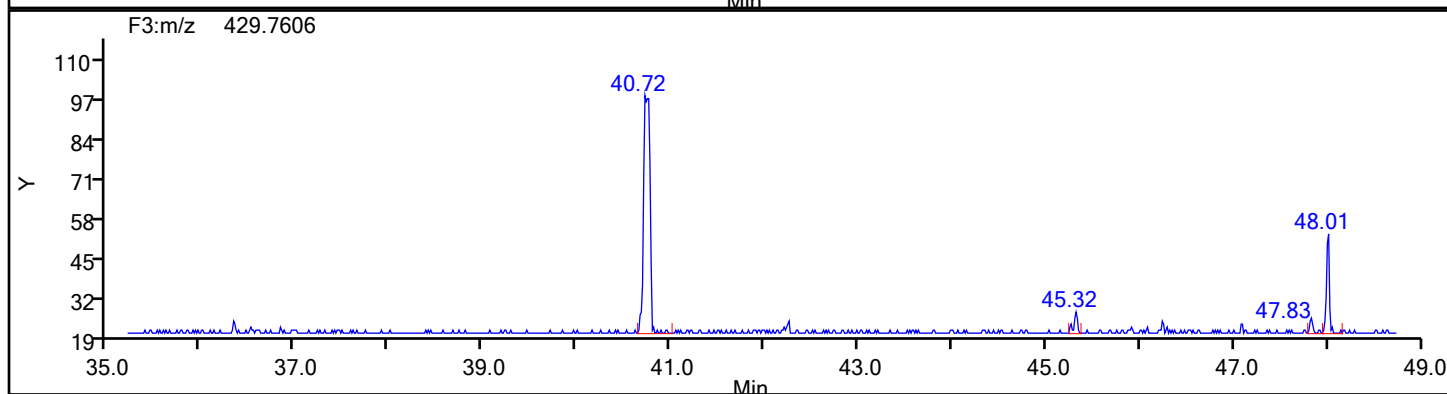
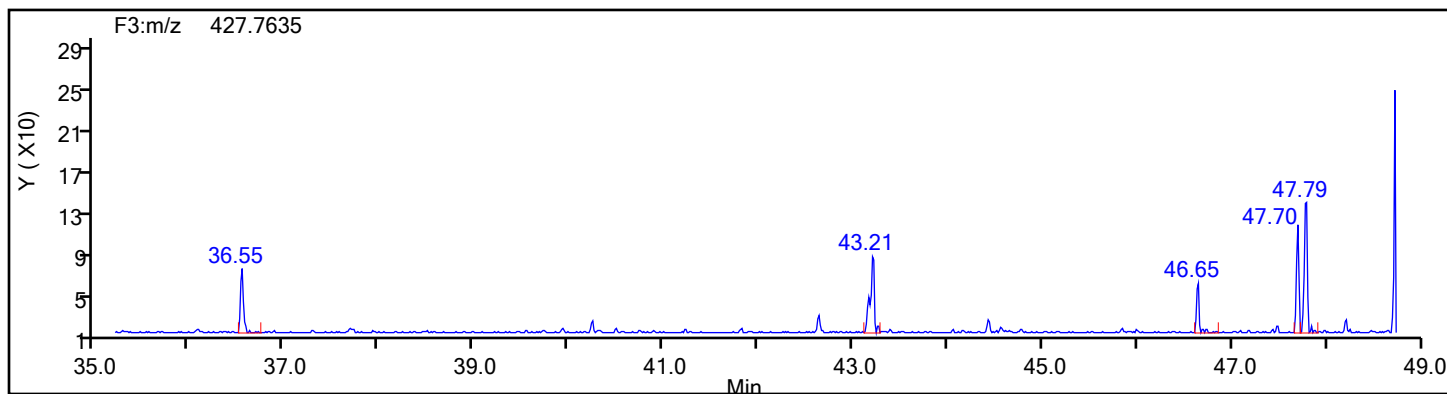


## HpPCB F4 Lock Mass

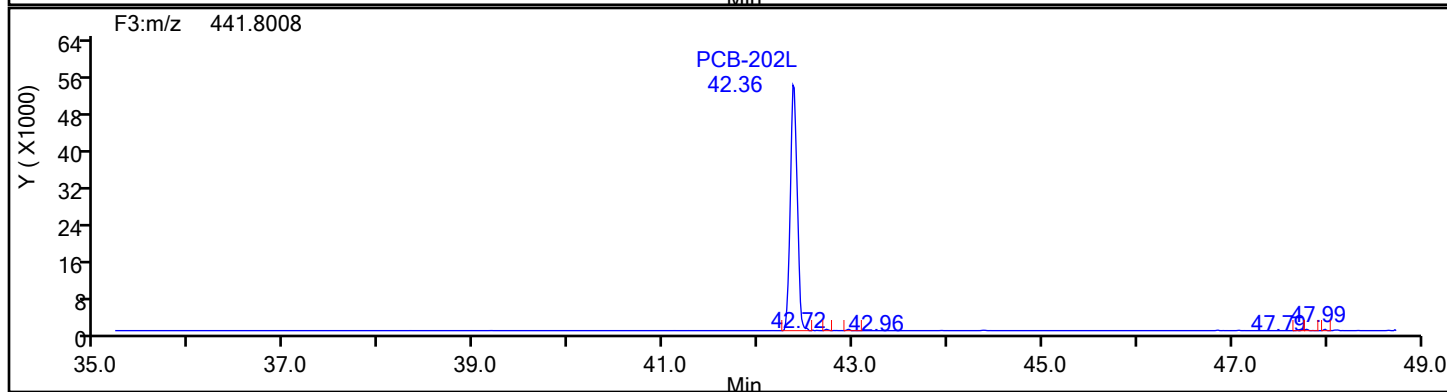
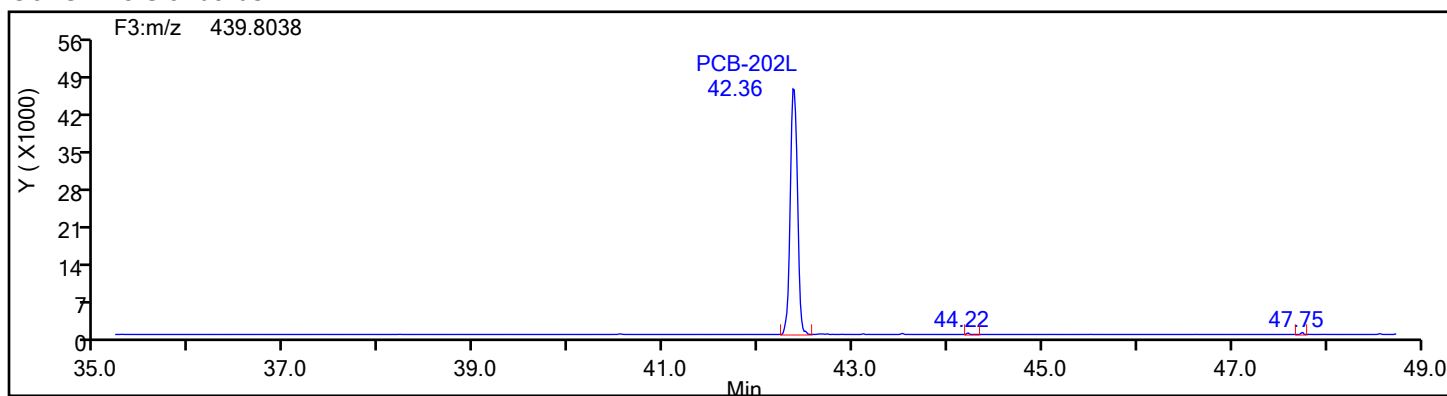


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 19:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3

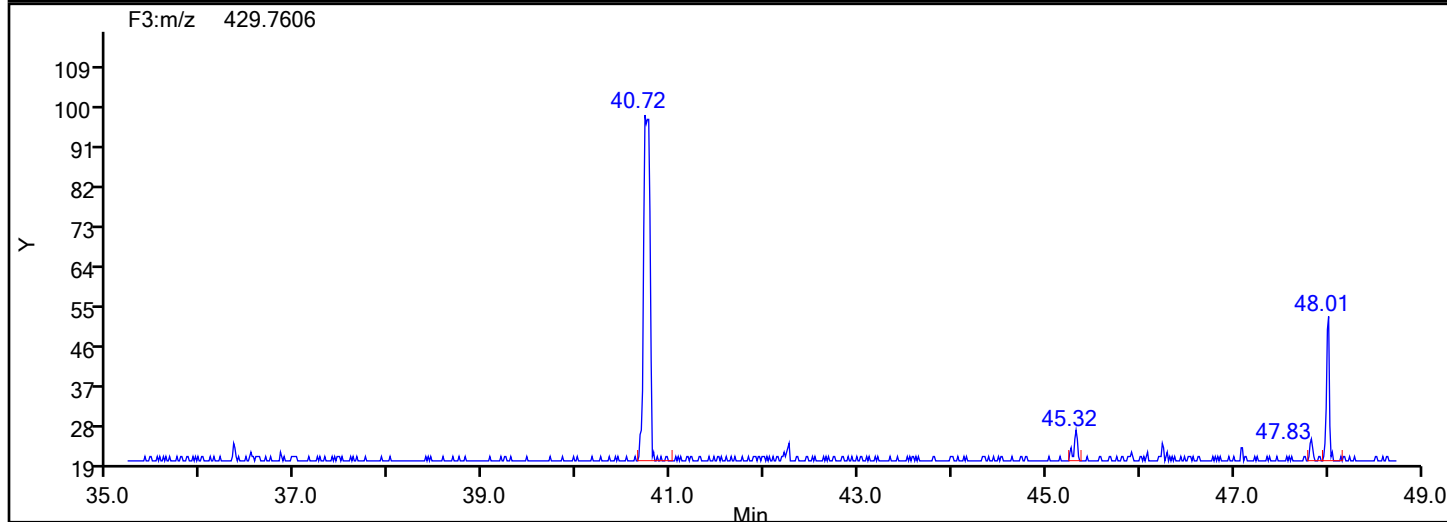
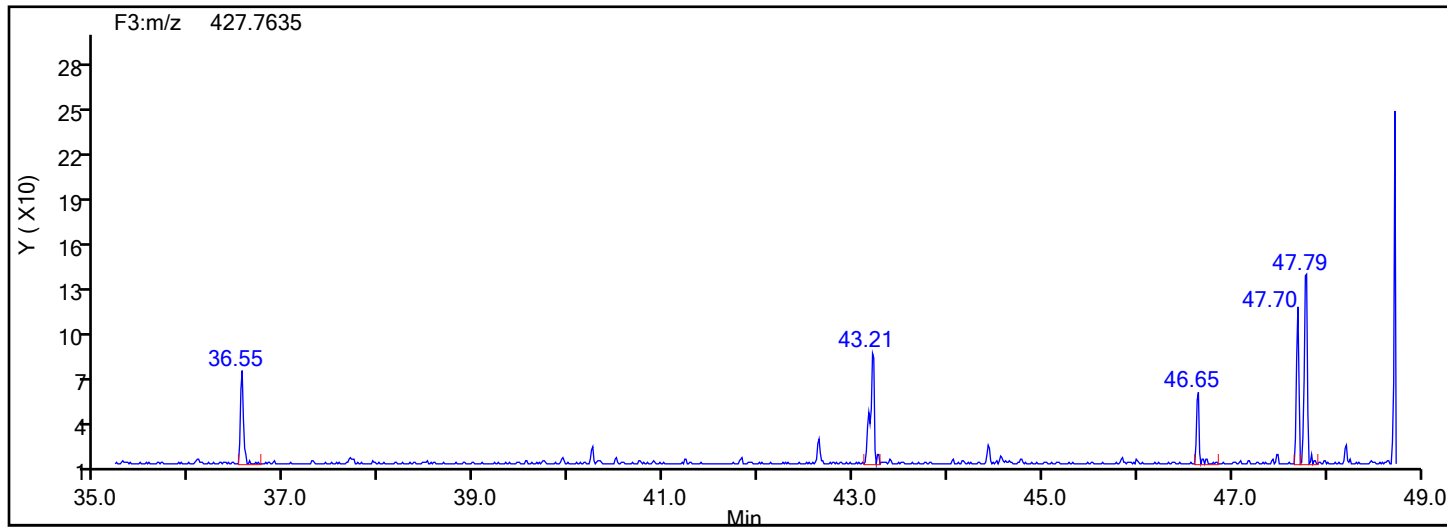


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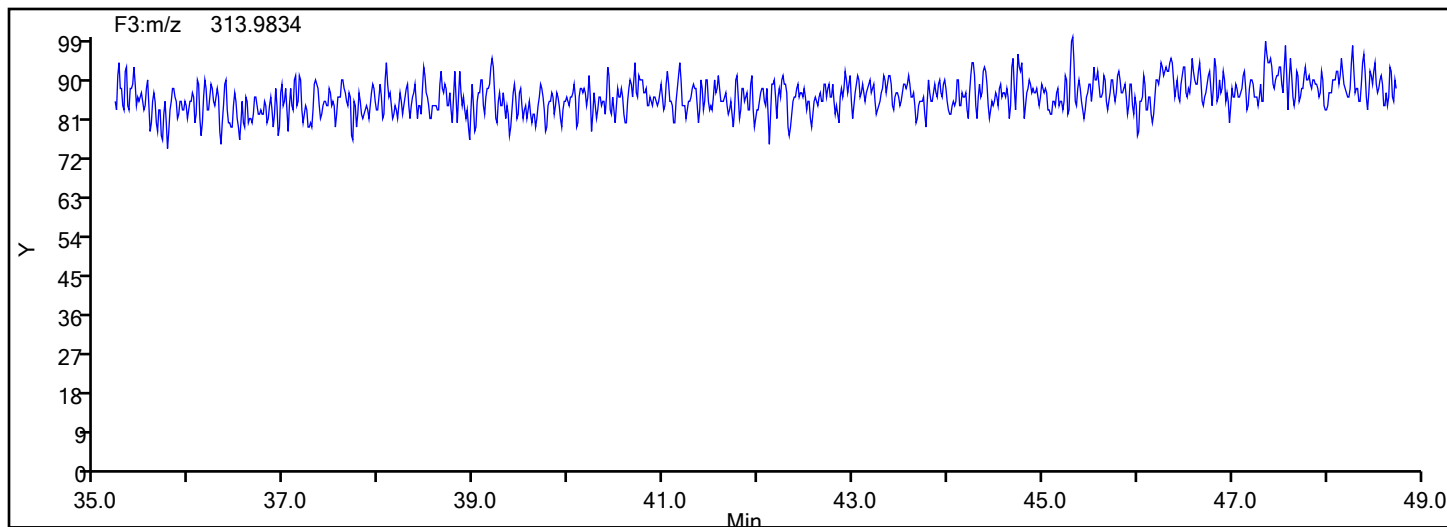


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3

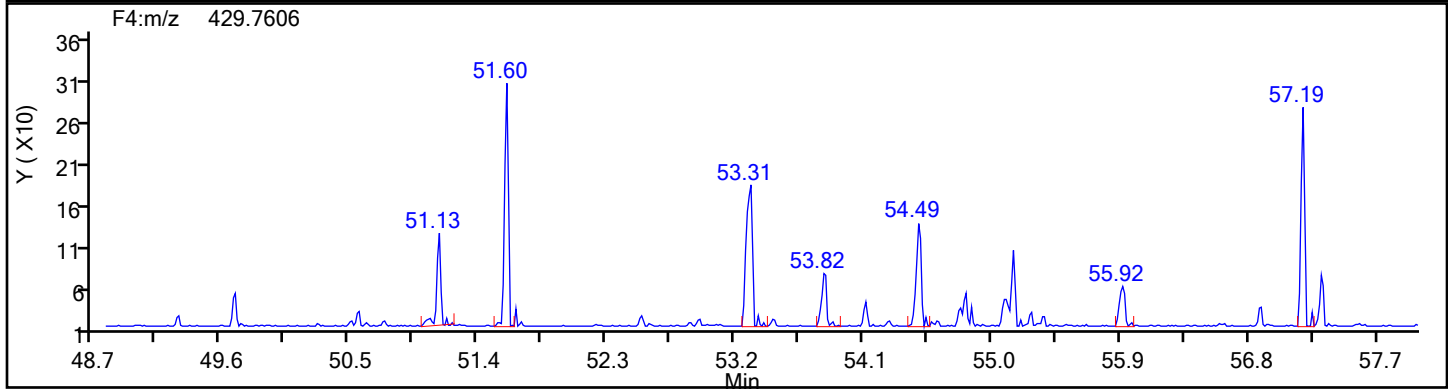
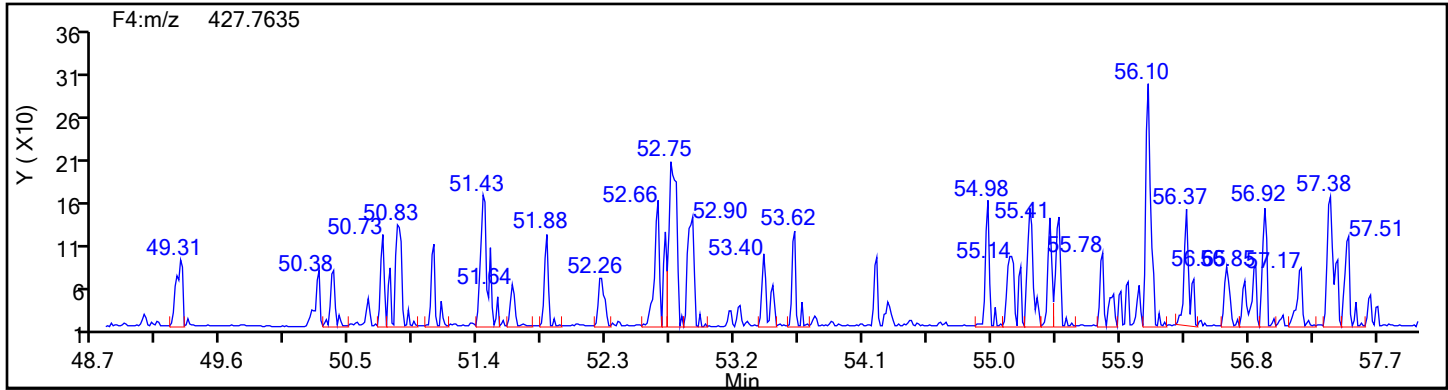


## OcPCB F3 Lock Mass

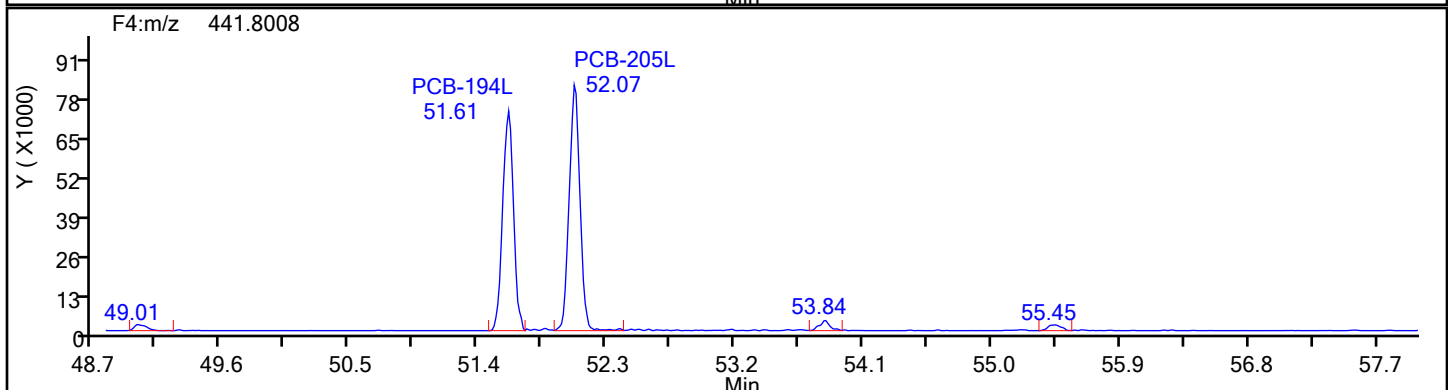
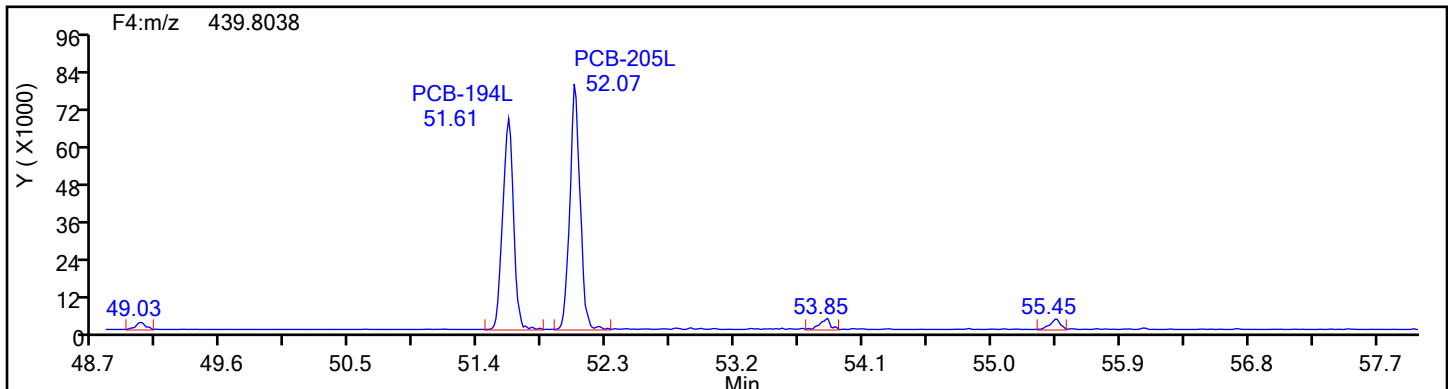


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4

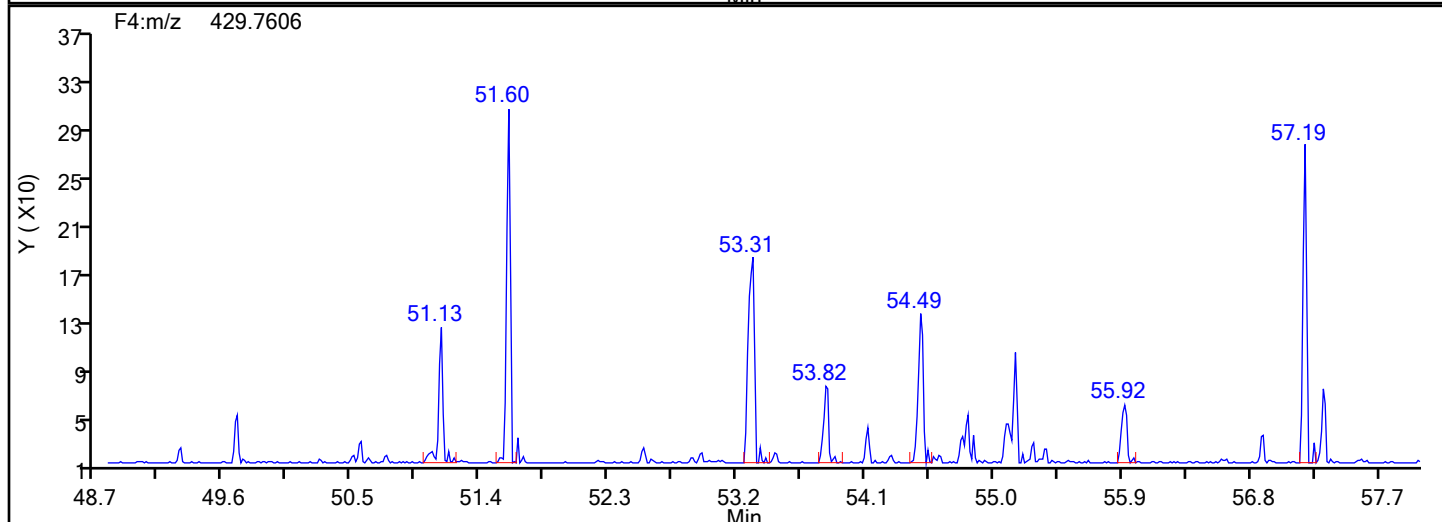
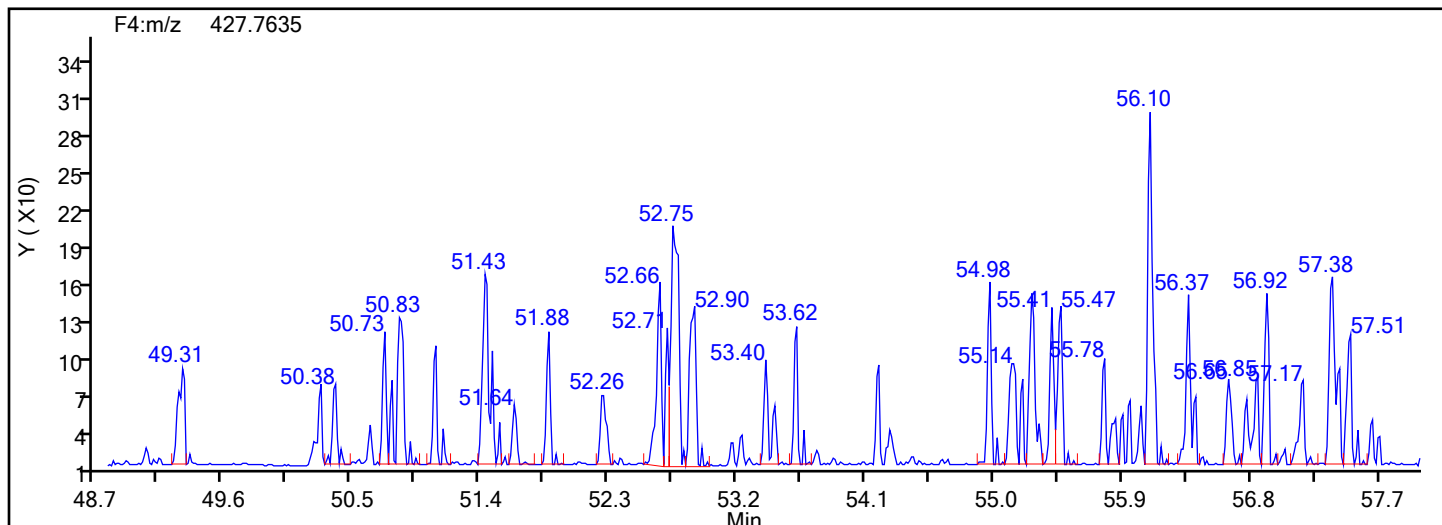


## OcPCB F4 Standards

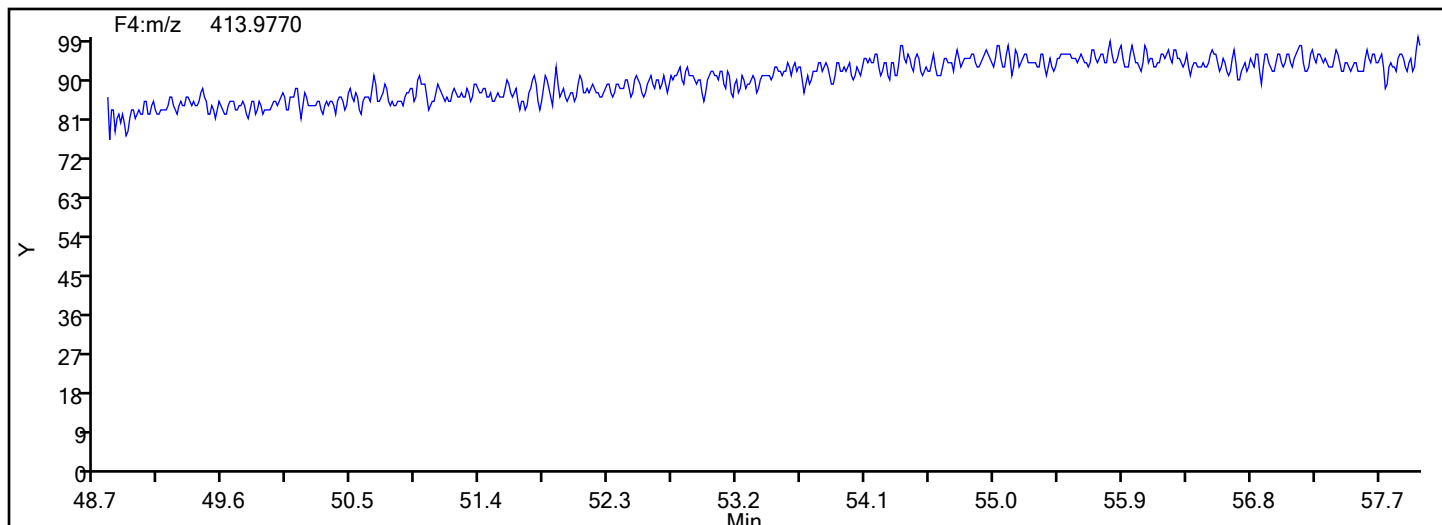


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4

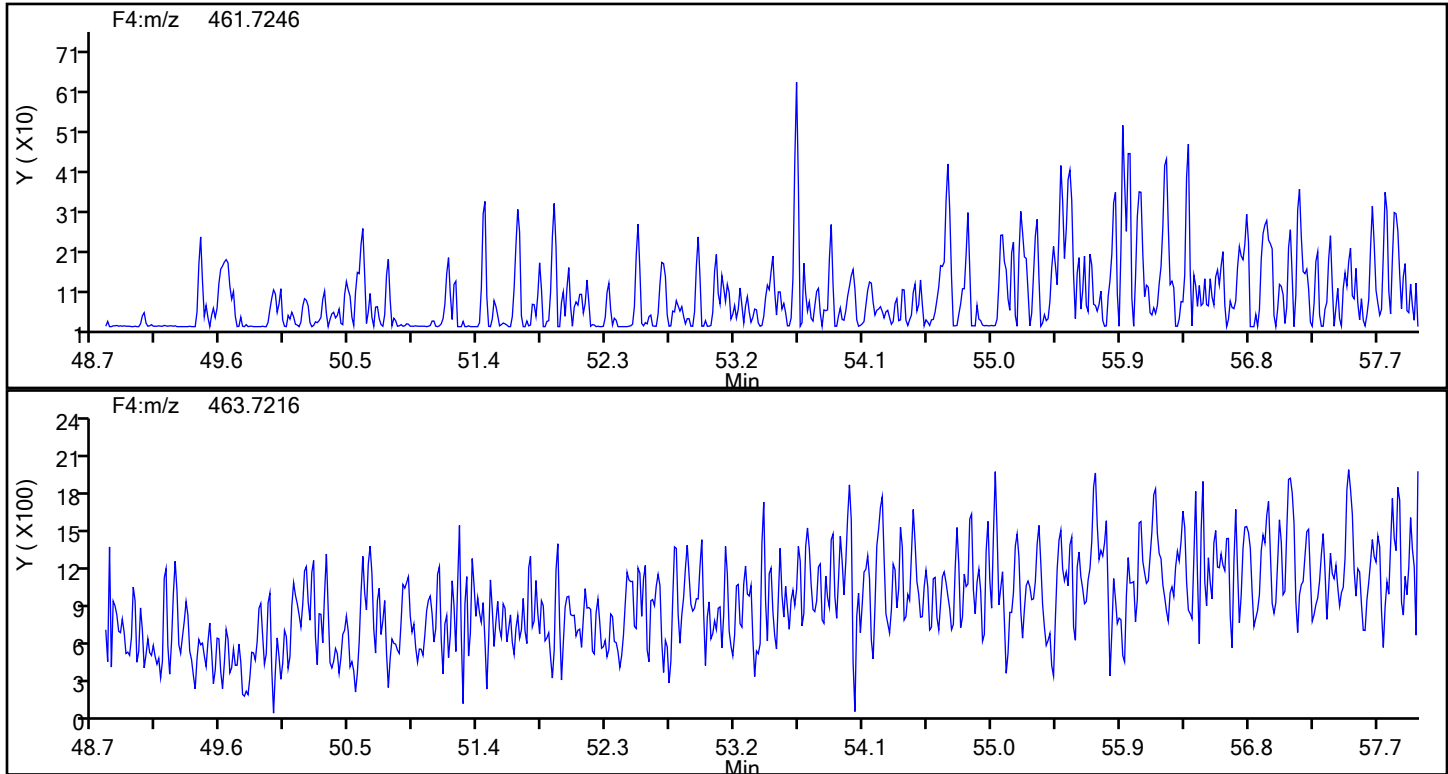


## OcPCB F4 Lock Mass

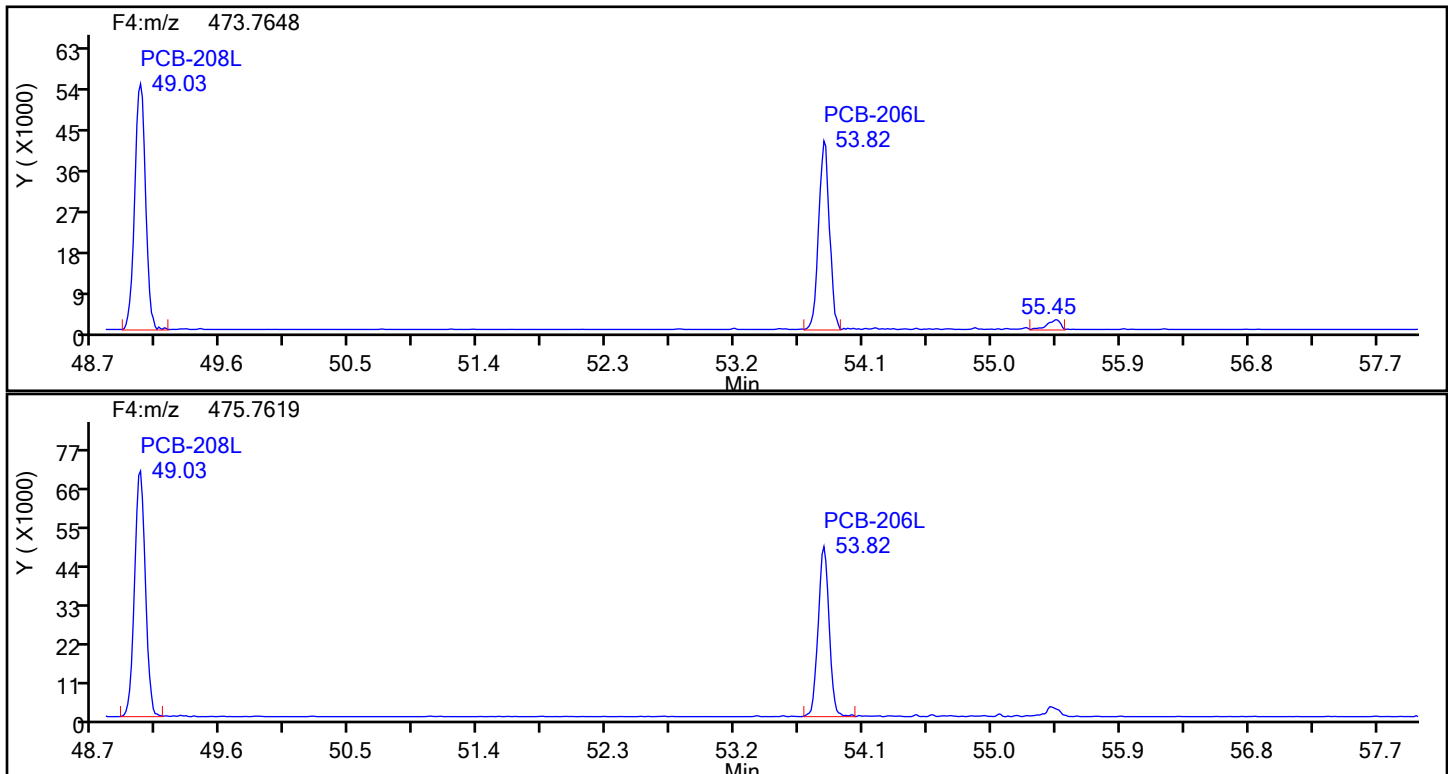


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 19:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4

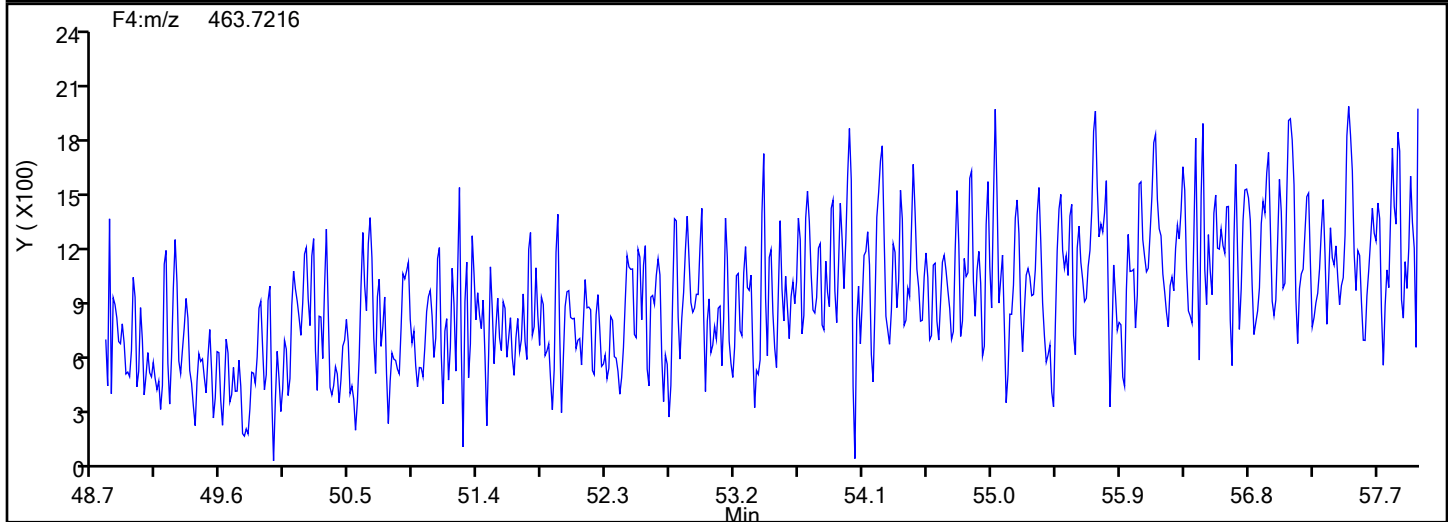
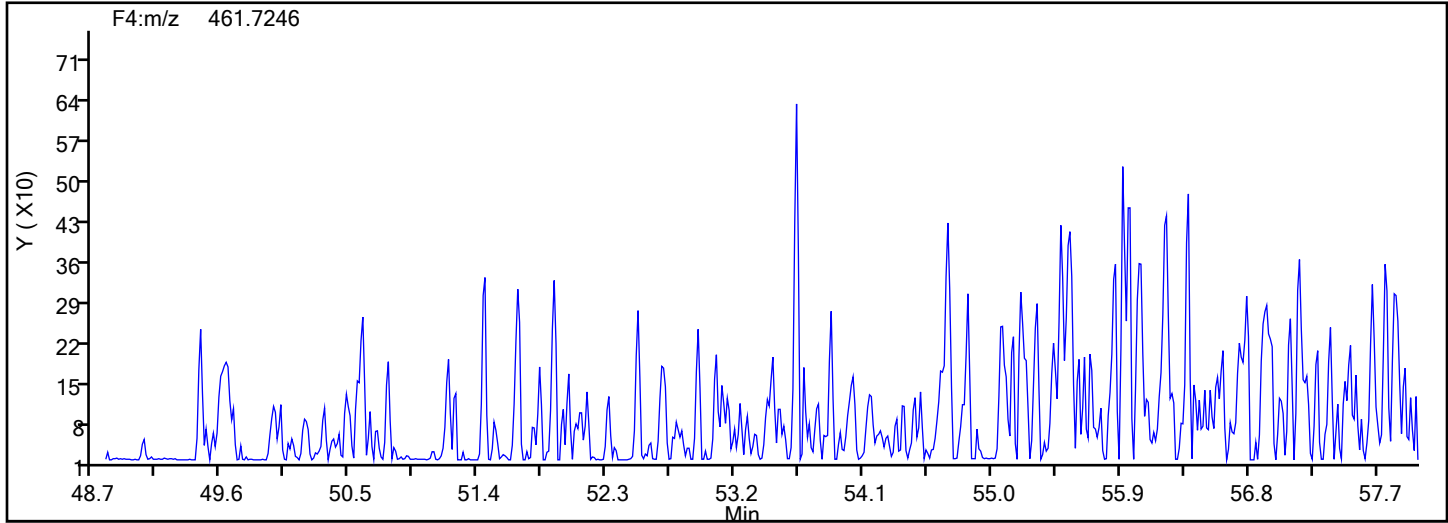


## NoPCB F4 Standards

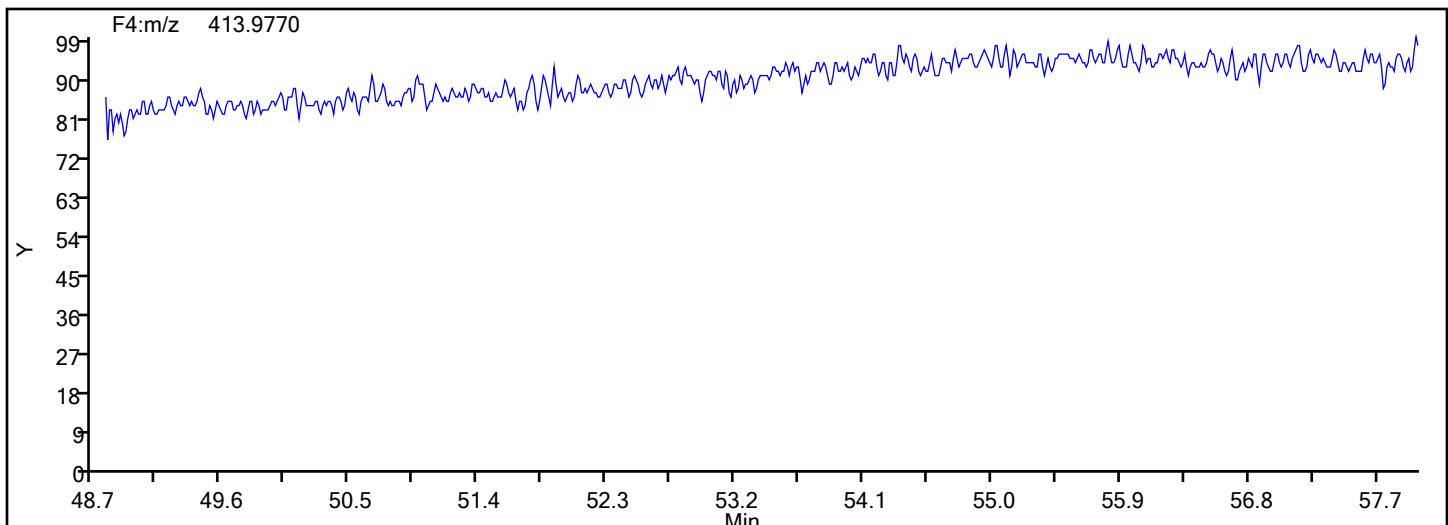


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4

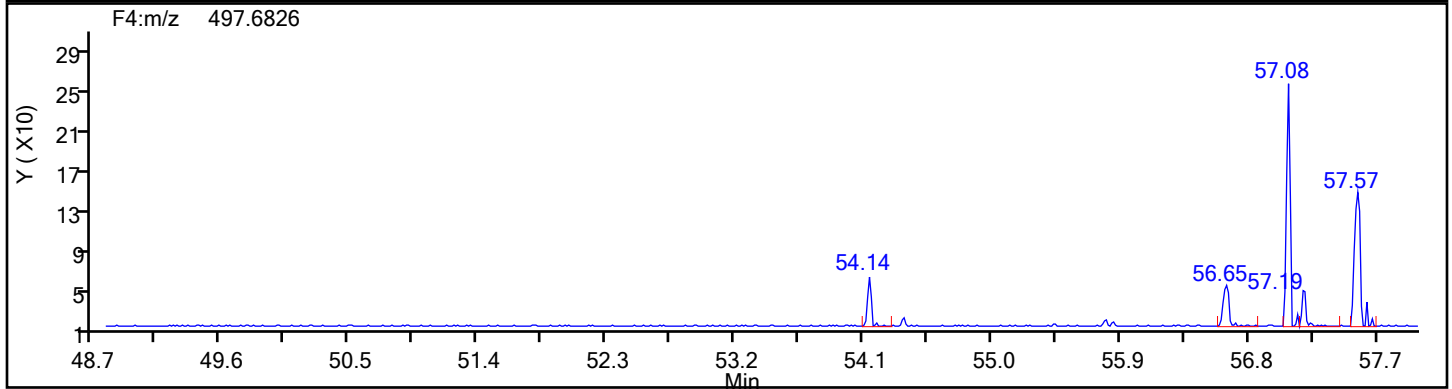
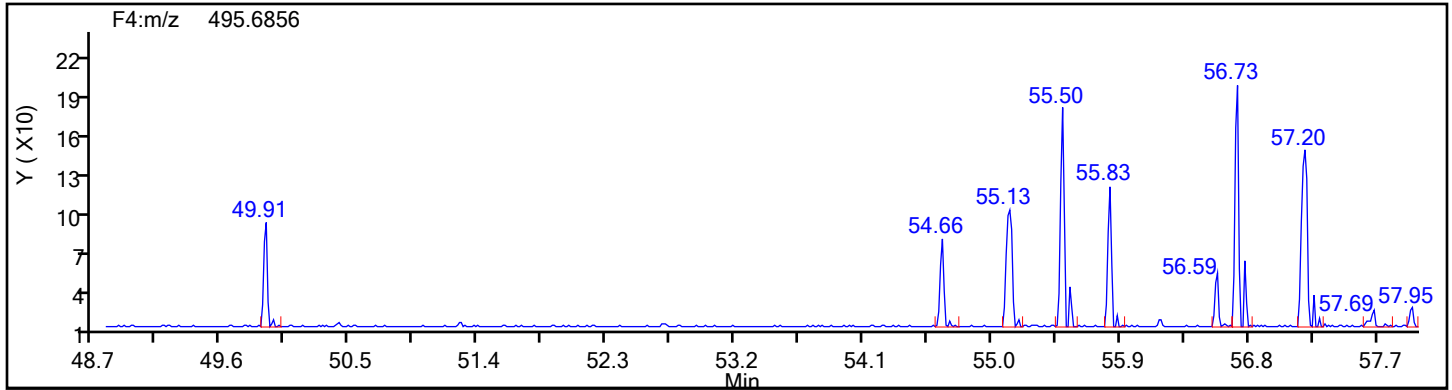


## NoPCB F4 Lock Mass

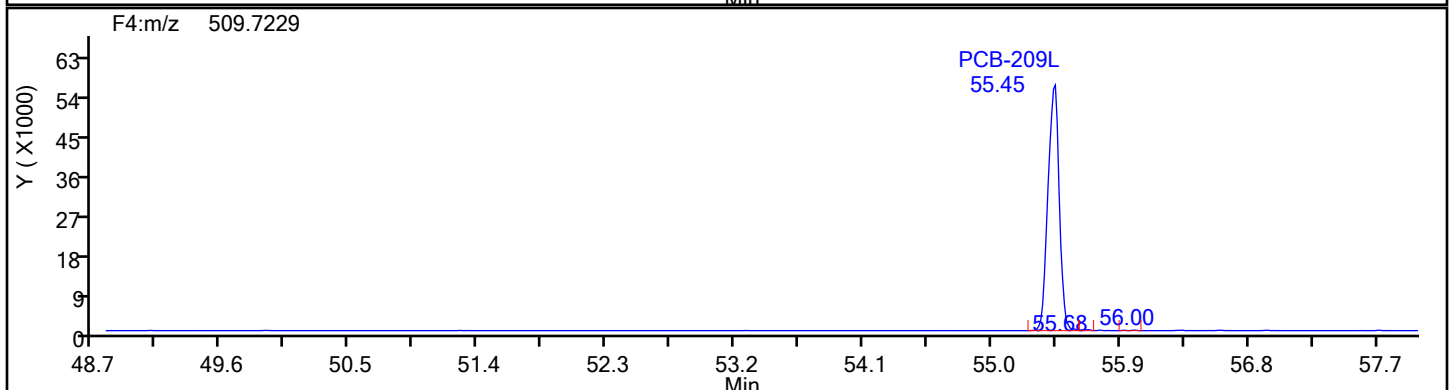
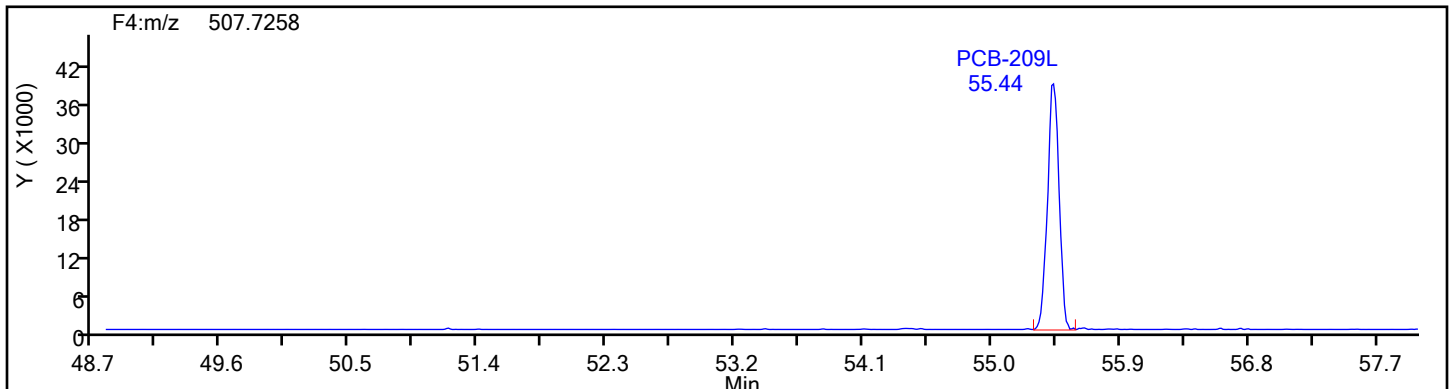


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4



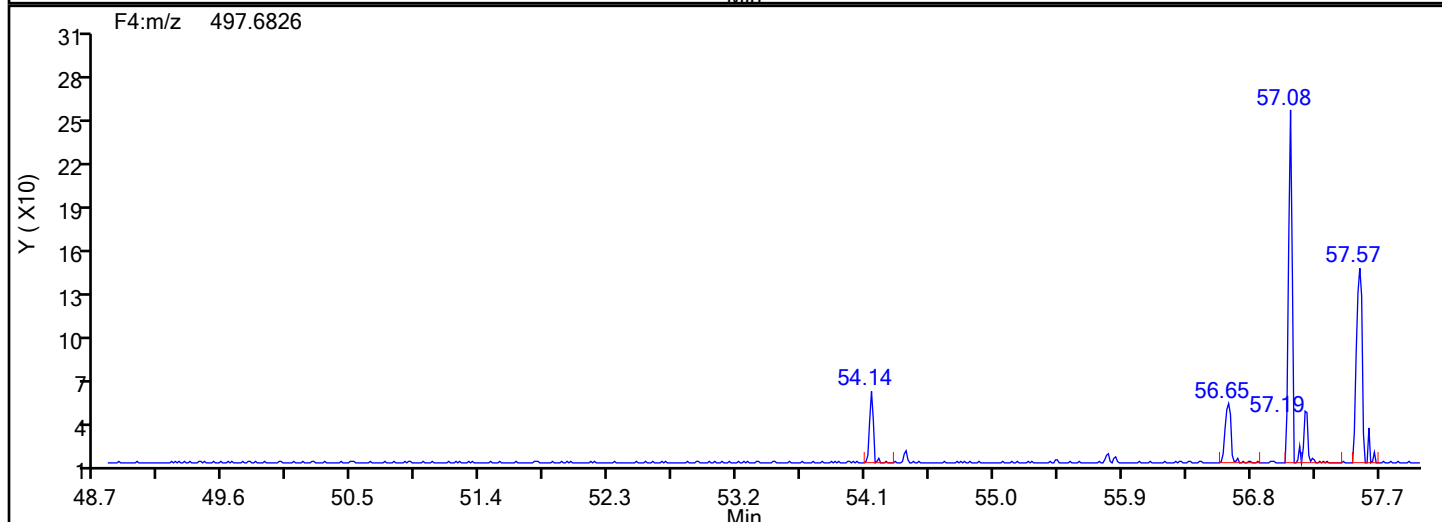
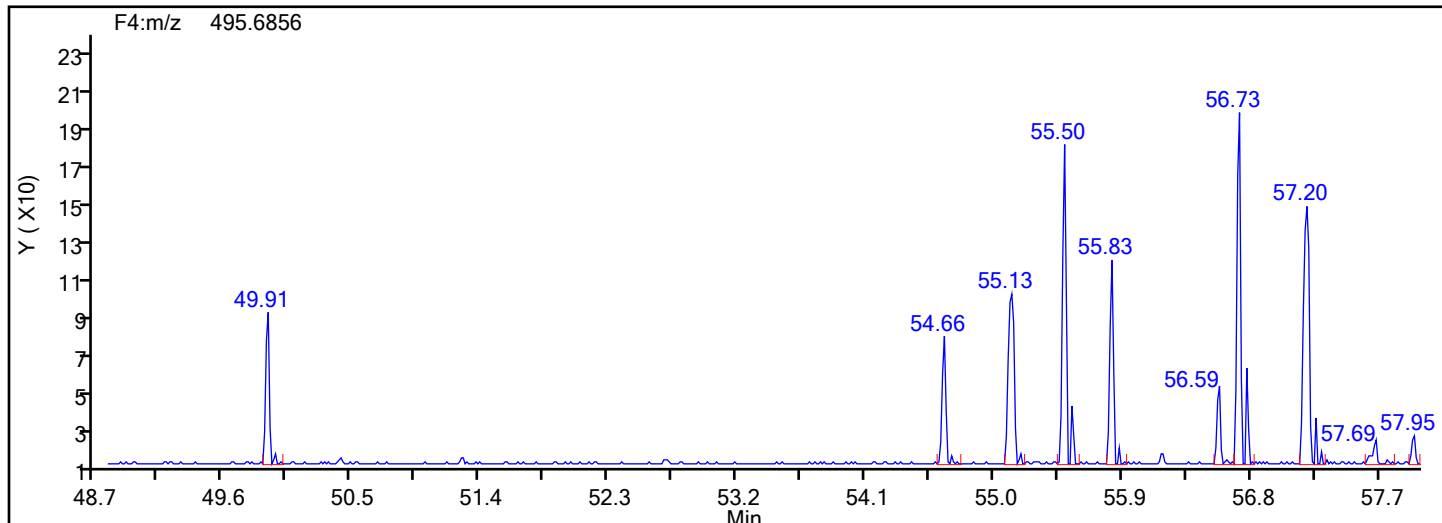
## DePCB F4 Standards



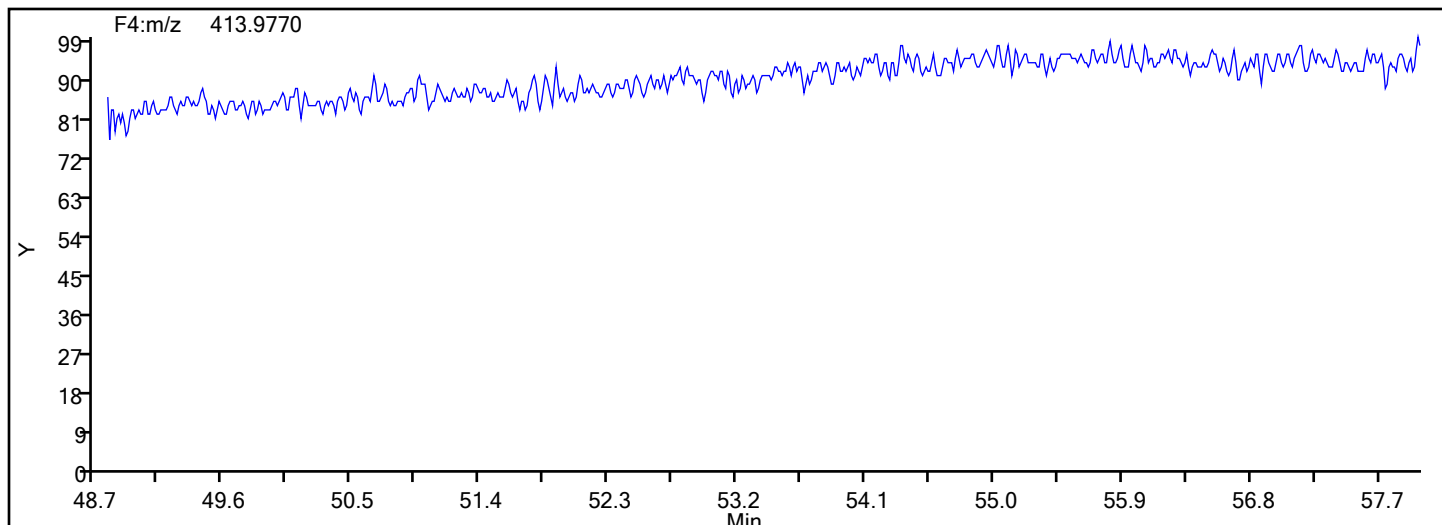


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 19:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Worklist#: 88809 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4



## DePCB F4 Lock Mass



Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-2-d5x\_20240716193645.d  
Lims ID: 140-37234-A-2-D  
Client ID: M23 F-10 BOILER RUN 3 COMBINED  
Sample Type: Client  
Inject. Date: 16-Jul-2024 19:38:00 ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Sample Info:  
Misc. Info.: 140-0033521-009  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 11:53:40 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: TT6I

Date: 17-Jul-2024 11:53:40

Compound	Amount Added	Amount Recovered	% Rec.
PCB-8L	50.0	11.4	113.94
PCB-28L	100.0	15.1	75.73
PCB-79L	50.0	10.9	108.68
PCB-95L	50.0	11.4	113.68
PCB-111L	100.0	15.5	77.26
PCB-153L	50.0	10.2	102.37
PCB-178L	100.0	17.1	85.71

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 4</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-3</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-3-d5xrr.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/06/2024 16:26</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/17/2024 19:36</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>5</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88871</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
34883-43-7	PCB-8	0.763	J	3.00	0.660	0.0794
37680-65-2	PCB-18	0.468	J C	3.00	1.43	0.0279
7012-37-5	PCB-28	0.612	J C20 B	3.00	1.26	0.0391
41464-39-5	PCB-44	2.44	J C B	4.50	1.95	0.0304
35693-99-3	PCB-52	0.367	J q	1.50	0.660	0.0322
32598-10-0	PCB-66	0.147	J q	1.50	0.600	0.0235
32598-13-3	PCB-77	0.0756	J q	1.50	0.630	0.0270
70362-50-4	PCB-81	ND		1.50	0.480	0.0277
37680-73-2	PCB-101	0.163	J q C90	4.50	1.95	0.0487
32598-14-4	PCB-105	ND		1.50	0.510	0.146
74472-37-0	PCB-114	ND		1.50	0.825	0.142
31508-00-6	PCB-118	ND		1.50	0.915	0.135
65510-44-3	PCB-123	ND		1.50	0.855	0.145
57465-28-8	PCB-126	ND		1.50	0.615	0.179
38380-07-3	PCB-128	ND	C	3.00	1.02	0.0214
35065-28-2	PCB-138	0.118	J q C129	6.00	2.55	0.0222
35065-27-1	PCB-153	0.0555	J q C B	3.00	1.25	0.0192
38380-08-4	PCB-156	ND	C	3.00	1.28	0.0233
69782-90-7	PCB-157	ND	C156	3.00	1.28	0.0233
52663-72-6	PCB-167	ND		1.50	0.900	0.0154
32774-16-6	PCB-169	ND		1.50	0.615	0.0157
35065-30-6	PCB-170	ND		1.50	0.660	0.00538
35065-29-3	PCB-180	ND	C	3.00	1.02	0.00415
52663-68-0	PCB-187	ND		1.50	0.630	0.00440
39635-31-9	PCB-189	ND		1.50	0.735	0.0349
52663-78-2	PCB-195	ND		1.50	0.795	0.0177
40186-72-9	PCB-206	ND		1.50	0.855	0.204
2051-24-3	PCB-209	0.0380	J q	1.50	0.690	0.0101

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 4</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-3</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-3-d5xrr.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/06/2024 16:26</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/17/2024 19:36</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>5</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88871</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
234432-85-0	PCB-1L	55		20-145
208263-77-8	PCB-3L	57		20-145
234432-86-1	PCB-4L	63		20-145
208263-67-6	PCB-15L	80		20-145
234432-87-2	PCB-19L	67		20-145
208263-79-0	PCB-37L	80		20-145
234432-88-3	PCB-54L	84		20-145
105600-23-5	PCB-77L	86		20-145
208461-24-9	PCB-81L	85		20-145
234432-89-4	PCB-104L	92		20-145
208263-62-1	PCB-105L	91		20-145
208263-63-2	PCB-114L	94		20-145
104130-40-7	PCB-118L	88		20-145
208263-64-3	PCB-123L	93		20-145
208263-65-4	PCB-126L	91		20-145
234432-90-7	PCB-155L	95		20-145
208263-68-7	PCB-156L	99	C	20-145
235416-30-5	PCB-157L	99	C156	20-145
208263-69-8	PCB-167L	93		20-145
208263-70-1	PCB-169L	95		20-145
160901-80-4	PCB-170L	96		20-145
234432-91-8	PCB-188L	96		20-145
208263-73-4	PCB-189L	96		20-145
105600-26-8	PCB-202L	99		20-145
234446-64-1	PCB-205L	100		20-145
208263-75-6	PCB-206L	108		20-145
234432-92-9	PCB-208L	103		20-145
105600-27-9	PCB-209L	123		20-145

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: M23 F-10 BOILER RUN 4 Lab Sample ID: 140-37234-3  
COMBINED  
Matrix: Air Lab File ID: 140-37234-a-3-d5xrr.d  
Analysis Method: 23 Date Collected: 06/06/2024 16:26  
Extract. Method: Combined Prep Date Extracted: 06/27/2024 14:35  
Sample wt/vol: 1(Sample) Date Analyzed: 07/17/2024 19:36  
Con. Extract Vol.: 30 (mL) Dilution Factor: 5  
Injection Volume: 1 (uL) GC Column: SPB-Octyl ID: 0.25 (mm)  
% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
Cleanup Factor: \_\_\_\_\_ Level: (low/med) Low  
Analysis Batch No.: 88871 Units: ng/Sample  
Preparation Batch No.: 88193 Instrument ID: Excalibur D2D DFS

CAS NO.	SURROGATE	%REC	Q	LIMITS
208263-76-7	PCB-28L	71		20-130
235416-29-2	PCB-111L	79		20-130
232919-67-4	PCB-178L	82		20-130
STL01600	PCB-8L	108		70-130
STL01603	PCB-79L	110		70-130
STL01604	PCB-95L	110		70-130
STL01606	PCB-153L	98		70-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\140-37234-a-3-d5xrr.d  
 Lims ID: 140-37234-A-3-D  
 Client ID: M23 F-10 BOILER RUN 4 COMBINED  
 Sample Type: Client  
 Inject. Date: 17-Jul-2024 19:36:00 ALS Bottle#: 0 Worklist Smp#: 11  
 Injection Vol: 1.0 ul Dil. Factor: 5.0000  
 Sample Info:  
 Misc. Info.: 140-0033539-011  
 Operator ID: Xcalibur\_System Instrument ID: D2D  
 Method: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\PCBs\_D2D.m  
 Limit Group: HR - EPA\_23 PCB ICAL  
 Last Update: 17-Jul-2024 20:58:30 Calib Date: 31-May-2024 21:13:00  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
 Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
 Process Host: CTX1624

First Level Reviewer: V4XA

Date: 17-Jul-2024 20:58:30

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D PCB-1L	11:37	1485888	2.98	1.6108	11.1	11.1	0.1707	0.1707	55.33	
D PCB-3L	13:46	1506619	3.35	1.5891	11.4	11.4	0.1731	0.1731	56.87	
S Total Dichlorobiphenyls					0.5084	0.5084	0.0530	0.0530		
D PCB-4L	14:01	681964	1.56	0.6475	12.6	12.6	0.1332	0.1332	63.17	
* PCB-9L	15:57	1667186	1.57		20.0	20.0				
\$ PCB-8L	16:48	691022	1.59	1.2066	10.8	10.8	0.1220	0.1220	108	
D PCB-15L	19:54	1431986	1.65	1.0789	15.9	15.9	0.0799	0.0799	79.61	
PCB-8	16:49	42692	1.63	1.5889	0.5084	0.5084	0.0530	0.0530		M
D PCB-19L	17:07	548683	1.07	0.6285	13.5	13.5	0.4709	0.4709	67.39	
* PCB-32L	20:21	1295291	1.20		20.0	20.0				
* PCB-31L	22:35	2014914	1.01		20.0	20.0				
\$ PCB-28L	22:52	1510039	1.01	1.0494	14.3	14.3	0.1229	0.1229	71.42	M
D PCB-37L	26:53	1416038	1.04	0.8749	16.1	16.1	0.1475	0.1475	80.32	
PCB-18	19:00	15098	1.18	1.7652	0.3118	0.3118	0.0186	0.0186		Ma
PCB-30 (C18)	19:00	15098	1.18	1.7652	0.3118	0.3118	0.0186	0.0186		Ma
PCB-20	22:54	33864	0.99	1.1718	0.4082	0.4082	0.0261	0.0261		
PCB-28 (C20)	22:54	33864	0.99	1.1718	0.4082	0.4082	0.0261	0.0261		
S Total Tetrachlorobiphenyls					2.113	2.020	0.0188	0.0188		RQ
D PCB-54L	20:11	605668	0.82	0.5562	16.8	16.8	0.0831	0.0831	84.07	
* PCB-52L	24:42	1133542	0.78		20.0	20.0				
\$ PCB-79L	32:37	685017	0.82	1.0018	11.0	11.0	0.1610	0.1610	110	
D PCB-81L	33:36	1206941	0.80	1.2470	17.1	17.1	0.1087	0.1087	85.39	
D PCB-77L	34:11	1289425	0.79	1.3212	17.2	17.2	0.1026	0.1026	86.10	
PCB-52	24:44	14052	0.77	0.9194	0.2744	0.2449	0.0214	0.0214		RQ
PCB-44	25:44	98777	0.75	0.9731	1.626	1.626	0.0203	0.0203		
PCB-47 (C44)	25:44	98777	0.75	0.9731	1.626	1.626	0.0203	0.0203		
PCB-65 (C44)	25:44	98777	0.75	0.9731	1.626	1.626	0.0203	0.0203		
PCB-66	29:48	7698	0.77	1.2583	0.1364	0.0980	0.0157	0.0157		RQ
PCB-81	33:38						0.0185	0.0185		
PCB-77	34:10	3523	0.77	1.0836	0.0754	0.0504	0.0180	0.0180		RQM
S Total Pentachlorobiphenyls					0.1264	0.1088	0.0884	0.0884		RQ
D PCB-104L	25:38	867824	1.59	1.2161	18.3	18.3	0.0555	0.0555	91.67	
\$ PCB-95L	28:37	343326	1.59	0.7218	11.0	11.0	0.0770	0.0770	110	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-101L	31:31	778448	1.64		20.0	20.0				
\$ PCB-111L	34:12	842479	1.61	1.3699	15.8	15.8	0.0493	0.0493	79.00	
D PCB-123L	36:09	1086338	1.63	0.9731	18.7	18.7	0.3092	0.3092	93.27	
D PCB-118L	36:29	1068191	1.50	1.0102	17.7	17.7	0.2979	0.2979	88.35	
D PCB-114L	37:00	1117799	1.58	0.9949	18.8	18.8	0.3024	0.3024	93.87	
D PCB-105L	37:40	1031576	1.52	0.9514	18.1	18.1	0.3163	0.3163	90.58	
* PCB-127L	39:08	1196929	1.63		20.0	20.0				
D PCB-126L	40:45	1022585	1.55	0.9439	18.1	18.1	0.3188	0.3188	90.52	
PCB-90	31:32	4508	1.55	0.9550	0.1264	0.1088	0.0324	0.0324		RQ
PCB-101 (C90)	31:32	4508	1.55	0.9550	0.1264	0.1088	0.0324	0.0324		RQ
PCB-113 (C90)	31:32	4508	1.55	0.9550	0.1264	0.1088	0.0324	0.0324		RQ
PCB-123	36:11						0.0968	0.0968		
PCB-118	36:30						0.0900	0.0900		
PCB-114	37:03						0.0945	0.0945		
PCB-105	37:42						0.0973	0.0973		
PCB-126	40:46						0.1194	0.1194		
S Total Hexachlorobiphenyls					0.1655	0.1247	0.0130	0.0130		RQ
D PCB-155L	31:15	802444	1.29	1.0851	19.0	19.0	0.0429	0.0429	95.00	
\$ PCB-153L	38:20	442896	1.31	0.9169	9.841	9.841	0.3019	0.3019	98.41	
* PCB-138L	39:35	825118	1.25		20.0	20.0				
D PCB-167L	42:35	966330	1.32	1.2572	18.6	18.6	0.2001	0.2001	93.15	
D PCB-156L	43:45	1982054	1.30	1.2106	39.7	39.7	0.2078	0.2078	99.21	
D PCB-157L (C156L)	43:45	1982054	1.30	1.2106	39.7	39.7	0.2078	0.2078	99.21	
D PCB-169L	46:59	978051	1.28	1.2439	19.1	19.1	0.2023	0.2023	95.30	
PCB-153	38:22	1985	1.24	1.0938	0.0491	0.0370	0.0128	0.0128		RQ
PCB-168 (C153)	38:22	1985	1.24	1.0938	0.0491	0.0370	0.0128	0.0128		RQ
PCB-129	39:34	3669	1.24	0.9464	0.1061	0.0790	0.0148	0.0148		RQM
PCB-138 (C129)	39:34	3669	1.24	0.9464	0.1061	0.0790	0.0148	0.0148		RQM
PCB-160 (C129)	39:34	3669	1.24	0.9464	0.1061	0.0790	0.0148	0.0148		RQM
PCB-163 (C129)	39:34	3669	1.24	0.9464	0.1061	0.0790	0.0148	0.0148		RQM
PCB-128	40:51						0.0143	0.0143		
PCB-166 (C128)	40:51						0.0143	0.0143		
PCB-167	42:37						0.0103	0.0103		
PCB-156	43:50	481	1.24	1.1104	0.0103	0.008742	0.0155	0.0155		RQ
PCB-157 (C156)	43:50	481	1.24	1.1104	0.0103	0.008742	0.0155	0.0155		RQ
PCB-169	47:00						0.0105	0.0105		
S Total Heptachlorobiphenyls							0.0232	0.0232		
D PCB-188L	36:59	824070	1.04	1.3133	19.2	19.2	0.0208	0.0208	95.86	
\$ PCB-178L	40:02	550501	1.09	1.0313	16.3	16.3	0.0265	0.0265	81.54	
* PCB-180L	45:07	654596	1.09		20.0	20.0				
D PCB-170L	46:23	527854	1.06	0.8362	19.3	19.3	0.0326	0.0326	96.43	
D PCB-189L	49:29	1065712	1.11	1.4414	19.2	19.2	0.7941	0.7941	95.76	
PCB-187	40:58						0.002934	0.002934		
PCB-180	45:07						0.002769	0.002769		
PCB-193 (C180)	45:07						0.002769	0.002769		
PCB-170	46:25						0.003587	0.003587		
PCB-189	49:31						0.0232	0.0232		
S Total Octachlorobiphenyls							0.0118	0.0118		
D PCB-202L	42:21	633711	0.88	0.9818	19.7	19.7	0.0404	0.0404	98.60	
* PCB-194L	51:35	772102	0.95		20.0	20.0				
D PCB-205L	52:03	912399	0.91	1.1786	20.1	20.1	0.3992	0.3992	100	
PCB-195	49:17						0.0118	0.0118		
S Total Nonachlorobiphenyls							0.1357	0.1357		
D PCB-208L	49:00	760364	0.78	0.9576	20.6	20.6	0.6516	0.6516	103	
D PCB-206L	53:48	578321	0.84	0.6947	21.6	21.6	0.8982	0.8982	108	
PCB-206	53:50						0.1357	0.1357		
D PCB-209L	55:24	634176	0.71	0.6669	24.6	24.6	0.0889	0.0889	123	
DCB Decachlorobiphenyl	55:24	884	0.69	1.1004	0.0334	0.0253	0.006755	0.006755		RQM

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Polychlorinated biphenyls, Total					2.947	0.0253	0.0438	0.0438		RQ

QC Flag Legend

- Processing Flags
- R - Failed Signal Ratio Test
  - Q - EMPC-Estimated Max. Possible Conc.
- Review Flags
- M - Manually Integrated
  - a - User Assigned ID



Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\140-37234-a-3-d5xrr.d  
 Lims ID: 140-37234-A-3-D  
 Client ID: M23 F-10 BOILER RUN 4 COMBINED  
 Sample Type: Client  
 Inject. Date: 17-Jul-2024 19:36:00 ALS Bottle#: 0 Worklist Smp#: 11  
 Injection Vol: 1.0 ul Dil. Factor: 5.0000  
 Sample Info:  
 Misc. Info.: 140-0033539-011  
 Operator ID: Xcalibur\_System Instrument ID: D2D  
 Method: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\PCBs\_D2D.m  
 Limit Group: HR - EPA\_23 PCB ICAL  
 Last Update: 17-Jul-2024 20:58:30 Calib Date: 31-May-2024 21:13:00  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
 Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
 Process Host: CTX1624

First Level Reviewer: V4XA

Date: 17-Jul-2024 20:58:30

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:37	11:37	-1	0.728	1112431	437547	368	920	1189		
202.0766	11:37	11:37	-1	0.728	373457	148403	2170	5425	68	2.98(2.66-3.60)	
PCB-3L											
200.0795	13:46	13:46	-1	0.862	1160327	359380	368	920	977		
202.0766	13:46	13:46	-1	0.862	346292	107777	2170	5425	50	3.35(2.66-3.60)	
PCB-4L											
234.0406	14:01	14:01	-1	0.878	415595	141141	619	1547	228		
236.0376	14:01	14:01	-1	0.878	266369	87179	177	442	493	1.56(1.33-1.79)	
PCB-9L											
234.0406	15:57	15:58	-1		1018481	279733	619	1547	452		
236.0376	15:57	15:58	-1		648705	181686	177	442	1026	1.57(1.33-1.79)	
PCB-8L											
234.0406	16:48	16:47	0	1.200	424338	110976	619	1547	179		
236.0376	16:48	16:47	0	1.200	266684	70670	177	442	399	1.59(1.33-1.79)	
PCB-15L											
234.0406	19:54	19:52	1	1.247	892046	192995	619	1547	312		
236.0376	19:54	19:52	1	1.247	539940	119226	177	442	674	1.65(1.33-1.79)	
PCB-8											
222.0003	16:49	16:49	0	1.201	26468	7719	148	370	52		M
223.9974	16:49	16:49	0	1.201	16224	4553	307	767	15	1.63(1.33-1.79)	M
PCB-19L											
268.0016	17:07	17:07	0	0.841	283196	75499	702	1755	108		
269.9986	17:06	17:07	-1	0.840	265487	68974	1032	2580	67	1.07(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-32L											
268.0016	20:21	20:21	1		705342	149302	702	1755	213		
269.9986	20:21	20:21	1		589949	143639	1032	2580	139	1.20(0.88-1.20)	
PCB-31L											
268.0016	22:35	22:36	0		1011671	229714	787	1967	292		
269.9986	22:35	22:36	0		1003243	224025	384	960	583	1.01(0.88-1.20)	
PCB-28L											
268.0016	22:52	22:52	0	1.012	758158	171559	787	1967	218		M
269.9986	22:52	22:52	0	1.012	751881	164547	384	960	429	1.01(0.88-1.20)	M
PCB-37L											
268.0016	26:53	26:53	0	1.190	721221	125872	787	1967	160		
269.9986	26:53	26:53	0	1.190	694817	122899	384	960	320	1.04(0.88-1.20)	
PCB-18											
255.9613	19:00	19:00	5	1.111	8165	1753	51	127	34		Ma
257.9584	19:00	19:00	5	1.111	6933	1476	44	110	34	1.18(0.88-1.20)	M
PCB-30 (C18)											
255.9613	19:00	19:00	5	1.111	8165	1753	51	127	34		Ma
257.9584	19:00	19:00	5	1.111	6933	1476	44	110	34	1.18(0.88-1.20)	M
PCB-20											
255.9613	22:54	22:55	-2	0.852	16872	3678	92	230	40		
257.9584	22:54	22:55	-2	0.852	16992	3179	60	150	53	0.99(0.88-1.20)	
PCB-28 (C20)											
255.9613	22:54	22:55	-2	0.852	16872	3678	92	230	40		
257.9584	22:54	22:55	-2	0.852	16992	3179	60	150	53	0.99(0.88-1.20)	
PCB-54L											
301.9626	20:11	20:10	0	0.817	272407	67785	191	477	355		
303.9597	20:11	20:10	0	0.817	333261	85289	80	200	1066	0.82(0.65-0.89)	
PCB-52L											
301.9626	24:42	24:43	-1		497170	109637	314	785	349		
303.9597	24:42	24:43	-1		636372	137702	357	892	386	0.78(0.65-0.89)	
PCB-79L											
301.9626	32:37	32:36	0	0.970	307662	51355	314	785	164		
303.9597	32:37	32:36	0	0.970	377355	67461	357	892	189	0.82(0.65-0.89)	
PCB-81L											
301.9626	33:36	33:36	-1	1.361	536207	93090	314	785	296		
303.9597	33:36	33:36	-1	1.361	670734	112330	357	892	315	0.80(0.65-0.89)	
PCB-77L											
301.9626	34:11	34:10	0	1.384	568424	93239	314	785	297		
303.9597	34:11	34:10	0	1.384	721001	117231	357	892	328	0.79(0.65-0.89)	
PCB-52											
289.9224	24:44	24:43	0	1.225	7807	1944	41	102	47		RQ
	Empc Correction				6113	1606	41	102	39		
291.9194	24:43	24:43	-1	1.224	7939	2086	41	102	51	0.98(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-44											
289.9224	25:44	25:44	0	1.275	42223	8897	41	102	217	0.75(0.65-0.89)	
291.9194	25:45	25:44	1	1.276	56554	12646	41	102	308		
PCB-47 (C44)											
289.9224	25:44	25:44	0	1.275	42223	8897	41	102	217	0.75(0.65-0.89)	
291.9194	25:45	25:44	1	1.276	56554	12646	41	102	308		
PCB-65 (C44)											
289.9224	25:44	25:44	0	1.275	42223	8897	41	102	217	0.75(0.65-0.89)	
291.9194	25:45	25:44	1	1.276	56554	12646	41	102	308		
PCB-66											
289.9224	29:48	29:49	-2	0.887	3349	1103	41	102	27	0.45(0.65-0.89)	RQ
291.9194	29:45	29:49	-5	0.885	7364	1120	41	102	27		
Empc Correction					4349	1432	41	102	35		
PCB-81											
289.9224	33:37						41	102			
291.9194	33:37						41	102			
PCB-77											
289.9224	34:10	34:13	-2	1.000	1533	257	41	102	6	0.41(0.65-0.89)	RQM
291.9194	34:13	34:13	1	1.001	3736	793	41	102	19		
Empc Correction					1990	333	41	102	8		M
PCB-104L											
337.9207	25:38	25:37	0	0.813	533248	120157	128	320	939	1.59(1.32-1.78)	
339.9178	25:38	25:37	0	0.813	334576	76724	91	227	843		
PCB-95L											
337.9207	28:37	28:37	0	1.116	210989	46044	128	320	360	1.59(1.32-1.78)	
339.9178	28:37	28:37	0	1.116	132337	27361	91	227	301		
PCB-101L											
337.9207	31:31	31:32	-1		483221	100630	128	320	786	1.64(1.32-1.78)	
339.9178	31:31	31:32	0		295227	61354	91	227	674		
PCB-111L											
337.9207	34:12	34:11	0	1.085	520152	101875	128	320	796	1.61(1.32-1.78)	
339.9178	34:11	34:11	-1	1.085	322327	63538	91	227	698		
PCB-123L											
337.9207	36:09	36:09	-1	1.147	672801	131225	716	1790	183	1.63(1.32-1.78)	
339.9178	36:09	36:09	-1	1.147	413537	81645	603	1507	135		
PCB-118L											
337.9207	36:29	36:28	-1	1.158	640401	121588	716	1790	170	1.50(1.32-1.78)	
339.9178	36:29	36:28	-1	1.158	427790	82198	603	1507	136		
PCB-114L											
337.9207	37:00	37:00	-1	1.174	684495	128925	716	1790	180	1.58(1.32-1.78)	
339.9178	37:00	37:00	-1	1.174	433304	86779	603	1507	144		
PCB-105L											
337.9207	37:40	37:39	-1	1.195	622296	113710	716	1790	159	1.52(1.32-1.78)	
339.9178	37:40	37:39	-1	1.195	409280	77423	603	1507	128		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-127L											
337.9207	39:08	39:08	0		741514	137026	716	1790	191		
339.9178	39:08	39:08	0		455415	82121	603	1507	136	1.63(1.32-1.78)	
PCB-126L											
337.9207	40:45	40:45	-1	1.293	621329	103490	716	1790	145		
339.9178	40:45	40:45	-1	1.293	401256	65134	603	1507	108	1.55(1.32-1.78)	
PCB-90											
325.8804	31:32	31:31	1	1.230	3471	765	109	272	7		RQ
	Empc Correction				2740	672	109	272	6		
327.8775	31:32	31:31	1	1.230	1768	434	13	32	33	1.96(1.32-1.78)	
PCB-101 (C90)											
325.8804	31:32	31:31	1	1.230	3471	765	109	272	7		RQ
	Empc Correction				2740	672	109	272	6		
327.8775	31:32	31:31	1	1.230	1768	434	13	32	33	1.96(1.32-1.78)	
PCB-113 (C90)											
325.8804	31:32	31:31	1	1.230	3471	765	109	272	7		RQ
	Empc Correction				2740	672	109	272	6		
327.8775	31:32	31:31	1	1.230	1768	434	13	32	33	1.96(1.32-1.78)	
PCB-123											
325.8804	36:11						260	650			
327.8775	36:11						182	455			
PCB-118											
325.8804	36:30						260	650			
327.8775	36:30						182	455			
PCB-114											
325.8804	37:02						260	650			
327.8775	37:02						182	455			
PCB-105											
325.8804	37:41						260	650			
327.8775	37:41						182	455			
PCB-126											
325.8804	40:46						260	650			
327.8775	40:46						182	455			
PCB-155L											
371.8817	31:15	31:15	-1	0.790	451621	90121	81	202	1113		
373.8788	31:15	31:15	-1	0.790	350823	73032	70	175	1043	1.29(1.05-1.43)	
PCB-153L											
371.8817	38:20	38:21	-1	0.900	251318	49890	563	1407	89		
373.8788	38:20	38:21	-1	0.900	191578	38497	243	607	158	1.31(1.05-1.43)	
PCB-138L											
371.8817	39:35	39:36	-2		458813	88306	563	1407	157		
373.8788	39:36	39:36	-1		366305	71884	243	607	296	1.25(1.05-1.43)	
PCB-167L											
371.8817	42:35	42:34	0	1.076	550289	99682	563	1407	177		
373.8788	42:35	42:34	0	1.076	416041	78488	243	607	323	1.32(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-156L											
371.8817	43:45	43:45	-2	1.105	1121359	132450	563	1407	235	1.30(1.05-1.43)	
373.8788	43:45	43:45	-2	1.105	860695	104175	243	607	429		
PCB-157L (C156L)											
371.8817	43:45	43:45	-2	1.105	1121359	132450	563	1407	235	1.30(1.05-1.43)	
373.8788	43:45	43:45	-2	1.105	860695	104175	243	607	429		
PCB-169L											
371.8817	46:59	46:57	0	1.187	549300	94522	563	1407	168	1.28(1.05-1.43)	
373.8788	46:59	46:57	0	1.187	428751	72917	243	607	300		
PCB-153											
359.8415	38:22	38:24	-2	0.901	1099	263	22	55	12	0.72(1.05-1.43)	RQ
361.8385	38:21	38:24	-3	0.900	1536	246	19	47	13		
Empc Correction					886	212	19	47	11		
PCB-168 (C153)											
359.8415	38:22	38:24	-2	0.901	1099	263	22	55	12	0.72(1.05-1.43)	RQ
361.8385	38:21	38:24	-3	0.900	1536	246	19	47	13		
Empc Correction					886	212	19	47	11		
PCB-129											
359.8415	39:34	39:34	-4	0.929	3291	562	22	55	26	2.01(1.05-1.43)	RQM M
Empc Correction					2031	668	22	55	30		
361.8385	39:36	39:34	-2	0.930	1638	539	19	47	28		
PCB-138 (C129)											
359.8415	39:34	39:34	-4	0.929	3291	562	22	55	26	2.01(1.05-1.43)	RQM M
Empc Correction					2031	668	22	55	30		
361.8385	39:36	39:34	-2	0.930	1638	539	19	47	28		
PCB-160 (C129)											
359.8415	39:34	39:34	-4	0.929	3291	562	22	55	26	2.01(1.05-1.43)	RQM M
Empc Correction					2031	668	22	55	30		
361.8385	39:36	39:34	-2	0.930	1638	539	19	47	28		
PCB-163 (C129)											
359.8415	39:34	39:34	-4	0.929	3291	562	22	55	26	2.01(1.05-1.43)	RQM M
Empc Correction					2031	668	22	55	30		
361.8385	39:36	39:34	-2	0.930	1638	539	19	47	28		
PCB-128											
359.8415	40:51						22	55			
361.8385	40:51						19	47			
PCB-166 (C128)											
359.8415	40:51						22	55			
361.8385	40:51						19	47			
PCB-167											
359.8415	42:37						22	55			
361.8385	42:37						19	47			
PCB-156											
359.8415	43:50	43:46	2	1.002	350	114	22	55	5	1.63(1.05-1.43)	RQ
Empc Correction					266	89	22	55	4		
361.8385	43:48	43:46	0	1.001	215	72	19	47	4		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-157 (C156)											RQ
359.8415	43:50	43:46	2	1.002	350	114	22	55	5		
	Empc Correction				266	89	22	55	4		
361.8385	43:48	43:46	0	1.001	215	72	19	47	4	1.63(1.05-1.43)	
PCB-169											
359.8415	47:00						22	55			
361.8385	47:00						19	47			
PCB-188L											
405.8428	36:59	36:59	-1	0.820	419589	87104	40	100	2178		
407.8398	36:59	36:59	-1	0.820	404481	81722	28	70	2919	1.04(0.89-1.21)	
PCB-178L											
405.8428	40:02	40:02	-1	0.888	287468	55484	40	100	1387		
407.8398	40:02	40:02	-1	0.888	263033	51667	28	70	1845	1.09(0.89-1.21)	
PCB-180L											
405.8428	45:07	45:07	-1		341172	67732	40	100	1693		
407.8398	45:07	45:07	-1		313424	56833	28	70	2030	1.09(0.89-1.21)	
PCB-170L											
405.8428	46:23	46:23	-1	1.028	271976	51436	40	100	1286		
407.8398	46:23	46:23	-1	1.028	255878	51935	28	70	1855	1.06(0.89-1.21)	
PCB-189L											
405.8428	49:29	49:29	-1	1.097	559436	105228	2619	6547	40		
407.8398	49:29	49:29	-1	1.097	506276	95738	677	1692	141	1.11(0.89-1.21)	
PCB-187											
393.8025	40:58						1	2			
395.7995	40:58						8	20			
PCB-180											
393.8025	45:06						1	2			
395.7995	45:06						8	20			
PCB-193 (C180)											
393.8025	45:06						1	2			
395.7995	45:06						8	20			
PCB-170											
393.8025	46:25						1	2			
395.7995	46:25						8	20			
PCB-189											
393.8025	49:30						36	90			
395.7995	49:30						54	135			
PCB-202L											
439.8038	42:21	42:21	-1	0.821	296003	54498	31	77	1758		
441.8008	42:20	42:21	-2	0.821	337708	66758	68	170	982	0.88(0.76-1.02)	
PCB-194L											
439.8038	51:35	51:36	-1		375430	70841	731	1827	97		
441.8008	51:35	51:36	-1		396672	73136	624	1560	117	0.95(0.76-1.02)	
PCB-205L											
439.8038	52:03	52:03	-1	1.009	434617	77170	731	1827	106		
441.8008	52:03	52:03	-2	1.009	477782	86741	624	1560	139	0.91(0.76-1.02)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-195											
427.7635	49:16						22	55			
429.7606	49:16						10	25			
PCB-208L											
473.7648	49:00	49:00	-1	0.950	334207	63398	654	1635	97		
475.7619	49:00	49:00	-1	0.950	426157	83896	1143	2857	73	0.78(0.65-0.89)	
PCB-206L											
473.7648	53:48	53:48	0	1.043	263658	51765	654	1635	79		
475.7619	53:48	53:48	-1	1.043	314663	59207	1143	2857	52	0.84(0.65-0.89)	
PCB-206											
461.7246	53:50						96	240			
463.7216	53:50						306	765			
PCB-209L											
507.7258	55:24	55:24	-1	1.074	262998	47637	95	237	501		
509.7229	55:24	55:24	-1	1.074	371178	65366	76	190	860	0.71(0.59-0.79)	
DCB Decachlorobiphenyl											
495.6856	55:24	55:24	-2	1.000	361	133	11	27	12		RQM
497.6826	55:26	55:24	-1	1.000	806	282	6	15	47	0.45(0.59-0.79)	M
Empc Correction					523	192	6	15	32		

### QC Flag Legend

#### Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

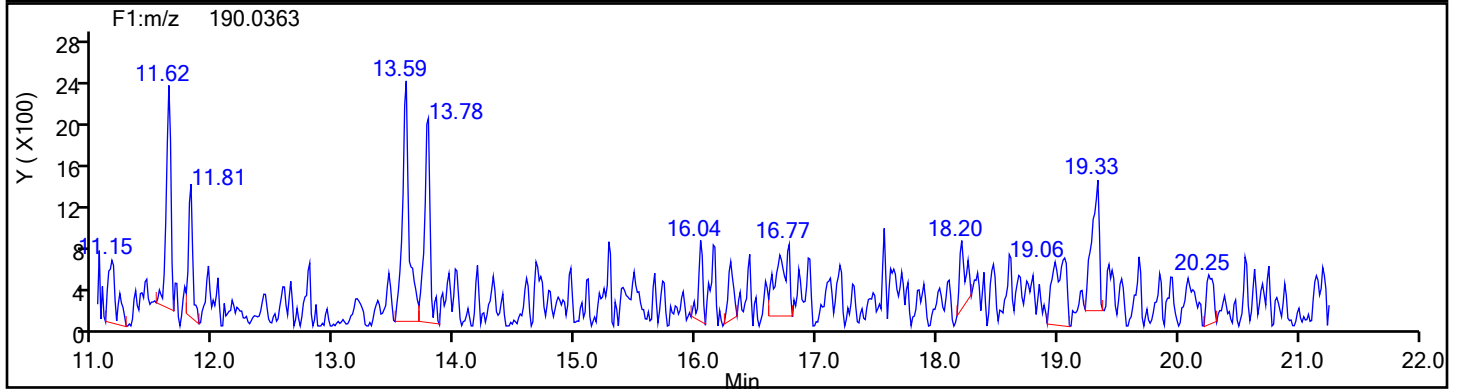
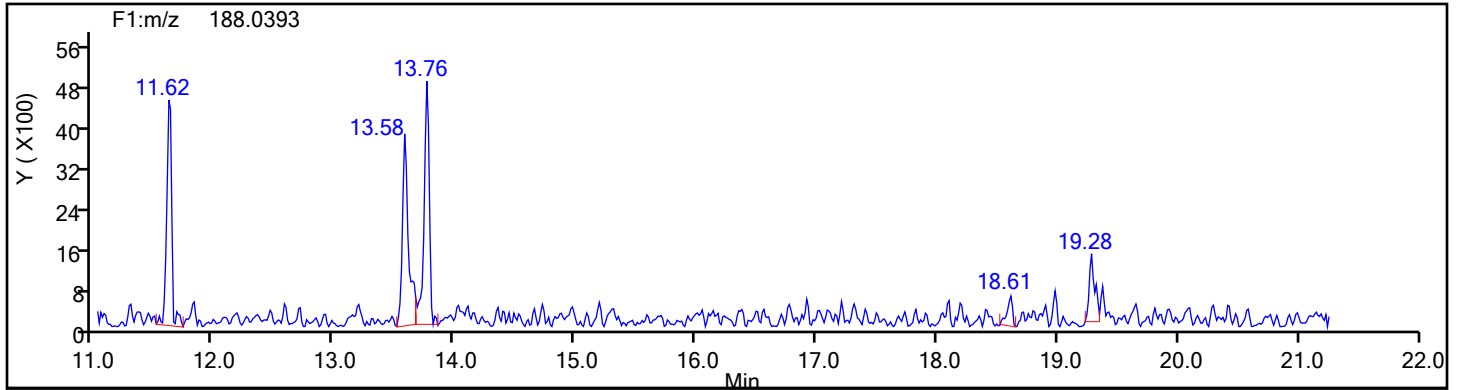
#### Review Flags

M - Manually Integrated

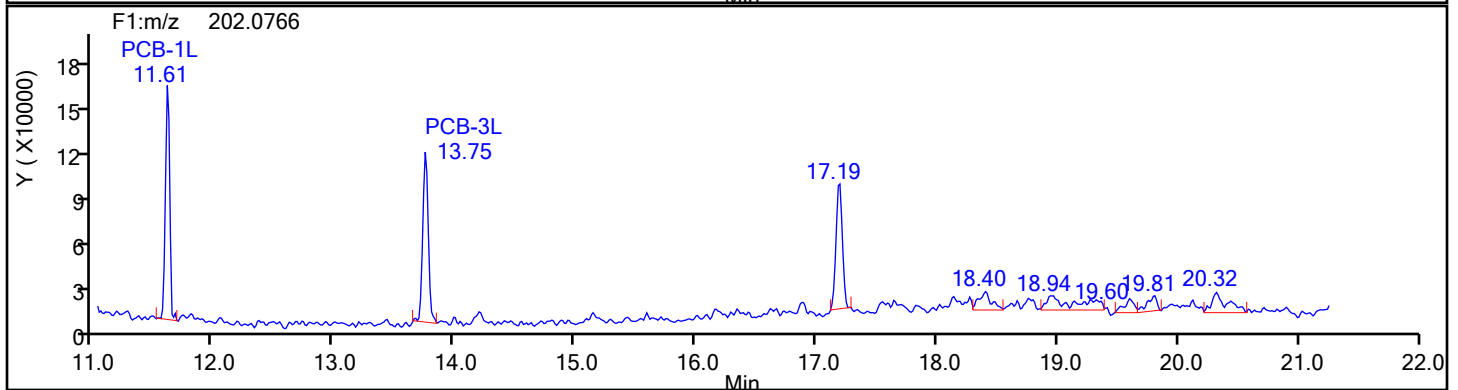
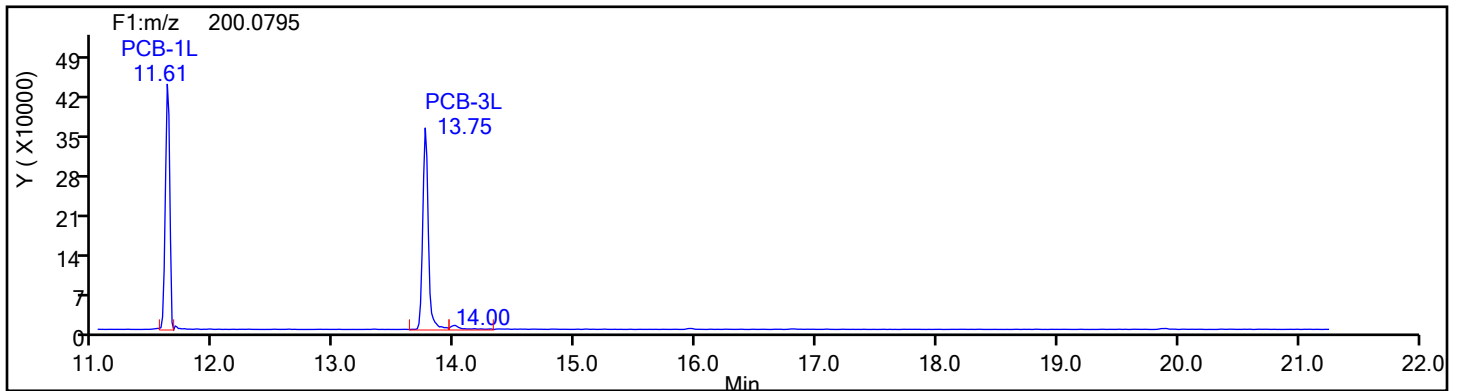
a - User Assigned ID

## Eurofins Knoxville

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Injection Date: 17-Jul-2024 19:36:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
MoPCB F1



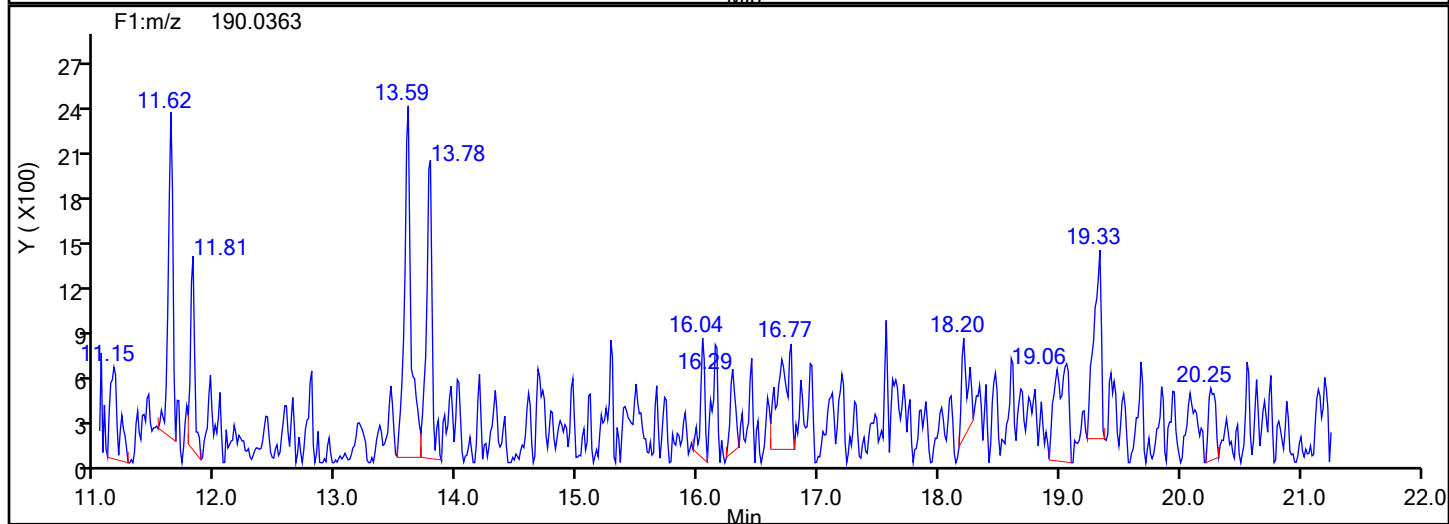
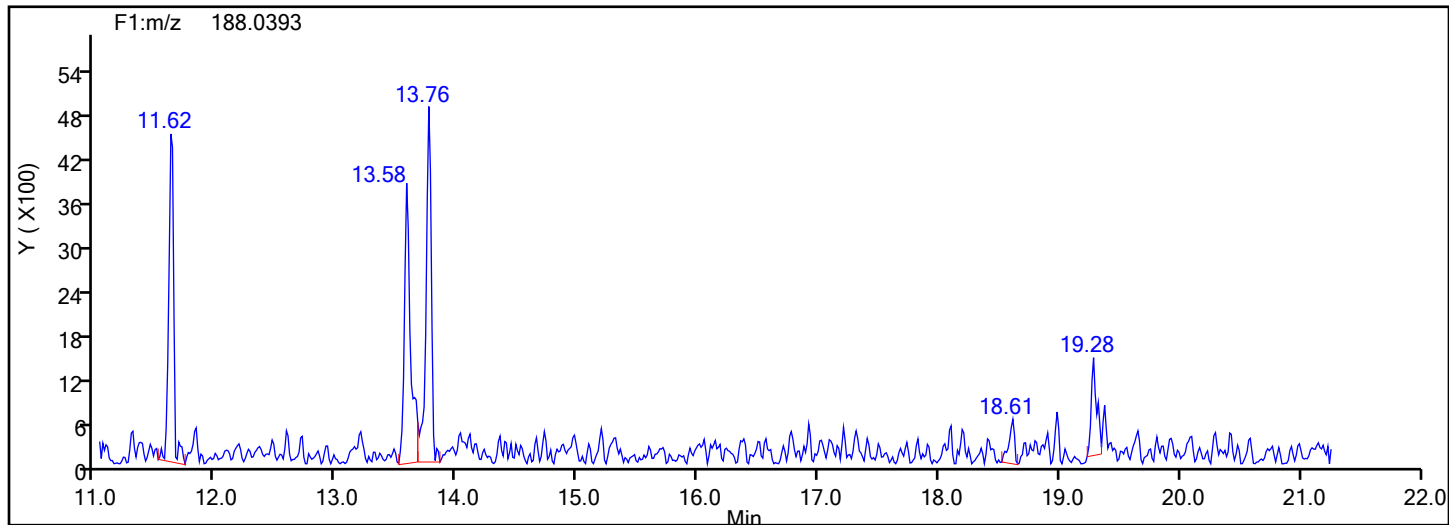
## MoPCB F1 Standards



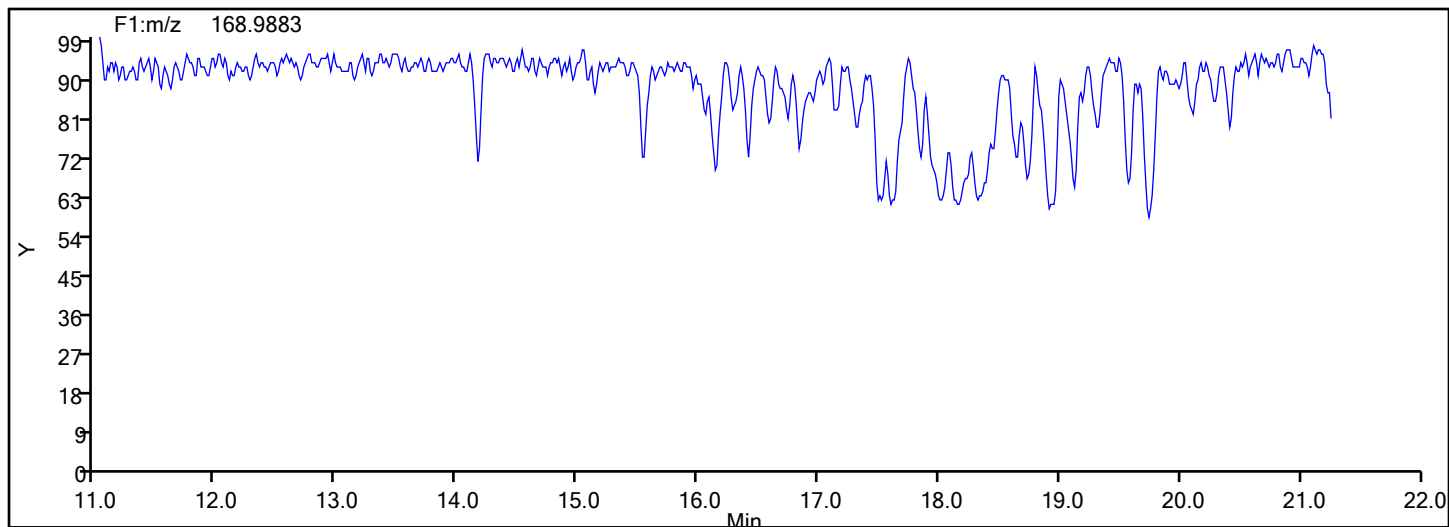


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
MoPCB F1

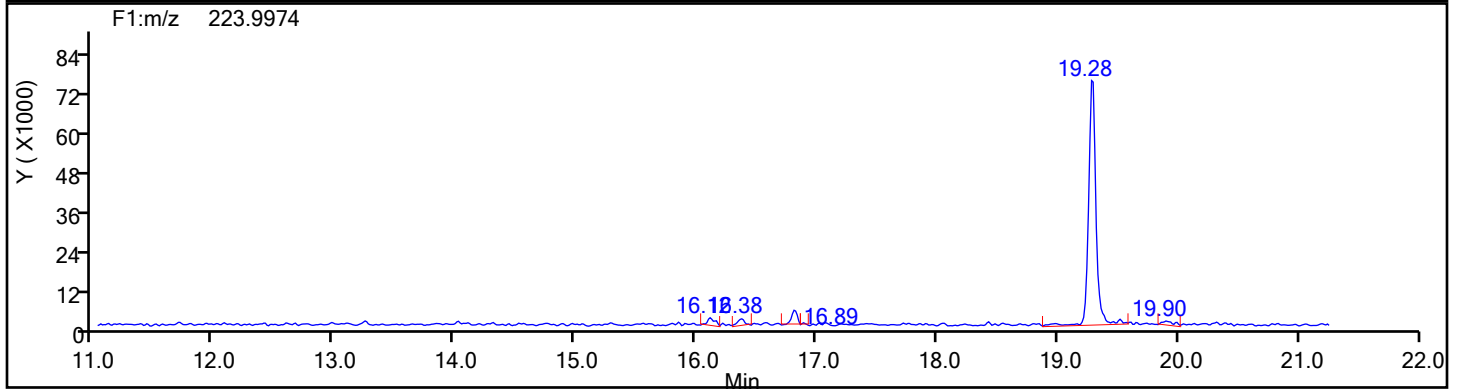
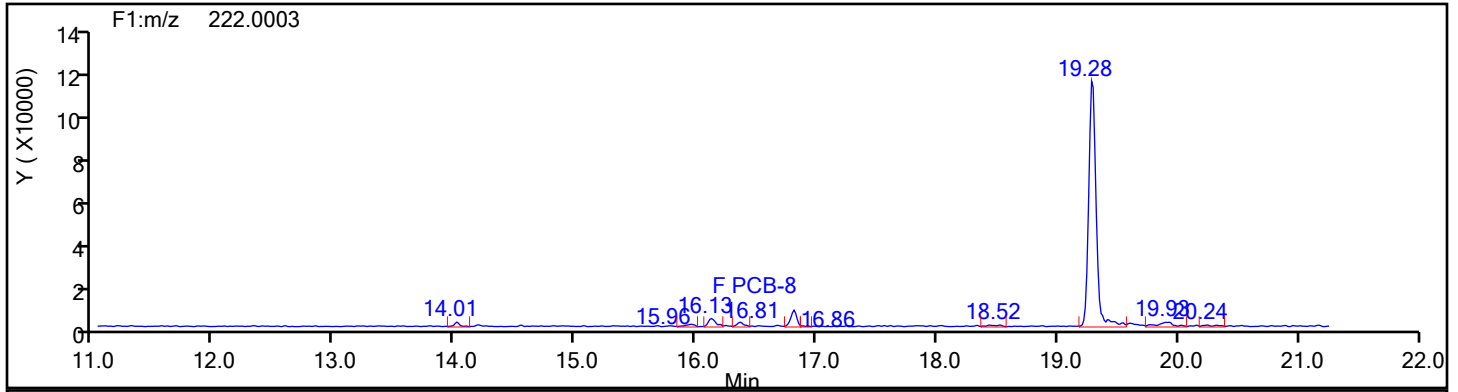


## MoPCB F1 Lock Mass

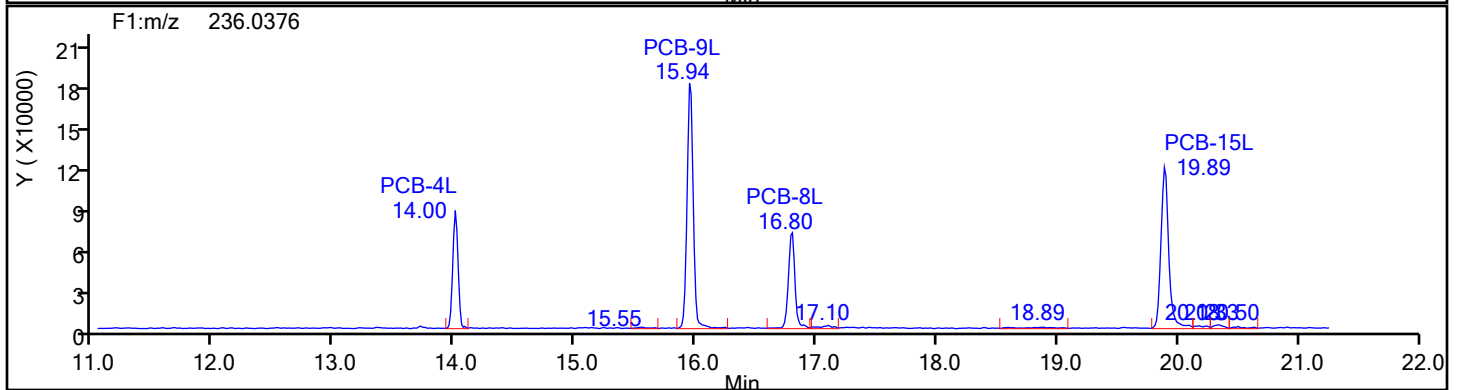
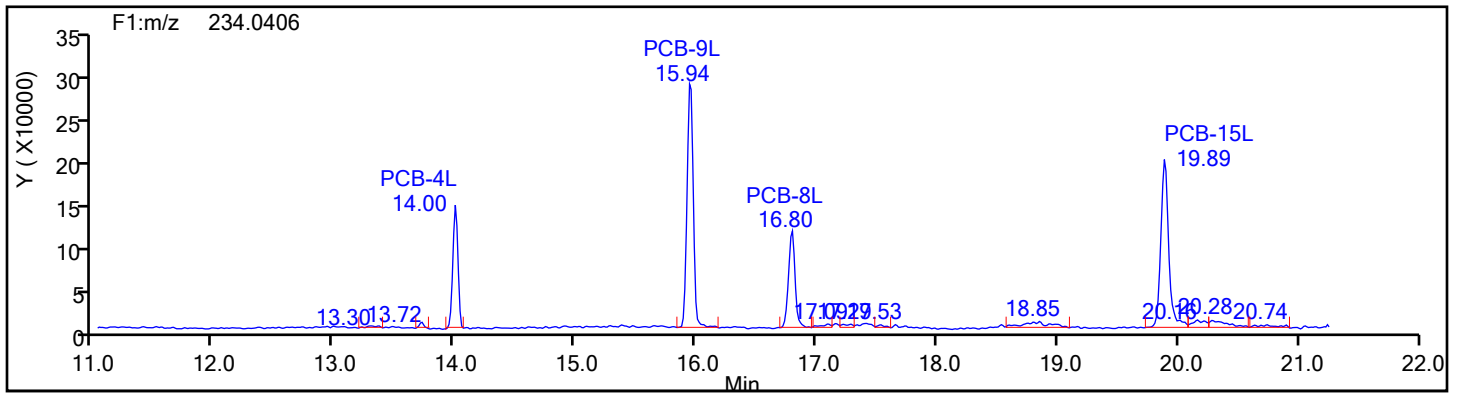


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DiPCB F1

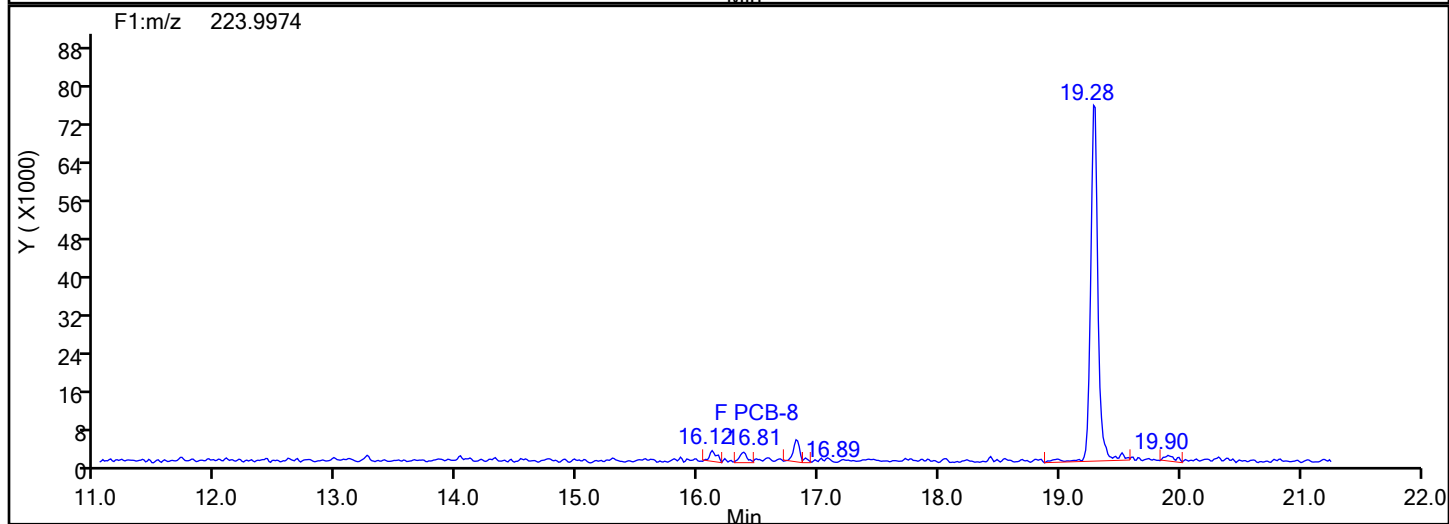
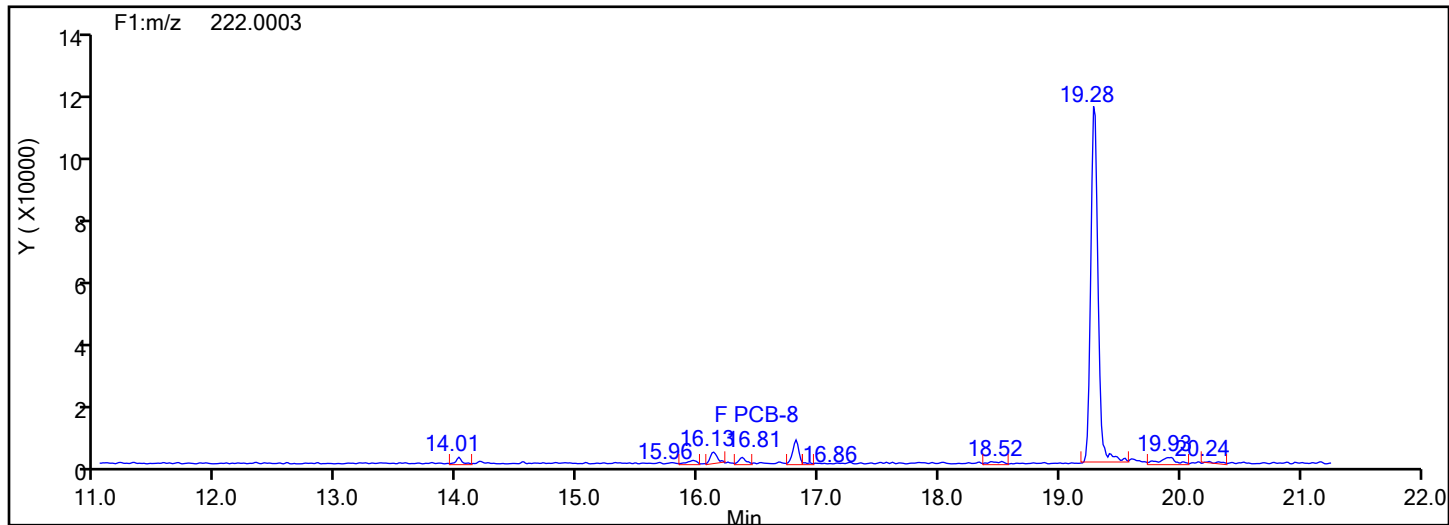


## DiPCB F1 Standards

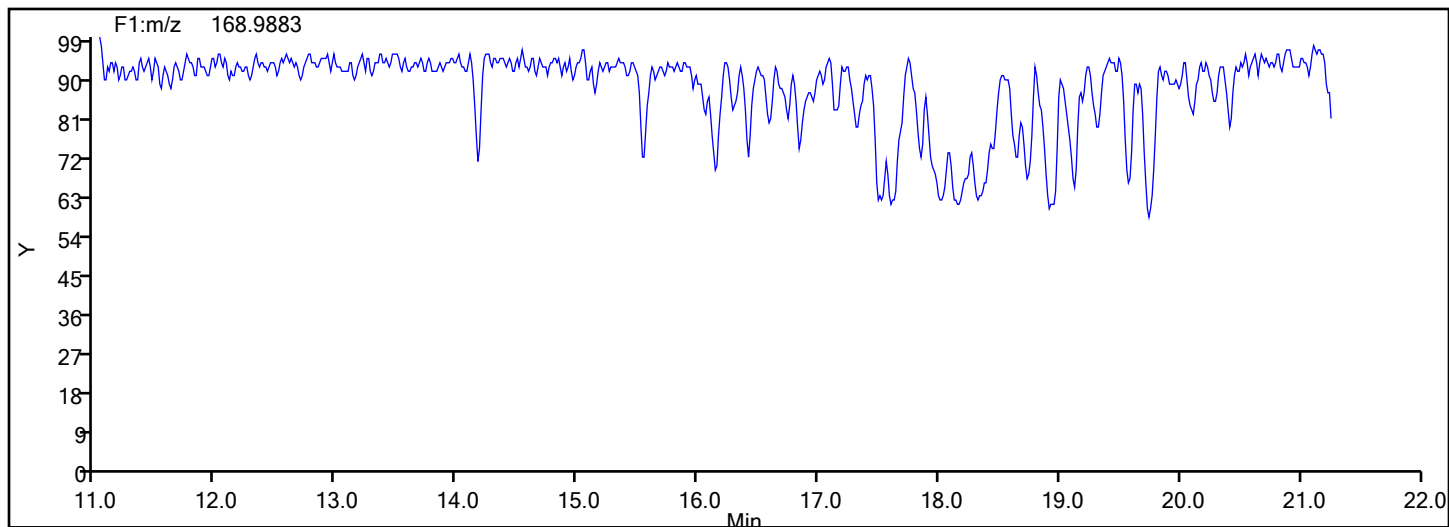


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DiPCB F1



## DiPCB F1 Lock Mass



## Eurofins Knoxville

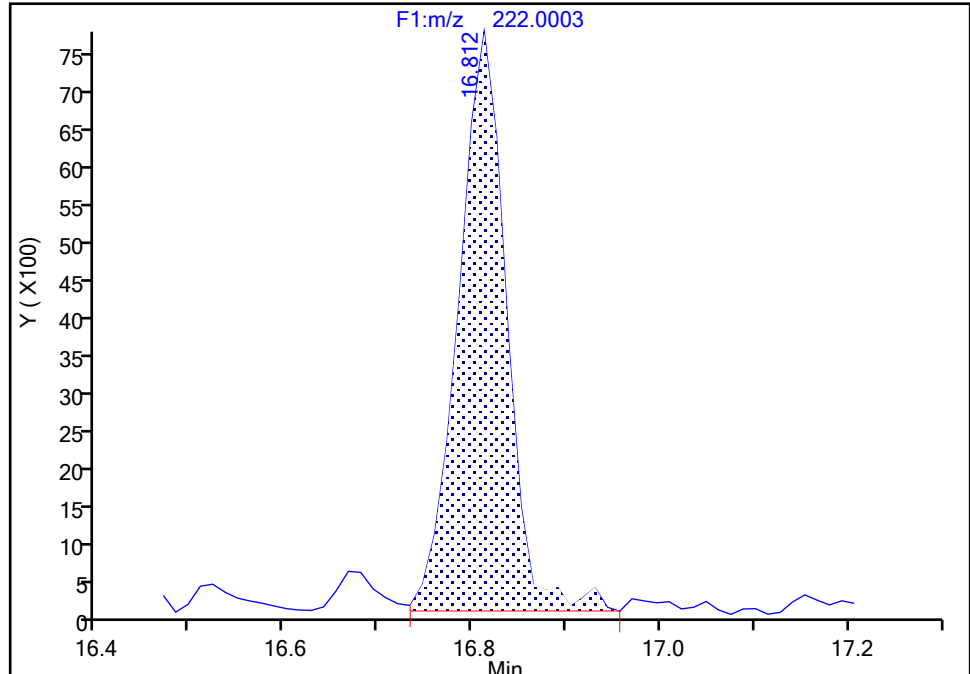
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Lims ID: 140-37234-A-3-D Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F1(11.07 :21.70 )

PCB-8, CAS: 34883-43-7

Signal: 1

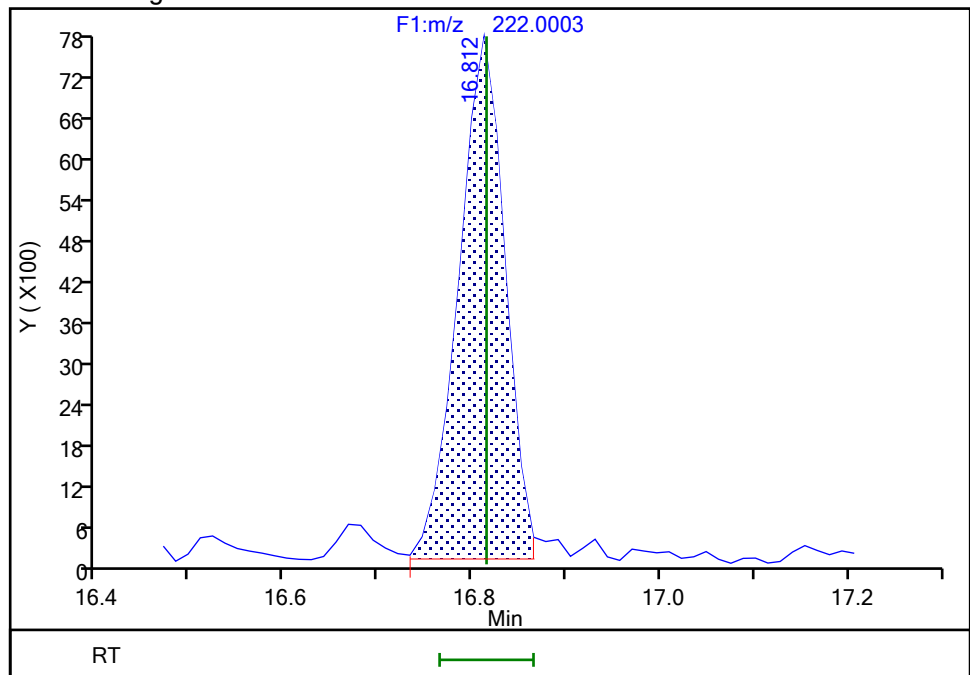
RT: 16.81  
Area: 27531  
Amount: 0.540346  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.81  
Area: 26468  
Amount: 0.508418  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 20:54:30 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

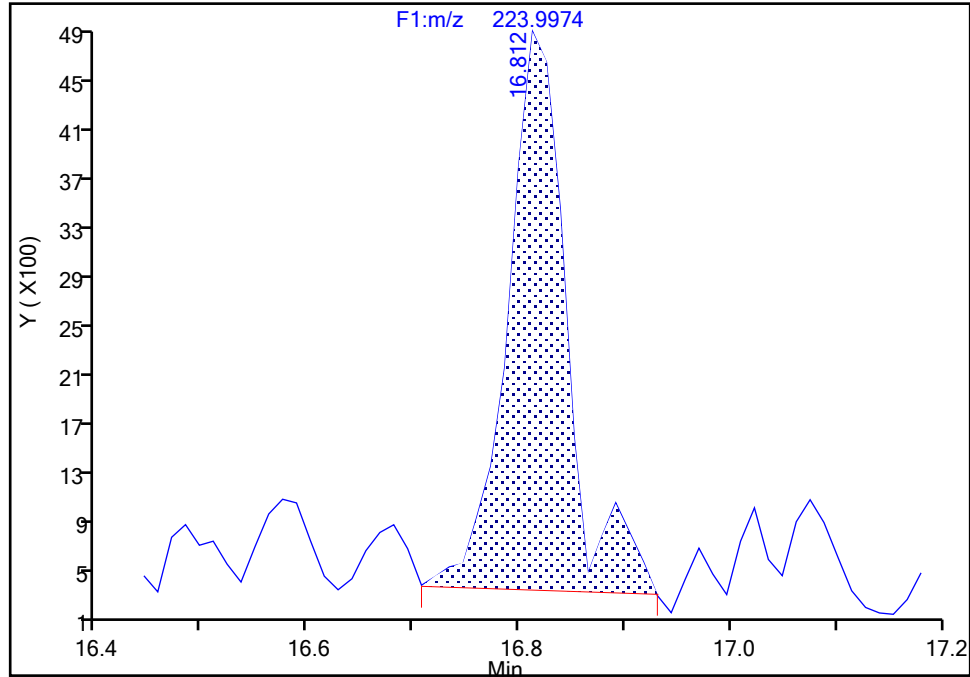
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Lims ID: 140-37234-A-3-D Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F1(11.07 :21.70 )

PCB-8, CAS: 34883-43-7

Signal: 2

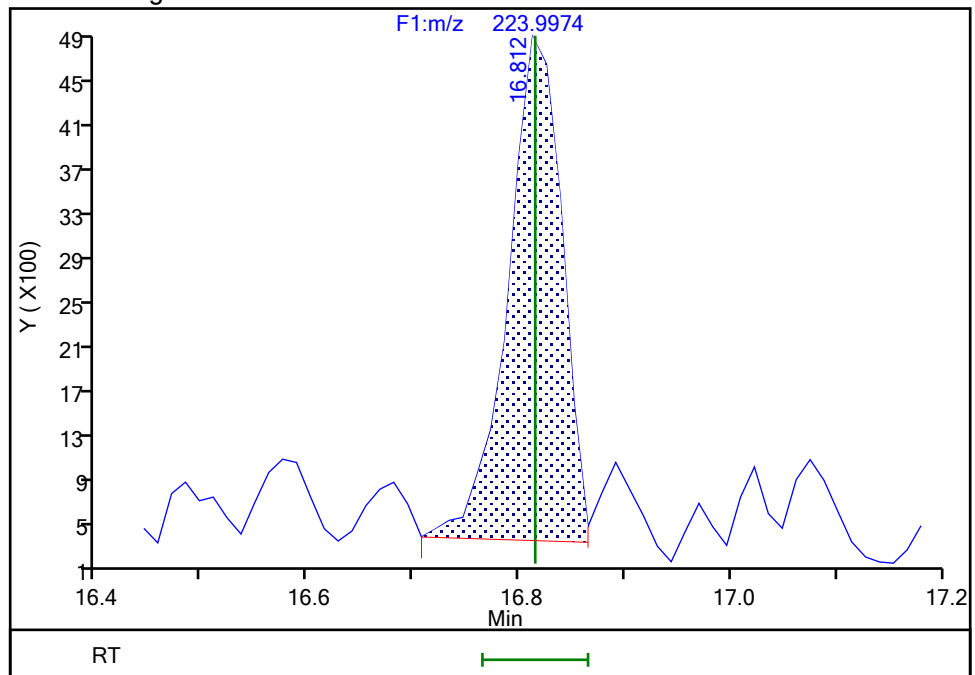
RT: 16.81  
Area: 17842  
Amount: 0.540346  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.81  
Area: 16224  
Amount: 0.508418  
Amount Units: pg/ul

## Manual Integration Results



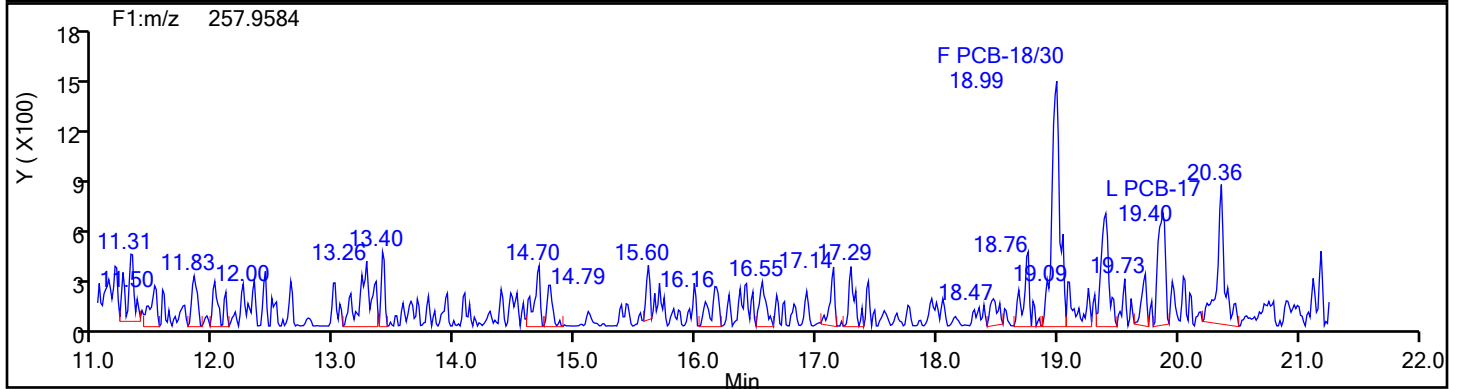
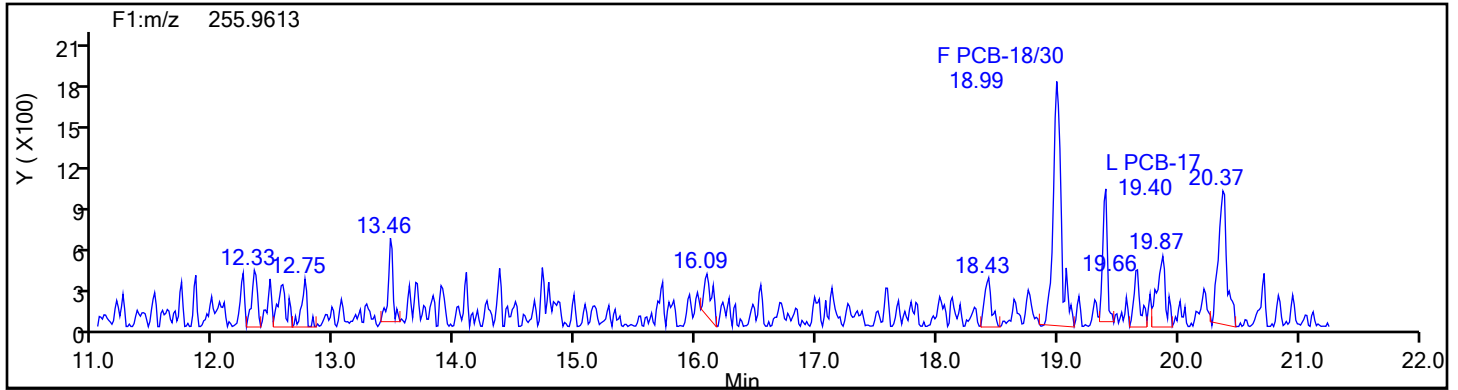
Reviewer: V4XA, 17-Jul-2024 20:54:34 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

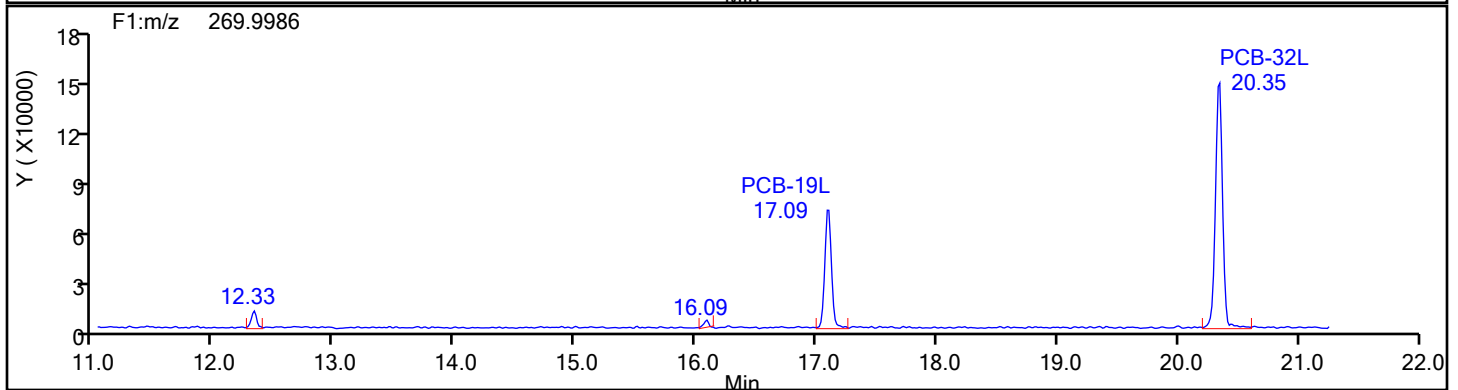
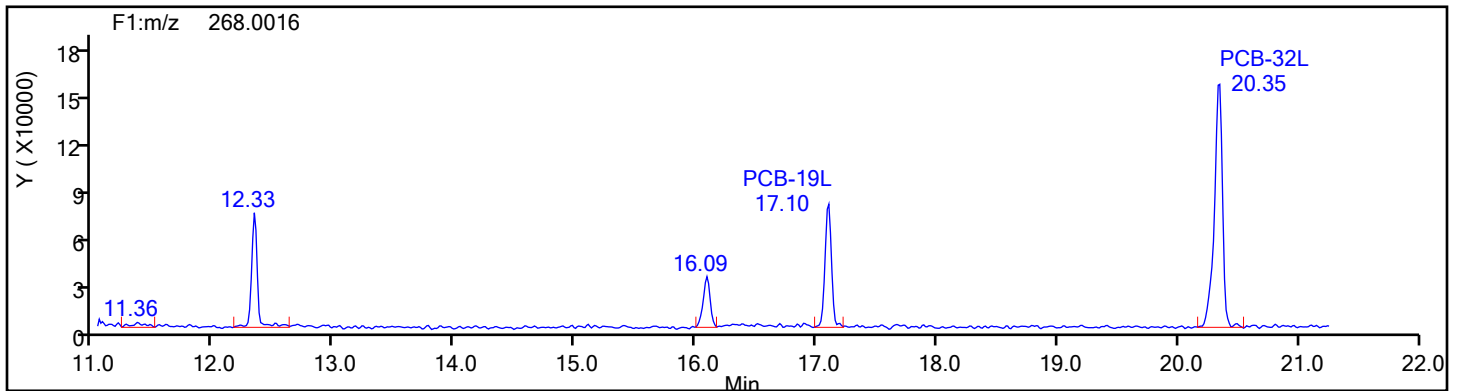
Audit Reason: Split Peak

## Eurofins Knoxville

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Injection Date: 17-Jul-2024 19:36:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F1

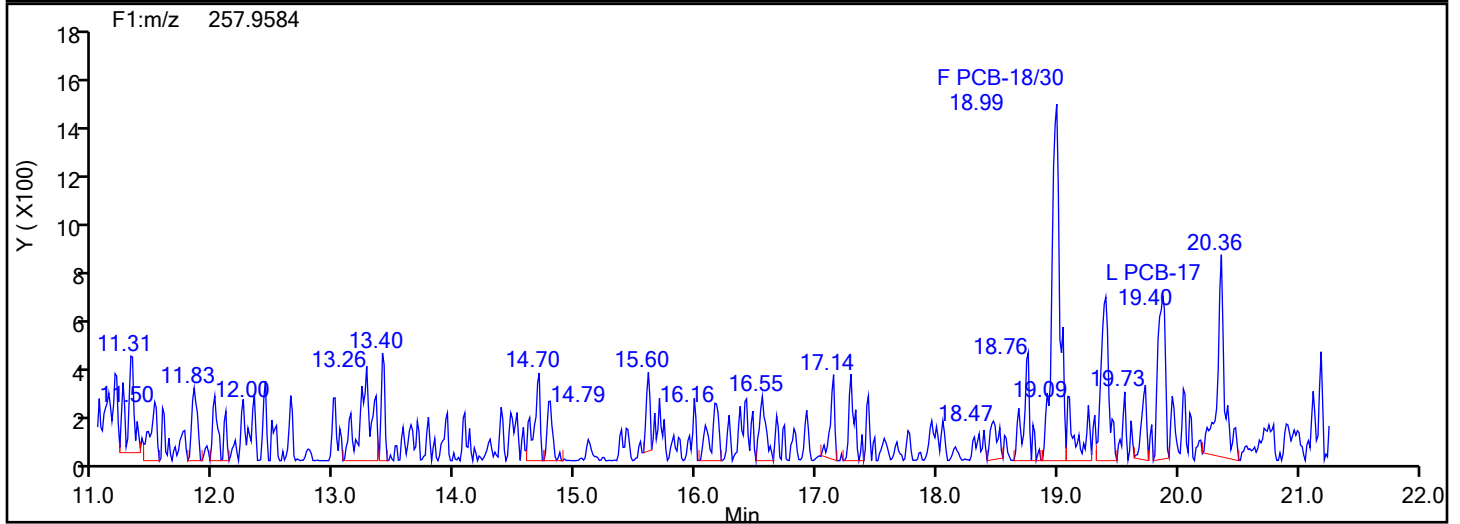
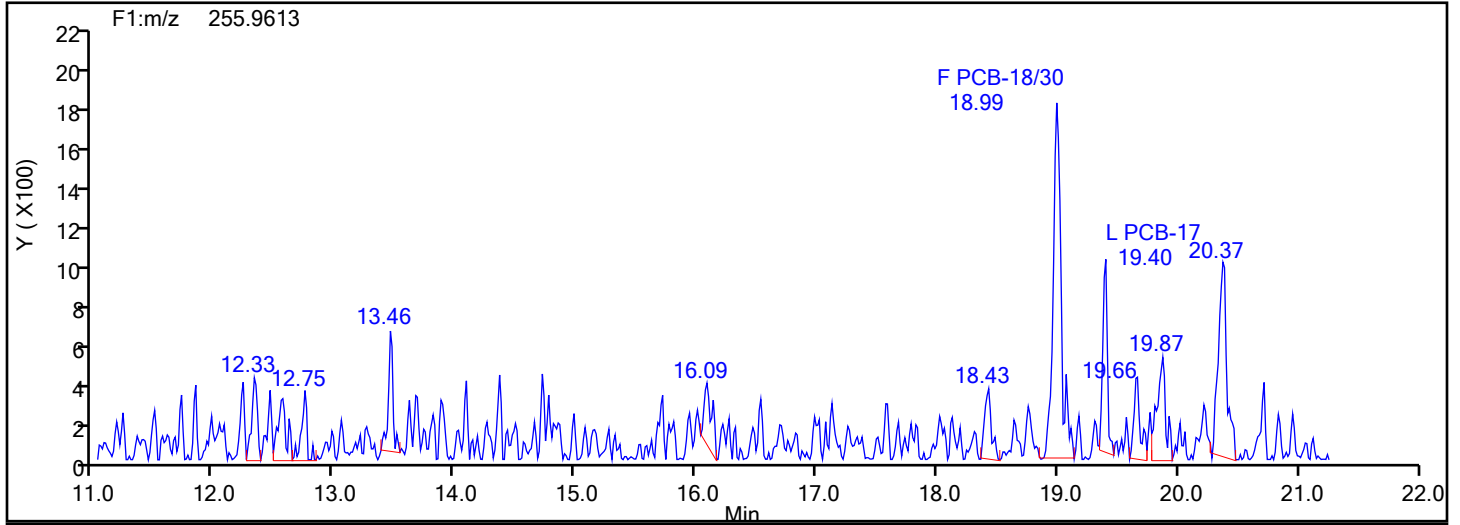


## TriPCB F1 Standards

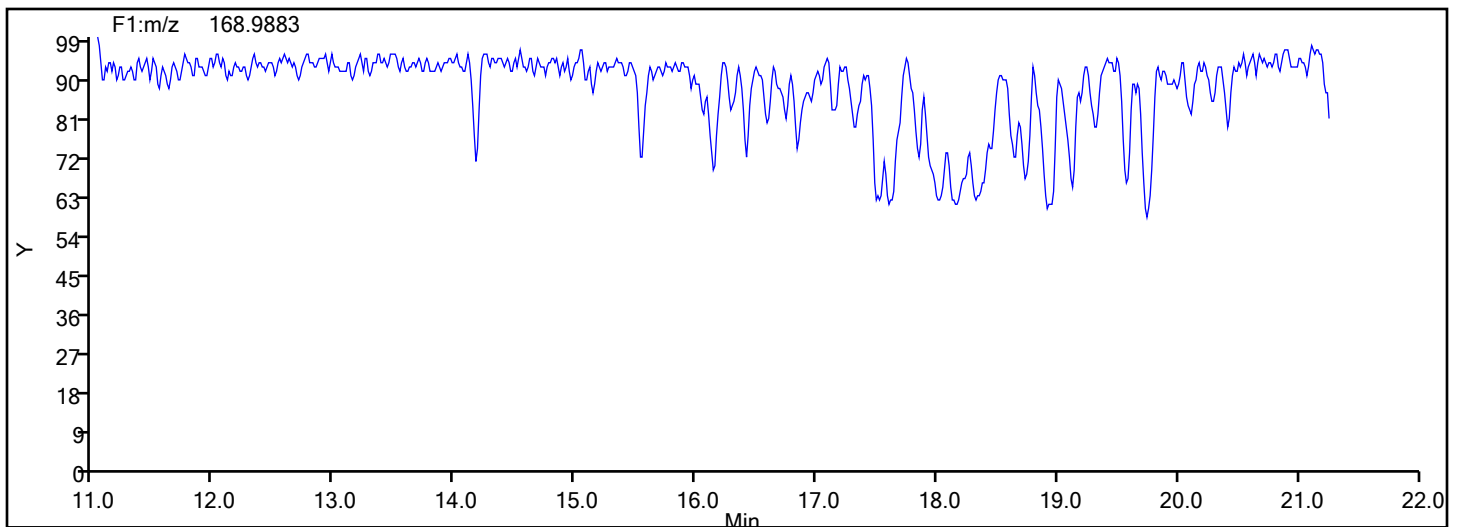


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F1



## TriPCB F1 Lock Mass



## Eurofins Knoxville

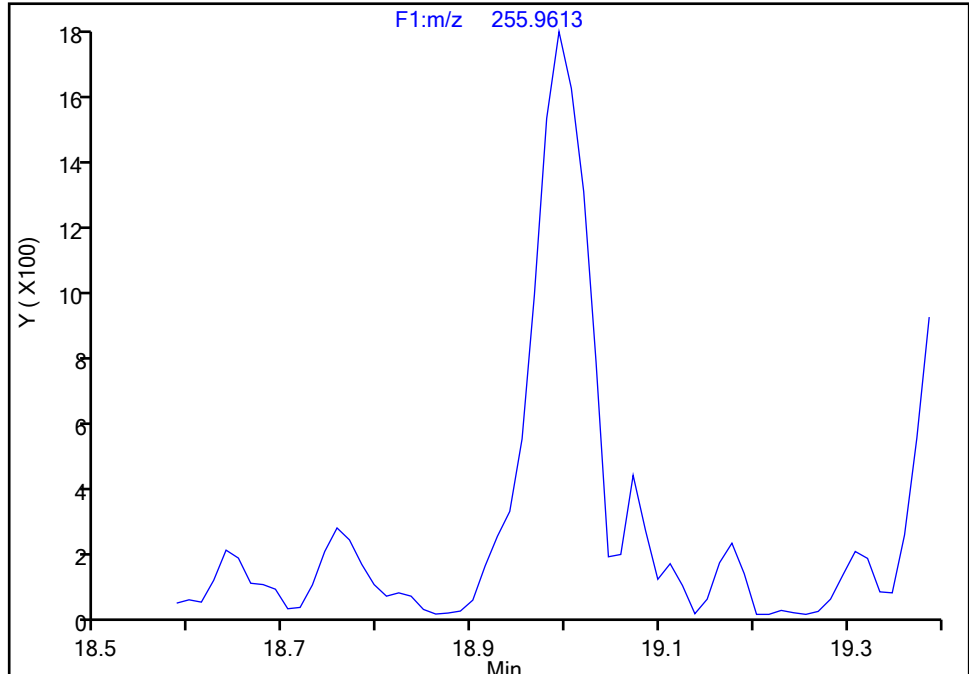
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Injection Date: 17-Jul-2024 19:36:00 Instrument ID: D2D  
Lims ID: 140-37234-A-3-D Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F1(11.07 :21.70 )

PCB-18/30, CAS: STL01798

Signal: 1

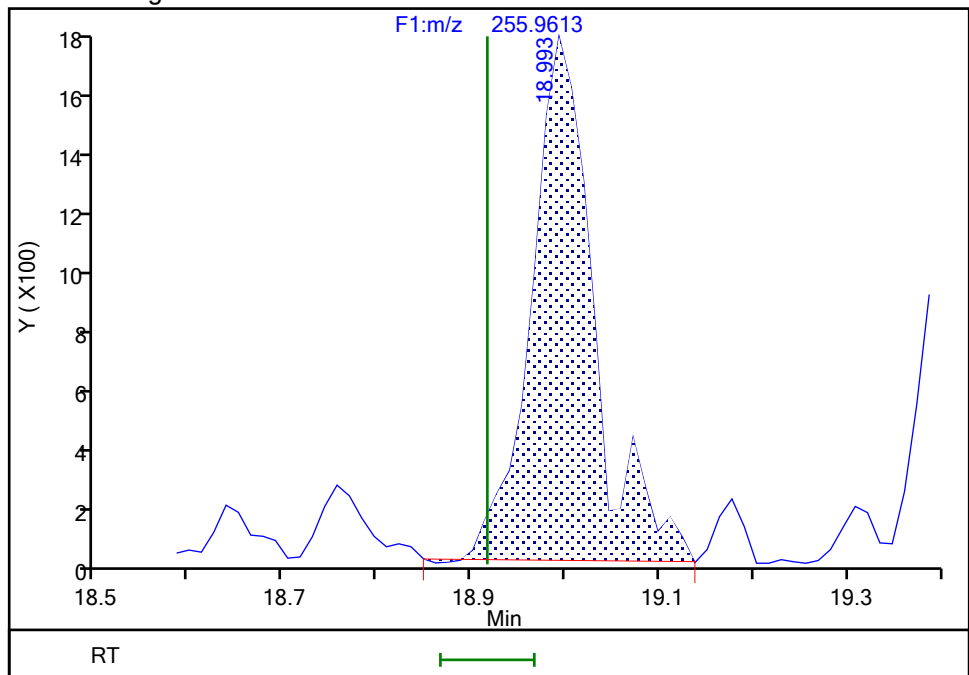
Not Detected  
Expected RT: 18.92

## Processing Integration Results



RT: 18.99  
Area: 8165  
Amount: 0.311766  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 20:54:59 -04:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Split Peak



## Eurofins Knoxville

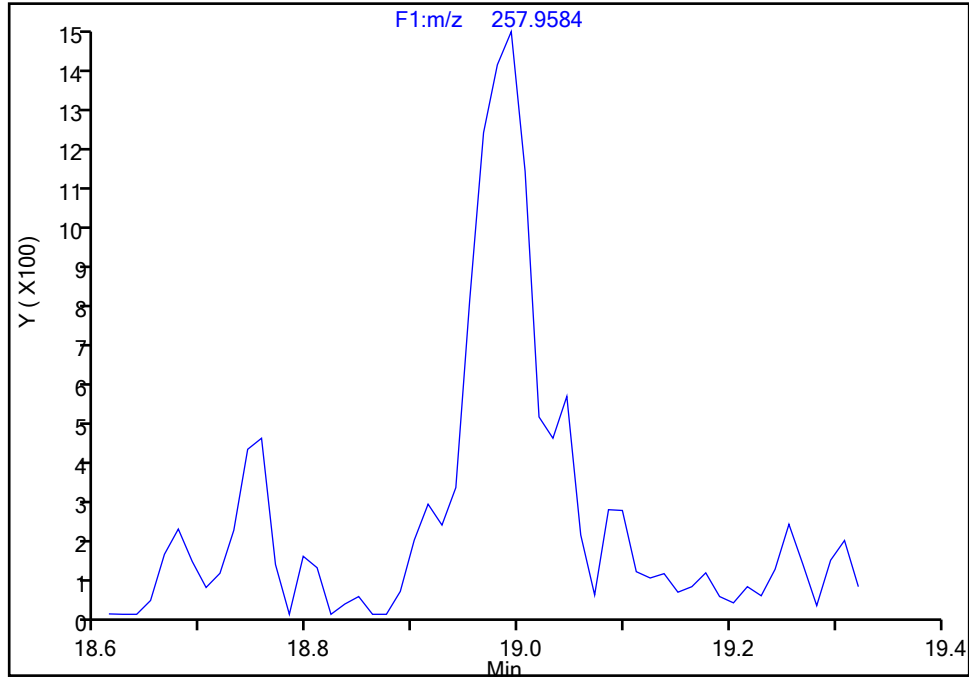
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Injection Date: 17-Jul-2024 19:36:00 Instrument ID: D2D  
Lims ID: 140-37234-A-3-D Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F1(11.07 :21.70 )

PCB-18/30, CAS: STL01798

Signal: 2

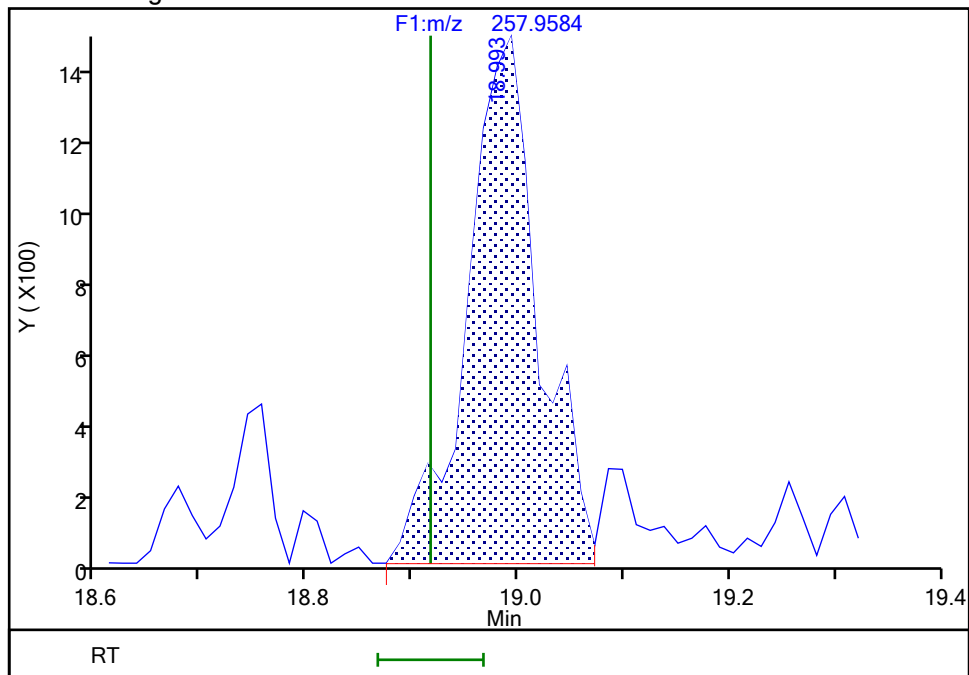
Not Detected  
Expected RT: 18.92

## Processing Integration Results



RT: 18.99  
Area: 6933  
Amount: 0.311766  
Amount Units: pg/ul

## Manual Integration Results



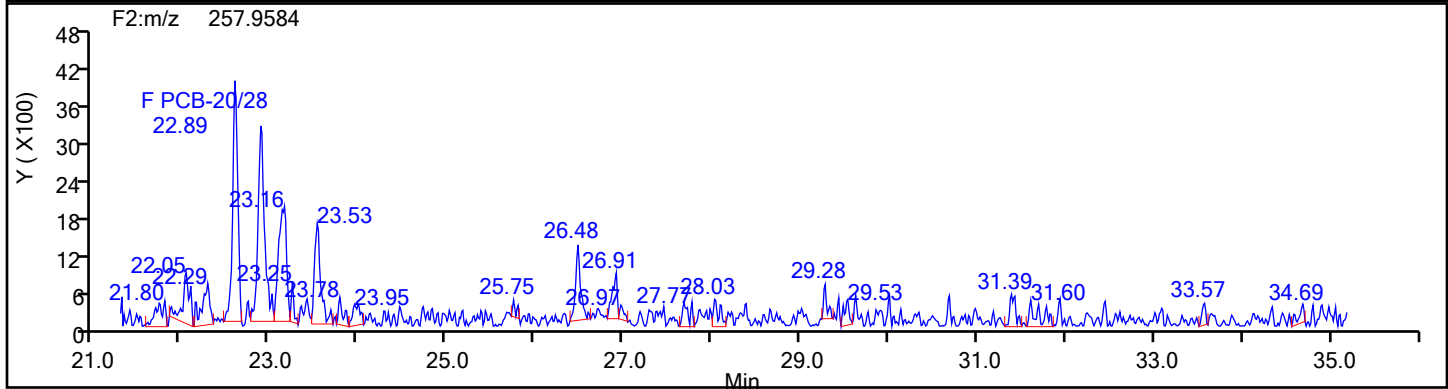
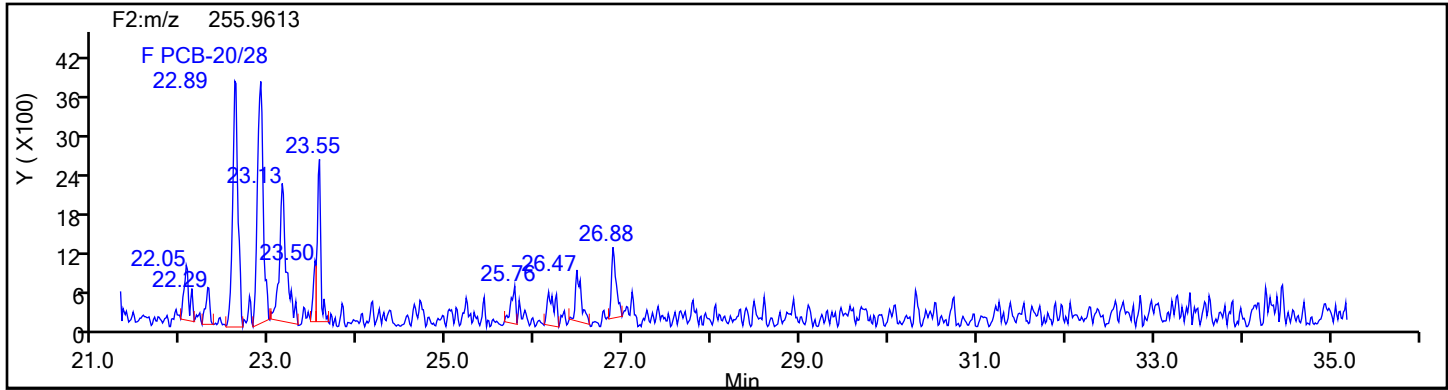
Reviewer: V4XA, 17-Jul-2024 20:55:07 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

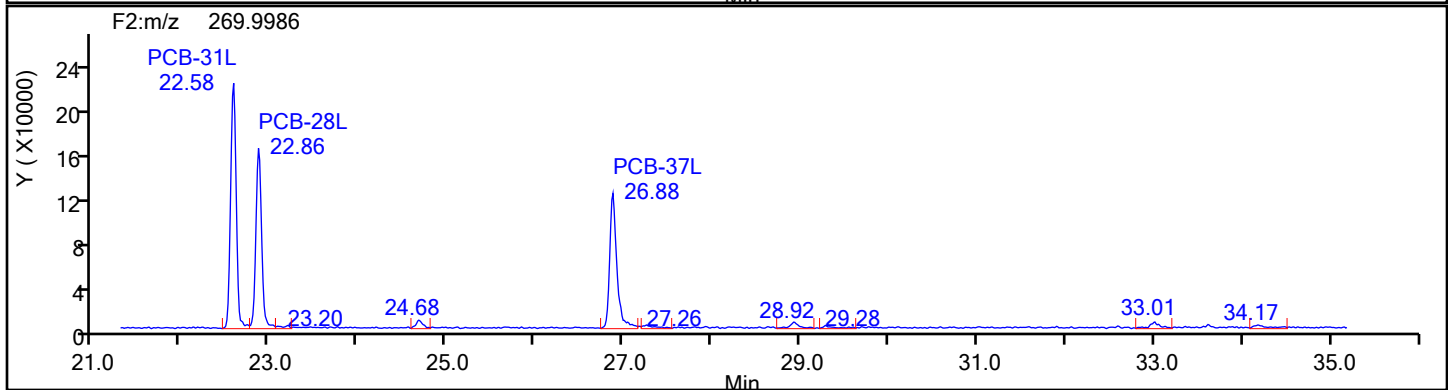
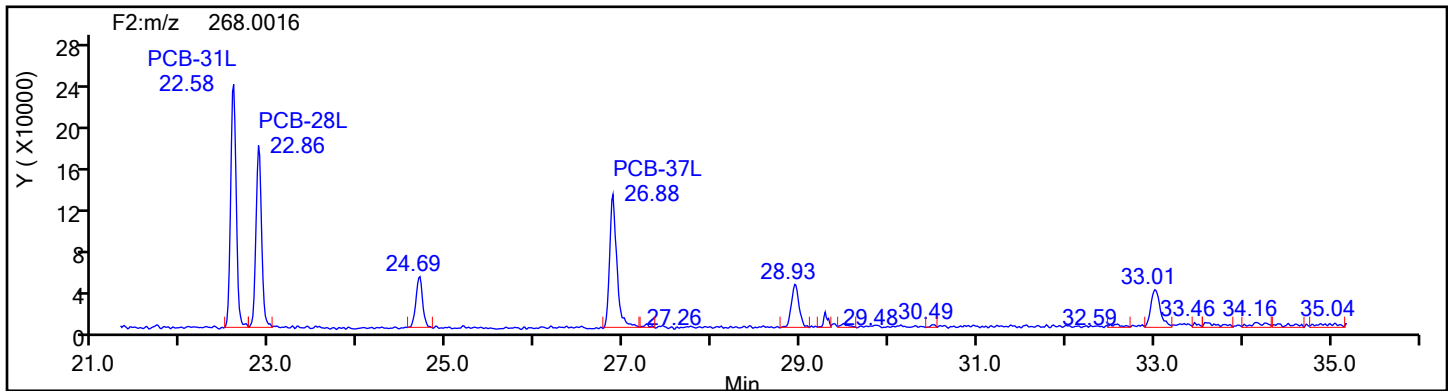
Audit Reason: Split Peak

## Eurofins Knoxville

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Injection Date: 17-Jul-2024 19:36:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F2

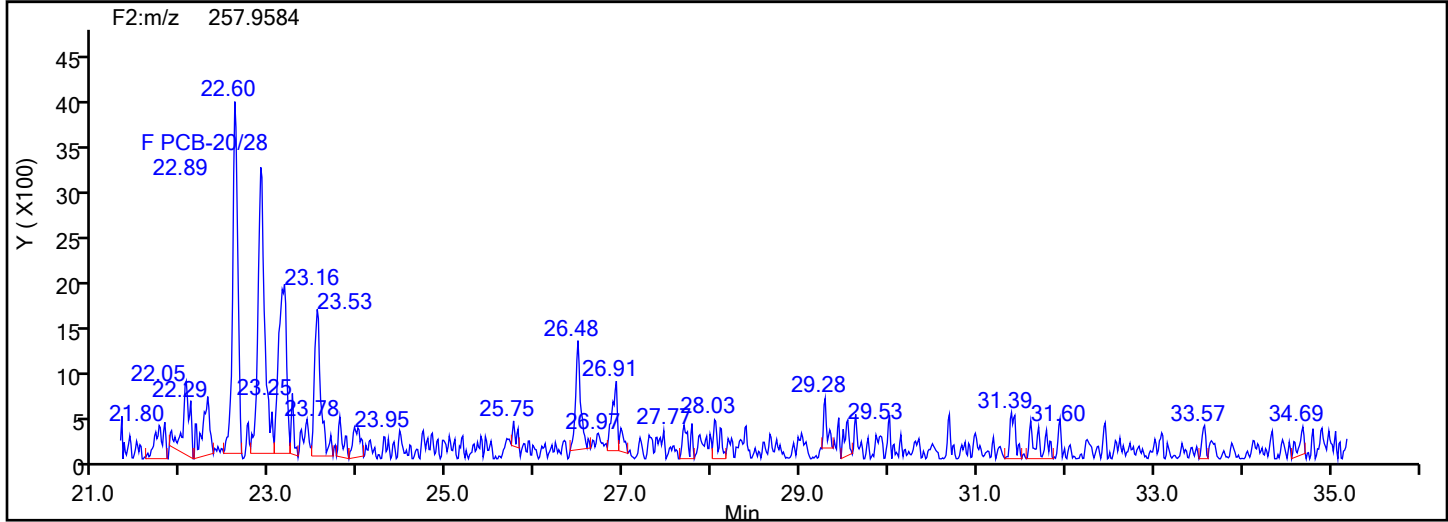
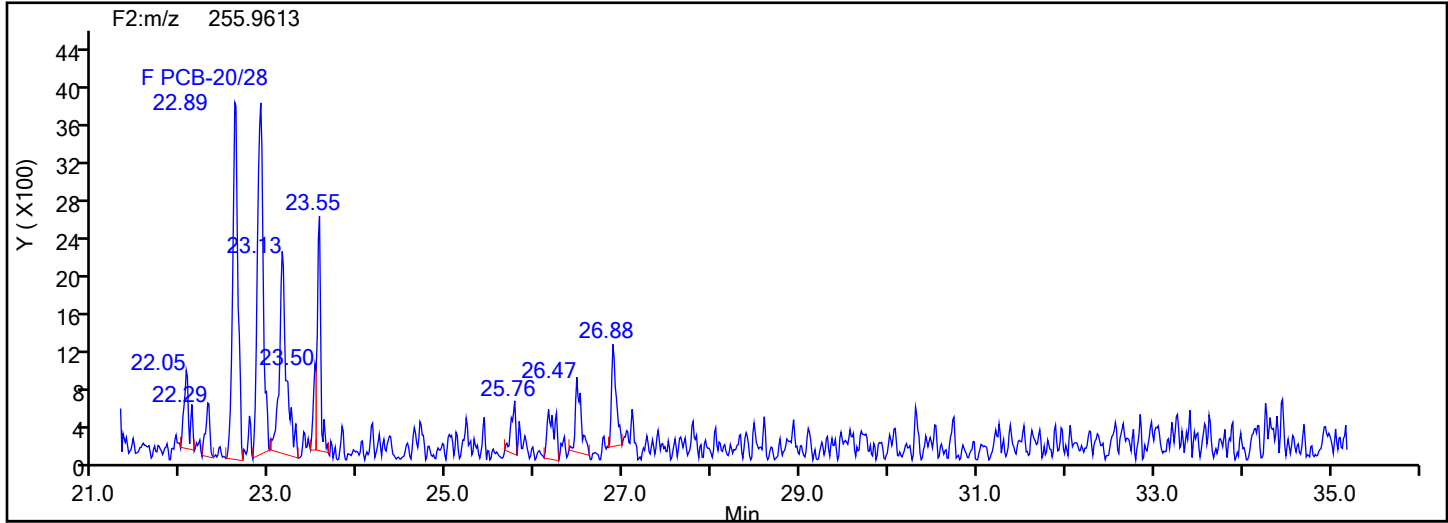


## TriPCB F2 Standards

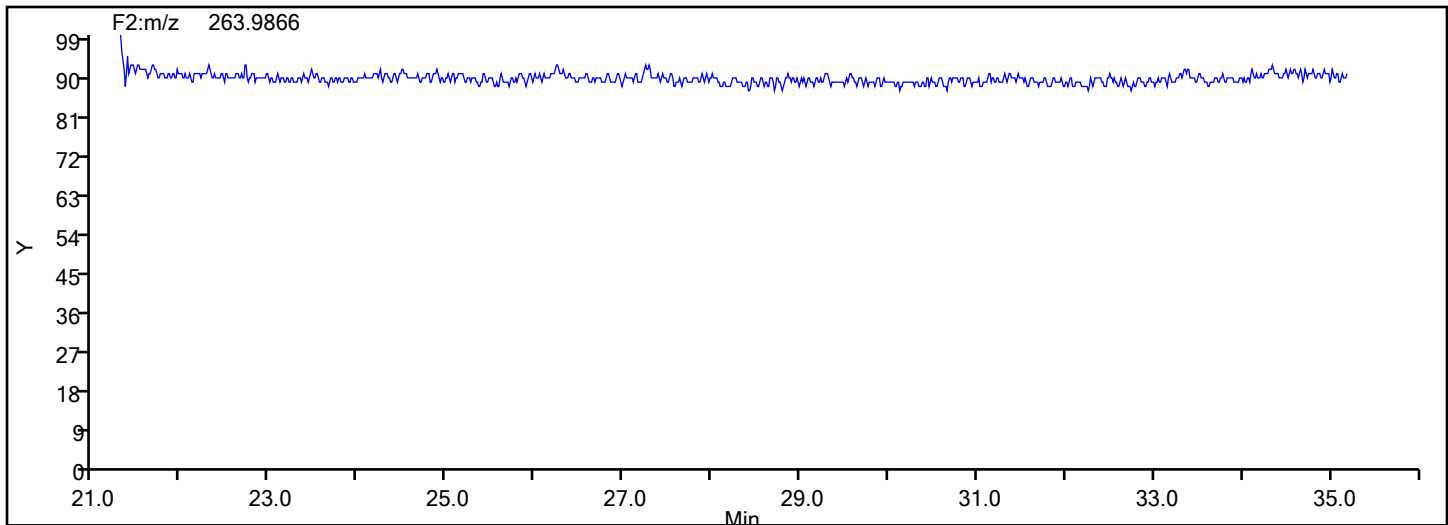


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F2



## TriPCB F2 Lock Mass



## Eurofins Knoxville

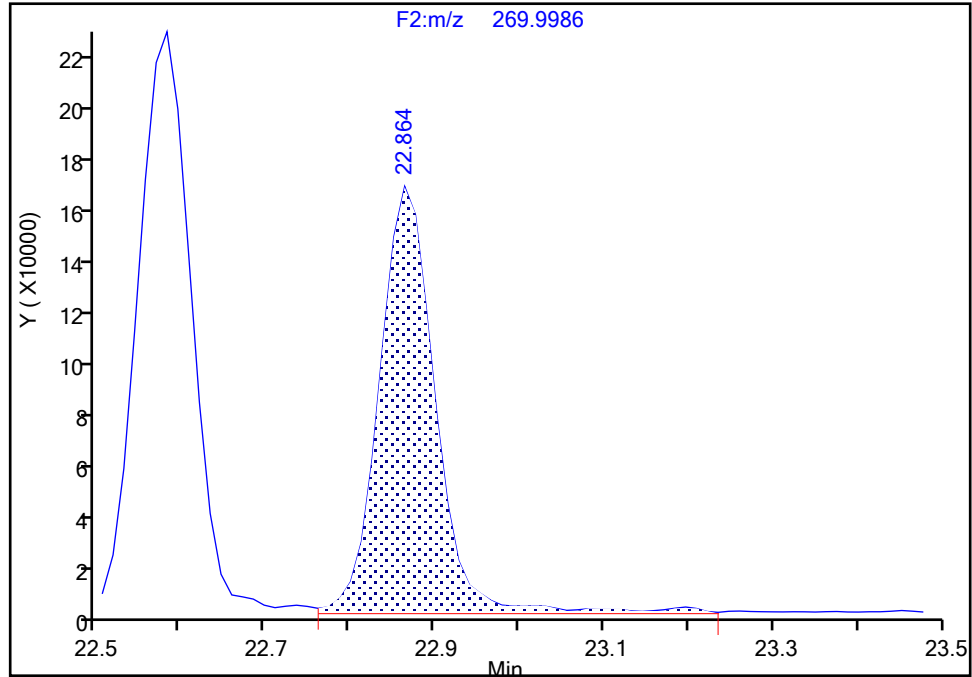
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Lims ID: 140-37234-A-3-D Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-28L, CAS: 208263-76-7**

Signal: 2

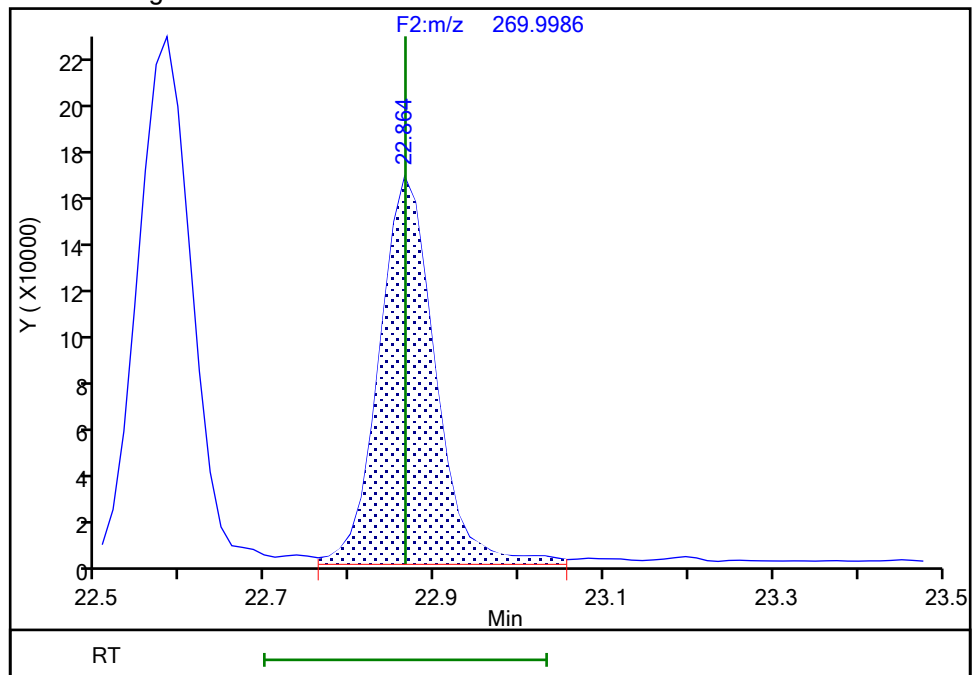
RT: 22.86  
Area: 770994  
Amount: 14.463914  
Amount Units: pg/ul

## Processing Integration Results



RT: 22.86  
Area: 751881  
Amount: 14.283128  
Amount Units: pg/ul

## Manual Integration Results



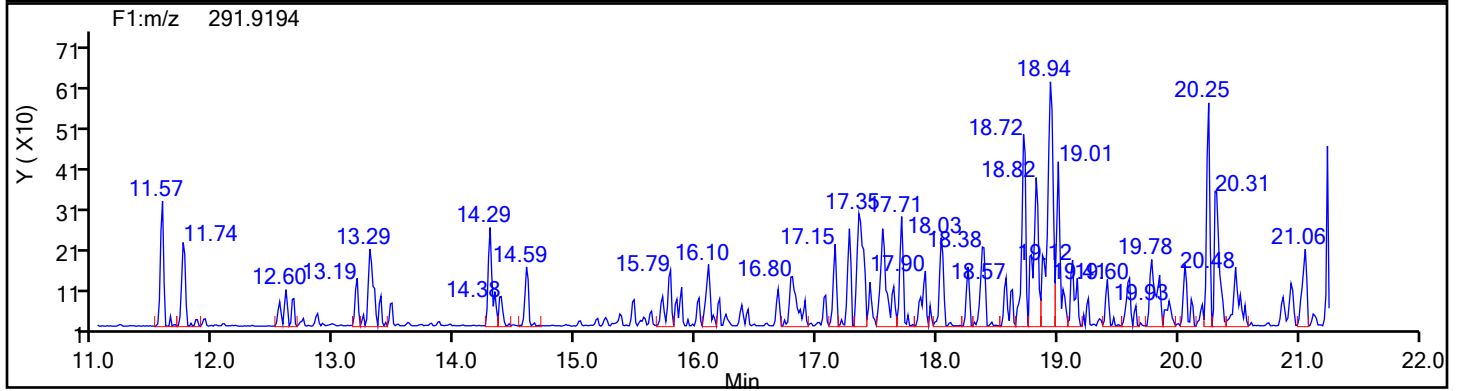
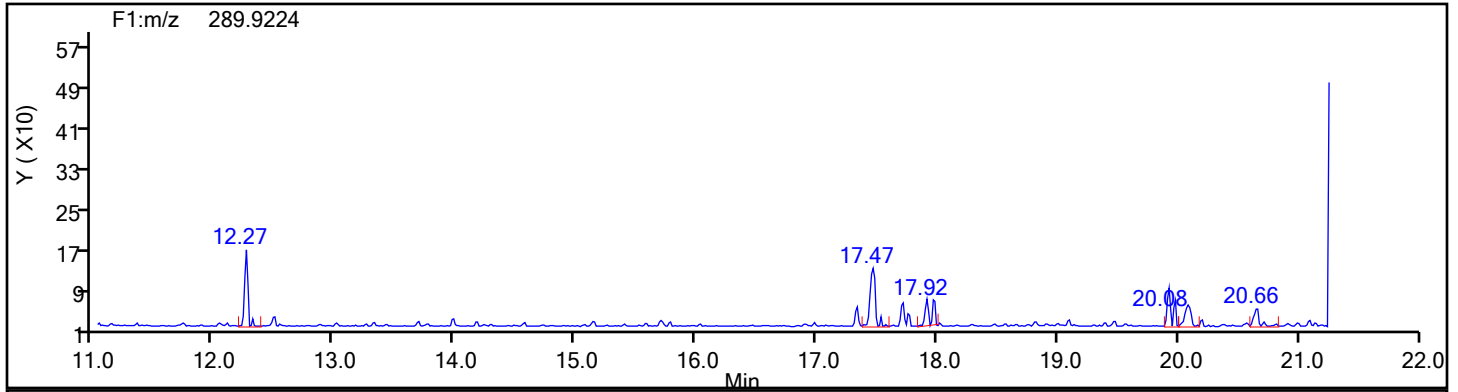
Reviewer: V4XA, 17-Jul-2024 20:54:51 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

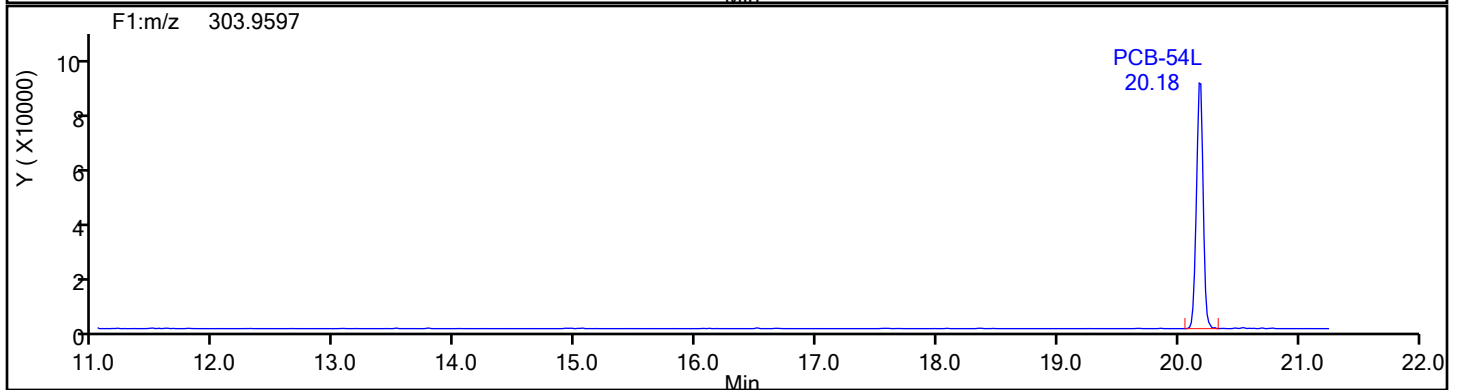
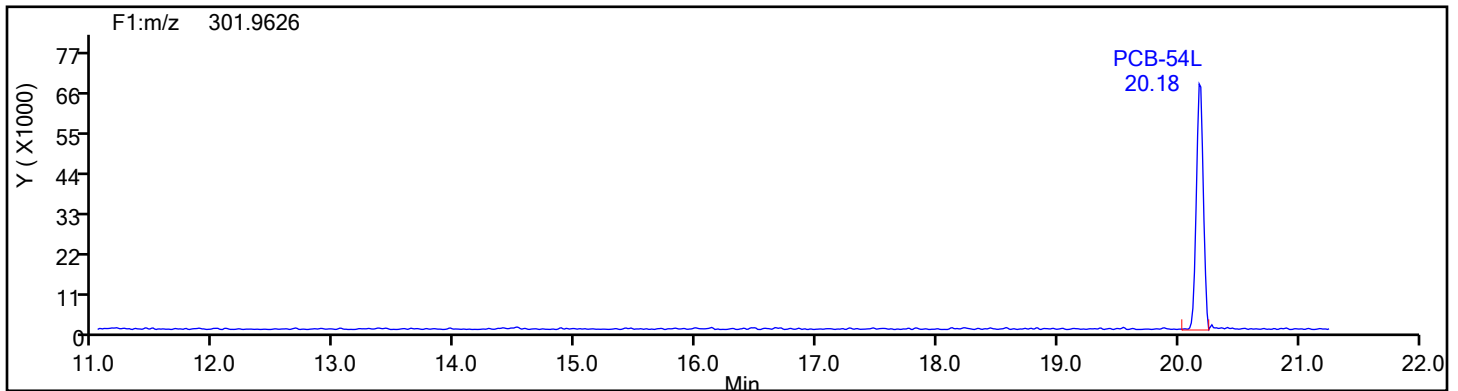
Audit Reason: Split Peak

## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1

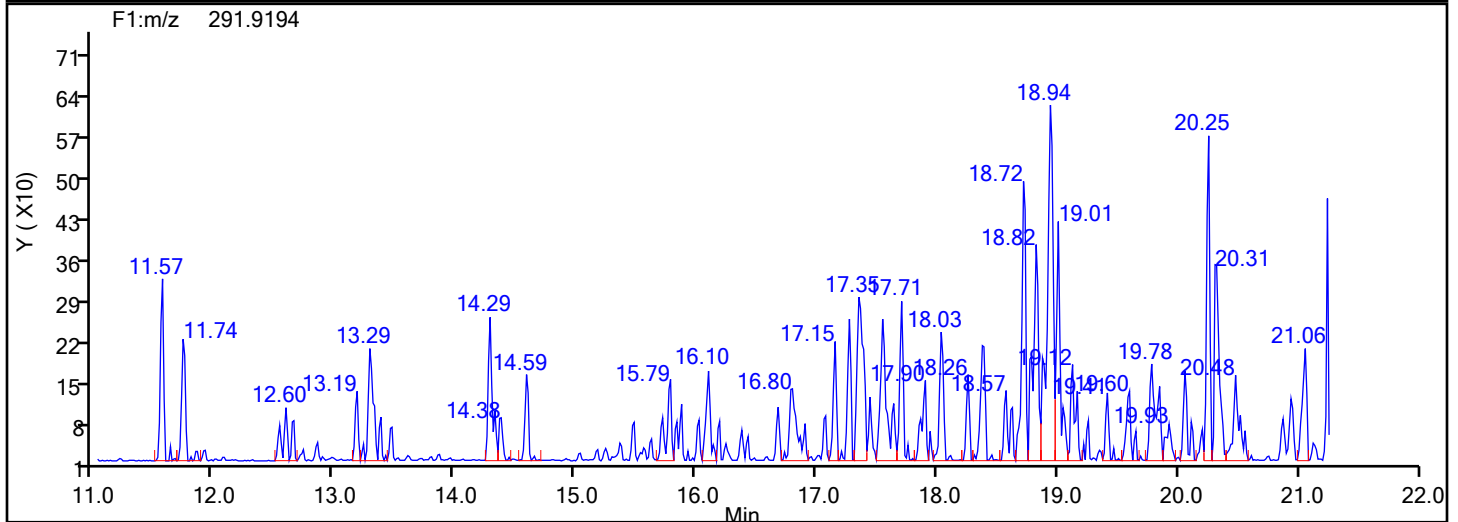
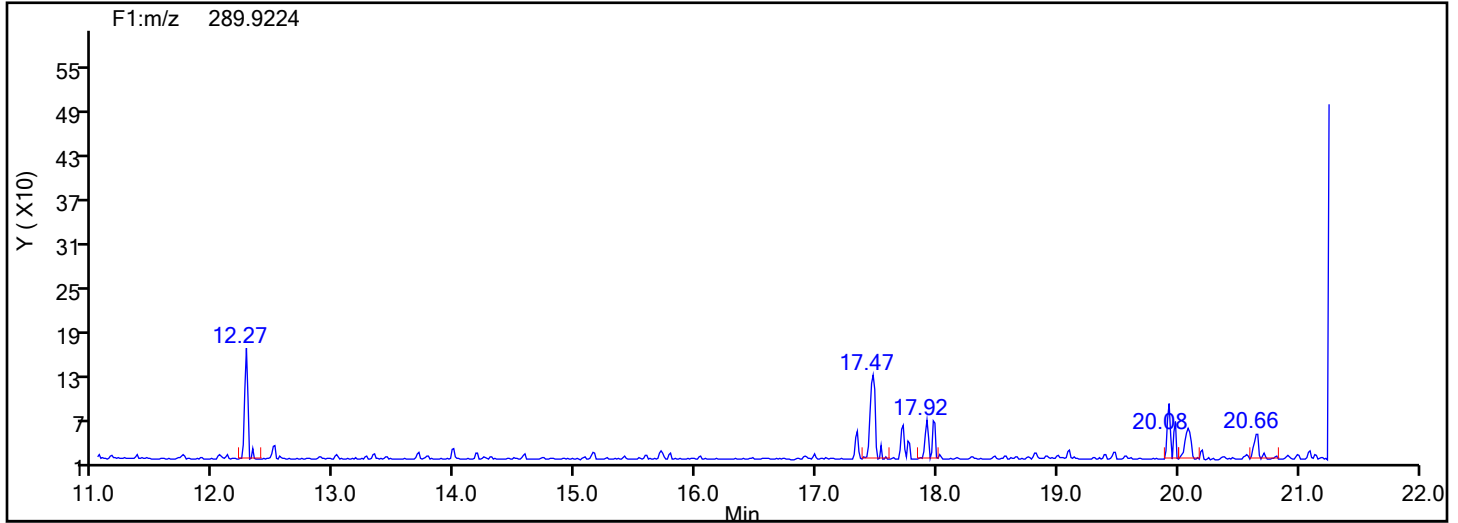


## TePCB F1 Standards

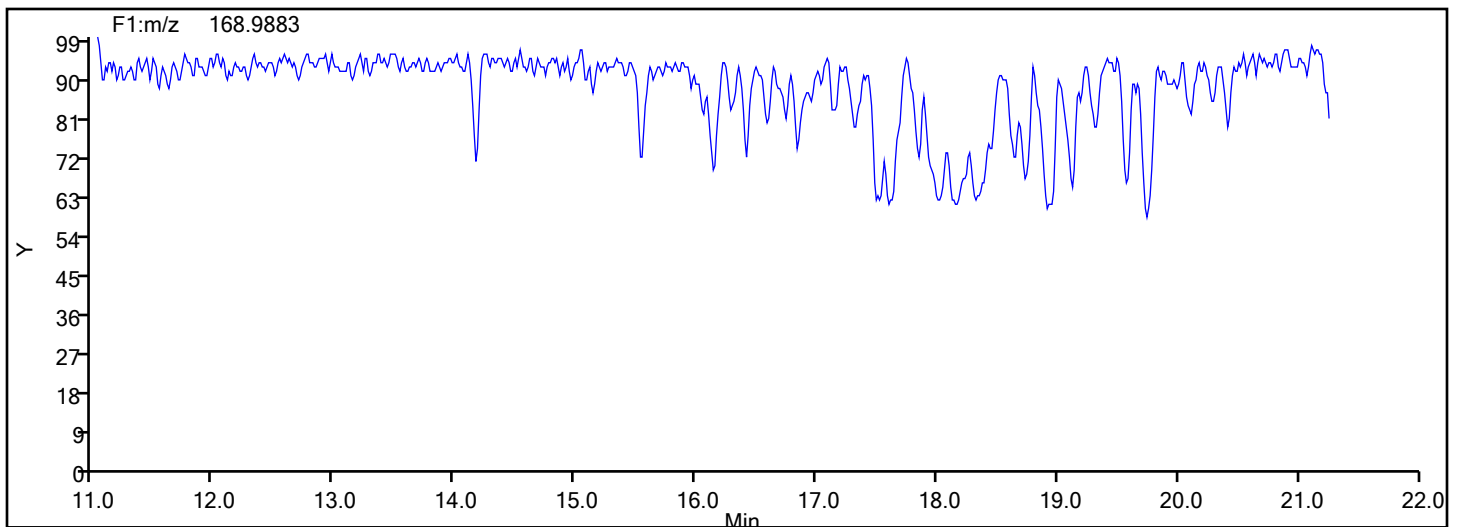


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1

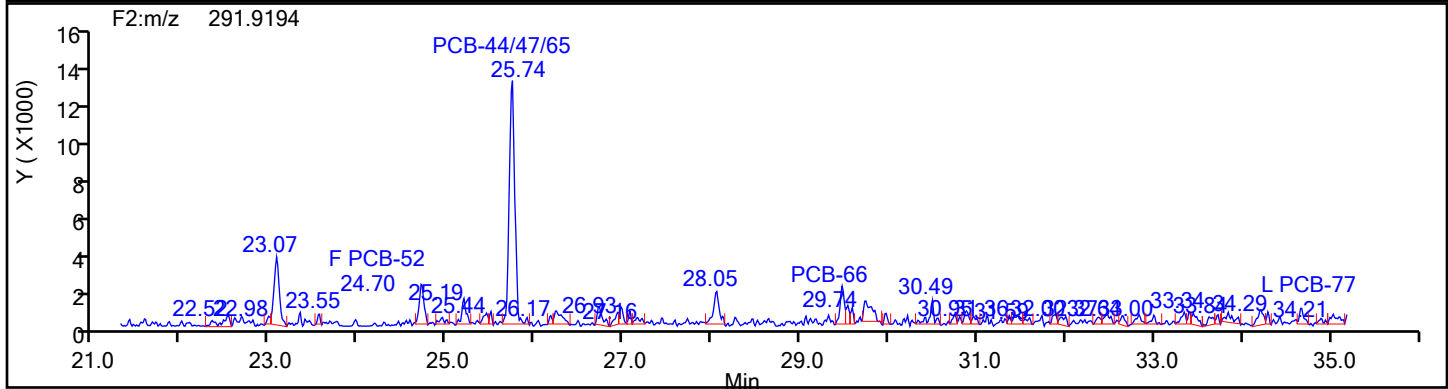
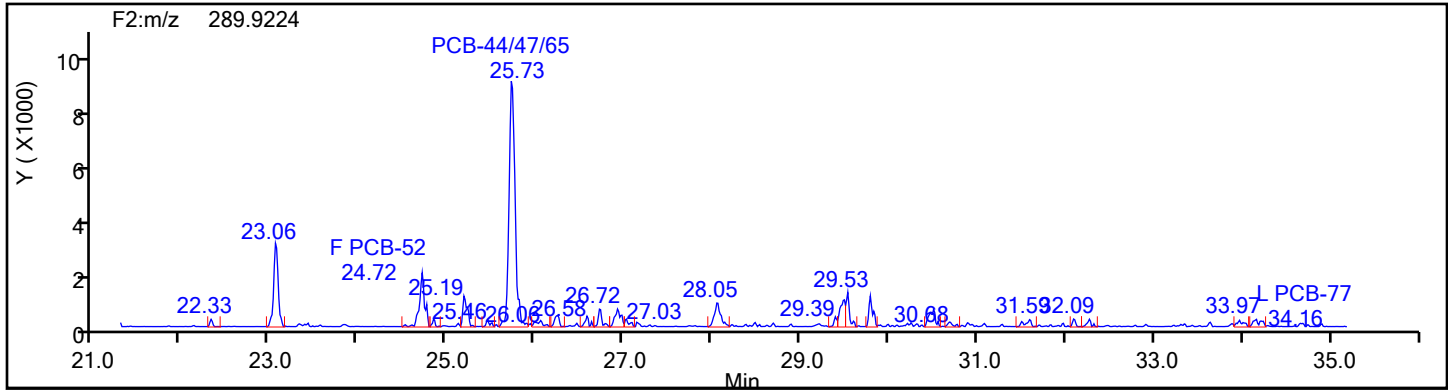


## TePCB F1 Lock Mass

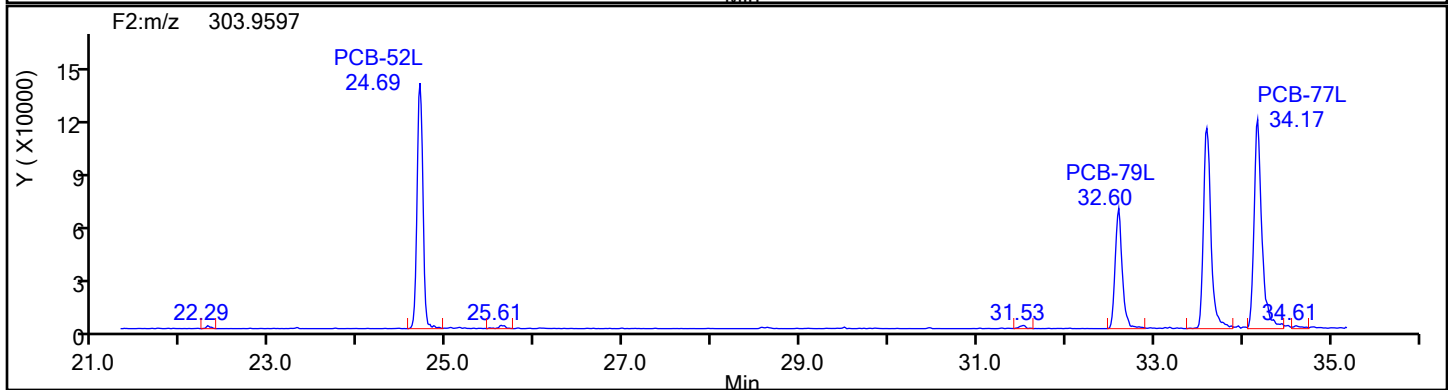
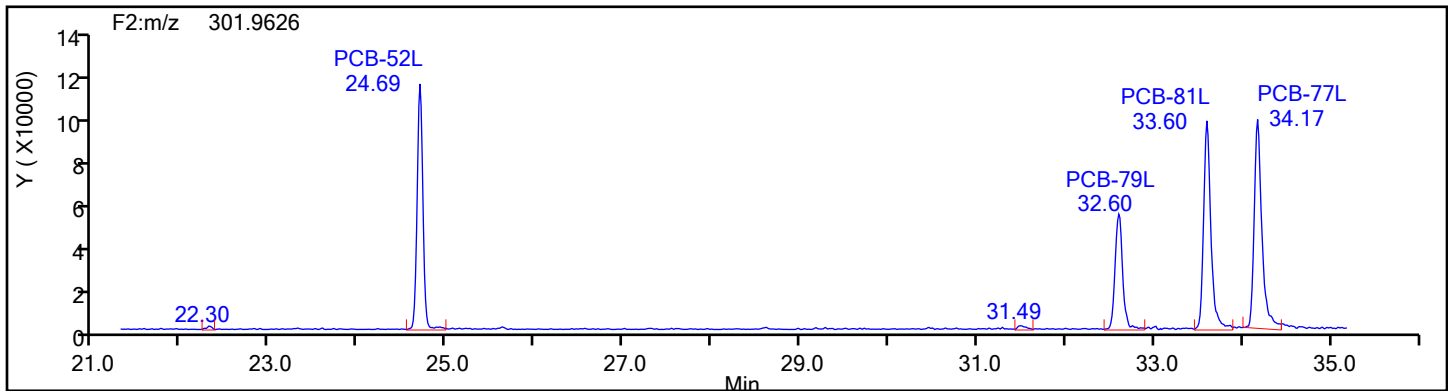


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F2

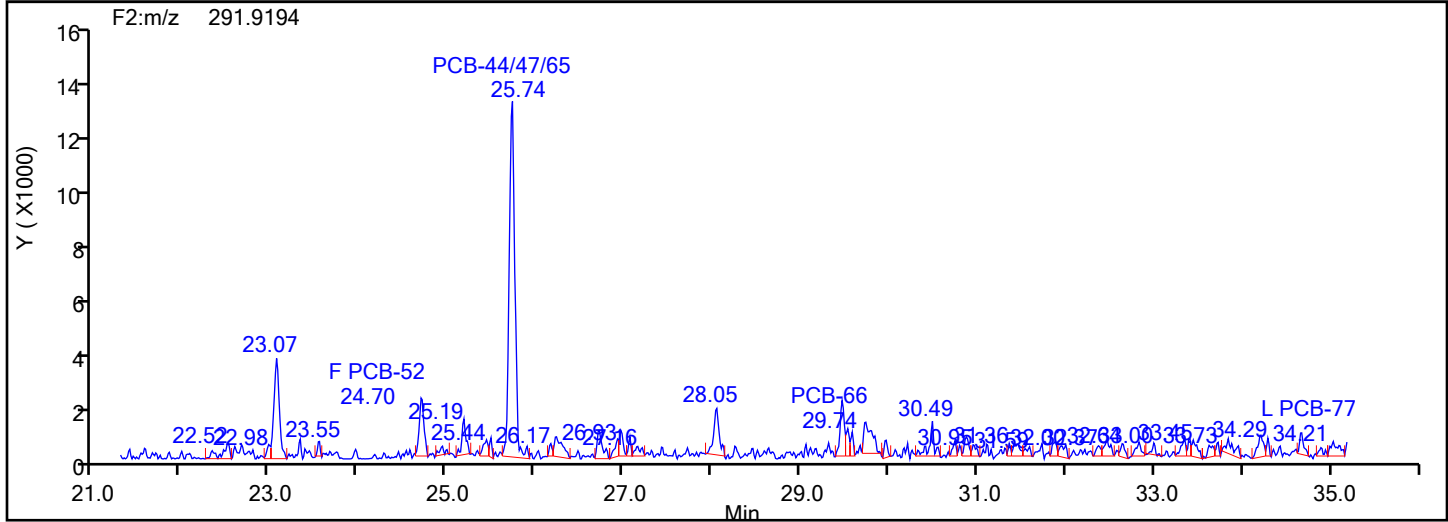
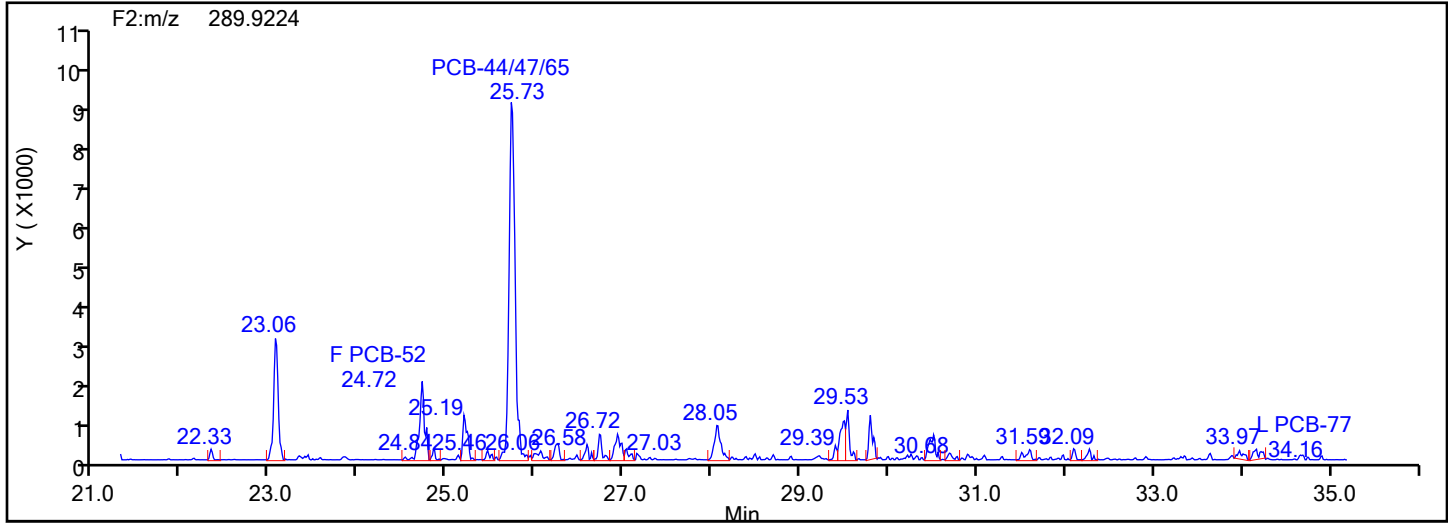


## TePCB F2 Standards

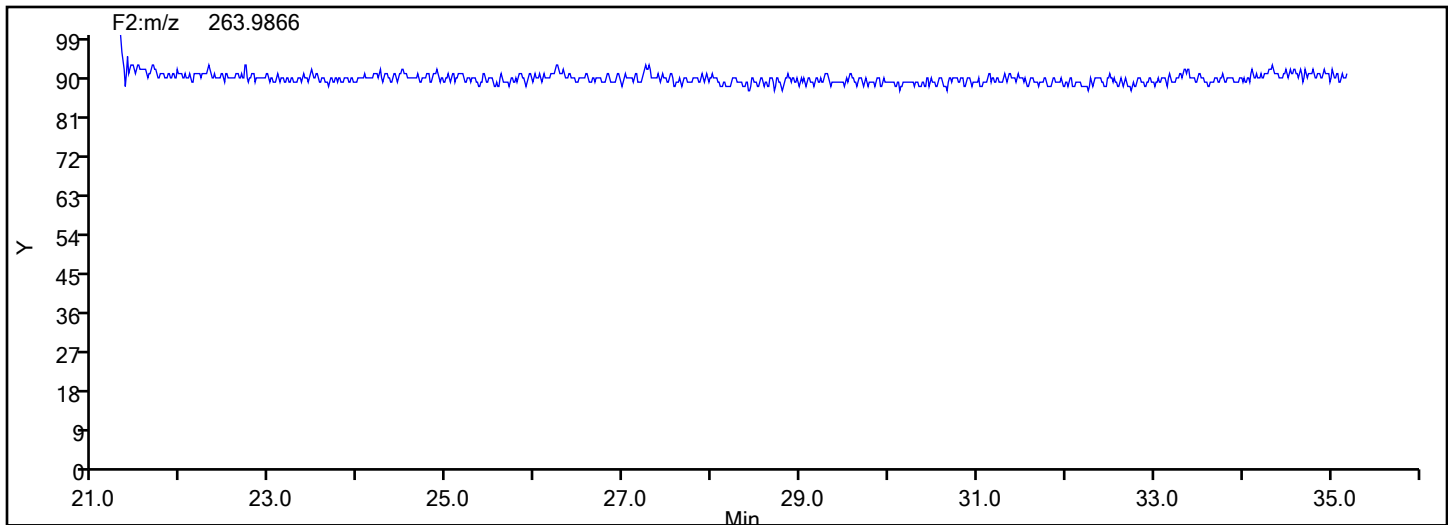


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F2



## TePCB F2 Lock Mass





## Eurofins Knoxville

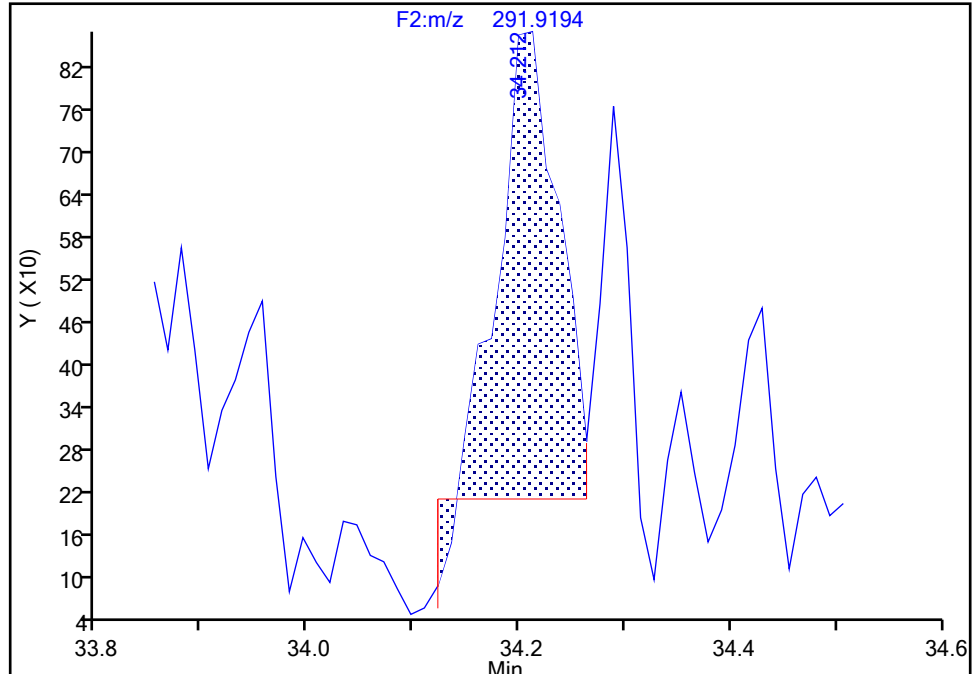
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Injection Date: 17-Jul-2024 19:36:00 Instrument ID: D2D  
Lims ID: 140-37234-A-3-D Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

## PCB-77, CAS: 32598-13-3

Signal: 2

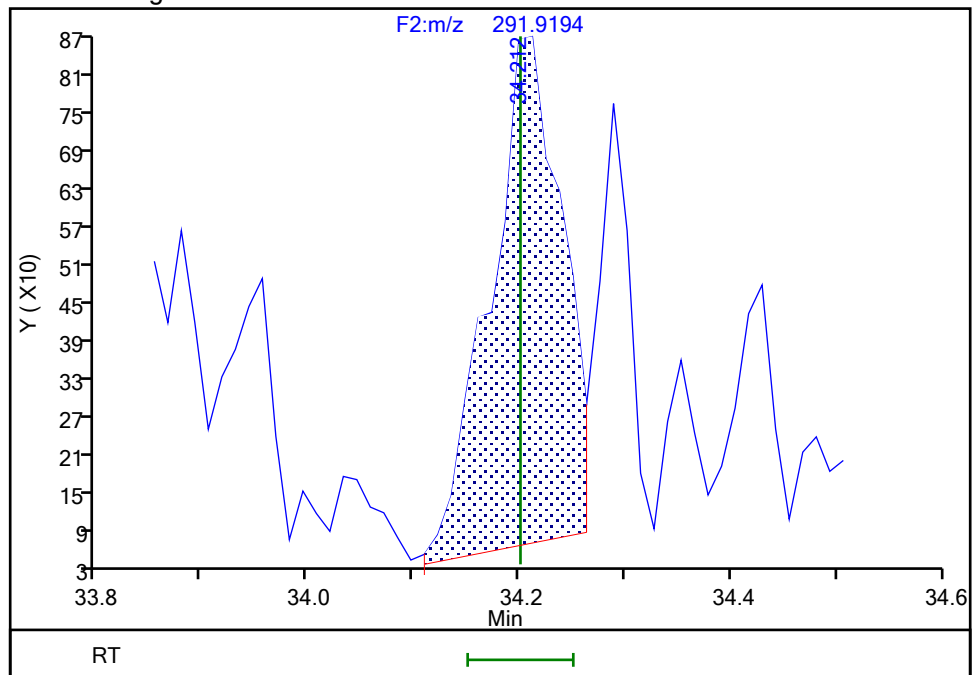
RT: 34.21  
Area: 2529  
Amount: 0.058145  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.21  
Area: 3736  
Amount: 0.075422  
Amount Units: pg/ul

## Manual Integration Results



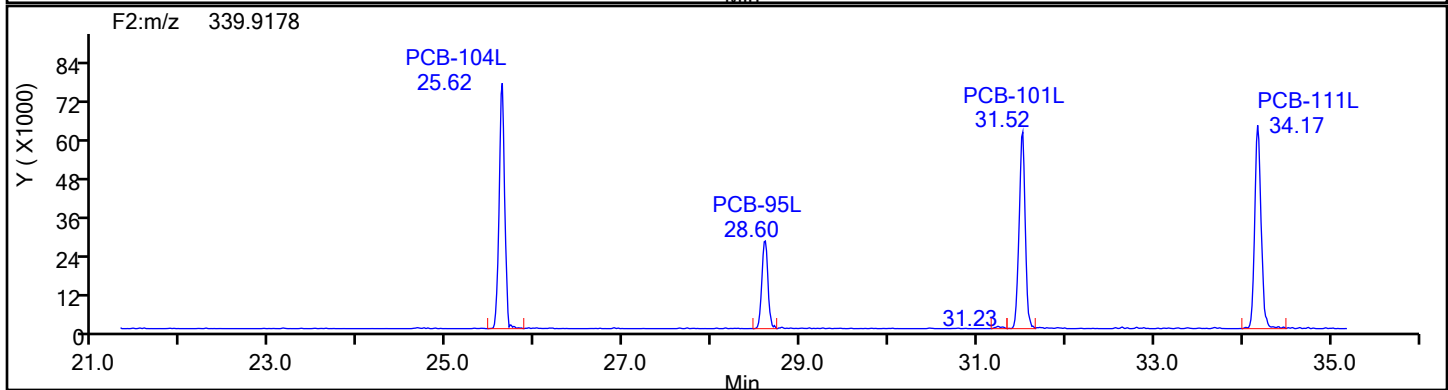
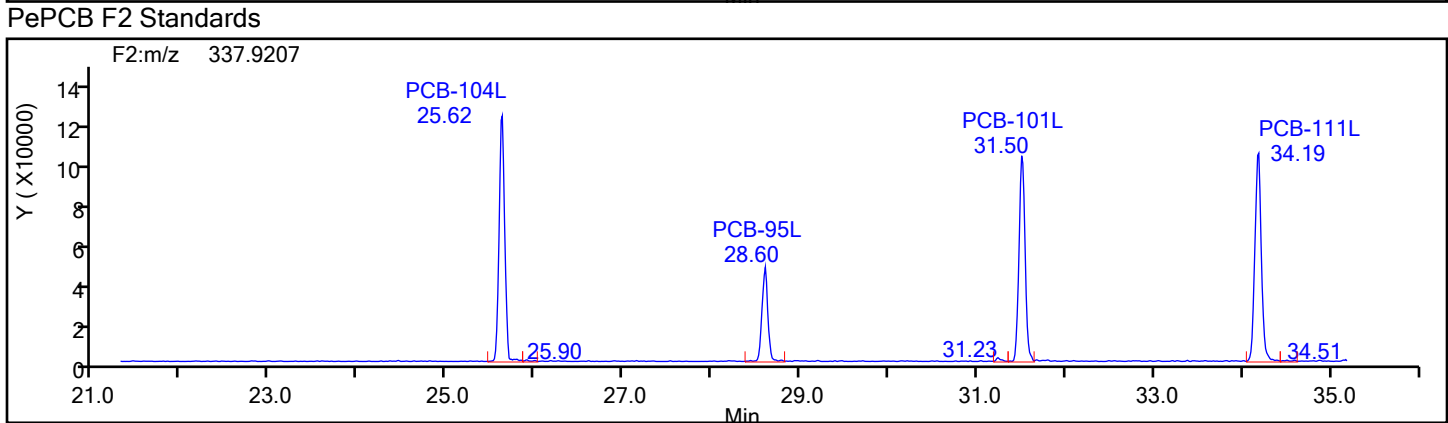
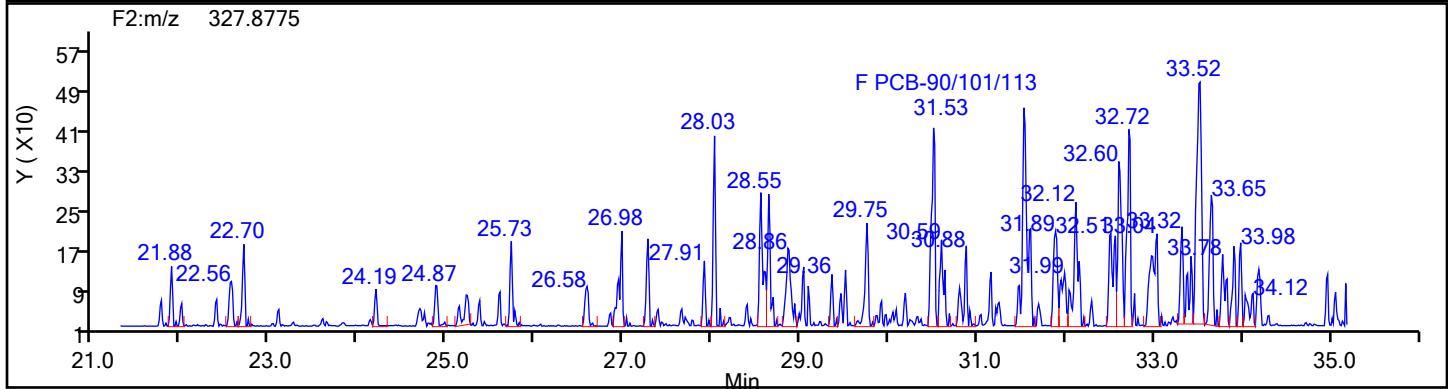
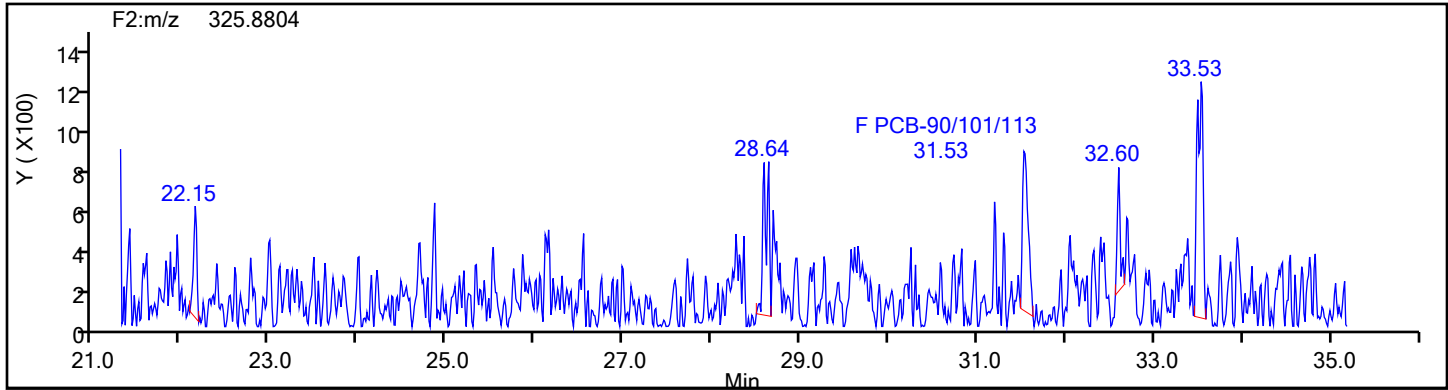
Reviewer: V4XA, 17-Jul-2024 20:56:10 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

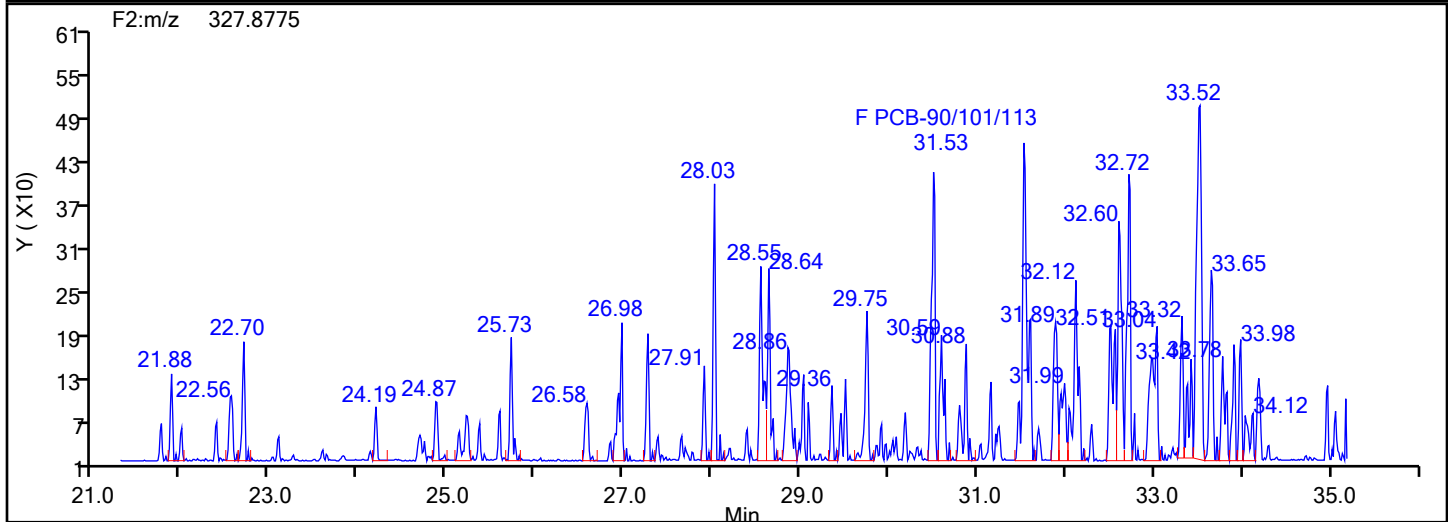
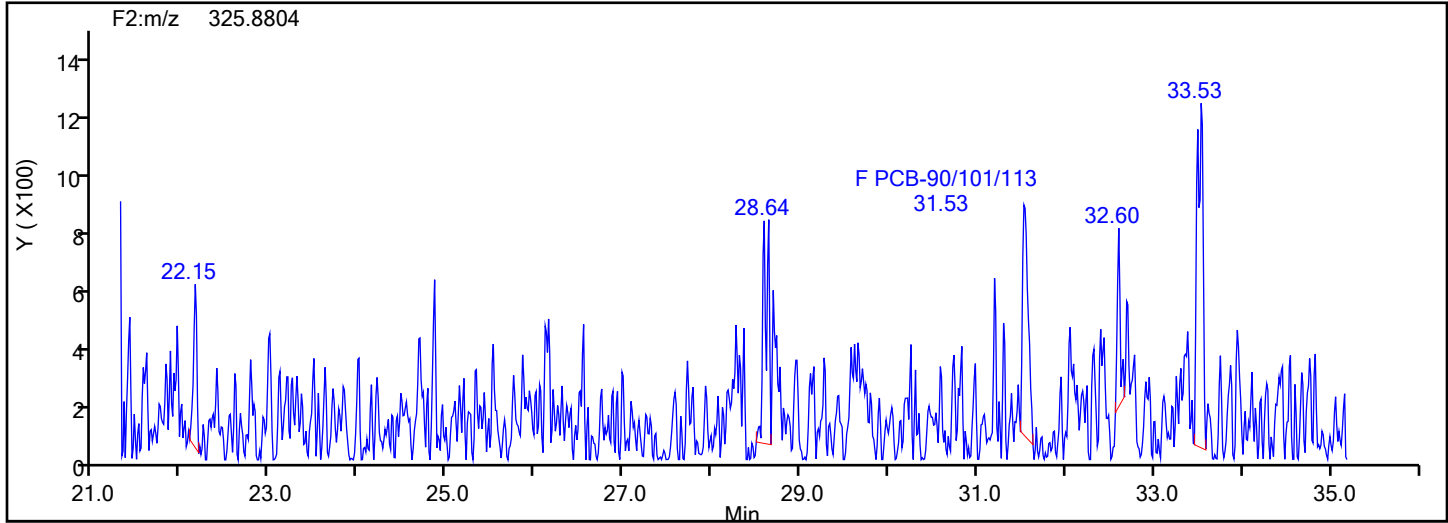
## Eurofins Knoxville

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Injection Date: 17-Jul-2024 19:36:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2

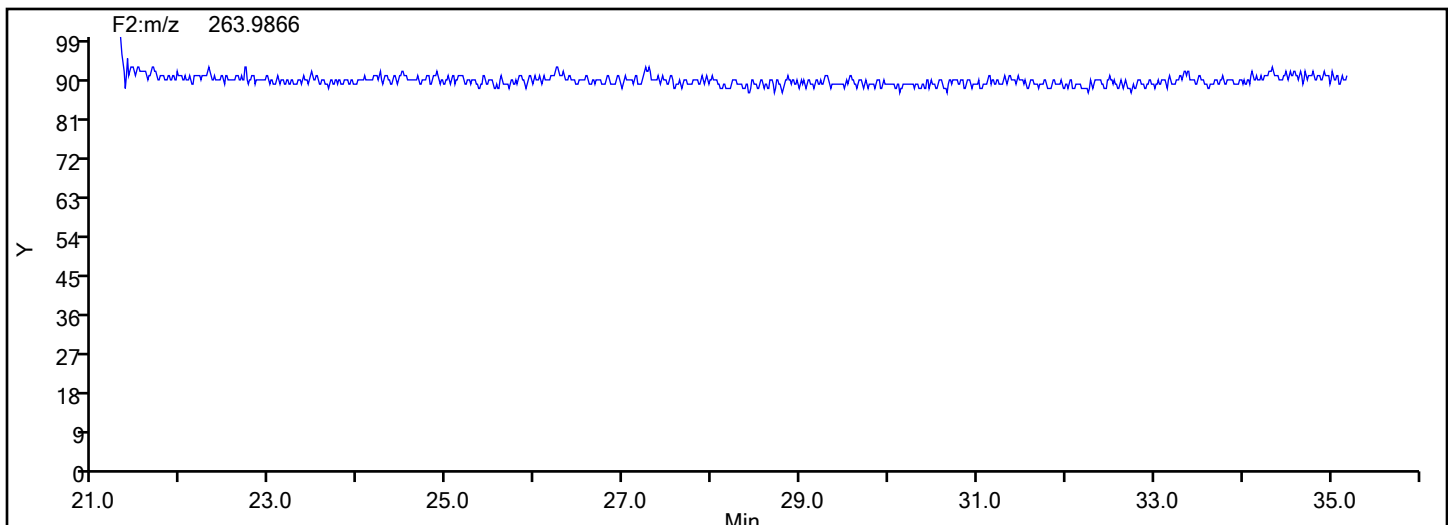


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 19:36:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2

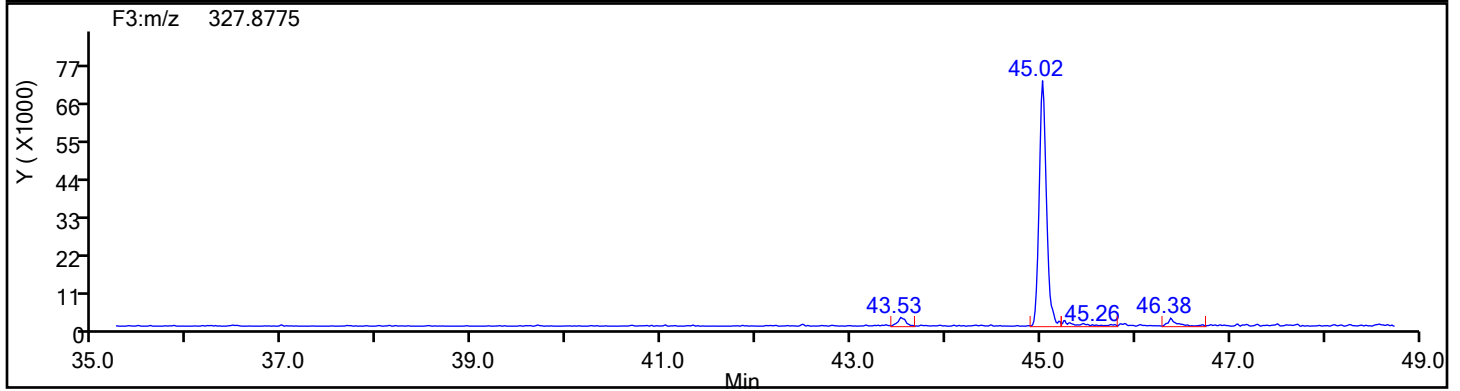
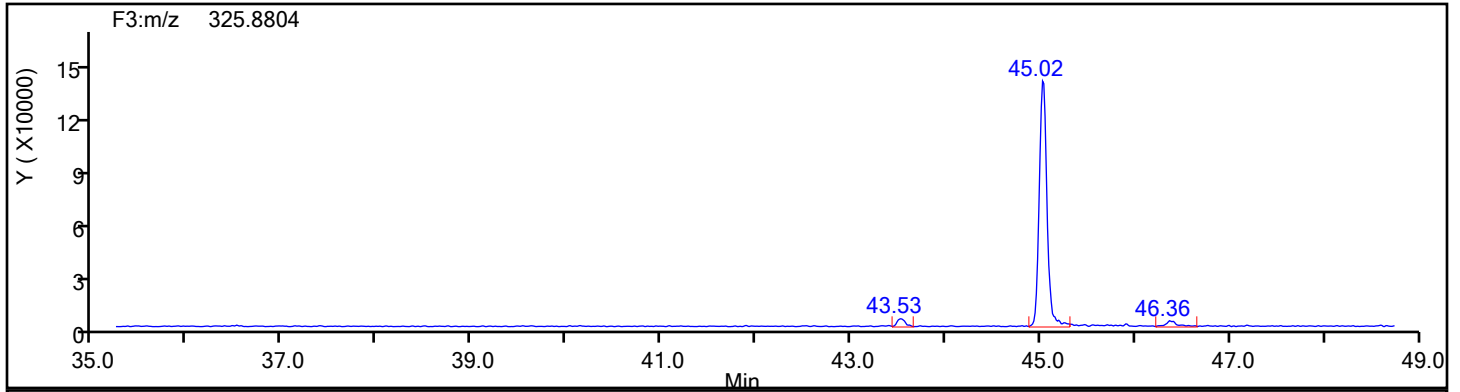


## PePCB F2 Lock Mass

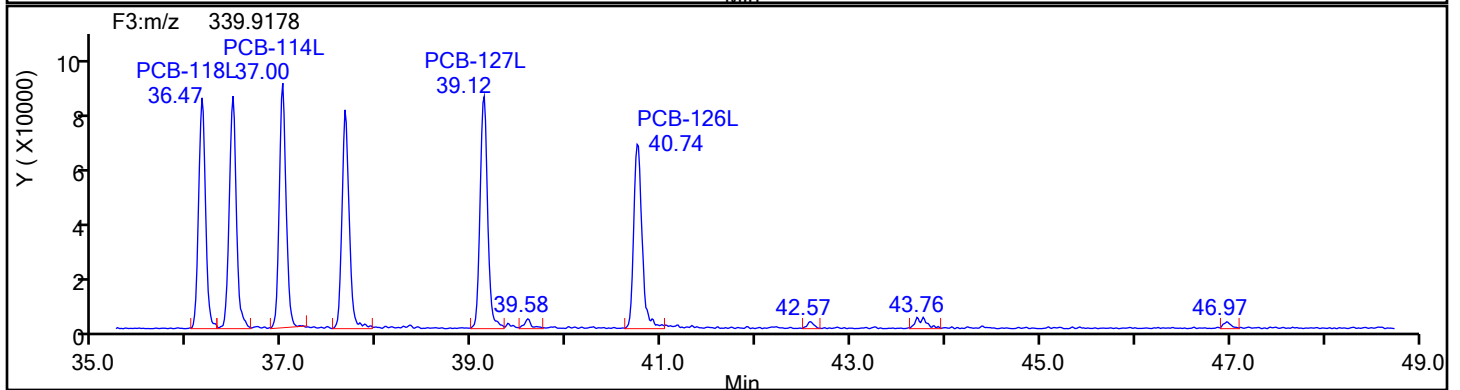
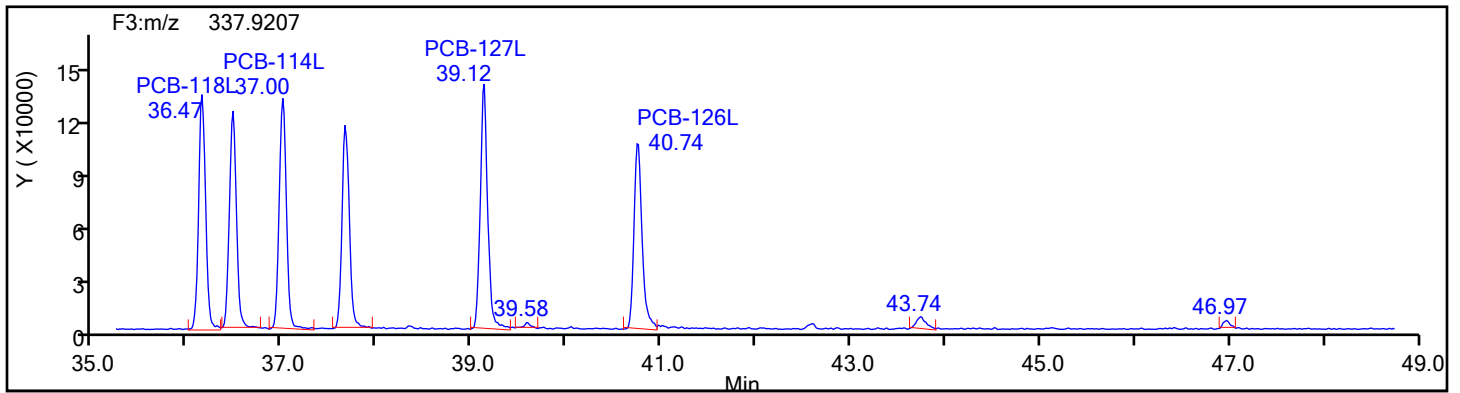


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
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Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F3

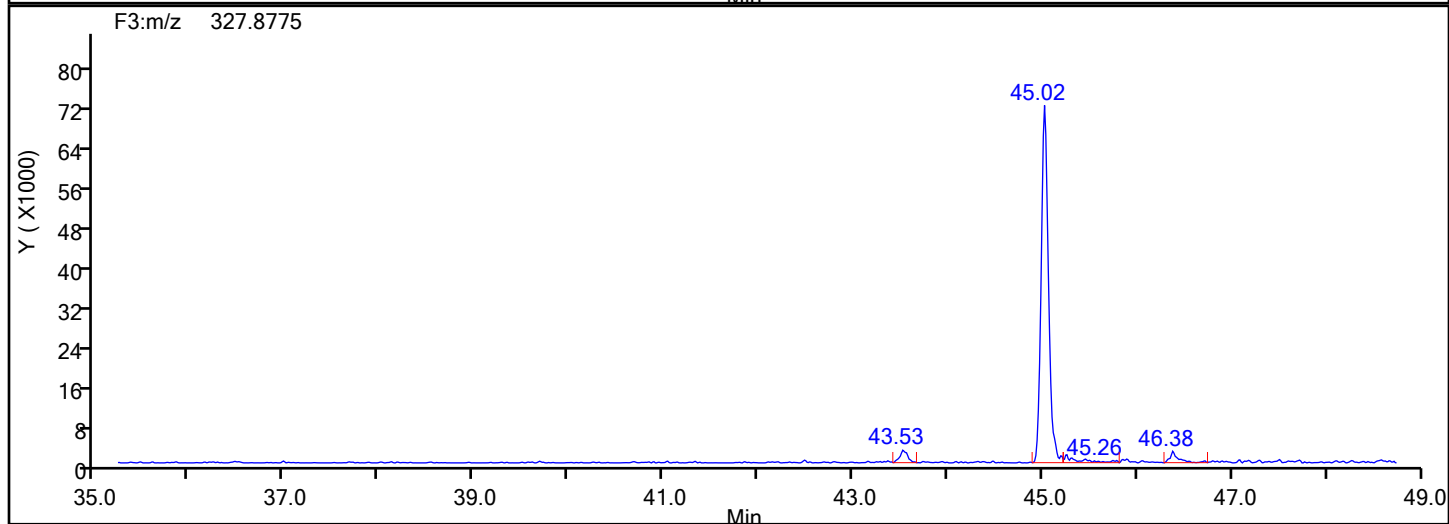
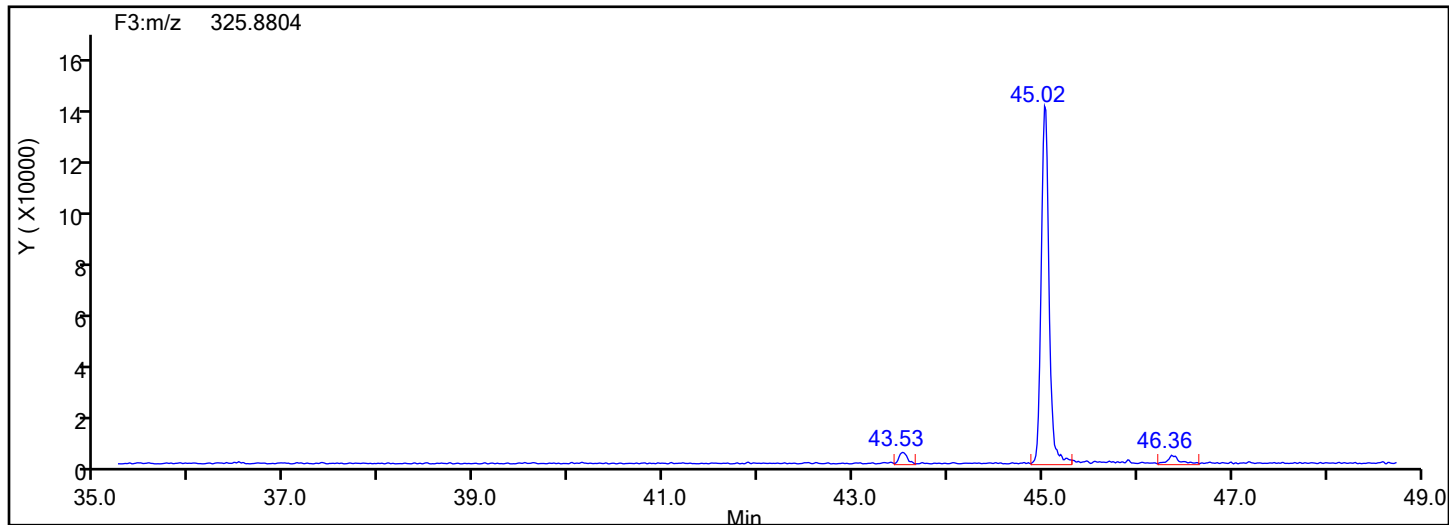


## PePCB F3 Standards

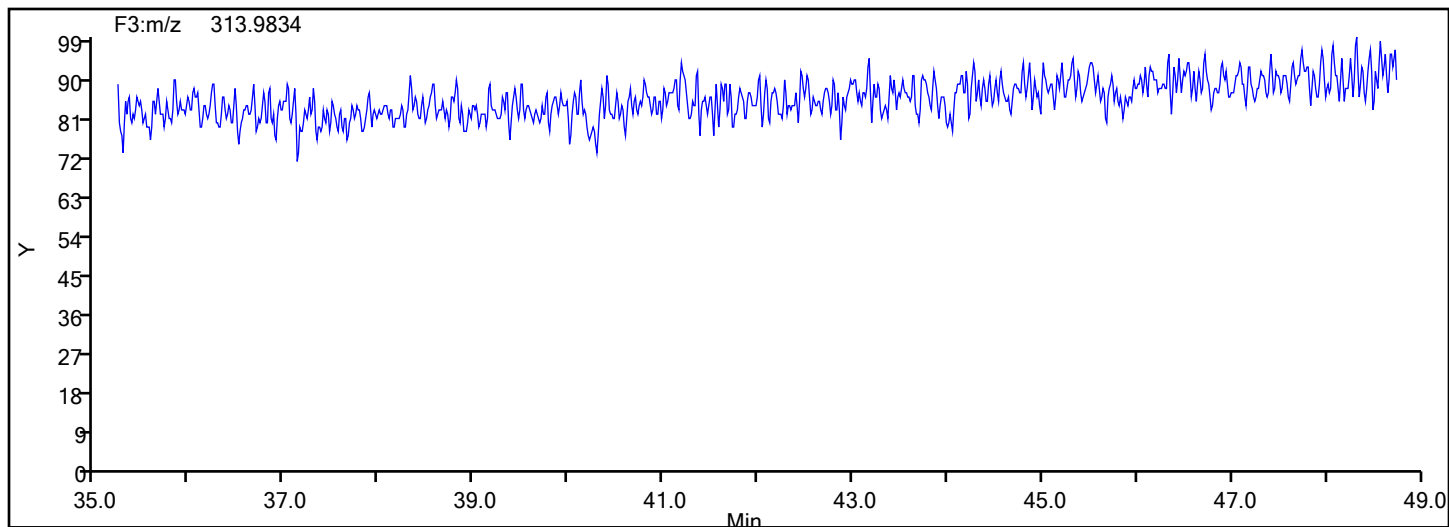


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
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Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F3

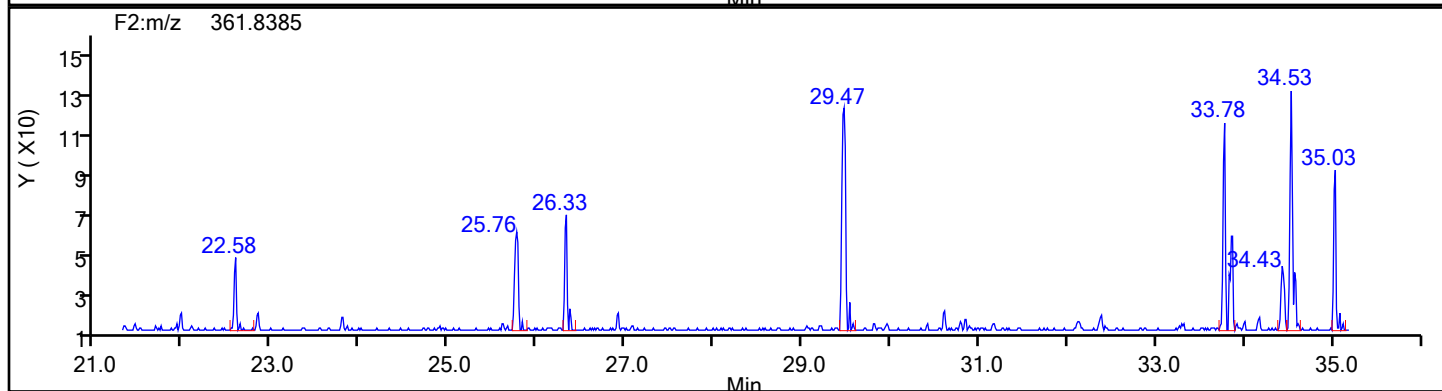
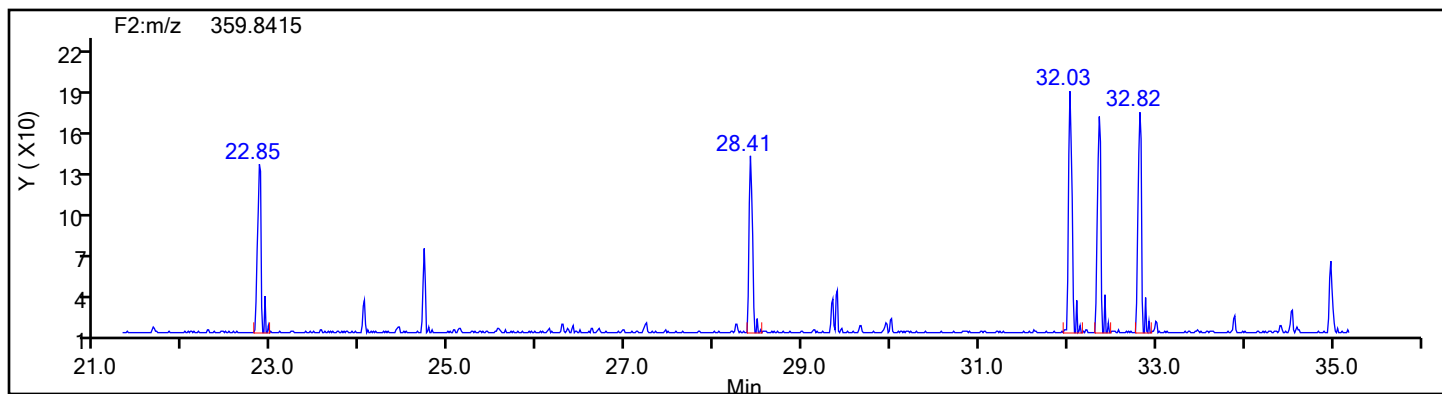


## PePCB F3 Lock Mass

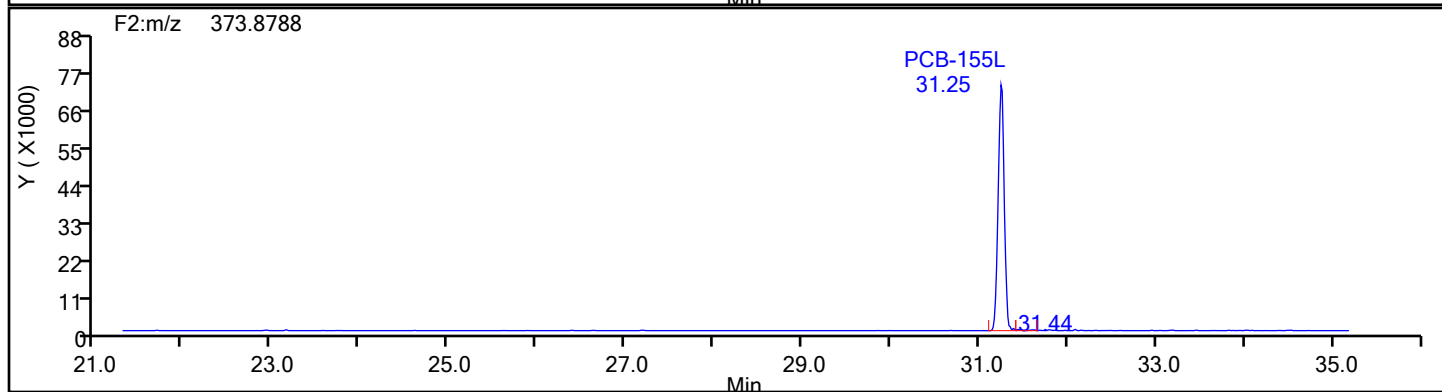
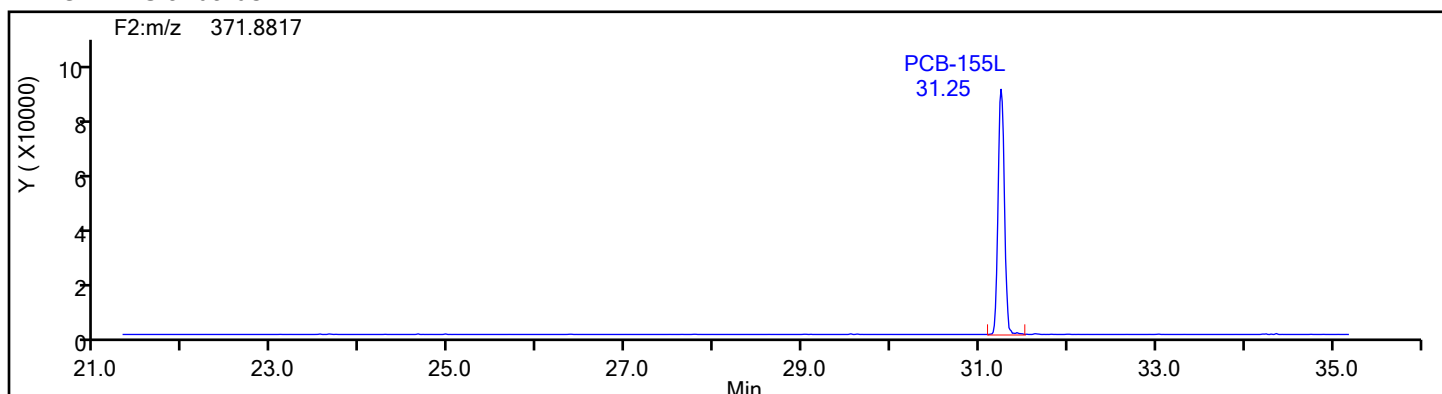


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2

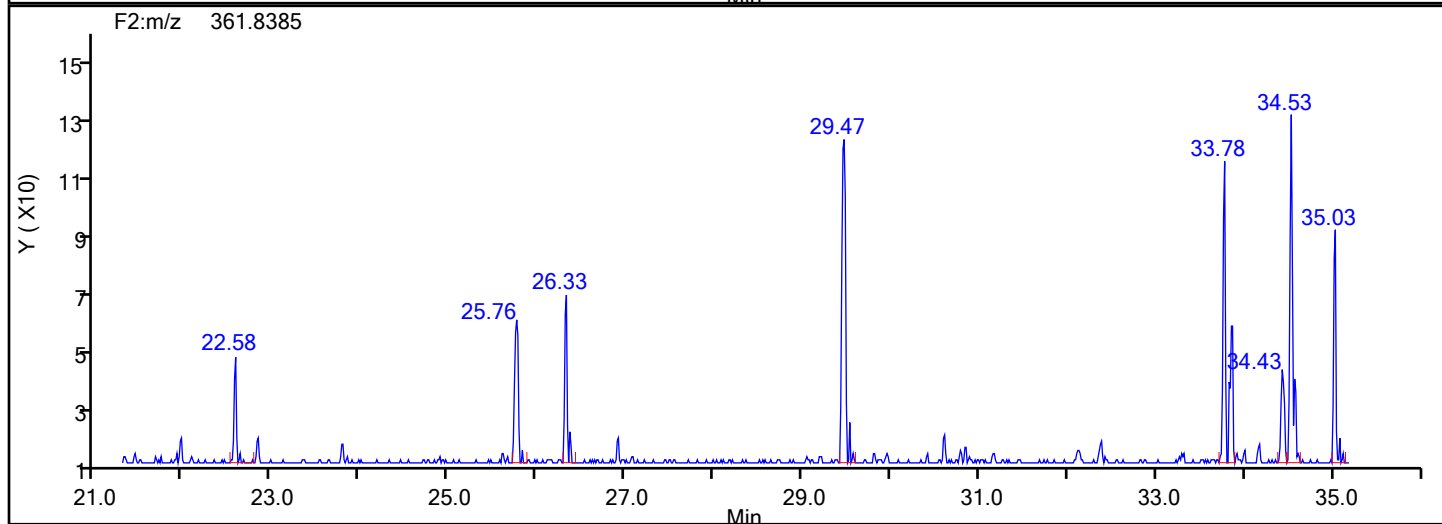
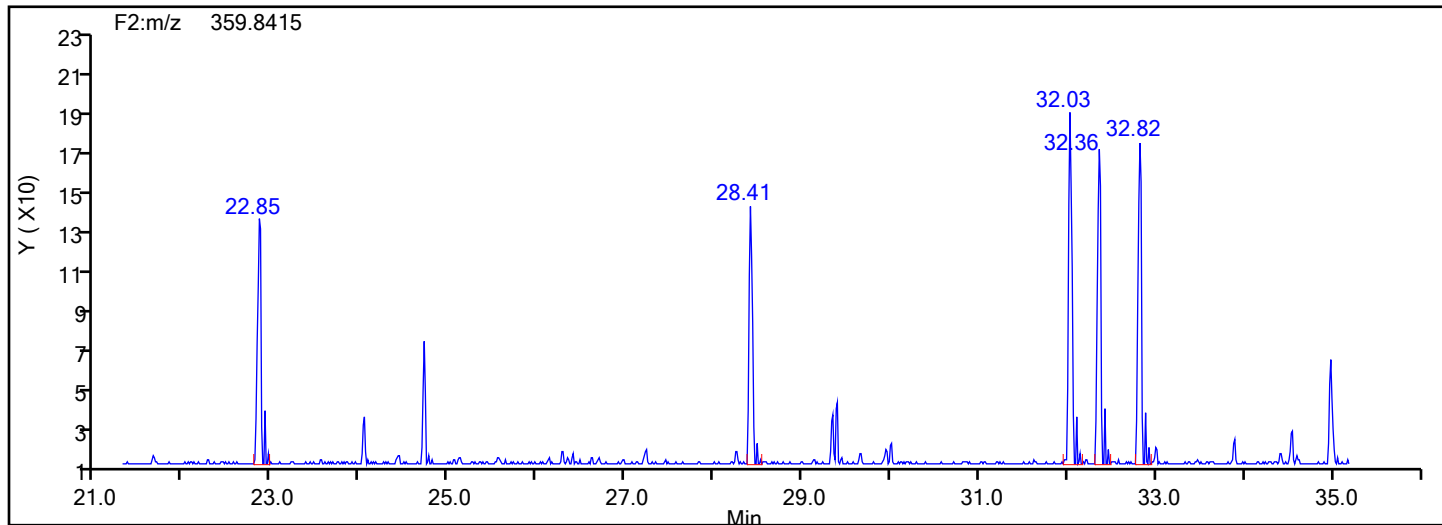


## HxPCB F2 Standards

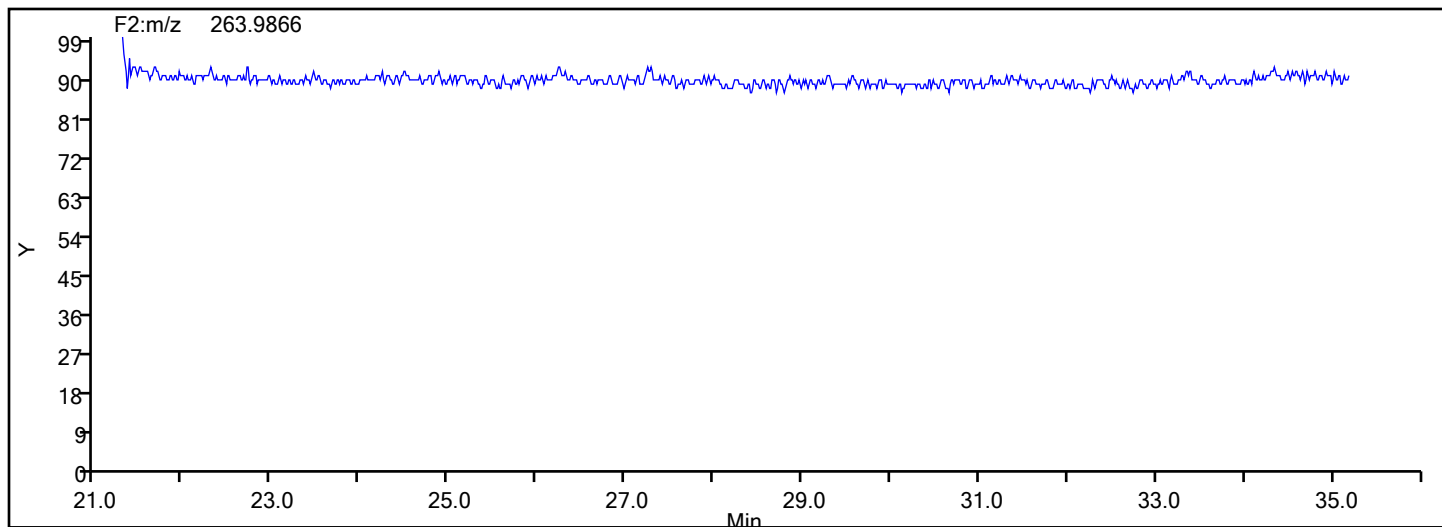


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 19:36:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2

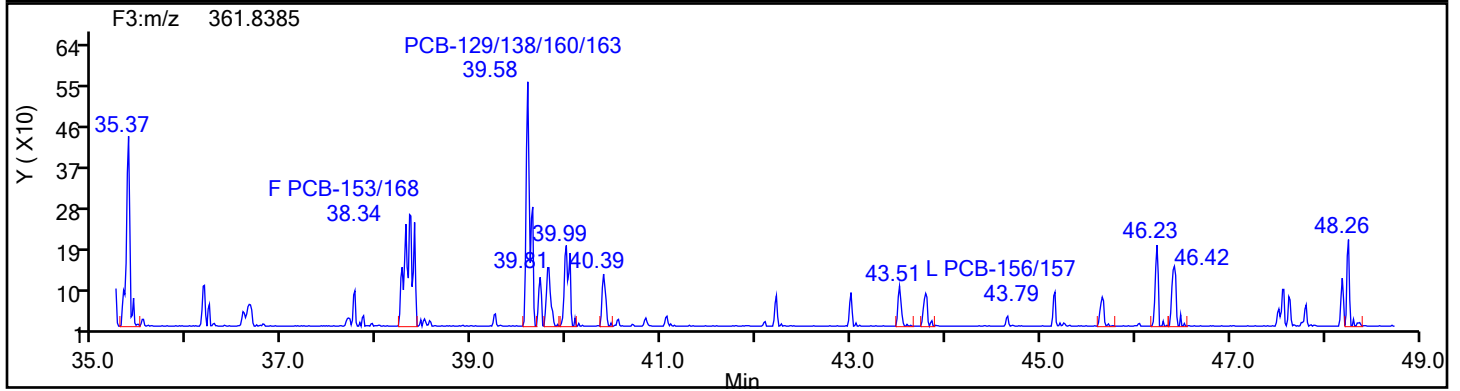
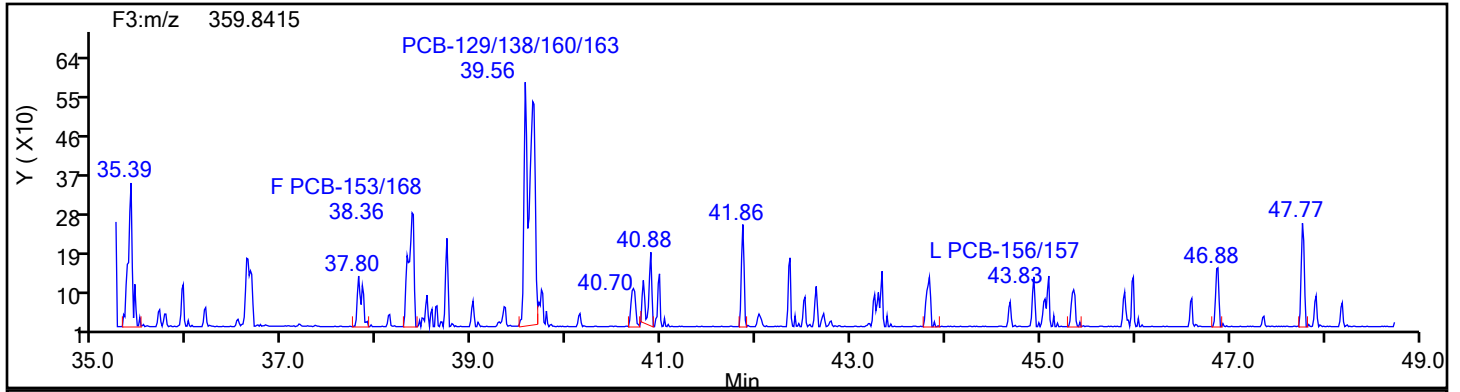


## HxPCB F2 Lock Mass

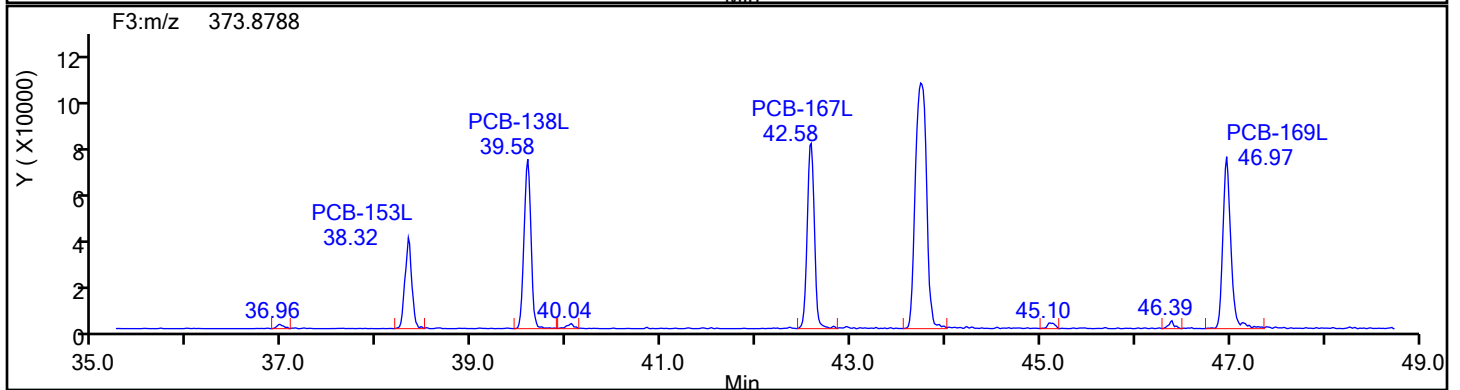
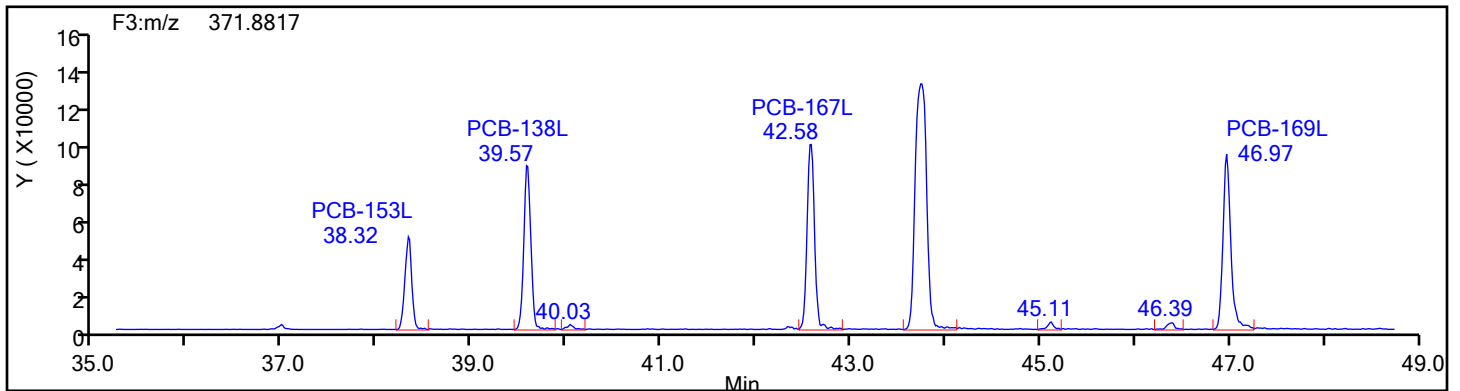


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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F3



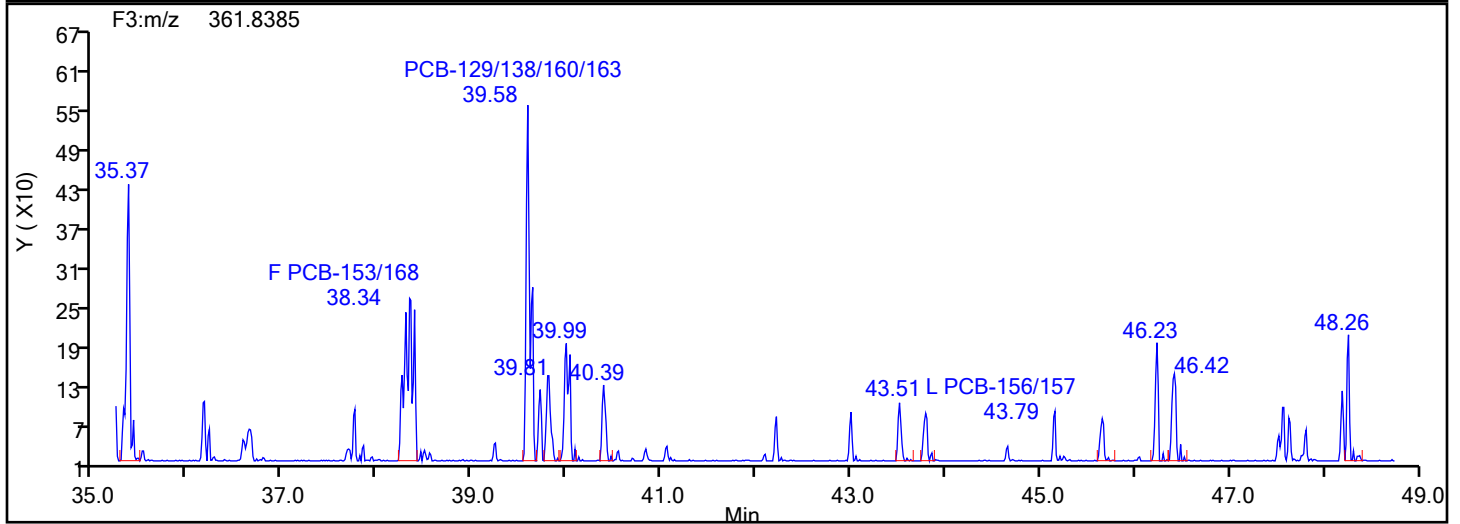
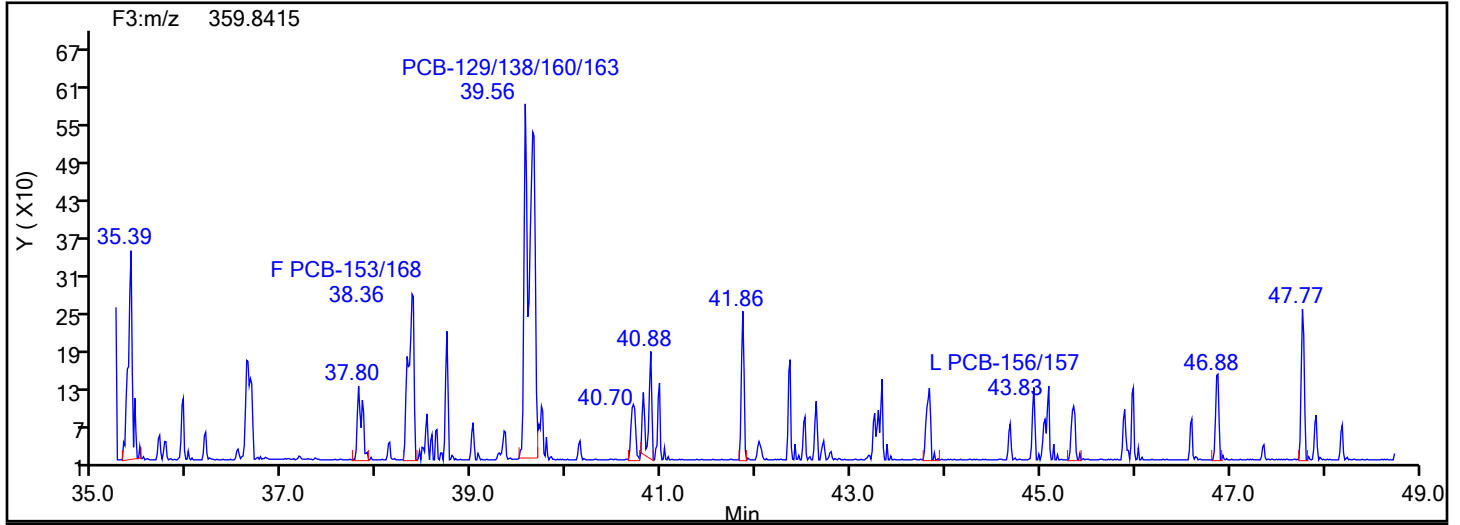
## HxPCB F3 Standards



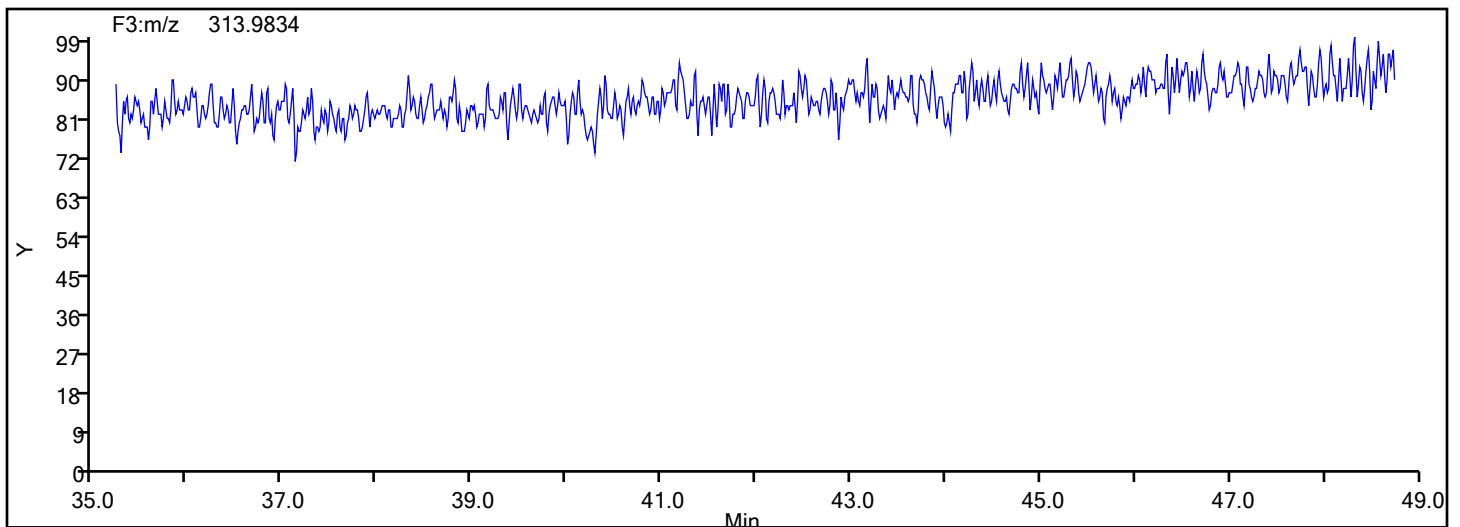


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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F3



## HxPCB F3 Lock Mass



## Eurofins Knoxville

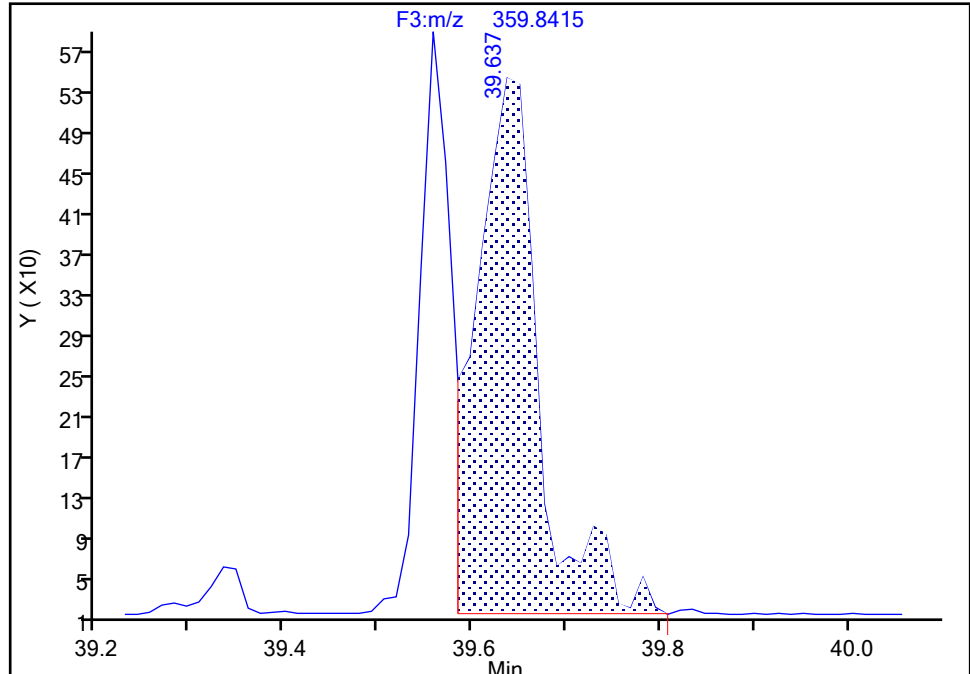
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Lims ID: 140-37234-A-3-D Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 1

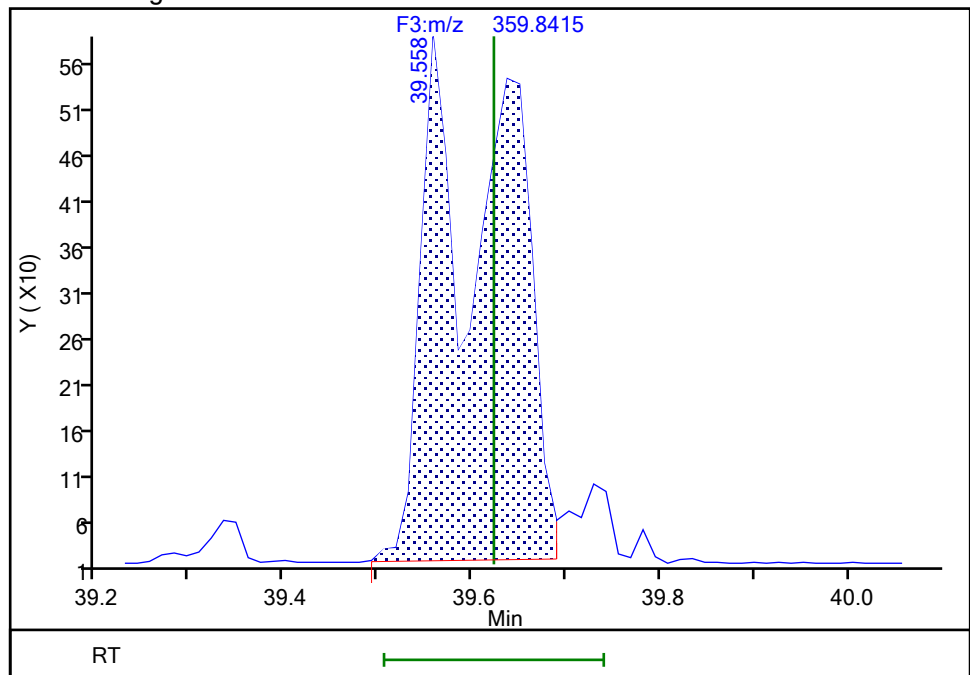
RT: 39.64  
Area: 2369  
Amount: 0.086265  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.56  
Area: 3291  
Amount: 0.106114  
Amount Units: pg/ul

## Manual Integration Results



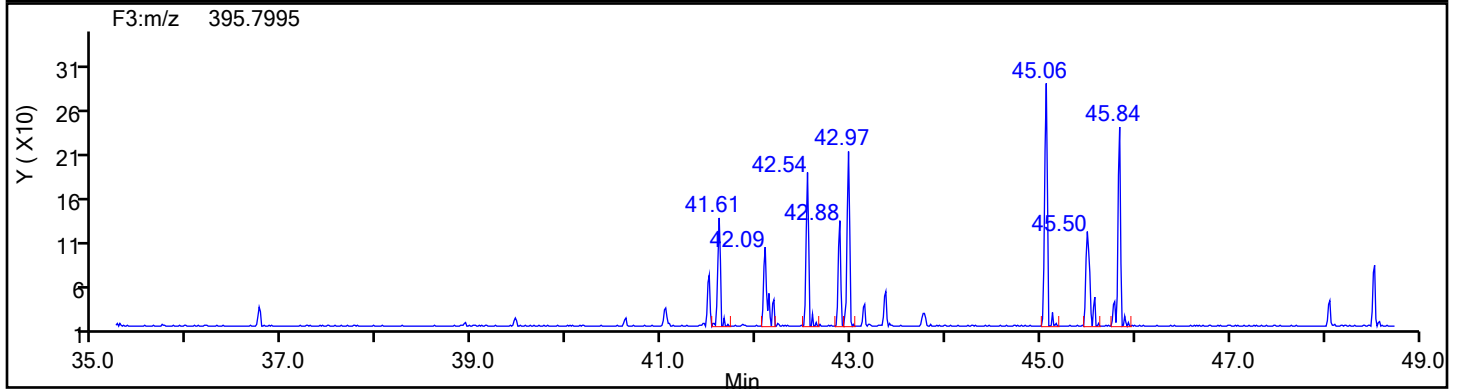
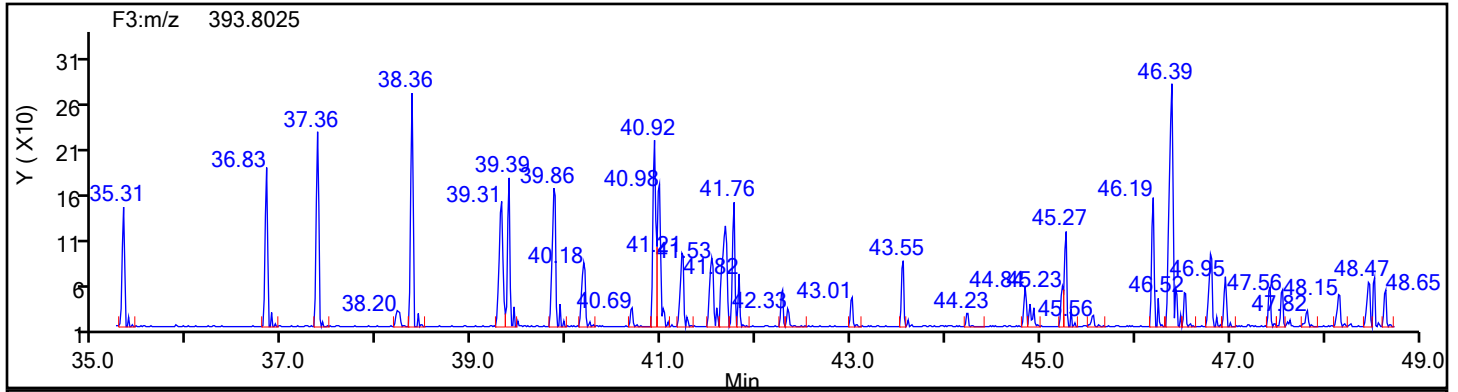
Reviewer: V4XA, 17-Jul-2024 20:57:04 -04:00:00 (UTC)

Audit Action: Manually Integrated

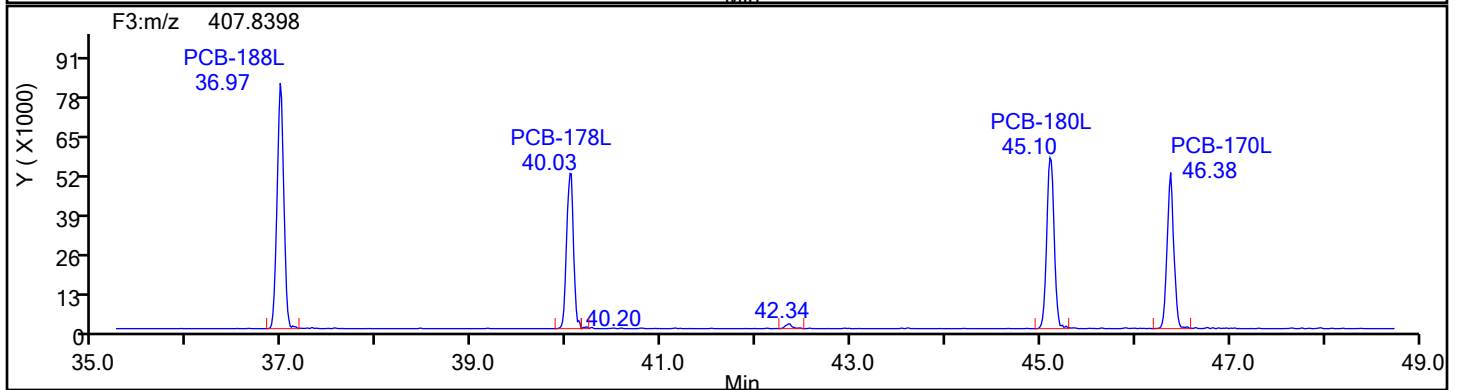
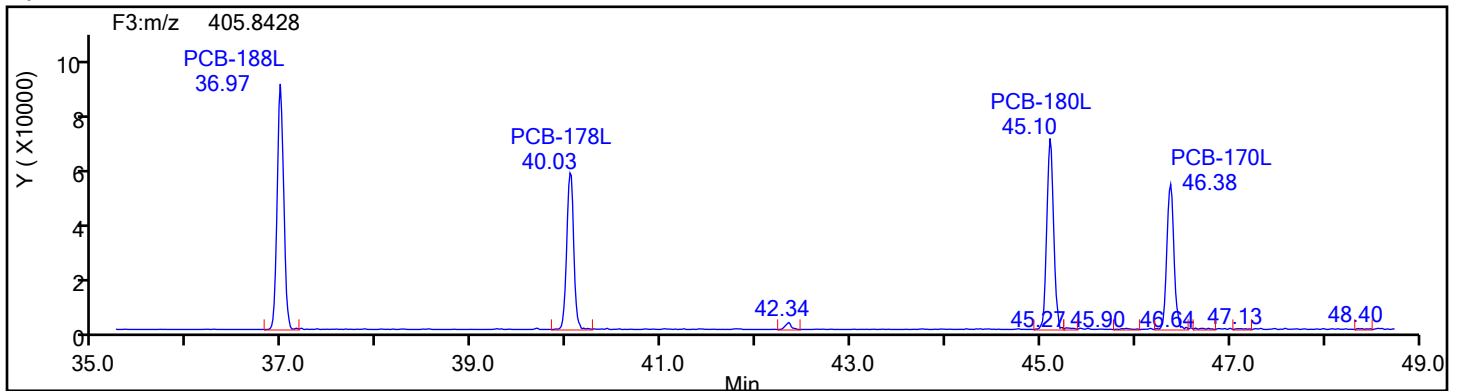
Audit Reason: Baseline

## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F3

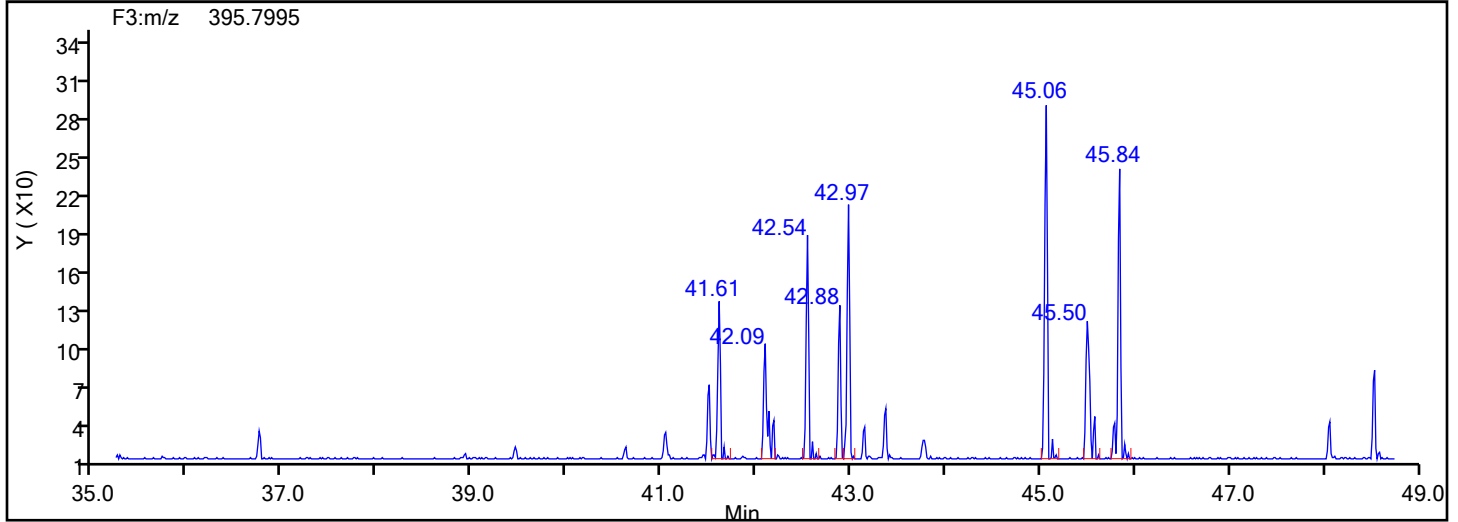
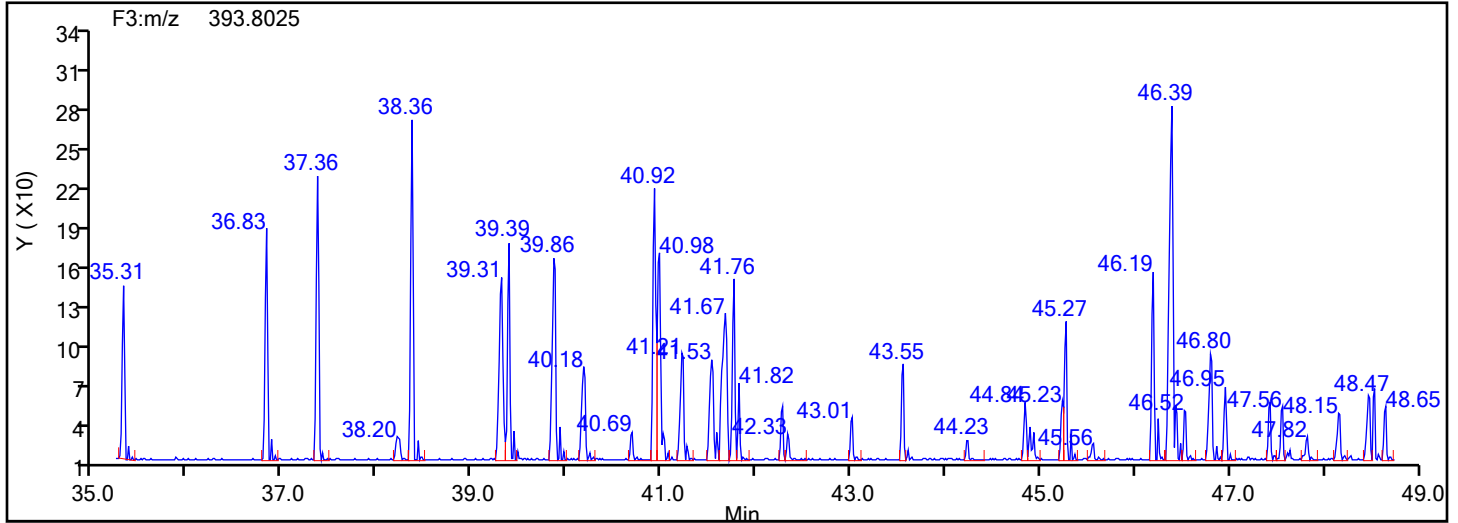


## HpPCB F3 Standards

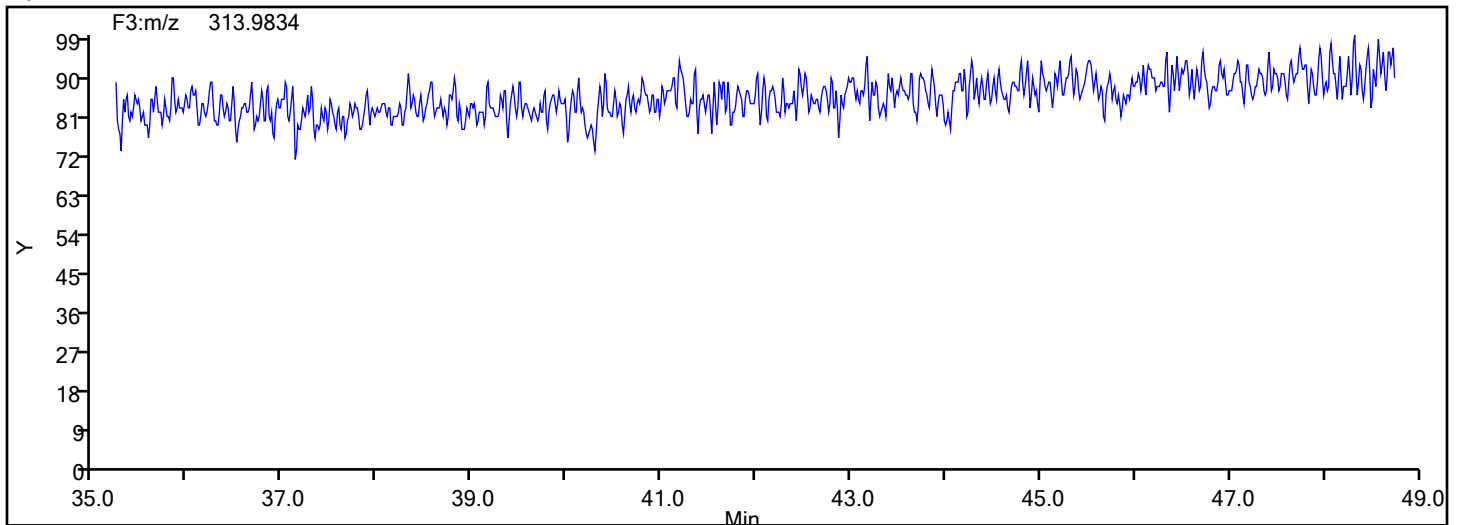


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F3

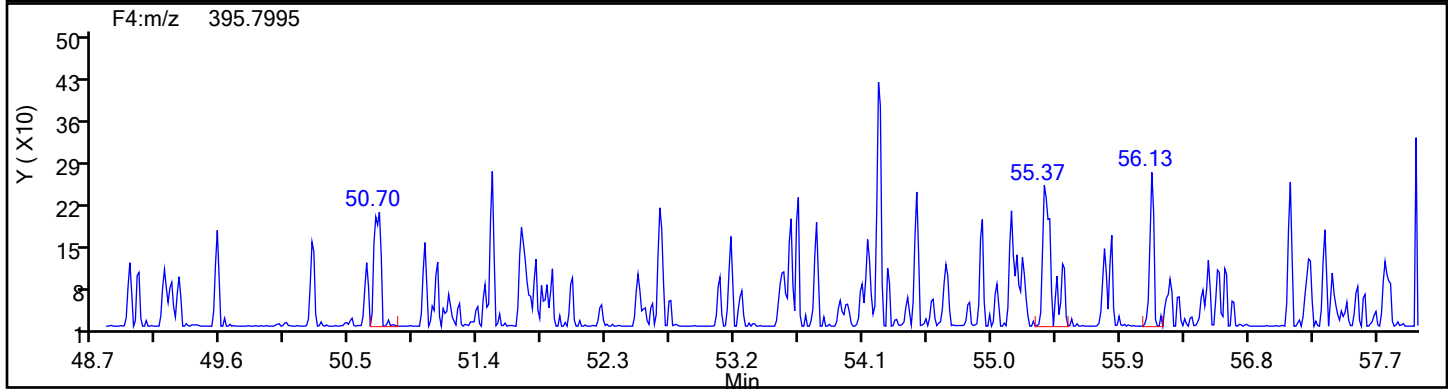
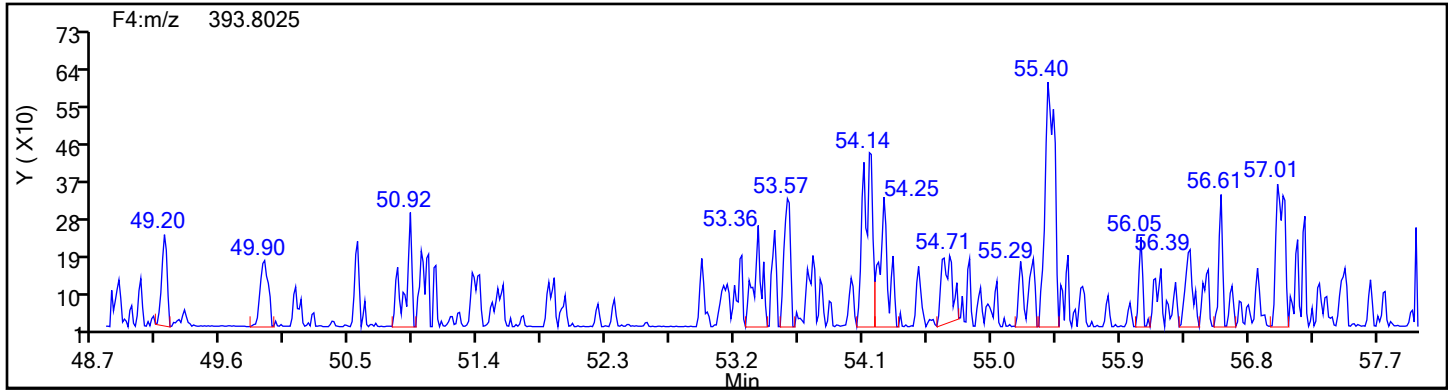


## HpPCB F3 Lock Mass

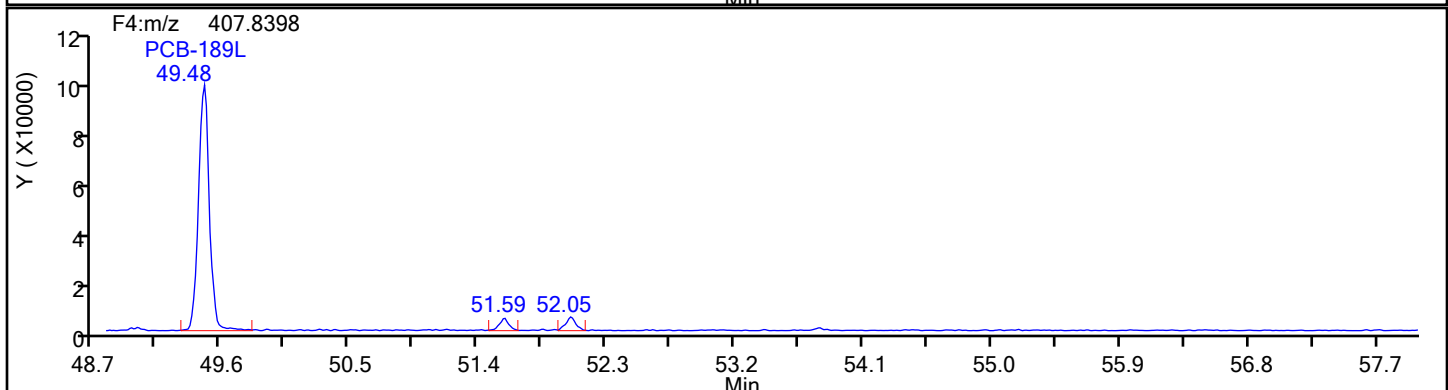
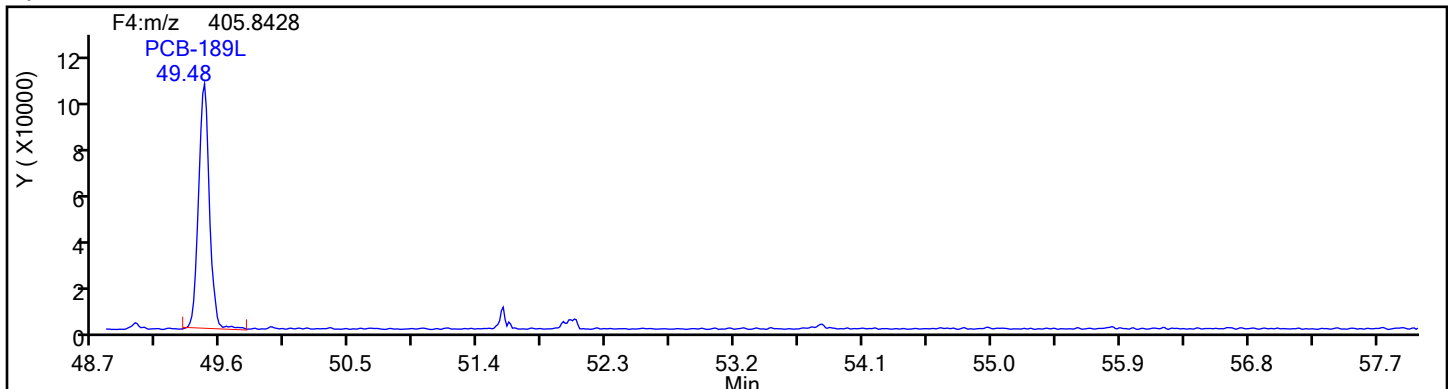


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F4

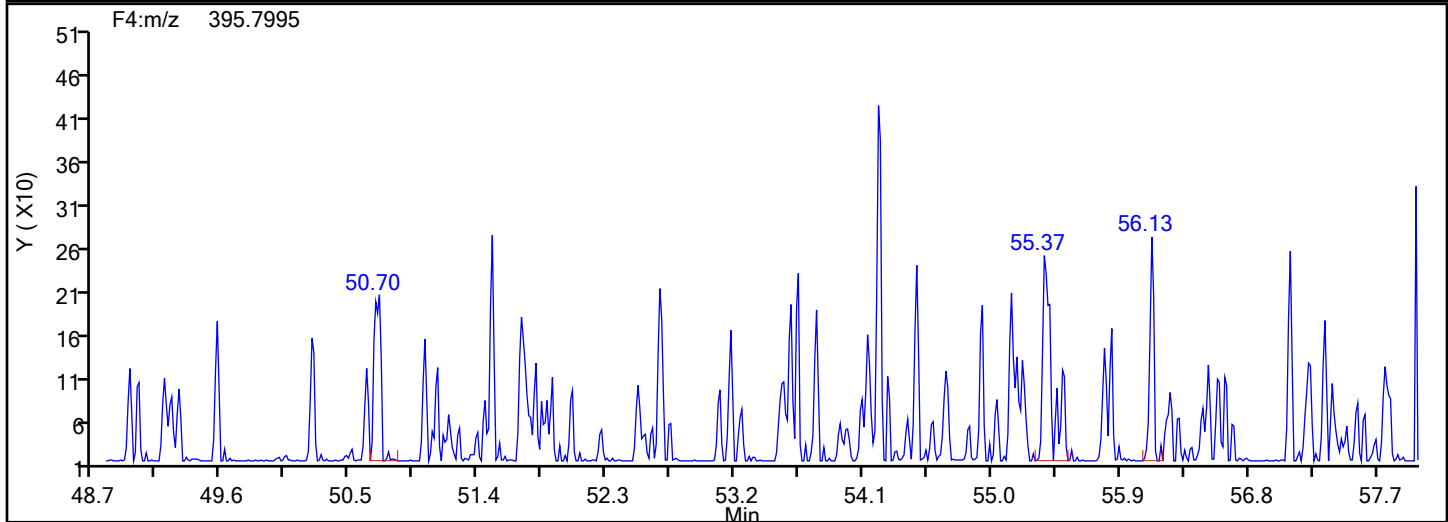
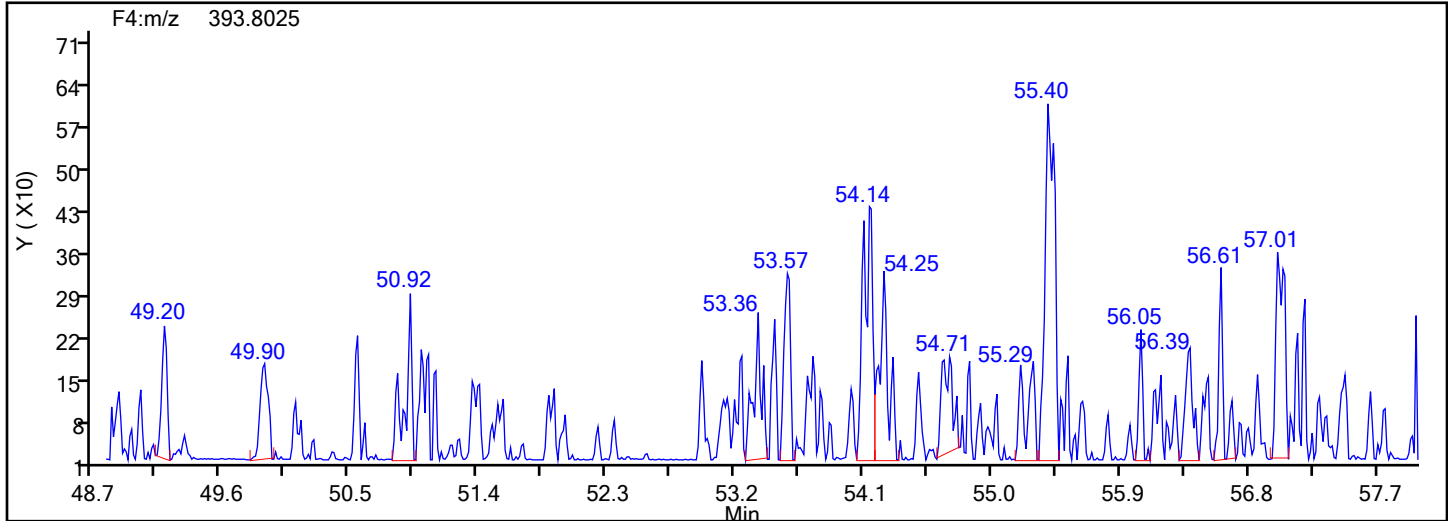


## HpPCB F4 Standards

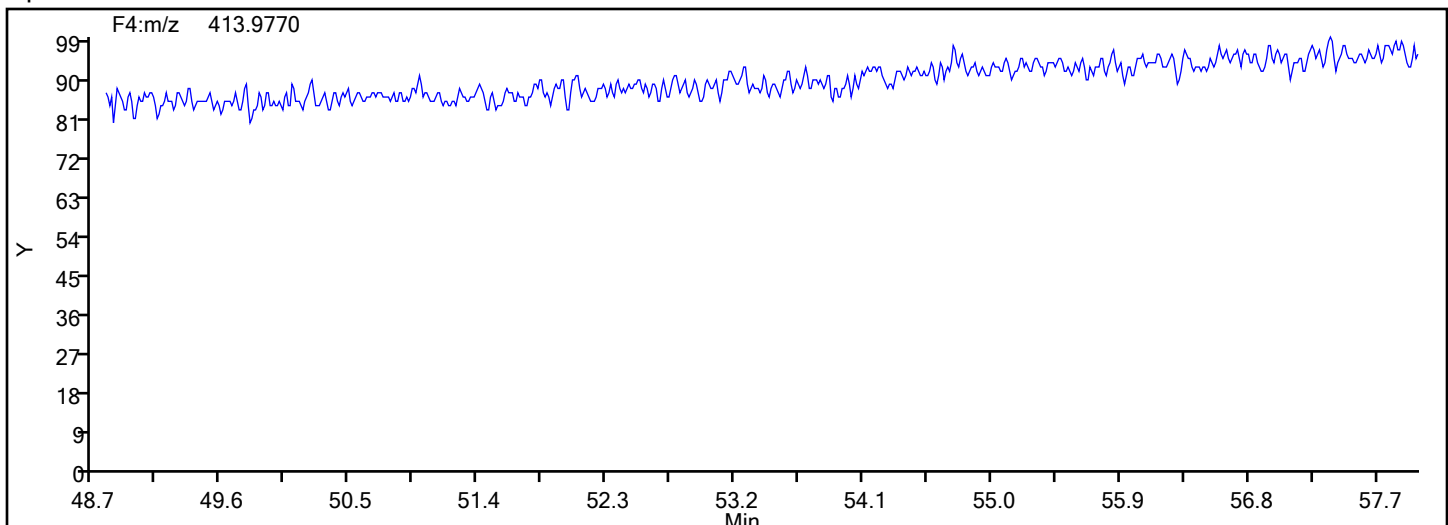


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F4

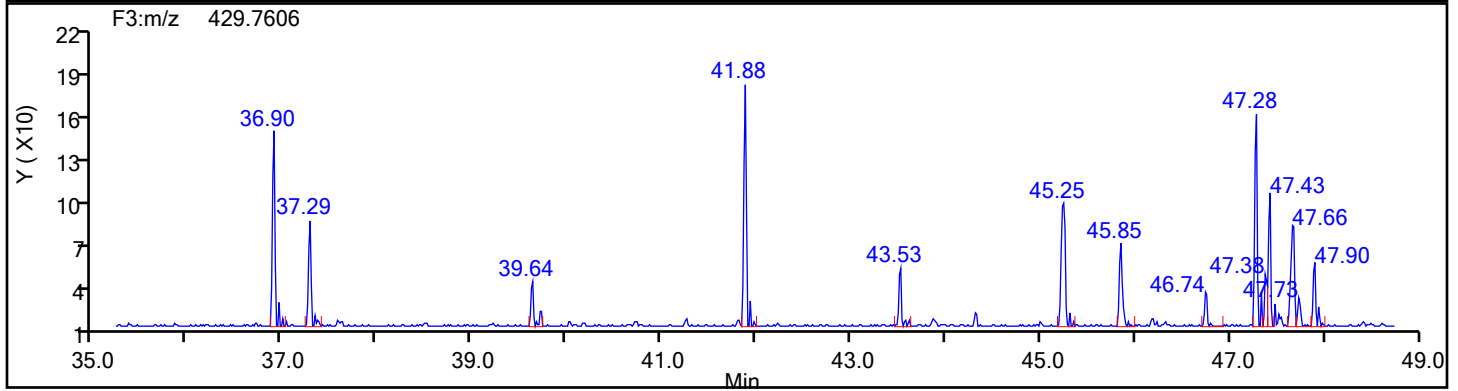
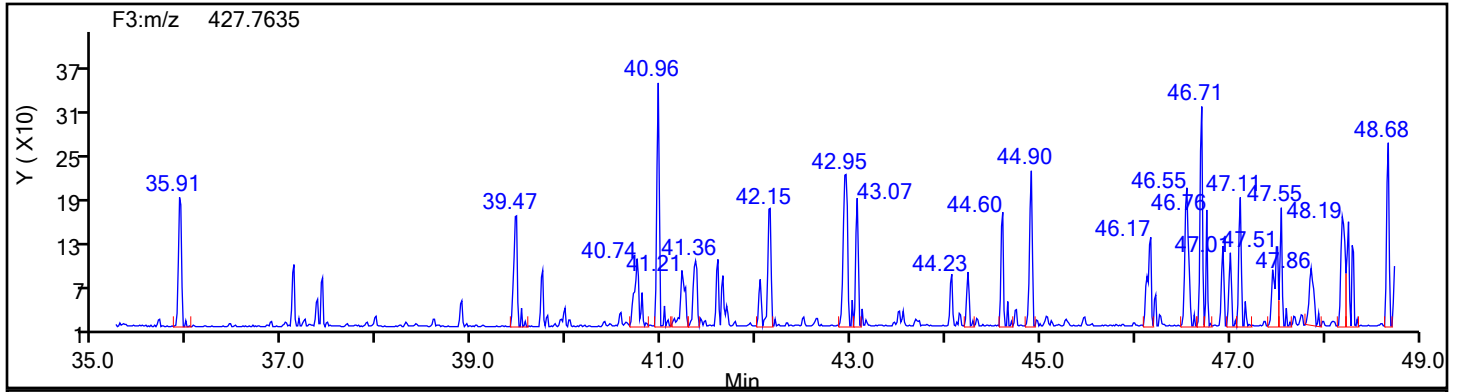


## HpPCB F4 Lock Mass

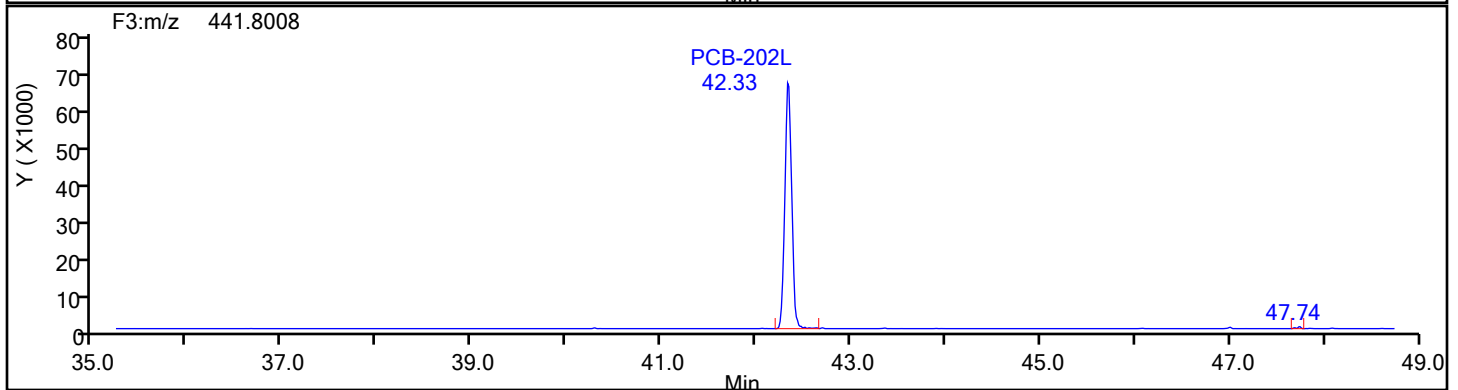
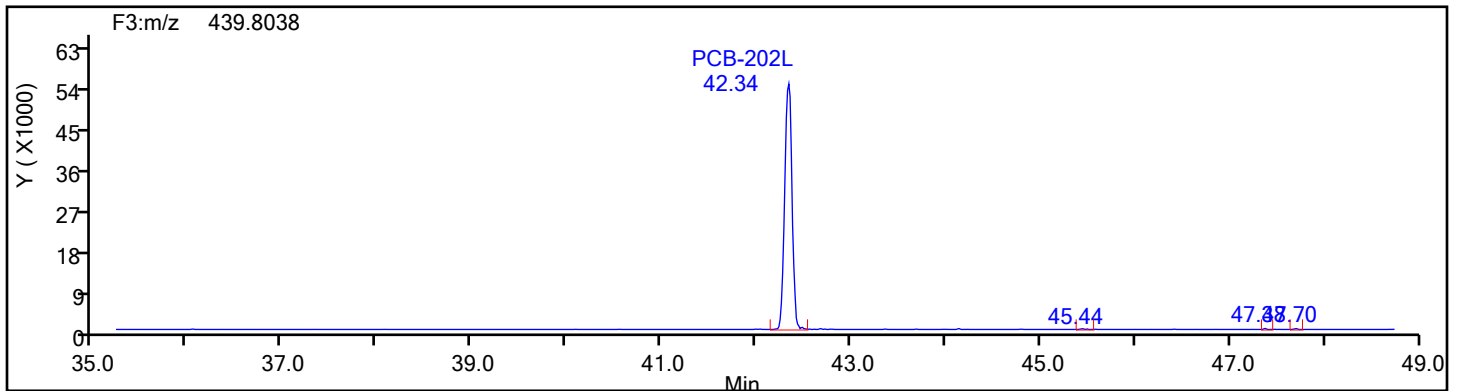


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3

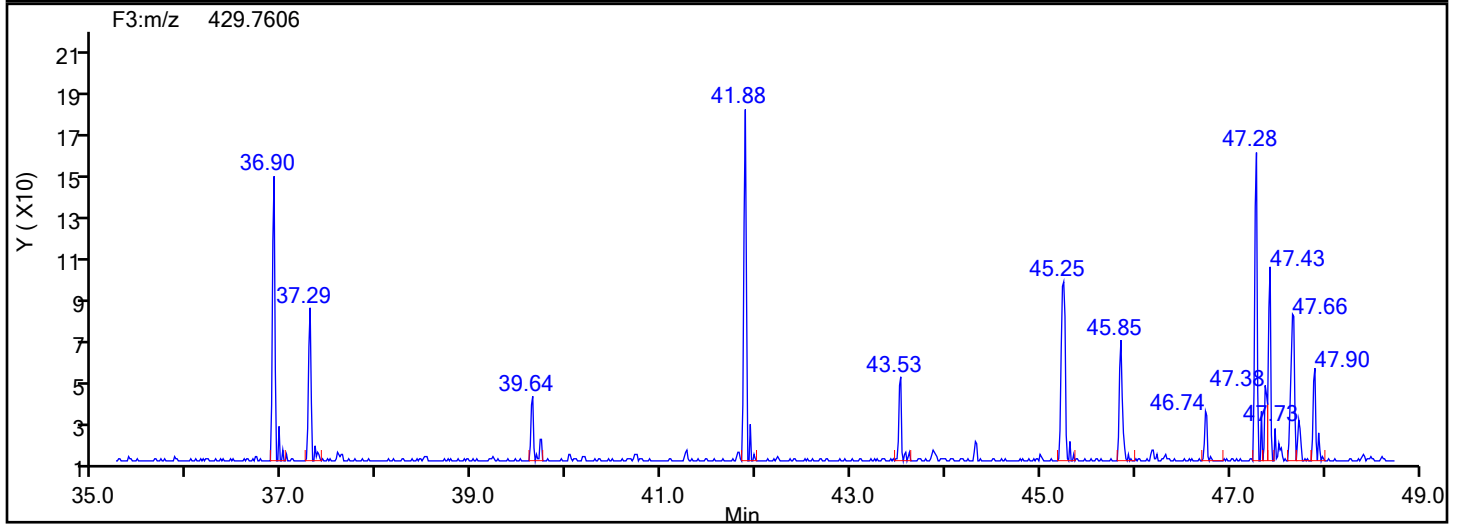
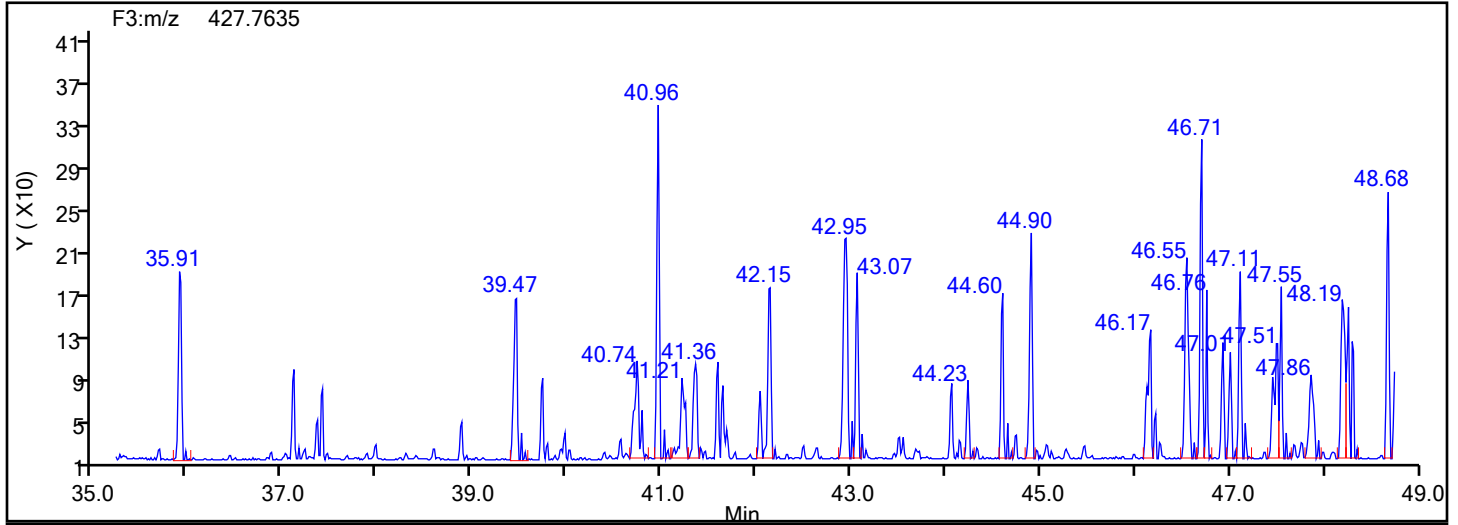


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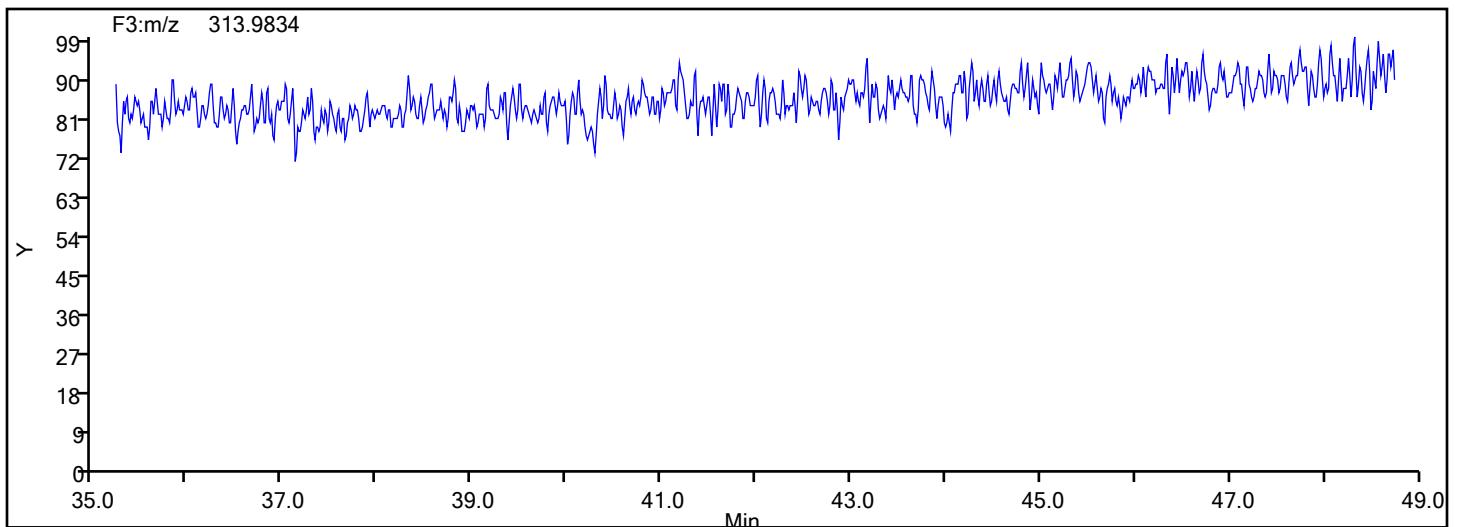


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
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Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3



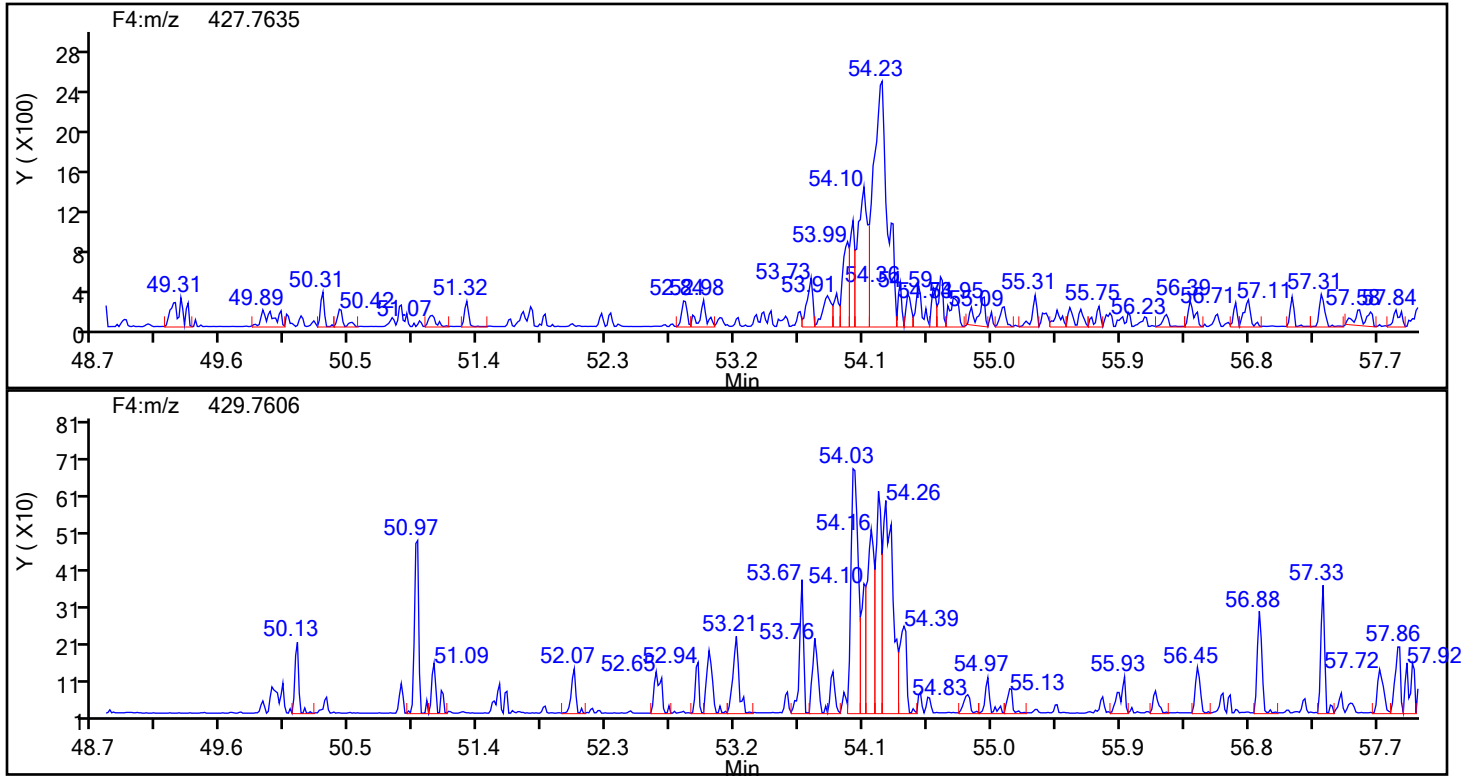
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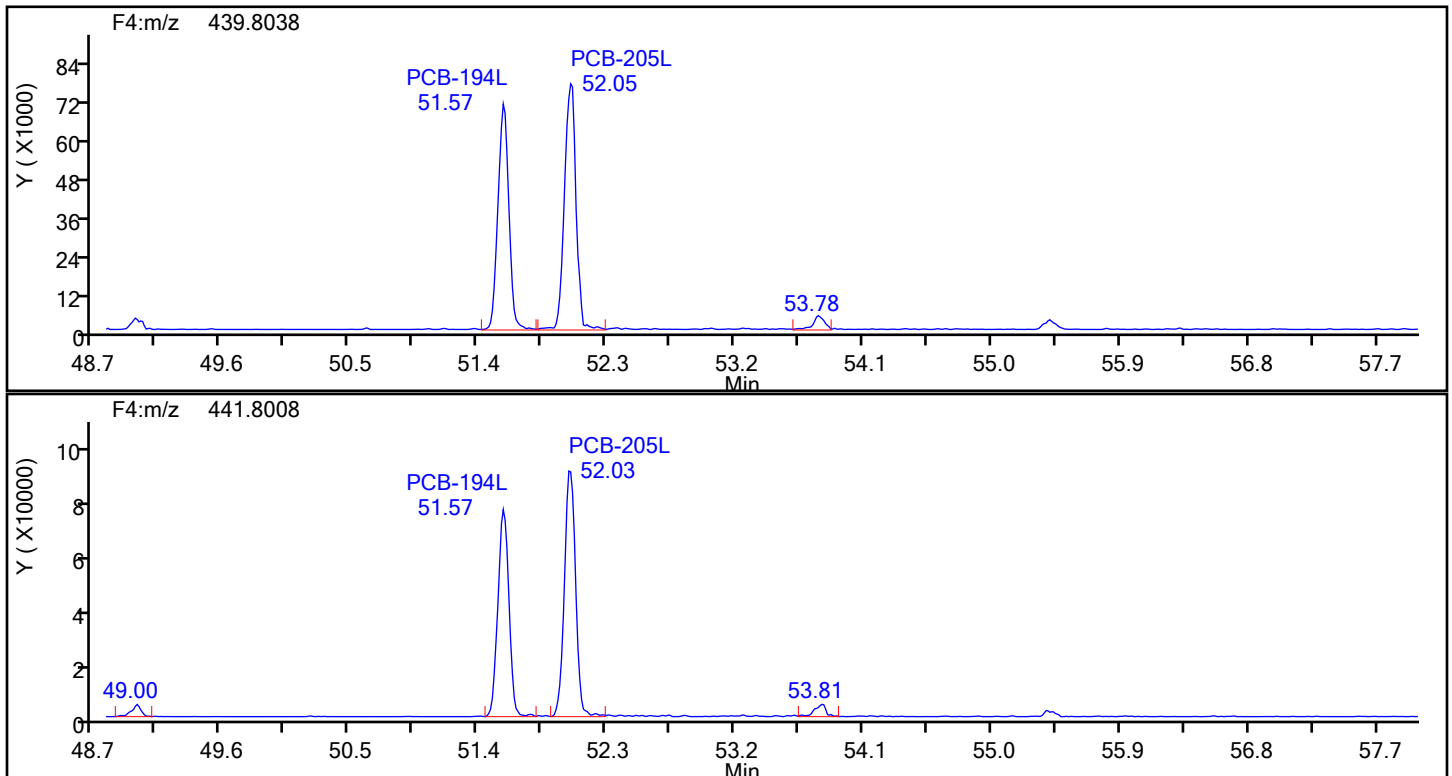


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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
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Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4

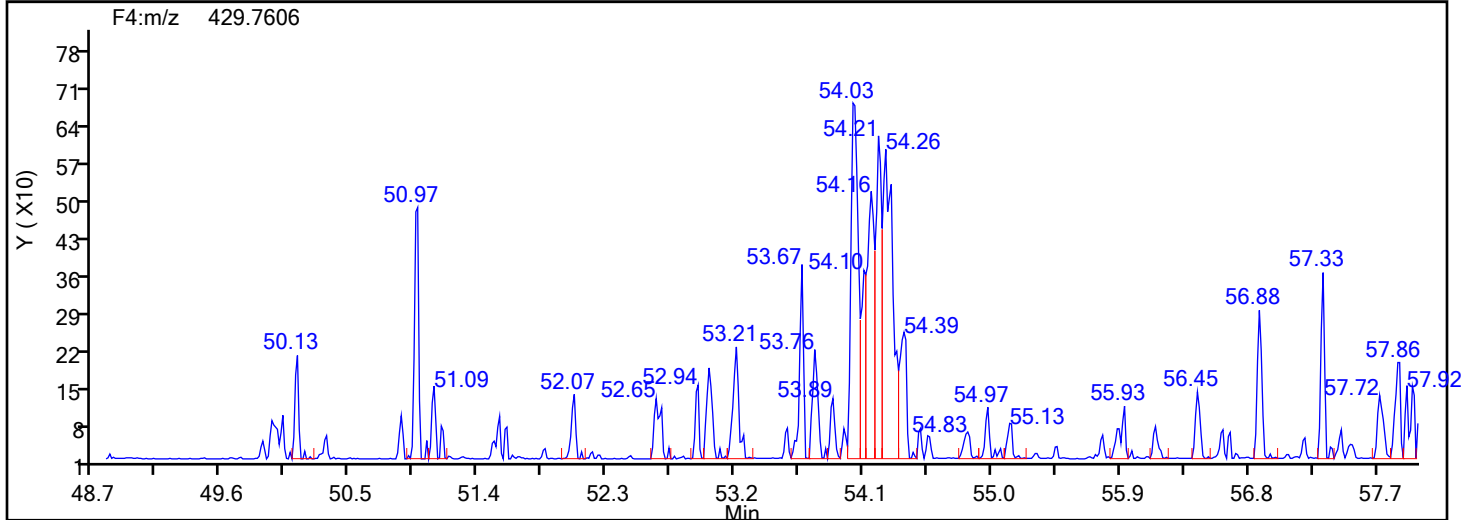
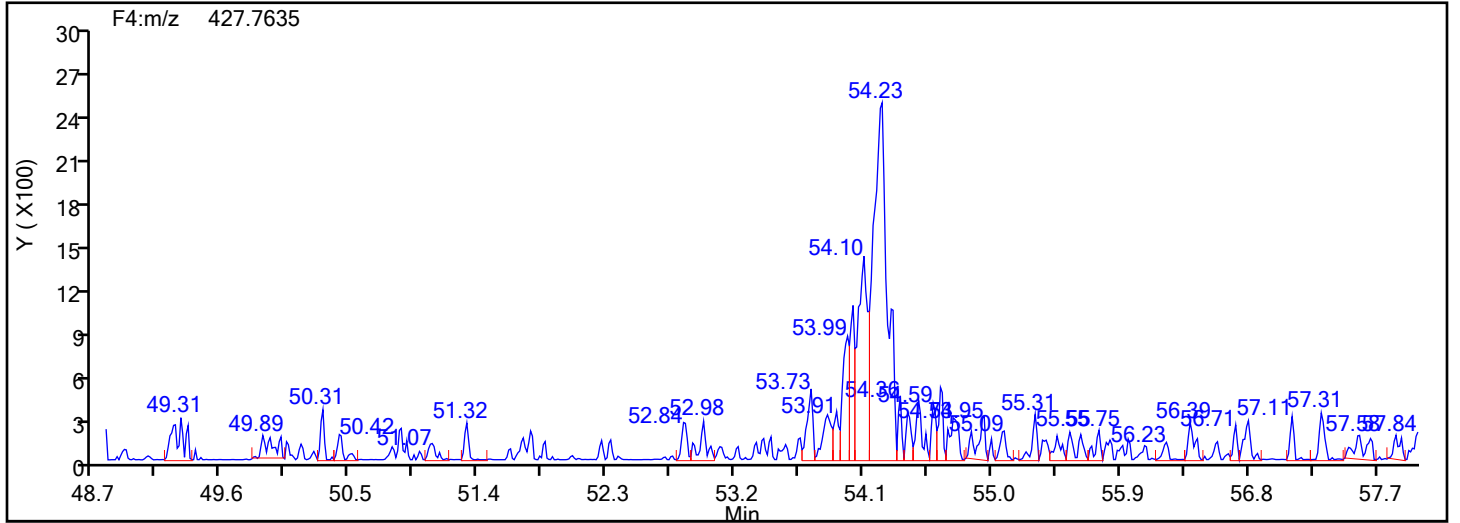


## OcPCB F4 Standards

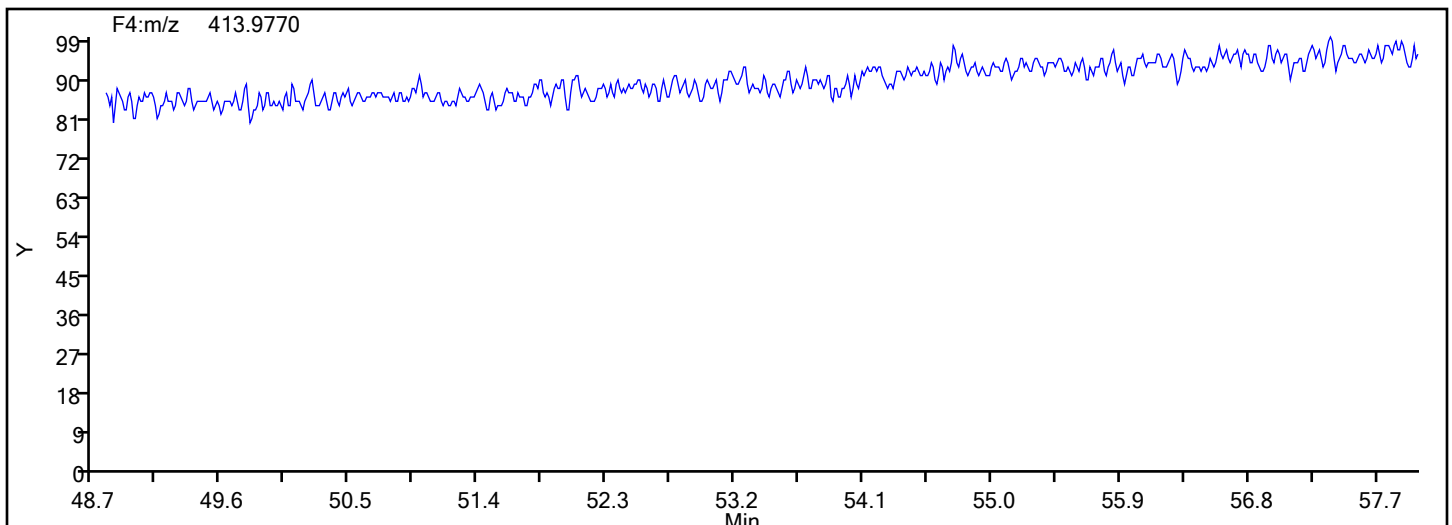


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Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
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Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4

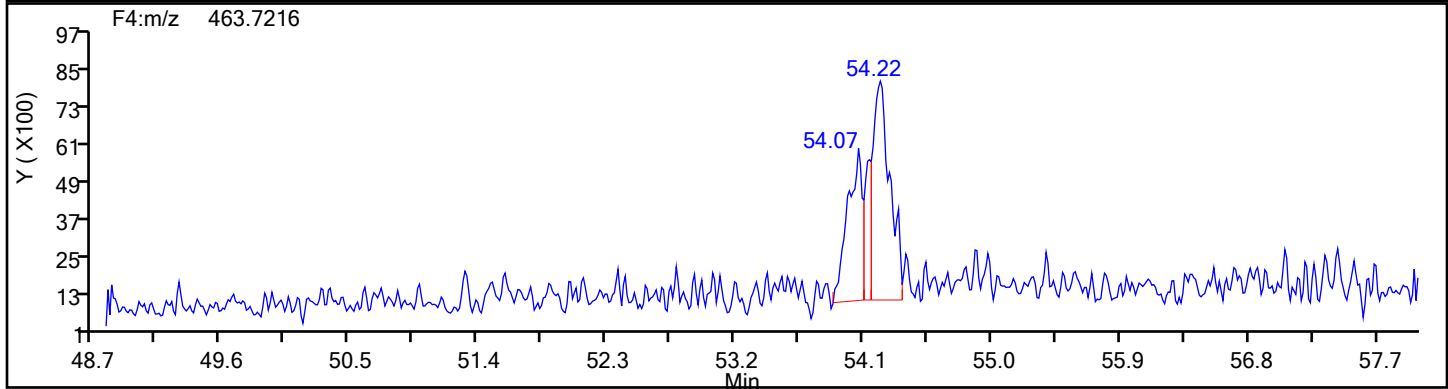
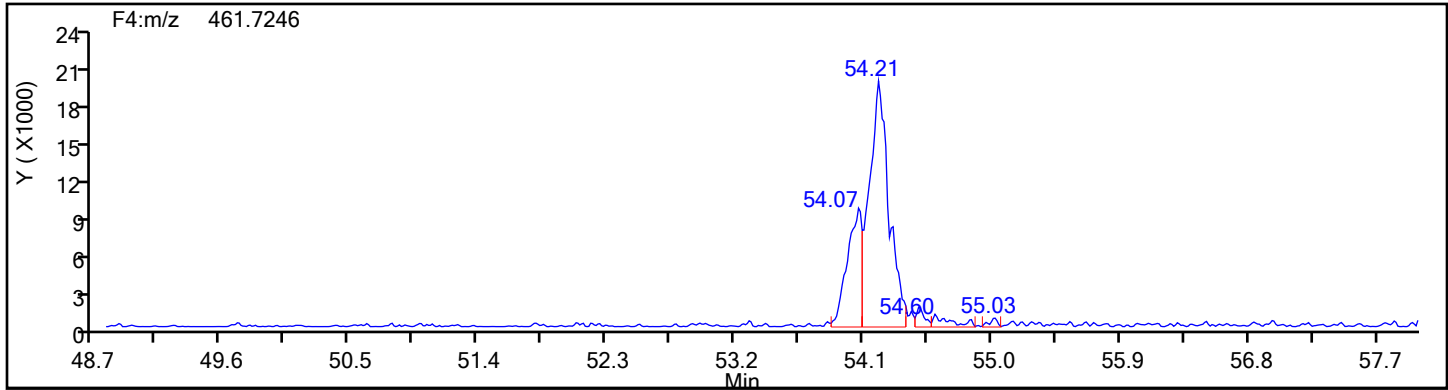


## OcPCB F4 Lock Mass

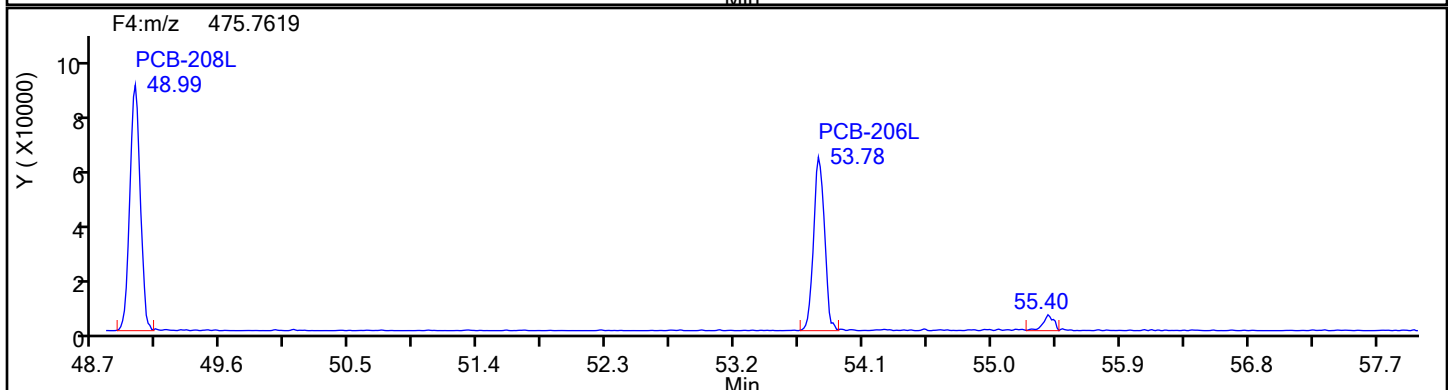
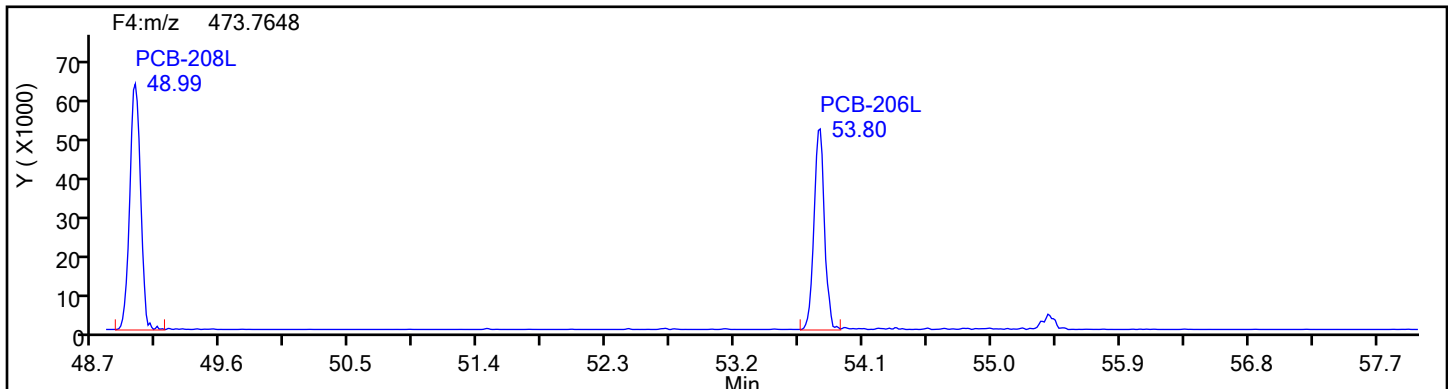


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Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
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Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4

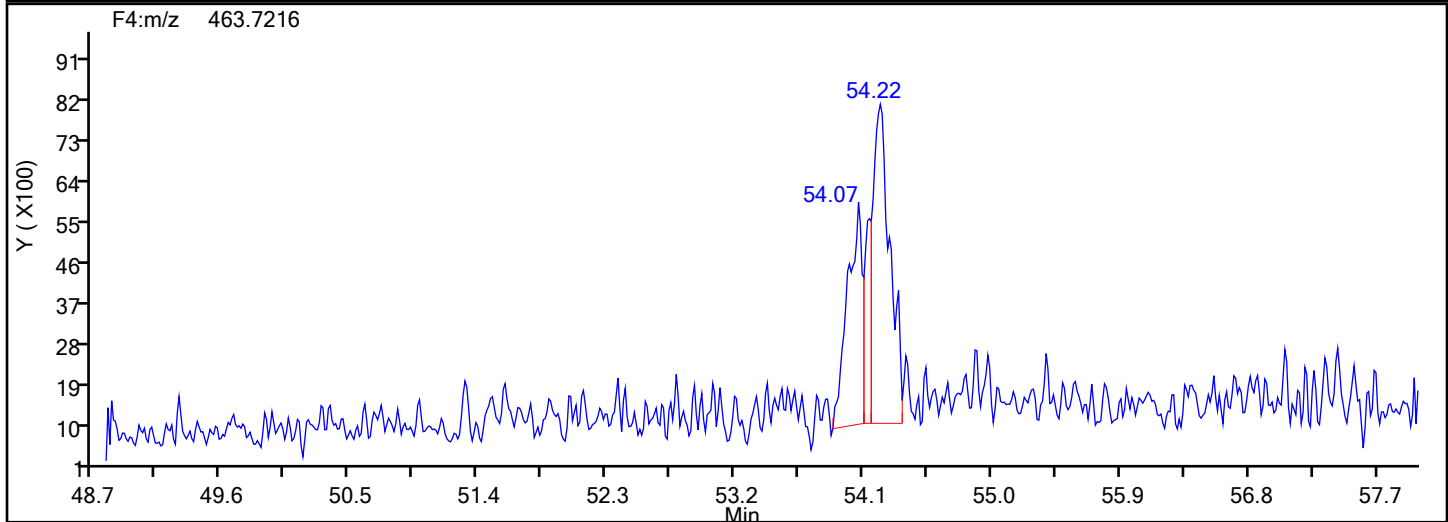
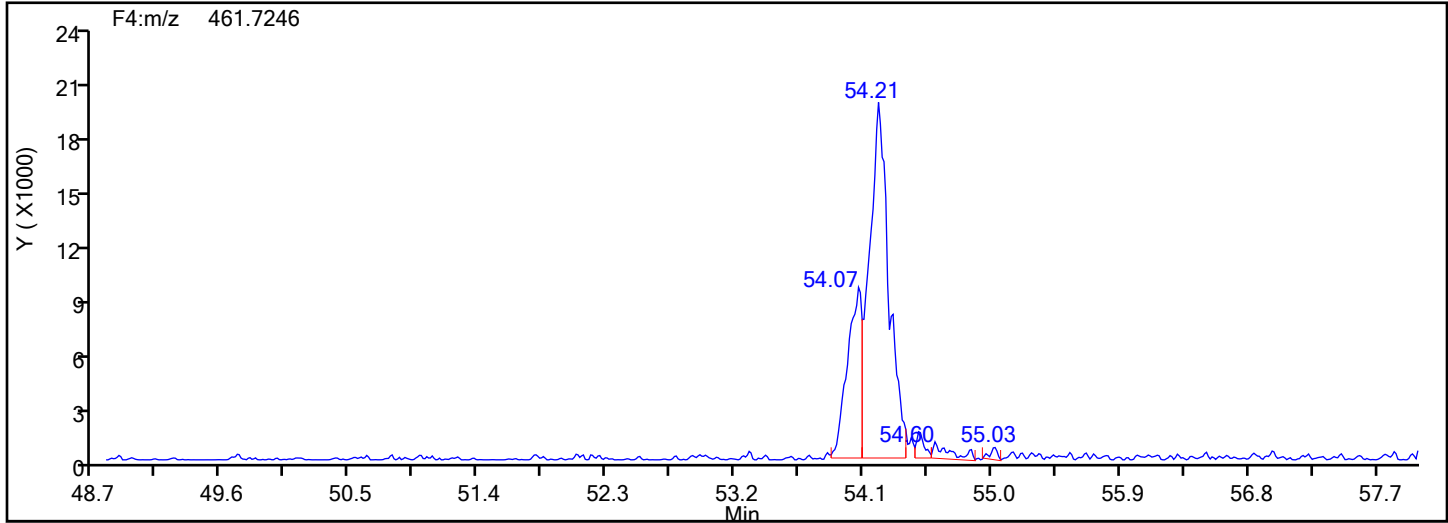


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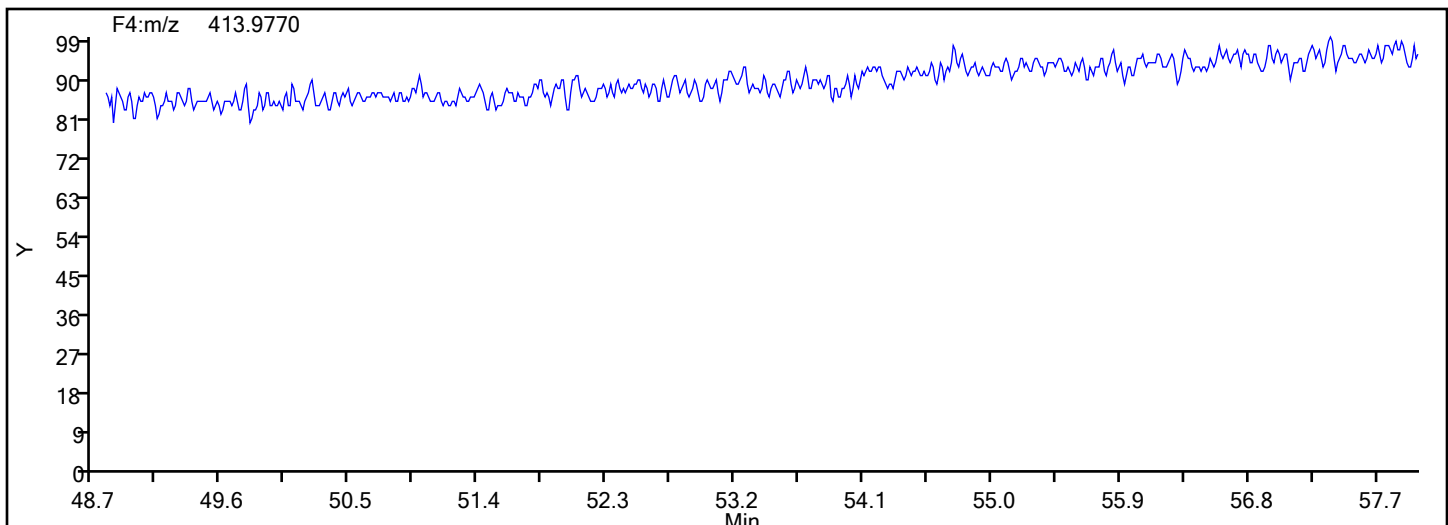


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Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
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Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4

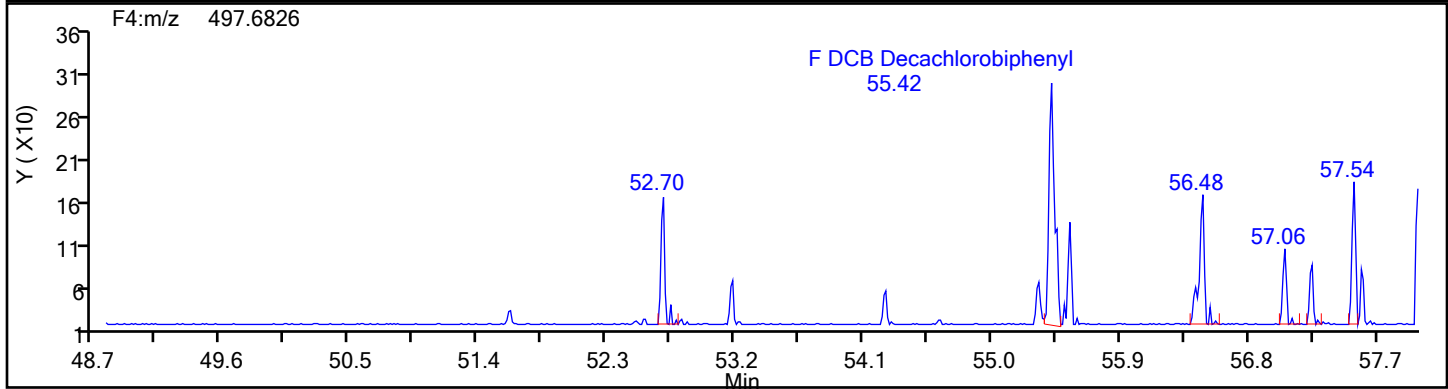
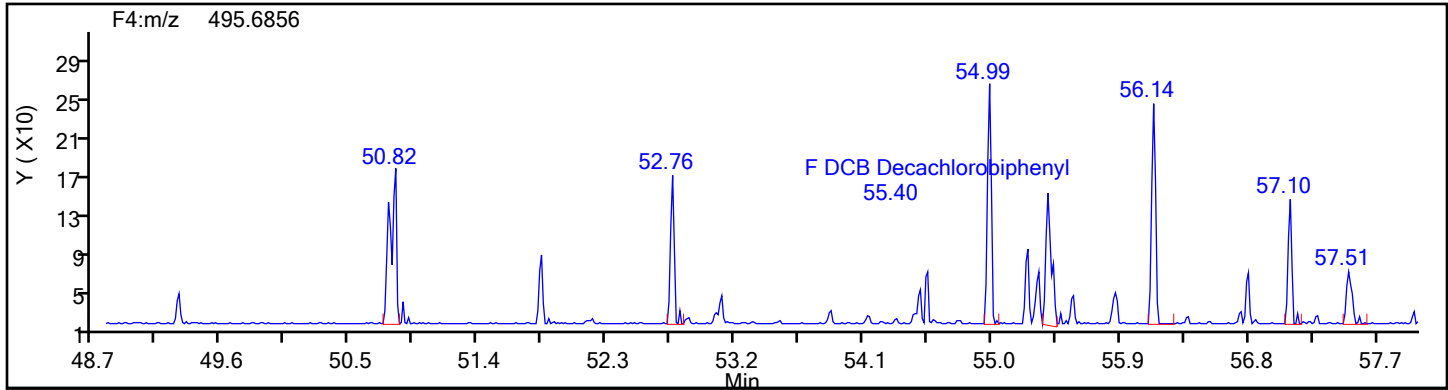


## NoPCB F4 Lock Mass

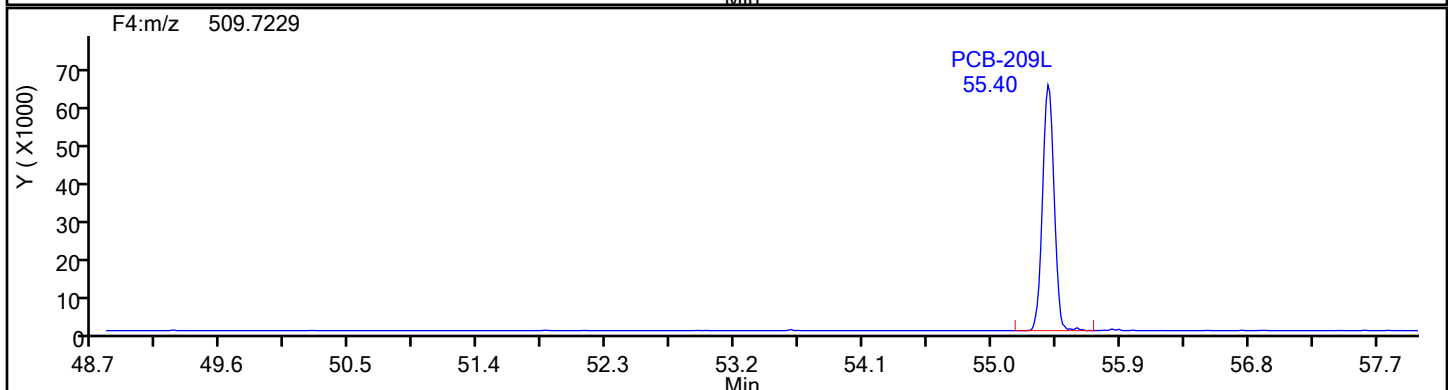
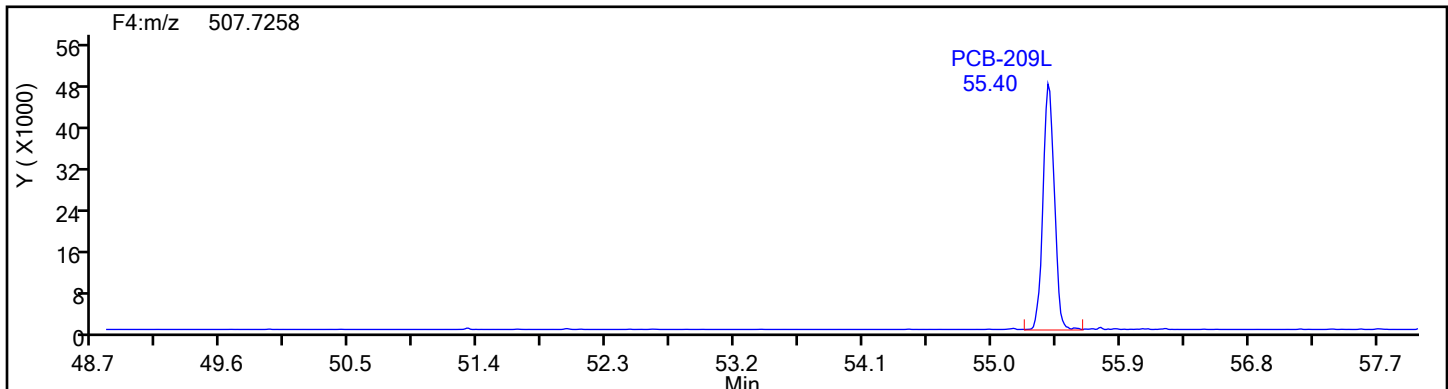


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Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
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Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4

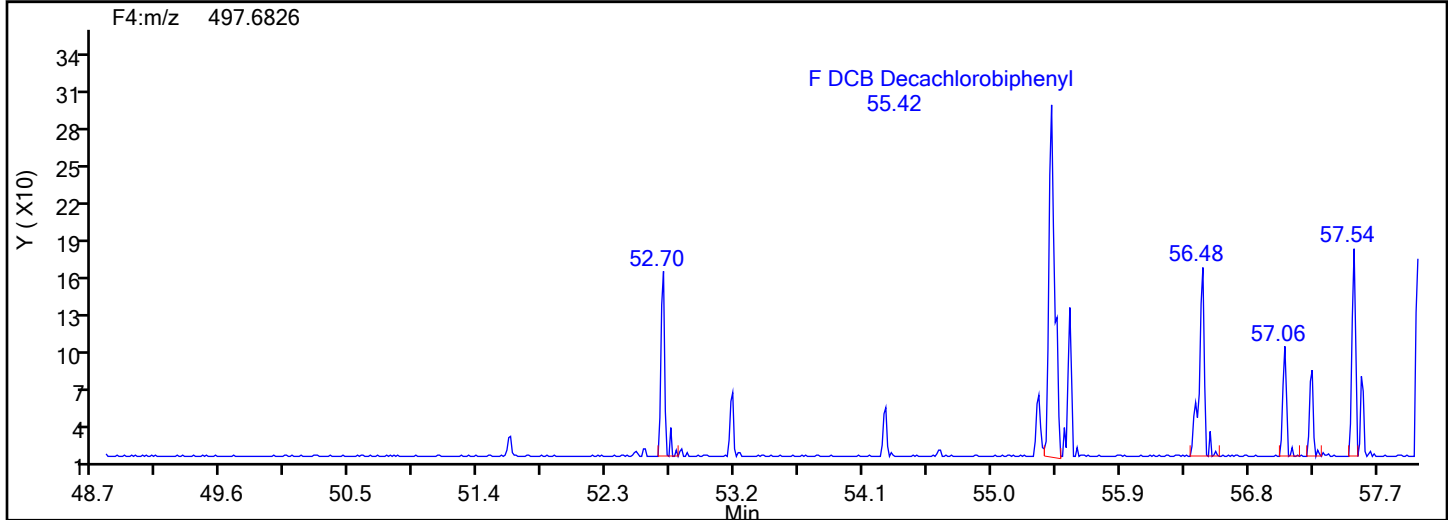
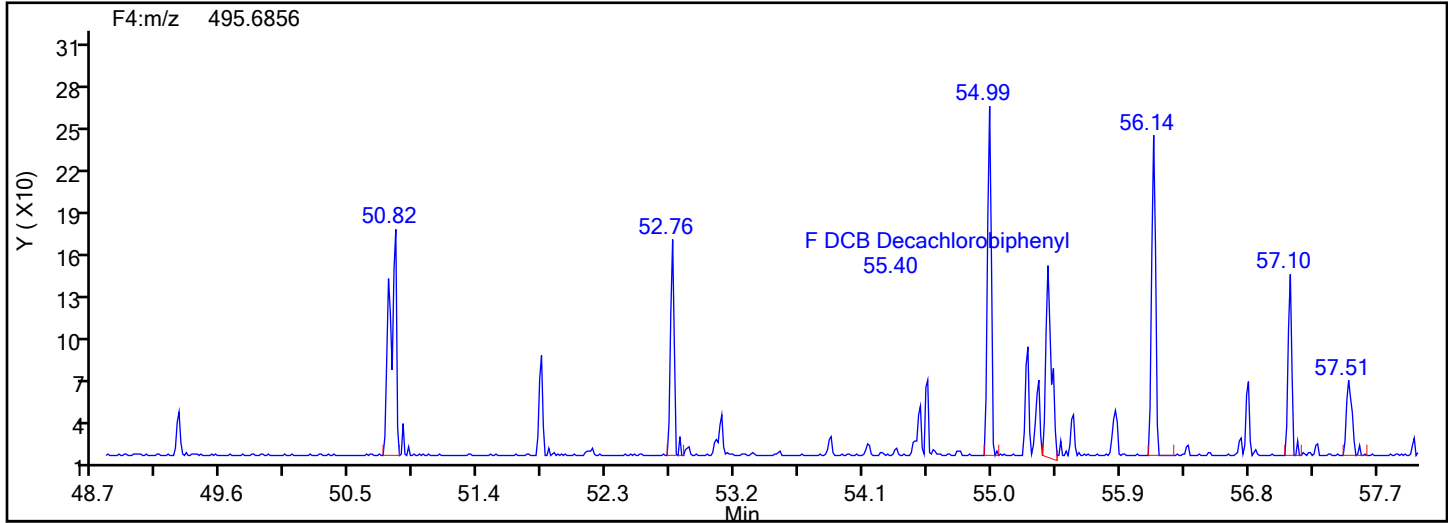


## DePCB F4 Standards

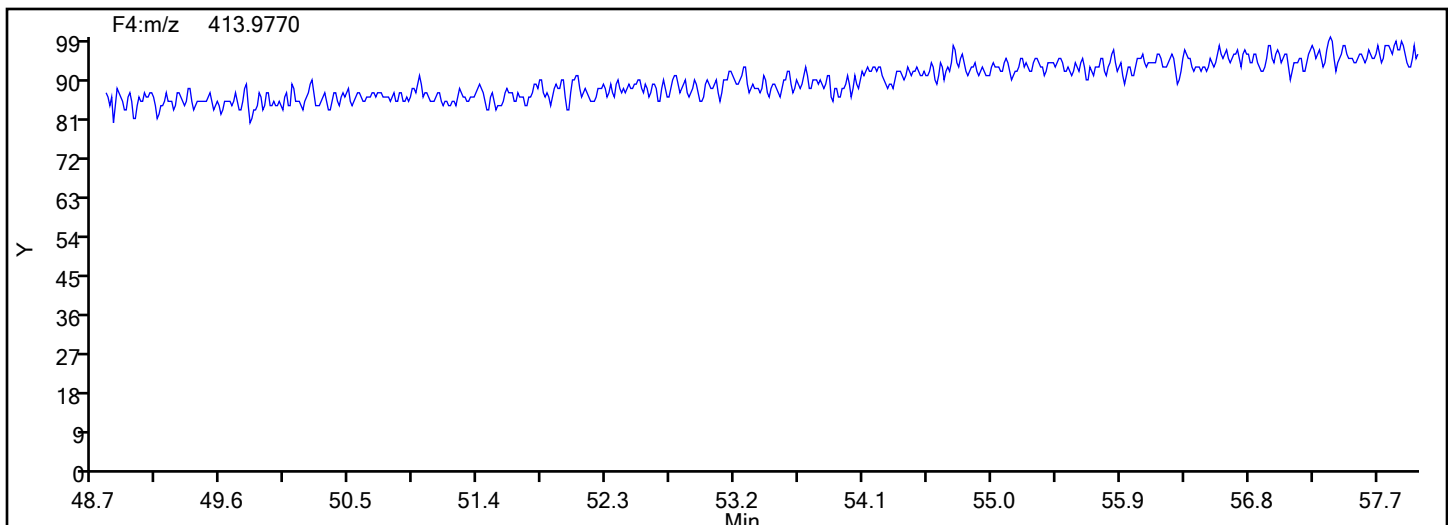


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Worklist#: 88871 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4



## DePCB F4 Lock Mass



## Eurofins Knoxville

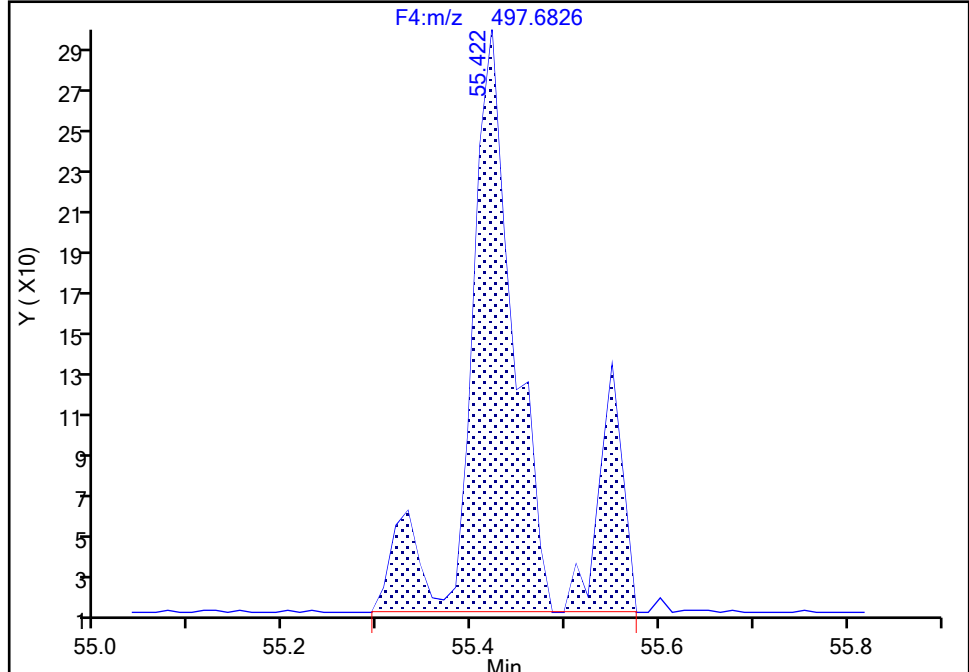
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Lims ID: 140-37234-A-3-D Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F4(49.20 :57.50 )

## DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 2

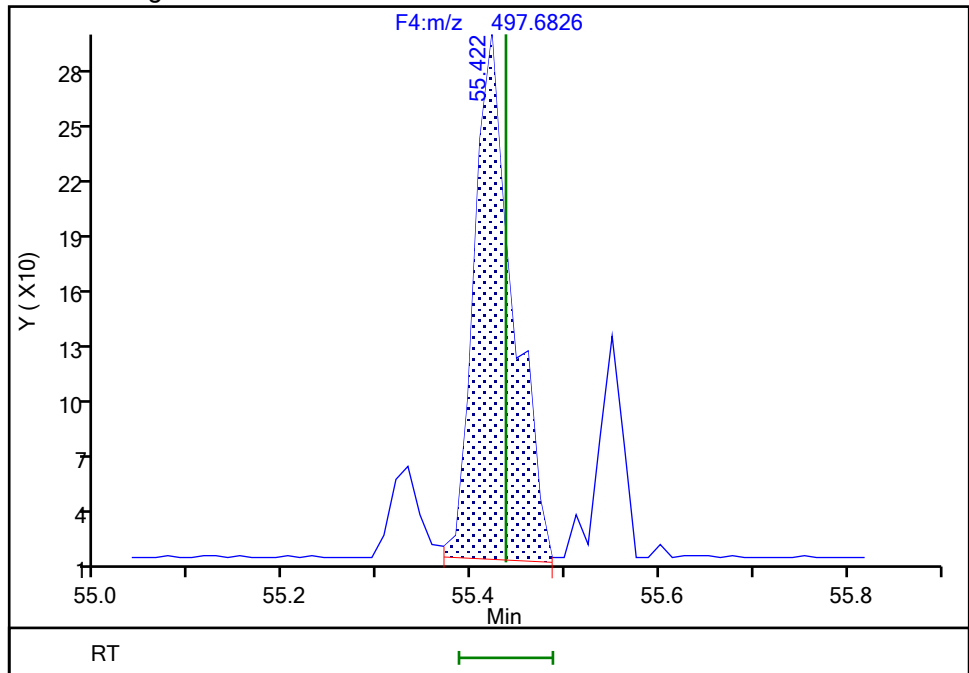
RT: 55.42  
Area: 1114  
Amount: 0.042302  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.42  
Area: 806  
Amount: 0.033446  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 20:58:01 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

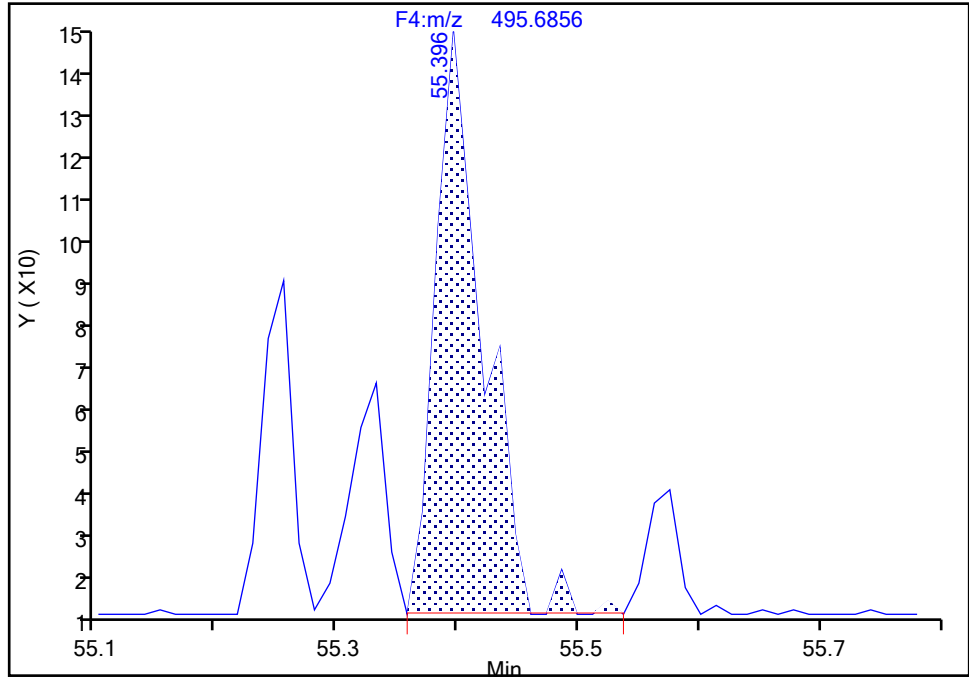
Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\140-37234-a-3-d5xrr.d  
Injection Date: 17-Jul-2024 19:36:00 Instrument ID: D2D  
Lims ID: 140-37234-A-3-D Lab Sample ID: 140-37234-3  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F4(49.20 :57.50 )

## DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 1

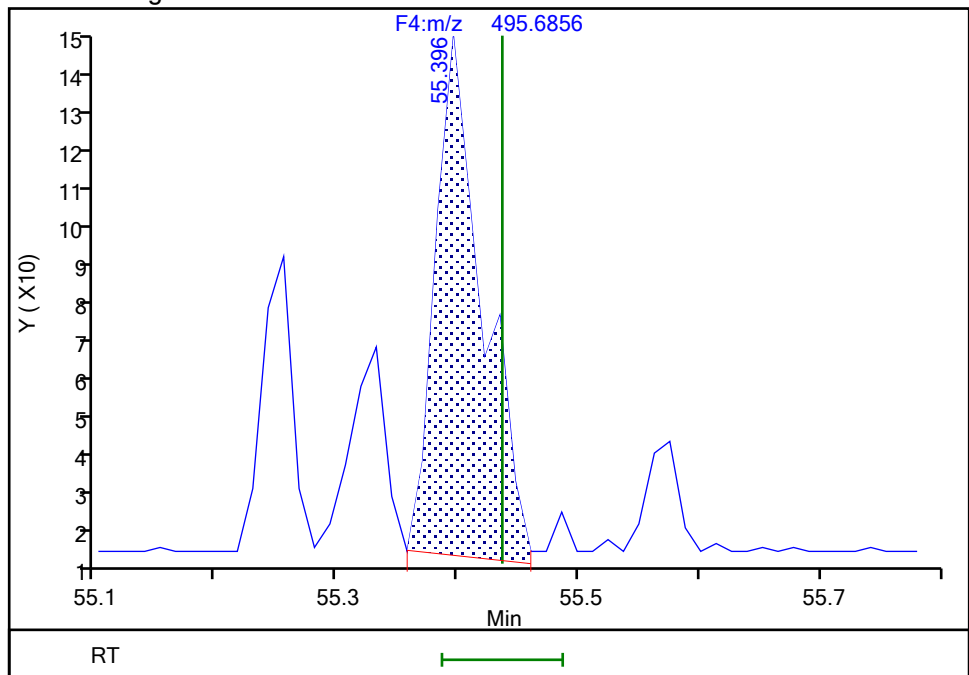
RT: 55.40  
Area: 362  
Amount: 0.042302  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.40  
Area: 361  
Amount: 0.033446  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 20:58:06 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline



Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\140-37234-a-3-d5xrr.d  
Lims ID: 140-37234-A-3-D  
Client ID: M23 F-10 BOILER RUN 4 COMBINED  
Sample Type: Client  
Inject. Date: 17-Jul-2024 19:36:00 ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Sample Info:  
Misc. Info.: 140-0033539-011  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 20:58:30 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1624

First Level Reviewer: V4XA

Date: 17-Jul-2024 20:58:30

Compound	Amount Added	Amount Recovered	% Rec.
PCB-8L	50.0	10.8	108.37
PCB-28L	100.0	14.3	71.42
PCB-79L	50.0	11.0	109.56
PCB-95L	50.0	11.0	109.62
PCB-111L	100.0	15.8	79.00
PCB-153L	50.0	9.84	98.41
PCB-178L	100.0	16.3	81.54

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 5</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-4</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-4-d5x.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/07/2024 09:53</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/16/2024 21:40</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>5</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88809</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
34883-43-7	PCB-8	0.705	J	3.00	0.660	0.0780
37680-65-2	PCB-18	0.467	J C	3.00	1.43	0.0110
7012-37-5	PCB-28	0.455	J B C20 q	3.00	1.26	0.0370
41464-39-5	PCB-44	2.76	J C B	4.50	1.95	0.0495
35693-99-3	PCB-52	0.387	J q	1.50	0.660	0.0523
32598-10-0	PCB-66	0.0779	J q	1.50	0.600	0.0382
32598-13-3	PCB-77	0.0634	J q	1.50	0.630	0.0451
70362-50-4	PCB-81	ND		1.50	0.480	0.0439
37680-73-2	PCB-101	0.210	J C90 q	4.50	1.95	0.0210
32598-14-4	PCB-105	ND		1.50	0.510	0.101
74472-37-0	PCB-114	ND		1.50	0.825	0.101
31508-00-6	PCB-118	ND		1.50	0.915	0.0957
65510-44-3	PCB-123	ND		1.50	0.855	0.110
57465-28-8	PCB-126	ND		1.50	0.615	0.126
38380-07-3	PCB-128	ND	C	3.00	1.02	0.0172
35065-28-2	PCB-138	0.0306	J C129 q	6.00	2.55	0.0179
35065-27-1	PCB-153	0.0468	J C B q	3.00	1.25	0.0155
38380-08-4	PCB-156	ND	C	3.00	1.28	0.0182
69782-90-7	PCB-157	ND	C156	3.00	1.28	0.0182
52663-72-6	PCB-167	ND		1.50	0.900	0.0126
32774-16-6	PCB-169	ND		1.50	0.615	0.0130
35065-30-6	PCB-170	ND		1.50	0.660	0.00171
35065-29-3	PCB-180	ND	C	3.00	1.02	0.00137
52663-68-0	PCB-187	0.0108	J q	1.50	0.630	0.00145
39635-31-9	PCB-189	ND		1.50	0.735	0.0270
52663-78-2	PCB-195	ND		1.50	0.795	0.0129
40186-72-9	PCB-206	ND		1.50	0.855	0.149

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: M23 F-10 BOILER RUN 5 Lab Sample ID: 140-37234-4  
COMBINED  
Matrix: Air Lab File ID: 140-37234-a-4-d5x.d  
Analysis Method: 23 Date Collected: 06/07/2024 09:53  
Extract. Method: Combined Prep Date Extracted: 06/27/2024 14:35  
Sample wt/vol: 1 (Sample) Date Analyzed: 07/16/2024 21:40  
Con. Extract Vol.: 30 (mL) Dilution Factor: 5  
Injection Volume: 1 (uL) GC Column: SPB-Octyl ID: 0.25 (mm)  
% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
Cleanup Factor: \_\_\_\_\_ Level: (low/med) Low  
Analysis Batch No.: 88809 Units: ng/Sample  
Preparation Batch No.: 88193 Instrument ID: Excalibur D2D DFS

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
2051-24-3	PCB-209	ND		1.50	0.690	0.00333

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 5</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-4</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-4-d5x.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/07/2024 09:53</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/16/2024 21:40</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>5</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88809</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
234432-85-0	PCB-1L	59		20-145
208263-77-8	PCB-3L	60		20-145
234432-86-1	PCB-4L	63		20-145
208263-67-6	PCB-15L	75		20-145
234432-87-2	PCB-19L	67		20-145
208263-79-0	PCB-37L	74		20-145
234432-88-3	PCB-54L	78		20-145
105600-23-5	PCB-77L	80		20-145
208461-24-9	PCB-81L	80		20-145
234432-89-4	PCB-104L	86		20-145
208263-62-1	PCB-105L	89		20-145
208263-63-2	PCB-114L	87		20-145
104130-40-7	PCB-118L	86		20-145
208263-64-3	PCB-123L	87		20-145
208263-65-4	PCB-126L	84		20-145
234432-90-7	PCB-155L	90		20-145
208263-68-7	PCB-156L	92	C	20-145
235416-30-5	PCB-157L	92	C156	20-145
208263-69-8	PCB-167L	88		20-145
208263-70-1	PCB-169L	91		20-145
160901-80-4	PCB-170L	93		20-145
234432-91-8	PCB-188L	90		20-145
208263-73-4	PCB-189L	90		20-145
105600-26-8	PCB-202L	91		20-145
234446-64-1	PCB-205L	93		20-145
208263-75-6	PCB-206L	94		20-145
234432-92-9	PCB-208L	87		20-145
105600-27-9	PCB-209L	105		20-145

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: M23 F-10 BOILER RUN 5 Lab Sample ID: 140-37234-4  
COMBINED  
Matrix: Air Lab File ID: 140-37234-a-4-d5x.d  
Analysis Method: 23 Date Collected: 06/07/2024 09:53  
Extract. Method: Combined Prep Date Extracted: 06/27/2024 14:35  
Sample wt/vol: 1(Sample) Date Analyzed: 07/16/2024 21:40  
Con. Extract Vol.: 30(mL) Dilution Factor: 5  
Injection Volume: 1(uL) GC Column: SPB-Octyl ID: 0.25(mm)  
% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
Cleanup Factor: \_\_\_\_\_ Level: (low/med) Low  
Analysis Batch No.: 88809 Units: ng/Sample  
Preparation Batch No.: 88193 Instrument ID: Excalibur D2D DFS

CAS NO.	SURROGATE	%REC	Q	LIMITS
208263-76-7	PCB-28L	73		20-130
235416-29-2	PCB-111L	80		20-130
232919-67-4	PCB-178L	79		20-130
STL01600	PCB-8L	116		70-130
STL01603	PCB-79L	111		70-130
STL01604	PCB-95L	118		70-130
STL01606	PCB-153L	101		70-130

Data File:	\\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-4-d5x.d				
Lims ID:	140-37234-A-4-D				
Client ID:	M23 F-10 BOILER RUN 5 COMBINED				
Sample Type:	Client				
Inject. Date:	16-Jul-2024 21:40:00	ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	5.0000		
Sample Info:					
Misc. Info.:	140-0033521-011				
Operator ID:	Xcalibur_System	Instrument ID:	D2D		
Method:	\\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\PCBs_D2D.m				
Limit Group:	HR - EPA_23 PCB ICAL				
Last Update:	17-Jul-2024 12:15:33	Calib Date:	31-May-2024 21:13:00		
Integrator:	Picker				
Quant Method:	Isotopic Dilution	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d				
Column 1 :	SPB-Octyl ( 0.25 mm)	Det: F1(11.07 :21.70 )			
Process Host:	CTX1616				

Date: 17-Jul-2024 12:15:33

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D PCB-1L	11:38	1141134	2.90	1.6108	11.7	11.7	0.2277	0.2277	58.69	
D PCB-3L	13:46	1141956	3.34	1.5891	11.9	11.9	0.2308	0.2308	59.54	
S Total Dichlorobiphenyls					0.4703	0.4703	0.0520	0.0520		
D PCB-4L	14:01	492286	1.54	0.6475	12.6	12.6	0.1806	0.1806	62.99	
* PCB-9L	15:58	1206982	1.69		20.0	20.0				
\$ PCB-8L	16:48	515440	1.61	1.2066	11.6	11.6	0.1741	0.1741	116	
D PCB-15L	19:55	974861	1.68	1.0789	15.0	15.0	0.1084	0.1084	74.86	M
PCB-8	16:50	27406	1.55	1.5889	0.4703	0.4703	0.0520	0.0520		M
D PCB-19L	17:07	361052	1.05	0.6285	13.5	13.5	0.6122	0.6122	67.26	
* PCB-32L	20:21	853999	1.16		20.0	20.0				
* PCB-31L	22:36	1797089	1.08		20.0	20.0				
\$ PCB-28L	22:53	1382358	1.12	1.0494	14.7	14.7	0.1099	0.1099	73.30	
D PCB-37L	26:55	1168467	1.10	0.8749	14.9	14.9	0.1318	0.1318	74.31	
PCB-18	19:00	9912	0.96	1.7652	0.3110	0.3110	0.007322	0.007322		a
PCB-30 (C18)	19:00	9912	0.96	1.7652	0.3110	0.3110	0.007322	0.007322		a
PCB-20	22:55	20786	1.04	1.1718	0.4217	0.3036	0.0247	0.0247		RQ
PCB-28 (C20)	22:55	20786	1.04	1.1718	0.4217	0.3036	0.0247	0.0247		RQ
S Total Tetrachlorobiphenyls					2.284	2.194	0.0305	0.0305		RQ
D PCB-54L	20:12	368611	0.86	0.5562	15.5	15.5	0.0721	0.0721	77.60	
* PCB-52L	24:43	893055	0.82		20.0	20.0				
\$ PCB-79L	32:38	508726	0.84	1.0018	11.1	11.1	0.1757	0.1757	111	
D PCB-81L	33:39	893450	0.81	1.2470	16.0	16.0	0.1024	0.1024	80.23	
D PCB-77L	34:12	939771	0.79	1.3212	15.9	15.9	0.0967	0.0967	79.65	
PCB-52	24:44	10864	0.77	0.9194	0.2927	0.2578	0.0349	0.0349		RQ
PCB-44	25:46	82144	0.70	0.9731	1.842	1.842	0.0330	0.0330		
PCB-47 (C44)	25:46	82144	0.70	0.9731	1.842	1.842	0.0330	0.0330		
PCB-65 (C44)	25:46	82144	0.70	0.9731	1.842	1.842	0.0330	0.0330		
PCB-66	29:51	2995	0.77	1.2583	0.0713	0.0519	0.0255	0.0255		RQM
PCB-81	33:40						0.0293	0.0293		
PCB-77	34:12	2151	0.77	1.0836	0.0784	0.0422	0.0301	0.0301		RQM
S Total Pentachlorobiphenyls					0.1533	0.1397	0.0616	0.0616		RQ
D PCB-104L	25:39	597909	1.65	1.2161	17.2	17.2	0.0411	0.0411	85.99	
\$ PCB-95L	28:38	255138	1.53	0.7218	11.8	11.8	0.0618	0.0618	118	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-101L	31:33	571800	1.58		20.0	20.0				
\$ PCB-111L	34:13	623343	1.63	1.3699	15.9	15.9	0.0365	0.0365	79.58	
D PCB-123L	36:11	861620	1.63	0.9731	17.4	17.4	0.2535	0.2535	87.19	
D PCB-118L	36:31	882552	1.57	1.0102	17.2	17.2	0.2442	0.2442	86.04	
D PCB-114L	37:02	880398	1.62	0.9949	17.4	17.4	0.2480	0.2480	87.15	
D PCB-105L	37:42	856635	1.58	0.9514	17.7	17.7	0.2593	0.2593	88.66	
* PCB-127L	39:10	1015472	1.61		20.0	20.0				
D PCB-126L	40:48	803359	1.65	0.9439	16.8	16.8	0.2614	0.2614	83.82	
PCB-90	31:35	3989	1.55	0.9550	0.1533	0.1397	0.0140	0.0140		RQ
PCB-101 (C90)	31:35	3989	1.55	0.9550	0.1533	0.1397	0.0140	0.0140		RQ
PCB-113 (C90)	31:35	3989	1.55	0.9550	0.1533	0.1397	0.0140	0.0140		RQ
PCB-123	36:13						0.0731	0.0731		
PCB-118	36:33						0.0638	0.0638		
PCB-114	37:04						0.0677	0.0677		
PCB-105	37:44						0.0671	0.0671		
PCB-126	40:49						0.0841	0.0841		
S Total Hexachlorobiphenyls					0.0677	0.0516	0.0105	0.0105		RQ
D PCB-155L	31:18	560102	1.33	1.0851	18.1	18.1	0.0310	0.0310	90.27	
\$ PCB-153L	38:21	339819	1.40	0.9169	10.1	10.1	0.2634	0.2634	101	
* PCB-138L	39:38	656304	1.29		20.0	20.0				
D PCB-167L	42:37	722626	1.32	1.2572	17.5	17.5	0.1703	0.1703	87.58	
D PCB-156L	43:47	1467554	1.25	1.2106	36.9	36.9	0.1769	0.1769	92.35	
D PCB-157L (C156L)	43:47	1467554	1.25	1.2106	36.9	36.9	0.1769	0.1769	92.35	
D PCB-169L	47:01	745989	1.28	1.2439	18.3	18.3	0.1722	0.1722	91.38	
PCB-153	38:22	1252	1.24	1.0938	0.0424	0.0312	0.0103	0.0103		RQM
PCB-168 (C153)	38:22	1252	1.24	1.0938	0.0424	0.0312	0.0103	0.0103		RQM
PCB-129	39:39	708	1.24	0.9464	0.0253	0.0204	0.0119	0.0119		RQMa
PCB-138 (C129)	39:39	708	1.24	0.9464	0.0253	0.0204	0.0119	0.0119		RQMa
PCB-160 (C129)	39:39	708	1.24	0.9464	0.0253	0.0204	0.0119	0.0119		RQMa
PCB-163 (C129)	39:39	708	1.24	0.9464	0.0253	0.0204	0.0119	0.0119		RQMa
PCB-128	40:53						0.0115	0.0115		
PCB-166 (C128)	40:53						0.0115	0.0115		
PCB-167	42:39						0.008402	0.008402		
PCB-156	43:48						0.0121	0.0121		
PCB-157 (C156)	43:48						0.0121	0.0121		
PCB-169	47:02						0.008657	0.008657		
S Total Heptachlorobiphenyls					0.0296	0.007173	0.005257	0.005257		RQ
D PCB-188L	37:01	576149	1.05	1.3133	18.0	18.0	0.0219	0.0219	90.02	
\$ PCB-178L	40:04	396538	1.03	1.0313	15.8	15.8	0.0278	0.0278	78.90	
* PCB-180L	45:09	487309	1.04		20.0	20.0				
D PCB-170L	46:25	380429	1.18	0.8362	18.7	18.7	0.0343	0.0343	93.36	
D PCB-189L	49:31	828107	1.04	1.4414	18.1	18.1	0.3315	0.3315	90.29	
PCB-187	40:57	189	1.05	1.1018	0.0296	0.007173	0.000966	0.000966		RQ
PCB-180	45:10						0.000912	0.000912		
PCB-193 (C180)	45:10						0.000912	0.000912		
PCB-170	46:27						0.001141	0.001141		
PCB-189	49:33						0.0180	0.0180		
S Total Octachlorobiphenyls							0.008622	0.008622		
D PCB-202L	42:23	434178	0.92	0.9818	18.1	18.1	0.0236	0.0236	90.75	
* PCB-194L	51:37	636296	0.91		20.0	20.0				
D PCB-205L	52:06	693914	0.91	1.1786	18.5	18.5	0.2880	0.2880	92.53	
PCB-195	49:19						0.008622	0.008622		
S Total Nonachlorobiphenyls							0.0993	0.0993		
D PCB-208L	49:02	533041	0.82	0.9576	17.5	17.5	0.3957	0.3957	87.48	
D PCB-206L	53:50	416594	0.80	0.6947	18.8	18.8	0.5454	0.5454	94.25	
PCB-206	53:52						0.0993	0.0993		
D PCB-209L	55:27	447352	0.69	0.6669	21.1	21.1	0.0498	0.0498	105	
DCB Decachlorobiphenyl	55:30						0.002217	0.002217		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
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S Polychlorinated biphenyls, Total

3.005

0.0338

0.0338

RQ

### QC Flag Legend

#### Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

#### Review Flags

M - Manually Integrated

a - User Assigned ID



Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-4-d5x.d  
Lims ID: 140-37234-A-4-D  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Sample Type: Client  
Inject. Date: 16-Jul-2024 21:40:00 ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Sample Info:  
Misc. Info.: 140-0033521-011  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 12:15:33 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICAL File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: TT6I

Date: 17-Jul-2024 12:15:33

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:38	11:38	-1	0.728	848207	345745	366	915	945		
202.0766	11:38	11:38	-1	0.728	292927	114693	2064	5160	56	2.90(2.66-3.60)	
PCB-3L											
200.0795	13:46	13:47	-2	0.862	879058	275175	366	915	752		
202.0766	13:46	13:47	-2	0.862	262898	83585	2064	5160	40	3.34(2.66-3.60)	
PCB-4L											
234.0406	14:01	14:02	-2	0.878	298154	98202	612	1530	160		
236.0376	14:01	14:02	-2	0.878	194132	62951	163	407	386	1.54(1.33-1.79)	
PCB-9L											
234.0406	15:58	16:00	-1		758152	204809	612	1530	335		
236.0376	15:58	16:00	-1		448830	126491	163	407	776	1.69(1.33-1.79)	
PCB-8L											
234.0406	16:48	16:49	-1	1.199	317749	76988	612	1530	126		
236.0376	16:49	16:49	-1	1.200	197691	49627	163	407	304	1.61(1.33-1.79)	
PCB-15L											
234.0406	19:55	19:55	0	1.247	611272	130489	612	1530	213		M
236.0376	19:55	19:55	0	1.247	363589	77184	163	407	474	1.68(1.33-1.79)	M
PCB-8											
222.0003	16:50	16:50	-1	1.201	16668	4119	153	382	27		M
223.9974	16:50	16:50	-1	1.201	10738	2666	152	380	18	1.55(1.33-1.79)	M
PCB-19L											
268.0016	17:07	17:08	-1	0.841	185136	48479	497	1242	98		
269.9986	17:07	17:08	-1	0.841	175916	47465	1058	2645	45	1.05(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	¶ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-32L											
268.0016	20:21	20:22	-1		457741	106859	497	1242	215		
269.9986	20:22	20:22	0		396258	95168	1058	2645	90	1.16(0.88-1.20)	
PCB-31L											
268.0016	22:36	22:37	-1		934097	211639	674	1685	314		
269.9986	22:36	22:37	-1		862992	197891	271	677	730	1.08(0.88-1.20)	
PCB-28L											
268.0016	22:53	22:54	-2	1.012	729429	152463	674	1685	226		
269.9986	22:54	22:54	-1	1.013	652929	135845	271	677	501	1.12(0.88-1.20)	
PCB-37L											
268.0016	26:55	26:54	-1	1.191	611675	97682	674	1685	145		
269.9986	26:55	26:54	-1	1.191	556792	90427	271	677	334	1.10(0.88-1.20)	
PCB-18											
255.9613	19:00	19:00	2	1.110	4848	1415	19	47	74		a
257.9584	18:59	19:00	2	1.109	5064	1431	6	15	239	0.96(0.88-1.20)	a
PCB-30 (C18)											
255.9613	19:00	19:00	2	1.110	4848	1415	19	47	74		a
257.9584	18:59	19:00	2	1.109	5064	1431	6	15	239	0.96(0.88-1.20)	a
PCB-20											
255.9613	22:55	22:56	-2	0.852	10597	2473	62	155	40		RQ
257.9584	22:55	22:56	-3	0.851	18272	3418	47	117	73	0.58(0.88-1.20)	
	Empc Correction				10189	2377	47	117	51		
PCB-28 (C20)											
255.9613	22:55	22:56	-2	0.852	10597	2473	62	155	40		RQ
257.9584	22:55	22:56	-3	0.851	18272	3418	47	117	73	0.58(0.88-1.20)	
	Empc Correction				10189	2377	47	117	51		
PCB-54L											
301.9626	20:12	20:12	-1	0.817	170211	46496	128	320	363		
303.9597	20:12	20:12	-1	0.817	198400	49807	34	85	1465	0.86(0.65-0.89)	
PCB-52L											
301.9626	24:43	24:45	-1		401914	89567	286	715	313		
303.9597	24:43	24:45	-2		491141	108061	219	547	493	0.82(0.65-0.89)	
PCB-79L											
301.9626	32:38	32:40	-1	0.970	232212	37701	286	715	132		
303.9597	32:38	32:40	-1	0.970	276514	51592	219	547	236	0.84(0.65-0.89)	
PCB-81L											
301.9626	33:39	33:37	0	1.361	400528	67785	286	715	237		
303.9597	33:39	33:37	0	1.361	492922	77767	219	547	355	0.81(0.65-0.89)	
PCB-77L											
301.9626	34:12	34:12	-1	1.384	413356	63208	286	715	221		
303.9597	34:12	34:12	-1	1.384	526415	77982	219	547	356	0.79(0.65-0.89)	
PCB-52											
289.9224	24:44	24:46	-2	1.225	6196	1593	2	5	797		RQ
	Empc Correction				4726	868	2	5	434		
291.9194	24:45	24:46	-1	1.225	6138	1128	90	225	13	1.01(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	⌈ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-44											
289.9224	25:46	25:49	0	1.275	33808	7960	2	5	3980	0.70(0.65-0.89)	
291.9194	25:46	25:49	0	1.276	48336	10258	90	225	114		
PCB-47 (C44)											
289.9224	25:46	25:49	0	1.275	33808	7960	2	5	3980	0.70(0.65-0.89)	
291.9194	25:46	25:49	0	1.276	48336	10258	90	225	114		
PCB-65 (C44)											
289.9224	25:46	25:49	0	1.275	33808	7960	2	5	3980	0.70(0.65-0.89)	
291.9194	25:46	25:49	0	1.276	48336	10258	90	225	114		
PCB-66											
289.9224	29:51	29:50	-1	0.887	1303	534	2	5	267	0.46(0.65-0.89)	RQM
291.9194	29:50	29:50	-2	0.887	2807	1217	90	225	14		M
Empc Correction					1692	693	90	225	8		
PCB-81											
289.9224	33:41						2	5			
291.9194	33:41						90	225			
PCB-77											
289.9224	34:12	34:17	-2	1.000	936	270	2	5	135	0.31(0.65-0.89)	RQM
291.9194	34:17	34:17	3	1.002	3056	502	90	225	6		M
Empc Correction					1215	350	90	225	4		
PCB-104L											
337.9207	25:39	25:40	-2	0.813	372159	76958	95	237	810	1.65(1.32-1.78)	
339.9178	25:39	25:40	-2	0.813	225750	53036	21	52	2526		
PCB-95L											
337.9207	28:38	28:39	-1	1.117	154455	32342	95	237	340	1.53(1.32-1.78)	
339.9178	28:37	28:39	-2	1.116	100683	19255	21	52	917		
PCB-101L											
337.9207	31:33	31:34	-1		350600	70861	95	237	746	1.58(1.32-1.78)	
339.9178	31:33	31:34	-1		221200	45170	21	52	2151		
PCB-111L											
337.9207	34:13	34:12	0	1.085	386127	75027	95	237	790	1.63(1.32-1.78)	
339.9178	34:12	34:12	-1	1.084	237216	44175	21	52	2104		
PCB-123L											
337.9207	36:11	36:11	-1	1.147	534224	95575	493	1232	194	1.63(1.32-1.78)	
339.9178	36:11	36:11	-1	1.147	327396	60111	406	1015	148		
PCB-118L											
337.9207	36:31	36:30	0	1.157	539195	96721	493	1232	196	1.57(1.32-1.78)	
339.9178	36:30	36:30	-1	1.157	343357	61859	406	1015	152		
PCB-114L											
337.9207	37:02	37:02	-1	1.174	544740	103210	493	1232	209	1.62(1.32-1.78)	
339.9178	37:02	37:02	-1	1.174	335658	63092	406	1015	155		
PCB-105L											
337.9207	37:42	37:41	-1	1.195	524474	91327	493	1232	185	1.58(1.32-1.78)	
339.9178	37:42	37:41	-1	1.195	332161	61658	406	1015	152		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-127L											
337.9207	39:10	39:10	0		625893	113091	493	1232	229		
339.9178	39:10	39:10	0		389579	69068	406	1015	170	1.61(1.32-1.78)	
PCB-126L											
337.9207	40:48	40:46	0	1.293	499758	81519	493	1232	165		
339.9178	40:48	40:46	0	1.293	303601	50589	406	1015	125	1.65(1.32-1.78)	
PCB-90											
325.8804	31:35	31:37	1	1.232	2425	555	30	75	19		RQ
327.8775	31:34	31:37	0	1.231	1953	588	5	12	118	1.24(1.32-1.78)	
Empc Correction					1564	358	5	12	72		
PCB-101 (C90)											
325.8804	31:35	31:37	1	1.232	2425	555	30	75	19		RQ
327.8775	31:34	31:37	0	1.231	1953	588	5	12	118	1.24(1.32-1.78)	
Empc Correction					1564	358	5	12	72		
PCB-113 (C90)											
325.8804	31:35	31:37	1	1.232	2425	555	30	75	19		RQ
327.8775	31:34	31:37	0	1.231	1953	588	5	12	118	1.24(1.32-1.78)	
Empc Correction					1564	358	5	12	72		
PCB-123											
325.8804	36:12						162	405			
327.8775	36:12						82	205			
PCB-118											
325.8804	36:32						162	405			
327.8775	36:32						82	205			
PCB-114											
325.8804	37:03						162	405			
327.8775	37:03						82	205			
PCB-105											
325.8804	37:43						162	405			
327.8775	37:43						82	205			
PCB-126											
325.8804	40:49						162	405			
327.8775	40:49						82	205			
PCB-155L											
371.8817	31:18	31:18	-1	0.790	319618	70752	14	35	5054		
373.8788	31:17	31:18	-2	0.789	240484	52786	64	160	825	1.33(1.05-1.43)	
PCB-153L											
371.8817	38:21	38:23	-2	0.900	198275	36269	406	1015	89		
373.8788	38:22	38:23	-1	0.900	141544	27167	125	312	217	1.40(1.05-1.43)	
PCB-138L											
371.8817	39:38	39:38	-1		369160	70329	406	1015	173		
373.8788	39:38	39:38	-1		287144	53604	125	312	429	1.29(1.05-1.43)	
PCB-167L											
371.8817	42:37	42:36	0	1.076	410493	77415	406	1015	191		
373.8788	42:37	42:36	0	1.076	312133	54836	125	312	439	1.32(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-156L											
371.8817	43:47	43:47	-1	1.105	815472	101597	406	1015	250	1.25(1.05-1.43)	
373.8788	43:47	43:47	-1	1.105	652082	82562	125	312	660		
PCB-157L (C156L)											
371.8817	43:47	43:47	-1	1.105	815472	101597	406	1015	250	1.25(1.05-1.43)	
373.8788	43:47	43:47	-1	1.105	652082	82562	125	312	660		
PCB-169L											
371.8817	47:01	47:00	0	1.186	418691	69568	406	1015	171	1.28(1.05-1.43)	
373.8788	47:01	47:00	1	1.187	327298	53617	125	312	429		
PCB-153											
359.8415	38:22	38:24	-4	0.900	1144	235	24	60	10	2.05(1.05-1.43)	M
Empc Correction				693	260	24	60	11			
361.8385	38:24	38:24	-2	0.901	559	210	1	2	210		
PCB-168 (C153)											
359.8415	38:22	38:24	-4	0.900	1144	235	24	60	10	2.05(1.05-1.43)	M
Empc Correction				693	260	24	60	11			
361.8385	38:24	38:24	-2	0.901	559	210	1	2	210		
PCB-129											
359.8415	39:39	39:39	-1	0.930	392	157	24	60	7	0.80(1.05-1.43)	a
361.8385	39:37	39:39	-3	0.929	487	225	1	2	225		
Empc Correction				316	126	1	2	126			
PCB-138 (C129)											
359.8415	39:39	39:39	-1	0.930	392	157	24	60	7	0.80(1.05-1.43)	a
361.8385	39:37	39:39	-3	0.929	487	225	1	2	225		
Empc Correction				316	126	1	2	126			
PCB-160 (C129)											
359.8415	39:39	39:39	-1	0.930	392	157	24	60	7	0.80(1.05-1.43)	a
361.8385	39:37	39:39	-3	0.929	487	225	1	2	225		
Empc Correction				316	126	1	2	126			
PCB-163 (C129)											
359.8415	39:39	39:39	-1	0.930	392	157	24	60	7	0.80(1.05-1.43)	a
361.8385	39:37	39:39	-3	0.929	487	225	1	2	225		
Empc Correction				316	126	1	2	126			
PCB-128											
359.8415	40:53						24	60			
361.8385	40:53						1	2			
PCB-166 (C128)											
359.8415	40:53						24	60			
361.8385	40:53						1	2			
PCB-167											
359.8415	42:39						24	60			
361.8385	42:39						1	2			
PCB-156											
359.8415	43:47						24	60			
361.8385	43:47						1	2			
PCB-157 (C156)											
359.8415	43:47						24	60			
361.8385	43:47						1	2			

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-169											
359.8415	47:02						24	60			
361.8385	47:02						1	2			
PCB-188L											
405.8428	37:01	37:01	-1	0.820	294754	62038	51	127	1216		
407.8398	37:01	37:01	-1	0.820	281395	51954	1	2	51954	1.05(0.89-1.21)	
PCB-178L											
405.8428	40:04	40:04	-1	0.888	200884	41401	51	127	812		
407.8398	40:04	40:04	-1	0.888	195654	38111	1	2	38111	1.03(0.89-1.21)	
PCB-180L											
405.8428	45:09	45:10	-1		248915	46322	51	127	908		
407.8398	45:09	45:10	0		238394	44249	1	2	44249	1.04(0.89-1.21)	
PCB-170L											
405.8428	46:25	46:25	-1	1.028	206150	41571	51	127	815		
407.8398	46:25	46:25	-1	1.028	174279	32283	1	2	32283	1.18(0.89-1.21)	
PCB-189L											
405.8428	49:31	49:31	-1	1.097	422920	77337	781	1952	99		
407.8398	49:31	49:31	-1	1.097	405187	69085	382	955	181	1.04(0.89-1.21)	
PCB-187											
393.8025	40:57	41:00	-3	1.107	97	47	1	2	47		RQ
395.7995	40:58	41:00	-2	1.107	682	364	1	2	364	0.14(0.89-1.21)	
Empc Correction					92	44	1	2	44		
PCB-180											
393.8025	45:09						1	2			
395.7995	45:09						1	2			
PCB-193 (C180)											
393.8025	45:09						1	2			
395.7995	45:09						1	2			
PCB-170											
393.8025	46:26						1	2			
395.7995	46:26						1	2			
PCB-189											
393.8025	49:32						36	90			
395.7995	49:32						15	37			
PCB-202L											
439.8038	42:23	42:23	-1	0.821	208374	41332	5	12	8266		
441.8008	42:23	42:23	-1	0.821	225804	45319	37	92	1225	0.92(0.76-1.02)	
PCB-194L											
439.8038	51:37	51:38	-1		303042	59661	445	1112	134		
441.8008	51:37	51:38	-1		333254	62003	381	952	163	0.91(0.76-1.02)	
PCB-205L											
439.8038	52:06	52:05	-1	1.009	331309	59240	445	1112	133		
441.8008	52:06	52:05	-1	1.009	362605	67089	381	952	176	0.91(0.76-1.02)	
PCB-195											
427.7635	49:18						7	17			
429.7606	49:18						11	27			

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-208L											
473.7648	49:02	49:02	-1	0.950	240064	46410	508	1270	91		
475.7619	49:02	49:02	-1	0.950	292977	52996	414	1035	128	0.82(0.65-0.89)	
PCB-206L											
473.7648	53:50	53:51	-1	1.043	185265	34741	508	1270	68		
475.7619	53:50	53:51	-1	1.043	231329	44024	414	1035	106	0.80(0.65-0.89)	
PCB-206											
461.7246	53:51						98	245			
463.7216	53:51						111	277			
PCB-209L											
507.7258	55:27	55:27	-2	1.074	182883	35478	68	170	522		
509.7229	55:27	55:27	-2	1.074	264469	46498	13	32	3577	0.69(0.59-0.79)	
DCB Decachlorobiphenyl											
495.6856	55:29						1	2			
497.6826	55:29						3	7			

### QC Flag Legend

#### Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

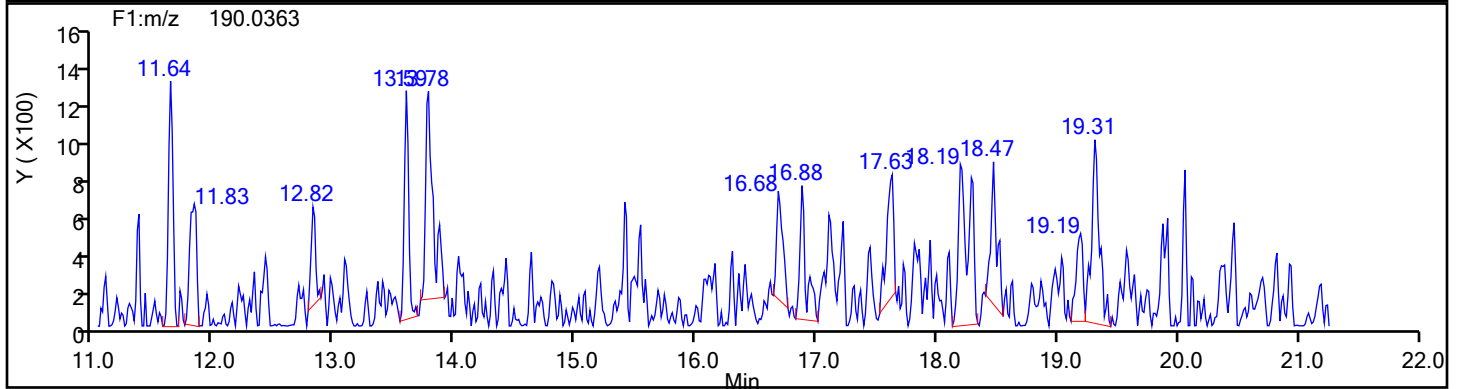
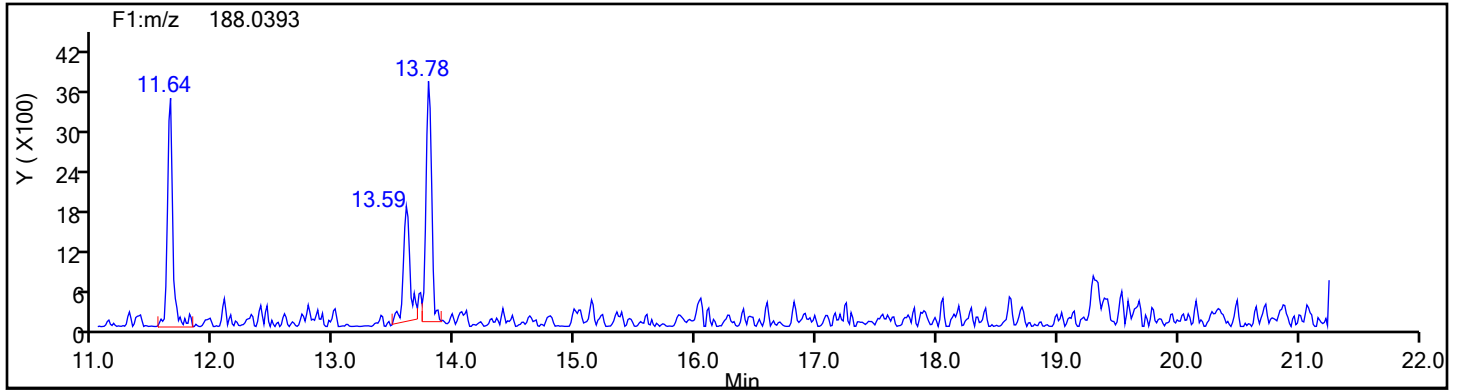
#### Review Flags

M - Manually Integrated

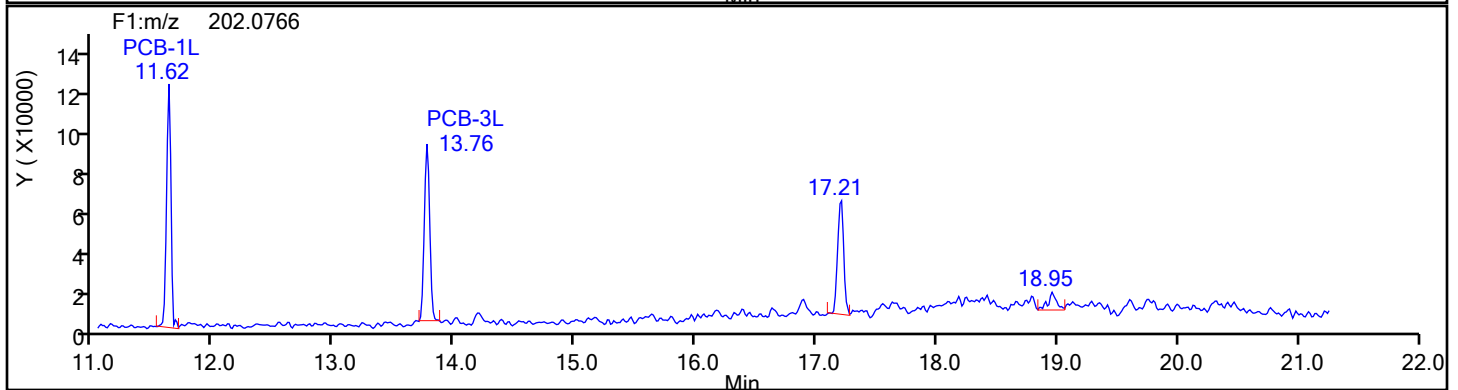
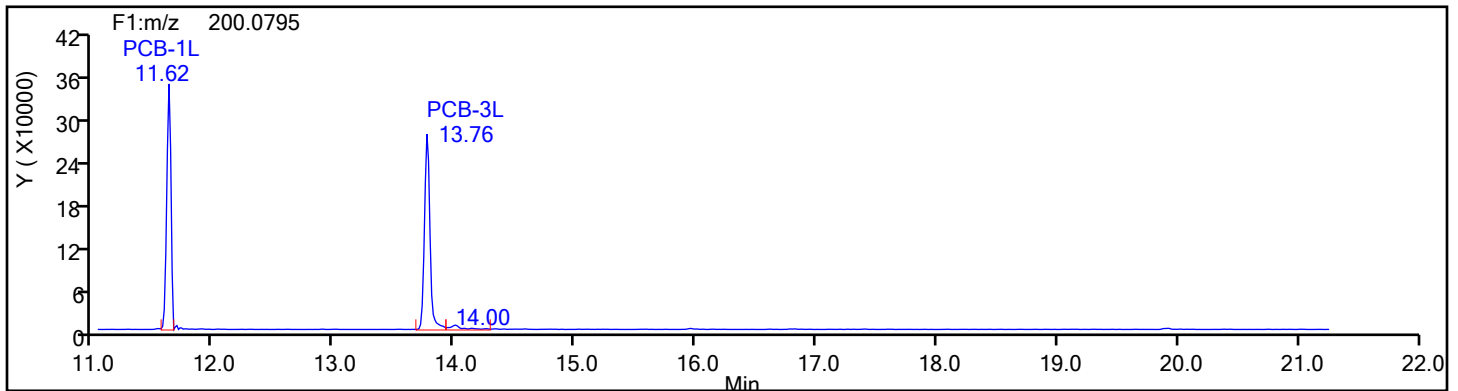
a - User Assigned ID

## Eurofins Knoxville

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Injection Date: 16-Jul-2024 21:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
MoPCB F1



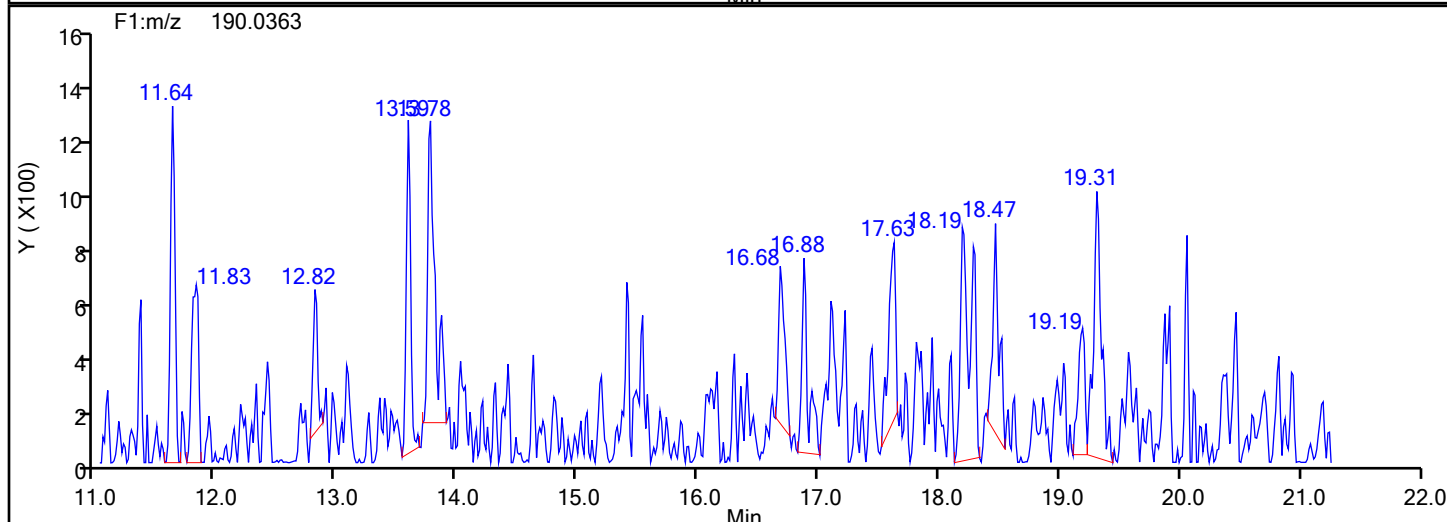
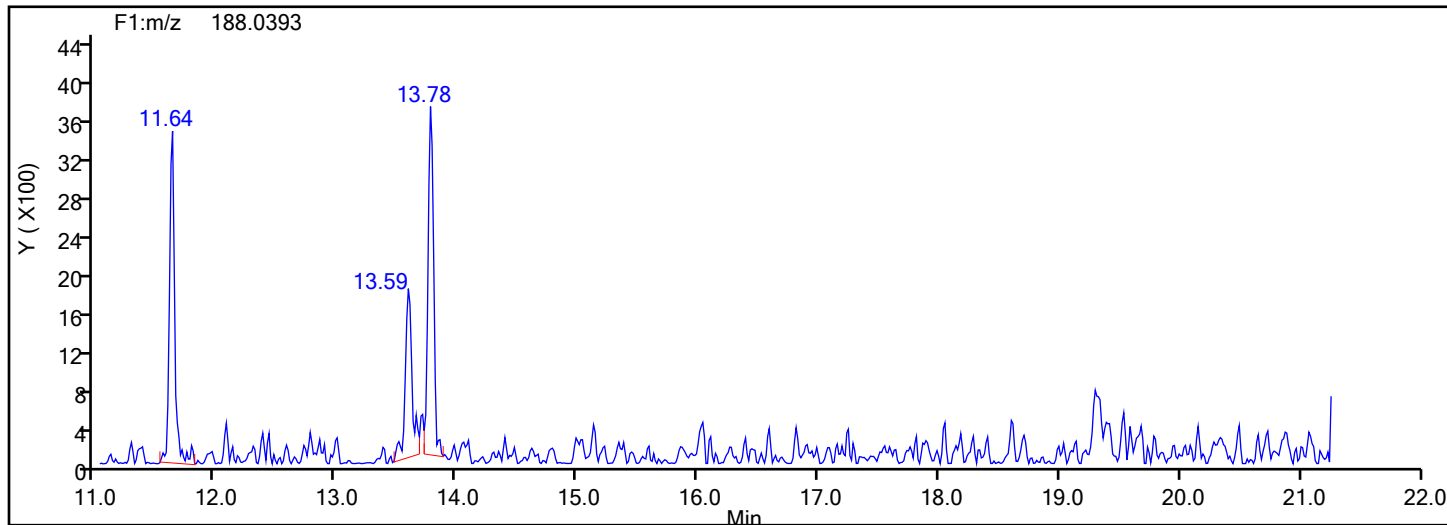
## MoPCB F1 Standards



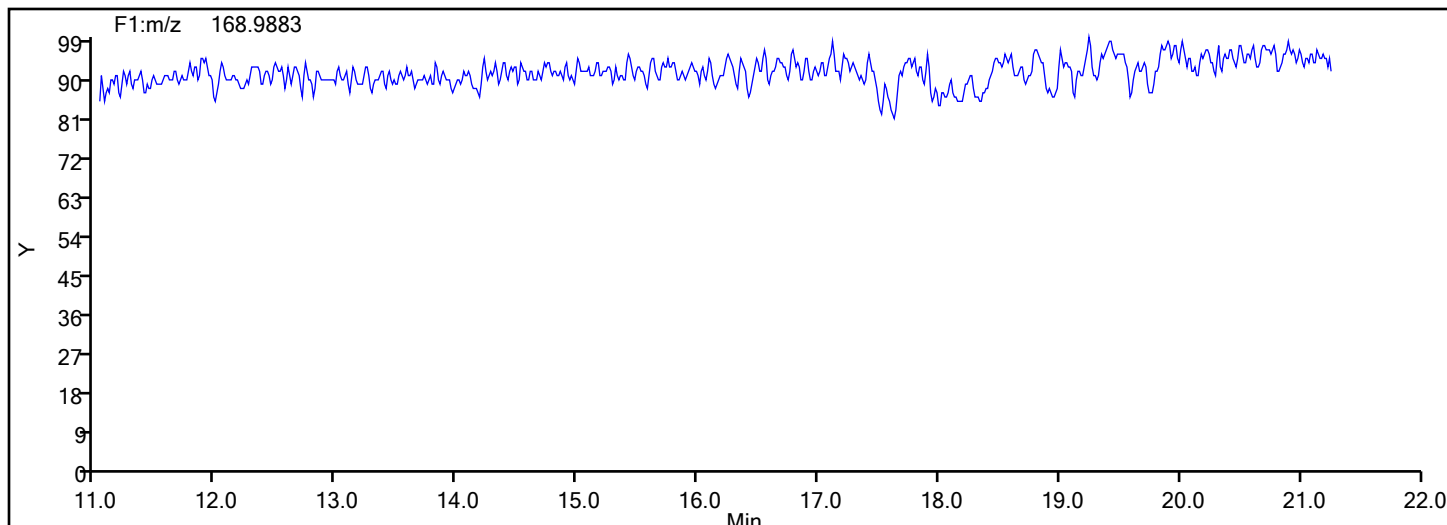


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
MoPCB F1

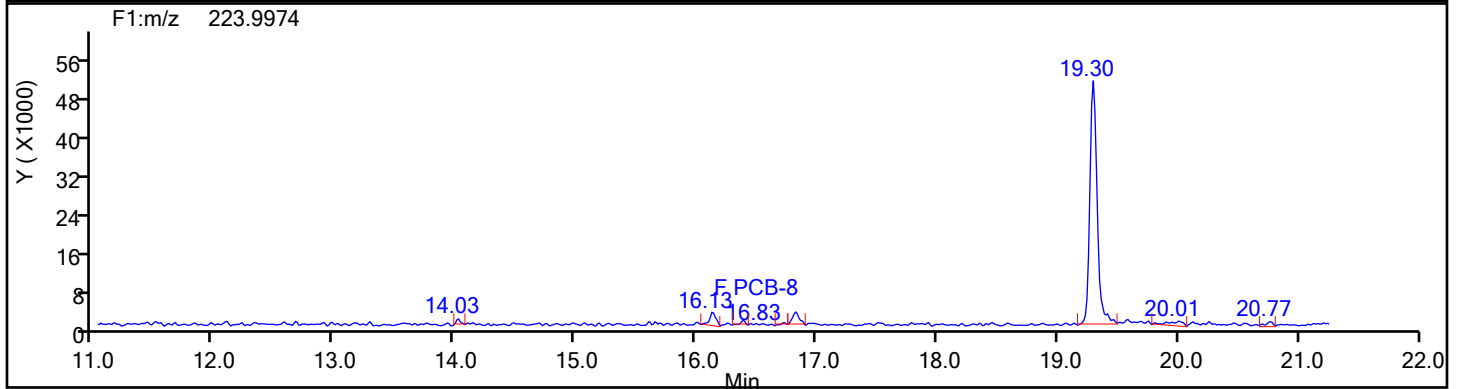
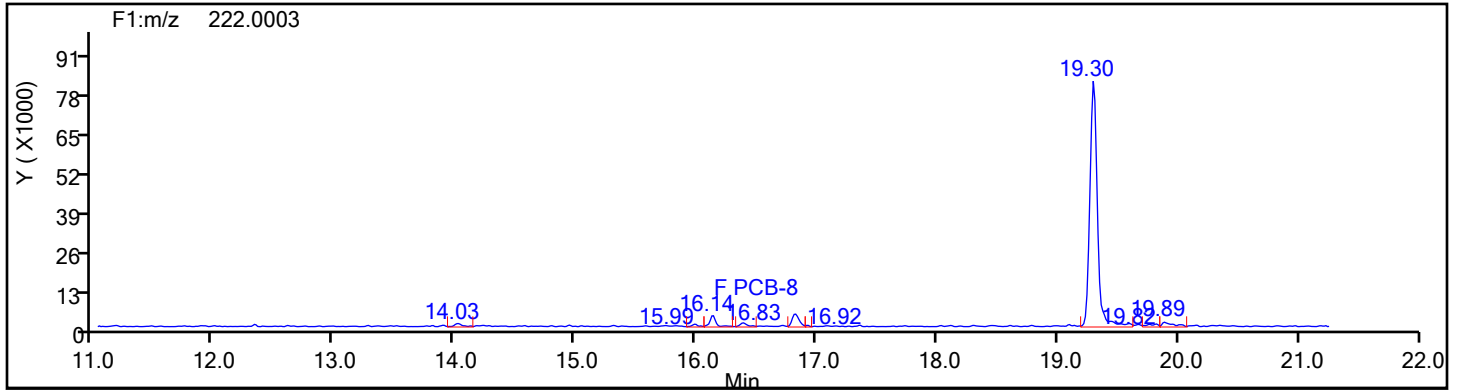


## MoPCB F1 Lock Mass

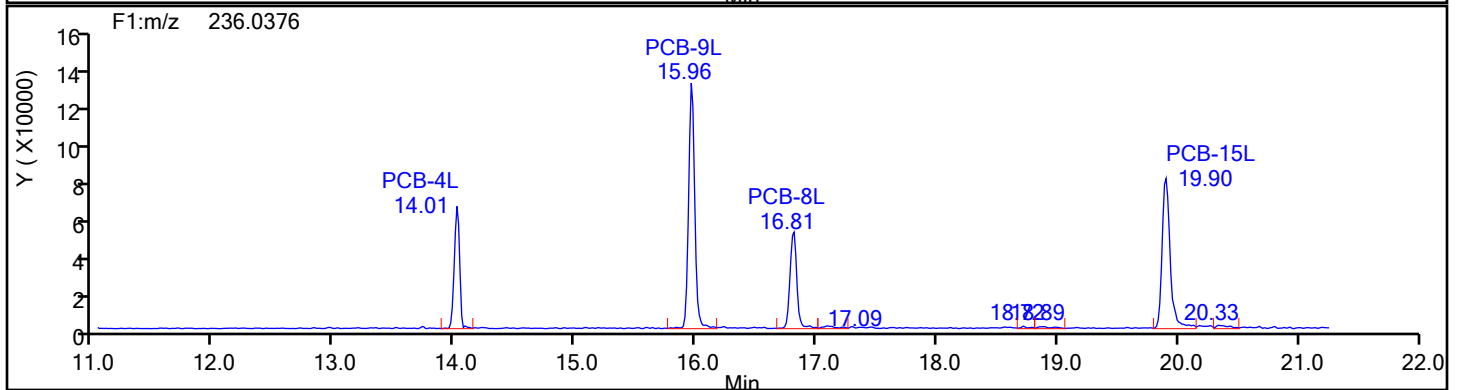
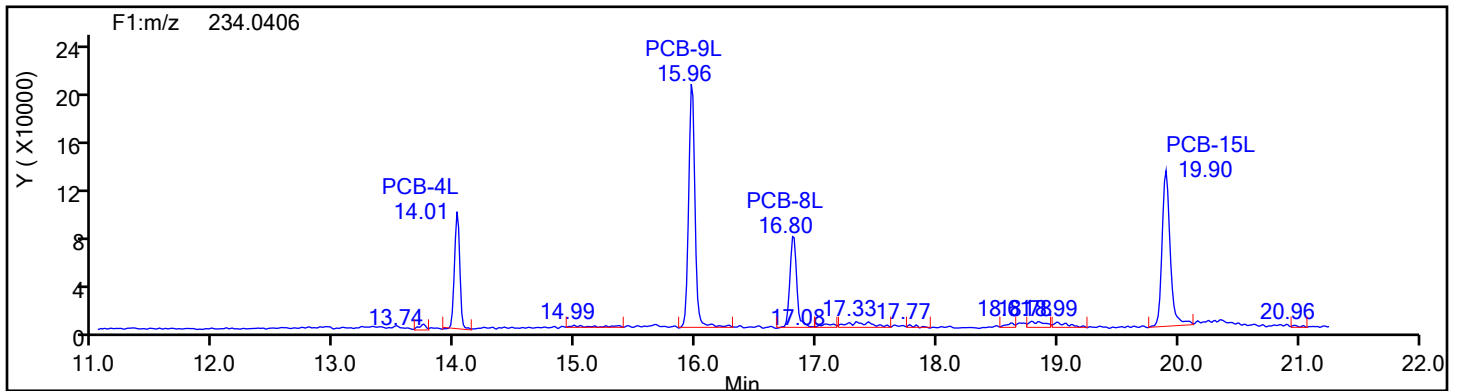


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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DiPCB F1

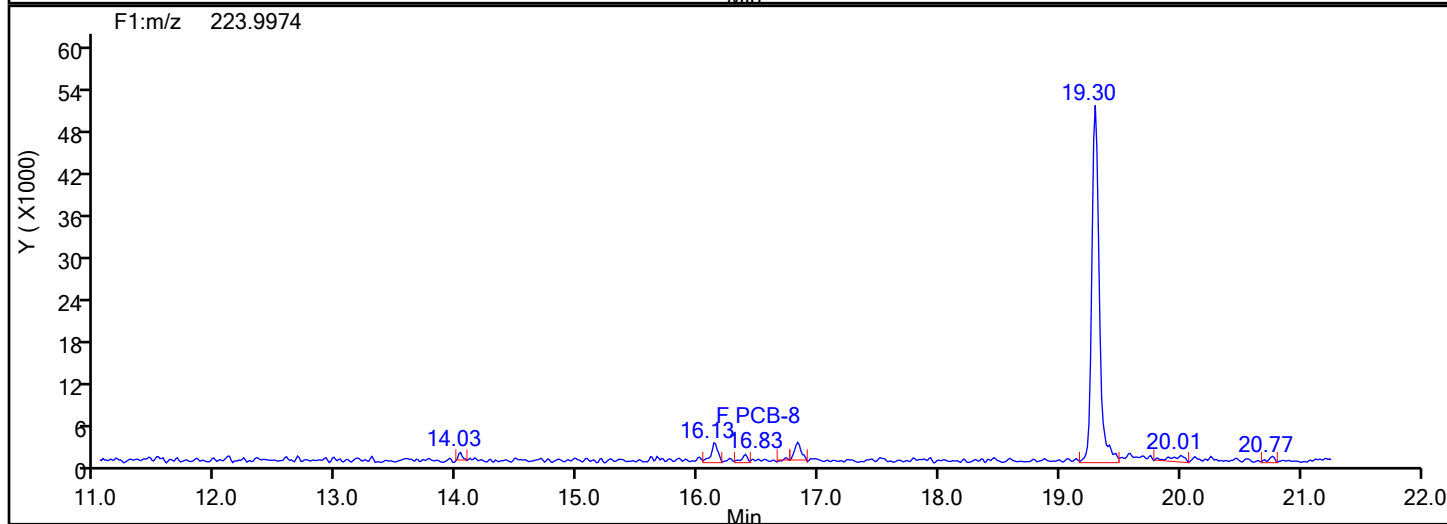
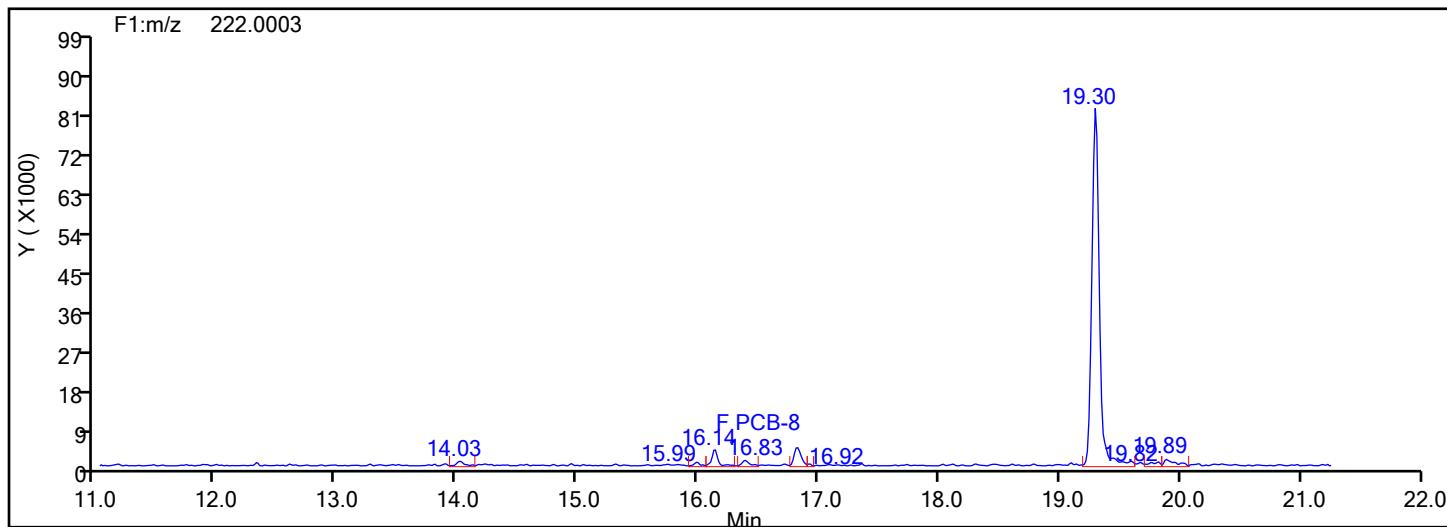


## DiPCB F1 Standards

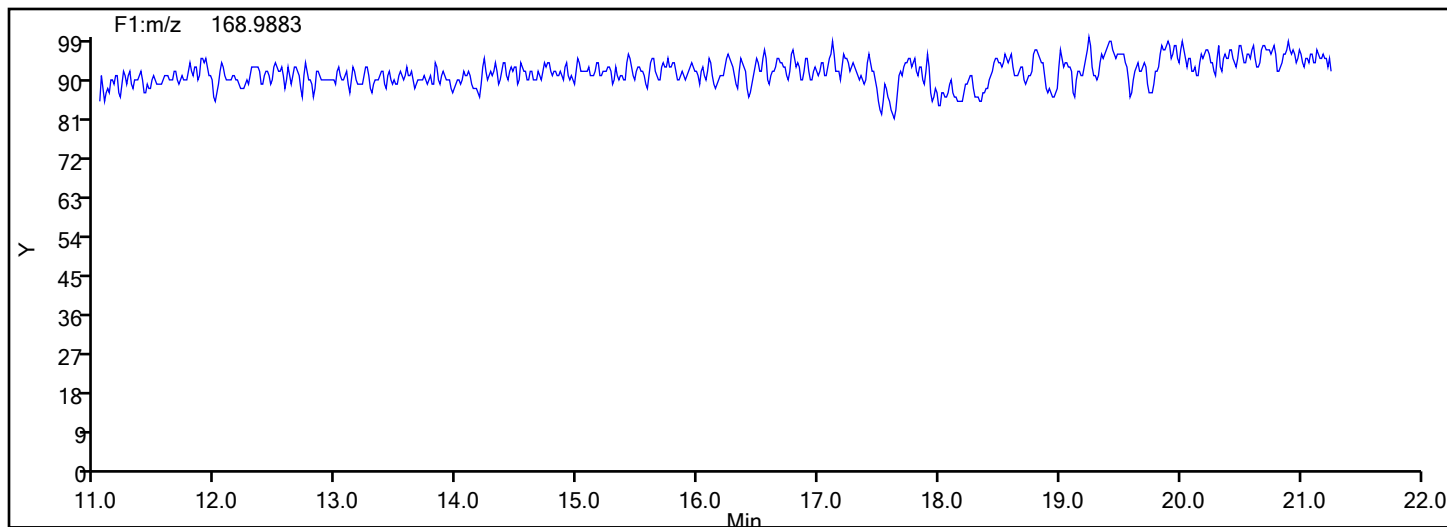


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DiPCB F1



## DiPCB F1 Lock Mass



## Eurofins Knoxville

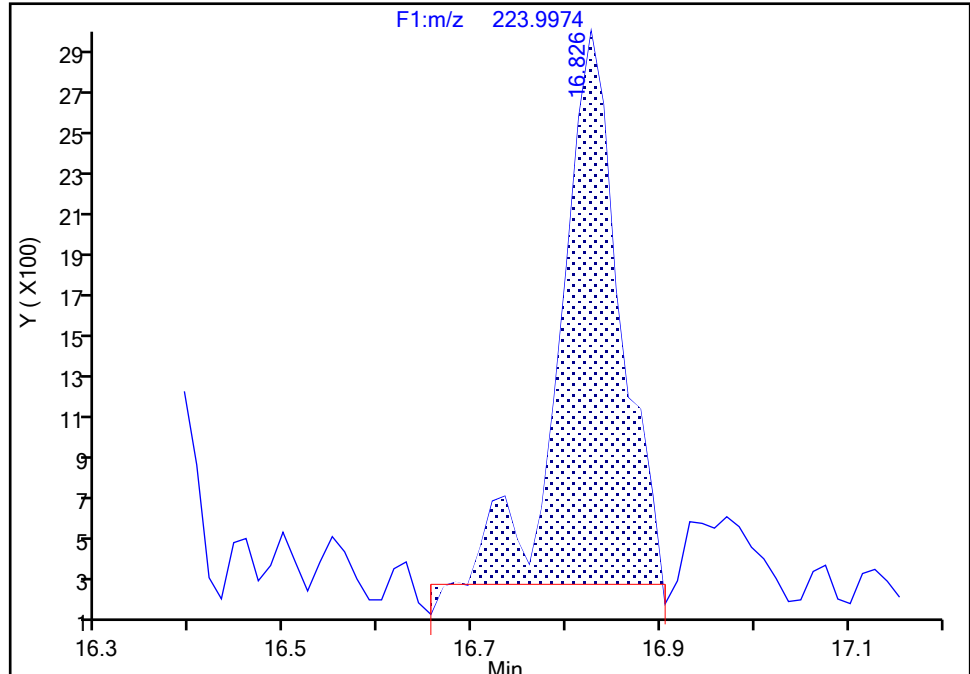
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Lims ID: 140-37234-A-4-D Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F1(11.07 :21.70 )

PCB-8, CAS: 34883-43-7

Signal: 2

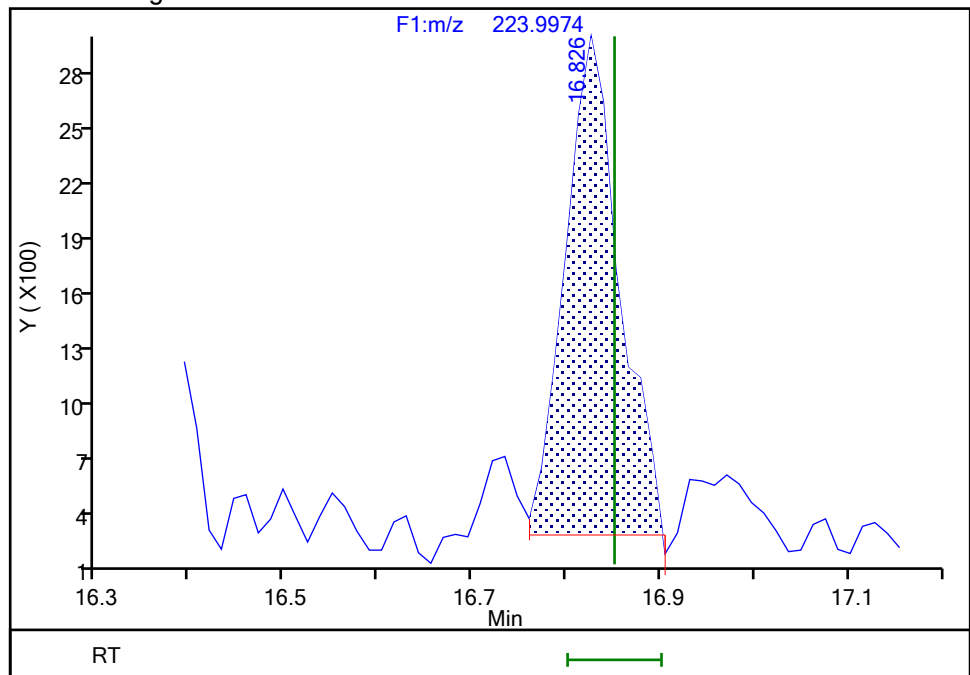
RT: 16.83  
Area: 11673  
Amount: 0.499966  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.83  
Area: 10738  
Amount: 0.470264  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 12:12:47 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

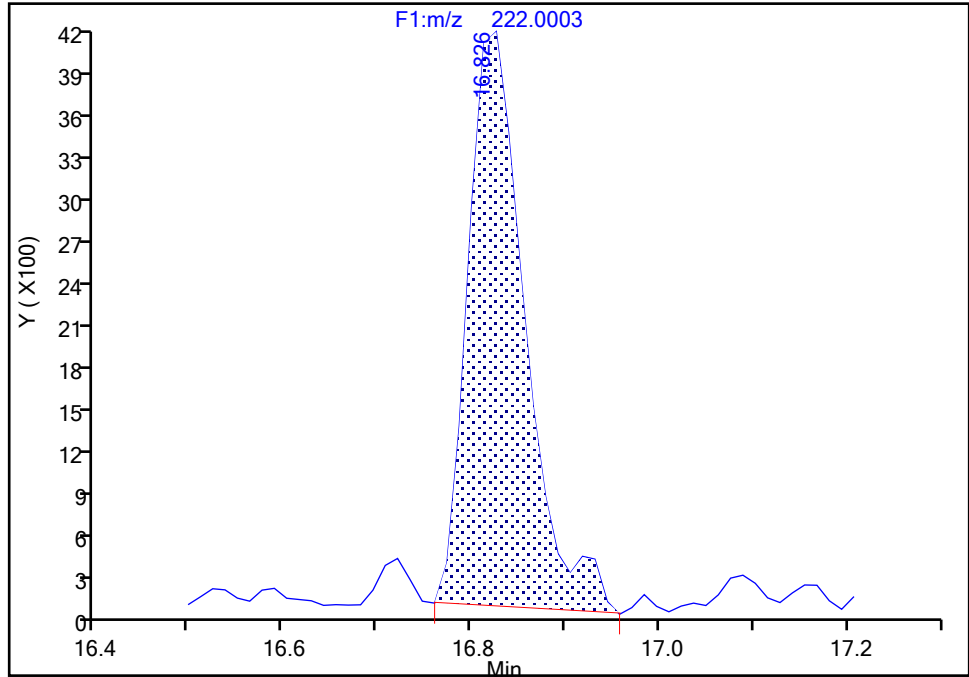
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Injection Date: 16-Jul-2024 21:40:00 Instrument ID: D2D  
Lims ID: 140-37234-A-4-D Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F1(11.07 :21.70 )

PCB-8, CAS: 34883-43-7

Signal: 1

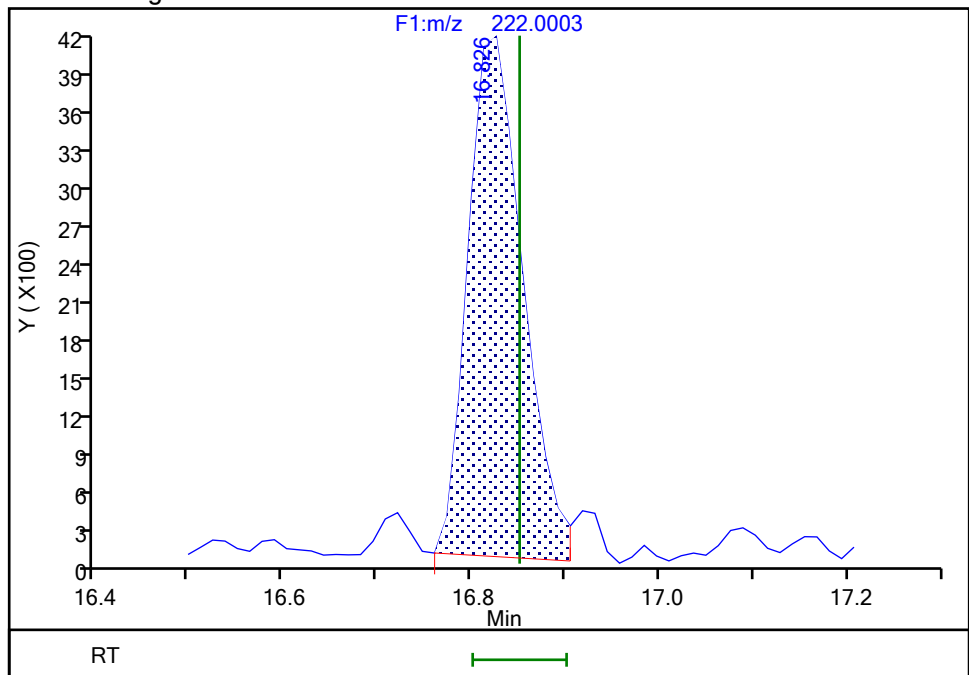
RT: 16.83  
Area: 17464  
Amount: 0.499966  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.83  
Area: 16668  
Amount: 0.470264  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 12:12:50 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

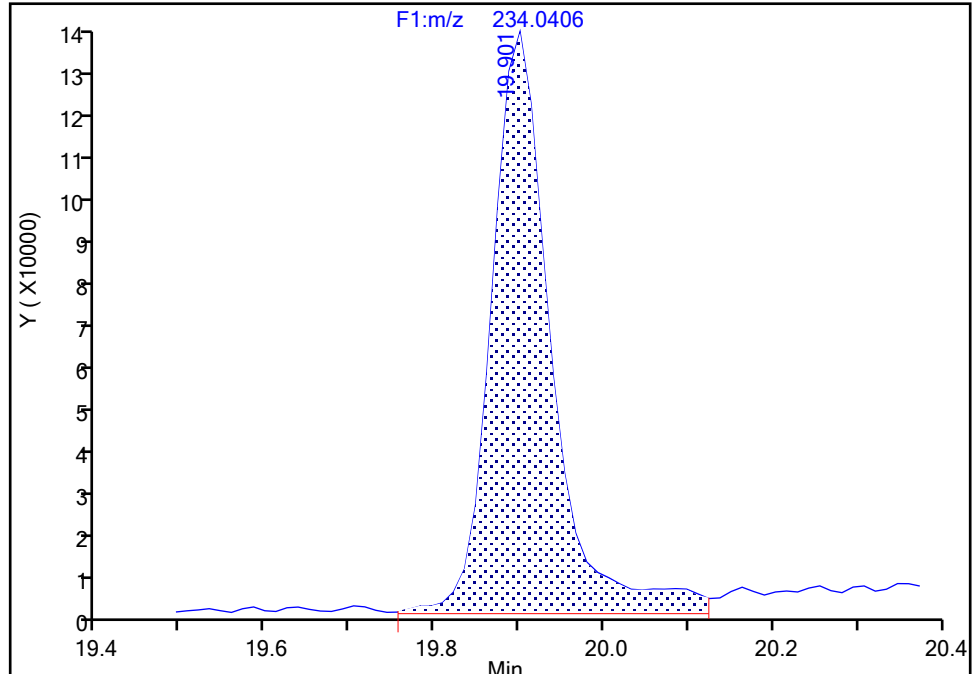
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Lims ID: 140-37234-A-4-D Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F1(11.07 :21.70 )

PCB-15L, CAS: 208263-67-6

Signal: 1

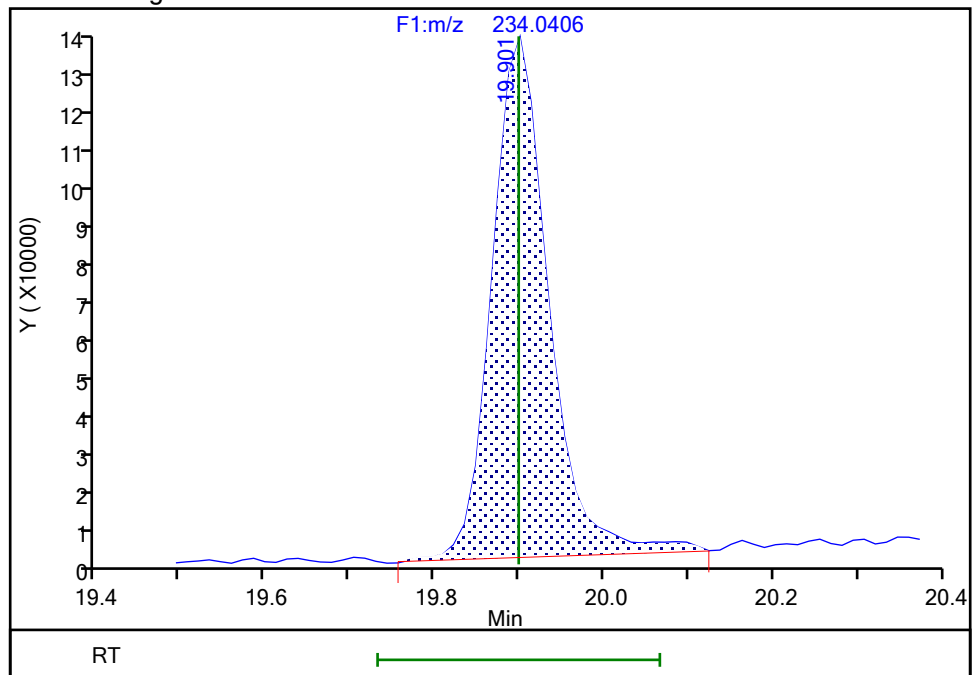
RT: 19.90  
Area: 656616  
Amount: 15.668296  
Amount Units: pg/ul

## Processing Integration Results



RT: 19.90  
Area: 611272  
Amount: 14.971904  
Amount Units: pg/ul

## Manual Integration Results



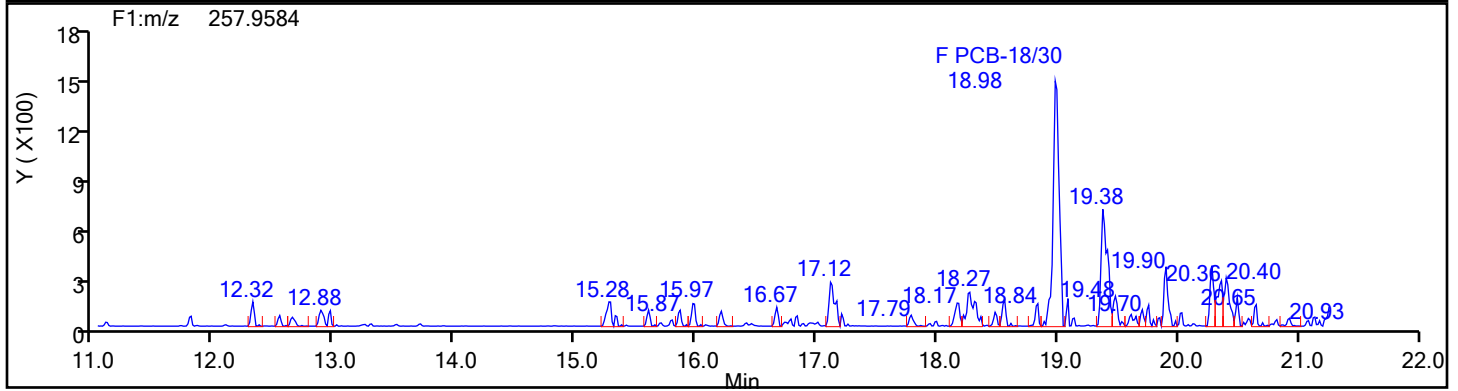
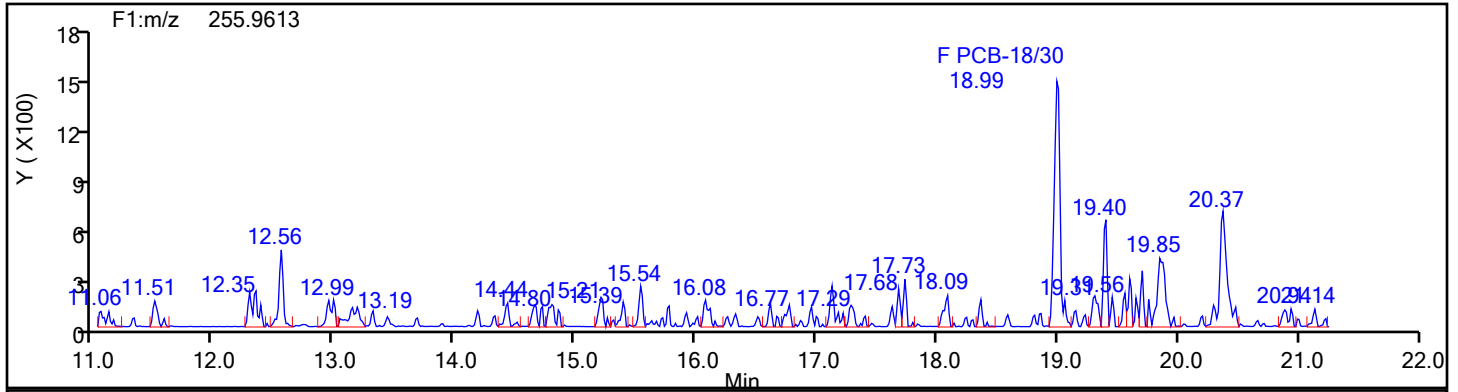
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Audit Action: Manually Integrated

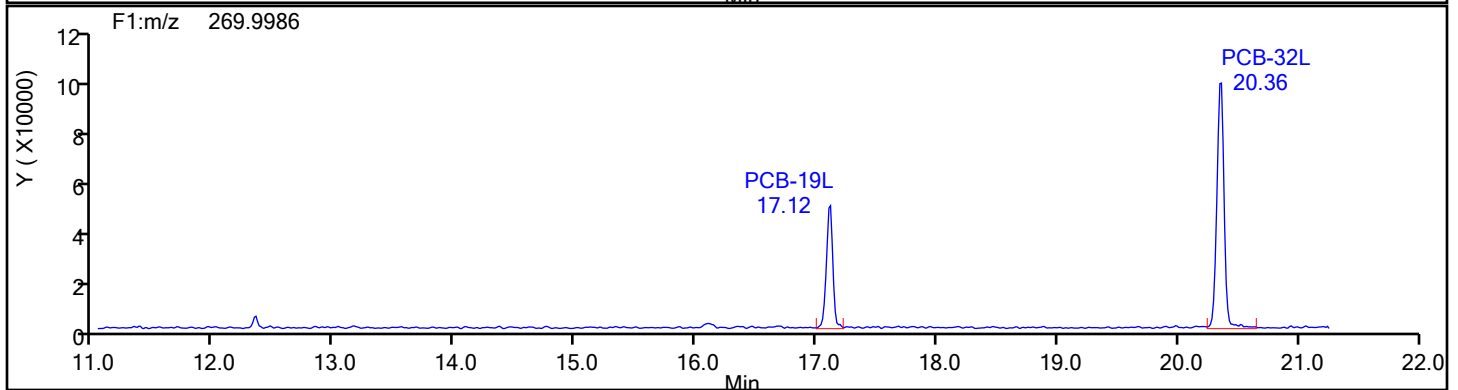
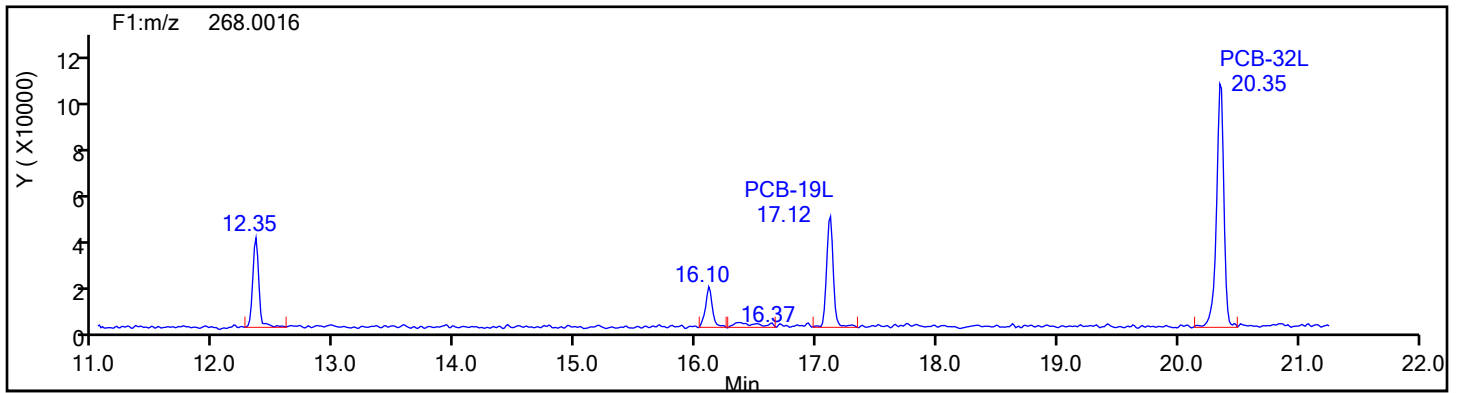
Audit Reason: Incomplete Integration

## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F1

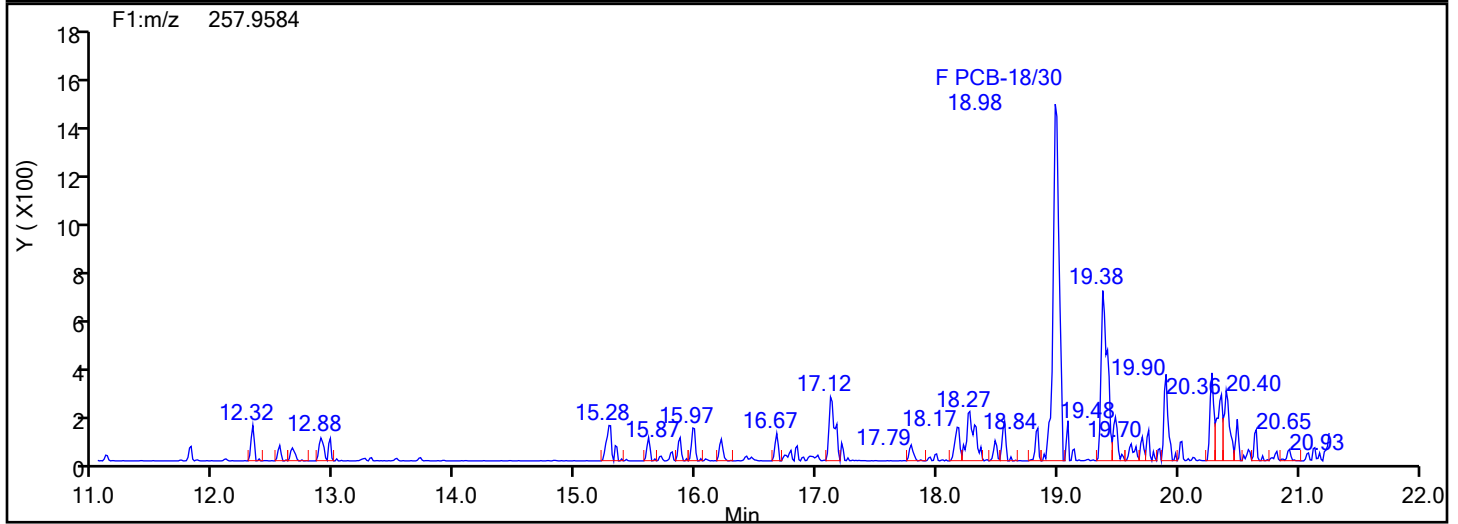
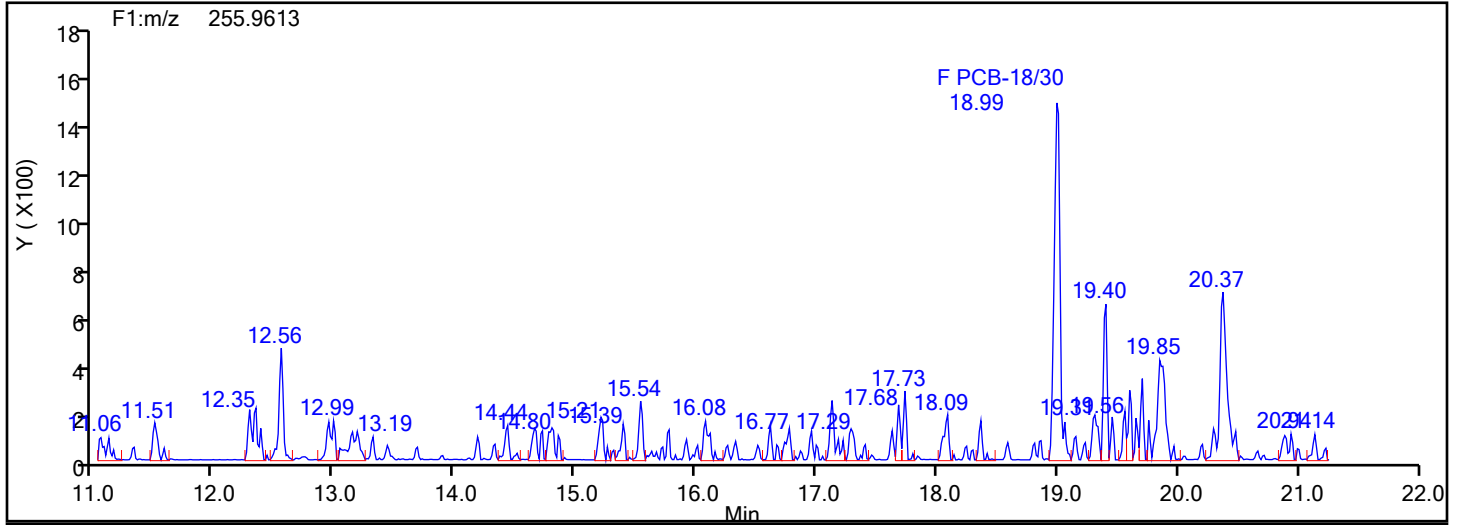


## TriPCB F1 Standards

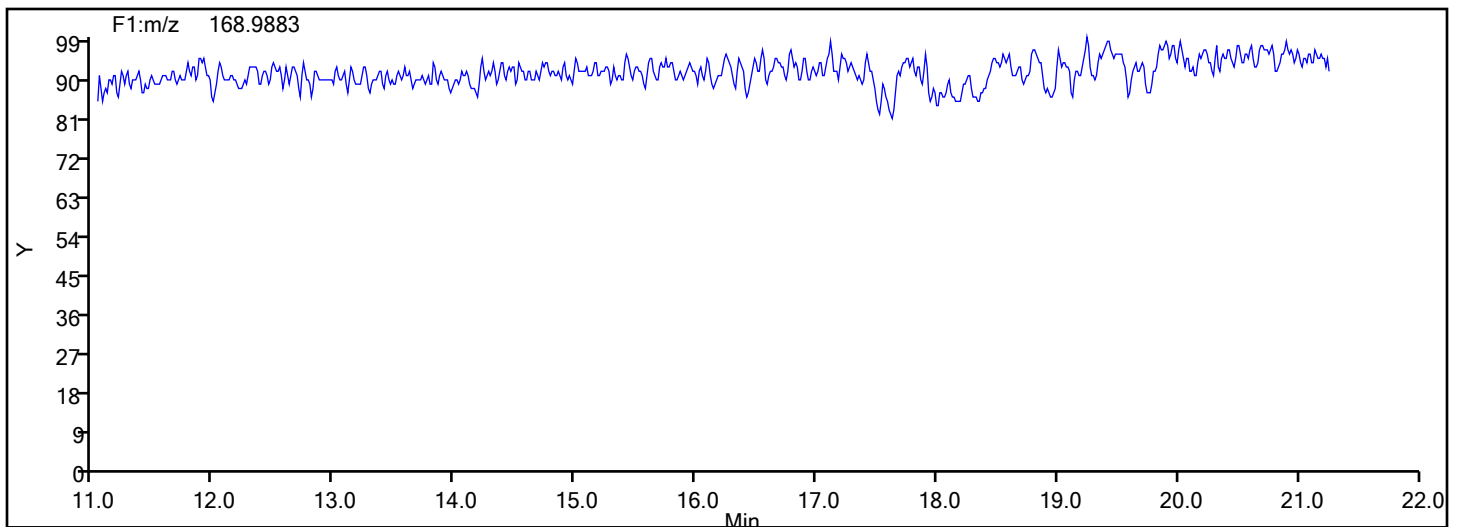


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F1



## TriPCB F1 Lock Mass





## Eurofins Knoxville

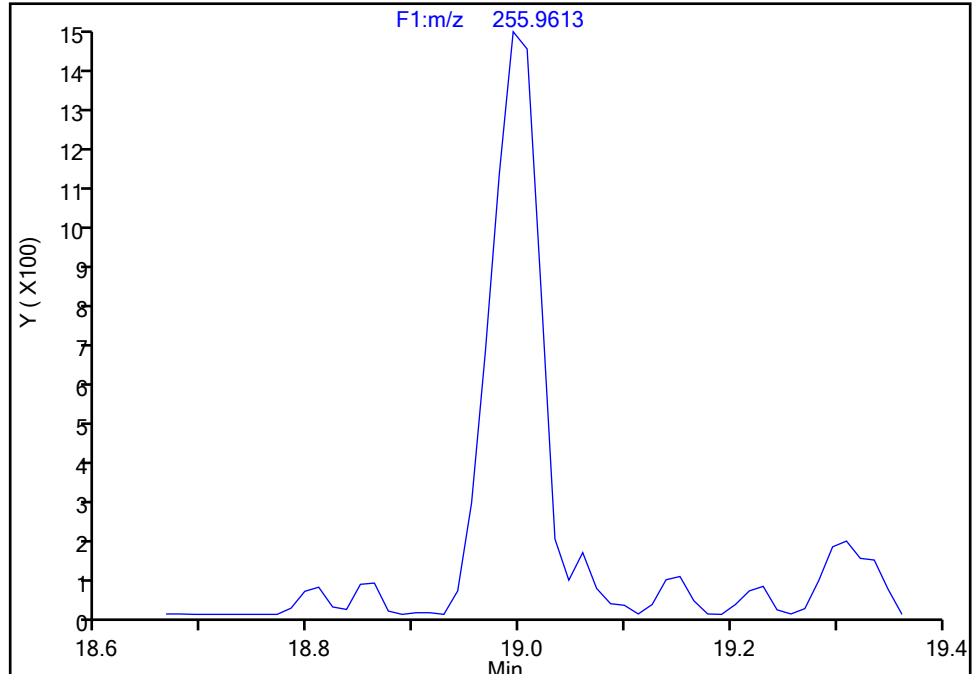
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Lims ID: 140-37234-A-4-D Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F1(11.07 :21.70 )

**PCB-18/30, CAS: STL01798**

Signal: 1

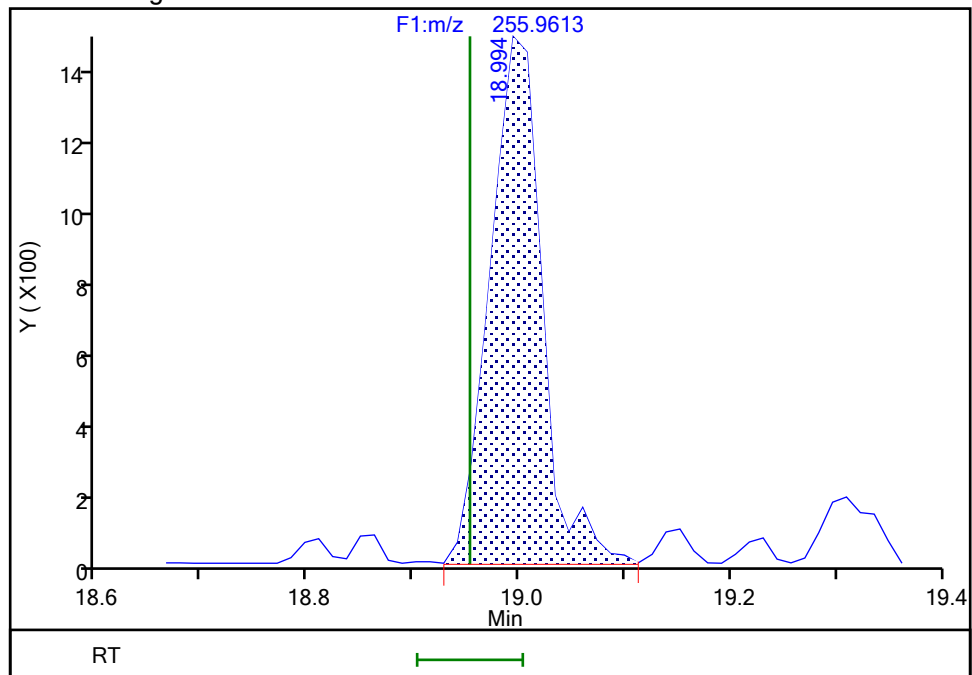
Not Detected  
Expected RT: 18.95

## Processing Integration Results



RT: 18.99  
Area: 4848  
Amount: 0.311045  
Amount Units: pg/ul

## Manual Integration Results



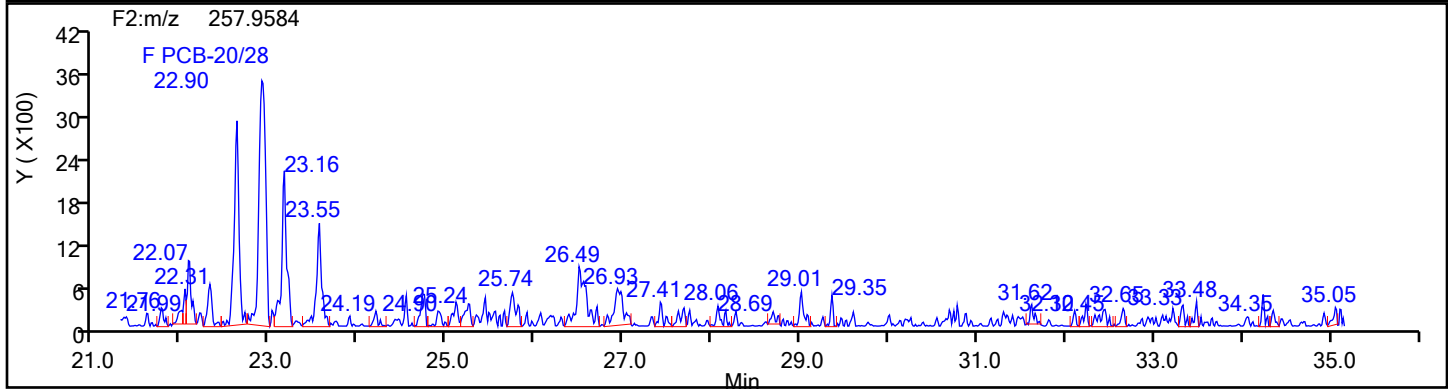
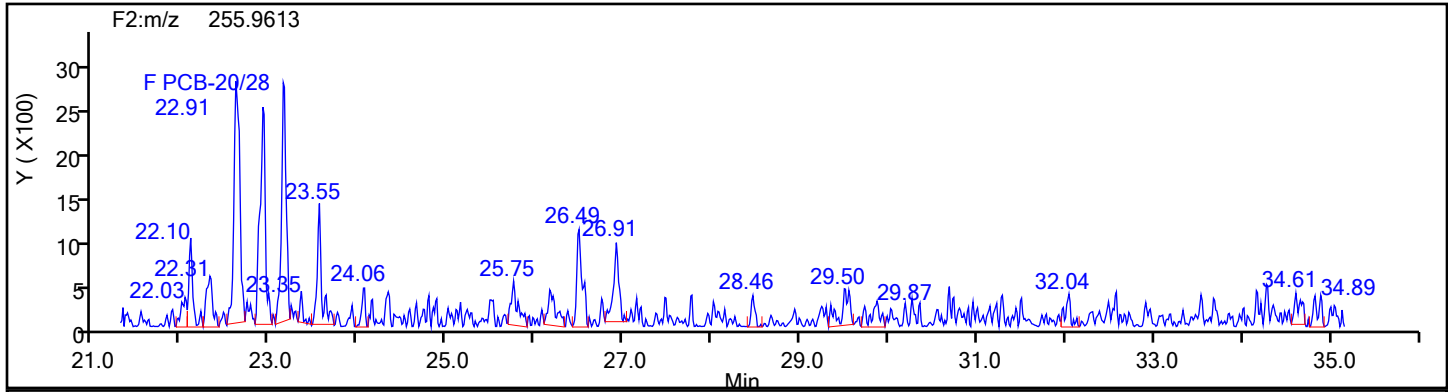
Reviewer: TT6I, 17-Jul-2024 12:13:06 -04:00:00 (UTC)

Audit Action: Assigned Compound ID

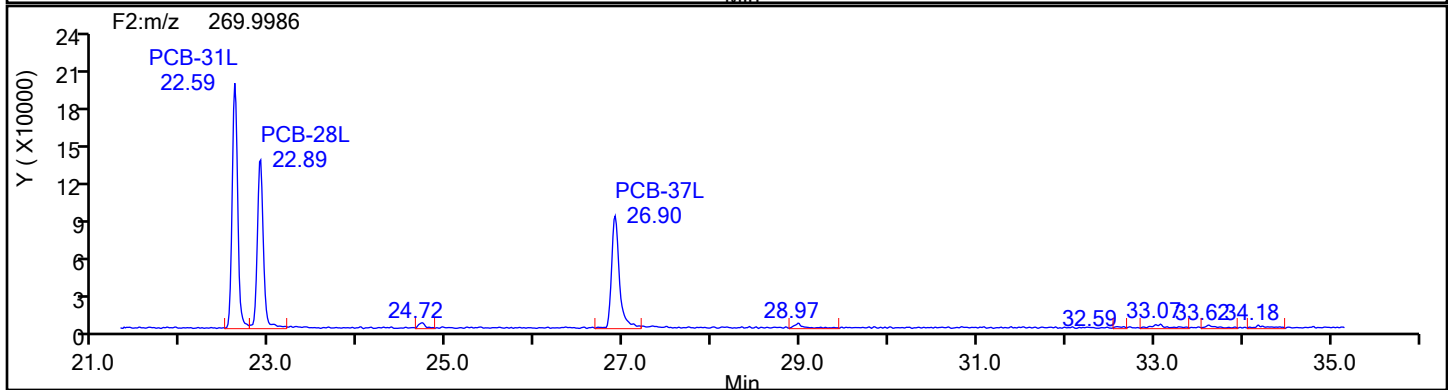
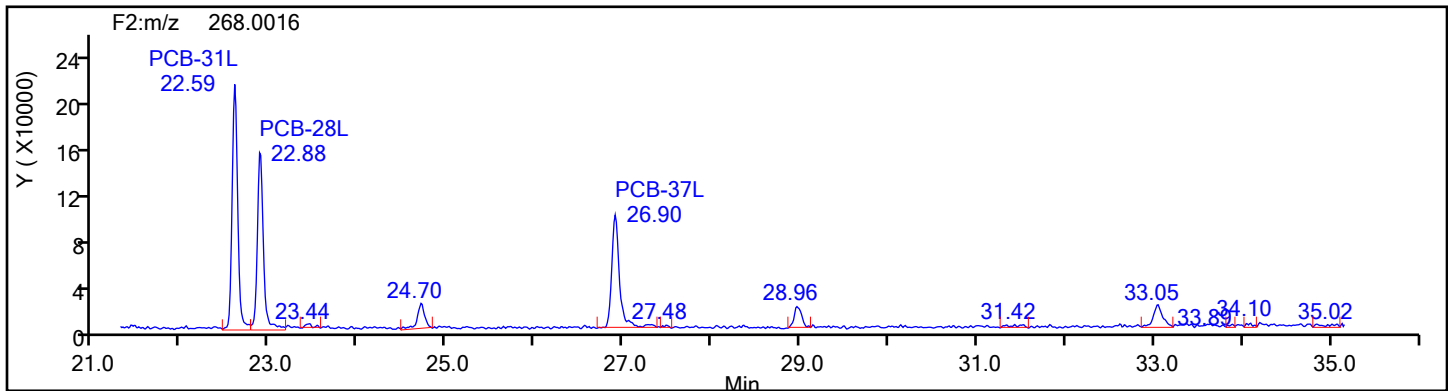
Audit Reason: Incomplete Integration

## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F2

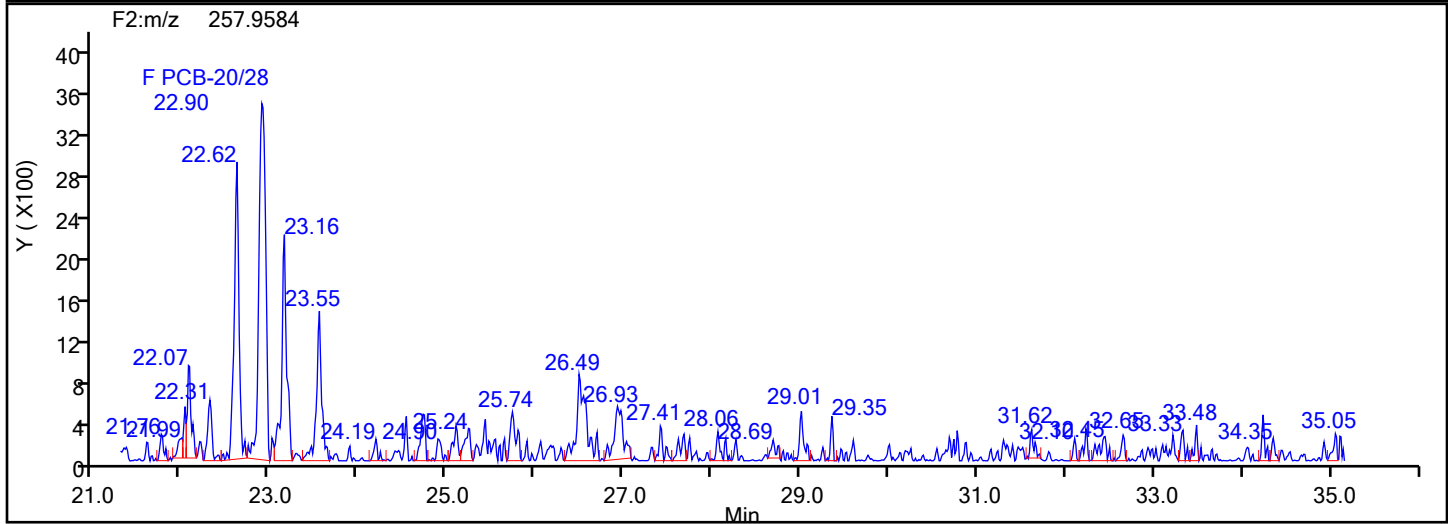
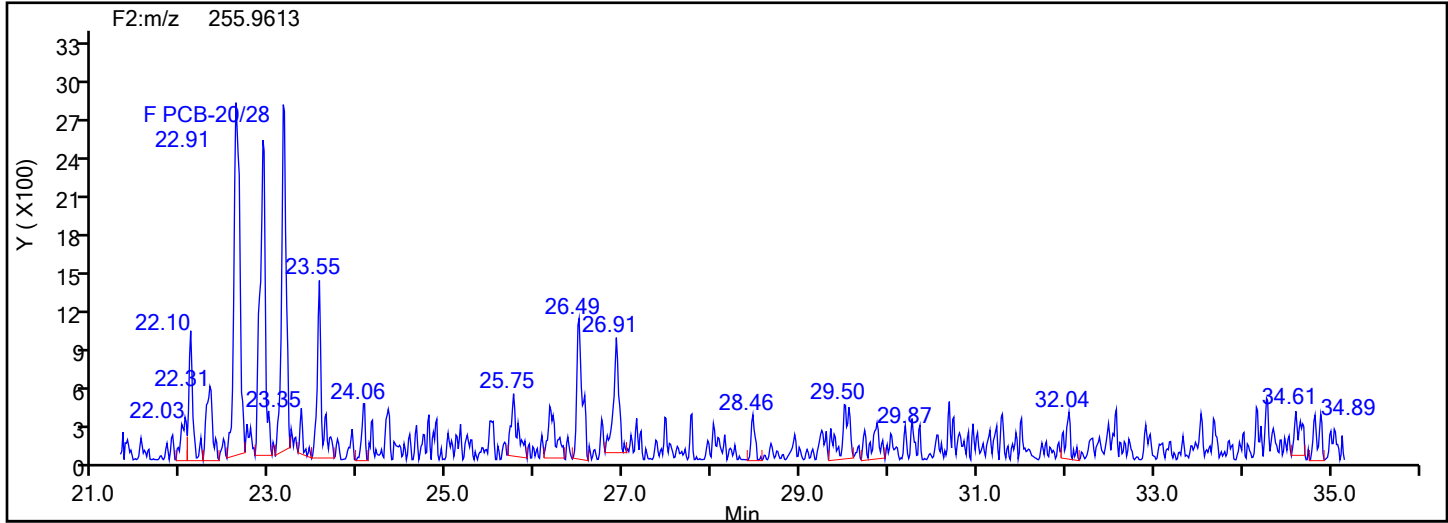


## TriPCB F2 Standards

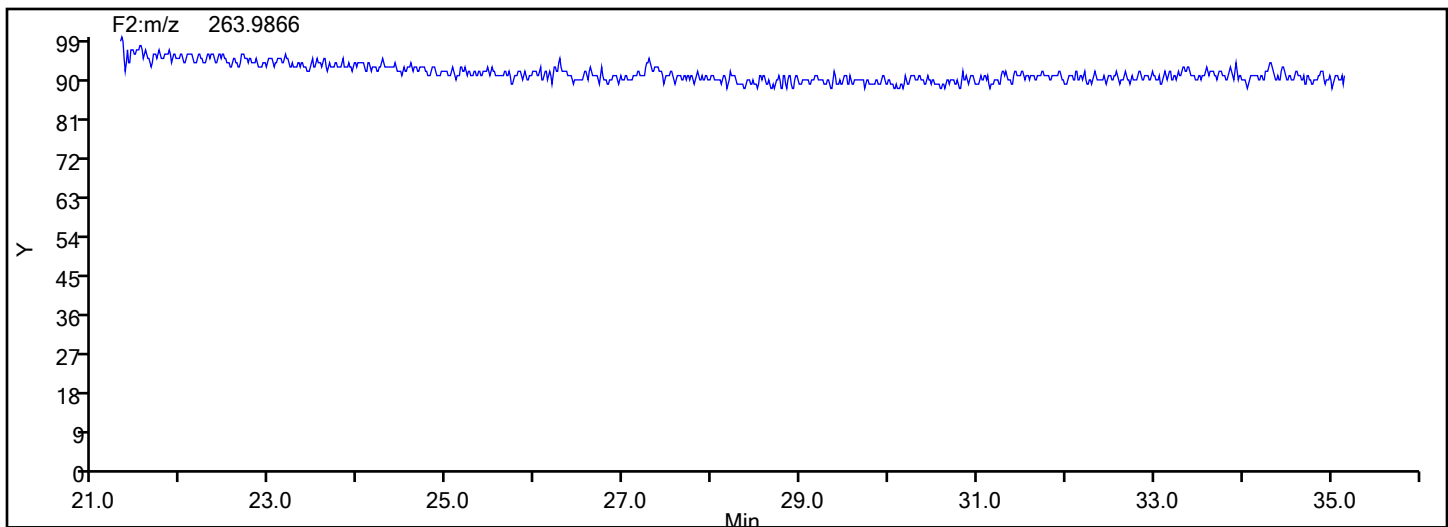


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F2

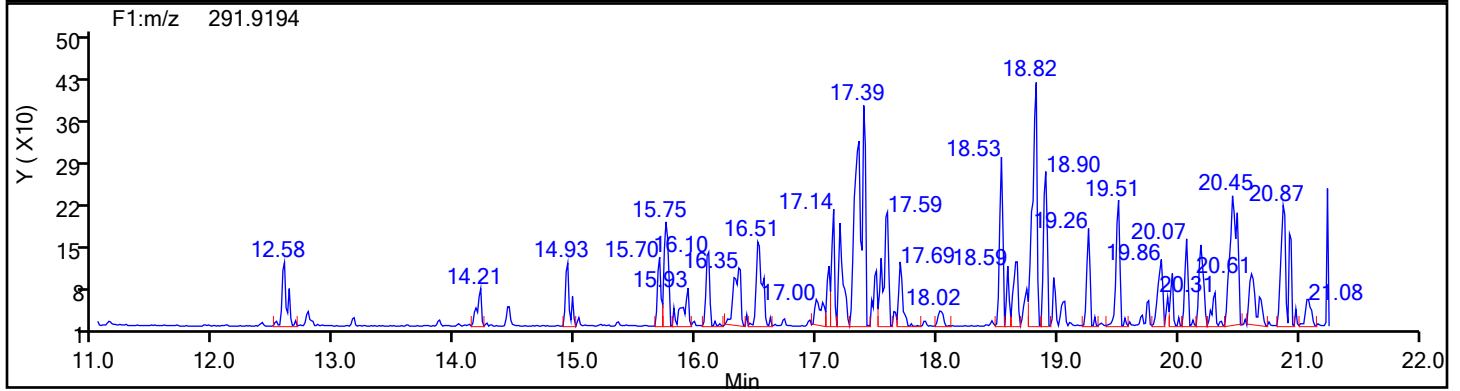
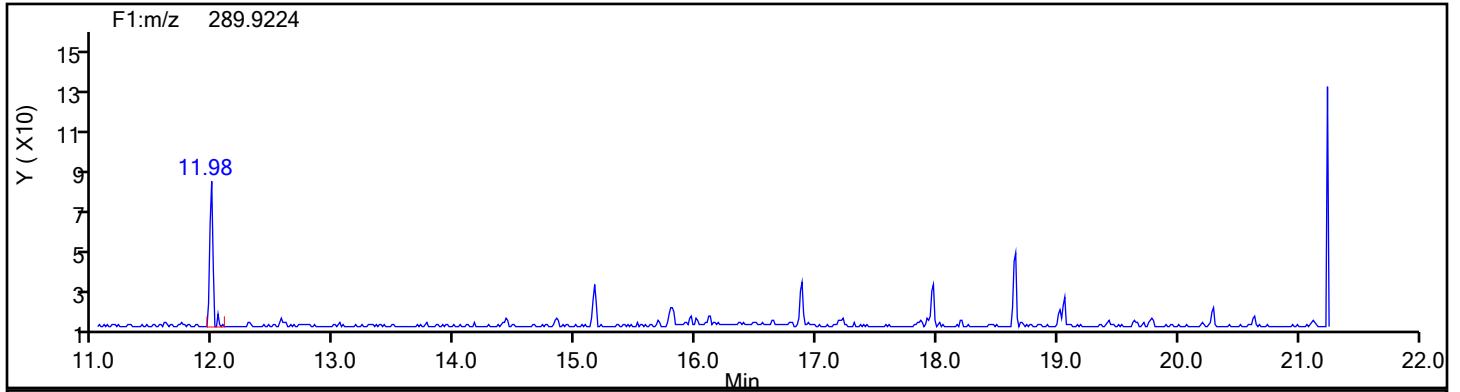


## TriPCB F2 Lock Mass

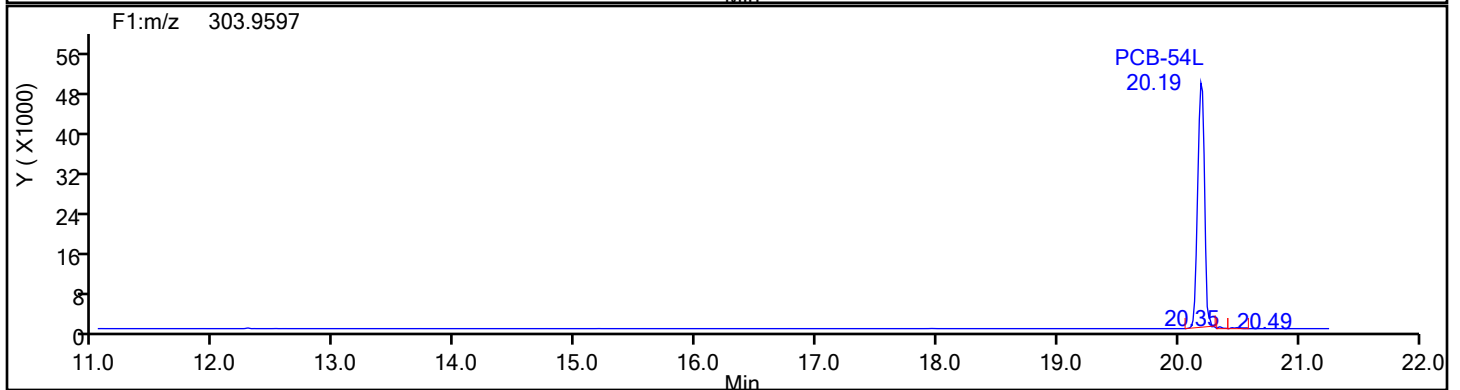
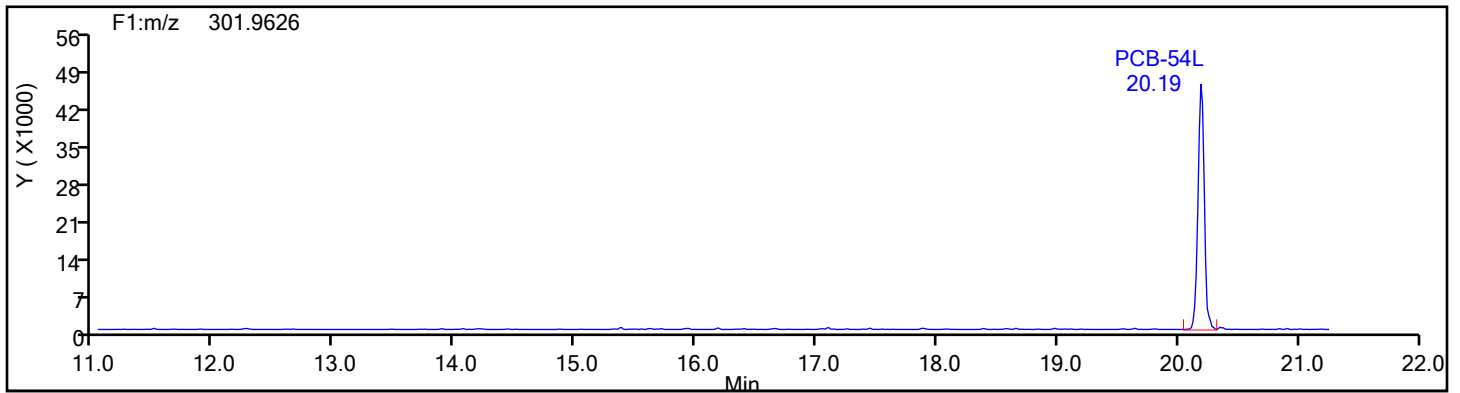


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1

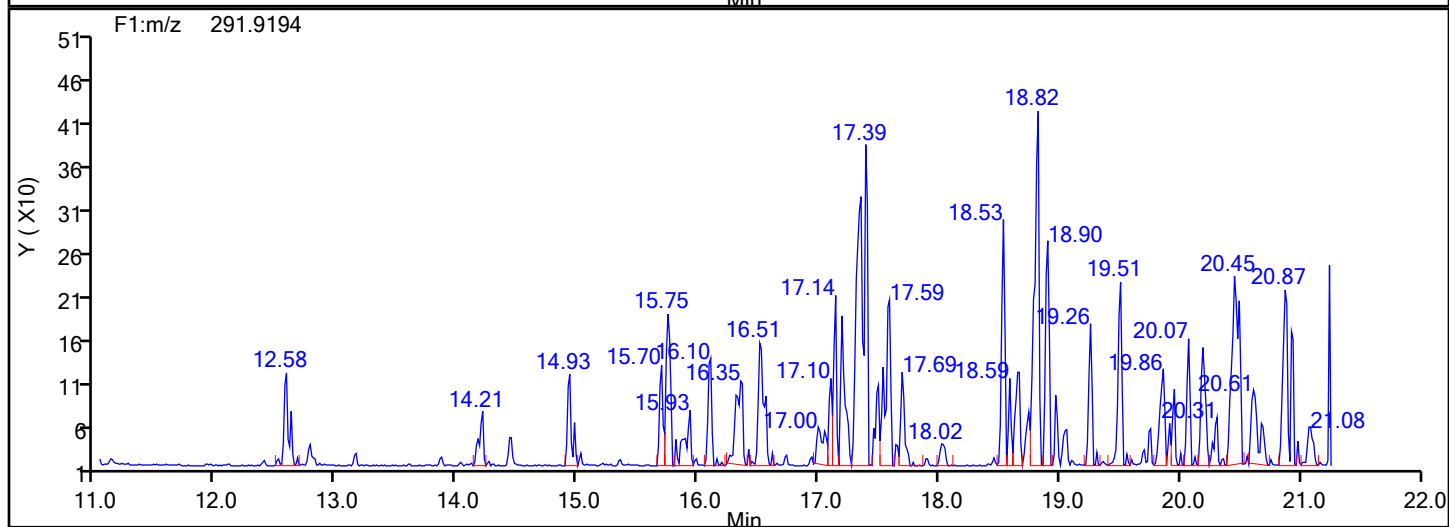
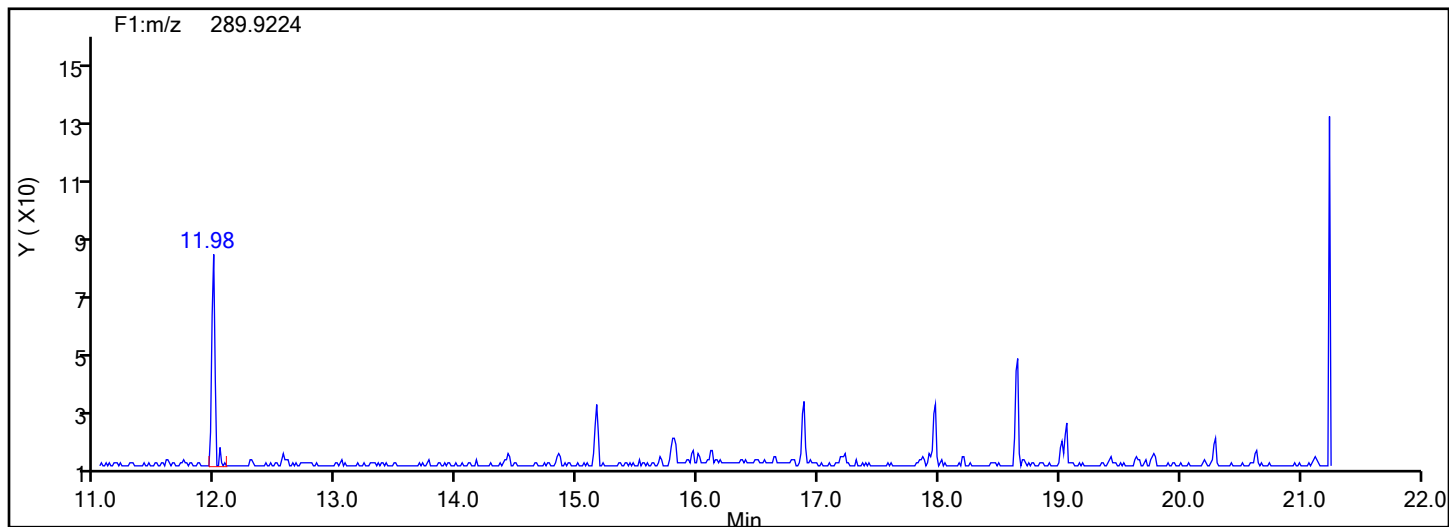


## TePCB F1 Standards

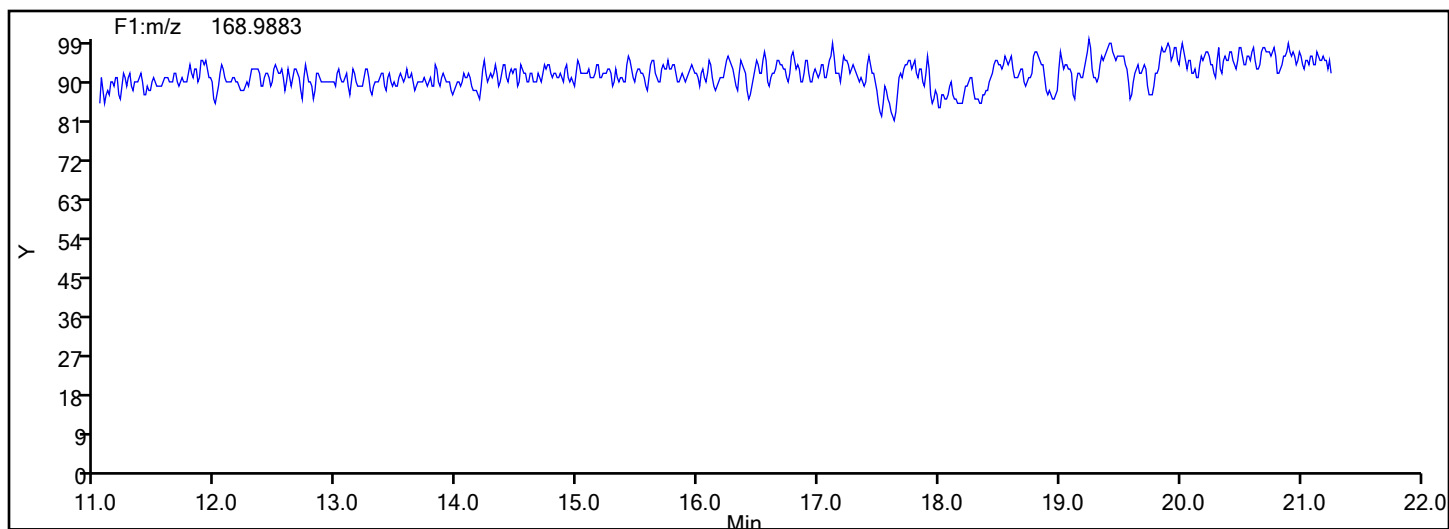


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1

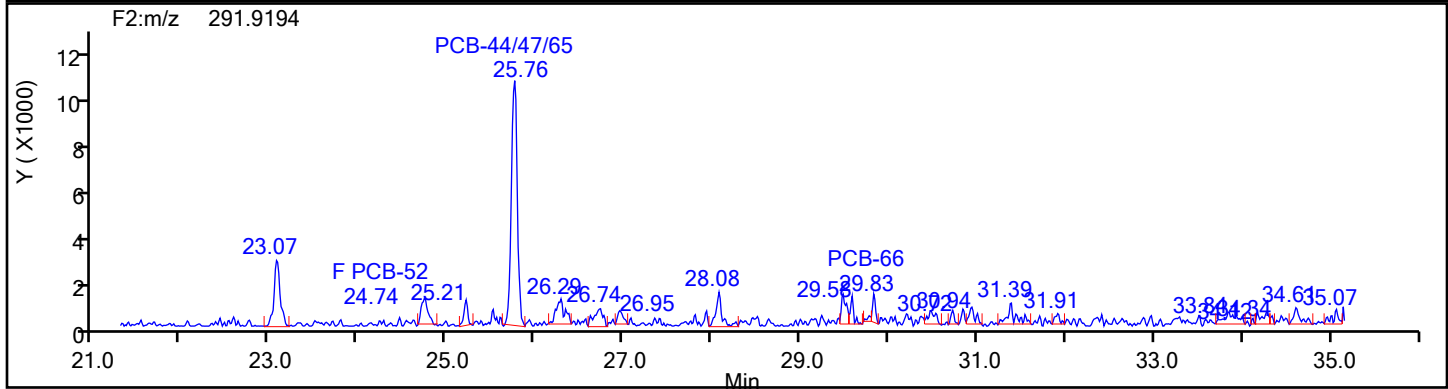
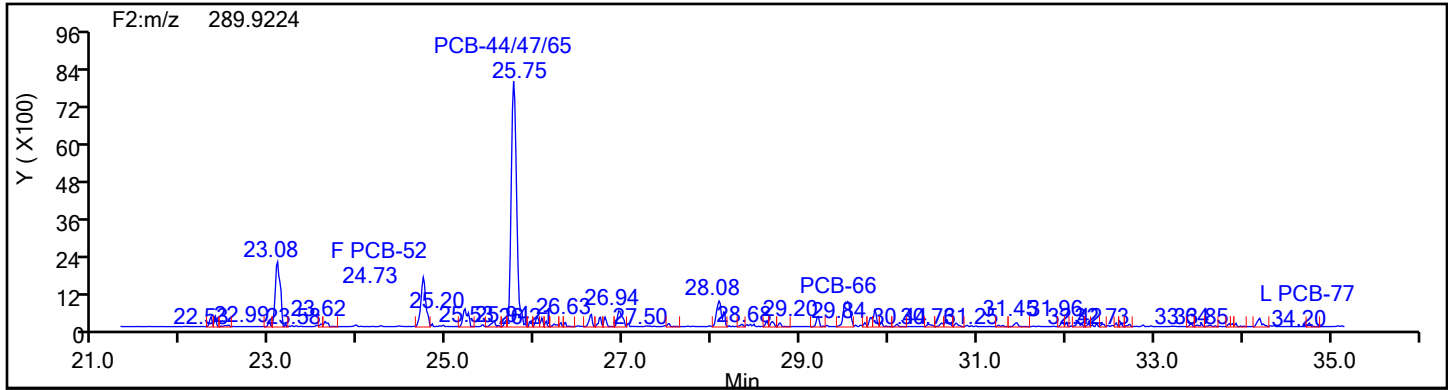


## TePCB F1 Lock Mass

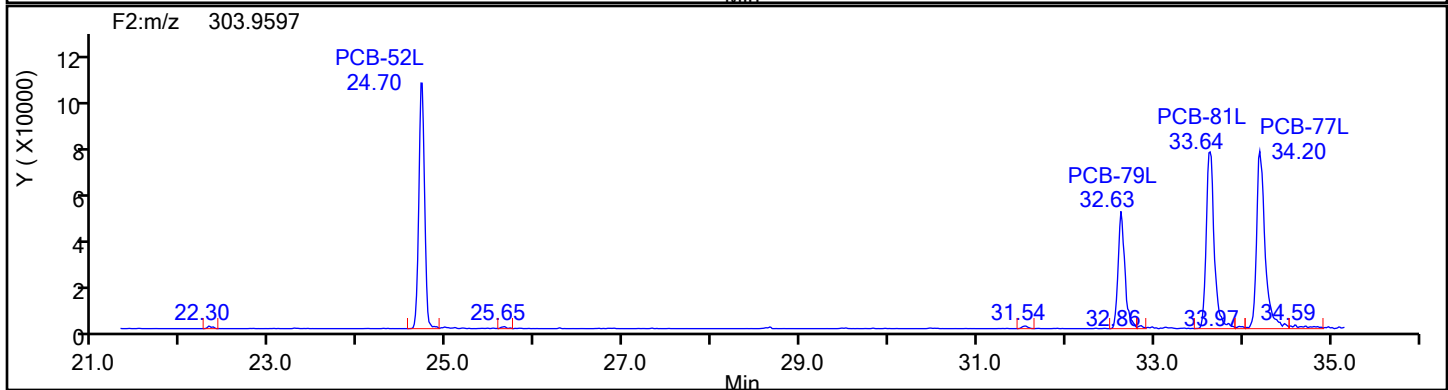
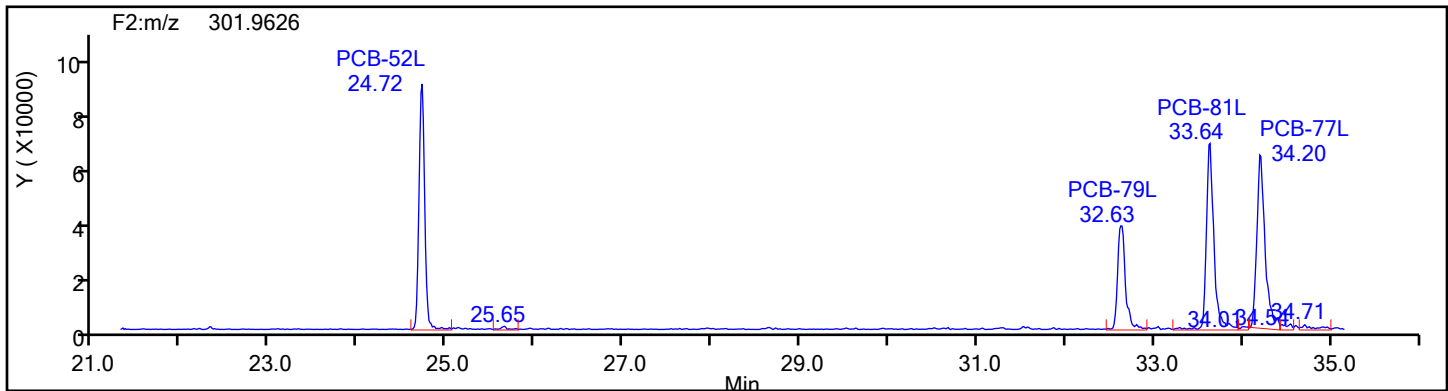


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F2

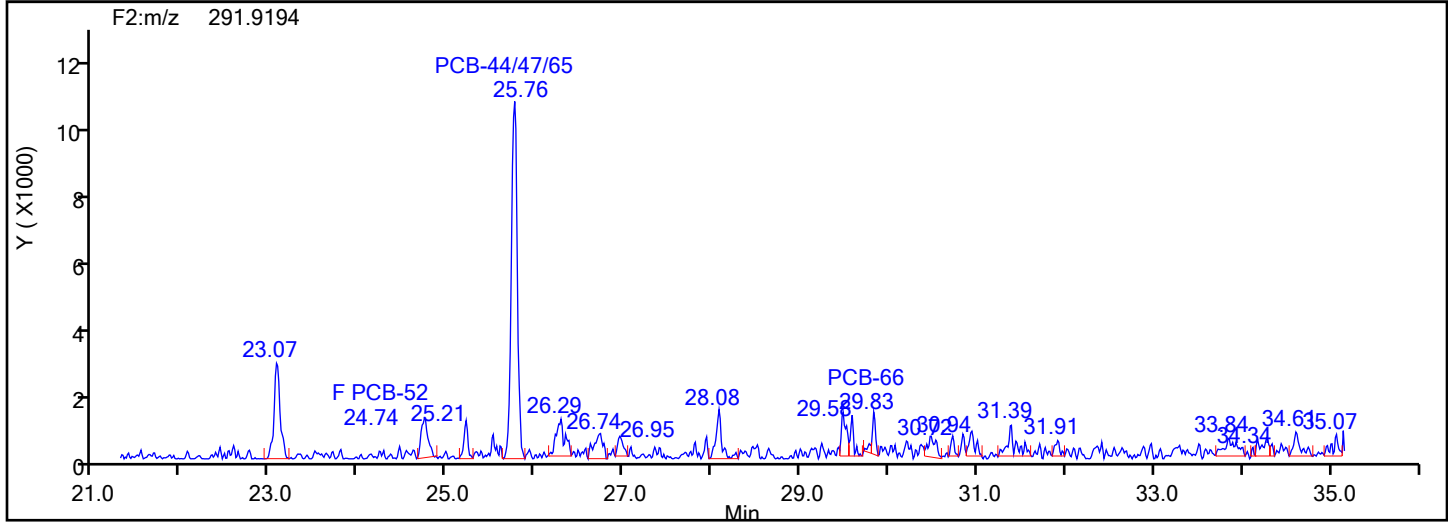
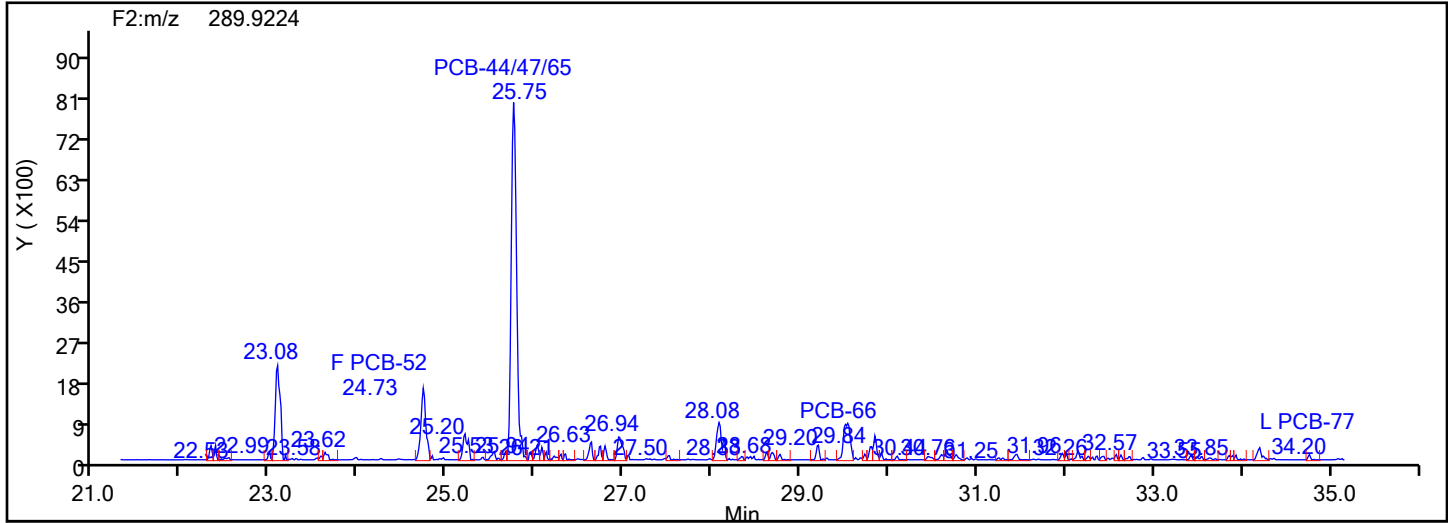


## TePCB F2 Standards

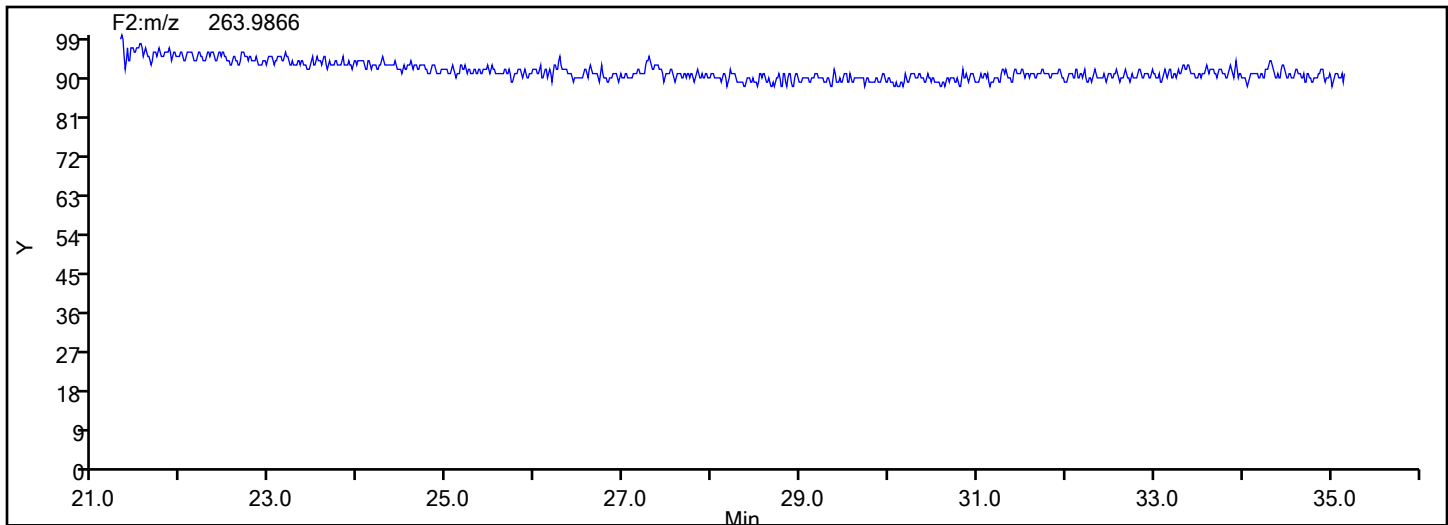


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F2



## TePCB F2 Lock Mass



## Eurofins Knoxville

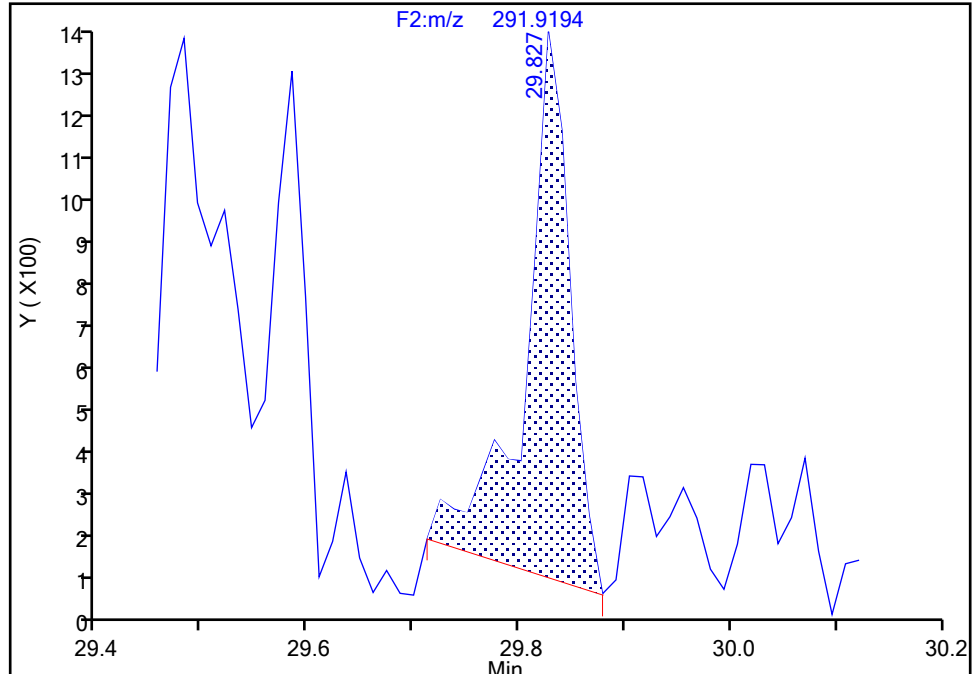
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Injection Date: 16-Jul-2024 21:40:00 Instrument ID: D2D  
Lims ID: 140-37234-A-4-D Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

PCB-66, CAS: 32598-10-0

Signal: 2

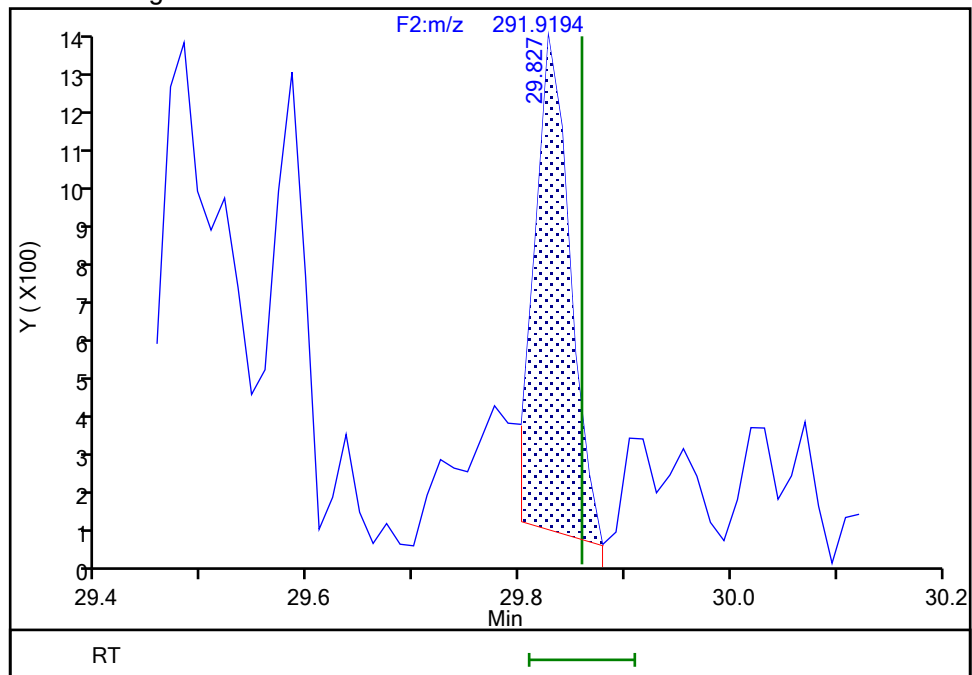
RT: 29.83  
Area: 3627  
Amount: 0.085492  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.83  
Area: 2807  
Amount: 0.071272  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 12:13:42 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration



## Eurofins Knoxville

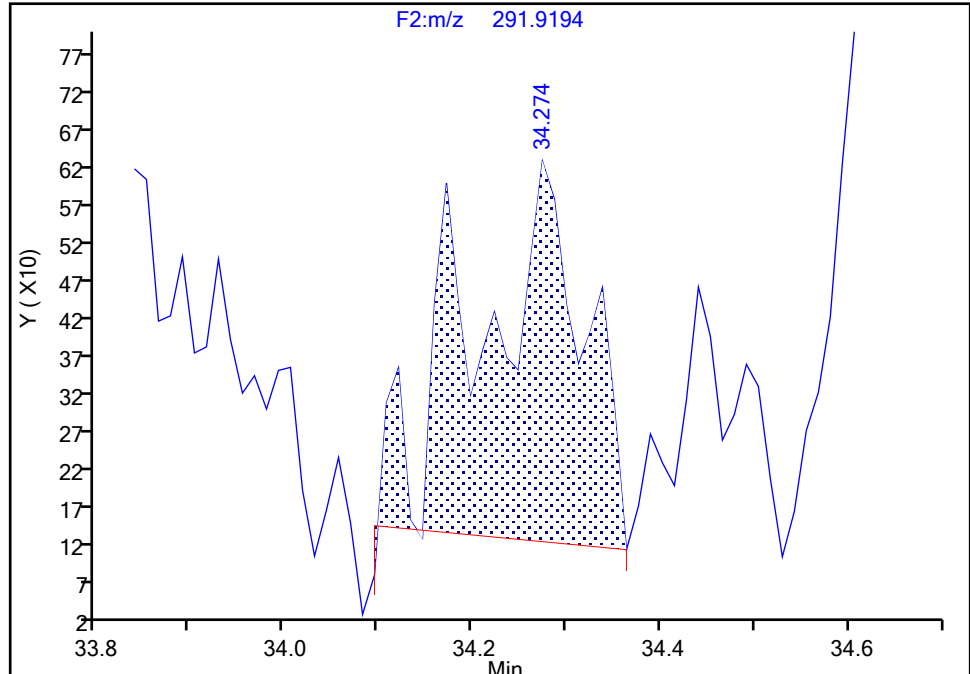
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Injection Date: 16-Jul-2024 21:40:00 Instrument ID: D2D  
Lims ID: 140-37234-A-4-D Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

PCB-77, CAS: 32598-13-3

Signal: 2

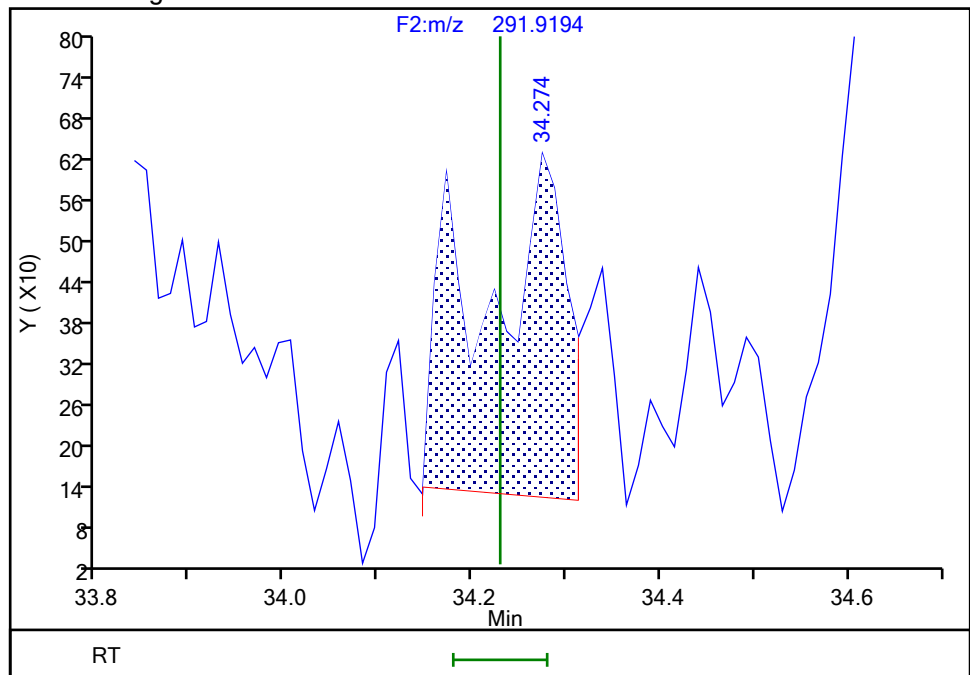
RT: 34.27  
Area: 4049  
Amount: 0.097906  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.27  
Area: 3056  
Amount: 0.078404  
Amount Units: pg/ul

## Manual Integration Results



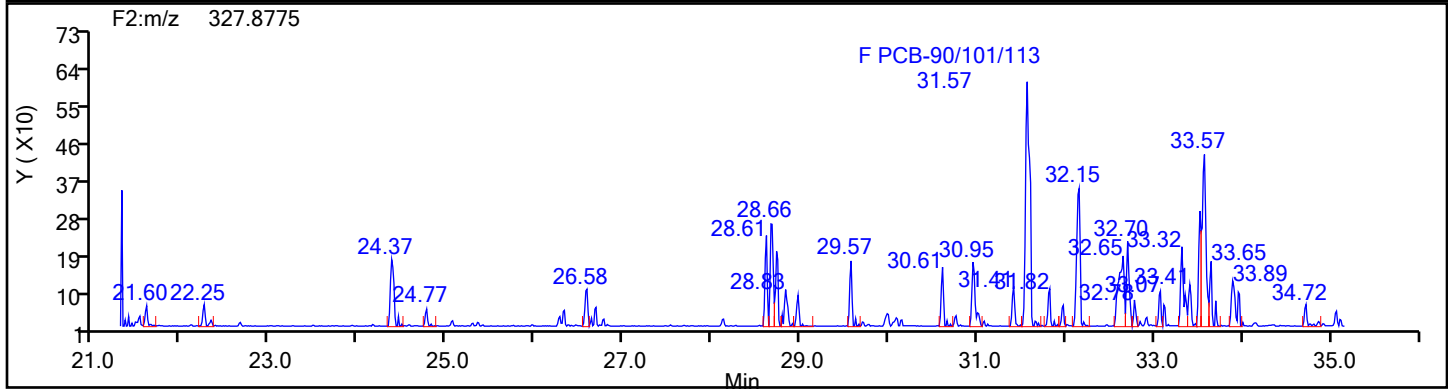
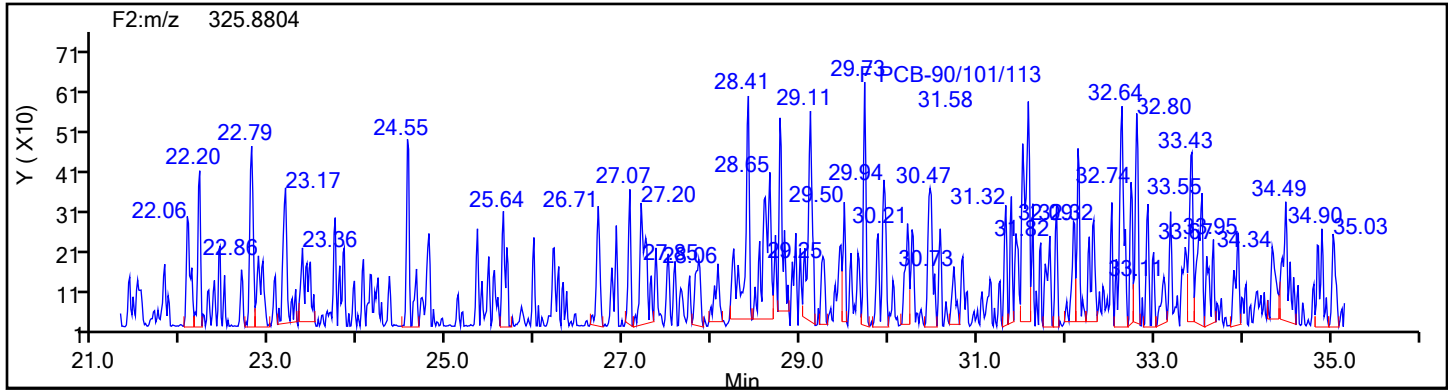
Reviewer: TT6I, 17-Jul-2024 12:13:55 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

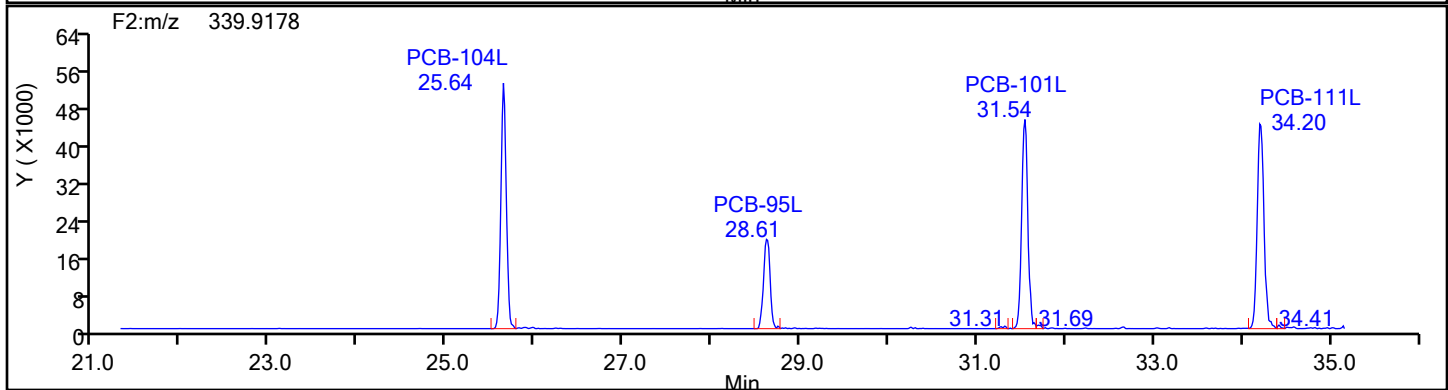
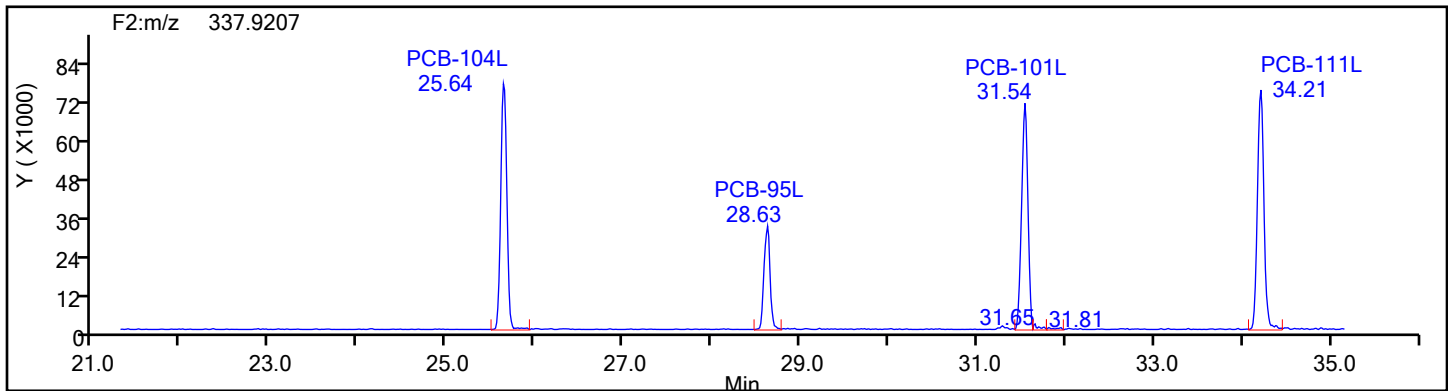
Audit Reason: Incomplete Integration

## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2

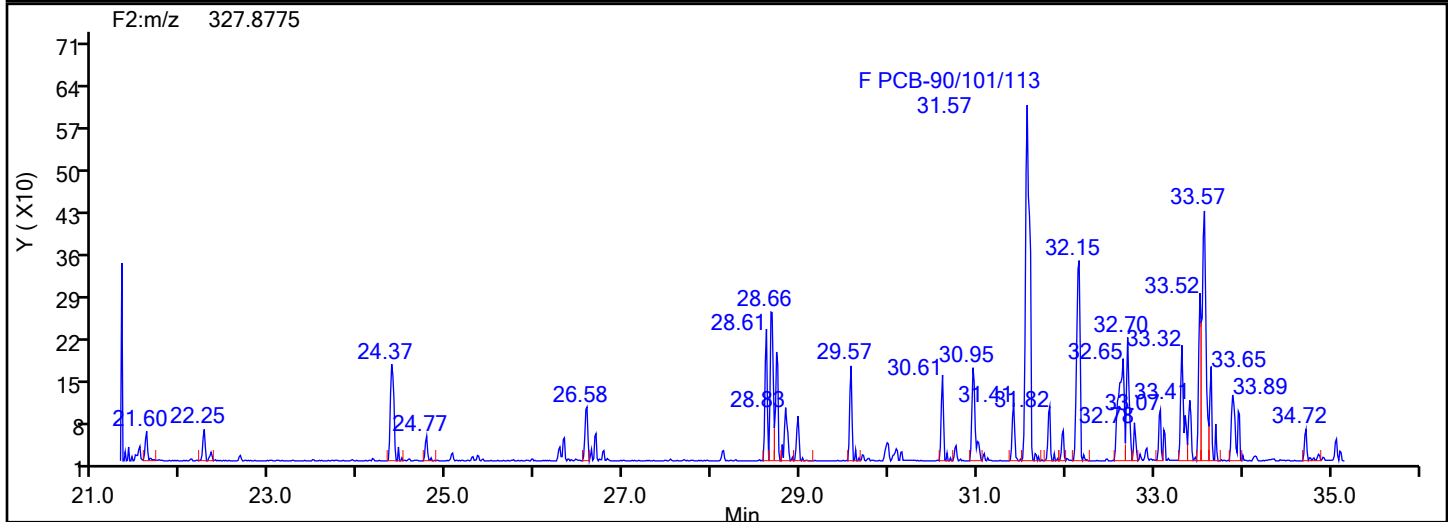
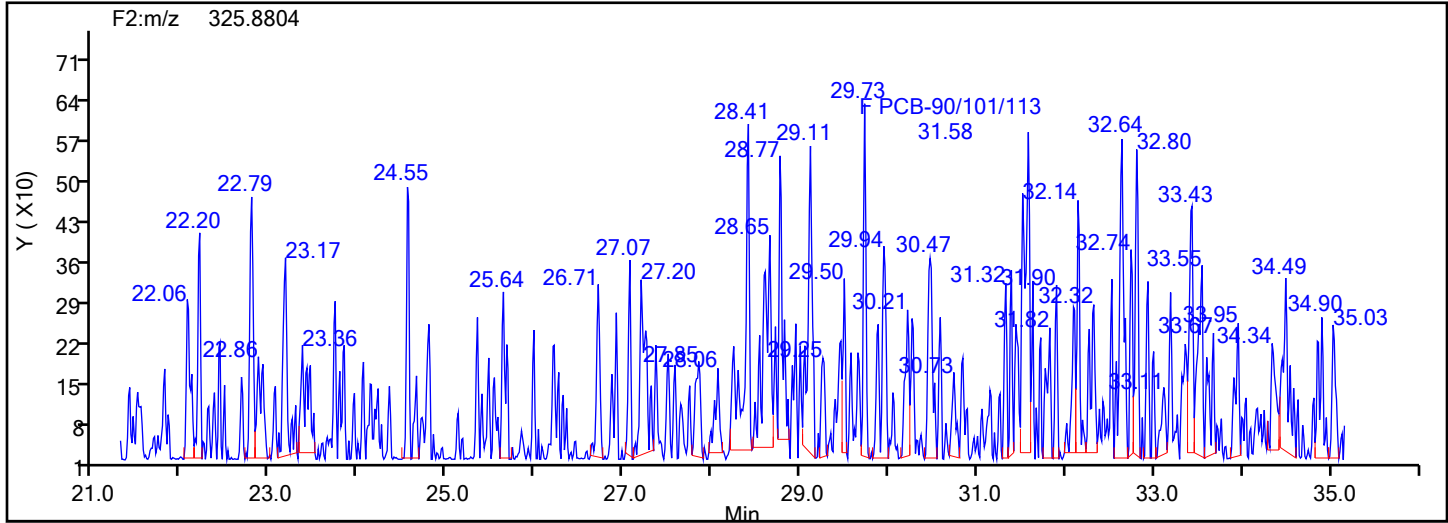


## PePCB F2 Standards

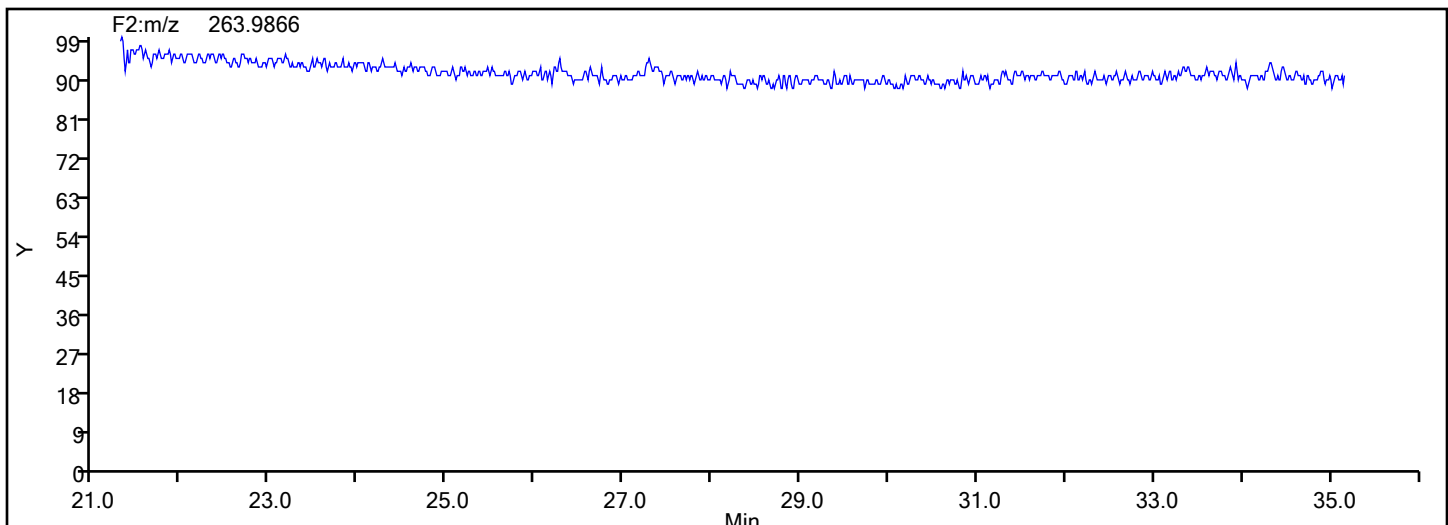


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 21:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2

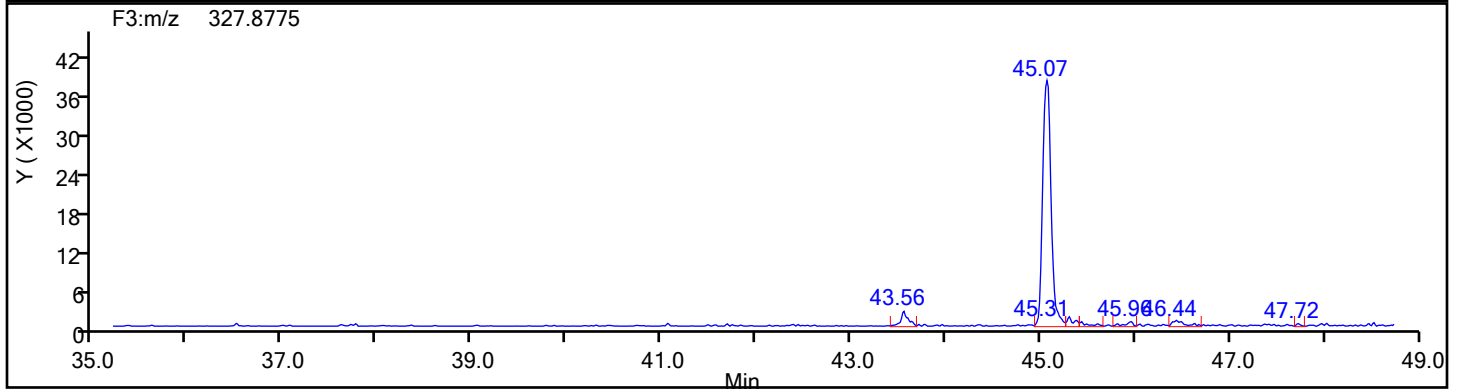
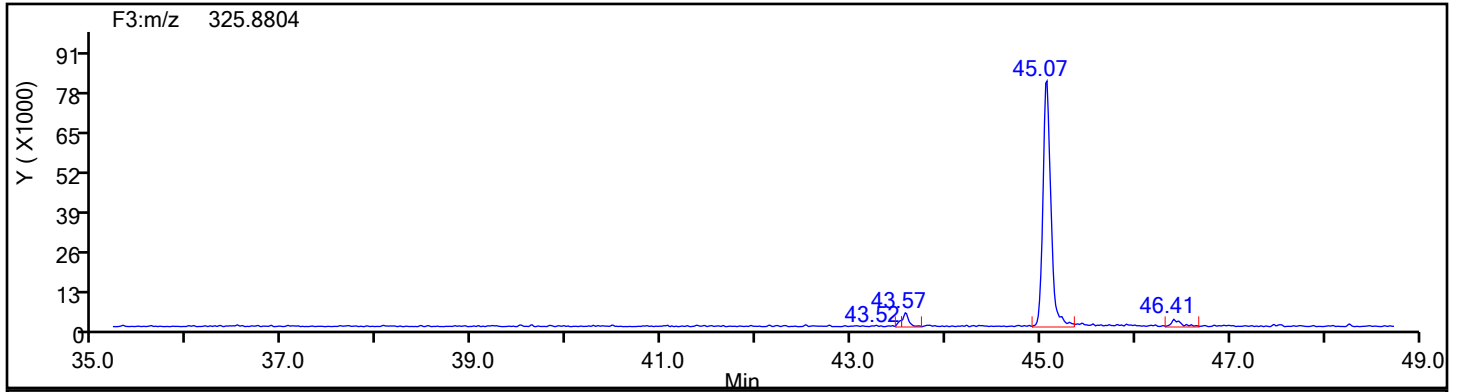


## PePCB F2 Lock Mass

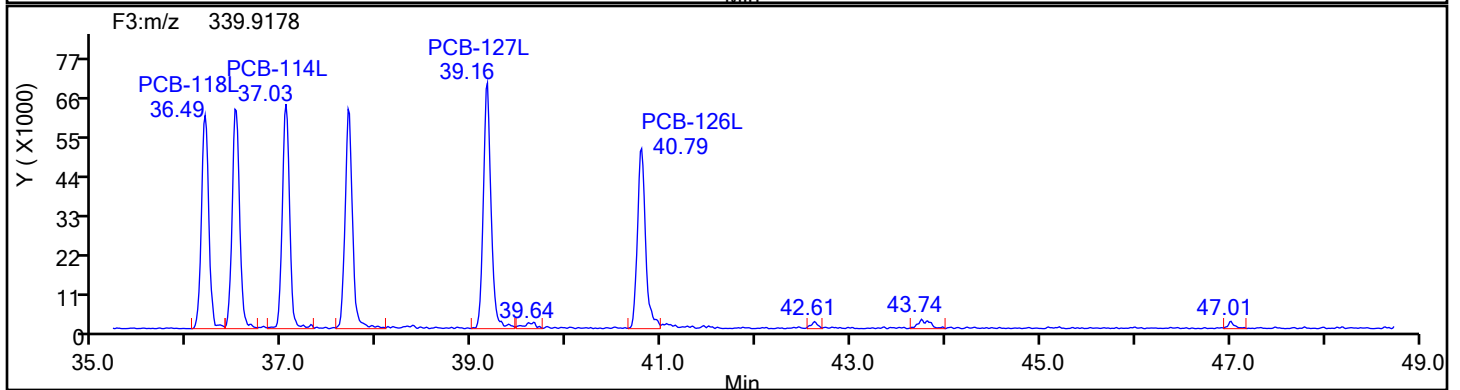
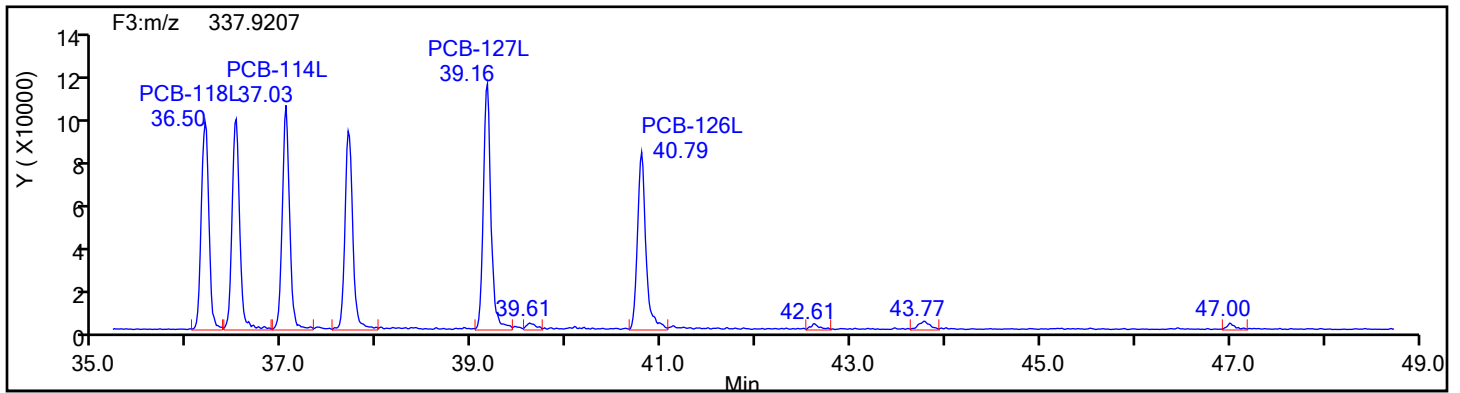


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F3

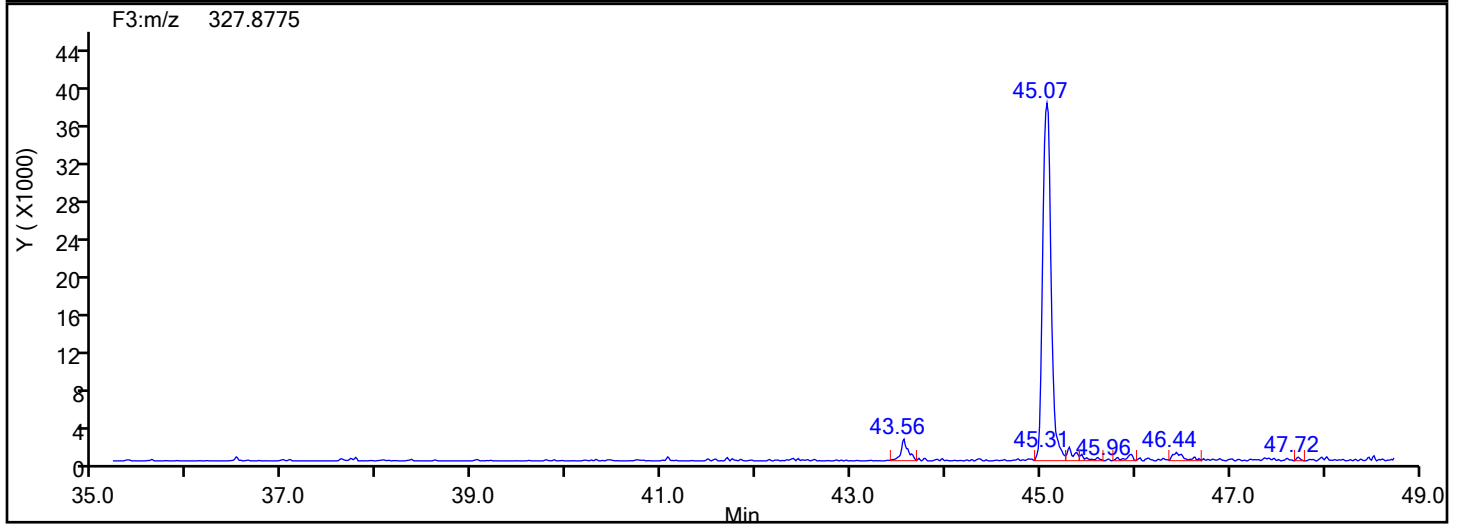
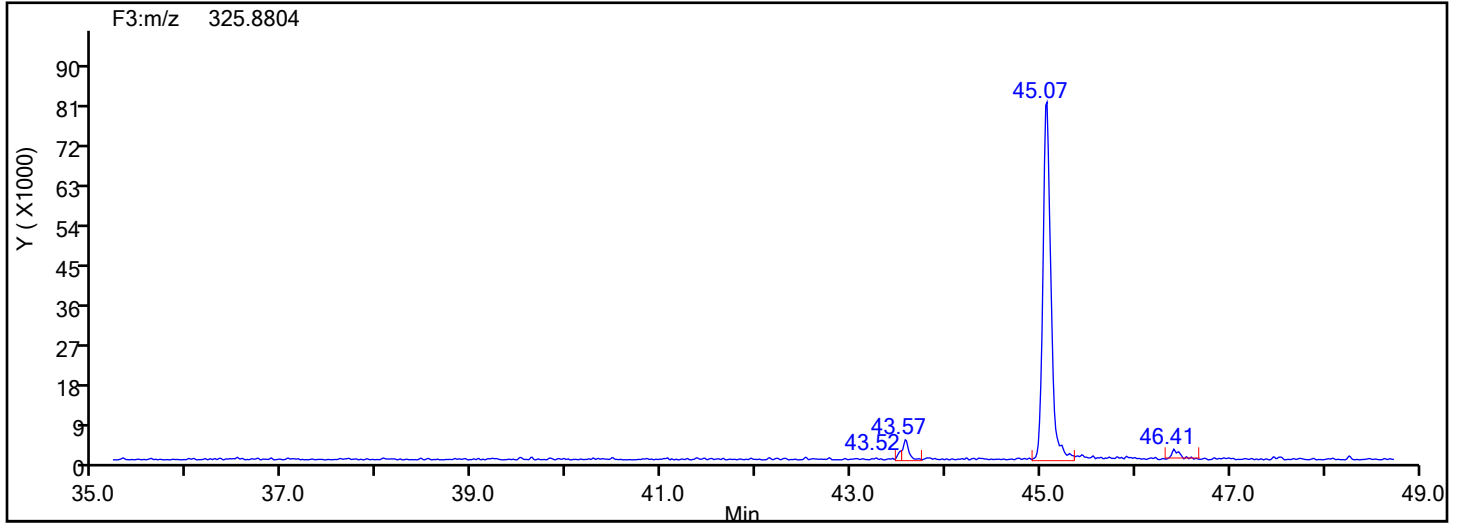


## PePCB F3 Standards

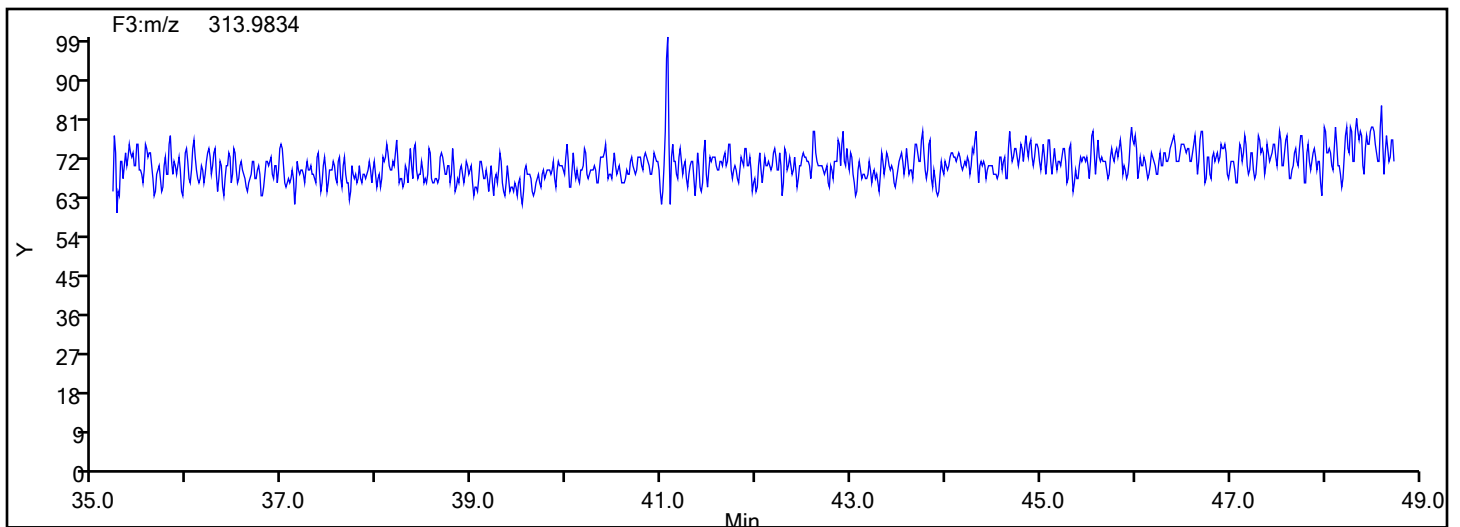


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 21:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F3

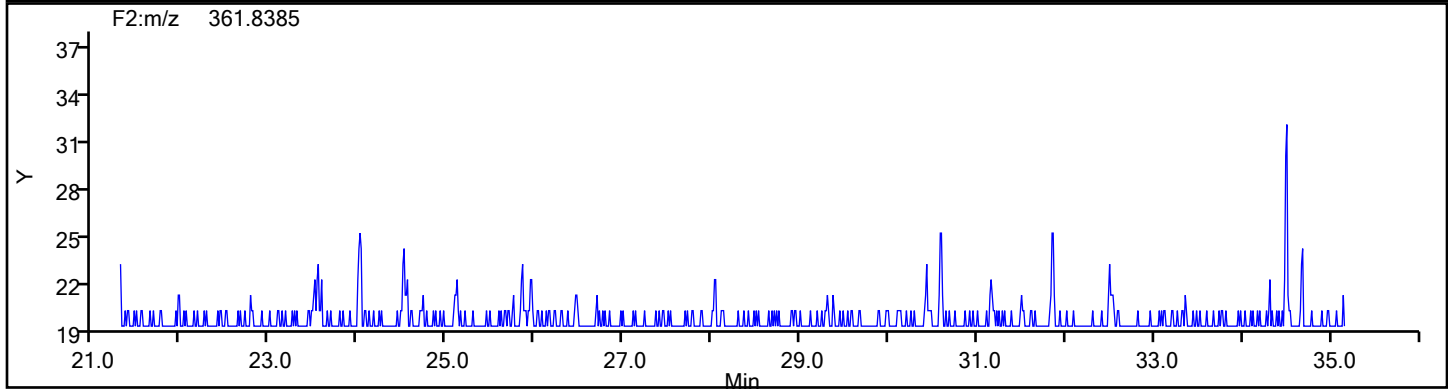
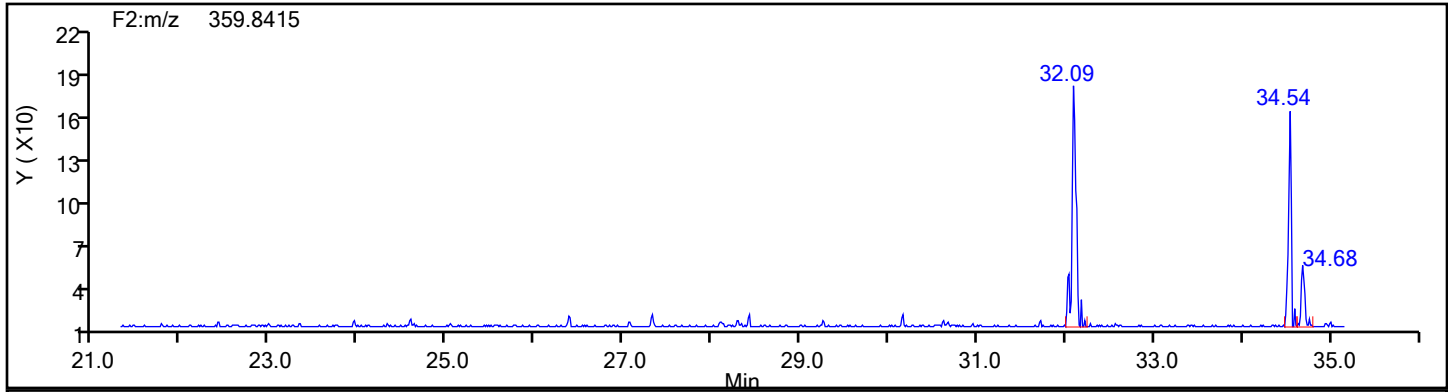


## PePCB F3 Lock Mass

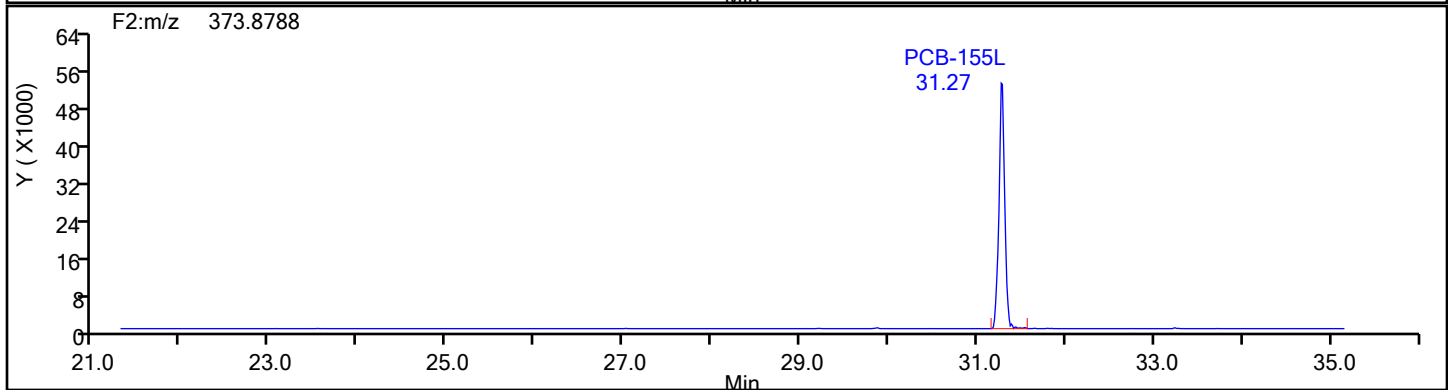
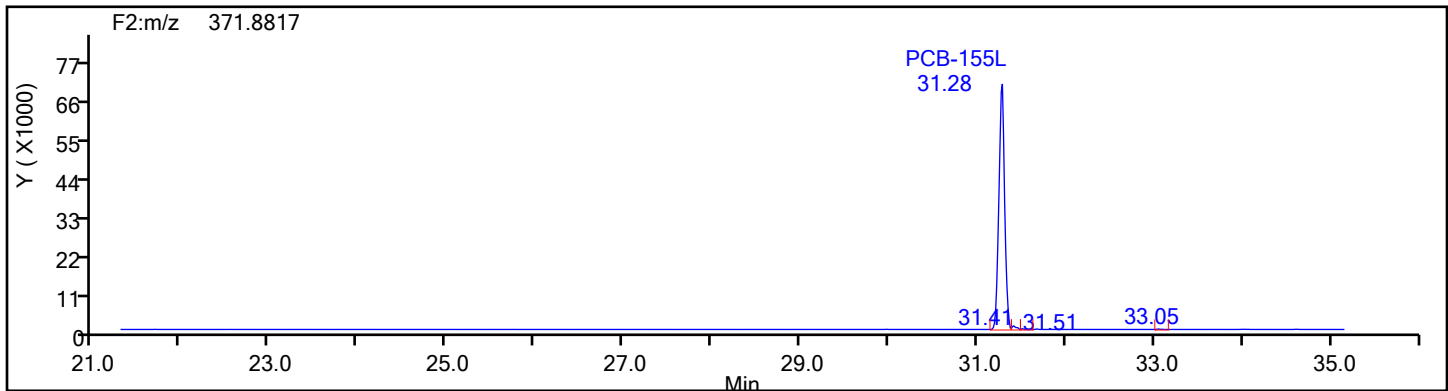


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 21:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2

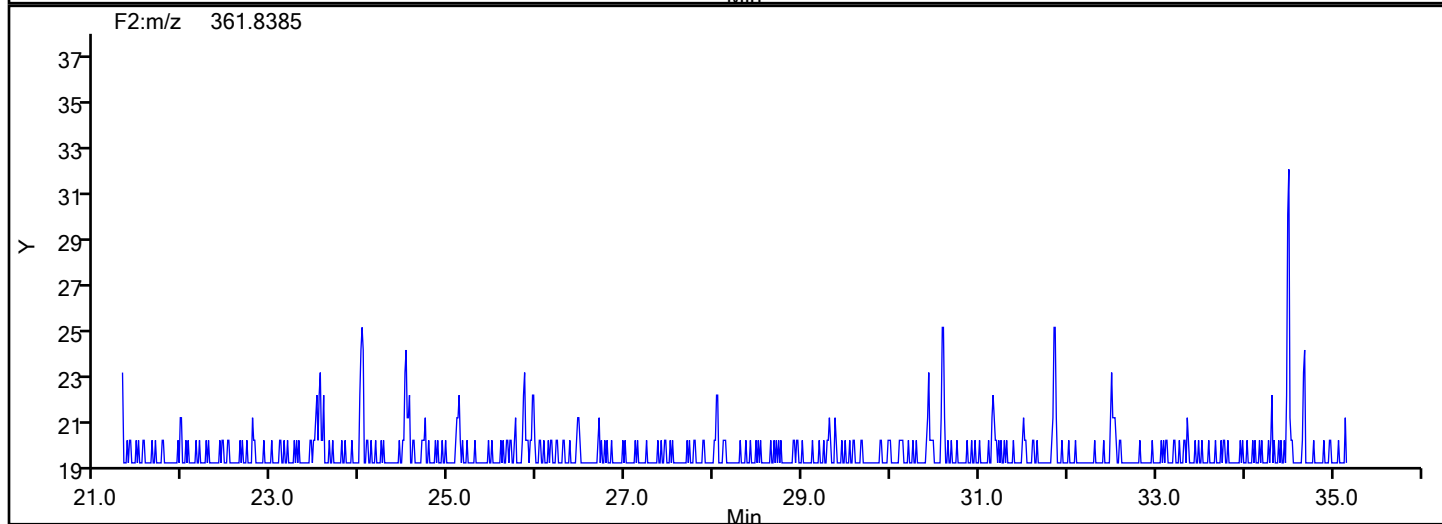
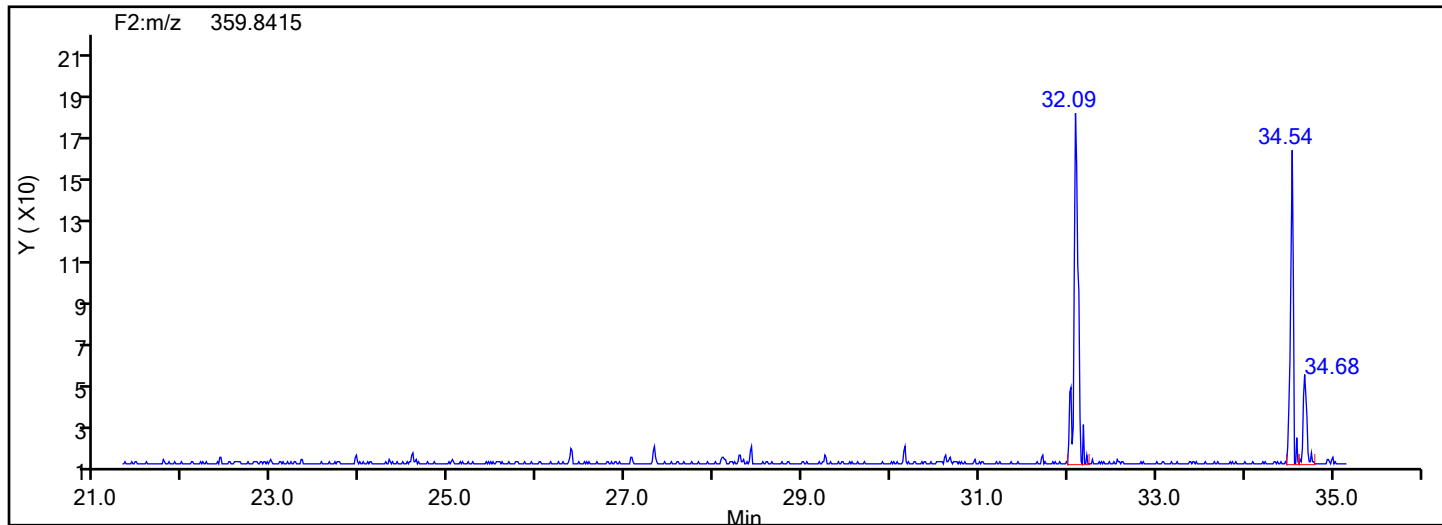


## HxPCB F2 Standards

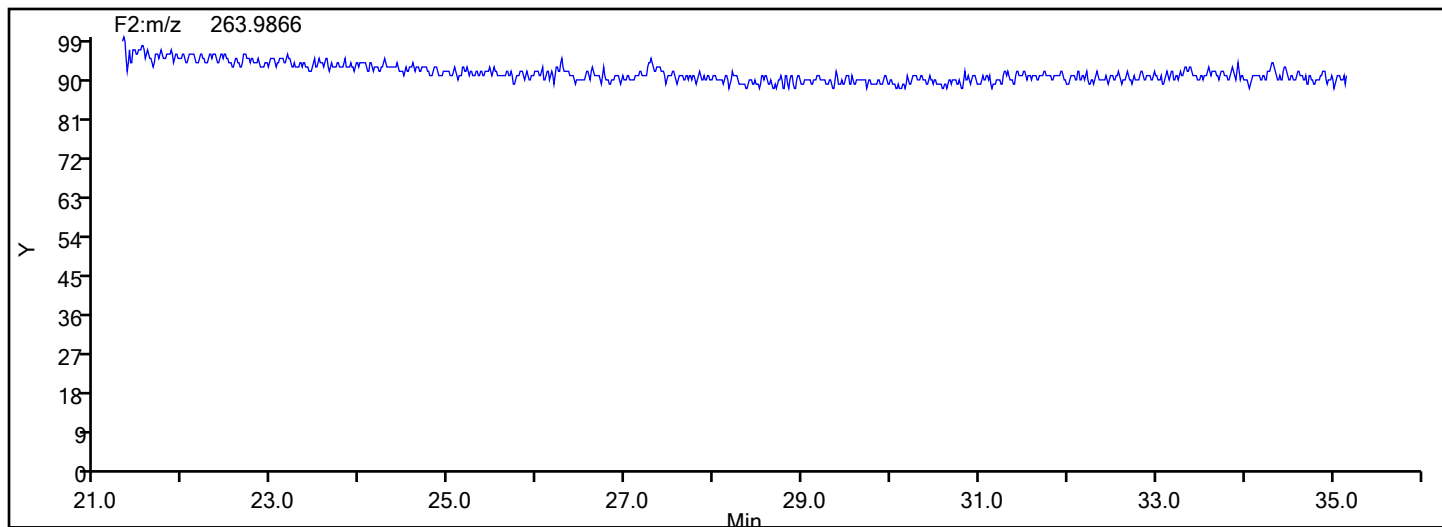


## Eurofins Knoxville

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Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2

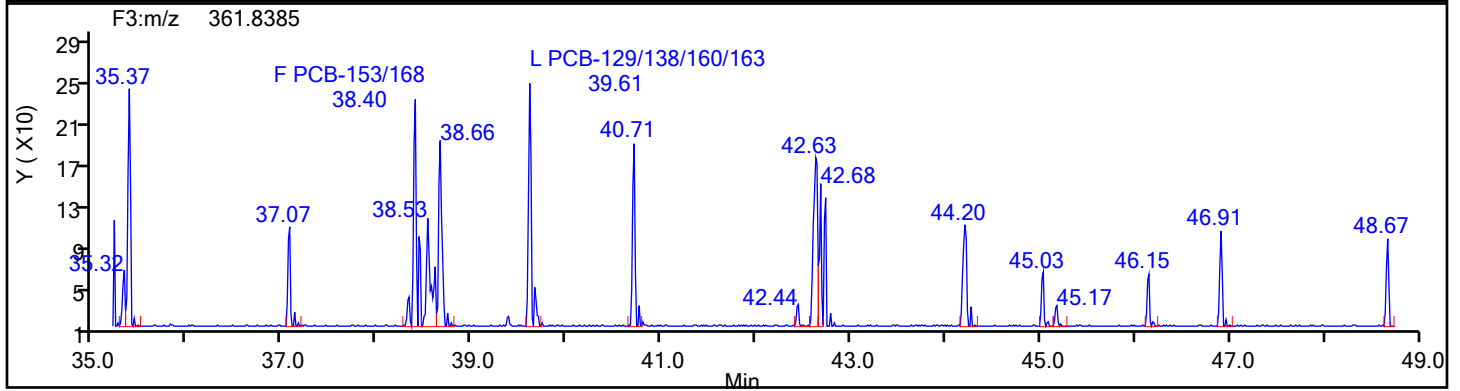
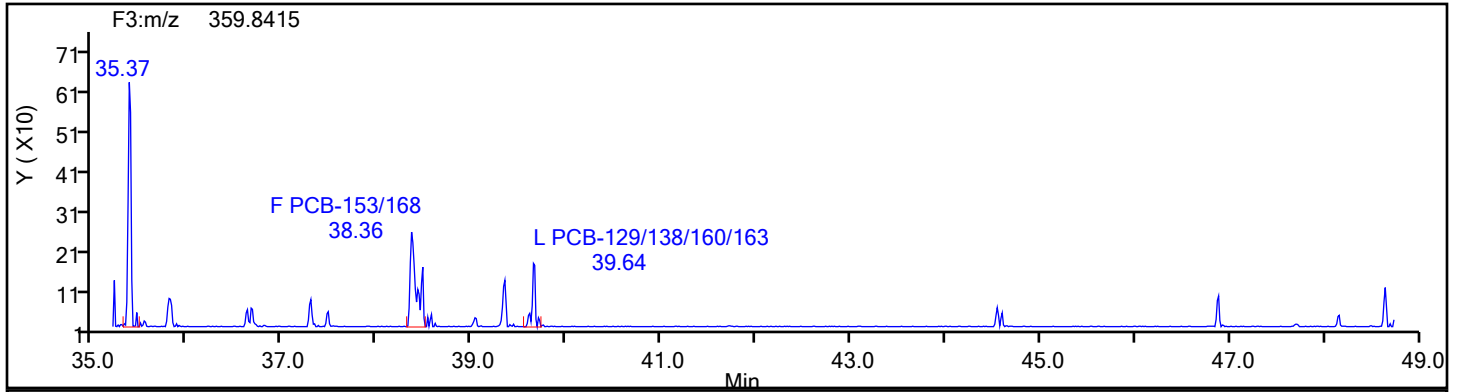


## HxPCB F2 Lock Mass

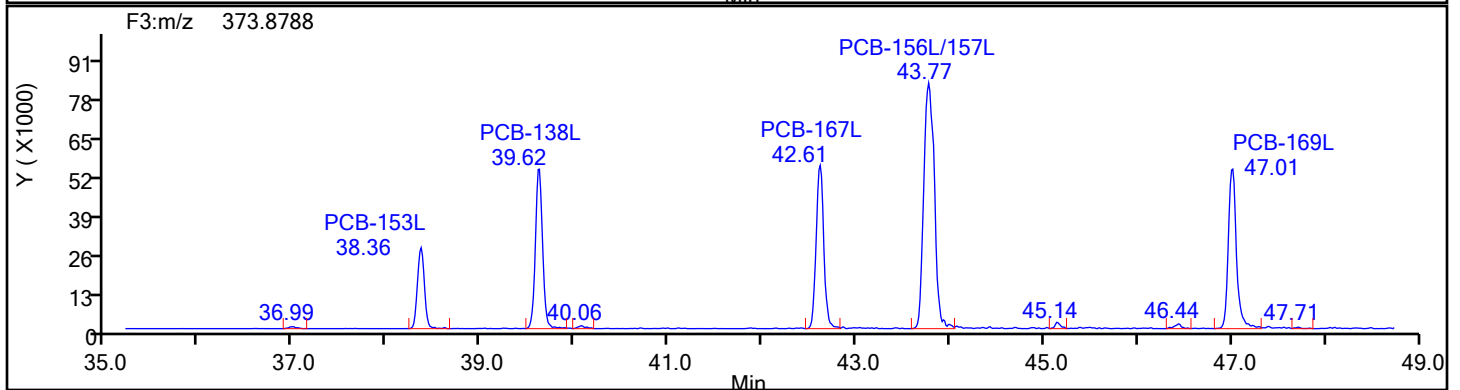
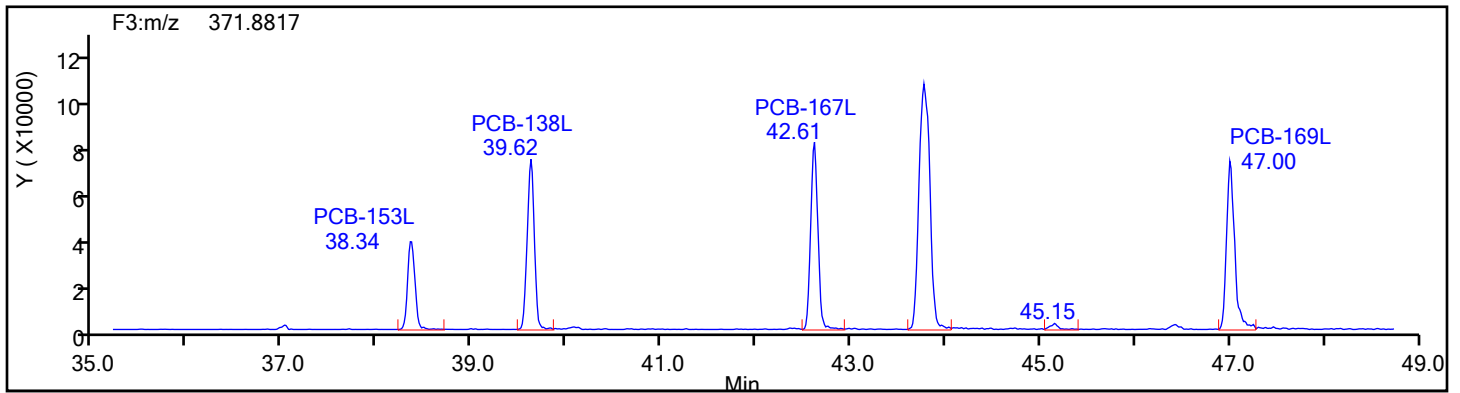


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F3



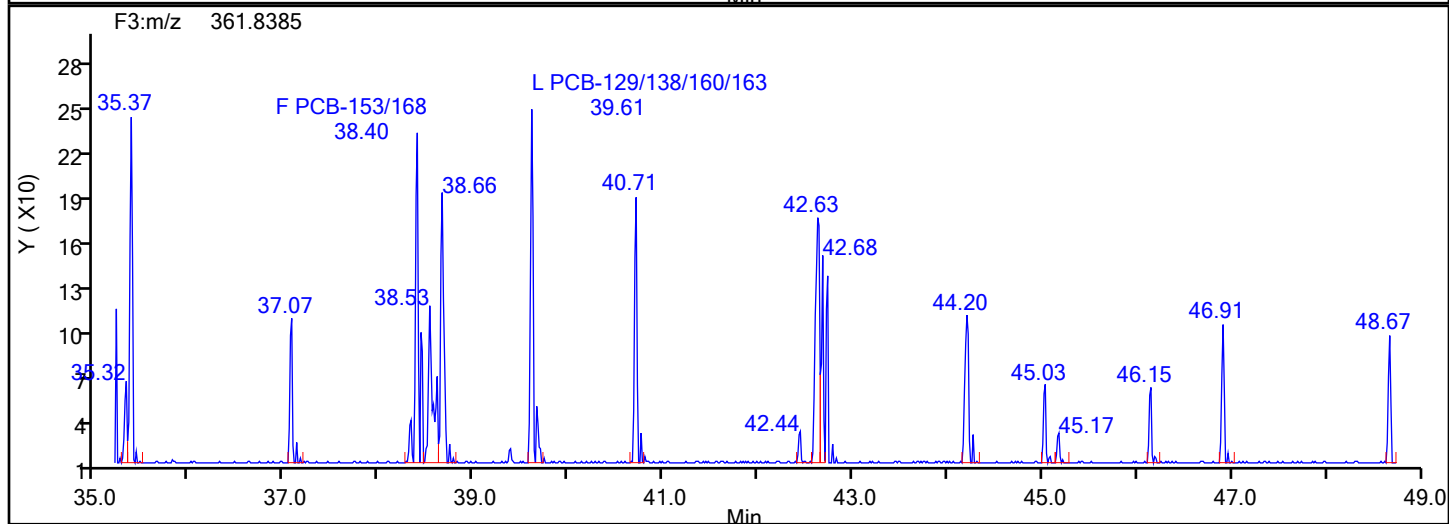
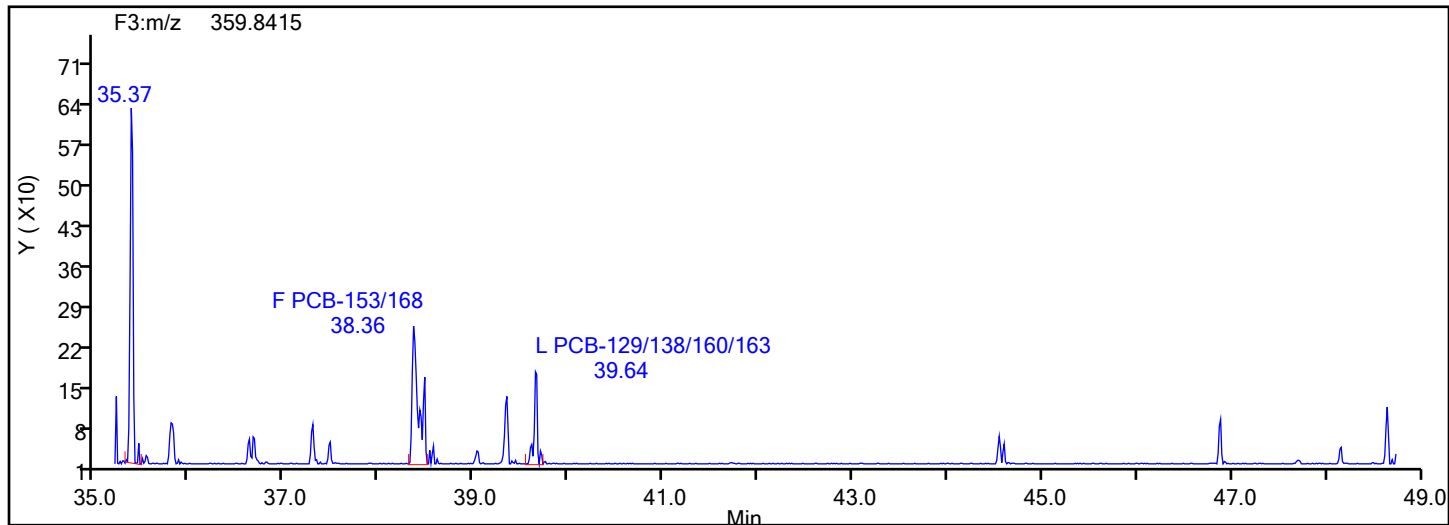
## HxPCB F3 Standards



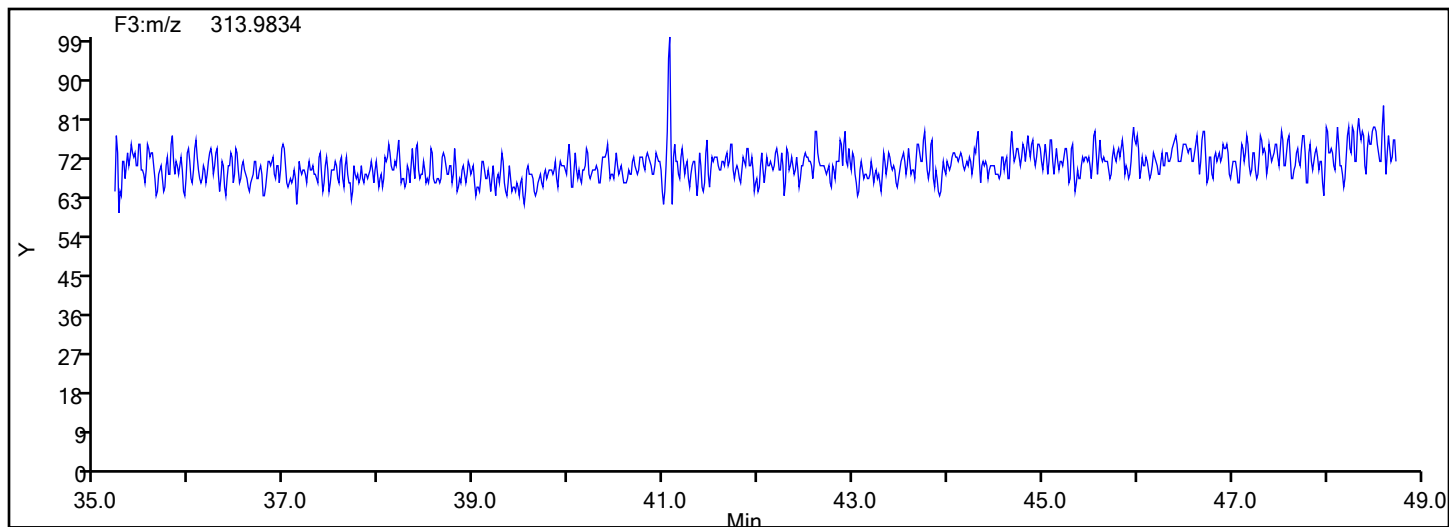


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F3



## HxPCB F3 Lock Mass



## Eurofins Knoxville

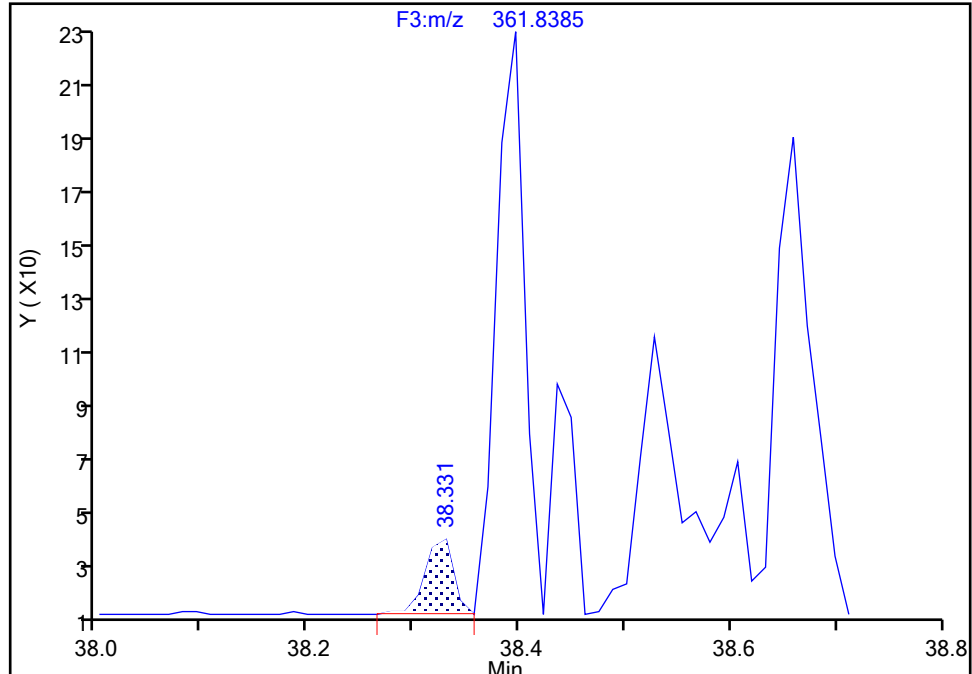
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Injection Date: 16-Jul-2024 21:40:00 Instrument ID: D2D  
Lims ID: 140-37234-A-4-D Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F3(35.64 :49.10 )

**PCB-153/168, CAS: STL01822**

Signal: 2

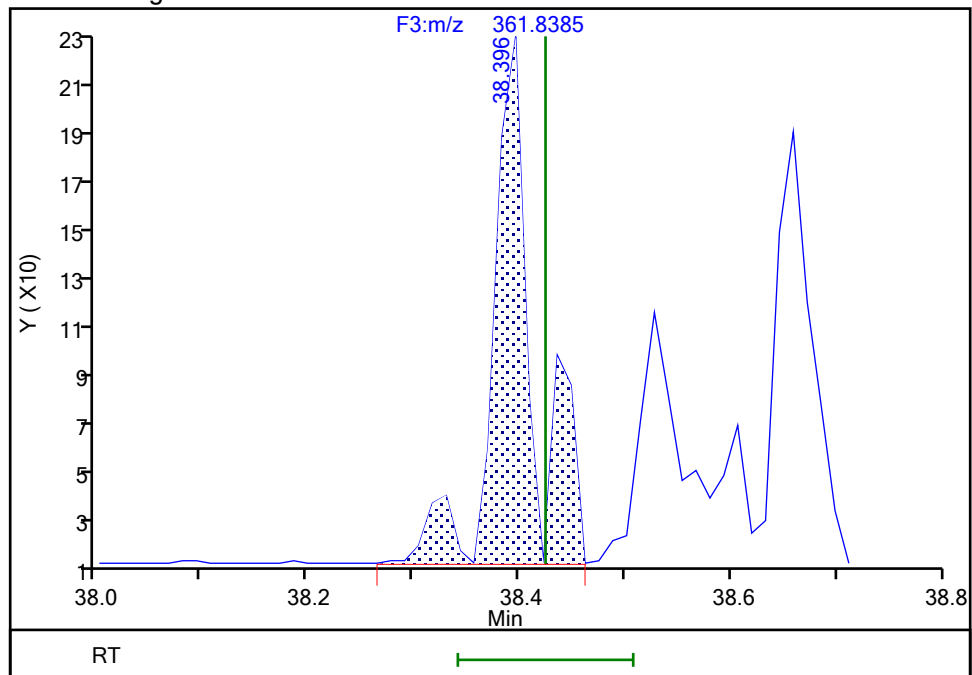
RT: 38.33  
Area: 51  
Amount: 0.029768  
Amount Units: pg/ul

## Processing Integration Results



RT: 38.40  
Area: 559  
Amount: 0.042423  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 12:14:35 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

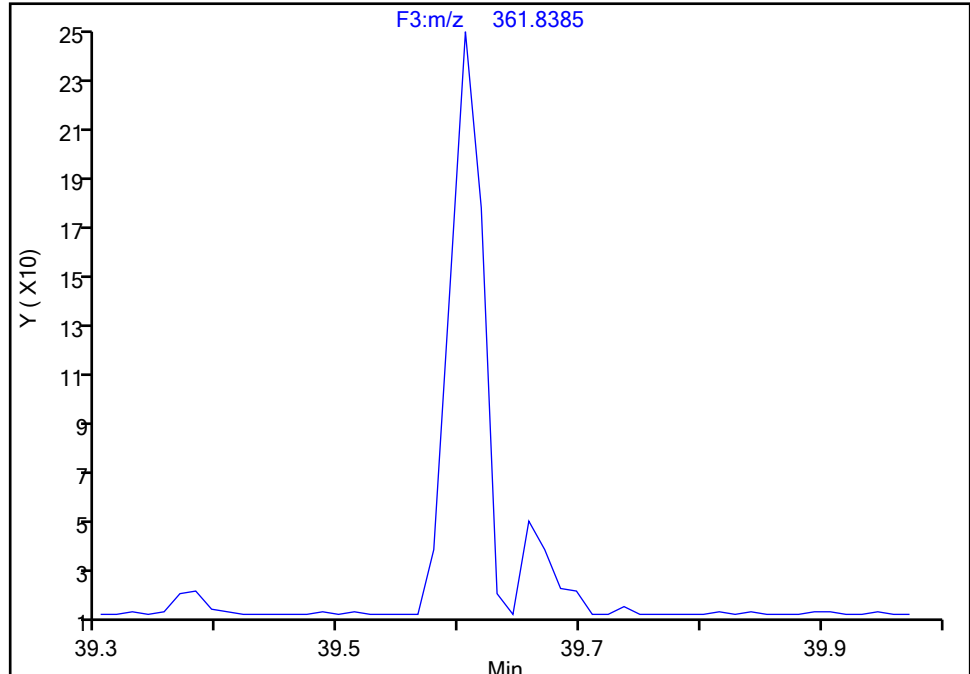
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Lims ID: 140-37234-A-4-D Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 2

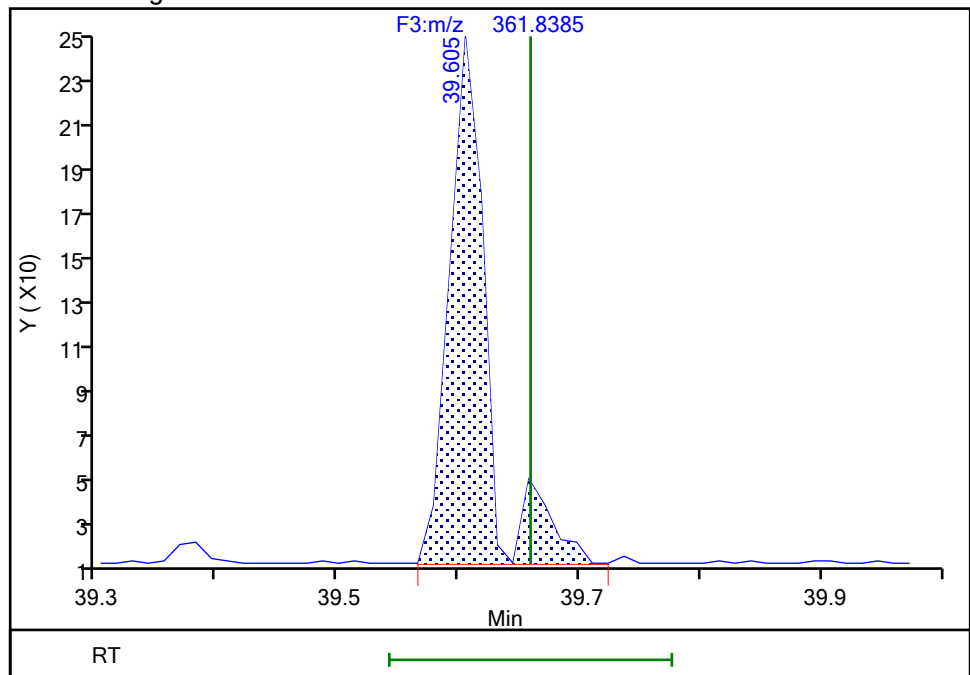
Not Detected  
Expected RT: 39.66

## Processing Integration Results



RT: 39.61  
Area: 487  
Amount: 0.025306  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 12:14:43 -04:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

## Eurofins Knoxville

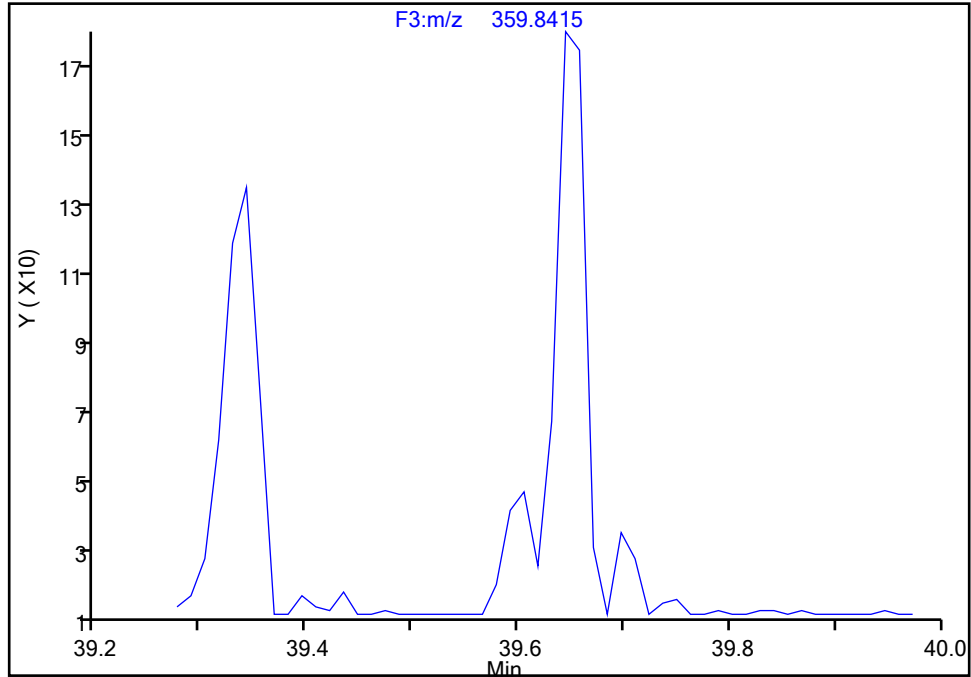
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Injection Date: 16-Jul-2024 21:40:00 Instrument ID: D2D  
Lims ID: 140-37234-A-4-D Lab Sample ID: 140-37234-4  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 1

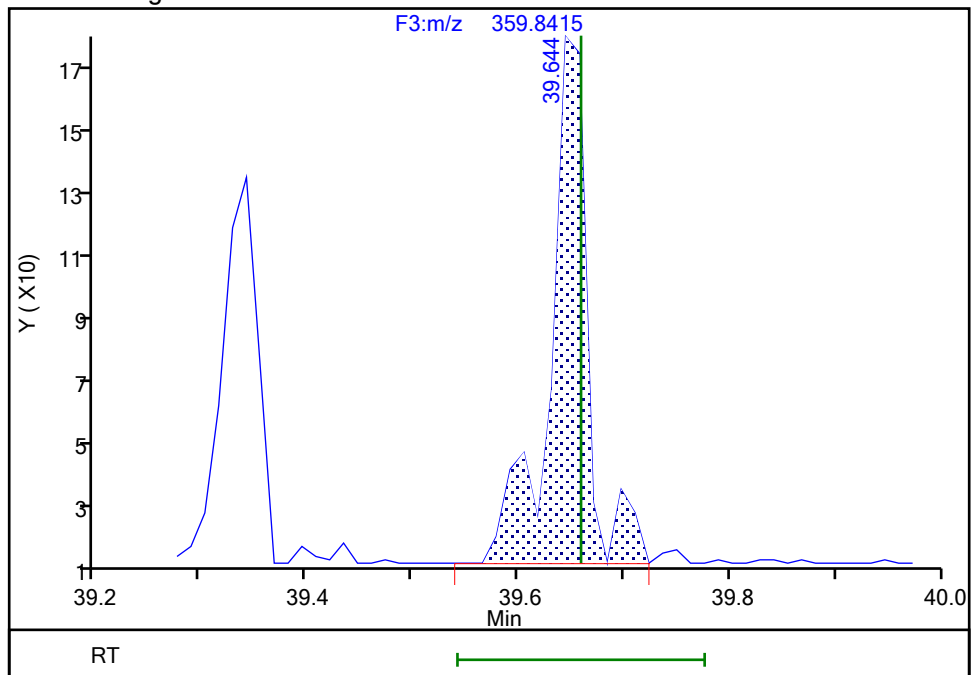
Not Detected  
Expected RT: 39.66

## Processing Integration Results



## Manual Integration Results

RT: 39.64  
Area: 392  
Amount: 0.025306  
Amount Units: pg/ul



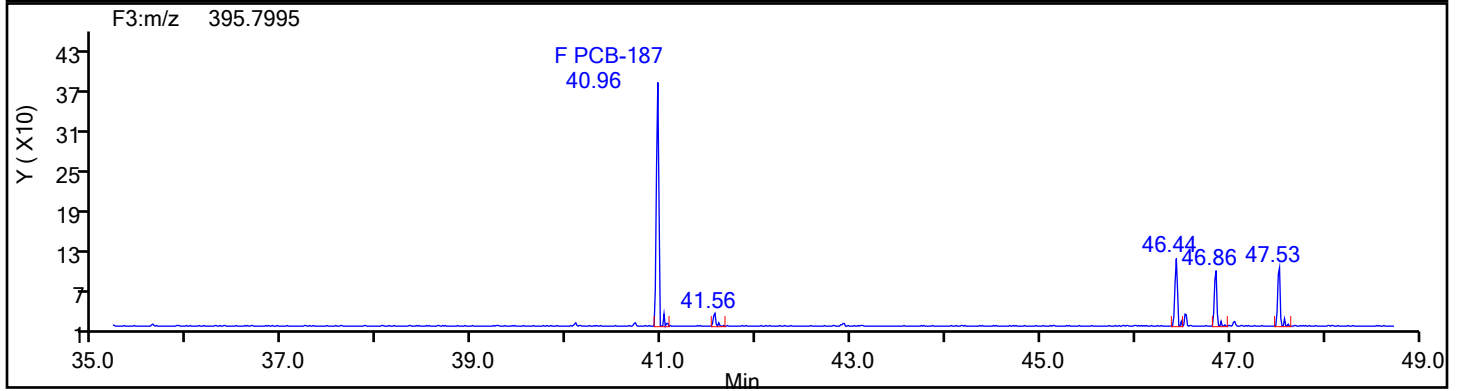
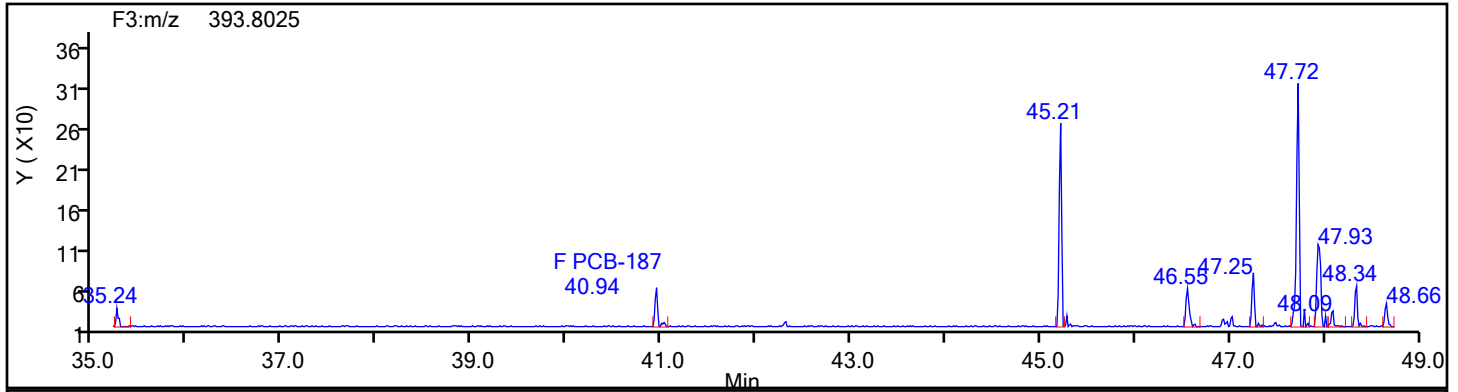
Reviewer: TT6I, 17-Jul-2024 12:14:43 -04:00:00 (UTC)

Audit Action: Manually Integrated

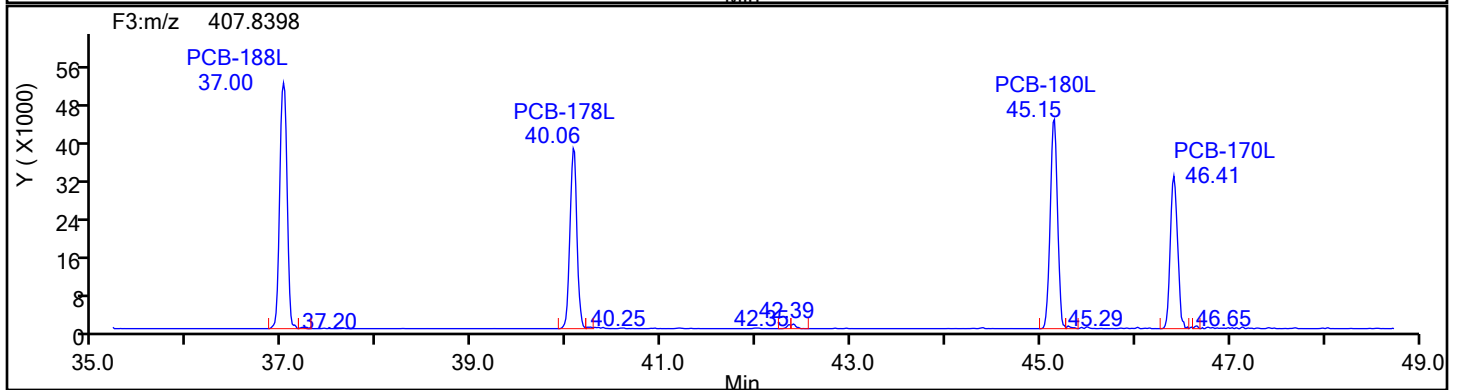
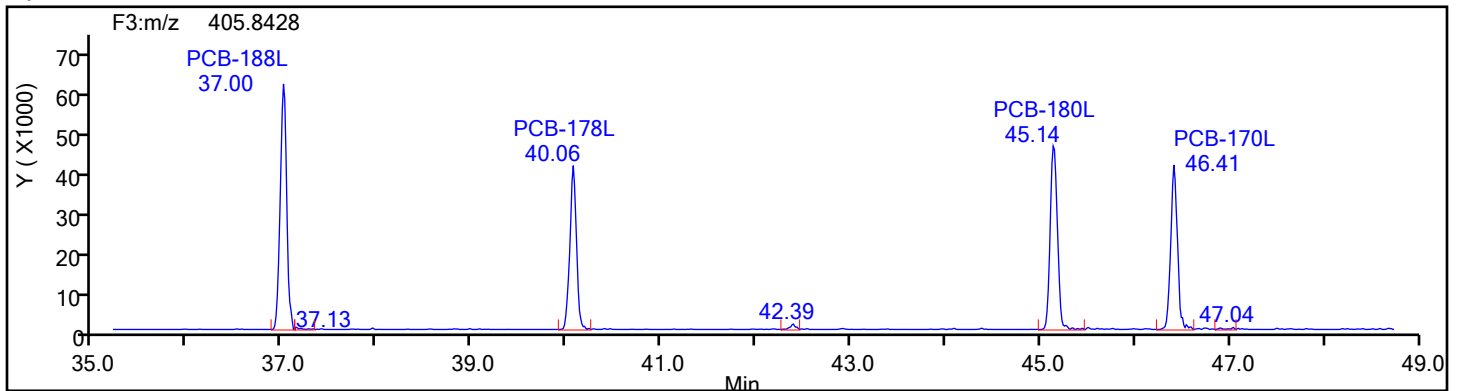
Audit Reason: Incomplete Integration

## Eurofins Knoxville

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Injection Date: 16-Jul-2024 21:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F3

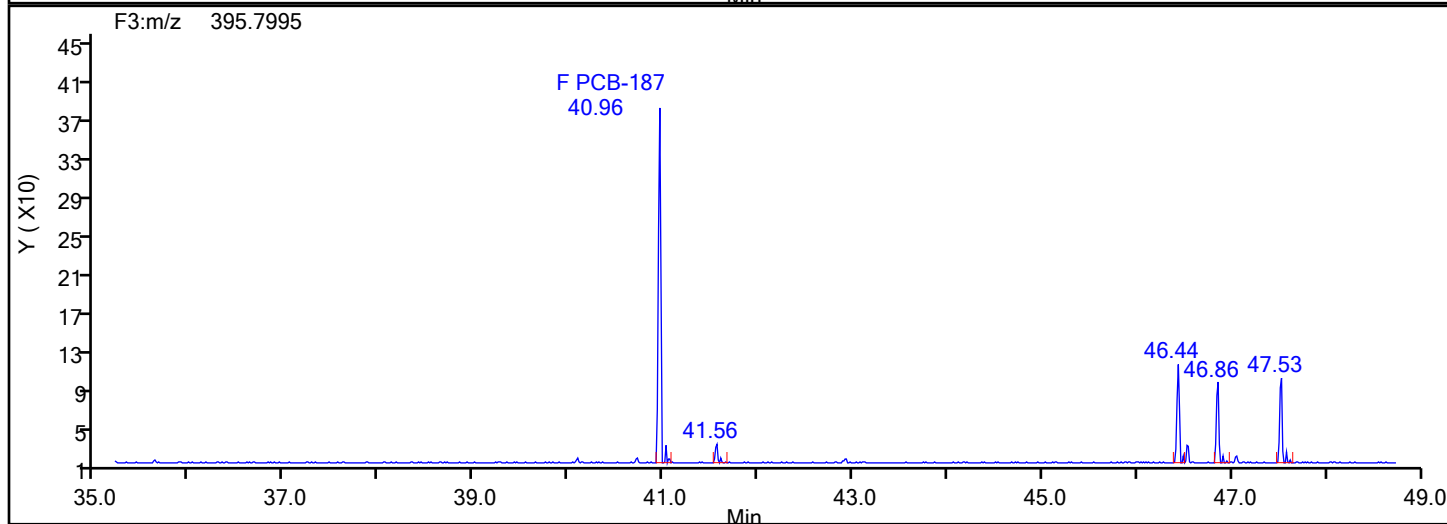
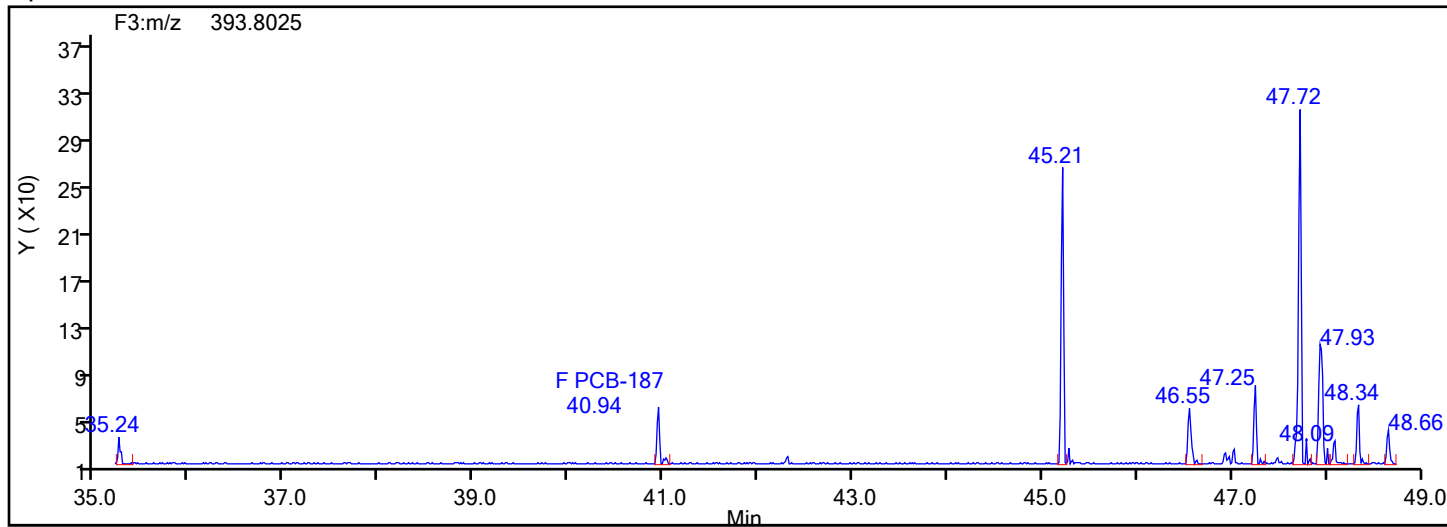


## HpPCB F3 Standards

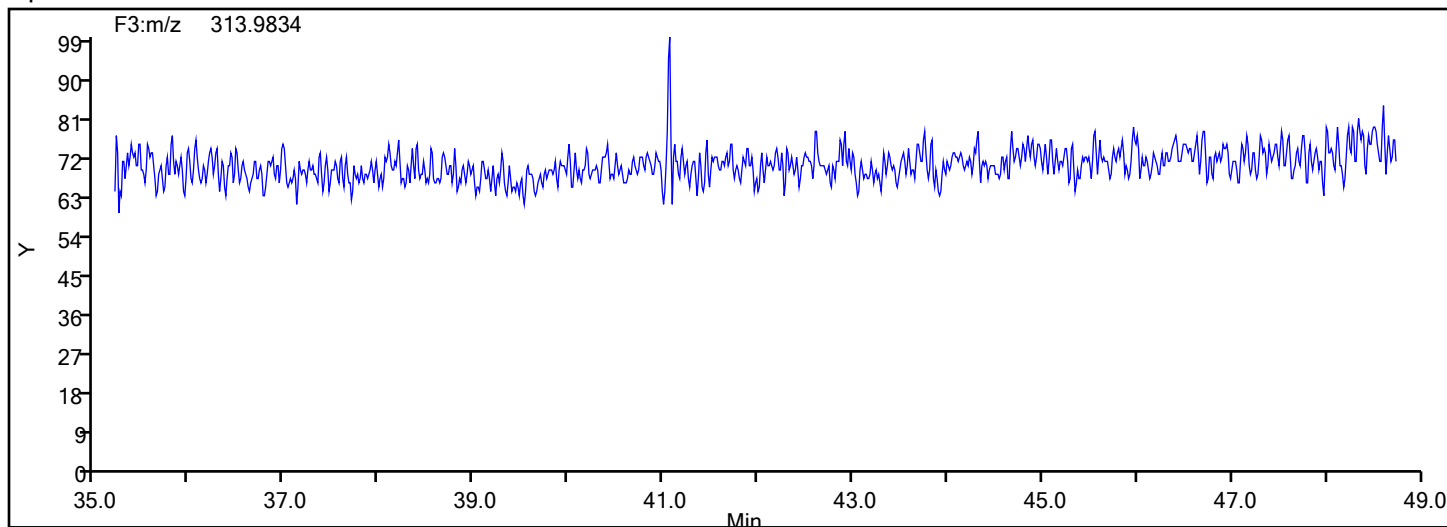


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F3

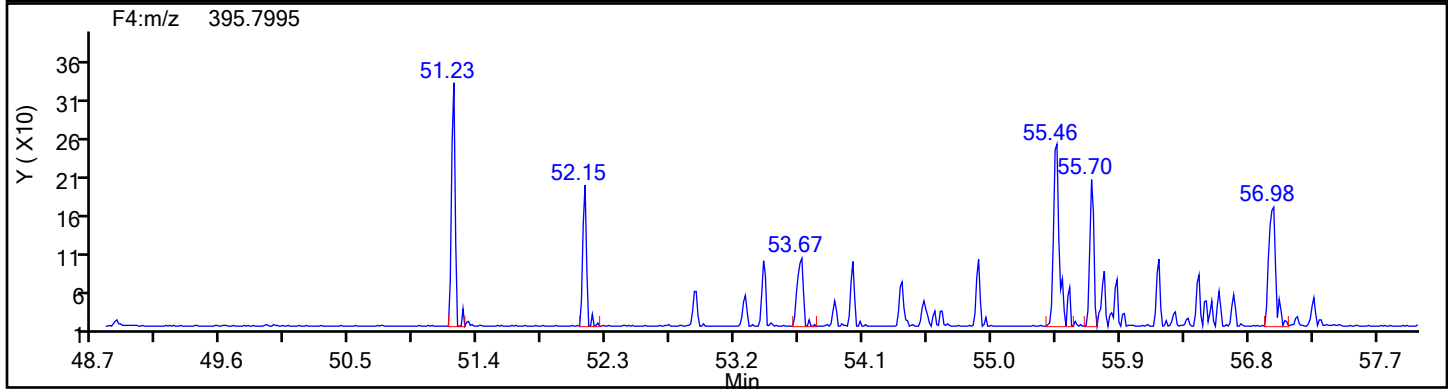
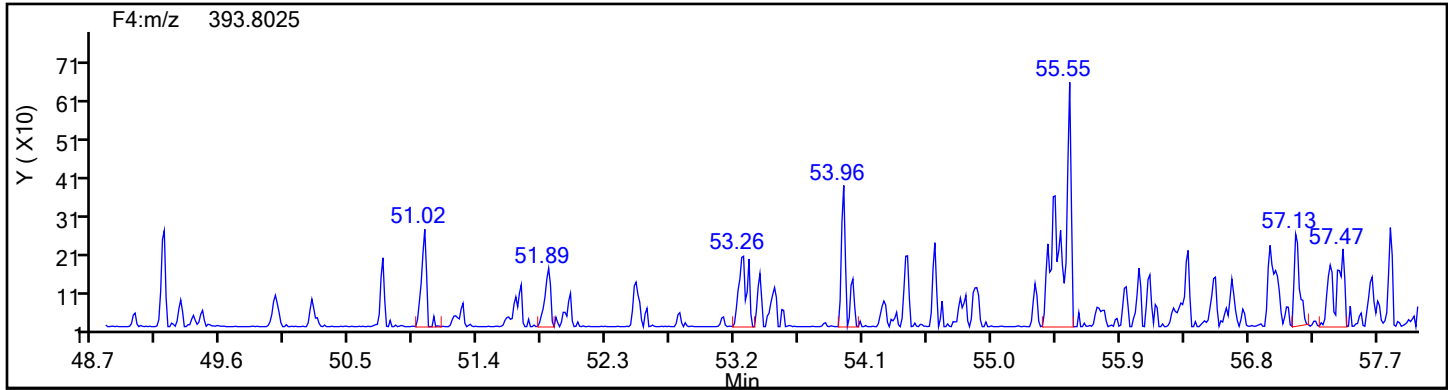


## HpPCB F3 Lock Mass

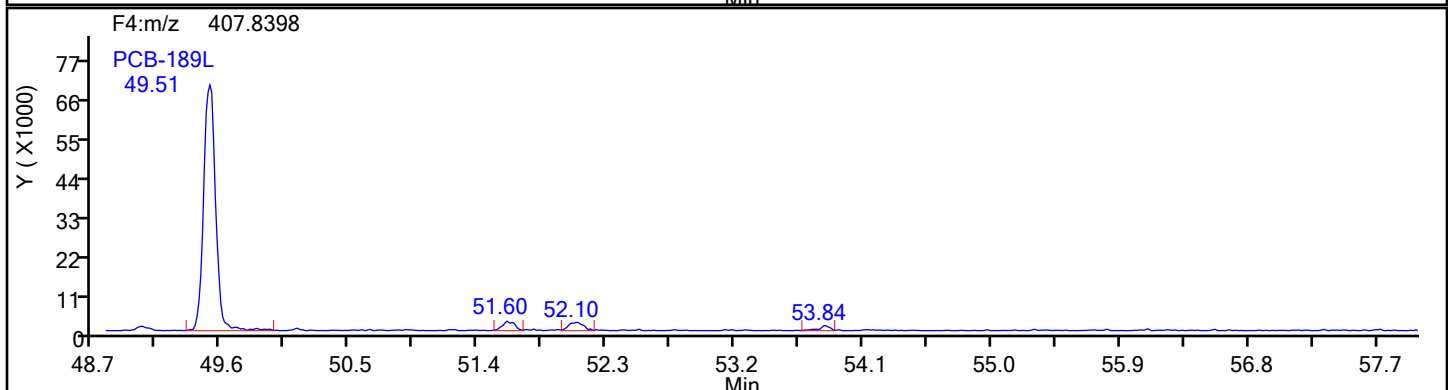
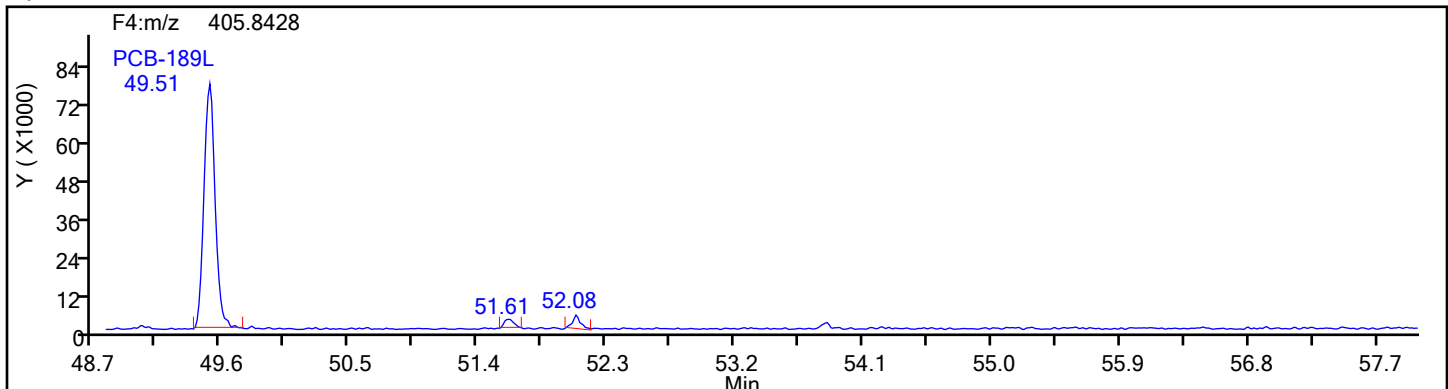


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 21:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F4

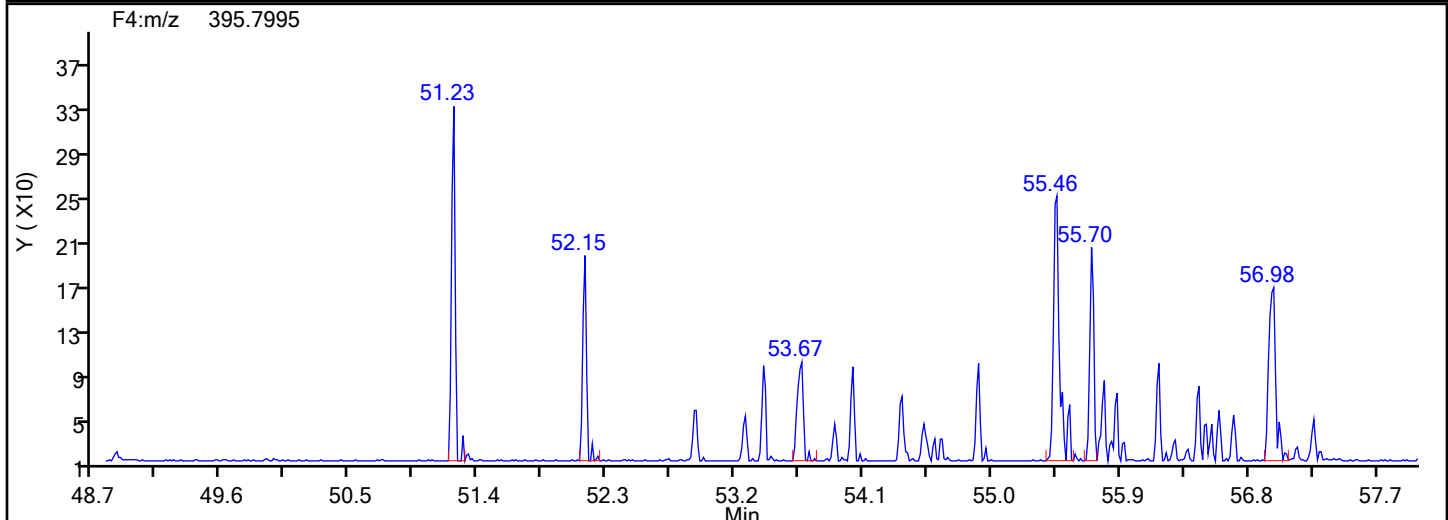
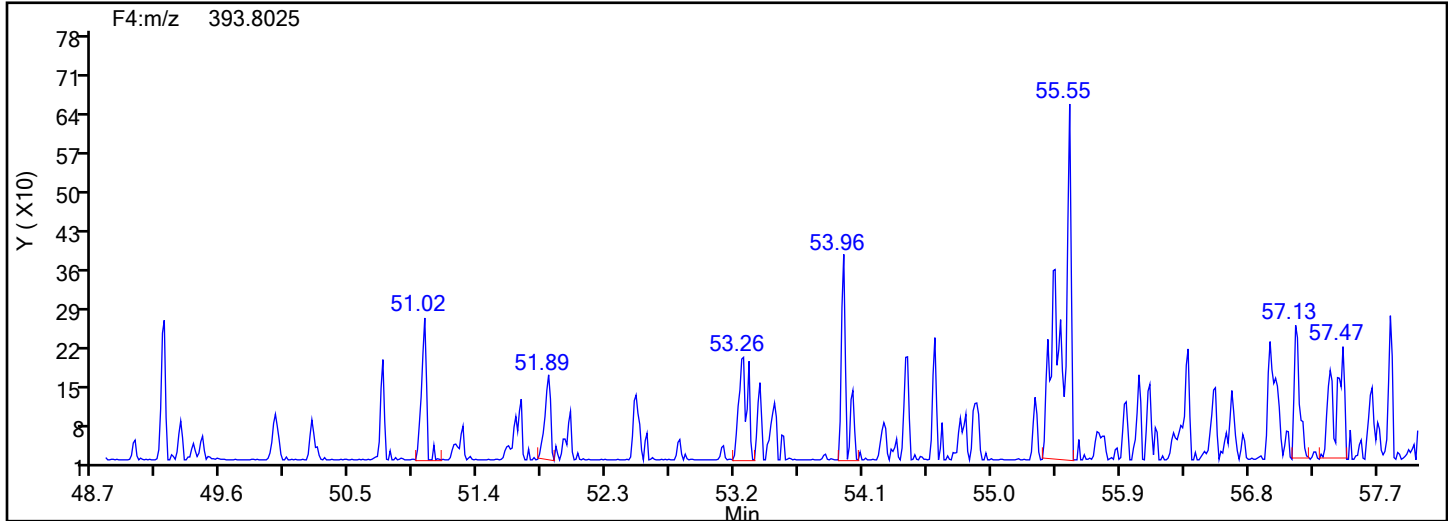


## HpPCB F4 Standards

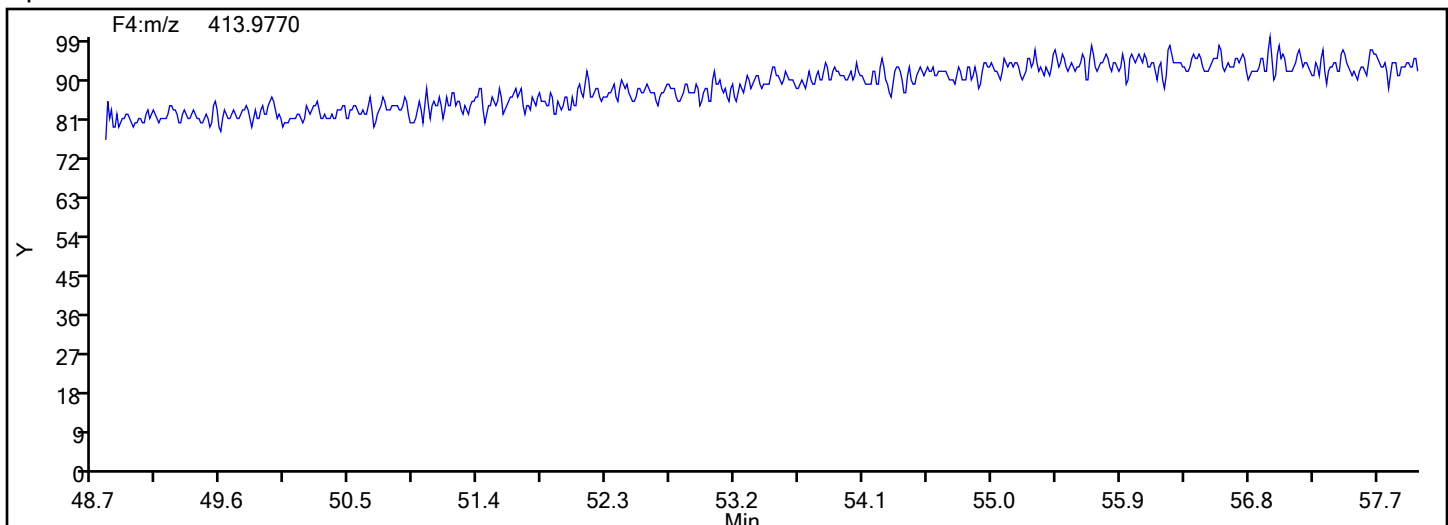


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 21:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F4



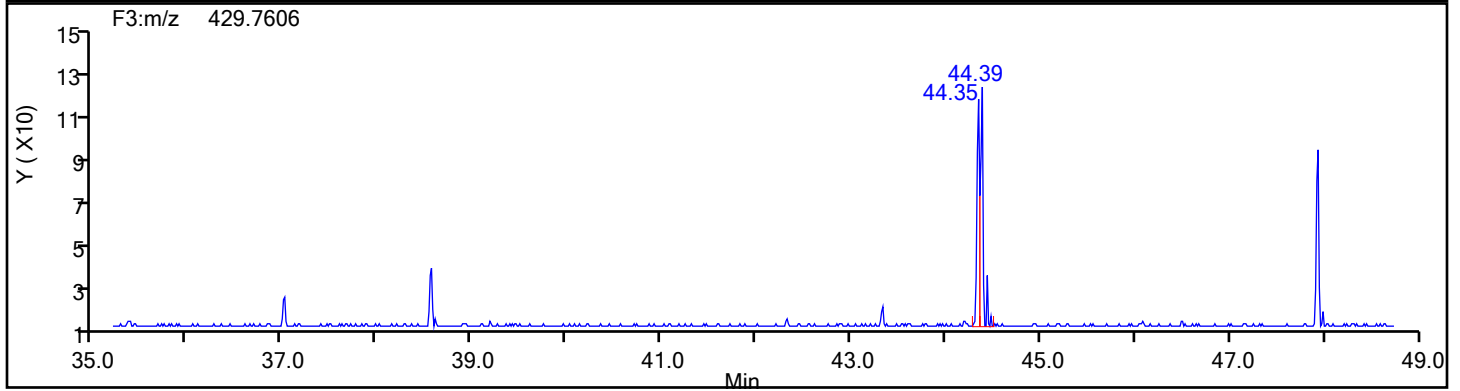
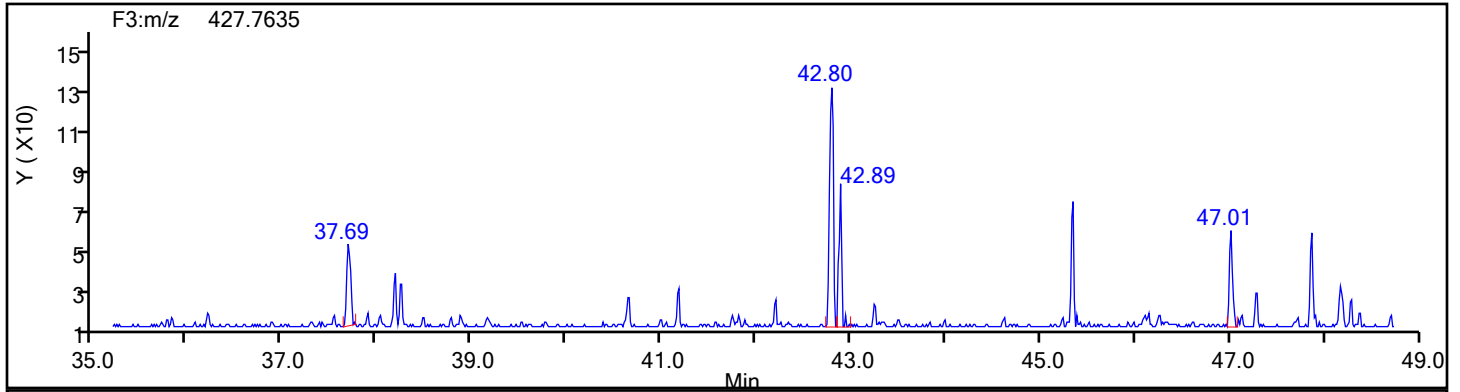
## HpPCB F4 Lock Mass



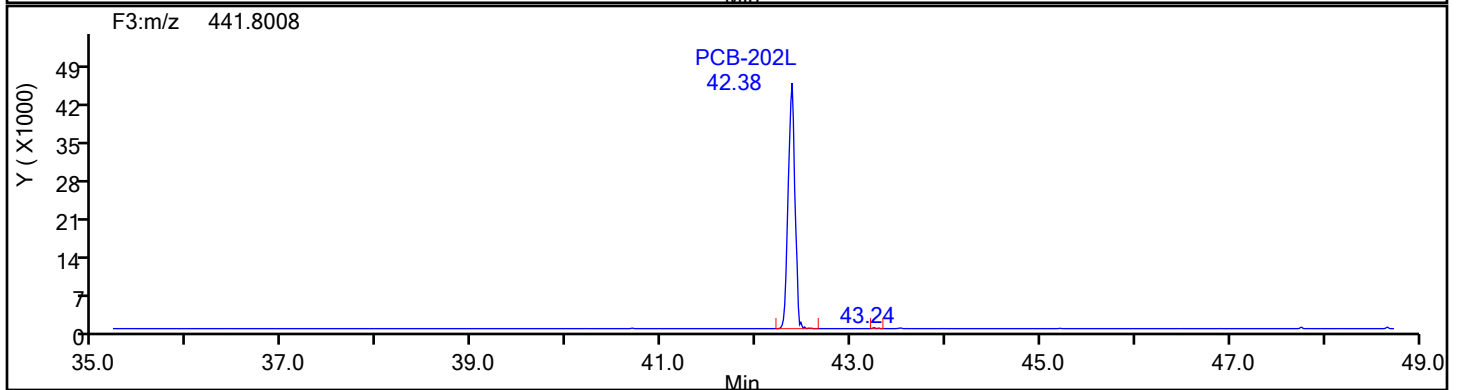
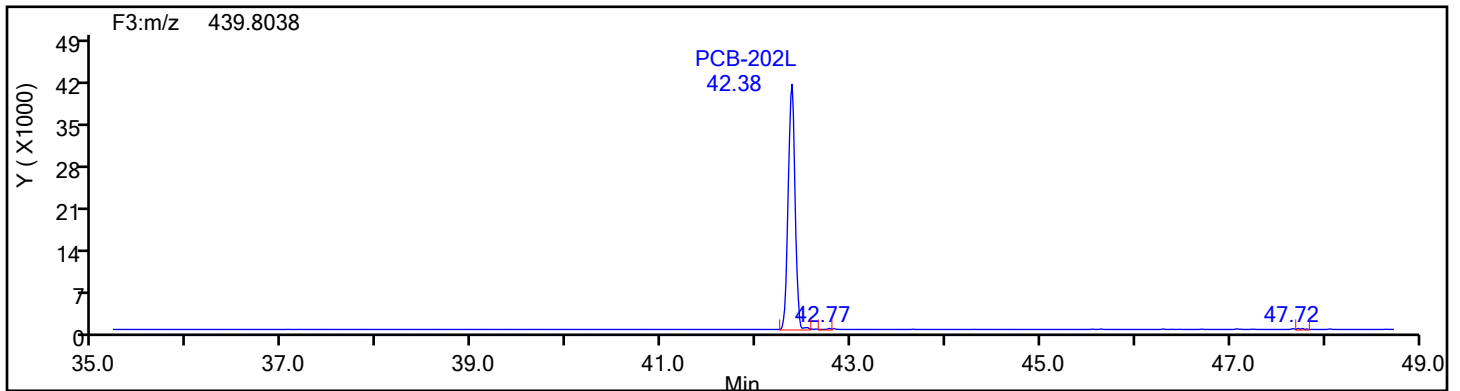


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 21:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3

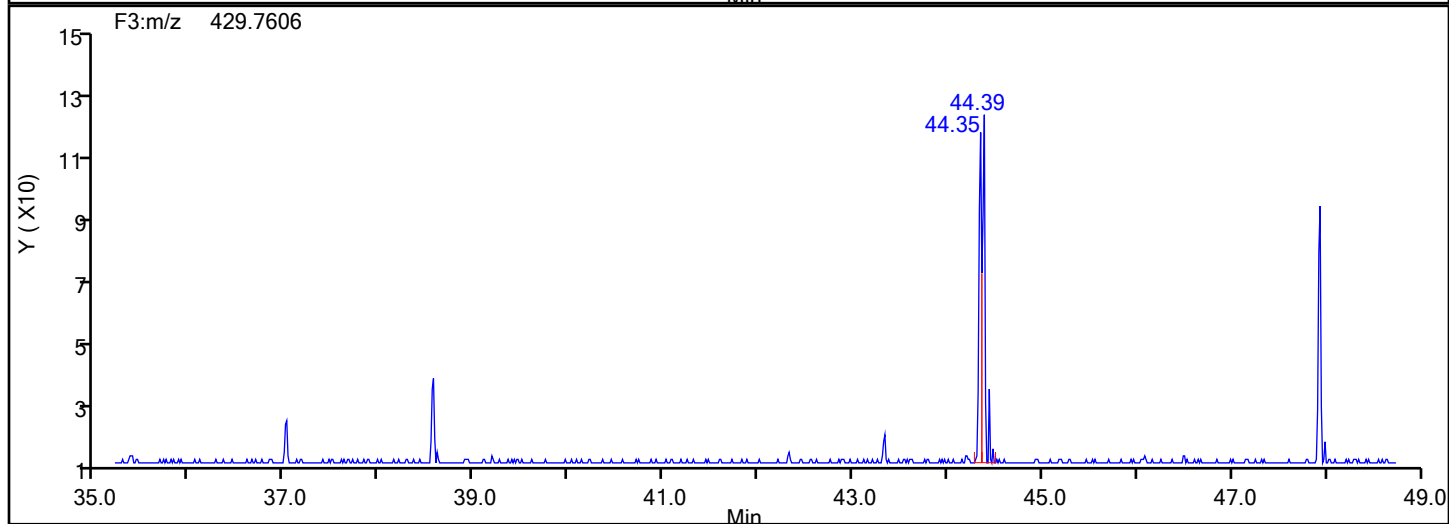
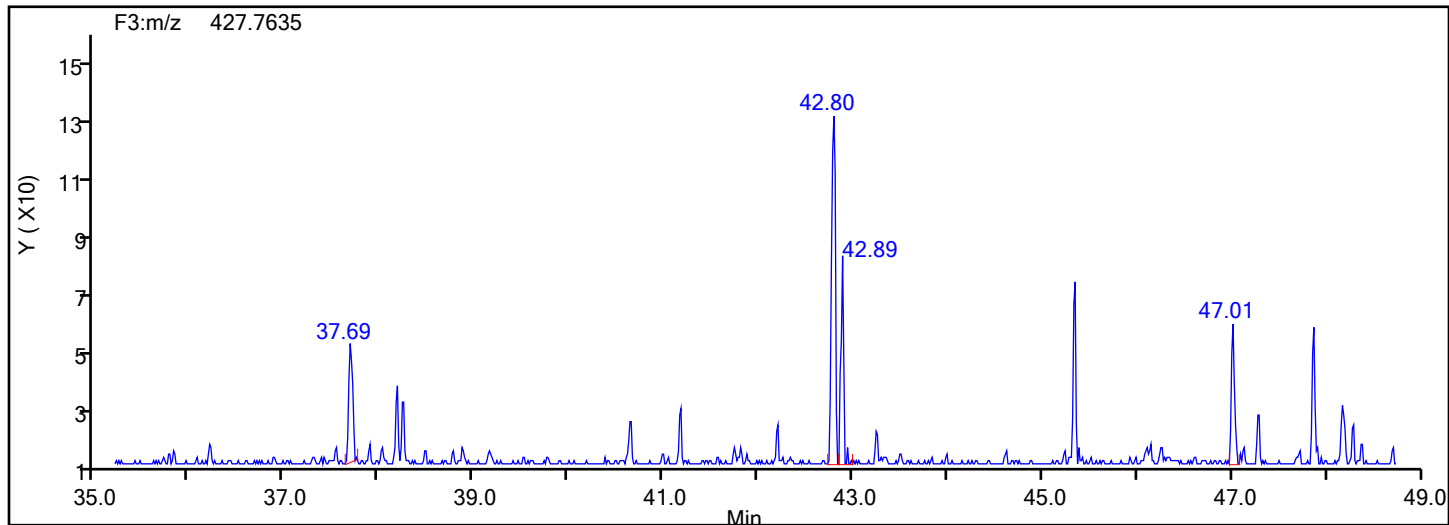


## OcPCB F3 Standards

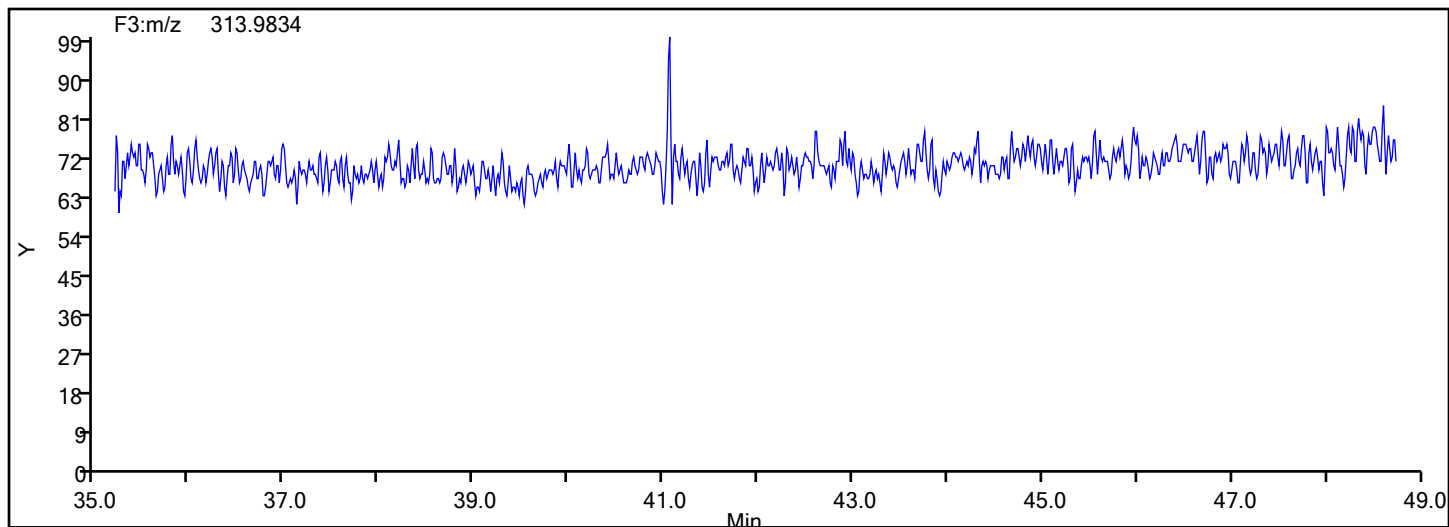


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-4-d5x.d  
Injection Date: 16-Jul-2024 21:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3

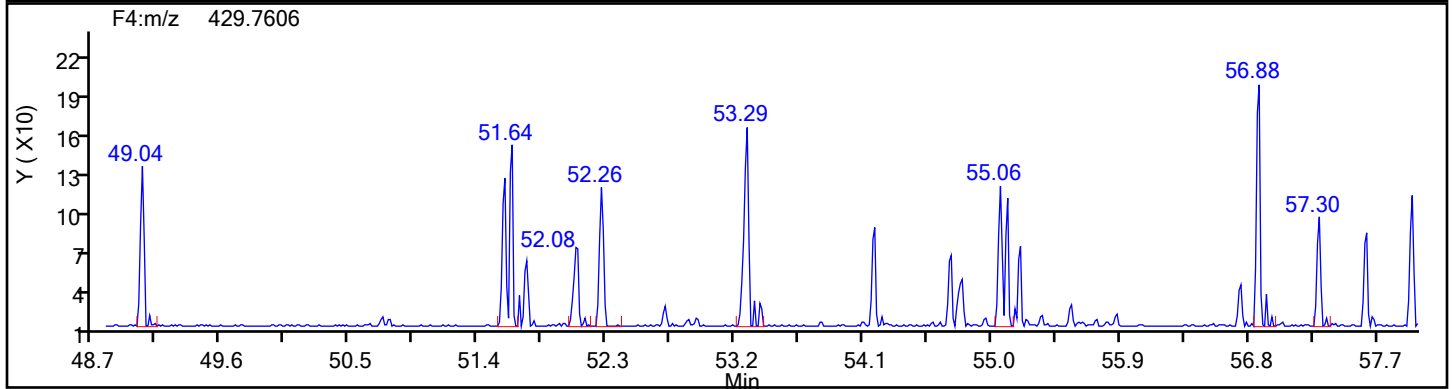
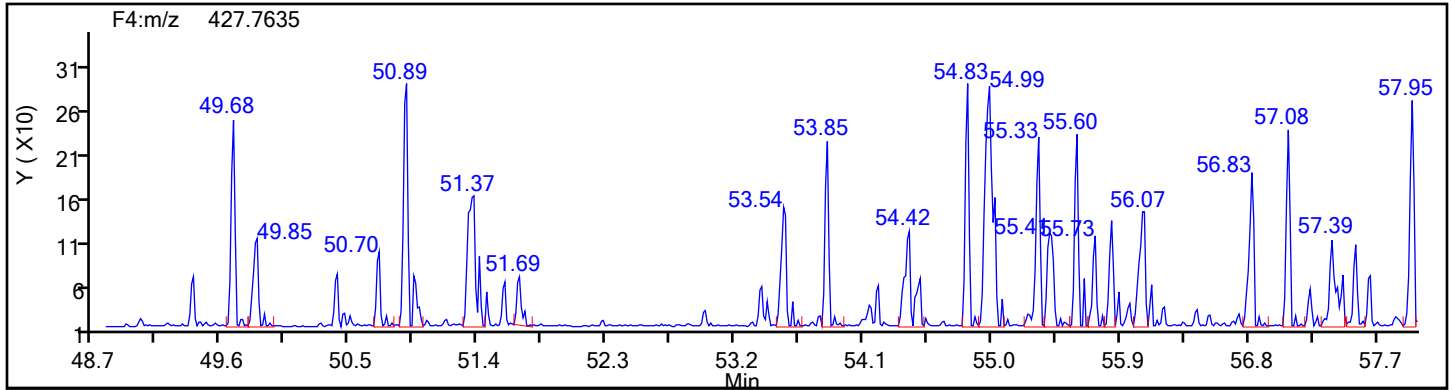


## OcPCB F3 Lock Mass

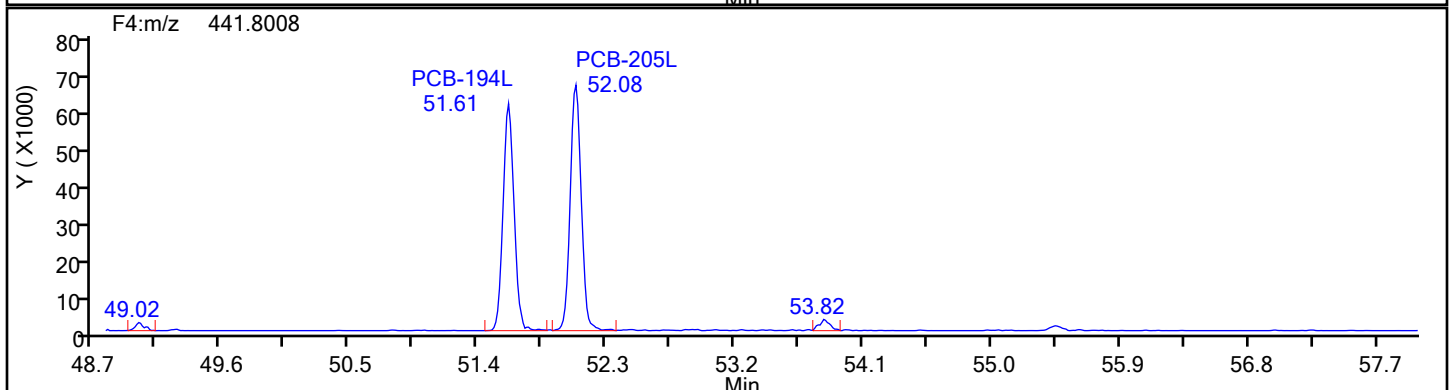
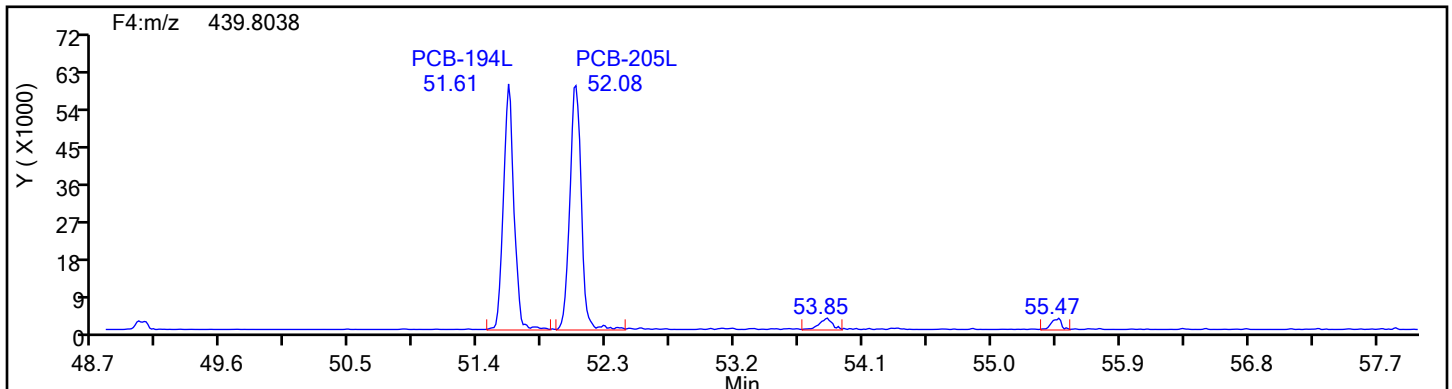


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-4-d5x.d  
Injection Date: 16-Jul-2024 21:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4

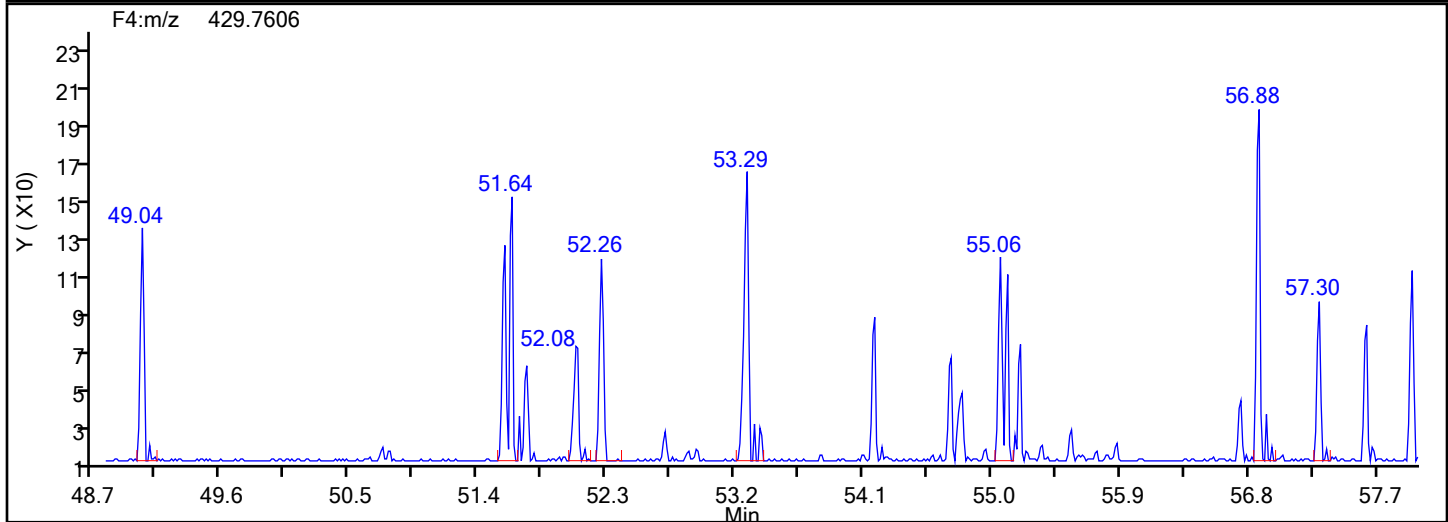
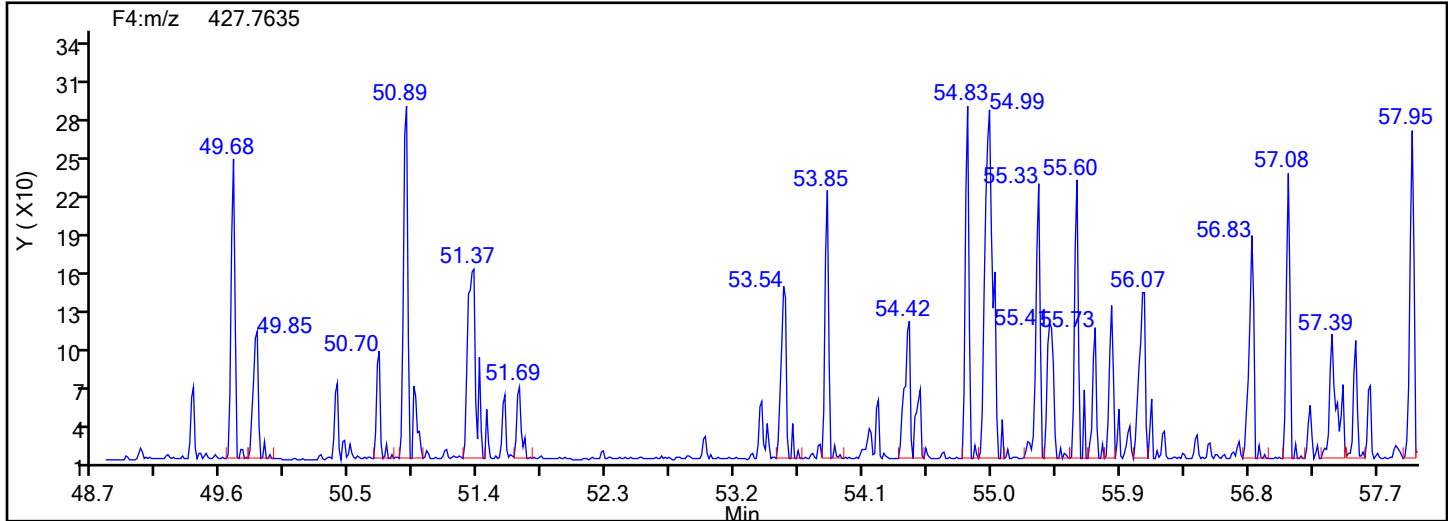


## OcPCB F4 Standards

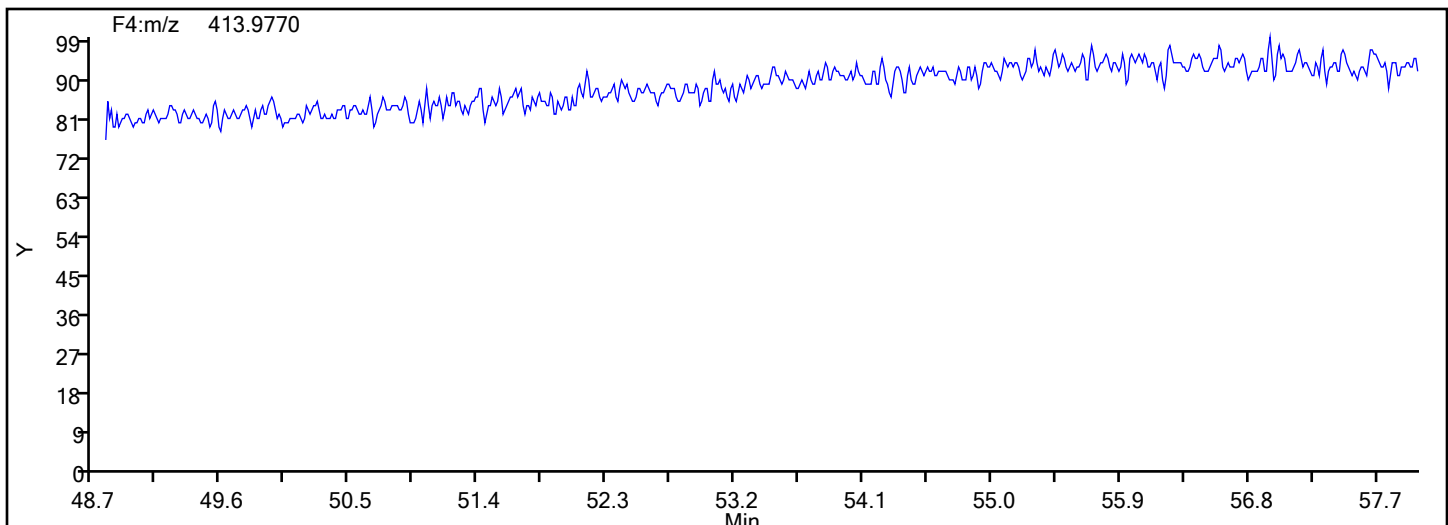


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-4-d5x.d  
Injection Date: 16-Jul-2024 21:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4

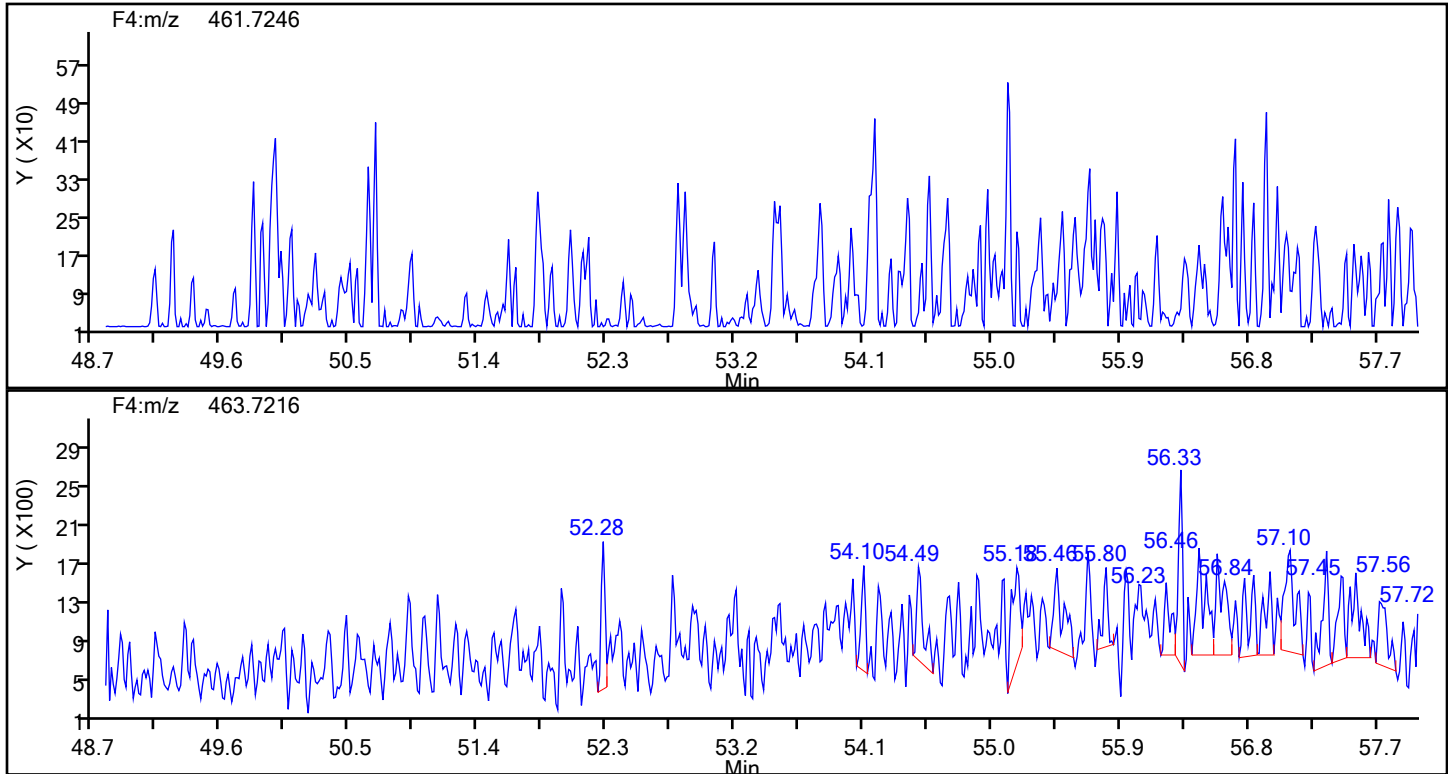


## OcPCB F4 Lock Mass

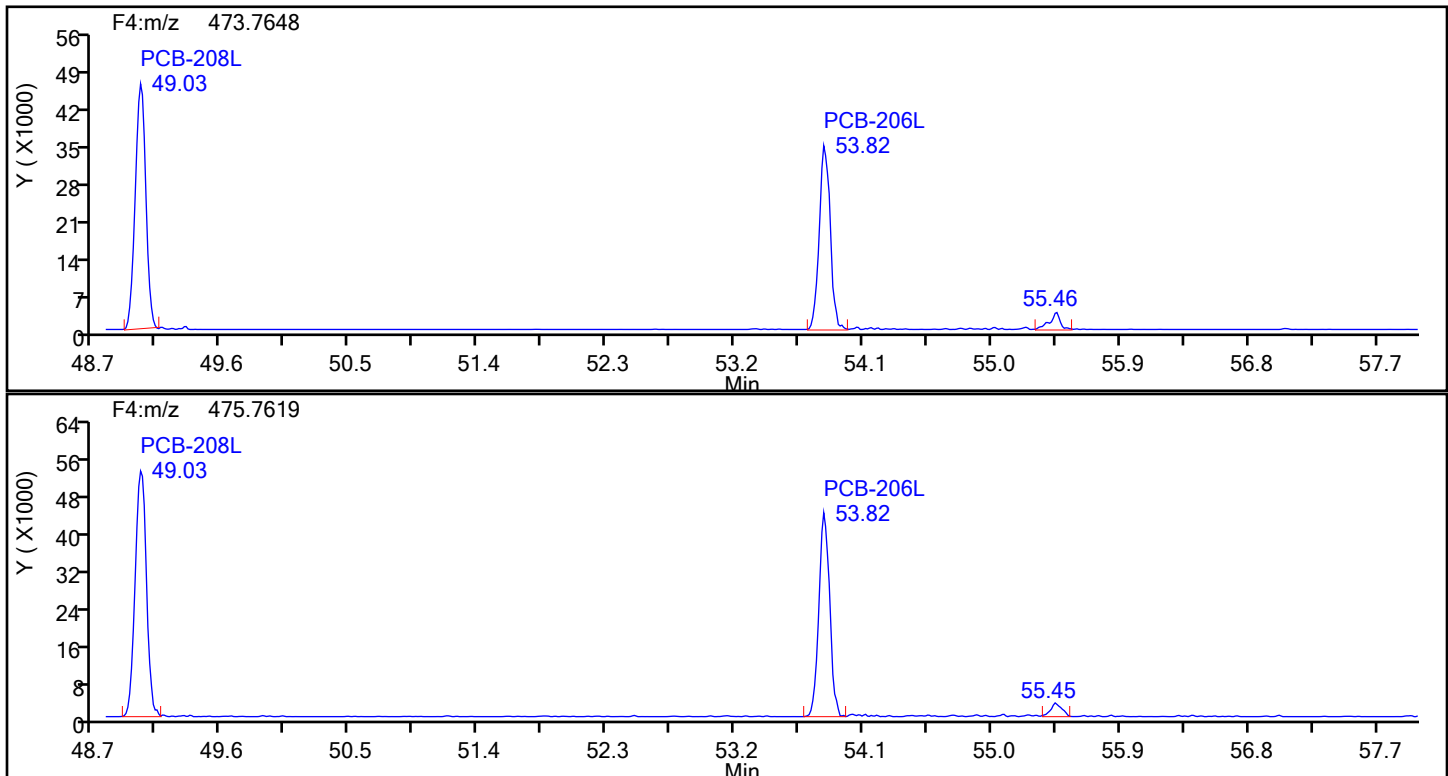


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-4-d5x.d  
Injection Date: 16-Jul-2024 21:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4

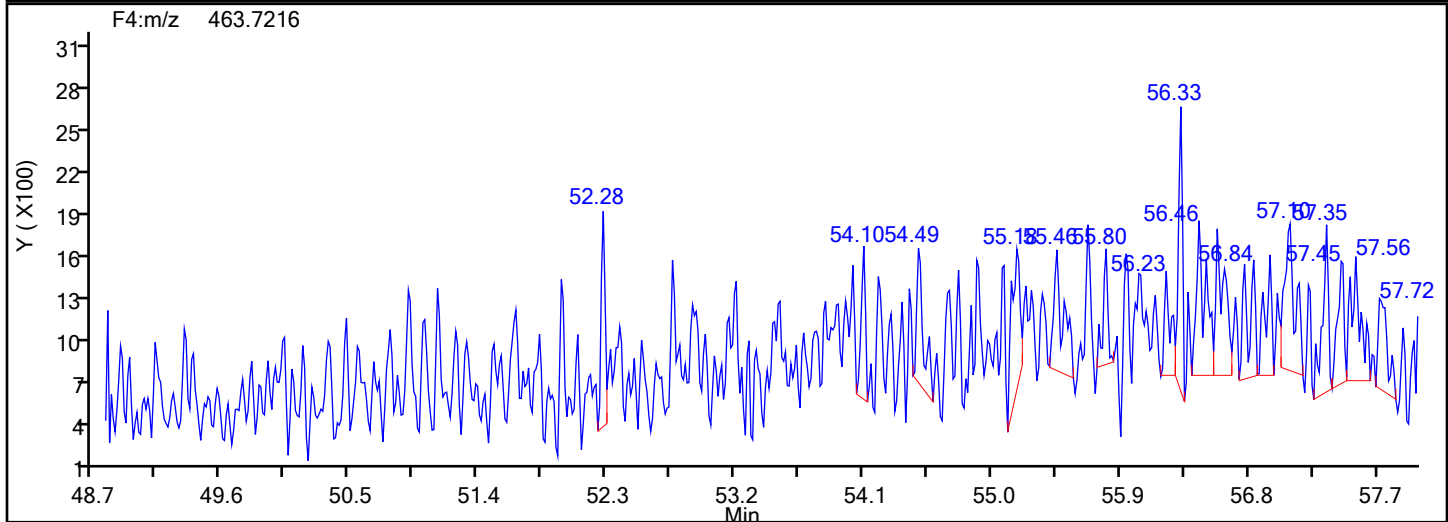
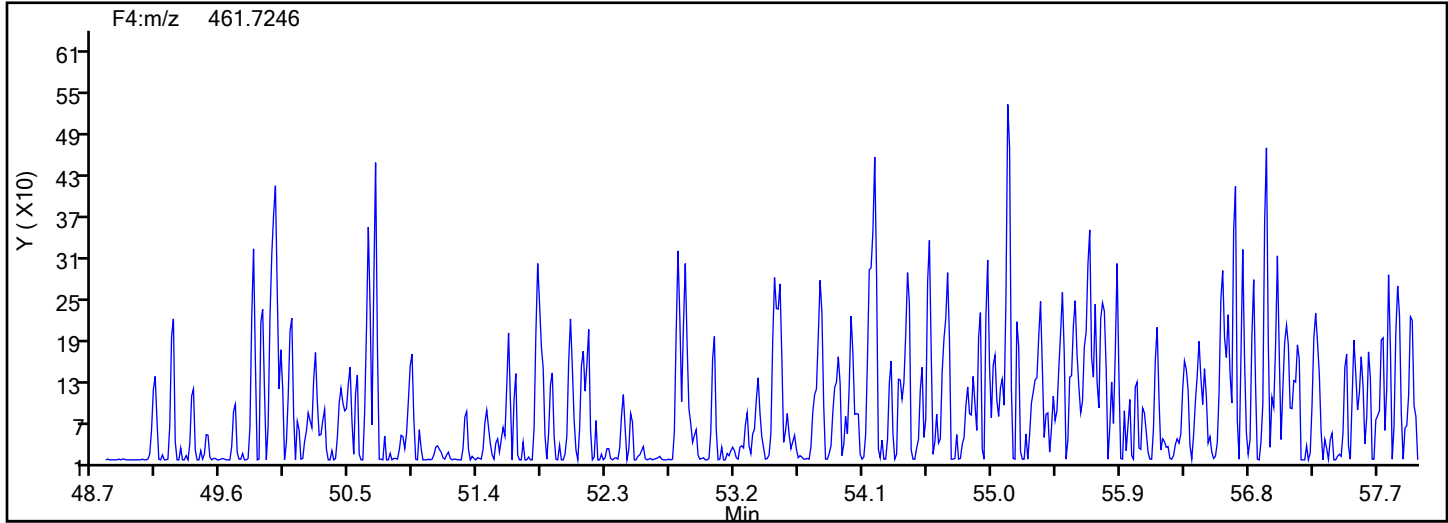


## NoPCB F4 Standards

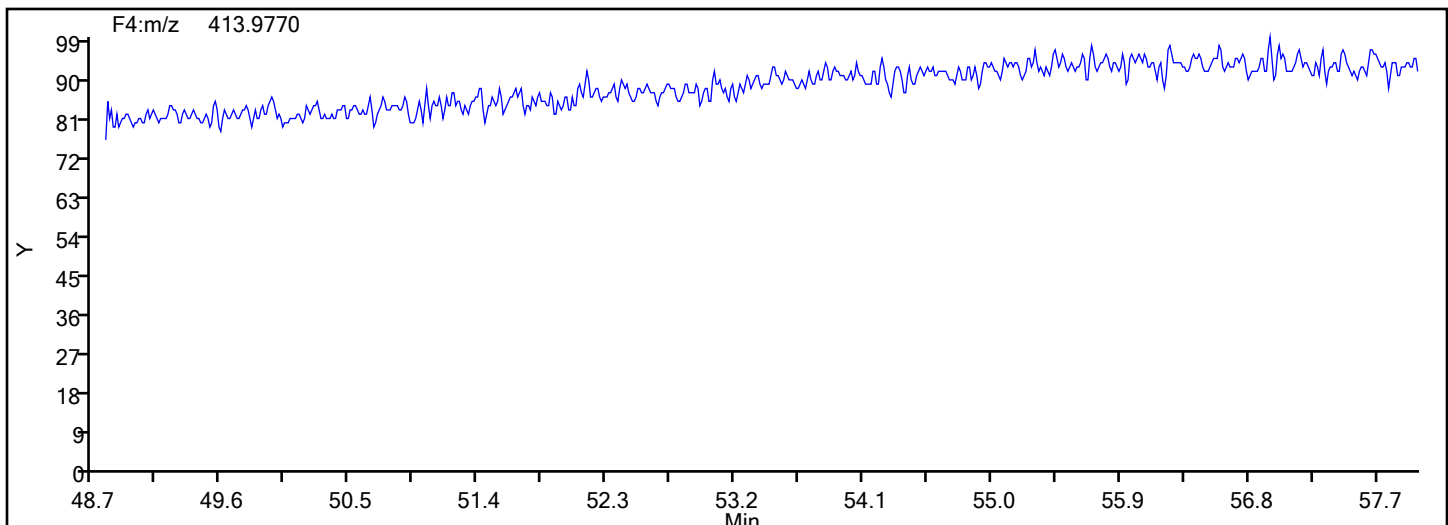


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-4-d5x.d  
Injection Date: 16-Jul-2024 21:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4

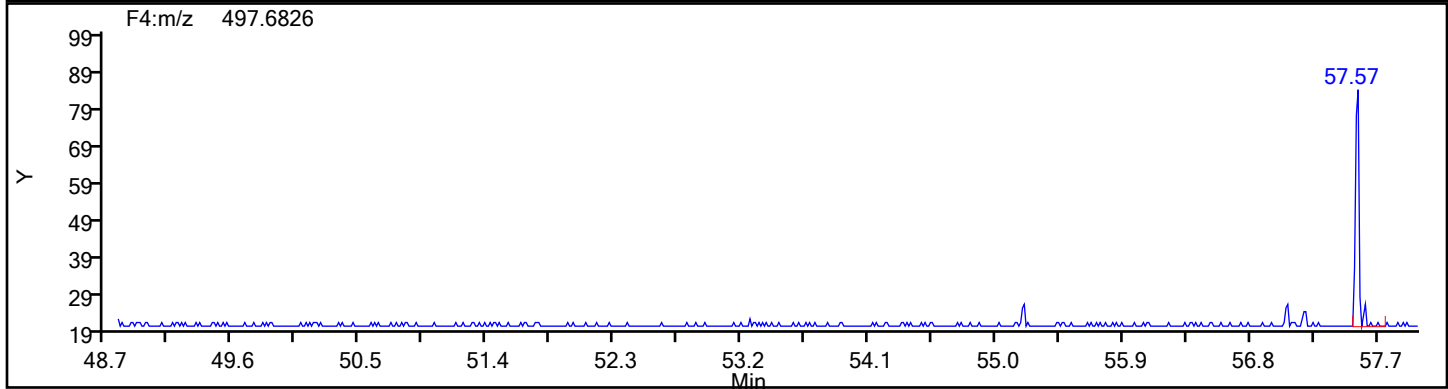
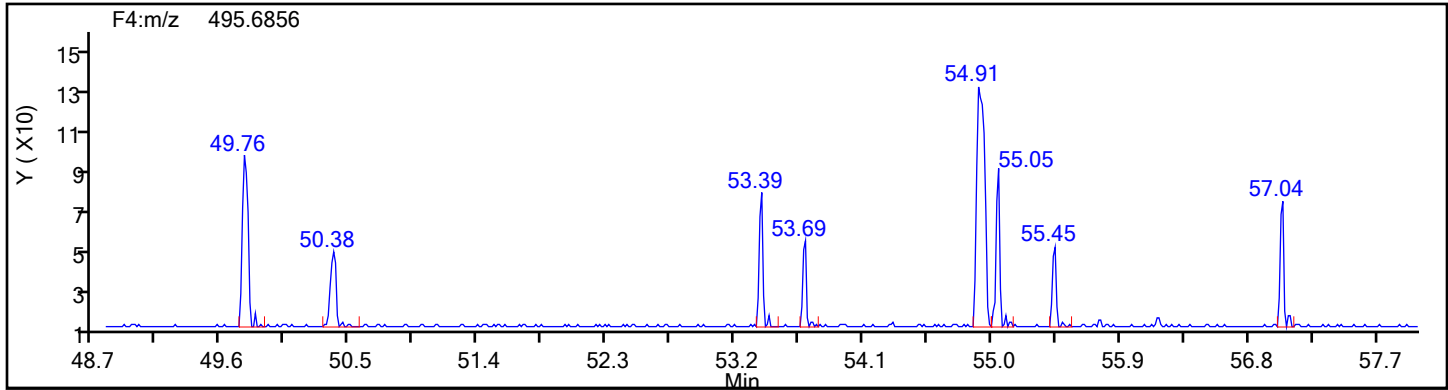


## NoPCB F4 Lock Mass

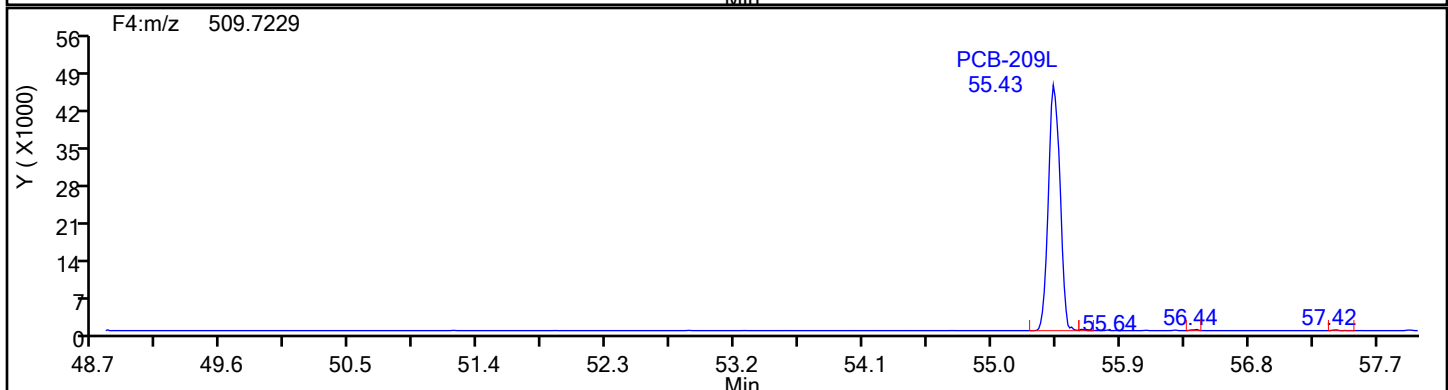
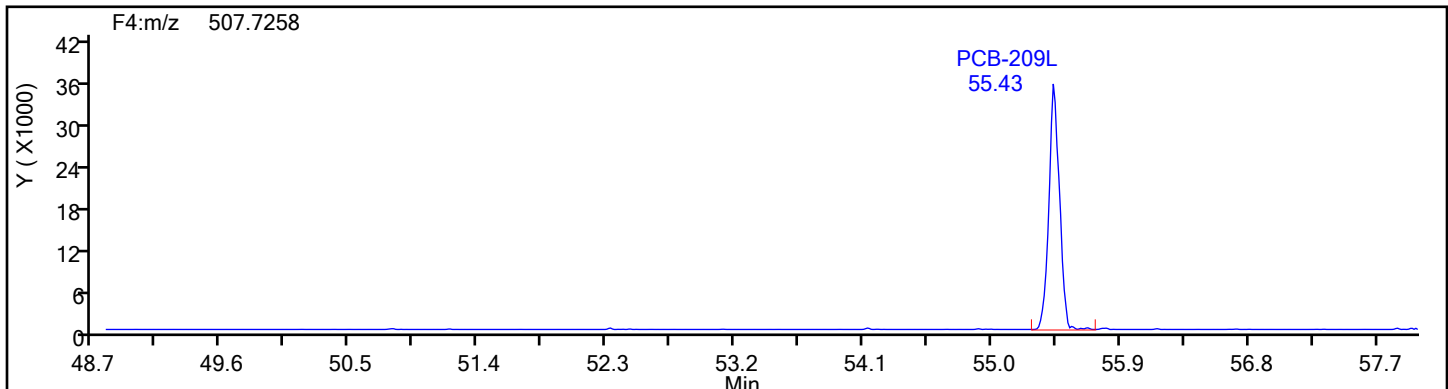


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-4-d5x.d  
Injection Date: 16-Jul-2024 21:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4

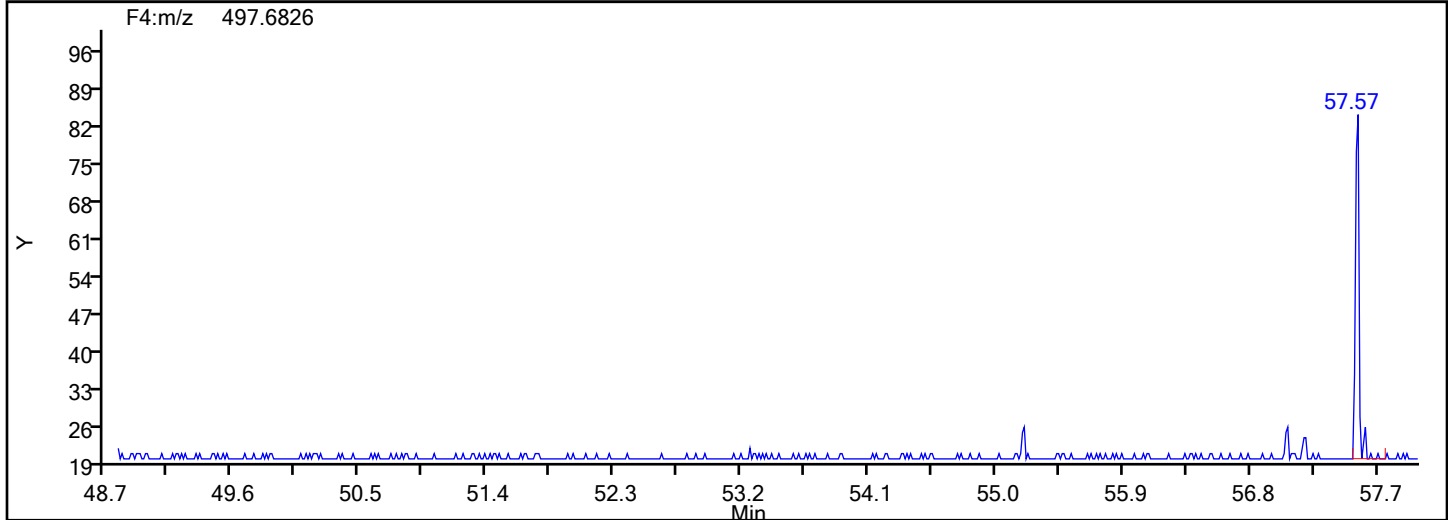
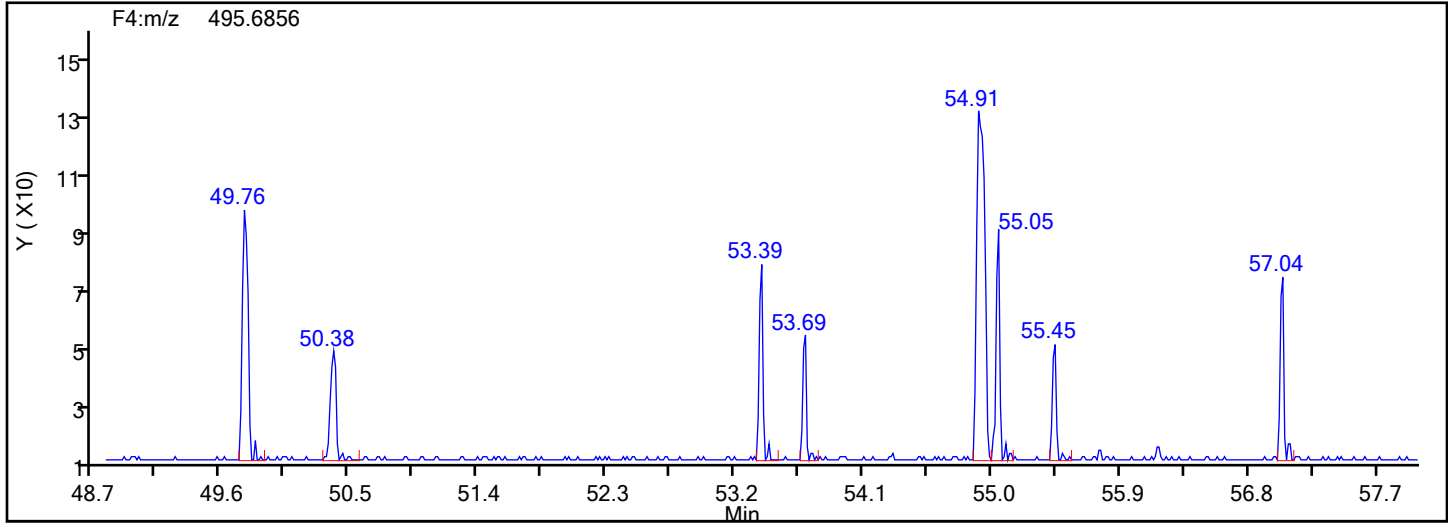


## DePCB F4 Standards

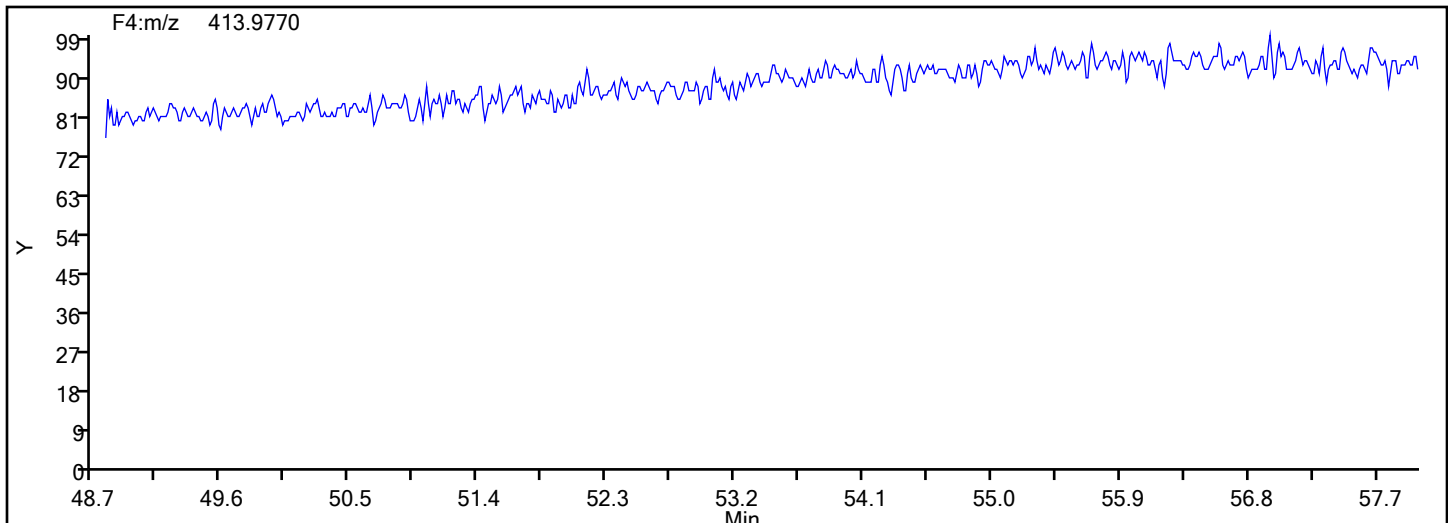


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-4-d5x.d  
Injection Date: 16-Jul-2024 21:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Worklist#: 88809 Sample Line#: 11  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4



## DePCB F4 Lock Mass





Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-4-d5x.d  
Lims ID: 140-37234-A-4-D  
Client ID: M23 F-10 BOILER RUN 5 COMBINED  
Sample Type: Client  
Inject. Date: 16-Jul-2024 21:40:00 ALS Bottle#: 0 Worklist Smp#: 11  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Sample Info:  
Misc. Info.: 140-0033521-011  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 12:15:33 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: TT6I

Date: 17-Jul-2024 12:15:33

Compound	Amount Added	Amount Recovered	% Rec.
PCB-8L	50.0	11.6	116.47
PCB-28L	100.0	14.7	73.30
PCB-79L	50.0	11.1	110.80
PCB-95L	50.0	11.8	118.24
PCB-111L	100.0	15.9	79.58
PCB-153L	50.0	10.1	100.98
PCB-178L	100.0	15.8	78.90

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 6</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-5</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-5-d-5x.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/11/2024 17:33</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/17/2024 04:20</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>5</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88834</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
34883-43-7	PCB-8	1.91	J	3.00	0.660	0.0835
37680-65-2	PCB-18	1.13	J C	3.00	1.43	0.0119
7012-37-5	PCB-28	1.36	J C20 B	3.00	1.26	0.0651
41464-39-5	PCB-44	9.02	C B	4.50	1.95	0.0436
35693-99-3	PCB-52	1.19	J	1.50	0.660	0.0462
32598-10-0	PCB-66	0.245	J q	1.50	0.600	0.0337
32598-13-3	PCB-77	0.0661	J q	1.50	0.630	0.0396
70362-50-4	PCB-81	ND		1.50	0.480	0.0389
37680-73-2	PCB-101	0.421	J q C90	4.50	1.95	0.0264
32598-14-4	PCB-105	ND		1.50	0.510	0.103
74472-37-0	PCB-114	ND		1.50	0.825	0.105
31508-00-6	PCB-118	0.106	J q	1.50	0.915	0.100
65510-44-3	PCB-123	ND		1.50	0.855	0.102
57465-28-8	PCB-126	ND		1.50	0.615	0.132
38380-07-3	PCB-128	ND	C	3.00	1.02	0.0220
35065-28-2	PCB-138	0.113	J q C129	6.00	2.55	0.0228
35065-27-1	PCB-153	0.0828	J q C B	3.00	1.25	0.0198
38380-08-4	PCB-156	ND	C	3.00	1.28	0.0235
69782-90-7	PCB-157	ND	C156	3.00	1.28	0.0235
52663-72-6	PCB-167	ND		1.50	0.900	0.0158
32774-16-6	PCB-169	ND		1.50	0.615	0.0166
35065-30-6	PCB-170	ND		1.50	0.660	0.00162
35065-29-3	PCB-180	ND	C	3.00	1.02	0.00120
52663-68-0	PCB-187	ND		1.50	0.630	0.00127
39635-31-9	PCB-189	ND		1.50	0.735	0.0226
52663-78-2	PCB-195	ND		1.50	0.795	0.0181
40186-72-9	PCB-206	ND		1.50	0.855	0.109
2051-24-3	PCB-209	ND		1.50	0.690	0.00886

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 6</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-5</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-5-d-5x.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/11/2024 17:33</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/17/2024 04:20</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>5</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88834</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
234432-85-0	PCB-1L	62		20-145
208263-77-8	PCB-3L	65		20-145
234432-86-1	PCB-4L	65		20-145
208263-67-6	PCB-15L	84		20-145
234432-87-2	PCB-19L	74		20-145
208263-79-0	PCB-37L	80		20-145
234432-88-3	PCB-54L	86		20-145
105600-23-5	PCB-77L	83		20-145
208461-24-9	PCB-81L	83		20-145
234432-89-4	PCB-104L	97		20-145
208263-62-1	PCB-105L	92		20-145
208263-63-2	PCB-114L	95		20-145
104130-40-7	PCB-118L	88		20-145
208263-64-3	PCB-123L	95		20-145
208263-65-4	PCB-126L	90		20-145
234432-90-7	PCB-155L	95		20-145
208263-68-7	PCB-156L	97	C	20-145
235416-30-5	PCB-157L	97	C156	20-145
208263-69-8	PCB-167L	91		20-145
208263-70-1	PCB-169L	94		20-145
160901-80-4	PCB-170L	97		20-145
234432-91-8	PCB-188L	101		20-145
208263-73-4	PCB-189L	95		20-145
105600-26-8	PCB-202L	96		20-145
234446-64-1	PCB-205L	99		20-145
208263-75-6	PCB-206L	102		20-145
234432-92-9	PCB-208L	90		20-145
105600-27-9	PCB-209L	112		20-145

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: M23 F-10 BOILER RUN 6 Lab Sample ID: 140-37234-5  
COMBINED  
Matrix: Air Lab File ID: 140-37234-a-5-d-5x.d  
Analysis Method: 23 Date Collected: 06/11/2024 17:33  
Extract. Method: Combined Prep Date Extracted: 06/27/2024 14:35  
Sample wt/vol: 1(Sample) Date Analyzed: 07/17/2024 04:20  
Con. Extract Vol.: 30 (mL) Dilution Factor: 5  
Injection Volume: 1(uL) GC Column: SPB-Octyl ID: 0.25 (mm)  
% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
Cleanup Factor: \_\_\_\_\_ Level: (low/med) Low  
Analysis Batch No.: 88834 Units: ng/Sample  
Preparation Batch No.: 88193 Instrument ID: Excalibur D2D DFS

CAS NO.	SURROGATE	%REC	Q	LIMITS
208263-76-7	PCB-28L	78		20-130
235416-29-2	PCB-111L	81		20-130
232919-67-4	PCB-178L	87		20-130
STL01600	PCB-8L	0	S1-	70-130
STL01603	PCB-79L	0	S1-	70-130
STL01604	PCB-95L	0	S1-	70-130
STL01606	PCB-153L	0	S1-	70-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-5-d-5x.d  
 Lims ID: 140-37234-A-5-D  
 Client ID: M23 F-10 BOILER RUN 6 COMBINED  
 Sample Type: Client  
 Inject. Date: 17-Jul-2024 04:20:00 ALS Bottle#: 0 Worklist Smp#: 8  
 Injection Vol: 1.0 ul Dil. Factor: 5.0000  
 Sample Info:  
 Misc. Info.: 140-0033532-008  
 Operator ID: Xcalibur\_System Instrument ID: D2D  
 Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\PCBs\_D2D.m  
 Limit Group: HR - EPA\_23 PCB ICAL  
 Last Update: 17-Jul-2024 13:04:52 Calib Date: 31-May-2024 21:13:00  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
 Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
 Process Host: CTX1616

First Level Reviewer: TT6I

Date: 17-Jul-2024 13:04:52

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D PCB-1L	11:39	1321317	3.13	1.6108	12.4	12.4	0.2450	0.2450	62.16	
D PCB-3L	13:47	1369358	3.29	1.5891	13.1	13.1	0.2483	0.2483	65.30	
S Total Dichlorobiphenyls					1.272	1.272	0.0556	0.0556		
D PCB-4L	14:02	555823	1.49	0.6475	13.0	13.0	0.1643	0.1643	65.04	
* PCB-9L	15:59	1319683	1.65		20.0	20.0				
\$ PCB-8L	16:49						0.1511	0.1511		
D PCB-15L	19:56	1192400	1.70	1.0789	16.7	16.7	0.0986	0.0986	83.74	
PCB-8	16:51	88313	1.60	1.5889	1.272	1.272	0.0556	0.0556		M
D PCB-19L	17:08	416498	1.07	0.6285	14.8	14.8	0.4348	0.4348	74.12	
* PCB-32L	20:23	893979	1.17		20.0	20.0				M
* PCB-31L	22:38	1939296	1.07		20.0	20.0				
\$ PCB-28L	22:55	1581519	1.08	1.0494	15.5	15.5	0.0943	0.0943	77.71	
D PCB-37L	26:55	1356537	1.08	0.8749	16.0	16.0	0.1131	0.1131	79.95	
PCB-18	19:02	27768	0.92	1.7652	0.7554	0.7554	0.007945	0.007945		a
PCB-30 (C18)	19:02	27768	0.92	1.7652	0.7554	0.7554	0.007945	0.007945		a
PCB-20	22:55	71957	1.11	1.1718	0.9053	0.9053	0.0434	0.0434		
PCB-28 (C20)	22:55	71957	1.11	1.1718	0.9053	0.9053	0.0434	0.0434		
S Total Tetrachlorobiphenyls					7.133	7.017	0.0269	0.0269		RQ
D PCB-54L	20:13	427443	0.81	0.5562	17.2	17.2	0.0982	0.0982	85.96	
* PCB-52L	24:44	974901	0.81		20.0	20.0				
\$ PCB-79L	32:38						0.0542	0.0542		
D PCB-81L	33:39	1005464	0.83	1.2470	16.5	16.5	0.0339	0.0339	82.71	
D PCB-77L	34:13	1066766	0.78	1.3212	16.6	16.6	0.0320	0.0320	82.82	
PCB-52	24:45	37906	0.82	0.9194	0.7958	0.7958	0.0308	0.0308		M
PCB-44	25:47	303154	0.76	0.9731	6.014	6.014	0.0291	0.0291		
PCB-47 (C44)	25:47	303154	0.76	0.9731	6.014	6.014	0.0291	0.0291		
PCB-65 (C44)	25:47	303154	0.76	0.9731	6.014	6.014	0.0291	0.0291		
PCB-66	29:50	10640	0.77	1.2583	0.2103	0.1632	0.0225	0.0225		RQM
PCB-81	33:40						0.0259	0.0259		
PCB-77	34:15	2546	0.77	1.0836	0.1134	0.0441	0.0264	0.0264		RQM
S Total Pentachlorobiphenyls					0.4544	0.4100	0.0631	0.0631		RQ
D PCB-104L	25:40	710838	1.66	1.2161	19.4	19.4	0.0593	0.0593	96.86	
\$ PCB-95L	28:38						0.0802	0.0802		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-101L	31:34	603465	1.56		20.0	20.0				
\$ PCB-111L	34:14	670349	1.55	1.3699	16.2	16.2	0.0526	0.0526	81.09	
D PCB-123L	36:12	1005663	1.58	0.9731	18.9	18.9	0.2835	0.2835	94.68	
D PCB-118L	36:31	968730	1.65	1.0102	17.6	17.6	0.2731	0.2731	87.86	
D PCB-114L	37:03	1031844	1.59	0.9949	19.0	19.0	0.2773	0.2773	95.02	
D PCB-105L	37:42	951523	1.65	0.9514	18.3	18.3	0.2900	0.2900	91.63	
* PCB-127L	39:10	1091504	1.57		20.0	20.0				
D PCB-126L	40:47	923685	1.54	0.9439	17.9	17.9	0.2923	0.2923	89.66	
PCB-90	31:35	9529	1.55	0.9550	0.3080	0.2807	0.0176	0.0176		RQ
PCB-101 (C90)	31:35	9529	1.55	0.9550	0.3080	0.2807	0.0176	0.0176		RQ
PCB-113 (C90)	31:35	9529	1.55	0.9550	0.3080	0.2807	0.0176	0.0176		RQ
PCB-123	36:12						0.0677	0.0677		
PCB-118	36:32	4115	1.55	1.2055	0.0820	0.0705	0.0667	0.0667		RQM
PCB-114	37:03						0.0700	0.0700		
PCB-105	37:45	3324	1.55	1.1879	0.0644	0.0588	0.0687	0.0687		RQM
PCB-126	40:48						0.0880	0.0880		
S Total Hexachlorobiphenyls					0.1793	0.1449	0.0134	0.0134		RQ
D PCB-155L	31:18	620664	1.27	1.0851	19.0	19.0	0.0423	0.0423	94.78	
\$ PCB-153L	38:23						0.2226	0.2226		RQU
* PCB-138L	39:38	681510	1.30		20.0	20.0				
D PCB-167L	42:38	781421	1.25	1.2572	18.2	18.2	0.1486	0.1486	91.20	
D PCB-156L	43:46	1592833	1.29	1.2106	38.6	38.6	0.1543	0.1543	96.53	
D PCB-157L (C156L)	43:46	1592833	1.29	1.2106	38.6	38.6	0.1543	0.1543	96.53	
D PCB-169L	47:01	795314	1.28	1.2439	18.8	18.8	0.1502	0.1502	93.82	
PCB-153	38:22	2392	1.24	1.0938	0.0628	0.0552	0.0132	0.0132		RQM
PCB-168 (C153)	38:22	2392	1.24	1.0938	0.0628	0.0552	0.0132	0.0132		RQM
PCB-129	39:40	2830	1.24	0.9464	0.0904	0.0755	0.0152	0.0152		RQM
PCB-138 (C129)	39:40	2830	1.24	0.9464	0.0904	0.0755	0.0152	0.0152		RQM
PCB-160 (C129)	39:40	2830	1.24	0.9464	0.0904	0.0755	0.0152	0.0152		RQM
PCB-163 (C129)	39:40	2830	1.24	0.9464	0.0904	0.0755	0.0152	0.0152		RQM
PCB-128	40:53						0.0147	0.0147		
PCB-166 (C128)	40:53						0.0147	0.0147		
PCB-167	42:37						0.0105	0.0105		
PCB-156	43:48	628	1.24	1.1104	0.0261	0.0142	0.0157	0.0157		RQM
PCB-157 (C156)	43:48	628	1.24	1.1104	0.0261	0.0142	0.0157	0.0157		RQM
PCB-169	47:01						0.0111	0.0111		
S Total Heptachlorobiphenyls							0.0150	0.0150		
D PCB-188L	37:01	673523	1.03	1.3133	20.3	20.3	0.0468	0.0468	101	
\$ PCB-178L	40:05	456036	1.04	1.0313	17.5	17.5	0.0596	0.0596	87.35	
* PCB-180L	45:09	506213	1.10		20.0	20.0				
D PCB-170L	46:26	412406	1.05	0.8362	19.5	19.5	0.0735	0.0735	97.43	
D PCB-189L	49:31	890717	1.05	1.4414	19.1	19.1	0.7894	0.7894	95.43	
PCB-187	41:00						0.000848	0.000848		
PCB-180	45:08						0.000800	0.000800		
PCB-193 (C180)	45:08						0.000800	0.000800		
PCB-170	46:26						0.001077	0.001077		
PCB-189	49:32						0.0150	0.0150		
S Total Octachlorobiphenyls							0.0121	0.0121		
D PCB-202L	42:23	476712	0.90	0.9818	19.2	19.2	0.007555	0.007555	95.92	
* PCB-194L	51:37	647532	0.92		20.0	20.0				
D PCB-205L	52:05	755332	0.85	1.1786	19.8	19.8	0.3833	0.3833	98.98	
PCB-195	49:17						0.0121	0.0121		
S Total Nonachlorobiphenyls							0.0724	0.0724		
D PCB-208L	49:02	556968	0.77	0.9576	18.0	18.0	0.4118	0.4118	89.82	
D PCB-206L	53:50	457580	0.76	0.6947	20.3	20.3	0.5677	0.5677	102	
PCB-206	53:51						0.0724	0.0724		
D PCB-209L	55:27	481746	0.70	0.6669	22.3	22.3	0.0668	0.0668	112	
DCB Decachlorobiphenyl	55:28						0.005906	0.005906		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
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S Polychlorinated biphenyls, Total

9.038

0.0331

0.0331

RQ

### QC Flag Legend

#### Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

#### Review Flags

M - Manually Integrated

U - Marked Undetected

a - User Assigned ID

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-5-d-5x.d  
Lims ID: 140-37234-A-5-D  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Sample Type: Client  
Inject. Date: 17-Jul-2024 04:20:00 ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Sample Info:  
Misc. Info.: 140-0033532-008  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 13:04:52 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICAL File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: TT61

Date: 17-Jul-2024 13:04:52

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:39	11:37	0	0.729	1001772	411581	461	1152	893		
202.0766	11:39	11:37	0	0.729	319545	125943	2513	6282	50	3.13(2.66-3.60)	
PCB-3L											
200.0795	13:47	13:46	0	0.863	1050419	340127	461	1152	738		
202.0766	13:47	13:46	0	0.863	318939	103595	2513	6282	41	3.29(2.66-3.60)	
PCB-4L											
234.0406	14:02	14:01	0	0.878	332470	113373	598	1495	190		
236.0376	14:02	14:01	0	0.878	223353	74224	204	510	364	1.49(1.33-1.79)	
PCB-9L											
234.0406	15:59	15:59	0		821502	233389	598	1495	390		
236.0376	15:59	15:59	0		498181	143426	204	510	703	1.65(1.33-1.79)	
PCB-8L											
234.0406	16:49						598	1495			
236.0376	16:49						204	510			
PCB-15L											
234.0406	19:56	19:52	3	1.248	750131	154531	598	1495	258		
236.0376	19:56	19:52	3	1.248	442269	97616	204	510	479	1.70(1.33-1.79)	
PCB-8											
222.0003	16:51	16:51	1	1.200	54395	13497	154	385	88		M
223.9974	16:51	16:51	1	1.200	33918	9411	235	587	40	1.60(1.33-1.79)	M
PCB-19L											
268.0016	17:08	17:06	1	0.841	215222	58352	515	1287	113		
269.9986	17:08	17:06	1	0.841	201276	55737	686	1715	81	1.07(0.88-1.20)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-32L											
268.0016	20:23	20:21	2		481485	113109	515	1287	220		M
269.9986	20:23	20:21	2		412494	106577	686	1715	155	1.17(0.88-1.20)	M
PCB-31L											
268.0016	22:38	22:37	1		1003765	238437	646	1615	369		
269.9986	22:38	22:37	1		935531	220539	262	655	842	1.07(0.88-1.20)	
PCB-28L											
268.0016	22:55	22:52	1	1.012	819623	179442	646	1615	278		
269.9986	22:55	22:52	1	1.012	761896	174938	262	655	668	1.08(0.88-1.20)	
PCB-37L											
268.0016	26:55	26:53	0	1.189	703043	128951	646	1615	200		
269.9986	26:55	26:53	0	1.189	653494	120690	262	655	461	1.08(0.88-1.20)	
PCB-18											
255.9613	19:02	19:02	6	1.110	13293	3243	16	40	203		a
257.9584	19:02	19:02	6	1.110	14475	4069	16	40	254	0.92(0.88-1.20)	a
PCB-30 (C18)											
255.9613	19:02	19:02	6	1.110	13293	3243	16	40	203		a
257.9584	19:02	19:02	6	1.110	14475	4069	16	40	254	0.92(0.88-1.20)	a
PCB-20											
255.9613	22:55	22:56	-1	0.852	37867	8984	146	365	62		
257.9584	22:56	22:56	0	0.852	34090	6986	108	270	65	1.11(0.88-1.20)	
PCB-28 (C20)											
255.9613	22:55	22:56	-1	0.852	37867	8984	146	365	62		
257.9584	22:56	22:56	0	0.852	34090	6986	108	270	65	1.11(0.88-1.20)	
PCB-54L											
301.9626	20:13	20:11	2	0.818	190817	50243	148	370	339		
303.9597	20:13	20:11	2	0.818	236626	65126	92	230	708	0.81(0.65-0.89)	
PCB-52L											
301.9626	24:44	24:44	0		435689	100221	119	297	842		
303.9597	24:44	24:44	0		539212	122349	69	172	1773	0.81(0.65-0.89)	
PCB-79L											
301.9626	32:39						119	297			
303.9597	32:39						69	172			
PCB-81L											
301.9626	33:39	33:37	0	1.360	455588	79390	119	297	667		
303.9597	33:39	33:37	0	1.360	549876	95631	69	172	1386	0.83(0.65-0.89)	
PCB-77L											
301.9626	34:13	34:10	1	1.383	469134	78010	119	297	656		
303.9597	34:13	34:10	1	1.383	597632	93276	69	172	1352	0.78(0.65-0.89)	
PCB-52											
289.9224	24:45	24:47	0	1.224	17125	3676	37	92	99		M
291.9194	24:47	24:47	2	1.225	20781	3735	61	152	61	0.82(0.65-0.89)	M
PCB-44											
289.9224	25:47	25:43	2	1.275	130779	26954	37	92	728		
291.9194	25:47	25:43	2	1.275	172375	36921	61	152	605	0.76(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-47 (C44)											
289.9224	25:47	25:43	2	1.275	130779	26954	37	92	728		
291.9194	25:47	25:43	2	1.275	172375	36921	61	152	605	0.76(0.65-0.89)	
PCB-65 (C44)											
289.9224	25:47	25:43	2	1.275	130779	26954	37	92	728		
291.9194	25:47	25:43	2	1.275	172375	36921	61	152	605	0.76(0.65-0.89)	
PCB-66											
289.9224	29:50	29:51	0	0.887	4629	792	37	92	21		RQM
291.9194	29:51	29:51	0	0.887	9082	1597	61	152	26	0.51(0.65-0.89)	M
Empc Correction					6011	1028	61	152	17		
PCB-81											
289.9224	33:40						37	92			
291.9194	33:40						61	152			
PCB-77											
289.9224	34:15	34:17	2	1.001	1108	399	37	92	11		RQM
291.9194	34:17	34:17	4	1.002	5445	1242	61	152	20	0.20(0.65-0.89)	M
Empc Correction					1438	518	61	152	8		
PCB-104L											
337.9207	25:40	25:39	0	0.813	443481	96889	111	277	873		
339.9178	25:39	25:39	0	0.813	267357	60379	71	177	850	1.66(1.32-1.78)	
PCB-95L											
337.9207	28:38						111	277			
339.9178	28:38						71	177			
PCB-101L											
337.9207	31:34	31:33	0		367388	77448	111	277	698		
339.9178	31:34	31:33	0		236077	48790	71	177	687	1.56(1.32-1.78)	
PCB-111L											
337.9207	34:14	34:12	1	1.085	407549	83263	111	277	750		
339.9178	34:14	34:12	1	1.085	262800	51696	71	177	728	1.55(1.32-1.78)	
PCB-123L											
337.9207	36:12	36:09	1	1.147	616290	126805	562	1405	226		
339.9178	36:12	36:09	1	1.147	389373	77665	518	1295	150	1.58(1.32-1.78)	
PCB-118L											
337.9207	36:31	36:29	1	1.157	602832	116763	562	1405	208		
339.9178	36:30	36:29	0	1.157	365898	67843	518	1295	131	1.65(1.32-1.78)	
PCB-114L											
337.9207	37:03	37:01	1	1.174	633295	120441	562	1405	214		
339.9178	37:03	37:01	1	1.174	398549	75118	518	1295	145	1.59(1.32-1.78)	
PCB-105L											
337.9207	37:42	37:41	0	1.195	592170	116058	562	1405	207		
339.9178	37:42	37:41	0	1.195	359353	65833	518	1295	127	1.65(1.32-1.78)	
PCB-127L											
337.9207	39:10	39:09	0		666175	116330	562	1405	207		
339.9178	39:10	39:09	1		425329	79377	518	1295	153	1.57(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-126L											
337.9207	40:47	40:46	0	1.293	559345	92697	562	1405	165		
339.9178	40:48	40:46	1	1.293	364340	60875	518	1295	118	1.54(1.32-1.78)	
PCB-90											
325.8804	31:35	31:34	2	1.231	6717	1332	40	100	33		RQ
	Empc Correction				5792	1553	40	100	39		
327.8775	31:34	31:34	1	1.230	3737	1002	13	32	77	1.80(1.32-1.78)	
PCB-101 (C90)											
325.8804	31:35	31:34	2	1.231	6717	1332	40	100	33		RQ
	Empc Correction				5792	1553	40	100	39		
327.8775	31:34	31:34	1	1.230	3737	1002	13	32	77	1.80(1.32-1.78)	
PCB-113 (C90)											
325.8804	31:35	31:34	2	1.231	6717	1332	40	100	33		RQ
	Empc Correction				5792	1553	40	100	39		
327.8775	31:34	31:34	1	1.230	3737	1002	13	32	77	1.80(1.32-1.78)	
PCB-123											
325.8804	36:13						188	470			
327.8775	36:13						109	272			
PCB-118											
325.8804	36:32	36:34	0	1.000	3173	844	188	470	4		RQM
	Empc Correction				2501	595	188	470	3		
327.8775	36:34	36:34	3	1.001	1614	384	109	272	4	1.97(1.32-1.78)	M
PCB-114											
325.8804	37:04						188	470			
327.8775	37:04						109	272			
PCB-105											
325.8804	37:45	37:44	1	1.001	2021	592	188	470	3		RQM
327.8775	37:44	37:44	0	1.001	1619	373	109	272	3	1.25(1.32-1.78)	M
	Empc Correction				1303	381	109	272	3		
PCB-126											
325.8804	40:48						188	470			
327.8775	40:48						109	272			
PCB-155L											
371.8817	31:18	31:17	1	0.790	347001	70872	58	145	1222		
373.8788	31:18	31:17	0	0.789	273663	58561	58	145	1010	1.27(1.05-1.43)	
PCB-153L											
371.8817	38:23						406	1015			RQU
373.8788	38:23						87	217			
PCB-138L											
371.8817	39:38	39:37	1		384873	74896	406	1015	184		
373.8788	39:38	39:37	1		296637	56992	87	217	655	1.30(1.05-1.43)	
PCB-167L											
371.8817	42:38	42:37	1	1.076	434449	81879	406	1015	202		
373.8788	42:37	42:37	0	1.075	346972	66229	87	217	761	1.25(1.05-1.43)	
PCB-156L											
371.8817	43:46	43:47	0	1.104	897519	114001	406	1015	281		
373.8788	43:48	43:47	1	1.105	695314	85809	87	217	986	1.29(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-157L (C156L)											
371.8817	43:46	43:47	0	1.104	897519	114001	406	1015	281		
373.8788	43:48	43:47	1	1.105	695314	85809	87	217	986	1.29(1.05-1.43)	
PCB-169L											
371.8817	47:01	47:00	1	1.186	446678	74709	406	1015	184		
373.8788	47:01	47:00	1	1.186	348636	60282	87	217	693	1.28(1.05-1.43)	
PCB-153											
359.8415	38:22	38:22	-2	0.900	1652	554	31	77	18		RQM
	Empc Correction				1324	603	31	77	19		M
361.8385	38:23	38:22	-1	0.900	1068	487	4	10	122	1.55(1.05-1.43)	
PCB-168 (C153)											
359.8415	38:22	38:22	-2	0.900	1652	554	31	77	18		RQM
	Empc Correction				1324	603	31	77	19		M
361.8385	38:23	38:22	-1	0.900	1068	487	4	10	122	1.55(1.05-1.43)	
PCB-129											
359.8415	39:40	39:41	0	0.930	1567	569	31	77	18		RQM
361.8385	39:41	39:41	2	0.931	1823	546	4	10	137	0.86(1.05-1.43)	M
	Empc Correction				1263	458	4	10	115		
PCB-138 (C129)											
359.8415	39:40	39:41	0	0.930	1567	569	31	77	18		RQM
361.8385	39:41	39:41	2	0.931	1823	546	4	10	137	0.86(1.05-1.43)	M
	Empc Correction				1263	458	4	10	115		
PCB-160 (C129)											
359.8415	39:40	39:41	0	0.930	1567	569	31	77	18		RQM
361.8385	39:41	39:41	2	0.931	1823	546	4	10	137	0.86(1.05-1.43)	M
	Empc Correction				1263	458	4	10	115		
PCB-163 (C129)											
359.8415	39:40	39:41	0	0.930	1567	569	31	77	18		RQM
361.8385	39:41	39:41	2	0.931	1823	546	4	10	137	0.86(1.05-1.43)	M
	Empc Correction				1263	458	4	10	115		
PCB-128											
359.8415	40:54						31	77			
361.8385	40:54						4	10			
PCB-166 (C128)											
359.8415	40:54						31	77			
361.8385	40:54						4	10			
PCB-167											
359.8415	42:39						31	77			
361.8385	42:39						4	10			
PCB-156											
359.8415	43:48	43:49	0	1.001	348	67	31	77	2		RQM
361.8385	43:49	43:49	0	1.001	807	252	4	10	63	0.43(1.05-1.43)	M
	Empc Correction				280	54	4	10	14		
PCB-157 (C156)											
359.8415	43:48	43:49	0	1.001	348	67	31	77	2		RQM
361.8385	43:49	43:49	0	1.001	807	252	4	10	63	0.43(1.05-1.43)	M
	Empc Correction				280	54	4	10	14		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-169											
359.8415	47:03						31	77			
361.8385	47:03						4	10			
PCB-188L											
405.8428	37:01	37:01	0	0.820	341637	69975	71	177	986		
407.8398	37:01	37:01	0	0.820	331886	65955	45	112	1466	1.03(0.89-1.21)	
PCB-178L											
405.8428	40:05	40:05	0	0.888	232125	43140	71	177	608		
407.8398	40:05	40:05	0	0.888	223911	39215	45	112	871	1.04(0.89-1.21)	
PCB-180L											
405.8428	45:09	45:09	0		265640	48568	71	177	684		
407.8398	45:10	45:09	1		240573	45798	45	112	1018	1.10(0.89-1.21)	
PCB-170L											
405.8428	46:26	46:24	1	1.028	211189	41702	71	177	587		
407.8398	46:26	46:24	1	1.028	201217	36544	45	112	812	1.05(0.89-1.21)	
PCB-189L											
405.8428	49:31	49:31	1	1.097	455665	86530	1775	4437	49		
407.8398	49:31	49:31	1	1.097	435052	79033	1003	2507	79	1.05(0.89-1.21)	
PCB-187											
393.8025	41:00						1	2			
395.7995	41:00						1	2			
PCB-180											
393.8025	45:08						1	2			
395.7995	45:08						1	2			
PCB-193 (C180)											
393.8025	45:08						1	2			
395.7995	45:08						1	2			
PCB-170											
393.8025	46:25						1	2			
395.7995	46:25						1	2			
PCB-189											
393.8025	49:33						31	77			
395.7995	49:33						17	42			
PCB-202L											
439.8038	42:23	42:22	0	0.821	226265	43376	13	32	3337		
441.8008	42:24	42:22	1	0.821	250447	48982	1	2	48982	0.90(0.76-1.02)	
PCB-194L											
439.8038	51:37	51:36	1		309848	59973	371	927	162		
441.8008	51:37	51:36	1		337684	62098	732	1830	85	0.92(0.76-1.02)	
PCB-205L											
439.8038	52:05	52:05	0	1.009	347605	62692	371	927	169		
441.8008	52:05	52:05	0	1.009	407727	77374	732	1830	106	0.85(0.76-1.02)	
PCB-195											
427.7635	49:18						15	37			
429.7606	49:18						13	32			

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-208L											
473.7648	49:02	49:02	0	0.950	242709	50207	482	1205	104		
475.7619	49:02	49:02	0	0.950	314259	58962	481	1202	123	0.77(0.65-0.89)	
PCB-206L											
473.7648	53:50	53:50	0	1.043	197920	36773	482	1205	76		
475.7619	53:50	53:50	0	1.043	259660	49501	481	1202	103	0.76(0.65-0.89)	
PCB-206											
461.7246	53:52						12	30			
463.7216	53:52						155	387			
PCB-209L											
507.7258	55:27	55:26	0	1.074	198288	33959	74	185	459		
509.7229	55:27	55:26	0	1.074	283458	49137	35	87	1404	0.70(0.59-0.79)	
DCB Decachlorobiphenyl											
495.6856	55:27						1	2			
497.6826	55:27						10	25			

**QC Flag Legend**

## Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

## Review Flags

M - Manually Integrated

U - Marked Undetected

a - User Assigned ID

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-5-d-5x.d

Injection Date: 17-Jul-2024 04:20:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER RUN 6 COMBINED

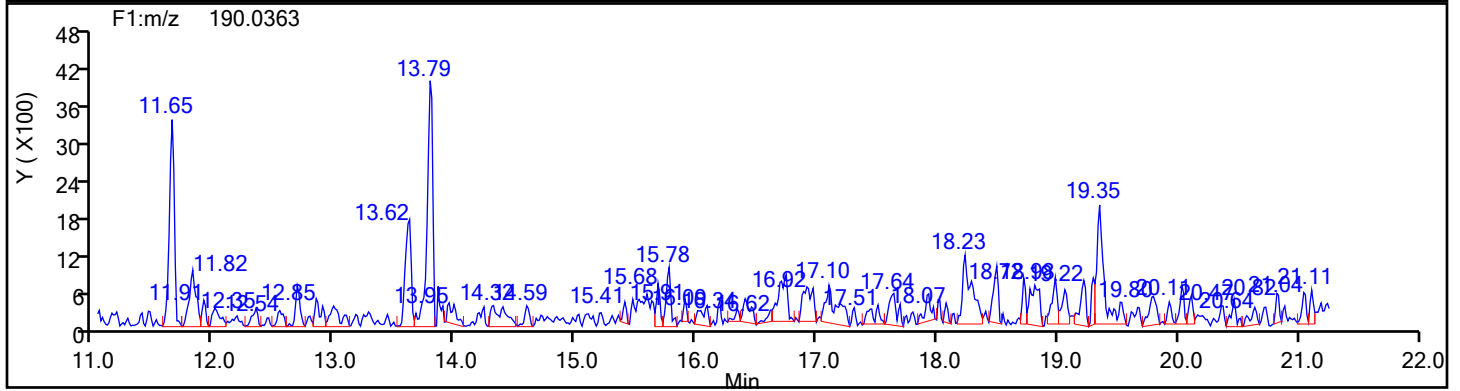
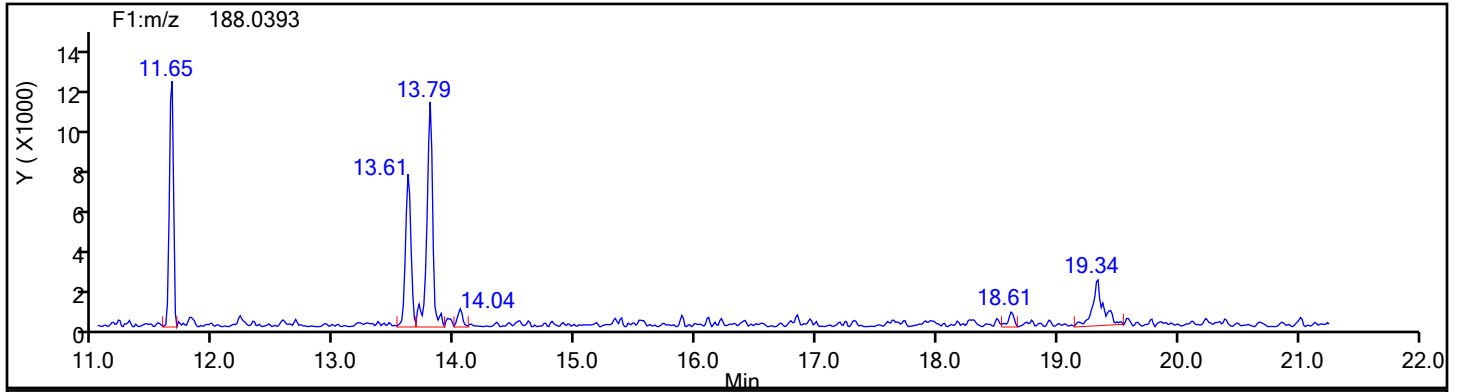
Worklist#: 88834

Sample Line#: 8

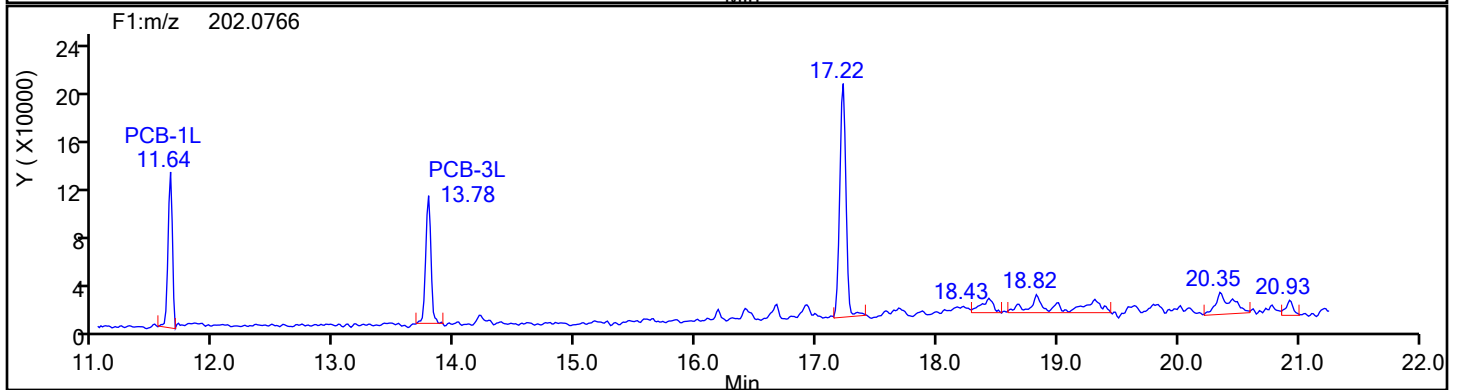
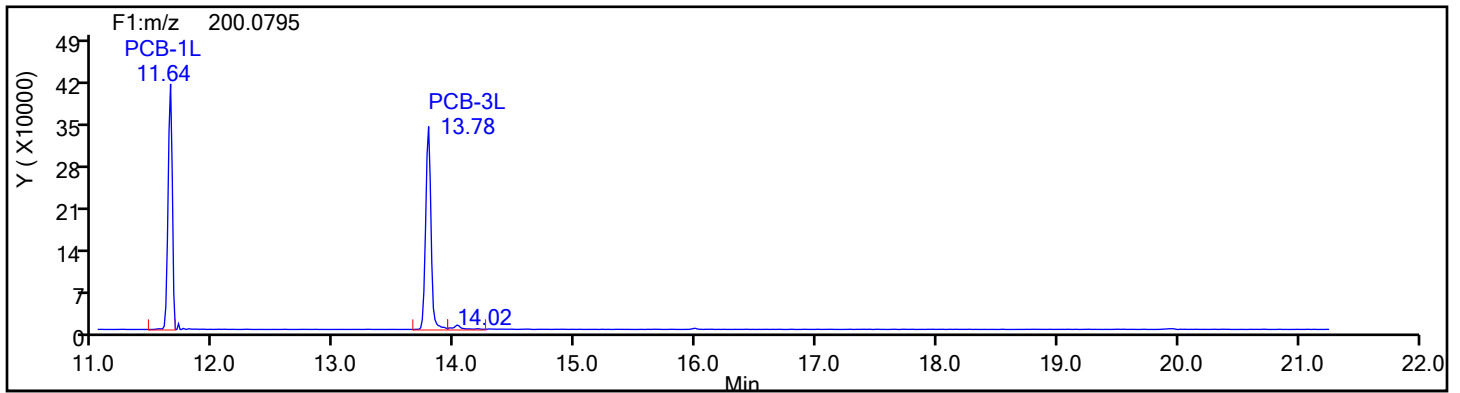
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1

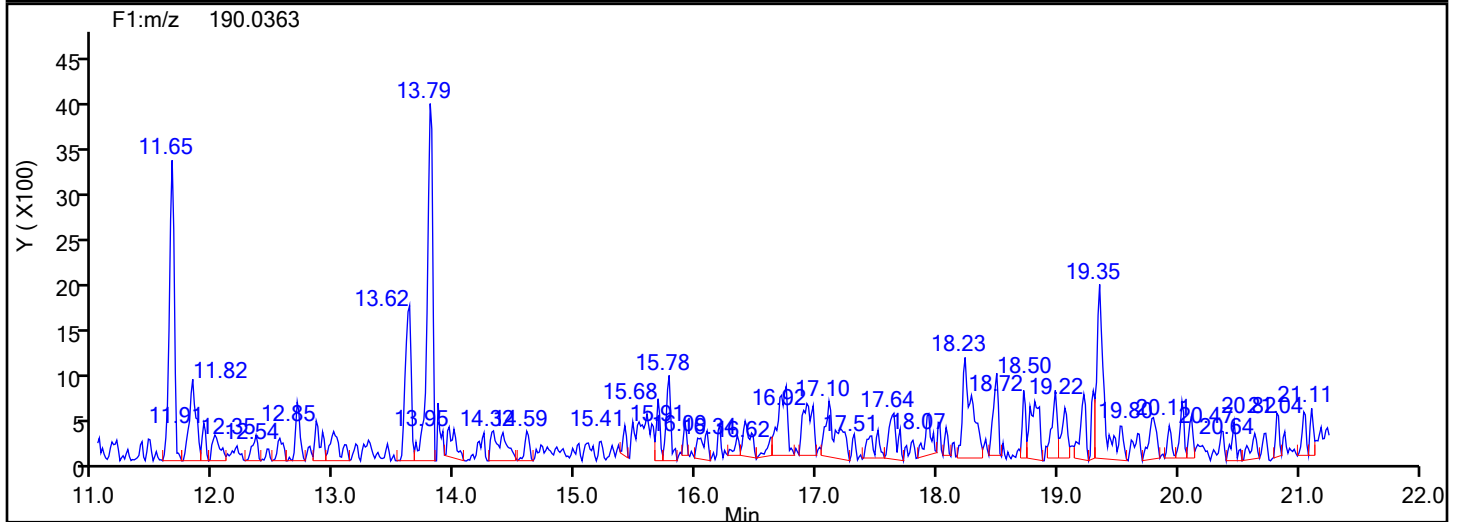
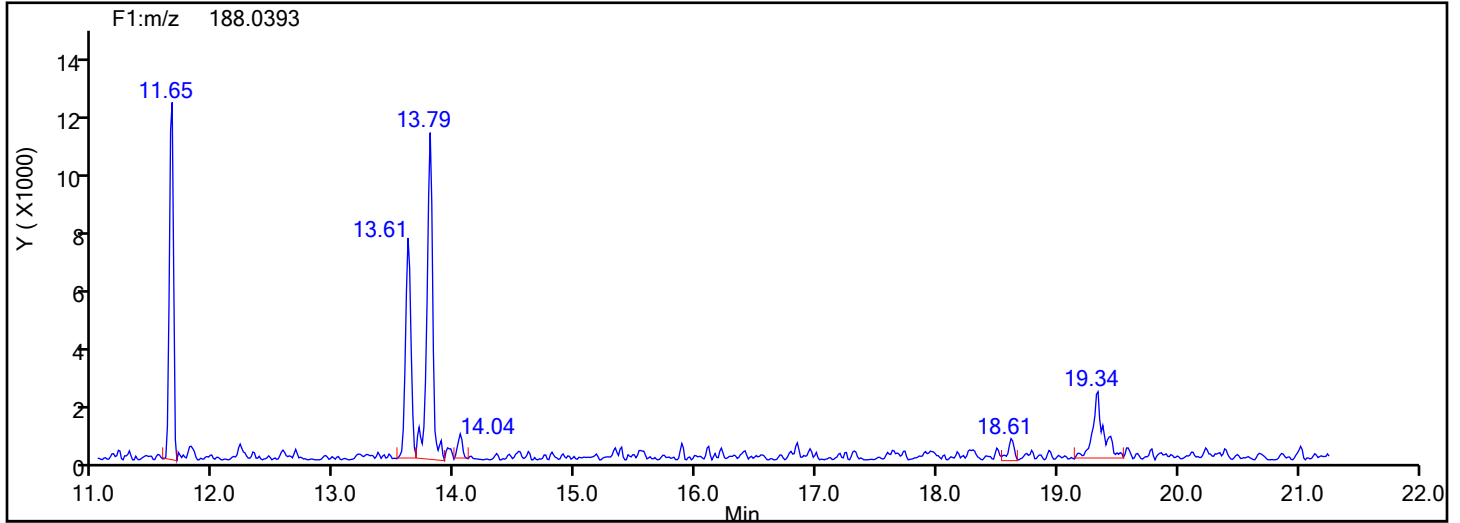


MoPCB F1 Standards

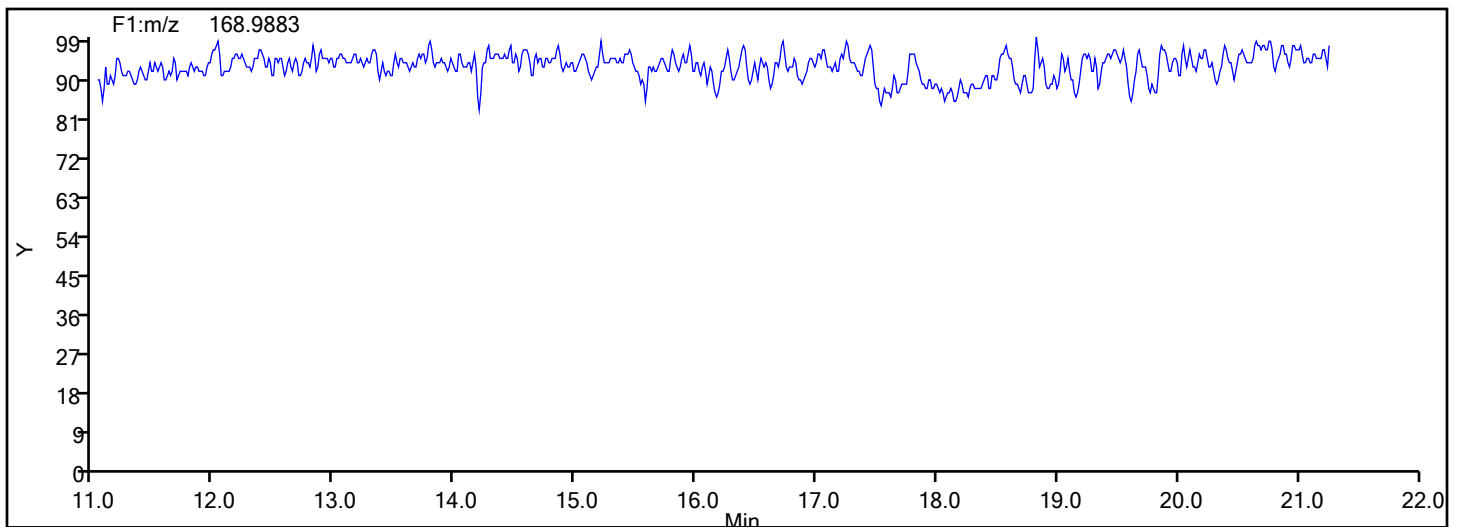


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 04:20:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
MoPCB F1



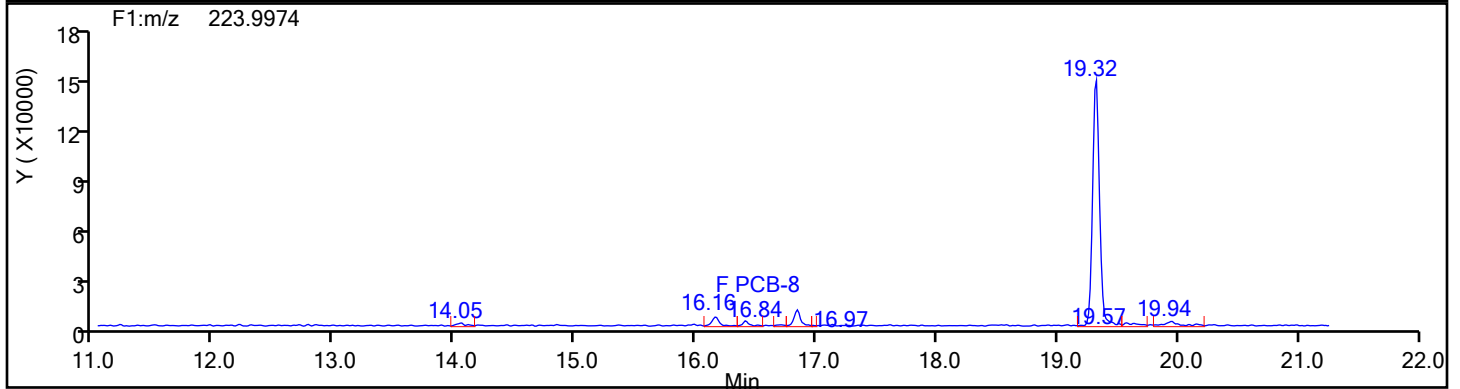
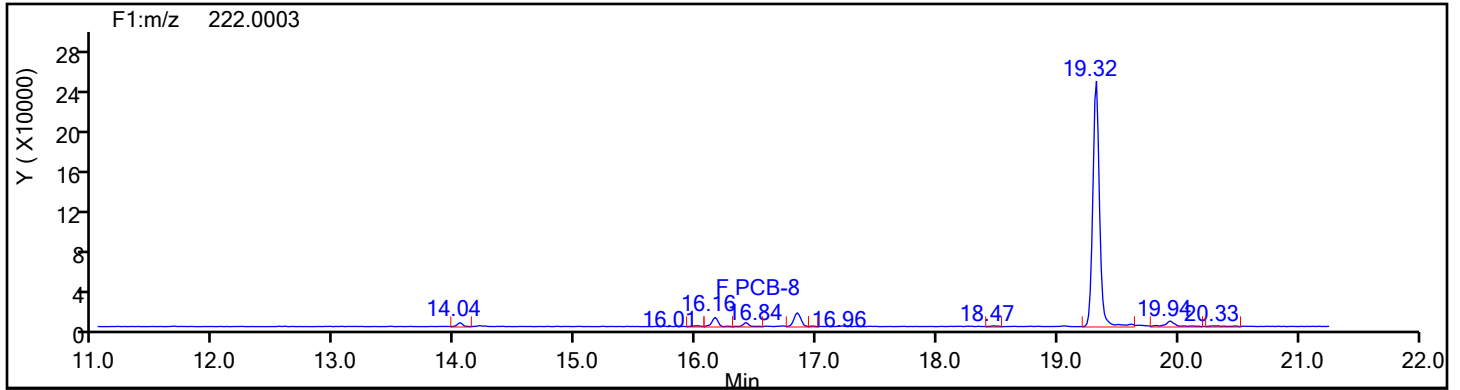
## MoPCB F1 Lock Mass



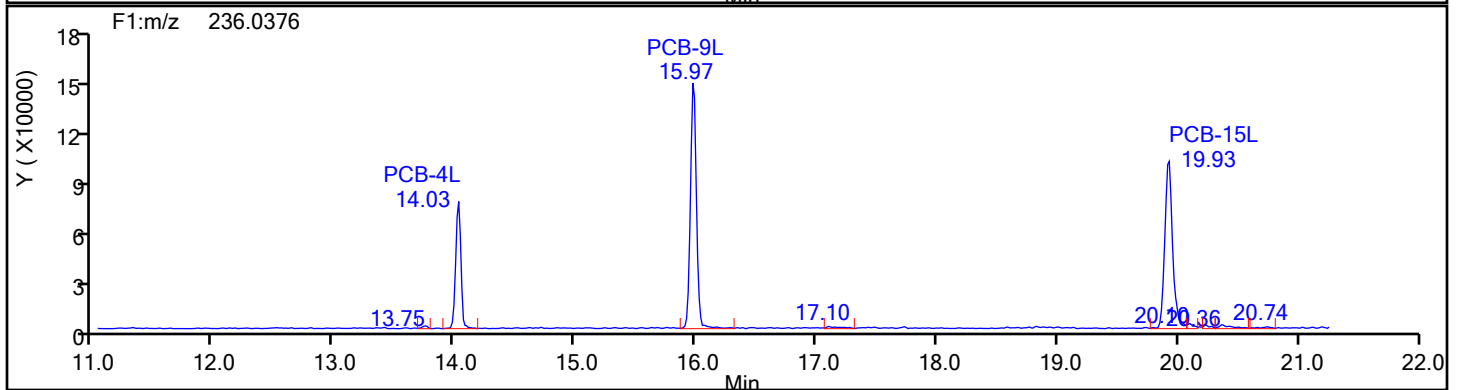
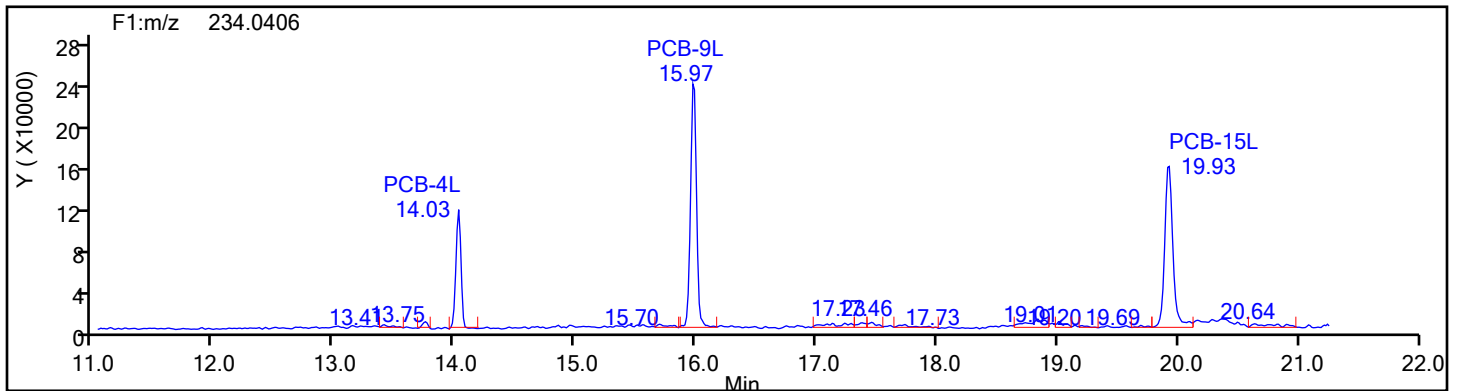


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DiPCB F1

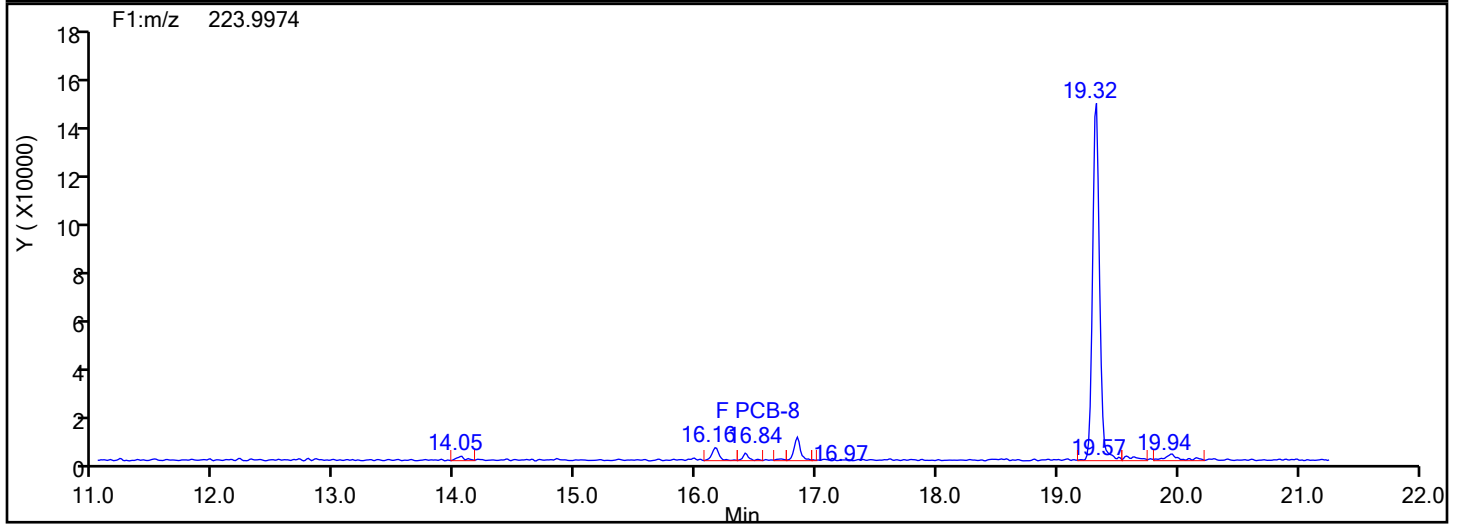
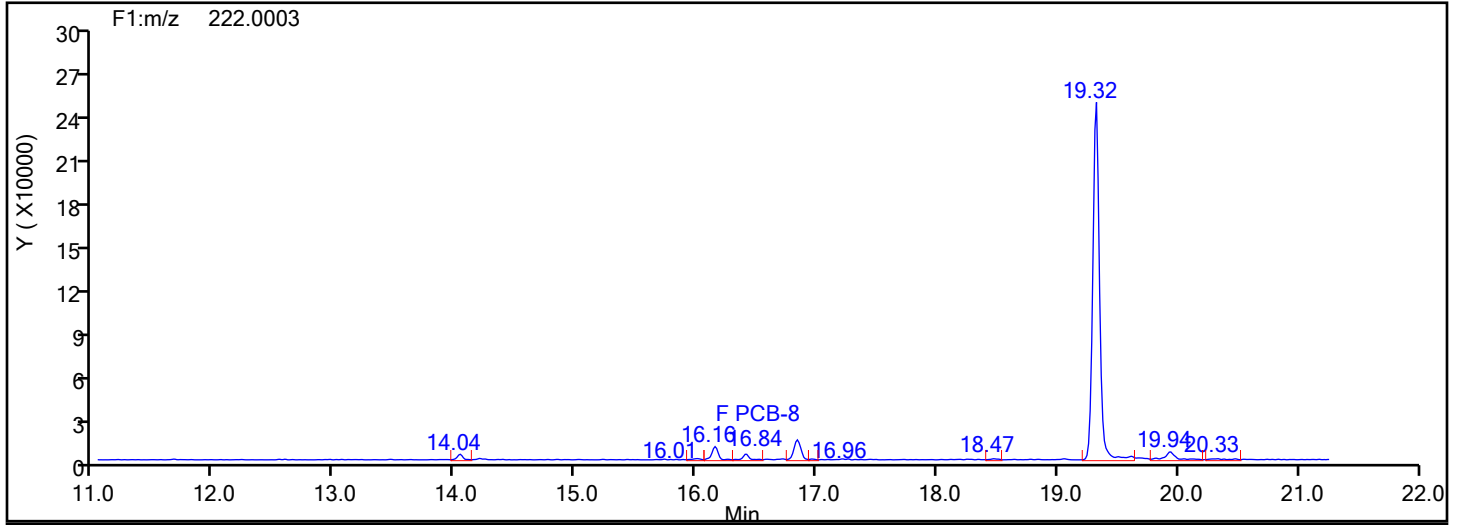


## DiPCB F1 Standards

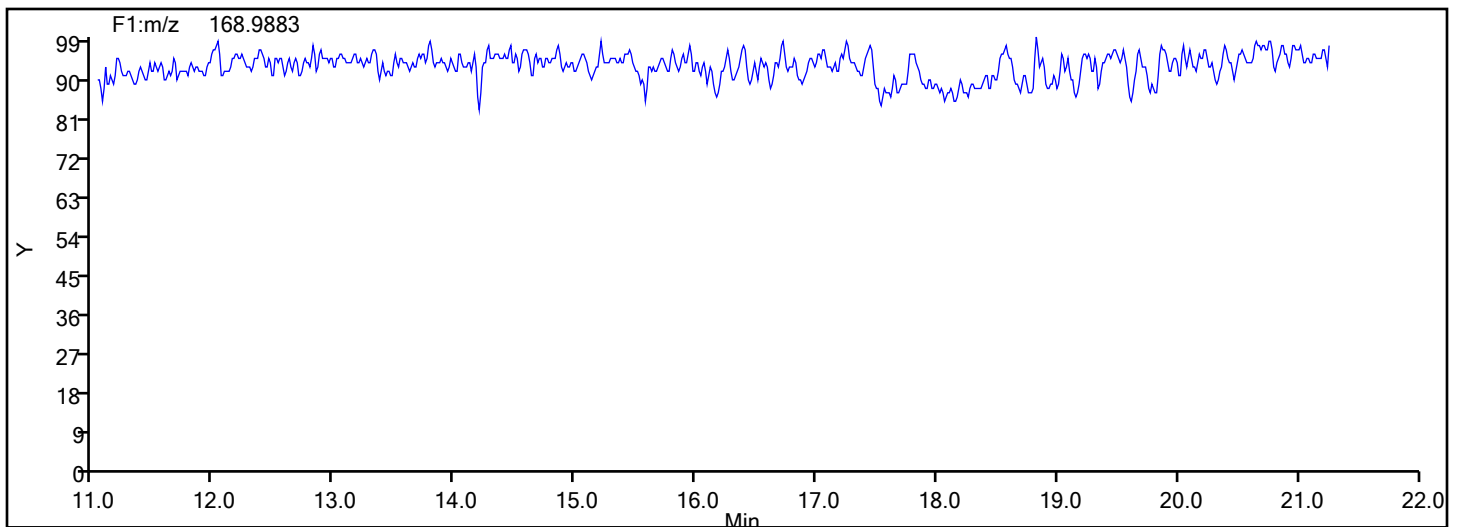


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 04:20:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DiPCB F1



## DiPCB F1 Lock Mass



## Eurofins Knoxville

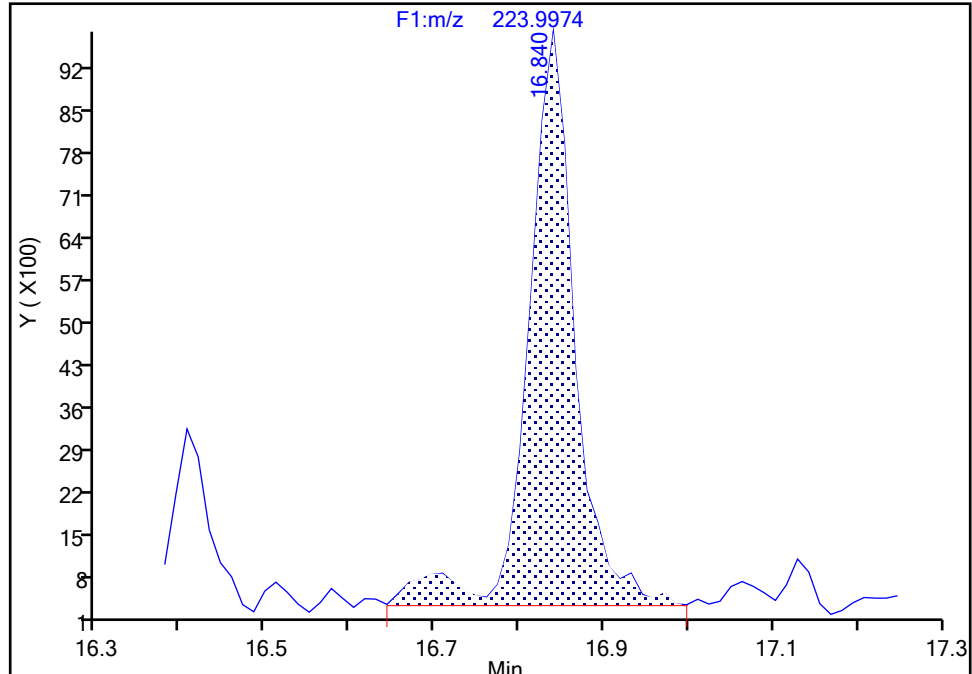
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Injection Date: 17-Jul-2024 04:20:00 Instrument ID: D2D  
Lims ID: 140-37234-A-5-D Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F1(11.07 :21.70 )

PCB-8, CAS: 34883-43-7

Signal: 2

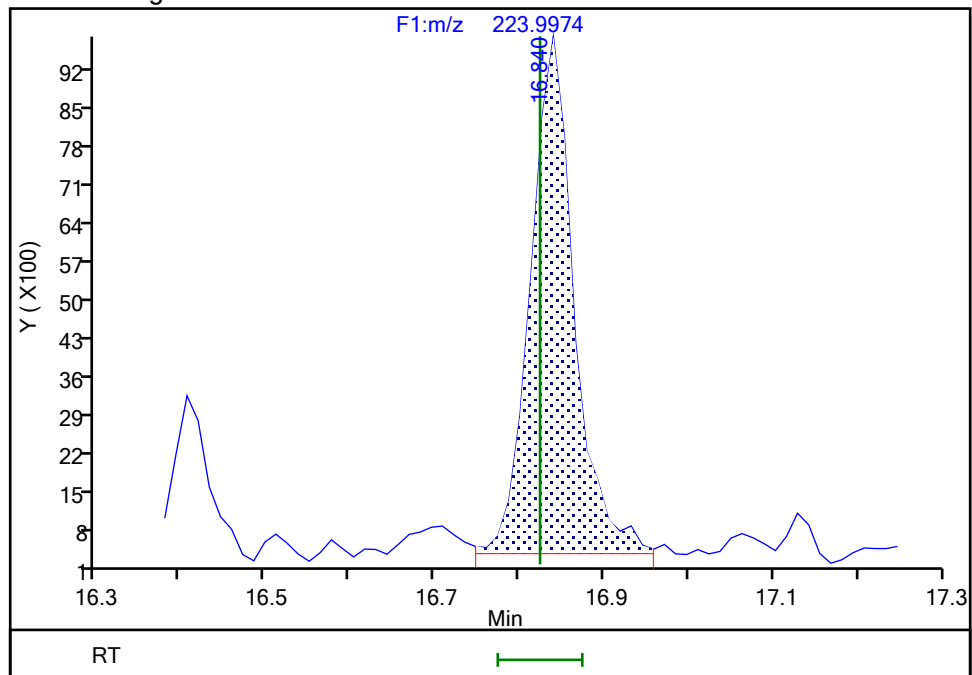
RT: 16.84  
Area: 36155  
Amount: 1.325464  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.84  
Area: 33918  
Amount: 1.271736  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:00:30 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

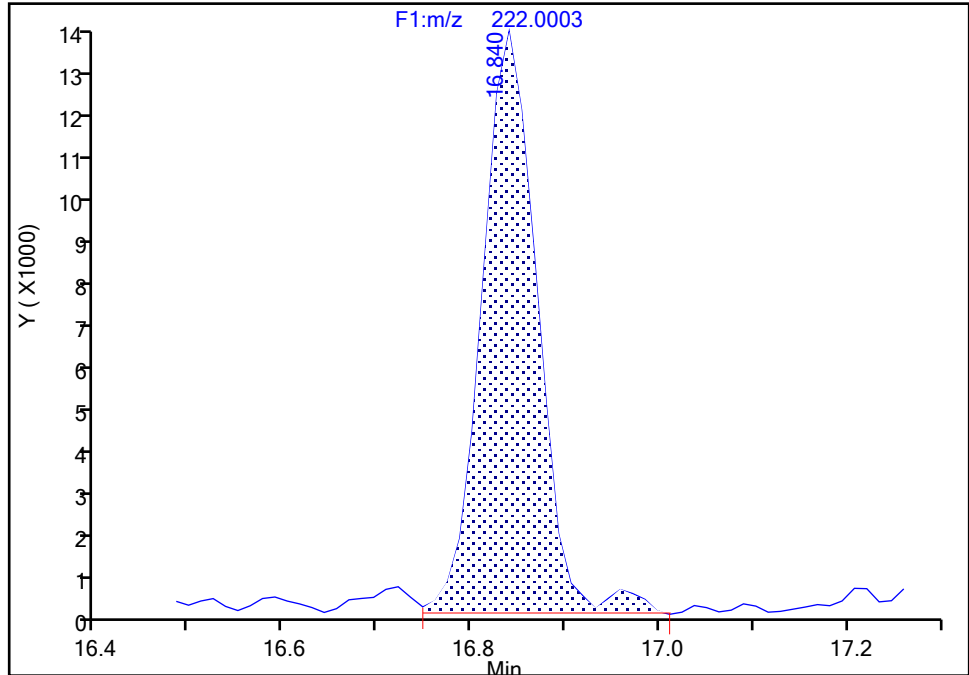
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Injection Date: 17-Jul-2024 04:20:00 Instrument ID: D2D  
Lims ID: 140-37234-A-5-D Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F1(11.07 :21.70 )

PCB-8, CAS: 34883-43-7

Signal: 1

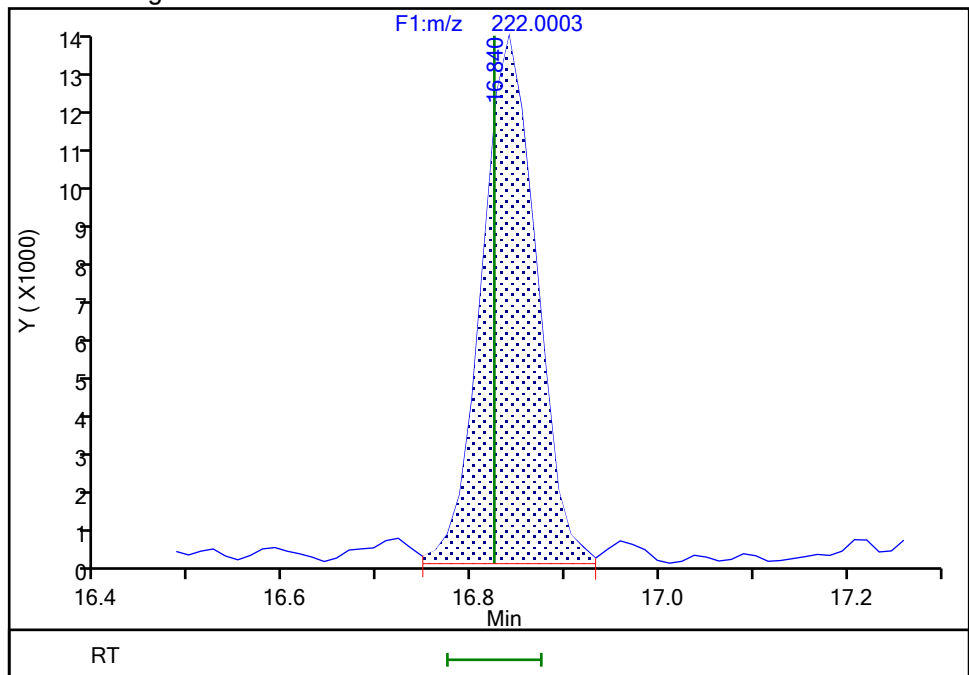
RT: 16.84  
Area: 55889  
Amount: 1.325464  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.84  
Area: 54395  
Amount: 1.271736  
Amount Units: pg/ul

## Manual Integration Results



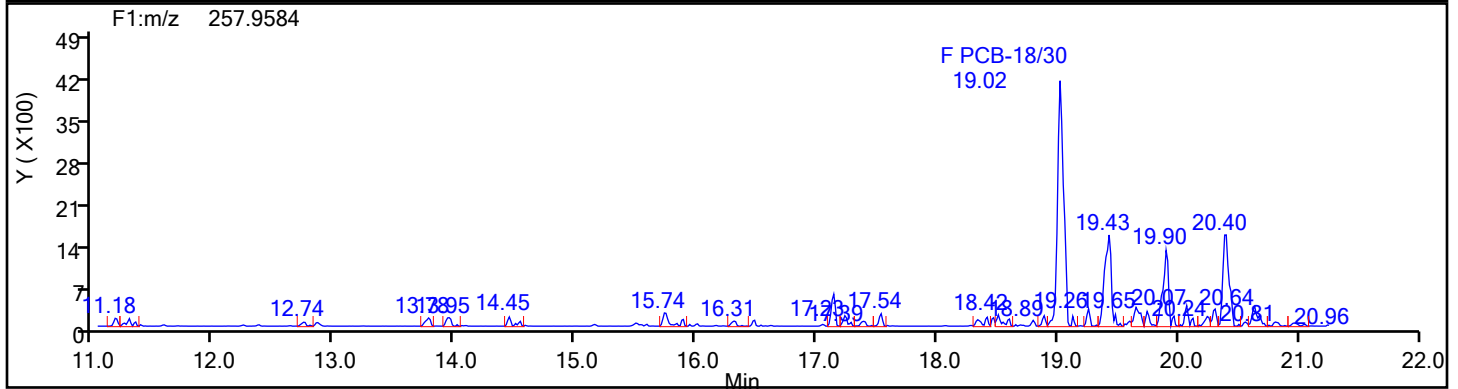
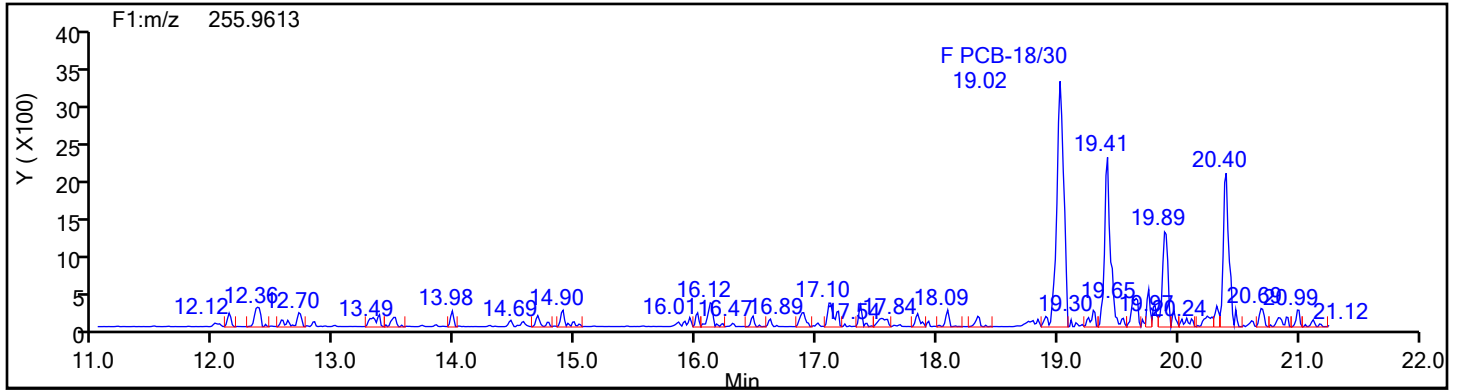
Reviewer: TT6I, 17-Jul-2024 13:00:32 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

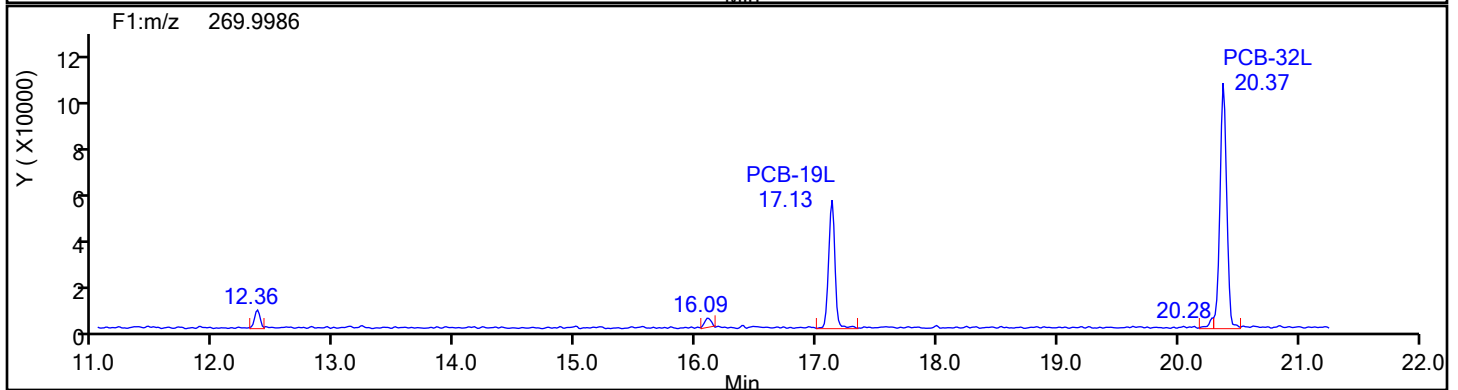
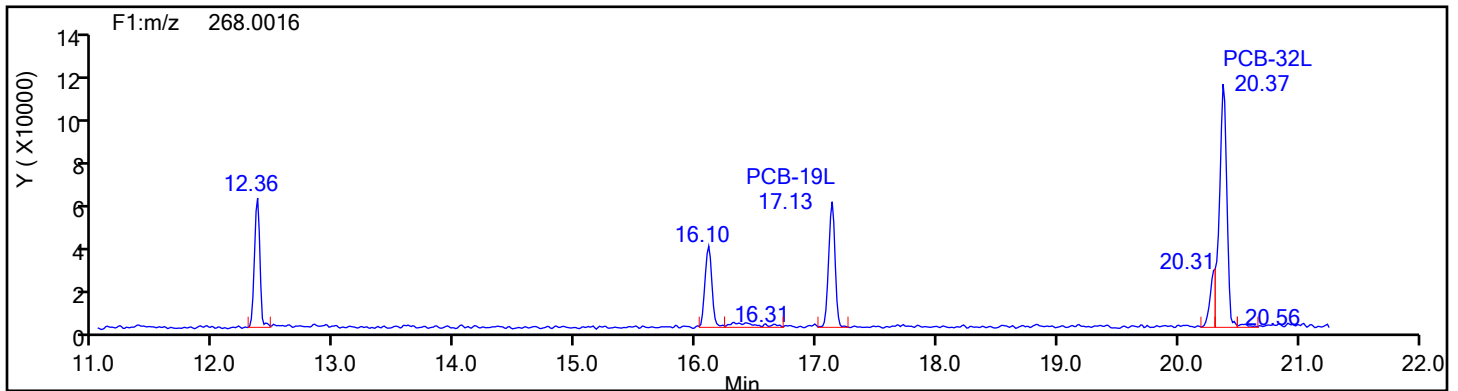
Audit Reason: Incomplete Integration

## Eurofins Knoxville

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Injection Date: 17-Jul-2024 04:20:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F1

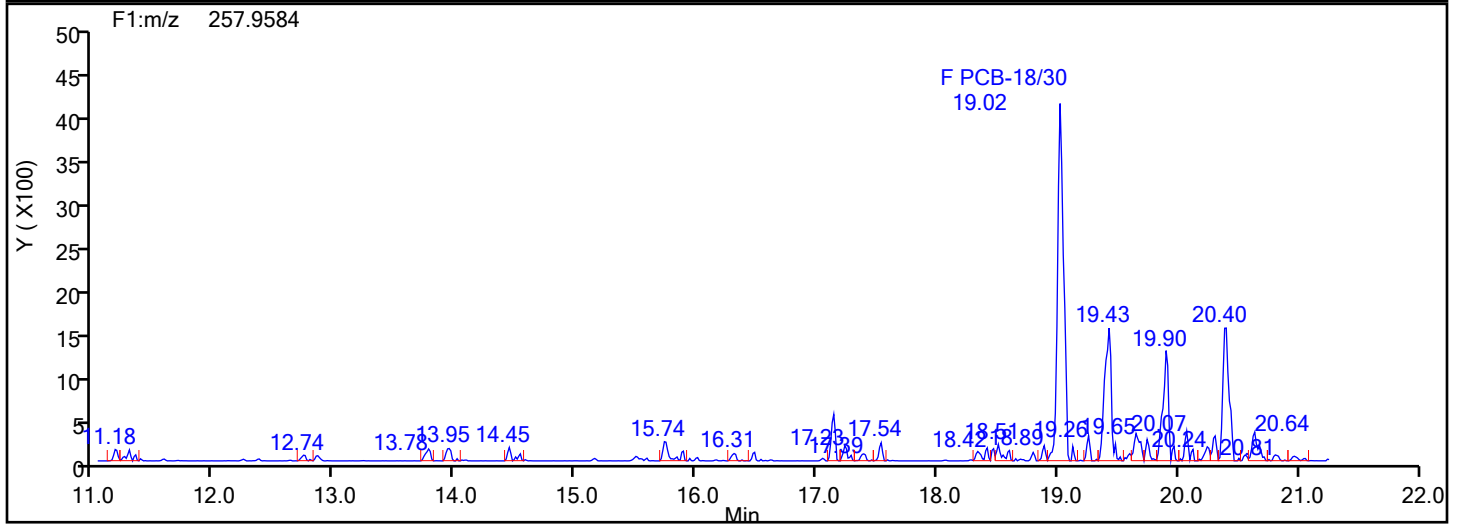
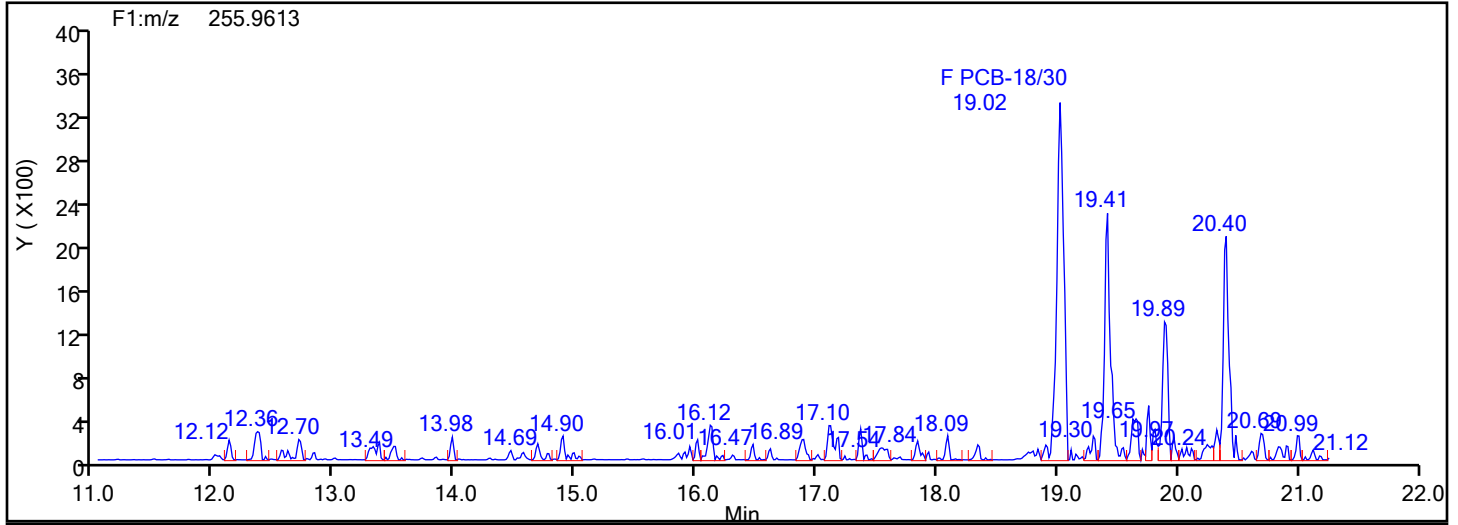


## TriPCB F1 Standards

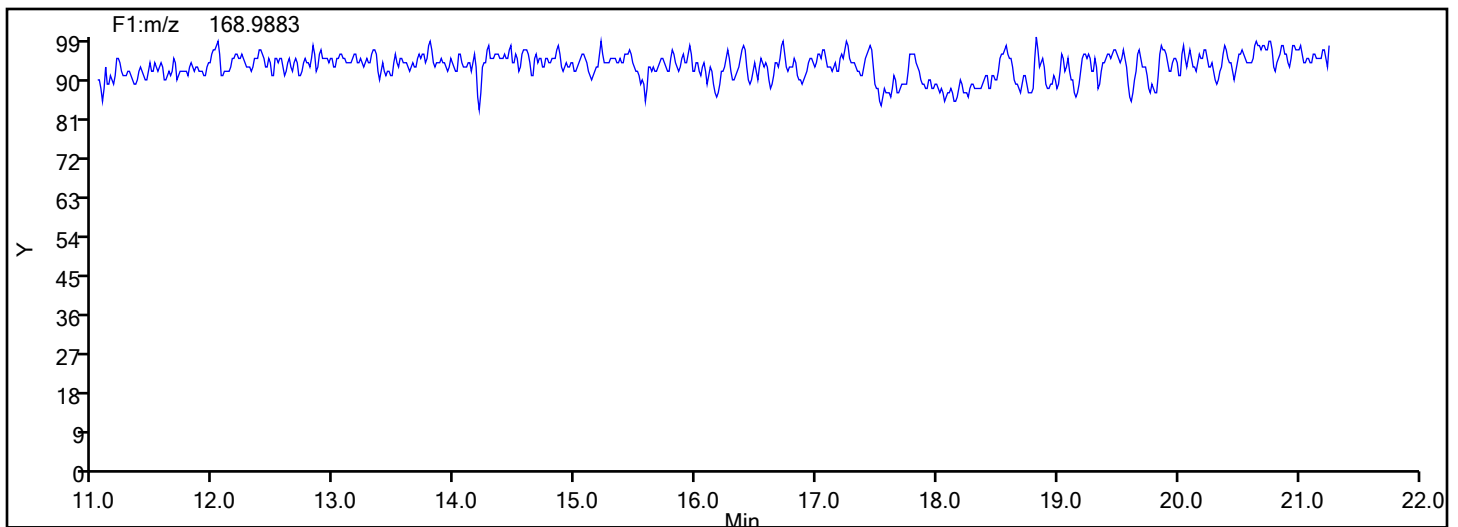


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F1



## TriPCB F1 Lock Mass



## Eurofins Knoxville

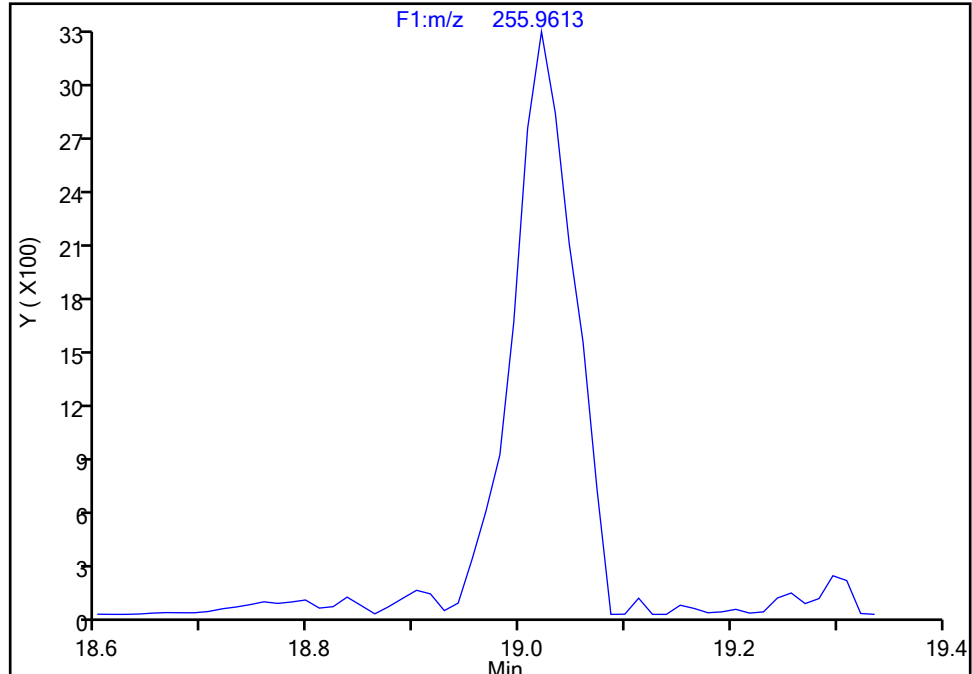
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Injection Date: 17-Jul-2024 04:20:00 Instrument ID: D2D  
Lims ID: 140-37234-A-5-D Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F1(11.07 :21.70 )

PCB-18/30, CAS: STL01798

Signal: 1

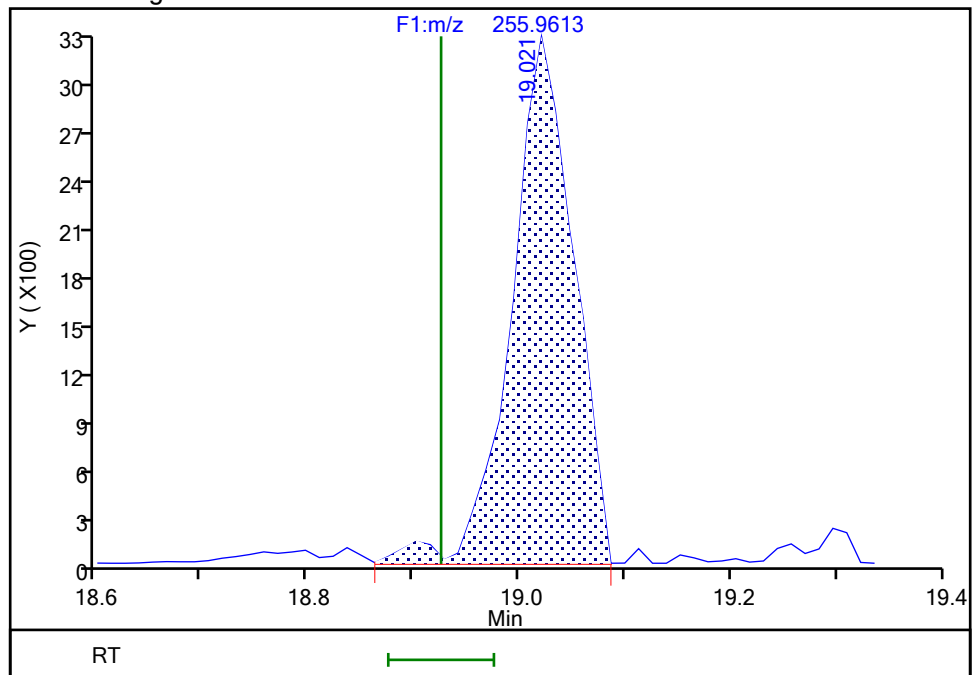
Not Detected  
Expected RT: 18.93

## Processing Integration Results



RT: 19.02  
Area: 13293  
Amount: 0.755376  
Amount Units: pg/ul

## Manual Integration Results



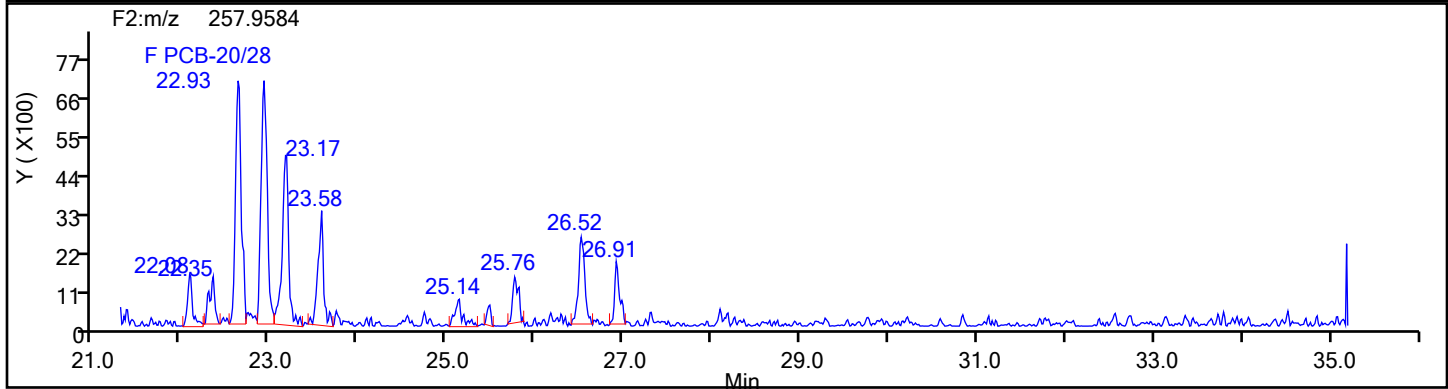
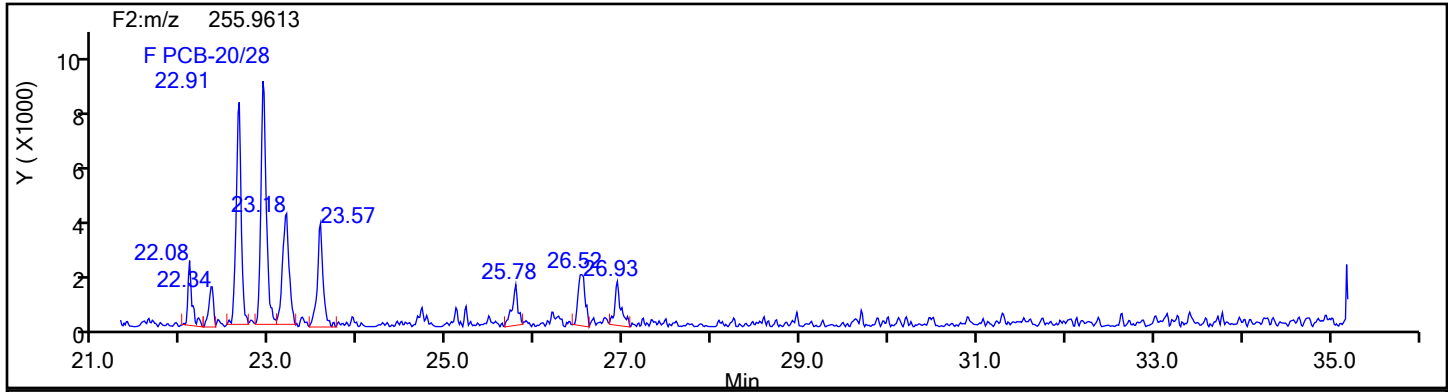
Reviewer: TT6I, 17-Jul-2024 13:01:04 -04:00:00 (UTC)

Audit Action: Assigned Compound ID

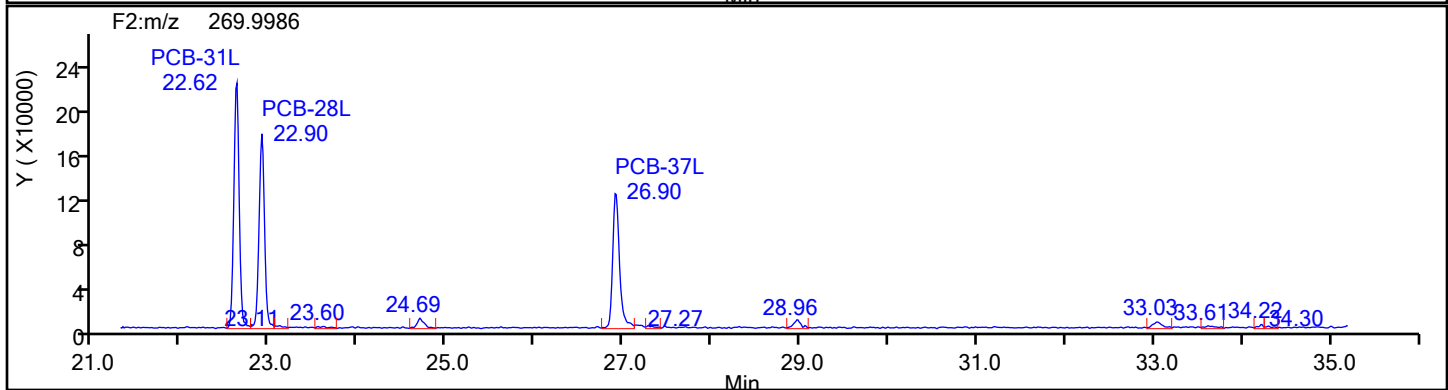
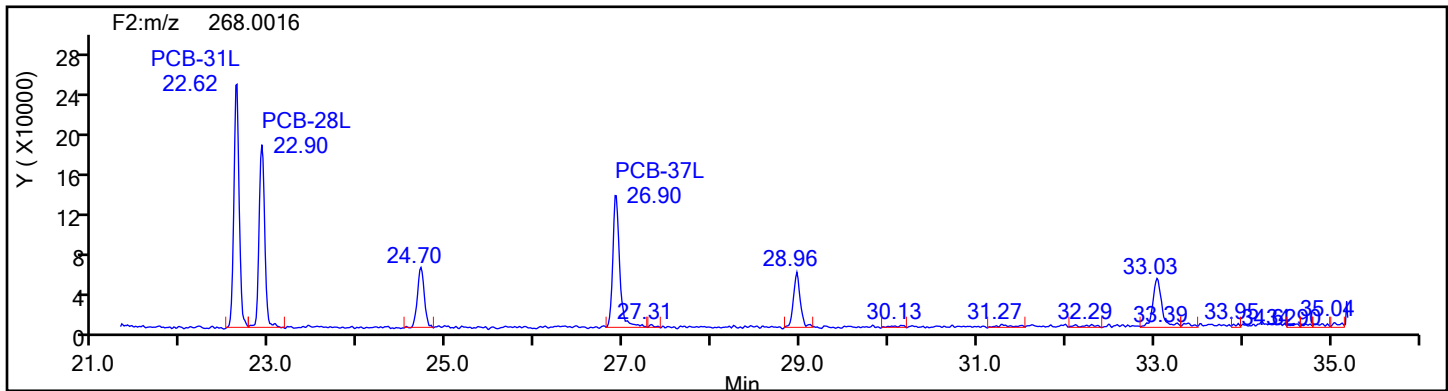
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-5-d-5x.d  
Injection Date: 17-Jul-2024 04:20:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F2



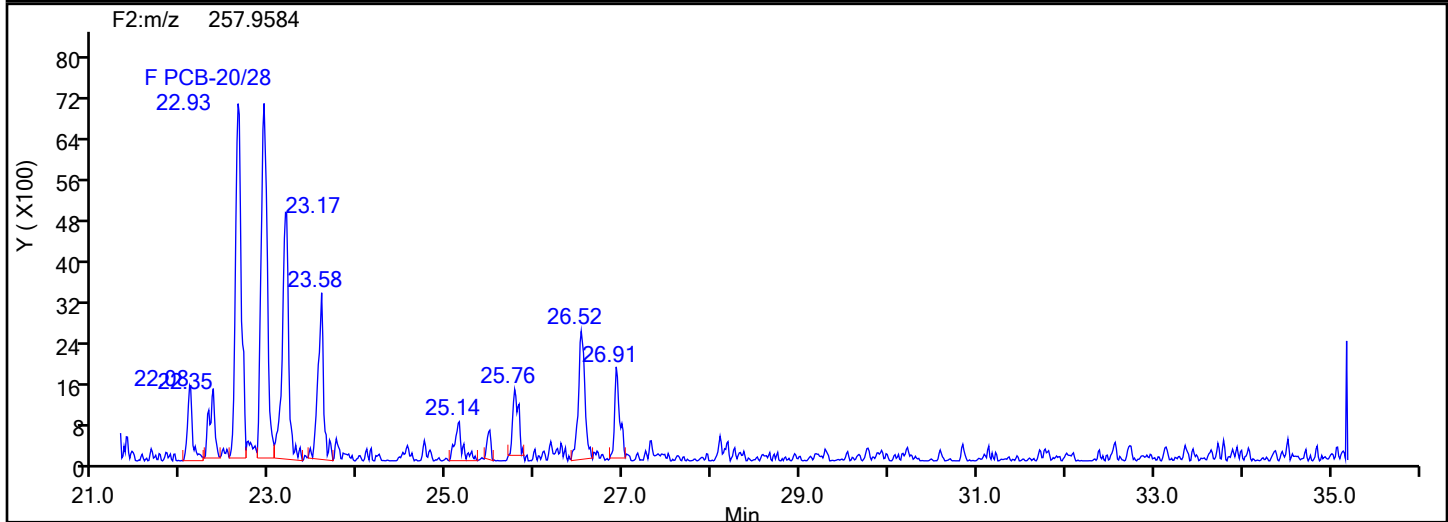
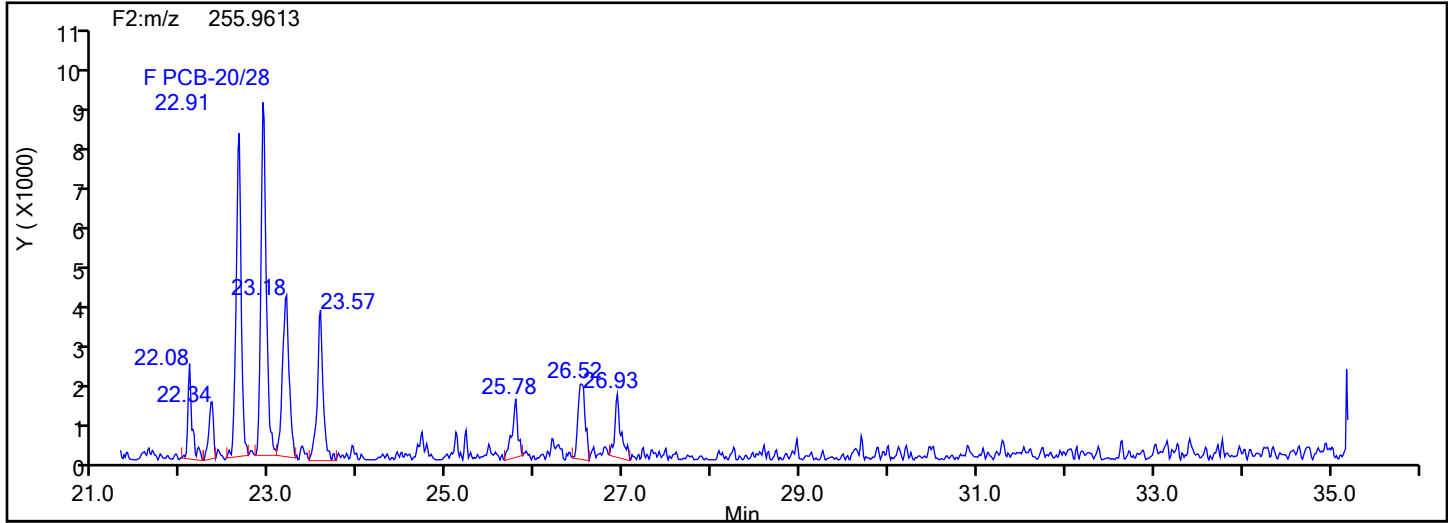
## TriPCB F2 Standards



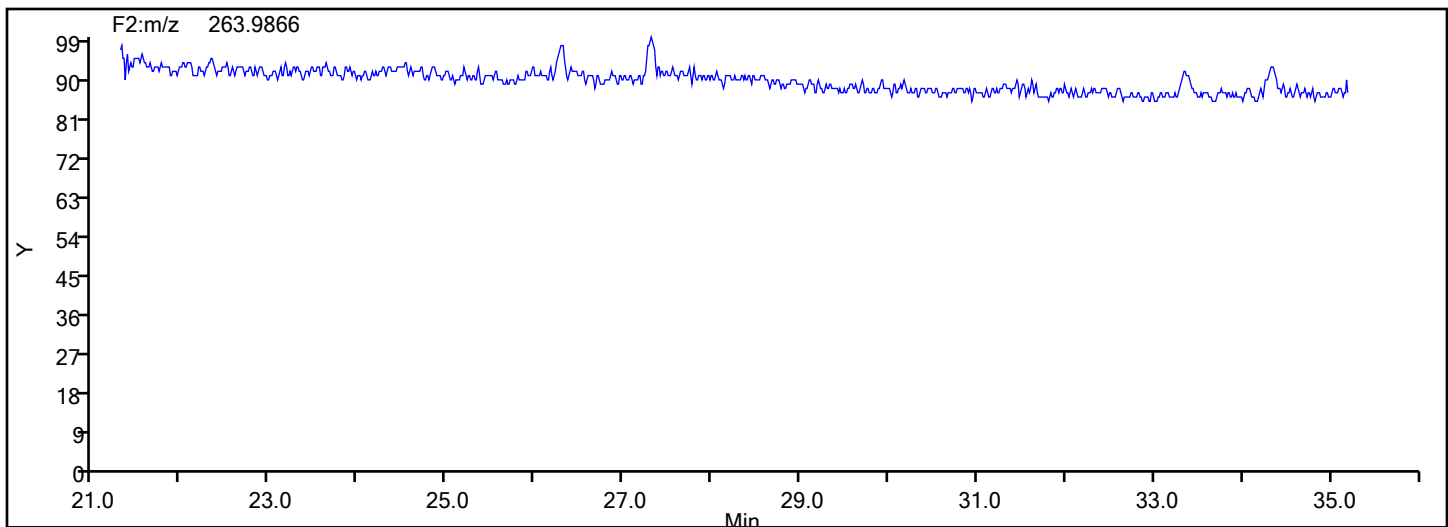


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-5-d-5x.d  
Injection Date: 17-Jul-2024 04:20:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F2

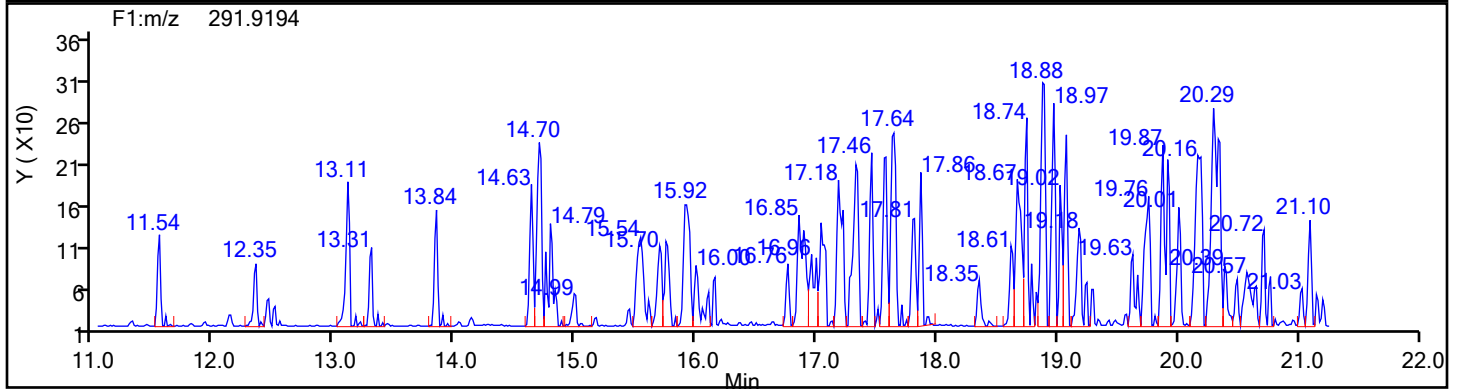
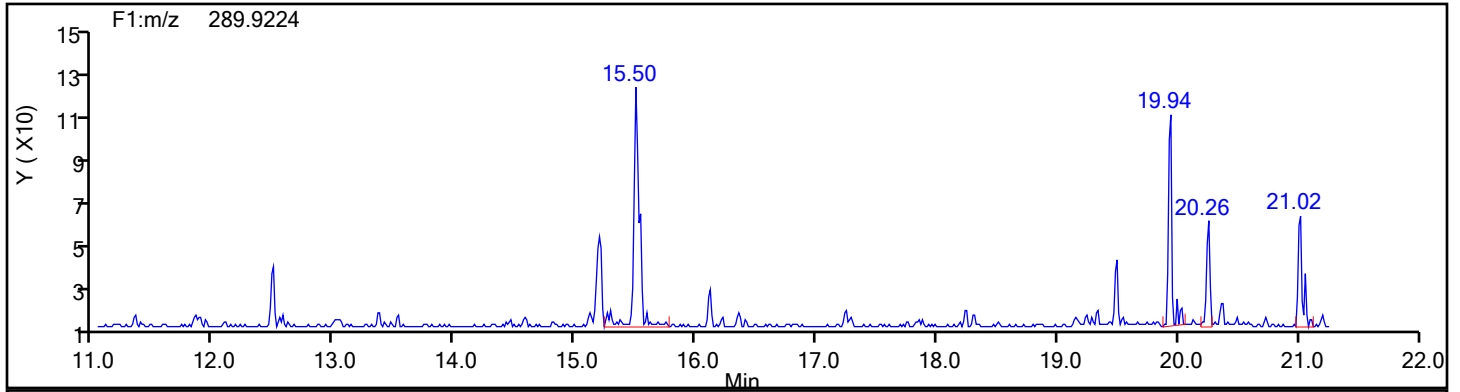


## TriPCB F2 Lock Mass

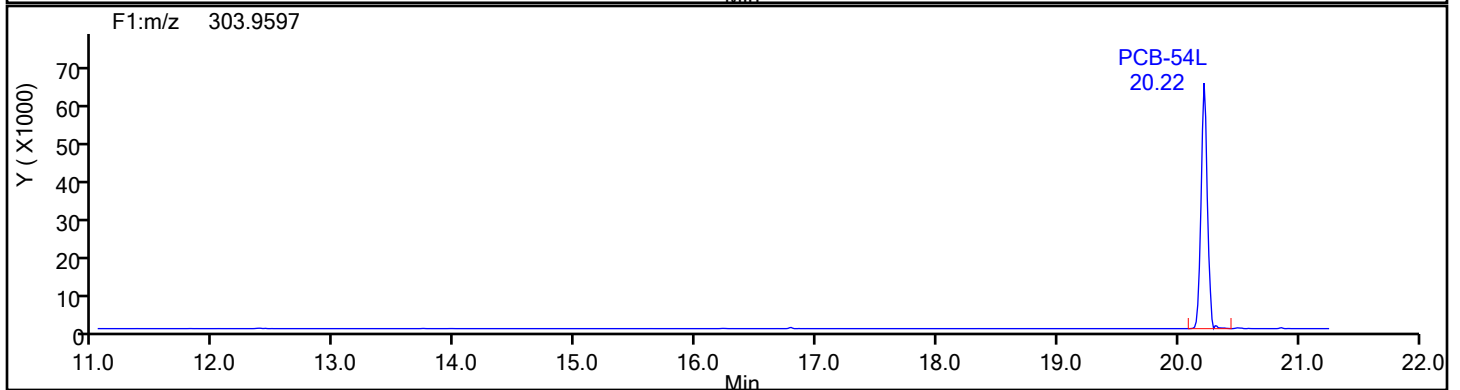
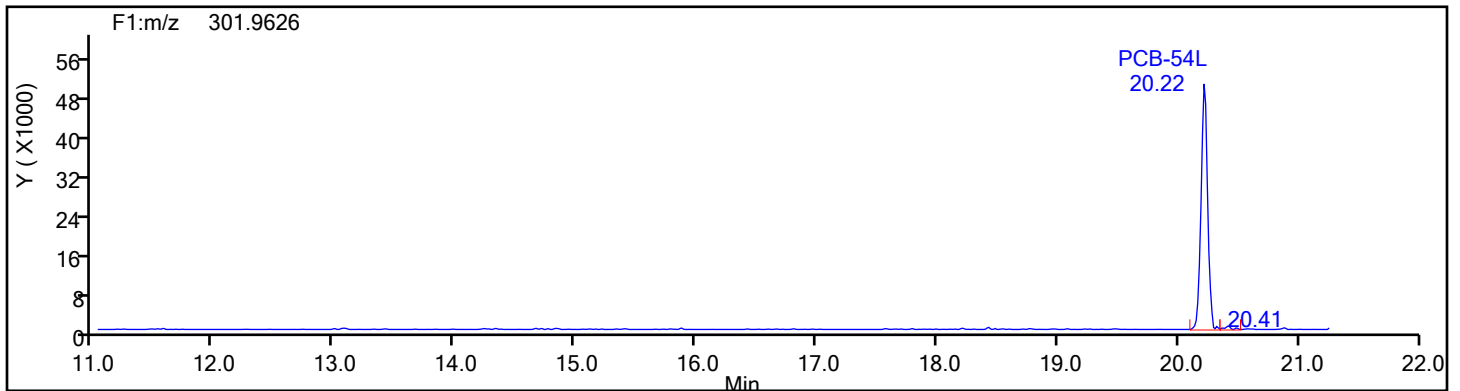


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1

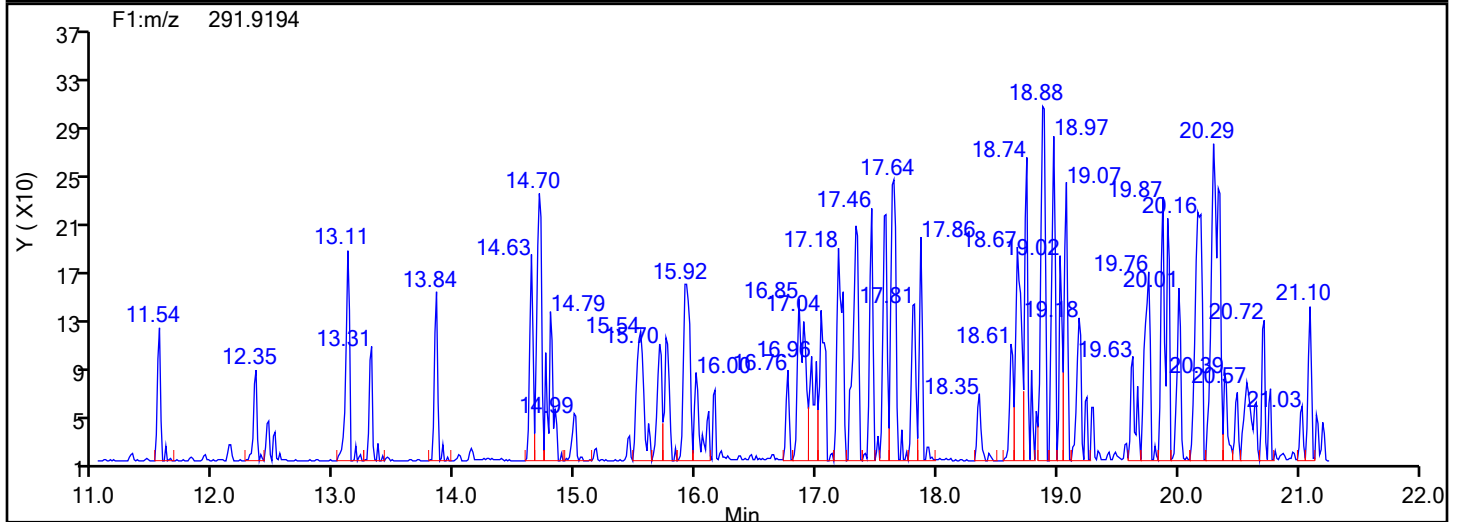
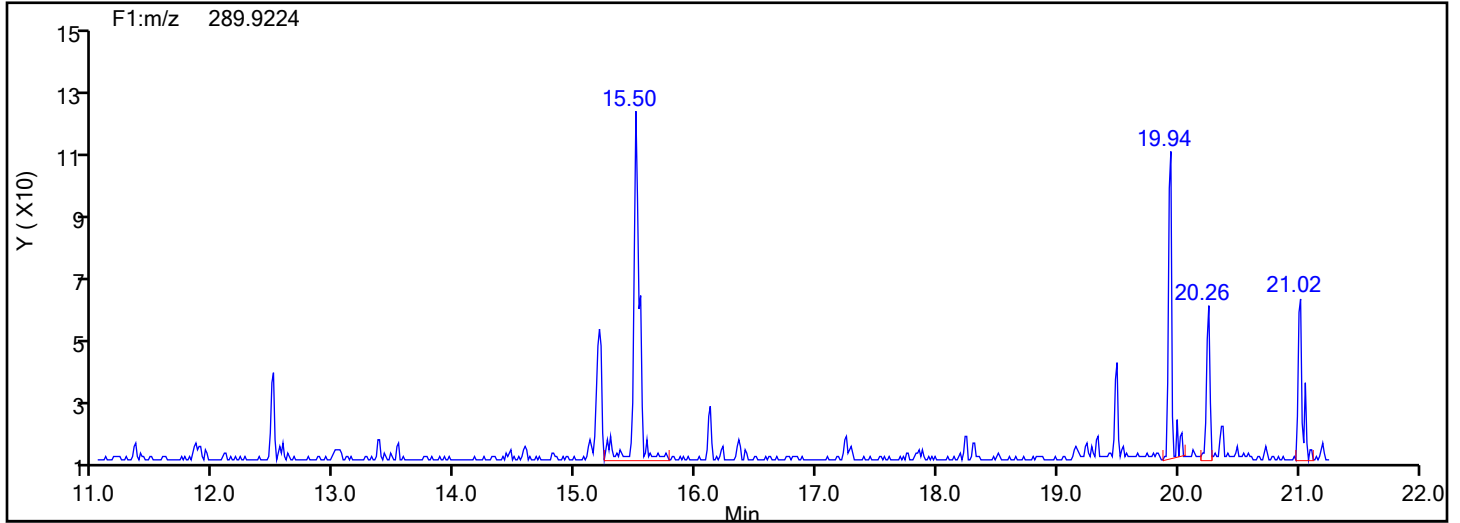


## TePCB F1 Standards

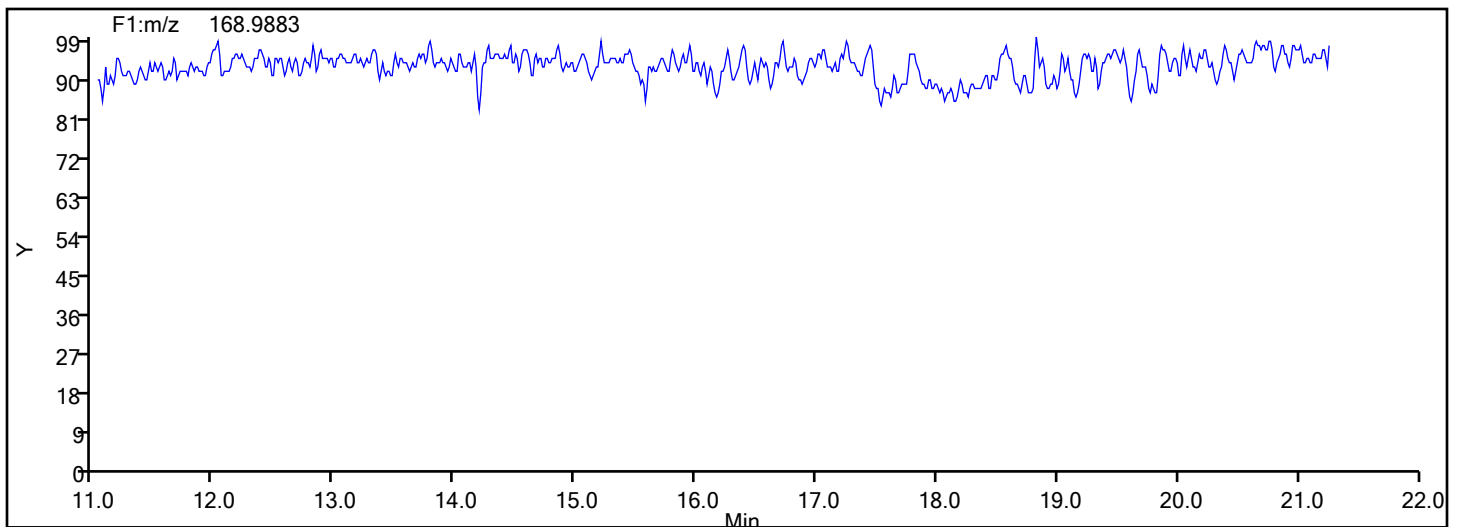


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-5-d-5x.d  
Injection Date: 17-Jul-2024 04:20:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1

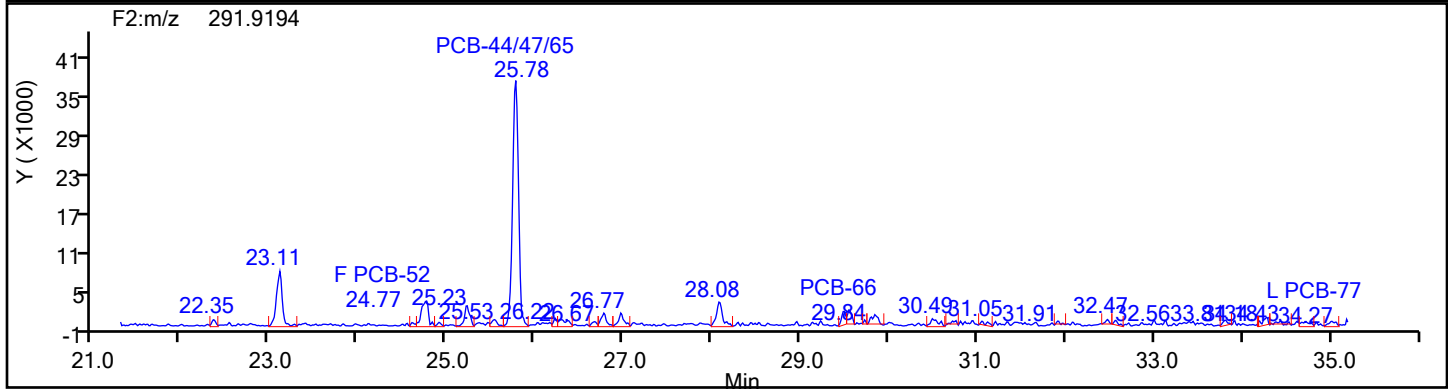
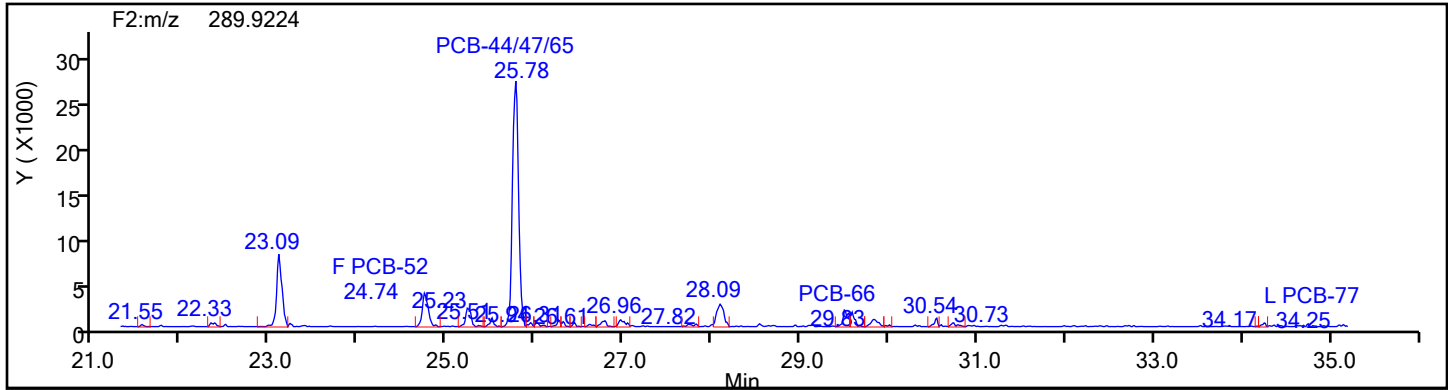


## TePCB F1 Lock Mass

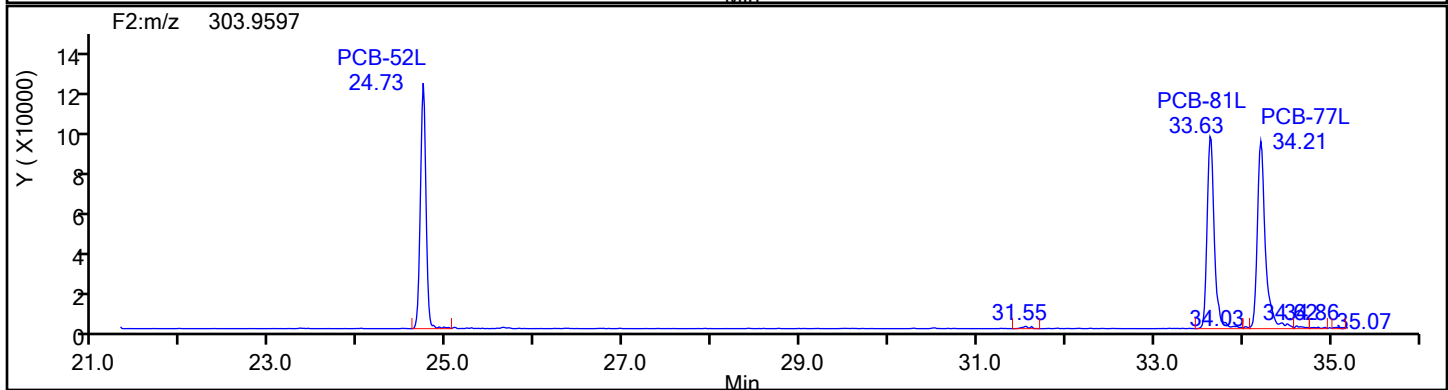
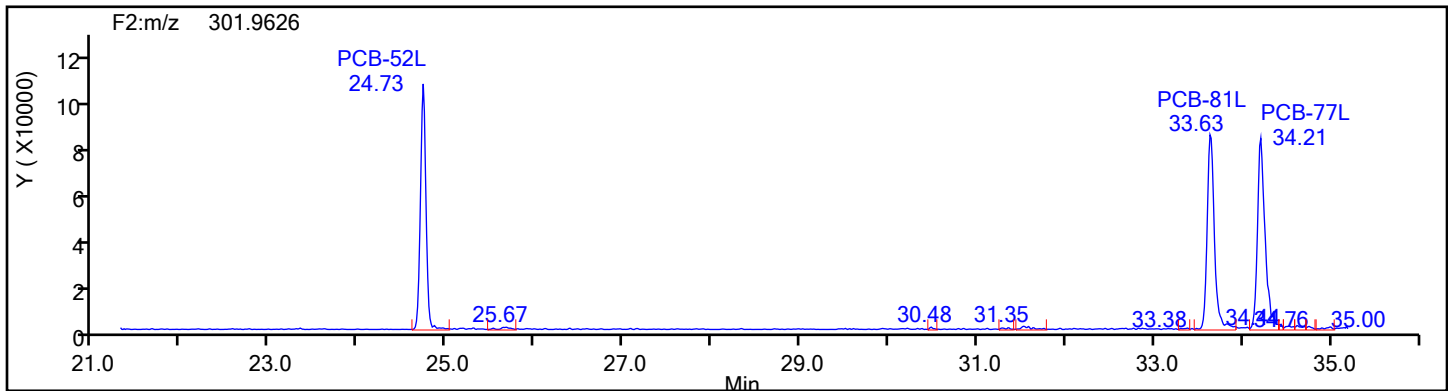


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 04:20:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F2

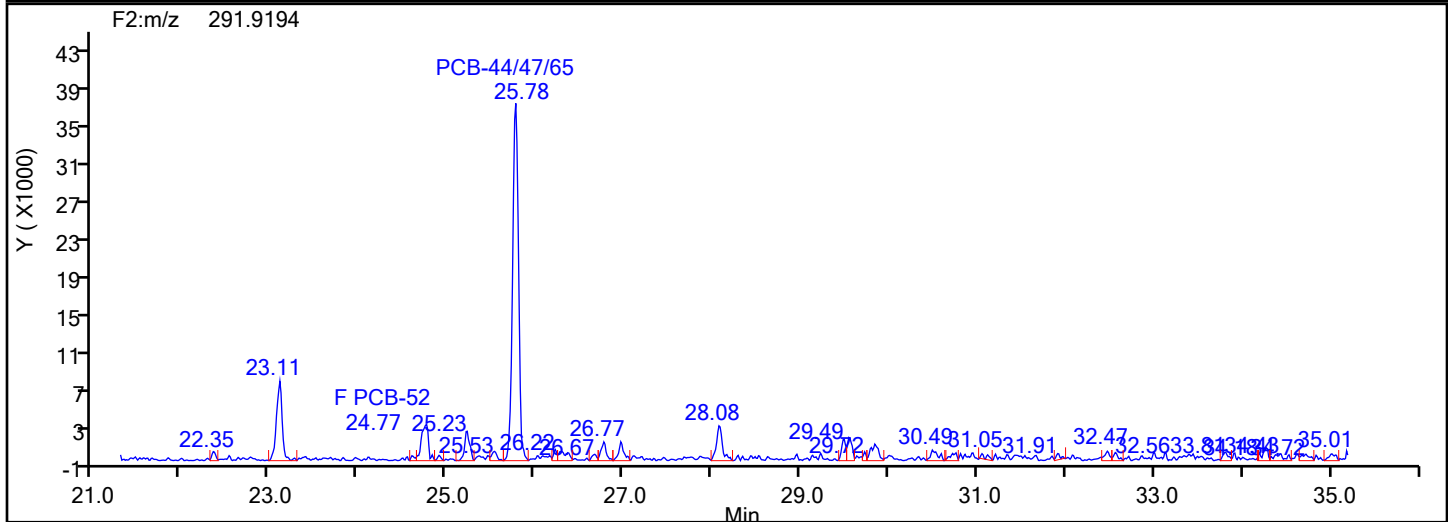
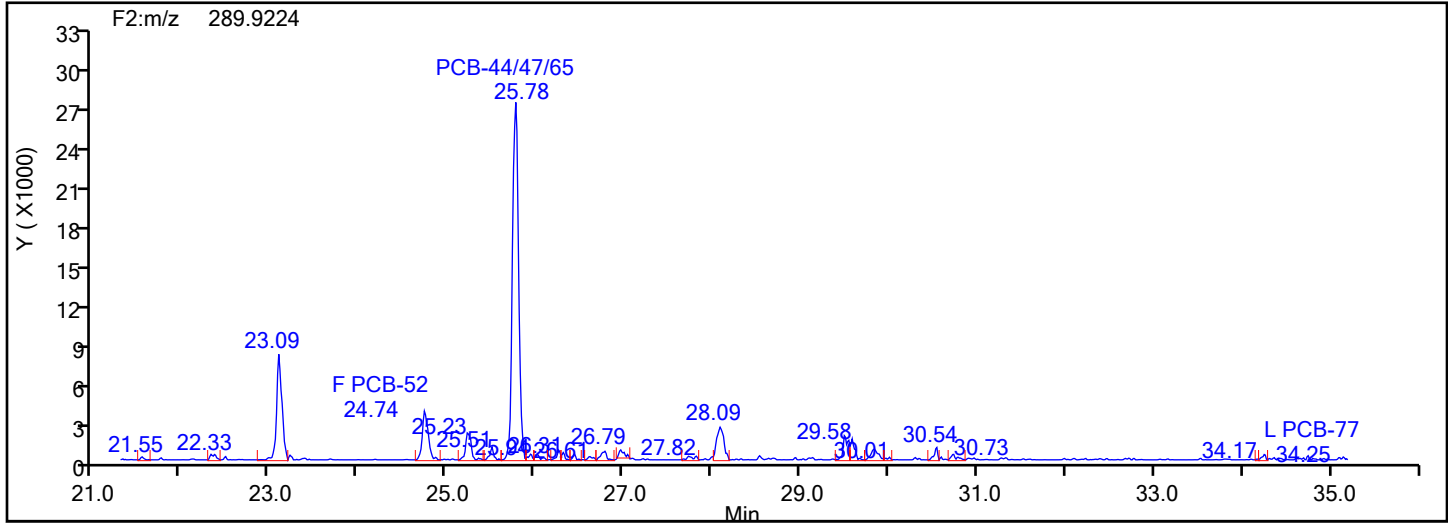


## TePCB F2 Standards

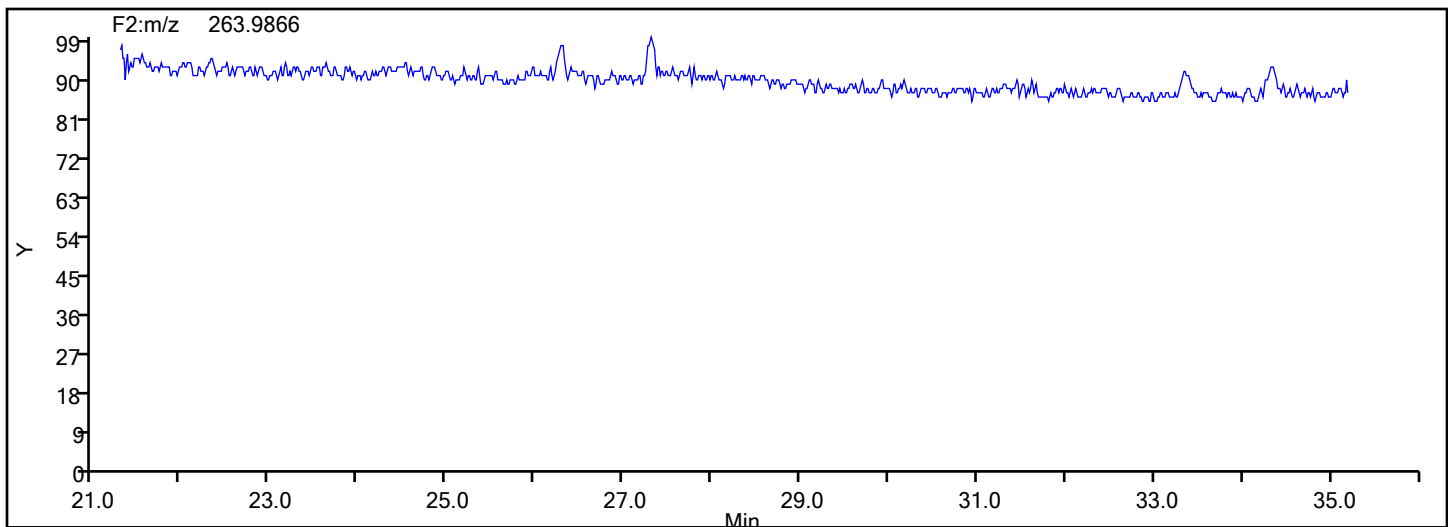


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F2



## TePCB F2 Lock Mass



## Eurofins Knoxville

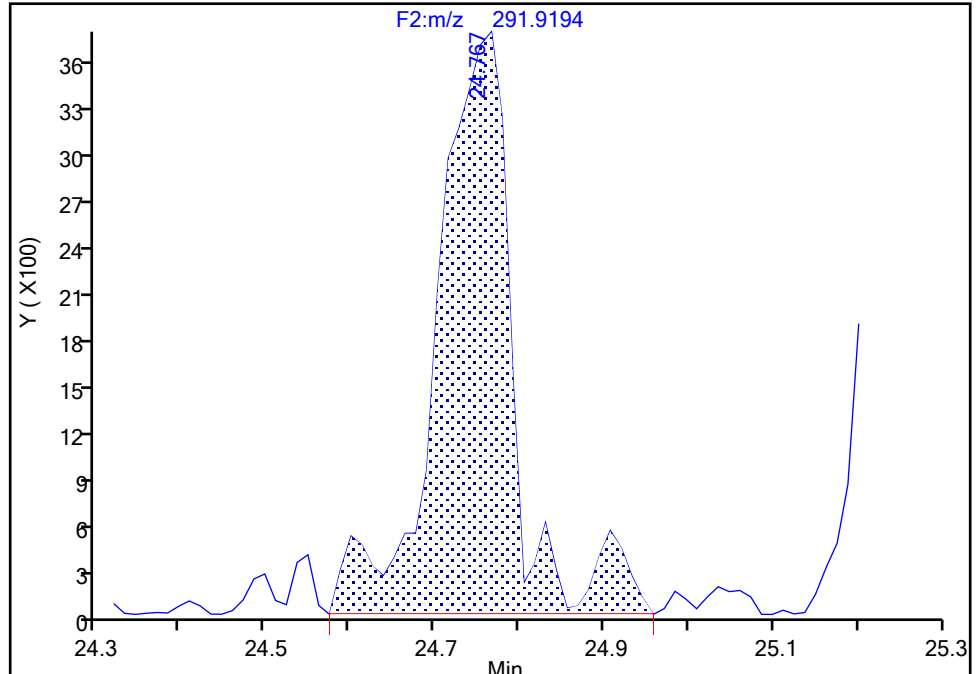
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Injection Date: 17-Jul-2024 04:20:00 Instrument ID: D2D  
Lims ID: 140-37234-A-5-D Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

PCB-52, CAS: 35693-99-3

Signal: 2

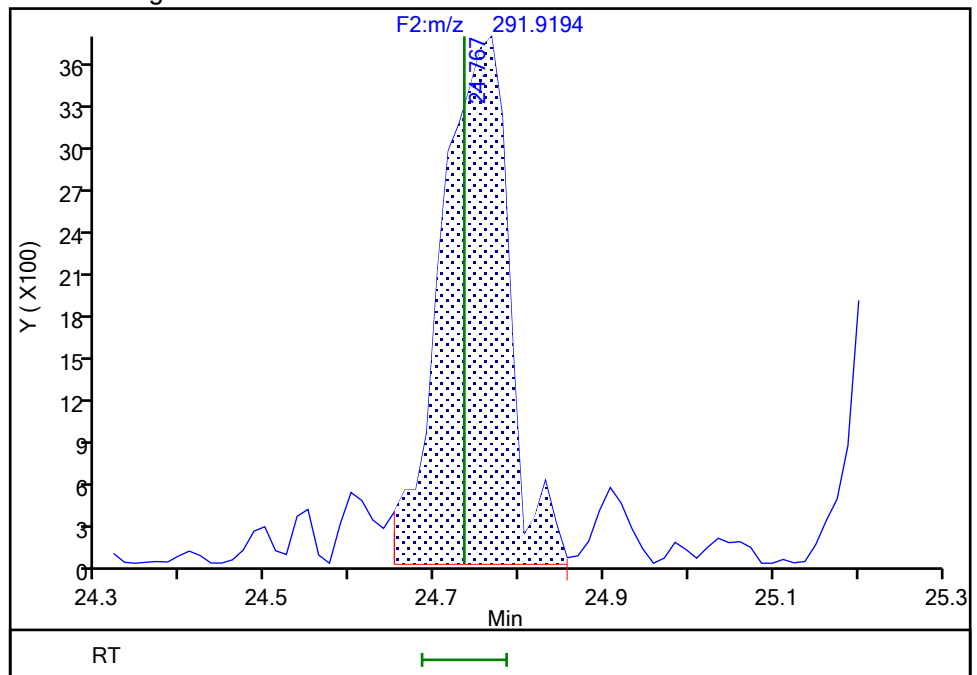
RT: 24.77  
Area: 23756  
Amount: 0.858276  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.77  
Area: 20781  
Amount: 0.795818  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:01:31 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

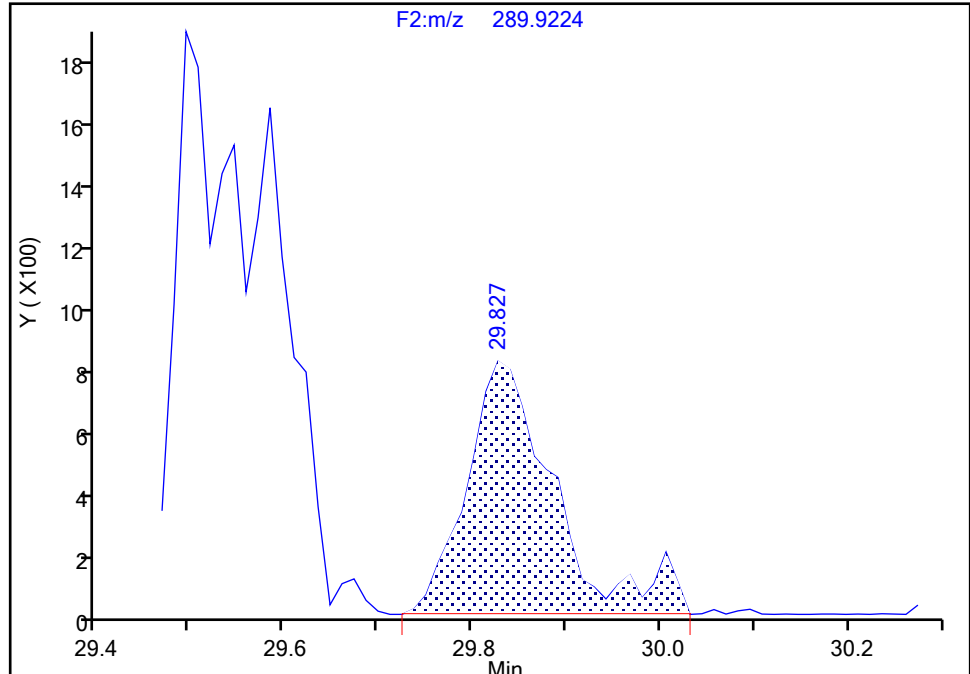
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Injection Date: 17-Jul-2024 04:20:00 Instrument ID: D2D  
Lims ID: 140-37234-A-5-D Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

PCB-66, CAS: 32598-10-0

Signal: 1

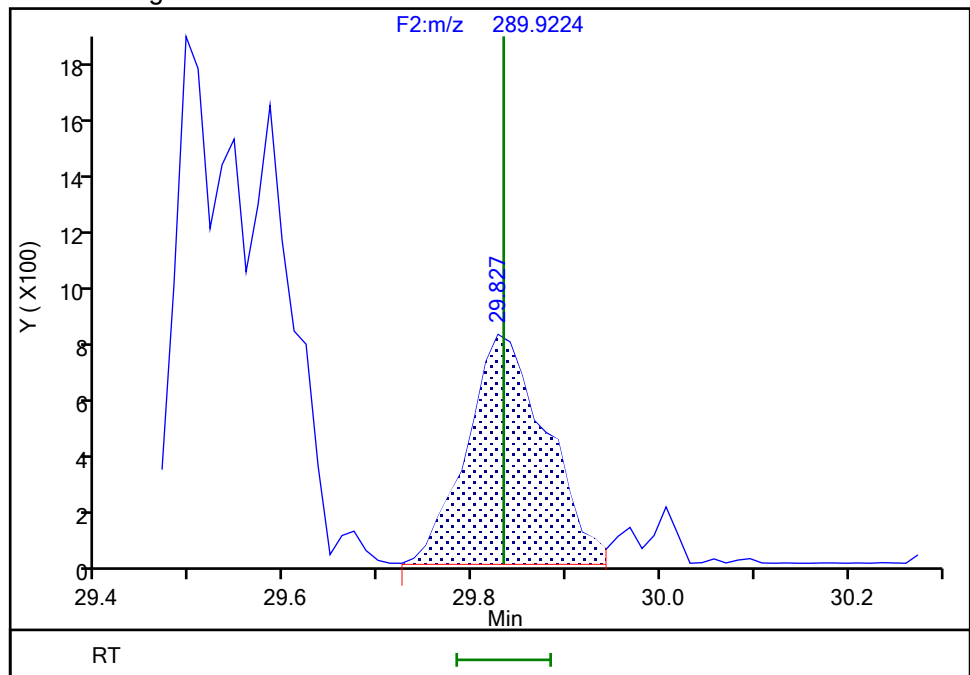
RT: 29.83  
Area: 5152  
Amount: 0.173077  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.83  
Area: 4629  
Amount: 0.210341  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:01:46 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

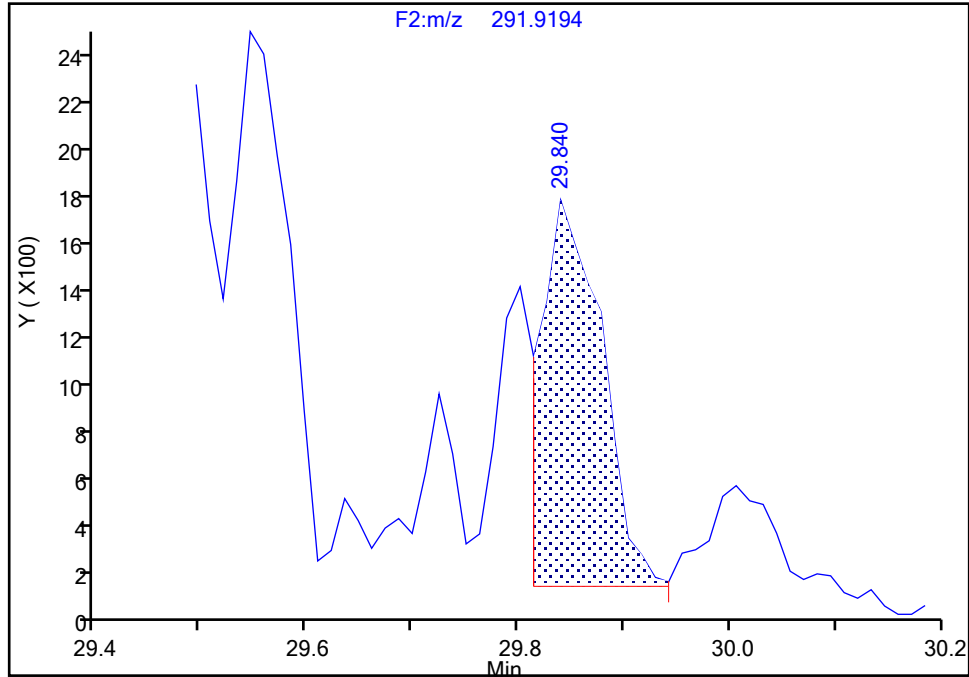
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Injection Date: 17-Jul-2024 04:20:00 Instrument ID: D2D  
Lims ID: 140-37234-A-5-D Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-66, CAS: 32598-10-0

Signal: 2

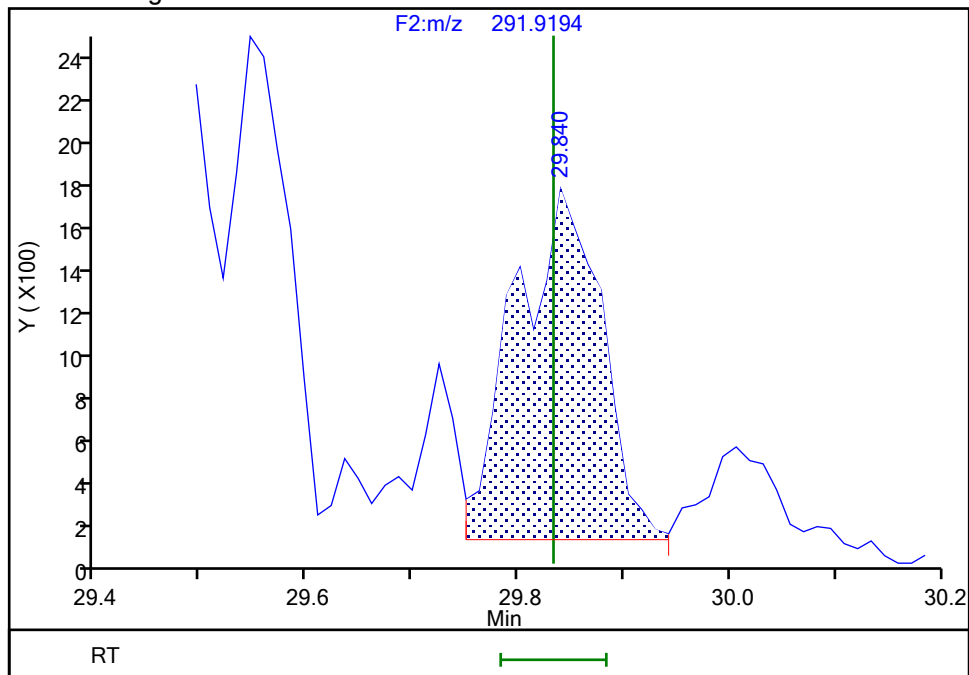
RT: 29.84  
Area: 6130  
Amount: 0.173077  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.84  
Area: 9082  
Amount: 0.210341  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:01:51 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration



## Eurofins Knoxville

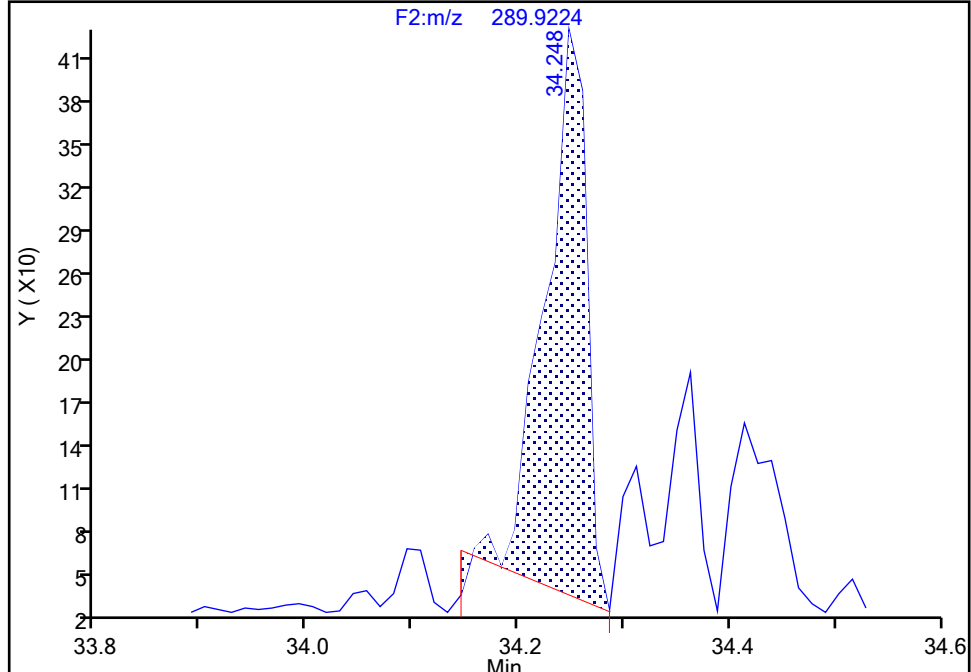
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Injection Date: 17-Jul-2024 04:20:00 Instrument ID: D2D  
Lims ID: 140-37234-A-5-D Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

PCB-77, CAS: 32598-13-3

Signal: 1

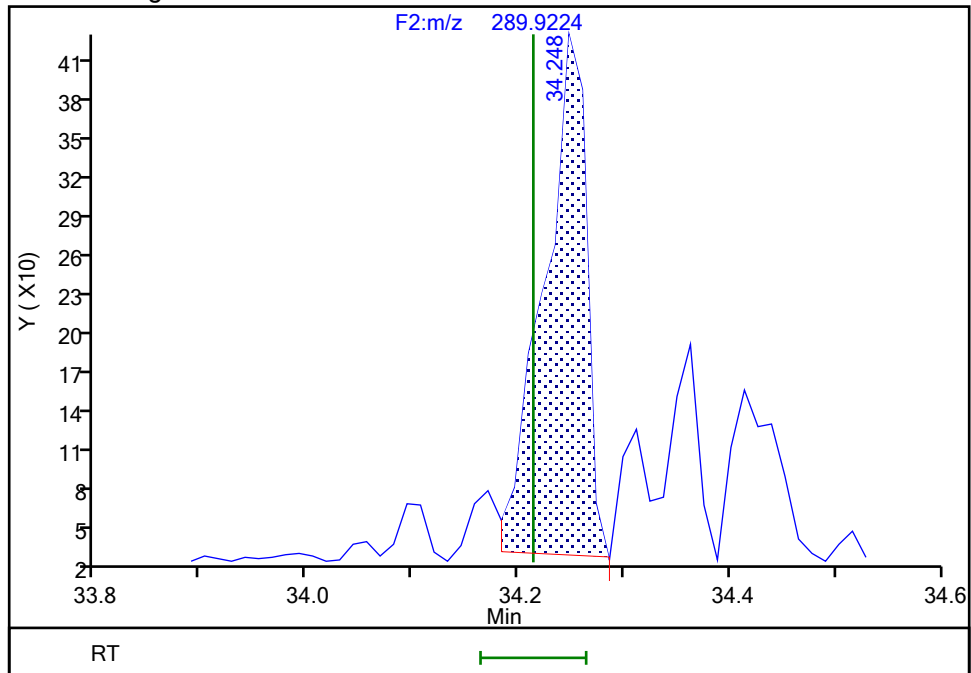
RT: 34.25  
Area: 1049  
Amount: 0.065350  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.25  
Area: 1108  
Amount: 0.113380  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:02:21 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

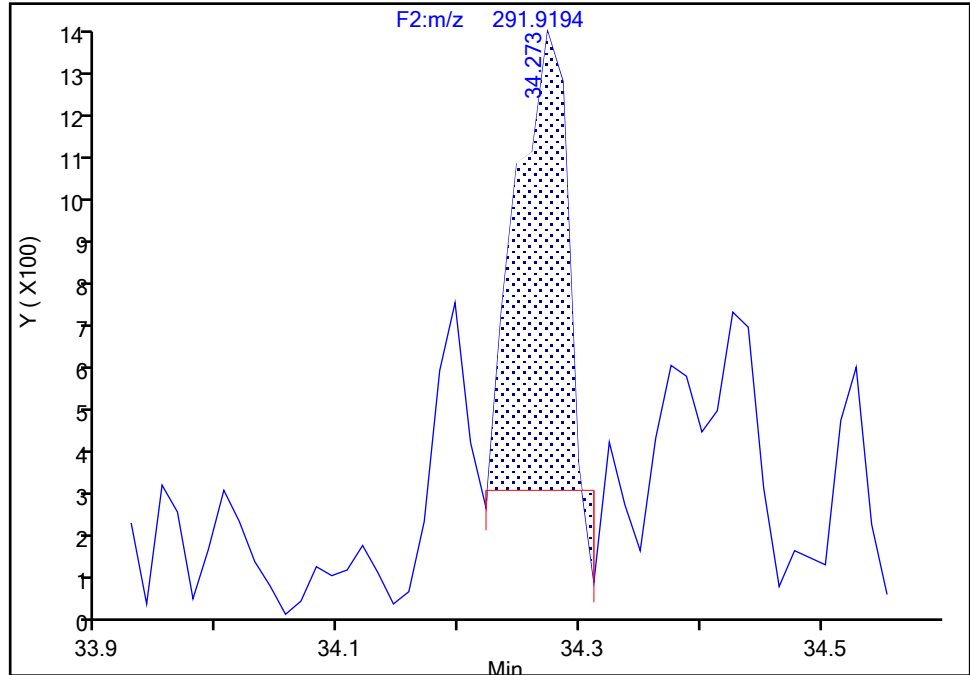
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Injection Date: 17-Jul-2024 04:20:00 Instrument ID: D2D  
Lims ID: 140-37234-A-5-D Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

## PCB-77, CAS: 32598-13-3

Signal: 2

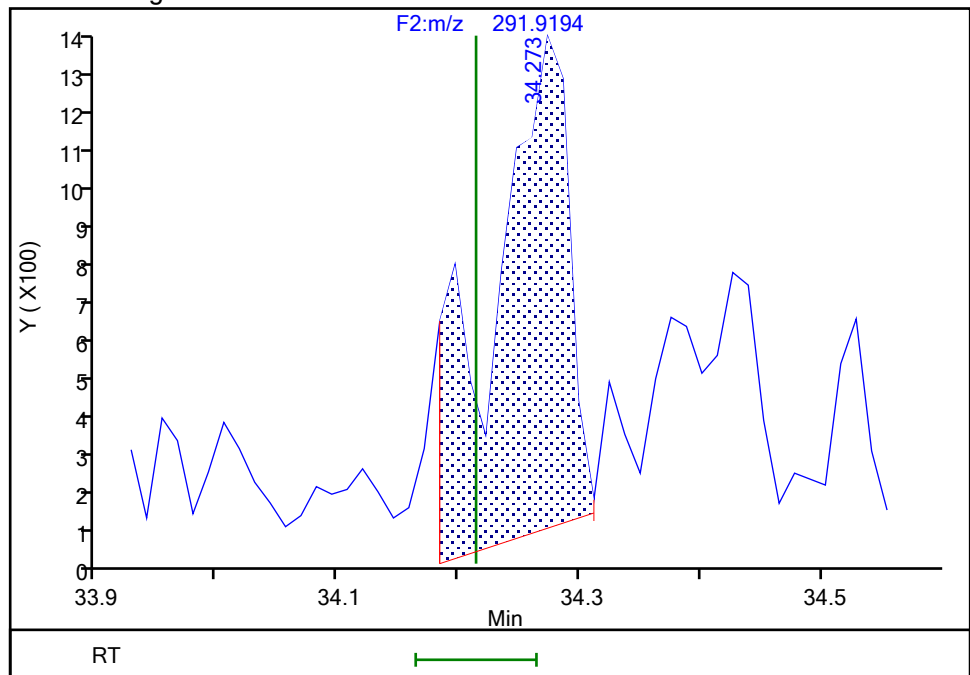
RT: 34.27  
Area: 2728  
Amount: 0.065350  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.27  
Area: 5445  
Amount: 0.113380  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:02:24 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-5-d-5x.d

Injection Date: 17-Jul-2024 04:20:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER RUN 6 COMBINED

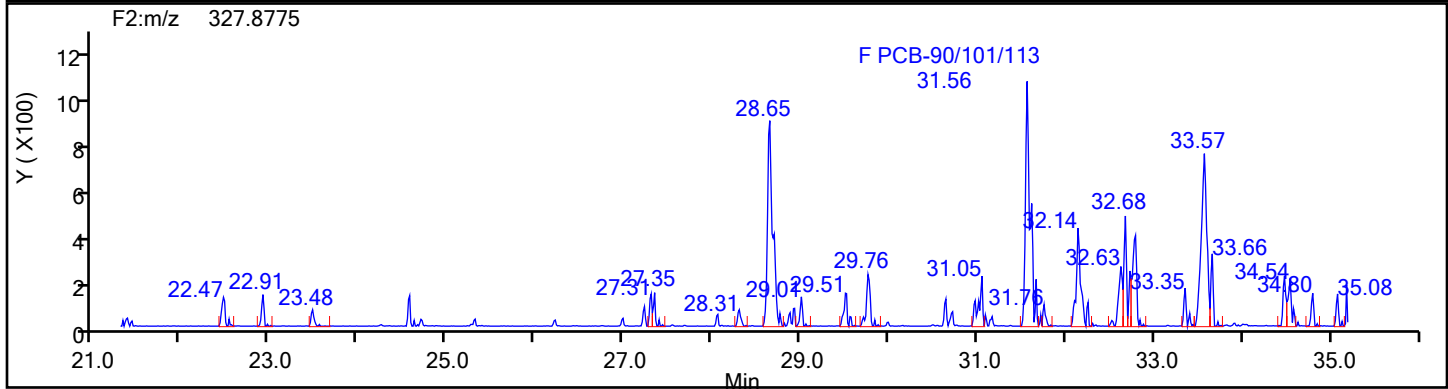
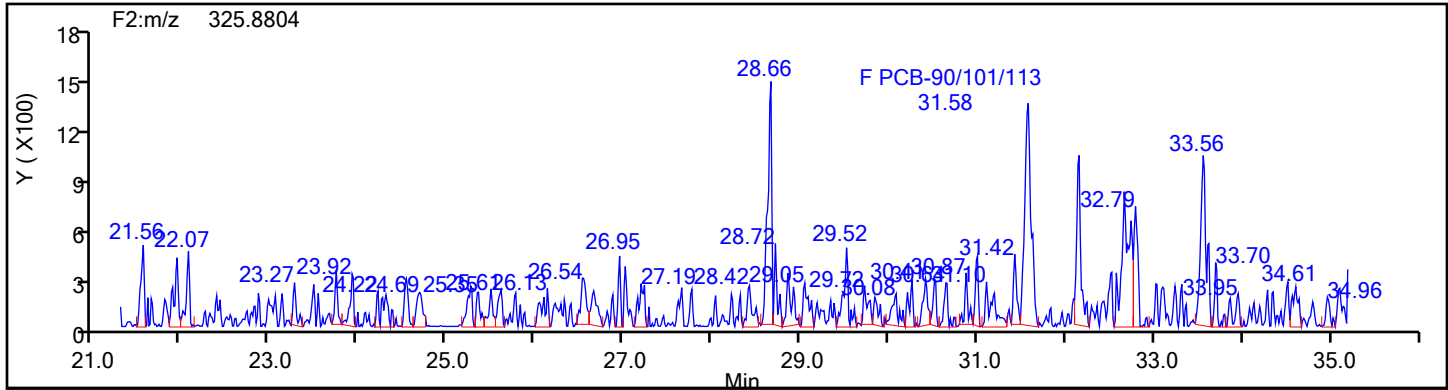
Worklist#: 88834

Sample Line#: 8

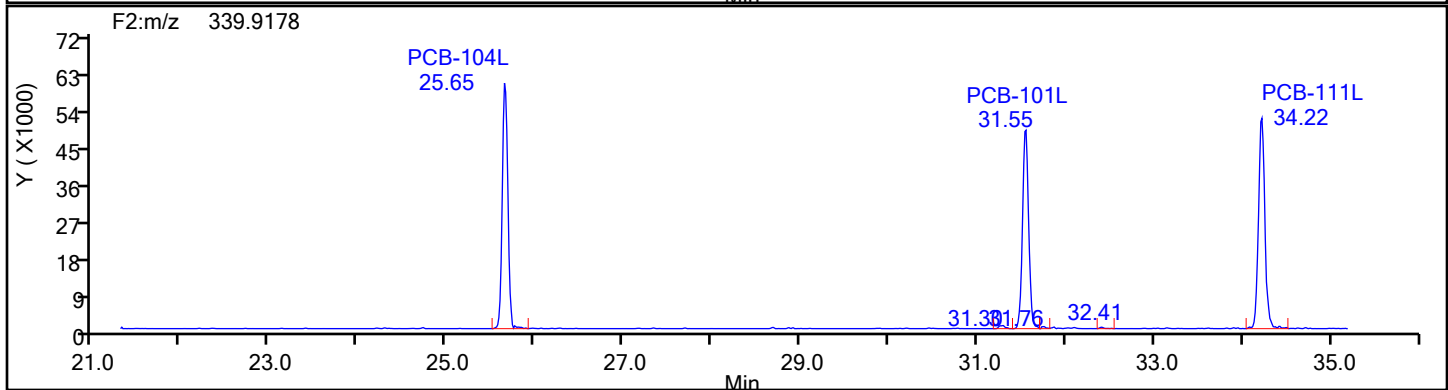
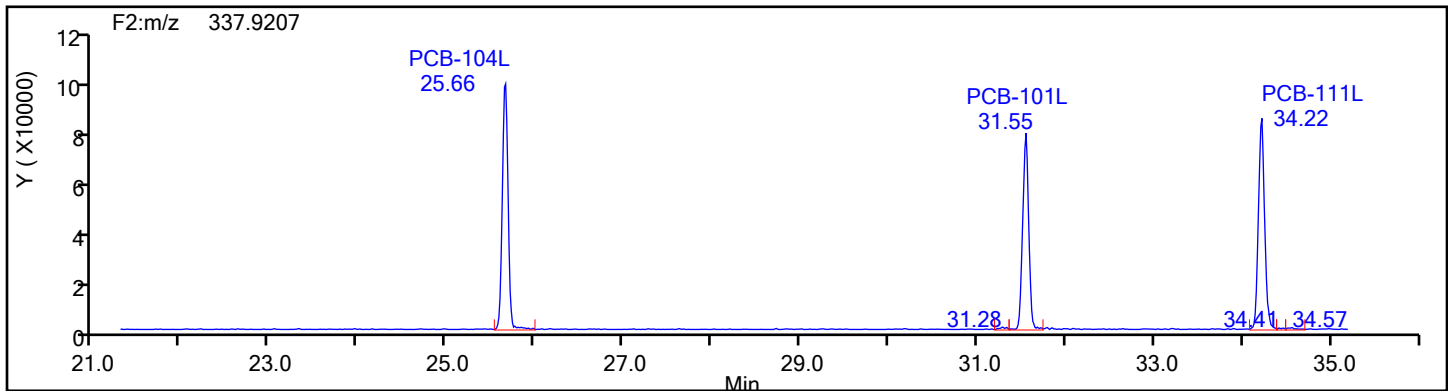
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F2

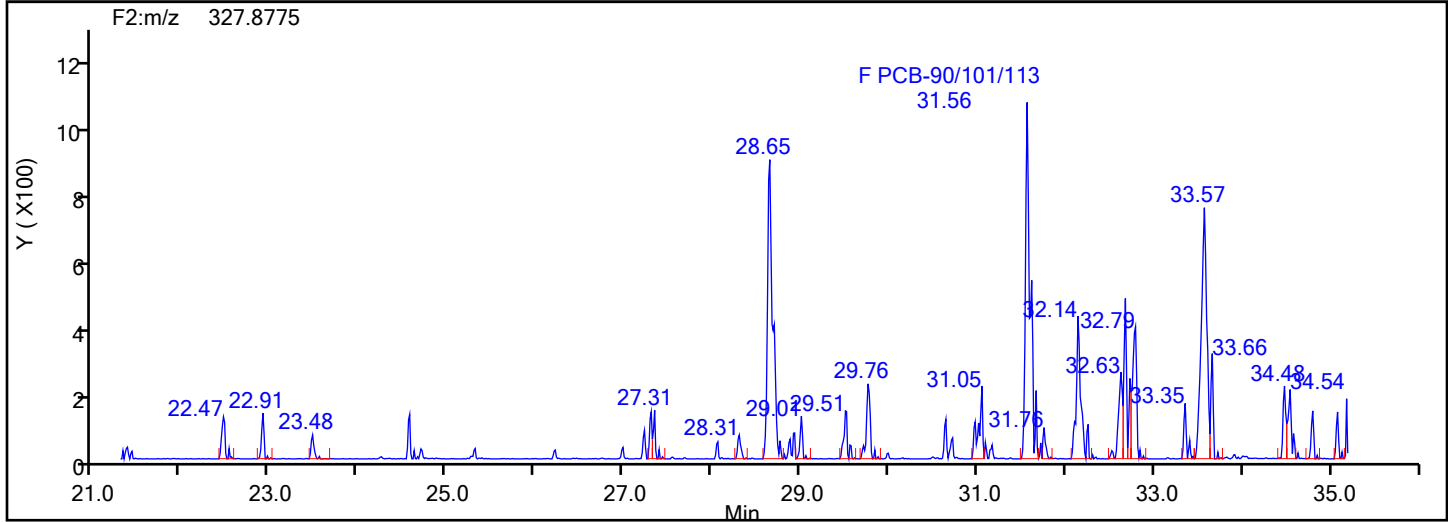
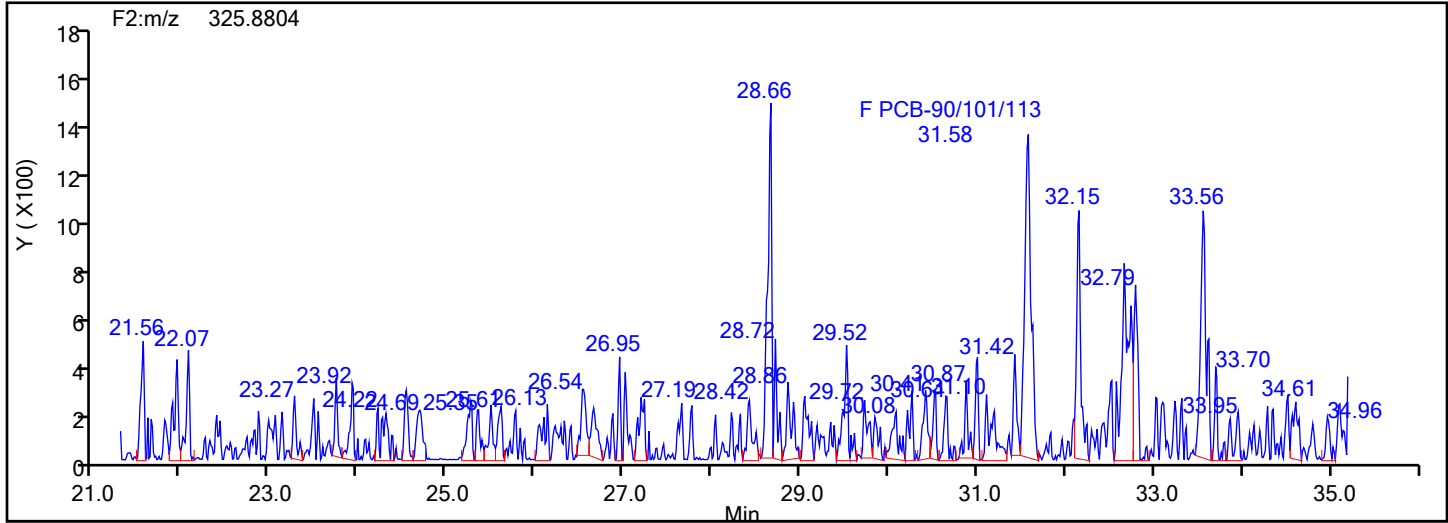


PePCB F2 Standards

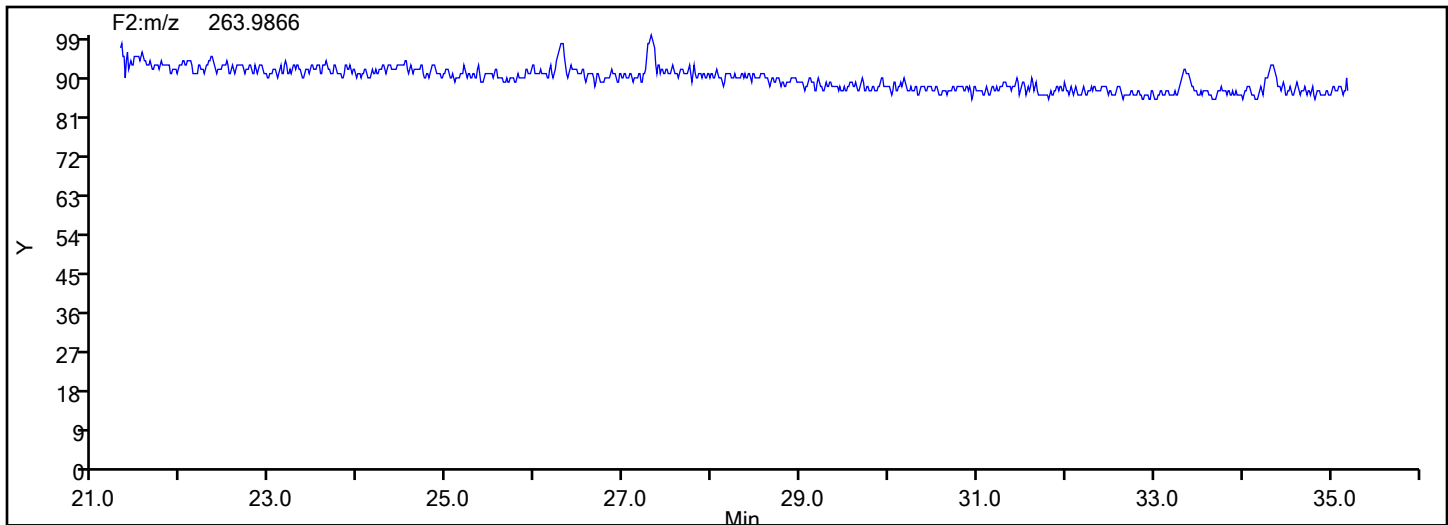


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 04:20:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2

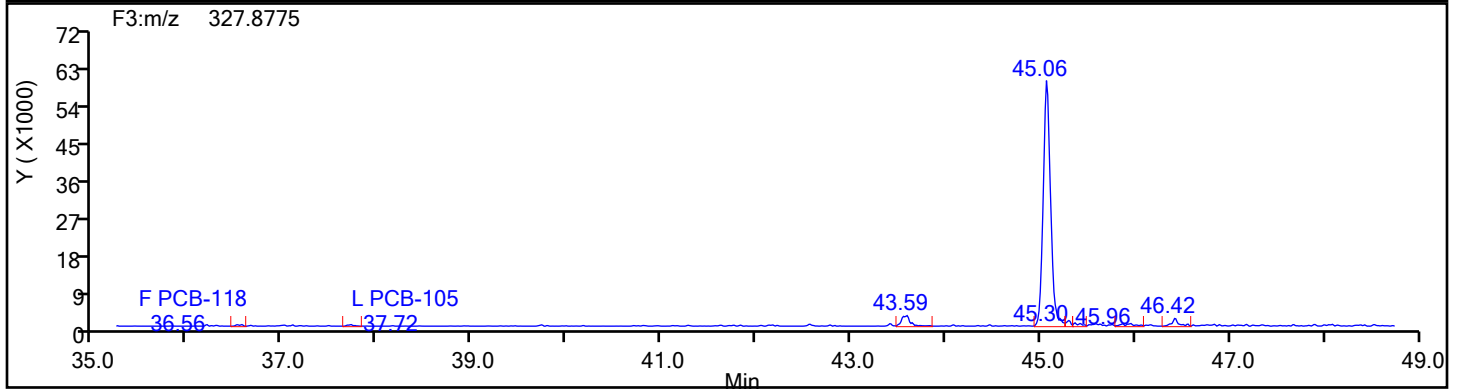
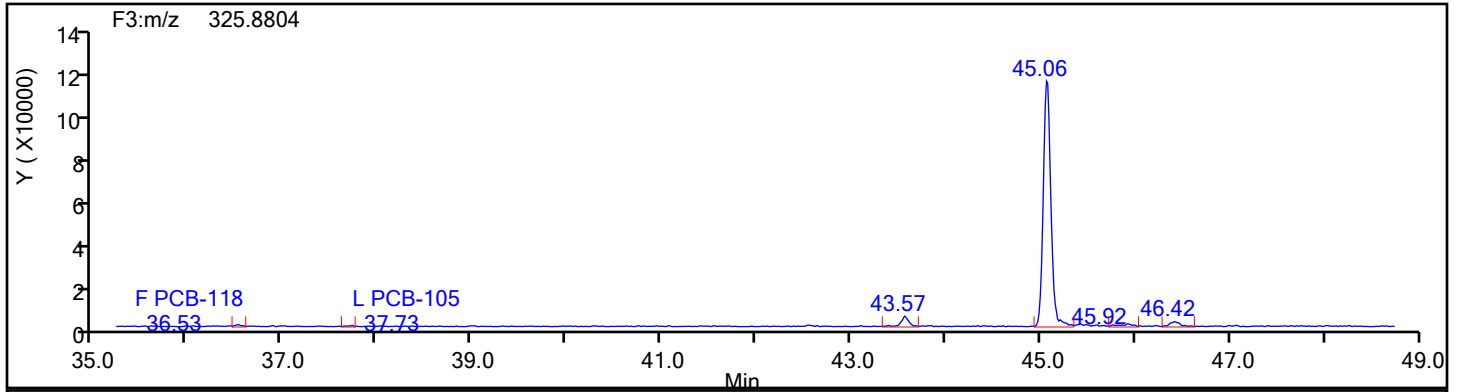


## PePCB F2 Lock Mass

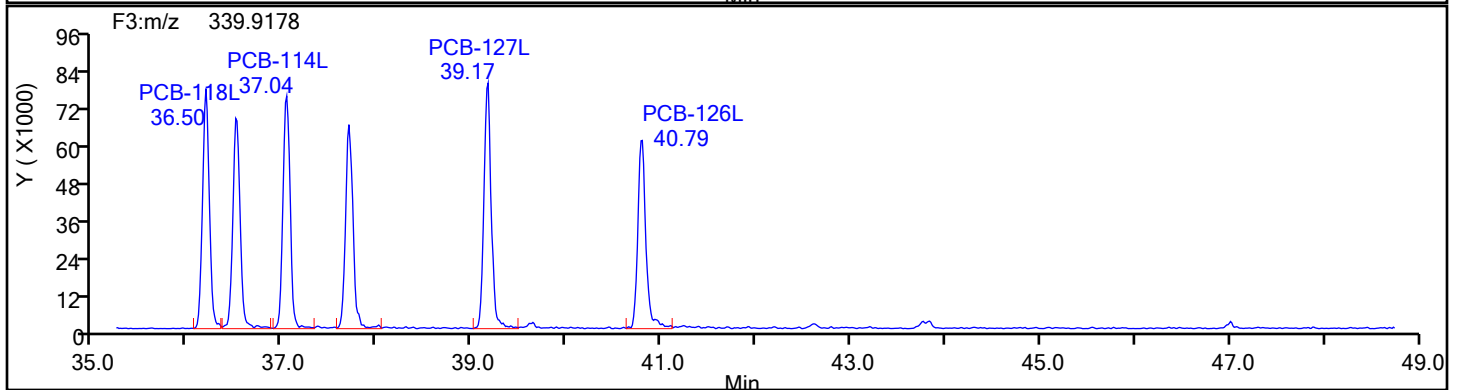
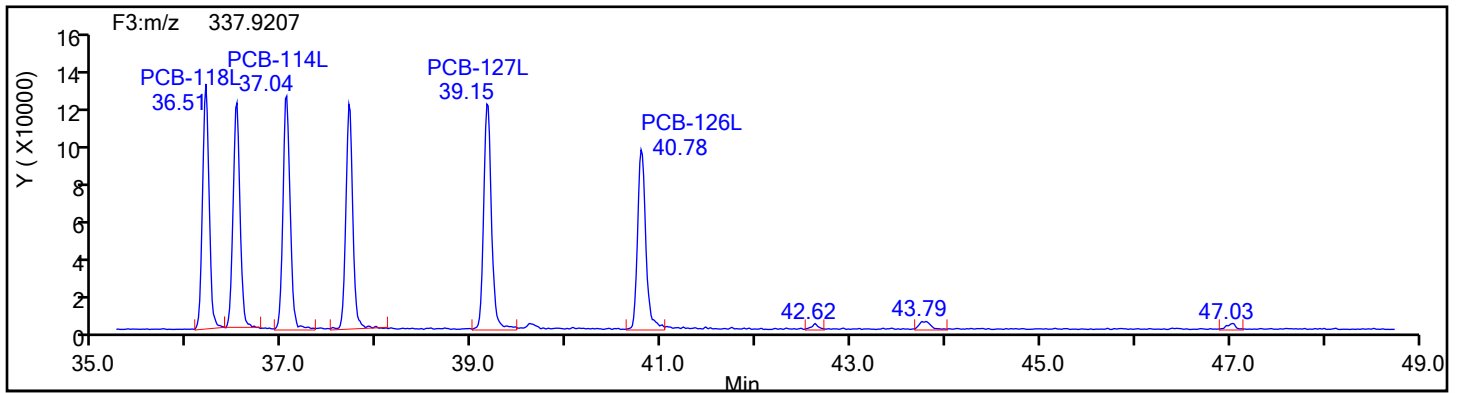


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 04:20:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F3

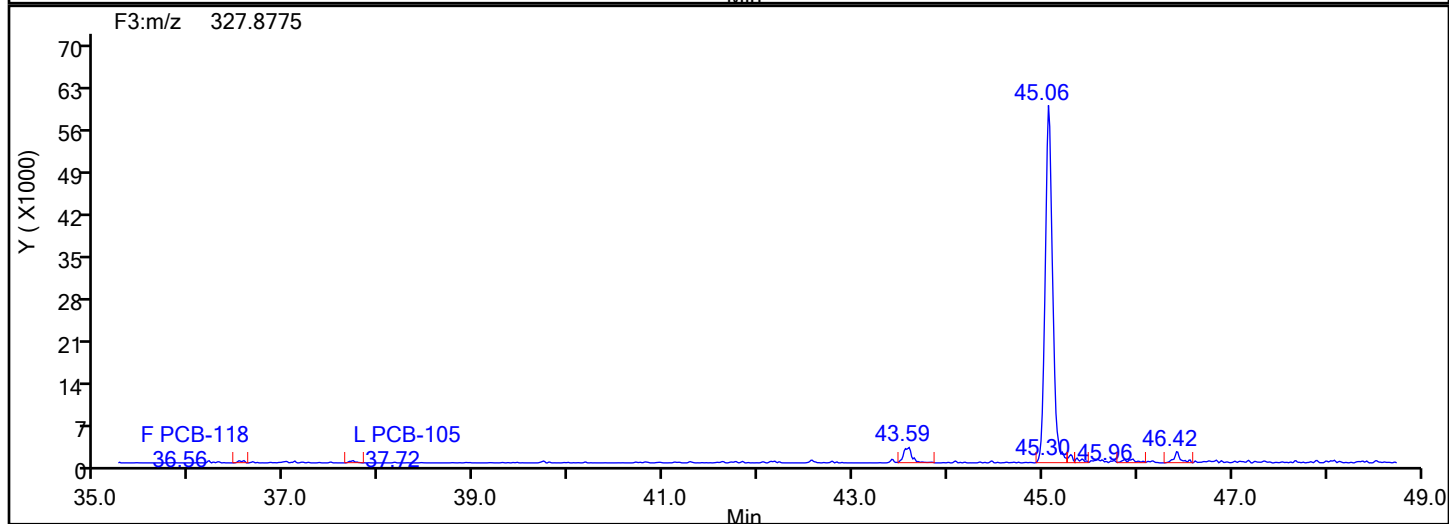
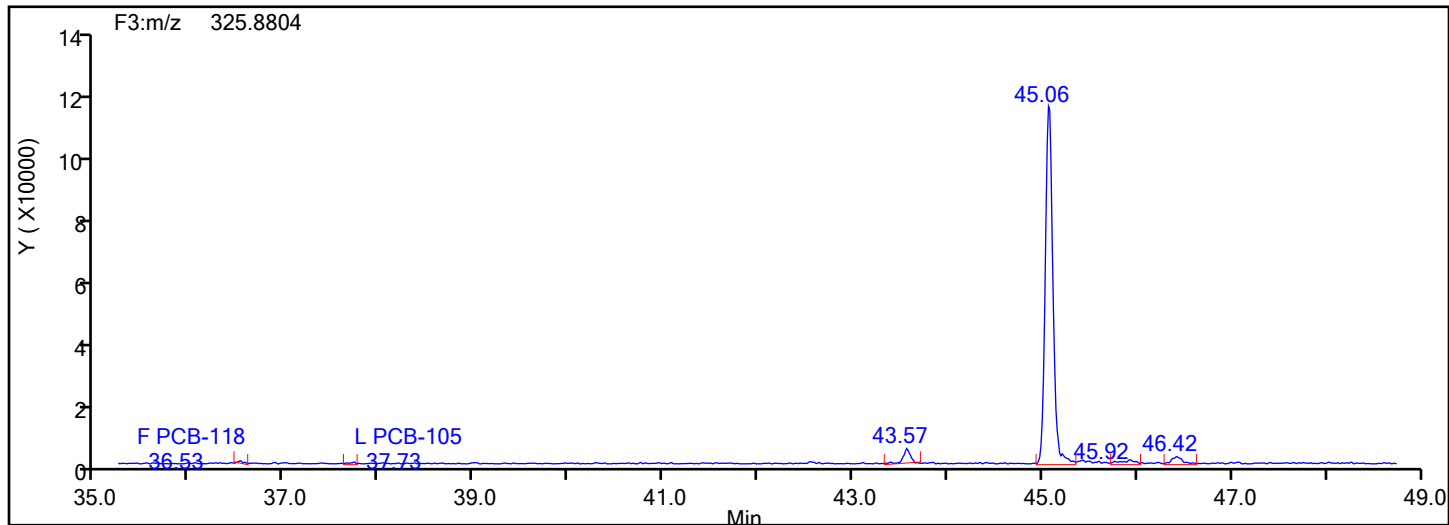


## PePCB F3 Standards

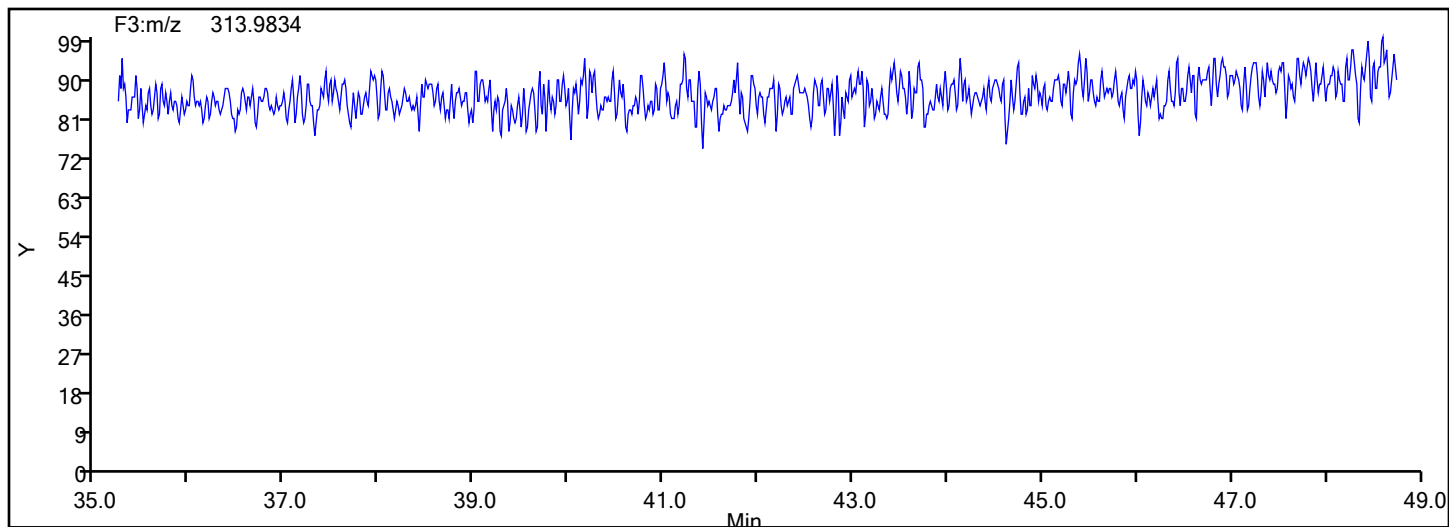


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 04:20:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F3



## PePCB F3 Lock Mass



## Eurofins Knoxville

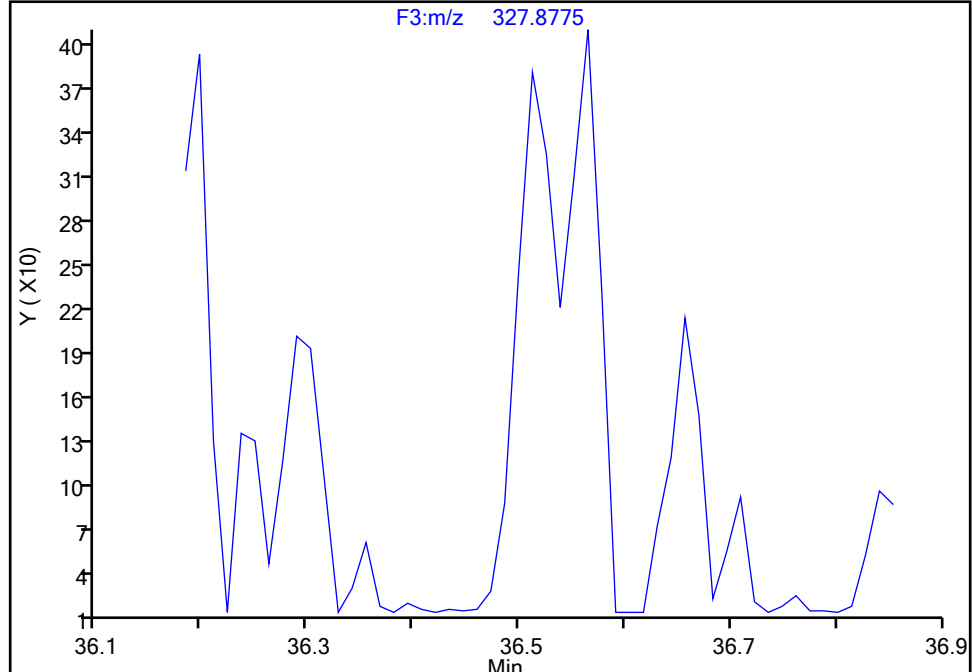
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Injection Date: 17-Jul-2024 04:20:00 Instrument ID: D2D  
Lims ID: 140-37234-A-5-D Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F3(35.64 :49.10 )

**PCB-118, CAS: 31508-00-6**

Signal: 2

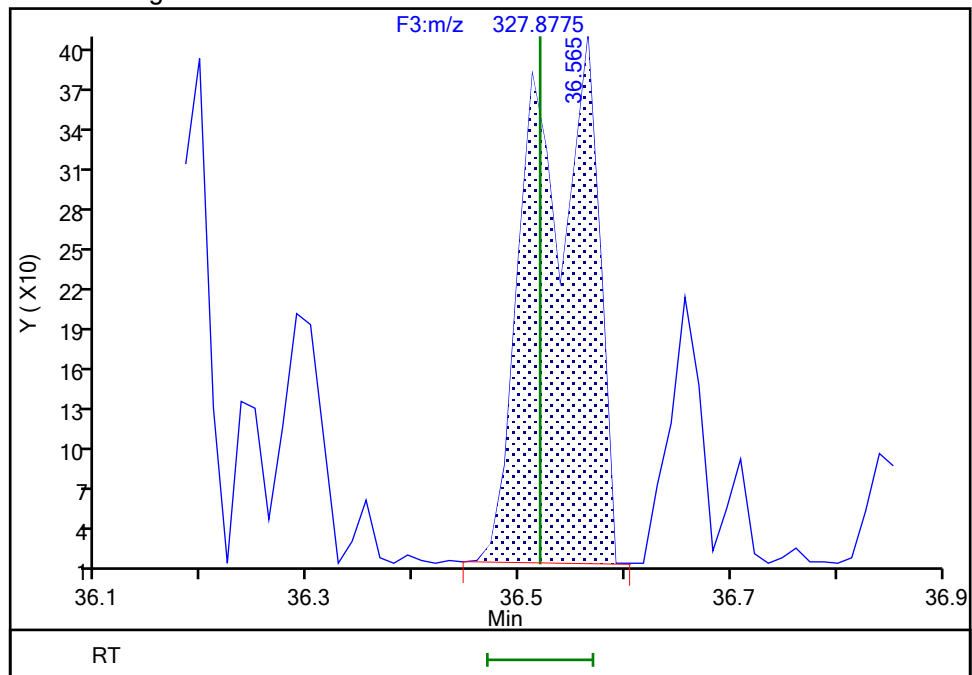
Not Detected  
Expected RT: 36.52

## Processing Integration Results



## Manual Integration Results

RT: 36.56  
Area: 1614  
Amount: 0.081980  
Amount Units: pg/ul



Reviewer: TT6I, 17-Jul-2024 13:02:56 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

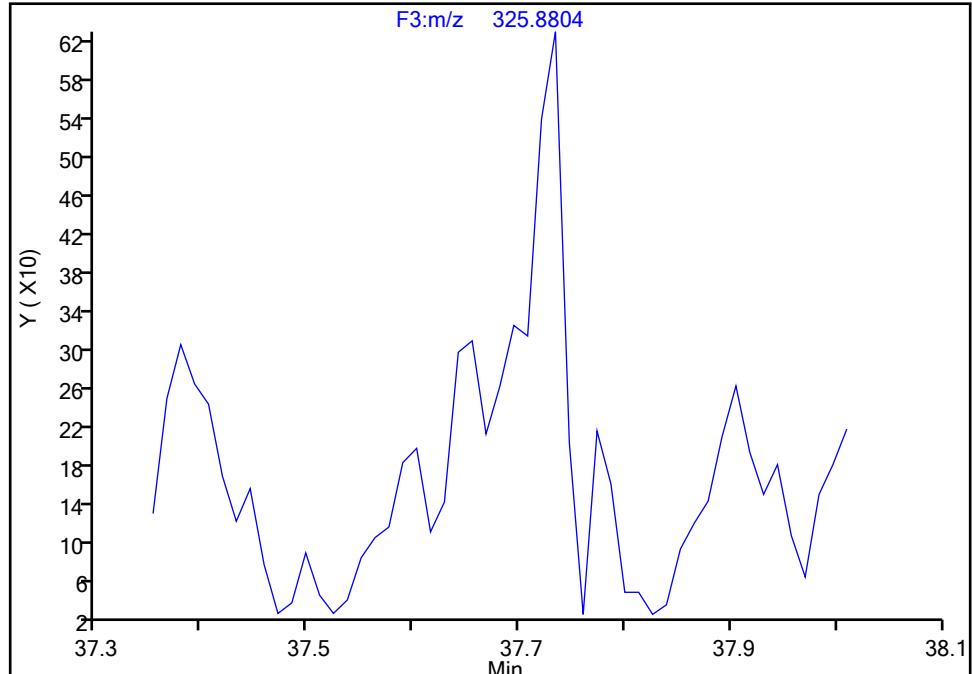
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Injection Date: 17-Jul-2024 04:20:00 Instrument ID: D2D  
Lims ID: 140-37234-A-5-D Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F3(35.64 :49.10 )

PCB-105, CAS: 32598-14-4

Signal: 1

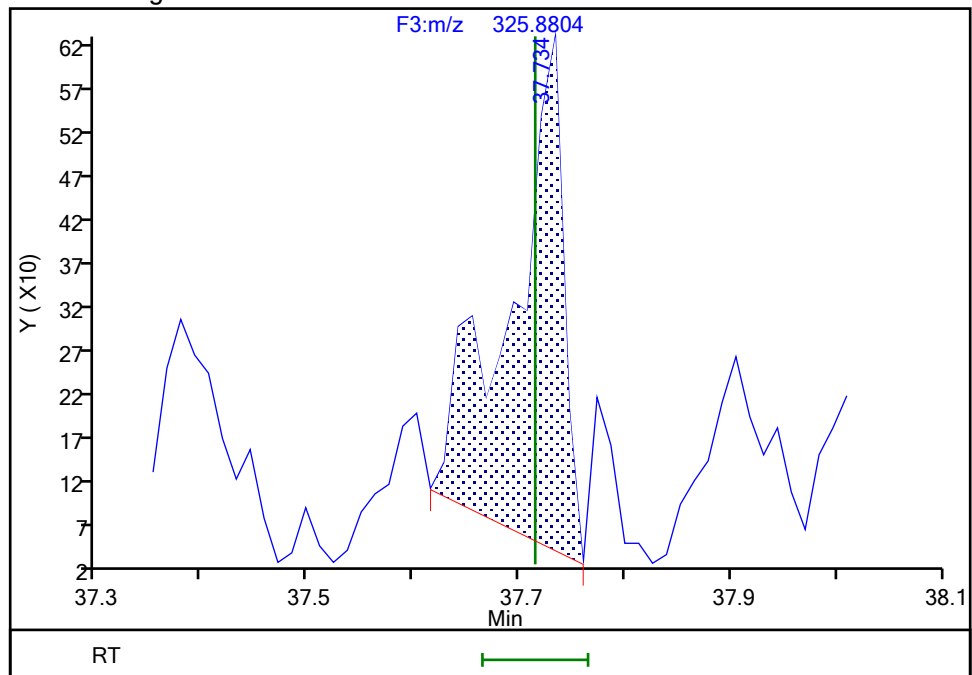
Not Detected  
Expected RT: 37.71

## Processing Integration Results



RT: 37.73  
Area: 2021  
Amount: 0.064406  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:03:06 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration



## Eurofins Knoxville

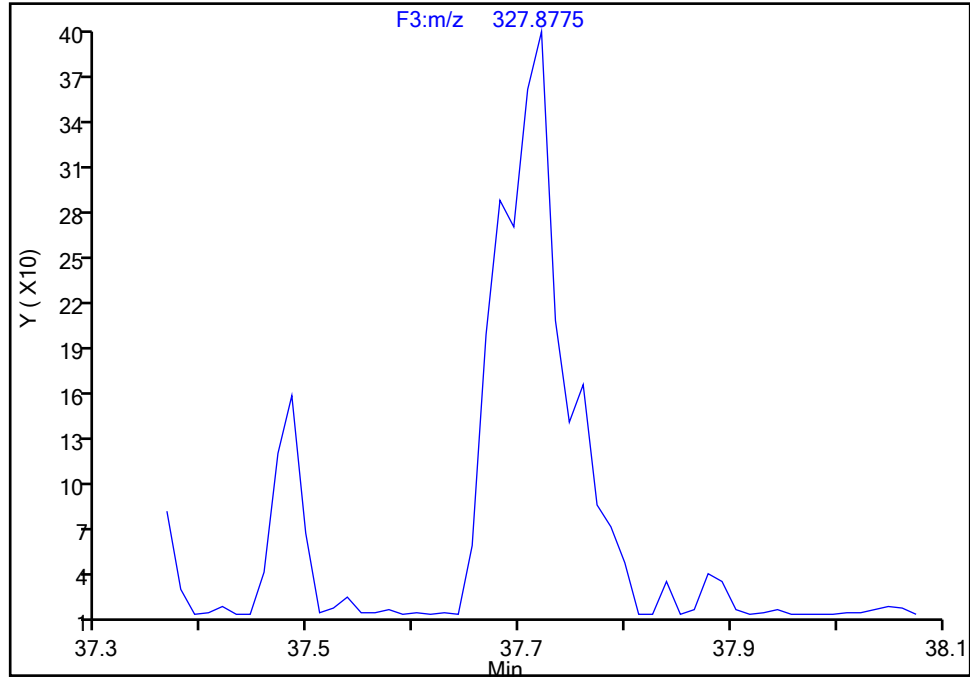
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-5-d-5x.d  
Injection Date: 17-Jul-2024 04:20:00 Instrument ID: D2D  
Lims ID: 140-37234-A-5-D Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

**PCB-105, CAS: 32598-14-4**

Signal: 2

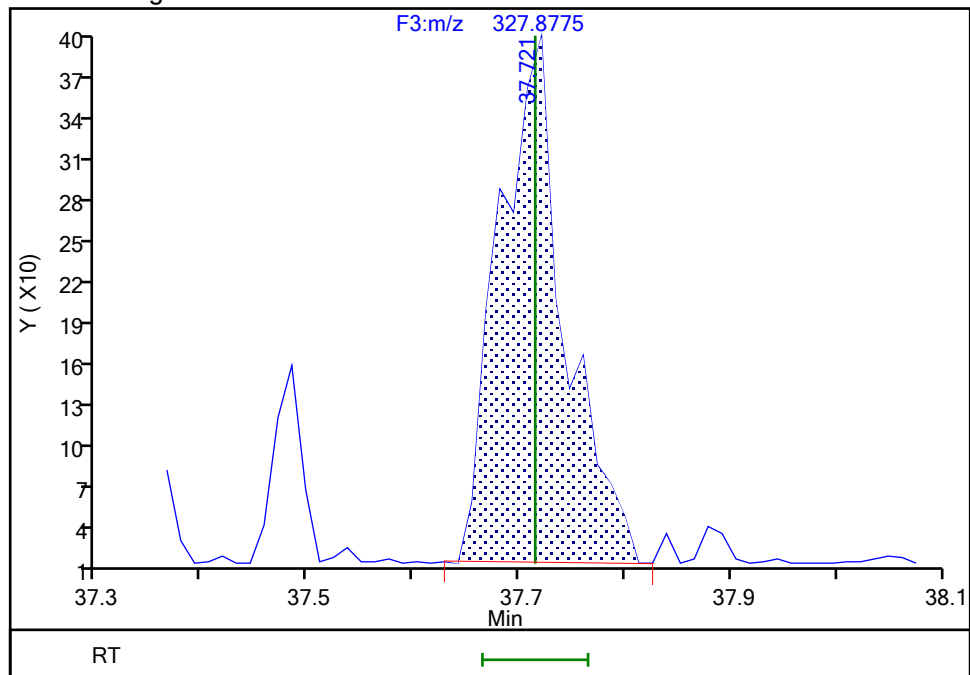
Not Detected  
Expected RT: 37.71

## Processing Integration Results



## Manual Integration Results

RT: 37.72  
Area: 1619  
Amount: 0.064406  
Amount Units: pg/ul



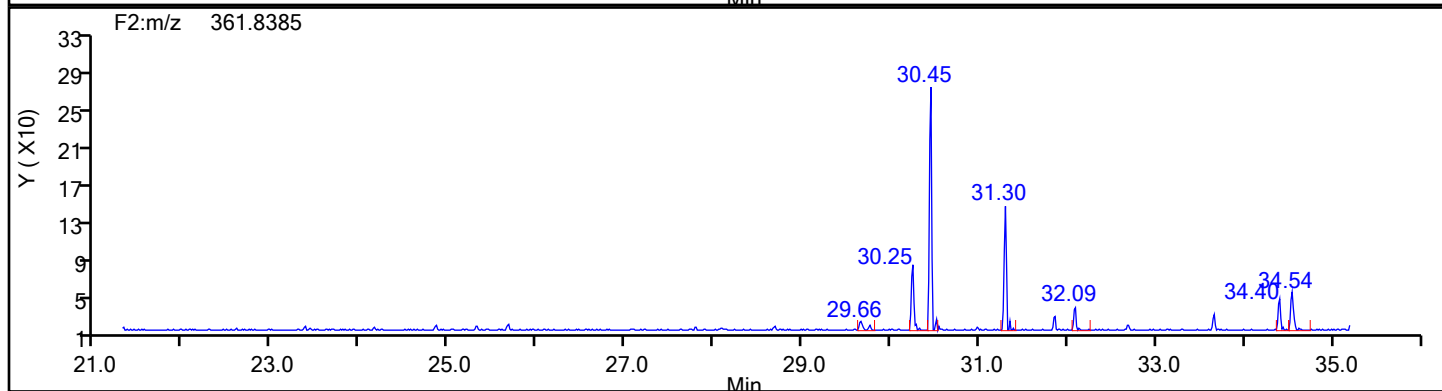
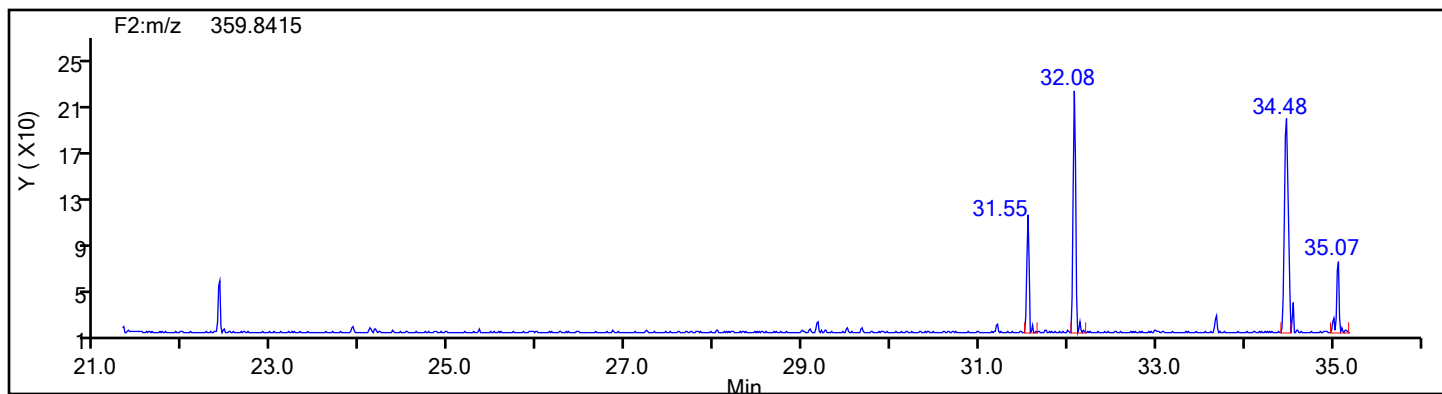
Reviewer: TT6I, 17-Jul-2024 13:03:11 -04:00:00 (UTC)

Audit Action: Manually Integrated

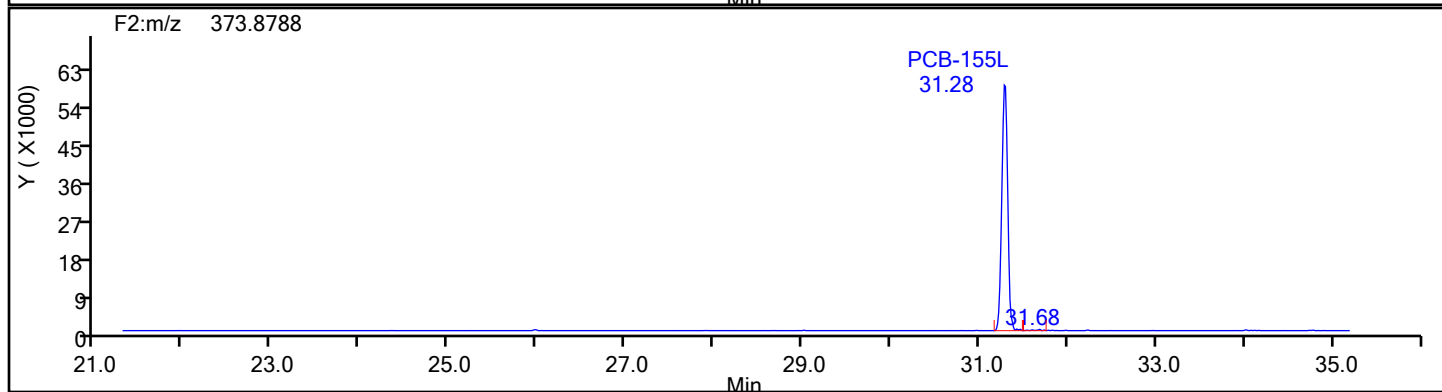
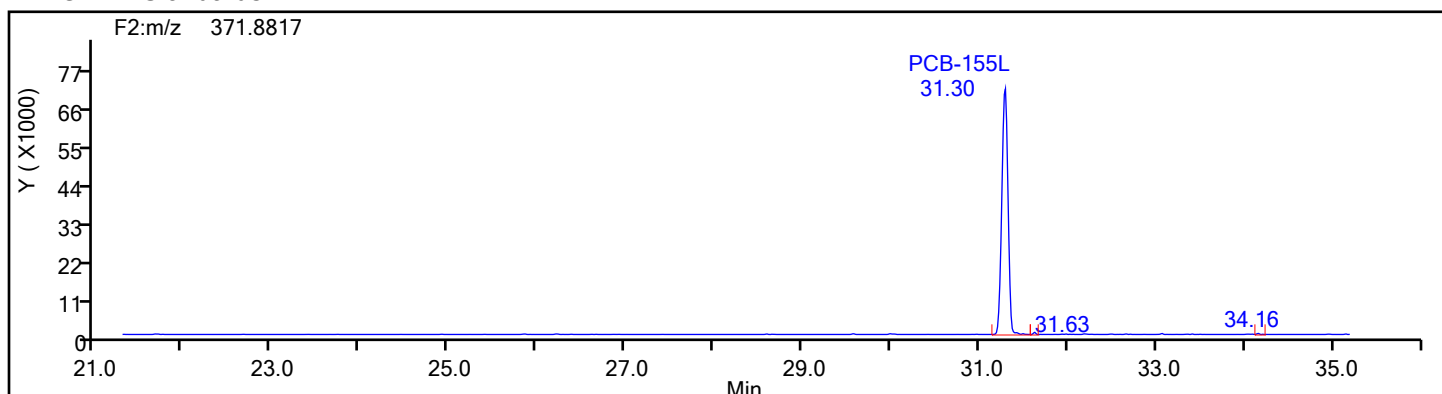
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-5-d-5x.d  
Injection Date: 17-Jul-2024 04:20:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2

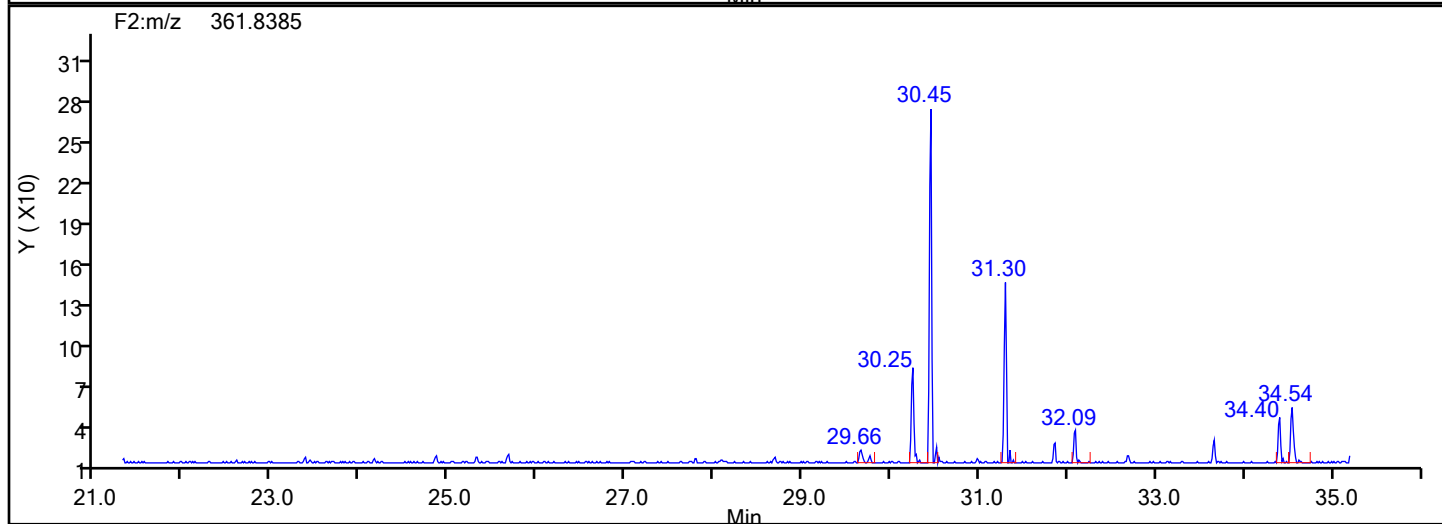
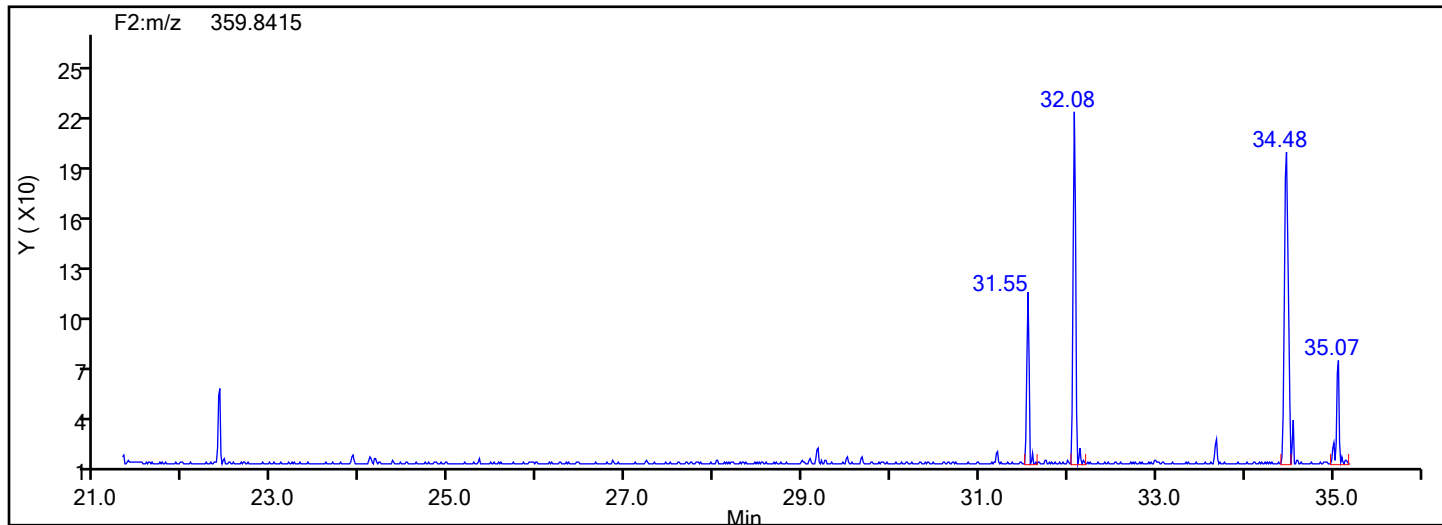


## HxPCB F2 Standards

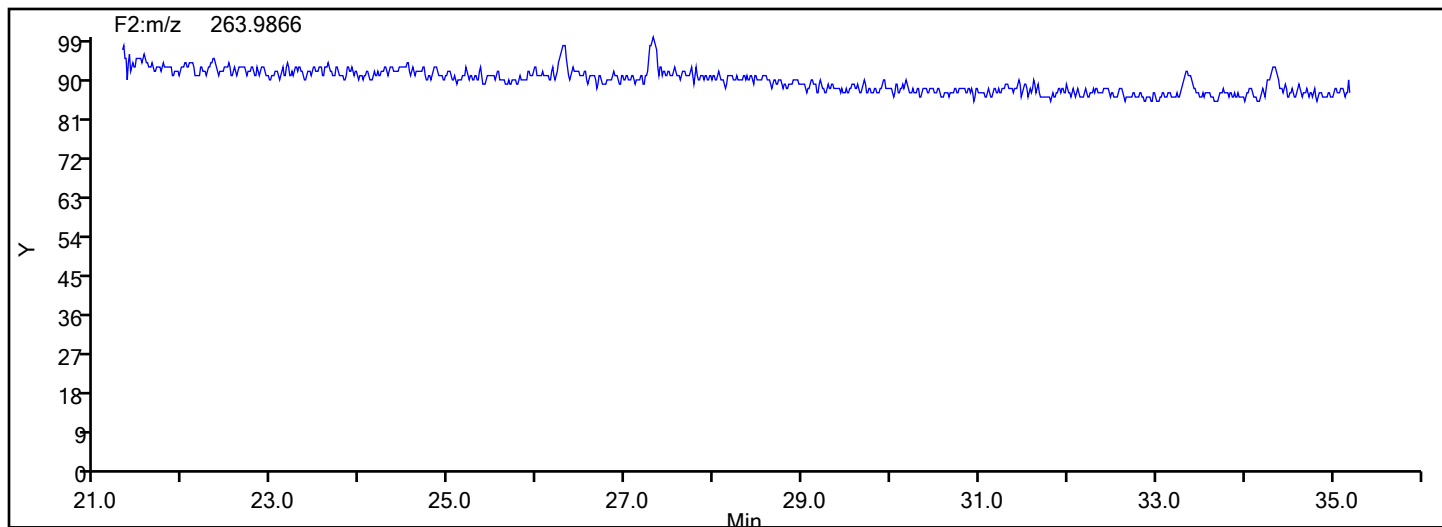


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 04:20:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2

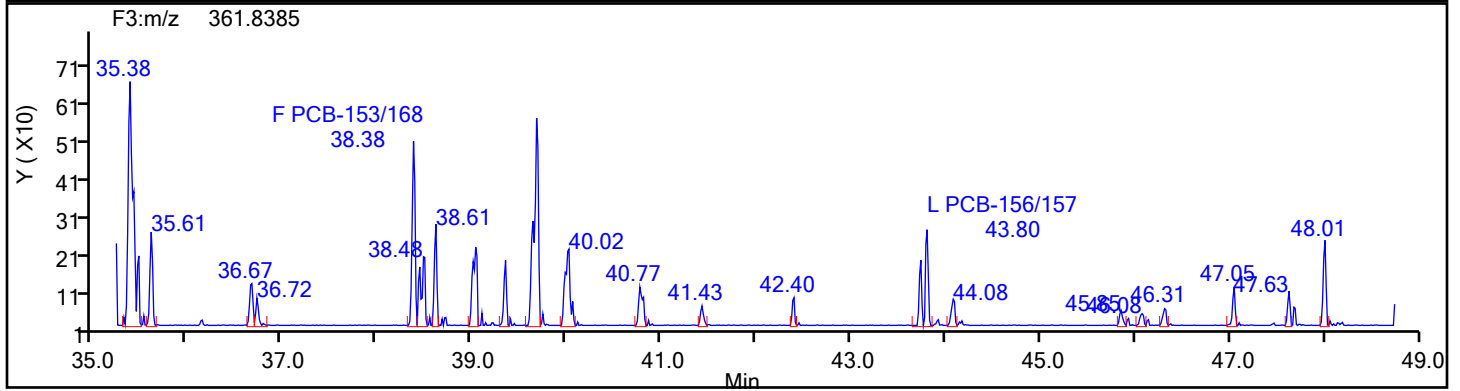
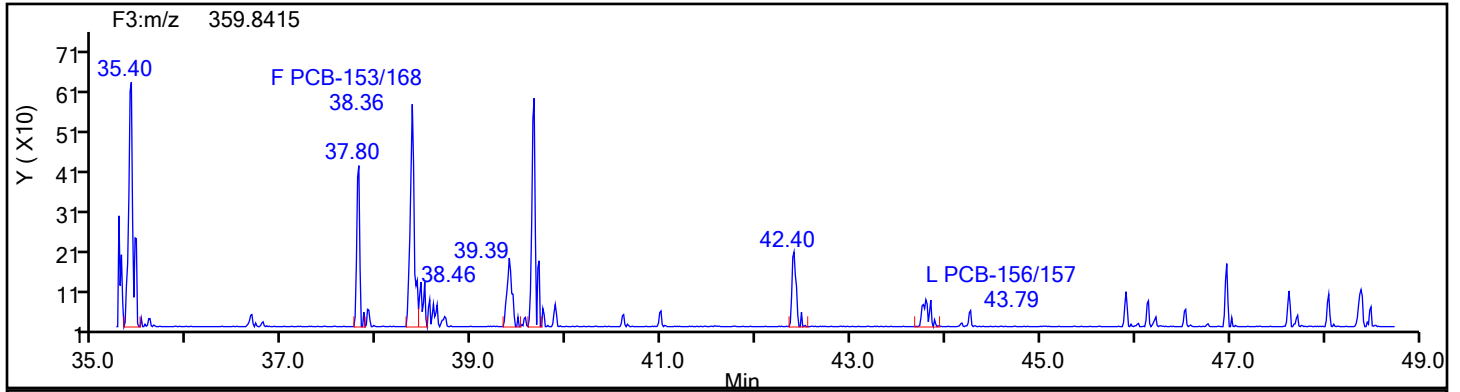


## HxPCB F2 Lock Mass

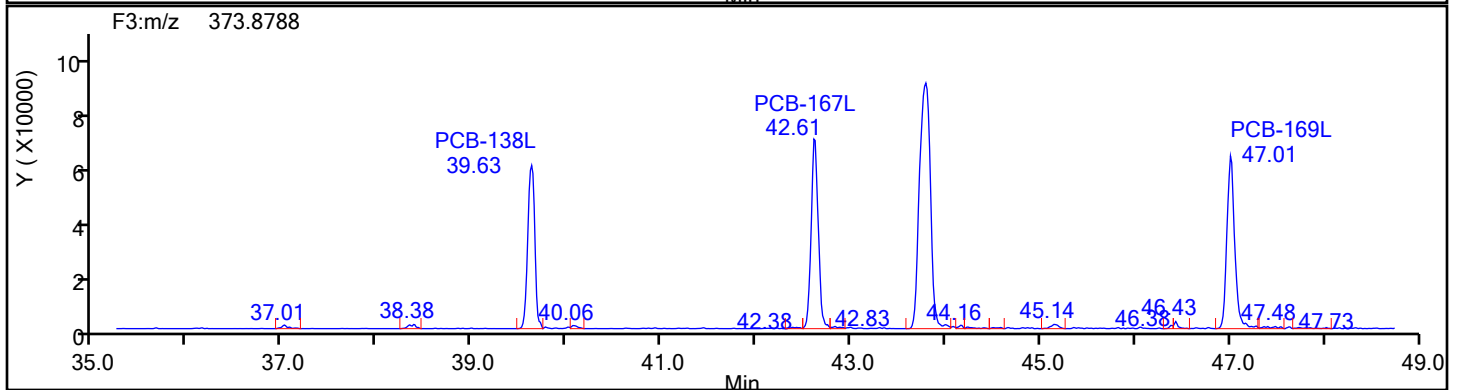
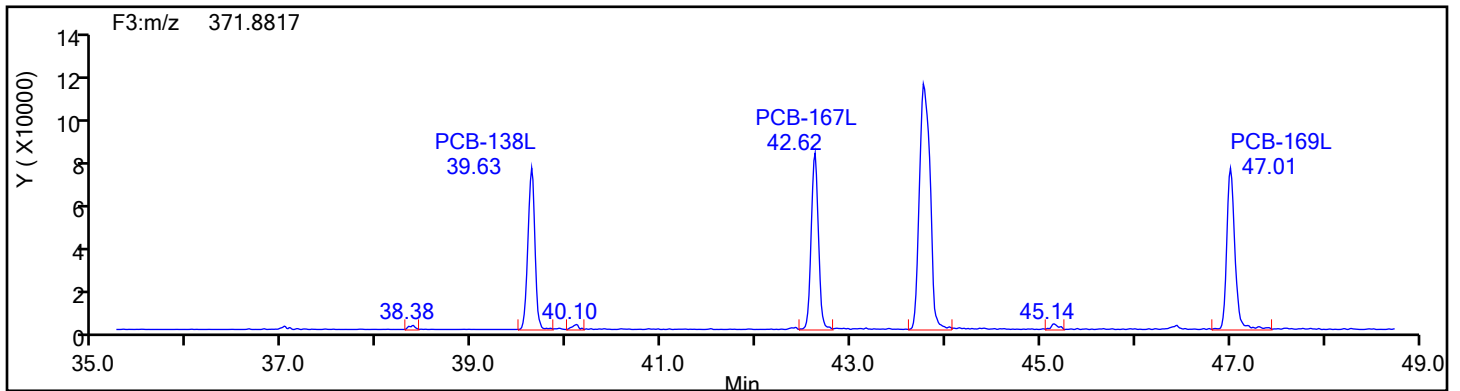


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 04:20:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F3

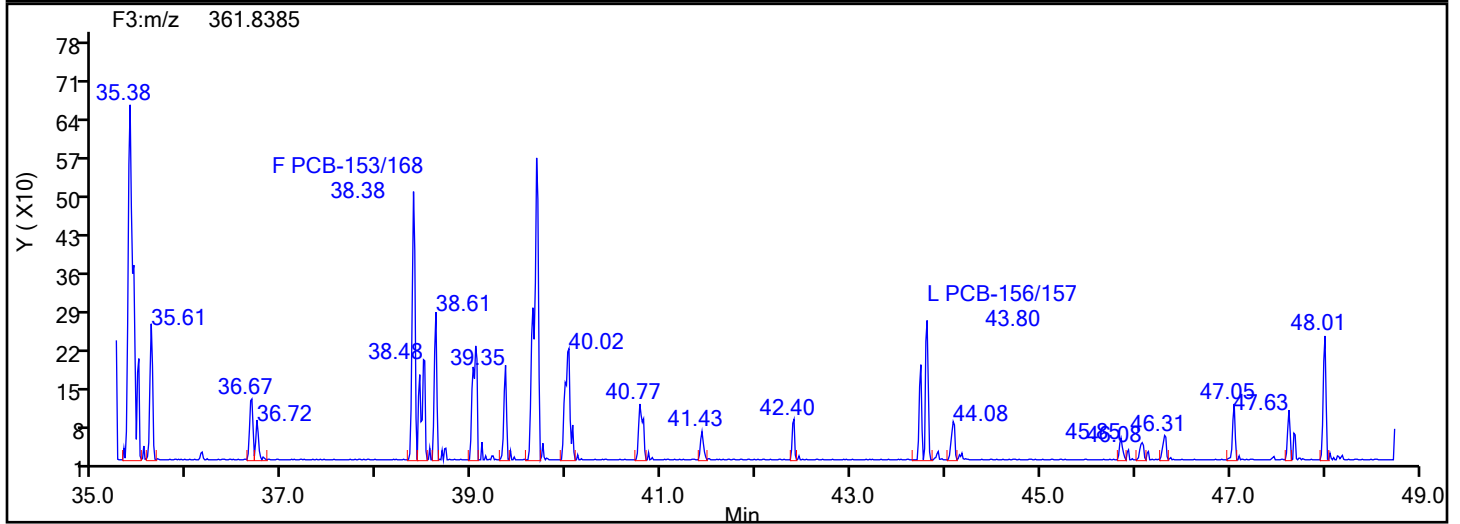
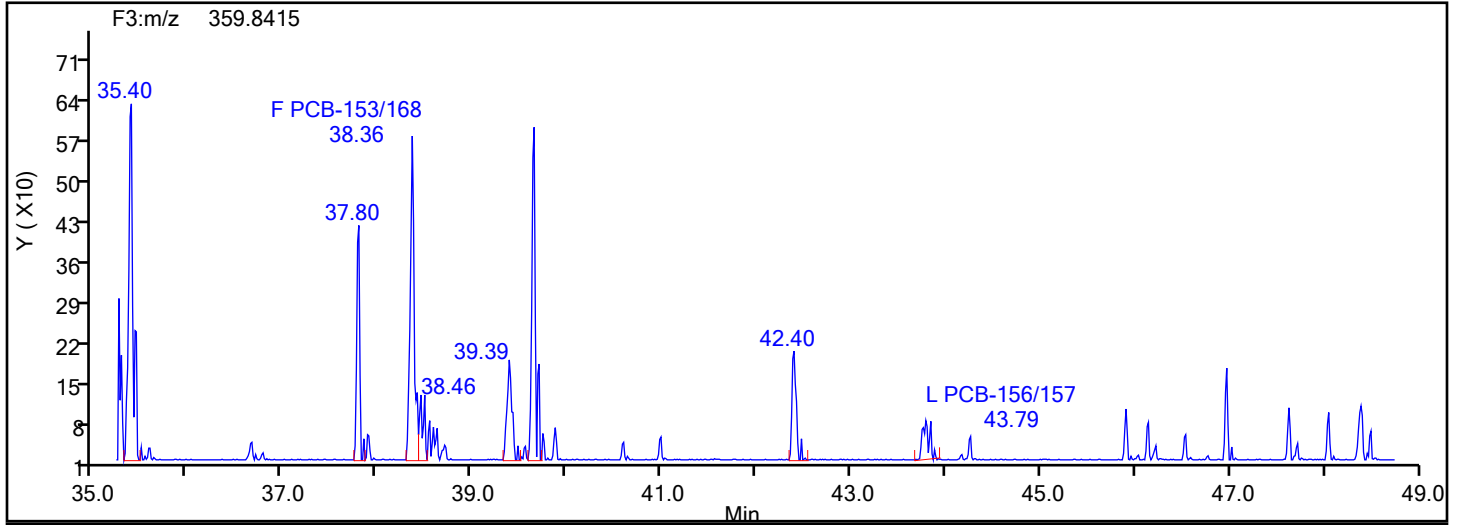


## HxPCB F3 Standards

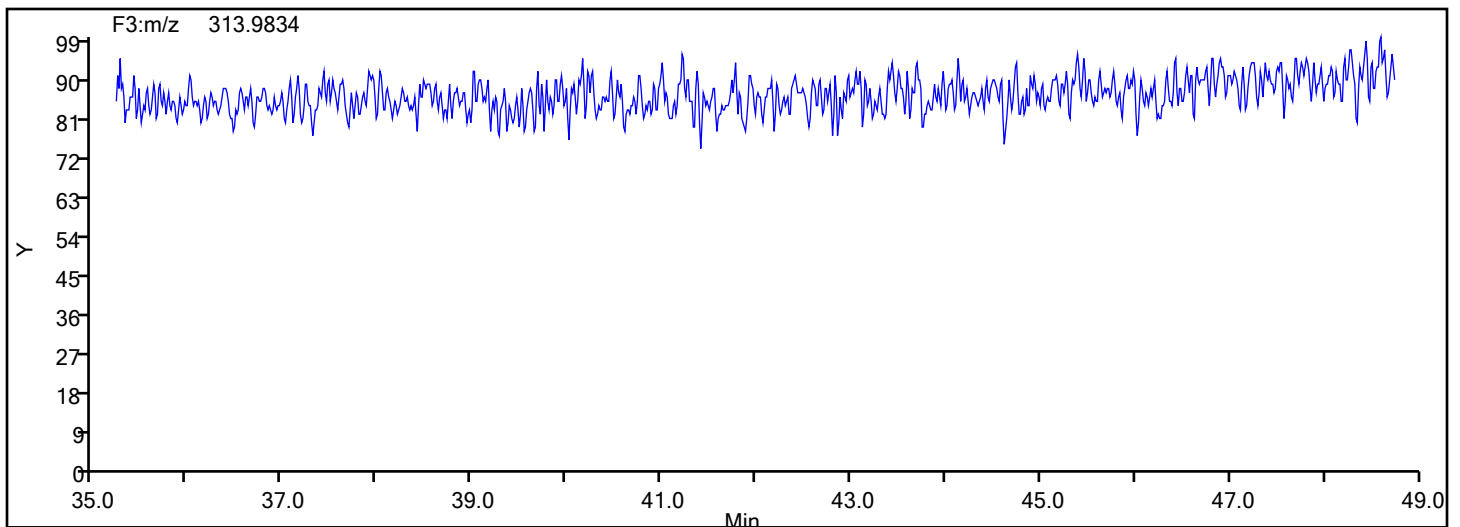


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 04:20:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F3



## HxPCB F3 Lock Mass



## Eurofins Knoxville

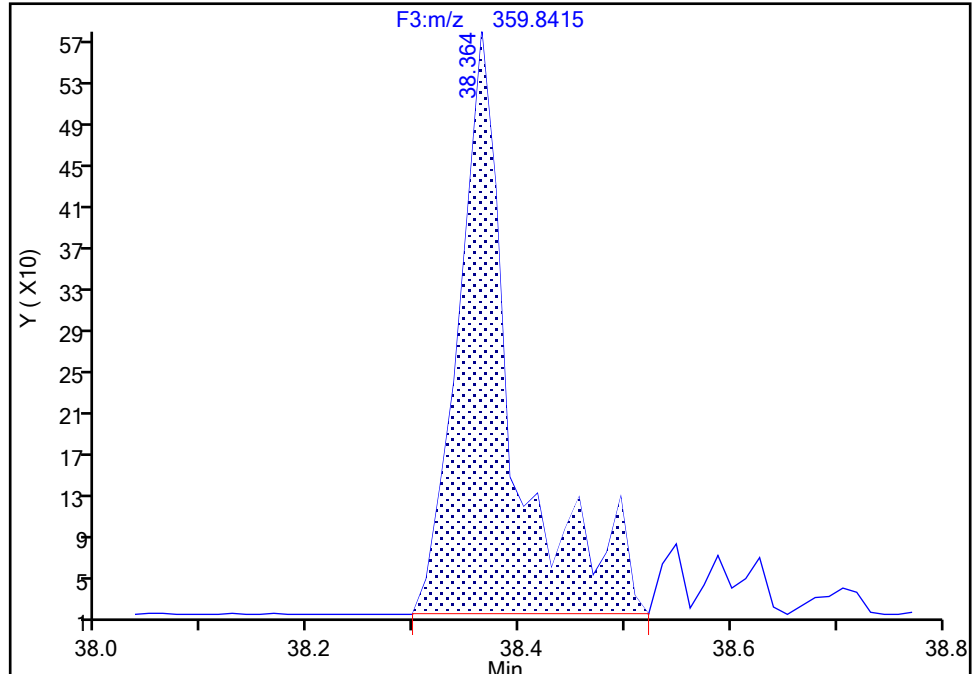
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-5-d-5x.d  
Injection Date: 17-Jul-2024 04:20:00 Instrument ID: D2D  
Lims ID: 140-37234-A-5-D Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F3(35.64 :49.10 )

**PCB-153/168, CAS: STL01822**

Signal: 1

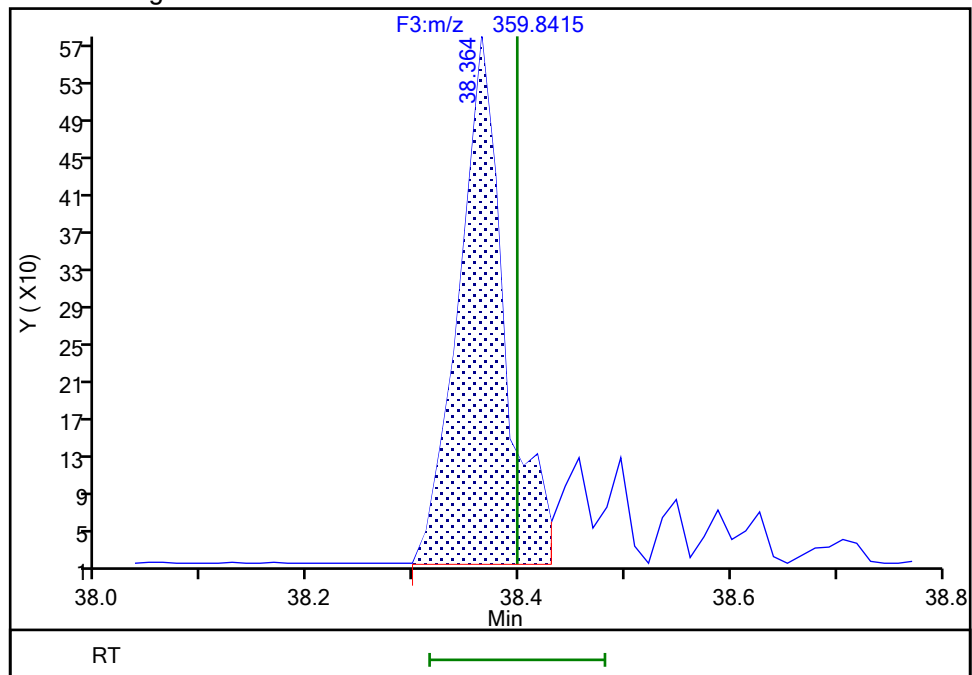
RT: 38.36  
Area: 1998  
Amount: 0.070752  
Amount Units: pg/ul

## Processing Integration Results



RT: 38.36  
Area: 1652  
Amount: 0.062767  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:03:39 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

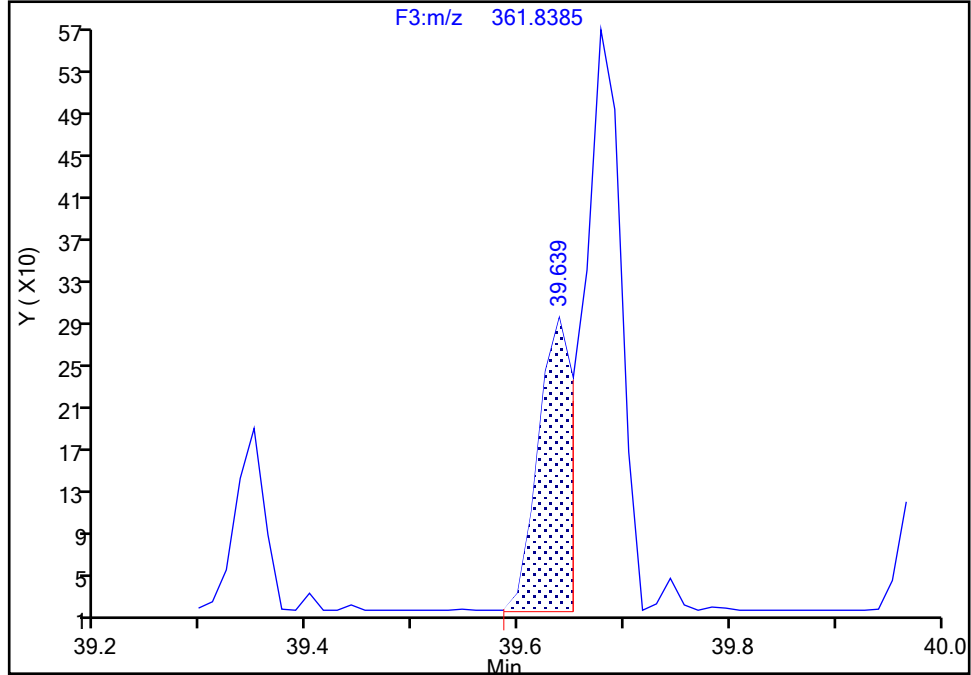
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Injection Date: 17-Jul-2024 04:20:00 Instrument ID: D2D  
Lims ID: 140-37234-A-5-D Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 2

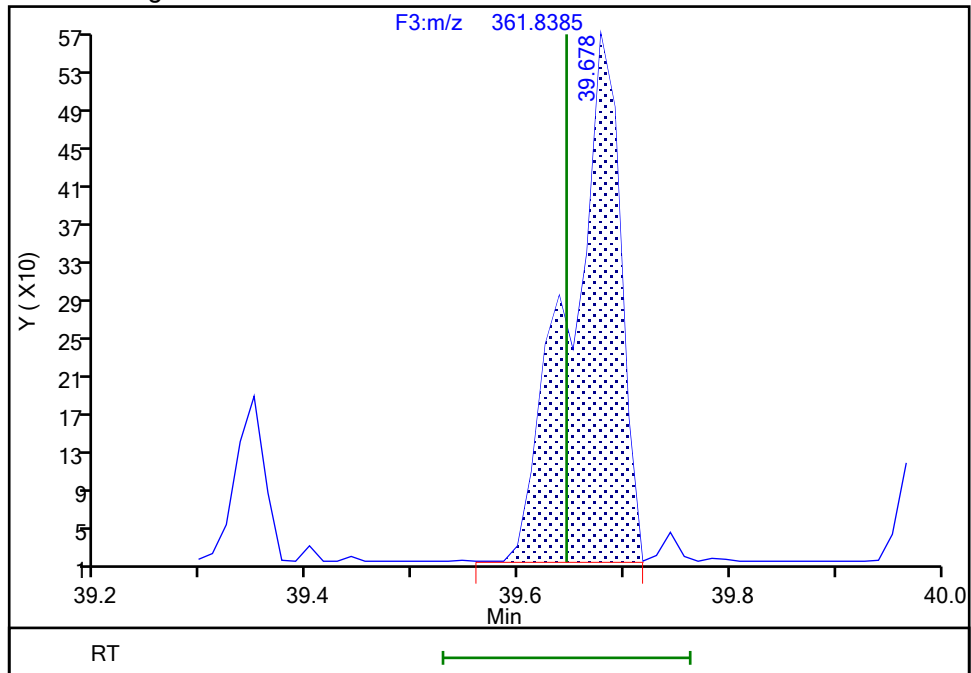
RT: 39.64  
Area: 573  
Amount: 0.057073  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.68  
Area: 1823  
Amount: 0.090409  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:03:51 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

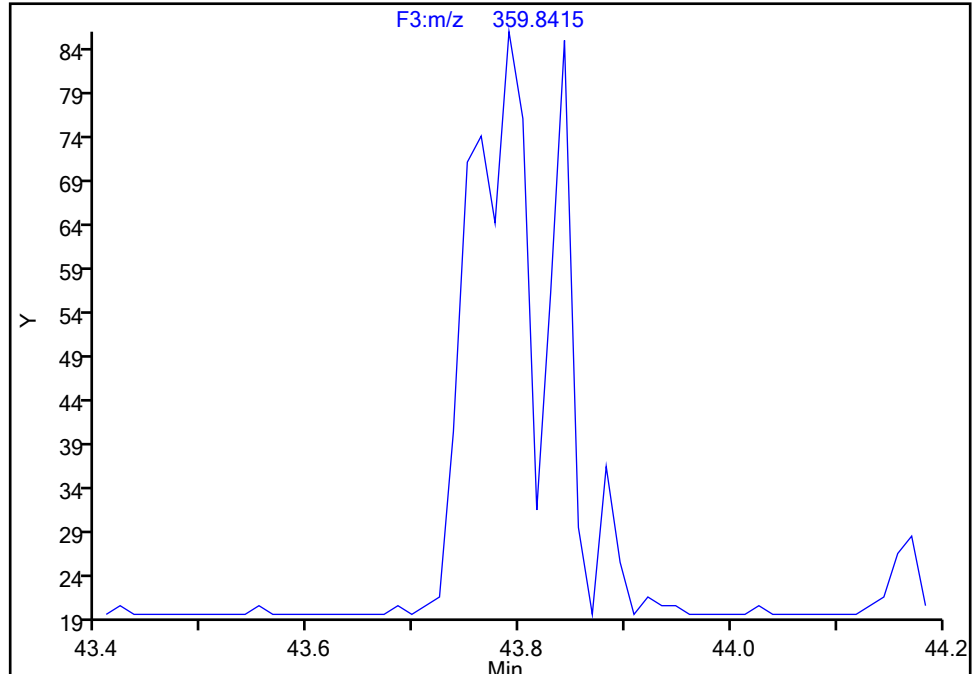
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Injection Date: 17-Jul-2024 04:20:00 Instrument ID: D2D  
Lims ID: 140-37234-A-5-D Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F3(35.64 :49.10 )

**PCB-156/157, CAS: STL01792**

Signal: 1

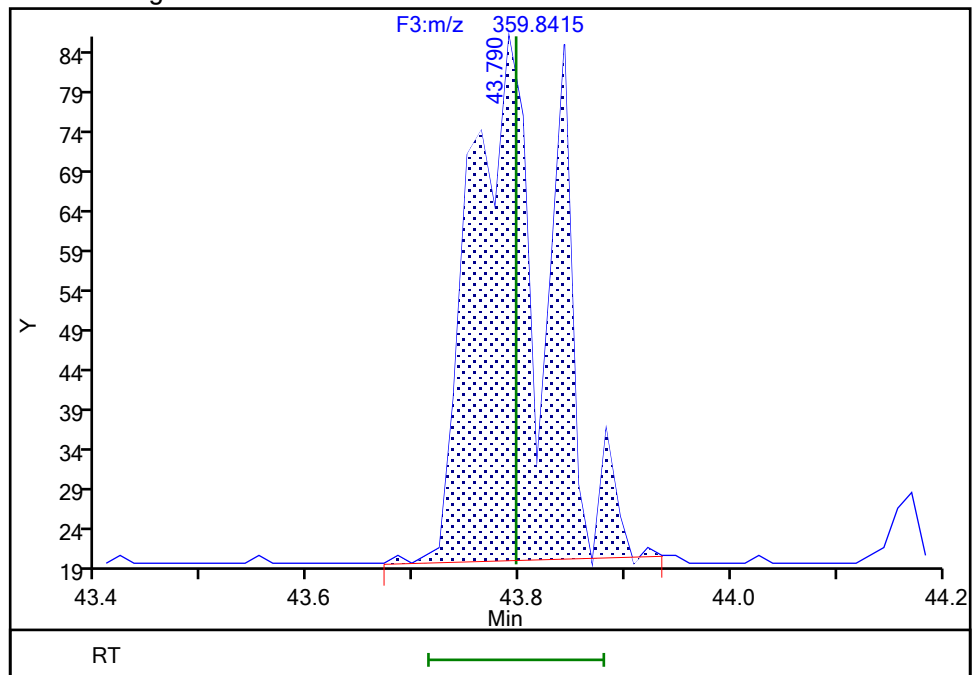
Not Detected  
Expected RT: 43.80

## Processing Integration Results



## Manual Integration Results

RT: 43.79  
Area: 348  
Amount: 0.026121  
Amount Units: pg/ul



Reviewer: TT6I, 17-Jul-2024 13:04:01 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration



## Eurofins Knoxville

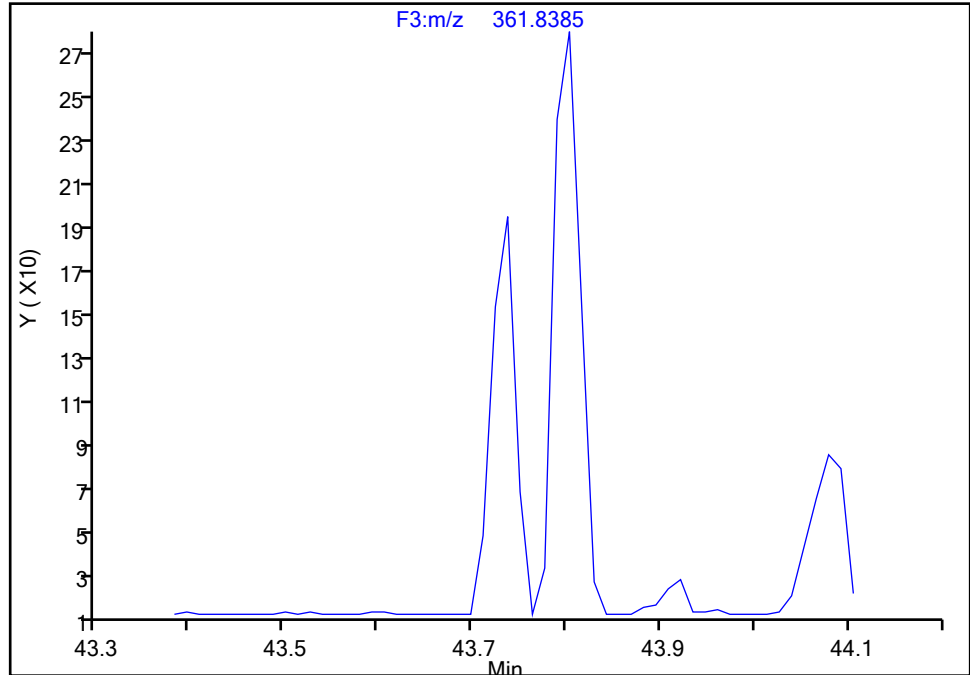
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Injection Date: 17-Jul-2024 04:20:00 Instrument ID: D2D  
Lims ID: 140-37234-A-5-D Lab Sample ID: 140-37234-5  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

**PCB-156/157, CAS: STL01792**

Signal: 2

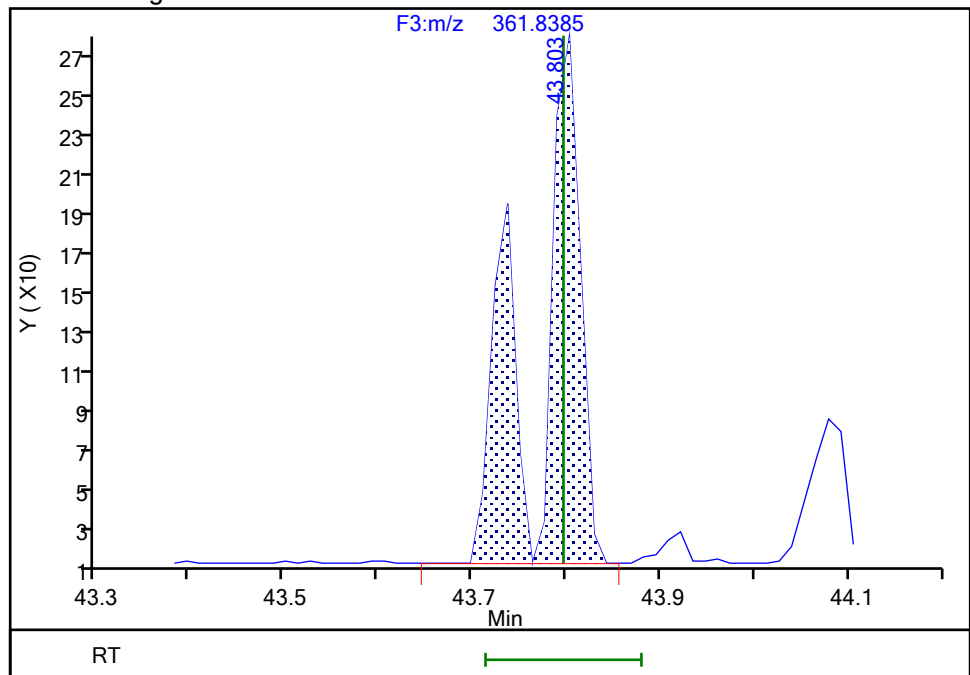
Not Detected  
Expected RT: 43.80

## Processing Integration Results



## Manual Integration Results

RT: 43.80  
Area: 807  
Amount: 0.026121  
Amount Units: pg/ul



Reviewer: TT6I, 17-Jul-2024 13:04:05 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-5-d-5x.d

Injection Date: 17-Jul-2024 04:20:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER RUN 6 COMBINED

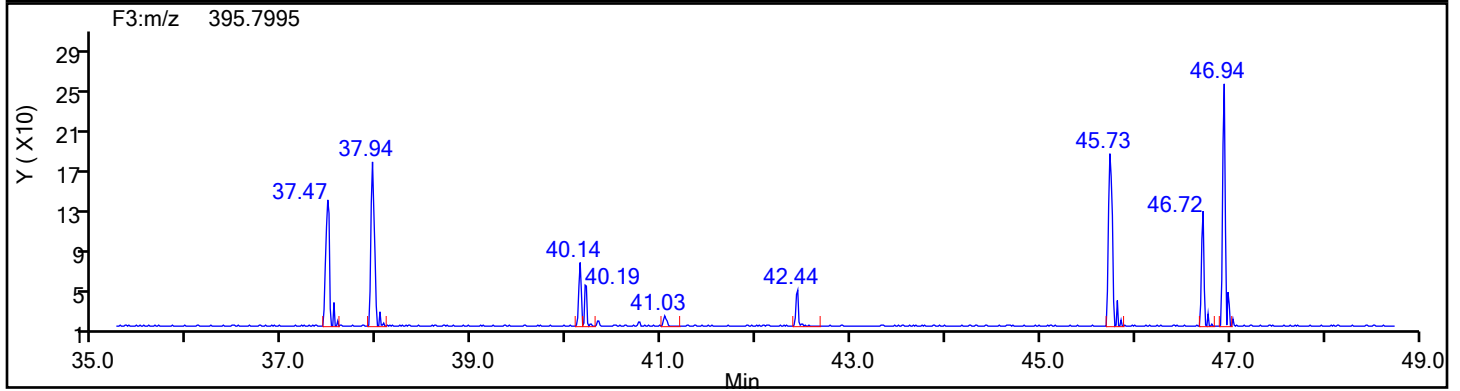
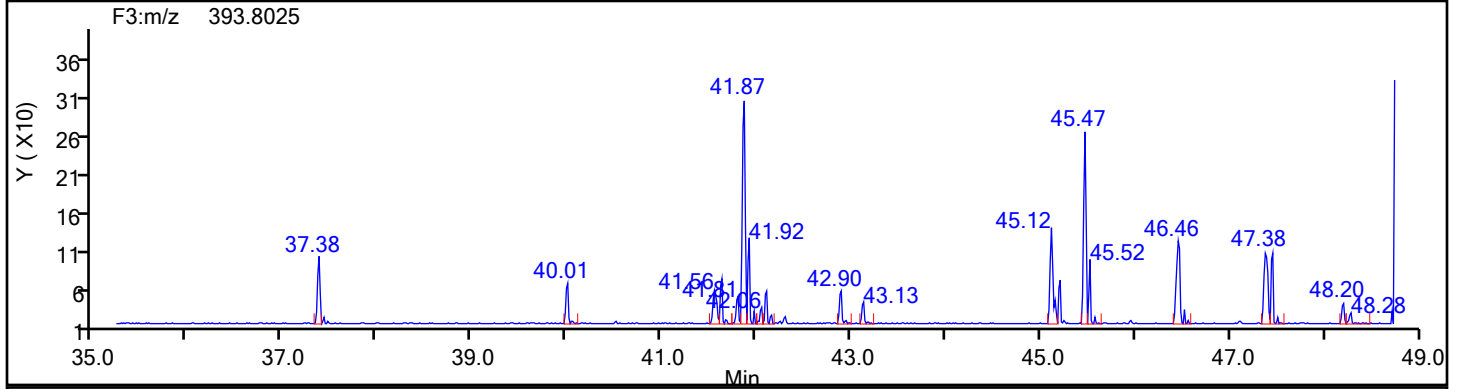
Worklist#: 88834

Sample Line#: 8

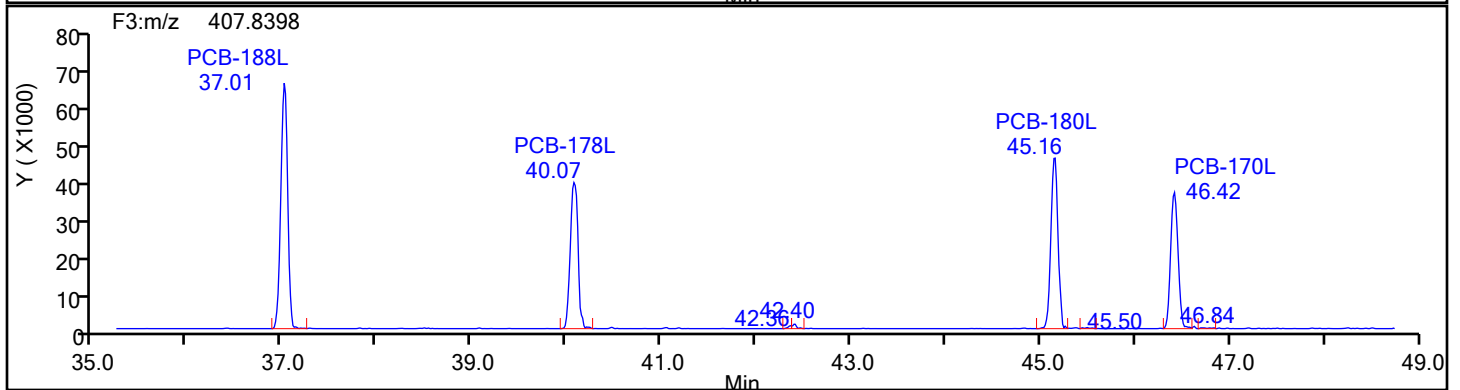
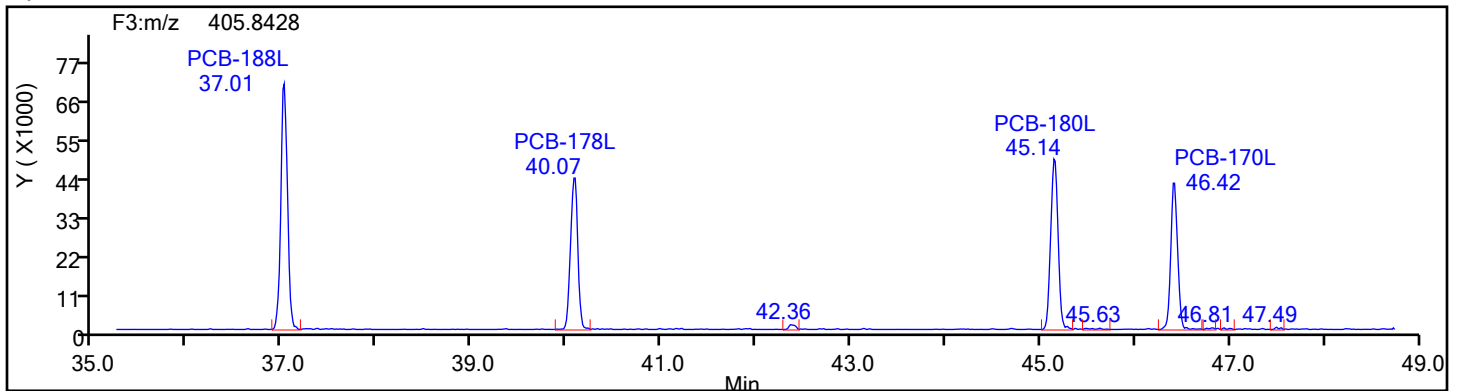
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3

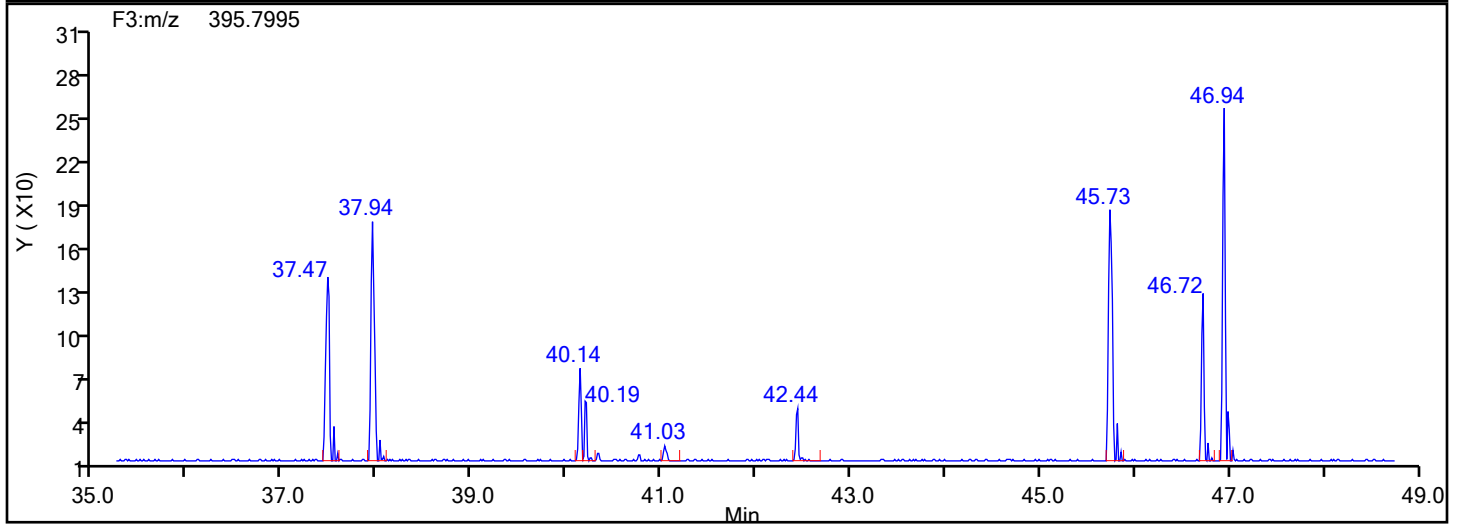
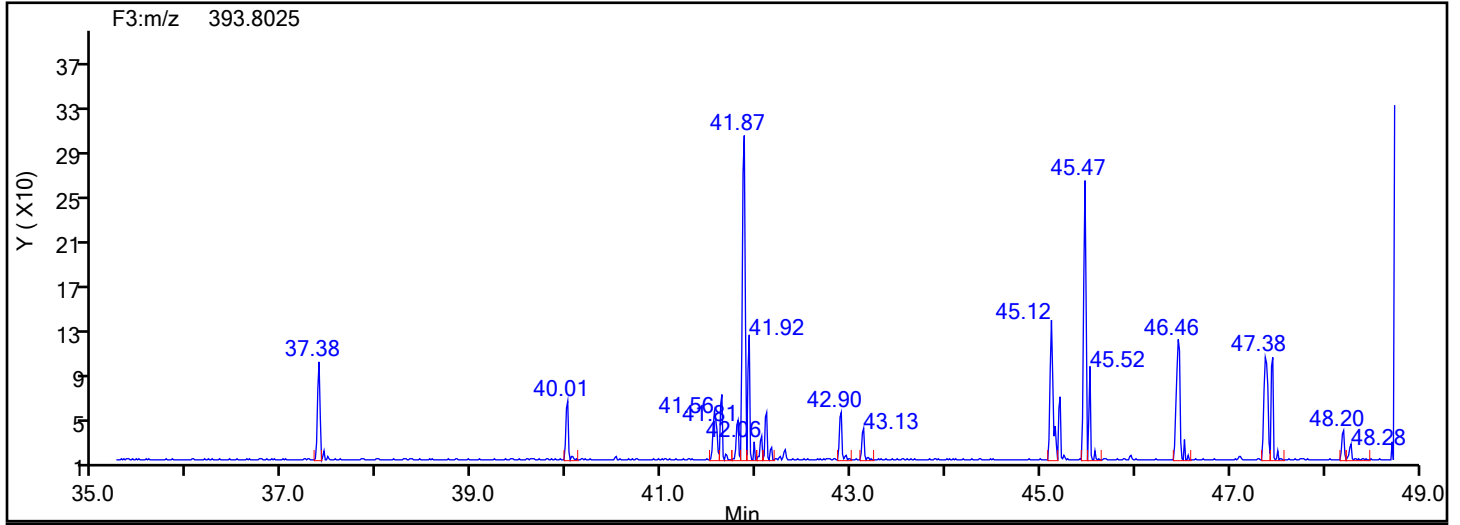


HpPCB F3 Standards

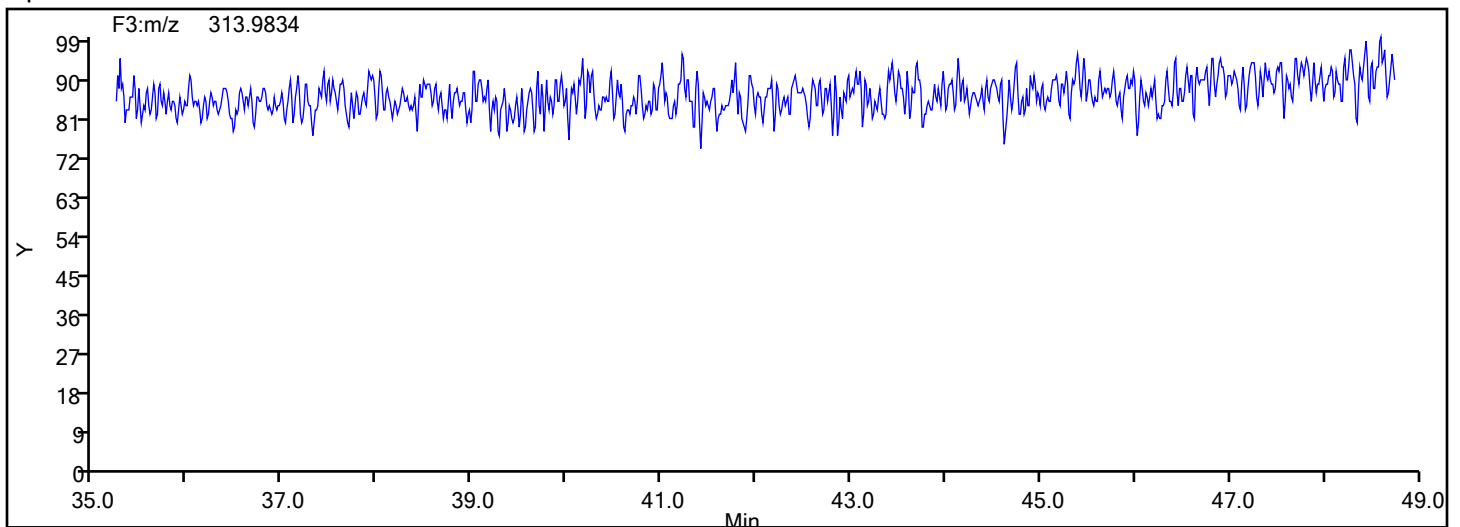


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 04:20:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F3

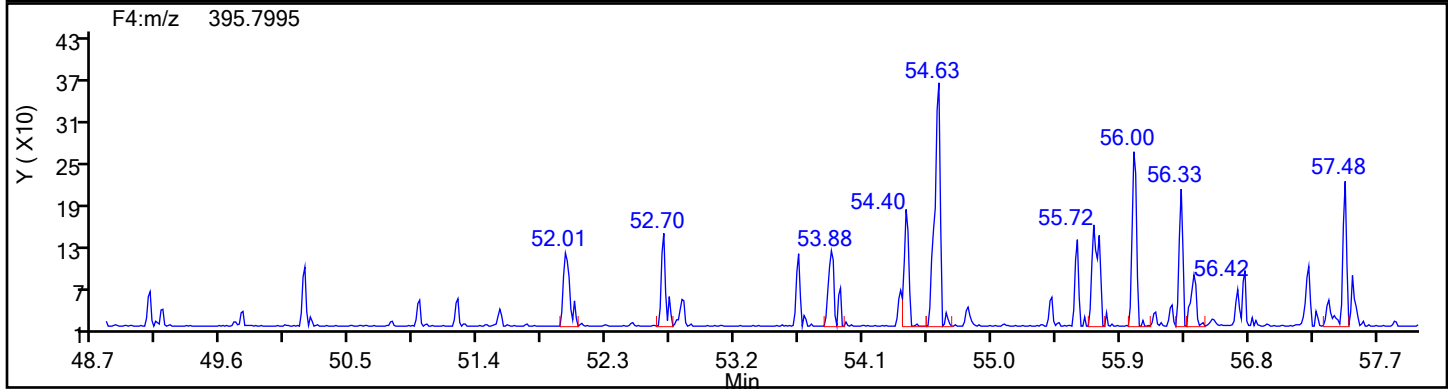
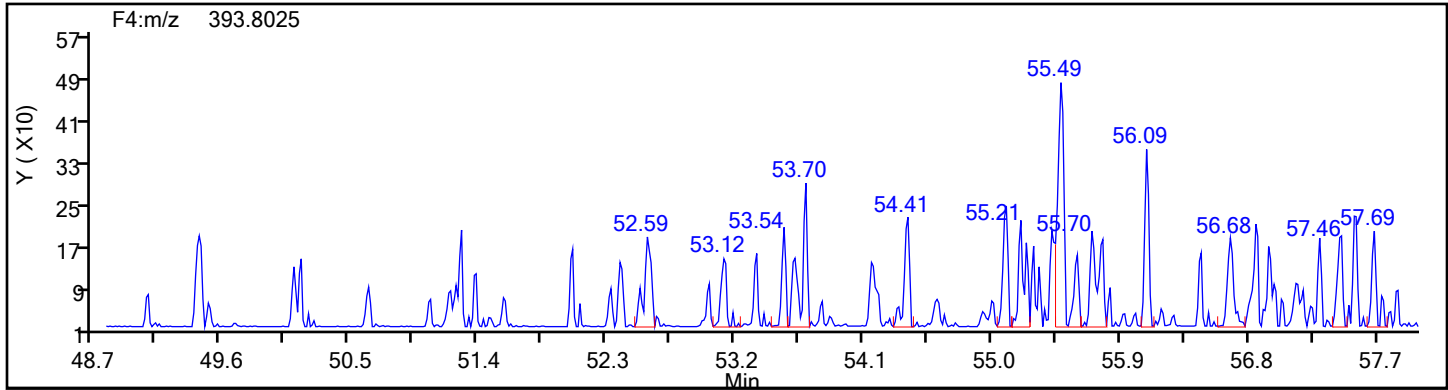


## HpPCB F3 Lock Mass

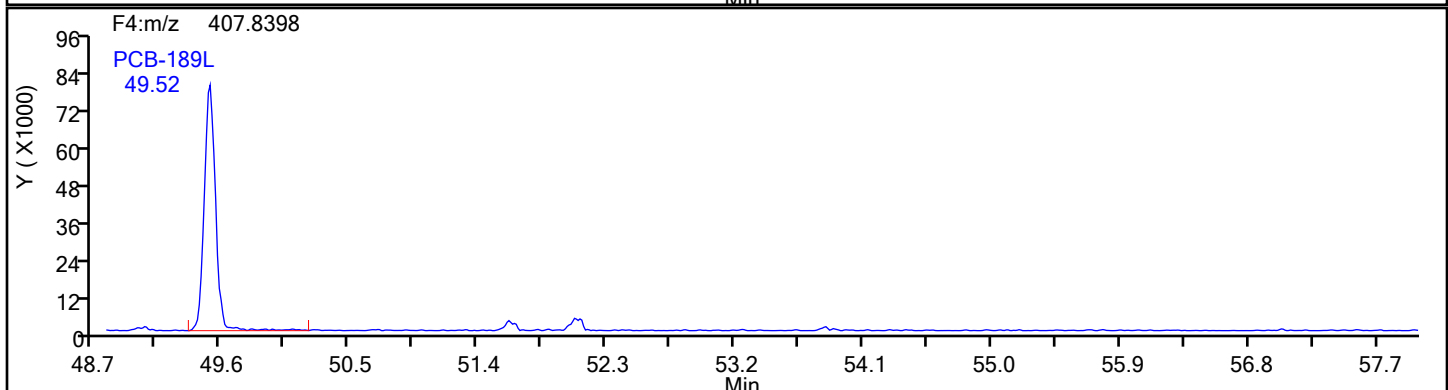
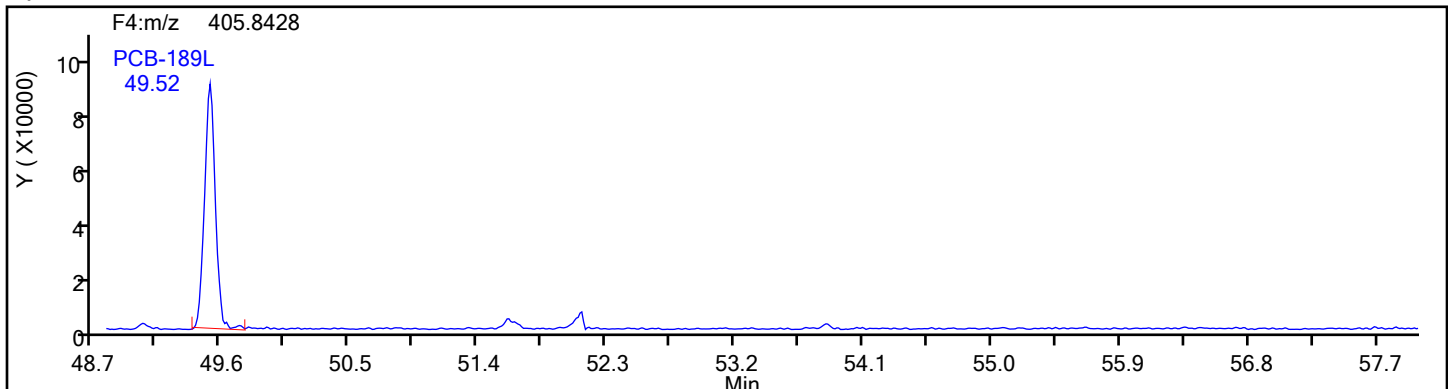


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F4

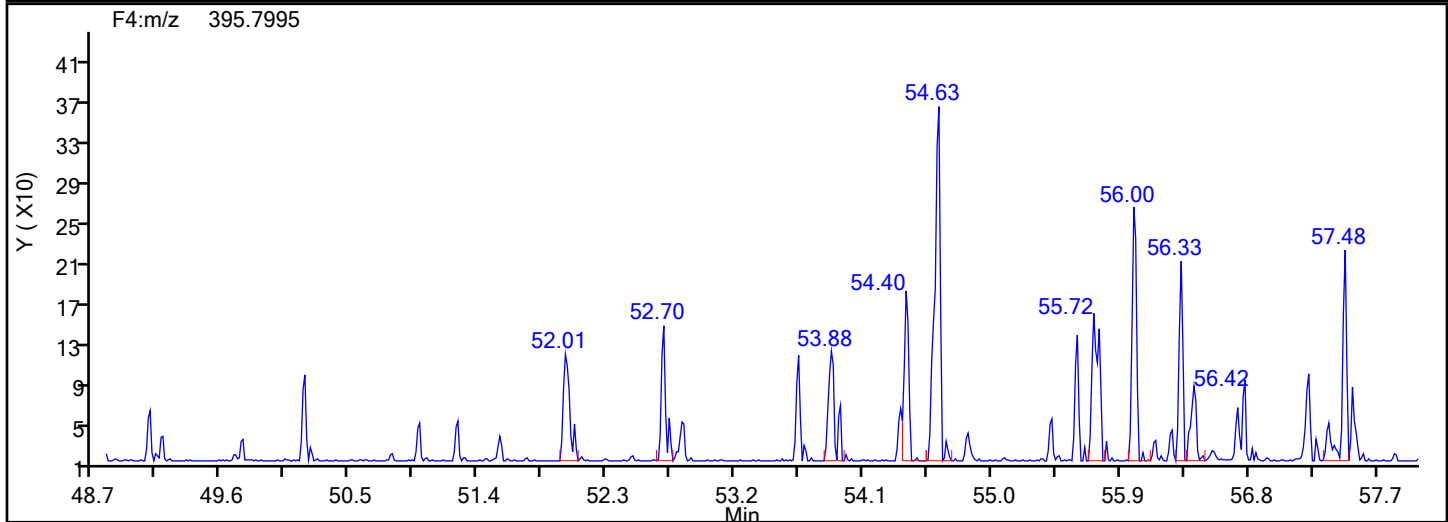
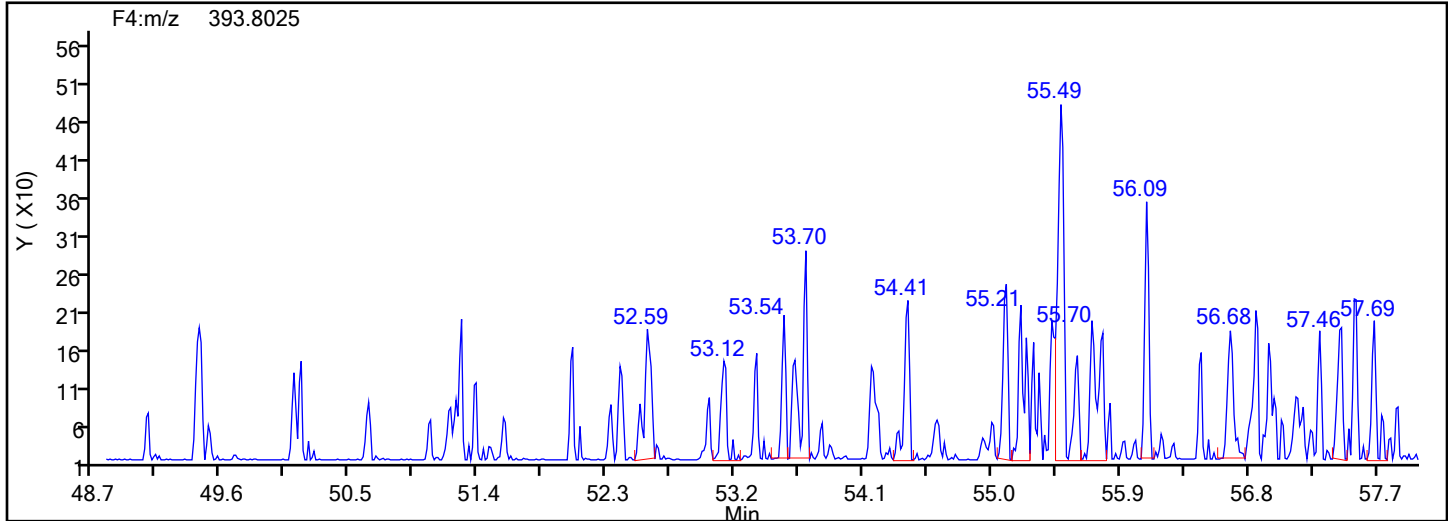


## HpPCB F4 Standards

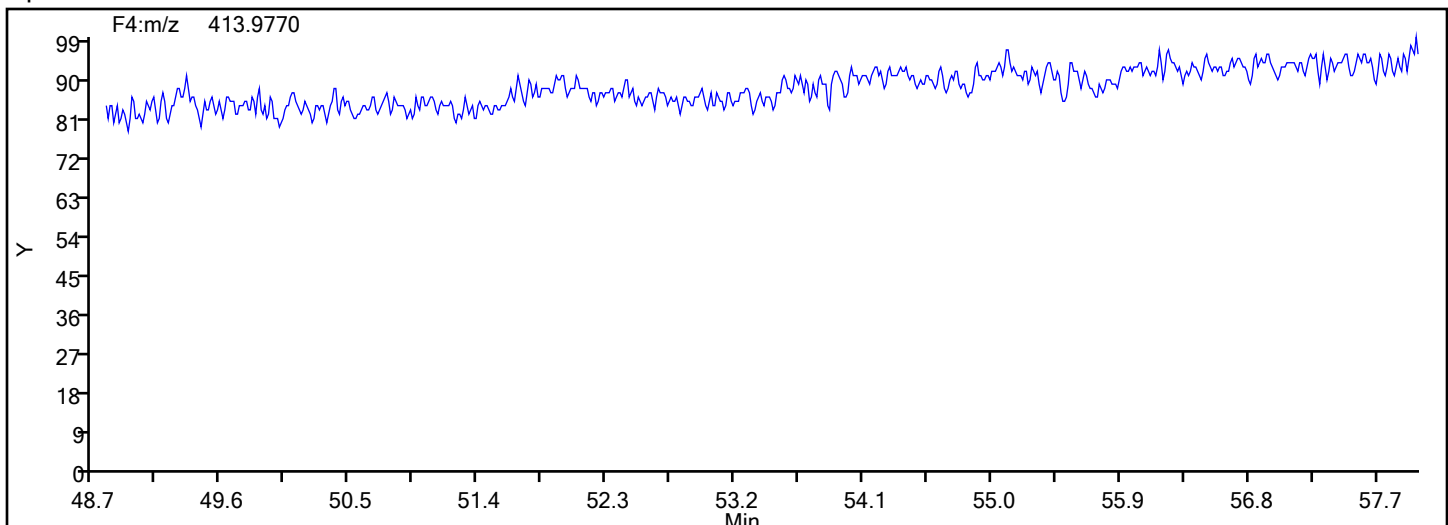


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F4



## HpPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-5-d-5x.d

Injection Date: 17-Jul-2024 04:20:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER RUN 6 COMBINED

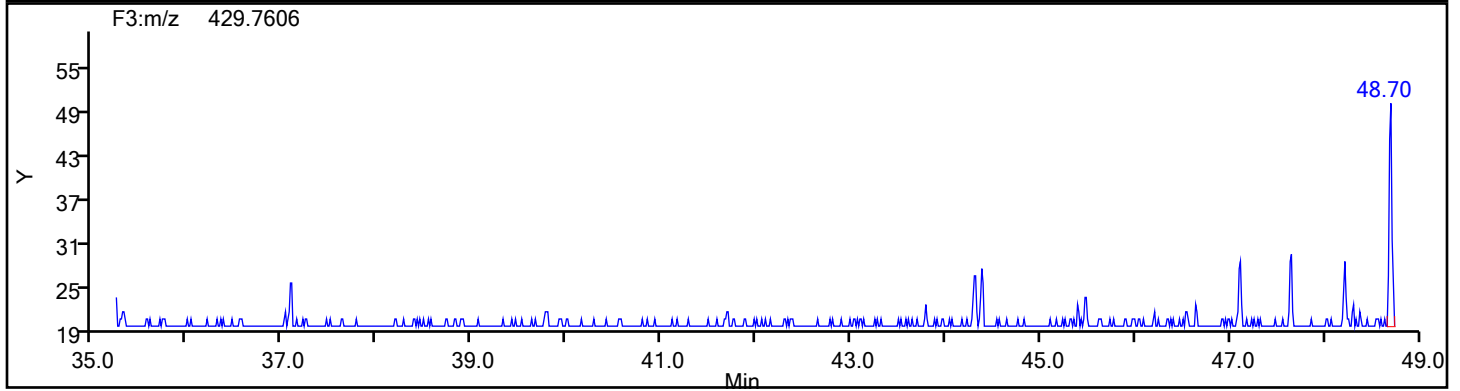
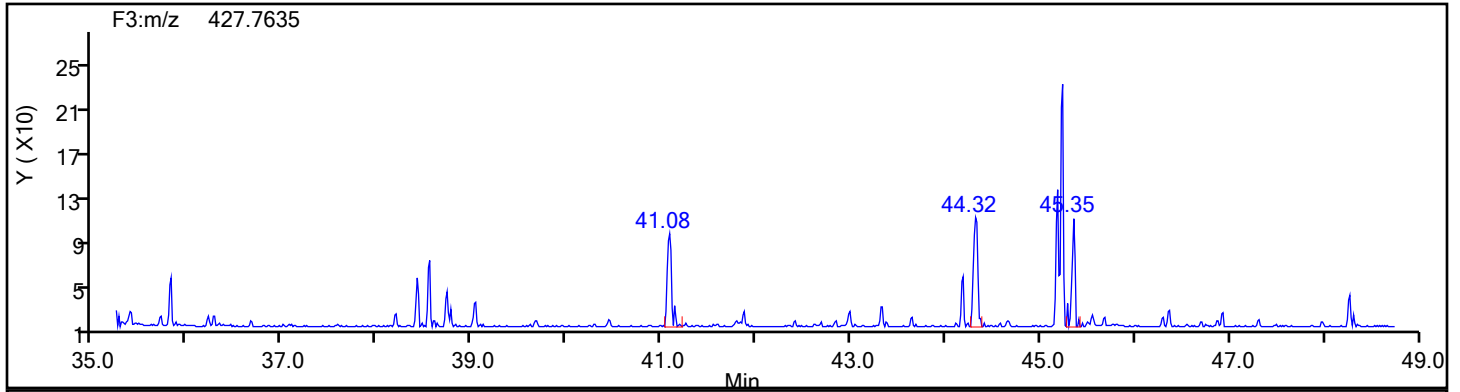
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Sample Line#: 8

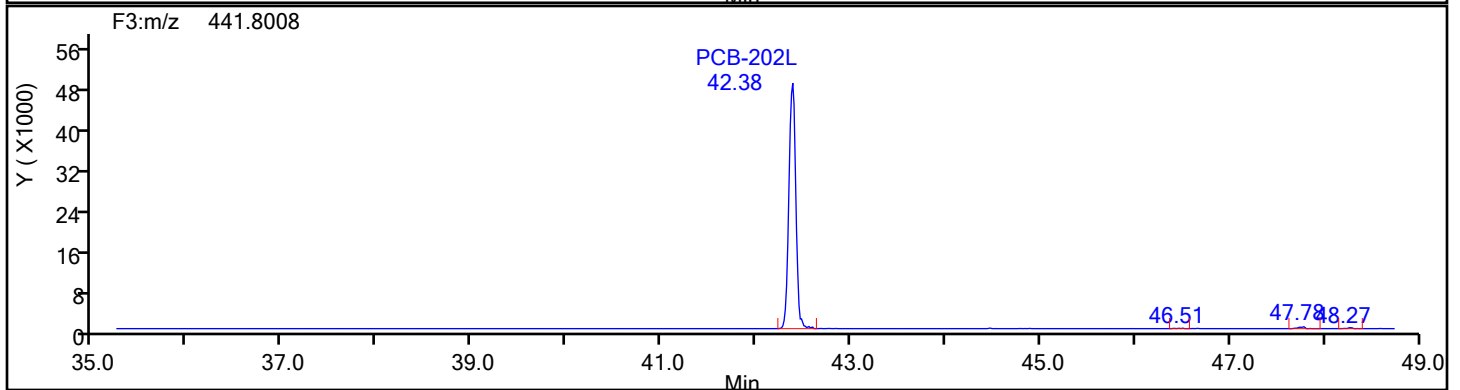
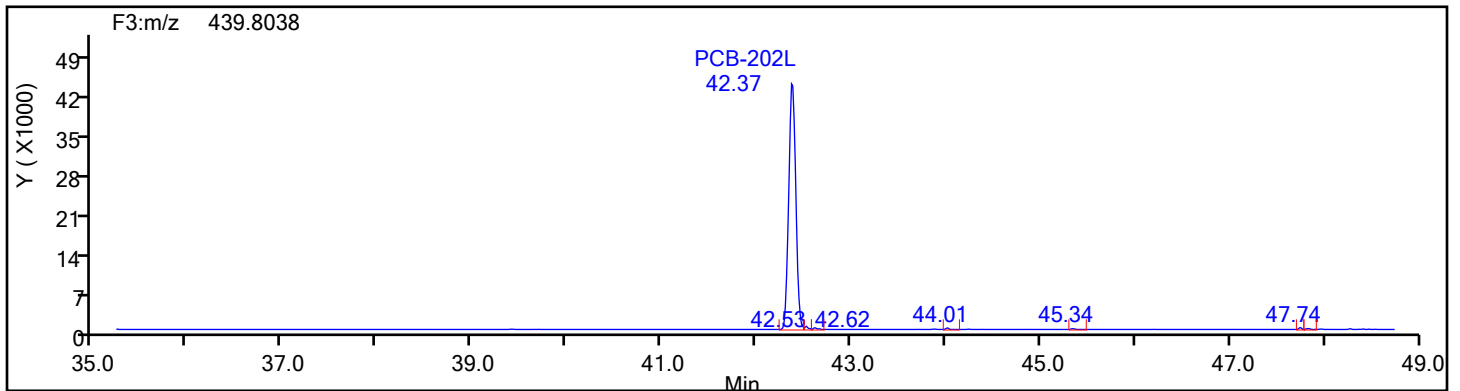
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3

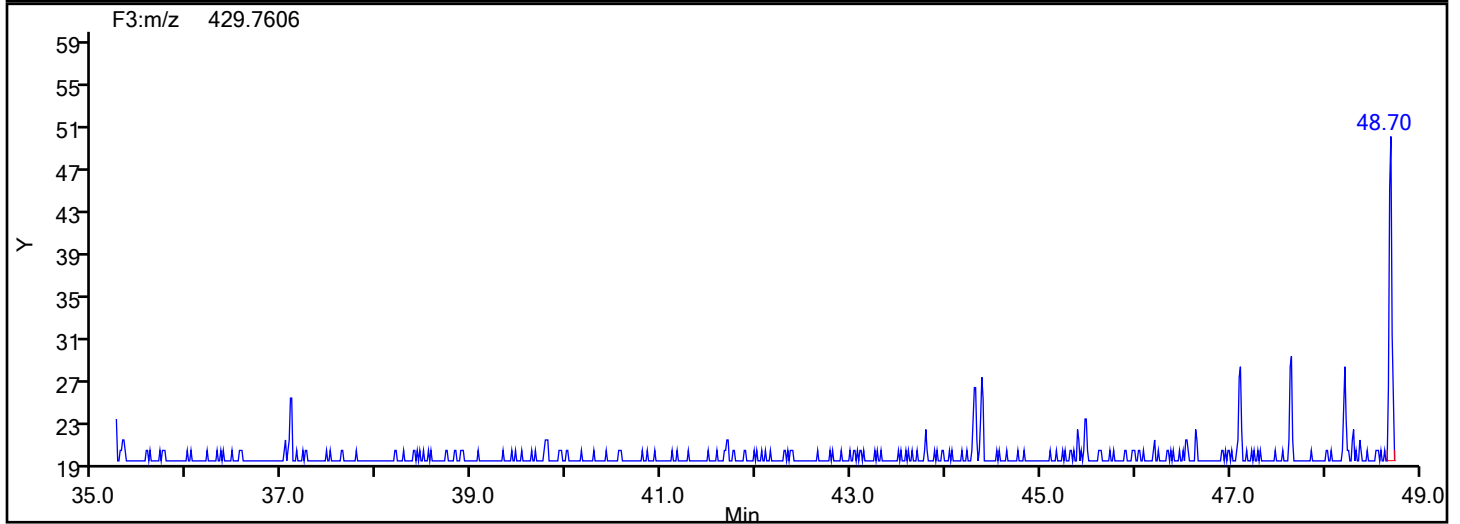
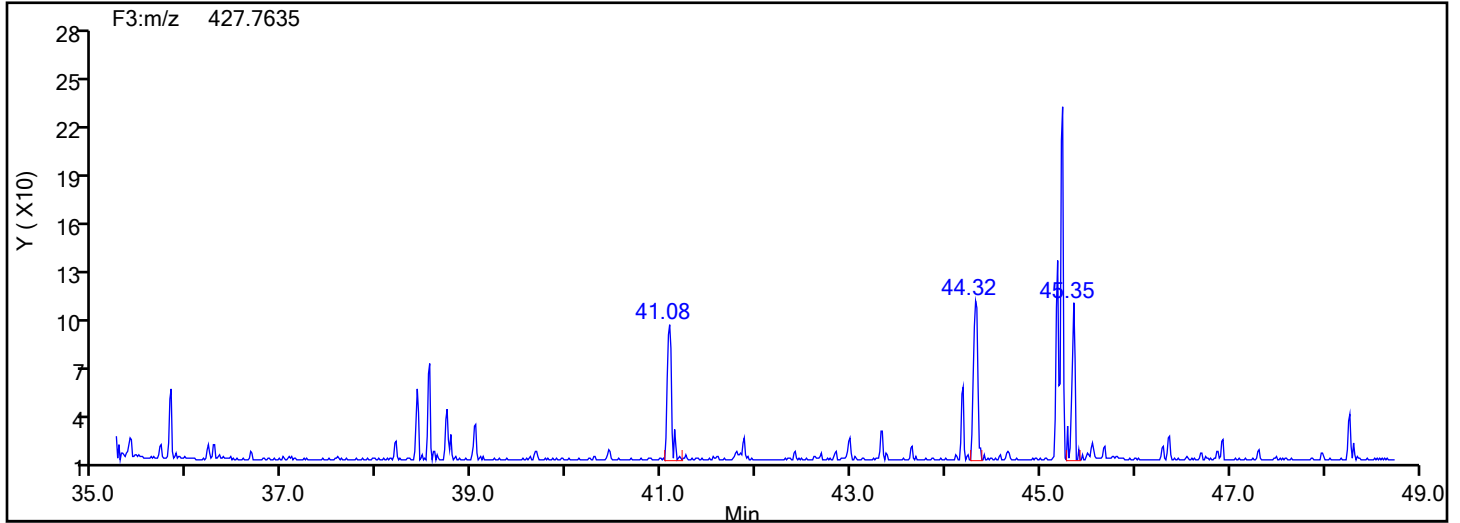


OcPCB F3 Standards

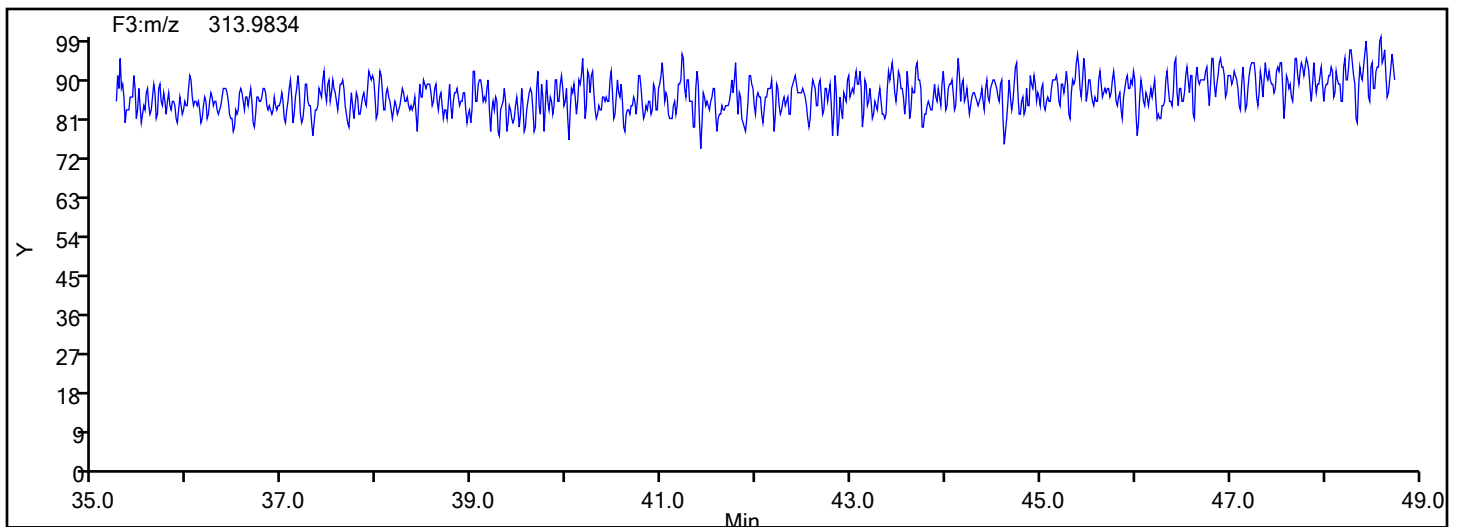


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 04:20:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3

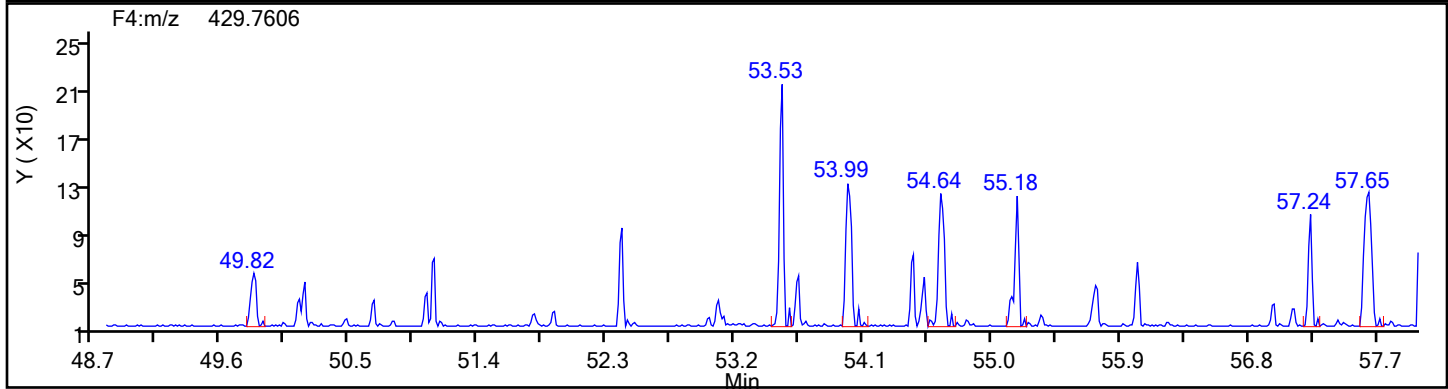
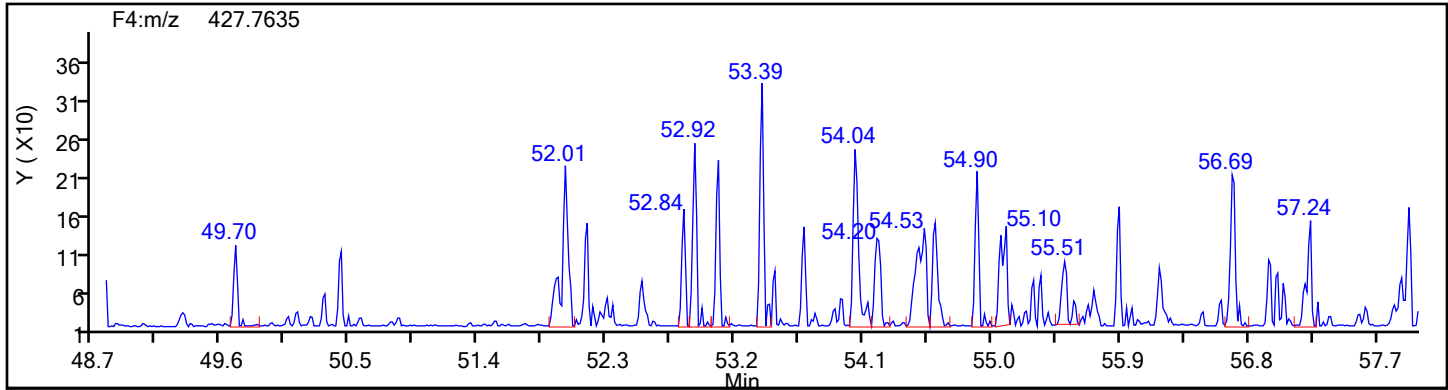


## OcPCB F3 Lock Mass

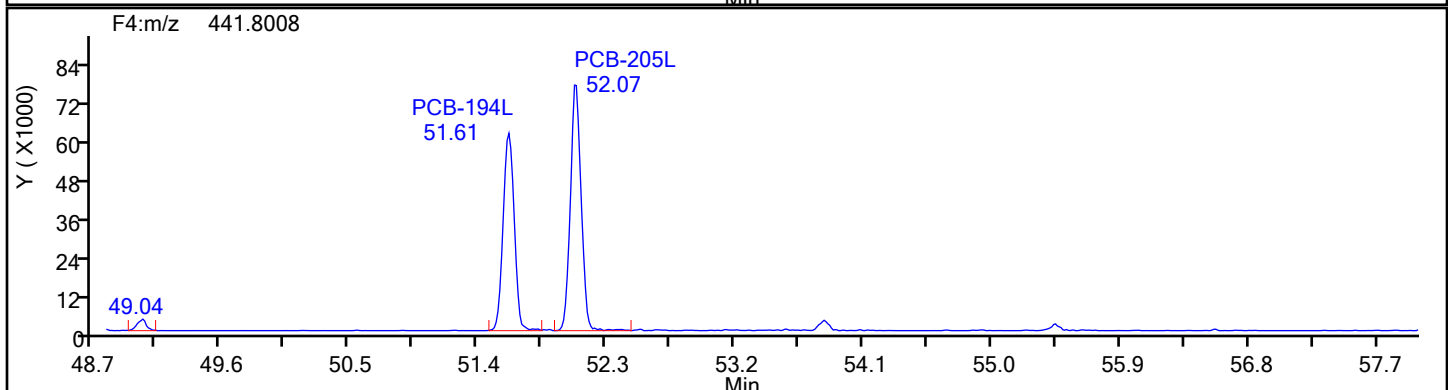
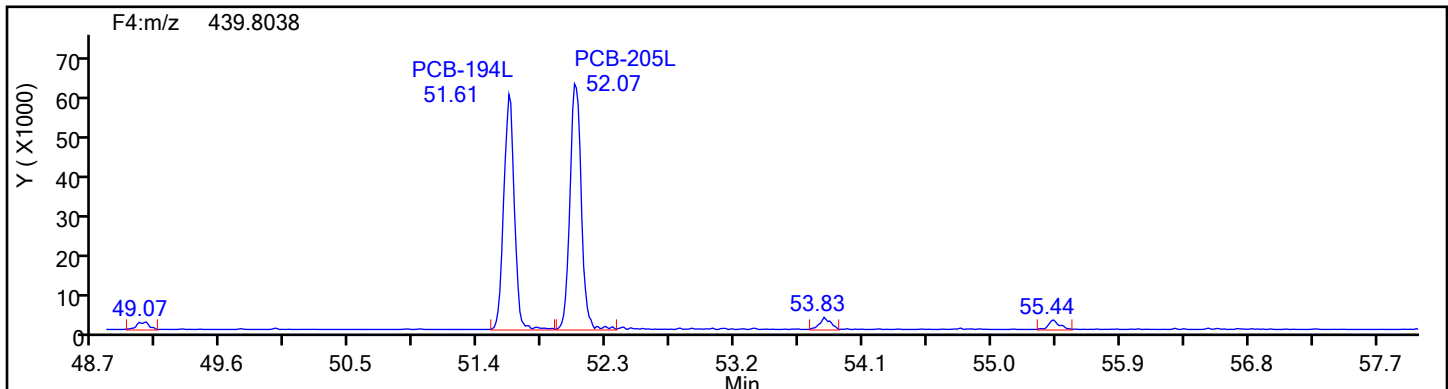


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 04:20:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4



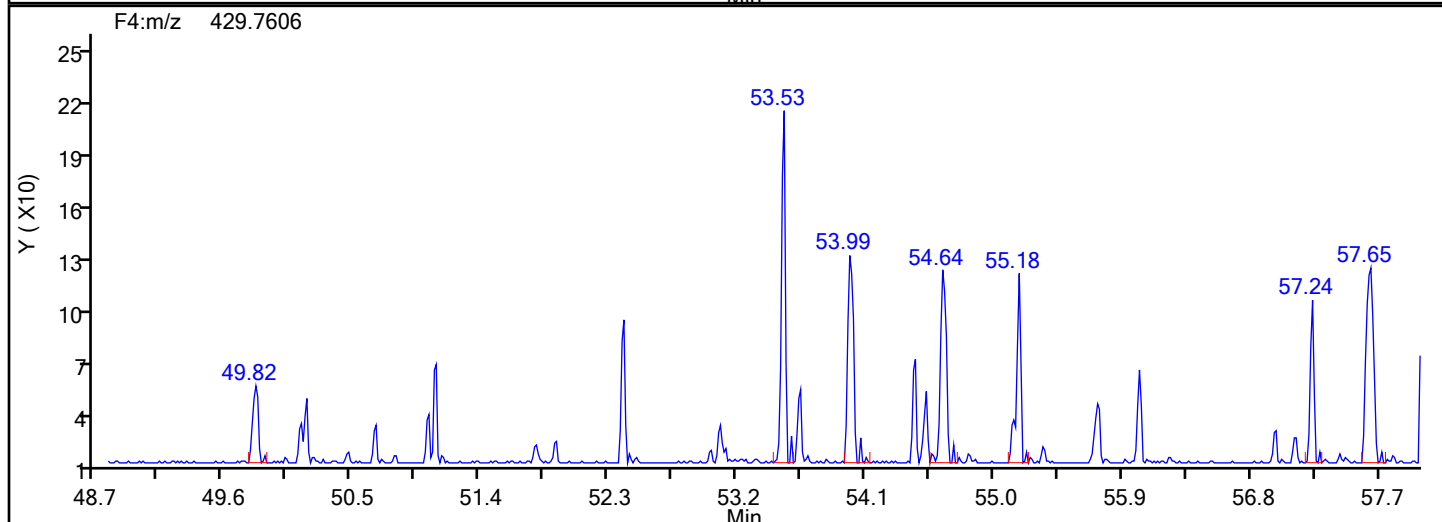
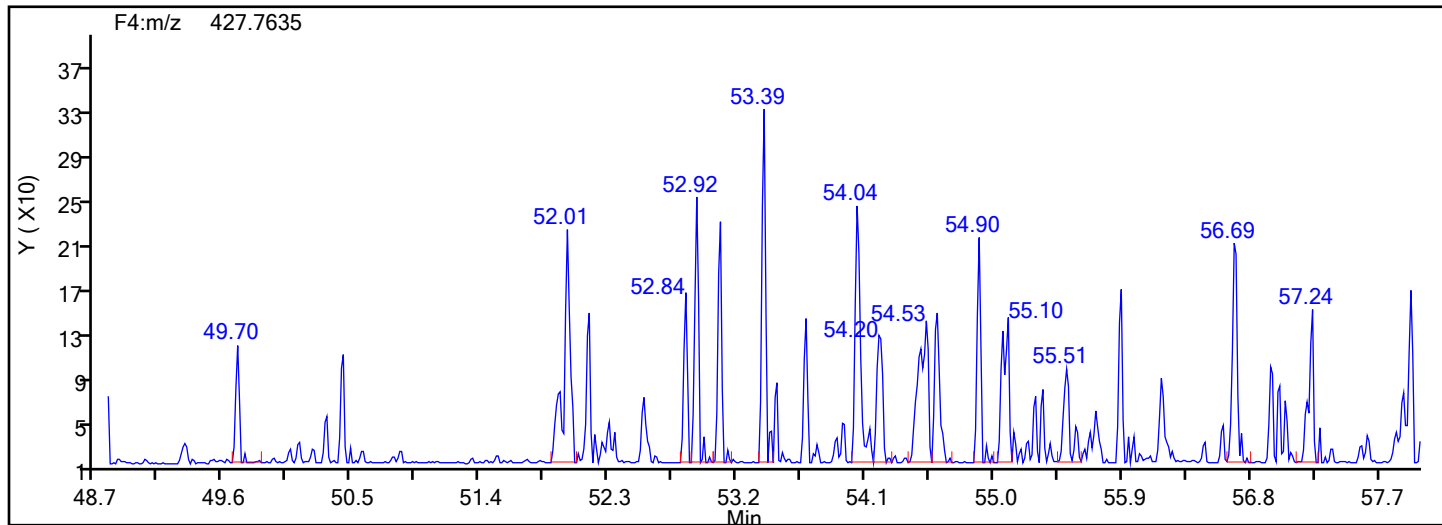
## OcPCB F4 Standards



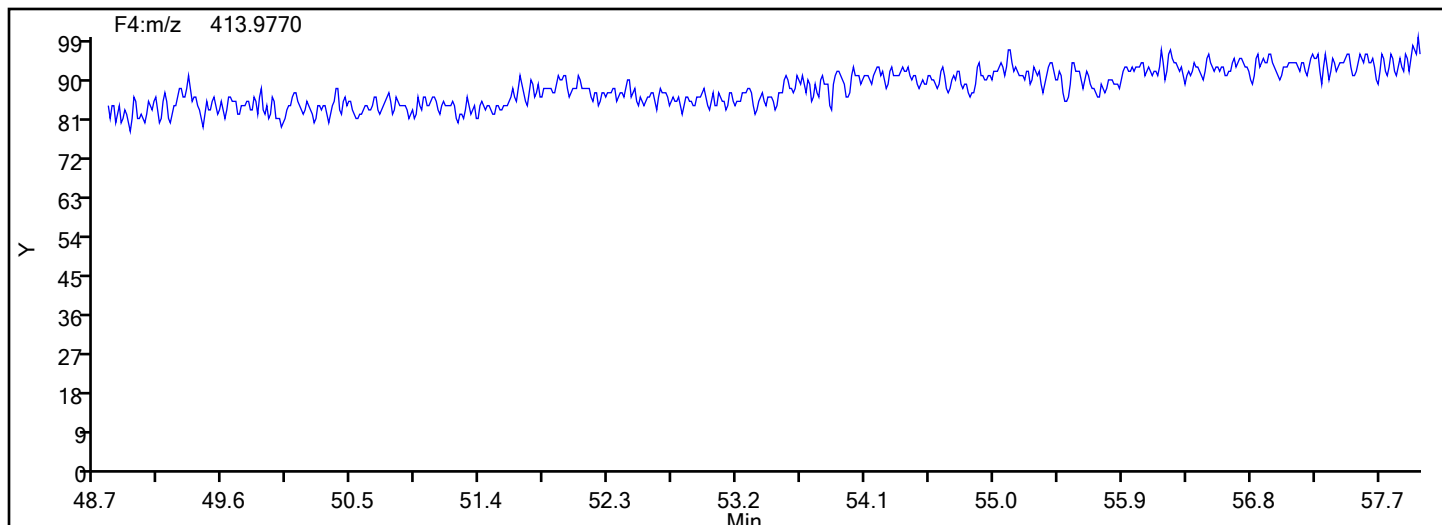


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4

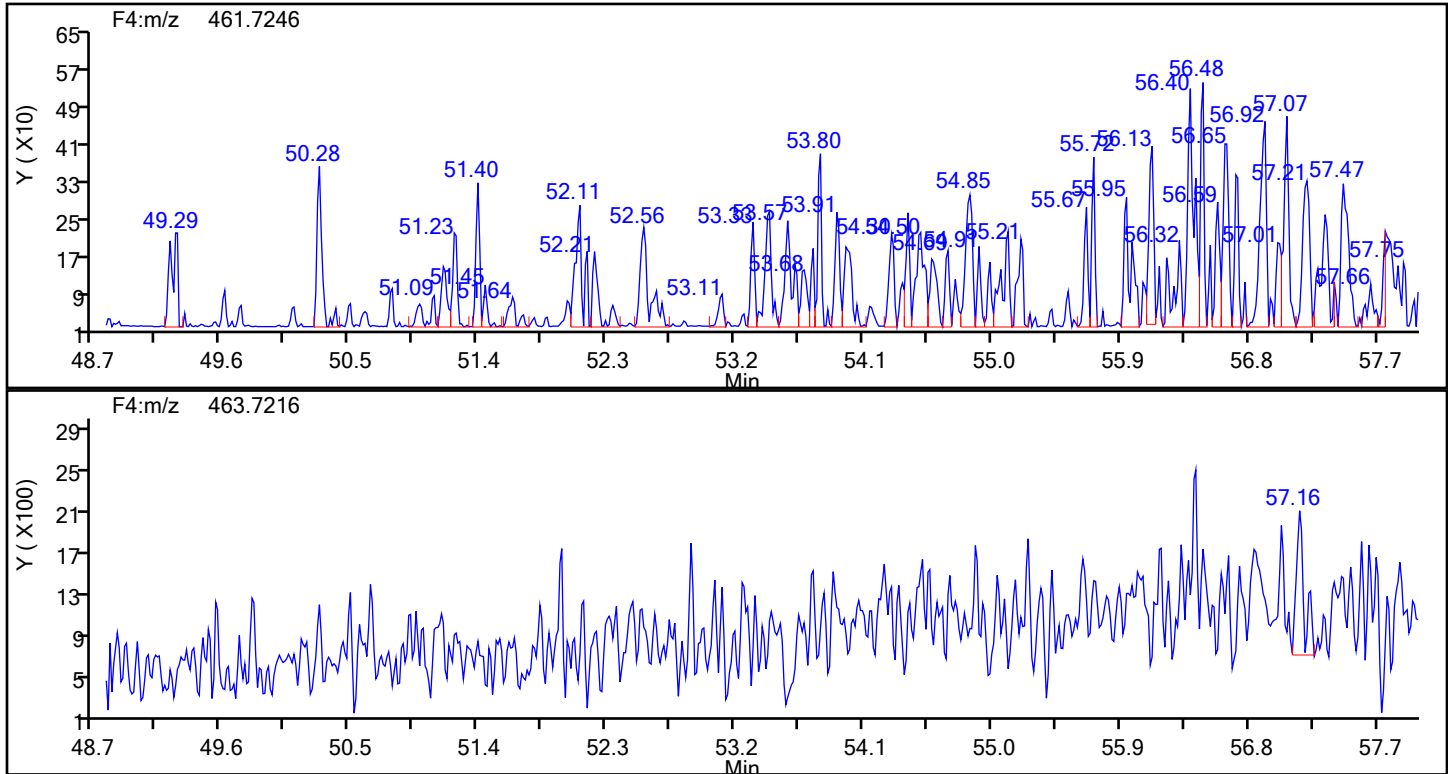


## OcPCB F4 Lock Mass

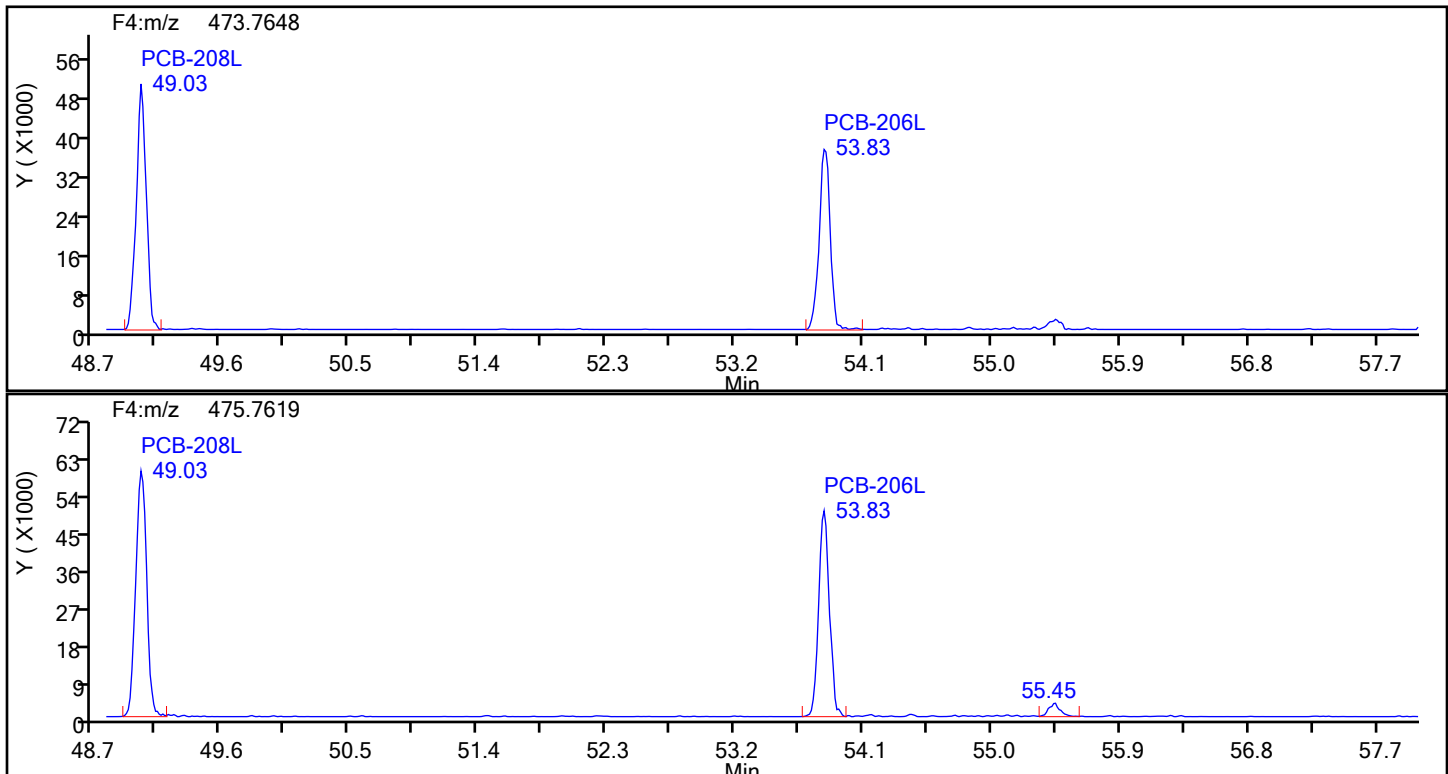


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4

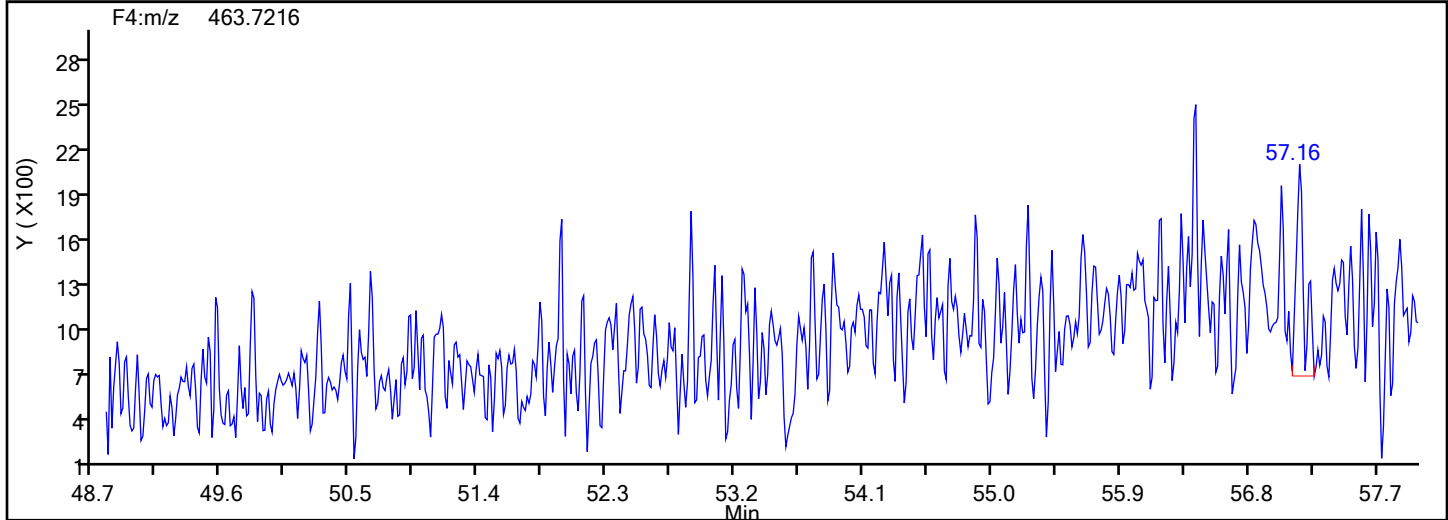
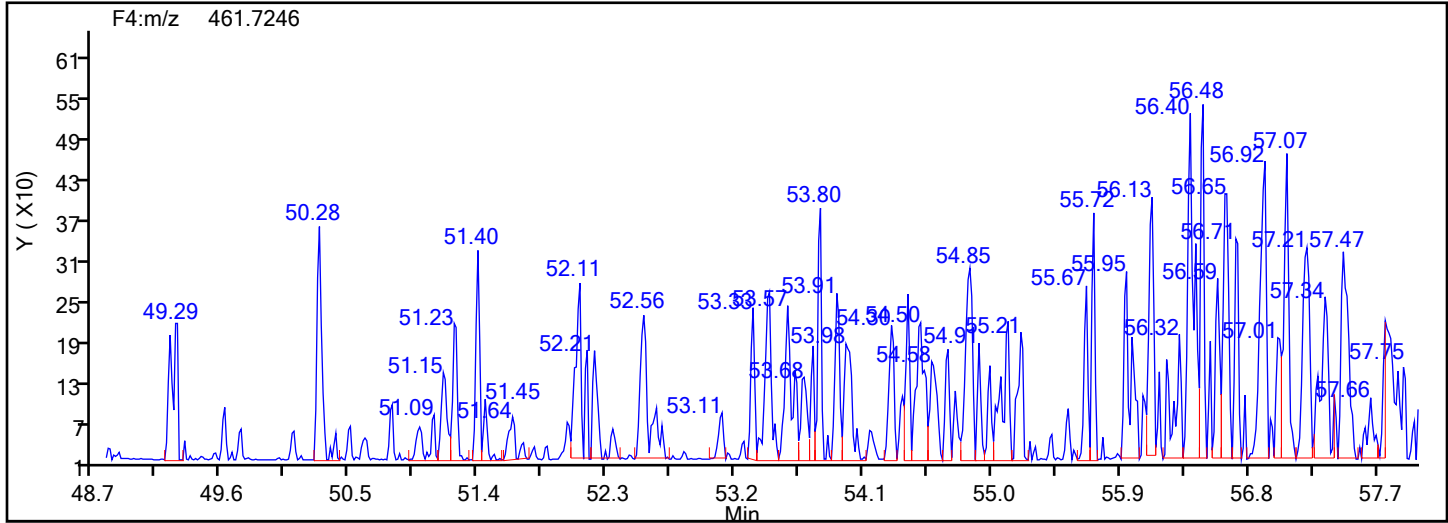


## NoPCB F4 Standards

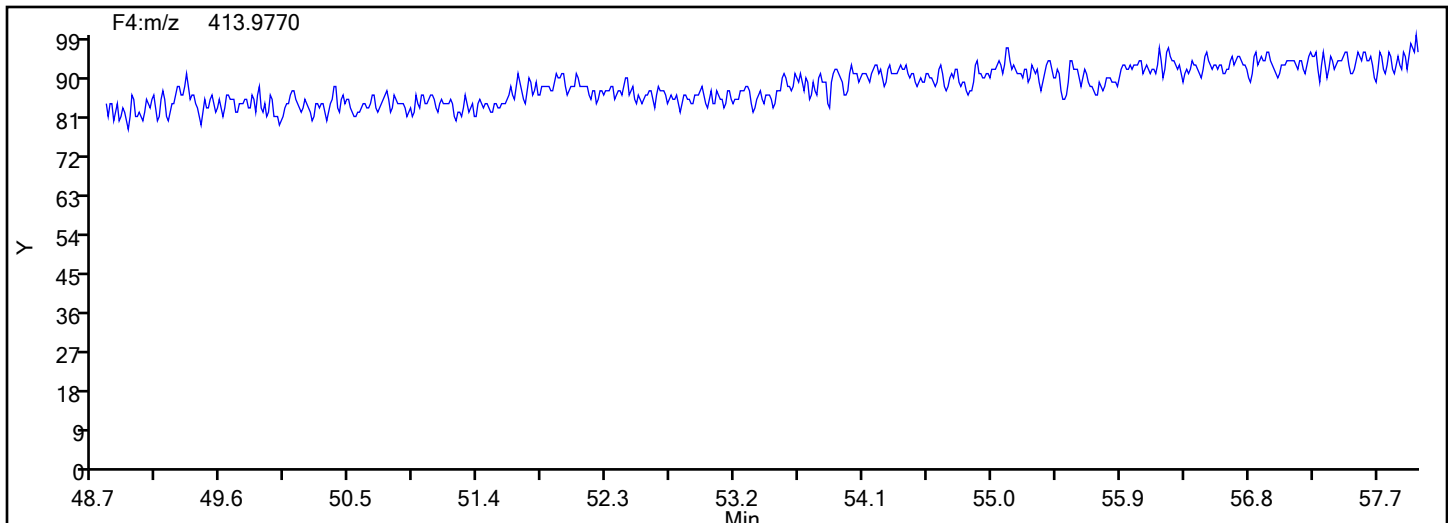


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4

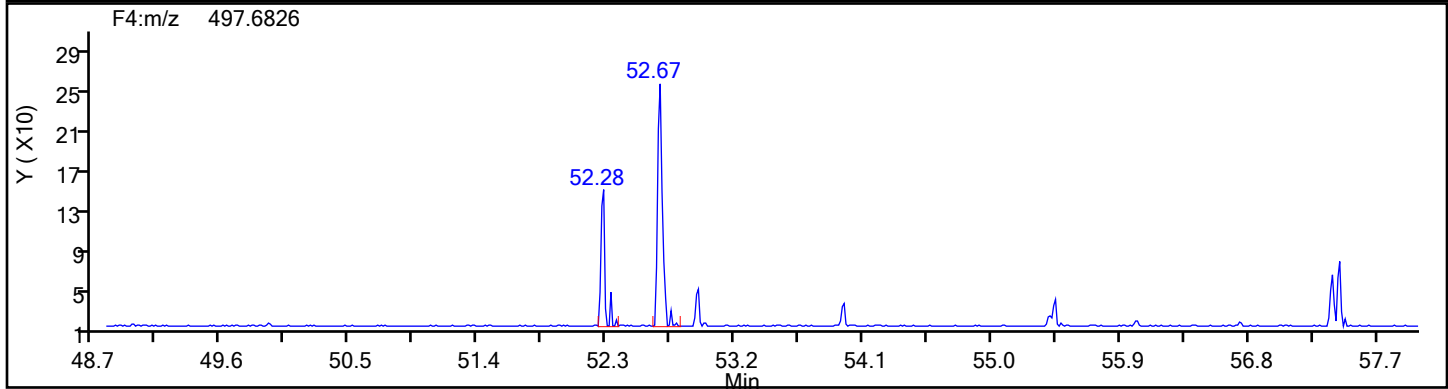
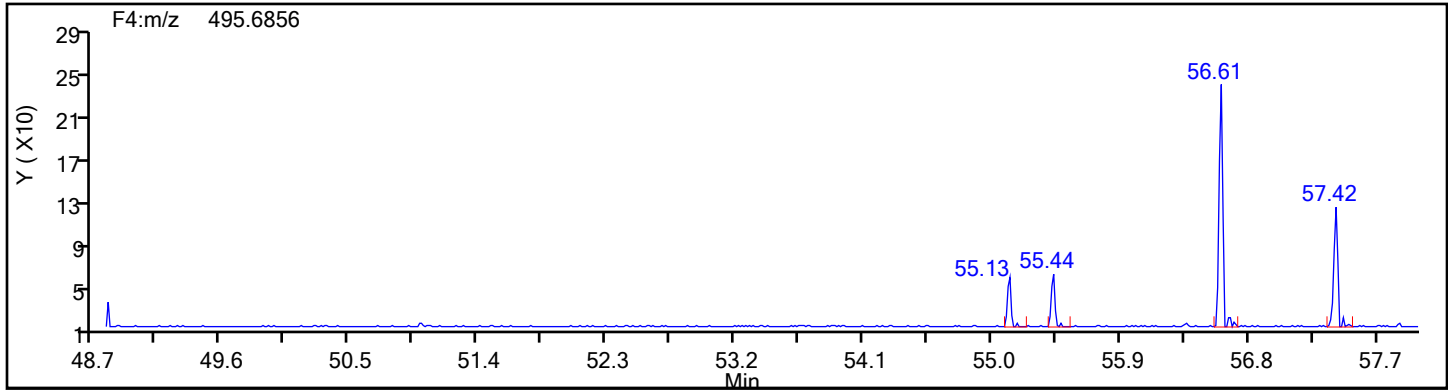


## NoPCB F4 Lock Mass

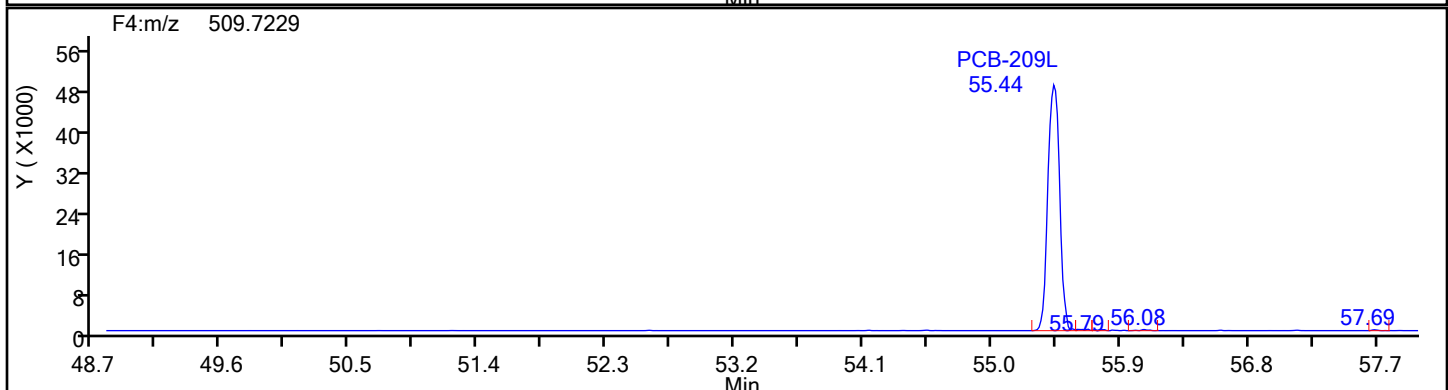
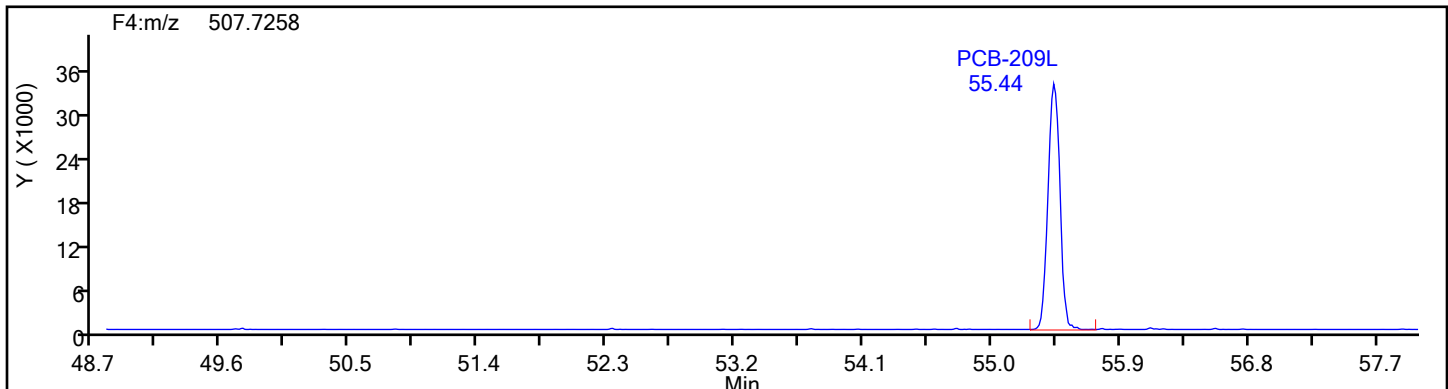


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-5-d-5x.d  
Injection Date: 17-Jul-2024 04:20:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4

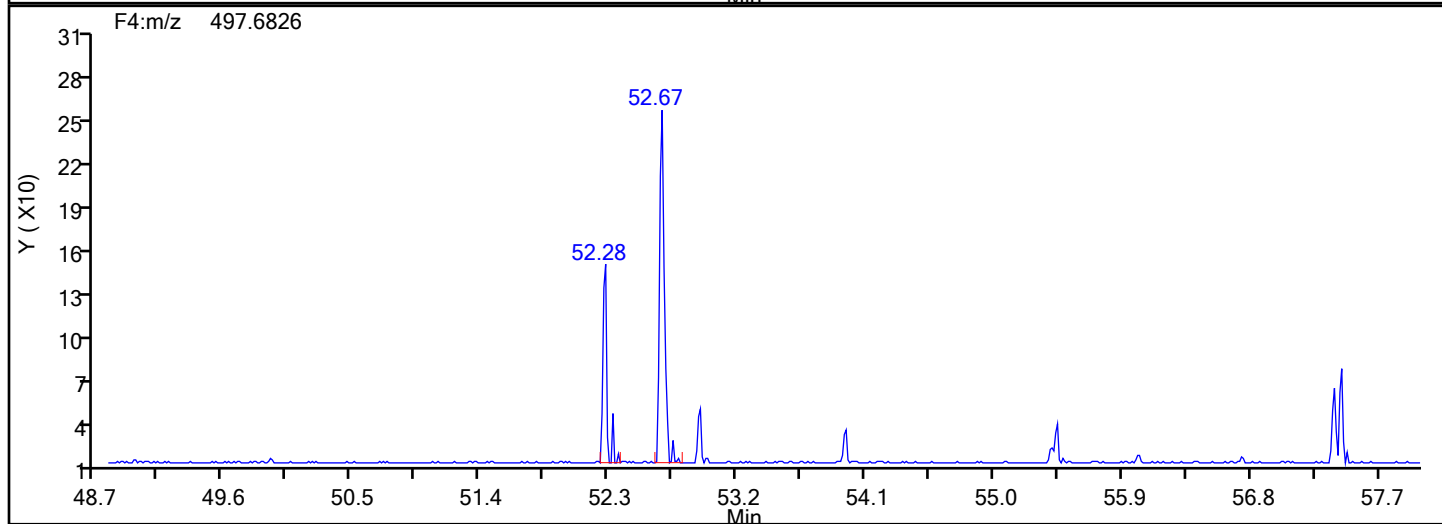
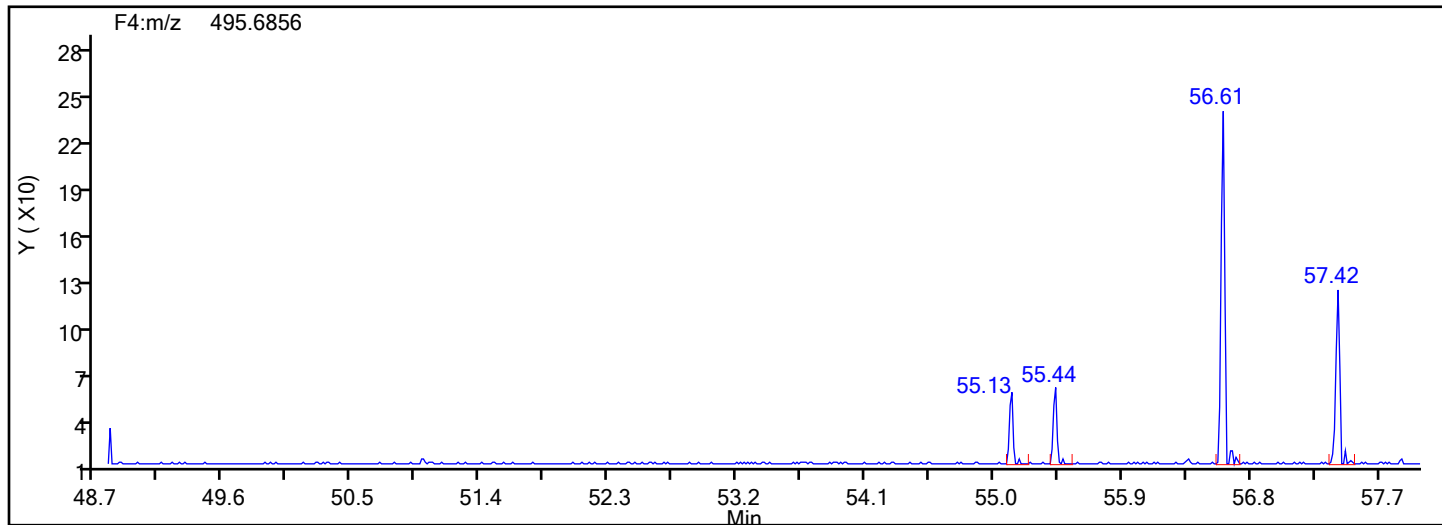


## DePCB F4 Standards

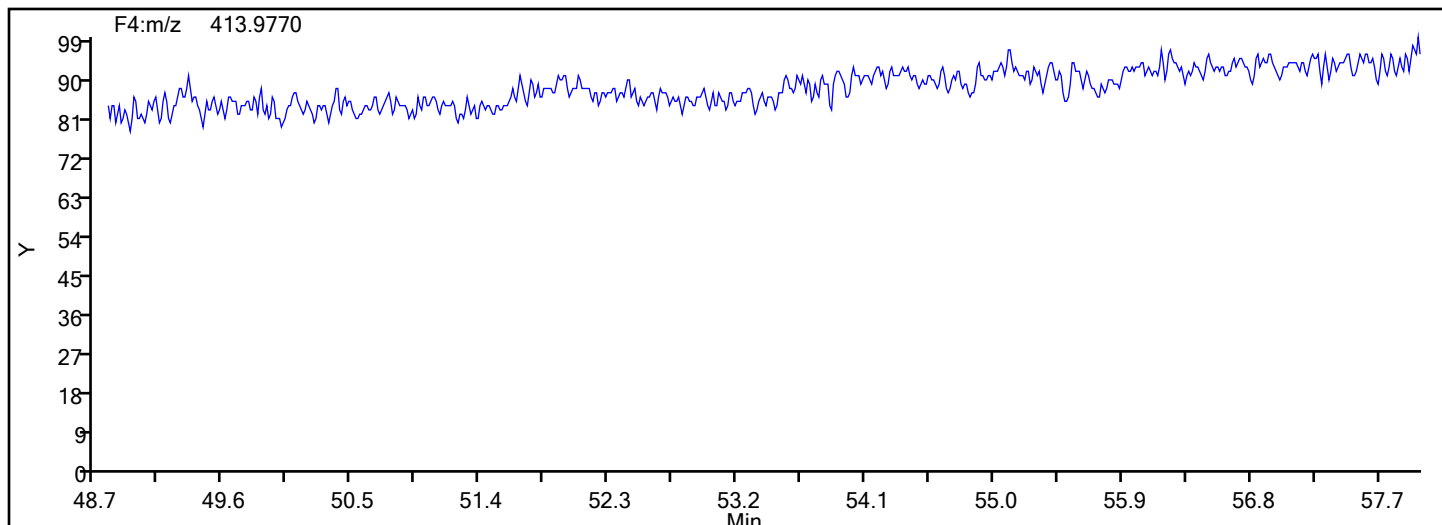


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-5-d-5x.d  
Injection Date: 17-Jul-2024 04:20:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Worklist#: 88834 Sample Line#: 8  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4



## DePCB F4 Lock Mass



Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-5-d-5x.d  
Lims ID: 140-37234-A-5-D  
Client ID: M23 F-10 BOILER RUN 6 COMBINED  
Sample Type: Client  
Inject. Date: 17-Jul-2024 04:20:00 ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Sample Info:  
Misc. Info.: 140-0033532-008  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 13:04:52 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: TT6I

Date: 17-Jul-2024 13:04:52

Compound	Amount Added	Amount Recovered	% Rec.
PCB-28L	100.0	15.5	77.71
PCB-111L	100.0	16.2	81.09
PCB-178L	100.0	17.5	87.35

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 7</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-6</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-6-d-5x.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/12/2024 11:39</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/17/2024 05:21</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>5</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88834</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
34883-43-7	PCB-8	1.75	J	3.00	0.660	0.0632
37680-65-2	PCB-18	0.954	J C	3.00	1.43	0.0178
7012-37-5	PCB-28	1.27	J C20 B	3.00	1.26	0.0428
41464-39-5	PCB-44	10.4	C B	4.50	1.95	0.0999
35693-99-3	PCB-52	1.16	J	1.50	0.660	0.106
32598-10-0	PCB-66	0.249	J q	1.50	0.600	0.0772
32598-13-3	PCB-77	ND		1.50	0.630	0.0922
70362-50-4	PCB-81	ND		1.50	0.480	0.0876
37680-73-2	PCB-101	0.424	J q C90	4.50	1.95	0.0228
32598-14-4	PCB-105	ND		1.50	0.510	0.0646
74472-37-0	PCB-114	ND		1.50	0.825	0.0643
31508-00-6	PCB-118	0.243	J	1.50	0.915	0.0613
65510-44-3	PCB-123	ND		1.50	0.855	0.0649
57465-28-8	PCB-126	ND		1.50	0.615	0.0741
38380-07-3	PCB-128	ND	C	3.00	1.02	0.0235
35065-28-2	PCB-138	0.117	J q C129	6.00	2.55	0.0244
35065-27-1	PCB-153	0.168	J q C B	3.00	1.25	0.0211
38380-08-4	PCB-156	ND	C	3.00	1.28	0.0261
69782-90-7	PCB-157	ND	C156	3.00	1.28	0.0261
52663-72-6	PCB-167	ND		1.50	0.900	0.0165
32774-16-6	PCB-169	ND		1.50	0.615	0.0172
35065-30-6	PCB-170	ND		1.50	0.660	0.00227
35065-29-3	PCB-180	ND	C	3.00	1.02	0.00169
52663-68-0	PCB-187	0.0322	J q	1.50	0.630	0.00179
39635-31-9	PCB-189	ND		1.50	0.735	0.0149
52663-78-2	PCB-195	0.0127	J q	1.50	0.795	0.00933
40186-72-9	PCB-206	ND		1.50	0.855	0.388
2051-24-3	PCB-209	ND		1.50	0.690	0.00219

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 7</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-6</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-6-d-5x.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/12/2024 11:39</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/17/2024 05:21</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>5</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88834</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
234432-85-0	PCB-1L	56		20-145
208263-77-8	PCB-3L	63		20-145
234432-86-1	PCB-4L	60		20-145
208263-67-6	PCB-15L	85		20-145
234432-87-2	PCB-19L	69		20-145
208263-79-0	PCB-37L	77		20-145
234432-88-3	PCB-54L	81		20-145
105600-23-5	PCB-77L	85		20-145
208461-24-9	PCB-81L	83		20-145
234432-89-4	PCB-104L	88		20-145
208263-62-1	PCB-105L	91		20-145
208263-63-2	PCB-114L	91		20-145
104130-40-7	PCB-118L	85		20-145
208263-64-3	PCB-123L	90		20-145
208263-65-4	PCB-126L	89		20-145
234432-90-7	PCB-155L	91		20-145
208263-68-7	PCB-156L	85	C	20-145
235416-30-5	PCB-157L	85	C156	20-145
208263-69-8	PCB-167L	85		20-145
208263-70-1	PCB-169L	87		20-145
160901-80-4	PCB-170L	90		20-145
234432-91-8	PCB-188L	94		20-145
208263-73-4	PCB-189L	92		20-145
105600-26-8	PCB-202L	94		20-145
234446-64-1	PCB-205L	89		20-145
208263-75-6	PCB-206L	95		20-145
234432-92-9	PCB-208L	86		20-145
105600-27-9	PCB-209L	113		20-145



FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: M23 F-10 BOILER RUN 7 Lab Sample ID: 140-37234-6  
COMBINED  
Matrix: Air Lab File ID: 140-37234-a-6-d-5x.d  
Analysis Method: 23 Date Collected: 06/12/2024 11:39  
Extract. Method: Combined Prep Date Extracted: 06/27/2024 14:35  
Sample wt/vol: 1(Sample) Date Analyzed: 07/17/2024 05:21  
Con. Extract Vol.: 30 (mL) Dilution Factor: 5  
Injection Volume: 1 (uL) GC Column: SPB-Octyl ID: 0.25 (mm)  
% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
Cleanup Factor: \_\_\_\_\_ Level: (low/med) Low  
Analysis Batch No.: 88834 Units: ng/Sample  
Preparation Batch No.: 88193 Instrument ID: Excalibur D2D DFS

CAS NO.	SURROGATE	%REC	Q	LIMITS
208263-76-7	PCB-28L	77		20-130
235416-29-2	PCB-111L	79		20-130
232919-67-4	PCB-178L	87		20-130
STL01600	PCB-8L	115		70-130
STL01603	PCB-79L	112		70-130
STL01604	PCB-95L	122		70-130
STL01606	PCB-153L	106		70-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-6-d-5x.d  
 Lims ID: 140-37234-A-6-D  
 Client ID: M23 F-10 BOILER RUN 7 COMBINED  
 Sample Type: Client  
 Inject. Date: 17-Jul-2024 05:21:00 ALS Bottle#: 0 Worklist Smp#: 9  
 Injection Vol: 1.0 ul Dil. Factor: 5.0000  
 Sample Info:  
 Misc. Info.: 140-0033532-009  
 Operator ID: Xcalibur\_System Instrument ID: D2D  
 Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\PCBs\_D2D.m  
 Limit Group: HR - EPA\_23 PCB ICAL  
 Last Update: 17-Jul-2024 13:31:23 Calib Date: 31-May-2024 21:13:00  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d  
 Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
 Process Host: CTX1616

First Level Reviewer: TT6I

Date: 17-Jul-2024 13:31:23

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D PCB-1L	11:39	1250591	3.14	1.6108	11.2	11.2	0.2172	0.2172	56.23	
D PCB-3L	13:47	1375589	3.13	1.5891	12.5	12.5	0.2202	0.2202	62.70	
S Total Dichlorobiphenyls					1.166	1.166	0.0421	0.0421		
D PCB-4L	14:03	539764	1.65	0.6475	12.1	12.1	0.1461	0.1461	60.38	
* PCB-9L	15:59	1380634	1.61		20.0	20.0				
\$ PCB-8L	16:50	628532	1.61	1.2066	11.5	11.5	0.1353	0.1353	115	
D PCB-15L	19:56	1265844	1.72	1.0789	17.0	17.0	0.0877	0.0877	84.98	
PCB-8	16:51	83651	1.50	1.5889	1.166	1.166	0.0421	0.0421		M
D PCB-19L	17:08	420047	1.13	0.6285	13.8	13.8	0.3783	0.3783	68.76	
* PCB-32L	20:23	971928	1.05		20.0	20.0				M
* PCB-31L	22:37	2060879	1.03		20.0	20.0				
\$ PCB-28L	22:55	1671128	1.10	1.0494	15.5	15.5	0.0895	0.0895	77.27	
D PCB-37L	26:55	1395113	1.07	0.8749	15.5	15.5	0.1074	0.1074	77.37	
PCB-18	19:02	23573	1.03	1.7652	0.6358	0.6358	0.0119	0.0119		a
PCB-30 (C18)	19:02	23573	1.03	1.7652	0.6358	0.6358	0.0119	0.0119		a
PCB-20	22:57	69020	1.02	1.1718	0.8444	0.8444	0.0285	0.0285		
PCB-28 (C20)	22:57	69020	1.02	1.1718	0.8444	0.8444	0.0285	0.0285		
S Total Tetrachlorobiphenyls					7.919	7.895	0.0617	0.0617		RQ
D PCB-54L	20:14	436821	0.84	0.5562	16.2	16.2	0.0781	0.0781	80.80	
* PCB-52L	24:44	987058	0.78		20.0	20.0				
\$ PCB-79L	32:39	596524	0.85	1.0018	11.2	11.2	0.2180	0.2180	112	
D PCB-81L	33:39	1020232	0.81	1.2470	16.6	16.6	0.1478	0.1478	82.89	
D PCB-77L	34:14	1109686	0.83	1.3212	17.0	17.0	0.1395	0.1395	85.09	
PCB-52	24:46	38008	0.72	0.9194	0.7763	0.7763	0.0705	0.0705		
PCB-44	25:47	360275	0.72	0.9731	6.953	6.953	0.0666	0.0666		
PCB-47 (C44)	25:47	360275	0.72	0.9731	6.953	6.953	0.0666	0.0666		
PCB-65 (C44)	25:47	360275	0.72	0.9731	6.953	6.953	0.0666	0.0666		
PCB-66	29:51	11119	0.77	1.2583	0.1892	0.1660	0.0515	0.0515		RQ
PCB-81	33:40						0.0584	0.0584		
PCB-77	34:13						0.0614	0.0614		
S Total Pentachlorobiphenyls					0.4893	0.4450	0.0391	0.0391		RQ
D PCB-104L	25:40	695140	1.51	1.2161	17.6	17.6	0.0525	0.0525	88.14	
\$ PCB-95L	28:39	305590	1.56	0.7218	12.2	12.2	0.0739	0.0739	122	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-101L	31:34	648527	1.61		20.0	20.0				
\$ PCB-111L	34:14	705510	1.61	1.3699	15.9	15.9	0.0466	0.0466	79.41	
D PCB-123L	36:12	993429	1.58	0.9731	18.0	18.0	0.2109	0.2109	89.85	
D PCB-118L	36:31	975434	1.61	1.0102	17.0	17.0	0.2032	0.2032	84.99	
D PCB-114L	37:03	1030019	1.62	0.9949	18.2	18.2	0.2063	0.2063	91.13	
D PCB-105L	37:43	980981	1.57	0.9514	18.2	18.2	0.2158	0.2158	90.75	
* PCB-127L	39:10	1136121	1.61		20.0	20.0				
D PCB-126L	40:48	954765	1.64	0.9439	17.8	17.8	0.2175	0.2175	89.04	
PCB-90	31:34	9392	1.55	0.9550	0.3272	0.2830	0.0152	0.0152		RQ
PCB-101 (C90)	31:34	9392	1.55	0.9550	0.3272	0.2830	0.0152	0.0152		RQ
PCB-113 (C90)	31:34	9392	1.55	0.9550	0.3272	0.2830	0.0152	0.0152		RQ
PCB-123	36:12						0.0433	0.0433		
PCB-118	36:34	9527	1.72	1.2055	0.1620	0.1620	0.0409	0.0409		
PCB-114	37:03						0.0428	0.0428		
PCB-105	37:43						0.0431	0.0431		
PCB-126	40:48						0.0494	0.0494		
S Total Hexachlorobiphenyls					0.2315	0.1900	0.0143	0.0143		RQ
D PCB-155L	31:18	643287	1.26	1.0851	18.3	18.3	0.0222	0.0222	91.41	
\$ PCB-153L	38:22	385431	1.34	0.9169	10.6	10.6	0.1700	0.1700	106	
* PCB-138L	39:38	752290	1.31		20.0	20.0				
D PCB-167L	42:38	802042	1.27	1.2572	17.0	17.0	0.1039	0.1039	84.80	
D PCB-156L	43:47	1555093	1.26	1.2106	34.2	34.2	0.1079	0.1079	85.38	
D PCB-157L (C156L)	43:47	1555093	1.26	1.2106	34.2	34.2	0.1079	0.1079	85.38	
D PCB-169L	47:01	811630	1.28	1.2439	17.3	17.3	0.1050	0.1050	86.74	
PCB-153	38:25	4866	1.24	1.0938	0.1244	0.1123	0.0141	0.0141		RQ
PCB-168 (C153)	38:25	4866	1.24	1.0938	0.1244	0.1123	0.0141	0.0141		RQ
PCB-129	39:40	2912	1.24	0.9464	0.1071	0.0777	0.0163	0.0163		RQM
PCB-138 (C129)	39:40	2912	1.24	0.9464	0.1071	0.0777	0.0163	0.0163		RQM
PCB-160 (C129)	39:40	2912	1.24	0.9464	0.1071	0.0777	0.0163	0.0163		RQM
PCB-163 (C129)	39:40	2912	1.24	0.9464	0.1071	0.0777	0.0163	0.0163		RQM
PCB-128	40:53						0.0157	0.0157		
PCB-166 (C128)	40:53						0.0157	0.0157		
PCB-167	42:37						0.0110	0.0110		
PCB-156	43:48						0.0174	0.0174		
PCB-157 (C156)	43:48						0.0174	0.0174		
PCB-169	47:01						0.0115	0.0115		
S Total Heptachlorobiphenyls					0.0267	0.0215	0.003447	0.003447		RQ
D PCB-188L	37:01	663015	1.09	1.3133	18.8	18.8	0.0234	0.0234	93.92	
\$ PCB-178L	40:05	481718	1.11	1.0313	17.4	17.4	0.0298	0.0298	86.89	
* PCB-180L	45:09	537535	1.13		20.0	20.0				
D PCB-170L	46:25	406101	1.04	0.8362	18.1	18.1	0.0368	0.0368	90.35	
D PCB-189L	49:31	878181	1.10	1.4414	18.4	18.4	0.3264	0.3264	91.77	
PCB-187	41:03	632	1.05	1.1018	0.0267	0.0215	0.001192	0.001192		RQa
PCB-180	45:08						0.001125	0.001125		
PCB-193 (C180)	45:08						0.001125	0.001125		
PCB-170	46:26						0.001512	0.001512		
PCB-189	49:32						0.0100	0.0100		
S Total Octachlorobiphenyls					0.009188	0.008489	0.006222	0.006222		RQ
D PCB-202L	42:23	497541	0.88	0.9818	18.9	18.9	0.002020	0.002020	94.27	
* PCB-194L	51:37	663856	0.93		20.0	20.0				
D PCB-205L	52:06	692818	0.89	1.1786	17.7	17.7	0.2076	0.2076	88.55	
PCB-195	49:18	243	0.89	0.8263	0.009188	0.008489	0.006222	0.006222		RQ
S Total Nonachlorobiphenyls							0.2585	0.2585		
D PCB-208L	49:02	546662	0.81	0.9576	17.2	17.2	0.4449	0.4449	85.99	
D PCB-206L	53:51	437907	0.81	0.6947	19.0	19.0	0.6133	0.6133	94.95	
PCB-206	53:51						0.2585	0.2585		
D PCB-209L	55:27	498640	0.74	0.6669	22.5	22.5	0.0451	0.0451	113	
DCB Decachlorobiphenyl	55:28						0.001458	0.001458		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
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S Polychlorinated biphenyls, Total

9.842

0.0534

0.0534

RQ

### QC Flag Legend

#### Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

#### Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-6-d-5x.d  
Lims ID: 140-37234-A-6-D  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Sample Type: Client  
Inject. Date: 17-Jul-2024 05:21:00 ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Sample Info:  
Misc. Info.: 140-0033532-009  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 13:31:23 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICAL File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: TT61

Date: 17-Jul-2024 13:31:23

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:39	11:37	0	0.728	948493	374332	298	745	1256		
202.0766	11:39	11:37	0	0.728	302098	120429	2499	6247	48	3.14(2.66-3.60)	
PCB-3L											
200.0795	13:47	13:46	0	0.862	1042724	331614	298	745	1113		
202.0766	13:47	13:46	0	0.862	332865	99441	2499	6247	40	3.13(2.66-3.60)	
PCB-4L											
234.0406	14:03	14:01	1	0.878	336209	112184	572	1430	196		
236.0376	14:02	14:01	0	0.878	203555	66544	184	460	362	1.65(1.33-1.79)	
PCB-9L											
234.0406	15:59	15:59	1		850852	248244	572	1430	434		
236.0376	15:59	15:59	1		529782	151423	184	460	823	1.61(1.33-1.79)	
PCB-8L											
234.0406	16:50	16:49	1	1.198	387607	100539	572	1430	176		
236.0376	16:50	16:49	1	1.198	240925	63267	184	460	344	1.61(1.33-1.79)	
PCB-15L											
234.0406	19:56	19:52	2	1.247	799979	174267	572	1430	305		
236.0376	19:56	19:52	2	1.247	465865	109928	184	460	597	1.72(1.33-1.79)	
PCB-8											
222.0003	16:51	16:51	1	1.199	50146	13812	122	305	113		M
223.9974	16:51	16:51	1	1.200	33505	8965	188	470	48	1.50(1.33-1.79)	M
PCB-19L											
268.0016	17:08	17:06	1	0.840	223169	57112	621	1552	92		
269.9986	17:08	17:06	1	0.840	196878	54400	517	1292	105	1.13(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-32L											M
268.0016	20:23	20:21	2		497699	118694	621	1552	191		M
269.9986	20:23	20:21	2		474229	120599	517	1292	233	1.05(0.88-1.20)	
PCB-31L											
268.0016	22:37	22:37	1		1045251	238975	634	1585	377		
269.9986	22:37	22:37	1		1015628	231937	251	627	924	1.03(0.88-1.20)	
PCB-28L											
268.0016	22:55	22:52	2	1.013	873654	195570	634	1585	308		
269.9986	22:55	22:52	2	1.013	797474	178406	251	627	711	1.10(0.88-1.20)	
PCB-37L											
268.0016	26:55	26:53	1	1.190	722404	130346	634	1585	206		
269.9986	26:55	26:53	1	1.190	672709	119143	251	627	475	1.07(0.88-1.20)	
PCB-18											a
255.9613	19:02	19:02	6	1.111	11944	3596	22	55	163		a
257.9584	19:02	19:02	6	1.111	11629	3126	25	62	125	1.03(0.88-1.20)	
PCB-30 (C18)											a
255.9613	19:02	19:02	6	1.111	11944	3596	22	55	163		a
257.9584	19:02	19:02	6	1.111	11629	3126	25	62	125	1.03(0.88-1.20)	
PCB-20											
255.9613	22:57	22:56	0	0.852	34931	7576	100	250	76		
257.9584	22:56	22:56	-1	0.852	34089	7624	67	167	114	1.02(0.88-1.20)	
PCB-28 (C20)											
255.9613	22:57	22:56	0	0.852	34931	7576	100	250	76		
257.9584	22:56	22:56	-1	0.852	34089	7624	67	167	114	1.02(0.88-1.20)	
PCB-54L											
301.9626	20:14	20:11	2	0.818	199901	51146	137	342	373		
303.9597	20:14	20:11	2	0.818	236920	56928	71	177	802	0.84(0.65-0.89)	
PCB-52L											
301.9626	24:44	24:44	0		433213	90317	404	1010	224		
303.9597	24:44	24:44	0		553845	120821	374	935	323	0.78(0.65-0.89)	
PCB-79L											
301.9626	32:39	32:39	1	0.970	273465	49327	404	1010	122		
303.9597	32:39	32:39	0	0.970	323059	58942	374	935	158	0.85(0.65-0.89)	
PCB-81L											
301.9626	33:39	33:37	1	1.361	457107	79471	404	1010	197		
303.9597	33:39	33:37	1	1.361	563125	103498	374	935	277	0.81(0.65-0.89)	
PCB-77L											
301.9626	34:14	34:10	2	1.384	504764	79508	404	1010	197		
303.9597	34:14	34:10	2	1.384	604922	93804	374	935	251	0.83(0.65-0.89)	
PCB-52											
289.9224	24:46	24:47	2	1.224	15961	4314	66	165	65		
291.9194	24:46	24:47	1	1.224	22047	4727	165	412	29	0.72(0.65-0.89)	
PCB-44											
289.9224	25:47	25:43	2	1.274	151056	33039	66	165	501		
291.9194	25:47	25:43	2	1.274	209219	48069	165	412	291	0.72(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-47 (C44)											
289.9224	25:47	25:43	2	1.274	151056	33039	66	165	501		
291.9194	25:47	25:43	2	1.274	209219	48069	165	412	291	0.72(0.65-0.89)	
PCB-65 (C44)											
289.9224	25:47	25:43	2	1.274	151056	33039	66	165	501		
291.9194	25:47	25:43	2	1.274	209219	48069	165	412	291	0.72(0.65-0.89)	
PCB-66											
289.9224	29:51	29:51	1	0.887	6395	1279	66	165	19		RQ
	Empc Correction				4837	1071	66	165	16		
291.9194	29:52	29:51	2	0.888	6282	1392	165	412	8	1.02(0.65-0.89)	
PCB-81											
289.9224	33:41						66	165			
291.9194	33:41						165	412			
PCB-77											
289.9224	34:17						66	165			
291.9194	34:17						165	412			
PCB-104L											
337.9207	25:40	25:39	0	0.813	417976	96708	115	287	841		
339.9178	25:40	25:39	0	0.813	277164	64598	57	142	1133	1.51(1.32-1.78)	
PCB-95L											
337.9207	28:39	28:38	1	1.116	186400	36405	115	287	317		
339.9178	28:39	28:38	1	1.116	119190	25663	57	142	450	1.56(1.32-1.78)	
PCB-101L											
337.9207	31:34	31:33	1		400059	82707	115	287	719		
339.9178	31:33	31:33	0		248468	51940	57	142	911	1.61(1.32-1.78)	
PCB-111L											
337.9207	34:14	34:12	1	1.084	434701	84832	115	287	738		
339.9178	34:14	34:12	1	1.084	270809	54925	57	142	964	1.61(1.32-1.78)	
PCB-123L											
337.9207	36:12	36:09	1	1.146	609046	118947	535	1337	222		
339.9178	36:12	36:09	1	1.146	384383	75764	322	805	235	1.58(1.32-1.78)	
PCB-118L											
337.9207	36:31	36:29	1	1.157	601458	112117	535	1337	210		
339.9178	36:31	36:29	1	1.157	373976	71397	322	805	222	1.61(1.32-1.78)	
PCB-114L											
337.9207	37:03	37:01	1	1.173	636807	119138	535	1337	223		
339.9178	37:03	37:01	1	1.173	393212	75469	322	805	234	1.62(1.32-1.78)	
PCB-105L											
337.9207	37:43	37:41	1	1.195	599484	108556	535	1337	203		
339.9178	37:43	37:41	1	1.195	381497	68074	322	805	211	1.57(1.32-1.78)	
PCB-127L											
337.9207	39:10	39:09	1		700137	129880	535	1337	243		
339.9178	39:10	39:09	1		435984	78808	322	805	245	1.61(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-126L											
337.9207	40:48	40:46	1	1.292	593162	104187	535	1337	195		
339.9178	40:47	40:46	0	1.292	361603	62459	322	805	194	1.64(1.32-1.78)	
PCB-90											
325.8804	31:34	31:34	1	1.230	5709	1321	39	97	34		RQ
327.8775	31:36	31:34	3	1.231	5153	917	8	20	115	1.11(1.32-1.78)	
Empc Correction					3683	852	8	20	107		
PCB-101 (C90)											
325.8804	31:34	31:34	1	1.230	5709	1321	39	97	34		RQ
327.8775	31:36	31:34	3	1.231	5153	917	8	20	115	1.11(1.32-1.78)	
Empc Correction					3683	852	8	20	107		
PCB-113 (C90)											
325.8804	31:34	31:34	1	1.230	5709	1321	39	97	34		RQ
327.8775	31:36	31:34	3	1.231	5153	917	8	20	115	1.11(1.32-1.78)	
Empc Correction					3683	852	8	20	107		
PCB-123											
325.8804	36:13						107	267			
327.8775	36:13						74	185			
PCB-118											
325.8804	36:34	36:34	2	1.001	6027	1125	107	267	11		
327.8775	36:31	36:34	0	1.000	3500	767	74	185	10	1.72(1.32-1.78)	
PCB-114											
325.8804	37:04						107	267			
327.8775	37:04						74	185			
PCB-105											
325.8804	37:44						107	267			
327.8775	37:44						74	185			
PCB-126											
325.8804	40:49						107	267			
327.8775	40:49						74	185			
PCB-155L											
371.8817	31:18	31:17	1	0.790	359100	75213	51	127	1475		
373.8788	31:18	31:17	1	0.790	284187	60903	14	35	4350	1.26(1.05-1.43)	
PCB-153L											
371.8817	38:22	38:23	0	0.900	220698	39816	338	845	118		
373.8788	38:22	38:23	0	0.900	164733	31695	47	117	674	1.34(1.05-1.43)	
PCB-138L											
371.8817	39:38	39:37	1		426044	82126	338	845	243		
373.8788	39:38	39:37	1		326246	65129	47	117	1386	1.31(1.05-1.43)	
PCB-167L											
371.8817	42:38	42:37	1	1.076	448478	86398	338	845	256		
373.8788	42:38	42:37	1	1.076	353564	68478	47	117	1457	1.27(1.05-1.43)	
PCB-156L											
371.8817	43:47	43:47	0	1.105	866717	108811	338	845	322		
373.8788	43:47	43:47	0	1.105	688376	87572	47	117	1863	1.26(1.05-1.43)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-157L (C156L)											
371.8817	43:47	43:47	0	1.105	866717	108811	338	845	322		
373.8788	43:47	43:47	0	1.105	688376	87572	47	117	1863	1.26(1.05-1.43)	
PCB-169L											
371.8817	47:01	47:00	1	1.186	455457	78709	338	845	233		
373.8788	47:01	47:00	1	1.186	356173	63832	47	117	1358	1.28(1.05-1.43)	
PCB-153											
359.8415	38:25	38:22	0	0.901	2694	678	29	72	23		RQ
361.8385	38:23	38:22	-1	0.900	2696	617	9	22	69	1.00(1.05-1.43)	
Empc Correction					2172	546	9	22	61		
PCB-168 (C153)											
359.8415	38:25	38:22	0	0.901	2694	678	29	72	23		RQ
361.8385	38:23	38:22	-1	0.900	2696	617	9	22	69	1.00(1.05-1.43)	
Empc Correction					2172	546	9	22	61		
PCB-129											
359.8415	39:40	39:40	0	0.930	2715	911	29	72	31		RQM
Empc Correction					1612	497	29	72	17		M
361.8385	39:40	39:40	0	0.930	1300	401	9	22	45	2.09(1.05-1.43)	
PCB-138 (C129)											
359.8415	39:40	39:40	0	0.930	2715	911	29	72	31		RQM
Empc Correction					1612	497	29	72	17		M
361.8385	39:40	39:40	0	0.930	1300	401	9	22	45	2.09(1.05-1.43)	
PCB-160 (C129)											
359.8415	39:40	39:40	0	0.930	2715	911	29	72	31		RQM
Empc Correction					1612	497	29	72	17		M
361.8385	39:40	39:40	0	0.930	1300	401	9	22	45	2.09(1.05-1.43)	
PCB-163 (C129)											
359.8415	39:40	39:40	0	0.930	2715	911	29	72	31		RQM
Empc Correction					1612	497	29	72	17		M
361.8385	39:40	39:40	0	0.930	1300	401	9	22	45	2.09(1.05-1.43)	
PCB-128											
359.8415	40:54						29	72			
361.8385	40:54						9	22			
PCB-166 (C128)											
359.8415	40:54						29	72			
361.8385	40:54						9	22			
PCB-167											
359.8415	42:38						29	72			
361.8385	42:38						9	22			
PCB-156											
359.8415	43:49						29	72			
361.8385	43:49						9	22			
PCB-157 (C156)											
359.8415	43:49						29	72			
361.8385	43:49						9	22			
PCB-169											
359.8415	47:02						29	72			
361.8385	47:02						9	22			

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-188L											
405.8428	37:01	37:01	0	0.820	346429	68831	61	152	1128		
407.8398	37:01	37:01	0	0.820	316586	66277	1	2	66277	1.09(0.89-1.21)	
PCB-178L											
405.8428	40:05	40:05	0	0.888	253336	50492	61	152	828		
407.8398	40:05	40:05	0	0.888	228382	43601	1	2	43601	1.11(0.89-1.21)	
PCB-180L											
405.8428	45:09	45:09	0		285580	51885	61	152	851		
407.8398	45:10	45:09	1		251955	48951	1	2	48951	1.13(0.89-1.21)	
PCB-170L											
405.8428	46:25	46:24	1	1.028	207411	39441	61	152	647		
407.8398	46:25	46:24	1	1.028	198690	38622	1	2	38622	1.04(0.89-1.21)	
PCB-189L											
405.8428	49:31	49:31	1	1.097	460225	84942	523	1307	162		
407.8398	49:31	49:31	1	1.097	417956	75593	677	1692	112	1.10(0.89-1.21)	
PCB-187											
393.8025	41:03	41:03	3	1.109	324	95	1	2	95		RQa
395.7995	40:59	41:03	0	1.107	463	203	2	5	102	0.70(0.89-1.21)	a
Empc Correction					308	90	2	5	45		
PCB-180											
393.8025	45:09						1	2			
395.7995	45:09						2	5			
PCB-193 (C180)											
393.8025	45:09						1	2			
395.7995	45:09						2	5			
PCB-170											
393.8025	46:25						1	2			
395.7995	46:25						2	5			
PCB-189											
393.8025	49:33						12	30			
395.7995	49:33						19	47			
PCB-202L											
439.8038	42:23	42:22	0	0.821	233120	43647	3	7	14549		
441.8008	42:23	42:22	1	0.821	264421	51175	1	2	51175	0.88(0.76-1.02)	
PCB-194L											
439.8038	51:37	51:36	1		320712	61814	299	747	207		
441.8008	51:37	51:36	1		343144	65723	325	812	202	0.93(0.76-1.02)	
PCB-205L											
439.8038	52:06	52:05	1	1.009	326499	59444	299	747	199		
441.8008	52:06	52:05	1	1.009	366319	65041	325	812	200	0.89(0.76-1.02)	
PCB-195											
427.7635	49:18	49:18	0	0.946	134	78	5	12	16		RQ
Empc Correction					114	61	5	12	12		
429.7606	49:18	49:18	1	0.946	129	69	8	20	9	1.04(0.76-1.02)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-208L											
473.7648	49:02	49:02	0	0.950	244230	50366	556	1390	91		
475.7619	49:02	49:02	0	0.950	302432	55361	531	1327	104	0.81(0.65-0.89)	
PCB-206L											
473.7648	53:51	53:50	1	1.043	195557	38927	556	1390	70		
475.7619	53:51	53:50	1	1.043	242350	48893	531	1327	92	0.81(0.65-0.89)	
PCB-206											
461.7246	53:52						110	275			
463.7216	53:52						496	1240			
PCB-209L											
507.7258	55:27	55:26	1	1.074	211819	37225	38	95	980		
509.7229	55:27	55:26	0	1.074	286821	50023	39	97	1283	0.74(0.59-0.79)	
DCB Decachlorobiphenyl											
495.6856	55:27						2	5			
497.6826	55:27						1	2			

### QC Flag Legend

#### Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

#### Review Flags

M - Manually Integrated

a - User Assigned ID

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-6-d-5x.d

Injection Date: 17-Jul-2024 05:21:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER RUN 7 COMBINED

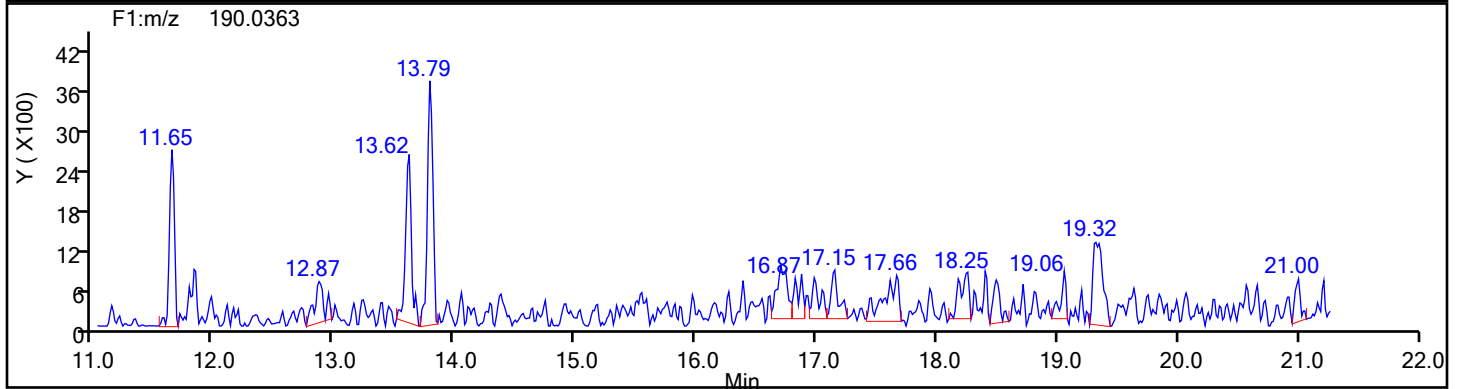
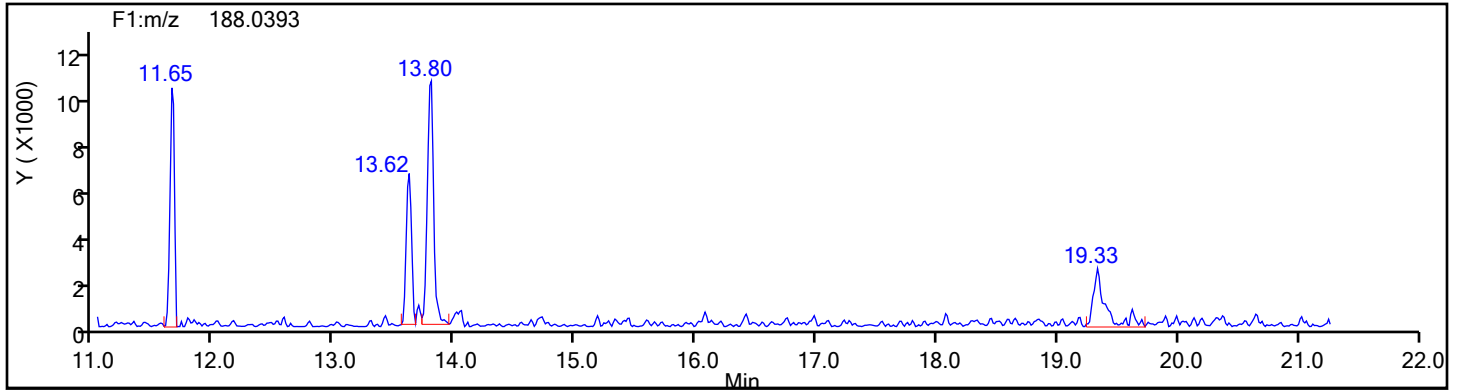
Worklist#: 88834

Sample Line#: 9

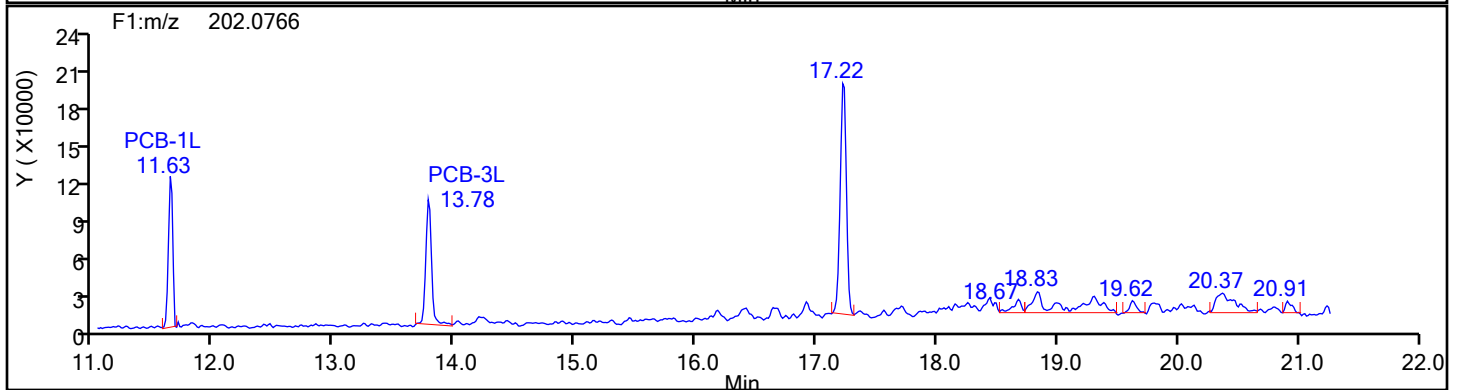
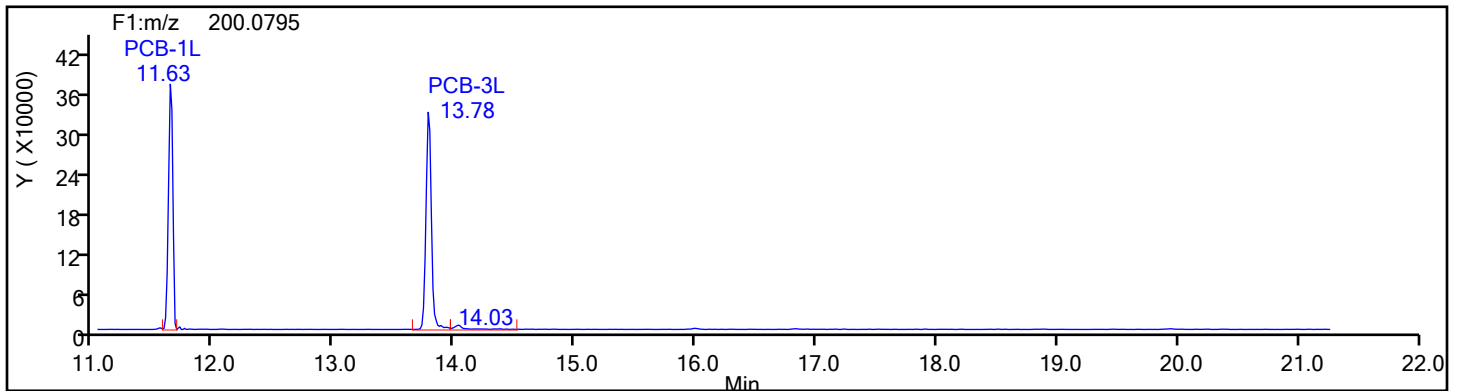
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1

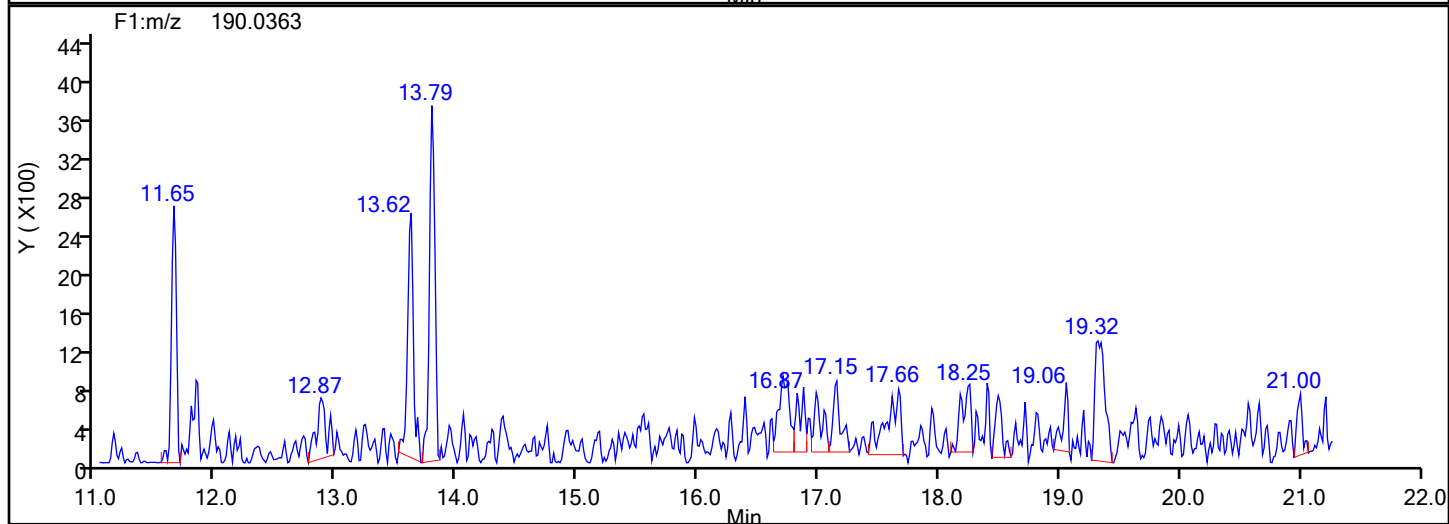
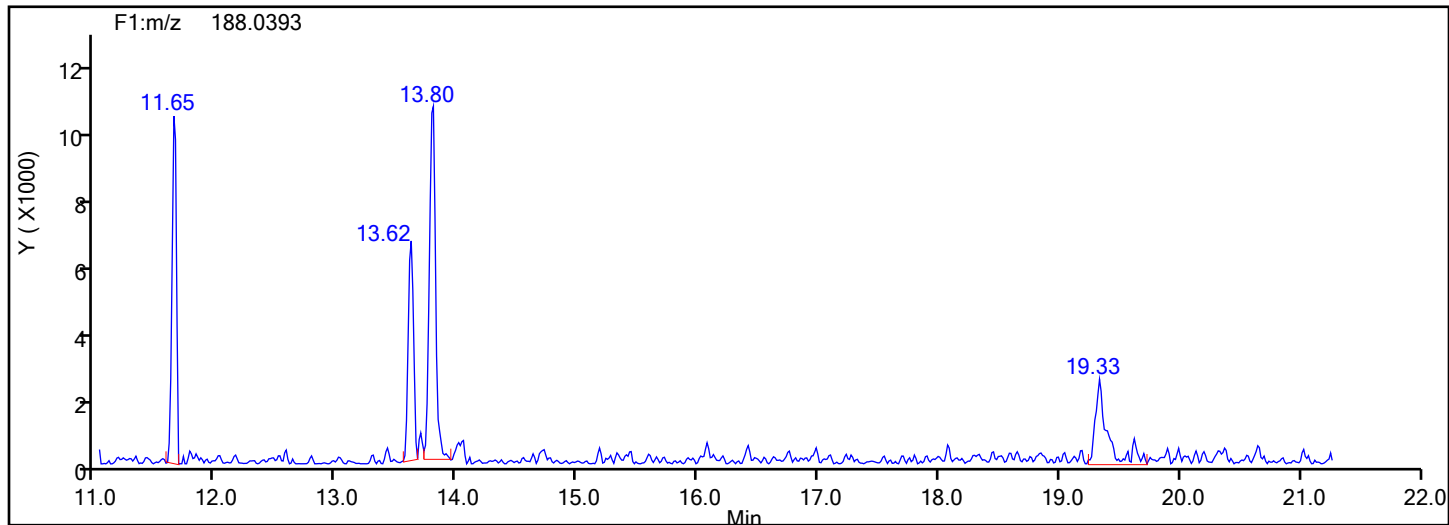


## MoPCB F1 Standards

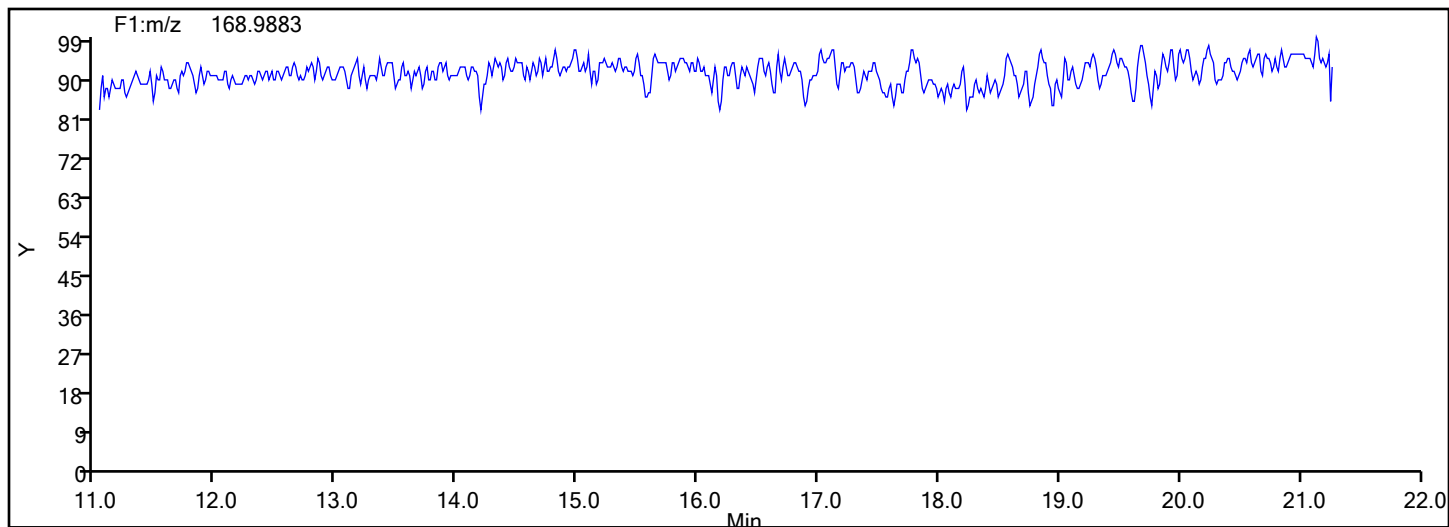


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-6-d-5x.d  
Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
MoPCB F1

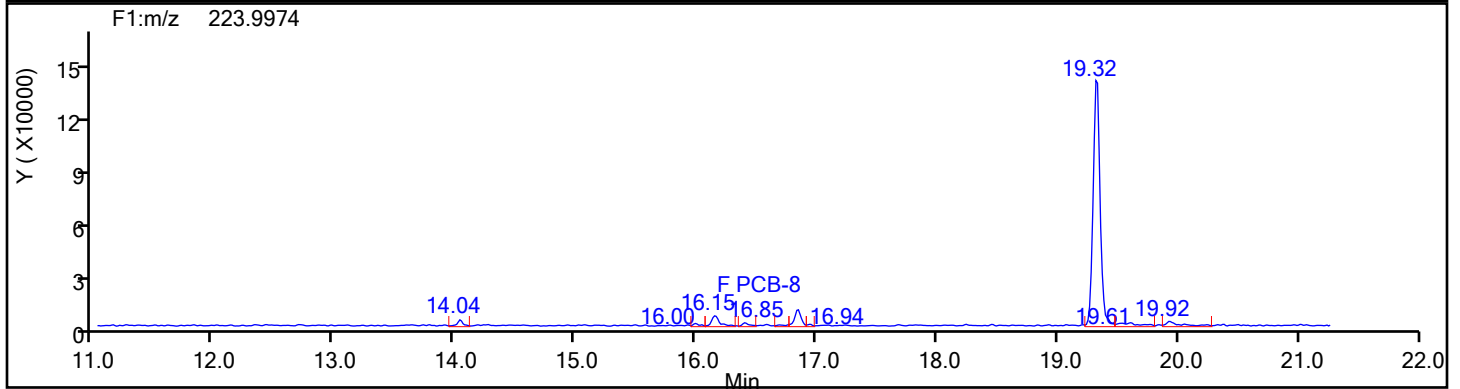
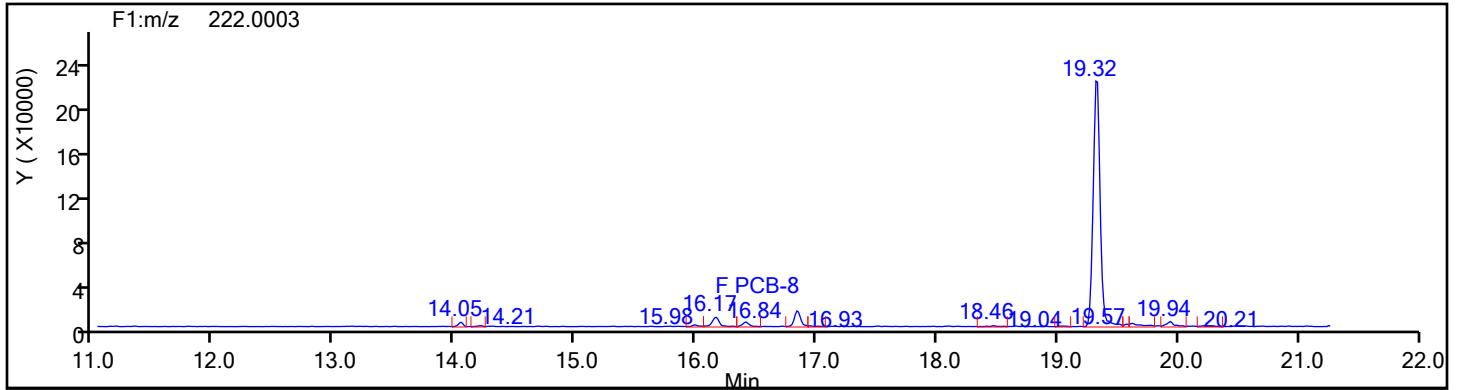


## MoPCB F1 Lock Mass

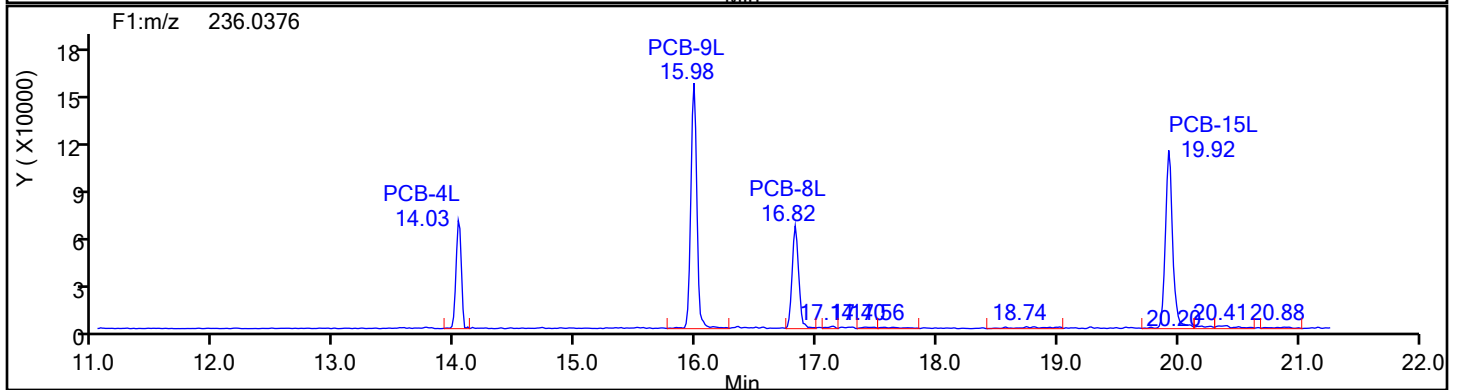
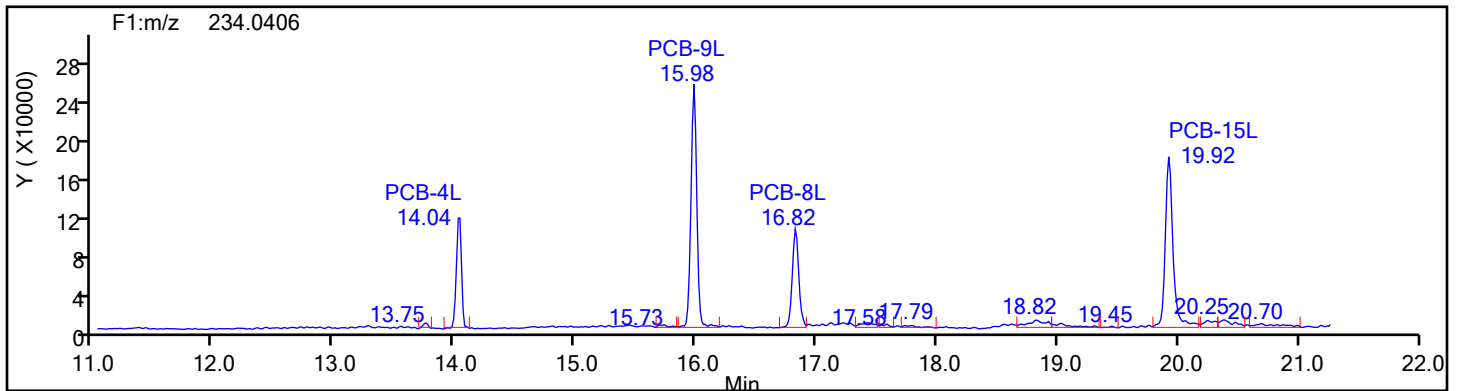


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DiPCB F1

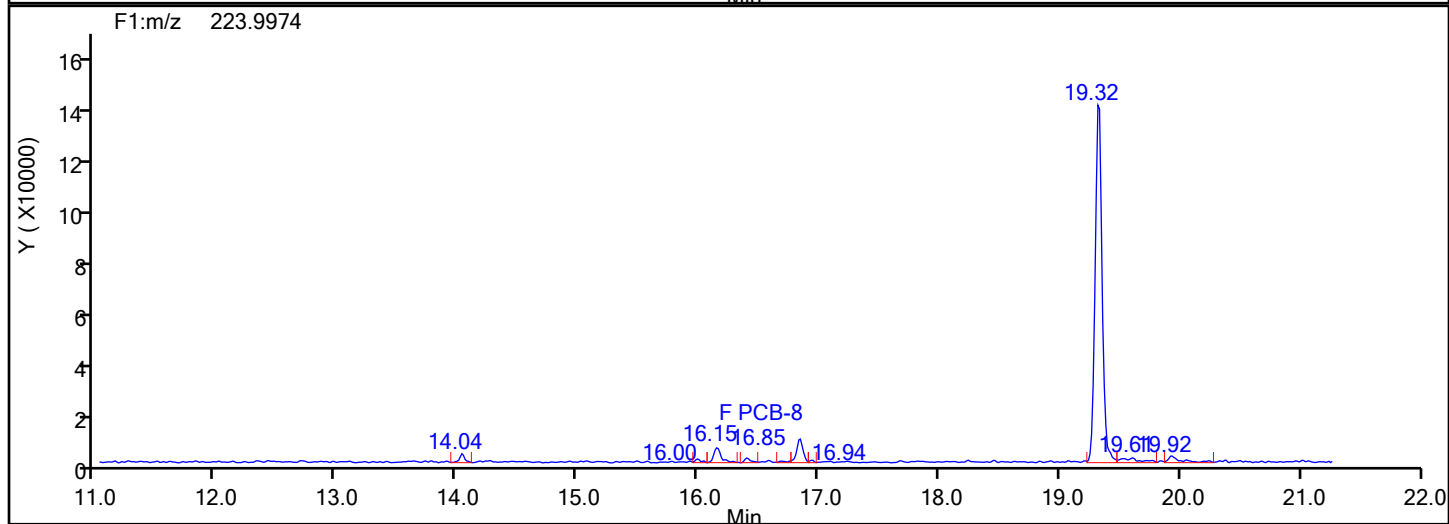
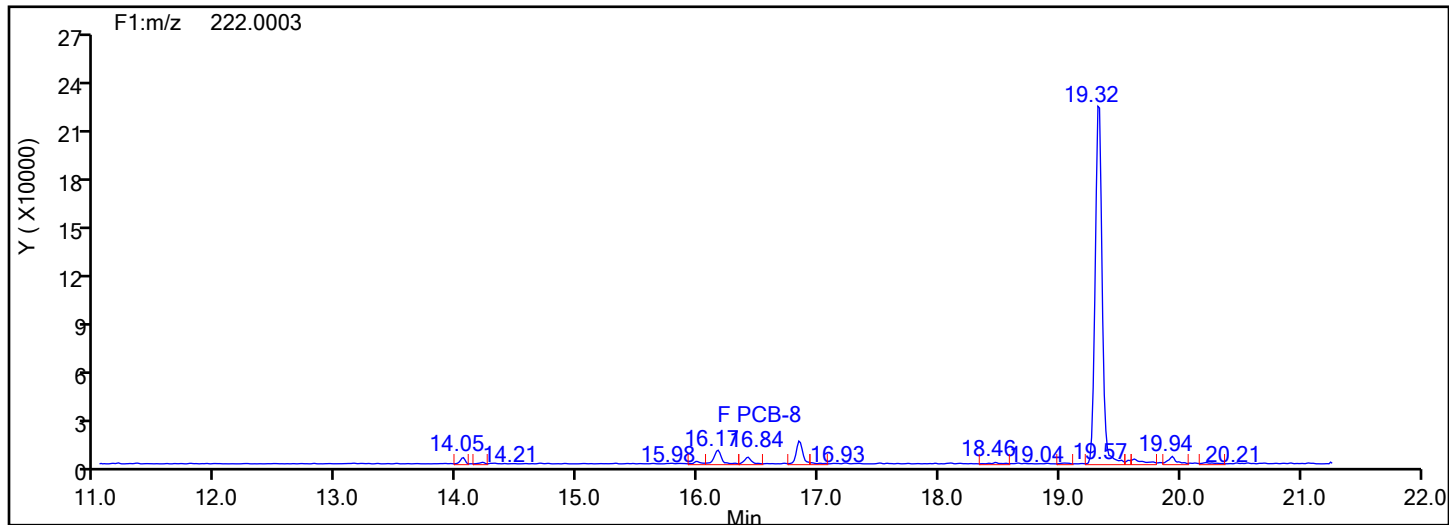


## DiPCB F1 Standards

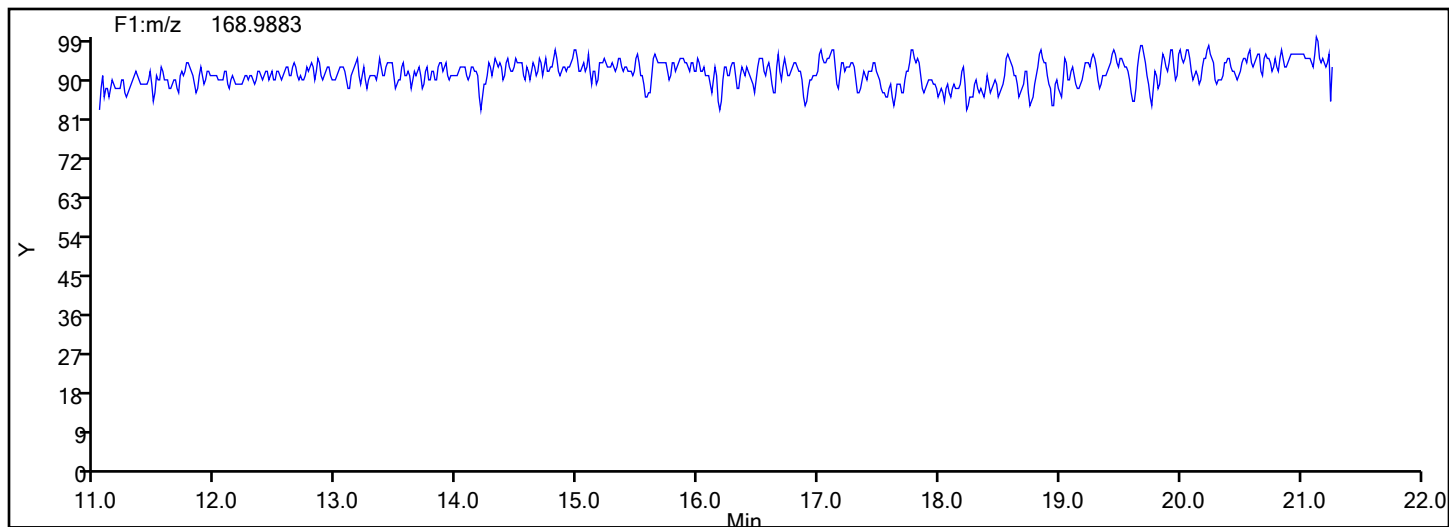


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DiPCB F1



## DiPCB F1 Lock Mass



## Eurofins Knoxville

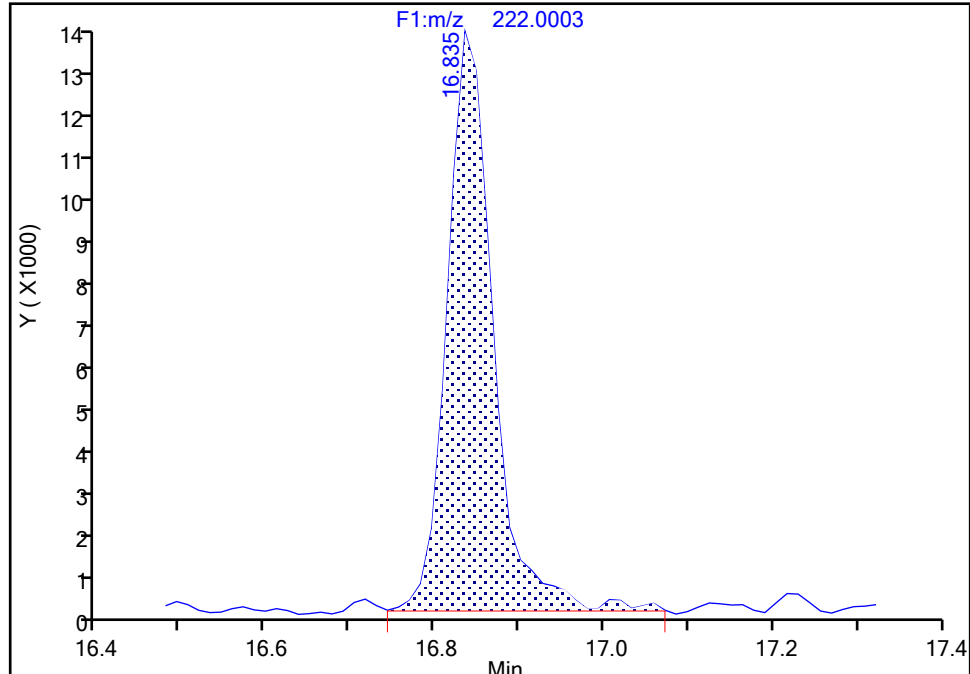
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Injection Date: 17-Jul-2024 05:21:00 Instrument ID: D2D  
Lims ID: 140-37234-A-6-D Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F1(11.07 :21.70 )

PCB-8, CAS: 34883-43-7

Signal: 1

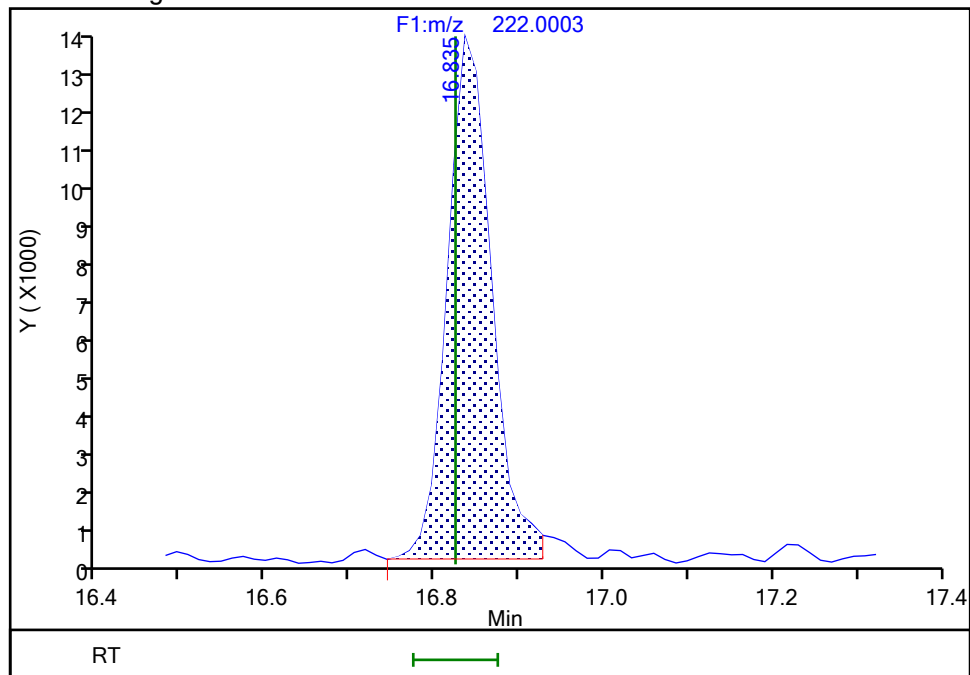
RT: 16.84  
Area: 52077  
Amount: 1.266607  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.84  
Area: 50146  
Amount: 1.166317  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:28:36 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration



## Eurofins Knoxville

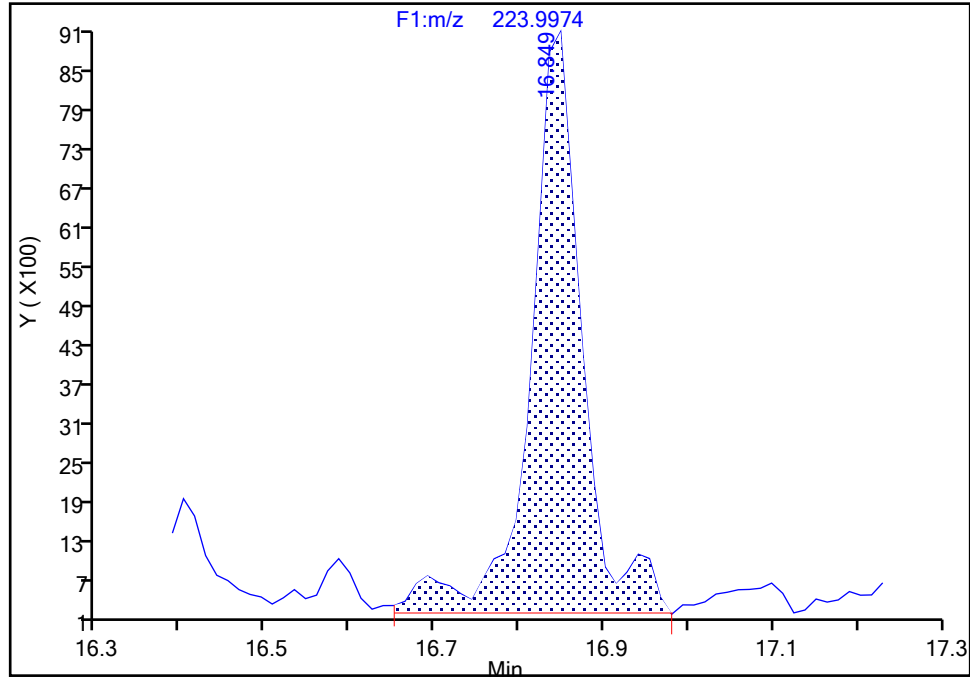
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Injection Date: 17-Jul-2024 05:21:00 Instrument ID: D2D  
Lims ID: 140-37234-A-6-D Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F1(11.07 :21.70 )

PCB-8, CAS: 34883-43-7

Signal: 2

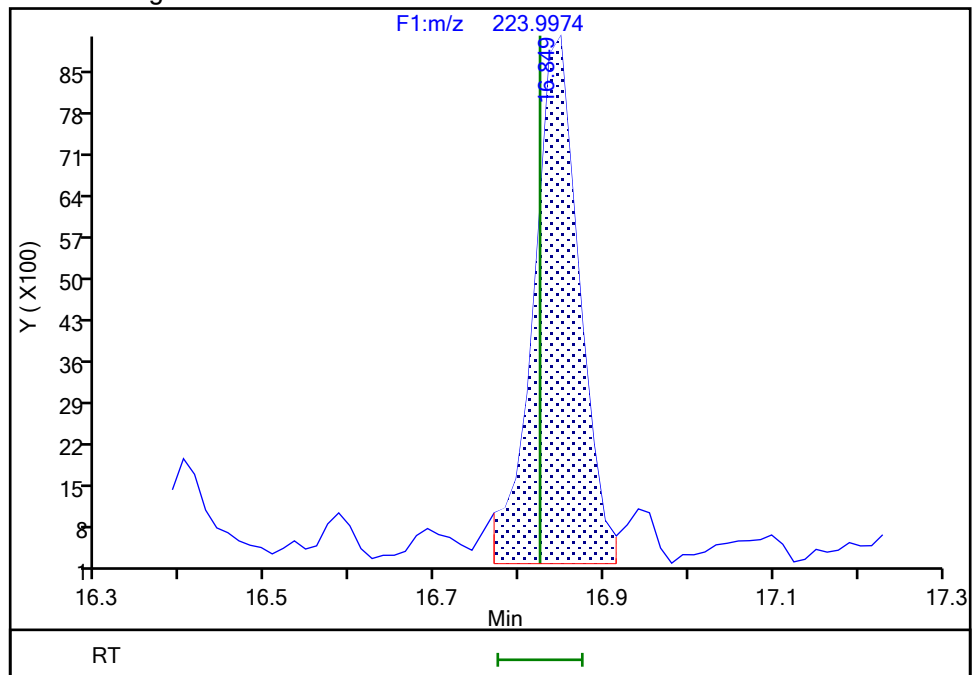
RT: 16.85  
Area: 38767  
Amount: 1.266607  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.85  
Area: 33505  
Amount: 1.166317  
Amount Units: pg/ul

## Manual Integration Results



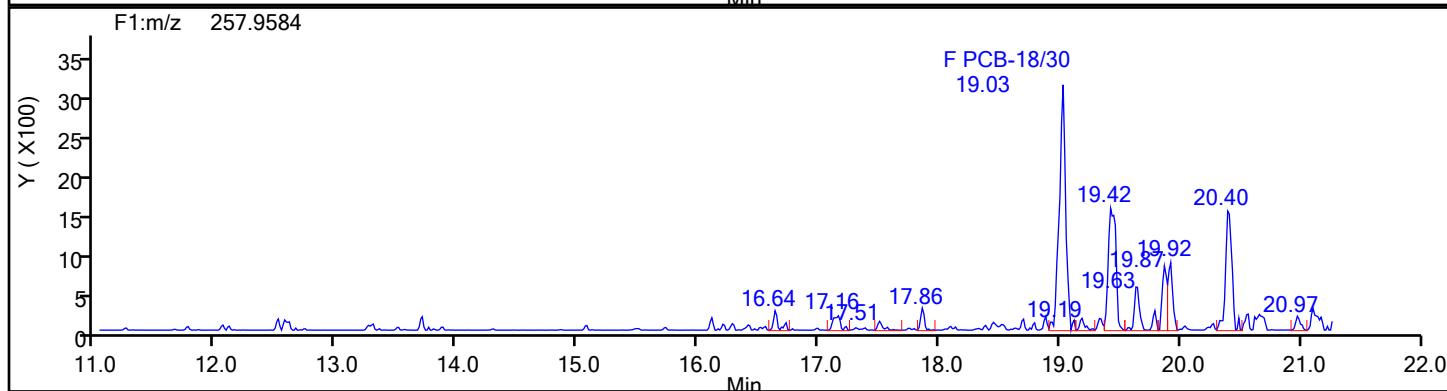
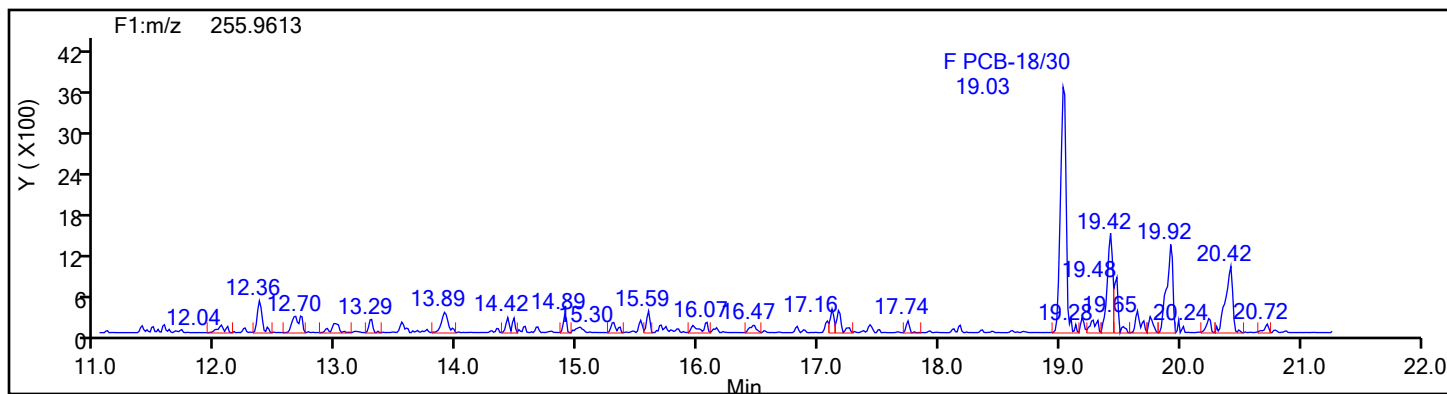
Reviewer: TT6I, 17-Jul-2024 13:28:42 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

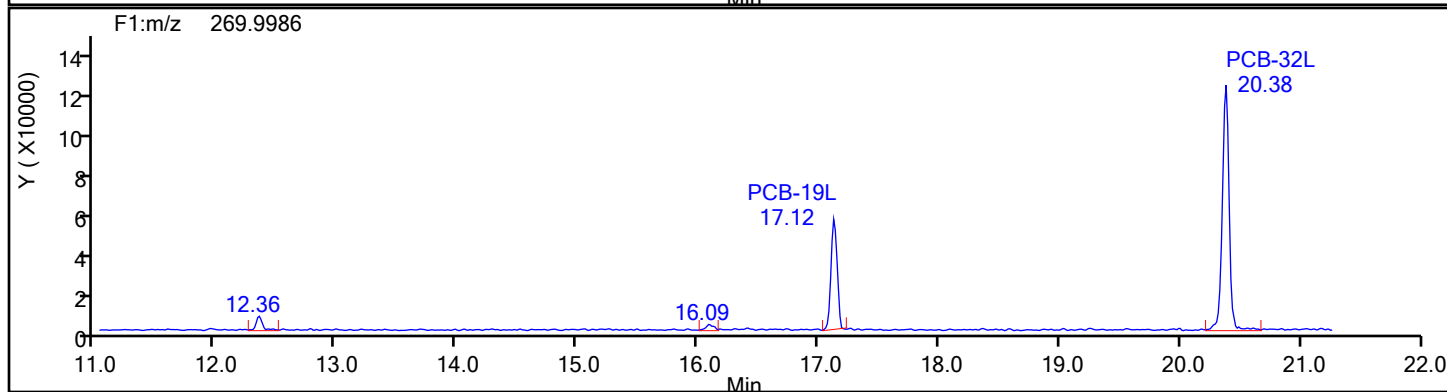
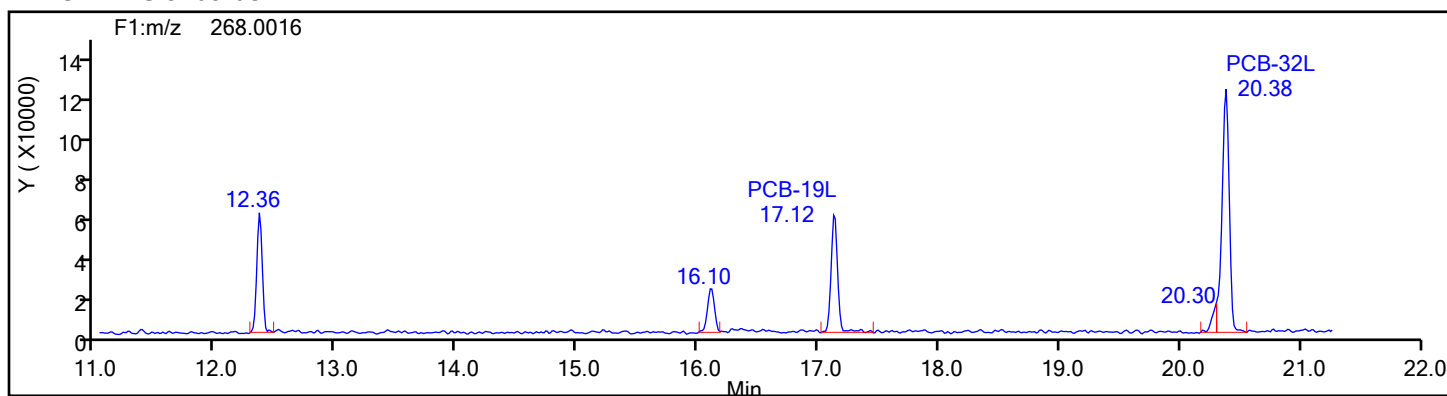
Audit Reason: Incomplete Integration

## Eurofins Knoxville

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Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F1

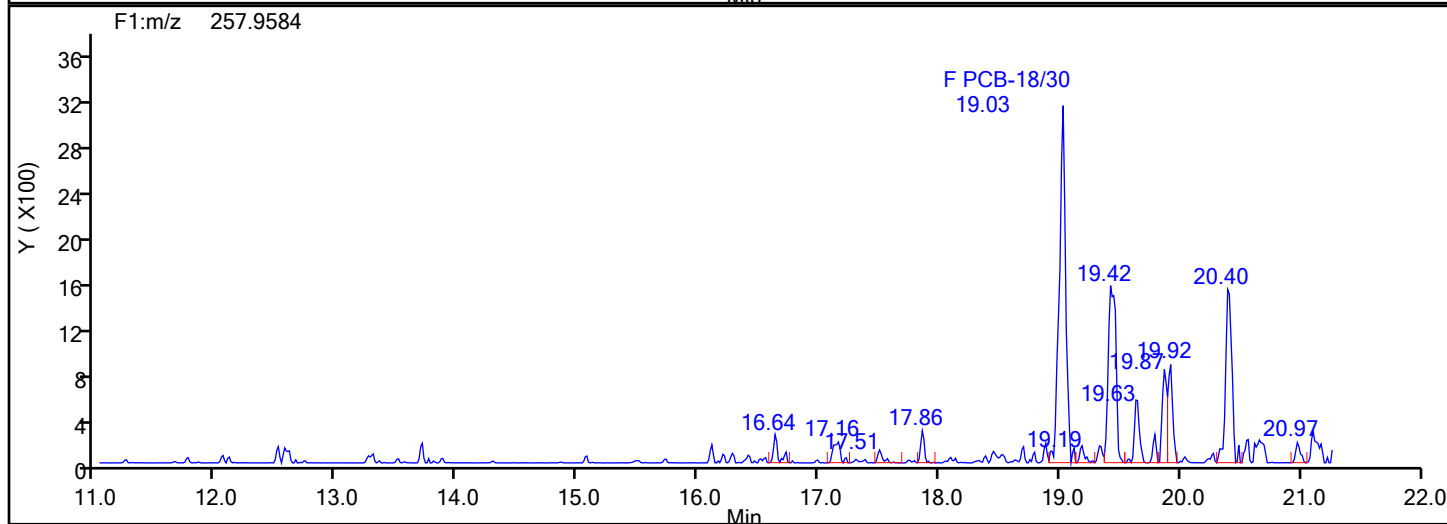
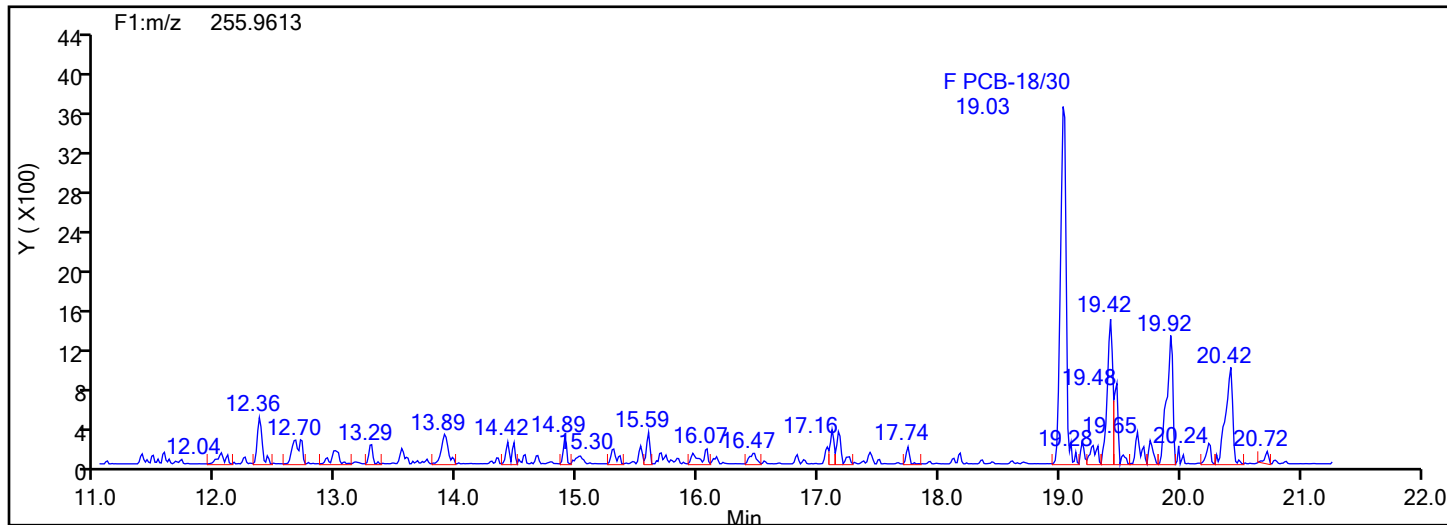


## TriPCB F1 Standards

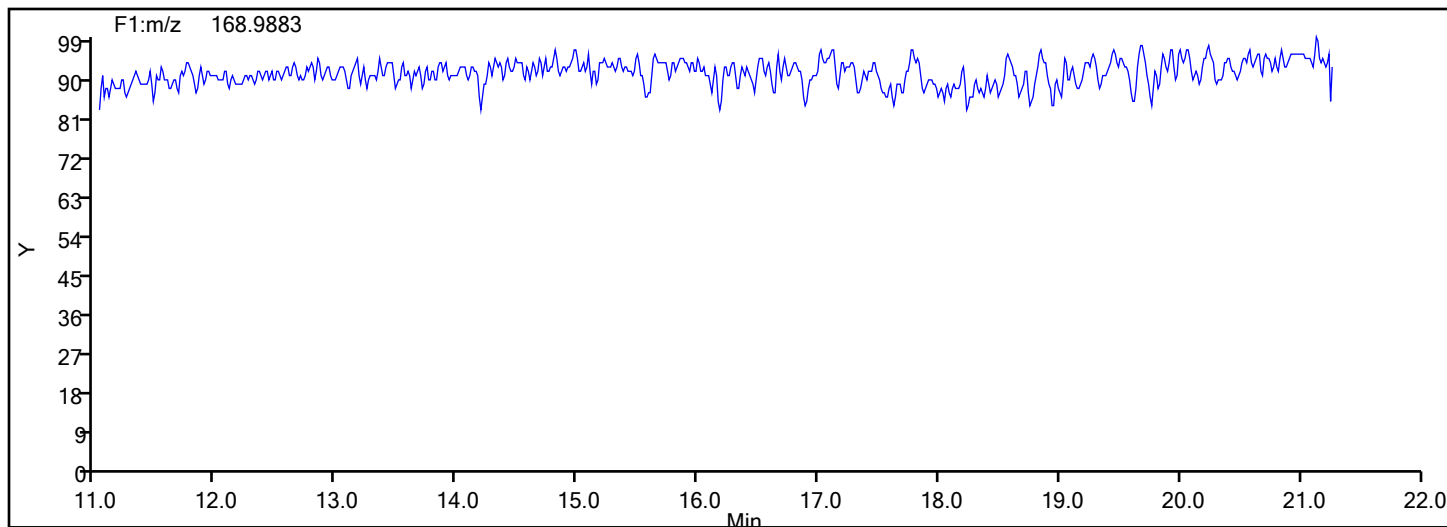


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F1



## TriPCB F1 Lock Mass



## Eurofins Knoxville

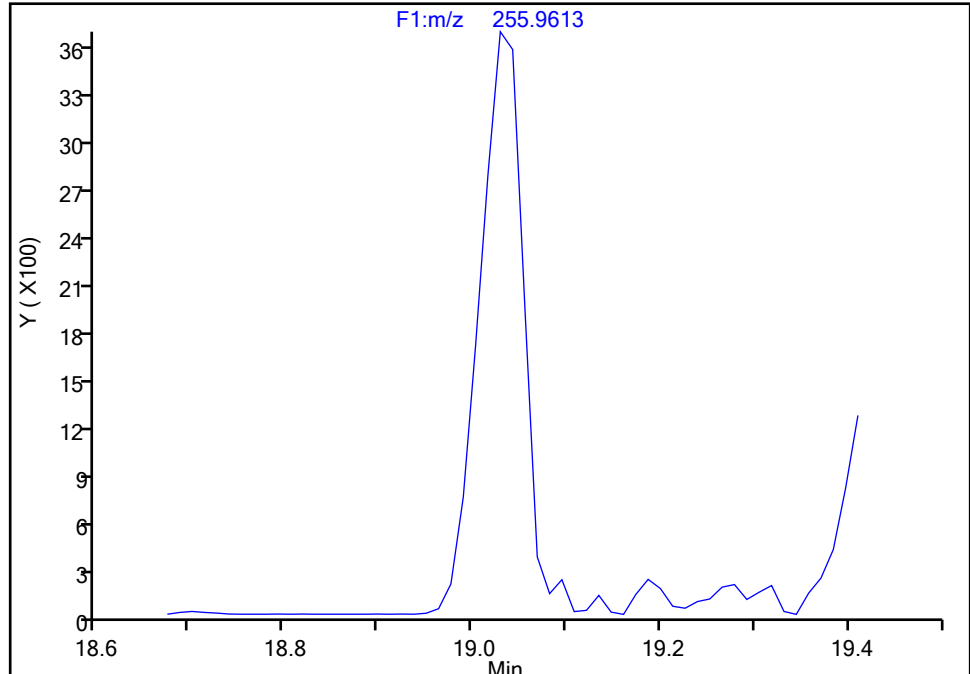
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Injection Date: 17-Jul-2024 05:21:00 Instrument ID: D2D  
Lims ID: 140-37234-A-6-D Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F1(11.07 :21.70 )

**PCB-18/30, CAS: STL01798**

Signal: 1

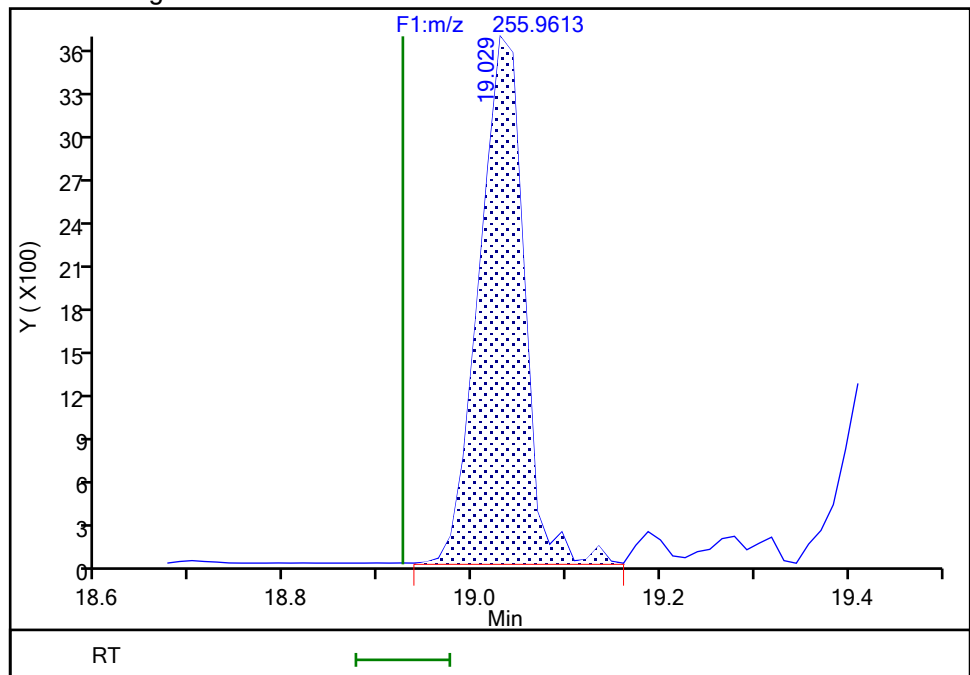
Not Detected  
Expected RT: 18.93

## Processing Integration Results



RT: 19.03  
Area: 11944  
Amount: 0.635841  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:29:09 -04:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-6-d-5x.d

Injection Date: 17-Jul-2024 05:21:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER RUN 7 COMBINED

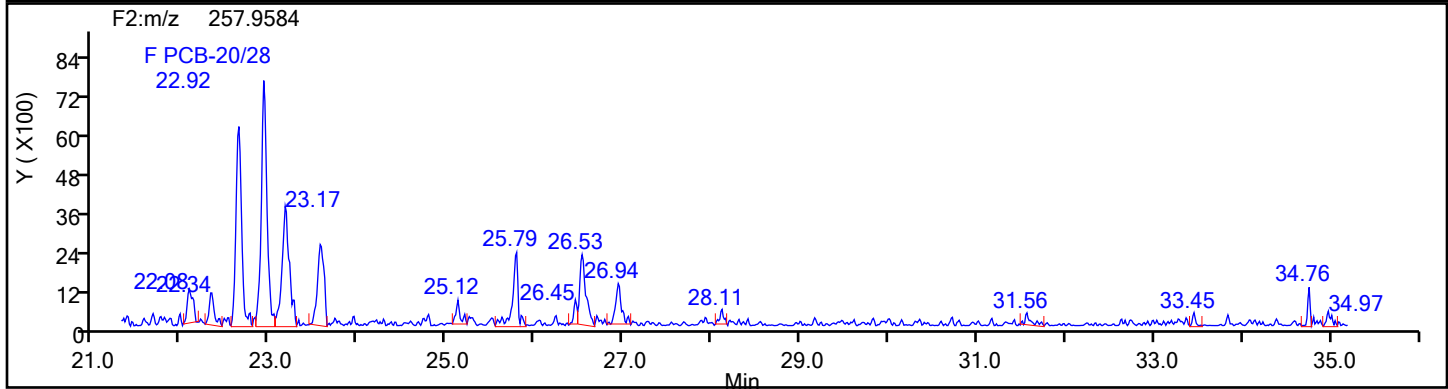
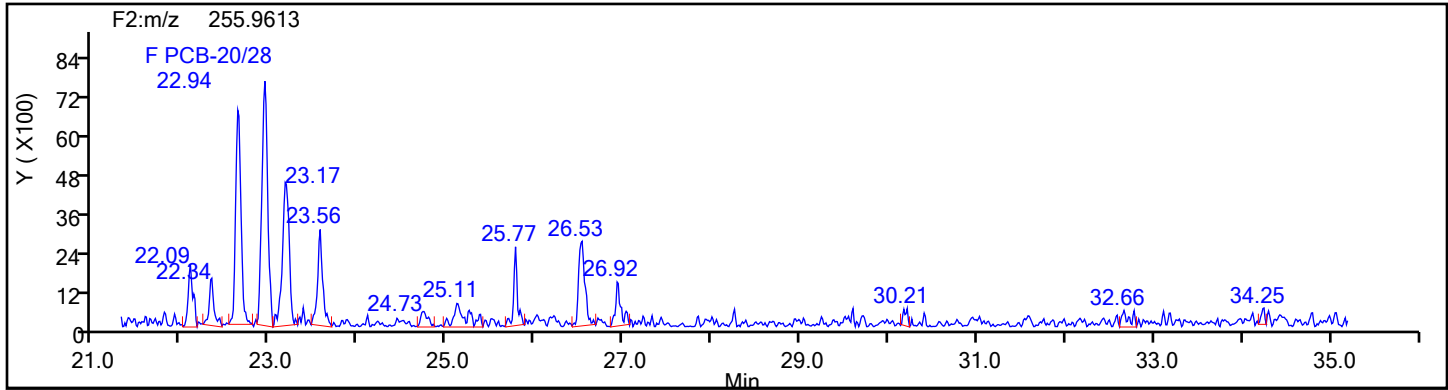
Worklist#: 88834

Sample Line#: 9

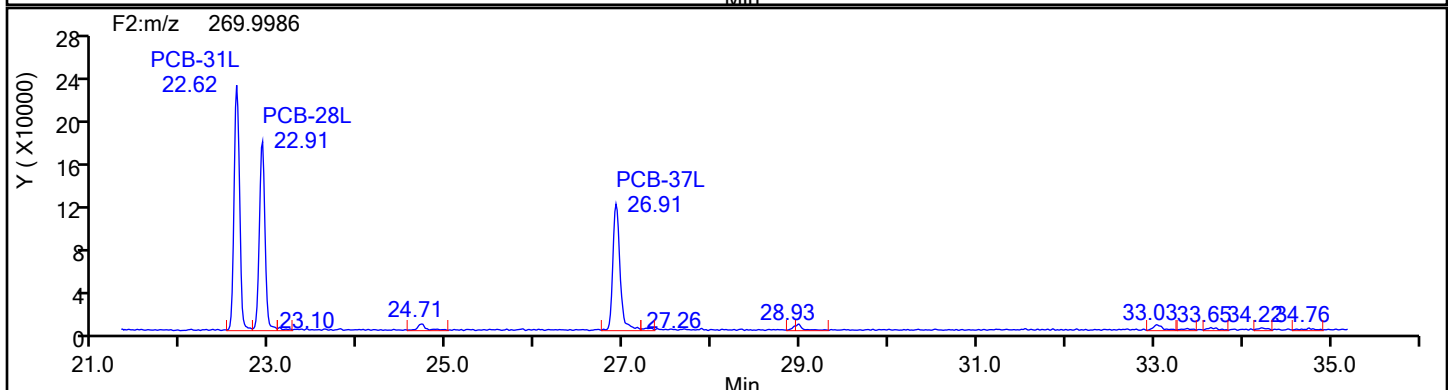
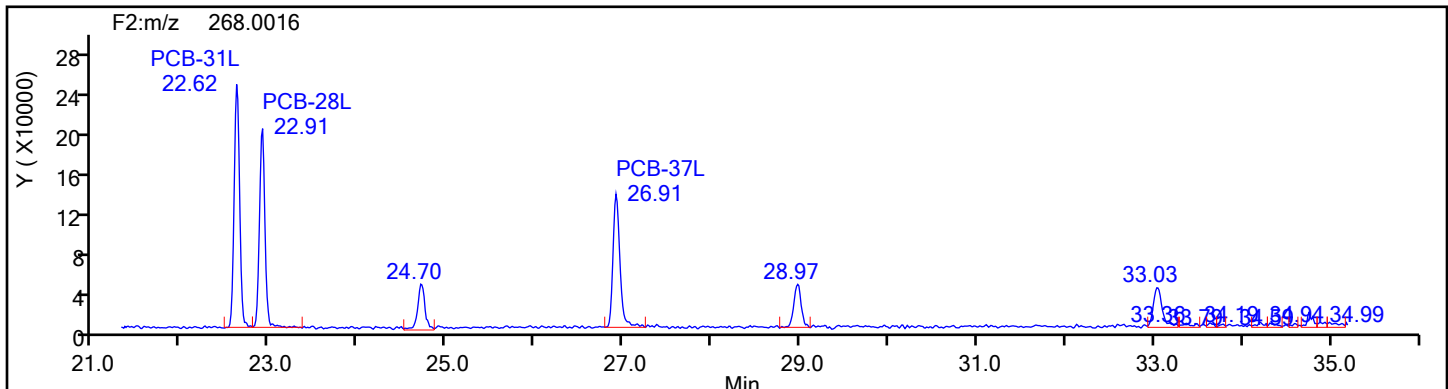
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2

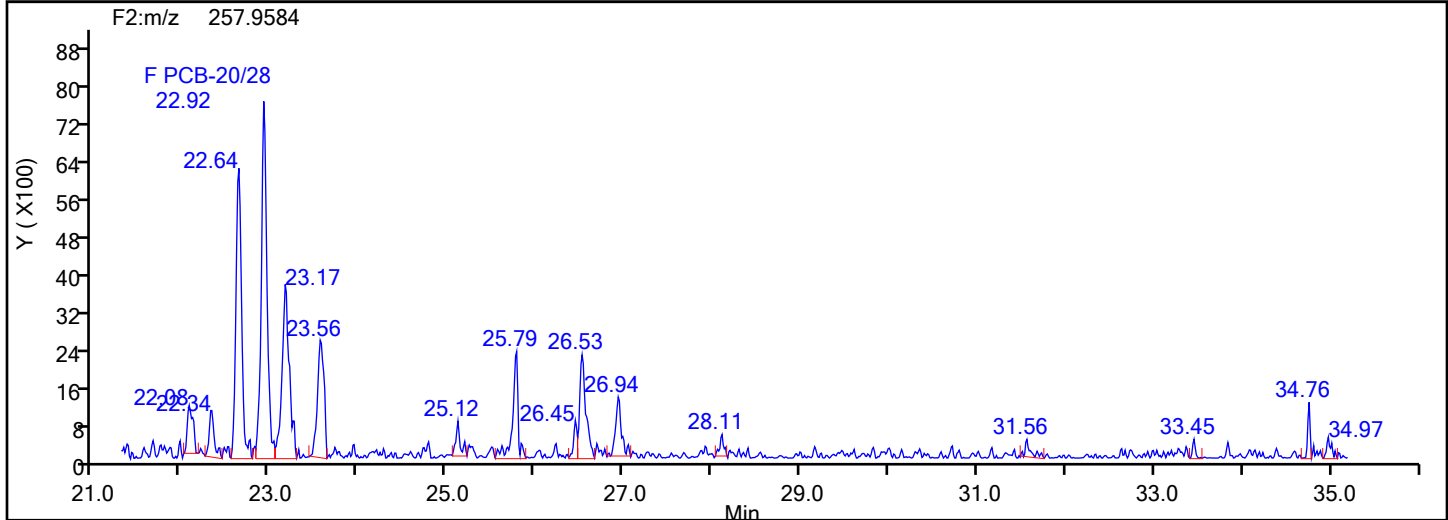
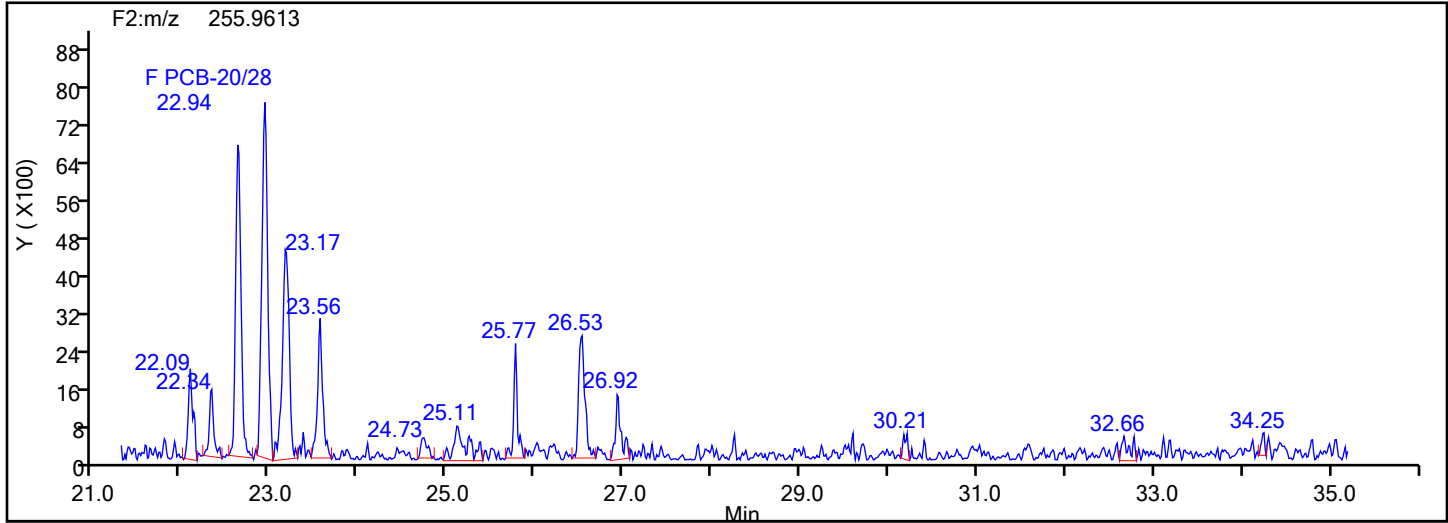


TriPCB F2 Standards

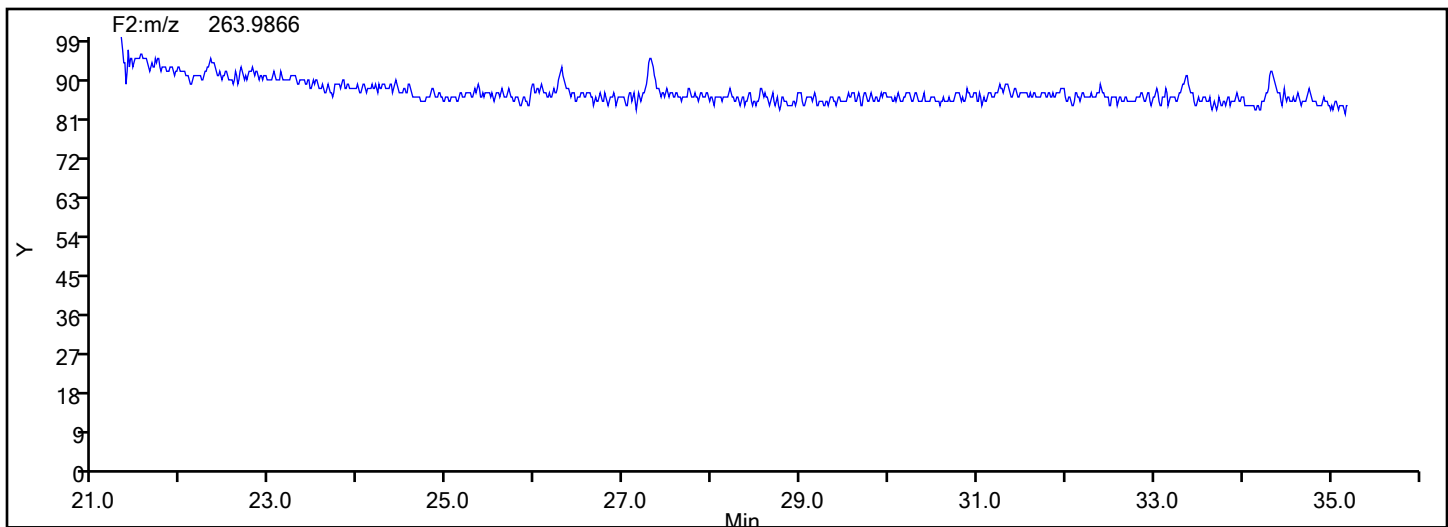


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F2

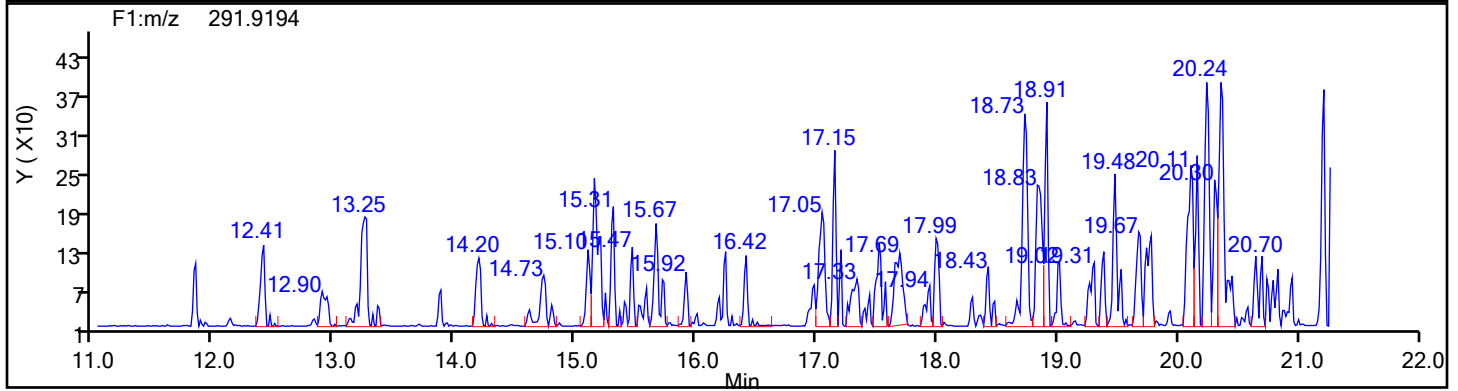
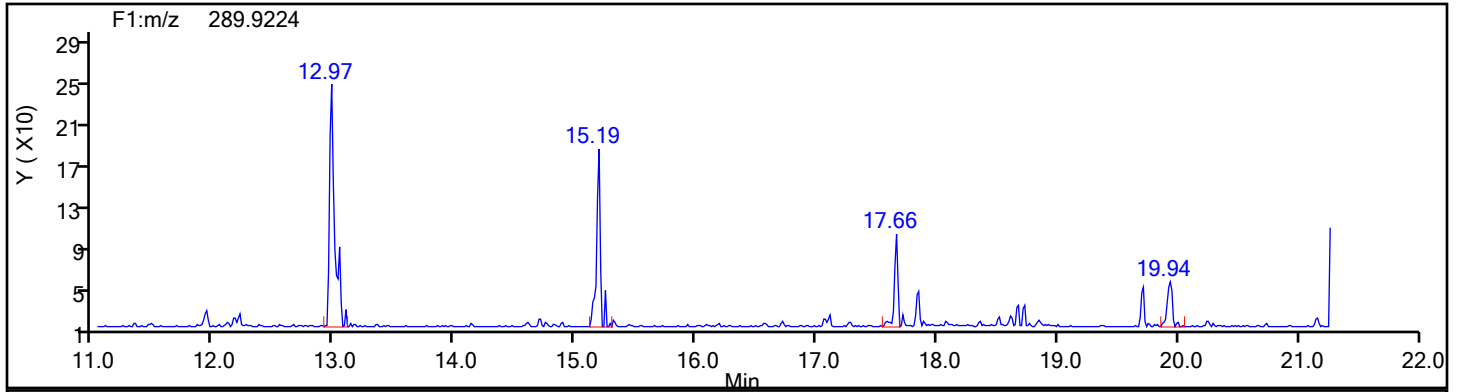


## TriPCB F2 Lock Mass

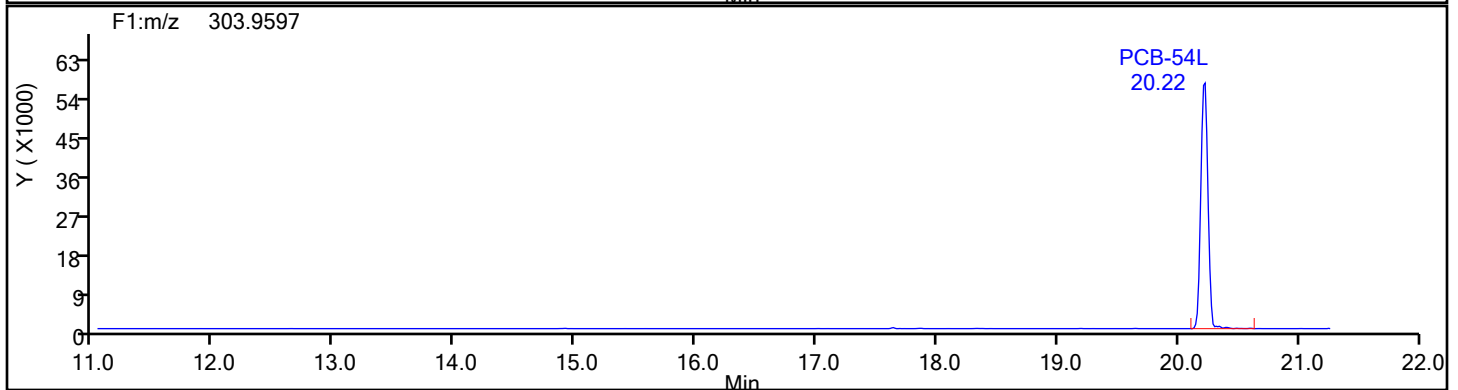
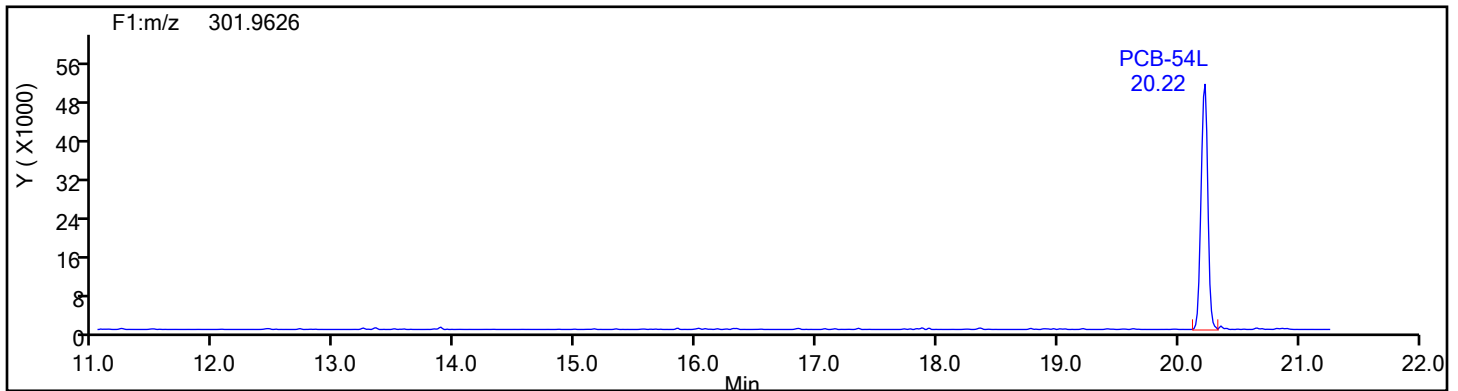


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1

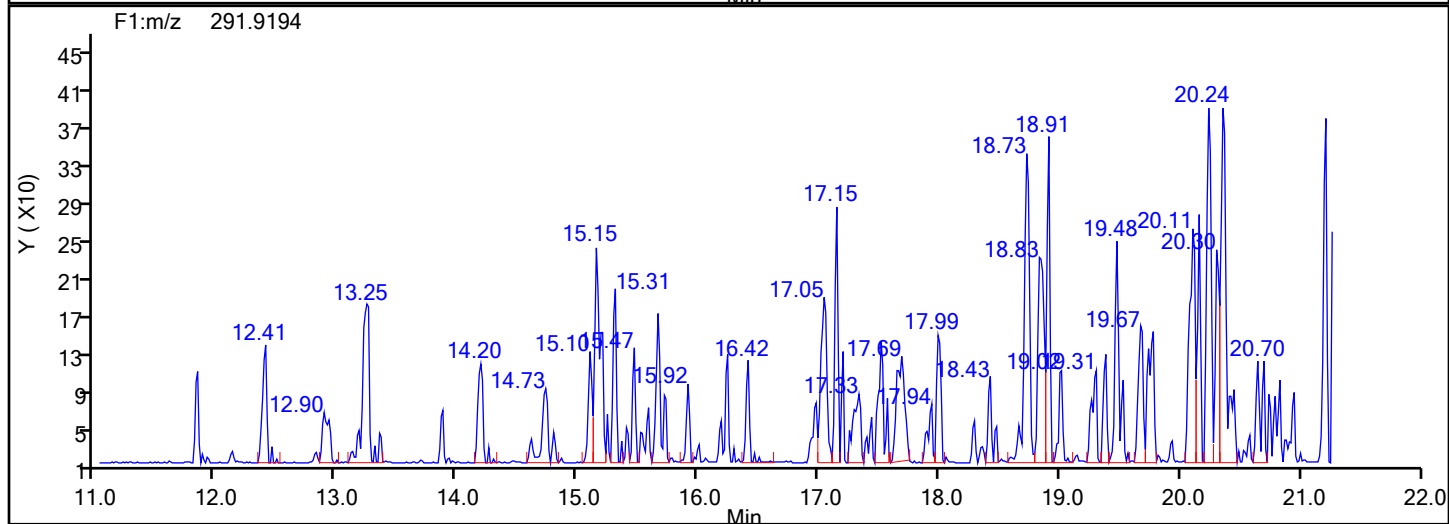
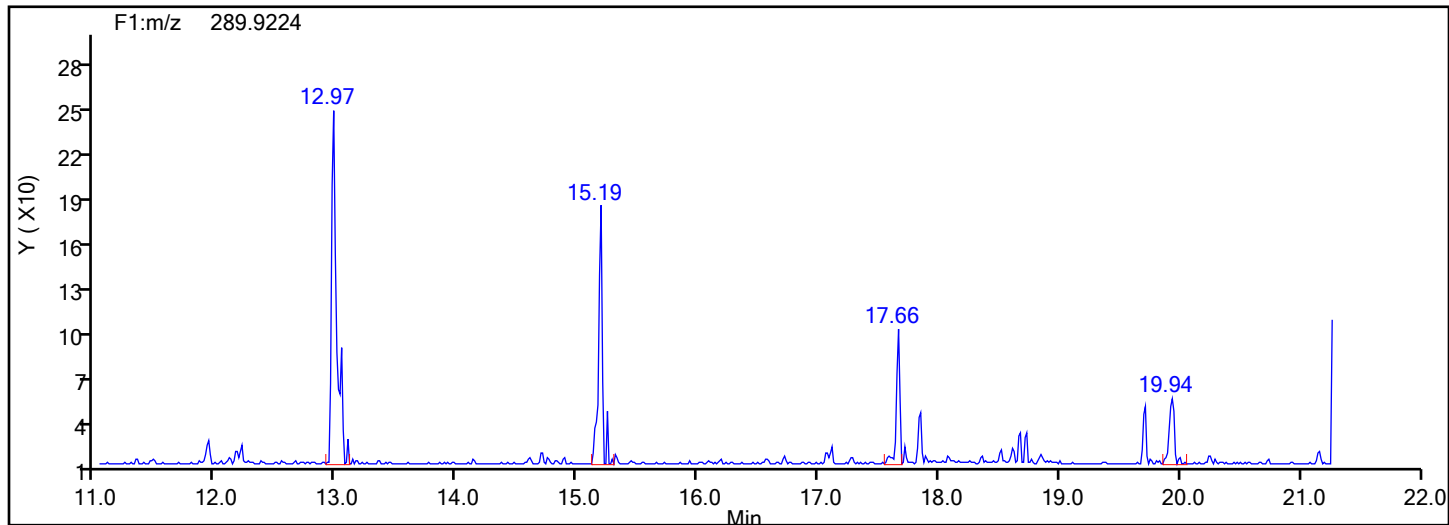


## TePCB F1 Standards

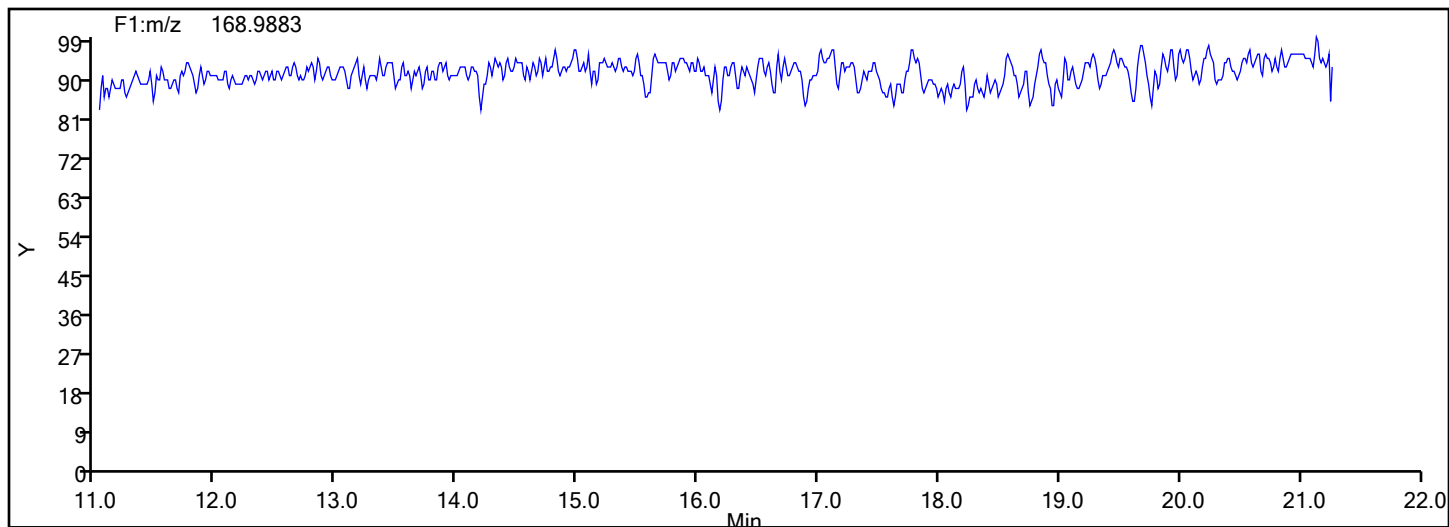


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1



## TePCB F1 Lock Mass





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-6-d-5x.d

Injection Date: 17-Jul-2024 05:21:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER RUN 7 COMBINED

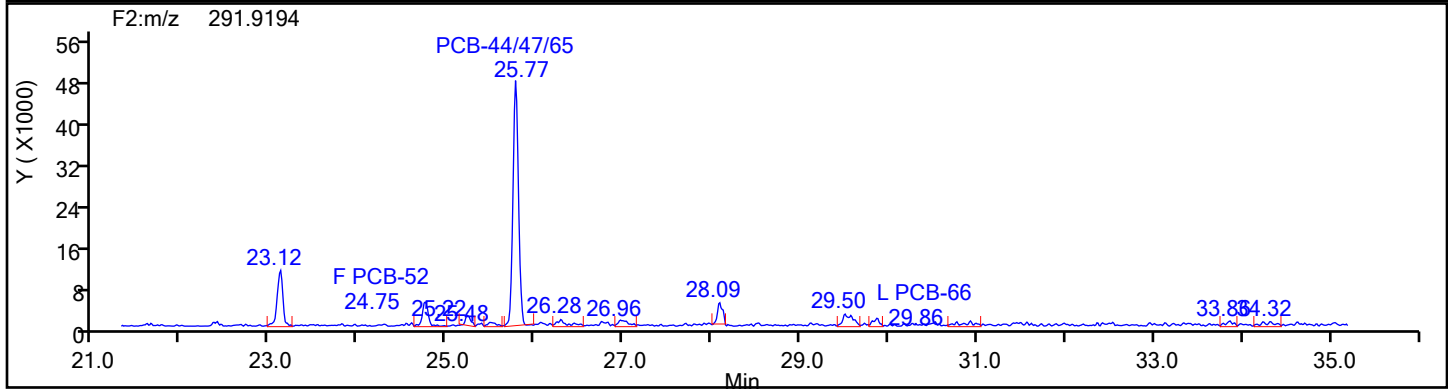
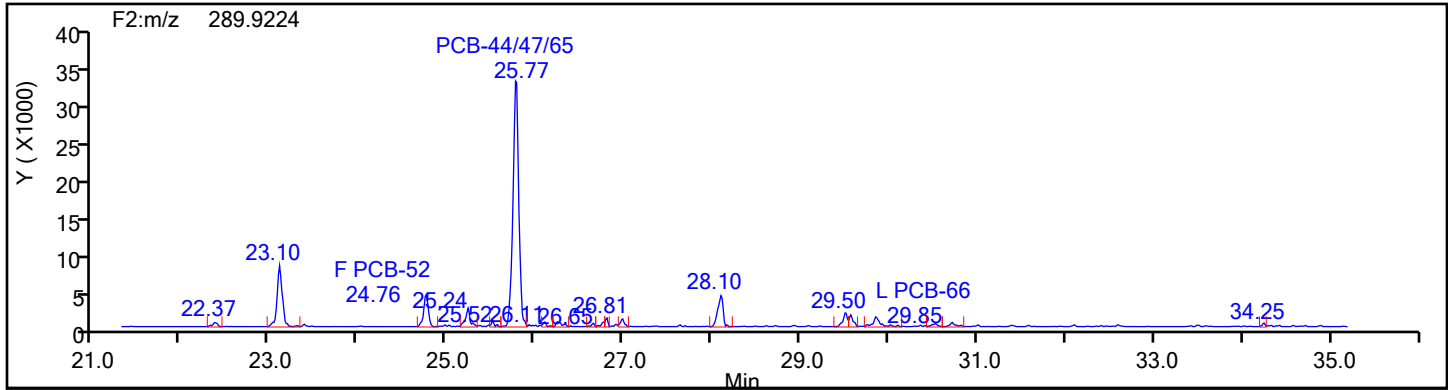
Worklist#: 88834

Sample Line#: 9

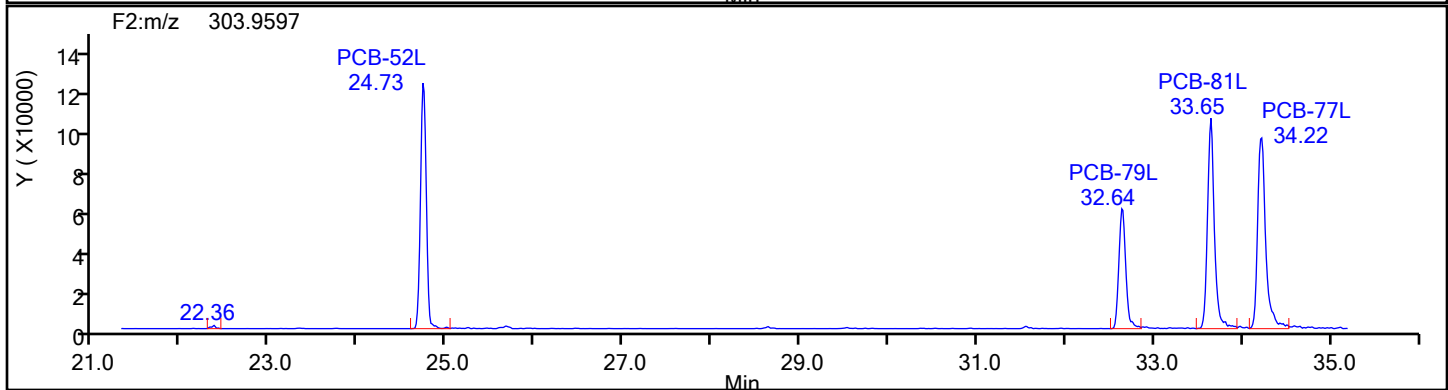
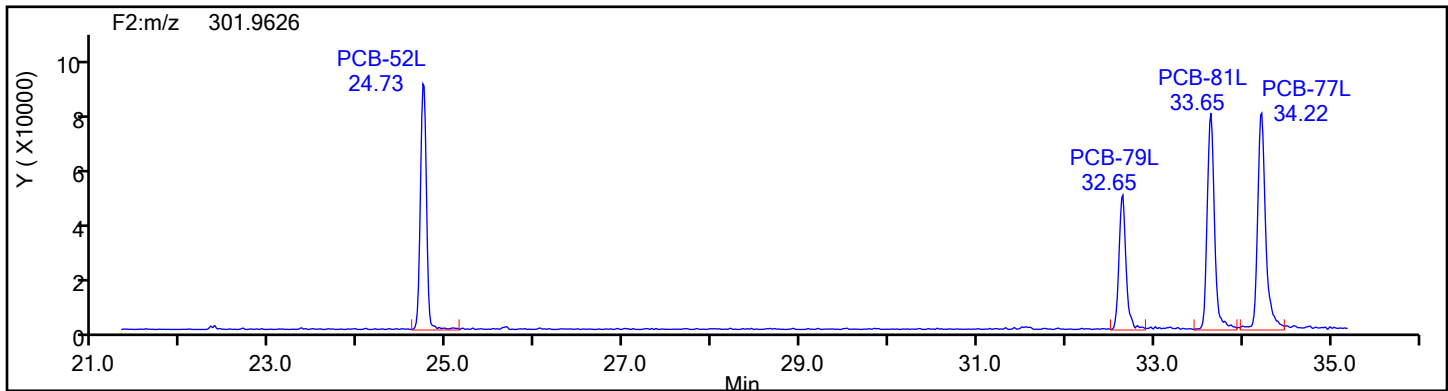
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2

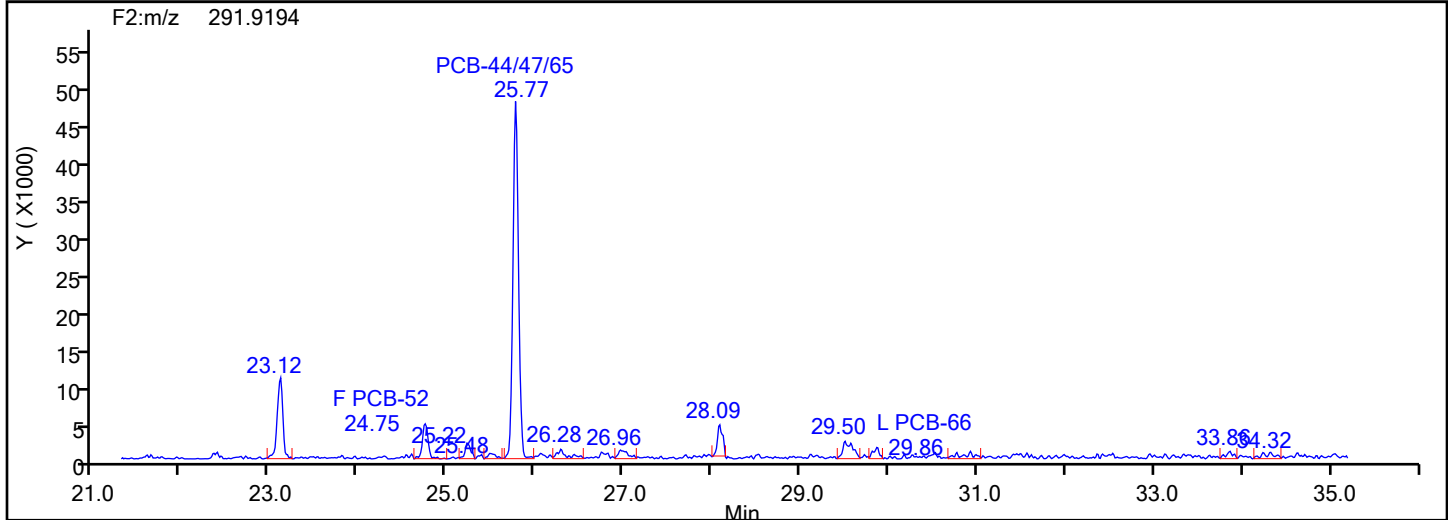
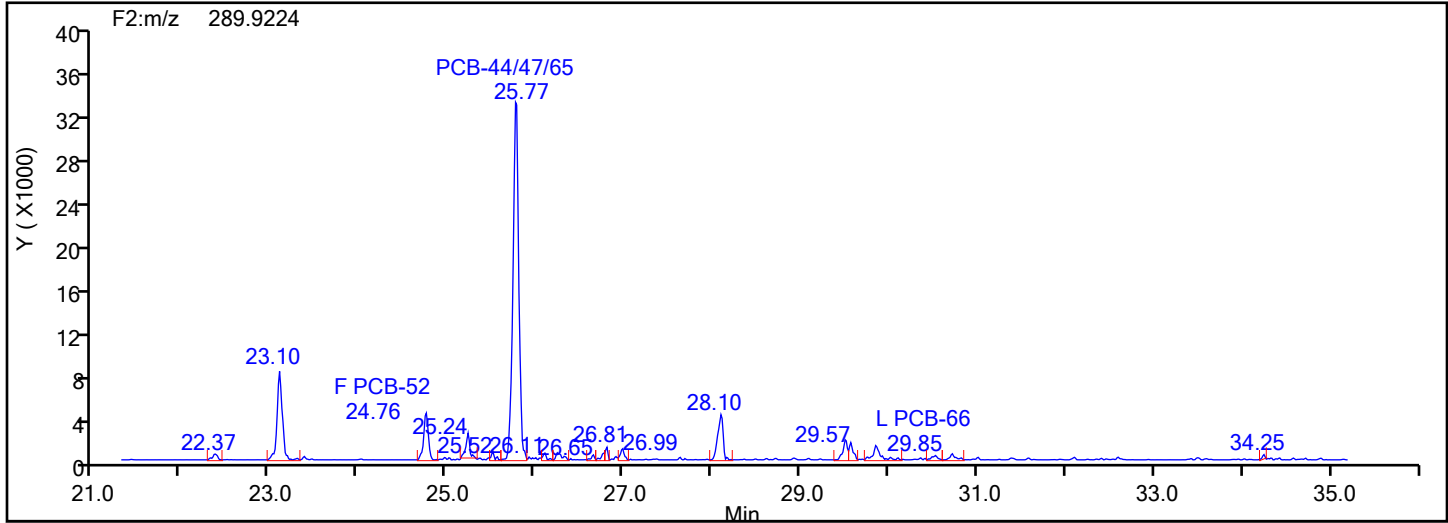


TePCB F2 Standards

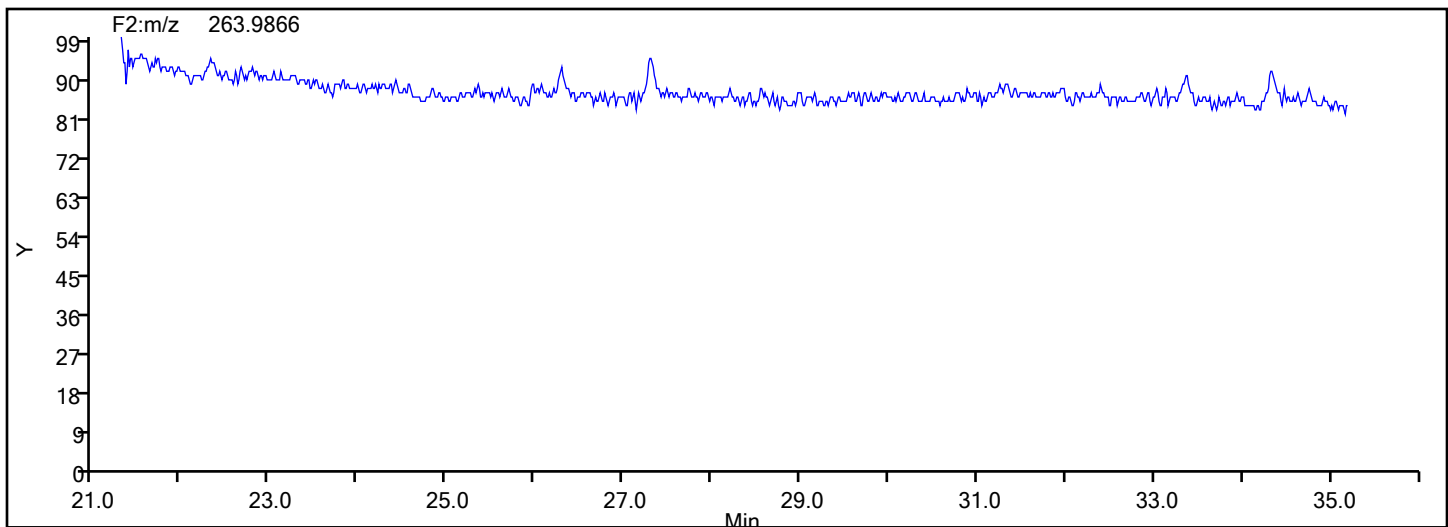


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F2

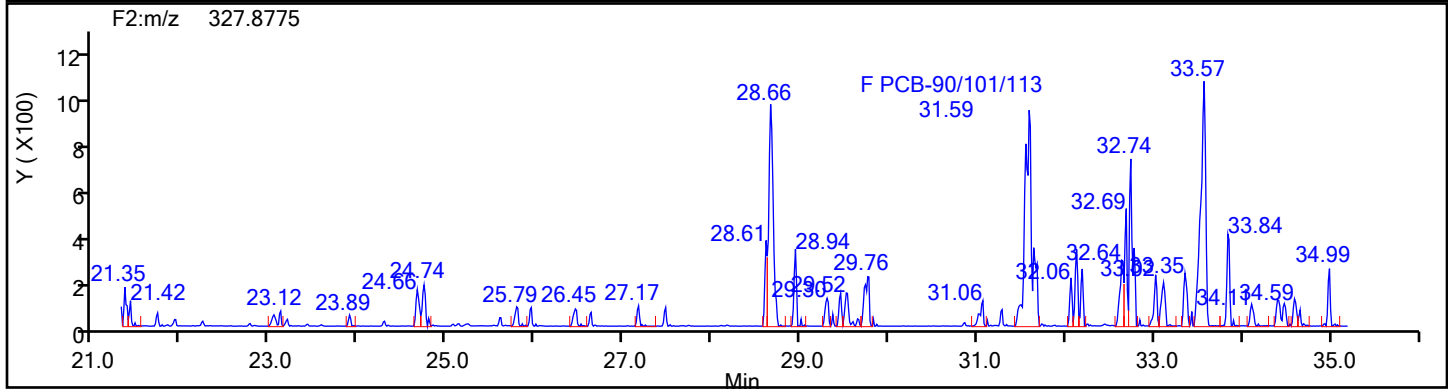
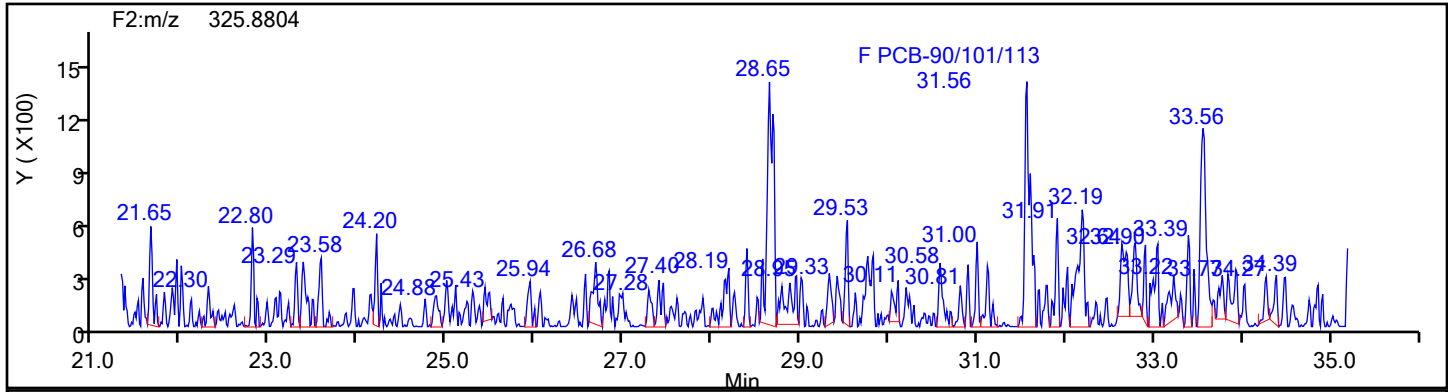


## TePCB F2 Lock Mass

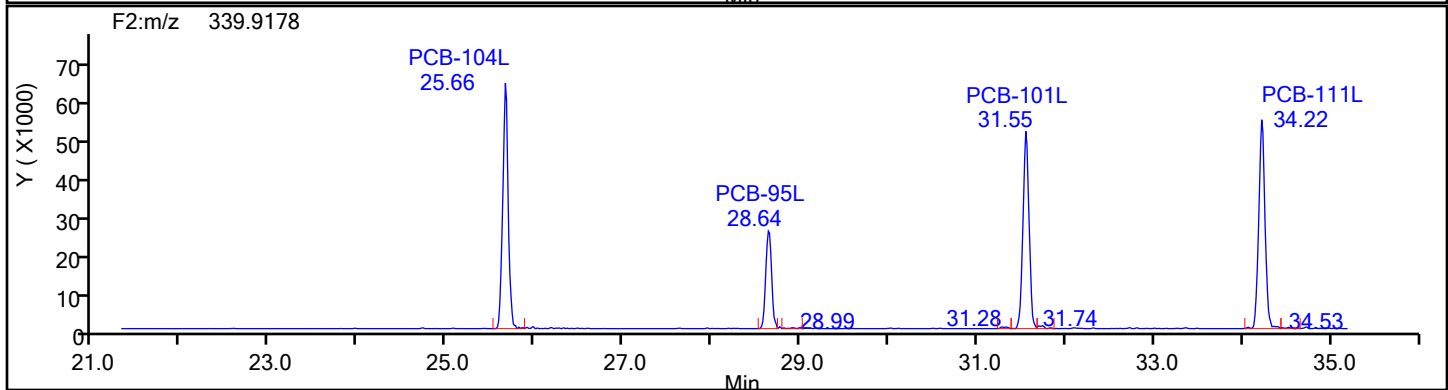
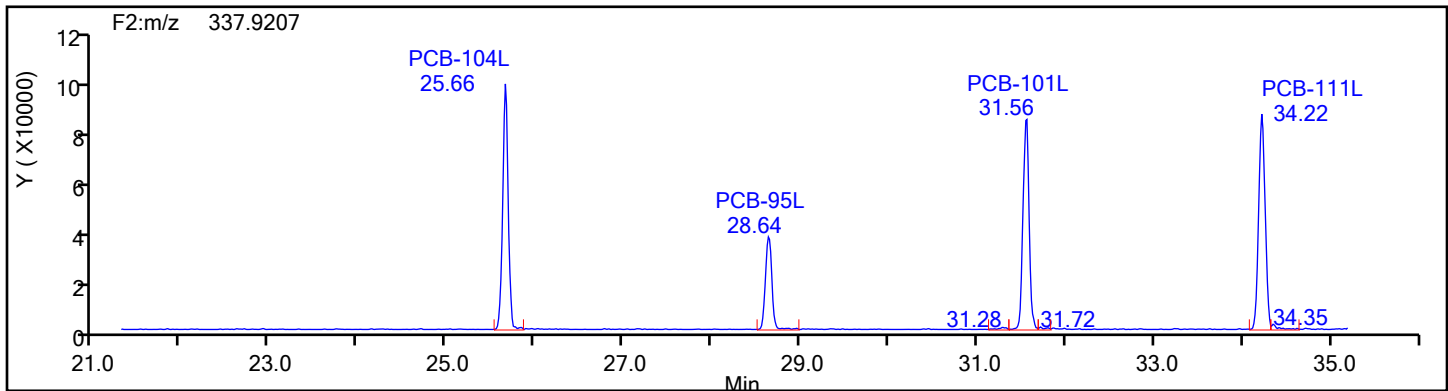


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2

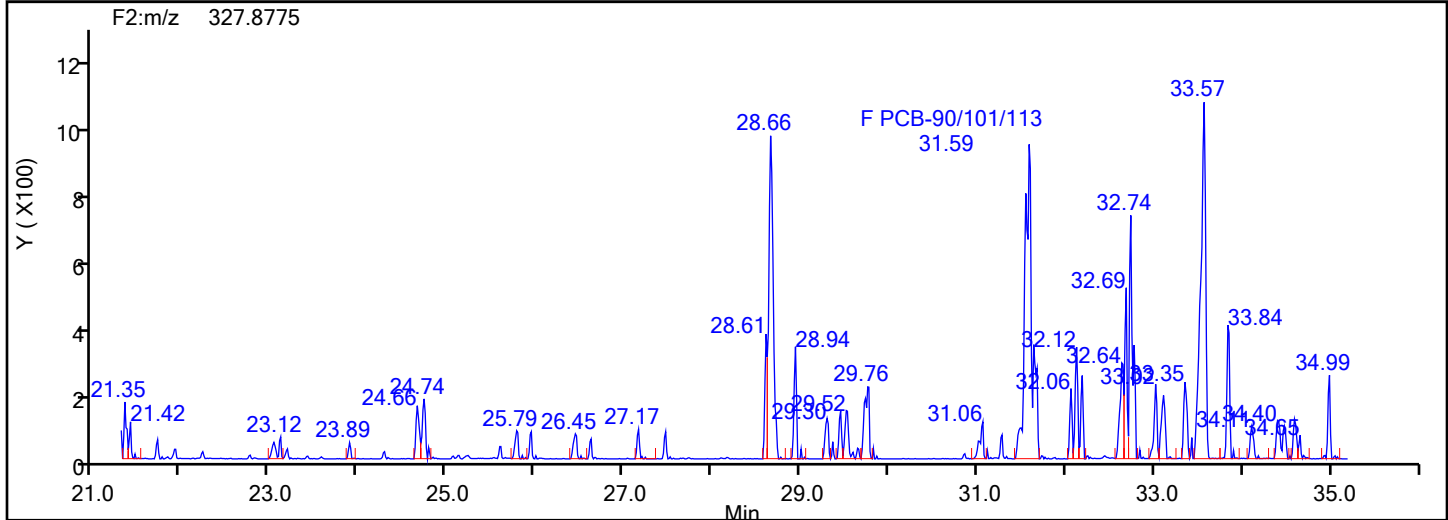
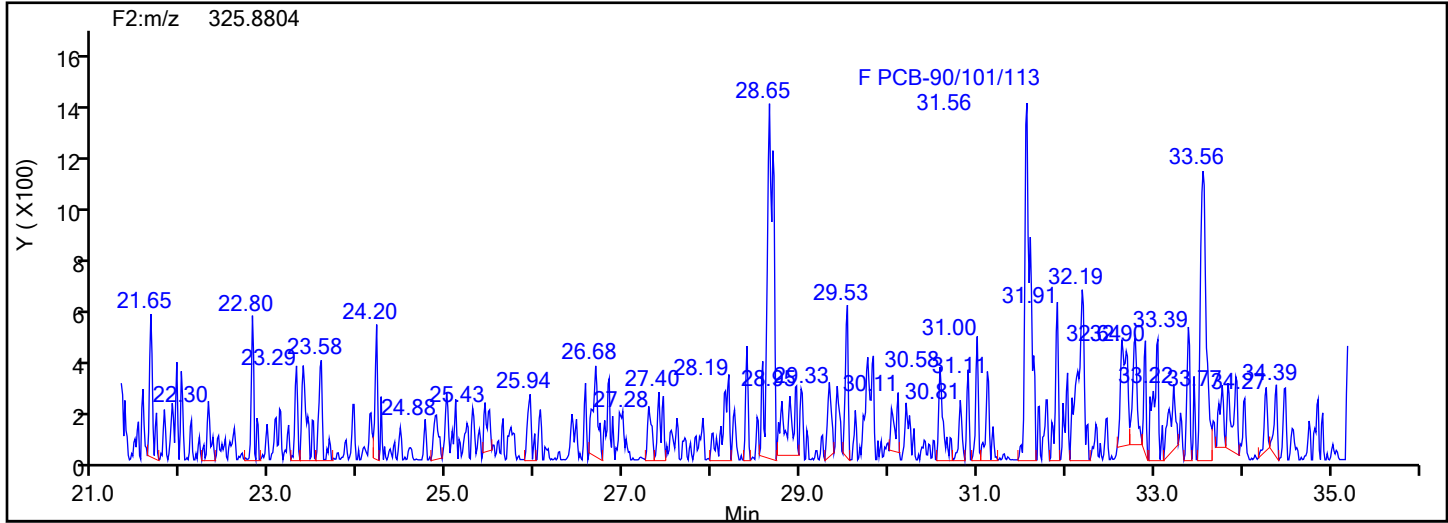


## PePCB F2 Standards

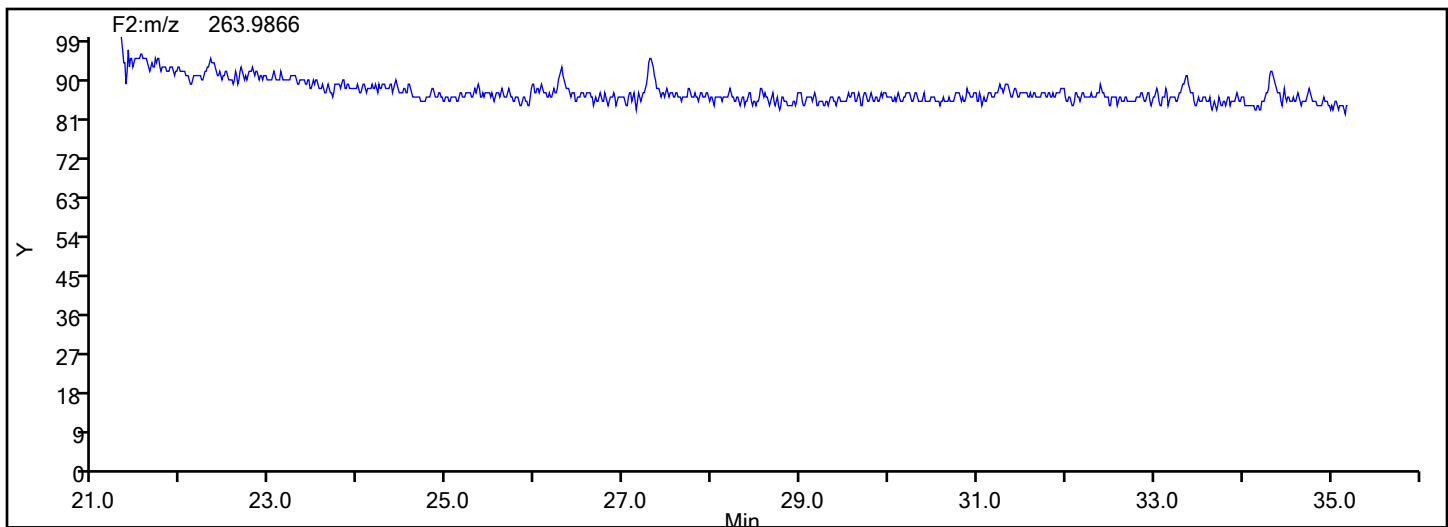


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-6-d-5x.d  
Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2

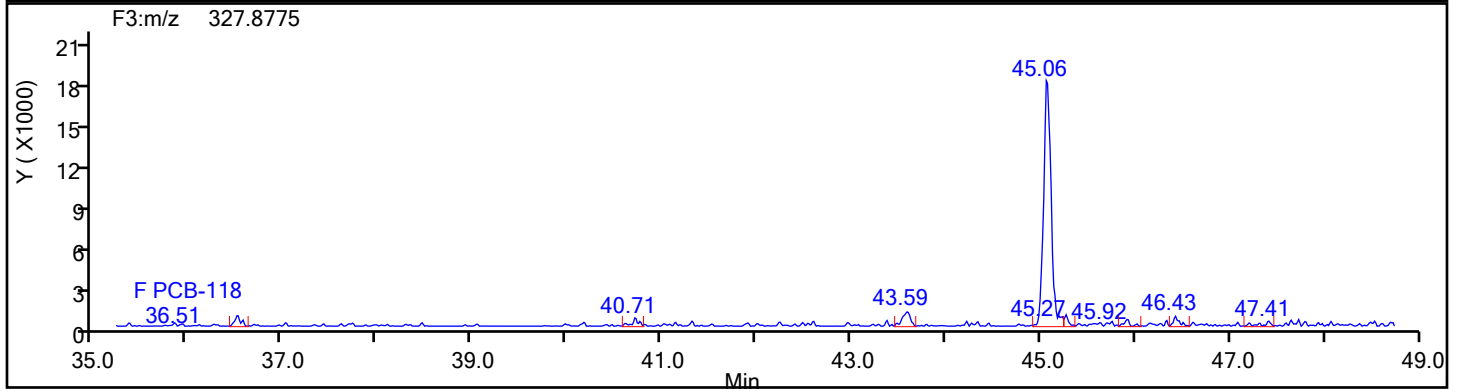
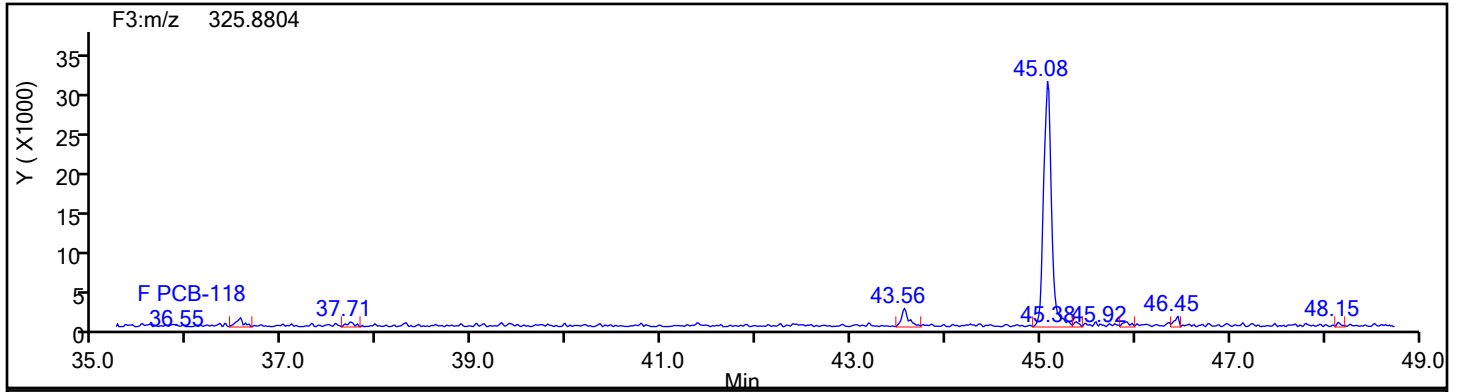


## PePCB F2 Lock Mass

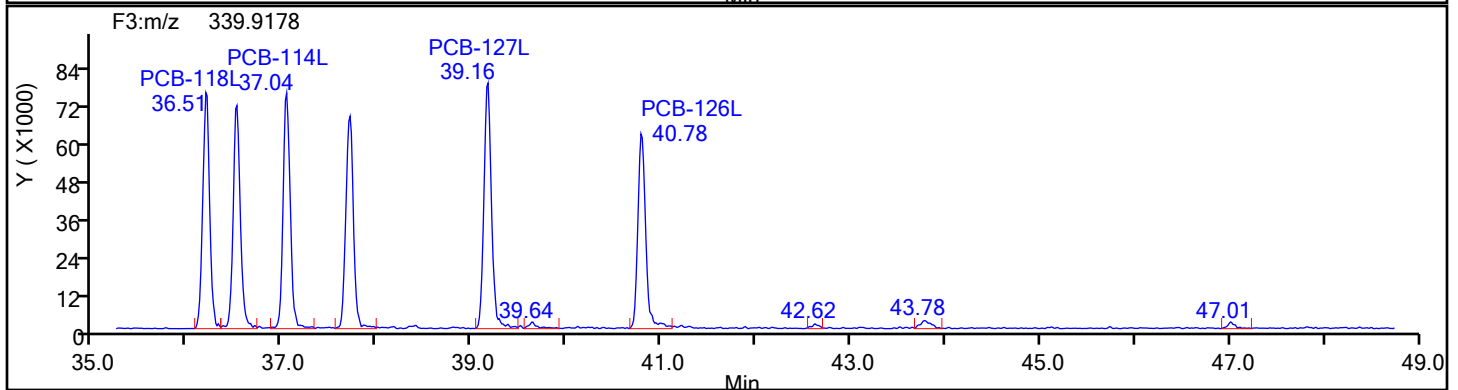
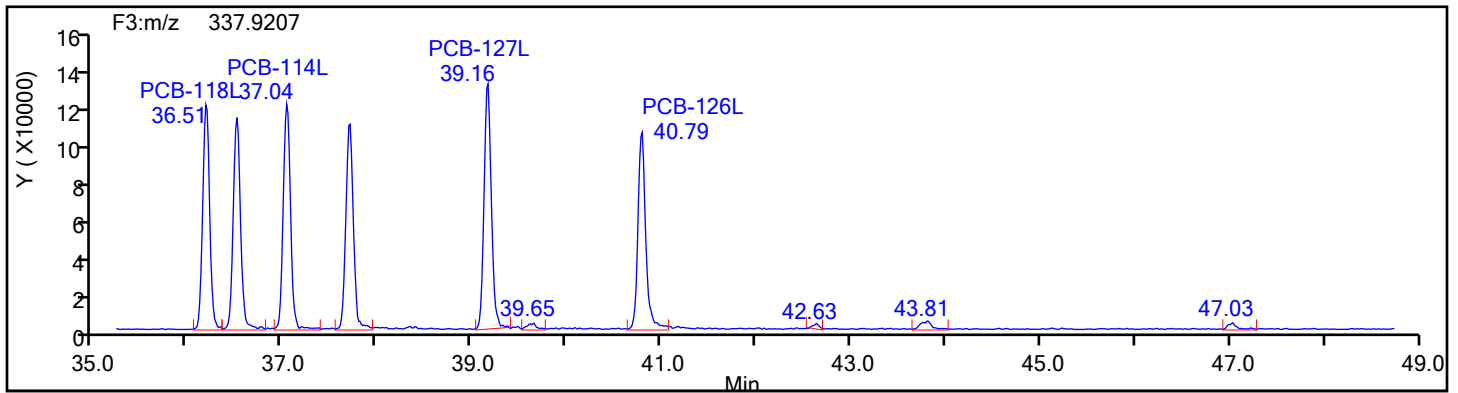


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F3

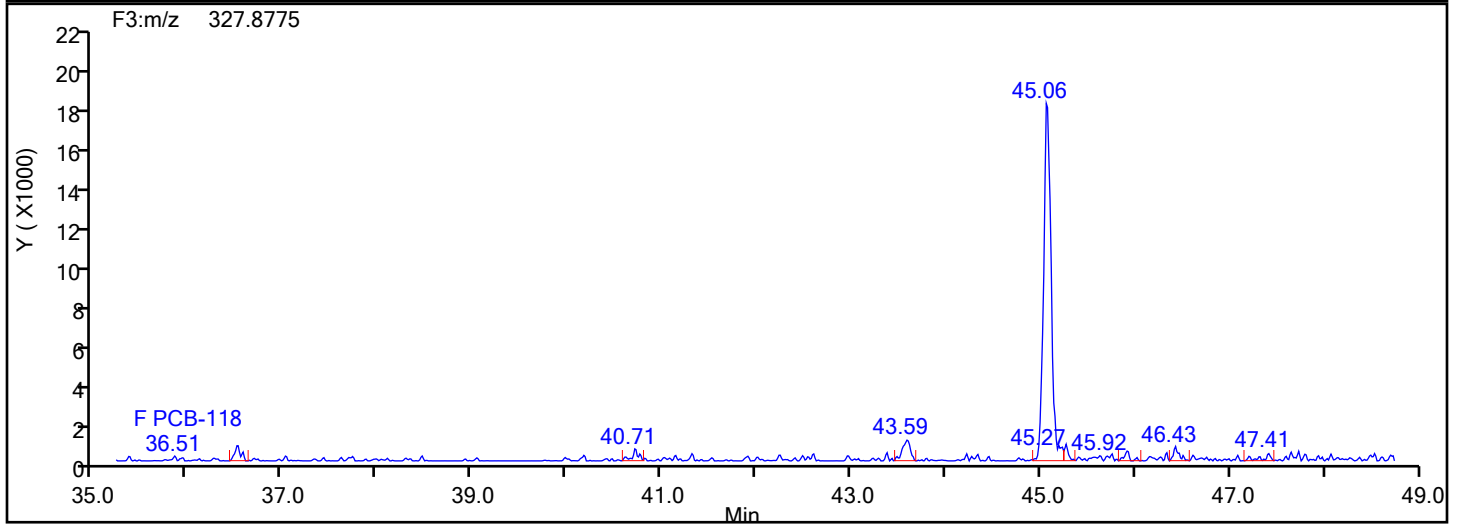
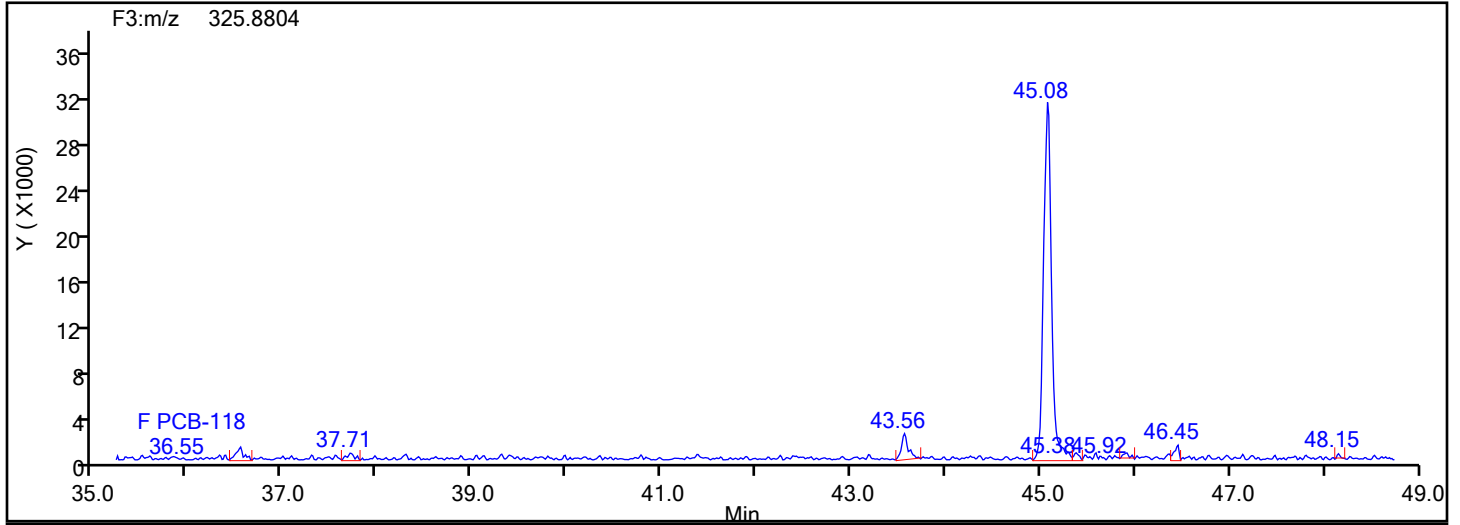


## PePCB F3 Standards

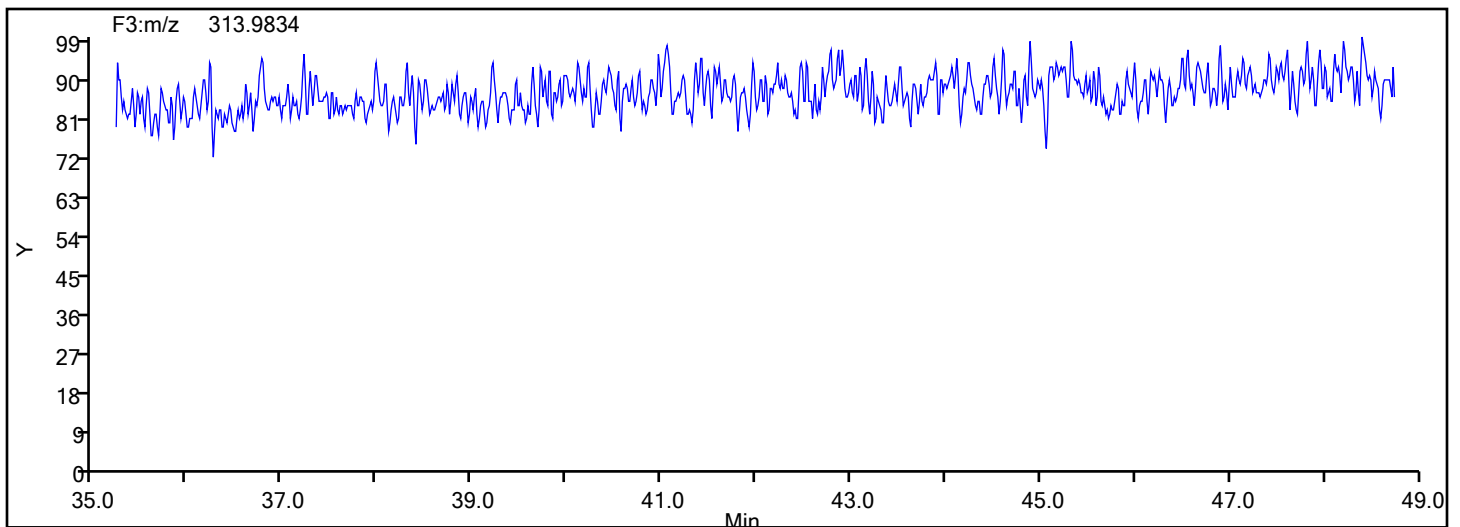


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F3

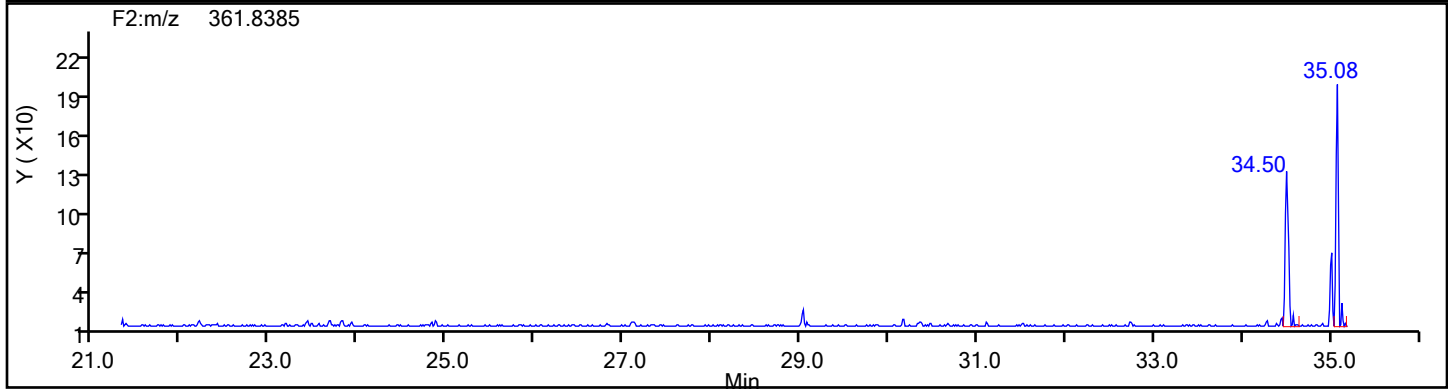
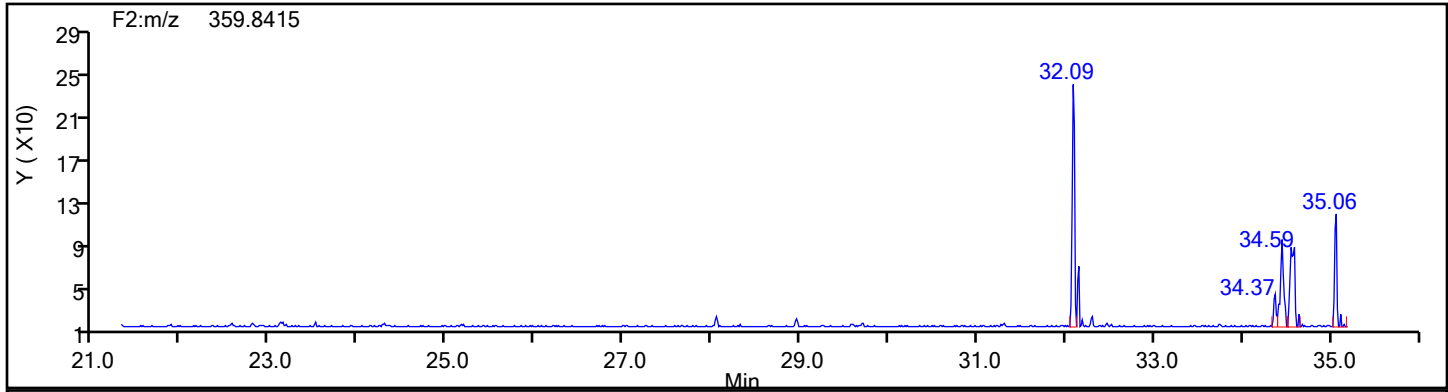


## PePCB F3 Lock Mass

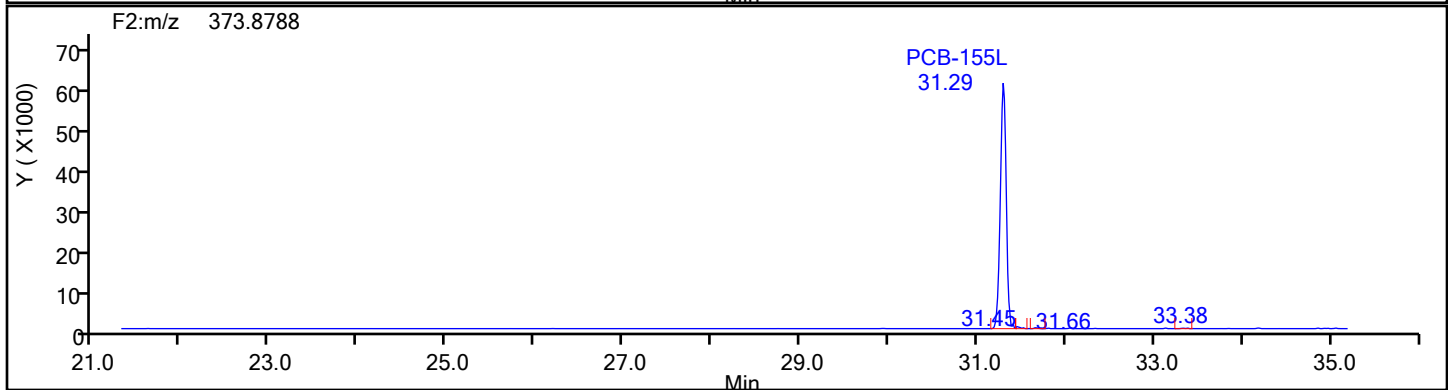
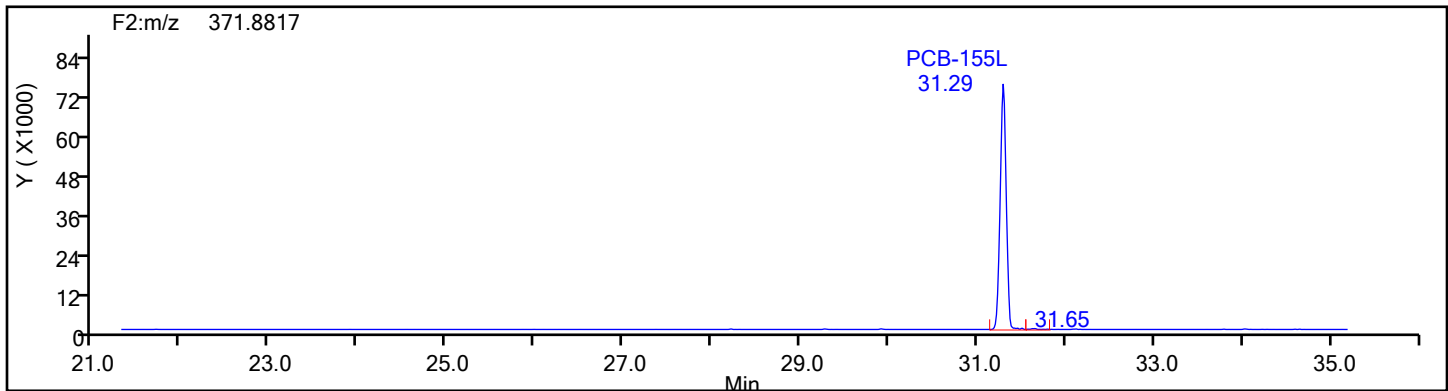


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2

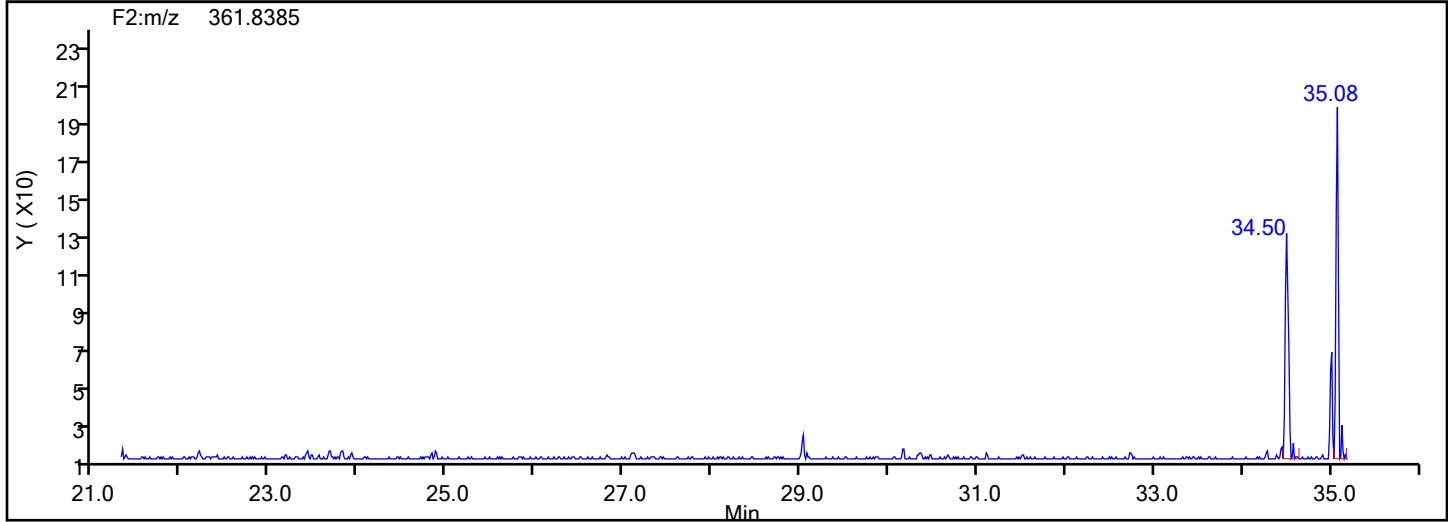
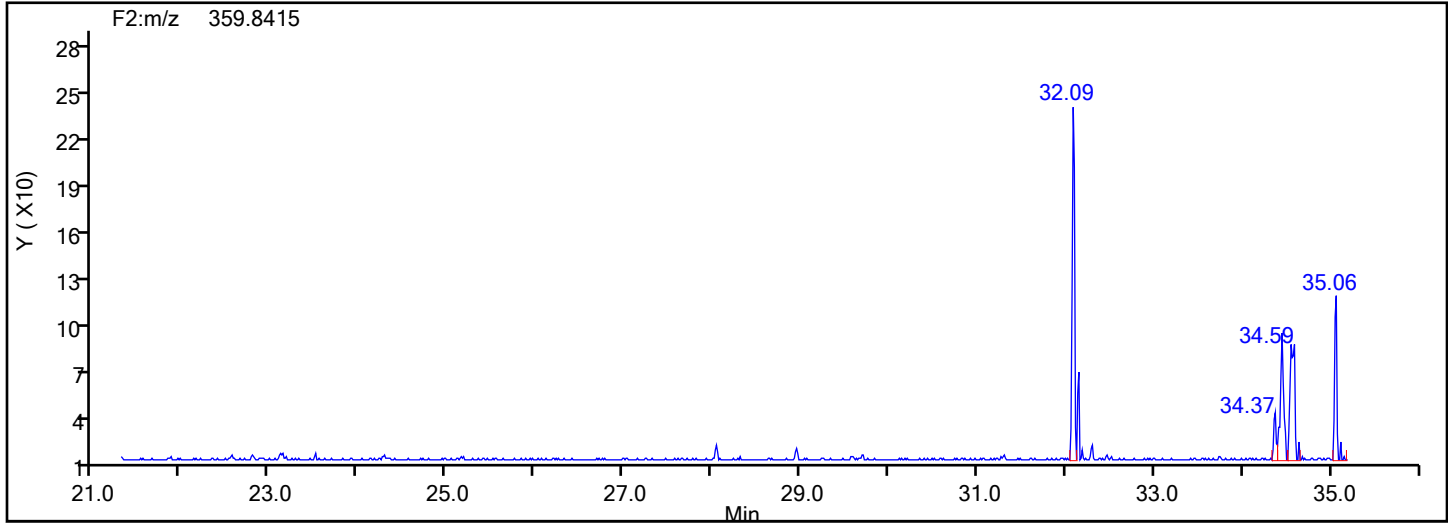


## HxPCB F2 Standards

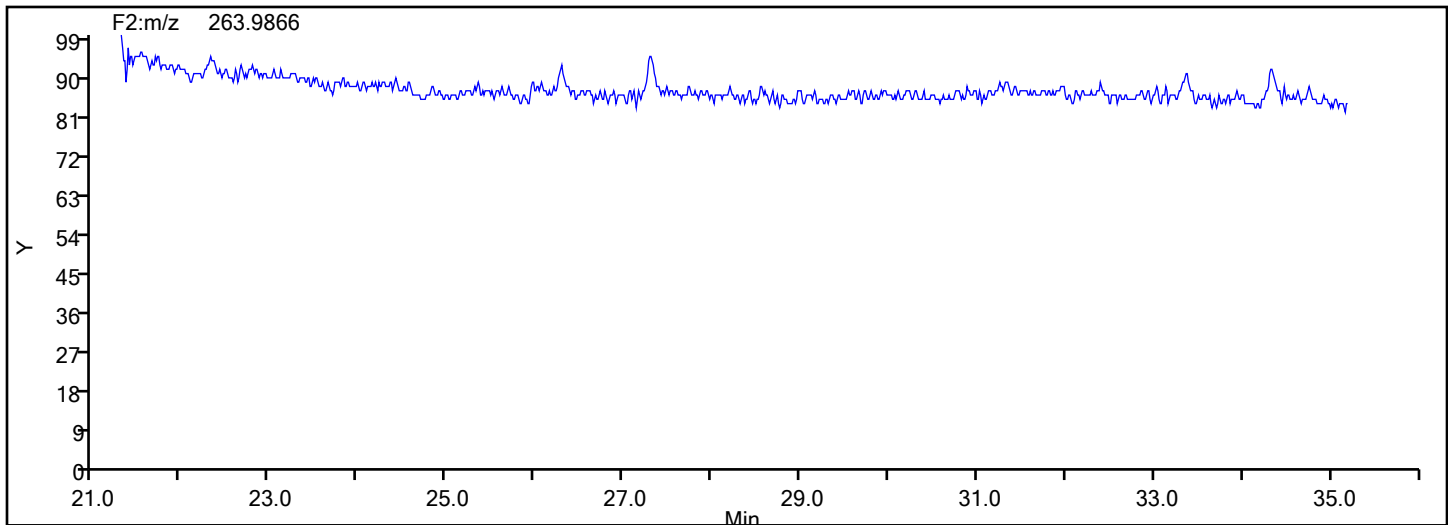


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2



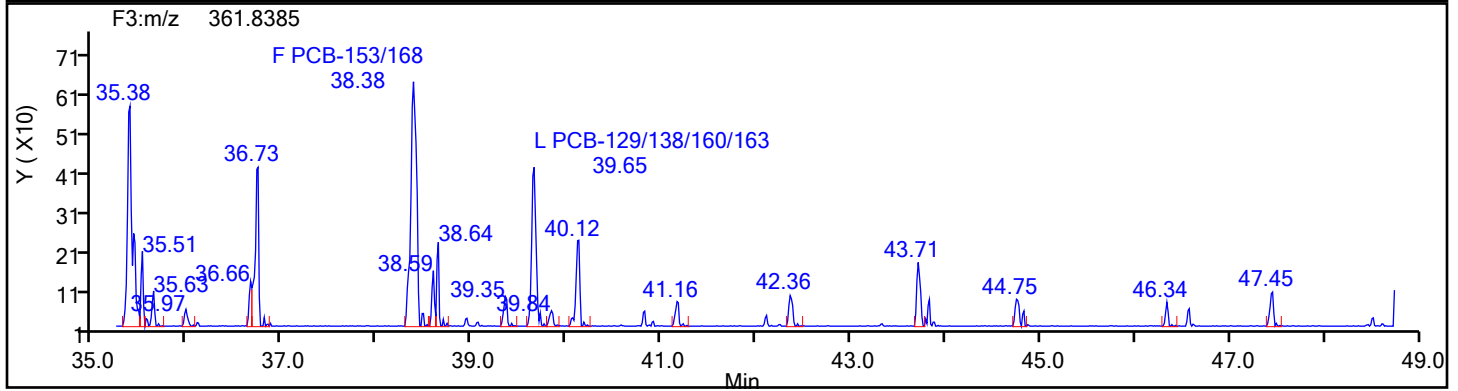
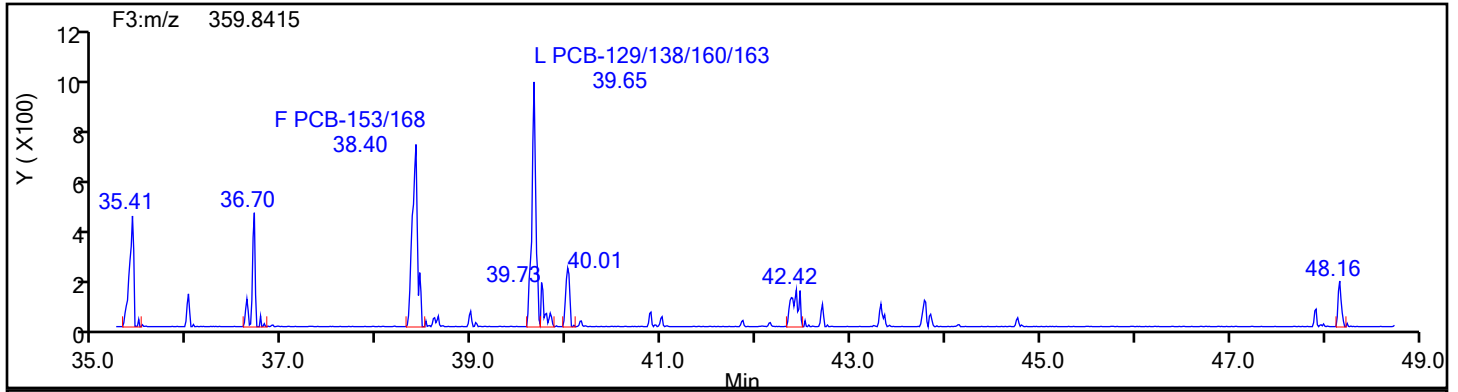
## HxPCB F2 Lock Mass



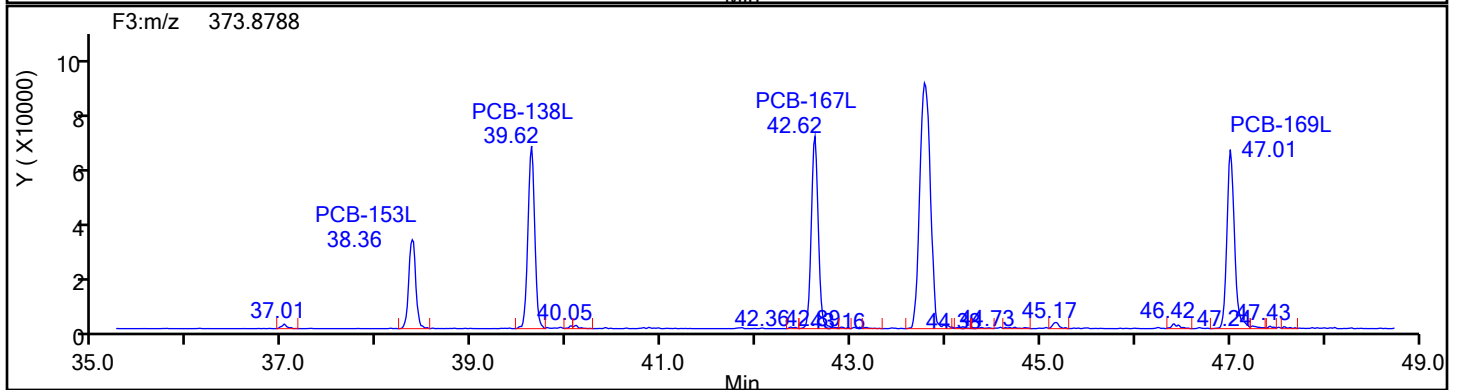
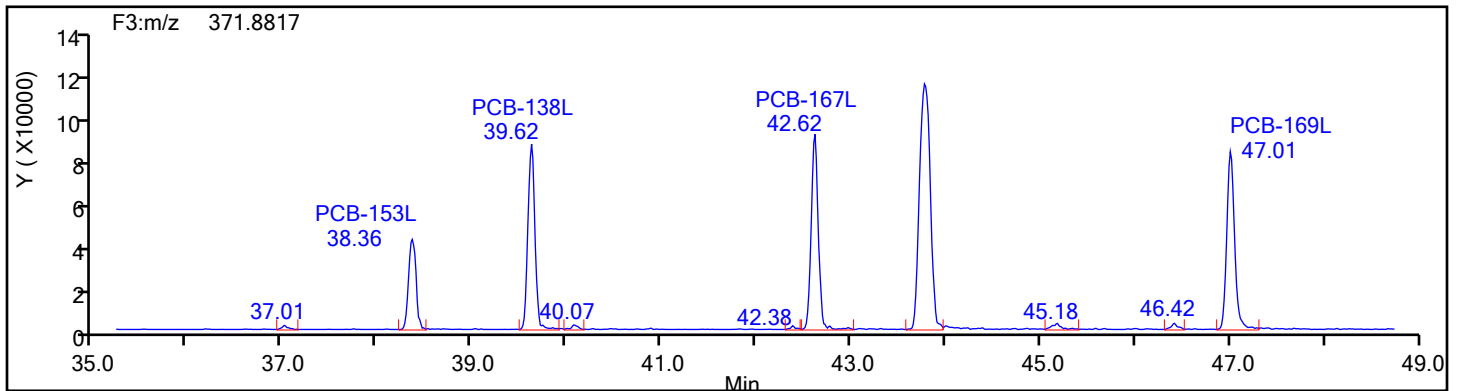


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F3

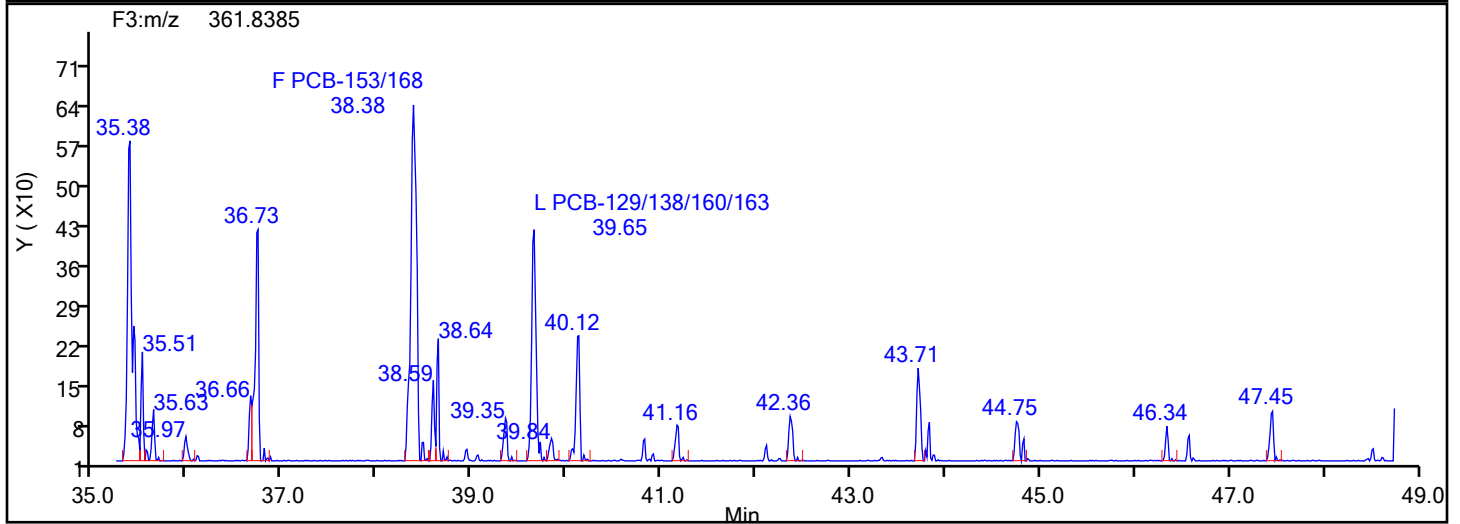
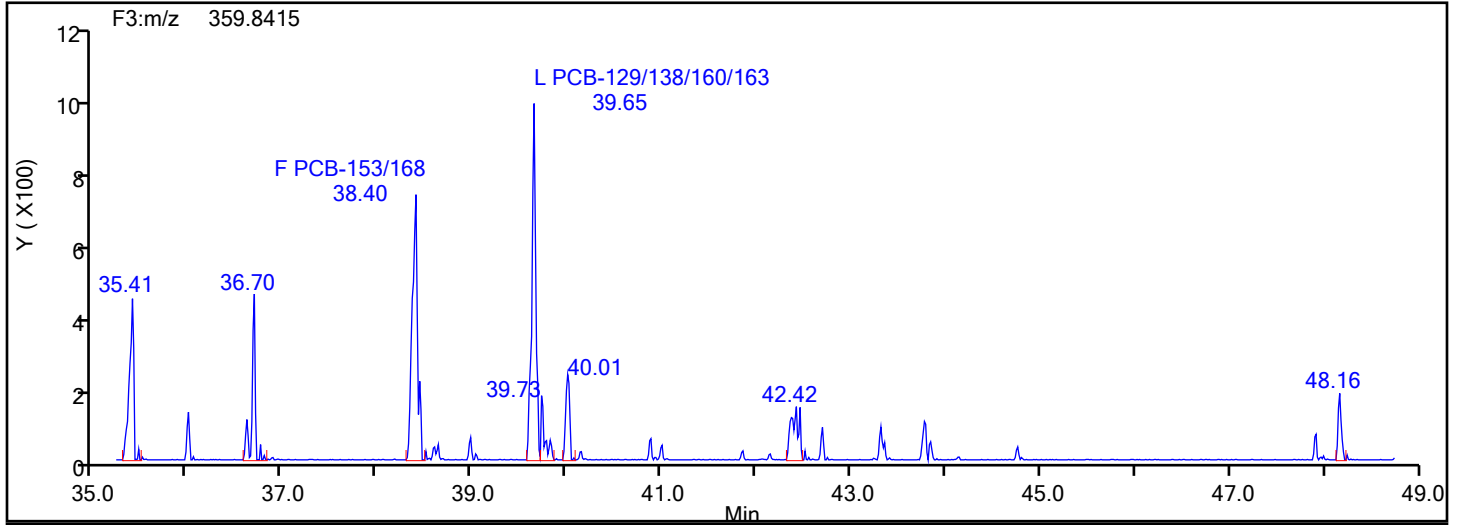


## HxPCB F3 Standards

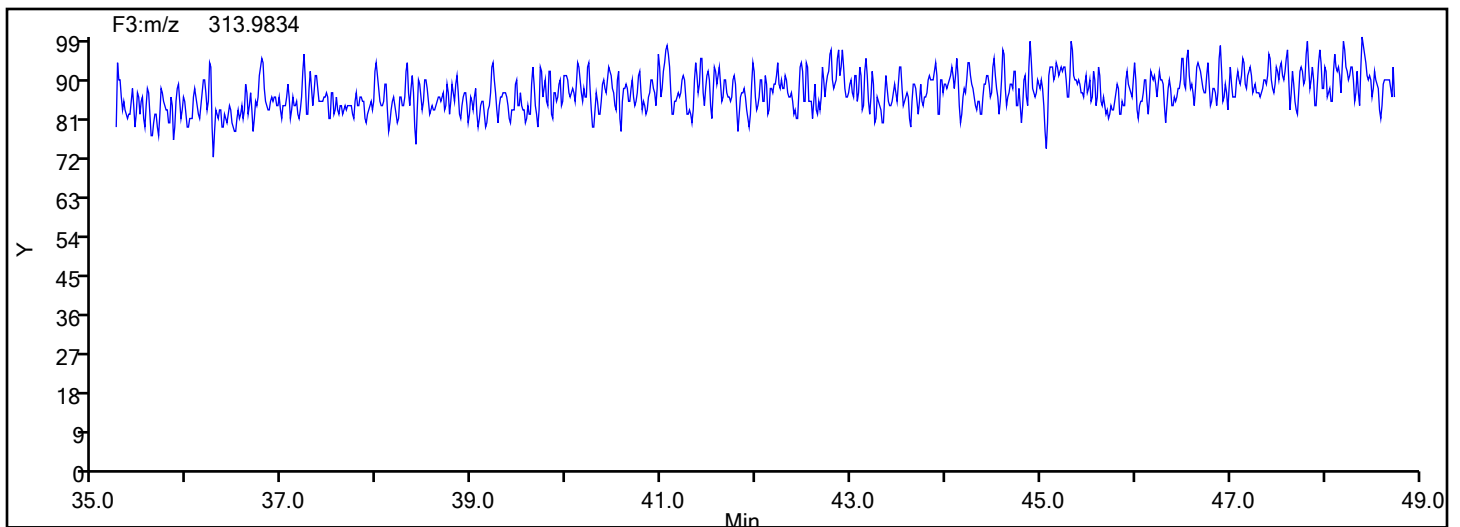


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F3



## HxPCB F3 Lock Mass



## Eurofins Knoxville

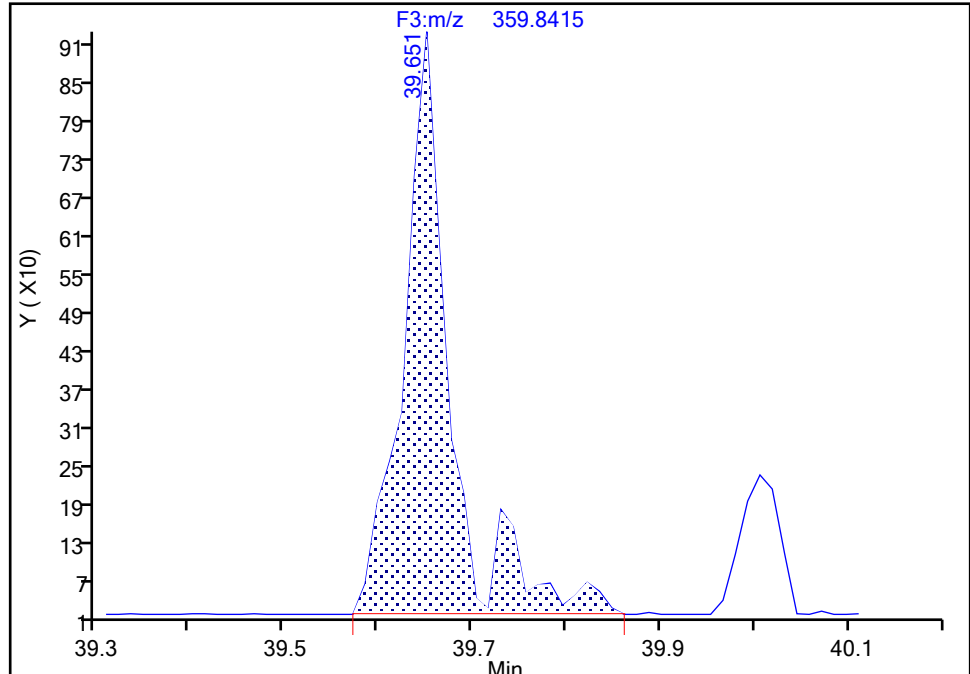
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Injection Date: 17-Jul-2024 05:21:00 Instrument ID: D2D  
Lims ID: 140-37234-A-6-D Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 1

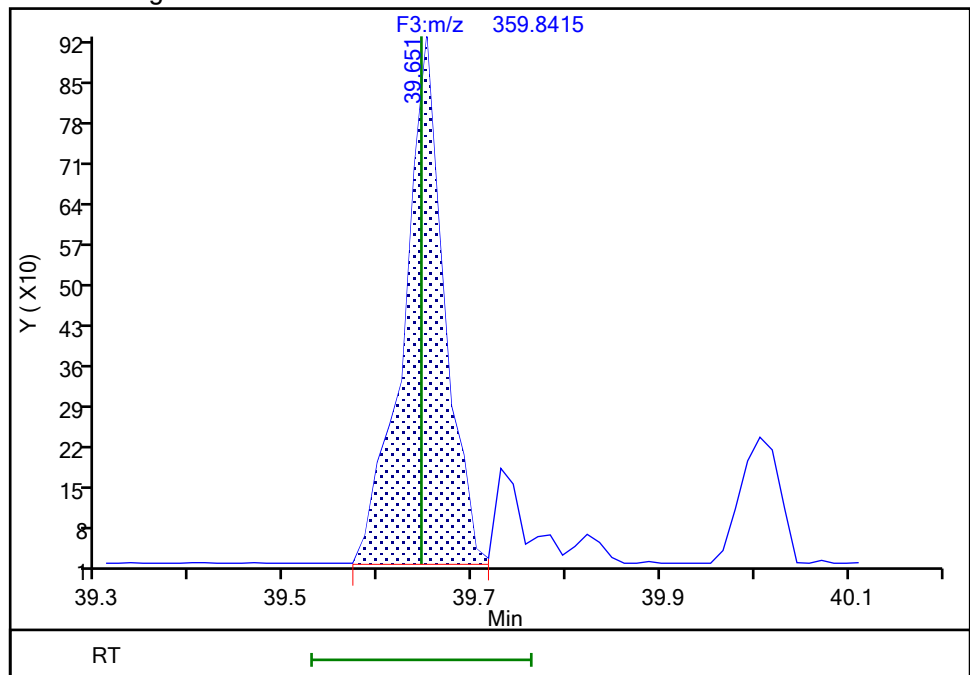
RT: 39.65  
Area: 3166  
Amount: 0.119136  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.65  
Area: 2715  
Amount: 0.107105  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:30:30 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-6-d-5x.d

Injection Date: 17-Jul-2024 05:21:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER RUN 7 COMBINED

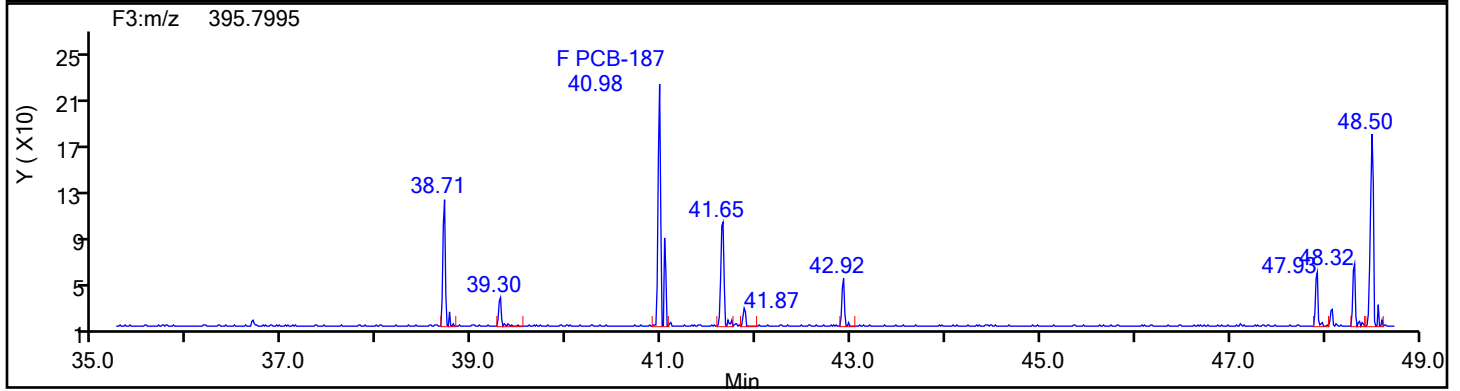
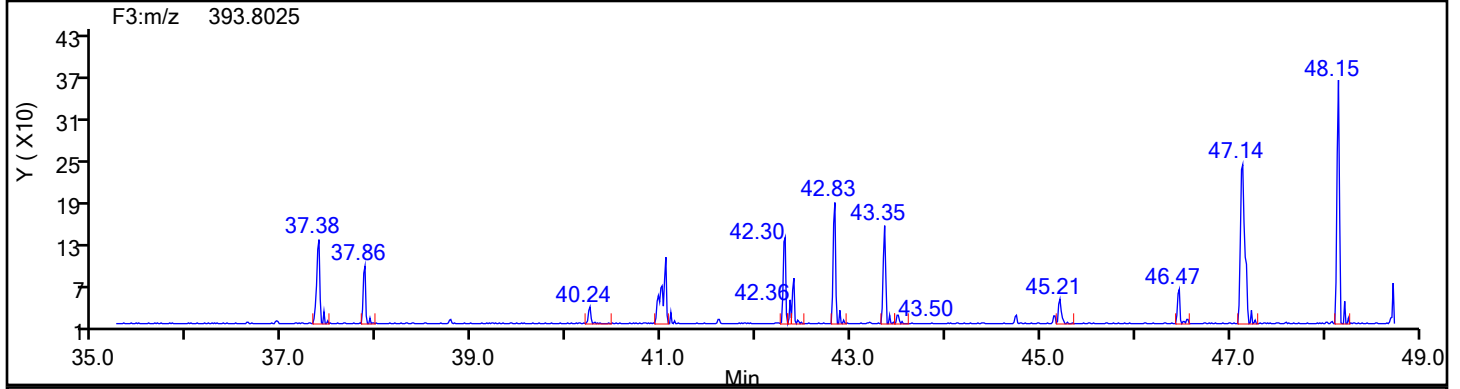
Worklist#: 88834

Sample Line#: 9

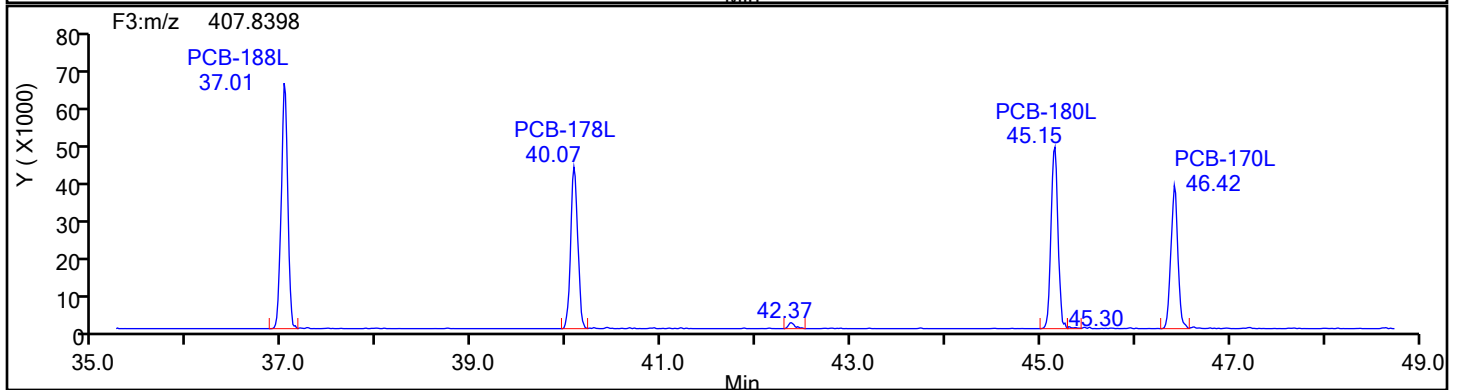
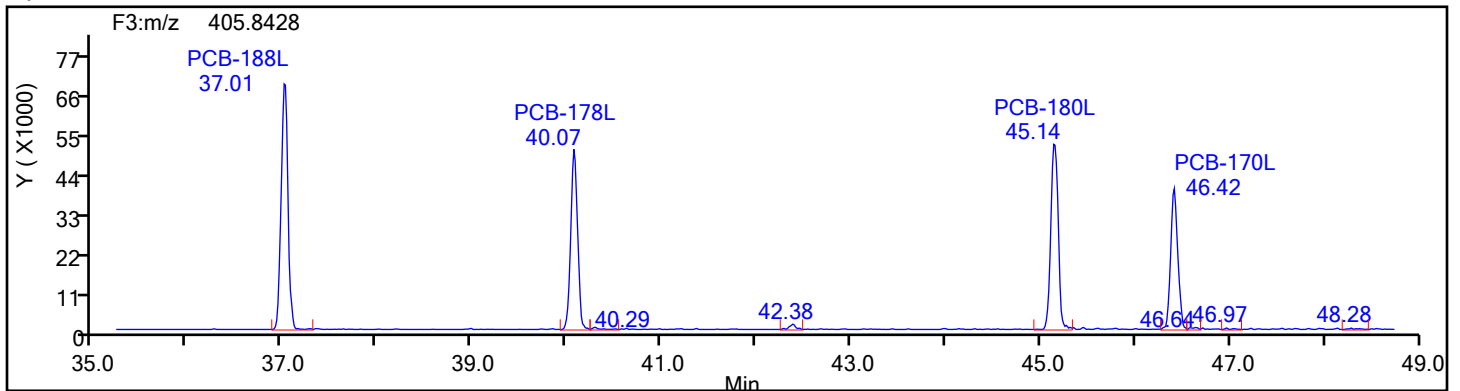
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3

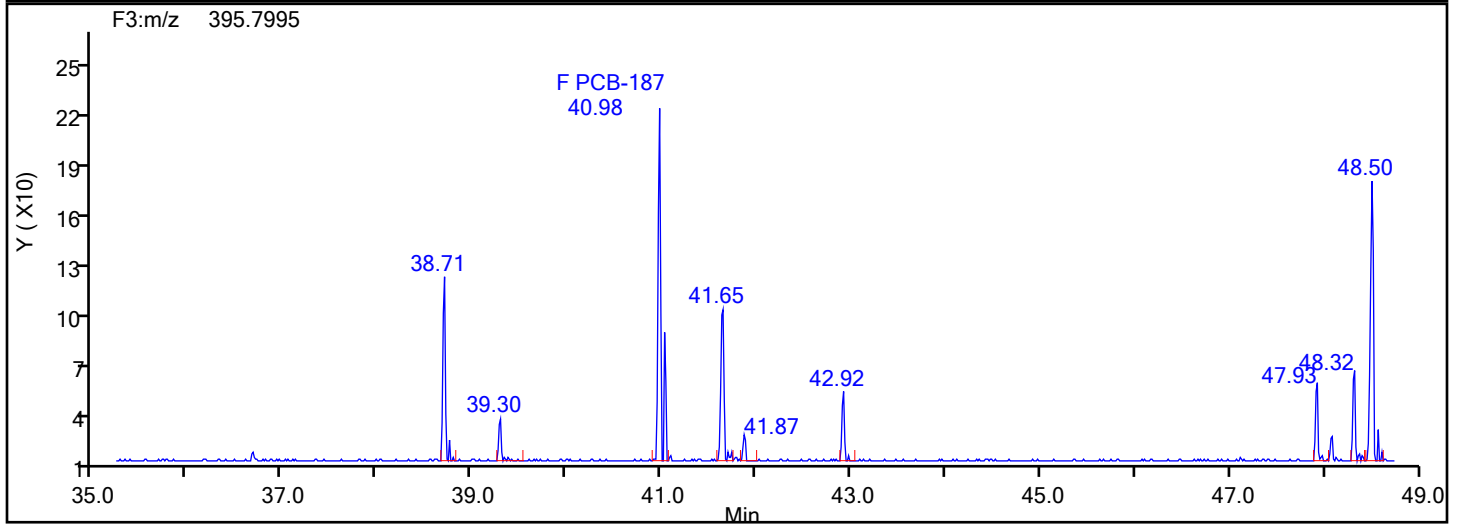
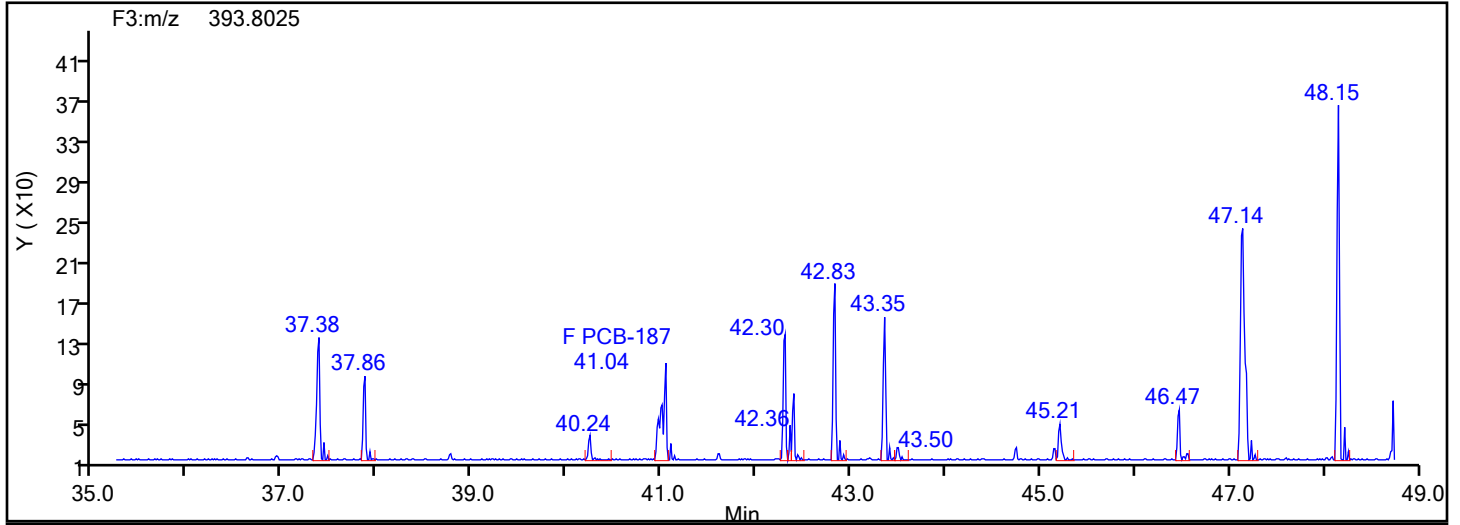


HpPCB F3 Standards

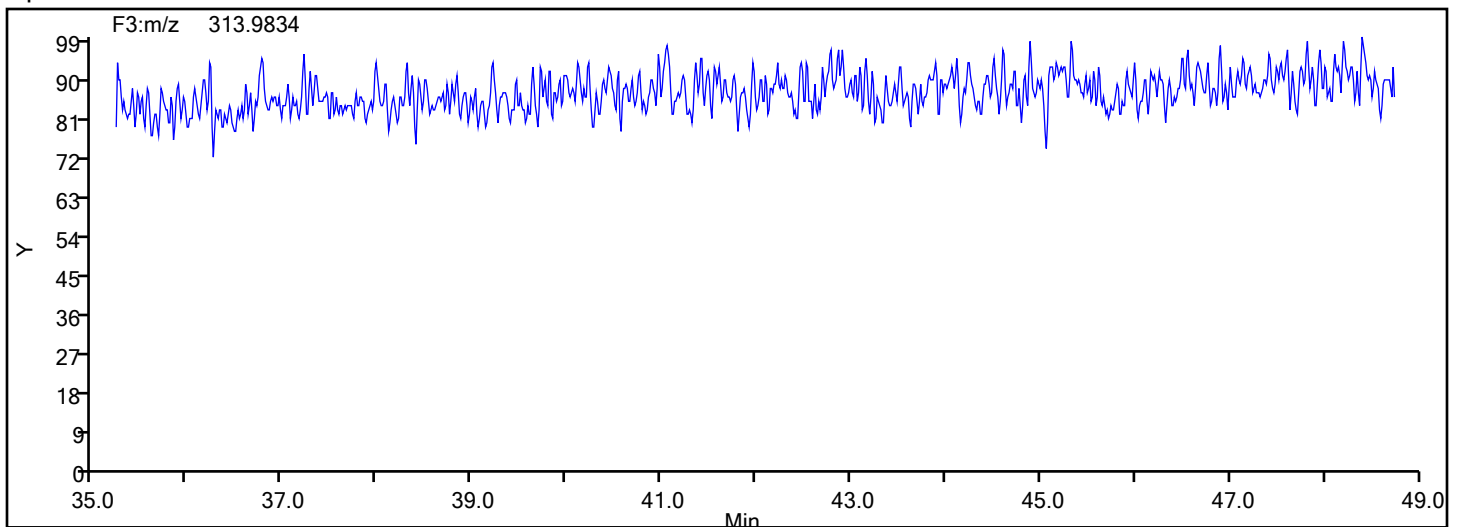


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F3



## HpPCB F3 Lock Mass



## Eurofins Knoxville

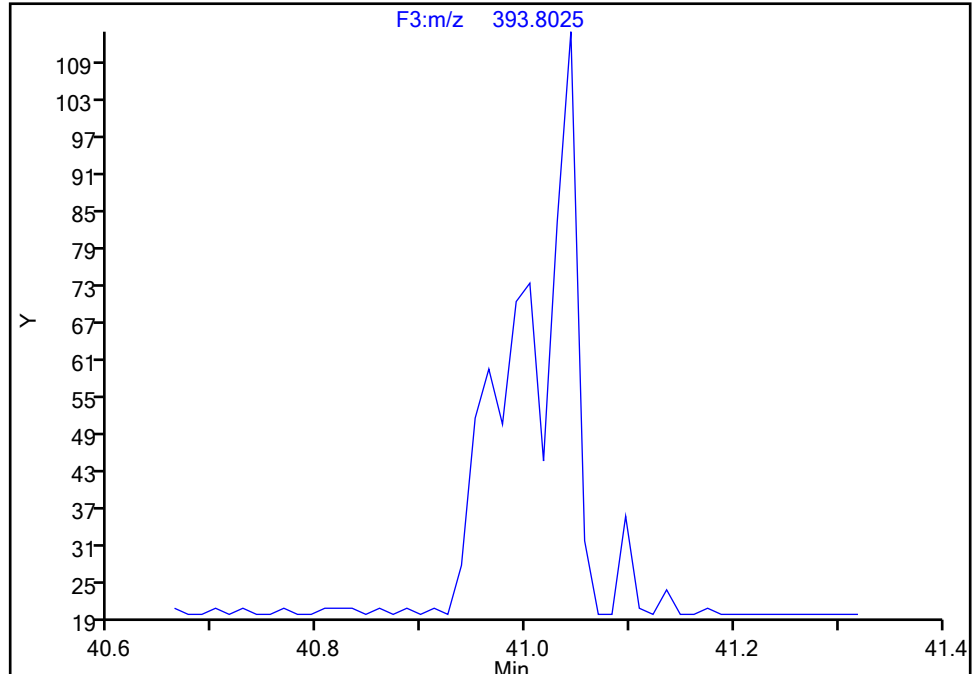
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Injection Date: 17-Jul-2024 05:21:00 Instrument ID: D2D  
Lims ID: 140-37234-A-6-D Lab Sample ID: 140-37234-6  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F3(35.64 :49.10 )

**PCB-187, CAS: 52663-68-0**

Signal: 1

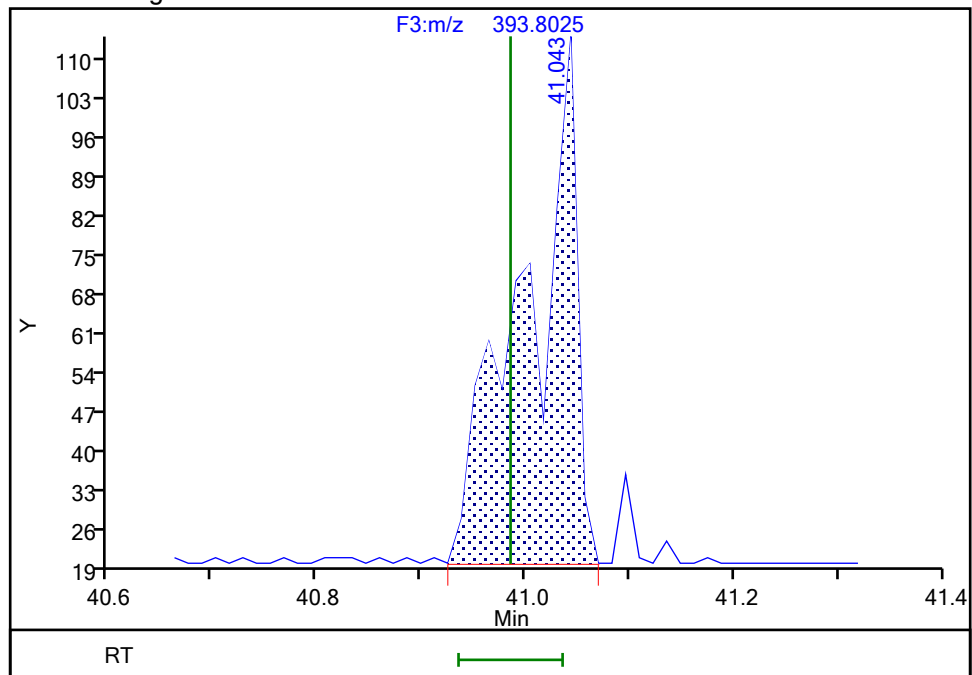
Not Detected  
Expected RT: 40.99

## Processing Integration Results



RT: 41.04  
Area: 324  
Amount: 0.026724  
Amount Units: pg/ul

## Manual Integration Results



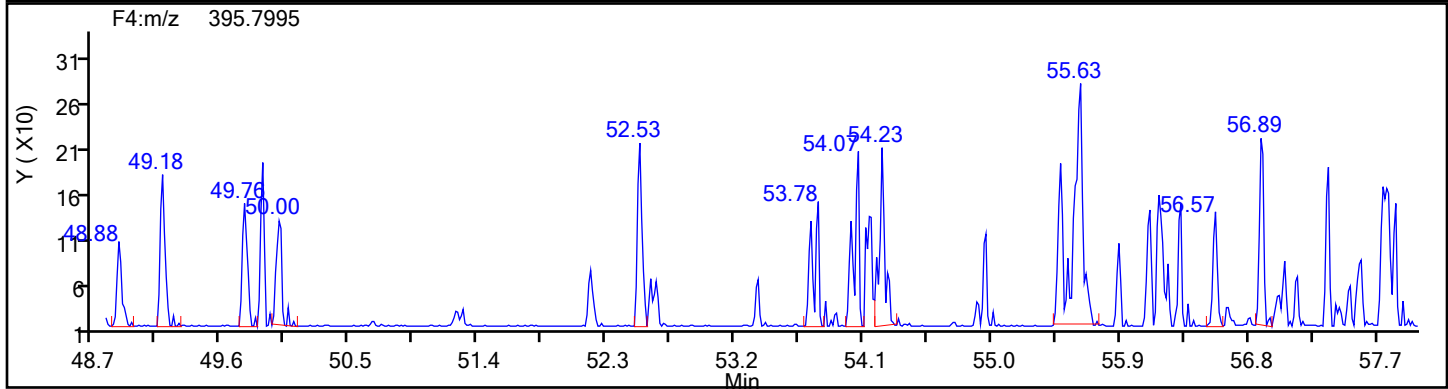
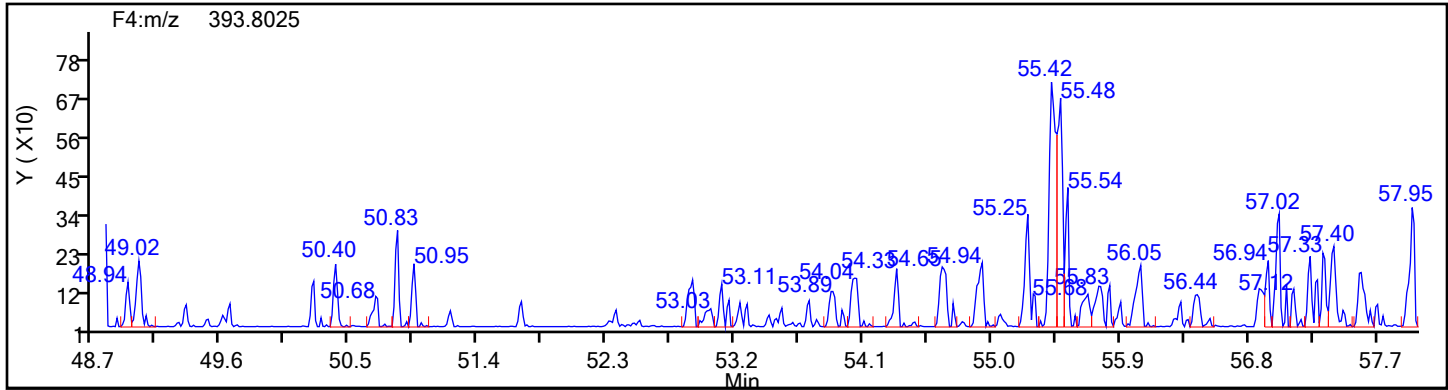
Reviewer: TT6I, 17-Jul-2024 13:30:53 -04:00:00 (UTC)

Audit Action: Assigned Compound ID

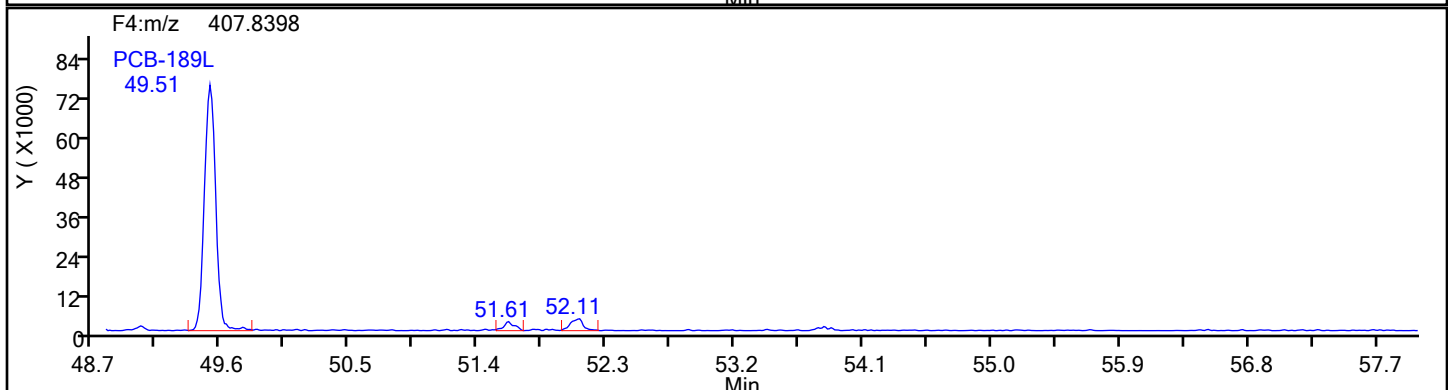
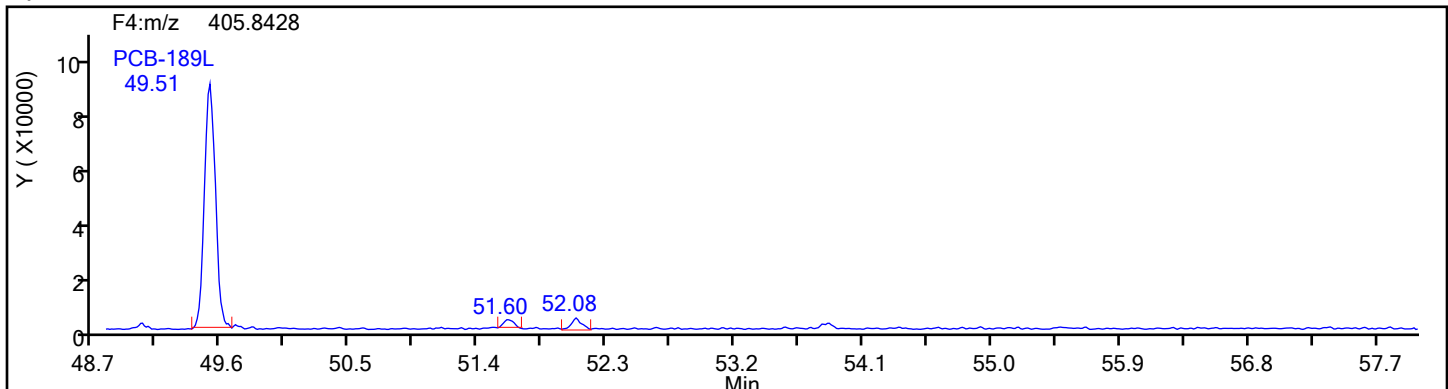
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-6-d-5x.d  
Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F4

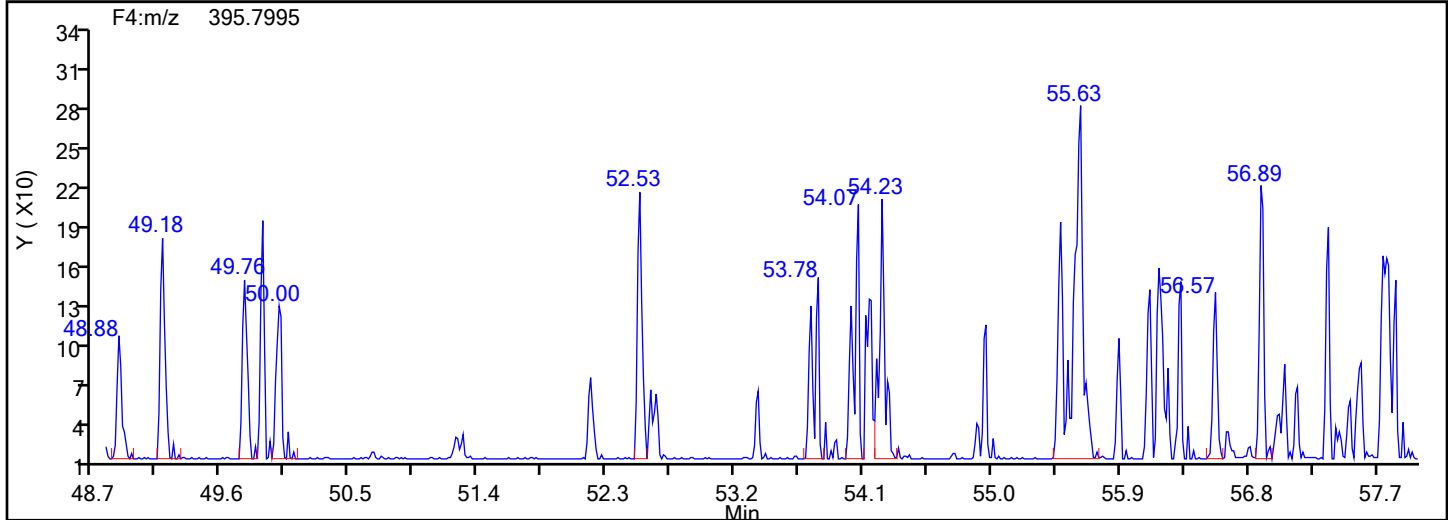
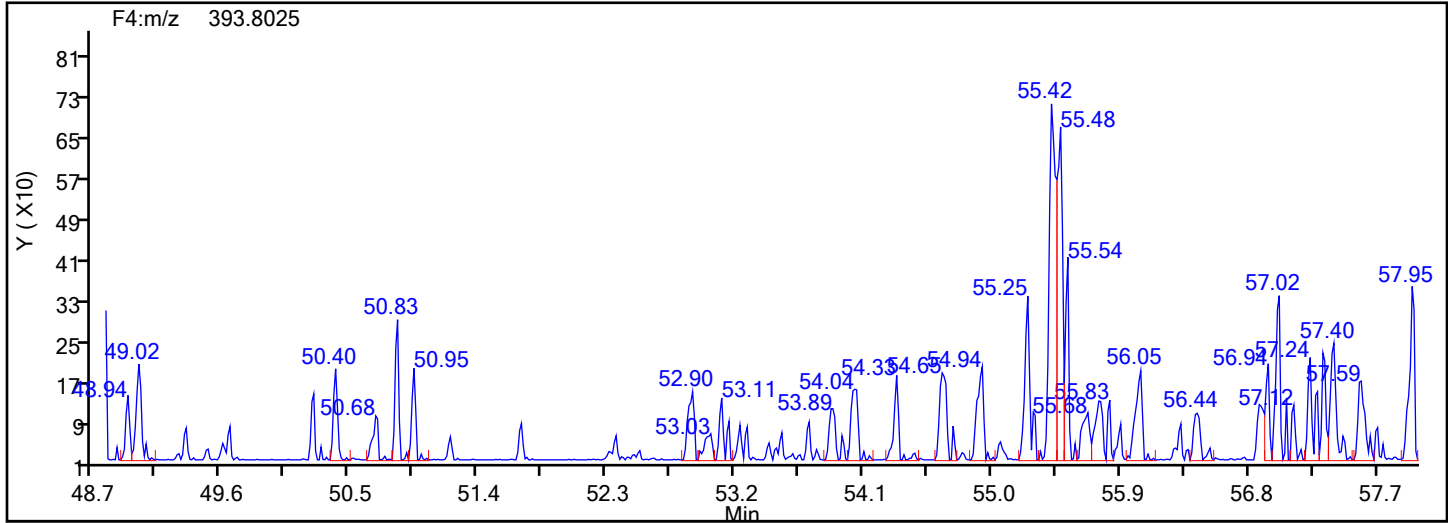


## HpPCB F4 Standards

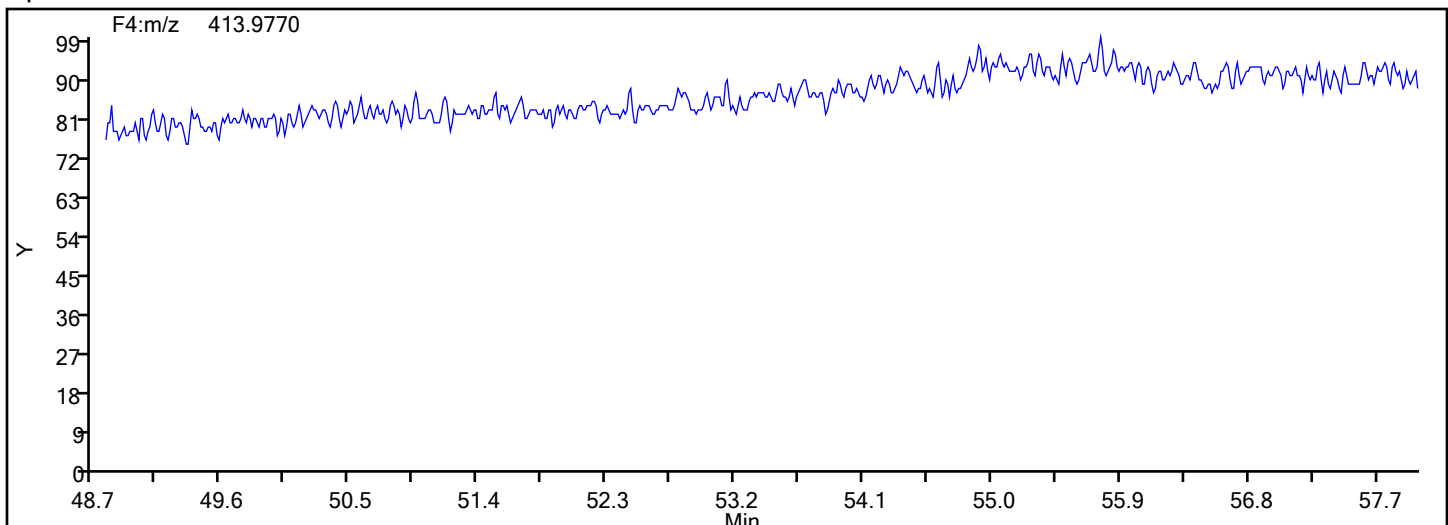


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F4



## HpPCB F4 Lock Mass





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-6-d-5x.d

Injection Date: 17-Jul-2024 05:21:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER RUN 7 COMBINED

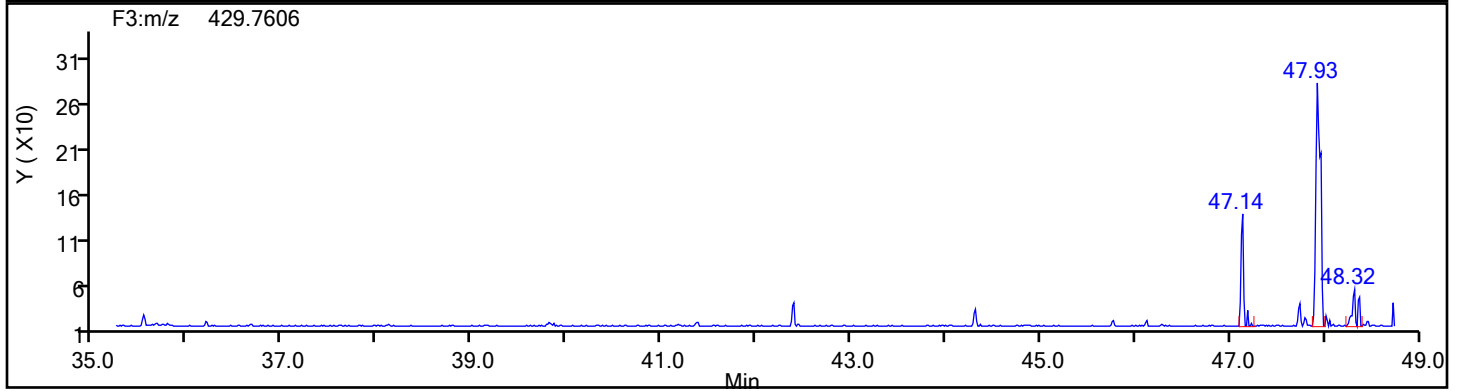
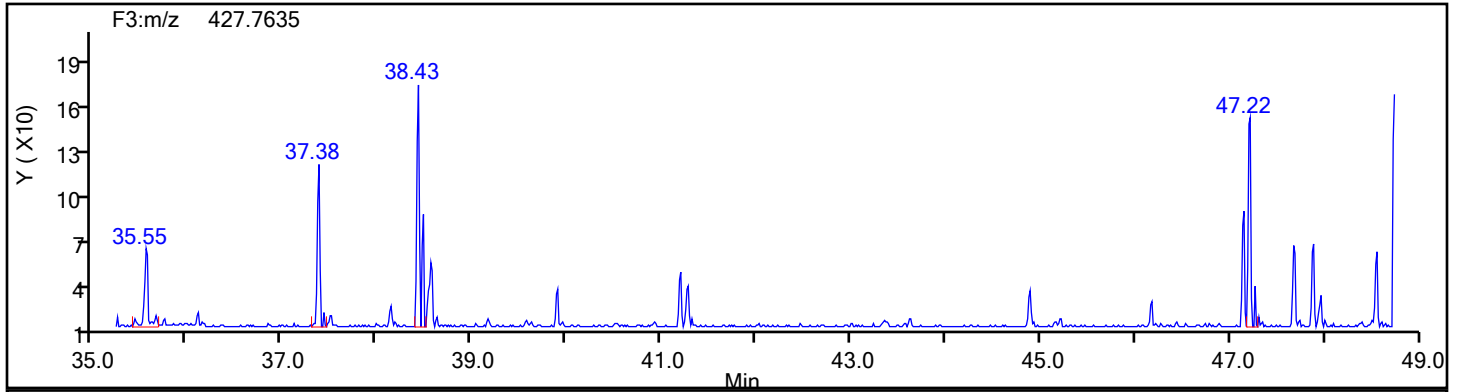
Worklist#: 88834

Sample Line#: 9

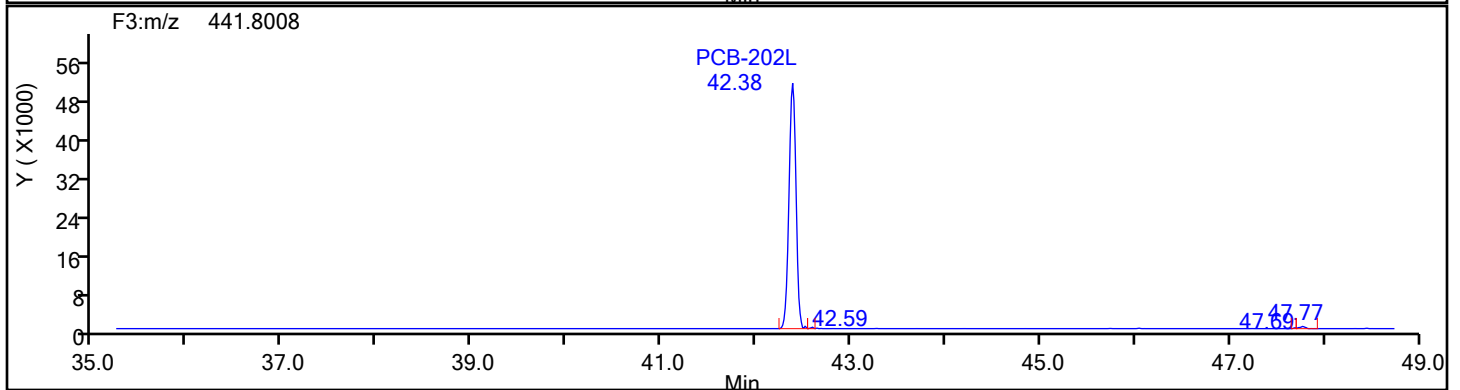
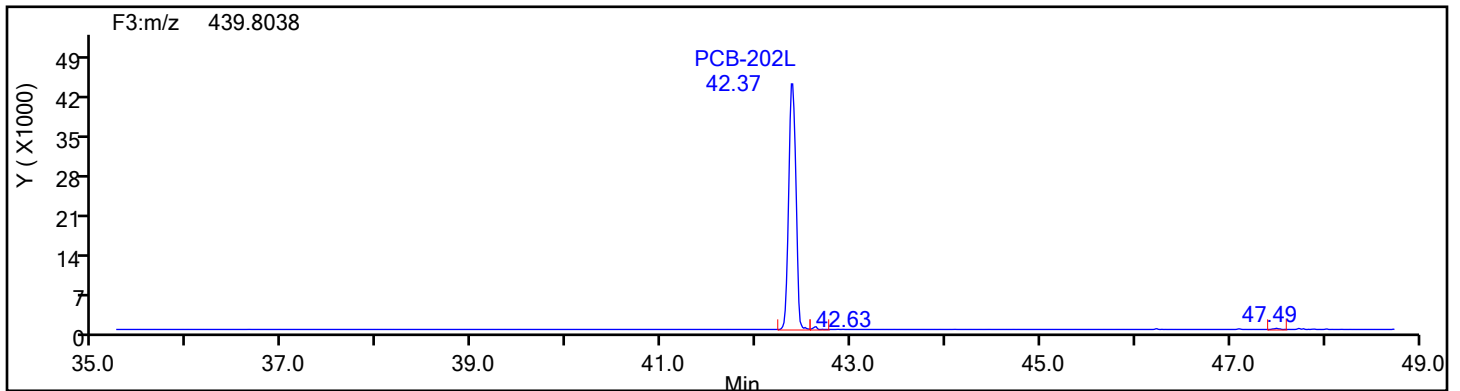
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3

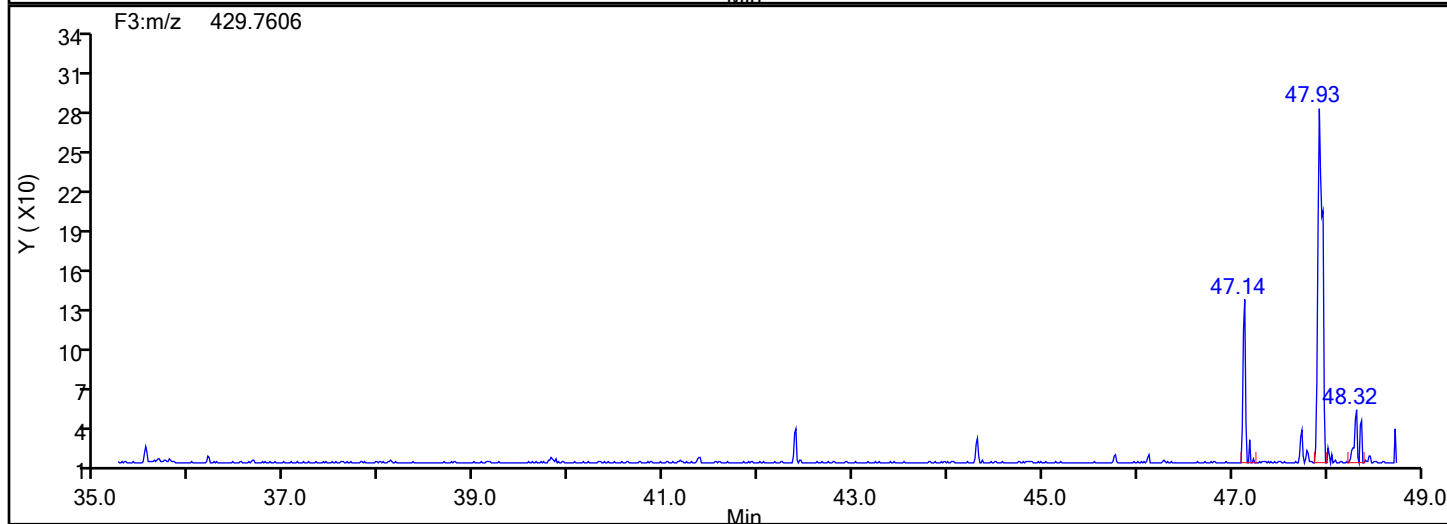
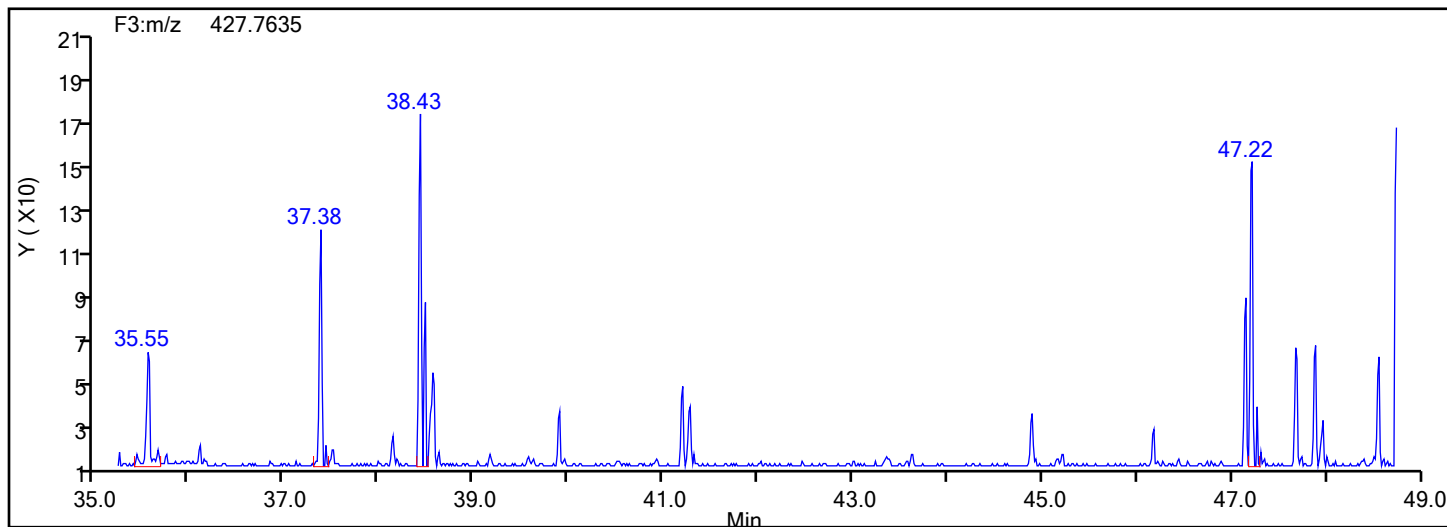


OcPCB F3 Standards

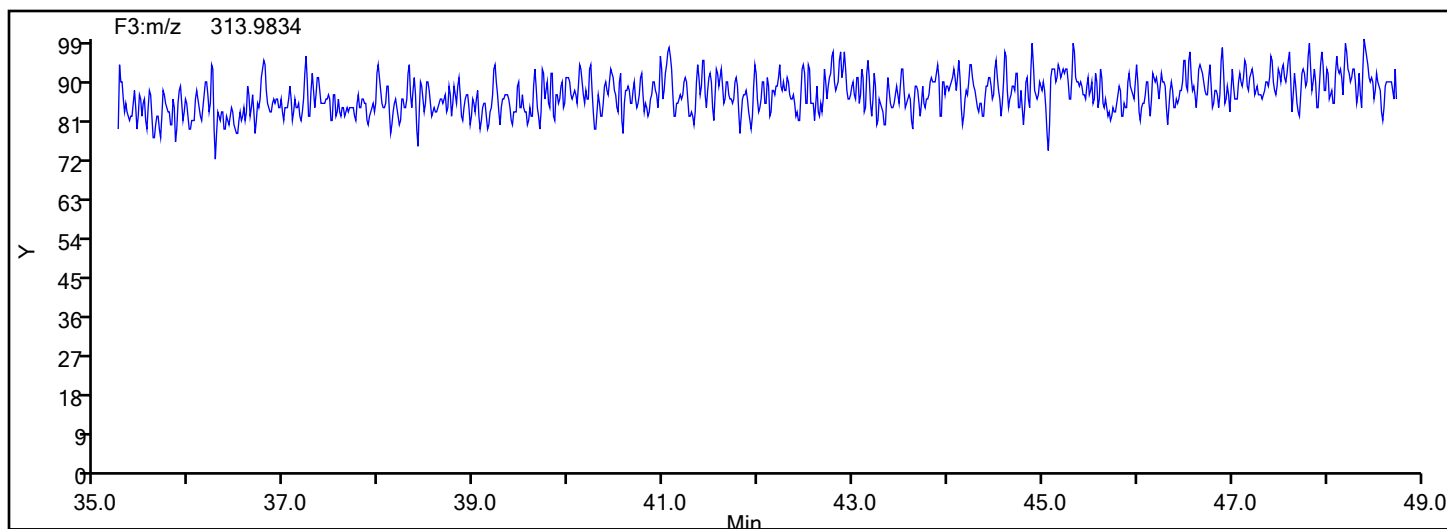


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3

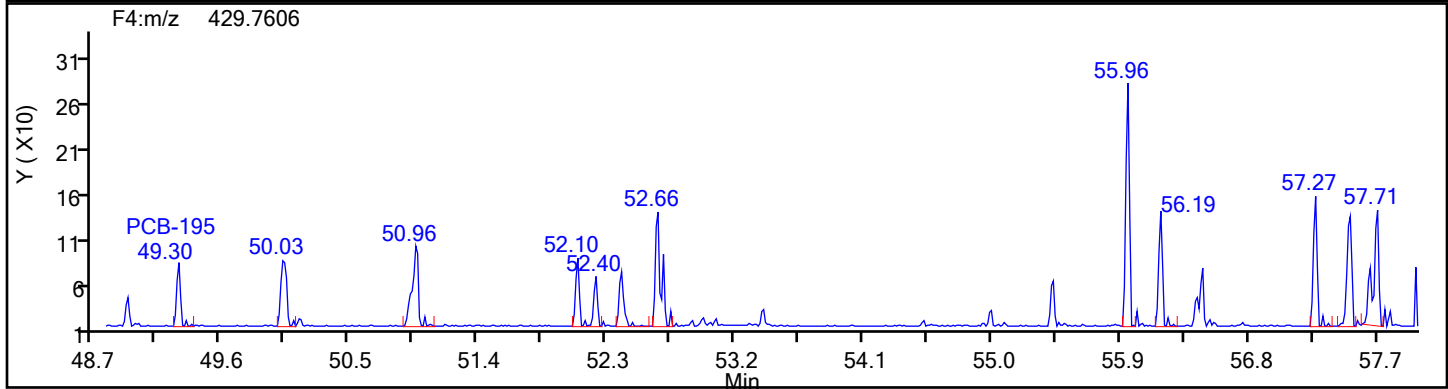
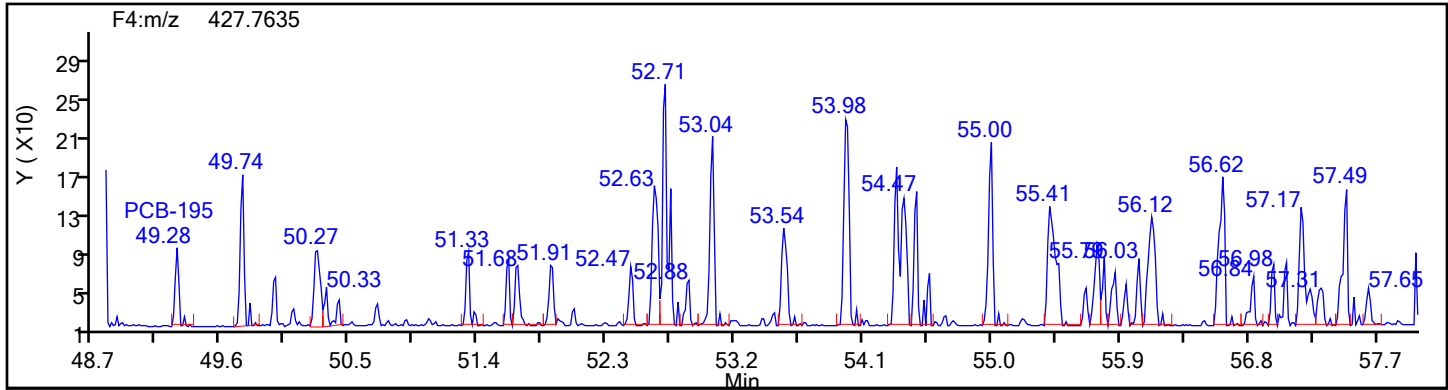


## OcPCB F3 Lock Mass

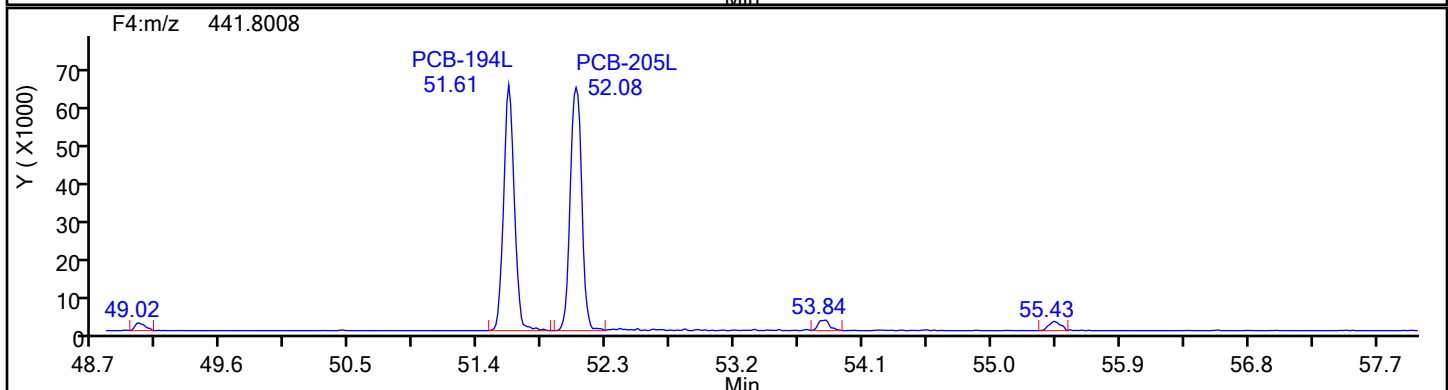
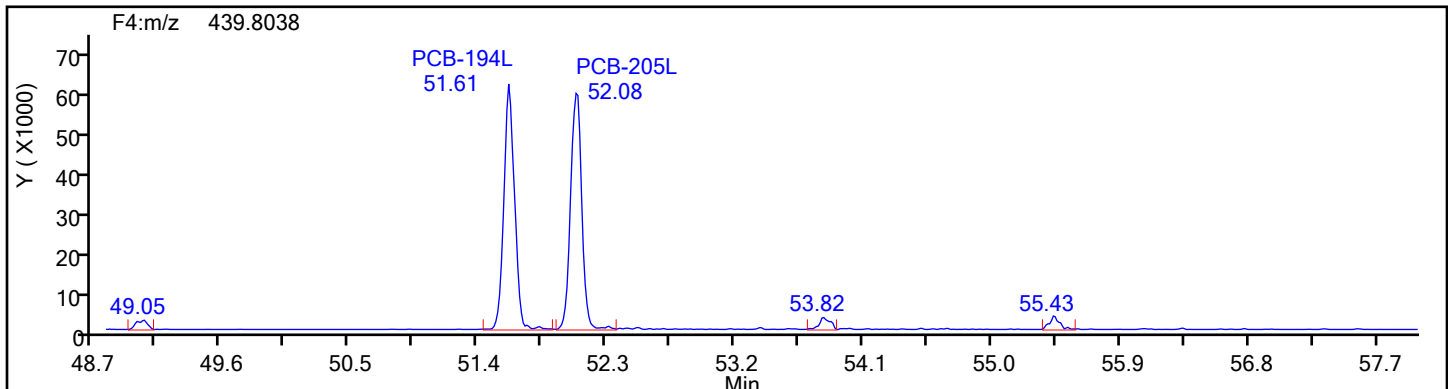


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4

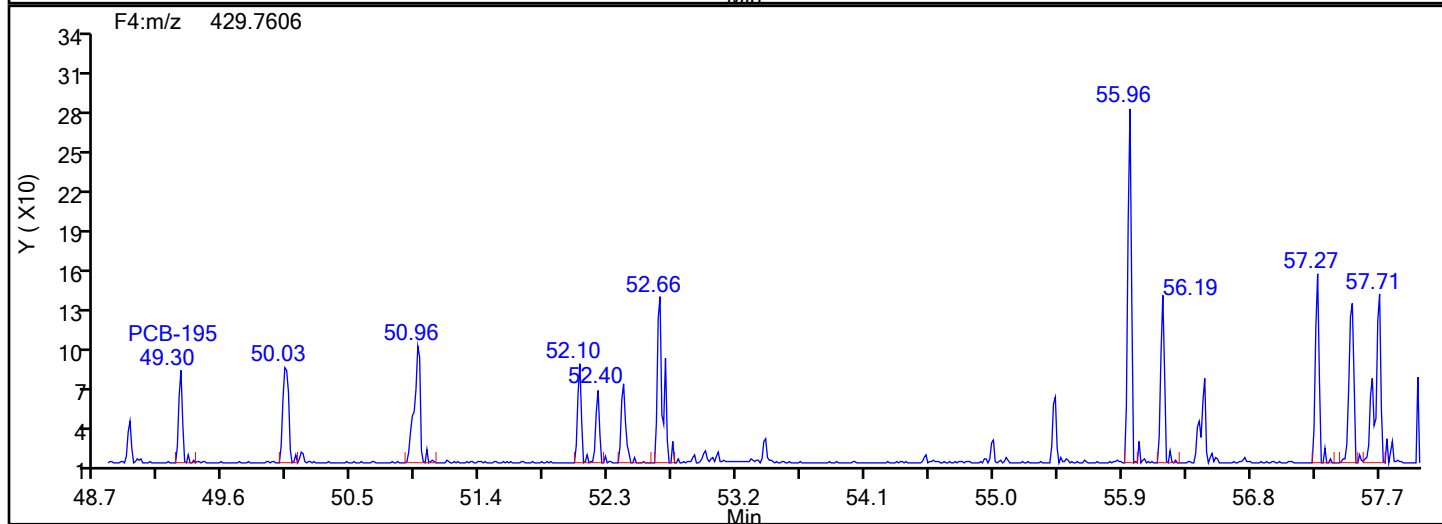
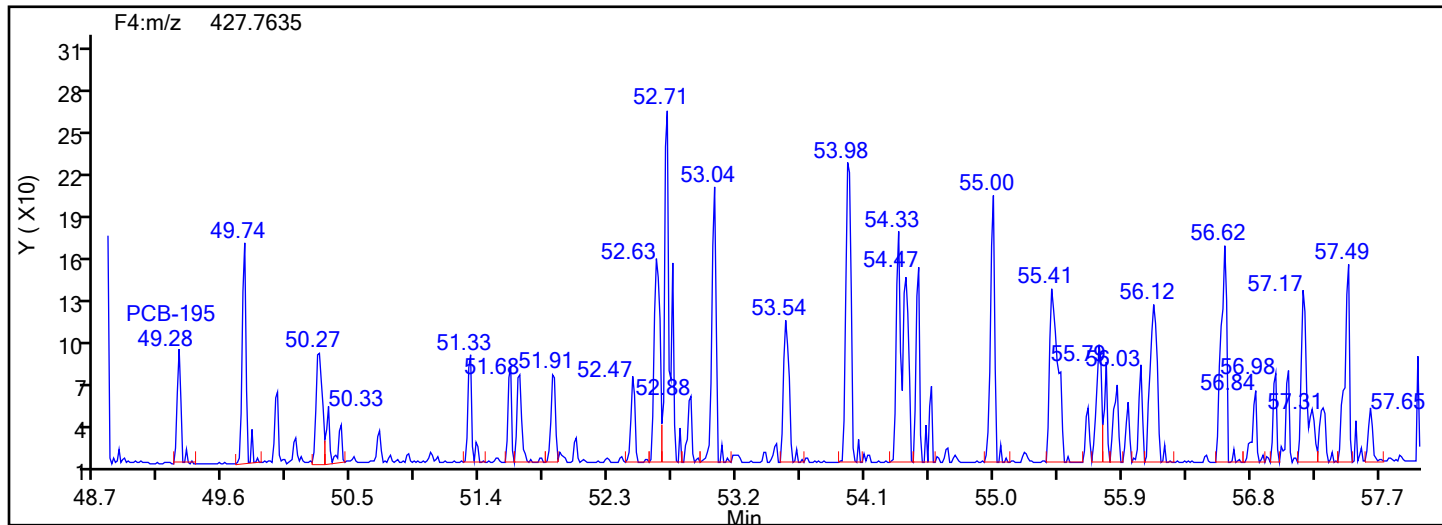


## OcPCB F4 Standards

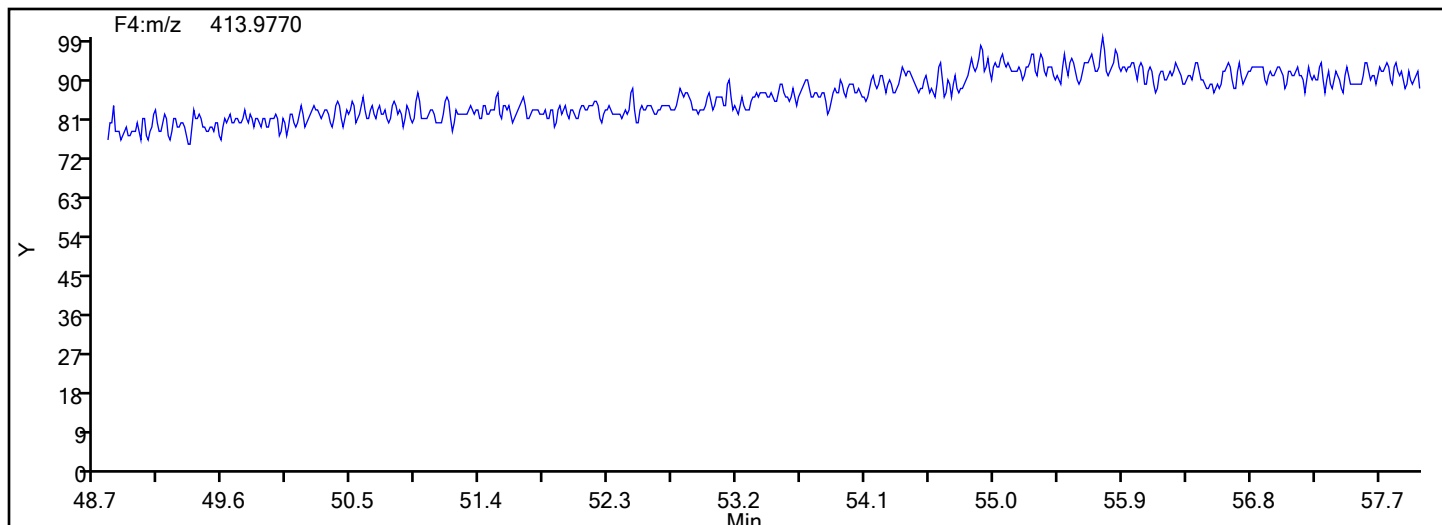


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4

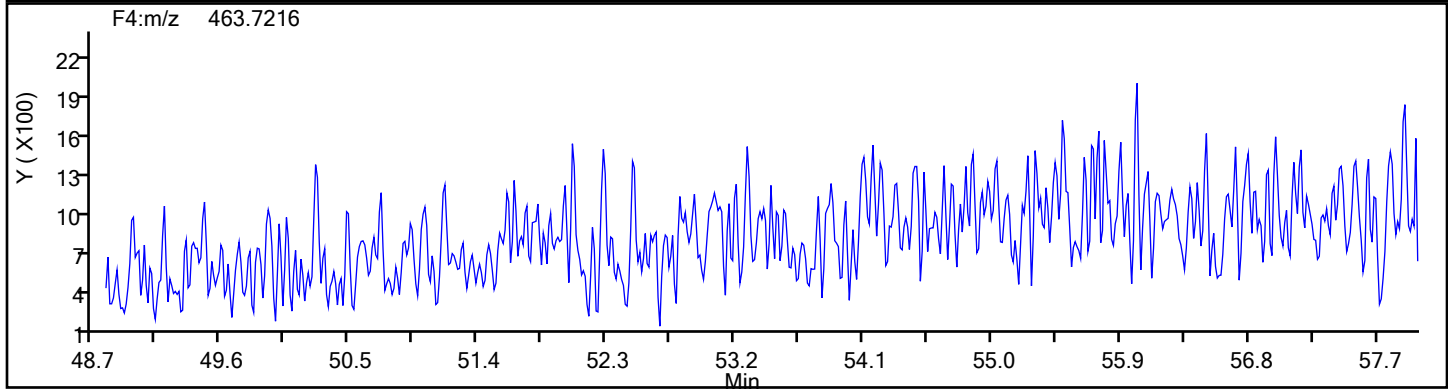
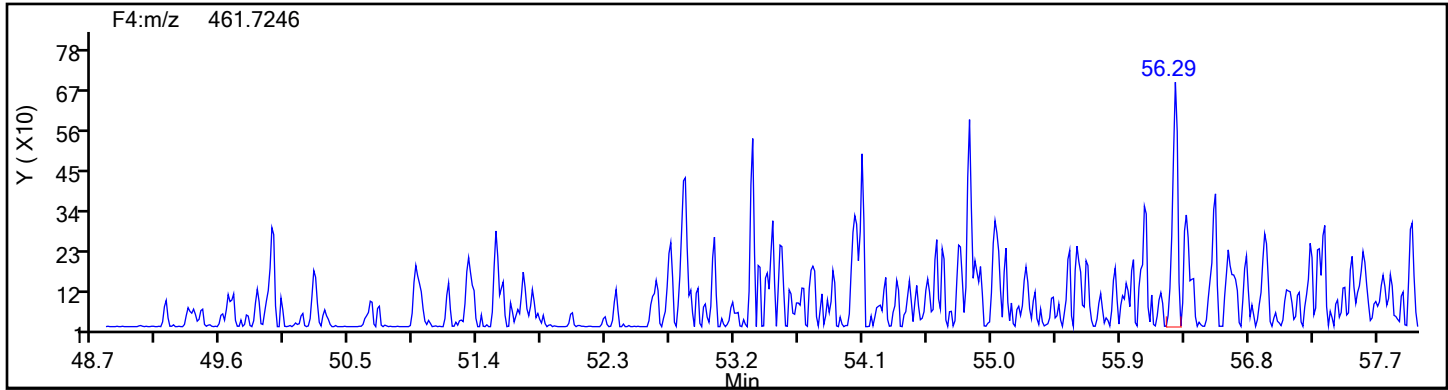


## OcPCB F4 Lock Mass

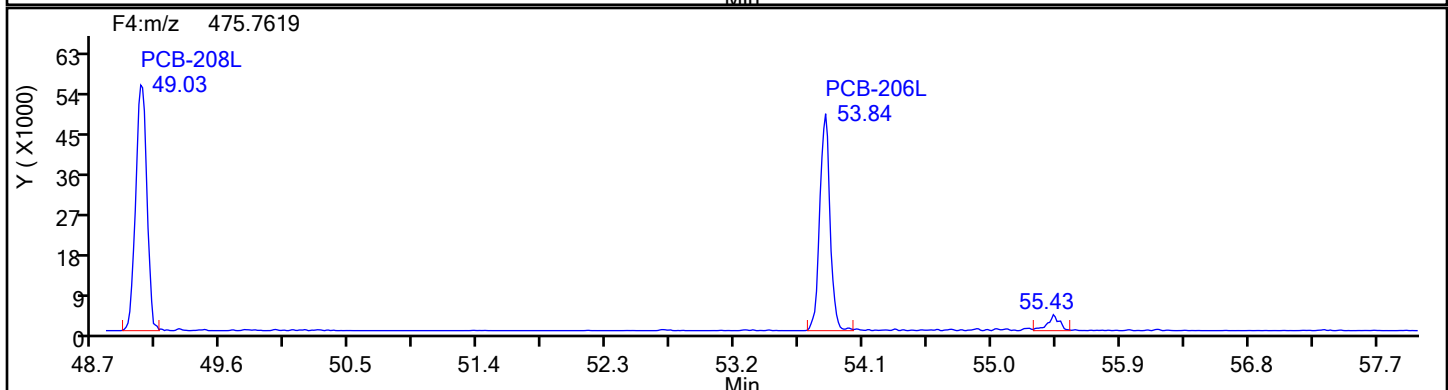
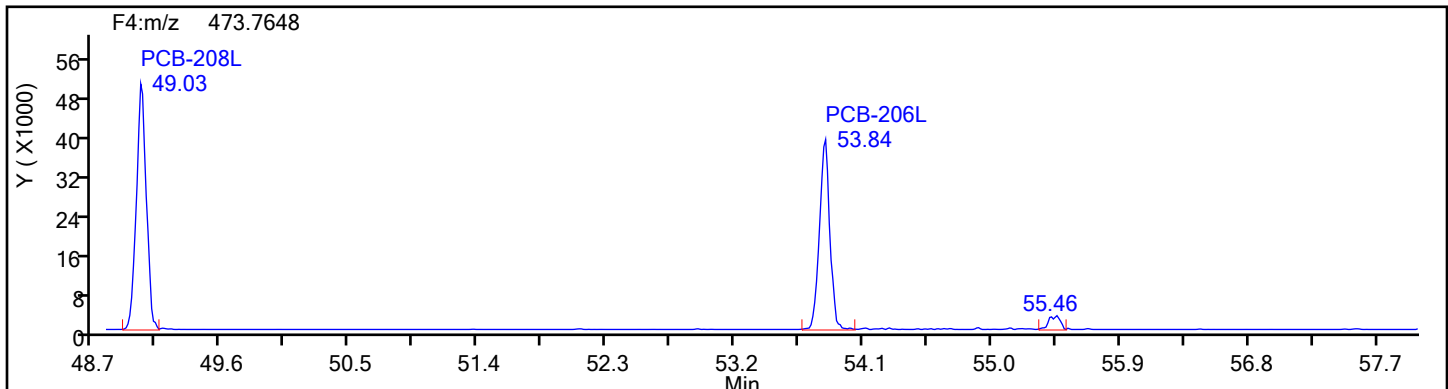


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4

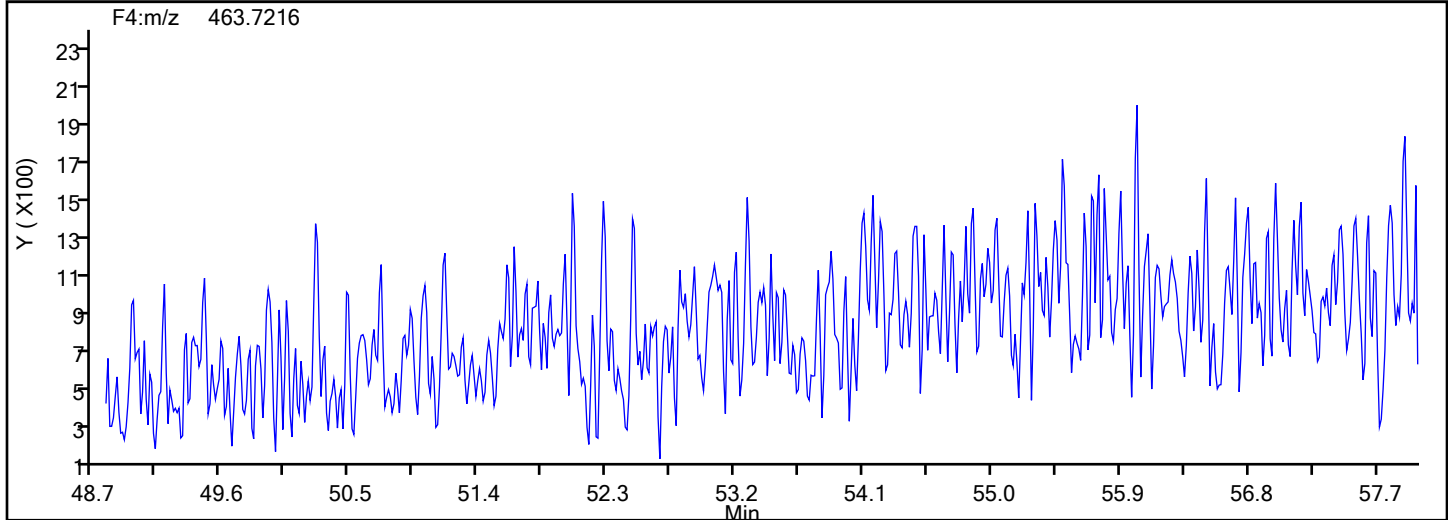
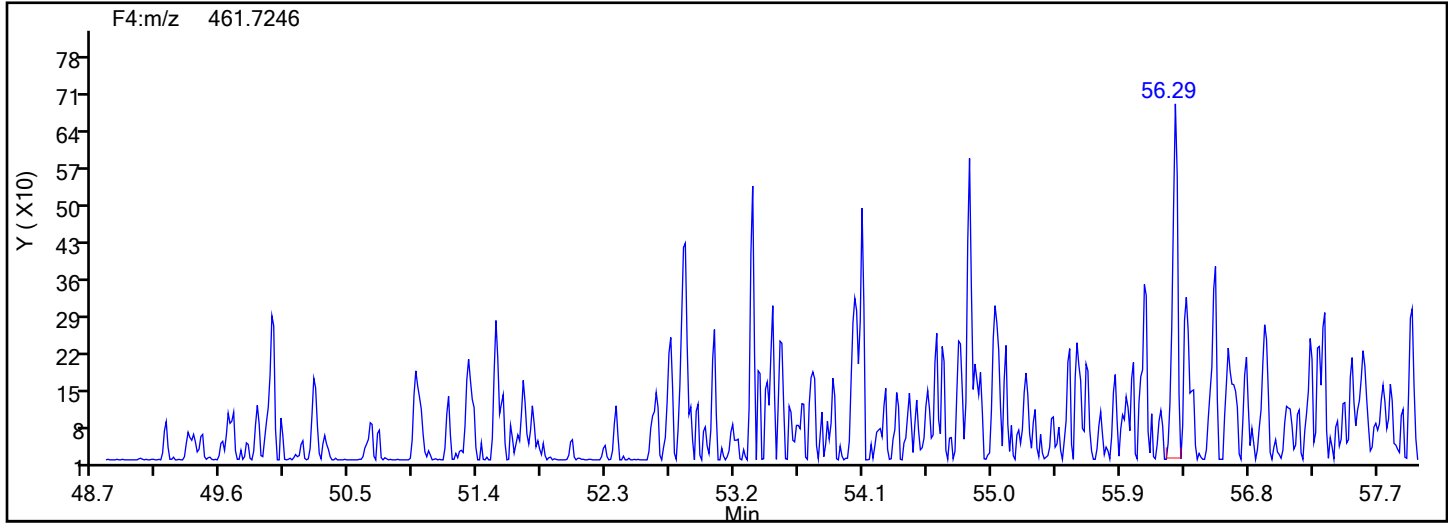


## NoPCB F4 Standards

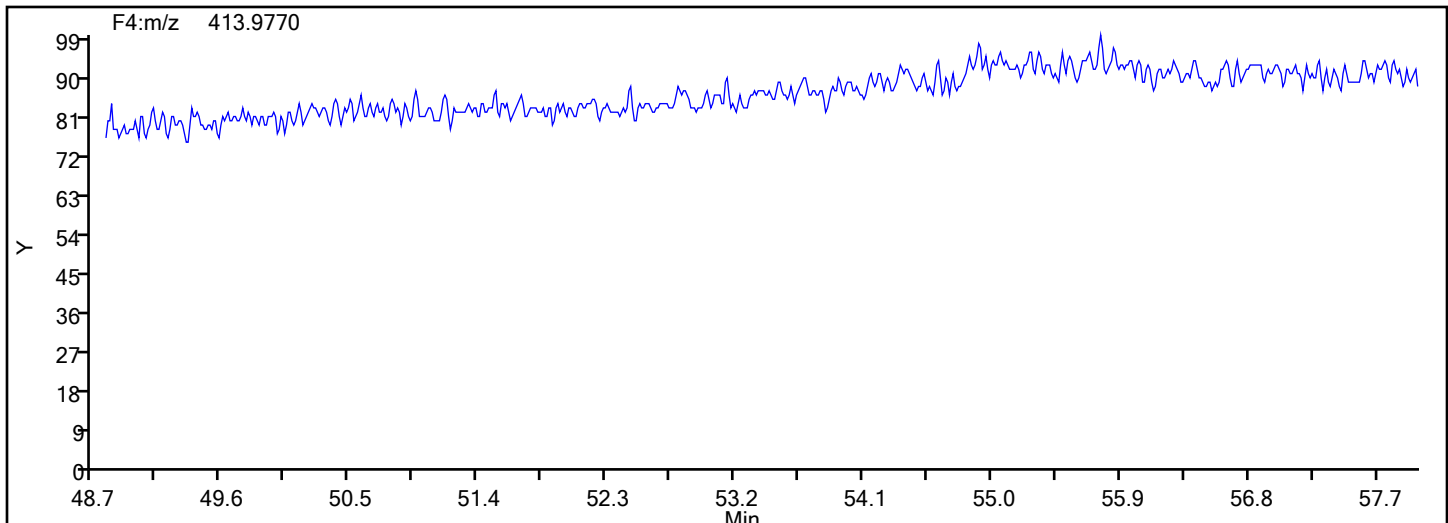


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-6-d-5x.d  
Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4

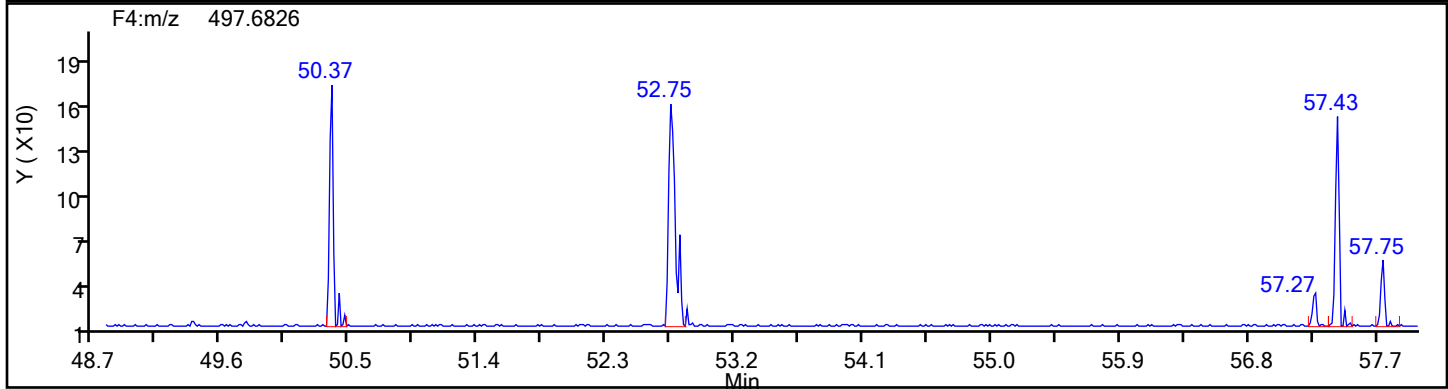
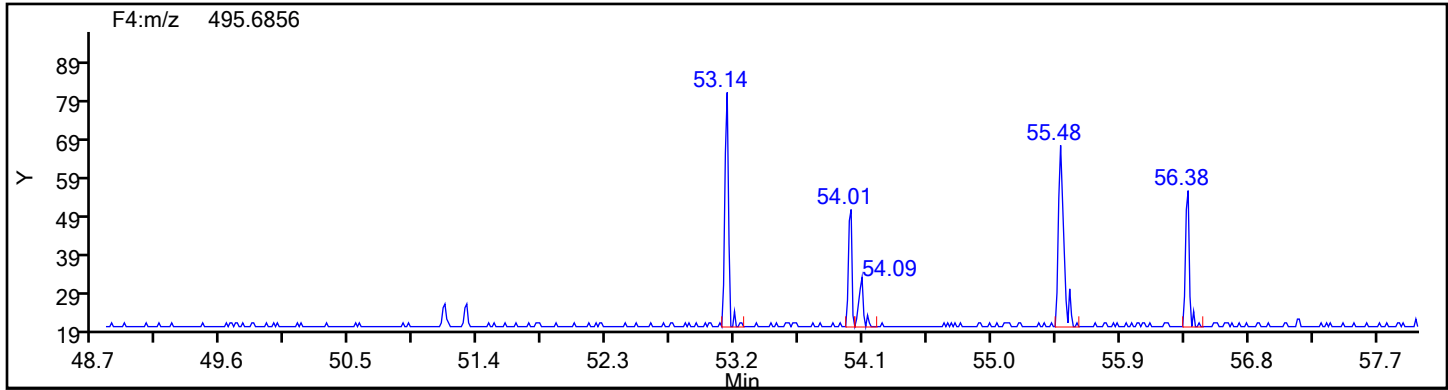


## NoPCB F4 Lock Mass

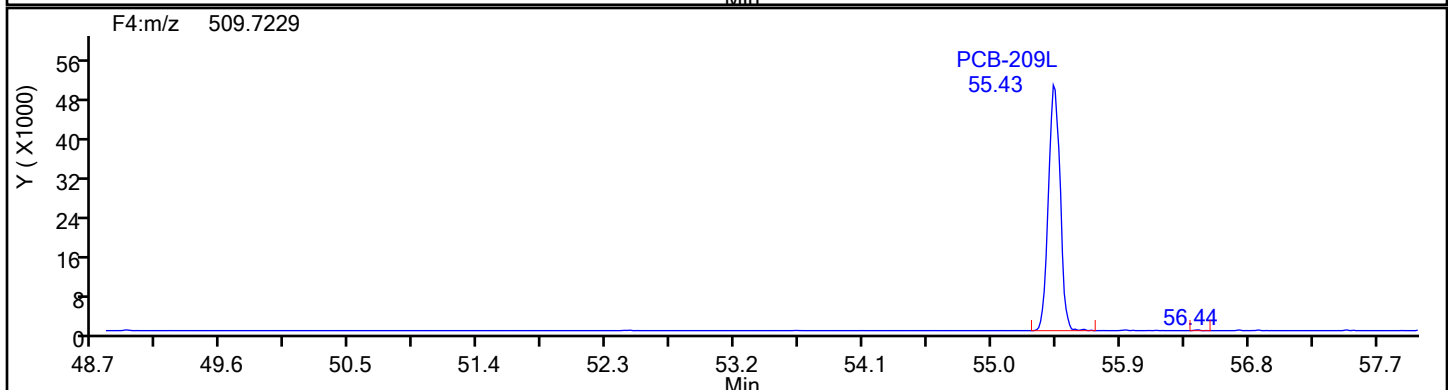
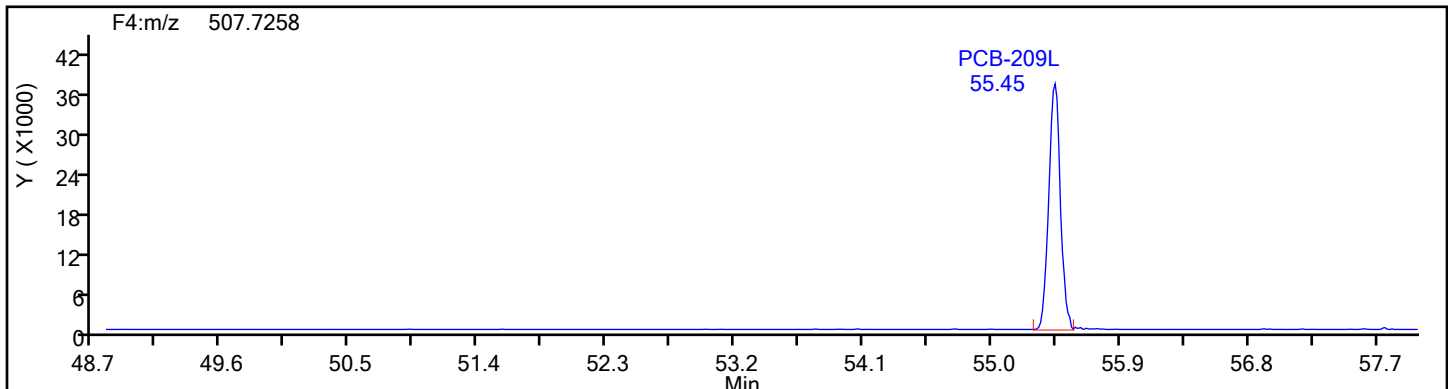


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-6-d-5x.d  
Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4

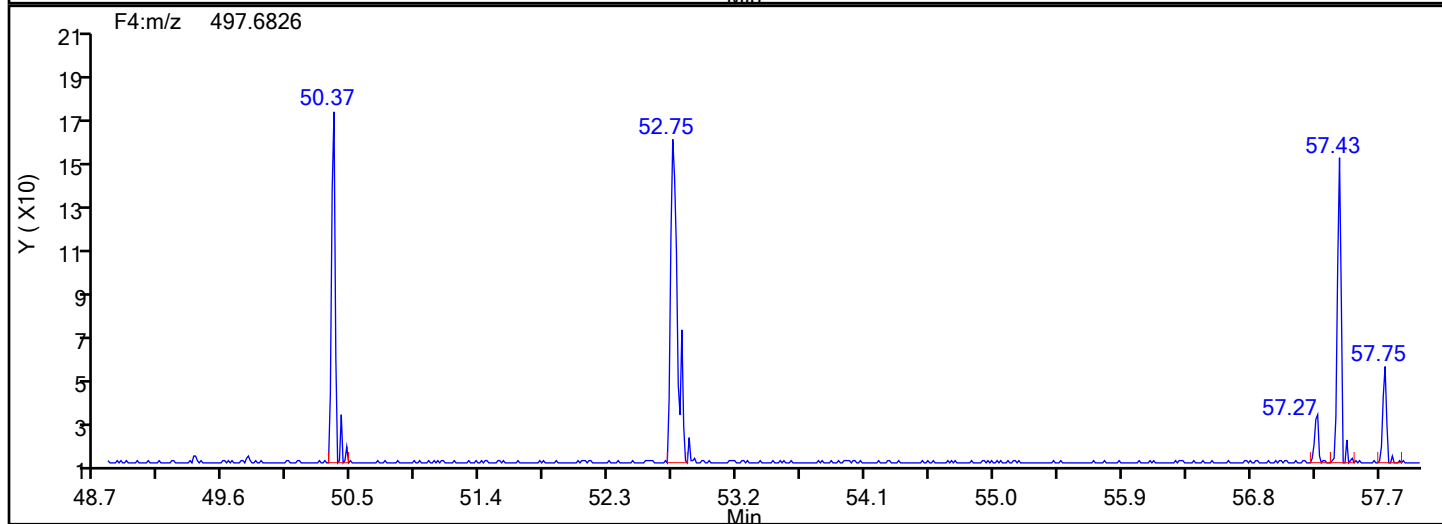
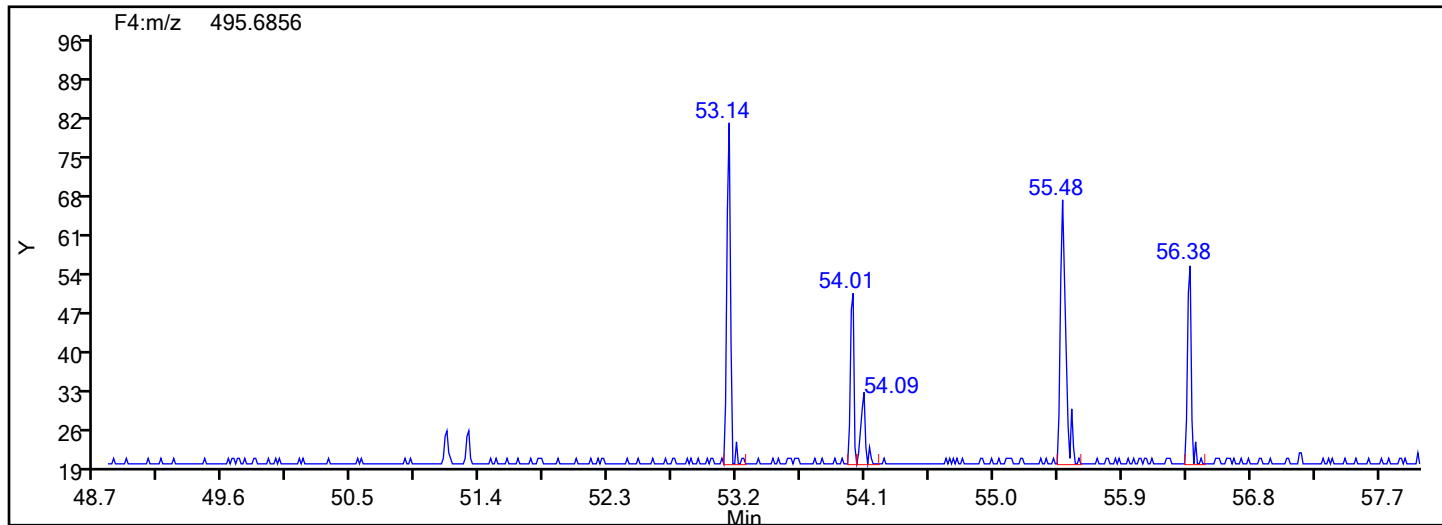


## DePCB F4 Standards

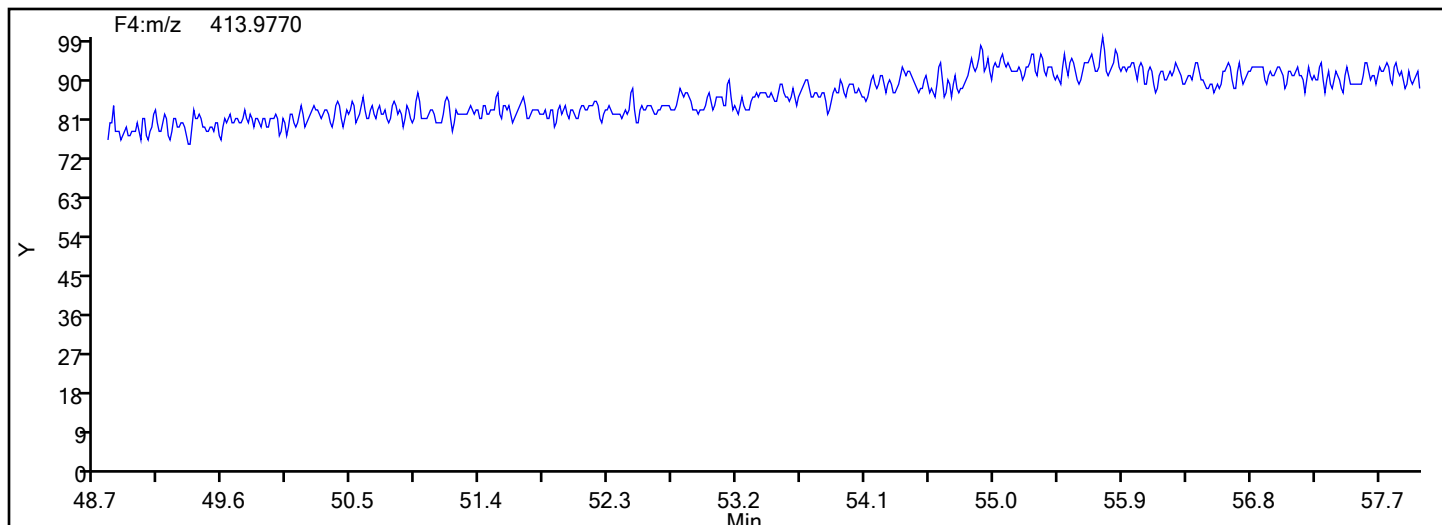


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-6-d-5x.d  
Injection Date: 17-Jul-2024 05:21:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Worklist#: 88834 Sample Line#: 9  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4



## DePCB F4 Lock Mass





Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-6-d-5x.d  
Lims ID: 140-37234-A-6-D  
Client ID: M23 F-10 BOILER RUN 7 COMBINED  
Sample Type: Client  
Inject. Date: 17-Jul-2024 05:21:00 ALS Bottle#: 0 Worklist Smp#: 9  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Sample Info:  
Misc. Info.: 140-0033532-009  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 13:31:23 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: TT6I

Date: 17-Jul-2024 13:31:23

Compound	Amount Added	Amount Recovered	% Rec.
PCB-8L	50.0	11.5	115.40
PCB-28L	100.0	15.5	77.27
PCB-79L	50.0	11.2	111.82
PCB-95L	50.0	12.2	121.81
PCB-111L	100.0	15.9	79.41
PCB-153L	50.0	10.6	106.12
PCB-178L	100.0	17.4	86.89

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 8</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-7</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-7-d-5x.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/12/2024 16:26</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/17/2024 06:22</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>5</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88834</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
34883-43-7	PCB-8	0.894	J	3.00	0.660	0.0617
37680-65-2	PCB-18	0.496	J q C	3.00	1.43	0.00839
7012-37-5	PCB-28	0.793	J C20 B	3.00	1.26	0.0403
41464-39-5	PCB-44	5.18	C B	4.50	1.95	0.0465
35693-99-3	PCB-52	0.474	J q	1.50	0.660	0.0493
32598-10-0	PCB-66	0.138	J	1.50	0.600	0.0360
32598-13-3	PCB-77	0.0759	J q	1.50	0.630	0.0429
70362-50-4	PCB-81	ND		1.50	0.480	0.0408
37680-73-2	PCB-101	0.200	J C90	4.50	1.95	0.0379
32598-14-4	PCB-105	ND		1.50	0.510	0.0532
74472-37-0	PCB-114	ND		1.50	0.825	0.0524
31508-00-6	PCB-118	0.0852	J q	1.50	0.915	0.0477
65510-44-3	PCB-123	ND		1.50	0.855	0.0553
57465-28-8	PCB-126	ND		1.50	0.615	0.0628
38380-07-3	PCB-128	0.0200	J C B	3.00	1.02	0.00932
35065-28-2	PCB-138	0.0309	J q C129	6.00	2.55	0.00968
35065-27-1	PCB-153	0.0992	J q C B	3.00	1.25	0.00837
38380-08-4	PCB-156	ND	C	3.00	1.28	0.0103
69782-90-7	PCB-157	ND	C156	3.00	1.28	0.0103
52663-72-6	PCB-167	ND		1.50	0.900	0.00649
32774-16-6	PCB-169	ND		1.50	0.615	0.00694
35065-30-6	PCB-170	ND		1.50	0.660	0.00159
35065-29-3	PCB-180	ND	C	3.00	1.02	0.00121
52663-68-0	PCB-187	ND		1.50	0.630	0.00129
39635-31-9	PCB-189	ND		1.50	0.735	0.0131
52663-78-2	PCB-195	ND		1.50	0.795	0.00867
40186-72-9	PCB-206	ND		1.50	0.855	0.159
2051-24-3	PCB-209	ND		1.50	0.690	0.00205

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER RUN 8</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-7</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-7-d-5x.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/12/2024 16:26</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/17/2024 06:22</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>5</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88834</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
234432-85-0	PCB-1L	56		20-145
208263-77-8	PCB-3L	59		20-145
234432-86-1	PCB-4L	61		20-145
208263-67-6	PCB-15L	80		20-145
234432-87-2	PCB-19L	69		20-145
208263-79-0	PCB-37L	71		20-145
234432-88-3	PCB-54L	84		20-145
105600-23-5	PCB-77L	82		20-145
208461-24-9	PCB-81L	82		20-145
234432-89-4	PCB-104L	82		20-145
208263-62-1	PCB-105L	90		20-145
208263-63-2	PCB-114L	91		20-145
104130-40-7	PCB-118L	92		20-145
208263-64-3	PCB-123L	89		20-145
208263-65-4	PCB-126L	91		20-145
234432-90-7	PCB-155L	85		20-145
208263-68-7	PCB-156L	86	C	20-145
235416-30-5	PCB-157L	86	C156	20-145
208263-69-8	PCB-167L	84		20-145
208263-70-1	PCB-169L	85		20-145
160901-80-4	PCB-170L	88		20-145
234432-91-8	PCB-188L	98		20-145
208263-73-4	PCB-189L	95		20-145
105600-26-8	PCB-202L	91		20-145
234446-64-1	PCB-205L	92		20-145
208263-75-6	PCB-206L	103		20-145
234432-92-9	PCB-208L	88		20-145
105600-27-9	PCB-209L	120		20-145

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: M23 F-10 BOILER RUN 8 Lab Sample ID: 140-37234-7  
COMBINED  
Matrix: Air Lab File ID: 140-37234-a-7-d-5x.d  
Analysis Method: 23 Date Collected: 06/12/2024 16:26  
Extract. Method: Combined Prep Date Extracted: 06/27/2024 14:35  
Sample wt/vol: 1(Sample) Date Analyzed: 07/17/2024 06:22  
Con. Extract Vol.: 30(mL) Dilution Factor: 5  
Injection Volume: 1(uL) GC Column: SPB-Octyl ID: 0.25(mm)  
% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
Cleanup Factor: \_\_\_\_\_ Level: (low/med) Low  
Analysis Batch No.: 88834 Units: ng/Sample  
Preparation Batch No.: 88193 Instrument ID: Excalibur D2D DFS

CAS NO.	SURROGATE	%REC	Q	LIMITS
208263-76-7	PCB-28L	74		20-130
235416-29-2	PCB-111L	77		20-130
232919-67-4	PCB-178L	86		20-130
STL01600	PCB-8L	112		70-130
STL01603	PCB-79L	115		70-130
STL01604	PCB-95L	121		70-130
STL01606	PCB-153L	114		70-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d  
Lims ID: 140-37234-A-7-D  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Sample Type: Client  
Inject. Date: 17-Jul-2024 06:22:00 ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Sample Info:  
Misc. Info.: 140-0033532-010  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 13:36:52 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: TT6I

Date: 17-Jul-2024 13:36:52

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D PCB-1L	11:38	1348463	3.08	1.6108	11.3	11.3	0.2241	0.2241	56.40	
D PCB-3L	13:46	1392521	3.34	1.5891	11.8	11.8	0.2272	0.2272	59.04	
S Total Dichlorobiphenyls					0.5959	0.5959	0.0411	0.0411		
D PCB-4L	14:01	581758	1.62	0.6475	12.1	12.1	0.1365	0.1365	60.53	
* PCB-9L	15:59	1484308	1.64		20.0	20.0				
\$ PCB-8L	16:49	626067	1.74	1.2066	11.2	11.2	0.1278	0.1278	112	M
D PCB-15L	19:55	1274772	1.73	1.0789	15.9	15.9	0.0819	0.0819	79.60	M
PCB-8	16:50	43948	1.65	1.5889	0.5959	0.5959	0.0411	0.0411		M
D PCB-19L	17:07	447485	1.17	0.6285	13.7	13.7	0.5256	0.5256	68.71	
* PCB-32L	20:23	1036200	1.13		20.0	20.0				
* PCB-31L	22:37	2228532	1.05		20.0	20.0				
\$ PCB-28L	22:54	1740416	1.09	1.0494	14.9	14.9	0.1178	0.1178	74.42	
D PCB-37L	26:54	1379417	1.05	0.8749	14.1	14.1	0.1413	0.1413	70.75	M
PCB-18	19:02	13071	1.04	1.7652	0.3664	0.3309	0.005596	0.005596		RQa
PCB-30 (C18)	19:02	13071	1.04	1.7652	0.3664	0.3309	0.005596	0.005596		RQa
PCB-20	22:55	42701	0.90	1.1718	0.5283	0.5283	0.0269	0.0269		
PCB-28 (C20)	22:55	42701	0.90	1.1718	0.5283	0.5283	0.0269	0.0269		
S Total Tetrachlorobiphenyls					4.004	3.911	0.0287	0.0287		RQ
D PCB-54L	20:13	484264	0.85	0.5562	16.8	16.8	0.0511	0.0511	84.02	
* PCB-52L	24:43	1039764	0.80		20.0	20.0				
\$ PCB-79L	32:37	633260	0.82	1.0018	11.5	11.5	0.1794	0.1794	115	
D PCB-81L	33:38	1069303	0.80	1.2470	16.5	16.5	0.1159	0.1159	82.47	
D PCB-77L	34:12	1128200	0.83	1.3212	16.4	16.4	0.1093	0.1093	82.13	
PCB-52	24:45	15977	0.77	0.9194	0.3509	0.3163	0.0328	0.0328		RQ
PCB-44	25:45	184576	0.82	0.9731	3.453	3.453	0.0310	0.0310		
PCB-47 (C44)	25:45	184576	0.82	0.9731	3.453	3.453	0.0310	0.0310		
PCB-65 (C44)	25:45	184576	0.82	0.9731	3.453	3.453	0.0310	0.0310		
PCB-66	29:49	6352	0.67	1.2583	0.0919	0.0919	0.0240	0.0240		M
PCB-81	33:40						0.0272	0.0272		
PCB-77	34:14	3094	0.77	1.0836	0.1087	0.0506	0.0286	0.0286		RQM
S Total Pentachlorobiphenyls					0.2032	0.1903	0.0344	0.0344		RQ
D PCB-104L	25:39	703660	1.59	1.2161	16.5	16.5	0.0414	0.0414	82.26	
\$ PCB-95L	28:37	307767	1.57	0.7218	12.1	12.1	0.0630	0.0630	121	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-101L	31:32	703398	1.51		20.0	20.0				
\$ PCB-111L	34:13	745259	1.70	1.3699	15.5	15.5	0.0368	0.0368	77.34	
D PCB-123L	36:10	988946	1.60	0.9731	17.9	17.9	0.2587	0.2587	89.26	
D PCB-118L	36:30	1053930	1.68	1.0102	18.3	18.3	0.2492	0.2492	91.64	
D PCB-114L	37:01	1025781	1.63	0.9949	18.1	18.1	0.2530	0.2530	90.57	
D PCB-105L	37:41	977763	1.61	0.9514	18.1	18.1	0.2646	0.2646	90.27	
* PCB-127L	39:09	1138468	1.58		20.0	20.0				
D PCB-126L	40:47	974400	1.61	0.9439	18.1	18.1	0.2667	0.2667	90.68	
PCB-90	31:34	4485	1.35	0.9550	0.1335	0.1335	0.0253	0.0253		
PCB-101 (C90)	31:34	4485	1.35	0.9550	0.1335	0.1335	0.0253	0.0253		
PCB-113 (C90)	31:34	4485	1.35	0.9550	0.1335	0.1335	0.0253	0.0253		
PCB-123	36:12						0.0369	0.0369		
PCB-118	36:31	3610	1.55	1.2055	0.0697	0.0568	0.0318	0.0318		RQM
PCB-114	37:03						0.0349	0.0349		
PCB-105	37:43						0.0355	0.0355		
PCB-126	40:48						0.0419	0.0419		
S Total Hexachlorobiphenyls					0.1454	0.1001	0.005677	0.005677		RQ
D PCB-155L	31:17	650955	1.28	1.0851	17.1	17.1	0.0470	0.0470	85.28	
\$ PCB-153L	38:21	413022	1.23	0.9169	11.4	11.4	0.1659	0.1659	114	
* PCB-138L	39:37	752552	1.25		20.0	20.0				
D PCB-167L	42:36	791109	1.20	1.2572	16.7	16.7	0.1017	0.1017	83.61	
D PCB-156L	43:46	1575688	1.29	1.2106	34.6	34.6	0.1056	0.1056	86.48	
D PCB-157L (C156L)	43:46	1575688	1.29	1.2106	34.6	34.6	0.1056	0.1056	86.48	
D PCB-169L	47:00	794833	1.33	1.2439	17.0	17.0	0.1028	0.1028	84.91	
PCB-153	38:24	2858	1.24	1.0938	0.0782	0.0661	0.005581	0.005581		RQ
PCB-168 (C153)	38:24	2858	1.24	1.0938	0.0782	0.0661	0.005581	0.005581		RQ
PCB-129	39:39	770	1.24	0.9464	0.0538	0.0206	0.006450	0.006450		RQM
PCB-138 (C129)	39:39	770	1.24	0.9464	0.0538	0.0206	0.006450	0.006450		RQM
PCB-160 (C129)	39:39	770	1.24	0.9464	0.0538	0.0206	0.006450	0.006450		RQM
PCB-163 (C129)	39:39	770	1.24	0.9464	0.0538	0.0206	0.006450	0.006450		RQM
PCB-128	40:51	519	1.08	0.9829	0.0134	0.0134	0.006210	0.006210		
PCB-166 (C128)	40:51	519	1.08	0.9829	0.0134	0.0134	0.006210	0.006210		
PCB-167	42:37						0.004325	0.004325		
PCB-156	43:48						0.006870	0.006870		
PCB-157 (C156)	43:48						0.006870	0.006870		
PCB-169	47:01						0.004626	0.004626		
S Total Heptachlorobiphenyls							0.008733	0.008733		
D PCB-188L	37:00	693776	1.07	1.3133	19.6	19.6	0.0344	0.0344	97.78	
\$ PCB-178L	40:04	481003	1.10	1.0313	17.3	17.3	0.0439	0.0439	86.33	
* PCB-180L	45:08	540267	1.08		20.0	20.0				
D PCB-170L	46:25	397496	1.07	0.8362	17.6	17.6	0.0541	0.0541	87.98	
D PCB-189L	49:31	897376	1.11	1.4414	18.9	18.9	0.3254	0.3254	94.75	
PCB-187	41:00						0.000857	0.000857		
PCB-180	45:08						0.000809	0.000809		
PCB-193 (C180)	45:08						0.000809	0.000809		
PCB-170	46:26						0.001062	0.001062		
PCB-189	49:32						0.008733	0.008733		
S Total Octachlorobiphenyls							0.005782	0.005782		
D PCB-202L	42:22	484918	0.97	0.9818	18.3	18.3	0.0235	0.0235	91.42	
* PCB-194L	51:37	657081	0.96		20.0	20.0				
D PCB-205L	52:05	709257	0.88	1.1786	18.3	18.3	0.2951	0.2951	91.59	
PCB-195	49:17						0.005782	0.005782		
S Total Nonachlorobiphenyls							0.1062	0.1062		
D PCB-208L	49:02	554483	0.83	0.9576	17.6	17.6	0.2918	0.2918	88.12	
D PCB-206L	53:49	469453	0.79	0.6947	20.6	20.6	0.4023	0.4023	103	
PCB-206	53:51						0.1062	0.1062		
D PCB-209L	55:26	524237	0.71	0.6669	23.9	23.9	0.0517	0.0517	120	
DCB Decachlorobiphenyl	55:28						0.001364	0.001364		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
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S Polychlorinated biphenyls, Total

4.949

0.0290

0.0290

RQ

### QC Flag Legend

#### Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

#### Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d  
Lims ID: 140-37234-A-7-D  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Sample Type: Client  
Inject. Date: 17-Jul-2024 06:22:00 ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Sample Info:  
Misc. Info.: 140-0033532-010  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 13:36:52 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICAL File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: TT61

Date: 17-Jul-2024 13:36:52

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:38	11:37	-1	0.728	1017708	416658	416	1040	1002		
202.0766	11:38	11:37	-1	0.728	330755	132224	2534	6335	52	3.08(2.66-3.60)	
PCB-3L											
200.0795	13:46	13:46	-1	0.862	1071971	339051	416	1040	815		
202.0766	13:46	13:46	-1	0.862	320550	102530	2534	6335	40	3.34(2.66-3.60)	
PCB-4L											
234.0406	14:01	14:01	-1	0.877	359877	117057	527	1317	222		
236.0376	14:01	14:01	-1	0.877	221881	73386	195	487	376	1.62(1.33-1.79)	
PCB-9L											
234.0406	15:59	15:59	0		921115	251451	527	1317	477		
236.0376	15:58	15:59	-1		563193	157111	195	487	806	1.64(1.33-1.79)	
PCB-8L											
234.0406	16:49	16:49	0	1.200	397359	104754	527	1317	199		M
236.0376	16:49	16:49	0	1.200	228708	60190	195	487	309	1.74(1.33-1.79)	M
PCB-15L											
234.0406	19:55	19:55	2	1.247	807677	175501	527	1317	333		M
236.0376	19:55	19:55	2	1.247	467095	102204	195	487	524	1.73(1.33-1.79)	M
PCB-8											
222.0003	16:50	16:50	0	1.201	27360	7242	110	275	66		M
223.9974	16:50	16:50	0	1.201	16588	4248	196	490	22	1.65(1.33-1.79)	M
PCB-19L											
268.0016	17:07	17:06	0	0.840	240963	64688	669	1672	97		
269.9986	17:07	17:06	0	0.840	206522	56786	991	2477	57	1.17(0.88-1.20)	



Signal	RT (min.)	Adj RT (min.)	⌈ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-32L											
268.0016	20:23	20:21	2		548600	131325	669	1672	196		
269.9986	20:23	20:21	2		487600	119903	991	2477	121	1.13(0.88-1.20)	
PCB-31L											
268.0016	22:37	22:37	0		1140028	257100	744	1860	346		
269.9986	22:37	22:37	0		1088504	258401	531	1327	487	1.05(0.88-1.20)	
PCB-28L											
268.0016	22:54	22:52	0	1.012	906948	199710	744	1860	268		
269.9986	22:54	22:52	0	1.012	833468	192038	531	1327	362	1.09(0.88-1.20)	
PCB-37L											
268.0016	26:54	26:54	0	1.189	706976	127547	744	1860	171		M
269.9986	26:54	26:54	0	1.189	672441	120028	531	1327	226	1.05(0.88-1.20)	M
PCB-18											
255.9613	19:02	19:02	6	1.111	6664	1745	15	37	116		RQa
257.9584	19:02	19:02	6	1.112	7807	1656	9	22	184	0.85(0.88-1.20)	a
	Empc Correction				6407	1677	9	22	186		
PCB-30 (C18)											
255.9613	19:02	19:02	6	1.111	6664	1745	15	37	116		RQa
257.9584	19:02	19:02	6	1.112	7807	1656	9	22	184	0.85(0.88-1.20)	a
	Empc Correction				6407	1677	9	22	186		
PCB-20											
255.9613	22:55	22:56	-1	0.852	20182	4346	81	202	54		
257.9584	22:55	22:56	-1	0.852	22519	4482	75	187	60	0.90(0.88-1.20)	
PCB-28 (C20)											
255.9613	22:55	22:56	-1	0.852	20182	4346	81	202	54		
257.9584	22:55	22:56	-1	0.852	22519	4482	75	187	60	0.90(0.88-1.20)	
PCB-54L											
301.9626	20:13	20:11	1	0.817	222253	55101	97	242	568		
303.9597	20:13	20:11	1	0.817	262011	63208	46	115	1374	0.85(0.65-0.89)	
PCB-52L											
301.9626	24:43	24:44	-1		462532	100099	260	650	385		
303.9597	24:43	24:44	-1		577232	126534	395	987	320	0.80(0.65-0.89)	
PCB-79L											
301.9626	32:37	32:39	-1	0.970	284524	52443	260	650	202		
303.9597	32:38	32:39	0	0.970	348736	61776	395	987	156	0.82(0.65-0.89)	
PCB-81L											
301.9626	33:38	33:37	0	1.360	476853	82594	260	650	318		
303.9597	33:38	33:37	0	1.360	592450	104375	395	987	264	0.80(0.65-0.89)	
PCB-77L											
301.9626	34:12	34:10	0	1.383	512676	79149	260	650	304		
303.9597	34:12	34:10	0	1.384	615524	98213	395	987	249	0.83(0.65-0.89)	
PCB-52											
289.9224	24:45	24:47	0	1.225	8699	2646	28	70	95		RQ
	Empc Correction				6950	2072	28	70	74		
291.9194	24:44	24:47	-1	1.224	9027	2691	82	205	33	0.96(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-44											
289.9224	25:45	25:43	0	1.275	83287	17517	28	70	626		
291.9194	25:45	25:43	0	1.275	101289	21812	82	205	266	0.82(0.65-0.89)	
PCB-47 (C44)											
289.9224	25:45	25:43	0	1.275	83287	17517	28	70	626		
291.9194	25:45	25:43	0	1.275	101289	21812	82	205	266	0.82(0.65-0.89)	
PCB-65 (C44)											
289.9224	25:45	25:43	0	1.275	83287	17517	28	70	626		
291.9194	25:45	25:43	0	1.275	101289	21812	82	205	266	0.82(0.65-0.89)	
PCB-66											
289.9224	29:49	29:49	-1	0.887	2541	700	28	70	25		M
291.9194	29:51	29:49	0	0.887	3811	986	82	205	12	0.67(0.65-0.89)	M
PCB-81											
289.9224	33:39						28	70			
291.9194	33:39						82	205			
PCB-77											
289.9224	34:14	34:13	1	1.001	1346	477	28	70	17		RQM
291.9194	34:13	34:13	0	1.001	5297	927	82	205	11	0.25(0.65-0.89)	M
Empc Correction					1748	619	82	205	8		
PCB-104L											
337.9207	25:39	25:39	-1	0.813	431478	97088	111	277	875		
339.9178	25:39	25:39	-1	0.813	272182	62112	34	85	1827	1.59(1.32-1.78)	
PCB-95L											
337.9207	28:37	28:38	0	1.116	187882	40534	111	277	365		
339.9178	28:37	28:38	0	1.116	119885	26101	34	85	768	1.57(1.32-1.78)	
PCB-101L											
337.9207	31:32	31:33	-1		423536	86657	111	277	781		
339.9178	31:32	31:33	-1		279862	57134	34	85	1680	1.51(1.32-1.78)	
PCB-111L											
337.9207	34:13	34:12	0	1.085	468913	90185	111	277	812		
339.9178	34:12	34:12	0	1.085	276346	54448	34	85	1601	1.70(1.32-1.78)	
PCB-123L											
337.9207	36:10	36:09	0	1.147	608812	114374	577	1442	198		
339.9178	36:10	36:09	0	1.147	380134	72724	454	1135	160	1.60(1.32-1.78)	
PCB-118L											
337.9207	36:30	36:29	0	1.157	660607	119968	577	1442	208		
339.9178	36:30	36:29	0	1.157	393323	73024	454	1135	161	1.68(1.32-1.78)	
PCB-114L											
337.9207	37:01	37:01	0	1.174	635923	120930	577	1442	210		
339.9178	37:01	37:01	0	1.174	389858	74382	454	1135	164	1.63(1.32-1.78)	
PCB-105L											
337.9207	37:41	37:41	0	1.195	602591	105990	577	1442	184		
339.9178	37:41	37:41	0	1.195	375172	69516	454	1135	153	1.61(1.32-1.78)	
PCB-127L											
337.9207	39:09	39:09	0		697285	129733	577	1442	225		
339.9178	39:09	39:09	0		441183	75018	454	1135	165	1.58(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-126L											
337.9207	40:47	40:46	0	1.293	601283	100643	577	1442	174		
339.9178	40:47	40:46	0	1.293	373117	60305	454	1135	133	1.61(1.32-1.78)	
PCB-90											
325.8804	31:34	31:34	1	1.231	2578	889	72	180	12		
327.8775	31:32	31:34	-1	1.230	1907	691	5	12	138	1.35(1.32-1.78)	
PCB-101 (C90)											
325.8804	31:34	31:34	1	1.231	2578	889	72	180	12		
327.8775	31:32	31:34	-1	1.230	1907	691	5	12	138	1.35(1.32-1.78)	
PCB-113 (C90)											
325.8804	31:34	31:34	1	1.231	2578	889	72	180	12		
327.8775	31:32	31:34	-1	1.230	1907	691	5	12	138	1.35(1.32-1.78)	
PCB-123											
325.8804	36:12						106	265			
327.8775	36:12						42	105			
PCB-118											
325.8804	36:31	36:31	-1	1.000	3012	950	106	265	9		RQM
	Empc Correction				2194	570	106	265	5		M
327.8775	36:33	36:31	1	1.001	1416	368	42	105	9	2.13(1.32-1.78)	
PCB-114											
325.8804	37:03						106	265			
327.8775	37:03						42	105			
PCB-105											
325.8804	37:43						106	265			
327.8775	37:43						42	105			
PCB-126											
325.8804	40:48						106	265			
327.8775	40:48						42	105			
PCB-155L											
371.8817	31:17	31:17	0	0.790	365009	76167	74	185	1029		
373.8788	31:17	31:17	0	0.790	285946	58825	73	182	806	1.28(1.05-1.43)	
PCB-153L											
371.8817	38:21	38:23	-1	0.900	227978	41353	301	752	137		
373.8788	38:22	38:23	0	0.900	185044	36196	68	170	532	1.23(1.05-1.43)	
PCB-138L											
371.8817	39:37	39:37	0		418392	78981	301	752	262		
373.8788	39:37	39:37	0		334160	65289	68	170	960	1.25(1.05-1.43)	
PCB-167L											
371.8817	42:36	42:37	0	1.076	432299	79664	301	752	265		
373.8788	42:36	42:37	0	1.076	358810	73661	68	170	1083	1.20(1.05-1.43)	
PCB-156L											
371.8817	43:46	43:47	-1	1.105	888188	108037	301	752	359		
373.8788	43:47	43:47	0	1.105	687500	85976	68	170	1264	1.29(1.05-1.43)	
PCB-157L (C156L)											
371.8817	43:46	43:47	-1	1.105	888188	108037	301	752	359		
373.8788	43:47	43:47	0	1.105	687500	85976	68	170	1264	1.29(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-169L											
371.8817	47:00	47:00	1	1.187	454135	76909	301	752	256		
373.8788	47:00	47:00	1	1.187	340698	60643	68	170	892	1.33(1.05-1.43)	
PCB-153											
359.8415	38:24	38:22	0	0.901	2106	412	12	30	34		RQ
	Empc Correction				1582	317	12	30	26		
361.8385	38:23	38:22	-1	0.901	1276	256	3	7	85	1.65(1.05-1.43)	
PCB-168 (C153)											
359.8415	38:24	38:22	0	0.901	2106	412	12	30	34		RQ
	Empc Correction				1582	317	12	30	26		
361.8385	38:23	38:22	-1	0.901	1276	256	3	7	85	1.65(1.05-1.43)	
PCB-129											
359.8415	39:39	39:44	0	0.931	1670	605	12	30	50		RQM
	Empc Correction				426	138	12	30	12		M
361.8385	39:44	39:44	4	0.932	344	112	3	7	37	4.85(1.05-1.43)	M
PCB-138 (C129)											
359.8415	39:39	39:44	0	0.931	1670	605	12	30	50		RQM
	Empc Correction				426	138	12	30	12		M
361.8385	39:44	39:44	4	0.932	344	112	3	7	37	4.85(1.05-1.43)	M
PCB-160 (C129)											
359.8415	39:39	39:44	0	0.931	1670	605	12	30	50		RQM
	Empc Correction				426	138	12	30	12		M
361.8385	39:44	39:44	4	0.932	344	112	3	7	37	4.85(1.05-1.43)	M
PCB-163 (C129)											
359.8415	39:39	39:44	0	0.931	1670	605	12	30	50		RQM
	Empc Correction				426	138	12	30	12		M
361.8385	39:44	39:44	4	0.932	344	112	3	7	37	4.85(1.05-1.43)	M
PCB-128											
359.8415	40:51	40:54	-1	0.959	270	102	12	30	9		
361.8385	40:52	40:54	0	0.959	249	105	3	7	35	1.08(1.05-1.43)	
PCB-166 (C128)											
359.8415	40:51	40:54	-1	0.959	270	102	12	30	9		
361.8385	40:52	40:54	0	0.959	249	105	3	7	35	1.08(1.05-1.43)	
PCB-167											
359.8415	42:37						12	30			
361.8385	42:37						3	7			
PCB-156											
359.8415	43:47						12	30			
361.8385	43:47						3	7			
PCB-157 (C156)											
359.8415	43:47						12	30			
361.8385	43:47						3	7			
PCB-169											
359.8415	47:02						12	30			
361.8385	47:02						3	7			
PCB-188L											
405.8428	37:00	37:01	-1	0.820	358197	68251	93	232	734		
407.8398	37:00	37:01	-1	0.820	335579	64113	1	2	64113	1.07(0.89-1.21)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-178L											
405.8428	40:04	40:05	0	0.888	252089	49612	93	232	533		
407.8398	40:04	40:05	0	0.888	228914	44839	1	2	44839	1.10(0.89-1.21)	
PCB-180L											
405.8428	45:08	45:09	0		280772	54469	93	232	586		
407.8398	45:08	45:09	0		259495	49443	1	2	49443	1.08(0.89-1.21)	
PCB-170L											
405.8428	46:25	46:24	1	1.028	205469	39873	93	232	429		
407.8398	46:25	46:24	1	1.028	192027	39471	1	2	39471	1.07(0.89-1.21)	
PCB-189L											
405.8428	49:31	49:31	0	1.097	471910	86713	639	1597	136		
407.8398	49:31	49:31	0	1.097	425466	79697	514	1285	155	1.11(0.89-1.21)	
PCB-187											
393.8025	40:58						1	2			
395.7995	40:58						1	2			
PCB-180											
393.8025	45:09						1	2			
395.7995	45:09						1	2			
PCB-193 (C180)											
393.8025	45:09						1	2			
395.7995	45:09						1	2			
PCB-170											
393.8025	46:26						1	2			
395.7995	46:26						1	2			
PCB-189											
393.8025	49:32						16	40			
395.7995	49:32						12	30			
PCB-202L											
439.8038	42:22	42:22	0	0.821	238173	45859	30	75	1529		
441.8008	42:22	42:22	0	0.821	246745	48000	18	45	2667	0.97(0.76-1.02)	
PCB-194L											
439.8038	51:37	51:36	0		320982	58834	395	987	149		
441.8008	51:37	51:36	0		336099	64054	460	1150	139	0.96(0.76-1.02)	
PCB-205L											
439.8038	52:05	52:05	0	1.009	331029	63071	395	987	160		
441.8008	52:04	52:05	0	1.009	378228	70876	460	1150	154	0.88(0.76-1.02)	
PCB-195											
427.7635	49:18						8	20			
429.7606	49:18						5	12			
PCB-208L											
473.7648	49:02	49:02	0	0.950	250753	47653	365	912	131		
475.7619	49:02	49:02	0	0.950	303730	59291	322	805	184	0.83(0.65-0.89)	
PCB-206L											
473.7648	53:49	53:50	0	1.043	207555	39210	365	912	107		
475.7619	53:49	53:50	0	1.043	261898	46437	322	805	144	0.79(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
--------	--------------	------------------	------	-----------	------	--------	--------------	---------------	-----	---------------	-------

## PCB-206

461.7246	53:52						36	90			
463.7216	53:52						207	517			

## PCB-209L

507.7258	55:26	55:26	0	1.074	218333	39293	59	147	666		
509.7229	55:26	55:26	0	1.074	305904	53967	26	65	2076	0.71(0.59-0.79)	

## DCB Decachlorobiphenyl

495.6856	55:27						2	5			
497.6826	55:27						1	2			

**QC Flag Legend**

## Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

## Review Flags

M - Manually Integrated

a - User Assigned ID

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d

Injection Date: 17-Jul-2024 06:22:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER RUN 8 COMBINED

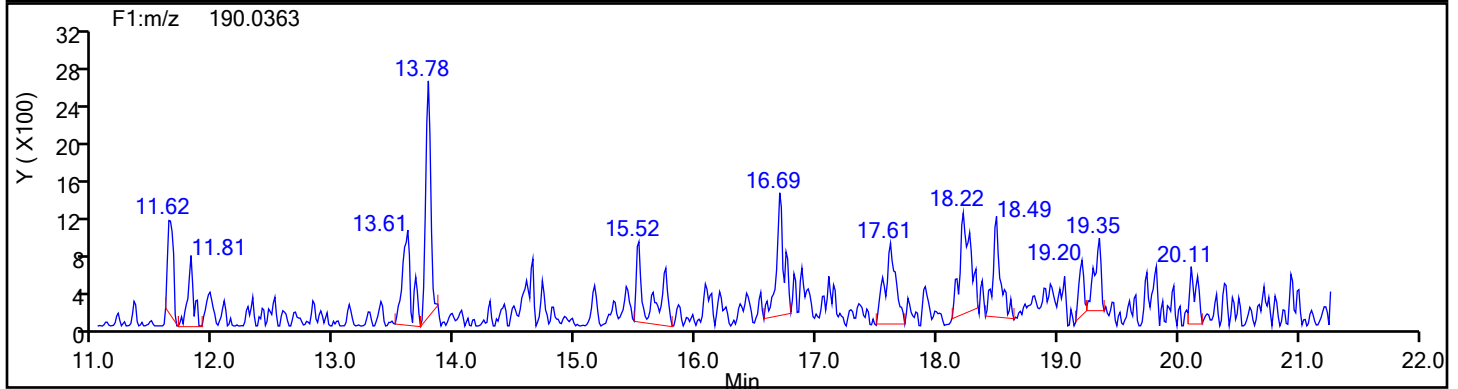
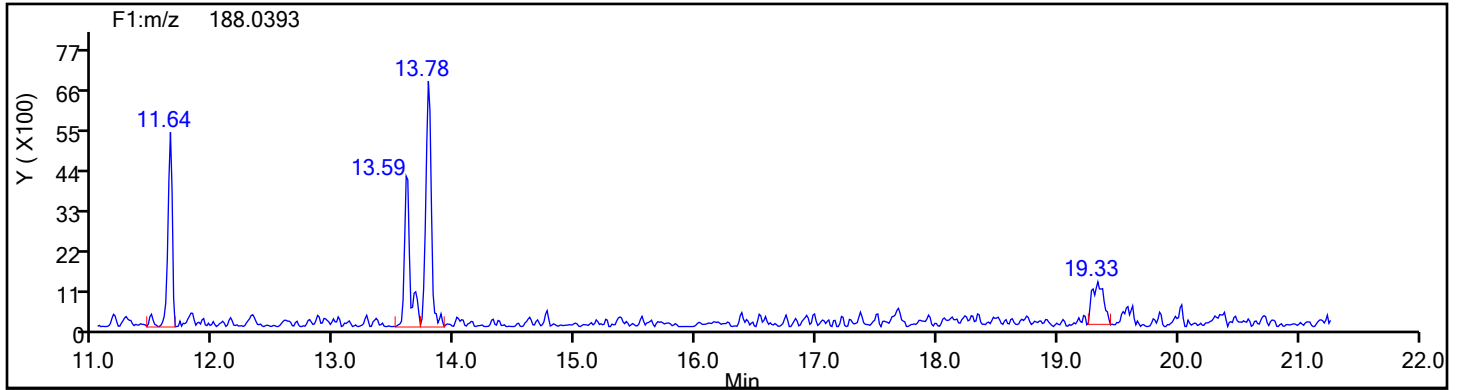
Worklist#: 88834

Sample Line#: 10

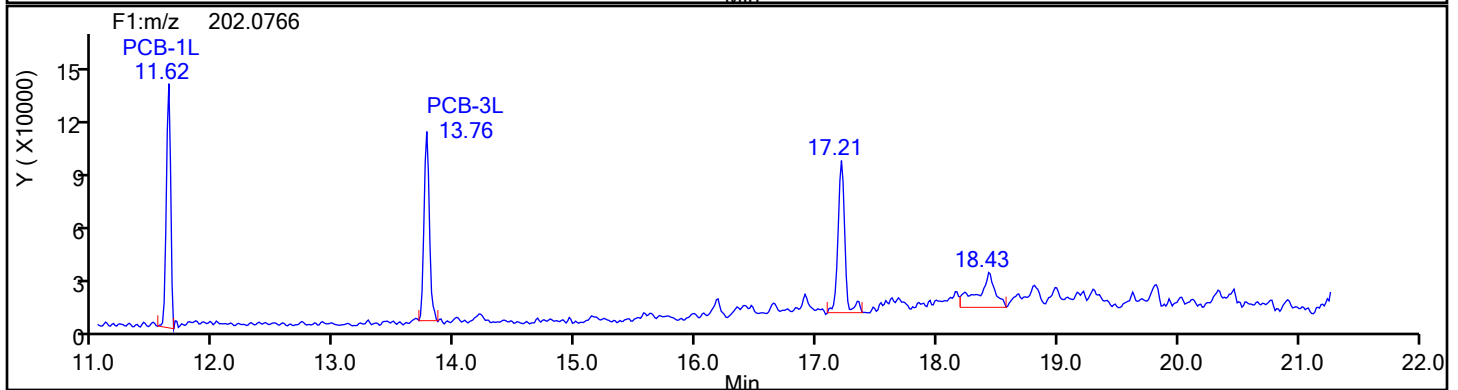
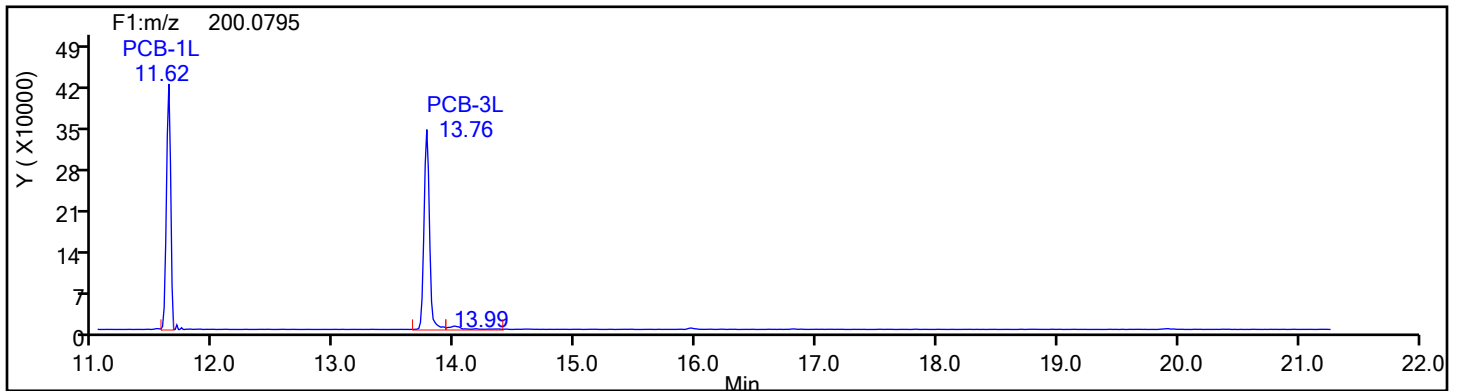
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1

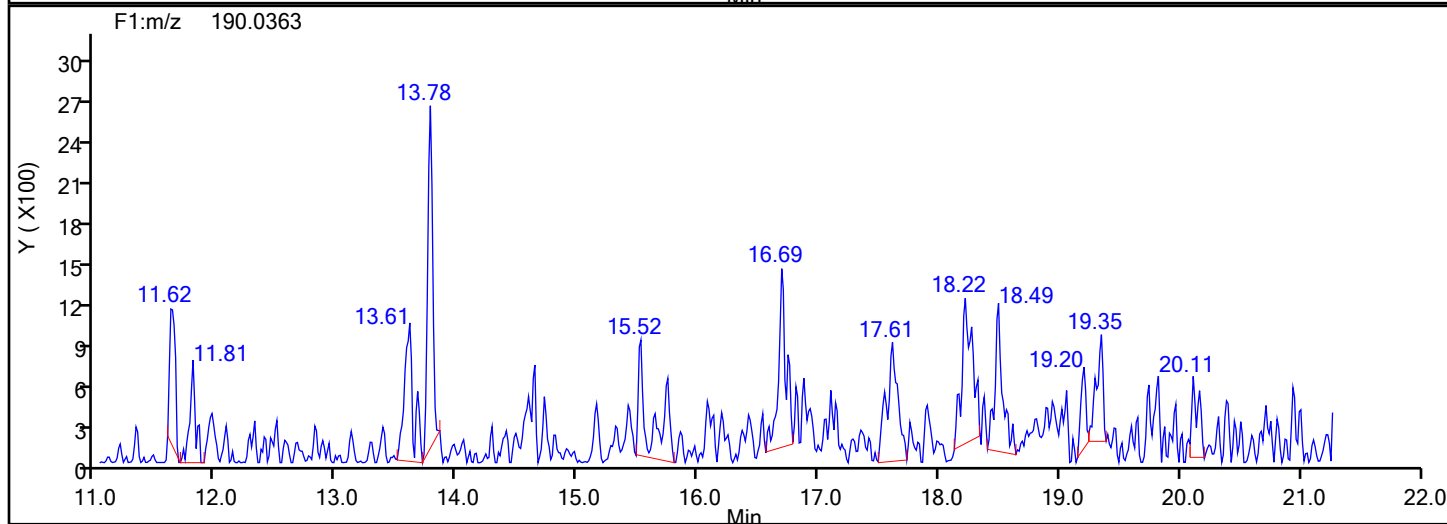
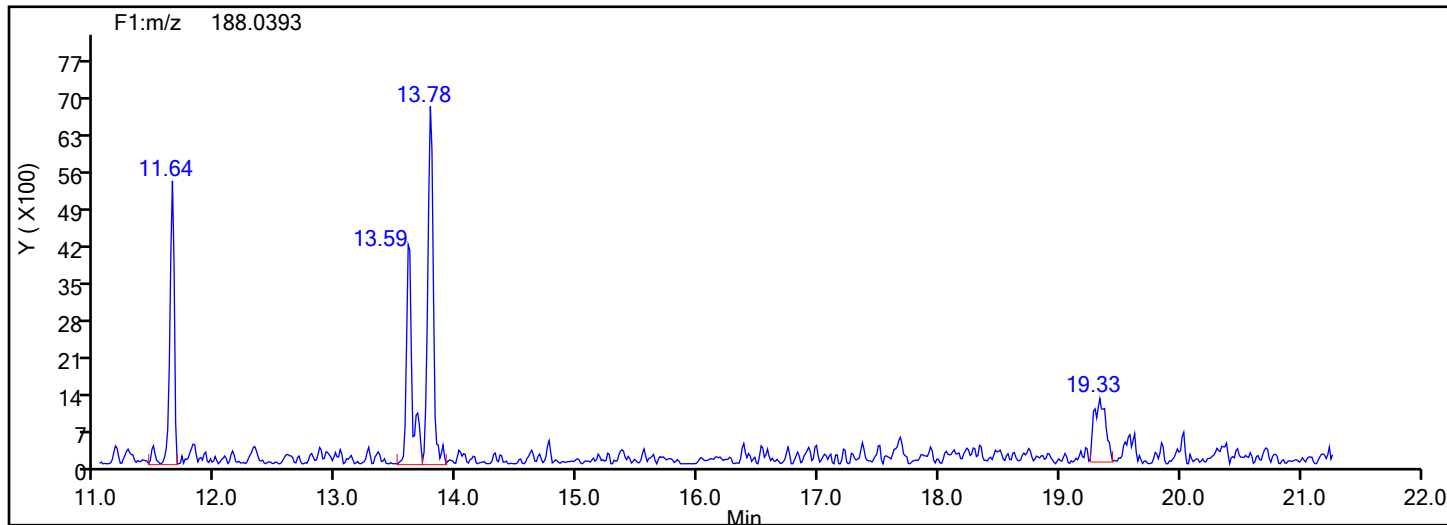


MoPCB F1 Standards

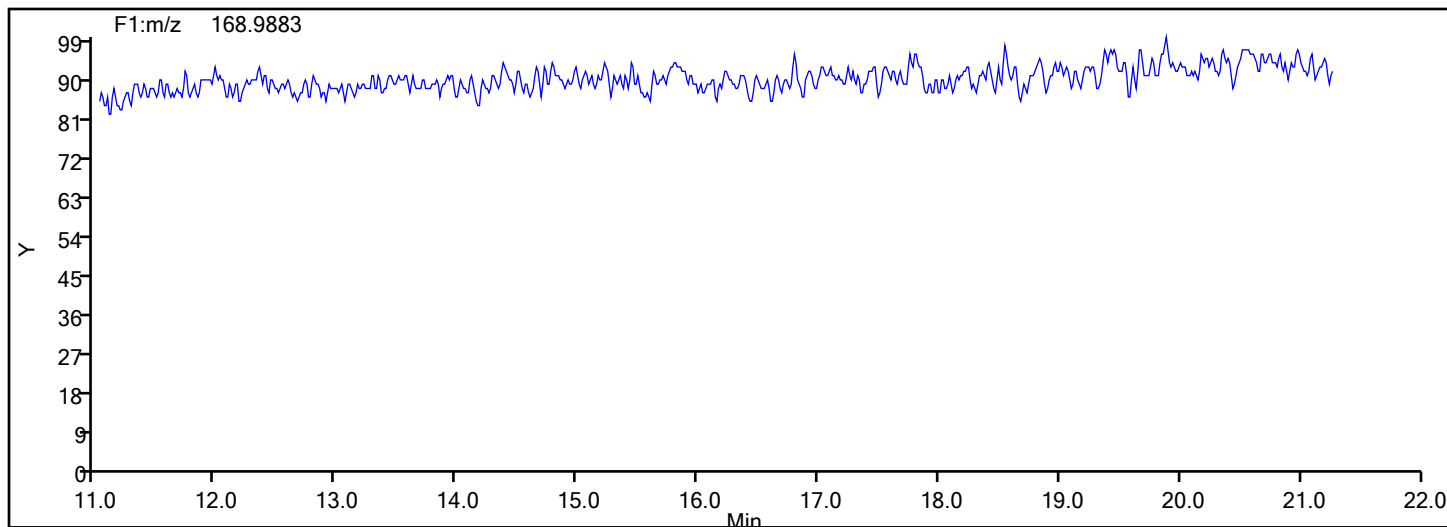


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d  
Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
MoPCB F1



## MoPCB F1 Lock Mass





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d

Injection Date: 17-Jul-2024 06:22:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER RUN 8 COMBINED

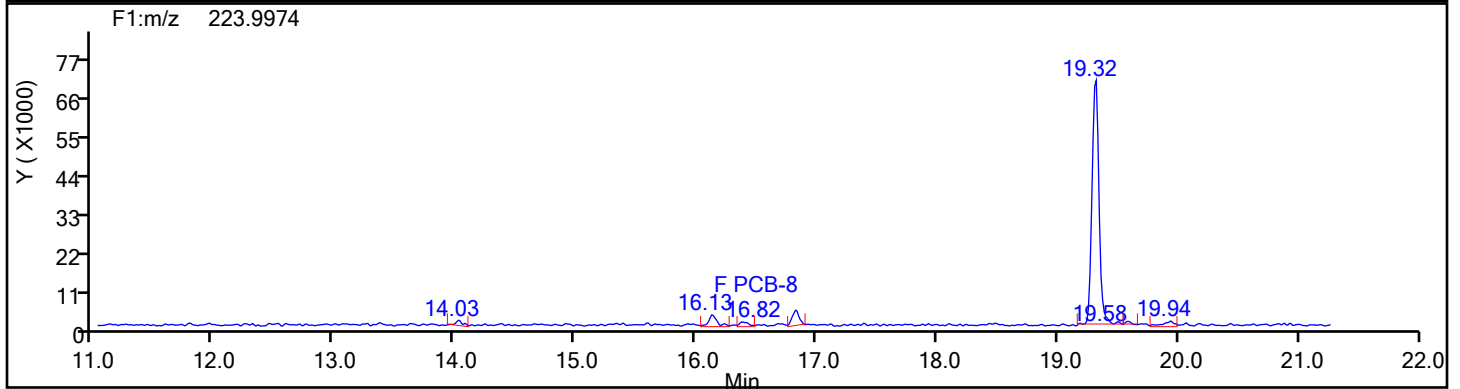
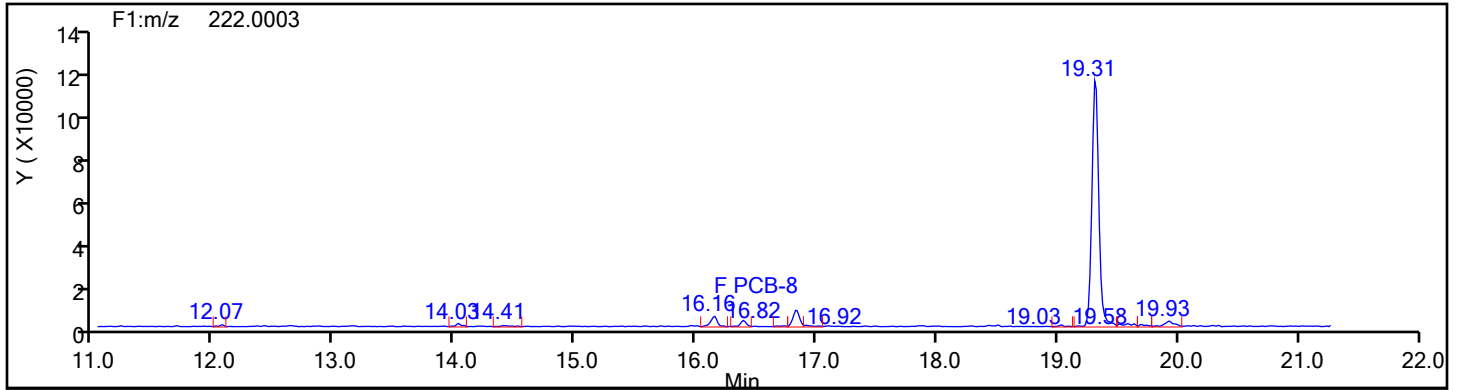
Worklist#: 88834

Sample Line#: 10

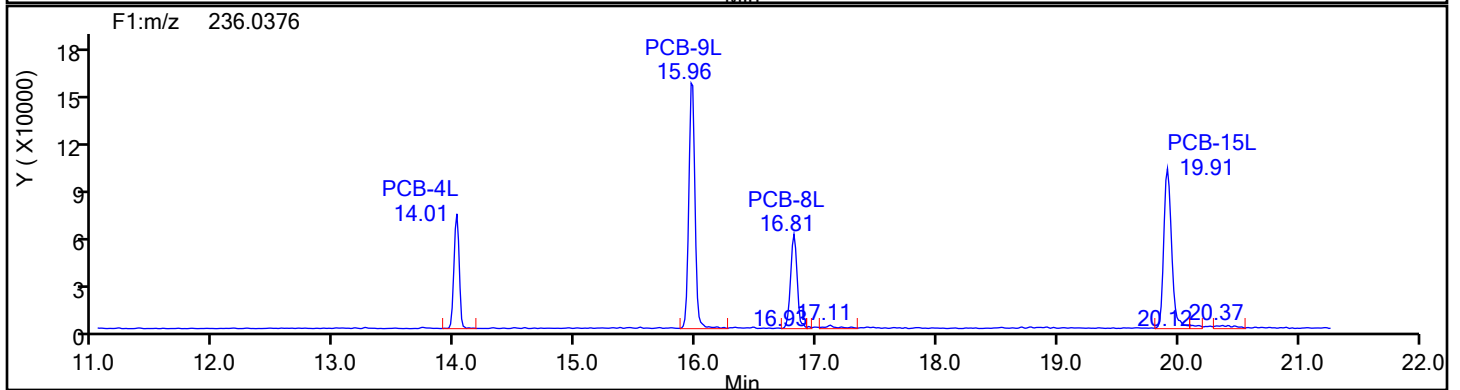
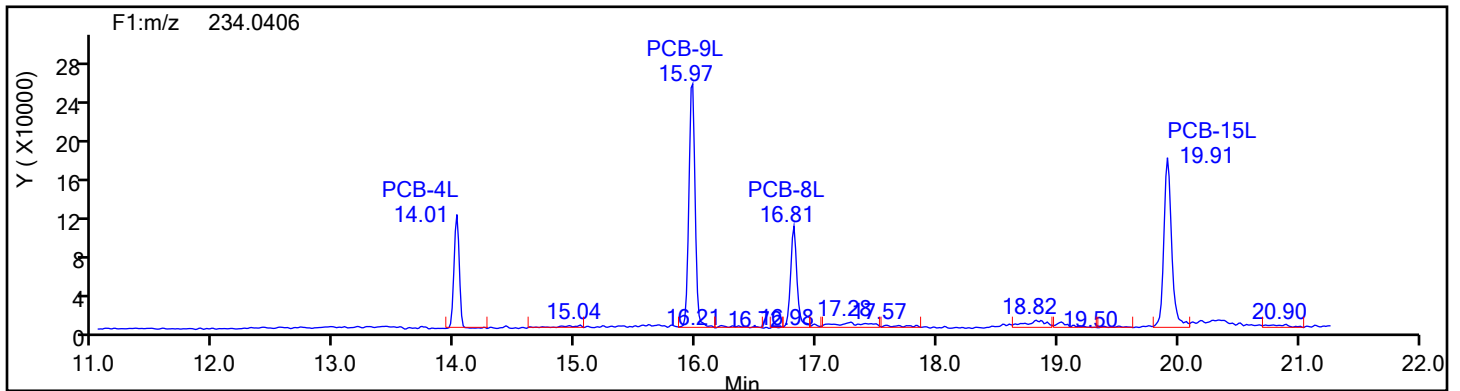
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1

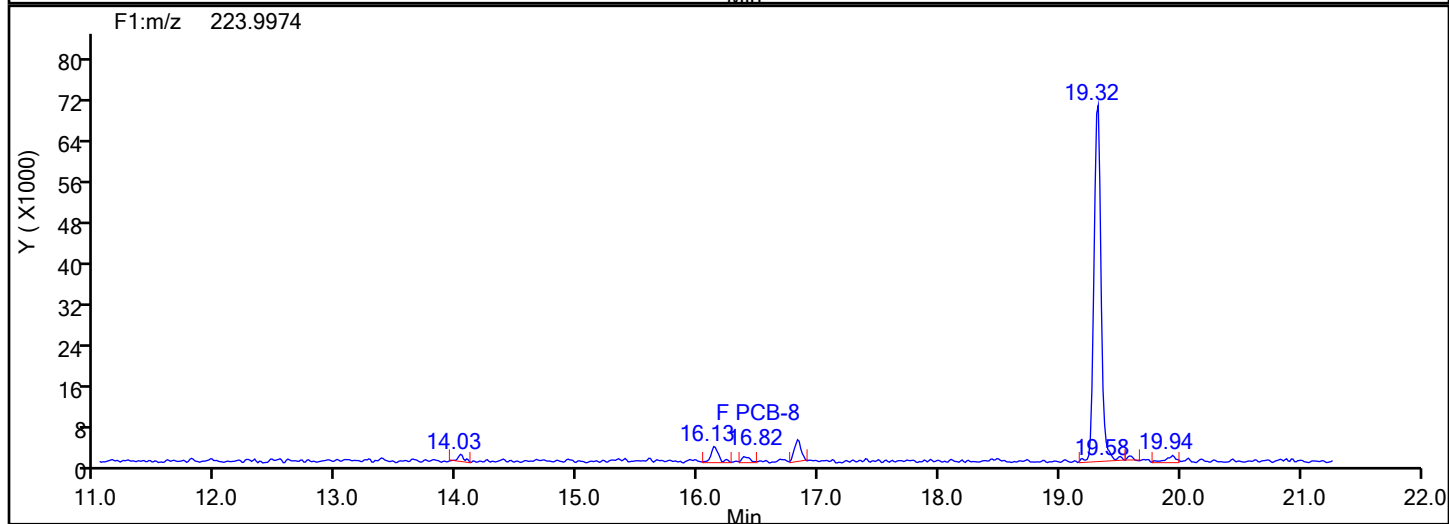
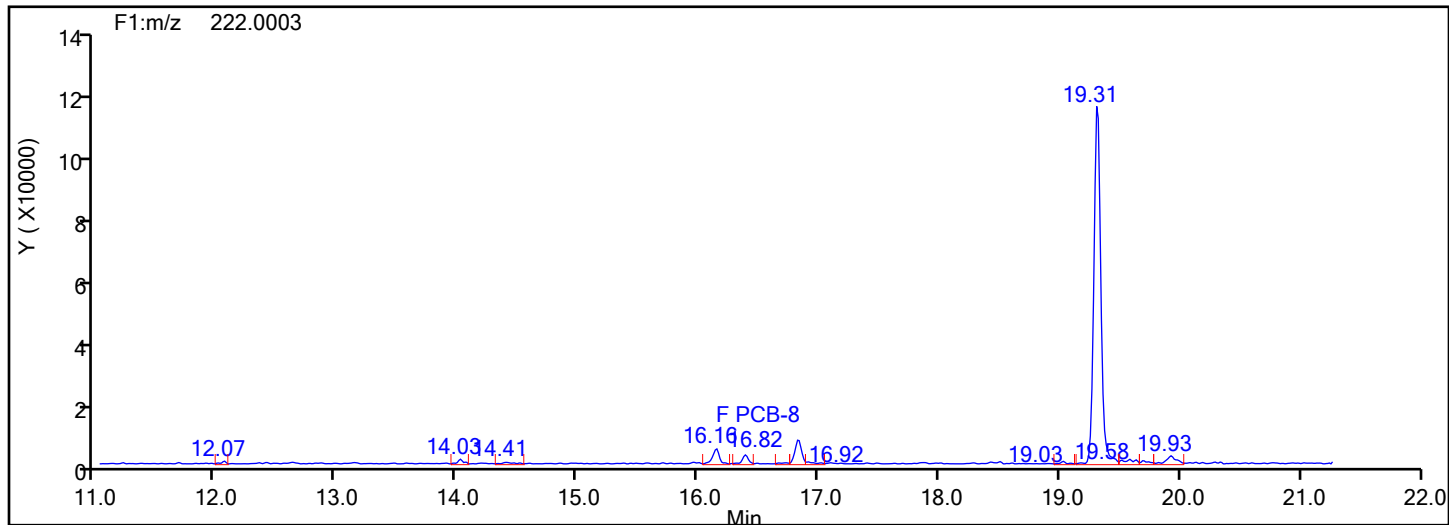


DiPCB F1 Standards

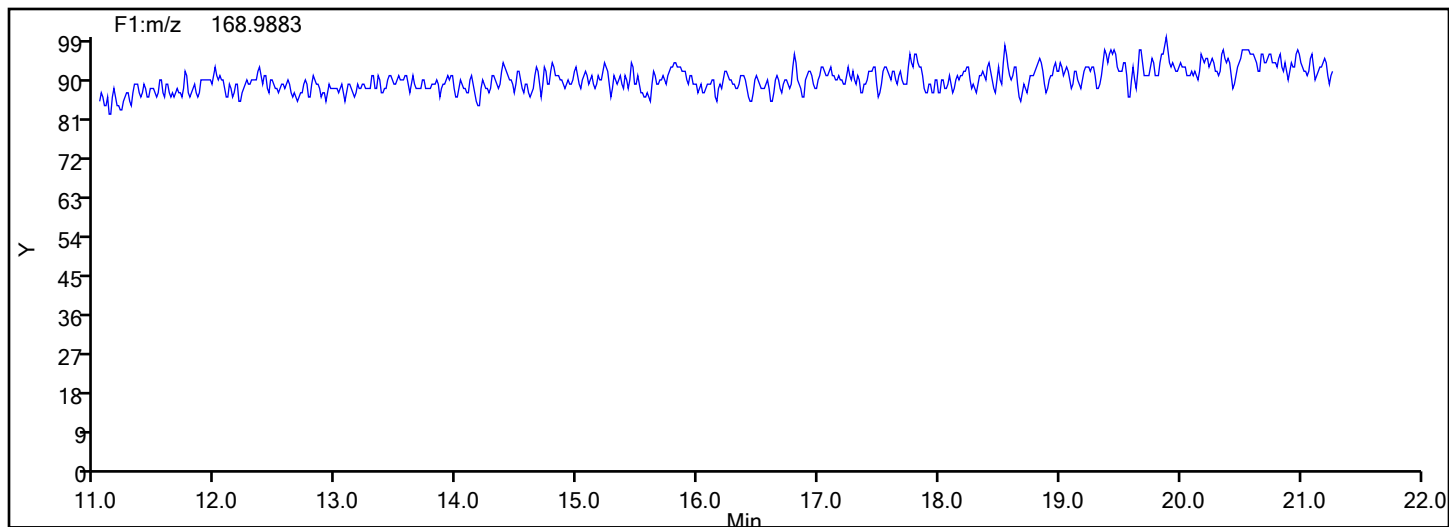


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d  
Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DiPCB F1



## DiPCB F1 Lock Mass



## Eurofins Knoxville

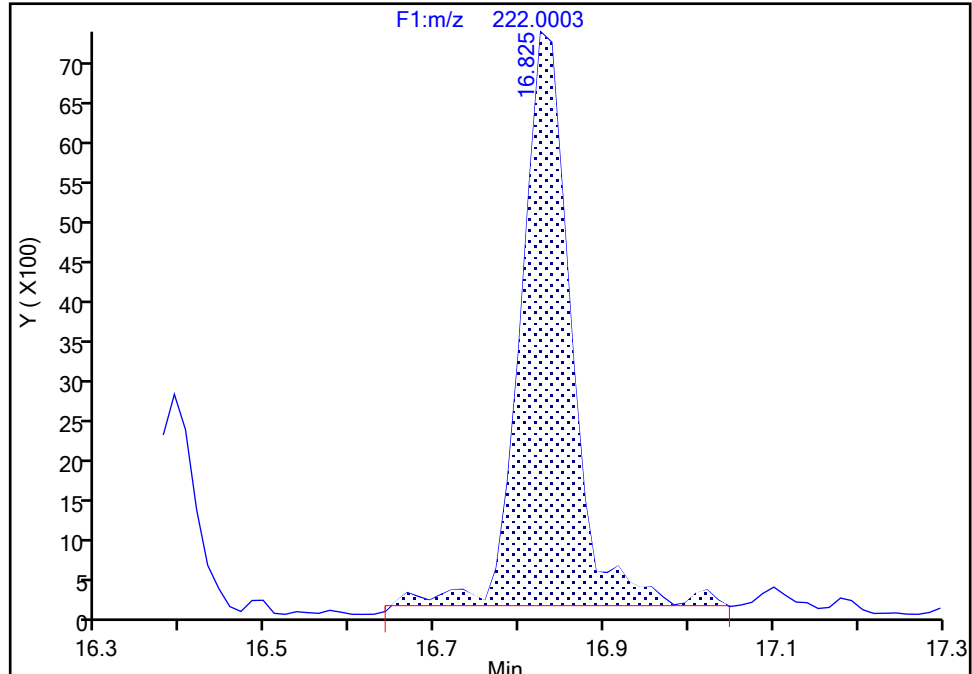
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d  
Injection Date: 17-Jul-2024 06:22:00 Instrument ID: D2D  
Lims ID: 140-37234-A-7-D Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F1(11.07 :21.70 )

PCB-8, CAS: 34883-43-7

Signal: 1

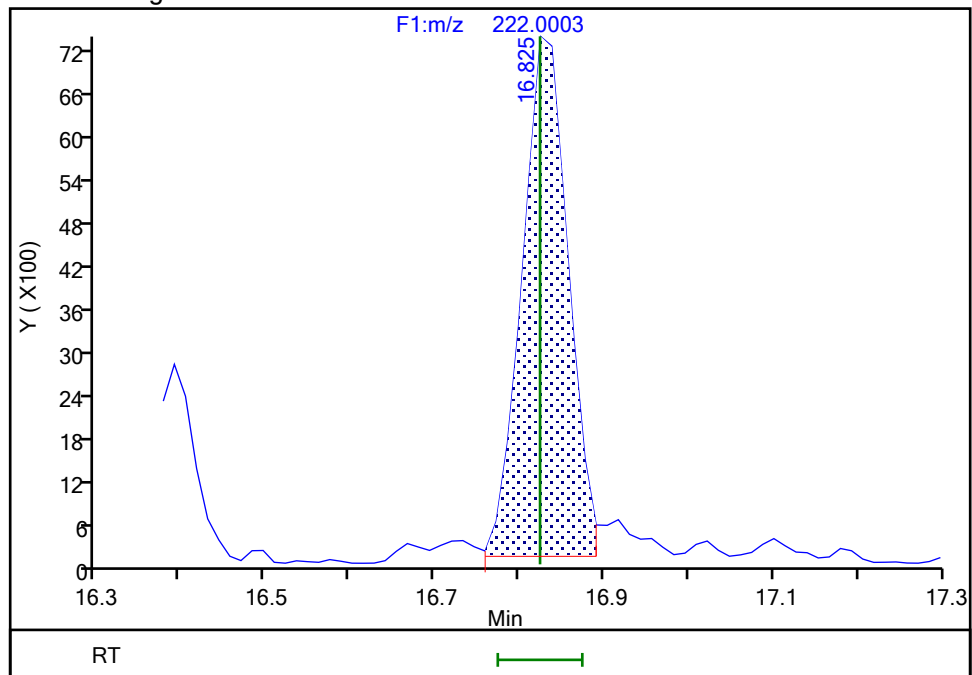
RT: 16.82  
Area: 30152  
Amount: 0.633805  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.82  
Area: 27360  
Amount: 0.595945  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:32:34 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

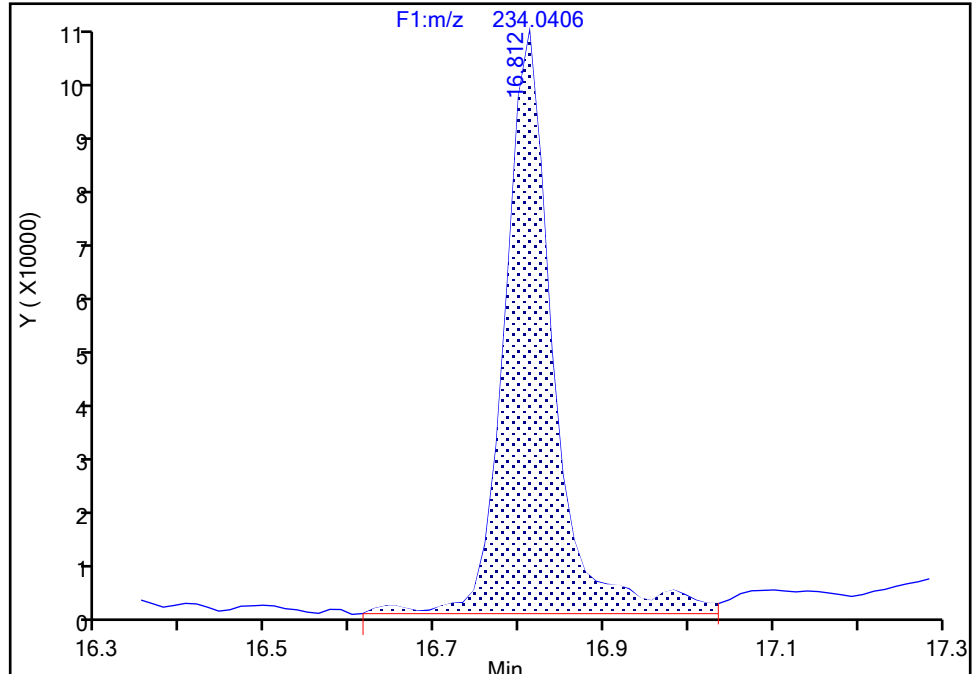
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Injection Date: 17-Jul-2024 06:22:00 Instrument ID: D2D  
Lims ID: 140-37234-A-7-D Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F1(11.07 :21.70 )

PCB-8L, CAS: STL01600

Signal: 1

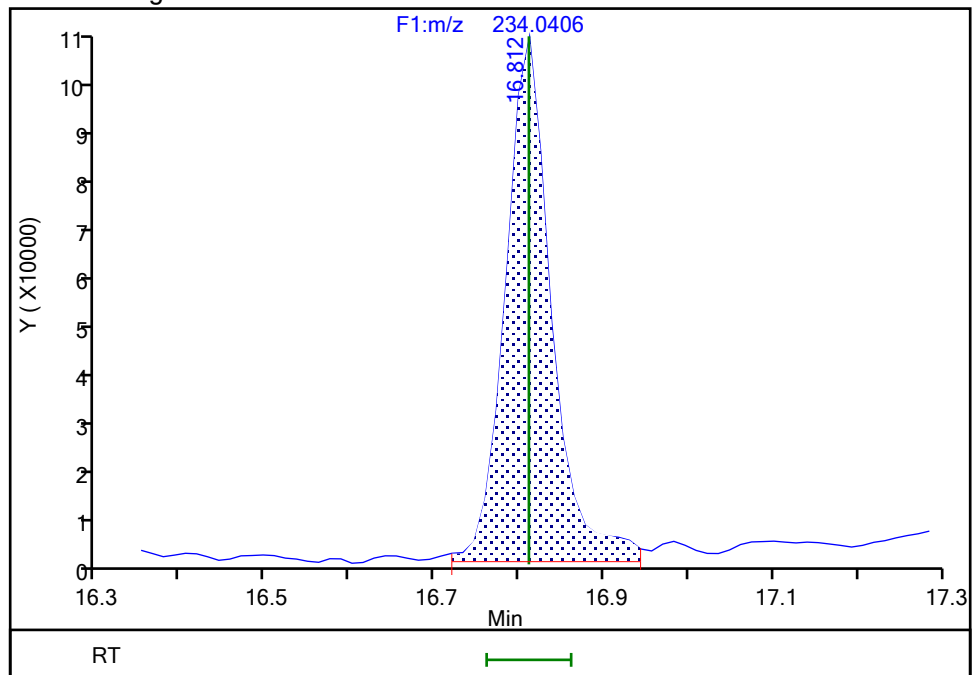
RT: 16.81  
Area: 418848  
Amount: 11.536782  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.81  
Area: 397359  
Amount: 11.179213  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:32:07 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

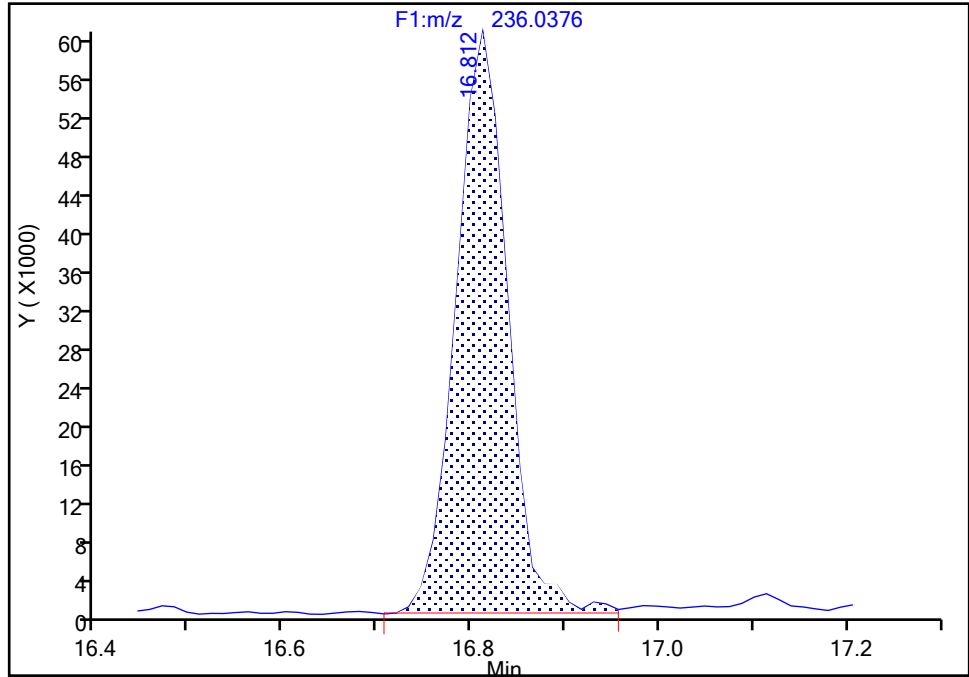
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d  
Injection Date: 17-Jul-2024 06:22:00 Instrument ID: D2D  
Lims ID: 140-37234-A-7-D Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F1(11.07 :21.70 )

PCB-8L, CAS: STL01600

Signal: 2

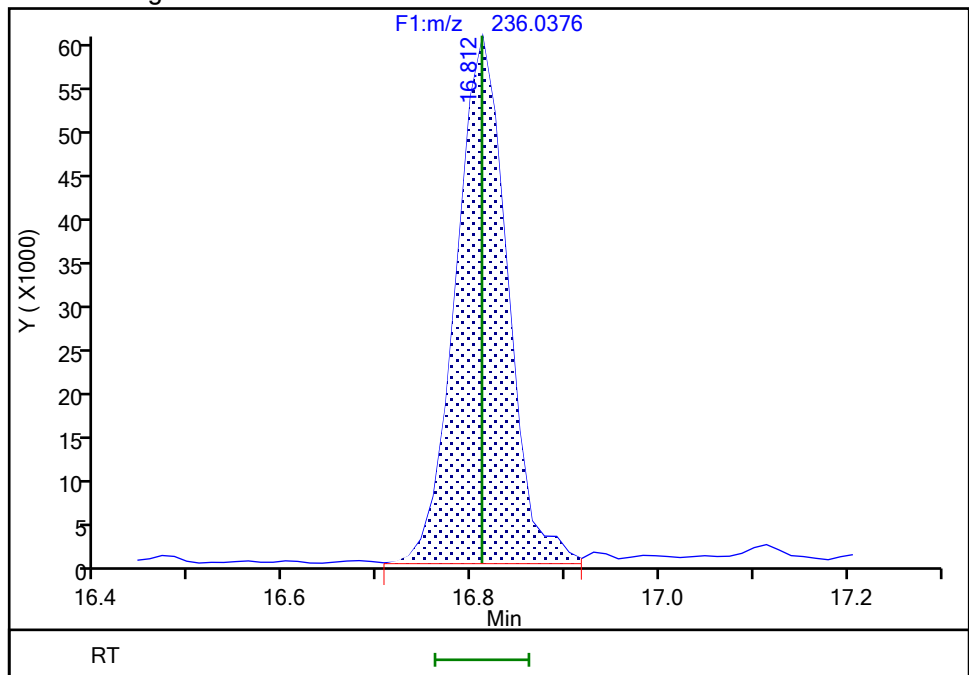
RT: 16.81  
Area: 230852  
Amount: 11.536782  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.81  
Area: 228708  
Amount: 11.179213  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:32:12 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

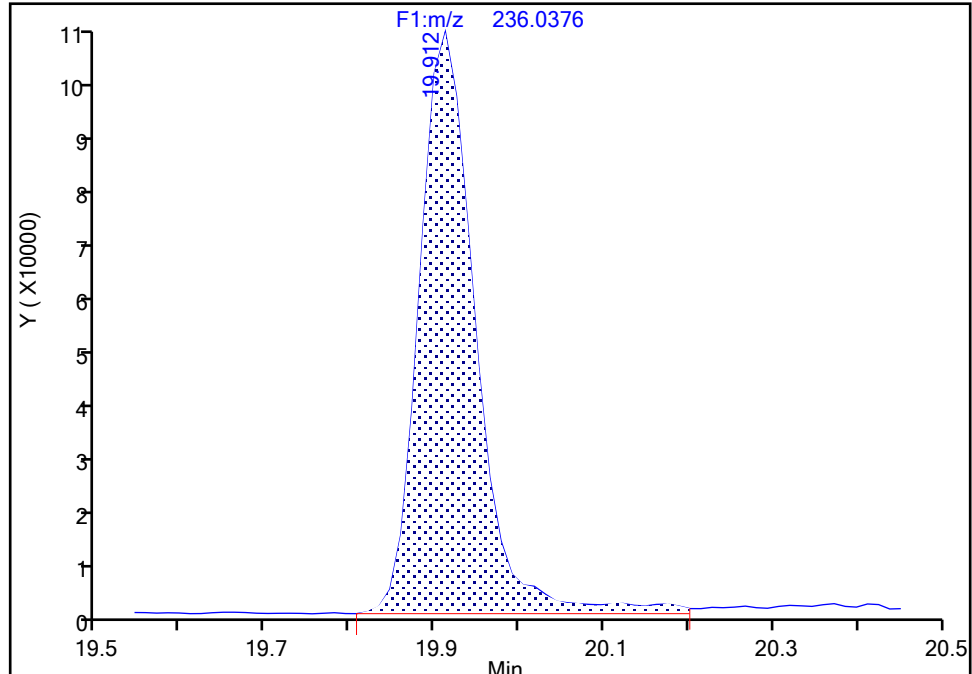
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d  
Injection Date: 17-Jul-2024 06:22:00 Instrument ID: D2D  
Lims ID: 140-37234-A-7-D Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F1(11.07 :21.70 )

PCB-15L, CAS: 208263-67-6

Signal: 2

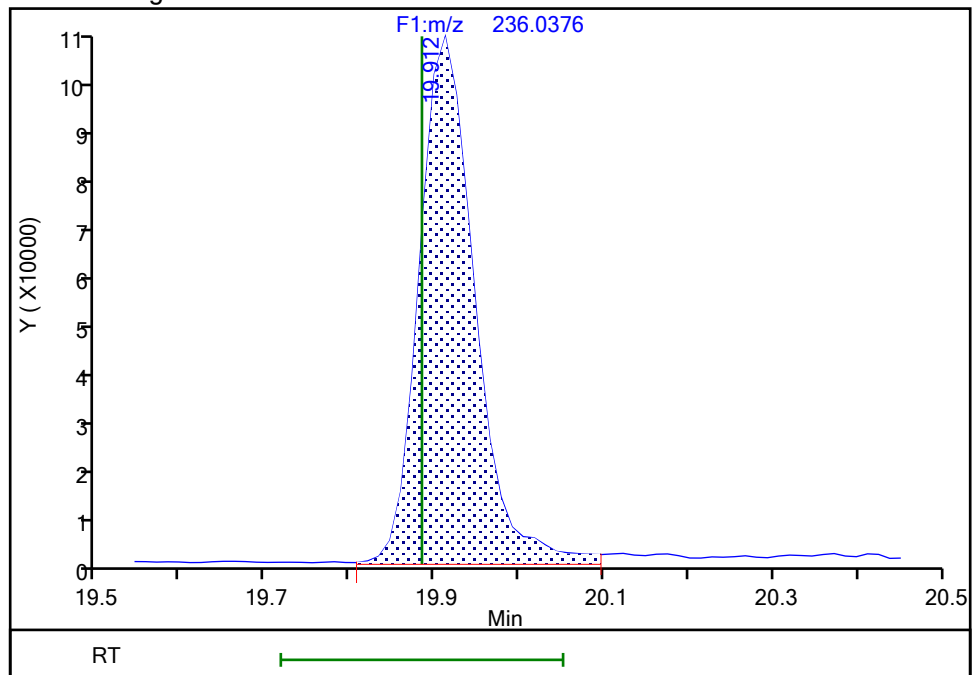
RT: 19.91  
Area: 477463  
Amount: 16.049501  
Amount Units: pg/ul

## Processing Integration Results



RT: 19.91  
Area: 467095  
Amount: 15.920020  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:32:19 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d

Injection Date: 17-Jul-2024 06:22:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER RUN 8 COMBINED

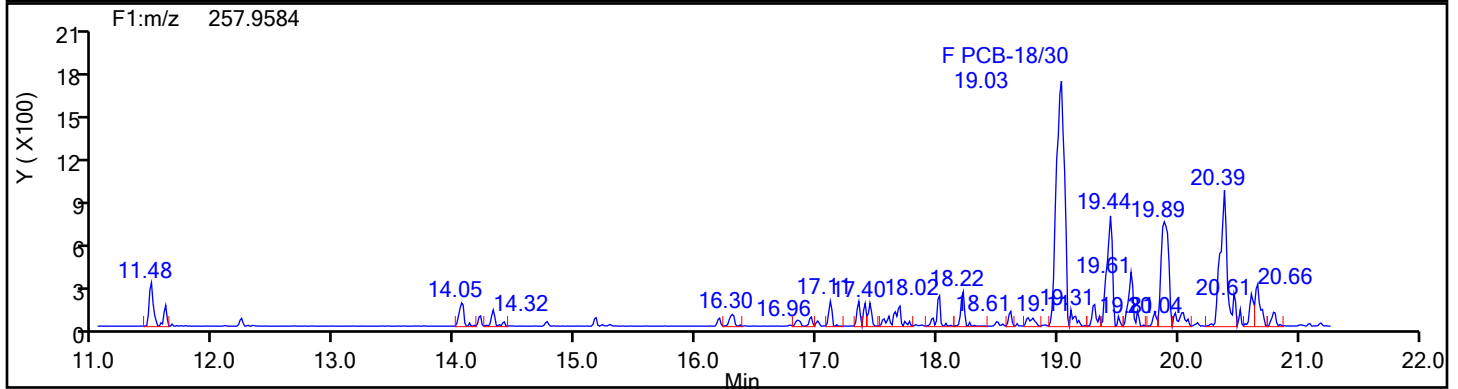
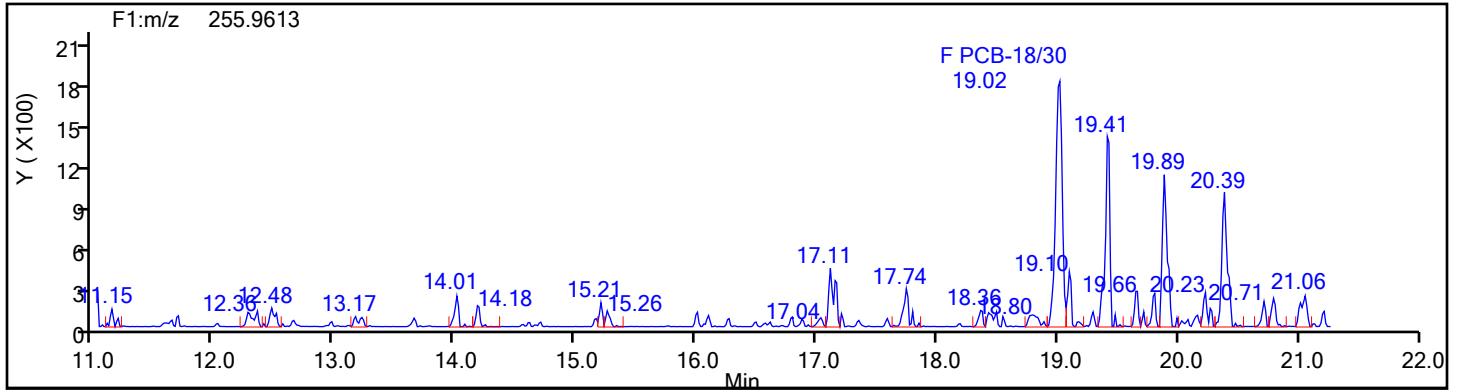
Worklist#: 88834

Sample Line#: 10

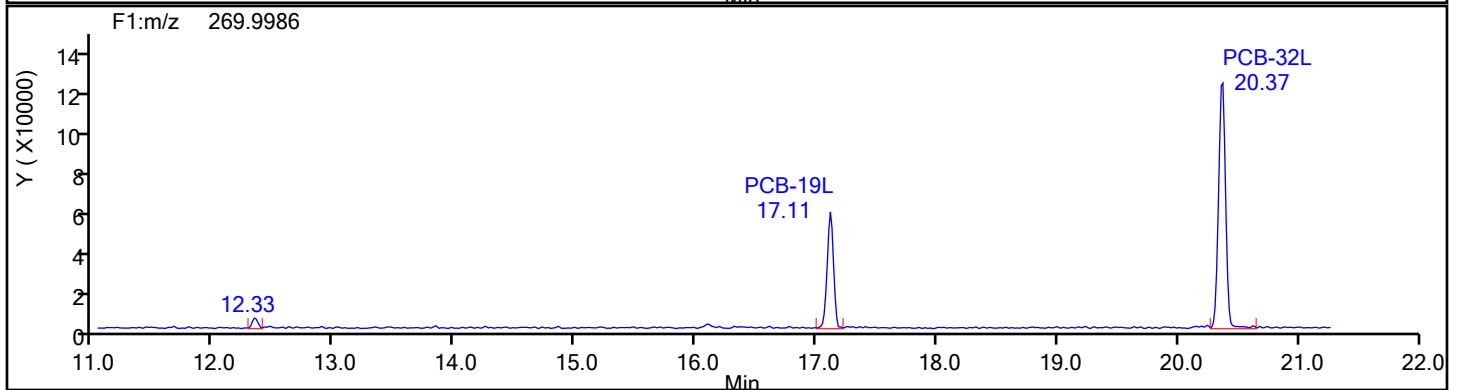
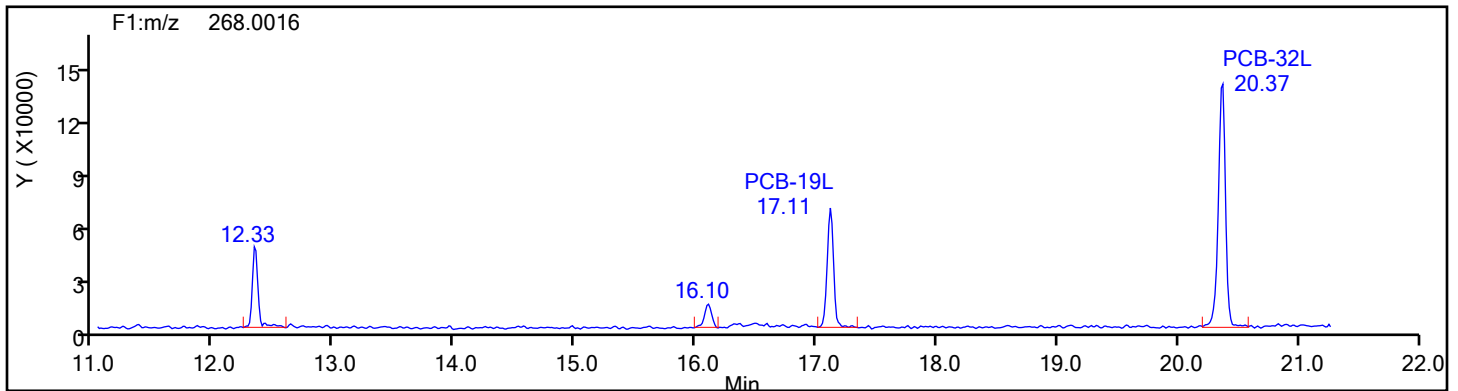
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1

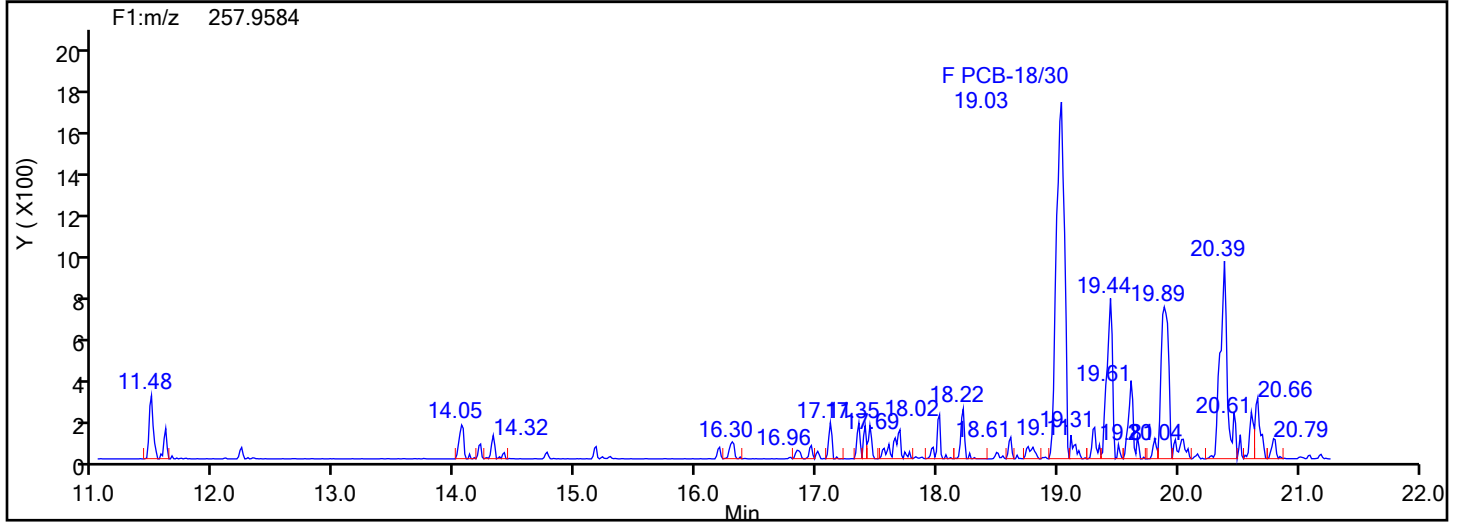
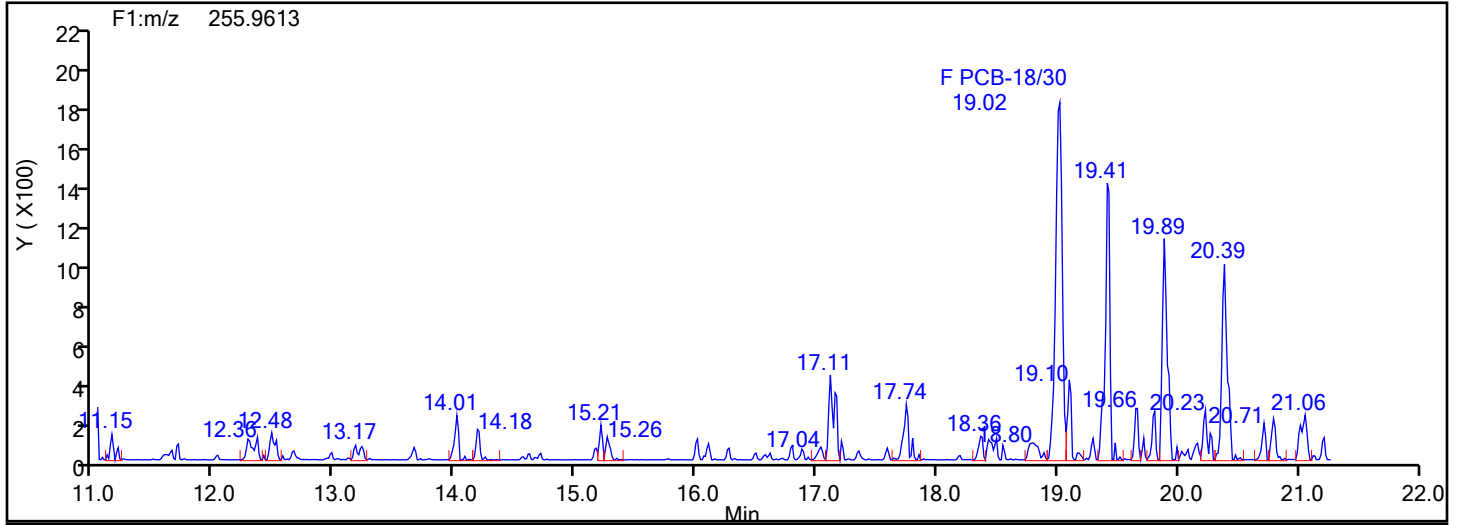


TriPCB F1 Standards

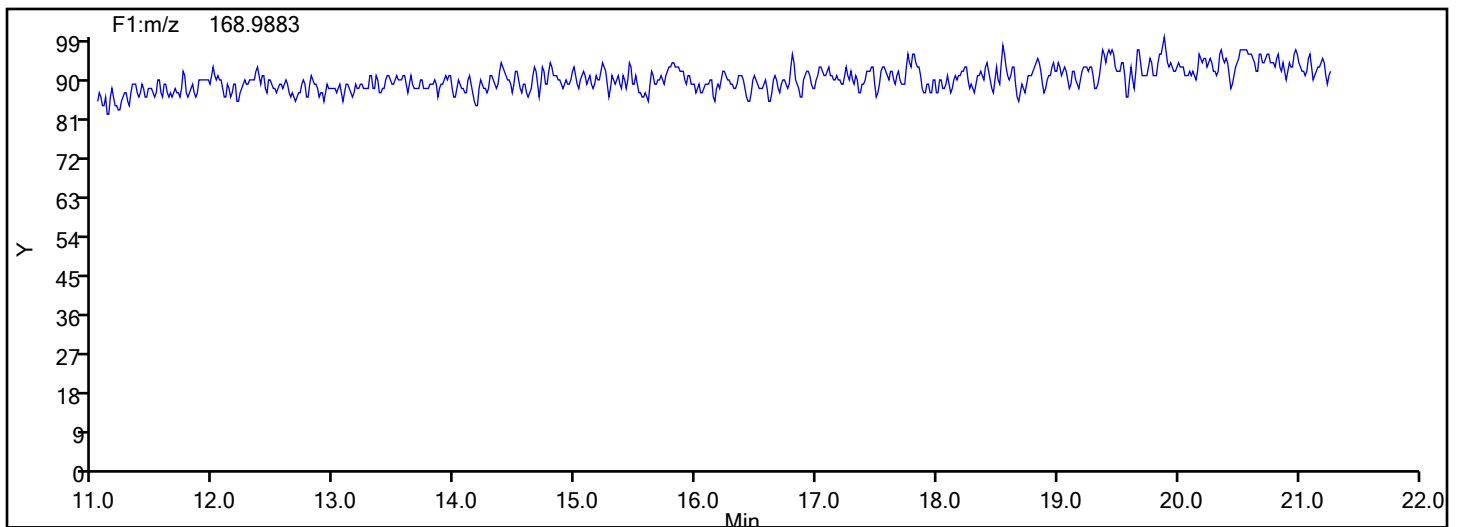


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d  
Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F1



## TriPCB F1 Lock Mass





## Eurofins Knoxville

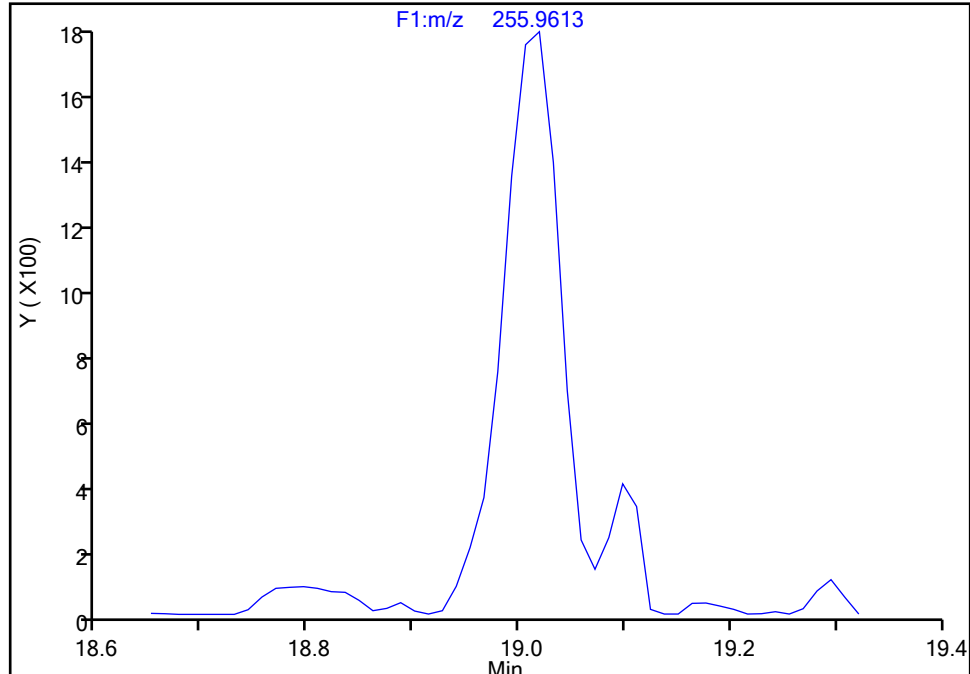
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Injection Date: 17-Jul-2024 06:22:00 Instrument ID: D2D  
Lims ID: 140-37234-A-7-D Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F1(11.07 :21.70 )

**PCB-18/30, CAS: STL01798**

Signal: 1

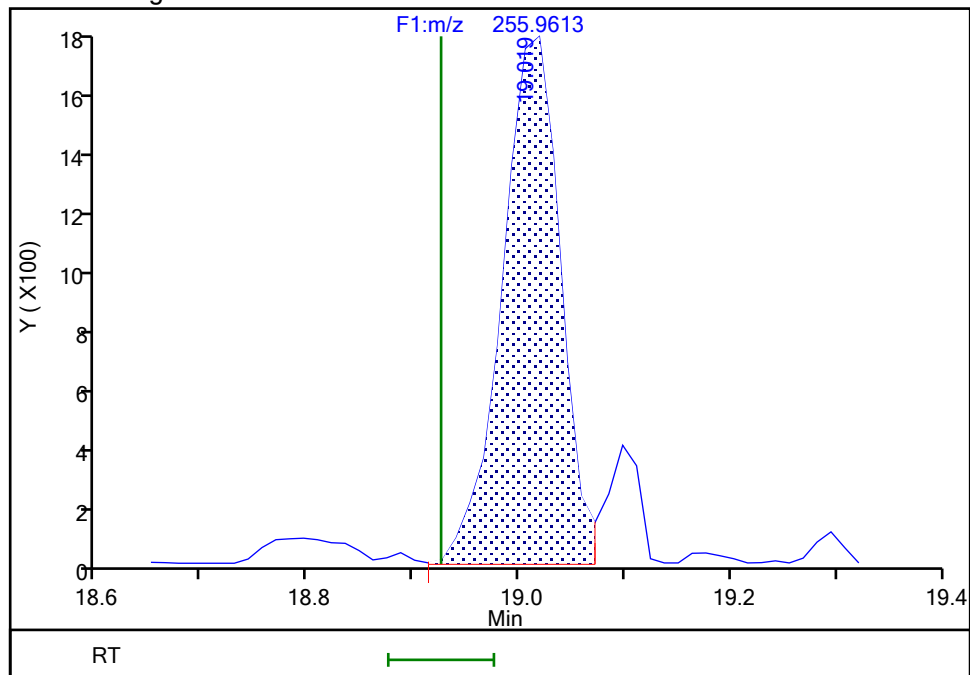
Not Detected  
Expected RT: 18.93

## Processing Integration Results



RT: 19.02  
Area: 6664  
Amount: 0.366397  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:32:51 -04:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d

Injection Date: 17-Jul-2024 06:22:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER RUN 8 COMBINED

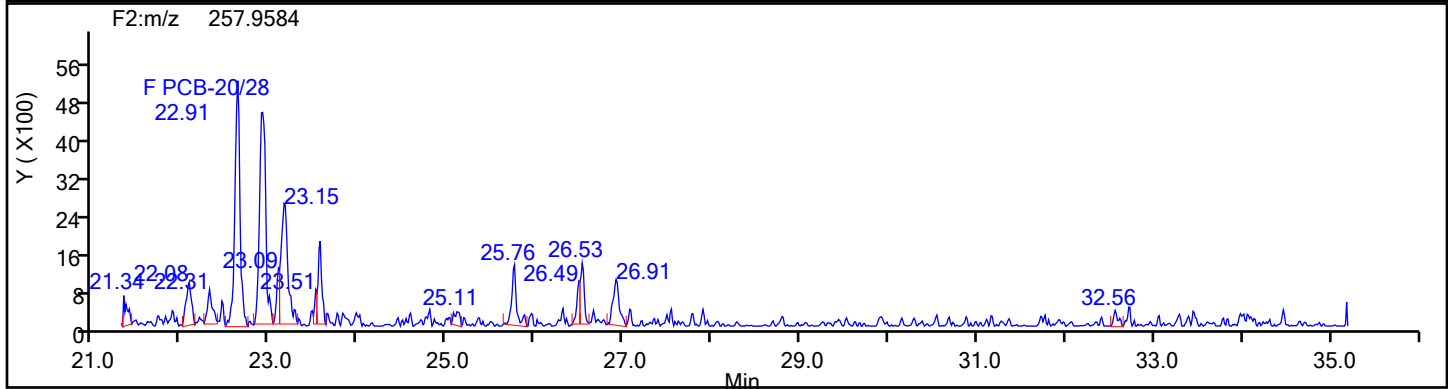
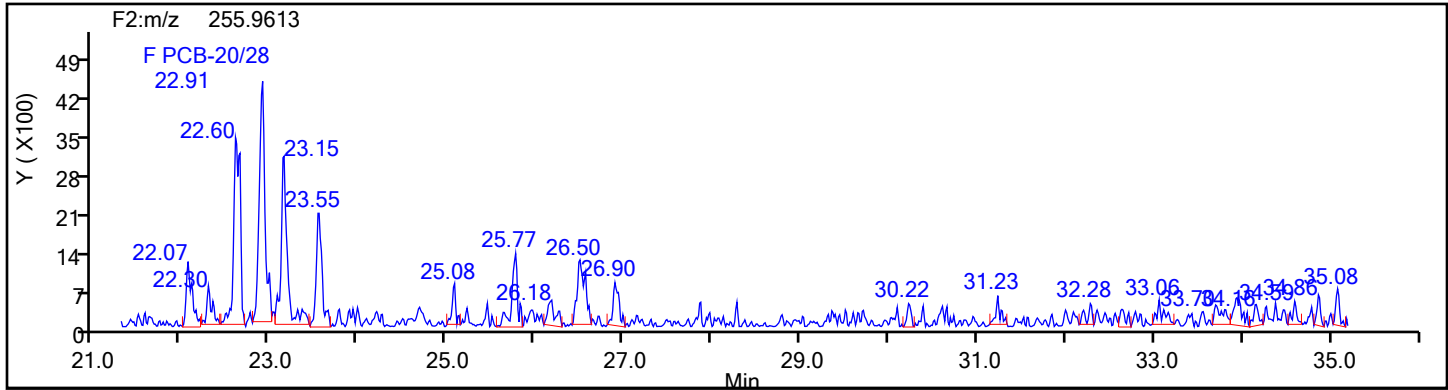
Worklist#: 88834

Sample Line#: 10

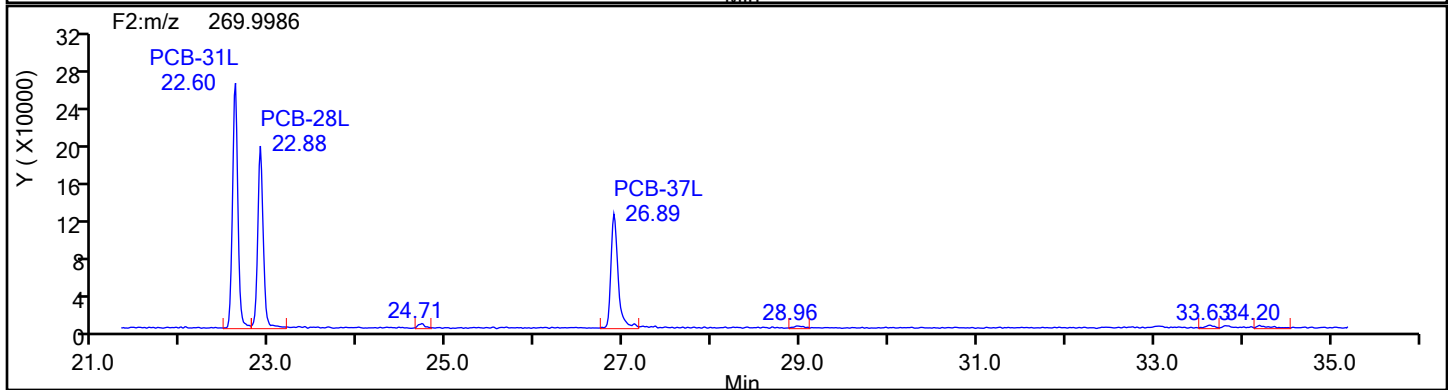
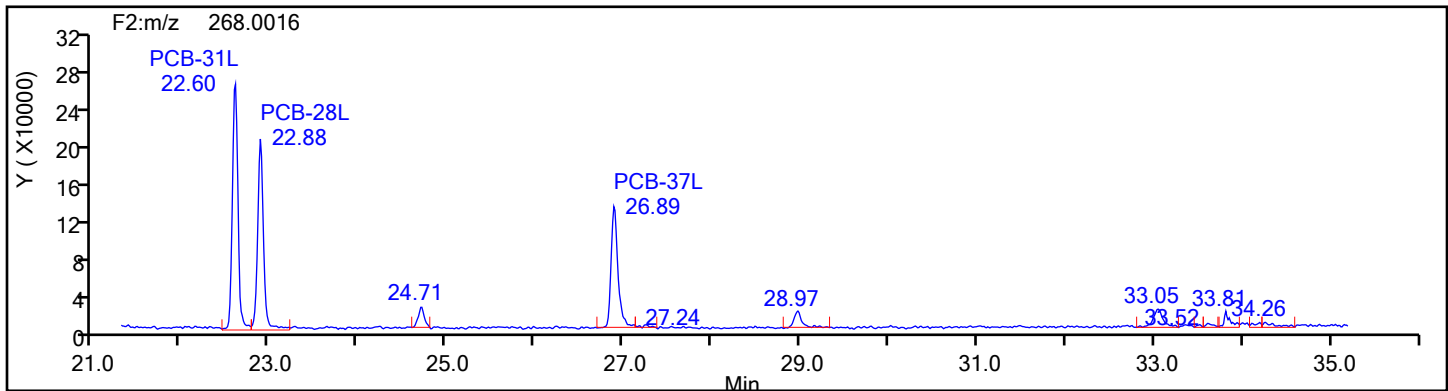
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2

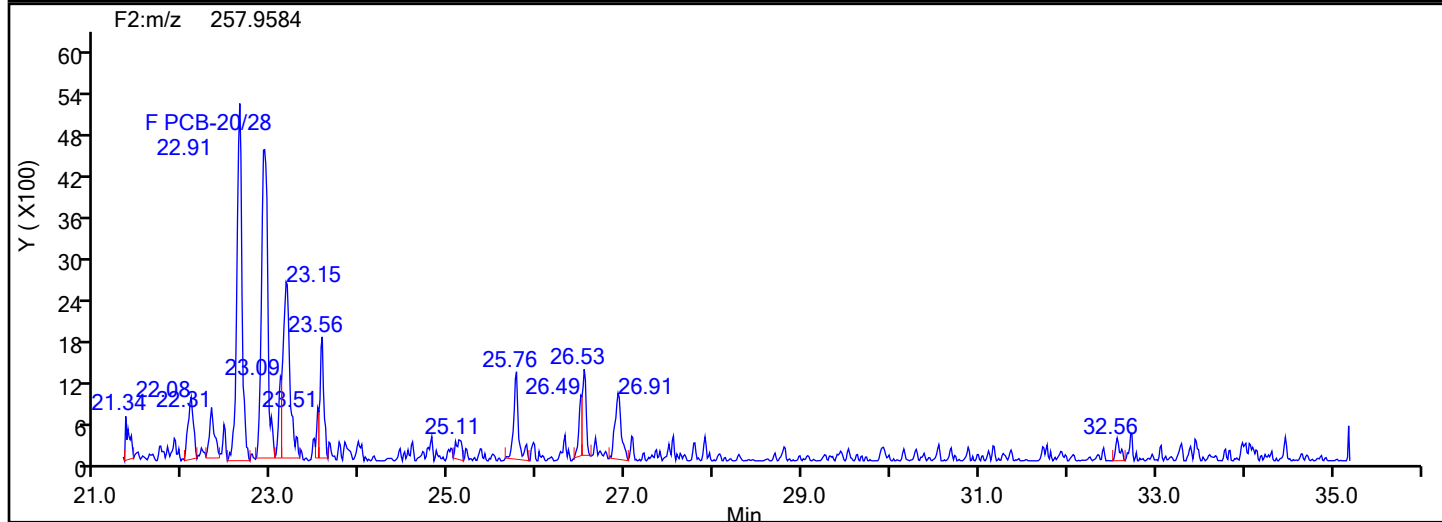
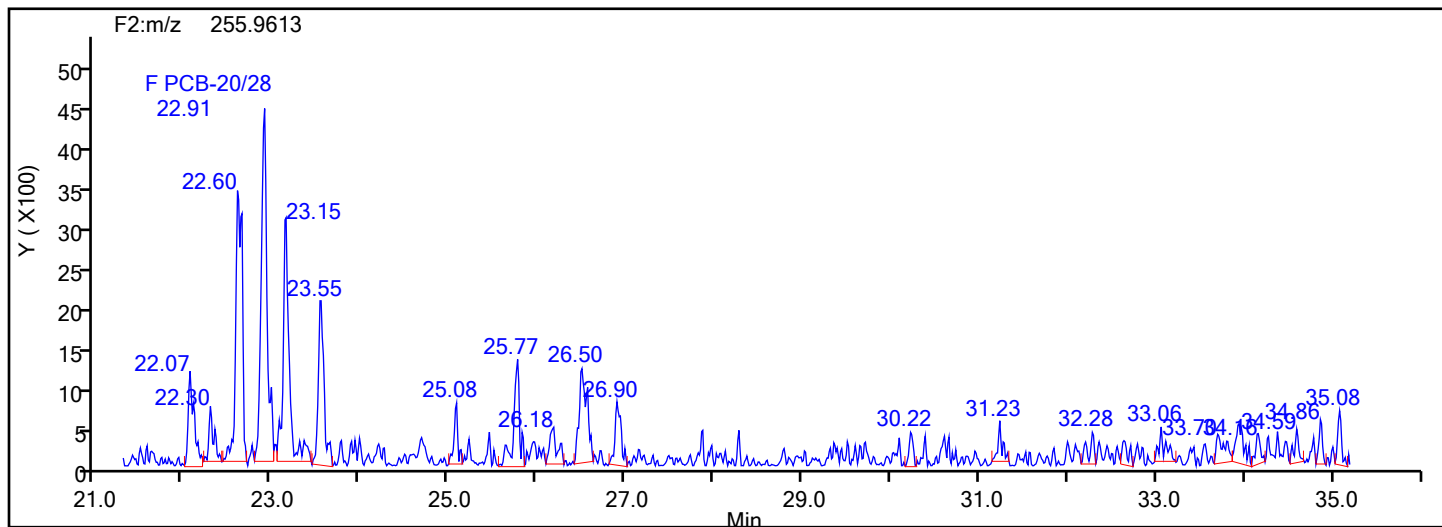


TriPCB F2 Standards

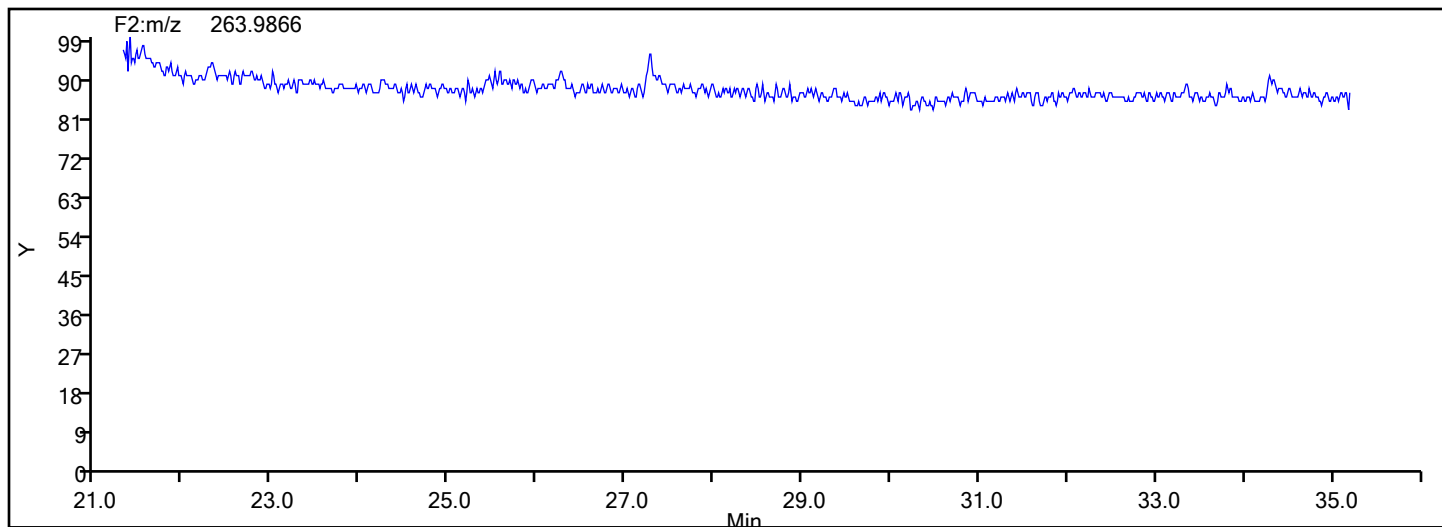


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d  
Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F2



## TriPCB F2 Lock Mass



## Eurofins Knoxville

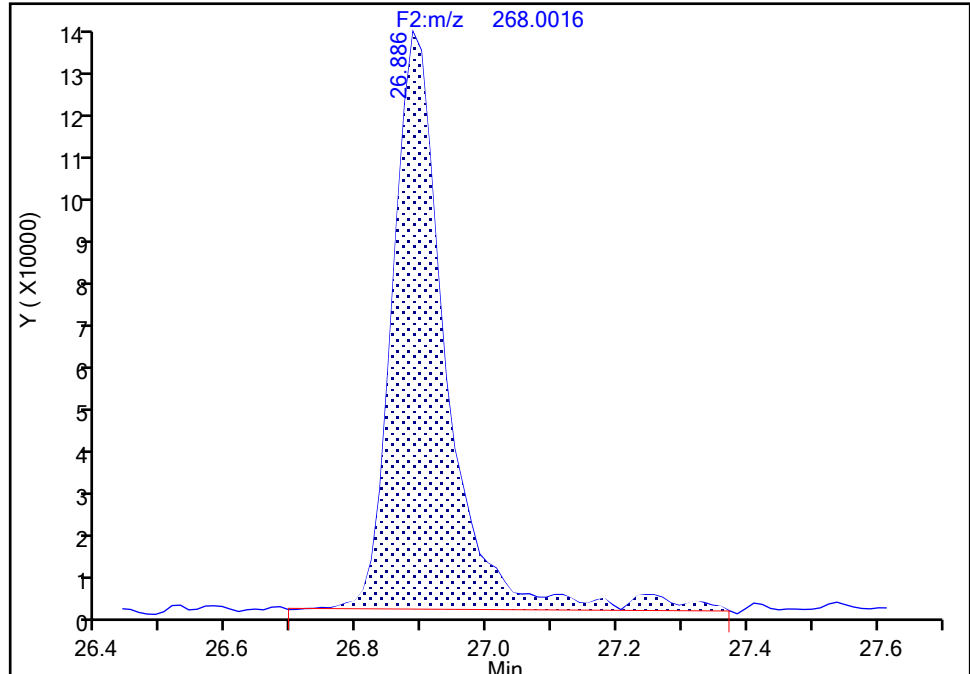
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d  
Injection Date: 17-Jul-2024 06:22:00 Instrument ID: D2D  
Lims ID: 140-37234-A-7-D Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-37L, CAS: 208263-79-0

Signal: 1

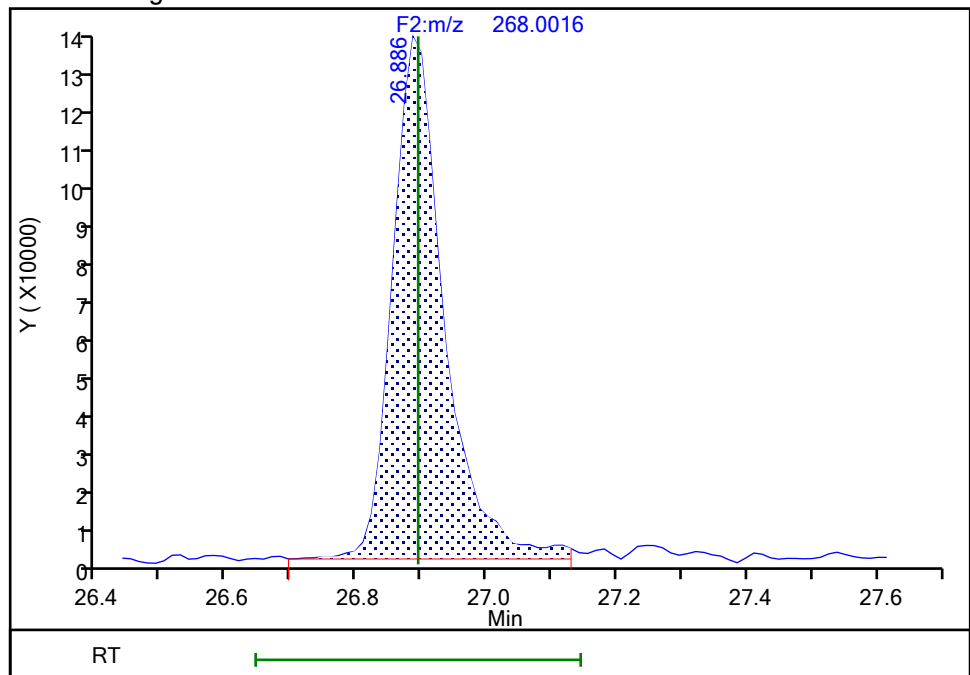
RT: 26.89  
Area: 734045  
Amount: 14.426907  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.89  
Area: 706976  
Amount: 14.149249  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:32:45 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d

Injection Date: 17-Jul-2024 06:22:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER RUN 8 COMBINED

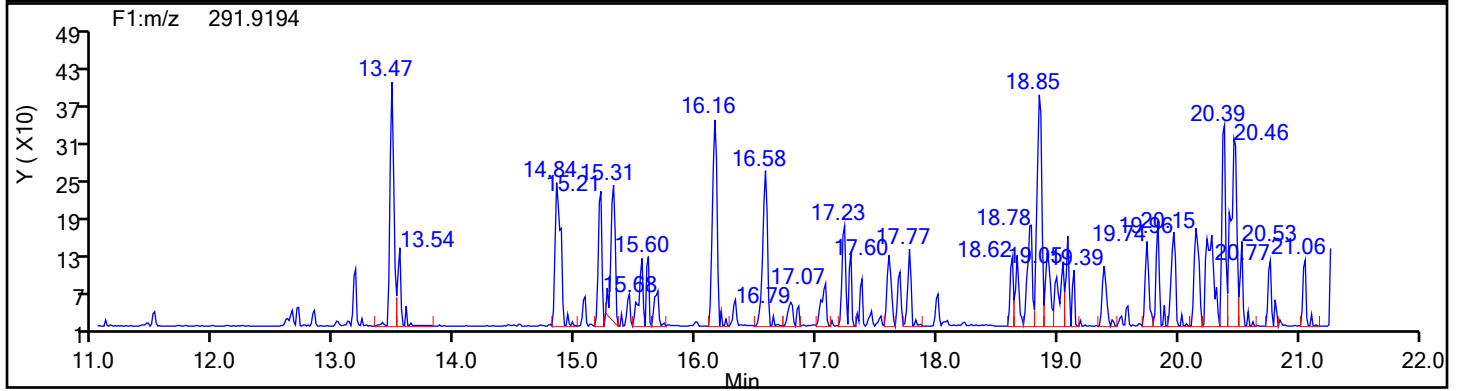
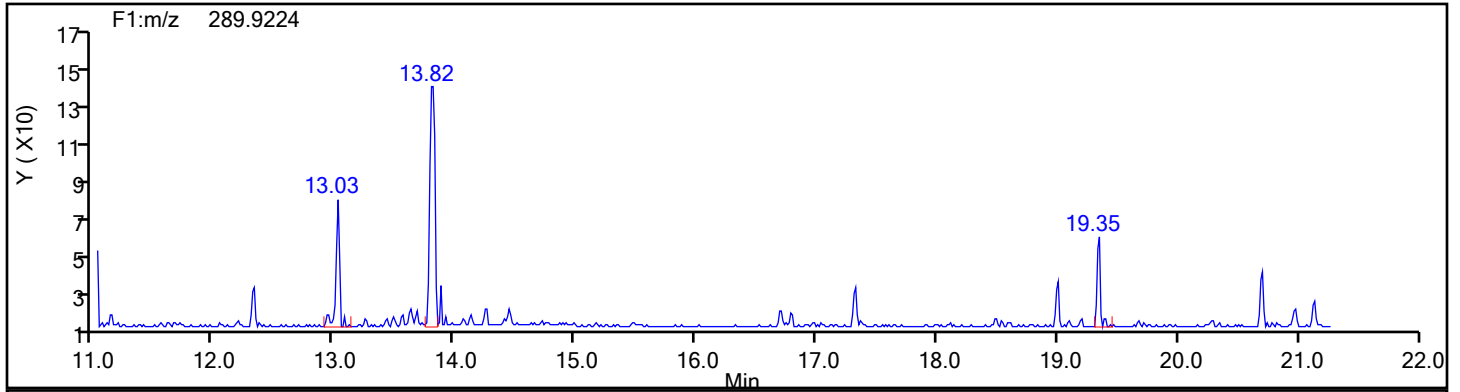
Worklist#: 88834

Sample Line#: 10

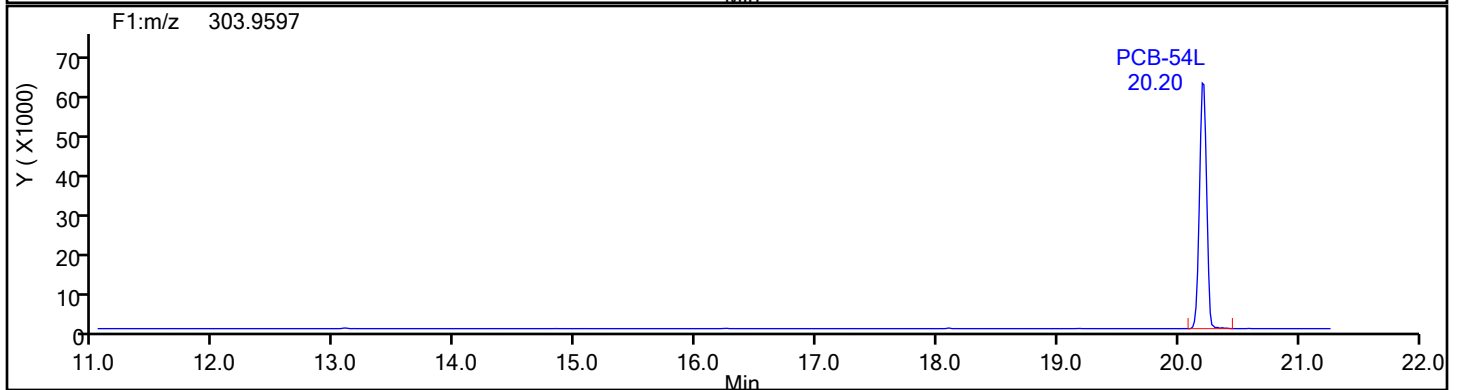
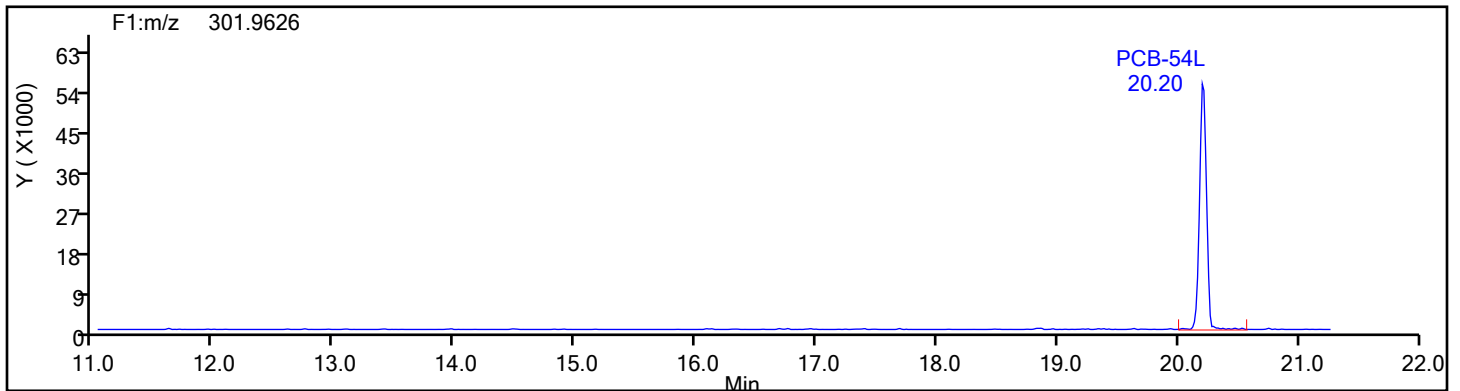
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1

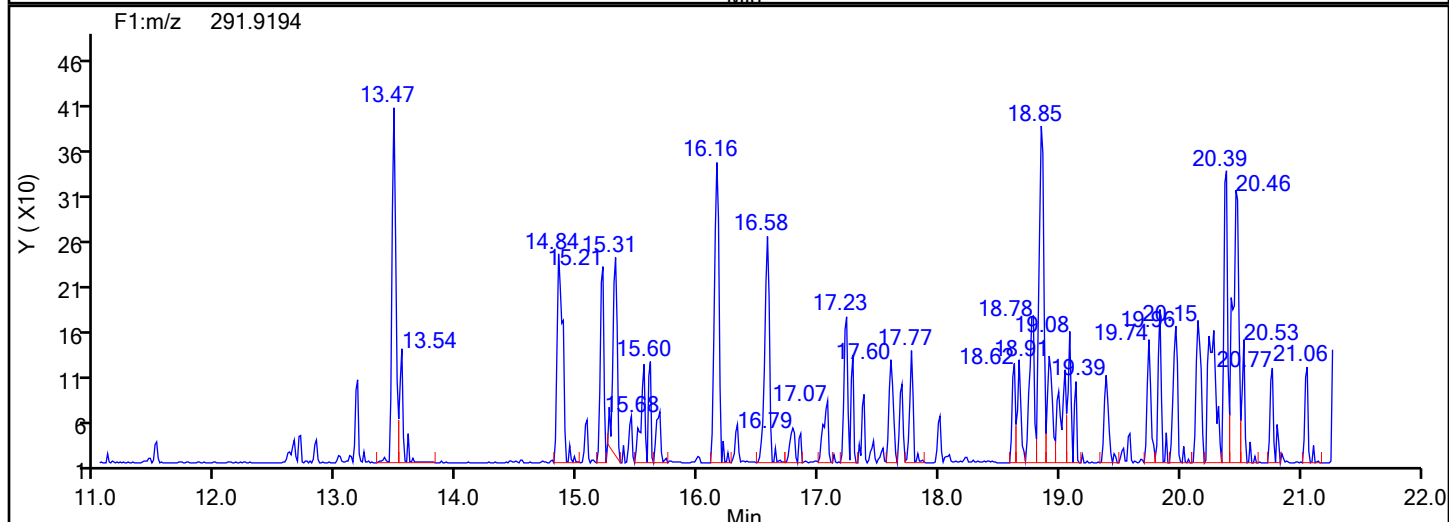
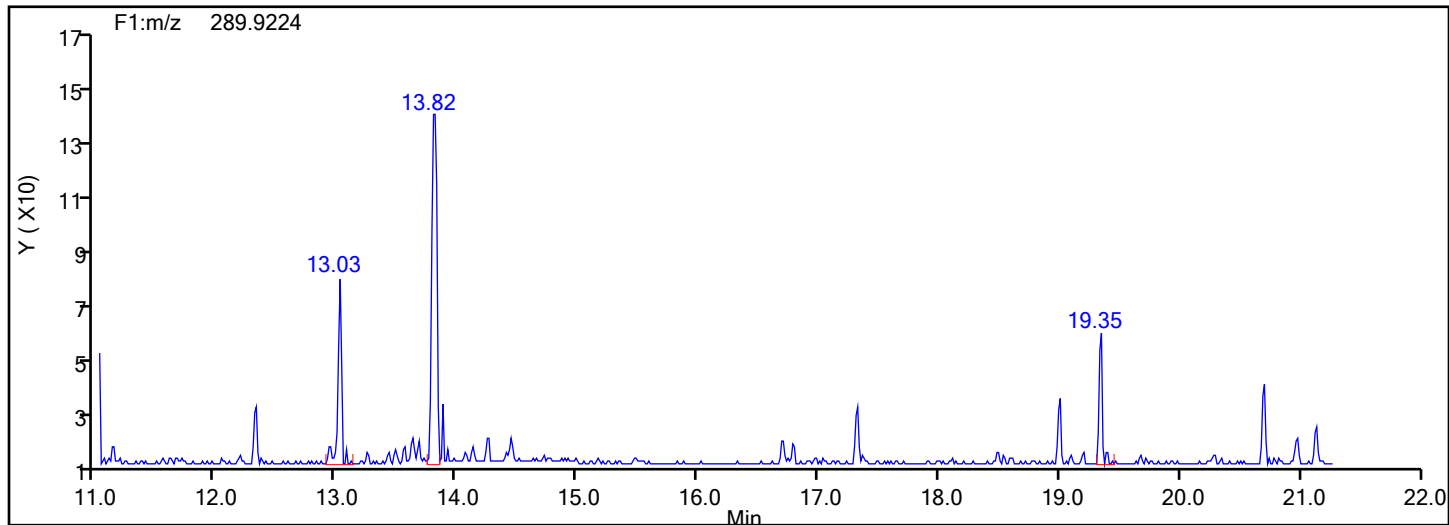


TePCB F1 Standards

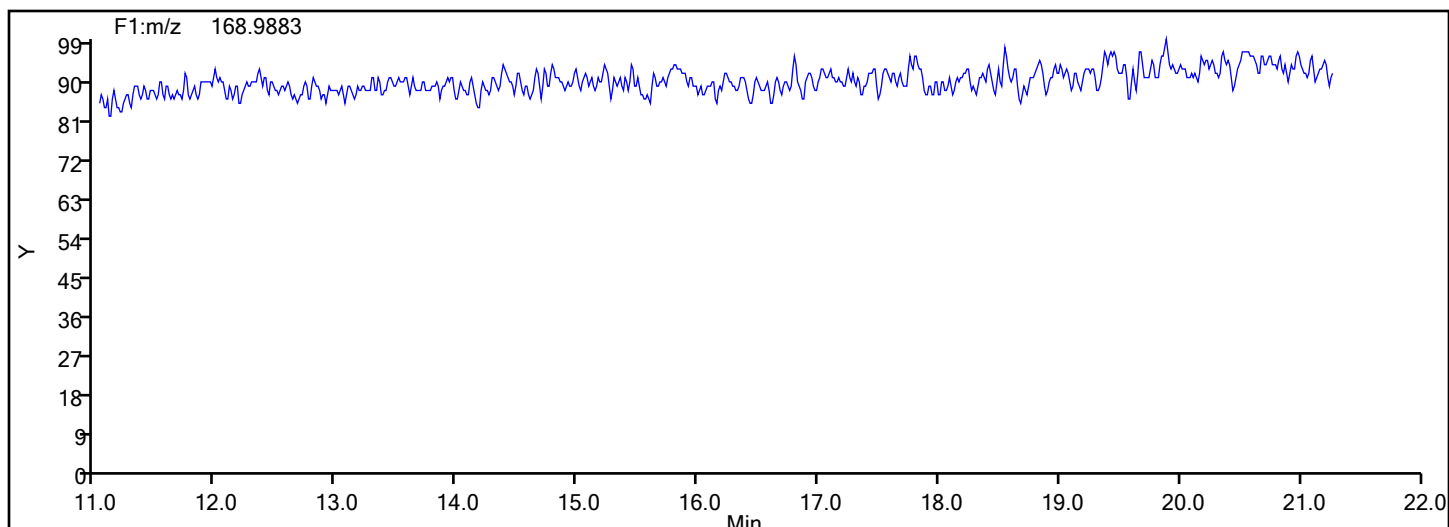


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d  
Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1



## TePCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d

Injection Date: 17-Jul-2024 06:22:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER RUN 8 COMBINED

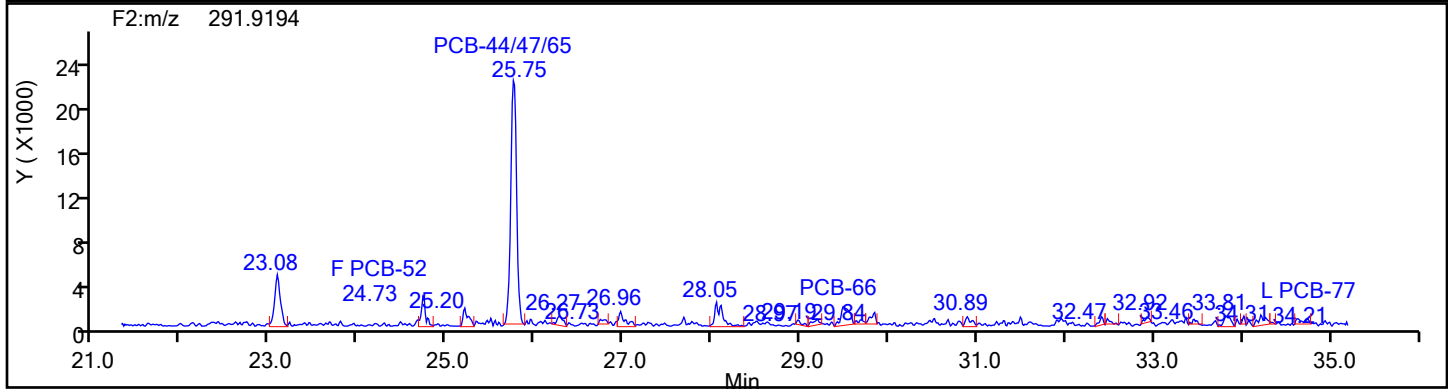
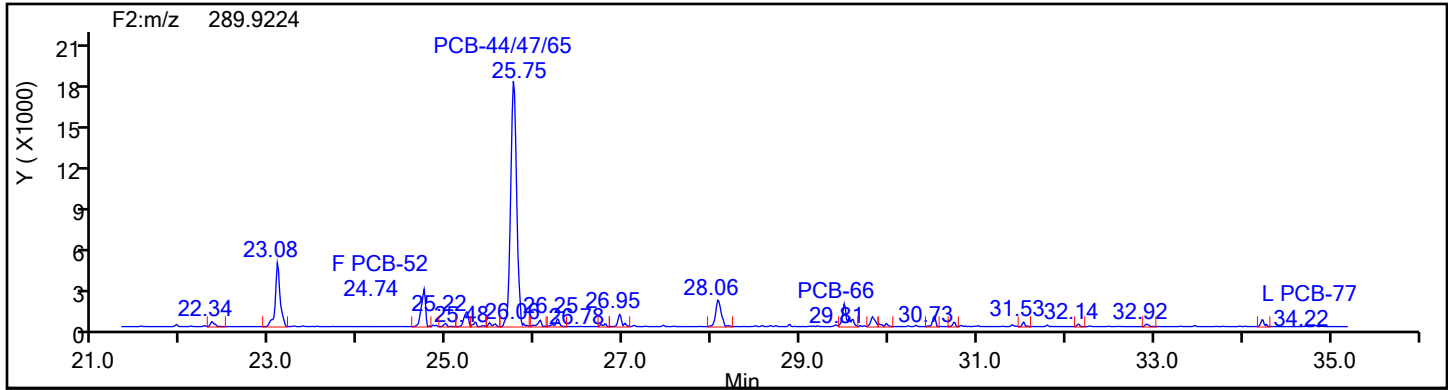
Worklist#: 88834

Sample Line#: 10

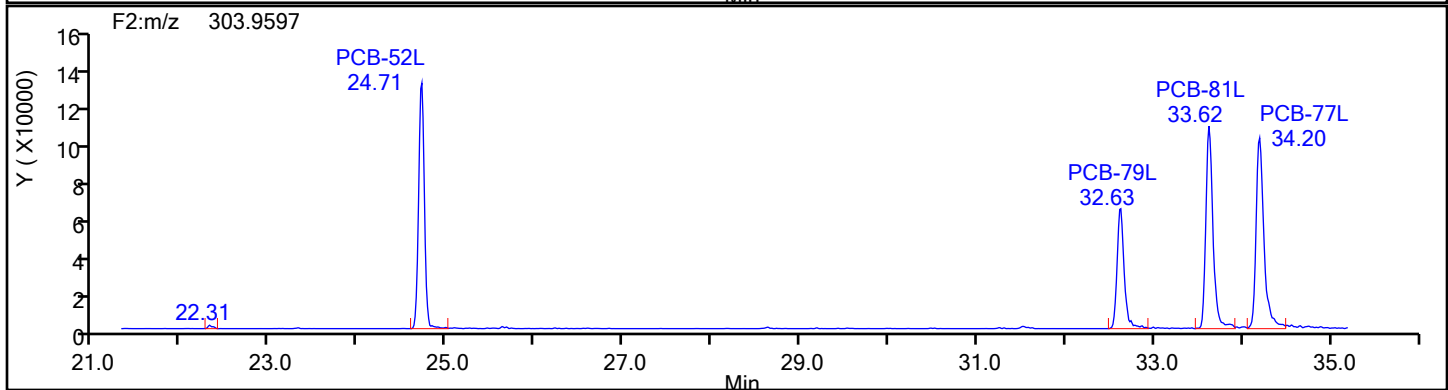
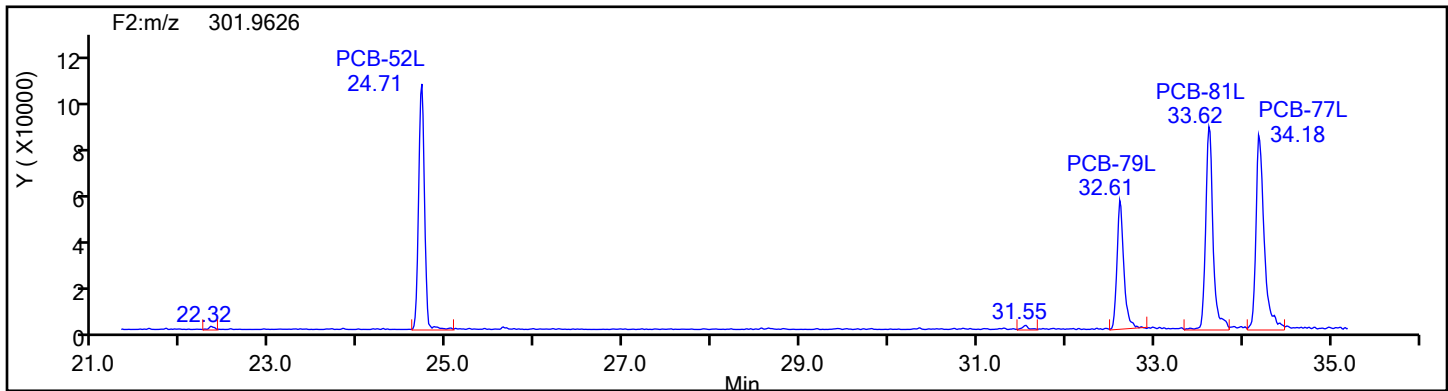
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2

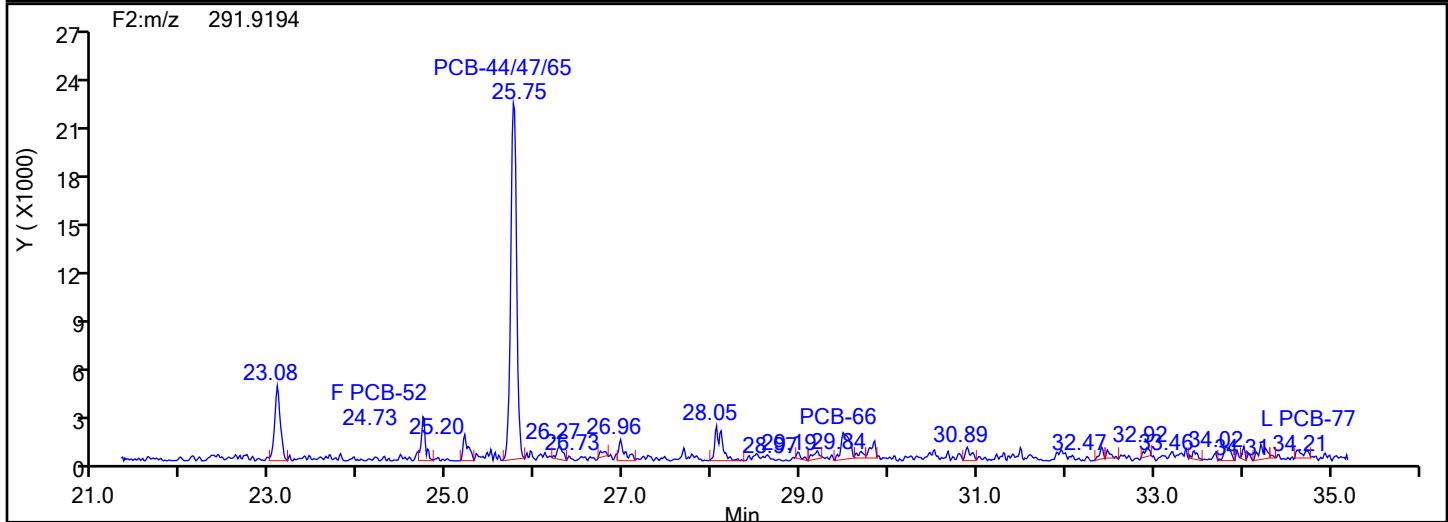
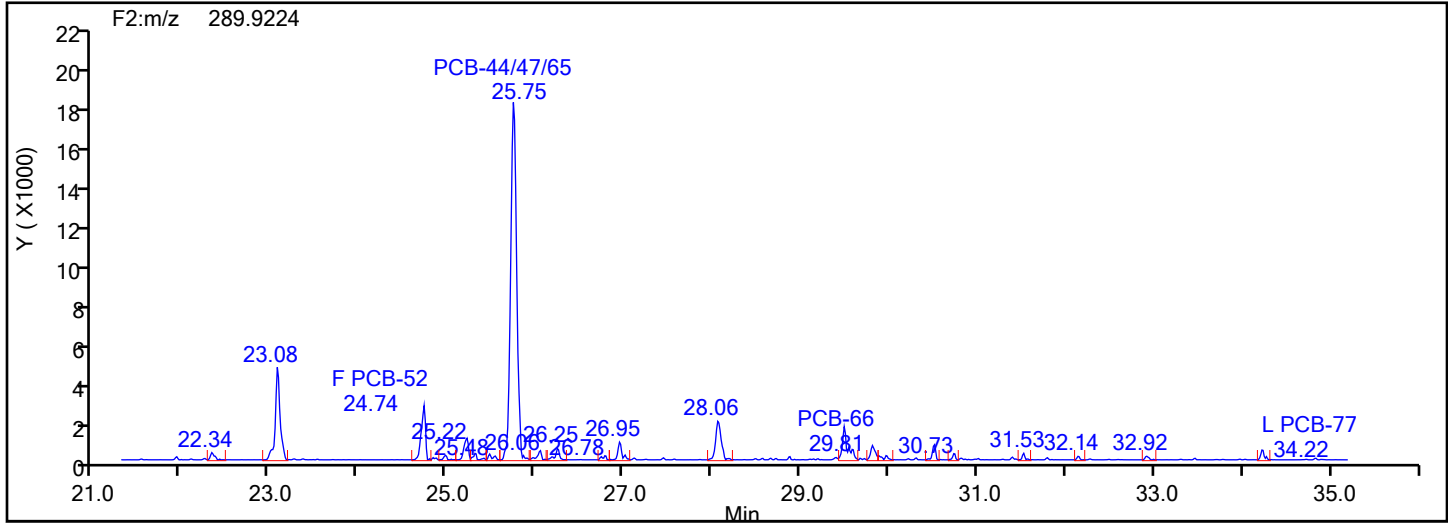


TePCB F2 Standards

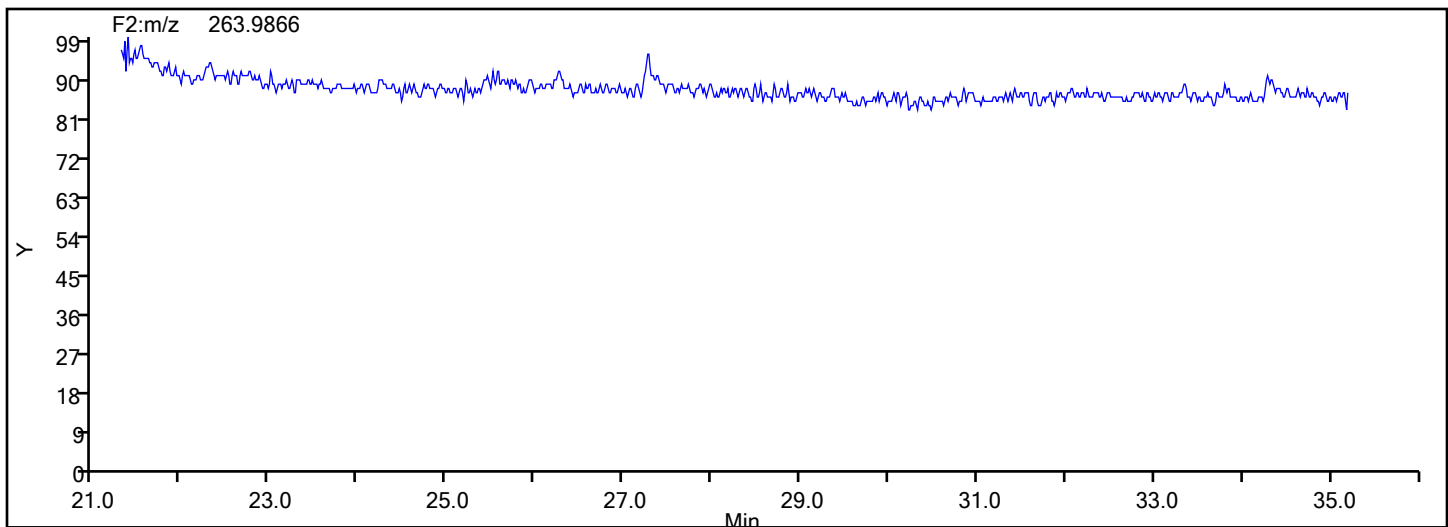


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F2



## TePCB F2 Lock Mass





## Eurofins Knoxville

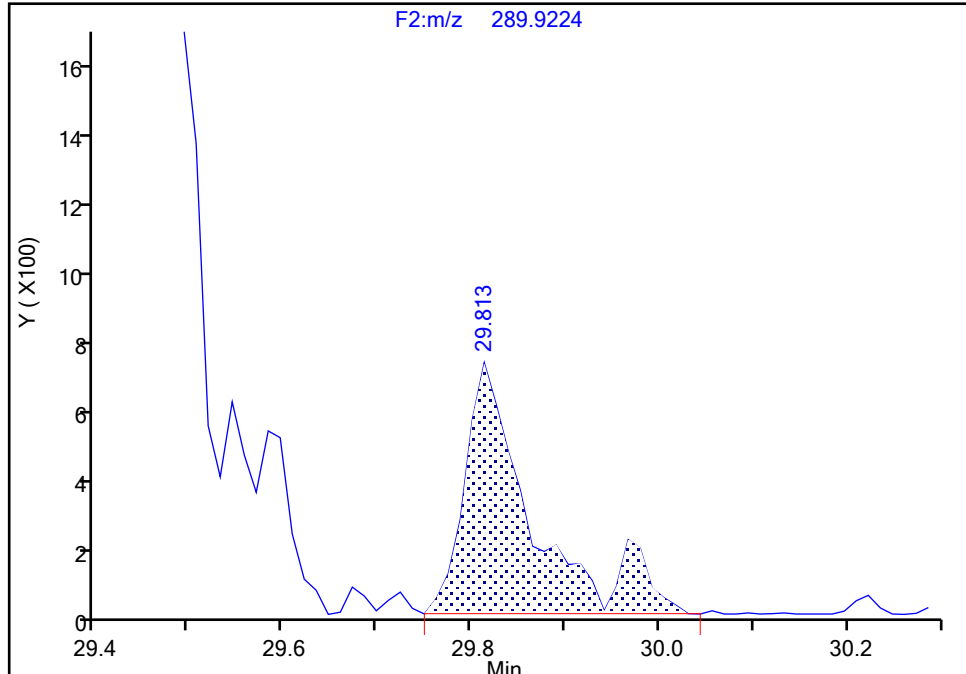
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Injection Date: 17-Jul-2024 06:22:00 Instrument ID: D2D  
Lims ID: 140-37234-A-7-D Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

PCB-66, CAS: 32598-10-0

Signal: 1

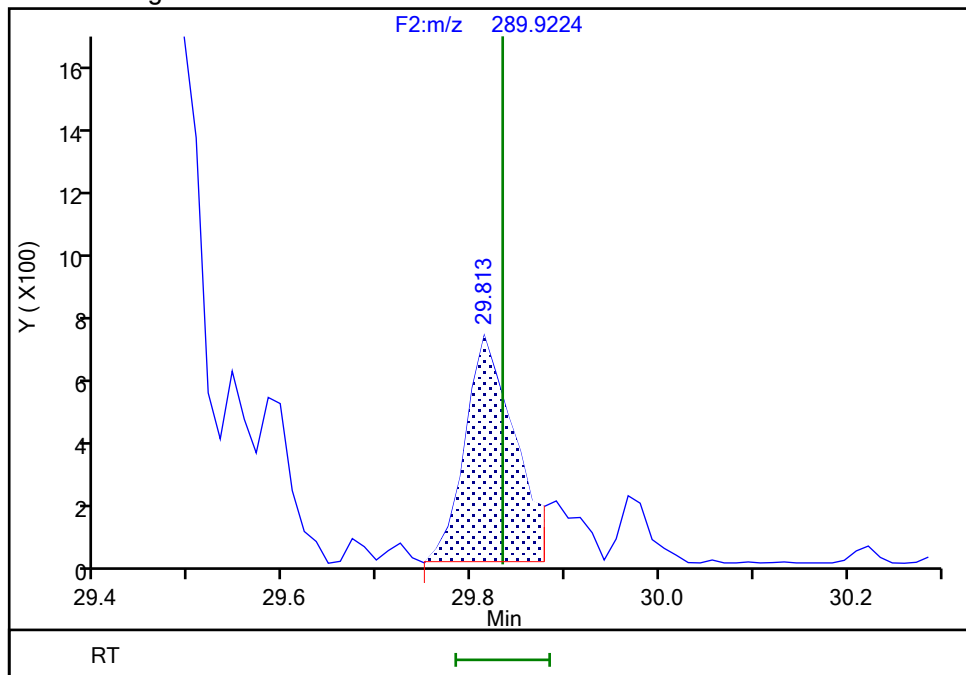
RT: 29.81  
Area: 3511  
Amount: 0.105924  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.81  
Area: 2541  
Amount: 0.091891  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:33:16 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

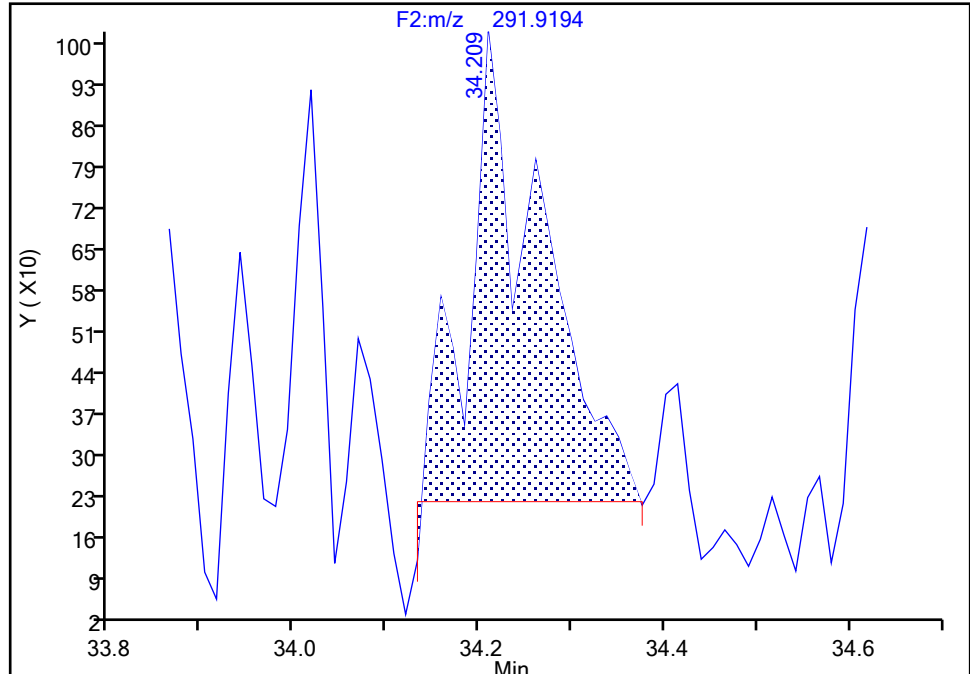
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Injection Date: 17-Jul-2024 06:22:00 Instrument ID: D2D  
Lims ID: 140-37234-A-7-D Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

PCB-77, CAS: 32598-13-3

Signal: 2

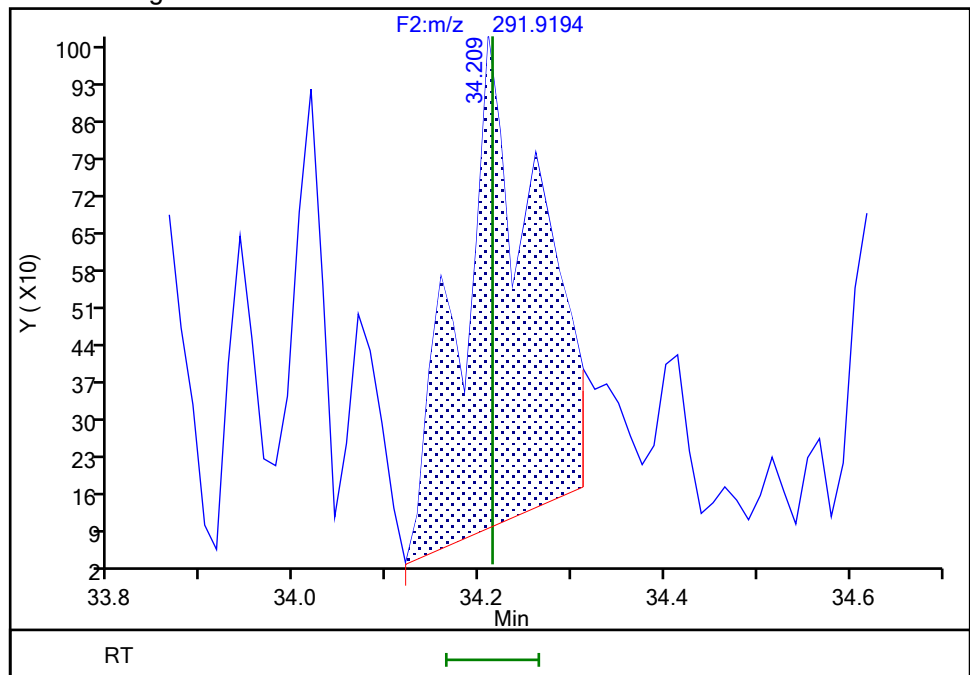
RT: 34.21  
Area: 4395  
Amount: 0.093922  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.21  
Area: 5297  
Amount: 0.108679  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:33:33 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d

Injection Date: 17-Jul-2024 06:22:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER RUN 8 COMBINED

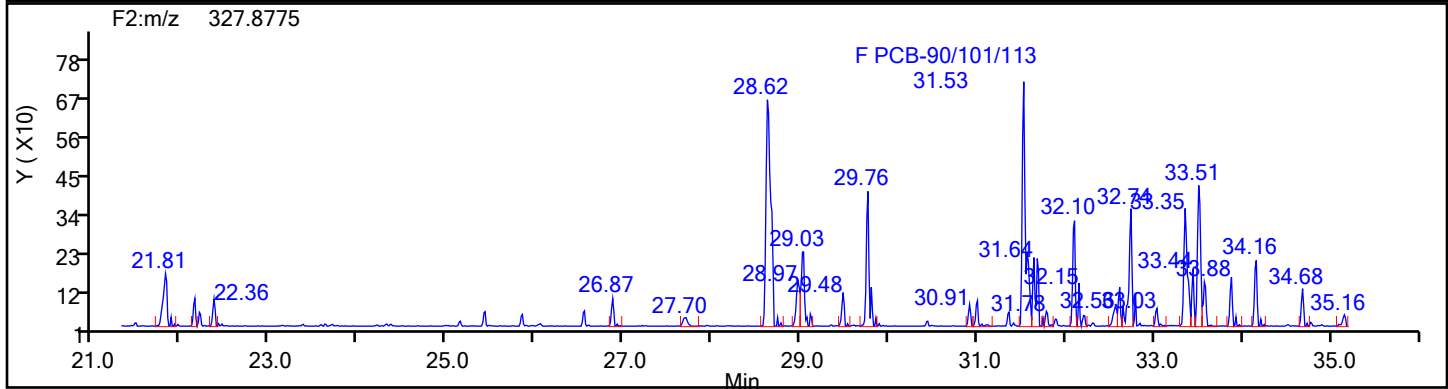
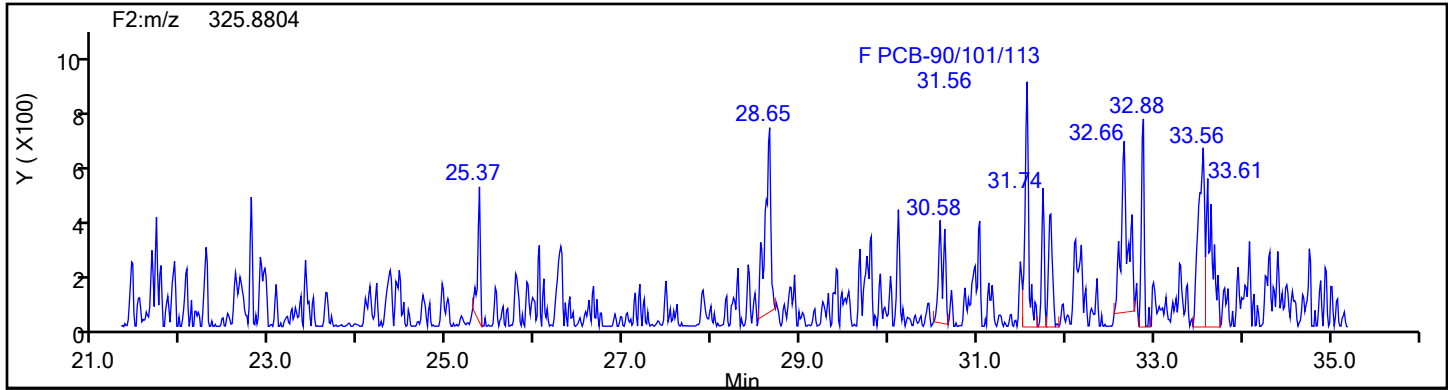
Worklist#: 88834

Sample Line#: 10

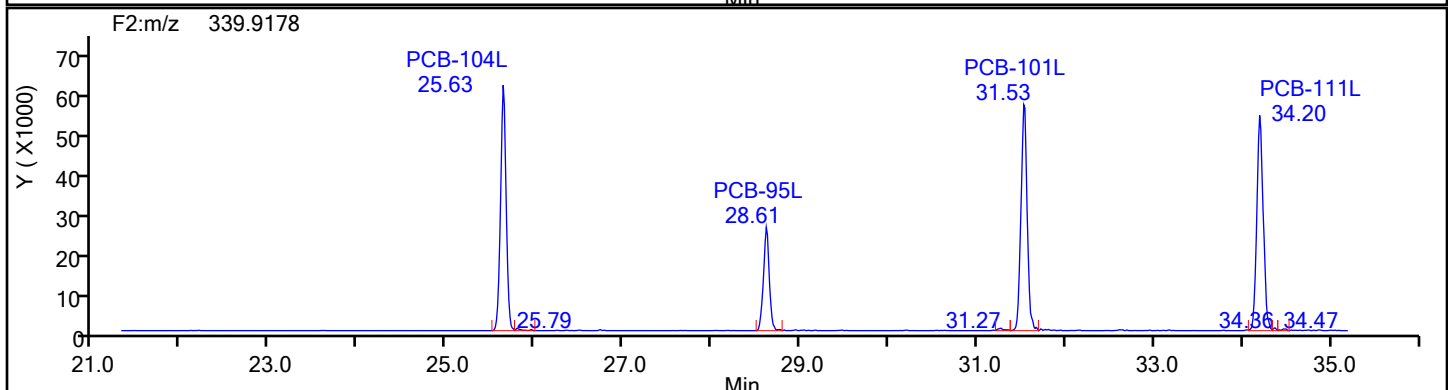
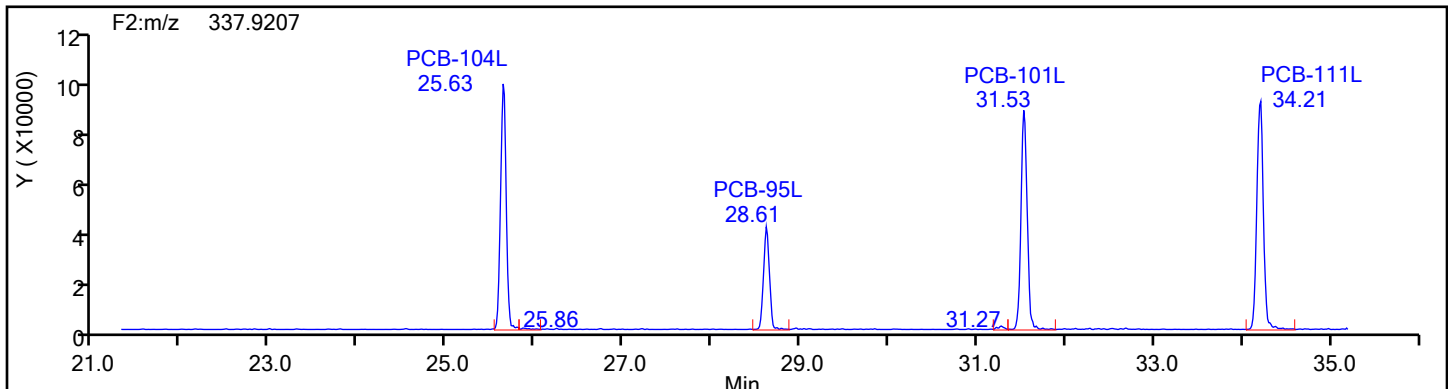
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F2

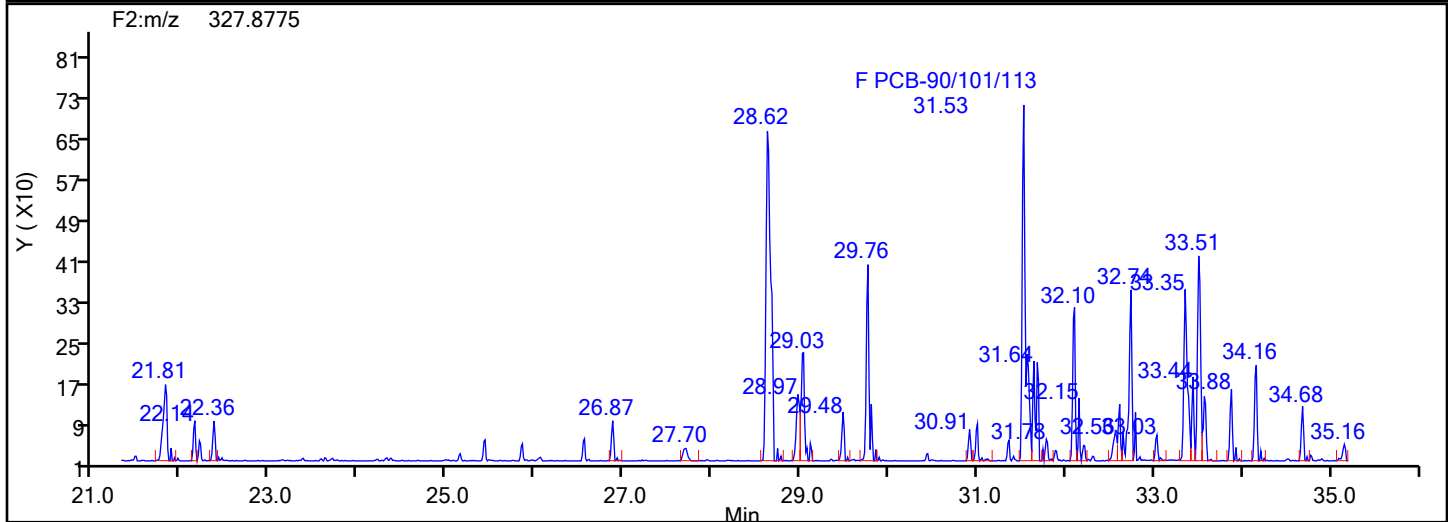
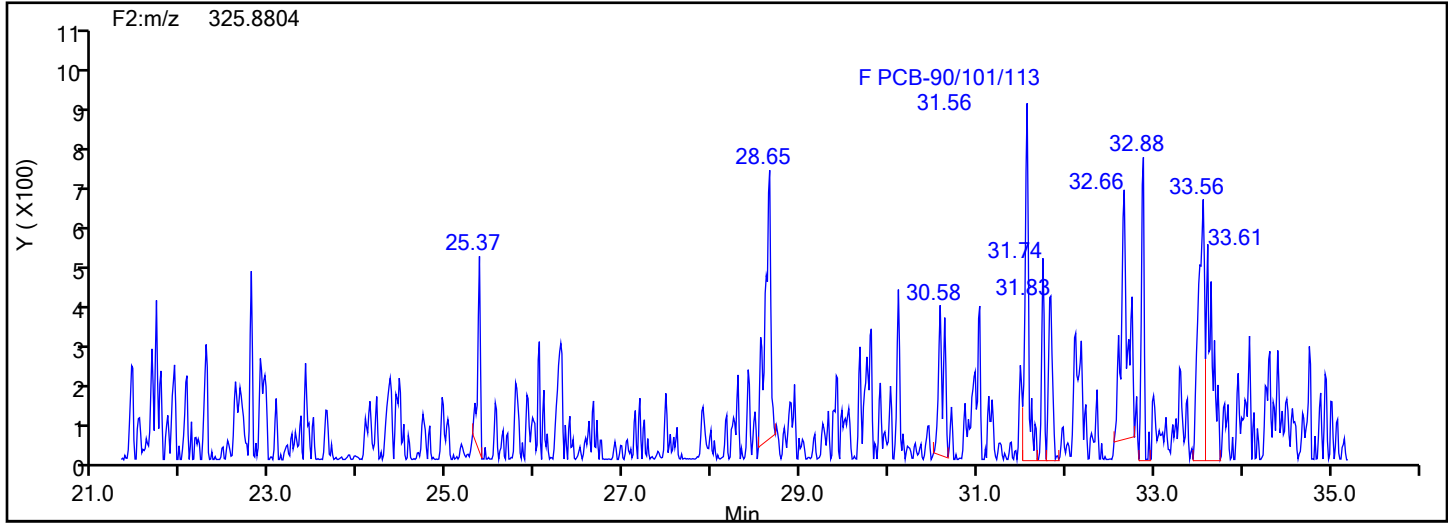


PePCB F2 Standards

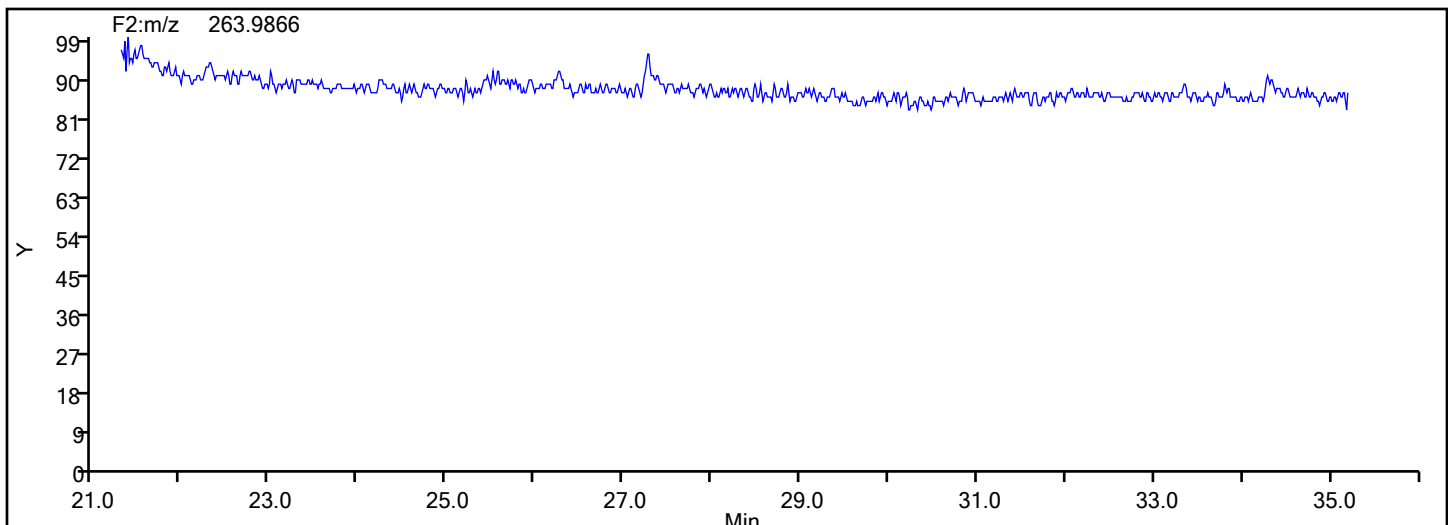


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2

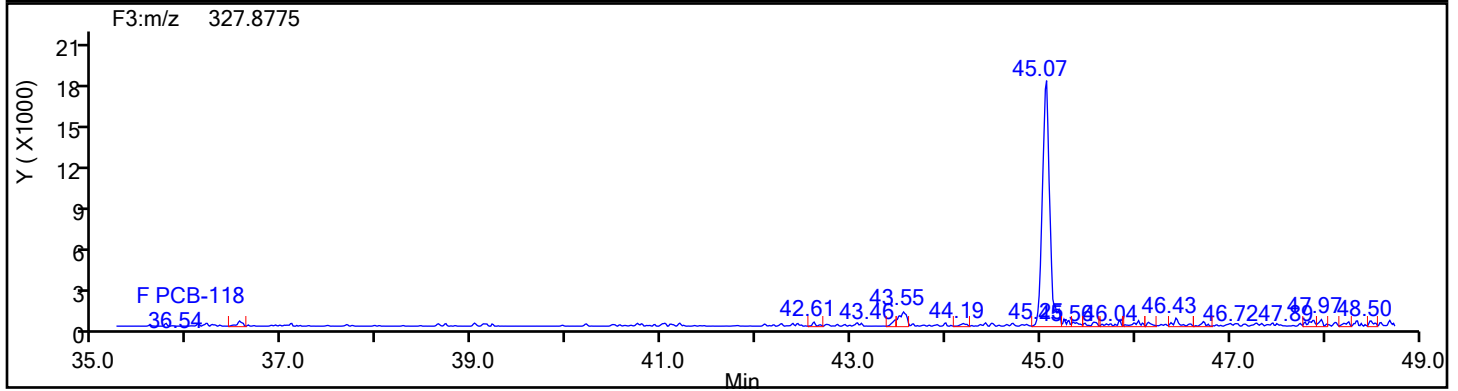
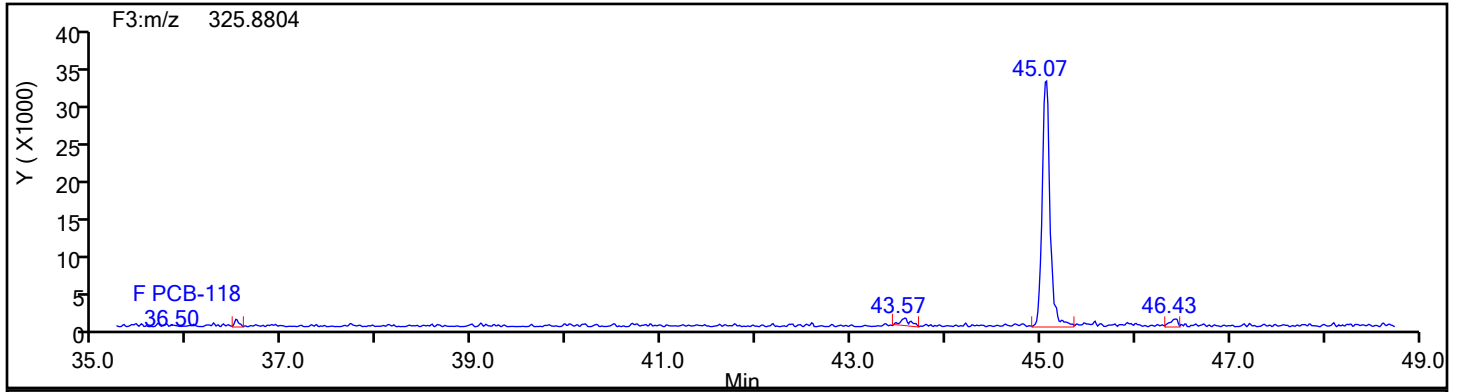


## PePCB F2 Lock Mass

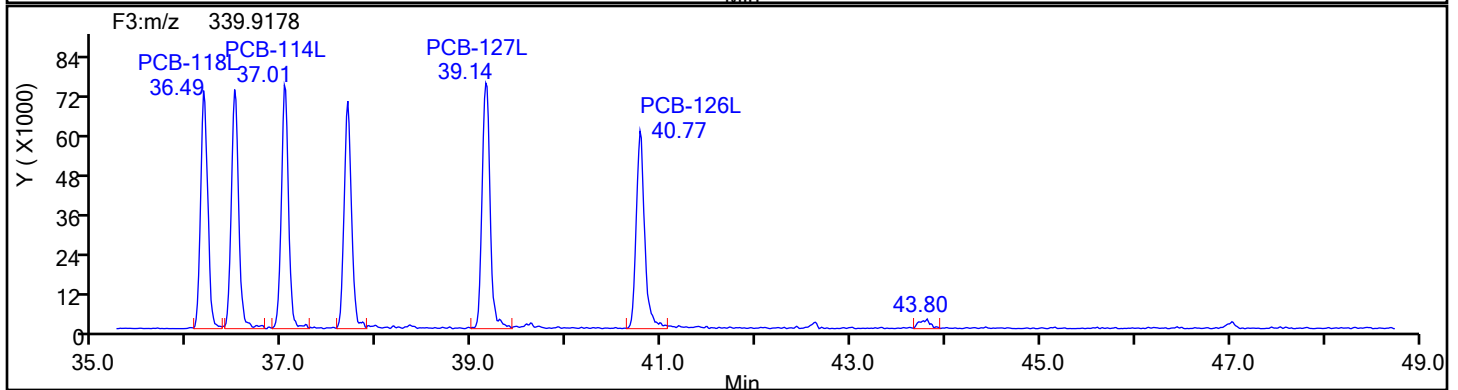
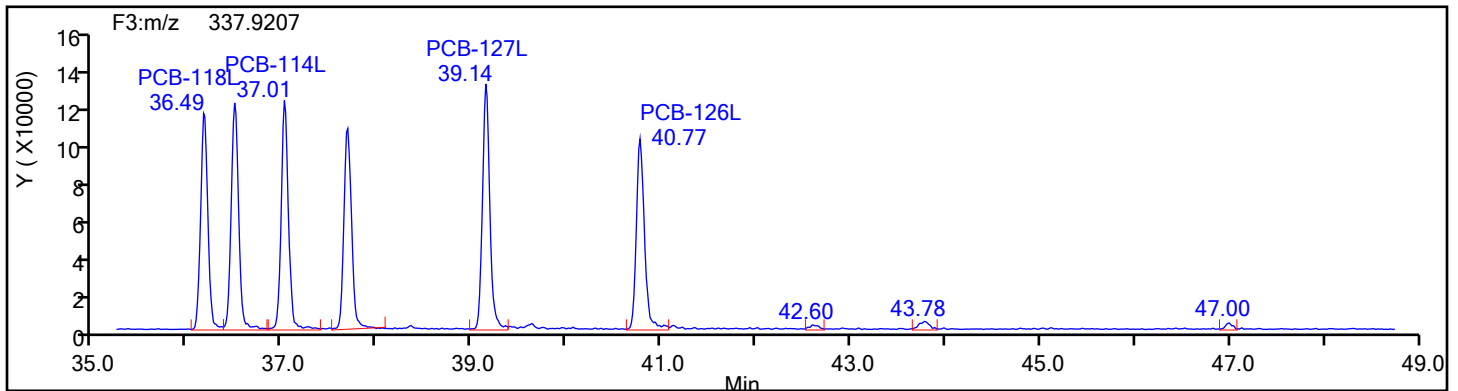


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d  
Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F3

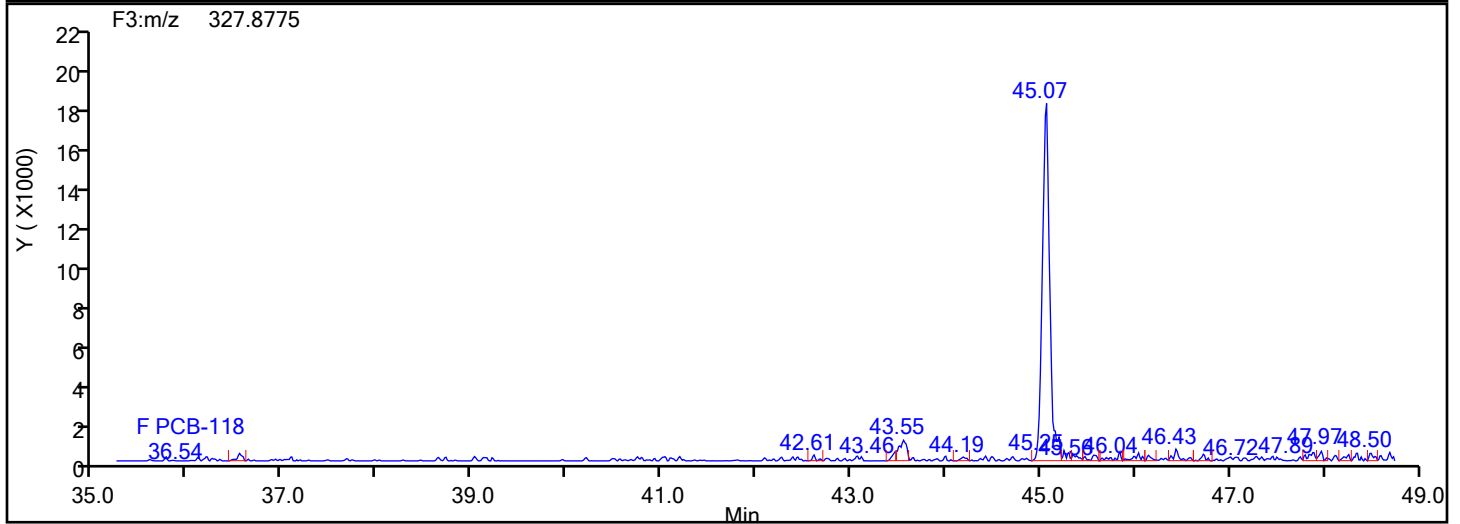
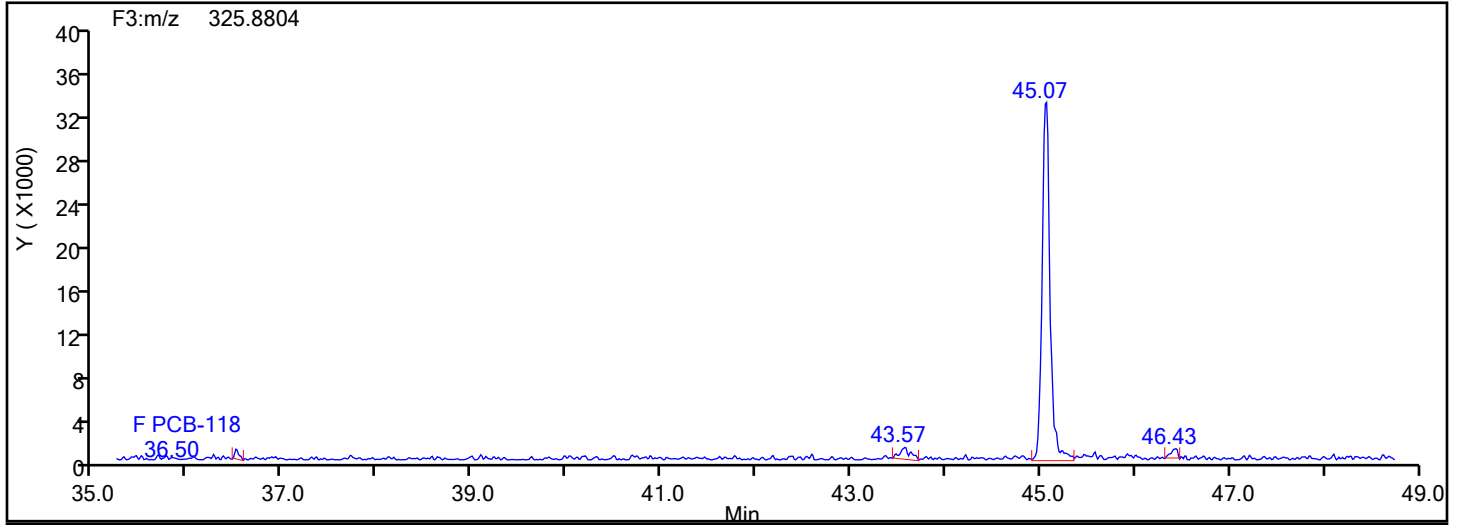


## PePCB F3 Standards

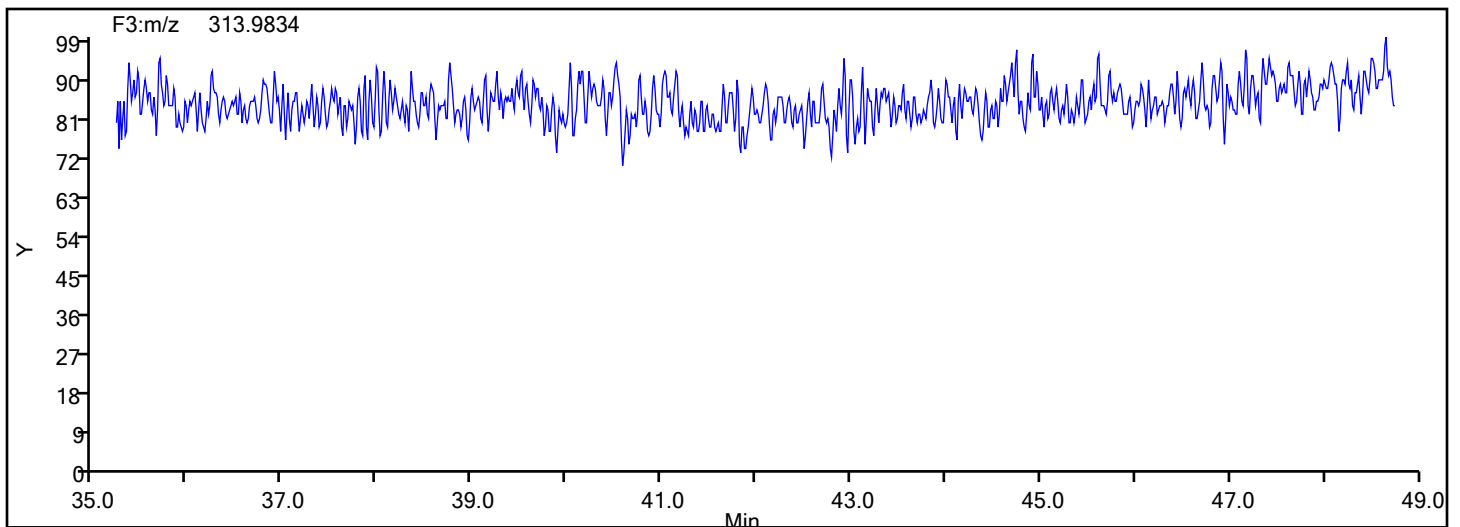


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F3



## PePCB F3 Lock Mass



## Eurofins Knoxville

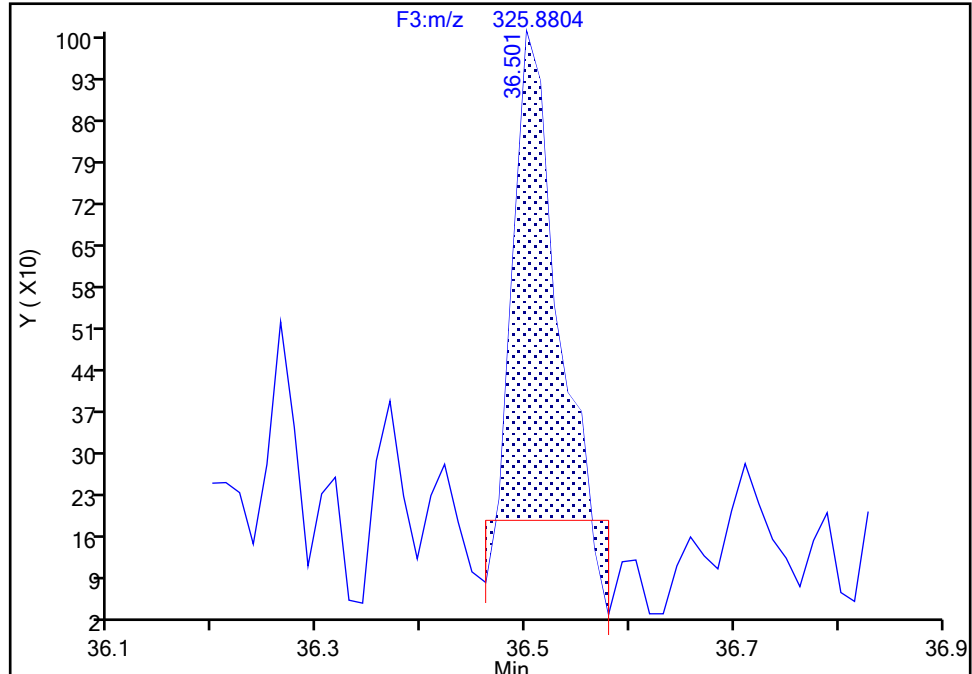
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Injection Date: 17-Jul-2024 06:22:00 Instrument ID: D2D  
Lims ID: 140-37234-A-7-D Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F3(35.64 :49.10 )

**PCB-118, CAS: 31508-00-6**

Signal: 1

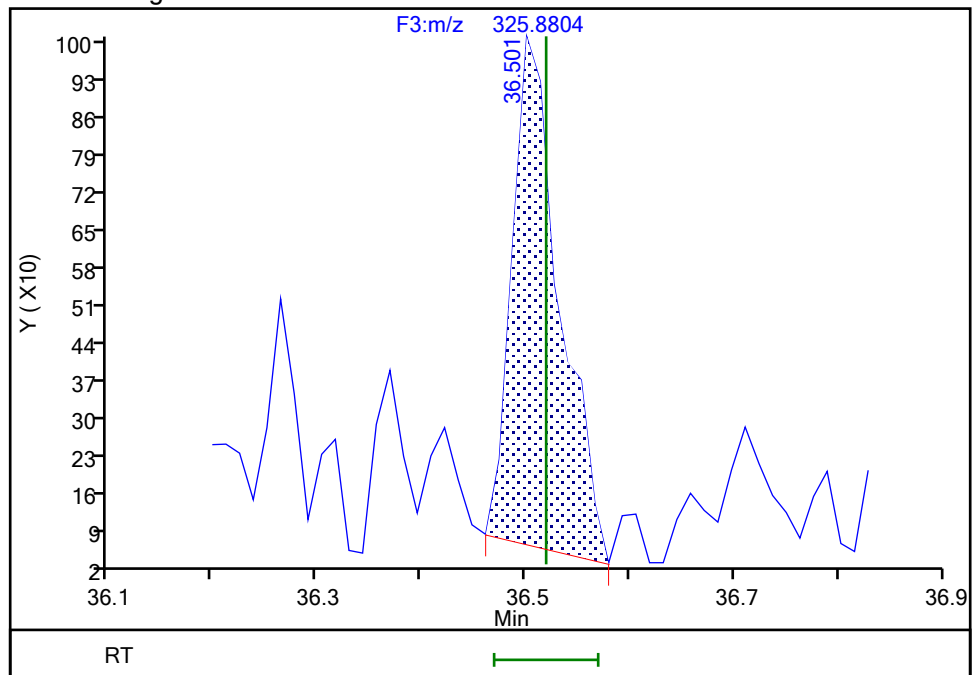
RT: 36.50  
Area: 2090  
Amount: 0.055188  
Amount Units: pg/ul

## Processing Integration Results



RT: 36.50  
Area: 3012  
Amount: 0.069702  
Amount Units: pg/ul

## Manual Integration Results



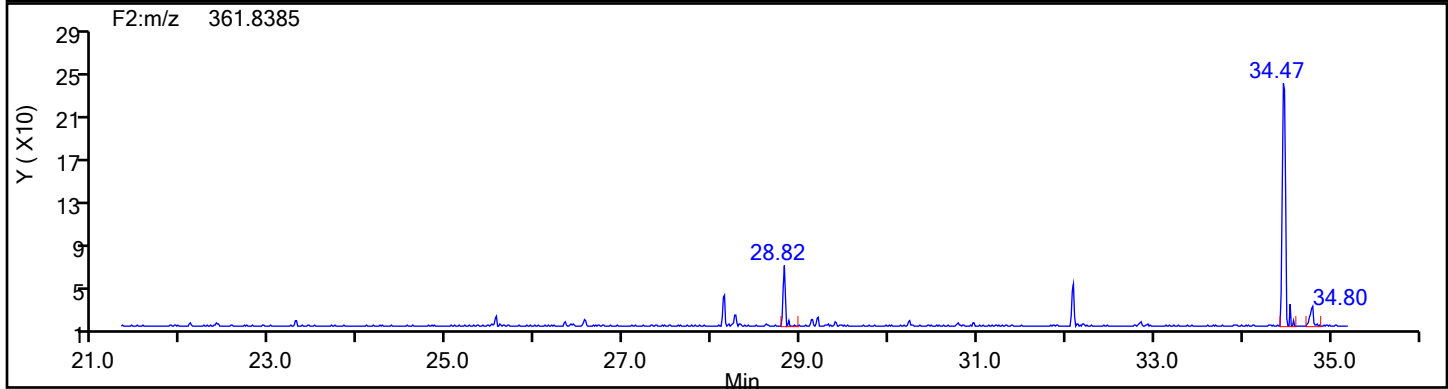
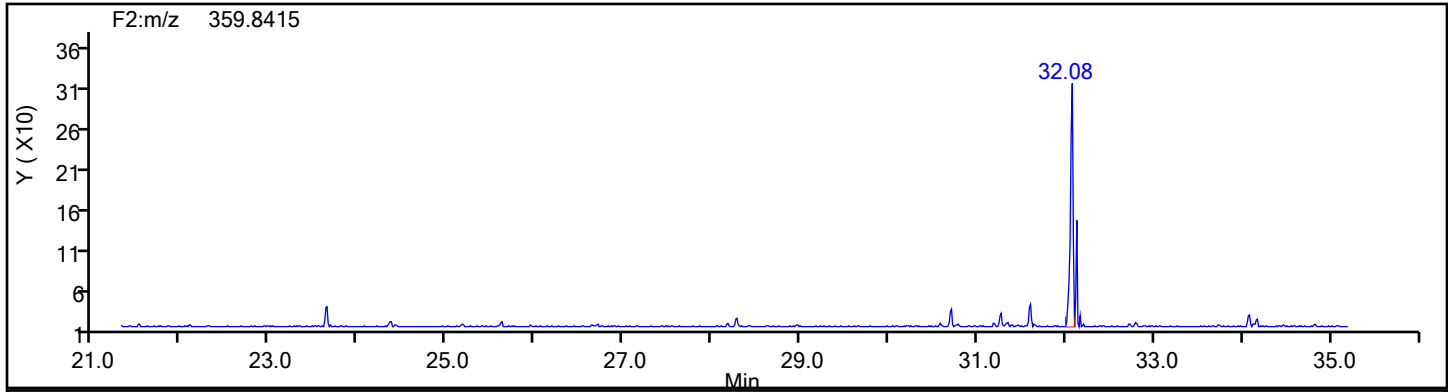
Reviewer: TT6I, 17-Jul-2024 13:34:14 -04:00:00 (UTC)

Audit Action: Manually Integrated

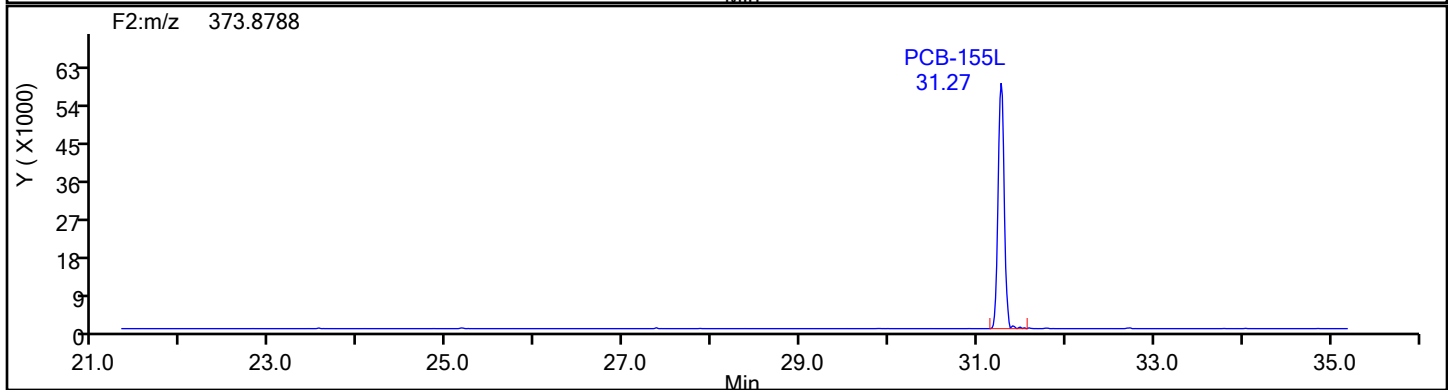
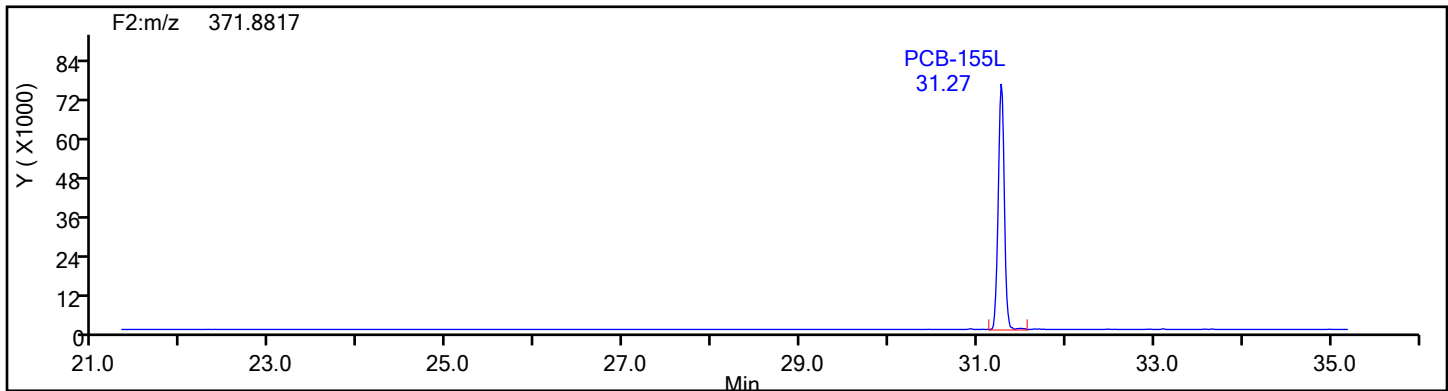
Audit Reason: Incomplete Integration

## Eurofins Knoxville

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Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2



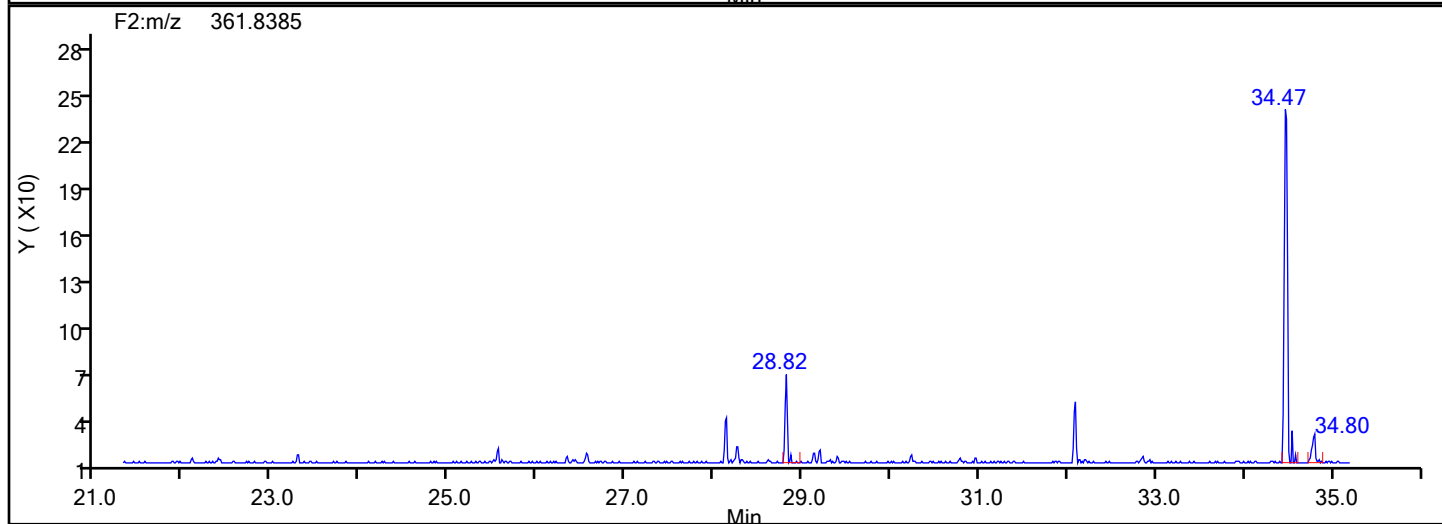
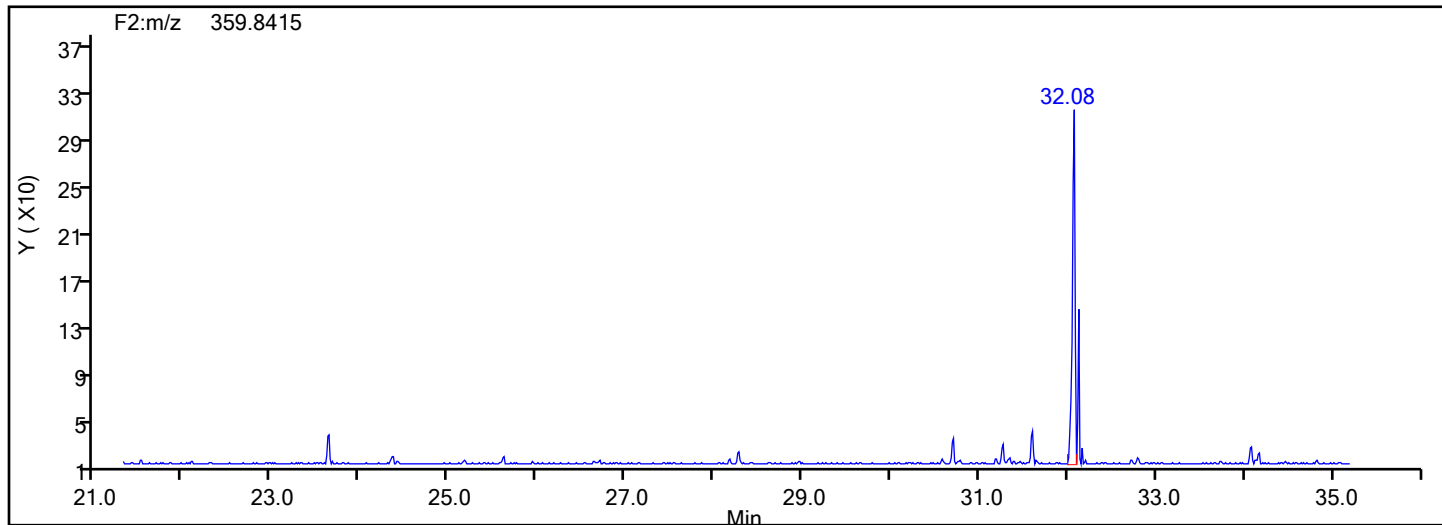
## HxPCB F2 Standards



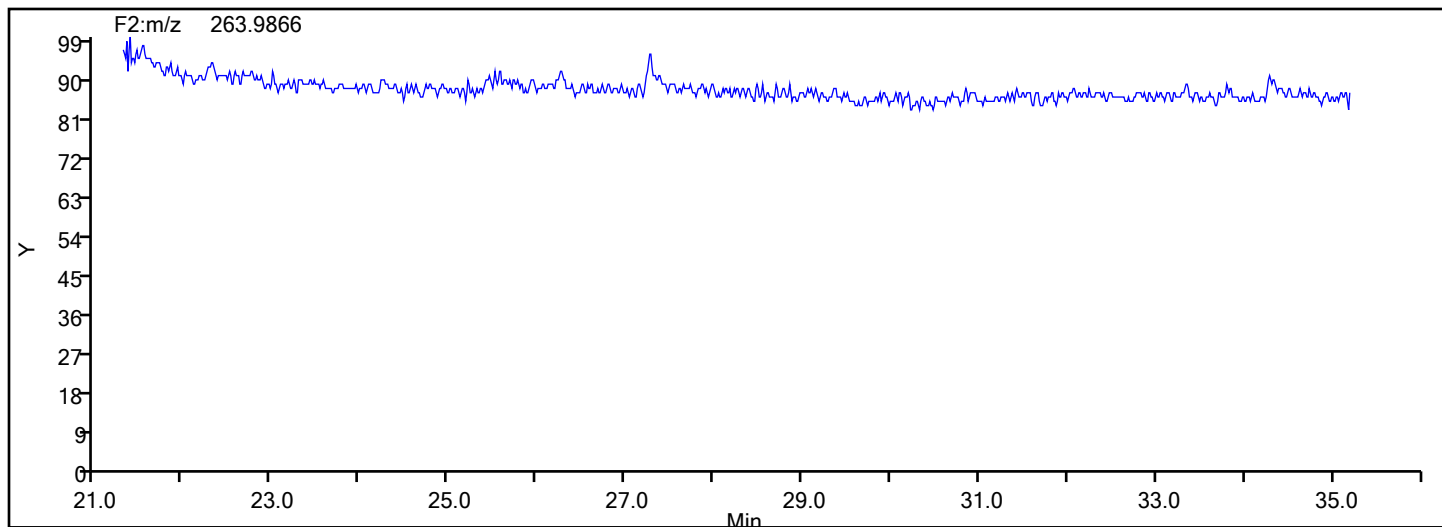


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2



## HxPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d

Injection Date: 17-Jul-2024 06:22:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER RUN 8 COMBINED

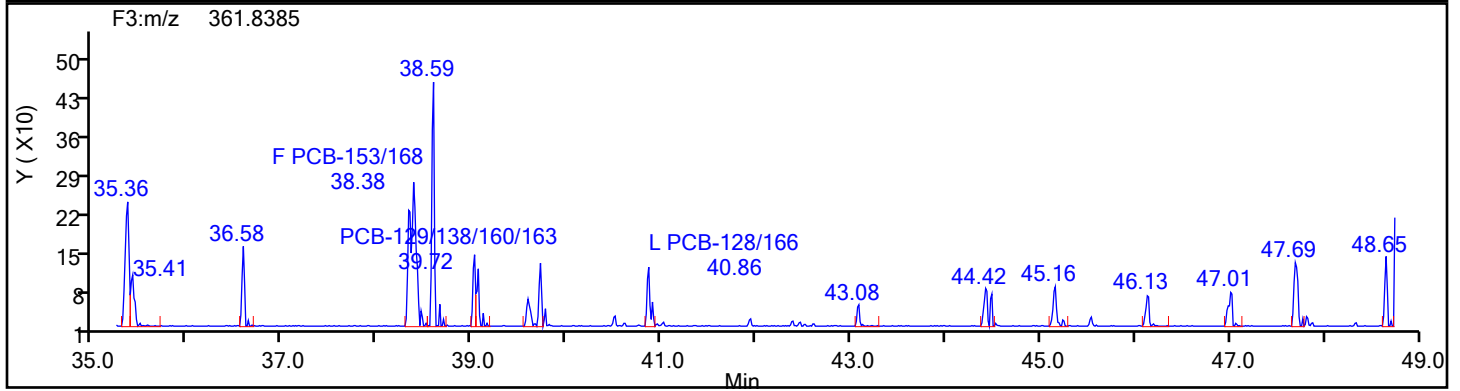
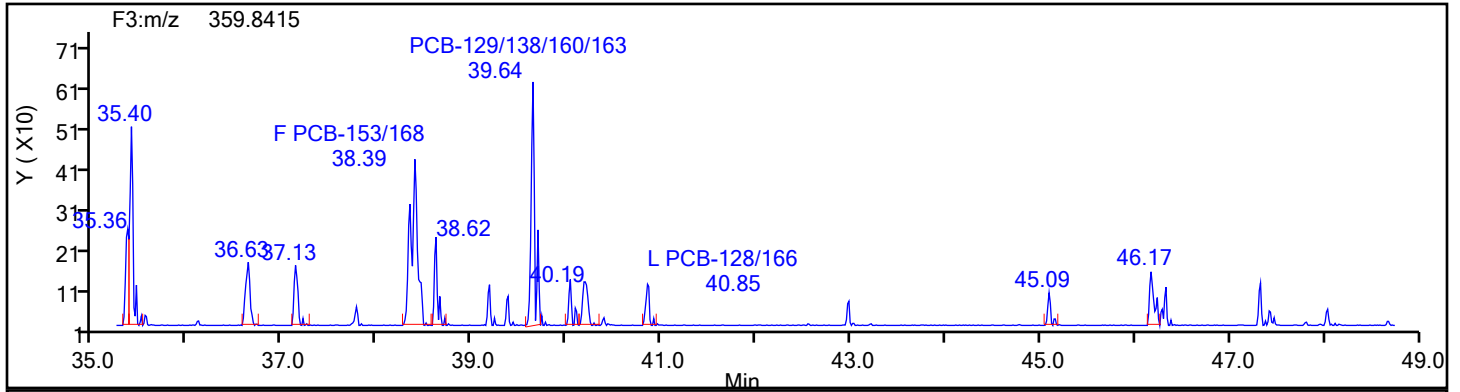
Worklist#: 88834

Sample Line#: 10

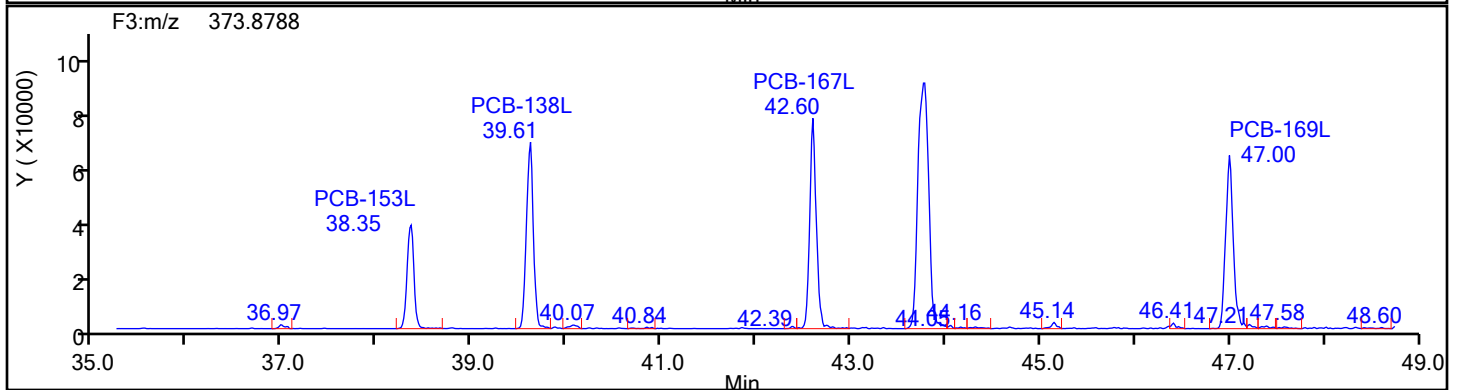
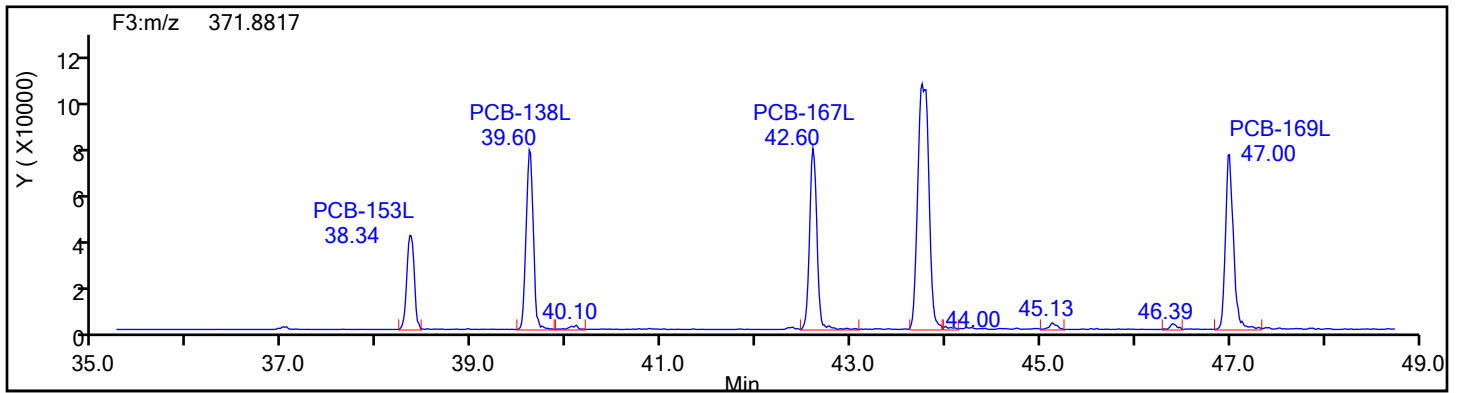
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3

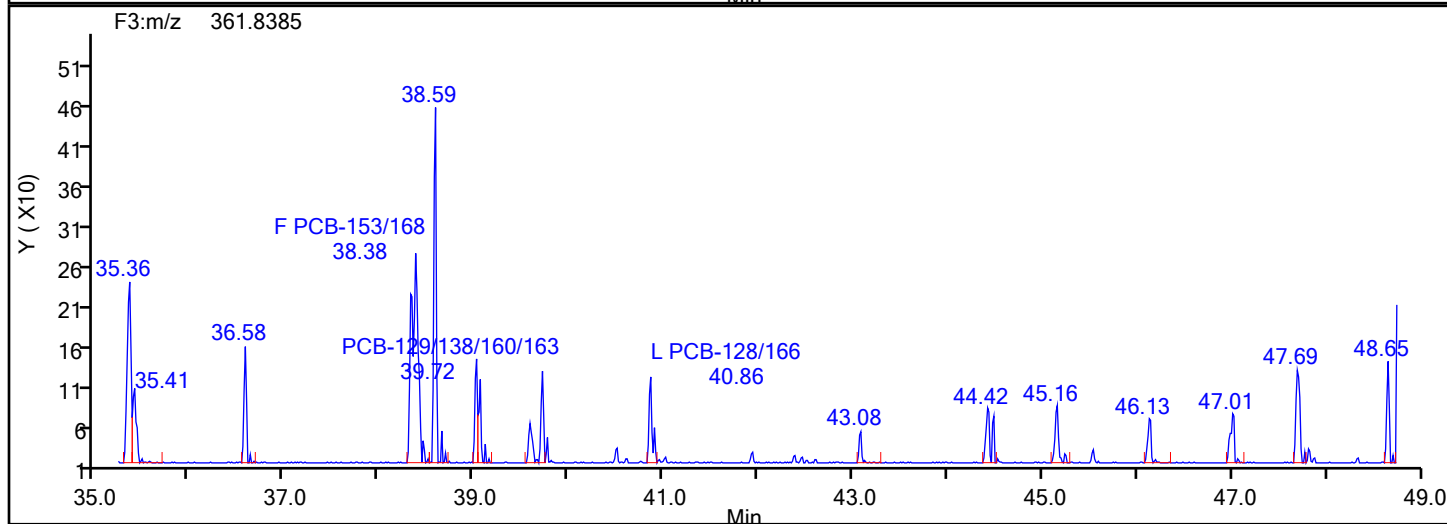
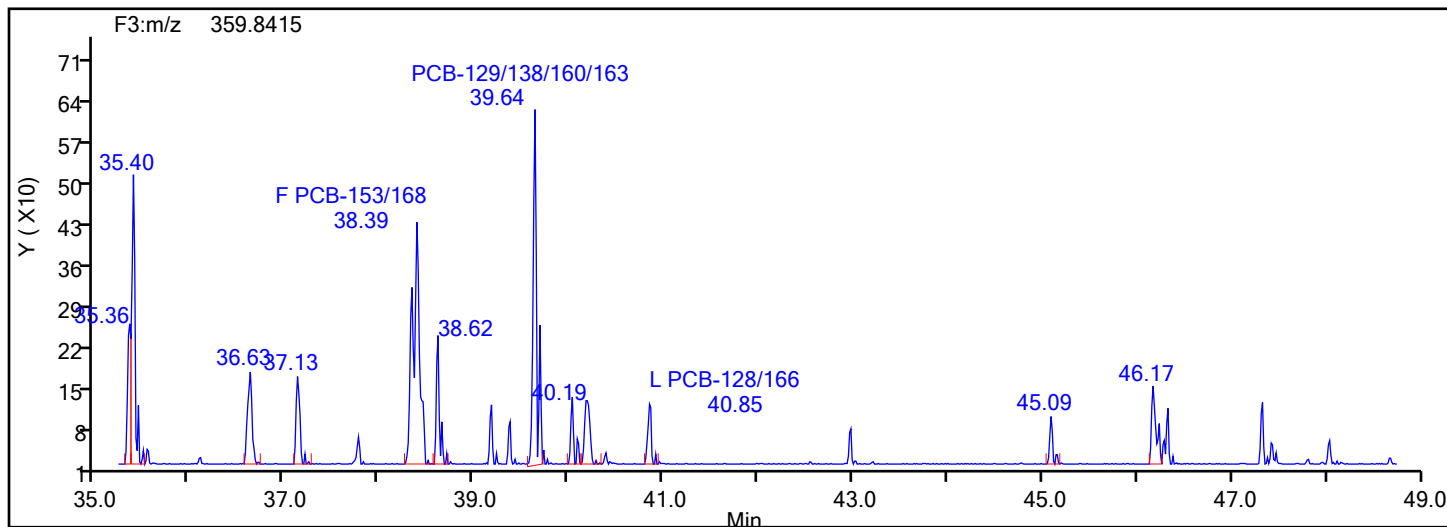


HxPCB F3 Standards

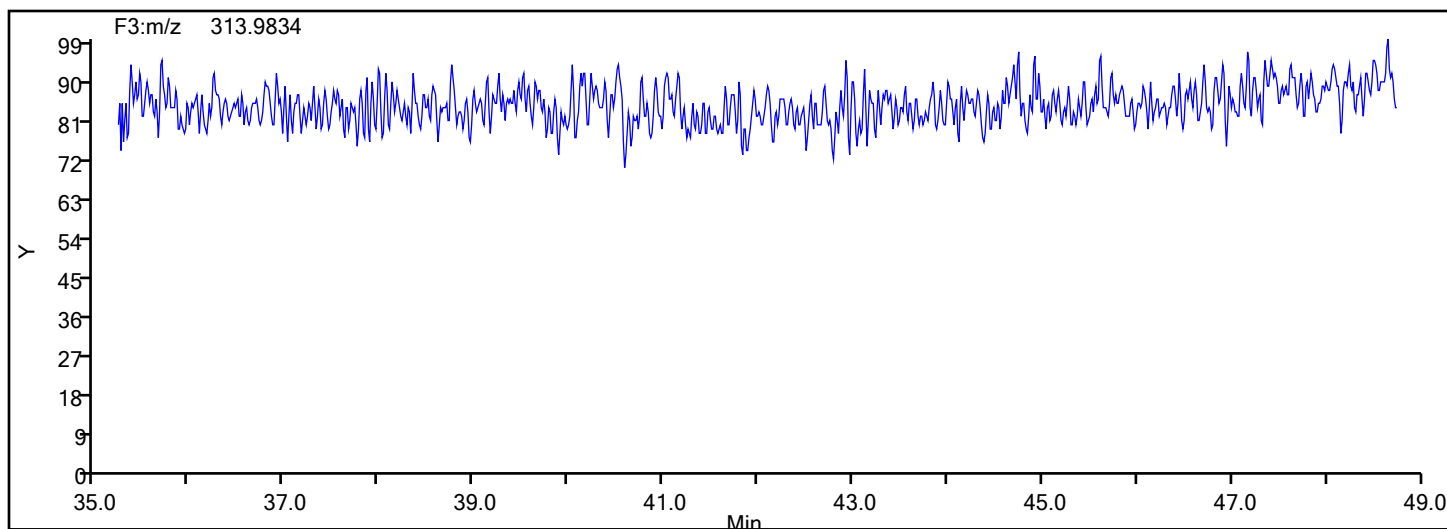


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F3



## HxPCB F3 Lock Mass



## Eurofins Knoxville

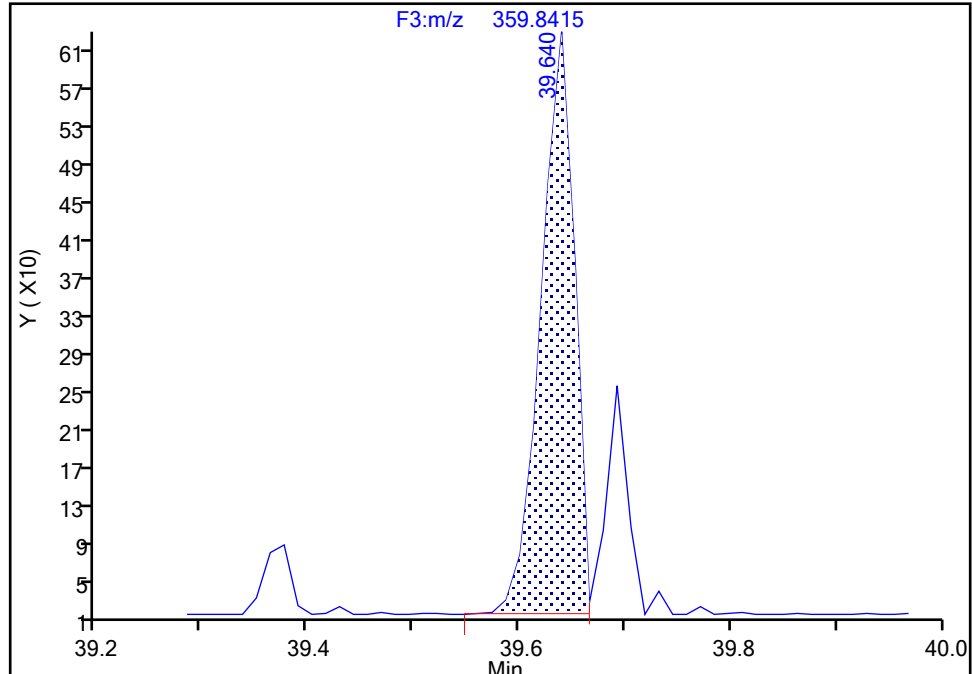
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Injection Date: 17-Jul-2024 06:22:00 Instrument ID: D2D  
Lims ID: 140-37234-A-7-D Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 1

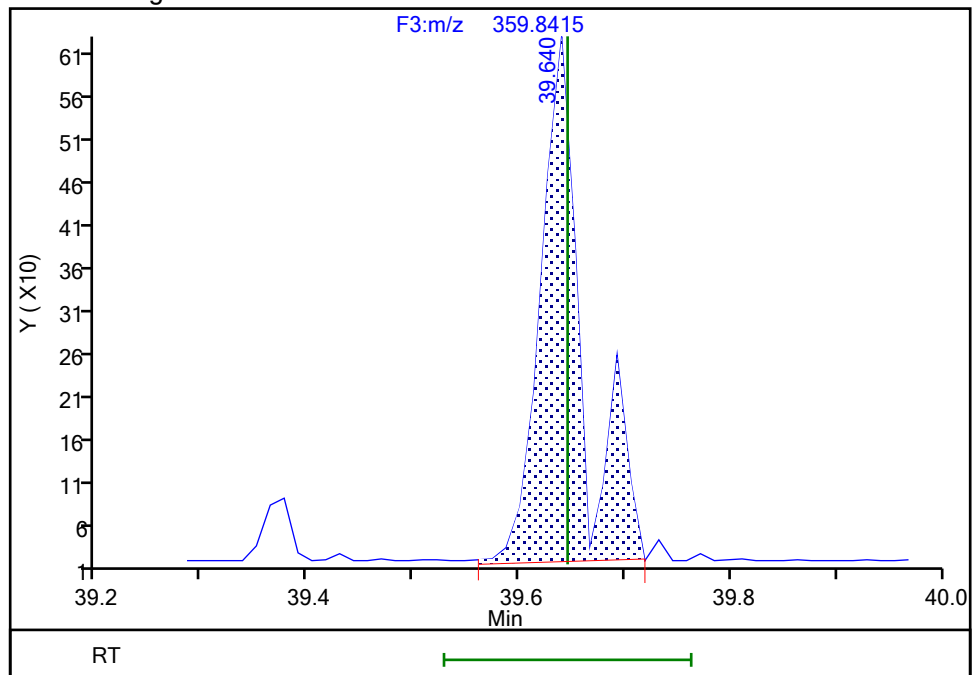
RT: 39.64  
Area: 1329  
Amount: 0.039276  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.64  
Area: 1670  
Amount: 0.053847  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:35:53 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

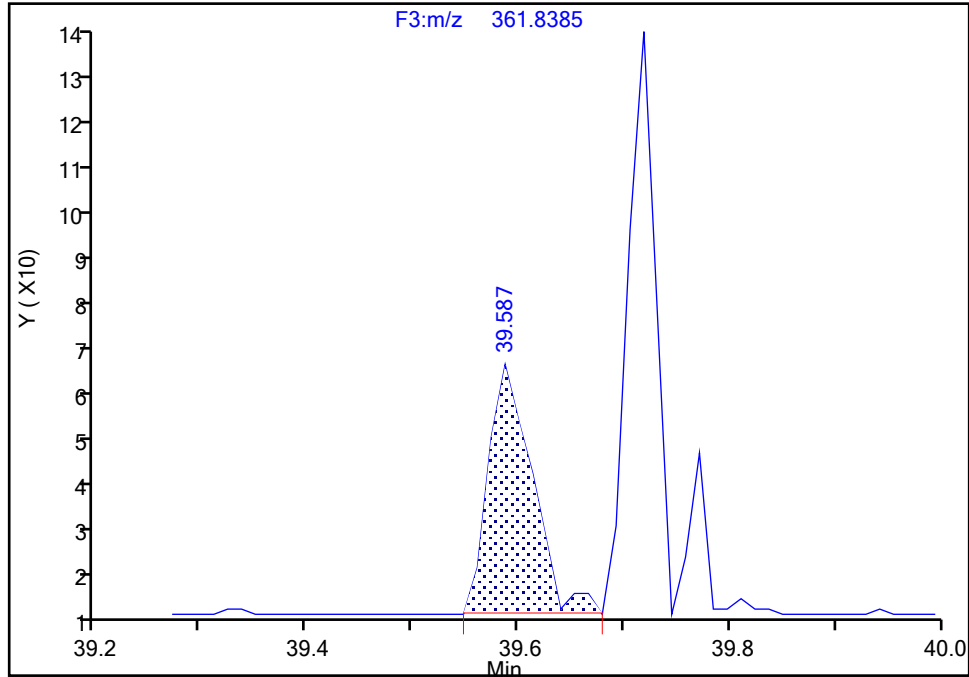
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Injection Date: 17-Jul-2024 06:22:00 Instrument ID: D2D  
Lims ID: 140-37234-A-7-D Lab Sample ID: 140-37234-7  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 2

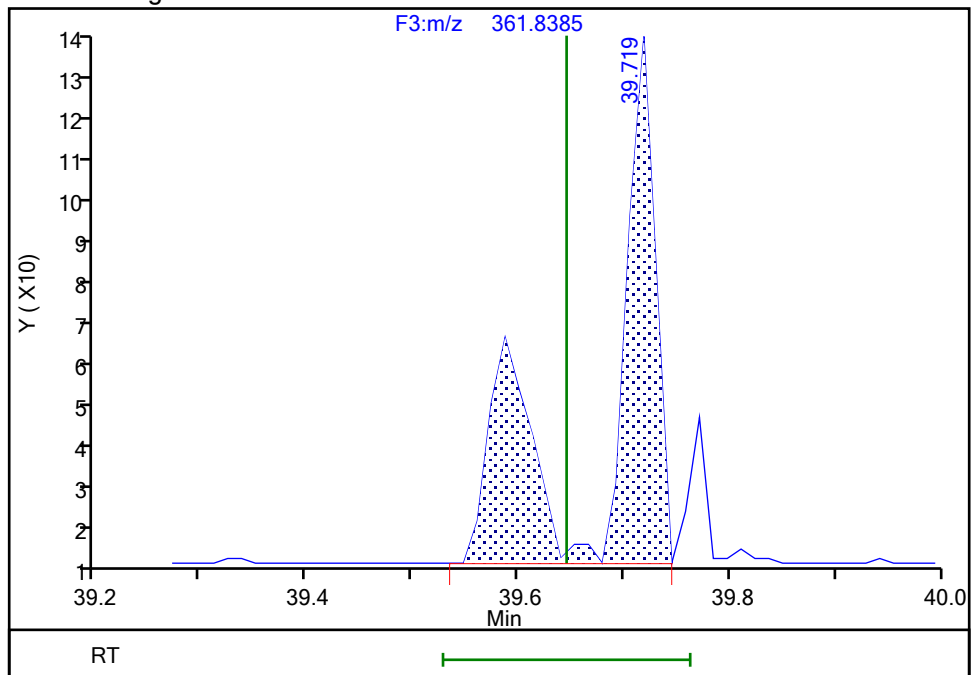
RT: 39.59  
Area: 140  
Amount: 0.039276  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.72  
Area: 344  
Amount: 0.053847  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 13:36:01 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d

Injection Date: 17-Jul-2024 06:22:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER RUN 8 COMBINED

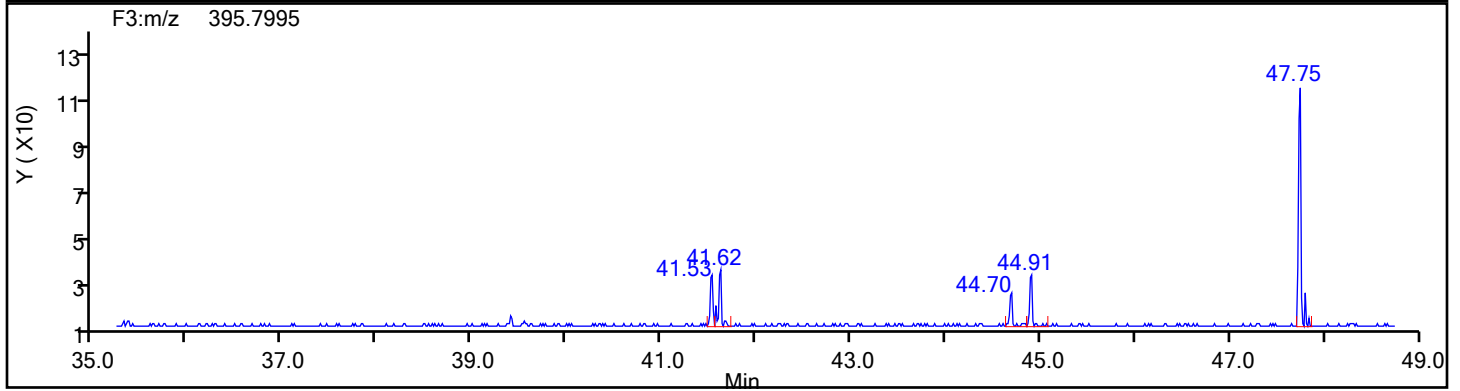
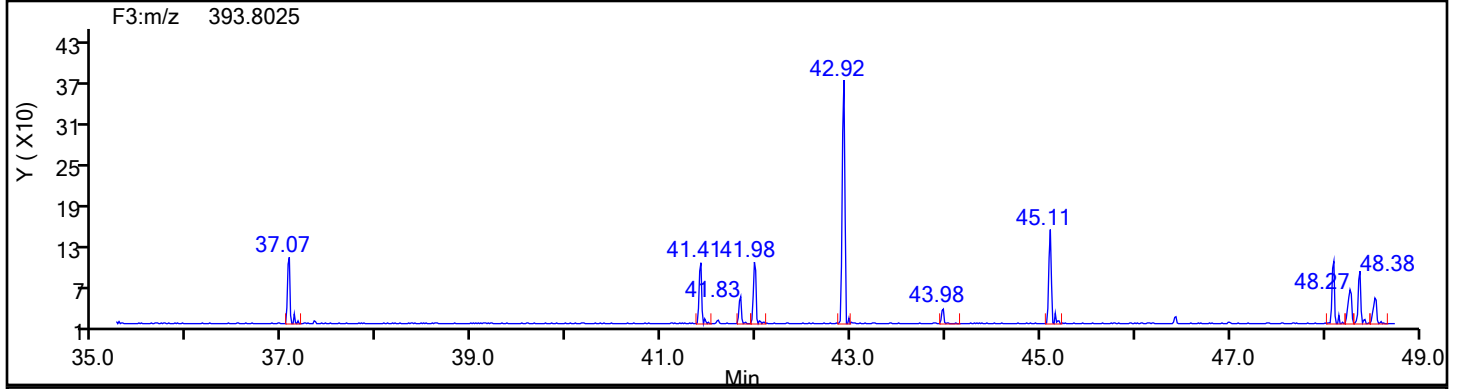
Worklist#: 88834

Sample Line#: 10

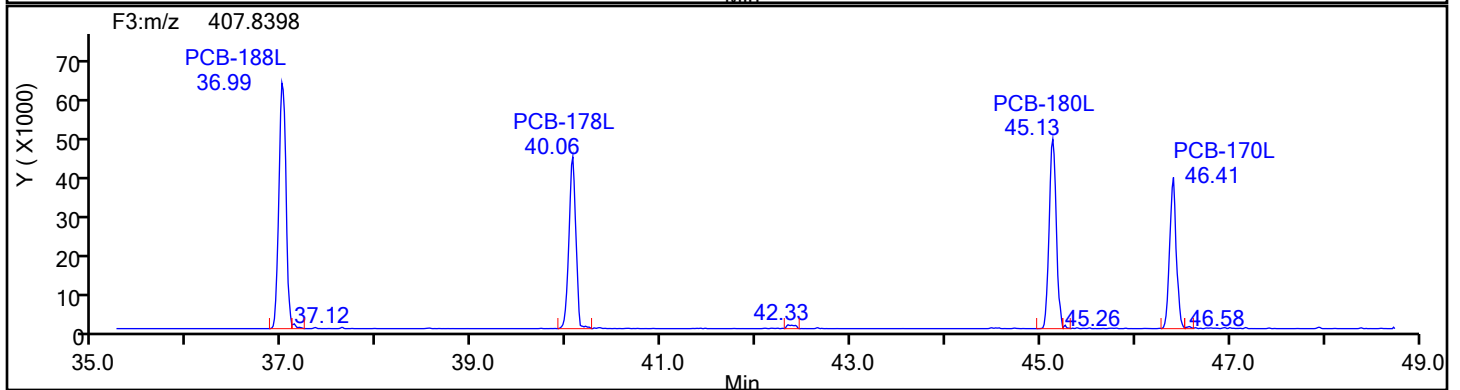
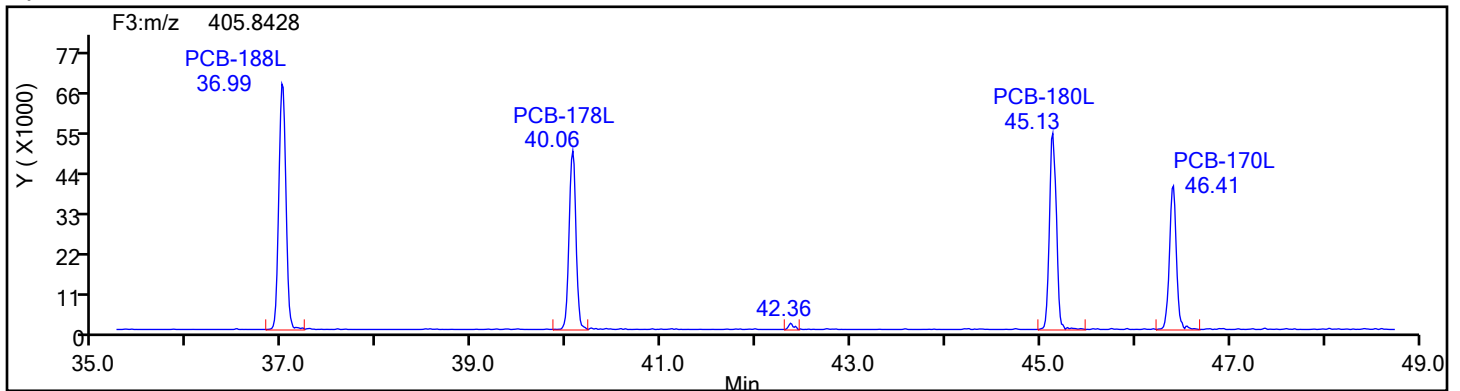
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3

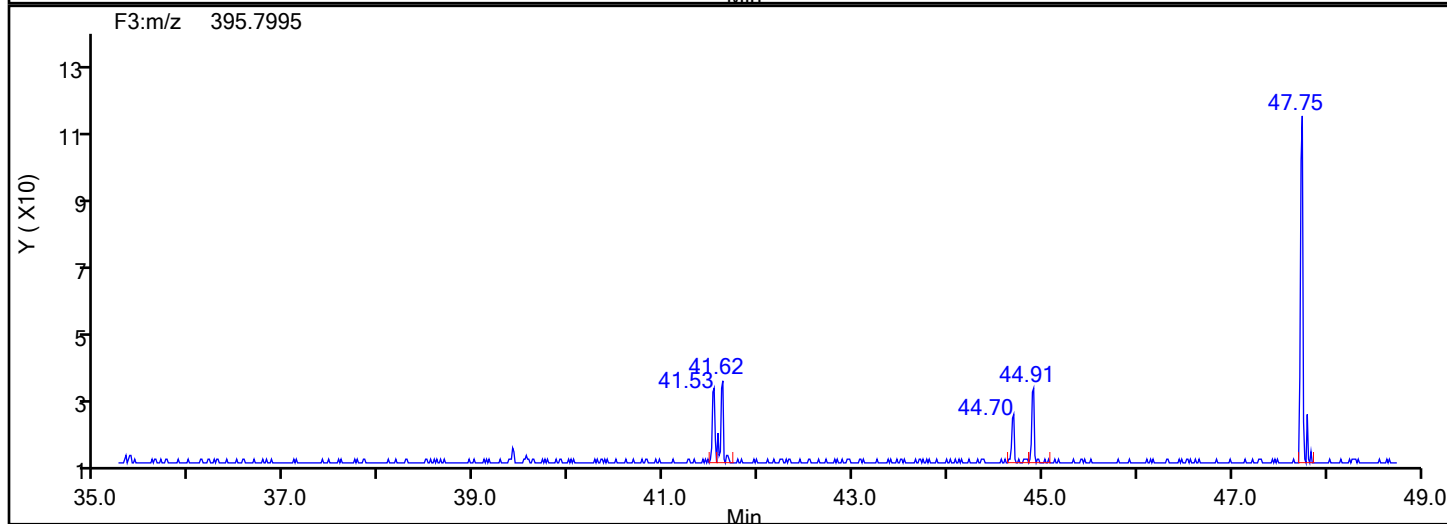
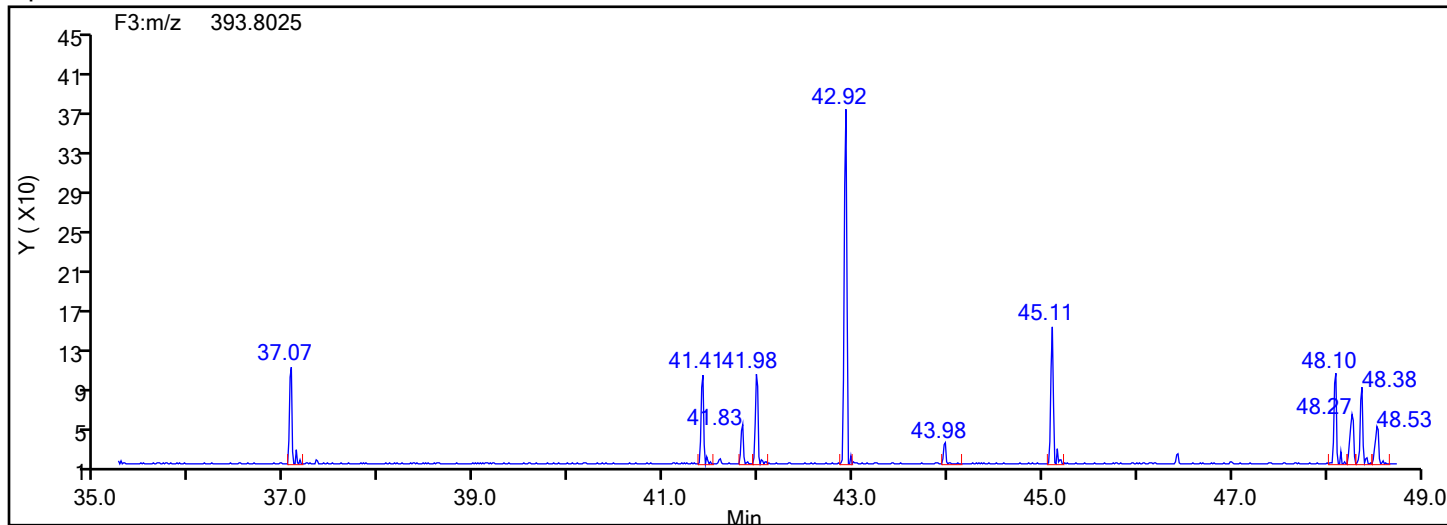


HpPCB F3 Standards

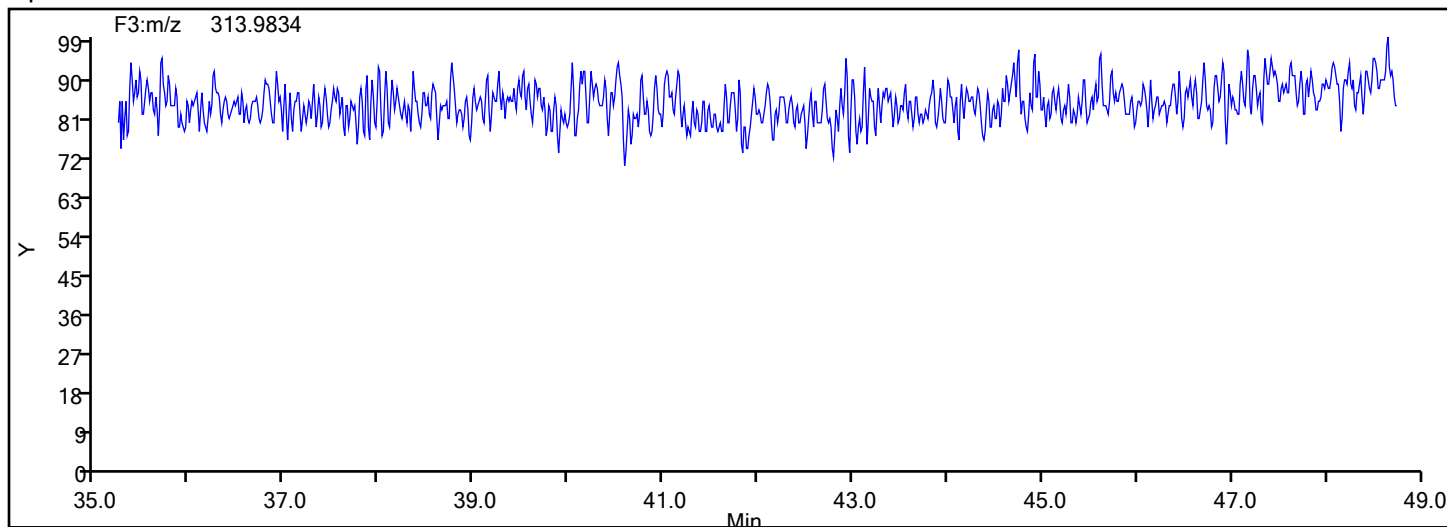


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F3

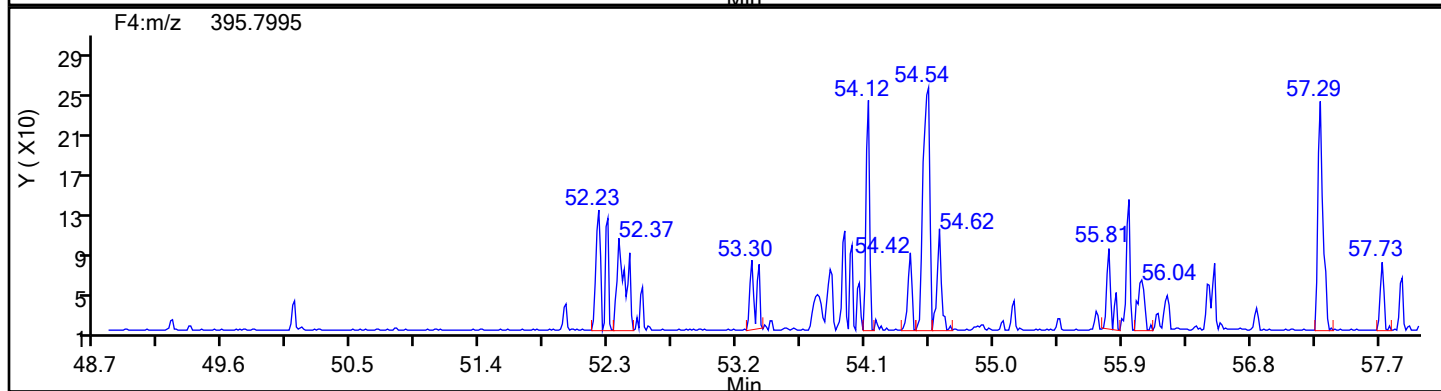
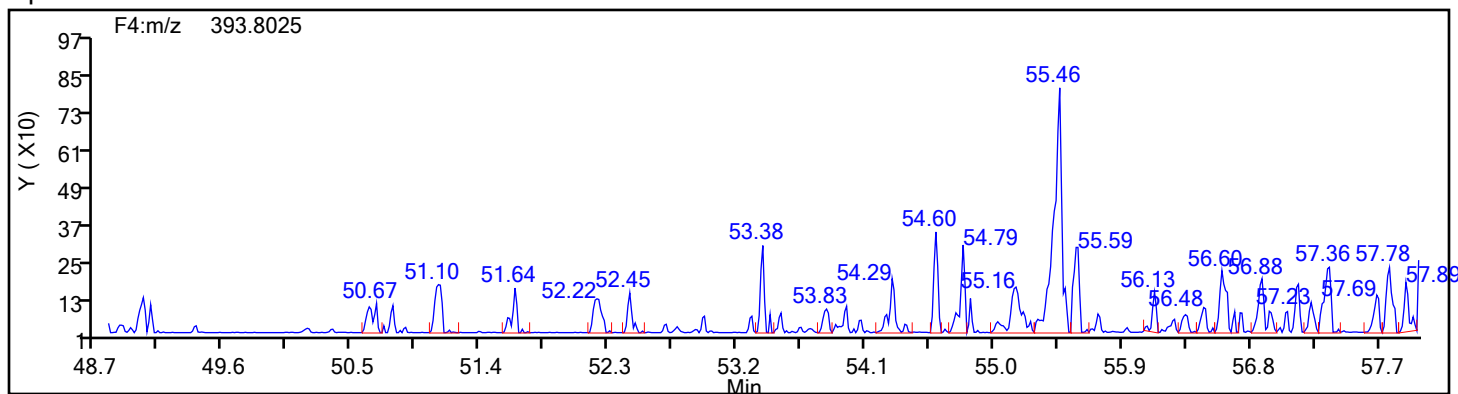


## HpPCB F3 Lock Mass

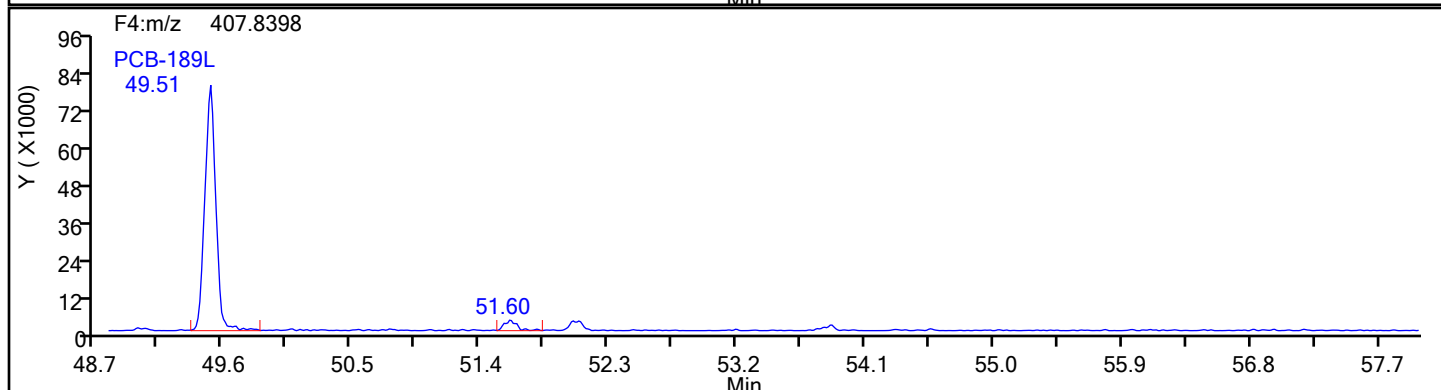
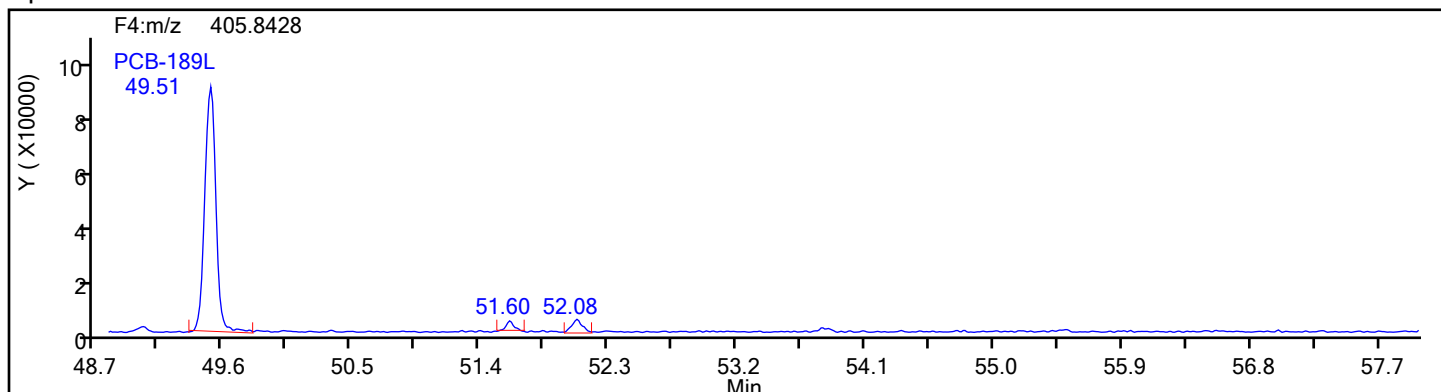


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F4



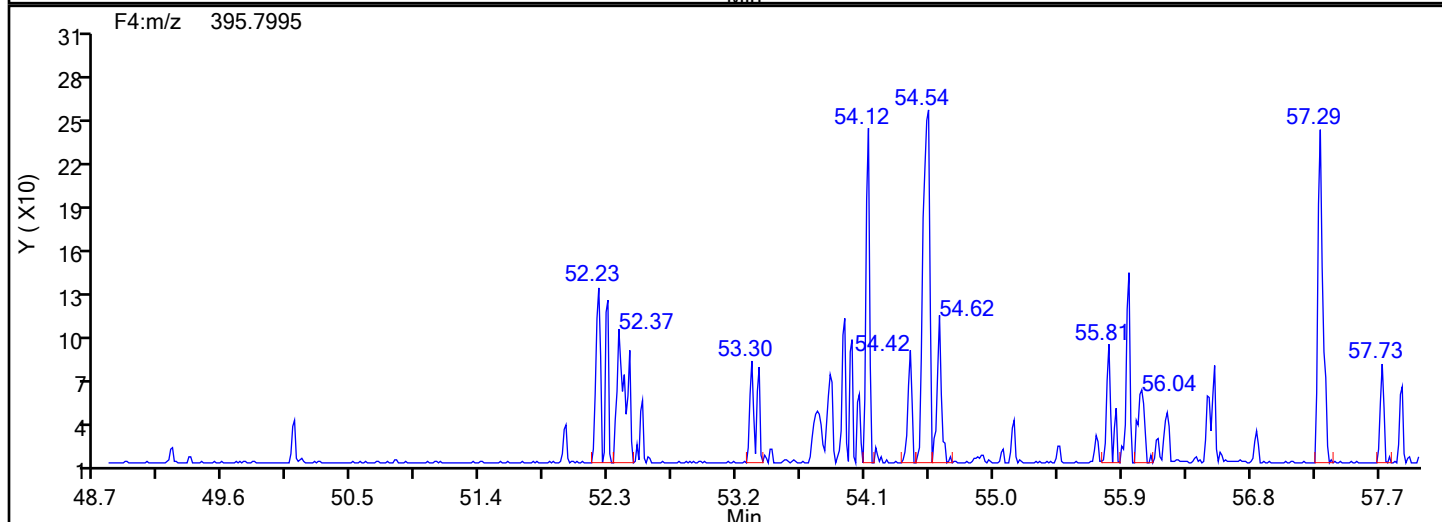
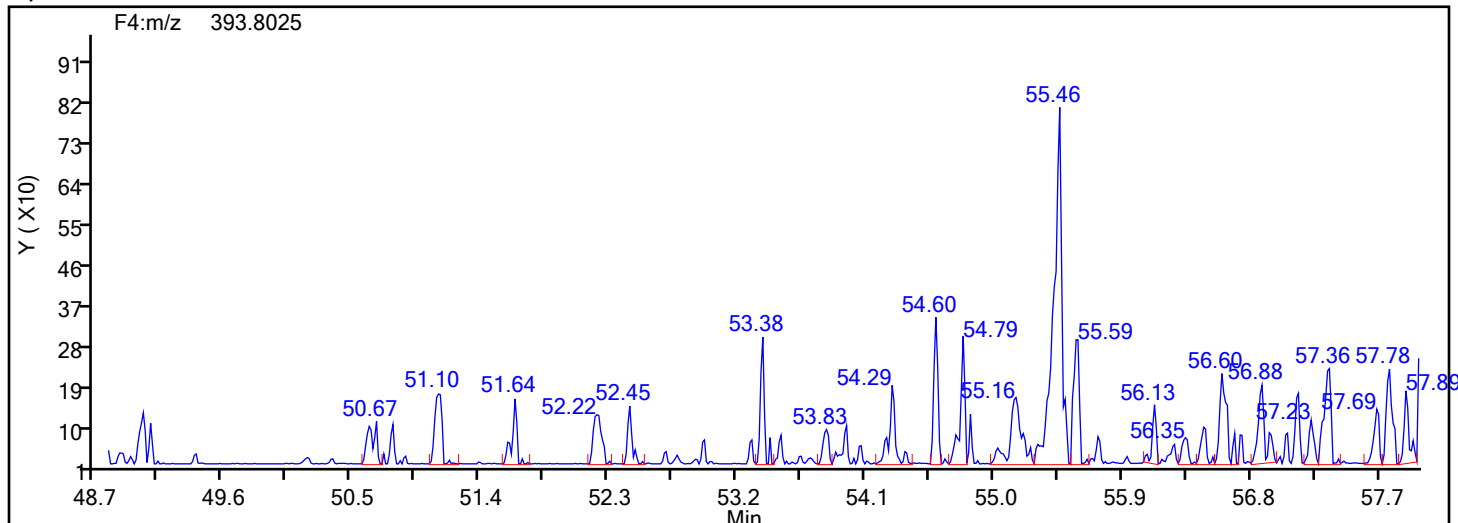
## HpPCB F4 Standards



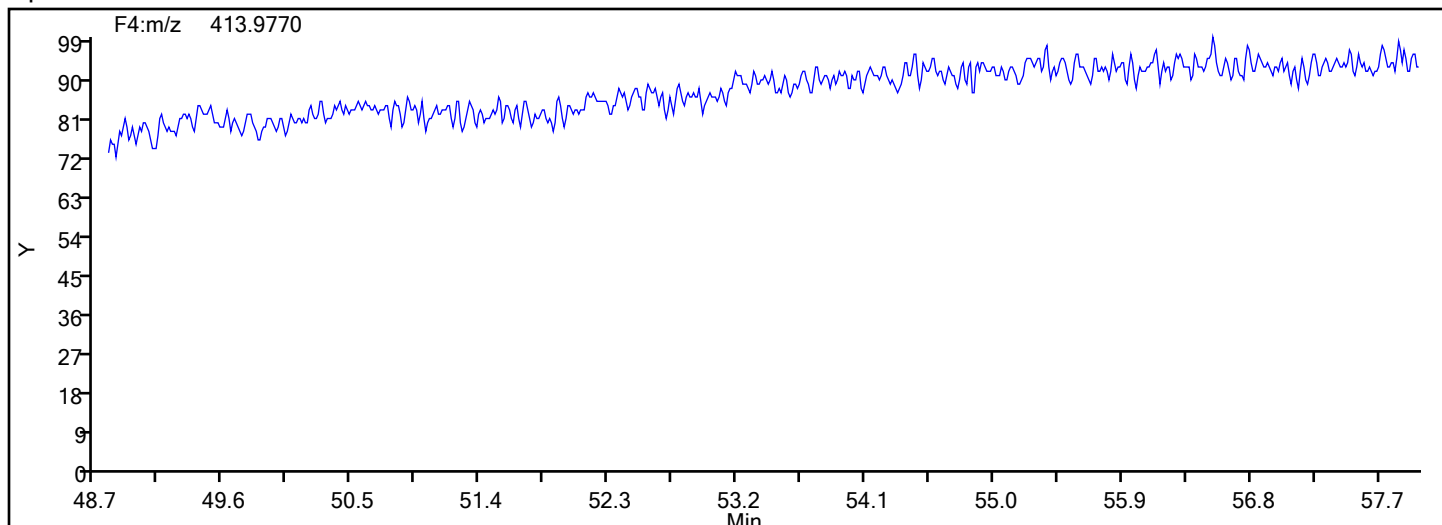


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F4

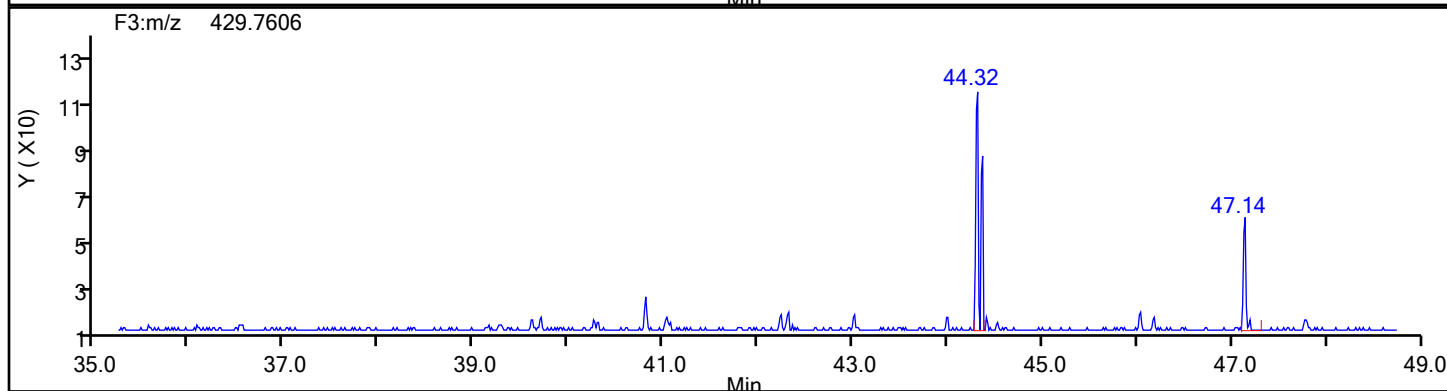
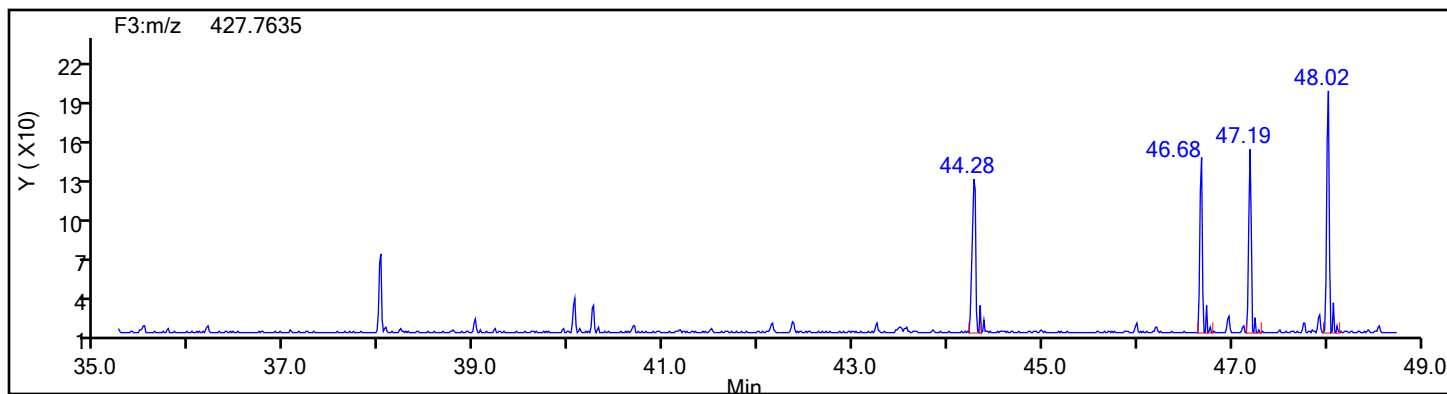


## HpPCB F4 Lock Mass

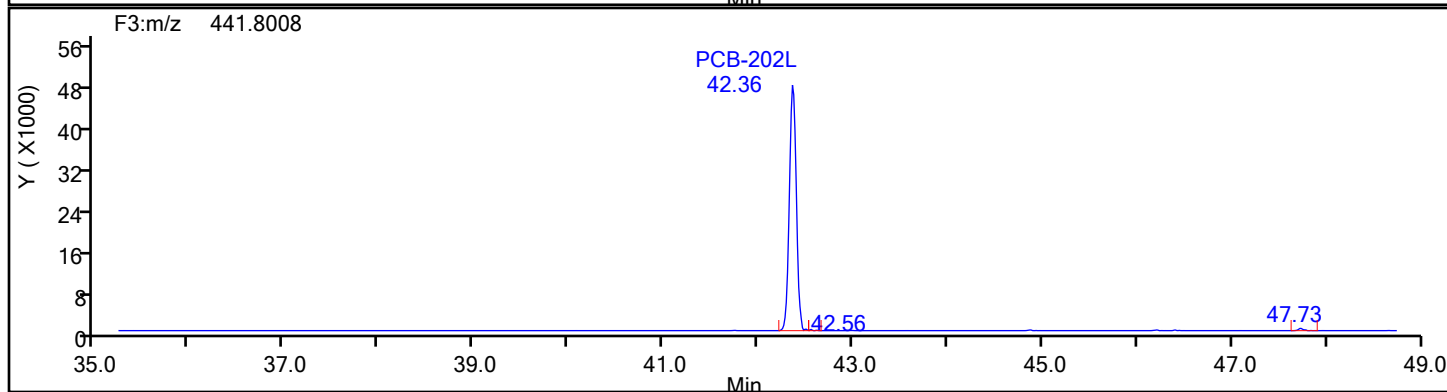
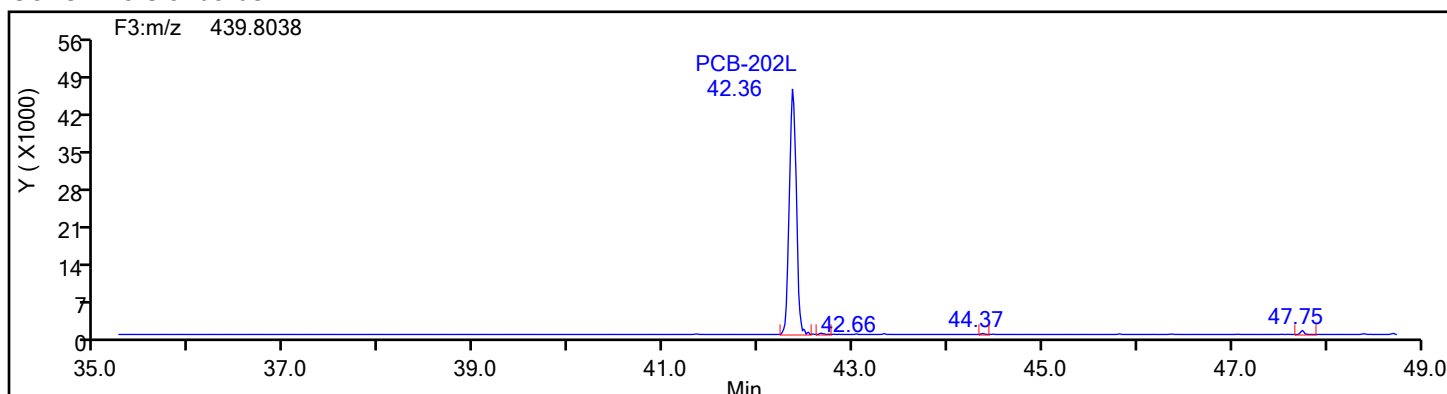


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3

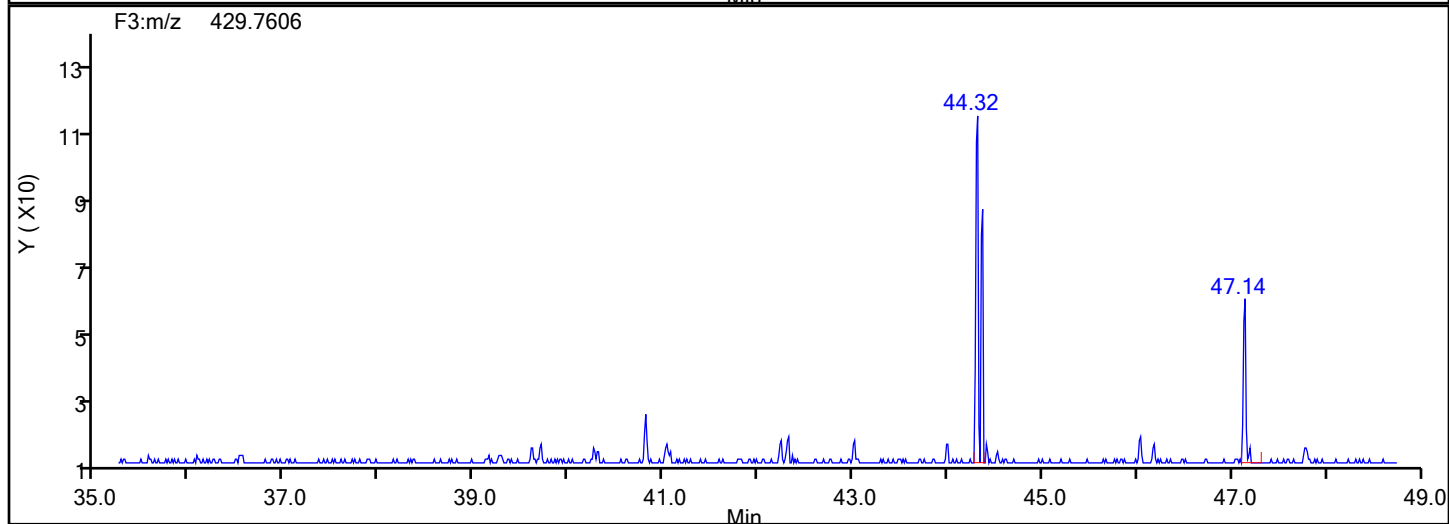
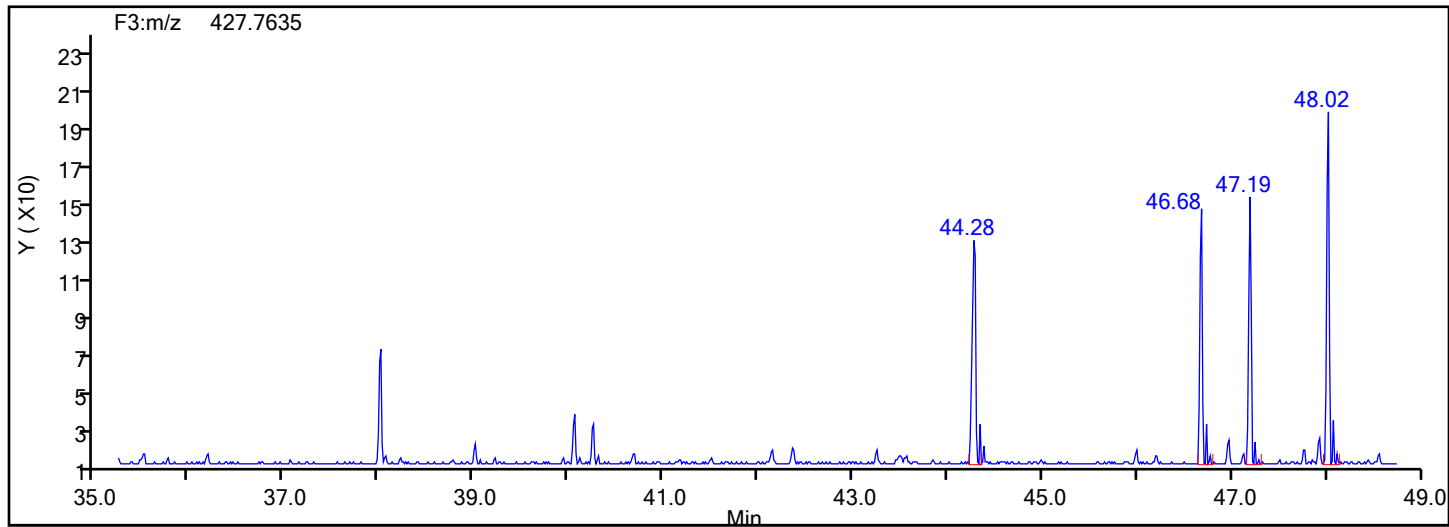


## OcPCB F3 Standards

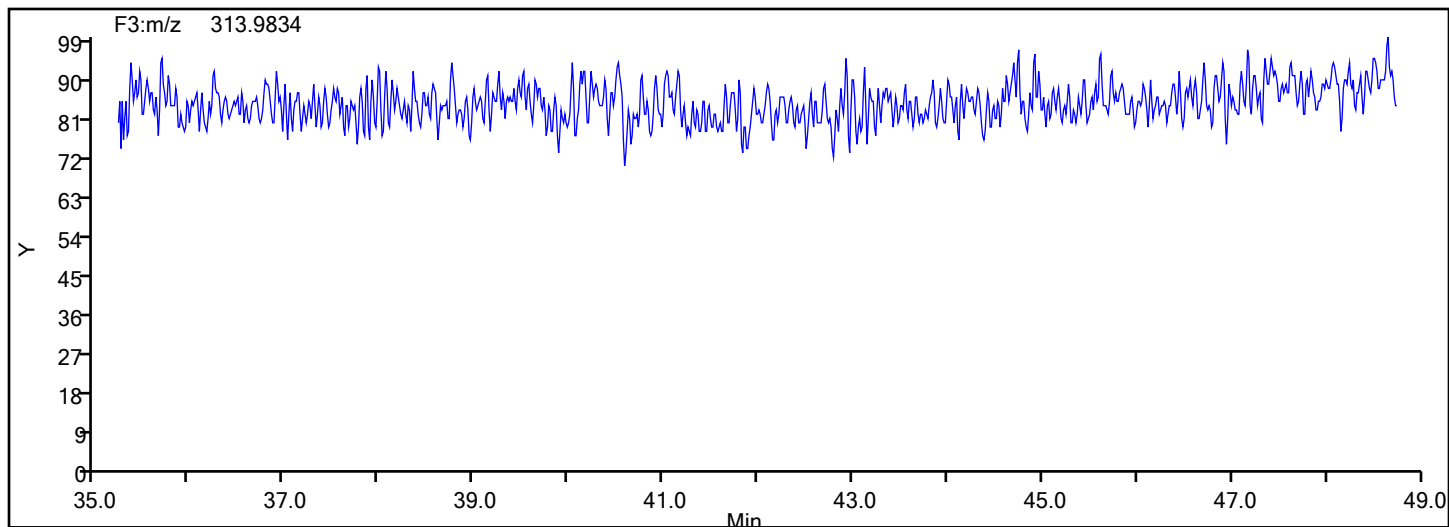


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3

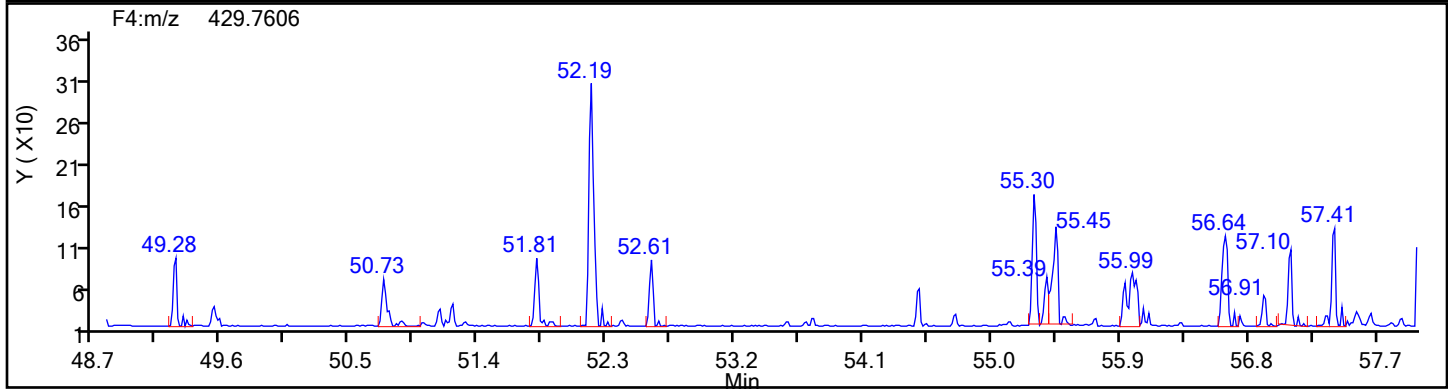
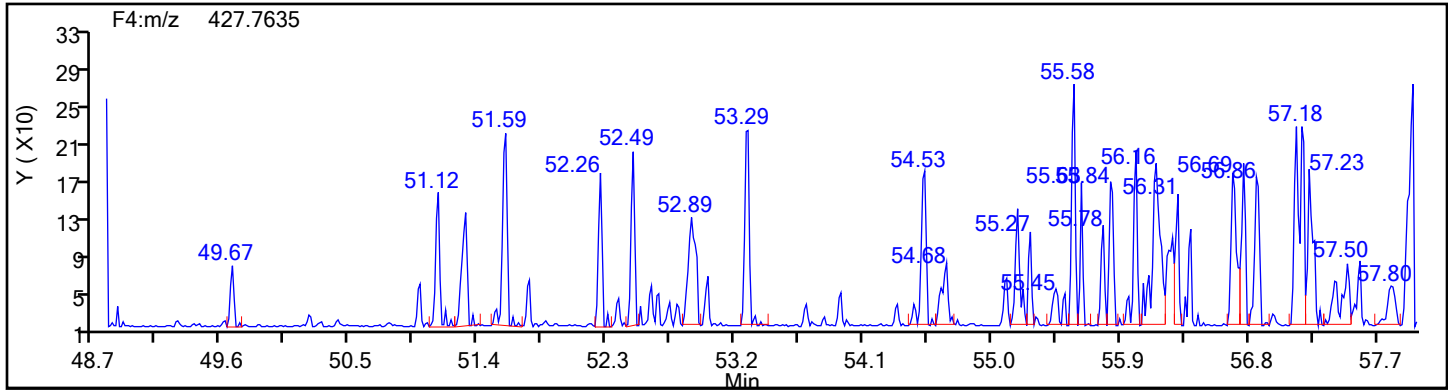


## OcPCB F3 Lock Mass

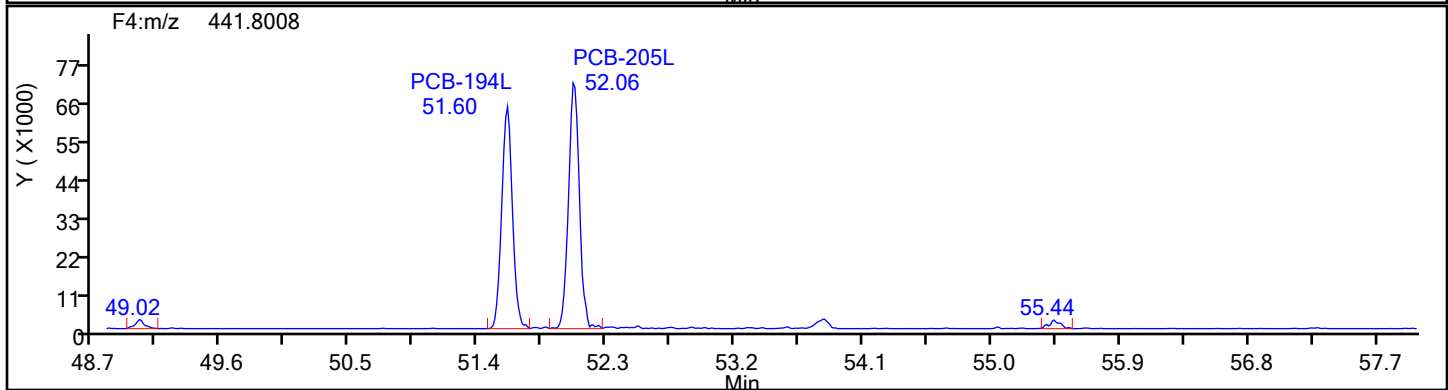
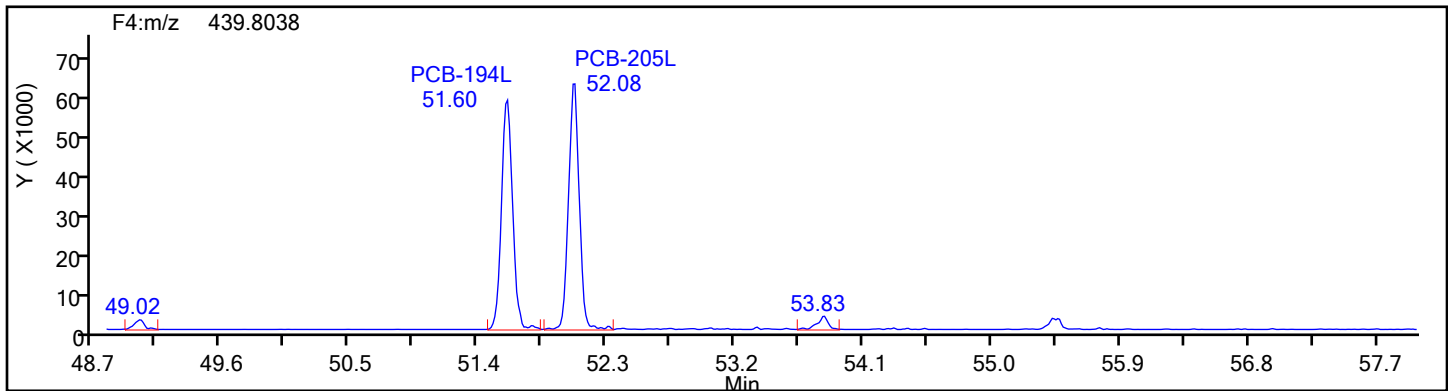


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4

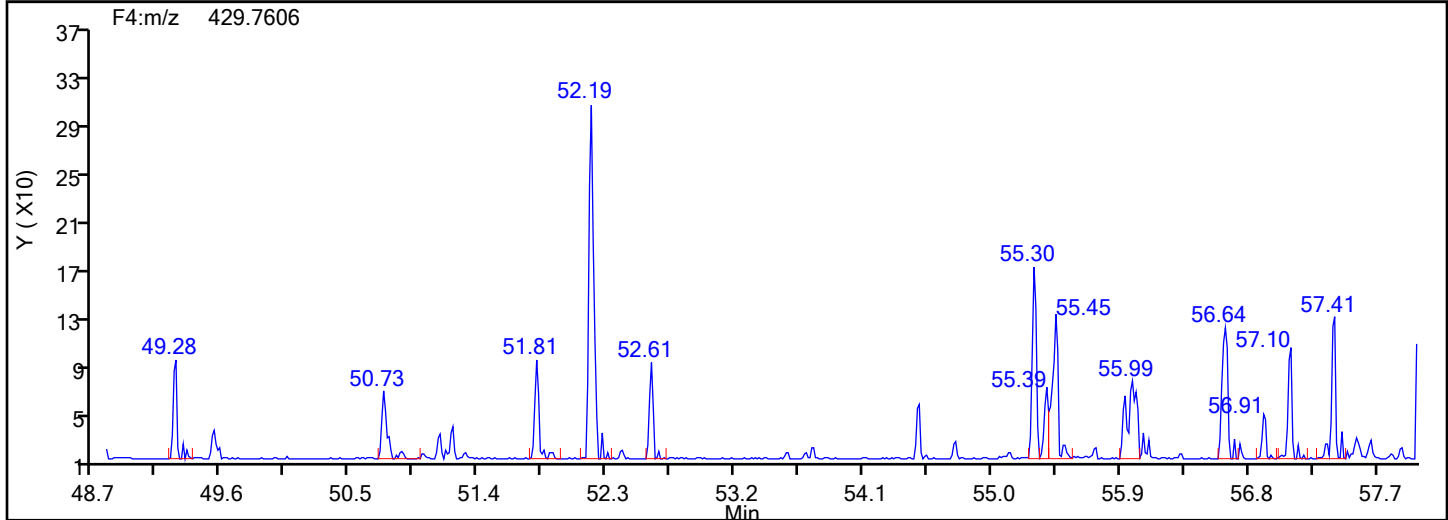
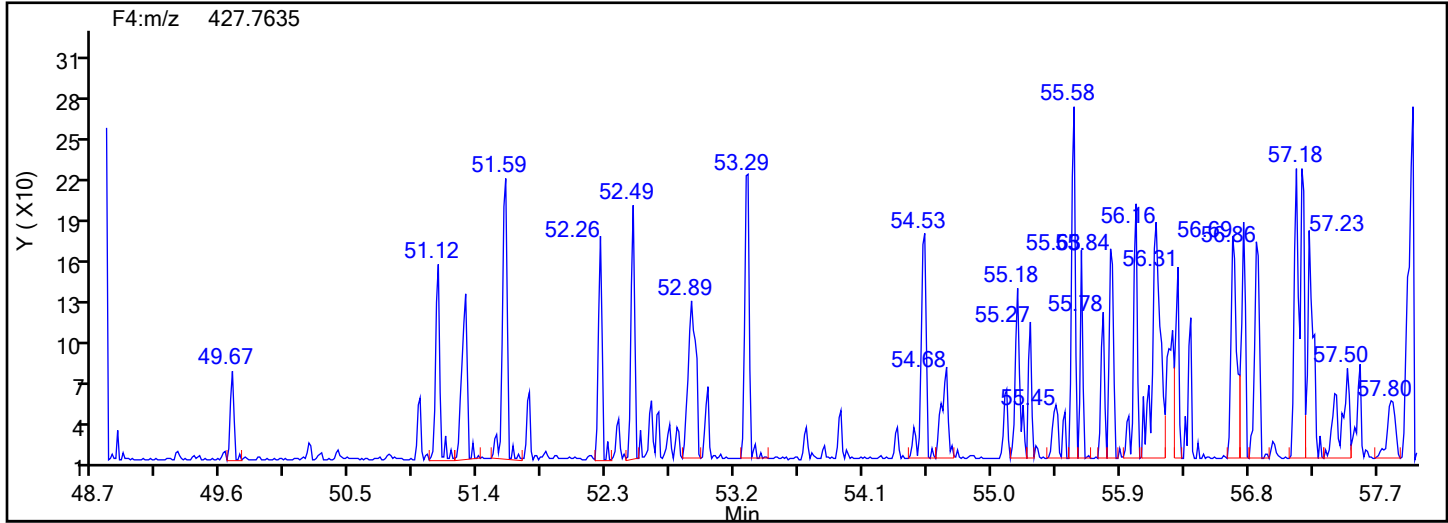


## OcPCB F4 Standards

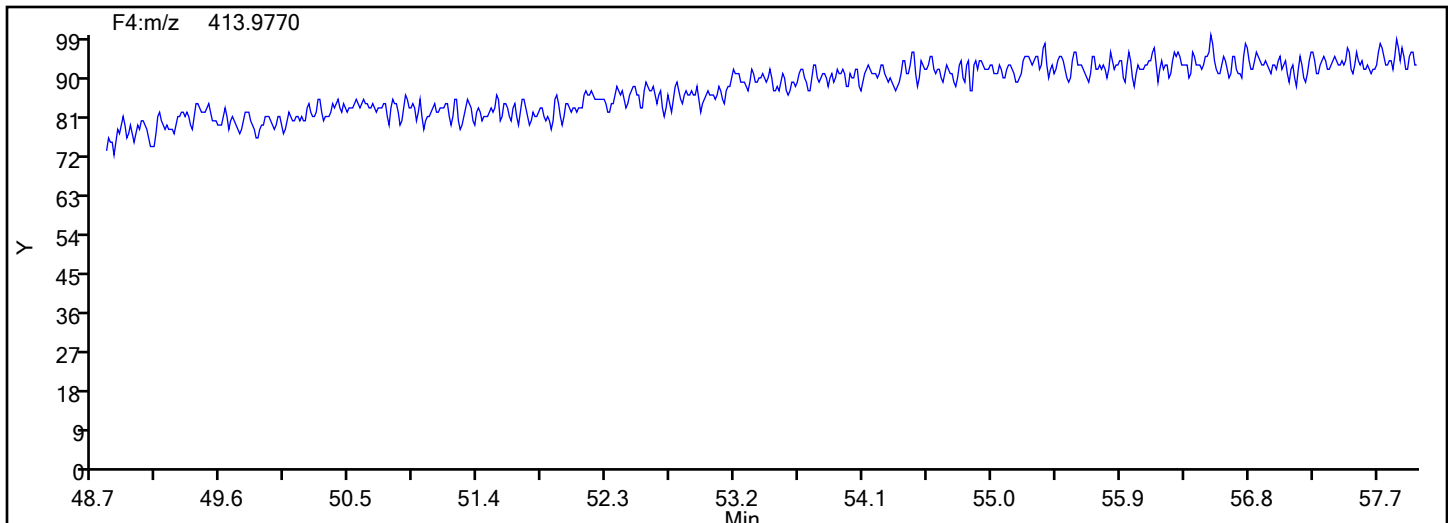


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4

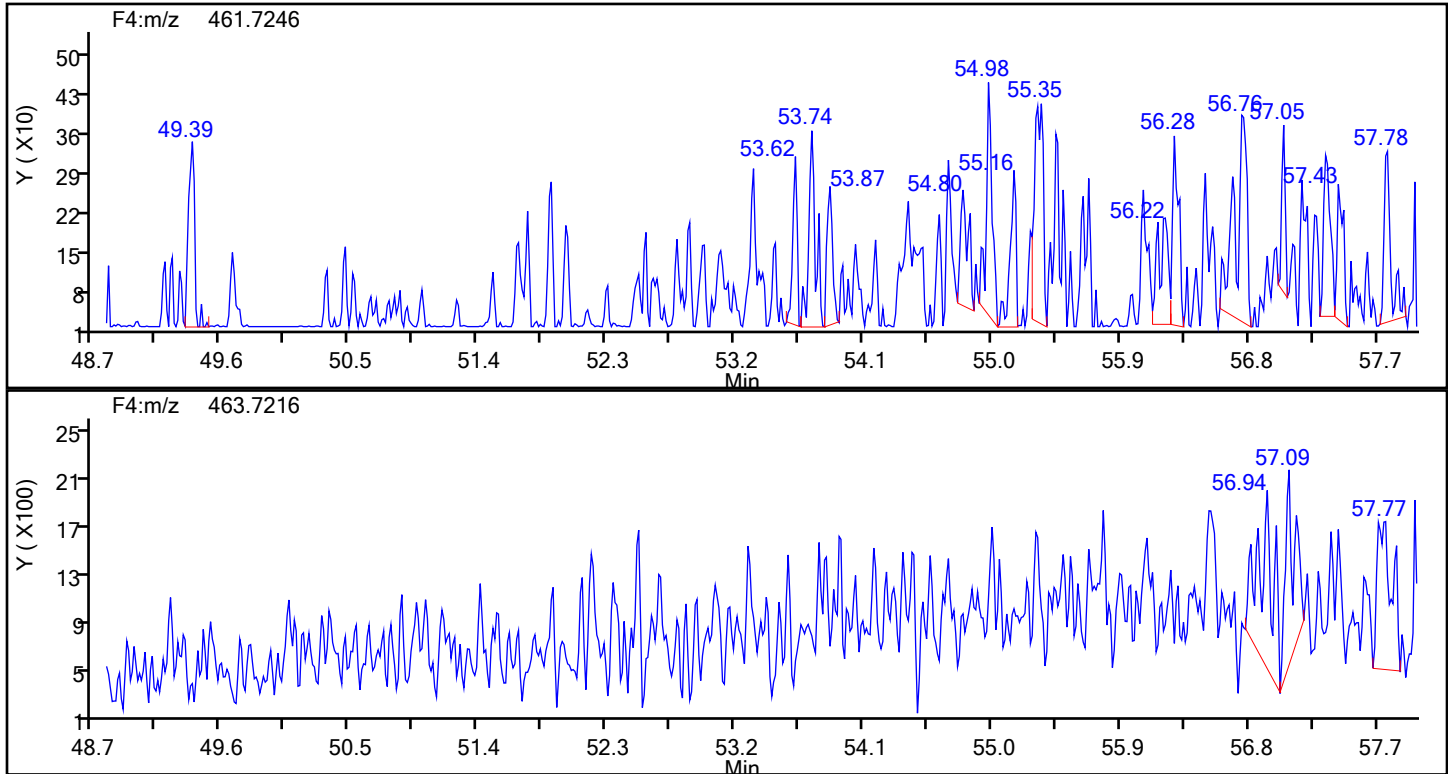


## OcPCB F4 Lock Mass

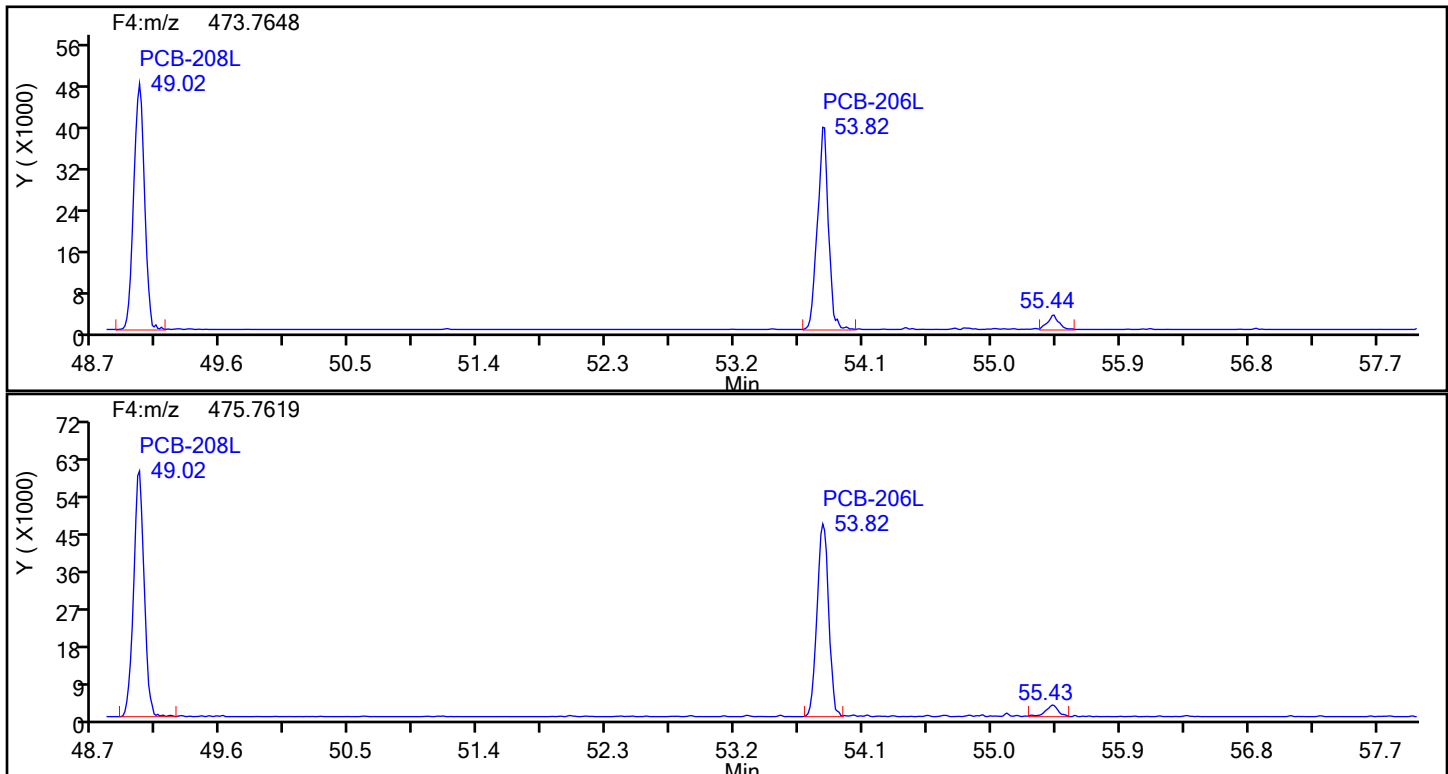


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d  
Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4

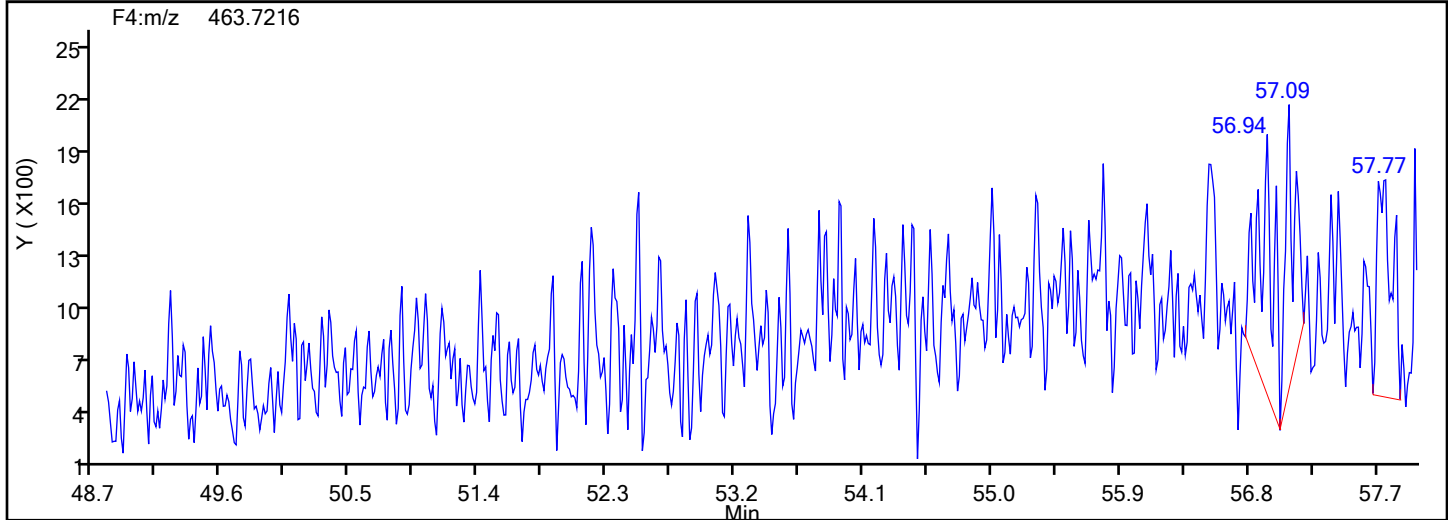
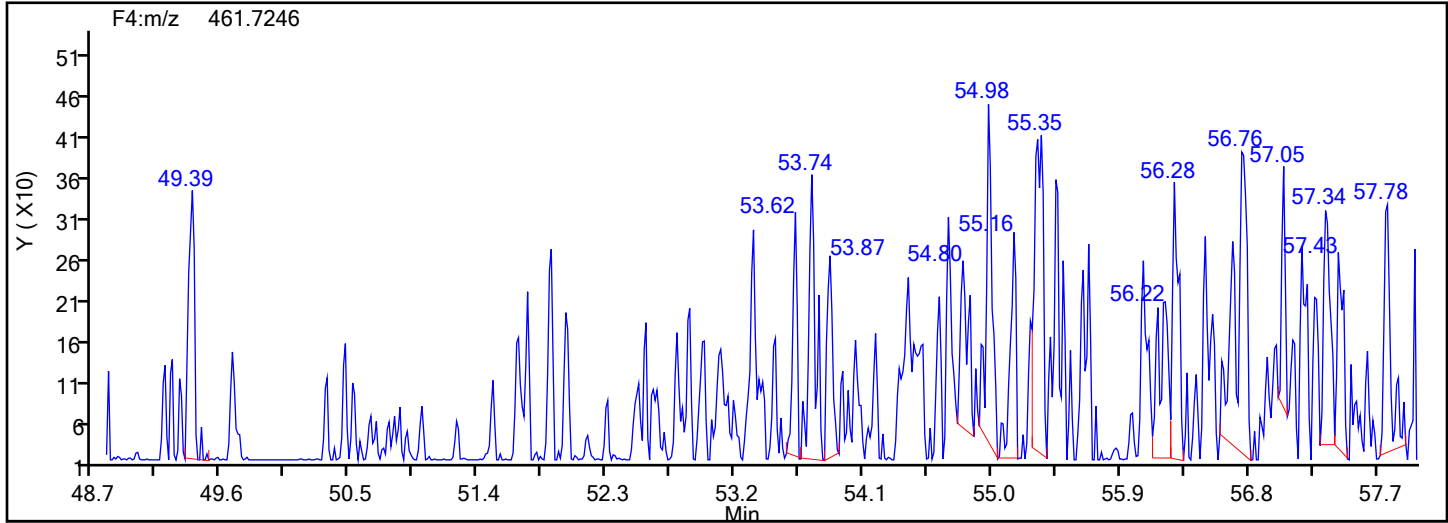


## NoPCB F4 Standards

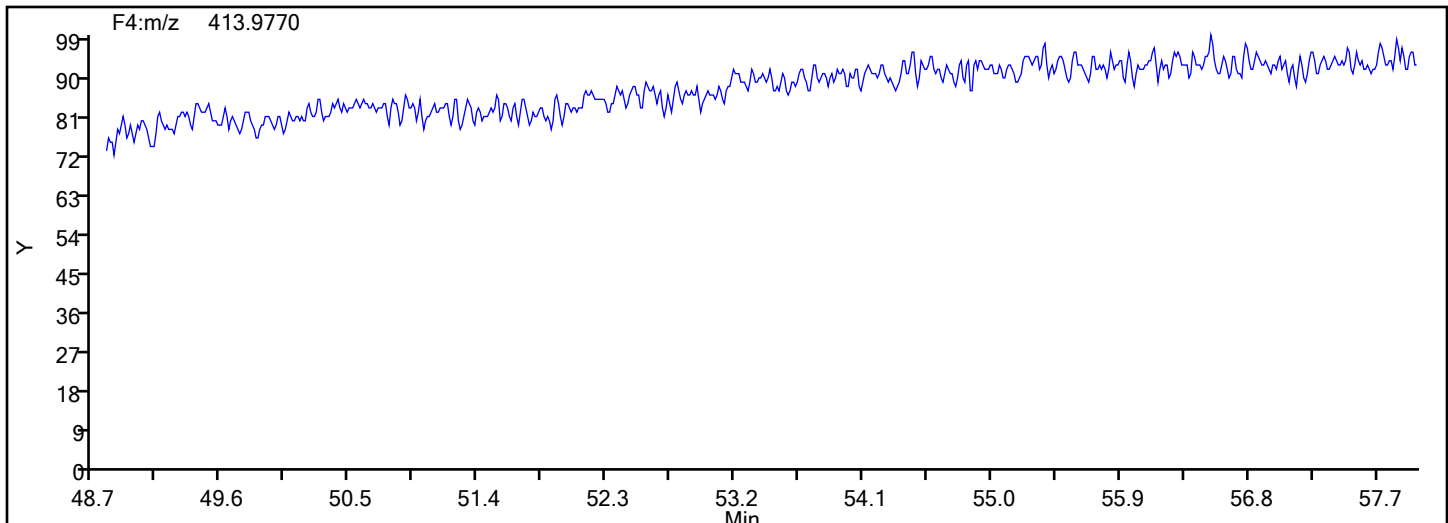


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4

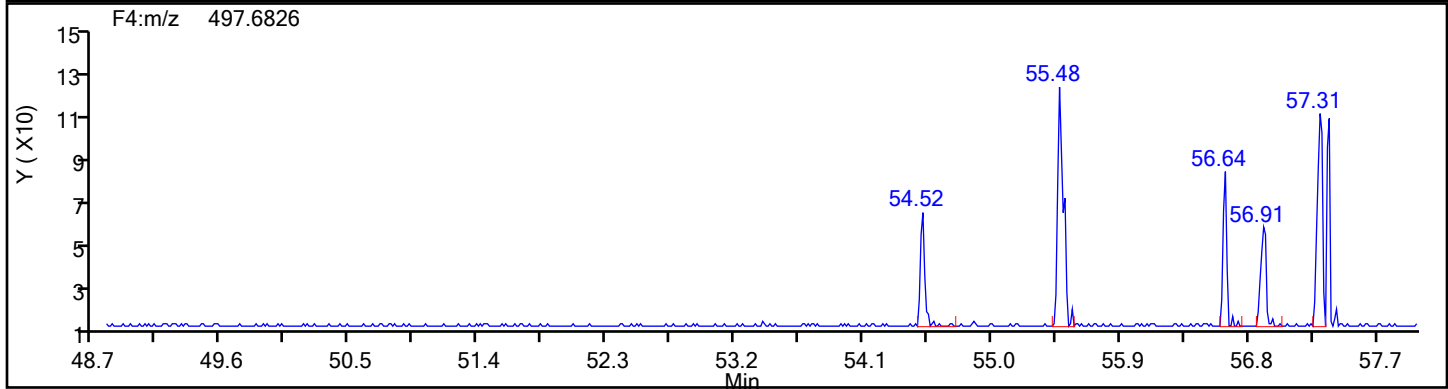
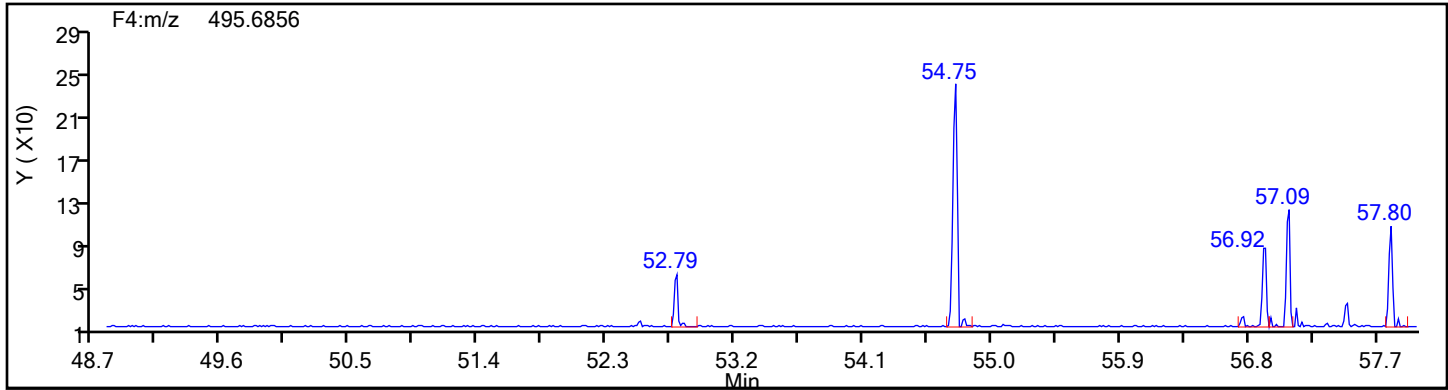


## NoPCB F4 Lock Mass

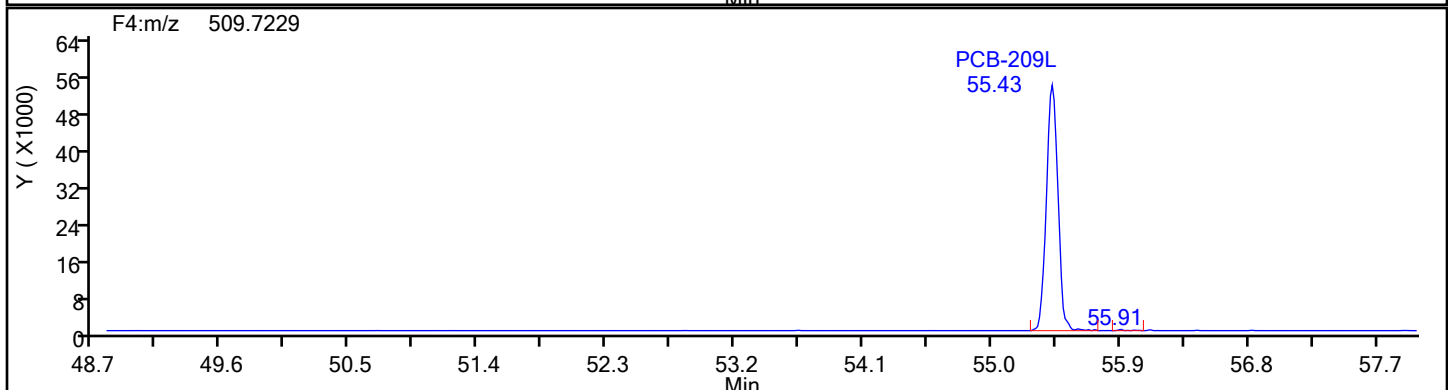
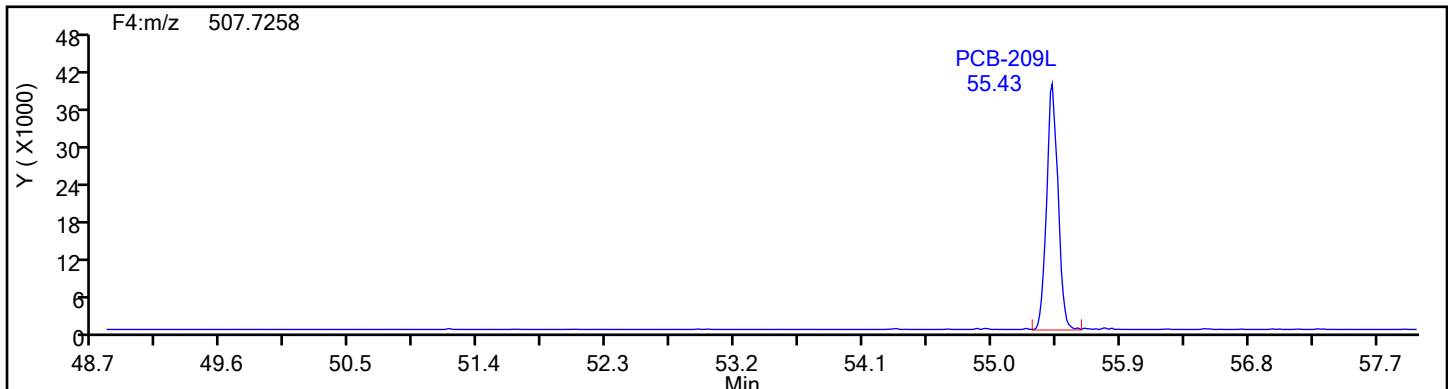


## Eurofins Knoxville

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Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4



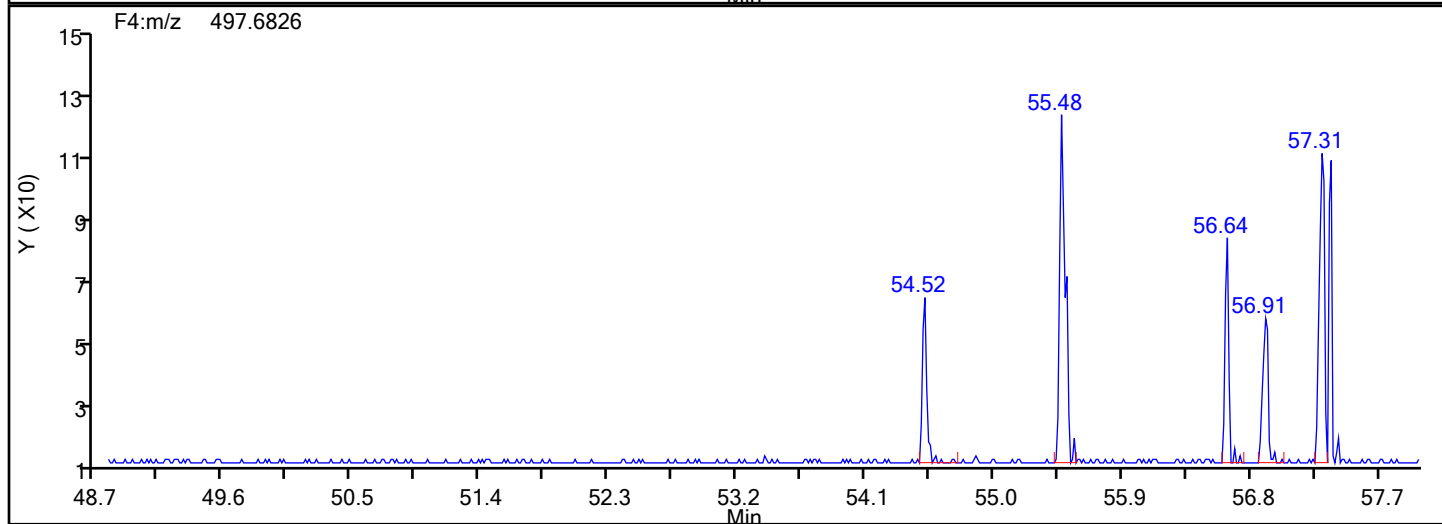
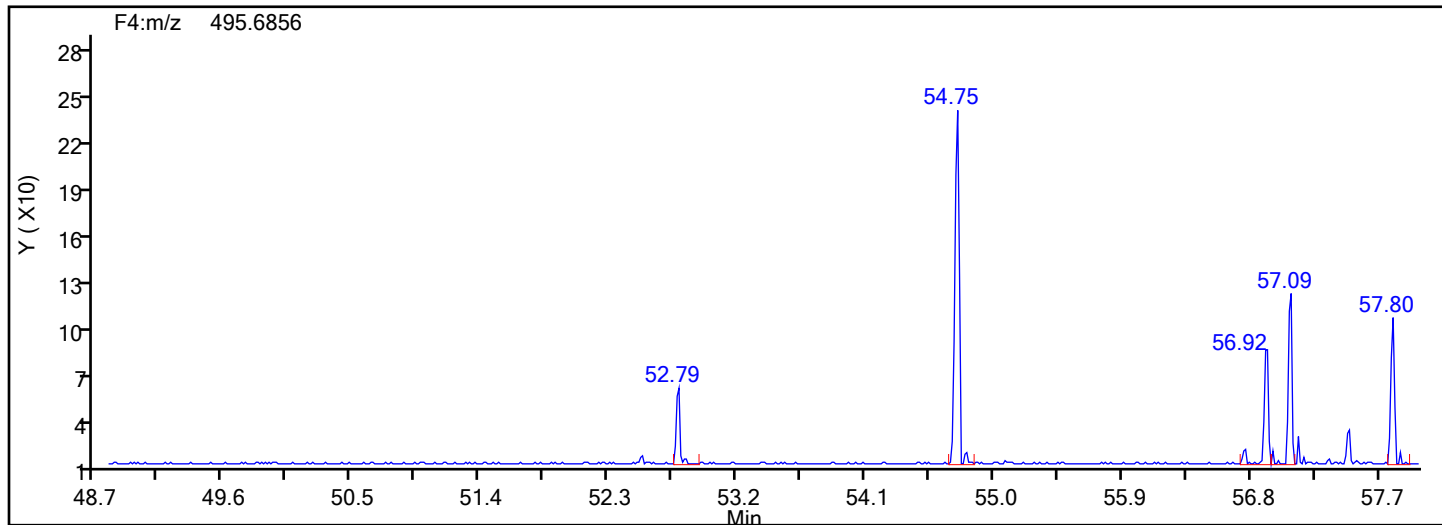
## DePCB F4 Standards



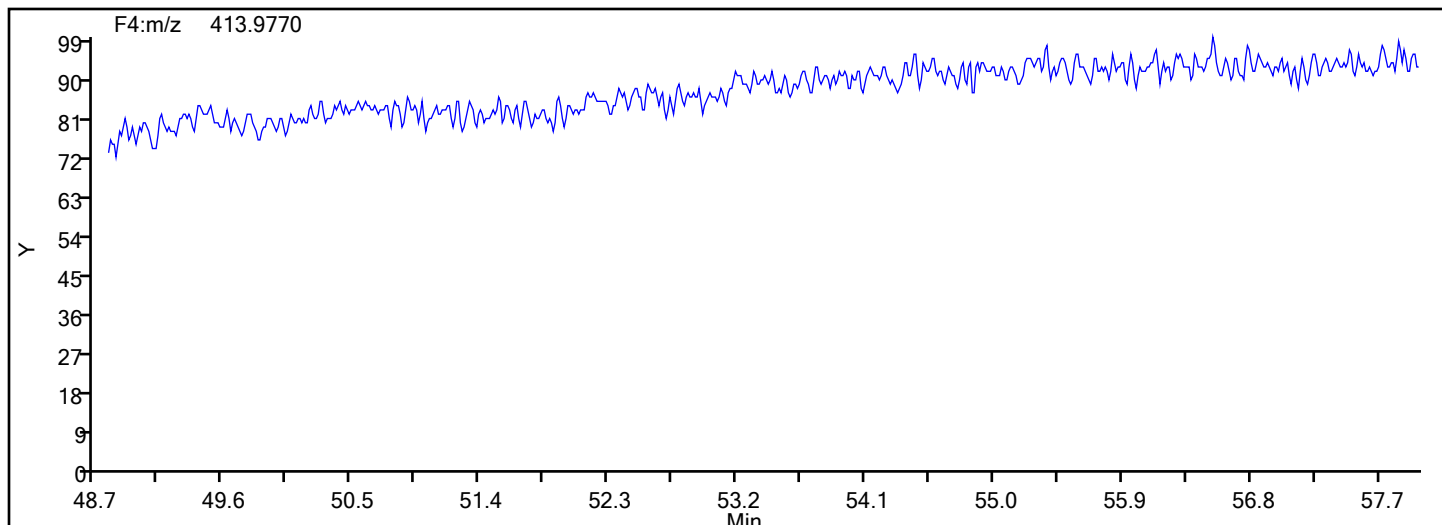


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d  
Injection Date: 17-Jul-2024 06:22:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Worklist#: 88834 Sample Line#: 10  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4



## DePCB F4 Lock Mass



Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\140-37234-a-7-d-5x.d  
Lims ID: 140-37234-A-7-D  
Client ID: M23 F-10 BOILER RUN 8 COMBINED  
Sample Type: Client  
Inject. Date: 17-Jul-2024 06:22:00 ALS Bottle#: 0 Worklist Smp#: 10  
Injection Vol: 1.0 ul Dil. Factor: 5.0000  
Sample Info:  
Misc. Info.: 140-0033532-010  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 13:36:52 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: TT6I

Date: 17-Jul-2024 13:36:52

Compound	Amount Added	Amount Recovered	% Rec.
PCB-8L	50.0	11.2	111.79
PCB-28L	100.0	14.9	74.42
PCB-79L	50.0	11.5	115.06
PCB-95L	50.0	12.1	121.19
PCB-111L	100.0	15.5	77.34
PCB-153L	50.0	11.4	113.98
PCB-178L	100.0	17.3	86.33

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER BT COMBINED</u>	Lab Sample ID: <u>140-37234-8</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-8-d.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/03/2024 17:00</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/16/2024 15:40</u>
Con. Extract Vol.: <u>30 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88809</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
34883-43-7	PCB-8	0.659		0.600	0.132	0.0231
37680-65-2	PCB-18	0.226	J C q	0.600	0.285	0.00605
7012-37-5	PCB-28	0.470	J B C20	0.600	0.252	0.0111
41464-39-5	PCB-44	1.02	C B	0.900	0.390	0.00920
35693-99-3	PCB-52	0.224	J	0.300	0.132	0.00973
32598-10-0	PCB-66	0.0896	J	0.300	0.120	0.00711
32598-13-3	PCB-77	0.0215	J q	0.300	0.126	0.00816
70362-50-4	PCB-81	ND		0.300	0.0960	0.00839
37680-73-2	PCB-101	0.0799	J C90 q	0.900	0.390	0.00812
32598-14-4	PCB-105	0.0136	J q	0.300	0.102	0.00853
74472-37-0	PCB-114	0.0117	J q	0.300	0.165	0.00807
31508-00-6	PCB-118	ND		0.300	0.183	0.00816
65510-44-3	PCB-123	ND		0.300	0.171	0.00867
57465-28-8	PCB-126	ND		0.300	0.123	0.00968
38380-07-3	PCB-128	ND	C	0.600	0.204	0.00125
35065-28-2	PCB-138	0.0118	J C129 q	1.20	0.510	0.00130
35065-27-1	PCB-153	0.00863	J C B q	0.600	0.249	0.00112
38380-08-4	PCB-156	ND	C	0.600	0.255	0.00122
69782-90-7	PCB-157	ND	C156	0.600	0.255	0.00122
52663-72-6	PCB-167	ND		0.300	0.180	0.000962
32774-16-6	PCB-169	ND		0.300	0.123	0.00100
35065-30-6	PCB-170	ND		0.300	0.132	0.000452
35065-29-3	PCB-180	ND	C	0.600	0.204	0.000328
52663-68-0	PCB-187	ND		0.300	0.126	0.000348
39635-31-9	PCB-189	ND		0.300	0.147	0.00377
52663-78-2	PCB-195	ND		0.300	0.159	0.00624
40186-72-9	PCB-206	ND		0.300	0.171	0.0376

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: M23 F-10 BOILER BT Lab Sample ID: 140-37234-8  
COMBINED  
Matrix: Air Lab File ID: 140-37234-a-8-d.d  
Analysis Method: 23 Date Collected: 06/03/2024 17:00  
Extract. Method: Combined Prep Date Extracted: 06/27/2024 14:35  
Sample wt/vol: 1 (Sample) Date Analyzed: 07/16/2024 15:40  
Con. Extract Vol.: 30 (mL) Dilution Factor: 1  
Injection Volume: 1 (uL) GC Column: SPB-Octyl ID: 0.25 (mm)  
% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
Cleanup Factor: \_\_\_\_\_ Level: (low/med) Low  
Analysis Batch No.: 88809 Units: ng/Sample  
Preparation Batch No.: 88193 Instrument ID: Excalibur D2D DFS

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
2051-24-3	PCB-209	ND		0.300	0.138	0.00327

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 F-10 BOILER BT COMBINED</u>	Lab Sample ID: <u>140-37234-8</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-8-d.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/03/2024 17:00</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/16/2024 15:40</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88809</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
234432-85-0	PCB-1L	52		20-145
208263-77-8	PCB-3L	57		20-145
234432-86-1	PCB-4L	56		20-145
208263-67-6	PCB-15L	74		20-145
234432-87-2	PCB-19L	64		20-145
208263-79-0	PCB-37L	70		20-145
234432-88-3	PCB-54L	77		20-145
105600-23-5	PCB-77L	80		20-145
208461-24-9	PCB-81L	79		20-145
234432-89-4	PCB-104L	77		20-145
208263-62-1	PCB-105L	85		20-145
208263-63-2	PCB-114L	91		20-145
104130-40-7	PCB-118L	82		20-145
208263-64-3	PCB-123L	89		20-145
208263-65-4	PCB-126L	84		20-145
234432-90-7	PCB-155L	84		20-145
208263-68-7	PCB-156L	97	C	20-145
235416-30-5	PCB-157L	97	C156	20-145
208263-69-8	PCB-167L	84		20-145
208263-70-1	PCB-169L	83		20-145
160901-80-4	PCB-170L	86		20-145
234432-91-8	PCB-188L	95		20-145
208263-73-4	PCB-189L	91		20-145
105600-26-8	PCB-202L	83		20-145
234446-64-1	PCB-205L	88		20-145
208263-75-6	PCB-206L	91		20-145
234432-92-9	PCB-208L	89		20-145
105600-27-9	PCB-209L	102		20-145

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: M23 F-10 BOILER BT Lab Sample ID: 140-37234-8  
COMBINED  
Matrix: Air Lab File ID: 140-37234-a-8-d.d  
Analysis Method: 23 Date Collected: 06/03/2024 17:00  
Extract. Method: Combined Prep Date Extracted: 06/27/2024 14:35  
Sample wt/vol: 1(Sample) Date Analyzed: 07/16/2024 15:40  
Con. Extract Vol.: 30 (mL) Dilution Factor: 1  
Injection Volume: 1 (uL) GC Column: SPB-Octyl ID: 0.25 (mm)  
% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
Cleanup Factor: \_\_\_\_\_ Level: (low/med) Low  
Analysis Batch No.: 88809 Units: ng/Sample  
Preparation Batch No.: 88193 Instrument ID: Excalibur D2D DFS

CAS NO.	SURROGATE	%REC	Q	LIMITS
208263-76-7	PCB-28L	66		20-130
235416-29-2	PCB-111L	76		20-130
232919-67-4	PCB-178L	81		20-130
STL01600	PCB-8L	111		70-130
STL01603	PCB-79L	117		70-130
STL01604	PCB-95L	119		70-130
STL01606	PCB-153L	103		70-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d  
Lims ID: 140-37234-A-8-D  
Client ID: M23 F-10 BOILER BT COMBINED  
Sample Type: Client  
Inject. Date: 16-Jul-2024 15:40:00 ALS Bottle#: 0 Worklist Smp#: 7  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033521-007  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 10:34:26 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: TT6I

Date: 17-Jul-2024 10:34:26

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D PCB-1L	11:38	5025796	3.16	1.6108	52.3	52.3	0.4066	0.4066	52.34	
D PCB-3L	13:47	5406204	3.26	1.5891	57.1	57.1	0.4122	0.4122	57.07	
S Total Dichlorobiphenyls					2.198	2.198	0.0769	0.0769		
D PCB-4L	14:02	2178775	1.59	0.6475	56.4	56.4	0.1943	0.1943	56.44	
* PCB-9L	16:00	5961168	1.60		100.0	100.0				
\$ PCB-8L	16:50	2323716	1.62	1.2066	55.6	55.6	0.1999	0.1999	111	
D PCB-15L	19:58	4742685	1.68	1.0789	73.7	73.7	0.1166	0.1166	73.74	
PCB-8	16:52	120840	1.53	1.5889	2.198	2.198	0.0769	0.0769		M
D PCB-19L	17:09	1681106	1.05	0.6285	63.5	63.5	0.4885	0.4885	63.53	
* PCB-32L	20:24	4210223	1.07		100.0	100.0				
* PCB-31L	22:38	9799529	1.04		100.0	100.0				
\$ PCB-28L	22:55	6830768	1.06	1.0494	66.4	66.4	0.1265	0.1265	66.42	
D PCB-37L	26:55	5959570	1.07	0.8749	69.5	69.5	0.1518	0.1518	69.51	
PCB-18	19:05	22351	1.04	1.7652	0.8612	0.7532	0.0202	0.0202		RQM
PCB-30 (C18)	19:05	22351	1.04	1.7652	0.8612	0.7532	0.0202	0.0202		RQM
PCB-20	22:58	109395	0.98	1.1718	1.566	1.566	0.0369	0.0369		
PCB-28 (C20)	22:58	109395	0.98	1.1718	1.566	1.566	0.0369	0.0369		
S Total Tetrachlorobiphenyls					4.535	4.504	0.0284	0.0284		RQ
D PCB-54L	20:15	1801031	0.80	0.5562	76.9	76.9	0.0763	0.0763	76.91	
* PCB-52L	24:45	4830740	0.81		100.0	100.0				
\$ PCB-79L	32:39	2896118	0.79	1.0018	58.6	58.6	0.5609	0.5609	117	
D PCB-81L	33:39	4750992	0.80	1.2470	78.9	78.9	0.3847	0.3847	78.87	
D PCB-77L	34:13	5119299	0.81	1.3212	80.2	80.2	0.3631	0.3631	80.21	
PCB-52	24:47	33922	0.76	0.9194	0.7476	0.7476	0.0324	0.0324		
PCB-44	25:48	162594	0.78	0.9731	3.386	3.386	0.0307	0.0307		
PCB-47 (C44)	25:48	162594	0.78	0.9731	3.386	3.386	0.0307	0.0307		
PCB-65 (C44)	25:48	162594	0.78	0.9731	3.386	3.386	0.0307	0.0307		
PCB-66	29:52	18539	0.73	1.2583	0.2986	0.2986	0.0237	0.0237		
PCB-81	33:40						0.0280	0.0280		
PCB-77	34:13	3981	0.77	1.0836	0.1029	0.0718	0.0272	0.0272		RQ
S Total Pentachlorobiphenyls					0.4102	0.3505	0.0285	0.0285		RQ
D PCB-104L	25:41	3045997	1.63	1.2161	77.0	77.0	0.0537	0.0537	76.98	
\$ PCB-95L	28:40	1309868	1.61	0.7218	59.6	59.6	0.0869	0.0869	119	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-101L	31:34	3253664	1.58		100.0	100.0				
\$ PCB-111L	34:15	3384472	1.62	1.3699	75.9	75.9	0.0477	0.0477	75.93	
D PCB-123L	36:13	4915355	1.60	0.9731	88.6	88.6	1.091	1.091	88.56	
D PCB-118L	36:31	4710552	1.59	1.0102	81.8	81.8	1.051	1.051	81.76	
D PCB-114L	37:03	5167404	1.59	0.9949	91.1	91.1	1.067	1.067	91.07	
D PCB-105L	37:43	4604708	1.58	0.9514	84.9	84.9	1.115	1.115	84.85	
* PCB-127L	39:11	5703570	1.58		100.0	100.0				
D PCB-126L	40:48	4541071	1.61	0.9439	84.4	84.4	1.124	1.124	84.35	
PCB-90	31:36	7751	1.55	0.9550	0.3075	0.2665	0.0271	0.0271		RQM
PCB-101 (C90)	31:36	7751	1.55	0.9550	0.3075	0.2665	0.0271	0.0271		RQM
PCB-113 (C90)	31:36	7751	1.55	0.9550	0.3075	0.2665	0.0271	0.0271		RQM
PCB-123	36:13						0.0289	0.0289		
PCB-118	36:33						0.0272	0.0272		
PCB-114	37:06	2176	1.55	1.0842	0.0441	0.0388	0.0269	0.0269		RQ
PCB-105	37:43	2473	1.55	1.1879	0.0586	0.0452	0.0284	0.0284		RQ
PCB-126	40:49						0.0323	0.0323		
S Total Hexachlorobiphenyls					0.1160	0.0680	0.003810	0.003810		RQ
D PCB-155L	31:19	2976017	1.25	1.0851	84.3	84.3	0.0339	0.0339	84.29	
\$ PCB-153L	38:23	1945322	1.27	0.9169	51.6	51.6	0.9064	0.9064	103	
* PCB-138L	39:38	3695724	1.26		100.0	100.0				
D PCB-167L	42:38	3911036	1.27	1.2572	84.2	84.2	0.5929	0.5929	84.17	
D PCB-156L	43:48	8693971	1.29	1.2106	194.3	194.3	0.6157	0.6157	97.16	
D PCB-157L (C156L)	43:48	8693971	1.29	1.2106	194.3	194.3	0.6157	0.6157	97.16	
D PCB-169L	47:01	3827347	1.26	1.2439	83.3	83.3	0.5992	0.5992	83.26	
PCB-153	38:25	1292	1.24	1.0938	0.0651	0.0288	0.003740	0.003740		RQ
PCB-168 (C153)	38:25	1292	1.24	1.0938	0.0651	0.0288	0.003740	0.003740		RQ
PCB-129	39:40	1525	1.24	0.9464	0.0508	0.0392	0.004323	0.004323		RQM
PCB-138 (C129)	39:40	1525	1.24	0.9464	0.0508	0.0392	0.004323	0.004323		RQM
PCB-160 (C129)	39:40	1525	1.24	0.9464	0.0508	0.0392	0.004323	0.004323		RQM
PCB-163 (C129)	39:40	1525	1.24	0.9464	0.0508	0.0392	0.004323	0.004323		RQM
PCB-128	40:55						0.004162	0.004162		RQU
PCB-166 (C128)	40:55						0.004162	0.004162		RQU
PCB-167	42:39						0.003207	0.003207		
PCB-156	43:48						0.004080	0.004080		
PCB-157 (C156)	43:48						0.004080	0.004080		
PCB-169	47:02						0.003349	0.003349		
S Total Heptachlorobiphenyls							0.0126	0.0126		
D PCB-188L	37:02	3532290	1.08	1.3133	95.3	95.3	0.0276	0.0276	95.31	
\$ PCB-178L	40:06	2344815	1.09	1.0313	80.6	80.6	0.0352	0.0352	80.57	
* PCB-180L	45:10	2821789	1.07		100.0	100.0				
D PCB-170L	46:26	2021008	1.08	0.8362	85.6	85.6	0.0434	0.0434	85.65	
D PCB-189L	49:32	4294190	1.04	1.4414	90.9	90.9	0.8443	0.8443	90.92	
PCB-187	41:00						0.001159	0.001159		
PCB-180	45:10						0.001093	0.001093		
PCB-193 (C180)	45:10						0.001093	0.001093		
PCB-170	46:27						0.001506	0.001506		
PCB-189	49:33						0.0126	0.0126		
S Total Octachlorobiphenyls							0.0208	0.0208		
D PCB-202L	42:24	2304500	0.91	0.9818	83.2	83.2	0.0277	0.0277	83.18	
* PCB-194L	51:37	3276850	0.92		100.0	100.0				
D PCB-205L	52:05	3387407	0.91	1.1786	87.7	87.7	0.0712	0.0712	87.71	
PCB-195	49:19						0.0208	0.0208		
S Total Nonachlorobiphenyls							0.1252	0.1252		
D PCB-208L	49:03	2804362	0.80	0.9576	89.4	89.4	0.3366	0.3366	89.37	
D PCB-206L	53:51	2060275	0.81	0.6947	90.5	90.5	0.4640	0.4640	90.51	
PCB-206	53:52						0.1252	0.1252		
D PCB-209L	55:28	2222449	0.71	0.6669	101.7	101.7	0.1433	0.1433	102	
DCB Decachlorobiphenyl	55:30						0.0109	0.0109		



Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
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S Polychlorinated biphenyls, Total

7.258

0.0384

0.0384

RQ

### QC Flag Legend

#### Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

#### Review Flags

M - Manually Integrated

U - Marked Undetected

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d  
Lims ID: 140-37234-A-8-D  
Client ID: M23 F-10 BOILER BT COMBINED  
Sample Type: Client  
Inject. Date: 16-Jul-2024 15:40:00 ALS Bottle#: 0 Worklist Smp#: 7  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033521-007  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 10:34:26 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICAL File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: TT6I

Date: 17-Jul-2024 10:34:26

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:38	11:38	-1	0.727	3818076	1482404	1255	3137	1181		
202.0766	11:38	11:38	-1	0.727	1207720	473839	3294	8235	144	3.16(2.66-3.60)	
PCB-3L											
200.0795	13:47	13:47	-1	0.862	4137110	1328034	1255	3137	1058		
202.0766	13:47	13:47	-1	0.862	1269094	411864	3294	8235	125	3.26(2.66-3.60)	
PCB-4L											
234.0406	14:02	14:02	-1	0.878	1336682	444009	745	1862	596		
236.0376	14:02	14:02	-1	0.878	842093	279115	129	322	2164	1.59(1.33-1.79)	
PCB-9L											
234.0406	16:00	16:00	0		3669098	1070957	745	1862	1438		
236.0376	16:00	16:00	0		2292070	665313	129	322	5157	1.60(1.33-1.79)	
PCB-8L											
234.0406	16:50	16:49	0	1.200	1435279	380178	745	1862	510		
236.0376	16:50	16:49	0	1.200	888437	236390	129	322	1832	1.62(1.33-1.79)	
PCB-15L											
234.0406	19:58	19:53	3	1.248	2971951	676995	745	1862	909		
236.0376	19:58	19:53	3	1.248	1770734	411829	129	322	3192	1.68(1.33-1.79)	
PCB-8											
222.0003	16:52	16:52	0	1.201	73108	19544	145	362	135		M
223.9974	16:52	16:52	0	1.201	47732	12313	298	745	41	1.53(1.33-1.79)	M
PCB-19L											
268.0016	17:09	17:08	0	0.840	859127	226920	569	1422	399		
269.9986	17:09	17:08	0	0.840	821979	222870	762	1905	292	1.05(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-32L											
268.0016	20:24	20:22	2		2171690	557511	569	1422	980		
269.9986	20:24	20:22	2		2038533	526089	762	1905	690	1.07(0.88-1.20)	
PCB-31L											
268.0016	22:38	22:37	1		5004189	1193724	740	1850	1613		
269.9986	22:38	22:37	1		4795340	1103250	480	1200	2298	1.04(0.88-1.20)	
PCB-28L											
268.0016	22:55	22:54	0	1.012	3516560	806057	740	1850	1089		
269.9986	22:55	22:54	0	1.012	3314208	755896	480	1200	1575	1.06(0.88-1.20)	
PCB-37L											
268.0016	26:55	26:54	0	1.189	3080308	601906	740	1850	813		
269.9986	26:55	26:54	0	1.189	2879262	569300	480	1200	1186	1.07(0.88-1.20)	
PCB-18											
255.9613	19:05	19:05	7	1.113	11395	2671	29	72	92		RQM
257.9584	19:05	19:05	7	1.113	14162	3414	35	87	98	0.80(0.88-1.20)	M
Empc Correction					10956	2568	35	87	73		
PCB-30 (C18)											
255.9613	19:05	19:05	7	1.113	11395	2671	29	72	92		RQM
257.9584	19:05	19:05	7	1.113	14162	3414	35	87	98	0.80(0.88-1.20)	M
Empc Correction					10956	2568	35	87	73		
PCB-20											
255.9613	22:58	22:56	0	0.853	54078	12244	93	232	132		
257.9584	22:57	22:56	0	0.852	55317	12401	110	275	113	0.98(0.88-1.20)	
PCB-28 (C20)											
255.9613	22:58	22:56	0	0.853	54078	12244	93	232	132		
257.9584	22:57	22:56	0	0.852	55317	12401	110	275	113	0.98(0.88-1.20)	
PCB-54L											
301.9626	20:15	20:12	2	0.818	797962	200004	104	260	1923		
303.9597	20:16	20:12	3	0.819	1003069	249160	80	200	3115	0.80(0.65-0.89)	
PCB-52L											
301.9626	24:45	24:45	0		2168055	485339	807	2017	601		
303.9597	24:45	24:45	0		2662685	602186	1280	3200	470	0.81(0.65-0.89)	
PCB-79L											
301.9626	32:39	32:40	0	0.970	1275542	237917	807	2017	295		
303.9597	32:39	32:40	0	0.970	1620576	307423	1280	3200	240	0.79(0.65-0.89)	
PCB-81L											
301.9626	33:39	33:37	0	1.360	2111466	409480	807	2017	507		
303.9597	33:39	33:37	0	1.360	2639526	507105	1280	3200	396	0.80(0.65-0.89)	
PCB-77L											
301.9626	34:13	34:12	0	1.383	2285910	419158	807	2017	519		
303.9597	34:13	34:12	0	1.383	2833389	521245	1280	3200	407	0.81(0.65-0.89)	
PCB-52											
289.9224	24:47	24:46	0	1.224	14676	4016	33	82	122		
291.9194	24:47	24:46	1	1.224	19246	3583	78	195	46	0.76(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-44											
289.9224	25:48	25:33	2	1.274	71457	16429	33	82	498		
291.9194	25:48	25:33	2	1.274	91137	20098	78	195	258	0.78(0.65-0.89)	
PCB-47 (C44)											
289.9224	25:48	25:33	2	1.274	71457	16429	33	82	498		
291.9194	25:48	25:33	2	1.274	91137	20098	78	195	258	0.78(0.65-0.89)	
PCB-65 (C44)											
289.9224	25:48	25:33	2	1.274	71457	16429	33	82	498		
291.9194	25:48	25:33	2	1.274	91137	20098	78	195	258	0.78(0.65-0.89)	
PCB-66											
289.9224	29:52	29:52	0	0.887	7844	1600	33	82	48		
291.9194	29:51	29:52	-1	0.887	10695	1763	78	195	23	0.73(0.65-0.89)	
PCB-81											
289.9224	33:40						33	82			
291.9194	33:40						78	195			
PCB-77											
289.9224	34:13	34:16	-1	1.000	1732	540	33	82	16		
291.9194	34:15	34:16	0	1.001	3975	1364	78	195	17	0.44(0.65-0.89)	
Empc Correction					2249	701	78	195	9		
PCB-104L											
337.9207	25:41	25:40	0	0.813	1885843	429357	121	302	3548		
339.9178	25:41	25:40	0	0.813	1160154	255813	51	127	5016	1.63(1.32-1.78)	
PCB-95L											
337.9207	28:40	28:39	0	1.116	808942	175764	121	302	1453		
339.9178	28:40	28:39	0	1.116	500926	106167	51	127	2082	1.61(1.32-1.78)	
PCB-101L											
337.9207	31:34	31:34	0		1991428	406672	121	302	3361		
339.9178	31:34	31:34	0		1262236	251657	51	127	4934	1.58(1.32-1.78)	
PCB-111L											
337.9207	34:15	34:12	1	1.085	2090486	409050	121	302	3381		
339.9178	34:15	34:12	1	1.085	1293986	256755	51	127	5034	1.62(1.32-1.78)	
PCB-123L											
337.9207	36:13	36:11	1	1.147	3027585	595012	2104	5260	283		
339.9178	36:13	36:11	1	1.147	1887770	372958	2562	6405	146	1.60(1.32-1.78)	
PCB-118L											
337.9207	36:31	36:30	1	1.157	2889018	553069	2104	5260	263		
339.9178	36:31	36:30	1	1.157	1821534	361742	2562	6405	141	1.59(1.32-1.78)	
PCB-114L											
337.9207	37:03	37:02	0	1.173	3172881	632899	2104	5260	301		
339.9178	37:03	37:02	0	1.173	1994523	395856	2562	6405	155	1.59(1.32-1.78)	
PCB-105L											
337.9207	37:43	37:41	1	1.195	2818908	541632	2104	5260	257		
339.9178	37:42	37:41	0	1.194	1785800	346980	2562	6405	135	1.58(1.32-1.78)	
PCB-127L											
337.9207	39:11	39:10	1		3490719	677230	2104	5260	322		
339.9178	39:11	39:10	1		2212851	421958	2562	6405	165	1.58(1.32-1.78)	

RQ

	Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
	PCB-126L											
	337.9207	40:48	40:46	0	1.292	2800169	515374	2104	5260	245		
	339.9178	40:48	40:46	0	1.292	1740902	331789	2562	6405	130	1.61(1.32-1.78)	
	PCB-90											
	325.8804	31:36	31:37	2	1.230	5904	976	65	162	15		RQM
		Empc Correction				4711	1032	65	162	16		M
	327.8775	31:37	31:37	3	1.231	3040	666	6	15	111	1.94(1.32-1.78)	M
	PCB-101 (C90)											
	325.8804	31:36	31:37	2	1.230	5904	976	65	162	15		RQM
		Empc Correction				4711	1032	65	162	16		M
	327.8775	31:37	31:37	3	1.231	3040	666	6	15	111	1.94(1.32-1.78)	M
	PCB-113 (C90)											
	325.8804	31:36	31:37	2	1.230	5904	976	65	162	15		RQM
		Empc Correction				4711	1032	65	162	16		M
	327.8775	31:37	31:37	3	1.231	3040	666	6	15	111	1.94(1.32-1.78)	M
	PCB-123											
	325.8804	36:13						85	212			
	327.8775	36:13						35	87			
	PCB-118											
	325.8804	36:33						85	212			
	327.8775	36:33						35	87			
	PCB-114											
	325.8804	37:06	37:04	2	1.001	1323	369	85	212	4		RQ
	327.8775	36:59	37:04	-5	0.998	1145	247	35	87	7	1.16(1.32-1.78)	
		Empc Correction				853	238	35	87	7		
	PCB-105											
	325.8804	37:43	37:45	-1	1.000	2237	556	85	212	7		RQ
		Empc Correction				1503	404	85	212	5		
	327.8775	37:46	37:45	1	1.001	970	261	35	87	7	2.31(1.32-1.78)	
	PCB-126											
	325.8804	40:48						85	212			
	327.8775	40:48						35	87			
	PCB-155L											
	371.8817	31:19	31:18	0	0.790	1655877	342992	60	150	5717		
	373.8788	31:19	31:18	0	0.790	1320140	267674	37	92	7234	1.25(1.05-1.43)	
	PCB-153L											
	371.8817	38:23	38:23	0	0.900	1090089	207357	1117	2792	186		
	373.8788	38:23	38:23	0	0.900	855233	161578	1077	2692	150	1.27(1.05-1.43)	
	PCB-138L											
	371.8817	39:38	39:38	0		2061891	408662	1117	2792	366		
	373.8788	39:38	39:38	0		1633833	327221	1077	2692	304	1.26(1.05-1.43)	
	PCB-167L											
	371.8817	42:38	42:36	1	1.076	2186843	418935	1117	2792	375		
	373.8788	42:38	42:36	1	1.076	1724193	335626	1077	2692	312	1.27(1.05-1.43)	
	PCB-156L											
	371.8817	43:48	43:47	1	1.105	4894969	670193	1117	2792	600		
	373.8788	43:48	43:47	1	1.105	3799002	521825	1077	2692	485	1.29(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-157L (C156L)											
371.8817	43:48	43:47	1	1.105	4894969	670193	1117	2792	600		
373.8788	43:48	43:47	1	1.105	3799002	521825	1077	2692	485	1.29(1.05-1.43)	
PCB-169L											
371.8817	47:01	47:00	0	1.186	2132175	382584	1117	2792	343		
373.8788	47:01	47:00	0	1.186	1695172	310784	1077	2692	289	1.26(1.05-1.43)	
PCB-153											
359.8415	38:25	38:26	-1	0.901	2350	656	10	25	66		RQ
	Empc Correction				715	244	10	25	24		
361.8385	38:26	38:26	0	0.901	577	197	1	2	197	4.07(1.05-1.43)	
PCB-168 (C153)											
359.8415	38:25	38:26	-1	0.901	2350	656	10	25	66		RQ
	Empc Correction				715	244	10	25	24		
361.8385	38:26	38:26	0	0.901	577	197	1	2	197	4.07(1.05-1.43)	
PCB-129											
359.8415	39:40	39:45	0	0.930	1295	270	10	25	27		RQM
	Empc Correction				844	198	10	25	20		
361.8385	39:45	39:45	5	0.932	681	160	1	2	160	1.90(1.05-1.43)	M
PCB-138 (C129)											
359.8415	39:40	39:45	0	0.930	1295	270	10	25	27		RQM
	Empc Correction				844	198	10	25	20		
361.8385	39:45	39:45	5	0.932	681	160	1	2	160	1.90(1.05-1.43)	M
PCB-160 (C129)											
359.8415	39:40	39:45	0	0.930	1295	270	10	25	27		RQM
	Empc Correction				844	198	10	25	20		
361.8385	39:45	39:45	5	0.932	681	160	1	2	160	1.90(1.05-1.43)	M
PCB-163 (C129)											
359.8415	39:40	39:45	0	0.930	1295	270	10	25	27		RQM
	Empc Correction				844	198	10	25	20		
361.8385	39:45	39:45	5	0.932	681	160	1	2	160	1.90(1.05-1.43)	M
PCB-128											
359.8415	40:54						10	25			RQU
361.8385	40:54						1	2			
PCB-166 (C128)											
359.8415	40:54						10	25			RQU
361.8385	40:54						1	2			
PCB-167											
359.8415	42:40						10	25			
361.8385	42:40						1	2			
PCB-156											
359.8415	43:49						10	25			
361.8385	43:49						1	2			
PCB-157 (C156)											
359.8415	43:49						10	25			
361.8385	43:49						1	2			
PCB-169											
359.8415	47:02						10	25			
361.8385	47:02						1	2			

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-188L											
405.8428	37:02	37:01	1	0.820	1831531	367093	21	52	17481		
407.8398	37:02	37:01	1	0.820	1700759	337698	59	147	5724	1.08(0.89-1.21)	
PCB-178L											
405.8428	40:06	40:04	1	0.888	1224223	237309	21	52	11300		
407.8398	40:05	40:04	0	0.887	1120592	217809	59	147	3692	1.09(0.89-1.21)	
PCB-180L											
405.8428	45:10	45:10	1		1455822	283297	21	52	13490		
407.8398	45:09	45:10	0		1365967	267890	59	147	4541	1.07(0.89-1.21)	
PCB-170L											
405.8428	46:26	46:25	0	1.028	1050140	209216	21	52	9963		
407.8398	46:26	46:25	0	1.028	970868	182551	59	147	3094	1.08(0.89-1.21)	
PCB-189L											
405.8428	49:32	49:31	0	1.097	2190471	410532	2295	5737	179		
407.8398	49:32	49:31	0	1.097	2103719	391236	645	1612	607	1.04(0.89-1.21)	
PCB-187											
393.8025	41:01						2	5			
395.7995	41:01						1	2			
PCB-180											
393.8025	45:10						2	5			
395.7995	45:10						1	2			
PCB-193 (C180)											
393.8025	45:10						2	5			
395.7995	45:10						1	2			
PCB-170											
393.8025	46:27						2	5			
395.7995	46:27						1	2			
PCB-189											
393.8025	49:33						29	72			
395.7995	49:33						10	25			
PCB-202L											
439.8038	42:24	42:23	0	0.821	1100106	221175	19	47	11641		
441.8008	42:24	42:23	0	0.821	1204394	237106	41	102	5783	0.91(0.76-1.02)	
PCB-194L											
439.8038	51:37	51:38	-1		1574145	283837	109	272	2604		
441.8008	51:38	51:38	0		1702705	320141	94	235	3406	0.92(0.76-1.02)	
PCB-205L											
439.8038	52:05	52:05	-1	1.009	1617417	296527	109	272	2720		
441.8008	52:05	52:05	-1	1.009	1769990	314430	94	235	3345	0.91(0.76-1.02)	
PCB-195											
427.7635	49:18						36	90			
429.7606	49:18						6	15			
PCB-208L											
473.7648	49:03	49:02	0	0.950	1245190	242887	509	1272	477		
475.7619	49:03	49:02	0	0.950	1559172	302018	270	675	1119	0.80(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-206L											
473.7648	53:51	53:51	-1	1.043	921595	179072	509	1272	352		
475.7619	53:51	53:51	-1	1.043	1138680	220164	270	675	815	0.81(0.65-0.89)	
PCB-206											
461.7246	53:51						2	5			
463.7216	53:51						265	662			
PCB-209L											
507.7258	55:28	55:27	0	1.075	921416	163789	83	207	1973		
509.7229	55:27	55:27	-1	1.074	1301033	228233	148	370	1542	0.71(0.59-0.79)	
DCB Decachlorobiphenyl											
495.6856	55:30						8	20			
497.6826	55:30						11	27			

### QC Flag Legend

#### Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

#### Review Flags

M - Manually Integrated

U - Marked Undetected



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d

Injection Date: 16-Jul-2024 15:40:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER BT COMBINED

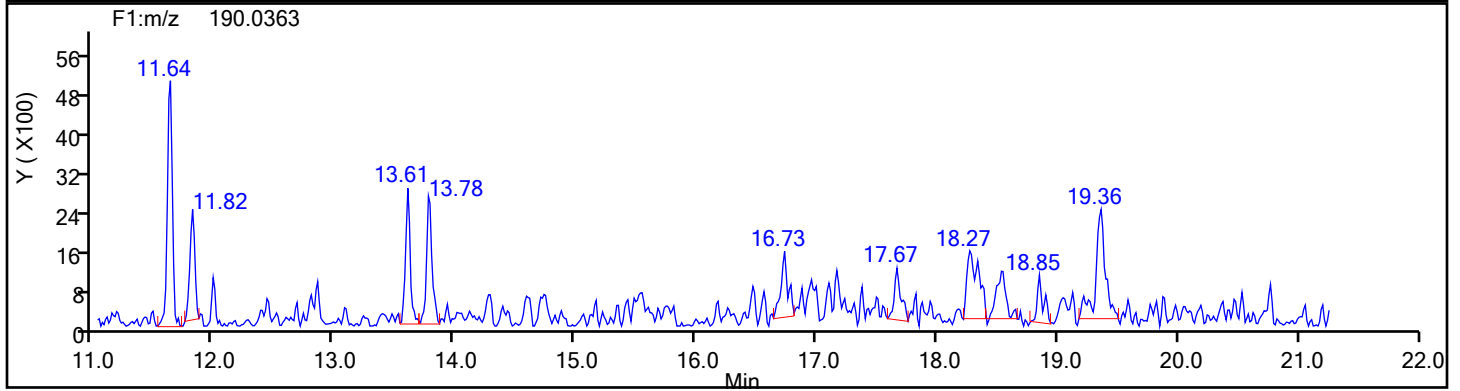
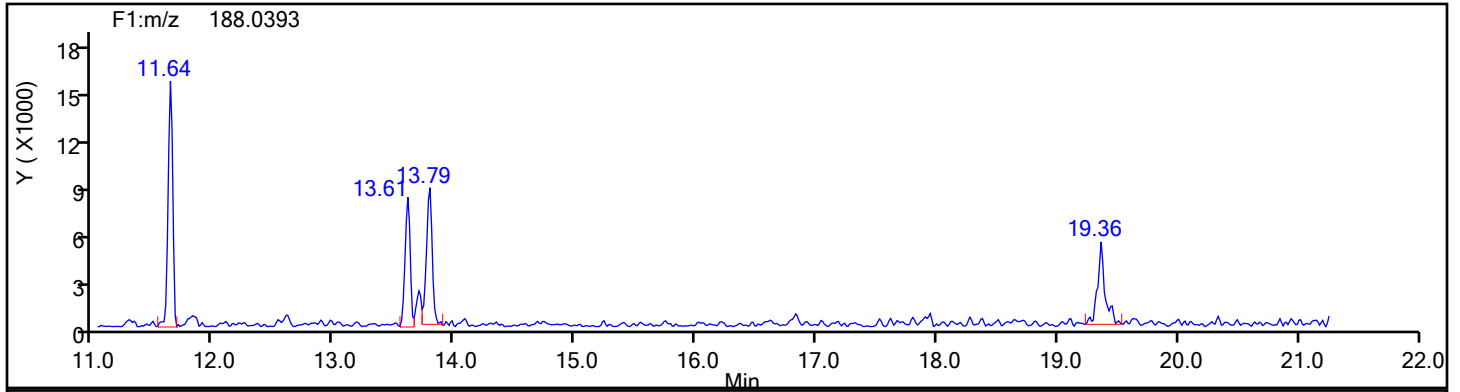
Worklist#: 88809

Sample Line#: 7

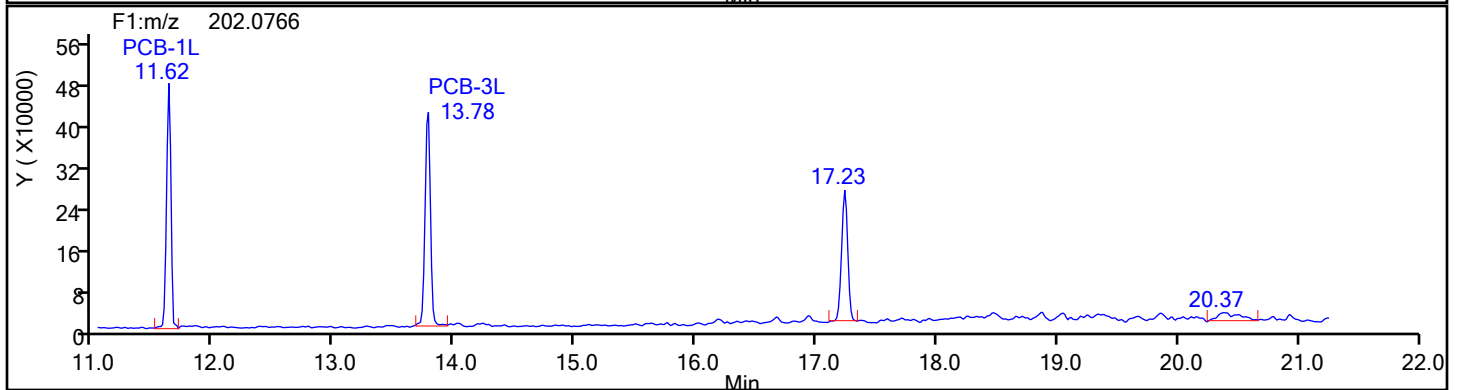
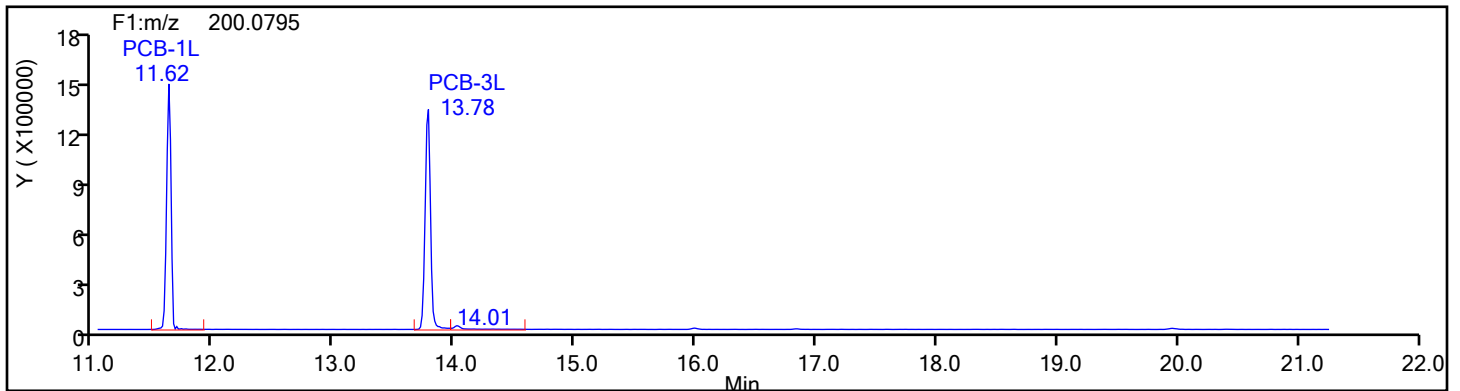
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d

Injection Date: 16-Jul-2024 15:40:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER BT COMBINED

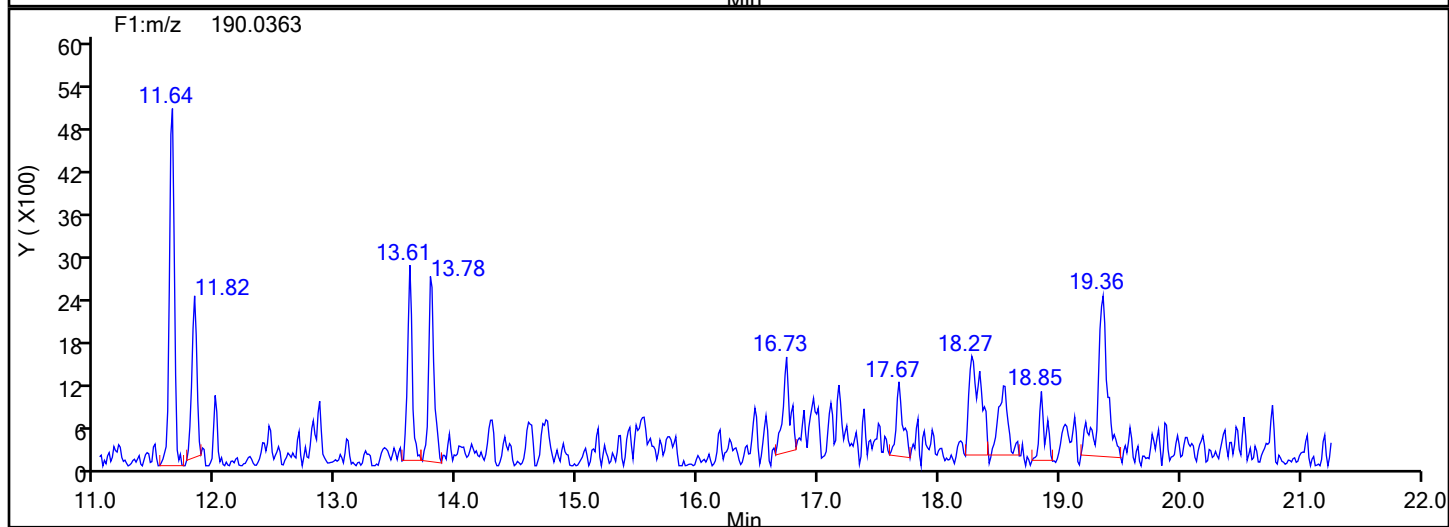
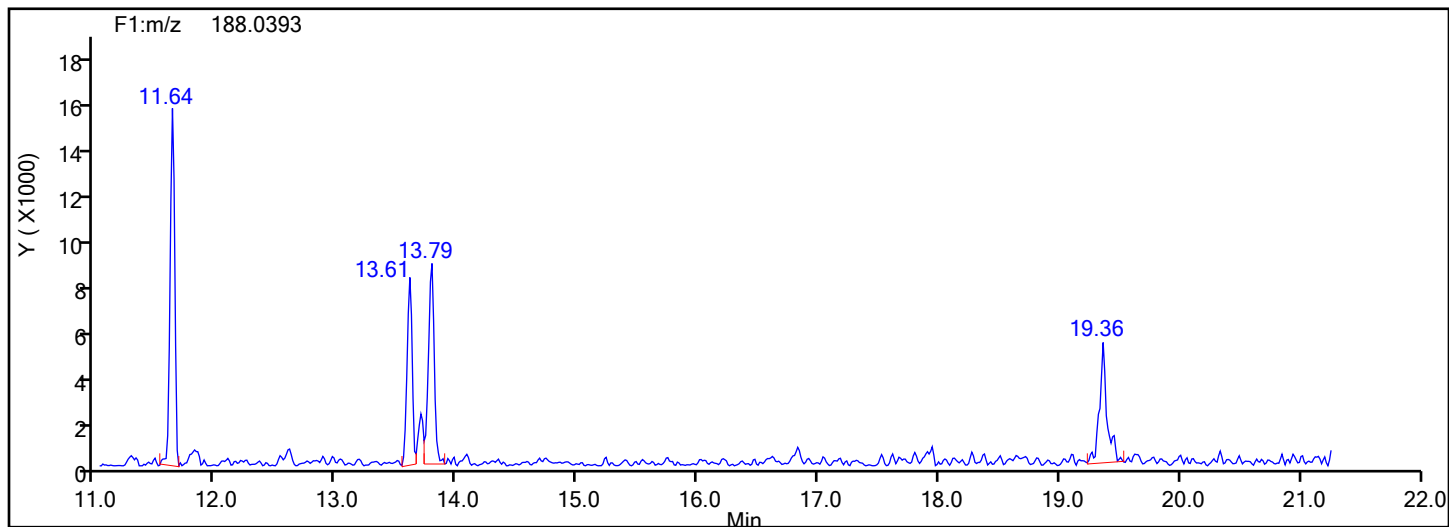
Worklist#: 88809

Sample Line#: 7

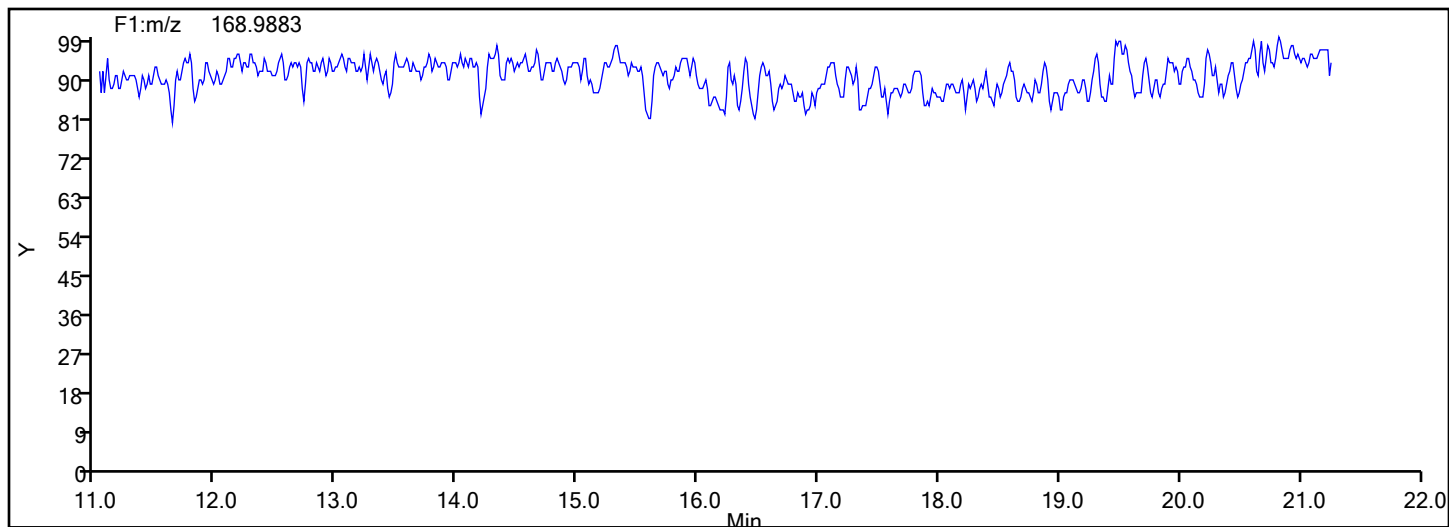
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Lock Mass



## Eurofins Knoxville

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Injection Date: 16-Jul-2024 15:40:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER BT COMBINED

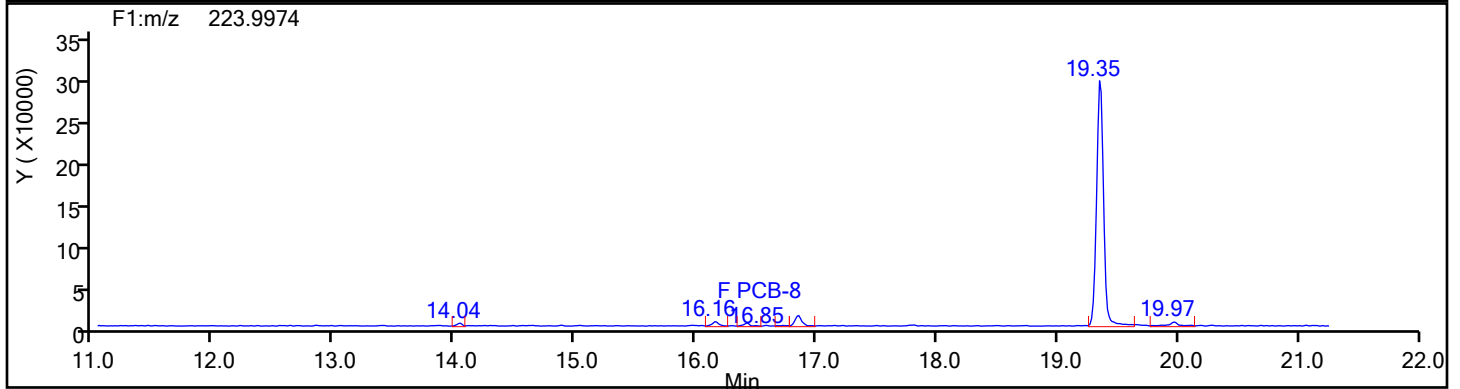
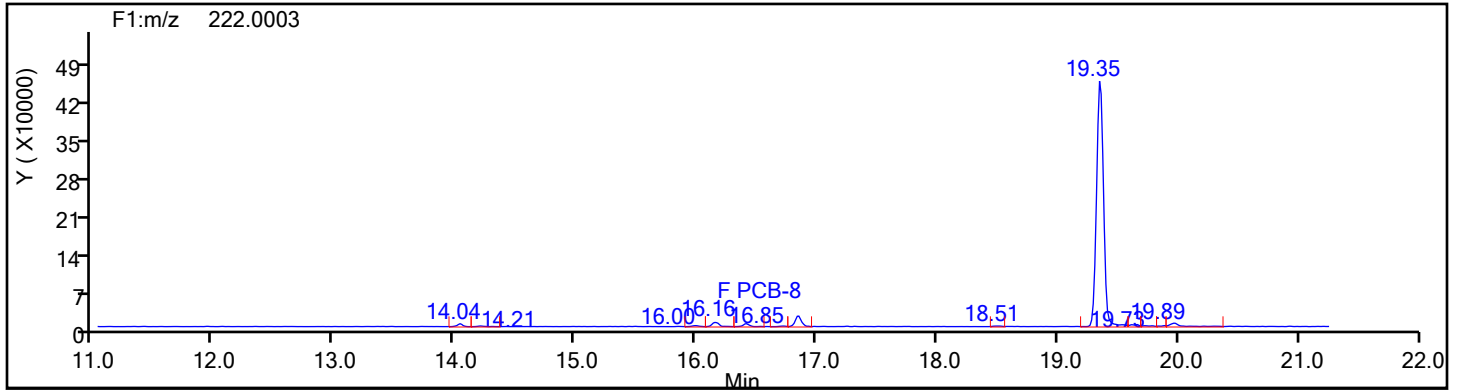
Worklist#: 88809

Sample Line#: 7

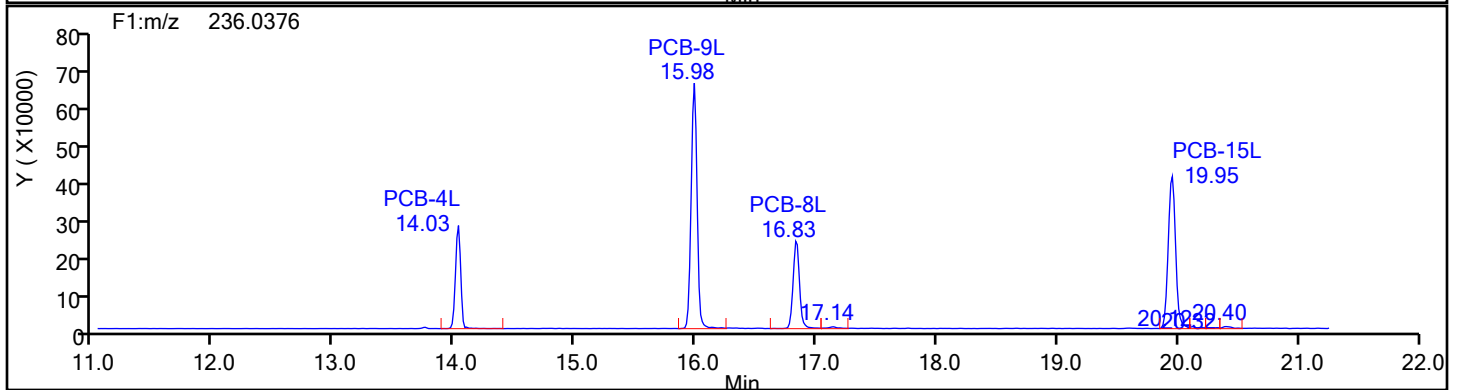
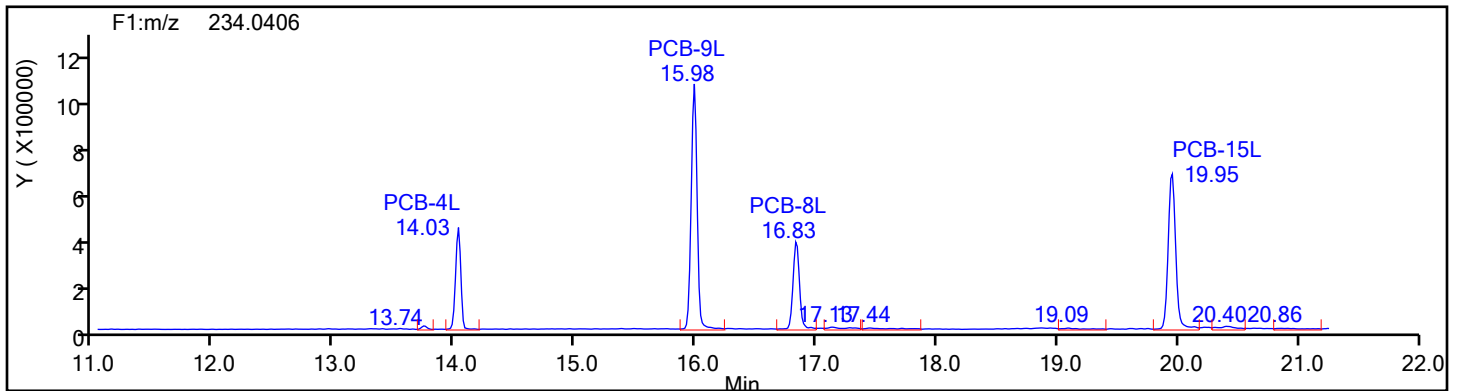
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1

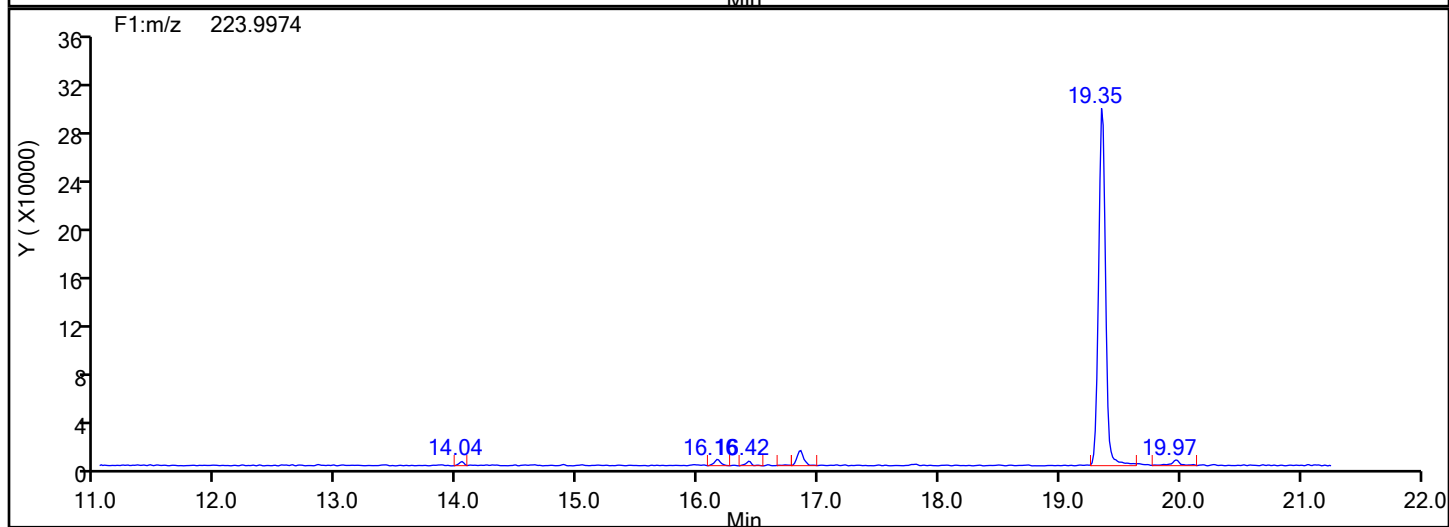
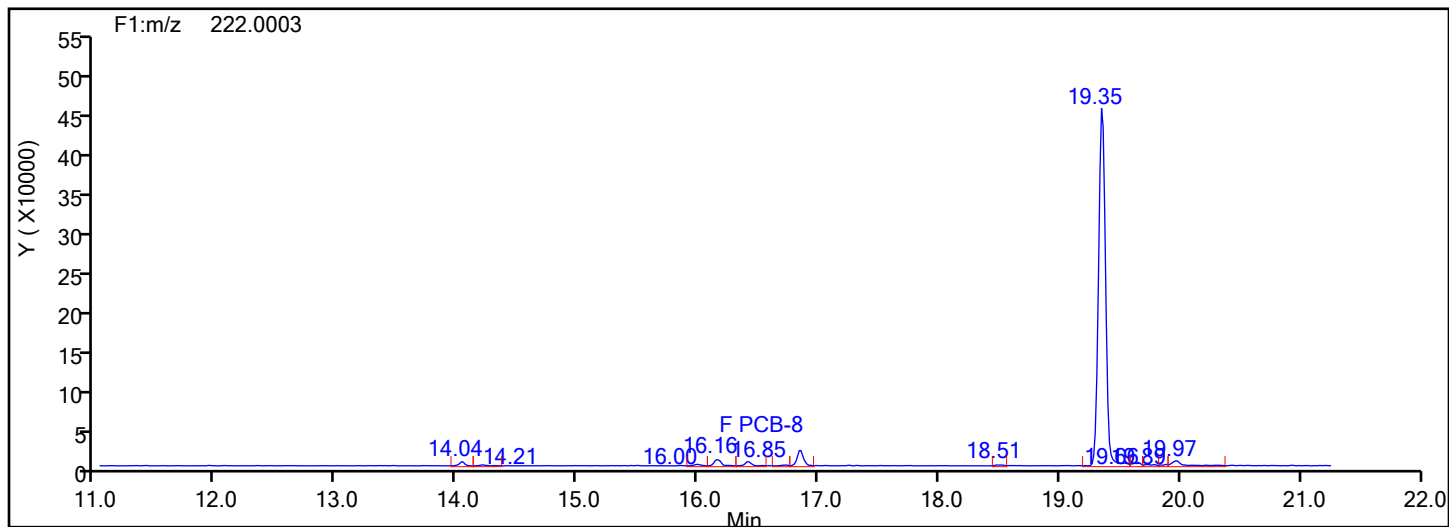


DiPCB F1 Standards

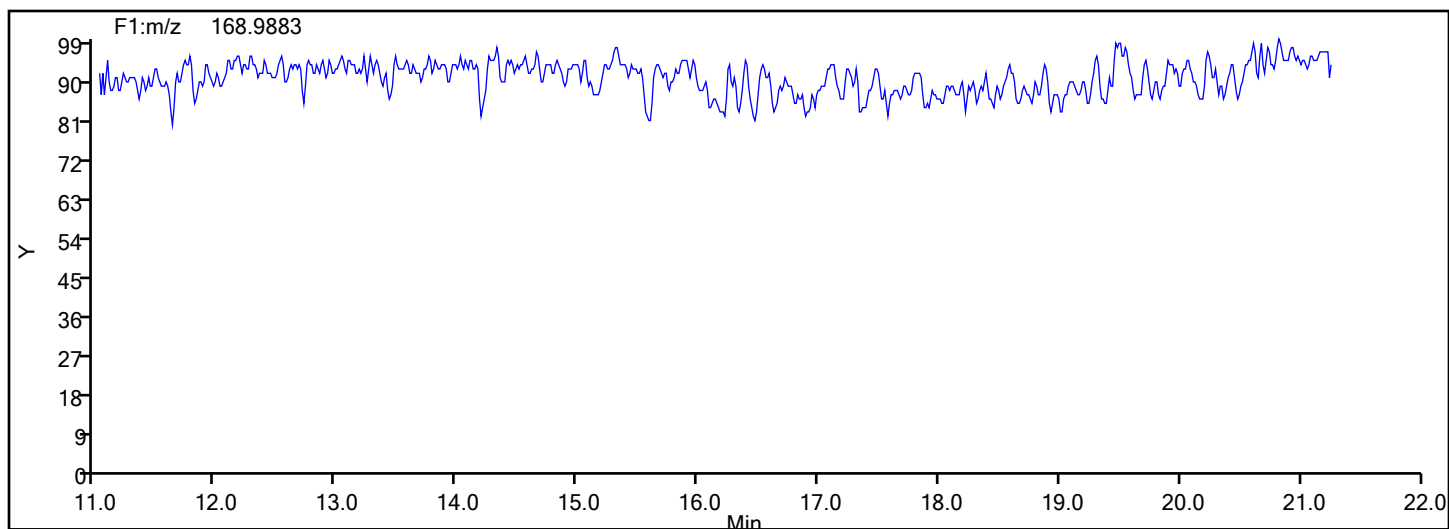


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d  
Injection Date: 16-Jul-2024 15:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 88809 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DiPCB F1



## DiPCB F1 Lock Mass



## Eurofins Knoxville

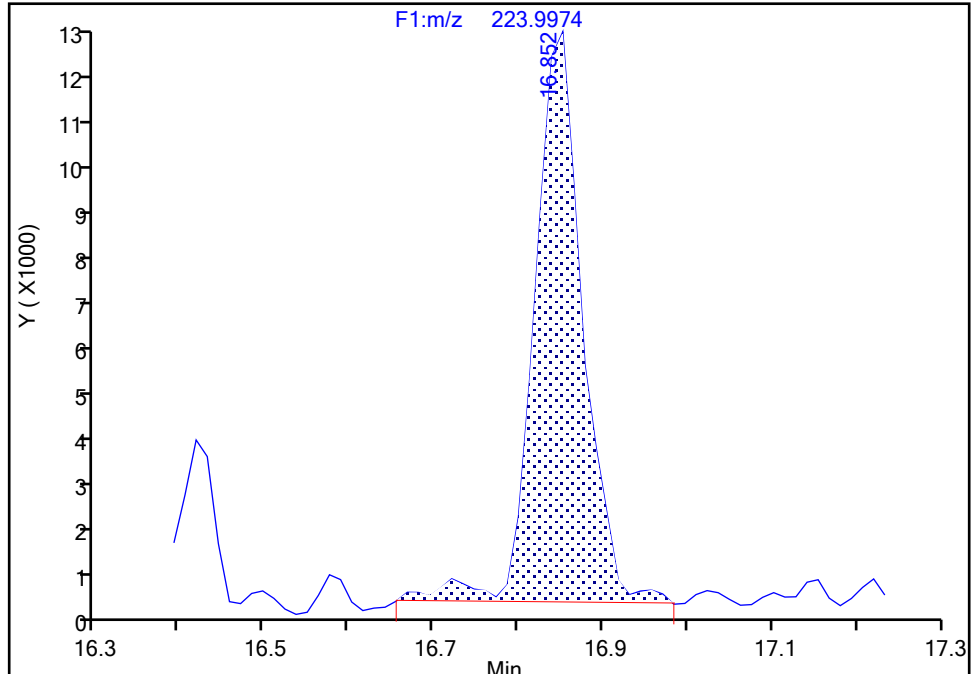
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Injection Date: 16-Jul-2024 15:40:00 Instrument ID: D2D  
Lims ID: 140-37234-A-8-D Lab Sample ID: 140-37234-8  
Client ID: M23 F-10 BOILER BT COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 7  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F1(11.07 :21.70 )

PCB-8, CAS: 34883-43-7

Signal: 2

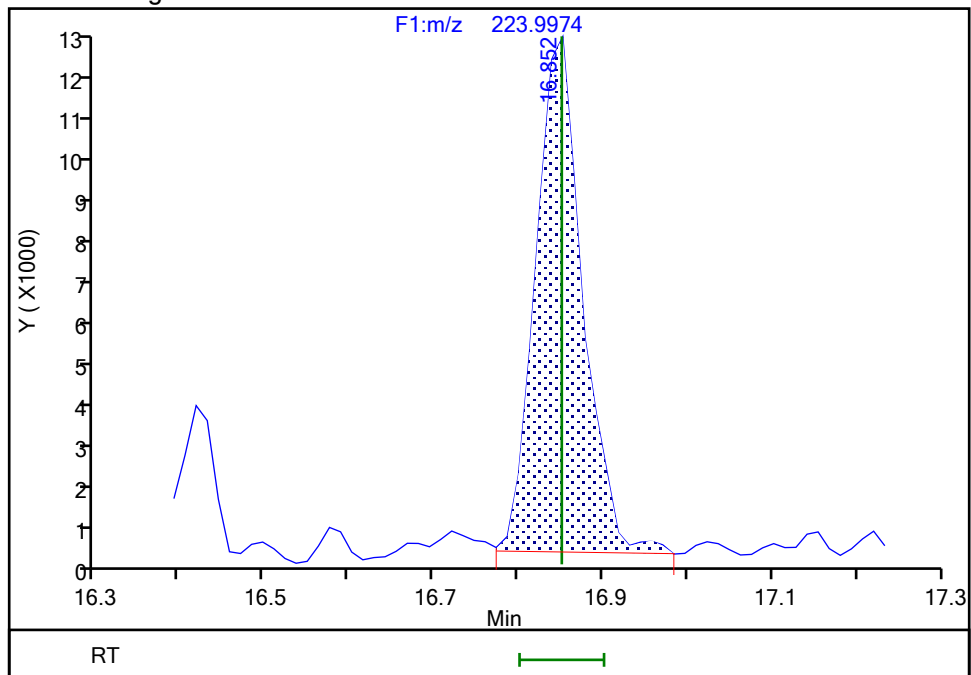
RT: 16.85  
Area: 49524  
Amount: 2.230207  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.85  
Area: 47732  
Amount: 2.197617  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 10:31:29 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d

Injection Date: 16-Jul-2024 15:40:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER BT COMBINED

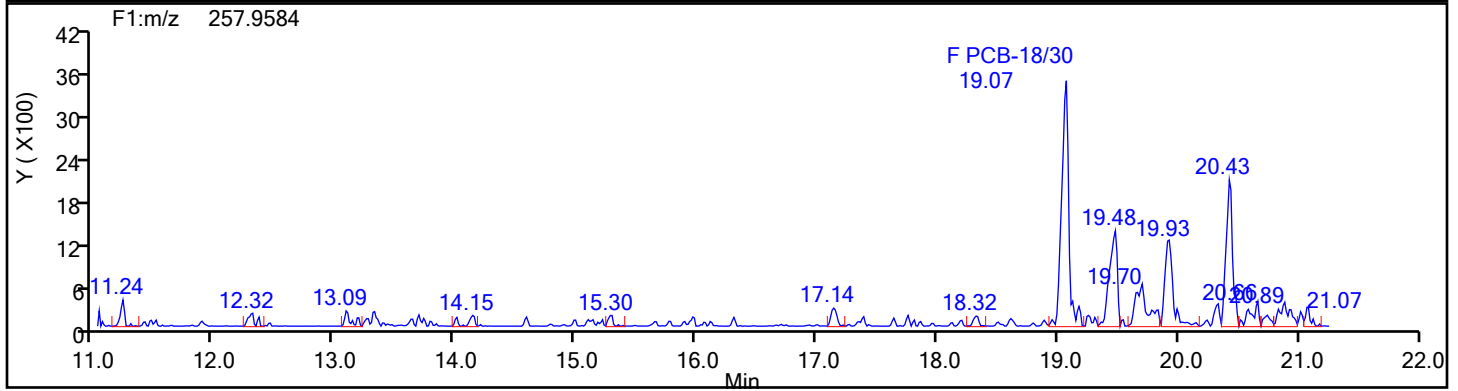
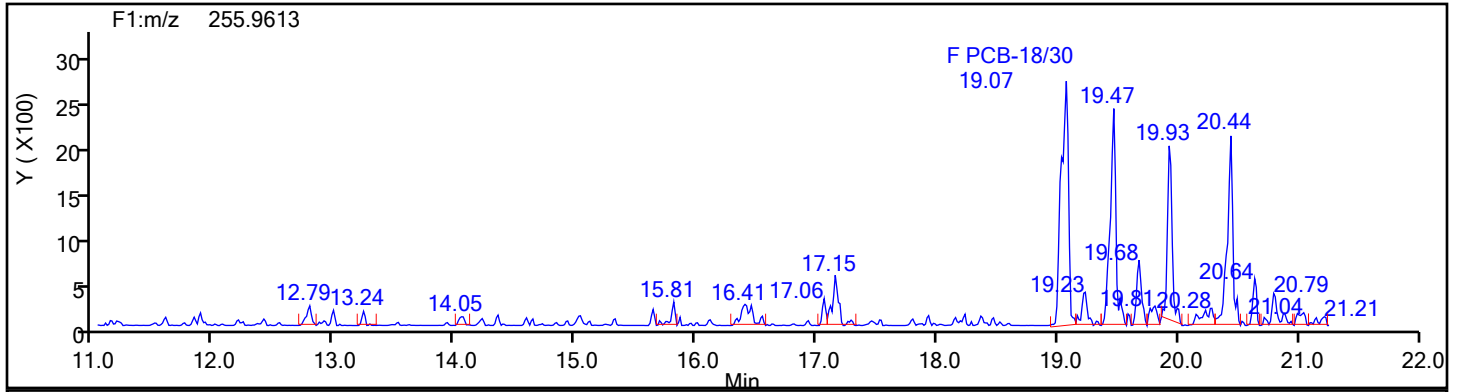
Worklist#: 88809

Sample Line#: 7

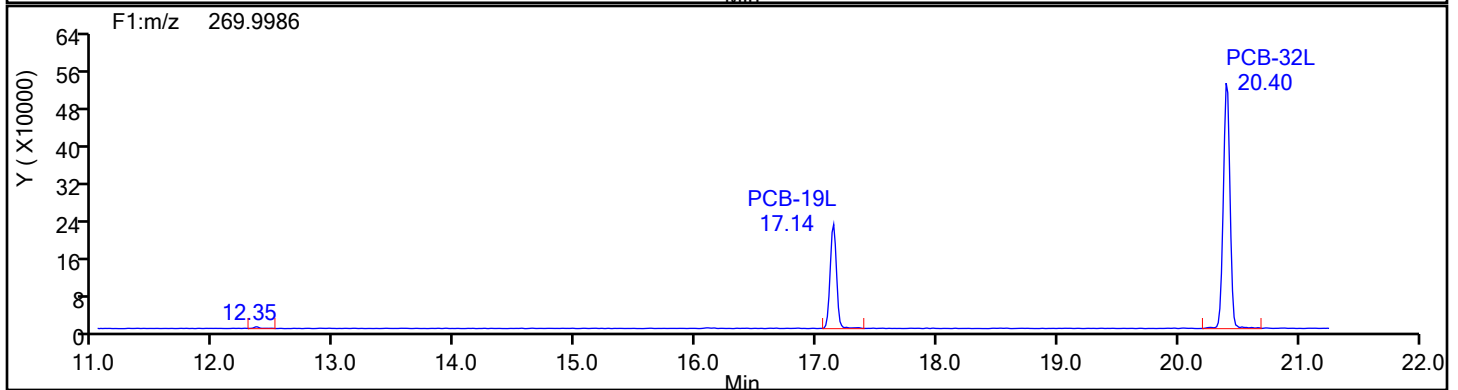
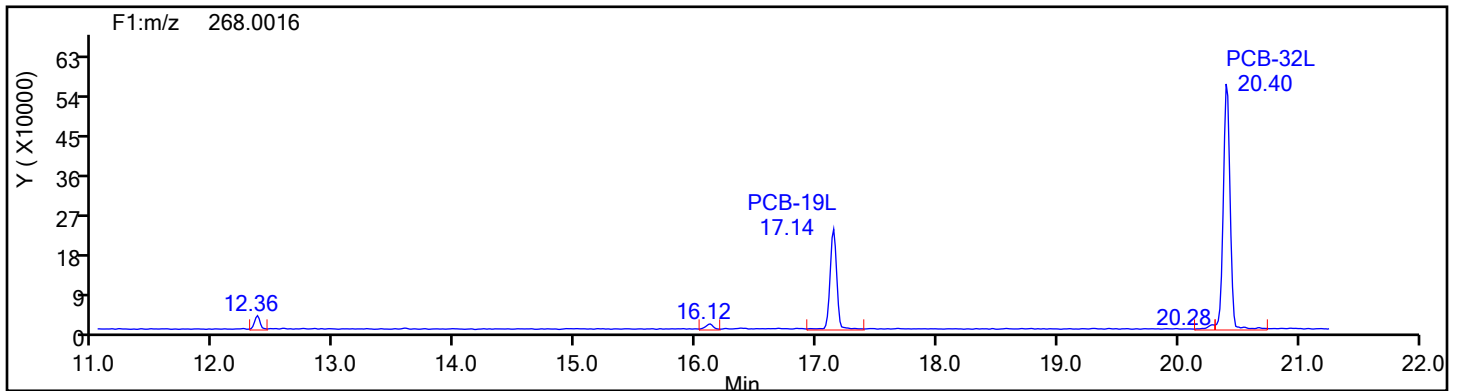
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1

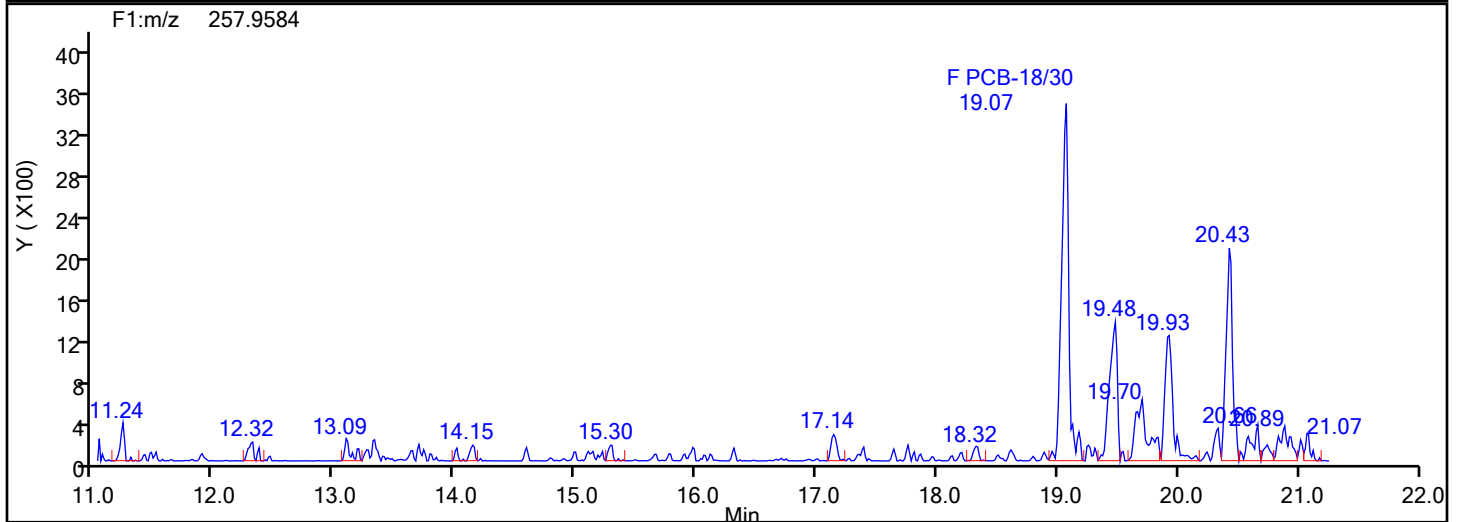
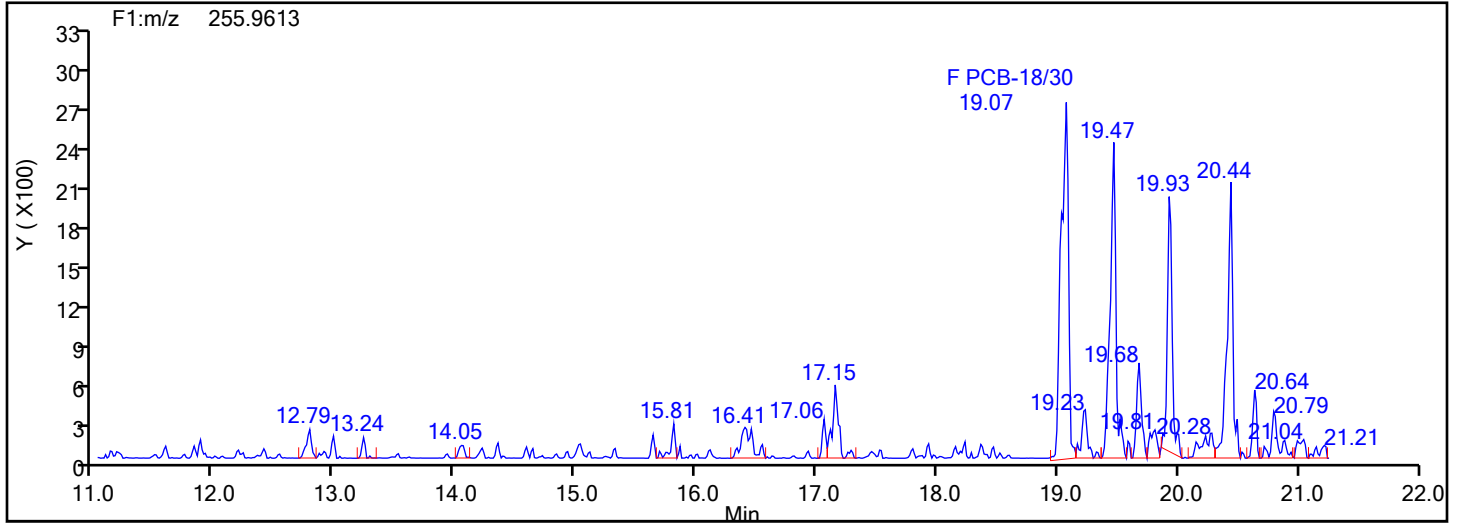


TriPCB F1 Standards

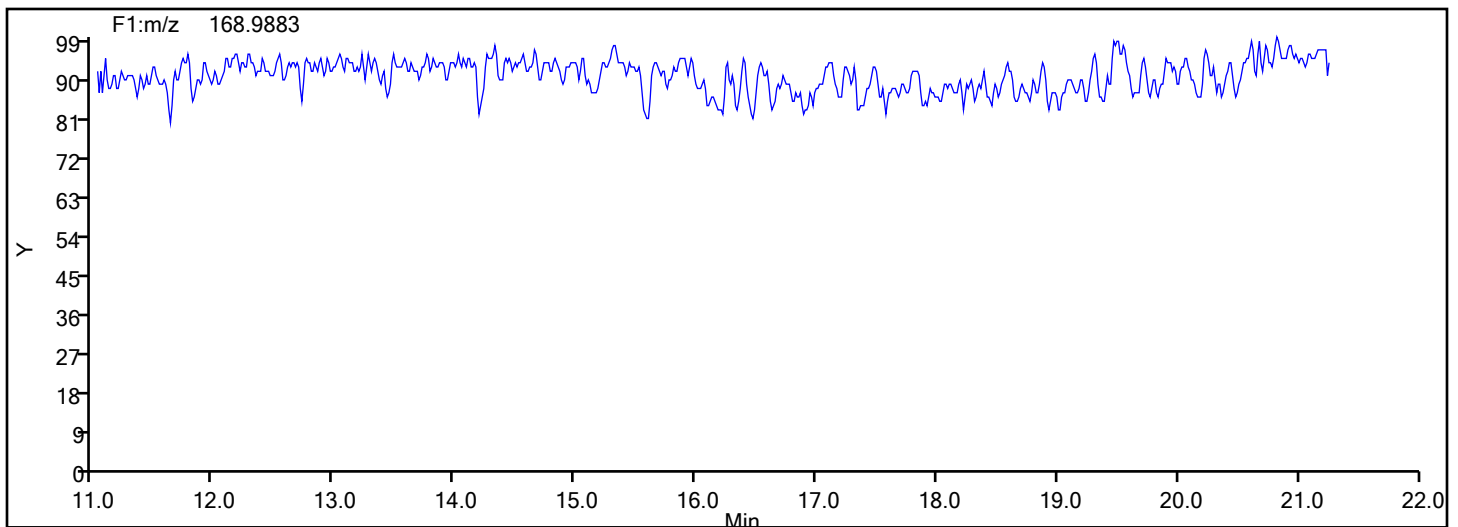


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d  
Injection Date: 16-Jul-2024 15:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 88809 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F1



## TriPCB F1 Lock Mass



## Eurofins Knoxville

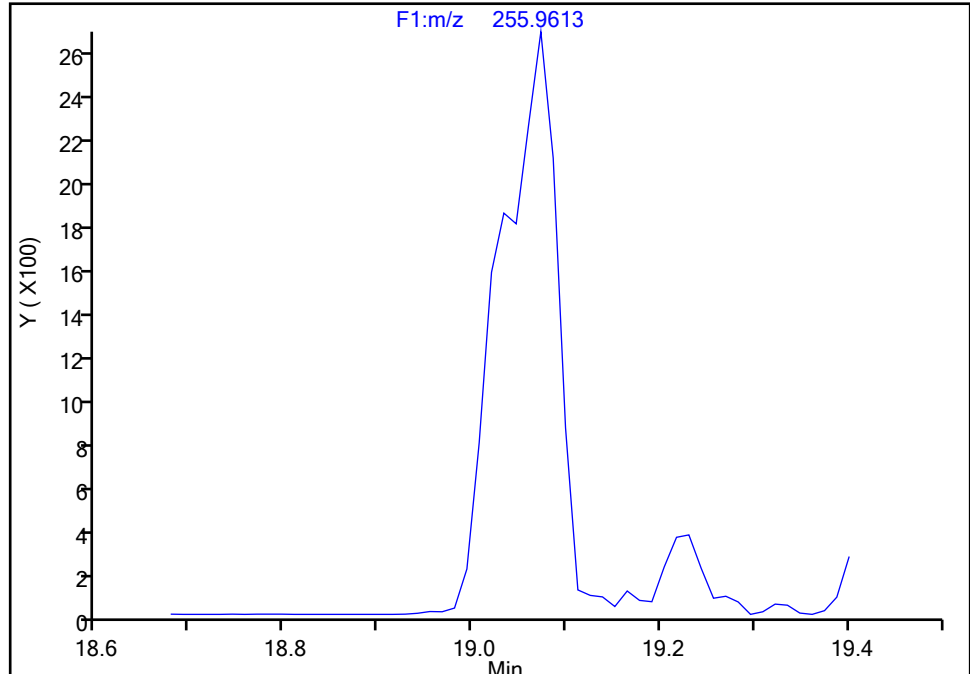
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Injection Date: 16-Jul-2024 15:40:00 Instrument ID: D2D  
Lims ID: 140-37234-A-8-D Lab Sample ID: 140-37234-8  
Client ID: M23 F-10 BOILER BT COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 7  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F1(11.07 :21.70 )

**PCB-18/30, CAS: STL01798**

Signal: 1

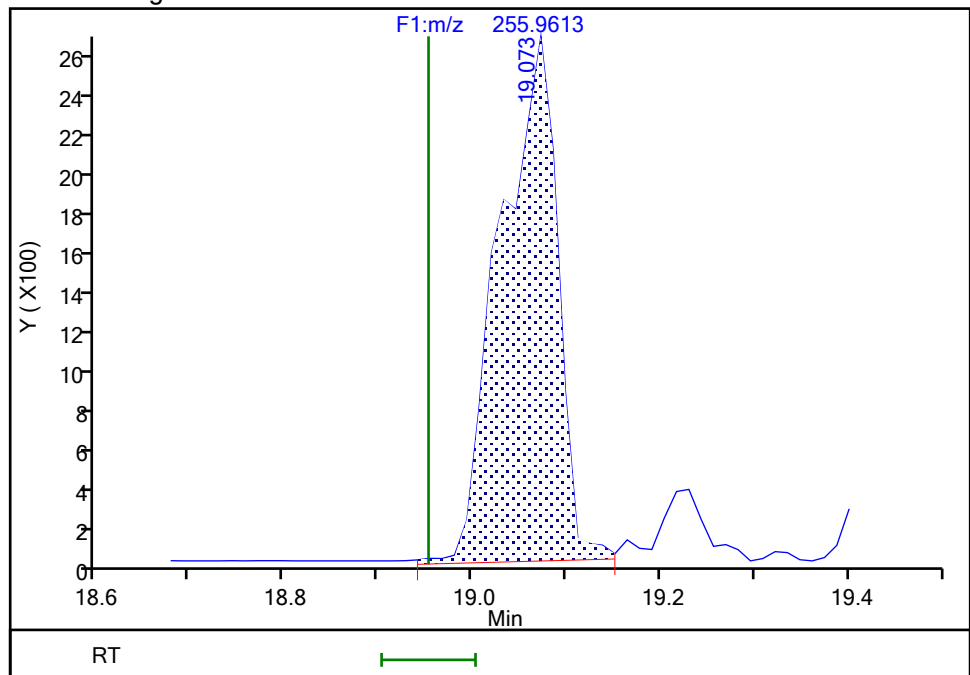
Not Detected  
Expected RT: 18.95

## Processing Integration Results



RT: 19.07  
Area: 11395  
Amount: 0.861224  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 10:31:51 -04:00:00 (UTC)

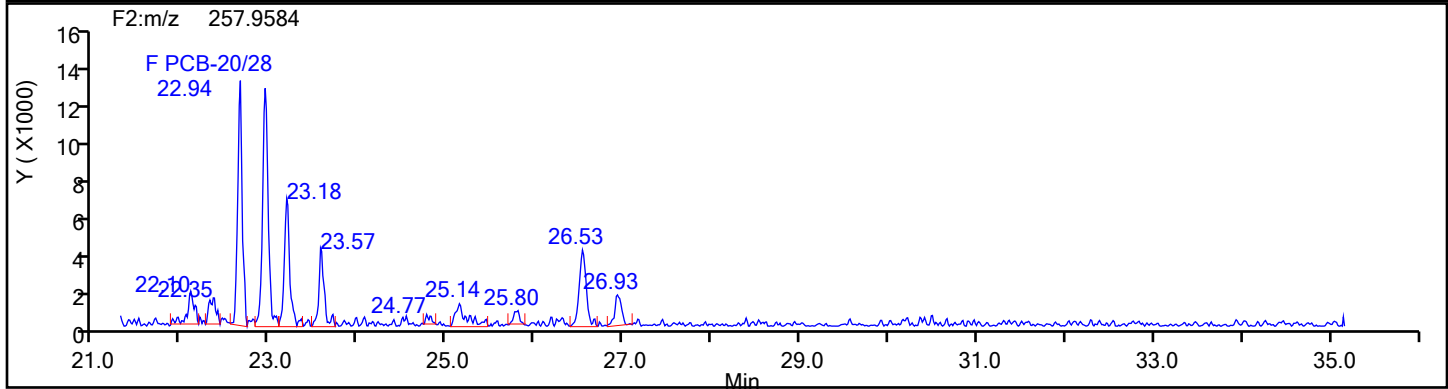
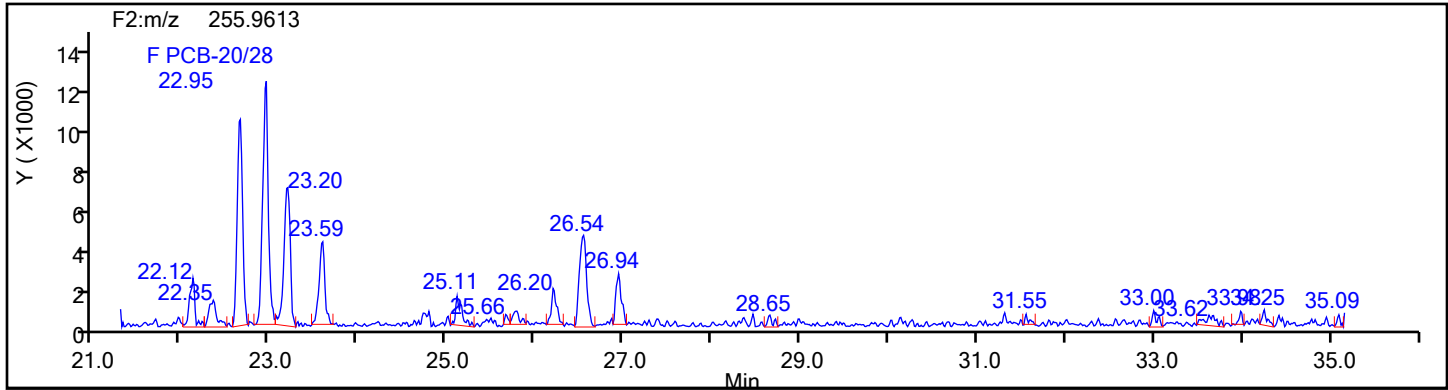
Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

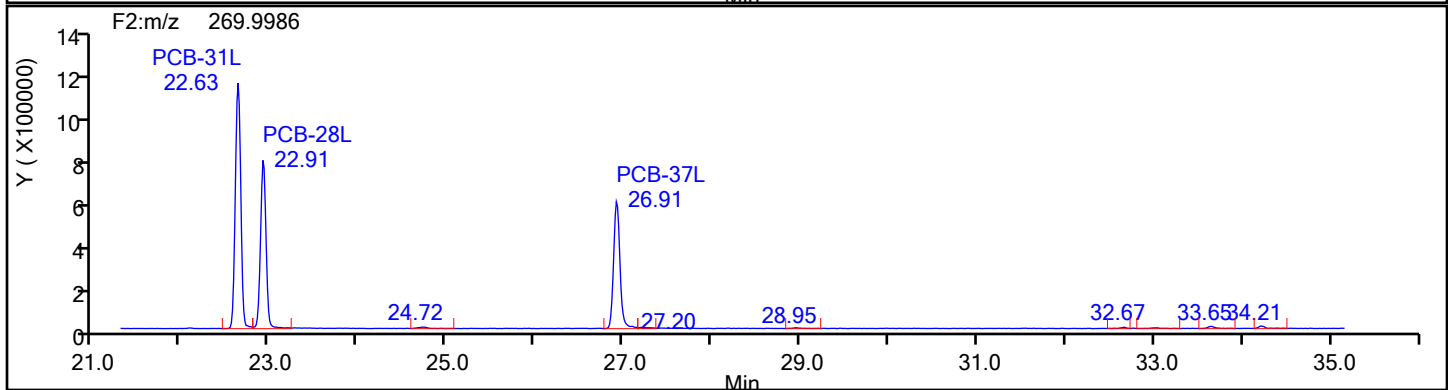
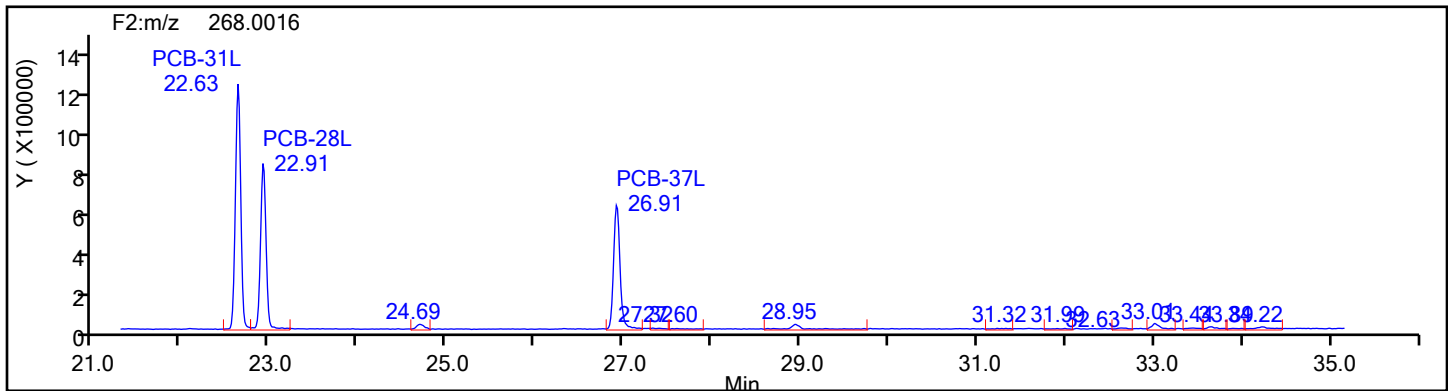


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d  
Injection Date: 16-Jul-2024 15:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 88809 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F2



## TriPCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d

Injection Date: 16-Jul-2024 15:40:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER BT COMBINED

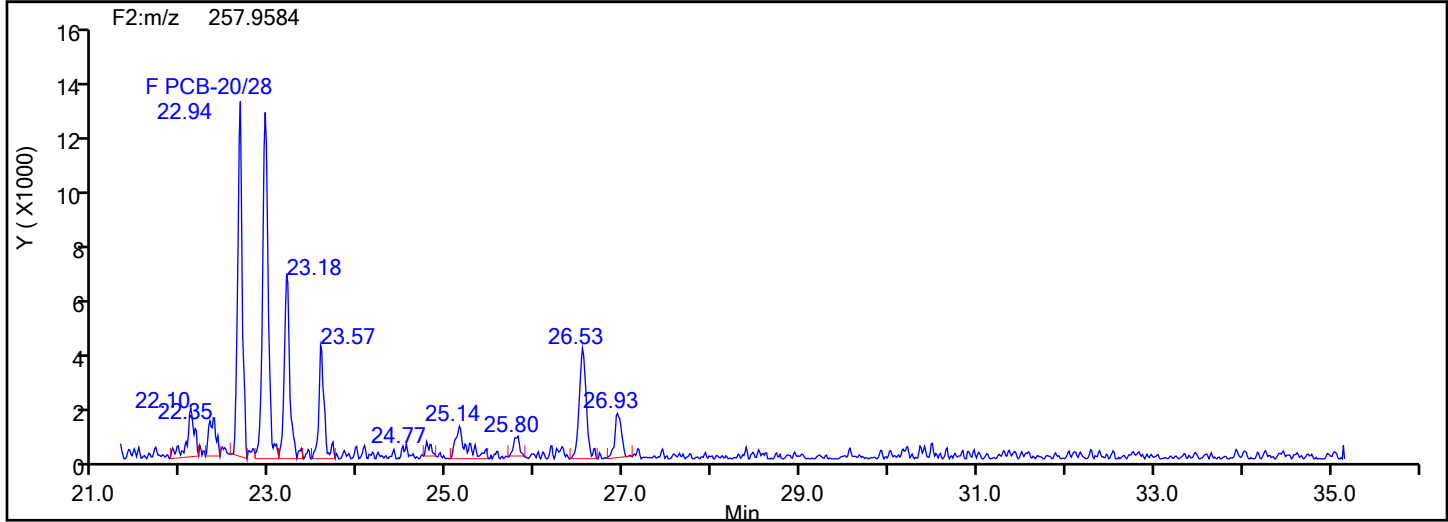
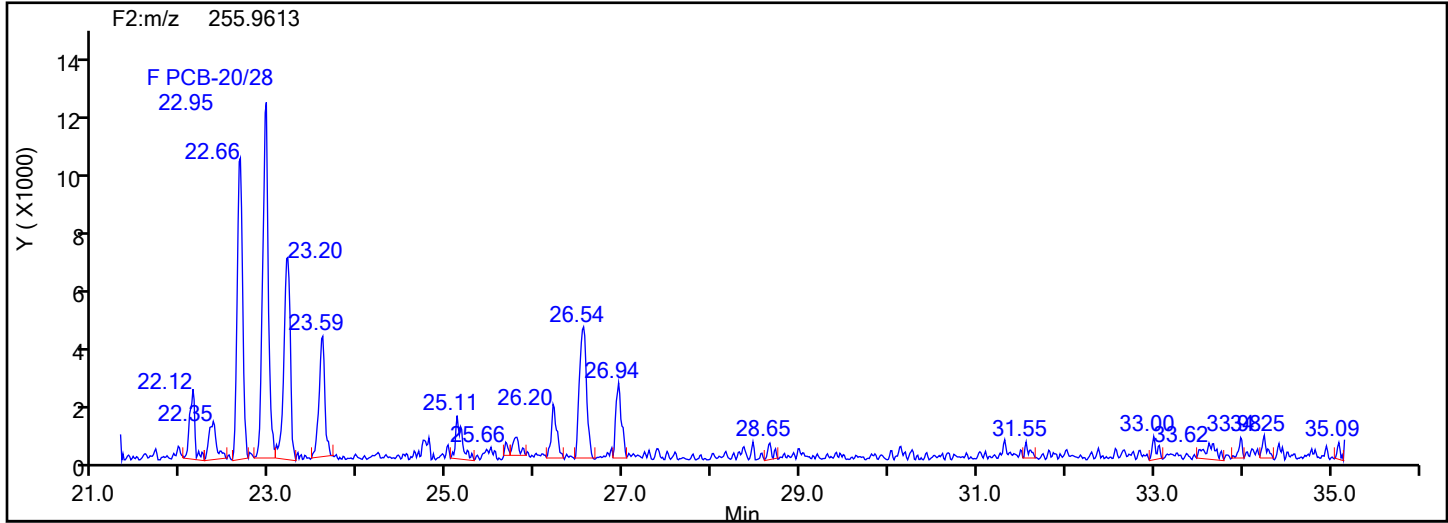
Worklist#: 88809

Sample Line#: 7

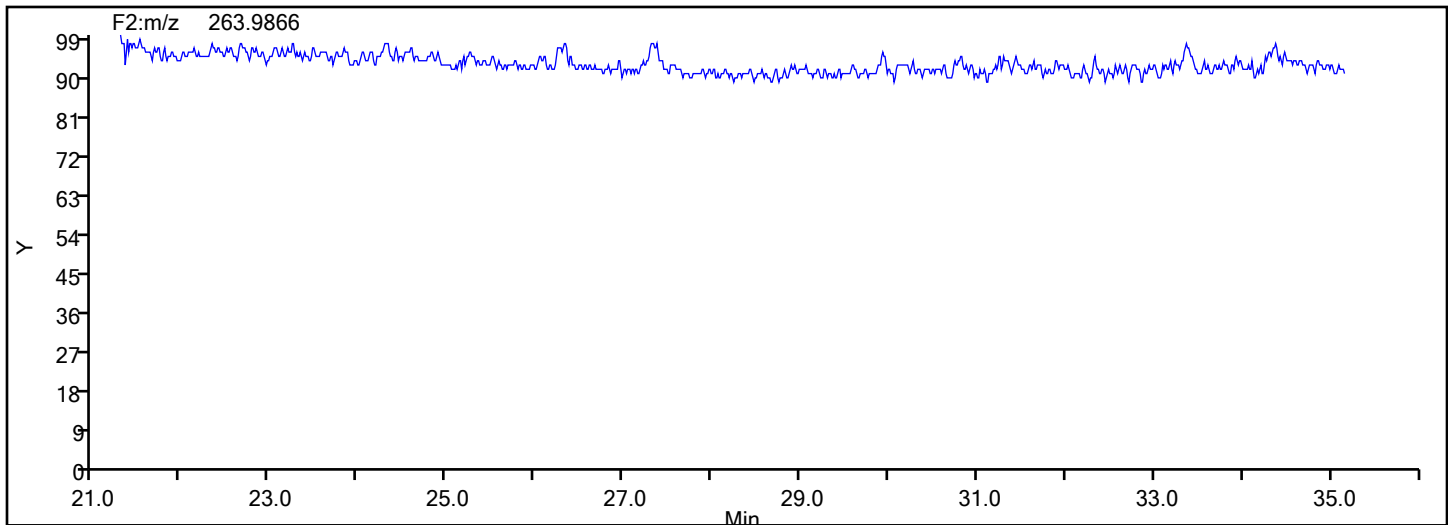
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d

Injection Date: 16-Jul-2024 15:40:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER BT COMBINED

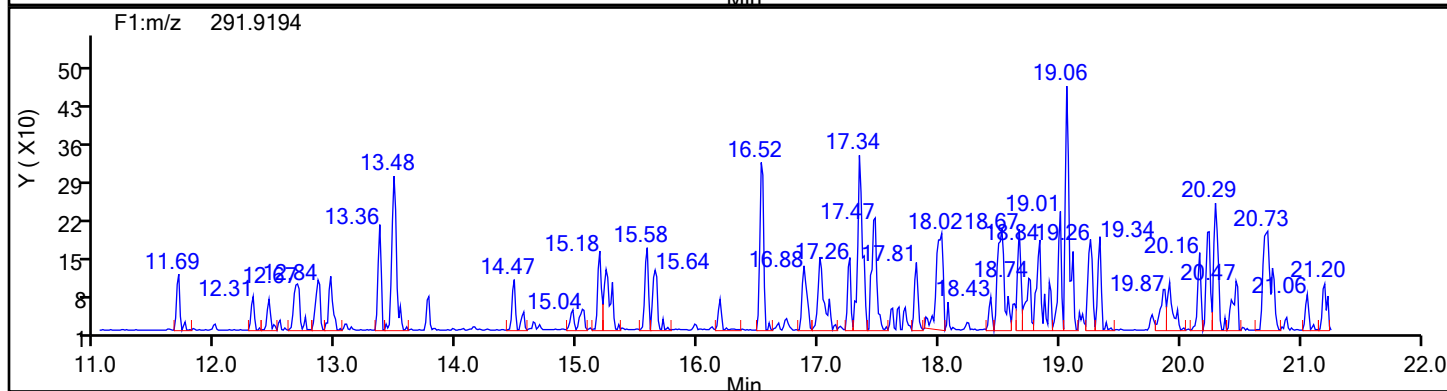
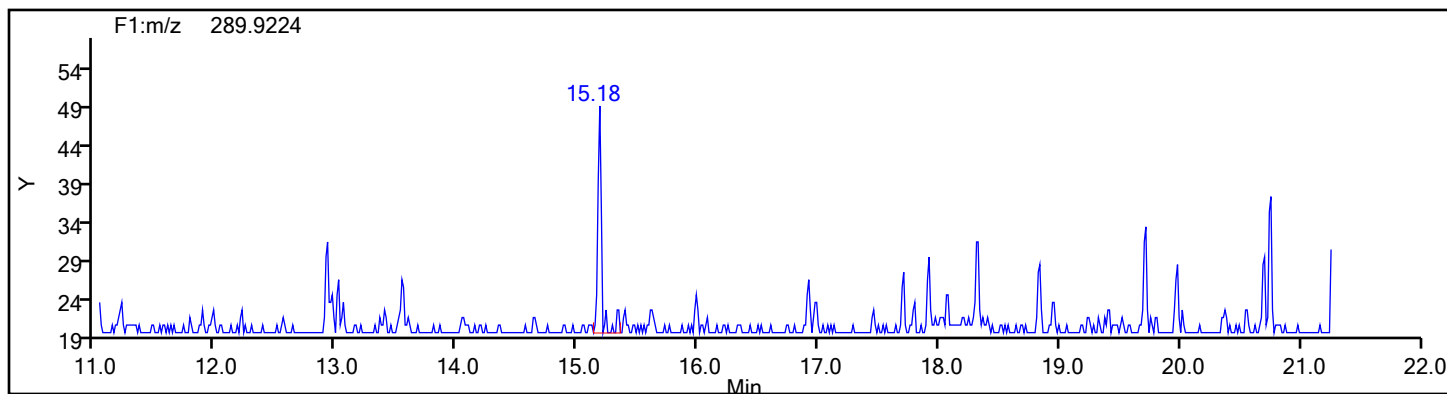
Worklist#: 88809

Sample Line#: 7

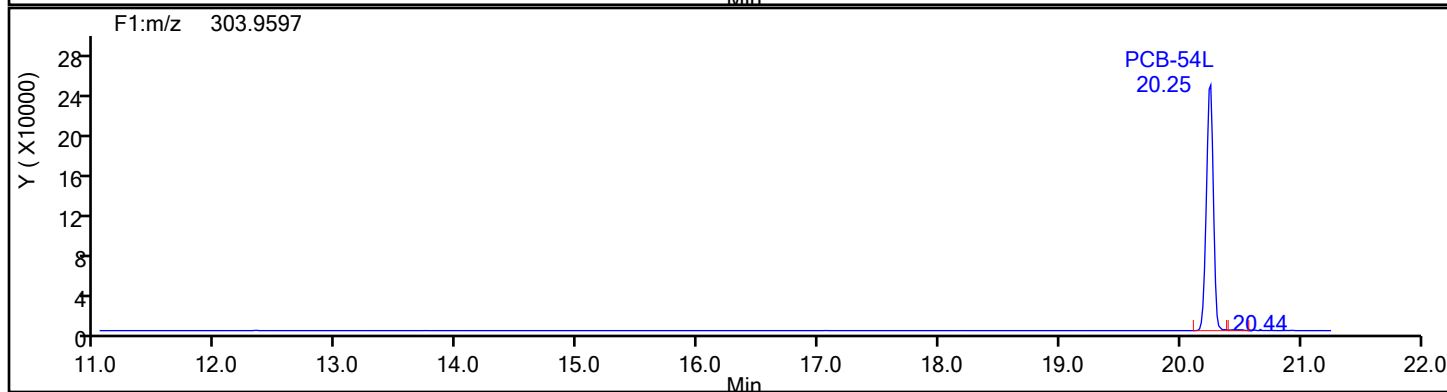
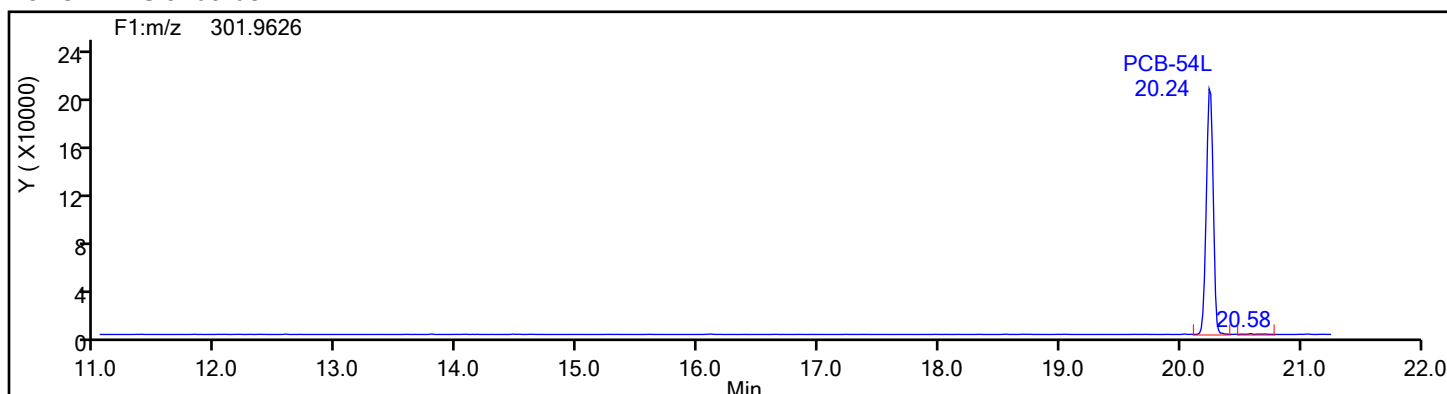
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1

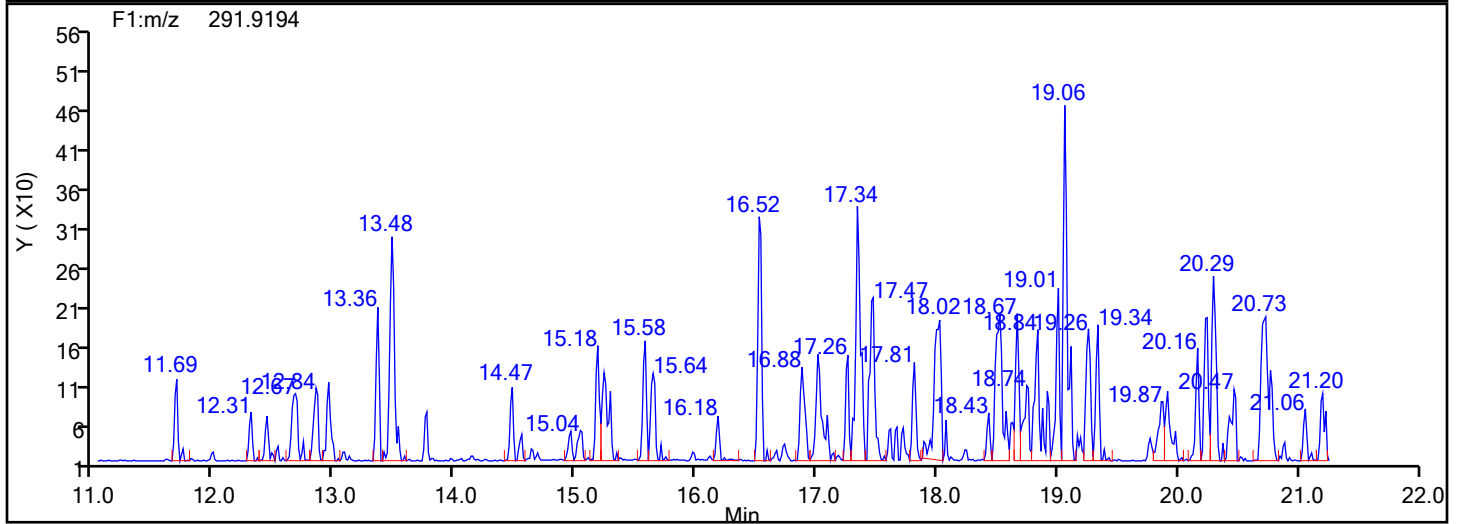
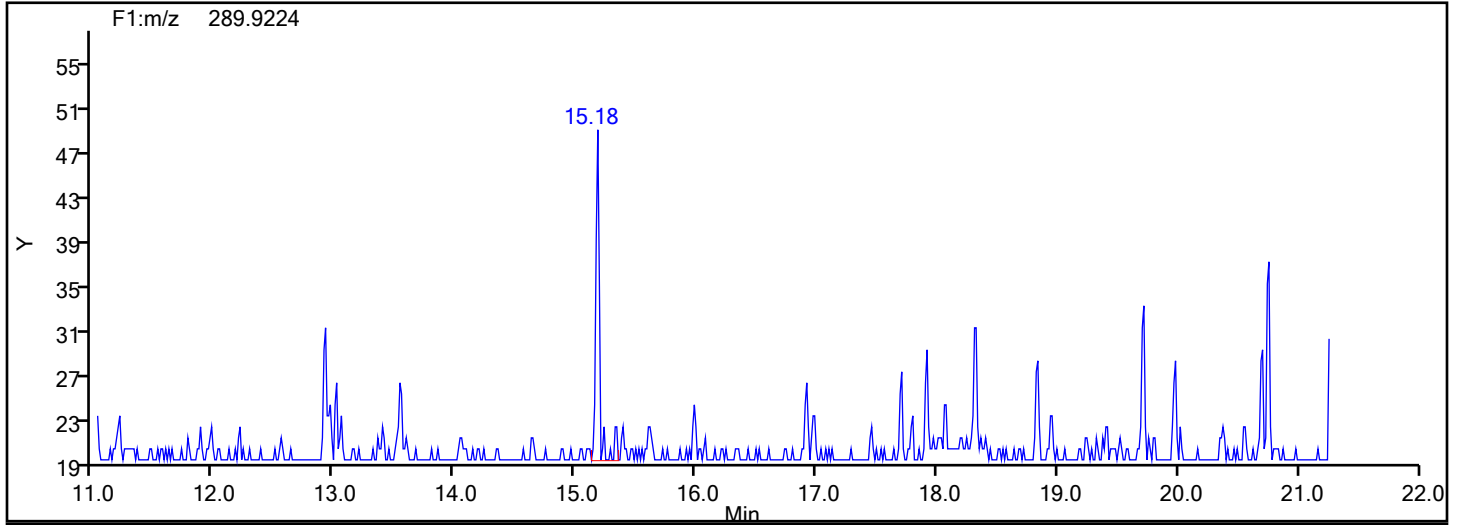


TePCB F1 Standards

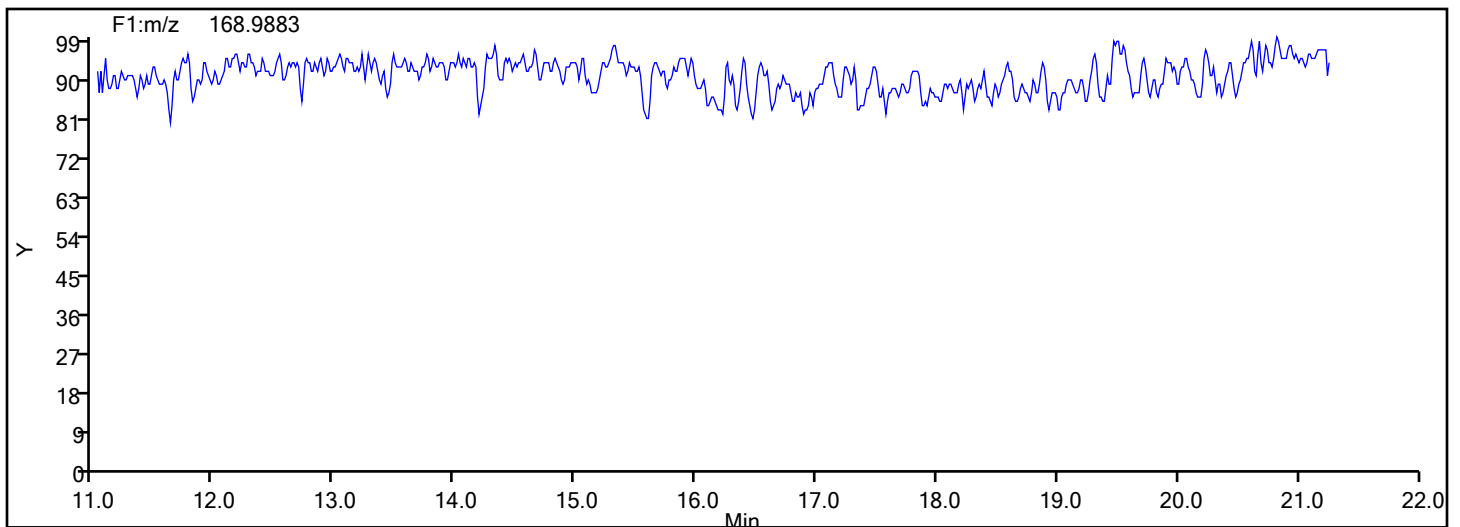


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d  
Injection Date: 16-Jul-2024 15:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 88809 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1



## TePCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d

Injection Date: 16-Jul-2024 15:40:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER BT COMBINED

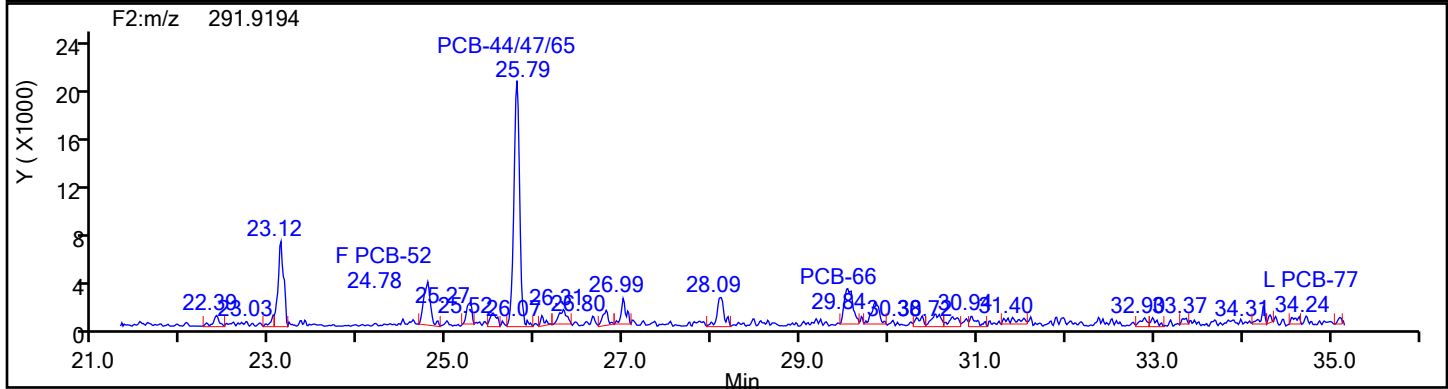
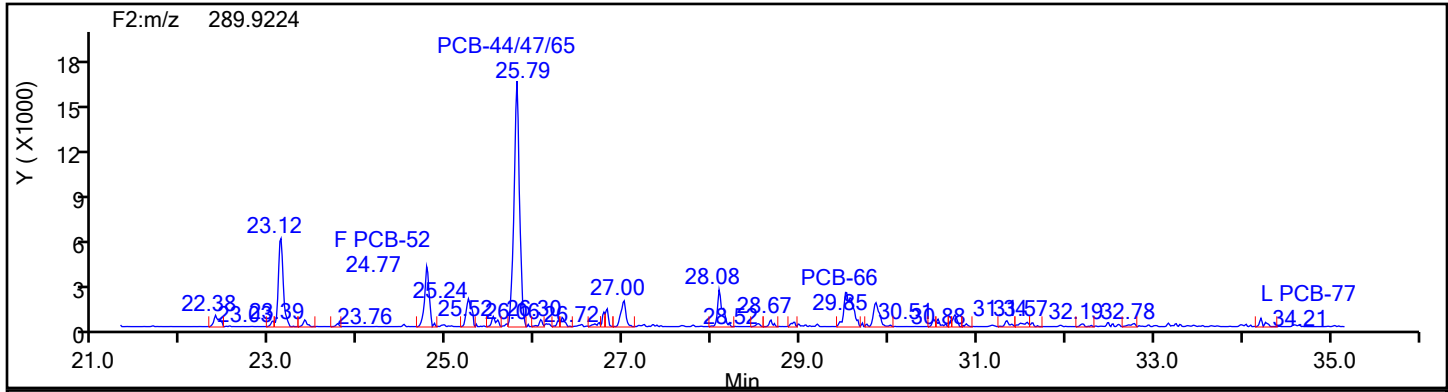
Worklist#: 88809

Sample Line#: 7

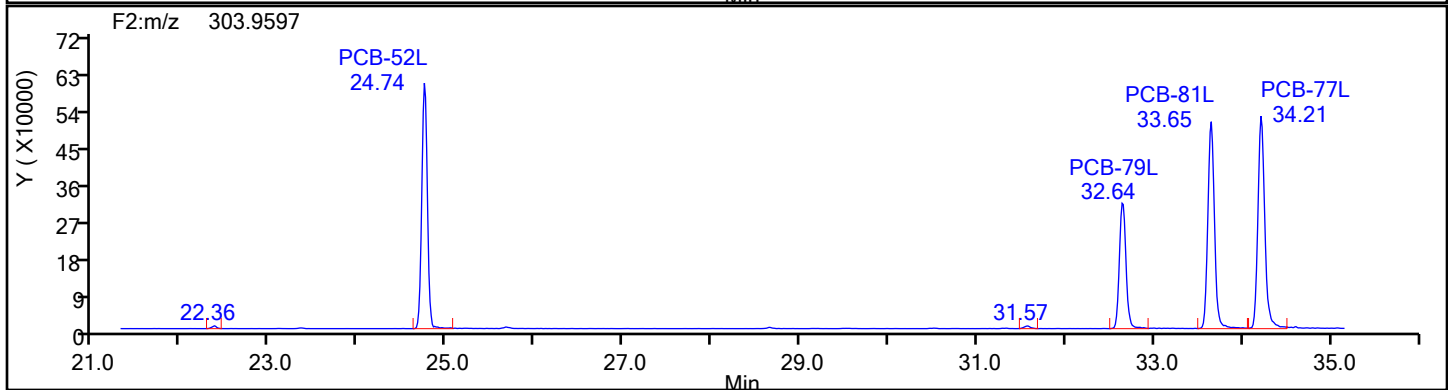
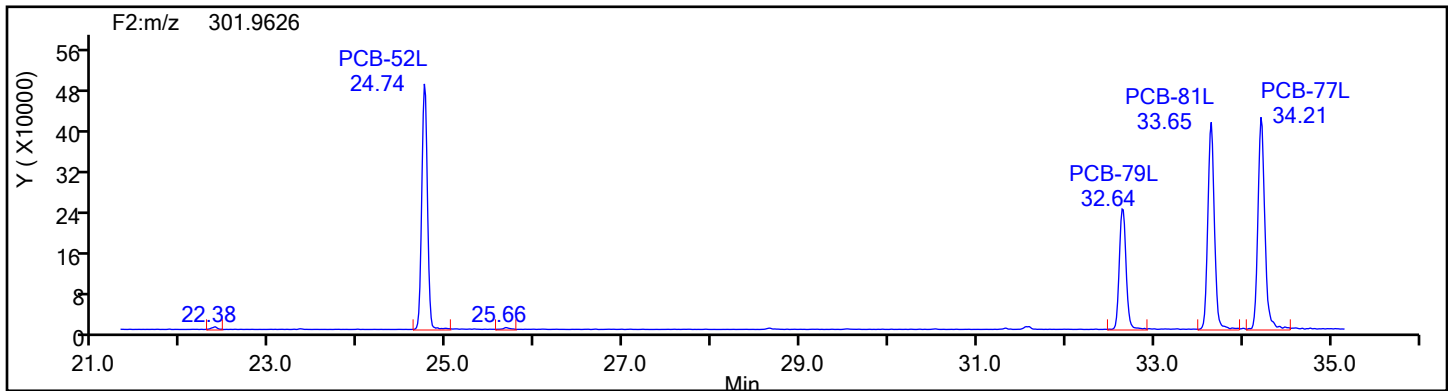
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2

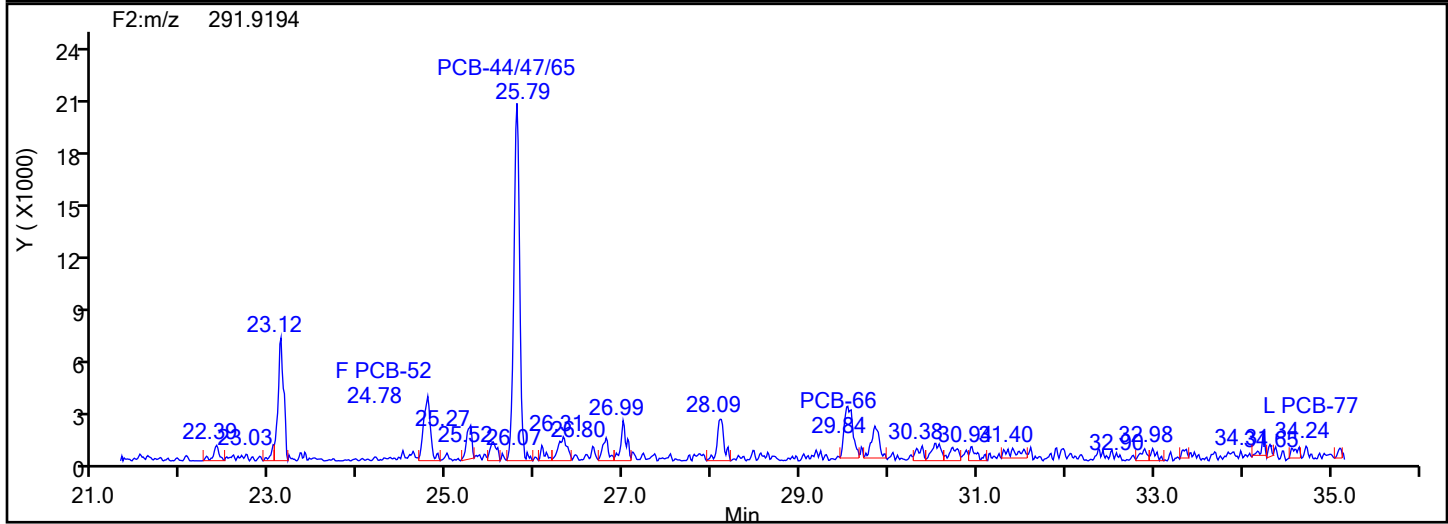
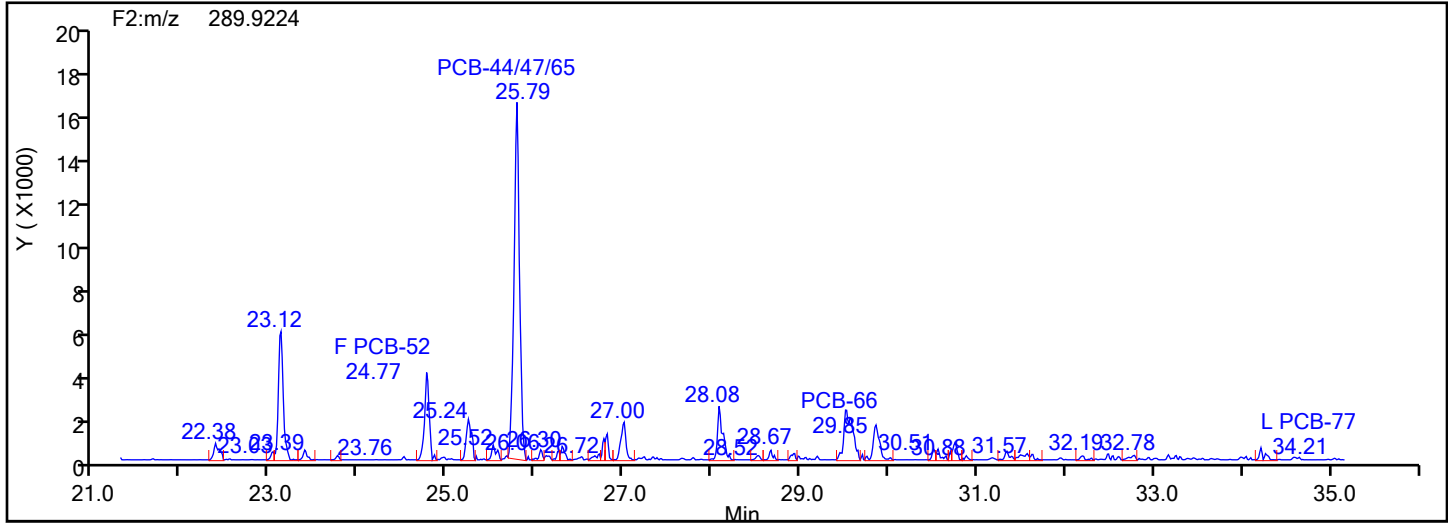


TePCB F2 Standards

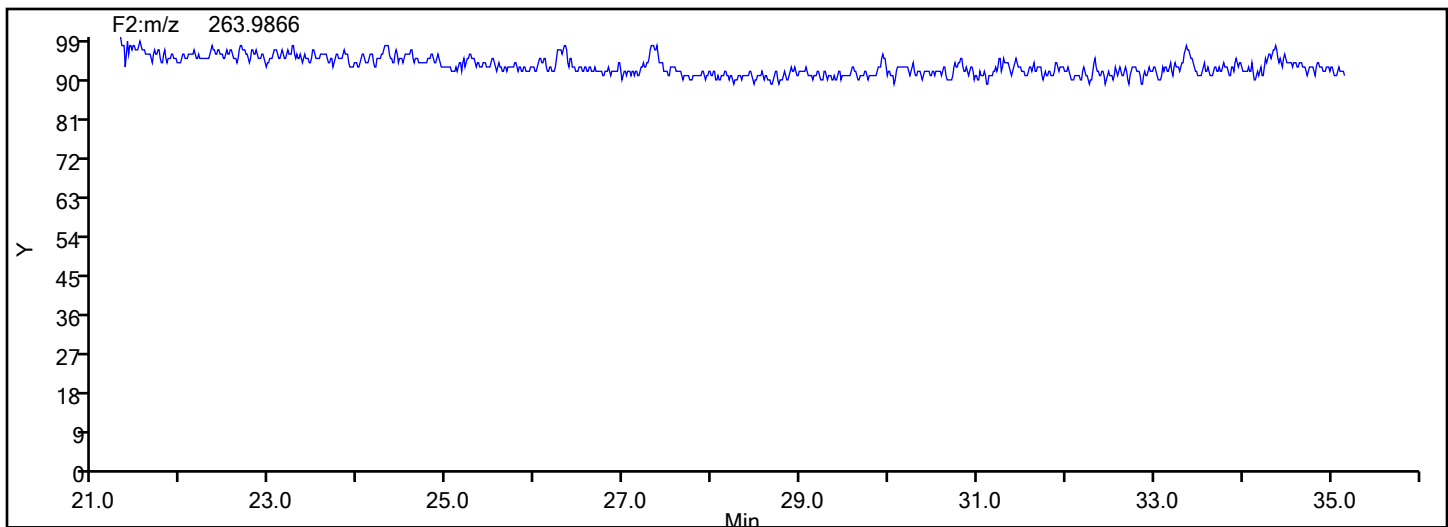


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d  
Injection Date: 16-Jul-2024 15:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 88809 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F2

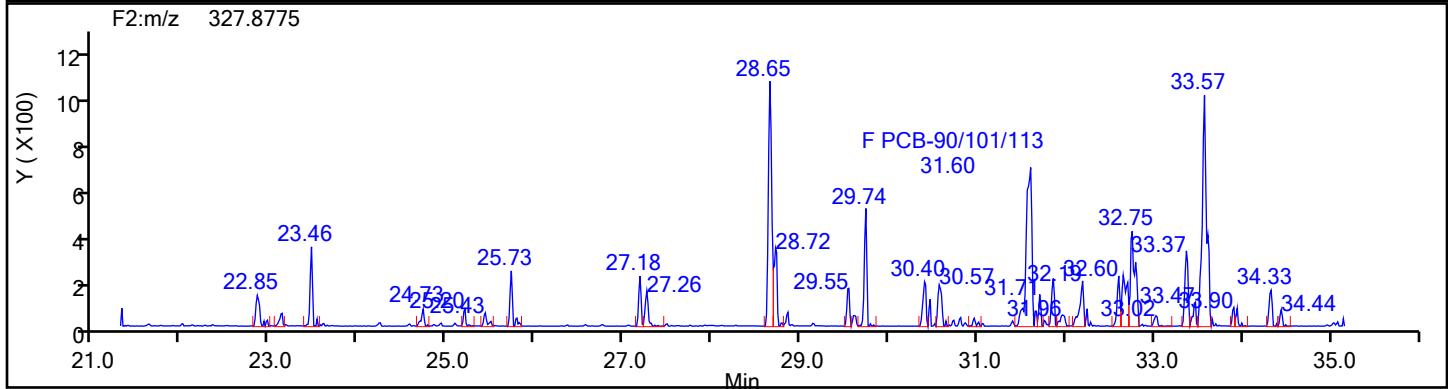
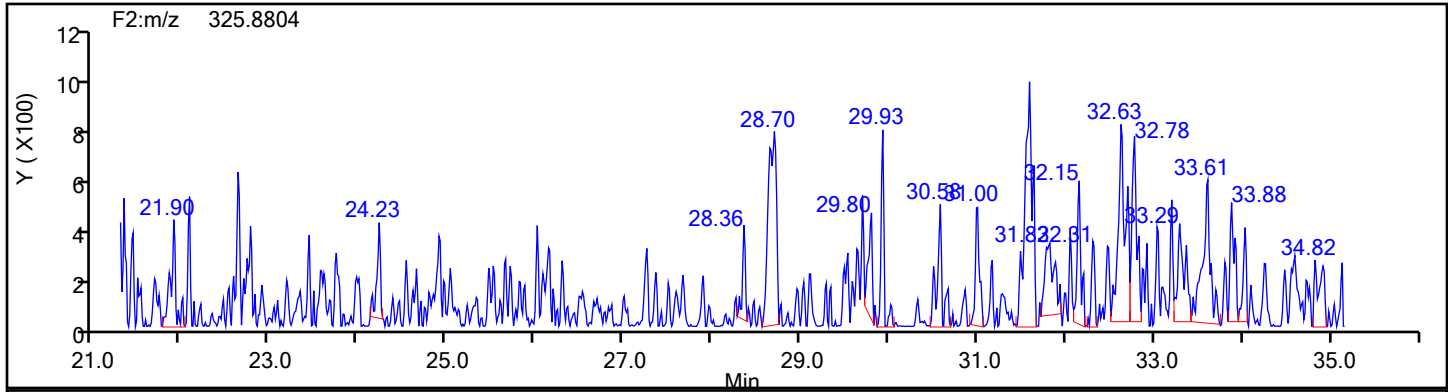


## TePCB F2 Lock Mass

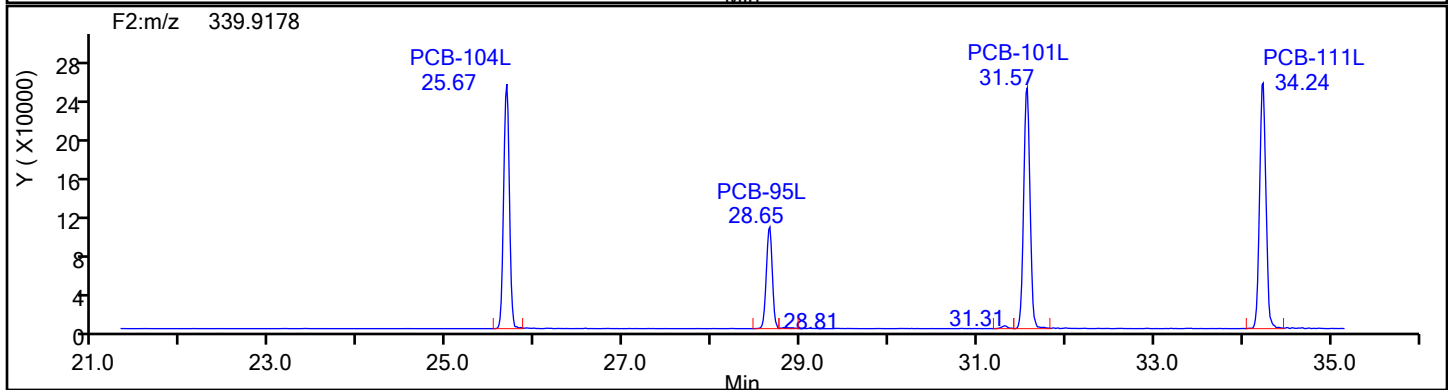
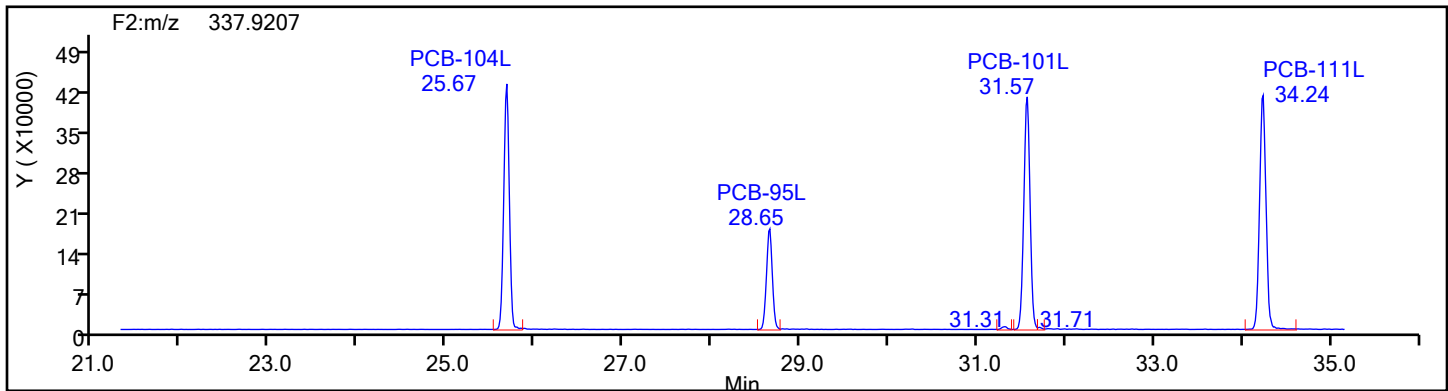


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d  
Injection Date: 16-Jul-2024 15:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 88809 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2

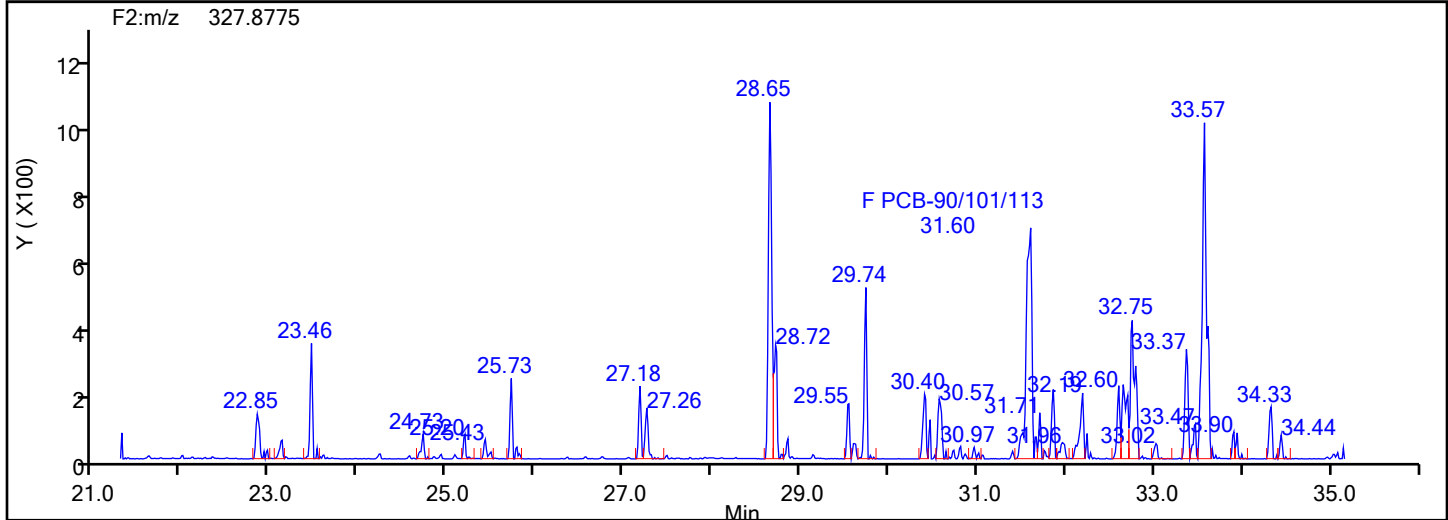
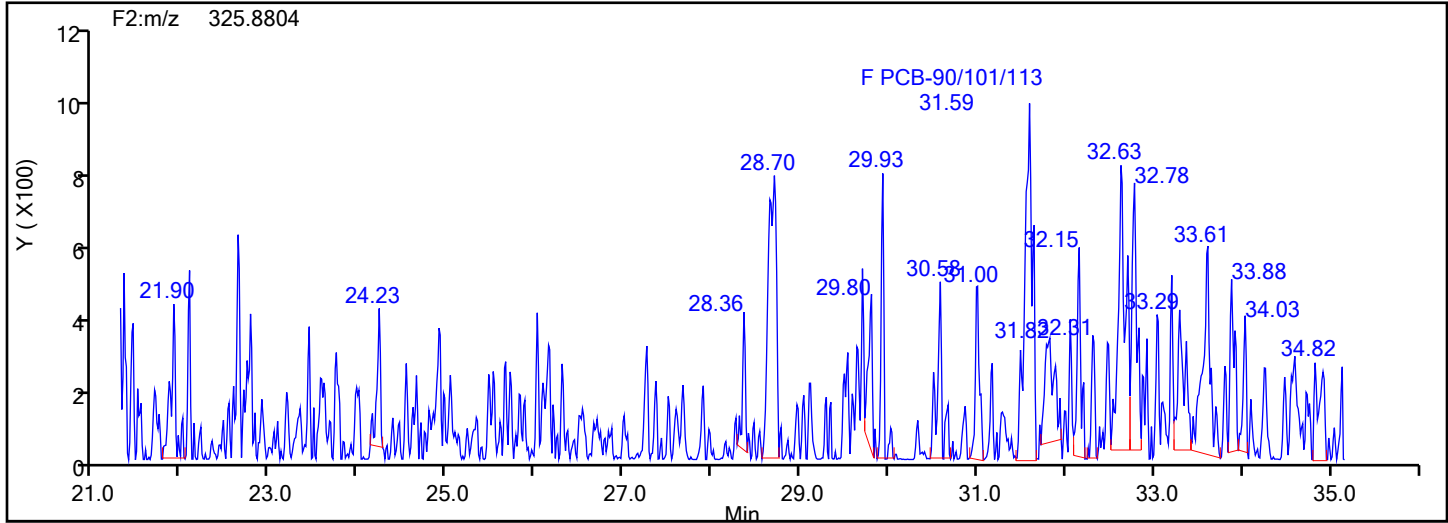


## PePCB F2 Standards

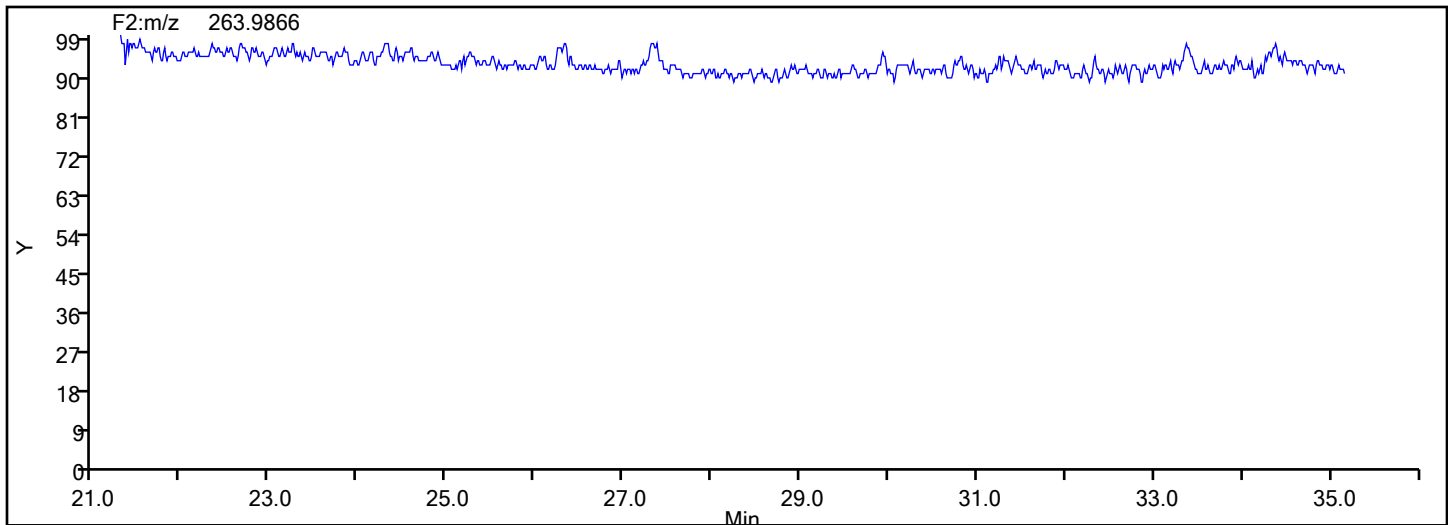


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 88809 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2



## PePCB F2 Lock Mass





## Eurofins Knoxville

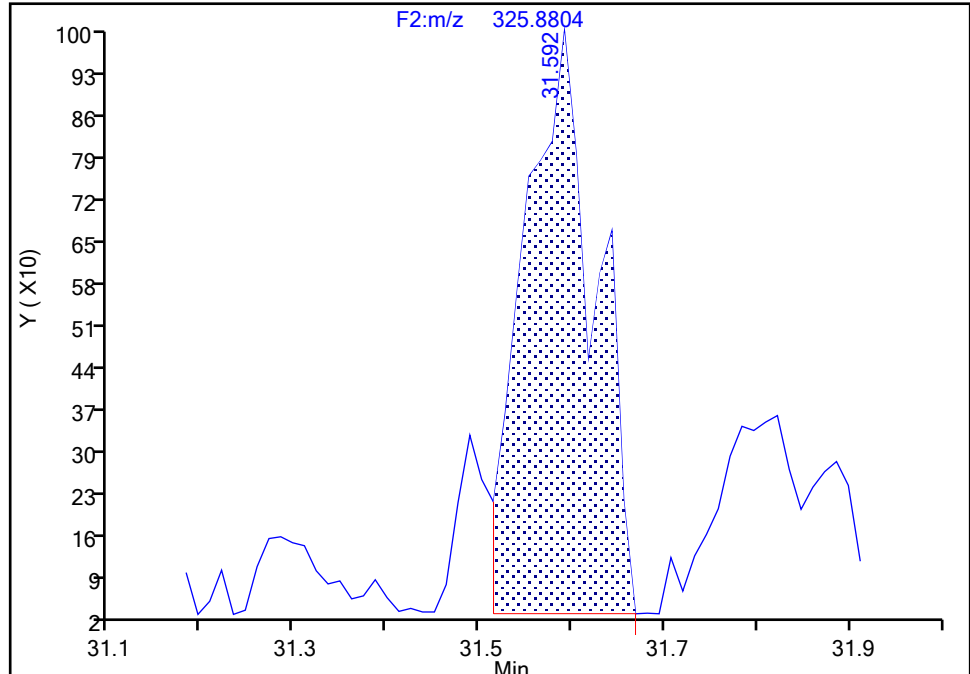
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Injection Date: 16-Jul-2024 15:40:00 Instrument ID: D2D  
Lims ID: 140-37234-A-8-D Lab Sample ID: 140-37234-8  
Client ID: M23 F-10 BOILER BT COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 7  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

**PCB-90/101/113, CAS: STL01813**

Signal: 1

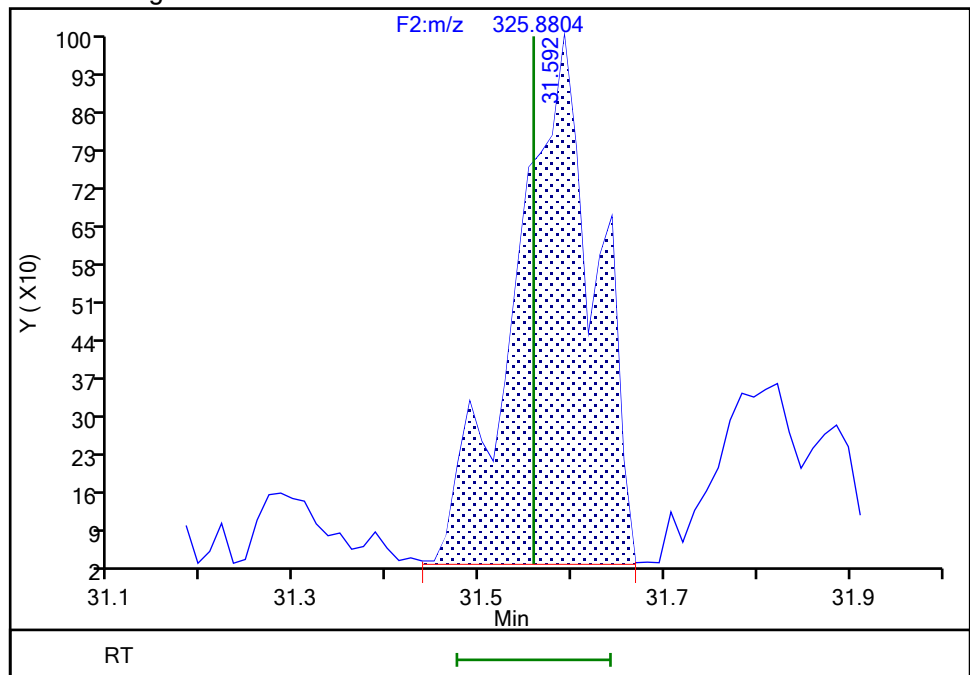
RT: 31.59  
Area: 5223  
Amount: 0.291587  
Amount Units: pg/ul

## Processing Integration Results



RT: 31.59  
Area: 5904  
Amount: 0.307470  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 10:32:52 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

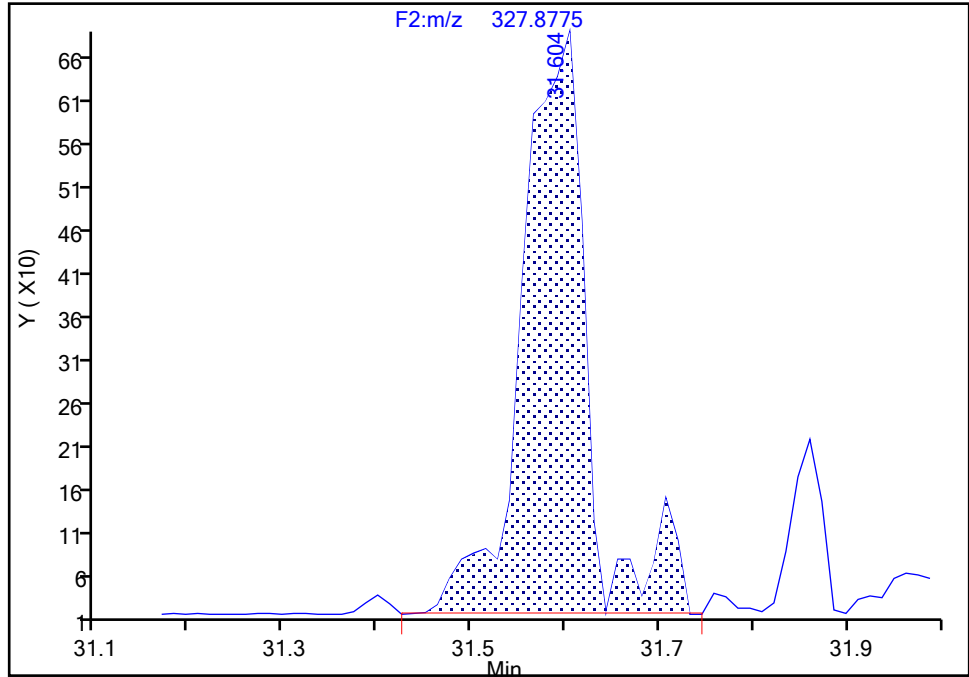
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Lims ID: 140-37234-A-8-D Lab Sample ID: 140-37234-8  
Client ID: M23 F-10 BOILER BT COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 7  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

**PCB-90/101/113, CAS: STL01813**

Signal: 2

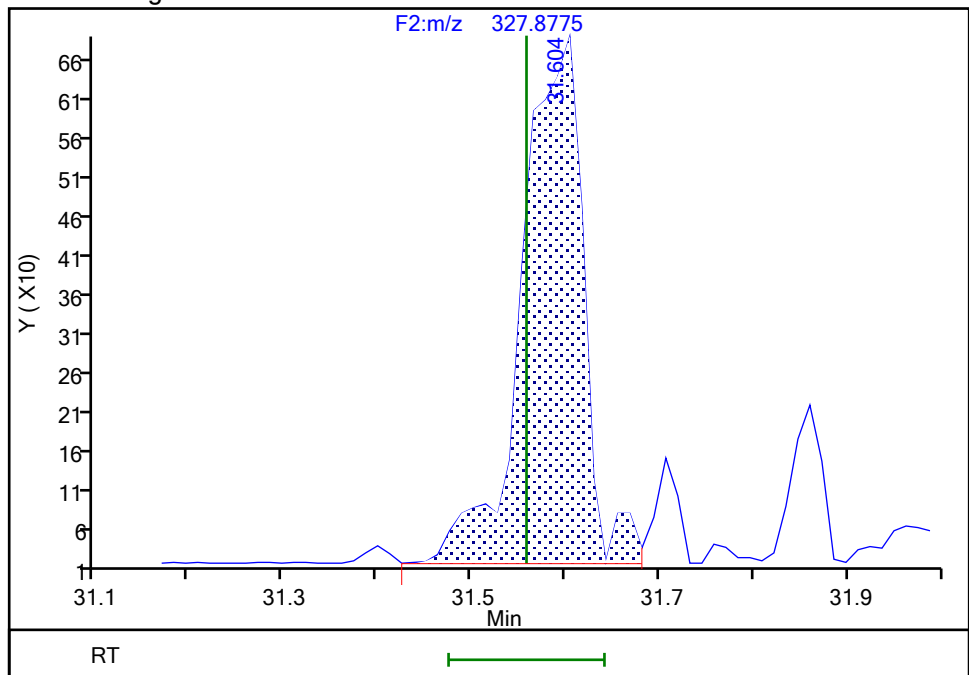
RT: 31.60  
Area: 3259  
Amount: 0.291587  
Amount Units: pg/ul

## Processing Integration Results



RT: 31.60  
Area: 3040  
Amount: 0.307470  
Amount Units: pg/ul

## Manual Integration Results



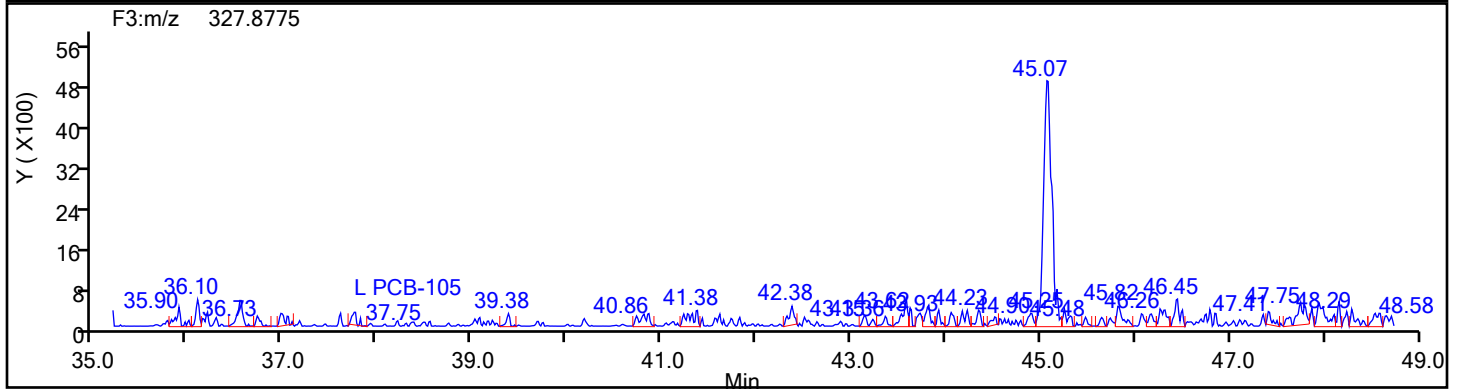
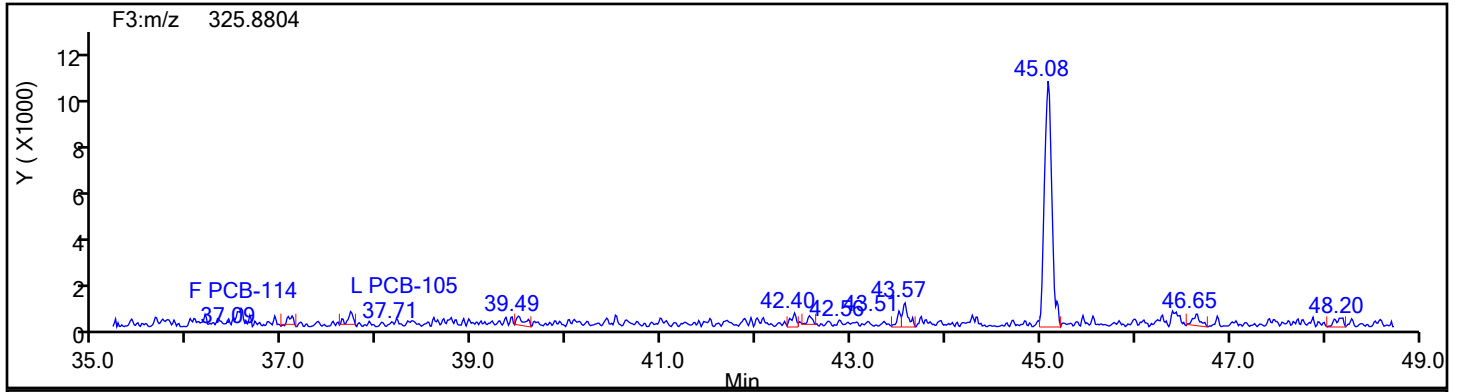
Reviewer: TT6I, 17-Jul-2024 10:32:56 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

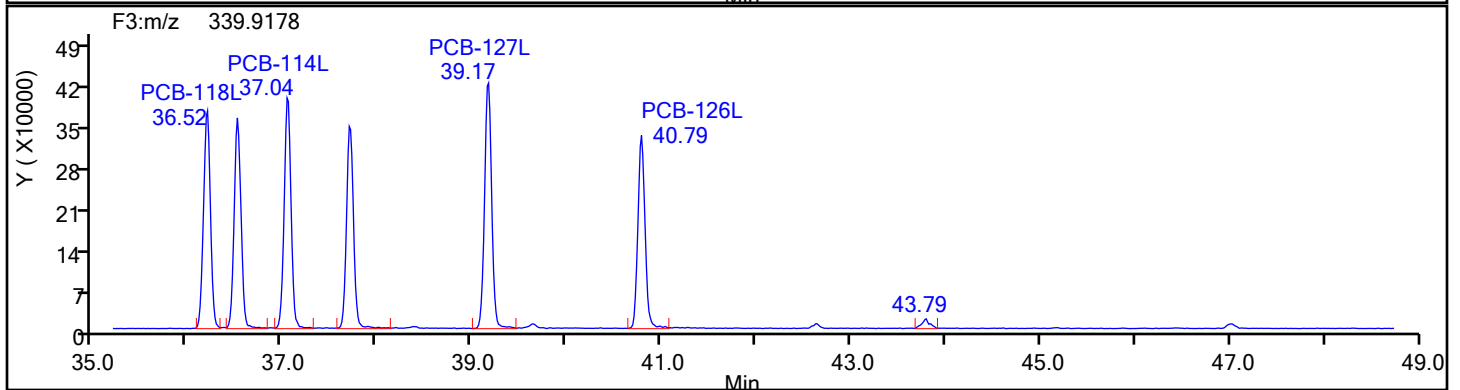
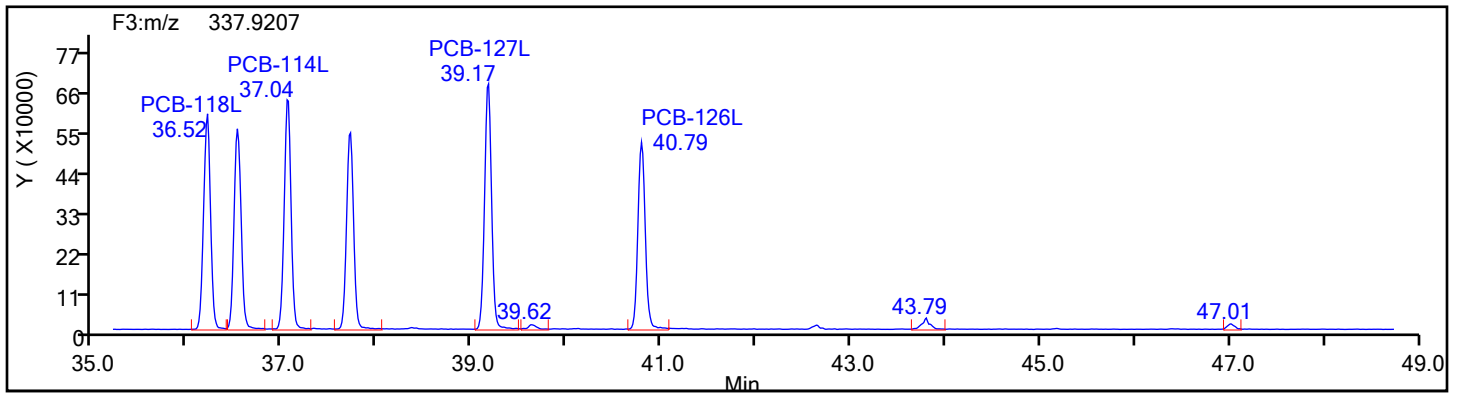
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d  
Injection Date: 16-Jul-2024 15:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 88809 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F3

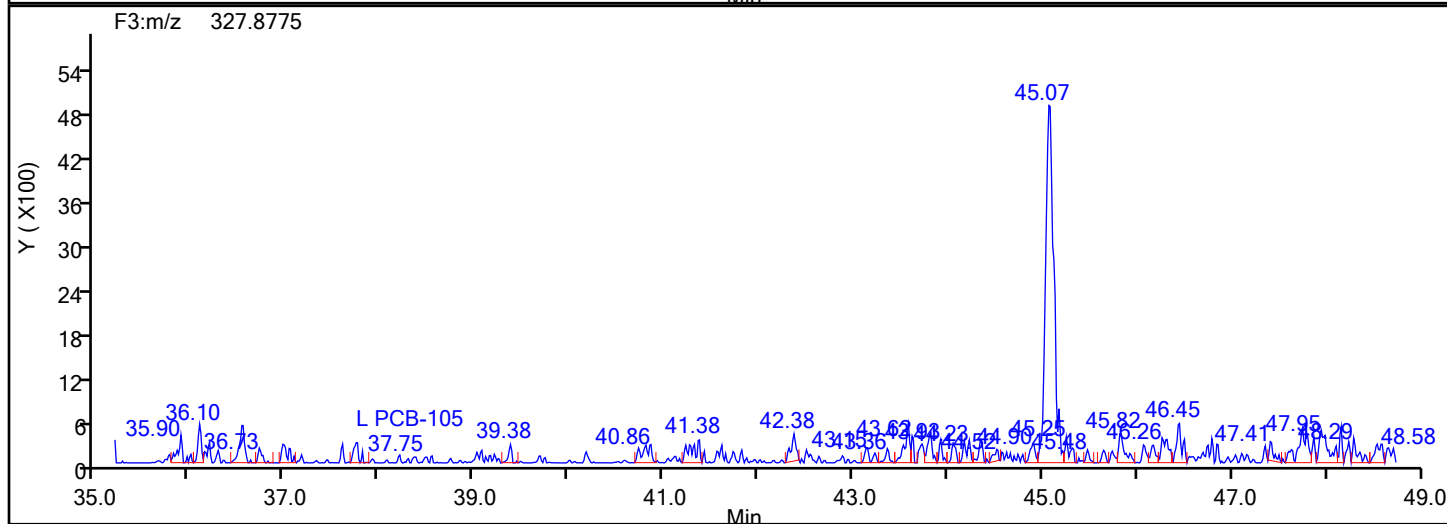
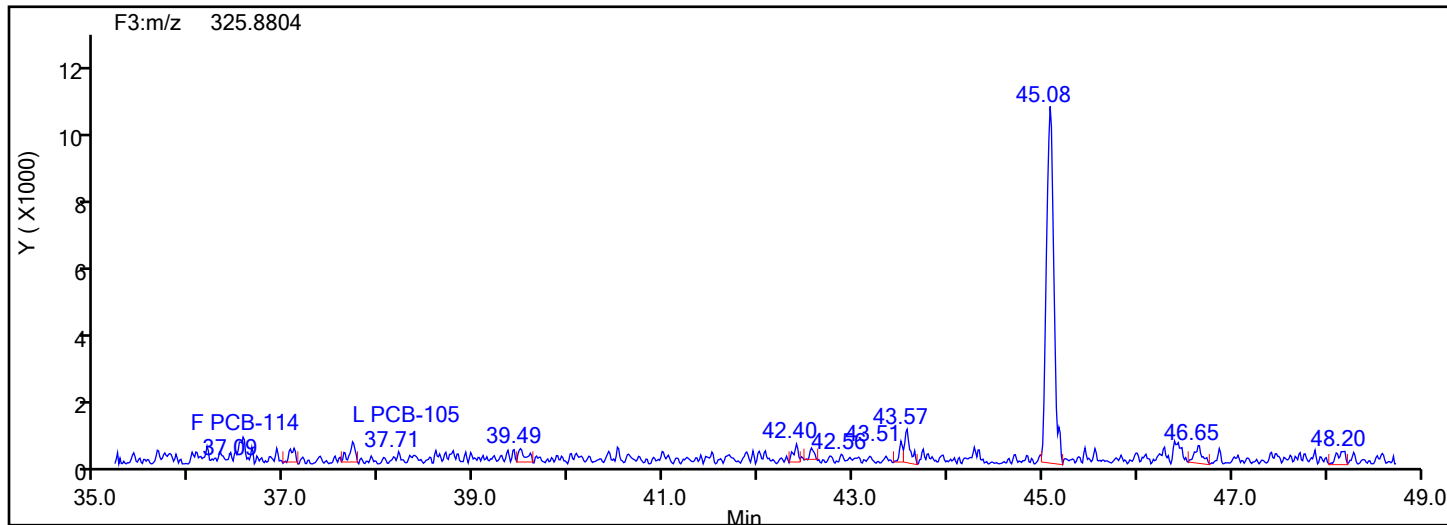


## PePCB F3 Standards

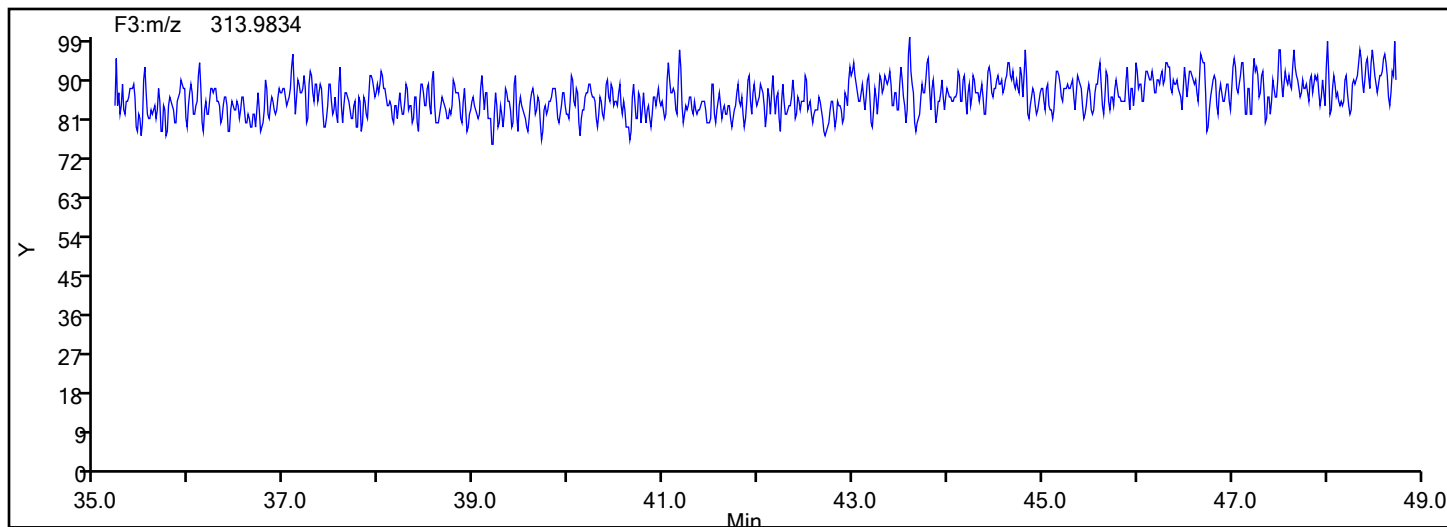


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 15:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 88809 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F3

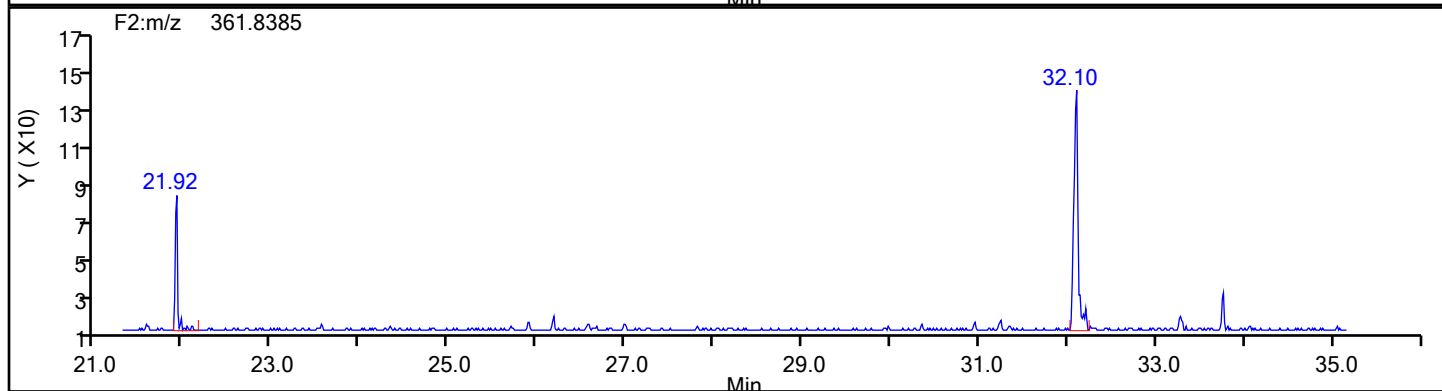
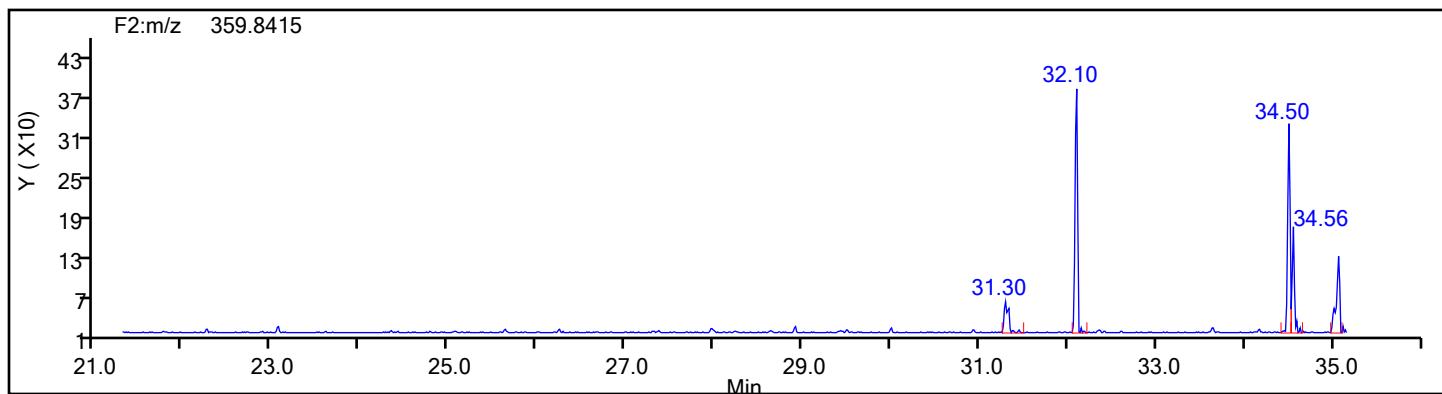


## PePCB F3 Lock Mass

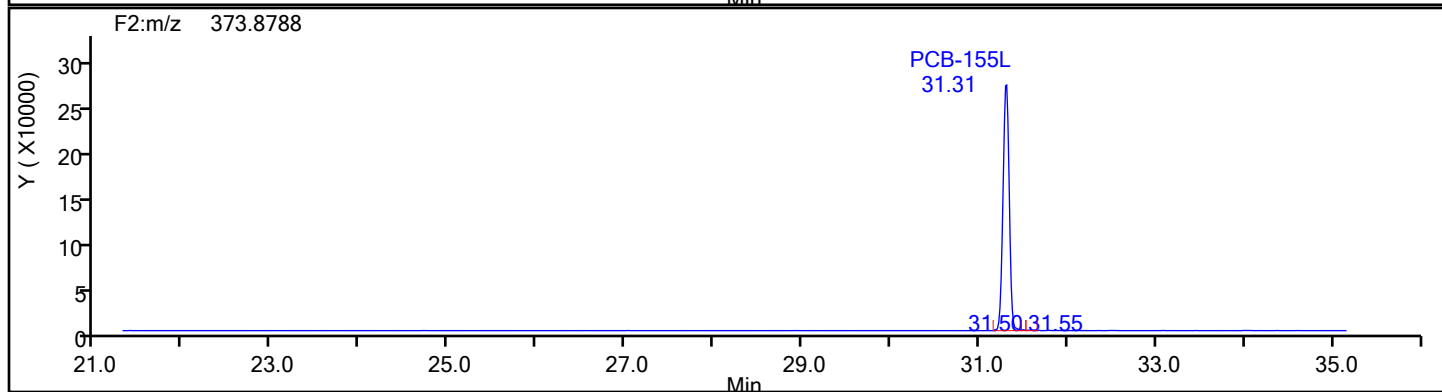
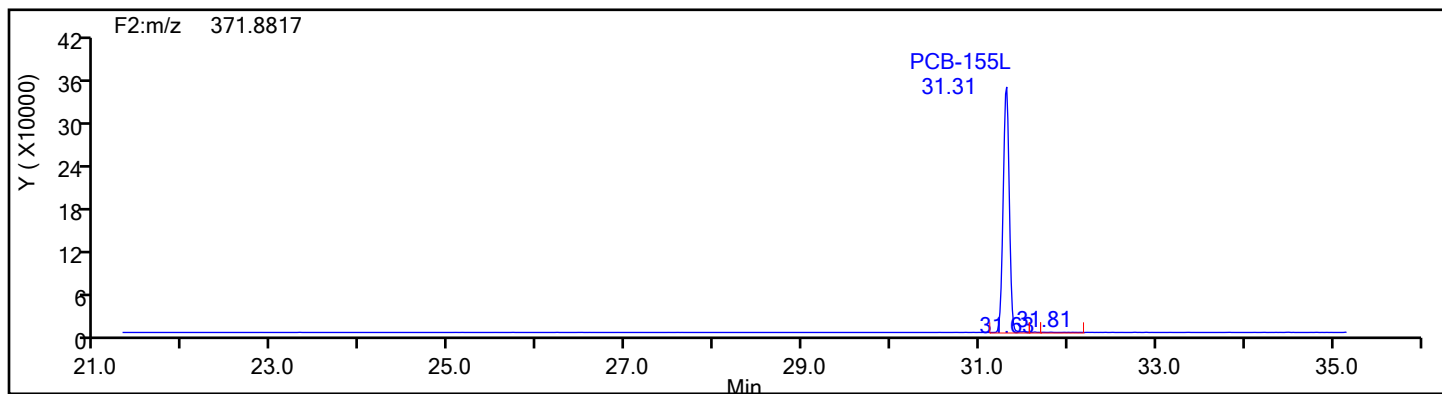


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d  
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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 88809 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2

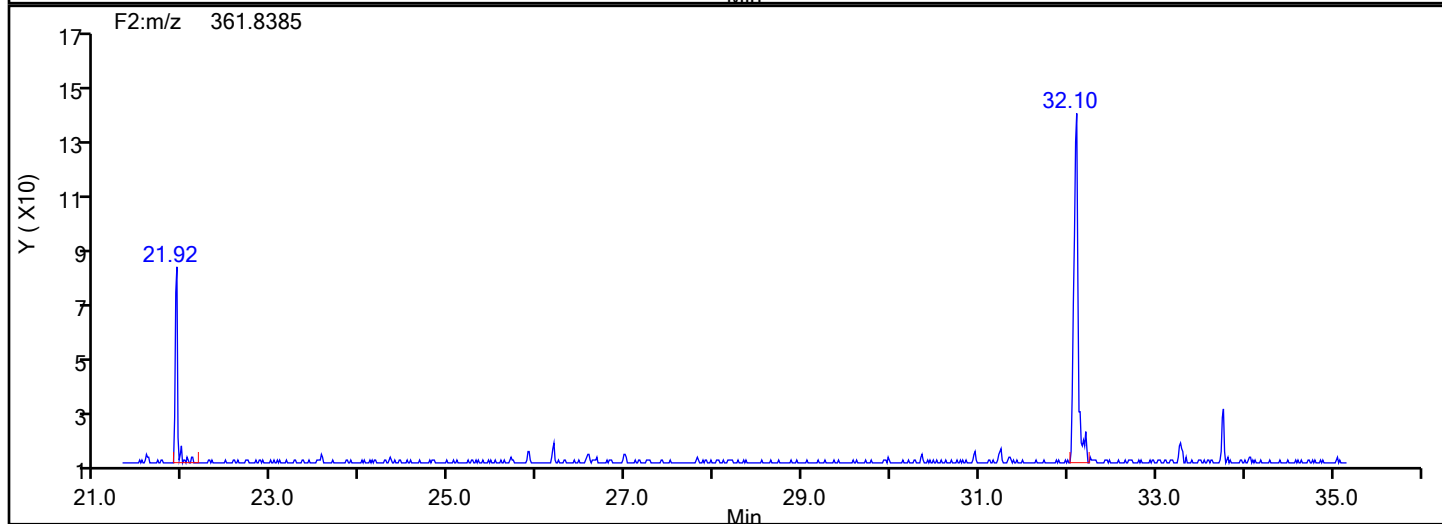
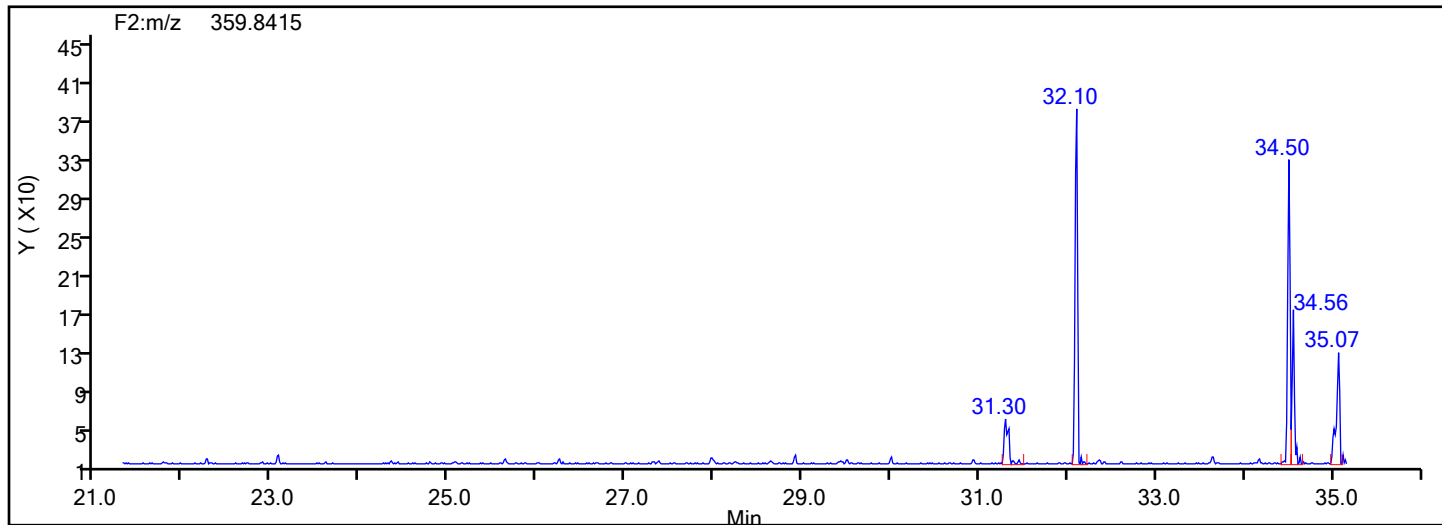


## HxPCB F2 Standards

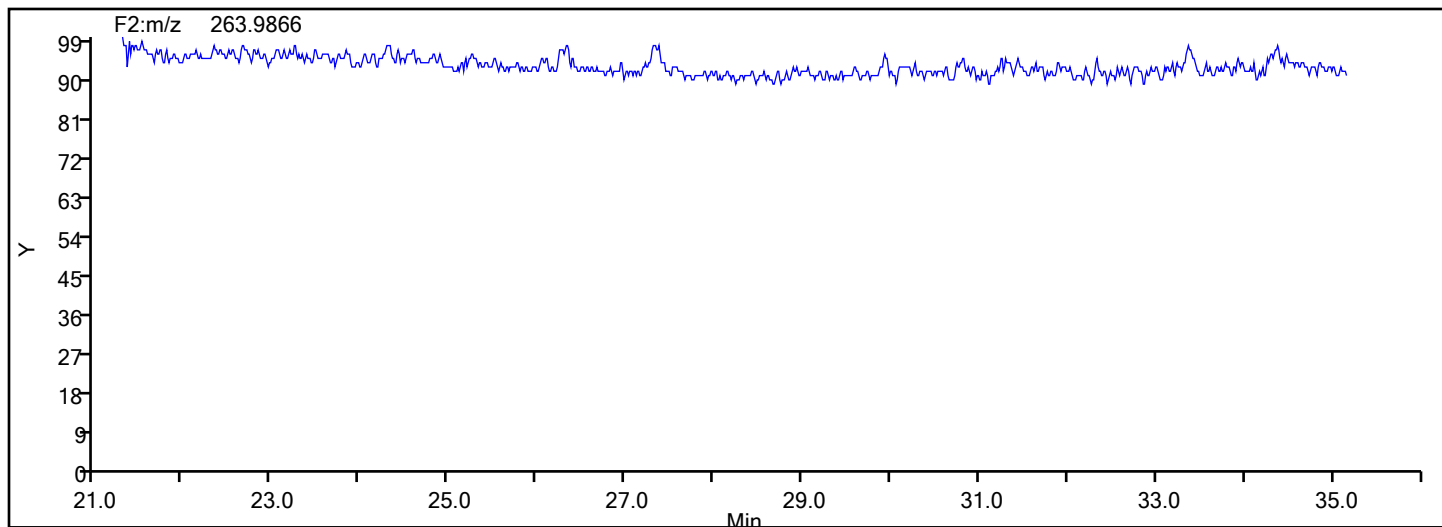


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d  
Injection Date: 16-Jul-2024 15:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 88809 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2



## HxPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d

Injection Date: 16-Jul-2024 15:40:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER BT COMBINED

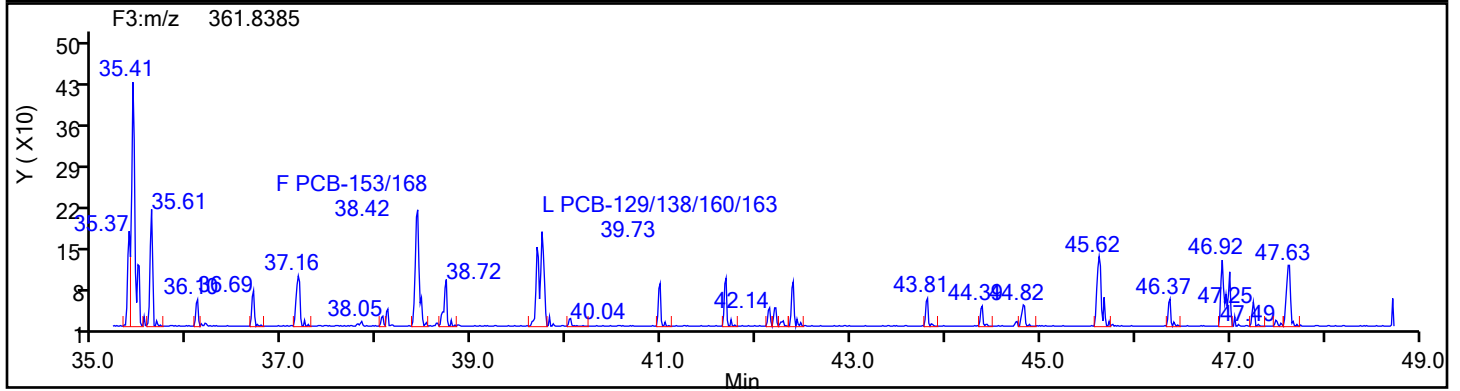
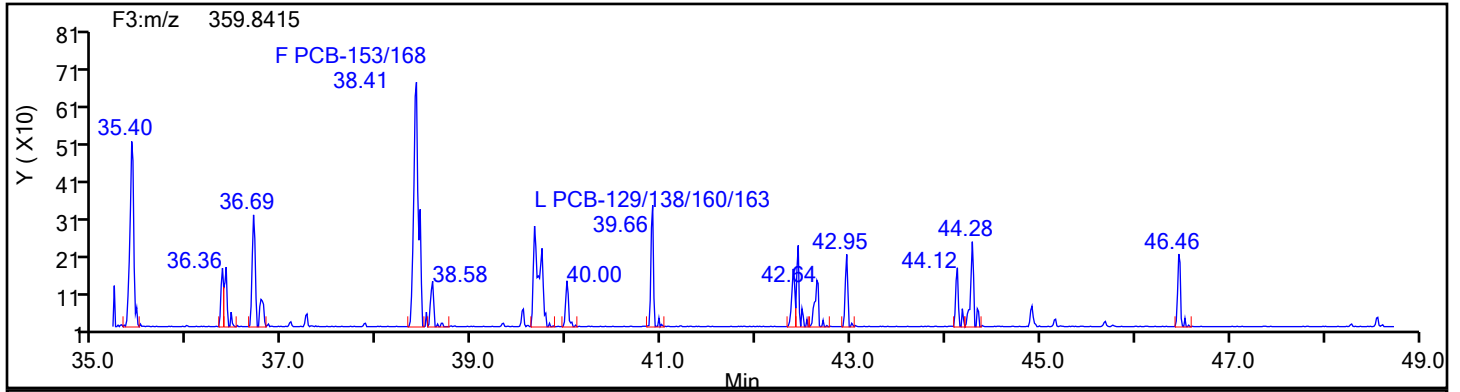
Worklist#: 88809

Sample Line#: 7

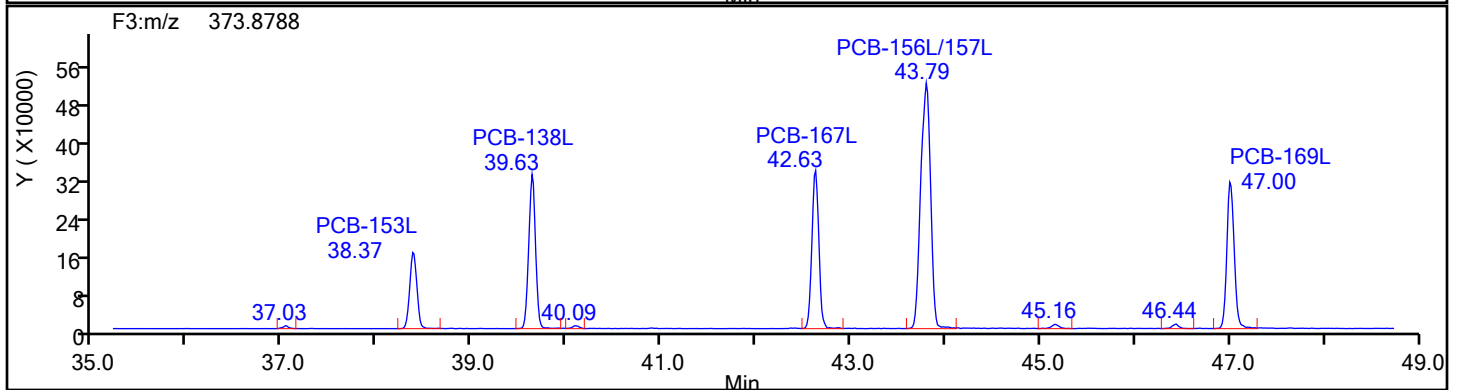
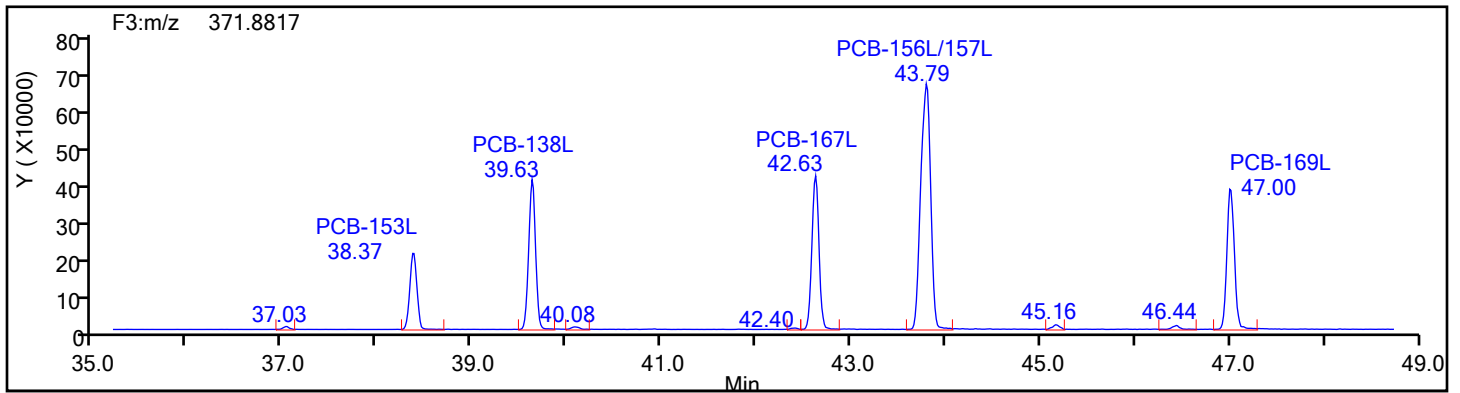
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



HxPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d

Injection Date: 16-Jul-2024 15:40:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER BT COMBINED

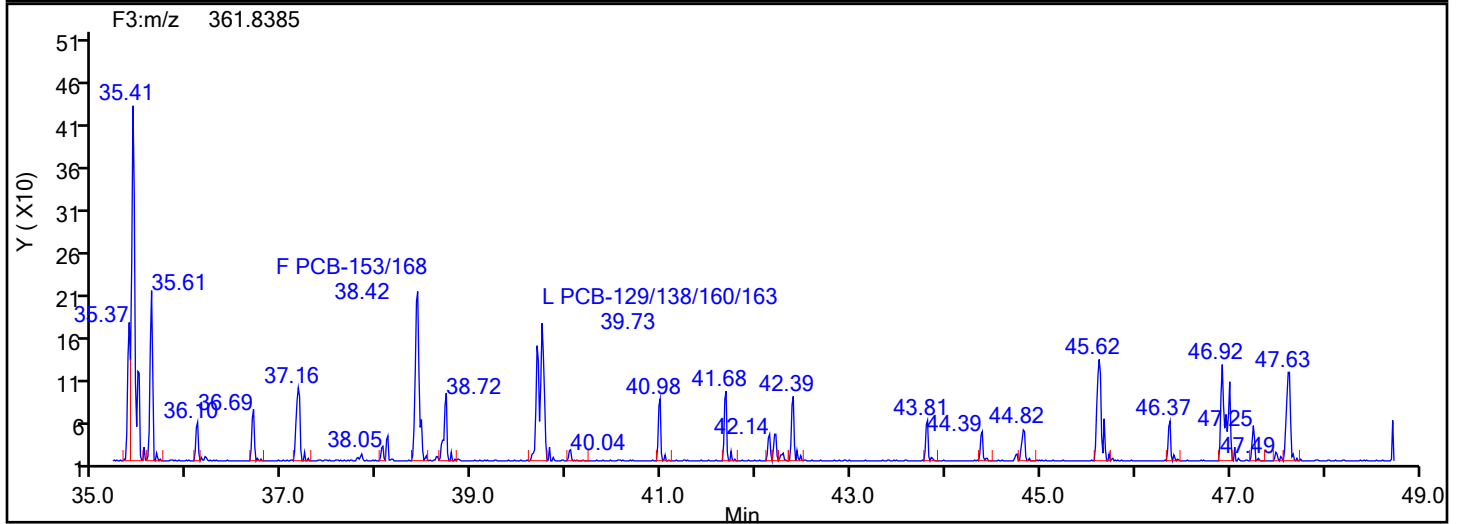
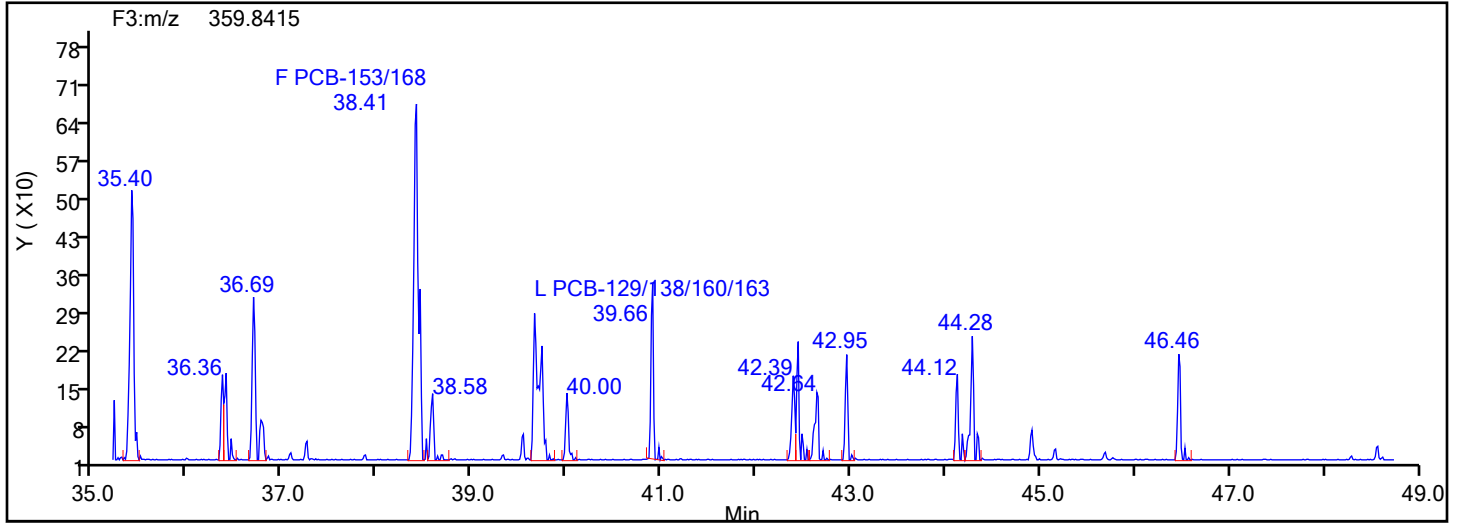
Worklist#: 88809

Sample Line#: 7

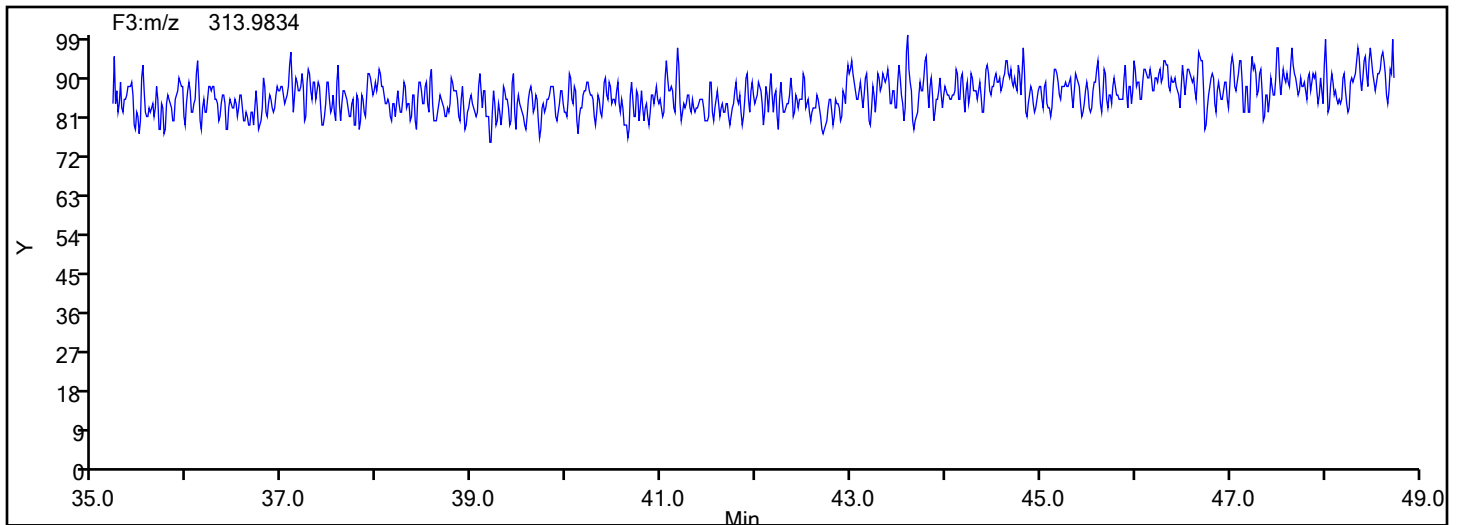
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



HxPCB F3 Lock Mass





## Eurofins Knoxville

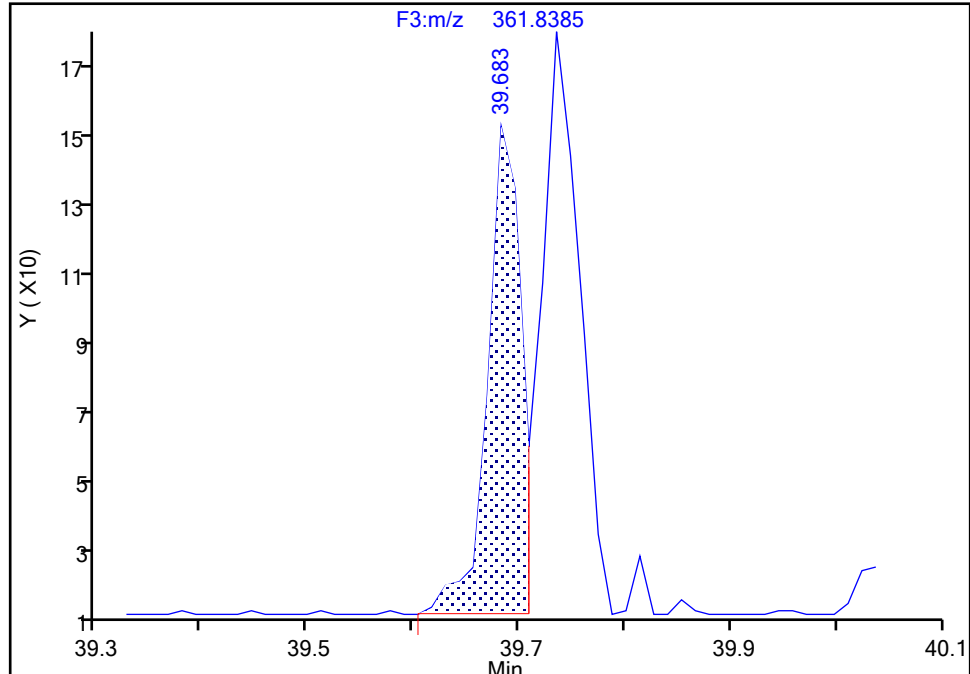
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Injection Date: 16-Jul-2024 15:40:00 Instrument ID: D2D  
Lims ID: 140-37234-A-8-D Lab Sample ID: 140-37234-8  
Client ID: M23 F-10 BOILER BT COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 7  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F3(35.64 :49.10 )

**PCB-129/138/160/163, CAS: STL02296**

Signal: 2

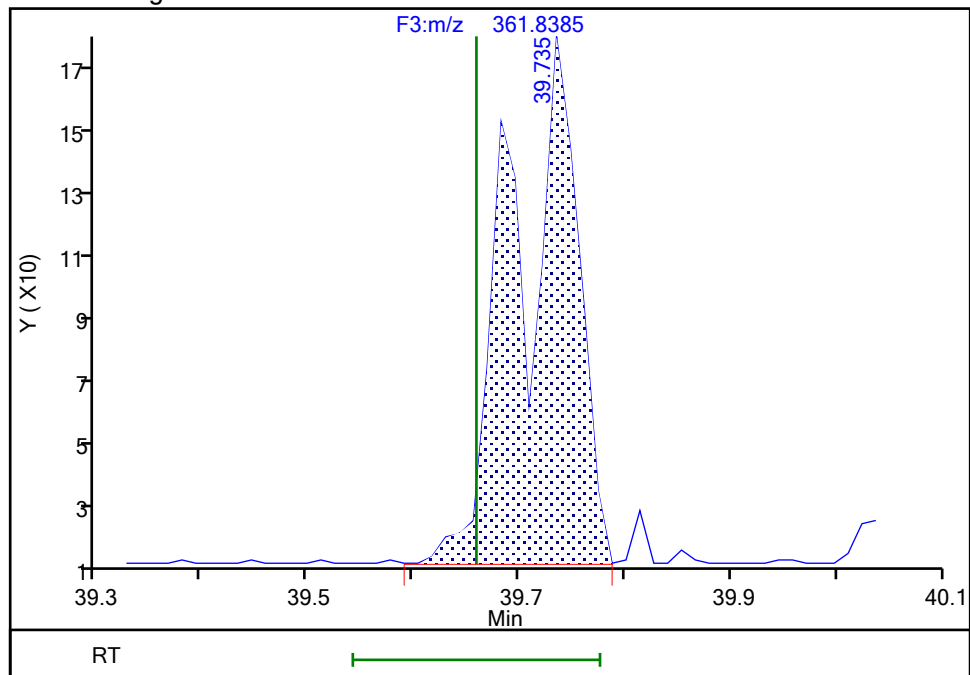
RT: 39.68  
Area: 288  
Amount: 0.040716  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.73  
Area: 681  
Amount: 0.050824  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: TT6I, 17-Jul-2024 10:33:39 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d

Injection Date: 16-Jul-2024 15:40:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER BT COMBINED

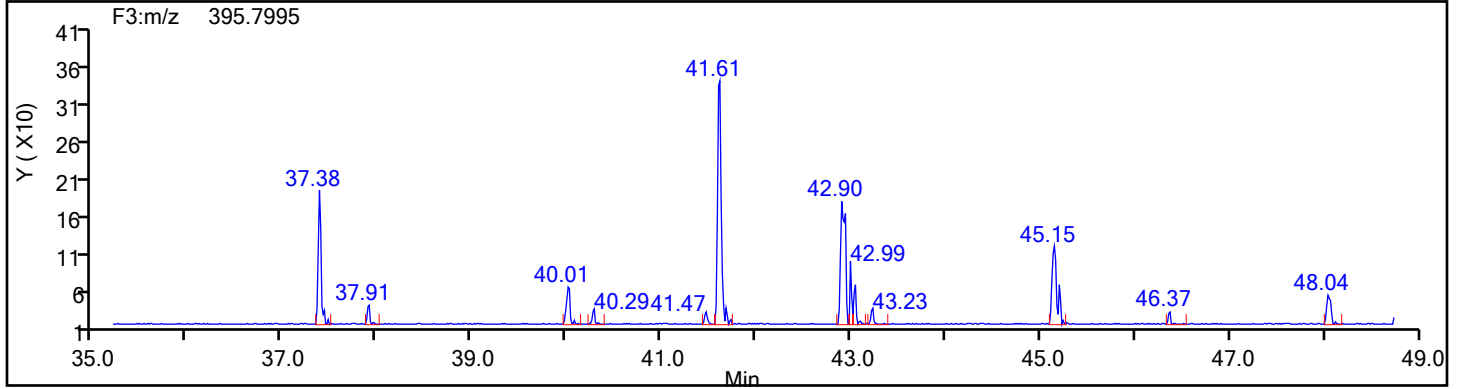
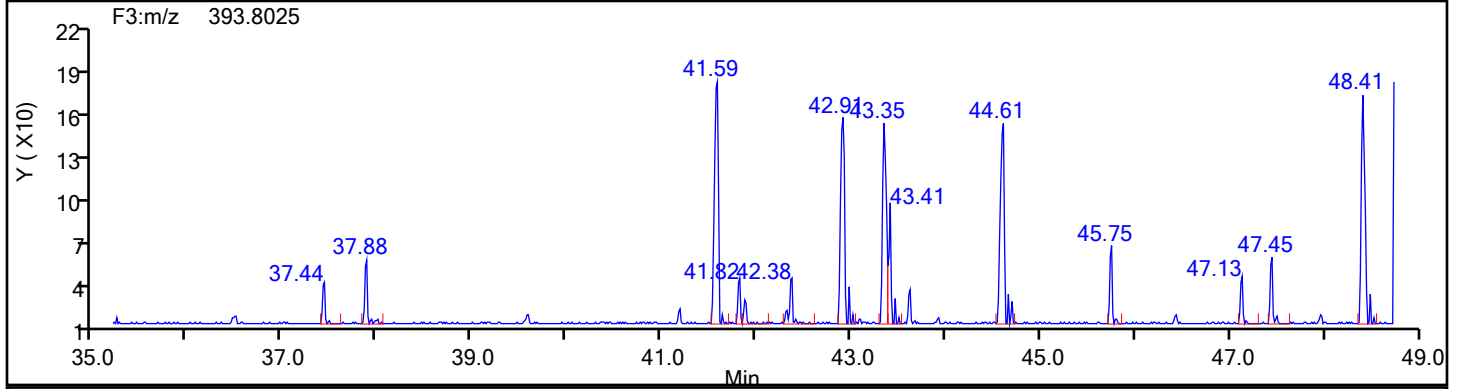
Worklist#: 88809

Sample Line#: 7

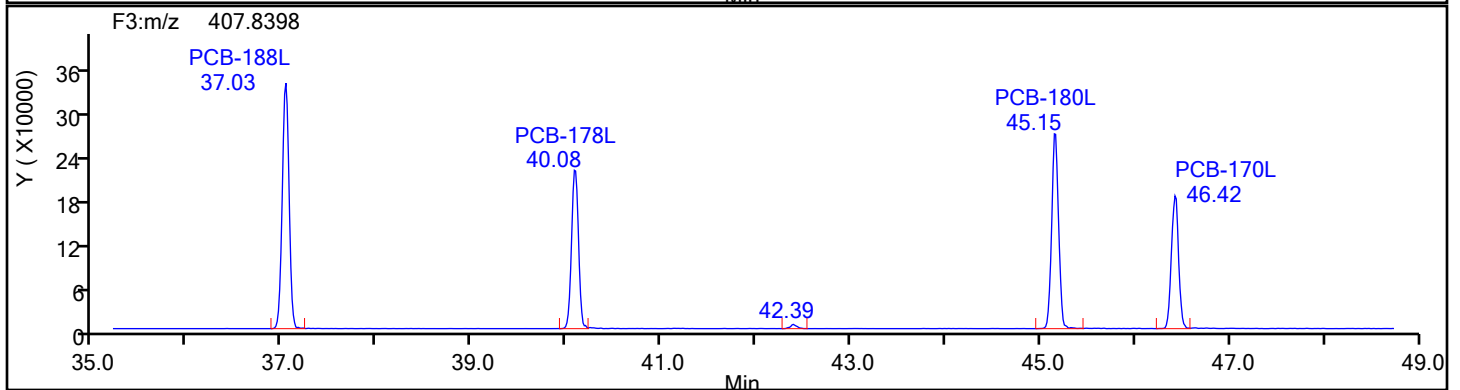
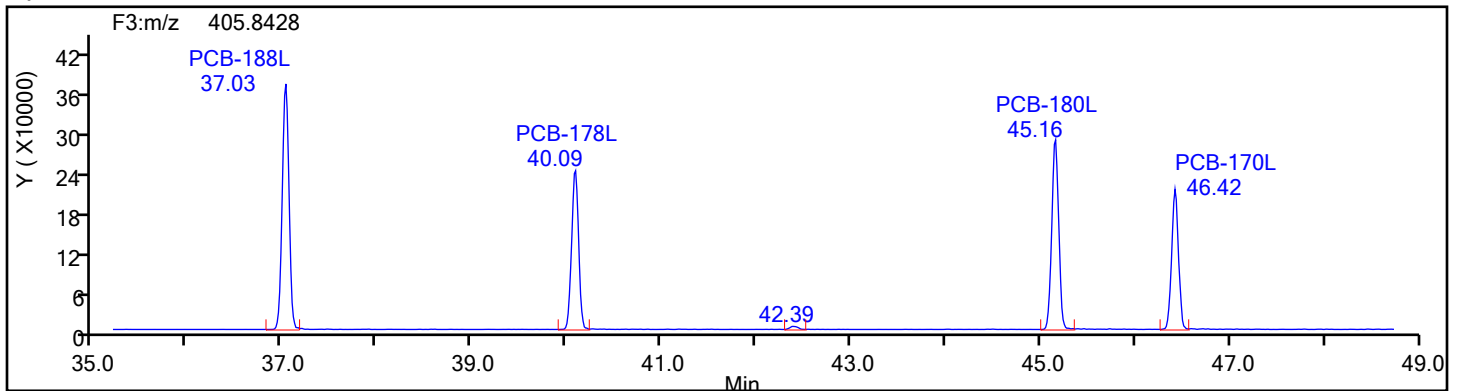
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3

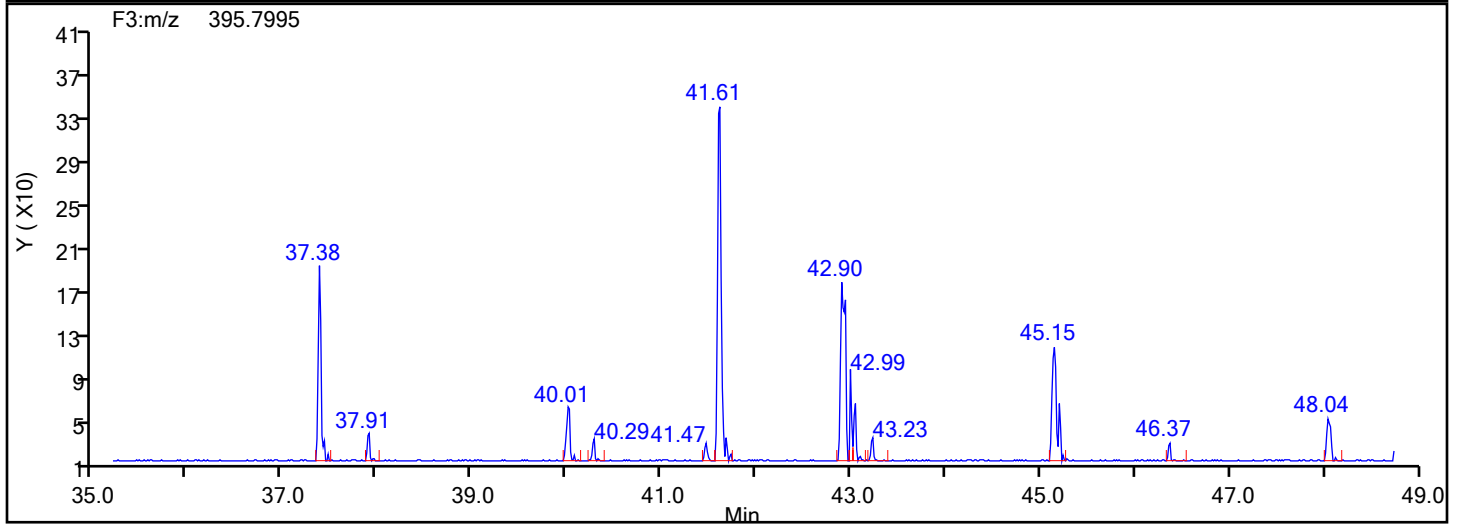
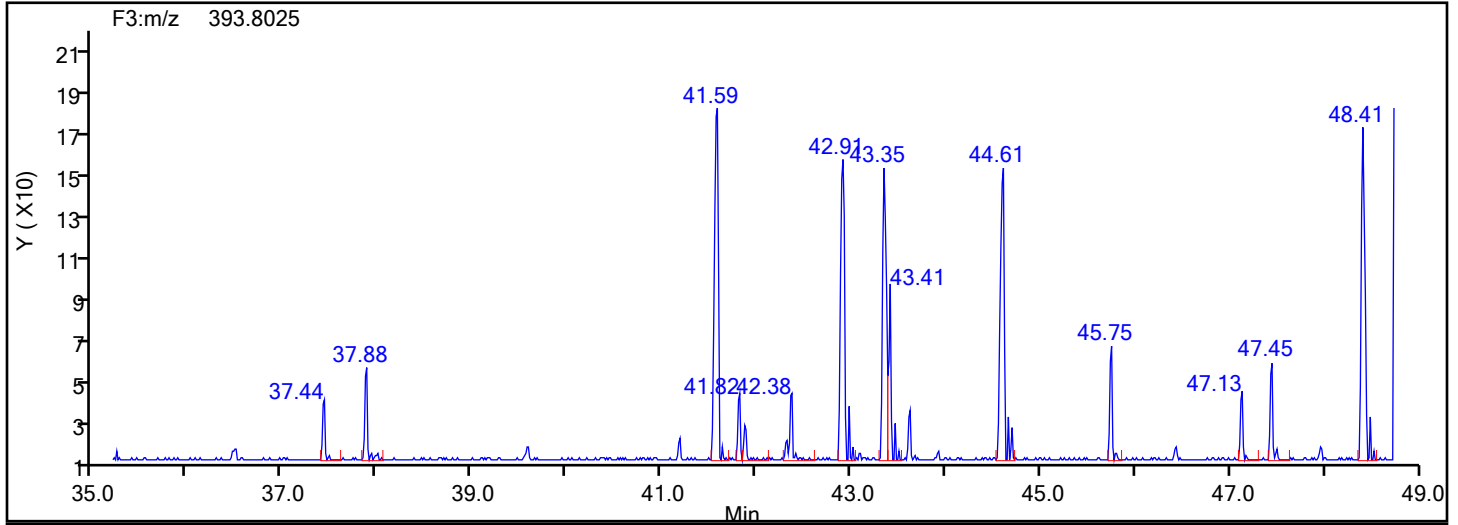


HpPCB F3 Standards

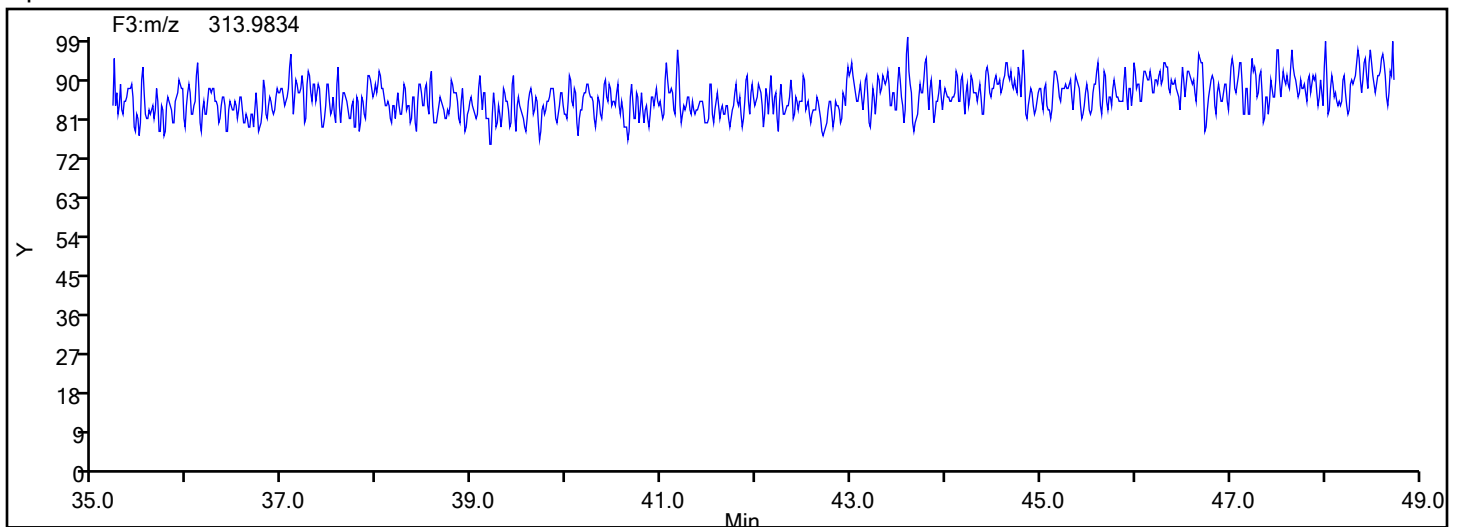


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 15:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 88809 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F3

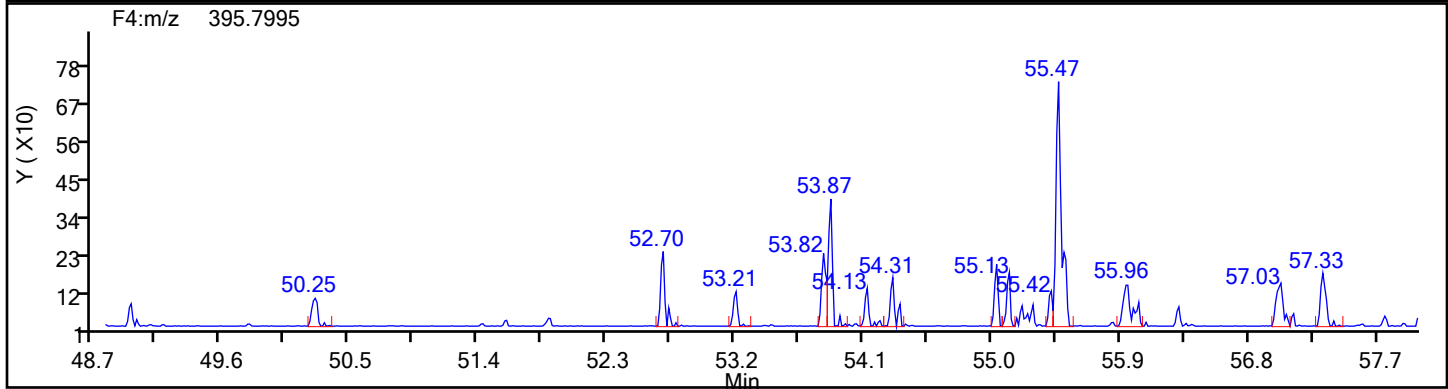
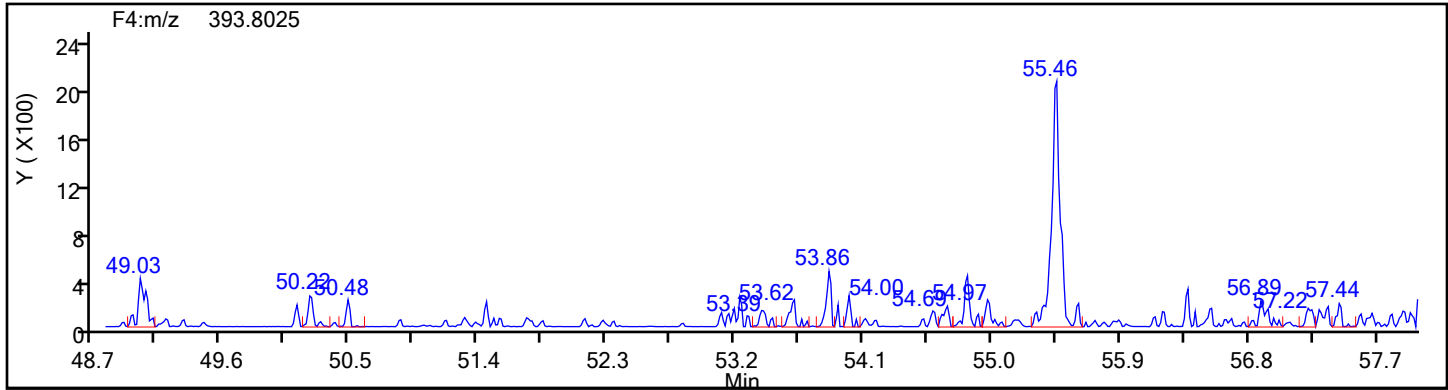


## HpPCB F3 Lock Mass

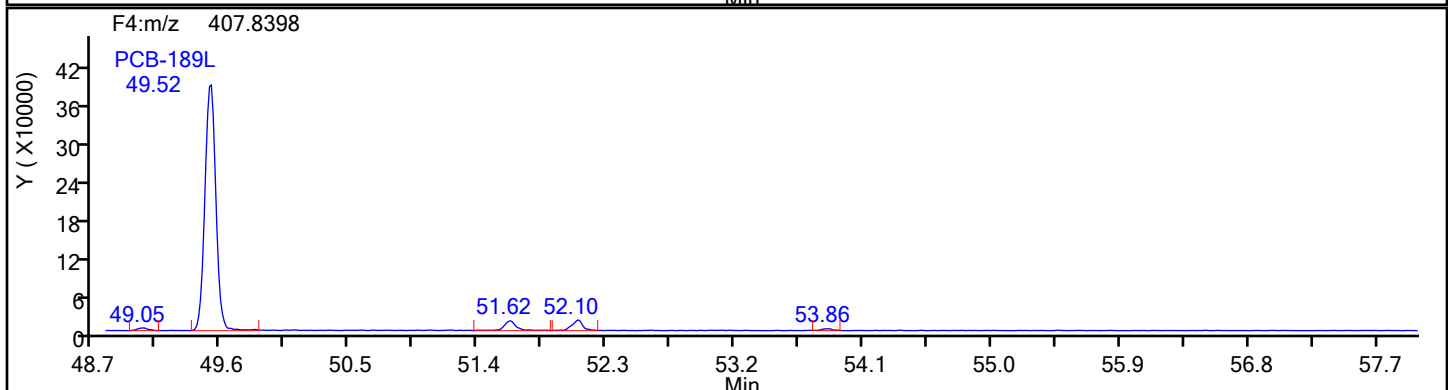
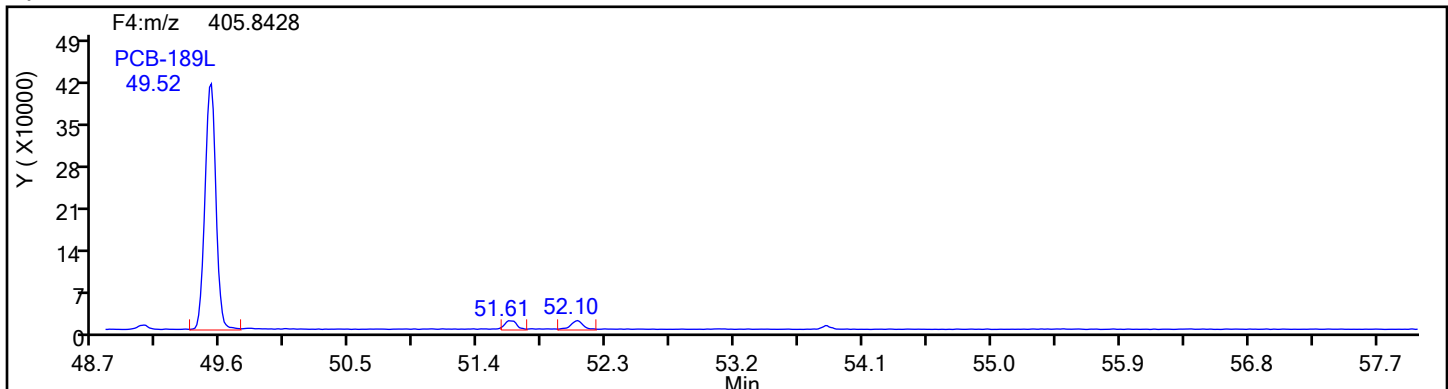


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d  
Injection Date: 16-Jul-2024 15:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 88809 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F4



## HpPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d

Injection Date: 16-Jul-2024 15:40:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER BT COMBINED

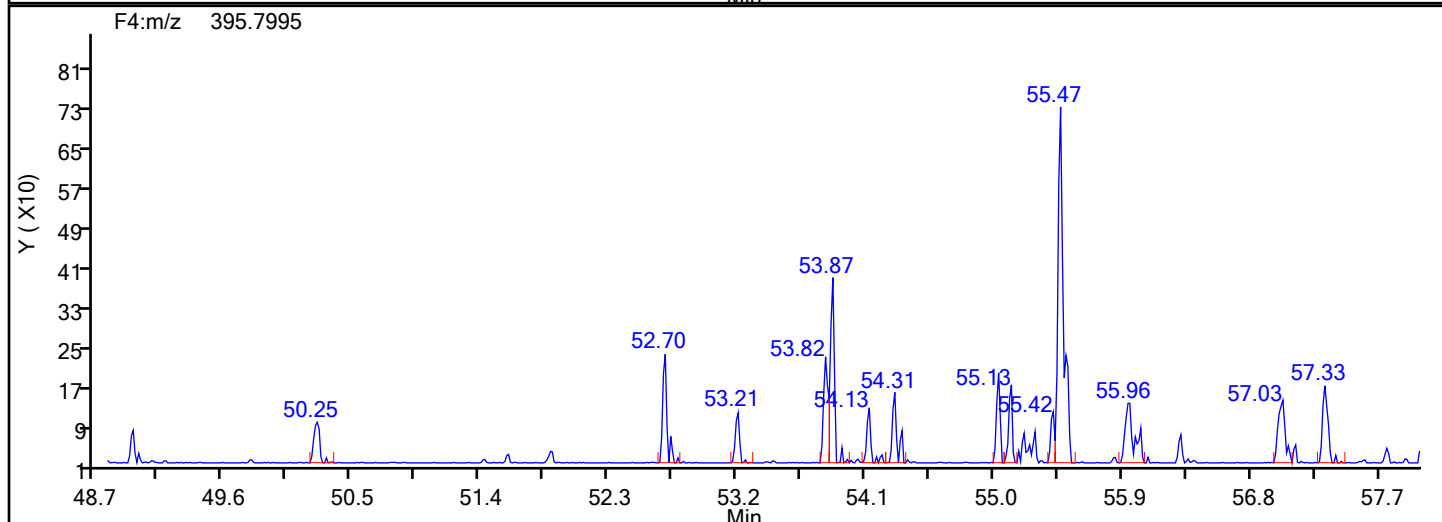
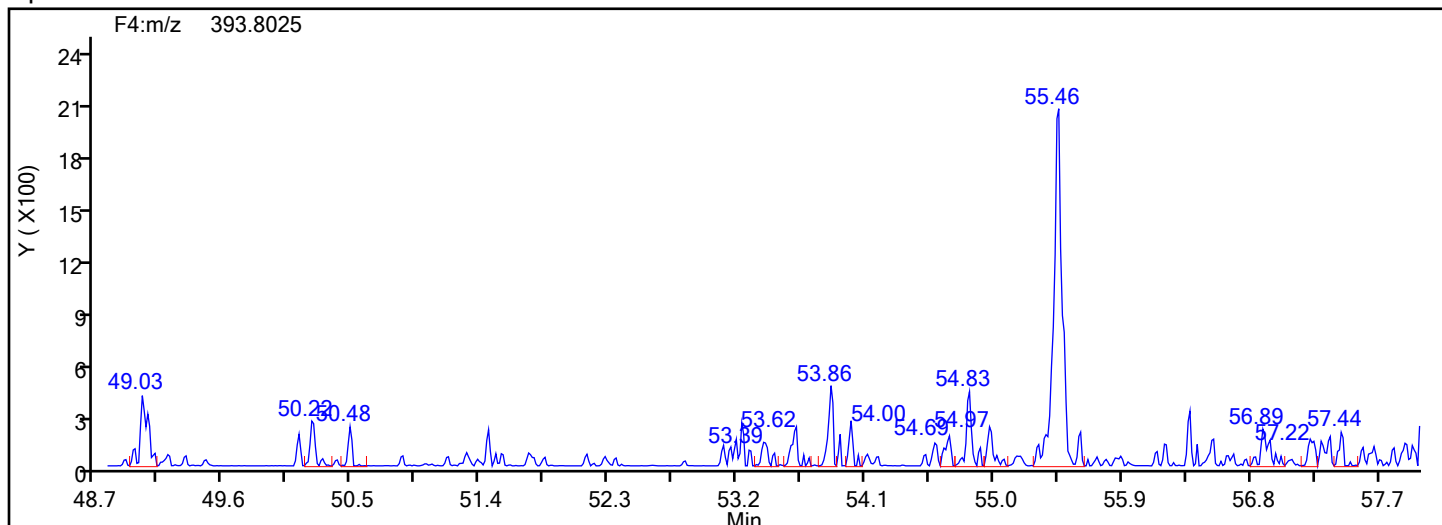
Worklist#: 88809

Sample Line#: 7

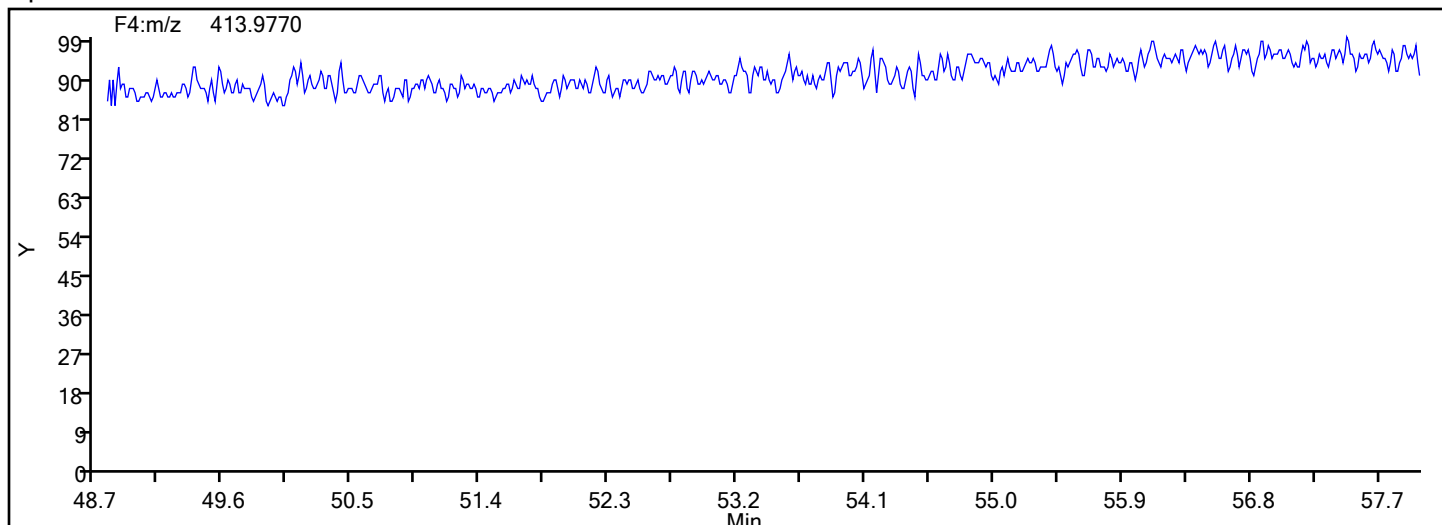
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d

Injection Date: 16-Jul-2024 15:40:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER BT COMBINED

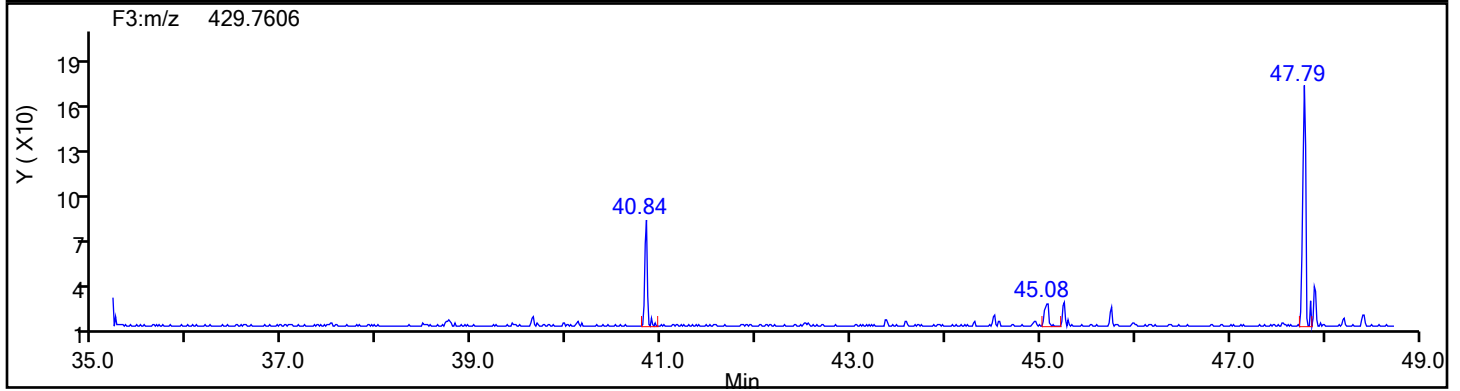
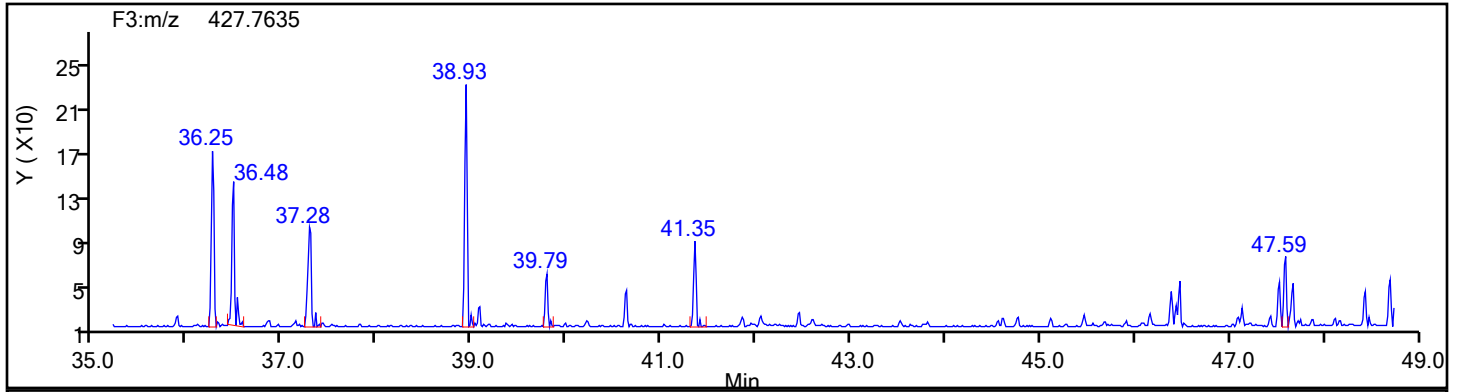
Worklist#: 88809

Sample Line#: 7

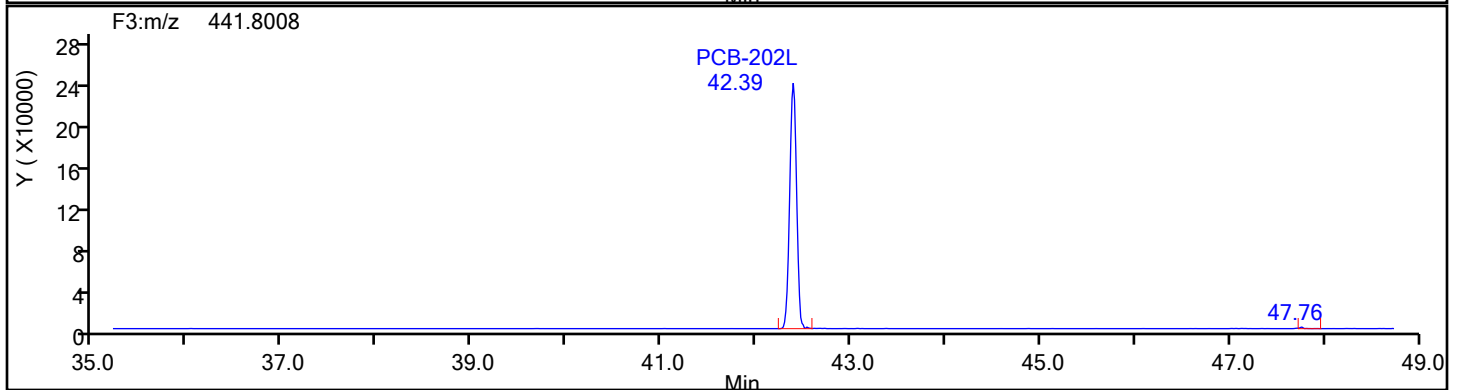
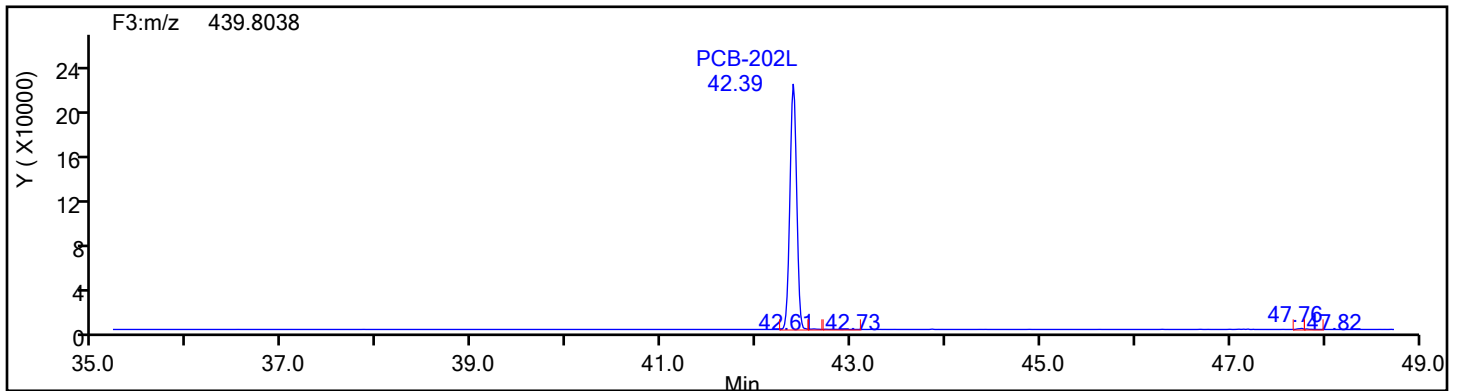
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3



OcPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d

Injection Date: 16-Jul-2024 15:40:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER BT COMBINED

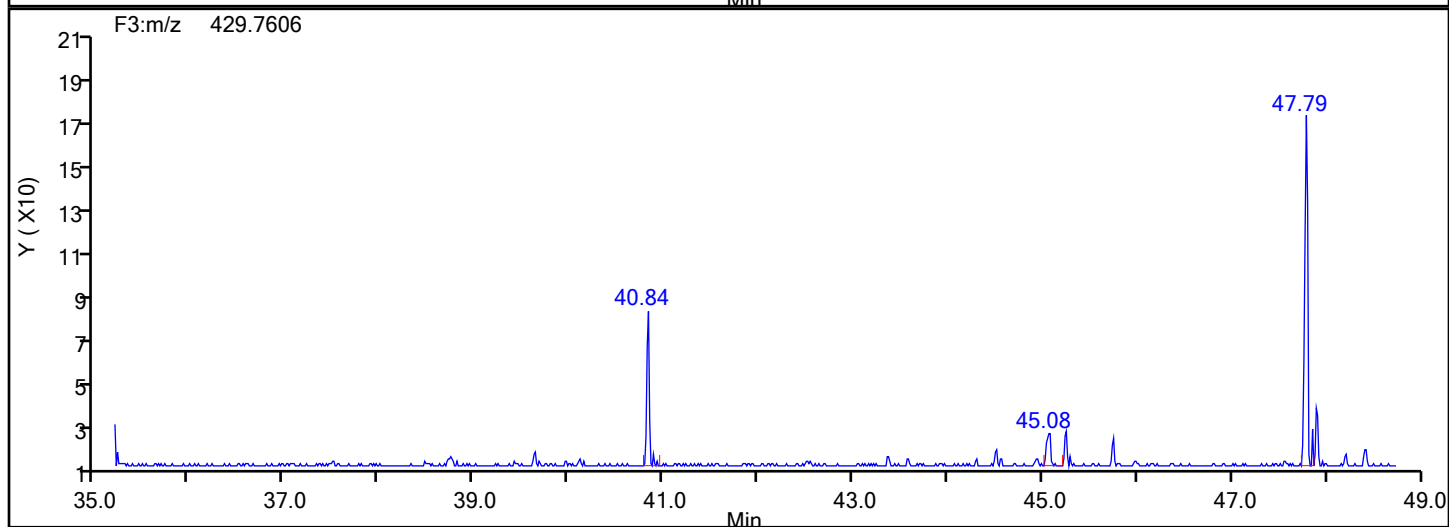
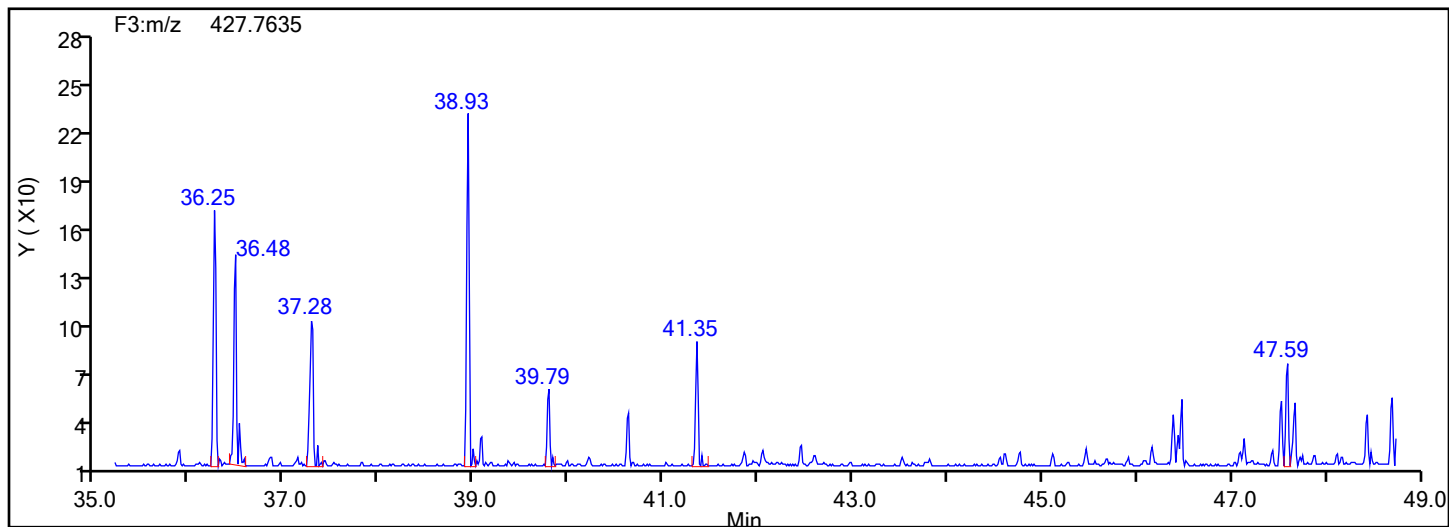
Worklist#: 88809

Sample Line#: 7

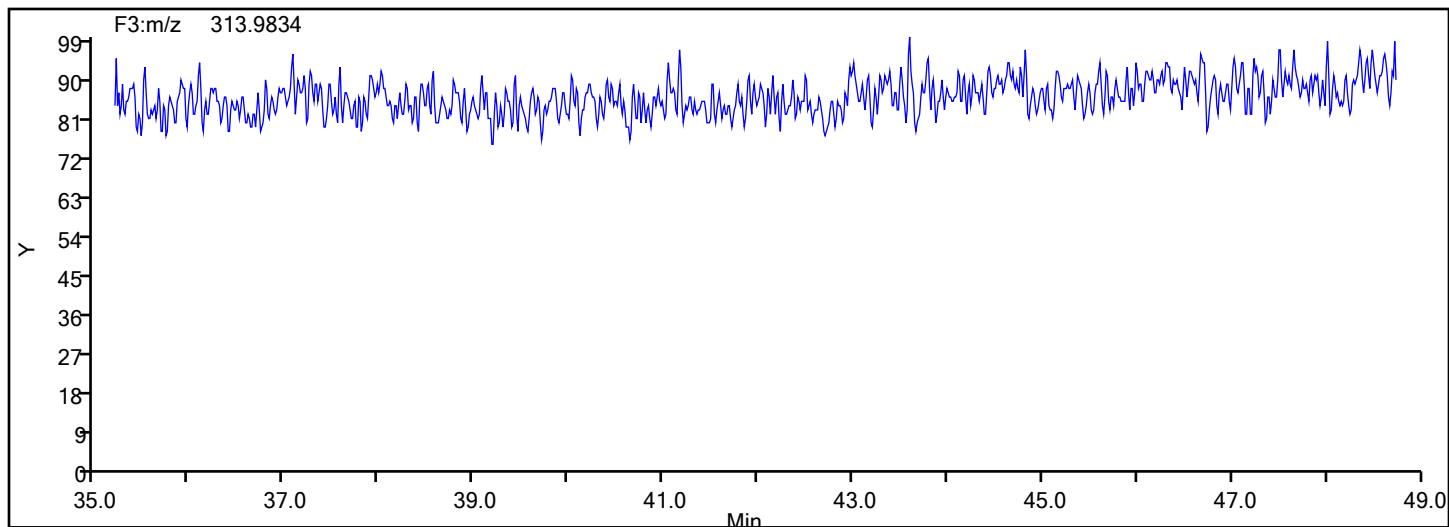
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3

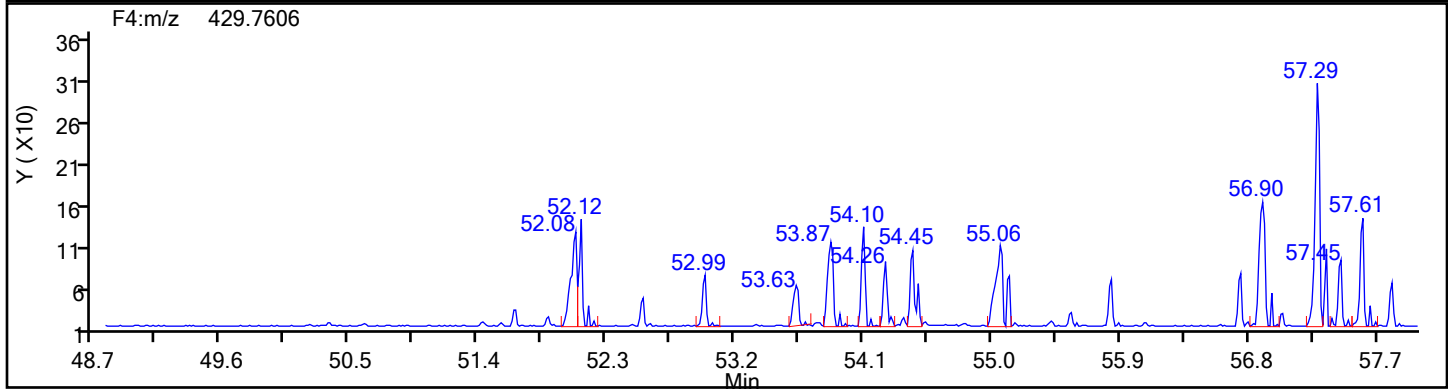
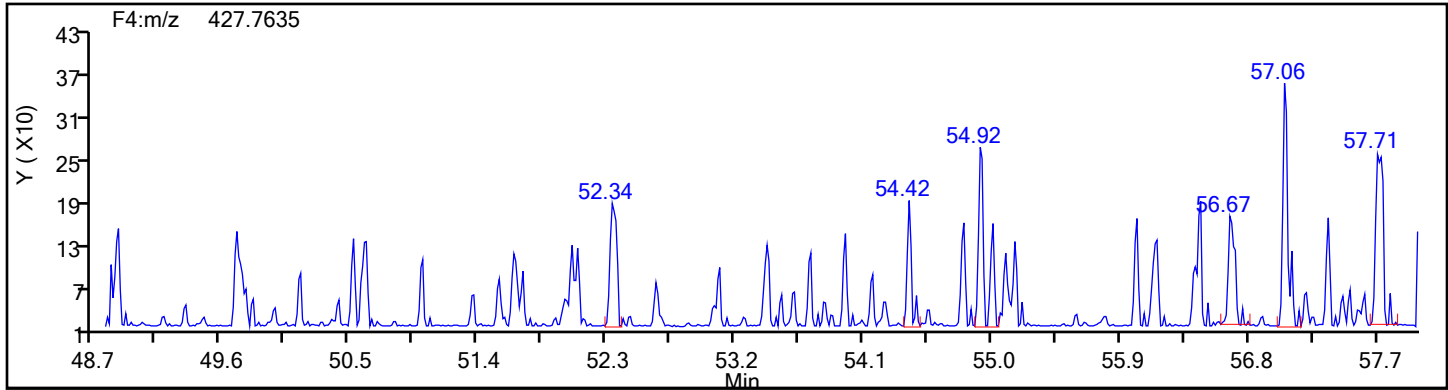


## OcPCB F3 Lock Mass

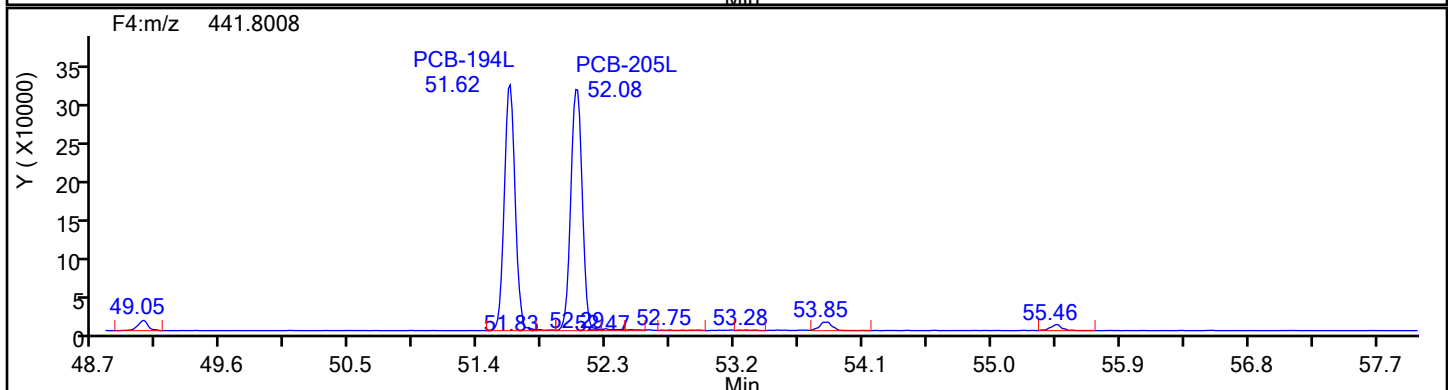
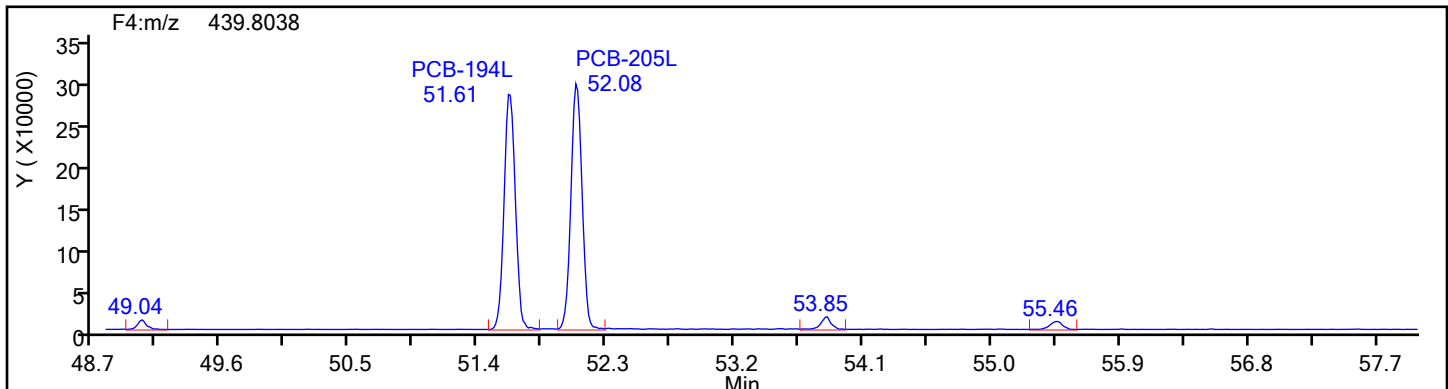


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 88809 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4



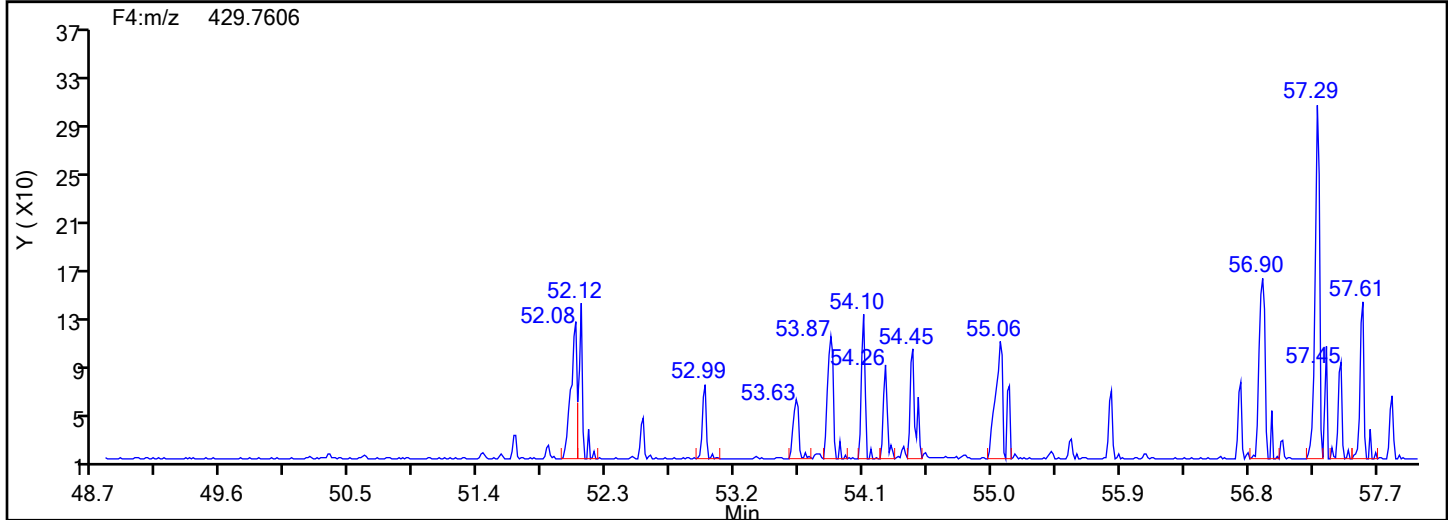
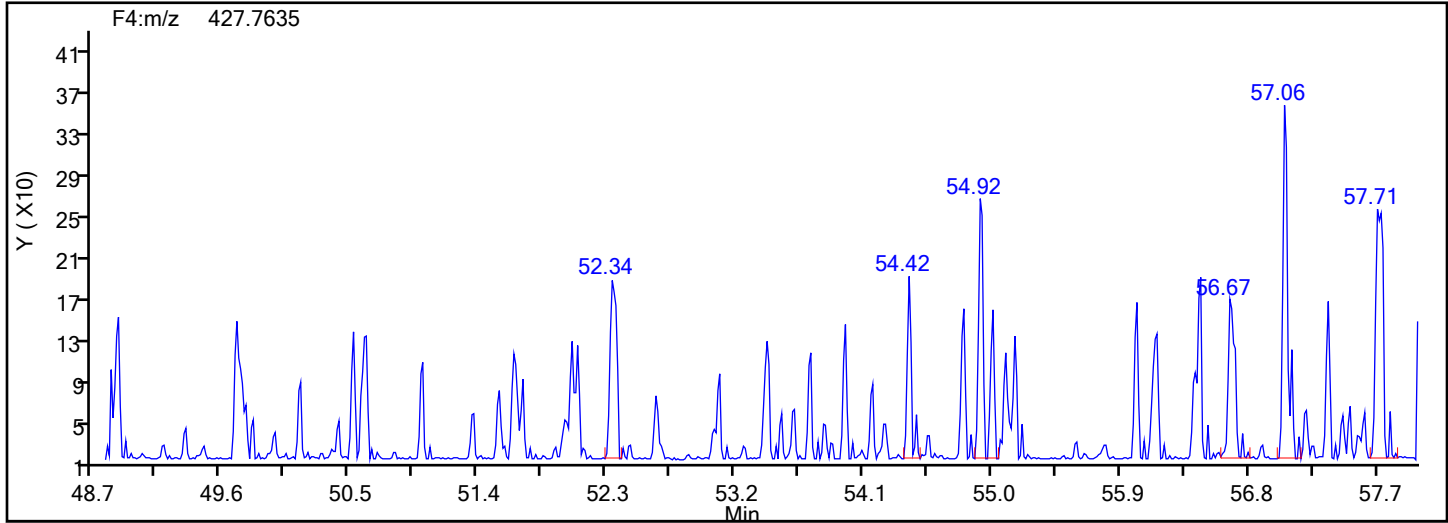
## OcPCB F4 Standards



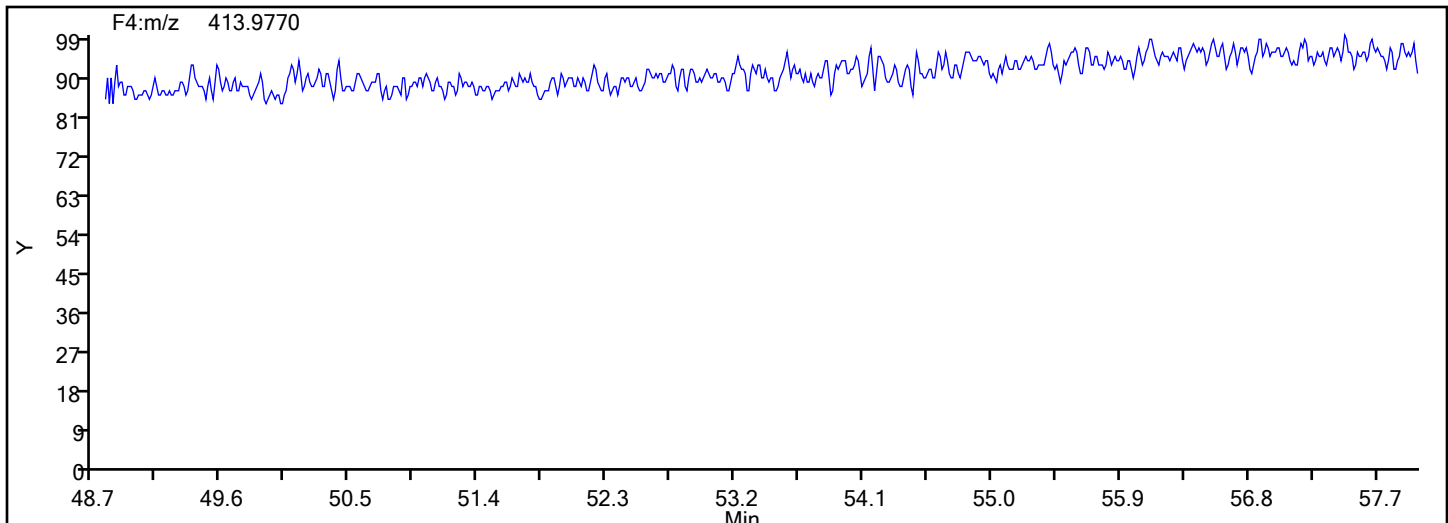


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 88809 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4

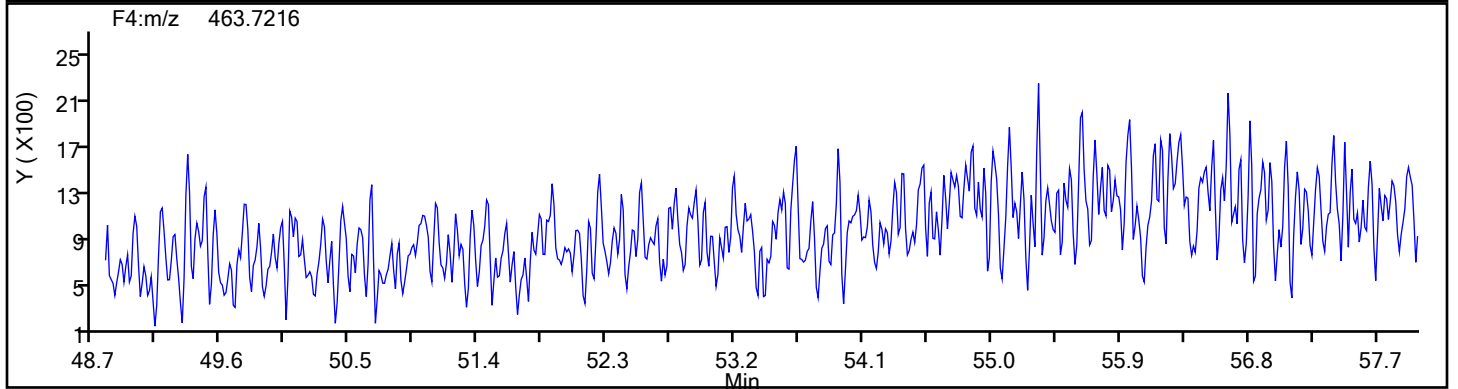
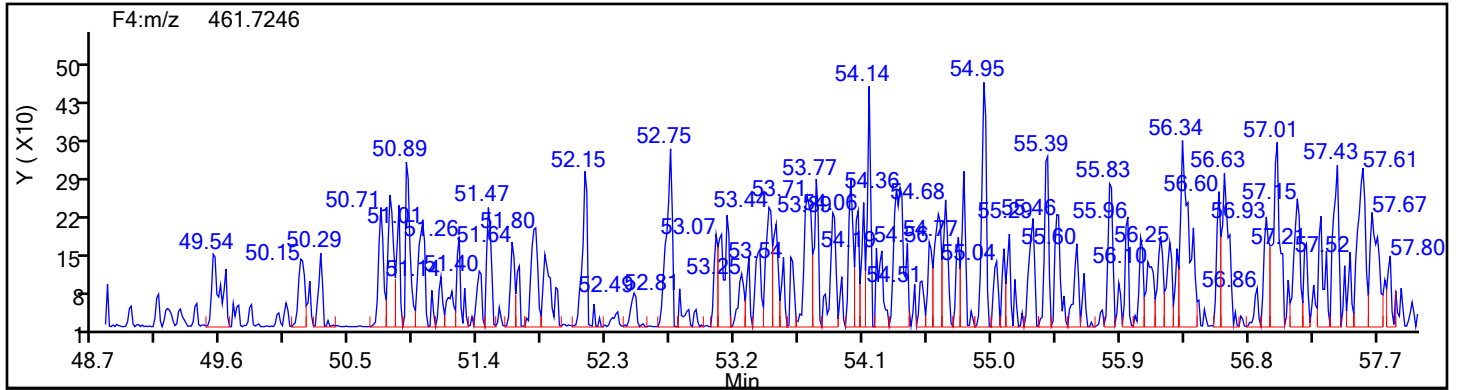


## OcPCB F4 Lock Mass

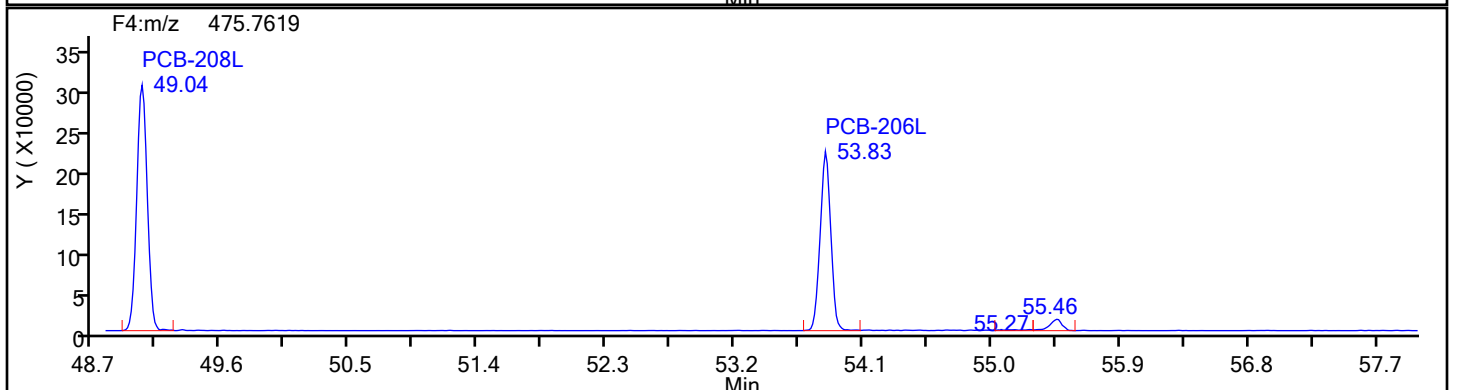
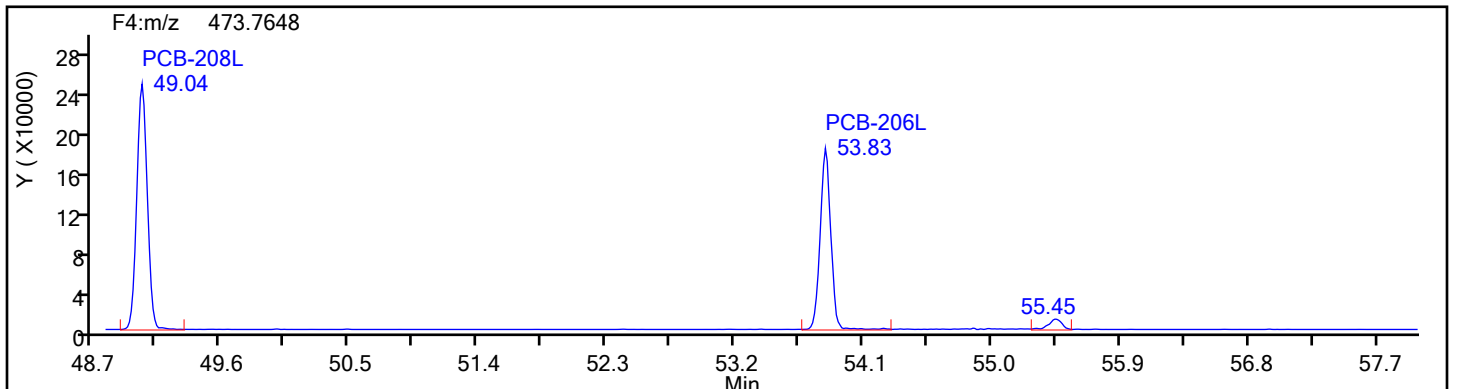


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 15:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 88809 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4

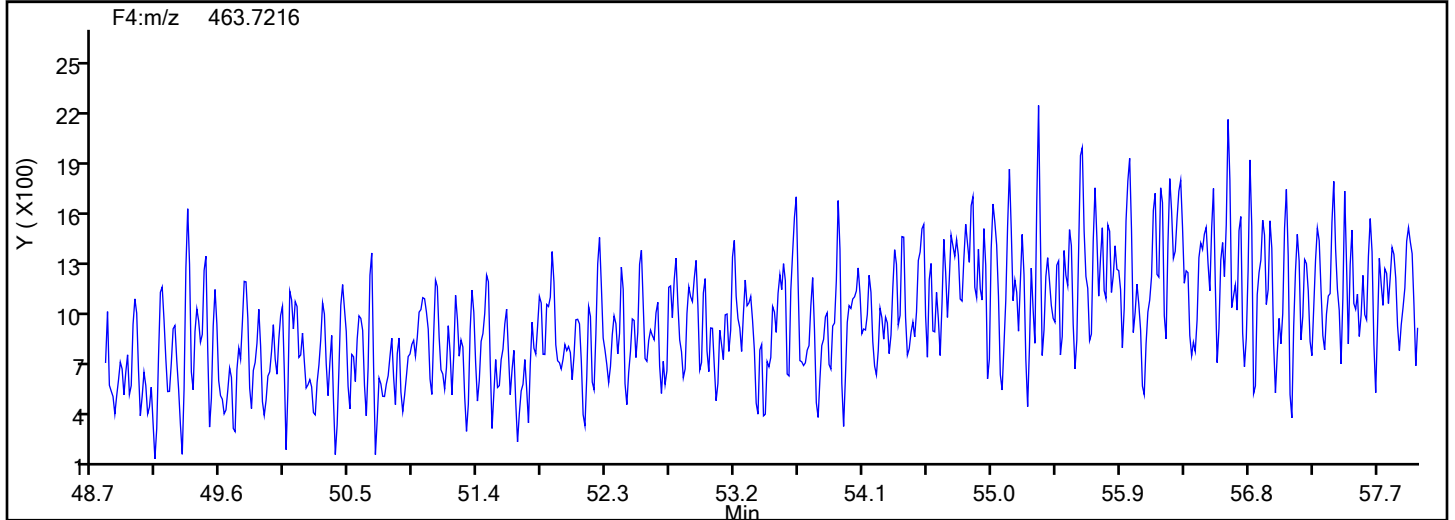
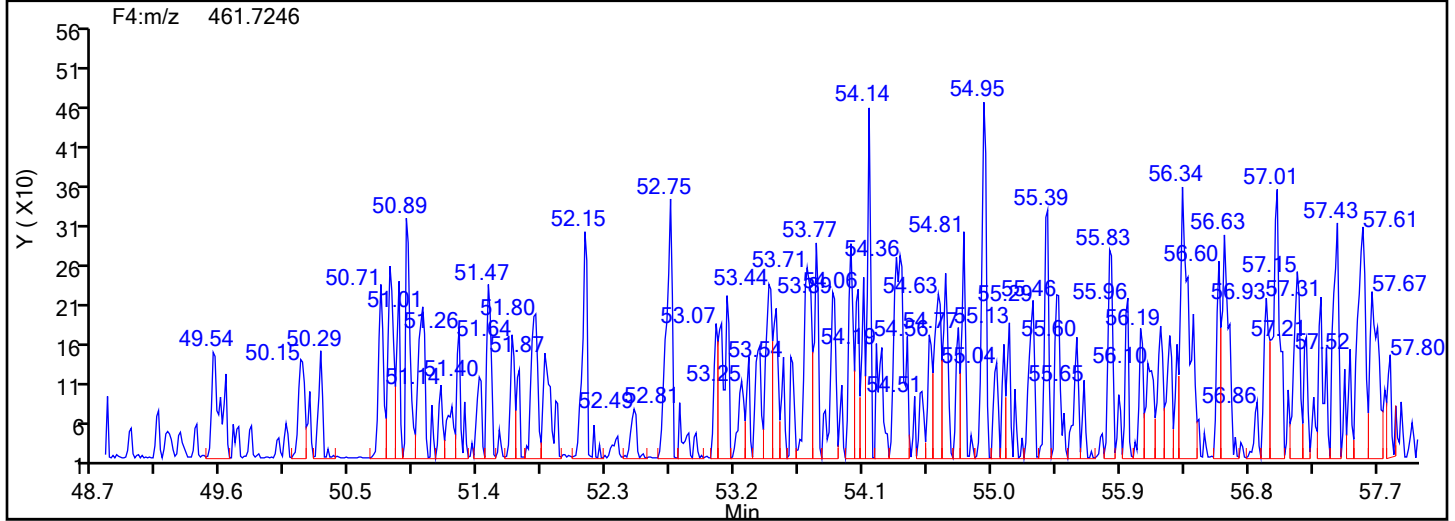


## NoPCB F4 Standards

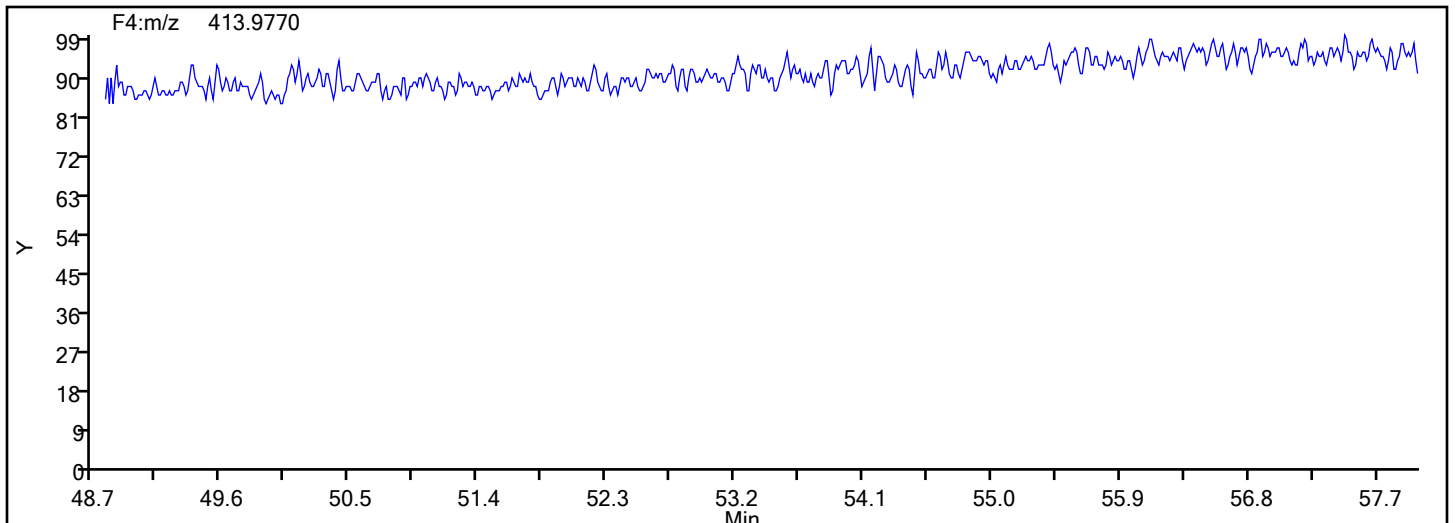


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d  
Injection Date: 16-Jul-2024 15:40:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 88809 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4

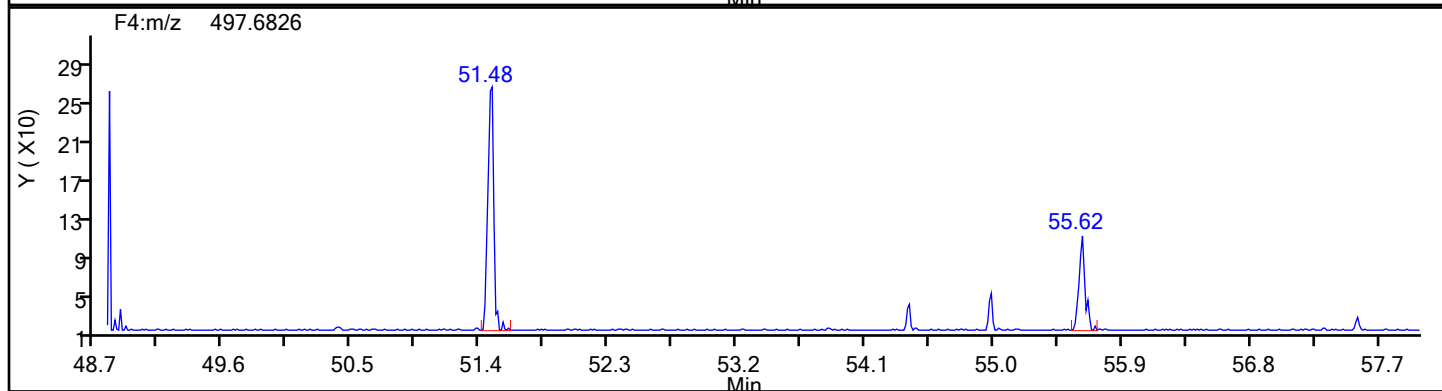
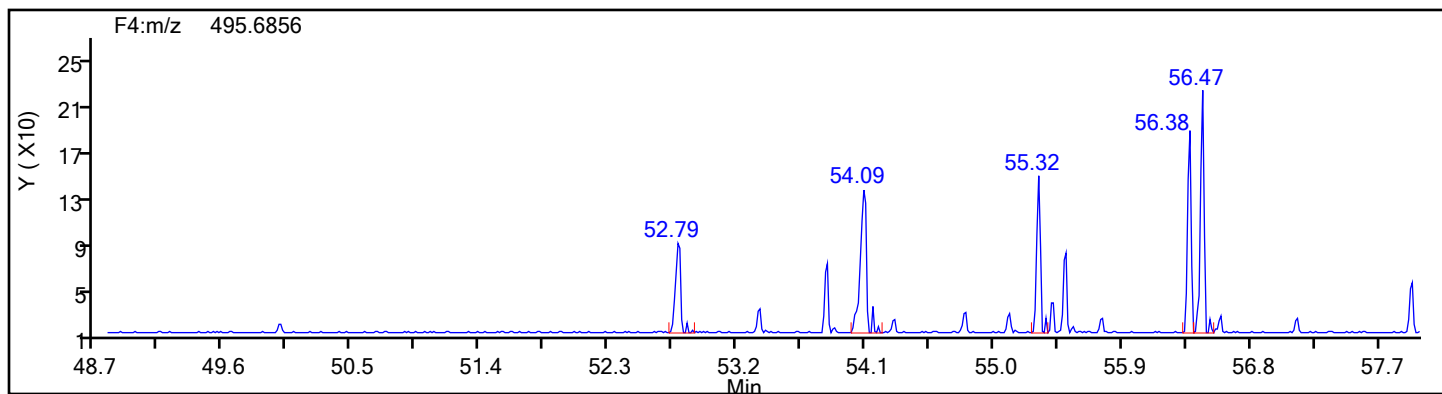


## NoPCB F4 Lock Mass

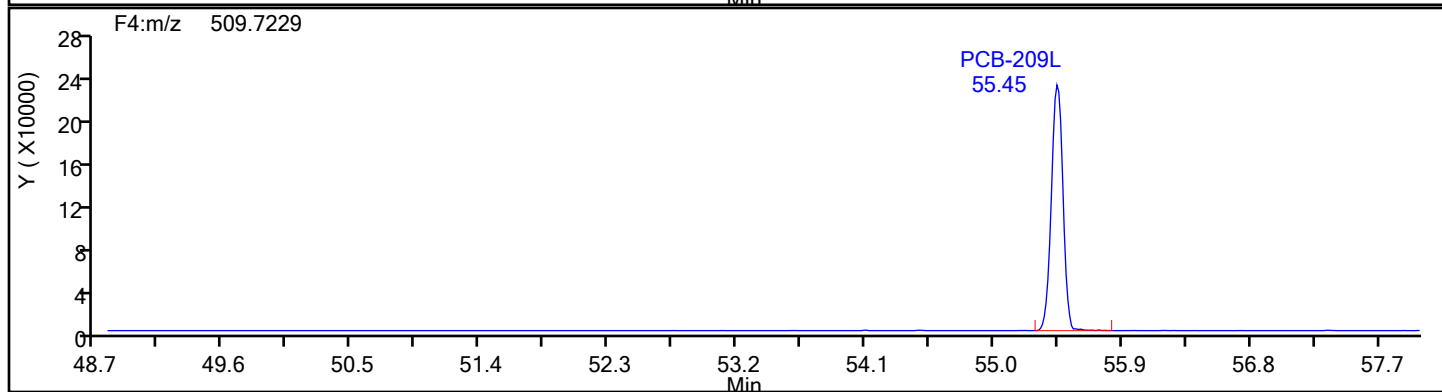
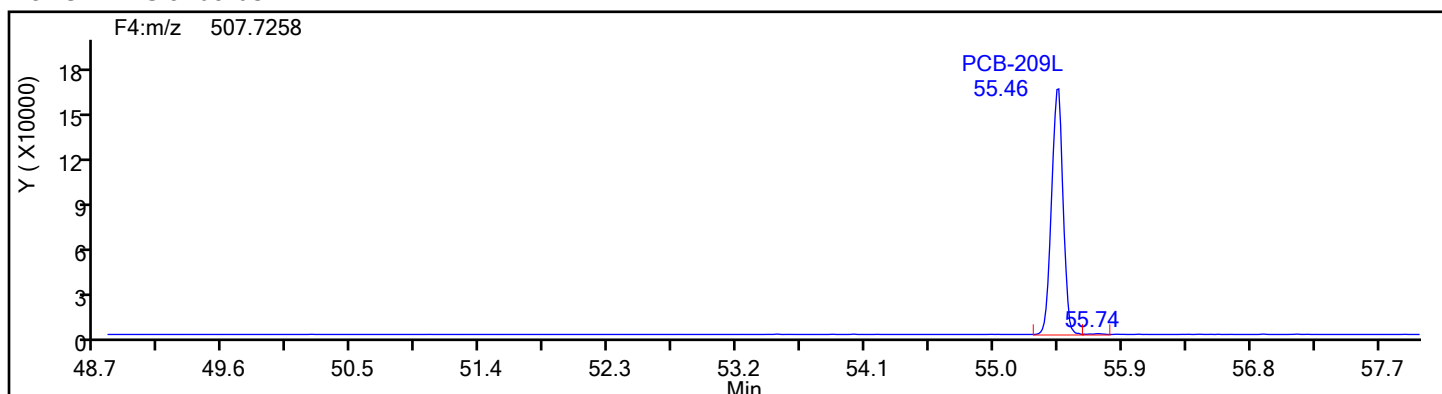


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 F-10 BOILER BT COMBINED  
Worklist#: 88809 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4



## DePCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d

Injection Date: 16-Jul-2024 15:40:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID: M23 F-10 BOILER BT COMBINED

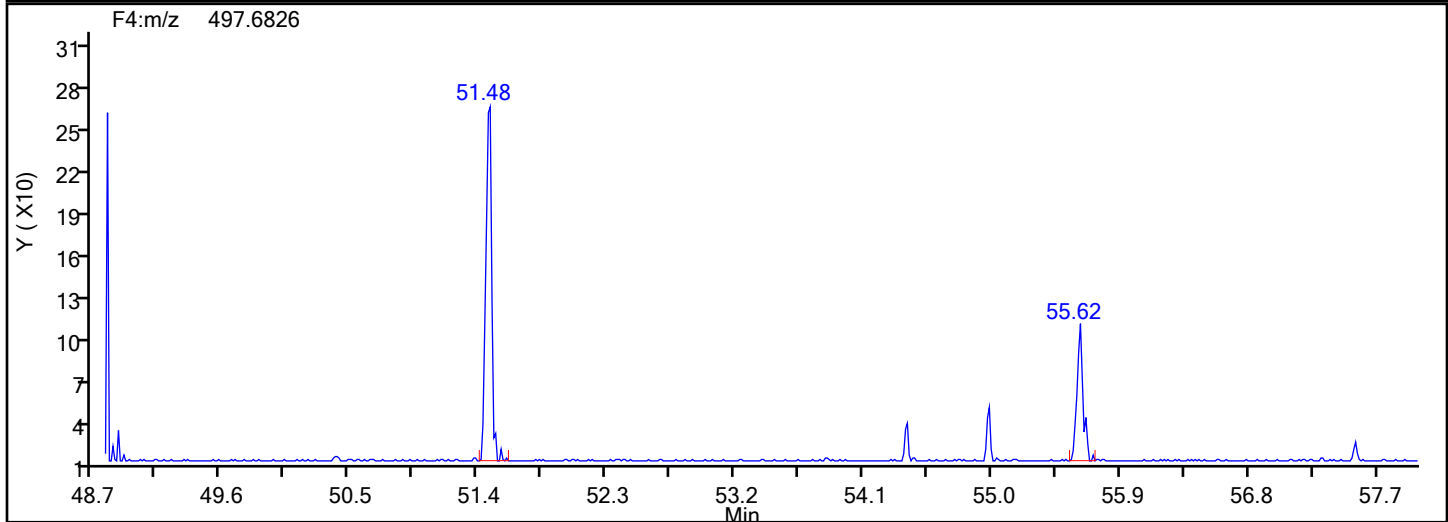
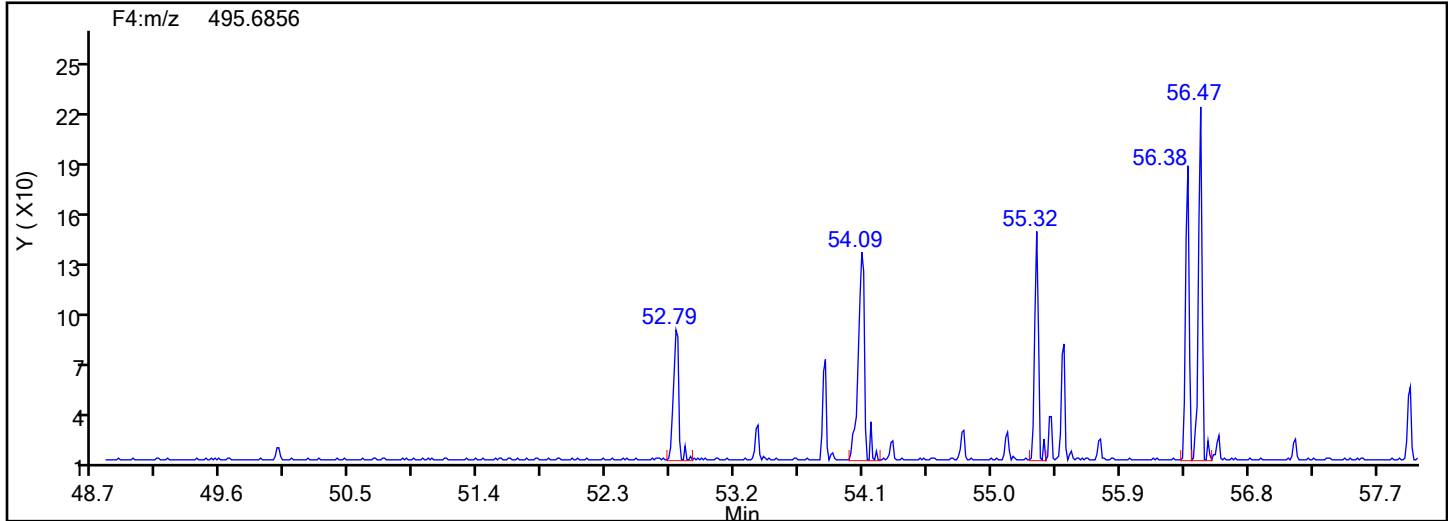
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Sample Line#: 7

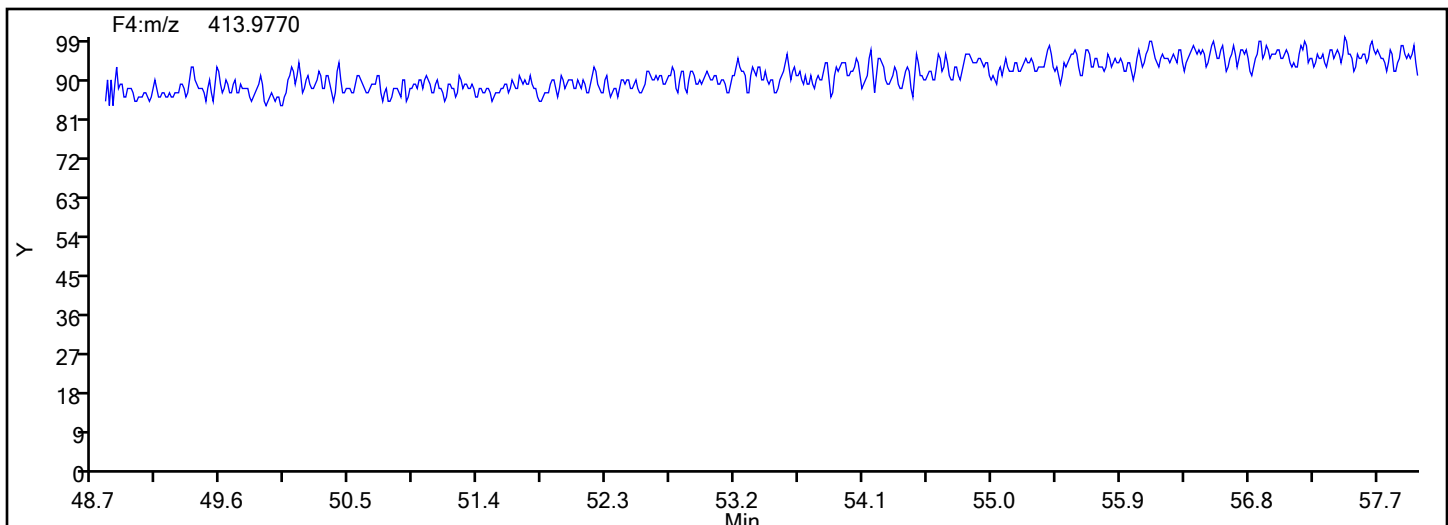
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



DePCB F4 Lock Mass



Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-8-d.d  
Lims ID: 140-37234-A-8-D  
Client ID: M23 F-10 BOILER BT COMBINED  
Sample Type: Client  
Inject. Date: 16-Jul-2024 15:40:00 ALS Bottle#: 0 Worklist Smp#: 7  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033521-007  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 10:34:26 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: TT6I

Date: 17-Jul-2024 10:34:26

Compound	Amount Added	Amount Recovered	% Rec.
PCB-8L	50.0	55.6	111.30
PCB-28L	100.0	66.4	66.42
PCB-79L	50.0	58.6	117.15
PCB-95L	50.0	59.6	119.15
PCB-111L	100.0	75.9	75.93
PCB-153L	50.0	51.6	103.29
PCB-178L	100.0	80.6	80.57

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 MEDIA CHECK A-2229</u> <u>FILTER, A-2228 XAD</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-14</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-14-b.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/03/2024 00:00</u>
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/16/2024 14:38</u>
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88809</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
34883-43-7	PCB-8	ND		0.600	0.132	0.0103
37680-65-2	PCB-18	ND	C	0.600	0.285	0.00618
7012-37-5	PCB-28	0.0271	J B C20	0.600	0.252	0.0111
41464-39-5	PCB-44	0.0535	J C B q	0.900	0.390	0.00982
35693-99-3	PCB-52	0.0130	J q	0.300	0.132	0.0104
32598-10-0	PCB-66	ND		0.300	0.120	0.00759
32598-13-3	PCB-77	0.0149	J q	0.300	0.126	0.00873
70362-50-4	PCB-81	ND		0.300	0.0960	0.00893
37680-73-2	PCB-101	ND	C90	0.900	0.390	0.00601
32598-14-4	PCB-105	ND		0.300	0.102	0.0108
74472-37-0	PCB-114	ND		0.300	0.165	0.0117
31508-00-6	PCB-118	ND		0.300	0.183	0.00998
65510-44-3	PCB-123	ND		0.300	0.171	0.0120
57465-28-8	PCB-126	ND		0.300	0.123	0.0123
38380-07-3	PCB-128	ND	C	0.600	0.204	0.00303
35065-28-2	PCB-138	ND	C129	1.20	0.510	0.00315
35065-27-1	PCB-153	ND	C	0.600	0.249	0.00273
38380-08-4	PCB-156	ND	C	0.600	0.255	0.00336
69782-90-7	PCB-157	ND	C156	0.600	0.255	0.00336
52663-72-6	PCB-167	ND		0.300	0.180	0.00215
32774-16-6	PCB-169	ND		0.300	0.123	0.00222
35065-30-6	PCB-170	ND		0.300	0.132	0.00331
35065-29-3	PCB-180	ND	C	0.600	0.204	0.00259
52663-68-0	PCB-187	ND		0.300	0.126	0.00275
39635-31-9	PCB-189	ND		0.300	0.147	0.00239
52663-78-2	PCB-195	ND		0.300	0.159	0.00373
40186-72-9	PCB-206	ND		0.300	0.171	0.0401
2051-24-3	PCB-209	ND		0.300	0.138	0.00117

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: <u>M23 MEDIA CHECK A-2229</u> <u>FILTER, A-2228 XAD</u> <u>COMBINED</u>	Lab Sample ID: <u>140-37234-14</u>
Matrix: <u>Air</u>	Lab File ID: <u>140-37234-a-14-b.d</u>
Analysis Method: <u>23</u>	Date Collected: <u>06/03/2024</u> 00:00
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024</u> 14:35
Sample wt/vol: <u>1(Sample)</u>	Date Analyzed: <u>07/16/2024</u> 14:38
Con. Extract Vol.: <u>30(mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1(uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25(mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88809</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
234432-85-0	PCB-1L	72		20-145
208263-77-8	PCB-3L	71		20-145
234432-86-1	PCB-4L	72		20-145
208263-67-6	PCB-15L	72		20-145
234432-87-2	PCB-19L	73		20-145
208263-79-0	PCB-37L	76		20-145
234432-88-3	PCB-54L	83		20-145
105600-23-5	PCB-77L	85		20-145
208461-24-9	PCB-81L	83		20-145
234432-89-4	PCB-104L	82		20-145
208263-62-1	PCB-105L	87		20-145
208263-63-2	PCB-114L	84		20-145
104130-40-7	PCB-118L	87		20-145
208263-64-3	PCB-123L	83		20-145
208263-65-4	PCB-126L	88		20-145
234432-90-7	PCB-155L	80		20-145
208263-68-7	PCB-156L	89	C	20-145
235416-30-5	PCB-157L	89	C156	20-145
208263-69-8	PCB-167L	86		20-145
208263-70-1	PCB-169L	91		20-145
160901-80-4	PCB-170L	87		20-145
234432-91-8	PCB-188L	82		20-145
208263-73-4	PCB-189L	90		20-145
105600-26-8	PCB-202L	83		20-145
234446-64-1	PCB-205L	91		20-145
208263-75-6	PCB-206L	94		20-145
234432-92-9	PCB-208L	88		20-145
105600-27-9	PCB-209L	108		20-145



FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: M23 MEDIA CHECK A-2229 Lab Sample ID: 140-37234-14  
FILTER, A-2228 XAD  
COMBINED  
Matrix: Air Lab File ID: 140-37234-a-14-b.d  
Analysis Method: 23 Date Collected: 06/03/2024 00:00  
Extract. Method: Combined Prep Date Extracted: 06/27/2024 14:35  
Sample wt/vol: 1(Sample) Date Analyzed: 07/16/2024 14:38  
Con. Extract Vol.: 30(mL) Dilution Factor: 1  
Injection Volume: 1(uL) GC Column: SPB-Octyl ID: 0.25(mm)  
% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
Cleanup Factor: \_\_\_\_\_ Level: (low/med) Low  
Analysis Batch No.: 88809 Units: ng/Sample  
Preparation Batch No.: 88193 Instrument ID: Excalibur D2D DFS

CAS NO.	SURROGATE	%REC	Q	LIMITS
208263-76-7	PCB-28L	73		20-130
235416-29-2	PCB-111L	78		20-130
232919-67-4	PCB-178L	77		20-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-14-b.d  
Lims ID: 140-37234-A-14-B  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Sample Type: Client  
Inject. Date: 16-Jul-2024 14:38:00 ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033521-006  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 10:15:10 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: TT6I

Date: 17-Jul-2024 10:15:09

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D PCB-1L	11:38	5117097	3.03	1.6108	72.5	72.5	0.2219	0.2219	72.49	
D PCB-3L	13:47	4916100	3.25	1.5891	70.6	70.6	0.2249	0.2249	70.60	
S Total Dichlorobiphenyls							0.0343	0.0343		
D PCB-4L	14:02	2043740	1.56	0.6475	72.0	72.0	0.3737	0.3737	72.03	
* PCB-9L	16:00	4382023	1.60		100.0	100.0				
\$ PCB-8L	16:50						0.3463	0.3463		
D PCB-15L	19:54	3405469	1.64	1.0789	72.0	72.0	0.2243	0.2243	72.03	
PCB-8	16:52						0.0343	0.0343		
D PCB-19L	17:08	1365286	1.07	0.6285	73.5	73.5	0.6342	0.6342	73.48	
* PCB-32L	20:22	2955940	1.08		100.0	100.0				
* PCB-31L	22:38	6144150	1.07		100.0	100.0				
\$ PCB-28L	22:55	4677542	1.07	1.0494	72.5	72.5	0.1668	0.1668	72.55	
D PCB-37L	26:56	4063293	1.07	0.8749	75.6	75.6	0.2000	0.2000	75.59	
PCB-18	18:58						0.0206	0.0206		
PCB-30 (C18)	18:58						0.0206	0.0206		
PCB-20	22:56	4294	1.09	1.1718	0.0902	0.0902	0.0369	0.0369		M
PCB-28 (C20)	22:56	4294	1.09	1.1718	0.0902	0.0902	0.0369	0.0369		M
S Total Tetrachlorobiphenyls					0.3645	0.2715	0.0303	0.0303		RQ
D PCB-54L	20:13	1359367	0.81	0.5562	82.7	82.7	0.1028	0.1028	82.68	
* PCB-52L	24:45	3214370	0.78		100.0	100.0				
\$ PCB-79L	32:39						0.2366	0.2366		
D PCB-81L	33:39	3345778	0.81	1.2470	83.5	83.5	0.1627	0.1627	83.47	
D PCB-77L	34:14	3600085	0.80	1.3212	84.8	84.8	0.1535	0.1535	84.77	
PCB-52	24:47	1388	0.77	0.9194	0.0546	0.0435	0.0346	0.0346		RQM
PCB-44	25:41	6024	0.77	0.9731	0.2107	0.1783	0.0327	0.0327		RQM
PCB-47 (C44)	25:41	6024	0.77	0.9731	0.2107	0.1783	0.0327	0.0327		RQM
PCB-65 (C44)	25:41	6024	0.77	0.9731	0.2107	0.1783	0.0327	0.0327		RQM
PCB-66	29:52						0.0253	0.0253		
PCB-81	33:40						0.0298	0.0298		
PCB-77	34:13	1942	0.77	1.0836	0.0992	0.0498	0.0291	0.0291		RQM
S Total Pentachlorobiphenyls							0.0409	0.0409		
D PCB-104L	25:40	2255084	1.61	1.2161	82.4	82.4	0.0671	0.0671	82.41	
\$ PCB-95L	28:39						0.1018	0.1018		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
* PCB-101L	31:34	2250314	1.60		100.0	100.0				
\$ PCB-111L	34:14	2398484	1.62	1.3699	77.8	77.8	0.0595	0.0595	77.80	
D PCB-123L	36:12	3203960	1.52	0.9731	82.7	82.7	0.9778	0.9778	82.72	
D PCB-118L	36:32	3487449	1.55	1.0102	86.7	86.7	0.9420	0.9420	86.74	
D PCB-114L	37:03	3317487	1.57	0.9949	83.8	83.8	0.9564	0.9564	83.78	
D PCB-105L	37:43	3301359	1.57	0.9514	87.2	87.2	1.000	1.000	87.18	
* PCB-127L	39:11	3980215	1.62		100.0	100.0				
D PCB-126L	40:48	3296263	1.58	0.9439	87.7	87.7	1.008	1.008	87.74	
PCB-90	31:34						0.0200	0.0200		
PCB-101 (C90)	31:34						0.0200	0.0200		
PCB-113 (C90)	31:34						0.0200	0.0200		
PCB-123	36:13						0.0401	0.0401		
PCB-118	36:33						0.0333	0.0333		
PCB-114	37:04						0.0390	0.0390		
PCB-105	37:44						0.0361	0.0361		
PCB-126	40:49						0.0409	0.0409		
S Total Hexachlorobiphenyls					0.0311	0.009720	0.009243	0.009243		RQ
D PCB-155L	31:18	1965022	1.31	1.0851	80.5	80.5	0.0556	0.0556	80.47	
\$ PCB-153L	38:23						0.8469	0.8469		U
* PCB-138L	39:38	2692950	1.28		100.0	100.0				
D PCB-167L	42:38	2905710	1.27	1.2572	85.8	85.8	0.5444	0.5444	85.82	
D PCB-156L	43:49	5822874	1.29	1.2106	178.6	178.6	0.5654	0.5654	89.31	
D PCB-157L (C156L)	43:49	5822874	1.29	1.2106	178.6	178.6	0.5654	0.5654	89.31	
D PCB-169L	47:01	3054800	1.30	1.2439	91.2	91.2	0.5503	0.5503	91.20	
PCB-153	38:26						0.009089	0.009089		
PCB-168 (C153)	38:26						0.009089	0.009089		
PCB-129	39:38	271	1.24	0.9464	0.0311	0.009720	0.0105	0.0105		RQ
PCB-138 (C129)	39:38	271	1.24	0.9464	0.0311	0.009720	0.0105	0.0105		RQ
PCB-160 (C129)	39:38	271	1.24	0.9464	0.0311	0.009720	0.0105	0.0105		RQ
PCB-163 (C129)	39:38	271	1.24	0.9464	0.0311	0.009720	0.0105	0.0105		RQ
PCB-128	40:53						0.0101	0.0101		
PCB-166 (C128)	40:53						0.0101	0.0101		
PCB-167	42:39						0.007154	0.007154		
PCB-156	43:48						0.0112	0.0112		
PCB-157 (C156)	43:48						0.0112	0.0112		
PCB-169	47:02						0.007396	0.007396		
S Total Heptachlorobiphenyls							0.0110	0.0110		
D PCB-188L	37:01	2248302	1.04	1.3133	82.1	82.1	0.0509	0.0509	82.11	
\$ PCB-178L	40:05	1653092	1.09	1.0313	76.9	76.9	0.0649	0.0649	76.88	
* PCB-180L	45:10	2084794	1.10		100.0	100.0				
D PCB-170L	46:26	1521882	1.05	0.8362	87.3	87.3	0.0800	0.0800	87.30	
D PCB-189L	49:31	3499416	1.09	1.4414	90.1	90.1	0.4996	0.4996	90.05	
PCB-187	41:00						0.009152	0.009152		
PCB-180	45:10						0.008637	0.008637		
PCB-193 (C180)	45:10						0.008637	0.008637		
PCB-170	46:27						0.0110	0.0110		
PCB-189	49:33						0.007979	0.007979		
S Total Octachlorobiphenyls							0.0124	0.0124		
D PCB-202L	42:24	1693723	0.89	0.9818	82.7	82.7	0.0217	0.0217	82.75	
* PCB-194L	51:38	2696000	0.93		100.0	100.0				
D PCB-205L	52:06	2883985	0.90	1.1786	90.8	90.8	0.0992	0.0992	90.77	
PCB-195	49:19						0.0124	0.0124		
S Total Nonachlorobiphenyls							0.1337	0.1337		
D PCB-208L	49:03	2265256	0.81	0.9576	87.7	87.7	0.2283	0.2283	87.74	
D PCB-206L	53:51	1764156	0.81	0.6947	94.2	94.2	0.3146	0.3146	94.19	
PCB-206	53:52						0.1337	0.1337		
D PCB-209L	55:27	1948241	0.70	0.6669	108.4	108.4	0.0814	0.0814	108	
DCB Decachlorobiphenyl	55:30						0.003886	0.003886		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
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S Polychlorinated biphenyls, Total

0.3955

0.0345

0.0345

RQ

### QC Flag Legend

#### Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

#### Review Flags

M - Manually Integrated

U - Marked Undetected

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-14-b.d  
Lims ID: 140-37234-A-14-B  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Sample Type: Client  
Inject. Date: 16-Jul-2024 14:38:00 ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033521-006  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 10:15:10 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICAL File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: TT61

Date: 17-Jul-2024 10:15:09

Signal	RT (min.)	Adj RT (min.)	⏏ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:38	11:38	-1	0.727	3847138	1505571	968	2420	1555		
202.0766	11:38	11:38	-1	0.727	1269959	484548	663	1657	731	3.03(2.66-3.60)	
PCB-3L											
200.0795	13:47	13:47	-1	0.862	3758208	1084016	968	2420	1120		
202.0766	13:47	13:47	-1	0.862	1157892	334121	663	1657	504	3.25(2.66-3.60)	
PCB-4L											
234.0406	14:02	14:02	-1	0.878	1246755	392045	980	2450	400		
236.0376	14:02	14:02	-1	0.878	796985	246584	124	310	1989	1.56(1.33-1.79)	
PCB-9L											
234.0406	16:00	16:00	0		2697477	700207	980	2450	714		
236.0376	16:00	16:00	0		1684546	440346	124	310	3551	1.60(1.33-1.79)	
PCB-8L											
234.0406	16:49						980	2450			
236.0376	16:49						124	310			
PCB-15L											
234.0406	19:54	19:53	0	1.245	2116736	423731	980	2450	432		
236.0376	19:54	19:53	0	1.245	1288733	258867	124	310	2088	1.64(1.33-1.79)	
PCB-8											
222.0003	16:51						34	85			
223.9974	16:51						110	275			
PCB-19L											
268.0016	17:08	17:08	-1	0.841	707186	185301	508	1270	365		
269.9986	17:08	17:08	-1	0.841	658100	172297	613	1532	281	1.07(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-32L											
268.0016	20:22	20:22	0		1536379	359920	508	1270	709		
269.9986	20:22	20:22	0		1419561	343023	613	1532	560	1.08(0.88-1.20)	
PCB-31L											
268.0016	22:38	22:37	0		3171161	686027	618	1545	1110		
269.9986	22:38	22:37	0		2972989	649334	317	792	2048	1.07(0.88-1.20)	
PCB-28L											
268.0016	22:55	22:54	0	1.012	2418423	487314	618	1545	789		
269.9986	22:55	22:54	0	1.012	2259119	459670	317	792	1450	1.07(0.88-1.20)	
PCB-37L											
268.0016	26:56	26:54	0	1.190	2095871	361070	618	1545	584		
269.9986	26:56	26:54	0	1.190	1967422	320650	317	792	1012	1.07(0.88-1.20)	
PCB-18											
255.9613	18:57						26	65			
257.9584	18:57						26	65			
PCB-30 (C18)											
255.9613	18:57						26	65			
257.9584	18:57						26	65			
PCB-20											
255.9613	22:56	22:56	-1	0.851	2240	660	57	142	12		M
257.9584	22:58	22:56	0	0.852	2054	384	61	152	6	1.09(0.88-1.20)	M
PCB-28 (C20)											
255.9613	22:56	22:56	-1	0.851	2240	660	57	142	12		M
257.9584	22:58	22:56	0	0.852	2054	384	61	152	6	1.09(0.88-1.20)	M
PCB-54L											
301.9626	20:13	20:12	0	0.816	607565	150437	98	245	1535		
303.9597	20:13	20:12	0	0.816	751802	181413	63	157	2880	0.81(0.65-0.89)	
PCB-52L											
301.9626	24:45	24:45	0		1407629	301834	330	825	915		
303.9597	24:44	24:45	0		1806741	384425	227	567	1694	0.78(0.65-0.89)	
PCB-79L											
301.9626	32:40						330	825			
303.9597	32:40						227	567			
PCB-81L											
301.9626	33:39	33:37	0	1.360	1501393	263842	330	825	800		
303.9597	33:39	33:37	0	1.360	1844385	317684	227	567	1399	0.81(0.65-0.89)	
PCB-77L											
301.9626	34:14	34:12	0	1.383	1604200	262302	330	825	795		
303.9597	34:14	34:12	0	1.383	1995885	330445	227	567	1456	0.80(0.65-0.89)	
PCB-52											
289.9224	24:47	24:46	0	1.226	604	235	4	10	59		RQM
291.9194	24:46	24:46	0	1.225	1140	396	71	177	6	0.53(0.65-0.89)	M
Empc Correction					784	305	71	177	4		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-44											RQM
289.9224	25:41	25:33	-5	1.271	2621	531	4	10	133		M
291.9194	25:33	25:33	-13	1.264	4498	560	71	177	8	0.58(0.65-0.89)	M
Empc Correction					3403	689	71	177	10		
PCB-47 (C44)											RQM
289.9224	25:41	25:33	-5	1.271	2621	531	4	10	133		M
291.9194	25:33	25:33	-13	1.264	4498	560	71	177	8	0.58(0.65-0.89)	M
Empc Correction					3403	689	71	177	10		
PCB-65 (C44)											RQM
289.9224	25:41	25:33	-5	1.271	2621	531	4	10	133		M
291.9194	25:33	25:33	-13	1.264	4498	560	71	177	8	0.58(0.65-0.89)	M
Empc Correction					3403	689	71	177	10		
PCB-66											
289.9224	29:52						4	10			
291.9194	29:52						71	177			
PCB-81											
289.9224	33:40						4	10			
291.9194	33:40						71	177			
PCB-77											RQM
289.9224	34:13	34:16	-1	1.000	845	346	4	10	87		
291.9194	34:16	34:16	2	1.001	3025	648	71	177	9	0.28(0.65-0.89)	M
Empc Correction					1097	449	71	177	6		
PCB-104L											
337.9207	25:40	25:40	0	0.813	1392442	310815	110	275	2826		
339.9178	25:40	25:40	0	0.813	862642	185810	36	90	5161	1.61(1.32-1.78)	
PCB-95L											
337.9207	28:39						110	275			
339.9178	28:39						36	90			
PCB-101L											
337.9207	31:34	31:34	0		1384580	274195	110	275	2493		
339.9178	31:34	31:34	0		865734	173419	36	90	4817	1.60(1.32-1.78)	
PCB-111L											
337.9207	34:14	34:12	0	1.085	1483374	287311	110	275	2612		
339.9178	34:14	34:12	0	1.085	915110	180315	36	90	5009	1.62(1.32-1.78)	
PCB-123L											
337.9207	36:12	36:11	0	1.147	1934928	369546	1669	4172	221		
339.9178	36:12	36:11	0	1.147	1269032	252036	1114	2785	226	1.52(1.32-1.78)	
PCB-118L											
337.9207	36:32	36:30	1	1.157	2120787	406420	1669	4172	244		
339.9178	36:32	36:30	1	1.157	1366662	259173	1114	2785	233	1.55(1.32-1.78)	
PCB-114L											
337.9207	37:03	37:02	0	1.174	2027896	386876	1669	4172	232		
339.9178	37:03	37:02	0	1.174	1289591	244601	1114	2785	220	1.57(1.32-1.78)	
PCB-105L											
337.9207	37:43	37:41	1	1.195	2016451	374546	1669	4172	224		
339.9178	37:43	37:41	1	1.195	1284908	248043	1114	2785	223	1.57(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-127L											
337.9207	39:11	39:10	1		2463940	458010	1669	4172	274		
339.9178	39:11	39:10	1		1516275	273118	1114	2785	245	1.62(1.32-1.78)	
PCB-126L											
337.9207	40:48	40:46	0	1.293	2021003	363266	1669	4172	218		
339.9178	40:48	40:46	0	1.293	1275260	231608	1114	2785	208	1.58(1.32-1.78)	
PCB-90											
325.8804	31:34						33	82			
327.8775	31:34						5	12			
PCB-101 (C90)											
325.8804	31:34						33	82			
327.8775	31:34						5	12			
PCB-113 (C90)											
325.8804	31:34						33	82			
327.8775	31:34						5	12			
PCB-123											
325.8804	36:13						88	220			
327.8775	36:13						19	47			
PCB-118											
325.8804	36:33						88	220			
327.8775	36:33						19	47			
PCB-114											
325.8804	37:04						88	220			
327.8775	37:04						19	47			
PCB-105											
325.8804	37:45						88	220			
327.8775	37:45						19	47			
PCB-126											
325.8804	40:48						88	220			
327.8775	40:48						19	47			
PCB-155L											
371.8817	31:18	31:18	0	0.790	1115963	230258	36	90	6396		
373.8788	31:18	31:18	0	0.790	849059	168042	72	180	2334	1.31(1.05-1.43)	
PCB-153L											
371.8817	38:23						801	2002			U
373.8788	38:23						605	1512			
PCB-138L											
371.8817	39:38	39:38	0		1512188	292961	801	2002	366		
373.8788	39:38	39:38	0		1180762	220603	605	1512	365	1.28(1.05-1.43)	
PCB-167L											
371.8817	42:38	42:36	1	1.076	1624593	319063	801	2002	398		
373.8788	42:37	42:36	0	1.075	1281117	244596	605	1512	404	1.27(1.05-1.43)	
PCB-156L											
371.8817	43:49	43:47	1	1.105	3281227	400226	801	2002	500		
373.8788	43:47	43:47	0	1.105	2541647	323438	605	1512	535	1.29(1.05-1.43)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-157L (C156L)											
371.8817	43:49	43:47	1	1.105	3281227	400226	801	2002	500		
373.8788	43:47	43:47	0	1.105	2541647	323438	605	1512	535	1.29(1.05-1.43)	
PCB-169L											
371.8817	47:01	47:00	1	1.186	1723750	293661	801	2002	367		
373.8788	47:01	47:00	1	1.186	1331050	229558	605	1512	379	1.30(1.05-1.43)	
PCB-153											
359.8415	38:26						17	42			
361.8385	38:26						1	2			
PCB-168 (C153)											
359.8415	38:26						17	42			
361.8385	38:26						1	2			
PCB-129											
359.8415	39:38	39:40	-3	0.929	745	164	17	42	10		RQ
	Empc Correction				150	79	17	42	5		
361.8385	39:42	39:40	2	0.931	121	64	1	2	64	6.16(1.05-1.43)	
PCB-138 (C129)											
359.8415	39:38	39:40	-3	0.929	745	164	17	42	10		RQ
	Empc Correction				150	79	17	42	5		
361.8385	39:42	39:40	2	0.931	121	64	1	2	64	6.16(1.05-1.43)	
PCB-160 (C129)											
359.8415	39:38	39:40	-3	0.929	745	164	17	42	10		RQ
	Empc Correction				150	79	17	42	5		
361.8385	39:42	39:40	2	0.931	121	64	1	2	64	6.16(1.05-1.43)	
PCB-163 (C129)											
359.8415	39:38	39:40	-3	0.929	745	164	17	42	10		RQ
	Empc Correction				150	79	17	42	5		
361.8385	39:42	39:40	2	0.931	121	64	1	2	64	6.16(1.05-1.43)	
PCB-128											
359.8415	40:54						17	42			
361.8385	40:54						1	2			
PCB-166 (C128)											
359.8415	40:54						17	42			
361.8385	40:54						1	2			
PCB-167											
359.8415	42:40						17	42			
361.8385	42:40						1	2			
PCB-156											
359.8415	43:50						17	42			
361.8385	43:50						1	2			
PCB-157 (C156)											
359.8415	43:50						17	42			
361.8385	43:50						1	2			
PCB-169											
359.8415	47:03						17	42			
361.8385	47:03						1	2			

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-188L											
405.8428	37:01	37:01	0	0.820	1145617	229906	82	205	2804		
407.8398	37:01	37:01	0	0.820	1102685	221489	25	62	8860	1.04(0.89-1.21)	
PCB-178L											
405.8428	40:05	40:04	0	0.887	862687	170914	82	205	2084		
407.8398	40:05	40:04	0	0.887	790405	158185	25	62	6327	1.09(0.89-1.21)	
PCB-180L											
405.8428	45:10	45:10	1		1089838	210325	82	205	2565		
407.8398	45:09	45:10	0		994956	188881	25	62	7555	1.10(0.89-1.21)	
PCB-170L											
405.8428	46:26	46:25	0	1.028	777911	142307	82	205	1735		
407.8398	46:26	46:25	0	1.028	743971	140138	25	62	5606	1.05(0.89-1.21)	
PCB-189L											
405.8428	49:31	49:31	-1	1.096	1822458	337463	933	2332	362		
407.8398	49:31	49:31	-1	1.096	1676958	313021	526	1315	595	1.09(0.89-1.21)	
PCB-187											
393.8025	41:00						11	27			
395.7995	41:00						4	10			
PCB-180											
393.8025	45:09						11	27			
395.7995	45:09						4	10			
PCB-193 (C180)											
393.8025	45:09						11	27			
395.7995	45:09						4	10			
PCB-170											
393.8025	46:26						11	27			
395.7995	46:26						4	10			
PCB-189											
393.8025	49:32						12	30			
395.7995	49:32						8	20			
PCB-202L											
439.8038	42:24	42:23	0	0.821	799154	162503	4	10	40626		
441.8008	42:24	42:23	0	0.821	894569	177556	30	75	5919	0.89(0.76-1.02)	
PCB-194L											
439.8038	51:38	51:38	0		1301760	248592	124	310	2005		
441.8008	51:38	51:38	0		1394240	257870	113	282	2282	0.93(0.76-1.02)	
PCB-205L											
439.8038	52:06	52:05	0	1.009	1368312	254756	124	310	2054		
441.8008	52:05	52:05	-1	1.009	1515673	280840	113	282	2485	0.90(0.76-1.02)	
PCB-195											
427.7635	49:18						14	35			
429.7606	49:18						8	20			
PCB-208L											
473.7648	49:03	49:02	0	0.950	1015808	197777	180	450	1099		
475.7619	49:03	49:02	0	0.950	1249448	246608	263	657	938	0.81(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-206L											
473.7648	53:51	53:51	-1	1.043	788511	154537	180	450	859		
475.7619	53:51	53:51	-1	1.043	975645	181657	263	657	691	0.81(0.65-0.89)	
PCB-206											
461.7246	53:51						126	315			
463.7216	53:51						114	285			
PCB-209L											
507.7258	55:27	55:27	-1	1.074	803275	142351	55	137	2588		
509.7229	55:27	55:27	-1	1.074	1144966	208406	55	137	3789	0.70(0.59-0.79)	
DCB Decachlorobiphenyl											
495.6856	55:29						4	10			
497.6826	55:29						2	5			

### QC Flag Legend

#### Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

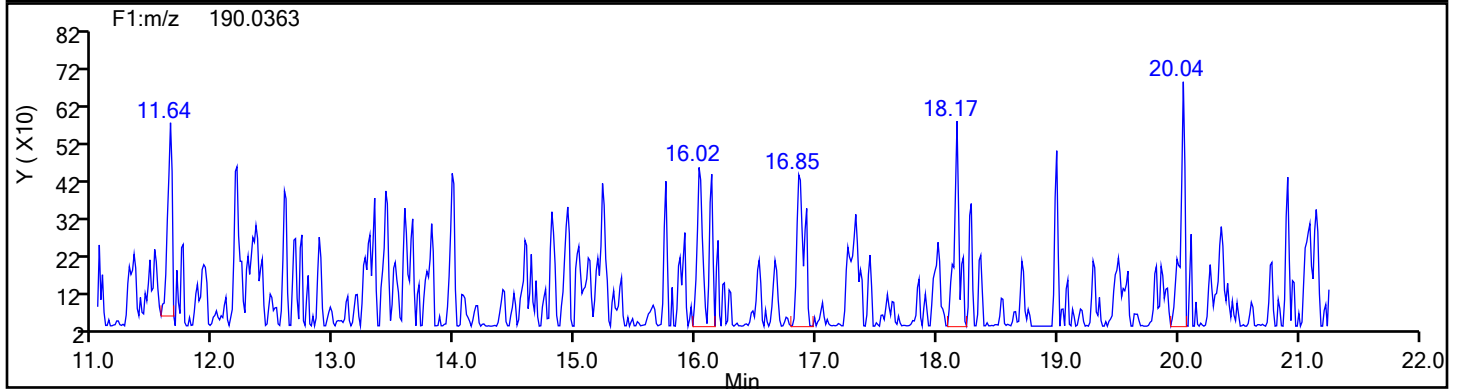
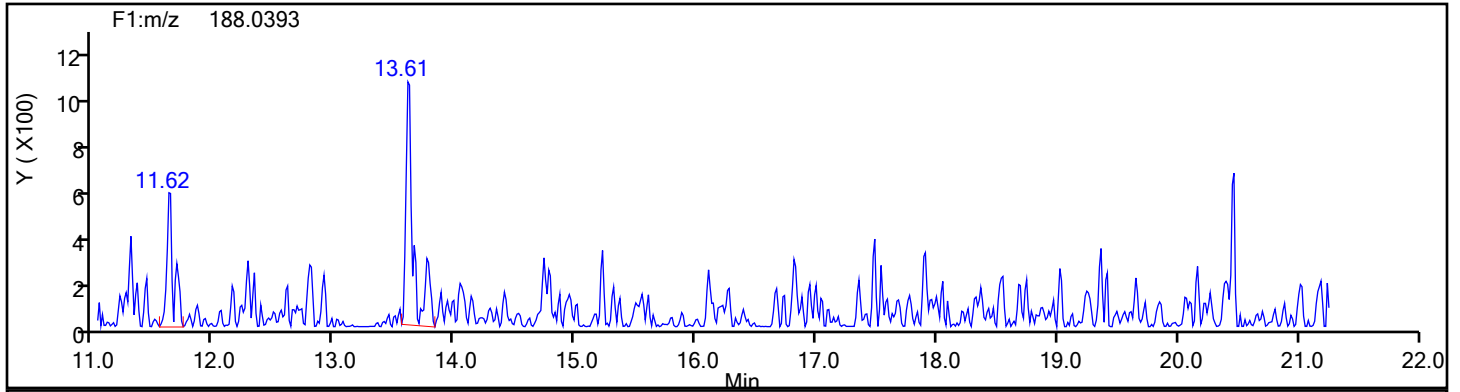
#### Review Flags

M - Manually Integrated

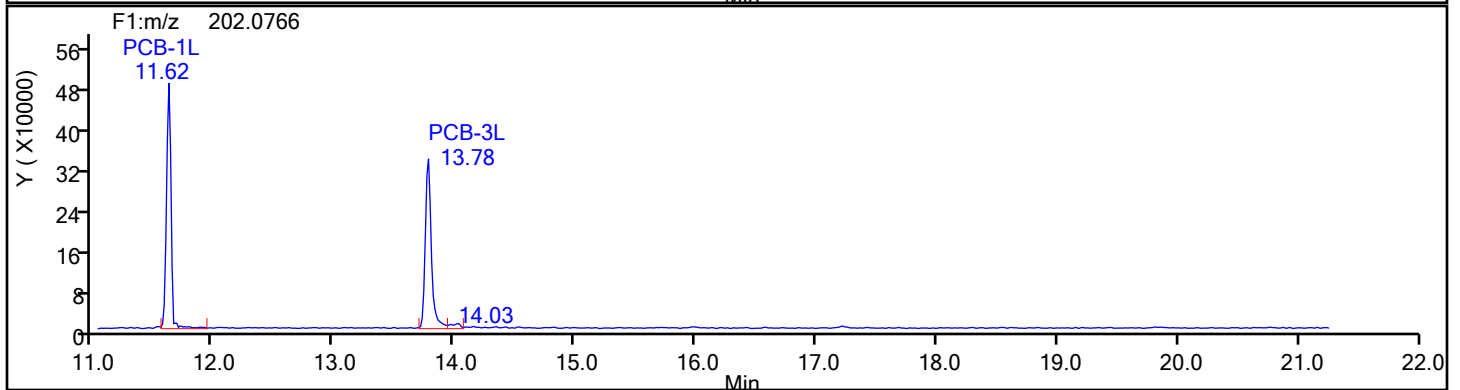
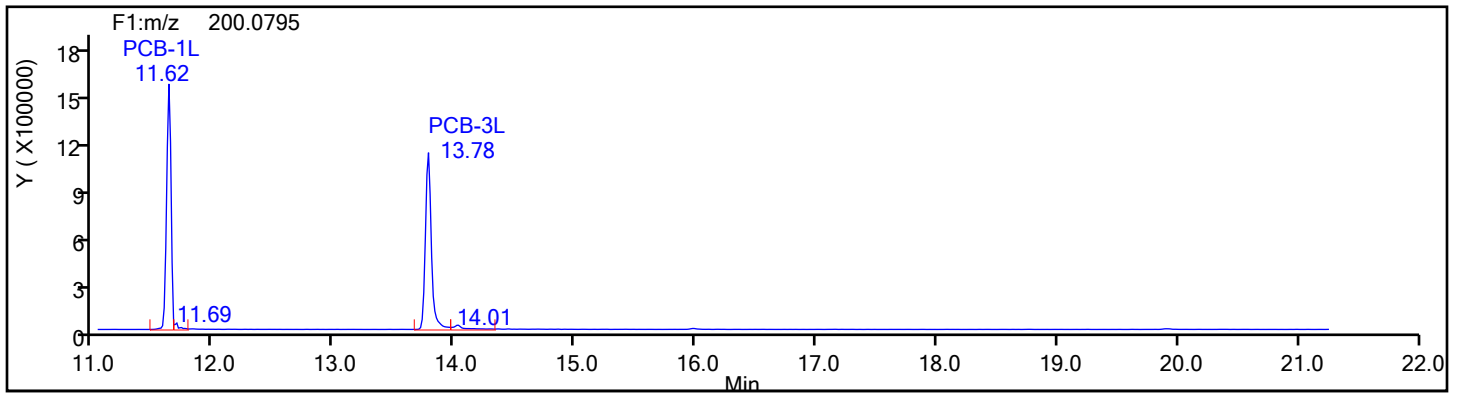
U - Marked Undetected

## Eurofins Knoxville

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Injection Date: 16-Jul-2024 14:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
MoPCB F1

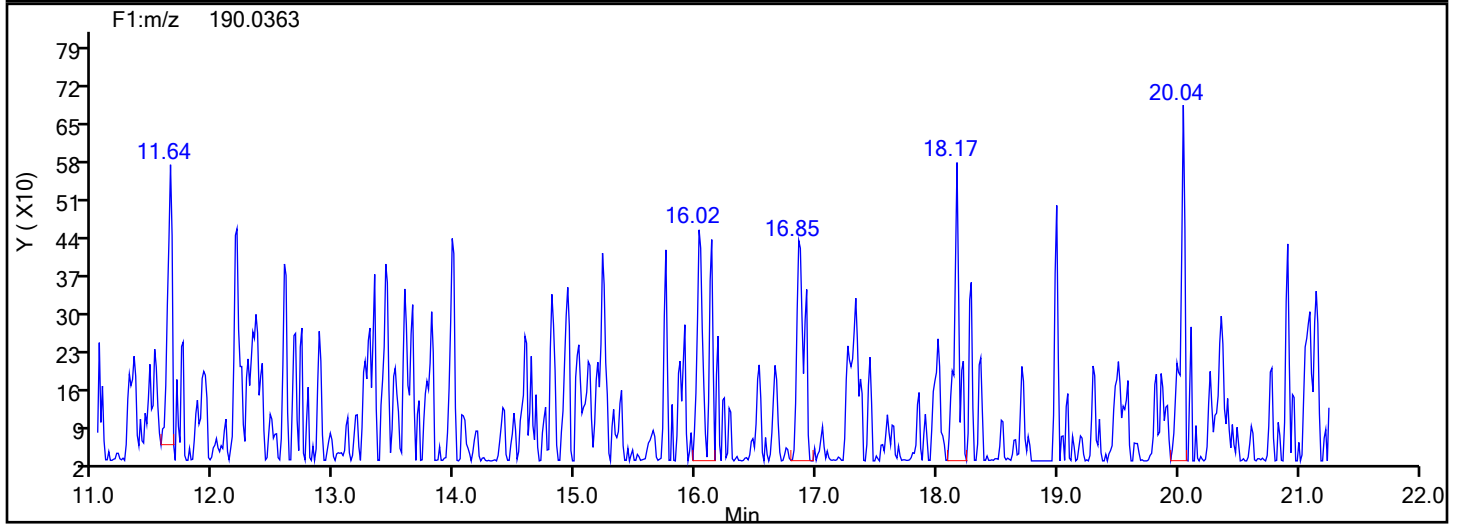
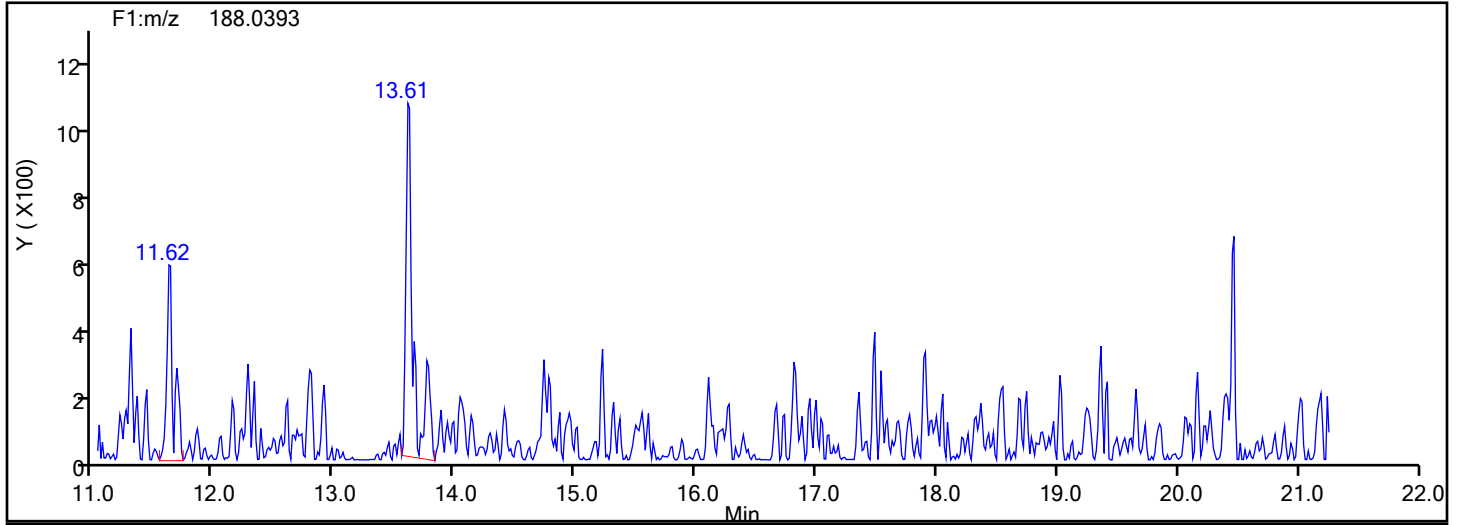


## MoPCB F1 Standards

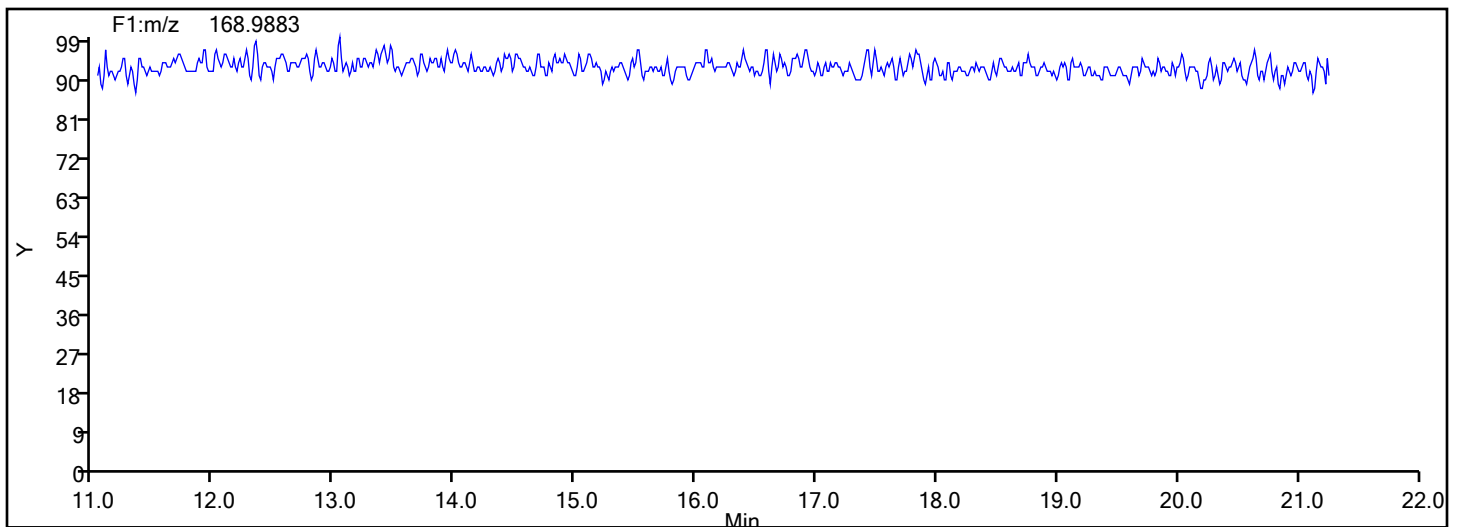


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
MoPCB F1

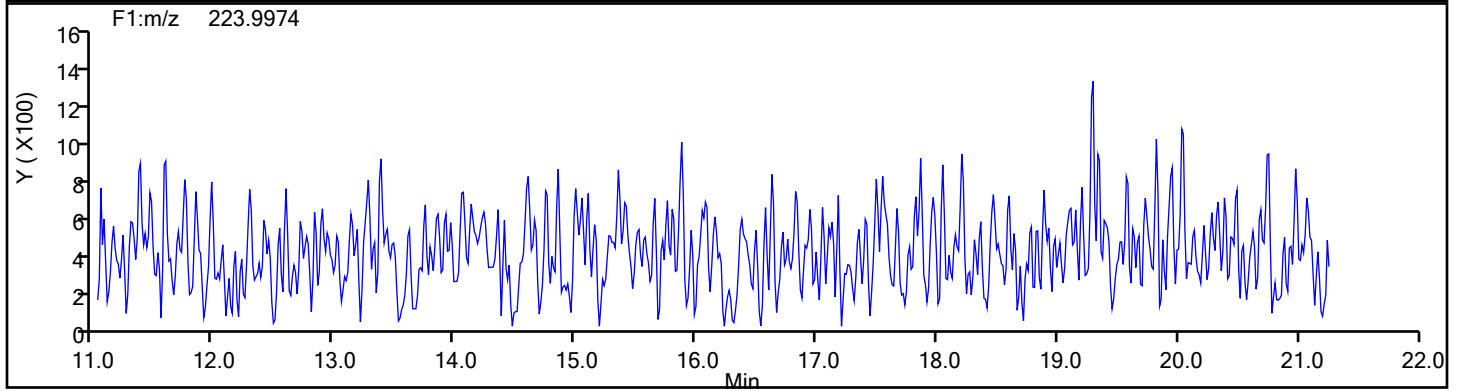
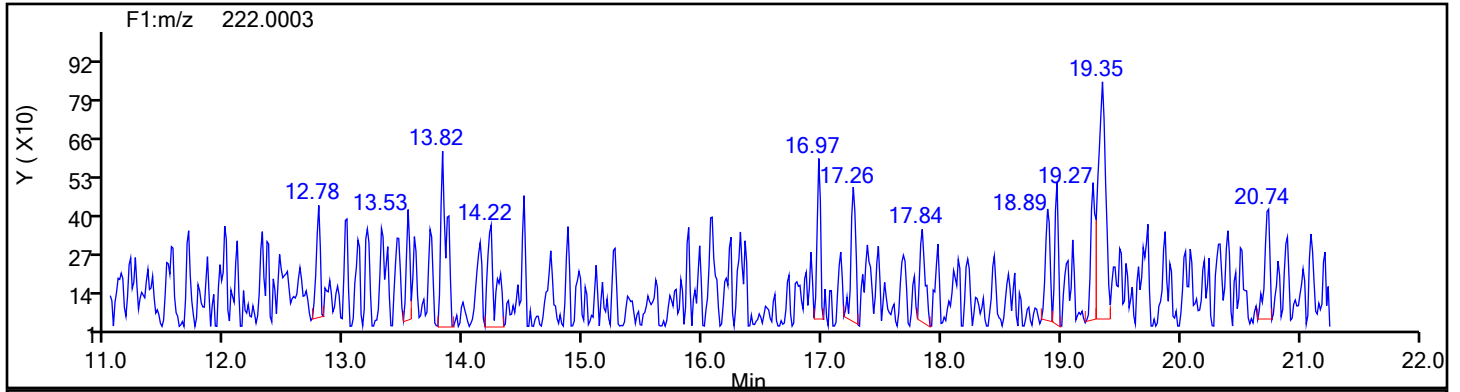


## MoPCB F1 Lock Mass

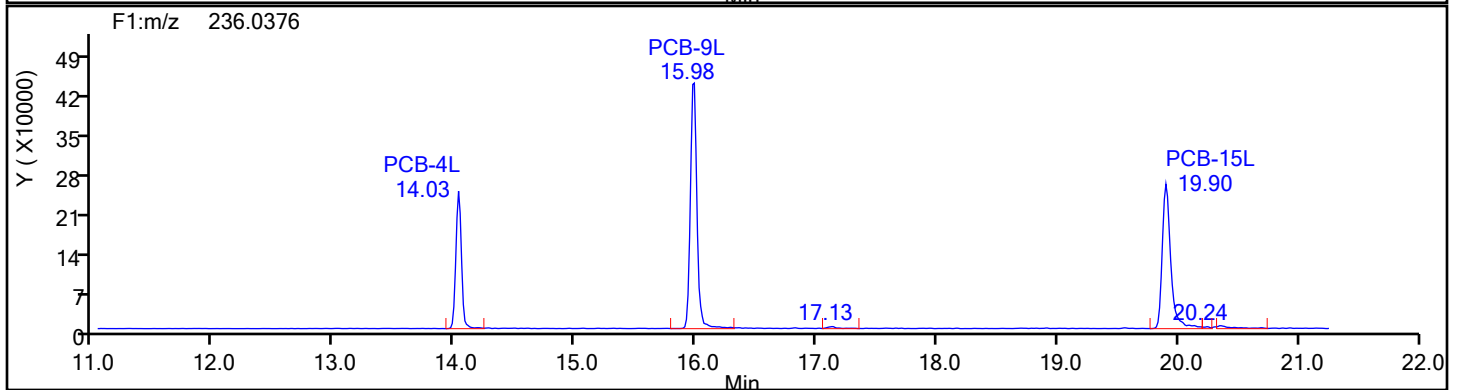
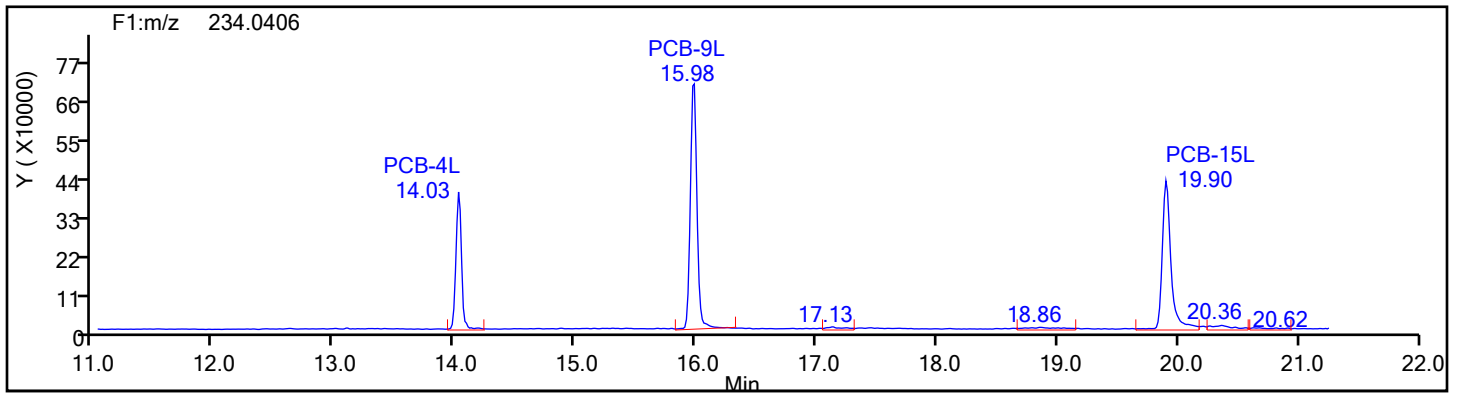


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DiPCB F1

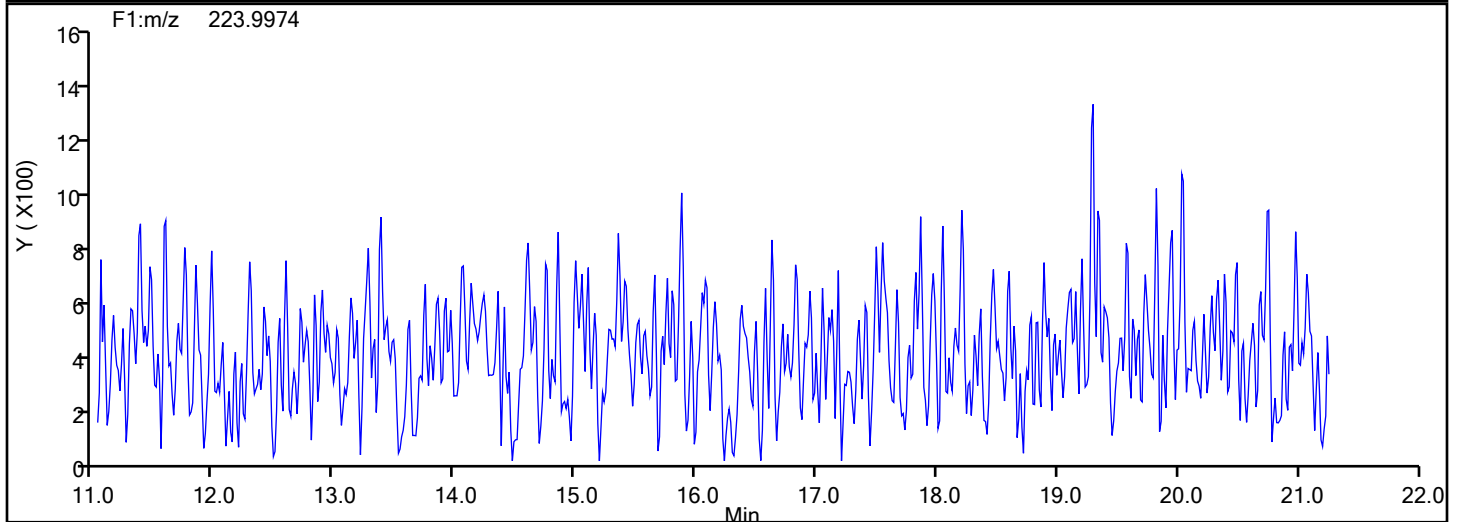
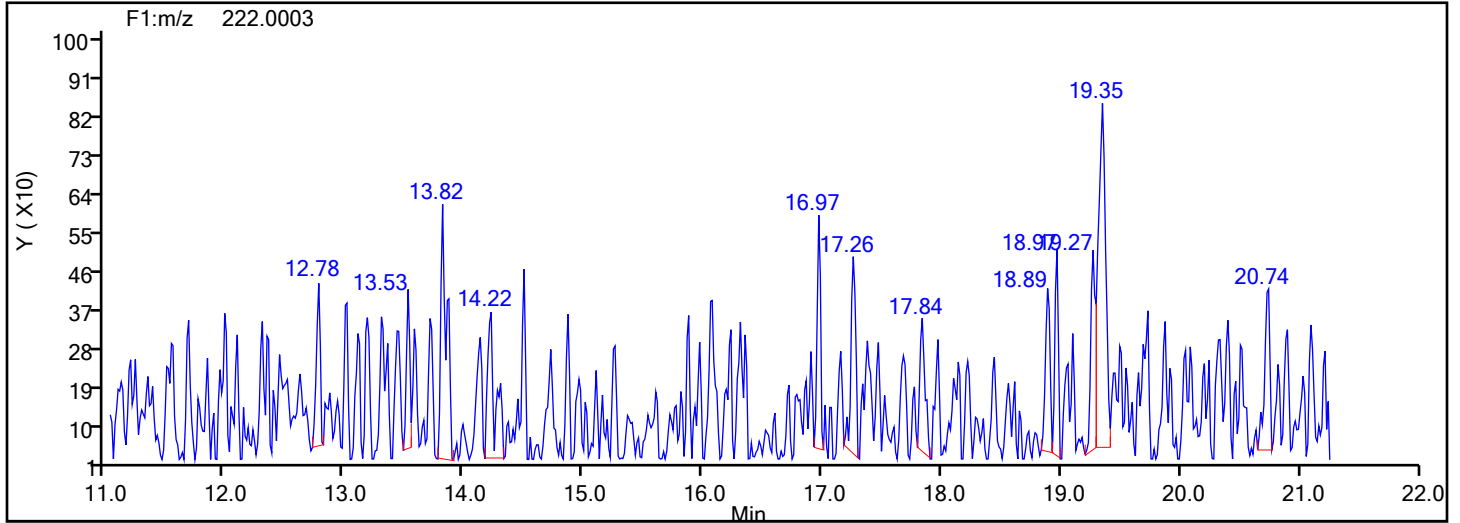


## DiPCB F1 Standards

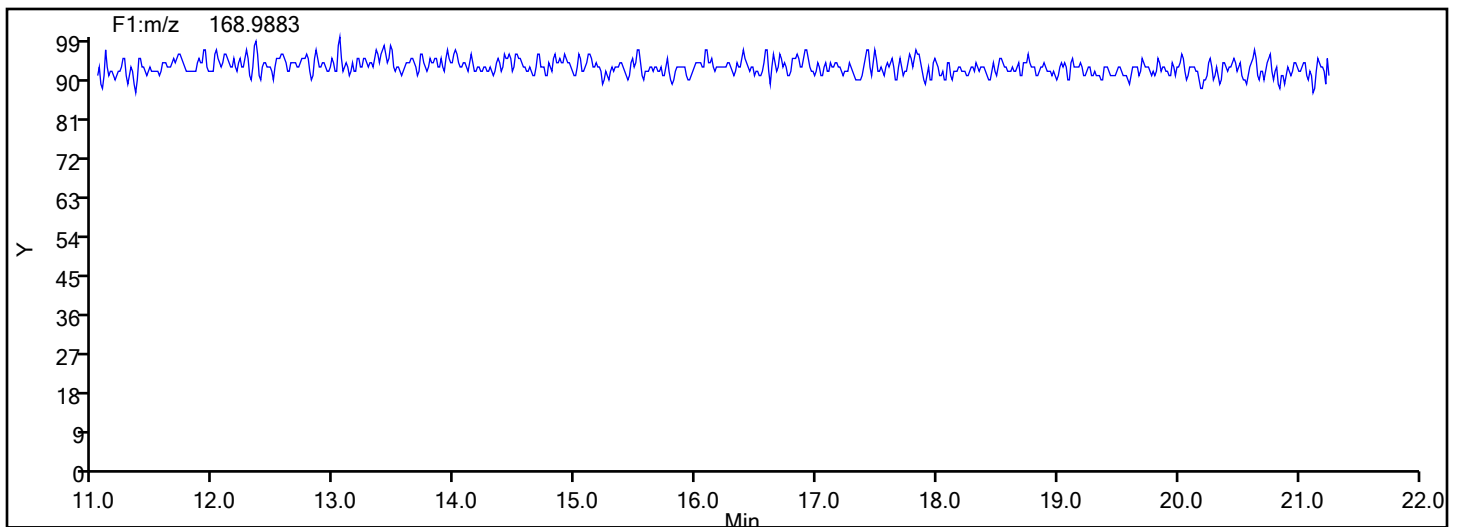


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Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DiPCB F1

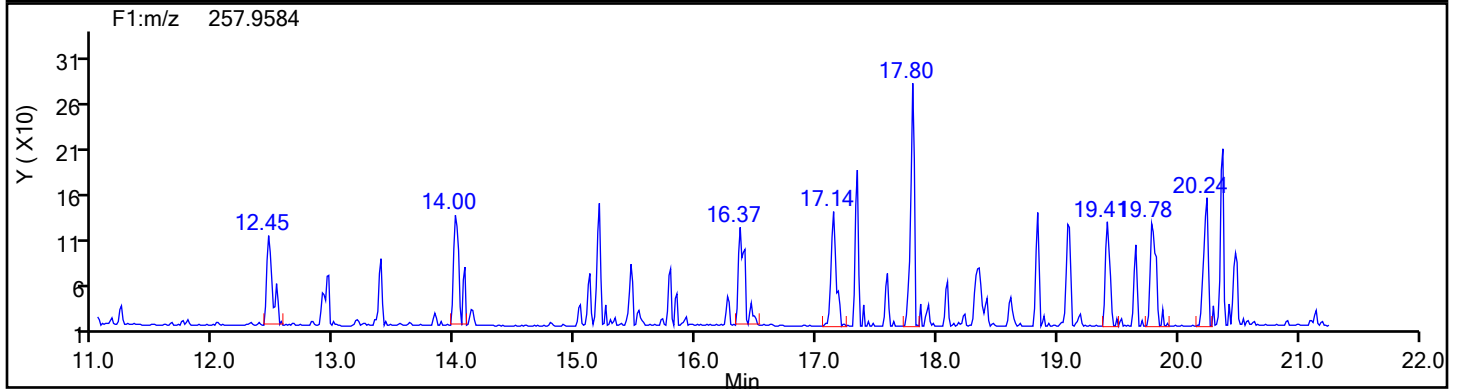
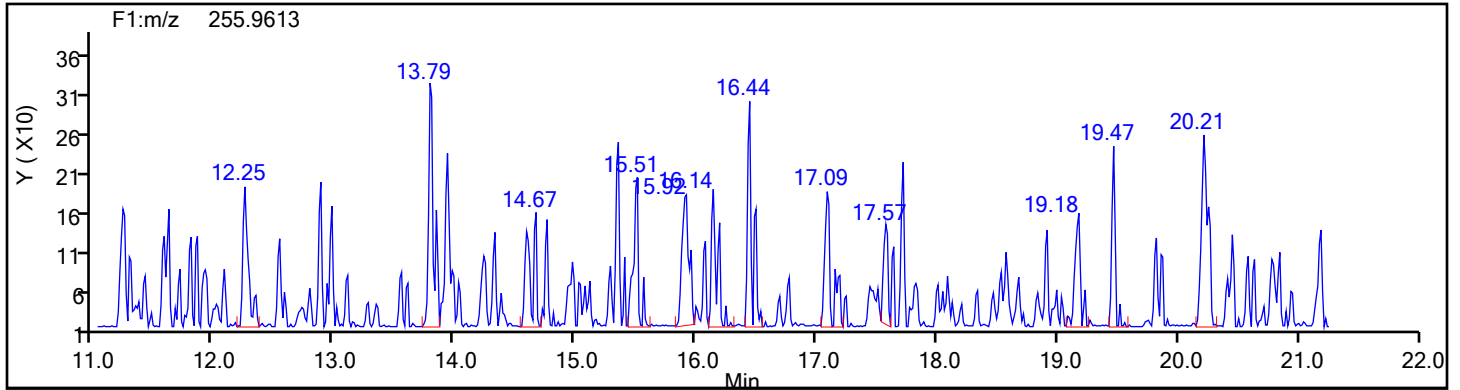


## DiPCB F1 Lock Mass

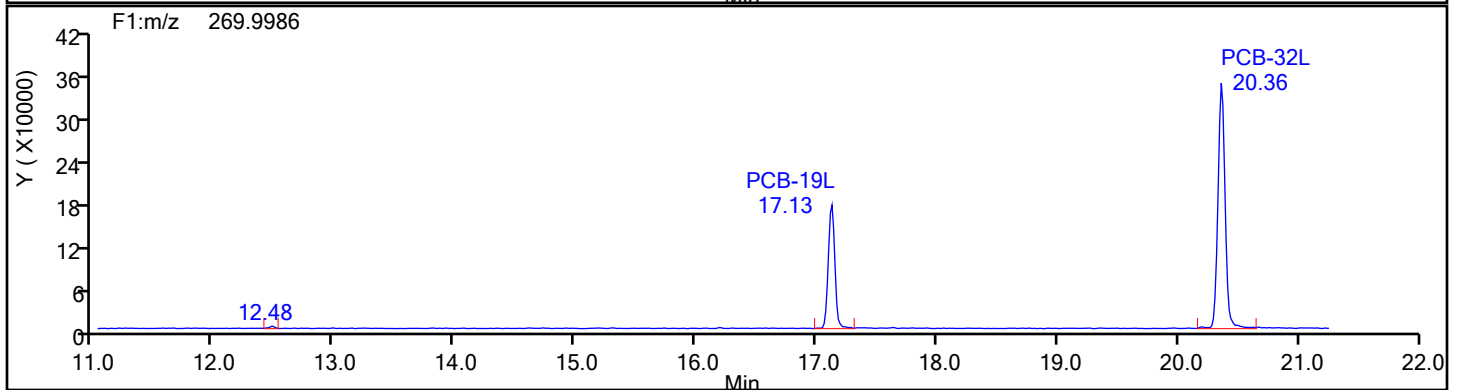
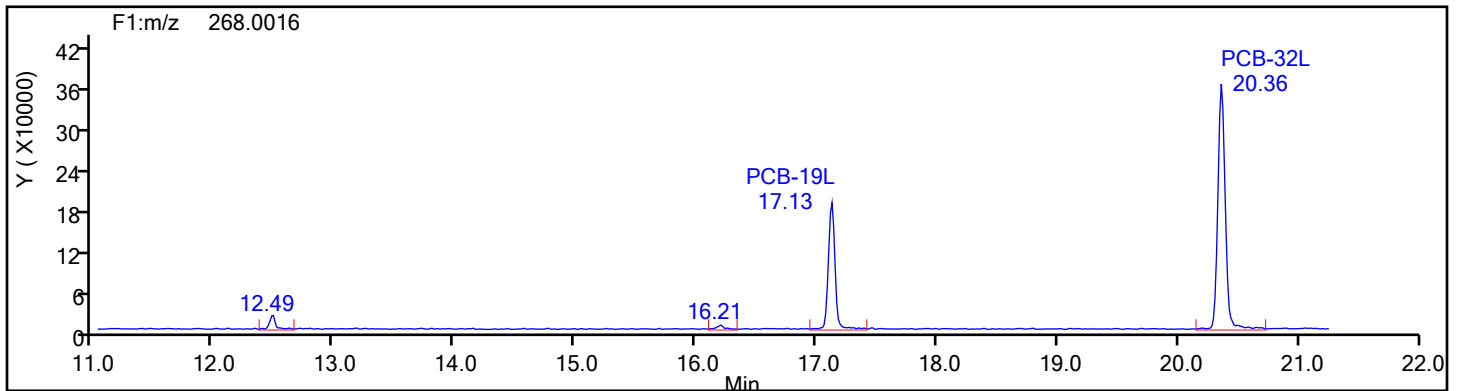


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F1



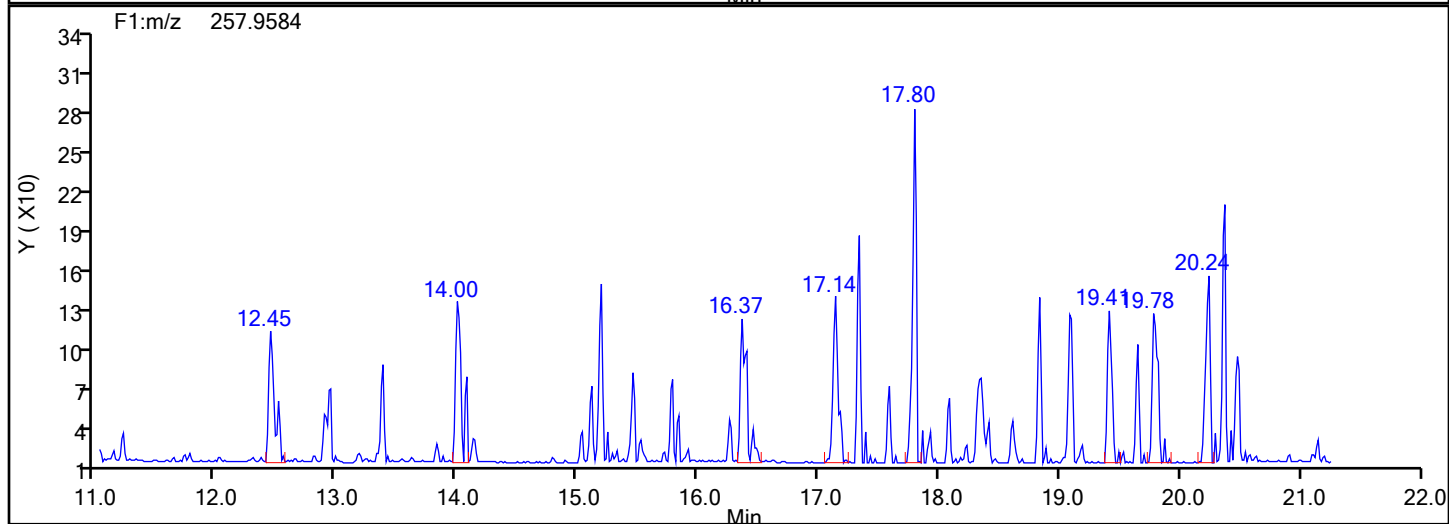
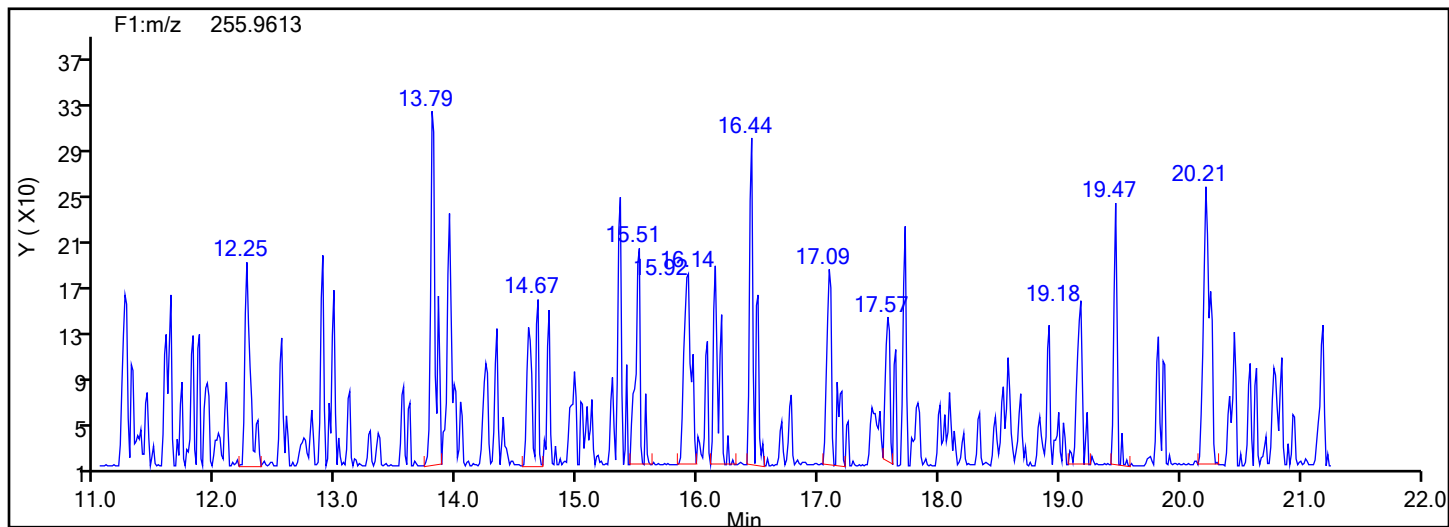
## TriPCB F1 Standards



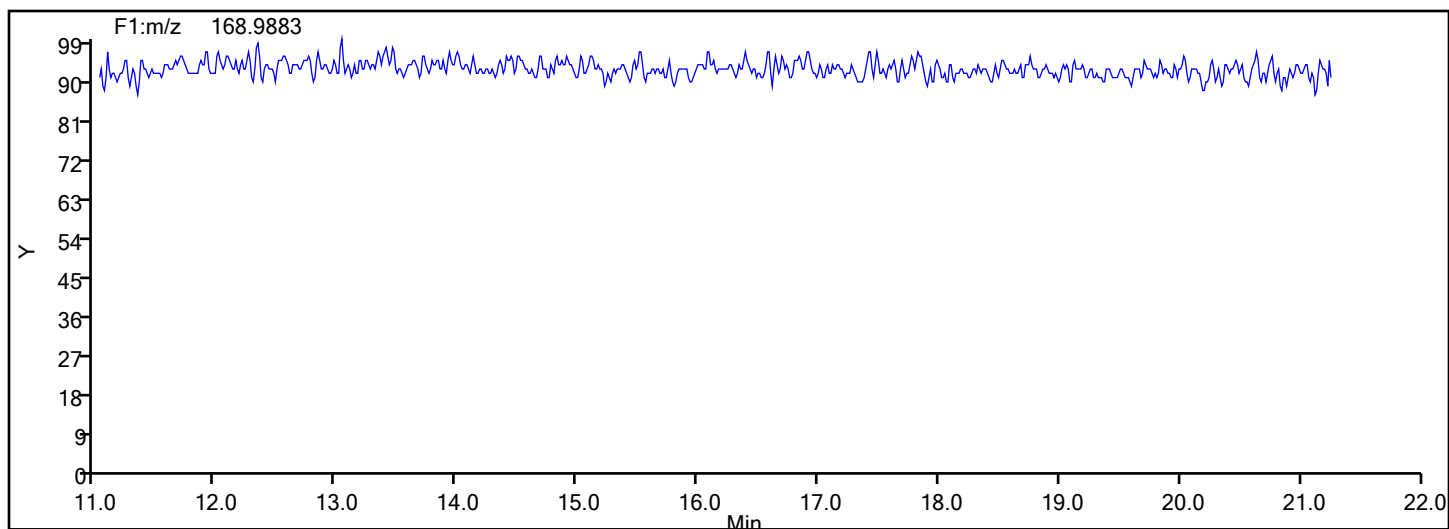


## Eurofins Knoxville

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Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F1

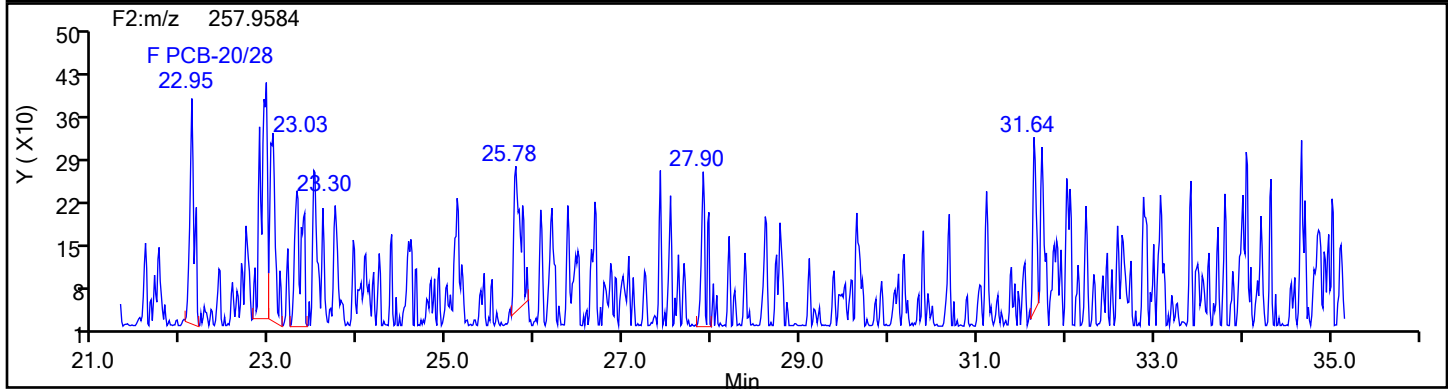
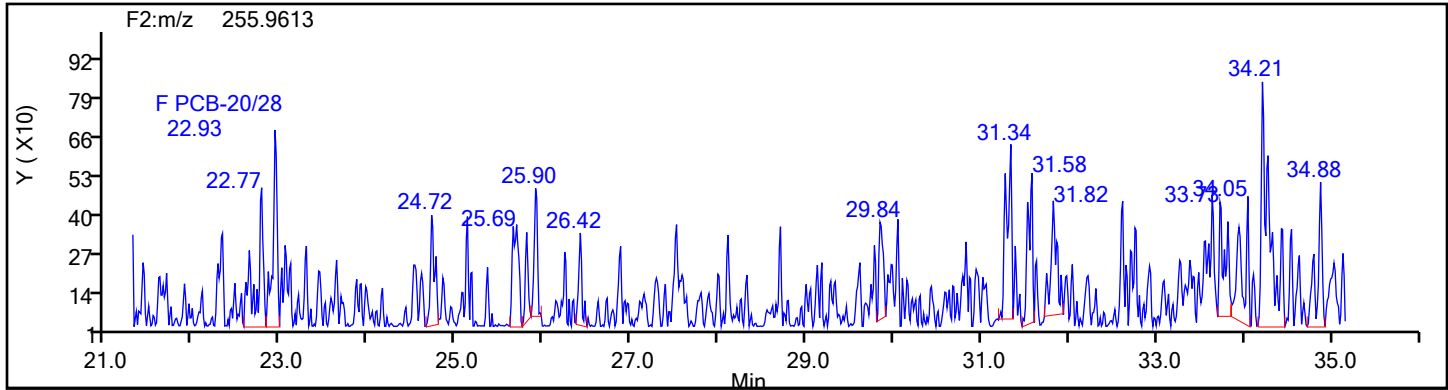


## TriPCB F1 Lock Mass

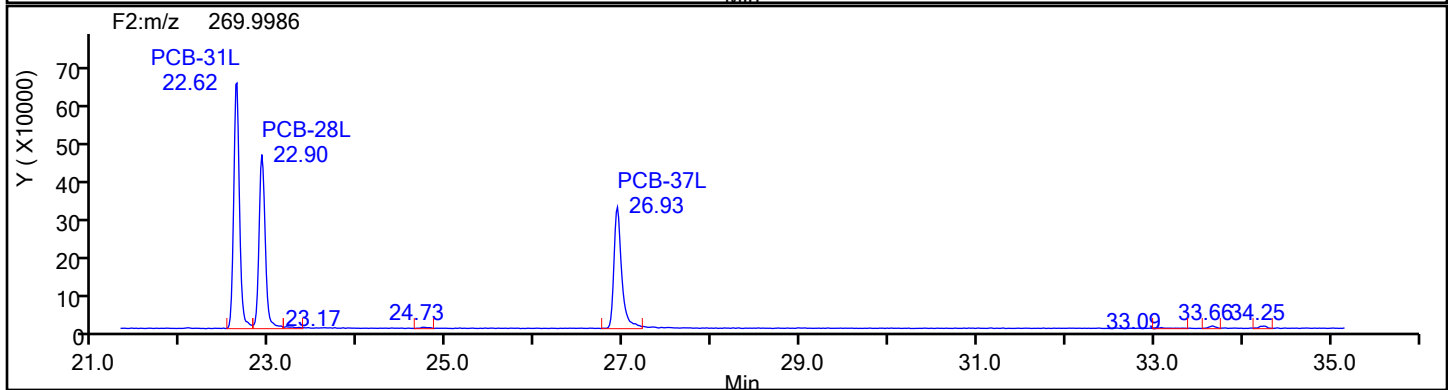
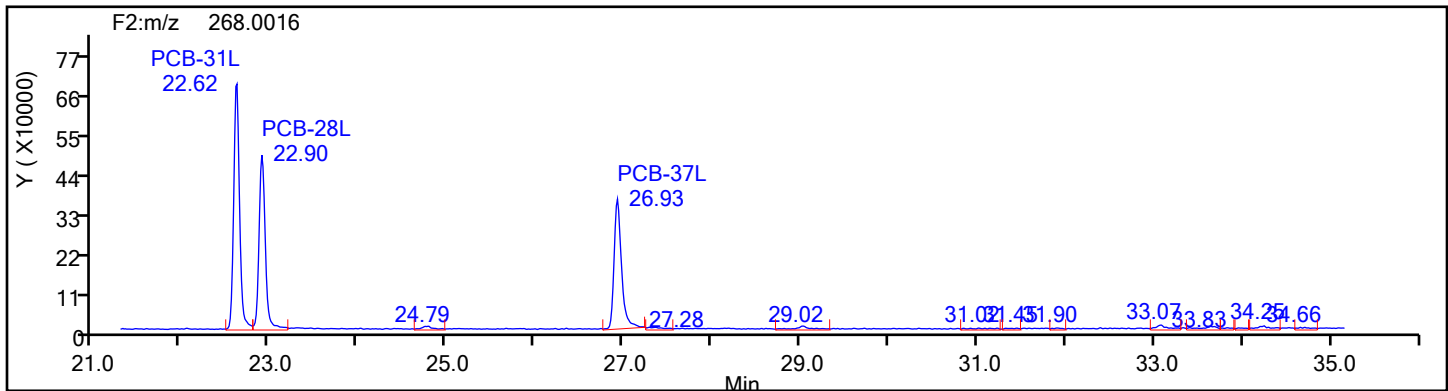


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F2

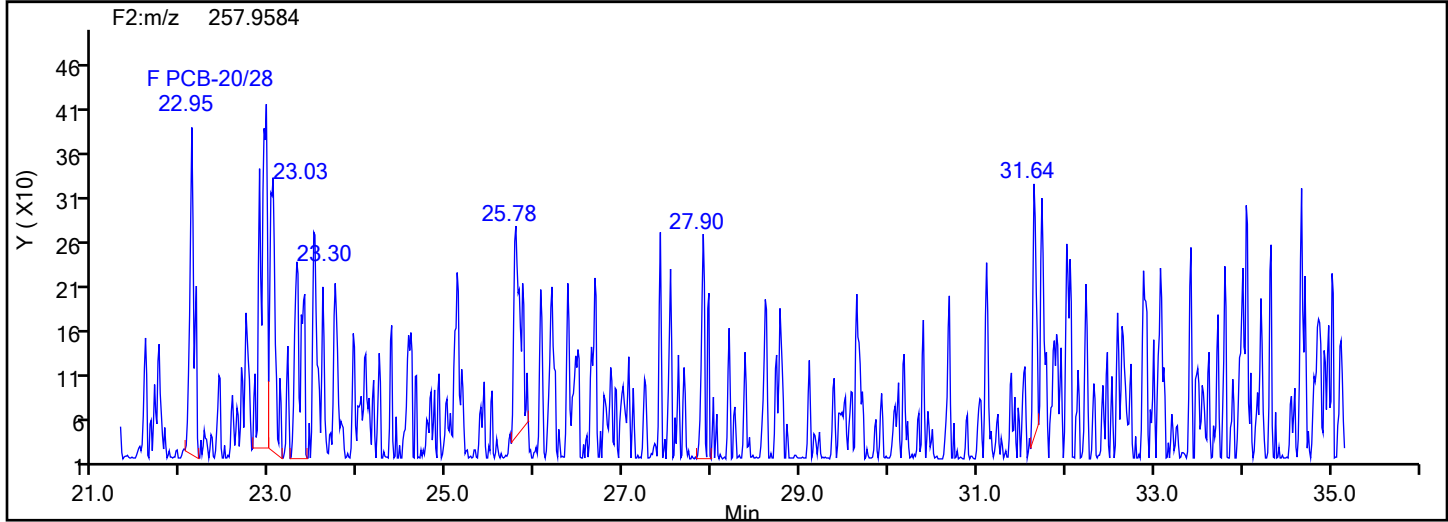
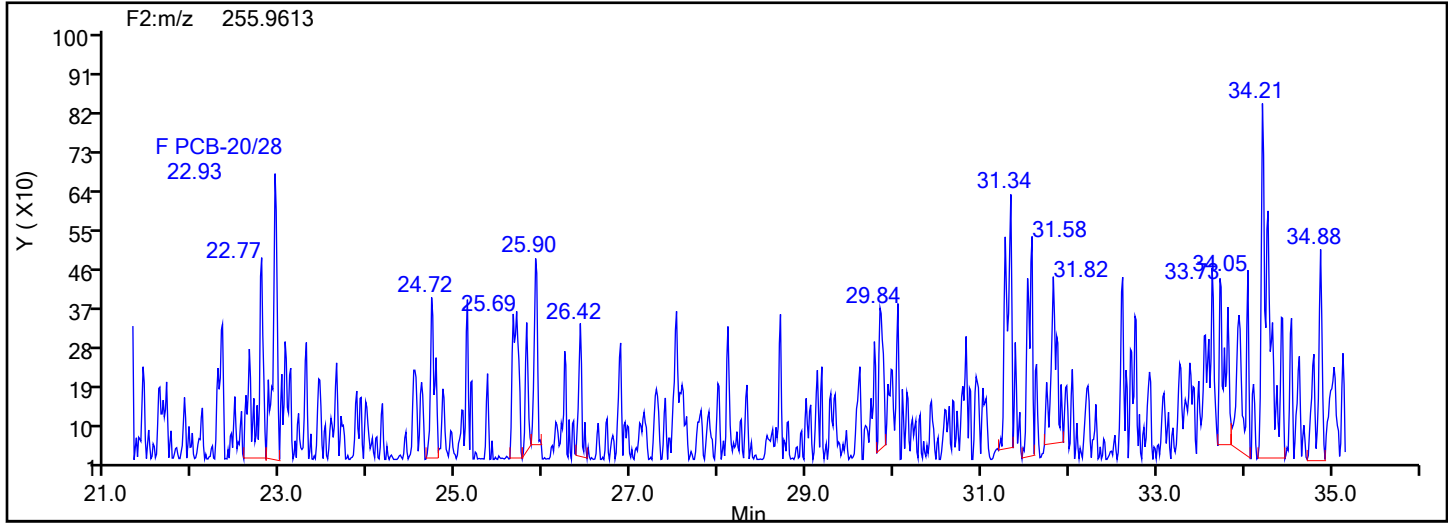


## TriPCB F2 Standards

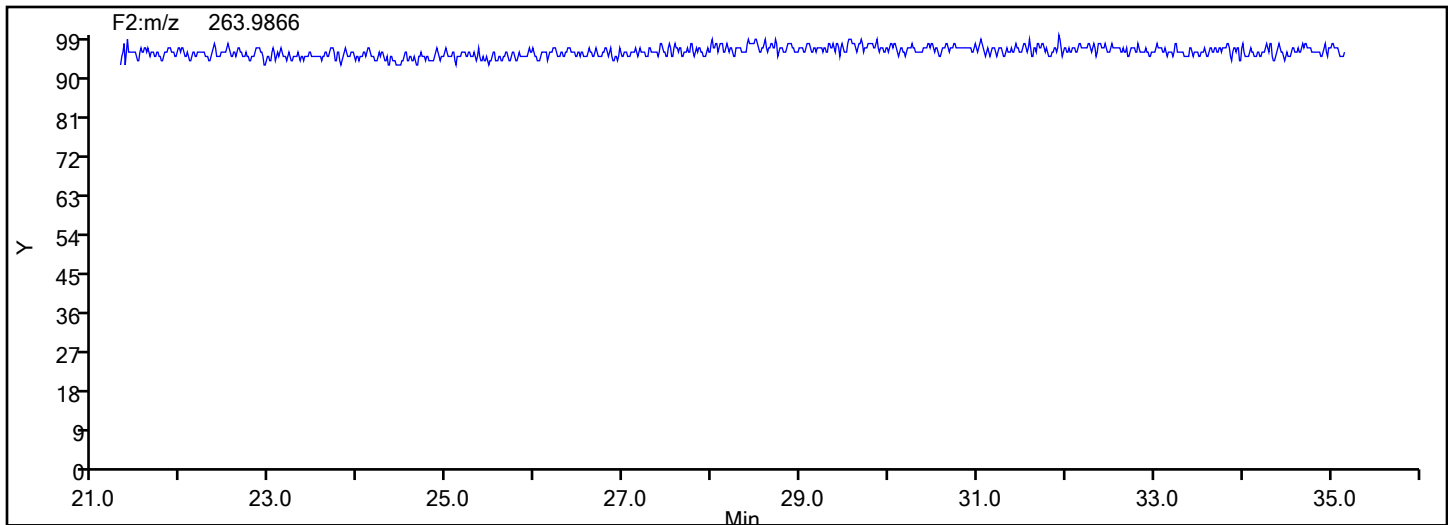


## Eurofins Knoxville

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Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F2



## TriPCB F2 Lock Mass



## Eurofins Knoxville

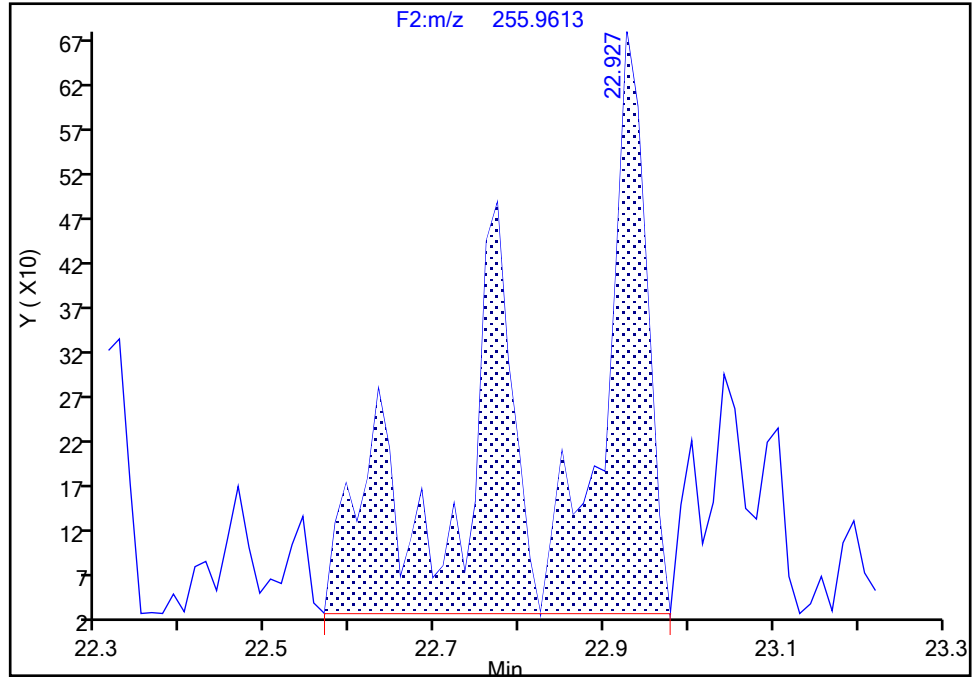
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Lims ID: 140-37234-A-14-B Lab Sample ID: 140-37234-14  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

## PCB-20/28, CAS: STL01799

Signal: 1

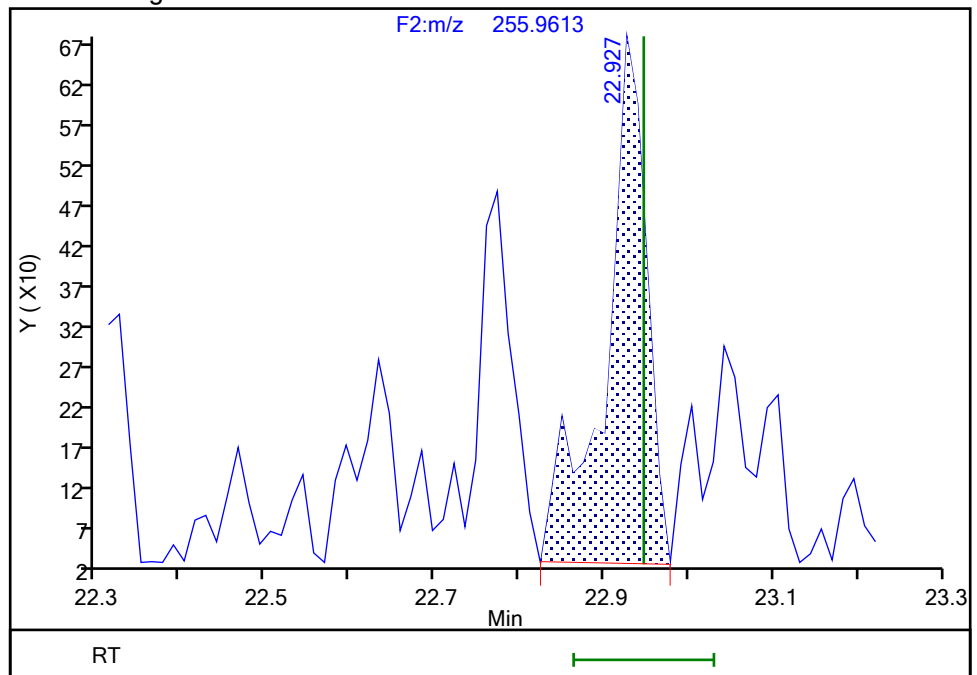
RT: 22.93  
Area: 4566  
Amount: 0.139035  
Amount Units: pg/ul

## Processing Integration Results



RT: 22.93  
Area: 2240  
Amount: 0.090184  
Amount Units: pg/ul

## Manual Integration Results



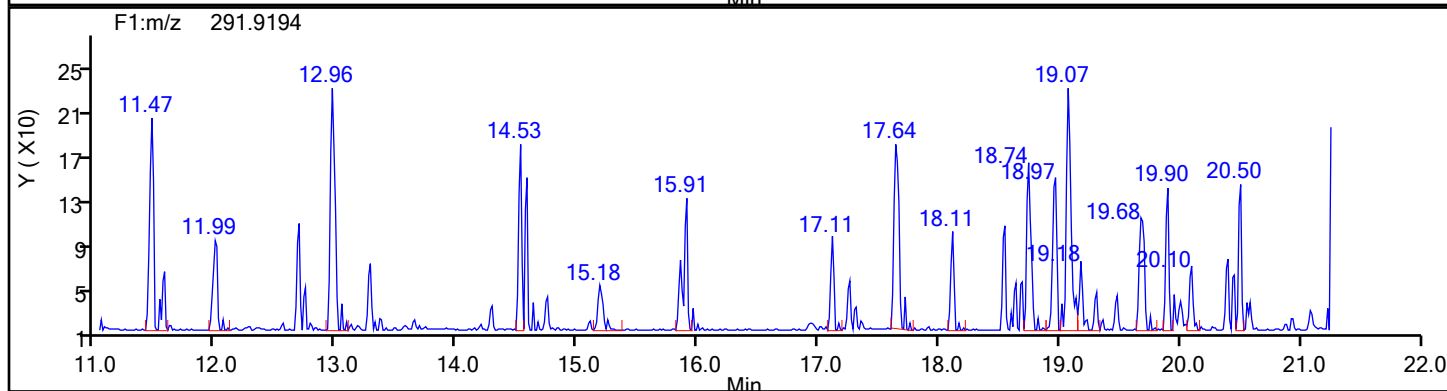
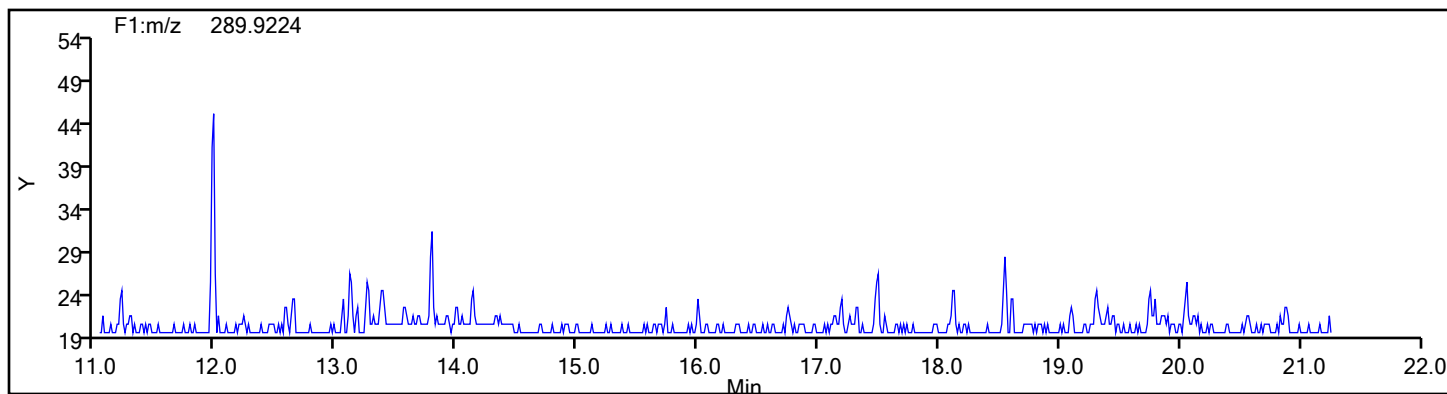
Reviewer: TT6I, 17-Jul-2024 10:12:34 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

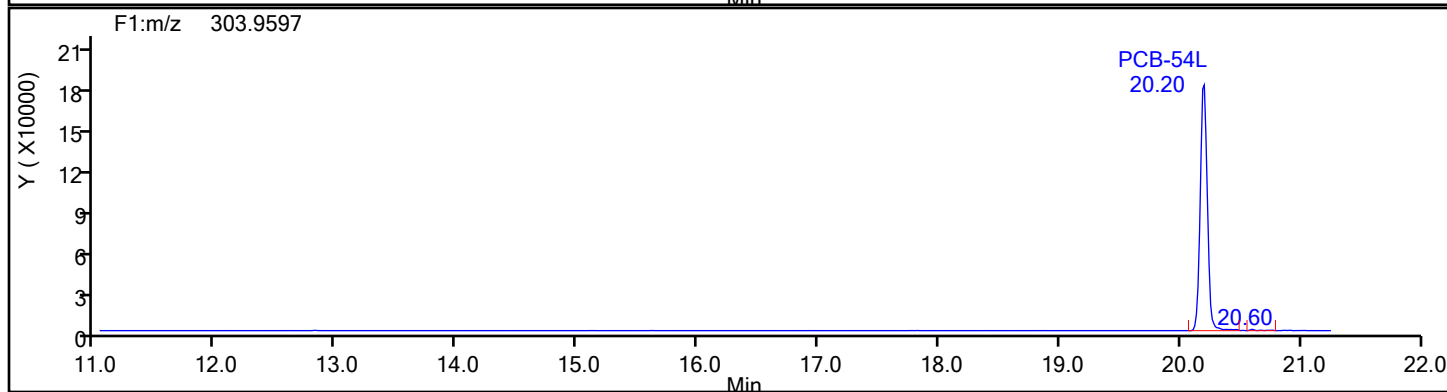
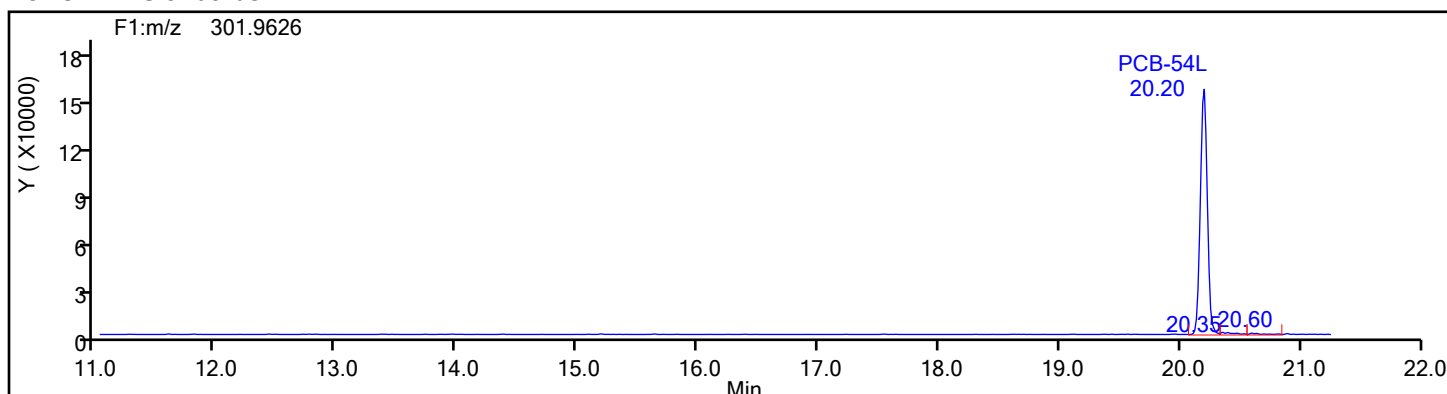
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-14-b.d  
Injection Date: 16-Jul-2024 14:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1

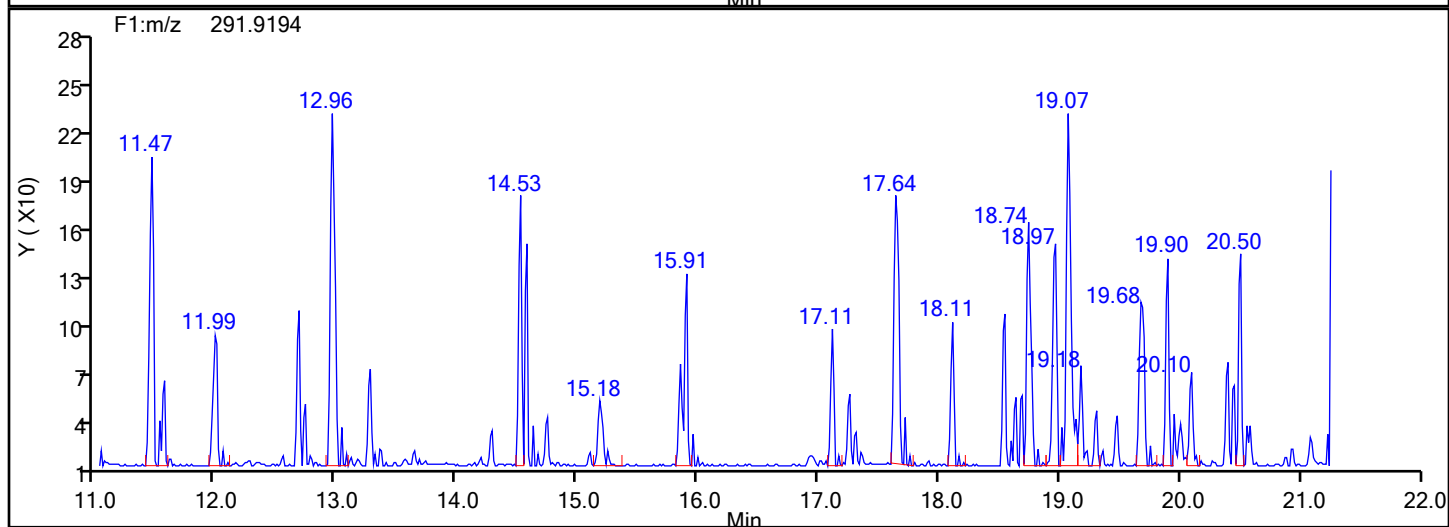
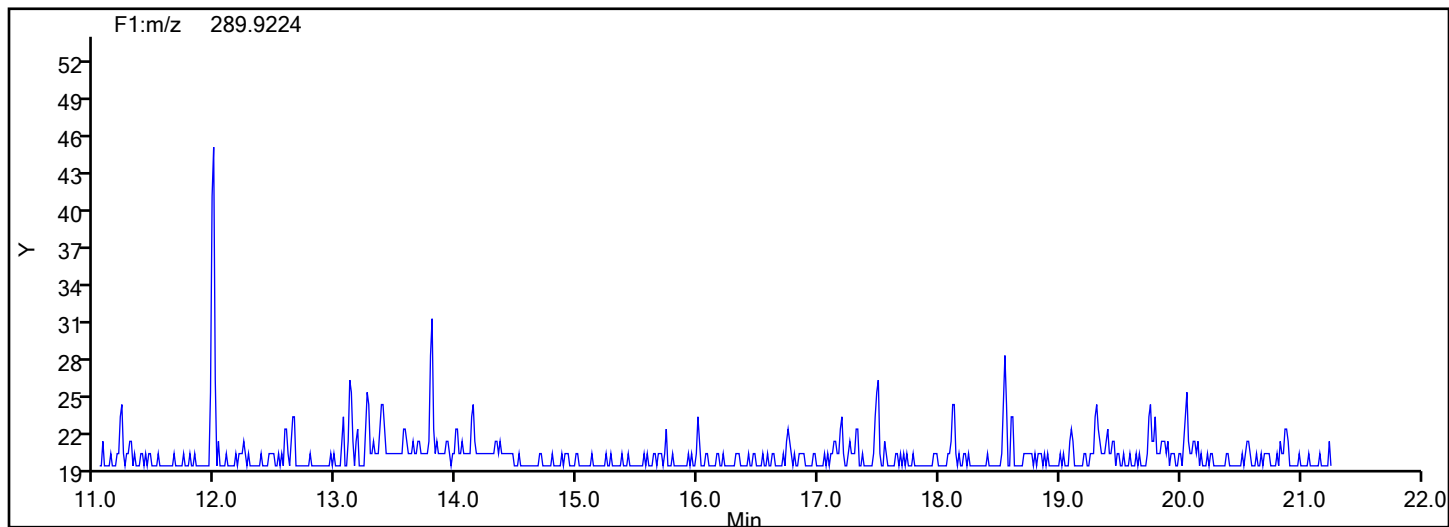


## TePCB F1 Standards

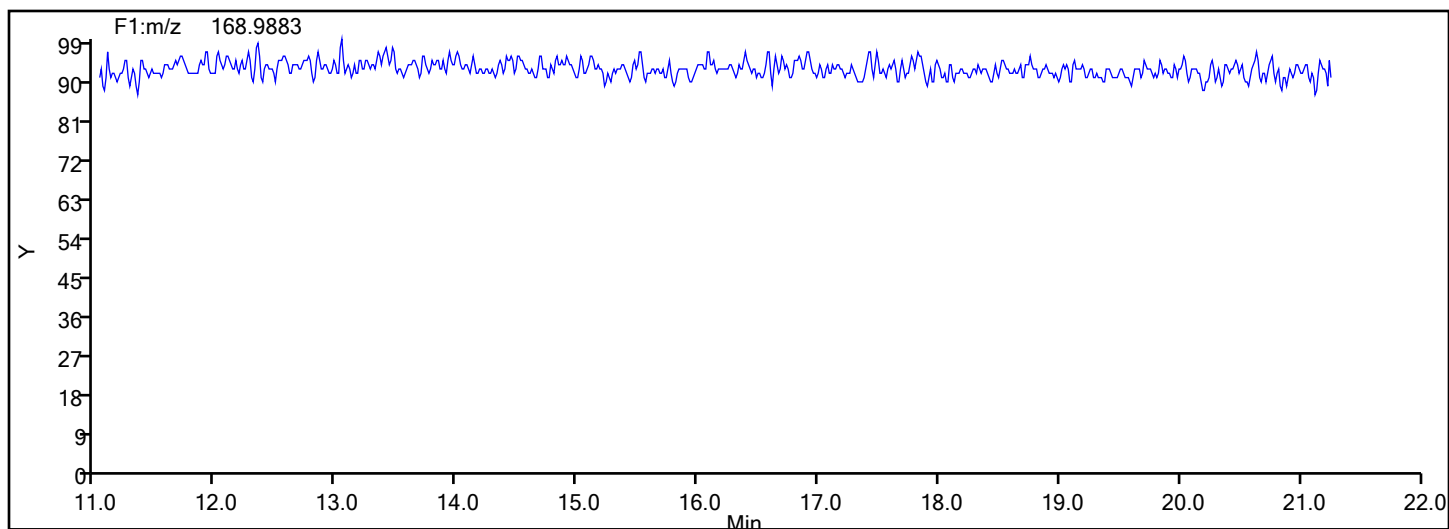


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 14:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1

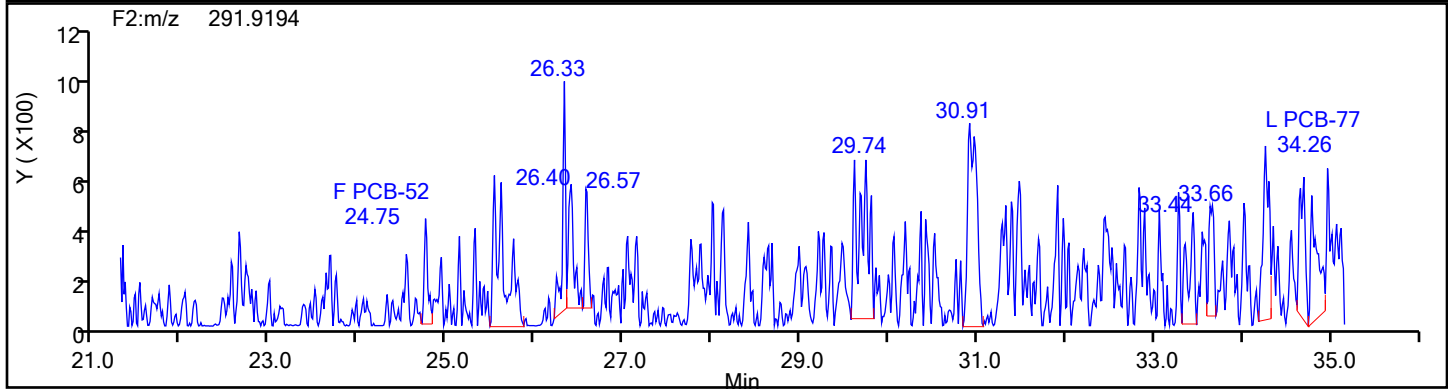
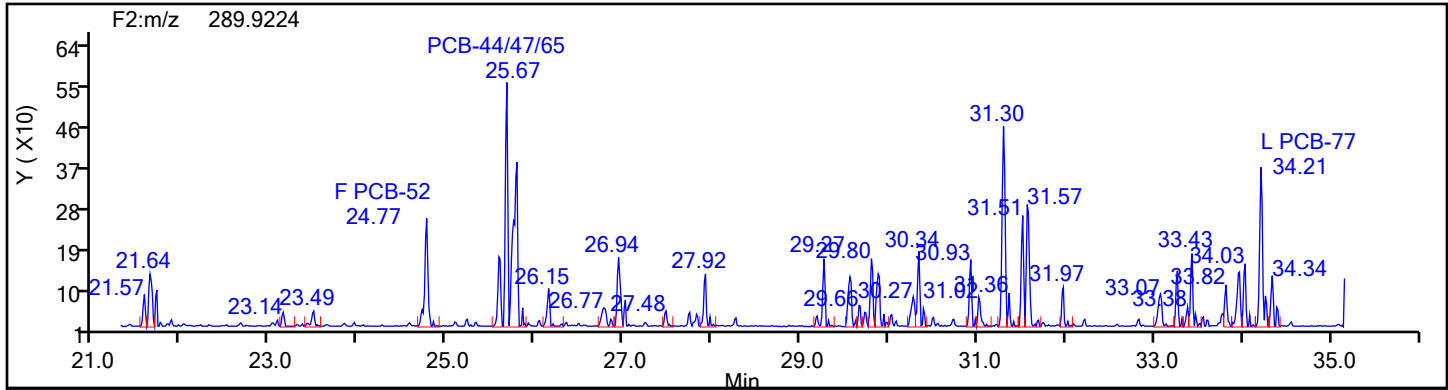


## TePCB F1 Lock Mass

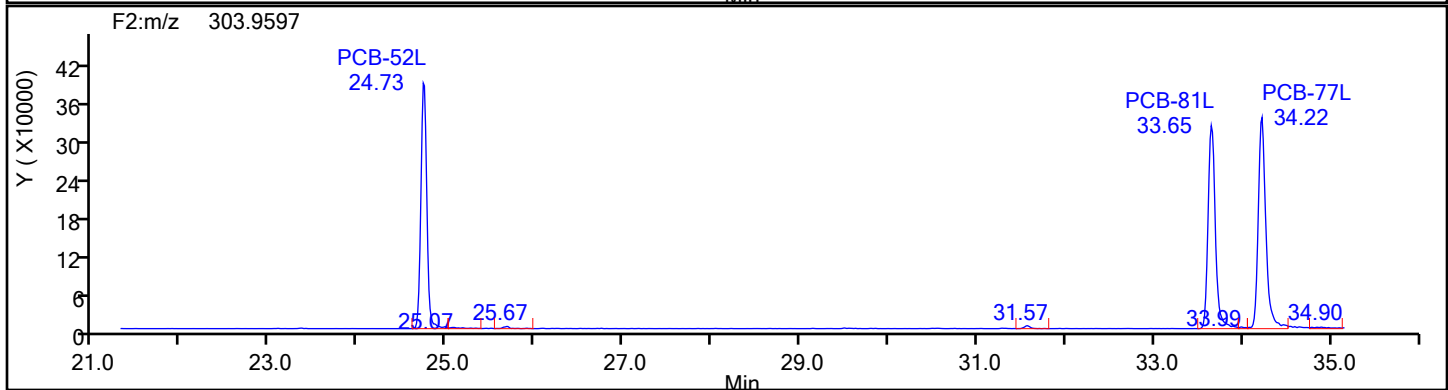
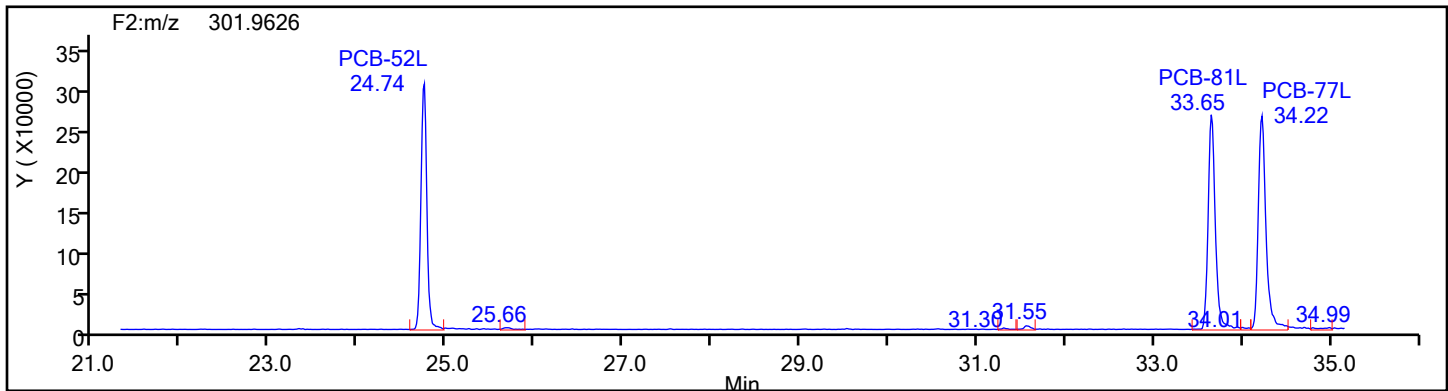


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 14:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F2

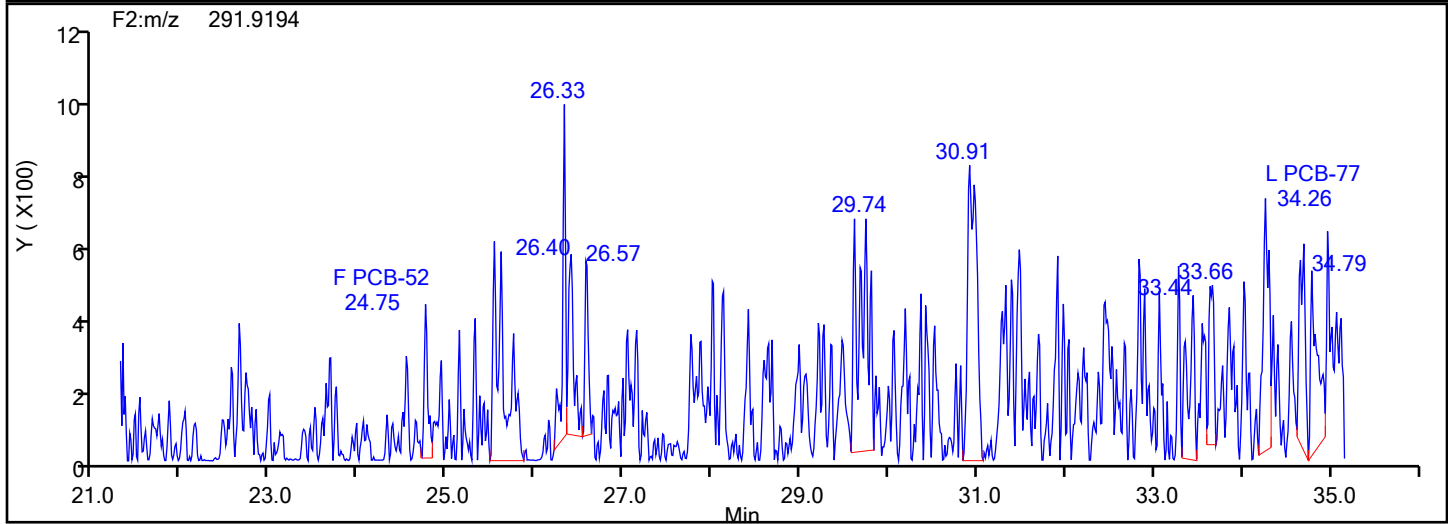
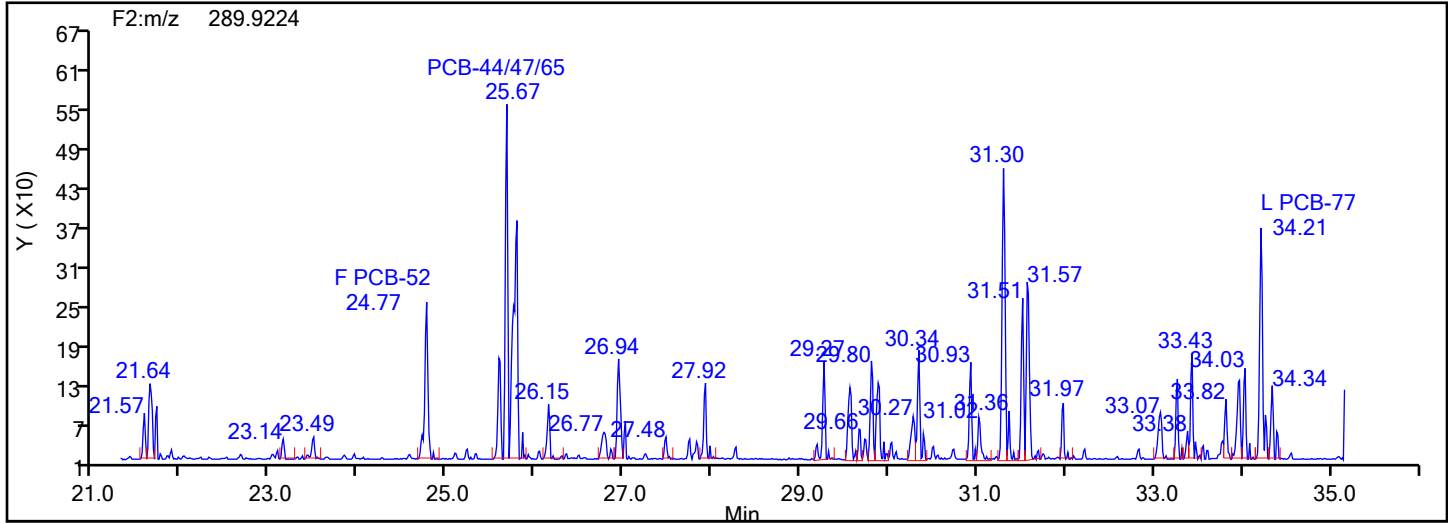


## TePCB F2 Standards

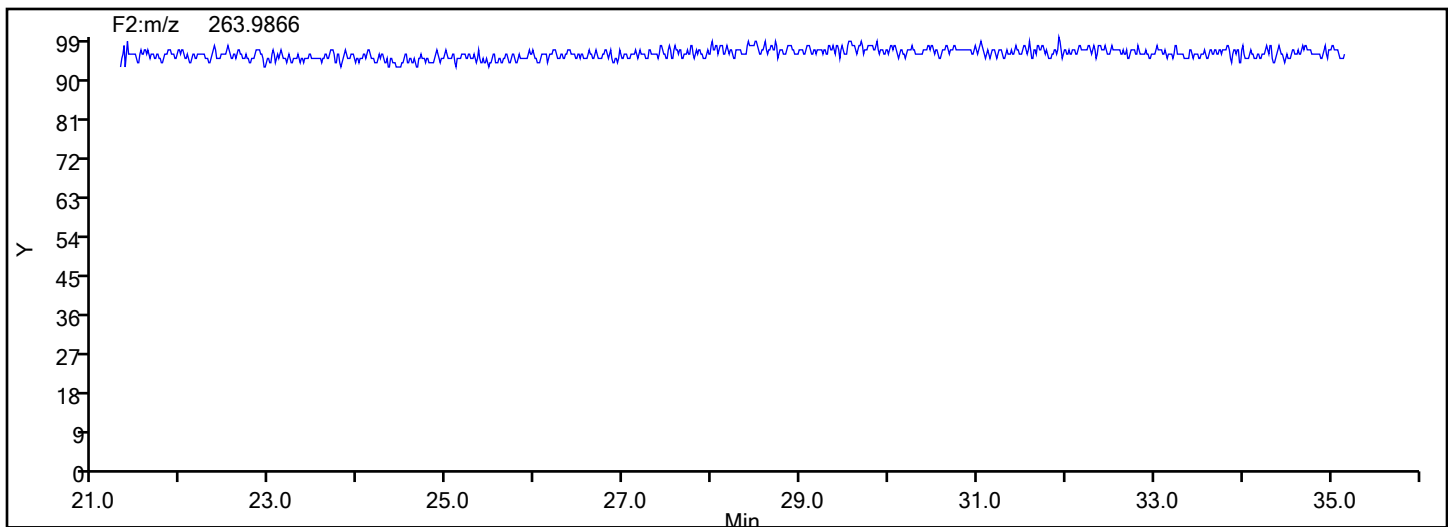


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F2



## TePCB F2 Lock Mass





## Eurofins Knoxville

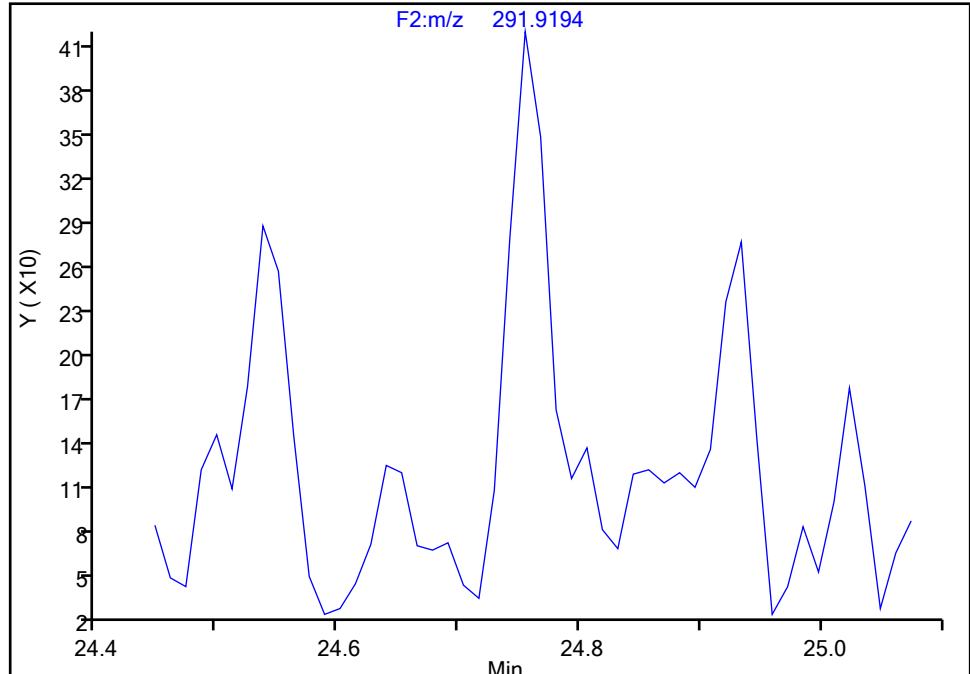
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Injection Date: 16-Jul-2024 14:38:00 Instrument ID: D2D  
Lims ID: 140-37234-A-14-B Lab Sample ID: 140-37234-14  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

PCB-52, CAS: 35693-99-3

Signal: 2

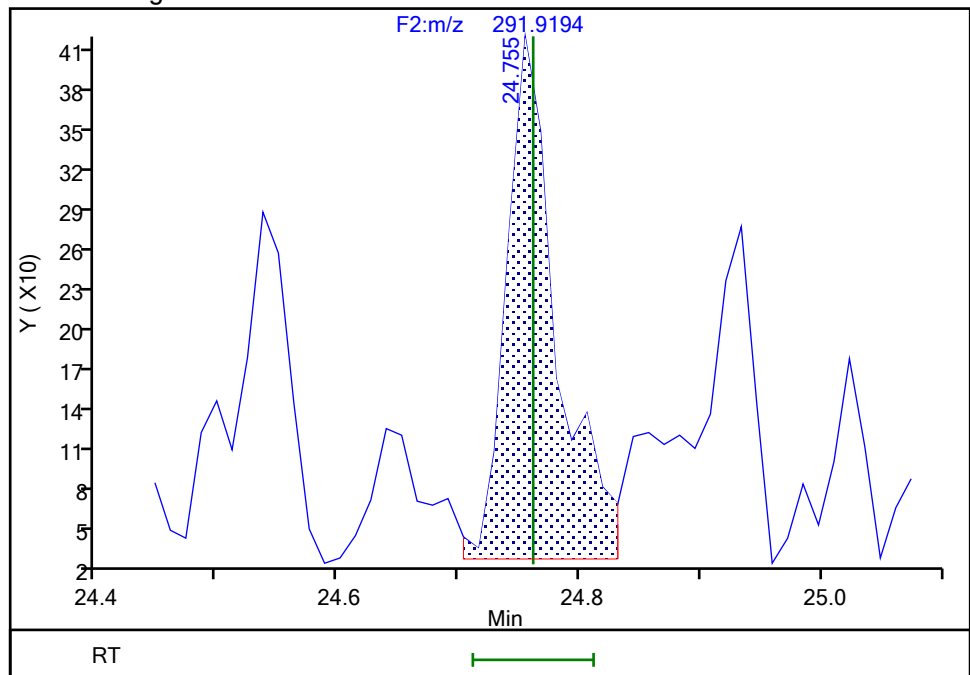
Not Detected  
Expected RT: 24.76

## Processing Integration Results



## Manual Integration Results

RT: 24.75  
Area: 1140  
Amount: 0.054618  
Amount Units: pg/ul



Reviewer: TT6I, 17-Jul-2024 10:12:56 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

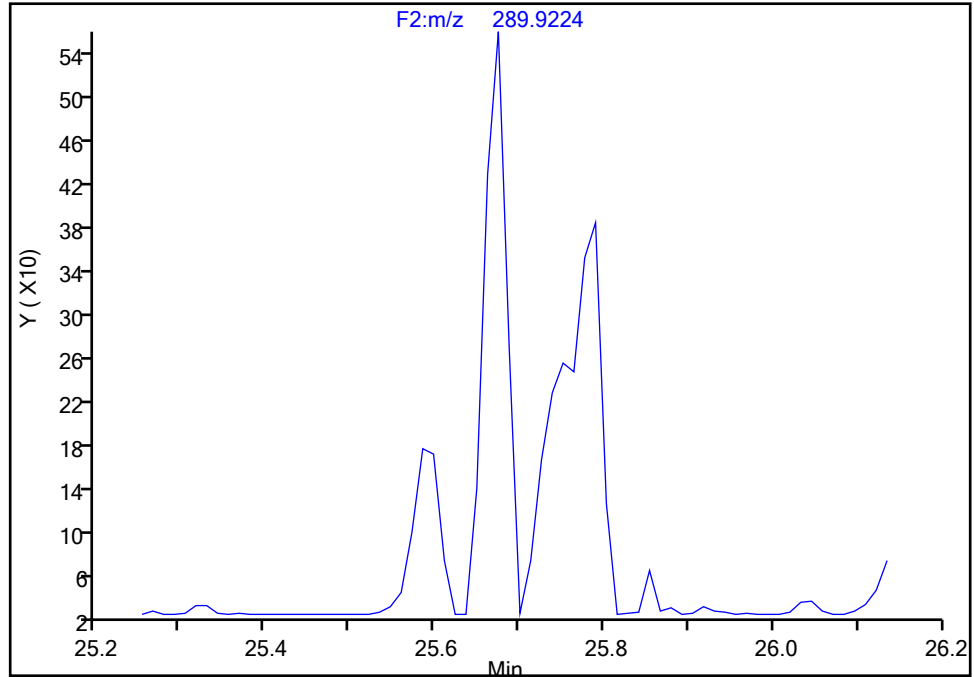
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Lims ID: 140-37234-A-14-B Lab Sample ID: 140-37234-14  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

PCB-44/47/65, CAS: STL01803

Signal: 1

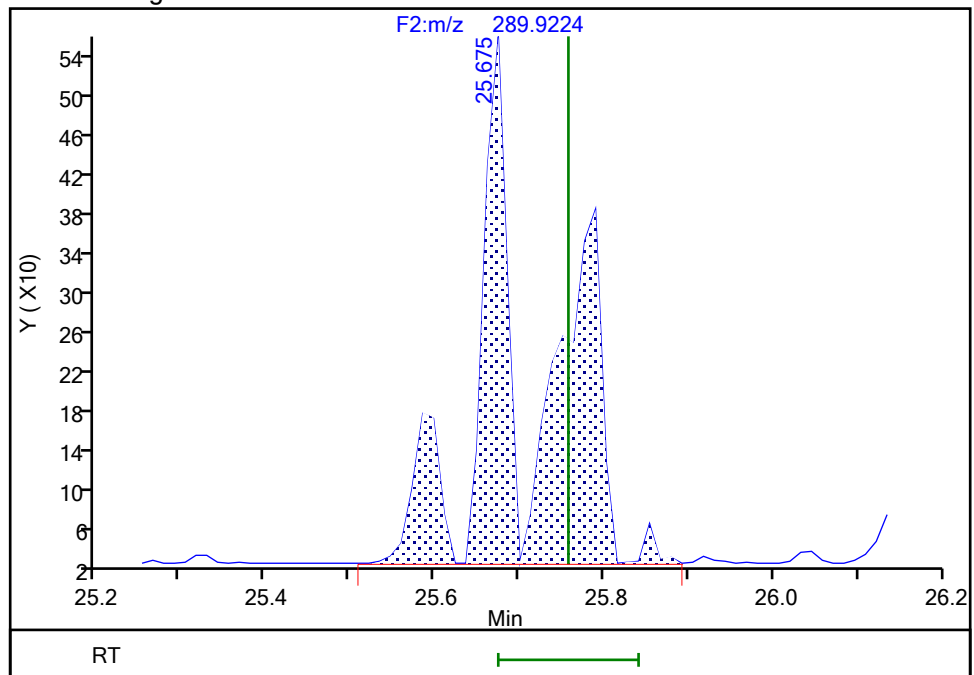
Not Detected  
Expected RT: 25.76

## Processing Integration Results



## Manual Integration Results

RT: 25.67  
Area: 2621  
Amount: 0.210652  
Amount Units: pg/ul



Reviewer: TT6I, 17-Jul-2024 10:13:09 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

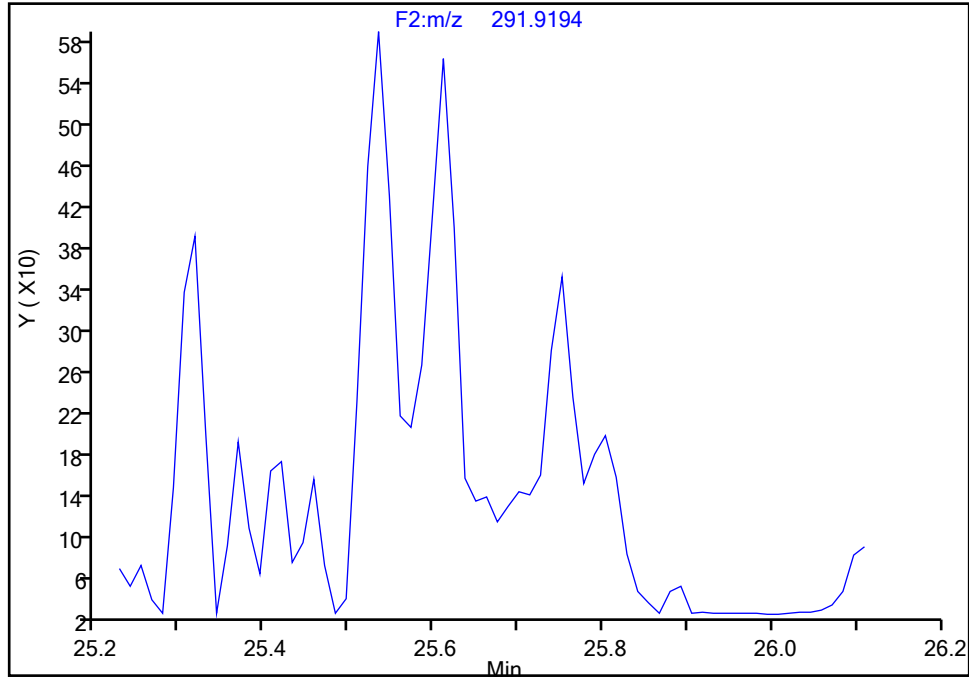
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Injection Date: 16-Jul-2024 14:38:00 Instrument ID: D2D  
Lims ID: 140-37234-A-14-B Lab Sample ID: 140-37234-14  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-44/47/65, CAS: STL01803

Signal: 2

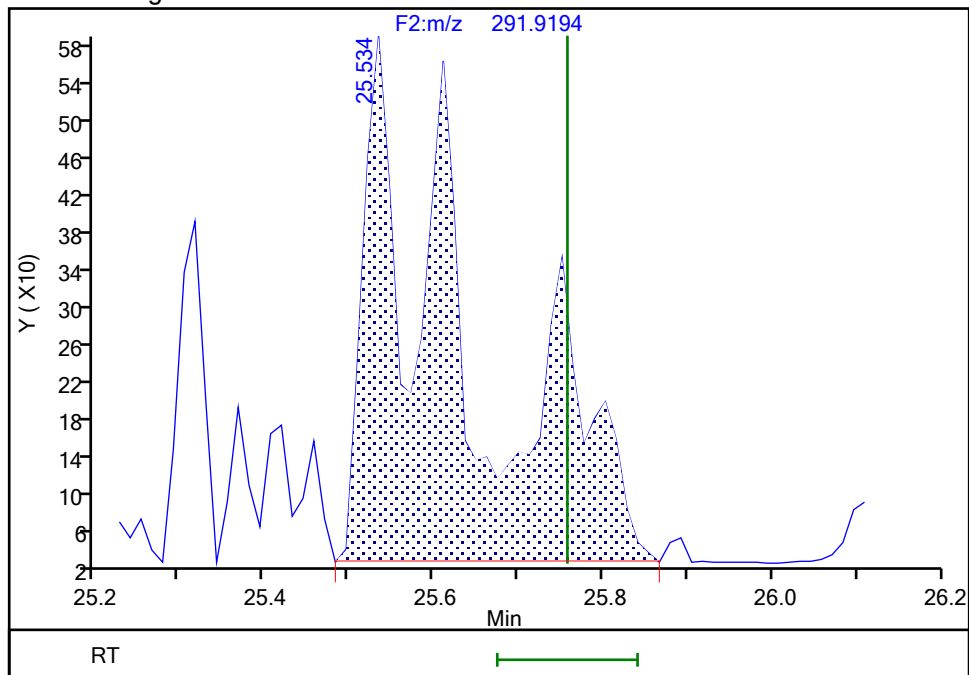
Not Detected  
Expected RT: 25.76

## Processing Integration Results



## Manual Integration Results

RT: 25.53  
Area: 4498  
Amount: 0.210652  
Amount Units: pg/ul



Reviewer: TT6I, 17-Jul-2024 10:13:12 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

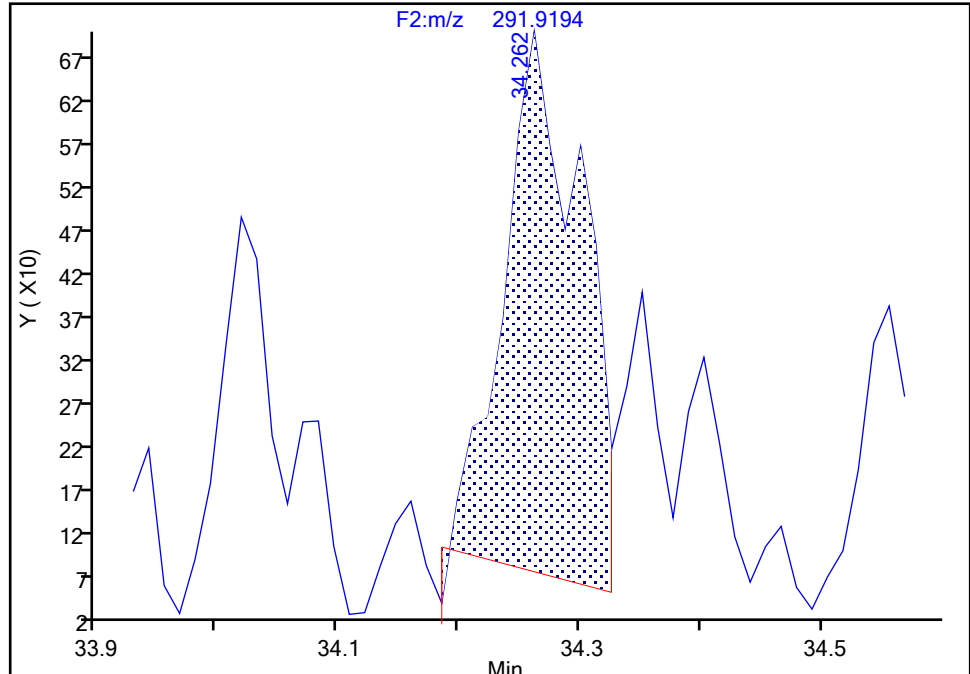
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Injection Date: 16-Jul-2024 14:38:00 Instrument ID: D2D  
Lims ID: 140-37234-A-14-B Lab Sample ID: 140-37234-14  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

PCB-77, CAS: 32598-13-3

Signal: 2

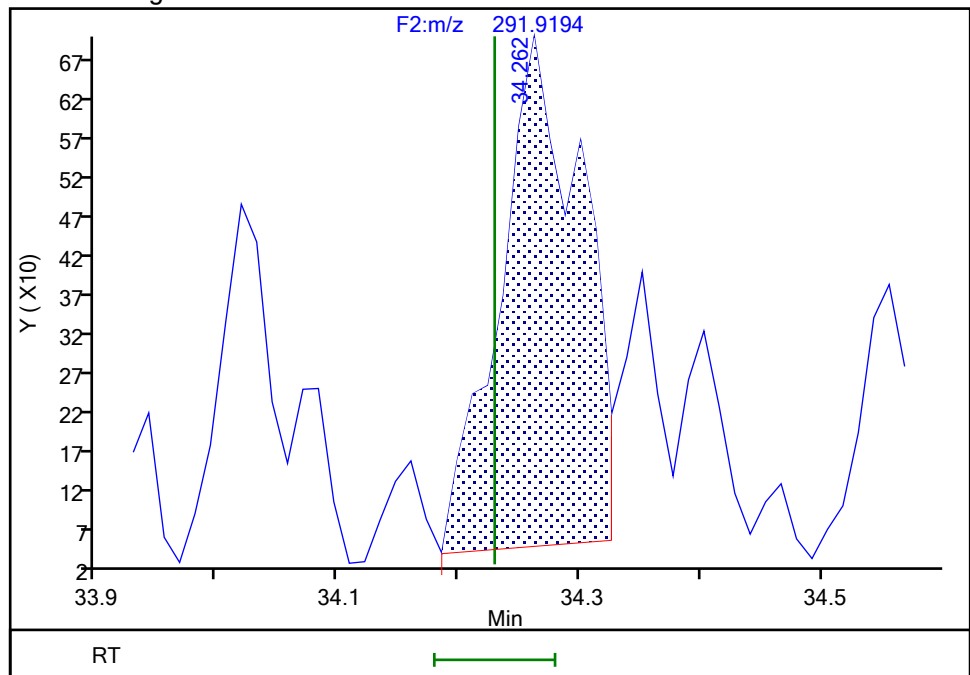
RT: 34.26  
Area: 2772  
Amount: 0.092720  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.26  
Area: 3025  
Amount: 0.099205  
Amount Units: pg/ul

## Manual Integration Results



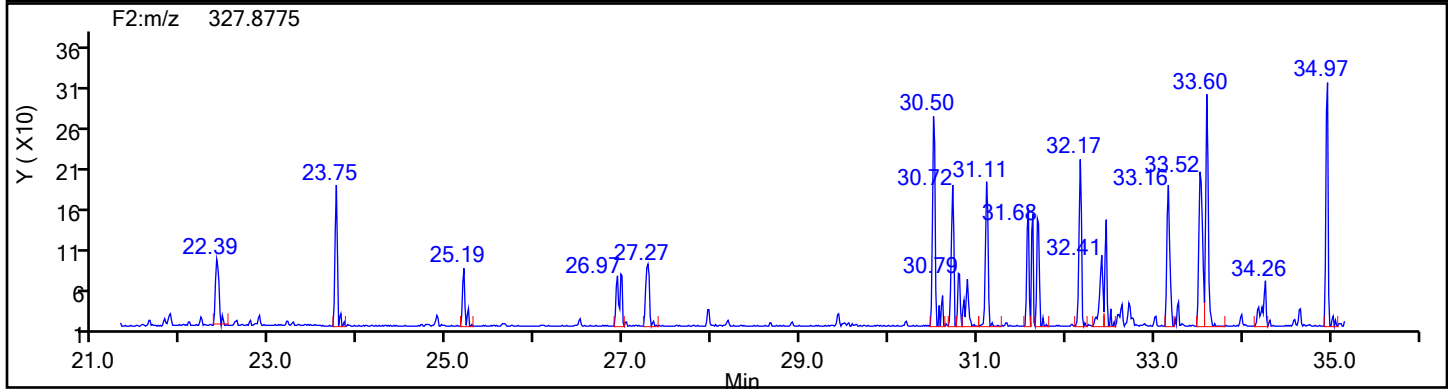
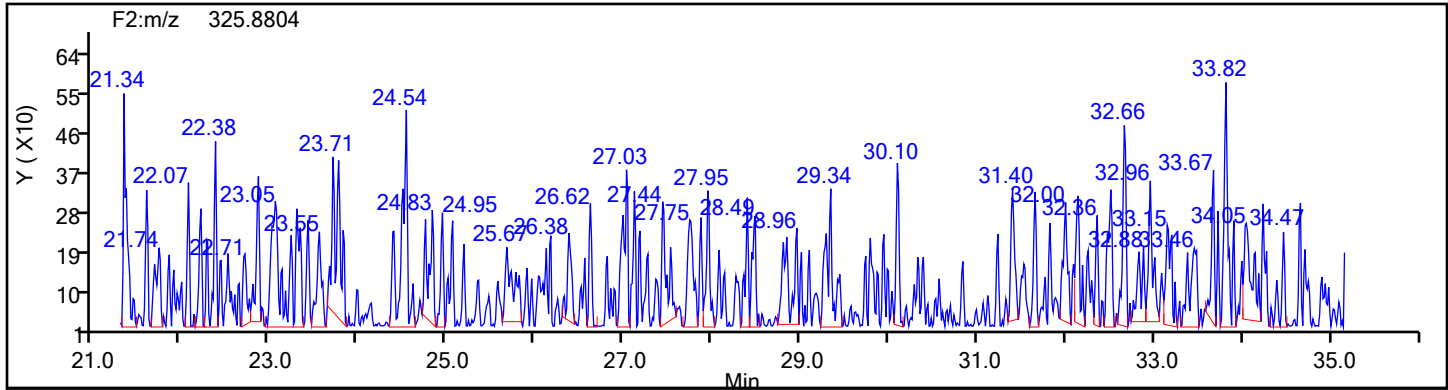
Reviewer: TT6I, 17-Jul-2024 10:13:33 -04:00:00 (UTC)

Audit Action: Manually Integrated

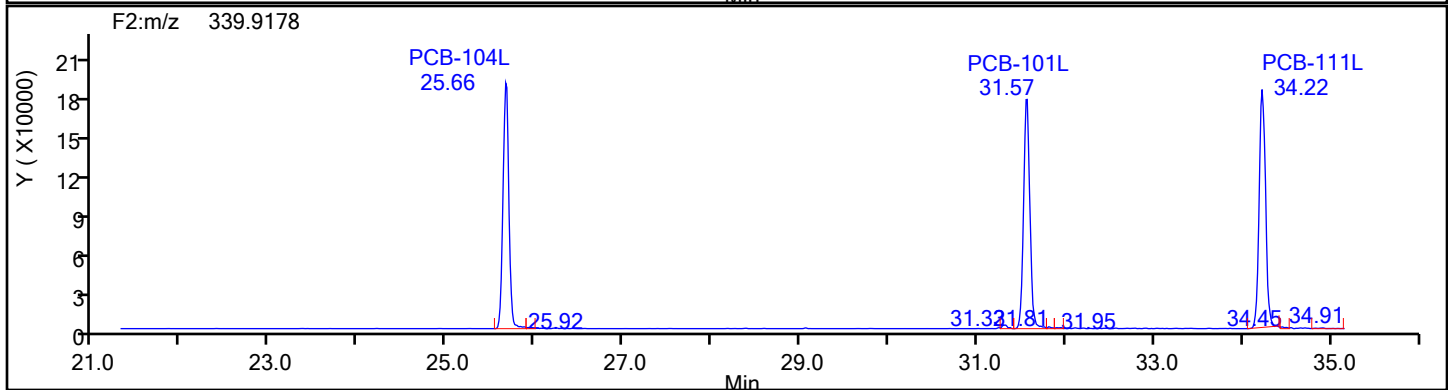
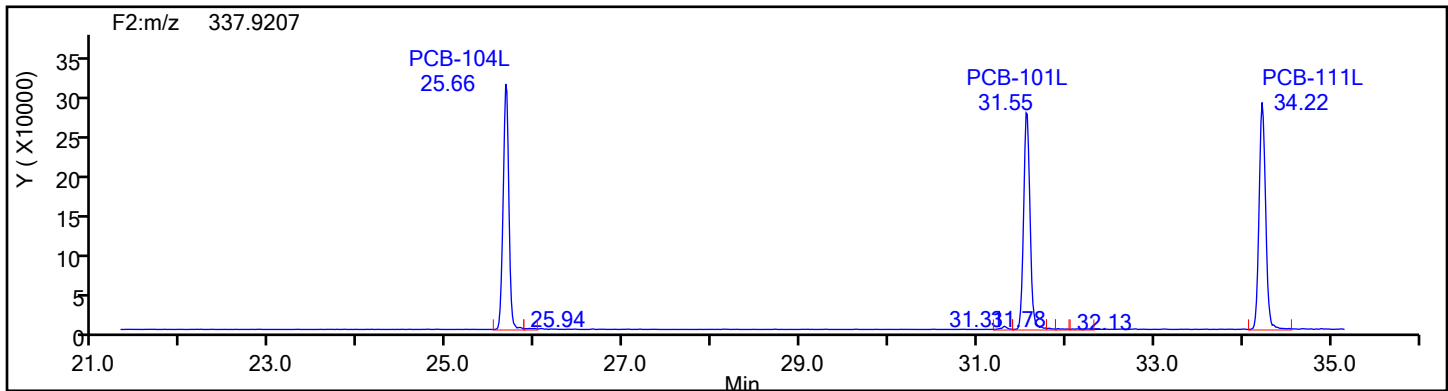
Audit Reason: Incomplete Integration

## Eurofins Knoxville

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Injection Date: 16-Jul-2024 14:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2

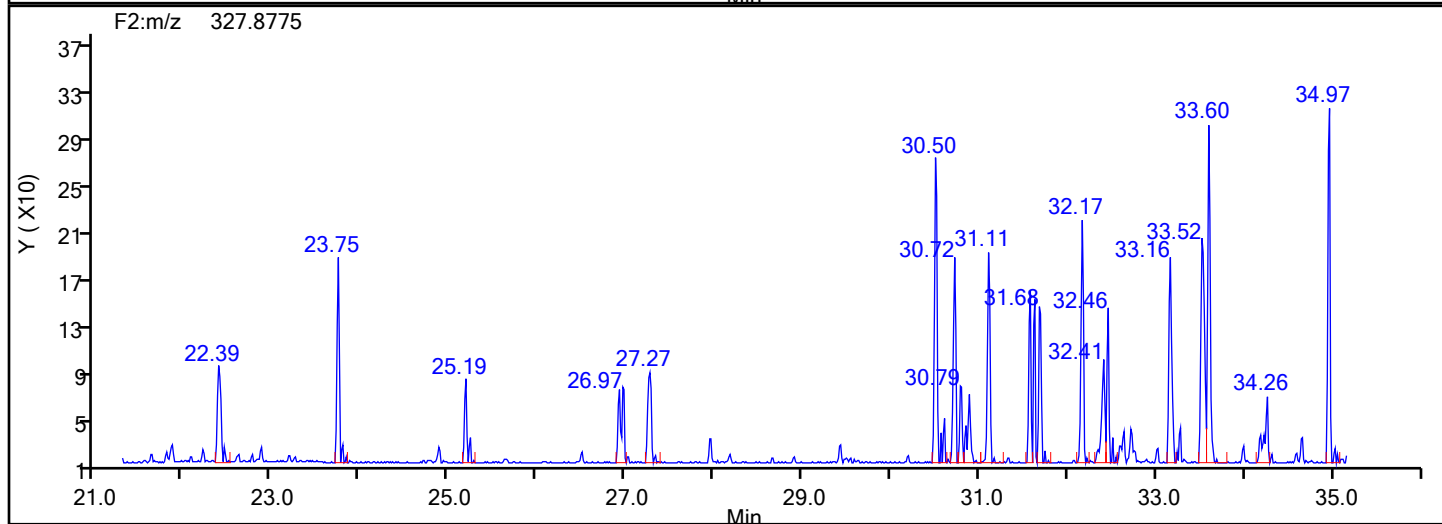
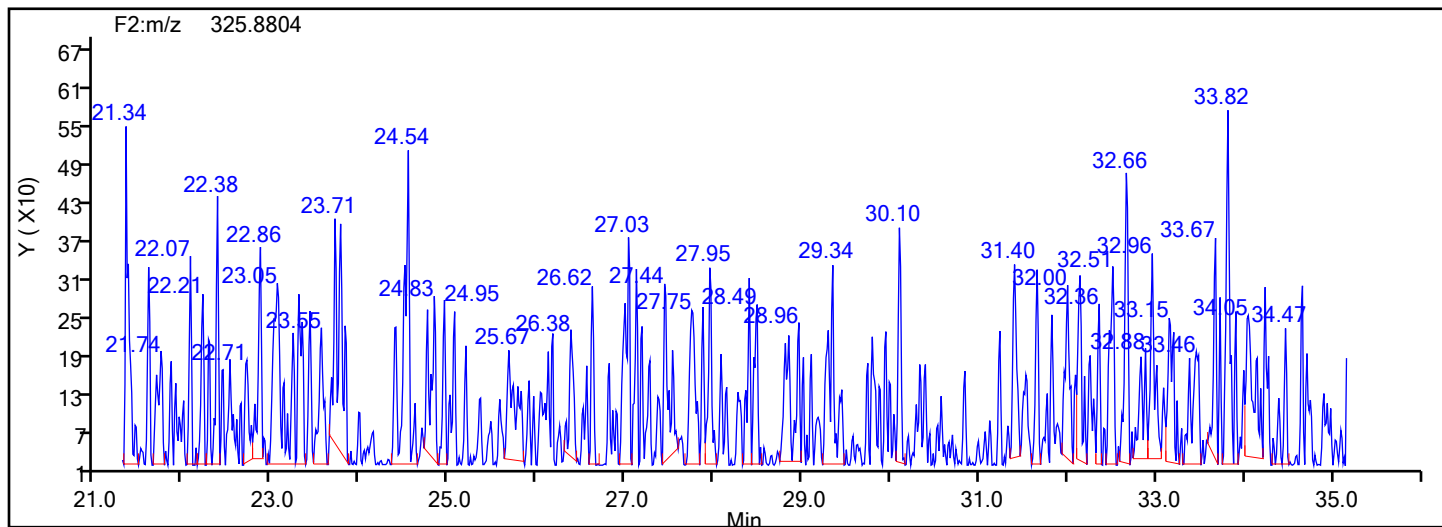


## PePCB F2 Standards

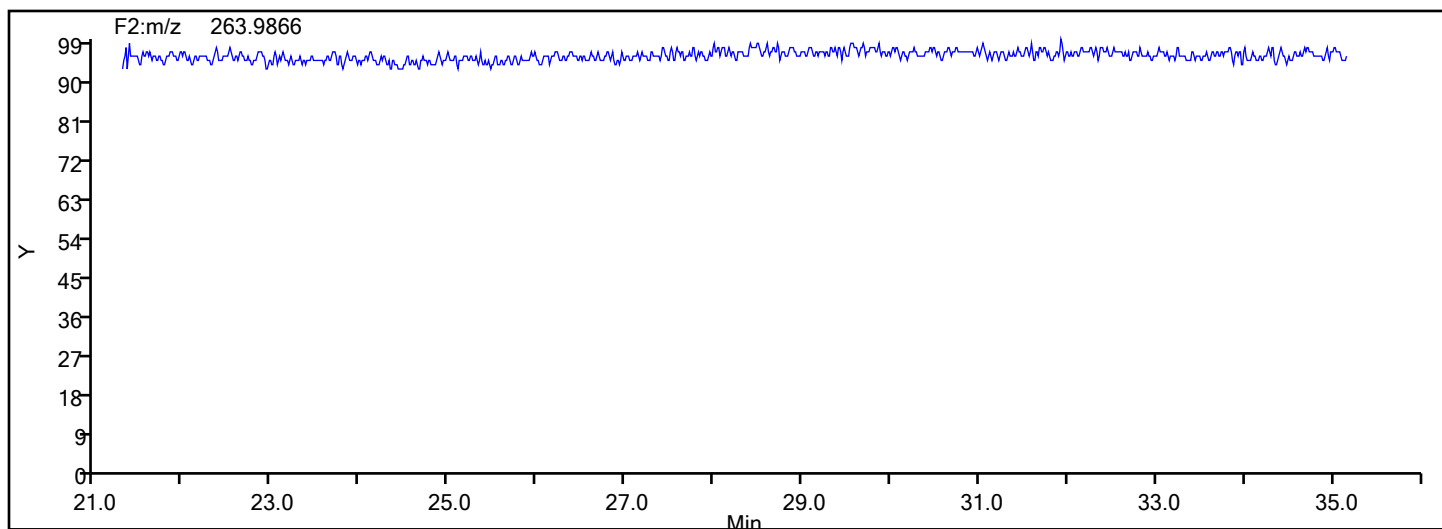


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 14:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2

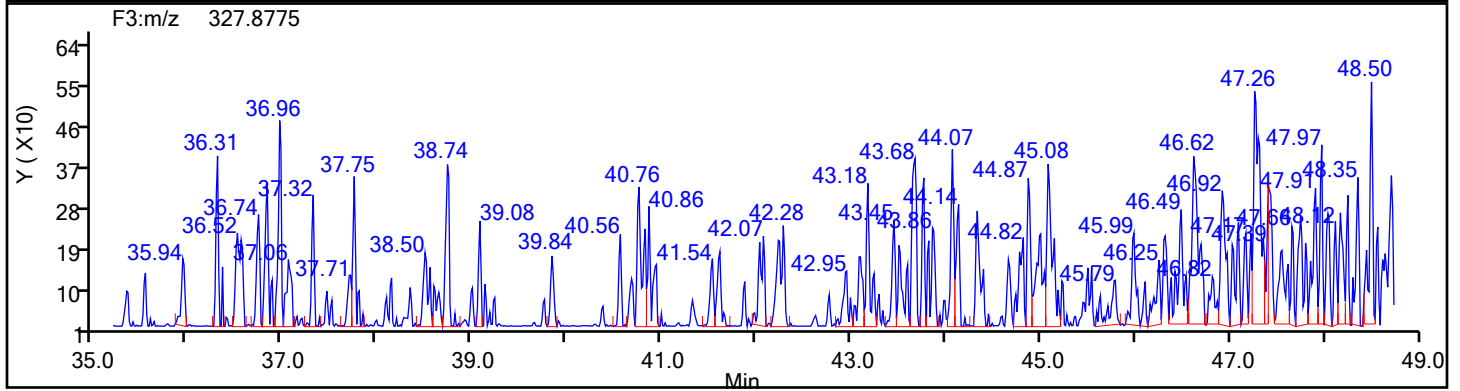
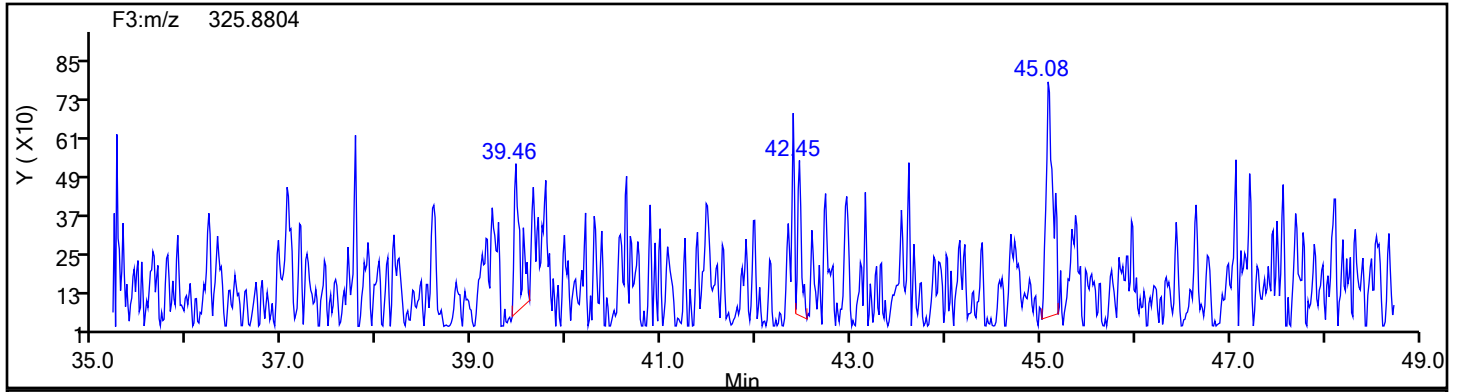


## PePCB F2 Lock Mass

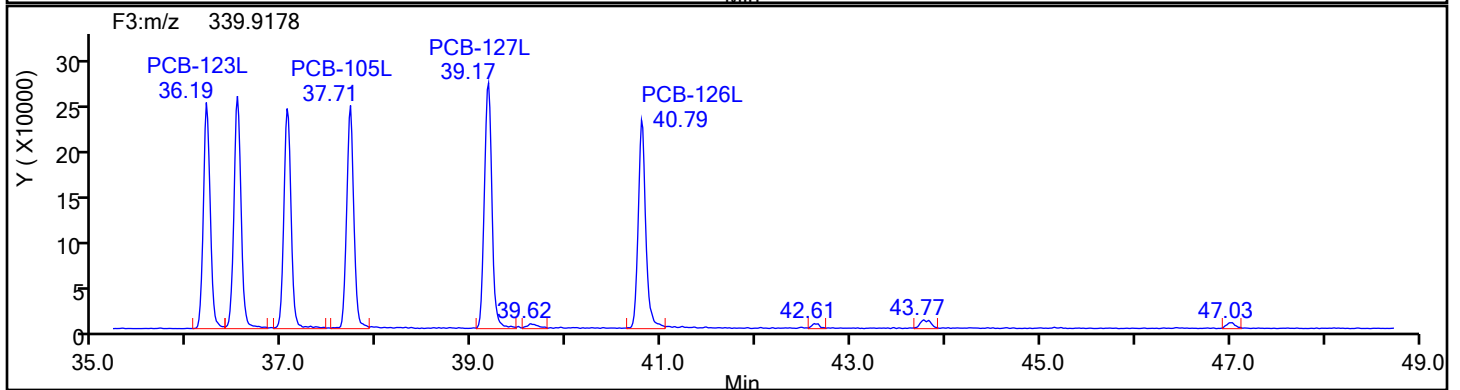
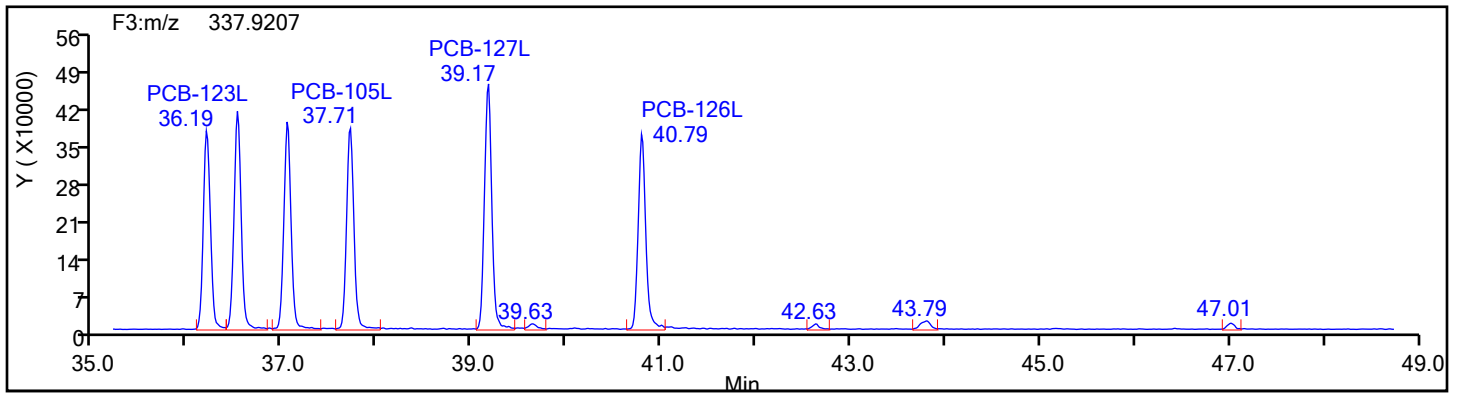


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F3

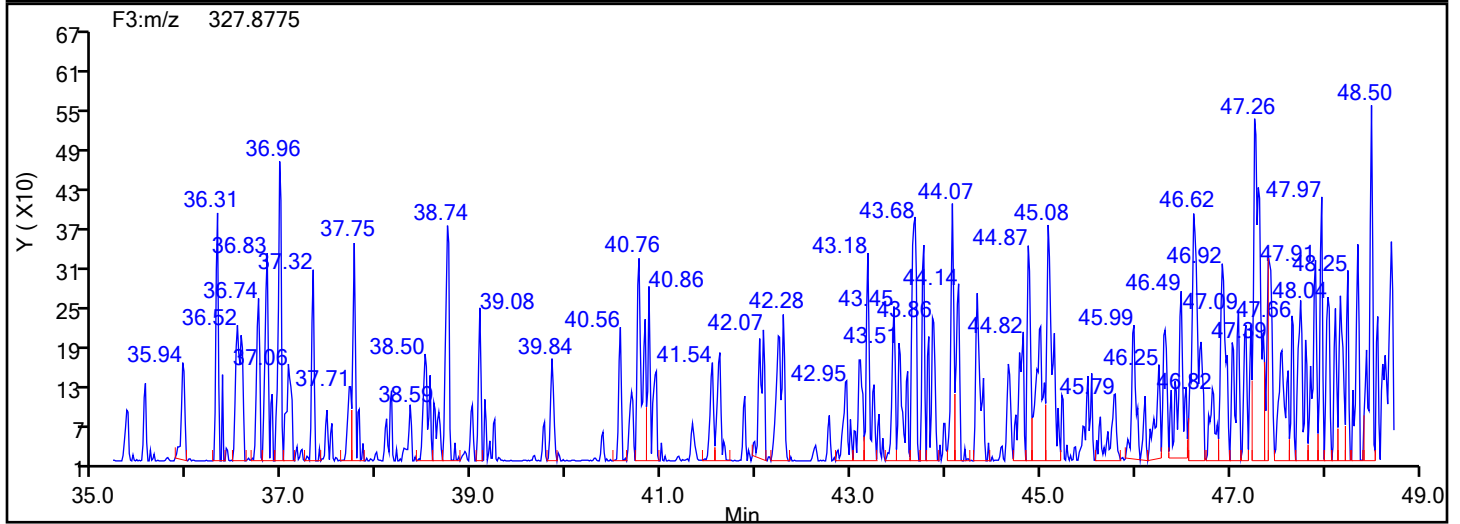
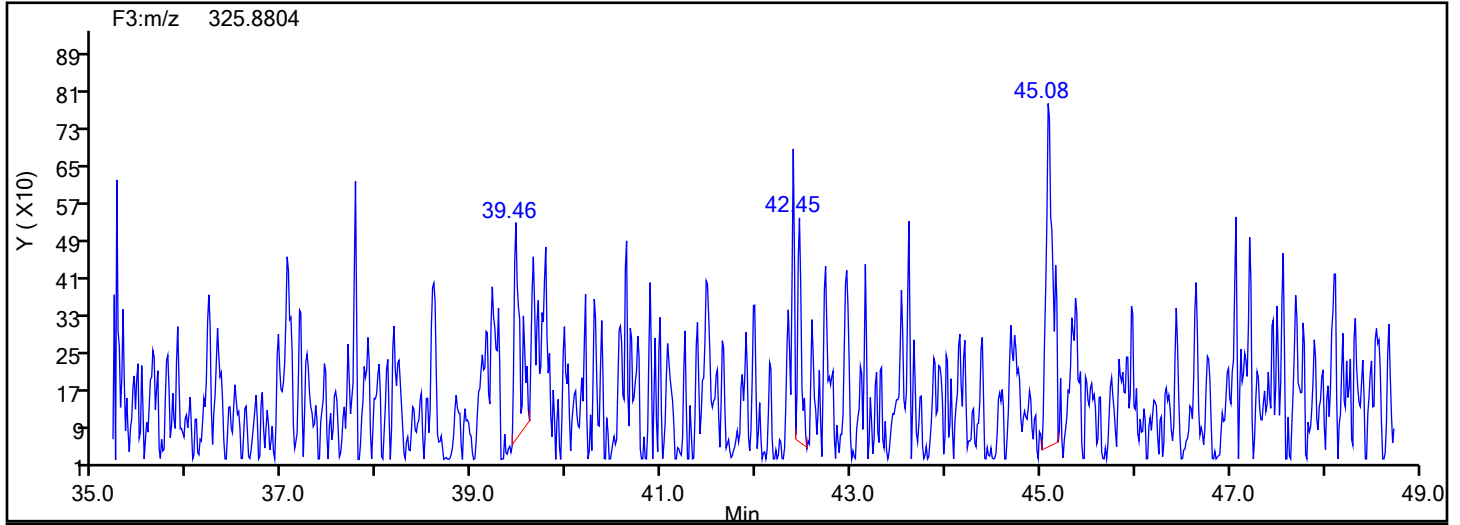


## PePCB F3 Standards

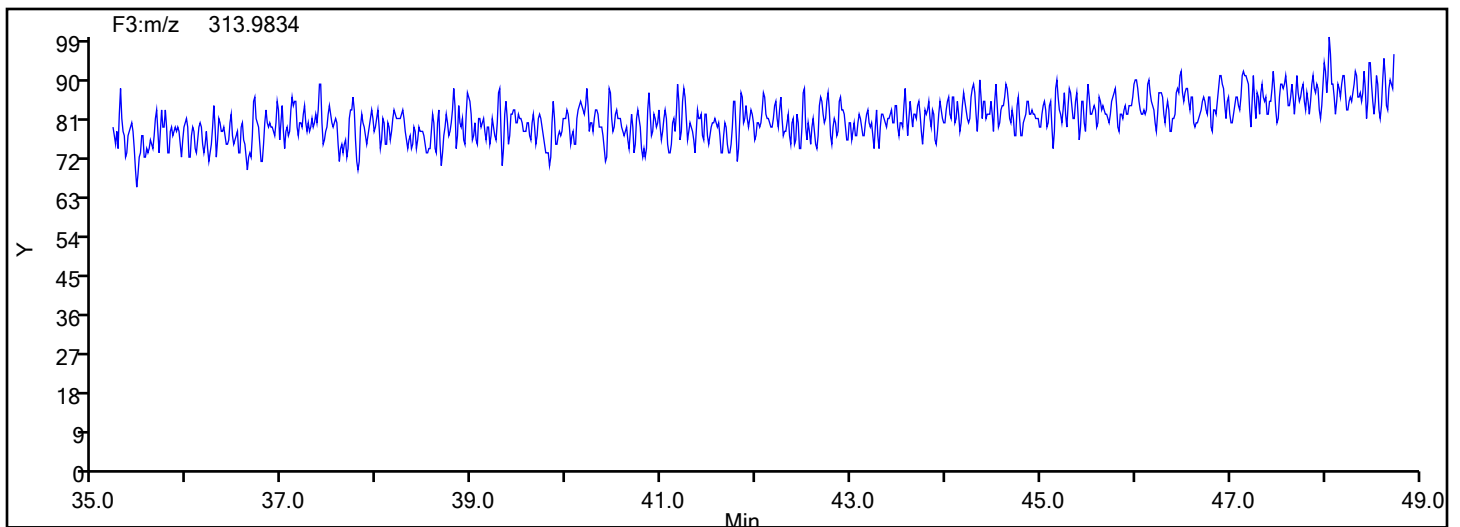


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F3



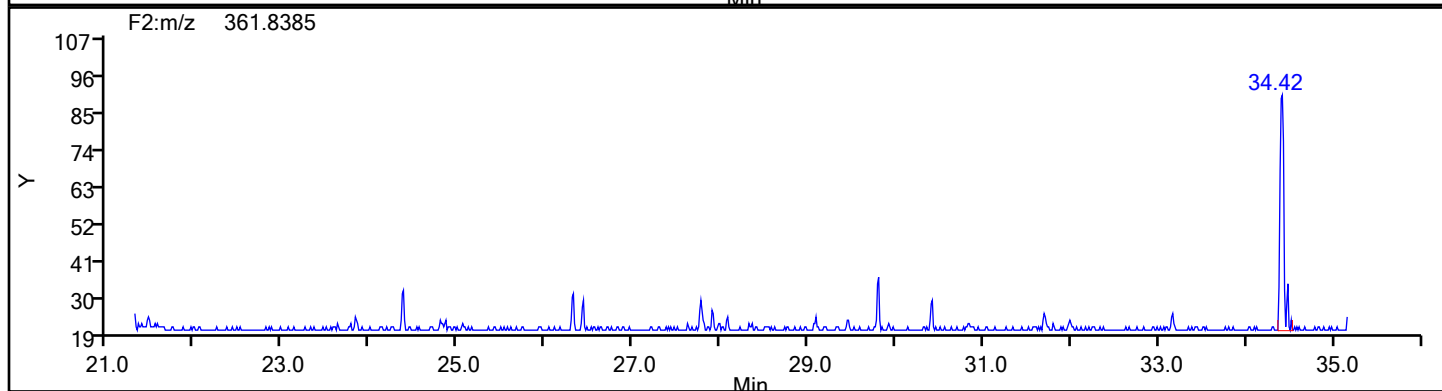
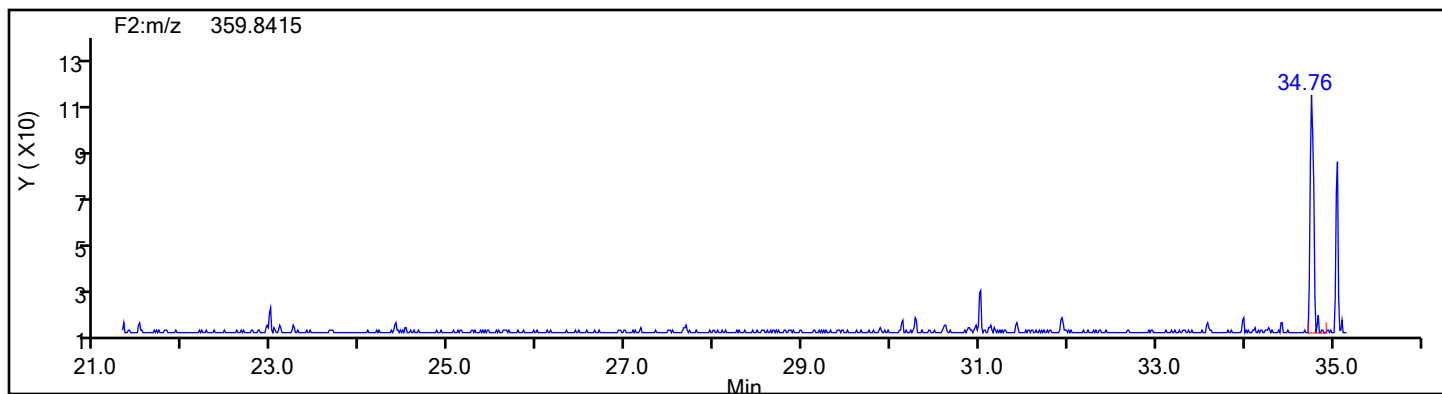
## PePCB F3 Lock Mass



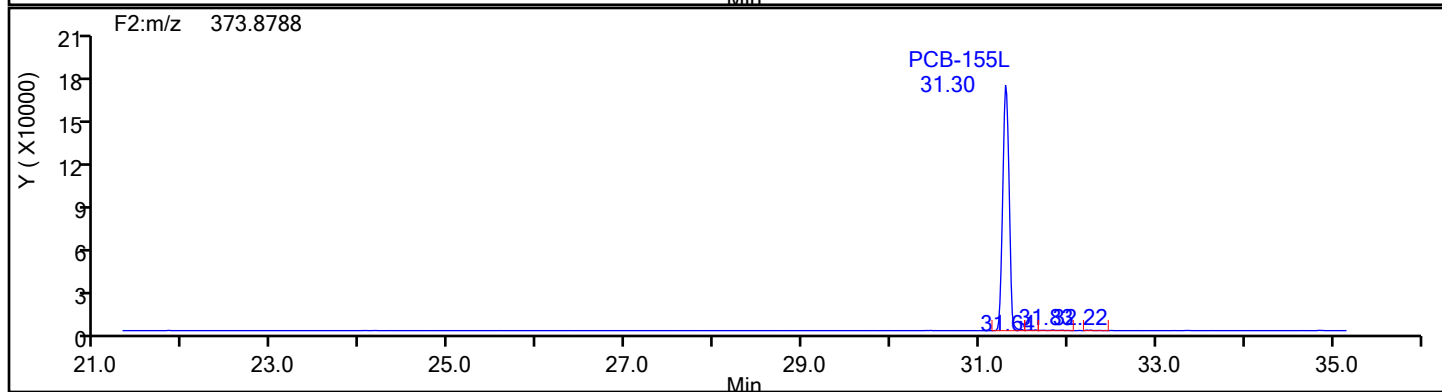
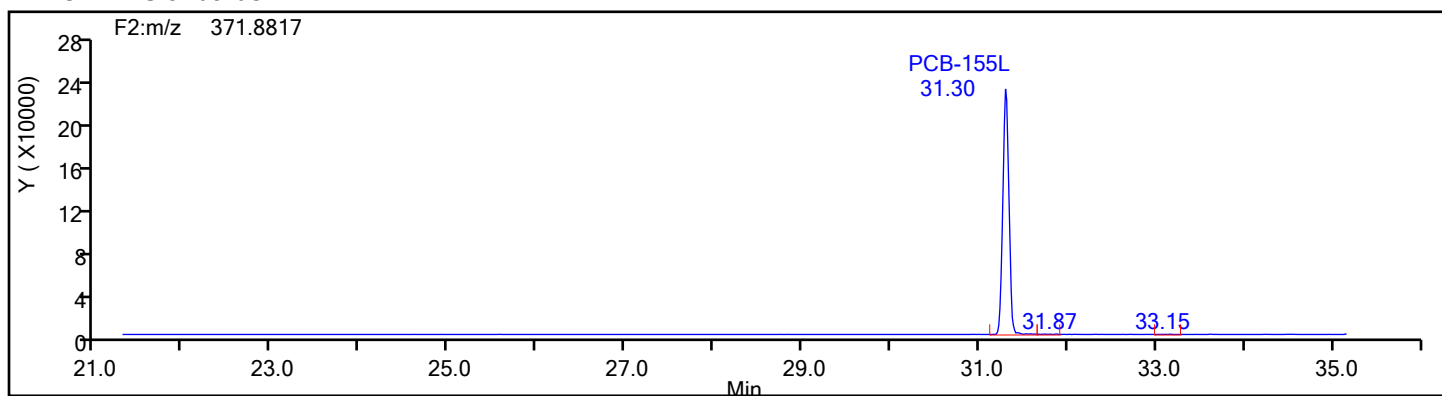


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2

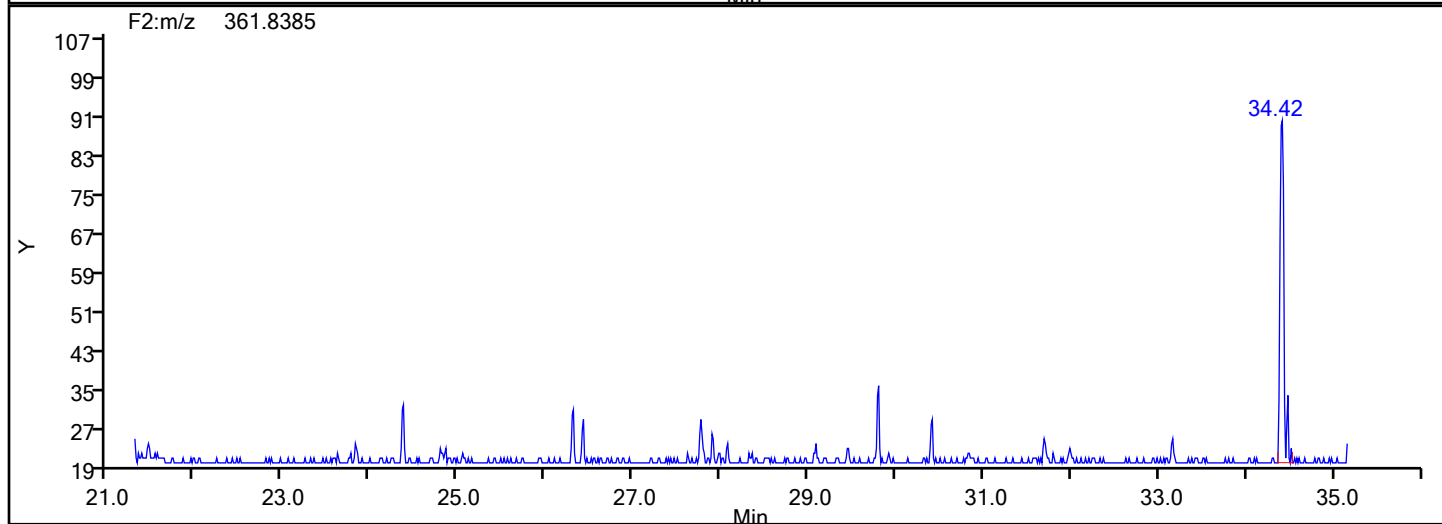
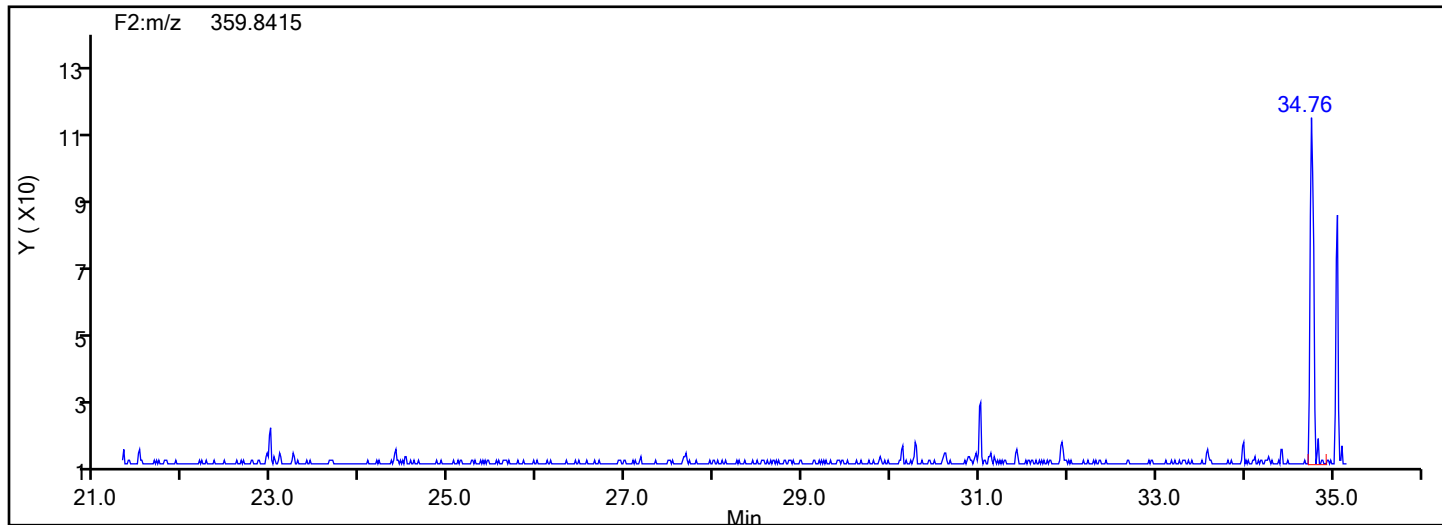


## HxPCB F2 Standards

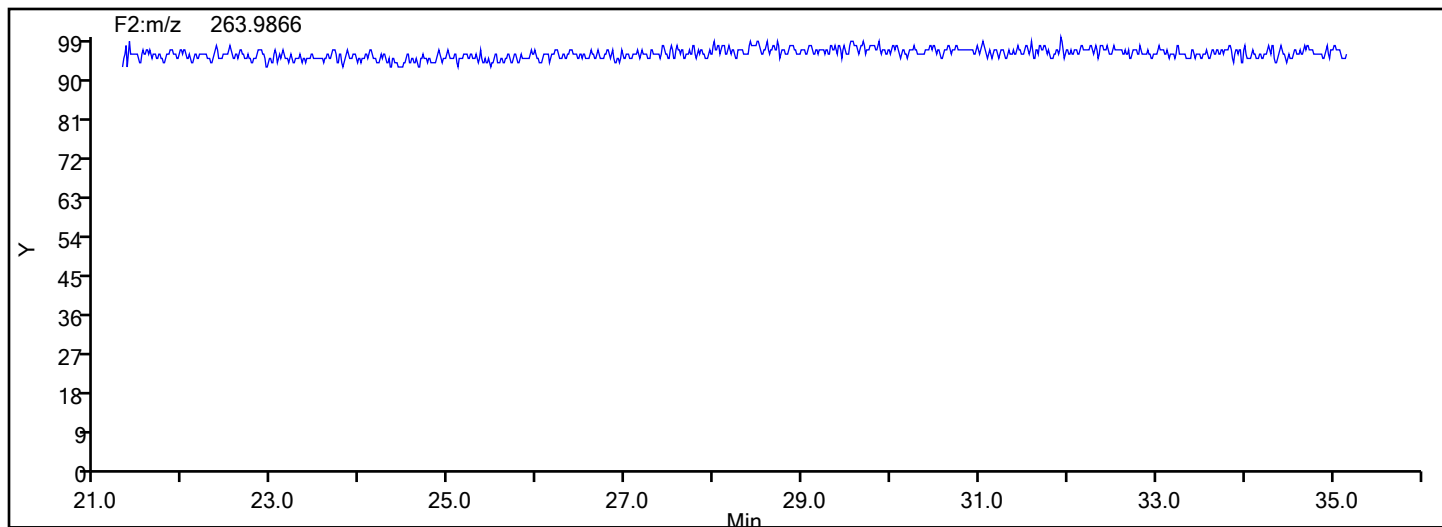


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-14-b.d  
Injection Date: 16-Jul-2024 14:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2

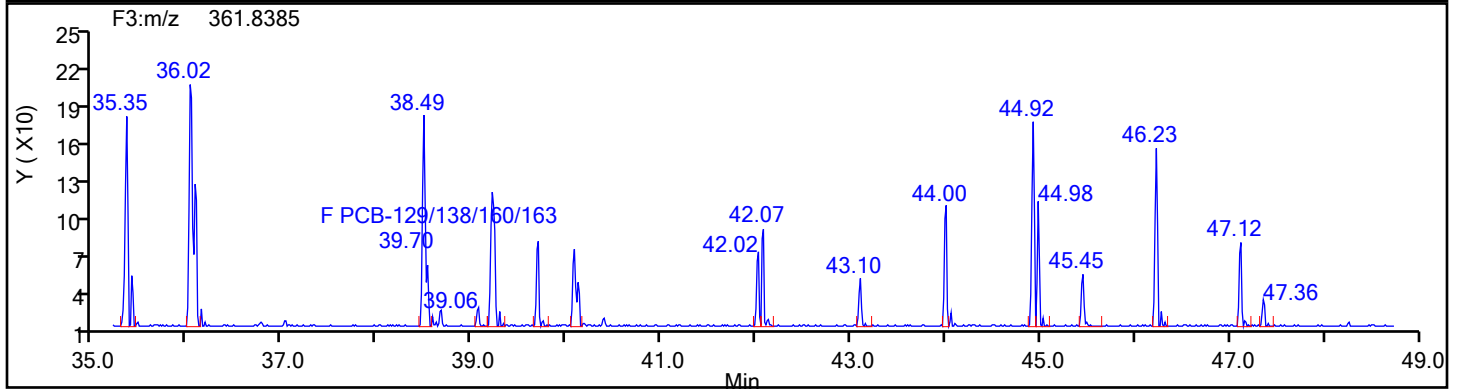
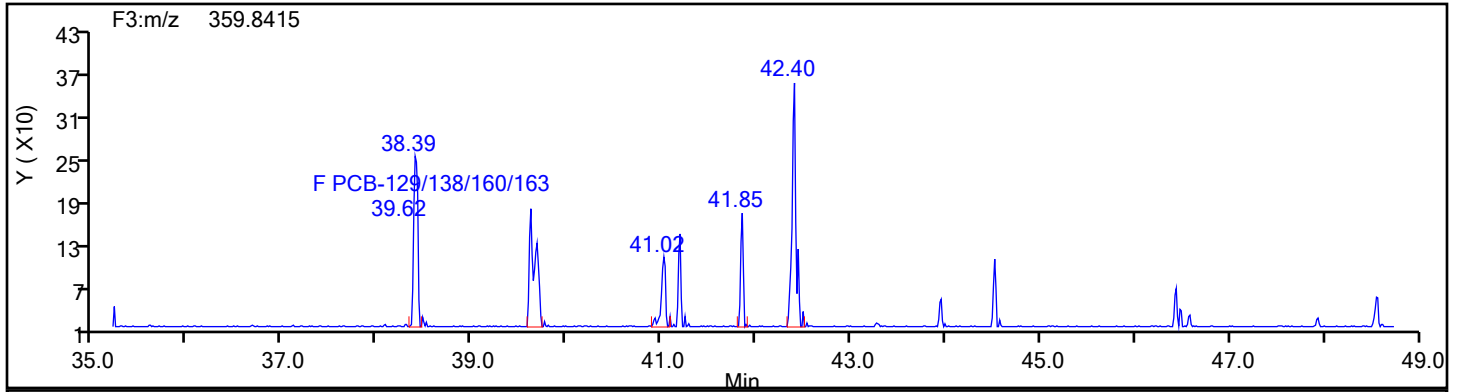


## HxPCB F2 Lock Mass

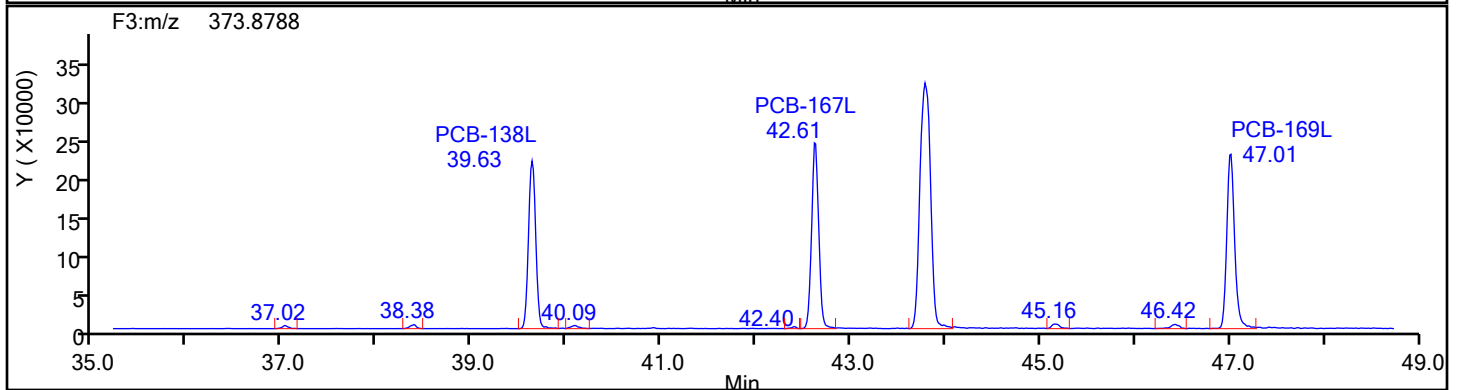
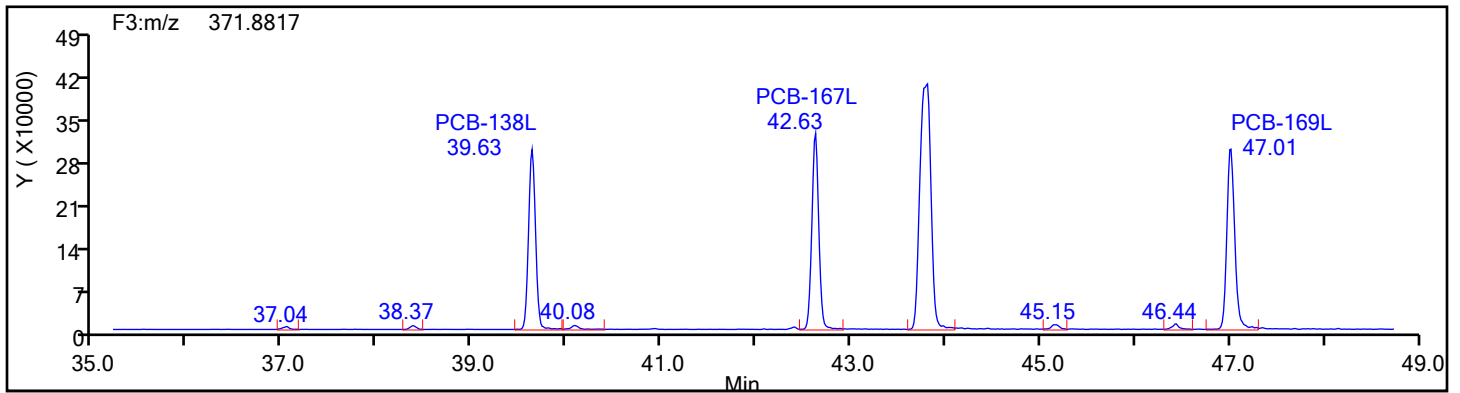


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 14:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F3

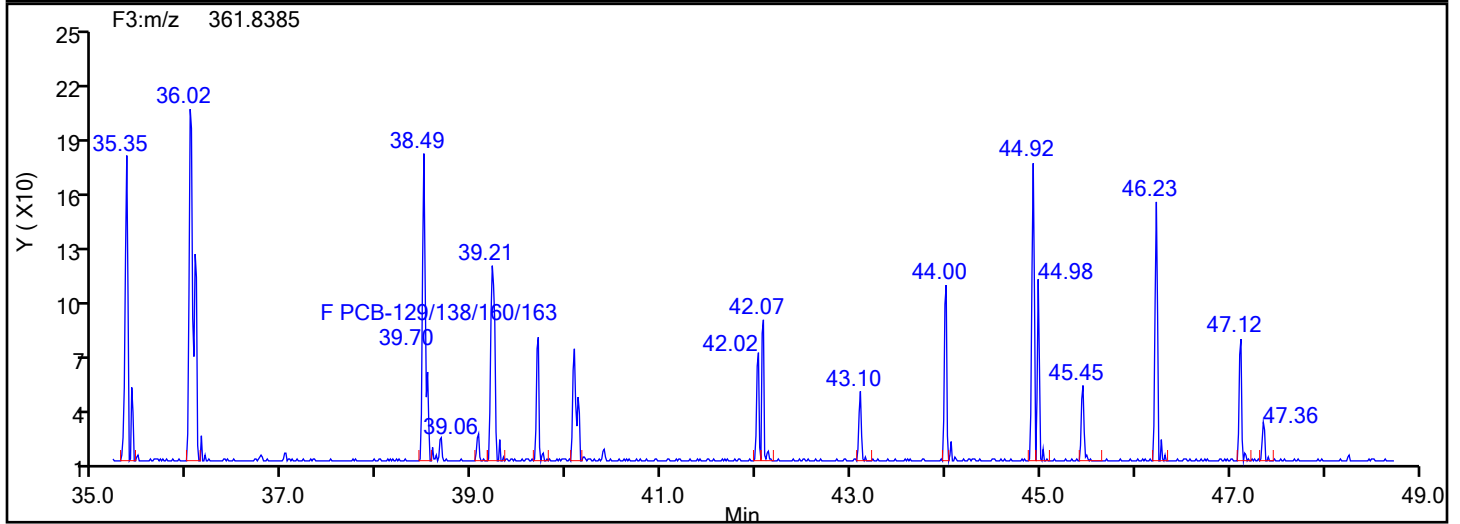
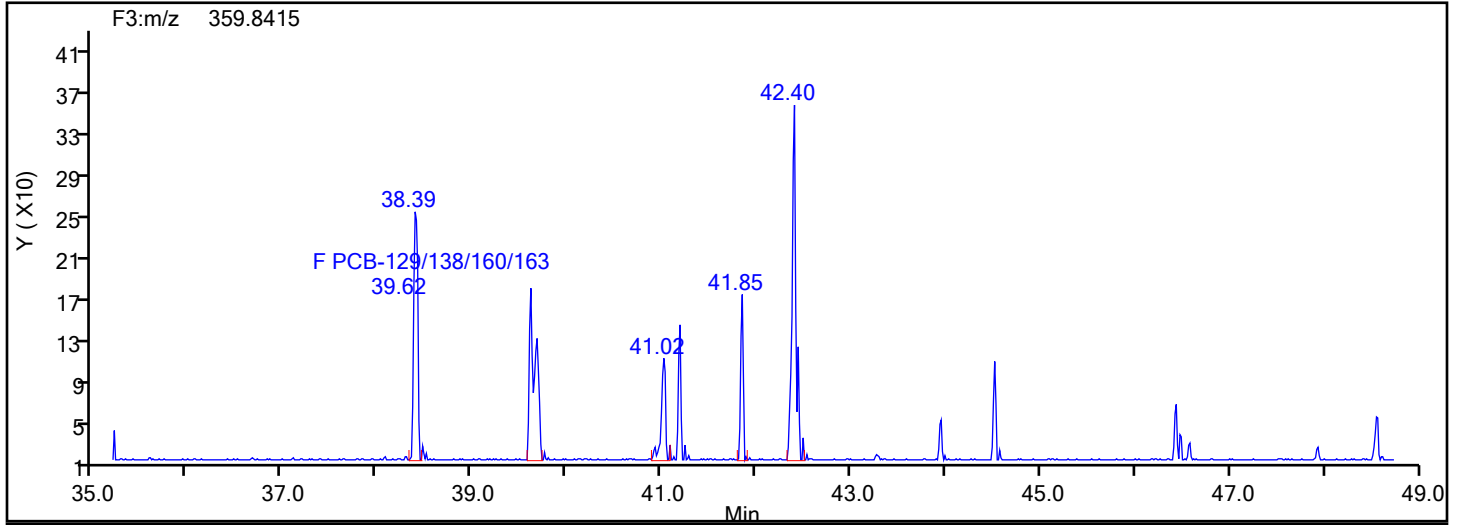


## HxPCB F3 Standards

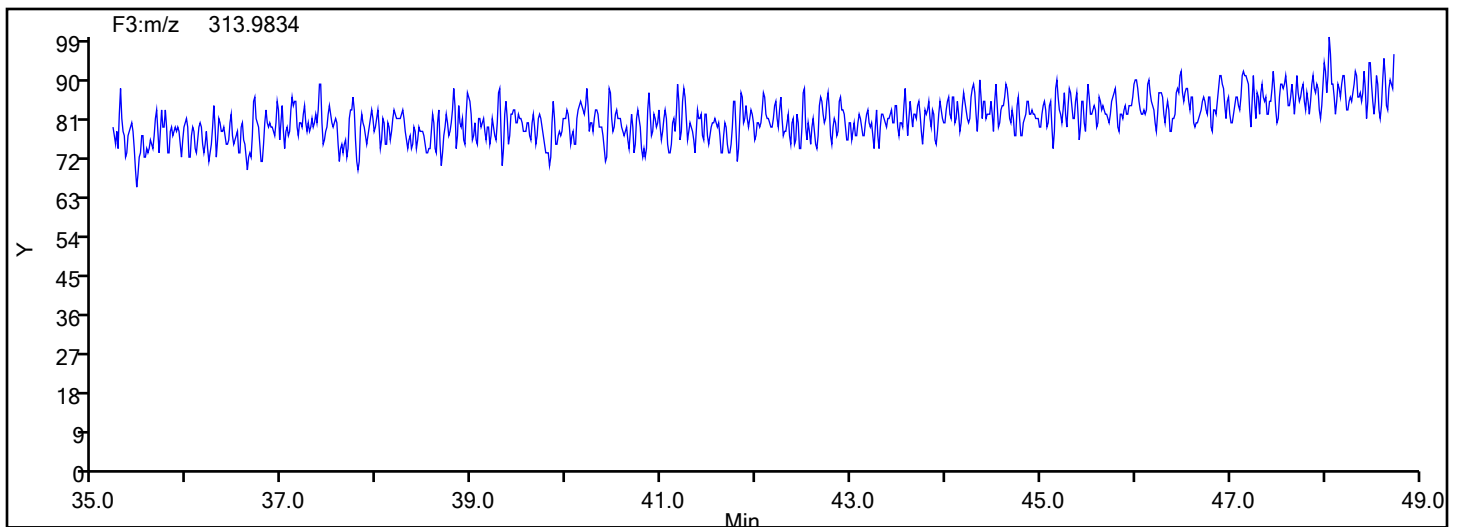


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-14-b.d  
Injection Date: 16-Jul-2024 14:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F3

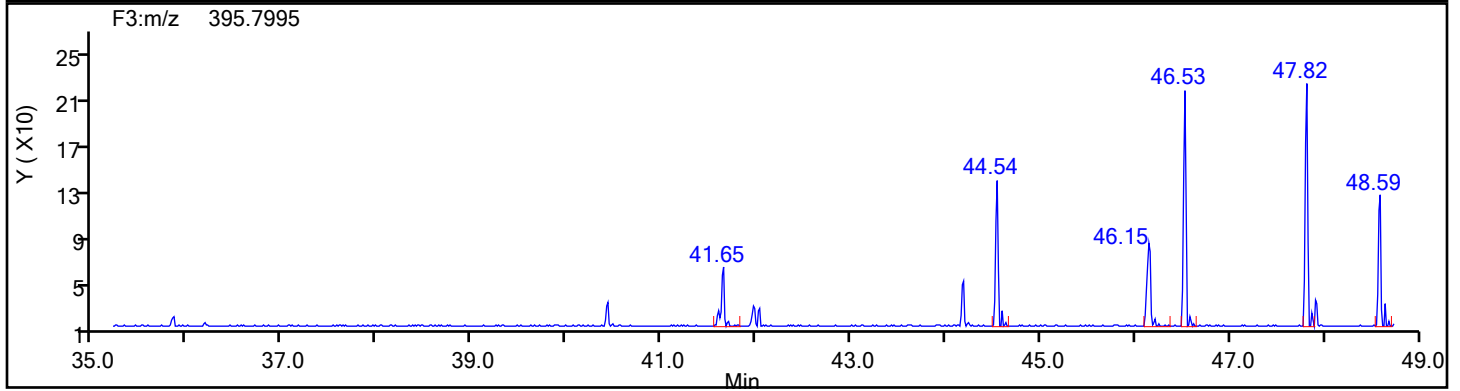
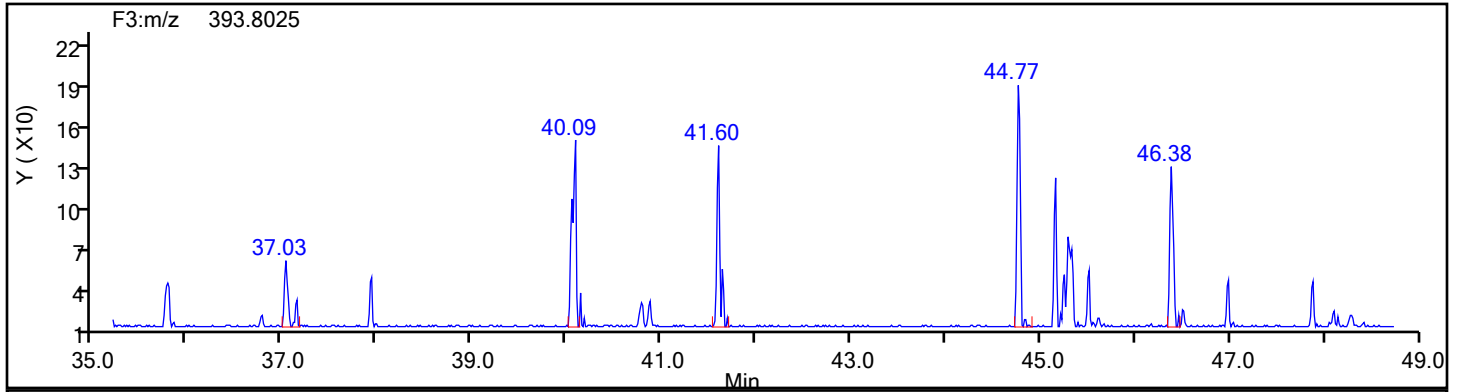


## HxPCB F3 Lock Mass

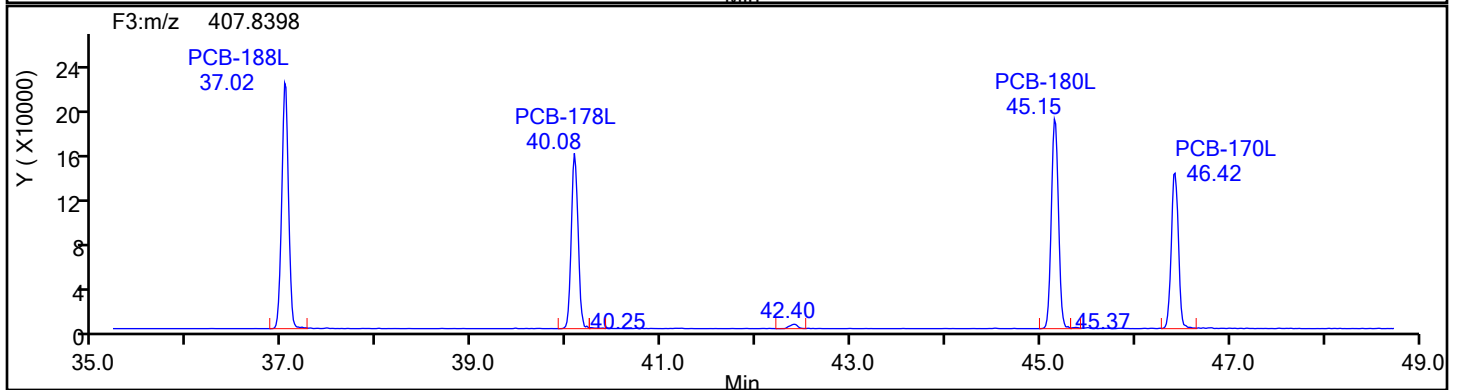
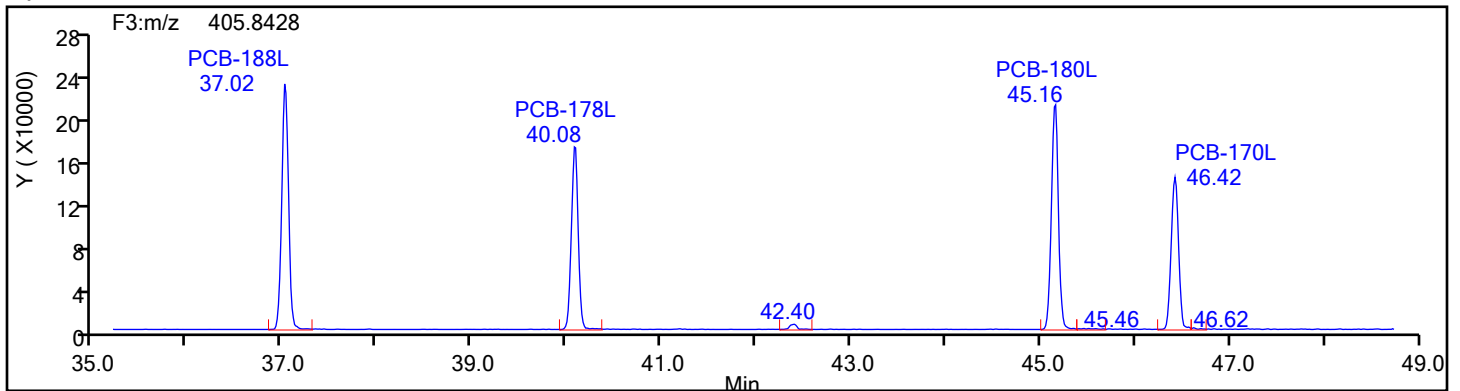


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-14-b.d  
Injection Date: 16-Jul-2024 14:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F3

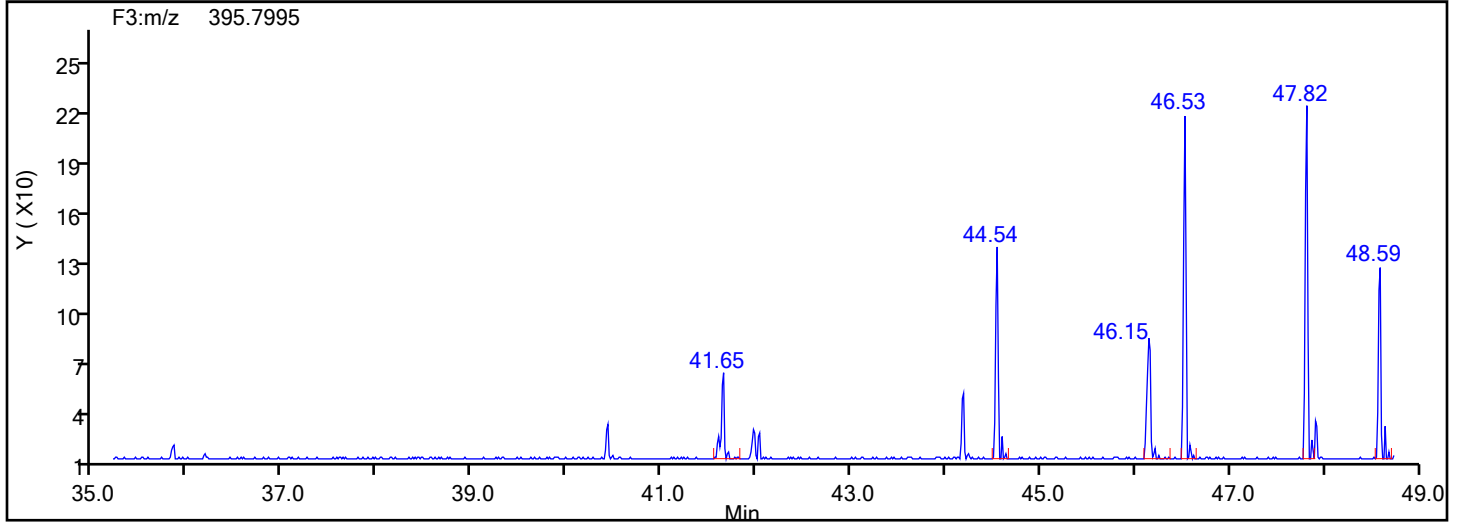
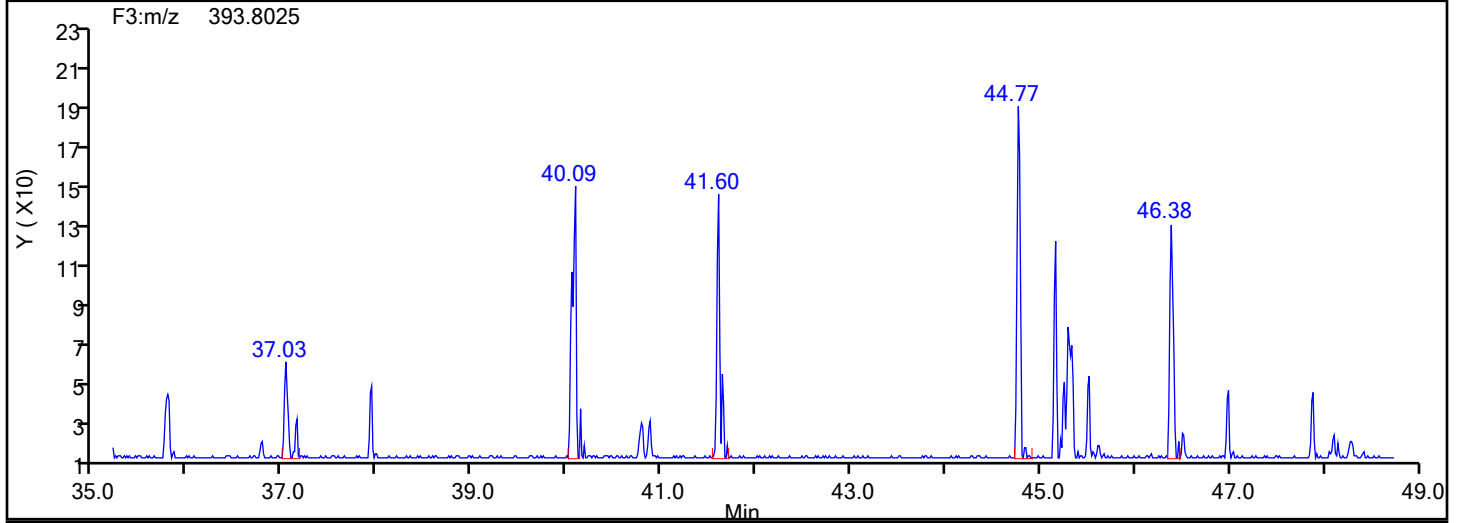


## HpPCB F3 Standards

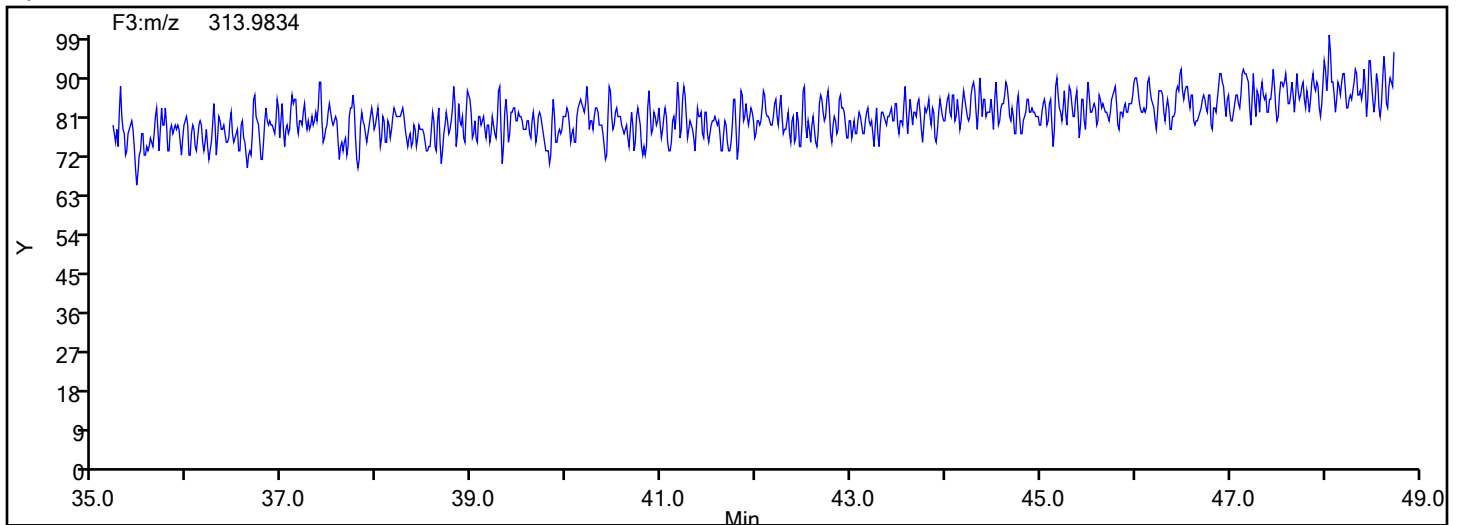


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F3

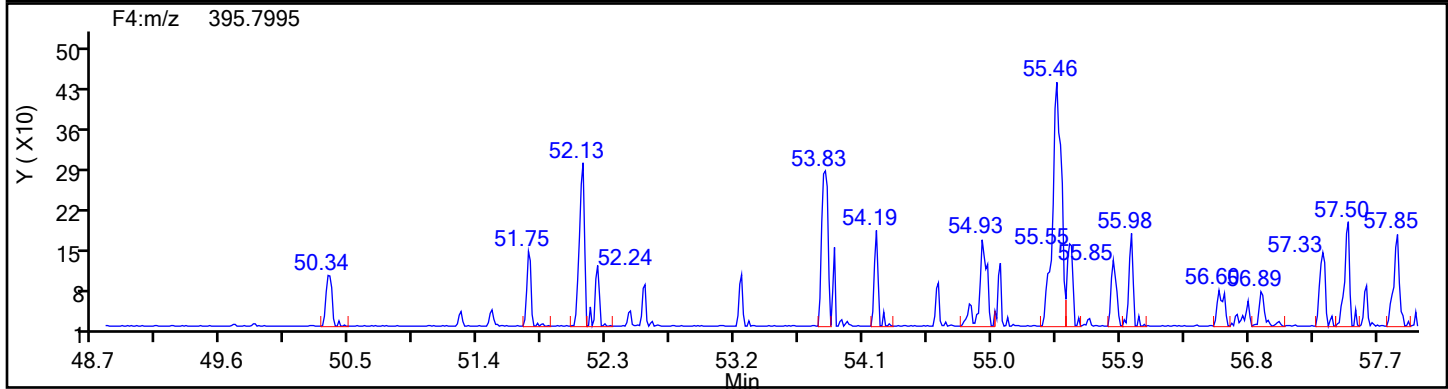
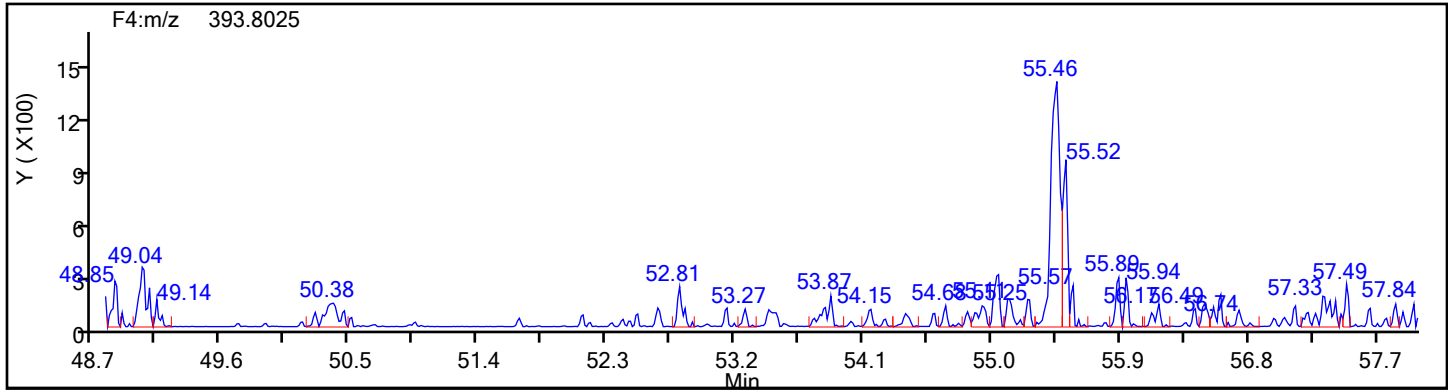


## HpPCB F3 Lock Mass

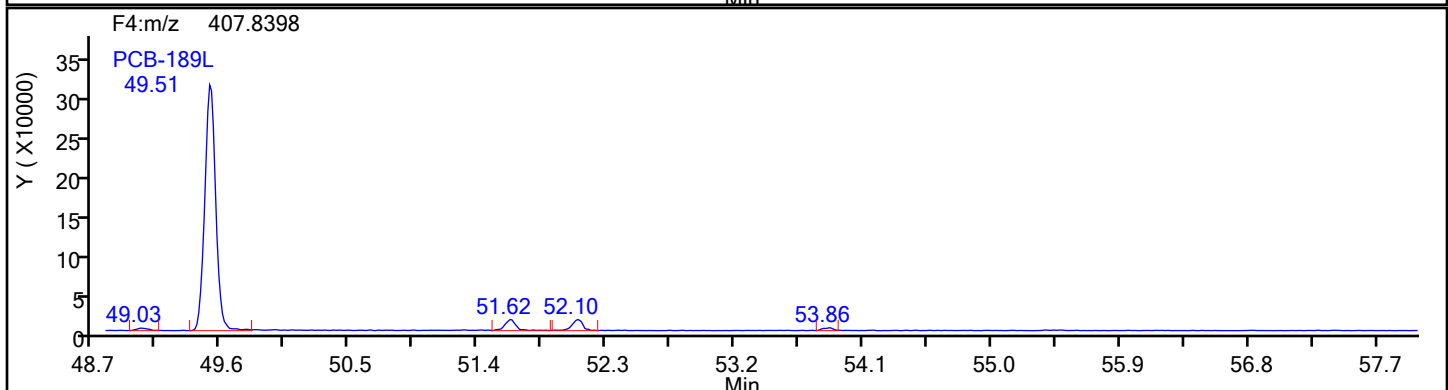
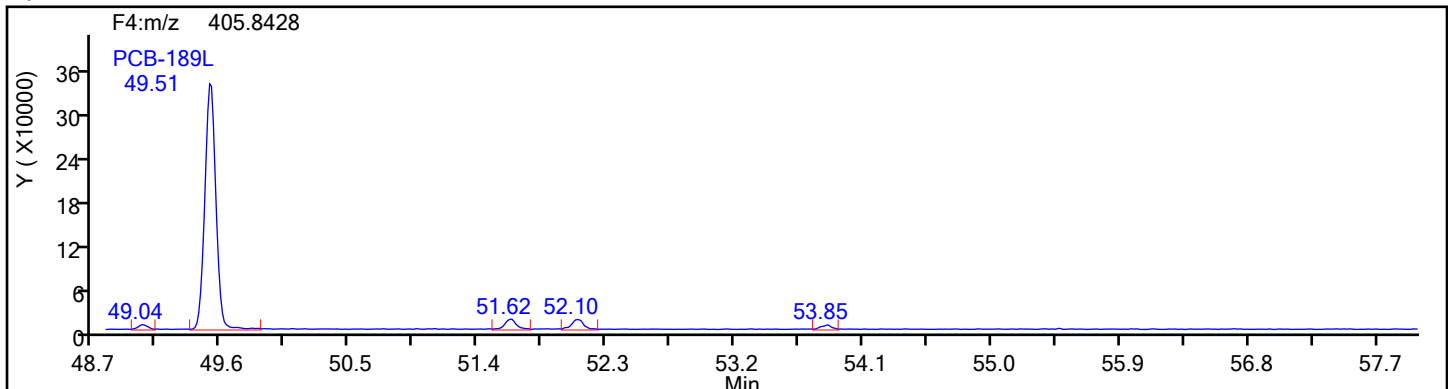


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F4

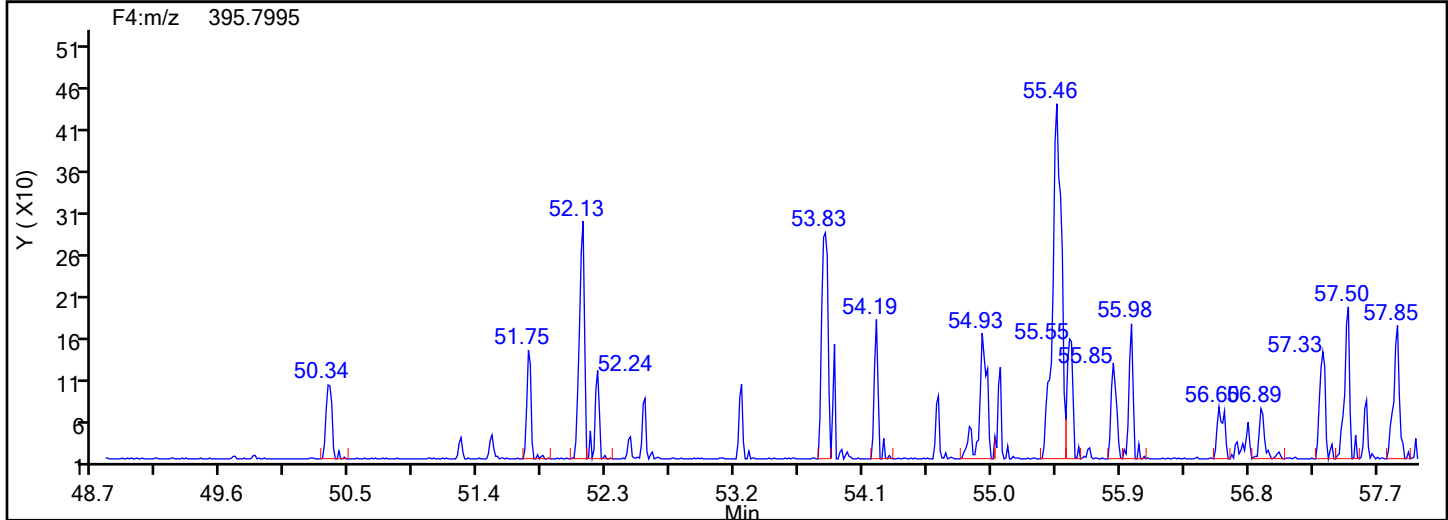
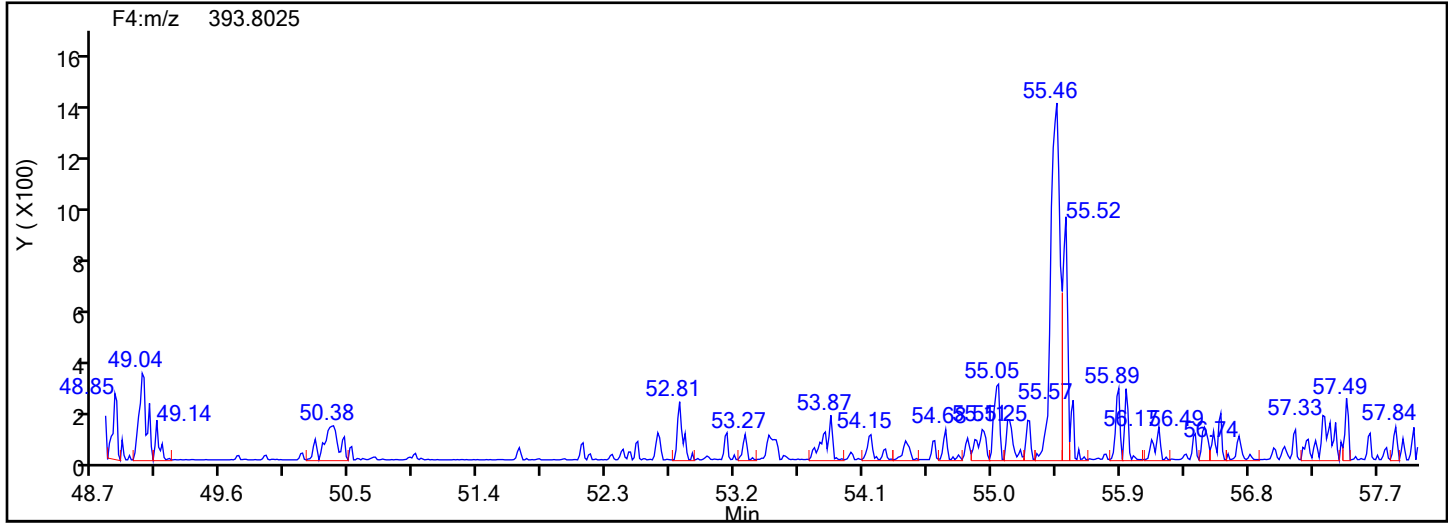


## HpPCB F4 Standards

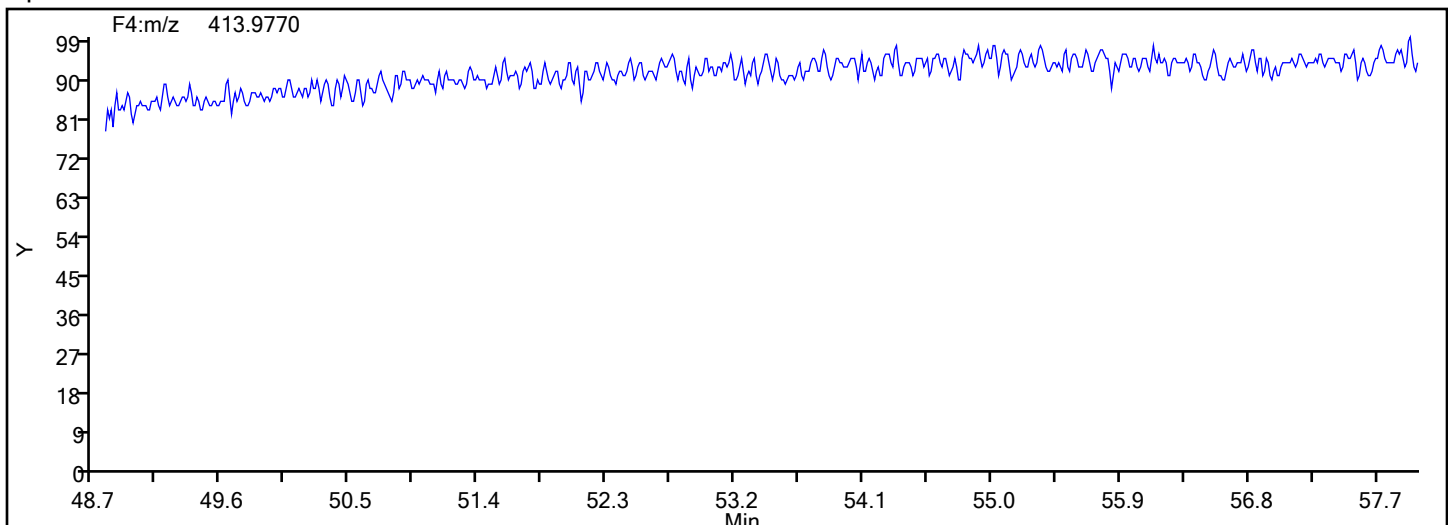


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HpPCB F4



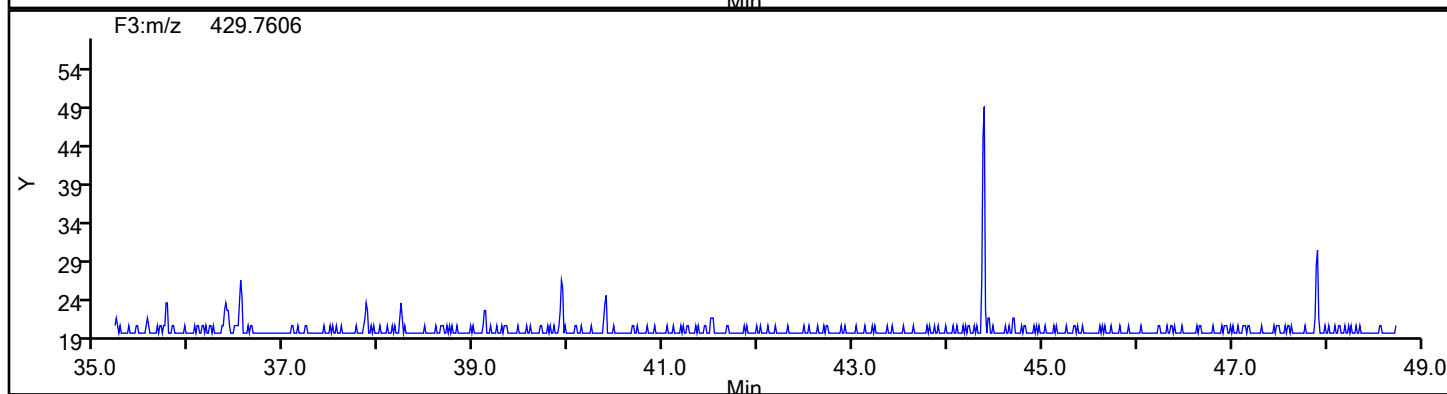
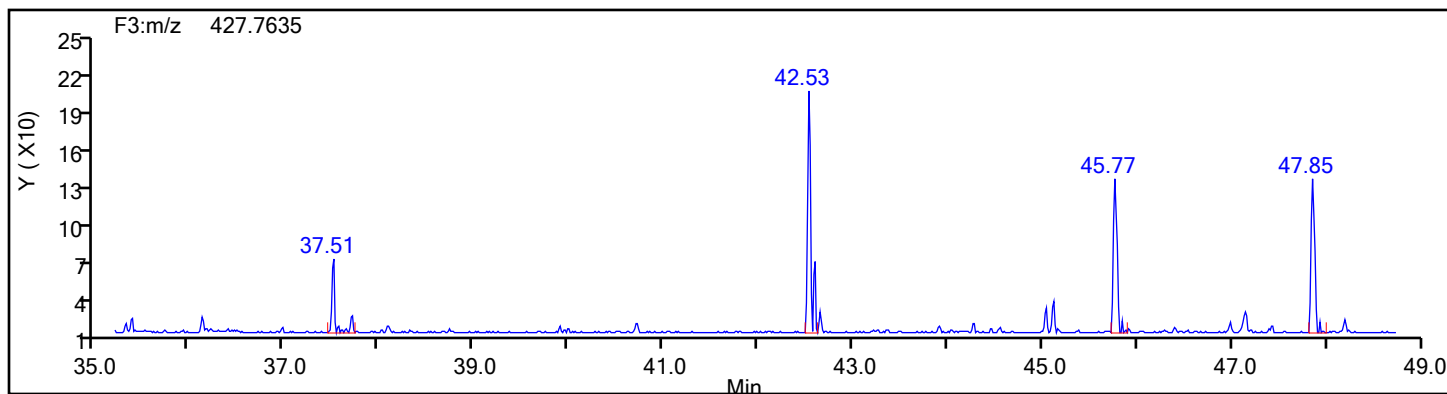
## HpPCB F4 Lock Mass



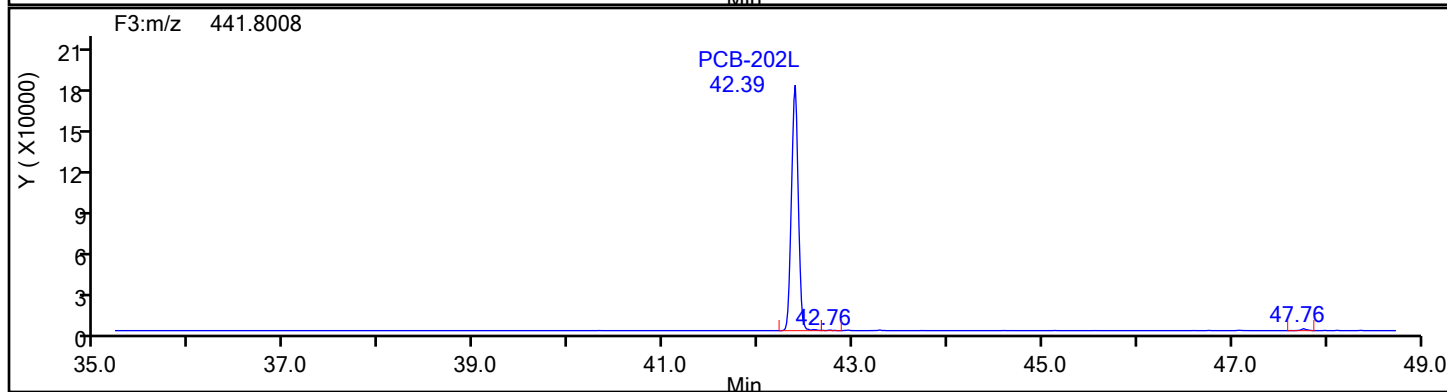
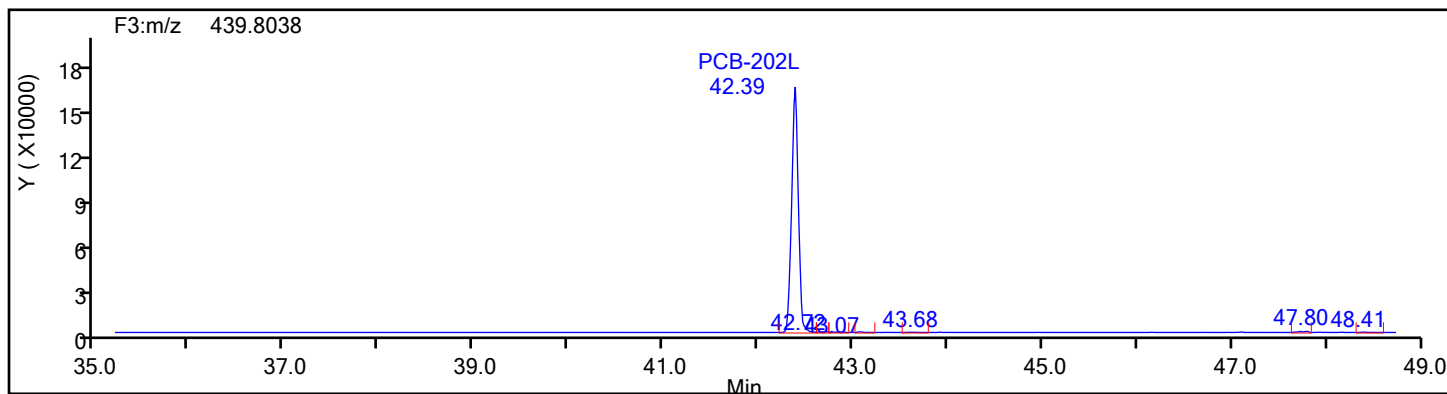


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3

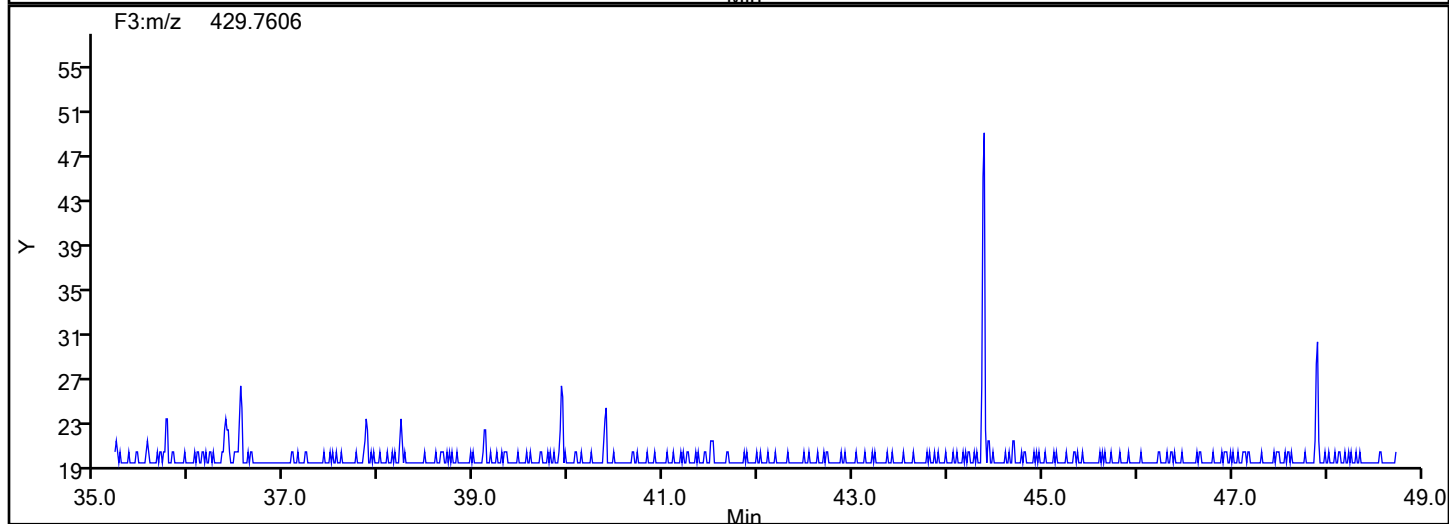
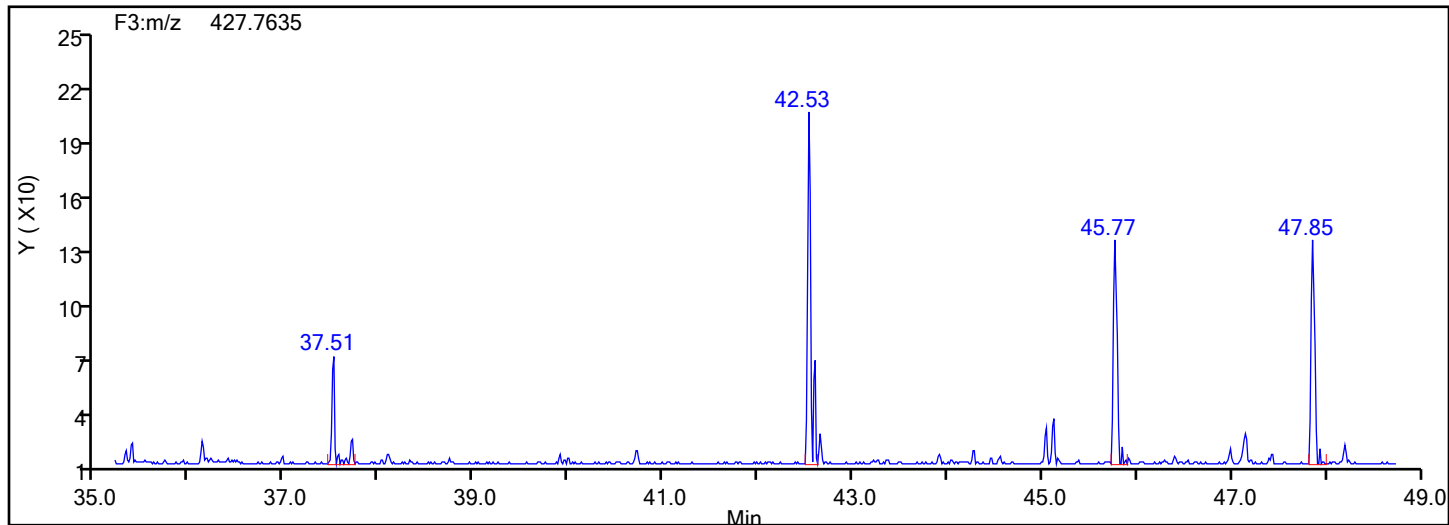


## OcPCB F3 Standards

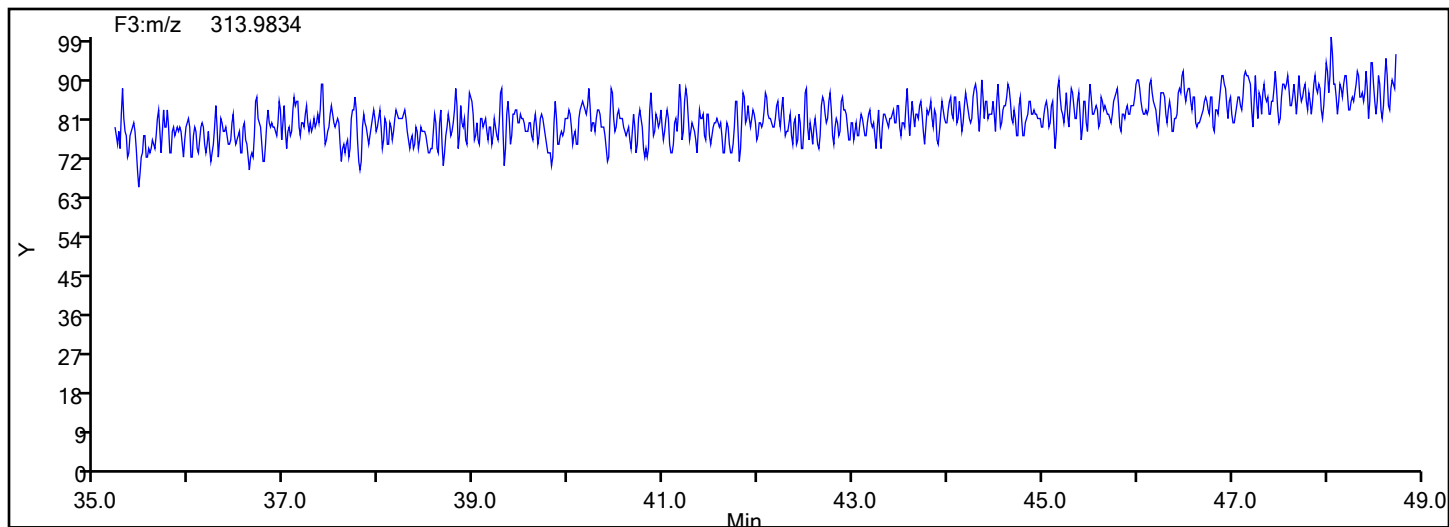


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3

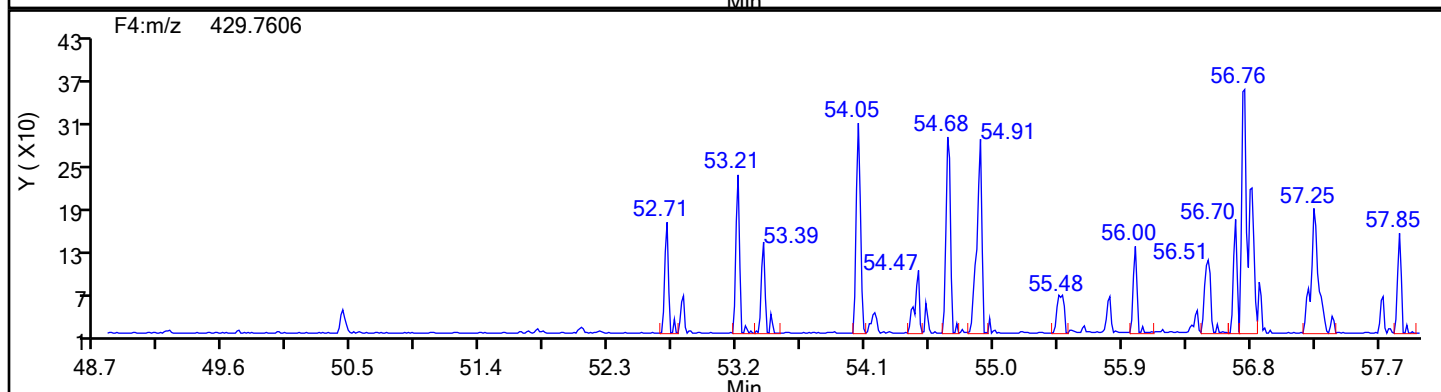
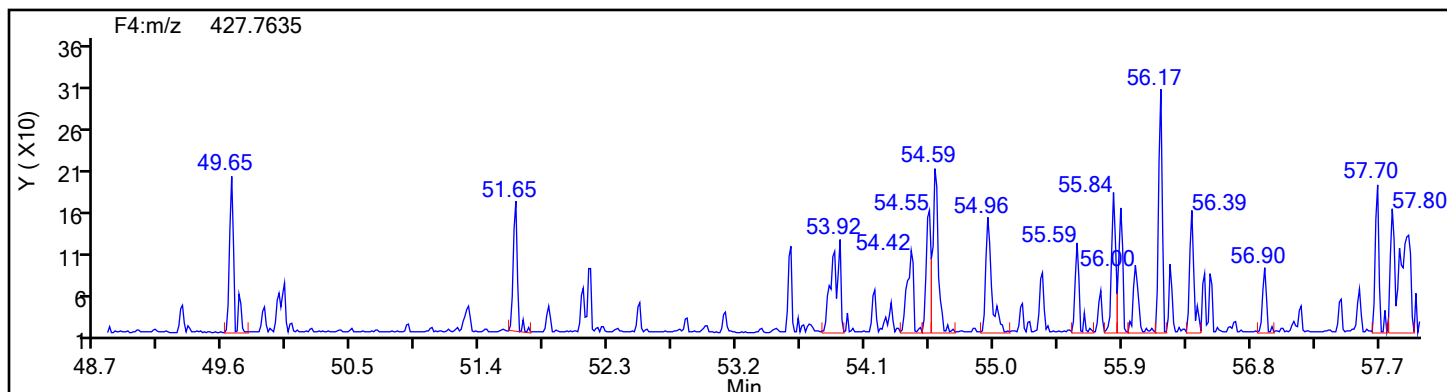


## OcPCB F3 Lock Mass

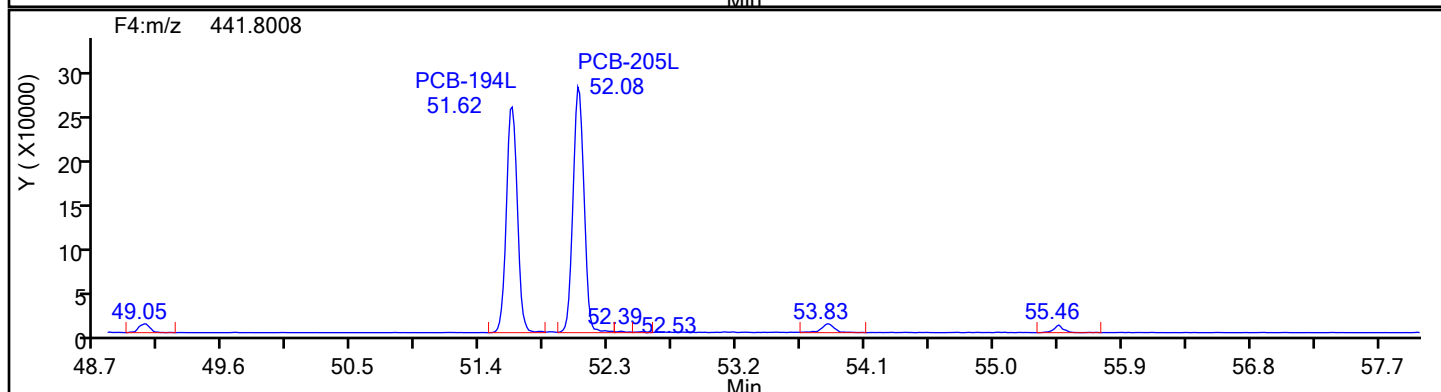
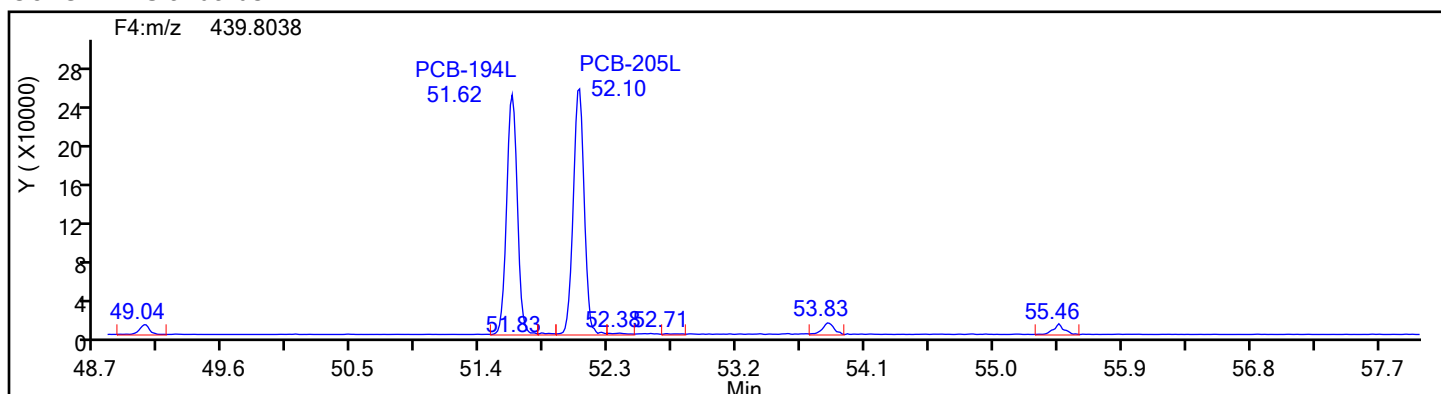


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4

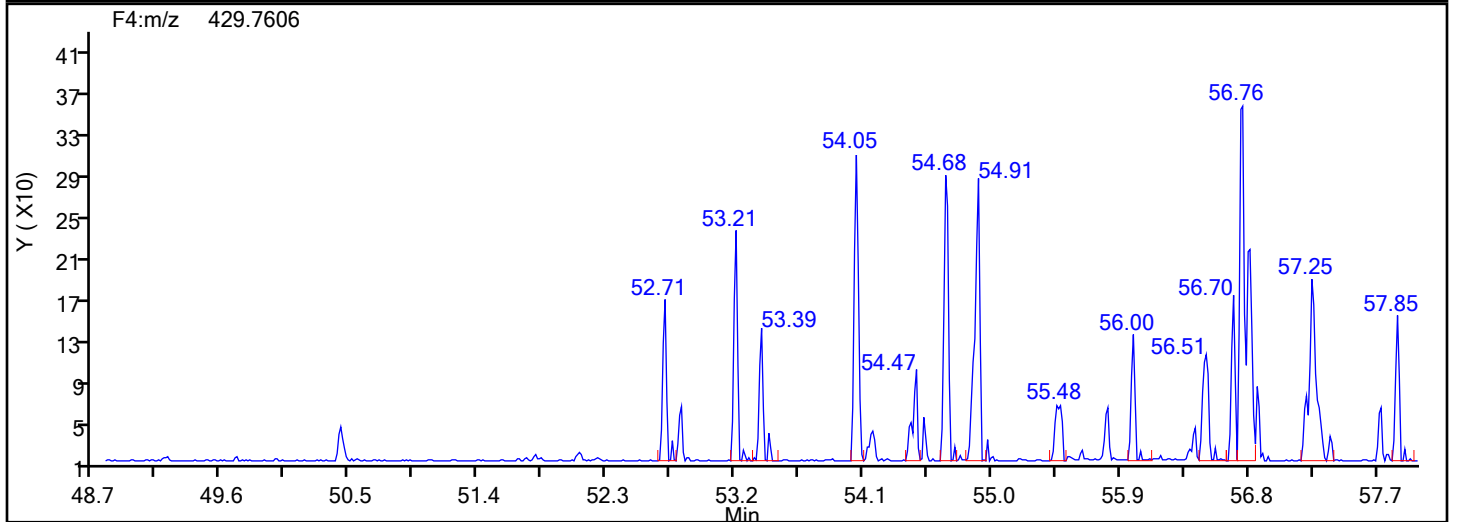
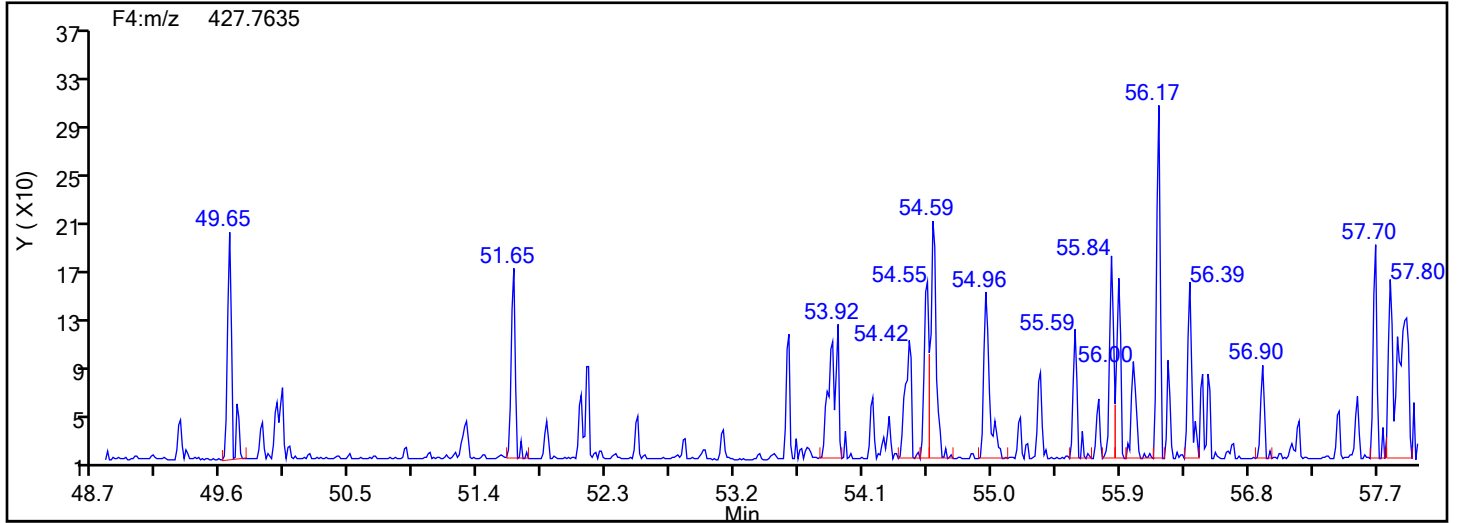


## OcPCB F4 Standards

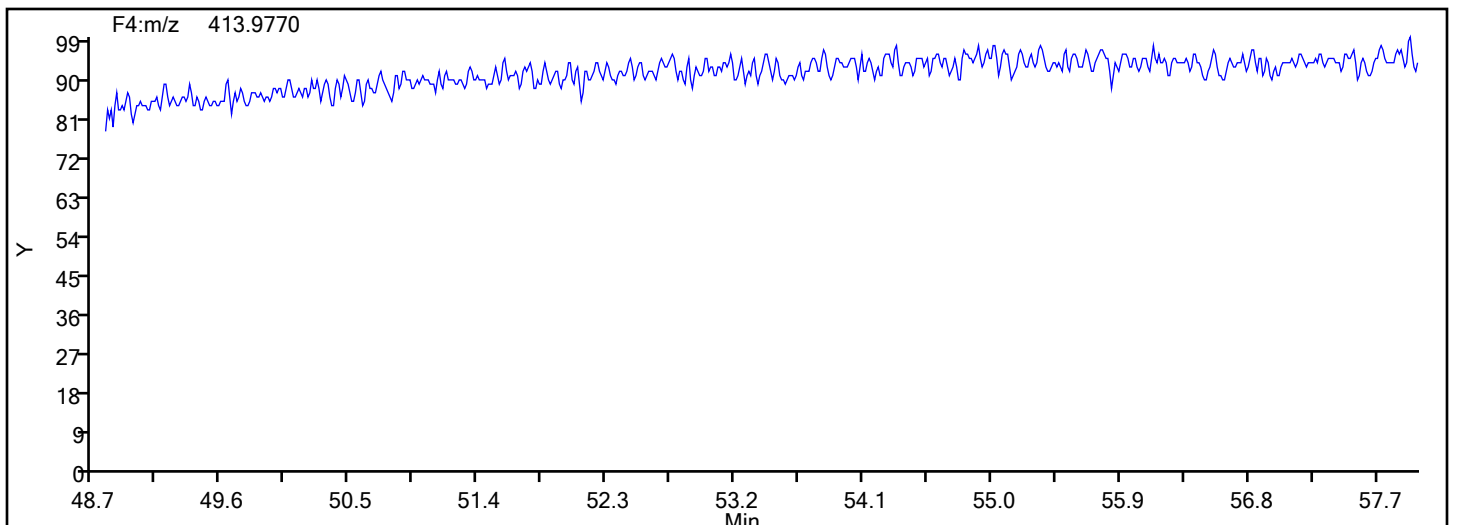


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4

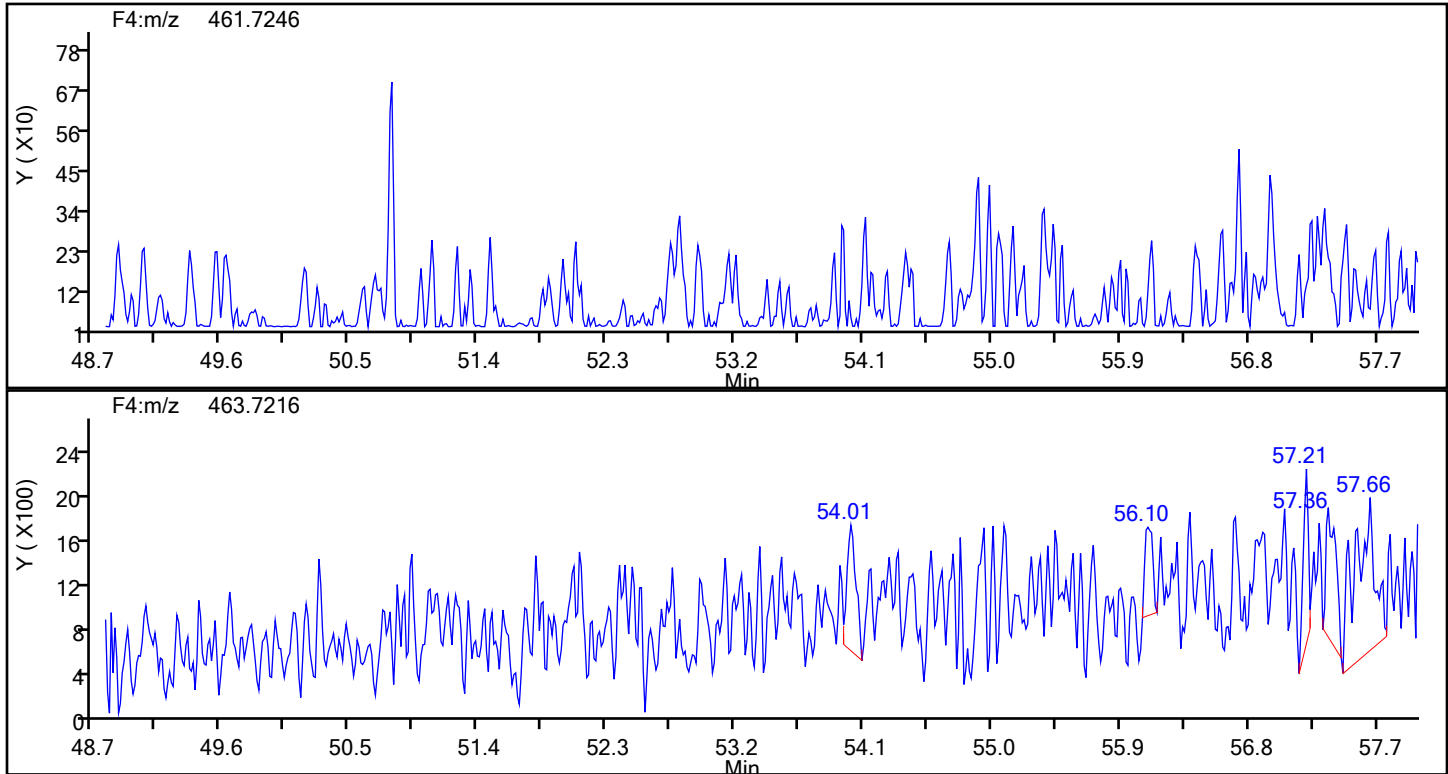


## OcPCB F4 Lock Mass

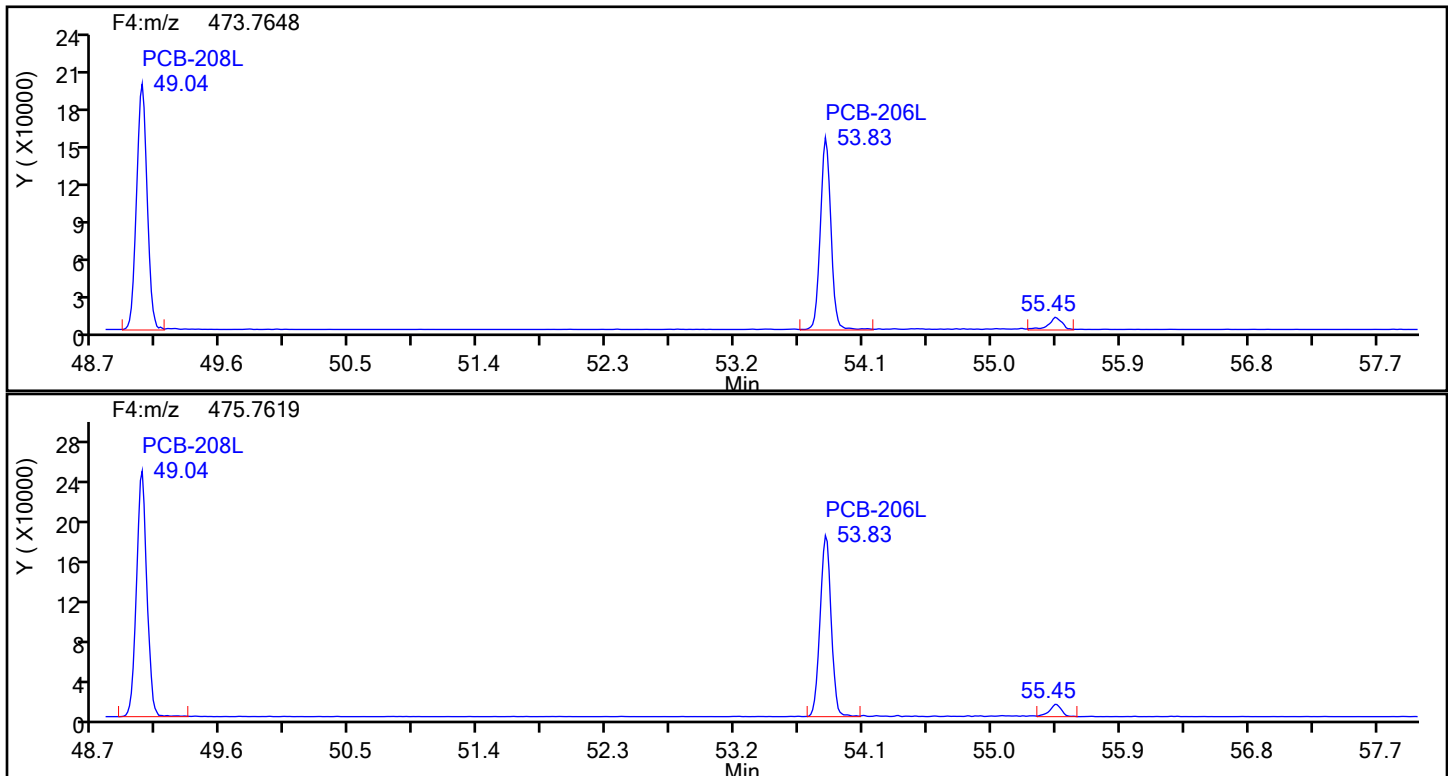


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4

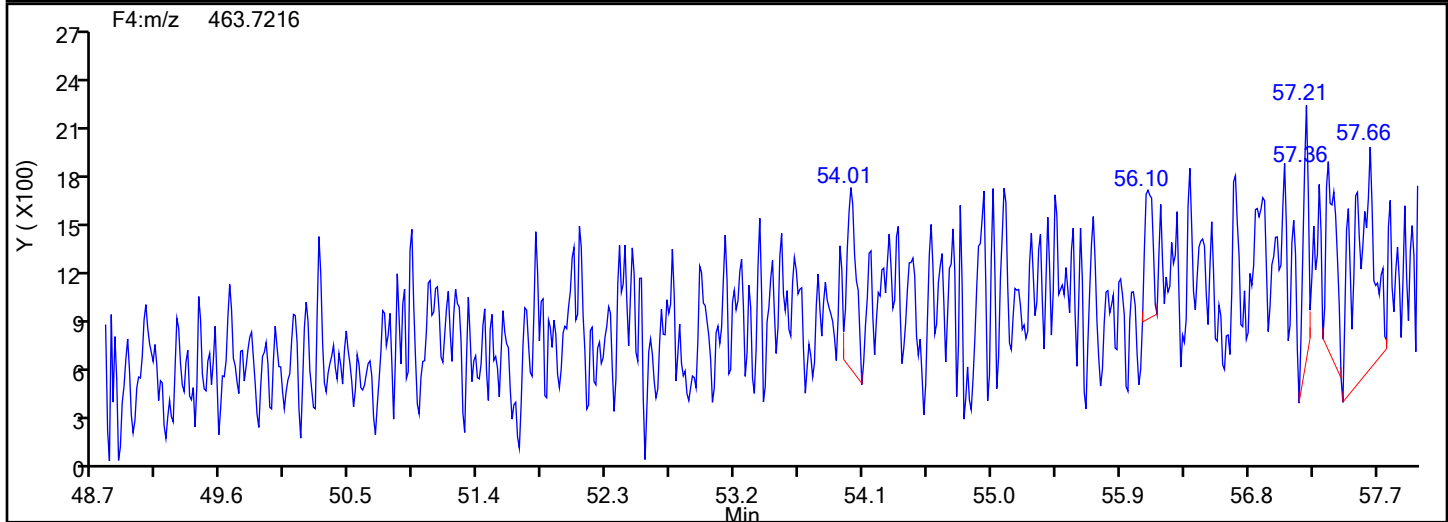
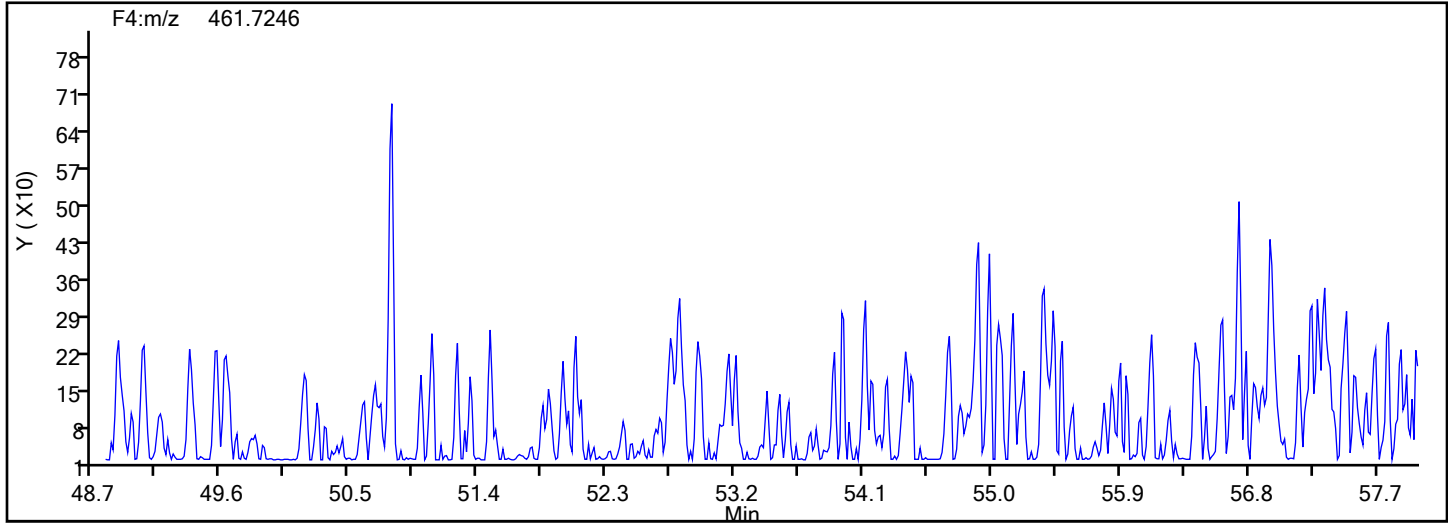


## NoPCB F4 Standards

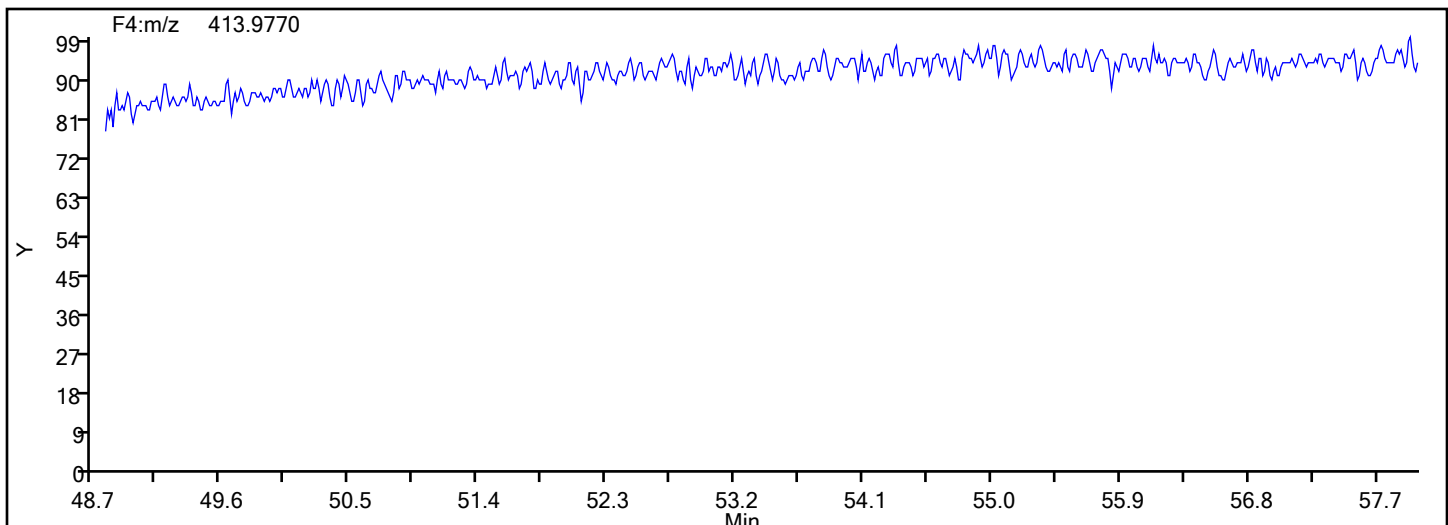


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4

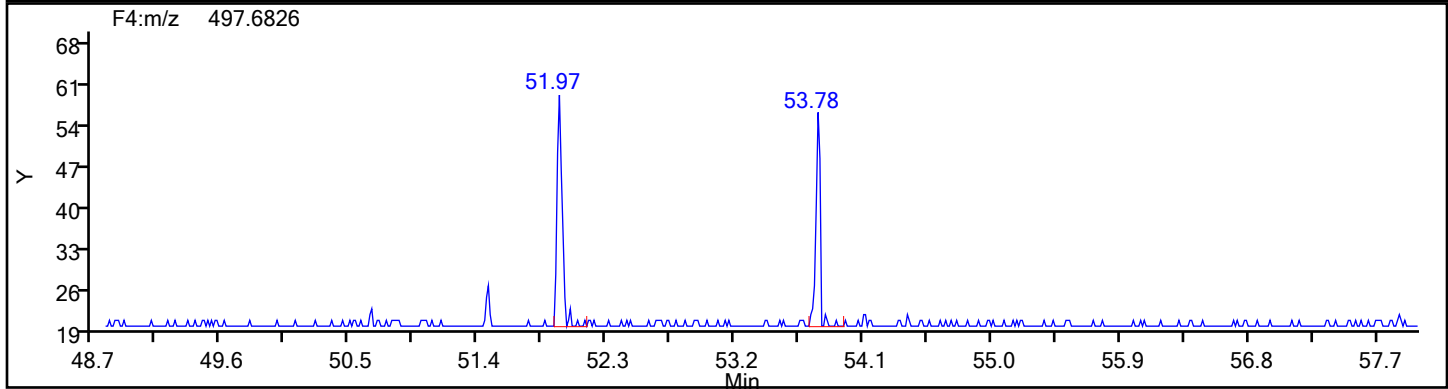
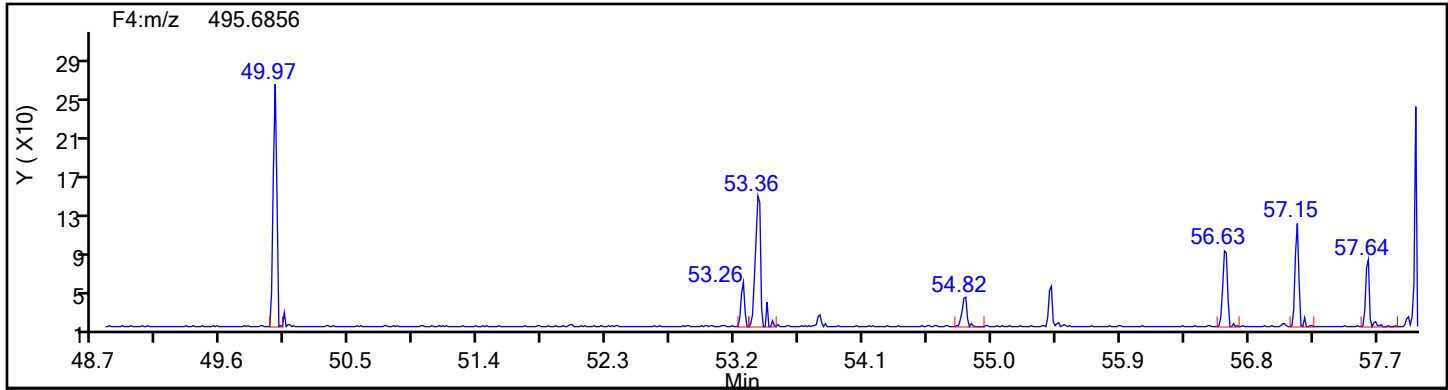


## NoPCB F4 Lock Mass

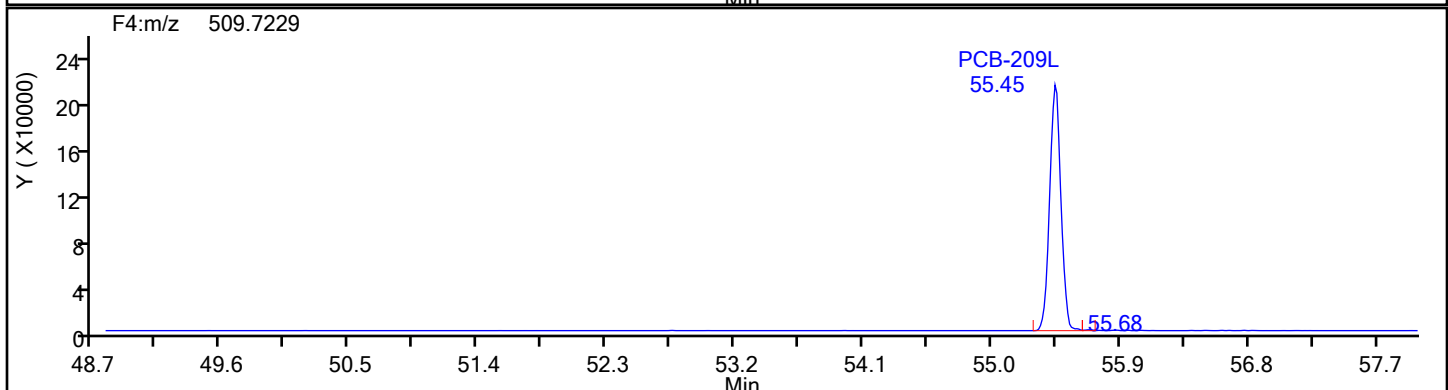
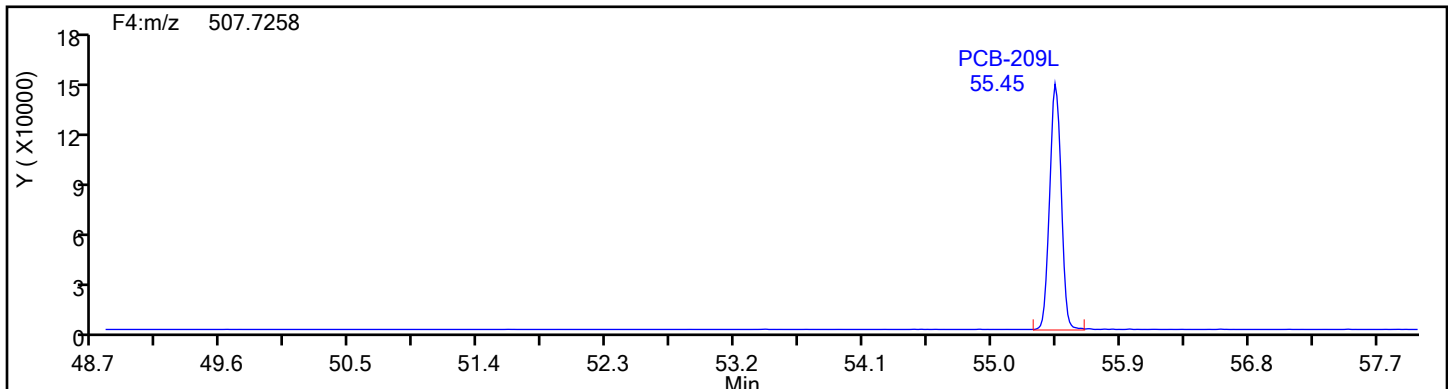


## Eurofins Knoxville

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Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4

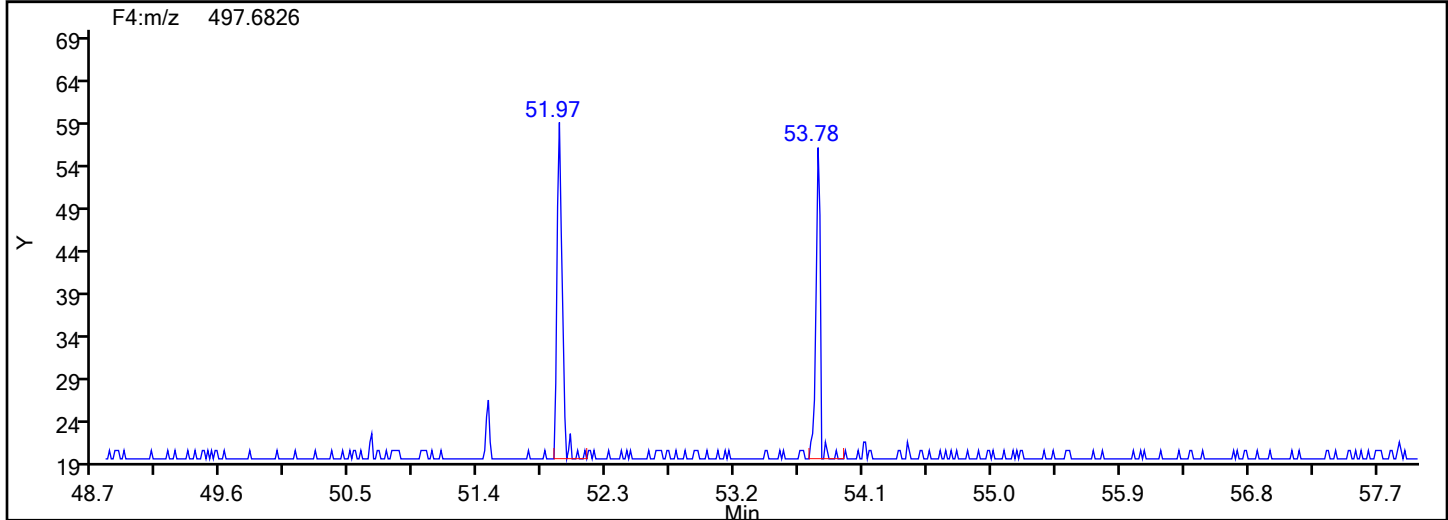
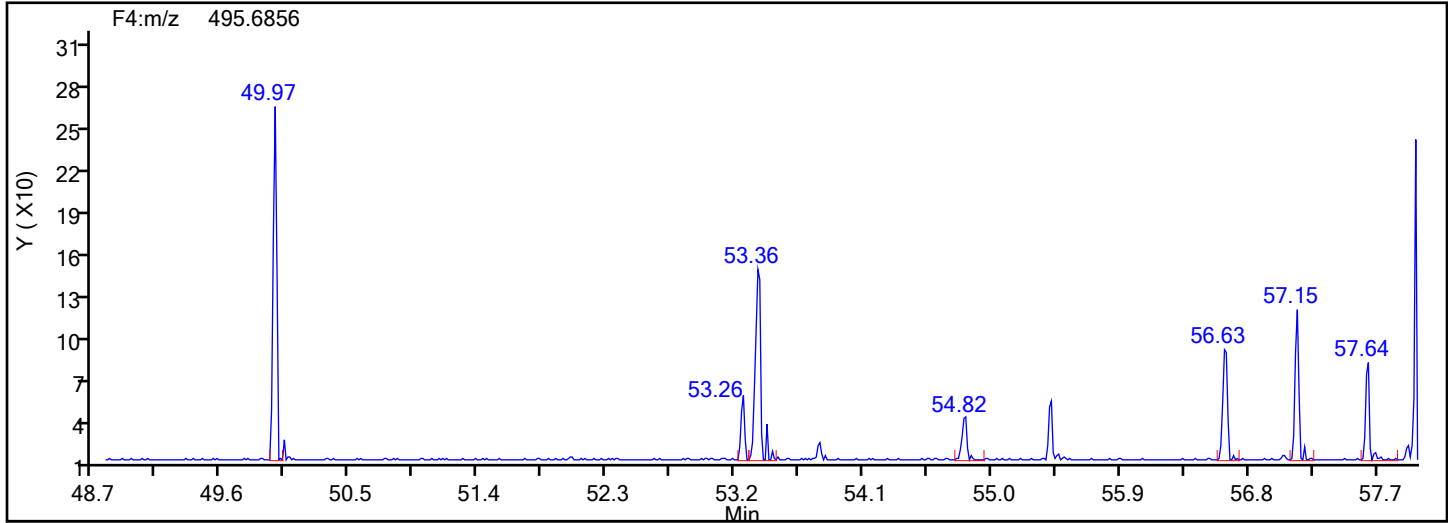


## DePCB F4 Standards

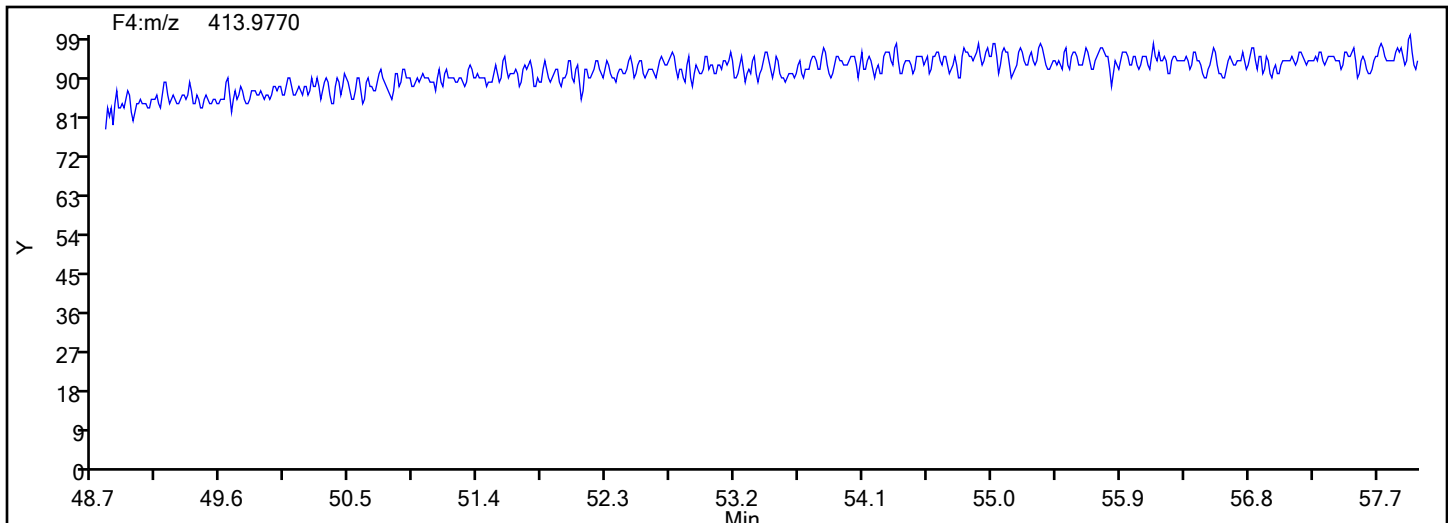


## Eurofins Knoxville

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Injection Date: 16-Jul-2024 14:38:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Worklist#: 88809 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4



## DePCB F4 Lock Mass





Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\140-37234-a-14-b.d  
Lims ID: 140-37234-A-14-B  
Client ID: M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED  
Sample Type: Client  
Inject. Date: 16-Jul-2024 14:38:00 ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033521-006  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 10:15:10 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: TT6I

Date: 17-Jul-2024 10:15:09

Compound	Amount Added	Amount Recovered	% Rec.
PCB-28L	100.0	72.5	72.55
PCB-111L	100.0	77.8	77.80
PCB-178L	100.0	76.9	76.88

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130  
SDG No.: \_\_\_\_\_  
Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N  
Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

Calibration Files

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-87130/1	d2240531pi1a.d
Level 2	IC 140-87130/2	d2240531pi2a.d
Level 3	IC 140-87130/3	d2240531pi3.d
Level 4	IC 140-87130/4	d2240531pi4.d
Level 5	IC 140-87130/5	d2240531pi5.d
Level 6	IC 140-87130/6	d2240531pi6.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-1	1.1940 ++++	1.2500	1.2013	1.2099	1.2404	AveI D		1.219 1				2.0		10.0			
PCB-2	1.1446 1.2389	1.1448	1.1639	1.1761	1.2148	AveI D		1.180 5				3.3		10.0			
PCB-3	1.2348 1.2515	1.1807	1.2162	1.2221	1.2183	AveI D		1.220 6				1.9		10.0			
PCB-4	1.2321 1.3461	1.3096	1.2781	1.2714	1.2537	AveI D		1.281 8				3.2		10.0			
PCB-10	1.2608 1.3985	1.2753	1.3399	1.3379	1.2769	AveI D		1.314 9				4.0		10.0			
PCB-9	1.3387 1.4964	1.4271	1.4600	1.4190	1.3934	AveI D		1.422 4				3.8		10.0			
PCB-7	1.5117 1.4731	1.3994	1.3542	1.3818	1.3603	AveI D		1.413 4				4.6		10.0			
PCB-6	1.6333 1.6280	1.5253	1.4705	1.5096	1.4858	AveI D		1.542 1				4.6		10.0			
PCB-5	1.3392 1.4189	1.3052	1.2992	1.3524	1.3220	AveI D		1.339 5				3.3		10.0			
PCB-8	1.6110 1.7082	1.5218	1.5695	1.5692	1.5536	AveI D		1.588 9				4.1		10.0			
PCB-19	1.4682 1.2988	1.1078	1.2744	1.2635	1.2727	AveI D		1.280 9				9.0		10.0			
PCB-14	1.4324 1.4715	1.3421	1.3998	1.4142	1.3548	AveI D		1.402 5				3.5		10.0			
PCB-18	1.6979 1.8772	1.7468	1.7368	1.7771	1.7554	AveI D		1.765 2				3.4		10.0			
PCB-18/30	1.6979 1.8772	1.7468	1.7368	1.7771	1.7554	AveI D		1.765 2				3.4		10.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-30	1.6979 1.8772	1.7468	1.7368	1.7771	1.7554	AveI D		1.765 2				3.4		10.0			
PCB-11	1.3905 1.3772	1.1727	1.2859	1.2837	1.2603	AveI D		1.295 1				6.2		10.0			
PCB-17	1.2483 1.2648	1.2573	1.2165	1.2459	1.2252	AveI D		1.243 0				1.5		10.0			
PCB-12	1.2630 1.4906	1.2736	1.3396	1.3242	1.3238	AveI D		1.335 8				6.1		10.0			
PCB-12/13	1.2630 1.4906	1.2736	1.3396	1.3242	1.3238	AveI D		1.335 8				6.1		10.0			
PCB-13	1.2630 1.4906	1.2736	1.3396	1.3242	1.3238	AveI D		1.335 8				6.1		10.0			
PCB-27	1.6345 1.9961	1.8041	1.8324	1.8666	1.8627	AveI D		1.832 7				6.4		10.0			
PCB-24	1.6646 1.8042	1.6220	1.6313	1.6521	1.6916	AveI D		1.677 7				4.0		10.0			
PCB-16	1.1273 1.1805	1.0631	1.1165	1.1505	1.1336	AveI D		1.128 6				3.5		10.0			
PCB-15	1.3472 1.3444	1.2915	1.2543	1.2698	1.2345	AveI D		1.290 3				3.6		10.0			
PCB-54	1.0548 1.3194	1.3250	1.3398	1.3160	1.2850	AveI D		1.273 3				8.5		10.0			
PCB-32	1.8436 1.9277	1.7589	1.8295	1.8063	1.8286	AveI D		1.832 4				3.0		10.0			
PCB-34	1.1276 1.2003	1.1001	1.1315	1.1255	1.0816	AveI D		1.127 7				3.6		10.0			
PCB-23	1.0846 1.1334	1.1176	1.0828	1.0618	1.0076	AveI D		1.081 3				4.1		10.0			
PCB-26	1.0875 1.2670	1.1190	1.0875	1.0861	1.1056	AveI D		1.125 5				6.3		10.0			
PCB-26/29	1.0875 1.2670	1.1190	1.0875	1.0861	1.1056	AveI D		1.125 5				6.3		10.0			
PCB-29	1.0875 1.2670	1.1190	1.0875	1.0861	1.1056	AveI D		1.125 5				6.3		10.0			
PCB-25	1.3479 1.4028	1.2136	1.2173	1.2478	1.2074	AveI D		1.272 8				6.5		10.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130  
SDG No.: \_\_\_\_\_  
Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N  
Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-50	0.8981 0.9455	0.8303	0.8206	0.8411	0.8112	AveI D		0.857 8				6.1		10.0			
PCB-50/53	0.8981 0.9455	0.8303	0.8206	0.8411	0.8112	AveI D		0.857 8				6.1		10.0			
PCB-53	0.8981 0.9455	0.8303	0.8206	0.8411	0.8112	AveI D		0.857 8				6.1		10.0			
PCB-31	1.1698 1.2166	1.2134	1.1361	1.1021	1.0816	AveI D		1.153 2				4.9		10.0			
PCB-20	1.1256 1.3542	1.1253	1.1314	1.1457	1.1486	AveI D		1.171 8				7.7		10.0			
PCB-20/28	1.1256 1.3542	1.1253	1.1314	1.1457	1.1486	AveI D		1.171 8				7.7		10.0			
PCB-28	1.1256 1.3542	1.1253	1.1314	1.1457	1.1486	AveI D		1.171 8				7.7		10.0			
PCB-45	0.8115 0.8946	0.8159	0.8109	0.8283	0.7974	AveI D		0.826 4				4.2		10.0			
PCB-45/51	0.8115 0.8946	0.8159	0.8109	0.8283	0.7974	AveI D		0.826 4				4.2		10.0			
PCB-51	0.8115 0.8946	0.8159	0.8109	0.8283	0.7974	AveI D		0.826 4				4.2		10.0			
PCB-21	1.0181 1.2046	1.0637	1.0703	1.0575	1.0333	AveI D		1.074 6				6.2		10.0			
PCB-21/33	1.0181 1.2046	1.0637	1.0703	1.0575	1.0333	AveI D		1.074 6				6.2		10.0			
PCB-33	1.0181 1.2046	1.0637	1.0703	1.0575	1.0333	AveI D		1.074 6				6.2		10.0			
PCB-46	0.8136 0.7036	0.6810	0.7009	0.6996	0.6618	AveI D		0.710 1				7.5		10.0			
PCB-22	1.2054 1.2821	1.2400	1.1280	1.1635	1.1404	AveI D		1.193 2				5.1		10.0			
PCB-52	0.9248 0.9539	0.9077	0.9046	0.9453	0.8802	AveI D		0.919 4				3.0		10.0			
PCB-43	1.0757 1.0898	1.0358	1.0026	1.0276	0.9686	AveI D		1.033 3				4.4		10.0			
PCB-43/73	1.0757 1.0898	1.0358	1.0026	1.0276	0.9686	AveI D		1.033 3				4.4		10.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-73	1.0757 1.0898	1.0358	1.0026	1.0276	0.9686	AveI D		1.033 3				4.4		10.0			
PCB-36	1.0591 1.1622	1.1368	1.1155	1.1277	1.0411	AveI D		1.107 1				4.3		10.0			
PCB-49	1.1338 1.1552	1.0444	1.0314	1.0497	0.9966	AveI D		1.068 5				5.8		10.0			
PCB-49/69	1.1338 1.1552	1.0444	1.0314	1.0497	0.9966	AveI D		1.068 5				5.8		10.0			
PCB-69	1.1338 1.1552	1.0444	1.0314	1.0497	0.9966	AveI D		1.068 5				5.8		10.0			
PCB-39	1.1186 1.2687	1.1378	1.1592	1.1455	1.1190	AveI D		1.158 1				4.9		10.0			
PCB-48	0.8723 0.8658	0.8686	0.8264	0.8197	0.7866	AveI D		0.839 9				4.1		10.0			
PCB-104	1.0018 1.0650	0.9859	0.9705	1.0176	1.0114	AveI D		1.008 7				3.2		10.0			
PCB-44	0.9518 1.1484	0.9583	0.9216	0.9348	0.9237	AveI D		0.973 1				9.0		10.0			
PCB-44/47/65	0.9518 1.1484	0.9583	0.9216	0.9348	0.9237	AveI D		0.973 1				9.0		10.0			
PCB-47	0.9518 1.1484	0.9583	0.9216	0.9348	0.9237	AveI D		0.973 1				9.0		10.0			
PCB-65	0.9518 1.1484	0.9583	0.9216	0.9348	0.9237	AveI D		0.973 1				9.0		10.0			
PCB-38	1.0500 1.2340	1.0761	1.0375	1.0569	1.0513	AveI D		1.084 3				6.9		10.0			
PCB-96	1.1095 1.1878	1.0156	1.0739	1.0860	1.0913	AveI D		1.094 0				5.1		10.0			
PCB-59	1.2022 1.4146	1.1424	1.0955	1.1254	1.1312	AveI D		1.185 3				9.9		10.0			
PCB-59/62/75	1.2022 1.4146	1.1424	1.0955	1.1254	1.1312	AveI D		1.185 3				9.9		10.0			
PCB-62	1.2022 1.4146	1.1424	1.0955	1.1254	1.1312	AveI D		1.185 3				9.9		10.0			
PCB-75	1.2022 1.4146	1.1424	1.0955	1.1254	1.1312	AveI D		1.185 3				9.9		10.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-42	0.8113 0.8321	0.8216	0.8199	0.8129	0.7600	AveI n		0.809 7				3.1		10.0			
PCB-35	1.1864 1.1946	1.0768	1.0997	1.1174	1.1032	AveI n		1.129 7				4.3		10.0			
PCB-40	0.9522 0.9521	0.8711	0.8523	0.8523	0.8380	AveI n		0.886 3				5.9		10.0			
PCB-40/41/71	0.9522 0.9521	0.8711	0.8523	0.8523	0.8380	AveI n		0.886 3				5.9		10.0			
PCB-41	0.9522 0.9521	0.8711	0.8523	0.8523	0.8380	AveI n		0.886 3				5.9		10.0			
PCB-71	0.9522 0.9521	0.8711	0.8523	0.8523	0.8380	AveI n		0.886 3				5.9		10.0			
PCB-37	1.2446 1.1977	1.1202	1.1033	1.1214	1.0739	AveI n		1.143 5				5.6		10.0			
PCB-64	1.2757 1.1950	1.2553	1.1305	1.1287	1.0802	AveI n		1.177 6				6.6		10.0			
PCB-72	1.1072 1.1582	1.0636	1.0877	1.1033	1.0456	AveI n		1.094 3				3.6		10.0			
PCB-103	0.8736 0.8978	0.8751	0.8648	0.8708	0.8628	AveI n		0.874 1				1.4		10.0			
PCB-68	1.1713 1.3485	1.2482	1.2729	1.2691	1.2098	AveI n		1.253 3				4.8		10.0			
PCB-94	0.8000 0.7483	0.8119	0.7717	0.7293	0.7229	AveI n		0.764 0				4.8		10.0			
PCB-57	1.0250 1.1565	1.1157	1.0598	1.0897	1.0441	AveI n		1.081 8				4.5		10.0			
PCB-95	0.8097 0.8296	0.7716	0.7842	0.8098	0.8147	AveI n		0.803 3				2.7		10.0			
PCB-58	1.2802 1.4828	1.2178	1.3141	1.3624	1.2948	AveI n		1.325 3				6.8		10.0			
PCB-100	0.8527 0.9163	0.8338	0.8062	0.8251	0.8232	AveI n		0.842 9				4.6		10.0			
PCB-93	0.8527 0.9163	0.8338	0.8062	0.8251	0.8232	AveI n		0.842 9				4.6		10.0			
PCB-93/100	0.8527 0.9163	0.8338	0.8062	0.8251	0.8232	AveI n		0.842 9				4.6		10.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-67	1.4870 1.5547	1.4071	1.3635	1.3760	1.3499	AveI n		1.423 n				5.7		10.0			
PCB-102	0.8256 0.8497	0.8156	0.8348	0.8202	0.8111	AveI n		0.826 2				1.7		10.0			
PCB-98	0.8256 0.8497	0.8156	0.8348	0.8202	0.8111	AveI n		0.826 2				1.7		10.0			
PCB-98/102	0.8256 0.8497	0.8156	0.8348	0.8202	0.8111	AveI n		0.826 2				1.7		10.0			
PCB-63	1.1333 1.1656	1.1761	1.1205	1.1003	1.0480	AveI n		1.124 n				4.2		10.0			
PCB-88	0.8366 0.8559	0.7460	0.7888	0.7860	0.7945	AveI n		0.801 3				4.9		10.0			
PCB-88/91	0.8366 0.8559	0.7460	0.7888	0.7860	0.7945	AveI n		0.801 3				4.9		10.0			
PCB-91	0.8366 0.8559	0.7460	0.7888	0.7860	0.7945	AveI n		0.801 3				4.9		10.0			
PCB-61	1.2363 1.4727	1.2221	1.2090	1.2135	1.2139	AveI n		1.261 2				8.2		10.0			
PCB-61/70/74/76	1.2363 1.4727	1.2221	1.2090	1.2135	1.2139	AveI n		1.261 2				8.2		10.0			
PCB-70	1.2363 1.4727	1.2221	1.2090	1.2135	1.2139	AveI n		1.261 2				8.2		10.0			
PCB-74	1.2363 1.4727	1.2221	1.2090	1.2135	1.2139	AveI n		1.261 2				8.2		10.0			
PCB-76	1.2363 1.4727	1.2221	1.2090	1.2135	1.2139	AveI n		1.261 2				8.2		10.0			
PCB-84	0.7253 0.7289	0.7880	0.7158	0.7118	0.7098	AveI n		0.729 9				4.0		10.0			
PCB-66	1.2356 1.3668	1.2319	1.2361	1.2632	1.2159	AveI n		1.258 3				4.4		10.0			
PCB-55	1.4498 1.4176	1.2365	1.2959	1.2975	1.2446	AveI n		1.323 6				6.8		10.0			
PCB-89	0.8919 0.7624	0.7464	0.7786	0.7510	0.7487	AveI n		0.779 8				7.2		10.0			
PCB-56	1.3935 1.2927	1.1650	1.1869	1.2090	1.1533	AveI n		1.233 4				7.5		10.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-121	1.2521 1.3582	1.3178	1.2898	1.2840	1.2764	AveI n		1.296 4				2.9		10.0			
PCB-60	1.1287 1.1681	1.2454	1.0506	1.0957	1.0497	AveI n		1.123 n				6.7		10.0			
PCB-92	0.8629 0.8532	0.9060	0.8272	0.8441	0.8340	AveI n		0.854 6				3.3		10.0			
PCB-80	1.3863 1.4151	1.3253	1.2723	1.2911	1.2555	AveI n		1.324 3				4.8		10.0			
PCB-155	0.8891 0.9694	0.9655	0.9454	0.9529	0.9441	AveI n		0.944 4				3.1		10.0			
PCB-152	0.9848 1.0543	0.9951	0.9825	0.9514	0.9689	AveI n		0.989 5				3.6		10.0			
PCB-101	0.9487 1.0650	0.9340	0.9026	0.9425	0.9371	AveI n		0.955 n				5.9		10.0			
PCB-113	0.9487 1.0650	0.9340	0.9026	0.9425	0.9371	AveI n		0.955 n				5.9		10.0			
PCB-90	0.9487 1.0650	0.9340	0.9026	0.9425	0.9371	AveI n		0.955 n				5.9		10.0			
PCB-90/101/113	0.9487 1.0650	0.9340	0.9026	0.9425	0.9371	AveI n		0.955 n				5.9		10.0			
PCB-150	0.9630 1.0549	1.0080	1.0261	1.0137	1.0137	AveI n		1.013 2				2.9		10.0			
PCB-136	1.0587 1.0659	1.0008	0.9487	0.9880	1.0074	AveI n		1.011 6				4.4		10.0			
PCB-83	0.8335 0.8647	0.8116	0.8385	0.8562	0.8265	AveI n		0.838 5				2.3		10.0			
PCB-83/99	0.8335 0.8647	0.8116	0.8385	0.8562	0.8265	AveI n		0.838 5				2.3		10.0			
PCB-99	0.8335 0.8647	0.8116	0.8385	0.8562	0.8265	AveI n		0.838 5				2.3		10.0			
PCB-112	1.4446 1.4376	1.4885	1.3872	1.3506	1.3581	AveI n		1.411 1				3.9		10.0			
PCB-145	0.9965 1.0100	0.9201	0.9636	0.9587	0.9620	AveI n		0.968 5				3.3		10.0			
PCB-109	1.0154 1.2319	1.0153	0.9760	1.0017	1.0433	AveI n		1.047 3				8.9		10.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.



FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-119	1.0154 1.2319	1.0153	0.9760	1.0017	1.0433	AveI D		1.047 3				8.9		10.0			
PCB-125	1.0154 1.2319	1.0153	0.9760	1.0017	1.0433	AveI D		1.047 3				8.9		10.0			
PCB-86	1.0154 1.2319	1.0153	0.9760	1.0017	1.0433	AveI D		1.047 3				8.9		10.0			
PCB-86/87/97/109/119/125	1.0154 1.2319	1.0153	0.9760	1.0017	1.0433	AveI D		1.047 3				8.9		10.0			
PCB-87	1.0154 1.2319	1.0153	0.9760	1.0017	1.0433	AveI D		1.047 3				8.9		10.0			
PCB-97	1.0154 1.2319	1.0153	0.9760	1.0017	1.0433	AveI D		1.047 3				8.9		10.0			
PCB-79	1.4446 1.5780	1.5277	1.3489	1.3731	1.3487	AveI D		1.436 8				6.8		10.0			
PCB-78	1.3219 1.1568	1.1964	1.1351	1.1019	1.0589	AveI D		1.161 8				7.9		10.0			
PCB-116	1.0570 1.1256	1.0304	0.9918	1.0219	1.0180	AveI D		1.040 8				4.5		10.0			
PCB-117	1.0570 1.1256	1.0304	0.9918	1.0219	1.0180	AveI D		1.040 8				4.5		10.0			
PCB-85	1.0570 1.1256	1.0304	0.9918	1.0219	1.0180	AveI D		1.040 8				4.5		10.0			
PCB-85/116/117	1.0570 1.1256	1.0304	0.9918	1.0219	1.0180	AveI D		1.040 8				4.5		10.0			
PCB-110	1.2019 1.2480	1.2270	1.1639	1.1561	1.1542	AveI D		1.191 9				3.4		10.0			
PCB-110/115	1.2019 1.2480	1.2270	1.1639	1.1561	1.1542	AveI D		1.191 9				3.4		10.0			
PCB-115	1.2019 1.2480	1.2270	1.1639	1.1561	1.1542	AveI D		1.191 9				3.4		10.0			
PCB-81	1.1198 1.0938	1.0960	1.0617	1.0764	1.0336	AveI D		1.080 2				2.8		10.0			
PCB-82	0.8343 0.8464	0.8471	0.8169	0.8239	0.8133	AveI D		0.830 3				1.8		10.0			
PCB-148	0.7646 0.8045	0.7251	0.7535	0.7521	0.7619	AveI D		0.760 3				3.4		10.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-77	1.1688 1.1358	1.1149	1.0365	1.0577	0.9878	AveI n		1.083 6				6.3		10.0			
PCB-111	1.1586 1.2376	1.3369	1.1635	1.1851	1.1934	AveI n		1.212 5				5.5		10.0			
PCB-135	0.7285 0.7672	0.7029	0.7063	0.7244	0.7240	AveI n		0.725 6				3.2		10.0			
PCB-135/151	0.7285 0.7672	0.7029	0.7063	0.7244	0.7240	AveI n		0.725 6				3.2		10.0			
PCB-151	0.7285 0.7672	0.7029	0.7063	0.7244	0.7240	AveI n		0.725 6				3.2		10.0			
PCB-120	1.5296 1.5558	1.4689	1.4158	1.4553	1.4322	AveI n		1.476 2				3.7		10.0			
PCB-154	0.7411 0.8586	0.8405	0.7996	0.8196	0.8180	AveI n		0.812 9				5.0		10.0			
PCB-144	0.8256 0.7980	0.7839	0.7628	0.7715	0.7696	AveI n		0.785 2				3.0		10.0			
PCB-147	0.9658 0.9768	0.8446	0.8442	0.8692	0.8693	AveI n		0.895 0				6.7		10.0			
PCB-147/149	0.9658 0.9768	0.8446	0.8442	0.8692	0.8693	AveI n		0.895 0				6.7		10.0			
PCB-149	0.9658 0.9768	0.8446	0.8442	0.8692	0.8693	AveI n		0.895 0				6.7		10.0			
PCB-134	0.8263 0.7959	0.8014	0.8010	0.7921	0.7634	AveI n		0.796 7				2.5		10.0			
PCB-134/143	0.8263 0.7959	0.8014	0.8010	0.7921	0.7634	AveI n		0.796 7				2.5		10.0			
PCB-143	0.8263 0.7959	0.8014	0.8010	0.7921	0.7634	AveI n		0.796 7				2.5		10.0			
PCB-108	1.1047 1.2848	1.1338	1.1073	1.1117	1.1009	AveI n		1.140 5				6.3		10.0			
PCB-108/124	1.1047 1.2848	1.1338	1.1073	1.1117	1.1009	AveI n		1.140 5				6.3		10.0			
PCB-124	1.1047 1.2848	1.1338	1.1073	1.1117	1.1009	AveI n		1.140 5				6.3		10.0			
PCB-139	0.8698 0.9549	0.8683	0.8422	0.8657	0.8604	AveI n		0.876 9				4.5		10.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-139/140	0.8698 0.9549	0.8683	0.8422	0.8657	0.8604	AveI n		0.876 9				4.5		10.0			
PCB-140	0.8698 0.9549	0.8683	0.8422	0.8657	0.8604	AveI n		0.876 9				4.5		10.0			
PCB-107	1.2904 1.2477	1.1149	1.2342	1.2247	1.1606	AveI n		1.212 1				5.2		10.0			
PCB-131	++++ 0.7939	0.7383	0.7244	0.7426	0.7522	AveI n		0.750 3				3.5		10.0			
PCB-123	1.0853 1.1357	1.1455	0.9540	1.0597	1.0534	AveI n		1.072 2				6.5		10.0			
PCB-106	1.1069 1.1546	1.0523	1.0740	1.0674	1.0482	AveI n		1.083 9				3.7		10.0			
PCB-142	0.7103 0.8062	0.7184	0.7532	0.7662	0.7499	AveI n		0.750 7				4.6		10.0			
PCB-118	1.2183 1.2440	1.2619	1.1653	1.1919	1.1519	AveI n		1.205 5				3.6		10.0			
PCB-132	0.8263 0.7367	0.7289	0.7517	0.7328	0.7172	AveI n		0.748 9				5.3		10.0			
PCB-122	0.9558 0.9670	1.0294	0.8926	0.9780	0.9174	AveI n		0.956 7				5.0		10.0			
PCB-114	1.0610 1.1325	1.1067	1.0582	1.0904	1.0562	AveI n		1.084 2				2.9		10.0			
PCB-188	1.1156 1.1562	1.1704	1.1401	1.1253	1.1021	AveI n		1.135 0				2.3		10.0			
PCB-133	0.7310 0.8077	0.8763	0.8206	0.7984	0.8233	AveI n		0.809 6				5.8		10.0			
PCB-179	1.5749 1.4293	1.4195	1.3854	1.3901	1.3662	AveI n		1.427 6				5.3		10.0			
PCB-165	0.9540 1.0449	1.0900	1.0214	1.0299	1.0082	AveI n		1.024 7				4.4		10.0			
PCB-105	1.2867 1.2230	1.1805	1.1299	1.1716	1.1358	AveI n		1.187 9				5.0		10.0			
PCB-146	0.9491 1.0049	0.9807	0.9470	0.9459	0.9546	AveI n		0.963 7				2.5		10.0			
PCB-184	1.2839 1.4655	1.3652	1.3444	1.3829	1.3613	AveI n		1.367 2				4.3		10.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-161	1.0600 1.1917	1.1649	1.0974	1.1477	1.1109	AveI n		1.128 8				4.3		10.0			
PCB-176	1.3664 1.2480	1.1518	1.2043	1.2425	1.1853	AveI n		1.233 1				6.0		10.0			
PCB-153	1.0508 1.1858	1.0219	1.1173	1.1001	1.0868	AveI n		1.093 8				5.2		10.0			
PCB-153/168	1.0508 1.1858	1.0219	1.1173	1.1001	1.0868	AveI n		1.093 8				5.2		10.0			
PCB-168	1.0508 1.1858	1.0219	1.1173	1.1001	1.0868	AveI n		1.093 8				5.2		10.0			
PCB-141	0.9407 0.8523	0.9151	0.8464	0.8514	0.8472	AveI n		0.875 5				4.7		10.0			
PCB-186	1.5061 1.5480	1.3932	1.4313	1.5084	1.4554	AveI n		1.473 7				3.9		10.0			
PCB-130	0.7258 0.6913	0.7312	0.6983	0.6982	0.6859	AveI n		0.705 1				2.7		10.0			
PCB-127	1.1110 1.1760	1.1837	1.0836	1.1718	1.1102	AveI n		1.139 4				3.8		10.0			
PCB-137	0.7492 0.7964	0.7547	0.7964	0.8113	0.7519	AveI n		0.776 7				3.6		10.0			
PCB-164	1.0491 1.0752	1.0276	1.0023	1.0331	1.0422	AveI n		1.038 2				2.3		10.0			
PCB-129	0.9300 1.0439	0.9279	0.9211	0.9292	0.9264	AveI n		0.946 4				5.1		10.0			
PCB-129/138/160/163	0.9300 1.0439	0.9279	0.9211	0.9292	0.9264	AveI n		0.946 4				5.1		10.0			
PCB-138	0.9300 1.0439	0.9279	0.9211	0.9292	0.9264	AveI n		0.946 4				5.1		10.0			
PCB-160	0.9300 1.0439	0.9279	0.9211	0.9292	0.9264	AveI n		0.946 4				5.1		10.0			
PCB-163	0.9300 1.0439	0.9279	0.9211	0.9292	0.9264	AveI n		0.946 4				5.1		10.0			
PCB-158	1.3613 1.3135	1.3421	1.2753	1.3085	1.2656	AveI n		1.311 0				2.8		10.0			
PCB-178	0.8513 0.9163	0.9050	0.8951	0.9086	0.8915	AveI n		0.894 6				2.6		10.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-175	1.0419 0.9670	0.9241	0.8934	0.9568	0.9313	AveI n		0.952 4				5.3		10.0			
PCB-126	0.9955 1.1577	1.0940	1.0804	1.1528	1.1051	AveI n		1.097 6				5.4		10.0			
PCB-128	0.9472 1.0957	0.9282	0.9352	0.9992	0.9922	AveI n		0.982 9				6.4		10.0			
PCB-128/166	0.9472 1.0957	0.9282	0.9352	0.9992	0.9922	AveI n		0.982 9				6.4		10.0			
PCB-166	0.9472 1.0957	0.9282	0.9352	0.9992	0.9922	AveI n		0.982 9				6.4		10.0			
PCB-187	1.0455 1.1457	1.1219	1.0756	1.1255	1.0967	AveI n		1.101 8				3.3		10.0			
PCB-182	0.8297 0.9568	0.8873	0.9545	0.9855	0.9345	AveI n		0.924 7				6.1		10.0			
PCB-183	1.0823 0.9576	1.0673	0.9173	0.9521	0.9184	AveI n		0.982 5				7.5		10.0			
PCB-183/185	1.0823 0.9576	1.0673	0.9173	0.9521	0.9184	AveI n		0.982 5				7.5		10.0			
PCB-185	1.0823 0.9576	1.0673	0.9173	0.9521	0.9184	AveI n		0.982 5				7.5		10.0			
PCB-174	1.0171 1.0197	0.8541	0.9397	0.9984	0.9560	AveI n		0.964 2				6.5		10.0			
PCB-159	1.3182 1.4701	1.4065	1.3956	1.3722	1.3512	AveI n		1.385 6				3.8		10.0			
PCB-162	1.2486 1.2460	1.3071	1.2846	1.2413	1.2150	AveI n		1.257 1				2.6		10.0			
PCB-177	1.0068 0.9782	0.9833	0.9620	0.9805	0.9528	AveI n		0.977 3				1.9		10.0			
PCB-202	0.9147 1.0834	1.0007	1.0393	1.1166	1.0605	AveI n		1.035 9				6.9		10.0			
PCB-167	1.1252 1.1500	1.0891	1.1410	1.1065	1.0835	AveI n		1.115 9				2.4		10.0			
PCB-181	0.9642 0.9727	1.0238	0.8822	0.9386	0.9218	AveI n		0.950 5				5.1		10.0			
PCB-171	1.0178 0.9405	1.0283	0.8449	0.8944	0.8760	AveI n		0.933 6				8.1		10.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130  
SDG No.: \_\_\_\_\_  
Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N  
Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-171/173	1.0178 0.9405	1.0283	0.8449	0.8944	0.8760	AveI D		0.933 6				8.1		10.0			
PCB-173	1.0178 0.9405	1.0283	0.8449	0.8944	0.8760	AveI D		0.933 6				8.1		10.0			
PCB-201	0.9271 0.9883	0.9933	0.9517	1.0177	0.9741	AveI D		0.975 4				3.3		10.0			
PCB-156	1.0318 1.1726	1.1406	1.1084	1.1139	1.0952	AveI D		1.110 4				4.3		10.0			
PCB-156/157	1.0318 1.1726	1.1406	1.1084	1.1139	1.0952	AveI D		1.110 4				4.3		10.0			
PCB-157	1.0318 1.1726	1.1406	1.1084	1.1139	1.0952	AveI D		1.110 4				4.3		10.0			
PCB-204	1.0650 1.0483	1.0488	1.0205	1.0780	1.0306	AveI D		1.048 5				2.0		10.0			
PCB-197	1.2289 1.1291	1.1621	1.0930	1.1741	1.0875	AveI D		1.145 8				4.7		10.0			
PCB-200	0.9228 1.0127	1.0396	1.0401	1.0354	0.9924	AveI D		1.007 2				4.5		10.0			
PCB-172	0.8899 0.8314	0.8689	0.8197	0.8741	0.8273	AveI D		0.851 9				3.4		10.0			
PCB-192	1.2465 1.3882	1.3831	1.3289	1.3991	1.3294	AveI D		1.345 9				4.3		10.0			
PCB-180	1.1268 1.2128	1.2009	1.1371	1.1877	1.1402	AveI D		1.167 6				3.2		10.0			
PCB-180/193	1.1268 1.2128	1.2009	1.1371	1.1877	1.1402	AveI D		1.167 6				3.2		10.0			
PCB-193	1.1268 1.2128	1.2009	1.1371	1.1877	1.1402	AveI D		1.167 6				3.2		10.0			
PCB-191	1.1859 1.3248	1.3435	1.2644	1.3367	1.2793	AveI D		1.289 1				4.6		10.0			
PCB-170	1.2183 1.1842	1.2101	1.1713	1.2049	1.1303	AveI D		1.186 5				2.7		10.0			
PCB-190	1.3507 1.3369	1.3732	1.3236	1.3336	1.2755	AveI D		1.332 2				2.5		10.0			
PCB-169	1.1960 1.1900	1.1091	1.1548	1.1930	1.1341	AveI D		1.162 8				3.1		10.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-198	0.8819 0.8966	0.8635	0.8456	0.8829	0.8482	AveI n		0.869 8				2.4		10.0			
PCB-198/199	0.8819 0.8966	0.8635	0.8456	0.8829	0.8482	AveI n		0.869 8				2.4		10.0			
PCB-199	0.8819 0.8966	0.8635	0.8456	0.8829	0.8482	AveI n		0.869 8				2.4		10.0			
PCB-196	0.7745 0.7649	0.8087	0.7819	0.7962	0.7576	AveI n		0.780 6				2.5		10.0			
PCB-203	0.9457 0.9311	0.8842	0.9266	0.9632	0.9244	AveI n		0.929 2				2.8		10.0			
PCB-208	1.1091 1.1453	1.1787	1.1650	1.1300	1.0966	AveI n		1.137 4				2.8		10.0			
PCB-195	0.7404 0.8735	0.8795	0.8276	0.8233	0.8136	AveI n		0.826 3				6.1		10.0			
PCB-189	0.9373 1.0020	0.9455	0.9636	0.9788	0.9527	AveI n		0.963 3				2.5		10.0			
PCB-207	1.5361 1.3709	1.3685	1.3439	1.3392	1.2949	AveI n		1.375 6				6.1		10.0			
PCB-194	1.0329 0.9836	0.9991	0.9368	0.9517	0.9369	AveI n		0.973 5				4.0		10.0			
PCB-205	1.0922 1.1256	1.1124	1.0652	1.0742	1.0570	AveI n		1.087 8				2.5		10.0			
PCB-206	1.5800 1.2761	1.3742	1.2635	1.2743	1.2393	AveI n		1.334 6				9.7		10.0			
PCB-209	1.0976 1.1141	1.0962	1.1180	1.1025	1.0739	AveI n		1.100 4				1.4		10.0			
PCB-1L	1.6566 1.5908	1.6089	1.5886	1.6421	1.5780	Ave		1.610 8				2.0		20.0			
PCB-3L	1.5953 1.6239	1.5794	1.5767	1.5834	1.5761	Ave		1.589 1				1.2		20.0			
PCB-4L	0.6664 0.6398	0.6529	0.6327	0.6584	0.6350	Ave		0.647 5				2.1		20.0			
PCB-19L	0.6231 0.6159	0.6466	0.6417	0.6300	0.6140	Ave		0.628 5				2.1		20.0			
PCB-15L	1.0704 1.1315	1.0579	1.0555	1.0650	1.0933	Ave		1.078 9				2.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-54L	0.5699 0.5412	0.5686	0.5307	0.5781	0.5489	Ave		0.556 2				3.4		20.0			
PCB-104L	1.2444 1.1444	1.2293	1.2593	1.2347	1.1843	Ave		1.216 1				3.6		20.0			
PCB-37L	0.8651 0.8981	0.8778	0.8586	0.8698	0.8801	Ave		0.874 9				1.6		20.0			
PCB-155L	1.1312 0.9905	1.0966	1.1397	1.1068	1.0459	Ave		1.085 1				5.2		20.0			
PCB-81L	1.2317 1.3290	1.2156	1.2247	1.2302	1.2505	Ave		1.247 0				3.4		20.0			
PCB-77L	1.3180 1.3199	1.2901	1.3060	1.3076	1.3854	Ave		1.321 2				2.5		20.0			
PCB-123L	0.9681 1.0191	0.9224	0.9932	0.9567	0.9795	Ave		0.973 1				3.4		20.0			
PCB-118L	1.0043 1.0158	0.9508	1.0600	1.0164	1.0137	Ave		1.010 2				3.5		20.0			
PCB-114L	0.9805 1.0251	0.9866	1.0002	0.9802	0.9966	Ave		0.994 9				1.7		20.0			
PCB-188L	1.2769 1.3367	1.2959	1.3275	1.3235	1.3195	Ave		1.313 3				1.7		20.0			
PCB-105L	0.9500 0.9623	0.9252	0.9683	0.9499	0.9530	Ave		0.951 4				1.6		20.0			
PCB-126L	0.9296 0.9915	0.8901	0.9531	0.9453	0.9536	Ave		0.943 9				3.5		20.0			
PCB-202L	1.0089 0.9521	1.0043	1.0139	0.9551	0.9566	Ave		0.981 8				3.1		20.0			
PCB-167L	1.2926 1.2203	1.2777	1.2672	1.2630	1.2226	Ave		1.257 2				2.3		20.0			
PCB-156L	1.2170 1.1817	1.2310	1.2435	1.2168	1.1737	Ave		1.210 6				2.3		20.0			
PCB-156L/157L	1.2170 1.1817	1.2310	1.2435	1.2168	1.1737	Ave		1.210 6				2.3		20.0			
PCB-157L	1.2170 1.1817	1.2310	1.2435	1.2168	1.1737	Ave		1.210 6				2.3		20.0			
PCB-170L	0.8549 0.7912	0.8418	0.8681	0.8351	0.8262	Ave		0.836 2				3.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.



FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
CURVE EVALUATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD /RSE	#	MAX %RSD /RSE	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
PCB-169L	1.3034 1.2180	1.2624	1.2196	1.2352	1.2245	Ave		1.243 9				2.7		20.0			
PCB-208L	0.9436 0.9729	0.9445	0.9572	0.9529	0.9744	Ave		0.957 6				1.4		20.0			
PCB-189L	1.4252 1.4773	1.4471	1.4284	1.4364	1.4341	Ave		1.441 4				1.3		20.0			
PCB-205L	1.1647 1.1799	1.1834	1.1745	1.1892	1.1796	Ave		1.178 6				0.7		20.0			
PCB-206L	0.6918 0.6949	0.6861	0.7012	0.6995	0.6947	Ave		0.694 7				0.8		20.0			
PCB-209L	0.6641 0.6555	0.6610	0.6824	0.6737	0.6647	Ave		0.666 9				1.4		20.0			
PCB-8L			1.3272	1.1709	1.1217	AveI n		1.206 6				8.9		20.0			
PCB-28L			1.2181	0.9873	0.9428	Ave		1.049 4				14.1		20.0			
PCB-95L			0.7435	0.7172	0.7047	AveI n		0.721 8				2.7		20.0			
PCB-79L			1.0367	0.9978	0.9710	AveI n		1.001 8				3.3		20.0			
PCB-111L			1.5745	1.3005	1.2347	Ave		1.369 9				13.2		20.0			
PCB-153L			1.1123	0.8406	0.7979	AveI n		0.916 9				18.6		20.0			
PCB-178L			1.1585	0.9861	0.9494	Ave		1.031 3				10.8		20.0			
PCB-159L	0.4887 0.5115	0.5173	0.5067	0.5265	0.5202	AveI n		0.511 8				2.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type. RSD is calculated for Ave curve types. RSE is used for all other types.

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-87130/1	d2240531pi1a.d
Level 2	IC 140-87130/2	d2240531pi2a.d
Level 3	IC 140-87130/3	d2240531pi3.d
Level 4	IC 140-87130/4	d2240531pi4.d
Level 5	IC 140-87130/5	d2240531pi5.d
Level 6	IC 140-87130/6	d2240531pi6.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-1		AveID	87624 +++++	167653	796059	8260359	68569399	0.500 +++++	1.00	5.00	50.0	400
PCB-2		AveID	82442 353084495	152137	768397	7886042	67117936	0.500 2000	1.00	5.00	50.0	400
PCB-3		AveID	87263 360356023	155451	799957	8044849	67267765	0.500 2000	1.00	5.00	50.0	400
PCB-4		AveID	36374 152709290	71281	337353	3479874	27890333	0.500 2000	1.00	5.00	50.0	400
PCB-10		AveID	48502 219606512	90939	471835	4792674	38655568	0.500 2000	1.00	5.00	50.0	400
PCB-9		AveID	51501 234989711	101769	514126	5083530	42181873	0.500 2000	1.00	5.00	50.0	400
PCB-7		AveID	58157 231331814	99790	476841	4950093	41182455	0.500 2000	1.00	5.00	50.0	400
PCB-6		AveID	62834 255647445	108771	517825	5408103	44979638	0.500 2000	1.00	5.00	50.0	400
PCB-5		AveID	51519 222818417	93073	457479	4844644	40020538	0.500 2000	1.00	5.00	50.0	400
PCB-8		AveID	61977 268244897	108520	552662	5621585	47031816	0.500 2000	1.00	5.00	50.0	400
PCB-19		AveID	27248 94419028	37931	215976	2152324	18011092	0.500 2000	1.00	5.00	50.0	400
PCB-14		AveID	55107 231080321	95706	492912	5066034	41013941	0.500 2000	1.00	5.00	50.0	400
PCB-18		AveID	63024 272933390	119625	588680	6054511	49683955	1.00 4000	2.00	10.0	100	800
PCB-18/30		AveID	63024 272933390	119625	588680	6054511	49683955	1.00 4000	2.00	10.0	100	800
PCB-30		AveID	63024 272933390	119625	588680	6054511	49683955	1.00 4000	2.00	10.0	100	800
PCB-11		AveID	53494 216275260	83627	452818	4598736	38153224	0.500 2000	1.00	5.00	50.0	400

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130  
SDG No.: \_\_\_\_\_  
Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25(mm) Heated Purge: (Y/N) N  
Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-17		AveID	23167 91948427	43052	206164	2122247	17339157	0.500 2000	1.00	5.00	50.0	400
PCB-12		AveID	97175 468162119	181643	943457	9487445	80149527	1.00 4000	2.00	10.0	100	800
PCB-12/13		AveID	97175 468162119	181643	943457	9487445	80149527	1.00 4000	2.00	10.0	100	800
PCB-13		AveID	97175 468162119	181643	943457	9487445	80149527	1.00 4000	2.00	10.0	100	800
PCB-27		AveID	30334 145107554	61773	310541	3179572	26360662	0.500 2000	1.00	5.00	50.0	400
PCB-24		AveID	30894 131161059	55539	276459	2814319	23939751	0.500 2000	1.00	5.00	50.0	400
PCB-16		AveID	20922 85816817	36402	189210	1959828	16041877	0.500 2000	1.00	5.00	50.0	400
PCB-15		AveID	63884 269724618	113904	552286	5621988	47283812	0.500 2000	1.00	5.00	50.0	400
PCB-54		AveID	17905 84275390	39894	187801	2056772	16256949	0.500 2000	1.00	5.00	50.0	400
PCB-32		AveID	34215 140138189	60227	310058	3076908	25877431	0.500 2000	1.00	5.00	50.0	400
PCB-34		AveID	81792 373345873	145822	741948	7616885	63733574	0.500 2000	1.00	5.00	50.0	400
PCB-23		AveID	78676 352538213	148152	710024	7186368	59373148	0.500 2000	1.00	5.00	50.0	400
PCB-26		AveID	157772 788218448	296674	1426183	14701213	130294664	1.00 4000	2.00	10.0	100	800
PCB-26/29		AveID	157772 788218448	296674	1426183	14701213	130294664	1.00 4000	2.00	10.0	100	800
PCB-29		AveID	157772 788218448	296674	1426183	14701213	130294664	1.00 4000	2.00	10.0	100	800
PCB-25		AveID	97778 436326451	160869	798213	8444656	71143057	0.500 2000	1.00	5.00	50.0	400
PCB-50		AveID	96228 424571971	160495	797957	8406058	70687479	1.00 4000	2.00	10.0	100	800
PCB-50/53		AveID	96228 424571971	160495	797957	8406058	70687479	1.00 4000	2.00	10.0	100	800
PCB-53		AveID	96228 424571971	160495	797957	8406058	70687479	1.00 4000	2.00	10.0	100	800
PCB-31		AveID	84854 378421846	160841	744974	7458669	63731167	0.500 2000	1.00	5.00	50.0	400
PCB-20		AveID	163294	298348	1483821	15507992	135356691	1.00	2.00	10.0	100	800

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
			842454191					4000				
PCB-20/28		AveID	163294 842454191	298348	1483821	15507992	135356691	1.00 4000	2.00	10.0	100	800
PCB-28		AveID	163294 842454191	298348	1483821	15507992	135356691	1.00 4000	2.00	10.0	100	800
PCB-45		AveID	86958 401693892	157715	788555	8278212	69485788	1.00 4000	2.00	10.0	100	800
PCB-45/51		AveID	86958 401693892	157715	788555	8278212	69485788	1.00 4000	2.00	10.0	100	800
PCB-51		AveID	86958 401693892	157715	788555	8278212	69485788	1.00 4000	2.00	10.0	100	800
PCB-21		AveID	147710 749389733	281992	1403700	14314146	121766982	1.00 4000	2.00	10.0	100	800
PCB-21/33		AveID	147710 749389733	281992	1403700	14314146	121766982	1.00 4000	2.00	10.0	100	800
PCB-33		AveID	147710 749389733	281992	1403700	14314146	121766982	1.00 4000	2.00	10.0	100	800
PCB-46		AveID	43592 157969398	65825	340774	3495887	28834506	0.500 2000	1.00	5.00	50.0	400
PCB-22		AveID	87442 398788093	164376	739669	7874512	67196694	0.500 2000	1.00	5.00	50.0	400
PCB-52		AveID	49547 214166805	87733	439829	4723711	38354033	0.500 2000	1.00	5.00	50.0	400
PCB-43		AveID	115263 489361192	200228	974936	10270296	84403637	1.00 4000	2.00	10.0	100	800
PCB-43/73		AveID	115263 489361192	200228	974936	10270296	84403637	1.00 4000	2.00	10.0	100	800
PCB-73		AveID	115263 489361192	200228	974936	10270296	84403637	1.00 4000	2.00	10.0	100	800
PCB-36		AveID	76826 361500062	150690	731454	7632212	61342563	0.500 2000	1.00	5.00	50.0	400
PCB-49		AveID	121491 518749137	201895	1002960	10490769	86848614	1.00 4000	2.00	10.0	100	800
PCB-49/69		AveID	121491 518749137	201895	1002960	10490769	86848614	1.00 4000	2.00	10.0	100	800
PCB-69		AveID	121491 518749137	201895	1002960	10490769	86848614	1.00 4000	2.00	10.0	100	800
PCB-39		AveID	81144 394634471	150829	760165	7752224	65934116	0.500 2000	1.00	5.00	50.0	400
PCB-48		AveID	46735 194390518	83950	401794	4096041	34271968	0.500 2000	1.00	5.00	50.0	400

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-104		AveID	34754 148594312	61528	306050	3284431	26991793	0.500 2000	1.00	5.00	50.0	400
PCB-44		AveID	152988 773503972	277857	1344248	14013306	120748315	1.50 6000	3.00	15.0	150	1200
PCB-44/47/65		AveID	152988 773503972	277857	1344248	14013306	120748315	1.50 6000	3.00	15.0	150	1200
PCB-47		AveID	152988 773503972	277857	1344248	14013306	120748315	1.50 6000	3.00	15.0	150	1200
PCB-65		AveID	152988 773503972	277857	1344248	14013306	120748315	1.50 6000	3.00	15.0	150	1200
PCB-38		AveID	76168 383822577	142649	680342	7153021	61948482	0.500 2000	1.00	5.00	50.0	400
PCB-96		AveID	38490 165718292	63380	338671	3505288	29124757	0.500 2000	1.00	5.00	50.0	400
PCB-59		AveID	193231 952848187	331263	1597958	16871670	147870904	1.50 6000	3.00	15.0	150	1200
PCB-59/62/75		AveID	193231 952848187	331263	1597958	16871670	147870904	1.50 6000	3.00	15.0	150	1200
PCB-62		AveID	193231 952848187	331263	1597958	16871670	147870904	1.50 6000	3.00	15.0	150	1200
PCB-75		AveID	193231 952848187	331263	1597958	16871670	147870904	1.50 6000	3.00	15.0	150	1200
PCB-42		AveID	43465 186831580	79410	398654	4062353	33116229	0.500 2000	1.00	5.00	50.0	400
PCB-35		AveID	86063 371576451	142742	721094	7562291	65004472	0.500 2000	1.00	5.00	50.0	400
PCB-40		AveID	153053 641280083	252584	1243102	12777370	109543755	1.50 6000	3.00	15.0	150	1200
PCB-40/41/71		AveID	153053 641280083	252584	1243102	12777370	109543755	1.50 6000	3.00	15.0	150	1200
PCB-41		AveID	153053 641280083	252584	1243102	12777370	109543755	1.50 6000	3.00	15.0	150	1200
PCB-71		AveID	153053 641280083	252584	1243102	12777370	109543755	1.50 6000	3.00	15.0	150	1200
PCB-37		AveID	90285 372528859	148485	723492	7589418	63280259	0.500 2000	1.00	5.00	50.0	400
PCB-64		AveID	68347 268312321	121326	549661	5640018	47066920	0.500 2000	1.00	5.00	50.0	400
PCB-72		AveID	59320 260036448	102800	528848	5513402	45559809	0.500 2000	1.00	5.00	50.0	400
PCB-103		AveID	30305	54610	272723	2810660	23026262	0.500	1.00	5.00	50.0	400

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
			125264432					2000				
PCB-68		AveID	62752 302767134	120639	618865	6342042	52714819	0.500 2000	1.00	5.00	50.0	400
PCB-94		AveID	27753 104404112	50670	243354	2353932	19293687	0.500 2000	1.00	5.00	50.0	400
PCB-57		AveID	54918 259652587	107838	515271	5445573	45493698	0.500 2000	1.00	5.00	50.0	400
PCB-95		AveID	28089 115750524	48155	247318	2613771	21743452	0.500 2000	1.00	5.00	50.0	400
PCB-58		AveID	68587 332927040	117702	638910	6808166	56416890	0.500 2000	1.00	5.00	50.0	400
PCB-100		AveID	59164 255671436	104065	508477	5326508	43937859	1.00 4000	2.00	10.0	100	800
PCB-93		AveID	59164 255671436	104065	508477	5326508	43937859	1.00 4000	2.00	10.0	100	800
PCB-93/100		AveID	59164 255671436	104065	508477	5326508	43937859	1.00 4000	2.00	10.0	100	800
PCB-67		AveID	79670 349063048	136003	662955	6875936	58816773	0.500 2000	1.00	5.00	50.0	400
PCB-102		AveID	57283 237097257	101797	526504	5294749	43293553	1.00 4000	2.00	10.0	100	800
PCB-98		AveID	57283 237097257	101797	526504	5294749	43293553	1.00 4000	2.00	10.0	100	800
PCB-98/102		AveID	57283 237097257	101797	526504	5294749	43293553	1.00 4000	2.00	10.0	100	800
PCB-63		AveID	60720 261710211	113672	544766	5498511	45663130	0.500 2000	1.00	5.00	50.0	400
PCB-88		AveID	58044 238830684	93115	497525	5073604	42407684	1.00 4000	2.00	10.0	100	800
PCB-88/91		AveID	58044 238830684	93115	497525	5073604	42407684	1.00 4000	2.00	10.0	100	800
PCB-91		AveID	58044 238830684	93115	497525	5073604	42407684	1.00 4000	2.00	10.0	100	800
PCB-61		AveID	264950 1322616466	472477	2351306	24255009	211563594	2.00 8000	4.00	20.0	200	1600
PCB-61/70/74/76		AveID	264950 1322616466	472477	2351306	24255009	211563594	2.00 8000	4.00	20.0	200	1600
PCB-70		AveID	264950 1322616466	472477	2351306	24255009	211563594	2.00 8000	4.00	20.0	200	1600
PCB-74		AveID	264950 1322616466	472477	2351306	24255009	211563594	2.00 8000	4.00	20.0	200	1600

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130  
SDG No.: \_\_\_\_\_  
Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25(mm) Heated Purge: (Y/N) N  
Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-76		AveID	264950 1322616466	472477	2351306	24255009	211563594	2.00 8000	4.00	20.0	200	1600
PCB-84		AveID	25161 101701980	49178	225737	2297413	18942616	0.500 2000	1.00	5.00	50.0	400
PCB-66		AveID	66199 306877309	119065	600993	6312222	52981003	0.500 2000	1.00	5.00	50.0	400
PCB-55		AveID	77673 318274904	119512	630084	6483526	54230284	0.500 2000	1.00	5.00	50.0	400
PCB-89		AveID	30940 106371354	46581	245536	2424086	19980724	0.500 2000	1.00	5.00	50.0	400
PCB-56		AveID	74659 290239949	112603	577077	6041547	50251634	0.500 2000	1.00	5.00	50.0	400
PCB-121		AveID	43439 189494866	82240	406765	4144482	34064929	0.500 2000	1.00	5.00	50.0	400
PCB-60		AveID	60472 262262219	120369	510799	5475280	45739750	0.500 2000	1.00	5.00	50.0	400
PCB-92		AveID	29937 119034801	56541	260863	2724348	22258079	0.500 2000	1.00	5.00	50.0	400
PCB-80		AveID	74270 317715187	128092	618593	6451950	54703996	0.500 2000	1.00	5.00	50.0	400
PCB-155		AveID	28040 117062772	53749	269852	2757196	22251730	0.500 2000	1.00	5.00	50.0	400
PCB-152		AveID	31058 127316142	55399	280445	2752865	22836429	0.500 2000	1.00	5.00	50.0	400
PCB-101		AveID	98736 445746570	174859	853991	9126697	75031128	1.50 6000	3.00	15.0	150	1200
PCB-113		AveID	98736 445746570	174859	853991	9126697	75031128	1.50 6000	3.00	15.0	150	1200
PCB-90		AveID	98736 445746570	174859	853991	9126697	75031128	1.50 6000	3.00	15.0	150	1200
PCB-90/101/113		AveID	98736 445746570	174859	853991	9126697	75031128	1.50 6000	3.00	15.0	150	1200
PCB-150		AveID	30371 127390982	56112	292889	2933125	23890856	0.500 2000	1.00	5.00	50.0	400
PCB-136		AveID	33387 128715901	55716	270798	2858801	23743749	0.500 2000	1.00	5.00	50.0	400
PCB-83		AveID	57832 241281713	101299	528892	5527064	44113984	1.00 4000	2.00	10.0	100	800
PCB-83/99		AveID	57832 241281713	101299	528892	5527064	44113984	1.00 4000	2.00	10.0	100	800
PCB-99		AveID	57832	101299	528892	5527064	44113984	1.00	2.00	10.0	100	800

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130  
SDG No.: \_\_\_\_\_  
Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25(mm) Heated Purge: (Y/N) N  
Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
			241281713					4000				
PCB-112		AveID	50114 200578005	92894	437482	4359398	36244741	0.500 2000	1.00	5.00	50.0	400
PCB-145		AveID	31426 121971700	51222	275033	2773933	22672411	0.500 2000	1.00	5.00	50.0	400
PCB-109		AveID	211356 1031232134	380172	1846778	19399175	167069124	3.00 12000	6.00	30.0	300	2400
PCB-119		AveID	211356 1031232134	380172	1846778	19399175	167069124	3.00 12000	6.00	30.0	300	2400
PCB-125		AveID	211356 1031232134	380172	1846778	19399175	167069124	3.00 12000	6.00	30.0	300	2400
PCB-86		AveID	211356 1031232134	380172	1846778	19399175	167069124	3.00 12000	6.00	30.0	300	2400
PCB-86/87/97/109/119/125		AveID	211356 1031232134	380172	1846778	19399175	167069124	3.00 12000	6.00	30.0	300	2400
PCB-87		AveID	211356 1031232134	380172	1846778	19399175	167069124	3.00 12000	6.00	30.0	300	2400
PCB-97		AveID	211356 1031232134	380172	1846778	19399175	167069124	3.00 12000	6.00	30.0	300	2400
PCB-79		AveID	77395 354295498	147654	655831	6861599	58766091	0.500 2000	1.00	5.00	50.0	400
PCB-78		AveID	70824 259722209	115640	551876	5506314	46136888	0.500 2000	1.00	5.00	50.0	400
PCB-116		AveID	110009 471144048	192911	938339	9894792	81508464	1.50 6000	3.00	15.0	150	1200
PCB-117		AveID	110009 471144048	192911	938339	9894792	81508464	1.50 6000	3.00	15.0	150	1200
PCB-85		AveID	110009 471144048	192911	938339	9894792	81508464	1.50 6000	3.00	15.0	150	1200
PCB-85/116/117		AveID	110009 471144048	192911	938339	9894792	81508464	1.50 6000	3.00	15.0	150	1200
PCB-110		AveID	83392 348252734	153152	734092	7463251	61605039	1.00 4000	2.00	10.0	100	800
PCB-110/115		AveID	83392 348252734	153152	734092	7463251	61605039	1.00 4000	2.00	10.0	100	800
PCB-115		AveID	83392 348252734	153152	734092	7463251	61605039	1.00 4000	2.00	10.0	100	800
PCB-81		AveID	57961 246419766	102785	499582	5214743	42731408	0.500 2000	1.00	5.00	50.0	400
PCB-82		AveID	28943 118090307	52864	257633	2659391	21705824	0.500 2000	1.00	5.00	50.0	400



FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-148		AveID	24113 97145990	40368	215061	2176255	17957394	0.500 2000	1.00	5.00	50.0	400
PCB-77		AveID	64742 254122136	110963	520129	5446719	45244571	0.500 2000	1.00	5.00	50.0	400
PCB-111		AveID	40194 172673938	83431	366927	3825096	31849869	0.500 2000	1.00	5.00	50.0	400
PCB-135		AveID	45950 185302824	78265	403202	4192182	34125616	1.00 4000	2.00	10.0	100	800
PCB-135/151		AveID	45950 185302824	78265	403202	4192182	34125616	1.00 4000	2.00	10.0	100	800
PCB-151		AveID	45950 185302824	78265	403202	4192182	34125616	1.00 4000	2.00	10.0	100	800
PCB-120		AveID	53063 217057638	91670	446498	4697232	38221427	0.500 2000	1.00	5.00	50.0	400
PCB-154		AveID	23372 103679991	46790	228222	2371495	19278459	0.500 2000	1.00	5.00	50.0	400
PCB-144		AveID	26036 96362038	43641	217725	2232331	18139372	0.500 2000	1.00	5.00	50.0	400
PCB-147		AveID	85550 357302891	137928	675152	7067120	59645820	1.00 4000	2.00	10.0	100	800
PCB-147/149		AveID	85550 357302891	137928	675152	7067120	59645820	1.00 4000	2.00	10.0	100	800
PCB-149		AveID	85550 357302891	137928	675152	7067120	59645820	1.00 4000	2.00	10.0	100	800
PCB-134		AveID	73190 291141501	130881	640616	6440496	52378003	1.00 4000	2.00	10.0	100	800
PCB-134/143		AveID	73190 291141501	130881	640616	6440496	52378003	1.00 4000	2.00	10.0	100	800
PCB-143		AveID	73190 291141501	130881	640616	6440496	52378003	1.00 4000	2.00	10.0	100	800
PCB-108		AveID	114382 576858278	208570	1034062	10706077	91375734	1.00 4000	2.00	10.0	100	800
PCB-108/124		AveID	114382 576858278	208570	1034062	10706077	91375734	1.00 4000	2.00	10.0	100	800
PCB-124		AveID	114382 576858278	208570	1034062	10706077	91375734	1.00 4000	2.00	10.0	100	800
PCB-139		AveID	77045 349280537	141796	673528	7038694	59038438	1.00 4000	2.00	10.0	100	800
PCB-139/140		AveID	77045 349280537	141796	673528	7038694	59038438	1.00 4000	2.00	10.0	100	800
PCB-140		AveID	77045	141796	673528	7038694	59038438	1.00	2.00	10.0	100	800

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
			349280537					4000				
PCB-107		AveID	66807 280088284	102545	576281	5897415	48169388	0.500 2000	1.00	5.00	50.0	400
PCB-131		AveID	+++++ 145204904	60287	289665	3018928	25806641	+++++ 2000	1.00	5.00	50.0	400
PCB-123		AveID	56282 259083255	103937	444649	5033992	43726655	0.500 2000	1.00	5.00	50.0	400
PCB-106		AveID	57304 259205947	96794	501472	5140106	43503164	0.500 2000	1.00	5.00	50.0	400
PCB-142		AveID	31461 147452709	58658	301166	3115155	25727292	0.500 2000	1.00	5.00	50.0	400
PCB-118		AveID	65547 282900049	118026	579609	6016008	49487841	0.500 2000	1.00	5.00	50.0	400
PCB-132		AveID	36598 134732483	59523	300578	2979191	24603976	0.500 2000	1.00	5.00	50.0	400
PCB-122		AveID	49485 217083178	94688	416752	4709445	38072113	0.500 2000	1.00	5.00	50.0	400
PCB-114		AveID	55723 259907186	107408	496695	5307527	44610183	0.500 2000	1.00	5.00	50.0	400
PCB-188		AveID	39693 172058230	77076	379875	3706640	30886057	0.500 2000	1.00	5.00	50.0	400
PCB-133		AveID	32377 147730024	71556	328133	3245992	28247093	0.500 2000	1.00	5.00	50.0	400
PCB-179		AveID	46777 169294763	77102	381743	3733944	31130650	0.500 2000	1.00	5.00	50.0	400
PCB-165		AveID	42251 191105968	89004	408419	4186901	34588489	0.500 2000	1.00	5.00	50.0	400
PCB-105		AveID	65478 263476320	107441	513401	5526391	45872125	0.500 2000	1.00	5.00	50.0	400
PCB-146		AveID	42036 183787905	80078	378659	3845405	32748351	0.500 2000	1.00	5.00	50.0	400
PCB-184		AveID	38134 173580025	74149	370448	3714498	31018294	0.500 2000	1.00	5.00	50.0	400
PCB-161		AveID	46946 217946430	95121	438810	4666072	38113824	0.500 2000	1.00	5.00	50.0	400
PCB-176		AveID	40584 147820845	62562	331851	3337458	27007633	0.500 2000	1.00	5.00	50.0	400
PCB-153		AveID	93081 433749157	166883	893507	8944568	74572114	1.00 4000	2.00	10.0	100	800
PCB-153/168		AveID	93081 433749157	166883	893507	8944568	74572114	1.00 4000	2.00	10.0	100	800

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville

Job No.: 140-37234-1

Analy Batch No.: 87130

SDG No. :

Instrument ID: D2D

GC Column: SPB-Octyl ID: 0.25 (mm)

Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36

Calibration End Date: 05/31/2024 21:13

Calibration ID: 5117

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-168		AveID	93081 433749157	166883	893507	8944568	74572114	1.00 4000	2.00	10.0	100	800
PCB-141		AveID	41664 155876662	74724	338462	3461353	29064533	0.500 2000	1.00	5.00	50.0	400
PCB-186		AveID	44732 183358035	75669	394382	4051516	33163682	0.500 2000	1.00	5.00	50.0	400
PCB-130		AveID	32146 126435560	59703	279233	2838645	23530162	0.500 2000	1.00	5.00	50.0	400
PCB-127		AveID	57517 264011122	108872	505934	5642766	46076121	0.500 2000	1.00	5.00	50.0	400
PCB-137		AveID	33182 145652162	61626	318450	3298456	25797296	0.500 2000	1.00	5.00	50.0	400
PCB-164		AveID	46464 196637037	83907	400805	4200180	35754648	0.500 2000	1.00	5.00	50.0	400
PCB-129		AveID	164754 763652147	303072	1473269	15110013	127135379	2.00 8000	4.00	20.0	200	1600
PCB-129/138/160/163		AveID	164754 763652147	303072	1473269	15110013	127135379	2.00 8000	4.00	20.0	200	1600
PCB-138		AveID	164754 763652147	303072	1473269	15110013	127135379	2.00 8000	4.00	20.0	200	1600
PCB-160		AveID	164754 763652147	303072	1473269	15110013	127135379	2.00 8000	4.00	20.0	200	1600
PCB-163		AveID	164754 763652147	303072	1473269	15110013	127135379	2.00 8000	4.00	20.0	200	1600
PCB-158		AveID	60291 240225815	109591	509962	5319521	43420955	0.500 2000	1.00	5.00	50.0	400
PCB-178		AveID	25284 108531079	49156	246629	2440485	20314842	0.500 2000	1.00	5.00	50.0	400
PCB-175		AveID	30945 114534847	50193	246187	2569891	21220414	0.500 2000	1.00	5.00	50.0	400
PCB-126		AveID	49570 256982981	95794	483239	5411840	44661015	0.500 2000	1.00	5.00	50.0	400
PCB-128		AveID	83902 400795430	151578	747908	8124665	68077278	1.00 4000	2.00	10.0	100	800
PCB-128/166		AveID	83902 400795430	151578	747908	8124665	68077278	1.00 4000	2.00	10.0	100	800
PCB-166		AveID	83902 400795430	151578	747908	8124665	68077278	1.00 4000	2.00	10.0	100	800
PCB-187		AveID	31052 135710155	60936	296377	3023234	24989319	0.500 2000	1.00	5.00	50.0	400
PCB-182		AveID	24644	48192	263009	2647036	21292850	0.500	1.00	5.00	50.0	400

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
			113333574					2000				
PCB-183		AveID	64294 226842465	115938	505531	5114533	41853835	1.00 4000	2.00	10.0	100	800
PCB-183/185		AveID	64294 226842465	115938	505531	5114533	41853835	1.00 4000	2.00	10.0	100	800
PCB-185		AveID	64294 226842465	115938	505531	5114533	41853835	1.00 4000	2.00	10.0	100	800
PCB-174		AveID	30210 120778067	46390	258926	2681848	21783169	0.500 2000	1.00	5.00	50.0	400
PCB-159		AveID	58381 268867618	114847	558064	5578541	46357455	0.500 2000	1.00	5.00	50.0	400
PCB-162		AveID	55301 227875192	106735	513669	5046359	41684795	0.500 2000	1.00	5.00	50.0	400
PCB-177		AveID	29904 115865581	53407	265089	2633576	21710754	0.500 2000	1.00	5.00	50.0	400
PCB-202		AveID	25714 114836205	51069	264468	2654251	21547219	0.500 2000	1.00	5.00	50.0	400
PCB-167		AveID	51226 213807712	90866	464967	4608166	37916934	0.500 2000	1.00	5.00	50.0	400
PCB-181		AveID	28637 115218365	55606	243089	2521026	21004998	0.500 2000	1.00	5.00	50.0	400
PCB-171		AveID	60459 222795208	111708	465633	4804669	39921079	1.00 4000	2.00	10.0	100	800
PCB-171/173		AveID	60459 222795208	111708	465633	4804669	39921079	1.00 4000	2.00	10.0	100	800
PCB-173		AveID	60459 222795208	111708	465633	4804669	39921079	1.00 4000	2.00	10.0	100	800
PCB-201		AveID	26064 104750814	50692	242194	2419114	19791616	0.500 2000	1.00	5.00	50.0	400
PCB-156		AveID	88451 422223885	183365	886471	8938406	73585151	1.00 4000	2.00	10.0	100	800
PCB-156/157		AveID	88451 422223885	183365	886471	8938406	73585151	1.00 4000	2.00	10.0	100	800
PCB-157		AveID	88451 422223885	183365	886471	8938406	73585151	1.00 4000	2.00	10.0	100	800
PCB-204		AveID	29939 111110035	53523	259683	2562540	20940493	0.500 2000	1.00	5.00	50.0	400
PCB-197		AveID	34548 119677701	59307	278144	2790933	22095397	0.500 2000	1.00	5.00	50.0	400
PCB-200		AveID	25941 107343183	53055	264690	2461217	20163621	0.500 2000	1.00	5.00	50.0	400

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-172		AveID	26430 98480427	47193	225866	2347963	18849904	0.500 2000	1.00	5.00	50.0	400
PCB-192		AveID	37024 164428936	75123	366181	3758142	30290999	0.500 2000	1.00	5.00	50.0	400
PCB-180		AveID	66935 287312478	130449	626627	6380540	51963197	1.00 4000	2.00	10.0	100	800
PCB-180/193		AveID	66935 287312478	130449	626627	6380540	51963197	1.00 4000	2.00	10.0	100	800
PCB-193		AveID	66935 287312478	130449	626627	6380540	51963197	1.00 4000	2.00	10.0	100	800
PCB-191		AveID	35223 156918655	72972	348406	3590548	29149341	0.500 2000	1.00	5.00	50.0	400
PCB-170		AveID	29022 104308327	51767	255223	2504084	19833085	0.500 2000	1.00	5.00	50.0	400
PCB-190		AveID	40117 158352425	74583	364710	3582145	29063711	0.500 2000	1.00	5.00	50.0	400
PCB-169		AveID	54907 220826313	91425	452938	4858941	39746833	0.500 2000	1.00	5.00	50.0	400
PCB-198		AveID	49584 190066454	88133	430393	4197692	34466252	1.00 4000	2.00	10.0	100	800
PCB-198/199		AveID	49584 190066454	88133	430393	4197692	34466252	1.00 4000	2.00	10.0	100	800
PCB-199		AveID	49584 190066454	88133	430393	4197692	34466252	1.00 4000	2.00	10.0	100	800
PCB-196		AveID	21772 81076975	41271	198979	1892682	15393419	0.500 2000	1.00	5.00	50.0	400
PCB-203		AveID	26586 98693847	45126	235807	2289580	18781869	0.500 2000	1.00	5.00	50.0	400
PCB-208		AveID	41595 166655336	79659	399575	3774592	31300386	0.500 2000	1.00	5.00	50.0	400
PCB-195		AveID	34279 154147844	74468	348250	3431947	28114967	0.500 2000	1.00	5.00	50.0	400
PCB-189		AveID	53094 221399680	97896	493179	4928731	40021622	0.500 2000	1.00	5.00	50.0	400
PCB-207		AveID	49926 170983014	79832	399296	3878521	31656277	0.500 2000	1.00	5.00	50.0	400
PCB-194		AveID	47820 173567729	84593	394237	3967420	32373452	0.500 2000	1.00	5.00	50.0	400
PCB-205		AveID	50563 198631608	94183	448246	4478090	36524269	0.500 2000	1.00	5.00	50.0	400
PCB-206		AveID	43449	67457	317426	3124562	25218974	0.500	1.00	5.00	50.0	400

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
			132627452					2000				
PCB-209		AveID	28972 109226464	51840	273346	2603740	20909699	0.500 2000	1.00	5.00	50.0	400
PCB-1L	PCB9L	Ave	14676977 14103562	13411930	13253788	13654287	13820437	100 100	100	100	100	100
PCB-3L	PCB9L	Ave	14134368 14397062	13166477	13154993	13165806	13803706	100 100	100	100	100	100
PCB-4L	PCB9L	Ave	5904521 5672202	5442766	5279032	5474214	5561618	100 100	100	100	100	100
PCB-19L	PCB32 L	Ave	3711790  3634856	3424036	3389482	3406868	3537933	100  100	100	100	100	100
PCB-15L	PCB9L	Ave	9483770 10031243	8819361	8806182	8855244	9575202	100 100	100	100	100	100
PCB-54L	PCB32 L	Ave	3394991  3193810	3010951	2803421	3125781	3162909	100  100	100	100	100	100
PCB-104L	PCB10 1L	Ave	6938320  6975966	6240748	6307301	6455349	6672003	100  100	100	100	100	100
PCB-37L	PCB31 L	Ave	14507892  15552321	13255798	13114910	13535671	14730805	100  100	100	100	100	100
PCB-155L	PCB10 1L	Ave	6307321  6037909	5566942	5708638	5786925	5892178	100  100	100	100	100	100
PCB-81L	PCB52 L	Ave	10352263  11264701	9378026	9411321	9689577	10335461	100  100	100	100	100	100
PCB-77L	PCB52 L	Ave	11078136  11187391	9952597	10036639	10298891	11450569	100  100	100	100	100	100
PCB-123L	PCB12 7L	Ave	10371480  11406816	9073751	9321962	9501201	10377703	100  100	100	100	100	100
PCB-118L	PCB12 7L	Ave	10759990  11370905	9353232	9948185	10094764	10740248	100  100	100	100	100	100
PCB-114L	PCB12 7L	Ave	10504311  11474644	9705413	9387618	9734953	10559524	100  100	100	100	100	100
PCB-188L	PCB18 0L	Ave	7116082	6585200	6664037	6587579	7006215	100	100	100	100	100

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
			7440630					100				
PCB-105L	PCB12 7L	Ave	10177357	9101468	9087875	9433900	10096861	100	100	100	100	100
			10771838					100				
PCB-126L	PCB12 7L	Ave	9958778	8756063	8945635	9388684	10103302	100	100	100	100	100
			11098540					100				
PCB-202L	PCB18 0L	Ave	5622444	5103331	5089577	4754288	5079458	100	100	100	100	100
			5299657					100				
PCB-167L	PCB13 8L	Ave	9105316	8343026	8150383	8329121	8748546	100	100	100	100	100
			9296213					100				
PCB-156L	PCB13 8L	Ave	17145311	16075823	15994835	16048883	16797326	200	200	200	200	200
			18003846					200				
PCB-156L/157L	PCB13 8L	Ave	17145311	16075823	15994835	16048883	16797326	200	200	200	200	200
			18003846					200				
PCB-157L	PCB13 8L	Ave	17145311	16075823	15994835	16048883	16797326	200	200	200	200	200
			18003846					200				
PCB-170L	PCB18 0L	Ave	4764508	4277780	4357834	4156589	4386822	100	100	100	100	100
			4404173					100				
PCB-169L	PCB13 8L	Ave	9181390	8243482	7844285	8145884	8761705	100	100	100	100	100
			9278382					100				
PCB-208L	PCB19 4L	Ave	7500908	6757986	6859651	6680775	7135804	100	100	100	100	100
			7275684					100				
PCB-189L	PCB19 4L	Ave	11329298	10353644	10235768	10070777	10502203	100	100	100	100	100
			11047526					100				
PCB-205L	PCB19 4L	Ave	9259085	8466946	8416261	8337493	8638618	100	100	100	100	100
			8823289					100				
PCB-206L	PCB19 4L	Ave	5499727	4908757	5024711	4903942	5087280	100	100	100	100	100
			5196483					100				
PCB-209L	PCB19 4L	Ave	5278978	4729024	4889751	4723291	4867564	100	100	100	100	100
			4902169					100				

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130  
SDG No.: \_\_\_\_\_  
Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25(mm) Heated Purge: (Y/N) N  
Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PG/UL)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
PCB-8L		AveID			467355	4194596	33958319			5.00	50.0	400
PCB-28L	PCB31 L	Ave			930321	7682166	63120528			5.00	50.0	400
PCB-95L		AveID			234474	2314965	18806941			5.00	50.0	400
PCB-79L		AveID			504032	4986068	42309500			5.00	50.0	400
PCB-111L	PCB10 1L	Ave			394315	3399701	27823366			5.00	50.0	400
PCB-153L		AveID			444756	3417541	27374804			5.00	50.0	400
PCB-178L	PCB18 0L	Ave			290779	2454141	20165082			5.00	50.0	400
PCB-159L		AveID	7935499 8428474	7665555	7301154	7786628	8051959	100 100	100	100	100	100

Curve Type Legend:

Ave = Average ISTD  
AveID = Average isotope dilution



FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130

SDG No.: \_\_\_\_\_

Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-87130/1	d2240531pi1a.d
Level 2	IC 140-87130/2	d2240531pi2a.d
Level 3	IC 140-87130/3	d2240531pi3.d
Level 4	IC 140-87130/4	d2240531pi4.d
Level 5	IC 140-87130/5	d2240531pi5.d
Level 6	IC 140-87130/6	d2240531pi6.d

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
PCB-1	-2.1	2.5	-1.5	-0.8	1.7	+++++	50	30	30	30	30	
PCB-2	-3.0	-3.0	-1.4	-0.4	2.9	4.9	50	30	30	30	30	30
PCB-3	1.2	-3.3	-0.4	0.1	-0.2	2.5	50	30	30	30	30	30
PCB-4	-3.9	2.2	-0.3	-0.8	-2.2	5.0	50	30	30	30	30	30
PCB-10	-4.1	-3.0	1.9	1.7	-2.9	6.4	50	30	30	30	30	30
PCB-9	-5.9	0.3	2.6	-0.2	-2.0	5.2	50	30	30	30	30	30
PCB-7	7.0	-10.0	-4.2	-2.2	-3.8	4.2	50	30	30	30	30	30
PCB-6	5.9	-11.2	-4.6	-2.1	-3.7	5.6	50	30	30	30	30	30
PCB-5	0.0	-2.6	-3.0	1.0	-1.3	5.9	50	30	30	30	30	30
PCB-8	1.4	-4.2	-1.2	-1.2	-2.2	7.5	50	30	30	30	30	30
PCB-19	14.6	-13.5	-0.5	-1.4	-0.6	1.4	50	30	30	30	30	30
PCB-14	2.1	-4.3	-0.2	0.8	-3.4	4.9	50	30	30	30	30	30
PCB-18	-3.8	-1.0	-1.6	0.7	-0.6	6.3	50	30	30	30	30	30
PCB-18/30	-3.8	-1.0	-1.6	0.7	-0.6	6.3	50	30	30	30	30	30
PCB-30	-3.8	-1.0	-1.6	0.7	-0.6	6.3	50	30	30	30	30	30
PCB-11	7.4	-18.0	-0.7	-0.9	-2.7	6.3	50	30	30	30	30	30
PCB-17	0.4	1.2	-2.1	0.2	-1.4	1.8	50	30	30	30	30	30
PCB-12	-5.5	-4.7	0.3	-0.9	-0.9	11.6	50	30	30	30	30	30
PCB-12/13	-5.5	-4.7	0.3	-0.9	-0.9	11.6	50	30	30	30	30	30
PCB-13	-5.5	-4.7	0.3	-0.9	-0.9	11.6	50	30	30	30	30	30
PCB-27	-19.4	-1.6	0.0	1.8	1.6	8.9	50	30	30	30	30	30
PCB-24	-8.9	-3.3	-2.8	-1.5	0.8	7.5	50	30	30	30	30	30
PCB-16	-0.1	-16.0	-1.1	1.9	0.4	4.6	50	30	30	30	30	30
PCB-15	4.4	0.1	-2.8	-1.6	-4.3	4.2	50	30	30	30	30	30
PCB-54	-17.2	4.1	5.2	3.4	0.9	3.6	50	30	30	30	30	30
PCB-32	0.6	-4.0	-0.2	-1.4	-0.2	5.2	50	30	30	30	30	30
PCB-34	0.0	-2.5	0.3	-0.2	-4.1	6.4	50	30	30	30	30	30
PCB-23	-7.6	3.4	0.1	-1.8	-6.8	4.8	50	30	30	30	30	30
PCB-26	-3.4	-0.6	-3.4	-3.5	-1.8	12.6	50	30	30	30	30	30
PCB-26/29	-3.4	-0.6	-3.4	-3.5	-1.8	12.6	50	30	30	30	30	30
PCB-29	-3.4	-0.6	-3.4	-3.5	-1.8	12.6	50	30	30	30	30	30
PCB-25	5.9	-4.7	-4.4	-2.0	-5.1	10.2	50	30	30	30	30	30
PCB-50	4.7	-3.2	-4.3	-1.9	-5.4	10.2	50	30	30	30	30	30

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130  
SDG No.: \_\_\_\_\_  
Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N  
Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
PCB-50/53	4.7	-3.2	-4.3	-1.9	-5.4	10.2	50	30	30	30	30	30
PCB-53	4.7	-3.2	-4.3	-1.9	-5.4	10.2	50	30	30	30	30	30
PCB-31	1.4	5.2	-1.5	-4.4	-6.2	5.5	50	30	30	30	30	30
PCB-20	-3.9	-4.0	-3.4	-2.2	-2.0	15.6	50	30	30	30	30	30
PCB-20/28	-3.9	-4.0	-3.4	-2.2	-2.0	15.6	50	30	30	30	30	30
PCB-28	-3.9	-4.0	-3.4	-2.2	-2.0	15.6	50	30	30	30	30	30
PCB-45	-1.8	-1.3	-1.9	0.2	-3.5	8.2	50	30	30	30	30	30
PCB-45/51	-1.8	-1.3	-1.9	0.2	-3.5	8.2	50	30	30	30	30	30
PCB-51	-1.8	-1.3	-1.9	0.2	-3.5	8.2	50	30	30	30	30	30
PCB-21	-5.3	-1.0	-0.4	-1.6	-3.8	12.1	50	30	30	30	30	30
PCB-21/33	-5.3	-1.0	-0.4	-1.6	-3.8	12.1	50	30	30	30	30	30
PCB-33	-5.3	-1.0	-0.4	-1.6	-3.8	12.1	50	30	30	30	30	30
PCB-46	14.6	-4.1	-1.3	-1.5	-6.8	-0.9	50	30	30	30	30	30
PCB-22	1.0	3.9	-5.5	-2.5	-4.4	7.4	50	30	30	30	30	30
PCB-52	-8.0	-1.3	-1.6	2.8	-4.3	3.7	50	30	30	30	30	30
PCB-43	4.1	0.2	-3.0	-0.6	-6.3	5.5	50	30	30	30	30	30
PCB-43/73	4.1	0.2	-3.0	-0.6	-6.3	5.5	50	30	30	30	30	30
PCB-73	4.1	0.2	-3.0	-0.6	-6.3	5.5	50	30	30	30	30	30
PCB-36	-4.3	2.7	0.8	1.9	-6.0	5.0	50	30	30	30	30	30
PCB-49	6.1	-2.3	-3.5	-1.8	-6.7	8.1	50	30	30	30	30	30
PCB-49/69	6.1	-2.3	-3.5	-1.8	-6.7	8.1	50	30	30	30	30	30
PCB-69	6.1	-2.3	-3.5	-1.8	-6.7	8.1	50	30	30	30	30	30
PCB-39	-3.4	-1.8	0.1	-1.1	-3.4	9.5	50	30	30	30	30	30
PCB-48	3.9	3.4	-1.6	-2.4	-6.3	3.1	50	30	30	30	30	30
PCB-104	-0.7	-2.3	-3.8	0.9	0.3	5.6	50	30	30	30	30	30
PCB-44	-2.2	-1.5	-5.3	-3.9	-5.1	18.0	50	30	30	30	30	30
PCB-44/47/65	-2.2	-1.5	-5.3	-3.9	-5.1	18.0	50	30	30	30	30	30
PCB-47	-2.2	-1.5	-5.3	-3.9	-5.1	18.0	50	30	30	30	30	30
PCB-65	-2.2	-1.5	-5.3	-3.9	-5.1	18.0	50	30	30	30	30	30
PCB-38	-3.2	-0.8	-4.3	-2.5	-3.0	13.8	50	30	30	30	30	30
PCB-96	1.4	-7.2	-1.8	-0.7	-0.2	8.6	50	30	30	30	30	30
PCB-59	1.4	-3.6	-7.6	-5.0	-4.6	19.4	50	30	30	30	30	30
PCB-59/62/75	1.4	-3.6	-7.6	-5.0	-4.6	19.4	50	30	30	30	30	30
PCB-62	1.4	-3.6	-7.6	-5.0	-4.6	19.4	50	30	30	30	30	30
PCB-75	1.4	-3.6	-7.6	-5.0	-4.6	19.4	50	30	30	30	30	30
PCB-42	0.2	1.5	1.3	0.4	-6.1	2.8	50	30	30	30	30	30
PCB-35	5.0	-4.7	-2.7	-1.1	-2.3	5.7	50	30	30	30	30	30
PCB-40	7.4	-1.7	-3.8	-3.8	-5.5	7.4	50	30	30	30	30	30
PCB-40/41/71	7.4	-1.7	-3.8	-3.8	-5.5	7.4	50	30	30	30	30	30
PCB-41	7.4	-1.7	-3.8	-3.8	-5.5	7.4	50	30	30	30	30	30
PCB-71	7.4	-1.7	-3.8	-3.8	-5.5	7.4	50	30	30	30	30	30
PCB-37	8.8	-2.0	-3.5	-1.9	-6.1	4.7	50	30	30	30	30	30
PCB-64	-9.3	6.6	-4.0	-4.2	-8.3	1.5	50	30	30	30	30	30

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130  
SDG No.: \_\_\_\_\_  
Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N  
Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
PCB-72	1.2	-2.8	-0.6	0.8	-4.4	5.8	50	30	30	30	30	30
PCB-103	-0.1	0.1	-1.1	-0.4	-1.3	2.7	50	30	30	30	30	30
PCB-68	-6.5	-0.4	1.6	1.3	-3.5	7.6	50	30	30	30	30	30
PCB-94	-12.9	6.3	1.0	-4.5	-5.4	-2.1	50	30	30	30	30	30
PCB-57	-5.2	3.1	-2.0	0.7	-3.5	6.9	50	30	30	30	30	30
PCB-95	-12.1	-12.7	-2.4	0.8	1.4	3.3	50	30	30	30	30	30
PCB-58	-14.4	-8.1	-0.8	2.8	-2.3	11.9	50	30	30	30	30	30
PCB-100	1.2	-1.1	-4.4	-2.1	-2.3	8.7	50	30	30	30	30	30
PCB-93	1.2	-1.1	-4.4	-2.1	-2.3	8.7	50	30	30	30	30	30
PCB-93/100	1.2	-1.1	-4.4	-2.1	-2.3	8.7	50	30	30	30	30	30
PCB-67	4.5	-1.1	-4.2	-3.3	-5.1	9.3	50	30	30	30	30	30
PCB-102	-0.1	-11.0	1.0	-0.7	-1.8	2.8	50	30	30	30	30	30
PCB-98	-0.1	-11.0	1.0	-0.7	-1.8	2.8	50	30	30	30	30	30
PCB-98/102	-0.1	-11.0	1.0	-0.7	-1.8	2.8	50	30	30	30	30	30
PCB-63	0.8	4.6	-0.3	-2.1	-6.8	3.7	50	30	30	30	30	30
PCB-88	4.4	-6.9	-1.6	-1.9	-0.8	6.8	50	30	30	30	30	30
PCB-88/91	4.4	-6.9	-1.6	-1.9	-0.8	6.8	50	30	30	30	30	30
PCB-91	4.4	-6.9	-1.6	-1.9	-0.8	6.8	50	30	30	30	30	30
PCB-61	-2.0	-3.1	-4.1	-3.8	-3.8	16.8	50	30	30	30	30	30
PCB-61/70/74/76	-2.0	-3.1	-4.1	-3.8	-3.8	16.8	50	30	30	30	30	30
PCB-70	-2.0	-3.1	-4.1	-3.8	-3.8	16.8	50	30	30	30	30	30
PCB-74	-2.0	-3.1	-4.1	-3.8	-3.8	16.8	50	30	30	30	30	30
PCB-76	-2.0	-3.1	-4.1	-3.8	-3.8	16.8	50	30	30	30	30	30
PCB-84	-0.6	8.0	-1.9	-2.5	-2.8	-0.1	50	30	30	30	30	30
PCB-66	-1.8	-9.8	-1.8	0.4	-3.4	8.6	50	30	30	30	30	30
PCB-55	9.5	-6.6	-2.1	-2.0	-6.0	7.1	50	30	30	30	30	30
PCB-89	2.0	-12.7	-0.2	-3.7	-4.0	-2.2	50	30	30	30	30	30
PCB-56	13.0	-5.5	-3.8	-2.0	-6.5	4.8	50	30	30	30	30	30
PCB-121	-10.9	1.6	-0.5	-1.0	-1.5	4.8	50	30	30	30	30	30
PCB-60	0.5	10.9	-6.5	-2.4	-6.5	4.0	50	30	30	30	30	30
PCB-92	1.0	6.0	-3.2	-1.2	-2.4	-0.2	50	30	30	30	30	30
PCB-80	4.7	0.1	-3.9	-2.5	-5.2	6.9	50	30	30	30	30	30
PCB-155	-5.9	2.2	0.1	0.9	0.0	2.6	50	30	30	30	30	30
PCB-152	-0.5	-9.6	-0.7	-3.9	-2.1	6.5	50	30	30	30	30	30
PCB-101	-0.7	-11.4	-5.5	-1.3	-1.9	11.5	50	30	30	30	30	30
PCB-113	-0.7	-11.4	-5.5	-1.3	-1.9	11.5	50	30	30	30	30	30
PCB-90	-0.7	-11.4	-5.5	-1.3	-1.9	11.5	50	30	30	30	30	30
PCB-90/101/113	-0.7	-11.4	-5.5	-1.3	-1.9	11.5	50	30	30	30	30	30
PCB-150	-5.0	-0.5	1.3	0.0	0.0	4.1	50	30	30	30	30	30
PCB-136	4.7	-1.1	-6.2	-2.3	-0.4	5.4	50	30	30	30	30	30
PCB-83	-0.6	-12.8	0.0	2.1	-1.4	3.1	50	30	30	30	30	30
PCB-83/99	-0.6	-12.8	0.0	2.1	-1.4	3.1	50	30	30	30	30	30
PCB-99	-0.6	-12.8	0.0	2.1	-1.4	3.1	50	30	30	30	30	30

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130  
SDG No.: \_\_\_\_\_  
Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N  
Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
PCB-112	2.4	-2.7	-1.7	-4.3	-3.8	1.9	50	30	30	30	30	30
PCB-145	2.9	-5.0	-0.5	-1.0	-0.7	4.3	50	30	30	30	30	30
PCB-109	-3.0	-3.1	-6.8	-4.4	-0.4	17.6	50	30	30	30	30	30
PCB-119	-3.0	-3.1	-6.8	-4.4	-0.4	17.6	50	30	30	30	30	30
PCB-125	-3.0	-3.1	-6.8	-4.4	-0.4	17.6	50	30	30	30	30	30
PCB-86	-3.0	-3.1	-6.8	-4.4	-0.4	17.6	50	30	30	30	30	30
PCB-86/87/97/109/119/125	-3.0	-3.1	-6.8	-4.4	-0.4	17.6	50	30	30	30	30	30
PCB-87	-3.0	-3.1	-6.8	-4.4	-0.4	17.6	50	30	30	30	30	30
PCB-97	-3.0	-3.1	-6.8	-4.4	-0.4	17.6	50	30	30	30	30	30
PCB-79	0.5	6.3	-6.1	-4.4	-6.1	9.8	50	30	30	30	30	30
PCB-78	13.8	3.0	-2.3	-5.2	-8.9	-0.4	50	30	30	30	30	30
PCB-116	1.6	-1.0	-4.7	-1.8	-2.2	8.2	50	30	30	30	30	30
PCB-117	1.6	-1.0	-4.7	-1.8	-2.2	8.2	50	30	30	30	30	30
PCB-85	1.6	-1.0	-4.7	-1.8	-2.2	8.2	50	30	30	30	30	30
PCB-85/116/117	1.6	-1.0	-4.7	-1.8	-2.2	8.2	50	30	30	30	30	30
PCB-110	0.8	3.0	-2.3	-3.0	-3.2	4.7	50	30	30	30	30	30
PCB-110/115	0.8	3.0	-2.3	-3.0	-3.2	4.7	50	30	30	30	30	30
PCB-115	0.8	3.0	-2.3	-3.0	-3.2	4.7	50	30	30	30	30	30
PCB-81	3.7	1.5	-1.7	-0.4	-4.3	1.3	50	30	30	30	30	30
PCB-82	0.5	2.0	-1.6	-0.8	-2.0	1.9	50	30	30	30	30	30
PCB-148	0.6	-4.6	-0.9	-1.1	0.2	5.8	50	30	30	30	30	30
PCB-77	7.9	2.9	-4.3	-2.4	-8.8	4.8	50	30	30	30	30	30
PCB-111	-4.4	10.3	-4.0	-2.3	-1.6	2.1	50	30	30	30	30	30
PCB-135	0.4	-3.1	-2.7	-0.2	-0.2	5.7	50	30	30	30	30	30
PCB-135/151	0.4	-3.1	-2.7	-0.2	-0.2	5.7	50	30	30	30	30	30
PCB-151	0.4	-3.1	-2.7	-0.2	-0.2	5.7	50	30	30	30	30	30
PCB-120	3.6	-0.5	-4.1	-1.4	-3.0	5.4	50	30	30	30	30	30
PCB-154	-8.8	-6.9	-1.6	0.8	0.6	5.6	50	30	30	30	30	30
PCB-144	5.1	-11.4	-2.9	-1.7	-2.0	1.6	50	30	30	30	30	30
PCB-147	7.9	-5.6	-5.7	-2.9	-2.9	9.1	50	30	30	30	30	30
PCB-147/149	7.9	-5.6	-5.7	-2.9	-2.9	9.1	50	30	30	30	30	30
PCB-149	7.9	-5.6	-5.7	-2.9	-2.9	9.1	50	30	30	30	30	30
PCB-134	3.7	0.6	0.5	-0.6	-4.2	-0.1	50	30	30	30	30	30
PCB-134/143	3.7	0.6	0.5	-0.6	-4.2	-0.1	50	30	30	30	30	30
PCB-143	3.7	0.6	0.5	-0.6	-4.2	-0.1	50	30	30	30	30	30
PCB-108	-3.1	-0.6	-2.9	-2.5	-3.5	12.7	50	30	30	30	30	30
PCB-108/124	-3.1	-0.6	-2.9	-2.5	-3.5	12.7	50	30	30	30	30	30
PCB-124	-3.1	-0.6	-2.9	-2.5	-3.5	12.7	50	30	30	30	30	30
PCB-139	-0.8	-1.0	-4.0	-1.3	-1.9	8.9	50	30	30	30	30	30
PCB-139/140	-0.8	-1.0	-4.0	-1.3	-1.9	8.9	50	30	30	30	30	30
PCB-140	-0.8	-1.0	-4.0	-1.3	-1.9	8.9	50	30	30	30	30	30
PCB-107	6.5	-16.3	1.8	1.0	-4.2	2.9	50	30	30	30	30	30
PCB-131	+++++	-1.6	-3.5	-1.0	0.3	5.8		50	30	30	30	30

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130  
SDG No.: \_\_\_\_\_  
Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N  
Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
PCB-123	1.2	6.8	-11.0	-1.2	-1.8	5.9	50	30	30	30	30	30
PCB-106	2.1	-2.9	-0.9	-1.5	-3.3	6.5	50	30	30	30	30	30
PCB-142	-5.4	-4.3	0.3	2.1	-0.1	7.4	50	30	30	30	30	30
PCB-118	1.1	4.7	-3.3	-1.1	-4.4	3.2	50	30	30	30	30	30
PCB-132	10.3	-2.7	0.4	-2.2	-4.2	-1.6	50	30	30	30	30	30
PCB-122	-0.1	7.6	-6.7	2.2	-4.1	1.1	50	30	30	30	30	30
PCB-114	-2.1	2.1	-2.4	0.6	-2.6	4.5	50	30	30	30	30	30
PCB-188	-1.7	3.1	0.5	-0.8	-2.9	1.9	50	30	30	30	30	30
PCB-133	-9.7	-1.2	1.4	-1.4	1.7	-0.2	50	30	30	30	30	30
PCB-179	10.3	-0.6	-3.0	-2.6	-4.3	0.1	50	30	30	30	30	30
PCB-165	-6.9	6.4	-0.3	0.5	-1.6	2.0	50	30	30	30	30	30
PCB-105	8.3	-0.6	-4.9	-1.4	-4.4	3.0	50	30	30	30	30	30
PCB-146	-1.5	-6.5	-1.7	-1.8	-0.9	4.3	50	30	30	30	30	30
PCB-184	-6.1	-0.1	-1.7	1.1	-0.4	7.2	50	30	30	30	30	30
PCB-161	-6.1	3.2	-2.8	1.7	-1.6	5.6	50	30	30	30	30	30
PCB-176	10.8	-6.6	-2.3	0.8	-3.9	1.2	50	30	30	30	30	30
PCB-153	-3.9	-6.6	2.1	0.6	-0.6	8.4	50	30	30	30	30	30
PCB-153/168	-3.9	-6.6	2.1	0.6	-0.6	8.4	50	30	30	30	30	30
PCB-168	-3.9	-6.6	2.1	0.6	-0.6	8.4	50	30	30	30	30	30
PCB-141	-7.8	4.5	-3.3	-2.8	-3.2	-2.7	50	30	30	30	30	30
PCB-186	2.2	-5.5	-2.9	2.4	-1.2	5.0	50	30	30	30	30	30
PCB-130	2.9	3.7	-1.0	-1.0	-2.7	-2.0	50	30	30	30	30	30
PCB-127	-2.5	3.9	-4.9	2.8	-2.6	3.2	50	30	30	30	30	30
PCB-137	-3.5	-12.8	2.5	4.5	-3.2	2.5	50	30	30	30	30	30
PCB-164	-13.8	-13.5	-3.5	-0.5	0.4	3.6	50	30	30	30	30	30
PCB-129	-1.7	-2.0	-2.7	-1.8	-2.1	10.3	50	30	30	30	30	30
PCB-129/138/160/163	-1.7	-2.0	-2.7	-1.8	-2.1	10.3	50	30	30	30	30	30
PCB-138	-1.7	-2.0	-2.7	-1.8	-2.1	10.3	50	30	30	30	30	30
PCB-160	-1.7	-2.0	-2.7	-1.8	-2.1	10.3	50	30	30	30	30	30
PCB-163	-1.7	-2.0	-2.7	-1.8	-2.1	10.3	50	30	30	30	30	30
PCB-158	3.8	2.4	-2.7	-0.2	-3.5	0.2	50	30	30	30	30	30
PCB-178	-4.8	1.2	0.0	1.6	-0.3	2.4	50	30	30	30	30	30
PCB-175	9.4	-12.1	-6.2	0.5	-2.2	1.5	50	30	30	30	30	30
PCB-126	-9.3	-0.3	-1.6	5.0	0.7	5.5	50	30	30	30	30	30
PCB-128	-3.6	-13.1	-4.9	1.7	0.9	11.5	50	30	30	30	30	30
PCB-128/166	-3.6	-13.1	-4.9	1.7	0.9	11.5	50	30	30	30	30	30
PCB-166	-3.6	-13.1	-4.9	1.7	0.9	11.5	50	30	30	30	30	30
PCB-187	-13.1	1.8	-2.4	2.2	-0.5	4.0	50	30	30	30	30	30
PCB-182	-10.3	-4.0	3.2	6.6	1.1	3.5	50	30	30	30	30	30
PCB-183	10.2	8.6	-6.6	-3.1	-6.5	-2.5	50	30	30	30	30	30
PCB-183/185	10.2	8.6	-6.6	-3.1	-6.5	-2.5	50	30	30	30	30	30
PCB-185	10.2	8.6	-6.6	-3.1	-6.5	-2.5	50	30	30	30	30	30
PCB-174	5.5	-18.6	-2.5	3.6	-0.8	5.8	50	30	30	30	30	30

FORM VI  
HI-RES PCBS BY ISOTOPIC DILUTION - INITIAL CALIBRATION DATA  
READBACK PERCENT ERROR

Lab Name: Eurofins Knoxville Job No.: 140-37234-1 Analy Batch No.: 87130  
SDG No.: \_\_\_\_\_  
Instrument ID: D2D GC Column: SPB-Octyl ID: 0.25 (mm) Heated Purge: (Y/N) N  
Calibration Start Date: 05/31/2024 14:36 Calibration End Date: 05/31/2024 21:13 Calibration ID: 5117

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
PCB-159	-4.9	1.5	0.7	-1.0	-2.5	6.1	50	30	30	30	30	30
PCB-162	-0.7	4.0	2.2	-1.3	-3.3	-0.9	50	30	30	30	30	30
PCB-177	-14.5	0.6	-1.6	0.3	-2.5	0.1	50	30	30	30	30	30
PCB-202	-11.7	-3.4	0.3	7.8	2.4	4.6	50	30	30	30	30	30
PCB-167	0.8	-2.4	2.2	-0.8	-2.9	3.1	50	30	30	30	30	30
PCB-181	-9.2	7.7	-7.2	-1.3	-3.0	2.3	50	30	30	30	30	30
PCB-171	9.0	1.6	-9.5	-4.2	-6.2	0.7	50	30	30	30	30	30
PCB-171/173	9.0	1.6	-9.5	-4.2	-6.2	0.7	50	30	30	30	30	30
PCB-173	9.0	1.6	-9.5	-4.2	-6.2	0.7	50	30	30	30	30	30
PCB-201	-4.9	-5.1	-2.4	4.3	-0.1	1.3	50	30	30	30	30	30
PCB-156	-7.1	2.7	-0.2	0.3	-1.4	5.6	50	30	30	30	30	30
PCB-156/157	-7.1	2.7	-0.2	0.3	-1.4	5.6	50	30	30	30	30	30
PCB-157	-7.1	2.7	-0.2	0.3	-1.4	5.6	50	30	30	30	30	30
PCB-204	1.6	-6.8	-2.7	2.8	-1.7	0.0	50	30	30	30	30	30
PCB-197	-0.8	-5.9	-4.6	2.5	-5.1	-1.5	50	30	30	30	30	30
PCB-200	-8.4	-16.3	3.3	2.8	-1.5	0.6	50	30	30	30	30	30
PCB-172	4.5	2.0	-3.8	2.6	-2.9	-2.4	50	30	30	30	30	30
PCB-192	-7.4	2.8	-1.3	4.0	-1.2	3.1	50	30	30	30	30	30
PCB-180	-3.5	2.8	-2.6	1.7	-2.3	3.9	50	30	30	30	30	30
PCB-180/193	-3.5	2.8	-2.6	1.7	-2.3	3.9	50	30	30	30	30	30
PCB-193	-3.5	2.8	-2.6	1.7	-2.3	3.9	50	30	30	30	30	30
PCB-191	-8.0	4.2	-1.9	3.7	-0.8	2.8	50	30	30	30	30	30
PCB-170	-8.9	2.0	-1.3	1.5	-4.7	-0.2	50	30	30	30	30	30
PCB-190	1.4	3.1	-0.6	0.1	-4.3	0.3	50	30	30	30	30	30
PCB-169	2.9	-4.6	-0.7	2.6	-2.5	2.3	50	30	30	30	30	30
PCB-198	1.4	-0.7	-2.8	1.5	-2.5	3.1	50	30	30	30	30	30
PCB-198/199	1.4	-0.7	-2.8	1.5	-2.5	3.1	50	30	30	30	30	30
PCB-199	1.4	-0.7	-2.8	1.5	-2.5	3.1	50	30	30	30	30	30
PCB-196	-0.8	3.6	0.2	2.0	-2.9	-2.0	50	30	30	30	30	30
PCB-203	1.8	-4.8	-0.3	3.7	-0.5	0.2	50	30	30	30	30	30
PCB-208	-2.5	3.6	2.4	-0.7	-3.6	0.7	50	30	30	30	30	30
PCB-195	-18.4	6.4	0.2	-0.4	-1.5	5.7	50	30	30	30	30	30
PCB-189	-2.7	-1.8	0.0	1.6	-1.1	4.0	50	30	30	30	30	30
PCB-207	11.7	-0.5	-2.3	-2.6	-5.9	-0.3	50	30	30	30	30	30
PCB-194	6.1	2.6	-3.8	-2.2	-3.8	1.0	50	30	30	30	30	30
PCB-205	0.4	2.3	-2.1	-1.2	-2.8	3.5	50	30	30	30	30	30
PCB-206	18.4	3.0	-5.3	-4.5	-7.1	-4.4	50	30	30	30	30	30
PCB-209	-0.3	-0.4	1.6	0.2	-2.4	1.2	50	30	30	30	30	30
PCB-8L			10.0	-3.0	-7.0				50	30	30	
PCB-95L			3.0	-0.6	-2.4				50	30	30	
PCB-79L			3.5	-0.4	-3.1				50	30	30	
PCB-153L			21.3	-8.3	-13.0				50	30	30	
PCB-159L	-4.5	1.1	-1.0	2.9	1.6	-0.1	50	30	30	30	30	30

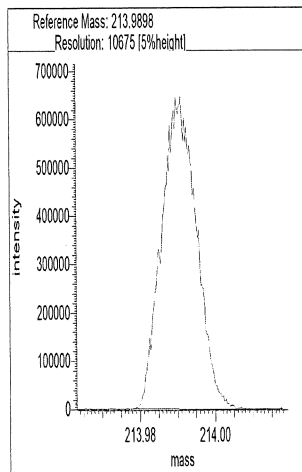
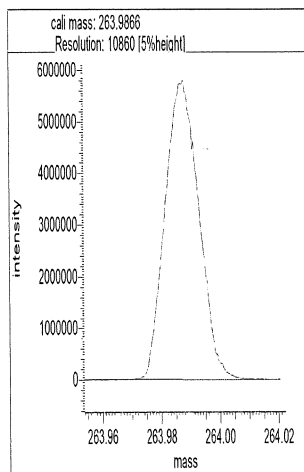
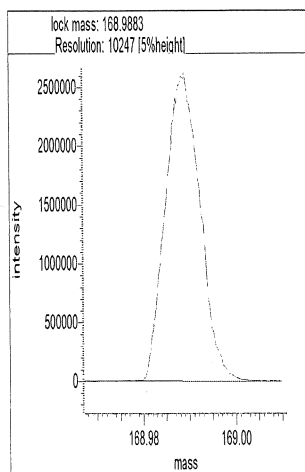
# Resolution Check Report ( DFS SN: 3190 )

Date: 31 May 2024 12:51  
MID Experiment: ResCheck\_1668  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43KnxPCB.lua  
Status: RESOLUTION PASSED

d2240531ir2

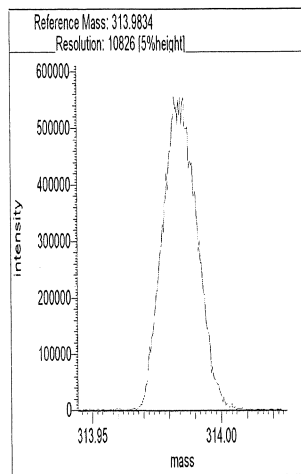
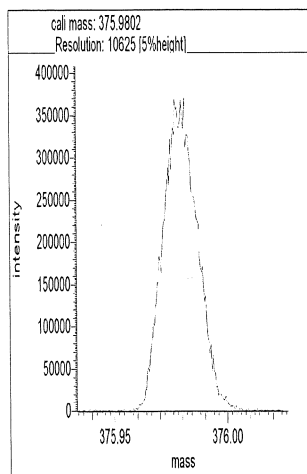
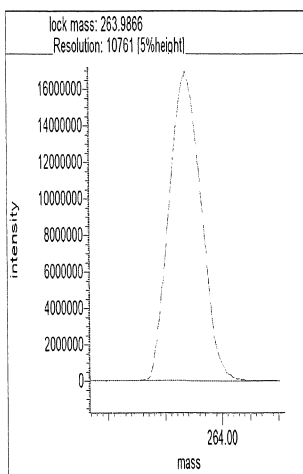
## Segment 1

Lock mass 168.9883 [m/z] Resolution: 10247 [5%height]  
Cali. mass 263.9866 [m/z] Resolution: 10860 [5%height]  
Ref. mass 213.9898 [m/z] Resolution: 10675 [5%height]



## Segment 2

Lock mass 263.9866 [m/z] Resolution: 10761 [5%height]  
Cali. mass 375.9802 [m/z] Resolution: 10625 [5%height]  
Ref. mass 313.9834 [m/z] Resolution: 10826 [5%height]

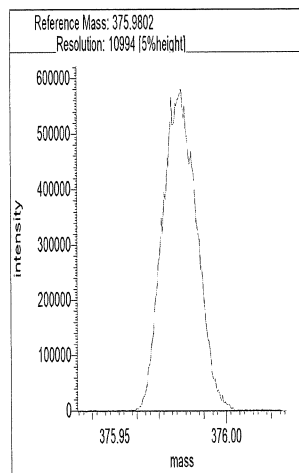
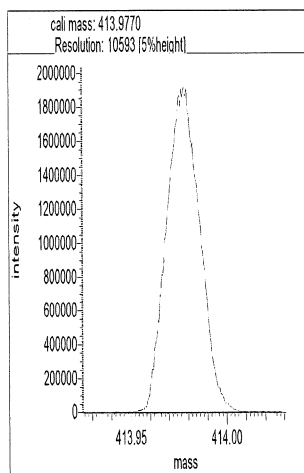
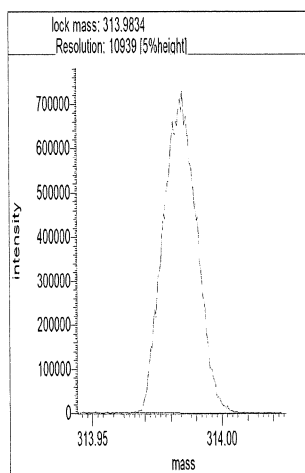


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 10939 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 10593 [5%height]

Ref. mass 375.9802 [m/z] Resolution: 10994 [5%height]



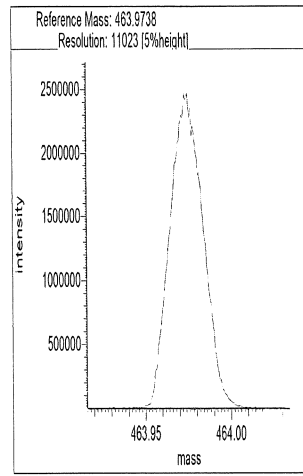
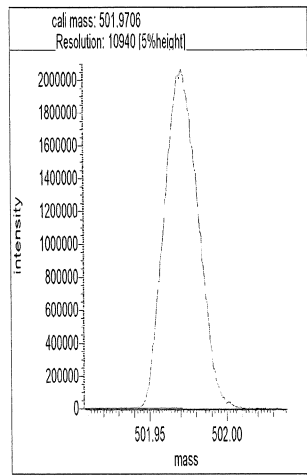
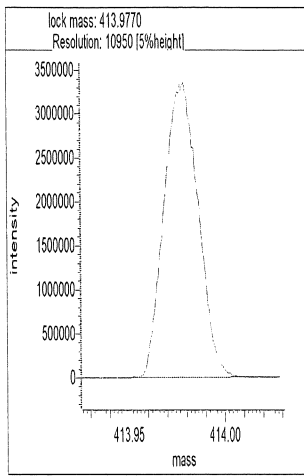
### Segment 4

Lock mass 413.9770 [m/z] Resolution: 10950 [5%height]

Cali. mass 501.9706 [m/z] Resolution: 10940 [5%height]

Ref. mass 463.9738 [m/z] Resolution: 11023 [5%height]





## Reports

13:00:30: Peak matching procedure started  
13:00:31:  
13:00:31: Reference mass: 168.98827  
13:00:32: Sample mass: 214.0  
13:00:32:  
13:00:33: Finding reference mass  
13:00:34: Finding sample mass  
13:00:34:  
13:00:40: [1] 213.9900 amu, mean: 213.9900  
13:00:43: [2] 213.9900 amu, mean: 213.9900 SD: 0.01 mmu or: 0.03 ppm  
13:00:47: [3] 213.9898 amu, mean: 213.9900 SD: 0.14 mmu or: 0.63 ppm  
13:00:50: [4] 213.9899 amu, mean: 213.9899 SD: 0.12 mmu or: 0.57 ppm  
13:00:50:  
13:00:50: Stop requested. Please wait for procedure to finish.  
13:00:50:  
13:00:53:  
13:00:53: Peakmatching stopped

Signature

BKK 5/31/24

## Reports

13:01:15: Peak matching procedure started  
13:01:16:  
13:01:16: Reference mass: 213.98975  
13:01:17: Sample mass: 264.0  
13:01:17:  
13:01:18: Finding reference mass  
13:01:19: Finding sample mass  
13:01:19:  
13:01:25: [1] 263.9865 amu, mean: 263.9865  
13:01:28: [2] 263.9863 amu, mean: 263.9864 SD: 0.16 mmu or: 0.60 ppm  
13:01:31: [3] 263.9862 amu, mean: 263.9863 SD: 0.17 mmu or: 0.63 ppm  
13:01:34: [4] 263.9871 amu, mean: 263.9865 SD: 0.39 mmu or: 1.46 ppm  
13:01:35:  
13:01:35: Stop requested. Please wait for procedure to finish.  
13:01:35:  
13:01:38:  
13:01:38: Peakmatching stopped

Signature

BK 5/31/24

## Reports

13:01:52: Peak matching procedure started  
13:01:52:  
13:01:53: Reference mass: 263.98656  
13:01:53: Sample mass: 314.0  
13:01:54:  
13:01:54: Finding reference mass  
13:01:55: Finding sample mass  
13:01:56:  
13:02:02: [1] 313.9842 amu, mean: 313.9842  
13:02:05: [2] 313.9836 amu, mean: 313.9839 SD: 0.43 mmu or: 1.38 ppm  
13:02:08: [3] 313.9844 amu, mean: 313.9841 SD: 0.42 mmu or: 1.35 ppm  
13:02:11: [4] 313.9843 amu, mean: 313.9841 SD: 0.36 mmu or: 1.16 ppm  
13:02:12:  
13:02:12: Stop requested. Please wait for procedure to finish.  
13:02:12:  
13:02:14:  
13:02:15: Peakmatching stopped

Signature

BKC 5/31/24

## Reports

13:02:51: Peak matching procedure started  
13:02:52:  
13:02:52: Reference mass: 313.98336  
13:02:53: Sample mass: 376.0  
13:02:53:  
13:02:54: Finding reference mass  
13:02:55: Finding sample mass  
13:02:56:  
13:03:01: [1] 375.9809 amu, mean: 375.9809  
13:03:04: [2] 375.9805 amu, mean: 375.9807 SD: 0.34 mmu or: 0.90 ppm  
13:03:08: [3] 375.9810 amu, mean: 375.9808 SD: 0.30 mmu or: 0.81 ppm  
13:03:11: [4] 375.9806 amu, mean: 375.9808 SD: 0.27 mmu or: 0.72 ppm  
13:03:11:  
13:03:11: Stop requested. Please wait for procedure to finish.  
13:03:11:  
13:03:14:  
13:03:14: Peakmatching stopped

Signature

BKV 5/31/24

## Reports

13:02:51: Peak matching procedure started  
13:02:52:  
13:02:52: Reference mass: 313.98336  
13:02:53: Sample mass: 376.0  
13:02:53:  
13:02:54: Finding reference mass  
13:02:55: Finding sample mass  
13:02:56:  
13:03:01: [1] 375.9809 amu, mean: 375.9809  
13:03:04: [2] 375.9805 amu, mean: 375.9807 SD: 0.34 mmu or: 0.90 ppm  
13:03:08: [3] 375.9810 amu, mean: 375.9808 SD: 0.30 mmu or: 0.81 ppm  
13:03:11: [4] 375.9806 amu, mean: 375.9808 SD: 0.27 mmu or: 0.72 ppm  
13:03:11:  
13:03:11: Stop requested. Please wait for procedure to finish.  
13:03:11:  
13:03:14:  
13:03:14: Peakmatching stopped

Signature

BLK 5/31/24

## Reports

13:03:30: Peak matching procedure started  
13:03:31:  
13:03:31: Reference mass: 375.98017  
13:03:32: Sample mass: 414.0  
13:03:32:  
13:03:33: Finding reference mass  
13:03:34: Finding sample mass  
13:03:34:  
13:03:40: [1] 413.9781 amu, mean: 413.9781  
13:03:43: [2] 413.9781 amu, mean: 413.9781 SD: 0.01 mmu or: 0.02 ppm  
13:03:46: [3] 413.9783 amu, mean: 413.9782 SD: 0.16 mmu or: 0.38 ppm  
13:03:50: [4] 413.9777 amu, mean: 413.9780 SD: 0.28 mmu or: 0.67 ppm  
13:03:50:  
13:03:50: Stop requested. Please wait for procedure to finish.  
13:03:50:  
13:03:53:  
13:03:53: Peakmatching stopped

Signature

BKK 5/31/24

## Reports

13:04:12: Peak matching procedure started  
13:04:12:  
13:04:13: Reference mass: 413.97698  
13:04:13: Sample mass: 464.0  
13:04:14:  
13:04:14: Finding reference mass  
13:04:15: Finding sample mass  
13:04:16:  
13:04:21: [1] 463.9745 amu, mean: 463.9745  
13:04:25: [2] 463.9741 amu, mean: 463.9743 SD: 0.31 mmu or: 0.67 ppm  
13:04:28: [3] 463.9747 amu, mean: 463.9744 SD: 0.33 mmu or: 0.71 ppm  
13:04:31: [4] 463.9752 amu, mean: 463.9746 SD: 0.47 mmu or: 1.02 ppm  
13:04:32:  
13:04:32: Stop requested. Please wait for procedure to finish.  
13:04:32:  
13:04:34:  
13:04:35: Peakmatching stopped

Signature

BVK 5/31/24



## Reports

13:04:47: Peak matching procedure started  
13:04:48:  
13:04:48: Reference mass: 463.97378  
13:04:49: Sample mass: 502.0  
13:04:49:  
13:04:50: Finding reference mass  
13:04:51: Finding sample mass  
13:04:51:  
13:04:57: [1] 501.9705 amu, mean: 501.9705  
13:05:00: [2] 501.9716 amu, mean: 501.9710 SD: 0.80 mmu or: 1.60 ppm  
13:05:04: [3] 501.9720 amu, mean: 501.9714 SD: 0.80 mmu or: 1.59 ppm  
13:05:07: [4] 501.9704 amu, mean: 501.9711 SD: 0.80 mmu or: 1.59 ppm  
13:05:07:  
13:05:07: Stop requested. Please wait for procedure to finish.  
13:05:07:  
13:05:10:  
13:05:10: Peakmatching stopped

Signature

BKK 5/31/24

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Lims ID: IC L1  
Client ID:  
Sample Type: IC Calib Level: 1  
Inject. Date: 31-May-2024 14:36:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0032883-001  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Sublist: chrom-PCBs\_D2D\*sub16  
Method: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 04-Jun-2024 14:26:08 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: P0IK

Date: 31-May-2024 16:04:19

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total Monochlorobiphenyls					1.480	1.480	0.008877	0.008877		
D PCB-1L	11:38	14676977	3.18	1.6108	102.8	102.8	0.3184	0.3184	103	
D PCB-3L	13:47	14134368	3.26	1.5891	100.4	100.4	0.3228	0.3228	100	
PCB-1	11:39	87624	3.17	1.2191	0.4897	0.4897	0.007895	0.007895	97.94	
PCB-2	13:38	82442	3.08	1.1805	0.4848	0.4848	0.009006	0.009006	96.96	
PCB-3	13:48	87263	2.88	1.2206	0.5058	0.5058	0.009729	0.009729	101	
S Total Dichlorobiphenyls					6.017	6.017	0.0100	0.0100		
D PCB-4L	14:02	5904521	1.60	0.6475	102.9	102.9	0.1150	0.1150	103	
* PCB-9L	16:01	8859875	1.65		100.0	100.0				
D PCB-15L	19:55	9483770	1.65	1.0789	99.2	99.2	0.0690	0.0690	99.21	
PCB-4	14:04	36374	1.65	1.2818	0.4806	0.4806	0.0118	0.0118	96.12	
PCB-10	14:14	48502	1.60	1.3149	0.4794	0.4794	0.0104	0.0104	95.89	
PCB-9	16:02	51501	1.40	1.4224	0.4706	0.4706	0.009649	0.009649	94.11	
PCB-7	16:11	58157	1.66	1.4134	0.5348	0.5348	0.009711	0.009711	107	
PCB-6	16:26	62834	1.78	1.5421	0.5296	0.5296	0.008901	0.008901	106	
PCB-5	16:44	51519	1.59	1.3395	0.4999	0.4999	0.0102	0.0102	99.98	
PCB-8	16:52	61977	1.54	1.5889	0.5070	0.5070	0.008639	0.008639	101	
PCB-14	18:29	55107	1.60	1.4025	0.5107	0.5107	0.009787	0.009787	102	
PCB-11	19:20	53494	1.78	1.2951	0.5368	0.5368	0.0106	0.0106	107	
PCB-12	19:38	97175	1.76	1.3358	0.9455	0.9455	0.0103	0.0103	94.55	
PCB-13 (C12)	19:38	97175	1.76	1.3358	0.9455	0.9455	0.0103	0.0103	94.55	
PCB-15	19:57	63884	1.72	1.2903	0.5221	0.5221	0.009752	0.009752	104	
S Total Trichlorobiphenyls					11.9	11.8	0.0219	0.0219		RQ
D PCB-19L	17:09	3711790	1.05	0.6285	99.1	99.1	0.6332	0.6332	99.13	
* PCB-32L	20:24	5957210	1.09		100.0	100.0				
* PCB-31L	22:40	16769231	1.05		100.0	100.0				
D PCB-37L	26:57	14507892	1.05	0.8749	98.9	98.9	0.1278	0.1278	98.88	
PCB-19	17:10	27248	1.04	1.2809	0.5731	0.5731	0.007420	0.007420	115	
PCB-18	19:01	63024	1.20	1.7652	0.9619	0.9619	0.005384	0.005384	96.19	
PCB-30 (C18)	19:01	63024	1.20	1.7652	0.9619	0.9619	0.005384	0.005384	96.19	
PCB-17	19:27	23167	1.01	1.2430	0.5021	0.5021	0.007646	0.007646	100	
PCB-27	19:40	27414	1.04	1.8327	0.4459	0.4030	0.005186	0.005186	89.18	RQ
PCB-24	19:47	28349	1.04	1.6777	0.4961	0.4553	0.005665	0.005665	99.22	RQ

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-16	19:54	20922	1.12	1.1286	0.4994	0.4994	0.008422	0.008422	99.89	
PCB-32	20:25	34215	0.98	1.8324	0.5030	0.5030	0.005187	0.005187	101	
PCB-34	21:41	81792	1.05	1.1277	0.4999	0.4999	0.0305	0.0305	99.98	
PCB-23	21:50	72448	1.04	1.0813	0.5015	0.4618	0.0318	0.0318	100	RQM
PCB-26	22:10	157772	1.05	1.1255	0.9663	0.9663	0.0305	0.0305	96.63	
PCB-29 (C26)	22:10	157772	1.05	1.1255	0.9663	0.9663	0.0305	0.0305	96.63	
PCB-25	22:23	97778	1.07	1.2728	0.5295	0.5295	0.0270	0.0270	106	
PCB-31	22:41	84854	0.99	1.1532	0.5072	0.5072	0.0298	0.0298	101	
PCB-20	23:00	163294	1.11	1.1718	0.9605	0.9605	0.0293	0.0293	96.05	
PCB-28 (C20)	23:00	163294	1.11	1.1718	0.9605	0.9605	0.0293	0.0293	96.05	
PCB-21	23:13	147710	1.00	1.0746	0.9475	0.9475	0.0320	0.0320	94.75	M
PCB-33 (C21)	23:13	147710	1.00	1.0746	0.9475	0.9475	0.0320	0.0320	94.75	M
PCB-22	23:36	87442	1.05	1.1932	0.5051	0.5051	0.0288	0.0288	101	M
PCB-36	25:10	76826	1.02	1.1071	0.4783	0.4783	0.0310	0.0310	95.67	
PCB-39	25:32	81144	0.96	1.1581	0.4829	0.4829	0.0297	0.0297	96.59	
PCB-38	26:07	76168	0.89	1.0843	0.4842	0.4842	0.0317	0.0317	96.84	
PCB-35	26:35	86063	1.10	1.1297	0.5251	0.5251	0.0304	0.0304	105	
PCB-37	26:58	90285	1.03	1.1435	0.5442	0.5442	0.0300	0.0300	109	
S Total Tetrachlorobiphenyls					21.5	21.3	0.0571	0.0571		RQ
D PCB-54L	20:13	3394991	0.79	0.5562	102.5	102.5	0.0371	0.0371	102	
* PCB-52L	24:47	8404949	0.80		100.0	100.0				
D PCB-81L	33:41	10352263	0.82	1.2470	98.8	98.8	0.1396	0.1396	98.78	
D PCB-77L	34:15	11078136	0.81	1.3212	99.8	99.8	0.1318	0.1318	99.76	
PCB-54	20:16	17905	0.67	1.2733	0.4142	0.4142	0.0222	0.0222	82.84	
PCB-50	22:25	96228	0.82	0.8578	1.047	1.047	0.0725	0.0725	105	
PCB-53 (C50)	22:25	96228	0.82	0.8578	1.047	1.047	0.0725	0.0725	105	
PCB-45	23:09	86958	0.74	0.8264	0.9820	0.9820	0.0753	0.0753	98.20	M
PCB-51 (C45)	23:09	86958	0.74	0.8264	0.9820	0.9820	0.0753	0.0753	98.20	M
PCB-46	23:24	43592	0.76	0.7101	0.5729	0.5729	0.0876	0.0876	115	M
PCB-52	24:49	45329	0.77	0.9194	0.5029	0.4601	0.0677	0.0677	101	RQ
PCB-43	24:57	115263	0.78	1.0333	1.041	1.041	0.0602	0.0602	104	M
PCB-73 (C43)	24:57	115263	0.78	1.0333	1.041	1.041	0.0602	0.0602	104	M
PCB-49	25:16	121491	0.76	1.0685	1.061	1.061	0.0582	0.0582	106	
PCB-69 (C49)	25:16	121491	0.76	1.0685	1.061	1.061	0.0582	0.0582	106	
PCB-48	25:35	46735	0.76	0.8399	0.5193	0.5193	0.0741	0.0741	104	
PCB-44	25:50	152988	0.76	0.9731	1.467	1.467	0.0639	0.0639	97.82	
PCB-47 (C44)	25:50	152988	0.76	0.9731	1.467	1.467	0.0639	0.0639	97.82	
PCB-65 (C44)	25:50	152988	0.76	0.9731	1.467	1.467	0.0639	0.0639	97.82	
PCB-59	26:08	193231	0.73	1.1853	1.521	1.521	0.0525	0.0525	101	
PCB-62 (C59)	26:08	193231	0.73	1.1853	1.521	1.521	0.0525	0.0525	101	
PCB-75 (C59)	26:08	193231	0.73	1.1853	1.521	1.521	0.0525	0.0525	101	
PCB-42	26:20	43465	0.87	0.8097	0.5010	0.5010	0.0769	0.0769	100	
PCB-40	26:49	153053	0.82	0.8863	1.612	1.612	0.0702	0.0702	107	M
PCB-41 (C40)	26:49	153053	0.82	0.8863	1.612	1.612	0.0702	0.0702	107	M
PCB-71 (C40)	26:49	153053	0.82	0.8863	1.612	1.612	0.0702	0.0702	107	M
PCB-64	27:03	57196	0.77	1.1776	0.5417	0.4533	0.0528	0.0528	108	RQ
PCB-72	27:52	59320	0.66	1.0943	0.5059	0.5059	0.0569	0.0569	101	
PCB-68	28:10	62752	0.87	1.2533	0.4673	0.4673	0.0497	0.0497	93.46	
PCB-57	28:35	54918	0.70	1.0818	0.4738	0.4738	0.0575	0.0575	94.75	
PCB-58	28:50	60758	0.77	1.3253	0.4830	0.4278	0.0470	0.0470	96.59	RQ
PCB-67	28:59	79670	0.84	1.4230	0.5225	0.5225	0.0437	0.0437	104	
PCB-63	29:15	60720	0.75	1.1240	0.5042	0.5042	0.0554	0.0554	101	
PCB-61	29:35	264950	0.80	1.2612	1.960	1.960	0.0493	0.0493	98.02	
PCB-70 (C61)	29:35	264950	0.80	1.2612	1.960	1.960	0.0493	0.0493	98.02	
PCB-74 (C61)	29:35	264950	0.80	1.2612	1.960	1.960	0.0493	0.0493	98.02	
PCB-76 (C61)	29:35	264950	0.80	1.2612	1.960	1.960	0.0493	0.0493	98.02	
PCB-66	29:56	66199	0.79	1.2583	0.4910	0.4910	0.0495	0.0495	98.20	
PCB-55	30:04	77673	0.73	1.3236	0.5476	0.5476	0.0470	0.0470	110	
PCB-56	30:35	74659	0.77	1.2334	0.5649	0.5649	0.0505	0.0505	113	
PCB-60	30:48	60472	0.74	1.1230	0.5025	0.5025	0.0554	0.0554	101	
PCB-80	31:13	74270	0.87	1.3243	0.5234	0.5234	0.0470	0.0470	105	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-79	32:44	77395	0.67	1.4368	0.5027	0.5027	0.0433	0.0433	101	M
PCB-78	33:18	70824	0.66	1.1618	0.5689	0.5689	0.0536	0.0536	114	M
PCB-81	33:43	57961	0.65	1.0802	0.5183	0.5183	0.0588	0.0588	104	M
PCB-77	34:17	64742	0.68	1.0836	0.5393	0.5393	0.0563	0.0563	108	M
S Total Pentachlorobiphenyls					23.1	22.8	0.0196	0.0196		RQ
D PCB-104L	25:44	6938320	1.60	1.2161	102.3	102.3	0.0156	0.0156	102	
* PCB-101L	31:38	5575663	1.59		100.0	100.0				
D PCB-123L	36:16	10371480	1.57	0.9731	99.5	99.5	1.148	1.148	99.48	
D PCB-118L	36:35	10759990	1.57	1.0102	99.4	99.4	1.105	1.105	99.42	
D PCB-114L	37:07	10504311	1.60	0.9949	98.6	98.6	1.122	1.122	98.55	
D PCB-105L	37:46	10177357	1.59	0.9514	99.8	99.8	1.174	1.174	99.85	
* PCB-127L	39:15	10713438	1.58		100.0	100.0				
D PCB-126L	40:51	9958778	1.60	0.9439	98.5	98.5	1.183	1.183	98.48	
PCB-104	25:45	34754	1.77	1.0087	0.4966	0.4966	0.0112	0.0112	99.32	
PCB-96	26:08	38490	1.57	1.0940	0.5071	0.5071	0.0103	0.0103	101	
PCB-103	28:04	30305	1.75	0.8741	0.4997	0.4997	0.0129	0.0129	99.93	M
PCB-94	28:17	23082	1.55	0.7640	0.5235	0.4354	0.0147	0.0147	105	RQMa
PCB-95	28:44	24505	1.55	0.8033	0.5040	0.4397	0.0140	0.0140	101	RQ
PCB-93	28:57	59164	1.70	0.8429	1.012	1.012	0.0134	0.0134	101	
PCB-100 (C93)	28:57	59164	1.70	0.8429	1.012	1.012	0.0134	0.0134	101	
PCB-98	29:08	57283	1.67	0.8262	0.999	0.999	0.0136	0.0136	99.93	M
PCB-102 (C98)	29:08	57283	1.67	0.8262	0.999	0.999	0.0136	0.0136	99.93	M
PCB-88	29:30	58044	1.45	0.8013	1.044	1.044	0.0141	0.0141	104	M
PCB-91 (C88)	29:30	58044	1.45	0.8013	1.044	1.044	0.0141	0.0141	104	M
PCB-84	29:48	25161	1.48	0.7299	0.4968	0.4968	0.0154	0.0154	99.36	M
PCB-89	30:16	27593	1.55	0.7798	0.5718	0.5100	0.0144	0.0144	114	RQ
PCB-121	30:42	40059	1.55	1.2964	0.4829	0.4454	0.008690	0.008690	96.59	RQM
PCB-92	31:05	29937	1.63	0.8546	0.5049	0.5049	0.0132	0.0132	101	
PCB-90	31:39	98736	1.32	0.9550	1.490	1.490	0.0118	0.0118	99.34	M
PCB-101 (C90)	31:39	98736	1.32	0.9550	1.490	1.490	0.0118	0.0118	99.34	M
PCB-113 (C90)	31:39	98736	1.32	0.9550	1.490	1.490	0.0118	0.0118	99.34	M
PCB-83	32:15	57832	1.50	0.8385	0.994	0.994	0.0134	0.0134	99.41	M
PCB-99 (C83)	32:15	57832	1.50	0.8385	0.994	0.994	0.0134	0.0134	99.41	M
PCB-112	32:21	50114	1.73	1.4111	0.5119	0.5119	0.007984	0.007984	102	M
PCB-86	32:43	211356	1.59	1.0473	2.909	2.909	0.0108	0.0108	96.96	M
PCB-87 (C86)	32:43	211356	1.59	1.0473	2.909	2.909	0.0108	0.0108	96.96	M
PCB-97 (C86)	32:43	211356	1.59	1.0473	2.909	2.909	0.0108	0.0108	96.96	M
PCB-109 (C86)	32:43	211356	1.59	1.0473	2.909	2.909	0.0108	0.0108	96.96	M
PCB-119 (C86)	32:43	211356	1.59	1.0473	2.909	2.909	0.0108	0.0108	96.96	M
PCB-125 (C86)	32:43	211356	1.59	1.0473	2.909	2.909	0.0108	0.0108	96.96	M
PCB-85	33:27	110009	1.53	1.0408	1.523	1.523	0.0108	0.0108	102	
PCB-116 (C85)	33:27	110009	1.53	1.0408	1.523	1.523	0.0108	0.0108	102	
PCB-117 (C85)	33:27	110009	1.53	1.0408	1.523	1.523	0.0108	0.0108	102	
PCB-110	33:42	83392	1.36	1.1919	1.008	1.008	0.009452	0.009452	101	M
PCB-115 (C110)	33:42	83392	1.36	1.1919	1.008	1.008	0.009452	0.009452	101	M
PCB-82	33:57	28943	1.51	0.8303	0.5024	0.5024	0.0136	0.0136	100	
PCB-111	34:21	40194	1.73	1.2125	0.4778	0.4778	0.009291	0.009291	95.55	
PCB-120	34:49	53063	1.50	1.4762	0.5181	0.5181	0.007631	0.007631	104	M
PCB-108	35:56	114382	1.53	1.1405	0.9686	0.9686	0.0349	0.0349	96.86	M
PCB-124 (C108)	35:56	114382	1.53	1.1405	0.9686	0.9686	0.0349	0.0349	96.86	M
PCB-107	36:11	66807	1.70	1.2121	0.5323	0.5323	0.0329	0.0329	106	
PCB-123	36:17	56282	1.68	1.0722	0.5061	0.5061	0.0360	0.0360	101	
PCB-106	36:24	57304	1.76	1.0839	0.5106	0.5106	0.0367	0.0367	102	
PCB-118	36:38	65547	1.45	1.2055	0.5053	0.5053	0.0316	0.0316	101	
PCB-122	36:58	49485	1.43	0.9567	0.4995	0.4995	0.0416	0.0416	99.91	
PCB-114	37:08	55723	1.75	1.0842	0.4893	0.4893	0.0362	0.0362	97.86	
PCB-105	37:48	65478	1.55	1.1879	0.5416	0.5416	0.0346	0.0346	108	
PCB-127	39:16	57517	1.59	1.1394	0.4875	0.4875	0.0350	0.0350	97.51	
PCB-126	40:52	49570	1.50	1.0976	0.4535	0.4535	0.0385	0.0385	90.70	M
S Total Hexachlorobiphenyls					21.0	20.8	0.0233	0.0233		RQ

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D PCB-155L	31:24	6307321	1.26	1.0851	104.2	104.2	0.0371	0.0371	104	
* PCB-138L	39:43	7044213	1.32		100.0	100.0				
\$ PCB-159L	41:57	4449727	1.28	0.5118	95.5	95.5	1.423	1.423	95.48	a
D PCB-167L	42:43	9105316	1.28	1.2572	102.8	102.8	0.7361	0.7361	103	
D PCB-156L	43:52	17145311	1.29	1.2106	201.1	201.1	0.7644	0.7644	101	
D PCB-157L (C156L)	43:52	17145311	1.29	1.2106	201.1	201.1	0.7644	0.7644	101	
D PCB-169L	47:06	9181390	1.25	1.2439	104.8	104.8	0.7440	0.7440	105	
PCB-155	31:25	28040	1.43	0.9444	0.4707	0.4707	0.005467	0.005467	94.15	
PCB-152	31:35	31058	1.33	0.9895	0.4976	0.4976	0.005218	0.005218	99.53	
PCB-150	31:47	30371	1.33	1.0132	0.4752	0.4752	0.005096	0.005096	95.05	
PCB-136	32:08	33387	1.06	1.0116	0.5233	0.5233	0.005104	0.005104	105	
PCB-145	32:27	31426	1.27	0.9685	0.5145	0.5145	0.005331	0.005331	103	
PCB-148	33:58	24113	1.24	0.7603	0.5028	0.5028	0.006791	0.006791	101	
PCB-135	34:34	45950	1.32	0.7256	1.004	1.004	0.007116	0.007116	100	M
PCB-151 (C135)	34:34	45950	1.32	0.7256	1.004	1.004	0.007116	0.007116	100	M
PCB-154	34:47	23372	1.05	0.8129	0.4558	0.4558	0.006351	0.006351	91.17	M
PCB-144	35:08	26036	1.25	0.7852	0.5257	0.5257	0.006575	0.006575	105	M
PCB-147	35:29	85550	1.43	0.8950	1.079	1.079	0.0318	0.0318	108	M
PCB-149 (C147)	35:29	85550	1.43	0.8950	1.079	1.079	0.0318	0.0318	108	M
PCB-134	35:47	73190	1.39	0.7967	1.037	1.037	0.0357	0.0357	104	
PCB-143 (C134)	35:47	73190	1.39	0.7967	1.037	1.037	0.0357	0.0357	104	
PCB-139	36:04	77045	1.28	0.8769	0.992	0.992	0.0324	0.0324	99.19	
PCB-140 (C139)	36:04	77045	1.28	0.8769	0.992	0.992	0.0324	0.0324	99.19	
PCB-131	36:17	42510	1.37	0.7503	0.6396	0.6396	0.0379	0.0379	128	M
PCB-142	36:25	31461	1.24	0.7507	0.4731	0.4731	0.0379	0.0379	94.62	M
PCB-132	36:44	36598	1.38	0.7489	0.5517	0.5517	0.0380	0.0380	110	
PCB-133	37:15	32377	1.21	0.8096	0.4515	0.4515	0.0351	0.0351	90.30	
PCB-165	37:38	42251	1.13	1.0247	0.4655	0.4655	0.0278	0.0278	93.10	
PCB-146	37:53	42036	1.25	0.9637	0.4924	0.4924	0.0295	0.0295	98.49	
PCB-161	38:01	46946	1.09	1.1288	0.4695	0.4695	0.0252	0.0252	93.91	
PCB-153	38:32	93081	1.35	1.0938	0.9607	0.9607	0.0260	0.0260	96.07	
PCB-168 (C153)	38:32	93081	1.35	1.0938	0.9607	0.9607	0.0260	0.0260	96.07	
PCB-141	38:41	35752	1.24	0.8755	0.5372	0.4610	0.0325	0.0325	107	RQ
PCB-130	39:06	32146	1.13	0.7051	0.5147	0.5147	0.0403	0.0403	103	
PCB-137	39:19	33182	1.29	0.7767	0.4823	0.4823	0.0366	0.0366	96.46	
PCB-164	39:26	39657	1.24	1.0382	0.5052	0.4312	0.0274	0.0274	101	RQ
PCB-129	39:45	164754	1.25	0.9464	1.965	1.965	0.0301	0.0301	98.26	M
PCB-138 (C129)	39:45	164754	1.25	0.9464	1.965	1.965	0.0301	0.0301	98.26	M
PCB-160 (C129)	39:45	164754	1.25	0.9464	1.965	1.965	0.0301	0.0301	98.26	M
PCB-163 (C129)	39:45	164754	1.25	0.9464	1.965	1.965	0.0301	0.0301	98.26	M
PCB-158	40:08	60291	1.30	1.3110	0.5192	0.5192	0.0217	0.0217	104	M
PCB-128	40:58	83902	1.12	0.9829	0.9636	0.9636	0.0289	0.0289	96.36	M
PCB-166 (C128)	40:58	83902	1.12	0.9829	0.9636	0.9636	0.0289	0.0289	96.36	M
PCB-159	41:58	58381	1.13	1.3856	0.4757	0.4757	0.0205	0.0205	95.13	
PCB-162	42:15	55301	1.24	1.2571	0.4966	0.4966	0.0226	0.0226	99.32	M
PCB-167	42:45	51226	1.28	1.1159	0.5042	0.5042	0.0214	0.0214	101	M
PCB-156	43:55	88451	1.30	1.1104	0.9292	0.9292	0.0315	0.0315	92.92	
PCB-157 (C156)	43:55	88451	1.30	1.1104	0.9292	0.9292	0.0315	0.0315	92.92	
PCB-169	47:07	54907	1.08	1.1628	0.5143	0.5143	0.0207	0.0207	103	M
S Total Heptachlorobiphenyls					12.2	11.9	0.002448	0.002448		RQ
D PCB-188L	37:08	7116082	1.05	1.3133	97.2	97.2	0.0479	0.0479	97.22	
* PCB-180L	45:16	5573109	1.10		100.0	100.0				
D PCB-170L	46:31	4764508	1.06	0.8362	102.2	102.2	0.0753	0.0753	102	
D PCB-189L	49:37	11329298	1.05	1.4414	98.9	98.9	0.1878	0.1878	98.87	
PCB-188	37:09	39693	1.04	1.1350	0.4915	0.4915	0.000958	0.000958	98.29	
PCB-179	37:30	46777	0.90	1.4276	0.5516	0.5516	0.000926	0.000926	110	
PCB-184	38:01	38134	1.11	1.3672	0.4695	0.4695	0.000967	0.000967	93.91	
PCB-176	38:21	40584	0.92	1.2331	0.5541	0.5541	0.001072	0.001072	111	
PCB-186	38:49	44732	1.16	1.4737	0.5110	0.5110	0.000897	0.000897	102	
PCB-178	40:12	25284	1.13	0.8946	0.4758	0.4758	0.001477	0.001477	95.15	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-175	40:49	30945	1.15	0.9524	0.5470	0.5470	0.001388	0.001388	109	
PCB-187	41:07	28437	1.05	1.1018	0.4744	0.4345	0.001199	0.001199	94.89	RQ
PCB-182	41:18	24644	0.92	0.9247	0.4486	0.4486	0.001429	0.001429	89.73	
PCB-183	41:44	64294	0.95	0.9825	1.102	1.102	0.001345	0.001345	110	
PCB-185 (C183)	41:44	64294	0.95	0.9825	1.102	1.102	0.001345	0.001345	110	
PCB-174	41:58	30210	1.14	0.9642	0.5275	0.5275	0.001371	0.001371	105	
PCB-177	42:23	24827	1.05	0.9773	0.5151	0.4277	0.001352	0.001352	103	RQM
PCB-181	42:47	25626	1.05	0.9505	0.5072	0.4538	0.001390	0.001390	101	RQ
PCB-171	43:00	60459	0.99	0.9336	1.090	1.090	0.001416	0.001416	109	
PCB-173 (C171)	43:00	60459	0.99	0.9336	1.090	1.090	0.001416	0.001416	109	
PCB-172	44:39	26430	1.21	0.8519	0.5223	0.5223	0.001551	0.001551	104	
PCB-192	44:56	37024	1.15	1.3459	0.4631	0.4631	0.000982	0.000982	92.62	
PCB-180	45:15	66935	0.99	1.1676	0.9651	0.9651	0.001132	0.001132	96.51	
PCB-193 (C180)	45:15	66935	0.99	1.1676	0.9651	0.9651	0.001132	0.001132	96.51	
PCB-191	45:38	35223	1.09	1.2891	0.4600	0.4600	0.001025	0.001025	91.99	
PCB-170	46:33	25755	1.05	1.1865	0.5134	0.4556	0.001421	0.001421	103	RQ
PCB-190	47:03	40117	0.96	1.3322	0.5069	0.5069	0.000992	0.000992	101	
PCB-189	49:37	53094	1.05	0.9633	0.4865	0.4865	0.0271	0.0271	97.30	
S Total Octachlorobiphenyls					5.918	5.838	0.0106	0.0106		RQ
D PCB-202L	42:30	5622444	0.90	0.9818	102.8	102.8	0.0263	0.0263	103	
* PCB-194L	51:44	7949496	0.91		100.0	100.0				
D PCB-205L	52:12	9259085	0.90	1.1786	98.8	98.8	0.0675	0.0675	98.83	
PCB-202	42:32	25714	0.97	1.0359	0.4415	0.4415	0.004243	0.004243	88.30	
PCB-201	43:25	26064	1.00	0.9754	0.4753	0.4753	0.004507	0.004507	95.06	
PCB-204	44:05	29939	0.90	1.0485	0.5078	0.5078	0.004192	0.004192	102	
PCB-197	44:22	31937	0.89	1.1458	0.5363	0.4958	0.003836	0.003836	107	RQM
PCB-200	44:26	25941	0.88	1.0072	0.4581	0.4581	0.004364	0.004364	91.62	
PCB-198	47:14	49584	0.78	0.8698	1.014	1.014	0.005054	0.005054	101	
PCB-199 (C198)	47:14	49584	0.78	0.8698	1.014	1.014	0.005054	0.005054	101	
PCB-196	47:56	21772	0.81	0.7806	0.4960	0.4960	0.005631	0.005631	99.21	M
PCB-203	48:05	26586	0.95	0.9292	0.5089	0.5089	0.004730	0.004730	102	
PCB-195	49:23	31222	0.89	0.8263	0.4480	0.4081	0.0306	0.0306	89.61	RQM
PCB-194	51:47	47820	0.76	0.9735	0.5305	0.5305	0.0260	0.0260	106	M
PCB-205	52:13	50563	1.02	1.0878	0.5020	0.5020	0.0233	0.0233	100	M
S Total Nonachlorobiphenyls					1.638	1.638	0.0828	0.0828		
D PCB-208L	49:09	7500908	0.79	0.9576	98.5	98.5	0.8140	0.8140	98.54	
D PCB-206L	53:57	5499727	0.80	0.6947	99.6	99.6	1.122	1.122	99.59	
PCB-208	49:12	41595	0.81	1.1374	0.4875	0.4875	0.0795	0.0795	97.50	M
PCB-207	50:06	49926	0.75	1.3756	0.5583	0.5583	0.0760	0.0760	112	M
PCB-206	53:59	43449	0.66	1.3346	0.5920	0.5920	0.0930	0.0930	118	M
D PCB-209L	55:35	5278978	0.72	0.6669	99.6	99.6	0.0537	0.0537	99.58	
DCB Decachlorobiphenyl	55:38	28972	0.69	1.1004	0.4987	0.4987	0.0132	0.0132	99.75	
S Polychlorinated biphenyls, Total					103.7	0.4987	0.0268	0.0268		RQ

**QC Flag Legend**

## Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

## Review Flags

M - Manually Integrated

a - User Assigned ID

**Reagents:**

61L0.51668P\_00011

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi1a.d  
Lims ID: IC L1  
Client ID:  
Sample Type: IC Calib Level: 1  
Inject. Date: 31-May-2024 14:36:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0032883-001  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Sublist: chrom-PCBs\_D2D\*sub16  
Method: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 04-Jun-2024 14:26:08 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: P0IK

Date: 31-May-2024 16:04:19

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:38	11:36	2	0.726	11164084	4532204	3607	9017	1257		
202.0766	11:38	11:36	2	0.726	3512893	1410849	1621	4052	870	3.18(2.66-3.60)	
PCB-3L											
200.0795	13:47	13:46	2	0.861	10820055	3687990	3607	9017	1022		
202.0766	13:47	13:46	2	0.861	3314313	1128820	1621	4052	696	3.26(2.66-3.60)	
PCB-1											
188.0393	11:39	11:37	2	1.001	66599	27071	128	320	211		
190.0363	11:39	11:37	2	1.001	21025	8467	101	252	84	3.17(2.66-3.60)	
PCB-2											
188.0393	13:38	13:36	2	0.989	62227	19529	128	320	153		
190.0363	13:37	13:36	1	0.988	20215	5681	101	252	56	3.08(2.66-3.60)	
PCB-3											
188.0393	13:48	13:47	2	1.001	64767	22803	128	320	178		
190.0363	13:48	13:47	2	1.001	22496	6864	101	252	68	2.88(2.66-3.60)	
PCB-4L											
234.0406	14:02	14:02	1	0.877	3636981	1168381	538	1345	2172		
236.0376	14:02	14:02	1	0.877	2267540	732734	221	552	3316	1.60(1.33-1.79)	
PCB-9L											
234.0406	16:01	15:59	2		5513591	1579678	538	1345	2936		
236.0376	16:01	15:59	2		3346284	968408	221	552	4382	1.65(1.33-1.79)	
PCB-15L											
234.0406	19:55	19:54	1	1.244	5904134	1412431	538	1345	2625		
236.0376	19:55	19:54	1	1.244	3579636	868377	221	552	3929	1.65(1.33-1.79)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-4											
222.0003	14:04	14:02	2	1.002	22626	7167	53	132	135		
223.9974	14:04	14:02	2	1.002	13748	4609	62	155	74	1.65(1.33-1.79)	
PCB-10											
222.0003	14:14	14:13	2	1.014	29842	9323	53	132	176		
223.9974	14:14	14:13	1	1.013	18660	5959	62	155	96	1.60(1.33-1.79)	
PCB-9											
222.0003	16:02	16:00	2	1.142	30028	8278	53	132	156		
223.9974	16:02	16:00	2	1.142	21473	7126	62	155	115	1.40(1.33-1.79)	
PCB-7											
222.0003	16:11	16:10	1	1.153	36288	9445	53	132	178		
223.9974	16:12	16:10	2	1.154	21869	6316	62	155	102	1.66(1.33-1.79)	
PCB-6											
222.0003	16:26	16:25	1	1.171	40226	11330	53	132	214		
223.9974	16:26	16:25	1	1.171	22608	6392	62	155	103	1.78(1.33-1.79)	
PCB-5											
222.0003	16:44	16:43	1	1.192	31604	8701	53	132	164		
223.9974	16:44	16:43	1	1.192	19915	5330	62	155	86	1.59(1.33-1.79)	
PCB-8											
222.0003	16:52	16:50	2	1.202	37559	10534	53	132	199		
223.9974	16:52	16:50	2	1.202	24418	6083	62	155	98	1.54(1.33-1.79)	
PCB-14											
222.0003	18:29	18:28	2	0.928	33908	7989	53	132	151		
223.9974	18:29	18:28	2	0.928	21199	5635	62	155	91	1.60(1.33-1.79)	
PCB-11											
222.0003	19:20	19:18	2	0.970	34222	8269	53	132	156		
223.9974	19:20	19:18	2	0.971	19272	3910	62	155	63	1.78(1.33-1.79)	
PCB-12											
222.0003	19:38	19:36	2	0.985	61969	10519	53	132	198		
223.9974	19:39	19:36	2	0.986	35206	5615	62	155	91	1.76(1.33-1.79)	
PCB-13 (C12)											
222.0003	19:38	19:36	2	0.985	61969	10519	53	132	198		
223.9974	19:39	19:36	2	0.986	35206	5615	62	155	91	1.76(1.33-1.79)	
PCB-15											
222.0003	19:57	19:55	2	1.001	40370	8915	53	132	168		
223.9974	19:56	19:55	1	1.001	23514	5303	62	155	86	1.72(1.33-1.79)	
PCB-19L											
268.0016	17:09	17:08	1	0.840	1897205	520126	418	1045	1244		
269.9986	17:09	17:08	1	0.840	1814585	500455	1834	4585	273	1.05(0.88-1.20)	
PCB-32L											
268.0016	20:24	20:23	2		3112703	738308	418	1045	1766		
269.9986	20:24	20:23	2		2844507	676250	1834	4585	369	1.09(0.88-1.20)	
PCB-31L											
268.0016	22:40	22:38	1		8607254	2000225	1020	2550	1961		
269.9986	22:40	22:38	1		8161977	1873248	713	1782	2627	1.05(0.88-1.20)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-37L											
268.0016	26:57	26:55	1	1.189	7444868	1502675	1020	2550	1473		
269.9986	26:57	26:55	1	1.189	7063024	1422829	713	1782	1996	1.05(0.88-1.20)	
PCB-19											
255.9613	17:10	17:09	2	1.002	13869	4052	38	95	107		
257.9584	17:10	17:09	2	1.002	13379	3726	1	2	3726	1.04(0.88-1.20)	
PCB-18											
255.9613	19:01	18:59	2	1.109	34338	7429	38	95	196		
257.9584	19:00	18:59	1	1.108	28686	5294	1	2	5294	1.20(0.88-1.20)	
PCB-30 (C18)											
255.9613	19:01	18:59	2	1.109	34338	7429	38	95	196		
257.9584	19:00	18:59	1	1.108	28686	5294	1	2	5294	1.20(0.88-1.20)	
PCB-17											
255.9613	19:27	19:26	1	1.134	11628	3157	38	95	83		
257.9584	19:26	19:26	0	1.133	11539	2725	1	2	2725	1.01(0.88-1.20)	
PCB-27											
255.9613	19:40	19:39	2	1.147	13976	3078	38	95	81		RQ
257.9584	19:40	19:39	2	1.147	16358	4332	1	2	4332	0.85(0.88-1.20)	
Empc Correction					13438	2959	1	2	2959		
PCB-24											
255.9613	19:47	19:46	2	1.154	16997	4146	38	95	109		RQ
Empc Correction					14452	4243	38	95	112		
257.9584	19:47	19:46	2	1.154	13897	4080	1	2	4080	1.22(0.88-1.20)	
PCB-16											
255.9613	19:54	19:53	2	1.161	11069	2941	38	95	77		
257.9584	19:54	19:53	2	1.161	9853	2085	1	2	2085	1.12(0.88-1.20)	
PCB-32											
255.9613	20:25	20:23	2	1.191	16940	3780	38	95	99		
257.9584	20:25	20:23	2	1.191	17275	4477	1	2	4477	0.98(0.88-1.20)	
PCB-34											
255.9613	21:41	21:39	2	1.265	41836	9374	199	497	47		
257.9584	21:41	21:39	2	1.265	39956	9560	203	507	47	1.05(0.88-1.20)	
PCB-23											
255.9613	21:50	21:48	1	1.273	43162	9588	199	497	48		RQM
Empc Correction					36934	7606	199	497	38		M
257.9584	21:50	21:48	1	1.273	35514	7314	203	507	36	1.22(0.88-1.20)	
PCB-26											
255.9613	22:10	22:08	2	1.293	80639	16985	199	497	85		
257.9584	22:10	22:08	2	1.293	77133	17116	203	507	84	1.05(0.88-1.20)	
PCB-29 (C26)											
255.9613	22:10	22:08	2	1.293	80639	16985	199	497	85		
257.9584	22:10	22:08	2	1.293	77133	17116	203	507	84	1.05(0.88-1.20)	
PCB-25											
255.9613	22:23	22:21	2	0.830	50612	10278	199	497	52		
257.9584	22:23	22:21	2	0.830	47166	9876	203	507	49	1.07(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-31											
255.9613	22:41	22:40	1	0.842	42270	9782	199	497	49		
257.9584	22:41	22:40	1	0.842	42584	9517	203	507	47	0.99(0.88-1.20)	
PCB-20											
255.9613	23:00	22:58	1	0.853	85757	15845	199	497	80		
257.9584	23:00	22:58	1	0.853	77537	13892	203	507	68	1.11(0.88-1.20)	
PCB-28 (C20)											
255.9613	23:00	22:58	1	0.853	85757	15845	199	497	80		
257.9584	23:00	22:58	1	0.853	77537	13892	203	507	68	1.11(0.88-1.20)	
PCB-21											
255.9613	23:13	23:07	6	0.862	73767	9550	199	497	48		M
257.9584	23:10	23:07	2	0.859	73943	9215	203	507	45	1.00(0.88-1.20)	M
PCB-33 (C21)											
255.9613	23:13	23:07	6	0.862	73767	9550	199	497	48		M
257.9584	23:10	23:07	2	0.859	73943	9215	203	507	45	1.00(0.88-1.20)	M
PCB-22											
255.9613	23:36	23:35	1	0.876	44761	9832	199	497	49		M
257.9584	23:36	23:35	1	0.876	42681	10672	203	507	53	1.05(0.88-1.20)	M
PCB-36											
255.9613	25:10	25:09	1	0.934	38841	6743	199	497	34		
257.9584	25:09	25:09	1	0.934	37985	8229	203	507	41	1.02(0.88-1.20)	
PCB-39											
255.9613	25:32	25:30	1	0.947	39820	9136	199	497	46		
257.9584	25:32	25:30	1	0.947	41324	9398	203	507	46	0.96(0.88-1.20)	
PCB-38											
255.9613	26:07	26:05	2	0.969	35932	7439	199	497	37		
257.9584	26:06	26:05	1	0.969	40236	8011	203	507	39	0.89(0.88-1.20)	
PCB-35											
255.9613	26:35	26:32	2	0.986	45018	8806	199	497	44		
257.9584	26:35	26:32	3	0.987	41045	6646	203	507	33	1.10(0.88-1.20)	
PCB-37											
255.9613	26:58	26:57	1	1.001	45729	8804	199	497	44		
257.9584	26:58	26:57	1	1.001	44556	9167	203	507	45	1.03(0.88-1.20)	
PCB-54L											
301.9626	20:13	20:12	1	0.816	1499419	373718	75	187	4983		
303.9597	20:13	20:12	1	0.816	1895572	464452	42	105	11058	0.79(0.65-0.89)	
PCB-52L											
301.9626	24:47	24:46	1		3741565	815378	637	1592	1280		
303.9597	24:47	24:46	1		4663384	1019625	641	1602	1591	0.80(0.65-0.89)	
PCB-81L											
301.9626	33:41	33:41	1	1.359	4654546	911958	637	1592	1432		
303.9597	33:41	33:41	1	1.359	5697717	1107589	641	1602	1728	0.82(0.65-0.89)	
PCB-77L											
301.9626	34:15	34:14	1	1.382	4945005	941207	637	1592	1478		
303.9597	34:15	34:14	1	1.382	6133131	1159647	641	1602	1809	0.81(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-54											
289.9224	20:16	20:13	2	1.000	7157	1991	30	75	66		
291.9194	20:16	20:13	2	1.000	10748	2683	65	162	41	0.67(0.65-0.89)	
PCB-50											
289.9224	22:25	22:24	1	1.109	43317	9831	199	497	49		
291.9194	22:25	22:24	1	1.109	52911	12334	314	785	39	0.82(0.65-0.89)	
PCB-53 (C50)											
289.9224	22:25	22:24	1	1.109	43317	9831	199	497	49		
291.9194	22:25	22:24	1	1.109	52911	12334	314	785	39	0.82(0.65-0.89)	
PCB-45											
289.9224	23:09	23:08	1	1.145	36905	5597	199	497	28		M
291.9194	23:10	23:08	1	1.145	50053	6290	314	785	20	0.74(0.65-0.89)	M
PCB-51 (C45)											
289.9224	23:09	23:08	1	1.145	36905	5597	199	497	28		M
291.9194	23:10	23:08	1	1.145	50053	6290	314	785	20	0.74(0.65-0.89)	M
PCB-46											
289.9224	23:24	23:22	2	1.157	18791	3719	199	497	19		M
291.9194	23:23	23:22	1	1.157	24801	5066	314	785	16	0.76(0.65-0.89)	M
PCB-52											
289.9224	24:49	24:47	1	1.227	23937	5662	199	497	28		RQ
	Empc Correction				19719	4104	199	497	21		
291.9194	24:49	24:47	1	1.227	25610	5331	314	785	17	0.93(0.65-0.89)	
PCB-43											
289.9224	24:57	24:56	1	1.234	50336	6169	199	497	31		M
291.9194	24:57	24:56	1	1.234	64927	9054	314	785	29	0.78(0.65-0.89)	M
PCB-73 (C43)											
289.9224	24:57	24:56	1	1.234	50336	6169	199	497	31		M
291.9194	24:57	24:56	1	1.234	64927	9054	314	785	29	0.78(0.65-0.89)	M
PCB-49											
289.9224	25:16	25:14	2	1.250	52598	8467	199	497	43		
291.9194	25:16	25:14	2	1.250	68893	10437	314	785	33	0.76(0.65-0.89)	
PCB-69 (C49)											
289.9224	25:16	25:14	2	1.250	52598	8467	199	497	43		
291.9194	25:16	25:14	2	1.250	68893	10437	314	785	33	0.76(0.65-0.89)	
PCB-48											
289.9224	25:35	25:33	1	1.265	20161	4831	199	497	24		
291.9194	25:34	25:33	1	1.264	26574	5612	314	785	18	0.76(0.65-0.89)	
PCB-44											
289.9224	25:50	25:48	2	1.278	66170	11476	199	497	58		
291.9194	25:50	25:48	2	1.278	86818	13668	314	785	44	0.76(0.65-0.89)	
PCB-47 (C44)											
289.9224	25:50	25:48	2	1.278	66170	11476	199	497	58		
291.9194	25:50	25:48	2	1.278	86818	13668	314	785	44	0.76(0.65-0.89)	
PCB-65 (C44)											
289.9224	25:50	25:48	2	1.278	66170	11476	199	497	58		
291.9194	25:50	25:48	2	1.278	86818	13668	314	785	44	0.76(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-59											
289.9224	26:08	26:06	1	1.292	81291	11624	199	497	58		
291.9194	26:08	26:06	1	1.292	111940	15807	314	785	50	0.73(0.65-0.89)	
PCB-62 (C59)											
289.9224	26:08	26:06	1	1.292	81291	11624	199	497	58		
291.9194	26:08	26:06	1	1.292	111940	15807	314	785	50	0.73(0.65-0.89)	
PCB-75 (C59)											
289.9224	26:08	26:06	1	1.292	81291	11624	199	497	58		
291.9194	26:08	26:06	1	1.292	111940	15807	314	785	50	0.73(0.65-0.89)	
PCB-42											
289.9224	26:20	26:18	1	1.302	20234	3794	199	497	19		
291.9194	26:21	26:18	2	1.303	23231	5239	314	785	17	0.87(0.65-0.89)	
PCB-40											
289.9224	26:49	26:48	1	1.326	69186	10548	199	497	53		M
291.9194	26:49	26:48	1	1.326	83867	12246	314	785	39	0.82(0.65-0.89)	M
PCB-41 (C40)											
289.9224	26:49	26:48	1	1.326	69186	10548	199	497	53		M
291.9194	26:49	26:48	1	1.326	83867	12246	314	785	39	0.82(0.65-0.89)	M
PCB-71 (C40)											
289.9224	26:49	26:48	1	1.326	69186	10548	199	497	53		M
291.9194	26:49	26:48	1	1.326	83867	12246	314	785	39	0.82(0.65-0.89)	M
PCB-64											
289.9224	27:03	27:01	2	1.338	24882	5123	199	497	26		RQ
291.9194	27:03	27:01	2	1.338	43465	8272	314	785	26	0.57(0.65-0.89)	
Empc Correction					32314	6653	314	785	21		
PCB-72											
289.9224	27:52	27:51	1	0.827	23660	4853	199	497	24		
291.9194	27:53	27:51	1	0.828	35660	7770	314	785	25	0.66(0.65-0.89)	
PCB-68											
289.9224	28:10	28:09	1	0.836	29228	5246	199	497	26		
291.9194	28:10	28:09	1	0.836	33524	7459	314	785	24	0.87(0.65-0.89)	
PCB-57											
289.9224	28:35	28:34	1	0.848	22605	4646	199	497	23		
291.9194	28:36	28:34	2	0.849	32313	7342	314	785	23	0.70(0.65-0.89)	
PCB-58											
289.9224	28:50	28:48	1	0.856	34260	6621	199	497	33		RQ
Empc Correction					26431	6036	199	497	30		
291.9194	28:50	28:48	1	0.856	34327	7839	314	785	25	1.00(0.65-0.89)	
PCB-67											
289.9224	28:59	28:58	1	0.860	36337	7141	199	497	36		
291.9194	29:00	28:58	1	0.861	43333	8863	314	785	28	0.84(0.65-0.89)	
PCB-63											
289.9224	29:15	29:14	1	0.868	25964	5331	199	497	27		
291.9194	29:15	29:14	1	0.868	34756	7115	314	785	23	0.75(0.65-0.89)	
PCB-61											
289.9224	29:35	29:34	1	0.878	117443	12223	199	497	61		
291.9194	29:35	29:34	1	0.878	147507	16236	314	785	52	0.80(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-70 (C61)											
289.9224	29:35	29:34	1	0.878	117443	12223	199	497	61		
291.9194	29:35	29:34	1	0.878	147507	16236	314	785	52	0.80(0.65-0.89)	
PCB-74 (C61)											
289.9224	29:35	29:34	1	0.878	117443	12223	199	497	61		
291.9194	29:35	29:34	1	0.878	147507	16236	314	785	52	0.80(0.65-0.89)	
PCB-76 (C61)											
289.9224	29:35	29:34	1	0.878	117443	12223	199	497	61		
291.9194	29:35	29:34	1	0.878	147507	16236	314	785	52	0.80(0.65-0.89)	
PCB-66											
289.9224	29:56	29:53	2	0.888	29166	6364	199	497	32		
291.9194	29:54	29:53	1	0.888	37033	7665	314	785	24	0.79(0.65-0.89)	
PCB-55											
289.9224	30:04	30:03	1	0.892	32723	6737	199	497	34		
291.9194	30:04	30:03	1	0.892	44950	9943	314	785	32	0.73(0.65-0.89)	
PCB-56											
289.9224	30:35	30:33	1	0.908	32555	7191	199	497	36		
291.9194	30:36	30:33	2	0.908	42104	8328	314	785	27	0.77(0.65-0.89)	
PCB-60											
289.9224	30:48	30:46	1	0.914	25722	4832	199	497	24		
291.9194	30:47	30:46	1	0.914	34750	6086	314	785	19	0.74(0.65-0.89)	
PCB-80											
289.9224	31:13	31:11	2	0.927	34507	5763	199	497	29		
291.9194	31:12	31:11	1	0.926	39763	7381	314	785	24	0.87(0.65-0.89)	
PCB-79											
289.9224	32:44	32:42	1	0.972	31187	5973	199	497	30		M
291.9194	32:44	32:42	1	0.972	46208	8189	314	785	26	0.67(0.65-0.89)	M
PCB-78											
289.9224	33:18	33:15	3	0.989	28048	5337	199	497	27		M
291.9194	33:17	33:15	1	0.988	42776	7596	314	785	24	0.66(0.65-0.89)	M
PCB-81											
289.9224	33:43	33:42	1	1.001	22843	4819	199	497	24		M
291.9194	33:44	33:42	1	1.001	35118	6555	314	785	21	0.65(0.65-0.89)	M
PCB-77											
289.9224	34:17	34:16	1	1.001	26136	5183	199	497	26		M
291.9194	34:16	34:16	0	1.000	38606	7312	314	785	23	0.68(0.65-0.89)	M
PCB-104L											
337.9207	25:44	25:42	1	0.813	4271749	931912	57	142	16349		
339.9178	25:44	25:42	1	0.813	2666571	577090	28	70	20610	1.60(1.32-1.78)	
PCB-101L											
337.9207	31:38	31:37	1		3426318	688499	57	142	12079		
339.9178	31:38	31:37	1		2149345	430401	28	70	15371	1.59(1.32-1.78)	
PCB-123L											
337.9207	36:16	36:15	2	1.147	6332260	1258157	5590	13975	225		
339.9178	36:16	36:15	2	1.147	4039220	787783	3730	9325	211	1.57(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-118L											
337.9207	36:35	36:34	1	1.157	6572835	1259467	5590	13975	225		
339.9178	36:35	36:34	1	1.157	4187155	811700	3730	9325	218	1.57(1.32-1.78)	
PCB-114L											
337.9207	37:07	37:06	1	1.173	6471551	1249296	5590	13975	223		
339.9178	37:07	37:06	1	1.173	4032760	764773	3730	9325	205	1.60(1.32-1.78)	
PCB-105L											
337.9207	37:46	37:45	2	1.194	6250012	1185355	5590	13975	212		
339.9178	37:46	37:45	2	1.194	3927345	735373	3730	9325	197	1.59(1.32-1.78)	
PCB-127L											
337.9207	39:15	39:14	1		6568825	1288310	5590	13975	230		
339.9178	39:15	39:14	1		4144613	798182	3730	9325	214	1.58(1.32-1.78)	
PCB-126L											
337.9207	40:51	40:50	1	1.292	6132942	1148994	5590	13975	206		
339.9178	40:51	40:50	1	1.292	3825836	718408	3730	9325	193	1.60(1.32-1.78)	
PCB-104											
325.8804	25:45	25:44	1	1.000	22188	4465	16	40	279		
327.8775	25:45	25:44	1	1.000	12566	3520	52	130	68	1.77(1.32-1.78)	
PCB-96											
325.8804	26:08	26:06	1	1.015	23514	6543	16	40	409		
327.8775	26:07	26:06	1	1.015	14976	3810	52	130	73	1.57(1.32-1.78)	
PCB-103											
325.8804	28:04	28:02	2	1.091	19294	4174	16	40	261		M
327.8775	28:04	28:02	2	1.091	11011	2101	52	130	40	1.75(1.32-1.78)	M
PCB-94											
325.8804	28:17	28:16	1	1.099	18701	4888	16	40	306		RQMa
	Empc Correction				14030	2690	16	40	168		M
327.8775	28:17	28:16	1	1.099	9052	1736	52	130	33	2.07(1.32-1.78)	
PCB-95											
325.8804	28:44	28:42	2	1.117	18479	4151	16	40	259		RQ
	Empc Correction				14895	3613	16	40	226		
327.8775	28:43	28:42	1	1.116	9610	2331	52	130	45	1.92(1.32-1.78)	
PCB-93											
325.8804	28:57	28:55	1	1.125	37232	7676	16	40	480		
327.8775	28:57	28:55	1	1.125	21932	4483	52	130	86	1.70(1.32-1.78)	
PCB-100 (C93)											
325.8804	28:57	28:55	1	1.125	37232	7676	16	40	480		
327.8775	28:57	28:55	1	1.125	21932	4483	52	130	86	1.70(1.32-1.78)	
PCB-98											
325.8804	29:08	29:04	4	1.132	35854	4904	16	40	307		M
327.8775	29:05	29:04	1	1.130	21429	3183	52	130	61	1.67(1.32-1.78)	M
PCB-102 (C98)											
325.8804	29:08	29:04	4	1.132	35854	4904	16	40	307		M
327.8775	29:05	29:04	1	1.130	21429	3183	52	130	61	1.67(1.32-1.78)	M
PCB-88											
325.8804	29:30	29:33	-4	1.146	34391	4768	16	40	298		M
327.8775	29:29	29:33	-5	1.146	23653	3028	52	130	58	1.45(1.32-1.78)	M

	Signal	RT (min.)	Adj RT (min.)	⌈ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
	PCB-91 (C88)											M
	325.8804	29:30	29:33	-4	1.146	34391	4768	16	40	298		M
	327.8775	29:29	29:33	-5	1.146	23653	3028	52	130	58	1.45(1.32-1.78)	M
	PCB-84											M
	325.8804	29:48	29:47	1	1.158	15027	2961	16	40	185		
	327.8775	29:46	29:47	-1	1.157	10134	1937	52	130	37	1.48(1.32-1.78)	M
	PCB-89											RQ
	325.8804	30:16	30:16	1	1.177	20119	3570	16	40	223		
		Empc Correction				16772	3456	16	40	216		
	327.8775	30:18	30:16	2	1.178	10821	2230	52	130	43	1.86(1.32-1.78)	
	PCB-121											RQM
	325.8804	30:42	30:41	1	1.193	24350	4810	16	40	301		M
	327.8775	30:42	30:41	1	1.193	19089	4968	52	130	96	1.28(1.32-1.78)	
		Empc Correction				15709	3103	52	130	60		
	PCB-92											
	325.8804	31:05	31:03	1	0.857	18551	3313	16	40	207		
	327.8775	31:05	31:03	1	0.857	11386	2282	52	130	44	1.63(1.32-1.78)	
	PCB-90											M
	325.8804	31:39	31:37	1	1.230	56246	9592	16	40	600		
	327.8775	31:39	31:37	1	1.230	42490	7411	52	130	143	1.32(1.32-1.78)	M
	PCB-101 (C90)											M
	325.8804	31:39	31:37	1	1.230	56246	9592	16	40	600		
	327.8775	31:39	31:37	1	1.230	42490	7411	52	130	143	1.32(1.32-1.78)	M
	PCB-113 (C90)											M
	325.8804	31:39	31:37	1	1.230	56246	9592	16	40	600		
	327.8775	31:39	31:37	1	1.230	42490	7411	52	130	143	1.32(1.32-1.78)	M
	PCB-83											M
	325.8804	32:15	32:13	1	1.253	34703	4538	16	40	284		M
	327.8775	32:15	32:13	2	1.254	23129	3398	52	130	65	1.50(1.32-1.78)	
	PCB-99 (C83)											M
	325.8804	32:15	32:13	1	1.253	34703	4538	16	40	284		M
	327.8775	32:15	32:13	2	1.254	23129	3398	52	130	65	1.50(1.32-1.78)	
	PCB-112											M
	325.8804	32:21	32:20	1	1.257	31739	5637	16	40	352		M
	327.8775	32:18	32:20	-2	1.256	18375	2885	52	130	55	1.73(1.32-1.78)	M
	PCB-86											M
	325.8804	32:43	32:42	1	1.272	129704	14317	16	40	895		M
	327.8775	32:43	32:42	1	1.272	81652	8304	52	130	160	1.59(1.32-1.78)	M
	PCB-87 (C86)											M
	325.8804	32:43	32:42	1	1.272	129704	14317	16	40	895		M
	327.8775	32:43	32:42	1	1.272	81652	8304	52	130	160	1.59(1.32-1.78)	M
	PCB-97 (C86)											M
	325.8804	32:43	32:42	1	1.272	129704	14317	16	40	895		M
	327.8775	32:43	32:42	1	1.272	81652	8304	52	130	160	1.59(1.32-1.78)	M
	PCB-109 (C86)											M
	325.8804	32:43	32:42	1	1.272	129704	14317	16	40	895		M
	327.8775	32:43	32:42	1	1.272	81652	8304	52	130	160	1.59(1.32-1.78)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-119 (C86)											M
325.8804	32:43	32:42	1	1.272	129704	14317	16	40	895		M
327.8775	32:43	32:42	1	1.272	81652	8304	52	130	160	1.59(1.32-1.78)	M
PCB-125 (C86)											M
325.8804	32:43	32:42	1	1.272	129704	14317	16	40	895		M
327.8775	32:43	32:42	1	1.272	81652	8304	52	130	160	1.59(1.32-1.78)	M
PCB-85											
325.8804	33:27	33:25	1	1.300	66488	8141	16	40	509		
327.8775	33:26	33:25	1	1.299	43521	5451	52	130	105	1.53(1.32-1.78)	
PCB-116 (C85)											
325.8804	33:27	33:25	1	1.300	66488	8141	16	40	509		
327.8775	33:26	33:25	1	1.299	43521	5451	52	130	105	1.53(1.32-1.78)	
PCB-117 (C85)											
325.8804	33:27	33:25	1	1.300	66488	8141	16	40	509		
327.8775	33:26	33:25	1	1.299	43521	5451	52	130	105	1.53(1.32-1.78)	
PCB-110											M
325.8804	33:42	33:37	5	1.310	48048	5988	16	40	374		M
327.8775	33:40	33:37	3	1.308	35344	4710	52	130	91	1.36(1.32-1.78)	
PCB-115 (C110)											M
325.8804	33:42	33:37	5	1.310	48048	5988	16	40	374		M
327.8775	33:40	33:37	3	1.308	35344	4710	52	130	91	1.36(1.32-1.78)	
PCB-82											
325.8804	33:57	33:55	1	1.319	17417	3116	16	40	195		
327.8775	33:57	33:55	2	1.320	11526	2309	52	130	44	1.51(1.32-1.78)	
PCB-111											
325.8804	34:21	34:19	2	1.335	25493	4795	16	40	300		
327.8775	34:19	34:19	0	1.334	14701	2930	52	130	56	1.73(1.32-1.78)	
PCB-120											M
325.8804	34:49	34:47	2	1.353	31833	6490	16	40	406		
327.8775	34:48	34:47	1	1.353	21230	4518	52	130	87	1.50(1.32-1.78)	M
PCB-108											M
325.8804	35:56	35:55	1	1.396	69109	12661	149	372	85		M
327.8775	35:56	35:55	1	1.396	45273	9267	167	417	55	1.53(1.32-1.78)	
PCB-124 (C108)											M
325.8804	35:56	35:55	1	1.396	69109	12661	149	372	85		M
327.8775	35:56	35:55	1	1.396	45273	9267	167	417	55	1.53(1.32-1.78)	
PCB-107											
325.8804	36:11	36:09	2	1.406	42100	7332	149	372	49		
327.8775	36:11	36:09	2	1.406	24707	4629	167	417	28	1.70(1.32-1.78)	
PCB-123											
325.8804	36:17	36:16	1	1.000	35275	6618	149	372	44		
327.8775	36:18	36:16	2	1.001	21007	4160	167	417	25	1.68(1.32-1.78)	
PCB-106											
325.8804	36:24	36:23	1	1.004	36546	7274	149	372	49		
327.8775	36:24	36:23	1	1.004	20758	4860	167	417	29	1.76(1.32-1.78)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-118											
325.8804	36:38	36:36	2	1.001	38751	7093	149	372	48		
327.8775	36:38	36:36	2	1.001	26796	4714	167	417	28	1.45(1.32-1.78)	
PCB-122											
325.8804	36:58	36:56	2	1.010	29111	6122	149	372	41		
327.8775	36:59	36:56	2	1.011	20374	3860	167	417	23	1.43(1.32-1.78)	
PCB-114											
325.8804	37:08	37:08	1	1.001	35470	7088	149	372	48		
327.8775	37:08	37:08	0	1.000	20253	4312	167	417	26	1.75(1.32-1.78)	
PCB-105											
325.8804	37:48	37:46	2	1.001	39841	7999	149	372	54		
327.8775	37:46	37:46	0	1.000	25637	4872	167	417	29	1.55(1.32-1.78)	
PCB-127											
325.8804	39:16	39:15	2	1.040	35291	7541	149	372	51		
327.8775	39:15	39:15	1	1.039	22226	4343	167	417	26	1.59(1.32-1.78)	
PCB-126											
325.8804	40:52	40:52	1	1.001	29722	5954	149	372	40		M
327.8775	40:52	40:52	1	1.001	19848	4395	167	417	26	1.50(1.32-1.78)	M
PCB-155L											
371.8817	31:24	31:23	1	0.791	3521584	727127	112	280	6492		
373.8788	31:24	31:23	1	0.791	2785737	570559	68	170	8391	1.26(1.05-1.43)	
PCB-138L											
371.8817	39:43	39:41	2		4003503	758289	3018	7545	251		
373.8788	39:43	39:41	2		3040710	578967	1932	4830	300	1.32(1.05-1.43)	
PCB-159L											
371.8817	41:57	41:56	1	0.982	4449727	849985	3018	7545	282		a
373.8788	41:57	41:56	1	0.982	3485772	651633	1932	4830	337	1.28(0.00-0.00)	a
PCB-167L											
371.8817	42:43	42:42	1	1.076	5120342	952633	3018	7545	316		
373.8788	42:43	42:42	1	1.076	3984974	746682	1932	4830	386	1.28(1.05-1.43)	
PCB-156L											
371.8817	43:52	43:51	2	1.105	9663977	1300347	3018	7545	431		
373.8788	43:52	43:51	2	1.105	7481334	1015992	1932	4830	526	1.29(1.05-1.43)	
PCB-157L (C156L)											
371.8817	43:52	43:51	2	1.105	9663977	1300347	3018	7545	431		
373.8788	43:52	43:51	2	1.105	7481334	1015992	1932	4830	526	1.29(1.05-1.43)	
PCB-169L											
371.8817	47:06	47:05	1	1.186	5098359	941799	3018	7545	312		
373.8788	47:06	47:05	1	1.186	4083031	738055	1932	4830	382	1.25(1.05-1.43)	
PCB-155											
359.8415	31:25	31:25	1	1.001	16517	4067	26	65	156		
361.8385	31:25	31:25	1	1.001	11523	2696	1	2	2696	1.43(1.05-1.43)	
PCB-152											
359.8415	31:35	31:36	0	1.006	17736	3113	26	65	120		
361.8385	31:38	31:36	2	1.007	13322	2954	1	2	2954	1.33(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-150											
359.8415	31:47	31:46	1	1.012	17358	3610	26	65	139		
361.8385	31:47	31:46	1	1.012	13013	2675	1	2	2675	1.33(1.05-1.43)	
PCB-136											
359.8415	32:08	32:08	1	1.024	17205	3629	26	65	140		
361.8385	32:10	32:08	2	1.024	16182	3602	1	2	3602	1.06(1.05-1.43)	
PCB-145											
359.8415	32:27	32:25	1	1.033	17590	4701	26	65	181		
361.8385	32:25	32:25	0	1.033	13836	2630	1	2	2630	1.27(1.05-1.43)	
PCB-148											
359.8415	33:58	33:57	1	1.082	13361	2678	26	65	103		
361.8385	33:59	33:57	2	1.082	10752	2090	1	2	2090	1.24(1.05-1.43)	
PCB-135											
359.8415	34:34	34:32	1	1.101	26170	3099	26	65	119		M
361.8385	34:32	34:32	0	1.100	19780	2783	1	2	2783	1.32(1.05-1.43)	M
PCB-151 (C135)											
359.8415	34:34	34:32	1	1.101	26170	3099	26	65	119		M
361.8385	34:32	34:32	0	1.100	19780	2783	1	2	2783	1.32(1.05-1.43)	M
PCB-154											
359.8415	34:47	34:47	0	1.108	11960	2487	26	65	96		M
361.8385	34:48	34:47	1	1.108	11412	2453	1	2	2453	1.05(1.05-1.43)	M
PCB-144											
359.8415	35:08	35:06	2	1.119	14483	2593	26	65	100		M
361.8385	35:07	35:06	1	1.119	11553	2534	1	2	2534	1.25(1.05-1.43)	M
PCB-147											
359.8415	35:29	35:27	2	1.130	50375	10028	75	187	134		M
361.8385	35:29	35:27	2	1.130	35175	7097	87	217	82	1.43(1.05-1.43)	M
PCB-149 (C147)											
359.8415	35:29	35:27	2	1.130	50375	10028	75	187	134		M
361.8385	35:29	35:27	2	1.130	35175	7097	87	217	82	1.43(1.05-1.43)	M
PCB-134											
359.8415	35:47	35:45	2	1.140	42616	4557	75	187	61		
361.8385	35:48	35:45	2	1.140	30574	3569	87	217	41	1.39(1.05-1.43)	
PCB-143 (C134)											
359.8415	35:47	35:45	2	1.140	42616	4557	75	187	61		
361.8385	35:48	35:45	2	1.140	30574	3569	87	217	41	1.39(1.05-1.43)	
PCB-139											
359.8415	36:04	36:04	0	1.148	43246	7993	75	187	107		
361.8385	36:04	36:04	0	1.148	33799	6612	87	217	76	1.28(1.05-1.43)	
PCB-140 (C139)											
359.8415	36:04	36:04	0	1.148	43246	7993	75	187	107		
361.8385	36:04	36:04	0	1.148	33799	6612	87	217	76	1.28(1.05-1.43)	
PCB-131											
359.8415	36:17	36:15	2	1.156	24575	4053	75	187	54		M
361.8385	36:15	36:15	0	1.155	17935	3791	87	217	44	1.37(1.05-1.43)	M

Signal	RT (min.)	Adj RT (min.)	ℓ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-142											M
359.8415	36:25	36:24	1	1.160	17385	3678	75	187	49		M
361.8385	36:26	36:24	2	1.160	14076	2525	87	217	29	1.24(1.05-1.43)	
PCB-132											
359.8415	36:44	36:43	1	1.170	21243	3616	75	187	48		
361.8385	36:44	36:43	1	1.170	15355	3115	87	217	36	1.38(1.05-1.43)	
PCB-133											
359.8415	37:15	37:14	1	1.186	17759	3518	75	187	47		
361.8385	37:15	37:14	1	1.186	14618	3267	87	217	38	1.21(1.05-1.43)	
PCB-165											
359.8415	37:38	37:37	2	0.881	22369	4212	75	187	56		
361.8385	37:37	37:37	0	0.880	19882	4015	87	217	46	1.13(1.05-1.43)	
PCB-146											
359.8415	37:53	37:52	1	0.887	23392	4679	75	187	62		
361.8385	37:53	37:52	1	0.887	18644	3732	87	217	43	1.25(1.05-1.43)	
PCB-161											
359.8415	38:01	38:00	2	0.890	24500	4544	75	187	61		
361.8385	38:01	38:00	2	0.890	22446	4887	87	217	56	1.09(1.05-1.43)	
PCB-153											
359.8415	38:32	38:30	2	0.902	53478	7444	75	187	99		
361.8385	38:32	38:30	2	0.902	39603	6435	87	217	74	1.35(1.05-1.43)	
PCB-168 (C153)											
359.8415	38:32	38:30	2	0.902	53478	7444	75	187	99		
361.8385	38:32	38:30	2	0.902	39603	6435	87	217	74	1.35(1.05-1.43)	
PCB-141											RQ
359.8415	38:41	38:41	1	0.906	25703	4580	75	187	61		
Empc Correction					19791	4855	75	187	65		
361.8385	38:42	38:41	2	0.906	15961	3916	87	217	45	1.61(1.05-1.43)	
PCB-130											
359.8415	39:06	39:05	1	0.915	17051	3420	75	187	46		
361.8385	39:07	39:05	2	0.916	15095	3034	87	217	35	1.13(1.05-1.43)	
PCB-137											
359.8415	39:19	39:18	1	0.920	18700	3812	75	187	51		
361.8385	39:19	39:18	1	0.920	14482	4356	87	217	50	1.29(1.05-1.43)	
PCB-164											RQ
359.8415	39:26	39:26	0	0.923	21953	4659	75	187	62		
361.8385	39:27	39:26	2	0.924	24511	3765	87	217	43	0.90(1.05-1.43)	
Empc Correction					17704	3757	87	217	43		
PCB-129											M
359.8415	39:45	39:44	1	0.930	91627	10000	75	187	133		M
361.8385	39:45	39:44	2	0.931	73127	8013	87	217	92	1.25(1.05-1.43)	M
PCB-138 (C129)											M
359.8415	39:45	39:44	1	0.930	91627	10000	75	187	133		M
361.8385	39:45	39:44	2	0.931	73127	8013	87	217	92	1.25(1.05-1.43)	M
PCB-160 (C129)											M
359.8415	39:45	39:44	1	0.930	91627	10000	75	187	133		M
361.8385	39:45	39:44	2	0.931	73127	8013	87	217	92	1.25(1.05-1.43)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-163 (C129)											M
359.8415	39:45	39:44	1	0.930	91627	10000	75	187	133		M
361.8385	39:45	39:44	2	0.931	73127	8013	87	217	92	1.25(1.05-1.43)	M
PCB-158											M
359.8415	40:08	40:07	2	0.940	34022	6214	75	187	83		M
361.8385	40:07	40:07	1	0.939	26269	5353	87	217	62	1.30(1.05-1.43)	M
PCB-128											M
359.8415	40:58	40:57	1	0.959	44274	6389	75	187	85		M
361.8385	40:59	40:57	2	0.959	39628	5757	87	217	66	1.12(1.05-1.43)	
PCB-166 (C128)											M
359.8415	40:58	40:57	1	0.959	44274	6389	75	187	85		M
361.8385	40:59	40:57	2	0.959	39628	5757	87	217	66	1.12(1.05-1.43)	
PCB-159											
359.8415	41:58	41:58	0	0.982	30925	5908	75	187	79		
361.8385	42:00	41:58	2	0.983	27456	5565	87	217	64	1.13(1.05-1.43)	
PCB-162											M
359.8415	42:15	42:15	0	0.989	30600	5223	75	187	70		
361.8385	42:15	42:15	0	0.989	24701	4629	87	217	53	1.24(1.05-1.43)	M
PCB-167											M
359.8415	42:45	42:44	1	1.001	28743	5226	75	187	70		
361.8385	42:46	42:44	2	1.001	22483	3790	87	217	44	1.28(1.05-1.43)	M
PCB-156											
359.8415	43:55	43:53	2	1.001	49993	6570	75	187	88		
361.8385	43:54	43:53	1	1.001	38458	5239	87	217	60	1.30(1.05-1.43)	
PCB-157 (C156)											
359.8415	43:55	43:53	2	1.001	49993	6570	75	187	88		
361.8385	43:54	43:53	1	1.001	38458	5239	87	217	60	1.30(1.05-1.43)	
PCB-169											M
359.8415	47:07	47:06	1	1.001	28472	4838	75	187	65		
361.8385	47:08	47:06	2	1.001	26435	4107	87	217	47	1.08(1.05-1.43)	M
PCB-188L											
405.8428	37:08	37:07	1	0.820	3650355	708318	219	547	3234		
407.8398	37:08	37:07	1	0.820	3465727	671924	40	100	16798	1.05(0.89-1.21)	
PCB-180L											
405.8428	45:16	45:15	1		2921128	536267	219	547	2449		
407.8398	45:16	45:15	1		2651981	491396	40	100	12285	1.10(0.89-1.21)	
PCB-170L											
405.8428	46:31	46:30	1	1.028	2449728	456817	219	547	2086		
407.8398	46:31	46:30	1	1.028	2314780	432860	40	100	10822	1.06(0.89-1.21)	
PCB-189L											
405.8428	49:37	49:37	0	1.096	5793890	1055058	714	1785	1478		
407.8398	49:37	49:37	0	1.096	5535408	1012487	859	2147	1179	1.05(0.89-1.21)	
PCB-188											
393.8025	37:09	37:08	1	1.001	20249	4207	4	10	1052		
395.7995	37:09	37:08	1	1.001	19444	3592	2	5	1796	1.04(0.89-1.21)	

	Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags	
	PCB-179												
	393.8025	37:30	37:28	2	1.010	22112	4623	4	10	1156			
	395.7995	37:30	37:28	2	1.010	24665	4621	2	5	2311	0.90(0.89-1.21)		
	PCB-184												
	393.8025	38:01	38:00	2	1.024	20060	3448	4	10	862			
	395.7995	38:01	38:00	2	1.024	18074	3546	2	5	1773	1.11(0.89-1.21)		
	PCB-176												
	393.8025	38:21	38:21	0	1.033	19432	4183	4	10	1046			
	395.7995	38:21	38:21	0	1.033	21152	3716	2	5	1858	0.92(0.89-1.21)		
	PCB-186												
	393.8025	38:49	38:48	2	1.046	24006	4770	4	10	1193			
	395.7995	38:49	38:48	2	1.046	20726	3450	2	5	1725	1.16(0.89-1.21)		
	PCB-178												
	393.8025	40:12	40:11	1	1.083	13403	2484	4	10	621			
	395.7995	40:12	40:11	1	1.083	11881	2655	2	5	1328	1.13(0.89-1.21)		
	PCB-175												
	393.8025	40:49	40:49	0	1.100	16575	3528	4	10	882			
	395.7995	40:50	40:49	1	1.100	14370	2591	2	5	1296	1.15(0.89-1.21)		
	PCB-187												
	393.8025	41:07	41:05	2	1.107	17180	3179	4	10	795		RQ	
		Empc Correction				14565	2642	4	10	661			
	395.7995	41:05	41:05	0	1.107	13872	2517	2	5	1259	1.24(0.89-1.21)		
	PCB-182												
	393.8025	41:18	41:18	1	1.113	11841	2710	4	10	678			
	395.7995	41:17	41:18	-1	1.112	12803	2552	2	5	1276	0.92(0.89-1.21)		
	PCB-183												
	393.8025	41:44	41:42	2	1.124	31376	3239	4	10	810			
	395.7995	41:43	41:42	1	1.124	32918	3985	2	5	1993	0.95(0.89-1.21)		
	PCB-185 (C183)												
	393.8025	41:44	41:42	2	1.124	31376	3239	4	10	810			
	395.7995	41:43	41:42	1	1.124	32918	3985	2	5	1993	0.95(0.89-1.21)		
	PCB-174												
	393.8025	41:58	41:56	2	1.130	16111	4046	4	10	1012			
	395.7995	41:57	41:56	1	1.130	14099	2820	2	5	1410	1.14(0.89-1.21)		
	PCB-177												
	393.8025	42:23	42:22	1	1.142	17793	3564	4	10	891		RQM M	
		Empc Correction				12716	2714	4	10	679			
	395.7995	42:24	42:22	2	1.142	12111	2585	2	5	1293	1.47(0.89-1.21)		
	PCB-181												
	393.8025	42:47	42:45	2	1.152	13126	3219	4	10	805		RQ	
	395.7995	42:46	42:45	1	1.152	15511	2800	2	5	1400	0.85(0.89-1.21)		
		Empc Correction				12500	3065	2	5	1533			
	PCB-171												
	393.8025	43:00	42:59	2	1.158	30123	4934	4	10	1234			
	395.7995	43:00	42:59	2	1.158	30336	5756	2	5	2878	0.99(0.89-1.21)		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-173 (C171)											
393.8025	43:00	42:59	2	1.158	30123	4934	4	10	1234		
395.7995	43:00	42:59	2	1.158	30336	5756	2	5	2878	0.99(0.89-1.21)	
PCB-172											
393.8025	44:39	44:37	2	0.900	14459	2787	4	10	697		
395.7995	44:39	44:37	2	0.900	11971	2571	2	5	1286	1.21(0.89-1.21)	
PCB-192											
393.8025	44:56	44:54	2	0.905	19802	3210	4	10	803		
395.7995	44:55	44:54	1	0.905	17222	3463	2	5	1732	1.15(0.89-1.21)	
PCB-180											
393.8025	45:15	45:14	1	0.912	33349	4838	4	10	1210		
395.7995	45:16	45:14	2	0.912	33586	5087	2	5	2544	0.99(0.89-1.21)	
PCB-193 (C180)											
393.8025	45:15	45:14	1	0.912	33349	4838	4	10	1210		
395.7995	45:16	45:14	2	0.912	33586	5087	2	5	2544	0.99(0.89-1.21)	
PCB-191											
393.8025	45:38	45:37	1	0.920	18364	3624	4	10	906		
395.7995	45:38	45:37	1	0.920	16859	3801	2	5	1901	1.09(0.89-1.21)	
PCB-170											
393.8025	46:33	46:32	2	0.938	13192	2794	4	10	699		RQ
395.7995	46:33	46:32	2	0.938	15830	3001	2	5	1501	0.83(0.89-1.21)	
Empc Correction					12563	2660	2	5	1330		
PCB-190											
393.8025	47:03	47:02	1	0.948	19619	4177	4	10	1044		
395.7995	47:03	47:02	1	0.948	20498	4227	2	5	2114	0.96(0.89-1.21)	
PCB-189											
393.8025	49:37	49:38	-1	1.000	27187	4572	124	310	37		
395.7995	49:39	49:38	2	1.001	25907	5464	92	230	59	1.05(0.89-1.21)	
PCB-202L											
439.8038	42:30	42:28	2	0.821	2670571	516634	59	147	8757		
441.8008	42:30	42:28	2	0.821	2951873	552631	47	117	11758	0.90(0.76-1.02)	
PCB-194L											
439.8038	51:44	51:43	1		3781894	694777	234	585	2969		
441.8008	51:44	51:43	1		4167602	757674	228	570	3323	0.91(0.76-1.02)	
PCB-205L											
439.8038	52:12	52:11	1	1.009	4394997	786634	234	585	3362		
441.8008	52:12	52:11	1	1.009	4864088	881228	228	570	3865	0.90(0.76-1.02)	
PCB-202											
427.7635	42:32	42:29	3	1.001	12689	2872	1	2	2872		
429.7606	42:30	42:29	0	1.000	13025	2499	18	45	139	0.97(0.76-1.02)	
PCB-201											
427.7635	43:25	43:25	0	1.022	13053	2640	1	2	2640		
429.7606	43:26	43:25	1	1.022	13011	2660	18	45	148	1.00(0.76-1.02)	
PCB-204											
427.7635	44:05	44:05	0	1.037	14203	2586	1	2	2586		
429.7606	44:05	44:05	0	1.037	15736	2883	18	45	160	0.90(0.76-1.02)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-197											RQM
427.7635	44:22	44:19	3	1.044	17650	3512	1	2	3512		M
	Empc Correction				15039	2940	1	2	2940		
429.7606	44:19	44:19	0	1.043	16898	3304	18	45	184	1.04(0.76-1.02)	
PCB-200											
427.7635	44:26	44:25	1	1.046	12112	2573	1	2	2573		
429.7606	44:26	44:25	0	1.046	13829	2614	18	45	145	0.88(0.76-1.02)	
PCB-198											
427.7635	47:14	47:12	2	1.111	21674	3445	1	2	3445		
429.7606	47:13	47:12	1	1.111	27910	3806	18	45	211	0.78(0.76-1.02)	
PCB-199 (C198)											
427.7635	47:14	47:12	2	1.111	21674	3445	1	2	3445		
429.7606	47:13	47:12	1	1.111	27910	3806	18	45	211	0.78(0.76-1.02)	
PCB-196											M
427.7635	47:56	47:53	3	0.918	9747	1853	1	2	1853		M
429.7606	47:53	47:53	0	0.917	12025	2532	18	45	141	0.81(0.76-1.02)	
PCB-203											
427.7635	48:05	48:05	0	0.921	12983	3083	1	2	3083		
429.7606	48:05	48:05	0	0.921	13603	2751	18	45	153	0.95(0.76-1.02)	
PCB-195											RQM
427.7635	49:23	49:23	0	0.946	17759	3222	73	182	44		M
	Empc Correction				14702	2966	73	182	41		
429.7606	49:25	49:23	2	0.947	16520	3333	96	240	35	1.08(0.76-1.02)	
PCB-194											M
427.7635	51:47	51:44	2	0.992	20698	4082	73	182	56		M
429.7606	51:45	51:44	1	0.991	27122	5186	96	240	54	0.76(0.76-1.02)	
PCB-205											M
427.7635	52:13	52:13	0	1.000	25496	6107	73	182	84		M
429.7606	52:13	52:13	0	1.000	25067	5094	96	240	53	1.02(0.76-1.02)	
PCB-208L											
473.7648	49:09	49:09	0	0.950	3304483	605650	3787	9467	160		
475.7619	49:10	49:09	1	0.950	4196425	757108	742	1855	1020	0.79(0.65-0.89)	
PCB-206L											
473.7648	53:57	53:57	1	1.043	2449860	441403	3787	9467	117		
475.7619	53:57	53:57	1	1.043	3049867	551350	742	1855	743	0.80(0.65-0.89)	
PCB-208											M
461.7246	49:12	49:10	2	1.001	18598	3641	191	477	19		M
463.7216	49:11	49:10	1	1.001	22997	4511	302	755	15	0.81(0.65-0.89)	M
PCB-207											M
461.7246	50:06	50:05	0	1.019	21467	4257	191	477	22		M
463.7216	50:06	50:05	0	1.019	28459	5426	302	755	18	0.75(0.65-0.89)	M
PCB-206											M
461.7246	53:59	53:58	1	1.000	17294	2978	191	477	16		M
463.7216	53:58	53:58	0	1.000	26155	5006	302	755	17	0.66(0.65-0.89)	M
PCB-209L											
507.7258	55:35	55:34	1	1.074	2215759	386177	140	350	2758		
509.7229	55:35	55:34	1	1.074	3063219	521635	68	170	7671	0.72(0.59-0.79)	

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
--------	--------------	------------------	------	-----------	------	--------	--------------	---------------	-----	---------------	-------

## DCB Decachlorobiphenyl

495.6856	55:38	55:36	2	1.001	11820	2518	18	45	140		
497.6826	55:36	55:36	0	1.000	17152	2969	35	87	85	0.69(0.59-0.79)	

**QC Flag Legend**

## Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

## Review Flags

M - Manually Integrated

a - User Assigned ID

**Reagents:**

61L0.51668P\_00011

Amount Added: 20.00

Units: uL



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

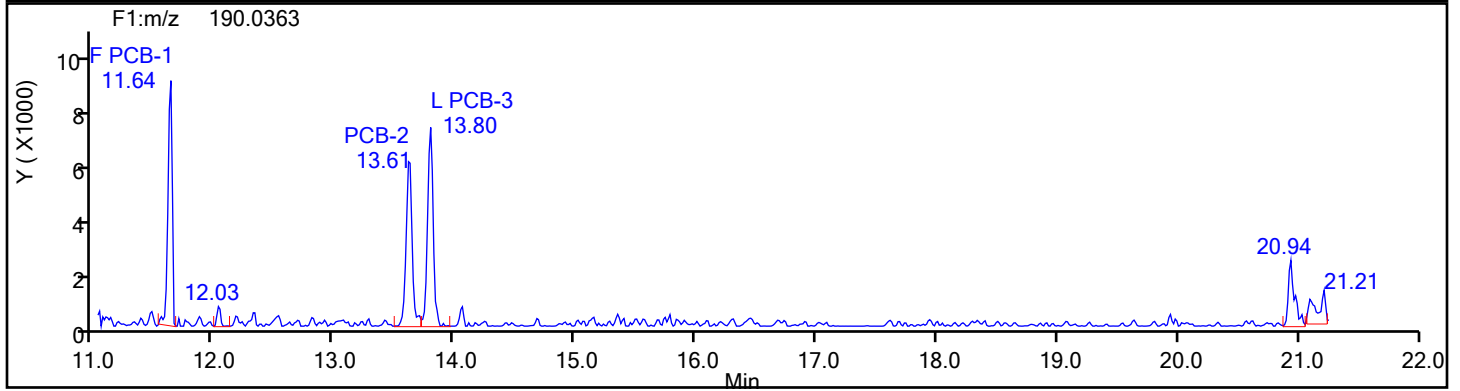
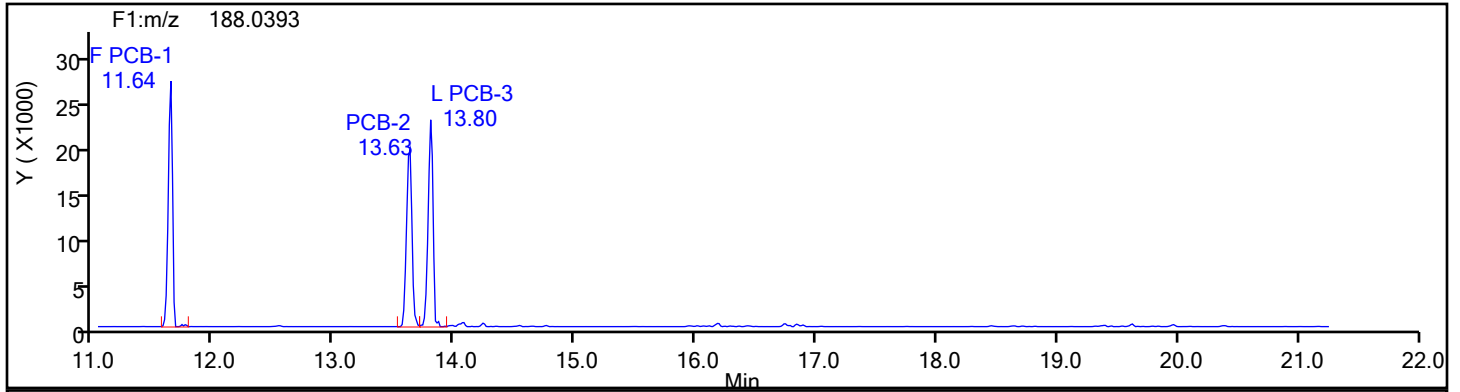
Worklist#: 87130

Sample Line#: 1

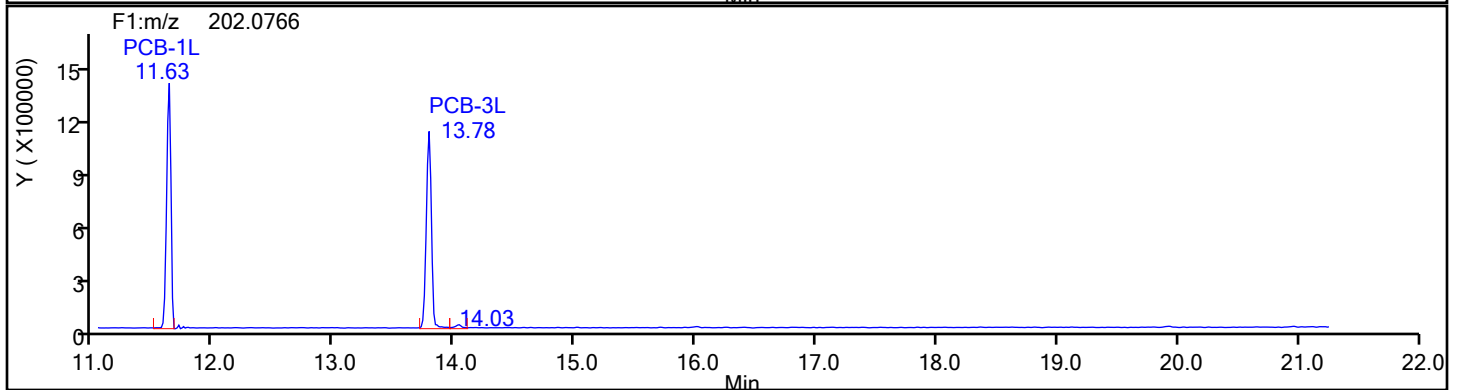
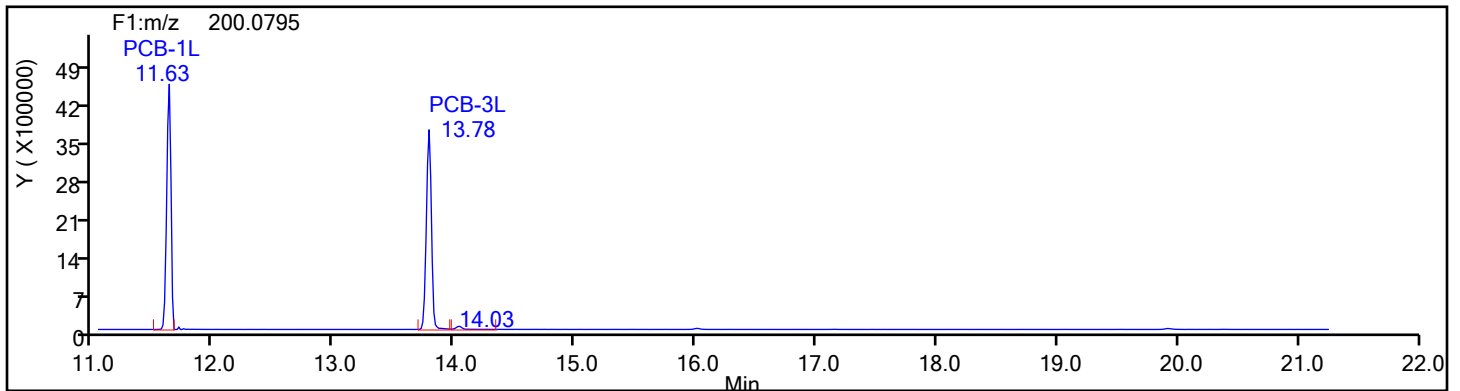
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

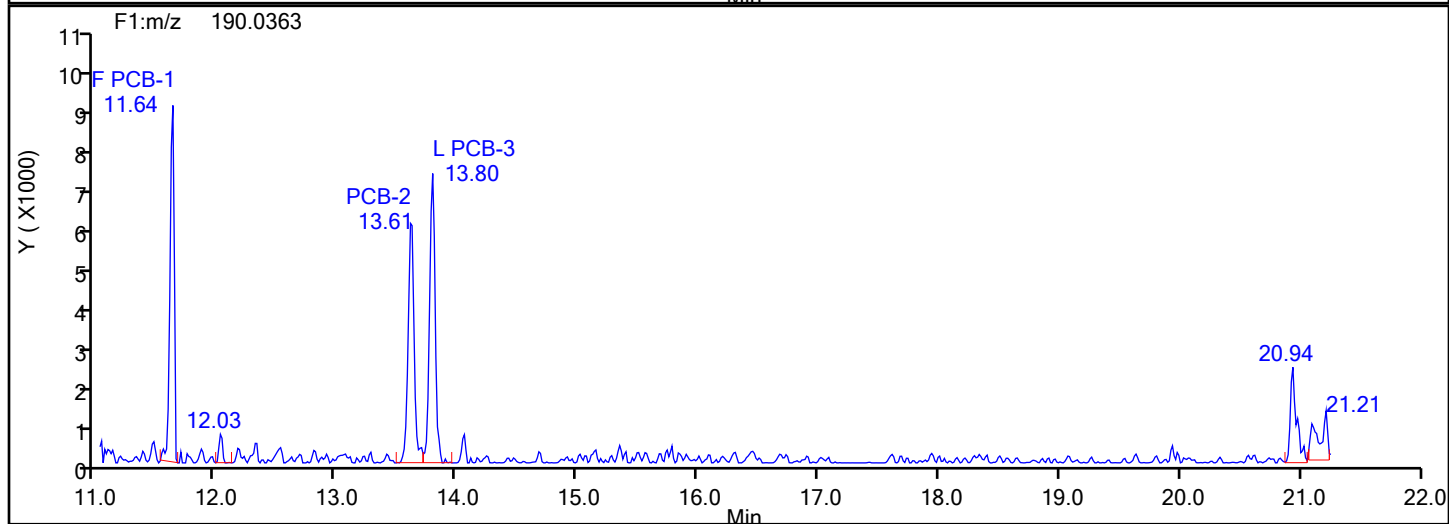
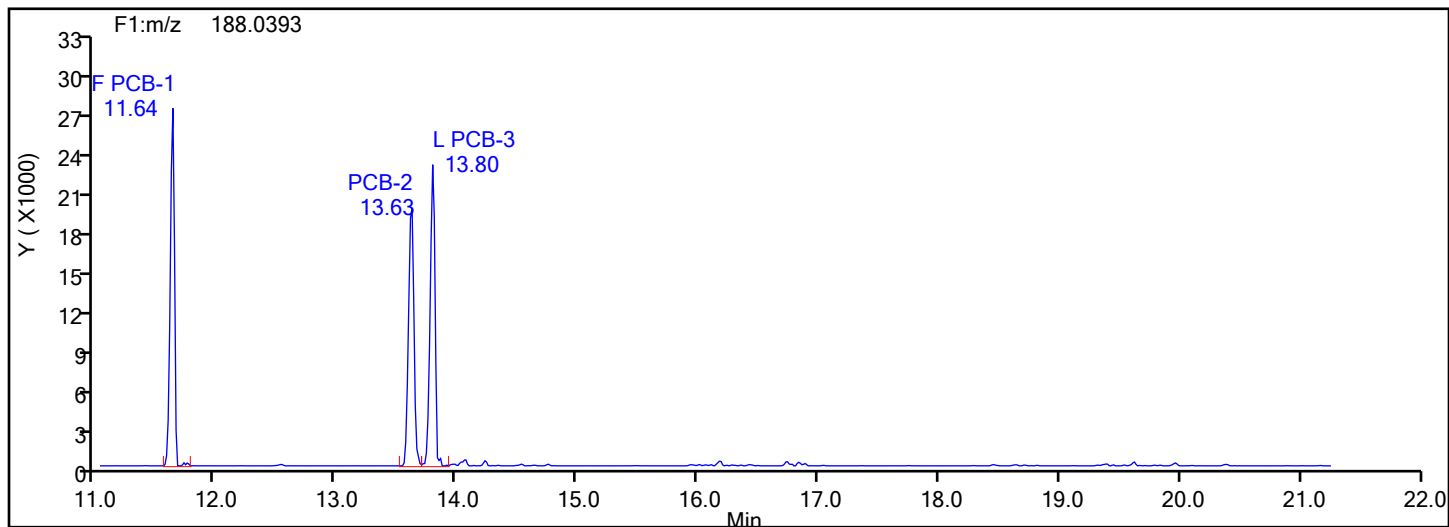
Worklist#: 87130

Sample Line#: 1

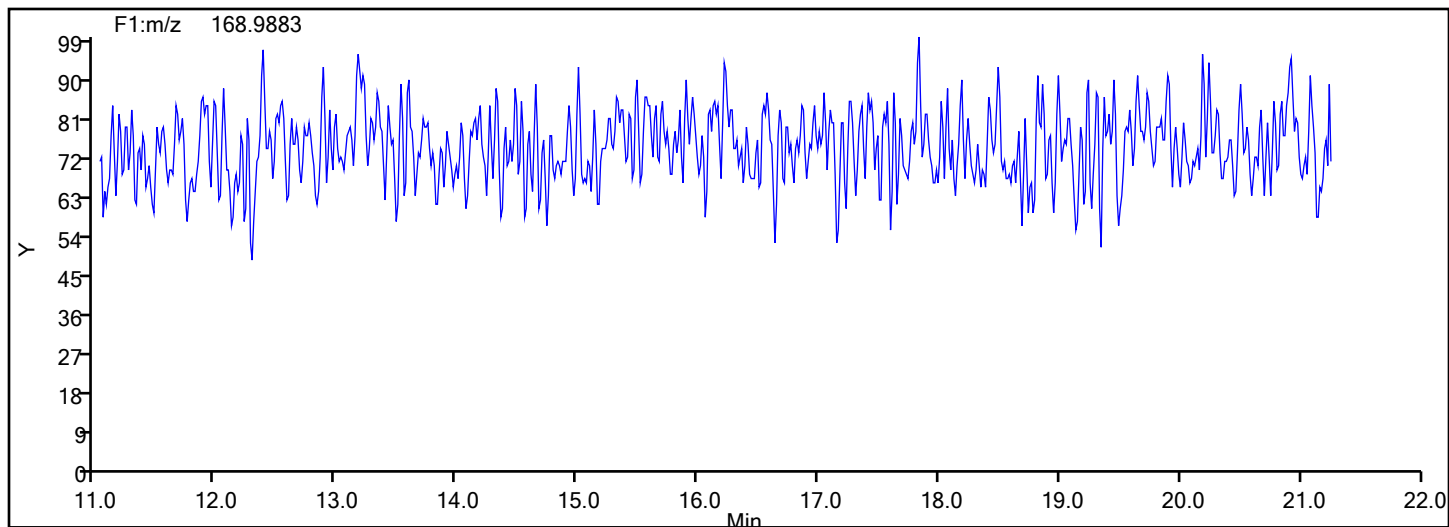
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

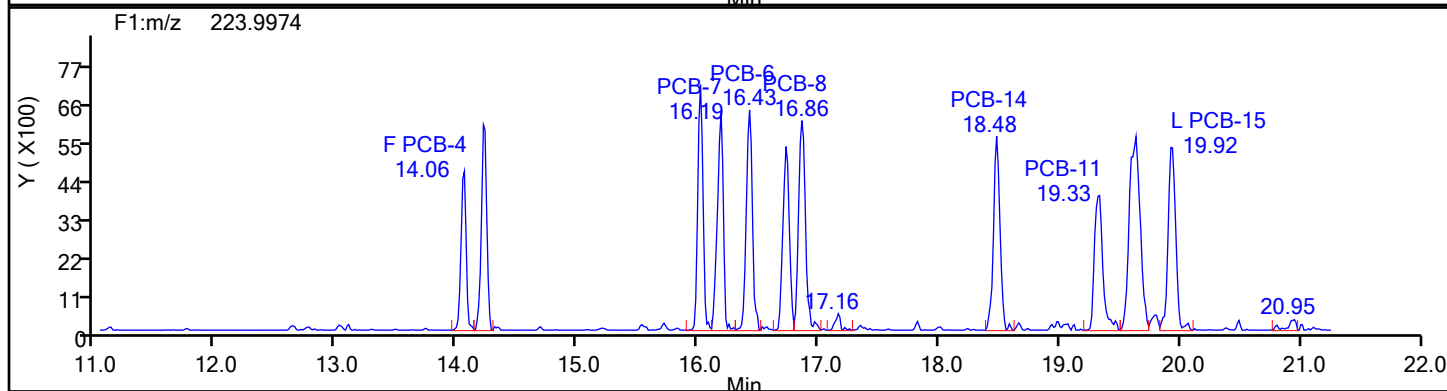
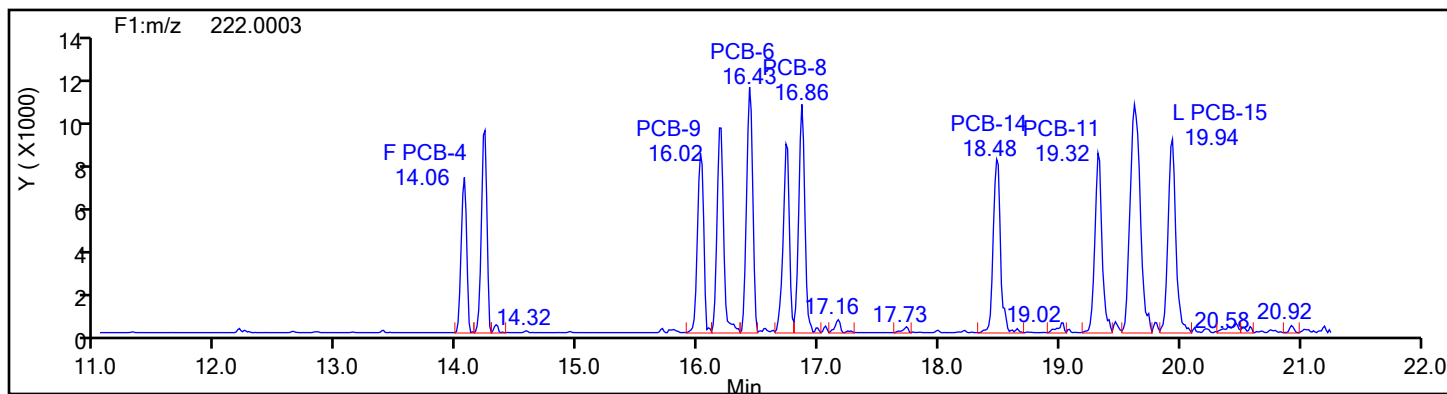
Worklist#: 87130

Sample Line#: 1

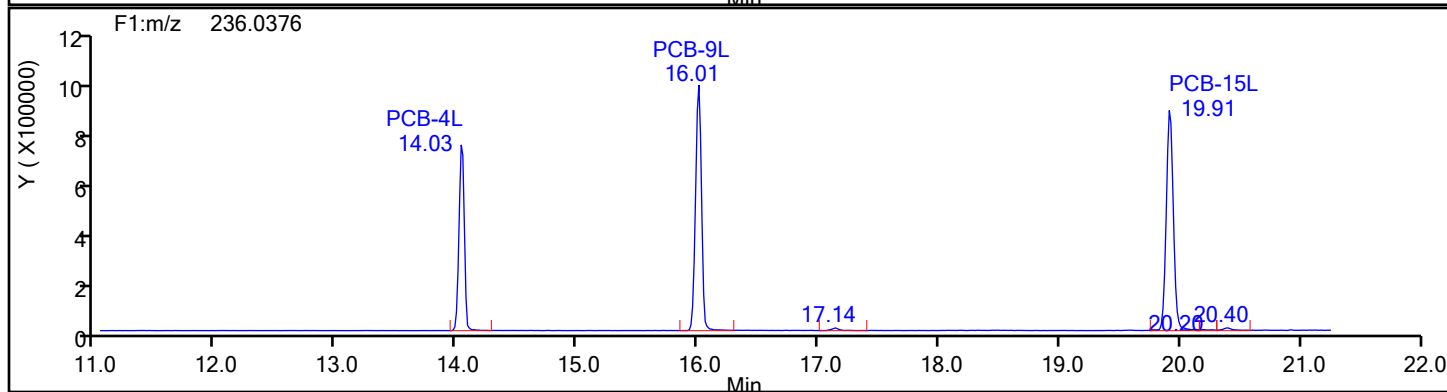
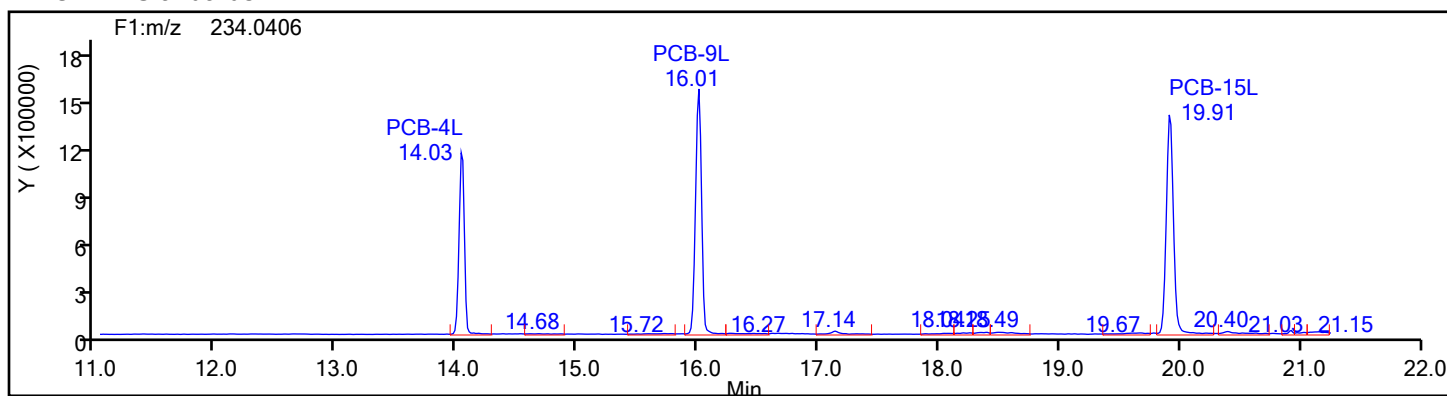
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

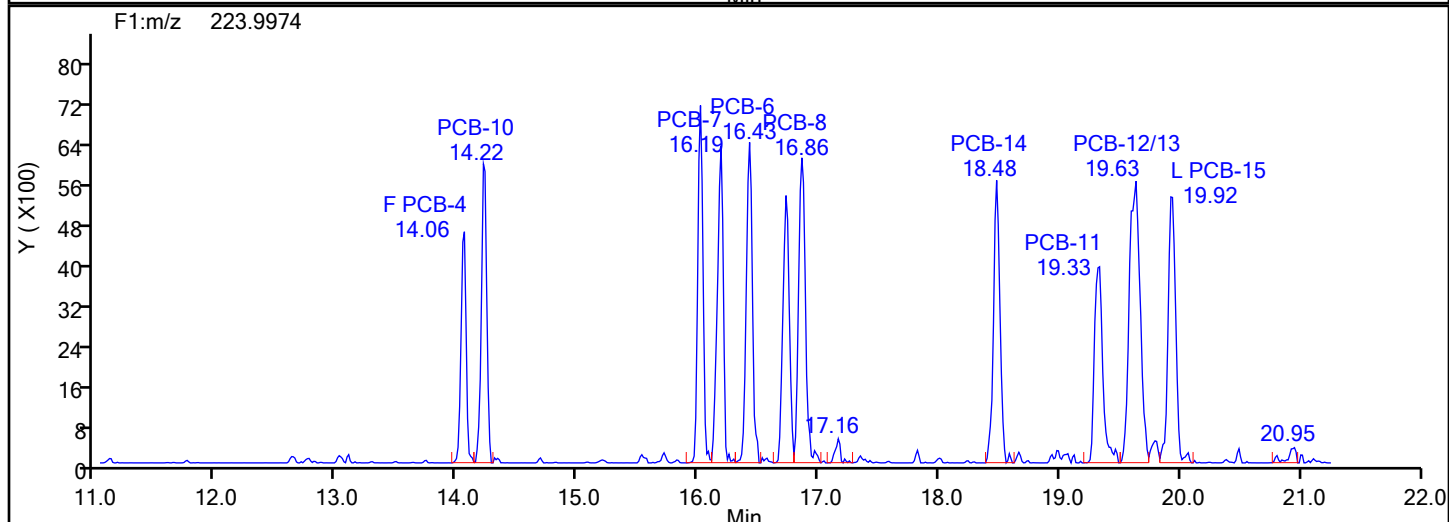
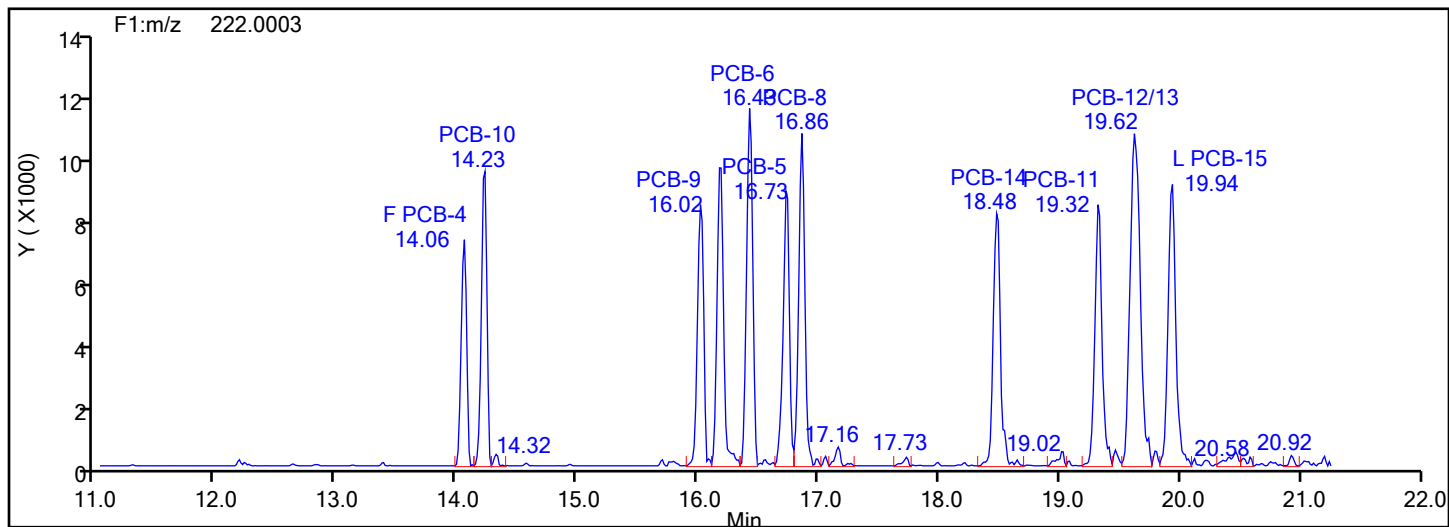
Worklist#: 87130

Sample Line#: 1

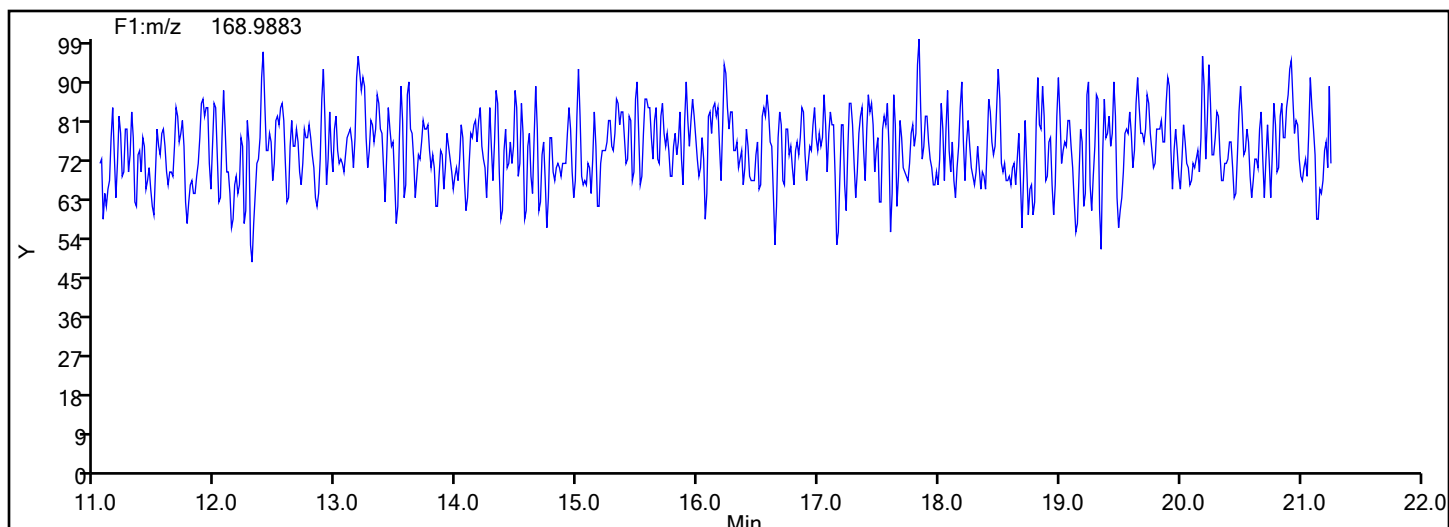
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

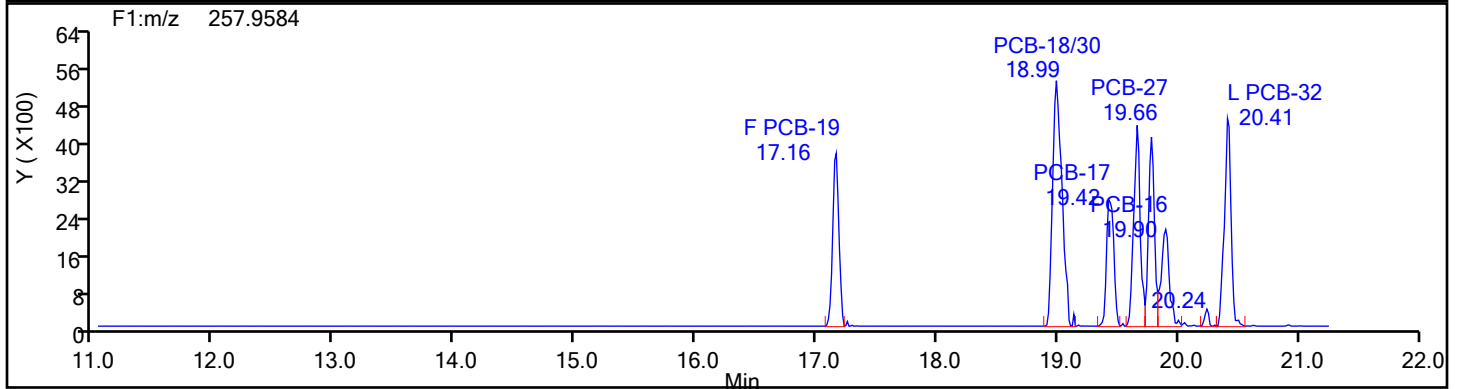
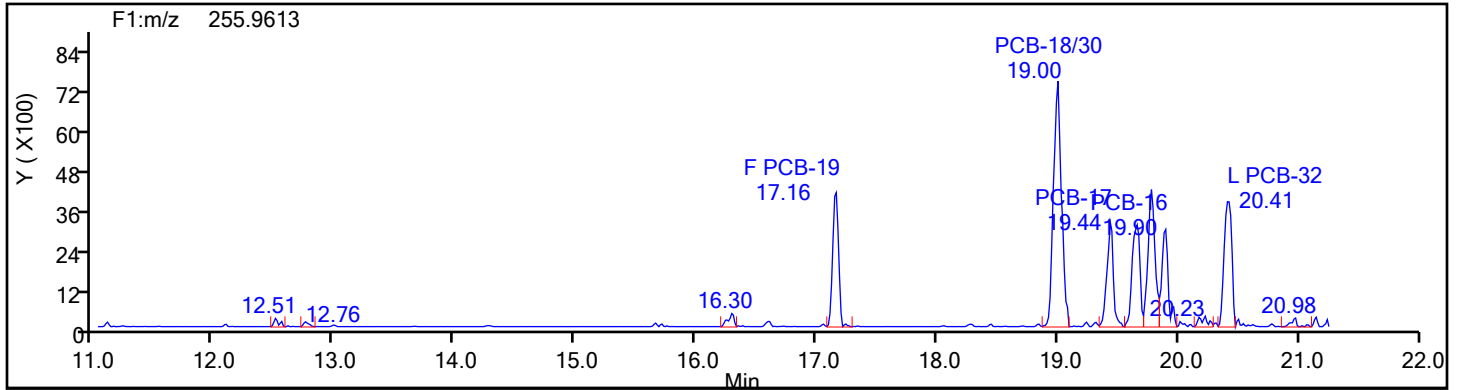
Worklist#: 87130

Sample Line#: 1

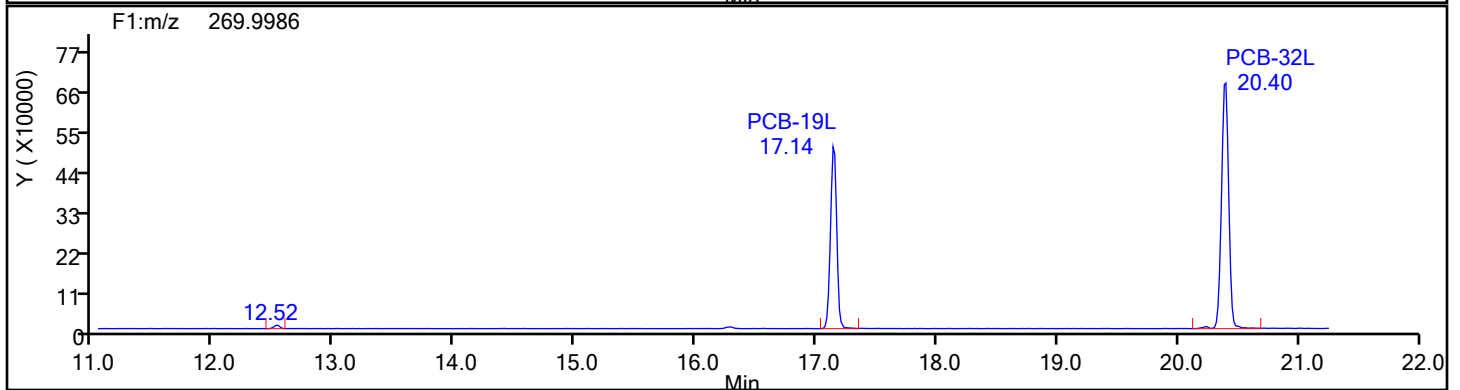
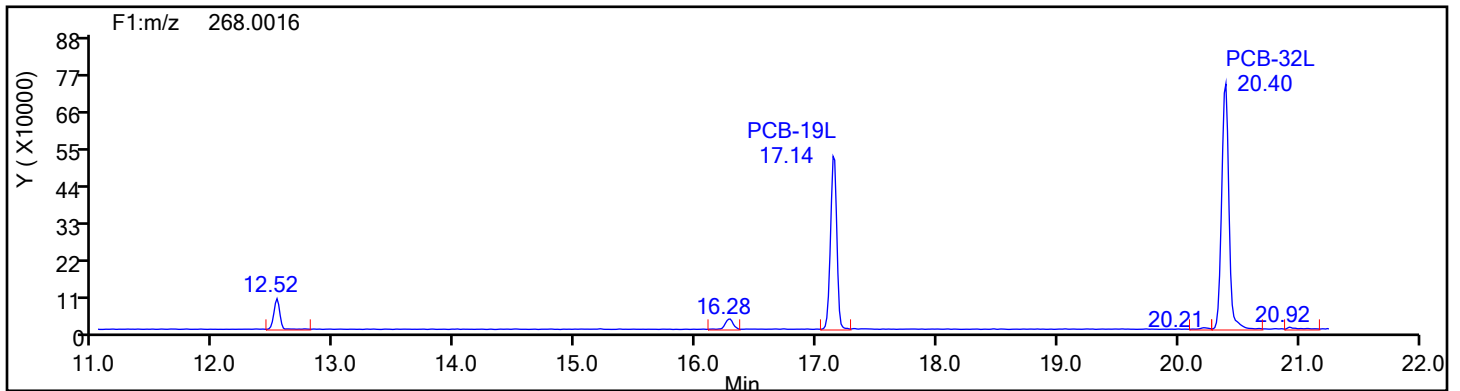
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

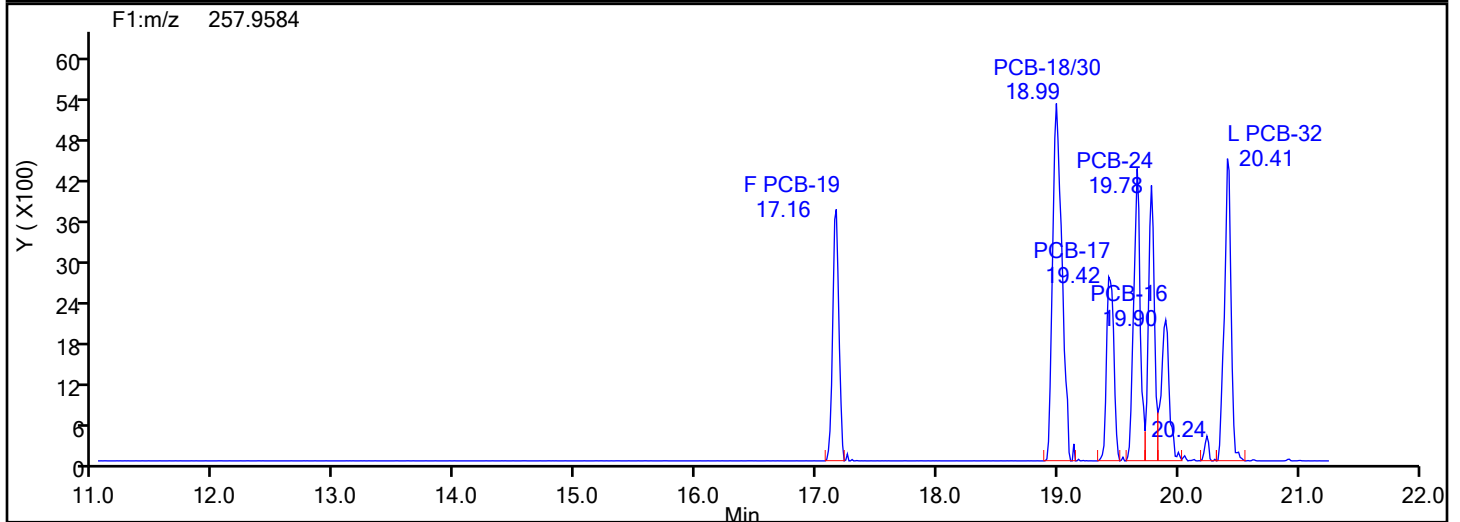
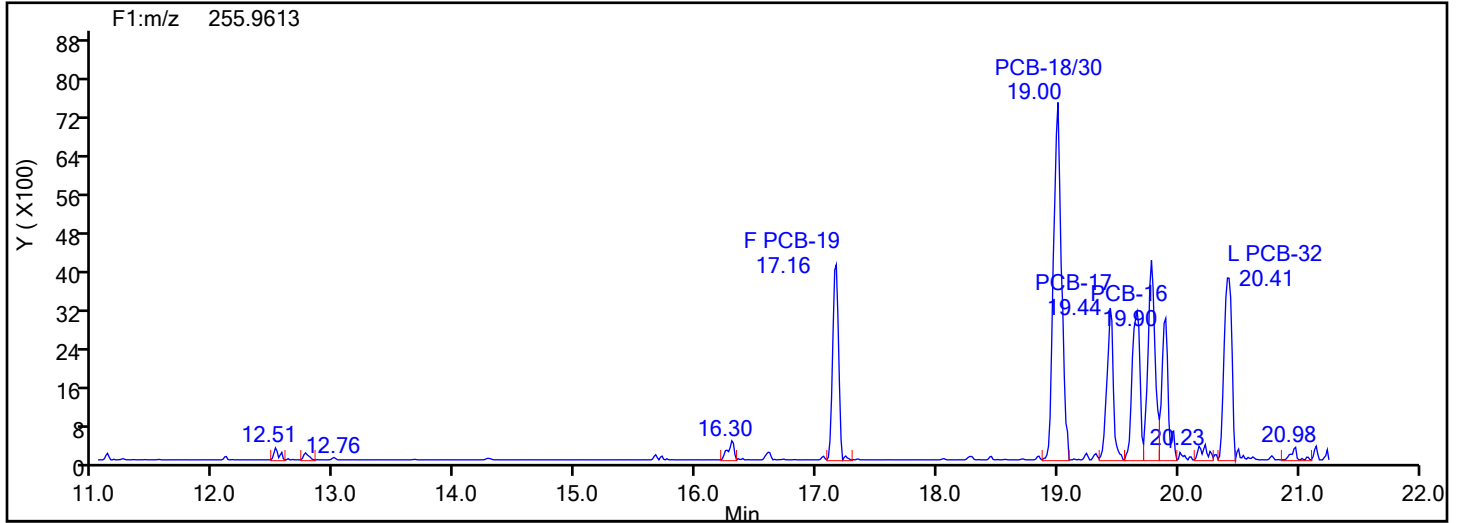
Worklist#: 87130

Sample Line#: 1

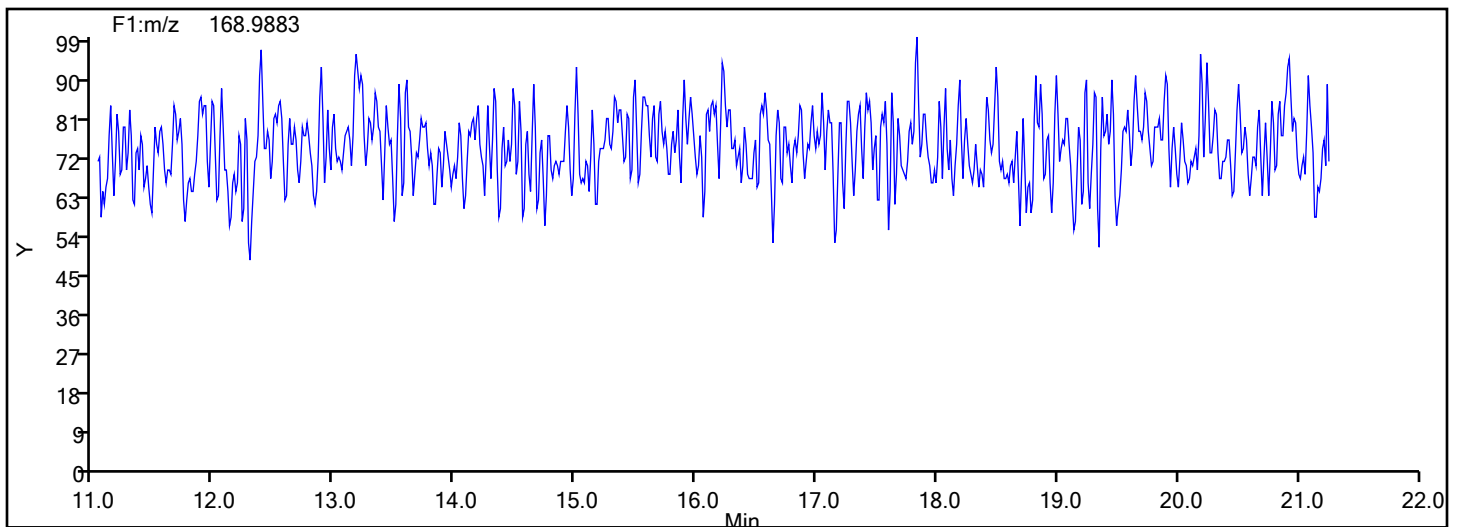
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

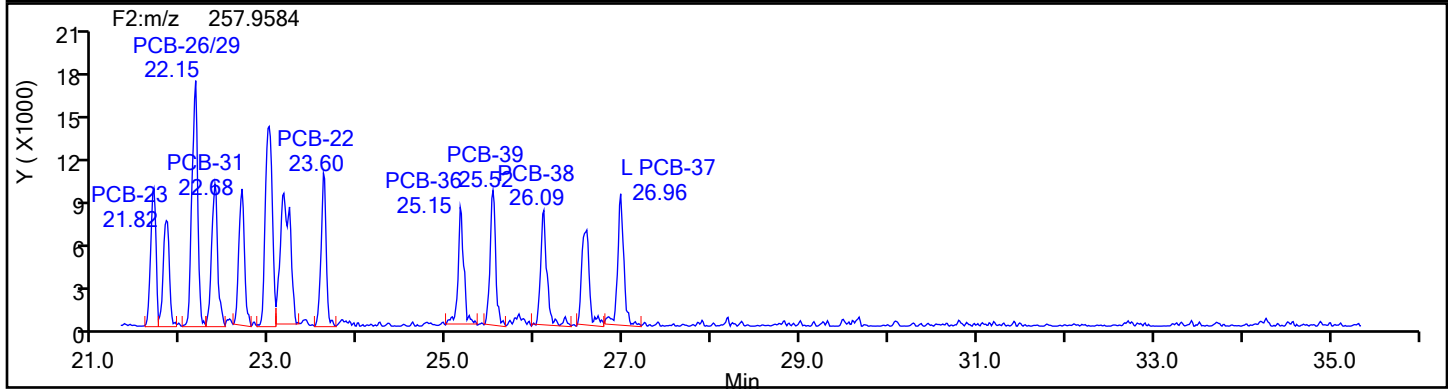
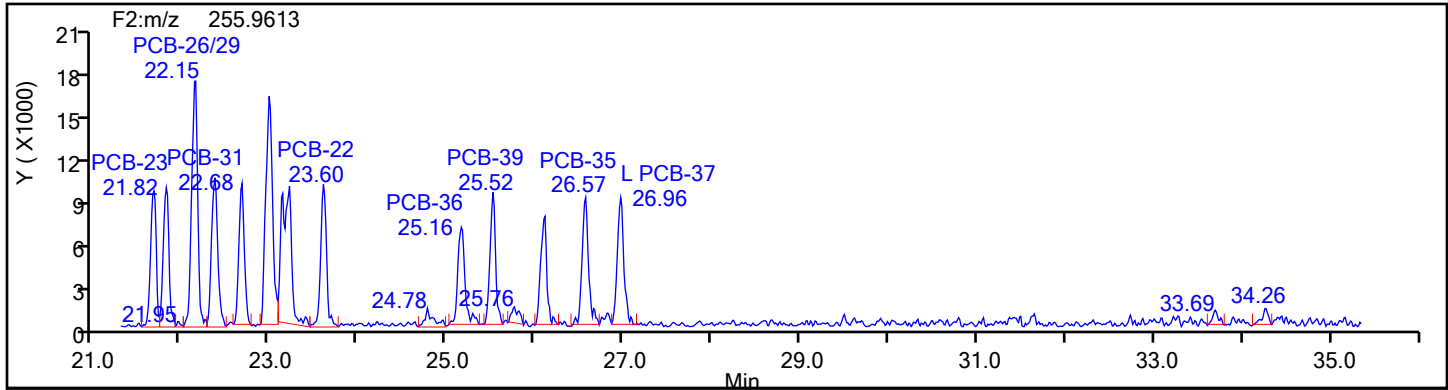
Worklist#: 87130

Sample Line#: 1

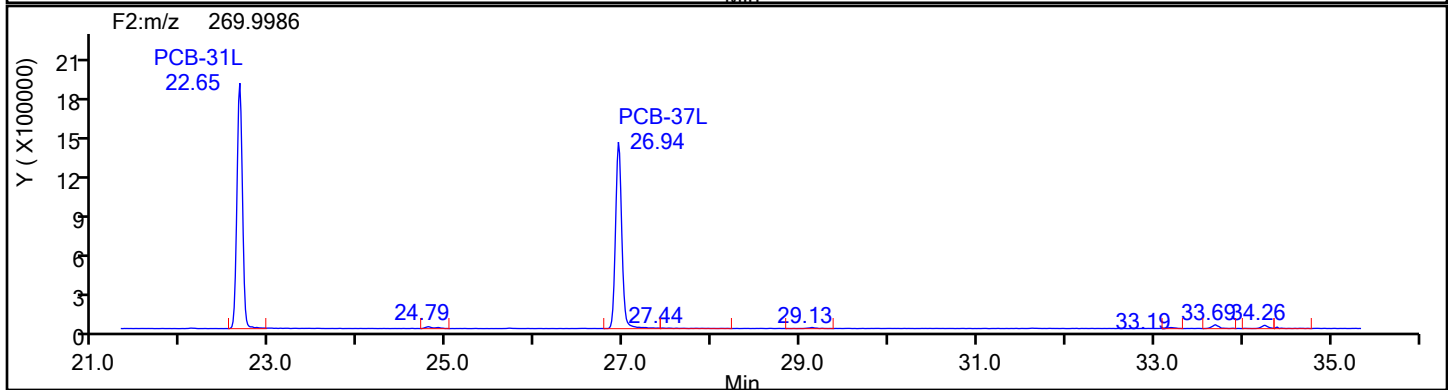
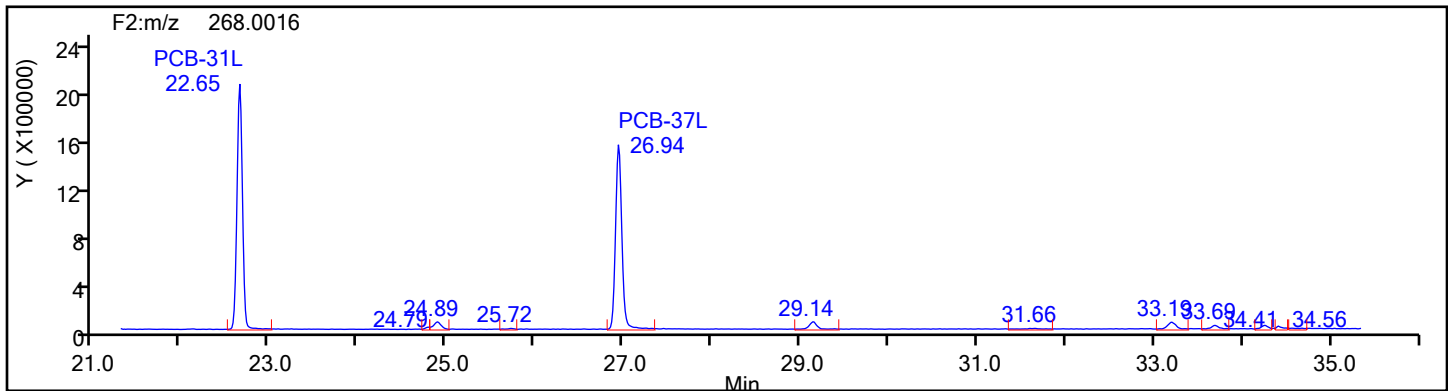
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

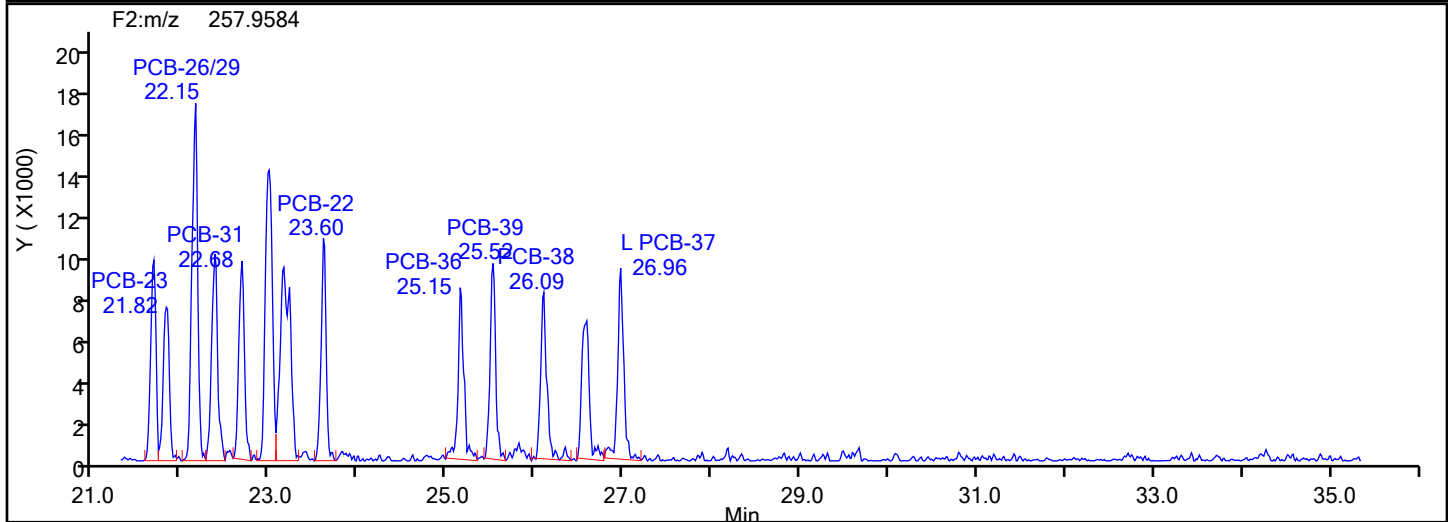
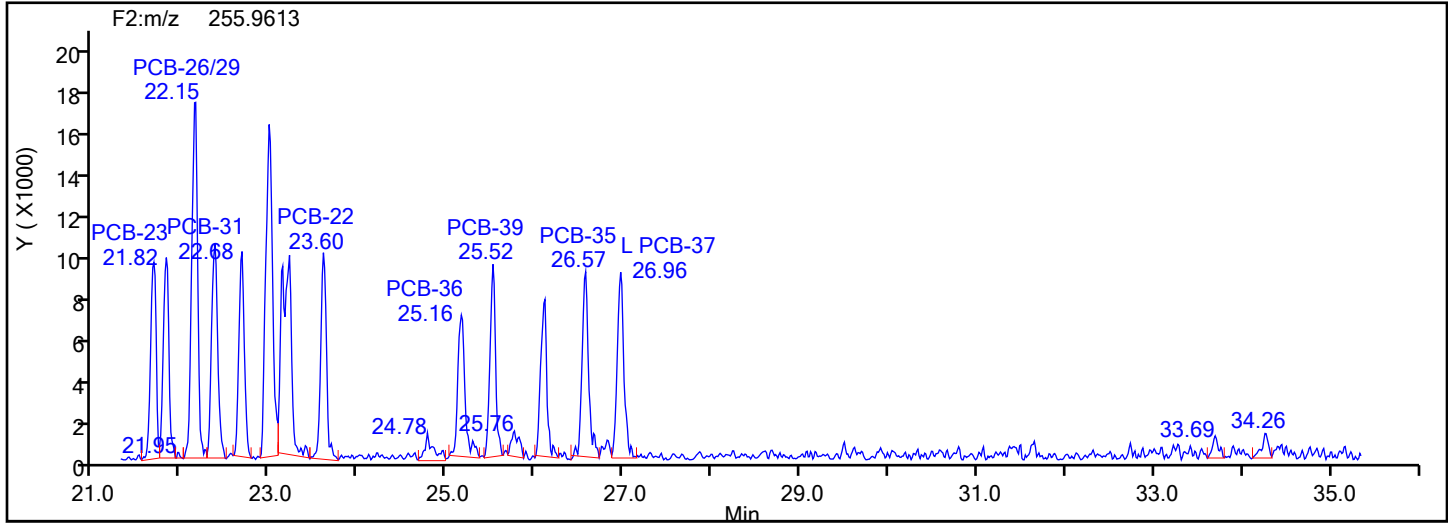
Worklist#: 87130

Sample Line#: 1

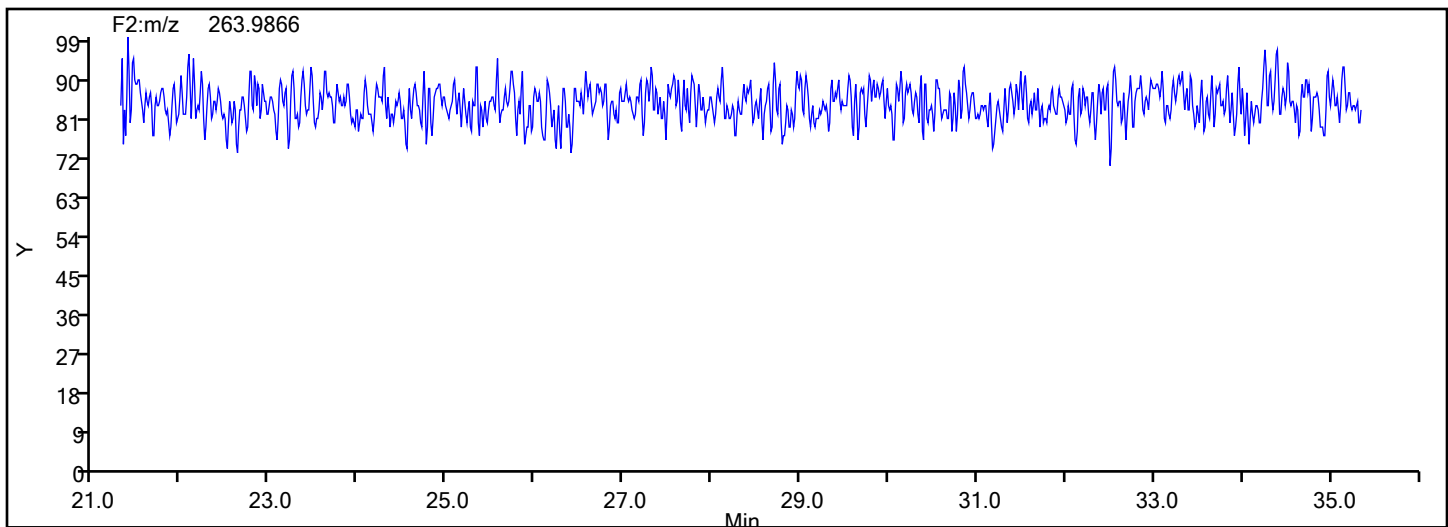
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Lock Mass





## Eurofins Knoxville

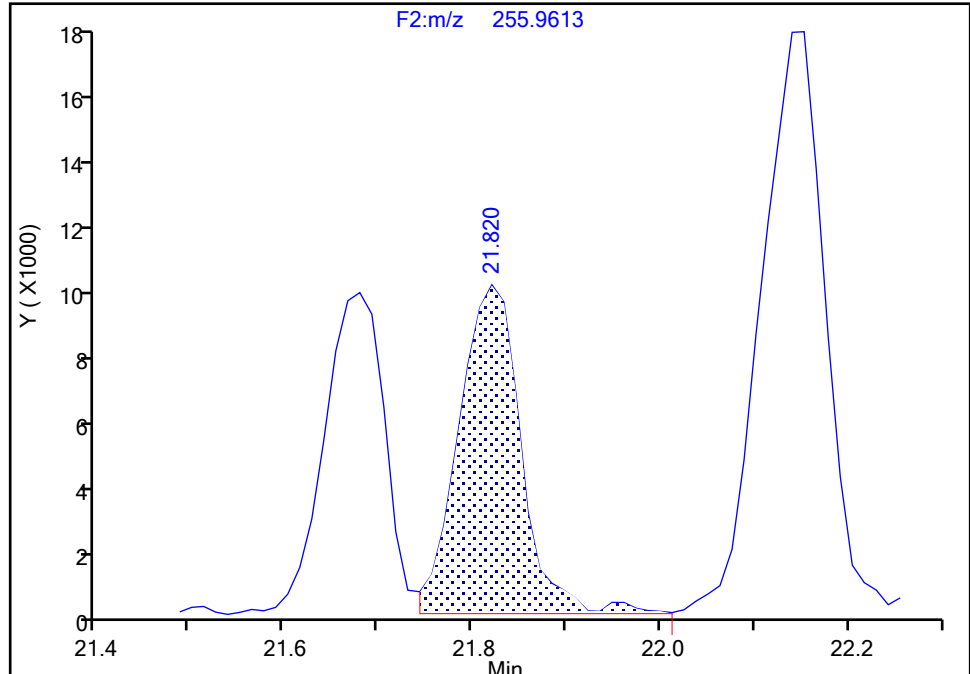
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-23, CAS: 55720-44-0

Signal: 1

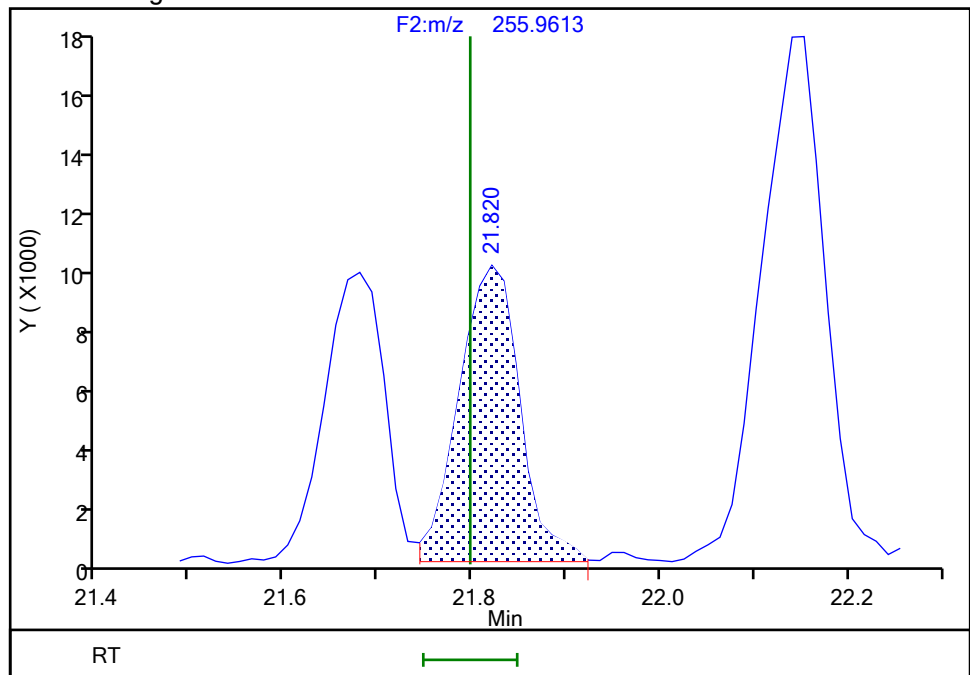
RT: 21.82  
Area: 43858  
Amount: 0.502763  
Amount Units: pg/ul

## Processing Integration Results



RT: 21.82  
Area: 43162  
Amount: 0.501518  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:26:53 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Instrument ID: D2D

Lims ID: IC L1

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

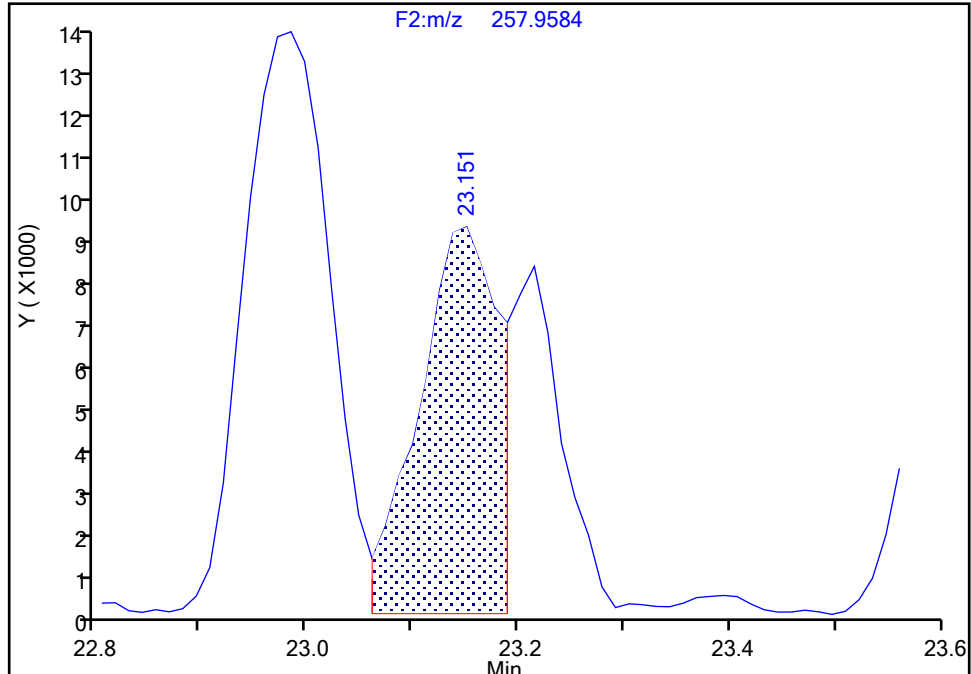
Detector F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 2

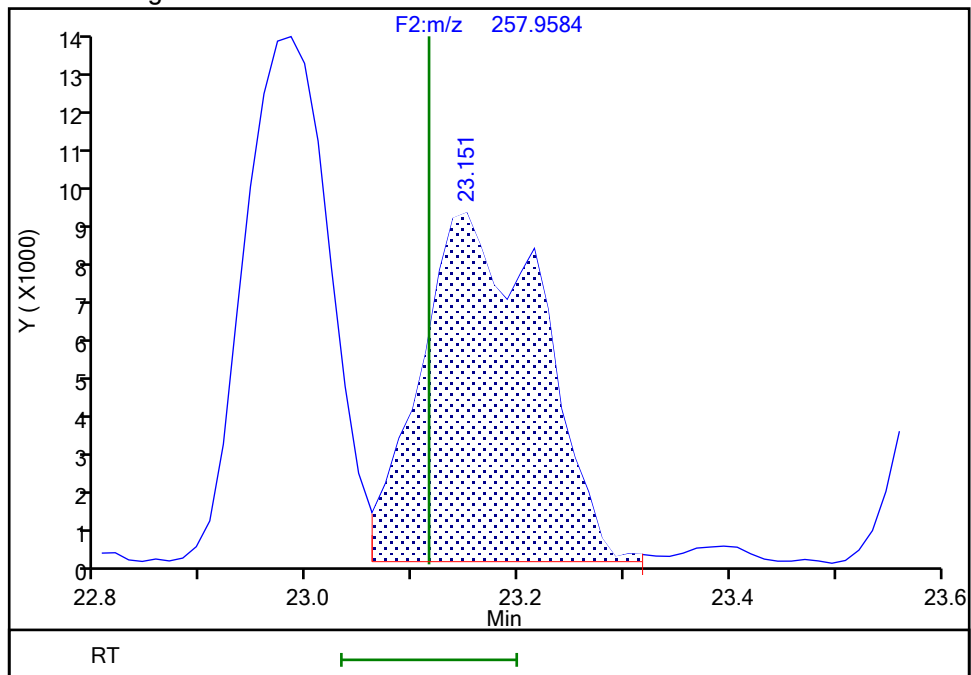
RT: 23.15  
Area: 46648  
Amount: 0.505312  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.15  
Area: 73943  
Amount: 0.947469  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:28:41 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Instrument ID: D2D

Lims ID: IC L1

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

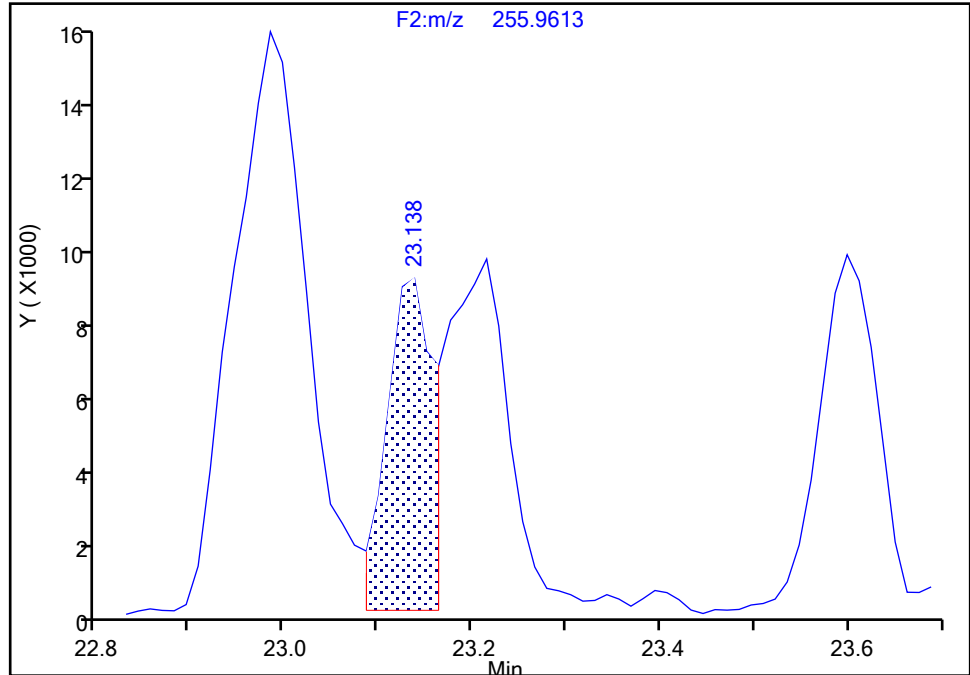
F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 1

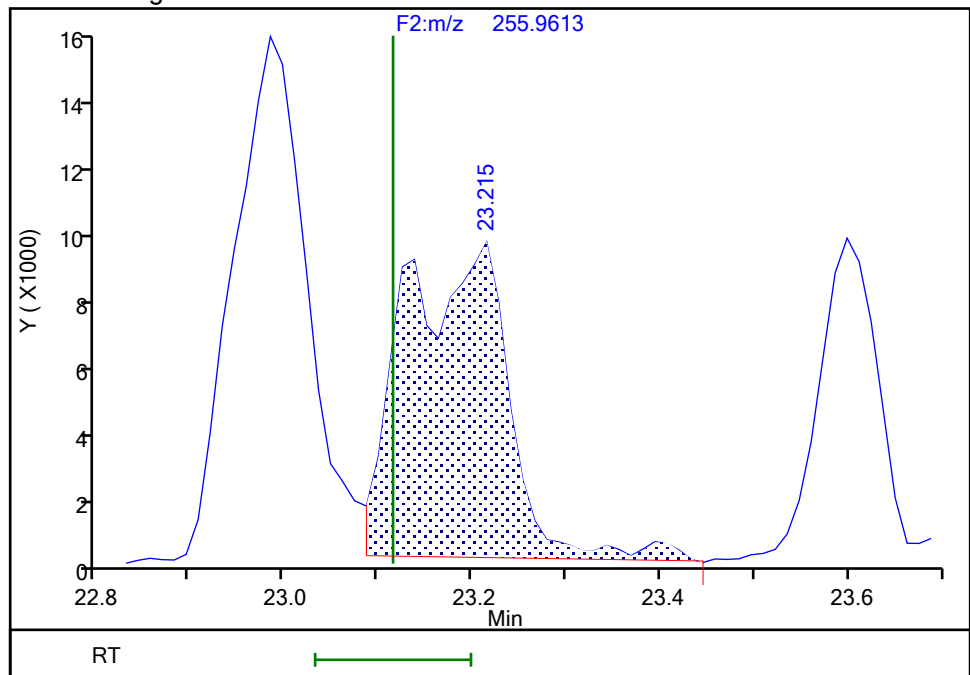
RT: 23.14  
Area: 29388  
Amount: 0.505312  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.21  
Area: 73767  
Amount: 0.947469  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:29:54 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Page 1668 of 3199

BASFWC-Pass 20240529 2668

9/6/2024  
4:19:54 PM

## Eurofins Knoxville

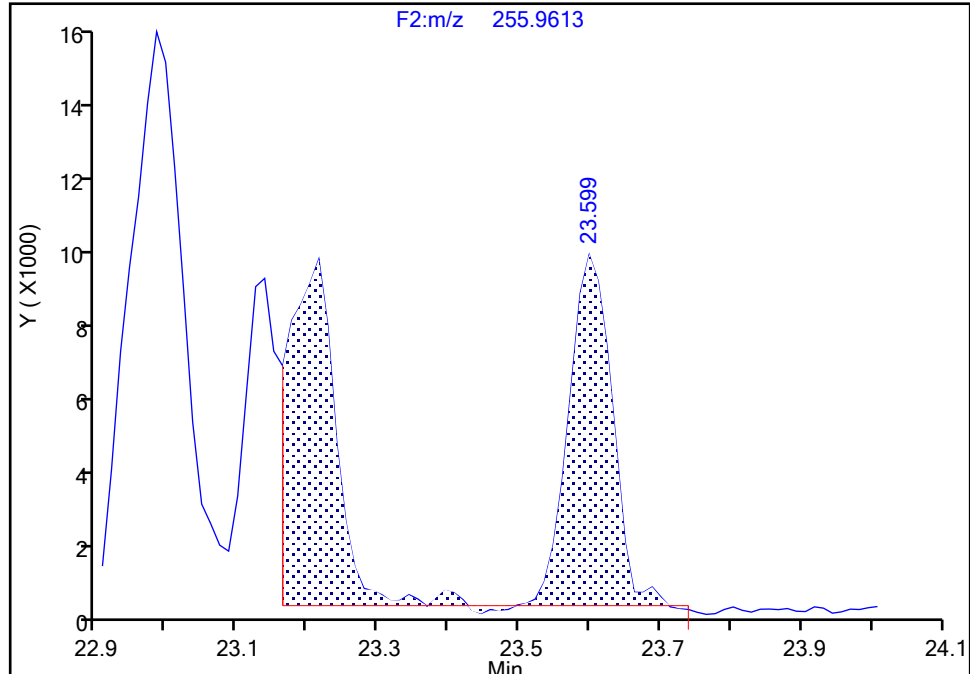
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-22, CAS: 38444-85-8**

Signal: 1

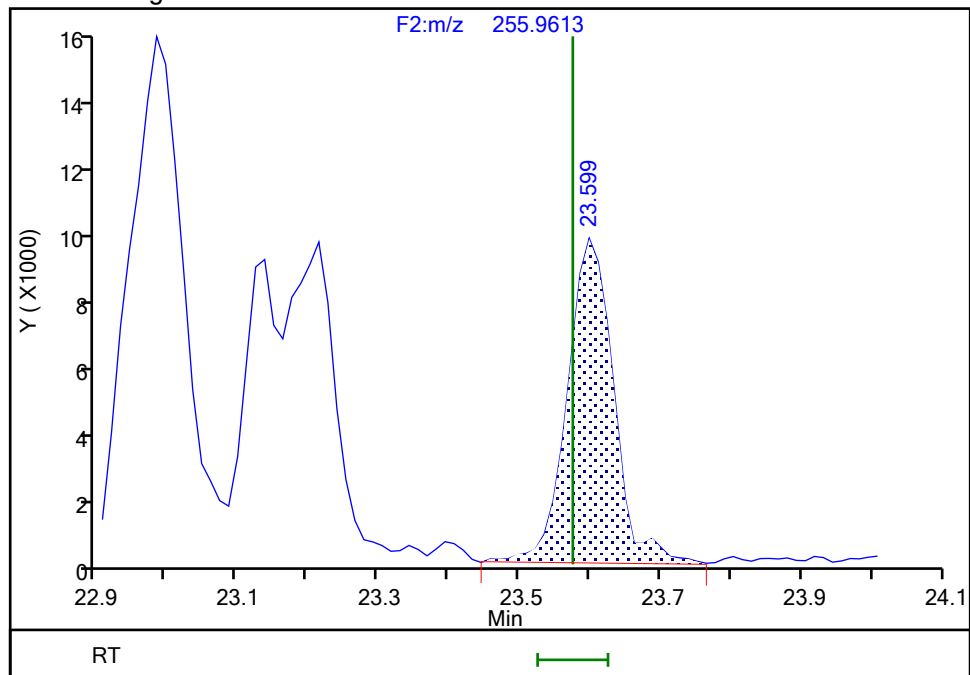
RT: 23.60  
Area: 84286  
Amount: 0.670944  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.60  
Area: 44761  
Amount: 0.505110  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:29:54 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

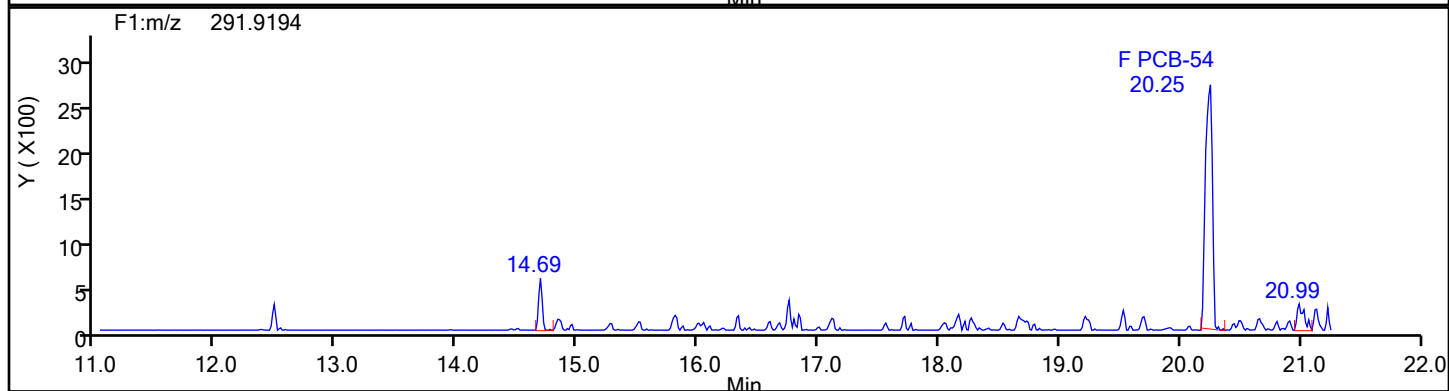
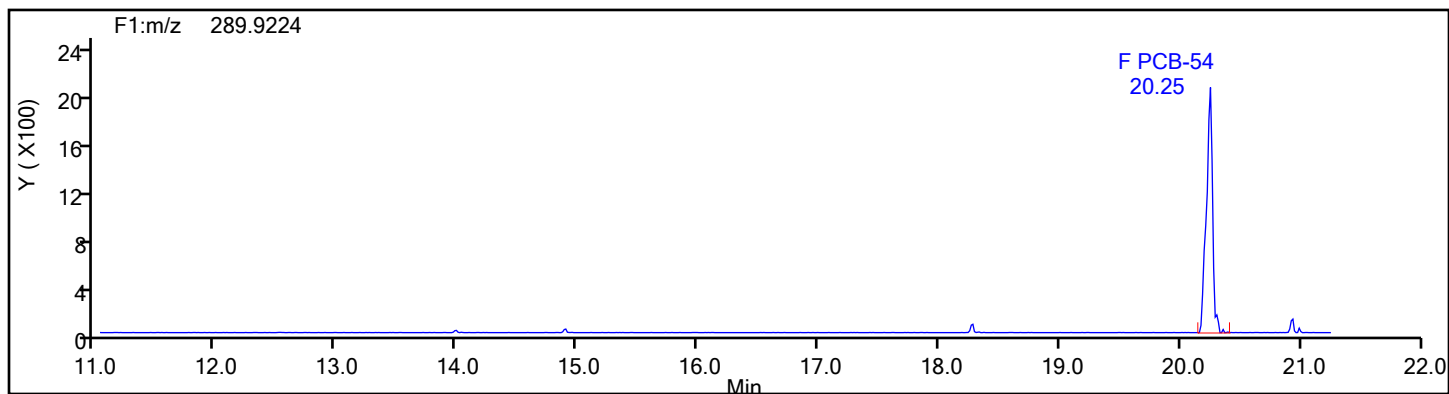
Worklist#: 87130

Sample Line#: 1

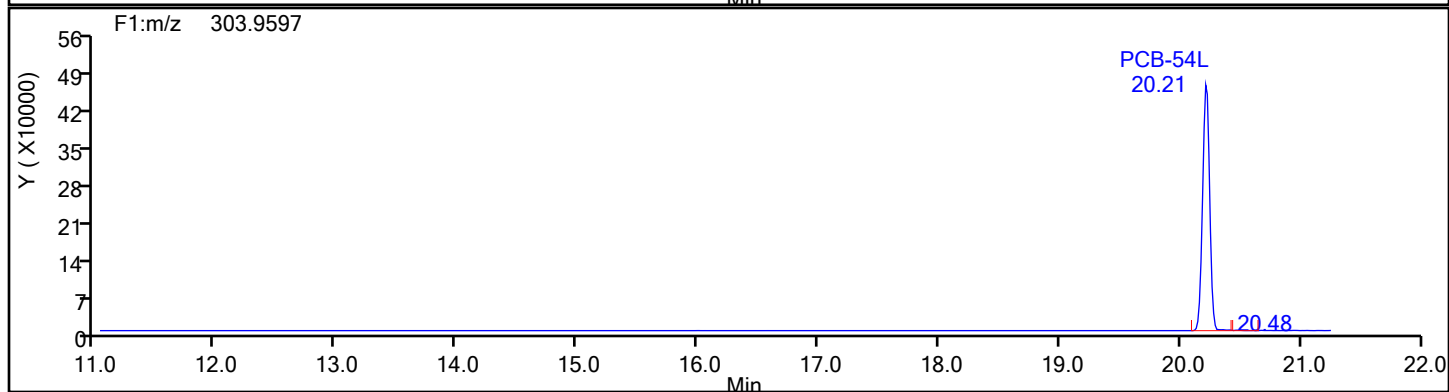
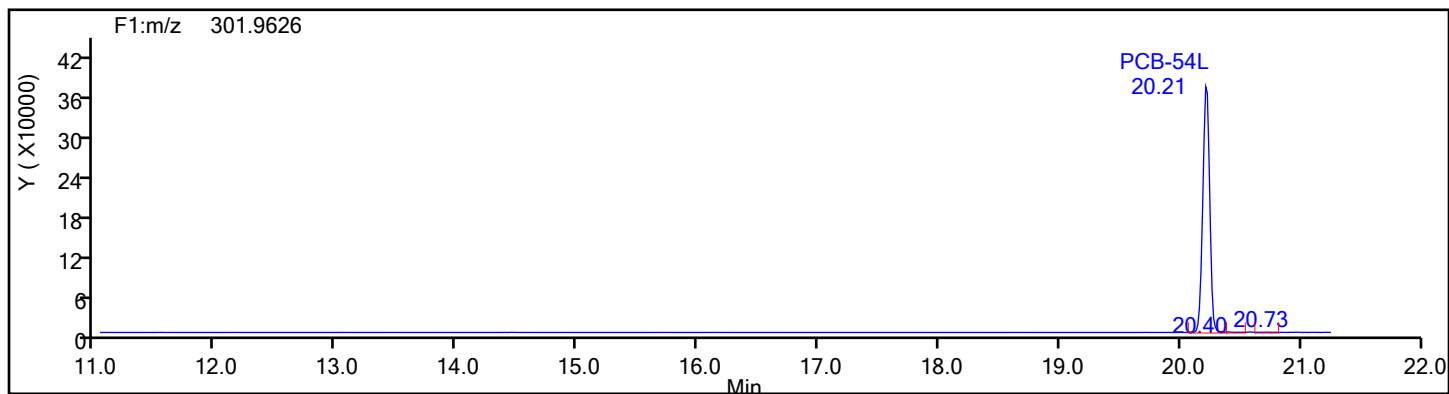
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



TePCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

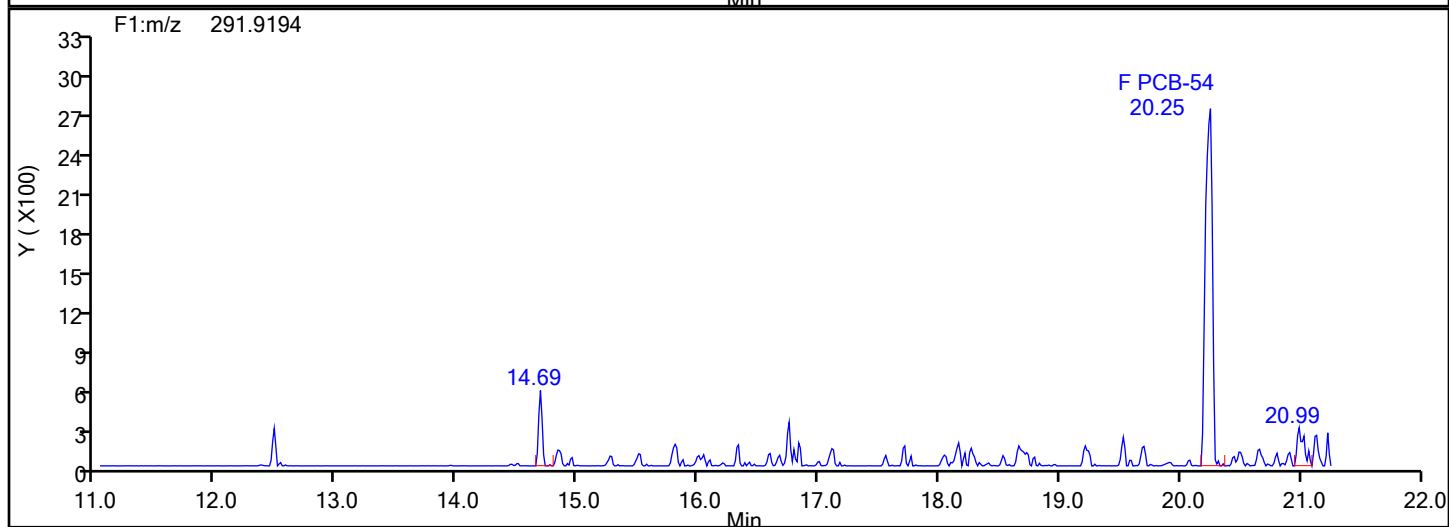
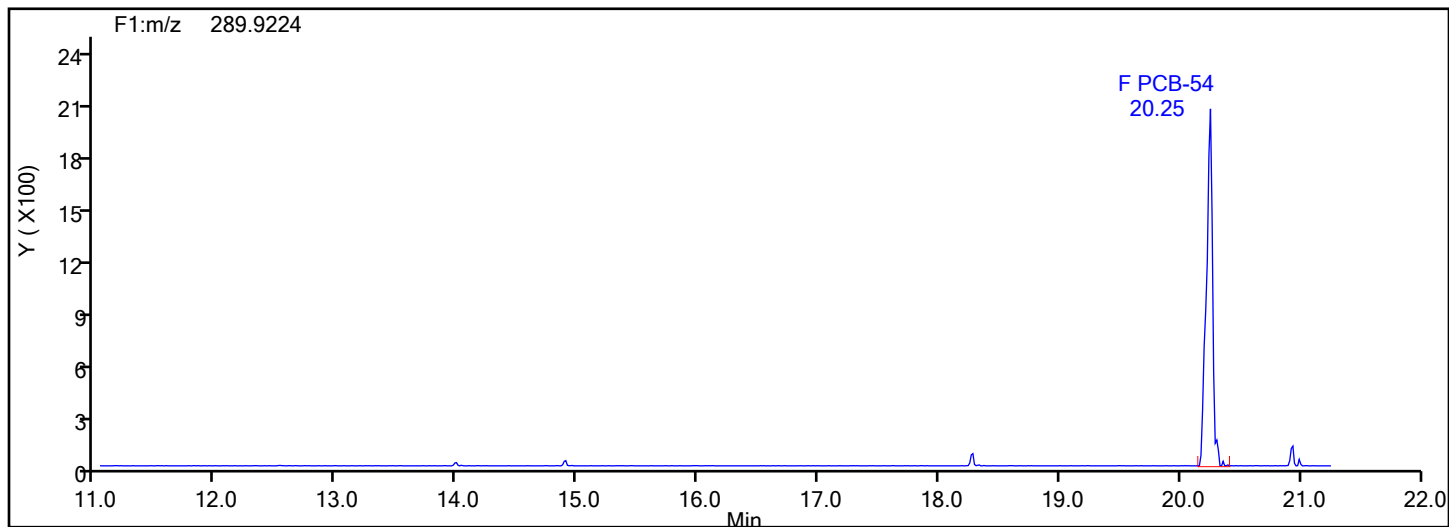
Worklist#: 87130

Sample Line#: 1

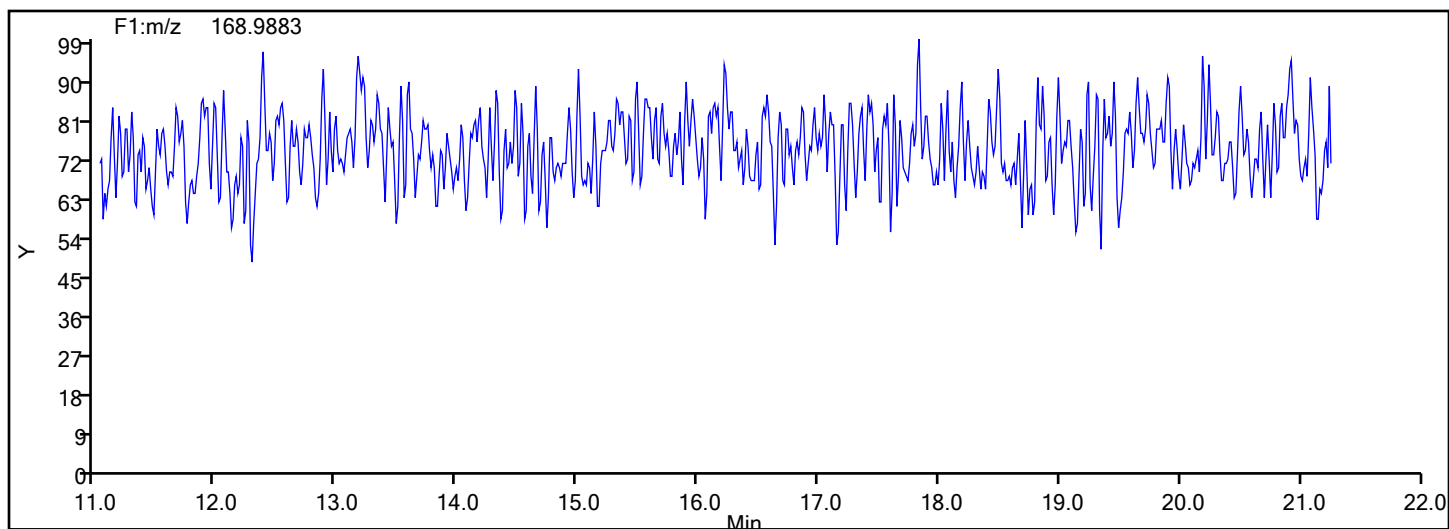
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



## TePCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

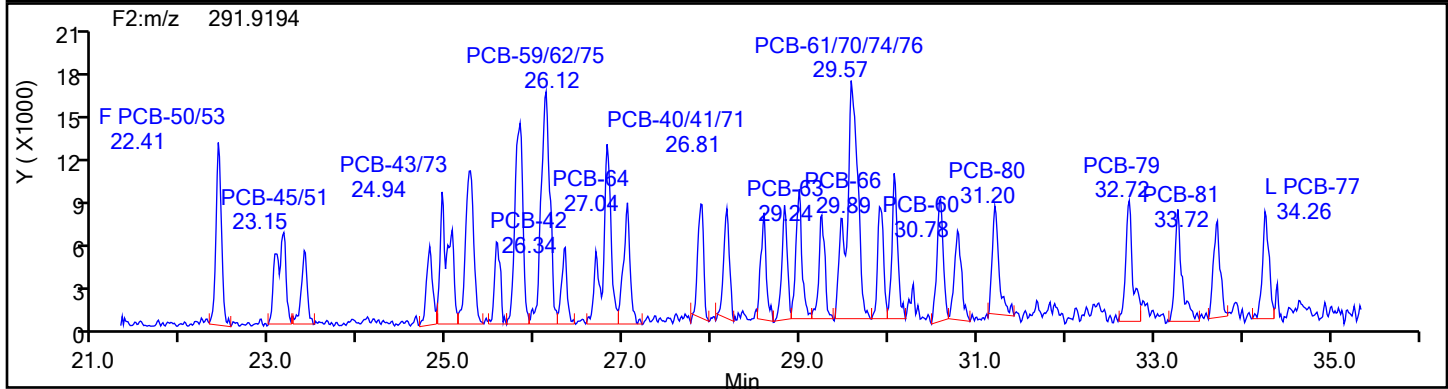
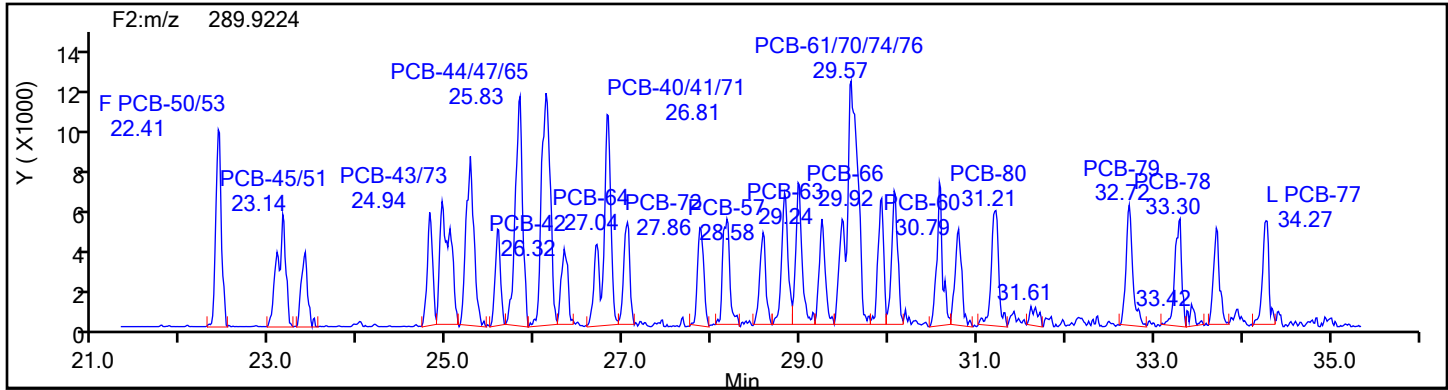
Worklist#: 87130

Sample Line#: 1

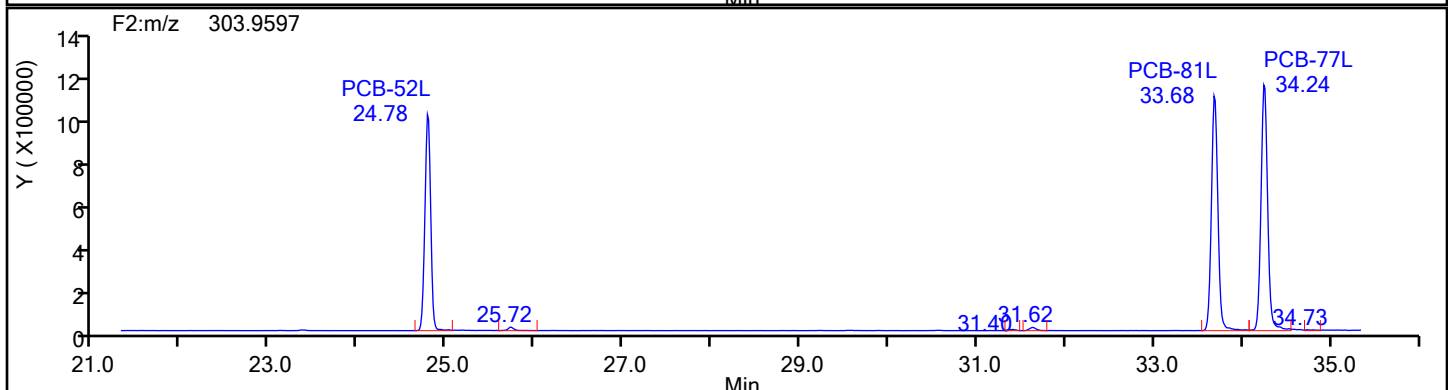
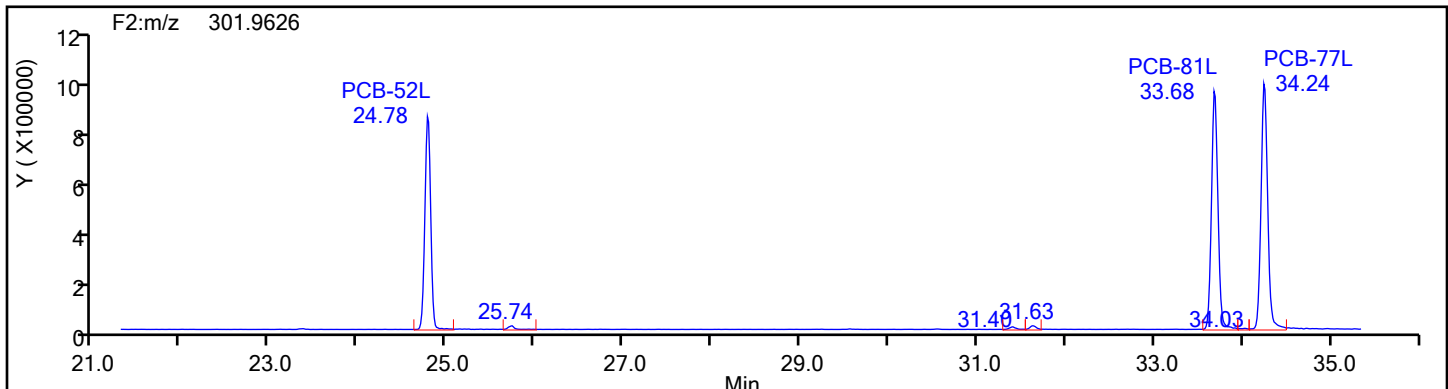
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



## TePCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

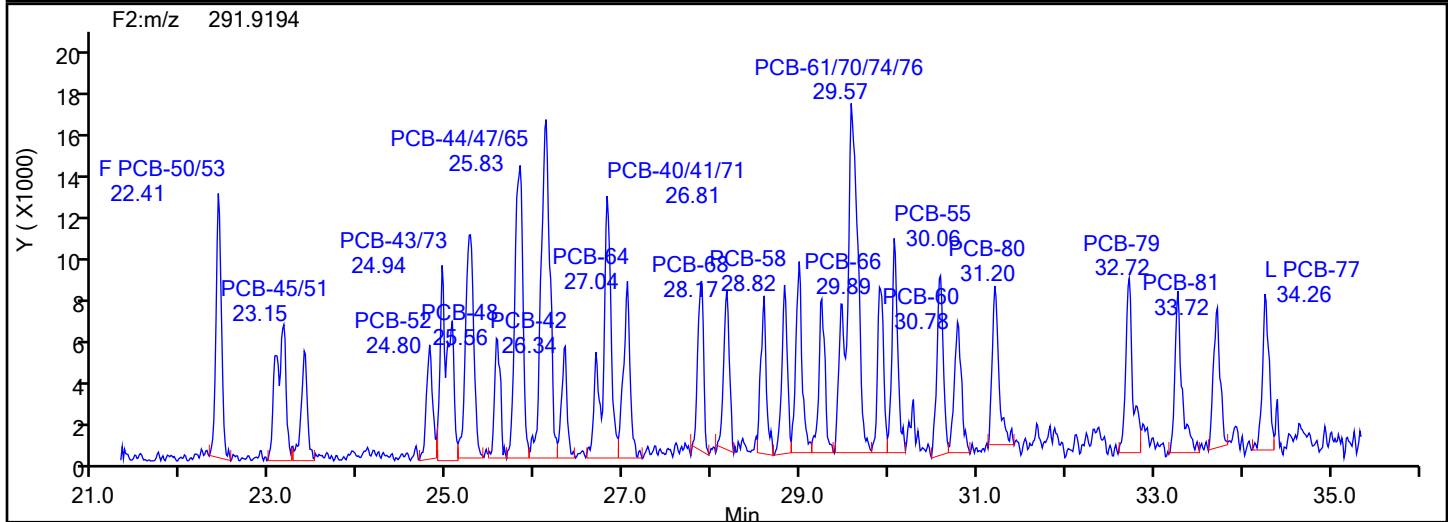
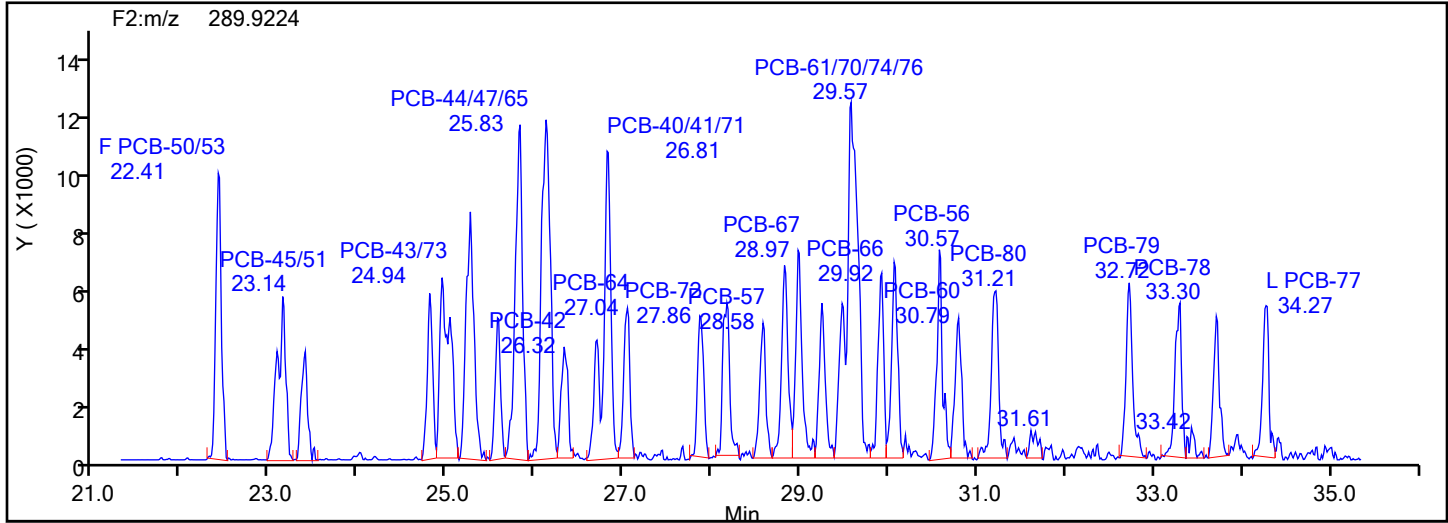
Worklist#: 87130

Sample Line#: 1

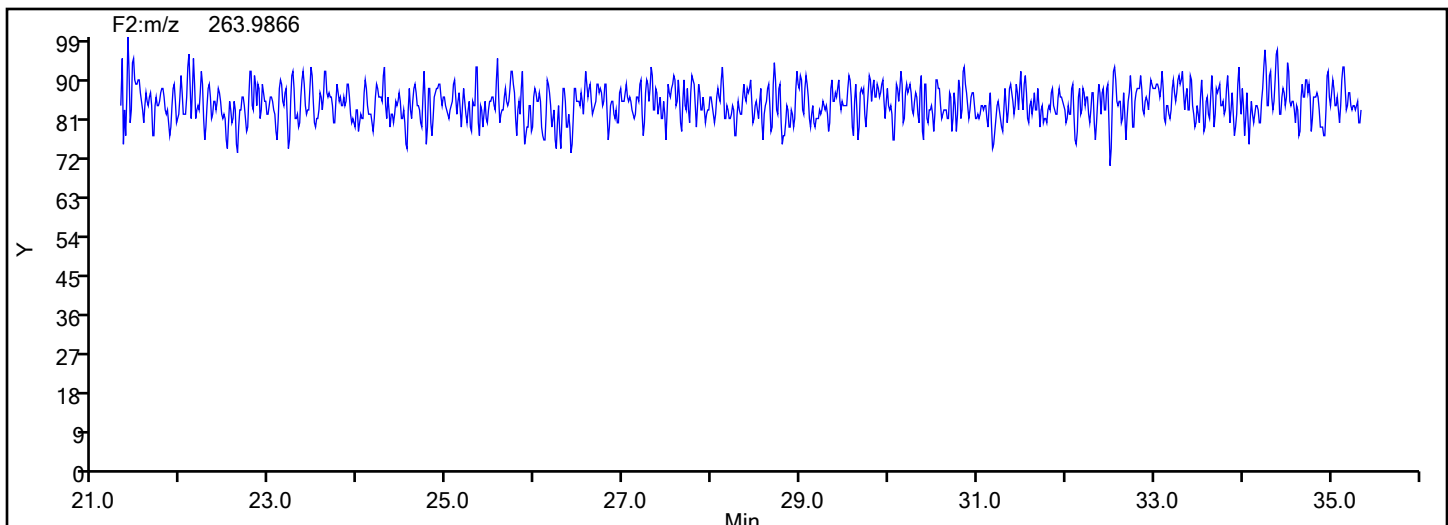
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



## TePCB F2 Lock Mass





## Eurofins Knoxville

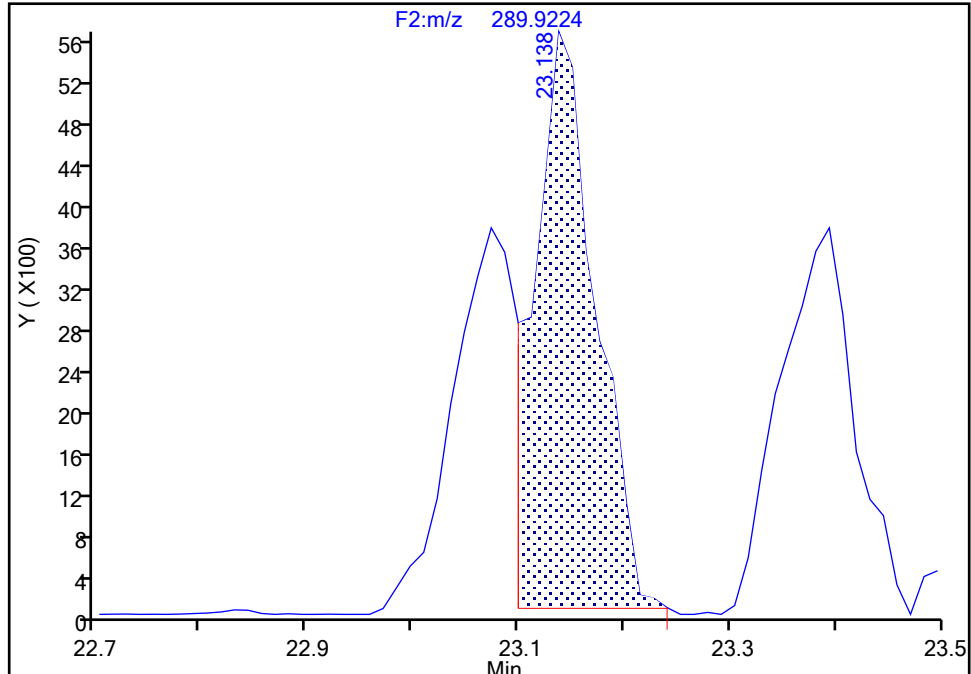
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-45/51, CAS: STL01804**

Signal: 1

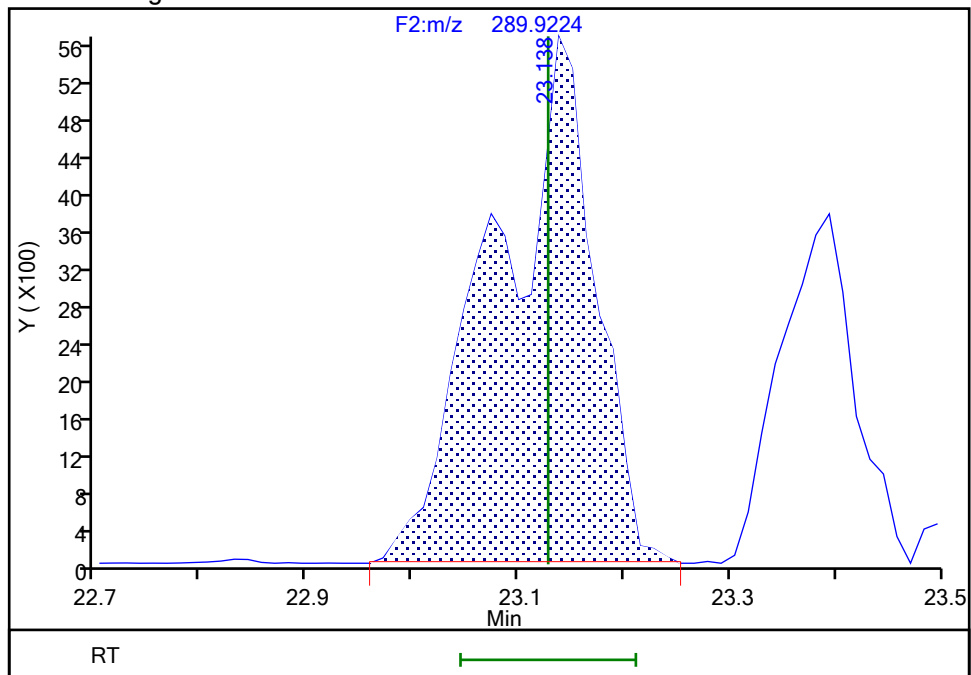
RT: 23.14  
Area: 21852  
Amount: 0.692797  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.14  
Area: 36905  
Amount: 0.981981  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:29:04 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

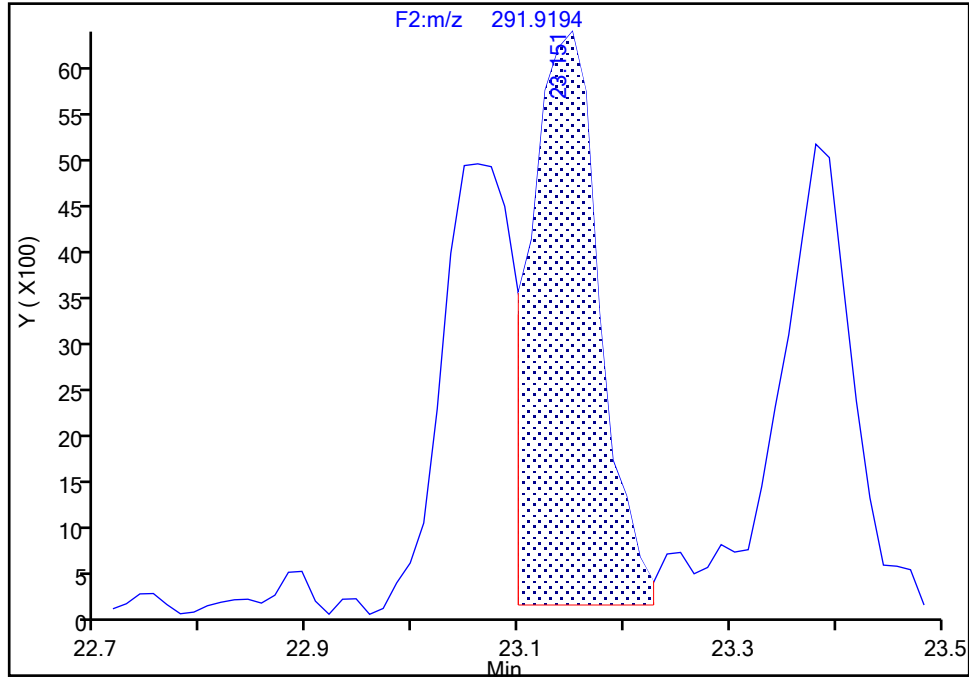
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-45/51, CAS: STL01804**

Signal: 2

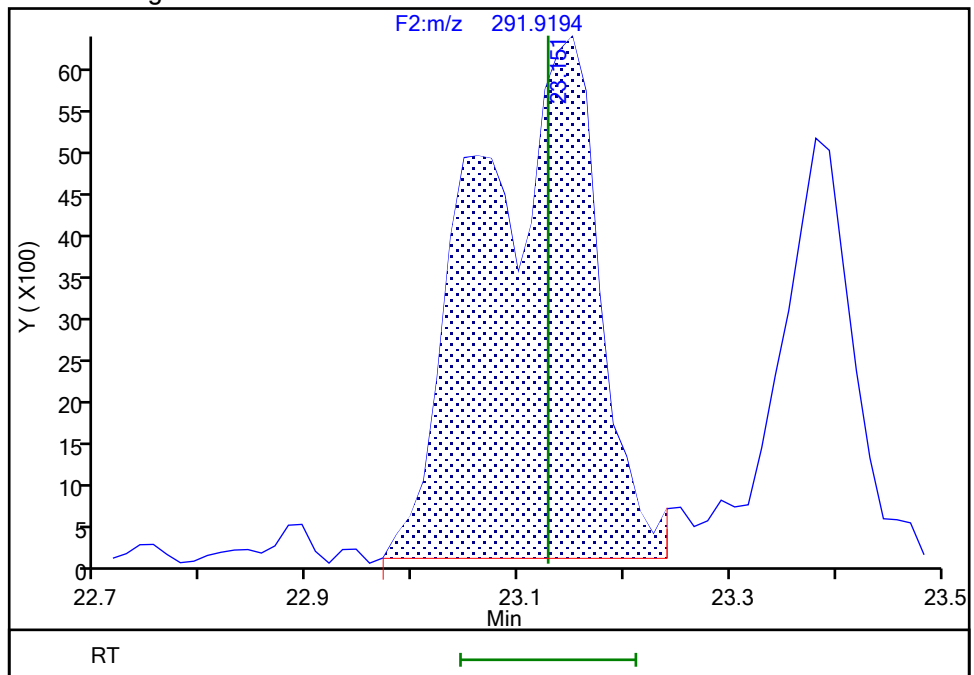
RT: 23.15  
Area: 27565  
Amount: 0.692797  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.15  
Area: 50053  
Amount: 0.981981  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:29:20 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

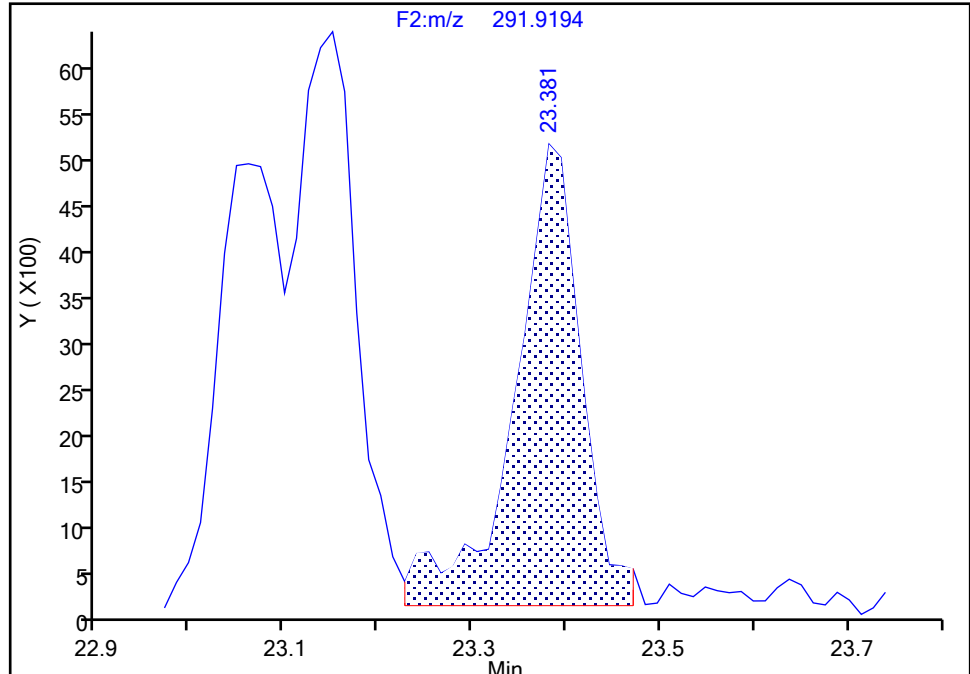
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-46, CAS: 41464-47-5

Signal: 2

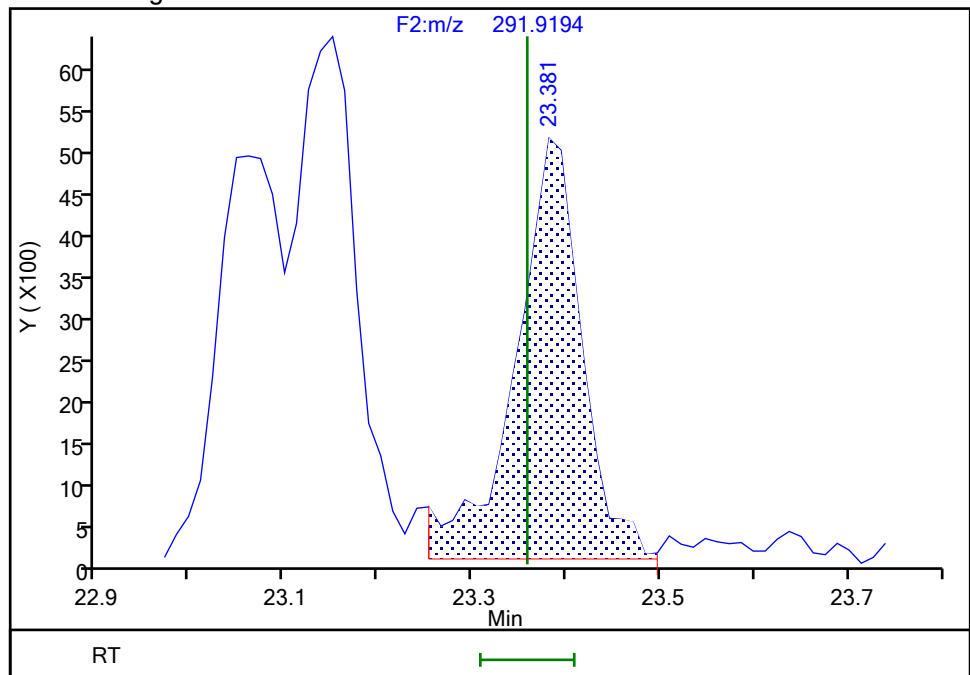
RT: 23.38  
Area: 24759  
Amount: 0.646077  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.38  
Area: 24801  
Amount: 0.572922  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:29:29 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

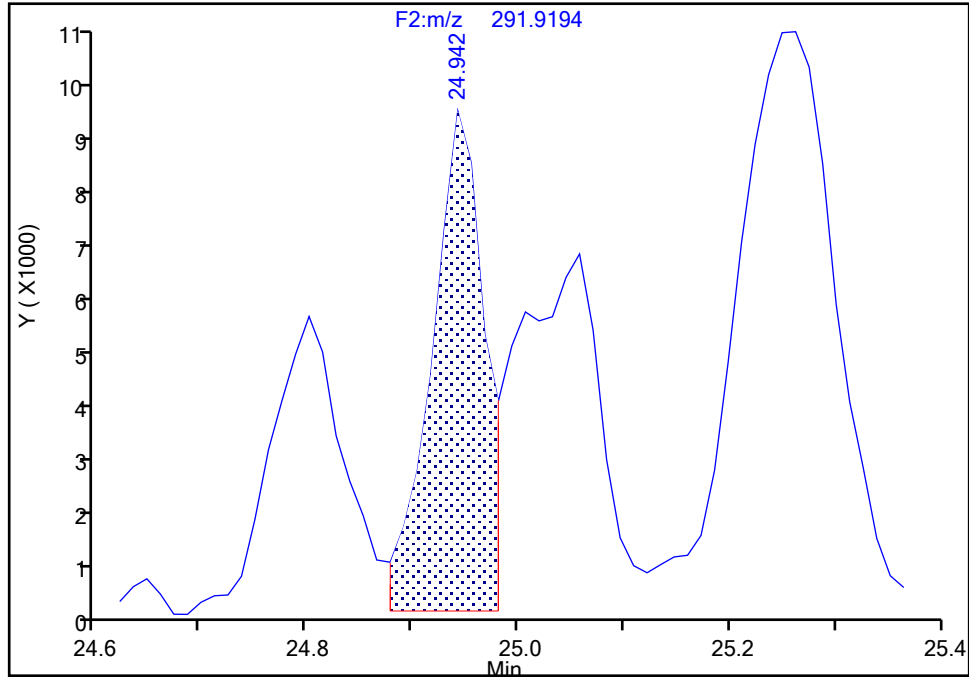
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 2

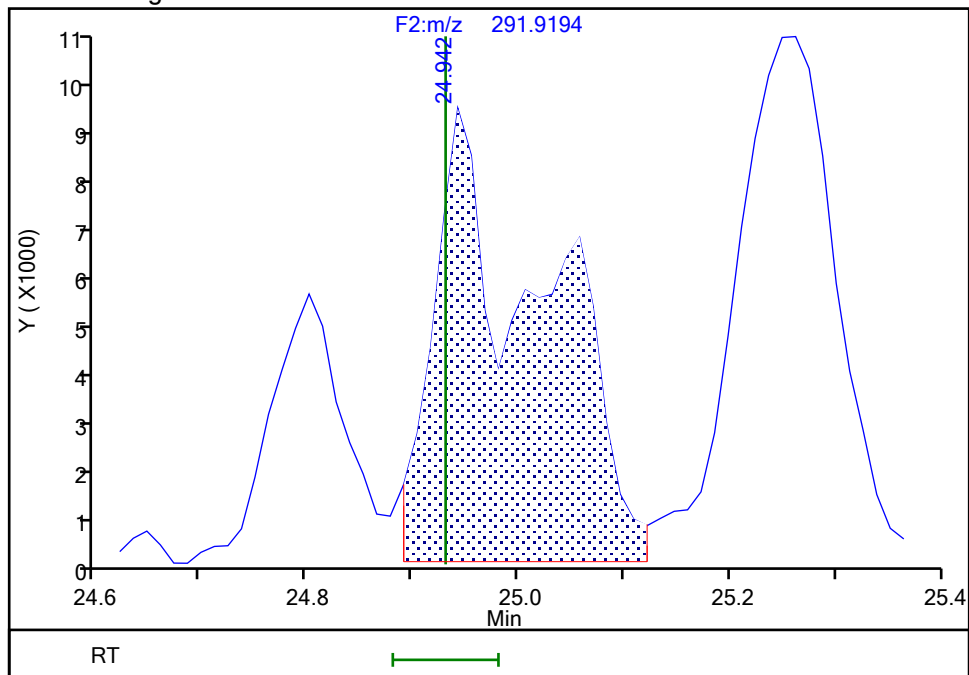
RT: 24.94  
Area: 30396  
Amount: 0.858929  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.94  
Area: 64927  
Amount: 1.040983  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:29:48 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

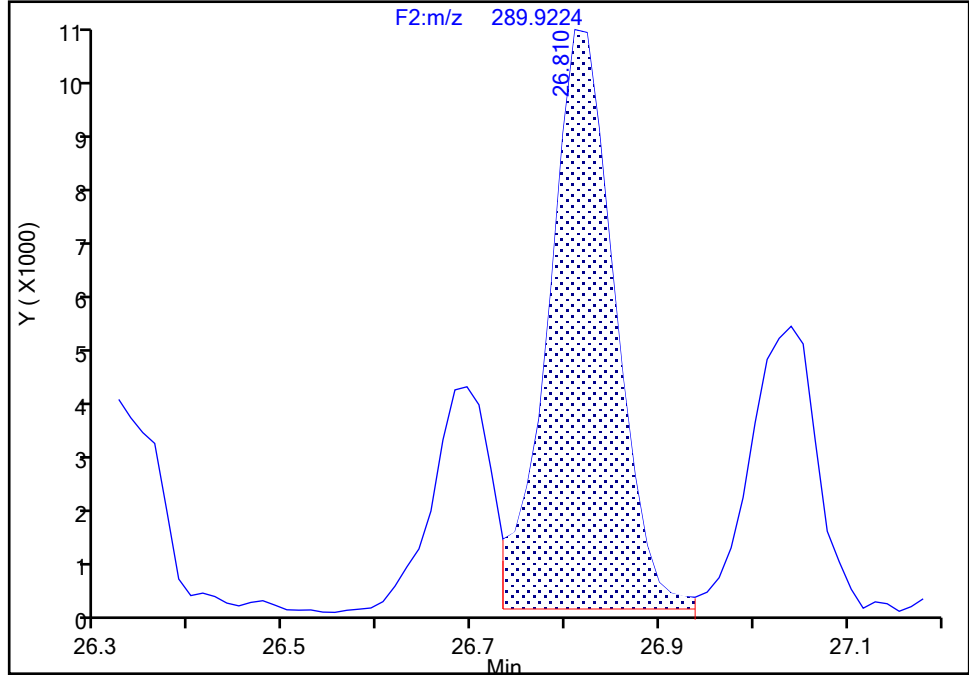
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

**PCB-40/41/71, CAS: STL02292**

Signal: 1

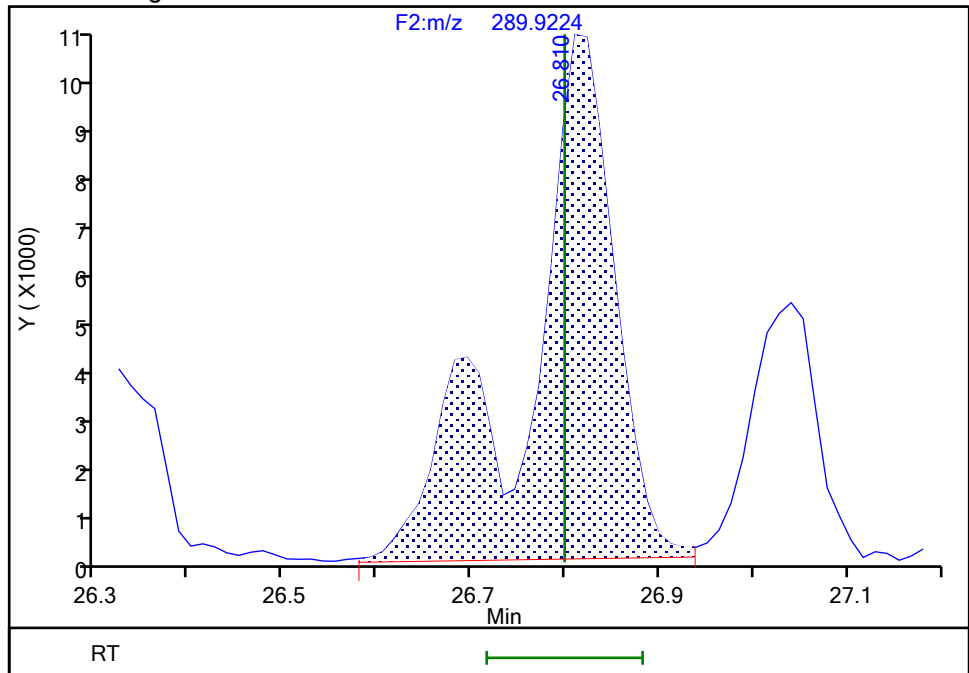
RT: 26.81  
Area: 51372  
Amount: 1.634828  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.81  
Area: 69186  
Amount: 1.611545  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:30:06 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

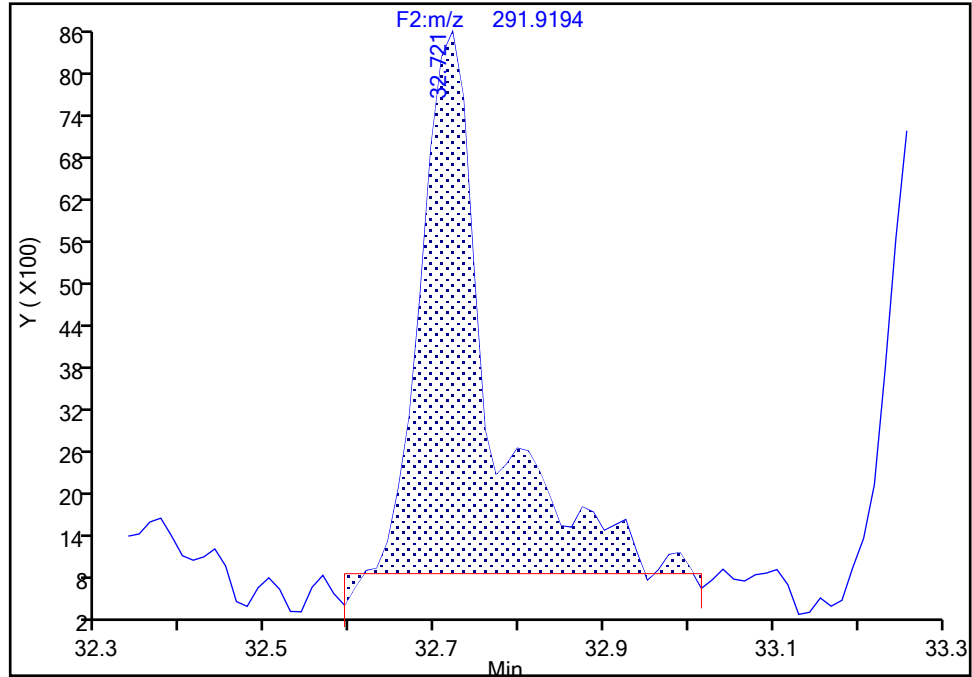
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-79, CAS: 41464-48-6

Signal: 2

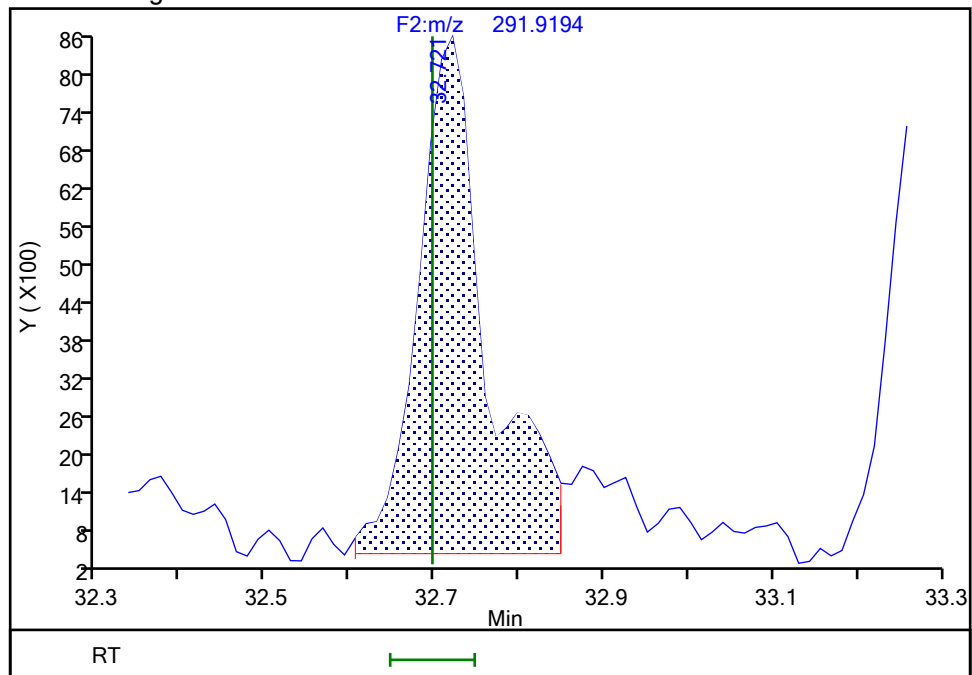
RT: 32.72  
Area: 43504  
Amount: 0.482447  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.72  
Area: 46208  
Amount: 0.502698  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:32:32 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Instrument ID: D2D

Lims ID: IC L1

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

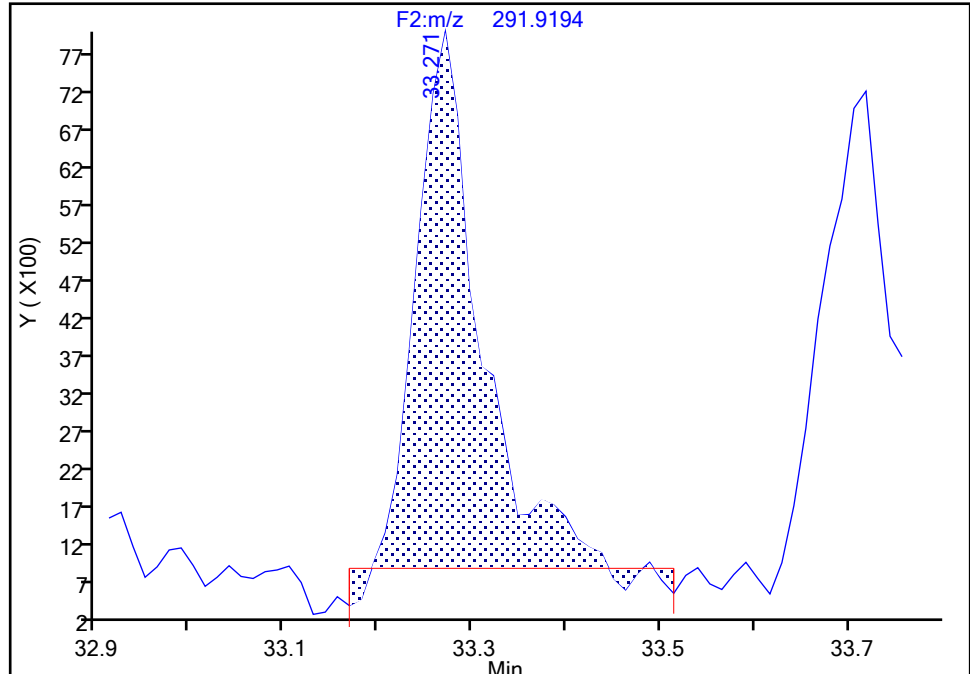
Detector F2(21.81 :35.54 )

**PCB-78, CAS: 70362-49-1**

Signal: 2

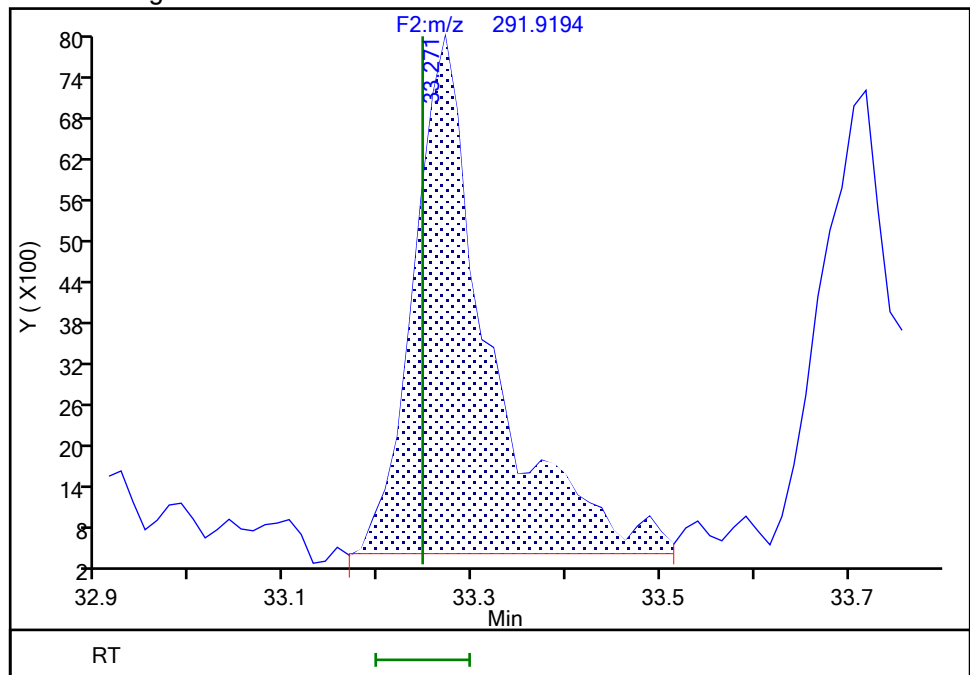
RT: 33.27  
Area: 33199  
Amount: 0.483750  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.27  
Area: 42776  
Amount: 0.568900  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:30:57 -04:00:00 (UTC)

Audit Action: Assigned New Baseline

Audit Reason: Incomplete Integration

## Eurofins Knoxville

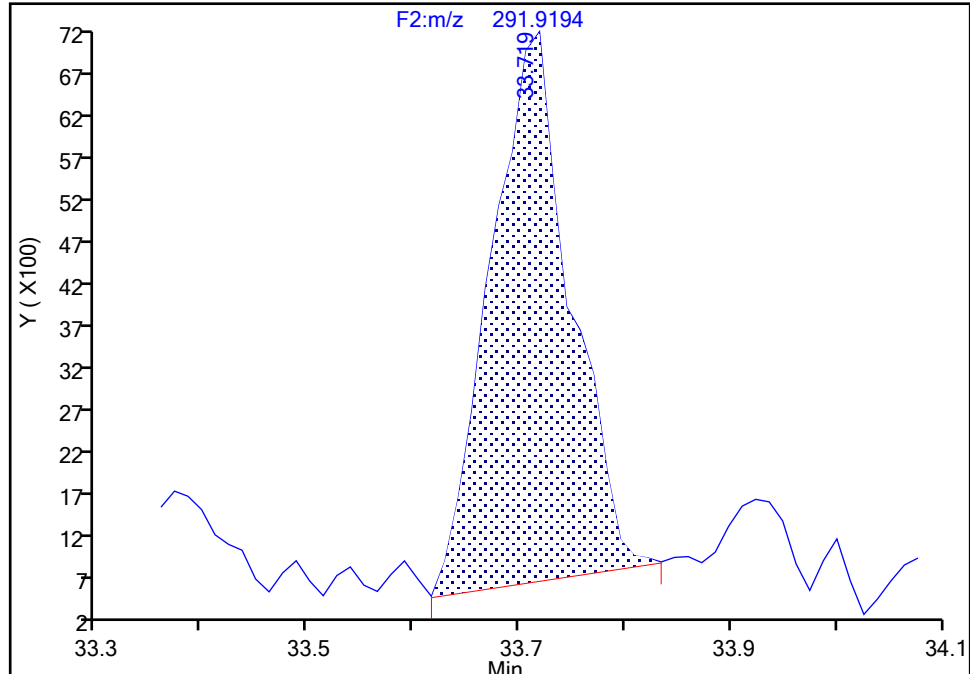
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-81, CAS: 70362-50-4

Signal: 2

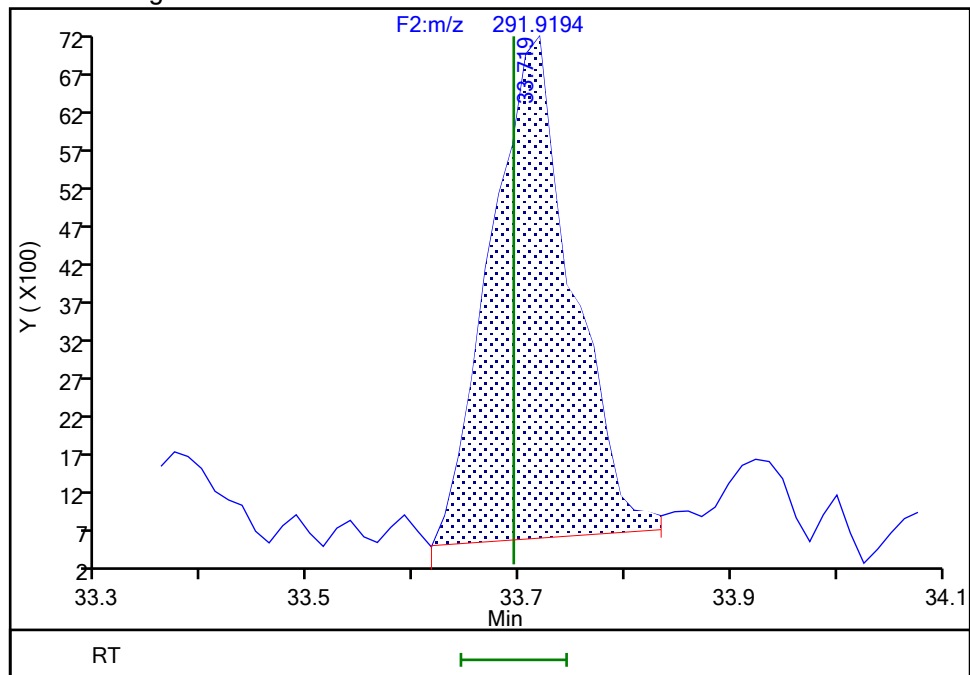
RT: 33.72  
Area: 34022  
Amount: 0.537140  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.72  
Area: 35118  
Amount: 0.518318  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:31:53 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration



## Eurofins Knoxville

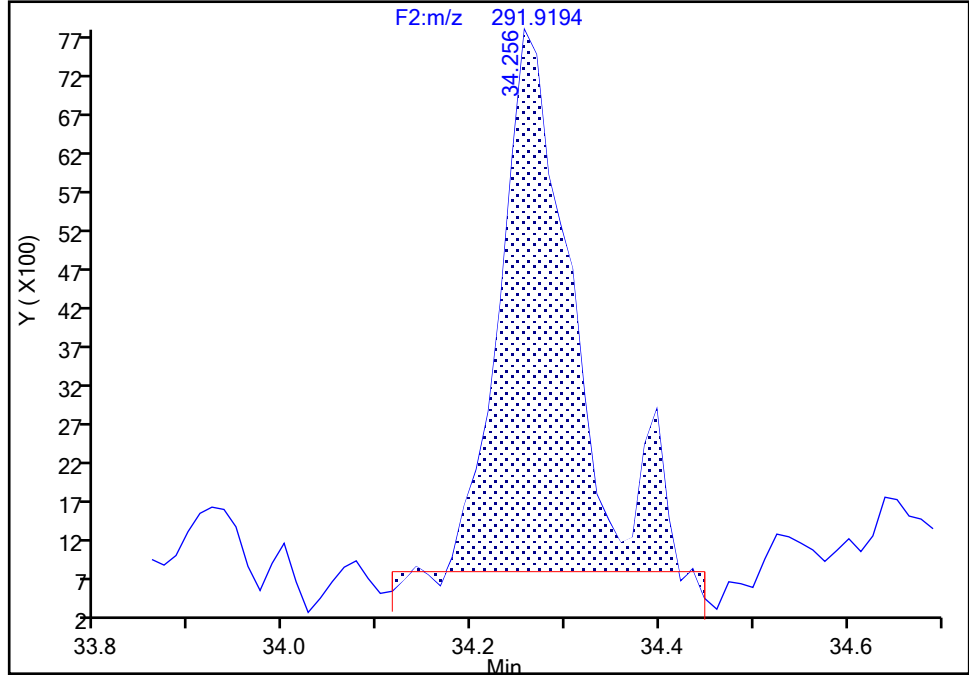
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-77, CAS: 32598-13-3

Signal: 2

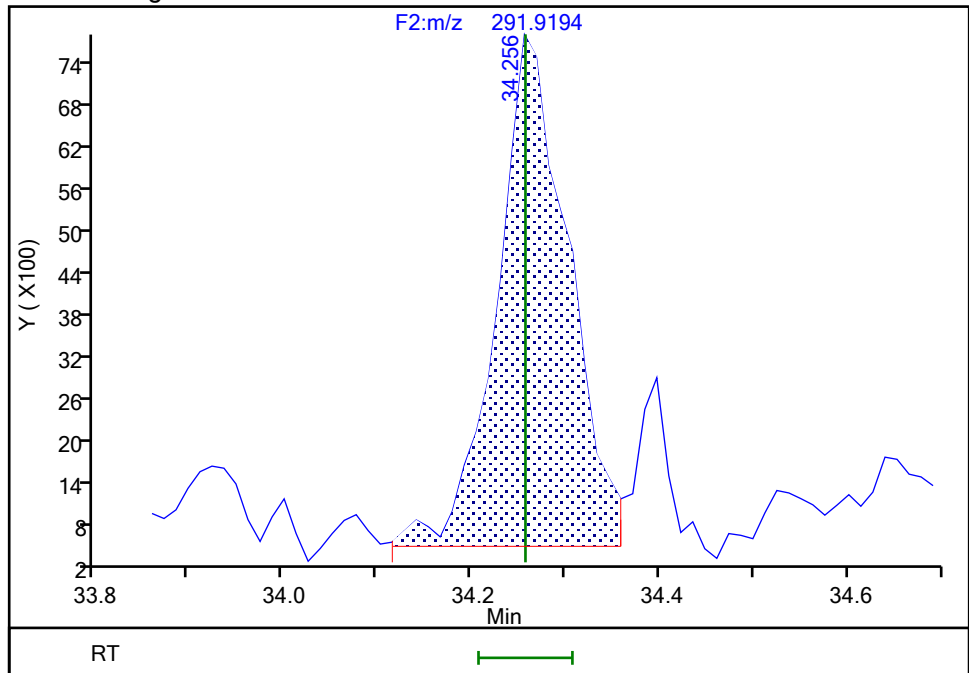
RT: 34.26  
Area: 37472  
Amount: 0.539276  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.26  
Area: 38606  
Amount: 0.539333  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:31:41 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

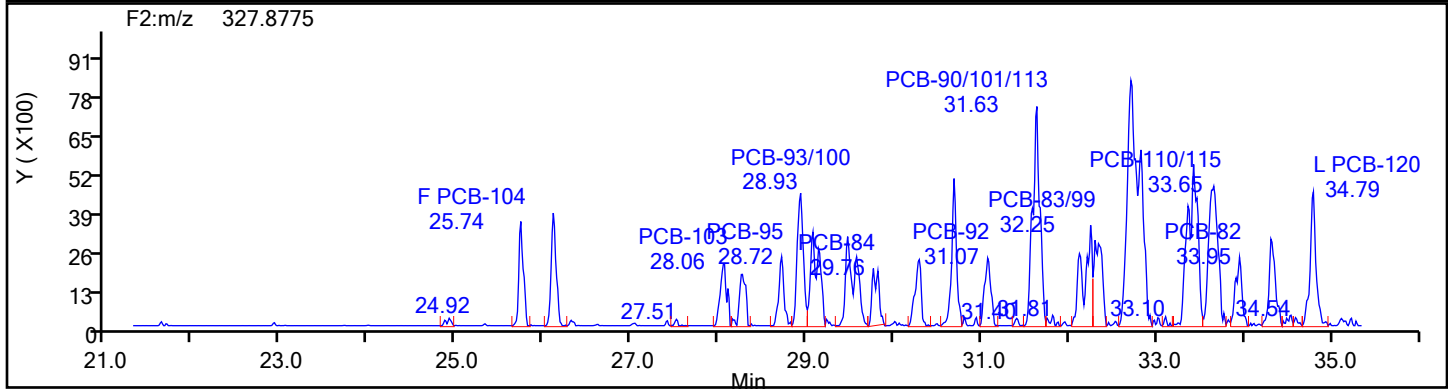
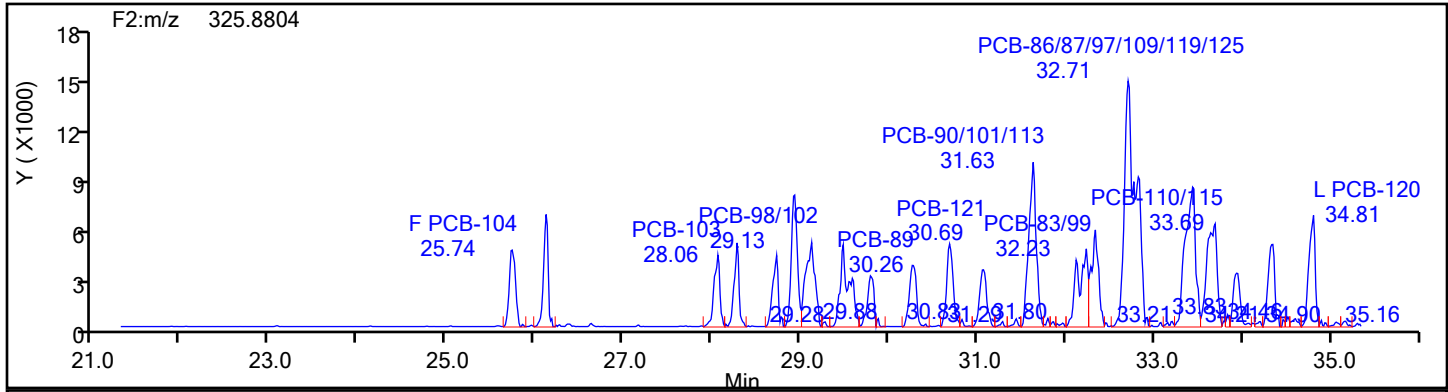
Worklist#: 87130

Sample Line#: 1

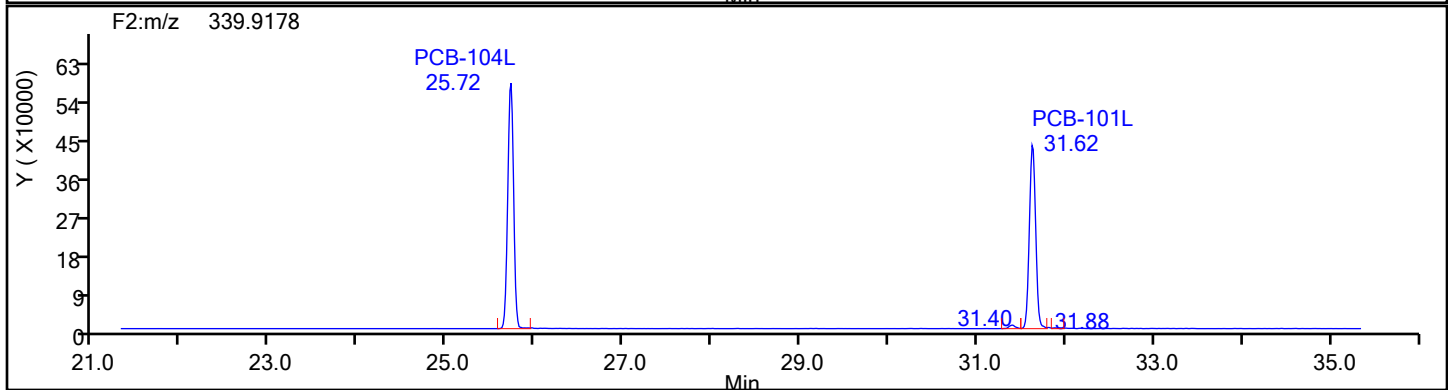
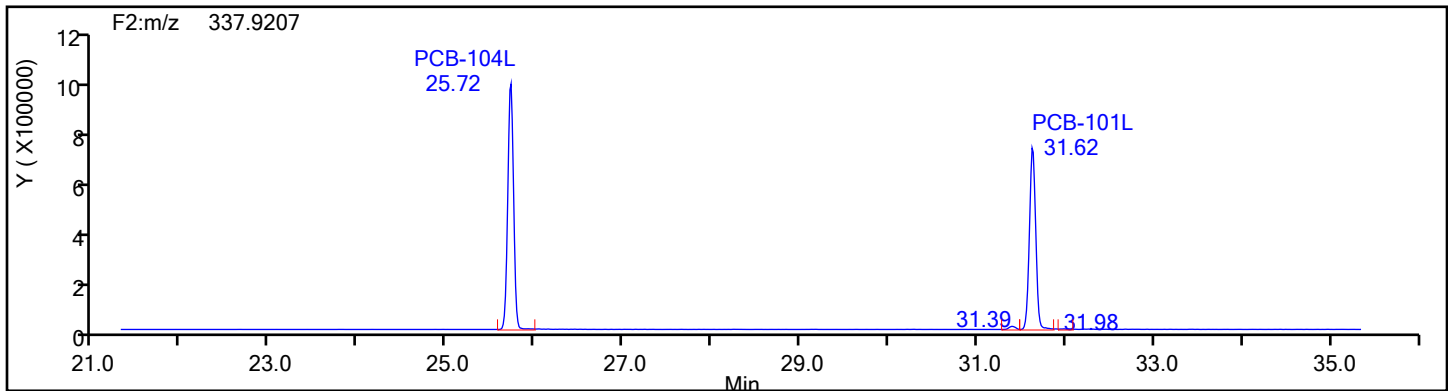
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F2



PePCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

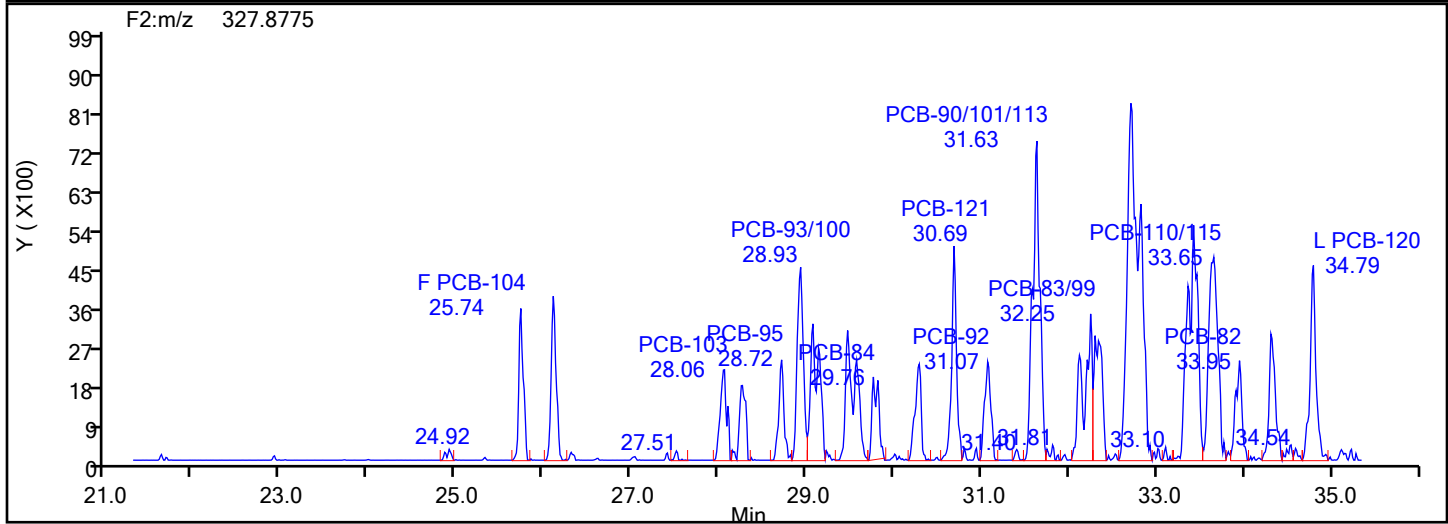
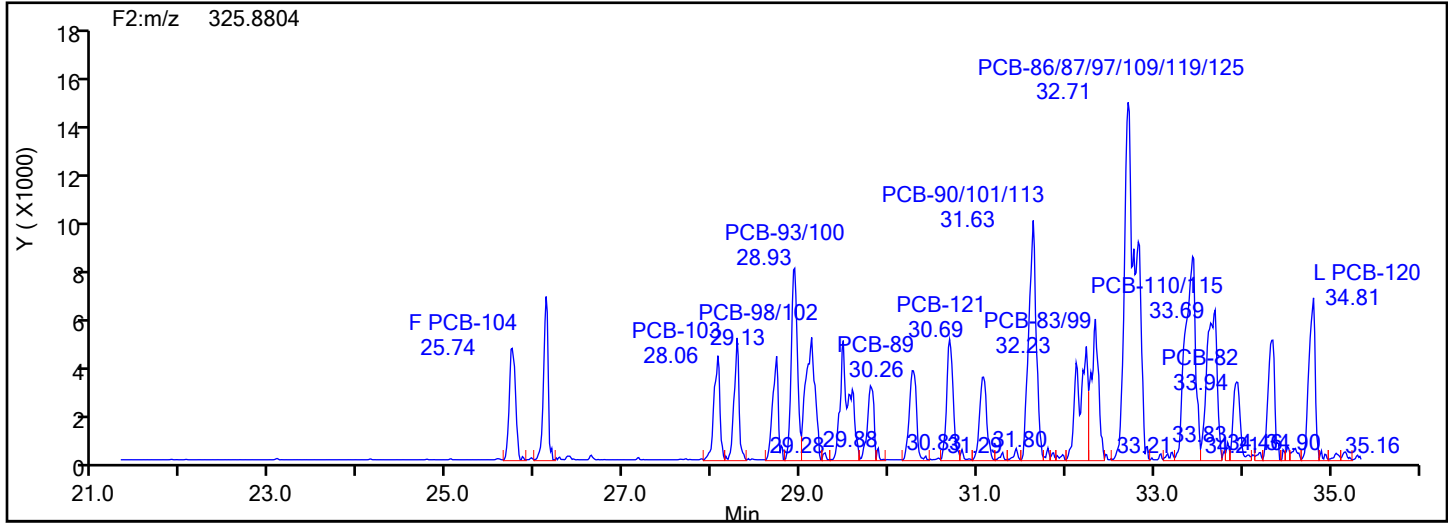
Worklist#: 87130

Sample Line#: 1

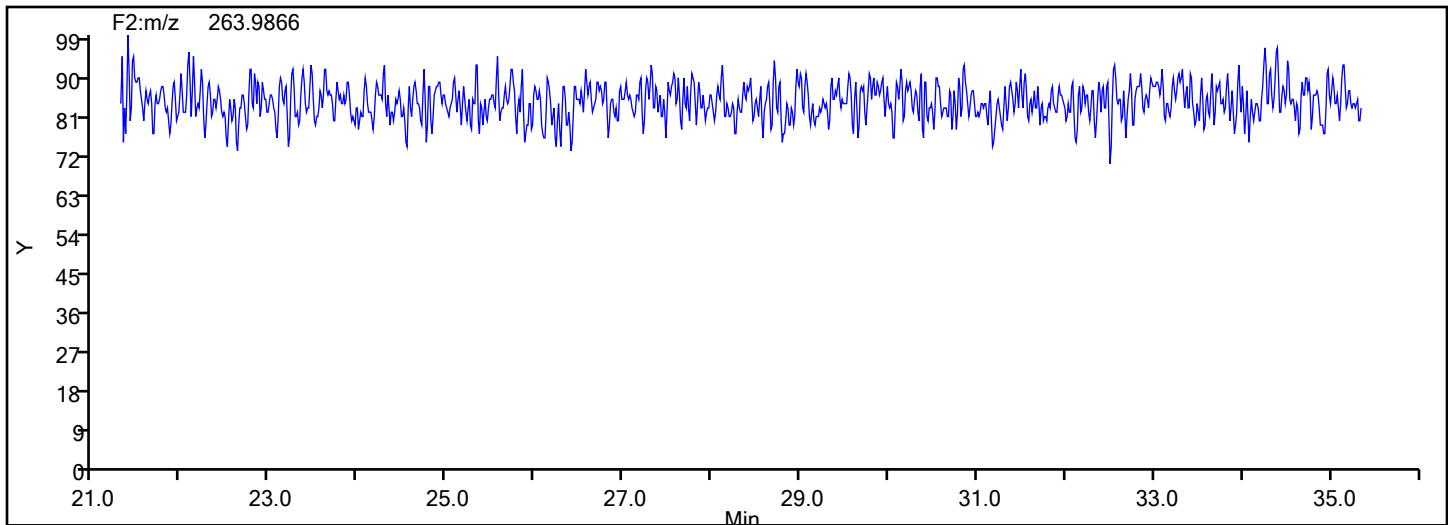
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F2



## PePCB F2 Lock Mass



## Eurofins Knoxville

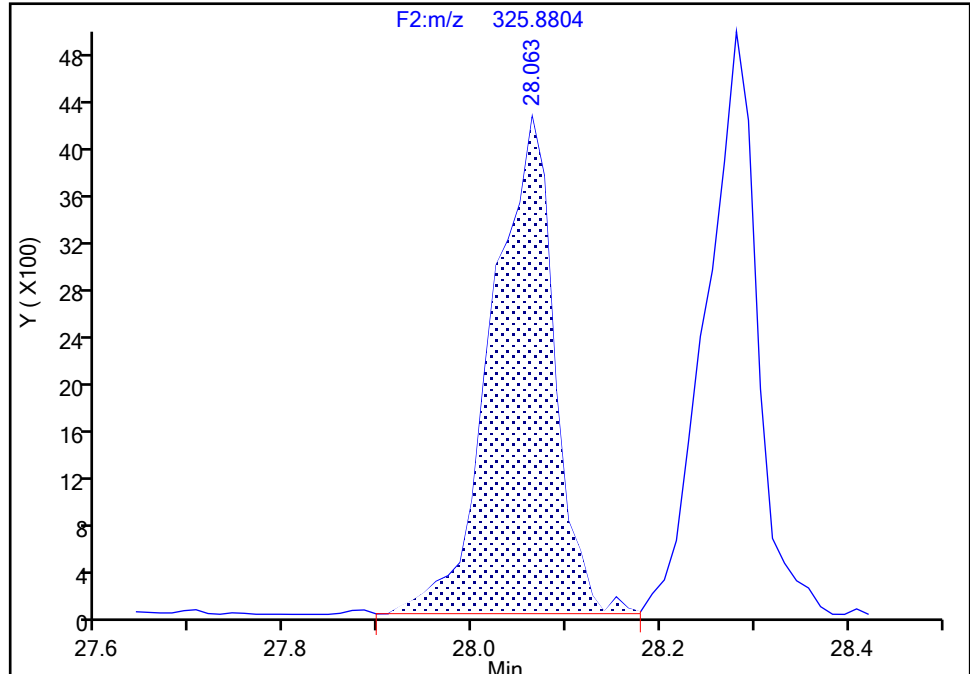
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-103, CAS: 60145-21-3

Signal: 1

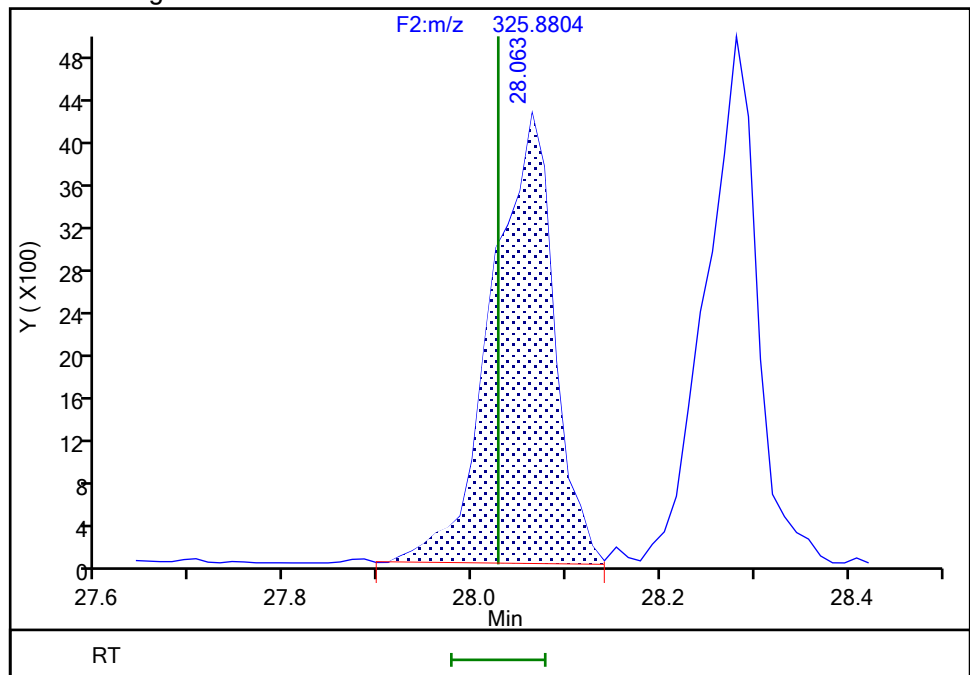
RT: 28.06  
Area: 19438  
Amount: 0.509404  
Amount Units: pg/ul

## Processing Integration Results



RT: 28.06  
Area: 19294  
Amount: 0.499667  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:30:42 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

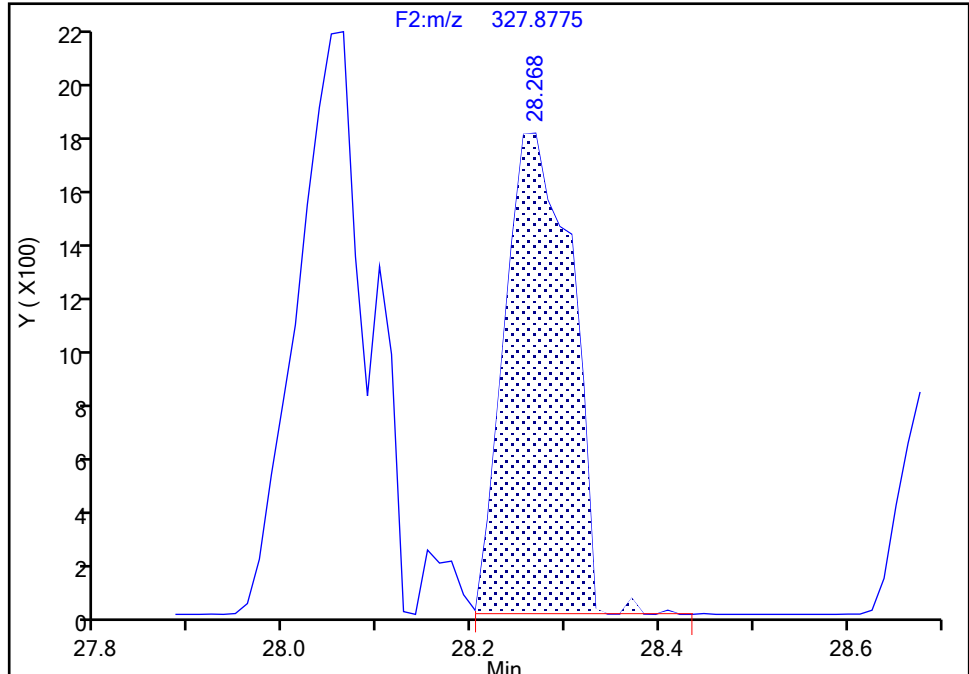
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-94, CAS: 73575-55-0

Signal: 2

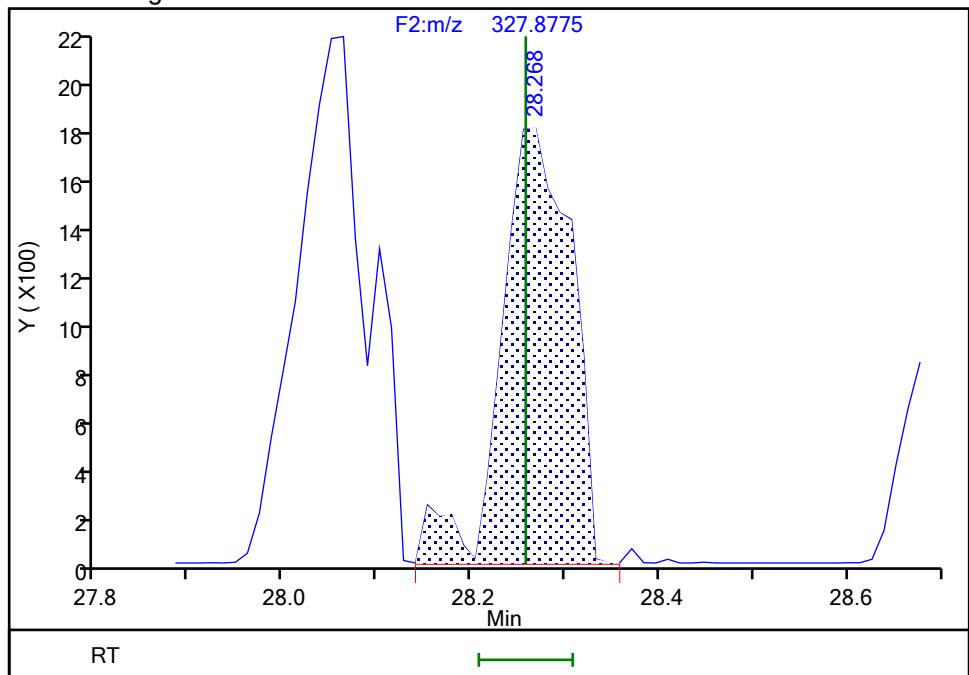
RT: 28.27  
Area: 8569  
Amount: 0.521693  
Amount Units: pg/ul

## Processing Integration Results



RT: 28.27  
Area: 9052  
Amount: 0.523542  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:30:36 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

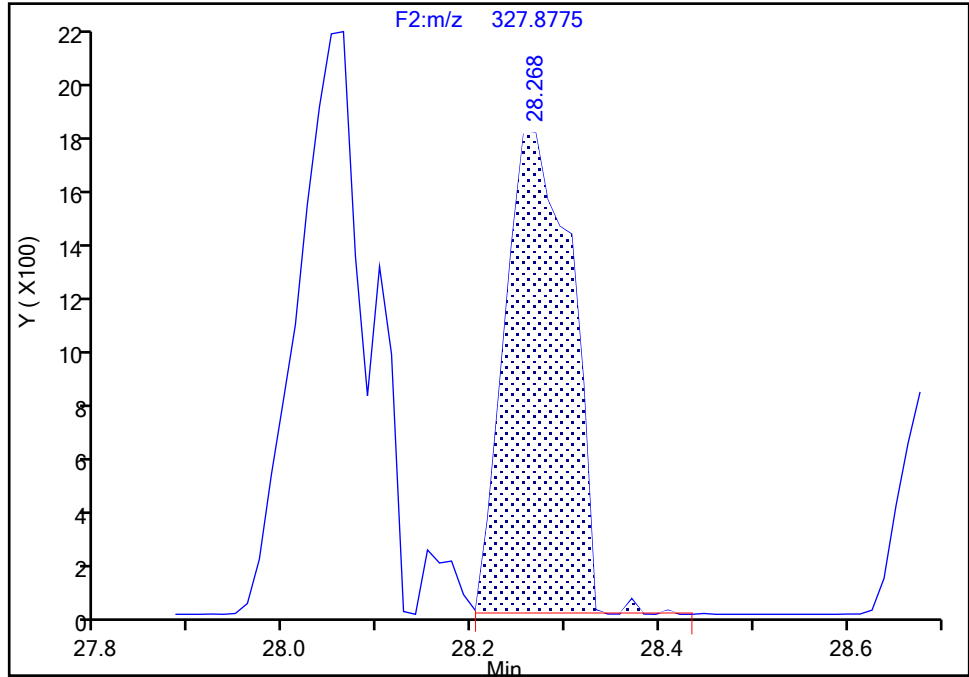
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-94, CAS: 73575-55-0**

Signal: 2

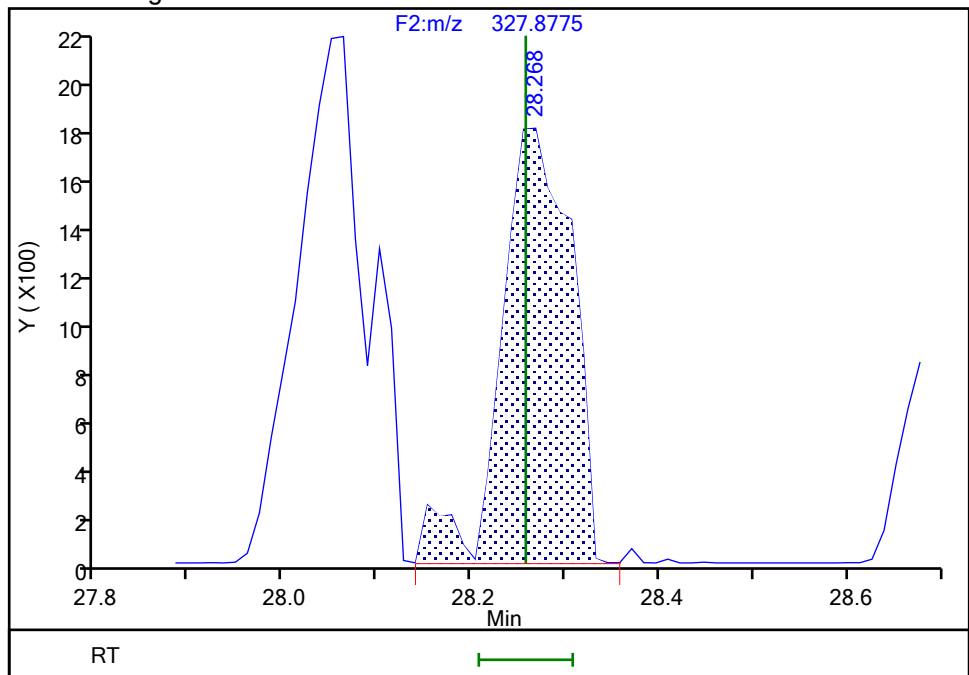
RT: 28.27  
Area: 8569  
Amount: 0.521693  
Amount Units: pg/ul

## Processing Integration Results



RT: 28.27  
Area: 9052  
Amount: 0.523542  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:30:50 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

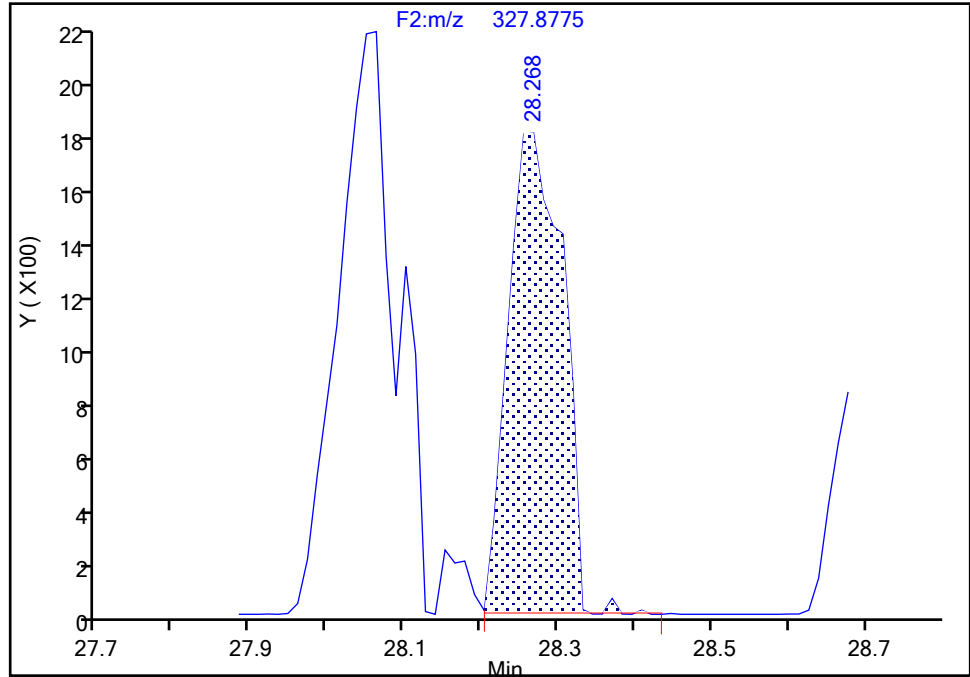
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-94, CAS: 73575-55-0**

Signal: 3

RT: 28.28  
Area: 27097  
Amount: 0.521693  
Amount Units: pg/ul

## Processing Integration Results



## Manual Integration Results

RT: 28.28  
Area: 27753  
Amount: 0.523542  
Amount Units: pg/ul

Reviewer: V4XA, 31-May-2024 19:30:50 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

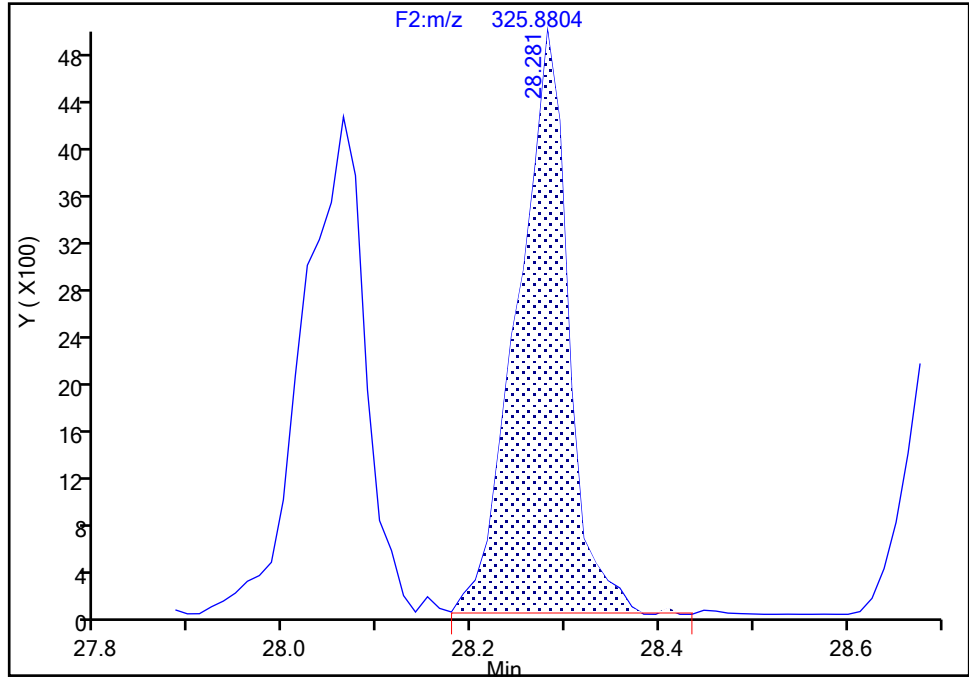
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-94, CAS: 73575-55-0**

Signal: 1

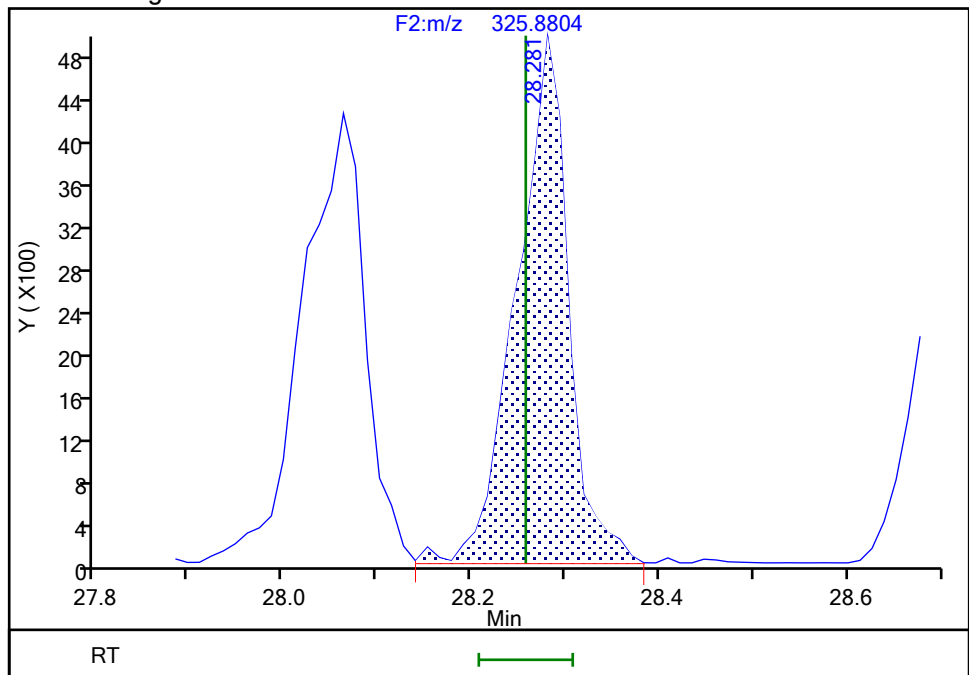
RT: 28.28  
Area: 18528  
Amount: 0.521693  
Amount Units: pg/ul

## Processing Integration Results



RT: 28.28  
Area: 18701  
Amount: 0.523542  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:30:52 -04:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline



## Eurofins Knoxville

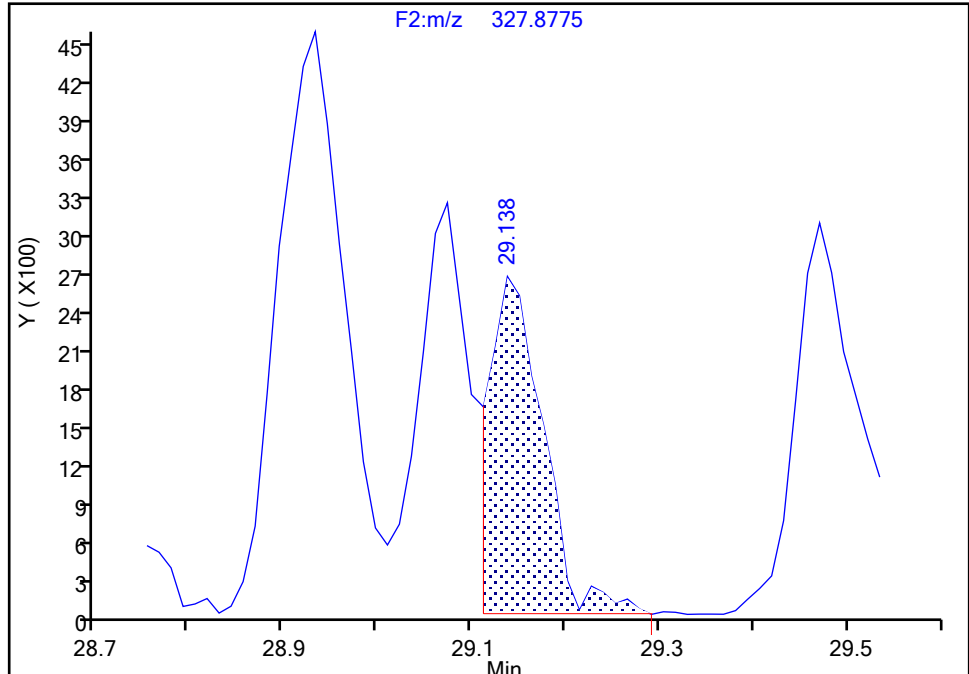
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-98/102, CAS: STL01843

Signal: 2

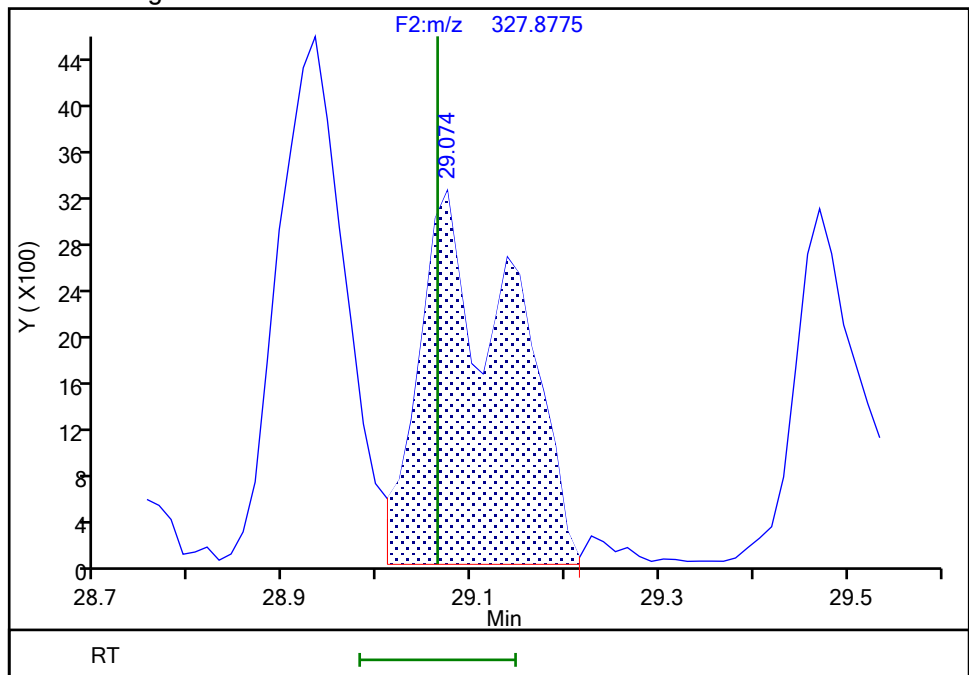
RT: 29.14  
Area: 10061  
Amount: 0.761342  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.07  
Area: 21429  
Amount: 0.999328  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:39:22 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

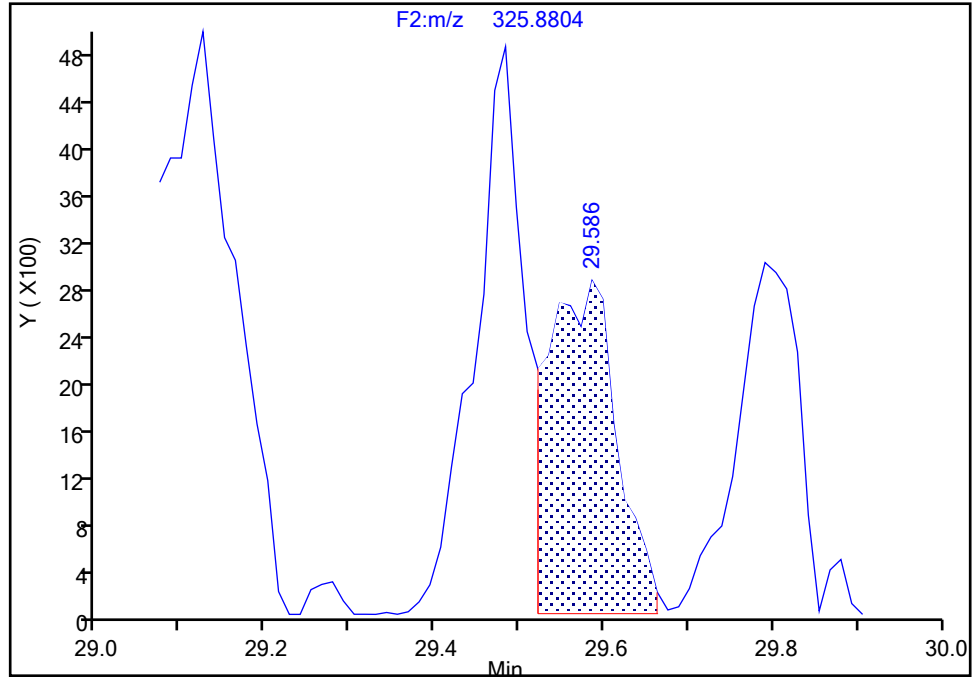
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-88/91, CAS: STL01812

Signal: 1

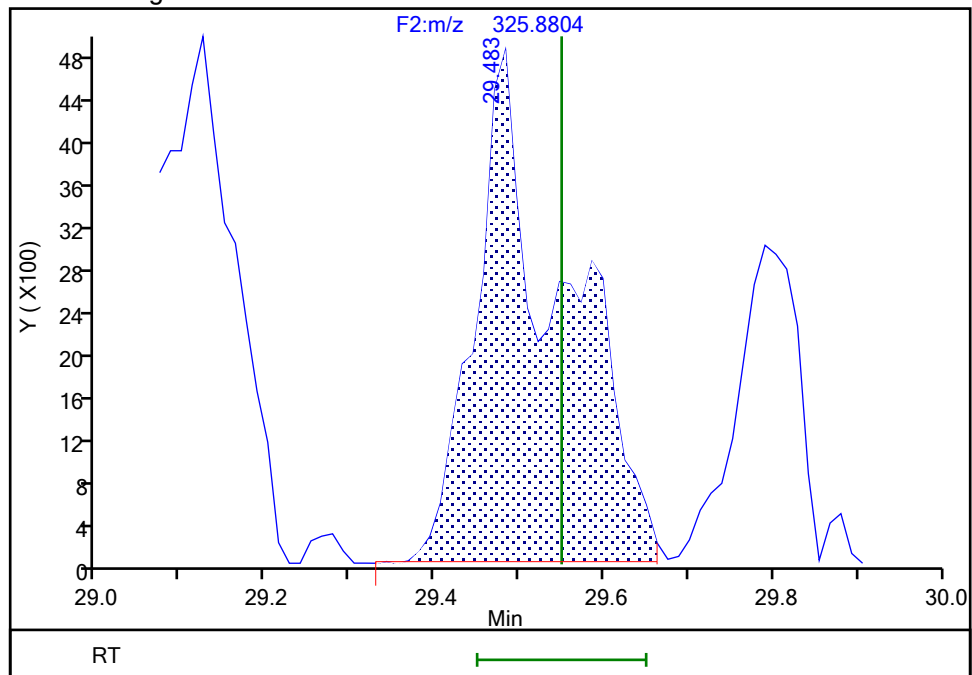
RT: 29.59  
Area: 15618  
Amount: 0.515955  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.48  
Area: 34391  
Amount: 1.044024  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:39:35 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

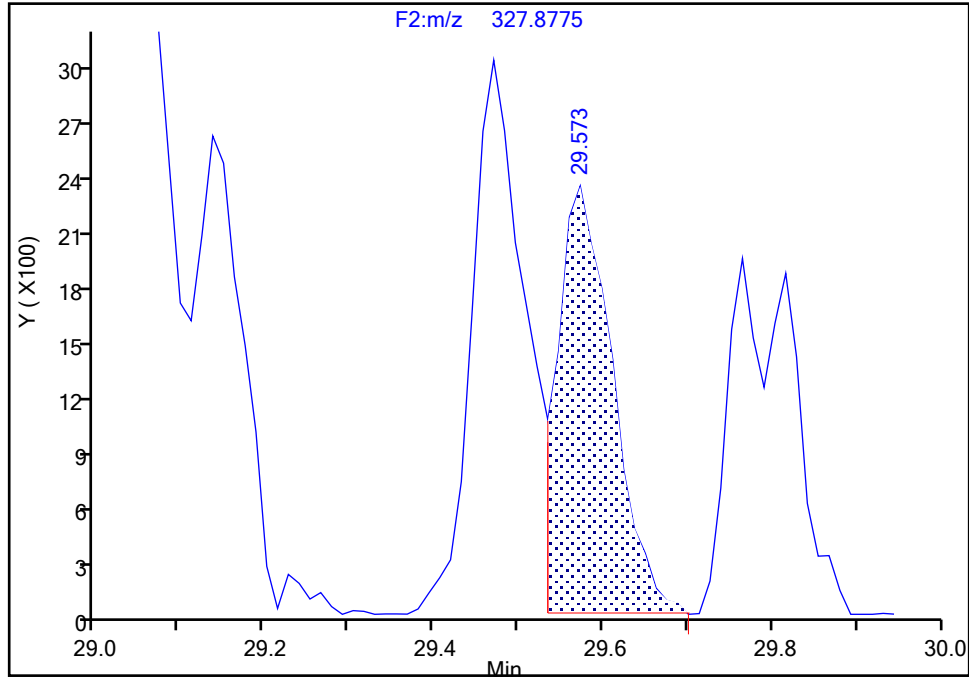
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-88/91, CAS: STL01812**

Signal: 2

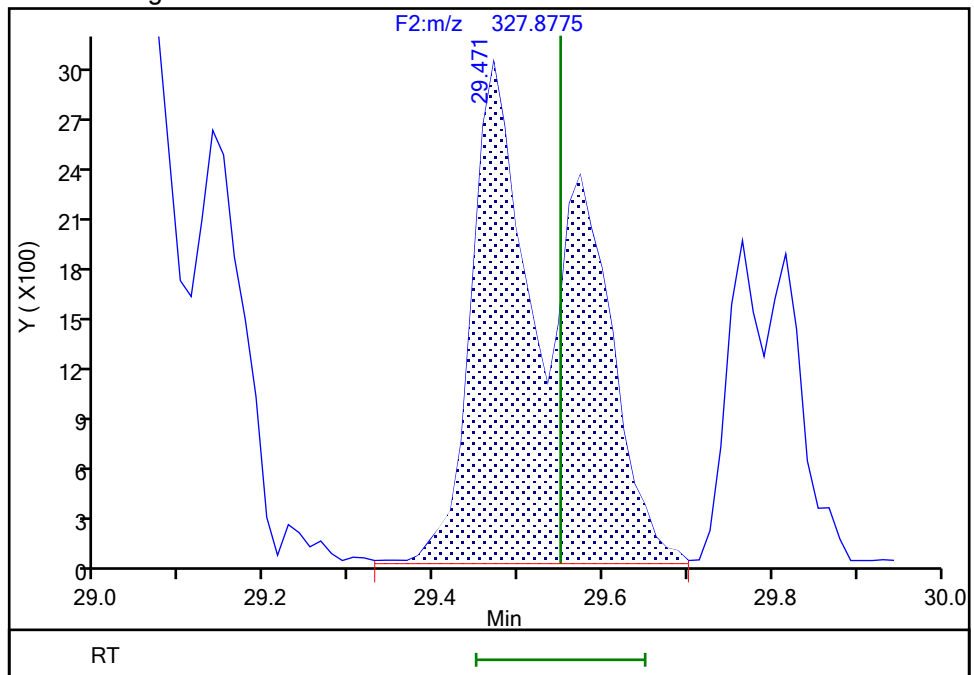
RT: 29.57  
Area: 10357  
Amount: 0.515955  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.47  
Area: 23653  
Amount: 1.044024  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:39:42 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

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9/6/2024  
4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Instrument ID: D2D

Lims ID: IC L1

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

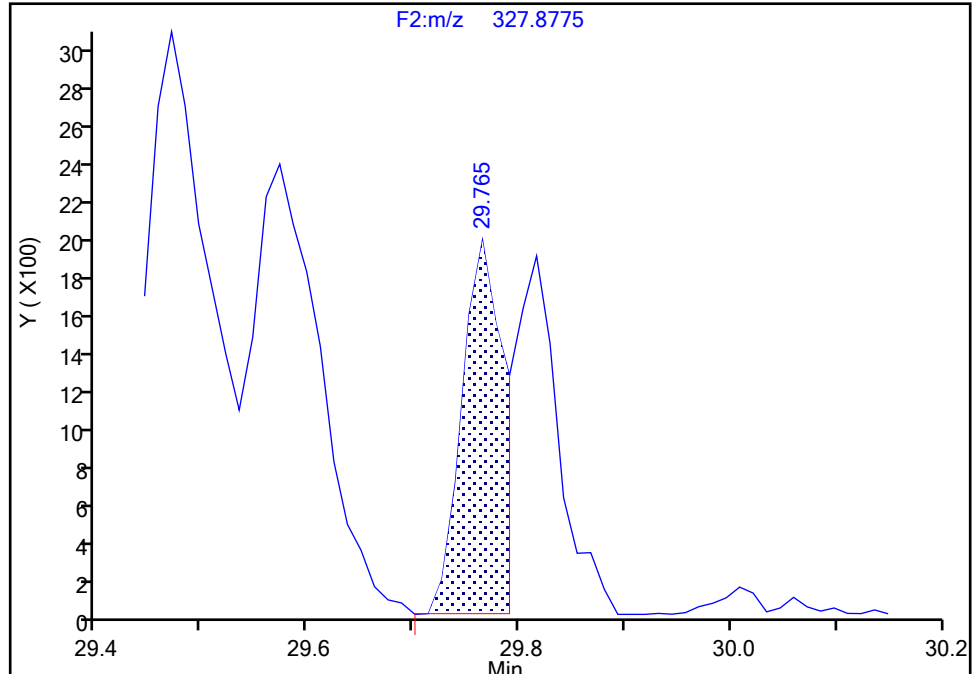
Detector F2(21.81 :35.54 )

**PCB-84, CAS: 52663-60-2**

Signal: 2

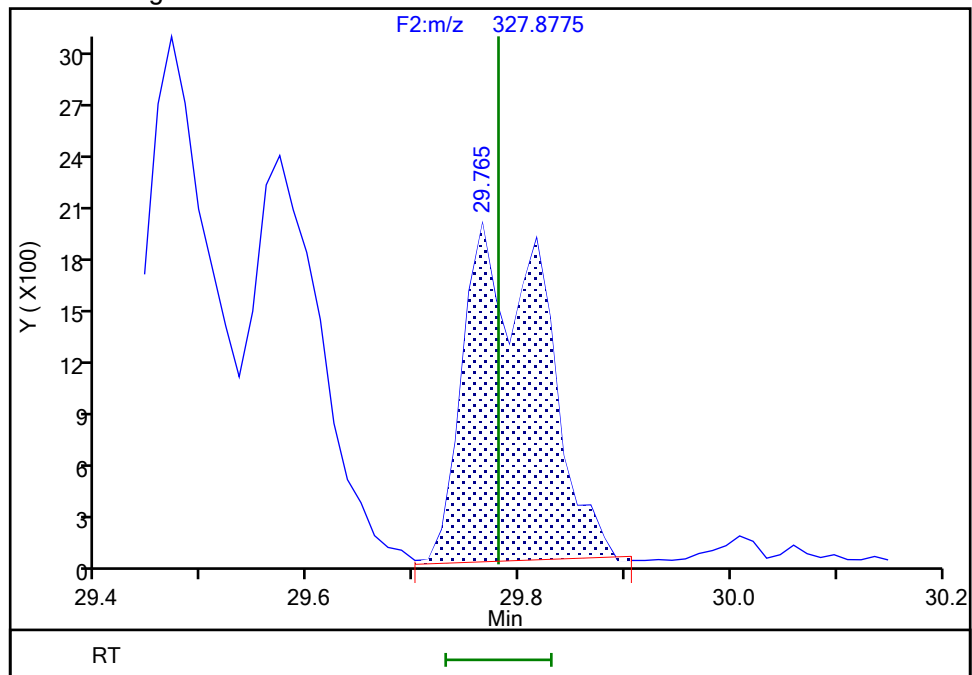
RT: 29.76  
Area: 4970  
Amount: 0.427934  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.76  
Area: 10134  
Amount: 0.496810  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:39:50 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Instrument ID: D2D

Lims ID: IC L1

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

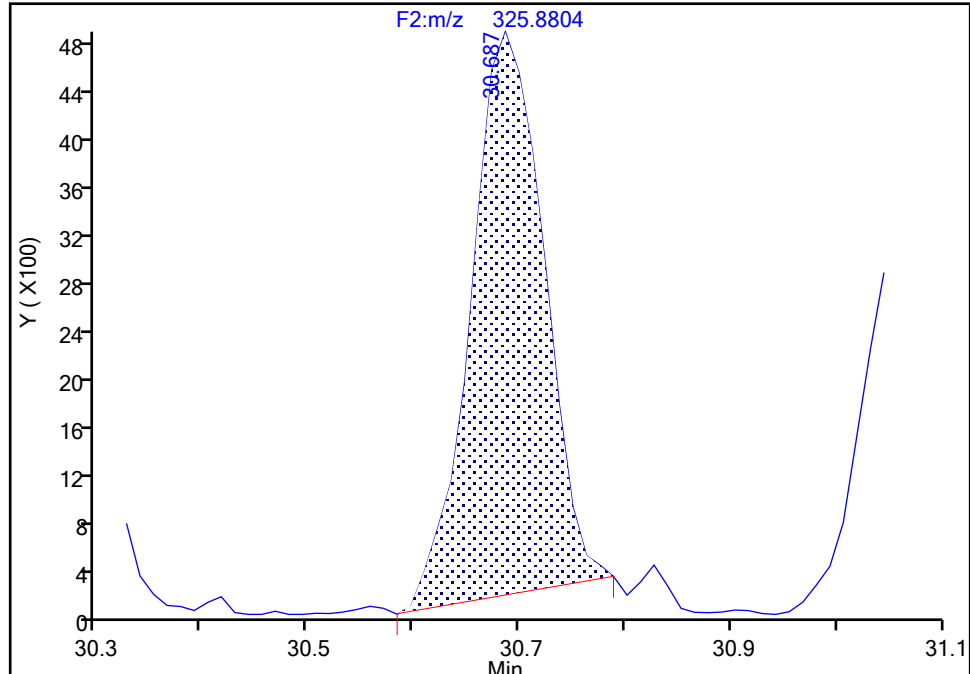
Detector F2(21.81 :35.54 )

**PCB-121, CAS: 56558-18-0**

Signal: 1

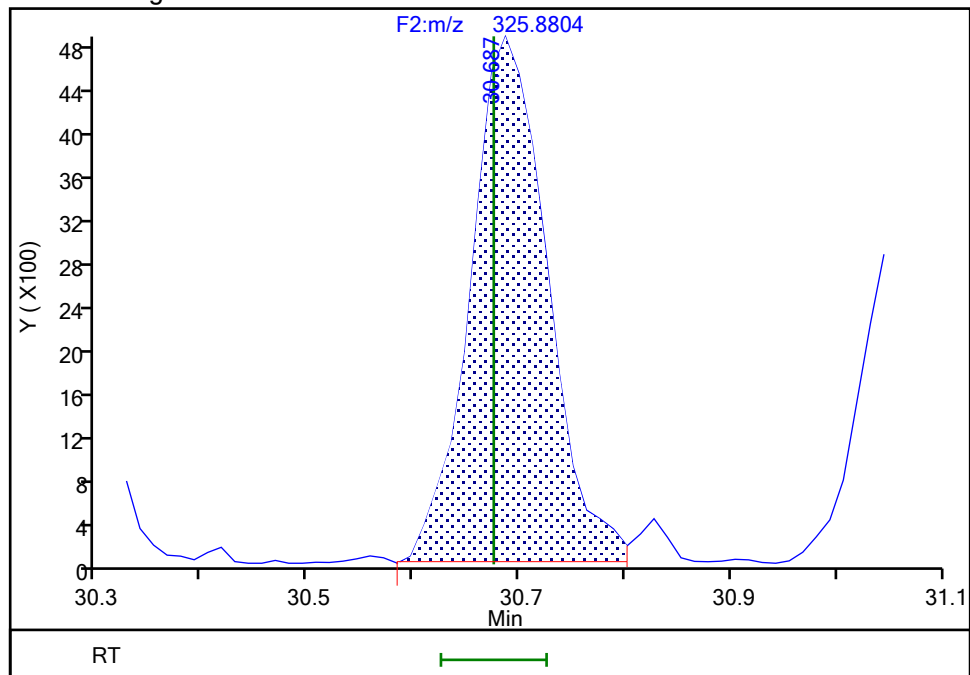
RT: 30.69  
Area: 22370  
Amount: 0.468205  
Amount Units: pg/ul

## Processing Integration Results



RT: 30.69  
Area: 24350  
Amount: 0.482931  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:40:13 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

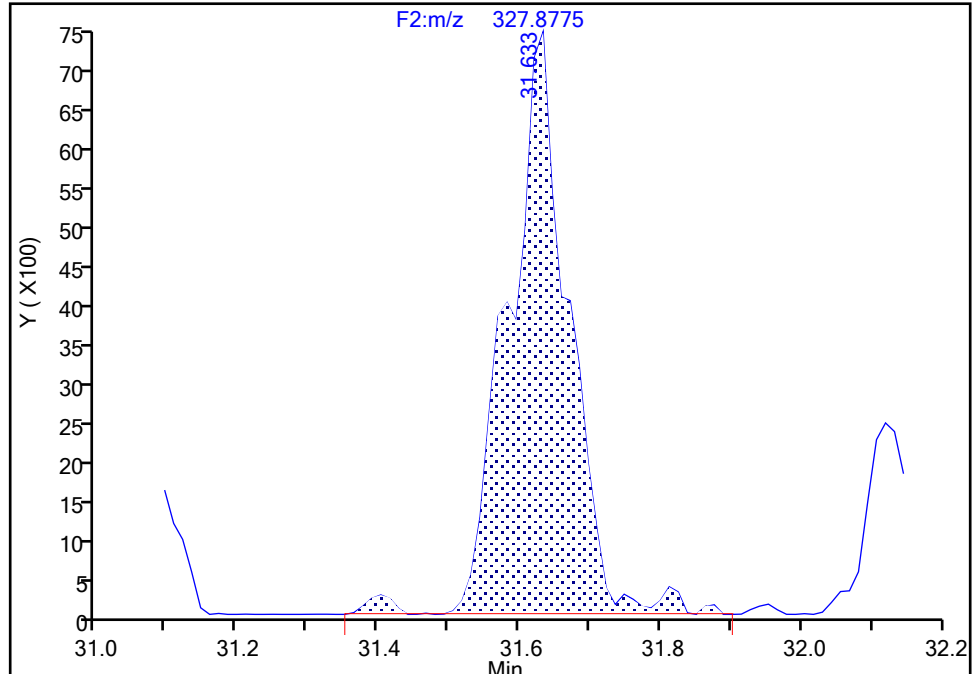
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-90/101/113, CAS: STL01813

Signal: 2

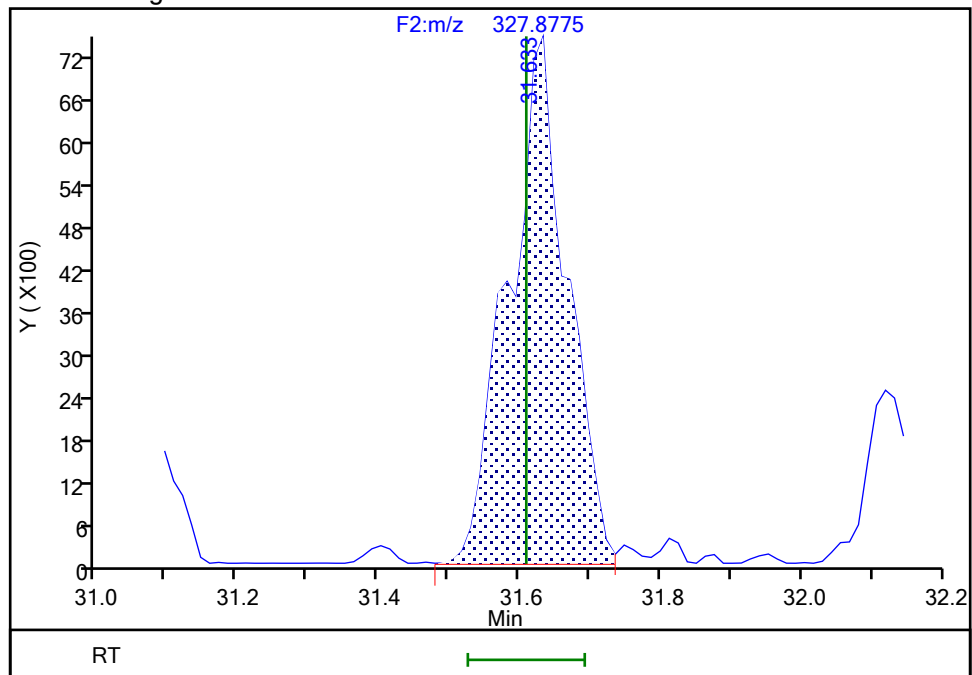
RT: 31.63  
Area: 44490  
Amount: 1.511719  
Amount Units: pg/ul

## Processing Integration Results



RT: 31.63  
Area: 42490  
Amount: 1.490119  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:29:15 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Instrument ID: D2D

Lims ID: IC L1

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

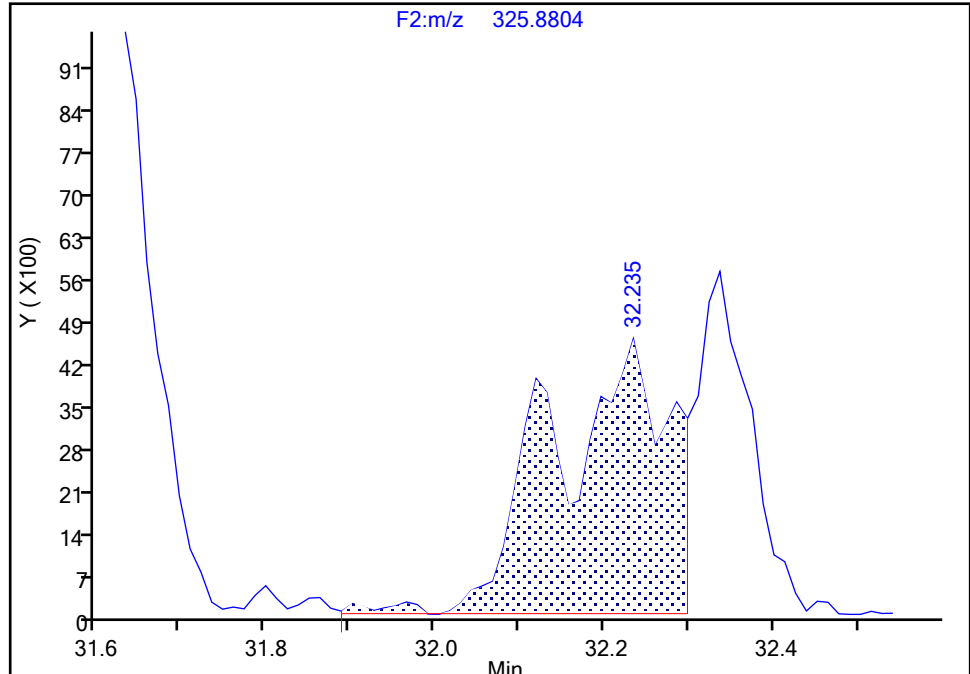
Detector F2(21.81 :35.54 )

**PCB-83/99, CAS: STL01809**

Signal: 1

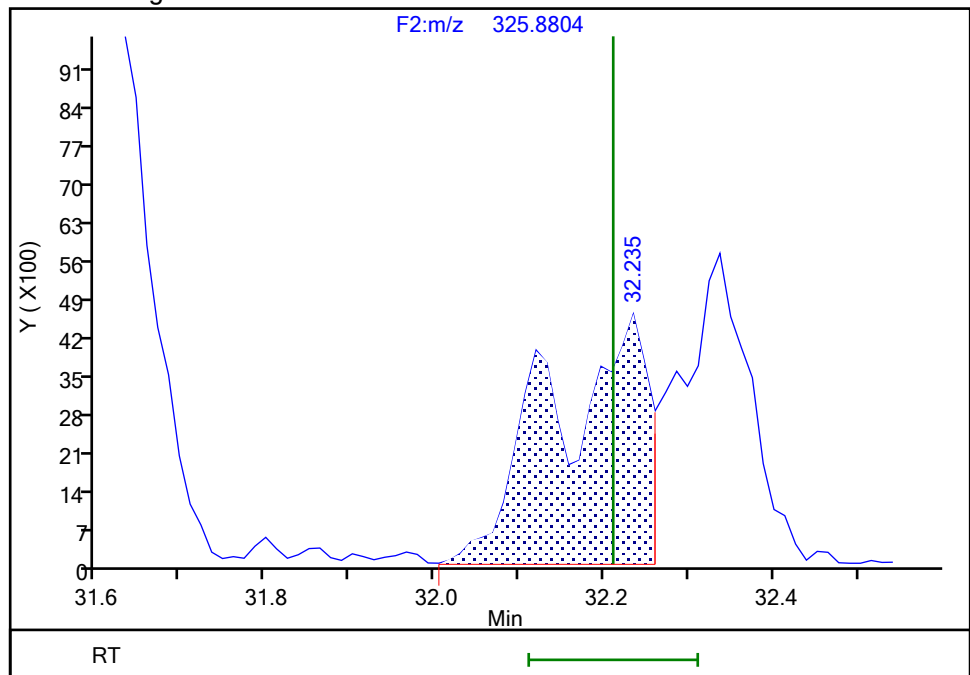
RT: 32.23  
Area: 42856  
Amount: 1.064486  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.23  
Area: 34703  
Amount: 0.994053  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:29:46 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

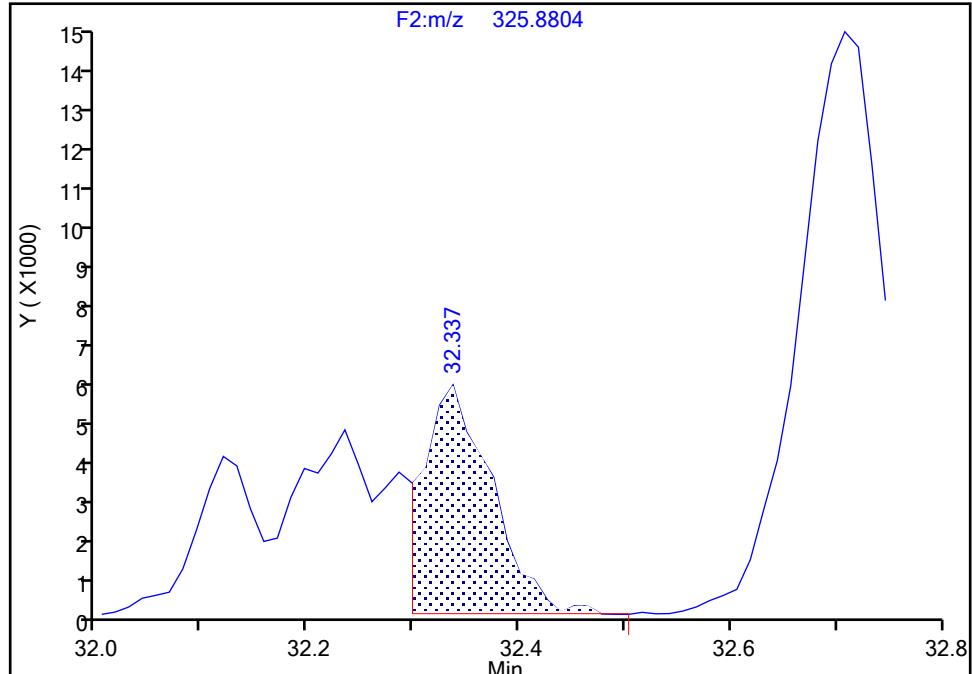
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-112, CAS: 74472-36-9**

Signal: 1

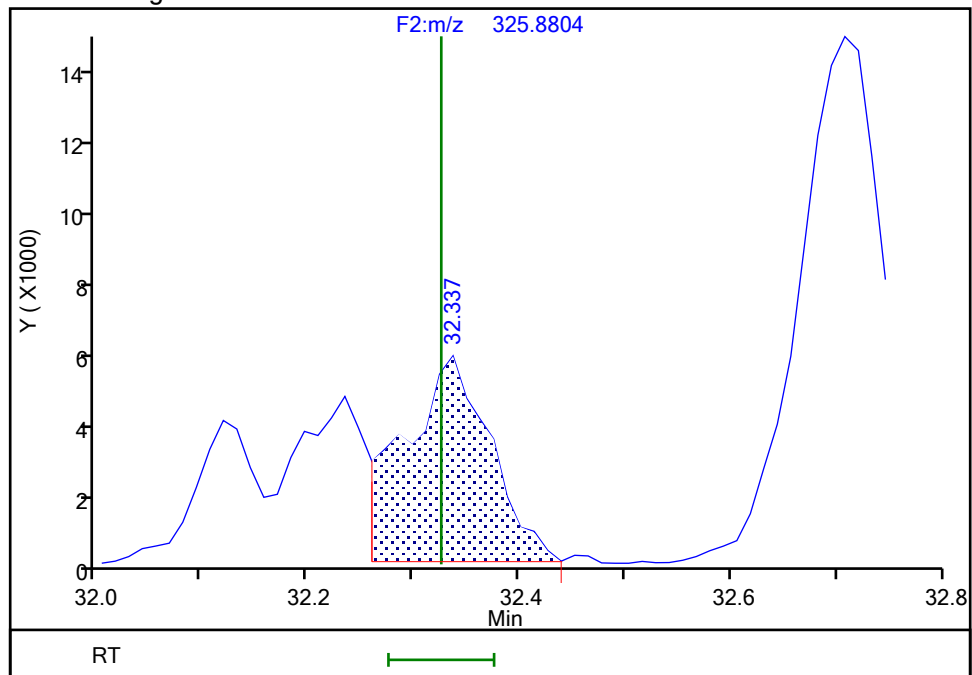
RT: 32.34  
Area: 24777  
Amount: 0.434584  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.34  
Area: 31739  
Amount: 0.511852  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:30:05 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline



## Eurofins Knoxville

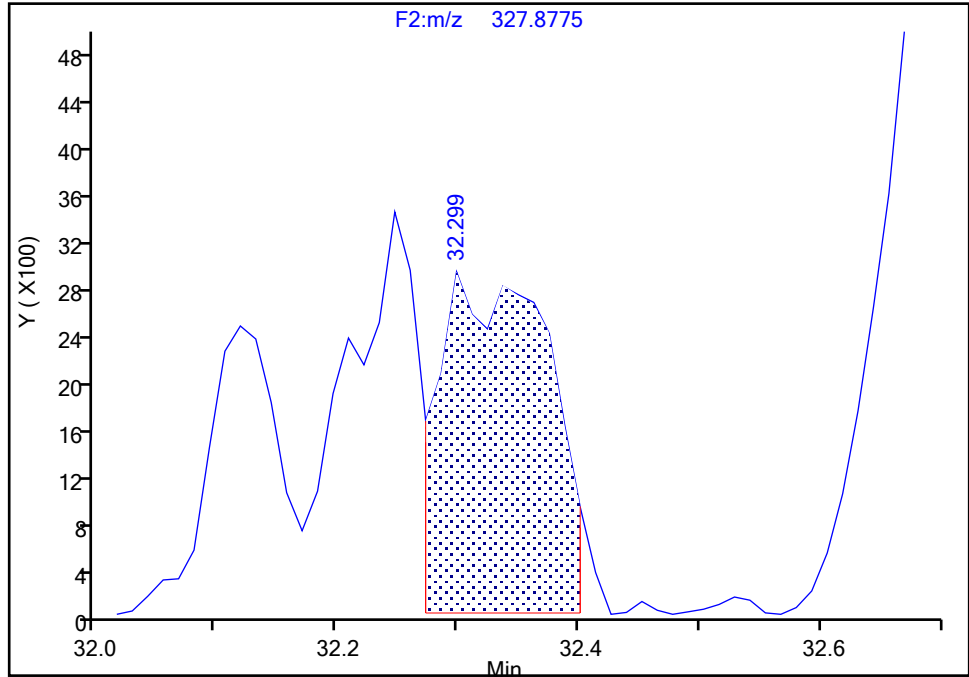
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-112, CAS: 74472-36-9

Signal: 2

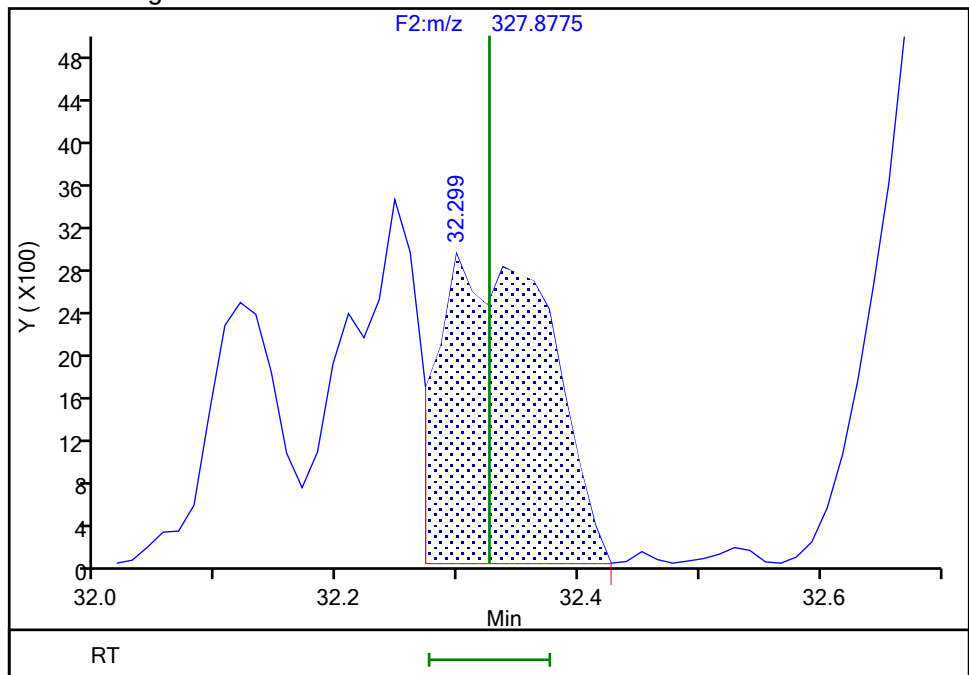
RT: 32.30  
Area: 17821  
Amount: 0.434584  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.30  
Area: 18375  
Amount: 0.511852  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:30:11 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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9/6/2024 4:19:54 PM

## Eurofins Knoxville

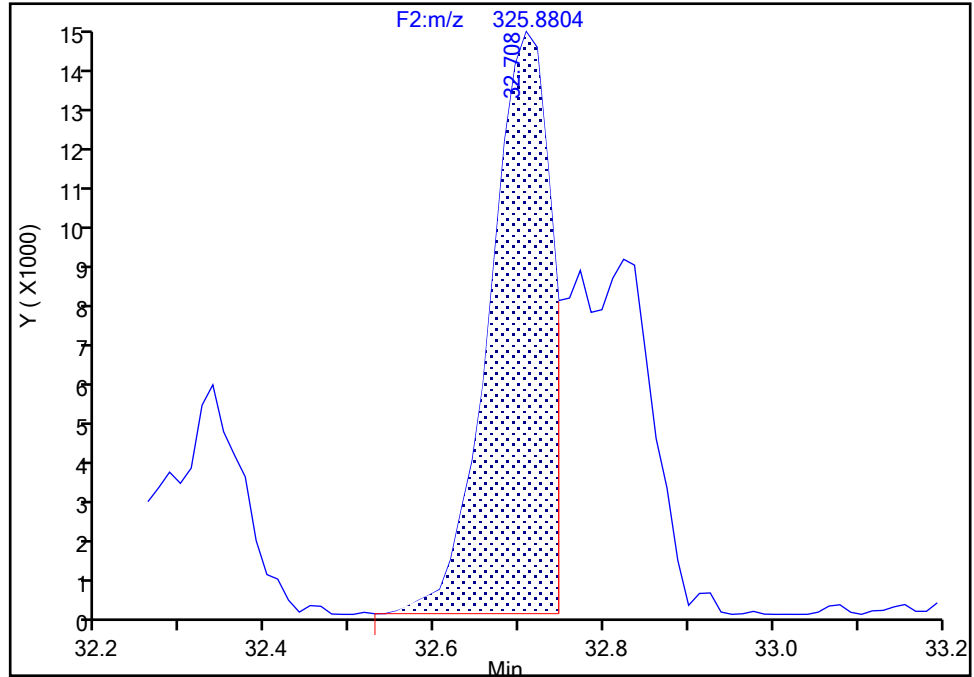
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-86/87/97/109/119/125, CAS: STL02295

Signal: 1

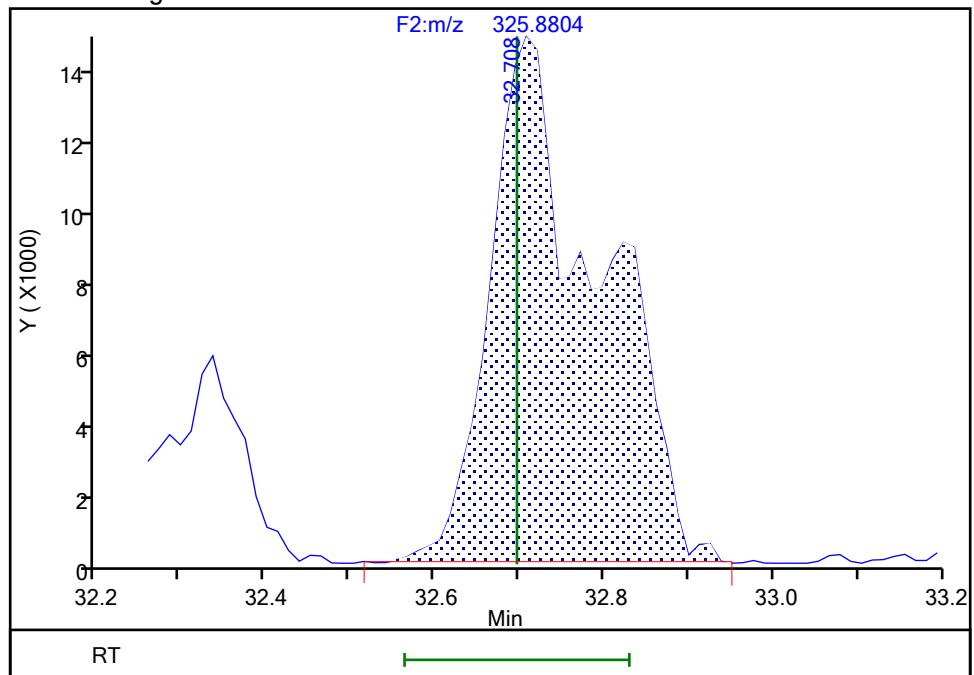
RT: 32.71  
Area: 70637  
Amount: 1.876000  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.71  
Area: 129704  
Amount: 2.908707  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:40:33 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

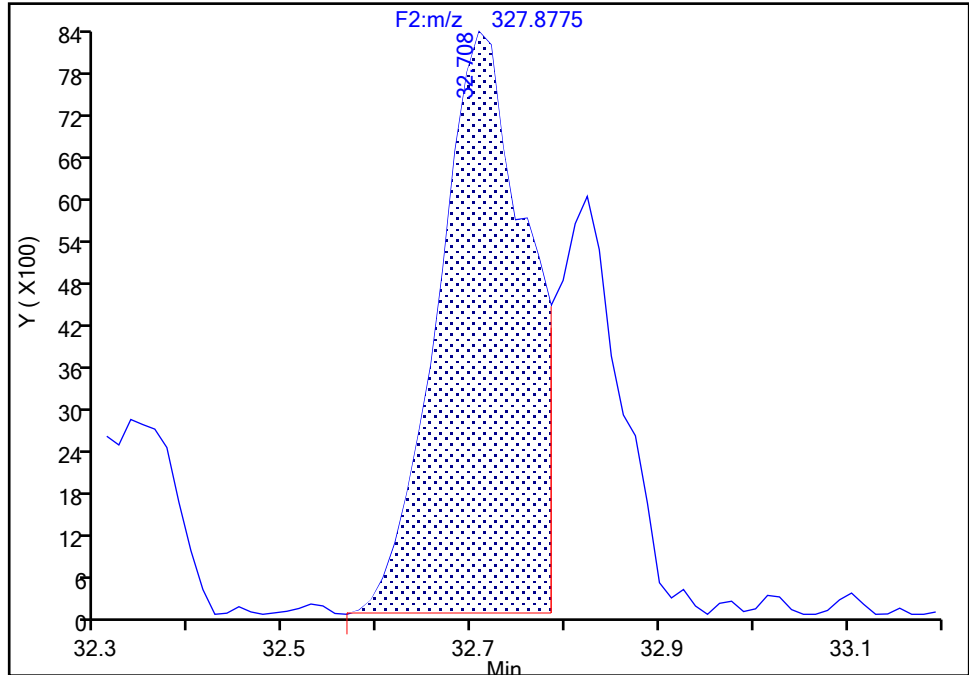
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-86/87/97/109/119/125, CAS: STL02295

Signal: 2

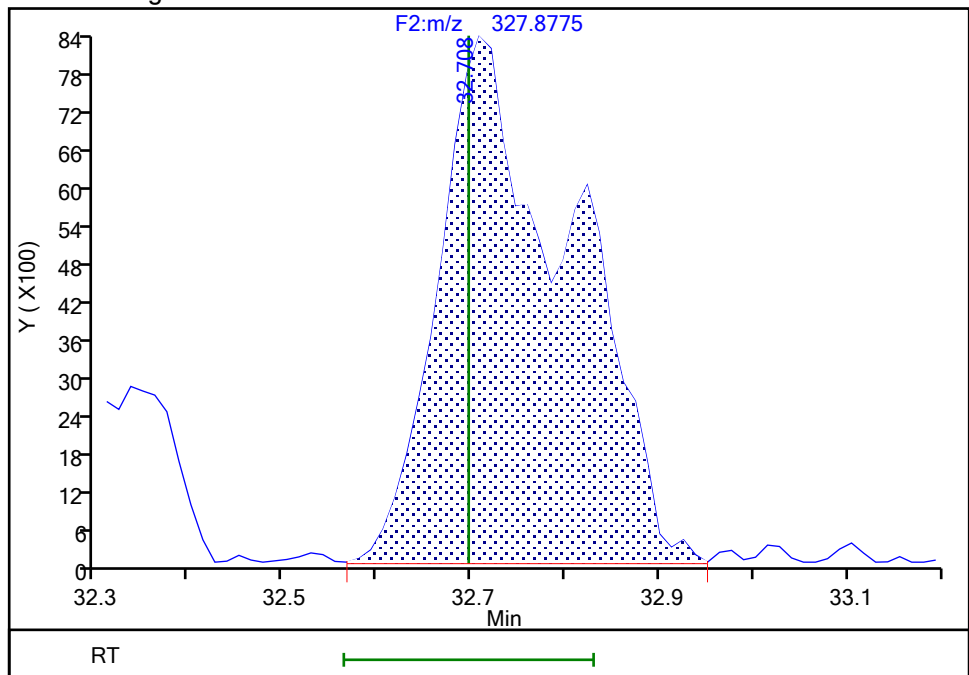
RT: 32.71  
Area: 54041  
Amount: 1.876000  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.71  
Area: 81652  
Amount: 2.908707  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:40:41 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

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9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Instrument ID: D2D

Lims ID: IC L1

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

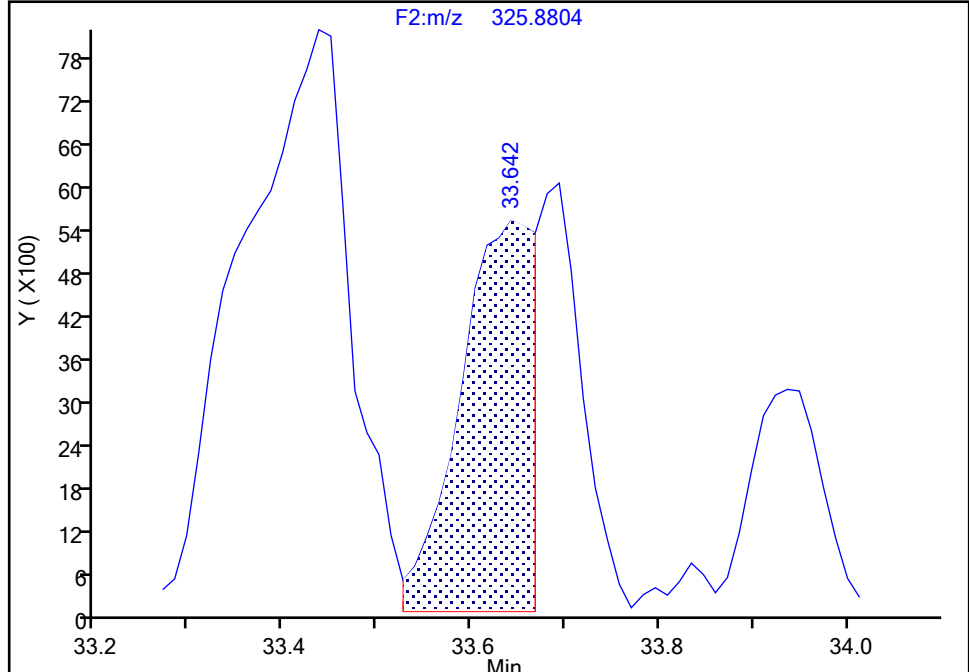
Detector F2(21.81 :35.54 )

**PCB-110/115, CAS: STL01826**

Signal: 1

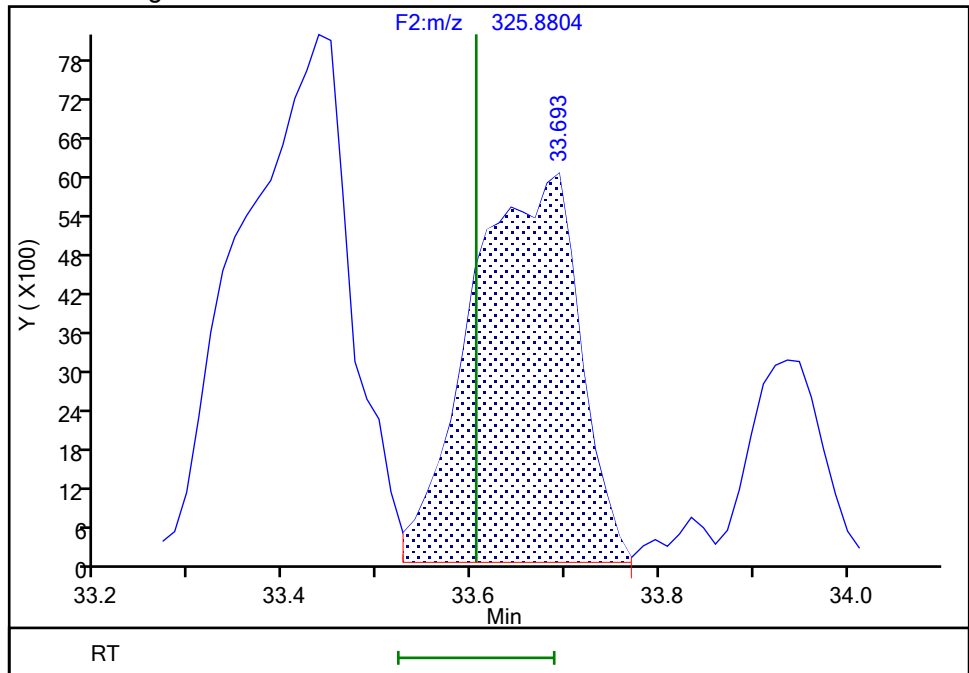
RT: 33.64  
Area: 28653  
Amount: 0.718077  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.69  
Area: 48048  
Amount: 1.008427  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:40:50 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

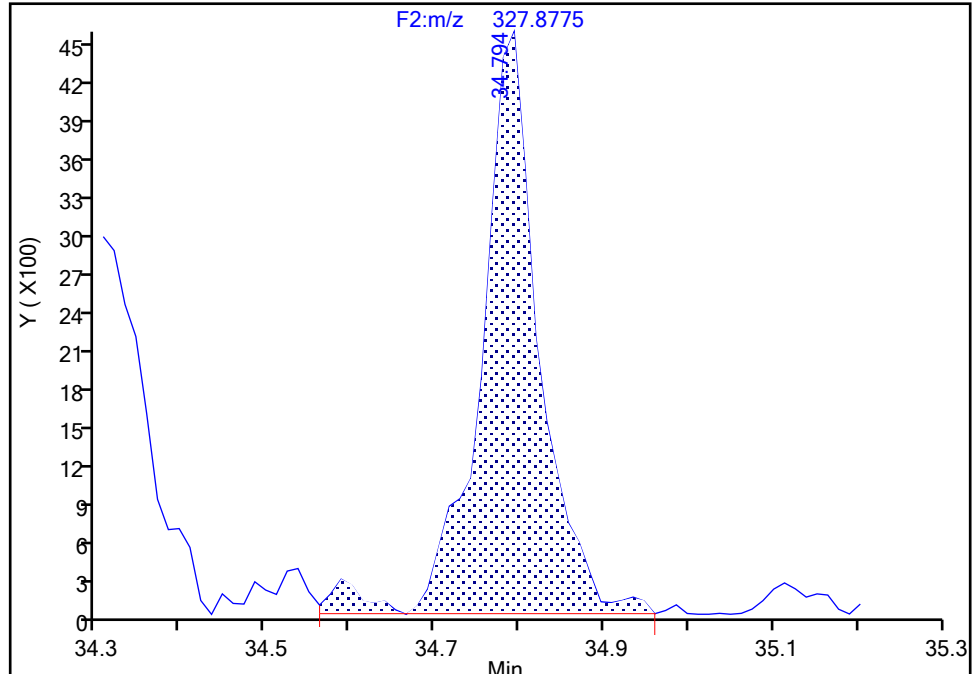
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-120, CAS: 68194-12-7

Signal: 2

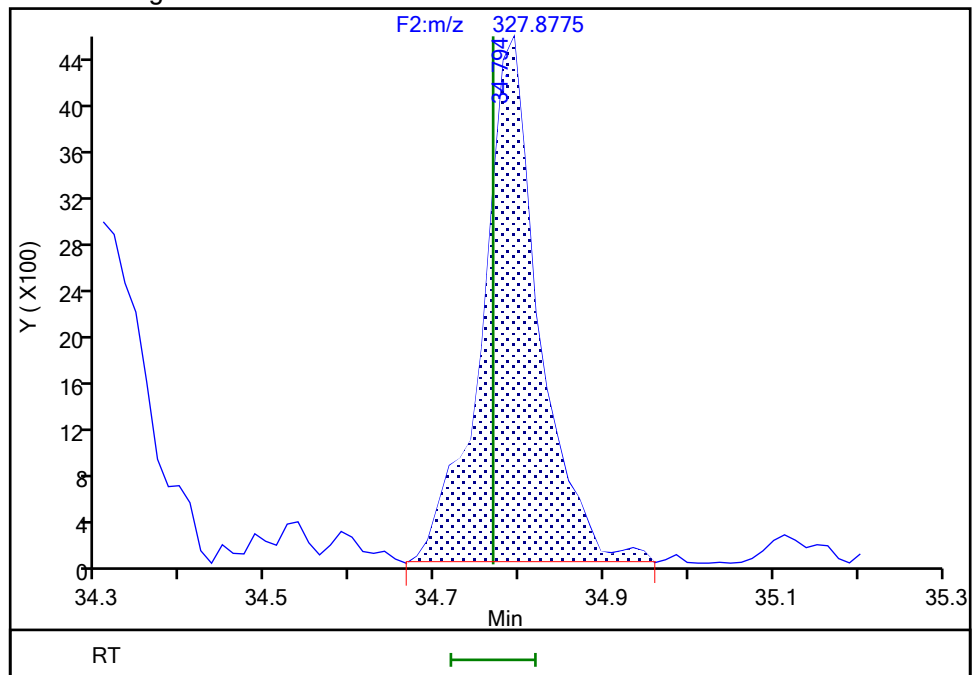
RT: 34.79  
Area: 21979  
Amount: 0.514083  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.79  
Area: 21230  
Amount: 0.518058  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:31:07 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

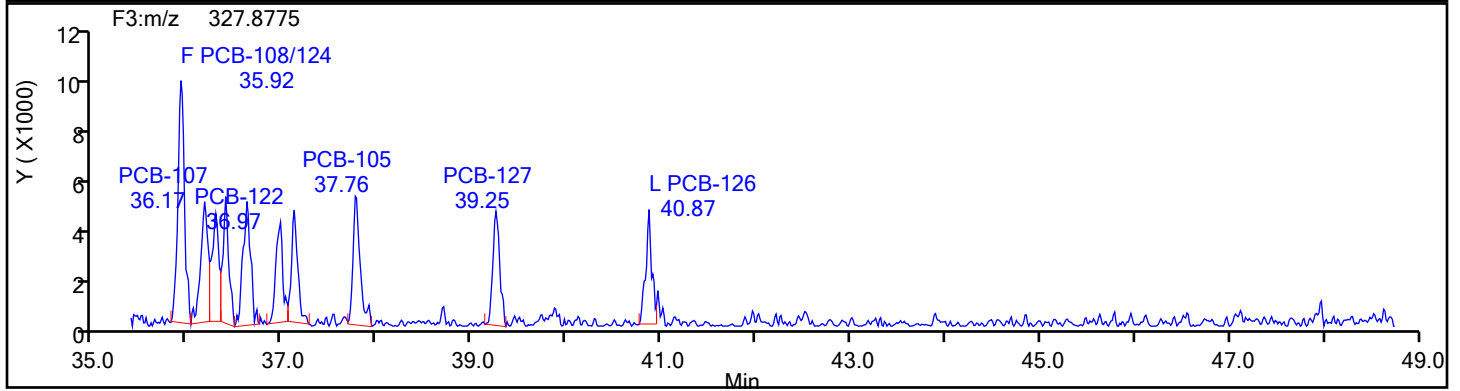
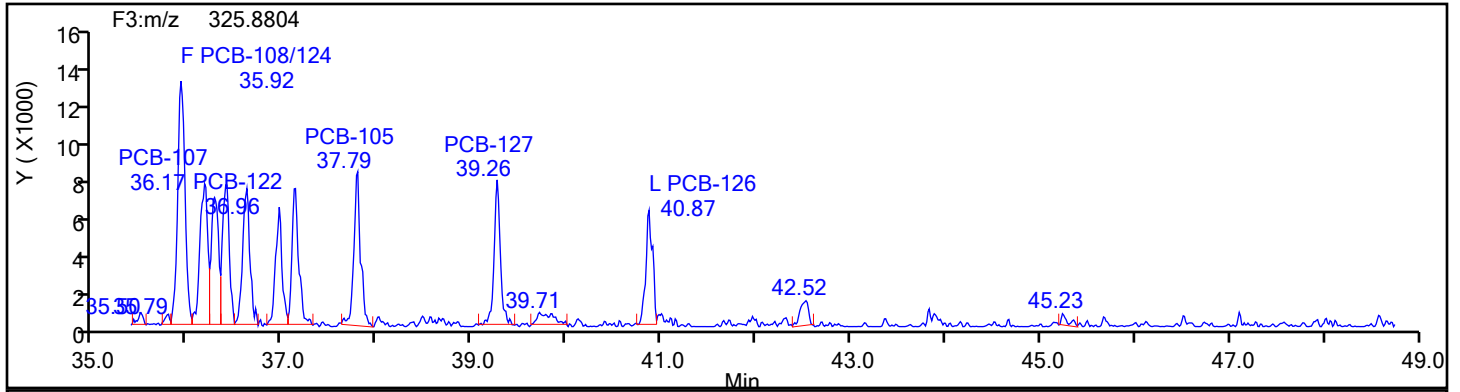
Worklist#: 87130

Sample Line#: 1

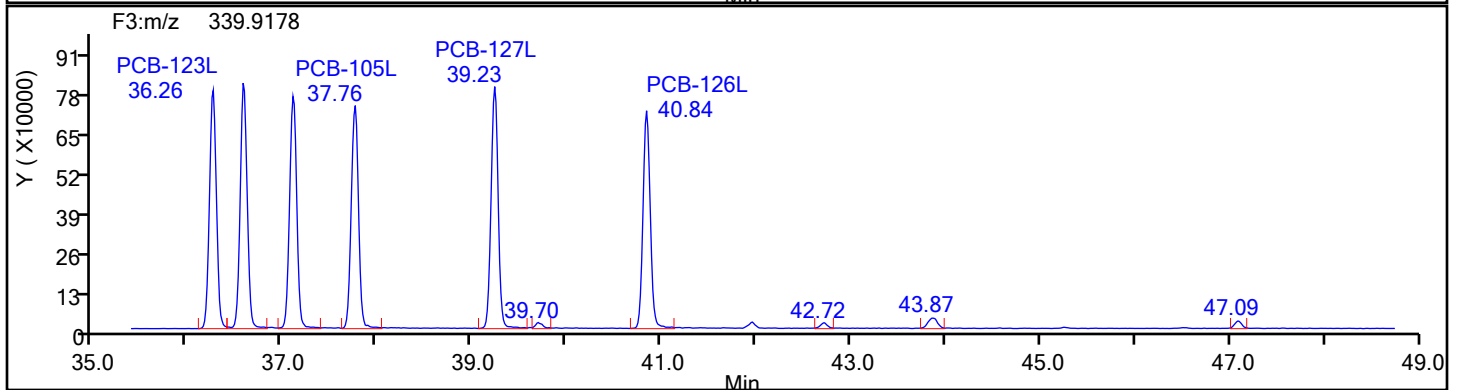
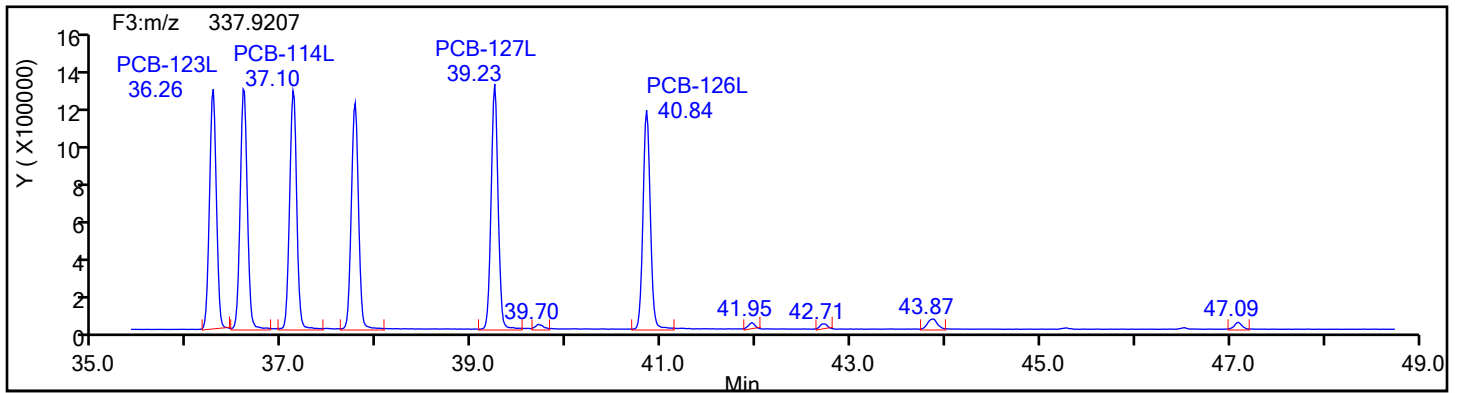
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



PePCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

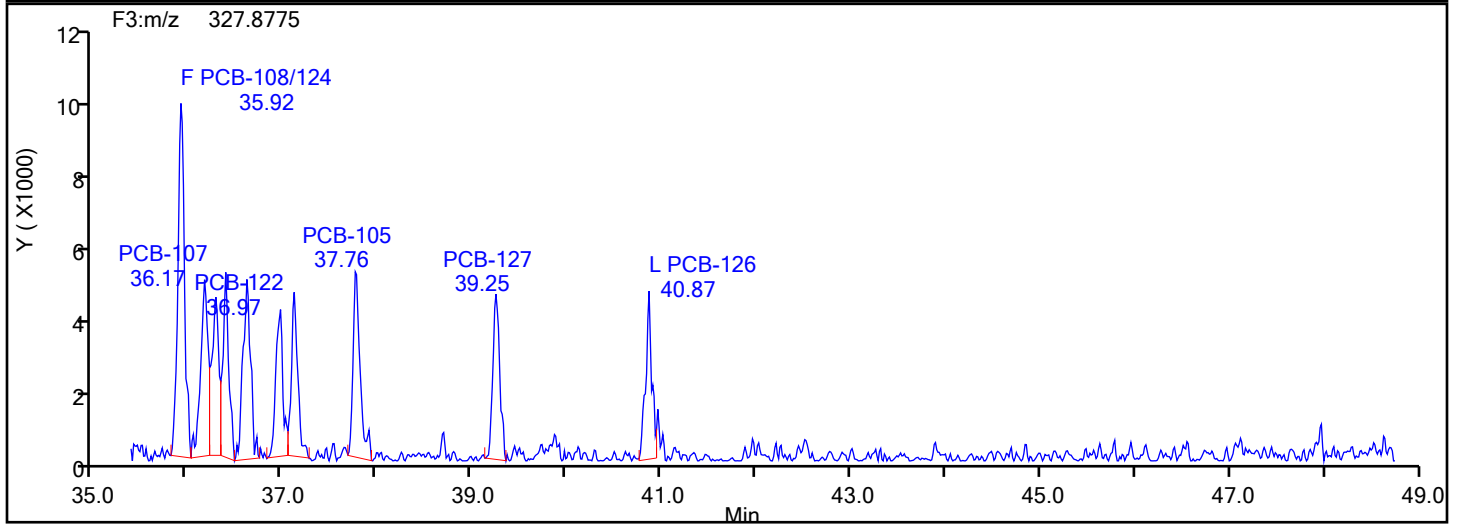
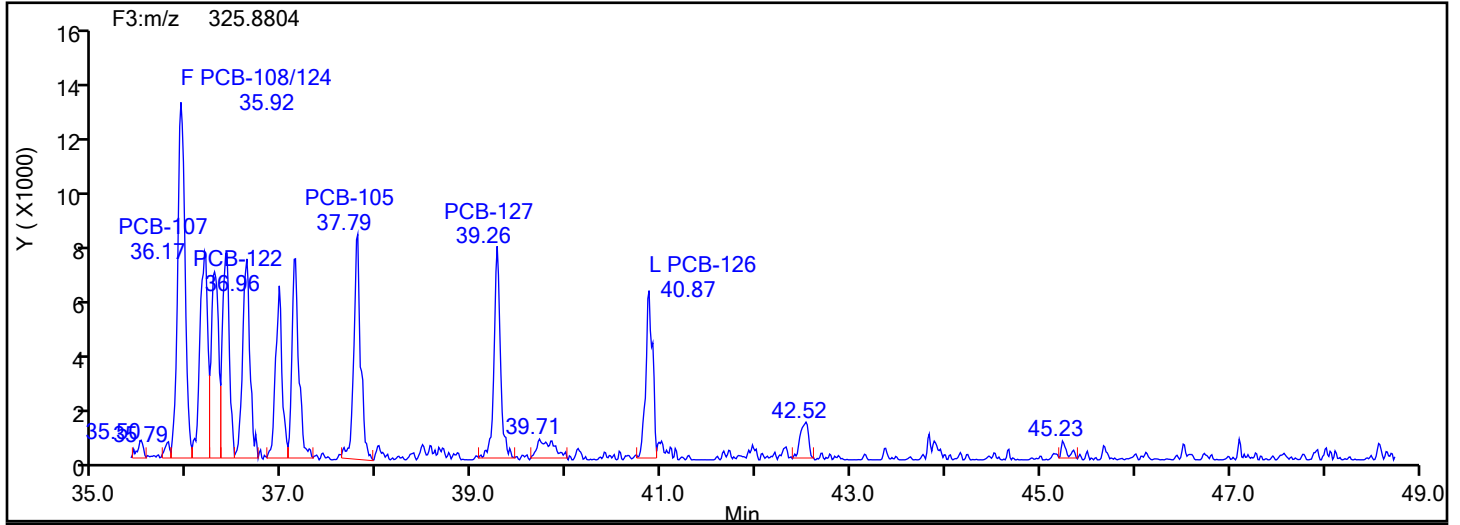
Worklist#: 87130

Sample Line#: 1

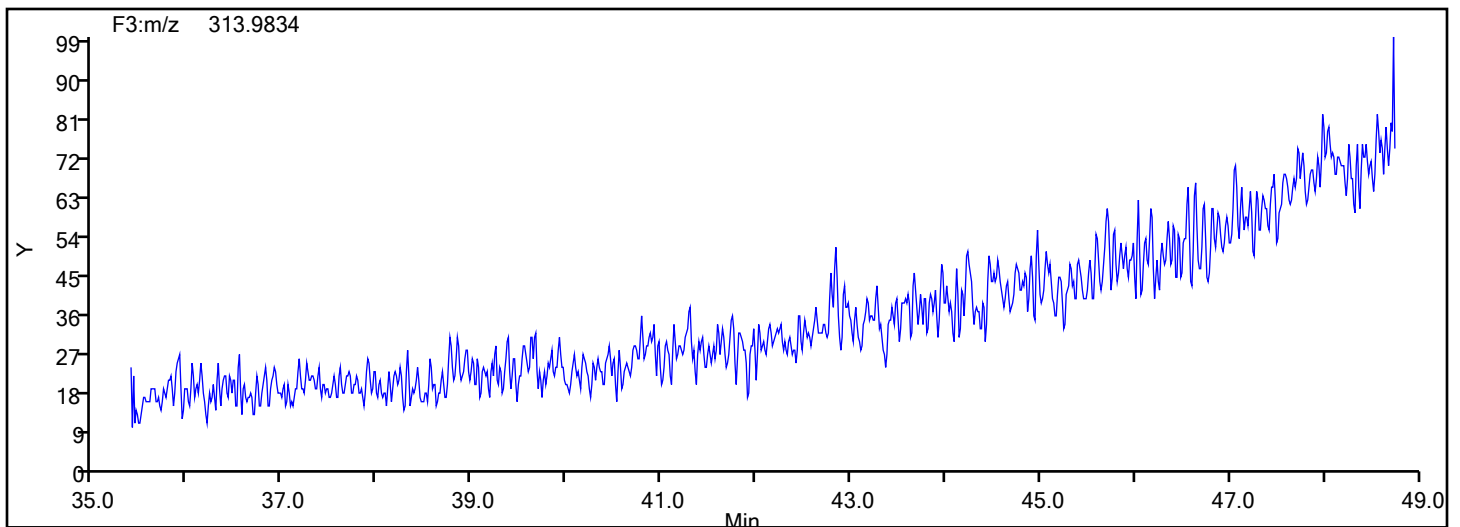
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



## PePCB F3 Lock Mass



## Eurofins Knoxville

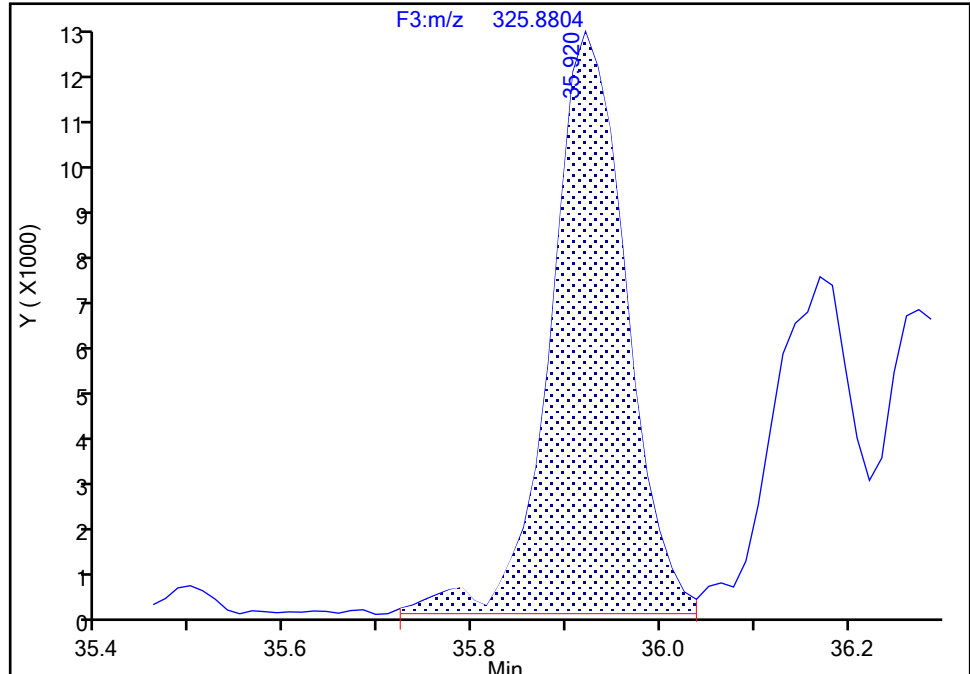
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-108/124, CAS: STL02294

Signal: 1

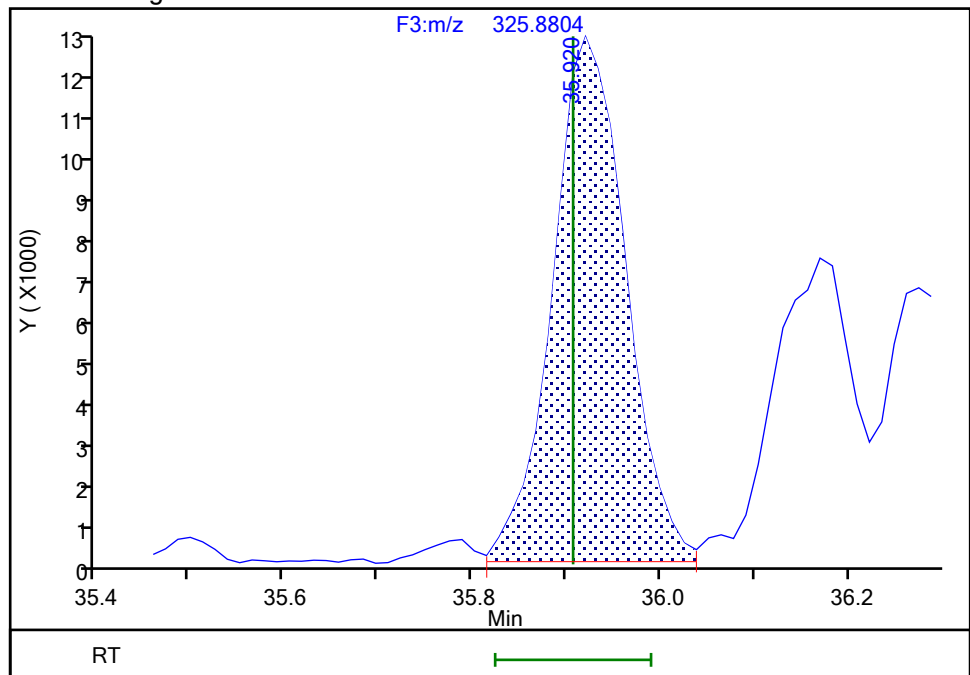
RT: 35.92  
Area: 71057  
Amount: 1.000854  
Amount Units: pg/ul

## Processing Integration Results



RT: 35.92  
Area: 69109  
Amount: 0.968568  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:31:14 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak



## Eurofins Knoxville

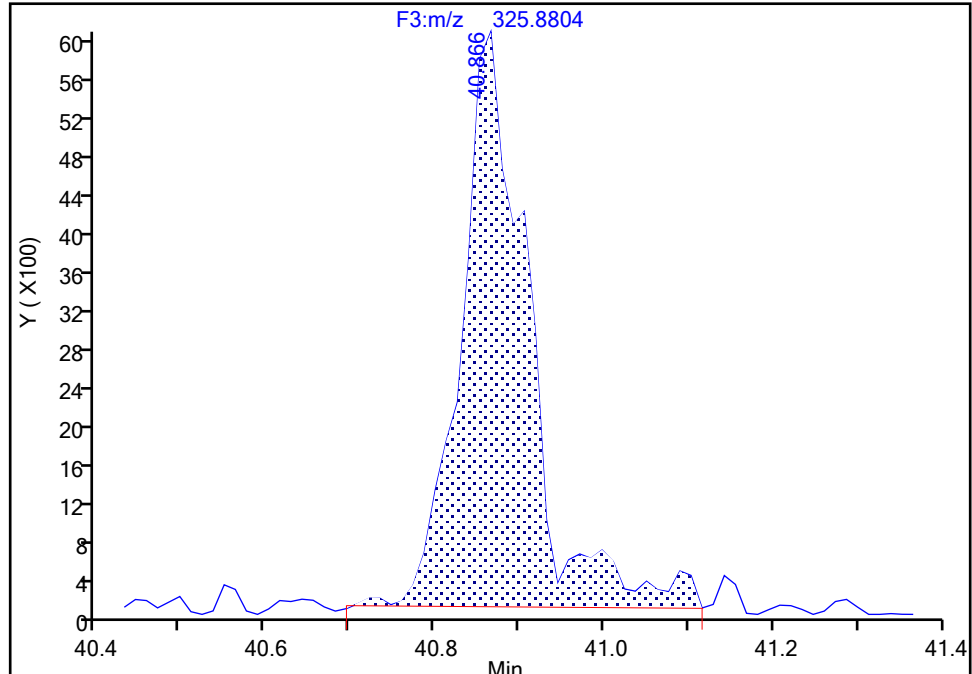
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

**PCB-126, CAS: 57465-28-8**

Signal: 1

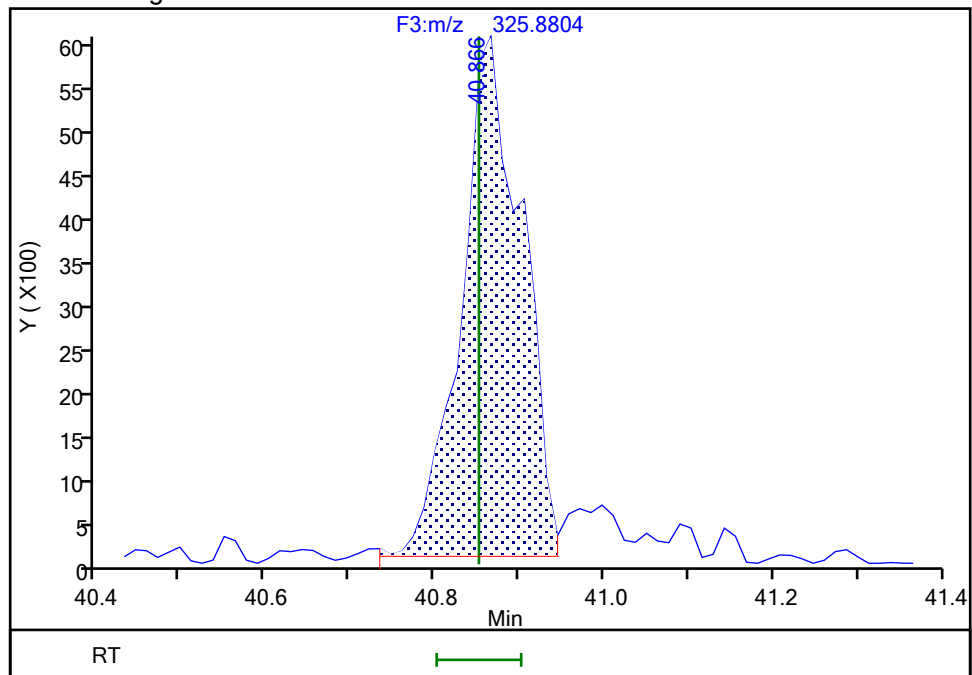
RT: 40.87  
Area: 33362  
Amount: 0.463722  
Amount Units: pg/ul

## Processing Integration Results



RT: 40.87  
Area: 29722  
Amount: 0.453490  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:41:43 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

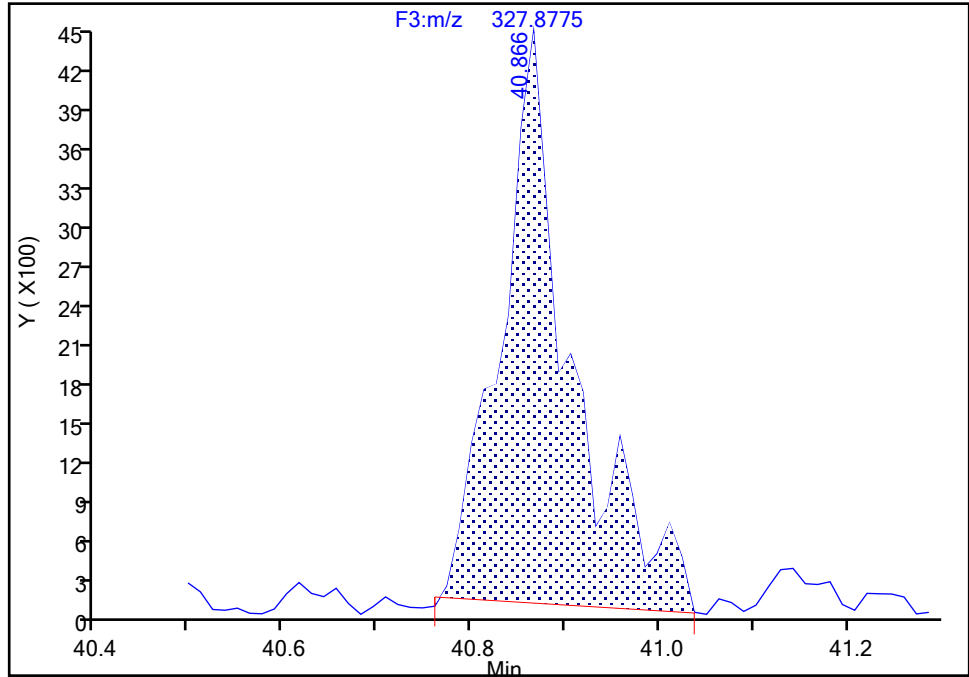
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

**PCB-126, CAS: 57465-28-8**

Signal: 2

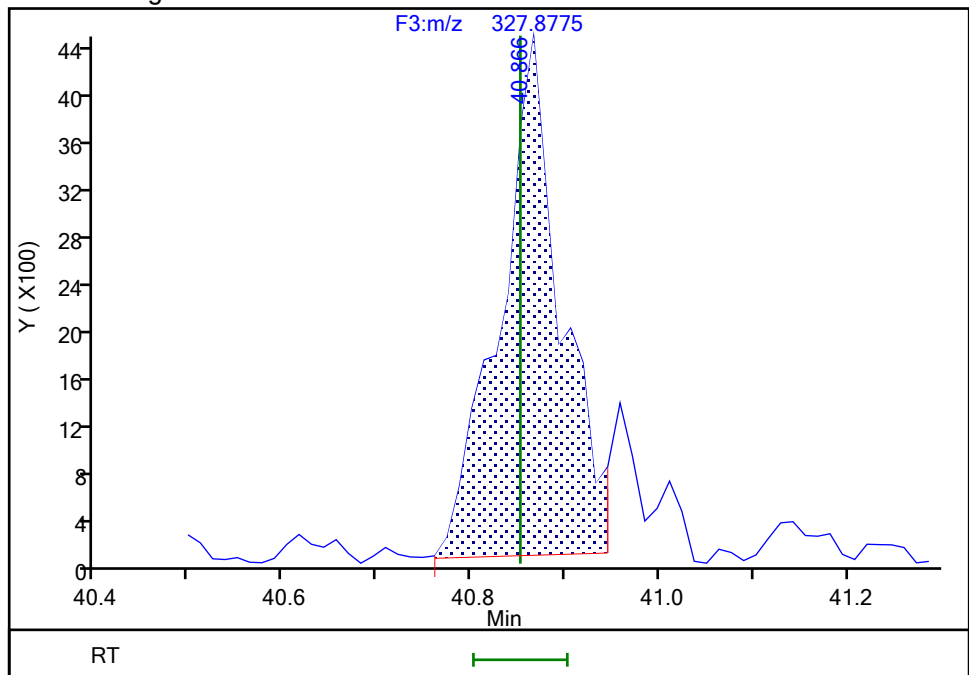
RT: 40.87  
Area: 22952  
Amount: 0.463722  
Amount Units: pg/ul

## Processing Integration Results



RT: 40.87  
Area: 19848  
Amount: 0.453490  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:41:52 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 20240529  
9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

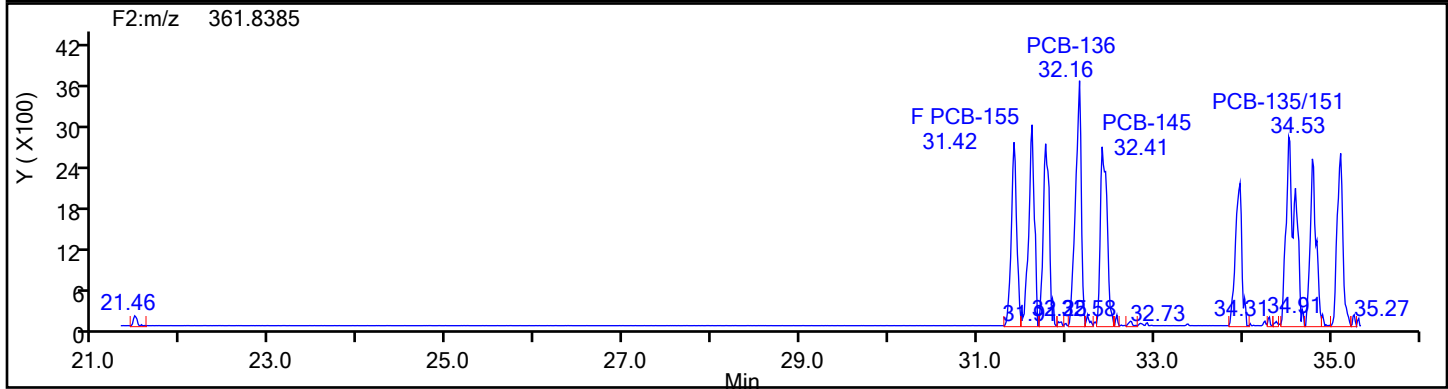
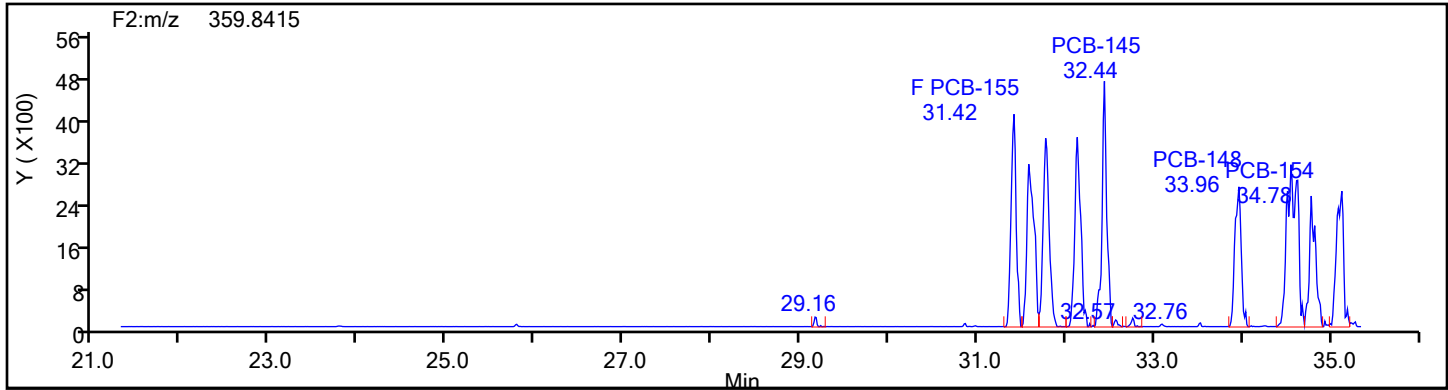
Worklist#: 87130

Sample Line#: 1

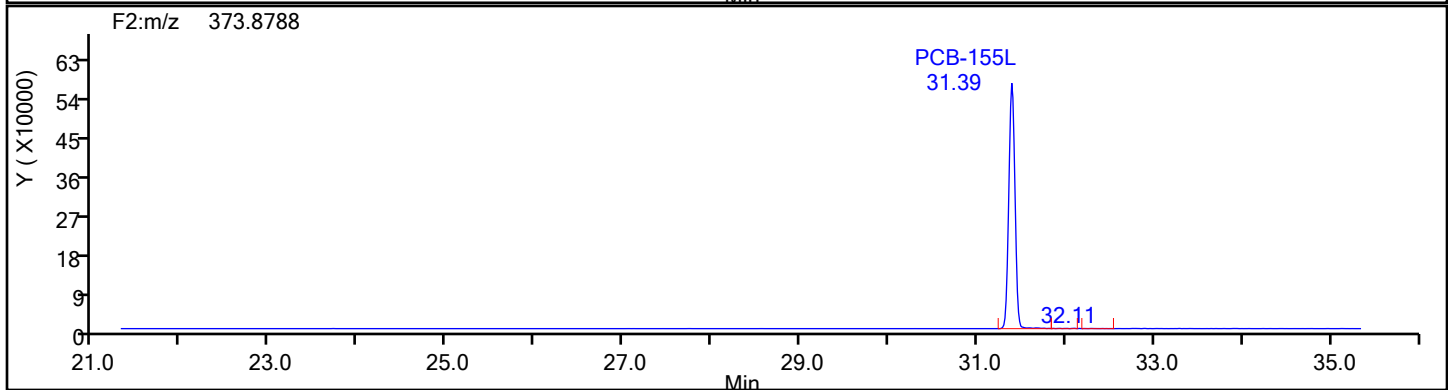
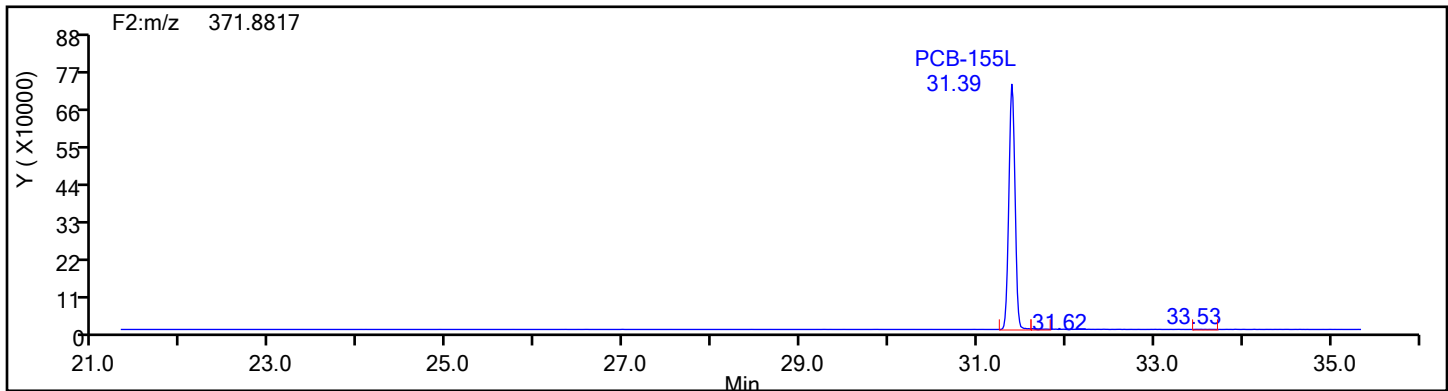
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F2



HxPCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

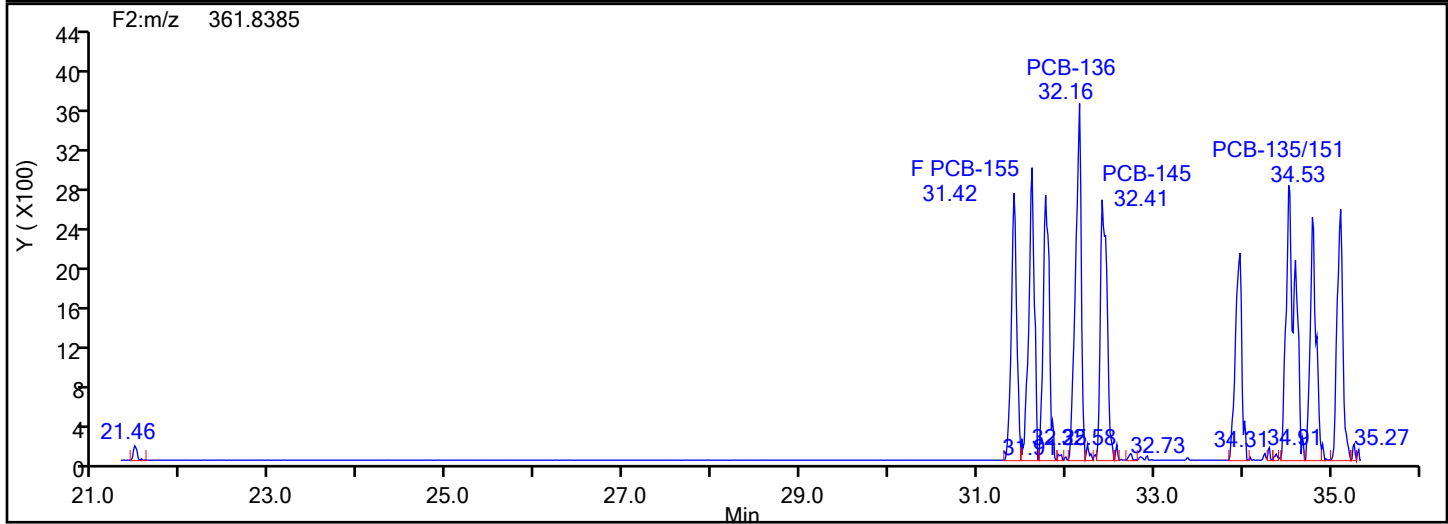
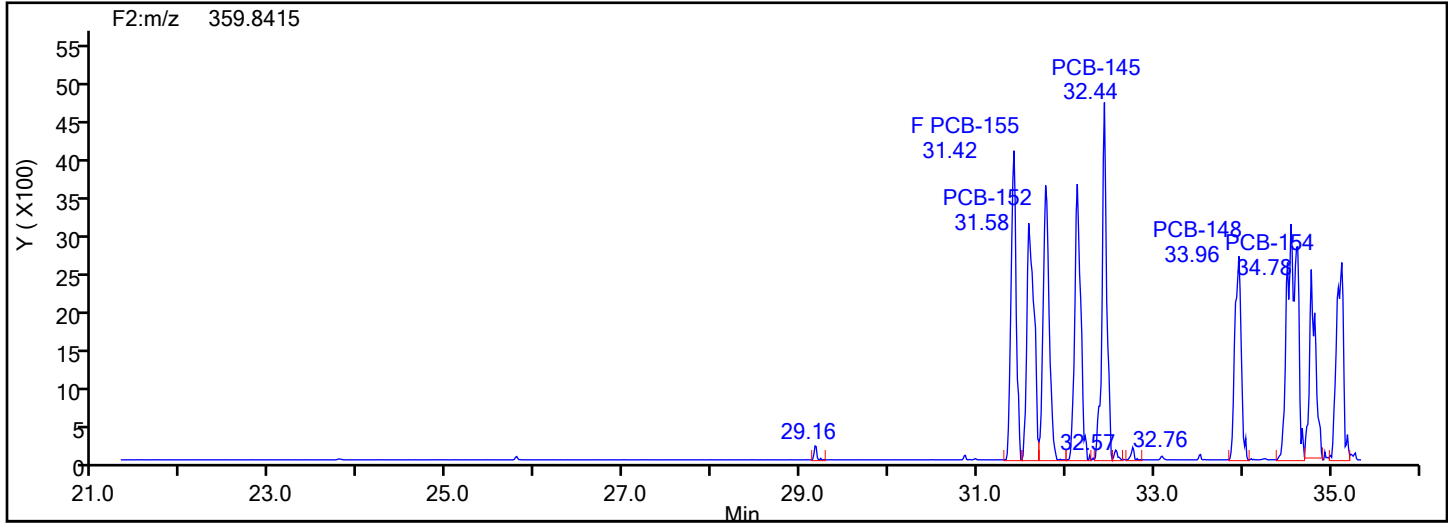
Worklist#: 87130

Sample Line#: 1

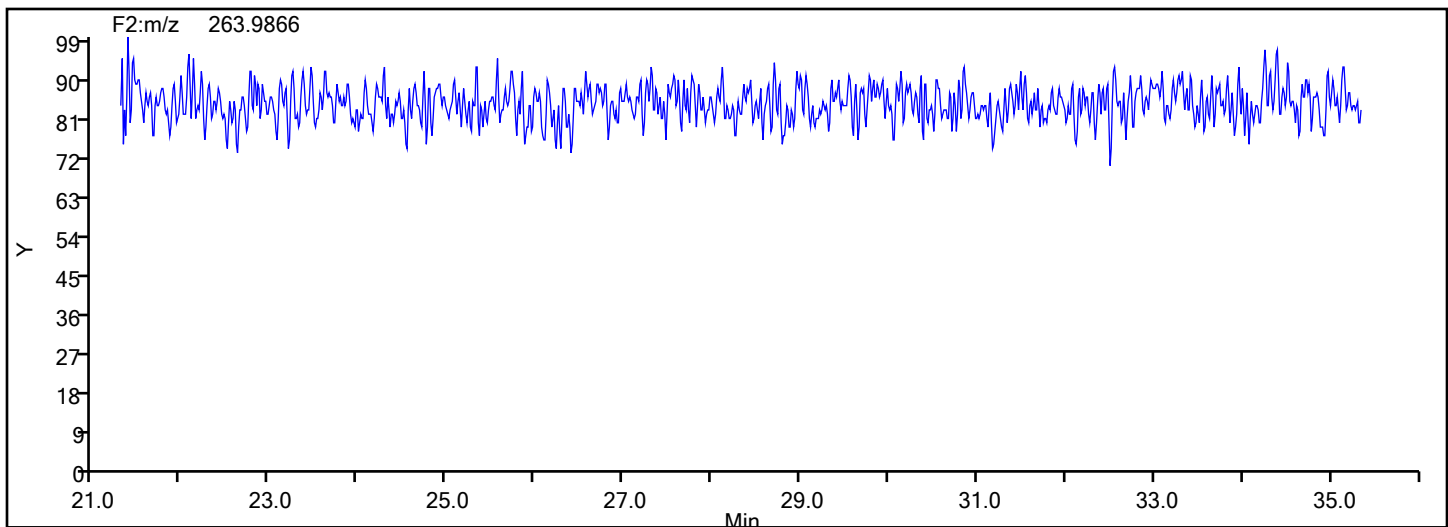
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F2



## HxPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Instrument ID: D2D

Lims ID: IC L1

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

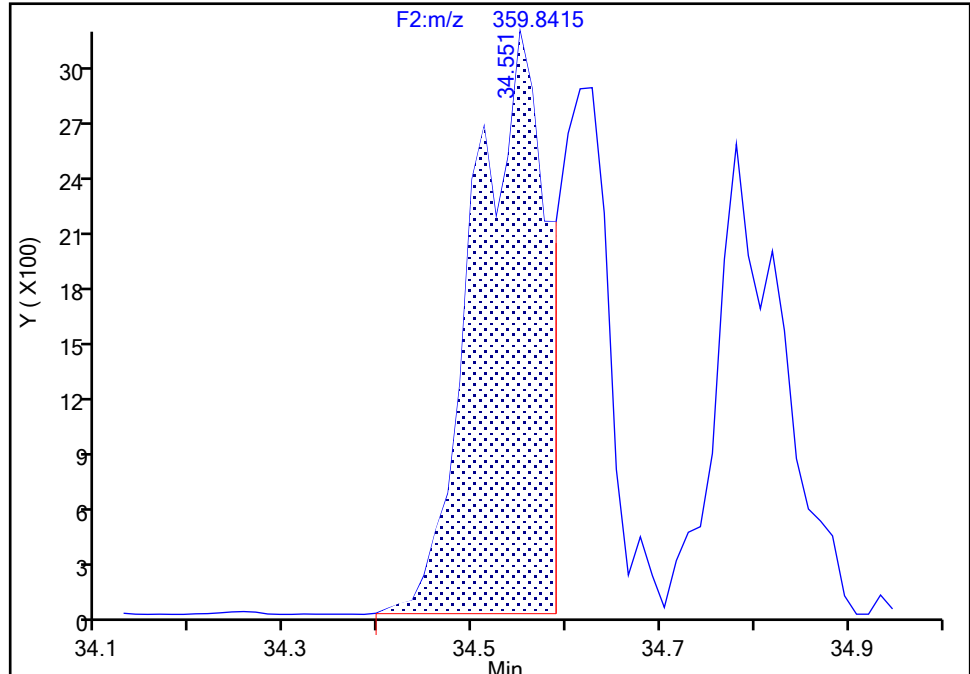
Detector F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 1

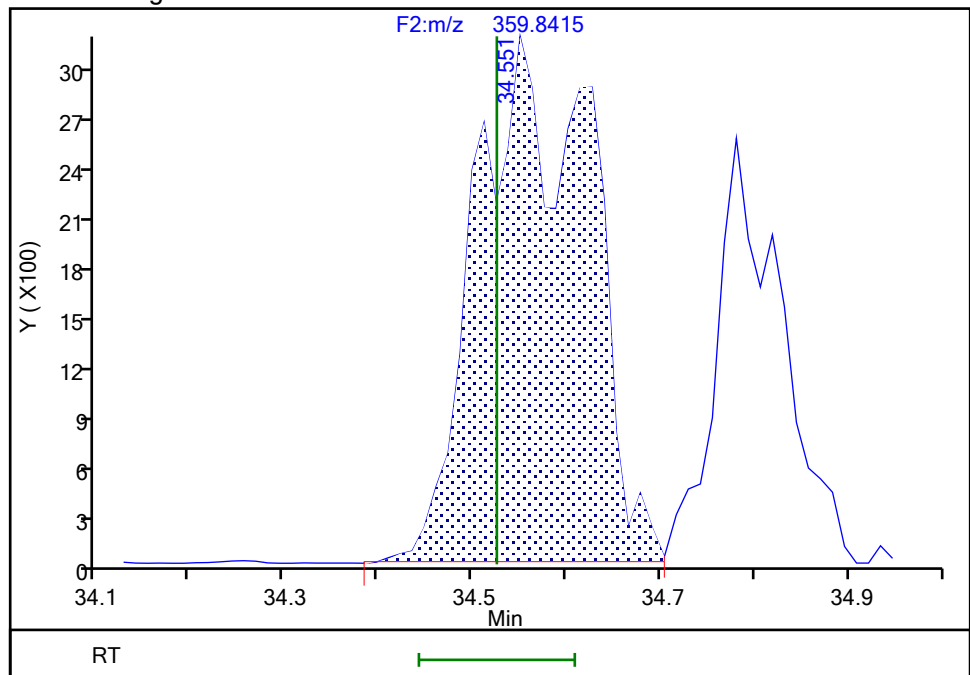
RT: 34.55  
Area: 16255  
Amount: 0.654016  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.55  
Area: 26170  
Amount: 1.004069  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:42:18 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

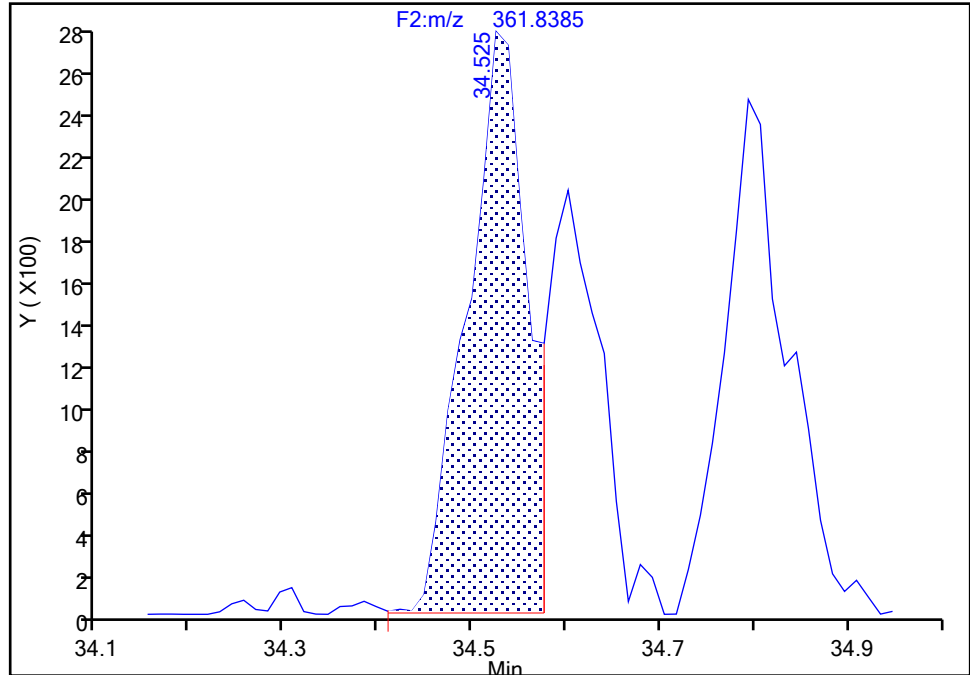
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 2

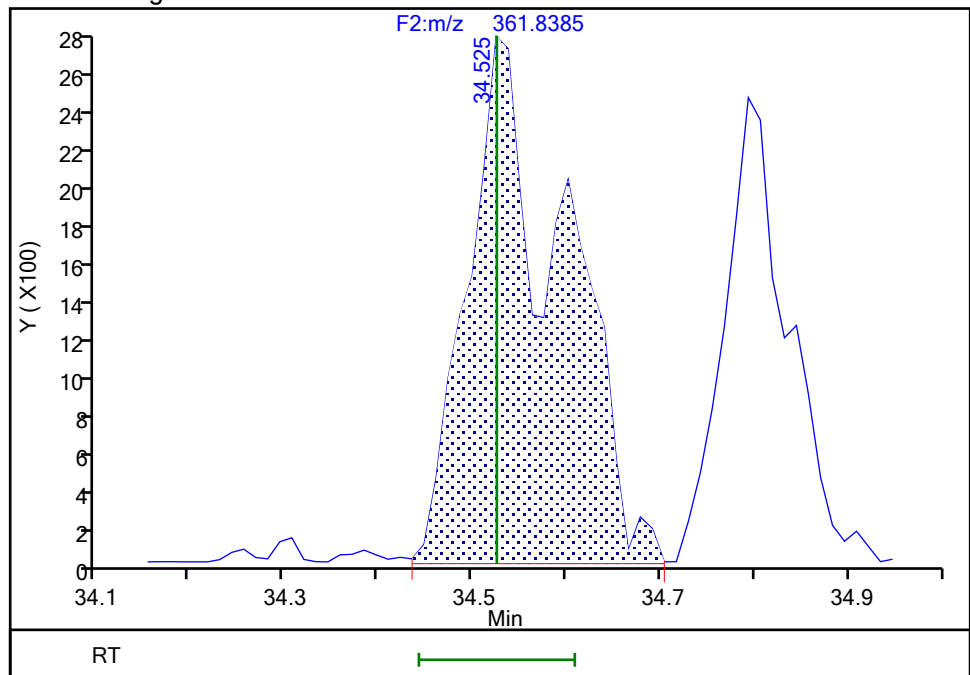
RT: 34.53  
Area: 12145  
Amount: 0.654016  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.53  
Area: 19780  
Amount: 1.004069  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:42:24 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

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BASFHWC-Pass 20240529  
9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Instrument ID: D2D

Lims ID: IC L1

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

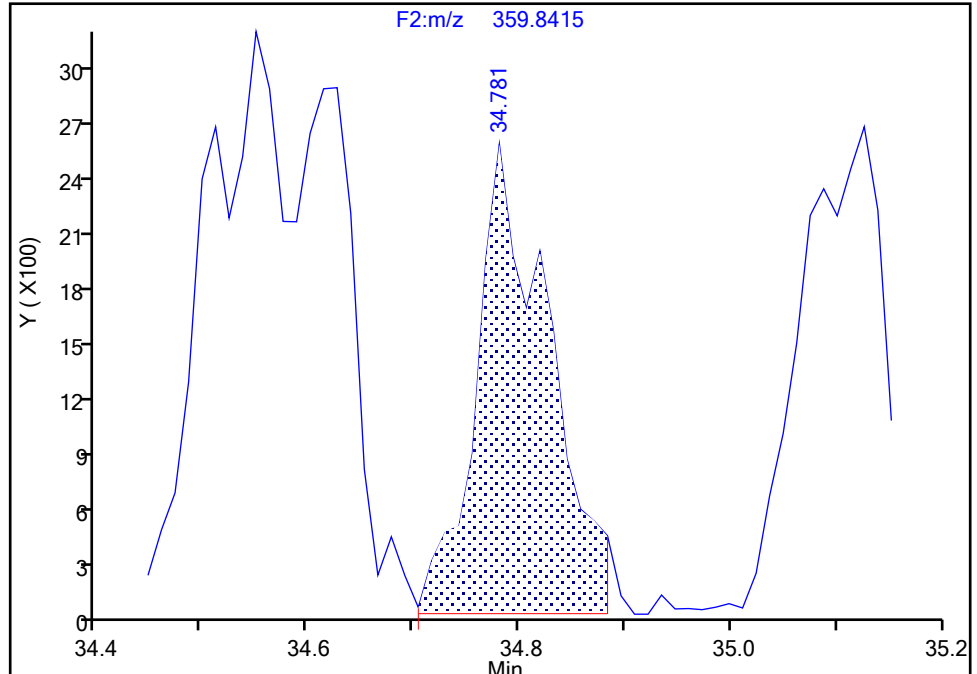
Detector F2(21.81 :35.54 )

**PCB-154, CAS: 60145-22-4**

Signal: 1

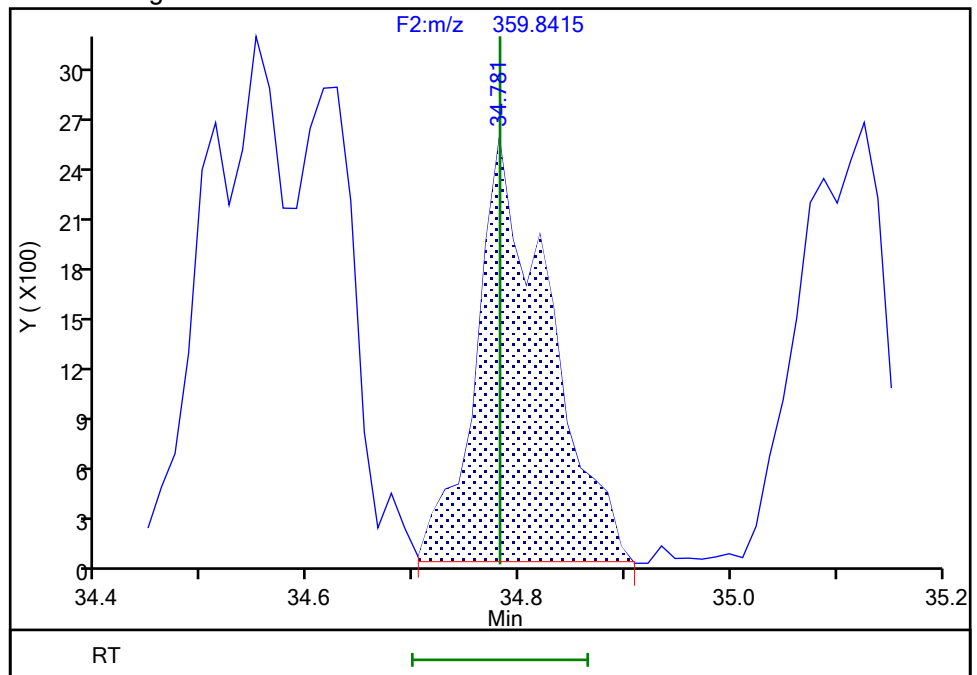
RT: 34.78  
Area: 11920  
Amount: 0.454148  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.78  
Area: 11960  
Amount: 0.455849  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:31:29 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Instrument ID: D2D

Lims ID: IC L1

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

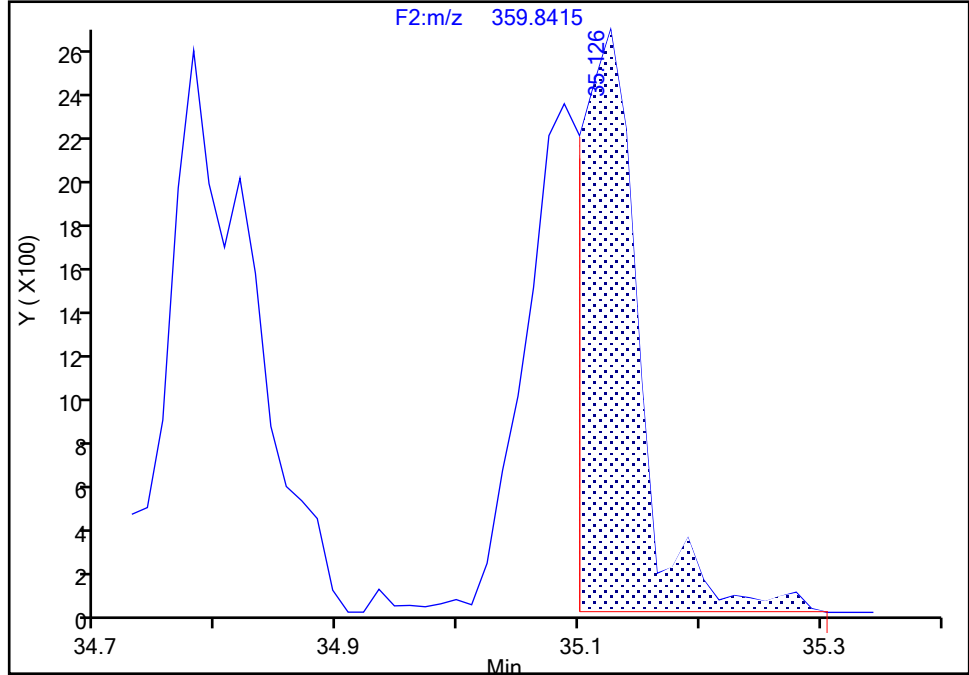
Detector F2(21.81 :35.54 )

**PCB-144, CAS: 68194-14-9**

Signal: 1

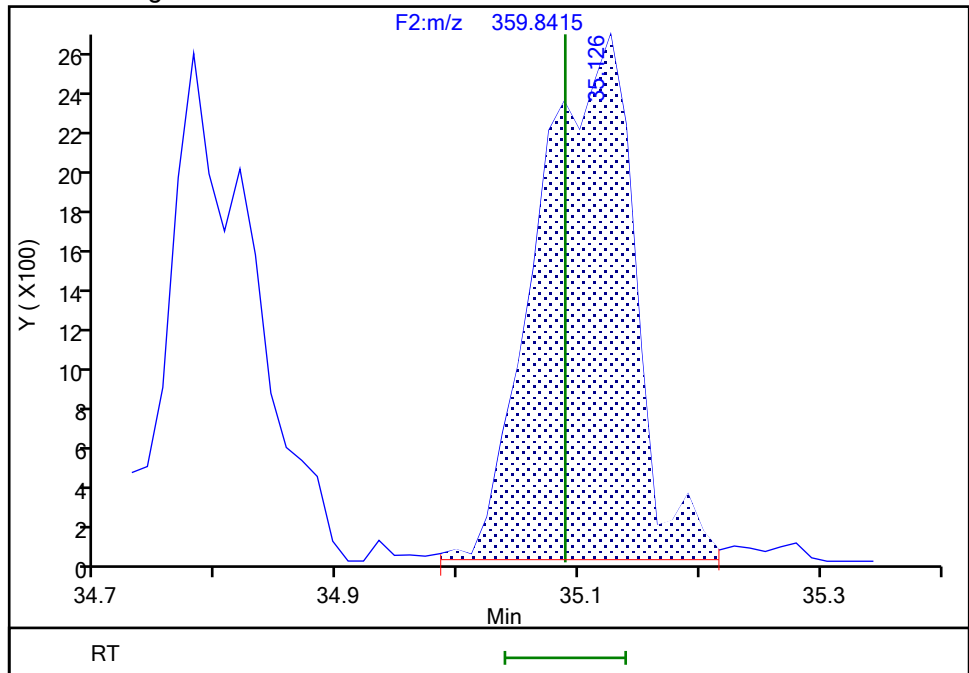
RT: 35.13  
Area: 8058  
Amount: 0.432703  
Amount Units: pg/ul

## Processing Integration Results



RT: 35.13  
Area: 14483  
Amount: 0.525688  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:42:35 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

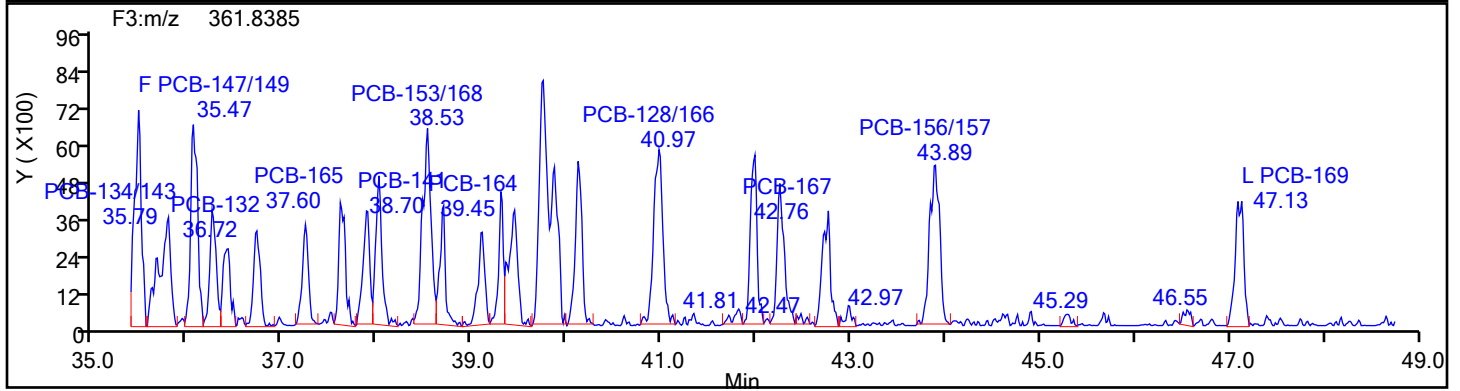
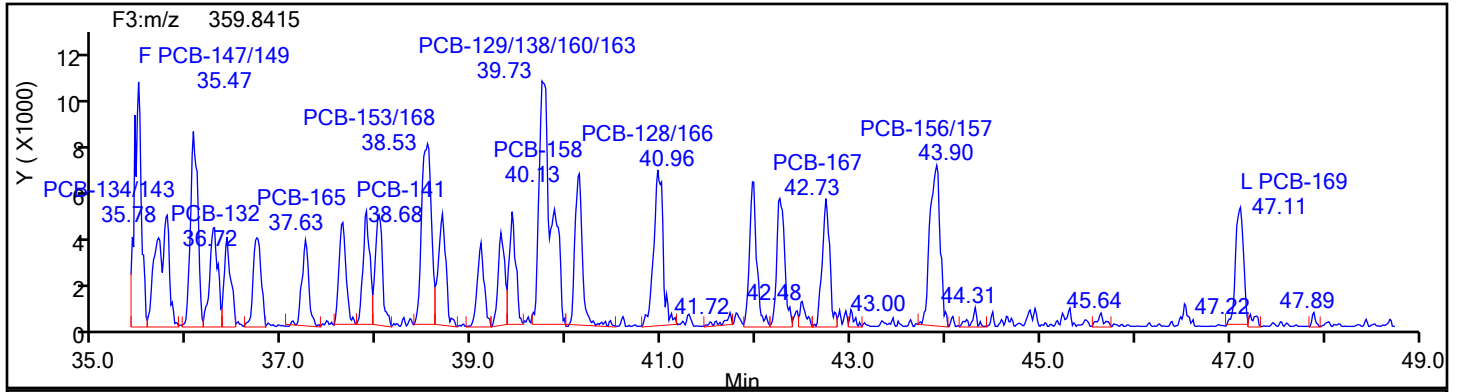
Worklist#: 87130

Sample Line#: 1

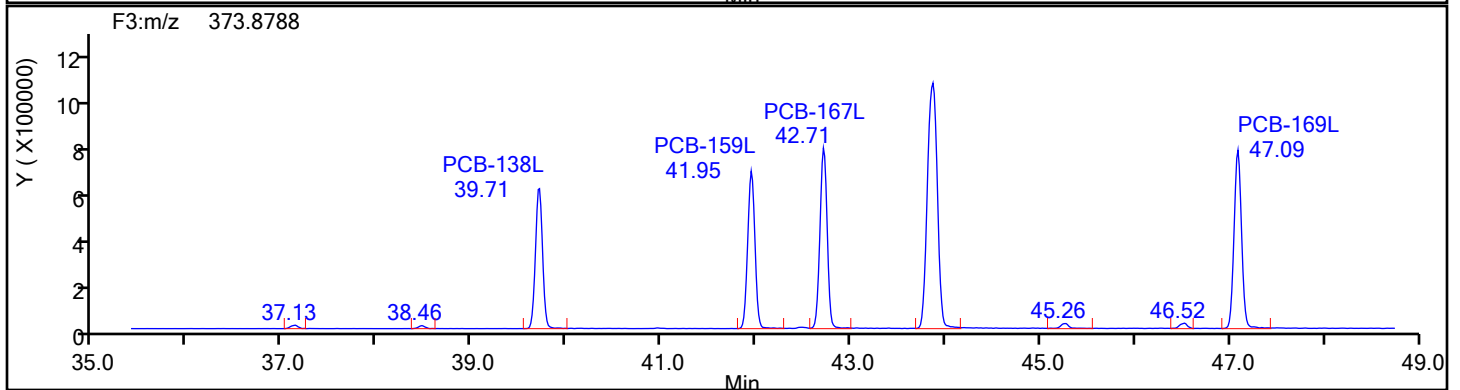
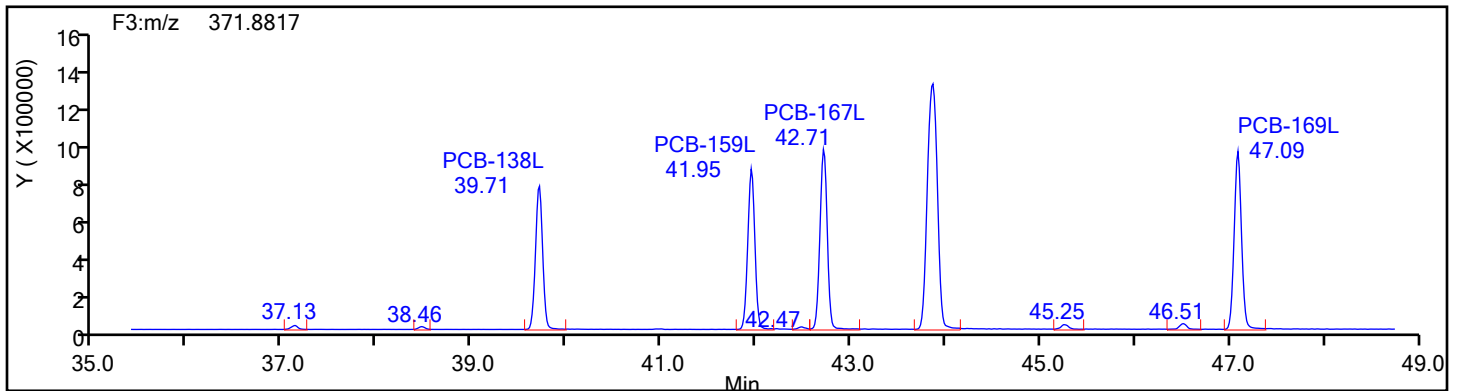
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



## HxPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

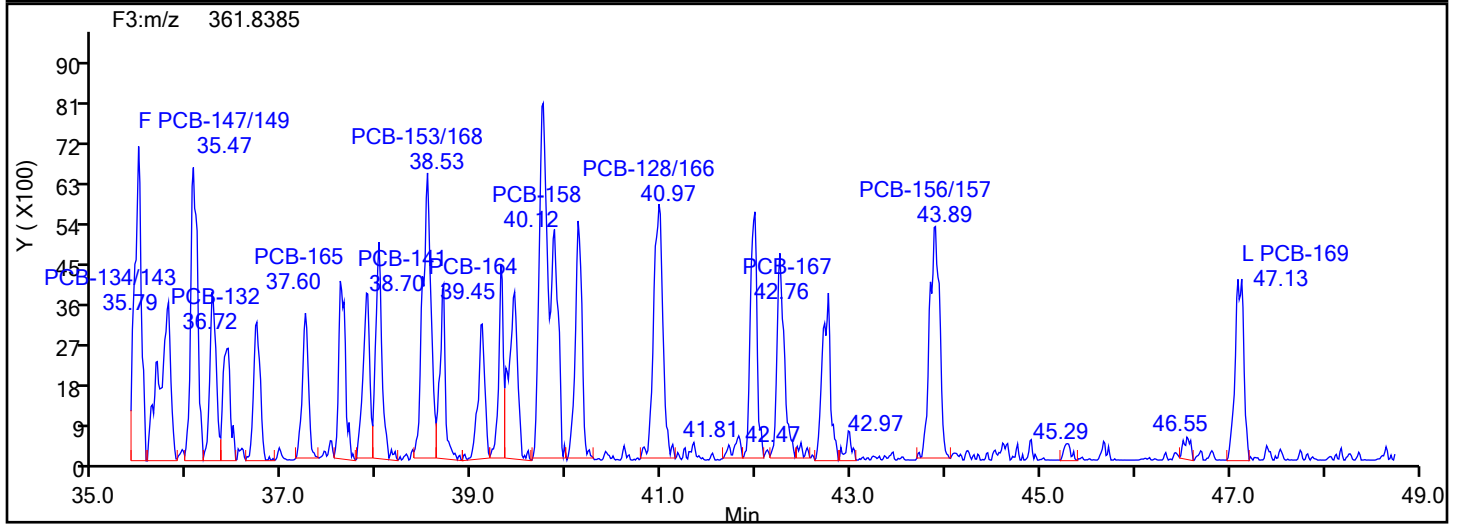
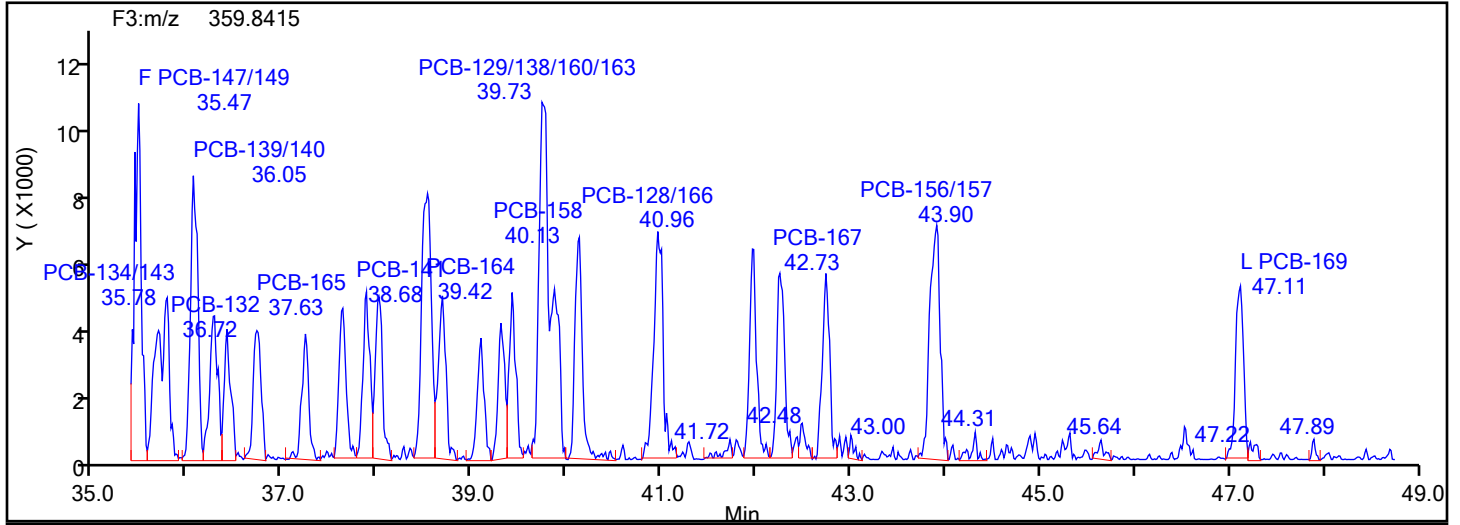
Worklist#: 87130

Sample Line#: 1

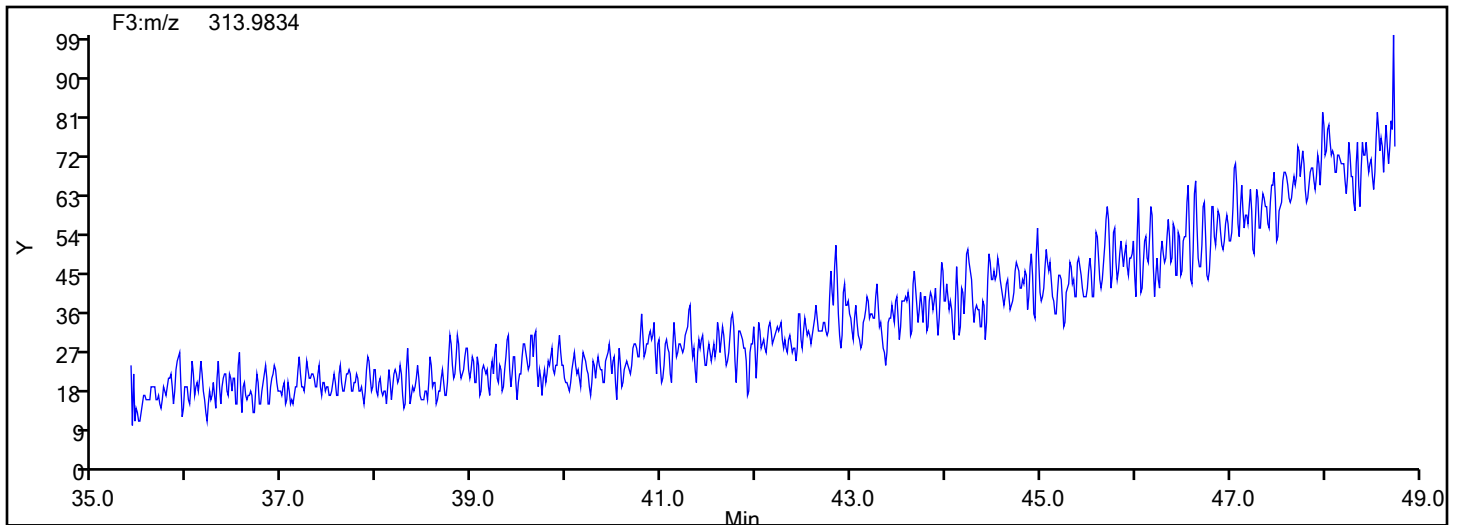
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



## HxPCB F3 Lock Mass



## Eurofins Knoxville

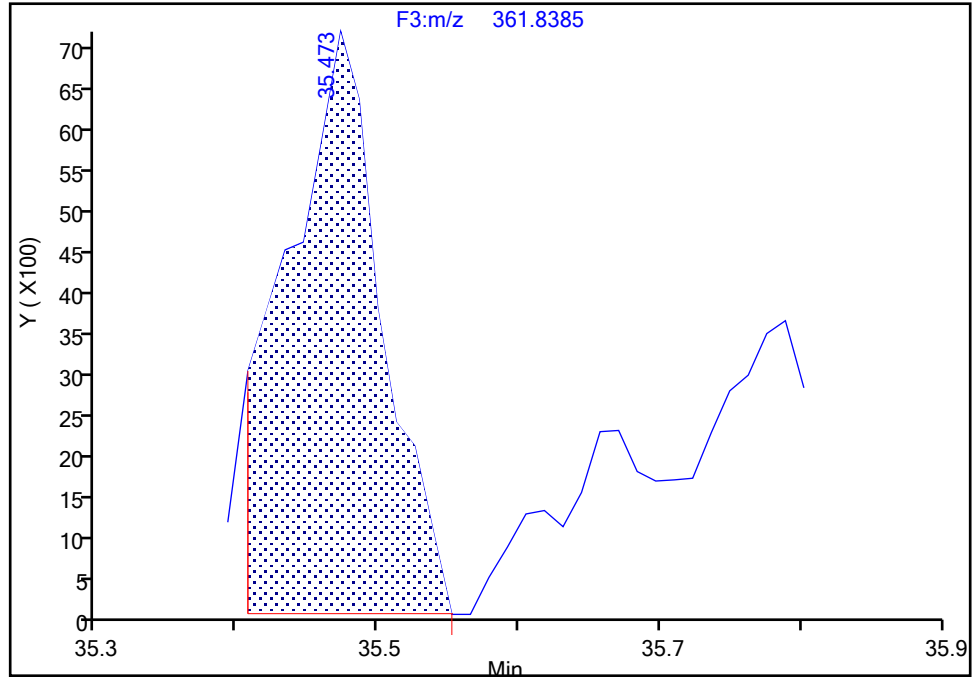
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

**PCB-147/149, CAS: STL01821**

Signal: 2

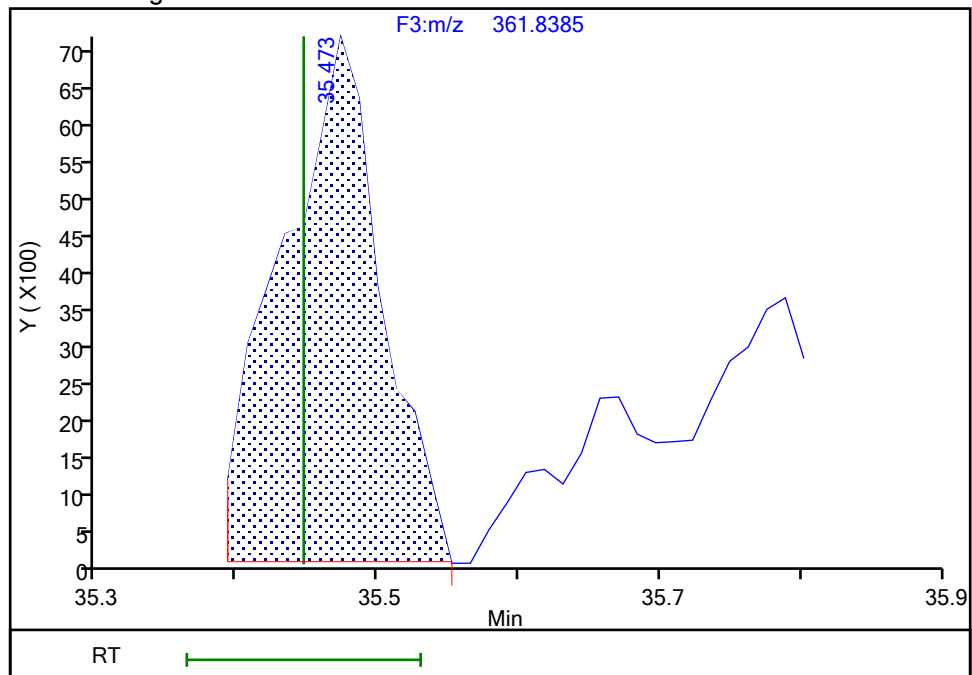
RT: 35.47  
Area: 33615  
Amount: 1.063615  
Amount Units: pg/ul

## Processing Integration Results



RT: 35.47  
Area: 35175  
Amount: 1.079132  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:32:00 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Instrument ID: D2D

Lims ID: IC L1

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

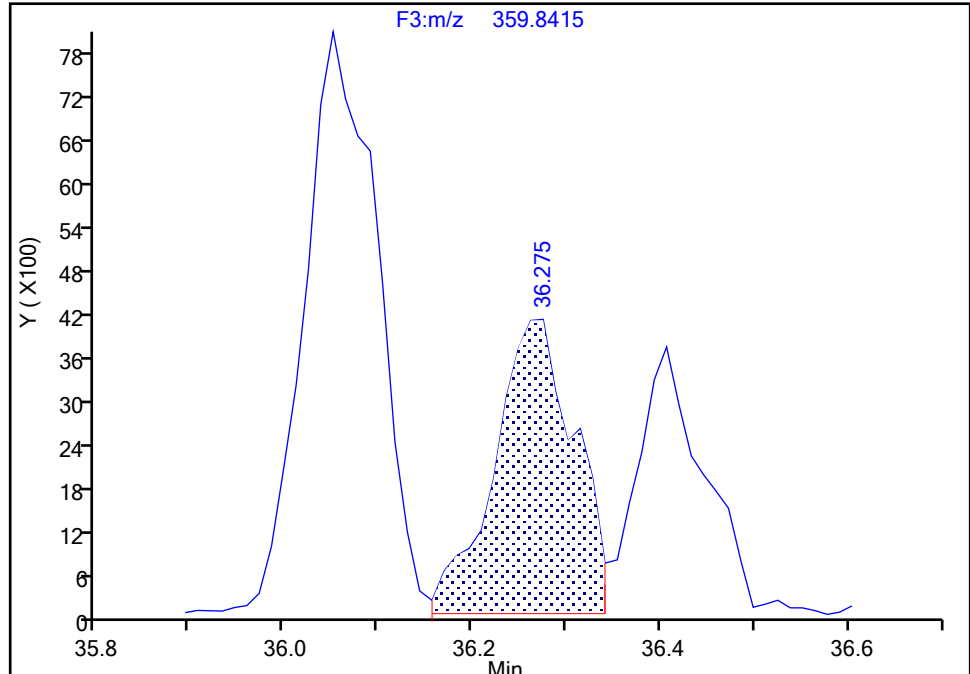
Detector F3(35.64 :49.10 )

**PCB-131, CAS: 61798-70-7**

Signal: 1

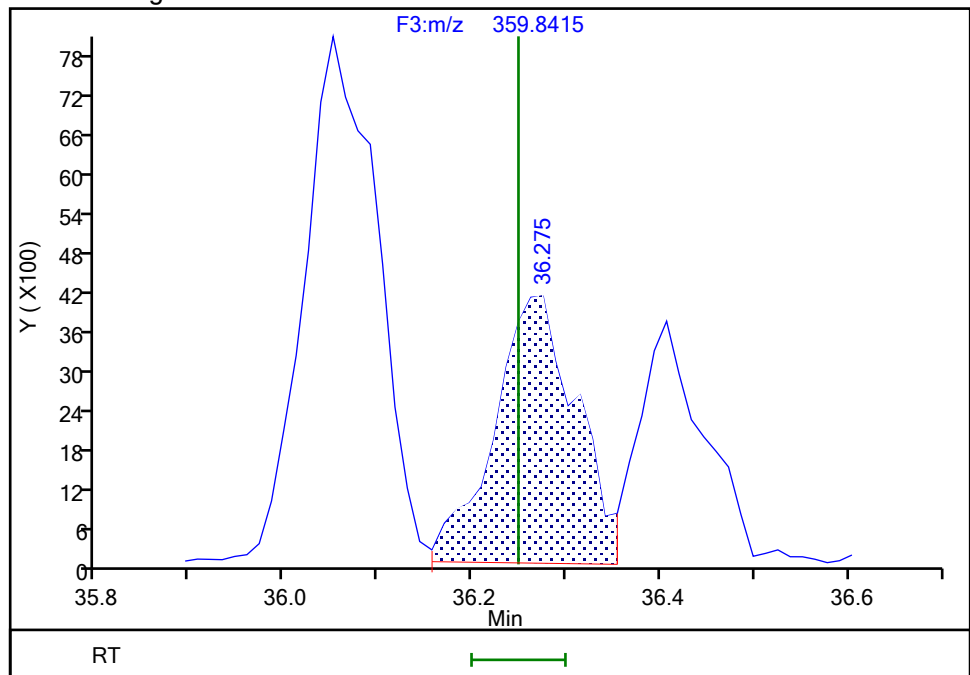
RT: 36.28  
Area: 23949  
Amount: 0.603994  
Amount Units: pg/ul

## Processing Integration Results



RT: 36.28  
Area: 24575  
Amount: 0.639629  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:28:29 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Instrument ID: D2D

Lims ID: IC L1

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

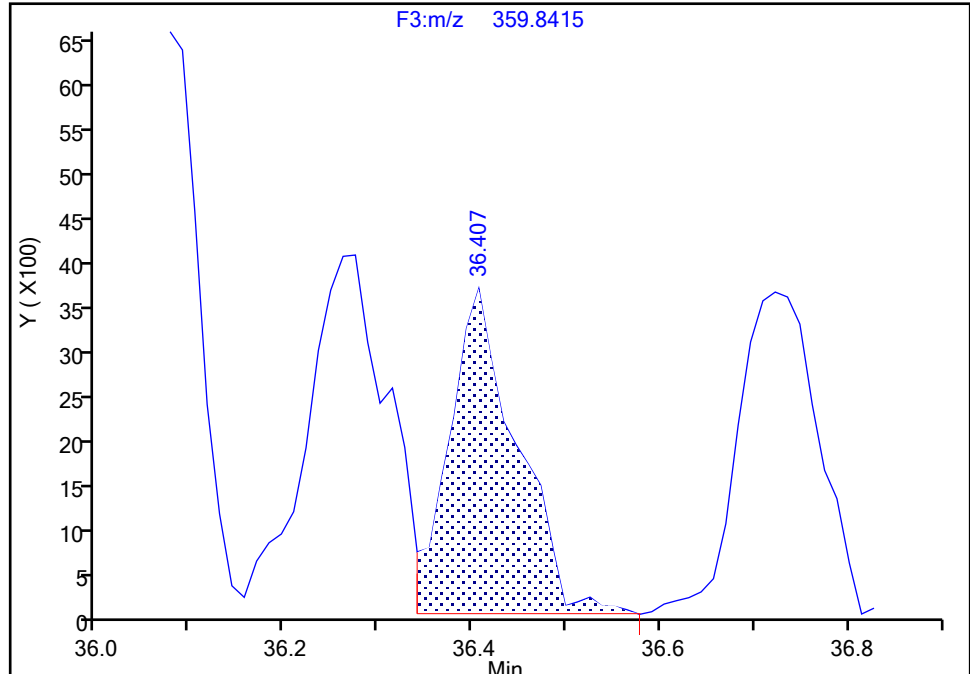
Detector F3(35.64 :49.10 )

**PCB-142, CAS: 41411-61-4**

Signal: 1

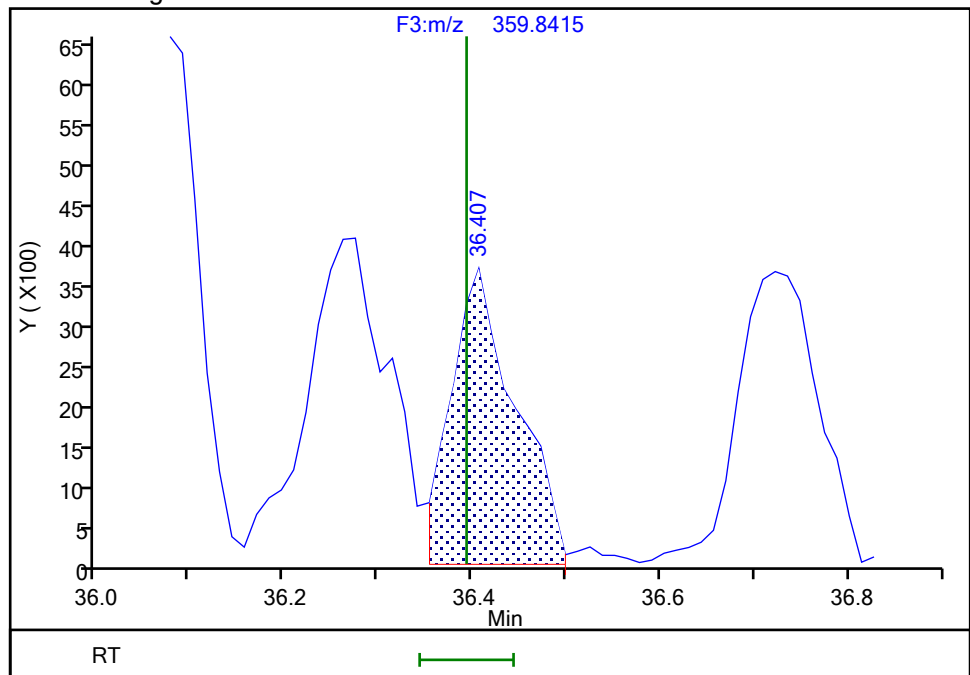
RT: 36.41  
Area: 18363  
Amount: 0.485443  
Amount Units: pg/ul

## Processing Integration Results



RT: 36.41  
Area: 17385  
Amount: 0.473115  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:28:29 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

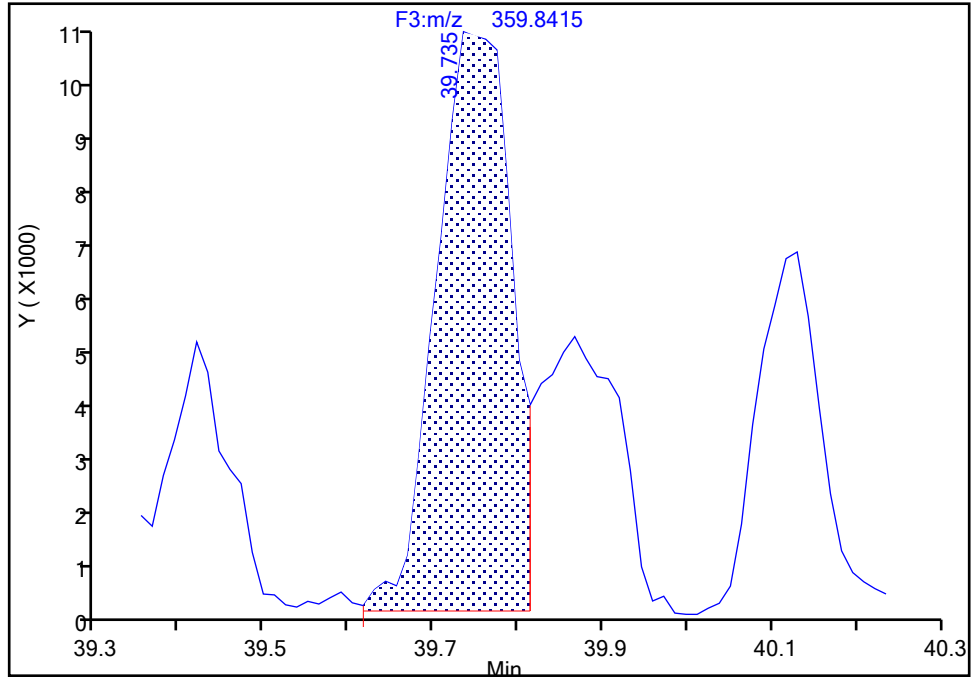
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 1

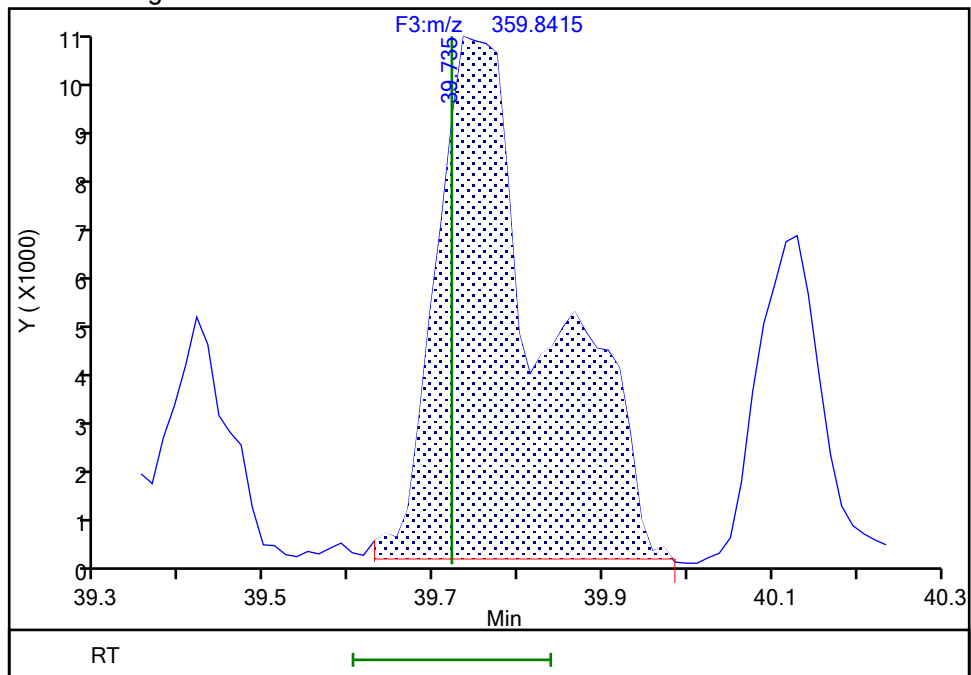
RT: 39.73  
Area: 61420  
Amount: 1.440948  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.73  
Area: 91627  
Amount: 1.965277  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:43:01 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

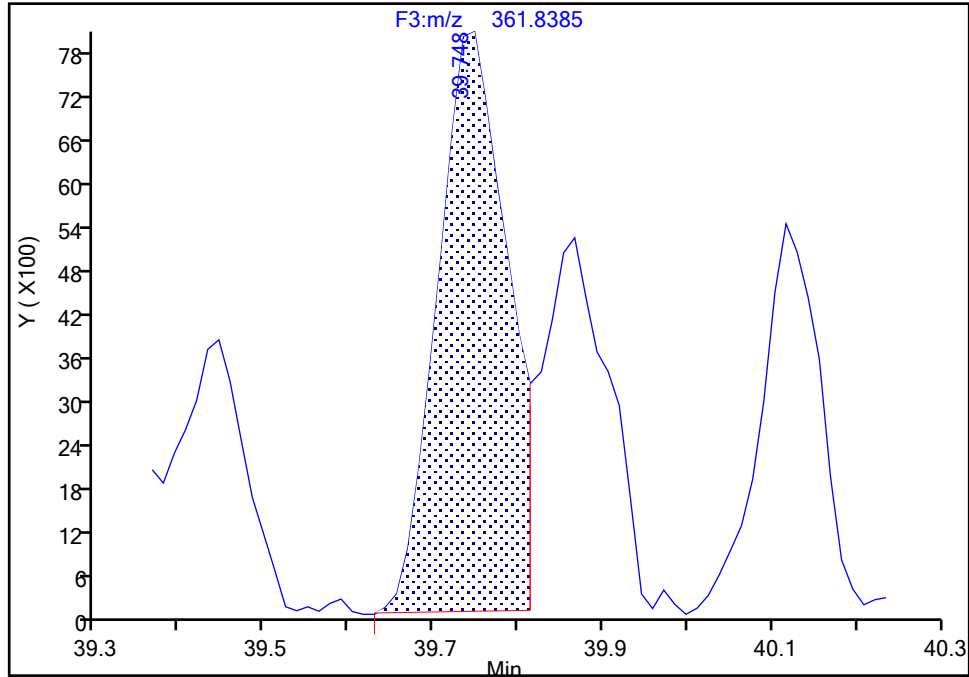
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 2

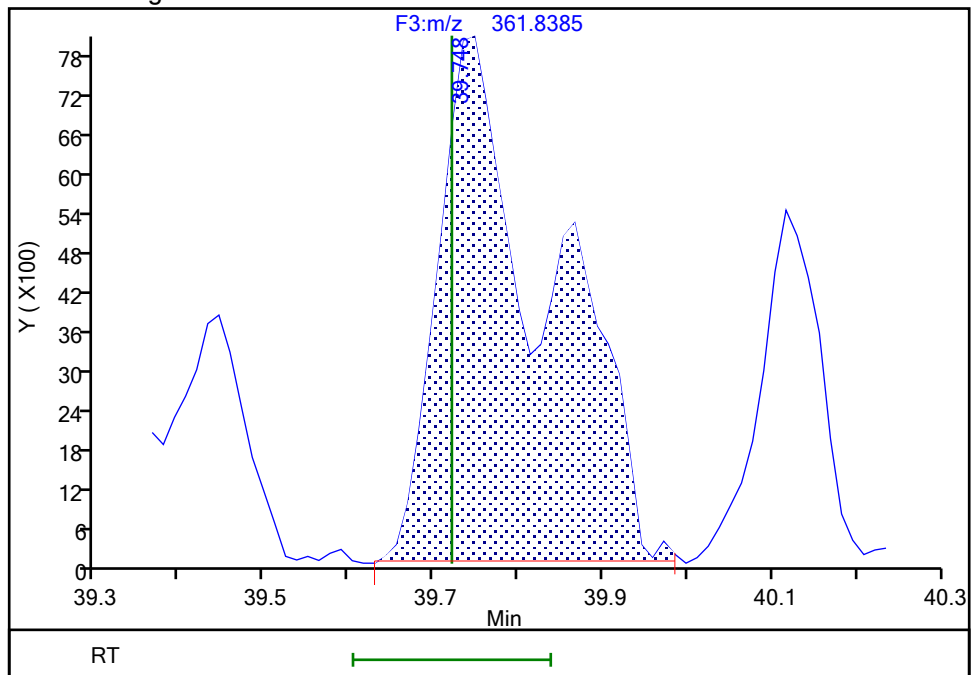
RT: 39.75  
Area: 45519  
Amount: 1.440948  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.75  
Area: 73127  
Amount: 1.965277  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:43:12 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

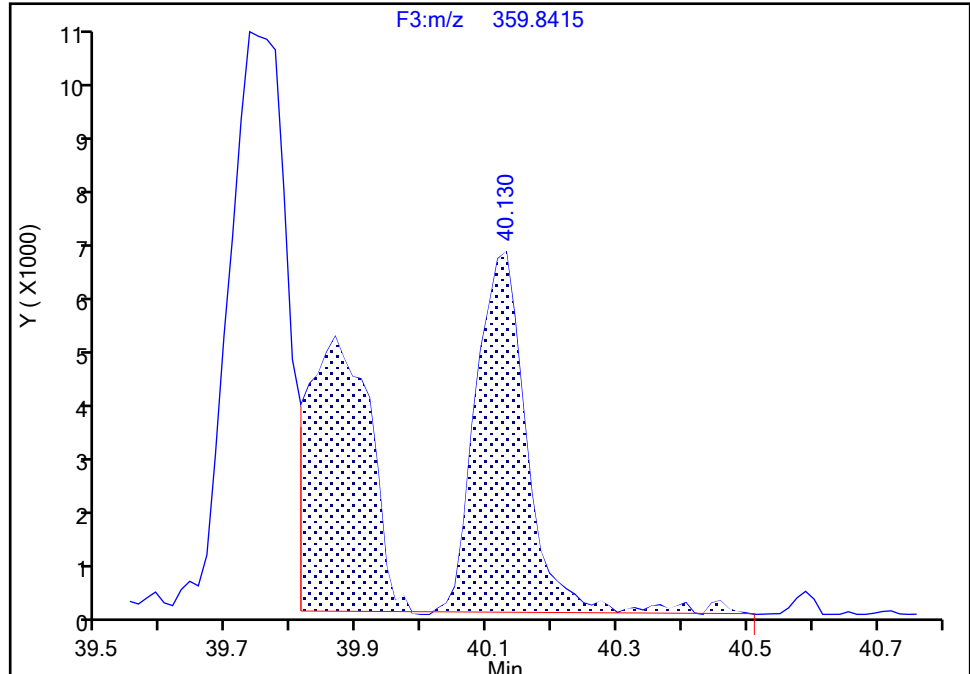
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-158, CAS: 74472-42-7

Signal: 1

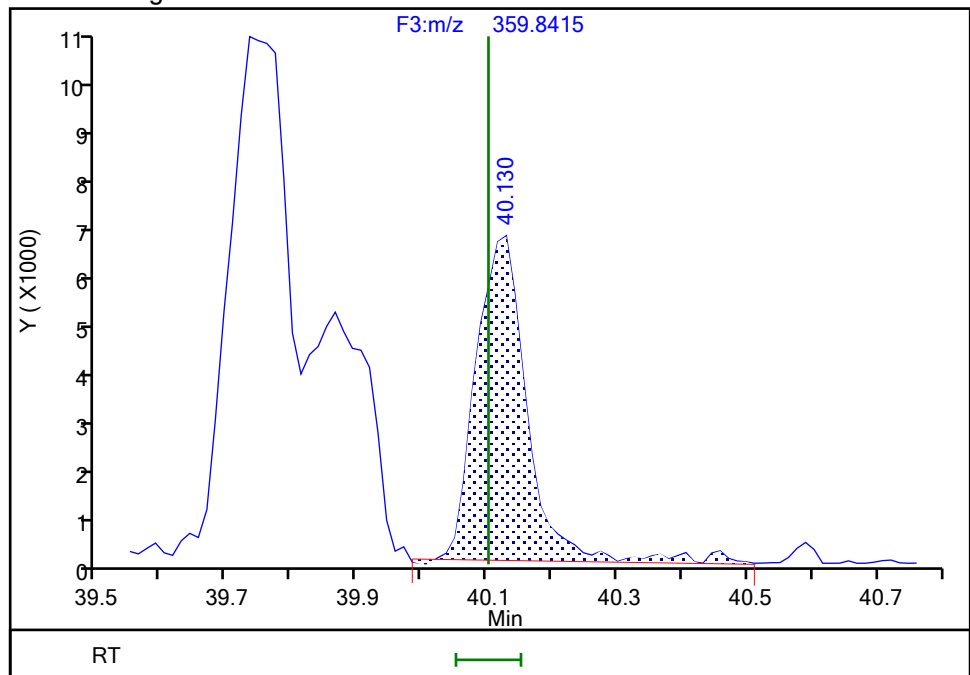
RT: 40.13  
Area: 65243  
Amount: 0.974334  
Amount Units: pg/ul

## Processing Integration Results



RT: 40.13  
Area: 34022  
Amount: 0.519156  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:43:01 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration



## Eurofins Knoxville

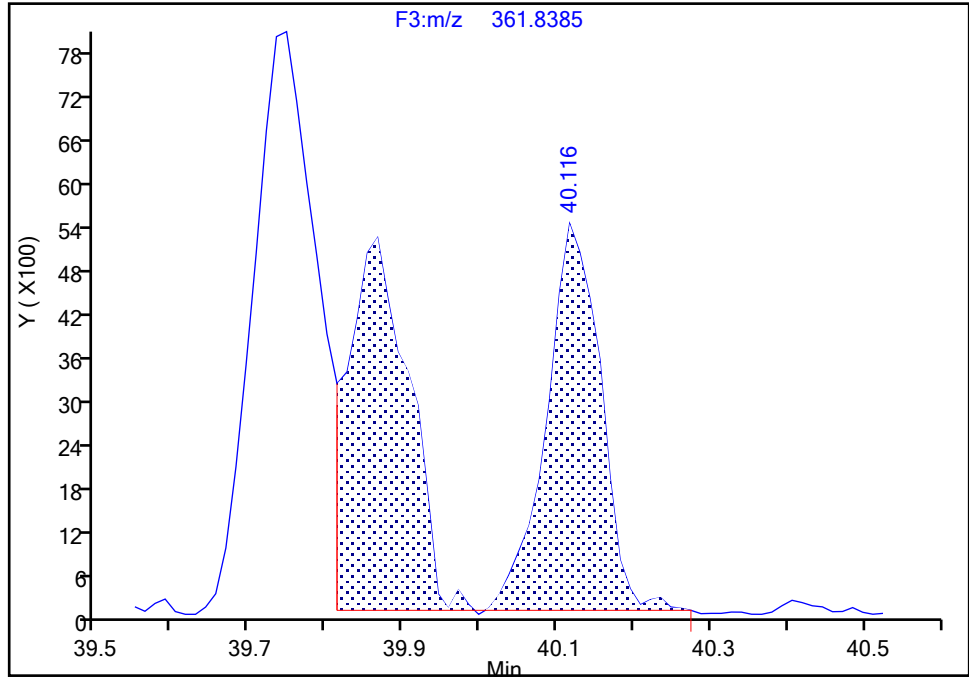
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-158, CAS: 74472-42-7

Signal: 2

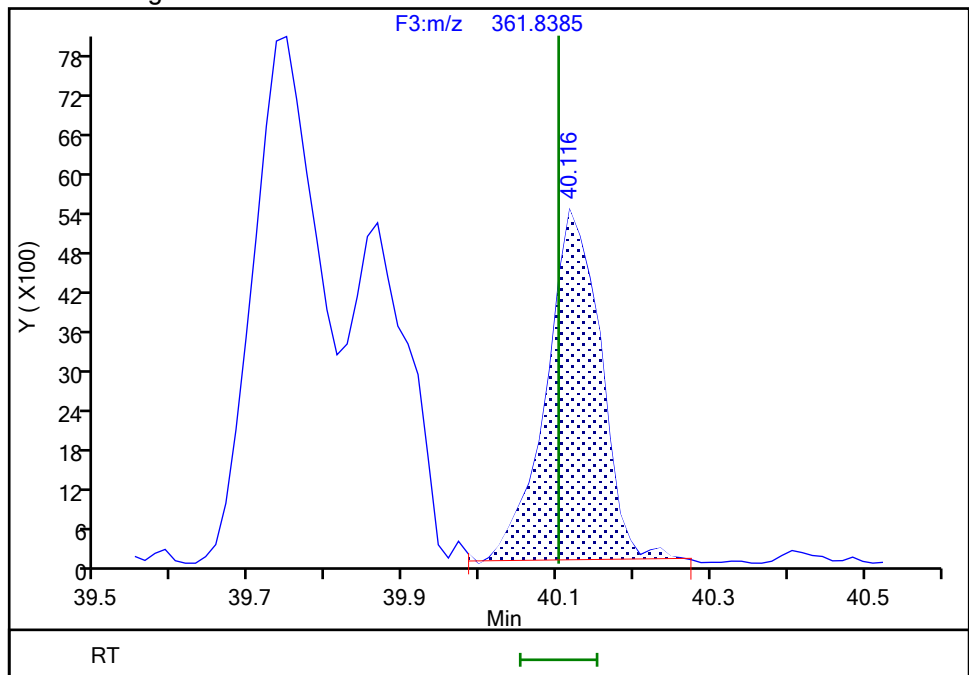
RT: 40.12  
Area: 54061  
Amount: 0.974334  
Amount Units: pg/ul

## Processing Integration Results



RT: 40.12  
Area: 26269  
Amount: 0.519156  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:43:12 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Page 1722 of 3199

BASFHC-Pass 20240529 2722

9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Instrument ID: D2D

Lims ID: IC L1

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

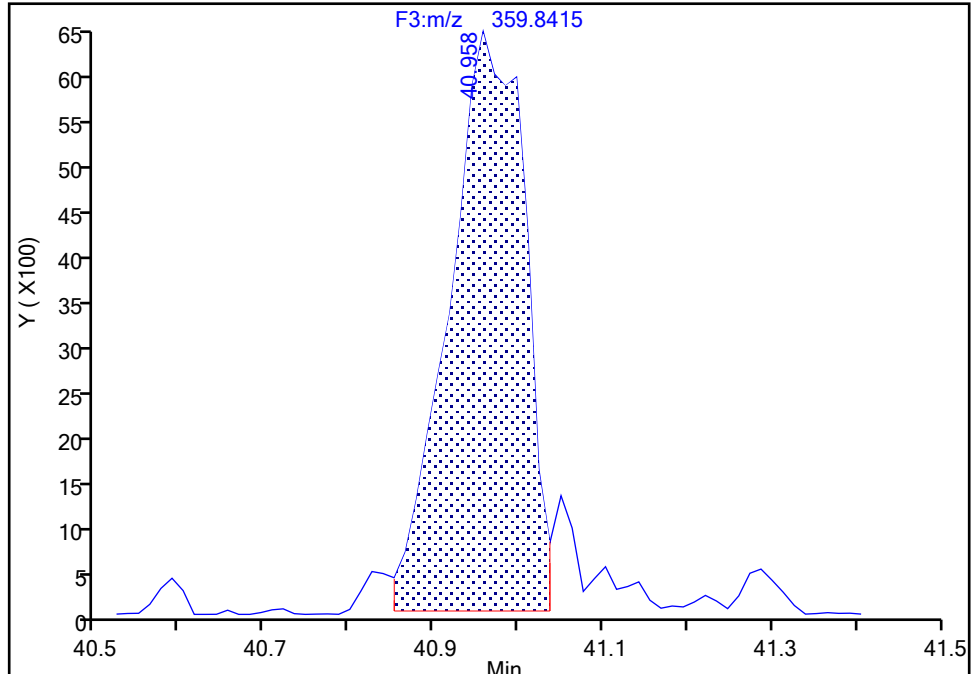
Detector F3(35.64 :49.10 )

**PCB-128/166, CAS: STL01816**

Signal: 1

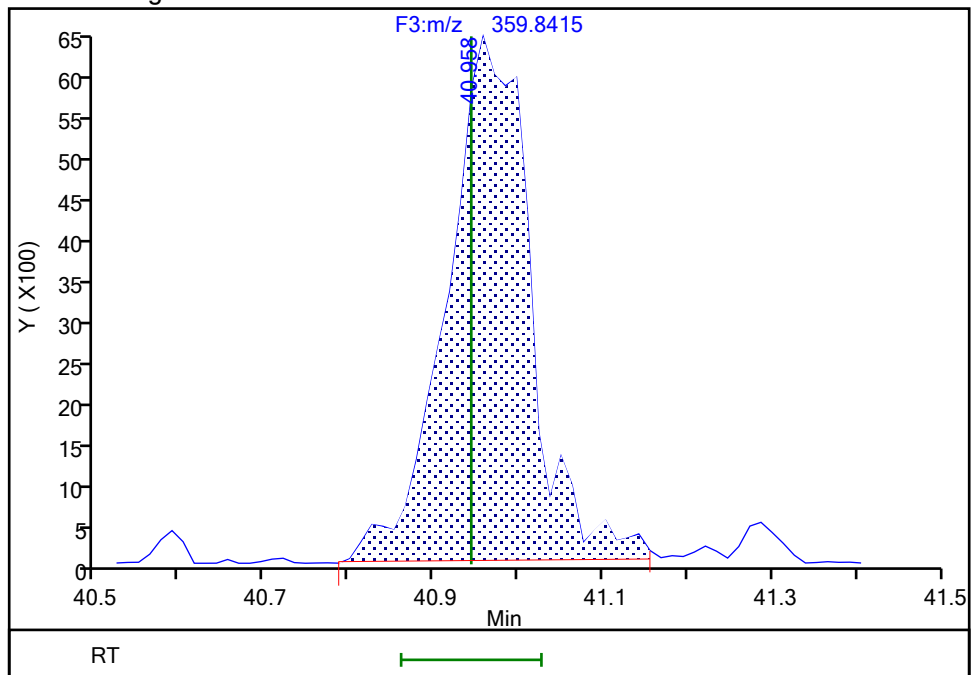
RT: 40.96  
Area: 39562  
Amount: 0.944576  
Amount Units: pg/ul

## Processing Integration Results



RT: 40.96  
Area: 44274  
Amount: 0.963629  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 17:03:33 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Instrument ID: D2D

Lims ID: IC L1

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

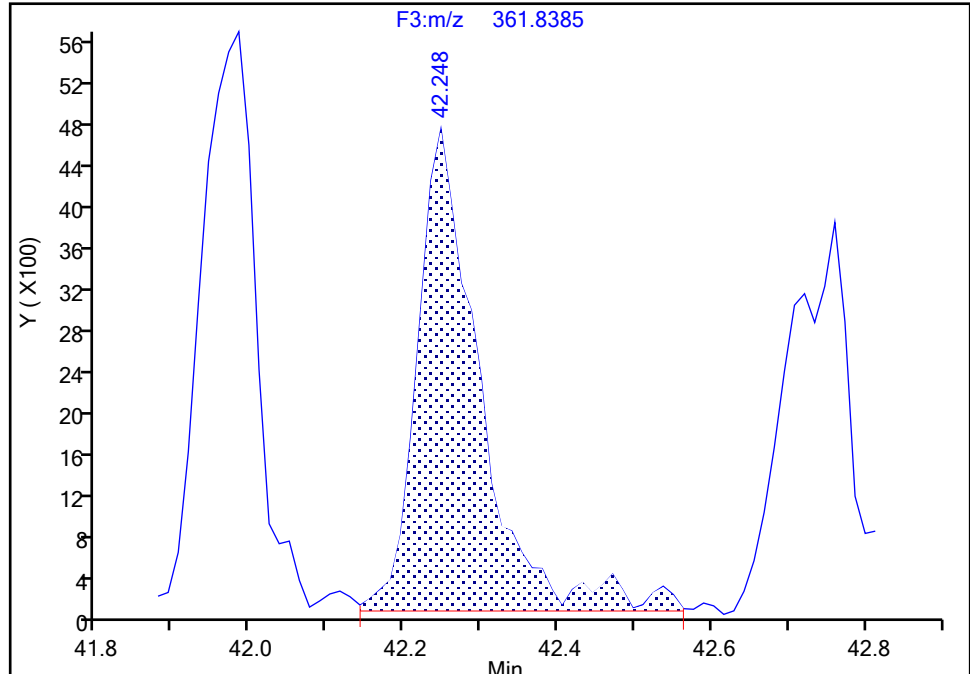
Detector F3(35.64 :49.10 )

**PCB-162, CAS: 39635-34-2**

Signal: 2

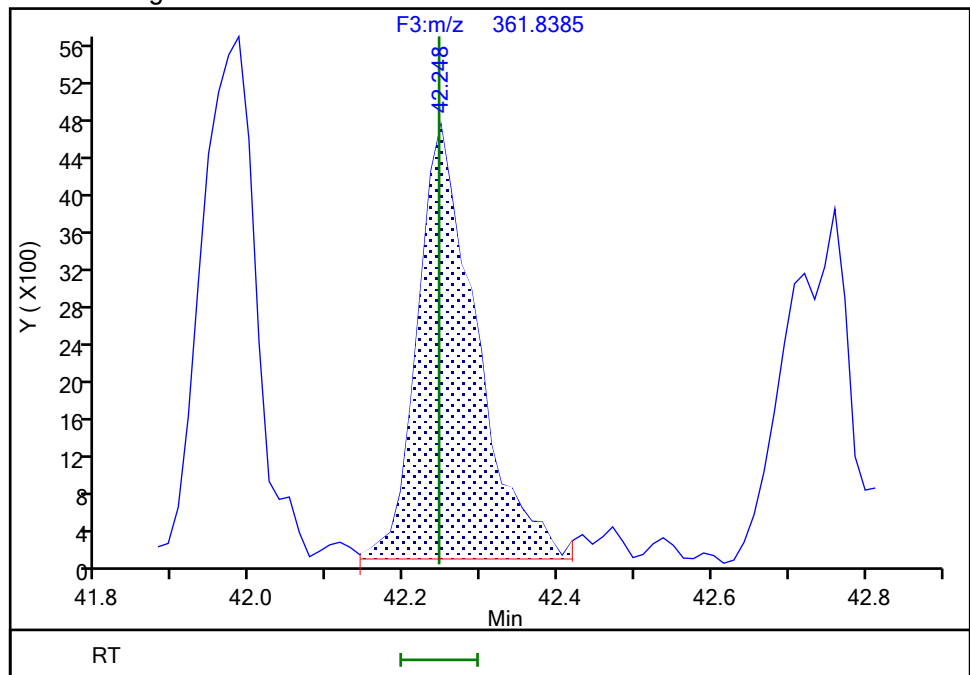
RT: 42.25  
Area: 26211  
Amount: 0.551813  
Amount Units: pg/ul

## Processing Integration Results



RT: 42.25  
Area: 24701  
Amount: 0.496624  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 17:03:56 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Instrument ID: D2D

Lims ID: IC L1

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

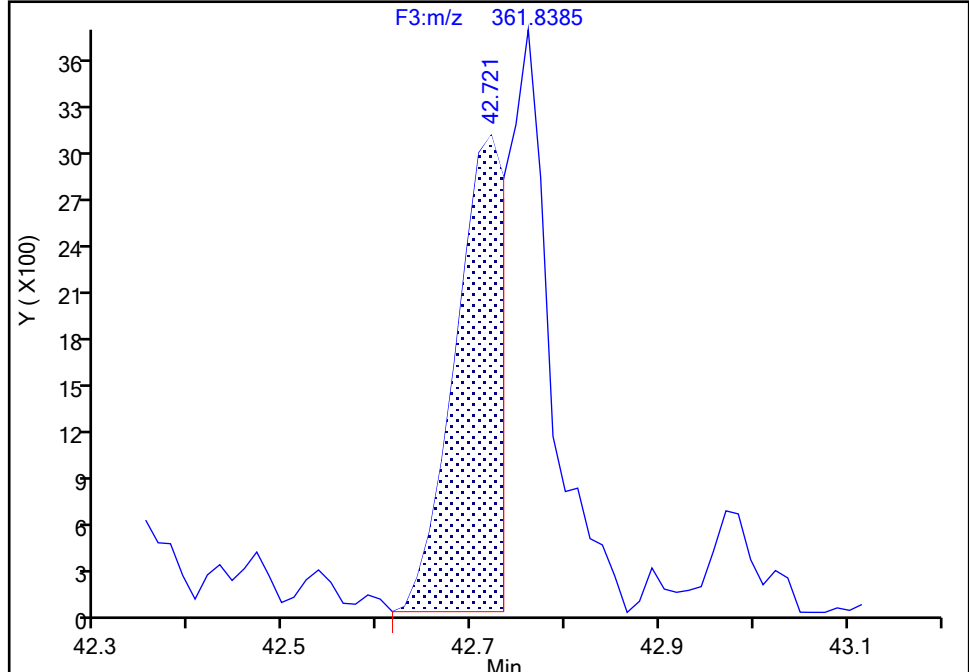
Detector F3(35.64 :49.10 )

**PCB-167, CAS: 52663-72-6**

Signal: 2

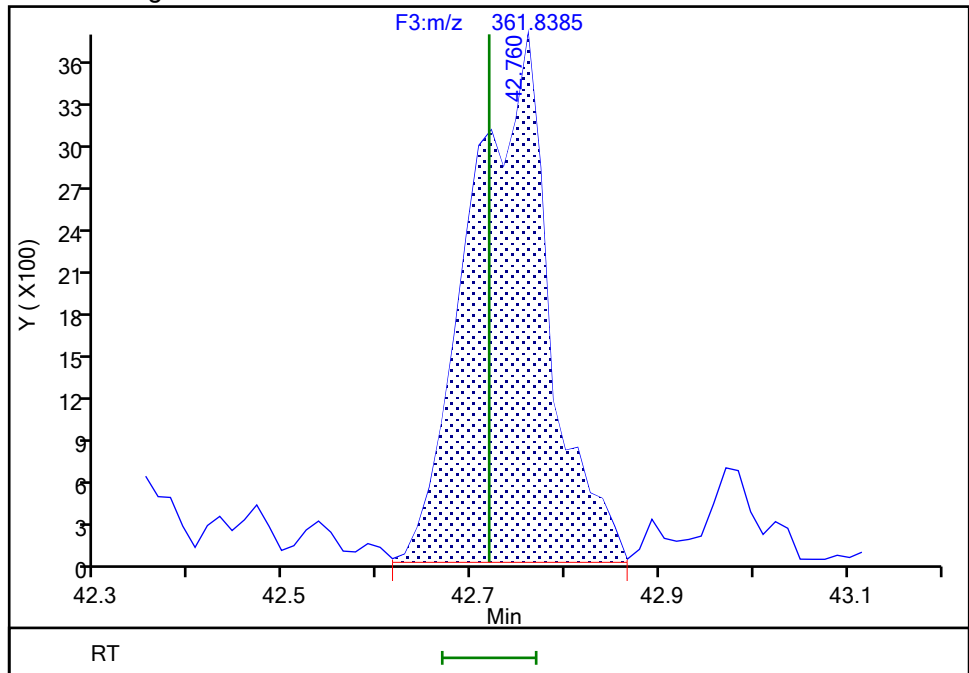
RT: 42.72  
Area: 10384  
Amount: 0.403076  
Amount Units: pg/ul

## Processing Integration Results



RT: 42.76  
Area: 22483  
Amount: 0.504170  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 15:37:21 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

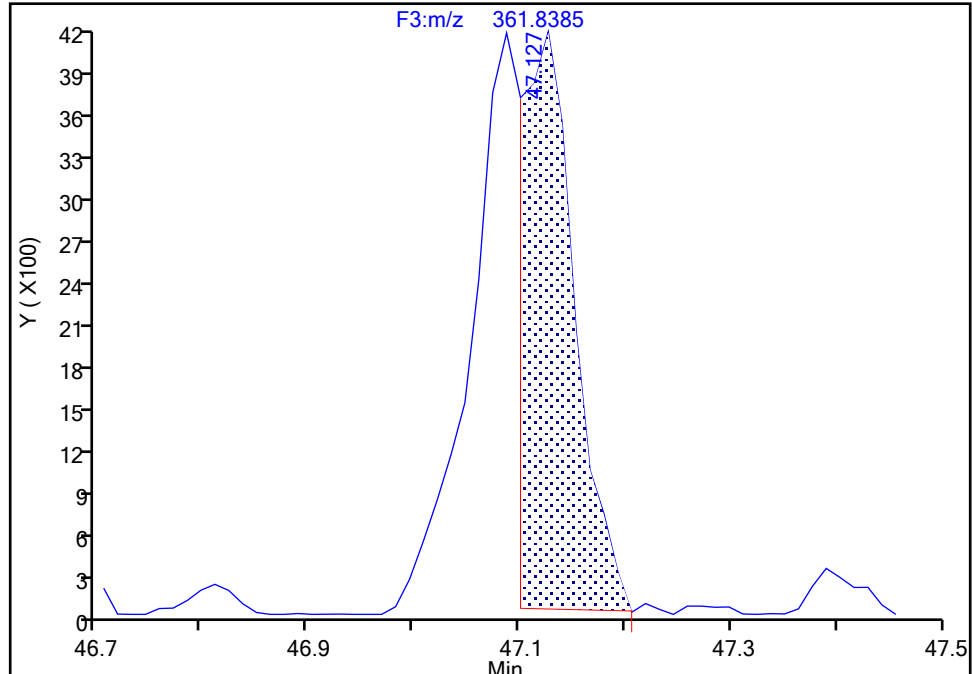
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

**PCB-169, CAS: 32774-16-6**

Signal: 2

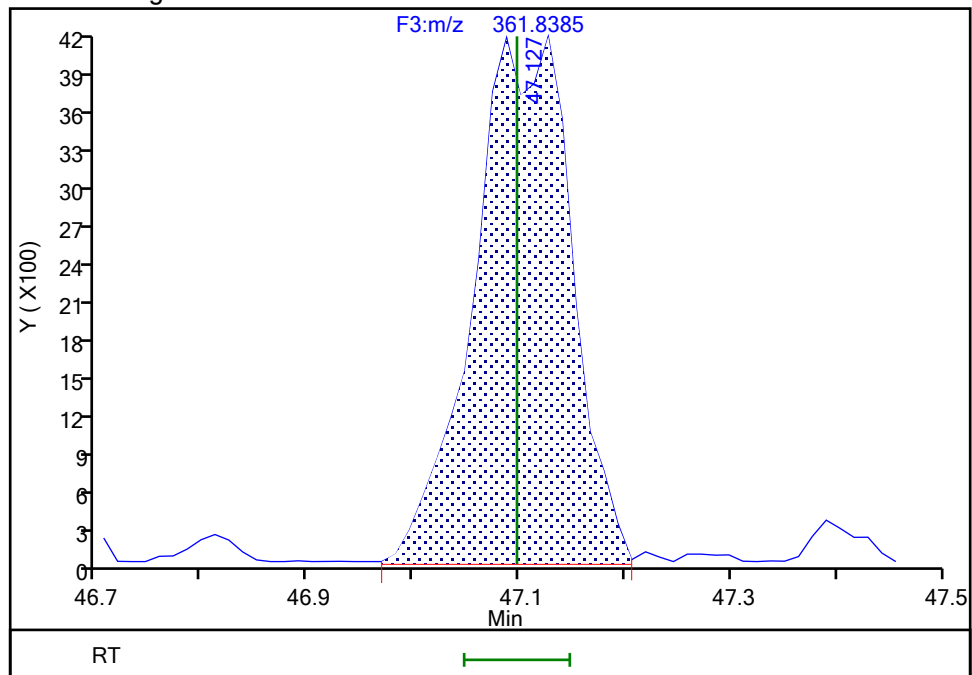
RT: 47.13  
Area: 13314  
Amount: 0.387209  
Amount Units: pg/ul

## Processing Integration Results



RT: 47.13  
Area: 26435  
Amount: 0.514281  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 15:37:30 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

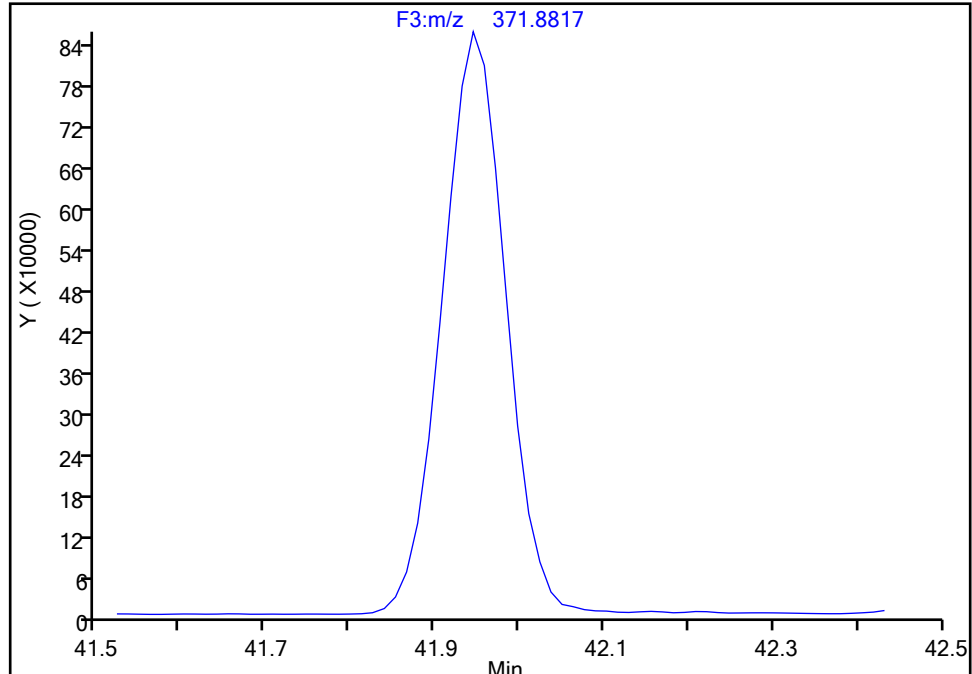
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

**PCB-159L, CAS: STL02761**

Signal: 1

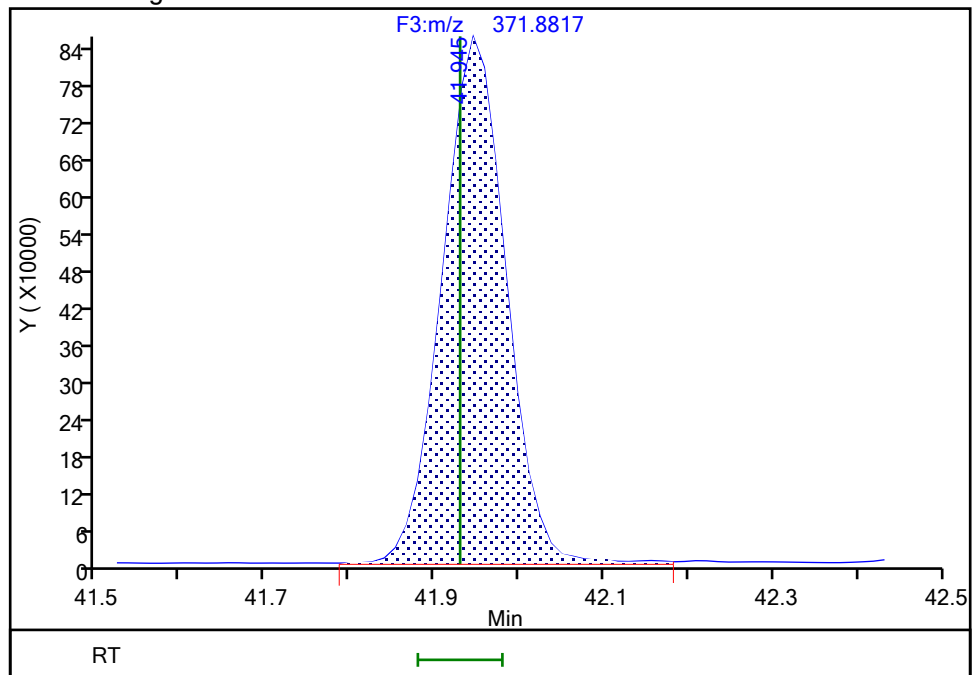
Not Detected  
Expected RT: 41.93

## Processing Integration Results



RT: 41.95  
Area: 4449727  
Amount: 95.479320  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 16:25:36 -04:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Peak assignment corrected

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

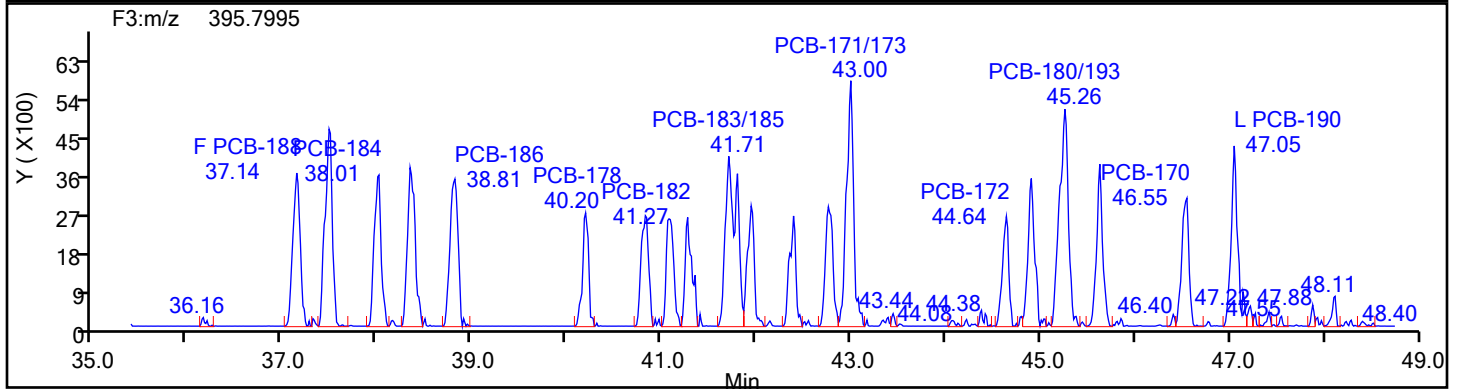
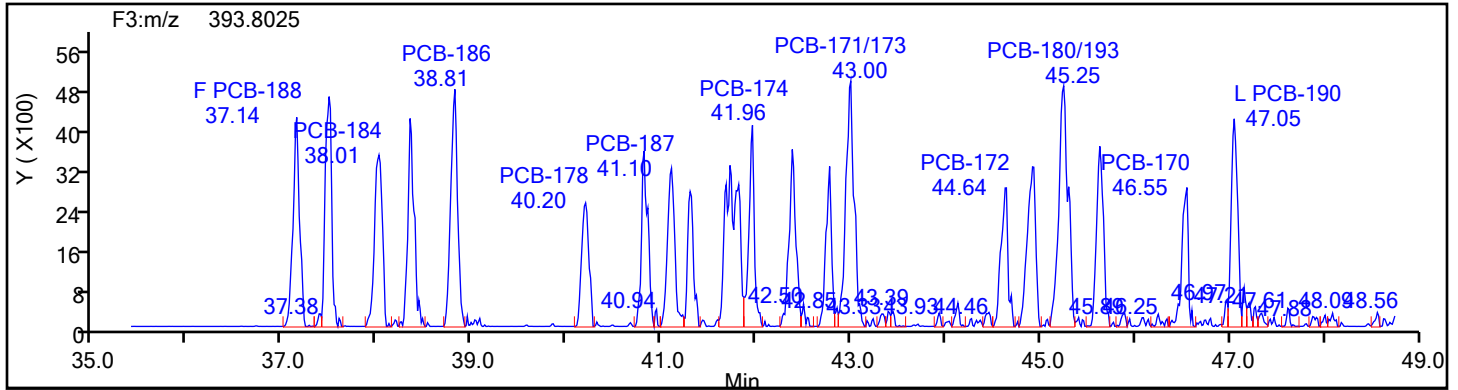
Worklist#: 87130

Sample Line#: 1

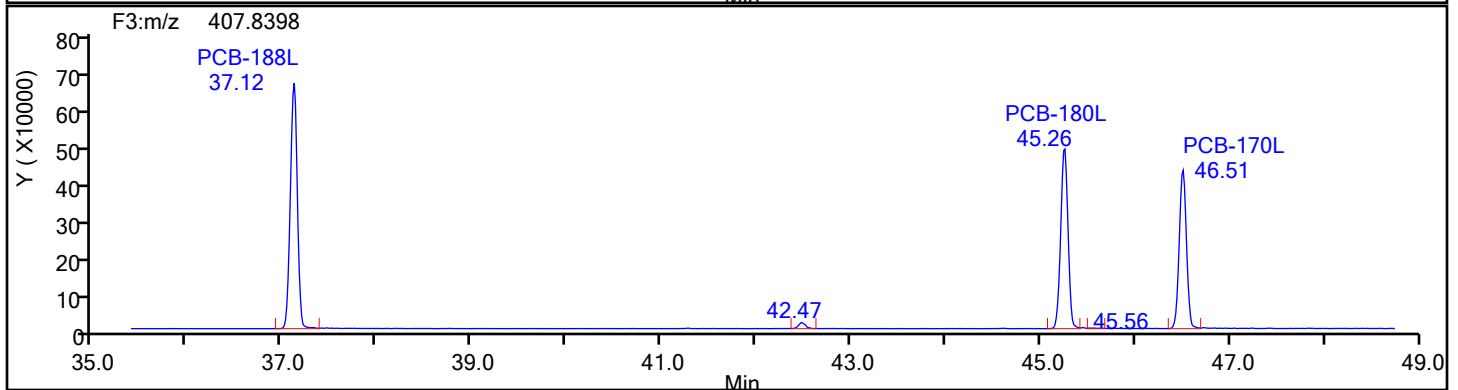
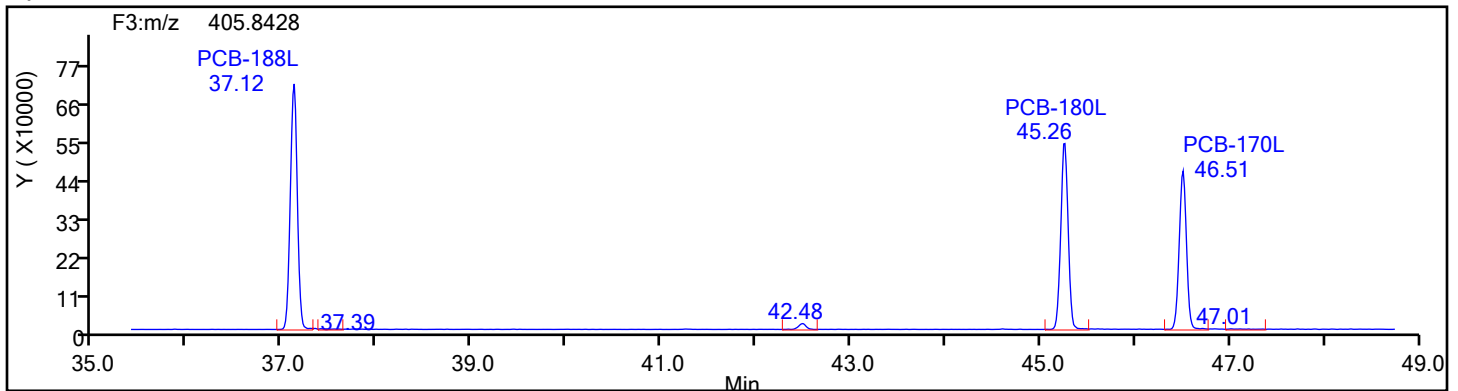
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



## HpPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

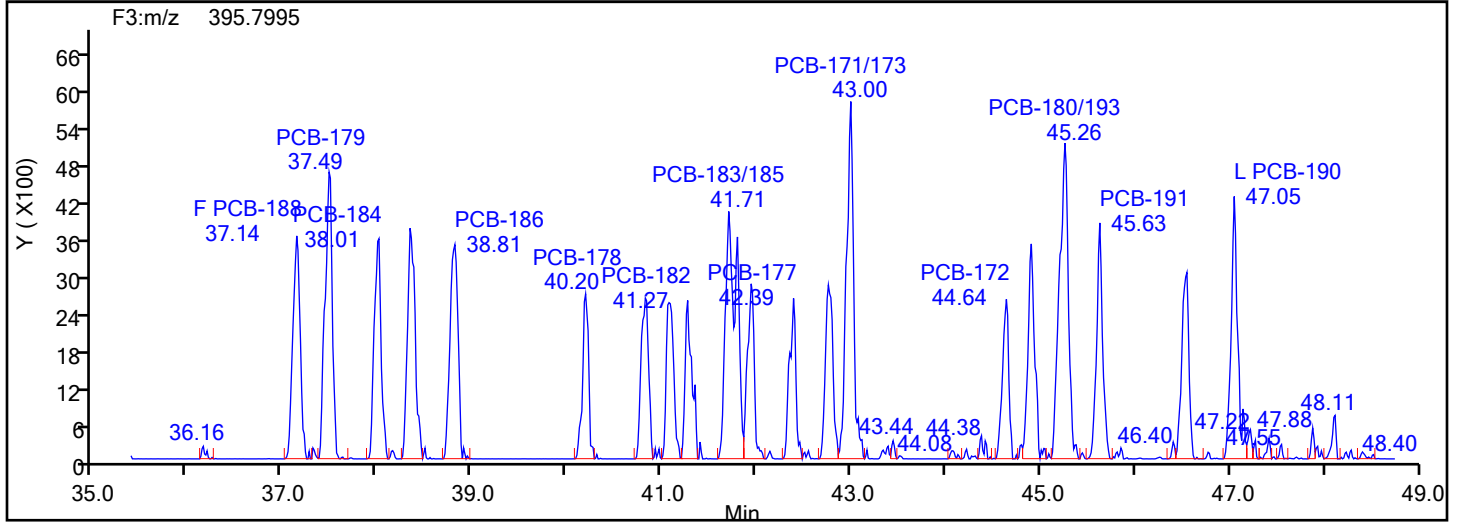
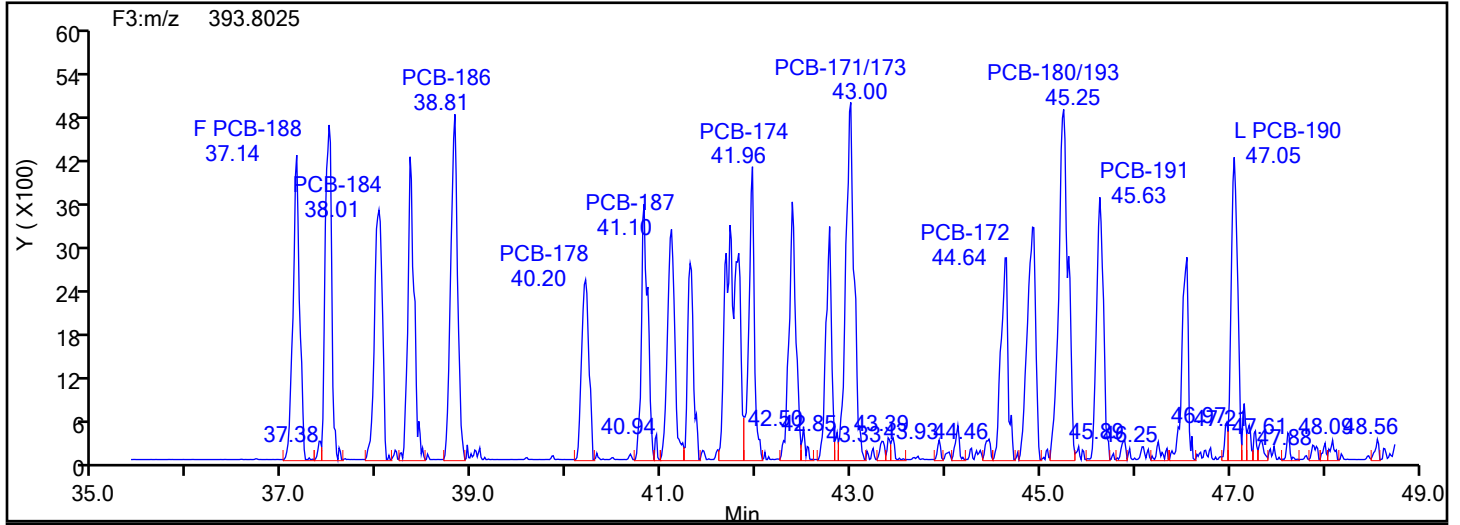
Worklist#: 87130

Sample Line#: 1

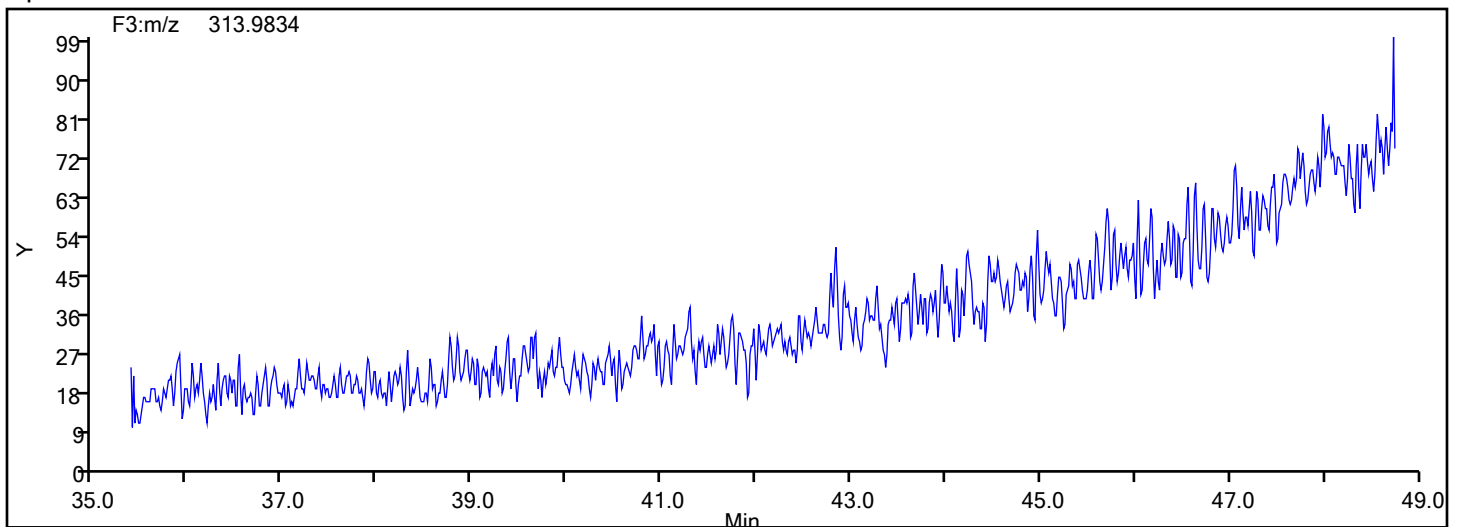
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



HpPCB F3 Lock Mass





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Instrument ID: D2D

Lims ID: IC L1

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

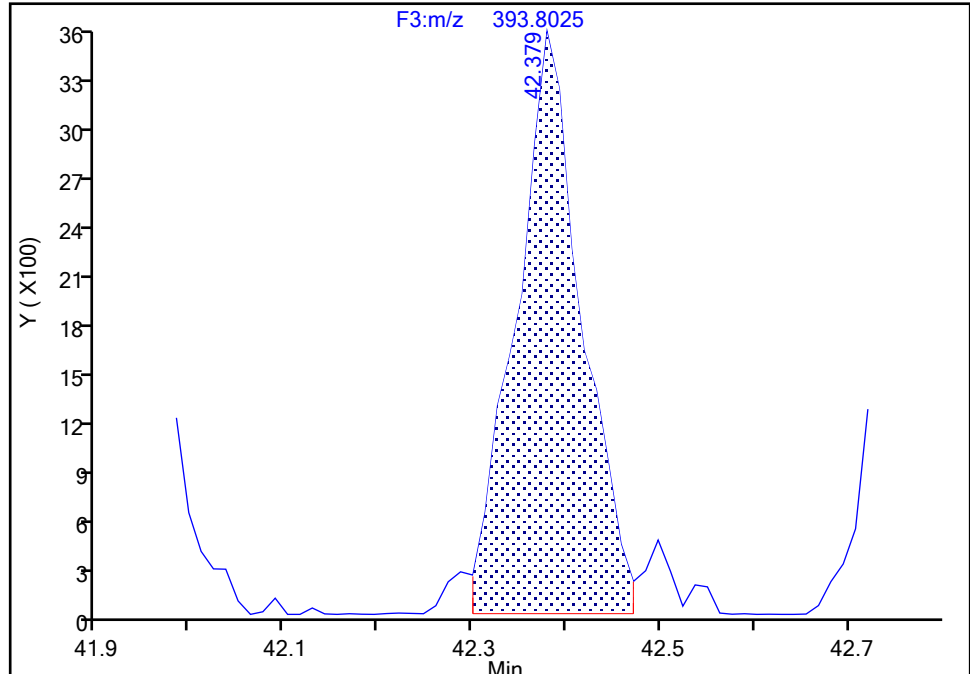
Detector F3(35.64 :49.10 )

**PCB-177, CAS: 52663-70-4**

Signal: 1

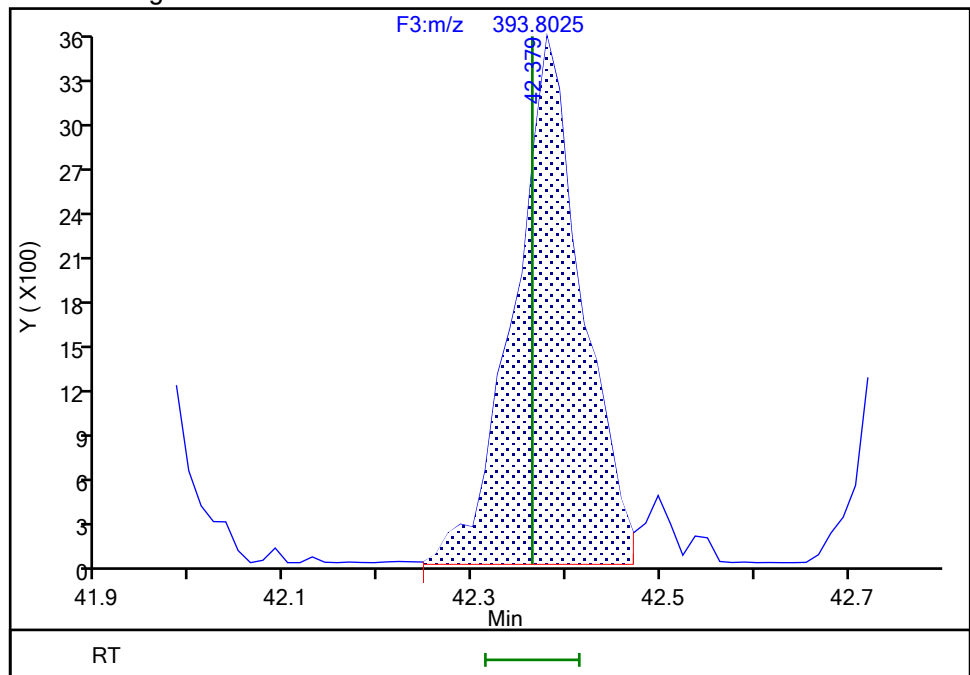
RT: 42.38  
Area: 17239  
Amount: 0.509180  
Amount Units: pg/ul

## Processing Integration Results



RT: 42.38  
Area: 17793  
Amount: 0.515118  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:32:36 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

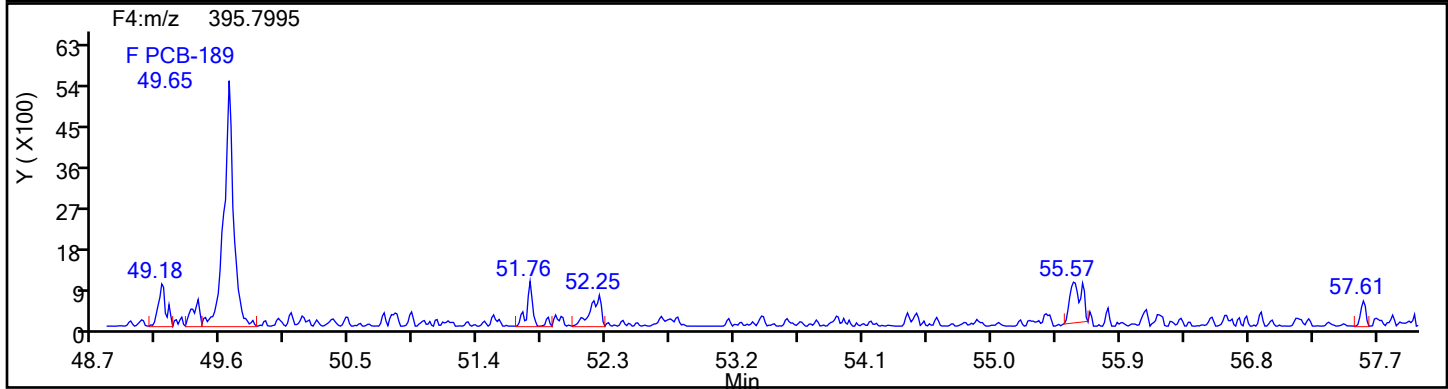
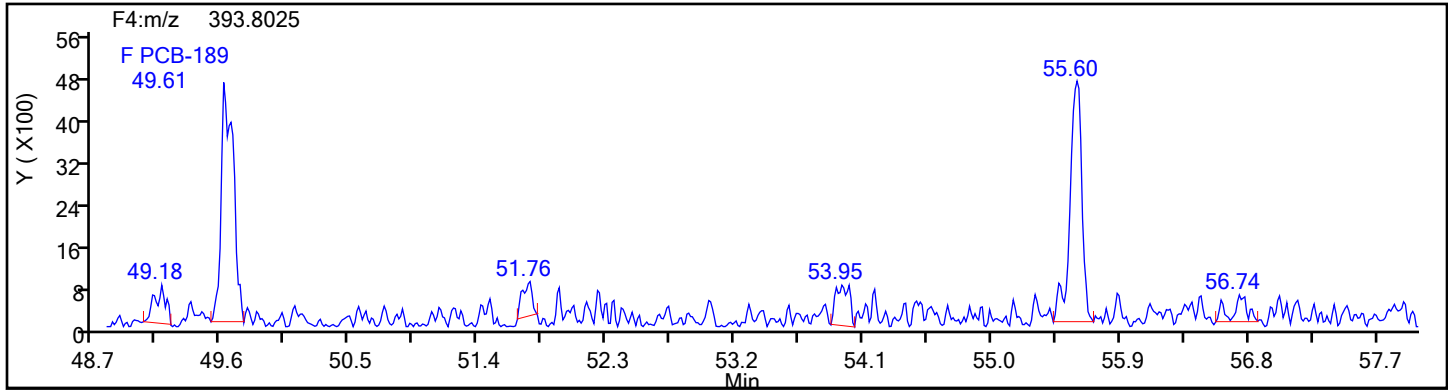
Worklist#: 87130

Sample Line#: 1

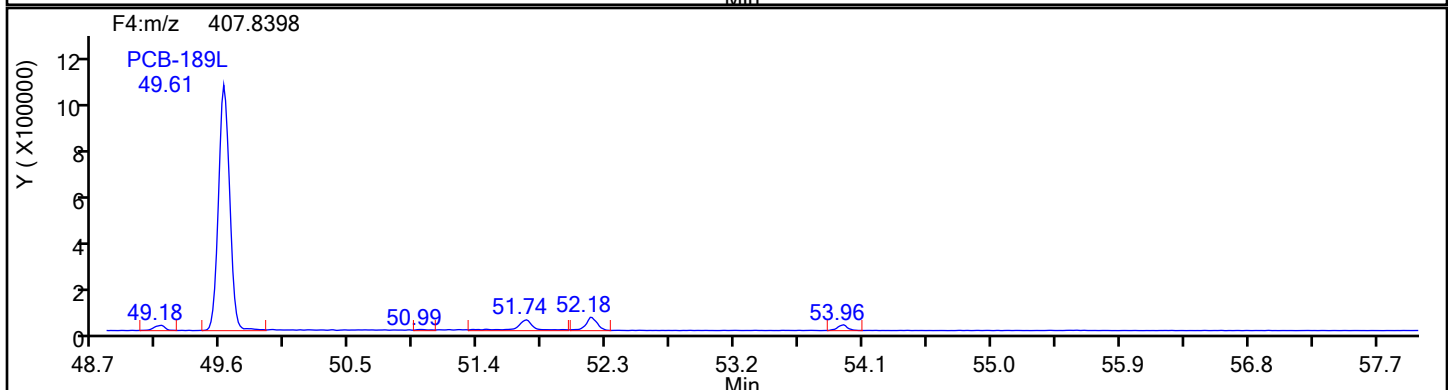
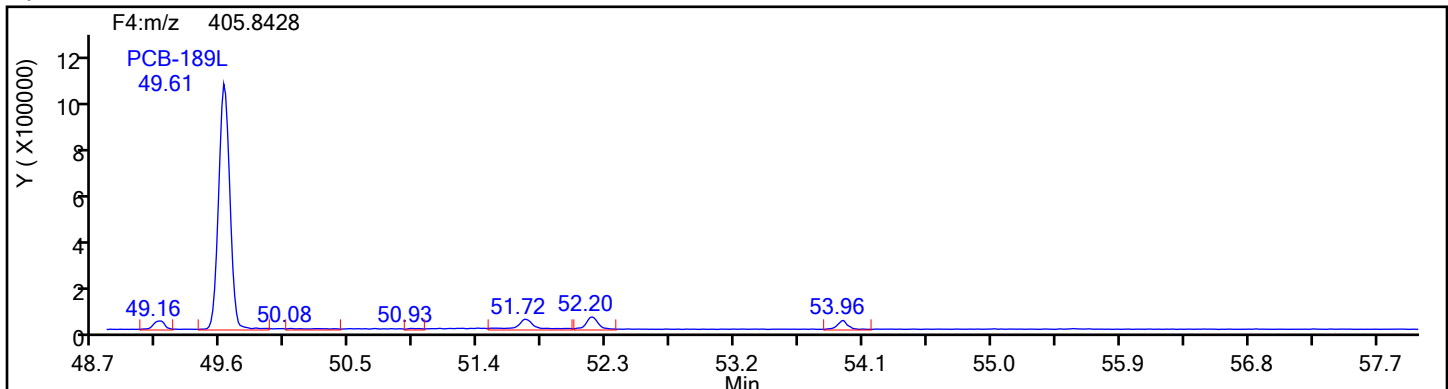
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

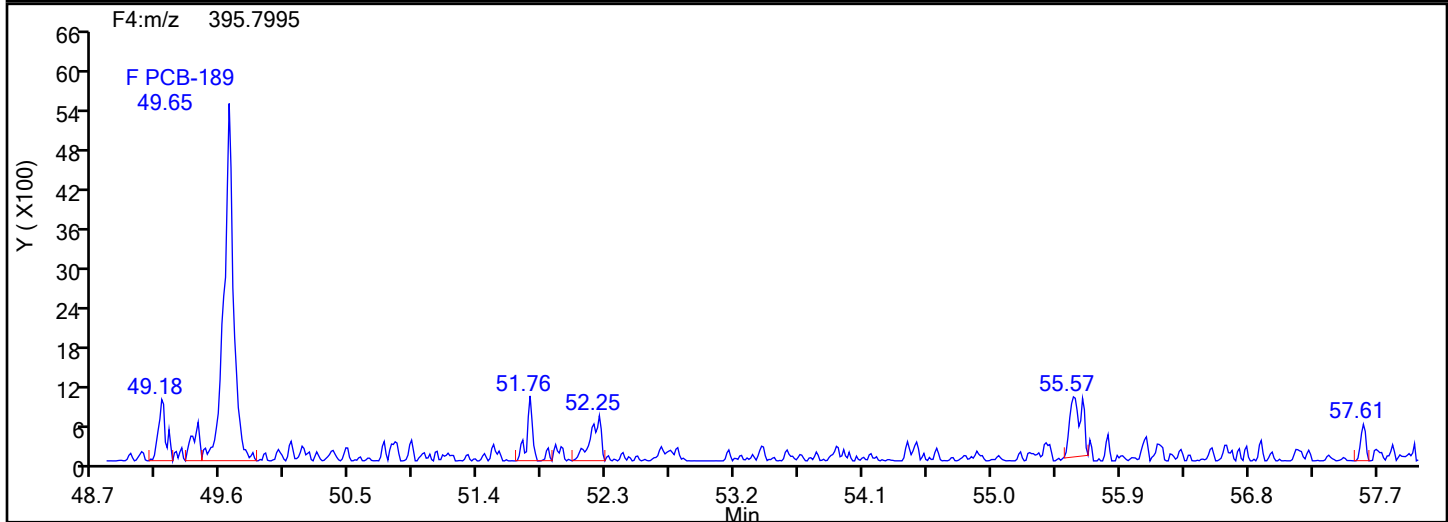
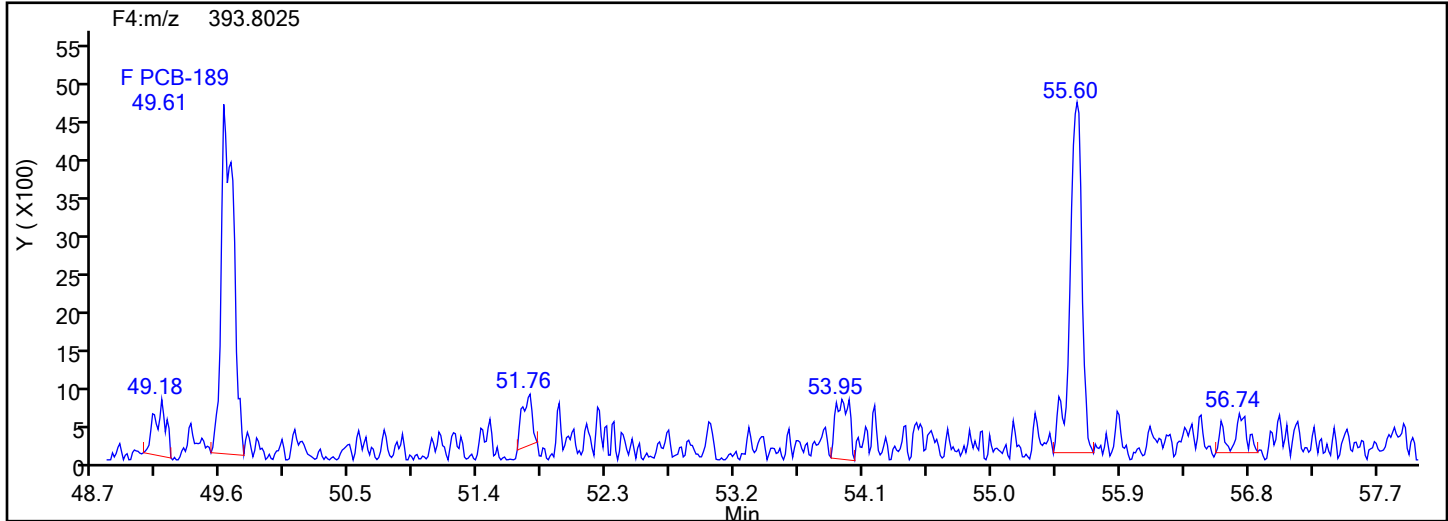
Worklist#: 87130

Sample Line#: 1

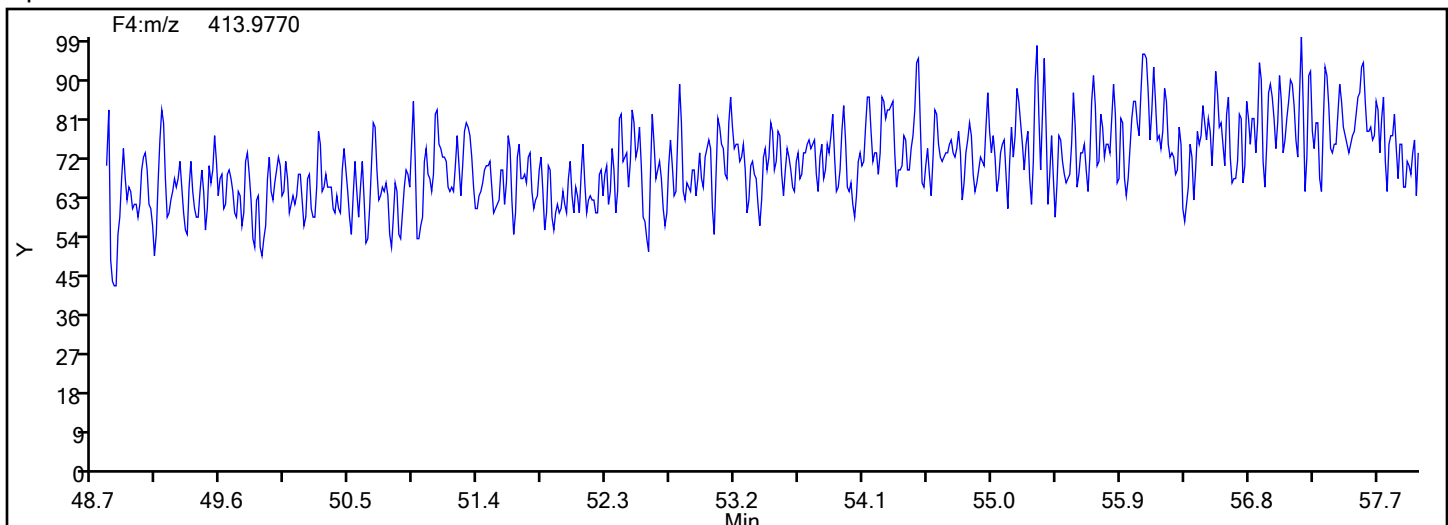
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



## HpPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

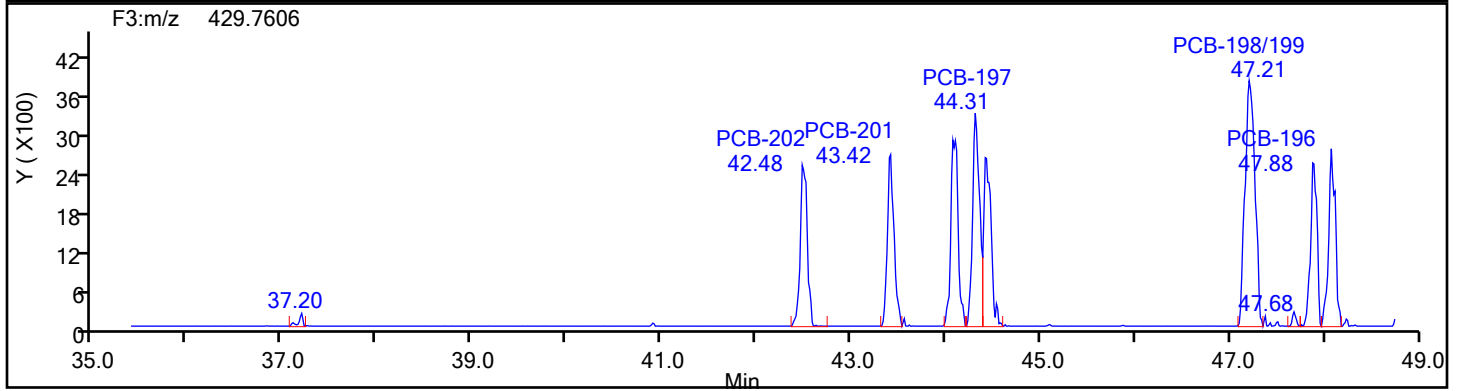
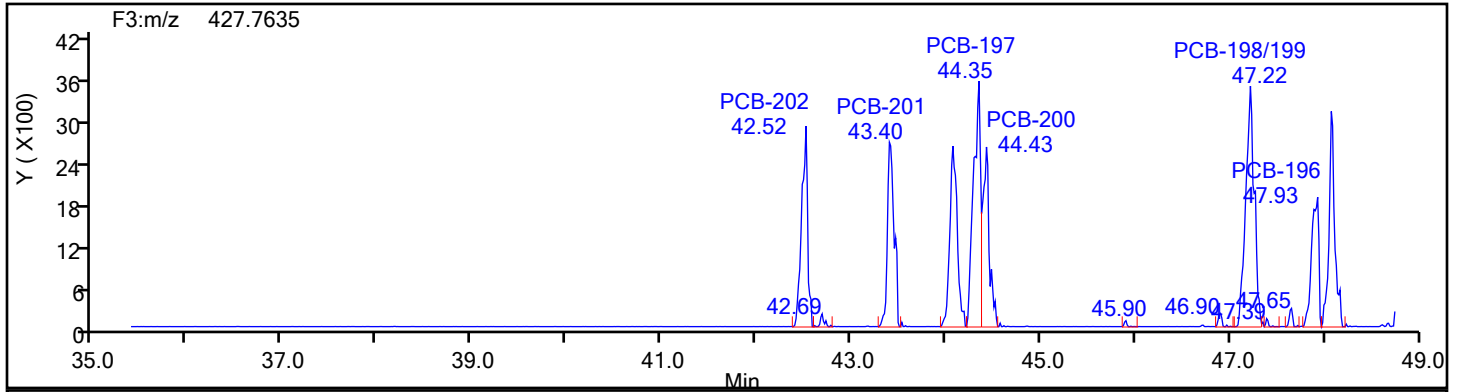
Worklist#: 87130

Sample Line#: 1

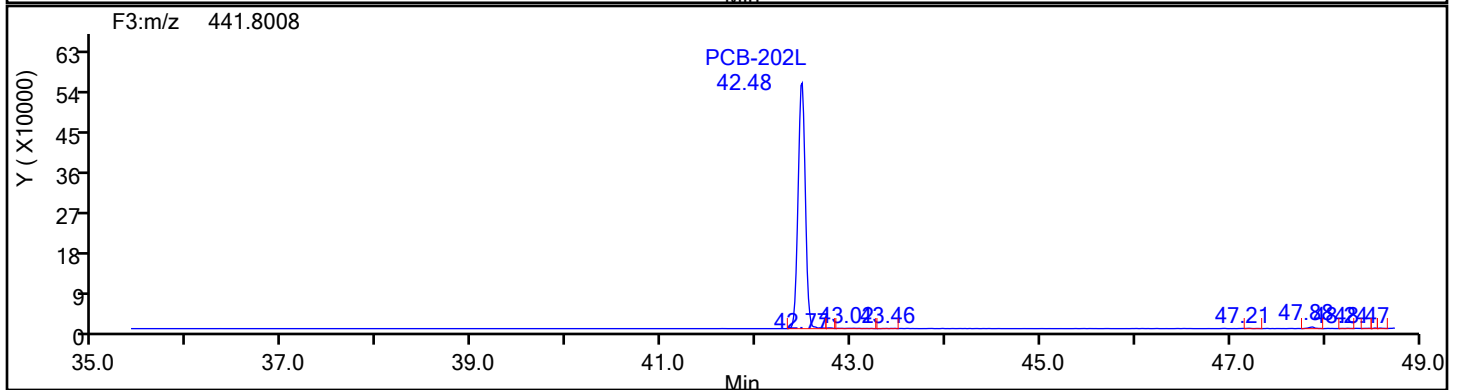
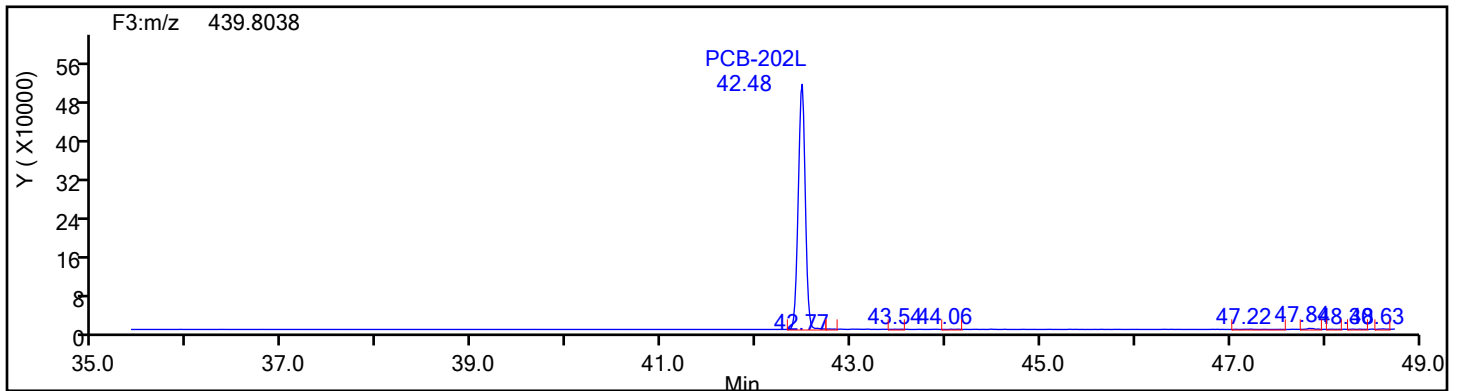
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3



OcPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

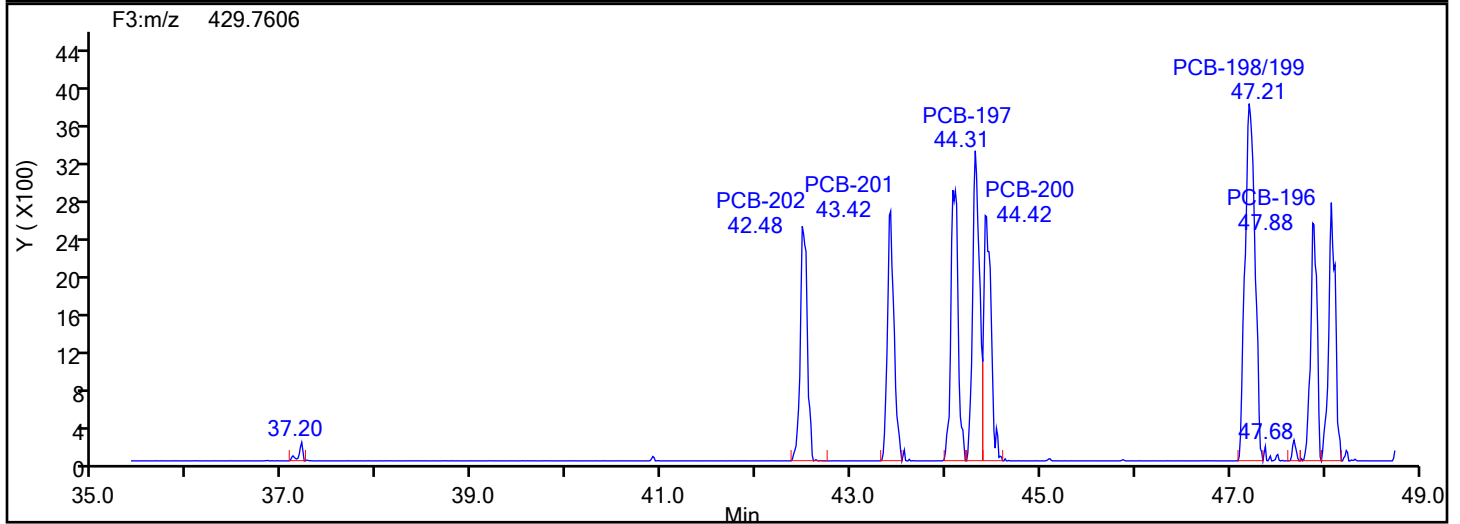
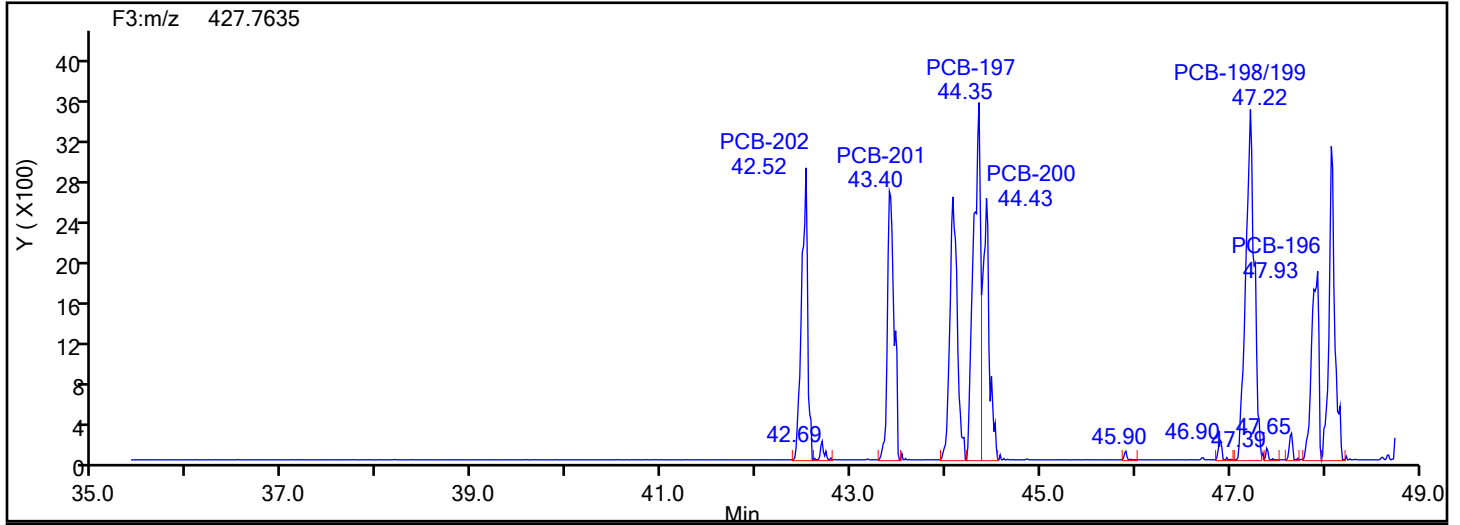
Worklist#: 87130

Sample Line#: 1

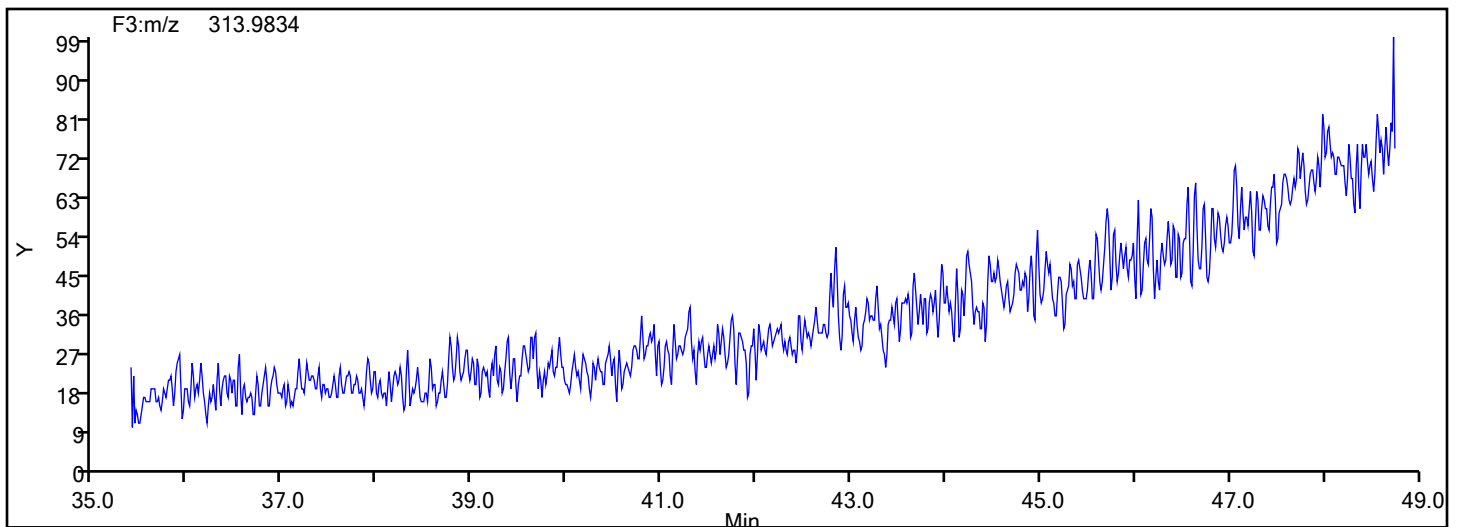
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3



## OcPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Instrument ID: D2D

Lims ID: IC L1

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

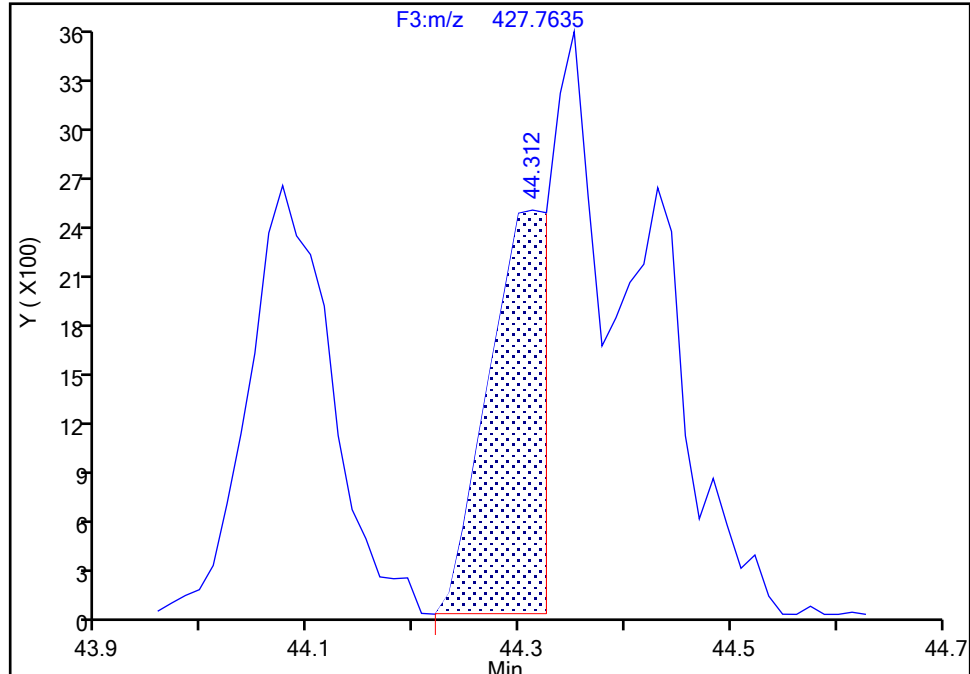
Detector F3(35.64 :49.10 )

PCB-197, CAS: 33091-17-7

Signal: 1

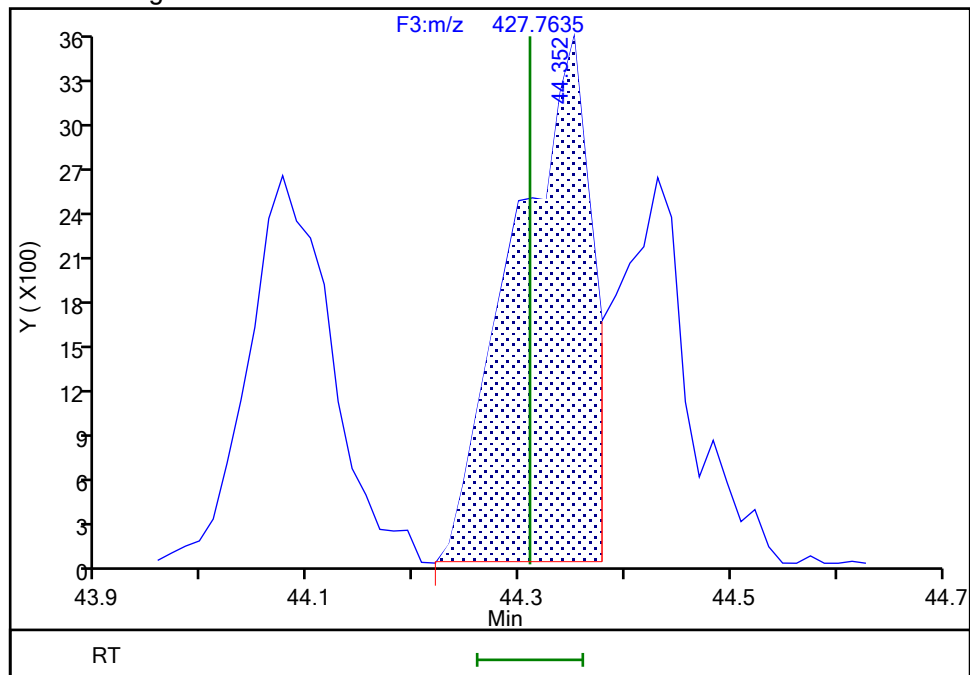
RT: 44.31  
Area: 8828  
Amount: 0.448021  
Amount Units: pg/ul

## Processing Integration Results



RT: 44.35  
Area: 17650  
Amount: 0.536283  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 17:04:47 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

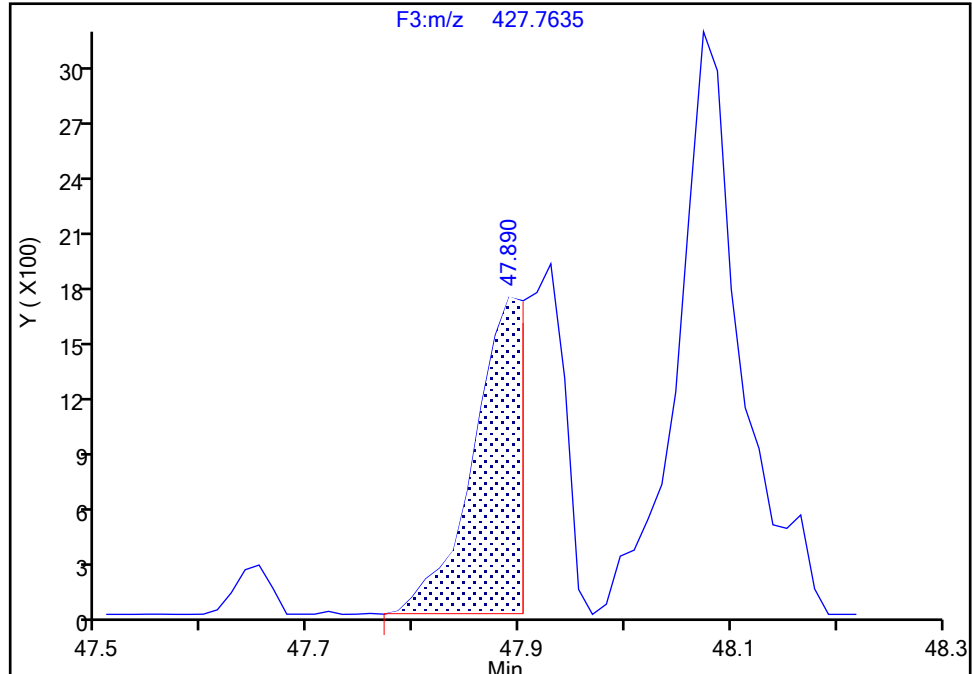
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

## PCB-196, CAS: 42740-50-1

Signal: 1

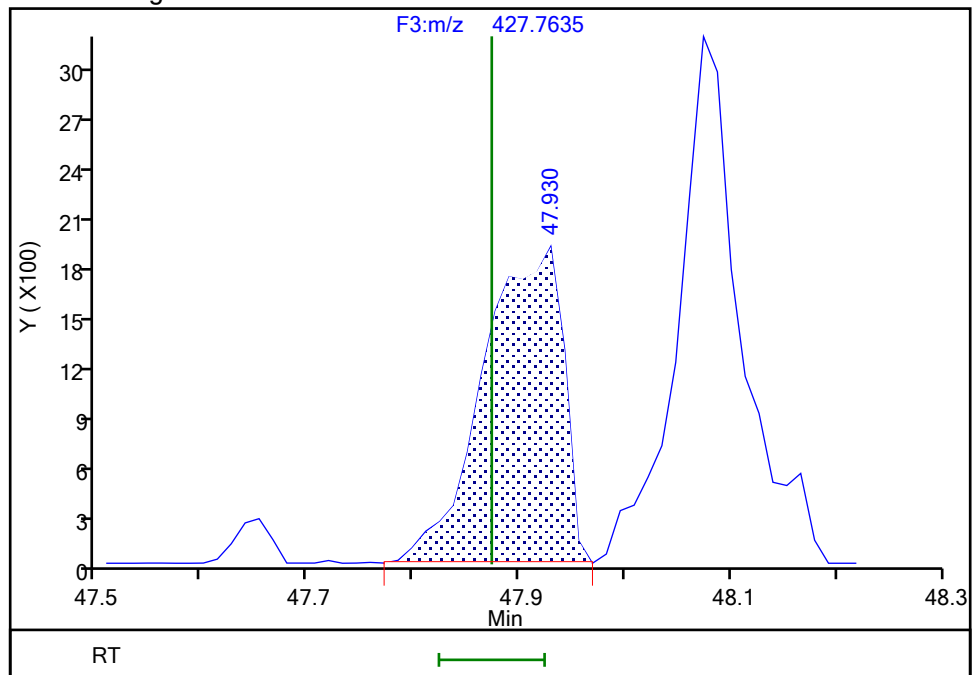
RT: 47.89  
Area: 5223  
Amount: 0.409421  
Amount Units: pg/ul

## Processing Integration Results



RT: 47.93  
Area: 9747  
Amount: 0.496046  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 17:05:10 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

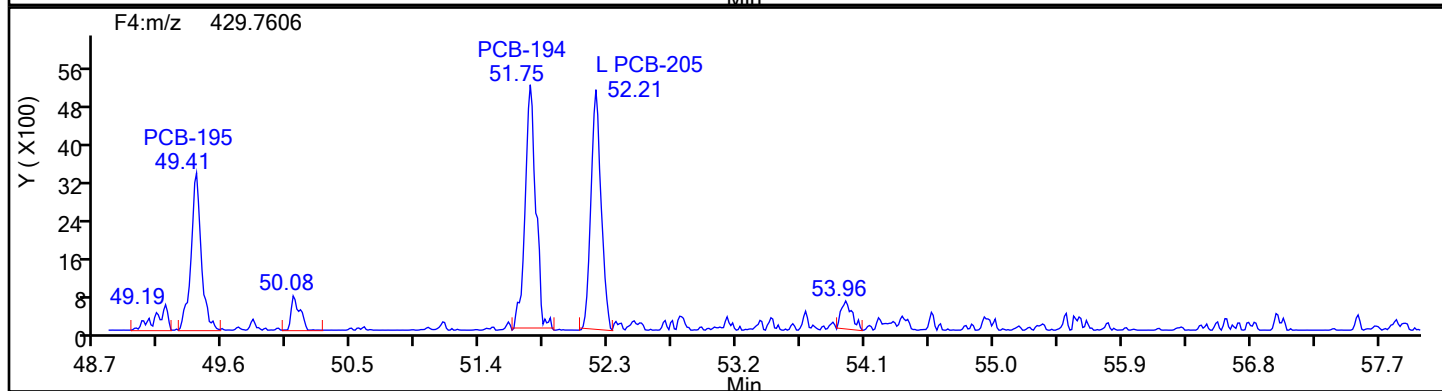
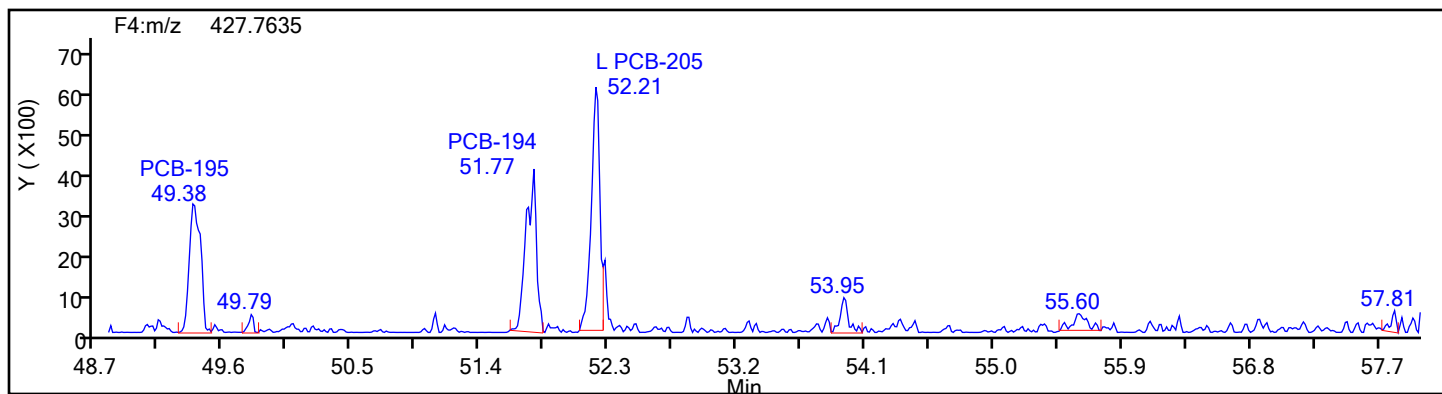
Worklist#: 87130

Sample Line#: 1

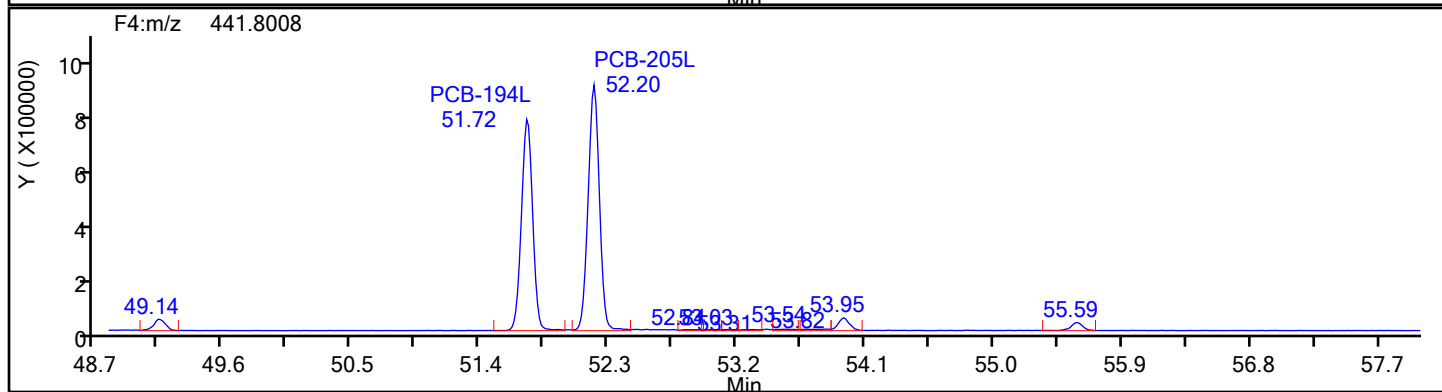
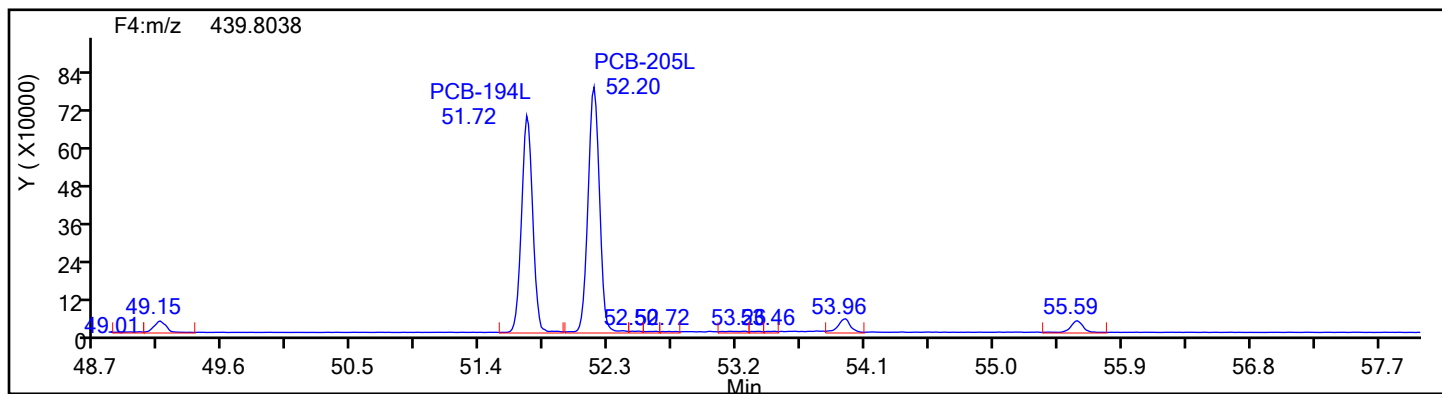
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4



OcPCB F4 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

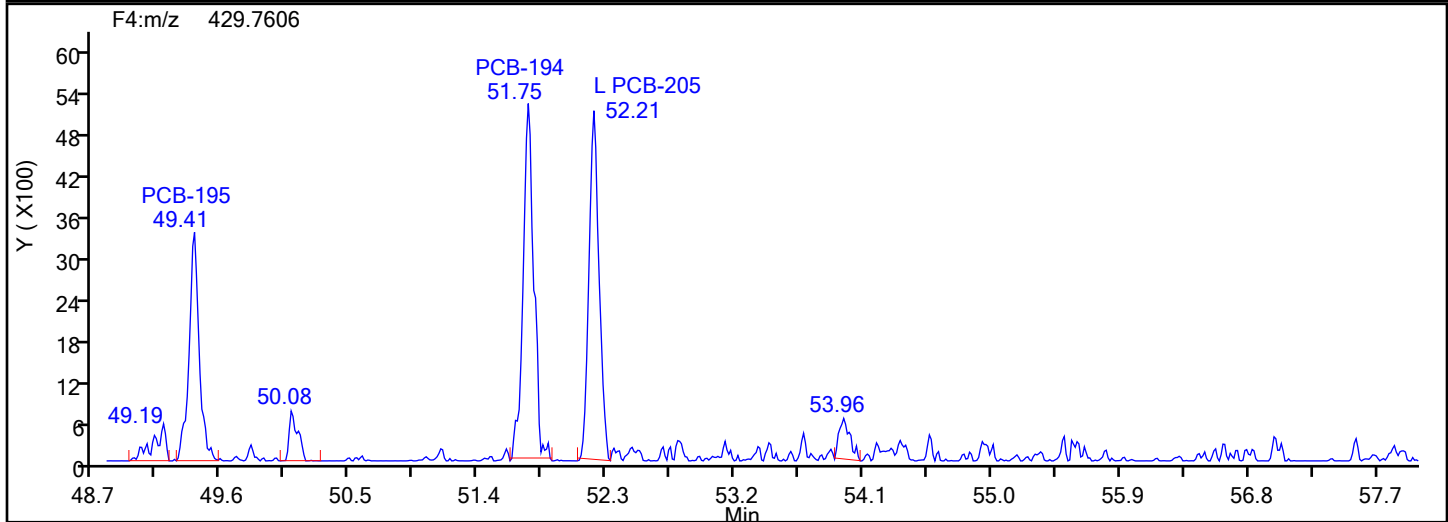
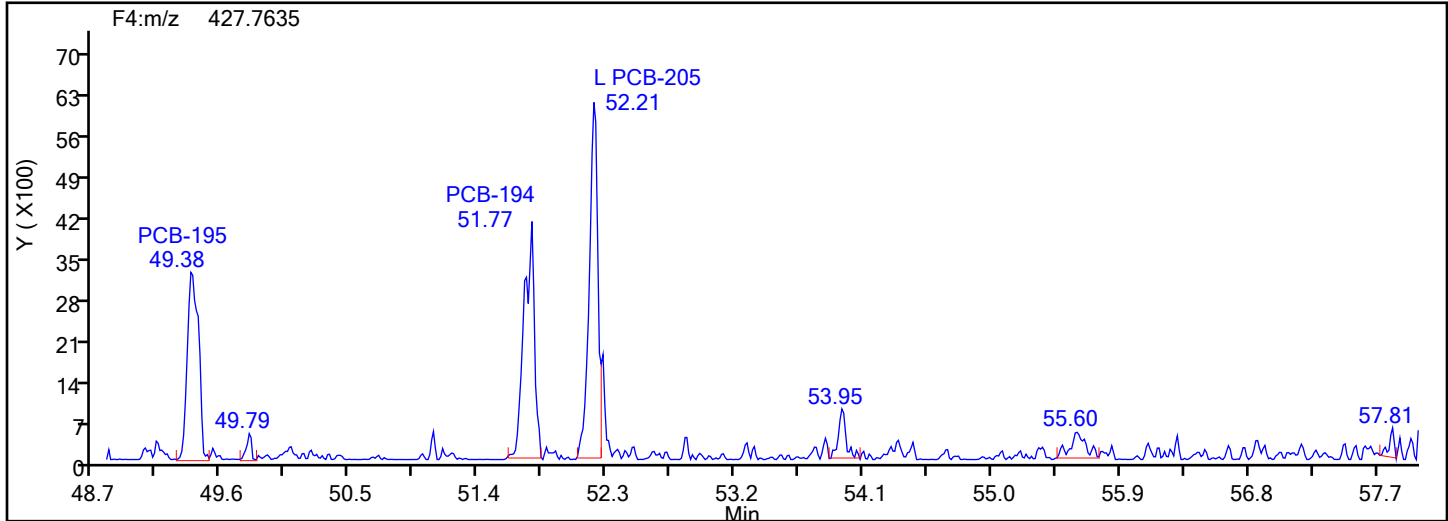
Worklist#: 87130

Sample Line#: 1

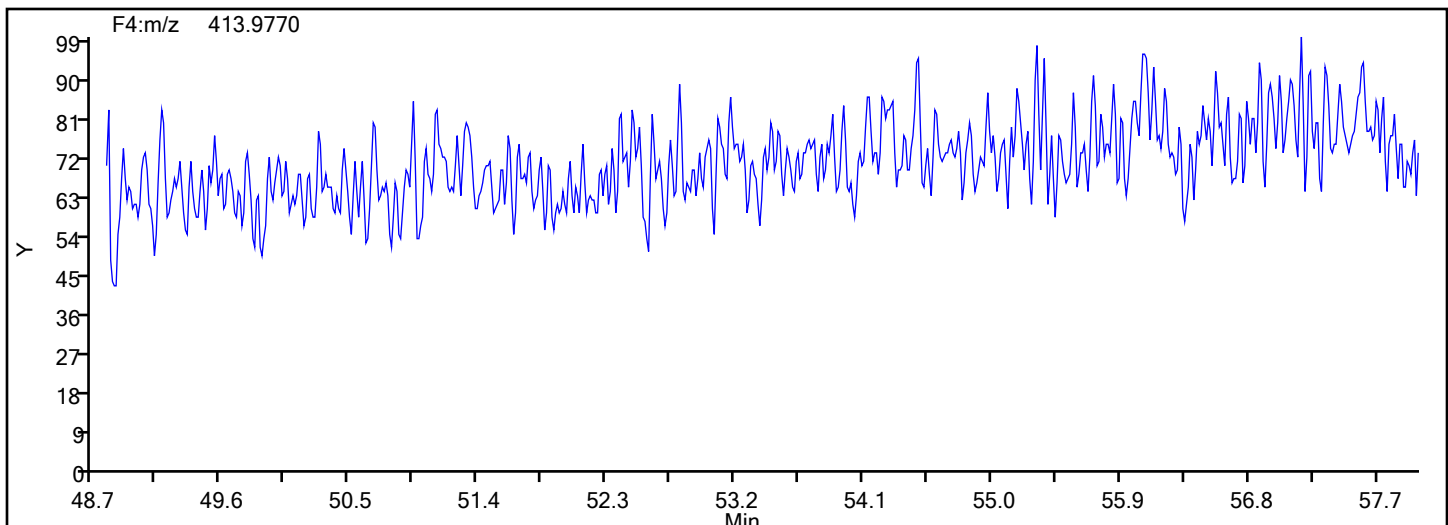
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4



## OcPCB F4 Lock Mass



## Eurofins Knoxville

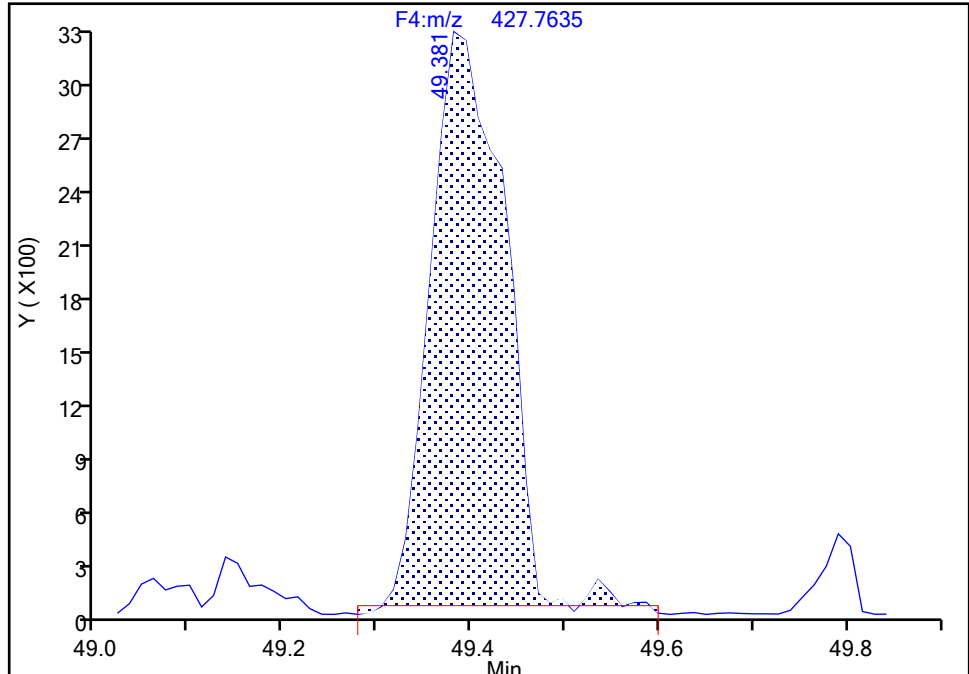
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F4(49.20 :57.50 )

PCB-195, CAS: 52663-78-2

Signal: 1

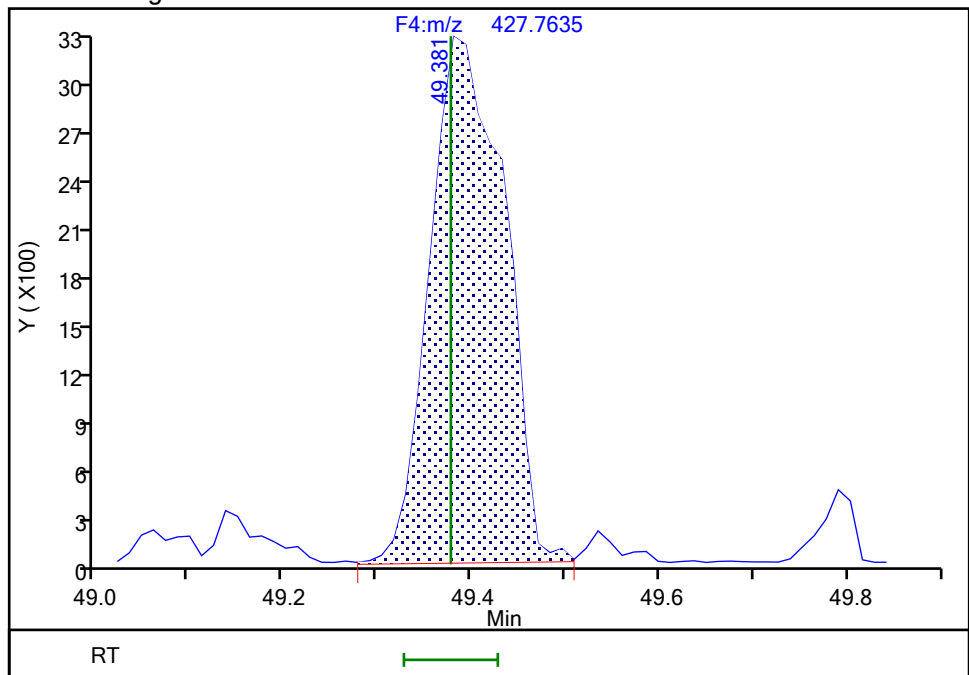
RT: 49.38  
Area: 17206  
Amount: 0.436356  
Amount Units: pg/ul

## Processing Integration Results



RT: 49.38  
Area: 17759  
Amount: 0.448033  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:33:03 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Instrument ID: D2D

Lims ID: IC L1

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

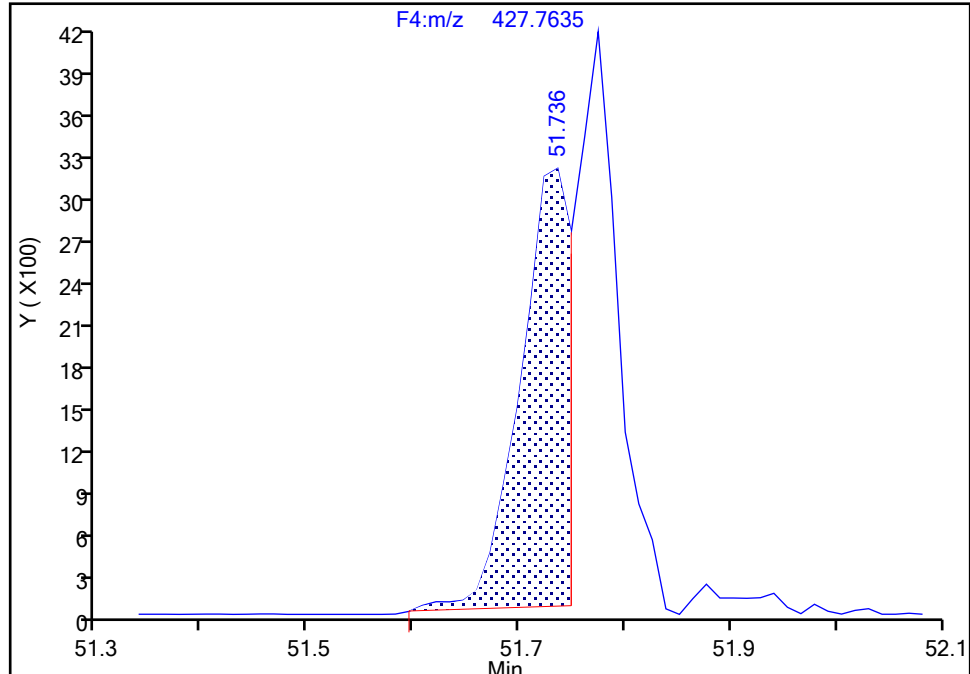
Detector F4(49.20 :57.50 )

PCB-194, CAS: 35694-08-7

Signal: 1

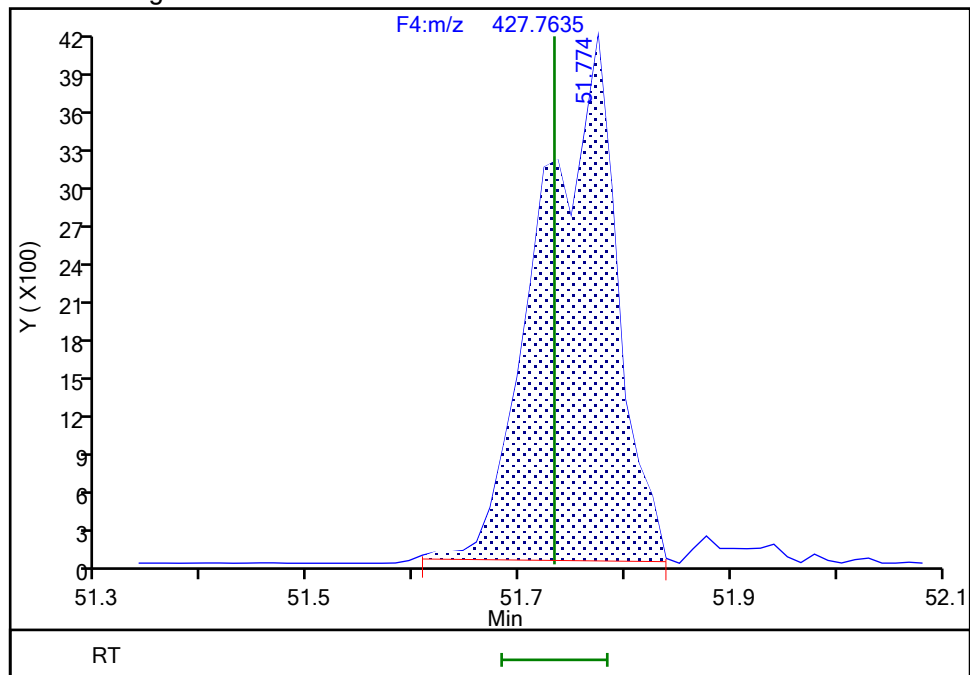
RT: 51.74  
Area: 9636  
Amount: 0.438844  
Amount Units: pg/ul

## Processing Integration Results



RT: 51.77  
Area: 20698  
Amount: 0.530521  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 17:05:23 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

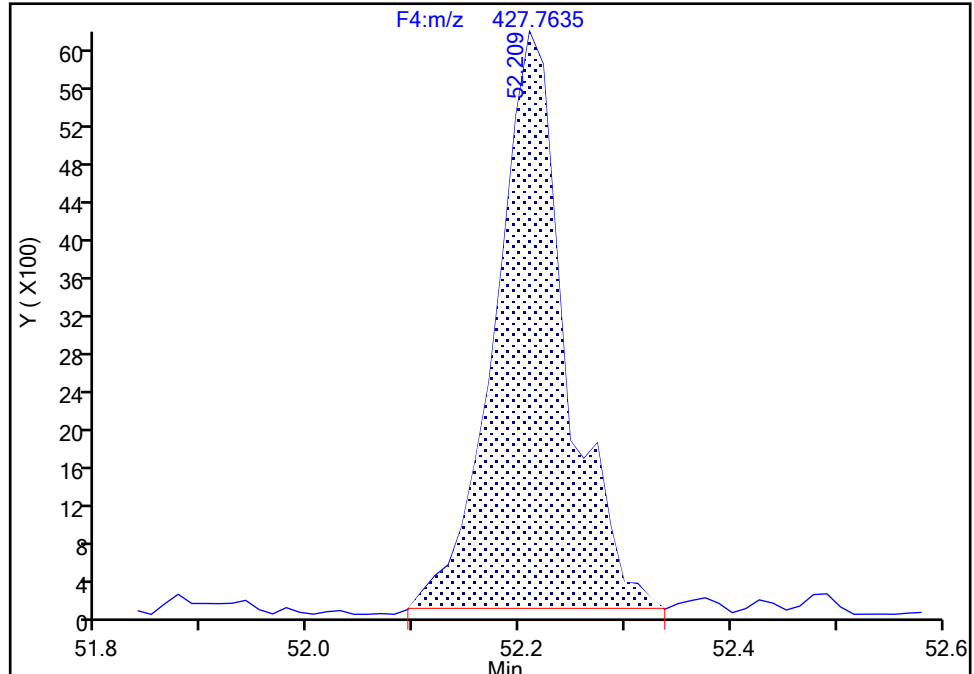
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F4(49.20 :57.50 )

PCB-205, CAS: 74472-53-0

Signal: 1

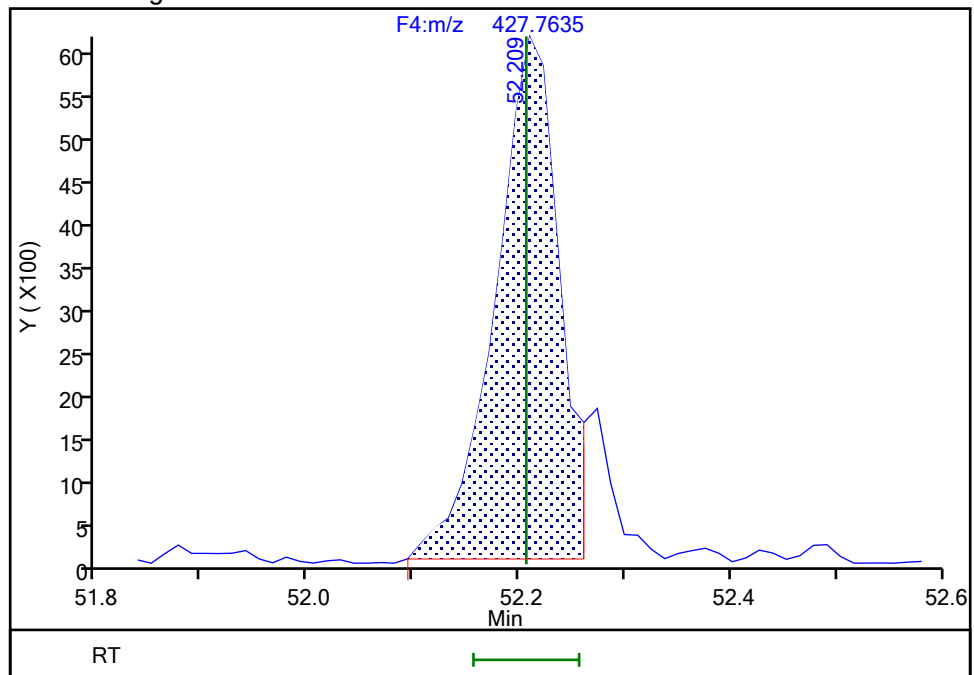
RT: 52.21  
Area: 28510  
Amount: 0.514801  
Amount Units: pg/ul

## Processing Integration Results



RT: 52.21  
Area: 25496  
Amount: 0.502033  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 15:38:00 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

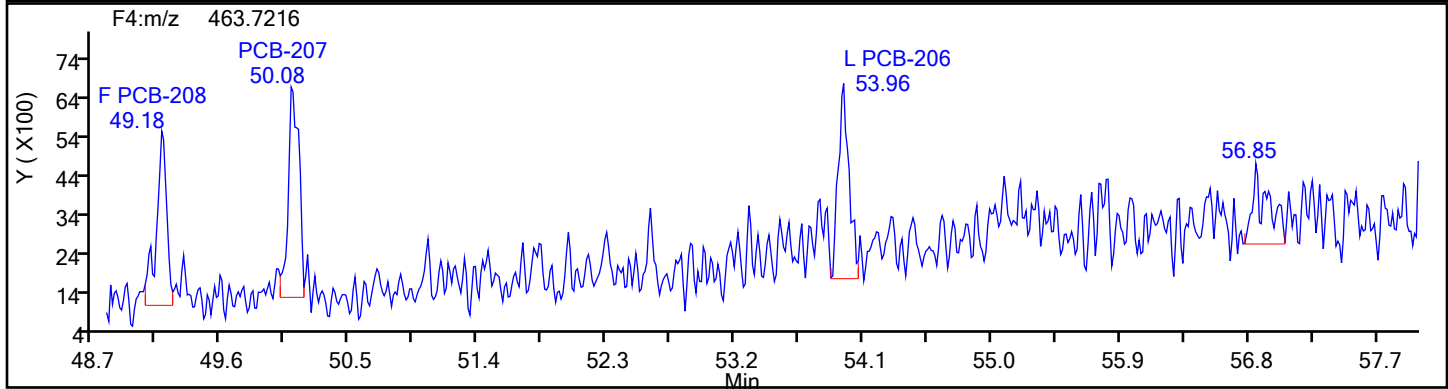
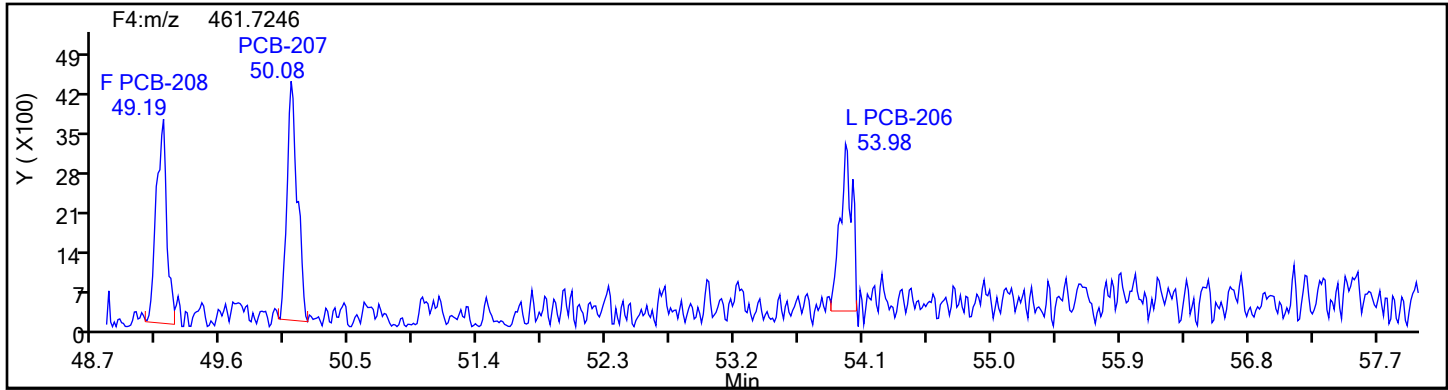
Worklist#: 87130

Sample Line#: 1

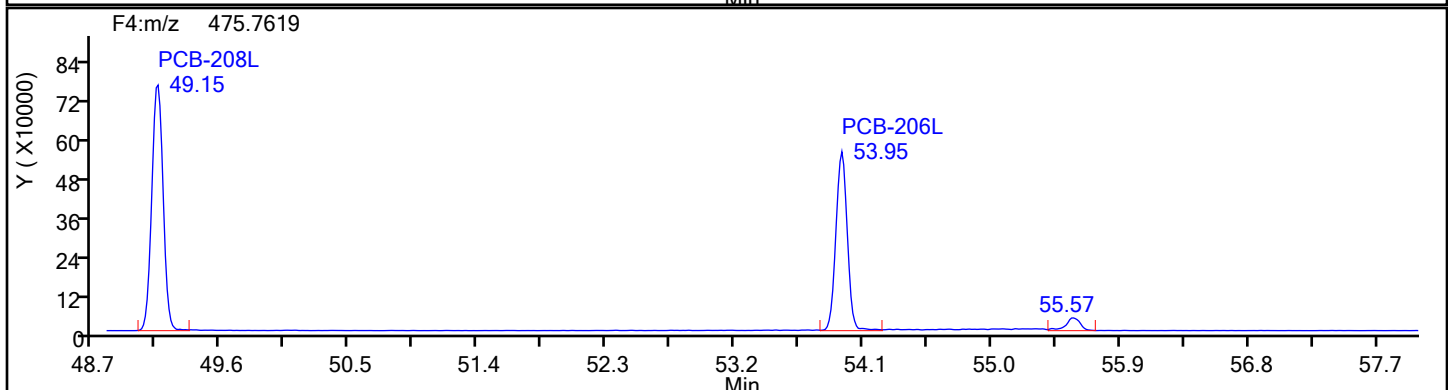
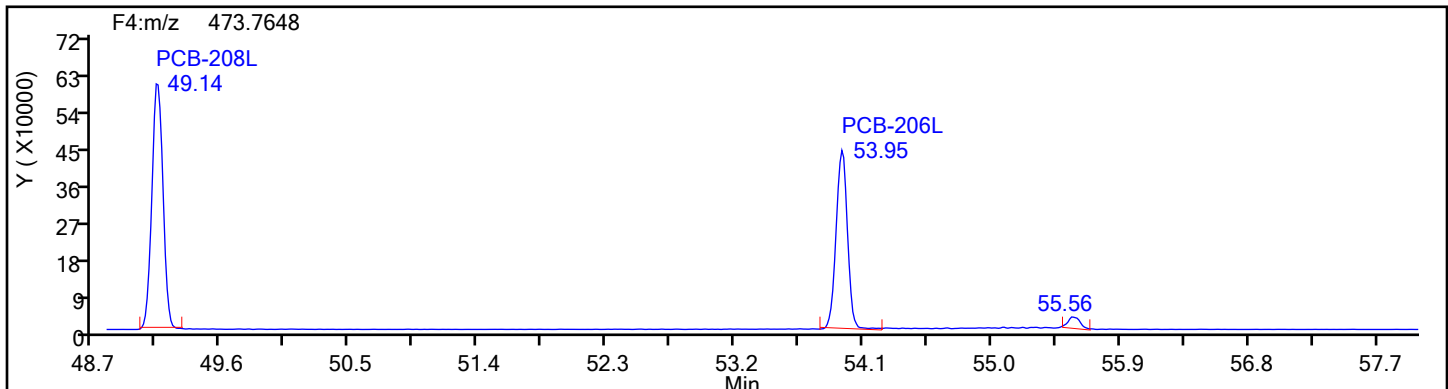
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



NoPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

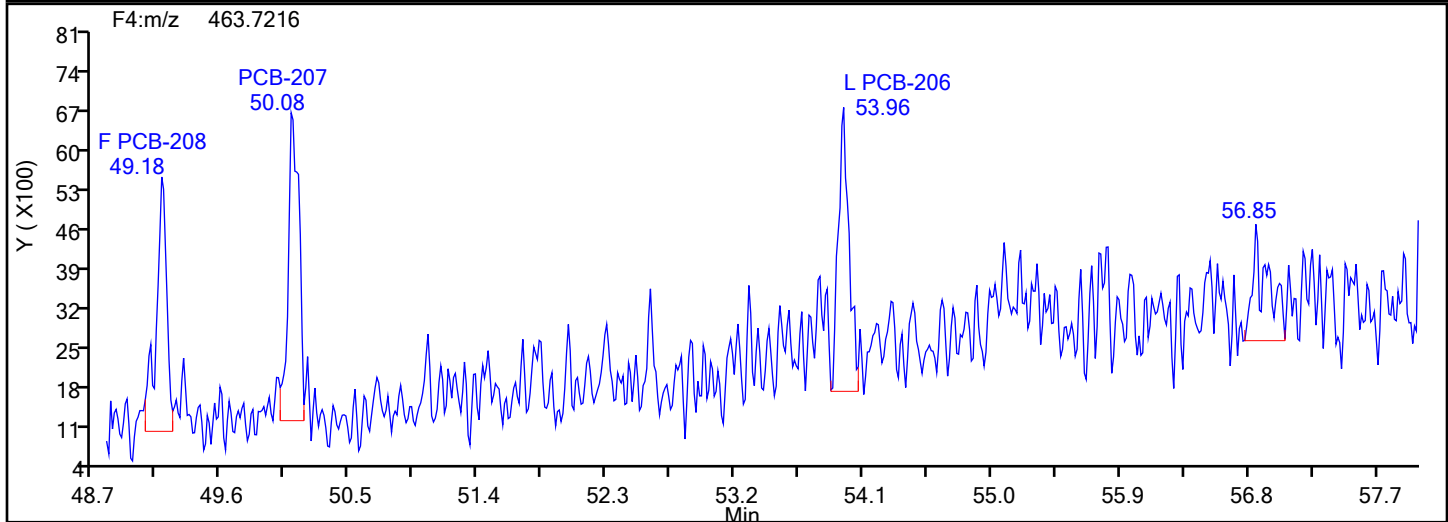
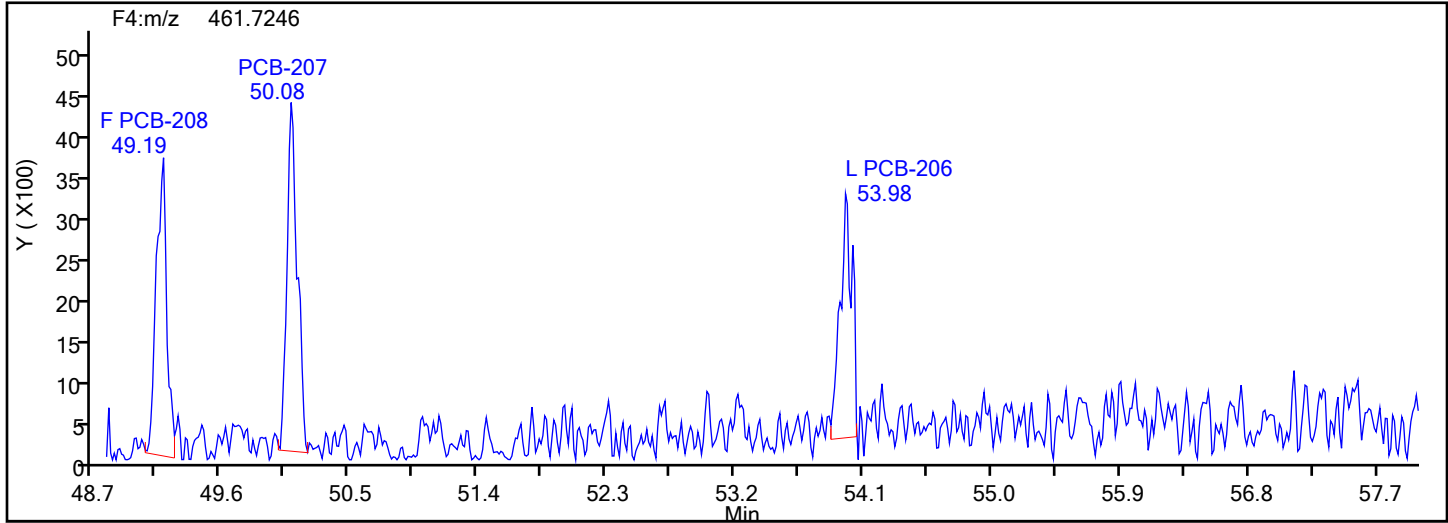
Worklist#: 87130

Sample Line#: 1

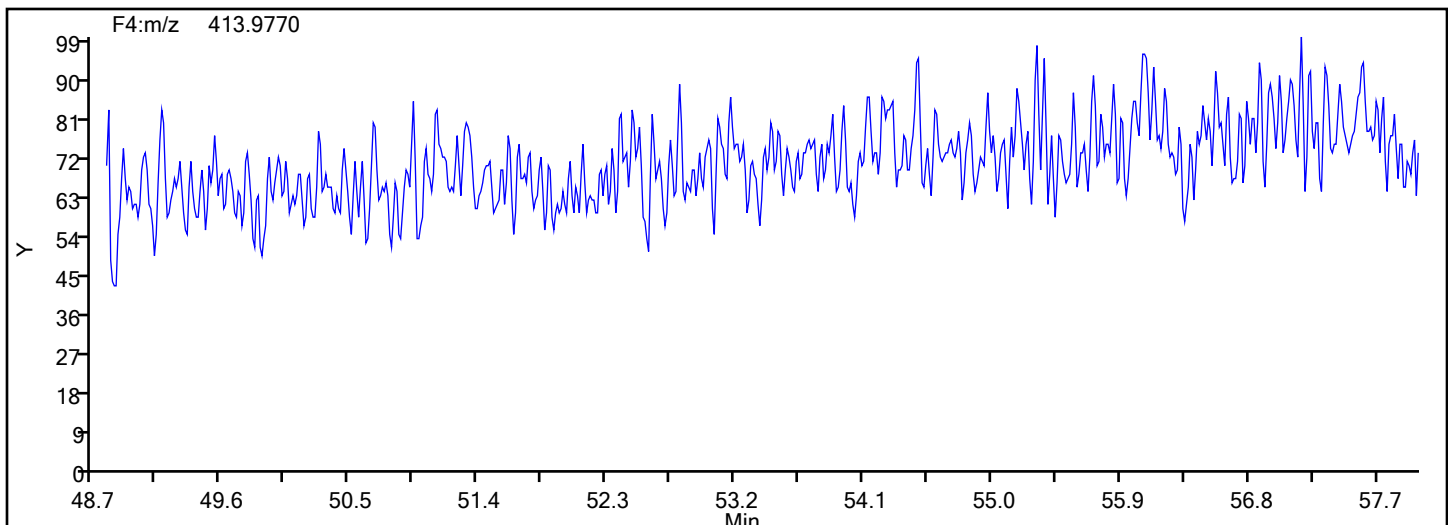
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



## NoPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Instrument ID: D2D

Lims ID: IC L1

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

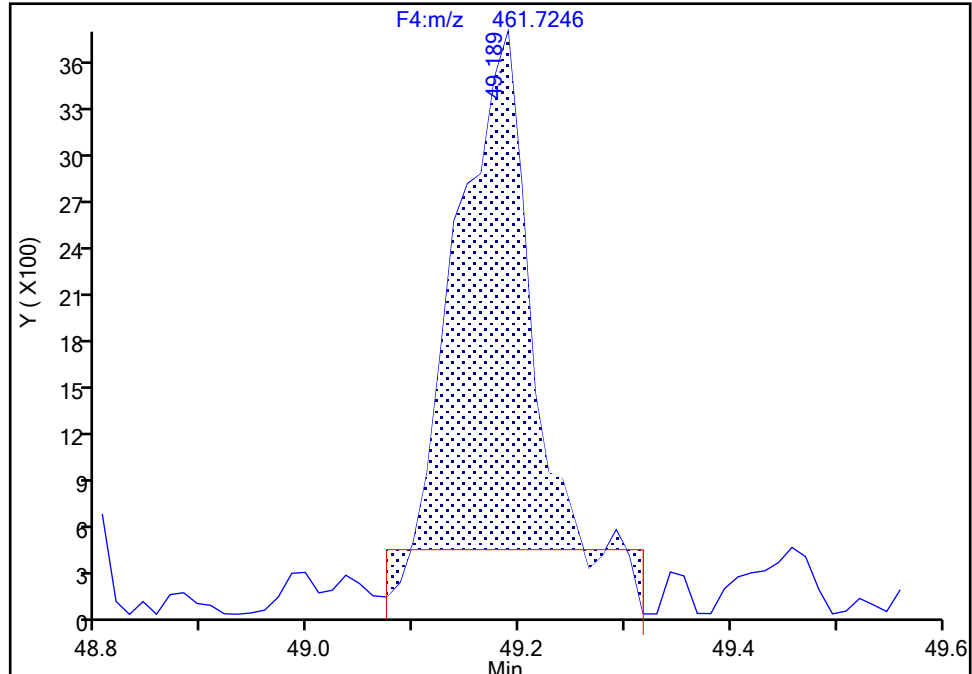
Detector F4(49.20 :57.50 )

PCB-208, CAS: 52663-77-1

Signal: 1

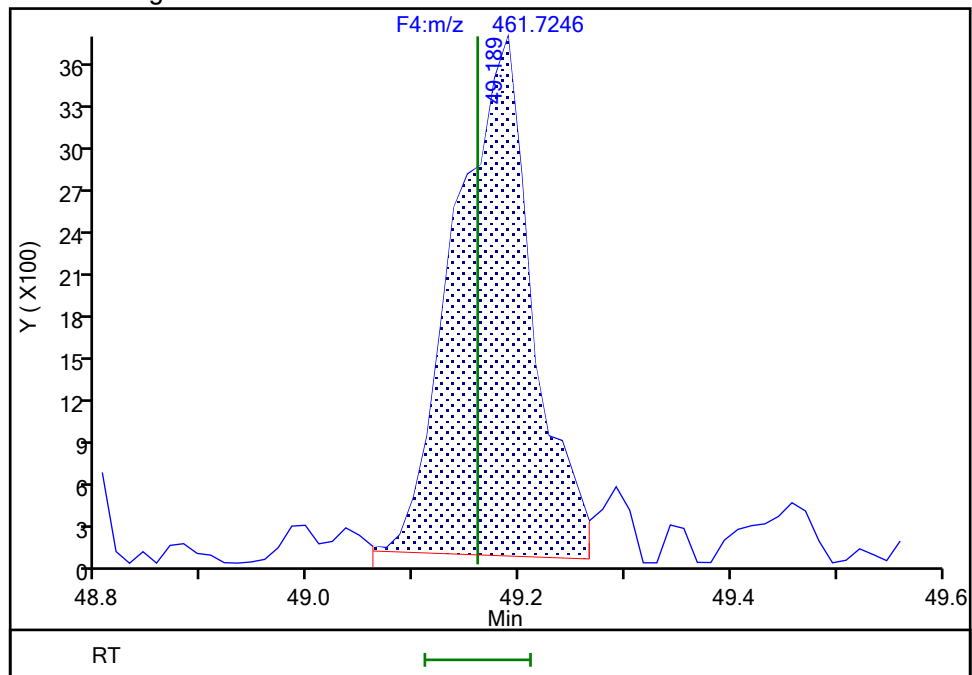
RT: 49.19  
Area: 14249  
Amount: 0.339411  
Amount Units: pg/ul

## Processing Integration Results



RT: 49.19  
Area: 18598  
Amount: 0.487524  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 15:38:18 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

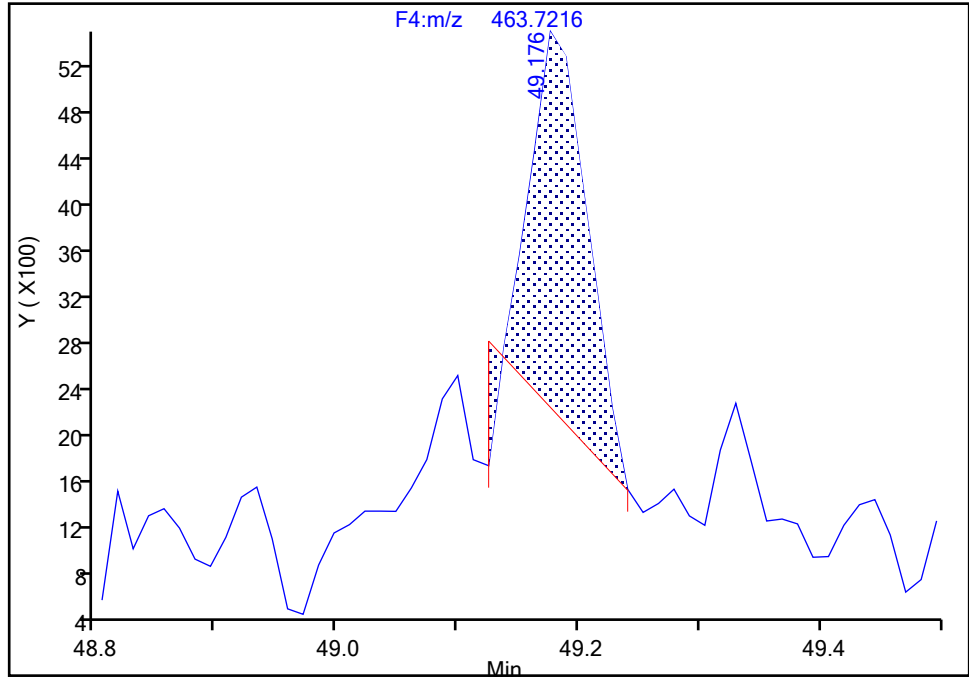
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F4(49.20 :57.50 )

PCB-208, CAS: 52663-77-1

Signal: 2

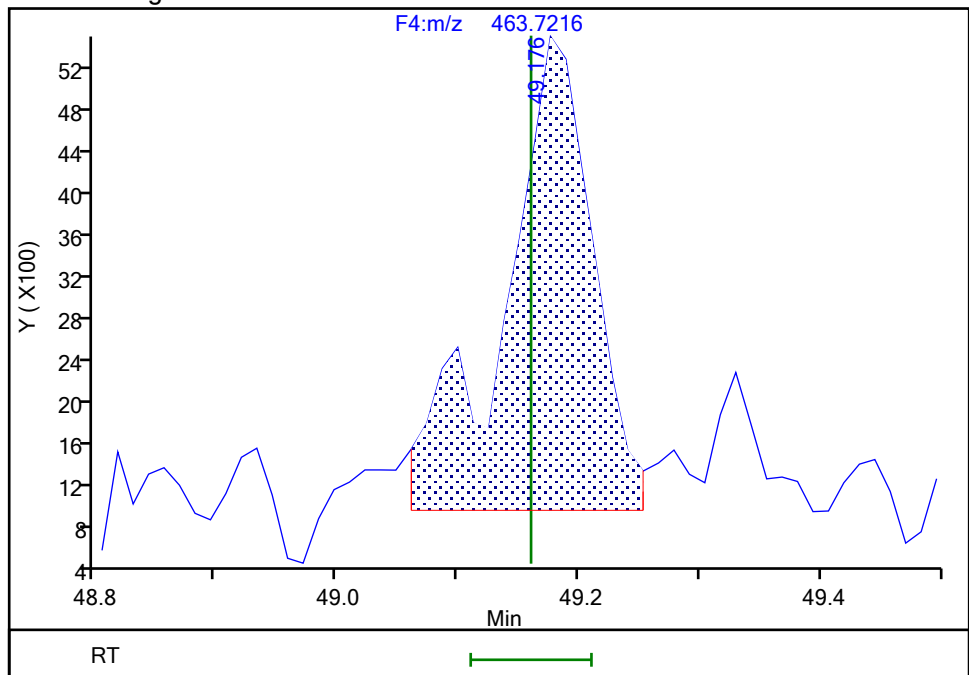
RT: 49.18  
Area: 10262  
Amount: 0.339411  
Amount Units: pg/ul

## Processing Integration Results



RT: 49.18  
Area: 22997  
Amount: 0.487524  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 15:38:55 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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9/6/2024 4:19:54 PM



## Eurofins Knoxville

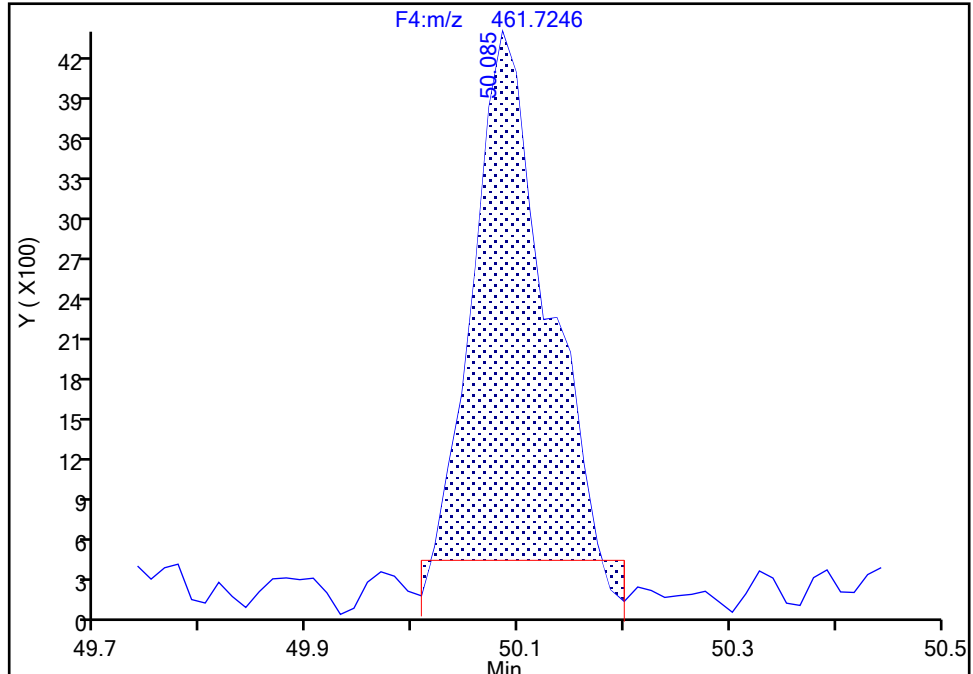
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F4(49.20 :57.50 )

PCB-207, CAS: 52663-79-3

Signal: 1

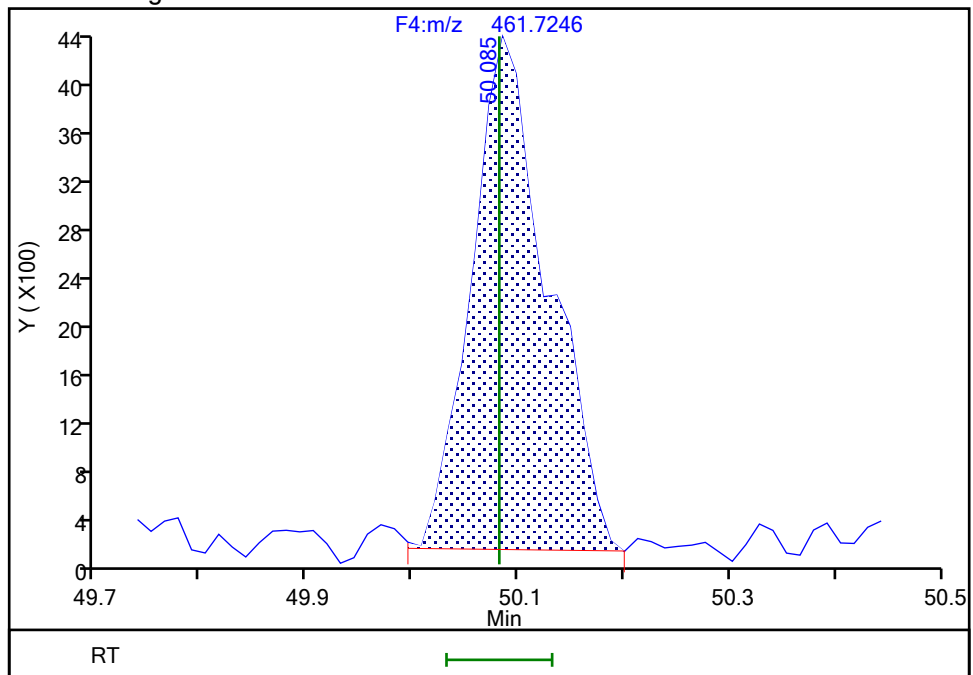
RT: 50.08  
Area: 17897  
Amount: 0.469716  
Amount Units: pg/ul

## Processing Integration Results



RT: 50.08  
Area: 21467  
Amount: 0.558340  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 17:05:38 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

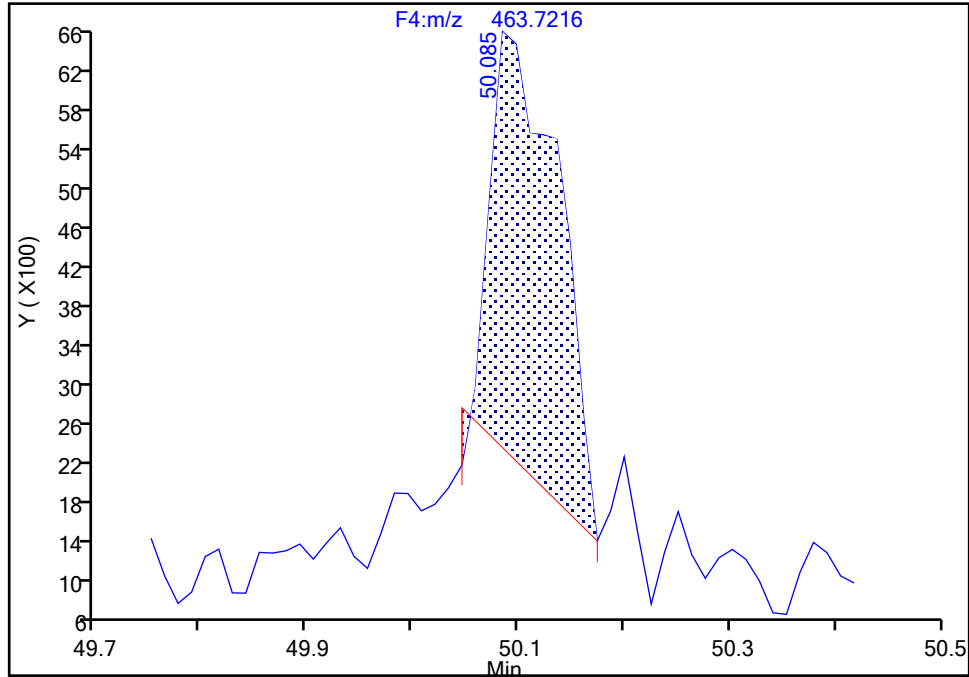
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F4(49.20 :57.50 )

PCB-207, CAS: 52663-79-3

Signal: 2

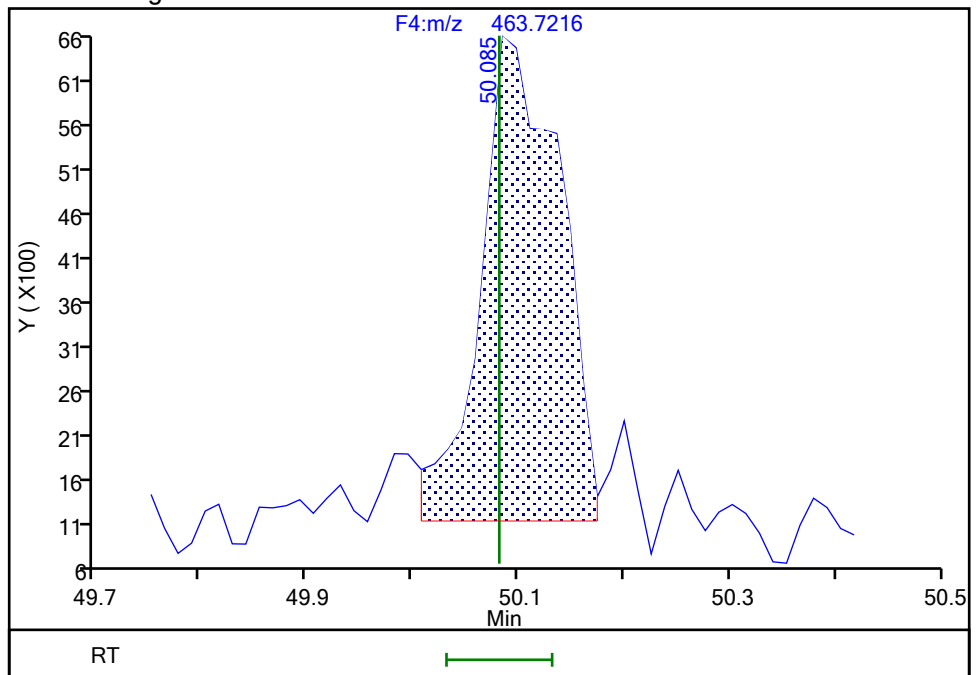
RT: 50.08  
Area: 19436  
Amount: 0.469716  
Amount Units: pg/ul

## Processing Integration Results



RT: 50.08  
Area: 28459  
Amount: 0.558340  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 17:05:45 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

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BASFHWC-Pass 20240529  
9/6/2024 4:19:54 PM

## Eurofins Knoxville

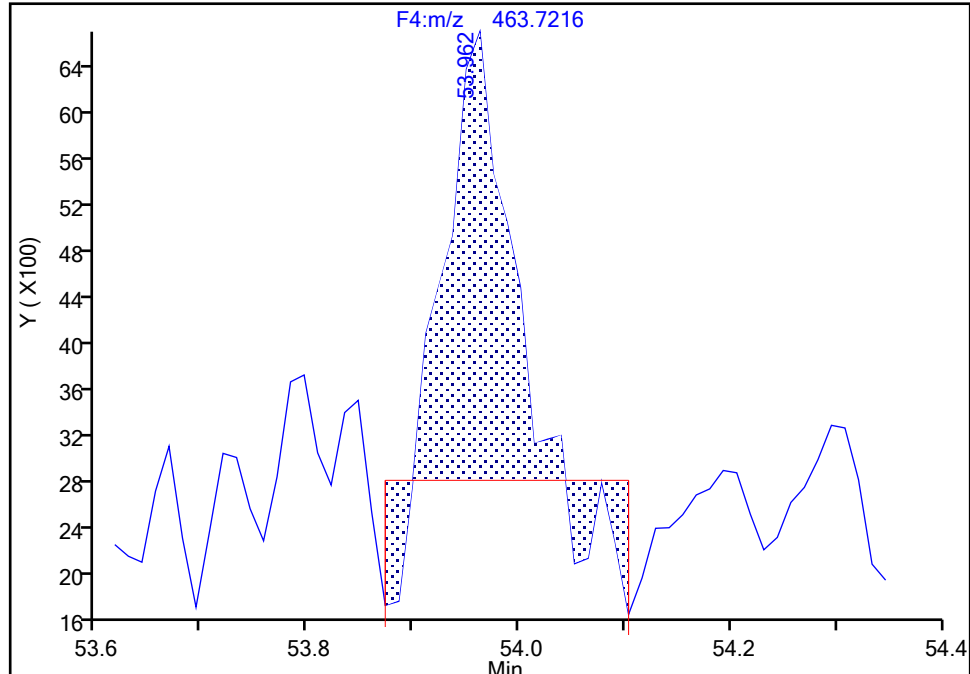
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F4(49.20 :57.50 )

PCB-206, CAS: 40186-72-9

Signal: 2

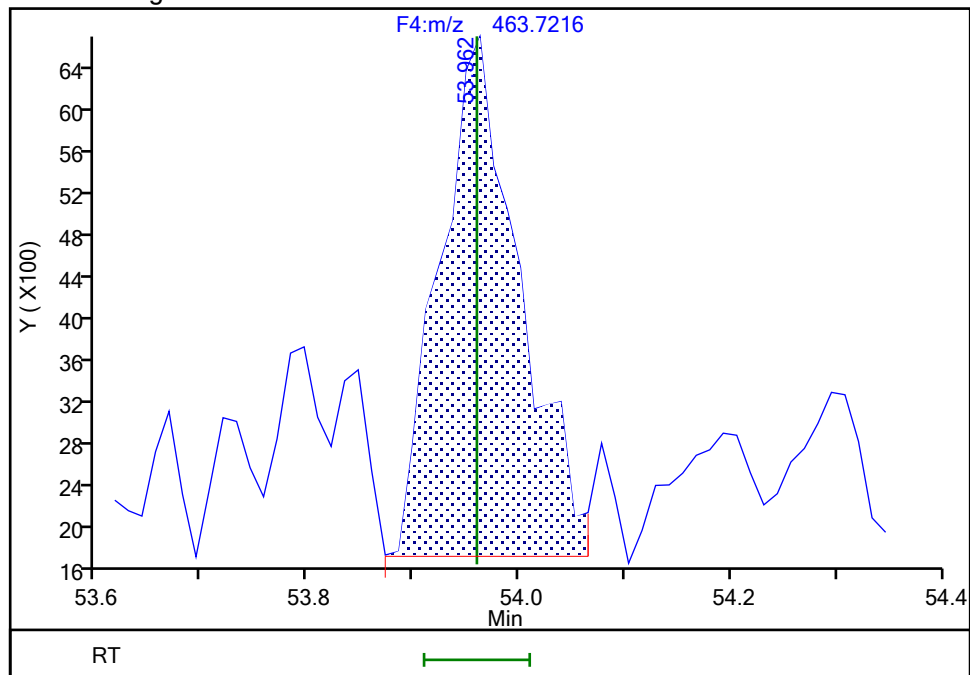
RT: 53.96  
Area: 12199  
Amount: 0.382448  
Amount Units: pg/ul

## Processing Integration Results



RT: 53.96  
Area: 26155  
Amount: 0.591963  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 15:39:10 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

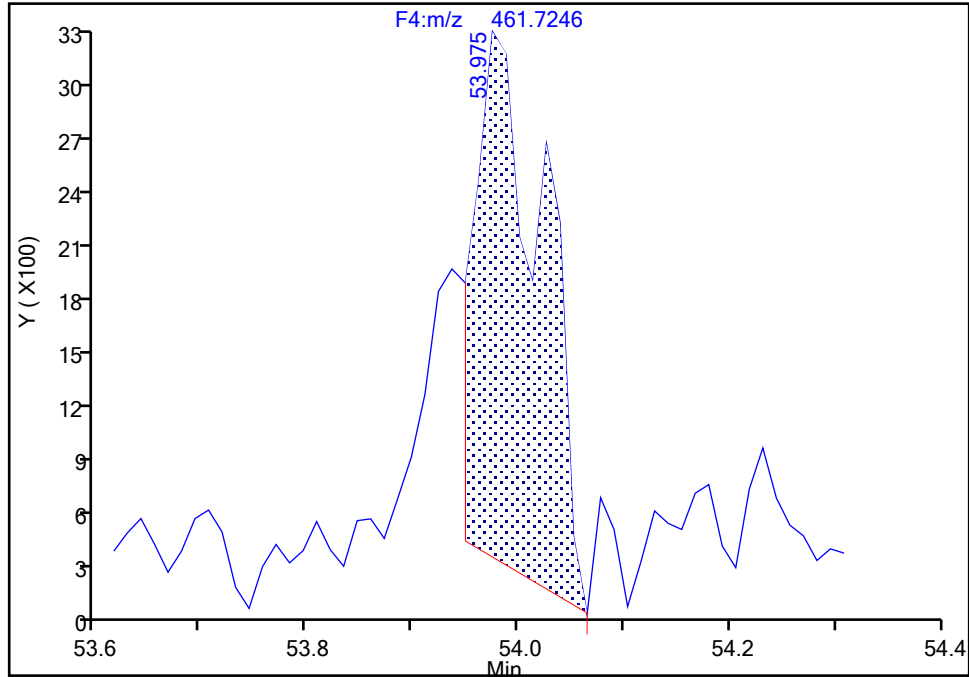
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d  
Injection Date: 31-May-2024 14:36:00 Instrument ID: D2D  
Lims ID: IC L1  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F4(49.20 :57.50 )

PCB-206, CAS: 40186-72-9

Signal: 1

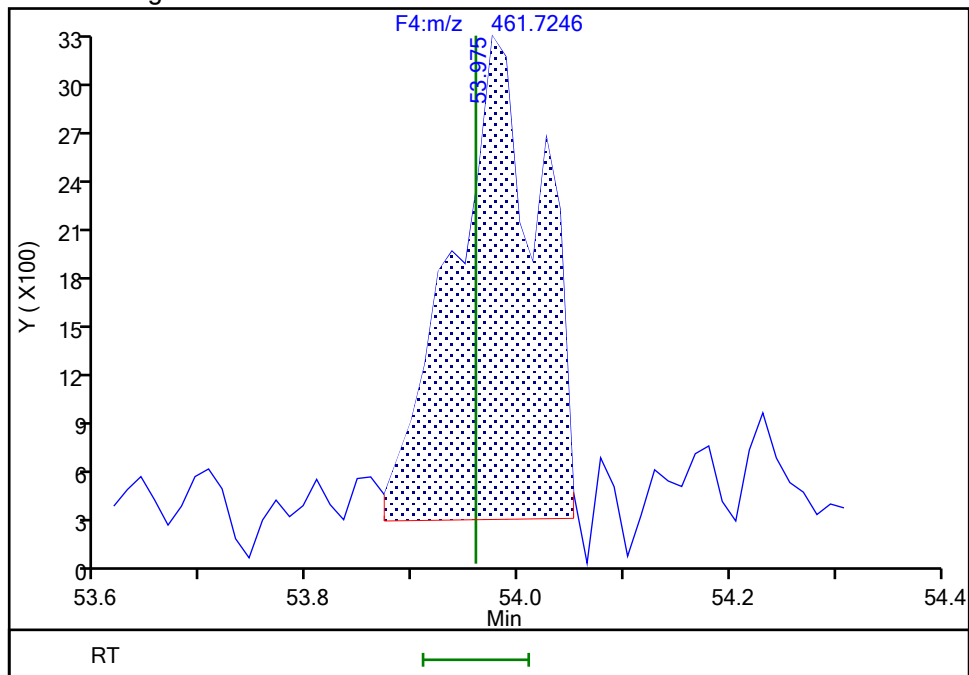
RT: 53.98  
Area: 13091  
Amount: 0.382448  
Amount Units: pg/ul

## Processing Integration Results



RT: 53.98  
Area: 17294  
Amount: 0.591963  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:29:56 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 20240529  
9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

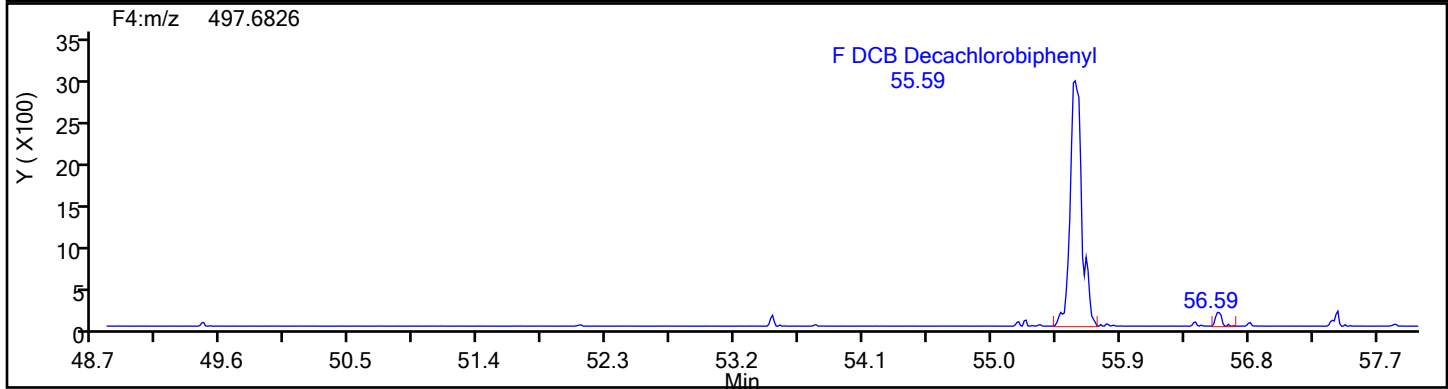
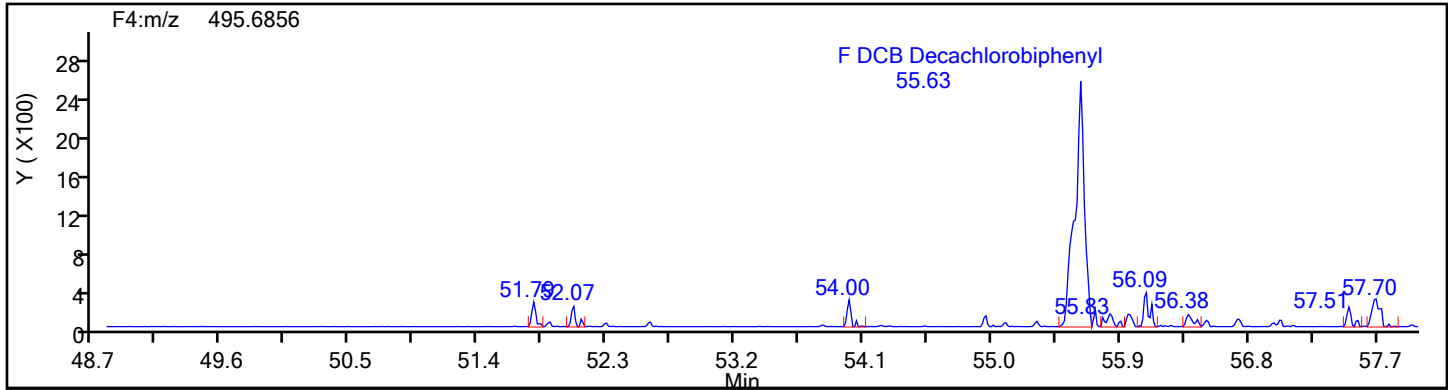
Worklist#: 87130

Sample Line#: 1

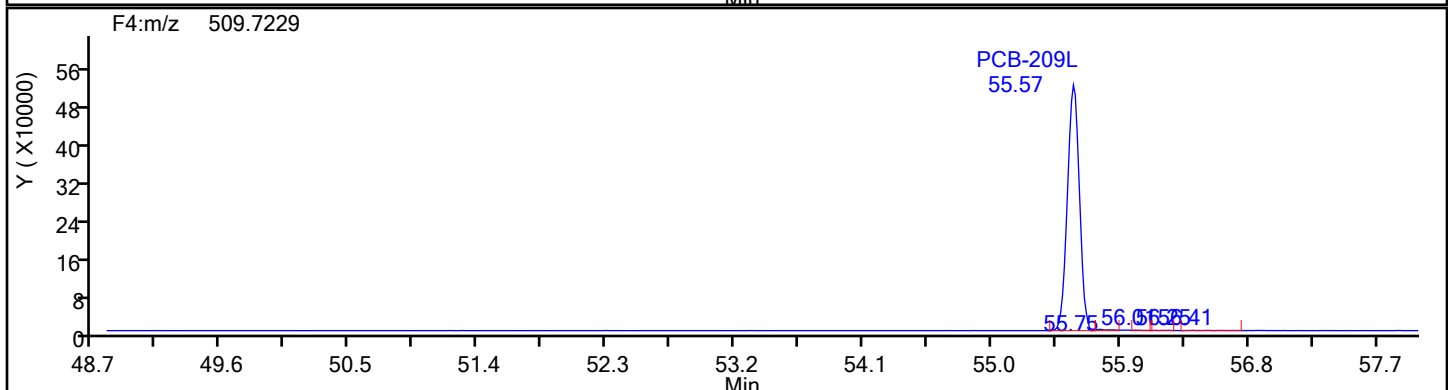
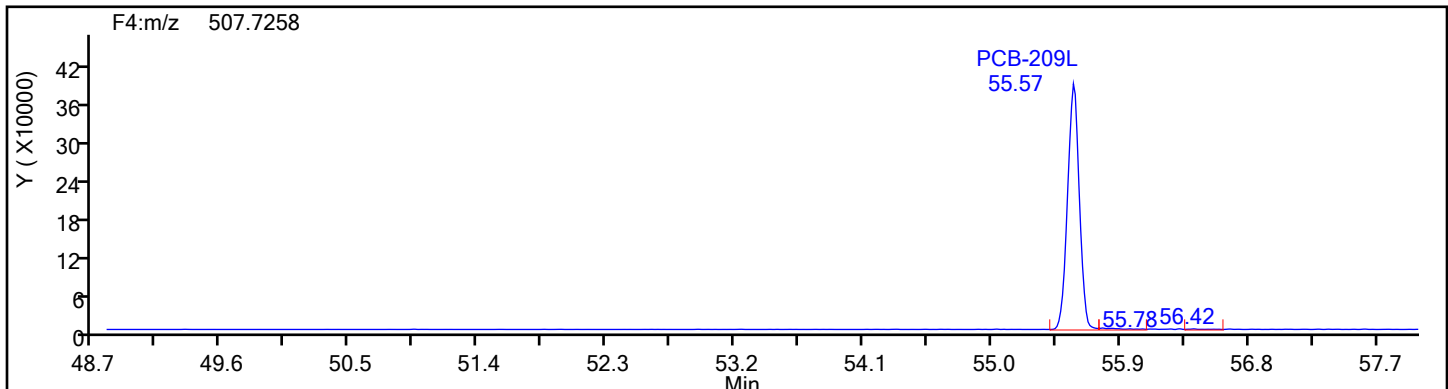
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



DePCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi1a.d

Injection Date: 31-May-2024 14:36:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

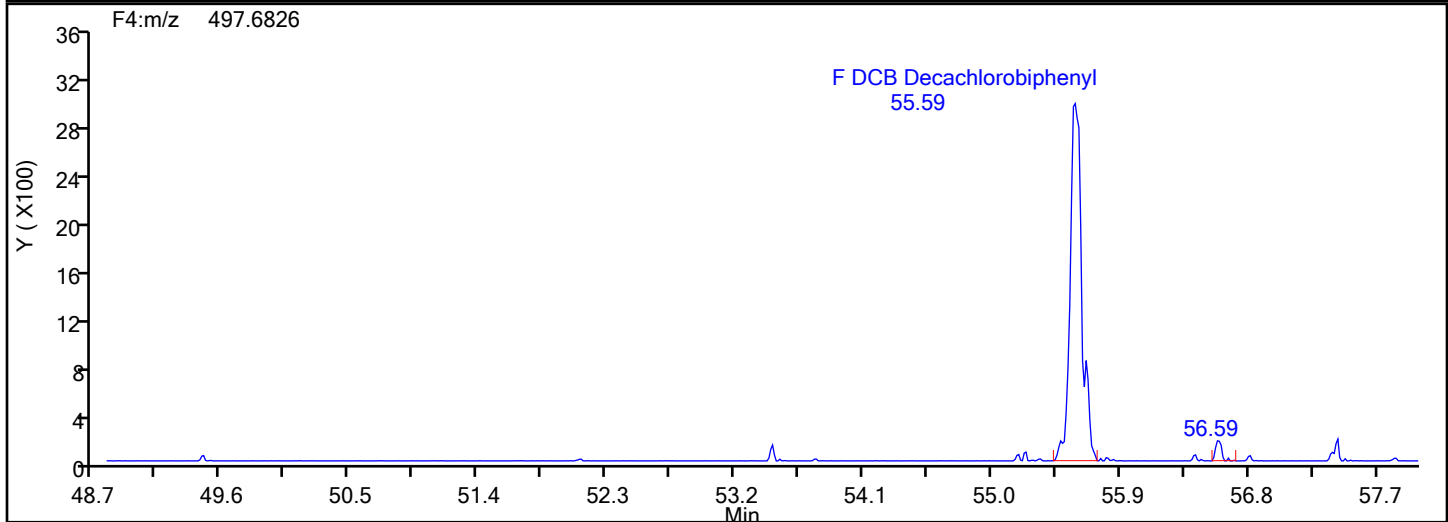
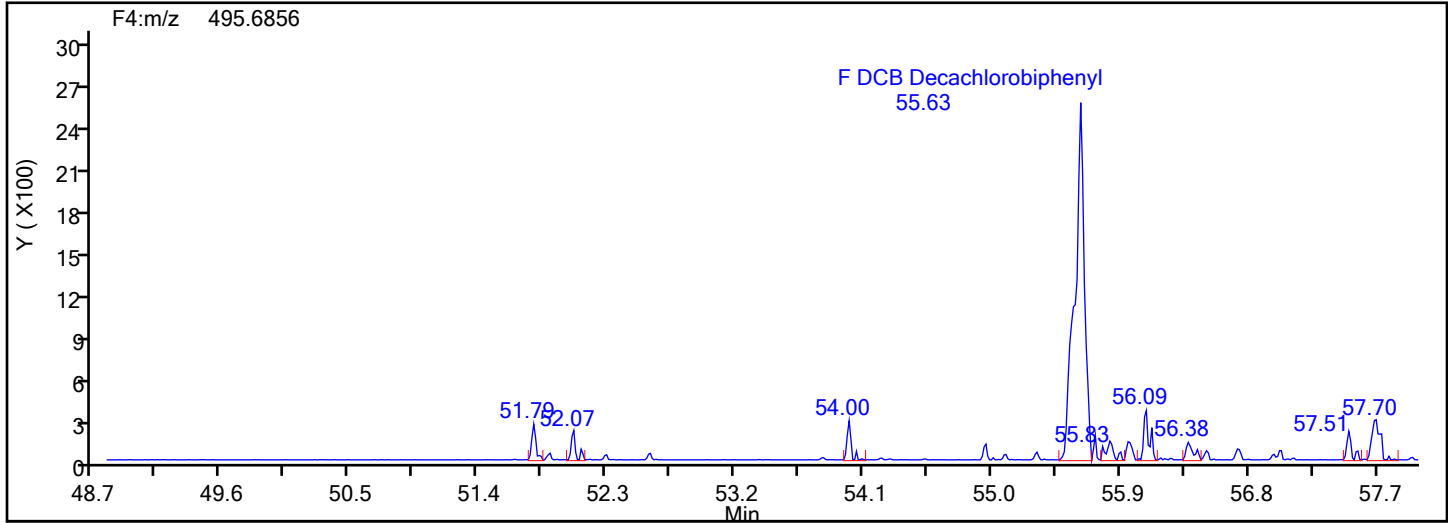
Worklist#: 87130

Sample Line#: 1

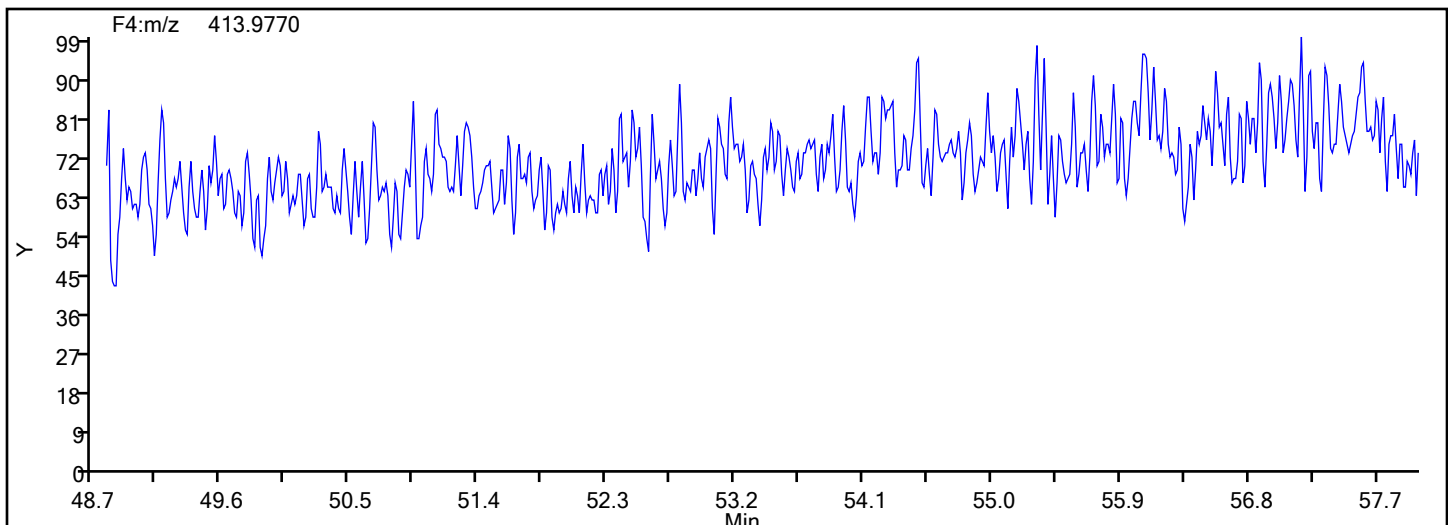
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



DePCB F4 Lock Mass



Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Lims ID: IC L2  
Client ID:  
Sample Type: IC Calib Level: 2  
Inject. Date: 31-May-2024 16:53:00 ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0032883-002  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Sublist: chrom-PCBs\_D2D\*sub16  
Method: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 04-Jun-2024 14:26:42 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: P0IK

Date: 31-May-2024 19:07:23

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total Monochlorobiphenyls					2.962	2.962	0.0112	0.0112		
D PCB-1L	11:38	13411930	3.16	1.6108	99.9	99.9	0.2949	0.2949	99.88	
D PCB-3L	13:47	13166477	3.24	1.5891	99.4	99.4	0.2989	0.2989	99.39	
PCB-1	11:39	167653	3.15	1.2191	1.025	1.025	0.0100	0.0100	103	
PCB-2	13:38	152137	2.98	1.1805	0.9698	0.9698	0.0114	0.0114	96.98	
PCB-3	13:48	155451	3.08	1.2206	0.9673	0.9673	0.0122	0.0122	96.73	
S Total Dichlorobiphenyls					11.7	11.4	0.004935	0.004935		RQ
D PCB-4L	14:03	5442766	1.62	0.6475	100.8	100.8	0.0919	0.0919	101	
* PCB-9L	16:01	8336299	1.63		100.0	100.0				
D PCB-15L	19:56	8819361	1.63	1.0789	98.1	98.1	0.0552	0.0552	98.05	
PCB-4	14:04	71281	1.69	1.2818	1.022	1.022	0.005795	0.005795	102	
PCB-10	14:14	90939	1.57	1.3149	0.9699	0.9699	0.005163	0.005163	96.99	
PCB-9	16:01	101769	1.52	1.4224	1.003	1.003	0.004772	0.004772	100	
PCB-7	16:12	90721	1.56	1.4134	0.990	0.9001	0.004803	0.004803	99.01	RQ
PCB-6	16:26	97620	1.56	1.5421	0.9891	0.8877	0.004402	0.004402	98.91	RQM
PCB-5	16:45	93073	1.75	1.3395	0.9744	0.9744	0.005068	0.005068	97.44	
PCB-8	16:52	108520	1.52	1.5889	0.9578	0.9578	0.004273	0.004273	95.78	
PCB-14	18:30	95706	1.69	1.4025	0.9570	0.9570	0.004840	0.004840	95.70	
PCB-11	19:20	75686	1.56	1.2951	0.9055	0.8195	0.005242	0.005242	90.55	RQ
PCB-12	19:38	181643	1.57	1.3358	1.907	1.907	0.005082	0.005082	95.34	
PCB-13 (C12)	19:38	181643	1.57	1.3358	1.907	1.907	0.005082	0.005082	95.34	
PCB-15	19:57	113904	1.54	1.2903	1.001	1.001	0.004844	0.004844	100	
S Total Trichlorobiphenyls					23.6	23.5	0.0336	0.0336		RQ
D PCB-19L	17:09	3424036	1.04	0.6285	102.9	102.9	0.4510	0.4510	103	
* PCB-32L	20:24	5295691	1.10		100.0	100.0				
* PCB-31L	22:40	15100361	1.04		100.0	100.0				
D PCB-37L	26:57	13255798	1.07	0.8749	100.3	100.3	0.1254	0.1254	100	
PCB-19	17:10	37931	1.09	1.2809	0.8649	0.8649	0.0107	0.0107	86.49	
PCB-18	19:00	119625	1.07	1.7652	1.979	1.979	0.007794	0.007794	98.96	
PCB-30 (C18)	19:00	119625	1.07	1.7652	1.979	1.979	0.007794	0.007794	98.96	
PCB-17	19:27	43052	1.03	1.2430	1.012	1.012	0.0111	0.0111	101	
PCB-27	19:40	61773	1.11	1.8327	0.9844	0.9844	0.007507	0.007507	98.44	
PCB-24	19:48	55539	1.02	1.6777	0.9668	0.9668	0.008201	0.008201	96.68	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-16	19:54	32476	1.04	1.1286	0.9420	0.8404	0.0122	0.0122	94.20	RQ
PCB-32	20:25	60227	1.04	1.8324	0.9599	0.9599	0.007508	0.007508	95.99	
PCB-34	21:41	145822	1.01	1.1277	0.9755	0.9755	0.0471	0.0471	97.55	
PCB-23	21:50	148152	1.12	1.0813	1.034	1.034	0.0491	0.0491	103	
PCB-26	22:09	296674	1.06	1.1255	1.989	1.989	0.0472	0.0472	99.43	
PCB-29 (C26)	22:09	296674	1.06	1.1255	1.989	1.989	0.0472	0.0472	99.43	
PCB-25	22:22	160869	1.03	1.2728	0.9535	0.9535	0.0417	0.0417	95.35	
PCB-31	22:41	160841	1.12	1.1532	1.052	1.052	0.0460	0.0460	105	
PCB-20	23:00	298348	0.95	1.1718	1.921	1.921	0.0453	0.0453	96.04	
PCB-28 (C20)	23:00	298348	0.95	1.1718	1.921	1.921	0.0453	0.0453	96.04	
PCB-21	23:09	281992	1.02	1.0746	1.980	1.980	0.0494	0.0494	98.98	M
PCB-33 (C21)	23:09	281992	1.02	1.0746	1.980	1.980	0.0494	0.0494	98.98	M
PCB-22	23:37	164376	1.03	1.1932	1.039	1.039	0.0445	0.0445	104	
PCB-36	25:11	150690	1.02	1.1071	1.027	1.027	0.0480	0.0480	103	
PCB-39	25:31	150829	1.11	1.1581	0.9825	0.9825	0.0458	0.0458	98.25	
PCB-38	26:06	142649	1.08	1.0843	0.992	0.992	0.0490	0.0490	99.24	M
PCB-35	26:35	142742	1.10	1.1297	0.9532	0.9532	0.0470	0.0470	95.32	
PCB-37	26:59	148485	1.10	1.1435	0.9796	0.9796	0.0464	0.0464	97.96	
S Total Tetrachlorobiphenyls					41.7	41.6	0.0899	0.0899		RQ
D PCB-54L	20:14	3010951	0.81	0.5562	102.2	102.2	0.0518	0.0518	102	M
* PCB-52L	24:47	7714563	0.80		100.0	100.0				
D PCB-81L	33:42	9378026	0.80	1.2470	97.5	97.5	0.1077	0.1077	97.49	
D PCB-77L	34:16	9952597	0.81	1.3212	97.6	97.6	0.1016	0.1016	97.65	
PCB-54	20:15	39894	0.73	1.2733	1.041	1.041	0.004787	0.004787	104	M
PCB-50	22:26	160495	0.77	0.8578	1.936	1.936	0.1157	0.1157	96.79	
PCB-53 (C50)	22:26	160495	0.77	0.8578	1.936	1.936	0.1157	0.1157	96.79	
PCB-45	23:10	157715	0.85	0.8264	1.974	1.974	0.1201	0.1201	98.72	M
PCB-51 (C45)	23:10	157715	0.85	0.8264	1.974	1.974	0.1201	0.1201	98.72	M
PCB-46	23:24	65825	0.86	0.7101	0.9591	0.9591	0.1397	0.1397	95.91	
PCB-52	24:48	87733	0.73	0.9194	0.9873	0.9873	0.1079	0.1079	98.73	
PCB-43	24:58	200228	0.75	1.0333	2.005	2.005	0.0960	0.0960	100	M
PCB-73 (C43)	24:58	200228	0.75	1.0333	2.005	2.005	0.0960	0.0960	100	M
PCB-49	25:15	201895	0.78	1.0685	1.955	1.955	0.0928	0.0928	97.74	M
PCB-69 (C49)	25:15	201895	0.78	1.0685	1.955	1.955	0.0928	0.0928	97.74	M
PCB-48	25:36	83950	0.76	0.8399	1.034	1.034	0.1181	0.1181	103	
PCB-44	25:49	277857	0.79	0.9731	2.954	2.954	0.1020	0.1020	98.48	
PCB-47 (C44)	25:49	277857	0.79	0.9731	2.954	2.954	0.1020	0.1020	98.48	
PCB-65 (C44)	25:49	277857	0.79	0.9731	2.954	2.954	0.1020	0.1020	98.48	
PCB-59	26:07	331263	0.74	1.1853	2.892	2.892	0.0837	0.0837	96.39	
PCB-62 (C59)	26:07	331263	0.74	1.1853	2.892	2.892	0.0837	0.0837	96.39	
PCB-75 (C59)	26:07	331263	0.74	1.1853	2.892	2.892	0.0837	0.0837	96.39	
PCB-42	26:19	79410	0.86	0.8097	1.015	1.015	0.1225	0.1225	101	
PCB-40	26:50	252584	0.85	0.8863	2.948	2.948	0.1119	0.1119	98.28	M
PCB-41 (C40)	26:50	252584	0.85	0.8863	2.948	2.948	0.1119	0.1119	98.28	M
PCB-71 (C40)	26:50	252584	0.85	0.8863	2.948	2.948	0.1119	0.1119	98.28	M
PCB-64	27:04	121326	0.74	1.1776	1.066	1.066	0.0843	0.0843	107	M
PCB-72	27:53	102800	0.84	1.0943	0.9720	0.9720	0.0907	0.0907	97.20	
PCB-68	28:11	120639	0.80	1.2533	0.996	0.996	0.0792	0.0792	99.59	
PCB-57	28:35	107838	0.84	1.0818	1.031	1.031	0.0917	0.0917	103	
PCB-58	28:50	117702	0.87	1.3253	0.9188	0.9188	0.0749	0.0749	91.88	
PCB-67	28:59	136003	0.88	1.4230	0.9888	0.9888	0.0697	0.0697	98.88	
PCB-63	29:15	113672	0.81	1.1240	1.046	1.046	0.0883	0.0883	105	
PCB-61	29:36	472477	0.81	1.2612	3.876	3.876	0.0787	0.0787	96.90	M
PCB-70 (C61)	29:36	472477	0.81	1.2612	3.876	3.876	0.0787	0.0787	96.90	M
PCB-74 (C61)	29:36	472477	0.81	1.2612	3.876	3.876	0.0787	0.0787	96.90	M
PCB-76 (C61)	29:36	472477	0.81	1.2612	3.876	3.876	0.0787	0.0787	96.90	M
PCB-66	29:55	109748	0.77	1.2583	0.9790	0.9024	0.0788	0.0788	97.90	RQ
PCB-55	30:05	119512	0.82	1.3236	0.9342	0.9342	0.0750	0.0750	93.42	
PCB-56	30:35	112603	0.78	1.2334	0.9446	0.9446	0.0804	0.0804	94.46	
PCB-60	30:49	120369	0.66	1.1230	1.109	1.109	0.0883	0.0883	111	
PCB-80	31:13	128092	0.83	1.3243	1.001	1.001	0.0749	0.0749	100	



Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi2a.d

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-79	32:45	147654	0.73	1.4368	1.063	1.063	0.0690	0.0690	106	
PCB-78	33:18	115640	0.74	1.1618	1.030	1.030	0.0854	0.0854	103	M
PCB-81	33:43	102785	0.69	1.0802	1.015	1.015	0.0934	0.0934	101	M
PCB-77	34:18	110963	0.78	1.0836	1.029	1.029	0.0901	0.0901	103	
S Total Pentachlorobiphenyls					45.9	44.9	0.0186	0.0186		RQ
D PCB-104L	25:44	6240748	1.61	1.2161	101.1	101.1	0.0146	0.0146	101	
* PCB-101L	31:39	5076656	1.61		100.0	100.0				
D PCB-123L	36:17	9073751	1.56	0.9731	94.8	94.8	1.318	1.318	94.78	
D PCB-118L	36:36	9353232	1.58	1.0102	94.1	94.1	1.269	1.269	94.12	
D PCB-114L	37:07	9705413	1.58	0.9949	99.2	99.2	1.289	1.289	99.17	
D PCB-105L	37:47	9101468	1.58	0.9514	97.2	97.2	1.348	1.348	97.24	
* PCB-127L	39:15	9837203	1.58		100.0	100.0				
D PCB-126L	40:51	8756063	1.59	0.9439	94.3	94.3	1.359	1.359	94.30	
PCB-104	25:46	61528	1.33	1.0087	0.9774	0.9774	0.008027	0.008027	97.74	M
PCB-96	26:08	63380	1.53	1.0940	0.9283	0.9283	0.007401	0.007401	92.83	
PCB-103	28:04	54610	1.48	0.8741	1.001	1.001	0.009263	0.009263	100	
PCB-94	28:18	50670	1.70	0.7640	1.063	1.063	0.0106	0.0106	106	
PCB-95	28:43	43760	1.55	0.8033	0.9606	0.8729	0.0101	0.0101	96.06	RQ
PCB-93	28:58	104065	1.45	0.8429	1.978	1.978	0.009606	0.009606	98.92	
PCB-100 (C93)	28:58	104065	1.45	0.8429	1.978	1.978	0.009606	0.009606	98.92	
PCB-98	29:09	91810	1.55	0.8262	1.974	1.781	0.009800	0.009800	98.72	RQM
PCB-102 (C98)	29:09	91810	1.55	0.8262	1.974	1.781	0.009800	0.009800	98.72	RQM
PCB-88	29:35	93115	1.60	0.8013	1.862	1.862	0.0101	0.0101	93.10	
PCB-91 (C88)	29:35	93115	1.60	0.8013	1.862	1.862	0.0101	0.0101	93.10	
PCB-84	29:49	49178	1.72	0.7299	1.080	1.080	0.0111	0.0111	108	
PCB-89	30:18	42477	1.55	0.7798	0.9571	0.8728	0.0104	0.0104	95.71	RQM
PCB-121	30:42	82240	1.51	1.2964	1.016	1.016	0.006246	0.006246	102	Ma
PCB-92	31:05	56541	1.55	0.8546	1.060	1.060	0.009475	0.009475	106	M
PCB-90	31:40	158329	1.55	0.9550	2.934	2.657	0.008478	0.008478	97.80	RQ
PCB-101 (C90)	31:40	158329	1.55	0.9550	2.934	2.657	0.008478	0.008478	97.80	RQ
PCB-113 (C90)	31:40	158329	1.55	0.9550	2.934	2.657	0.008478	0.008478	97.80	RQ
PCB-83	32:13	91289	1.55	0.8385	1.936	1.745	0.009656	0.009656	96.79	RQM
PCB-99 (C83)	32:13	91289	1.55	0.8385	1.936	1.745	0.009656	0.009656	96.79	RQM
PCB-112	32:21	85722	1.55	1.4111	1.055	0.9734	0.005738	0.005738	105	RQ
PCB-86	32:45	380172	1.51	1.0473	5.817	5.817	0.007731	0.007731	96.95	M
PCB-87 (C86)	32:45	380172	1.51	1.0473	5.817	5.817	0.007731	0.007731	96.95	M
PCB-97 (C86)	32:45	380172	1.51	1.0473	5.817	5.817	0.007731	0.007731	96.95	M
PCB-109 (C86)	32:45	380172	1.51	1.0473	5.817	5.817	0.007731	0.007731	96.95	M
PCB-119 (C86)	32:45	380172	1.51	1.0473	5.817	5.817	0.007731	0.007731	96.95	M
PCB-125 (C86)	32:45	380172	1.51	1.0473	5.817	5.817	0.007731	0.007731	96.95	M
PCB-85	33:27	192911	1.63	1.0408	2.970	2.970	0.007779	0.007779	99.00	
PCB-116 (C85)	33:27	192911	1.63	1.0408	2.970	2.970	0.007779	0.007779	99.00	
PCB-117 (C85)	33:27	192911	1.63	1.0408	2.970	2.970	0.007779	0.007779	99.00	
PCB-110	33:39	153152	1.73	1.1919	2.059	2.059	0.006793	0.006793	103	M
PCB-115 (C110)	33:39	153152	1.73	1.1919	2.059	2.059	0.006793	0.006793	103	M
PCB-82	33:57	52864	1.63	0.8303	1.020	1.020	0.009751	0.009751	102	
PCB-111	34:21	83431	1.58	1.2125	1.103	1.103	0.006678	0.006678	110	
PCB-120	34:48	91670	1.54	1.4762	0.995	0.995	0.005485	0.005485	99.50	
PCB-108	35:56	208570	1.63	1.1405	1.988	1.988	0.0385	0.0385	99.41	M
PCB-124 (C108)	35:56	208570	1.63	1.1405	1.988	1.988	0.0385	0.0385	99.41	M
PCB-107	36:11	93301	1.55	1.2121	0.9198	0.8369	0.0363	0.0363	91.98	RQM
PCB-123	36:17	103937	1.41	1.0722	1.068	1.068	0.0411	0.0411	107	
PCB-106	36:25	96794	1.78	1.0839	0.9709	0.9709	0.0406	0.0406	97.09	
PCB-118	36:37	118026	1.56	1.2055	1.047	1.047	0.0364	0.0364	105	
PCB-122	36:58	94688	1.40	0.9567	1.076	1.076	0.0459	0.0459	108	
PCB-114	37:09	107408	1.50	1.0842	1.021	1.021	0.0375	0.0375	102	
PCB-105	37:47	107441	1.55	1.1879	0.994	0.994	0.0368	0.0368	99.37	M
PCB-127	39:16	108872	1.40	1.1394	1.039	1.039	0.0386	0.0386	104	
PCB-126	40:53	95794	1.52	1.0976	0.997	0.997	0.0438	0.0438	99.67	
S Total Hexachlorobiphenyls					41.7	40.8	0.0349	0.0349		RQ

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D PCB-155L	31:25	5566942	1.28	1.0851	101.1	101.1	0.0241	0.0241	101	
* PCB-138L	39:43	6529803	1.28		100.0	100.0				
\$ PCB-159L	41:57	4316259	1.29	0.5118	101.1	101.1	1.003	1.003	101	
D PCB-167L	42:43	8343026	1.29	1.2572	101.6	101.6	0.5188	0.5188	102	
D PCB-156L	43:53	16075823	1.29	1.2106	203.4	203.4	0.5388	0.5388	102	
D PCB-157L (C156L)	43:53	16075823	1.29	1.2106	203.4	203.4	0.5388	0.5388	102	
D PCB-169L	47:06	8243482	1.29	1.2439	101.5	101.5	0.5244	0.5244	101	
PCB-155	31:26	53749	1.13	0.9444	1.022	1.022	0.004679	0.004679	102	
PCB-152	31:37	49815	1.24	0.9895	1.006	0.9043	0.004466	0.004466	101	RQ
PCB-150	31:48	56112	1.22	1.0132	0.995	0.995	0.004361	0.004361	99.48	
PCB-136	32:10	55716	1.33	1.0116	0.9894	0.9894	0.004369	0.004369	98.94	
PCB-145	32:27	51222	1.41	0.9685	0.9501	0.9501	0.004563	0.004563	95.01	
PCB-148	33:58	40368	1.18	0.7603	0.9538	0.9538	0.005813	0.005813	95.38	
PCB-135	34:37	78265	1.20	0.7256	1.938	1.938	0.006091	0.006091	96.88	M
PCB-151 (C135)	34:37	78265	1.20	0.7256	1.938	1.938	0.006091	0.006091	96.88	M
PCB-154	34:48	42143	1.24	0.8129	1.034	0.9313	0.005436	0.005436	103	RQ
PCB-144	35:07	38749	1.24	0.7852	0.998	0.8864	0.005628	0.005628	99.83	RQ
PCB-147	35:29	137928	1.19	0.8950	1.887	1.887	0.0492	0.0492	94.37	
PCB-149 (C147)	35:29	137928	1.19	0.8950	1.887	1.887	0.0492	0.0492	94.37	
PCB-134	35:41	130881	1.36	0.7967	2.012	2.012	0.0553	0.0553	101	M
PCB-143 (C134)	35:41	130881	1.36	0.7967	2.012	2.012	0.0553	0.0553	101	M
PCB-139	36:05	141796	1.32	0.8769	1.980	1.980	0.0502	0.0502	99.02	
PCB-140 (C139)	36:05	141796	1.32	0.8769	1.980	1.980	0.0502	0.0502	99.02	
PCB-131	36:17	60287	1.20	0.7503	0.9840	0.9840	0.0587	0.0587	98.40	M
PCB-142	36:25	58658	1.27	0.7507	0.9569	0.9569	0.0587	0.0587	95.69	M
PCB-132	36:43	59523	1.17	0.7489	0.9733	0.9733	0.0588	0.0588	97.33	
PCB-133	37:14	65331	1.24	0.8096	1.082	0.9883	0.0544	0.0544	108	RQ
PCB-165	37:39	89004	1.28	1.0247	1.064	1.064	0.0430	0.0430	106	
PCB-146	37:54	73574	1.24	0.9637	1.018	0.9350	0.0457	0.0457	102	RQ
PCB-161	38:02	95121	1.43	1.1288	1.032	1.032	0.0390	0.0390	103	
PCB-153	38:31	166883	1.19	1.0938	1.869	1.869	0.0403	0.0403	93.43	
PCB-168 (C153)	38:31	166883	1.19	1.0938	1.869	1.869	0.0403	0.0403	93.43	
PCB-141	38:42	74724	1.27	0.8755	1.045	1.045	0.0503	0.0503	105	
PCB-130	39:07	59703	1.20	0.7051	1.037	1.037	0.0625	0.0625	104	
PCB-137	39:20	55300	1.24	0.7767	0.9717	0.8720	0.0567	0.0567	97.17	RQ
PCB-164	39:28	73348	1.24	1.0382	0.9897	0.8652	0.0424	0.0424	98.97	RQ
PCB-129	39:45	303072	1.17	0.9464	3.922	3.922	0.0466	0.0466	98.04	M
PCB-138 (C129)	39:45	303072	1.17	0.9464	3.922	3.922	0.0466	0.0466	98.04	M
PCB-160 (C129)	39:45	303072	1.17	0.9464	3.922	3.922	0.0466	0.0466	98.04	M
PCB-163 (C129)	39:45	303072	1.17	0.9464	3.922	3.922	0.0466	0.0466	98.04	M
PCB-158	40:08	109591	1.25	1.3110	1.024	1.024	0.0336	0.0336	102	
PCB-128	40:59	139449	1.24	0.9829	1.889	1.737	0.0448	0.0448	94.43	RQ
PCB-166 (C128)	40:59	139449	1.24	0.9829	1.889	1.737	0.0448	0.0448	94.43	RQ
PCB-159	41:58	114847	1.24	1.3856	1.015	1.015	0.0318	0.0318	102	M
PCB-162	42:16	106735	1.27	1.2571	1.040	1.040	0.0350	0.0350	104	M
PCB-167	42:45	90866	1.16	1.1159	0.9760	0.9760	0.0327	0.0327	97.60	
PCB-156	43:55	183365	1.35	1.1104	2.054	2.054	0.0486	0.0486	103	
PCB-157 (C156)	43:55	183365	1.35	1.1104	2.054	2.054	0.0486	0.0486	103	
PCB-169	47:07	91425	1.25	1.1628	0.9538	0.9538	0.0326	0.0326	95.38	M
S Total Heptachlorobiphenyls					24.4	24.1	0.001933	0.001933		RQ
D PCB-188L	37:08	6585200	1.07	1.3133	98.7	98.7	0.0435	0.0435	98.67	
* PCB-180L	45:16	5081608	1.08		100.0	100.0				
D PCB-170L	46:31	4277780	1.09	0.8362	100.7	100.7	0.0683	0.0683	101	
D PCB-189L	49:38	10353644	1.06	1.4414	100.4	100.4	0.5572	0.5572	100	
PCB-188	37:10	77076	1.06	1.1350	1.031	1.031	0.000350	0.000350	103	
PCB-179	37:29	77102	1.15	1.4276	0.994	0.994	0.000341	0.000341	99.44	
PCB-184	38:01	74149	1.14	1.3672	0.999	0.999	0.000356	0.000356	99.85	
PCB-176	38:23	62562	1.03	1.2331	0.9341	0.9341	0.000395	0.000395	93.41	
PCB-186	38:50	75669	0.91	1.4737	0.9453	0.9453	0.000331	0.000331	94.53	
PCB-178	40:12	49156	0.92	0.8946	1.012	1.012	0.000545	0.000545	101	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-175	40:50	45492	1.05	0.9524	0.9703	0.8794	0.000512	0.000512	97.03	RQ
PCB-187	41:06	60936	1.05	1.1018	1.018	1.018	0.000442	0.000442	102	
PCB-182	41:19	48192	0.91	0.9247	0.9595	0.9595	0.000527	0.000527	95.95	
PCB-183	41:43	115938	1.04	0.9825	2.173	2.173	0.000496	0.000496	109	M
PCB-185 (C183)	41:43	115938	1.04	0.9825	2.173	2.173	0.000496	0.000496	109	M
PCB-174	41:57	42648	1.05	0.9642	0.8858	0.8144	0.000505	0.000505	88.58	RQ
PCB-177	42:23	53407	1.09	0.9773	1.006	1.006	0.000499	0.000499	101	M
PCB-181	42:47	55606	1.08	0.9505	1.077	1.077	0.000513	0.000513	108	
PCB-171	43:01	103035	1.05	0.9336	2.203	2.032	0.000522	0.000522	110	RQ
PCB-173 (C171)	43:01	103035	1.05	0.9336	2.203	2.032	0.000522	0.000522	110	RQ
PCB-172	44:38	47193	1.21	0.8519	1.020	1.020	0.000572	0.000572	102	
PCB-192	44:54	75123	0.92	1.3459	1.028	1.028	0.000362	0.000362	103	
PCB-180	45:16	130449	1.02	1.1676	2.057	2.057	0.000417	0.000417	103	
PCB-193 (C180)	45:16	130449	1.02	1.1676	2.057	2.057	0.000417	0.000417	103	
PCB-191	45:39	72972	1.13	1.2891	1.042	1.042	0.000378	0.000378	104	
PCB-170	46:34	51767	1.18	1.1865	1.020	1.020	0.000530	0.000530	102	M
PCB-190	47:04	74583	1.09	1.3322	1.031	1.031	0.000366	0.000366	103	
PCB-189	49:39	97896	0.98	0.9633	0.9815	0.9815	0.0316	0.0316	98.15	
S Total Octachlorobiphenyls					12.1	11.7	0.0159	0.0159		RQ
D PCB-202L	42:30	5103331	0.90	0.9818	102.3	102.3	0.0151	0.0151	102	
* PCB-194L	51:44	7154788	0.90		100.0	100.0				
D PCB-205L	52:13	8466946	0.90	1.1786	100.4	100.4	0.0728	0.0728	100	
PCB-202	42:31	51069	0.90	1.0359	0.9661	0.9661	0.0114	0.0114	96.61	
PCB-201	43:26	47236	0.89	0.9754	1.018	0.9490	0.0122	0.0122	102	RQ
PCB-204	44:07	49880	0.89	1.0485	1.000	0.9322	0.0113	0.0113	100	RQ
PCB-197	44:20	55016	0.89	1.1458	1.014	0.9409	0.0103	0.0103	101	RQ
PCB-200	44:27	43036	0.89	1.0072	1.032	0.8373	0.0118	0.0118	103	RQ
PCB-198	47:12	88133	0.90	0.8698	1.986	1.986	0.0136	0.0136	99.28	
PCB-199 (C198)	47:12	88133	0.90	0.8698	1.986	1.986	0.0136	0.0136	99.28	
PCB-196	47:54	41271	0.98	0.7806	1.036	1.036	0.0152	0.0152	104	
PCB-203	48:06	45126	0.88	0.9292	0.9516	0.9516	0.0128	0.0128	95.16	
PCB-195	49:24	74468	0.94	0.8263	1.064	1.064	0.0294	0.0294	106	M
PCB-194	51:47	84593	0.85	0.9735	1.026	1.026	0.0249	0.0249	103	
PCB-205	52:13	94183	1.01	1.0878	1.023	1.023	0.0223	0.0223	102	
S Total Nonachlorobiphenyls					3.061	3.061	0.1200	0.1200		
D PCB-208L	49:10	6757986	0.82	0.9576	98.6	98.6	0.2730	0.2730	98.64	
D PCB-206L	53:58	4908757	0.82	0.6947	98.8	98.8	0.3764	0.3764	98.76	
PCB-208	49:12	79659	0.66	1.1374	1.036	1.036	0.1134	0.1134	104	M
PCB-207	50:06	79832	0.84	1.3756	0.995	0.995	0.1099	0.1099	99.49	M
PCB-206	53:59	67457	0.72	1.3346	1.030	1.030	0.1367	0.1367	103	M
D PCB-209L	55:36	4729024	0.71	0.6669	99.1	99.1	0.0486	0.0486	99.11	
DCB Decachlorobiphenyl	55:37	51840	0.71	1.1004	0.996	0.996	0.005241	0.005241	99.62	
S Polychlorinated biphenyls, Total					205.1	0.996	0.0361	0.0361		RQ

**QC Flag Legend**

## Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

## Review Flags

M - Manually Integrated

a - User Assigned ID

**Reagents:**

61L11668P\_00006

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi2a.d  
Lims ID: IC L2  
Client ID:  
Sample Type: IC Calib Level: 2  
Inject. Date: 31-May-2024 16:53:00 ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0032883-002  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Sublist: chrom-PCBs\_D2D\*sub16  
Method: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 04-Jun-2024 14:26:42 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: P0IK

Date: 31-May-2024 19:07:23

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:38	11:36	2	0.726	10185623	4114359	3055	7637	1347		
202.0766	11:38	11:36	2	0.726	3226307	1292090	1581	3952	817	3.16(2.66-3.60)	
PCB-3L											
200.0795	13:47	13:46	2	0.861	10059938	3392951	3055	7637	1111		
202.0766	13:47	13:46	2	0.861	3106539	1057643	1581	3952	669	3.24(2.66-3.60)	
PCB-1											
188.0393	11:39	11:37	2	1.001	127299	53175	138	345	385		
190.0363	11:39	11:37	2	1.001	40354	16594	127	317	131	3.15(2.66-3.60)	
PCB-2											
188.0393	13:38	13:36	2	0.989	113903	37719	138	345	273		
190.0363	13:38	13:36	2	0.989	38234	12805	127	317	101	2.98(2.66-3.60)	
PCB-3											
188.0393	13:48	13:47	2	1.001	117382	39238	138	345	284		
190.0363	13:48	13:47	2	1.001	38069	13280	127	317	105	3.08(2.66-3.60)	
PCB-4L											
234.0406	14:03	14:02	2	0.878	3363111	1081560	442	1105	2447		
236.0376	14:03	14:02	2	0.878	2079655	668618	139	347	4810	1.62(1.33-1.79)	
PCB-9L											
234.0406	16:01	15:59	2		5166195	1508927	442	1105	3414		
236.0376	16:01	15:59	2		3170104	930993	139	347	6698	1.63(1.33-1.79)	
PCB-15L											
234.0406	19:56	19:54	1	1.245	5465286	1281682	442	1105	2900		
236.0376	19:56	19:54	1	1.245	3354075	798086	139	347	5742	1.63(1.33-1.79)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-4											
222.0003	14:04	14:02	2	1.001	44768	13793	32	80	431		
223.9974	14:04	14:02	2	1.001	26513	9304	20	50	465	1.69(1.33-1.79)	
PCB-10											
222.0003	14:14	14:13	2	1.013	55621	16009	32	80	500		
223.9974	14:13	14:13	1	1.012	35318	11482	20	50	574	1.57(1.33-1.79)	
PCB-9											
222.0003	16:01	16:00	2	1.140	61323	16770	32	80	524		
223.9974	16:01	16:00	2	1.140	40446	12242	20	50	612	1.52(1.33-1.79)	
PCB-7											
222.0003	16:12	16:10	2	1.153	64352	16897	32	80	528		RQ
	Empc Correction				55283	16322	32	80	510		
223.9974	16:12	16:10	2	1.153	35438	10463	20	50	523	1.82(1.33-1.79)	
PCB-6											
222.0003	16:26	16:25	1	1.169	70638	19049	32	80	595		RQM
	Empc Correction				59487	15086	32	80	471		M
223.9974	16:26	16:25	1	1.169	38133	9671	20	50	484	1.85(1.33-1.79)	M
PCB-5											
222.0003	16:45	16:43	2	1.192	59254	17650	32	80	552		
223.9974	16:44	16:43	1	1.191	33819	9539	20	50	477	1.75(1.33-1.79)	
PCB-8											
222.0003	16:52	16:50	2	1.200	65520	17964	32	80	561		
223.9974	16:52	16:50	2	1.200	43000	10560	20	50	528	1.52(1.33-1.79)	
PCB-14											
222.0003	18:30	18:28	2	0.928	60089	14343	32	80	448		
223.9974	18:29	18:28	2	0.927	35617	8039	20	50	402	1.69(1.33-1.79)	
PCB-11											
222.0003	19:20	19:18	1	0.970	54062	12799	32	80	400		RQ
	Empc Correction				46121	10849	32	80	339		
223.9974	19:20	19:18	2	0.970	29565	6955	20	50	348	1.83(1.33-1.79)	
PCB-12											
222.0003	19:38	19:36	1	0.985	111069	18880	32	80	590		
223.9974	19:38	19:36	1	0.985	70574	11549	20	50	577	1.57(1.33-1.79)	
PCB-13 (C12)											
222.0003	19:38	19:36	1	0.985	111069	18880	32	80	590		
223.9974	19:38	19:36	1	0.985	70574	11549	20	50	577	1.57(1.33-1.79)	
PCB-15											
222.0003	19:57	19:55	1	1.001	68996	15389	32	80	481		
223.9974	19:57	19:55	1	1.001	44908	10538	20	50	527	1.54(1.33-1.79)	
PCB-19L											
268.0016	17:09	17:08	2	0.841	1745587	480479	407	1017	1181		
269.9986	17:09	17:08	2	0.841	1678449	464429	1068	2670	435	1.04(0.88-1.20)	
PCB-32L											
268.0016	20:24	20:23	1		2778431	679560	407	1017	1670		
269.9986	20:24	20:23	1		2517260	621065	1068	2670	582	1.10(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-31L											
268.0016	22:40	22:38	2		7699706	1781645	922	2305	1932		
269.9986	22:40	22:38	2		7400655	1706805	609	1522	2803	1.04(0.88-1.20)	
PCB-37L											
268.0016	26:57	26:55	2	1.189	6839473	1362148	922	2305	1477		
269.9986	26:57	26:55	2	1.189	6416325	1278780	609	1522	2100	1.07(0.88-1.20)	
PCB-19											
255.9613	17:10	17:09	2	1.001	19803	5709	51	127	112		
257.9584	17:10	17:09	2	1.001	18128	5203	1	2	5203	1.09(0.88-1.20)	
PCB-18											
255.9613	19:00	18:59	1	1.107	61748	11831	51	127	232		
257.9584	19:01	18:59	2	1.109	57877	10645	1	2	10645	1.07(0.88-1.20)	
PCB-30 (C18)											
255.9613	19:00	18:59	1	1.107	61748	11831	51	127	232		
257.9584	19:01	18:59	2	1.109	57877	10645	1	2	10645	1.07(0.88-1.20)	
PCB-17											
255.9613	19:27	19:26	1	1.133	21795	6099	51	127	120		
257.9584	19:27	19:26	1	1.133	21257	5516	1	2	5516	1.03(0.88-1.20)	
PCB-27											
255.9613	19:40	19:39	1	1.146	32473	8025	51	127	157		
257.9584	19:41	19:39	2	1.147	29300	7998	1	2	7998	1.11(0.88-1.20)	
PCB-24											
255.9613	19:48	19:46	2	1.154	28086	8423	51	127	165		
257.9584	19:48	19:46	2	1.154	27453	6886	1	2	6886	1.02(0.88-1.20)	
PCB-16											
255.9613	19:54	19:53	1	1.160	20482	4992	51	127	98		RQ
	Empc Correction				16556	3825	51	127	75		
257.9584	19:54	19:53	1	1.160	15920	3678	1	2	3678	1.29(0.88-1.20)	
PCB-32											
255.9613	20:25	20:23	1	1.190	30706	7724	51	127	151		
257.9584	20:25	20:23	1	1.190	29521	7333	1	2	7333	1.04(0.88-1.20)	
PCB-34											
255.9613	21:41	21:39	2	1.264	73408	18127	359	897	50		
257.9584	21:41	21:39	2	1.264	72414	17630	202	505	87	1.01(0.88-1.20)	
PCB-23											
255.9613	21:50	21:48	2	1.273	78250	19661	359	897	55		
257.9584	21:50	21:48	2	1.273	69902	16890	202	505	84	1.12(0.88-1.20)	
PCB-26											
255.9613	22:09	22:08	2	1.291	152528	29953	359	897	83		
257.9584	22:09	22:08	2	1.291	144146	29473	202	505	146	1.06(0.88-1.20)	
PCB-29 (C26)											
255.9613	22:09	22:08	2	1.291	152528	29953	359	897	83		
257.9584	22:09	22:08	2	1.291	144146	29473	202	505	146	1.06(0.88-1.20)	
PCB-25											
255.9613	22:22	22:21	2	0.830	81603	19501	359	897	54		
257.9584	22:22	22:21	2	0.830	79266	17000	202	505	84	1.03(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-31											
255.9613	22:41	22:40	2	0.842	85080	19454	359	897	54		
257.9584	22:41	22:40	1	0.841	75761	16478	202	505	82	1.12(0.88-1.20)	
PCB-20											
255.9613	23:00	22:58	2	0.853	145020	28183	359	897	79		
257.9584	23:00	22:58	2	0.853	153328	28031	202	505	139	0.95(0.88-1.20)	
PCB-28 (C20)											
255.9613	23:00	22:58	2	0.853	145020	28183	359	897	79		
257.9584	23:00	22:58	2	0.853	153328	28031	202	505	139	0.95(0.88-1.20)	
PCB-21											
255.9613	23:09	23:07	2	0.859	142636	18040	359	897	50		M
257.9584	23:14	23:07	6	0.862	139356	15780	202	505	78	1.02(0.88-1.20)	M
PCB-33 (C21)											
255.9613	23:09	23:07	2	0.859	142636	18040	359	897	50		M
257.9584	23:14	23:07	6	0.862	139356	15780	202	505	78	1.02(0.88-1.20)	M
PCB-22											
255.9613	23:37	23:35	2	0.876	83341	19521	359	897	54		
257.9584	23:37	23:35	2	0.876	81035	21048	202	505	104	1.03(0.88-1.20)	
PCB-36											
255.9613	25:11	25:09	2	0.934	76109	13923	359	897	39		
257.9584	25:10	25:09	2	0.934	74581	13287	202	505	66	1.02(0.88-1.20)	
PCB-39											
255.9613	25:31	25:30	1	0.947	79422	15068	359	897	42		
257.9584	25:33	25:30	2	0.948	71407	14943	202	505	74	1.11(0.88-1.20)	
PCB-38											
255.9613	26:06	26:05	2	0.969	73953	16064	359	897	45		M
257.9584	26:06	26:05	2	0.969	68696	14199	202	505	70	1.08(0.88-1.20)	M
PCB-35											
255.9613	26:35	26:32	2	0.986	74831	15734	359	897	44		
257.9584	26:35	26:32	3	0.987	67911	13442	202	505	67	1.10(0.88-1.20)	
PCB-37											
255.9613	26:59	26:57	2	1.001	77812	14227	359	897	40		
257.9584	26:58	26:57	1	1.000	70673	12845	202	505	64	1.10(0.88-1.20)	
PCB-54L											
301.9626	20:14	20:12	2	0.816	1343864	330880	86	215	3847		M
303.9597	20:14	20:12	2	0.816	1667087	407334	64	160	6365	0.81(0.65-0.89)	M
PCB-52L											
301.9626	24:47	24:46	1		3433693	753064	382	955	1971		
303.9597	24:47	24:46	1		4280870	937822	526	1315	1783	0.80(0.65-0.89)	
PCB-81L											
301.9626	33:42	33:41	2	1.360	4162808	791085	382	955	2071		
303.9597	33:42	33:41	2	1.360	5215218	1012994	526	1315	1926	0.80(0.65-0.89)	
PCB-77L											
301.9626	34:16	34:14	2	1.383	4447334	839826	382	955	2198		
303.9597	34:16	34:14	2	1.383	5505263	1024968	526	1315	1949	0.81(0.65-0.89)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-54											M
289.9224	20:15	20:13	2	1.000	16803	3748	5	12	750		M
291.9194	20:15	20:13	2	1.000	23091	6390	13	32	492	0.73(0.65-0.89)	
PCB-50											
289.9224	22:26	22:24	2	1.109	69919	12879	215	537	60		
291.9194	22:25	22:24	2	1.108	90576	18796	513	1282	37	0.77(0.65-0.89)	
PCB-53 (C50)											
289.9224	22:26	22:24	2	1.109	69919	12879	215	537	60		
291.9194	22:25	22:24	2	1.108	90576	18796	513	1282	37	0.77(0.65-0.89)	
PCB-45											M
289.9224	23:10	23:08	2	1.145	72408	10368	215	537	48		
291.9194	23:09	23:08	1	1.144	85307	9879	513	1282	19	0.85(0.65-0.89)	M
PCB-51 (C45)											M
289.9224	23:10	23:08	2	1.145	72408	10368	215	537	48		
291.9194	23:09	23:08	1	1.144	85307	9879	513	1282	19	0.85(0.65-0.89)	M
PCB-46											
289.9224	23:24	23:22	2	1.156	30445	7099	215	537	33		
291.9194	23:23	23:22	1	1.156	35380	6945	513	1282	14	0.86(0.65-0.89)	
PCB-52											
289.9224	24:48	24:47	1	1.226	37002	9019	215	537	42		
291.9194	24:49	24:47	2	1.226	50731	13189	513	1282	26	0.73(0.65-0.89)	
PCB-43											M
289.9224	24:58	24:56	2	1.234	85780	10929	215	537	51		M
291.9194	24:56	24:56	0	1.233	114448	14514	513	1282	28	0.75(0.65-0.89)	M
PCB-73 (C43)											M
289.9224	24:58	24:56	2	1.234	85780	10929	215	537	51		M
291.9194	24:56	24:56	0	1.233	114448	14514	513	1282	28	0.75(0.65-0.89)	M
PCB-49											M
289.9224	25:15	25:14	1	1.248	88756	13436	215	537	62		M
291.9194	25:15	25:14	1	1.248	113139	17014	513	1282	33	0.78(0.65-0.89)	
PCB-69 (C49)											M
289.9224	25:15	25:14	1	1.248	88756	13436	215	537	62		M
291.9194	25:15	25:14	1	1.248	113139	17014	513	1282	33	0.78(0.65-0.89)	
PCB-48											
289.9224	25:36	25:33	2	1.265	36336	8437	215	537	39		
291.9194	25:35	25:33	2	1.264	47614	11115	513	1282	22	0.76(0.65-0.89)	
PCB-44											
289.9224	25:49	25:48	2	1.276	122897	21858	215	537	102		
291.9194	25:49	25:48	2	1.276	154960	27885	513	1282	54	0.79(0.65-0.89)	
PCB-47 (C44)											
289.9224	25:49	25:48	2	1.276	122897	21858	215	537	102		
291.9194	25:49	25:48	2	1.276	154960	27885	513	1282	54	0.79(0.65-0.89)	
PCB-65 (C44)											
289.9224	25:49	25:48	2	1.276	122897	21858	215	537	102		
291.9194	25:49	25:48	2	1.276	154960	27885	513	1282	54	0.79(0.65-0.89)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-59											
289.9224	26:07	26:06	1	1.291	140800	20222	215	537	94		
291.9194	26:07	26:06	1	1.291	190463	25683	513	1282	50	0.74(0.65-0.89)	
PCB-62 (C59)											
289.9224	26:07	26:06	1	1.291	140800	20222	215	537	94		
291.9194	26:07	26:06	1	1.291	190463	25683	513	1282	50	0.74(0.65-0.89)	
PCB-75 (C59)											
289.9224	26:07	26:06	1	1.291	140800	20222	215	537	94		
291.9194	26:07	26:06	1	1.291	190463	25683	513	1282	50	0.74(0.65-0.89)	
PCB-42											
289.9224	26:19	26:18	1	1.301	36624	8441	215	537	39		
291.9194	26:20	26:18	2	1.302	42786	9700	513	1282	19	0.86(0.65-0.89)	
PCB-40											
289.9224	26:50	26:48	2	1.326	116094	16878	215	537	79		M
291.9194	26:50	26:48	2	1.326	136490	22026	513	1282	43	0.85(0.65-0.89)	M
PCB-41 (C40)											
289.9224	26:50	26:48	2	1.326	116094	16878	215	537	79		M
291.9194	26:50	26:48	2	1.326	136490	22026	513	1282	43	0.85(0.65-0.89)	M
PCB-71 (C40)											
289.9224	26:50	26:48	2	1.326	116094	16878	215	537	79		M
291.9194	26:50	26:48	2	1.326	136490	22026	513	1282	43	0.85(0.65-0.89)	M
PCB-64											
289.9224	27:04	27:01	3	1.338	51698	10058	215	537	47		M
291.9194	27:03	27:01	2	1.337	69628	14722	513	1282	29	0.74(0.65-0.89)	M
PCB-72											
289.9224	27:53	27:51	2	0.827	46842	10272	215	537	48		
291.9194	27:53	27:51	2	0.827	55958	12344	513	1282	24	0.84(0.65-0.89)	
PCB-68											
289.9224	28:11	28:09	2	0.836	53520	9811	215	537	46		
291.9194	28:11	28:09	2	0.836	67119	11442	513	1282	22	0.80(0.65-0.89)	
PCB-57											
289.9224	28:35	28:34	2	0.848	49266	11410	215	537	53		
291.9194	28:35	28:34	2	0.848	58572	12049	513	1282	23	0.84(0.65-0.89)	
PCB-58											
289.9224	28:50	28:48	2	0.855	54694	11437	215	537	53		
291.9194	28:50	28:48	2	0.855	63008	13249	513	1282	26	0.87(0.65-0.89)	
PCB-67											
289.9224	28:59	28:58	1	0.860	63632	10795	215	537	50		
291.9194	28:59	28:58	1	0.860	72371	15591	513	1282	30	0.88(0.65-0.89)	
PCB-63											
289.9224	29:15	29:14	2	0.868	50749	9795	215	537	46		
291.9194	29:15	29:14	2	0.868	62923	11830	513	1282	23	0.81(0.65-0.89)	
PCB-61											
289.9224	29:36	29:34	2	0.878	210815	24606	215	537	114		M
291.9194	29:36	29:34	2	0.878	261662	29135	513	1282	57	0.81(0.65-0.89)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-70 (C61)											M
289.9224	29:36	29:34	2	0.878	210815	24606	215	537	114		
291.9194	29:36	29:34	2	0.878	261662	29135	513	1282	57	0.81(0.65-0.89)	M
PCB-74 (C61)											M
289.9224	29:36	29:34	2	0.878	210815	24606	215	537	114		
291.9194	29:36	29:34	2	0.878	261662	29135	513	1282	57	0.81(0.65-0.89)	M
PCB-76 (C61)											M
289.9224	29:36	29:34	2	0.878	210815	24606	215	537	114		
291.9194	29:36	29:34	2	0.878	261662	29135	513	1282	57	0.81(0.65-0.89)	M
PCB-66											RQ
289.9224	29:55	29:53	2	0.888	57060	12382	215	537	58		
	Empc Correction				47743	9165	215	537	43		
291.9194	29:55	29:53	2	0.888	62005	11903	513	1282	23	0.92(0.65-0.89)	
PCB-55											
289.9224	30:05	30:03	2	0.893	53977	11655	215	537	54		
291.9194	30:05	30:03	2	0.893	65535	14489	513	1282	28	0.82(0.65-0.89)	
PCB-56											
289.9224	30:35	30:33	2	0.907	49377	11178	215	537	52		
291.9194	30:36	30:33	2	0.908	63226	13322	513	1282	26	0.78(0.65-0.89)	
PCB-60											
289.9224	30:49	30:46	2	0.914	47903	9501	215	537	44		
291.9194	30:48	30:46	2	0.914	72466	13792	513	1282	27	0.66(0.65-0.89)	
PCB-80											
289.9224	31:13	31:11	2	0.926	58022	11679	215	537	54		
291.9194	31:13	31:11	2	0.926	70070	13568	513	1282	26	0.83(0.65-0.89)	
PCB-79											
289.9224	32:45	32:42	2	0.972	62223	9934	215	537	46		
291.9194	32:44	32:42	2	0.971	85431	14322	513	1282	28	0.73(0.65-0.89)	
PCB-78											M
289.9224	33:18	33:15	2	0.988	49349	8800	215	537	41		M
291.9194	33:18	33:15	2	0.988	66291	11725	513	1282	23	0.74(0.65-0.89)	M
PCB-81											M
289.9224	33:43	33:42	1	1.000	41953	8123	215	537	38		M
291.9194	33:43	33:42	1	1.000	60832	12136	513	1282	24	0.69(0.65-0.89)	
PCB-77											
289.9224	34:18	34:16	2	1.001	48709	10542	215	537	49		
291.9194	34:18	34:16	2	1.001	62254	11494	513	1282	22	0.78(0.65-0.89)	
PCB-104L											
337.9207	25:44	25:42	2	0.813	3852824	852423	51	127	16714		
339.9178	25:44	25:42	2	0.813	2387924	530853	21	52	25279	1.61(1.32-1.78)	
PCB-101L											
337.9207	31:39	31:37	2		3129961	628656	51	127	12327		
339.9178	31:39	31:37	2		1946695	384780	21	52	18323	1.61(1.32-1.78)	
PCB-123L											
337.9207	36:17	36:15	2	1.146	5533213	1071392	6223	15557	172		
339.9178	36:17	36:15	2	1.146	3540538	685925	3501	8752	196	1.56(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-118L											
337.9207	36:36	36:34	1	1.156	5725256	1083224	6223	15557	174		
339.9178	36:36	36:34	2	1.157	3627976	684723	3501	8752	196	1.58(1.32-1.78)	
PCB-114L											
337.9207	37:07	37:06	1	1.173	5950451	1164285	6223	15557	187		
339.9178	37:07	37:06	1	1.173	3754962	740475	3501	8752	212	1.58(1.32-1.78)	
PCB-105L											
337.9207	37:47	37:45	2	1.194	5569980	1083992	6223	15557	174		
339.9178	37:47	37:45	2	1.194	3531488	687514	3501	8752	196	1.58(1.32-1.78)	
PCB-127L											
337.9207	39:15	39:14	1		6022915	1165835	6223	15557	187		
339.9178	39:15	39:14	1		3814288	729954	3501	8752	208	1.58(1.32-1.78)	
PCB-126L											
337.9207	40:51	40:50	1	1.291	5379062	991895	6223	15557	159		
339.9178	40:51	40:50	1	1.291	3377001	621408	3501	8752	177	1.59(1.32-1.78)	
PCB-104											
325.8804	25:46	25:44	2	1.001	35169	8946	41	102	218		M
327.8775	25:46	25:44	2	1.001	26359	6216	4	10	1554	1.33(1.32-1.78)	M
PCB-96											
325.8804	26:08	26:06	2	1.015	38377	8336	41	102	203		
327.8775	26:07	26:06	1	1.015	25003	6214	4	10	1554	1.53(1.32-1.78)	
PCB-103											
325.8804	28:04	28:02	2	1.091	32564	6777	41	102	165		
327.8775	28:04	28:02	2	1.091	22046	4620	4	10	1155	1.48(1.32-1.78)	
PCB-94											
325.8804	28:18	28:16	2	1.099	31909	7425	41	102	181		
327.8775	28:17	28:16	1	1.099	18761	4368	4	10	1092	1.70(1.32-1.78)	
PCB-95											
325.8804	28:43	28:42	1	1.116	30994	5520	41	102	135		RQ
	Empc Correction				26599	6644	41	102	162		
327.8775	28:44	28:42	2	1.116	17161	4287	4	10	1072	1.81(1.32-1.78)	
PCB-93											
325.8804	28:58	28:55	2	1.125	61529	13843	41	102	338		
327.8775	28:57	28:55	2	1.125	42536	8966	4	10	2242	1.45(1.32-1.78)	
PCB-100 (C93)											
325.8804	28:58	28:55	2	1.125	61529	13843	41	102	338		
327.8775	28:57	28:55	2	1.125	42536	8966	4	10	2242	1.45(1.32-1.78)	
PCB-98											
325.8804	29:09	29:04	5	1.133	65793	7876	41	102	192		RQM
	Empc Correction				55806	7325	41	102	179		M
327.8775	29:05	29:04	1	1.130	36004	4726	4	10	1182	1.83(1.32-1.78)	M
PCB-102 (C98)											
325.8804	29:09	29:04	5	1.133	65793	7876	41	102	192		RQM
	Empc Correction				55806	7325	41	102	179		M
327.8775	29:05	29:04	1	1.130	36004	4726	4	10	1182	1.83(1.32-1.78)	M

Signal	RT (min.)	Adj RT (min.)	ℓ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-88											
325.8804	29:35	29:33	2	1.150	57329	6752	41	102	165		
327.8775	29:35	29:33	2	1.150	35786	4659	4	10	1165	1.60(1.32-1.78)	
PCB-91 (C88)											
325.8804	29:35	29:33	2	1.150	57329	6752	41	102	165		
327.8775	29:35	29:33	2	1.150	35786	4659	4	10	1165	1.60(1.32-1.78)	
PCB-84											
325.8804	29:49	29:47	2	1.159	31120	5809	41	102	142		
327.8775	29:49	29:47	2	1.159	18058	3646	4	10	912	1.72(1.32-1.78)	
PCB-89											
325.8804	30:18	30:16	2	1.178	29923	6017	41	102	147		RQM
	Empc Correction				25819	4512	41	102	110		
327.8775	30:18	30:16	2	1.178	16658	2911	4	10	728	1.80(1.32-1.78)	M
PCB-121											
325.8804	30:42	30:41	1	1.193	49412	10452	41	102	255		Ma
327.8775	30:43	30:41	2	1.194	32828	5809	4	10	1452	1.51(1.32-1.78)	M
PCB-92											
325.8804	31:05	31:03	2	0.857	34399	7131	41	102	174		M
327.8775	31:06	31:03	2	0.857	22142	5081	4	10	1270	1.55(1.32-1.78)	M
PCB-90											
325.8804	31:40	31:37	3	1.231	112769	16900	41	102	412		RQ
	Empc Correction				96239	13790	41	102	336		
327.8775	31:39	31:37	2	1.230	62090	8897	4	10	2224	1.82(1.32-1.78)	
PCB-101 (C90)											
325.8804	31:40	31:37	3	1.231	112769	16900	41	102	412		RQ
	Empc Correction				96239	13790	41	102	336		
327.8775	31:39	31:37	2	1.230	62090	8897	4	10	2224	1.82(1.32-1.78)	
PCB-113 (C90)											
325.8804	31:40	31:37	3	1.231	112769	16900	41	102	412		RQ
	Empc Correction				96239	13790	41	102	336		
327.8775	31:39	31:37	2	1.230	62090	8897	4	10	2224	1.82(1.32-1.78)	
PCB-83											
325.8804	32:13	32:13	0	1.252	65499	8076	41	102	197		RQM
	Empc Correction				55489	8120	41	102	198		
327.8775	32:14	32:13	1	1.253	35800	5239	4	10	1310	1.83(1.32-1.78)	M
PCB-99 (C83)											
325.8804	32:13	32:13	0	1.252	65499	8076	41	102	197		RQM
	Empc Correction				55489	8120	41	102	198		
327.8775	32:14	32:13	1	1.253	35800	5239	4	10	1310	1.83(1.32-1.78)	M
PCB-112											
325.8804	32:21	32:20	1	1.257	52106	10914	41	102	266		RQ
327.8775	32:21	32:20	1	1.257	40788	7251	4	10	1813	1.28(1.32-1.78)	
	Empc Correction				33616	7041	4	10	1760		
PCB-86											
325.8804	32:45	32:42	2	1.273	228716	23428	41	102	571		M
327.8775	32:44	32:42	2	1.272	151456	16151	4	10	4038	1.51(1.32-1.78)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-87 (C86)											M
325.8804	32:45	32:42	2	1.273	228716	23428	41	102	571		
327.8775	32:44	32:42	2	1.272	151456	16151	4	10	4038	1.51(1.32-1.78)	M
PCB-97 (C86)											M
325.8804	32:45	32:42	2	1.273	228716	23428	41	102	571		
327.8775	32:44	32:42	2	1.272	151456	16151	4	10	4038	1.51(1.32-1.78)	M
PCB-109 (C86)											M
325.8804	32:45	32:42	2	1.273	228716	23428	41	102	571		
327.8775	32:44	32:42	2	1.272	151456	16151	4	10	4038	1.51(1.32-1.78)	M
PCB-119 (C86)											M
325.8804	32:45	32:42	2	1.273	228716	23428	41	102	571		
327.8775	32:44	32:42	2	1.272	151456	16151	4	10	4038	1.51(1.32-1.78)	M
PCB-125 (C86)											M
325.8804	32:45	32:42	2	1.273	228716	23428	41	102	571		
327.8775	32:44	32:42	2	1.272	151456	16151	4	10	4038	1.51(1.32-1.78)	M
PCB-85											
325.8804	33:27	33:25	2	1.300	119513	15541	41	102	379		
327.8775	33:27	33:25	2	1.300	73398	8906	4	10	2227	1.63(1.32-1.78)	
PCB-116 (C85)											
325.8804	33:27	33:25	2	1.300	119513	15541	41	102	379		
327.8775	33:27	33:25	2	1.300	73398	8906	4	10	2227	1.63(1.32-1.78)	
PCB-117 (C85)											
325.8804	33:27	33:25	2	1.300	119513	15541	41	102	379		
327.8775	33:27	33:25	2	1.300	73398	8906	4	10	2227	1.63(1.32-1.78)	
PCB-110											M
325.8804	33:39	33:37	2	1.308	97064	11409	41	102	278		M
327.8775	33:38	33:37	2	1.307	56088	7877	4	10	1969	1.73(1.32-1.78)	M
PCB-115 (C110)											M
325.8804	33:39	33:37	2	1.308	97064	11409	41	102	278		M
327.8775	33:38	33:37	2	1.307	56088	7877	4	10	1969	1.73(1.32-1.78)	M
PCB-82											
325.8804	33:57	33:55	2	1.319	32782	6408	41	102	156		
327.8775	33:57	33:55	2	1.319	20082	3679	4	10	920	1.63(1.32-1.78)	
PCB-111											
325.8804	34:21	34:19	2	1.335	51140	10636	41	102	259		
327.8775	34:21	34:19	2	1.335	32291	6561	4	10	1640	1.58(1.32-1.78)	
PCB-120											
325.8804	34:48	34:47	2	1.353	55527	10085	41	102	246		
327.8775	34:48	34:47	2	1.353	36143	7513	4	10	1878	1.54(1.32-1.78)	
PCB-108											M
325.8804	35:56	35:55	1	1.397	129156	24528	158	395	155		M
327.8775	35:57	35:55	2	1.397	79414	15113	152	380	99	1.63(1.32-1.78)	M
PCB-124 (C108)											M
325.8804	35:56	35:55	1	1.397	129156	24528	158	395	155		M
327.8775	35:57	35:55	2	1.397	79414	15113	152	380	99	1.63(1.32-1.78)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-107											RQM
325.8804	36:11	36:09	2	1.406	65956	14147	158	395	90		M
	Empc Correction				56712	10629	158	395	67		
327.8775	36:11	36:09	2	1.406	36589	6858	152	380	45	1.80(1.32-1.78)	
PCB-123											
325.8804	36:17	36:16	1	1.000	60802	12937	158	395	82		
327.8775	36:17	36:16	1	1.000	43135	9086	152	380	60	1.41(1.32-1.78)	
PCB-106											
325.8804	36:25	36:23	1	1.004	61923	12333	158	395	78		
327.8775	36:25	36:23	1	1.004	34871	6580	152	380	43	1.78(1.32-1.78)	
PCB-118											
325.8804	36:37	36:36	1	1.001	71873	12997	158	395	82		
327.8775	36:37	36:36	1	1.001	46153	8339	152	380	55	1.56(1.32-1.78)	
PCB-122											
325.8804	36:58	36:56	2	1.010	55310	11174	158	395	71		
327.8775	36:58	36:56	1	1.010	39378	7224	152	380	48	1.40(1.32-1.78)	
PCB-114											
325.8804	37:09	37:08	1	1.001	64516	11526	158	395	73		
327.8775	37:09	37:08	1	1.001	42892	8751	152	380	58	1.50(1.32-1.78)	
PCB-105											M
325.8804	37:47	37:46	1	1.000	65351	12605	158	395	80		M
327.8775	37:47	37:46	1	1.000	42090	7618	152	380	50	1.55(1.32-1.78)	M
PCB-127											
325.8804	39:16	39:15	1	1.039	63598	11839	158	395	75		
327.8775	39:16	39:15	1	1.039	45274	8326	152	380	55	1.40(1.32-1.78)	
PCB-126											
325.8804	40:53	40:52	1	1.001	57780	11950	158	395	76		
327.8775	40:53	40:52	1	1.001	38014	7003	152	380	46	1.52(1.32-1.78)	
PCB-155L											
371.8817	31:25	31:23	2	0.791	3126022	636241	61	152	10430		
373.8788	31:25	31:23	2	0.791	2440920	495191	45	112	11004	1.28(1.05-1.43)	
PCB-138L											
371.8817	39:43	39:41	2		3666551	700789	3131	7827	224		
373.8788	39:43	39:41	2		2863252	550451	134	335	4108	1.28(1.05-1.43)	
PCB-159L											
371.8817	41:57	41:56	1	0.982	4316259	836120	3131	7827	267		
373.8788	41:57	41:56	1	0.982	3349296	654941	134	335	4888	1.29(0.00-0.00)	
PCB-167L											
371.8817	42:43	42:42	1	1.075	4693699	890630	3131	7827	284		
373.8788	42:43	42:42	1	1.075	3649327	698734	134	335	5214	1.29(1.05-1.43)	
PCB-156L											
371.8817	43:53	43:51	2	1.105	9041076	1205030	3131	7827	385		
373.8788	43:53	43:51	2	1.105	7034747	943016	134	335	7037	1.29(1.05-1.43)	
PCB-157L (C156L)											
371.8817	43:53	43:51	2	1.105	9041076	1205030	3131	7827	385		
373.8788	43:53	43:51	2	1.105	7034747	943016	134	335	7037	1.29(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-169L											
371.8817	47:06	47:05	1	1.186	4637308	865319	3131	7827	276		
373.8788	47:06	47:05	1	1.186	3606174	663265	134	335	4950	1.29(1.05-1.43)	
PCB-155											
359.8415	31:26	31:25	2	1.001	28498	6679	1	2	6679		
361.8385	31:26	31:25	1	1.000	25251	4509	19	47	237	1.13(1.05-1.43)	
PCB-152											
359.8415	31:37	31:36	2	1.007	33160	6809	1	2	6809		RQ
	Empc Correction				27576	6414	1	2	6414		
361.8385	31:38	31:36	2	1.007	22239	5173	19	47	272	1.49(1.05-1.43)	
PCB-150											
359.8415	31:48	31:46	2	1.012	30792	6012	1	2	6012		
361.8385	31:48	31:46	2	1.012	25320	4810	19	47	253	1.22(1.05-1.43)	
PCB-136											
359.8415	32:10	32:08	2	1.024	31827	6576	1	2	6576		
361.8385	32:09	32:08	2	1.024	23889	5366	19	47	282	1.33(1.05-1.43)	
PCB-145											
359.8415	32:27	32:25	2	1.033	29992	5625	1	2	5625		
361.8385	32:27	32:25	2	1.033	21230	4131	19	47	217	1.41(1.05-1.43)	
PCB-148											
359.8415	33:58	33:57	2	1.081	21867	4602	1	2	4602		
361.8385	33:58	33:57	1	1.081	18501	3706	19	47	195	1.18(1.05-1.43)	
PCB-135											
359.8415	34:37	34:32	5	1.102	42637	5796	1	2	5796		M
361.8385	34:34	34:32	2	1.100	35628	4361	19	47	230	1.20(1.05-1.43)	M
PCB-151 (C135)											
359.8415	34:37	34:32	5	1.102	42637	5796	1	2	5796		M
361.8385	34:34	34:32	2	1.100	35628	4361	19	47	230	1.20(1.05-1.43)	M
PCB-154											
359.8415	34:48	34:47	1	1.108	27976	5637	1	2	5637		RQ
	Empc Correction				23329	4997	1	2	4997		
361.8385	34:49	34:47	2	1.108	18814	4030	19	47	212	1.49(1.05-1.43)	
PCB-144											
359.8415	35:07	35:06	1	1.118	26342	5515	1	2	5515		RQ
	Empc Correction				21450	4607	1	2	4607		
361.8385	35:07	35:06	1	1.118	17299	3716	19	47	196	1.52(1.05-1.43)	
PCB-147											
359.8415	35:29	35:27	2	1.130	74997	14106	142	355	99		
361.8385	35:29	35:27	2	1.130	62931	13366	90	225	149	1.19(1.05-1.43)	
PCB-149 (C147)											
359.8415	35:29	35:27	2	1.130	74997	14106	142	355	99		
361.8385	35:29	35:27	2	1.130	62931	13366	90	225	149	1.19(1.05-1.43)	
PCB-134											
359.8415	35:41	35:45	-4	1.136	75510	8816	142	355	62		M
361.8385	35:41	35:45	-4	1.136	55371	6421	90	225	71	1.36(1.05-1.43)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-143 (C134)											M
359.8415	35:41	35:45	-4	1.136	75510	8816	142	355	62		M
361.8385	35:41	35:45	-4	1.136	55371	6421	90	225	71	1.36(1.05-1.43)	M
PCB-139											
359.8415	36:05	36:04	1	1.149	80579	14078	142	355	99		
361.8385	36:05	36:04	1	1.149	61217	11443	90	225	127	1.32(1.05-1.43)	
PCB-140 (C139)											
359.8415	36:05	36:04	1	1.149	80579	14078	142	355	99		
361.8385	36:05	36:04	1	1.149	61217	11443	90	225	127	1.32(1.05-1.43)	
PCB-131											M
359.8415	36:17	36:15	2	1.155	32830	6849	142	355	48		
361.8385	36:16	36:15	0	1.154	27457	5101	90	225	57	1.20(1.05-1.43)	M
PCB-142											M
359.8415	36:25	36:24	0	1.159	32793	5711	142	355	40		
361.8385	36:26	36:24	2	1.160	25865	4667	90	225	52	1.27(1.05-1.43)	M
PCB-132											
359.8415	36:43	36:43	0	1.169	32080	5412	142	355	38		
361.8385	36:43	36:43	0	1.169	27443	4769	90	225	53	1.17(1.05-1.43)	
PCB-133											RQ
359.8415	37:14	37:14	0	1.185	42390	7904	142	355	56		
Empc Correction											
361.8385	37:15	37:14	1	1.186	29166	6863	90	225	76	1.45(1.05-1.43)	
PCB-165											
359.8415	37:39	37:37	2	0.881	49920	10011	142	355	71		
361.8385	37:38	37:37	1	0.881	39084	7597	90	225	84	1.28(1.05-1.43)	
PCB-146											RQ
359.8415	37:54	37:52	1	0.887	40729	7935	142	355	56		
361.8385	37:53	37:52	0	0.887	39349	7505	90	225	83	1.04(1.05-1.43)	
Empc Correction											
					32845	6399	90	225	71		
PCB-161											
359.8415	38:02	38:00	2	0.890	55964	10549	142	355	74		
361.8385	38:01	38:00	1	0.890	39157	7690	90	225	85	1.43(1.05-1.43)	
PCB-153											
359.8415	38:31	38:30	1	0.901	90793	13655	142	355	96		
361.8385	38:32	38:30	2	0.902	76090	11695	90	225	130	1.19(1.05-1.43)	
PCB-168 (C153)											
359.8415	38:31	38:30	1	0.901	90793	13655	142	355	96		
361.8385	38:32	38:30	2	0.902	76090	11695	90	225	130	1.19(1.05-1.43)	
PCB-141											
359.8415	38:42	38:41	1	0.906	41769	7157	142	355	50		
361.8385	38:41	38:41	0	0.906	32955	5667	90	225	63	1.27(1.05-1.43)	
PCB-130											
359.8415	39:07	39:05	2	0.916	32553	7234	142	355	51		
361.8385	39:07	39:05	2	0.916	27150	5387	90	225	60	1.20(1.05-1.43)	
PCB-137											RQ
359.8415	39:20	39:18	3	0.921	30613	5935	142	355	42		
361.8385	39:19	39:18	1	0.920	31013	5495	90	225	61	0.99(1.05-1.43)	
Empc Correction											
					24687	4786	90	225	53		



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-164											RQ
359.8415	39:28	39:26	2	0.924	51162	9620	142	355	68		
	Empc Correction				40603	9340	142	355	66		
361.8385	39:27	39:26	1	0.923	32745	7533	90	225	84	1.56(1.05-1.43)	
PCB-129											M
359.8415	39:45	39:44	1	0.930	163250	17221	142	355	121		
361.8385	39:46	39:44	2	0.931	139822	16794	90	225	187	1.17(1.05-1.43)	M
PCB-138 (C129)											M
359.8415	39:45	39:44	1	0.930	163250	17221	142	355	121		
361.8385	39:46	39:44	2	0.931	139822	16794	90	225	187	1.17(1.05-1.43)	M
PCB-160 (C129)											M
359.8415	39:45	39:44	1	0.930	163250	17221	142	355	121		
361.8385	39:46	39:44	2	0.931	139822	16794	90	225	187	1.17(1.05-1.43)	M
PCB-163 (C129)											M
359.8415	39:45	39:44	1	0.930	163250	17221	142	355	121		
361.8385	39:46	39:44	2	0.931	139822	16794	90	225	187	1.17(1.05-1.43)	M
PCB-158											
359.8415	40:08	40:07	1	0.939	60854	10219	142	355	72		
361.8385	40:08	40:07	1	0.939	48737	9380	90	225	104	1.25(1.05-1.43)	
PCB-128											RQ
359.8415	40:59	40:57	2	0.959	77195	12492	142	355	88		
361.8385	40:58	40:57	1	0.959	74383	11241	90	225	125	1.04(1.05-1.43)	
	Empc Correction				62254	10074	90	225	112		
PCB-166 (C128)											RQ
359.8415	40:59	40:57	2	0.959	77195	12492	142	355	88		
361.8385	40:58	40:57	1	0.959	74383	11241	90	225	125	1.04(1.05-1.43)	
	Empc Correction				62254	10074	90	225	112		
PCB-159											M
359.8415	41:58	41:58	0	0.982	63675	12341	142	355	87		
361.8385	41:59	41:58	1	0.983	51172	10428	90	225	116	1.24(1.05-1.43)	M
PCB-162											M
359.8415	42:16	42:15	0	0.989	59673	10121	142	355	71		M
361.8385	42:16	42:15	1	0.990	47062	8194	90	225	91	1.27(1.05-1.43)	M
PCB-167											
359.8415	42:45	42:44	1	1.001	48825	9243	142	355	65		
361.8385	42:45	42:44	1	1.001	42041	7816	90	225	87	1.16(1.05-1.43)	
PCB-156											
359.8415	43:55	43:53	2	1.001	105188	13424	142	355	95		
361.8385	43:54	43:53	1	1.001	78177	11594	90	225	129	1.35(1.05-1.43)	
PCB-157 (C156)											
359.8415	43:55	43:53	2	1.001	105188	13424	142	355	95		
361.8385	43:54	43:53	1	1.001	78177	11594	90	225	129	1.35(1.05-1.43)	
PCB-169											M
359.8415	47:07	47:06	1	1.001	50749	9063	142	355	64		M
361.8385	47:07	47:06	0	1.000	40676	6854	90	225	76	1.25(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-188L											
405.8428	37:08	37:07	1	0.820	3401229	645871	161	402	4012	1.07(0.89-1.21)	
407.8398	37:08	37:07	1	0.820	3183971	611997	55	137	11127		
PCB-180L											
405.8428	45:16	45:15	1		2634599	488940	161	402	3037	1.08(0.89-1.21)	
407.8398	45:16	45:15	1		2447009	456329	55	137	8297		
PCB-170L											
405.8428	46:31	46:30	1	1.028	2234132	415870	161	402	2583	1.09(0.89-1.21)	
407.8398	46:31	46:30	1	1.028	2043648	378648	55	137	6885		
PCB-189L											
405.8428	49:38	49:37	1	1.096	5328461	950340	2391	5977	397	1.06(0.89-1.21)	
407.8398	49:38	49:37	1	1.096	5025183	910012	1691	4227	538		
PCB-188											
393.8025	37:10	37:08	1	1.001	39690	7719	1	2	7719	1.06(0.89-1.21)	
395.7995	37:10	37:08	1	1.001	37386	7793	1	2	7793		
PCB-179											
393.8025	37:29	37:28	1	1.010	41308	8819	1	2	8819	1.15(0.89-1.21)	
395.7995	37:29	37:28	1	1.010	35794	7124	1	2	7124		
PCB-184											
393.8025	38:01	38:00	1	1.024	39427	8484	1	2	8484	1.14(0.89-1.21)	
395.7995	38:02	38:00	2	1.024	34722	5943	1	2	5943		
PCB-176											
393.8025	38:23	38:21	2	1.034	31774	5940	1	2	5940	1.03(0.89-1.21)	
395.7995	38:21	38:21	0	1.033	30788	5246	1	2	5246		
PCB-186											
393.8025	38:50	38:48	2	1.046	36094	6995	1	2	6995	0.91(0.89-1.21)	
395.7995	38:49	38:48	1	1.045	39575	8243	1	2	8243		
PCB-178											
393.8025	40:12	40:11	0	1.083	23491	4557	1	2	4557	0.92(0.89-1.21)	
395.7995	40:12	40:11	0	1.083	25665	5138	1	2	5138		
PCB-175											
393.8025	40:50	40:49	0	1.100	23301	4772	1	2	4772	0.87(0.89-1.21)	RQ
395.7995	40:50	40:49	1	1.100	26892	5627	1	2	5627		
	Empc Correction				22191	4544	1	2	4544		
PCB-187											
393.8025	41:06	41:05	1	1.107	31206	6098	1	2	6098	1.05(0.89-1.21)	
395.7995	41:07	41:05	2	1.107	29730	5603	1	2	5603		
PCB-182											
393.8025	41:19	41:18	1	1.113	22957	5076	1	2	5076	0.91(0.89-1.21)	
395.7995	41:19	41:18	1	1.113	25235	4469	1	2	4469		
PCB-183											
393.8025	41:43	41:42	1	1.124	59157	5830	1	2	5830		M
395.7995	41:49	41:42	7	1.126	56781	5334	1	2	5334	1.04(0.89-1.21)	M
PCB-185 (C183)											
393.8025	41:43	41:42	1	1.124	59157	5830	1	2	5830		M
395.7995	41:49	41:42	7	1.126	56781	5334	1	2	5334	1.04(0.89-1.21)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-174											RQ
393.8025	41:57	41:56	1	1.130	25586	6498	1	2	6498		
	Empc Correction				21844	4920	1	2	4920		
395.7995	41:57	41:56	1	1.130	20804	4686	1	2	4686	1.23(0.89-1.21)	
PCB-177											M
393.8025	42:23	42:22	1	1.142	27807	5386	1	2	5386		
395.7995	42:23	42:22	1	1.142	25600	5611	1	2	5611	1.09(0.89-1.21)	M
PCB-181											
393.8025	42:47	42:45	2	1.152	28839	6551	1	2	6551		
395.7995	42:47	42:45	2	1.152	26767	5517	1	2	5517	1.08(0.89-1.21)	
PCB-171											RQ
393.8025	43:01	42:59	2	1.158	61447	9445	1	2	9445		
	Empc Correction				52774	8984	1	2	8984		
395.7995	43:00	42:59	1	1.158	50261	8557	1	2	8557	1.22(0.89-1.21)	
PCB-173 (C171)											RQ
393.8025	43:01	42:59	2	1.158	61447	9445	1	2	9445		
	Empc Correction				52774	8984	1	2	8984		
395.7995	43:00	42:59	1	1.158	50261	8557	1	2	8557	1.22(0.89-1.21)	
PCB-172											
393.8025	44:38	44:37	1	0.900	25813	4966	1	2	4966		
395.7995	44:38	44:37	0	0.899	21380	3770	1	2	3770	1.21(0.89-1.21)	
PCB-192											
393.8025	44:54	44:54	0	0.905	35936	6758	1	2	6758		
395.7995	44:55	44:54	1	0.905	39187	7547	1	2	7547	0.92(0.89-1.21)	
PCB-180											
393.8025	45:16	45:14	2	0.912	65744	9105	1	2	9105		
395.7995	45:17	45:14	3	0.913	64705	8318	1	2	8318	1.02(0.89-1.21)	
PCB-193 (C180)											
393.8025	45:16	45:14	2	0.912	65744	9105	1	2	9105		
395.7995	45:17	45:14	3	0.913	64705	8318	1	2	8318	1.02(0.89-1.21)	
PCB-191											
393.8025	45:39	45:37	2	0.920	38736	9026	1	2	9026		
395.7995	45:38	45:37	1	0.920	34236	6204	1	2	6204	1.13(0.89-1.21)	
PCB-170											M
393.8025	46:34	46:32	2	0.938	28044	4293	1	2	4293		M
395.7995	46:32	46:32	0	0.938	23723	4161	1	2	4161	1.18(0.89-1.21)	
PCB-190											
393.8025	47:04	47:02	1	0.948	38910	7847	1	2	7847		
395.7995	47:04	47:02	2	0.949	35673	6687	1	2	6687	1.09(0.89-1.21)	
PCB-189											
393.8025	49:39	49:38	1	1.001	48363	9044	149	372	61		
395.7995	49:39	49:38	1	1.001	49533	8535	78	195	109	0.98(0.89-1.21)	
PCB-202L											
439.8038	42:30	42:28	2	0.821	2410974	447023	31	77	14420		
441.8008	42:30	42:28	2	0.821	2692357	497606	25	62	19904	0.90(0.76-1.02)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-194L											
439.8038	51:44	51:43	1		3391392	605680	200	500	3028		
441.8008	51:44	51:43	1		3763396	664861	236	590	2817	0.90(0.76-1.02)	
PCB-205L											
439.8038	52:13	52:11	1	1.009	4007068	750604	200	500	3753		
441.8008	52:13	52:11	1	1.009	4459878	834655	236	590	3537	0.90(0.76-1.02)	
PCB-202											
427.7635	42:31	42:29	2	1.001	24187	5182	25	62	207		
429.7606	42:31	42:29	1	1.000	26882	4715	20	50	236	0.90(0.76-1.02)	
PCB-201											
427.7635	43:26	43:25	1	1.022	25699	5628	25	62	225		RQ
	Empc Correction				22243	4728	25	62	189		
429.7606	43:26	43:25	1	1.022	24993	5313	20	50	266	1.03(0.76-1.02)	
PCB-204											
427.7635	44:07	44:05	2	1.038	27131	5525	25	62	221		RQ
	Empc Correction				23488	4643	25	62	186		
429.7606	44:08	44:05	3	1.038	26392	5217	20	50	261	1.03(0.76-1.02)	
PCB-197											
427.7635	44:20	44:19	1	1.043	30198	5351	25	62	214		RQ
	Empc Correction				25907	6117	25	62	245		
429.7606	44:19	44:19	0	1.043	29109	6874	20	50	344	1.04(0.76-1.02)	
PCB-200											
427.7635	44:27	44:25	1	1.046	20266	4644	25	62	186		RQ
429.7606	44:27	44:25	1	1.046	32789	5905	20	50	295	0.62(0.76-1.02)	
	Empc Correction				22770	5217	20	50	261		
PCB-198											
427.7635	47:12	47:12	0	1.111	41819	6070	25	62	243		
429.7606	47:13	47:12	1	1.111	46314	6928	20	50	346	0.90(0.76-1.02)	
PCB-199 (C198)											
427.7635	47:12	47:12	0	1.111	41819	6070	25	62	243		
429.7606	47:13	47:12	1	1.111	46314	6928	20	50	346	0.90(0.76-1.02)	
PCB-196											
427.7635	47:54	47:53	1	0.917	20422	4369	25	62	175		
429.7606	47:54	47:53	1	0.917	20849	3671	20	50	184	0.98(0.76-1.02)	
PCB-203											
427.7635	48:06	48:05	1	0.921	21176	4041	25	62	162		
429.7606	48:06	48:05	1	0.921	23950	5332	20	50	267	0.88(0.76-1.02)	
PCB-195											
427.7635	49:24	49:23	1	0.946	36050	6413	75	187	86		M
429.7606	49:24	49:23	1	0.946	38418	7430	79	197	94	0.94(0.76-1.02)	M
PCB-194											
427.7635	51:47	51:44	2	0.992	38886	6674	75	187	89		
429.7606	51:46	51:44	1	0.991	45707	8995	79	197	114	0.85(0.76-1.02)	
PCB-205											
427.7635	52:13	52:13	1	1.000	47399	9141	75	187	122		
429.7606	52:15	52:13	2	1.001	46784	7912	79	197	100	1.01(0.76-1.02)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-208L											
473.7648	49:10	49:09	1	0.950	3048337	549815	593	1482	927		
475.7619	49:10	49:09	1	0.950	3709649	691649	736	1840	940	0.82(0.65-0.89)	
PCB-206L											
473.7648	53:58	53:57	1	1.043	2213992	401420	593	1482	677		
475.7619	53:58	53:57	1	1.043	2694765	476469	736	1840	647	0.82(0.65-0.89)	
PCB-208											
461.7246	49:12	49:10	2	1.001	31684	6235	190	475	33		M
463.7216	49:11	49:10	1	1.001	47975	9524	451	1127	21	0.66(0.65-0.89)	M
PCB-207											
461.7246	50:06	50:05	1	1.019	36477	7014	190	475	37		M
463.7216	50:07	50:05	2	1.020	43355	7763	451	1127	17	0.84(0.65-0.89)	M
PCB-206											
461.7246	53:59	53:58	1	1.000	28296	5591	190	475	29		M
463.7216	53:59	53:58	1	1.000	39161	6640	451	1127	15	0.72(0.65-0.89)	M
PCB-209L											
507.7258	55:36	55:34	2	1.075	1971427	348436	103	257	3383		
509.7229	55:36	55:34	2	1.075	2757597	466485	62	155	7524	0.71(0.59-0.79)	
DCB Decachlorobiphenyl											
495.6856	55:37	55:36	1	1.000	21443	4804	8	20	601		
497.6826	55:38	55:36	2	1.000	30397	6121	11	27	556	0.71(0.59-0.79)	

**QC Flag Legend**

## Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

## Review Flags

M - Manually Integrated

a - User Assigned ID

**Reagents:**

61L11668P\_00006

Amount Added: 20.00

Units: uL

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

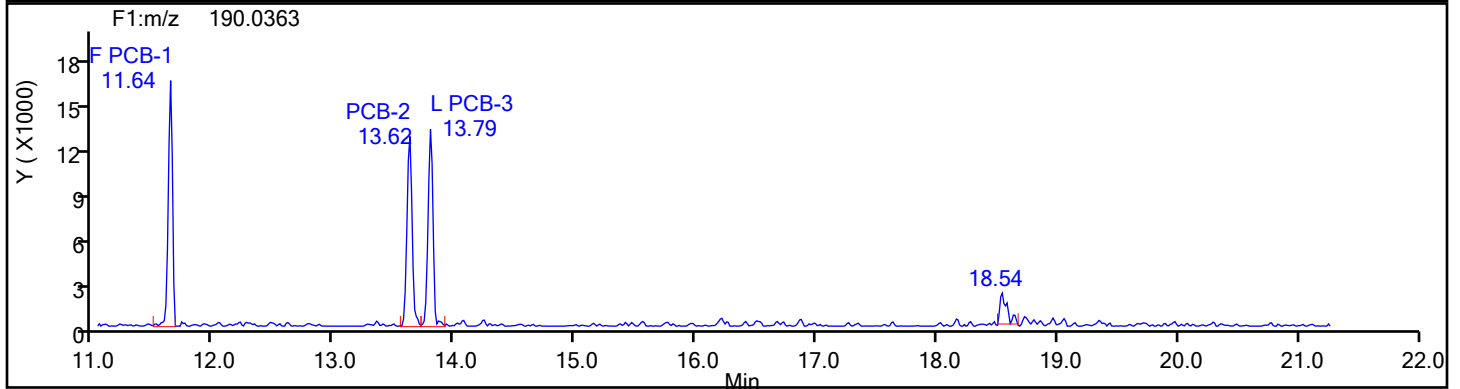
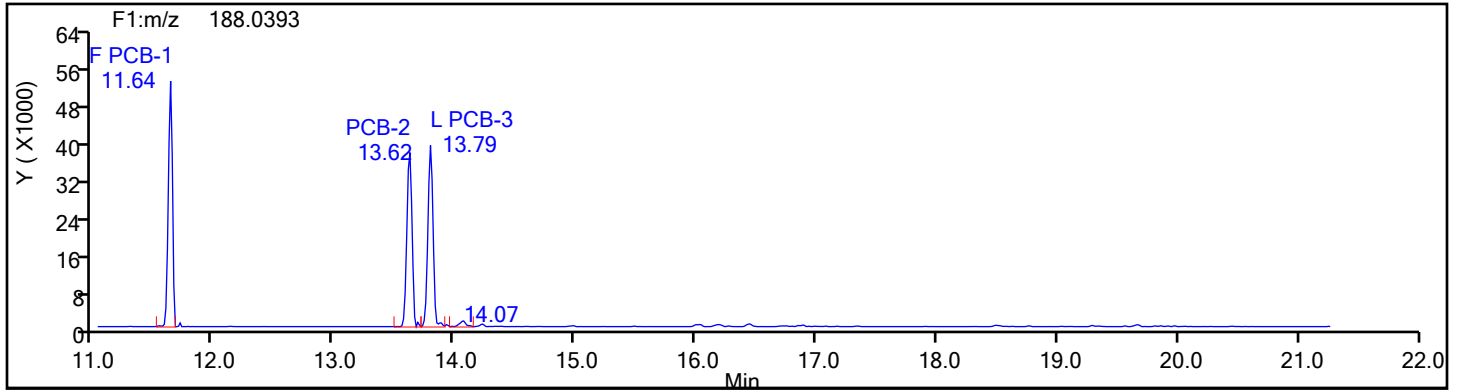
Worklist#: 87130

Sample Line#: 2

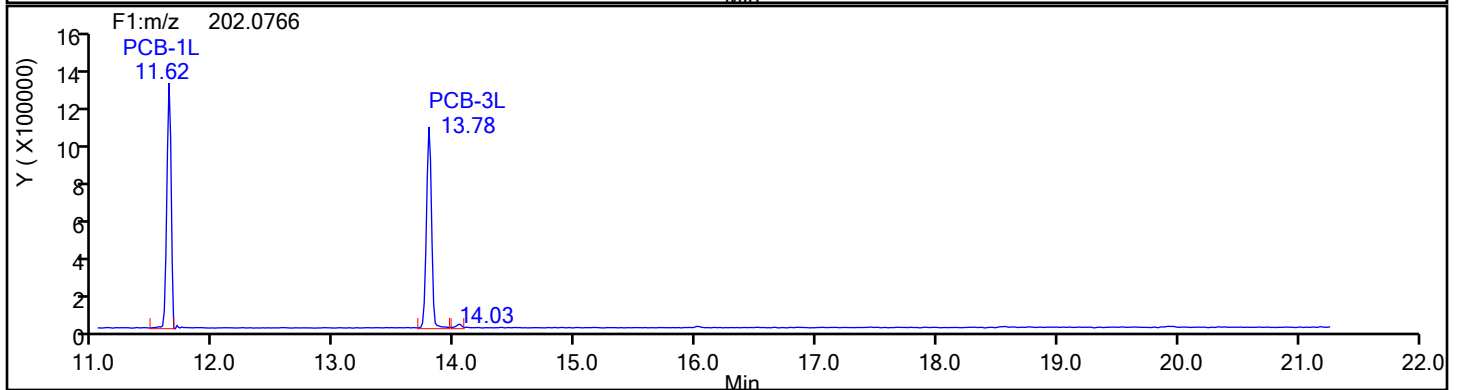
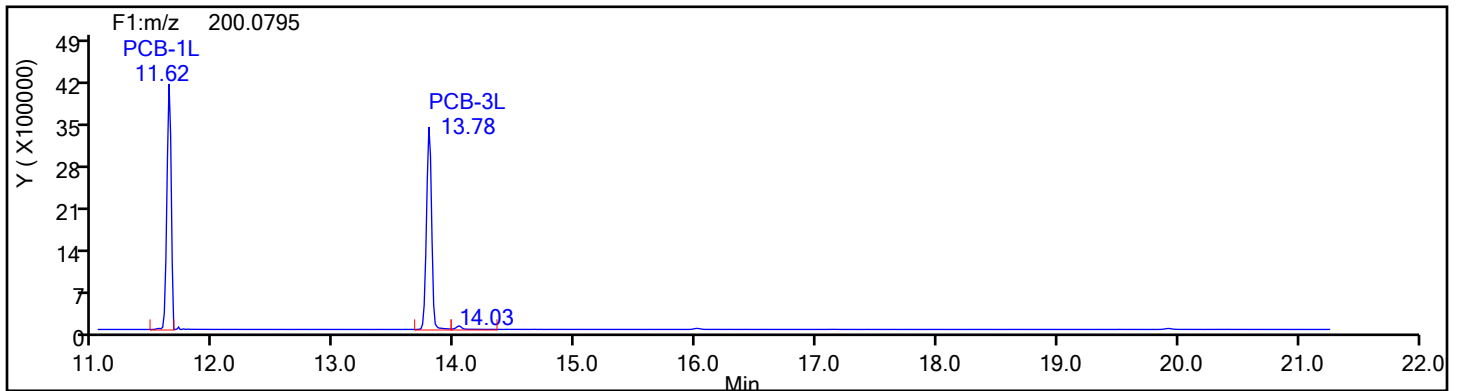
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

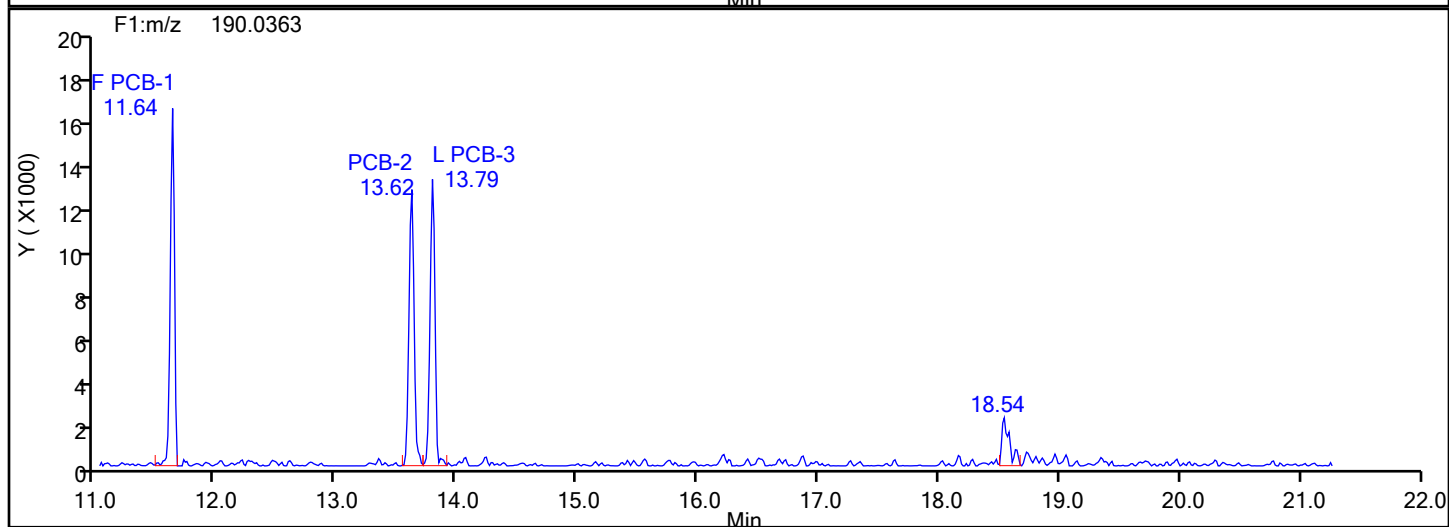
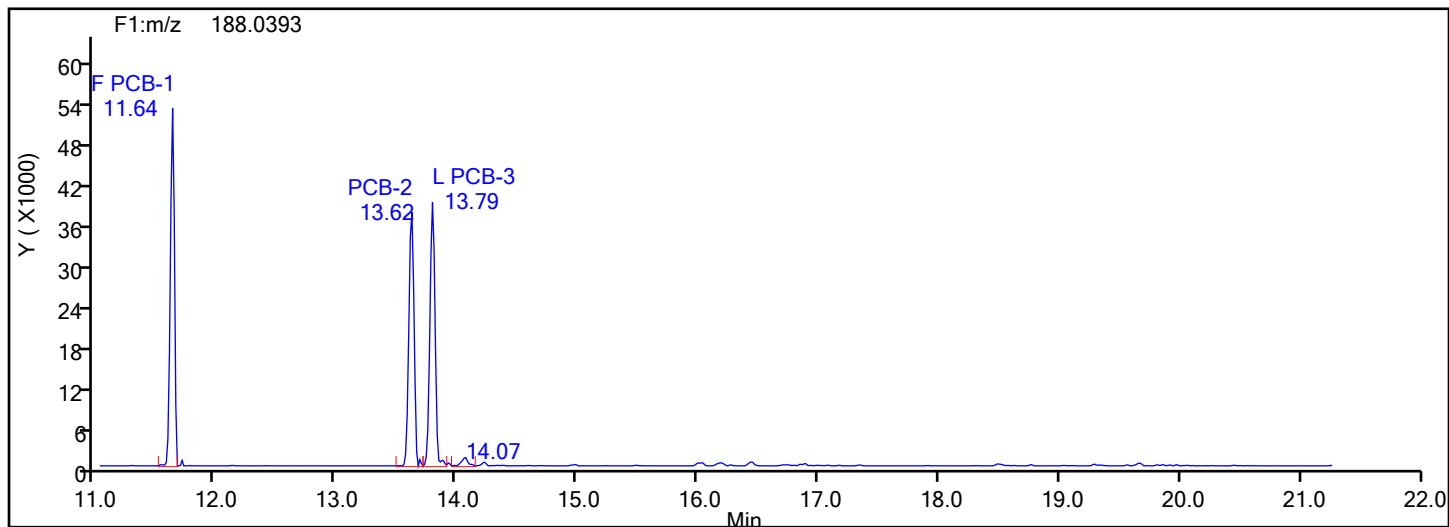
Worklist#: 87130

Sample Line#: 2

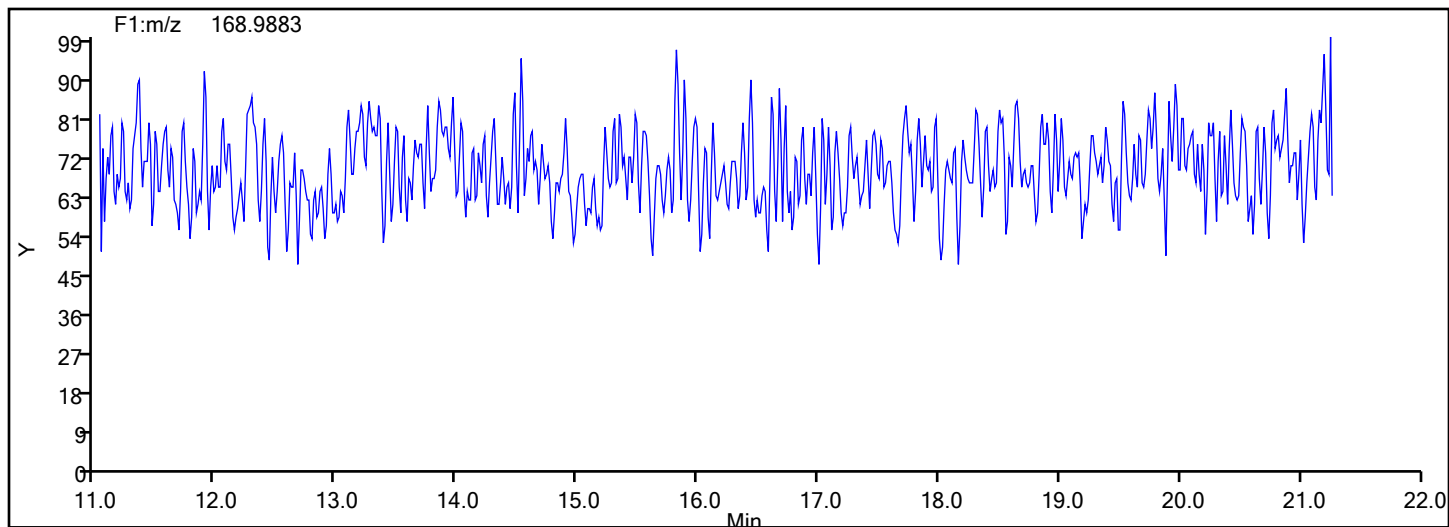
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

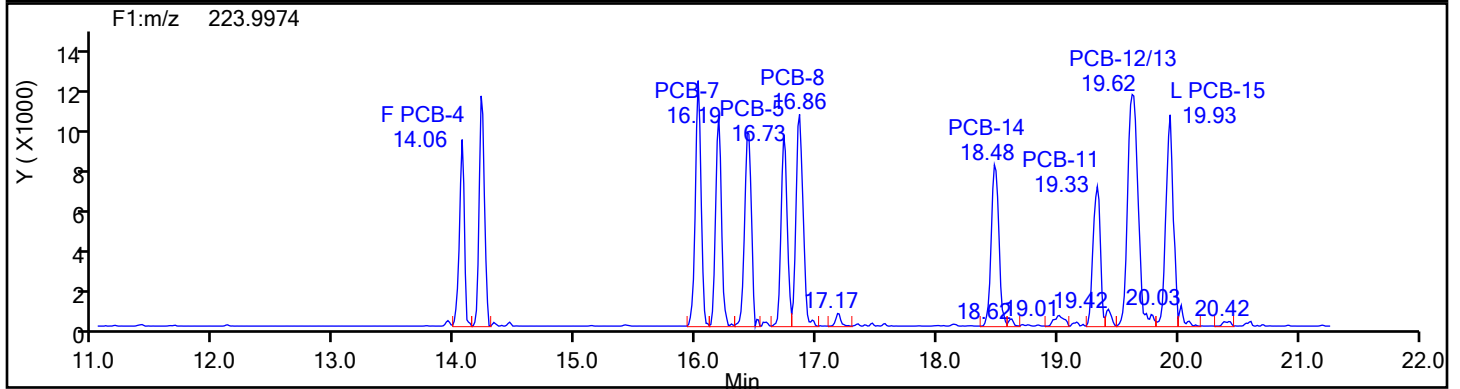
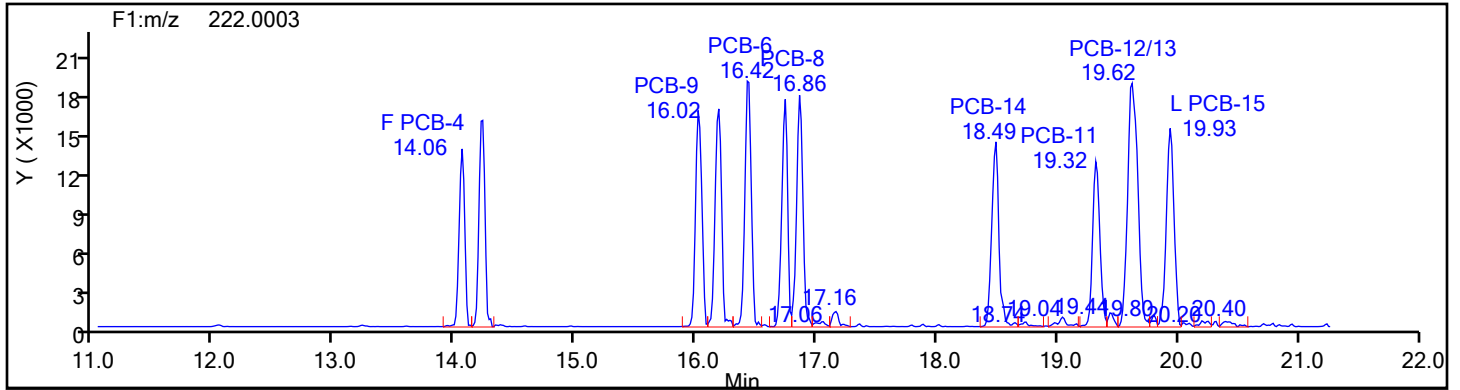
Worklist#: 87130

Sample Line#: 2

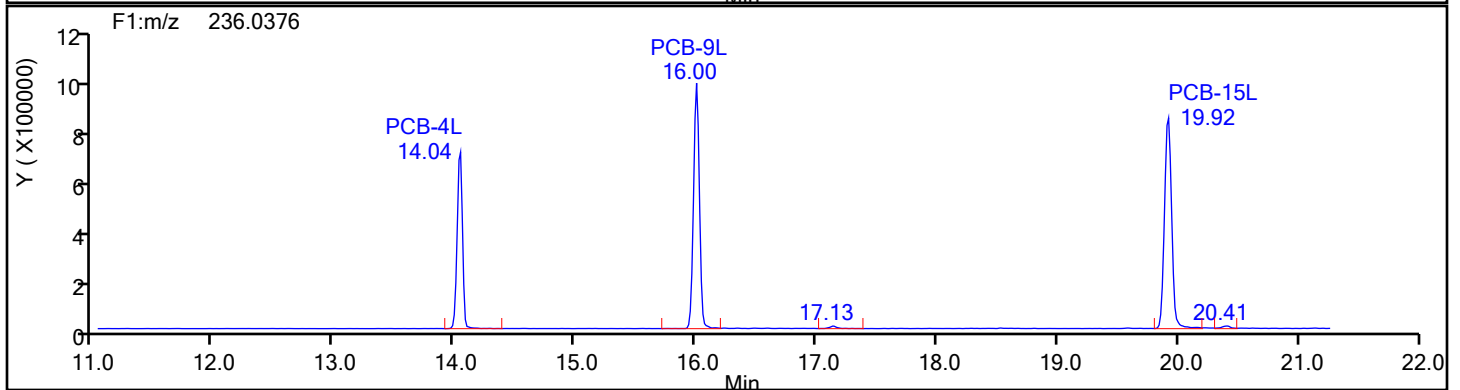
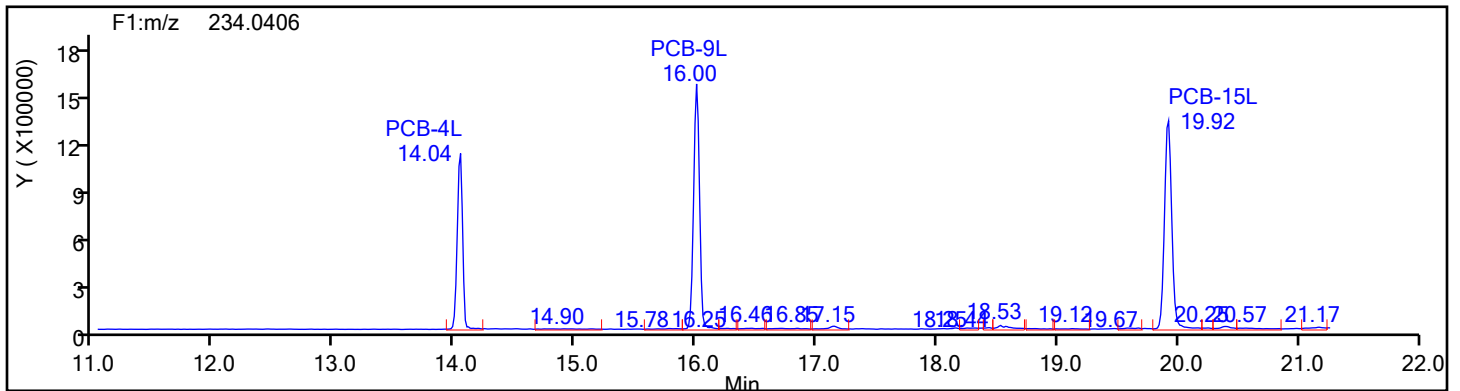
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

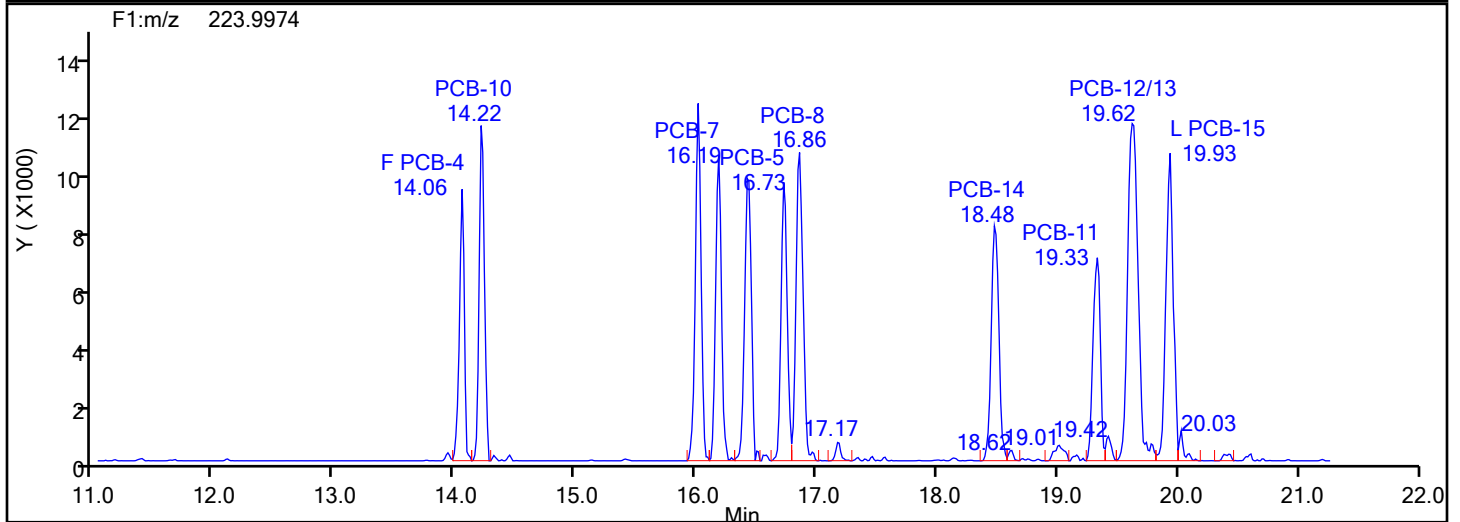
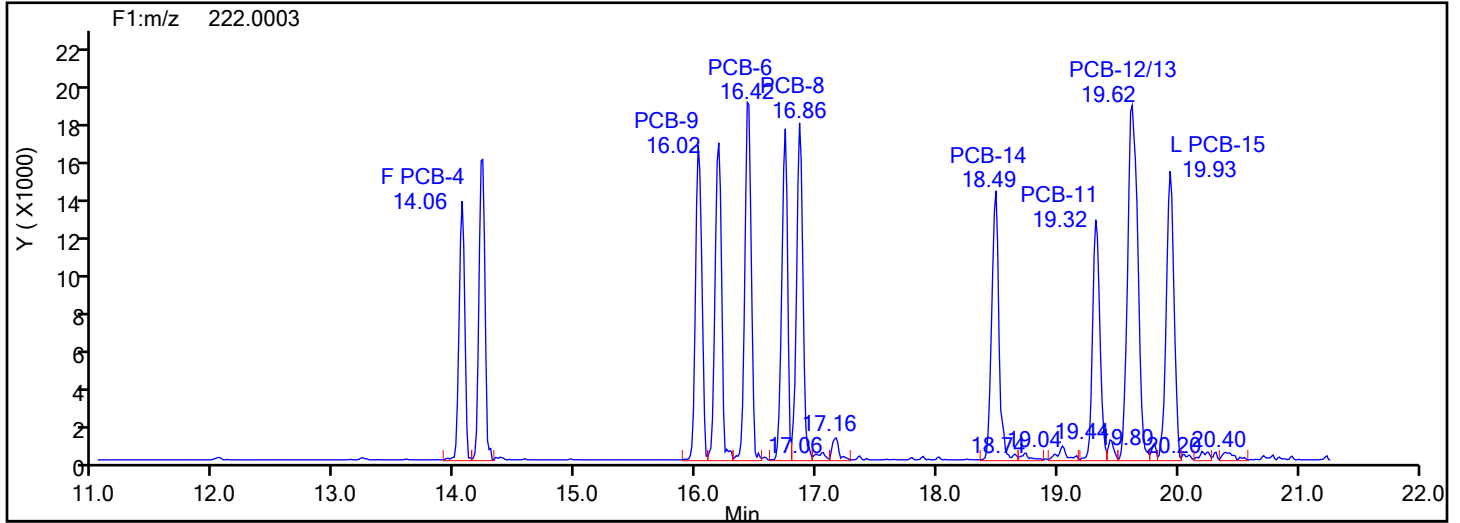
Worklist#: 87130

Sample Line#: 2

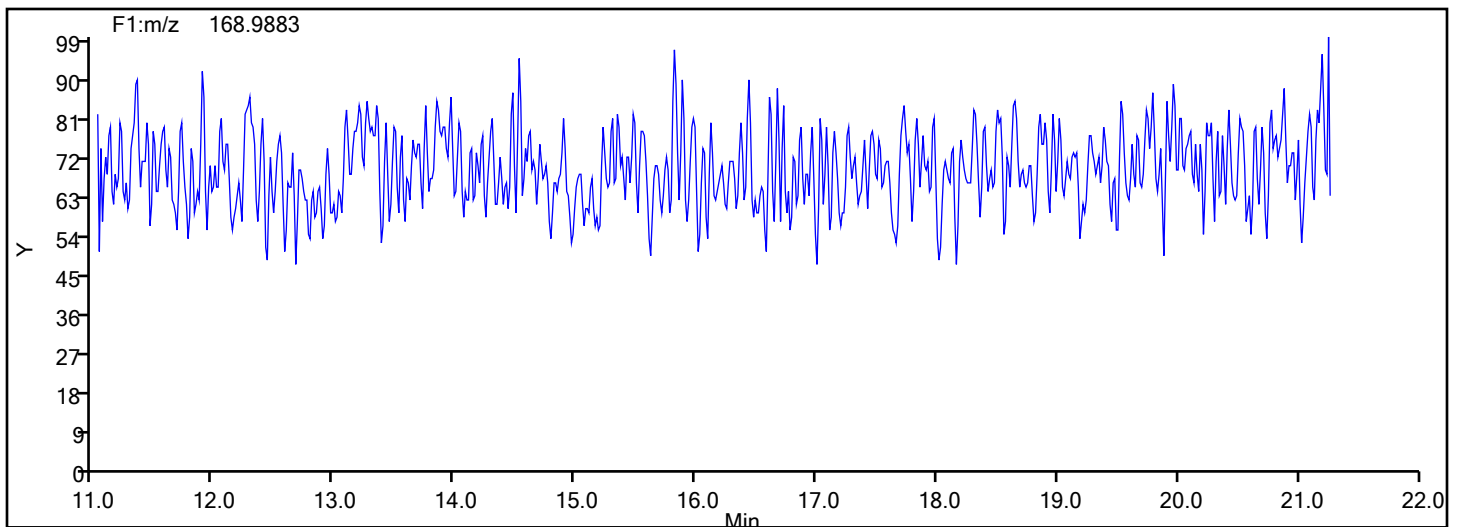
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

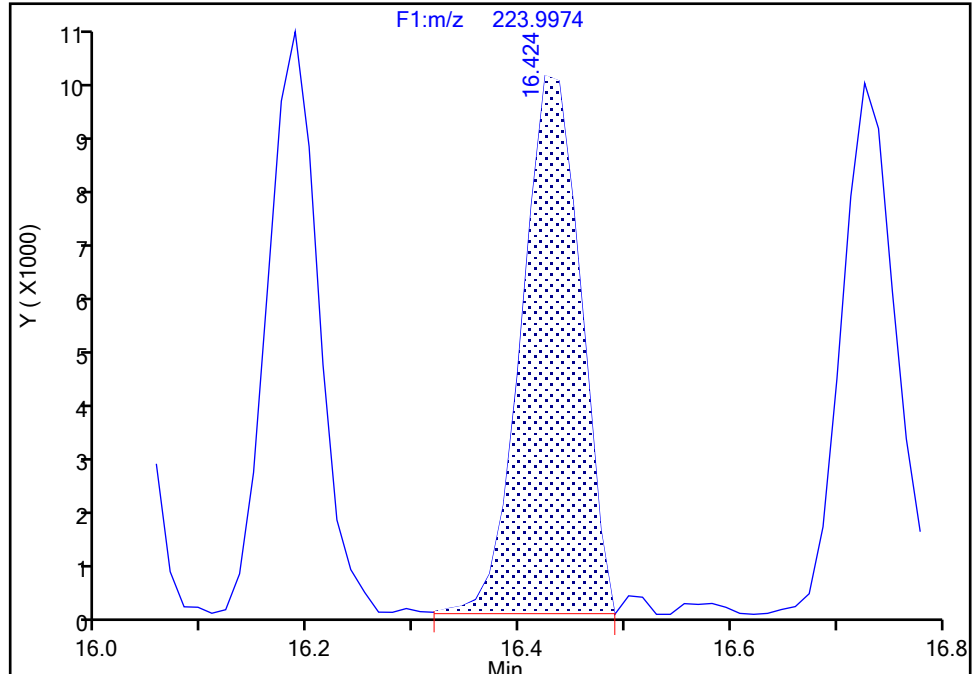
Detector F1(11.07 :21.70 )

**PCB-6, CAS: 25569-80-6**

Signal: 2

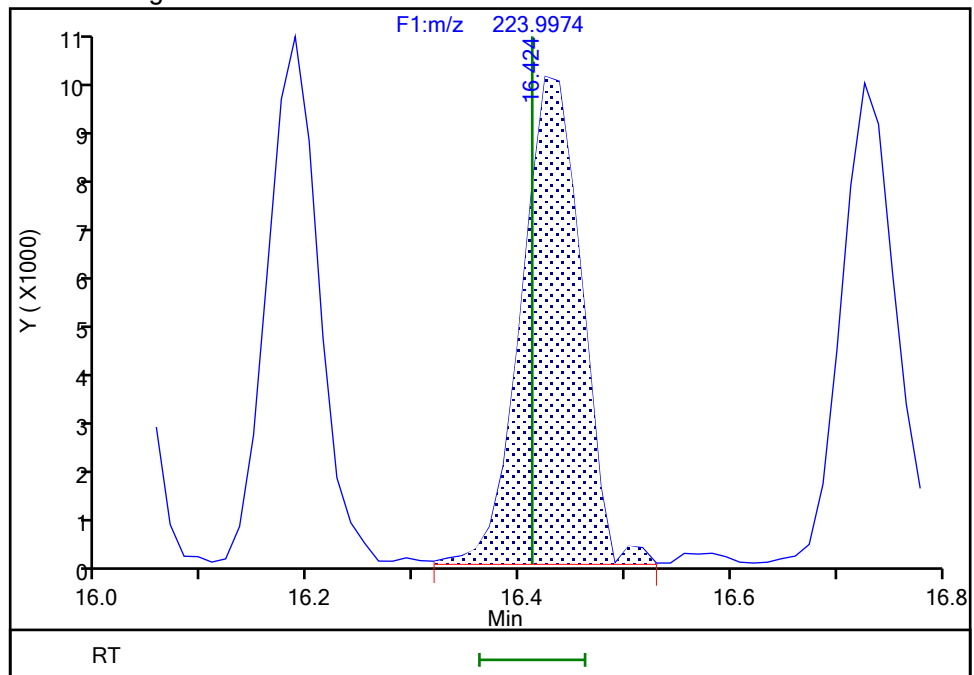
RT: 16.42  
Area: 37615  
Amount: 0.998581  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.42  
Area: 38133  
Amount: 0.989120  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:42:31 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

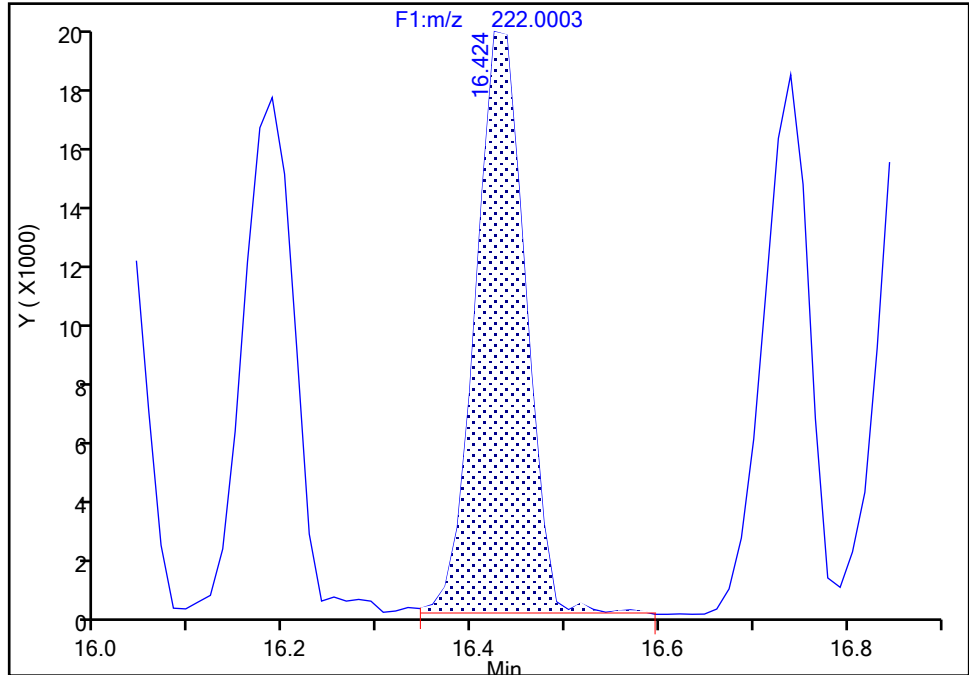
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F1(11.07 :21.70 )

PCB-6, CAS: 25569-80-6

Signal: 1

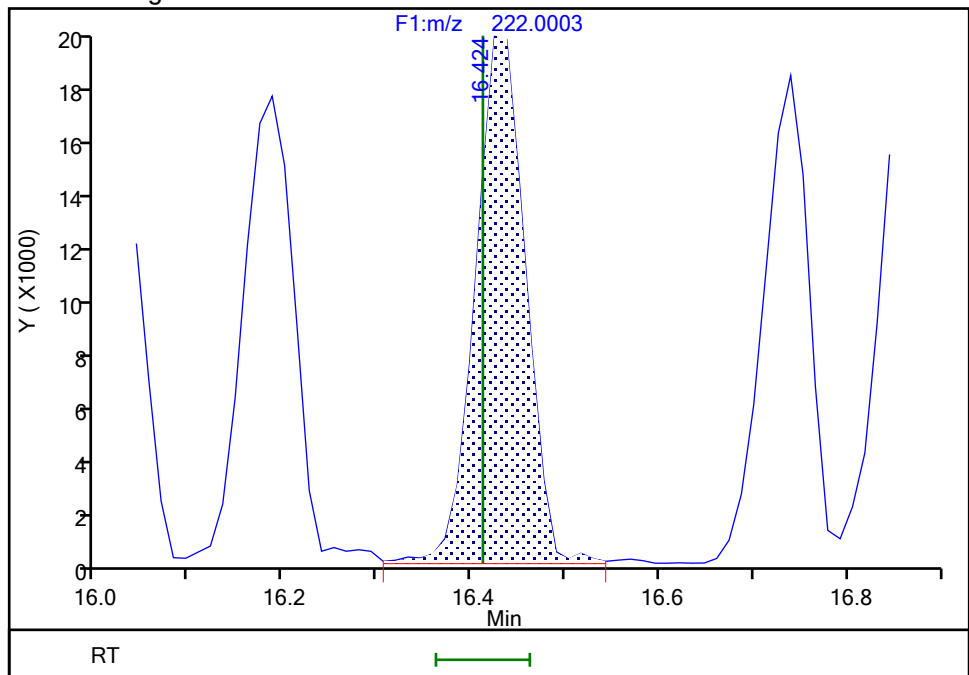
RT: 16.42  
Area: 70677  
Amount: 0.998581  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.42  
Area: 70638  
Amount: 0.989120  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:42:48 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

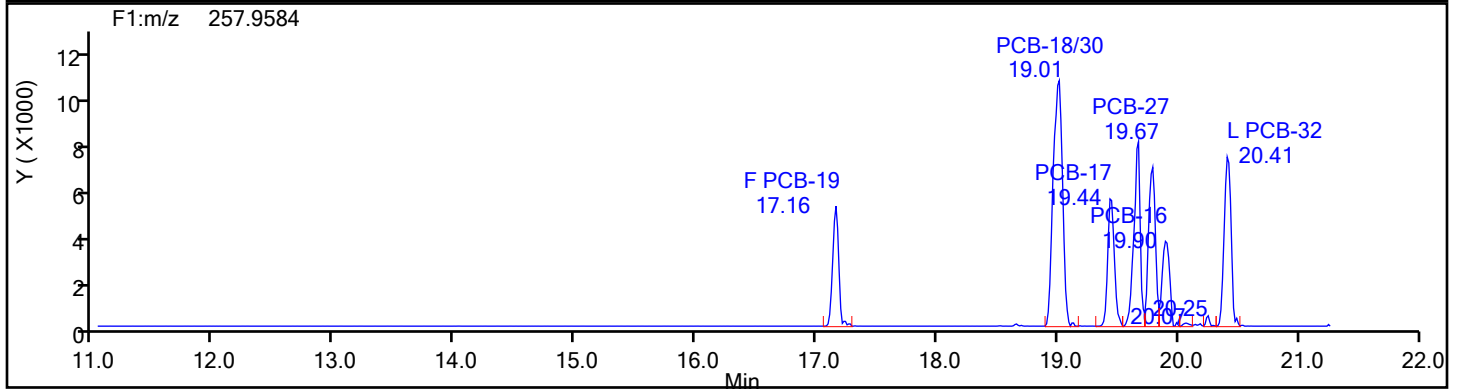
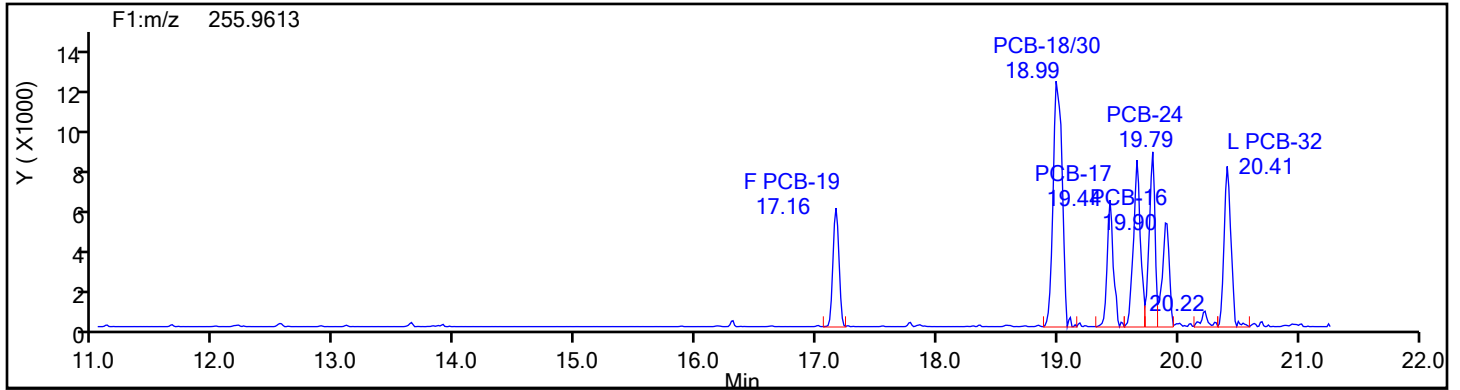
Worklist#: 87130

Sample Line#: 2

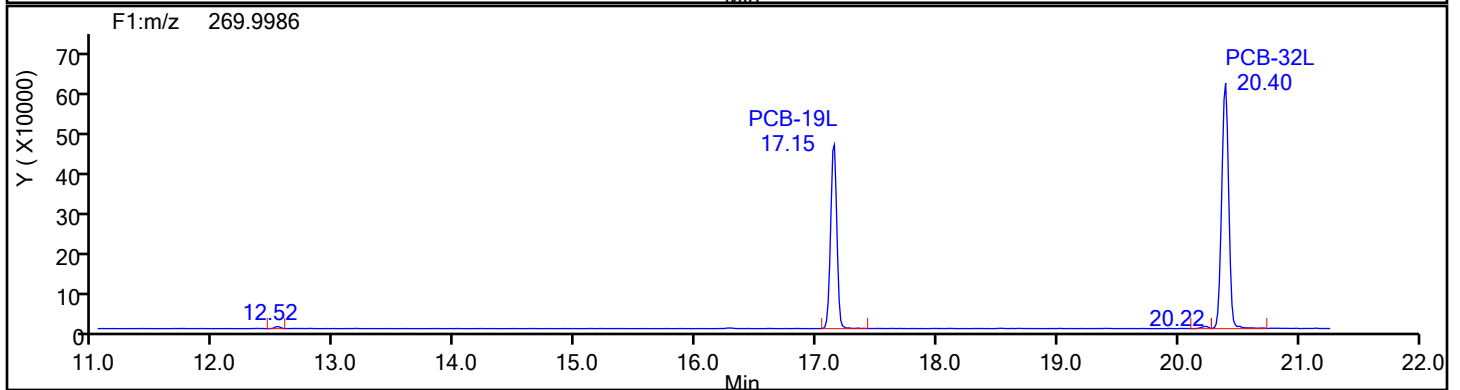
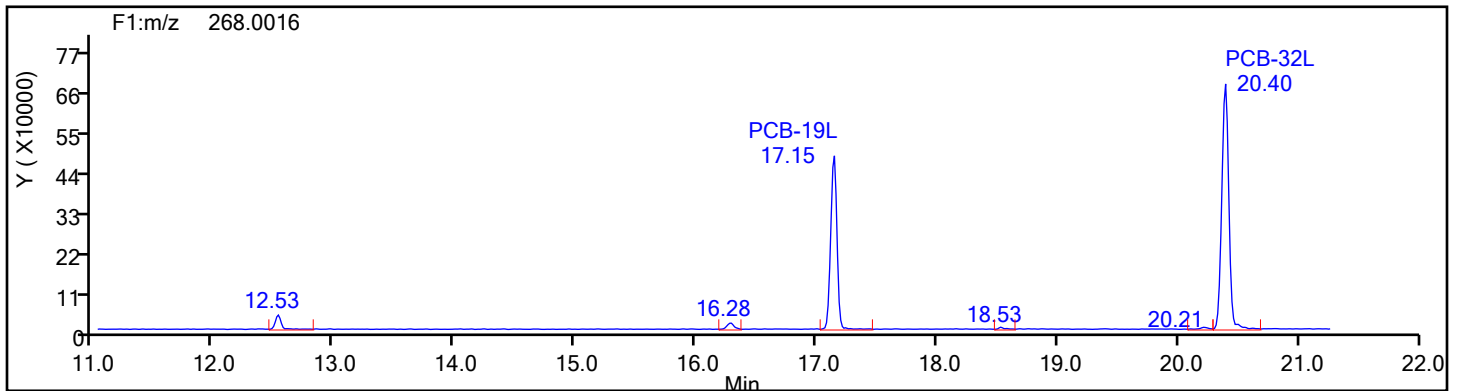
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

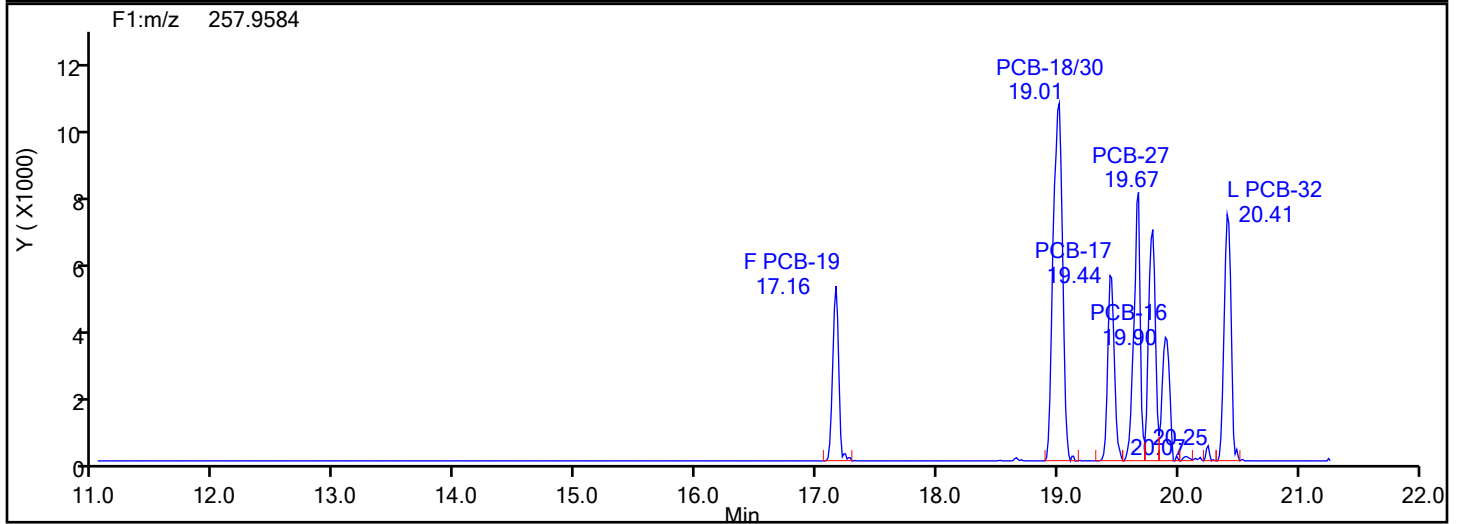
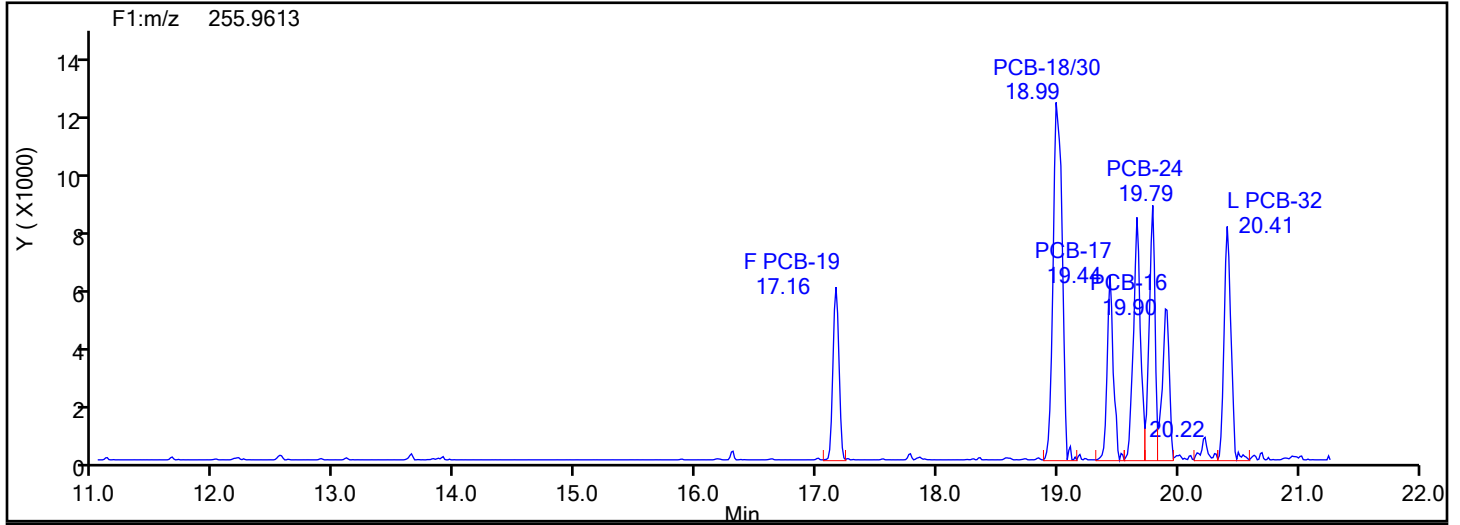
Worklist#: 87130

Sample Line#: 2

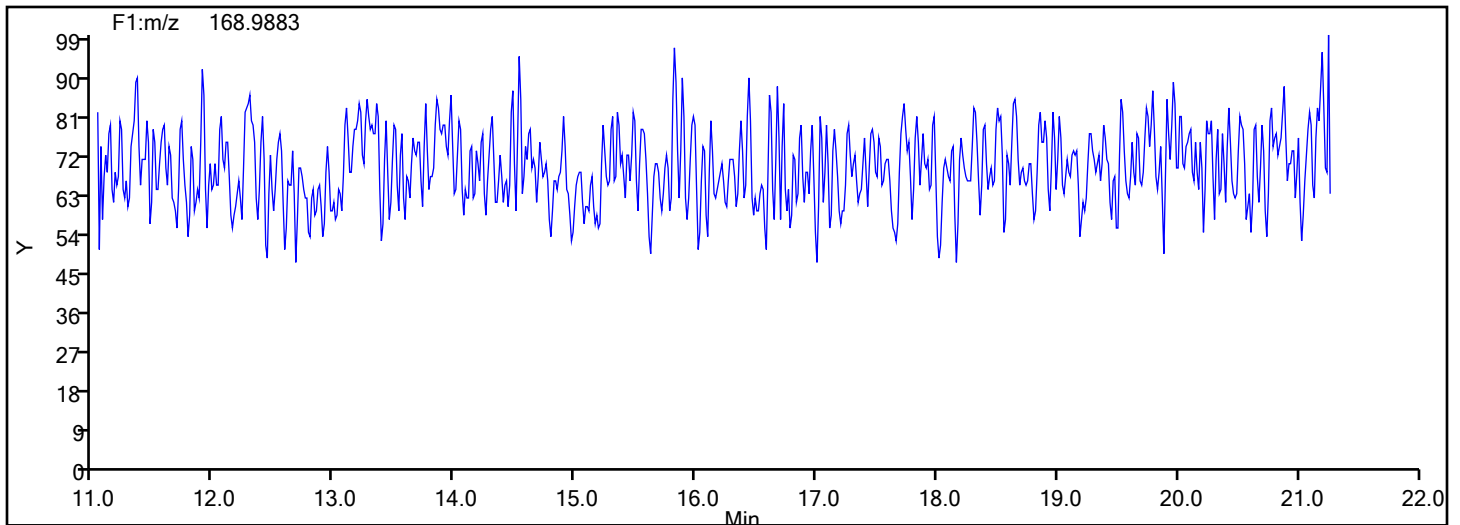
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

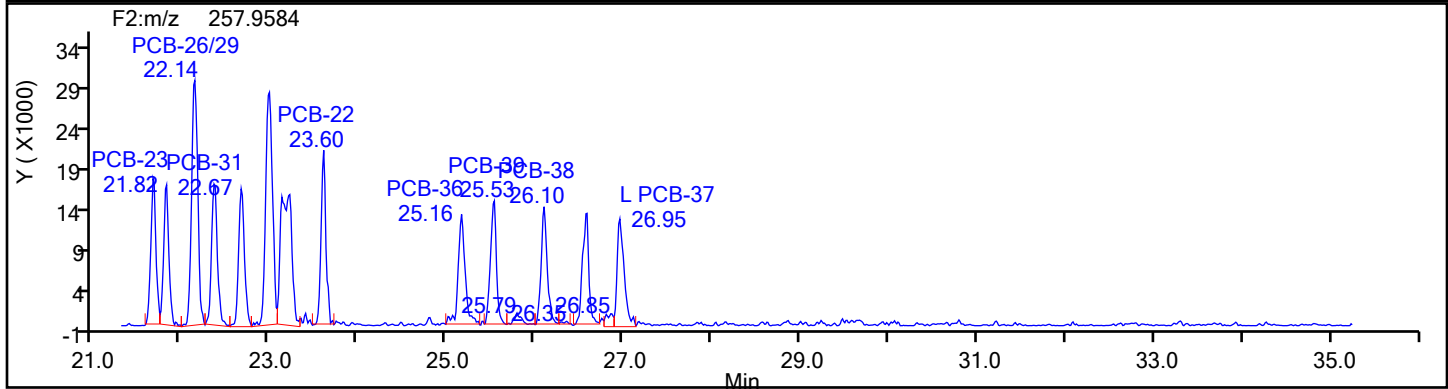
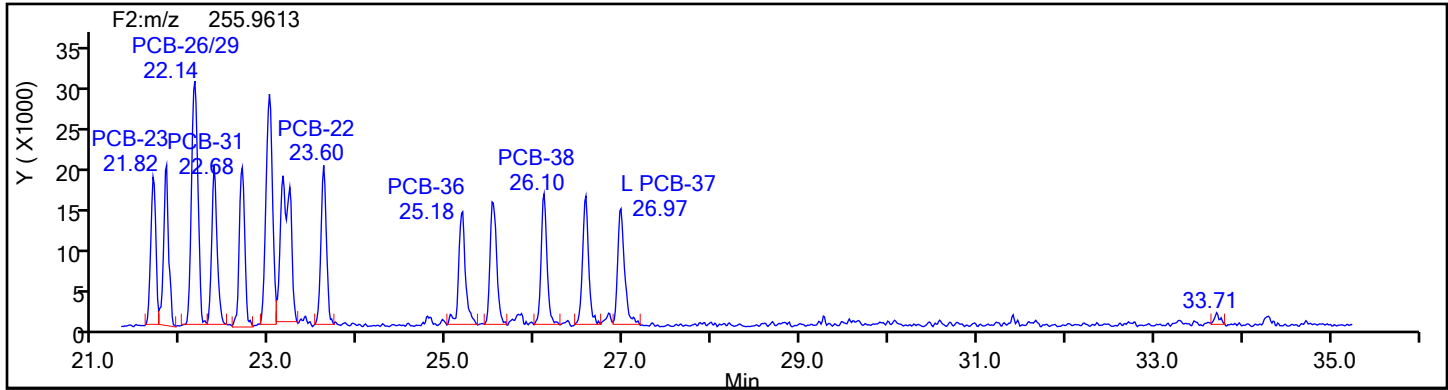
Worklist#: 87130

Sample Line#: 2

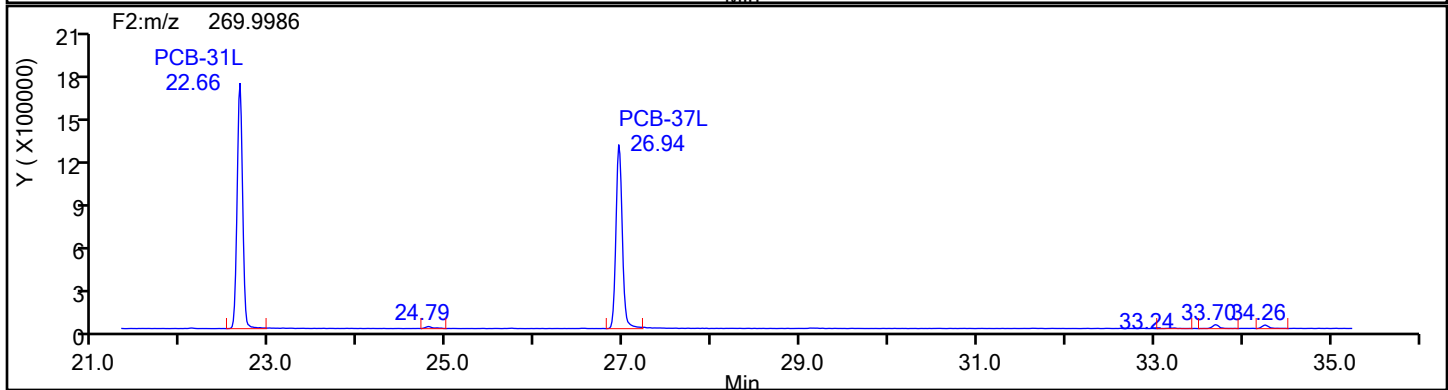
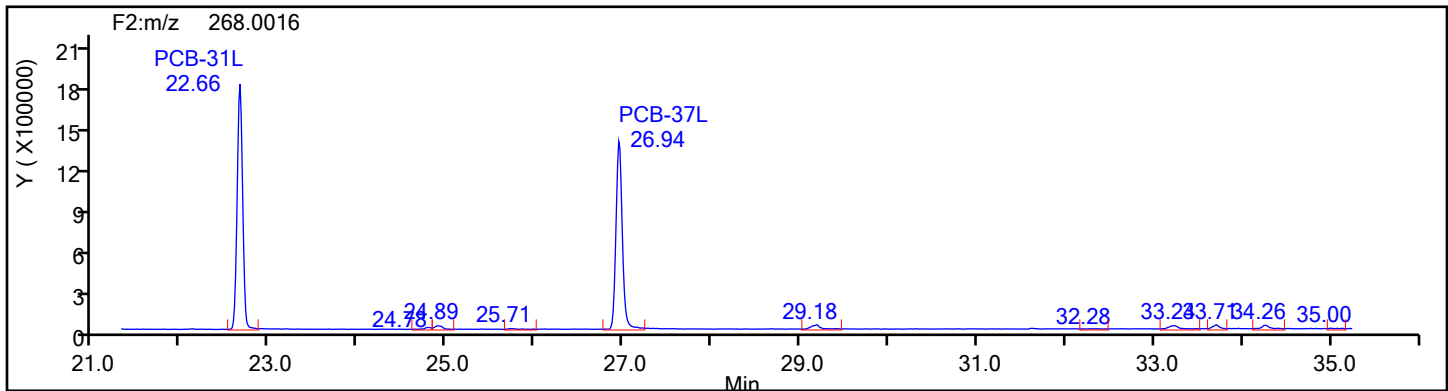
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

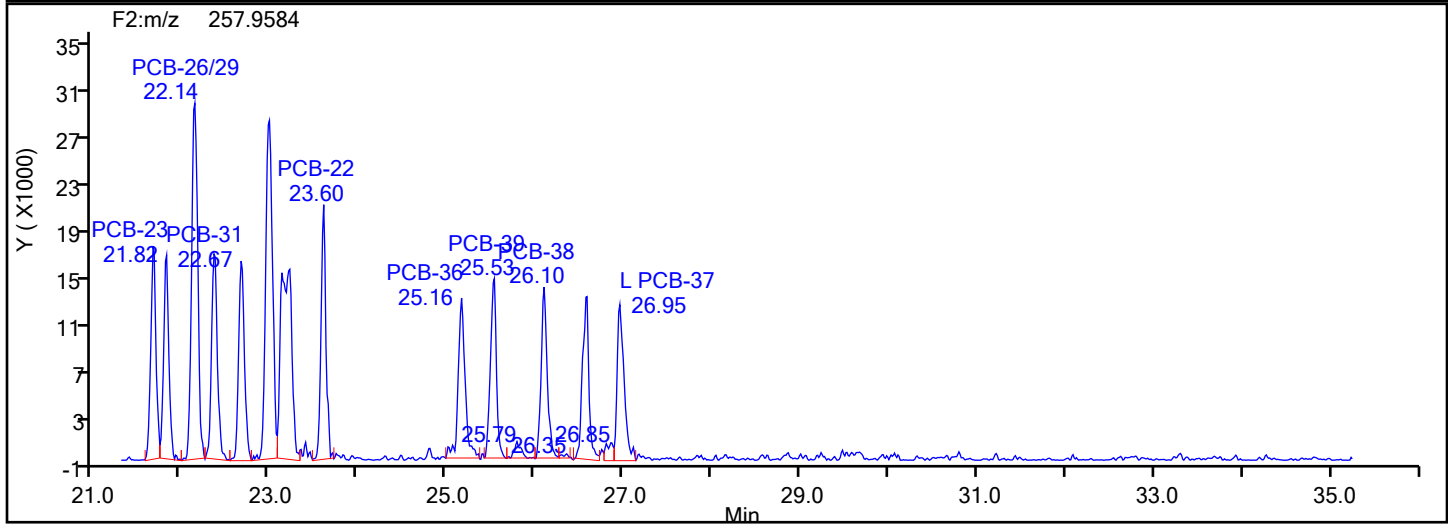
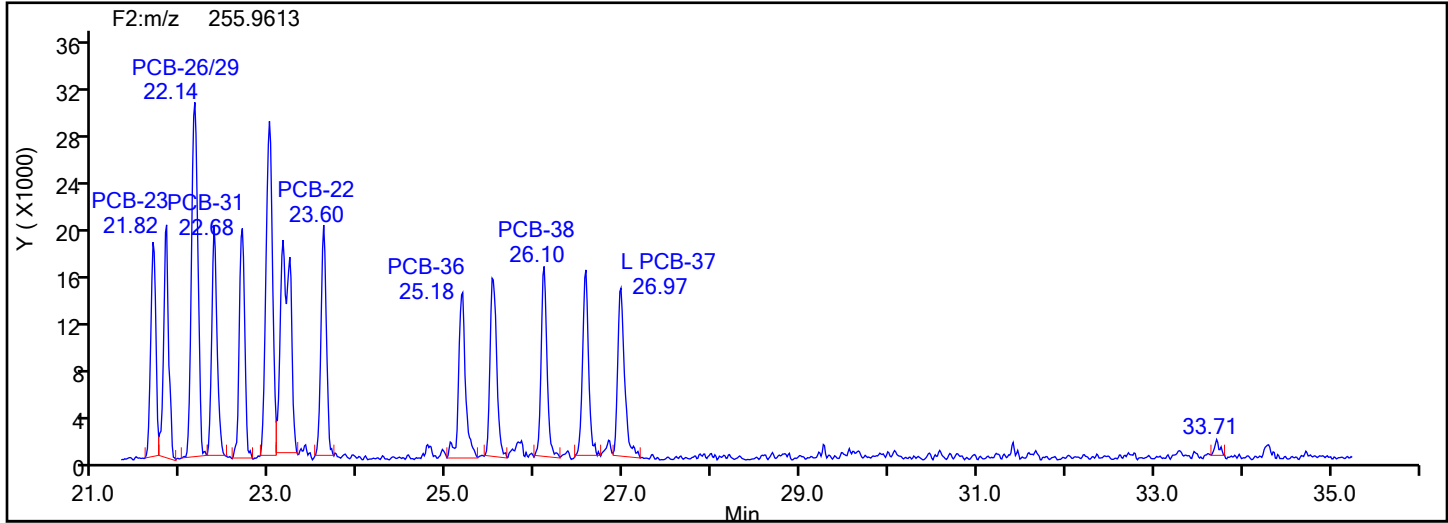
Worklist#: 87130

Sample Line#: 2

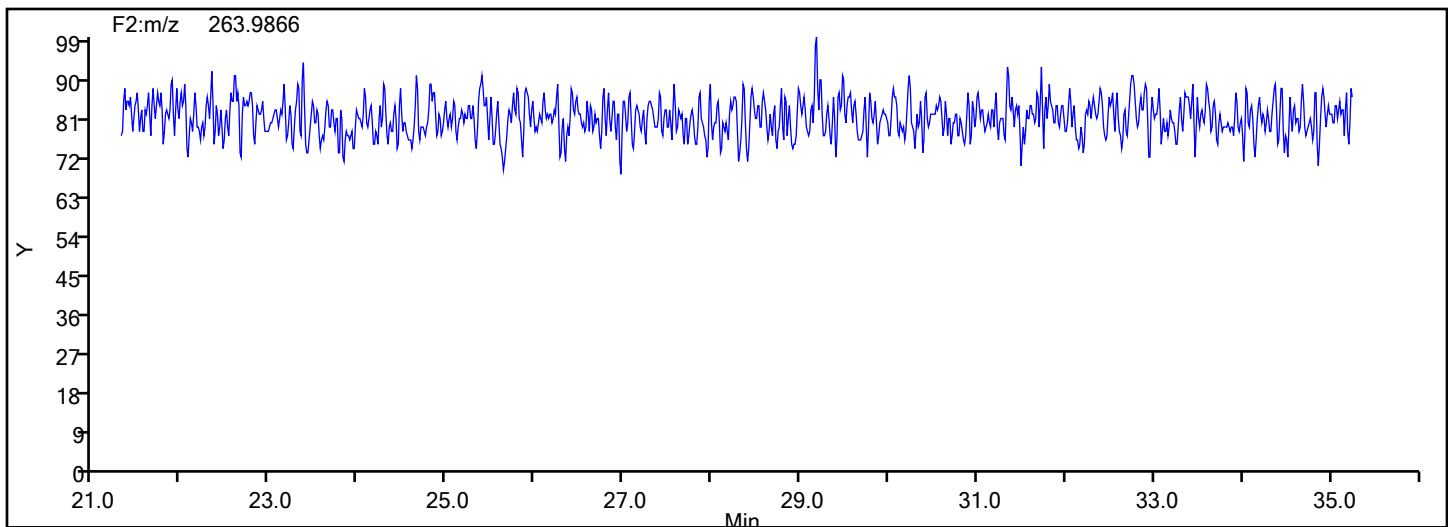
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

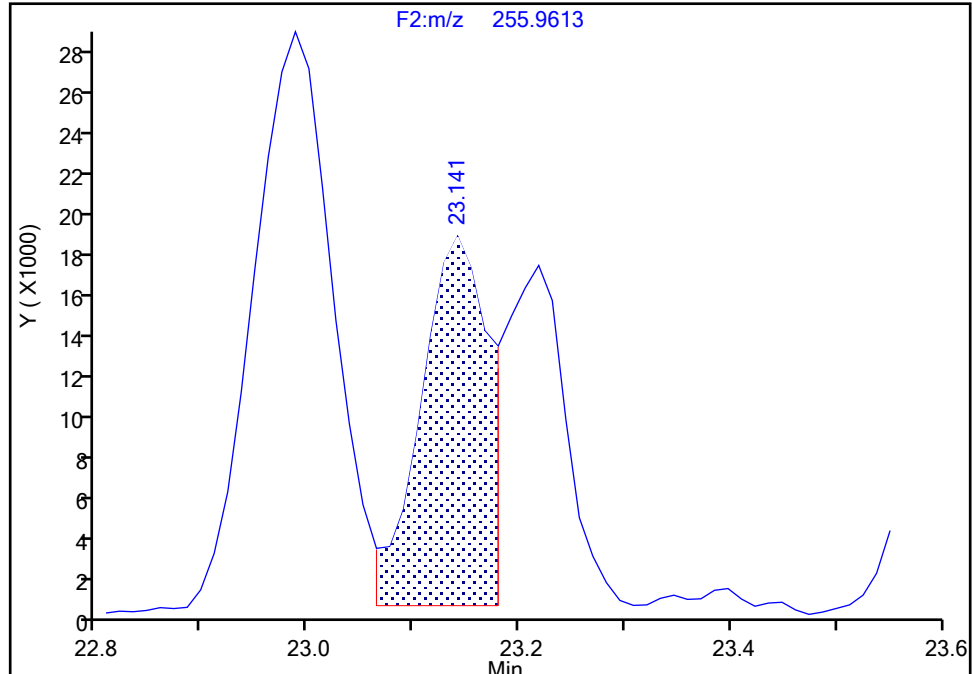
Detector F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 1

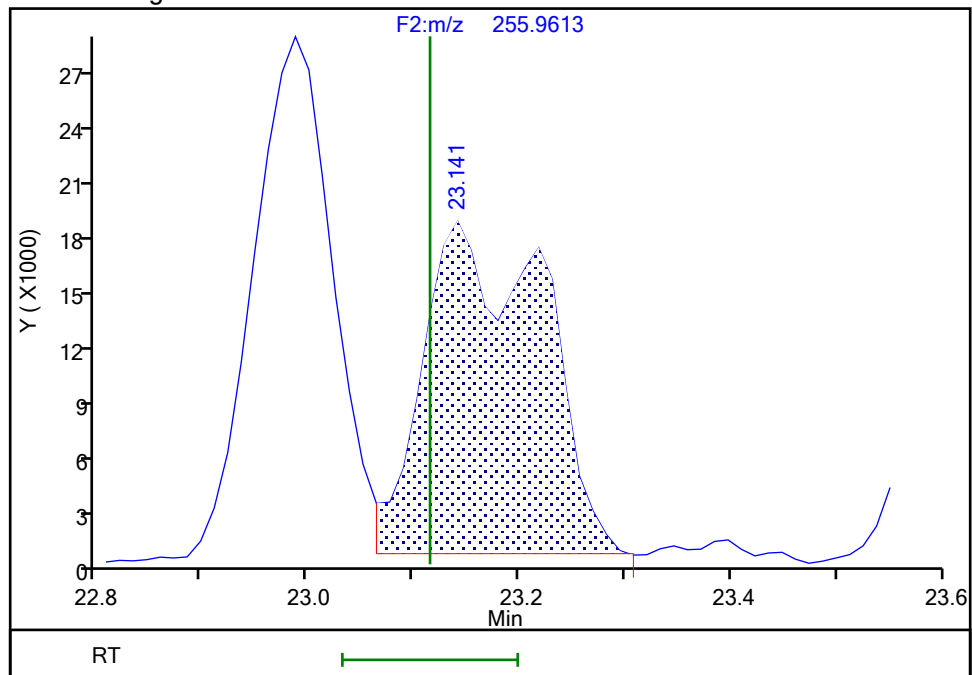
RT: 23.14  
Area: 78248  
Amount: 1.094563  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.14  
Area: 142636  
Amount: 1.979659  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 18:02:19 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration



## Eurofins Knoxville

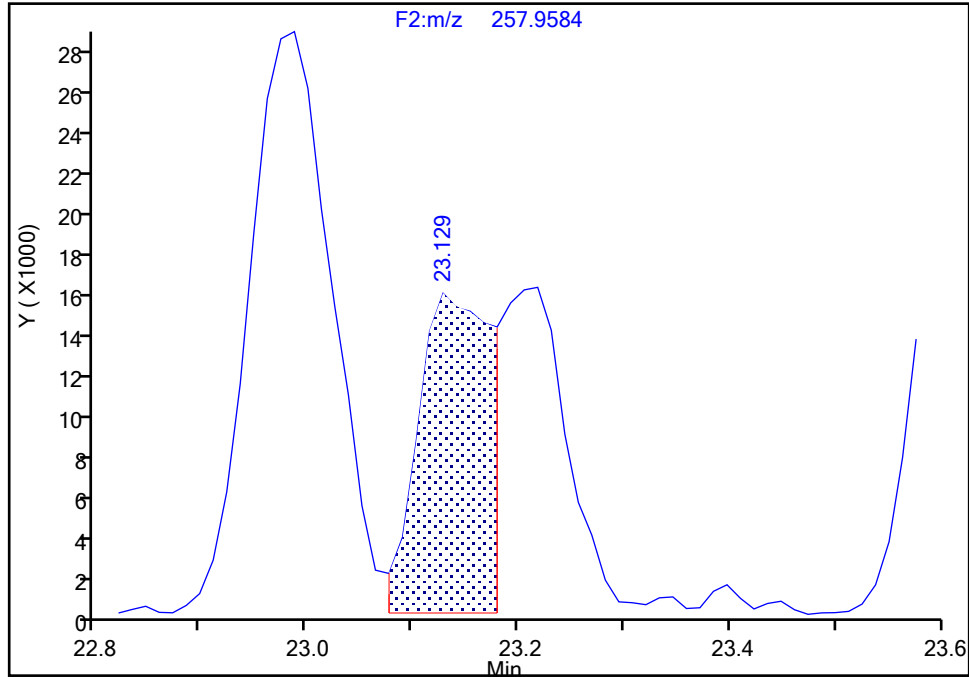
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-21/33, CAS: STL01800

Signal: 2

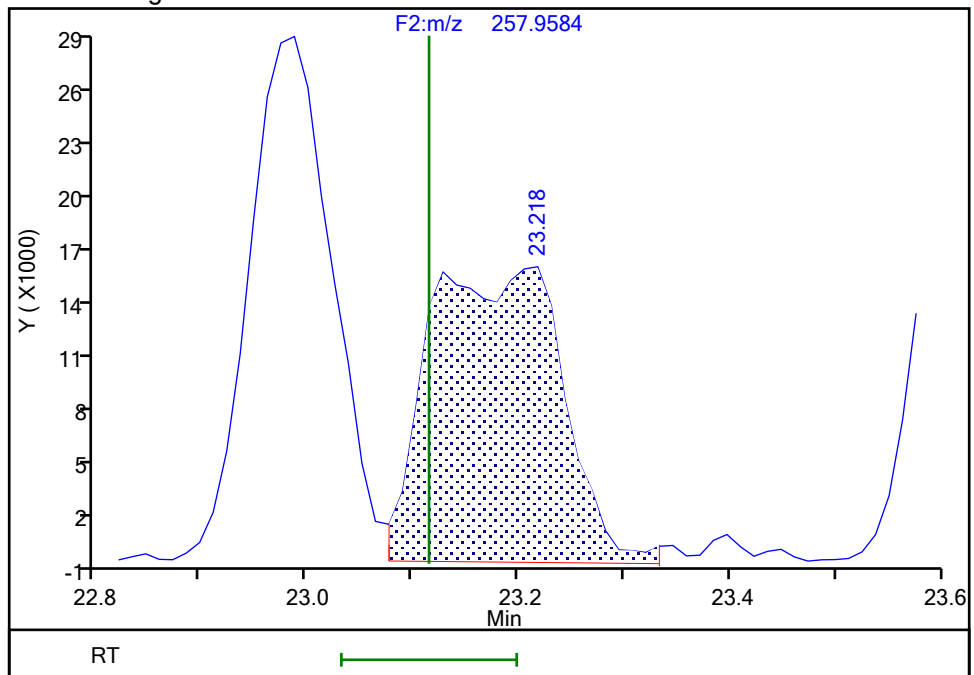
RT: 23.13  
Area: 70581  
Amount: 1.094563  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.22  
Area: 139356  
Amount: 1.979659  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 18:02:30 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

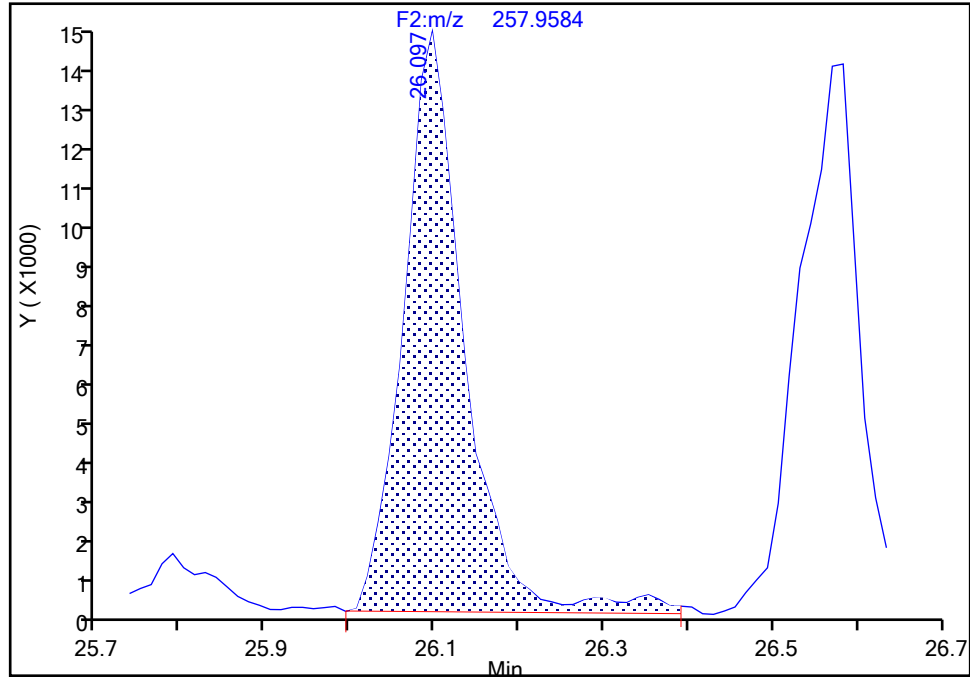
Detector F2(21.81 :35.54 )

**PCB-38, CAS: 53555-66-1**

Signal: 2

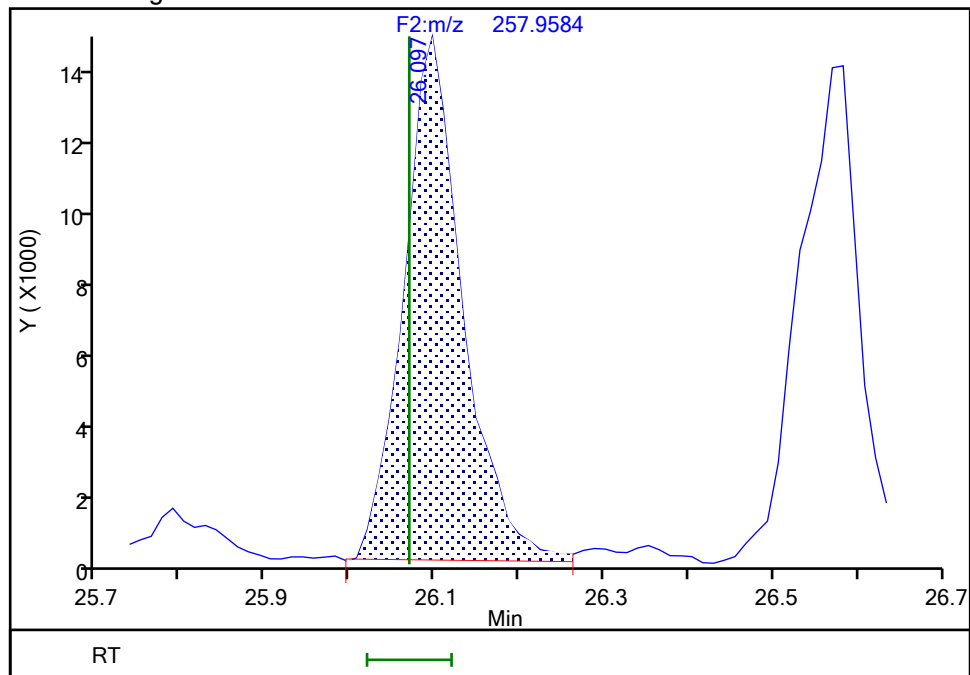
RT: 26.10  
Area: 70957  
Amount: 0.971249  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.10  
Area: 68696  
Amount: 0.992448  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:34:39 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

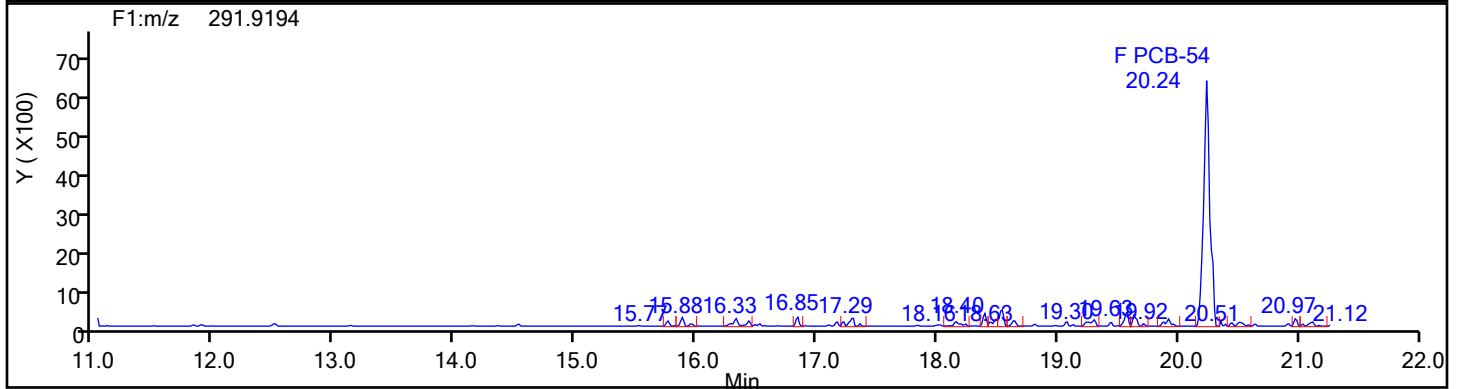
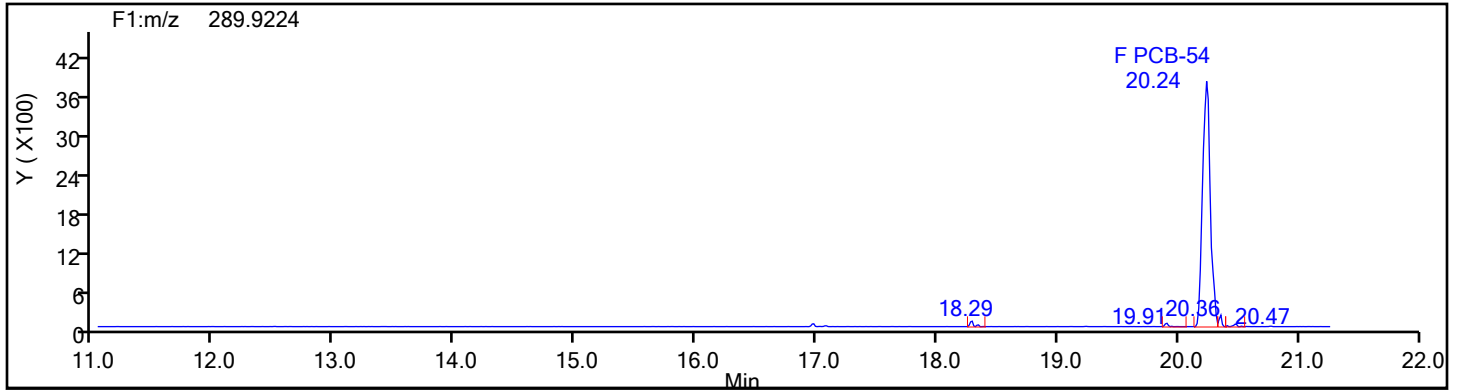
Worklist#: 87130

Sample Line#: 2

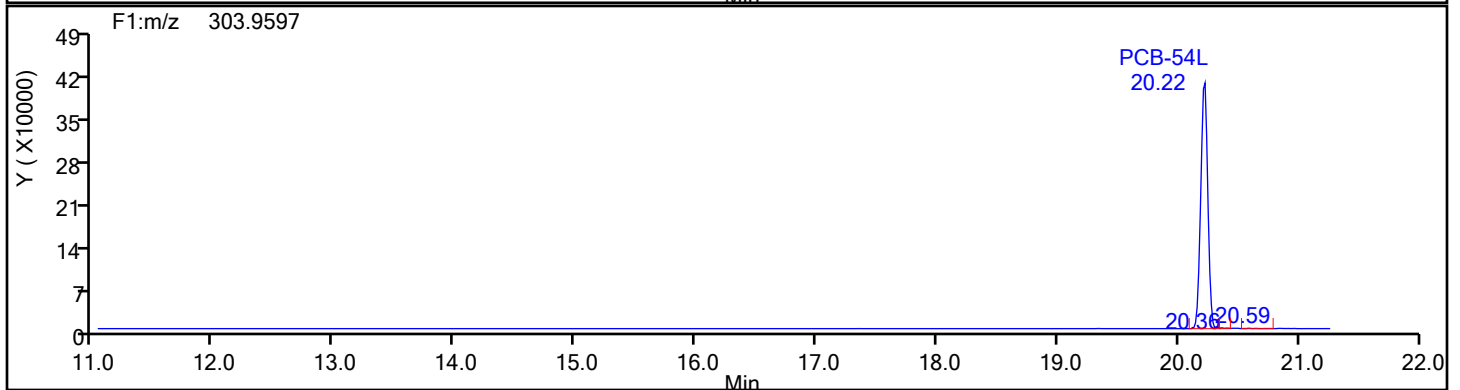
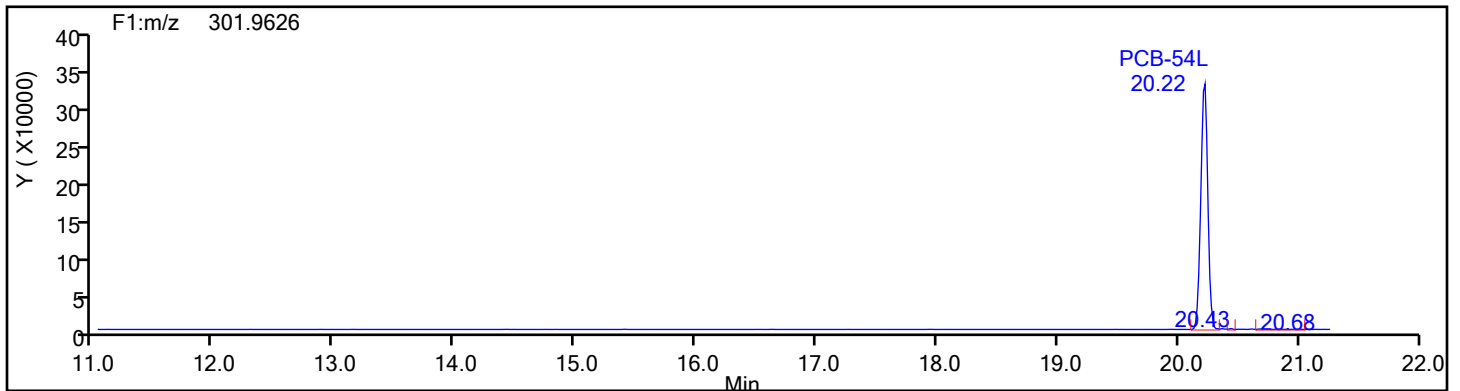
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



TePCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

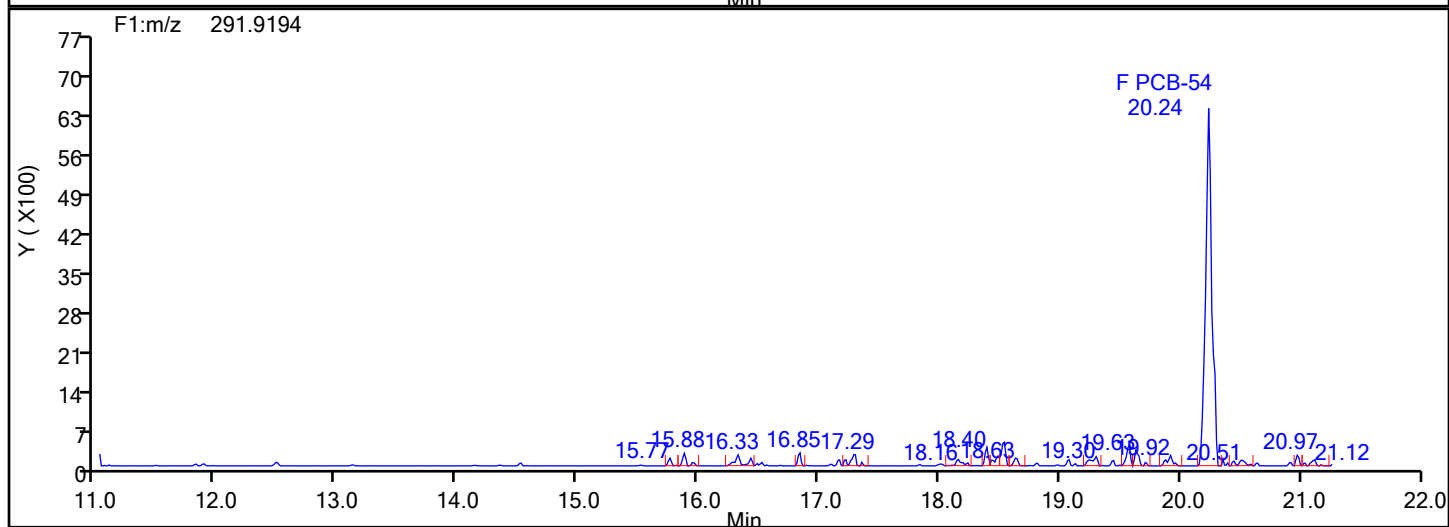
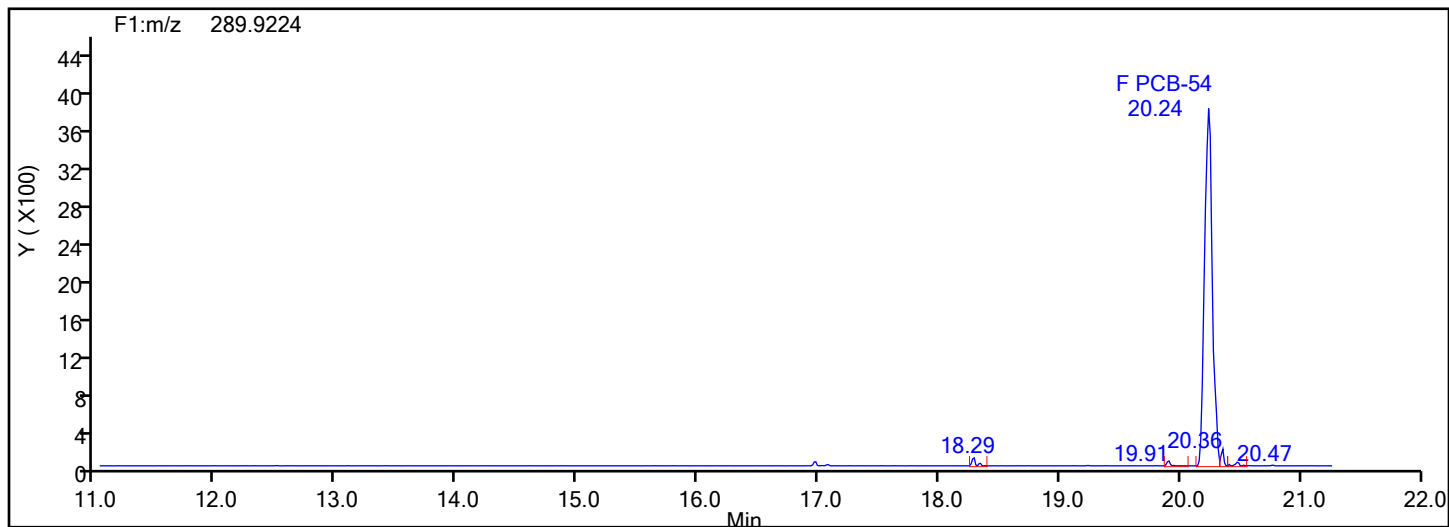
Worklist#: 87130

Sample Line#: 2

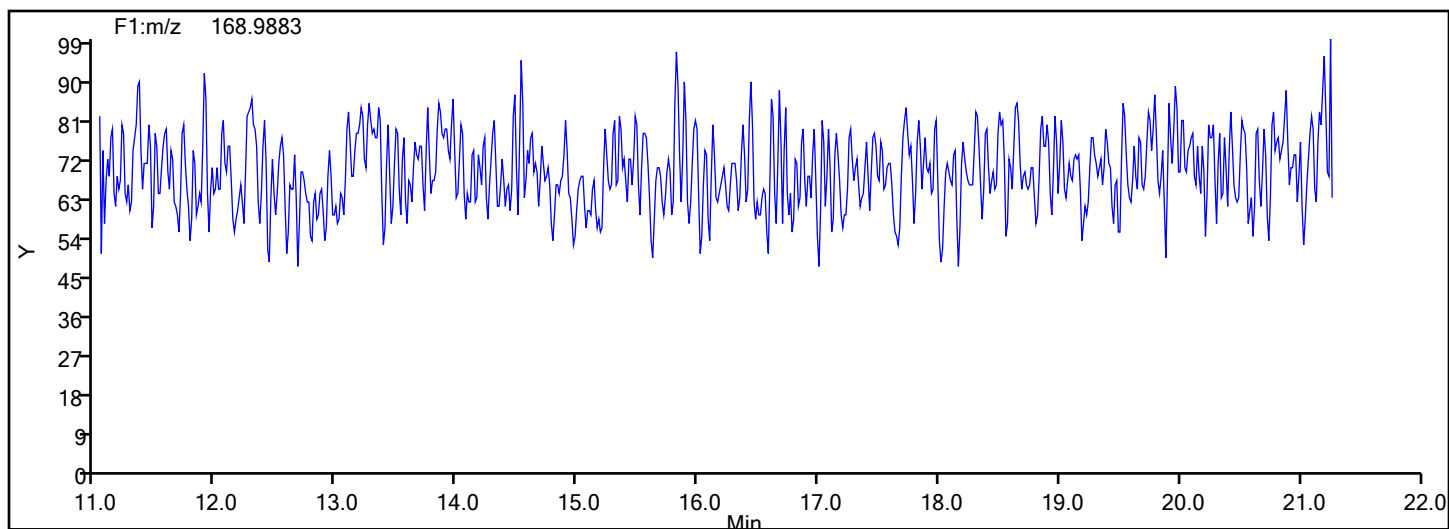
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



TePCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

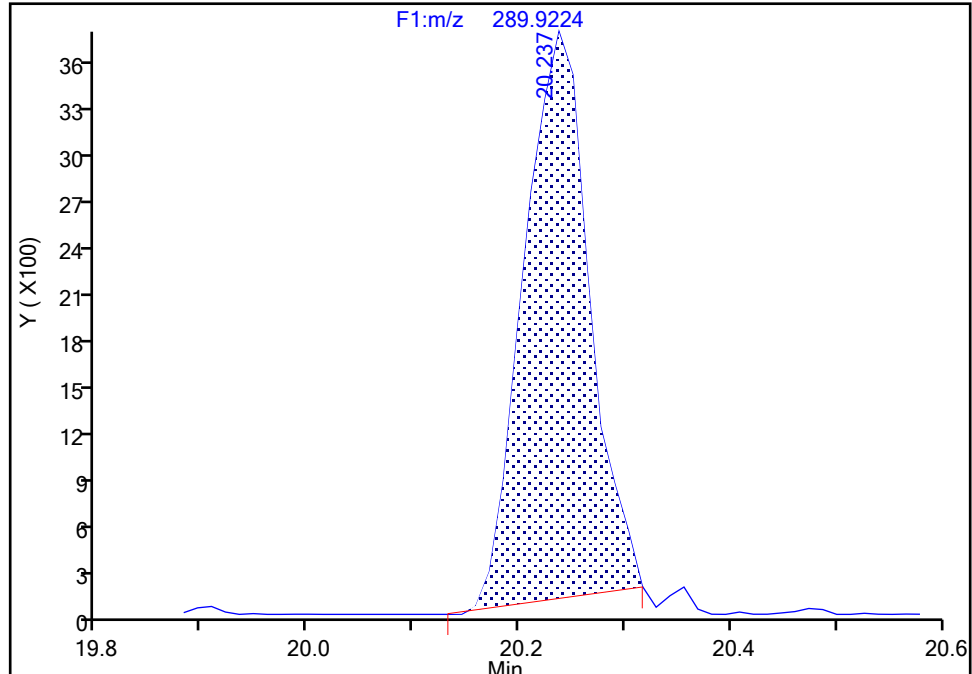
Detector F1(11.07 :21.70 )

PCB-54, CAS: 15968-05-5

Signal: 1

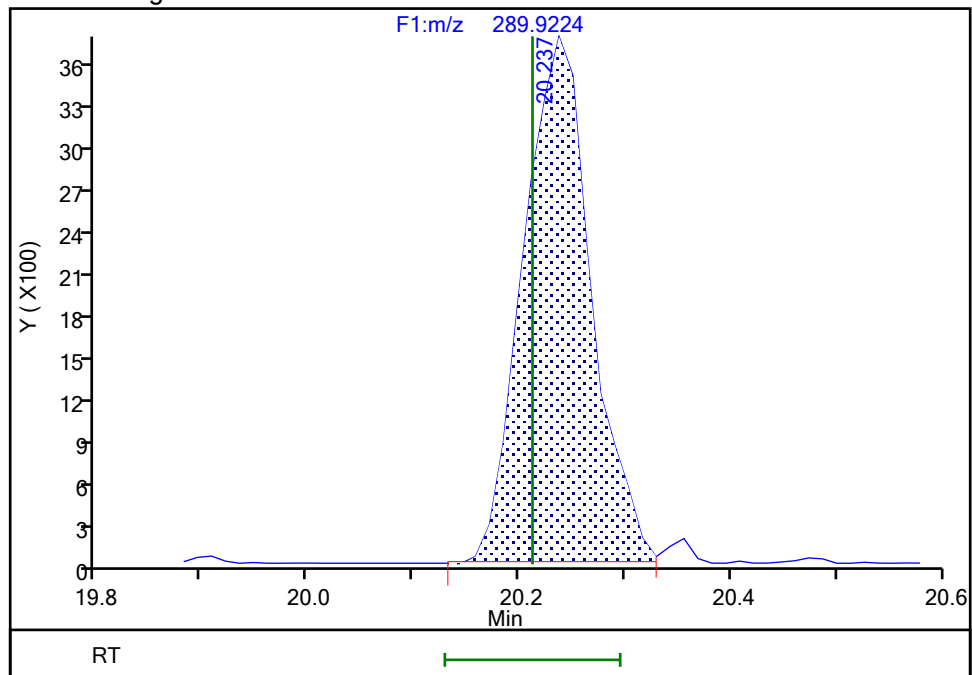
RT: 20.24  
Area: 15732  
Amount: 1.081870  
Amount Units: pg/ul

## Processing Integration Results



RT: 20.24  
Area: 16803  
Amount: 1.040564  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 17:57:50 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

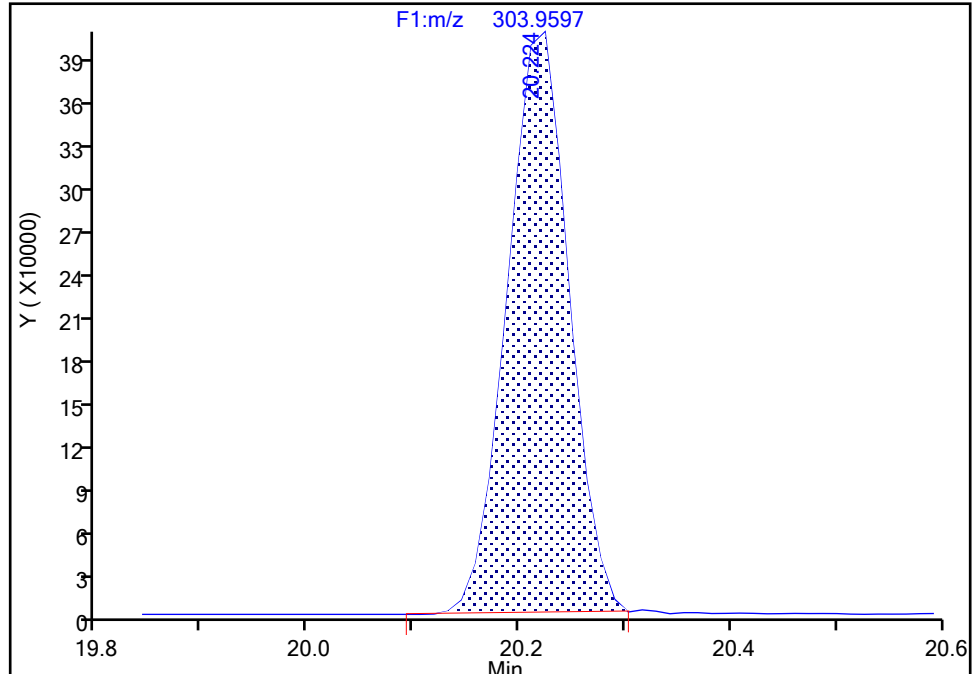
Detector F1(11.07 :21.70 )

**PCB-54L, CAS: 234432-88-3**

Signal: 2

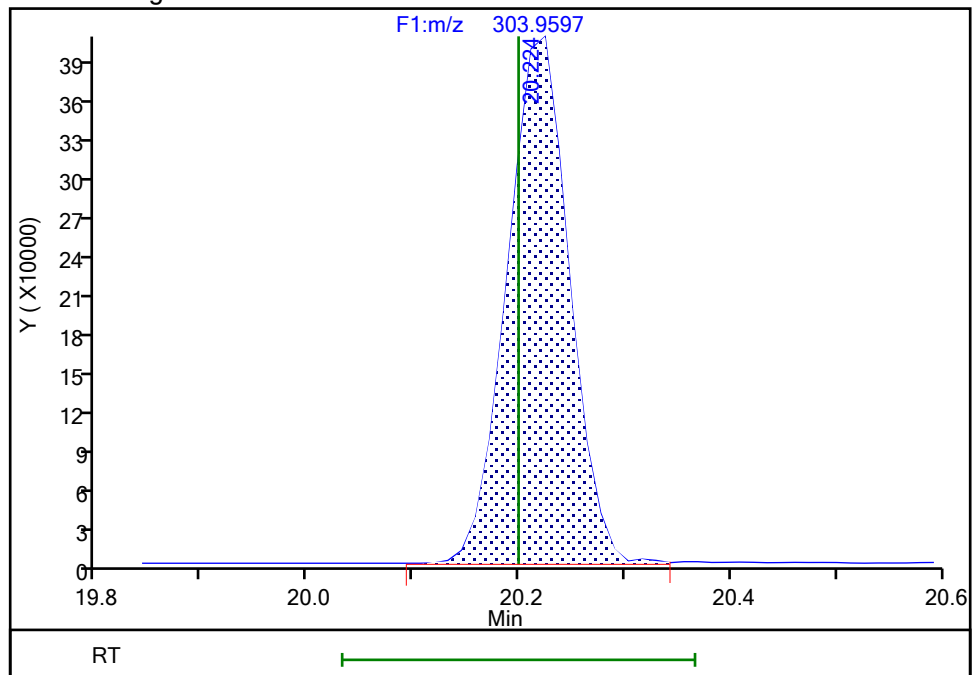
RT: 20.22  
Area: 1651536  
Amount: 94.488267  
Amount Units: pg/ul

## Processing Integration Results



RT: 20.22  
Area: 1667087  
Amount: 102.2191  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:35:06 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Chrom Revision: 2.3 20-May-2024 22:00:34

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Vol: 1.0 ul

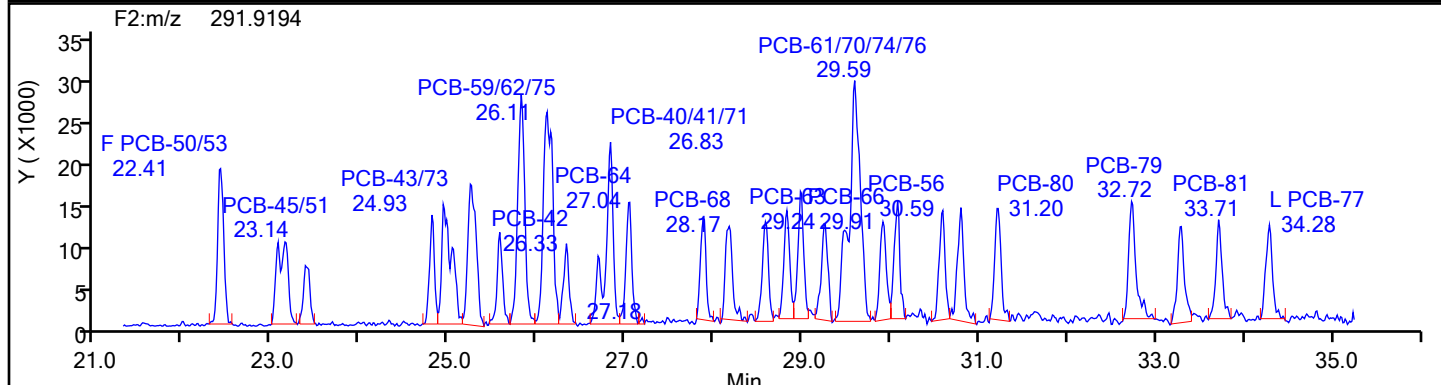
Operator ID: Xcalibur System

Limit Group: HR - EPA\_23 PCB ICAL

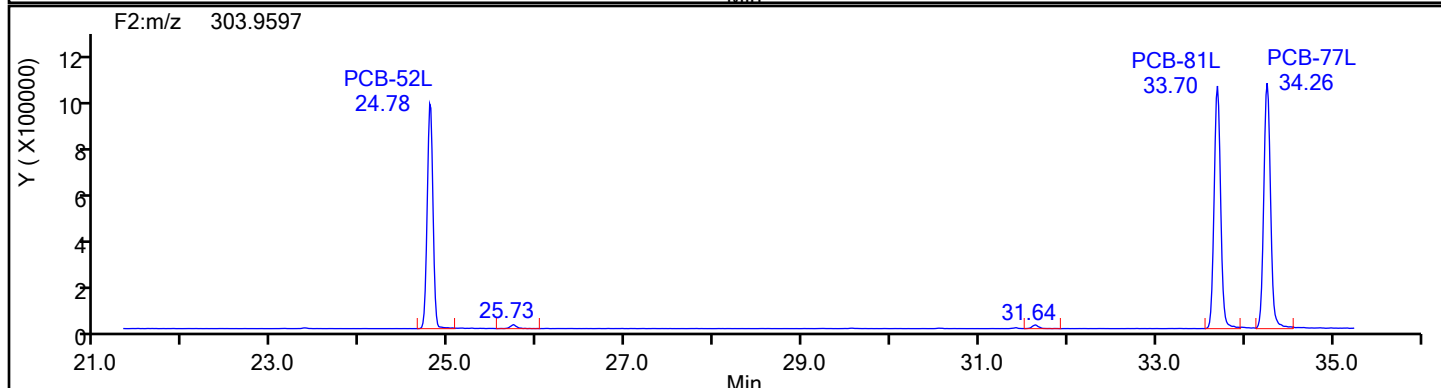
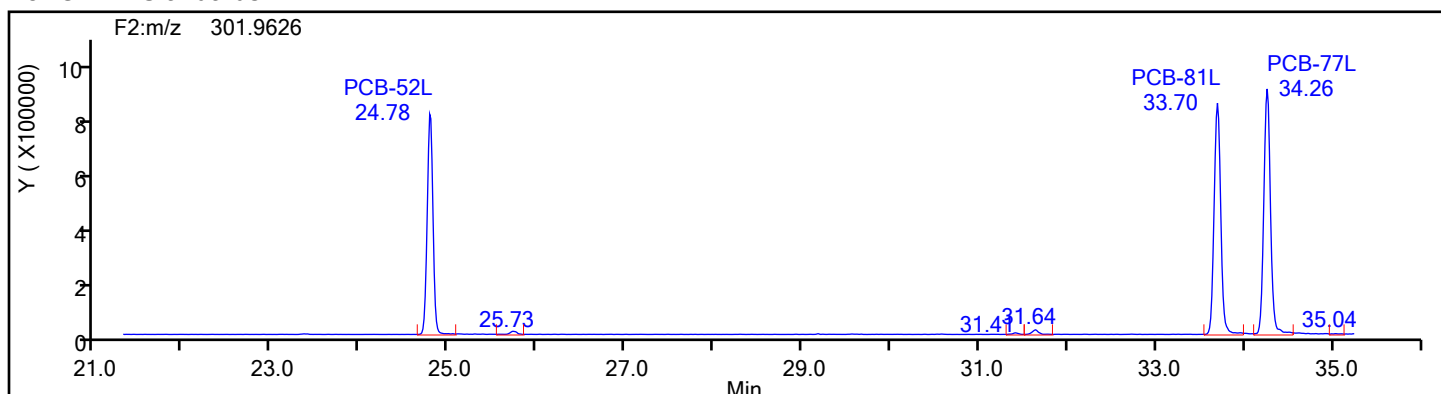
## Introduction

Sample Line#: 2

Column Dia: 0.25 mm



TePCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

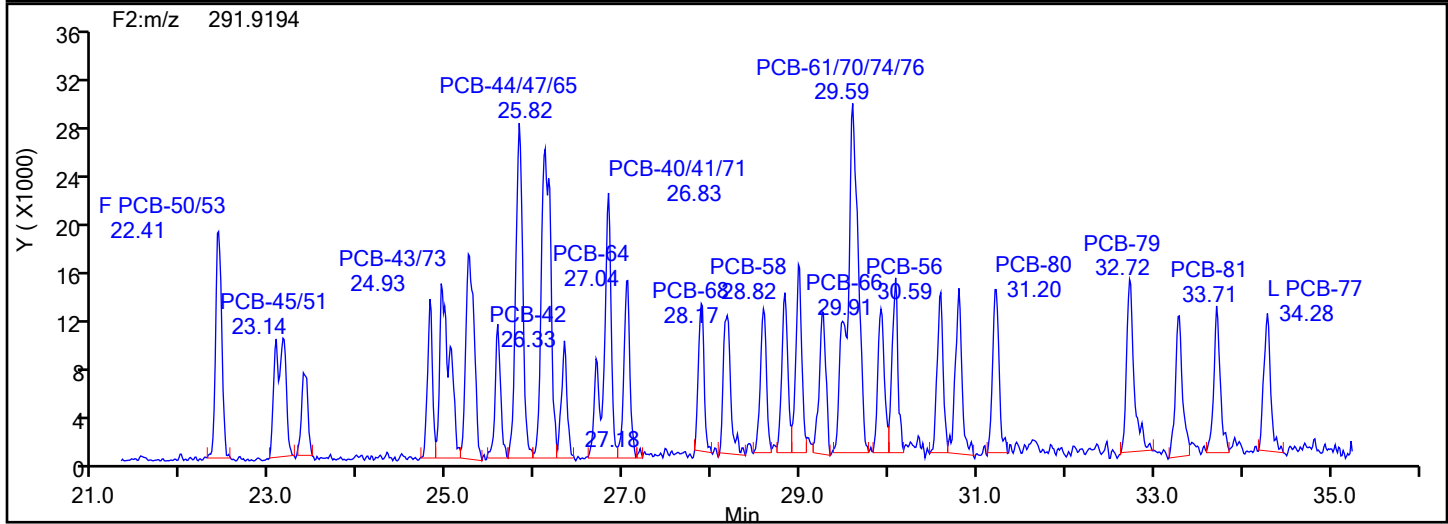
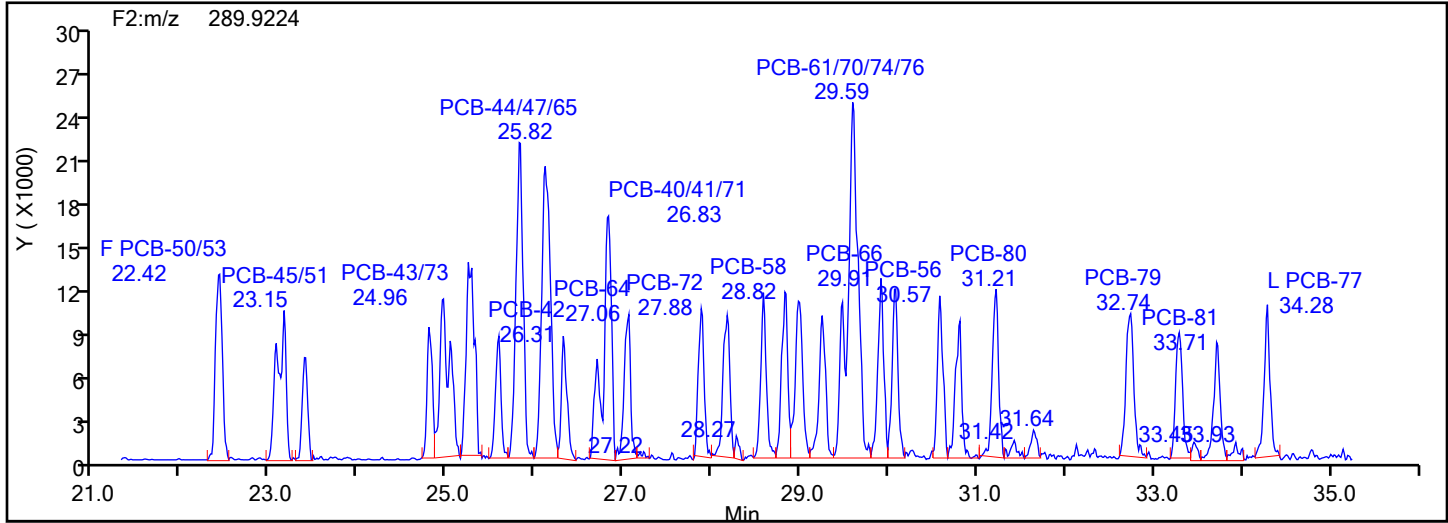
Worklist#: 87130

Sample Line#: 2

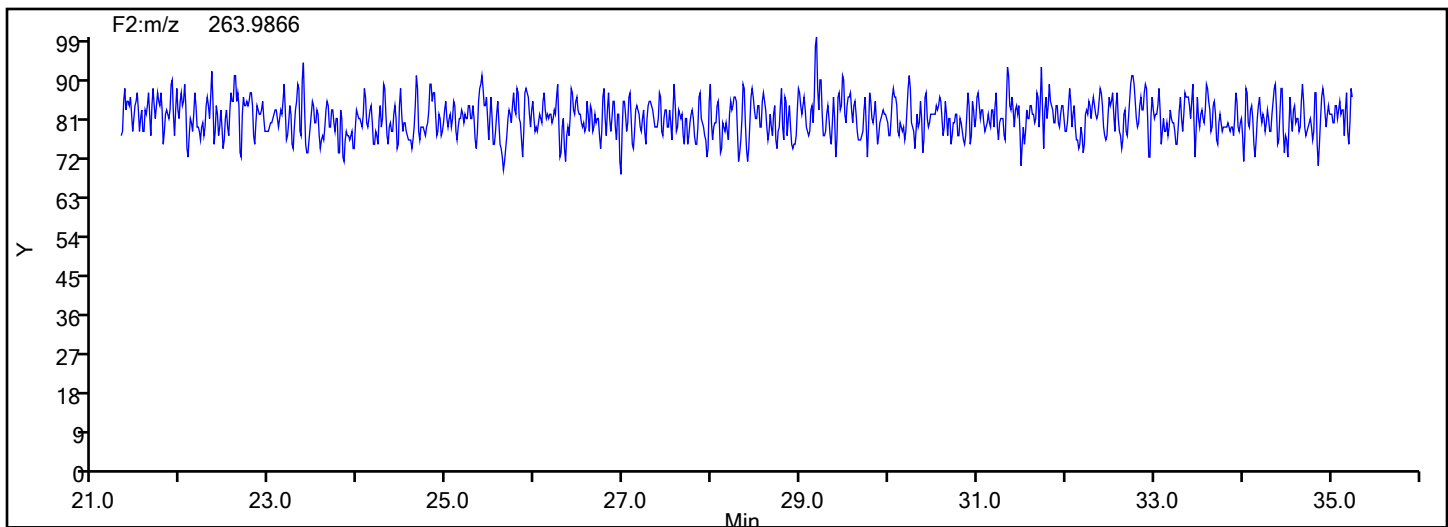
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



## TePCB F2 Lock Mass





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

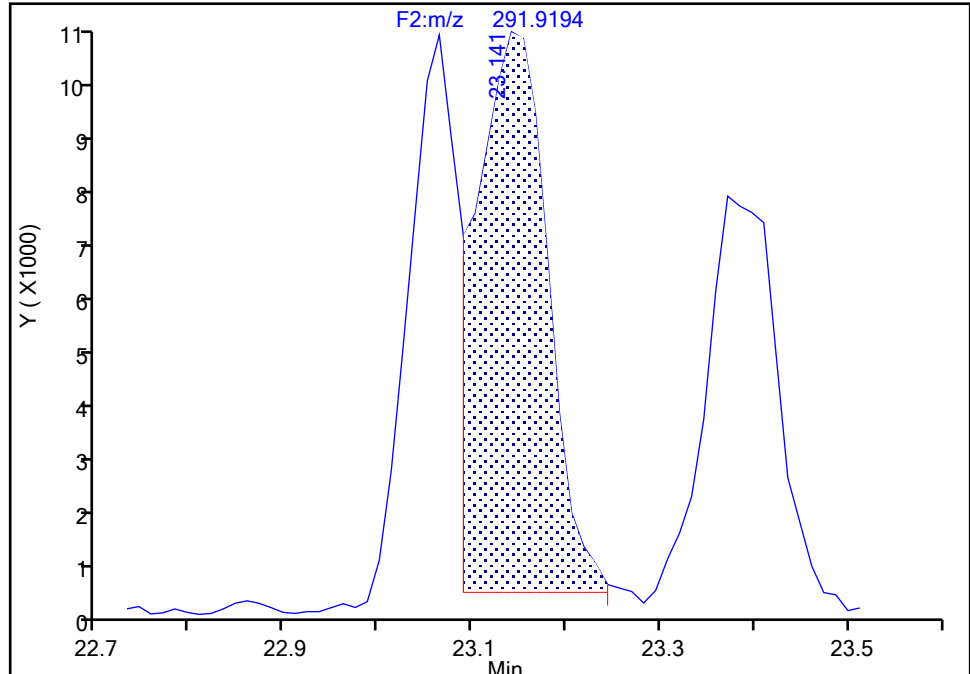
Detector F2(21.81 :35.54 )

**PCB-45/51, CAS: STL01804**

Signal: 2

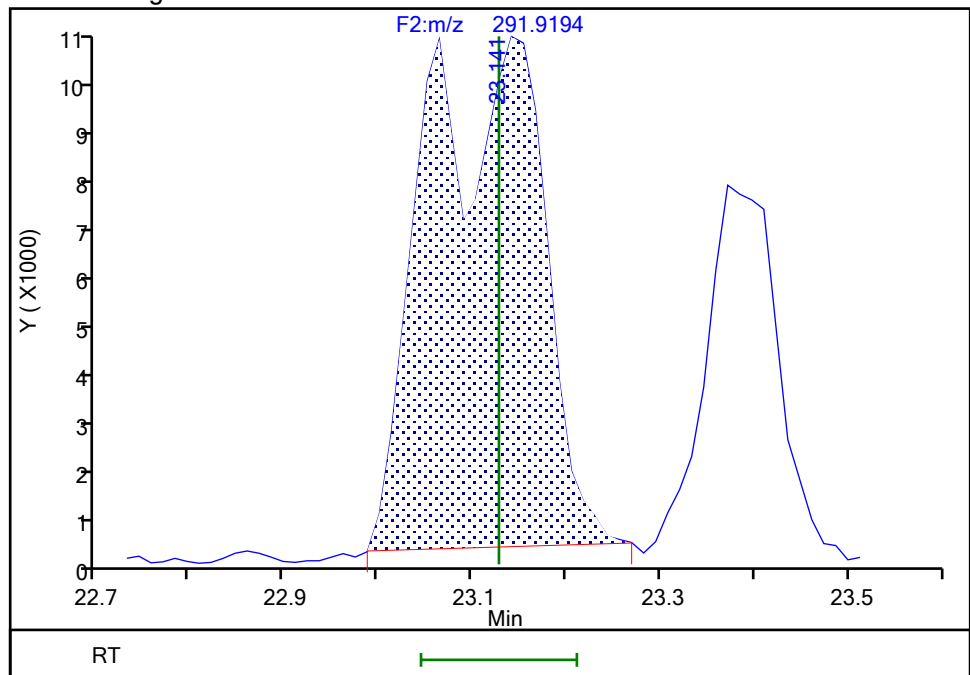
RT: 23.14  
Area: 50830  
Amount: 1.771882  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.14  
Area: 85307  
Amount: 1.974472  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 18:02:44 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

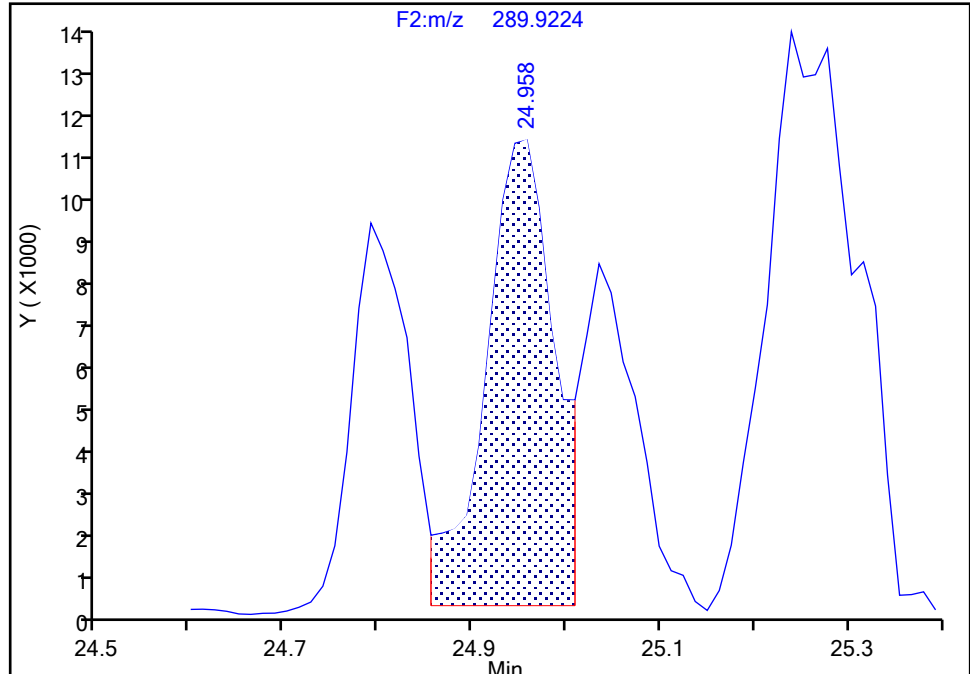
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 1

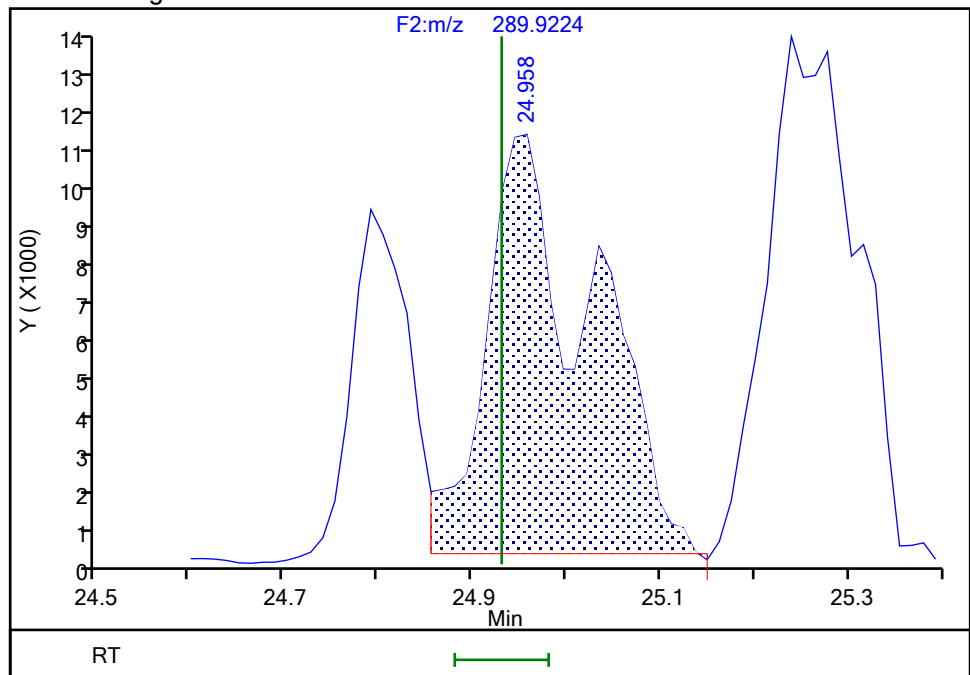
RT: 24.96  
Area: 54766  
Amount: 1.474080  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.96  
Area: 85780  
Amount: 2.004763  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 18:03:33 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

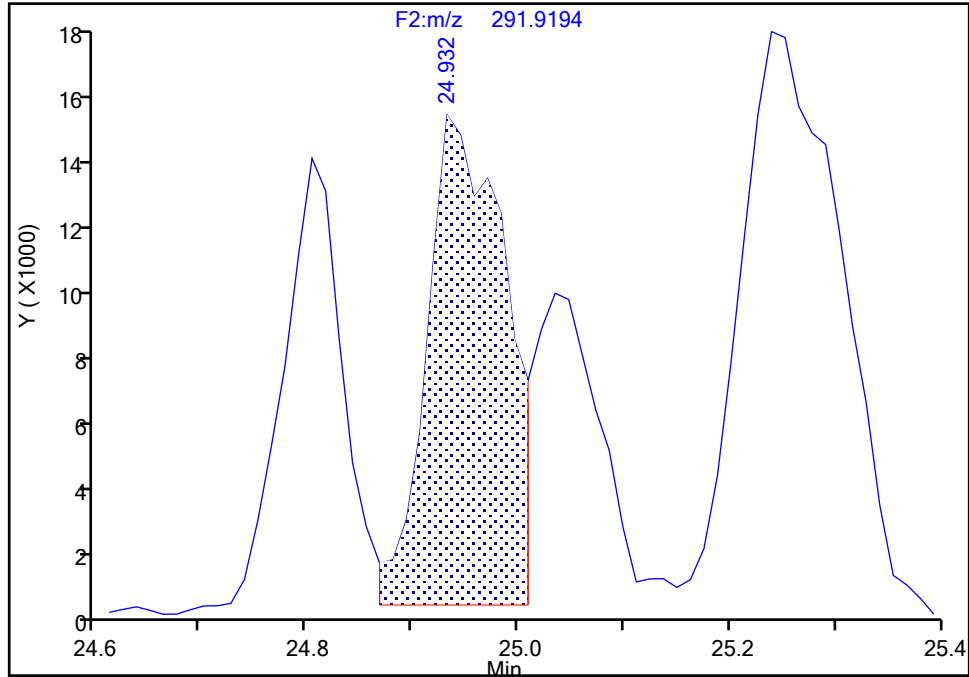
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 2

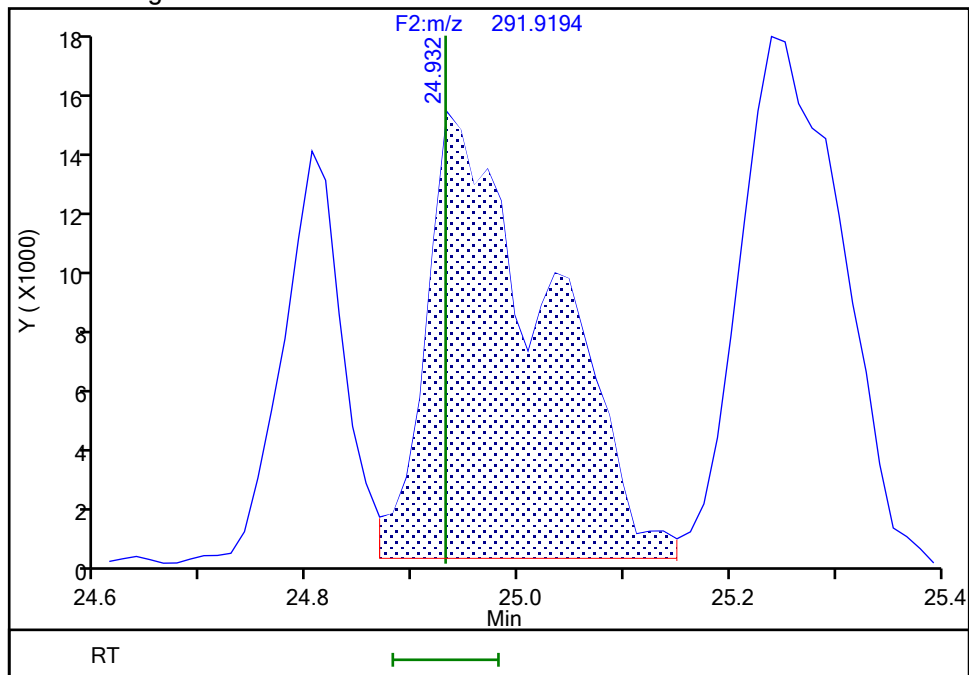
RT: 24.93  
Area: 73369  
Amount: 1.474080  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.93  
Area: 114448  
Amount: 2.004763  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 18:03:40 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

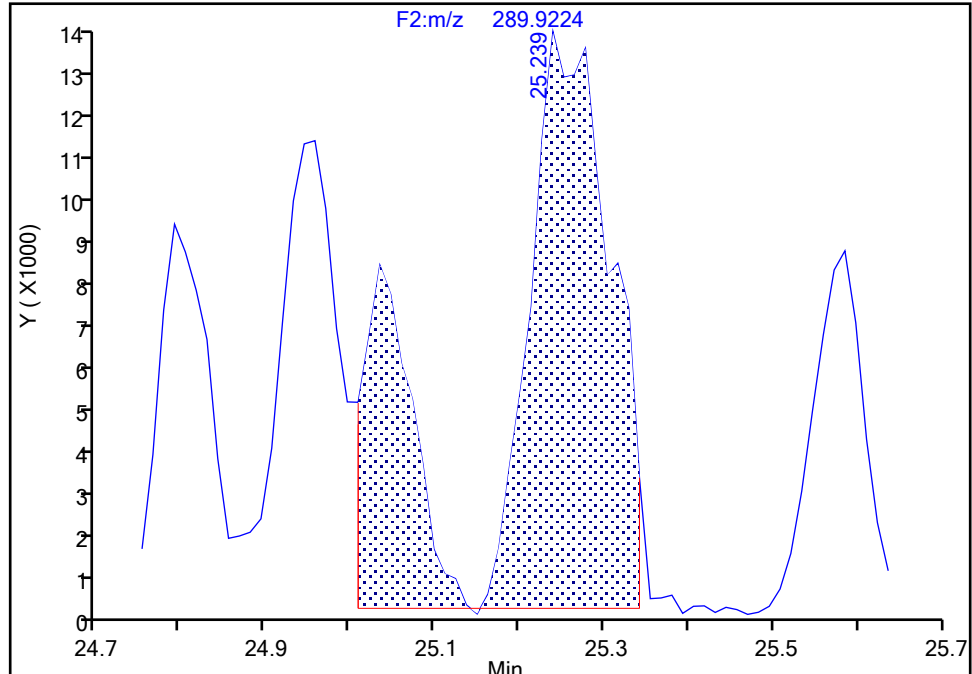
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-49/69, CAS: STL01805

Signal: 1

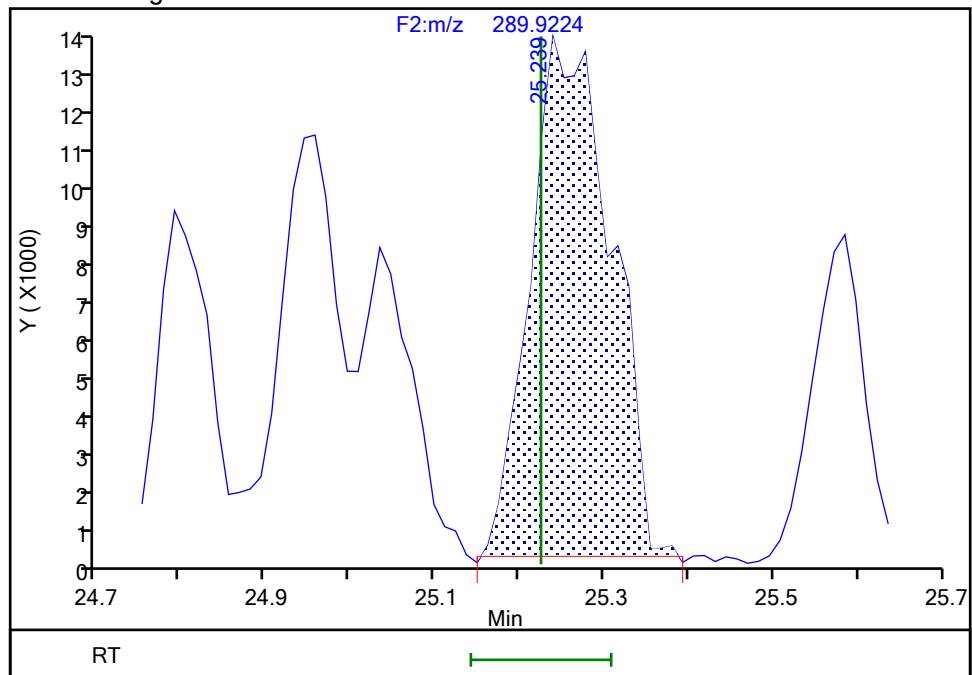
RT: 25.24  
Area: 119546  
Amount: 2.414363  
Amount Units: pg/ul

## Processing Integration Results



RT: 25.24  
Area: 88756  
Amount: 1.954885  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 18:03:33 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

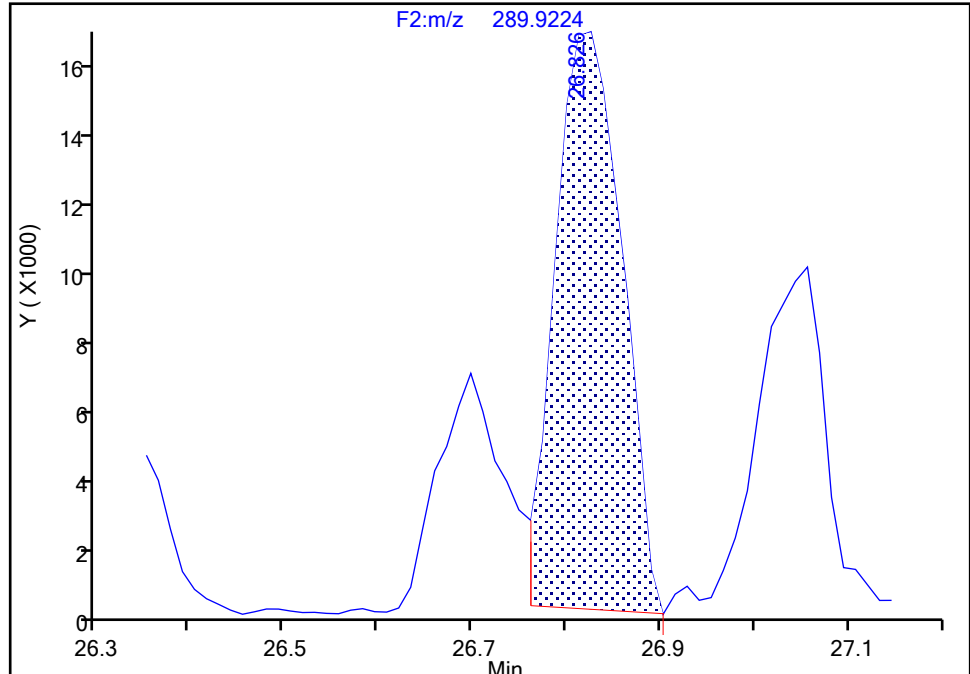
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

PCB-40/41/71, CAS: STL02292

Signal: 1

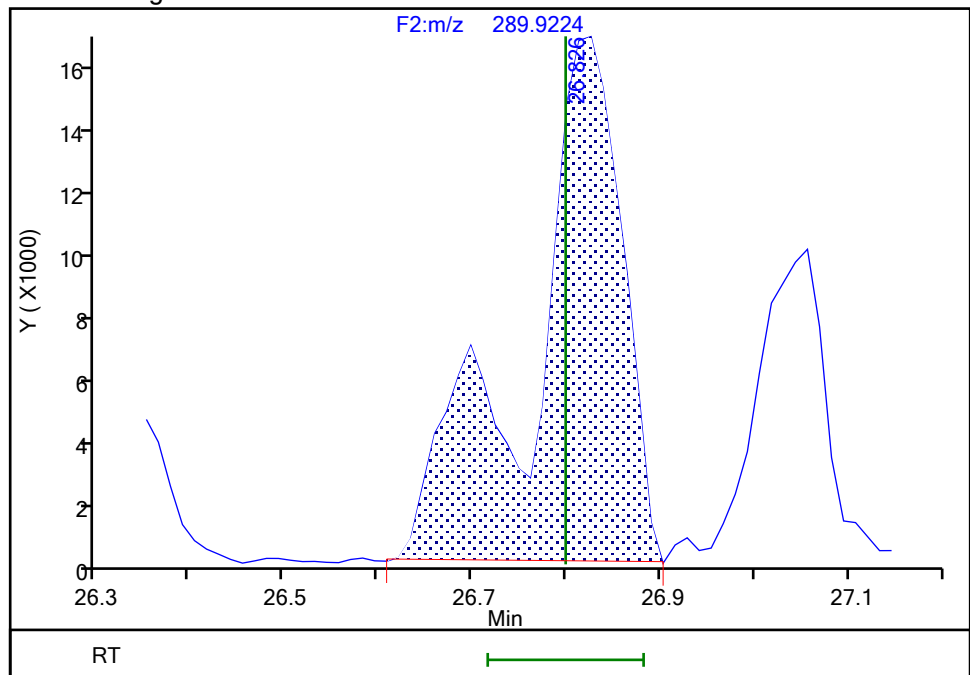
RT: 26.83  
Area: 82680  
Amount: 2.861341  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.83  
Area: 116094  
Amount: 2.948431  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 18:03:52 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

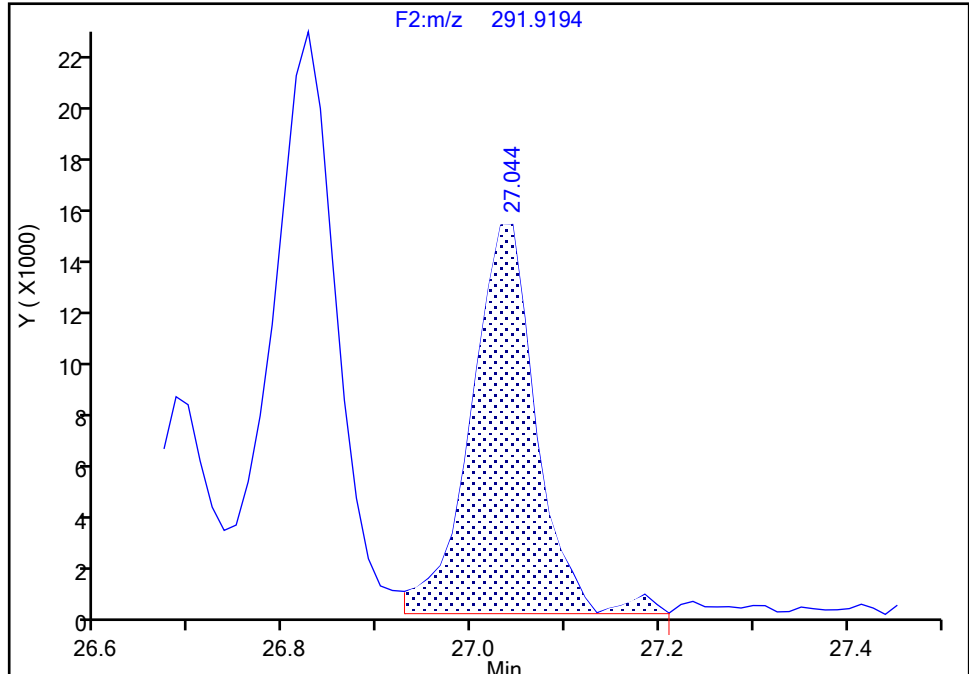
Detector F2(21.81 :35.54 )

**PCB-64, CAS: 52663-58-8**

Signal: 2

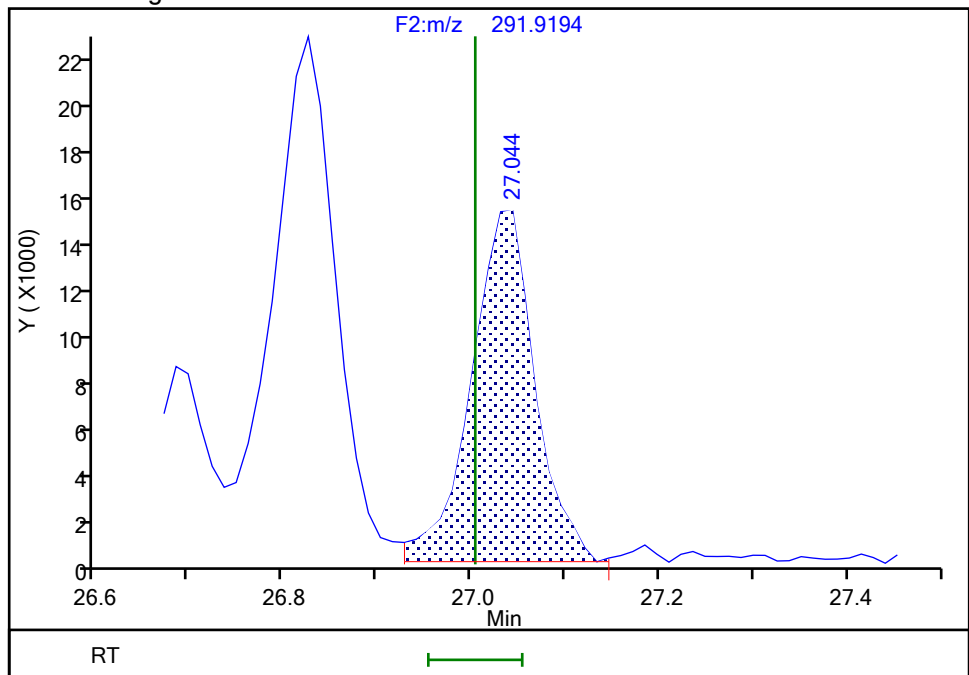
RT: 27.04  
Area: 71055  
Amount: 1.108123  
Amount Units: pg/ul

## Processing Integration Results



RT: 27.04  
Area: 69628  
Amount: 1.065987  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:35:38 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

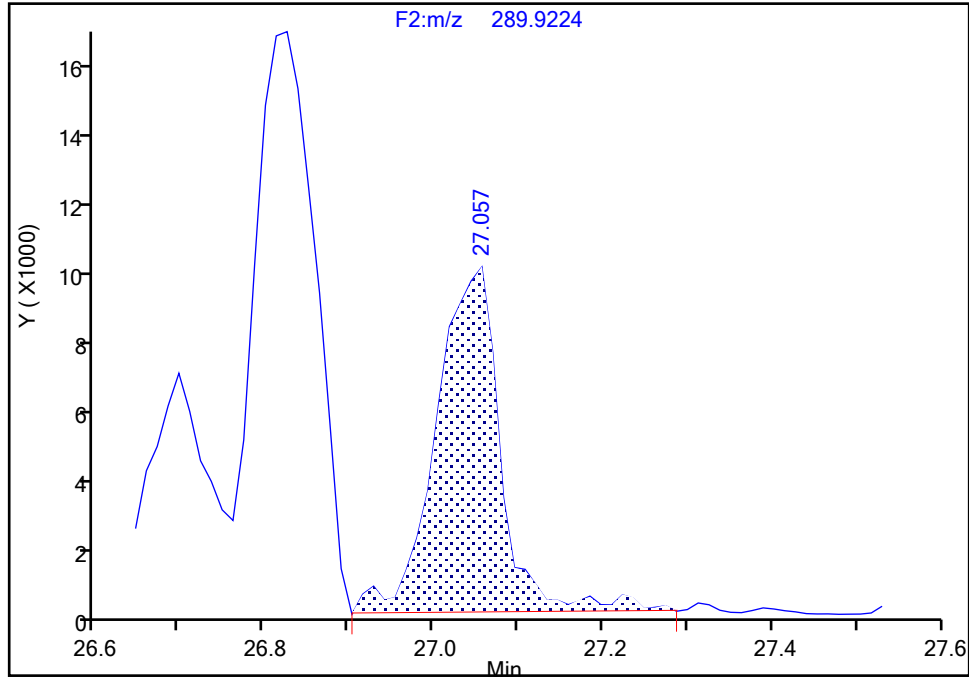
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-64, CAS: 52663-58-8

Signal: 1

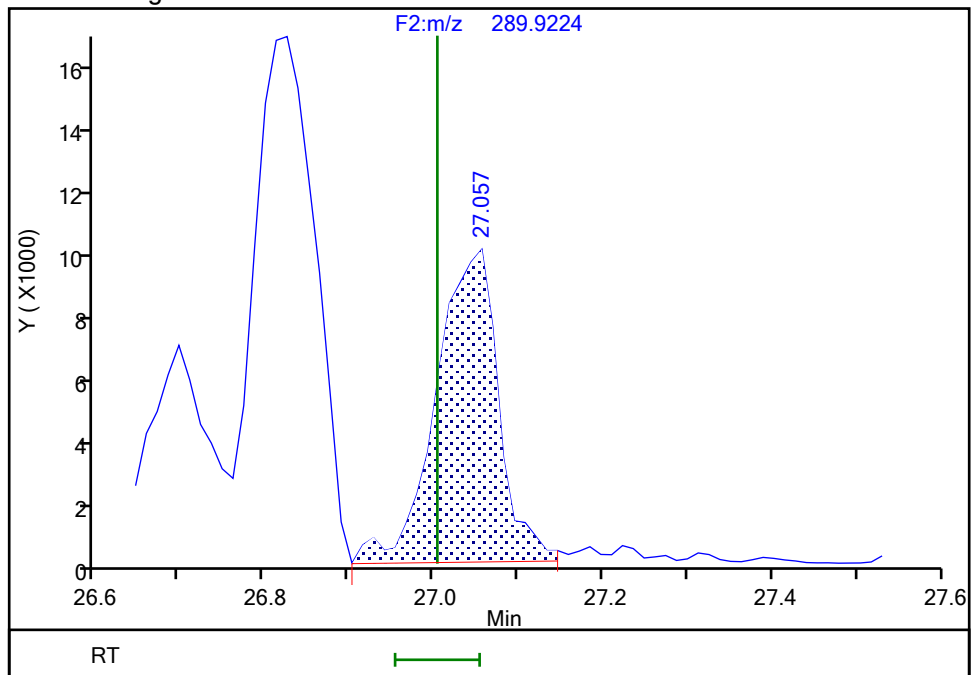
RT: 27.06  
Area: 53878  
Amount: 1.108123  
Amount Units: pg/ul

## Processing Integration Results



RT: 27.06  
Area: 51698  
Amount: 1.065987  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:35:41 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

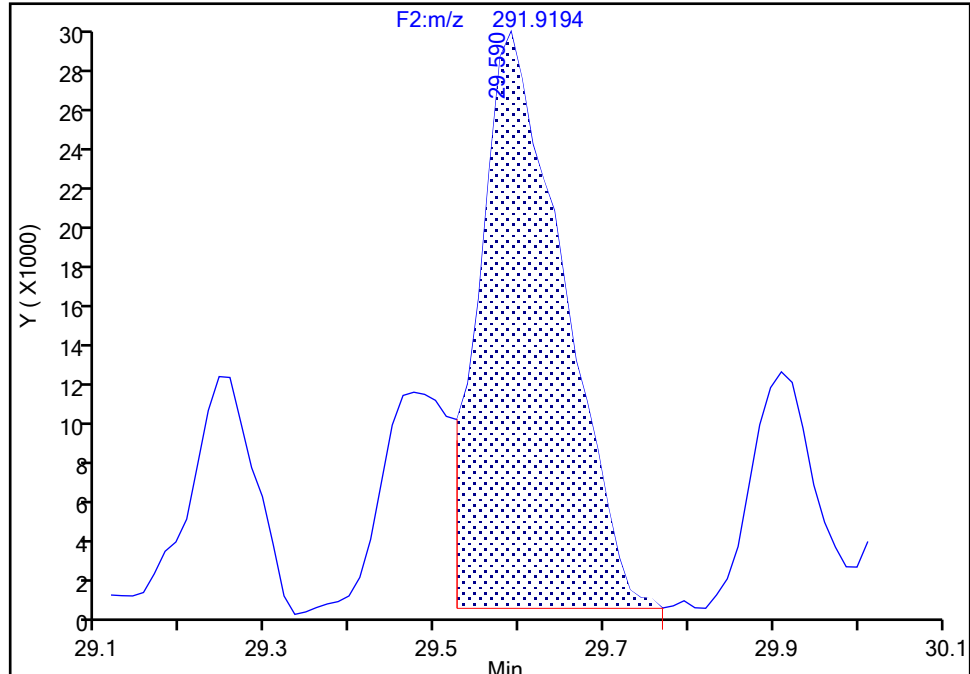
Detector F2(21.81 :35.54 )

PCB-61/70/74/76, CAS: STL01808

Signal: 2

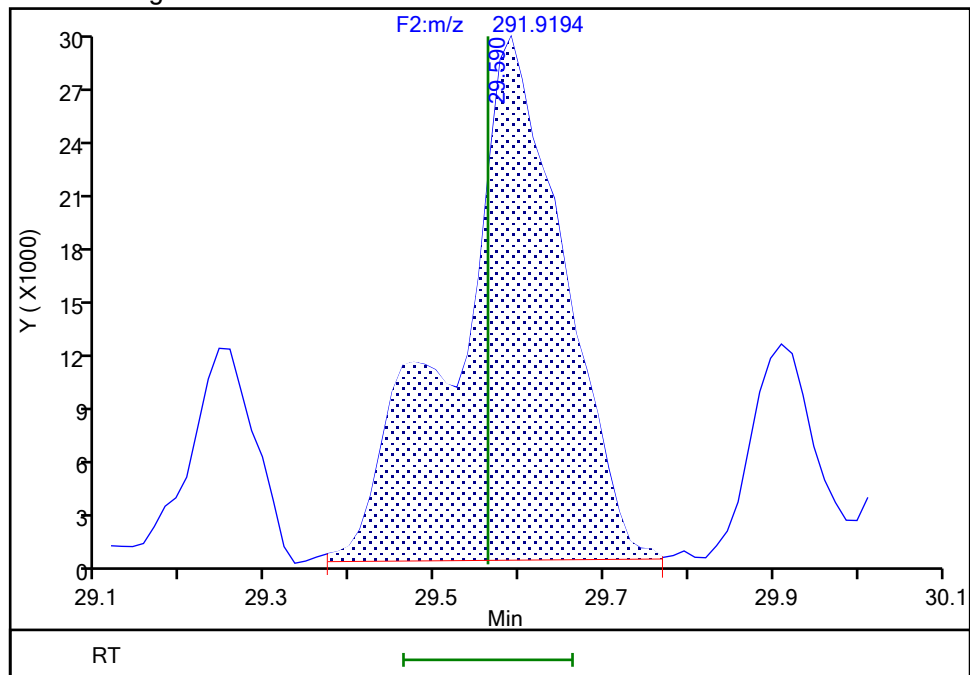
RT: 29.59  
Area: 198737  
Amount: 3.693416  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.59  
Area: 261662  
Amount: 3.875831  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 18:04:05 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

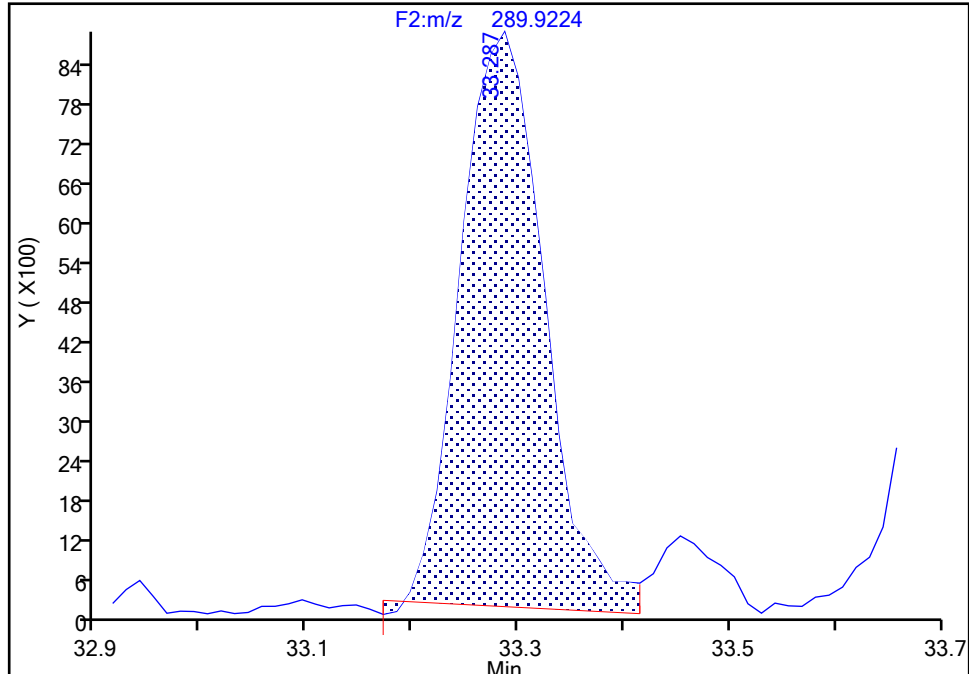
Detector F2(21.81 :35.54 )

**PCB-78, CAS: 70362-49-1**

Signal: 1

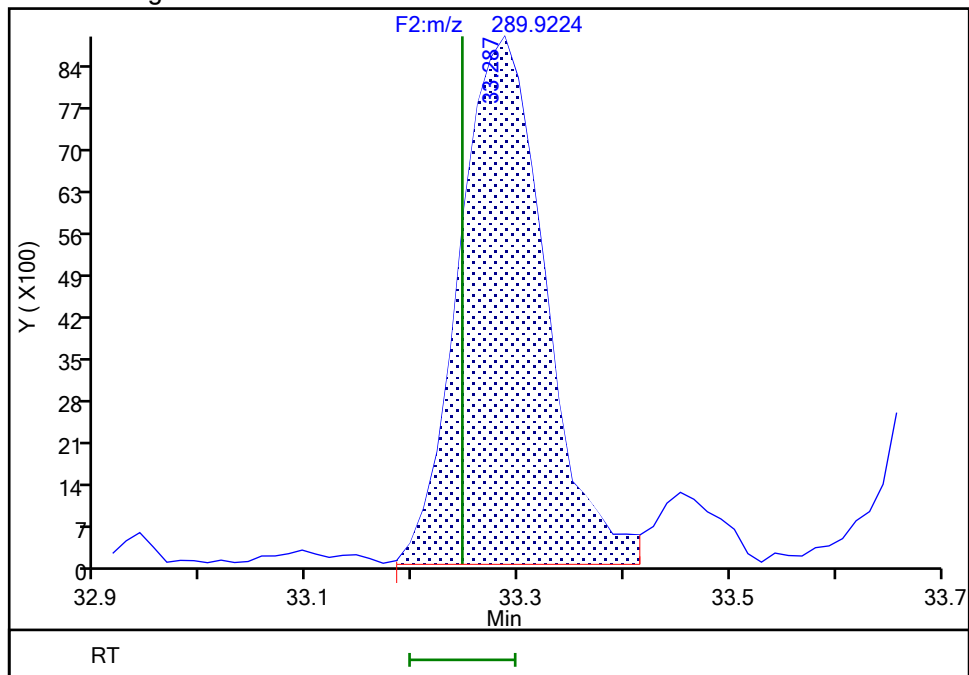
RT: 33.29  
Area: 47957  
Amount: 0.938957  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.29  
Area: 49349  
Amount: 1.029788  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:36:14 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

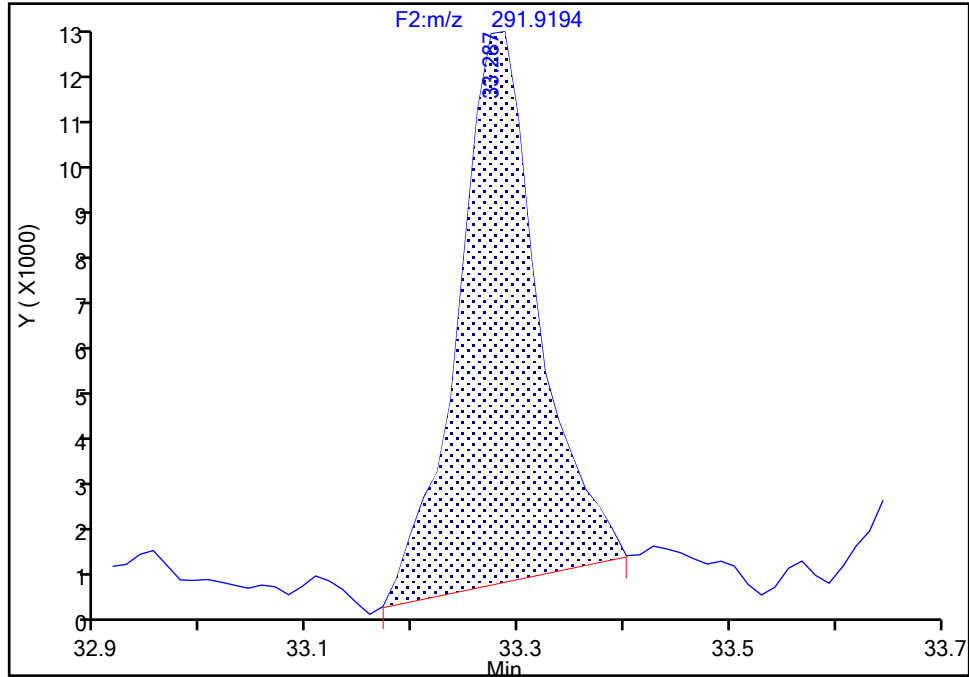
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-78, CAS: 70362-49-1

Signal: 2

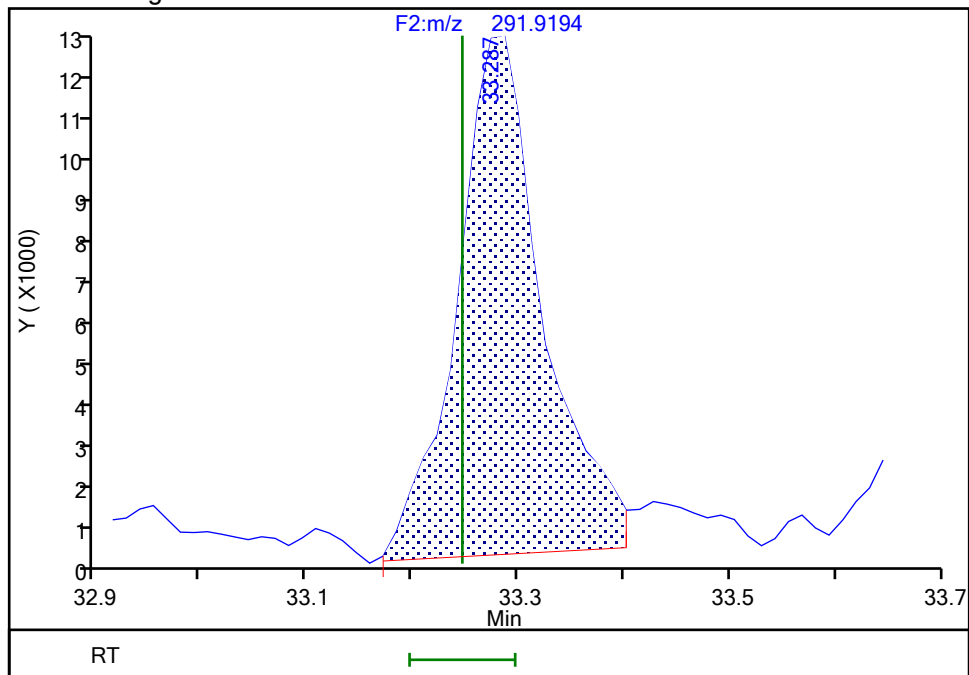
RT: 33.29  
Area: 59884  
Amount: 0.938957  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.29  
Area: 66291  
Amount: 1.029788  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:36:22 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Page 1803 of 3199

BASFHWC-Pass 20240529  
9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

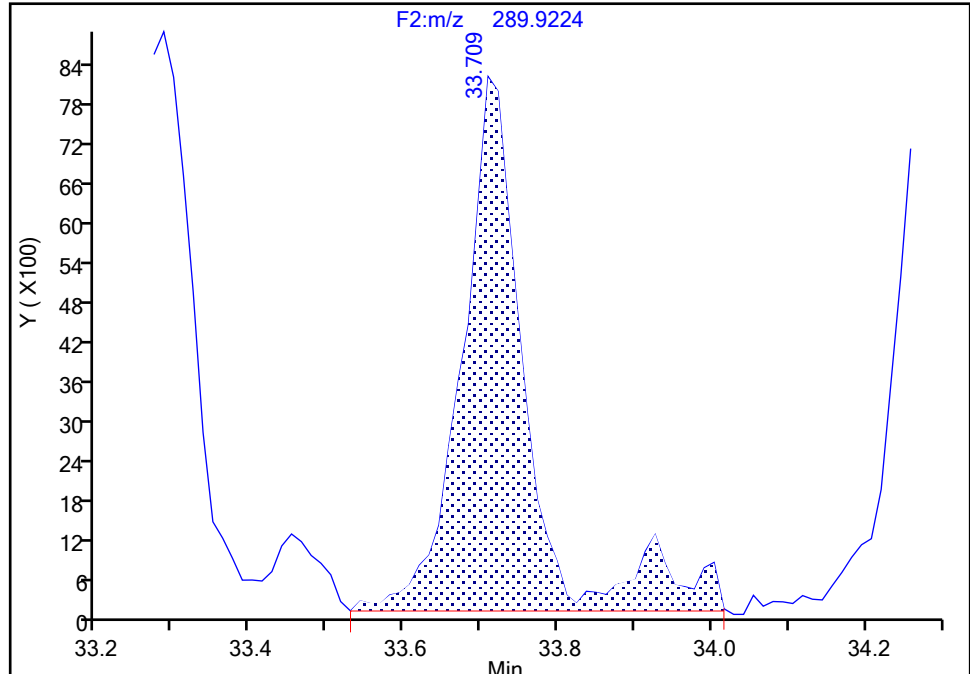
Detector F2(21.81 :35.54 )

**PCB-81, CAS: 70362-50-4**

Signal: 1

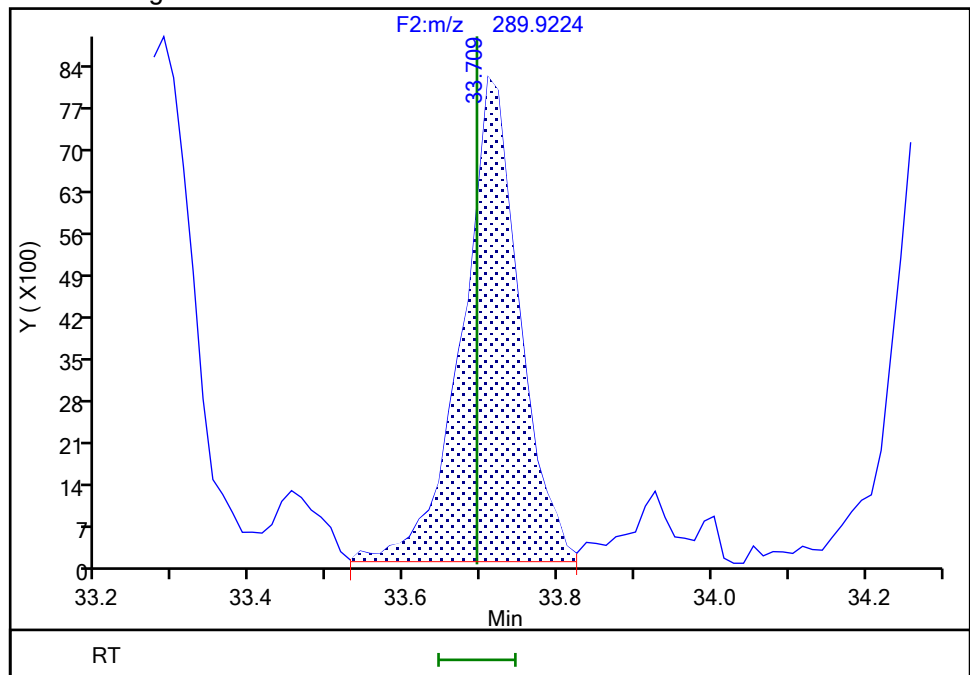
RT: 33.71  
Area: 47878  
Amount: 1.089091  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.71  
Area: 41953  
Amount: 1.014645  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:35:15 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

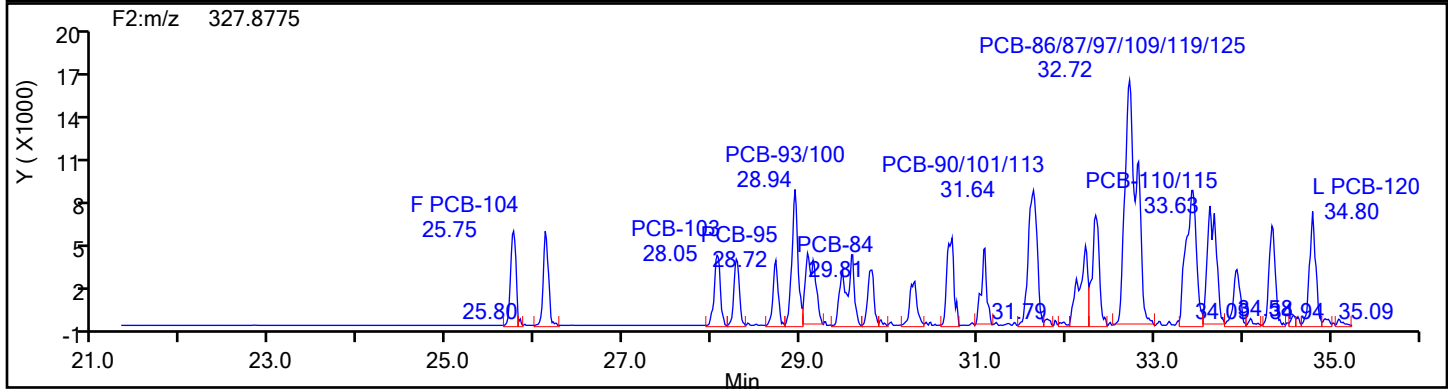
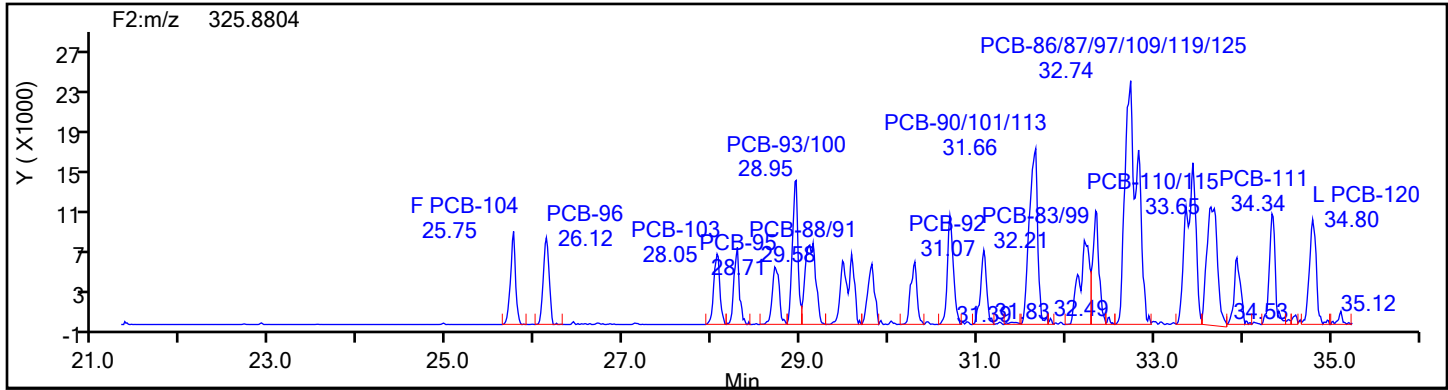
Worklist#: 87130

Sample Line#: 2

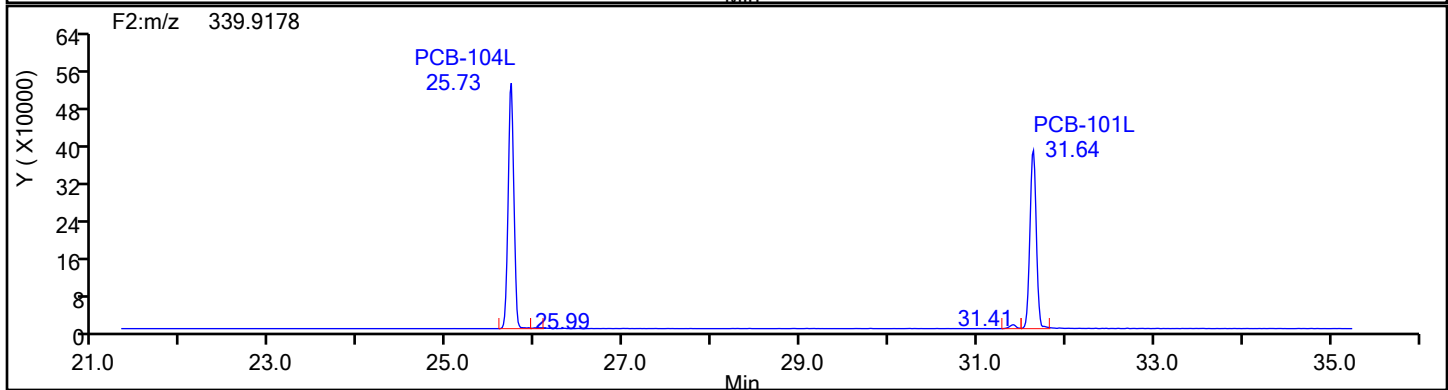
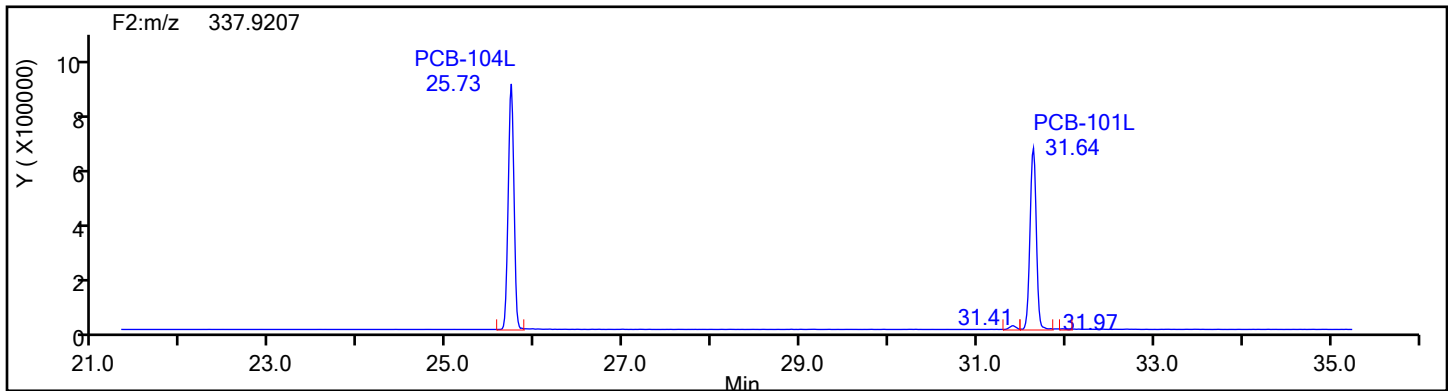
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F2

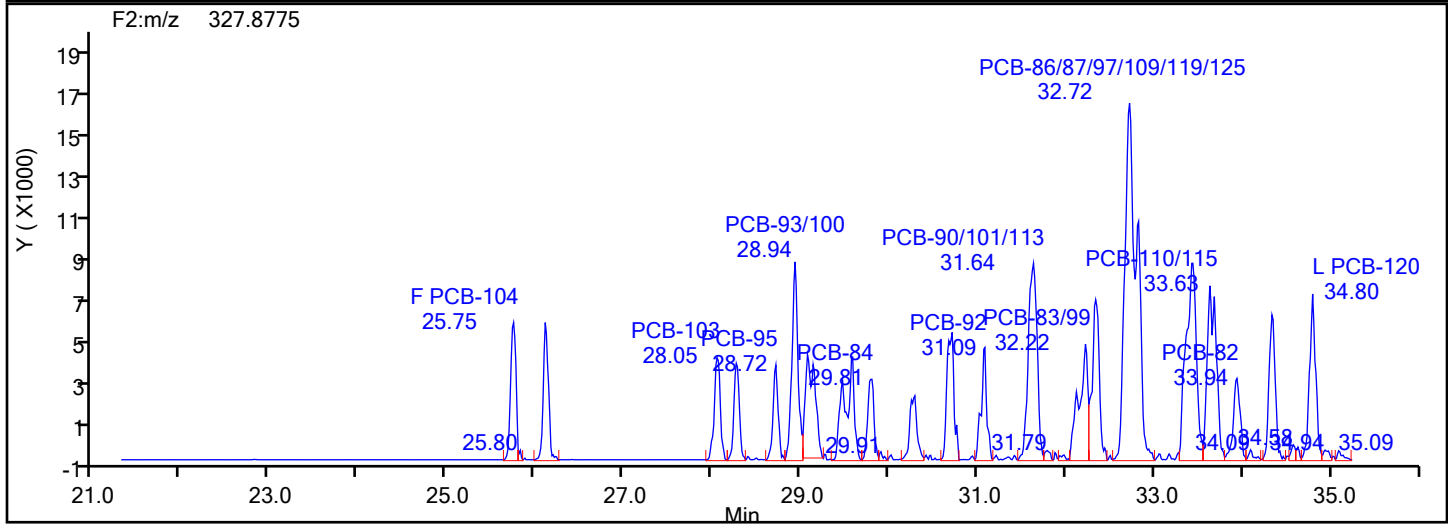
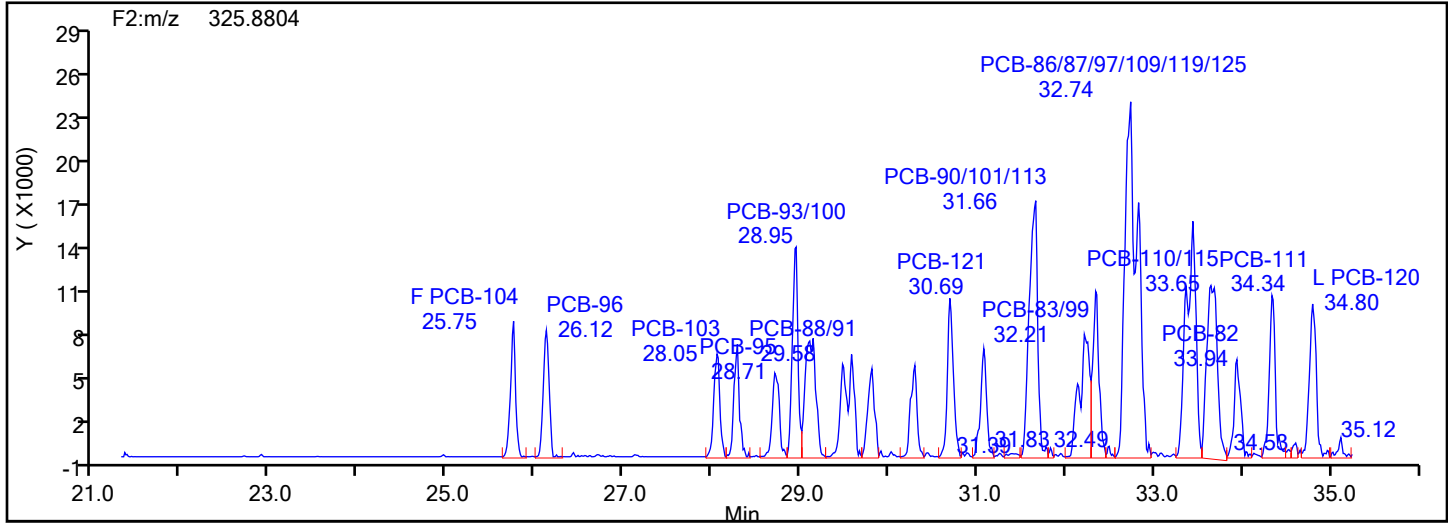


PePCB F2 Standards

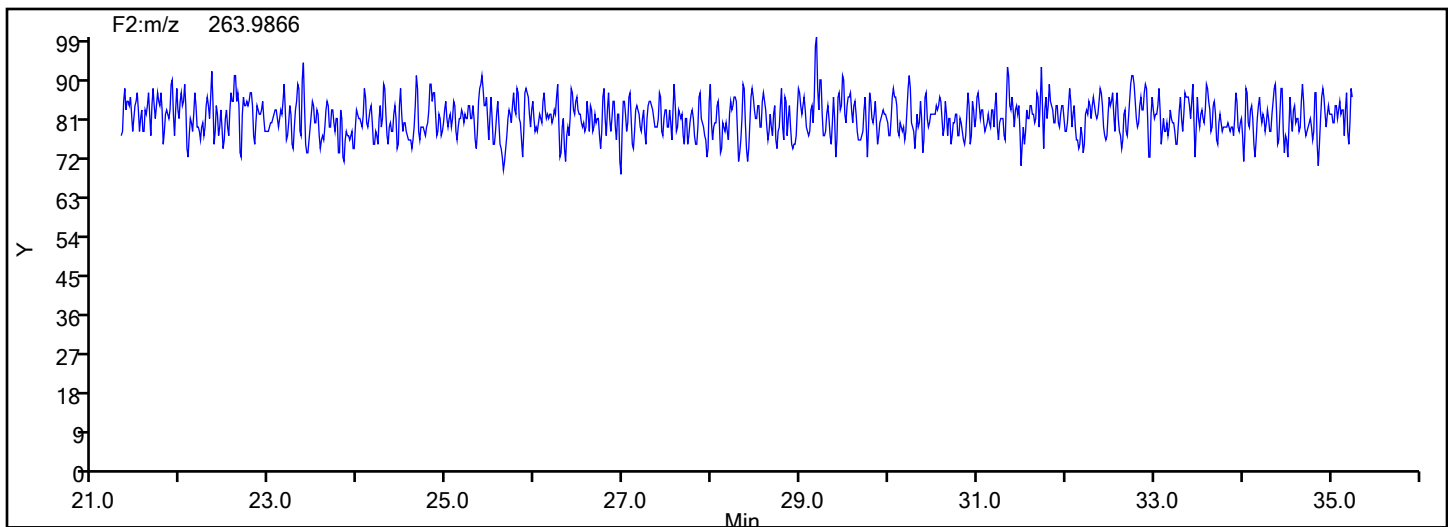


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 2  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2



## PePCB F2 Lock Mass



## Eurofins Knoxville

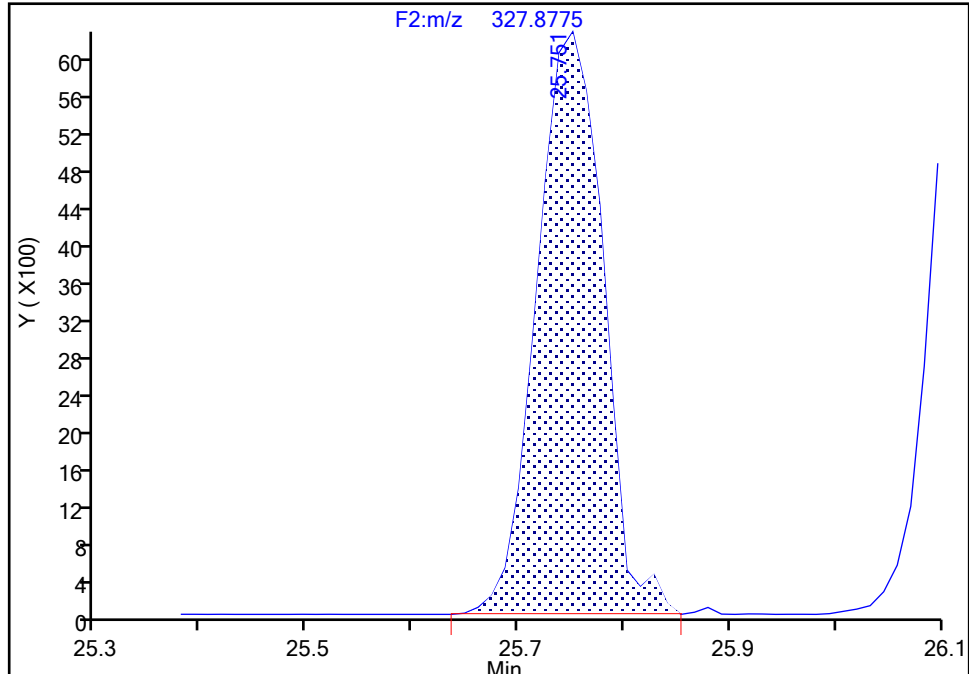
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-104, CAS: 56558-16-8**

Signal: 2

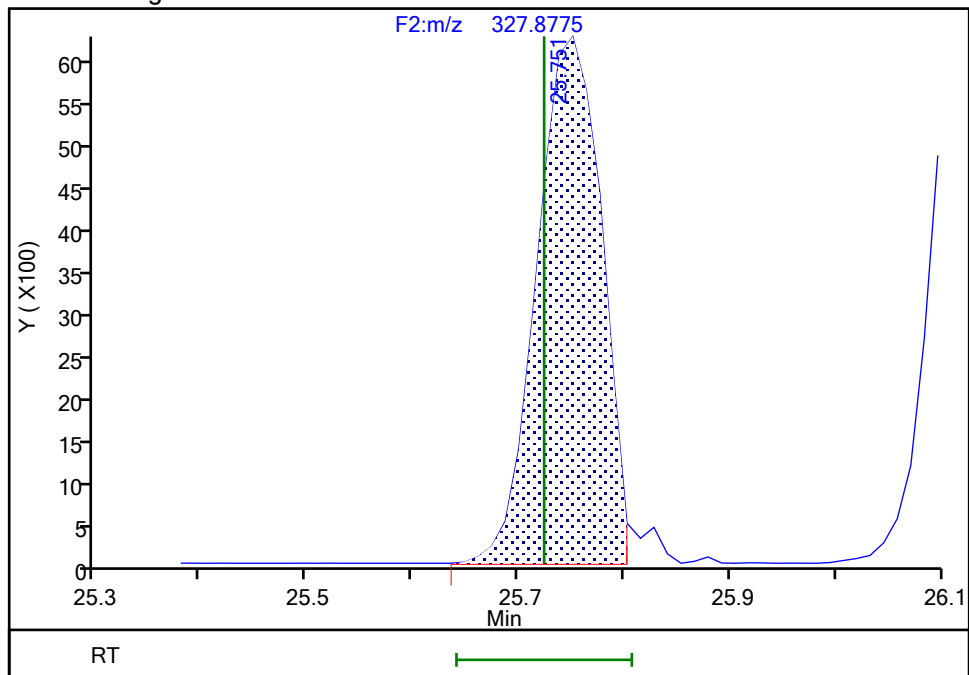
RT: 25.75  
Area: 27177  
Amount: 0.988513  
Amount Units: pg/ul

## Processing Integration Results



RT: 25.75  
Area: 26359  
Amount: 0.977407  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 17:55:24 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

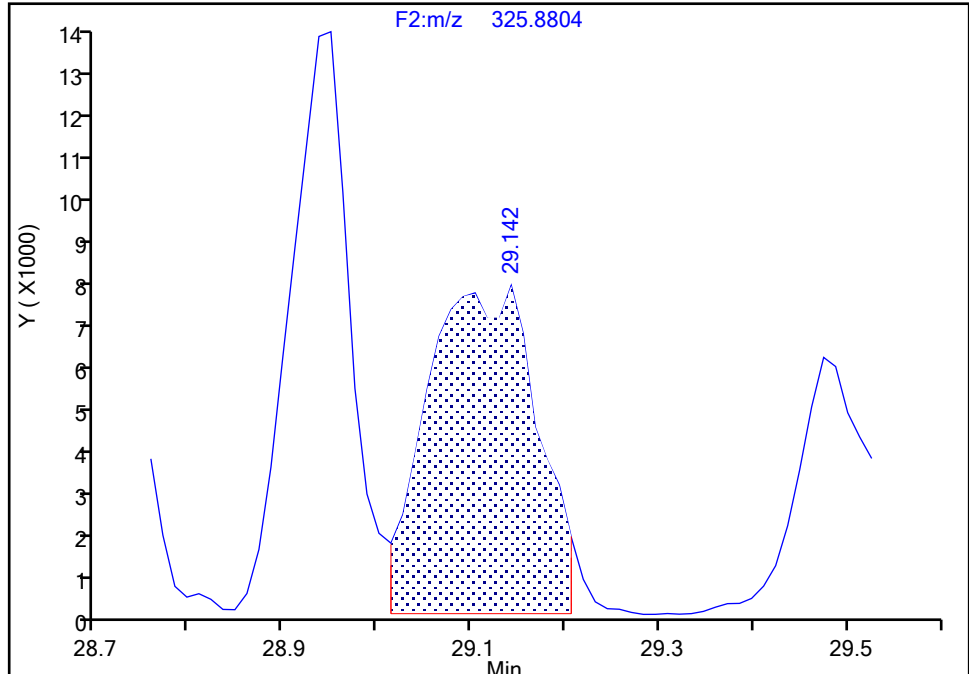
Detector F2(21.81 :35.54 )

**PCB-98/102, CAS: STL01843**

Signal: 1

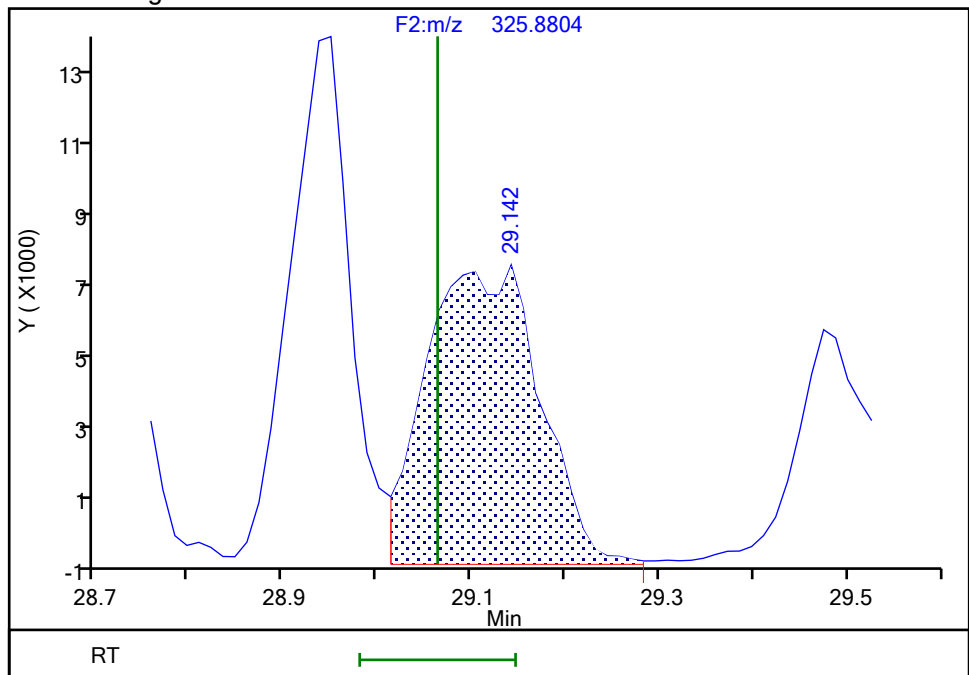
RT: 29.14  
Area: 63005  
Amount: 1.537926  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.14  
Area: 65793  
Amount: 1.974400  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:35:47 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

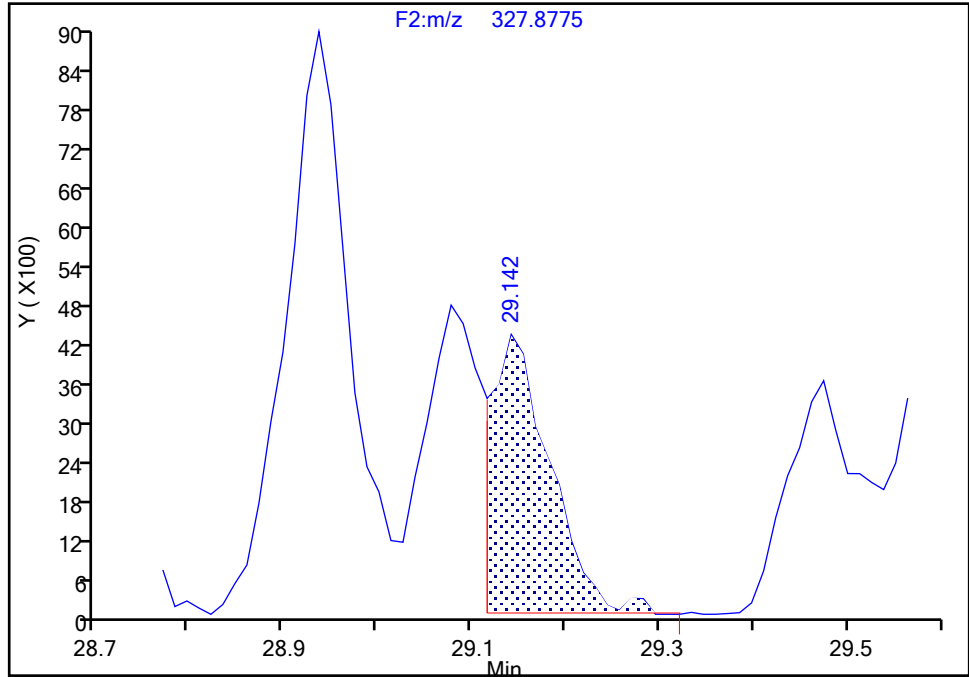
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-98/102, CAS: STL01843

Signal: 2

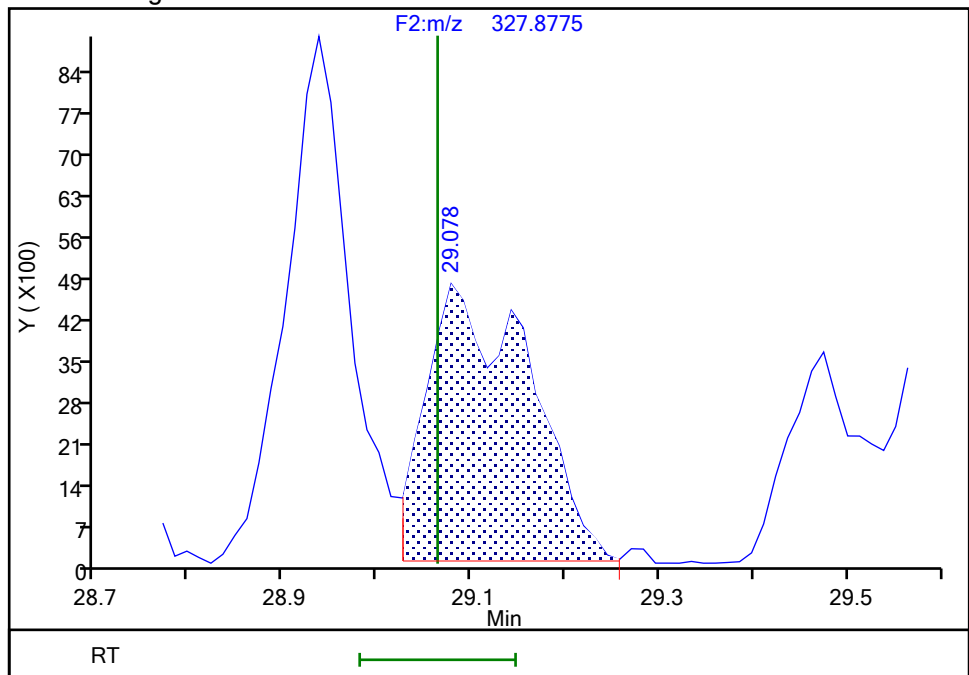
RT: 29.14  
Area: 18201  
Amount: 1.537926  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.08  
Area: 36004  
Amount: 1.974400  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:35:53 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 20240529  
9/6/2024 4:19:54 PM



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

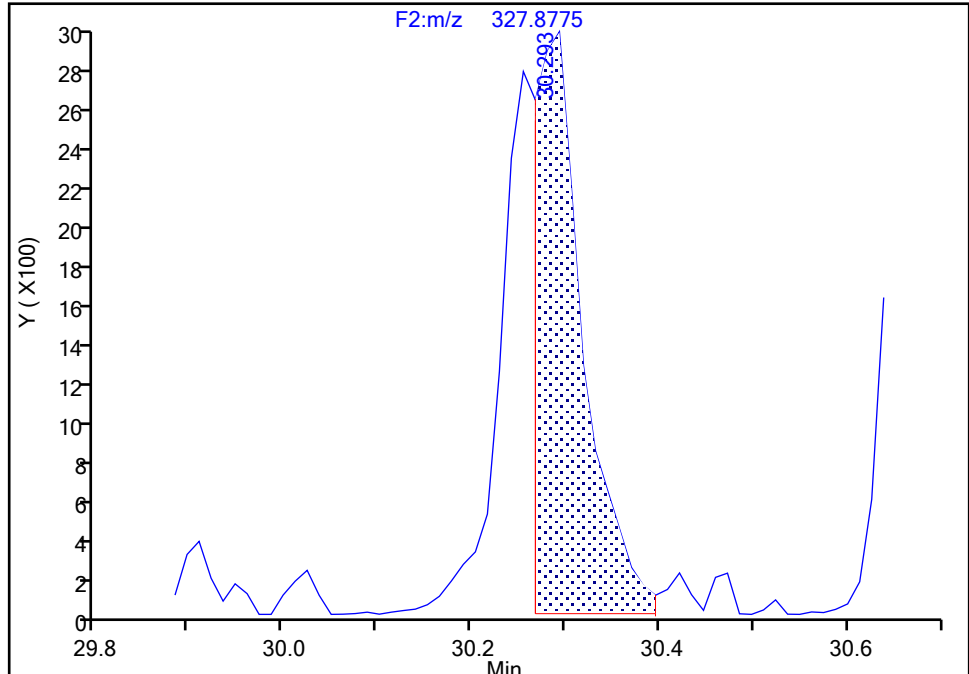
Detector F2(21.81 :35.54 )

**PCB-89, CAS: 73575-57-2**

Signal: 2

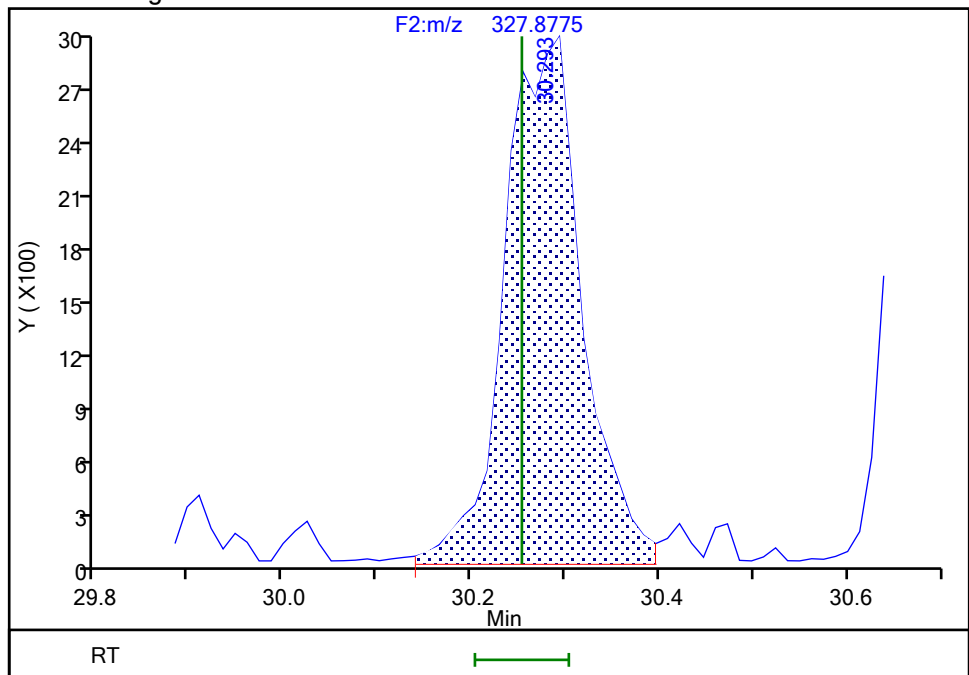
RT: 30.29  
Area: 9688  
Amount: 0.784234  
Amount Units: pg/ul

## Processing Integration Results



RT: 30.29  
Area: 16658  
Amount: 0.957137  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:36:05 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector F2(21.81 :35.54 )

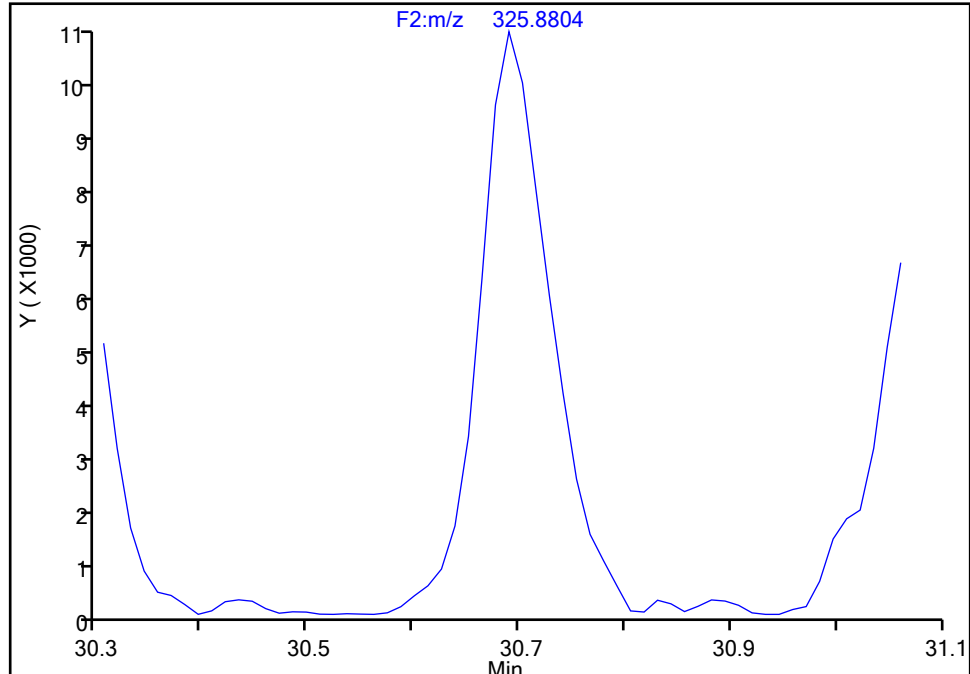
**PCB-121, CAS: 56558-18-0**

Signal: 1

Not Detected

Expected RT: 30.68

## Processing Integration Results



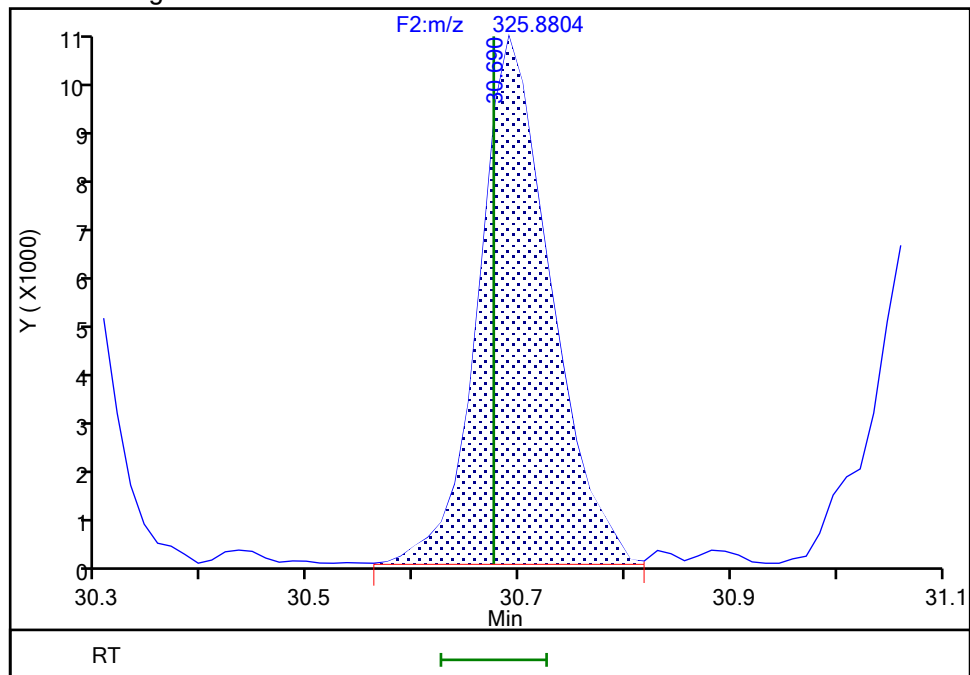
RT: 30.69

Area: 49412

Amount: 1.016498

Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:36:13 -04:00:00 (UTC)

Audit Action: Assigned Compound ID

Audit Reason: Baseline

## Eurofins Knoxville

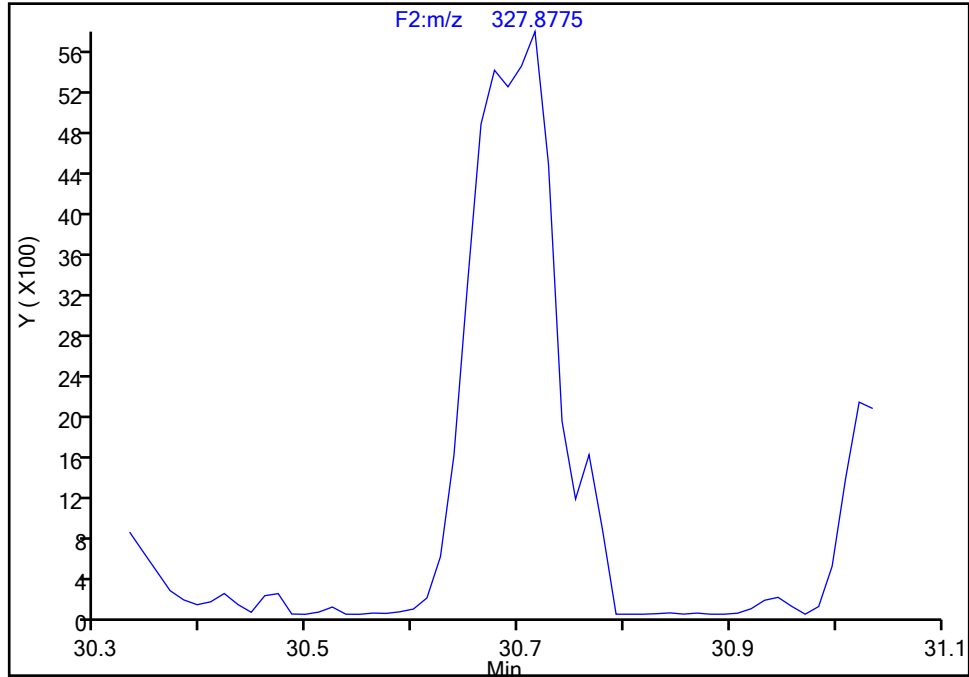
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-121, CAS: 56558-18-0**

Signal: 2

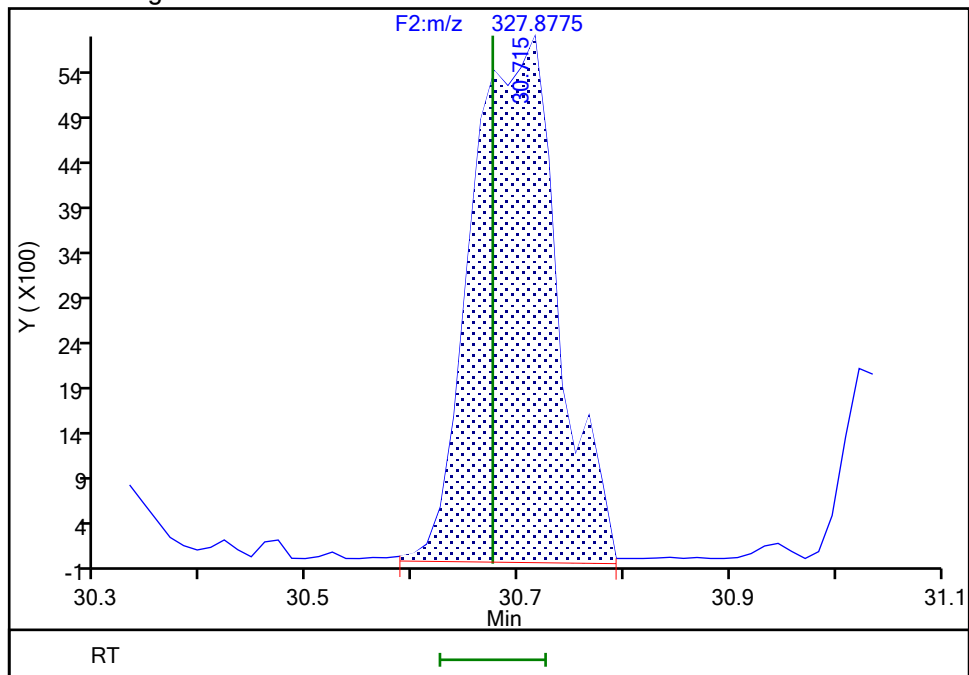
Not Detected  
Expected RT: 30.68

## Processing Integration Results



RT: 30.72  
Area: 32828  
Amount: 1.016498  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:36:13 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

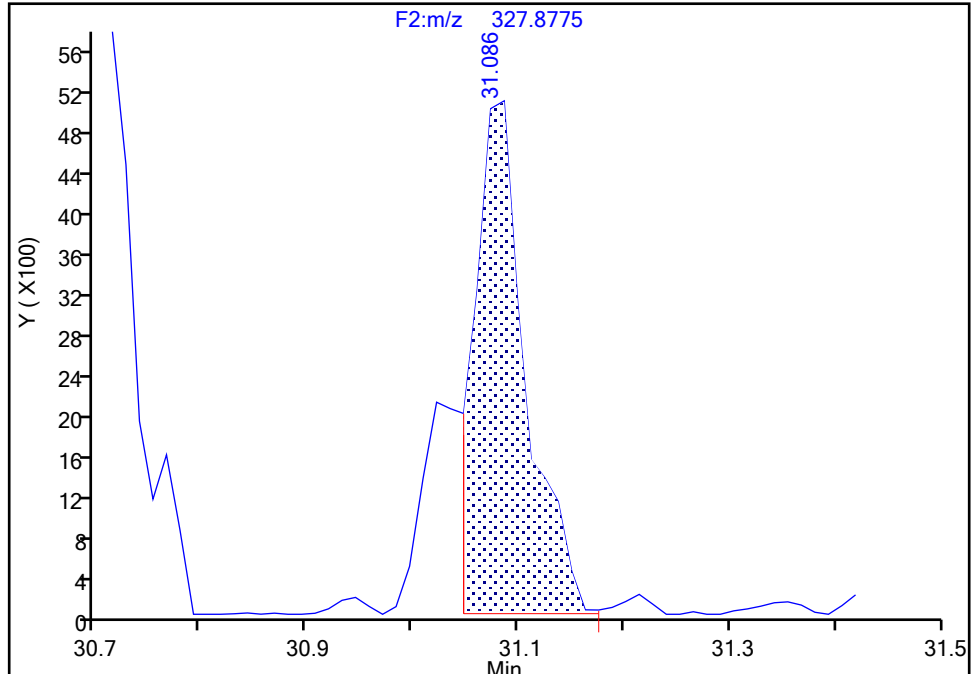
Detector F2(21.81 :35.54 )

**PCB-92, CAS: 52663-61-3**

Signal: 2

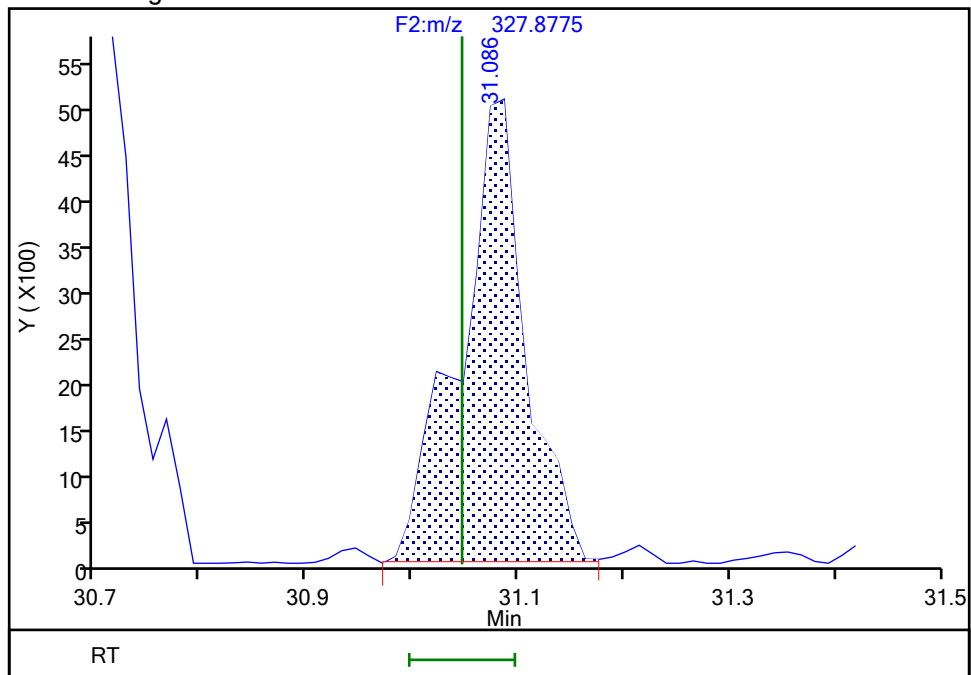
RT: 31.09  
Area: 16788  
Amount: 1.003564  
Amount Units: pg/ul

## Processing Integration Results



RT: 31.09  
Area: 22142  
Amount: 1.060190  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:36:22 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

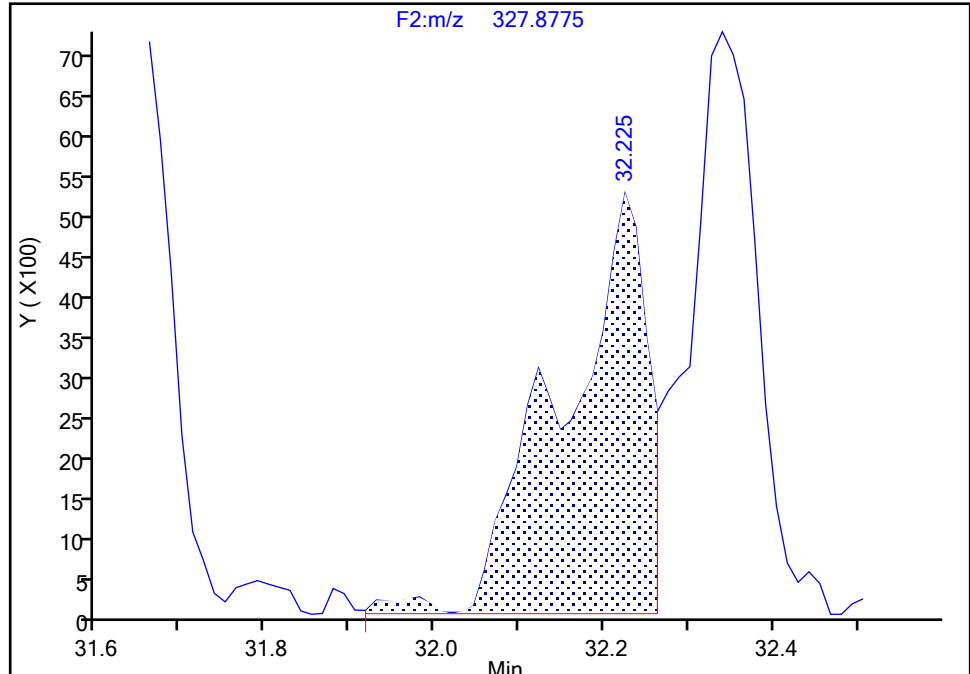
Detector F2(21.81 :35.54 )

**PCB-83/99, CAS: STL01809**

Signal: 2

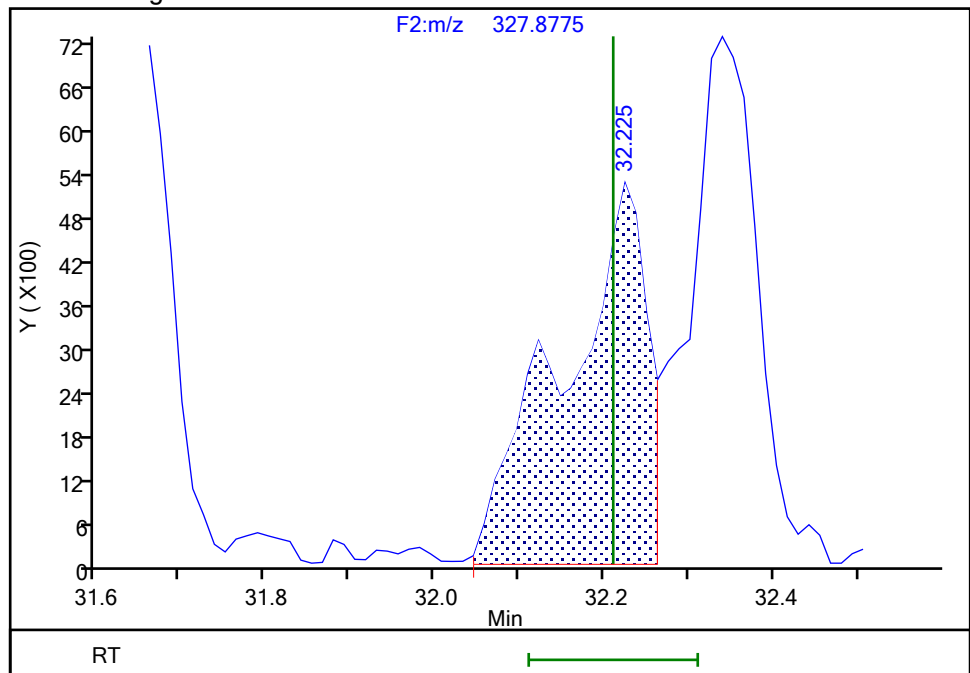
RT: 32.22  
Area: 36700  
Amount: 1.880198  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.22  
Area: 35800  
Amount: 1.935817  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:36:52 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

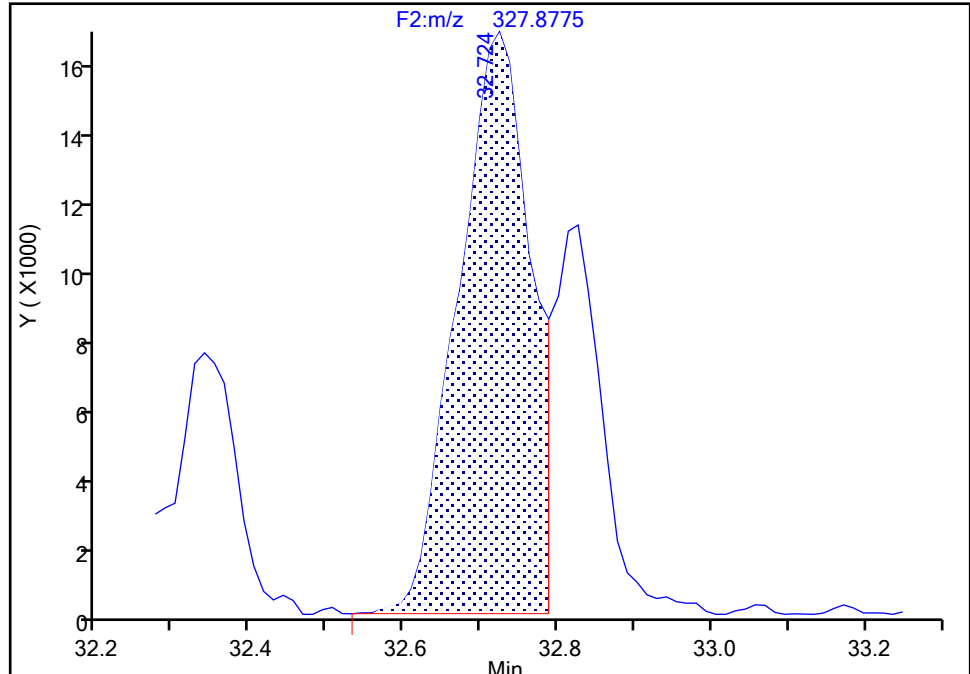
F2(21.81 :35.54 )

PCB-86/87/97/109/119/125, CAS: STL02295

Signal: 2

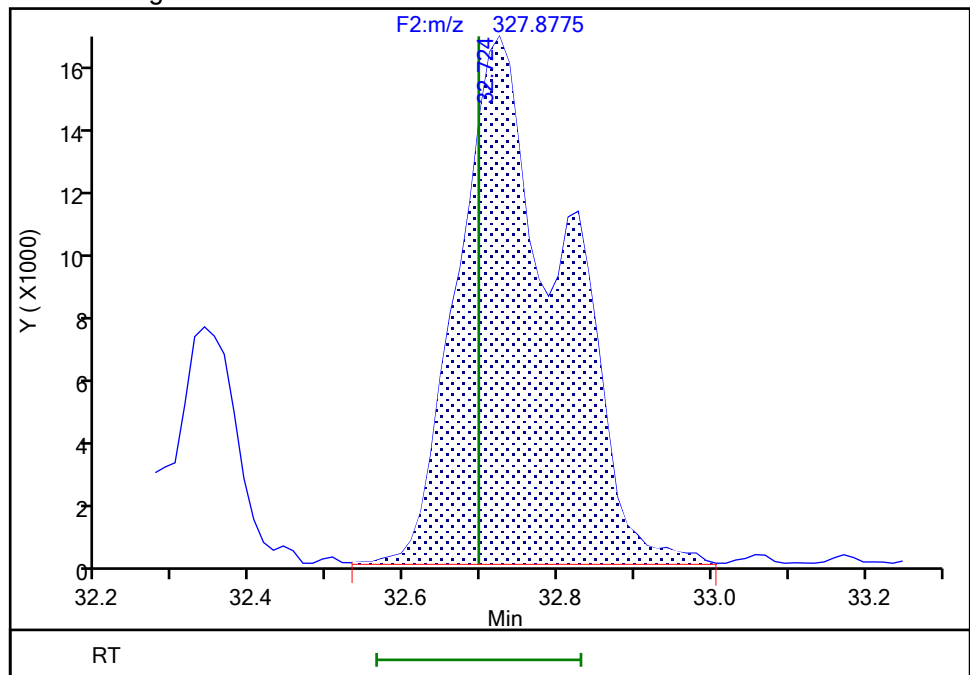
RT: 32.72  
Area: 104672  
Amount: 5.584559  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.72  
Area: 151456  
Amount: 5.816787  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:36:40 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

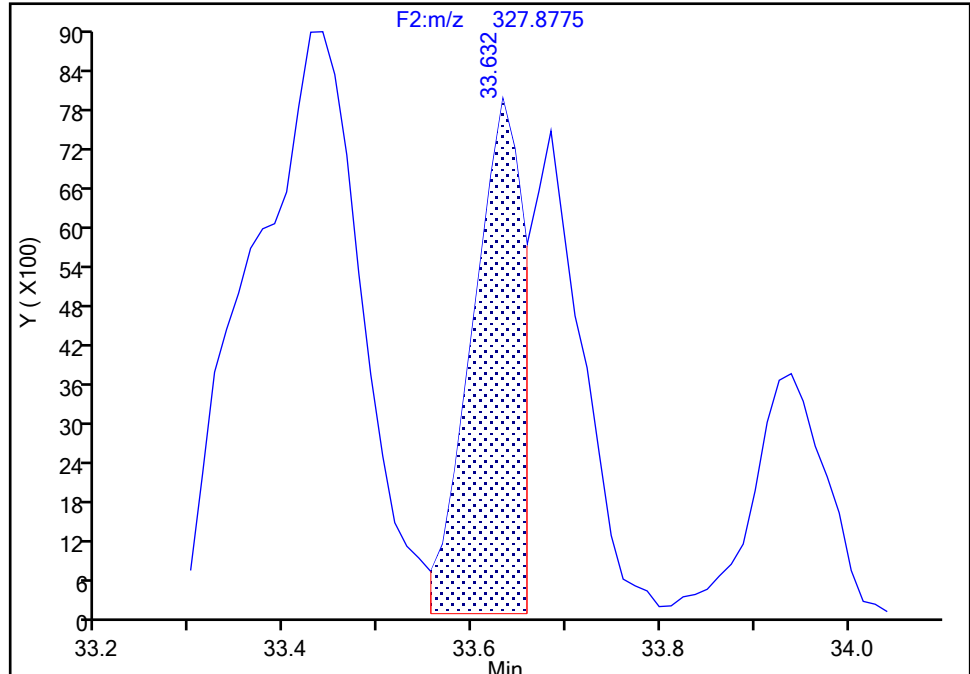
Detector F2(21.81 :35.54 )

**PCB-110/115, CAS: STL01826**

Signal: 2

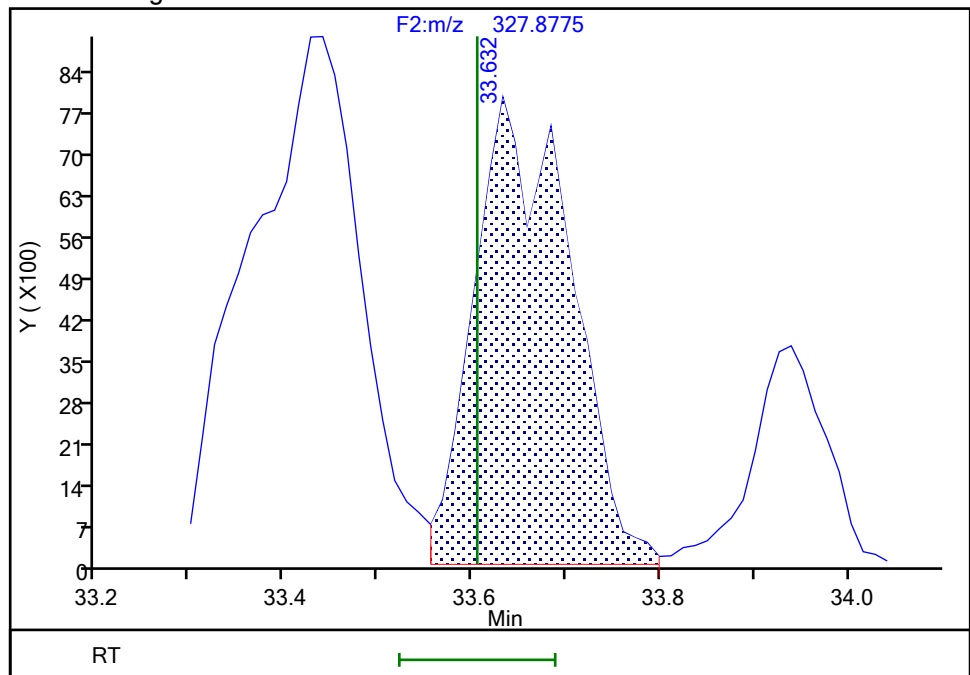
RT: 33.63  
Area: 28445  
Amount: 1.050678  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.63  
Area: 56088  
Amount: 2.059020  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:36:49 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

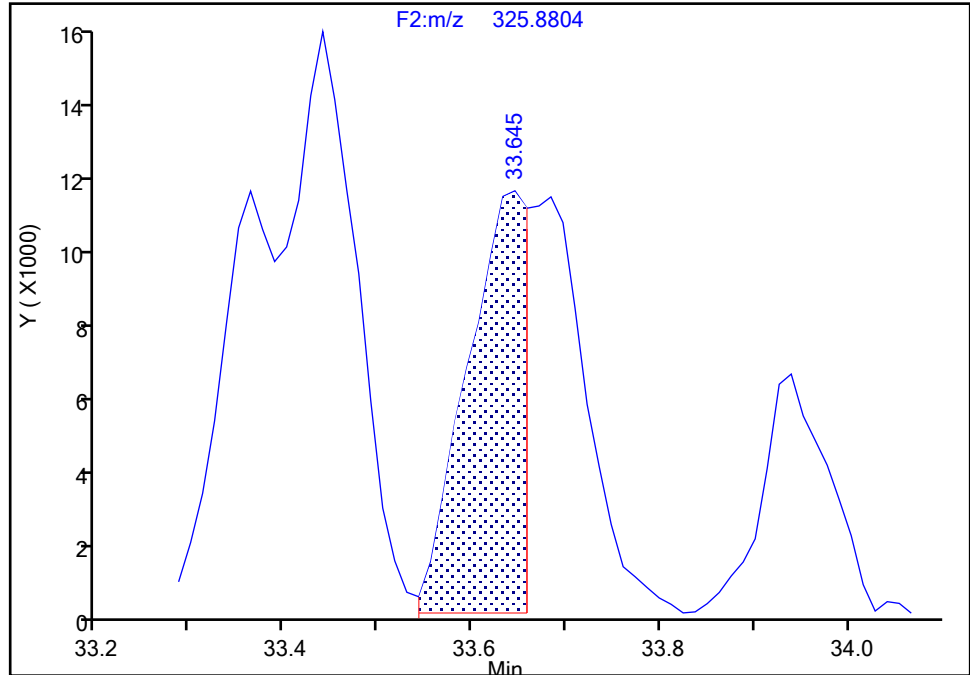
F2(21.81 :35.54 )

**PCB-110/115, CAS: STL01826**

Signal: 1

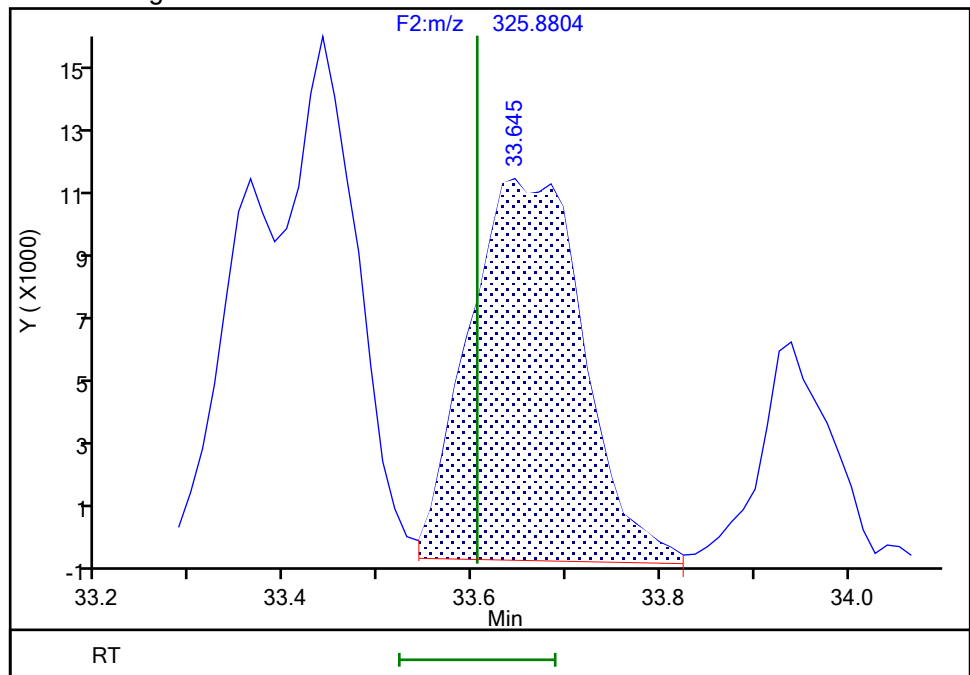
RT: 33.65  
Area: 47401  
Amount: 1.050678  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.65  
Area: 97064  
Amount: 2.059020  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:36:54 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFWC-Pass 2024052817

9/6/2024 4:19:54 PM



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

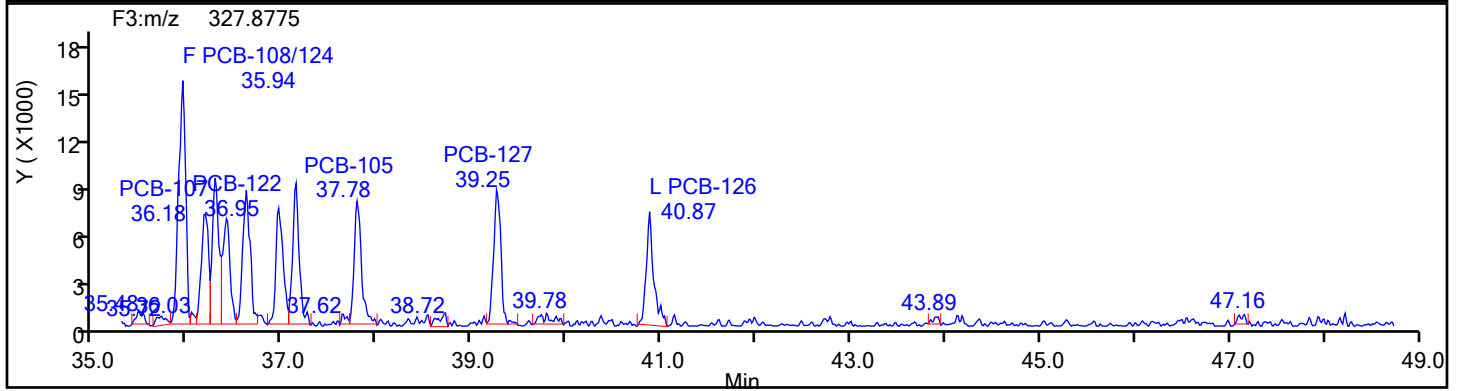
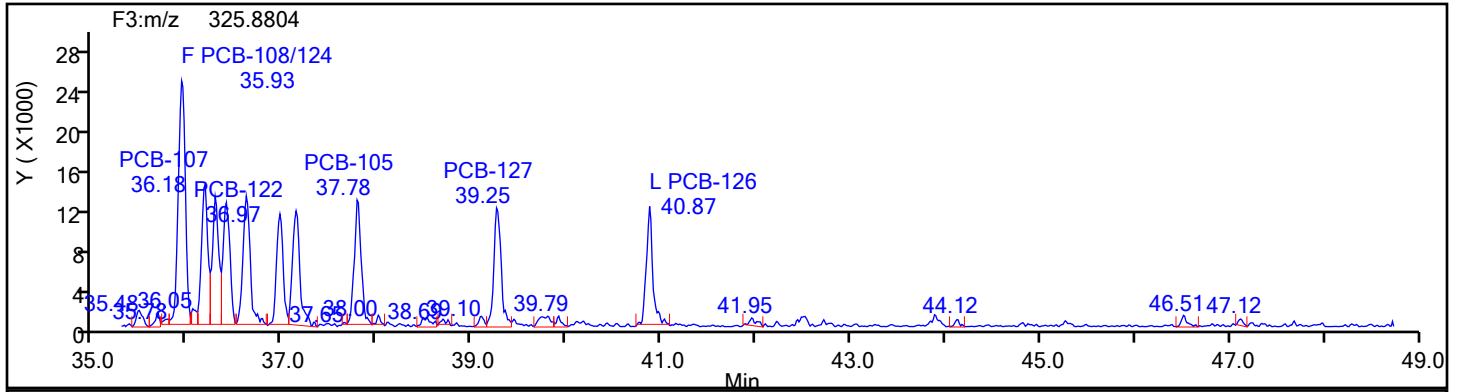
Worklist#: 87130

Sample Line#: 2

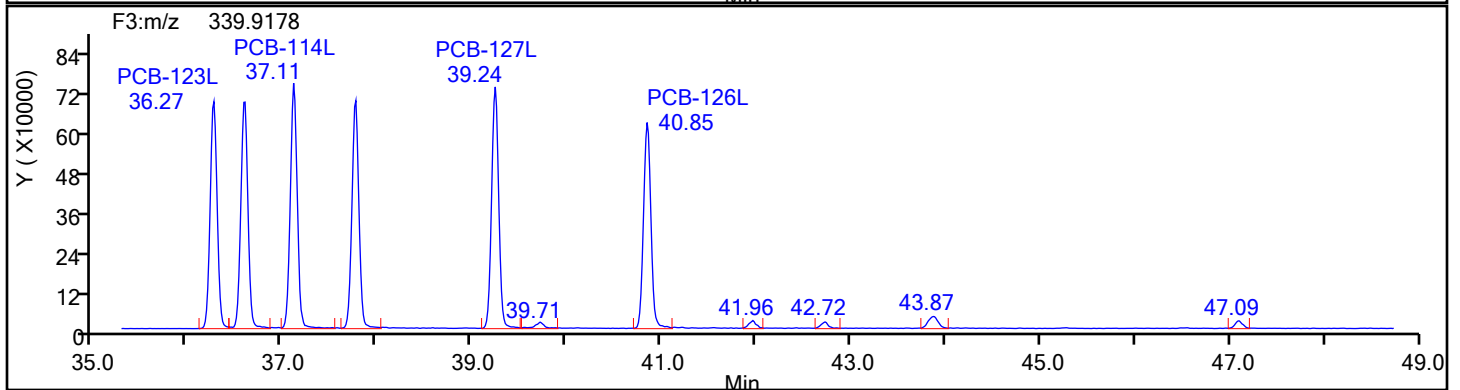
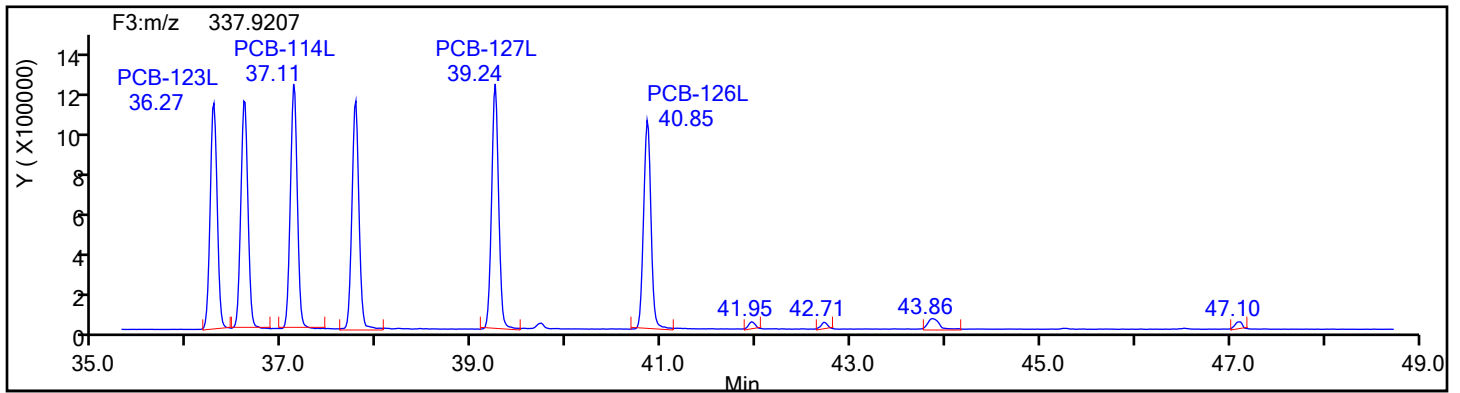
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



PePCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

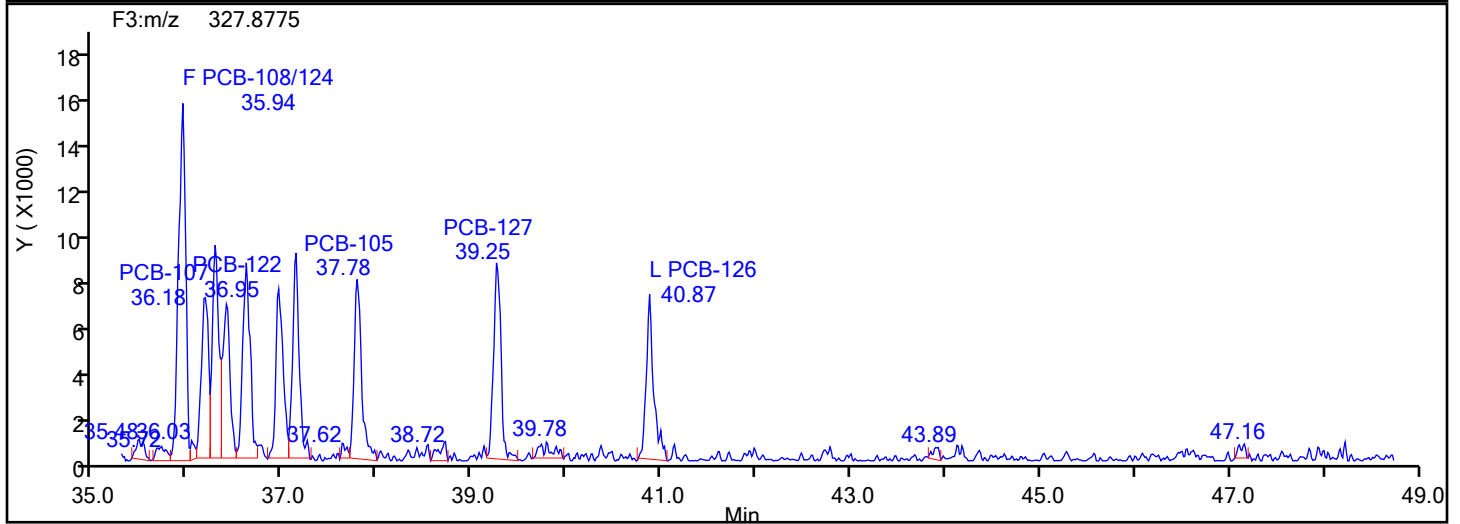
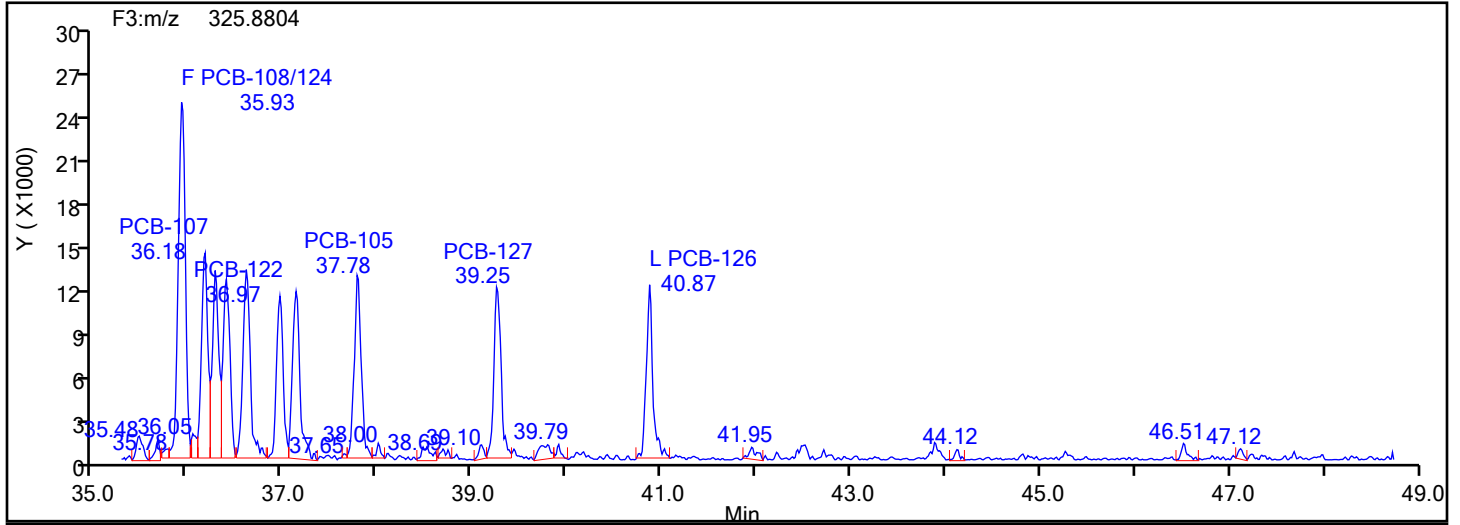
Worklist#: 87130

Sample Line#: 2

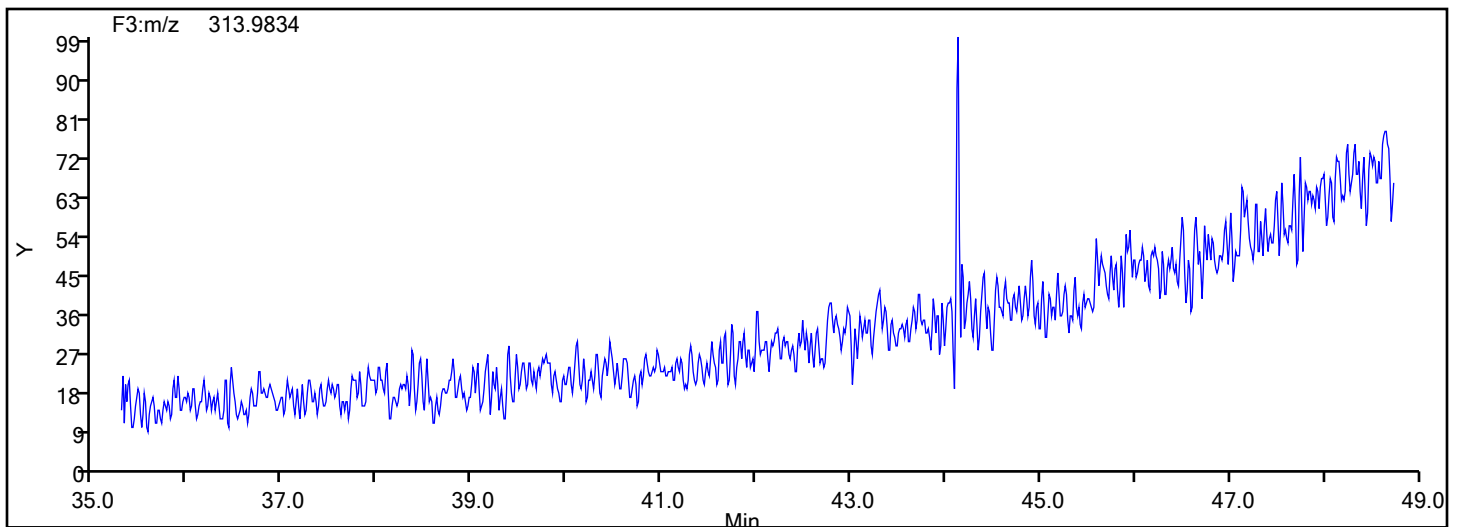
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



## PePCB F3 Lock Mass



## Eurofins Knoxville

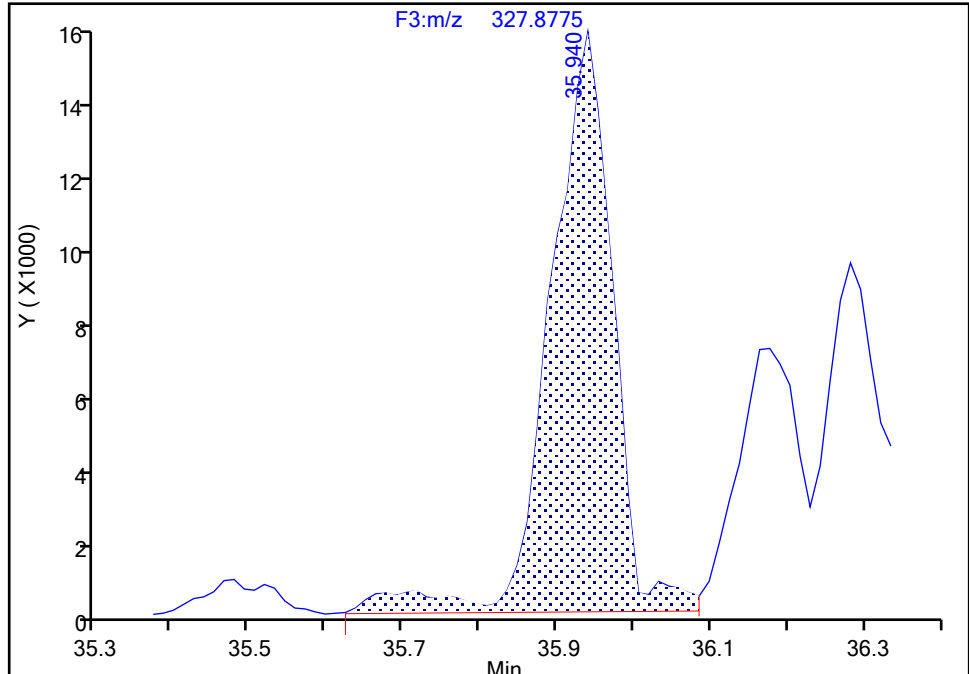
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-108/124, CAS: STL02294

Signal: 2

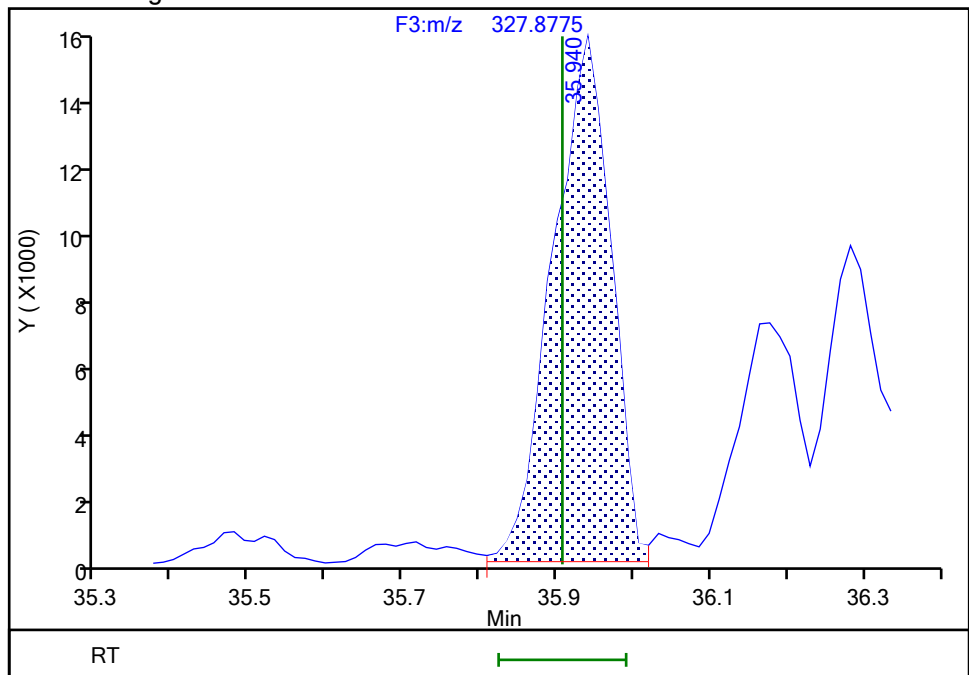
RT: 35.94  
Area: 85784  
Amount: 2.094460  
Amount Units: pg/ul

## Processing Integration Results



RT: 35.94  
Area: 79414  
Amount: 1.988181  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 20:09:34 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

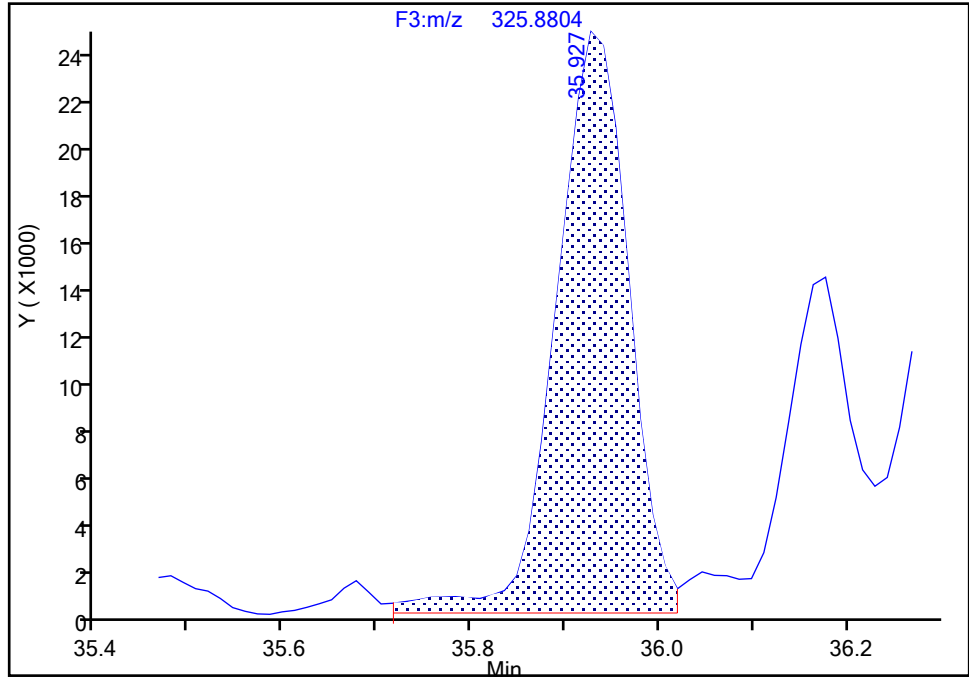
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-108/124, CAS: STL02294

Signal: 1

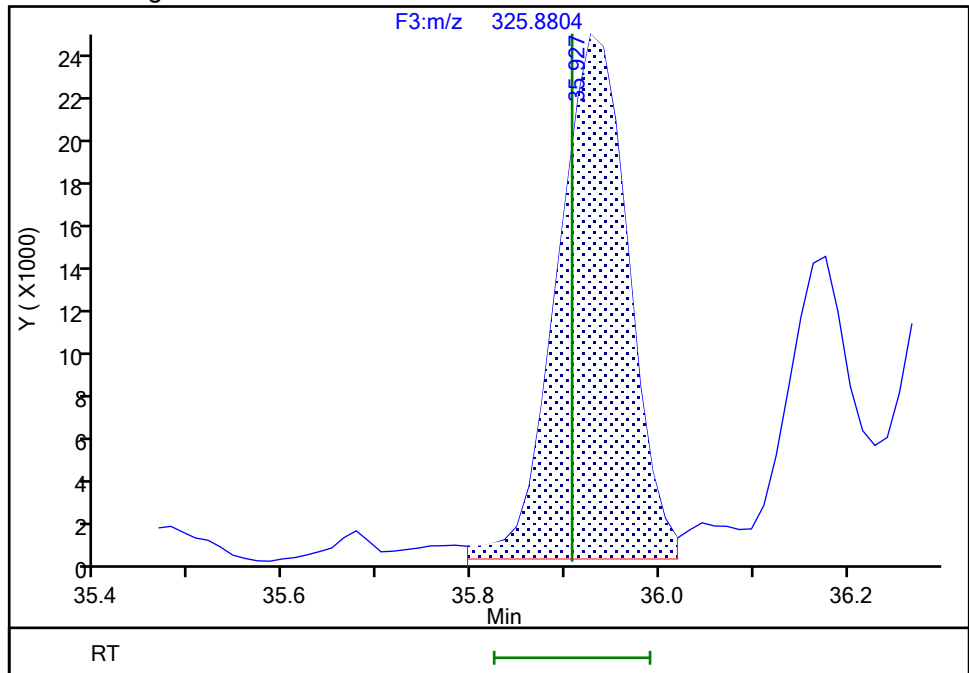
RT: 35.93  
Area: 131741  
Amount: 2.094460  
Amount Units: pg/ul

## Processing Integration Results



RT: 35.93  
Area: 129156  
Amount: 1.988181  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 20:09:37 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

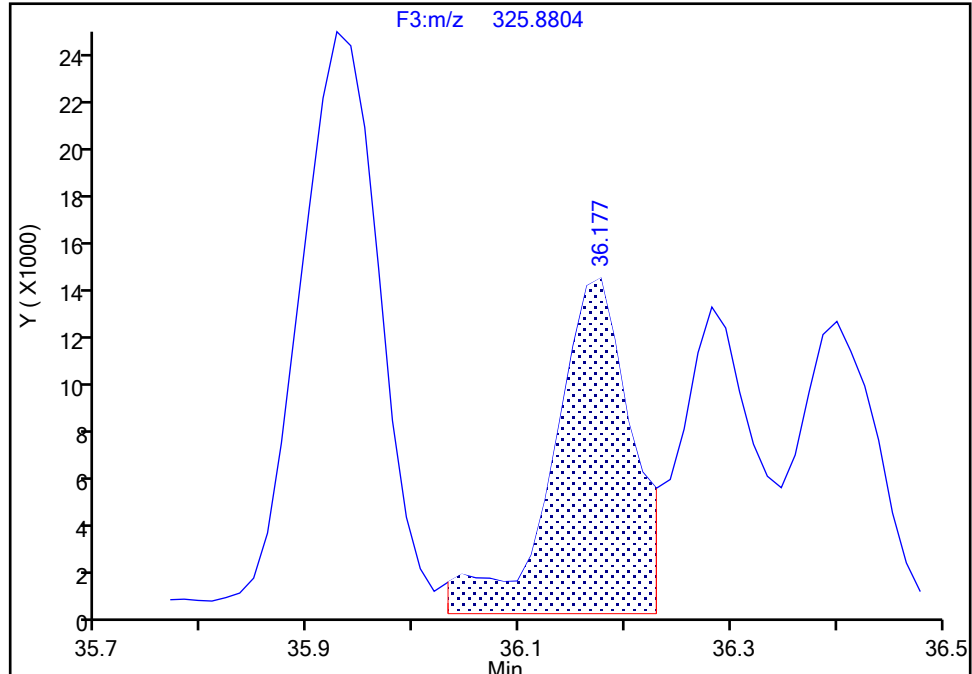
Detector F3(35.64 :49.10 )

**PCB-107, CAS: 70424-68-9**

Signal: 1

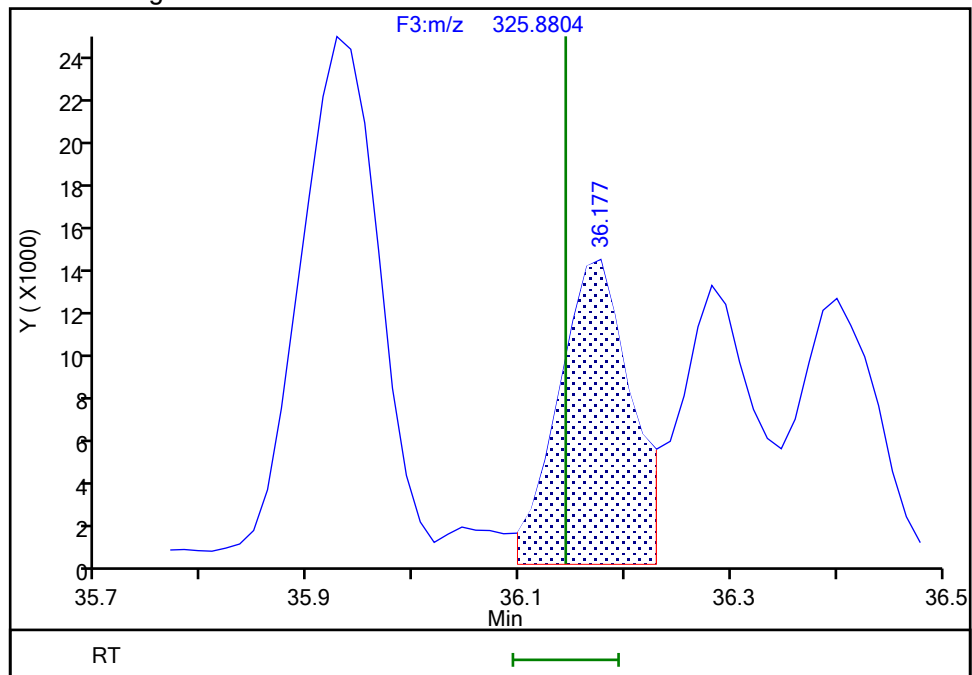
RT: 36.18  
Area: 71873  
Amount: 0.939406  
Amount Units: pg/ul

## Processing Integration Results



RT: 36.18  
Area: 65956  
Amount: 0.919787  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 20:09:17 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

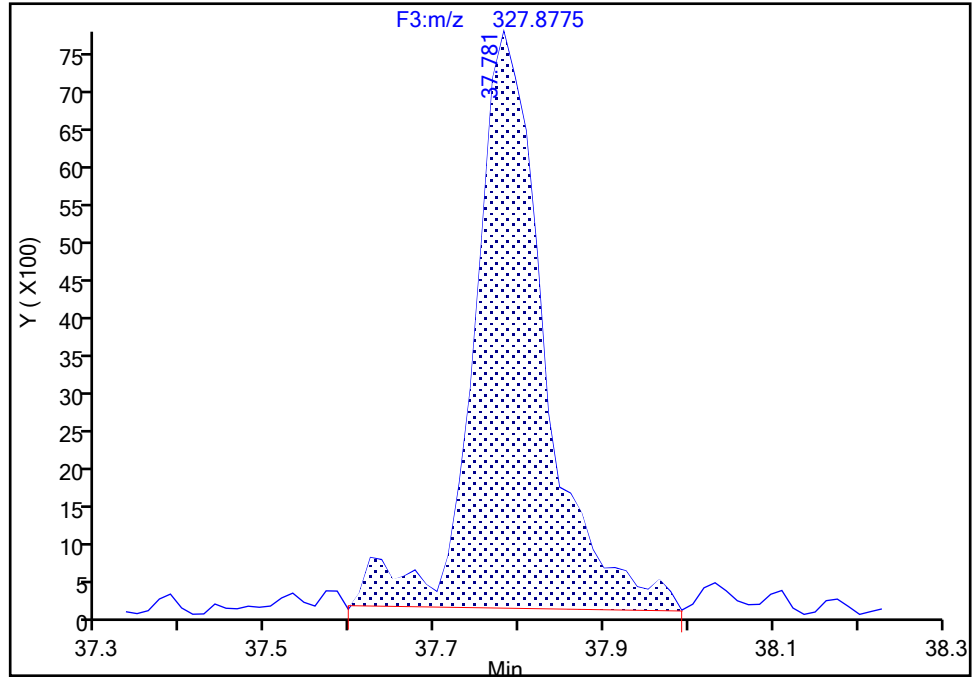
Detector F3(35.64 :49.10 )

**PCB-105, CAS: 32598-14-4**

Signal: 2

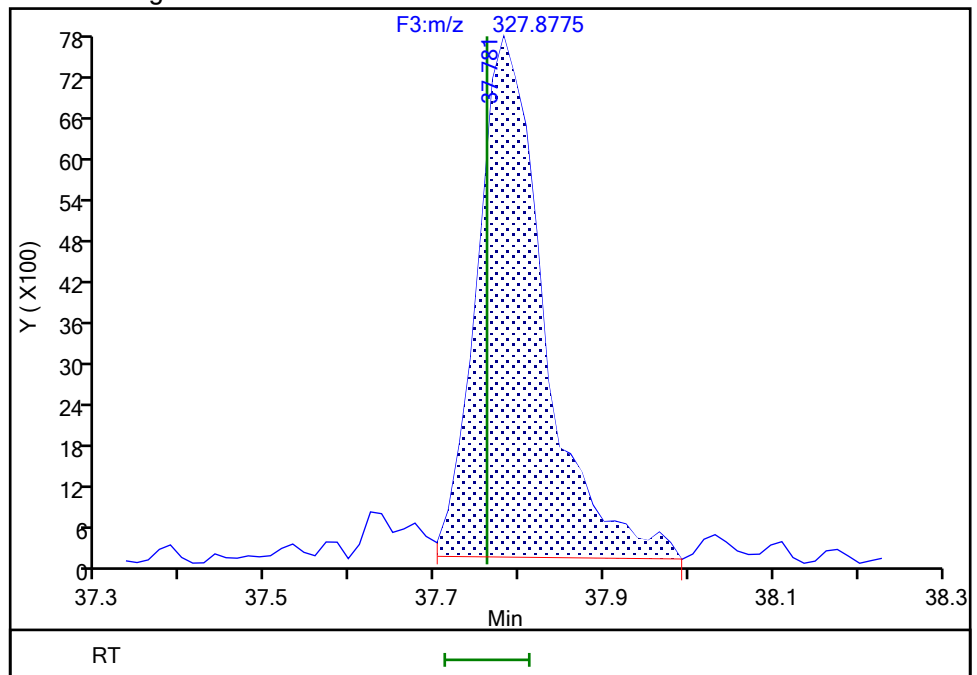
RT: 37.78  
Area: 44477  
Amount: 1.021569  
Amount Units: pg/ul

## Processing Integration Results



RT: 37.78  
Area: 42090  
Amount: 0.993744  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:37:13 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

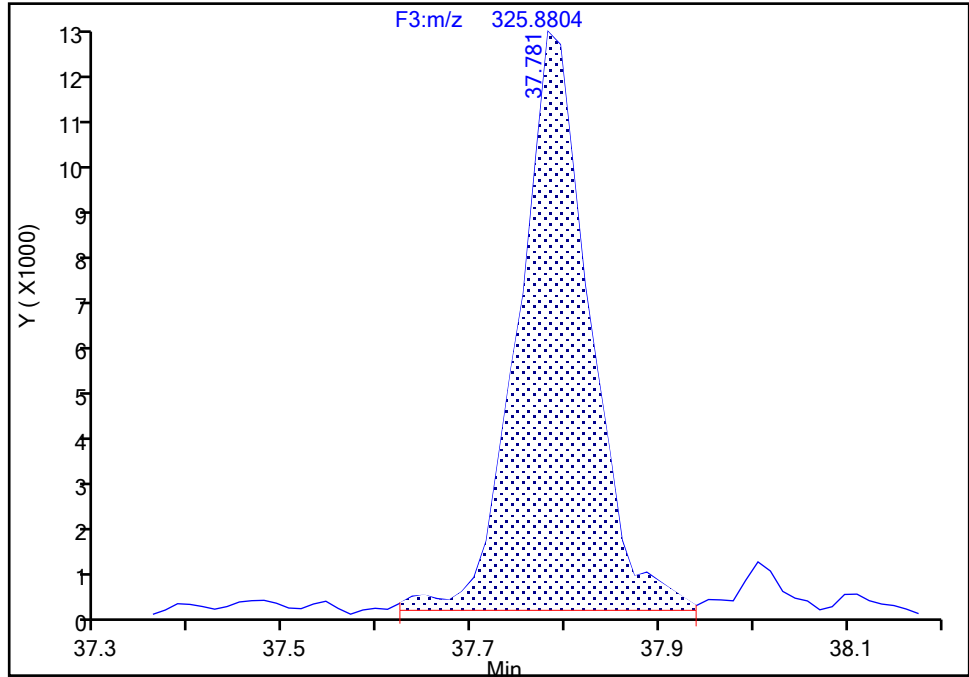
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-105, CAS: 32598-14-4

Signal: 1

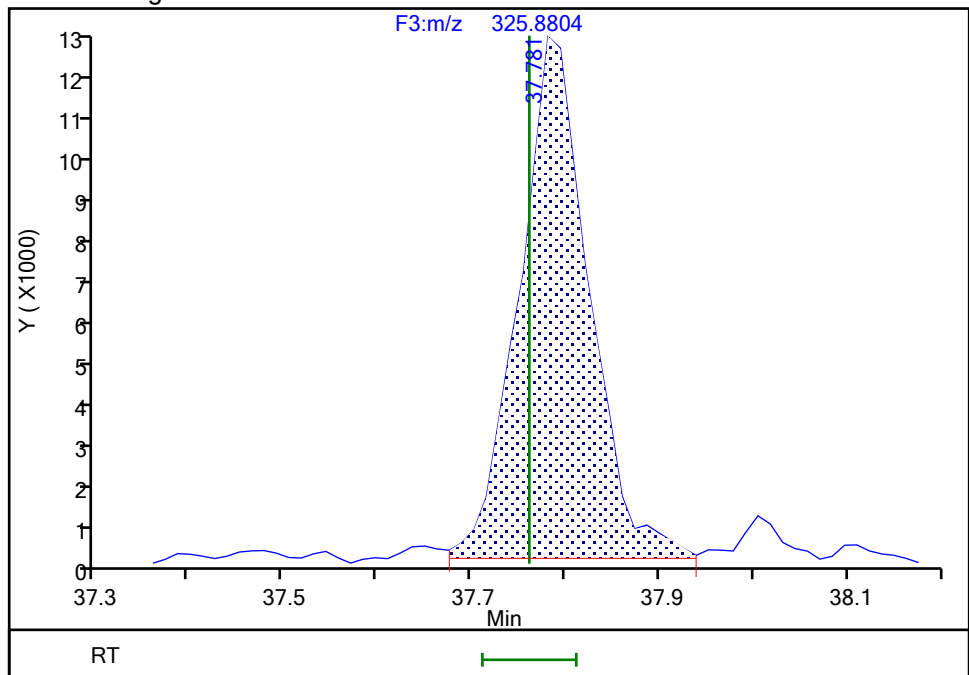
RT: 37.78  
Area: 66144  
Amount: 1.021569  
Amount Units: pg/ul

## Processing Integration Results



RT: 37.78  
Area: 65351  
Amount: 0.993744  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:37:16 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

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BASFHWC-Pass 20240529

9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

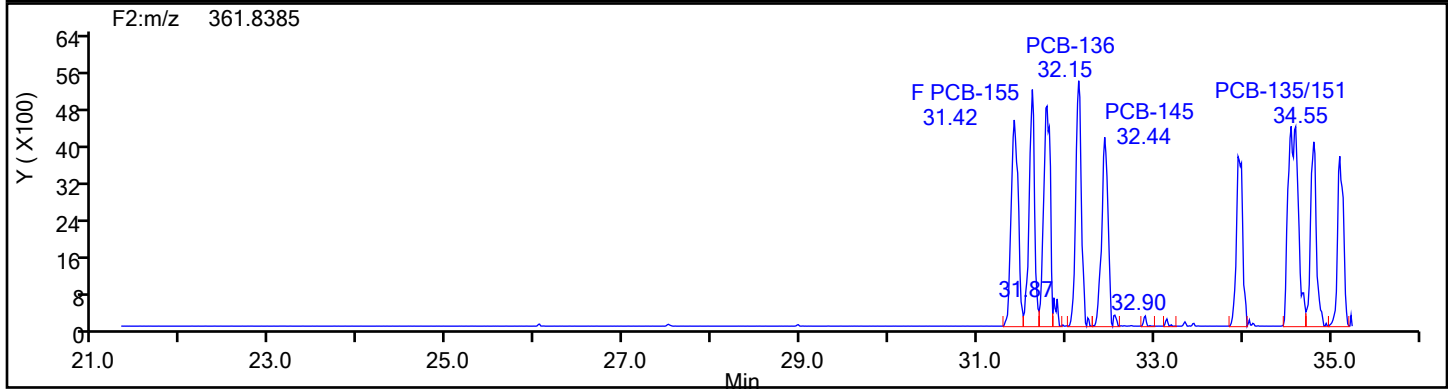
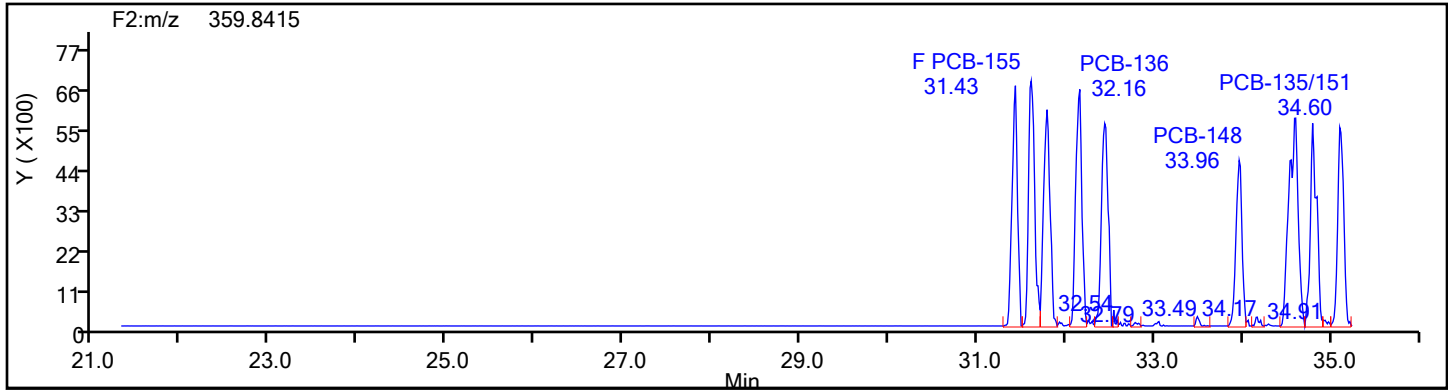
Worklist#: 87130

Sample Line#: 2

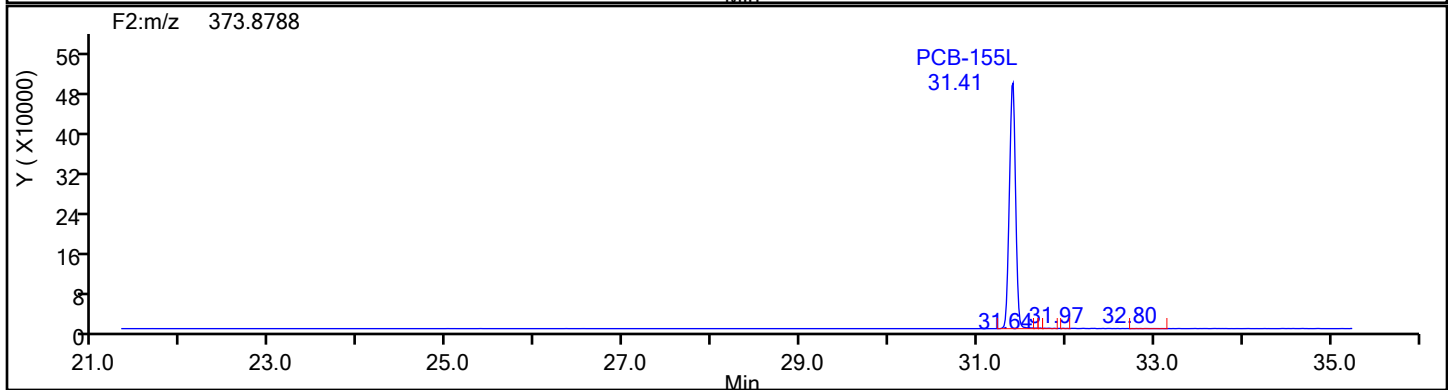
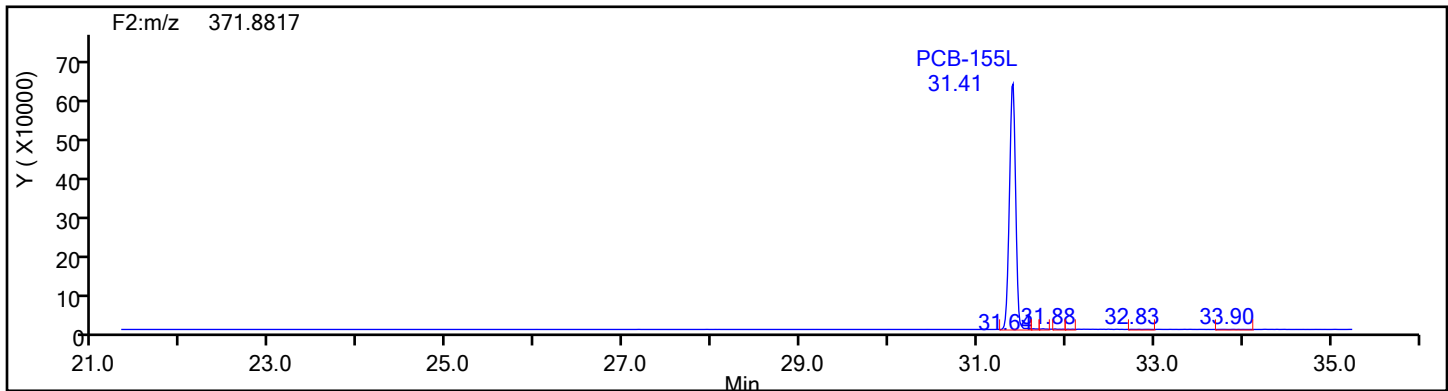
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F2



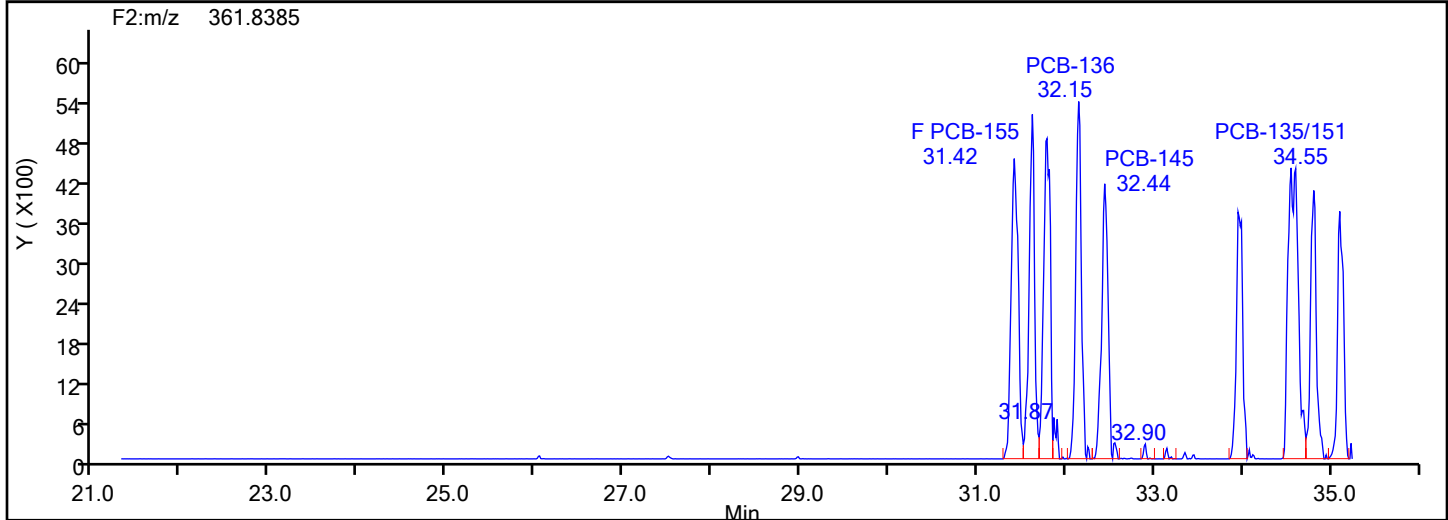
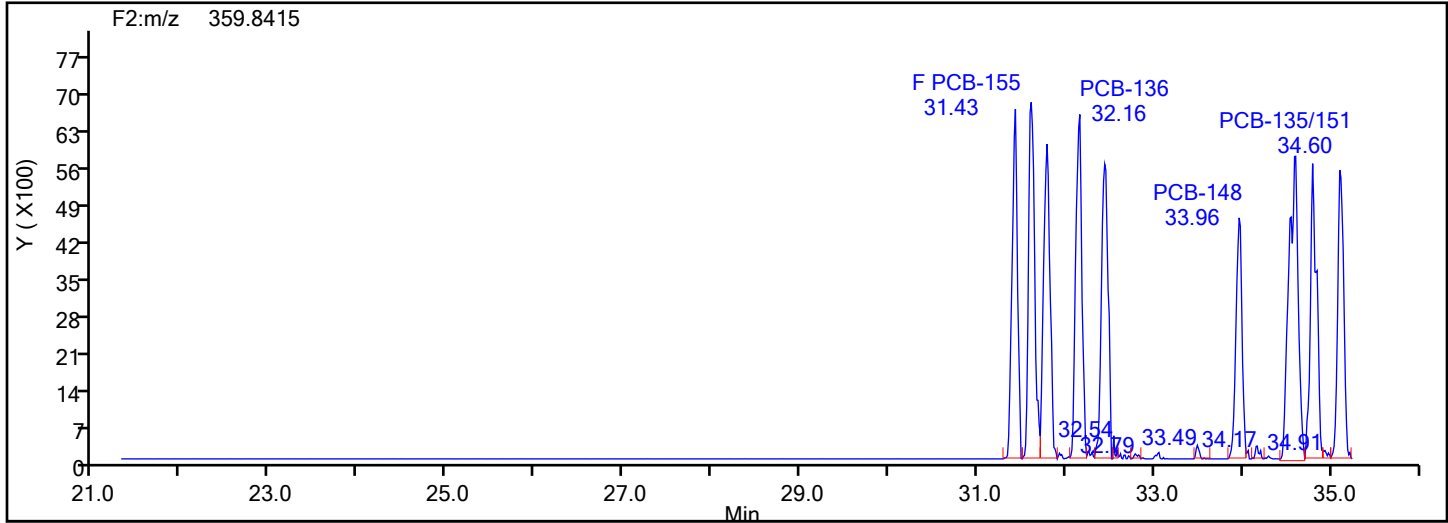
HxPCB F2 Standards



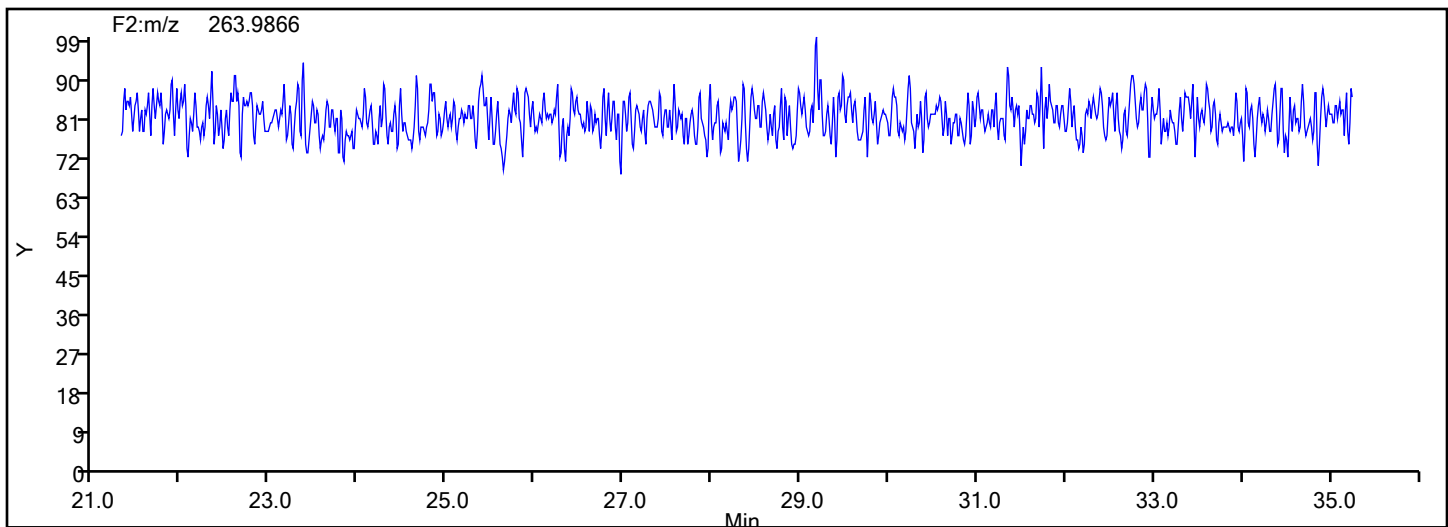


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 2  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2



## HxPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

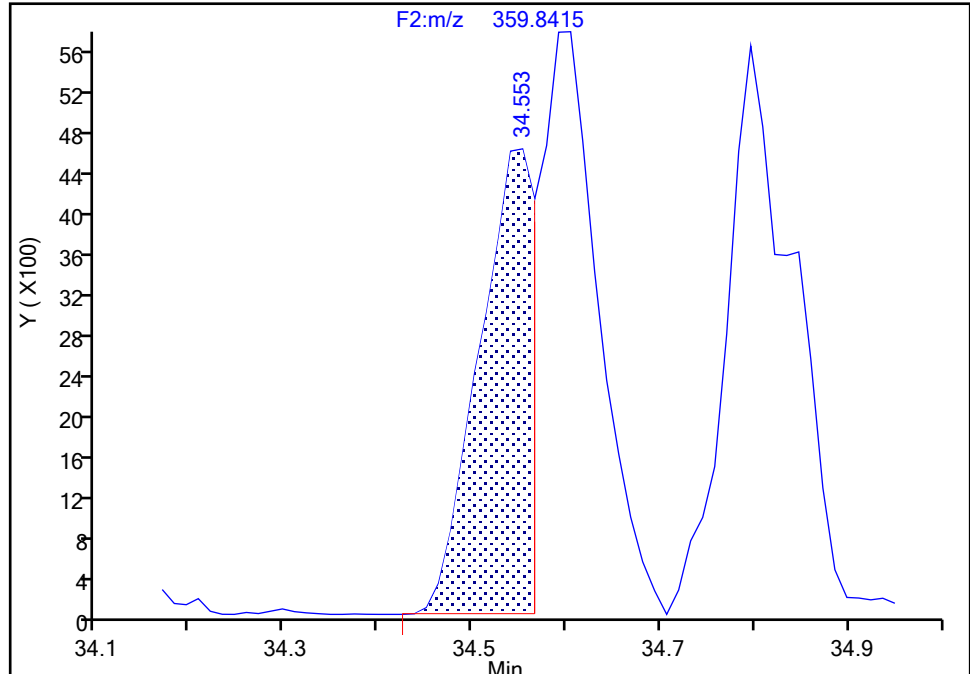
Detector F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 1

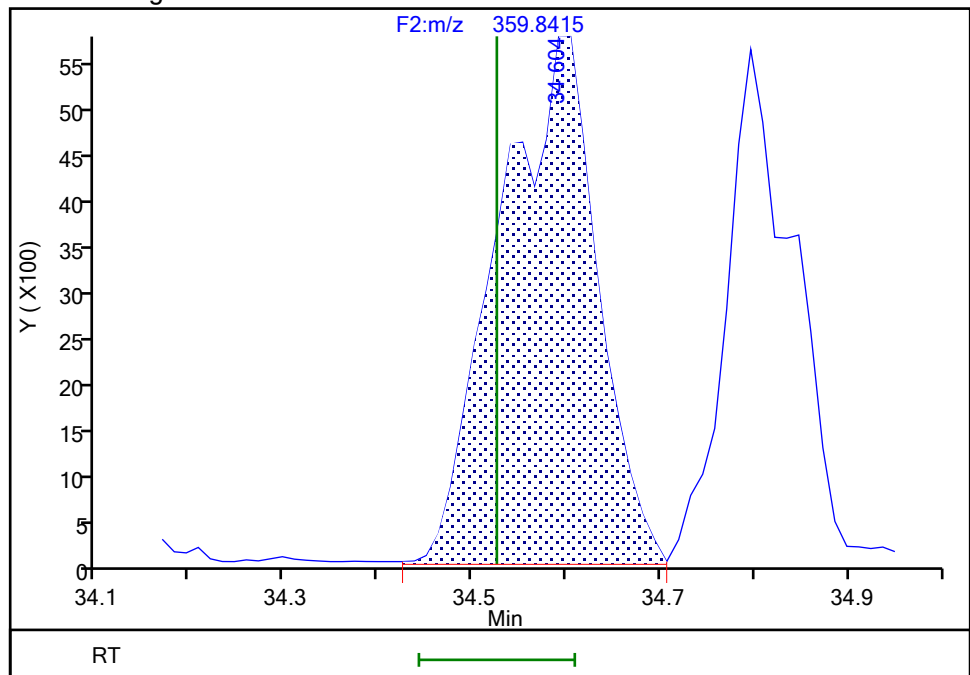
RT: 34.55  
Area: 17791  
Amount: 0.966805  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.60  
Area: 42637  
Amount: 1.937644  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:38:10 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

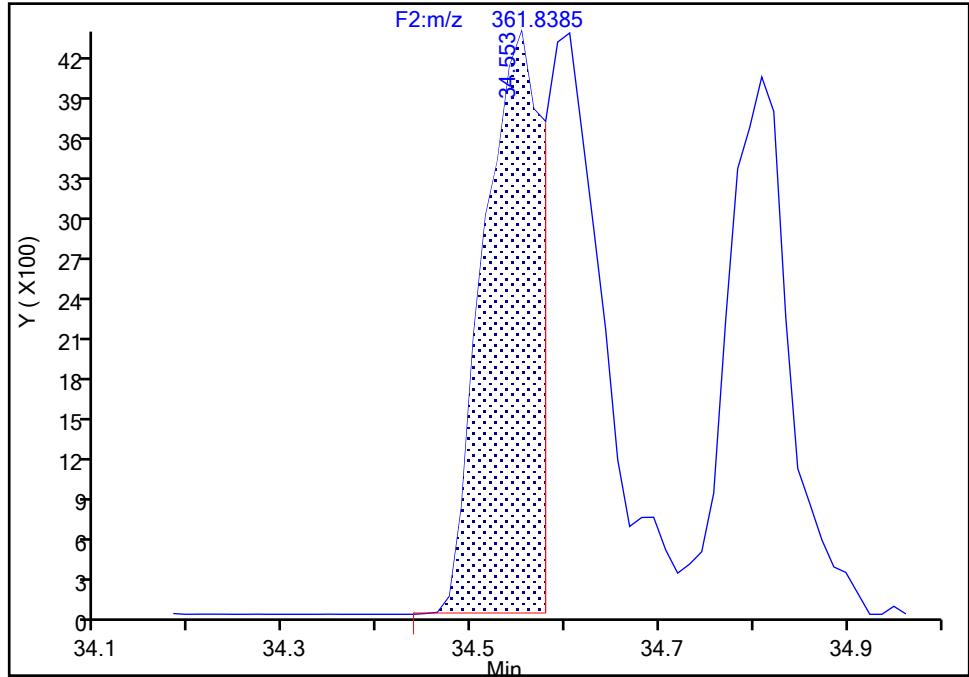
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 2

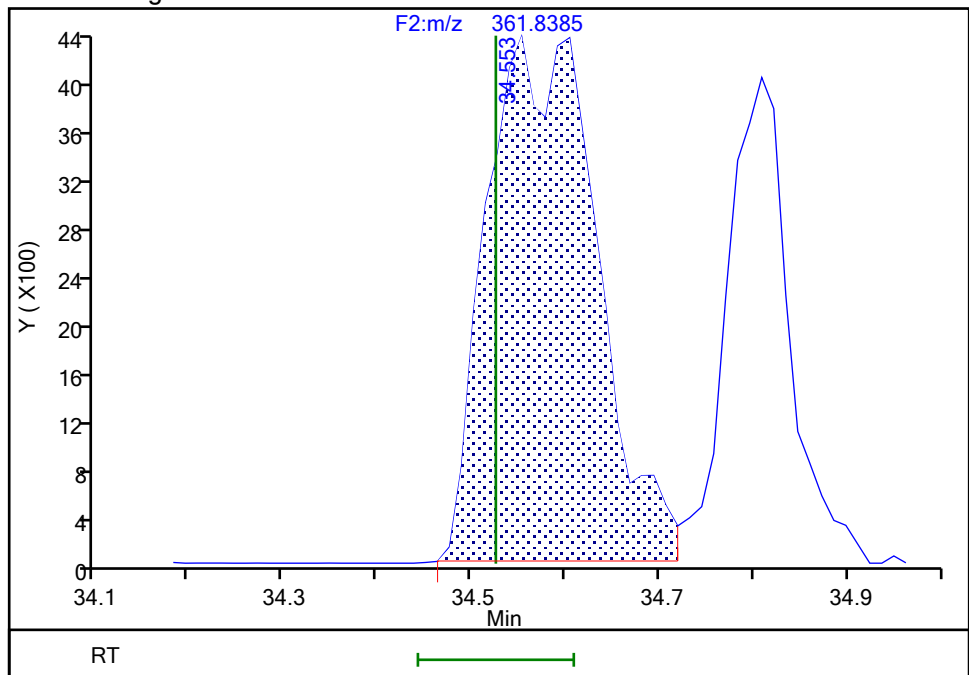
RT: 34.55  
Area: 18073  
Amount: 0.966805  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.55  
Area: 35628  
Amount: 1.937644  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:38:15 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

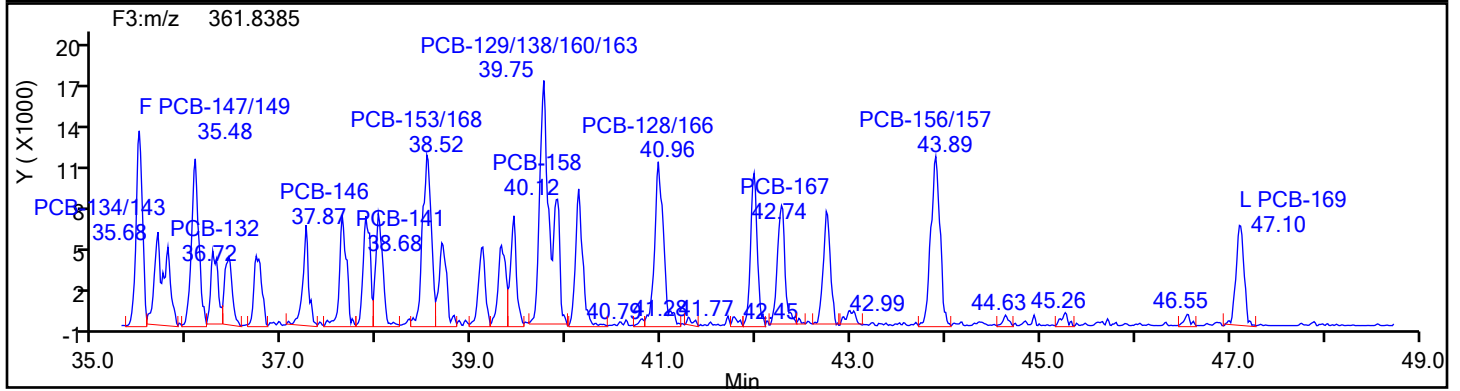
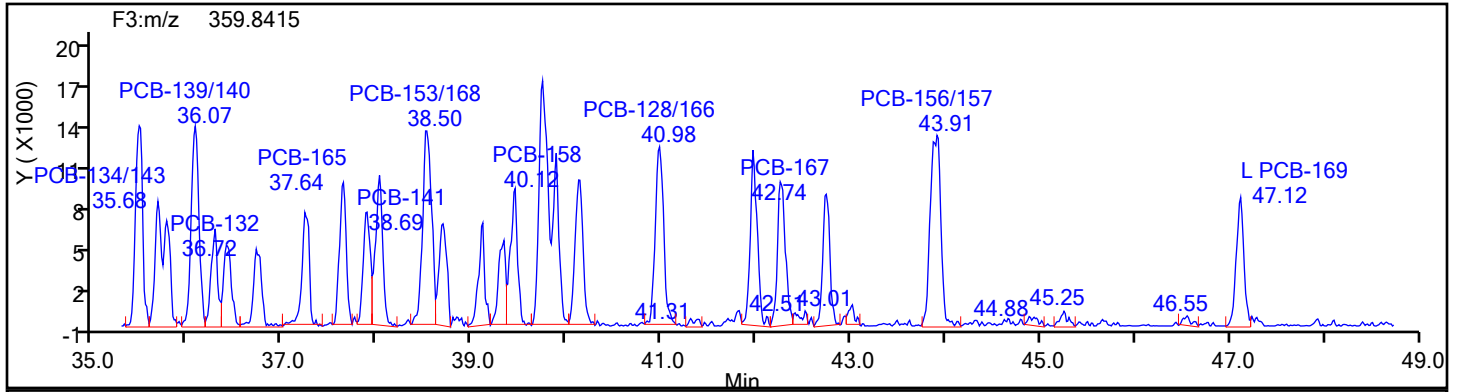
Worklist#: 87130

Sample Line#: 2

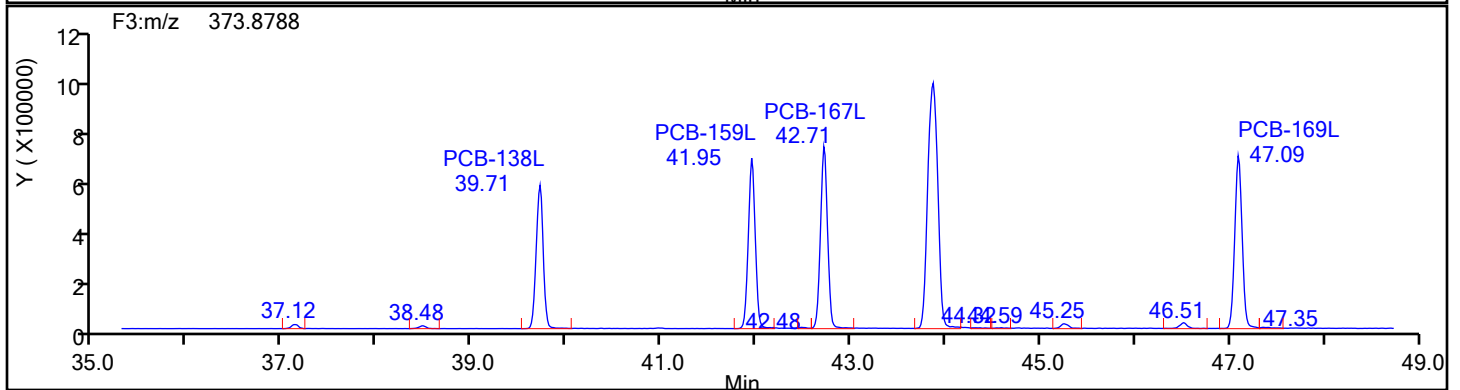
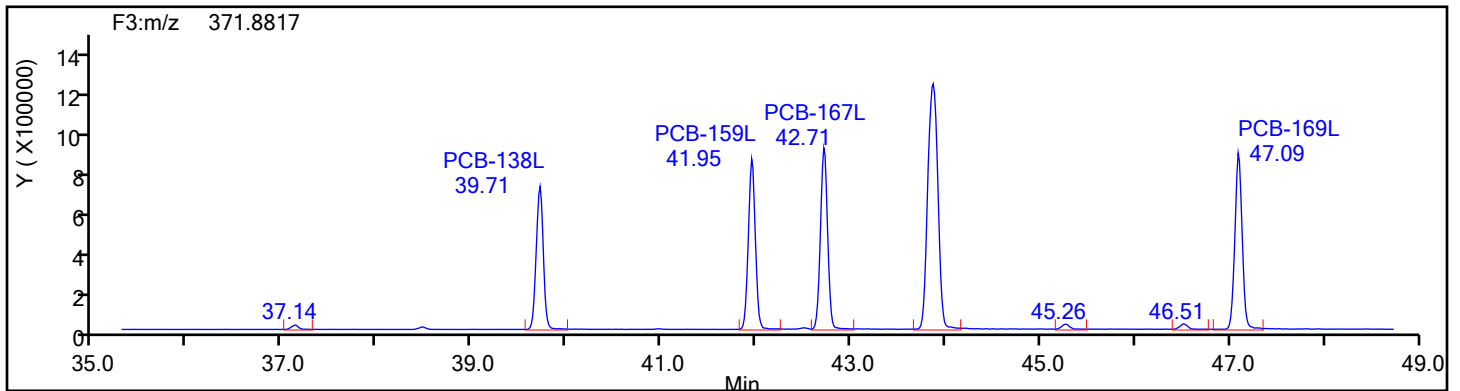
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



## HxPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

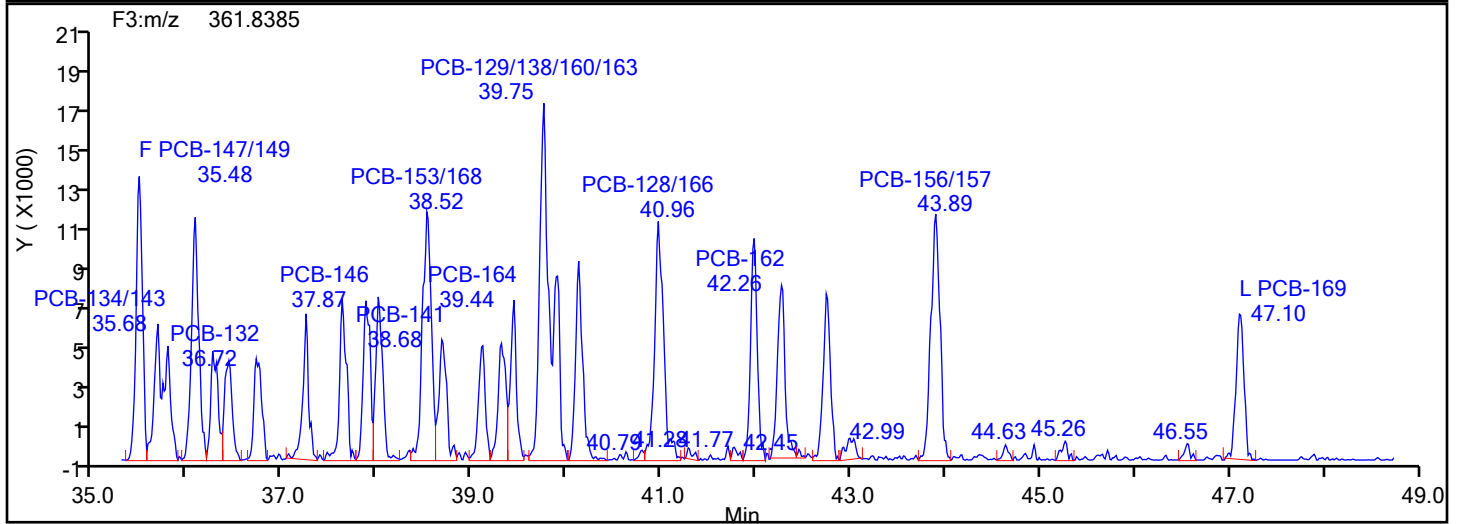
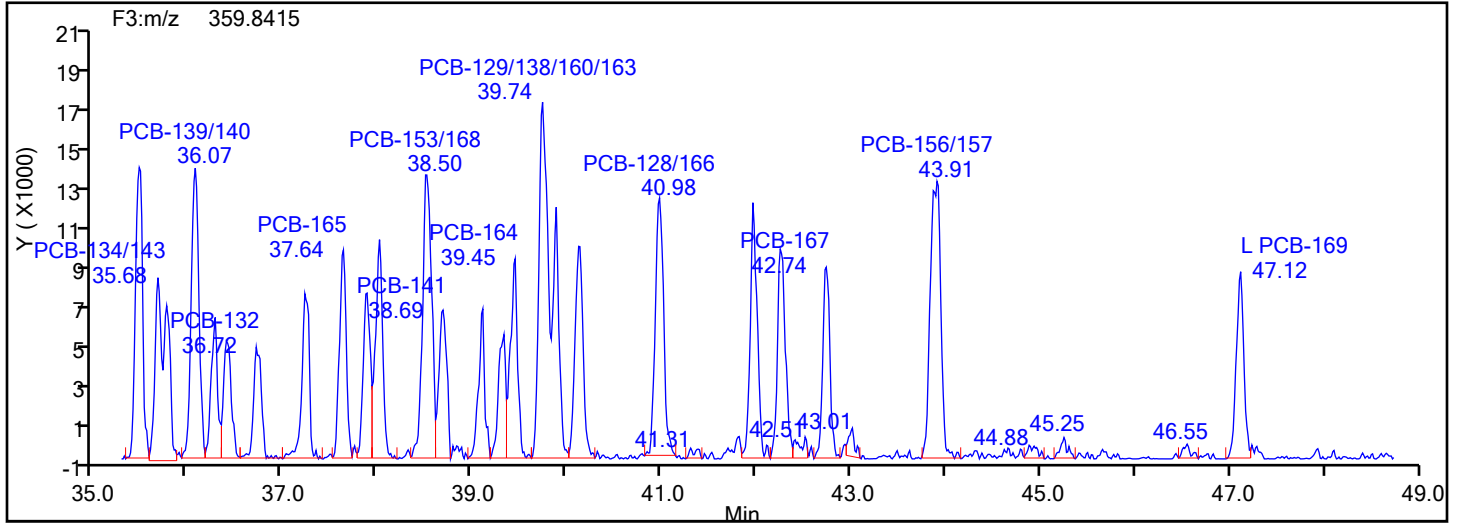
Worklist#: 87130

Sample Line#: 2

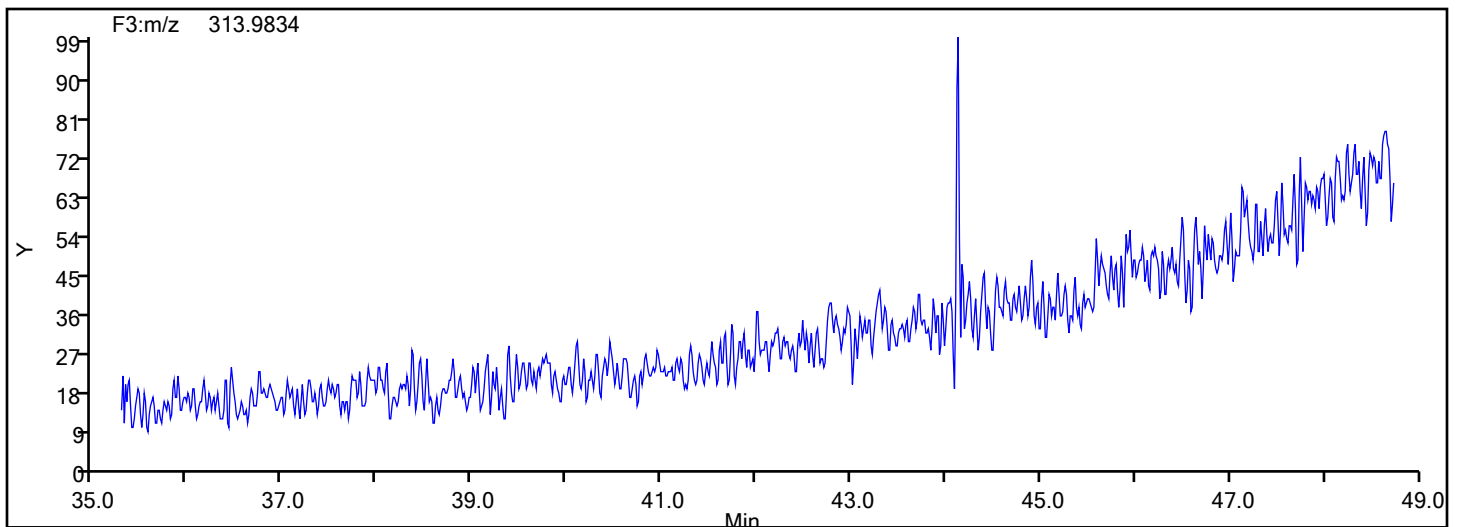
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



## HxPCB F3 Lock Mass



## Eurofins Knoxville

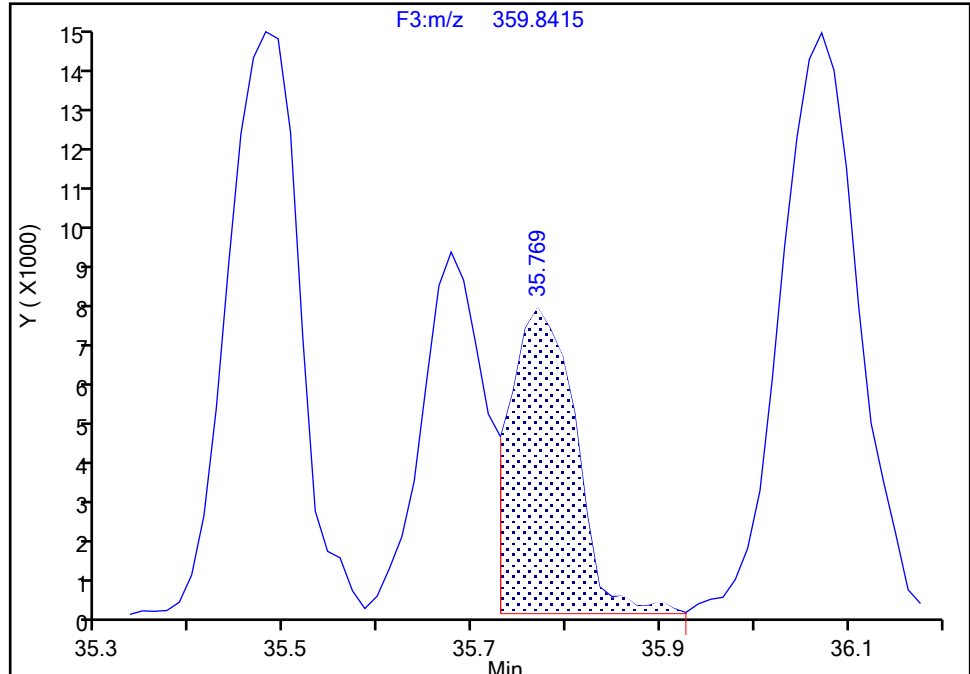
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

**PCB-134/143, CAS: STL01818**

Signal: 1

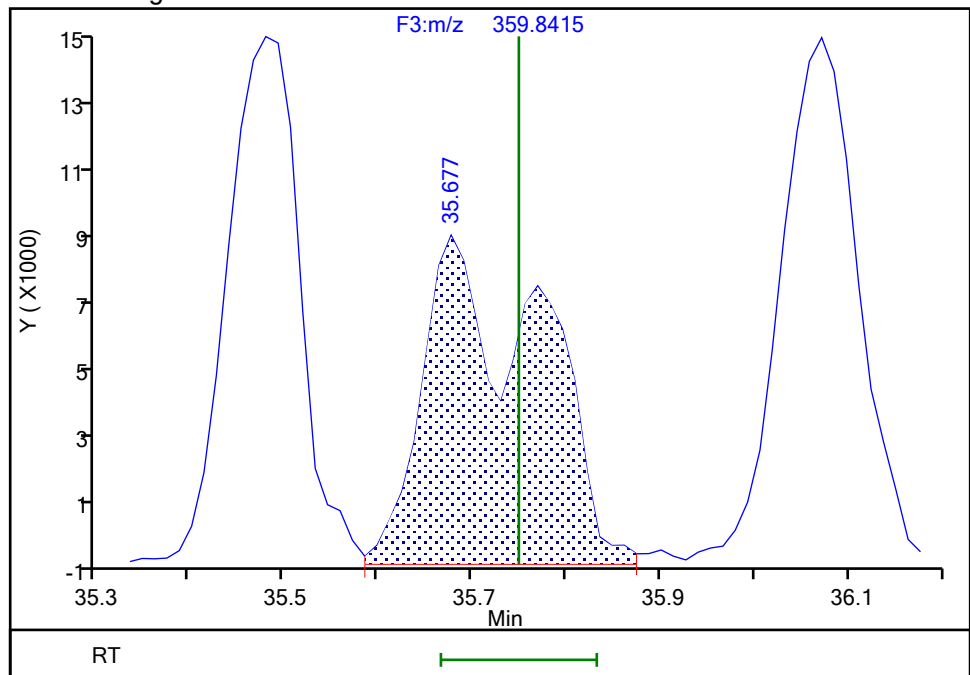
RT: 35.77  
Area: 35338  
Amount: 1.102163  
Amount Units: pg/ul

## Processing Integration Results



RT: 35.68  
Area: 75510  
Amount: 2.011887  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:38:30 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

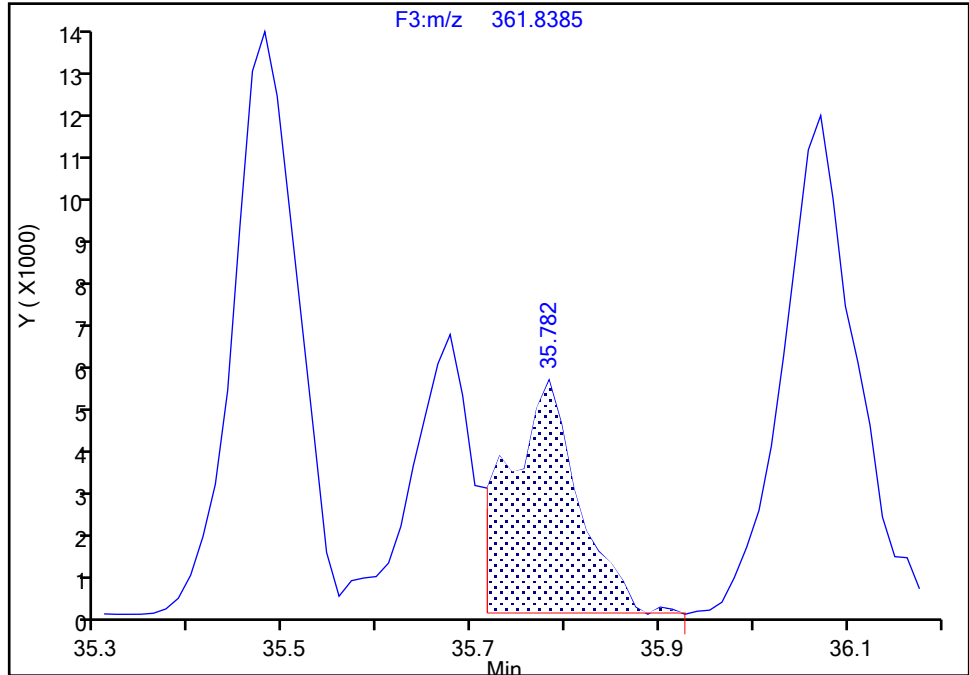
F3(35.64 :49.10 )

**PCB-134/143, CAS: STL01818**

Signal: 2

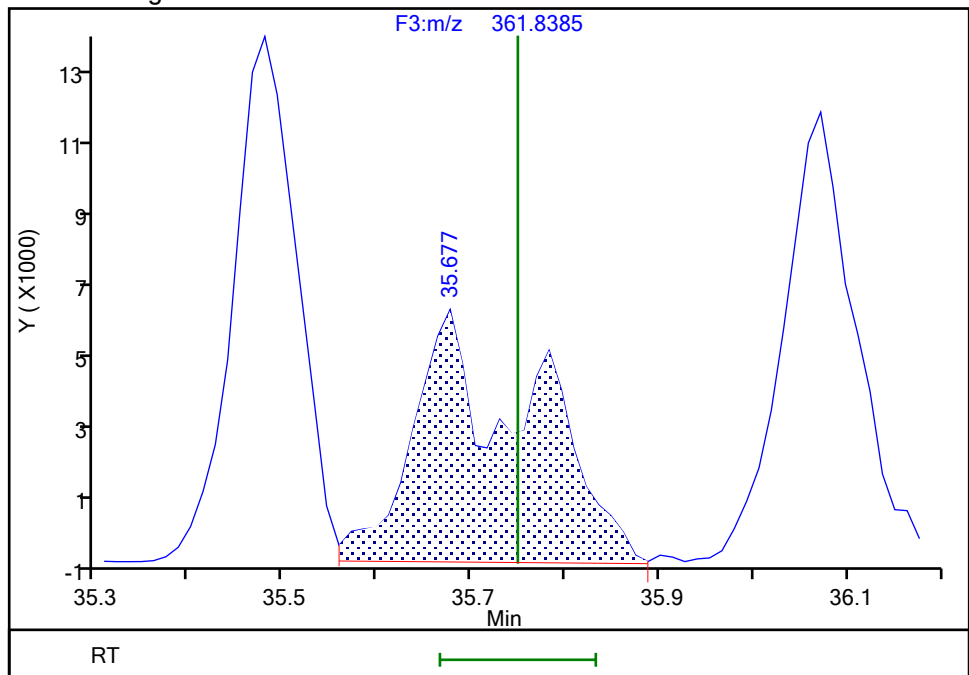
RT: 35.78  
Area: 27425  
Amount: 1.102163  
Amount Units: pg/ul

## Processing Integration Results



RT: 35.68  
Area: 55371  
Amount: 2.011887  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:38:36 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFWC-Pass 20240529 22:00:34

4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

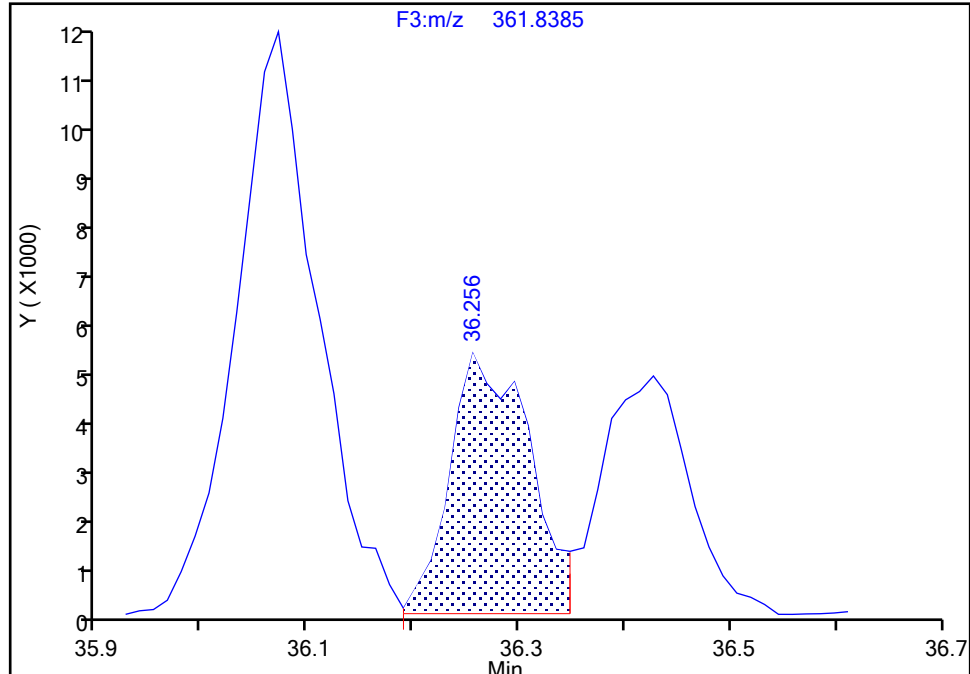
Detector F3(35.64 :49.10 )

**PCB-131, CAS: 61798-70-7**

Signal: 2

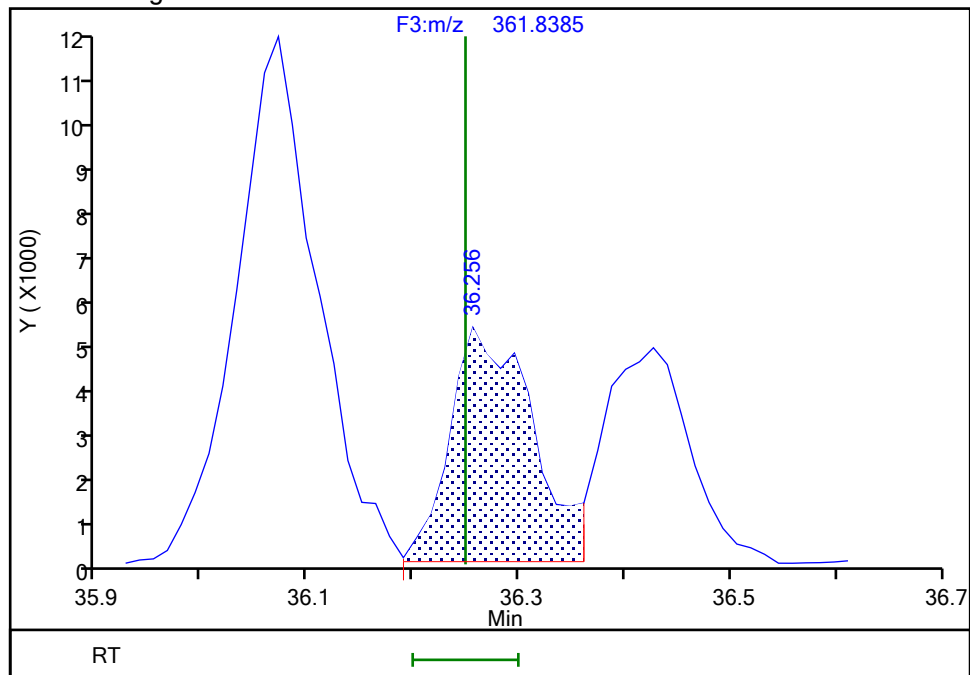
RT: 36.26  
Area: 26689  
Amount: 0.932978  
Amount Units: pg/ul

## Processing Integration Results



RT: 36.26  
Area: 27457  
Amount: 0.984032  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:35:37 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

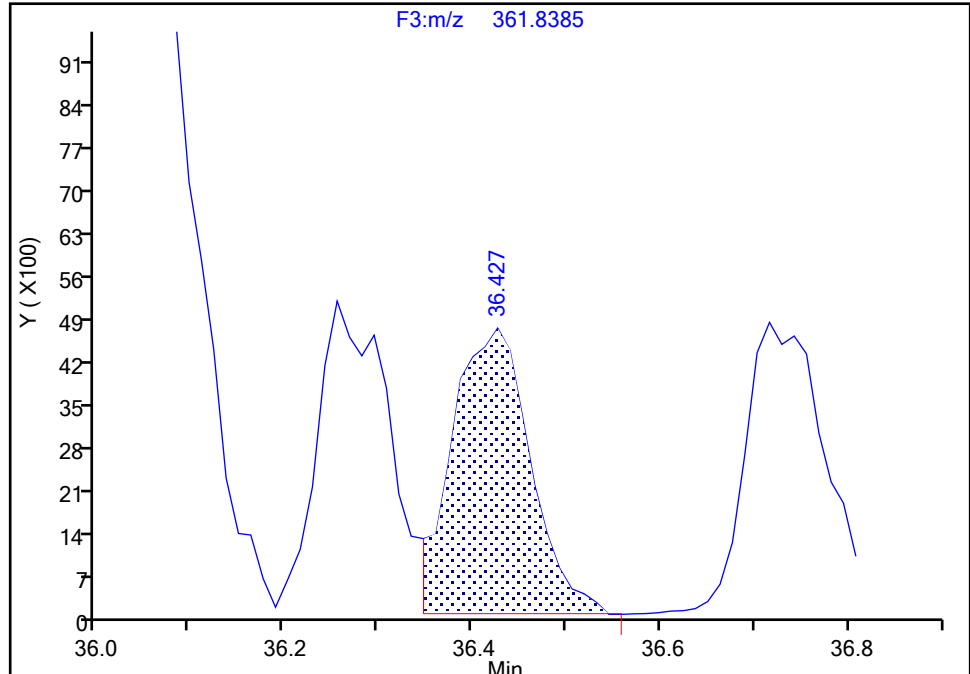
Detector F3(35.64 :49.10 )

**PCB-142, CAS: 41411-61-4**

Signal: 2

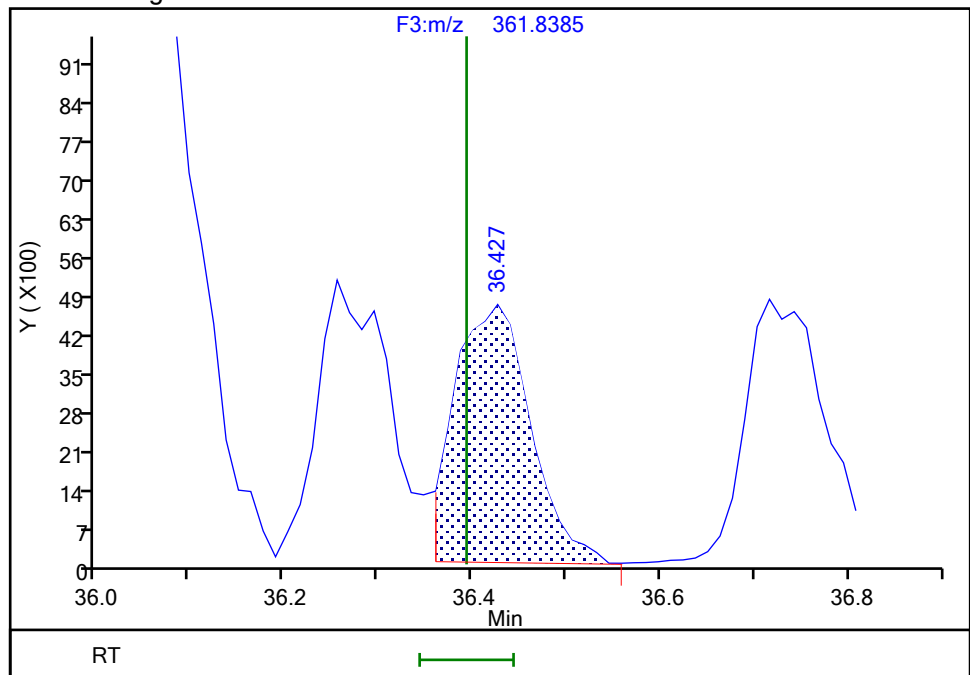
RT: 36.43  
Area: 27005  
Amount: 0.967785  
Amount Units: pg/ul

## Processing Integration Results



RT: 36.43  
Area: 25865  
Amount: 0.956909  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:35:37 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

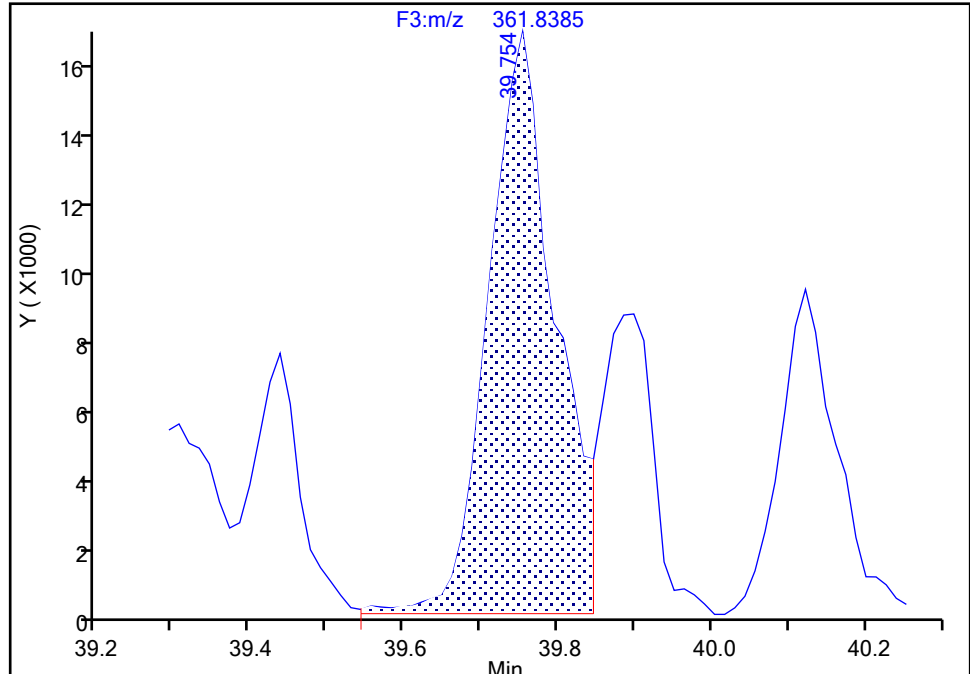
F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 2

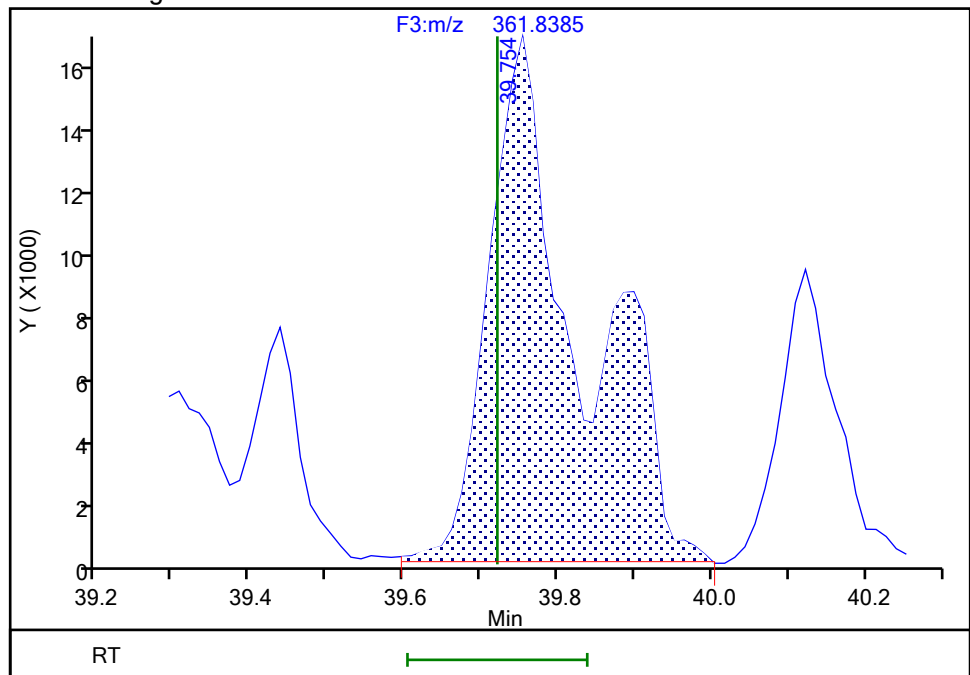
RT: 39.75  
Area: 101326  
Amount: 3.651293  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.75  
Area: 139822  
Amount: 3.921772  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:39:15 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

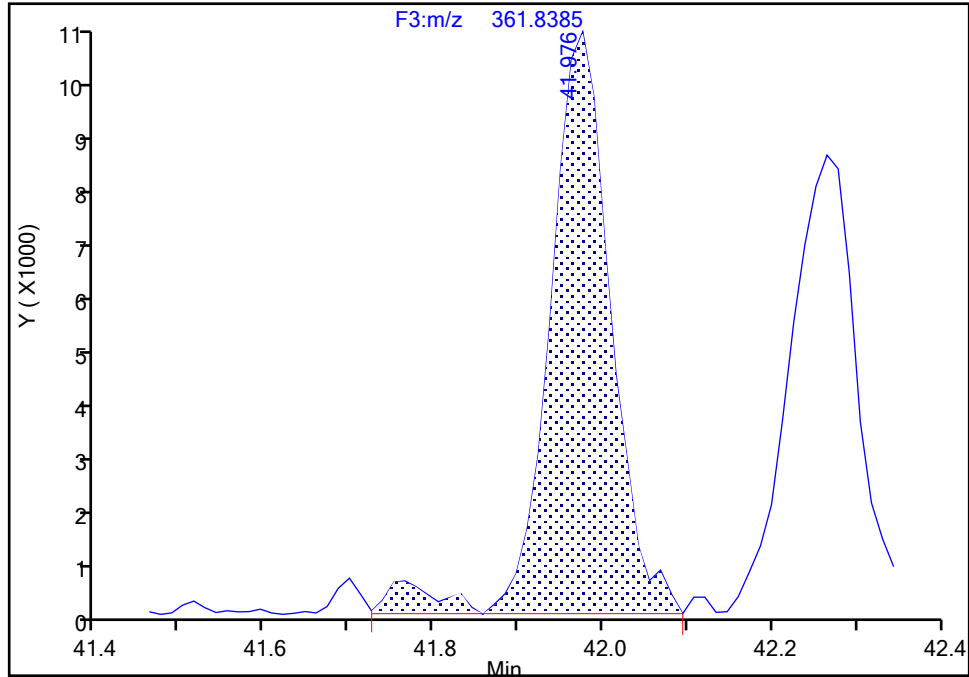
Detector F3(35.64 :49.10 )

**PCB-159, CAS: 39635-35-3**

Signal: 2

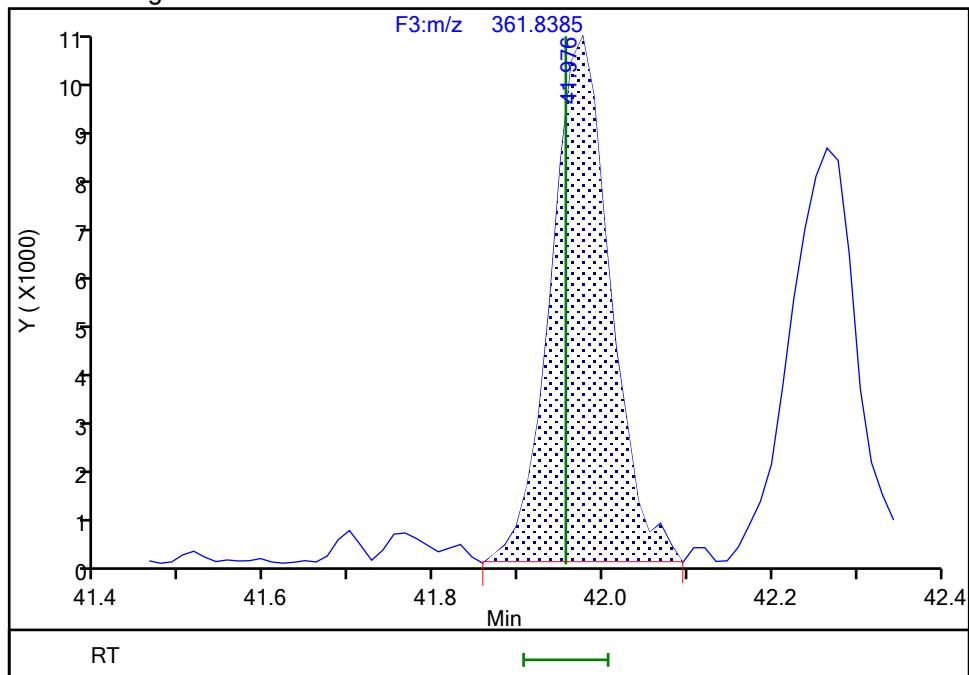
RT: 41.98  
Area: 53701  
Amount: 1.044933  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.98  
Area: 51172  
Amount: 1.015050  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:39:28 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

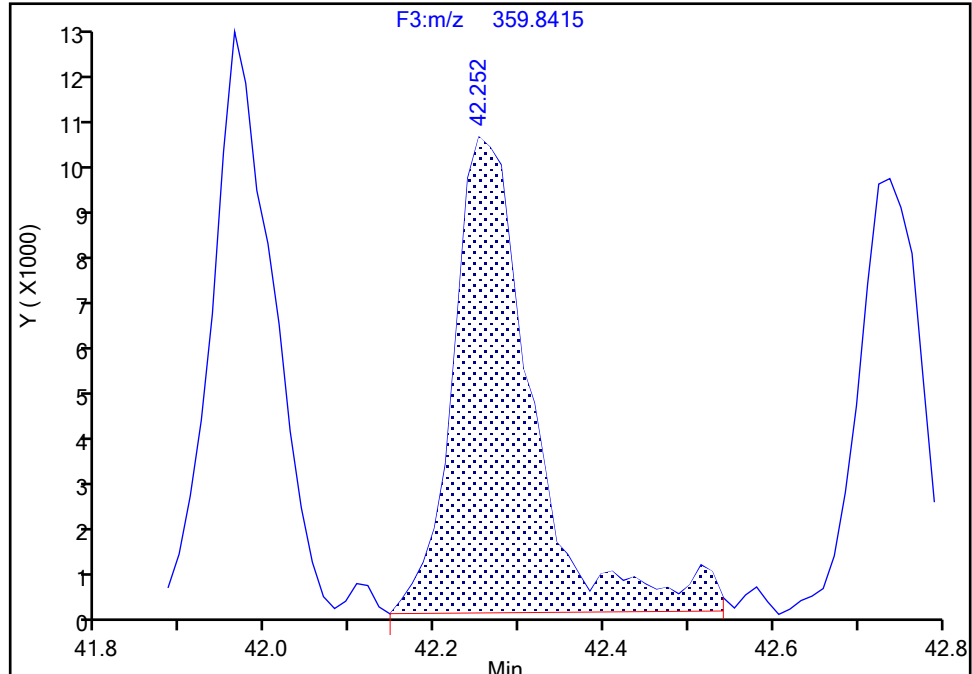
Detector F3(35.64 :49.10 )

**PCB-162, CAS: 39635-34-2**

Signal: 1

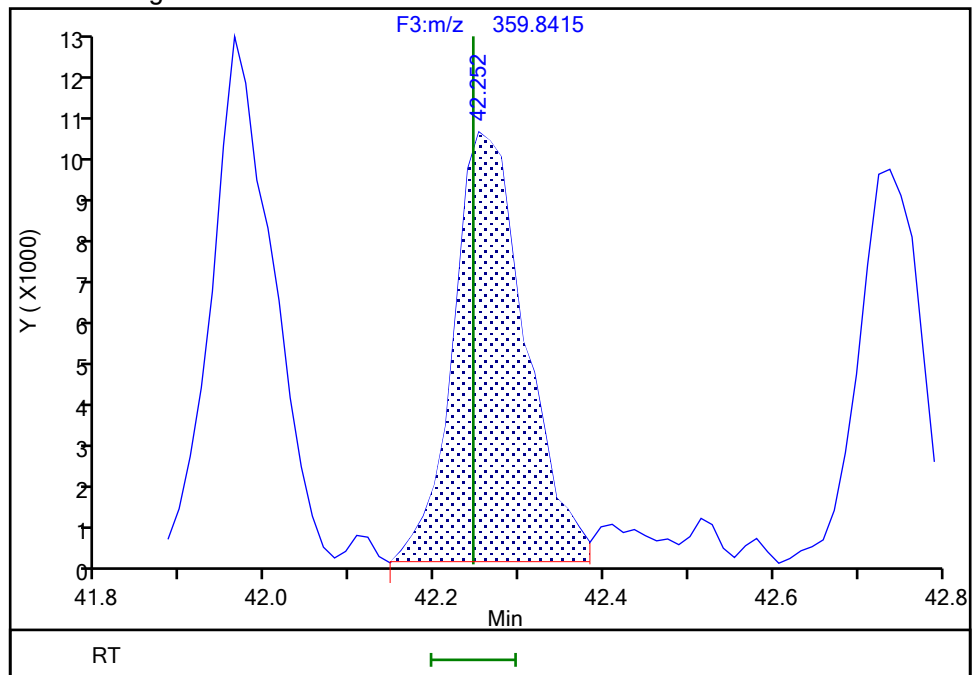
RT: 42.25  
Area: 65718  
Amount: 1.114273  
Amount Units: pg/ul

## Processing Integration Results



RT: 42.25  
Area: 59673  
Amount: 1.039801  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:39:43 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

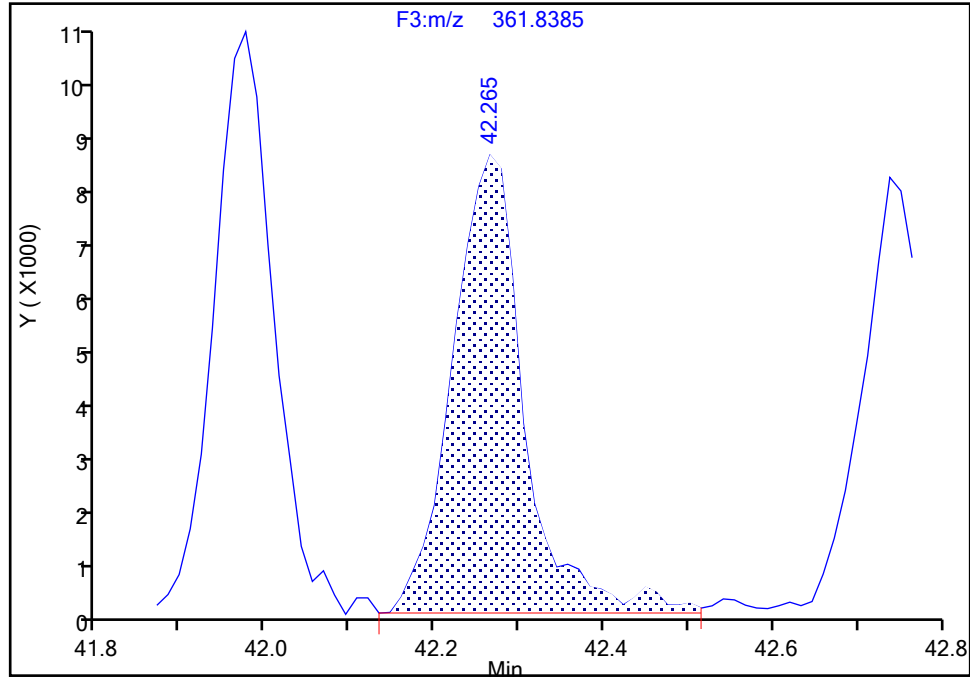
Detector F3(35.64 :49.10 )

**PCB-162, CAS: 39635-34-2**

Signal: 2

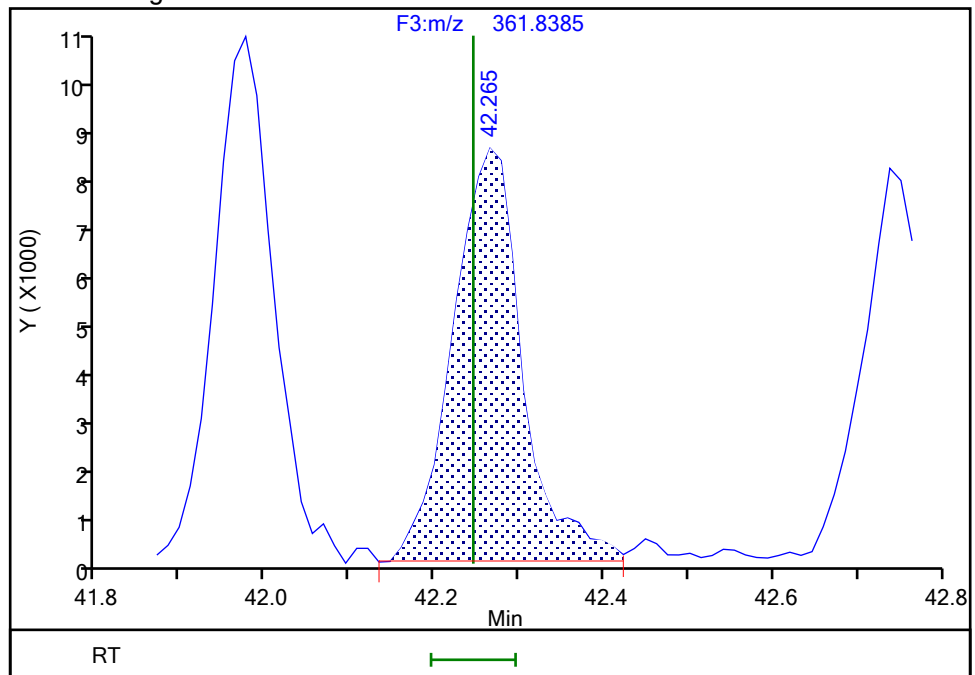
RT: 42.26  
Area: 48379  
Amount: 1.114273  
Amount Units: pg/ul

## Processing Integration Results



RT: 42.26  
Area: 47062  
Amount: 1.039801  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:39:45 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

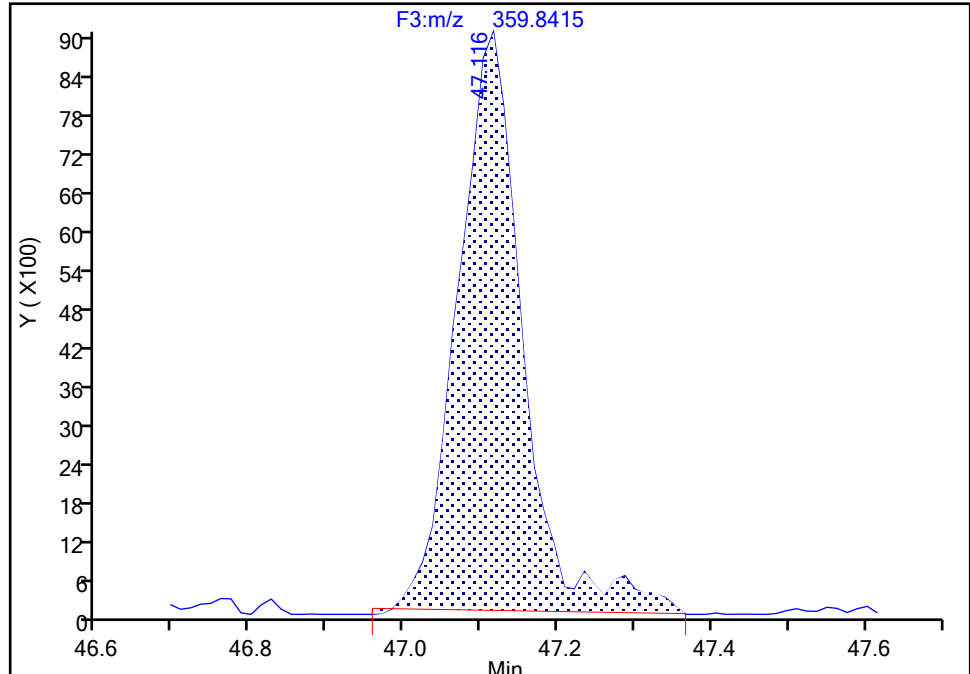
Detector F3(35.64 :49.10 )

**PCB-169, CAS: 32774-16-6**

Signal: 1

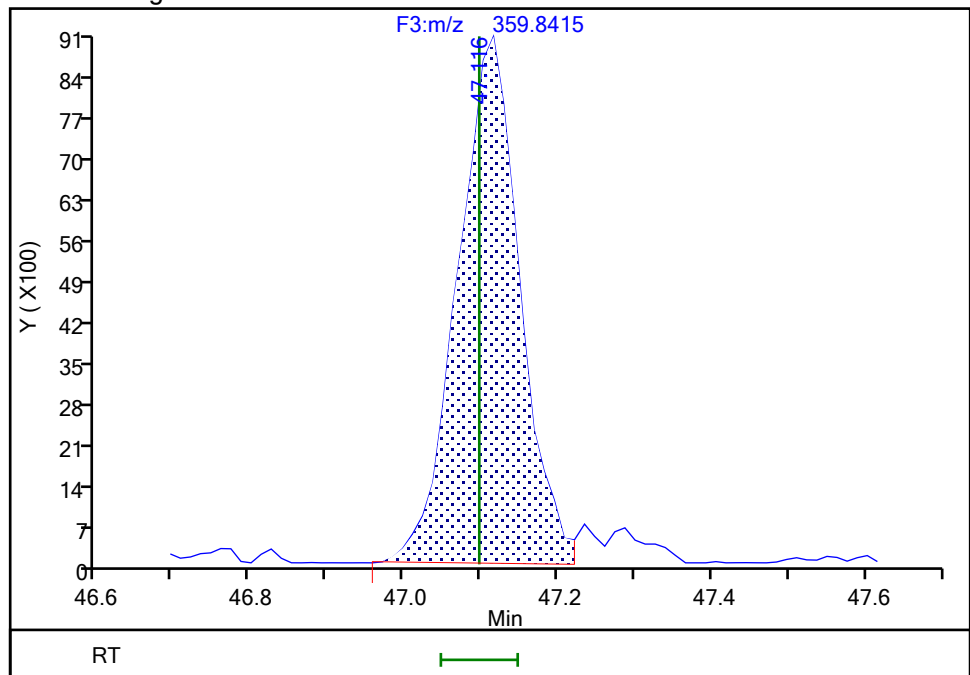
RT: 47.12  
Area: 52919  
Amount: 0.942481  
Amount Units: pg/ul

## Processing Integration Results



RT: 47.12  
Area: 50749  
Amount: 0.953752  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:40:05 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

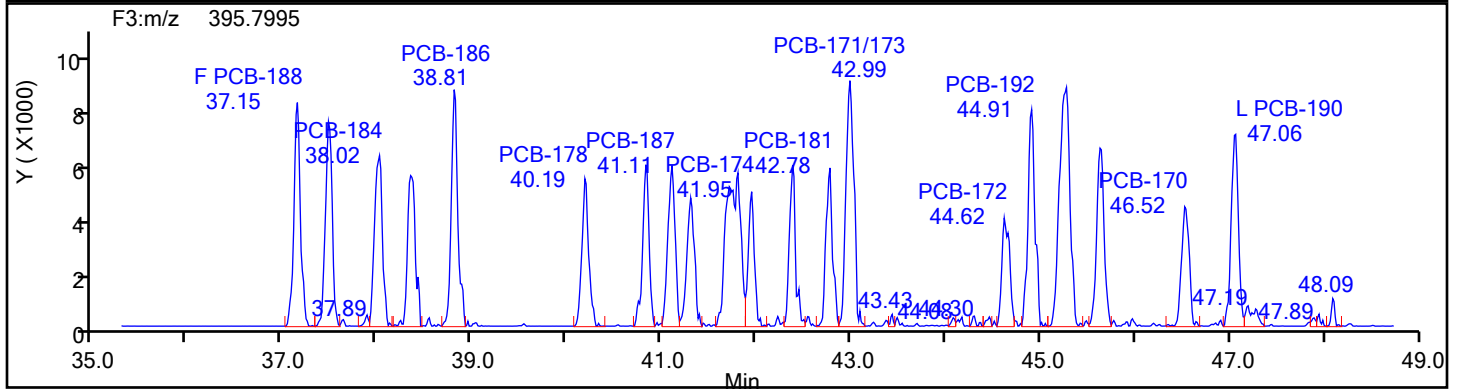
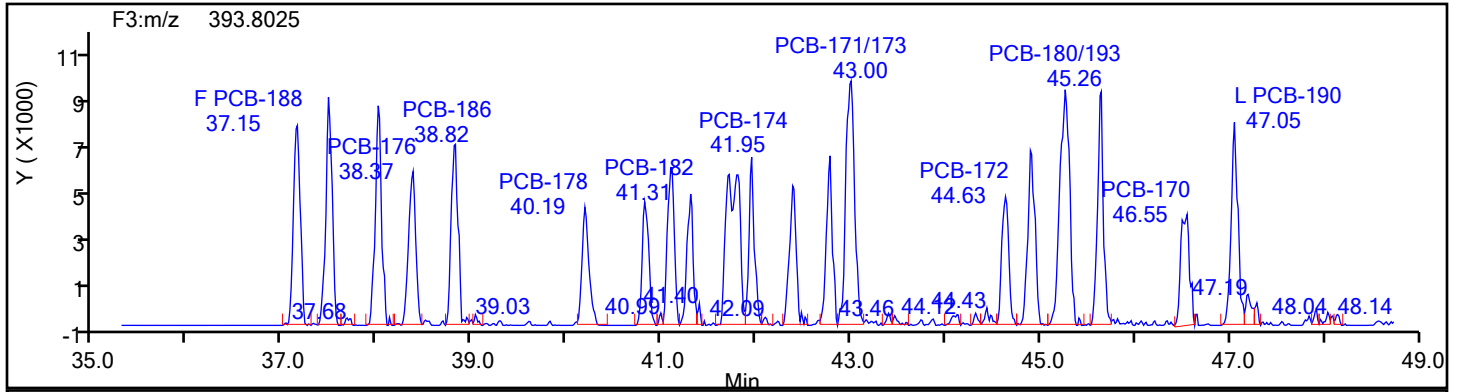
Worklist#: 87130

Sample Line#: 2

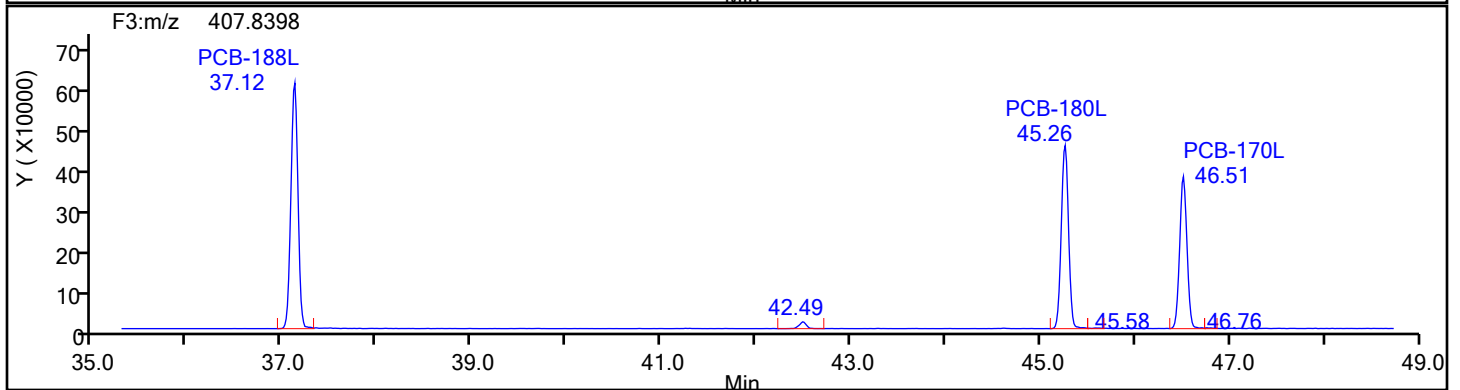
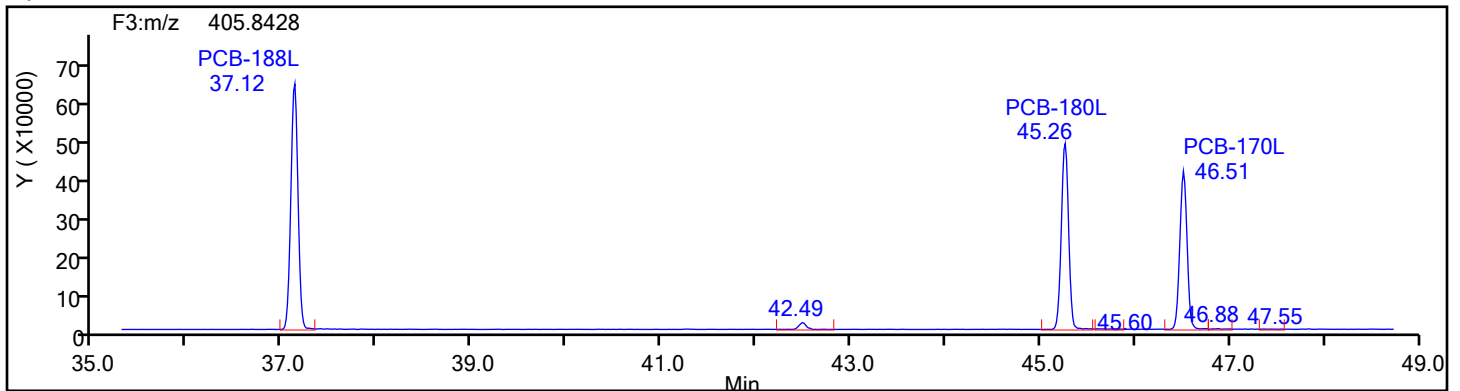
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



HpPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

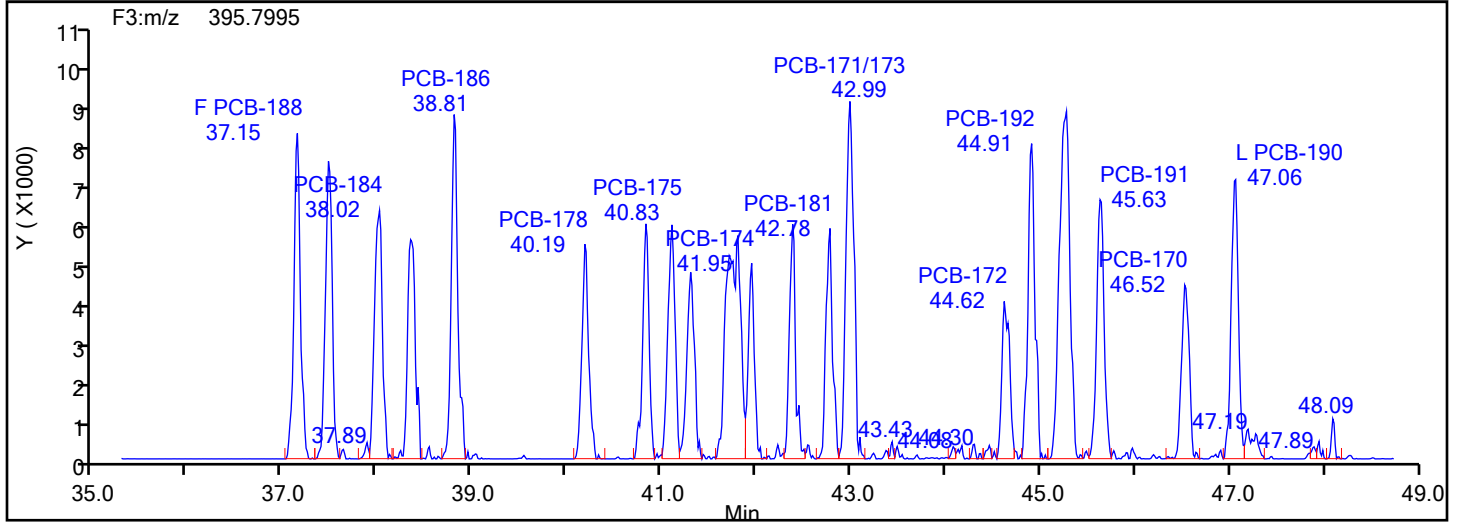
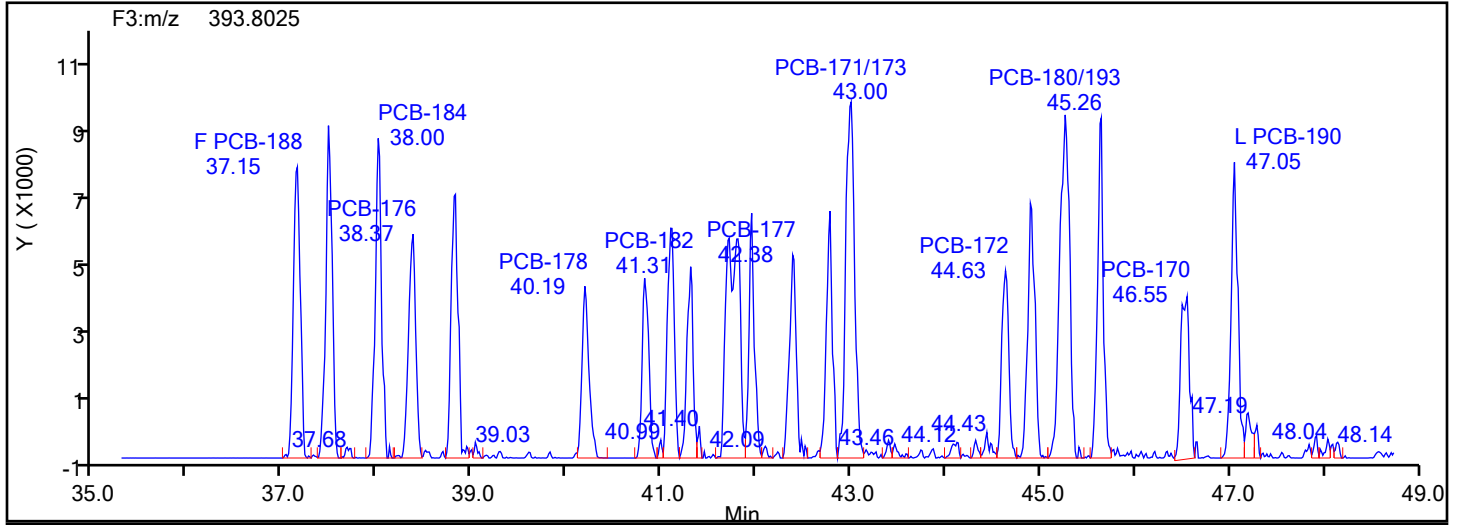
Worklist#: 87130

Sample Line#: 2

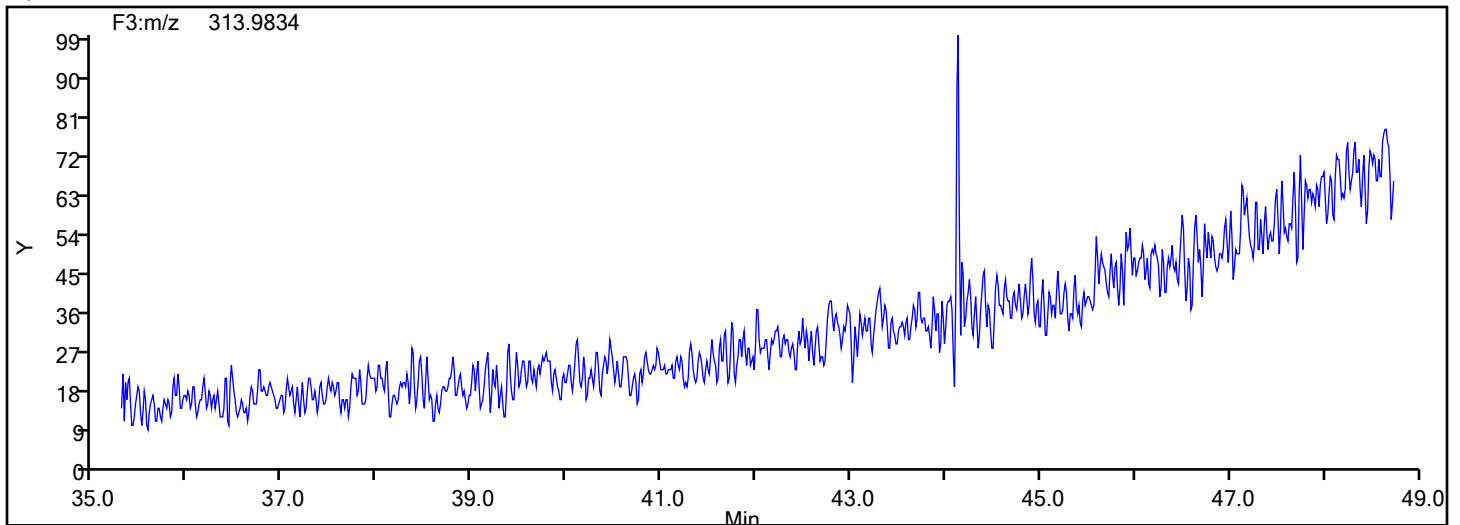
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



## HpPCB F3 Lock Mass





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

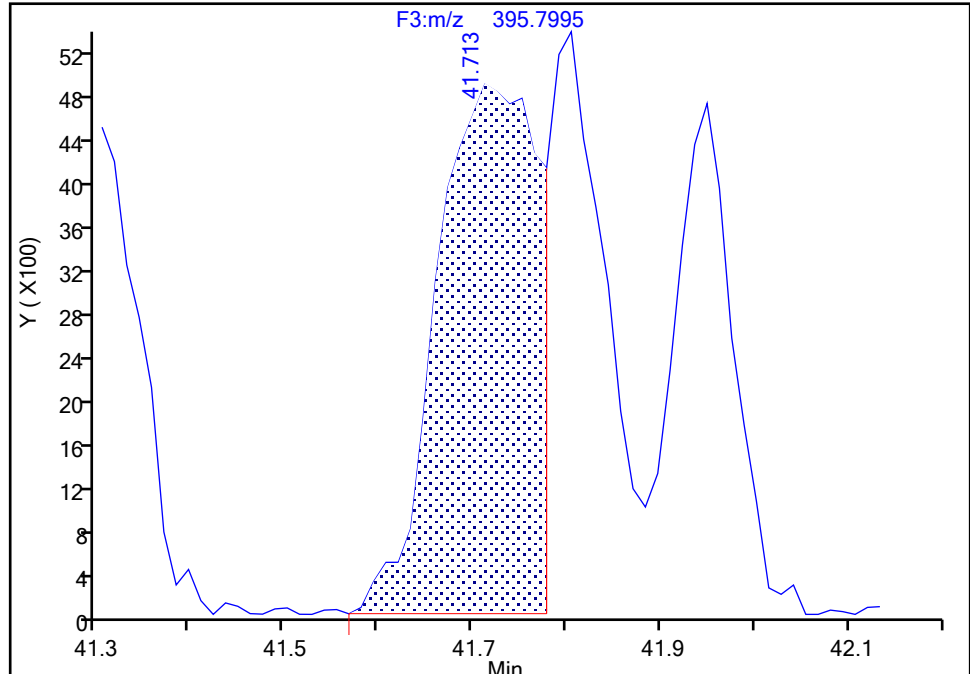
Detector F3(35.64 :49.10 )

**PCB-183/185, CAS: STL02297**

Signal: 2

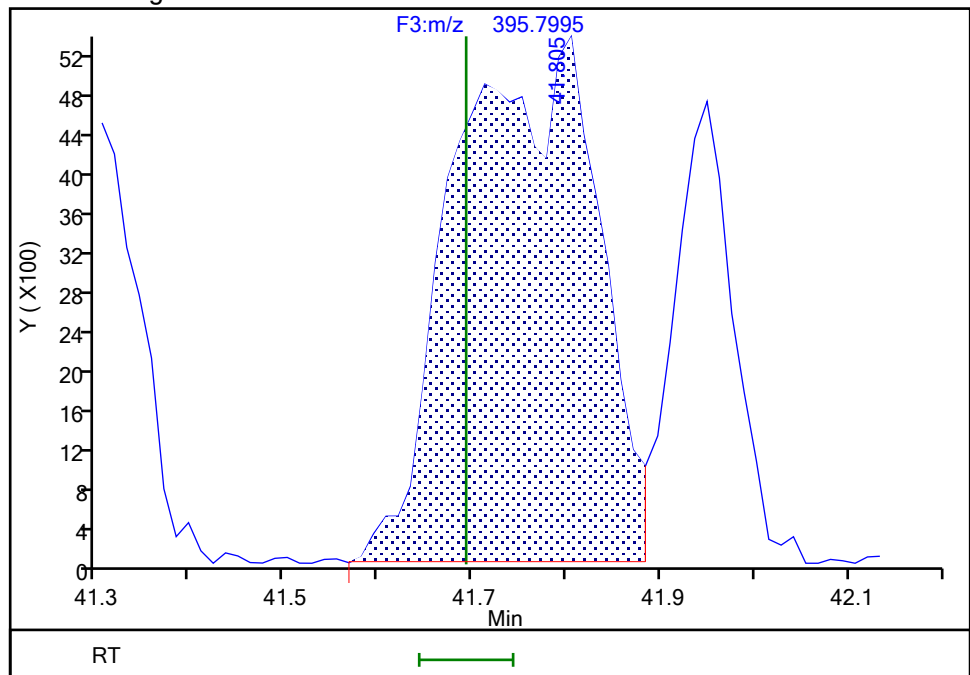
RT: 41.71  
Area: 35572  
Amount: 1.894030  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.81  
Area: 56781  
Amount: 2.172586  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:40:55 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

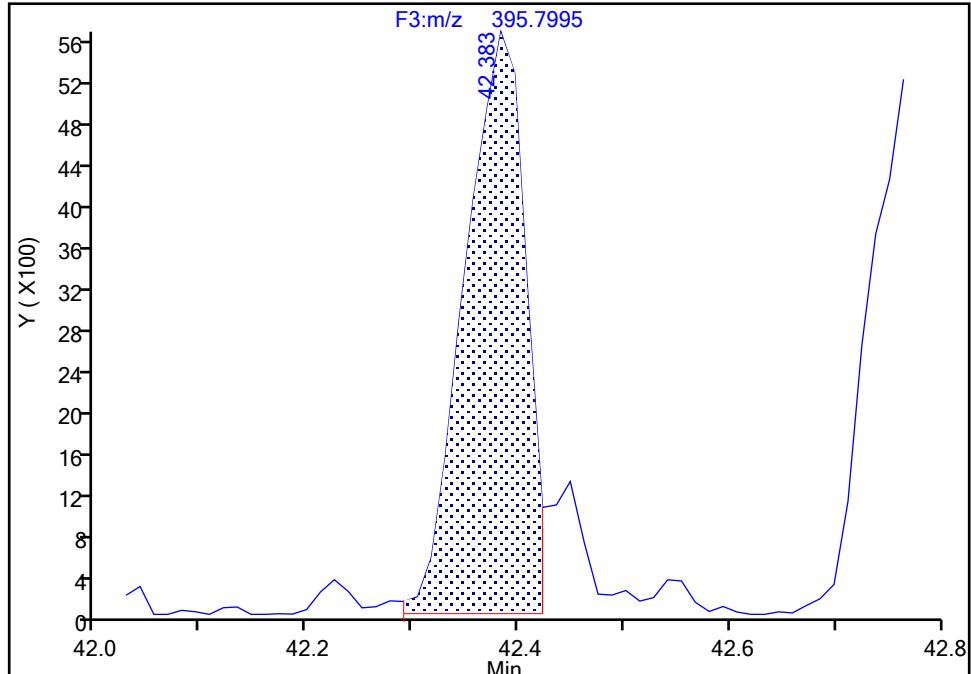
Detector F3(35.64 :49.10 )

**PCB-177, CAS: 52663-70-4**

Signal: 2

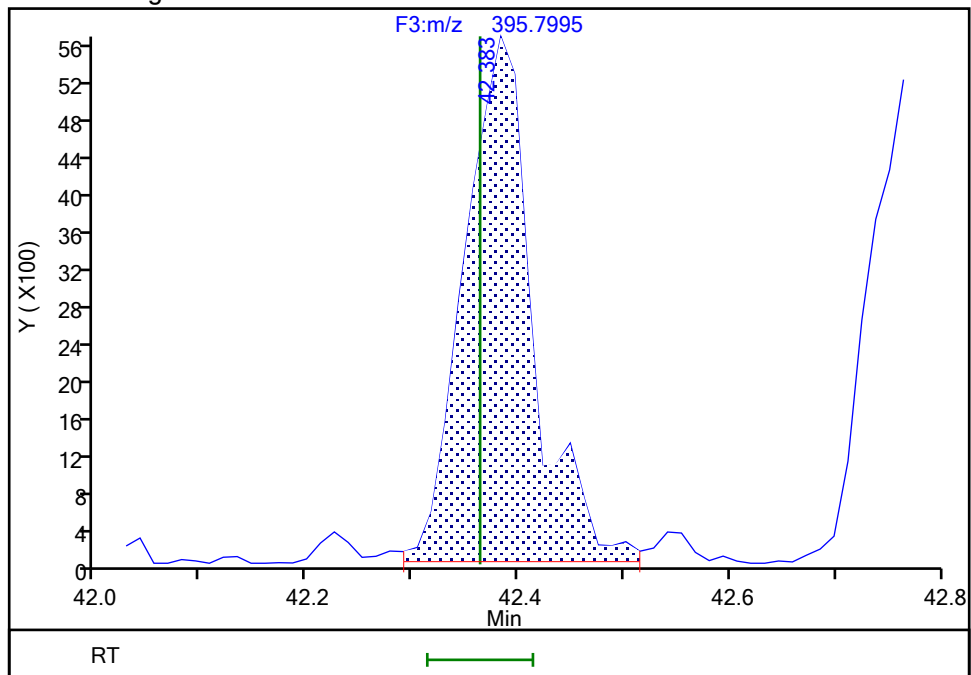
RT: 42.38  
Area: 22341  
Amount: 0.948456  
Amount Units: pg/ul

## Processing Integration Results



RT: 42.38  
Area: 25600  
Amount: 1.006154  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:41:25 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

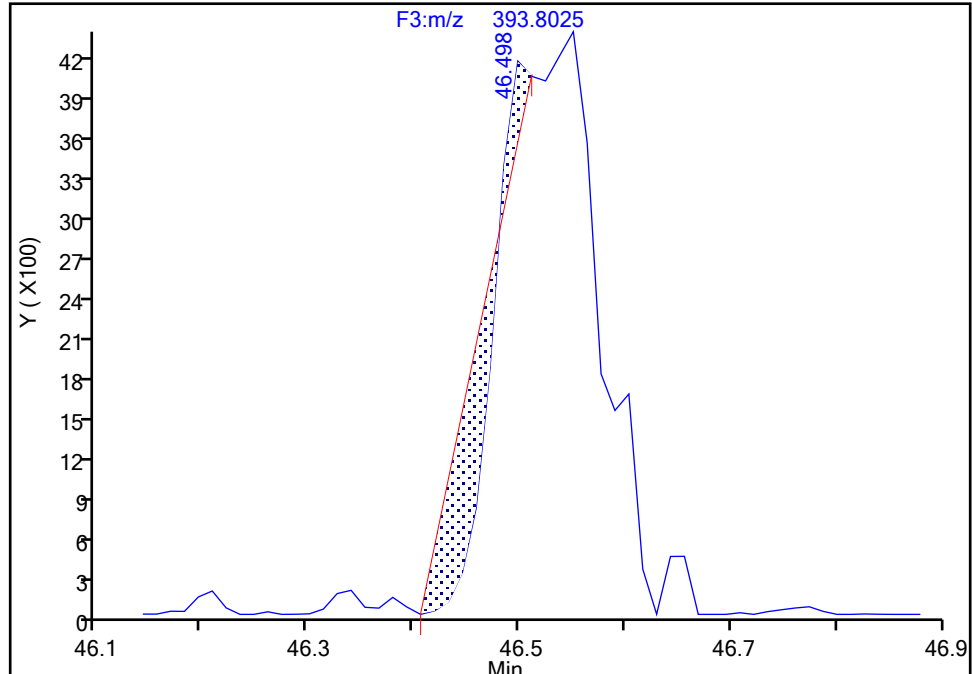
Detector F3(35.64 :49.10 )

PCB-170, CAS: 35065-30-6

Signal: 1

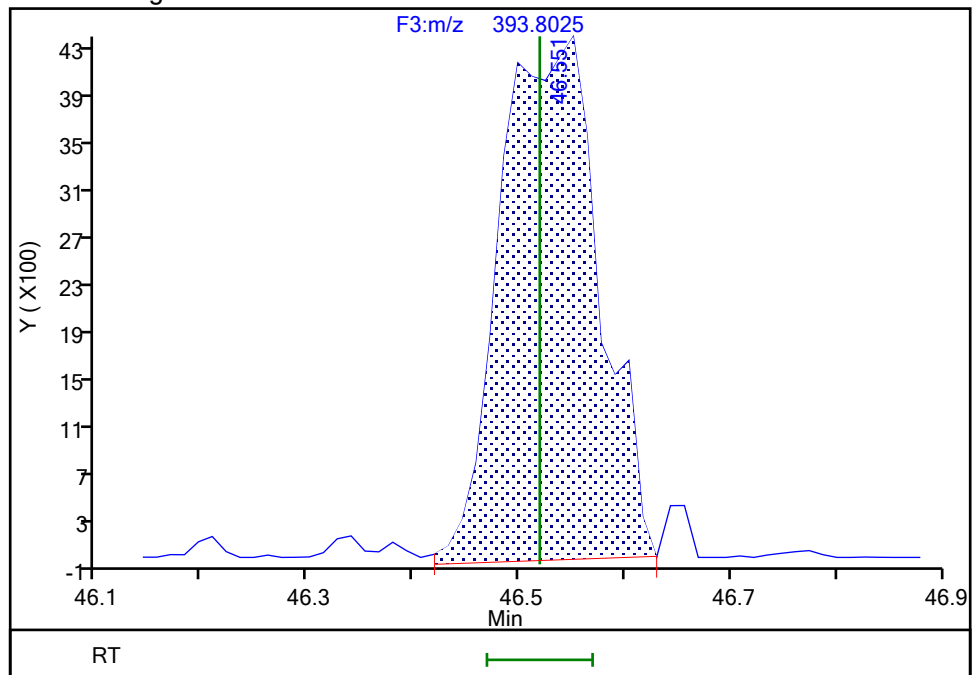
RT: 46.50  
Area: 2737  
Amount: 0.589206  
Amount Units: pg/ul

## Processing Integration Results



RT: 46.55  
Area: 28044  
Amount: 1.019913  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:40:35 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

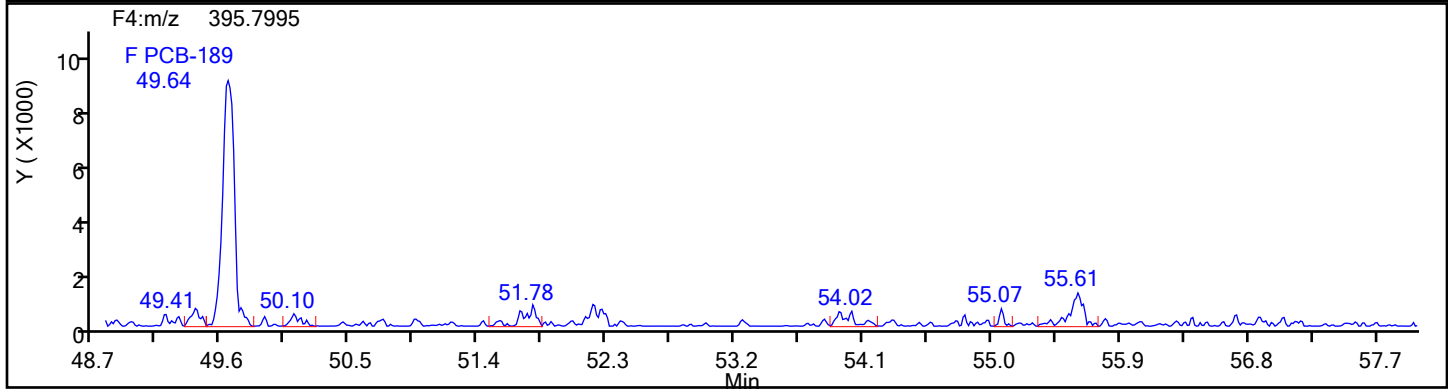
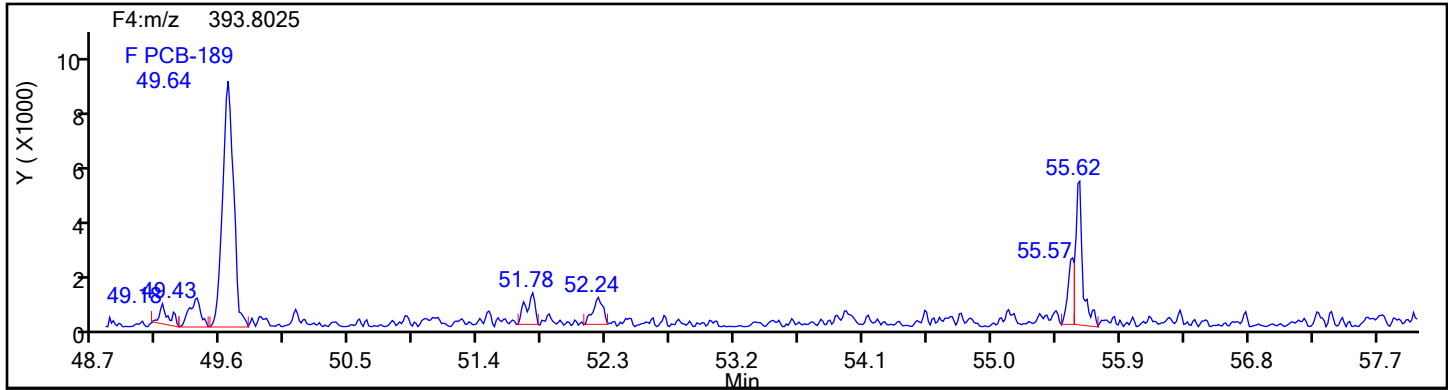
Worklist#: 87130

Sample Line#: 2

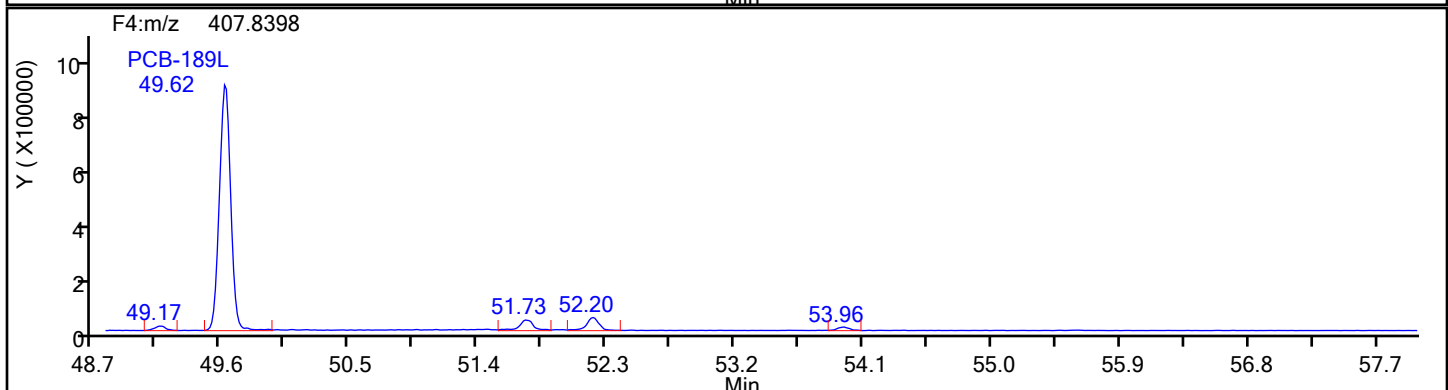
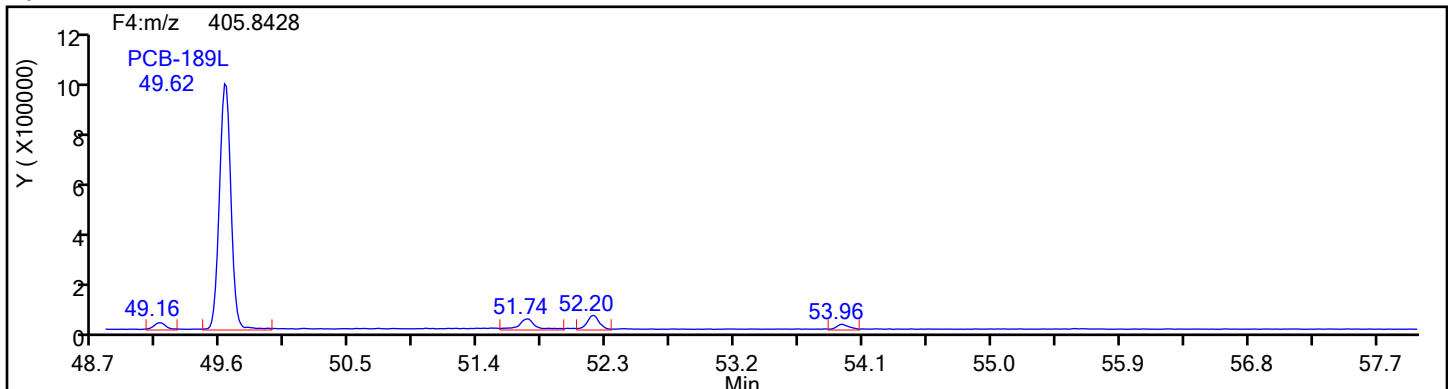
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

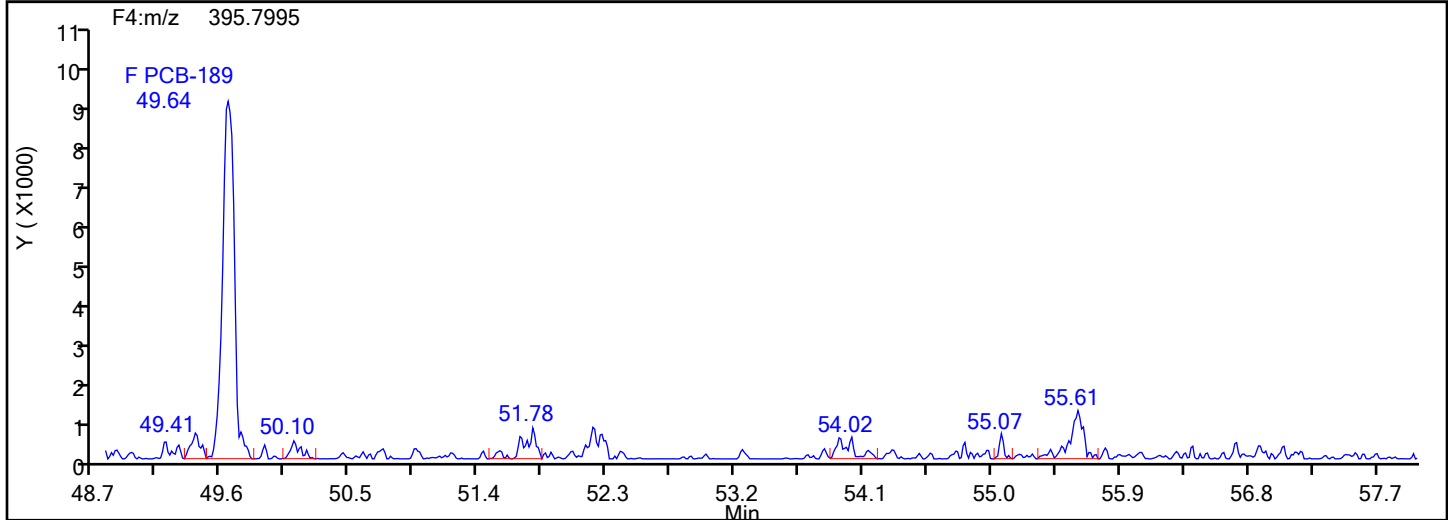
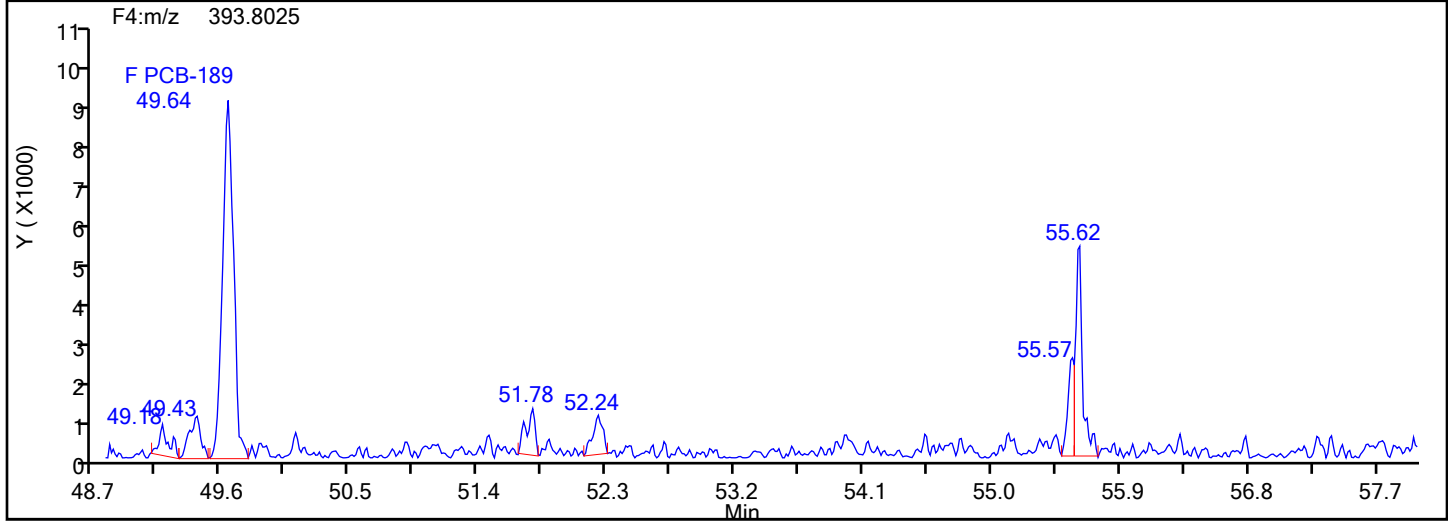
Worklist#: 87130

Sample Line#: 2

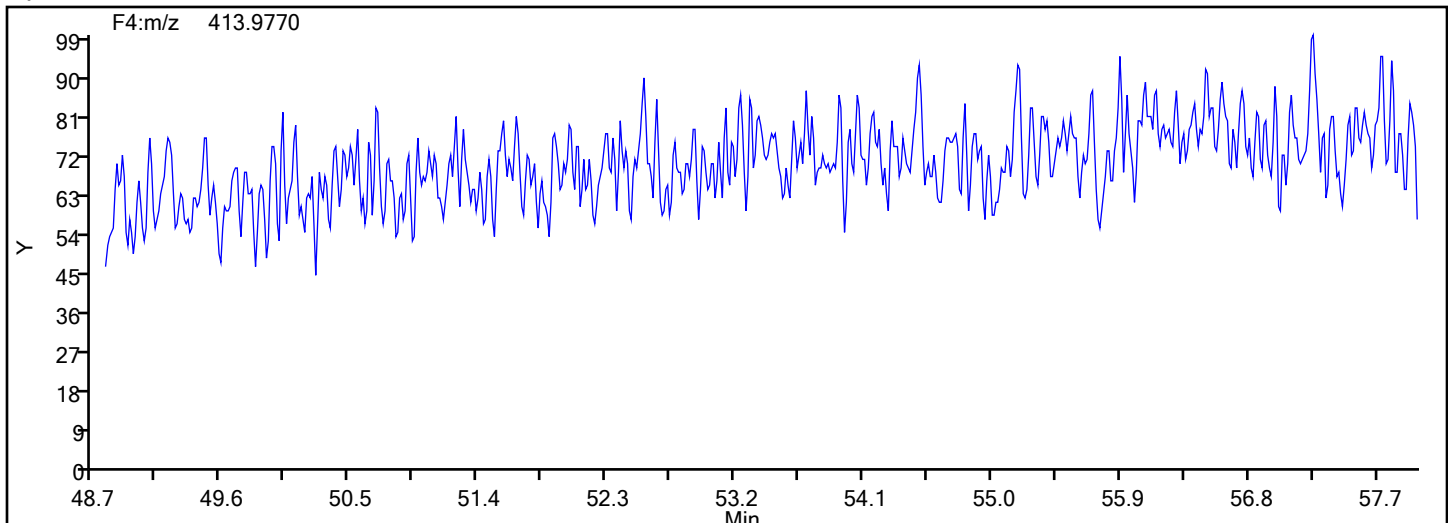
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

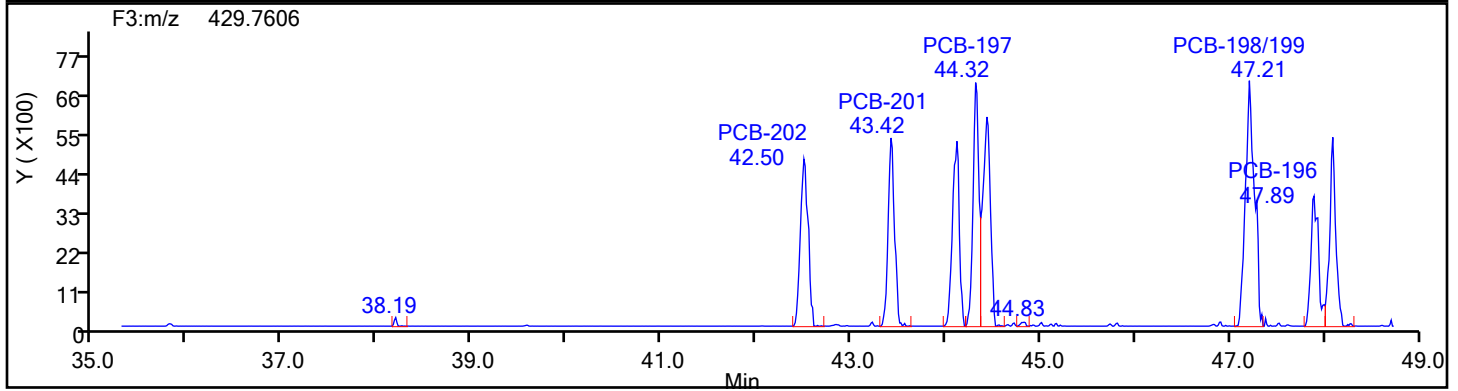
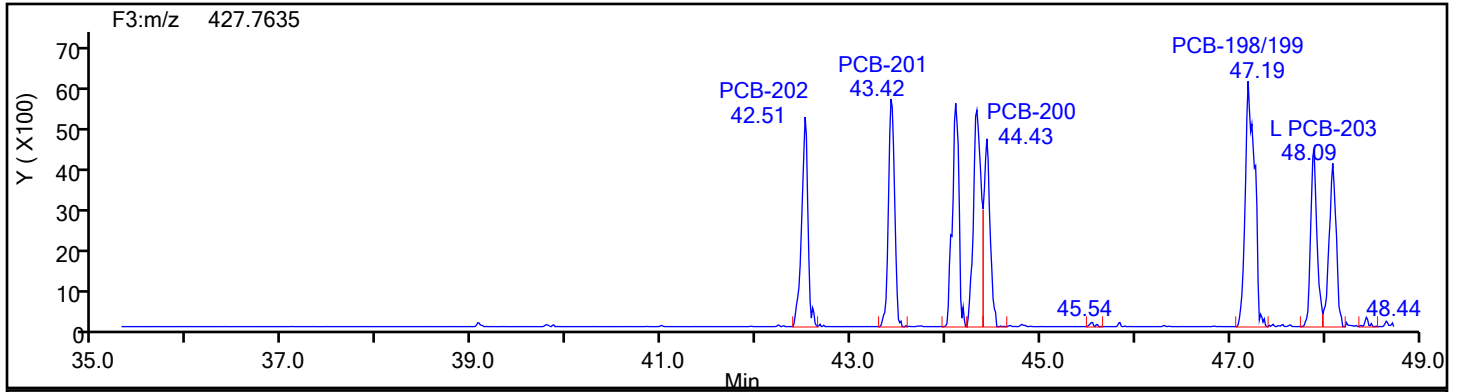
Worklist#: 87130

Sample Line#: 2

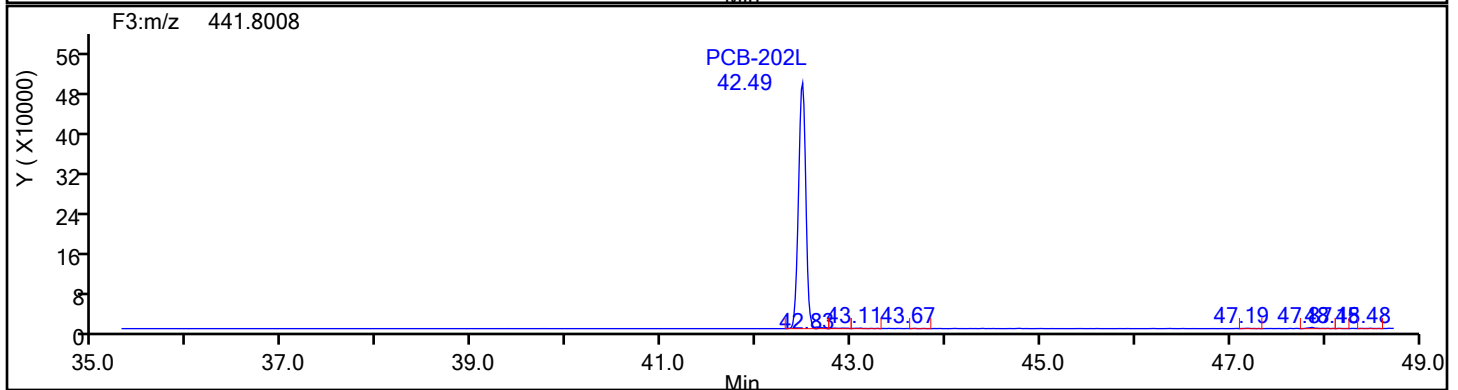
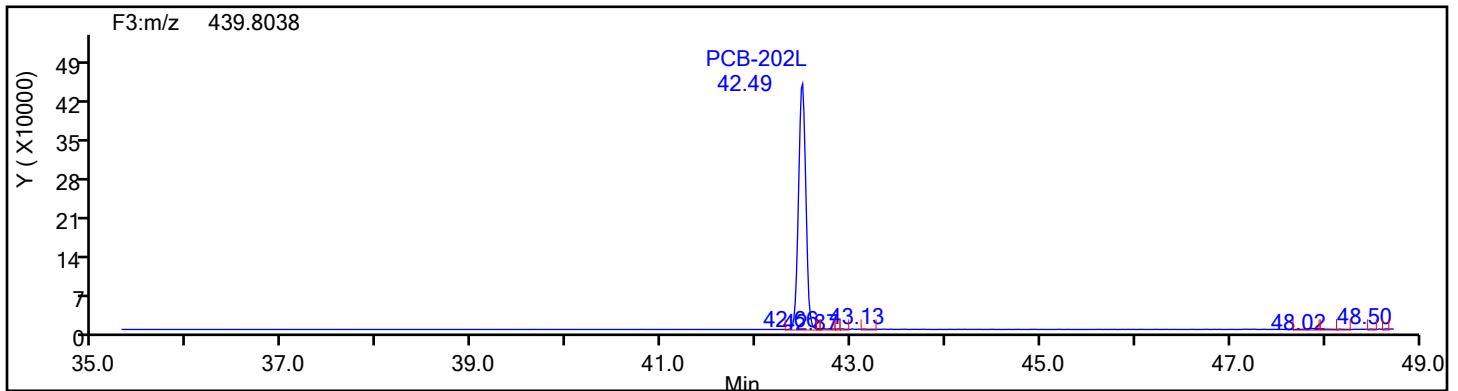
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3



OcPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

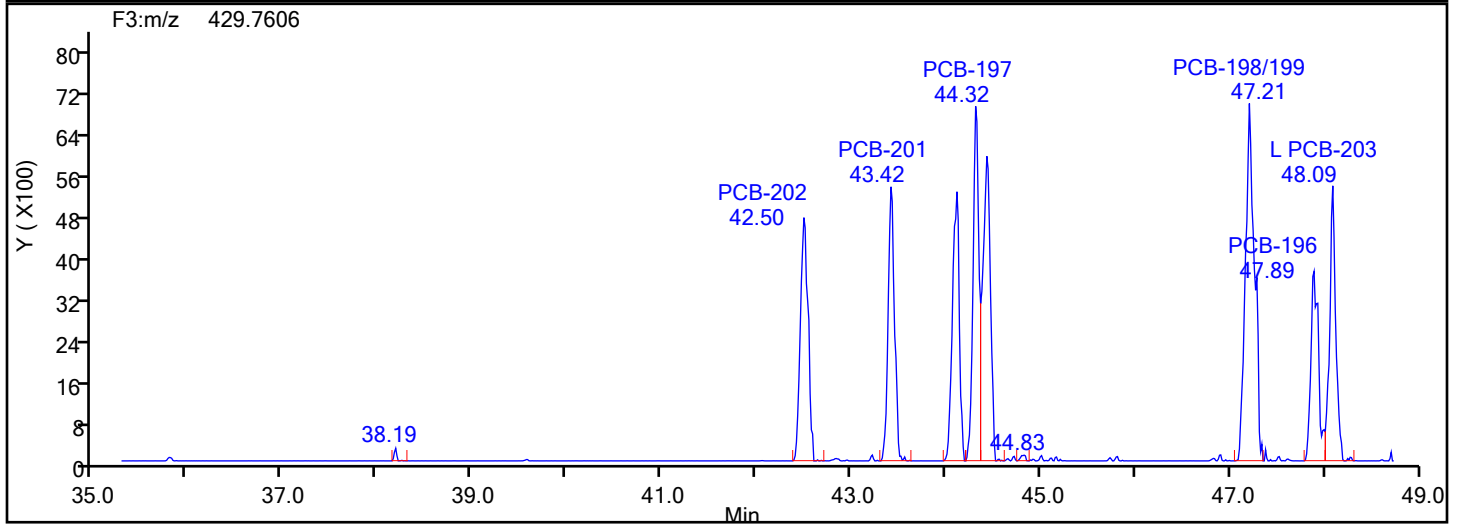
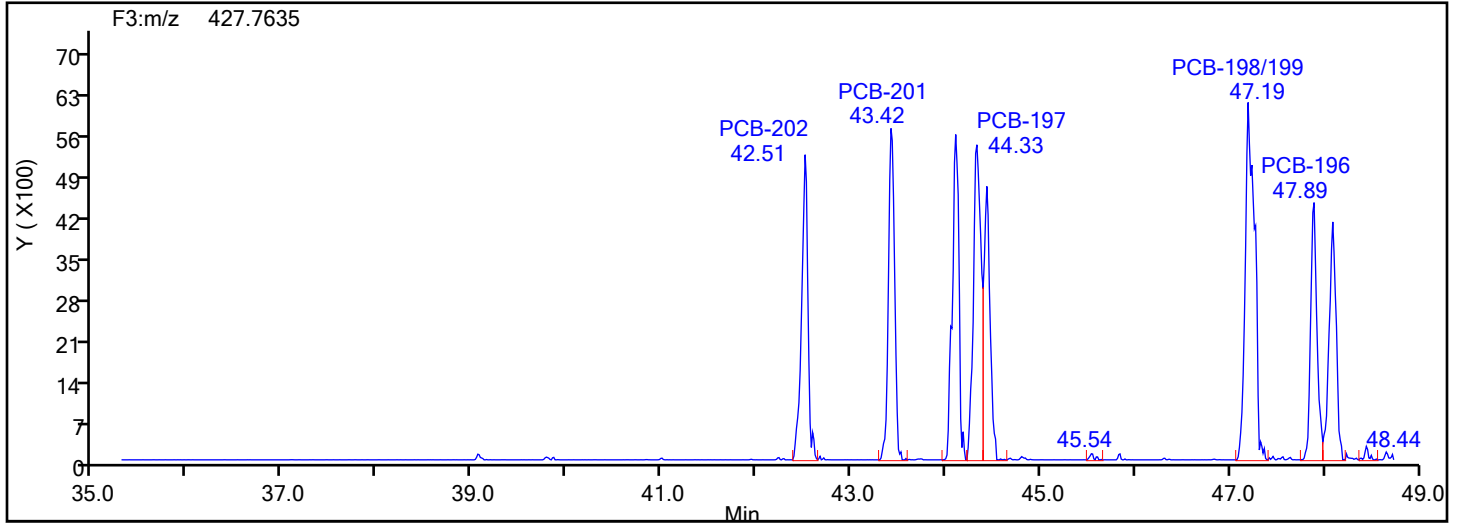
Worklist#: 87130

Sample Line#: 2

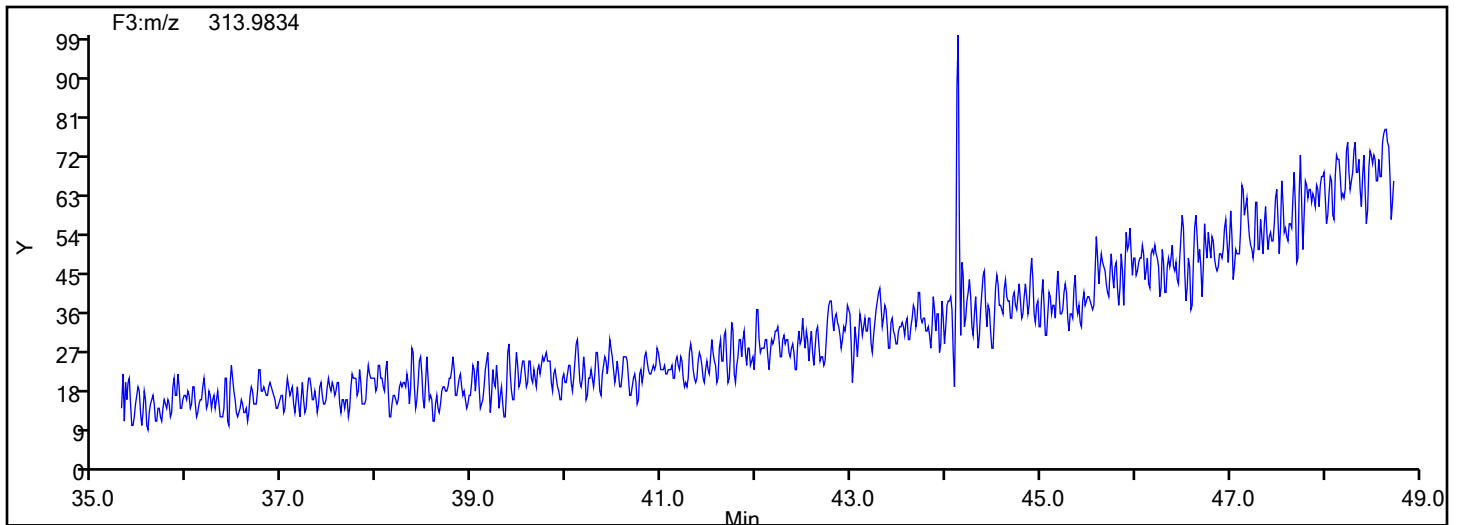
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3



## OcPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

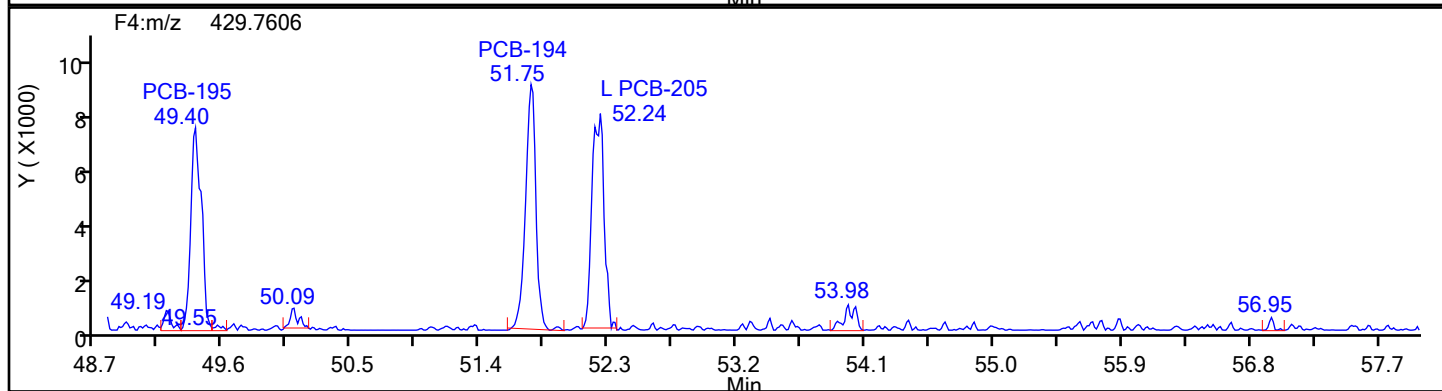
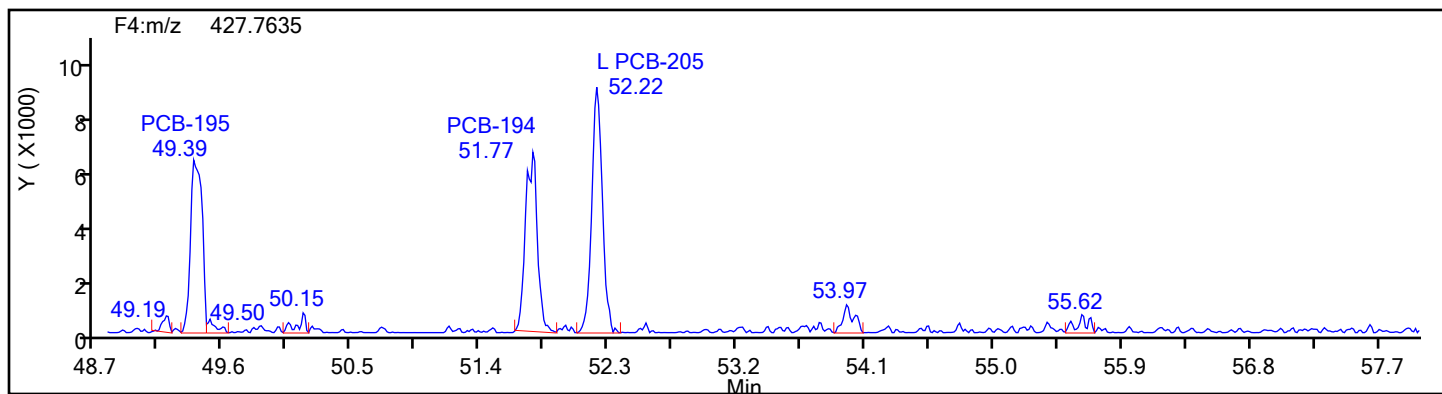
Worklist#: 87130

Sample Line#: 2

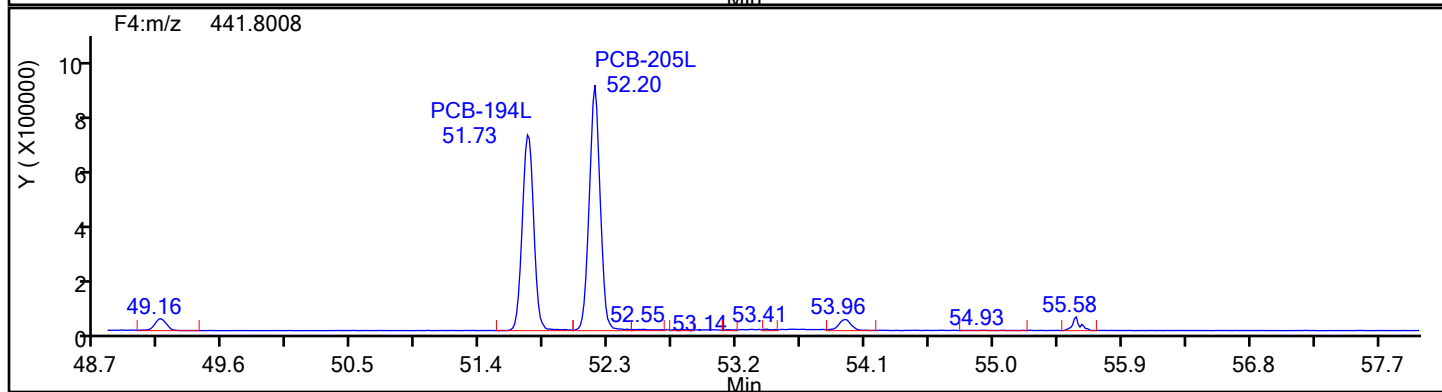
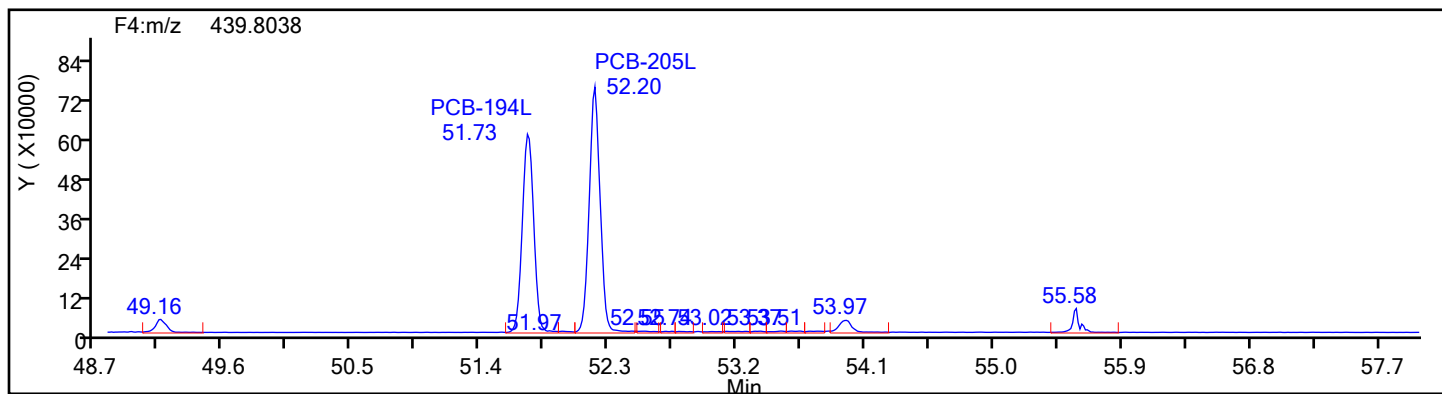
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4



OcPCB F4 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

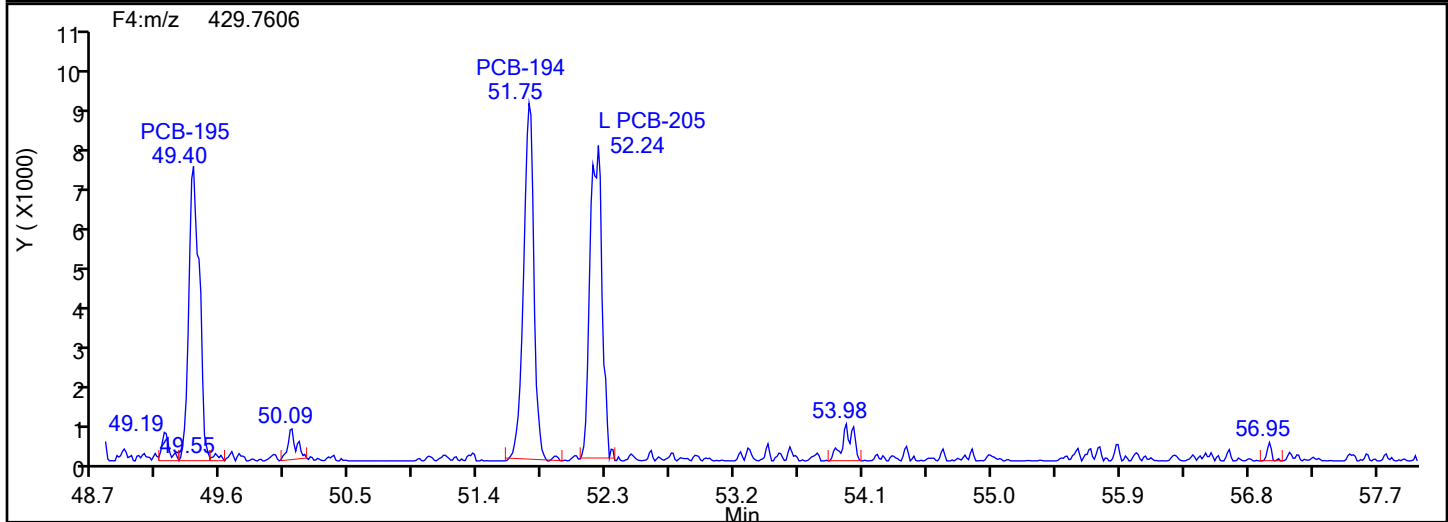
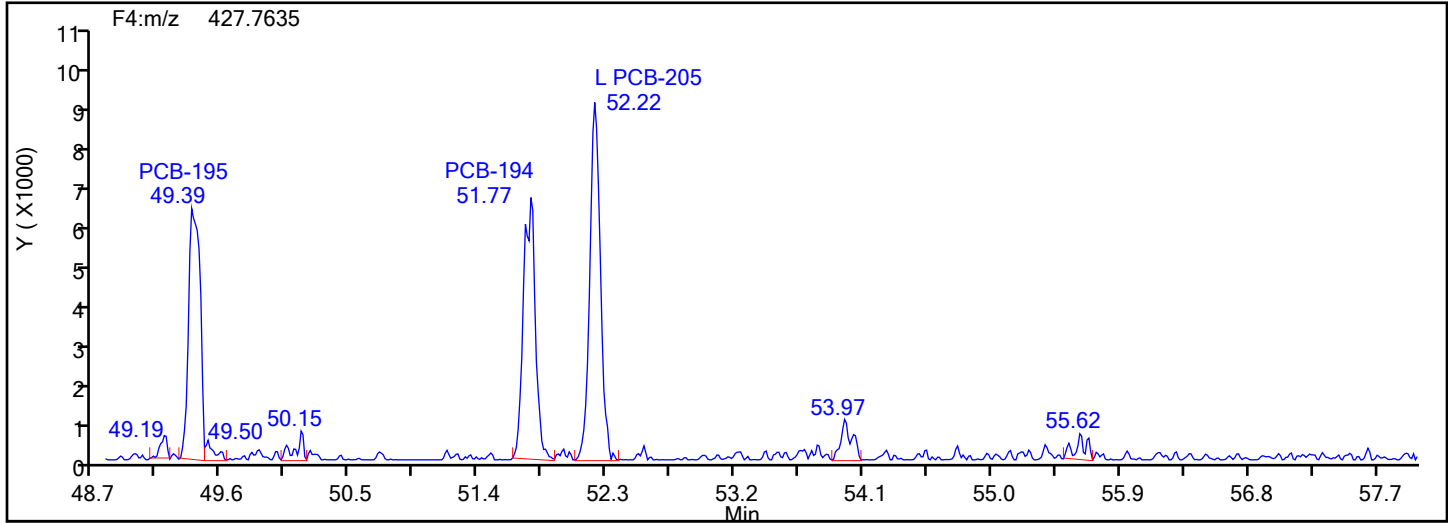
Worklist#: 87130

Sample Line#: 2

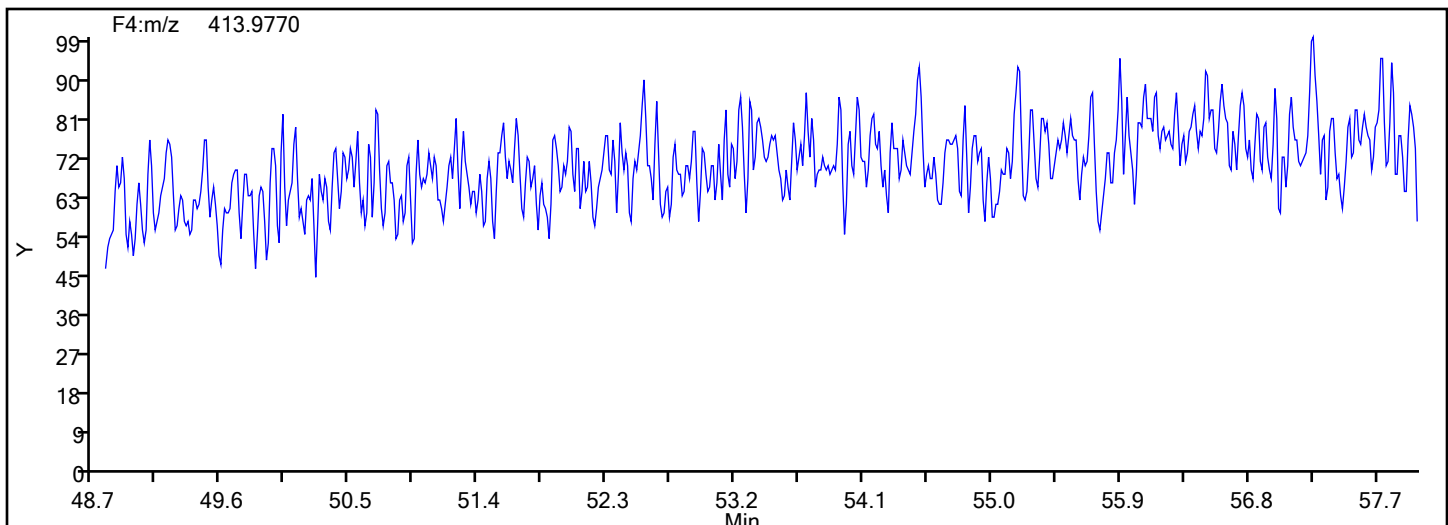
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4



## OcPCB F4 Lock Mass



## Eurofins Knoxville

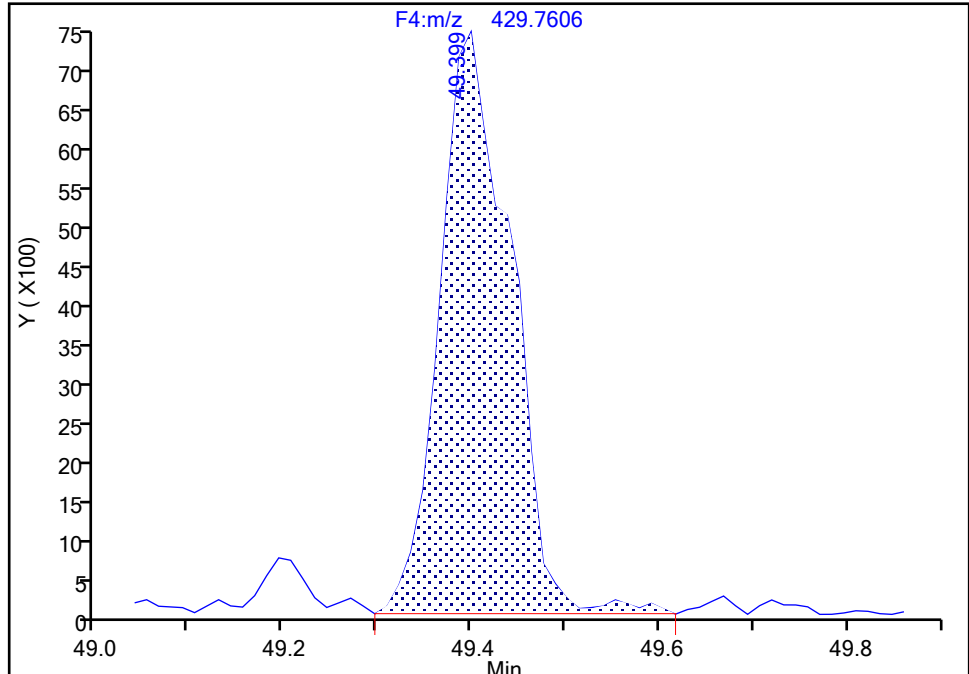
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F4(49.20 :57.50 )

PCB-195, CAS: 52663-78-2

Signal: 2

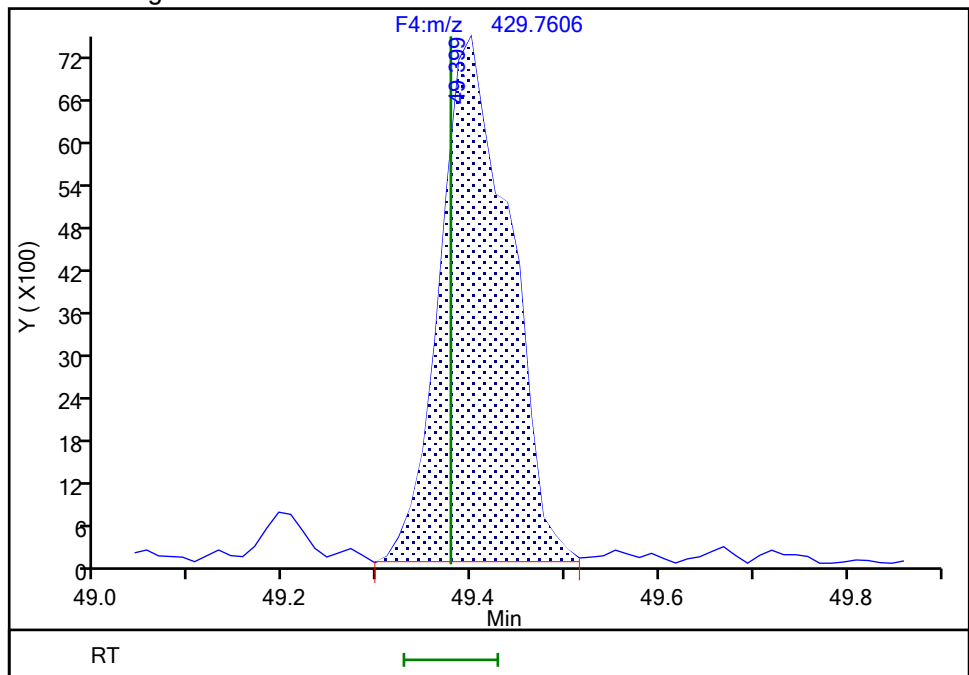
RT: 49.40  
Area: 39042  
Amount: 1.088758  
Amount Units: pg/ul

## Processing Integration Results



RT: 49.40  
Area: 38418  
Amount: 1.064369  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:40:56 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

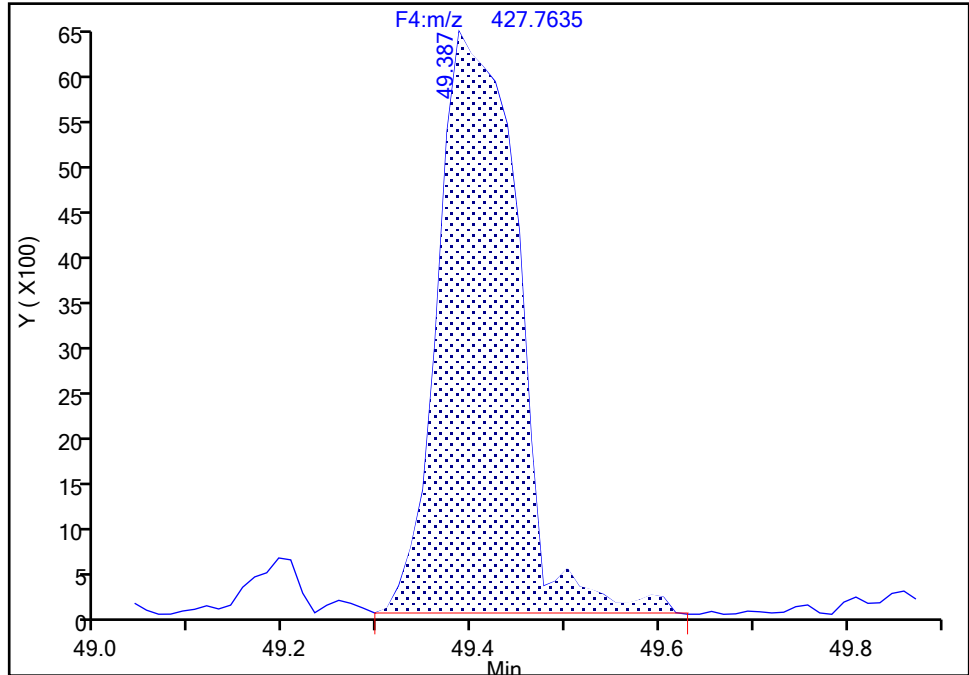
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F4(49.20 :57.50 )

PCB-195, CAS: 52663-78-2

Signal: 1

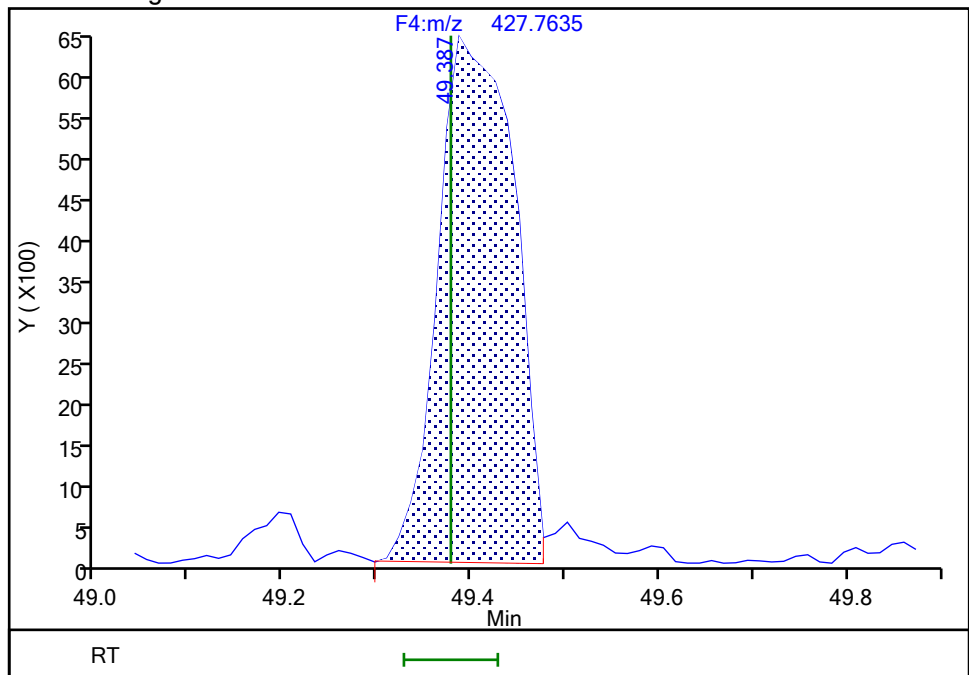
RT: 49.39  
Area: 38025  
Amount: 1.088758  
Amount Units: pg/ul

## Processing Integration Results



RT: 49.39  
Area: 36050  
Amount: 1.064369  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:40:59 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

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BASFHWC-Pass 20240529

9/6/2024  
4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

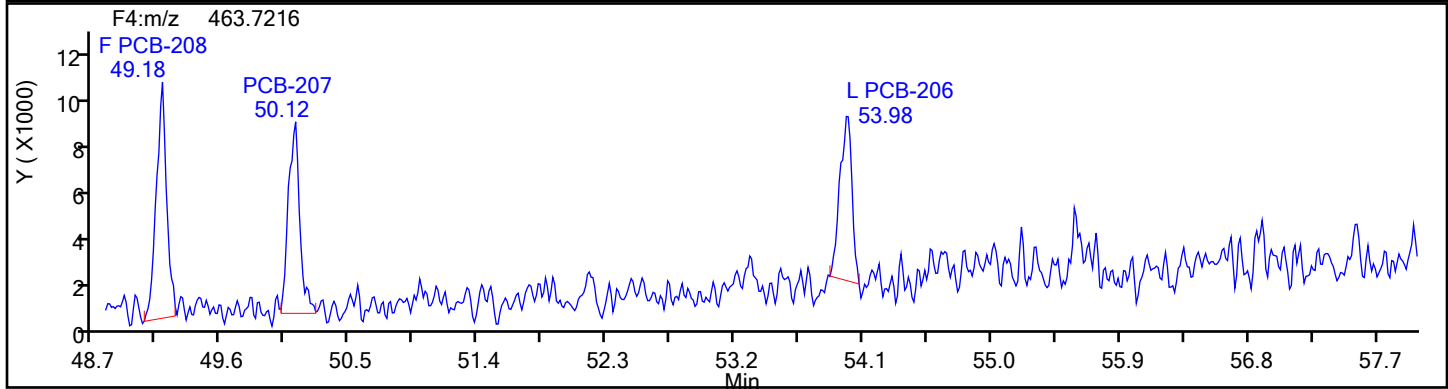
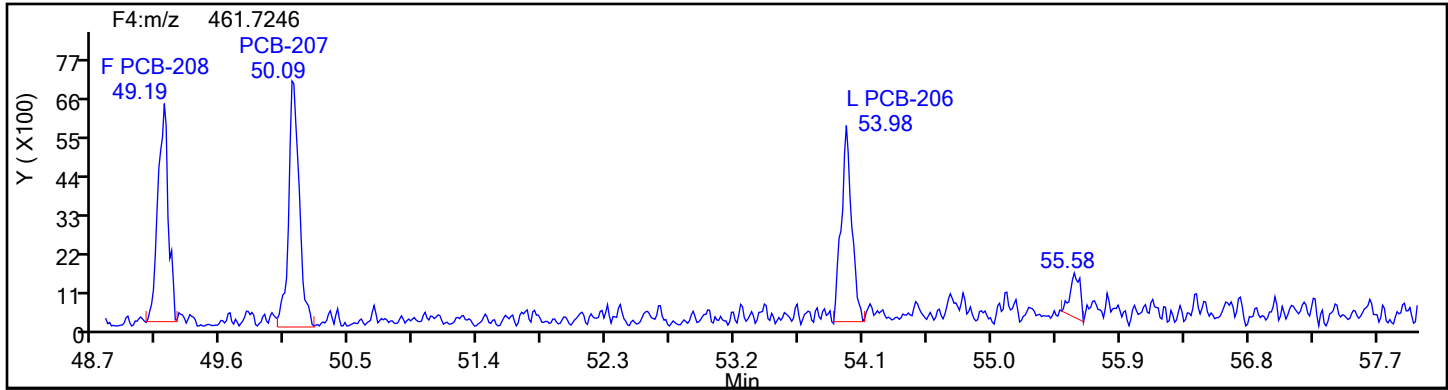
Worklist#: 87130

Sample Line#: 2

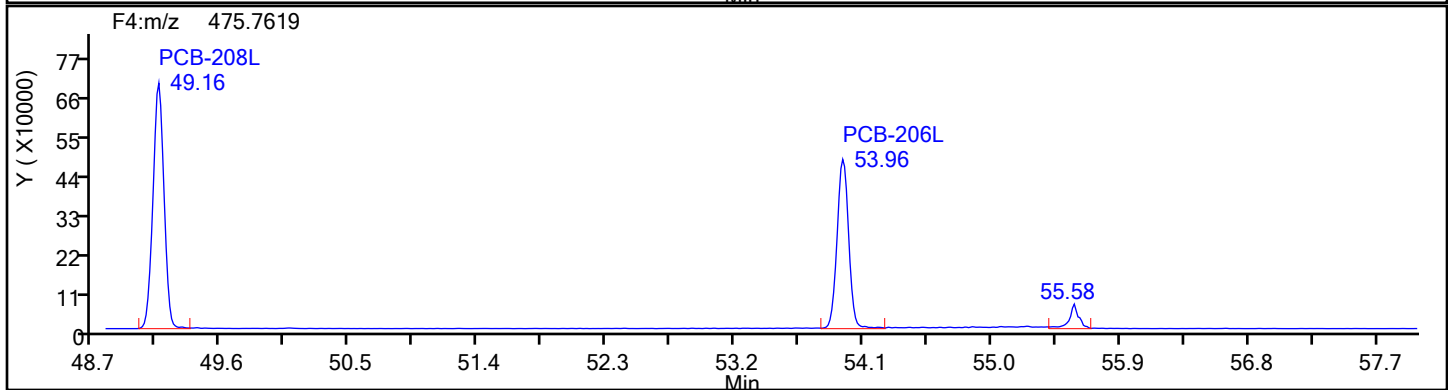
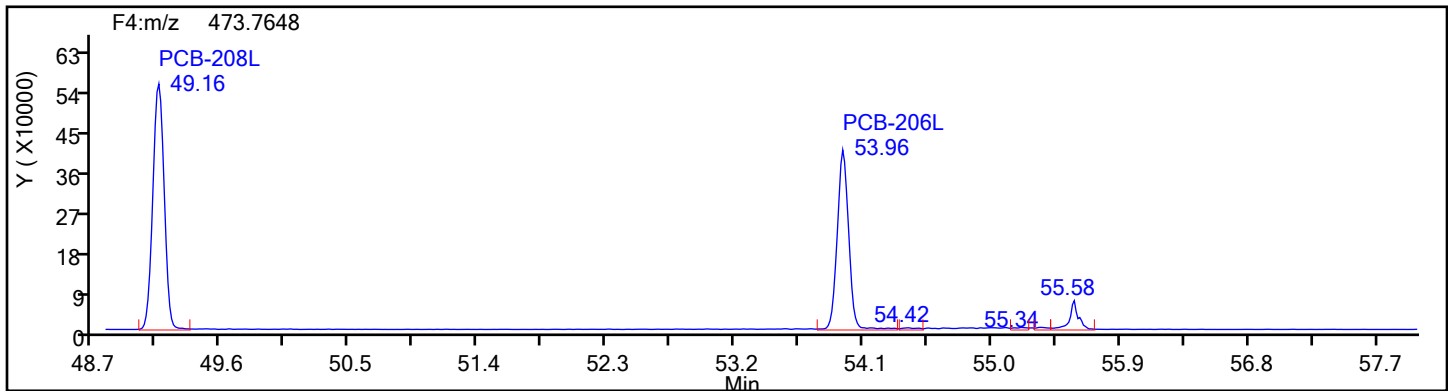
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



NoPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

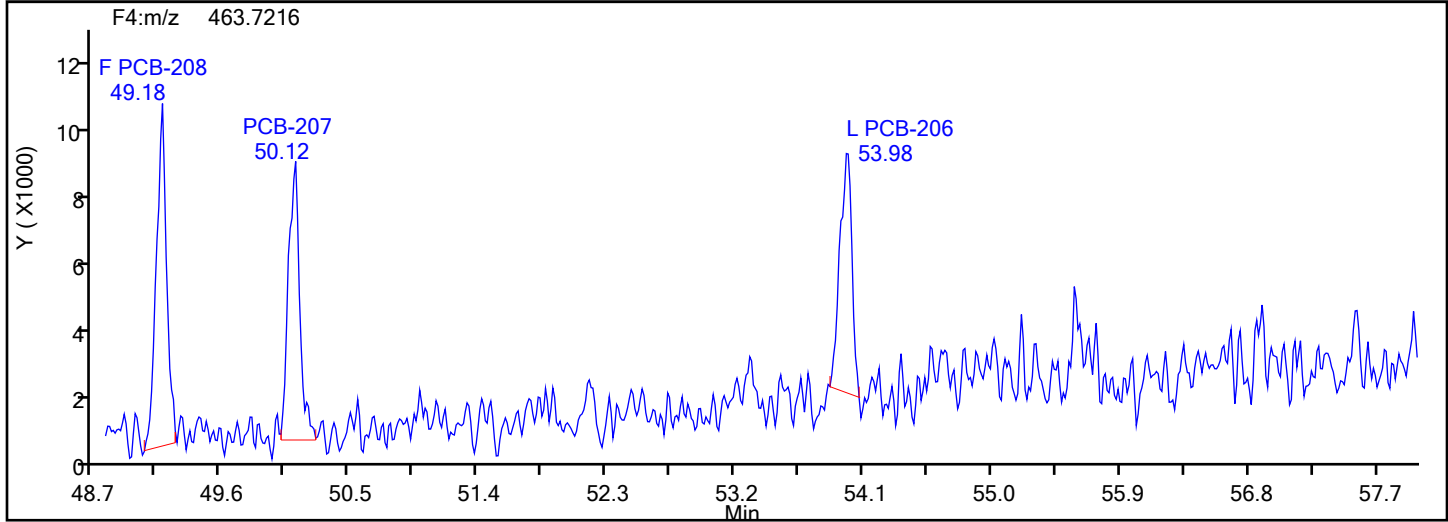
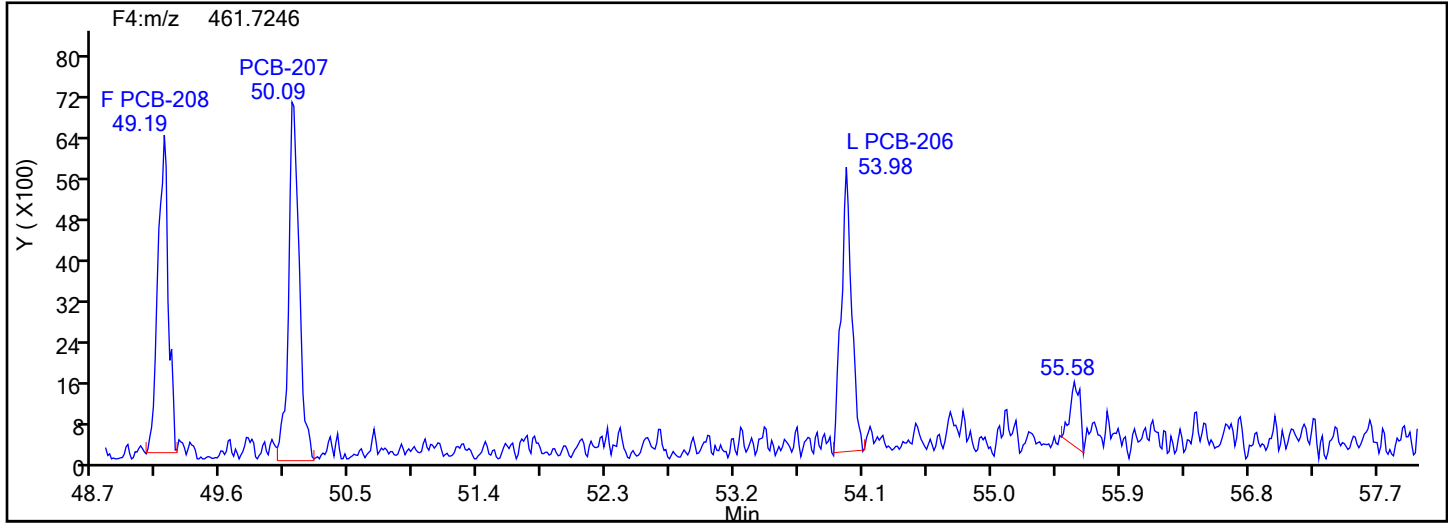
Worklist#: 87130

Sample Line#: 2

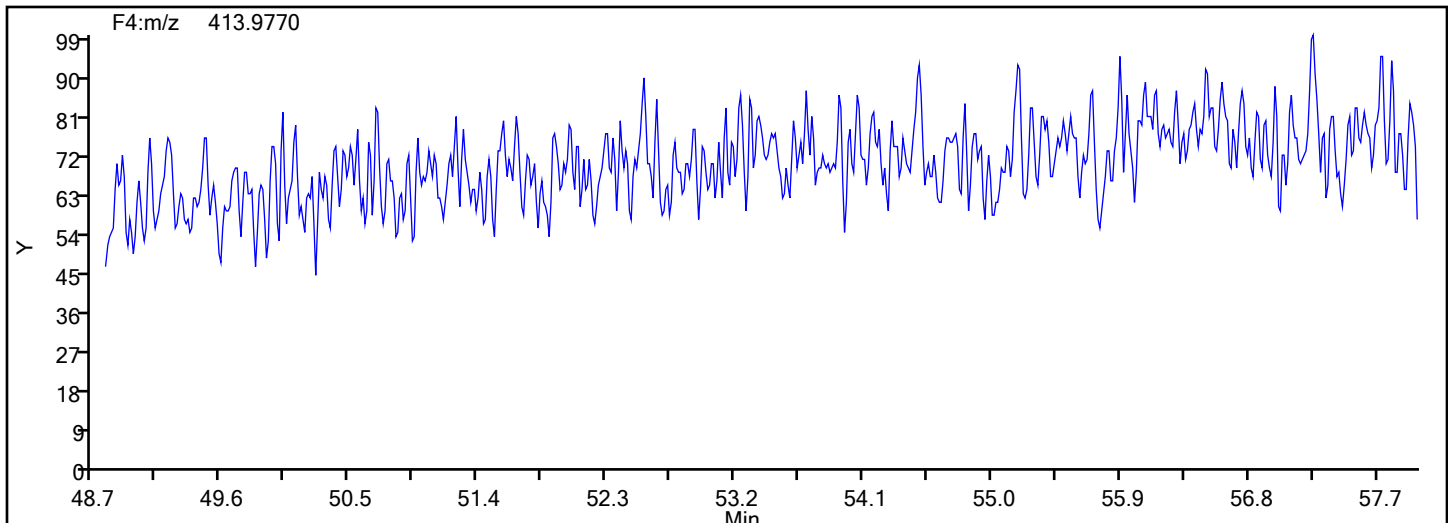
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



NoPCB F4 Lock Mass



## Eurofins Knoxville

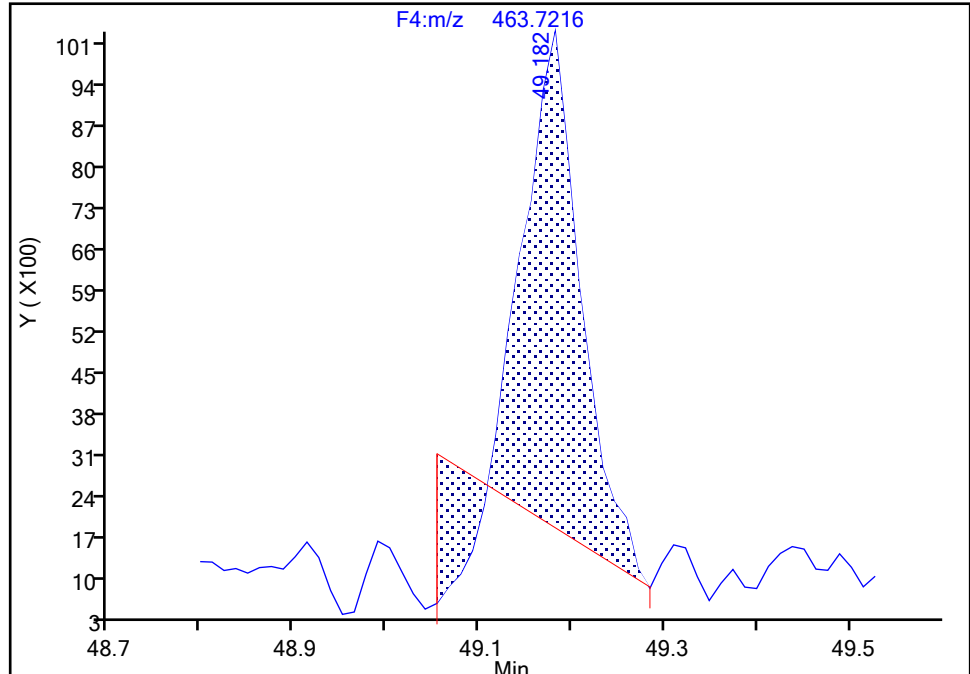
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F4(49.20 :57.50 )

PCB-208, CAS: 52663-77-1

Signal: 2

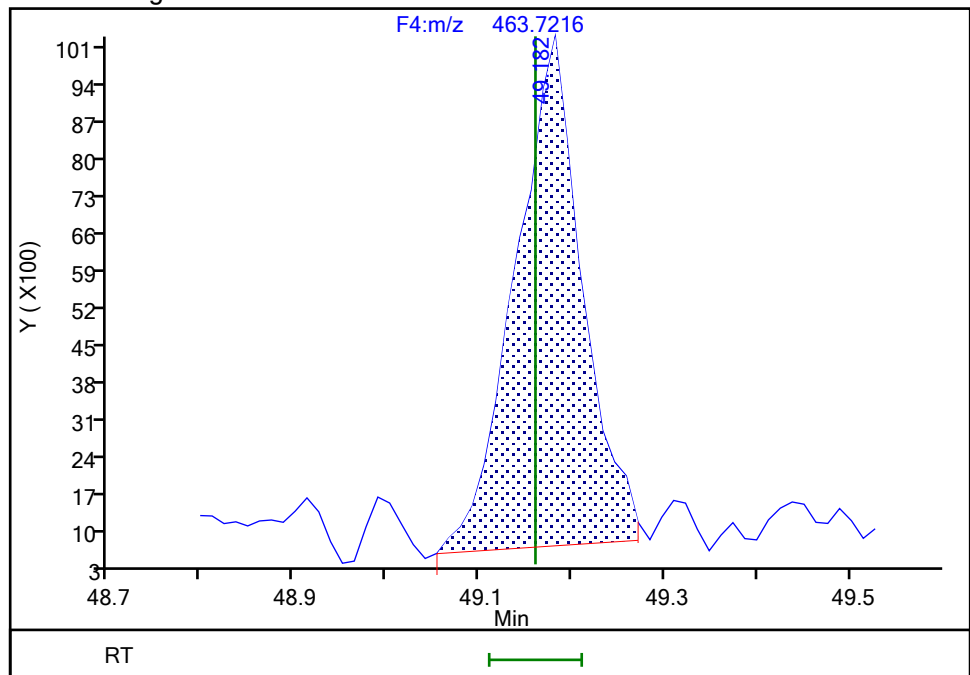
RT: 49.18  
Area: 30689  
Amount: 0.856155  
Amount Units: pg/ul

## Processing Integration Results



RT: 49.18  
Area: 47975  
Amount: 1.036303  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 17:56:31 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

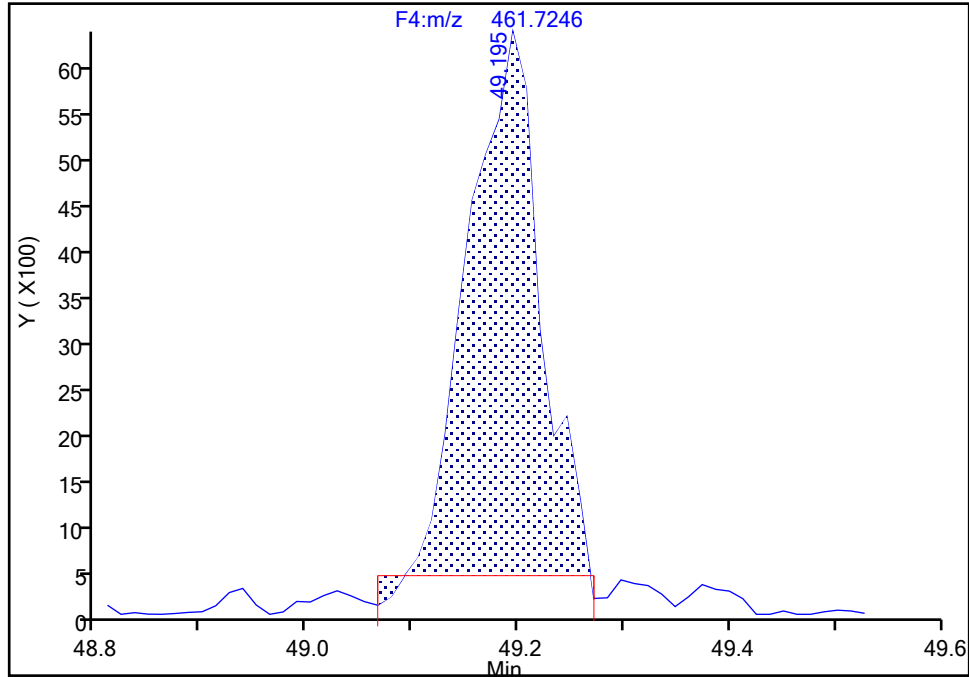
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Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F4(49.20 :57.50 )

PCB-208, CAS: 52663-77-1

Signal: 1

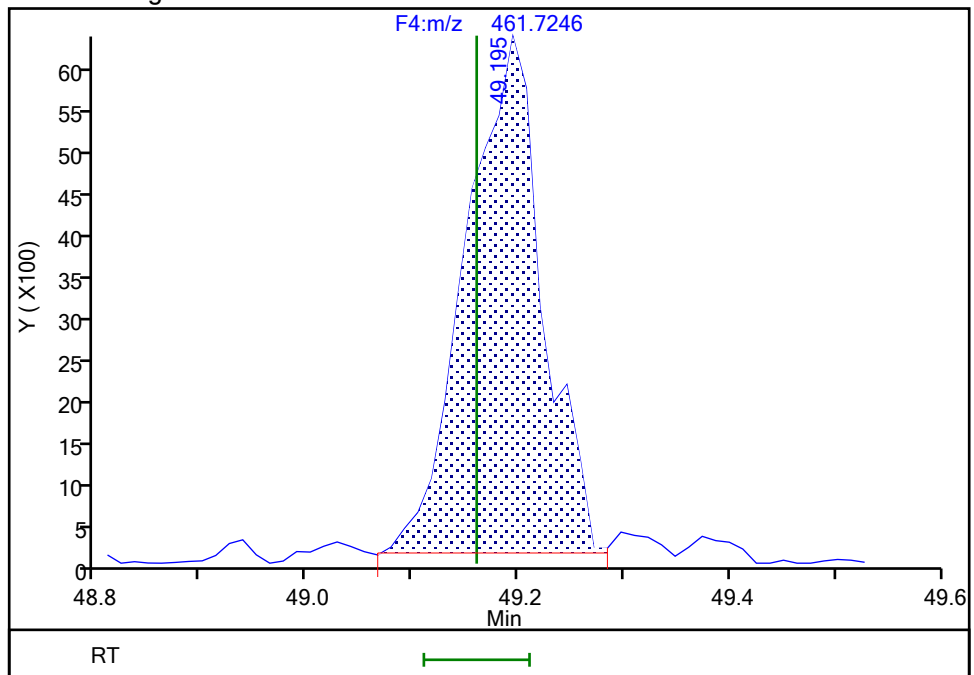
RT: 49.19  
Area: 27820  
Amount: 0.856155  
Amount Units: pg/ul

## Processing Integration Results



RT: 49.19  
Area: 31684  
Amount: 1.036303  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 17:56:35 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 20240529  
9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

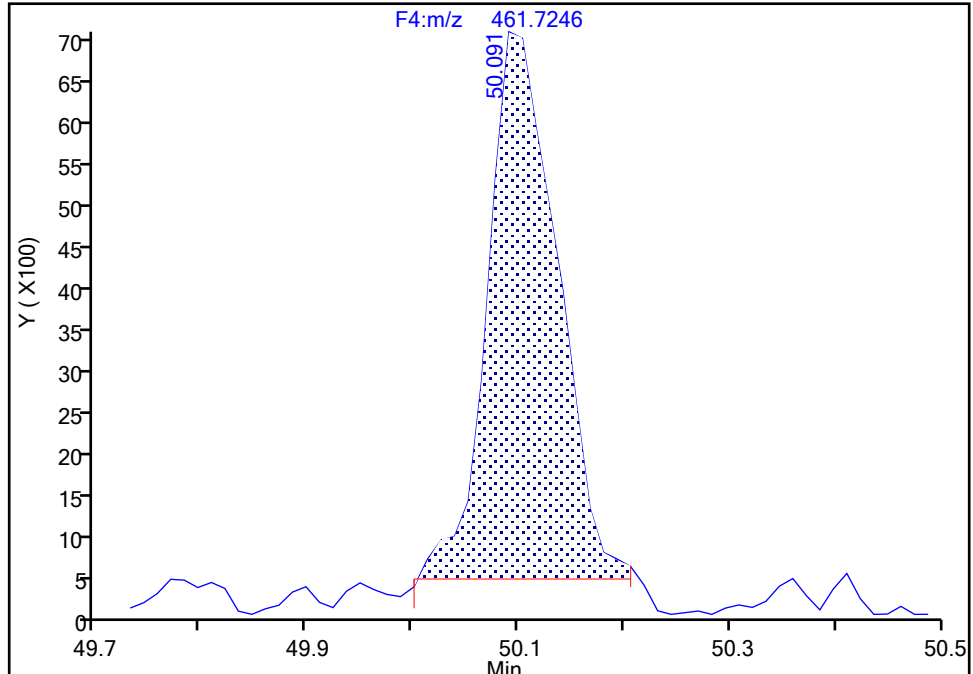
Detector F4(49.20 :57.50 )

**PCB-207, CAS: 52663-79-3**

Signal: 1

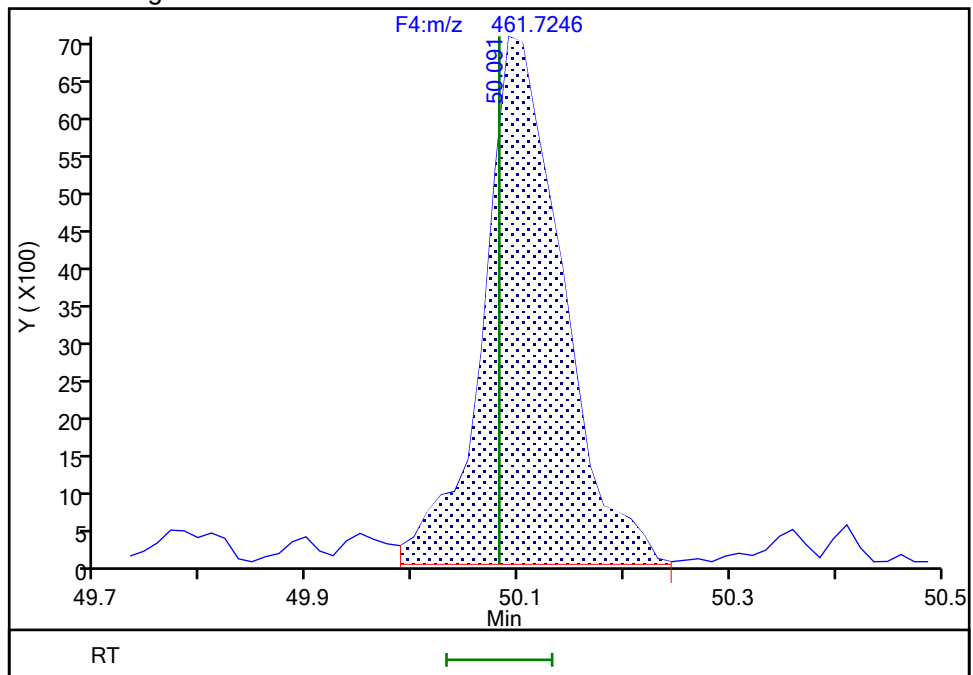
RT: 50.09  
Area: 30187  
Amount: 0.767801  
Amount Units: pg/ul

## Processing Integration Results



RT: 50.09  
Area: 36477  
Amount: 0.994864  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:40:11 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline



## Eurofins Knoxville

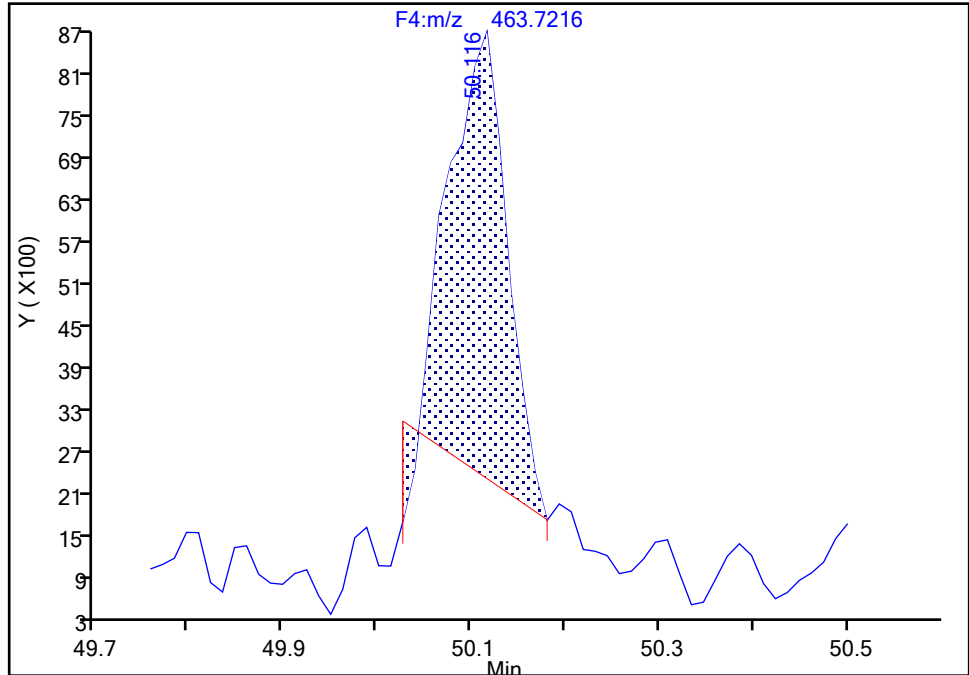
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F4(49.20 :57.50 )

PCB-207, CAS: 52663-79-3

Signal: 2

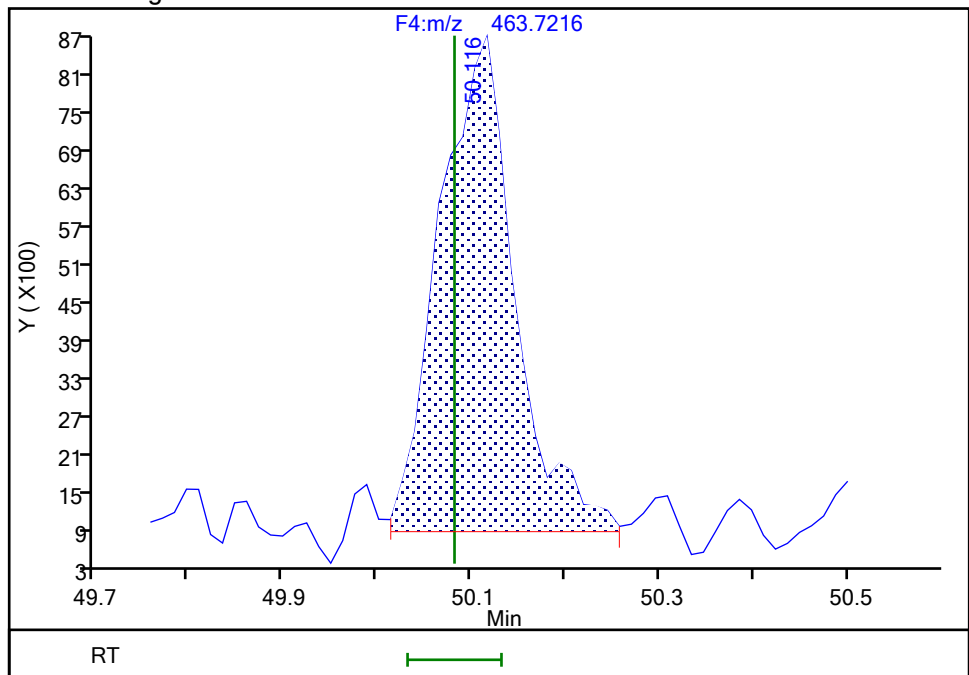
RT: 50.12  
Area: 26115  
Amount: 0.767801  
Amount Units: pg/ul

## Processing Integration Results



RT: 50.12  
Area: 43355  
Amount: 0.994864  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 19:40:17 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 2024-05-29 22:00:34

9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Instrument ID: D2D

Lims ID: IC L2

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

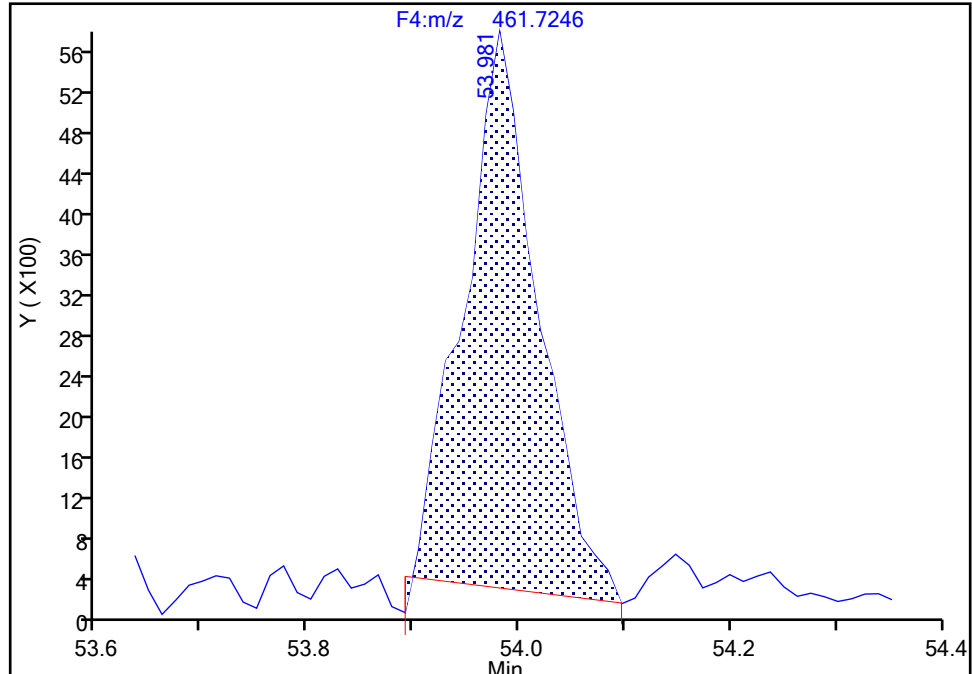
F4(49.20 :57.50 )

PCB-206, CAS: 40186-72-9

Signal: 1

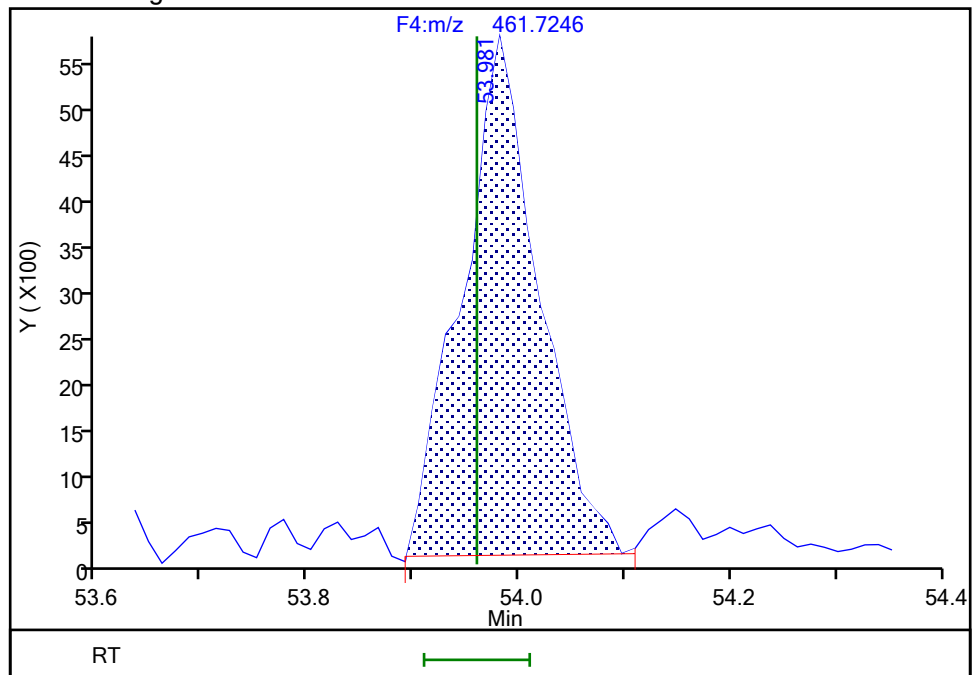
RT: 53.98  
Area: 26385  
Amount: 0.989782  
Amount Units: pg/ul

## Processing Integration Results



RT: 53.98  
Area: 28296  
Amount: 1.029702  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 17:56:44 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

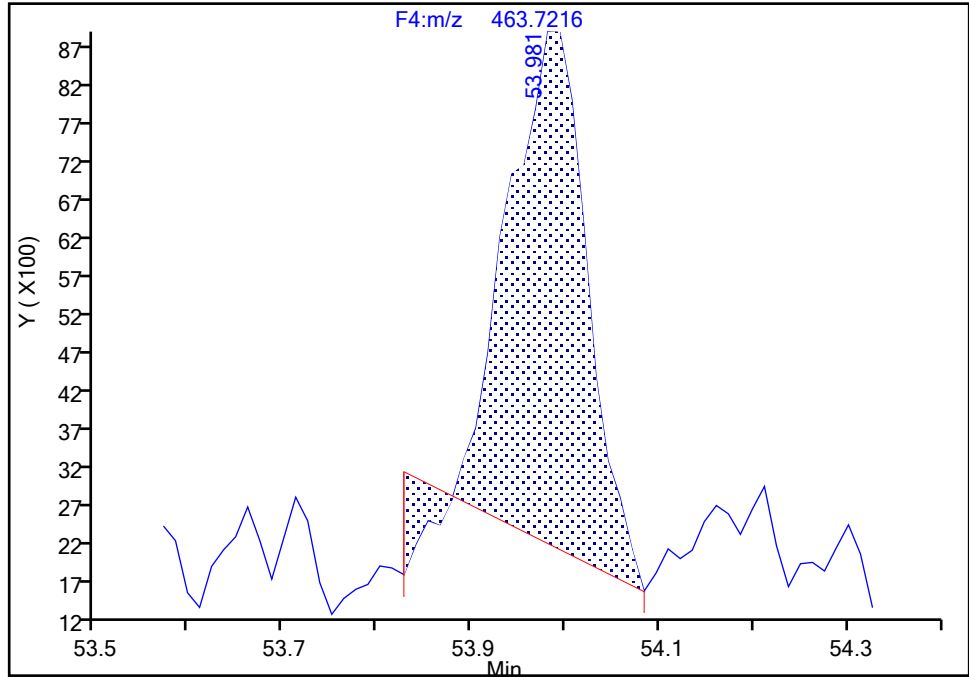
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d  
Injection Date: 31-May-2024 16:53:00 Instrument ID: D2D  
Lims ID: IC L2  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F4(49.20 :57.50 )

**PCB-206, CAS: 40186-72-9**

Signal: 2

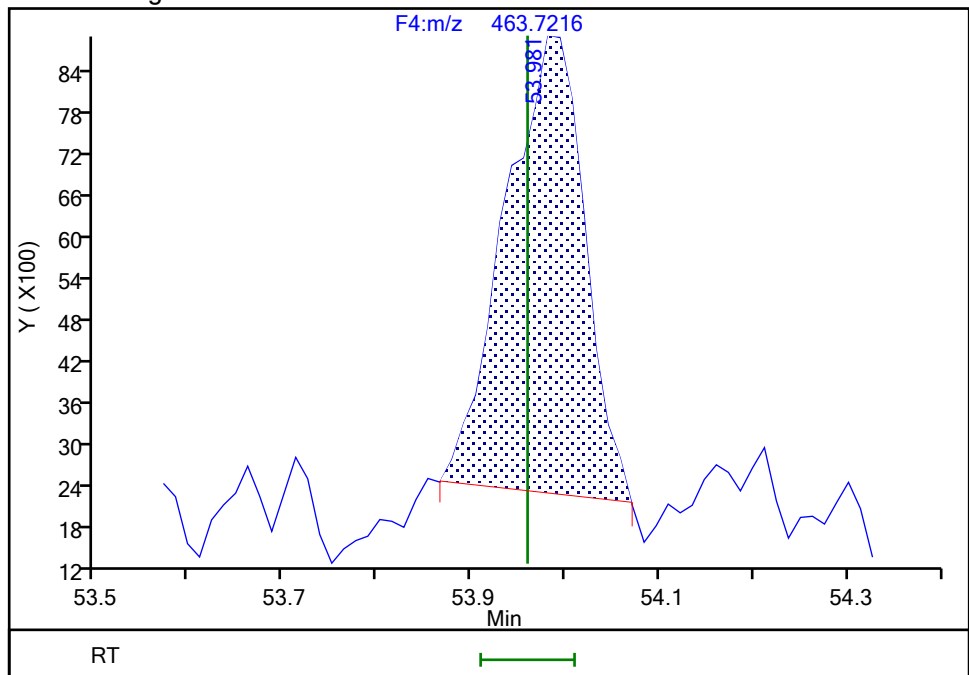
RT: 53.98  
Area: 37674  
Amount: 0.989782  
Amount Units: pg/ul

## Processing Integration Results



RT: 53.98  
Area: 39161  
Amount: 1.029702  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 17:57:09 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

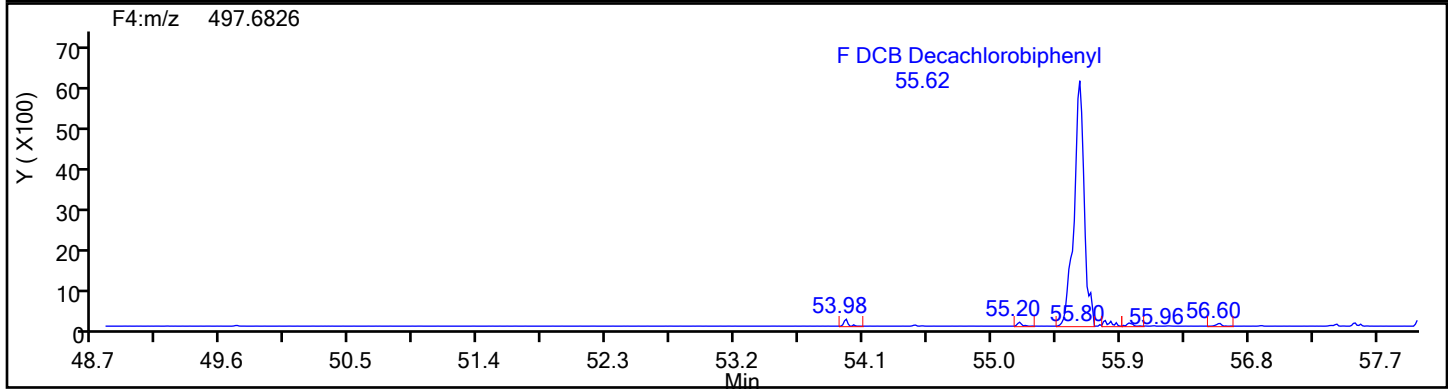
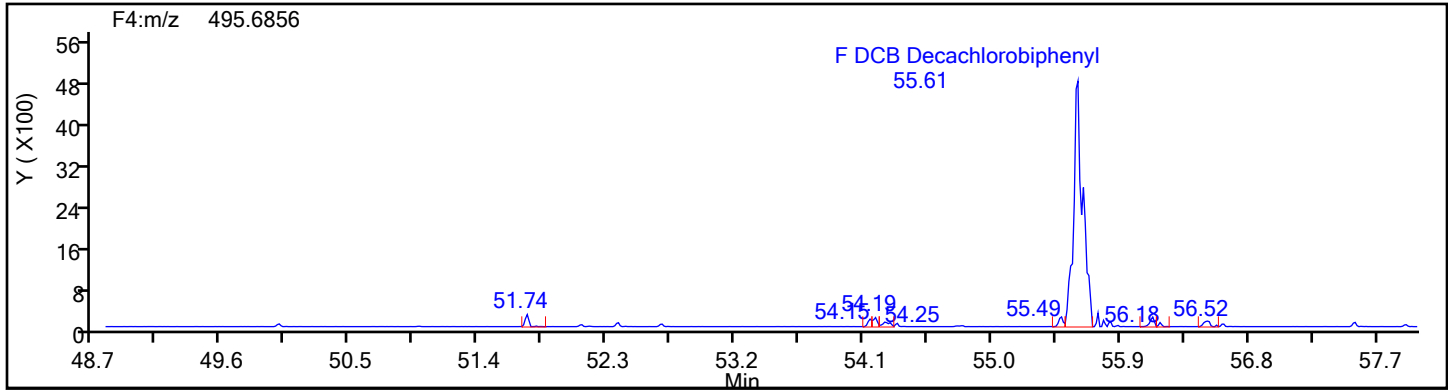
Worklist#: 87130

Sample Line#: 2

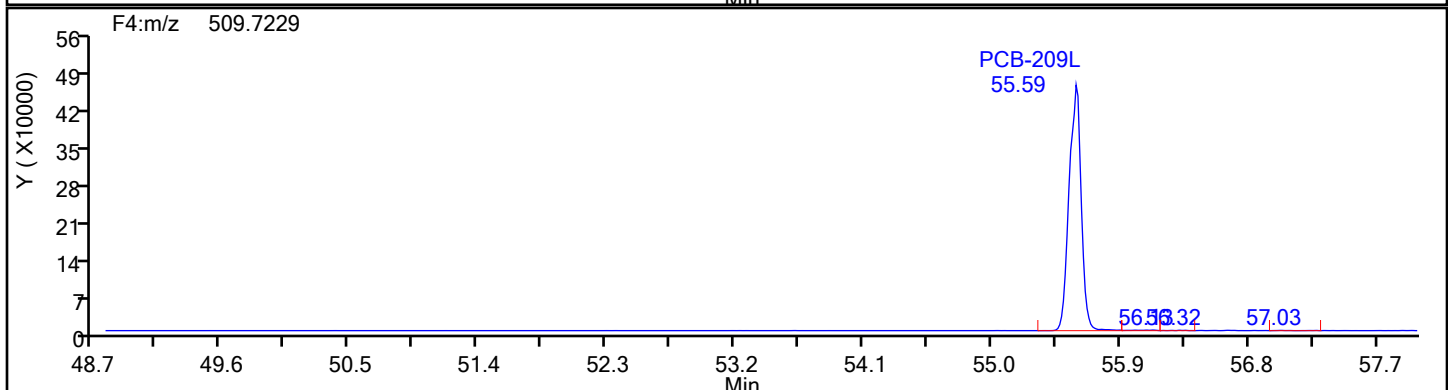
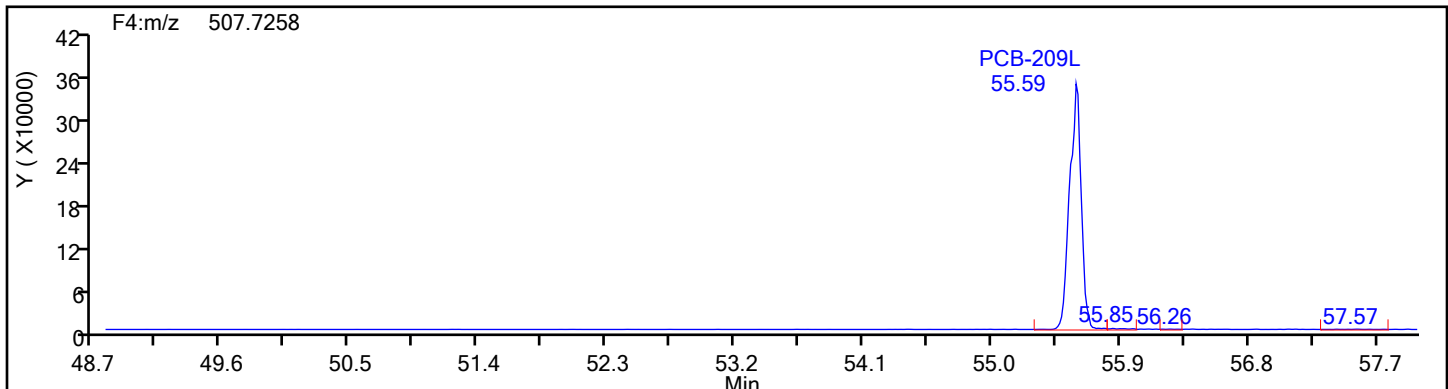
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



DePCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi2a.d

Injection Date: 31-May-2024 16:53:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

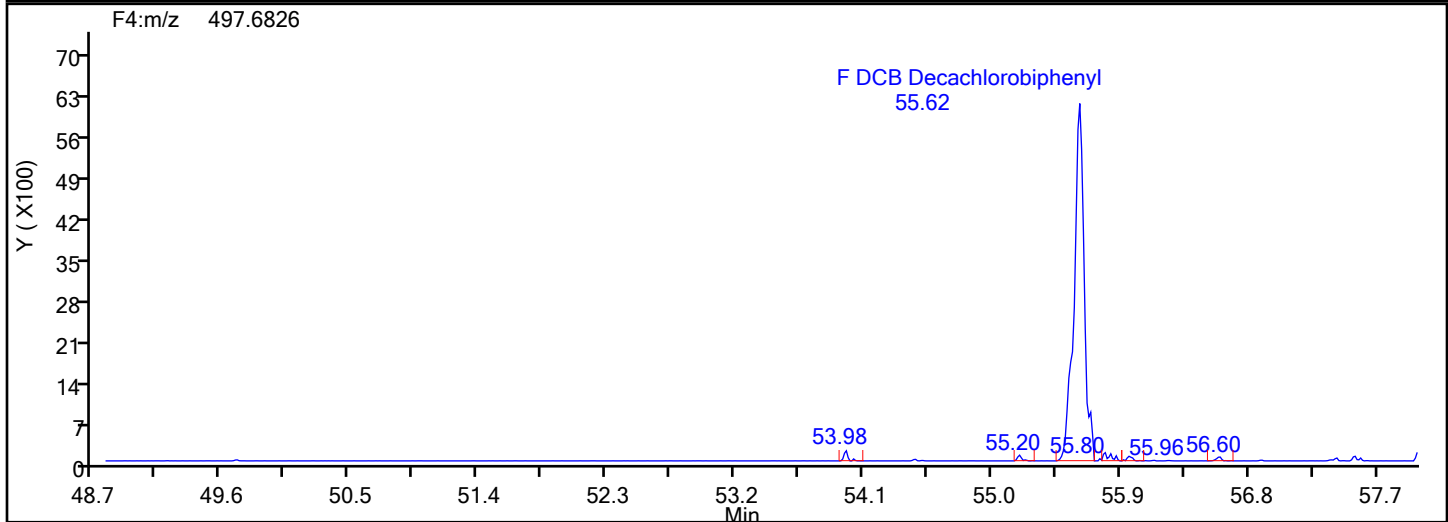
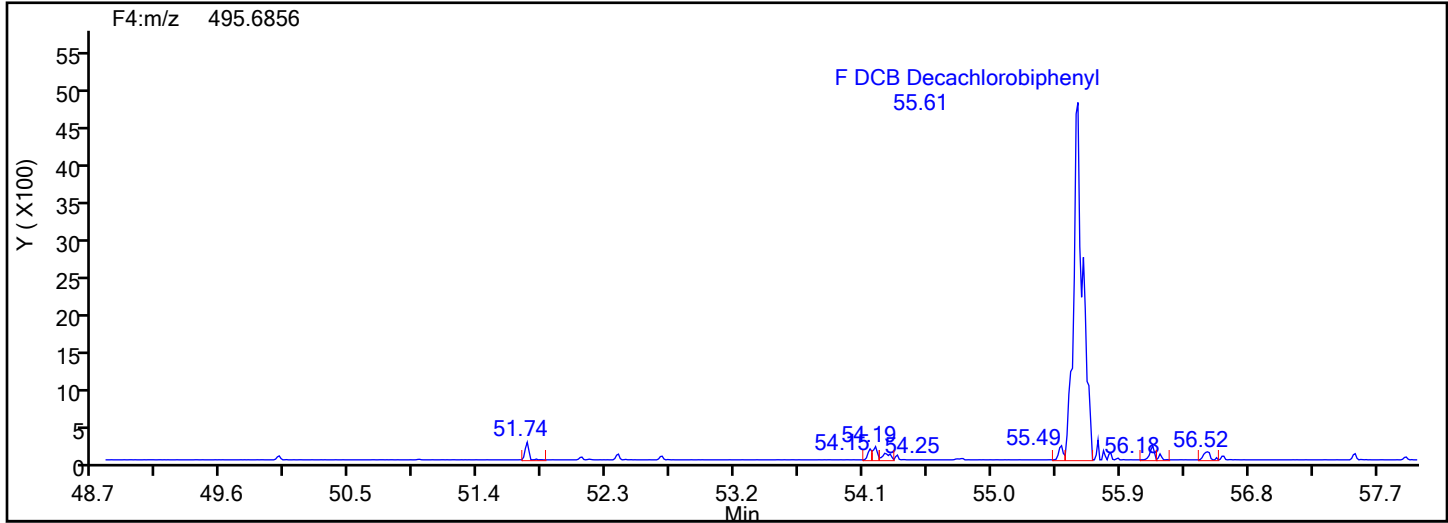
Worklist#: 87130

Sample Line#: 2

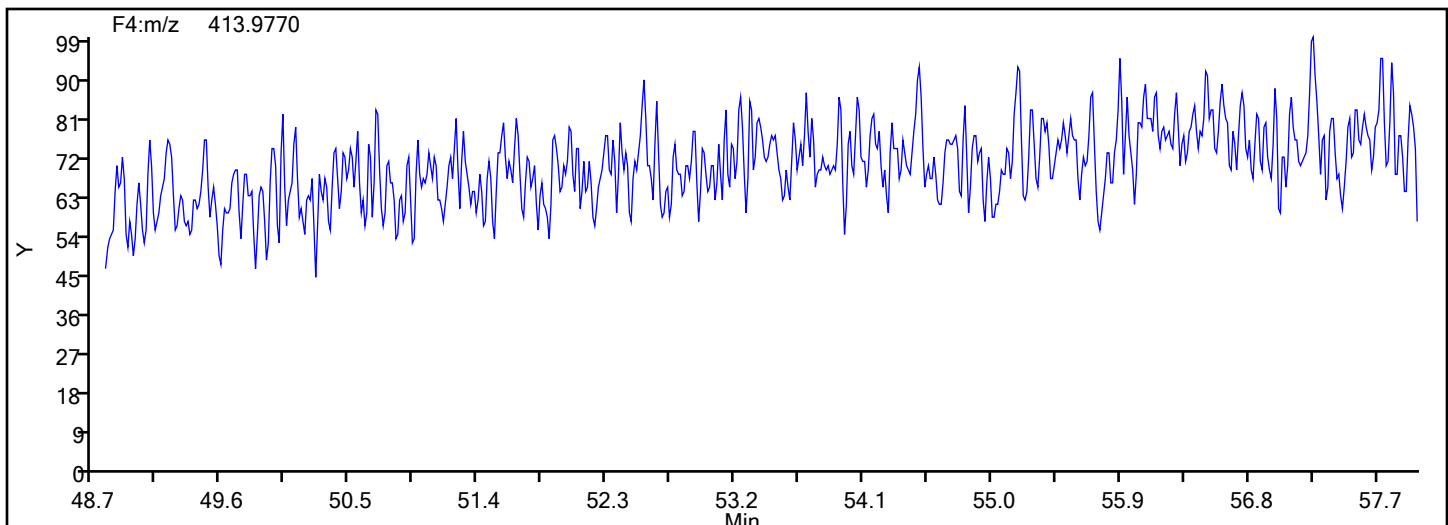
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



DePCB F4 Lock Mass



Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d  
 Lims ID: IC L3  
 Client ID:  
 Sample Type: IC Calib Level: 3  
 Inject. Date: 31-May-2024 18:00:00 ALS Bottle#: 0 Worklist Smp#: 3  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info:  
 Misc. Info.: 140-0032883-003  
 Operator ID: Xcalibur\_System Instrument ID: D2D  
 Sublist: chrom-PCBs\_D2D\*sub16  
 Method: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\PCBs\_D2D.m  
 Limit Group: HR - EPA\_23 PCB ICAL  
 Last Update: 04-Jun-2024 14:27:15 Calib Date: 31-May-2024 21:13:00  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
 Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
 Process Host: CTX1616

First Level Reviewer: P0IK

Date: 31-May-2024 19:20:28

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total Monochlorobiphenyls					14.8	14.8	0.0308	0.0308		
D PCB-1L	11:37	13253788	3.15	1.6108	98.6	98.6	0.2469	0.2469	98.62	
D PCB-3L	13:47	13154993	3.17	1.5891	99.2	99.2	0.2503	0.2503	99.22	
PCB-1	11:38	796059	3.31	1.2191	4.927	4.927	0.0277	0.0277	98.53	
PCB-2	13:37	768397	3.07	1.1805	4.929	4.929	0.0313	0.0313	98.59	
PCB-3	13:47	799957	3.33	1.2206	4.982	4.982	0.0334	0.0334	99.64	
S Total Dichlorobiphenyls					59.4	59.4	0.0133	0.0133		
D PCB-4L	14:02	5279032	1.61	0.6475	97.7	97.7	0.1199	0.1199	97.71	
* PCB-9L	16:00	8343115	1.62		100.0	100.0				
\$ PCB-8L	16:50	467355	1.69	1.2066	5.500	5.500	0.0832	0.0832	110	M
D PCB-15L	19:54	8806182	1.61	1.0789	97.8	97.8	0.0720	0.0720	97.83	
PCB-4	14:03	337353	1.62	1.2818	4.985	4.985	0.0161	0.0161	99.71	
PCB-10	14:13	471835	1.69	1.3149	5.095	5.095	0.0138	0.0138	102	
PCB-9	16:01	514126	1.63	1.4224	5.132	5.132	0.0128	0.0128	103	
PCB-7	16:11	476841	1.56	1.4134	4.790	4.790	0.0129	0.0129	95.81	
PCB-6	16:25	517825	1.65	1.5421	4.768	4.768	0.0118	0.0118	95.36	
PCB-5	16:43	457479	1.55	1.3395	4.850	4.850	0.0136	0.0136	96.99	
PCB-8	16:51	552662	1.61	1.5889	4.939	4.939	0.0115	0.0115	98.78	
PCB-14	18:28	492912	1.57	1.4025	4.990	4.990	0.0130	0.0130	99.81	
PCB-11	19:19	452818	1.62	1.2951	4.965	4.965	0.0141	0.0141	99.30	
PCB-12	19:37	943457	1.57	1.3358	10.0	10.0	0.0136	0.0136	100	
PCB-13 (C12)	19:37	943457	1.57	1.3358	10.0	10.0	0.0136	0.0136	100	
PCB-15	19:56	552286	1.63	1.2903	4.861	4.861	0.0126	0.0126	97.21	
S Total Trichlorobiphenyls					117.8	117.8	0.0773	0.0773		
D PCB-19L	17:08	3389482	1.07	0.6285	102.1	102.1	0.4214	0.4214	102	
* PCB-32L	20:24	5282294	1.08		100.0	100.0				
* PCB-31L	22:39	15275204	1.06		100.0	100.0				
\$ PCB-28L	22:56	930321	1.03	1.0494	5.804	5.804	0.0746	0.0746	116	
D PCB-37L	26:56	13114910	1.07	0.8749	98.1	98.1	0.0895	0.0895	98.13	
PCB-19	17:09	215976	1.18	1.2809	4.975	4.975	0.0162	0.0162	99.49	
PCB-18	19:00	588680	1.05	1.7652	9.839	9.839	0.0118	0.0118	98.39	
PCB-30 (C18)	19:00	588680	1.05	1.7652	9.839	9.839	0.0118	0.0118	98.39	
PCB-17	19:26	206164	1.06	1.2430	4.893	4.893	0.0167	0.0167	97.87	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-27	19:39	310541	1.15	1.8327	4.999	4.999	0.0113	0.0113	99.98	
PCB-24	19:46	276459	1.10	1.6777	4.862	4.862	0.0124	0.0124	97.24	
PCB-16	19:54	189210	1.05	1.1286	4.946	4.946	0.0184	0.0184	98.93	
PCB-32	20:24	310058	1.07	1.8324	4.992	4.992	0.0113	0.0113	99.84	
PCB-34	21:40	741948	1.03	1.1277	5.016	5.016	0.1123	0.1123	100	
PCB-23	21:49	710024	1.04	1.0813	5.007	5.007	0.1172	0.1172	100	
PCB-26	22:08	1426183	1.04	1.1255	9.662	9.662	0.1126	0.1126	96.62	
PCB-29 (C26)	22:08	1426183	1.04	1.1255	9.662	9.662	0.1126	0.1126	96.62	
PCB-25	22:22	798213	1.09	1.2728	4.782	4.782	0.0995	0.0995	95.64	
PCB-31	22:40	744974	1.06	1.1532	4.926	4.926	0.1099	0.1099	98.51	
PCB-20	22:58	1483821	1.05	1.1718	9.655	9.655	0.1081	0.1081	96.55	
PCB-28 (C20)	22:58	1483821	1.05	1.1718	9.655	9.655	0.1081	0.1081	96.55	
PCB-21	23:08	1403700	1.05	1.0746	9.960	9.960	0.1179	0.1179	99.60	M
PCB-33 (C21)	23:08	1403700	1.05	1.0746	9.960	9.960	0.1179	0.1179	99.60	M
PCB-22	23:35	739669	1.04	1.1932	4.727	4.727	0.1062	0.1062	94.53	
PCB-36	25:10	731454	1.06	1.1071	5.038	5.038	0.1144	0.1144	101	
PCB-39	25:31	760165	1.05	1.1581	5.005	5.005	0.1094	0.1094	100	
PCB-38	26:06	680342	1.03	1.0843	4.784	4.784	0.1168	0.1168	95.68	
PCB-35	26:33	721094	1.00	1.1297	4.867	4.867	0.1121	0.1121	97.34	
PCB-37	26:57	723492	0.98	1.1435	4.824	4.824	0.1108	0.1108	96.48	
S Total Tetrachlorobiphenyls					203.4	203.4	0.1436	0.1436		
D PCB-54L	20:12	2803421	0.81	0.5562	95.4	95.4	0.0457	0.0457	95.42	M
* PCB-52L	24:47	7684810	0.79		100.0	100.0				
\$ PCB-79L	32:42	504032	0.86	1.0018	5.174	5.174	0.1659	0.1659	103	
D PCB-81L	33:41	9411321	0.80	1.2470	98.2	98.2	0.1444	0.1444	98.21	
D PCB-77L	34:15	10036639	0.82	1.3212	98.9	98.9	0.1363	0.1363	98.85	
PCB-54	20:14	187801	0.85	1.2733	5.261	5.261	0.0132	0.0132	105	
PCB-50	22:25	797957	0.78	0.8578	9.567	9.567	0.1844	0.1844	95.67	
PCB-53 (C50)	22:25	797957	0.78	0.8578	9.567	9.567	0.1844	0.1844	95.67	
PCB-45	23:08	788555	0.75	0.8264	9.813	9.813	0.1914	0.1914	98.13	M
PCB-51 (C45)	23:08	788555	0.75	0.8264	9.813	9.813	0.1914	0.1914	98.13	M
PCB-46	23:23	340774	0.81	0.7101	4.935	4.935	0.2227	0.2227	98.71	
PCB-52	24:48	439829	0.77	0.9194	4.920	4.920	0.1720	0.1720	98.39	
PCB-43	24:57	974936	0.77	1.0333	9.703	9.703	0.1531	0.1531	97.03	M
PCB-73 (C43)	24:57	974936	0.77	1.0333	9.703	9.703	0.1531	0.1531	97.03	M
PCB-49	25:14	1002960	0.78	1.0685	9.653	9.653	0.1480	0.1480	96.53	
PCB-69 (C49)	25:14	1002960	0.78	1.0685	9.653	9.653	0.1480	0.1480	96.53	
PCB-48	25:33	401794	0.84	0.8399	4.920	4.920	0.1883	0.1883	98.39	
PCB-44	25:48	1344248	0.78	0.9731	14.2	14.2	0.1625	0.1625	94.71	
PCB-47 (C44)	25:48	1344248	0.78	0.9731	14.2	14.2	0.1625	0.1625	94.71	
PCB-65 (C44)	25:48	1344248	0.78	0.9731	14.2	14.2	0.1625	0.1625	94.71	
PCB-59	26:07	1597958	0.78	1.1853	13.9	13.9	0.1334	0.1334	92.43	
PCB-62 (C59)	26:07	1597958	0.78	1.1853	13.9	13.9	0.1334	0.1334	92.43	
PCB-75 (C59)	26:07	1597958	0.78	1.1853	13.9	13.9	0.1334	0.1334	92.43	
PCB-42	26:19	398654	0.73	0.8097	5.064	5.064	0.1954	0.1954	101	
PCB-40	26:49	1243102	0.76	0.8863	14.4	14.4	0.1785	0.1785	96.16	M
PCB-41 (C40)	26:49	1243102	0.76	0.8863	14.4	14.4	0.1785	0.1785	96.16	M
PCB-71 (C40)	26:49	1243102	0.76	0.8863	14.4	14.4	0.1785	0.1785	96.16	M
PCB-64	27:02	549661	0.77	1.1776	4.800	4.800	0.1343	0.1343	96.01	
PCB-72	27:52	528848	0.86	1.0943	4.970	4.970	0.1445	0.1445	99.40	
PCB-68	28:09	618865	0.81	1.2533	5.078	5.078	0.1262	0.1262	102	
PCB-57	28:35	515271	0.79	1.0818	4.898	4.898	0.1462	0.1462	97.96	
PCB-58	28:49	638910	0.75	1.3253	4.958	4.958	0.1193	0.1193	99.15	
PCB-67	28:58	662955	0.81	1.4230	4.791	4.791	0.1111	0.1111	95.82	
PCB-63	29:14	544766	0.77	1.1240	4.984	4.984	0.1407	0.1407	99.69	
PCB-61	29:34	2351306	0.82	1.2612	19.2	19.2	0.1254	0.1254	95.86	M
PCB-70 (C61)	29:34	2351306	0.82	1.2612	19.2	19.2	0.1254	0.1254	95.86	M
PCB-74 (C61)	29:34	2351306	0.82	1.2612	19.2	19.2	0.1254	0.1254	95.86	M
PCB-76 (C61)	29:34	2351306	0.82	1.2612	19.2	19.2	0.1254	0.1254	95.86	M
PCB-66	29:54	600993	0.79	1.2583	4.912	4.912	0.1257	0.1257	98.24	
PCB-55	30:04	630084	0.81	1.3236	4.895	4.895	0.1195	0.1195	97.91	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-56	30:34	577077	0.81	1.2334	4.812	4.812	0.1282	0.1282	96.23	M
PCB-60	30:47	510799	0.81	1.1230	4.677	4.677	0.1408	0.1408	93.55	
PCB-80	31:12	618593	0.84	1.3243	4.804	4.804	0.1194	0.1194	96.08	
PCB-79	32:43	655831	0.79	1.4368	4.694	4.694	0.1101	0.1101	93.88	
PCB-78	33:16	551876	0.77	1.1618	4.885	4.885	0.1361	0.1361	97.70	M
PCB-81	33:42	499582	0.80	1.0802	4.914	4.914	0.1499	0.1499	98.28	M
PCB-77	34:16	520129	0.84	1.0836	4.783	4.783	0.1426	0.1426	95.65	
S Total Pentachlorobiphenyls					222.5	222.5	0.0403	0.0403		
D PCB-104L	25:43	6307301	1.60	1.2161	103.6	103.6	0.0256	0.0256	104	
\$ PCB-95L	28:41	234474	1.70	0.7218	5.150	5.150	0.0318	0.0318	103	
* PCB-101L	31:37	5008775	1.60		100.0	100.0				
\$ PCB-111L	34:18	394315	1.61	1.3699	5.747	5.747	0.0228	0.0228	115	
D PCB-123L	36:15	9321962	1.59	0.9731	102.1	102.1	1.221	1.221	102	
D PCB-118L	36:35	9948185	1.58	1.0102	104.9	104.9	1.176	1.176	105	
D PCB-114L	37:07	9387618	1.61	0.9949	100.5	100.5	1.194	1.194	101	
D PCB-105L	37:45	9087875	1.60	0.9514	101.8	101.8	1.249	1.249	102	
* PCB-127L	39:14	9385497	1.60		100.0	100.0				
D PCB-126L	40:51	8945635	1.60	0.9439	101.0	101.0	1.259	1.259	101	
PCB-104	25:44	306050	1.57	1.0087	4.810	4.810	0.002672	0.002672	96.21	
PCB-96	26:06	338671	1.66	1.0940	4.908	4.908	0.002463	0.002463	98.16	
PCB-103	28:03	272723	1.63	0.8741	4.947	4.947	0.003083	0.003083	98.93	
PCB-94	28:15	243354	1.52	0.7640	5.050	5.050	0.003527	0.003527	101	
PCB-95	28:42	247318	1.63	0.8033	4.881	4.881	0.003355	0.003355	97.63	
PCB-93	28:56	508477	1.54	0.8429	9.565	9.565	0.003197	0.003197	95.65	
PCB-100 (C93)	28:56	508477	1.54	0.8429	9.565	9.565	0.003197	0.003197	95.65	
PCB-98	29:05	526504	1.64	0.8262	10.1	10.1	0.003262	0.003262	101	M
PCB-102 (C98)	29:05	526504	1.64	0.8262	10.1	10.1	0.003262	0.003262	101	M
PCB-88	29:28	497525	1.60	0.8013	9.844	9.844	0.003363	0.003363	98.44	M
PCB-91 (C88)	29:28	497525	1.60	0.8013	9.844	9.844	0.003363	0.003363	98.44	M
PCB-84	29:47	225737	1.61	0.7299	4.903	4.903	0.003692	0.003692	98.06	
PCB-89	30:17	245536	1.57	0.7798	4.992	4.992	0.003456	0.003456	99.84	
PCB-121	30:41	406765	1.67	1.2964	4.975	4.975	0.002079	0.002079	99.49	
PCB-92	31:03	260863	1.63	0.8546	4.840	4.840	0.003154	0.003154	96.80	
PCB-90	31:38	853991	1.53	0.9550	14.2	14.2	0.002822	0.002822	94.52	
PCB-101 (C90)	31:38	853991	1.53	0.9550	14.2	14.2	0.002822	0.002822	94.52	
PCB-113 (C90)	31:38	853991	1.53	0.9550	14.2	14.2	0.002822	0.002822	94.52	
PCB-83	32:13	528892	1.48	0.8385	10.0	10.0	0.003214	0.003214	100	M
PCB-99 (C83)	32:13	528892	1.48	0.8385	10.0	10.0	0.003214	0.003214	100	M
PCB-112	32:20	437482	1.71	1.4111	4.915	4.915	0.001910	0.001910	98.31	
PCB-86	32:42	1846778	1.59	1.0473	28.0	28.0	0.002573	0.002573	93.19	M
PCB-87 (C86)	32:42	1846778	1.59	1.0473	28.0	28.0	0.002573	0.002573	93.19	M
PCB-97 (C86)	32:42	1846778	1.59	1.0473	28.0	28.0	0.002573	0.002573	93.19	M
PCB-109 (C86)	32:42	1846778	1.59	1.0473	28.0	28.0	0.002573	0.002573	93.19	M
PCB-119 (C86)	32:42	1846778	1.59	1.0473	28.0	28.0	0.002573	0.002573	93.19	M
PCB-125 (C86)	32:42	1846778	1.59	1.0473	28.0	28.0	0.002573	0.002573	93.19	M
PCB-85	33:26	938339	1.57	1.0408	14.3	14.3	0.002589	0.002589	95.29	M
PCB-116 (C85)	33:26	938339	1.57	1.0408	14.3	14.3	0.002589	0.002589	95.29	M
PCB-117 (C85)	33:26	938339	1.57	1.0408	14.3	14.3	0.002589	0.002589	95.29	M
PCB-110	33:38	734092	1.59	1.1919	9.765	9.765	0.002261	0.002261	97.65	M
PCB-115 (C110)	33:38	734092	1.59	1.1919	9.765	9.765	0.002261	0.002261	97.65	M
PCB-82	33:56	257633	1.50	0.8303	4.919	4.919	0.003246	0.003246	98.39	
PCB-111	34:20	366927	1.71	1.2125	4.798	4.798	0.002223	0.002223	95.96	
PCB-120	34:48	446498	1.64	1.4762	4.795	4.795	0.001826	0.001826	95.91	
PCB-108	35:56	1034062	1.58	1.1405	9.709	9.709	0.1160	0.1160	97.09	
PCB-124 (C108)	35:56	1034062	1.58	1.1405	9.709	9.709	0.1160	0.1160	97.09	
PCB-107	36:11	576281	1.52	1.2121	5.091	5.091	0.1092	0.1092	102	
PCB-123	36:17	444649	1.54	1.0722	4.449	4.449	0.1220	0.1220	88.97	
PCB-106	36:24	501472	1.50	1.0839	4.954	4.954	0.1221	0.1221	99.09	
PCB-118	36:37	579609	1.57	1.2055	4.833	4.833	0.1034	0.1034	96.66	
PCB-122	36:57	416752	1.47	0.9567	4.665	4.665	0.1383	0.1383	93.30	



Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-114	37:08	496695	1.43	1.0842	4.880	4.880	0.1191	0.1191	97.61	
PCB-105	37:47	513401	1.56	1.1879	4.756	4.756	0.1159	0.1159	95.11	M
PCB-127	39:15	505934	1.52	1.1394	4.755	4.755	0.1161	0.1161	95.10	M
PCB-126	40:51	483239	1.56	1.0976	4.922	4.922	0.1281	0.1281	98.43	
S Total Hexachlorobiphenyls					206.9	206.9	0.0442	0.0442		
D PCB-155L	31:23	5708638	1.27	1.0851	105.0	105.0	0.0356	0.0356	105	
\$ PCB-153L	38:28	444756	1.28	0.9169	6.065	6.065	0.7601	0.7601	121	
* PCB-138L	39:43	6431603	1.27		100.0	100.0				
\$ PCB-159L	41:57	4130110	1.30	0.5118	99.0	99.0	1.122	1.122	99.00	
D PCB-167L	42:43	8150383	1.29	1.2572	100.8	100.8	0.5795	0.5795	101	
D PCB-156L	43:52	15994835	1.29	1.2106	205.4	205.4	0.6018	0.6018	103	
D PCB-157L (C156L)	43:52	15994835	1.29	1.2106	205.4	205.4	0.6018	0.6018	103	
D PCB-169L	47:06	7844285	1.29	1.2439	98.1	98.1	0.5857	0.5857	98.05	
PCB-155	31:25	269852	1.19	0.9444	5.005	5.005	0.005858	0.005858	100	
PCB-152	31:37	280445	1.25	0.9895	4.965	4.965	0.005591	0.005591	99.29	
PCB-150	31:47	292889	1.19	1.0132	5.064	5.064	0.005460	0.005460	101	
PCB-136	32:09	270798	1.37	1.0116	4.689	4.689	0.005469	0.005469	93.79	
PCB-145	32:26	275033	1.36	0.9685	4.975	4.975	0.005712	0.005712	99.49	
PCB-148	33:58	215061	1.37	0.7603	4.955	4.955	0.007276	0.007276	99.10	
PCB-135	34:35	403202	1.34	0.7256	9.734	9.734	0.007624	0.007624	97.34	
PCB-151 (C135)	34:35	403202	1.34	0.7256	9.734	9.734	0.007624	0.007624	97.34	
PCB-154	34:48	228222	1.32	0.8129	4.918	4.918	0.006805	0.006805	98.36	
PCB-144	35:06	217725	1.29	0.7852	4.857	4.857	0.007045	0.007045	97.14	
PCB-147	35:28	675152	1.30	0.8950	9.433	9.433	0.0624	0.0624	94.33	
PCB-149 (C147)	35:28	675152	1.30	0.8950	9.433	9.433	0.0624	0.0624	94.33	
PCB-134	35:46	640616	1.23	0.7967	10.1	10.1	0.0701	0.0701	101	
PCB-143 (C134)	35:46	640616	1.23	0.7967	10.1	10.1	0.0701	0.0701	101	
PCB-139	36:03	673528	1.25	0.8769	9.605	9.605	0.0637	0.0637	96.05	
PCB-140 (C139)	36:03	673528	1.25	0.8769	9.605	9.605	0.0637	0.0637	96.05	
PCB-131	36:15	289665	1.37	0.7503	4.827	4.827	0.0745	0.0745	96.55	
PCB-142	36:24	301166	1.15	0.7507	5.016	5.016	0.0744	0.0744	100	
PCB-132	36:45	300578	1.28	0.7489	5.018	5.018	0.0746	0.0746	100	
PCB-133	37:14	328133	1.24	0.8096	5.068	5.068	0.0690	0.0690	101	
PCB-165	37:37	408419	1.29	1.0247	4.984	4.984	0.0545	0.0545	99.67	
PCB-146	37:52	378659	1.23	0.9637	4.913	4.913	0.0580	0.0580	98.27	
PCB-161	38:01	438810	1.27	1.1288	4.861	4.861	0.0495	0.0495	97.22	
PCB-153	38:31	893507	1.27	1.0938	10.2	10.2	0.0511	0.0511	102	
PCB-168 (C153)	38:31	893507	1.27	1.0938	10.2	10.2	0.0511	0.0511	102	
PCB-141	38:41	338462	1.30	0.8755	4.834	4.834	0.0638	0.0638	96.68	
PCB-130	39:06	279233	1.33	0.7051	4.952	4.952	0.0792	0.0792	99.04	
PCB-137	39:18	318450	1.27	0.7767	5.127	5.127	0.0719	0.0719	103	
PCB-164	39:26	400805	1.29	1.0382	4.827	4.827	0.0538	0.0538	96.54	
PCB-129	39:44	1473269	1.26	0.9464	19.5	19.5	0.0590	0.0590	97.33	M
PCB-138 (C129)	39:44	1473269	1.26	0.9464	19.5	19.5	0.0590	0.0590	97.33	M
PCB-160 (C129)	39:44	1473269	1.26	0.9464	19.5	19.5	0.0590	0.0590	97.33	M
PCB-163 (C129)	39:44	1473269	1.26	0.9464	19.5	19.5	0.0590	0.0590	97.33	M
PCB-158	40:07	509962	1.21	1.3110	4.864	4.864	0.0426	0.0426	97.28	
PCB-128	40:58	747908	1.19	0.9829	9.514	9.514	0.0568	0.0568	95.14	
PCB-166 (C128)	40:58	747908	1.19	0.9829	9.514	9.514	0.0568	0.0568	95.14	
PCB-159	41:59	558064	1.29	1.3856	5.036	5.036	0.0403	0.0403	101	
PCB-162	42:16	513669	1.22	1.2571	5.109	5.109	0.0444	0.0444	102	
PCB-167	42:44	464967	1.26	1.1159	5.112	5.112	0.0413	0.0413	102	
PCB-156	43:54	886471	1.28	1.1104	9.982	9.982	0.0596	0.0596	99.82	
PCB-157 (C156)	43:54	886471	1.28	1.1104	9.982	9.982	0.0596	0.0596	99.82	
PCB-169	47:07	452938	1.19	1.1628	4.966	4.966	0.0437	0.0437	99.31	
S Total Heptachlorobiphenyls					116.4	116.4	0.002706	0.002706		
D PCB-188L	37:07	6664037	1.07	1.3133	101.1	101.1	0.0332	0.0332	101	
\$ PCB-178L	40:10	290779	1.11	1.0313	5.616	5.616	0.0422	0.0422	112	
* PCB-180L	45:16	5019998	1.05		100.0	100.0				

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D PCB-170L	46:31	4357834	1.06	0.8362	103.8	103.8	0.0521	0.0521	104	
D PCB-189L	49:38	10235768	1.06	1.4414	99.1	99.1	0.5611	0.5611	99.10	
PCB-188	37:08	379875	1.15	1.1350	5.023	5.023	0.000344	0.000344	100	
PCB-179	37:28	381743	1.13	1.4276	4.852	4.852	0.000335	0.000335	97.05	
PCB-184	38:00	370448	1.07	1.3672	4.917	4.917	0.000350	0.000350	98.33	
PCB-176	38:22	331851	1.04	1.2331	4.884	4.884	0.000388	0.000388	97.67	
PCB-186	38:48	394382	1.02	1.4737	4.856	4.856	0.000324	0.000324	97.12	
PCB-178	40:11	246629	0.99	0.8946	5.002	5.002	0.000534	0.000534	100	
PCB-175	40:49	246187	1.15	0.9524	4.690	4.690	0.000502	0.000502	93.81	
PCB-187	41:06	296377	1.01	1.1018	4.881	4.881	0.000434	0.000434	97.62	
PCB-182	41:18	263009	1.09	0.9247	5.161	5.161	0.000517	0.000517	103	
PCB-183	41:42	505531	1.07	0.9825	9.337	9.337	0.000486	0.000486	93.37	M
PCB-185 (C183)	41:42	505531	1.07	0.9825	9.337	9.337	0.000486	0.000486	93.37	M
PCB-174	41:57	258926	1.06	0.9642	4.873	4.873	0.000496	0.000496	97.46	
PCB-177	42:23	265089	1.08	0.9773	4.922	4.922	0.000489	0.000489	98.44	
PCB-181	42:47	243089	1.05	0.9505	4.641	4.641	0.000503	0.000503	92.81	
PCB-171	43:00	465633	1.04	0.9336	9.050	9.050	0.000512	0.000512	90.50	
PCB-173 (C171)	43:00	465633	1.04	0.9336	9.050	9.050	0.000512	0.000512	90.50	
PCB-172	44:38	225866	1.17	0.8519	4.811	4.811	0.000561	0.000561	96.22	
PCB-192	44:54	366181	1.04	1.3459	4.937	4.937	0.000355	0.000355	98.74	
PCB-180	45:16	626627	1.04	1.1676	9.739	9.739	0.000409	0.000409	97.39	
PCB-193 (C180)	45:16	626627	1.04	1.1676	9.739	9.739	0.000409	0.000409	97.39	
PCB-191	45:39	348406	1.07	1.2891	4.904	4.904	0.000371	0.000371	98.09	
PCB-170	46:32	255223	0.99	1.1865	4.936	4.936	0.000520	0.000520	98.72	
PCB-190	47:03	364710	0.93	1.3322	4.968	4.968	0.000359	0.000359	99.35	M
PCB-189	49:39	493179	1.03	0.9633	5.002	5.002	0.0480	0.0480	100	
S Total Octachlorobiphenyls					59.1	59.1	0.0197	0.0197		
D PCB-202L	42:29	5089577	0.93	0.9818	103.3	103.3	0.0178	0.0178	103	
* PCB-194L	51:44	7166011	0.90		100.0	100.0				
D PCB-205L	52:13	8416261	0.91	1.1786	99.7	99.7	0.0711	0.0711	99.65	
PCB-202	42:31	264468	0.89	1.0359	5.016	5.016	0.004491	0.004491	100	
PCB-201	43:25	242194	0.97	0.9754	4.879	4.879	0.004770	0.004770	97.58	
PCB-204	44:06	259683	0.88	1.0485	4.866	4.866	0.004437	0.004437	97.32	
PCB-197	44:21	278144	0.86	1.1458	4.770	4.770	0.004060	0.004060	95.39	
PCB-200	44:26	264690	0.94	1.0072	5.164	5.164	0.004619	0.004619	103	
PCB-198	47:13	430393	0.87	0.8698	9.722	9.722	0.005349	0.005349	97.22	
PCB-199 (C198)	47:13	430393	0.87	0.8698	9.722	9.722	0.005349	0.005349	97.22	
PCB-196	47:54	198979	0.93	0.7806	5.008	5.008	0.005959	0.005959	100	
PCB-203	48:05	235807	0.96	0.9292	4.986	4.986	0.005007	0.005007	99.72	
PCB-195	49:25	348250	0.94	0.8263	5.008	5.008	0.0683	0.0683	100	
PCB-194	51:46	394237	0.95	0.9735	4.812	4.812	0.0580	0.0580	96.23	
PCB-205	52:13	448246	0.92	1.0878	4.896	4.896	0.0519	0.0519	97.93	
S Total Nonachlorobiphenyls					14.7	14.7	0.1588	0.1588		
D PCB-208L	49:10	6859651	0.81	0.9576	100.0	100.0	0.1907	0.1907	99.96	
D PCB-206L	53:58	5024711	0.81	0.6947	100.9	100.9	0.2629	0.2629	101	
PCB-208	49:11	399575	0.79	1.1374	5.121	5.121	0.1522	0.1522	102	M
PCB-207	50:07	399296	0.78	1.3756	4.885	4.885	0.1458	0.1458	97.70	M
PCB-206	53:59	317426	0.77	1.3346	4.734	4.734	0.1785	0.1785	94.67	M
D PCB-209L	55:35	4889751	0.71	0.6669	102.3	102.3	0.0640	0.0640	102	
DCB Decachlorobiphenyl	55:37	273346	0.72	1.1004	5.080	5.080	0.0198	0.0198	102	
S Polychlorinated biphenyls, Total					1005.3	1005.3	0.0577	0.0577		

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

**Reagents:**

61L21668P\_00006

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi3.d  
Lims ID: IC L3  
Client ID:  
Sample Type: IC Calib Level: 3  
Inject. Date: 31-May-2024 18:00:00 ALS Bottle#: 0 Worklist Smp#: 3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0032883-003  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Sublist: chrom-PCBs\_D2D\*sub16  
Method: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 04-Jun-2024 14:27:15 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: P0IK

Date: 31-May-2024 19:20:28

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:37	11:36	1	0.726	10057841	4100912	2713	6782	1512		
202.0766	11:37	11:36	1	0.726	3195947	1293770	1130	2825	1145	3.15(2.66-3.60)	
PCB-3L											
200.0795	13:47	13:46	1	0.861	9998734	3401591	2713	6782	1254		
202.0766	13:47	13:46	1	0.861	3156259	1070179	1130	2825	947	3.17(2.66-3.60)	
PCB-1											
188.0393	11:38	11:37	1	1.001	611259	245939	539	1347	456		
190.0363	11:38	11:37	1	1.001	184800	73986	190	475	389	3.31(2.66-3.60)	
PCB-2											
188.0393	13:37	13:36	1	0.989	579381	190781	539	1347	354		
190.0363	13:37	13:36	1	0.989	189016	62957	190	475	331	3.07(2.66-3.60)	
PCB-3											
188.0393	13:47	13:47	1	1.001	615081	211731	539	1347	393		
190.0363	13:47	13:47	1	1.001	184876	61561	190	475	324	3.33(2.66-3.60)	
PCB-4L											
234.0406	14:02	14:02	0	0.877	3257949	1005892	607	1517	1657		
236.0376	14:02	14:02	0	0.877	2021083	640518	143	357	4479	1.61(1.33-1.79)	
PCB-9L											
234.0406	16:00	15:59	1		5160480	1490123	607	1517	2455		
236.0376	16:00	15:59	1		3182635	925024	143	357	6469	1.62(1.33-1.79)	
PCB-8L											
234.0406	16:50	16:50	1	1.201	293687	71243	607	1517	117		M
236.0376	16:50	16:50	1	1.201	173668	43976	143	357	308	1.69(1.33-1.79)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:54	19:54	0	1.244	5436766	1281103	607	1517	2111		
236.0376	19:54	19:54	0	1.244	3369416	808128	143	357	5651	1.61(1.33-1.79)	
PCB-4											
222.0003	14:03	14:02	1	1.002	208778	67621	40	100	1691		
223.9974	14:03	14:02	1	1.002	128575	43034	96	240	448	1.62(1.33-1.79)	
PCB-10											
222.0003	14:13	14:13	0	1.013	296290	90628	40	100	2266		
223.9974	14:13	14:13	1	1.014	175545	53642	96	240	559	1.69(1.33-1.79)	
PCB-9											
222.0003	16:01	16:00	1	1.142	318843	94374	40	100	2359		
223.9974	16:01	16:00	1	1.142	195283	57100	96	240	595	1.63(1.33-1.79)	
PCB-7											
222.0003	16:11	16:10	1	1.154	290711	80729	40	100	2018		
223.9974	16:10	16:10	0	1.153	186130	49671	96	240	517	1.56(1.33-1.79)	
PCB-6											
222.0003	16:25	16:25	0	1.171	322293	89922	40	100	2248		
223.9974	16:25	16:25	0	1.171	195532	56301	96	240	586	1.65(1.33-1.79)	
PCB-5											
222.0003	16:43	16:43	0	1.192	278025	76844	40	100	1921		
223.9974	16:43	16:43	0	1.192	179454	50186	96	240	523	1.55(1.33-1.79)	
PCB-8											
222.0003	16:51	16:50	1	1.202	341074	94951	40	100	2374		
223.9974	16:51	16:50	1	1.202	211588	58210	96	240	606	1.61(1.33-1.79)	
PCB-14											
222.0003	18:28	18:28	1	0.928	301013	75875	40	100	1897		
223.9974	18:28	18:28	1	0.928	191899	48485	96	240	505	1.57(1.33-1.79)	
PCB-11											
222.0003	19:19	19:18	1	0.970	279665	67757	40	100	1694		
223.9974	19:19	19:18	1	0.970	173153	43370	96	240	452	1.62(1.33-1.79)	
PCB-12											
222.0003	19:37	19:36	1	0.985	576081	91223	40	100	2281		
223.9974	19:37	19:36	1	0.985	367376	62421	96	240	650	1.57(1.33-1.79)	
PCB-13 (C12)											
222.0003	19:37	19:36	1	0.985	576081	91223	40	100	2281		
223.9974	19:37	19:36	1	0.985	367376	62421	96	240	650	1.57(1.33-1.79)	
PCB-15											
222.0003	19:56	19:55	1	1.001	342689	78810	40	100	1970		
223.9974	19:56	19:55	1	1.001	209597	47667	96	240	497	1.63(1.33-1.79)	
PCB-19L											
268.0016	17:08	17:08	0	0.840	1750048	474000	432	1080	1097		
269.9986	17:08	17:08	0	0.840	1639434	450604	931	2327	484	1.07(0.88-1.20)	
PCB-32L											
268.0016	20:24	20:23	1		2738272	653918	432	1080	1514		
269.9986	20:24	20:23	1		2544022	632244	931	2327	679	1.08(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-31L											
268.0016	22:39	22:38	1		7854722	1789792	784	1960	2283		
269.9986	22:39	22:38	1		7420482	1696801	308	770	5509	1.06(0.88-1.20)	
PCB-28L											
268.0016	22:56	22:56	0	1.012	471644	101939	784	1960	130		
269.9986	22:56	22:56	0	1.012	458677	92446	308	770	300	1.03(0.88-1.20)	
PCB-37L											
268.0016	26:56	26:55	1	1.189	6766129	1364501	784	1960	1740		
269.9986	26:56	26:55	1	1.189	6348781	1273491	308	770	4135	1.07(0.88-1.20)	
PCB-19											
255.9613	17:09	17:09	1	1.002	117119	32603	58	145	562		
257.9584	17:09	17:09	1	1.002	98857	28343	19	47	1492	1.18(0.88-1.20)	
PCB-18											
255.9613	19:00	18:59	1	1.109	301119	59266	58	145	1022		
257.9584	18:59	18:59	0	1.108	287561	56176	19	47	2957	1.05(0.88-1.20)	
PCB-30 (C18)											
255.9613	19:00	18:59	1	1.109	301119	59266	58	145	1022		
257.9584	18:59	18:59	0	1.108	287561	56176	19	47	2957	1.05(0.88-1.20)	
PCB-17											
255.9613	19:26	19:26	0	1.134	106250	27677	58	145	477		
257.9584	19:26	19:26	0	1.134	99914	23891	19	47	1257	1.06(0.88-1.20)	
PCB-27											
255.9613	19:39	19:39	1	1.147	166283	41594	58	145	717		
257.9584	19:39	19:39	1	1.147	144258	35494	19	47	1868	1.15(0.88-1.20)	
PCB-24											
255.9613	19:46	19:46	1	1.154	144776	39138	58	145	675		
257.9584	19:46	19:46	1	1.154	131683	31130	19	47	1638	1.10(0.88-1.20)	
PCB-16											
255.9613	19:54	19:53	1	1.161	97085	23764	58	145	410		
257.9584	19:54	19:53	1	1.161	92125	22662	19	47	1193	1.05(0.88-1.20)	
PCB-32											
255.9613	20:24	20:23	1	1.191	160625	37149	58	145	641		
257.9584	20:24	20:23	1	1.191	149433	35548	19	47	1871	1.07(0.88-1.20)	
PCB-34											
255.9613	21:40	21:39	1	1.265	376163	90530	541	1352	167		
257.9584	21:40	21:39	1	1.265	365785	90351	796	1990	114	1.03(0.88-1.20)	
PCB-23											
255.9613	21:49	21:48	0	1.273	362124	84557	541	1352	156		
257.9584	21:49	21:48	1	1.274	347900	85057	796	1990	107	1.04(0.88-1.20)	
PCB-26											
255.9613	22:08	22:08	0	1.292	725874	149187	541	1352	276		
257.9584	22:08	22:08	1	1.293	700309	145291	796	1990	183	1.04(0.88-1.20)	
PCB-29 (C26)											
255.9613	22:08	22:08	0	1.292	725874	149187	541	1352	276		
257.9584	22:08	22:08	1	1.293	700309	145291	796	1990	183	1.04(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-25											
255.9613	22:22	22:21	1	0.830	416150	93553	541	1352	173		
257.9584	22:22	22:21	1	0.830	382063	86007	796	1990	108	1.09(0.88-1.20)	
PCB-31											
255.9613	22:40	22:40	0	0.841	383294	90540	541	1352	167		
257.9584	22:40	22:40	0	0.841	361680	90311	796	1990	113	1.06(0.88-1.20)	
PCB-20											
255.9613	22:58	22:58	0	0.853	759392	143646	541	1352	266		
257.9584	22:58	22:58	0	0.853	724429	135337	796	1990	170	1.05(0.88-1.20)	
PCB-28 (C20)											
255.9613	22:58	22:58	0	0.853	759392	143646	541	1352	266		
257.9584	22:58	22:58	0	0.853	724429	135337	796	1990	170	1.05(0.88-1.20)	
PCB-21											
255.9613	23:08	23:07	1	0.859	720072	85196	541	1352	157		M
257.9584	23:08	23:07	1	0.859	683628	84601	796	1990	106	1.05(0.88-1.20)	M
PCB-33 (C21)											
255.9613	23:08	23:07	1	0.859	720072	85196	541	1352	157		M
257.9584	23:08	23:07	1	0.859	683628	84601	796	1990	106	1.05(0.88-1.20)	M
PCB-22											
255.9613	23:35	23:35	0	0.876	377463	80781	541	1352	149		
257.9584	23:36	23:35	1	0.876	362206	78952	796	1990	99	1.04(0.88-1.20)	
PCB-36											
255.9613	25:10	25:09	1	0.934	375707	72079	541	1352	133		
257.9584	25:10	25:09	1	0.934	355747	70158	796	1990	88	1.06(0.88-1.20)	
PCB-39											
255.9613	25:31	25:30	1	0.947	389975	83464	541	1352	154		
257.9584	25:30	25:30	0	0.947	370190	76330	796	1990	96	1.05(0.88-1.20)	
PCB-38											
255.9613	26:06	26:05	1	0.969	344389	71618	541	1352	132		
257.9584	26:05	26:05	0	0.968	335953	66695	796	1990	84	1.03(0.88-1.20)	
PCB-35											
255.9613	26:33	26:32	1	0.986	360533	69846	541	1352	129		
257.9584	26:33	26:32	1	0.986	360561	70952	796	1990	89	1.00(0.88-1.20)	
PCB-37											
255.9613	26:57	26:57	0	1.000	358978	71807	541	1352	133		
257.9584	26:57	26:57	0	1.000	364514	71310	796	1990	90	0.98(0.88-1.20)	
PCB-54L											
301.9626	20:12	20:12	0	0.816	1252154	304647	106	265	2874		M
303.9597	20:12	20:12	0	0.816	1551267	378908	25	62	15156	0.81(0.65-0.89)	M
PCB-52L											
301.9626	24:47	24:46	0		3402393	752939	510	1275	1476		
303.9597	24:47	24:46	0		4282417	941029	710	1775	1325	0.79(0.65-0.89)	
PCB-79L											
301.9626	32:42	32:41	1	0.971	232703	44353	510	1275	87		
303.9597	32:42	32:41	1	0.971	271329	50496	710	1775	71	0.86(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-81L											
301.9626	33:41	33:41	0	1.359	4182792	794399	510	1275	1558		
303.9597	33:41	33:41	0	1.359	5228529	997351	710	1775	1405	0.80(0.65-0.89)	
PCB-77L											
301.9626	34:15	34:14	0	1.382	4525431	840769	510	1275	1649		
303.9597	34:15	34:14	0	1.382	5511208	1036946	710	1775	1460	0.82(0.65-0.89)	
PCB-54											
289.9224	20:14	20:13	1	1.000	86078	20816	6	15	3469		
291.9194	20:14	20:13	1	1.000	101723	25411	40	100	635	0.85(0.65-0.89)	
PCB-50											
289.9224	22:25	22:24	1	1.109	349447	70029	495	1237	141		
291.9194	22:25	22:24	1	1.109	448510	96431	666	1665	145	0.78(0.65-0.89)	
PCB-53 (C50)											
289.9224	22:25	22:24	1	1.109	349447	70029	495	1237	141		
291.9194	22:25	22:24	1	1.109	448510	96431	666	1665	145	0.78(0.65-0.89)	
PCB-45											
289.9224	23:08	23:08	0	1.145	337953	44319	495	1237	90		M
291.9194	23:08	23:08	0	1.145	450602	57689	666	1665	87	0.75(0.65-0.89)	M
PCB-51 (C45)											
289.9224	23:08	23:08	0	1.145	337953	44319	495	1237	90		M
291.9194	23:08	23:08	0	1.145	450602	57689	666	1665	87	0.75(0.65-0.89)	M
PCB-46											
289.9224	23:23	23:22	1	1.157	152416	34946	495	1237	71		
291.9194	23:23	23:22	1	1.157	188358	45442	666	1665	68	0.81(0.65-0.89)	
PCB-52											
289.9224	24:48	24:47	1	1.227	190732	46476	495	1237	94		
291.9194	24:48	24:47	1	1.227	249097	56499	666	1665	85	0.77(0.65-0.89)	
PCB-43											
289.9224	24:57	24:56	0	1.234	423345	55176	495	1237	111		M
291.9194	24:57	24:56	0	1.234	551591	70896	666	1665	106	0.77(0.65-0.89)	M
PCB-73 (C43)											
289.9224	24:57	24:56	0	1.234	423345	55176	495	1237	111		M
291.9194	24:57	24:56	0	1.234	551591	70896	666	1665	106	0.77(0.65-0.89)	M
PCB-49											
289.9224	25:14	25:14	0	1.249	438512	68183	495	1237	138		
291.9194	25:14	25:14	0	1.249	564448	84437	666	1665	127	0.78(0.65-0.89)	
PCB-69 (C49)											
289.9224	25:14	25:14	0	1.249	438512	68183	495	1237	138		
291.9194	25:14	25:14	0	1.249	564448	84437	666	1665	127	0.78(0.65-0.89)	
PCB-48											
289.9224	25:33	25:33	0	1.265	182905	40157	495	1237	81		
291.9194	25:33	25:33	0	1.265	218889	45951	666	1665	69	0.84(0.65-0.89)	
PCB-44											
289.9224	25:48	25:48	0	1.277	590396	103100	495	1237	208		
291.9194	25:48	25:48	0	1.277	753852	131966	666	1665	198	0.78(0.65-0.89)	



Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-47 (C44)											
289.9224	25:48	25:48	0	1.277	590396	103100	495	1237	208		
291.9194	25:48	25:48	0	1.277	753852	131966	666	1665	198	0.78(0.65-0.89)	
PCB-65 (C44)											
289.9224	25:48	25:48	0	1.277	590396	103100	495	1237	208		
291.9194	25:48	25:48	0	1.277	753852	131966	666	1665	198	0.78(0.65-0.89)	
PCB-59											
289.9224	26:07	26:06	1	1.293	702045	101885	495	1237	206		
291.9194	26:06	26:06	0	1.292	895913	126740	666	1665	190	0.78(0.65-0.89)	
PCB-62 (C59)											
289.9224	26:07	26:06	1	1.293	702045	101885	495	1237	206		
291.9194	26:06	26:06	0	1.292	895913	126740	666	1665	190	0.78(0.65-0.89)	
PCB-75 (C59)											
289.9224	26:07	26:06	1	1.293	702045	101885	495	1237	206		
291.9194	26:06	26:06	0	1.292	895913	126740	666	1665	190	0.78(0.65-0.89)	
PCB-42											
289.9224	26:19	26:18	1	1.303	168333	35093	495	1237	71		
291.9194	26:19	26:18	1	1.303	230321	47146	666	1665	71	0.73(0.65-0.89)	
PCB-40											
289.9224	26:49	26:48	0	1.327	536815	83423	495	1237	169		M
291.9194	26:49	26:48	0	1.327	706287	104766	666	1665	157	0.76(0.65-0.89)	M
PCB-41 (C40)											
289.9224	26:49	26:48	0	1.327	536815	83423	495	1237	169		M
291.9194	26:49	26:48	0	1.327	706287	104766	666	1665	157	0.76(0.65-0.89)	M
PCB-71 (C40)											
289.9224	26:49	26:48	0	1.327	536815	83423	495	1237	169		M
291.9194	26:49	26:48	0	1.327	706287	104766	666	1665	157	0.76(0.65-0.89)	M
PCB-64											
289.9224	27:02	27:01	1	1.338	239365	52530	495	1237	106		
291.9194	27:02	27:01	1	1.338	310296	66835	666	1665	100	0.77(0.65-0.89)	
PCB-72											
289.9224	27:52	27:51	0	0.827	244916	51285	495	1237	104		
291.9194	27:52	27:51	1	0.828	283932	62962	666	1665	95	0.86(0.65-0.89)	
PCB-68											
289.9224	28:09	28:09	0	0.836	277293	56694	495	1237	115		
291.9194	28:09	28:09	0	0.836	341572	68869	666	1665	103	0.81(0.65-0.89)	
PCB-57											
289.9224	28:35	28:34	1	0.848	227257	45523	495	1237	92		
291.9194	28:35	28:34	1	0.848	288014	60702	666	1665	91	0.79(0.65-0.89)	
PCB-58											
289.9224	28:49	28:48	1	0.856	273402	56373	495	1237	114		
291.9194	28:49	28:48	1	0.856	365508	73610	666	1665	111	0.75(0.65-0.89)	
PCB-67											
289.9224	28:58	28:58	0	0.860	296615	57715	495	1237	117		
291.9194	28:58	28:58	0	0.860	366340	69216	666	1665	104	0.81(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-63											
289.9224	29:14	29:14	1	0.868	237799	45285	495	1237	91		
291.9194	29:14	29:14	1	0.868	306967	64033	666	1665	96	0.77(0.65-0.89)	
PCB-61											
289.9224	29:34	29:34	0	0.878	1056982	119547	495	1237	242		M
291.9194	29:34	29:34	0	0.878	1294324	148196	666	1665	223	0.82(0.65-0.89)	M
PCB-70 (C61)											
289.9224	29:34	29:34	0	0.878	1056982	119547	495	1237	242		M
291.9194	29:34	29:34	0	0.878	1294324	148196	666	1665	223	0.82(0.65-0.89)	M
PCB-74 (C61)											
289.9224	29:34	29:34	0	0.878	1056982	119547	495	1237	242		M
291.9194	29:34	29:34	0	0.878	1294324	148196	666	1665	223	0.82(0.65-0.89)	M
PCB-76 (C61)											
289.9224	29:34	29:34	0	0.878	1056982	119547	495	1237	242		M
291.9194	29:34	29:34	0	0.878	1294324	148196	666	1665	223	0.82(0.65-0.89)	M
PCB-66											
289.9224	29:54	29:53	1	0.888	266136	52281	495	1237	106		
291.9194	29:54	29:53	0	0.888	334857	69429	666	1665	104	0.79(0.65-0.89)	
PCB-55											
289.9224	30:04	30:03	1	0.892	282242	56944	495	1237	115		
291.9194	30:04	30:03	1	0.892	347842	74275	666	1665	112	0.81(0.65-0.89)	
PCB-56											
289.9224	30:34	30:33	1	0.908	258842	53078	495	1237	107		M
291.9194	30:34	30:33	1	0.908	318235	66404	666	1665	100	0.81(0.65-0.89)	M
PCB-60											
289.9224	30:47	30:46	0	0.914	228596	47611	495	1237	96		
291.9194	30:47	30:46	1	0.914	282203	54459	666	1665	82	0.81(0.65-0.89)	
PCB-80											
289.9224	31:12	31:11	1	0.926	281507	52839	495	1237	107		
291.9194	31:12	31:11	1	0.926	337086	68438	666	1665	103	0.84(0.65-0.89)	
PCB-79											
289.9224	32:43	32:42	1	0.971	289310	52307	495	1237	106		
291.9194	32:43	32:42	1	0.971	366521	66349	666	1665	100	0.79(0.65-0.89)	
PCB-78											
289.9224	33:16	33:15	0	0.987	240561	46623	495	1237	94		M
291.9194	33:16	33:15	1	0.988	311315	58034	666	1665	87	0.77(0.65-0.89)	M
PCB-81											
289.9224	33:42	33:42	0	1.001	221876	44931	495	1237	91		M
291.9194	33:42	33:42	0	1.001	277706	53242	666	1665	80	0.80(0.65-0.89)	M
PCB-77											
289.9224	34:16	34:16	0	1.001	236724	43605	495	1237	88		
291.9194	34:16	34:16	0	1.001	283405	57023	666	1665	86	0.84(0.65-0.89)	
PCB-104L											
337.9207	25:43	25:42	0	0.813	3881748	846069	48	120	17626		
339.9178	25:43	25:42	0	0.813	2425553	526811	78	195	6754	1.60(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-95L											
337.9207	28:41	28:41	0	1.115	147567	30011	48	120	625		
339.9178	28:41	28:41	0	1.115	86907	17374	78	195	223	1.70(1.32-1.78)	
PCB-101L											
337.9207	31:37	31:37	0		3082346	624295	48	120	13006		
339.9178	31:37	31:37	0		1926429	385938	78	195	4948	1.60(1.32-1.78)	
PCB-111L											
337.9207	34:18	34:17	1	1.085	242976	48695	48	120	1014		
339.9178	34:18	34:17	1	1.085	151339	30118	78	195	386	1.61(1.32-1.78)	
PCB-123L											
337.9207	36:15	36:15	1	1.147	5721133	1109523	5300	13250	209		
339.9178	36:15	36:15	1	1.147	3600829	698691	3281	8202	213	1.59(1.32-1.78)	
PCB-118L											
337.9207	36:35	36:34	1	1.157	6092251	1157981	5300	13250	218		
339.9178	36:35	36:34	1	1.157	3855934	740169	3281	8202	226	1.58(1.32-1.78)	
PCB-114L											
337.9207	37:07	37:06	1	1.174	5794168	1134432	5300	13250	214		
339.9178	37:07	37:06	1	1.174	3593450	696833	3281	8202	212	1.61(1.32-1.78)	
PCB-105L											
337.9207	37:45	37:45	1	1.194	5589374	1048617	5300	13250	198		
339.9178	37:45	37:45	1	1.194	3498501	668548	3281	8202	204	1.60(1.32-1.78)	
PCB-127L											
337.9207	39:14	39:14	1		5780307	1112193	5300	13250	210		
339.9178	39:14	39:14	1		3605190	693455	3281	8202	211	1.60(1.32-1.78)	
PCB-126L											
337.9207	40:51	40:50	1	1.292	5507935	1037098	5300	13250	196		
339.9178	40:51	40:50	1	1.292	3437700	644438	3281	8202	196	1.60(1.32-1.78)	
PCB-104											
325.8804	25:44	25:44	0	1.001	186976	43535	7	17	6219		
327.8775	25:45	25:44	1	1.001	119074	25392	8	20	3174	1.57(1.32-1.78)	
PCB-96											
325.8804	26:06	26:06	0	1.015	211295	44931	7	17	6419		
327.8775	26:06	26:06	0	1.015	127376	29456	8	20	3682	1.66(1.32-1.78)	
PCB-103											
325.8804	28:03	28:02	1	1.091	169216	36556	7	17	5222		
327.8775	28:02	28:02	0	1.091	103507	22398	8	20	2800	1.63(1.32-1.78)	
PCB-94											
325.8804	28:15	28:16	-1	1.099	146664	28127	7	17	4018		
327.8775	28:17	28:16	1	1.100	96690	20752	8	20	2594	1.52(1.32-1.78)	
PCB-95											
325.8804	28:42	28:42	0	1.116	153284	31365	7	17	4481		
327.8775	28:43	28:42	1	1.117	94034	19388	8	20	2424	1.63(1.32-1.78)	
PCB-93											
325.8804	28:56	28:55	1	1.125	308618	62117	7	17	8874		
327.8775	28:55	28:55	0	1.125	199859	39477	8	20	4935	1.54(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-100 (C93)											
325.8804	28:56	28:55	1	1.125	308618	62117	7	17	8874		
327.8775	28:55	28:55	0	1.125	199859	39477	8	20	4935	1.54(1.32-1.78)	
PCB-98											
325.8804	29:05	29:04	1	1.131	327154	40323	7	17	5760		M
327.8775	29:07	29:04	2	1.132	199350	23698	8	20	2962	1.64(1.32-1.78)	M
PCB-102 (C98)											
325.8804	29:05	29:04	1	1.131	327154	40323	7	17	5760		M
327.8775	29:07	29:04	2	1.132	199350	23698	8	20	2962	1.64(1.32-1.78)	M
PCB-88											
325.8804	29:28	29:33	-5	1.146	306322	35360	7	17	5051		M
327.8775	29:28	29:33	-5	1.146	191203	22183	8	20	2773	1.60(1.32-1.78)	M
PCB-91 (C88)											
325.8804	29:28	29:33	-5	1.146	306322	35360	7	17	5051		M
327.8775	29:28	29:33	-5	1.146	191203	22183	8	20	2773	1.60(1.32-1.78)	M
PCB-84											
325.8804	29:47	29:47	0	1.159	139124	31137	7	17	4448		
327.8775	29:48	29:47	1	1.159	86613	15623	8	20	1953	1.61(1.32-1.78)	
PCB-89											
325.8804	30:17	30:16	1	1.178	150039	30987	7	17	4427		
327.8775	30:17	30:16	1	1.178	95497	19480	8	20	2435	1.57(1.32-1.78)	
PCB-121											
325.8804	30:41	30:41	0	1.194	254278	49012	7	17	7002		
327.8775	30:41	30:41	0	1.194	152487	33141	8	20	4143	1.67(1.32-1.78)	
PCB-92											
325.8804	31:03	31:03	0	0.857	161862	31924	7	17	4561		
327.8775	31:03	31:03	0	0.857	99001	18723	8	20	2340	1.63(1.32-1.78)	
PCB-90											
325.8804	31:38	31:37	1	1.230	515884	71571	7	17	10224		
327.8775	31:37	31:37	0	1.230	338107	49260	8	20	6158	1.53(1.32-1.78)	
PCB-101 (C90)											
325.8804	31:38	31:37	1	1.230	515884	71571	7	17	10224		
327.8775	31:37	31:37	0	1.230	338107	49260	8	20	6158	1.53(1.32-1.78)	
PCB-113 (C90)											
325.8804	31:38	31:37	1	1.230	515884	71571	7	17	10224		
327.8775	31:37	31:37	0	1.230	338107	49260	8	20	6158	1.53(1.32-1.78)	
PCB-83											
325.8804	32:13	32:13	0	1.253	315858	39228	7	17	5604		M
327.8775	32:14	32:13	1	1.254	213034	26549	8	20	3319	1.48(1.32-1.78)	M
PCB-99 (C83)											
325.8804	32:13	32:13	0	1.253	315858	39228	7	17	5604		M
327.8775	32:14	32:13	1	1.254	213034	26549	8	20	3319	1.48(1.32-1.78)	M
PCB-112											
325.8804	32:20	32:20	0	1.258	276124	52961	7	17	7566		
327.8775	32:20	32:20	0	1.258	161358	32769	8	20	4096	1.71(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-86											M
325.8804	32:42	32:42	0	1.272	1133108	122947	7	17	17564		M
327.8775	32:42	32:42	0	1.272	713670	75834	8	20	9479	1.59(1.32-1.78)	M
PCB-87 (C86)											M
325.8804	32:42	32:42	0	1.272	1133108	122947	7	17	17564		M
327.8775	32:42	32:42	0	1.272	713670	75834	8	20	9479	1.59(1.32-1.78)	M
PCB-97 (C86)											M
325.8804	32:42	32:42	0	1.272	1133108	122947	7	17	17564		M
327.8775	32:42	32:42	0	1.272	713670	75834	8	20	9479	1.59(1.32-1.78)	M
PCB-109 (C86)											M
325.8804	32:42	32:42	0	1.272	1133108	122947	7	17	17564		M
327.8775	32:42	32:42	0	1.272	713670	75834	8	20	9479	1.59(1.32-1.78)	M
PCB-119 (C86)											M
325.8804	32:42	32:42	0	1.272	1133108	122947	7	17	17564		M
327.8775	32:42	32:42	0	1.272	713670	75834	8	20	9479	1.59(1.32-1.78)	M
PCB-125 (C86)											M
325.8804	32:42	32:42	0	1.272	1133108	122947	7	17	17564		M
327.8775	32:42	32:42	0	1.272	713670	75834	8	20	9479	1.59(1.32-1.78)	M
PCB-85											M
325.8804	33:26	33:25	1	1.301	572951	68989	7	17	9856		M
327.8775	33:25	33:25	0	1.300	365388	44101	8	20	5513	1.57(1.32-1.78)	M
PCB-116 (C85)											M
325.8804	33:26	33:25	1	1.301	572951	68989	7	17	9856		M
327.8775	33:25	33:25	0	1.300	365388	44101	8	20	5513	1.57(1.32-1.78)	M
PCB-117 (C85)											M
325.8804	33:26	33:25	1	1.301	572951	68989	7	17	9856		M
327.8775	33:25	33:25	0	1.300	365388	44101	8	20	5513	1.57(1.32-1.78)	M
PCB-110											M
325.8804	33:38	33:37	1	1.308	450836	56423	7	17	8060		M
327.8775	33:37	33:37	0	1.308	283256	35316	8	20	4415	1.59(1.32-1.78)	M
PCB-115 (C110)											M
325.8804	33:38	33:37	1	1.308	450836	56423	7	17	8060		M
327.8775	33:37	33:37	0	1.308	283256	35316	8	20	4415	1.59(1.32-1.78)	M
PCB-82											
325.8804	33:56	33:55	1	1.320	154740	30208	7	17	4315		
327.8775	33:56	33:55	1	1.320	102893	18521	8	20	2315	1.50(1.32-1.78)	
PCB-111											
325.8804	34:20	34:19	1	1.335	231300	43572	7	17	6225		
327.8775	34:20	34:19	1	1.335	135627	27334	8	20	3417	1.71(1.32-1.78)	
PCB-120											
325.8804	34:48	34:47	1	1.353	277232	56635	7	17	8091		
327.8775	34:47	34:47	0	1.353	169266	31899	8	20	3987	1.64(1.32-1.78)	
PCB-108											
325.8804	35:56	35:55	1	1.397	633210	120591	457	1142	264		
327.8775	35:56	35:55	1	1.397	400852	82829	489	1222	169	1.58(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-124 (C108)											
325.8804	35:56	35:55	1	1.397	633210	120591	457	1142	264		
327.8775	35:56	35:55	1	1.397	400852	82829	489	1222	169	1.58(1.32-1.78)	
PCB-107											
325.8804	36:11	36:09	1	1.407	347753	64872	457	1142	142		
327.8775	36:11	36:09	1	1.407	228528	39698	489	1222	81	1.52(1.32-1.78)	
PCB-123											
325.8804	36:17	36:16	1	1.001	269548	57290	457	1142	125		
327.8775	36:17	36:16	1	1.001	175101	38086	489	1222	78	1.54(1.32-1.78)	
PCB-106											
325.8804	36:24	36:23	1	1.004	301102	59410	457	1142	130		
327.8775	36:24	36:23	1	1.004	200370	37243	489	1222	76	1.50(1.32-1.78)	
PCB-118											
325.8804	36:37	36:36	1	1.001	354441	65239	457	1142	143		
327.8775	36:37	36:36	1	1.001	225168	40733	489	1222	83	1.57(1.32-1.78)	
PCB-122											
325.8804	36:57	36:56	1	1.010	248046	48486	457	1142	106		
327.8775	36:58	36:56	1	1.010	168706	33212	489	1222	68	1.47(1.32-1.78)	
PCB-114											
325.8804	37:08	37:08	1	1.001	292014	54549	457	1142	119		
327.8775	37:08	37:08	1	1.001	204681	36808	489	1222	75	1.43(1.32-1.78)	
PCB-105											
325.8804	37:47	37:46	1	1.001	313087	53355	457	1142	117		M
327.8775	37:47	37:46	1	1.001	200314	35951	489	1222	74	1.56(1.32-1.78)	M
PCB-127											
325.8804	39:15	39:15	1	1.040	305265	60531	457	1142	132		M
327.8775	39:16	39:15	1	1.040	200669	36418	489	1222	74	1.52(1.32-1.78)	M
PCB-126											
325.8804	40:51	40:52	0	1.000	294816	50918	457	1142	111		
327.8775	40:52	40:52	1	1.001	188423	29809	489	1222	61	1.56(1.32-1.78)	
PCB-155L											
371.8817	31:23	31:23	0	0.790	3191945	653123	101	252	6467		
373.8788	31:23	31:23	0	0.790	2516693	521851	55	137	9488	1.27(1.05-1.43)	
PCB-153L											
371.8817	38:28	38:27	1	0.901	249993	46907	3297	8242	14		
373.8788	38:29	38:27	1	0.901	194763	37560	246	615	153	1.28(1.05-1.43)	
PCB-138L											
371.8817	39:43	39:41	1		3594734	673228	3297	8242	204		
373.8788	39:43	39:41	1		2836869	542464	246	615	2205	1.27(1.05-1.43)	
PCB-159L											
371.8817	41:57	41:56	1	0.982	4130110	775457	3297	8242	235		
373.8788	41:57	41:56	1	0.982	3171044	598343	246	615	2432	1.30(0.00-0.00)	
PCB-167L											
371.8817	42:43	42:42	1	1.076	4598262	869516	3297	8242	264		
373.8788	42:43	42:42	1	1.076	3552121	672708	246	615	2735	1.29(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-156L											
371.8817	43:52	43:51	1	1.105	8996966	1204979	3297	8242	365		
373.8788	43:52	43:51	1	1.105	6997869	939579	246	615	3819	1.29(1.05-1.43)	
PCB-157L (C156L)											
371.8817	43:52	43:51	1	1.105	8996966	1204979	3297	8242	365		
373.8788	43:52	43:51	1	1.105	6997869	939579	246	615	3819	1.29(1.05-1.43)	
PCB-169L											
371.8817	47:06	47:05	1	1.186	4415953	782684	3297	8242	237		
373.8788	47:06	47:05	1	1.186	3428332	614023	246	615	2496	1.29(1.05-1.43)	
PCB-155											
359.8415	31:25	31:25	0	1.001	146365	30837	19	47	1623		
361.8385	31:25	31:25	0	1.001	123487	25890	7	17	3699	1.19(1.05-1.43)	
PCB-152											
359.8415	31:37	31:36	2	1.007	155611	29885	19	47	1573		
361.8385	31:37	31:36	1	1.007	124834	25329	7	17	3618	1.25(1.05-1.43)	
PCB-150											
359.8415	31:47	31:46	1	1.013	159363	32797	19	47	1726		
361.8385	31:47	31:46	1	1.013	133526	28760	7	17	4109	1.19(1.05-1.43)	
PCB-136											
359.8415	32:09	32:08	1	1.024	156399	31550	19	47	1661		
361.8385	32:08	32:08	0	1.024	114399	22324	7	17	3189	1.37(1.05-1.43)	
PCB-145											
359.8415	32:26	32:25	1	1.033	158361	28358	19	47	1493		
361.8385	32:26	32:25	1	1.033	116672	23514	7	17	3359	1.36(1.05-1.43)	
PCB-148											
359.8415	33:58	33:57	1	1.082	124180	24345	19	47	1281		
361.8385	33:57	33:57	0	1.082	90881	18932	7	17	2705	1.37(1.05-1.43)	
PCB-135											
359.8415	34:35	34:32	3	1.101	230863	27281	19	47	1436		
361.8385	34:36	34:32	4	1.102	172339	20433	7	17	2919	1.34(1.05-1.43)	
PCB-151 (C135)											
359.8415	34:35	34:32	3	1.101	230863	27281	19	47	1436		
361.8385	34:36	34:32	4	1.102	172339	20433	7	17	2919	1.34(1.05-1.43)	
PCB-154											
359.8415	34:48	34:47	0	1.108	129876	24249	19	47	1276		
361.8385	34:48	34:47	1	1.109	98346	19667	7	17	2810	1.32(1.05-1.43)	
PCB-144											
359.8415	35:06	35:06	0	1.118	122737	25173	19	47	1325		
361.8385	35:06	35:06	0	1.118	94988	20050	7	17	2864	1.29(1.05-1.43)	
PCB-147											
359.8415	35:28	35:27	1	1.130	381464	74872	121	302	619		
361.8385	35:28	35:27	1	1.130	293688	56956	163	407	349	1.30(1.05-1.43)	
PCB-149 (C147)											
359.8415	35:28	35:27	1	1.130	381464	74872	121	302	619		
361.8385	35:28	35:27	1	1.130	293688	56956	163	407	349	1.30(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-134											
359.8415	35:46	35:45	1	1.139	353767	37506	121	302	310		
361.8385	35:46	35:45	1	1.139	286849	28767	163	407	176	1.23(1.05-1.43)	
PCB-143 (C134)											
359.8415	35:46	35:45	1	1.139	353767	37506	121	302	310		
361.8385	35:46	35:45	1	1.139	286849	28767	163	407	176	1.23(1.05-1.43)	
PCB-139											
359.8415	36:03	36:04	0	1.149	374008	66042	121	302	546		
361.8385	36:03	36:04	0	1.149	299520	54635	163	407	335	1.25(1.05-1.43)	
PCB-140 (C139)											
359.8415	36:03	36:04	0	1.149	374008	66042	121	302	546		
361.8385	36:03	36:04	0	1.149	299520	54635	163	407	335	1.25(1.05-1.43)	
PCB-131											
359.8415	36:15	36:15	0	1.155	167426	32344	121	302	267		
361.8385	36:15	36:15	0	1.155	122239	24629	163	407	151	1.37(1.05-1.43)	
PCB-142											
359.8415	36:24	36:24	0	1.160	160770	32238	121	302	266		
361.8385	36:24	36:24	0	1.160	140396	27366	163	407	168	1.15(1.05-1.43)	
PCB-132											
359.8415	36:45	36:43	1	1.171	168533	30042	121	302	248		
361.8385	36:44	36:43	1	1.170	132045	26582	163	407	163	1.28(1.05-1.43)	
PCB-133											
359.8415	37:14	37:14	0	1.186	181369	34481	121	302	285		
361.8385	37:14	37:14	1	1.186	146764	27536	163	407	169	1.24(1.05-1.43)	
PCB-165											
359.8415	37:37	37:37	1	0.881	230109	43848	121	302	362		
361.8385	37:37	37:37	1	0.881	178310	35310	163	407	217	1.29(1.05-1.43)	
PCB-146											
359.8415	37:52	37:52	0	0.887	208795	44241	121	302	366		
361.8385	37:52	37:52	0	0.887	169864	33969	163	407	208	1.23(1.05-1.43)	
PCB-161											
359.8415	38:01	38:00	1	0.890	245903	49523	121	302	409		
361.8385	38:00	38:00	1	0.890	192907	36042	163	407	221	1.27(1.05-1.43)	
PCB-153											
359.8415	38:31	38:30	1	0.902	500662	70429	121	302	582		
361.8385	38:31	38:30	1	0.902	392845	56970	163	407	350	1.27(1.05-1.43)	
PCB-168 (C153)											
359.8415	38:31	38:30	1	0.902	500662	70429	121	302	582		
361.8385	38:31	38:30	1	0.902	392845	56970	163	407	350	1.27(1.05-1.43)	
PCB-141											
359.8415	38:41	38:41	1	0.906	191260	36313	121	302	300		
361.8385	38:41	38:41	1	0.906	147202	27486	163	407	169	1.30(1.05-1.43)	
PCB-130											
359.8415	39:06	39:05	1	0.915	159580	30854	121	302	255		
361.8385	39:05	39:05	0	0.915	119653	24028	163	407	147	1.33(1.05-1.43)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-137											
359.8415	39:18	39:18	1	0.920	178439	33642	121	302	278		
361.8385	39:19	39:18	1	0.921	140011	24900	163	407	153	1.27(1.05-1.43)	
PCB-164											
359.8415	39:26	39:26	1	0.923	225567	43573	121	302	360		
361.8385	39:25	39:26	0	0.923	175238	35230	163	407	216	1.29(1.05-1.43)	
PCB-129											
359.8415	39:44	39:44	1	0.930	820981	94717	121	302	783		M
361.8385	39:45	39:44	1	0.931	652288	70975	163	407	435	1.26(1.05-1.43)	M
PCB-138 (C129)											
359.8415	39:44	39:44	1	0.930	820981	94717	121	302	783		M
361.8385	39:45	39:44	1	0.931	652288	70975	163	407	435	1.26(1.05-1.43)	M
PCB-160 (C129)											
359.8415	39:44	39:44	1	0.930	820981	94717	121	302	783		M
361.8385	39:45	39:44	1	0.931	652288	70975	163	407	435	1.26(1.05-1.43)	M
PCB-163 (C129)											
359.8415	39:44	39:44	1	0.930	820981	94717	121	302	783		M
361.8385	39:45	39:44	1	0.931	652288	70975	163	407	435	1.26(1.05-1.43)	M
PCB-158											
359.8415	40:07	40:07	1	0.939	279147	50086	121	302	414		
361.8385	40:08	40:07	1	0.940	230815	41052	163	407	252	1.21(1.05-1.43)	
PCB-128											
359.8415	40:58	40:57	1	0.959	407125	61166	121	302	506		
361.8385	40:59	40:57	1	0.959	340783	47990	163	407	294	1.19(1.05-1.43)	
PCB-166 (C128)											
359.8415	40:58	40:57	1	0.959	407125	61166	121	302	506		
361.8385	40:59	40:57	1	0.959	340783	47990	163	407	294	1.19(1.05-1.43)	
PCB-159											
359.8415	41:59	41:58	1	0.983	313916	56405	121	302	466		
361.8385	41:58	41:58	0	0.982	244148	44216	163	407	271	1.29(1.05-1.43)	
PCB-162											
359.8415	42:16	42:15	1	0.990	282117	47612	121	302	393		
361.8385	42:16	42:15	1	0.990	231552	42164	163	407	259	1.22(1.05-1.43)	
PCB-167											
359.8415	42:44	42:44	1	1.001	258895	46328	121	302	383		
361.8385	42:44	42:44	1	1.001	206072	36518	163	407	224	1.26(1.05-1.43)	
PCB-156											
359.8415	43:54	43:53	1	1.001	497271	68641	121	302	567		
361.8385	43:54	43:53	1	1.001	389200	53441	163	407	328	1.28(1.05-1.43)	
PCB-157 (C156)											
359.8415	43:54	43:53	1	1.001	497271	68641	121	302	567		
361.8385	43:54	43:53	1	1.001	389200	53441	163	407	328	1.28(1.05-1.43)	
PCB-169											
359.8415	47:07	47:06	1	1.000	245688	38852	121	302	321		
361.8385	47:08	47:06	1	1.001	207250	34606	163	407	212	1.19(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-188L											
405.8428	37:07	37:07	0	0.820	3447773	664072	119	297	5580		
407.8398	37:07	37:07	0	0.820	3216264	618371	47	117	13157	1.07(0.89-1.21)	
PCB-178L											
405.8428	40:10	40:10	0	0.887	152992	29193	119	297	245		
407.8398	40:11	40:10	1	0.888	137787	24843	47	117	529	1.11(0.89-1.21)	
PCB-180L											
405.8428	45:16	45:15	1		2568451	479811	119	297	4032		
407.8398	45:16	45:15	1		2451547	473161	47	117	10067	1.05(0.89-1.21)	
PCB-170L											
405.8428	46:31	46:30	1	1.028	2246991	415071	119	297	3488		
407.8398	46:31	46:30	1	1.028	2110843	394734	47	117	8399	1.06(0.89-1.21)	
PCB-189L											
405.8428	49:38	49:37	1	1.096	5256701	939463	2325	5812	404		
407.8398	49:38	49:37	1	1.096	4979067	891104	1882	4705	473	1.06(0.89-1.21)	
PCB-188											
393.8025	37:08	37:08	0	1.001	202957	39936	1	2	39936		
395.7995	37:08	37:08	0	1.001	176918	34955	1	2	34955	1.15(0.89-1.21)	
PCB-179											
393.8025	37:28	37:28	0	1.010	202144	37551	1	2	37551		
395.7995	37:29	37:28	1	1.010	179599	34060	1	2	34060	1.13(0.89-1.21)	
PCB-184											
393.8025	38:00	38:00	1	1.024	191423	36695	1	2	36695		
395.7995	38:00	38:00	1	1.024	179025	35487	1	2	35487	1.07(0.89-1.21)	
PCB-176											
393.8025	38:22	38:21	1	1.034	169137	31683	1	2	31683		
395.7995	38:22	38:21	1	1.034	162714	30208	1	2	30208	1.04(0.89-1.21)	
PCB-186											
393.8025	38:48	38:48	1	1.046	199536	38220	1	2	38220		
395.7995	38:48	38:48	1	1.046	194846	39879	1	2	39879	1.02(0.89-1.21)	
PCB-178											
393.8025	40:11	40:11	0	1.083	122987	24074	1	2	24074		
395.7995	40:12	40:11	1	1.083	123642	23892	1	2	23892	0.99(0.89-1.21)	
PCB-175											
393.8025	40:49	40:49	0	1.100	131749	25500	1	2	25500		
395.7995	40:50	40:49	1	1.100	114438	23444	1	2	23444	1.15(0.89-1.21)	
PCB-187											
393.8025	41:06	41:05	1	1.107	149004	27678	1	2	27678		
395.7995	41:06	41:05	1	1.108	147373	24964	1	2	24964	1.01(0.89-1.21)	
PCB-182											
393.8025	41:18	41:18	1	1.113	137354	24767	1	2	24767		
395.7995	41:18	41:18	1	1.113	125655	23124	1	2	23124	1.09(0.89-1.21)	
PCB-183											
393.8025	41:42	41:42	0	1.124	261270	27747	1	2	27747		M
395.7995	41:42	41:42	0	1.124	244261	26436	1	2	26436	1.07(0.89-1.21)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-185 (C183)											M
393.8025	41:42	41:42	0	1.124	261270	27747	1	2	27747		
395.7995	41:42	41:42	0	1.124	244261	26436	1	2	26436	1.07(0.89-1.21)	M
PCB-174											
393.8025	41:57	41:56	1	1.130	133000	23832	1	2	23832		
395.7995	41:57	41:56	1	1.130	125926	23720	1	2	23720	1.06(0.89-1.21)	
PCB-177											
393.8025	42:23	42:22	1	1.142	137500	23996	1	2	23996		
395.7995	42:23	42:22	1	1.142	127589	22906	1	2	22906	1.08(0.89-1.21)	
PCB-181											
393.8025	42:47	42:45	1	1.153	124663	21505	1	2	21505		
395.7995	42:46	42:45	1	1.152	118426	24242	1	2	24242	1.05(0.89-1.21)	
PCB-171											
393.8025	43:00	42:59	1	1.159	237291	39486	1	2	39486		
395.7995	43:00	42:59	1	1.159	228342	36877	1	2	36877	1.04(0.89-1.21)	
PCB-173 (C171)											
393.8025	43:00	42:59	1	1.159	237291	39486	1	2	39486		
395.7995	43:00	42:59	1	1.159	228342	36877	1	2	36877	1.04(0.89-1.21)	
PCB-172											
393.8025	44:38	44:37	1	0.899	121992	23675	1	2	23675		
395.7995	44:38	44:37	1	0.899	103874	19415	1	2	19415	1.17(0.89-1.21)	
PCB-192											
393.8025	44:54	44:54	1	0.905	186600	36146	1	2	36146		
395.7995	44:54	44:54	1	0.905	179581	36080	1	2	36080	1.04(0.89-1.21)	
PCB-180											
393.8025	45:16	45:14	1	0.912	318982	42811	1	2	42811		
395.7995	45:15	45:14	1	0.912	307645	41260	1	2	41260	1.04(0.89-1.21)	
PCB-193 (C180)											
393.8025	45:16	45:14	1	0.912	318982	42811	1	2	42811		
395.7995	45:15	45:14	1	0.912	307645	41260	1	2	41260	1.04(0.89-1.21)	
PCB-191											
393.8025	45:39	45:37	1	0.920	179746	34821	1	2	34821		
395.7995	45:39	45:37	1	0.920	168660	29422	1	2	29422	1.07(0.89-1.21)	
PCB-170											
393.8025	46:32	46:32	1	0.938	126748	23322	1	2	23322		
395.7995	46:32	46:32	1	0.938	128475	25370	1	2	25370	0.99(0.89-1.21)	
PCB-190											M
393.8025	47:03	47:02	1	0.948	175590	31319	1	2	31319		M
395.7995	47:03	47:02	1	0.948	189120	35074	1	2	35074	0.93(0.89-1.21)	
PCB-189											
393.8025	49:39	49:38	1	1.001	249756	43600	171	427	255		
395.7995	49:39	49:38	1	1.001	243423	44158	168	420	263	1.03(0.89-1.21)	
PCB-202L											
439.8038	42:29	42:28	1	0.821	2457625	465504	42	105	11083		
441.8008	42:29	42:28	1	0.821	2631952	501789	25	62	20072	0.93(0.76-1.02)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-194L											
439.8038	51:44	51:43	1		3403544	611705	258	645	2371		
441.8008	51:44	51:43	1		3762467	688622	178	445	3869	0.90(0.76-1.02)	
PCB-205L											
439.8038	52:13	52:11	1	1.009	4010000	709263	258	645	2749		
441.8008	52:12	52:11	1	1.009	4406261	783240	178	445	4400	0.91(0.76-1.02)	
PCB-202											
427.7635	42:31	42:29	1	1.001	124170	24684	1	2	24684		
429.7606	42:31	42:29	1	1.001	140298	26902	17	42	1582	0.89(0.76-1.02)	
PCB-201											
427.7635	43:25	43:25	1	1.022	118945	23475	1	2	23475		
429.7606	43:26	43:25	1	1.022	123249	23673	17	42	1393	0.97(0.76-1.02)	
PCB-204											
427.7635	44:06	44:05	1	1.038	121461	23572	1	2	23572		
429.7606	44:06	44:05	1	1.038	138222	26378	17	42	1552	0.88(0.76-1.02)	
PCB-197											
427.7635	44:21	44:19	1	1.044	128656	23432	1	2	23432		
429.7606	44:20	44:19	1	1.043	149488	28548	17	42	1679	0.86(0.76-1.02)	
PCB-200											
427.7635	44:26	44:25	1	1.046	128324	22713	1	2	22713		
429.7606	44:26	44:25	1	1.046	136366	25818	17	42	1519	0.94(0.76-1.02)	
PCB-198											
427.7635	47:13	47:12	1	1.111	200389	24926	1	2	24926		
429.7606	47:14	47:12	2	1.112	230004	28366	17	42	1669	0.87(0.76-1.02)	
PCB-199 (C198)											
427.7635	47:13	47:12	1	1.111	200389	24926	1	2	24926		
429.7606	47:14	47:12	2	1.112	230004	28366	17	42	1669	0.87(0.76-1.02)	
PCB-196											
427.7635	47:54	47:53	1	0.917	95919	19254	1	2	19254		
429.7606	47:54	47:53	1	0.918	103060	20974	17	42	1234	0.93(0.76-1.02)	
PCB-203											
427.7635	48:05	48:05	1	0.921	115314	21075	1	2	21075		
429.7606	48:05	48:05	1	0.921	120493	22479	17	42	1322	0.96(0.76-1.02)	
PCB-195											
427.7635	49:25	49:23	1	0.946	169023	30667	149	372	206		
429.7606	49:25	49:23	1	0.946	179227	32664	188	470	174	0.94(0.76-1.02)	
PCB-194											
427.7635	51:46	51:44	1	0.991	191844	37266	149	372	250		
429.7606	51:46	51:44	1	0.991	202393	36860	188	470	196	0.95(0.76-1.02)	
PCB-205											
427.7635	52:13	52:13	1	1.000	215128	37851	149	372	254		
429.7606	52:13	52:13	1	1.000	233118	42488	188	470	226	0.92(0.76-1.02)	
PCB-208L											
473.7648	49:10	49:09	1	0.950	3068462	547353	455	1137	1203		
475.7619	49:09	49:09	1	0.950	3791189	695937	495	1237	1406	0.81(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-206L											
473.7648	53:58	53:57	1	1.043	2249970	404384	455	1137	889		
475.7619	53:58	53:57	1	1.043	2774741	498983	495	1237	1008	0.81(0.65-0.89)	
PCB-208											
461.7246	49:11	49:10	1	1.001	176905	32074	246	615	130		M
463.7216	49:11	49:10	1	1.000	222670	41885	615	1537	68	0.79(0.65-0.89)	M
PCB-207											
461.7246	50:07	50:05	1	1.019	175538	32184	246	615	131		M
463.7216	50:06	50:05	1	1.019	223758	40880	615	1537	66	0.78(0.65-0.89)	M
PCB-206											
461.7246	53:59	53:58	1	1.000	137945	24931	246	615	101		M
463.7216	53:59	53:58	1	1.000	179481	33079	615	1537	54	0.77(0.65-0.89)	M
PCB-209L											
507.7258	55:35	55:34	1	1.074	2024411	339274	109	272	3113		
509.7229	55:35	55:34	1	1.074	2865340	487443	113	282	4314	0.71(0.59-0.79)	
DCB Decachlorobiphenyl											
495.6856	55:37	55:36	1	1.000	114777	18634	50	125	373		
497.6826	55:37	55:36	1	1.000	158569	25903	22	55	1177	0.72(0.59-0.79)	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61L21668P\_00006

Amount Added: 20.00

Units: uL

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

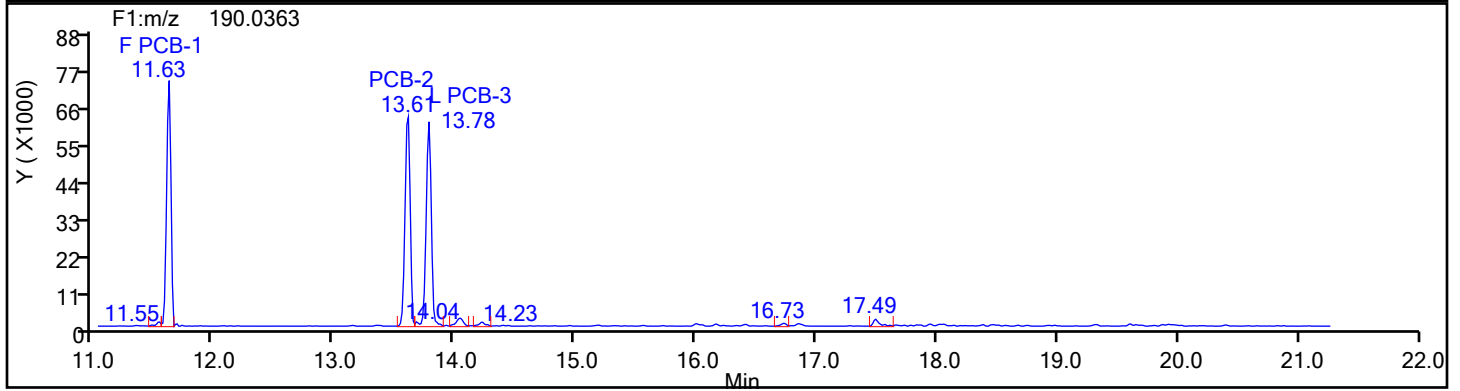
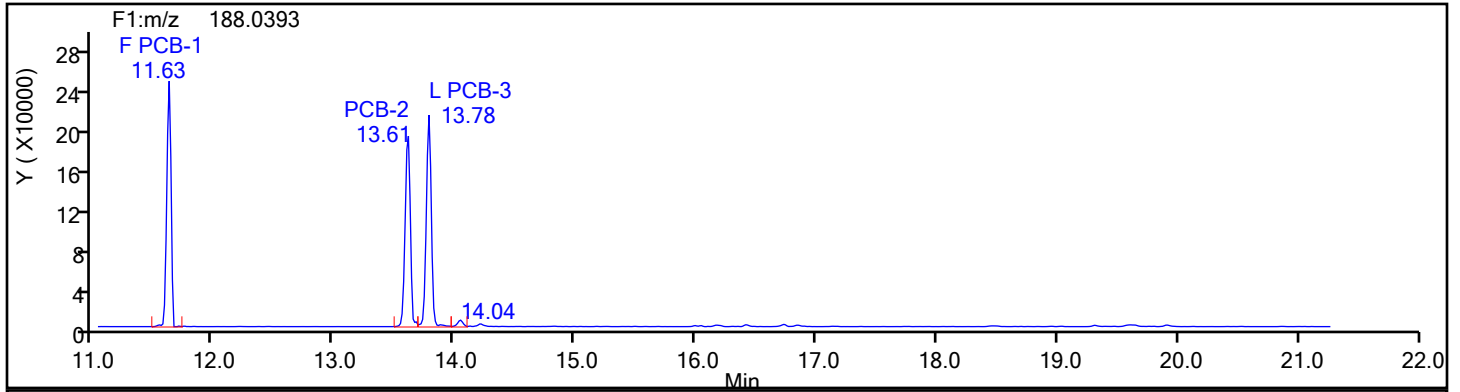
Worklist#: 87130

Sample Line#: 3

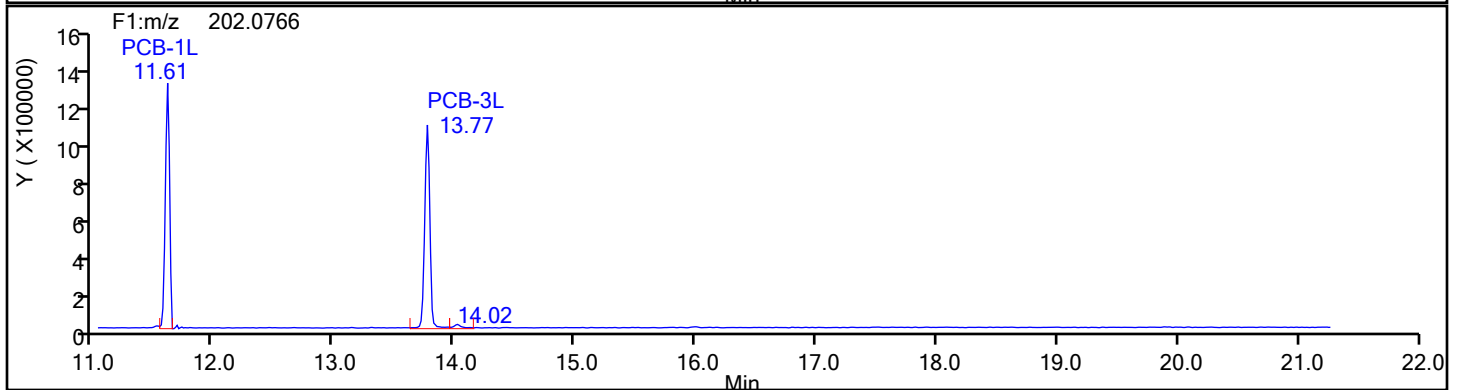
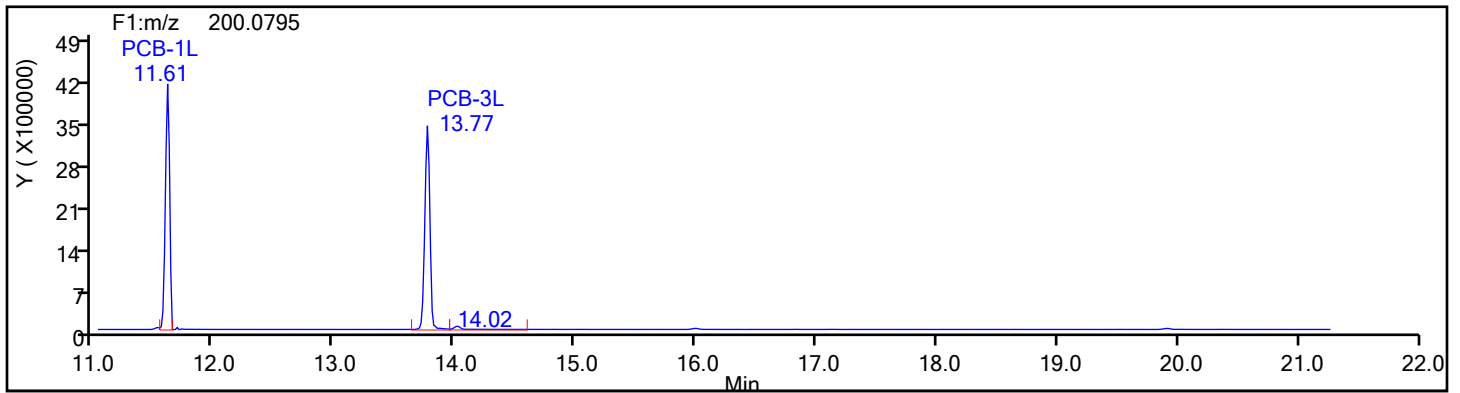
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

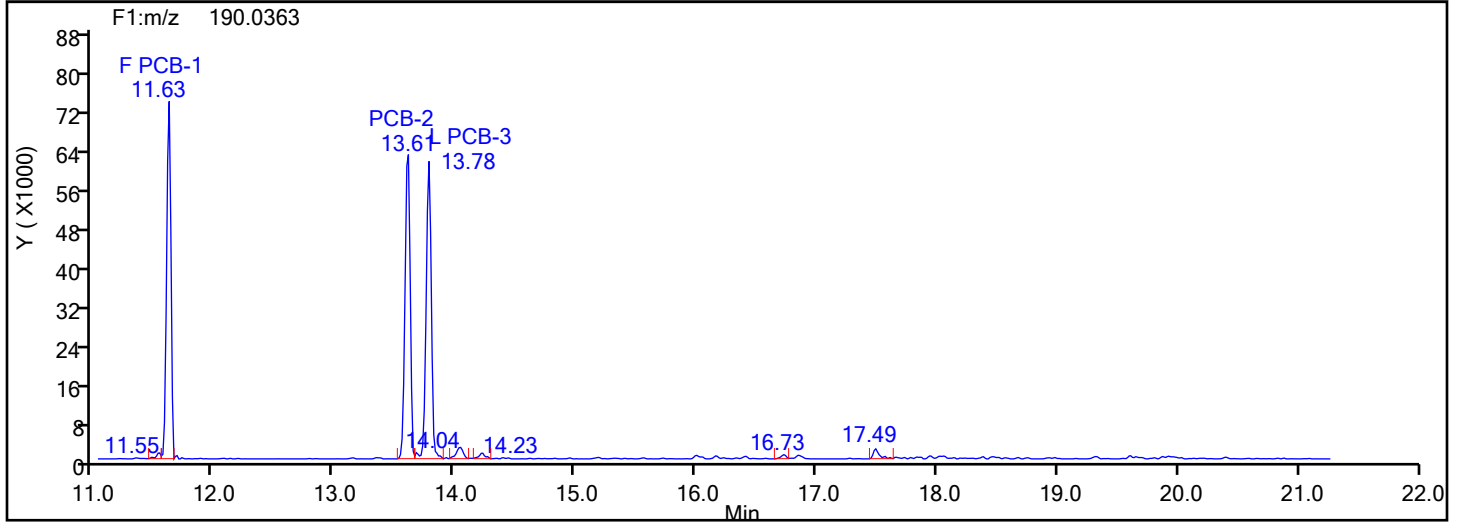
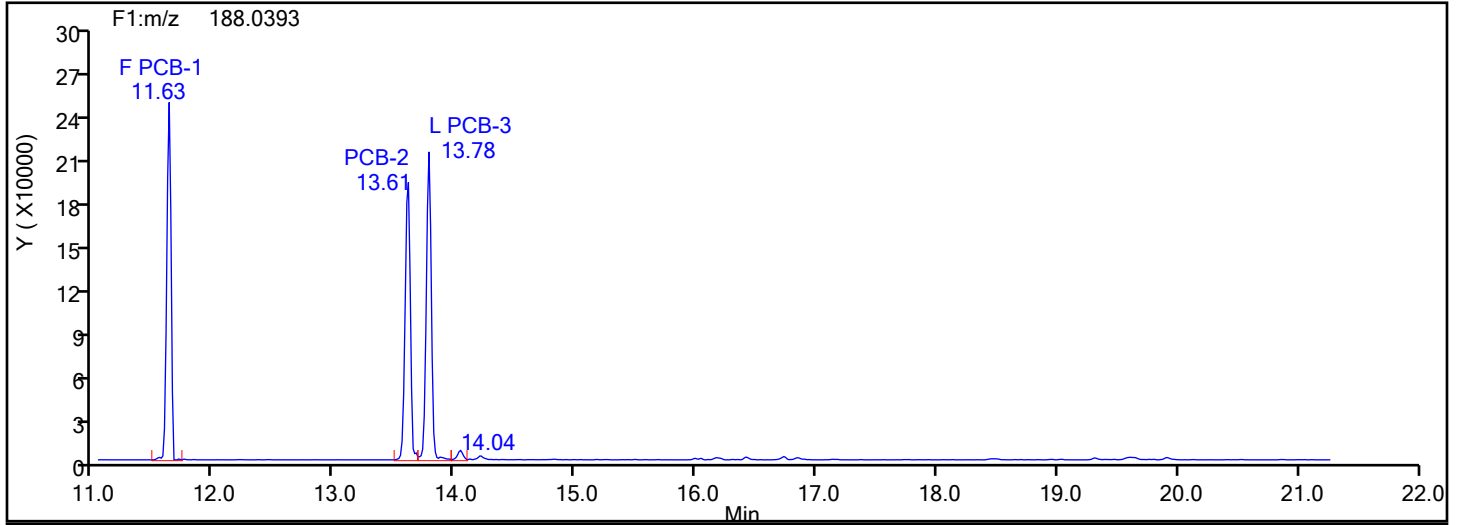
Worklist#: 87130

Sample Line#: 3

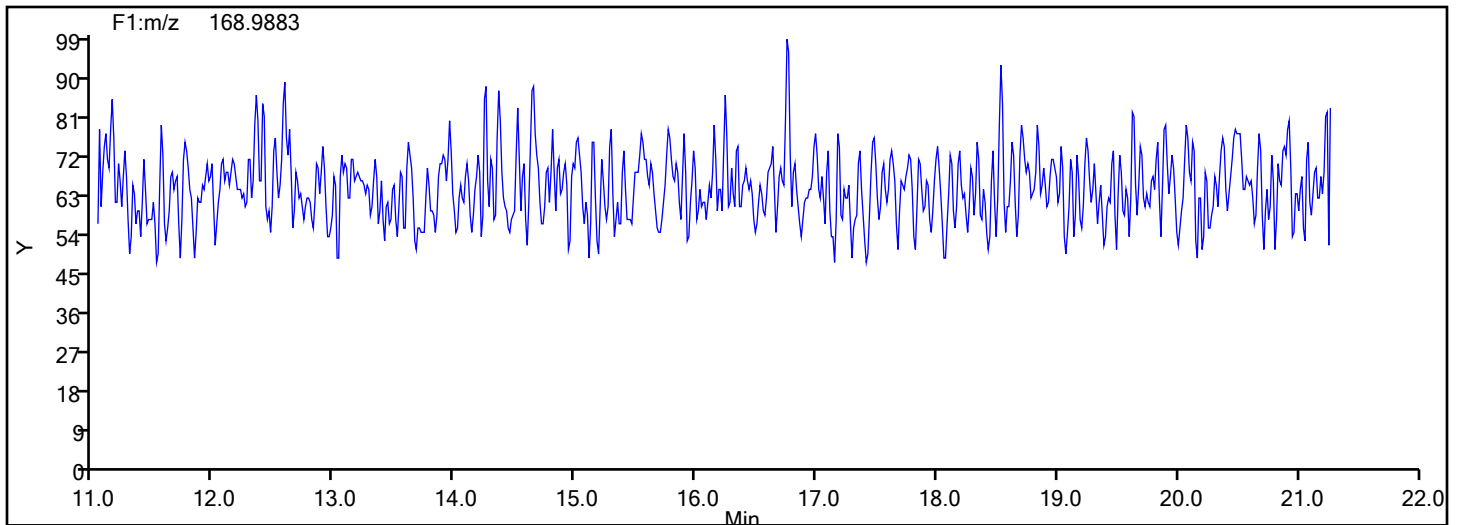
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

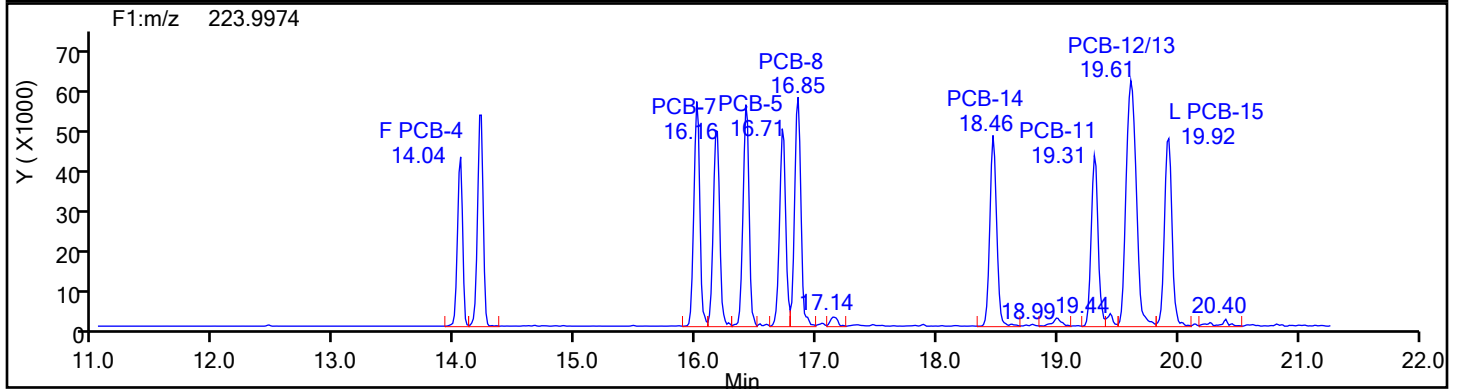
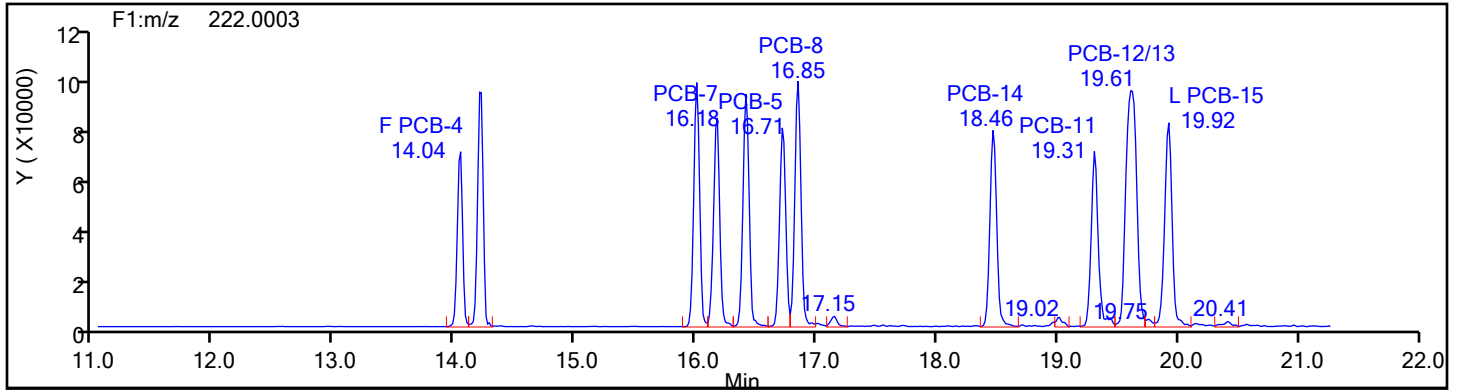
Worklist#: 87130

Sample Line#: 3

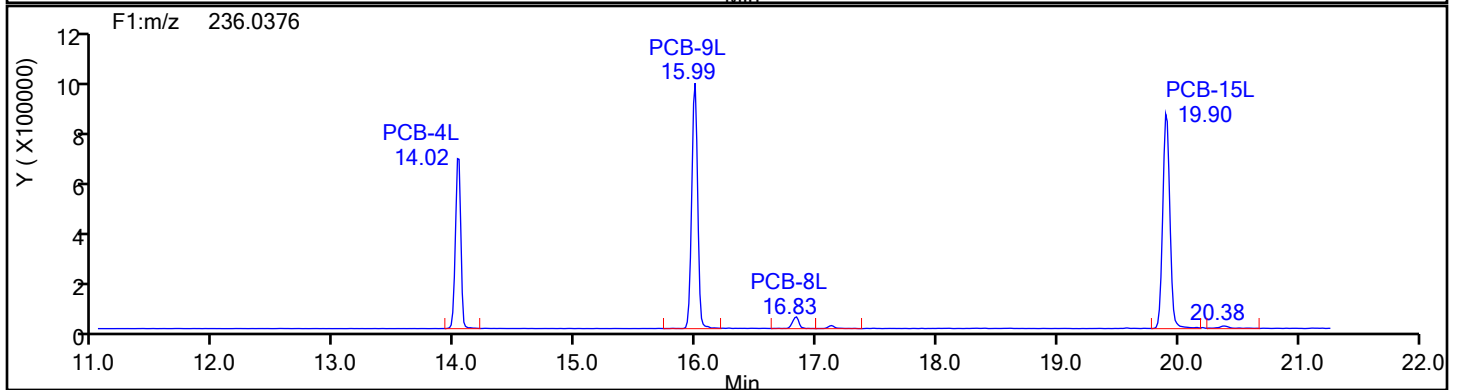
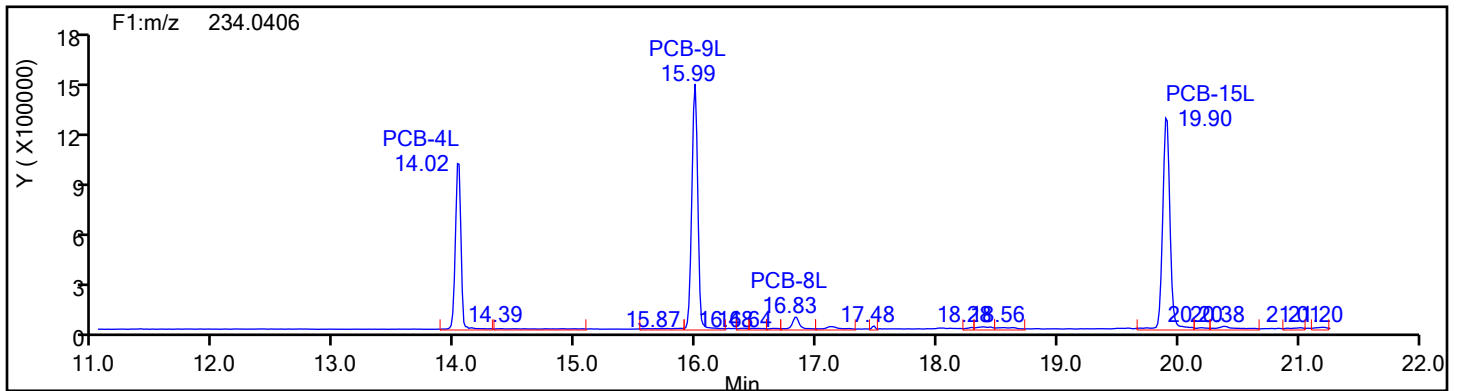
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

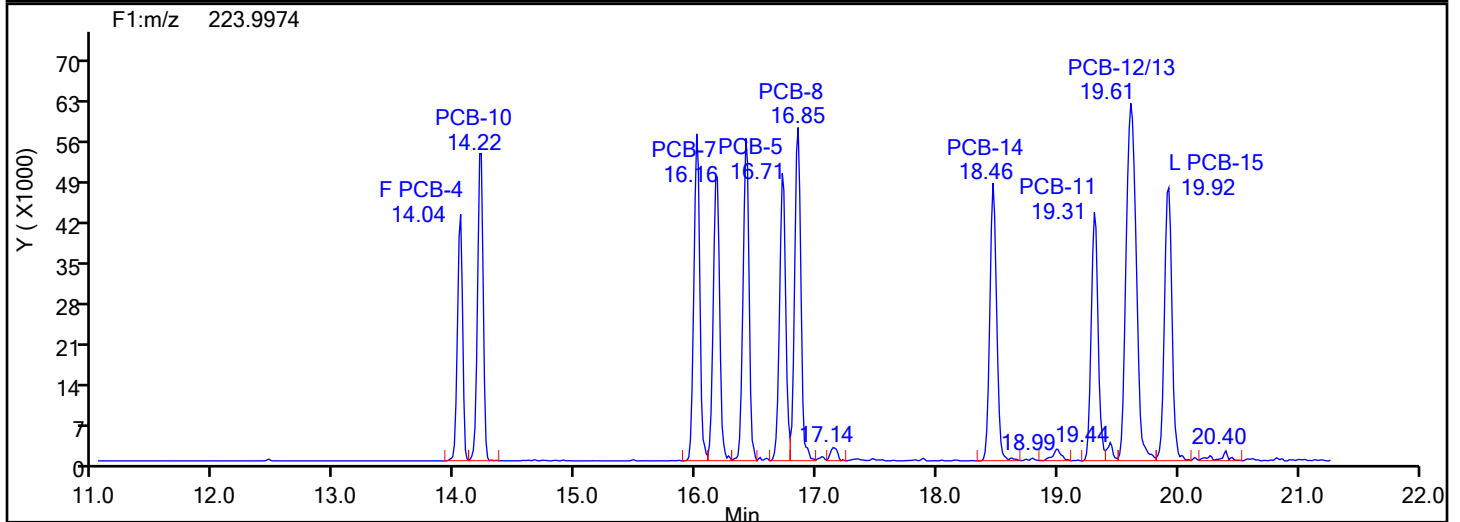
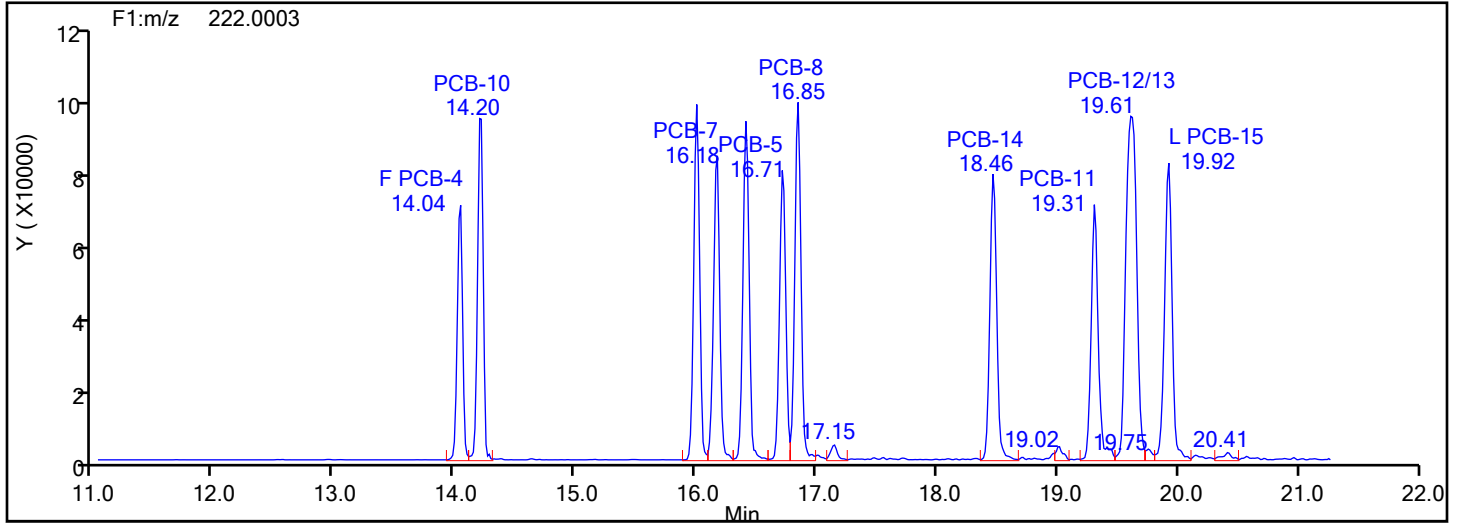
Worklist#: 87130

Sample Line#: 3

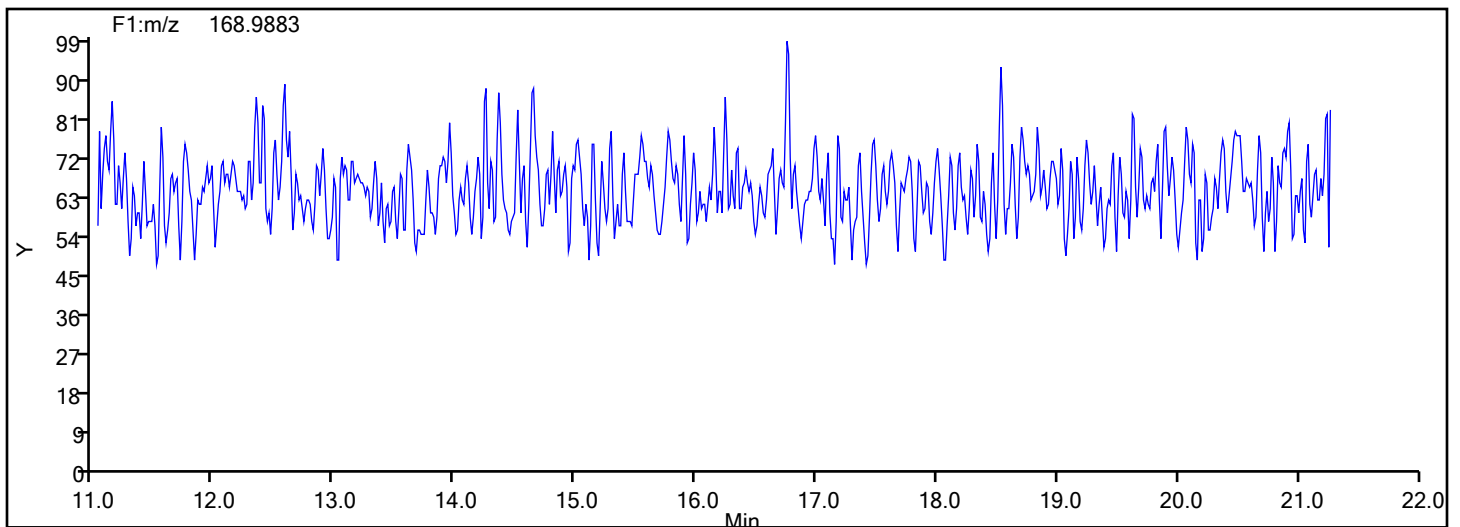
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

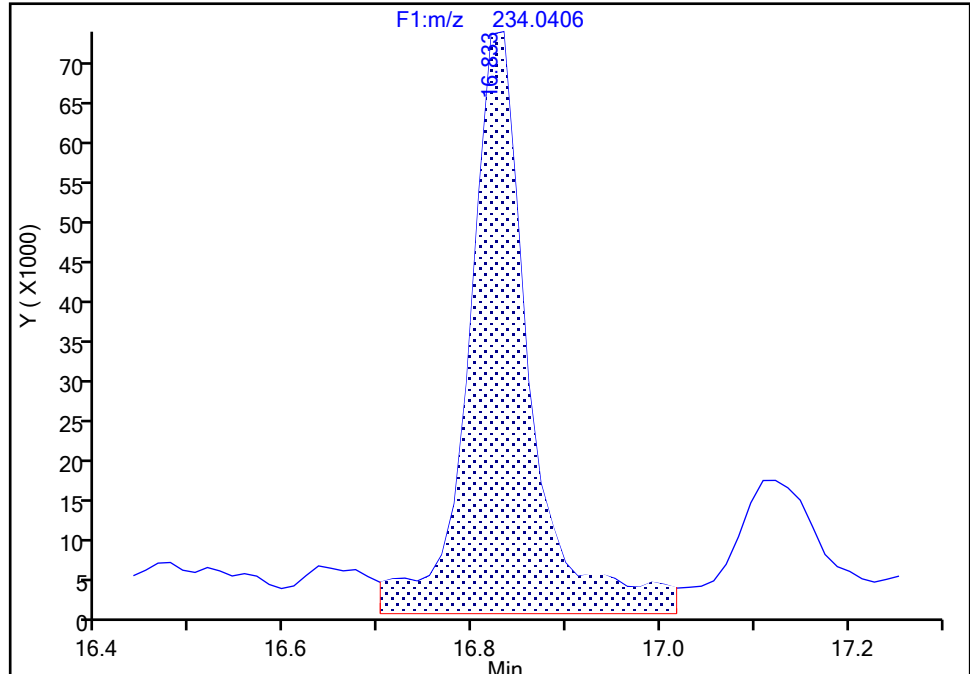
Detector F1(11.07 :21.70 )

**PCB-8L, CAS: STL01600**

Signal: 1

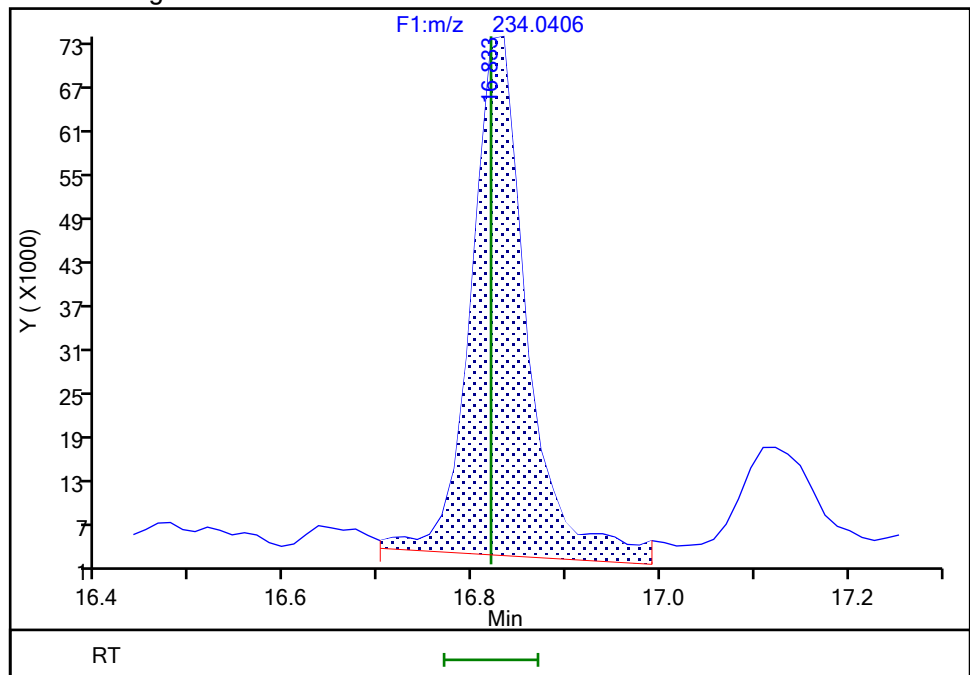
RT: 16.83  
Area: 333617  
Amount: 5.908651  
Amount Units: pg/ul

## Processing Integration Results



RT: 16.83  
Area: 293687  
Amount: 5.499787  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 31-May-2024 19:08:12 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

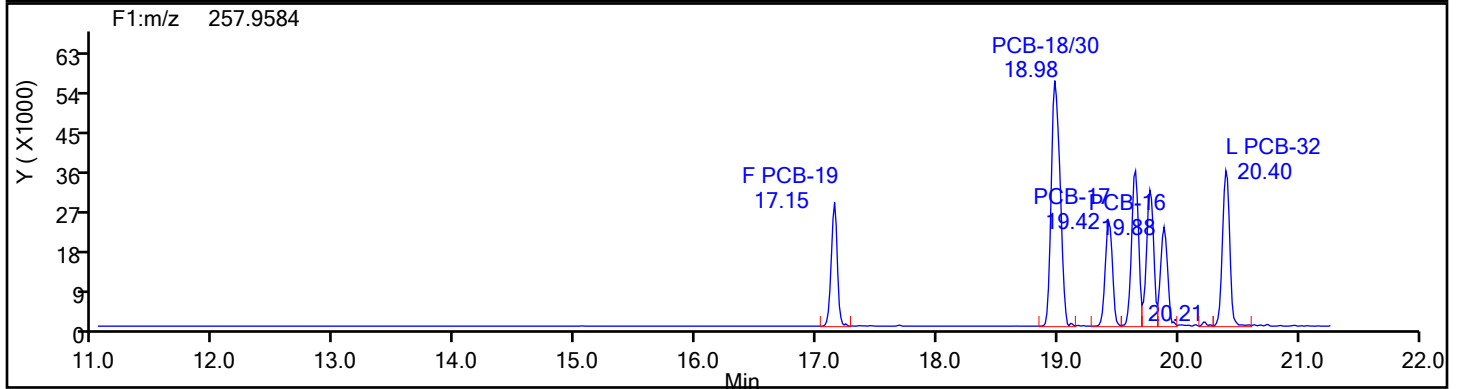
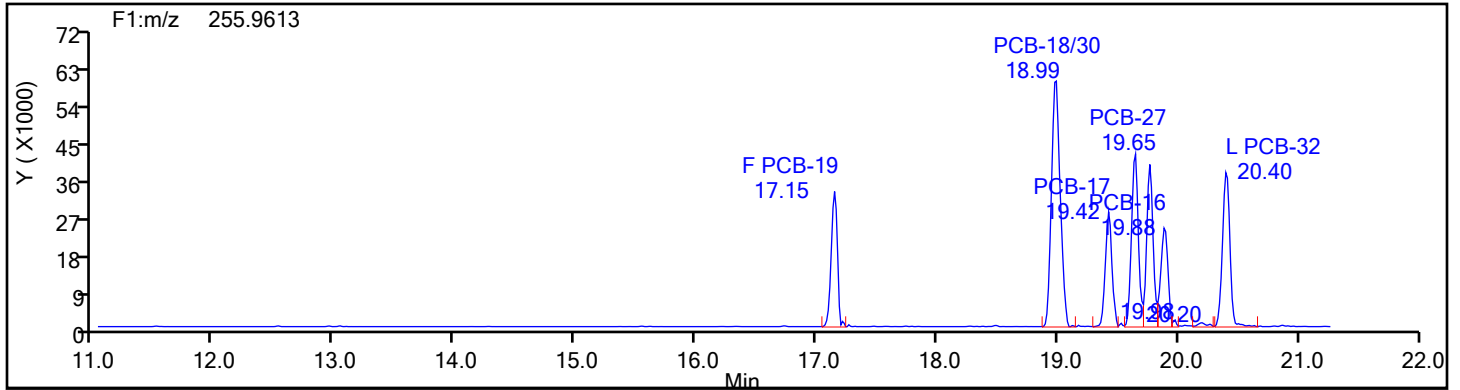
Worklist#: 87130

Sample Line#: 3

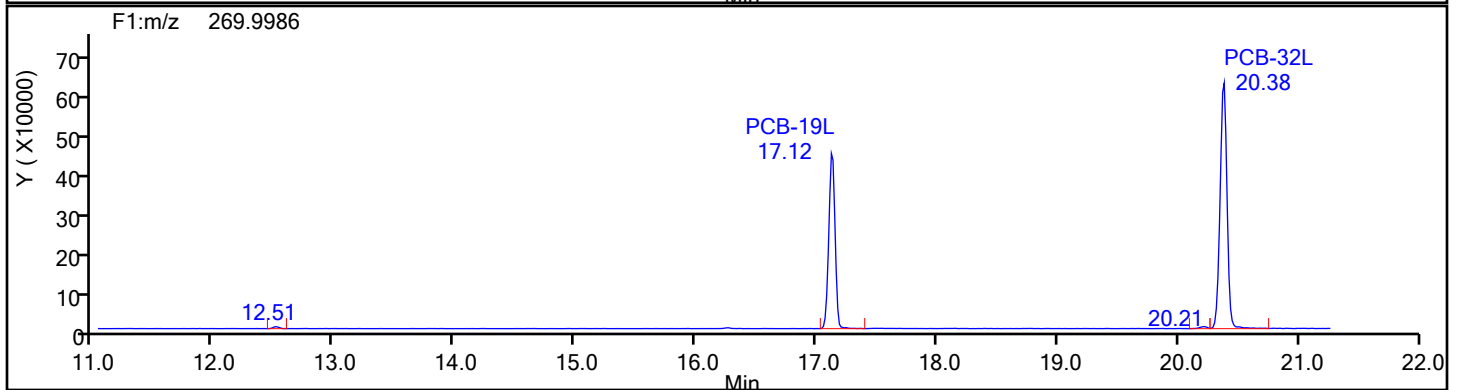
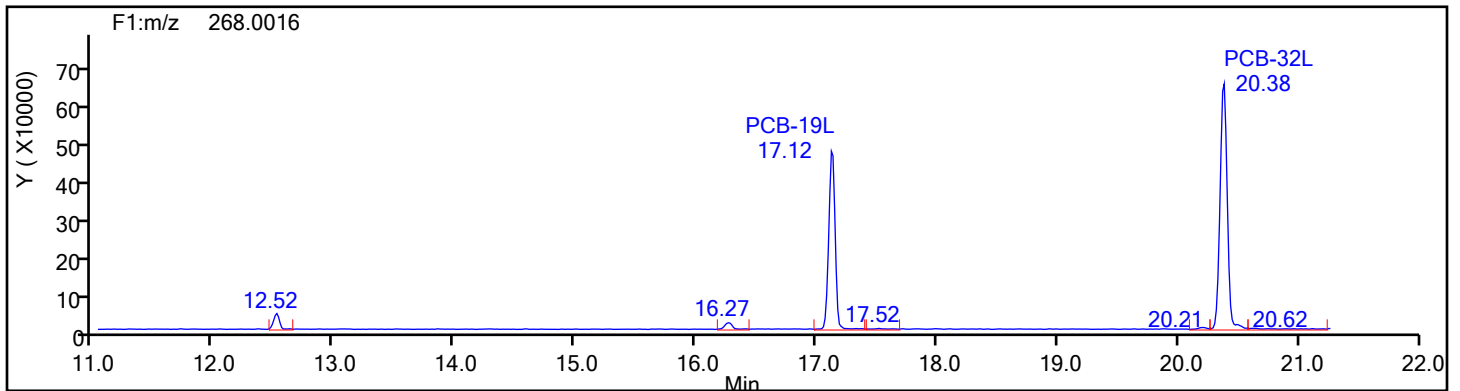
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

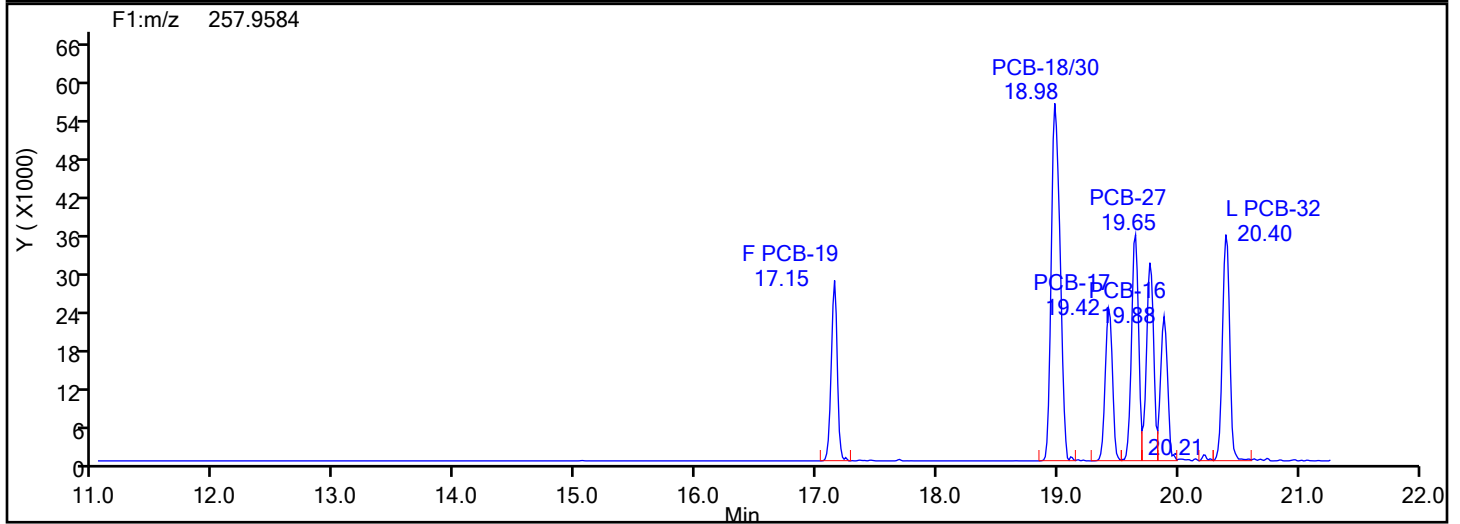
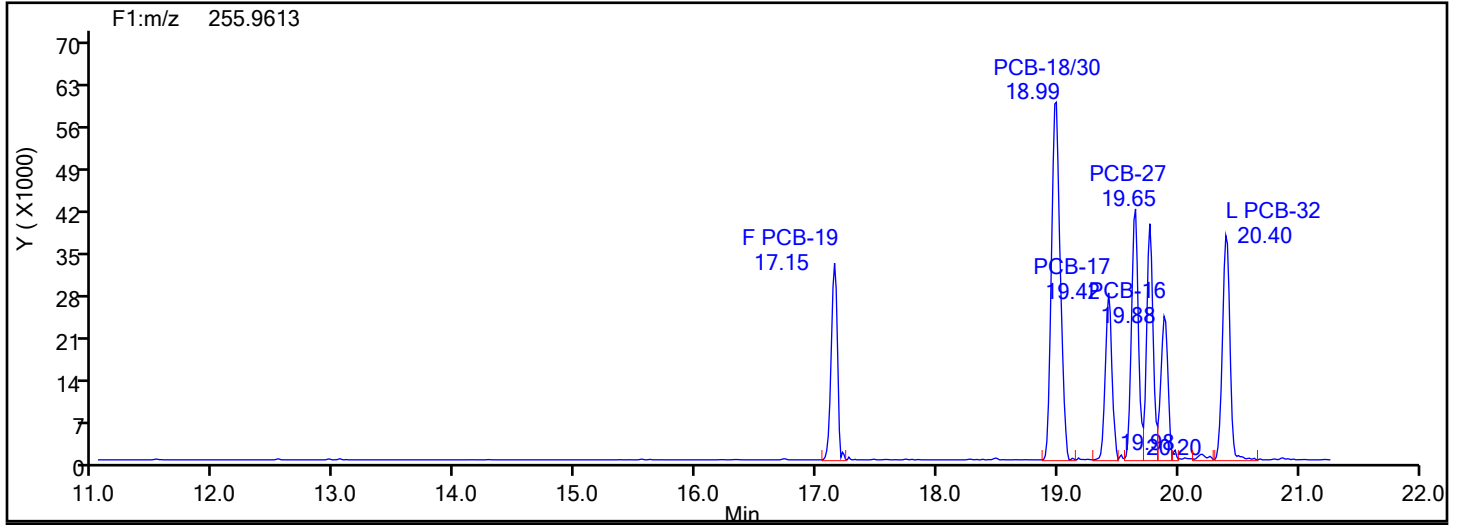
Worklist#: 87130

Sample Line#: 3

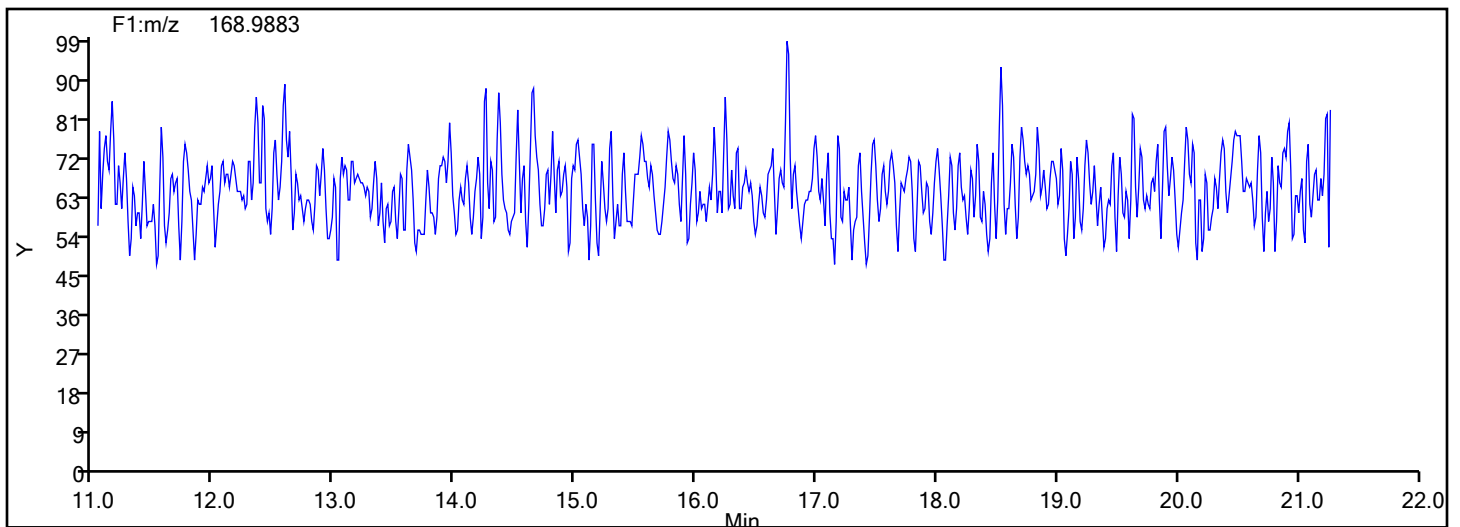
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

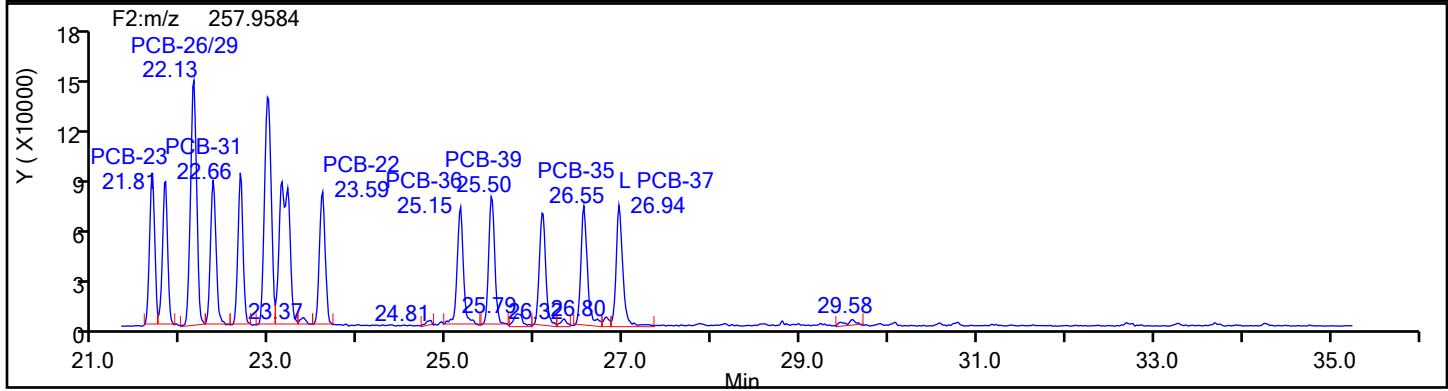
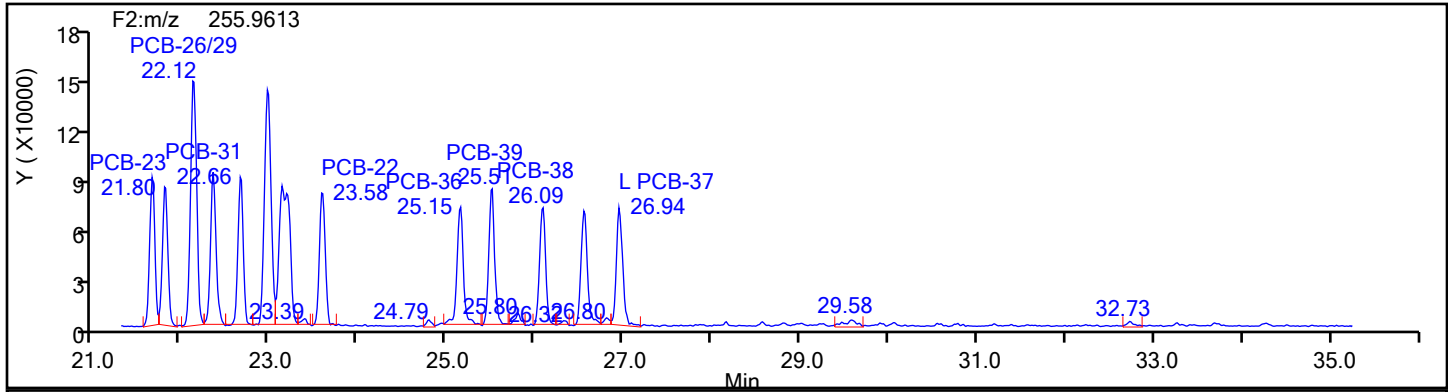
Worklist#: 87130

Sample Line#: 3

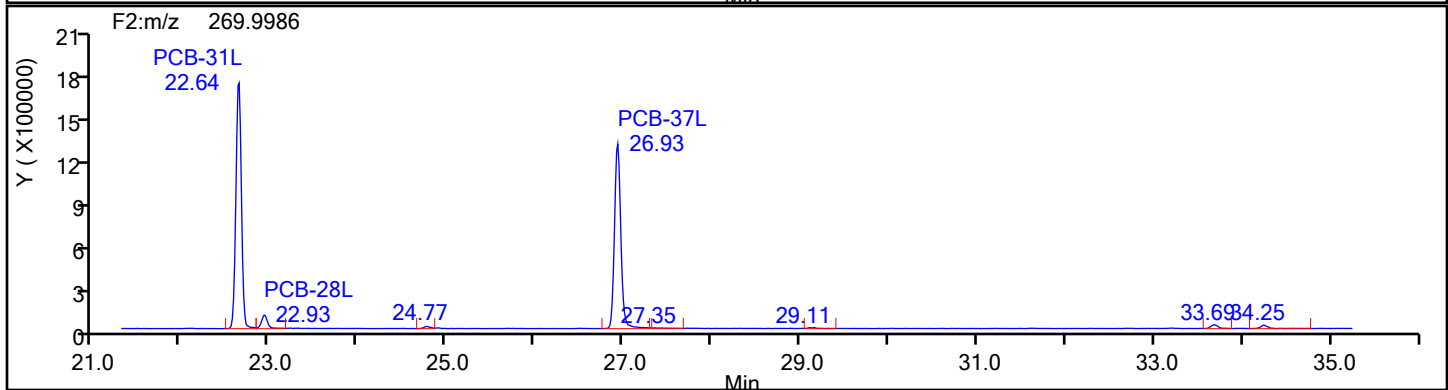
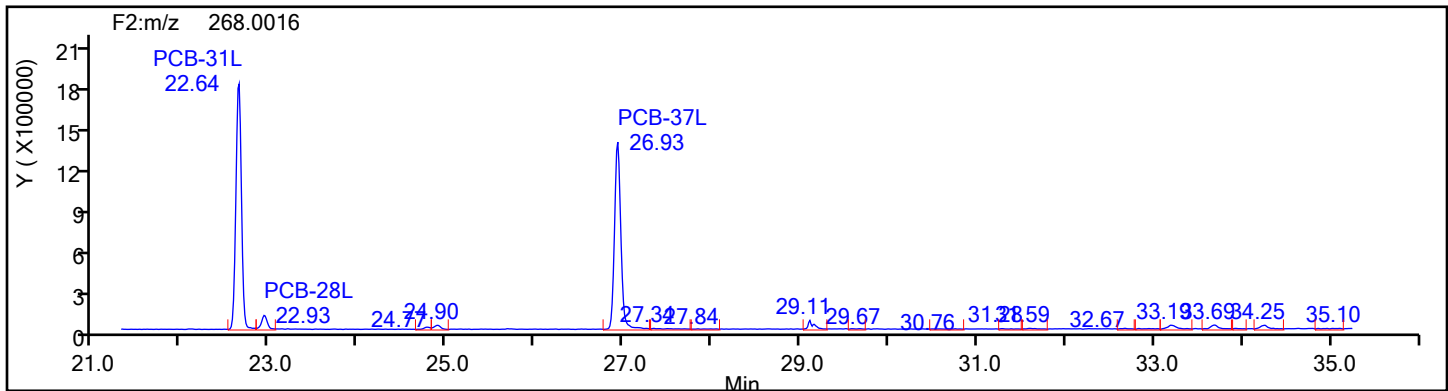
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

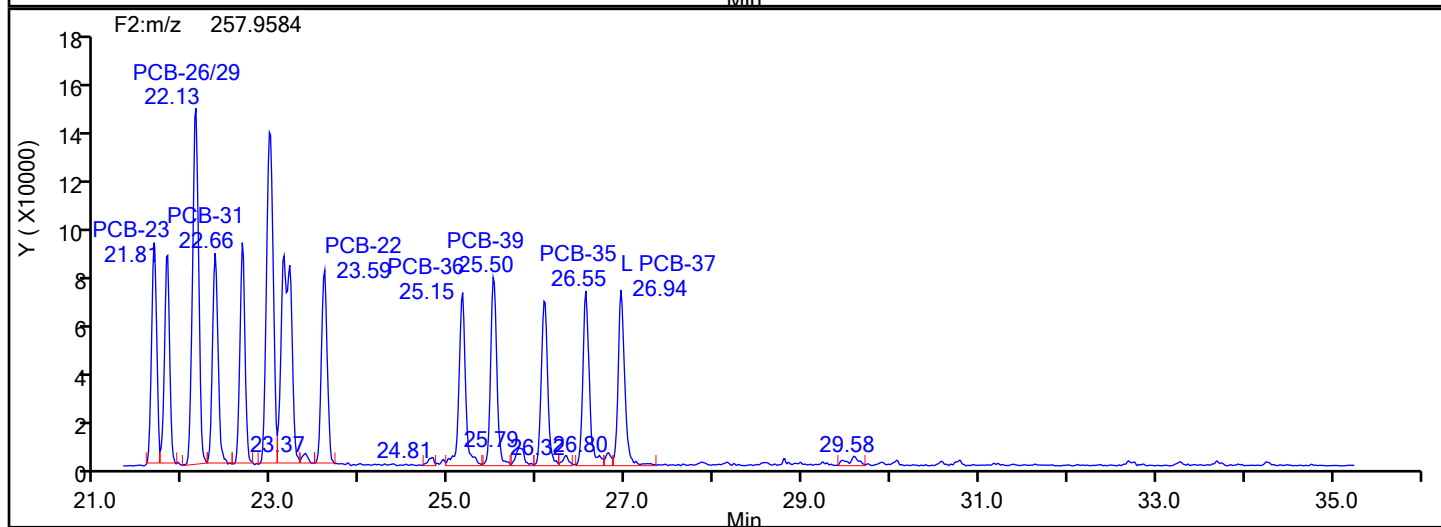
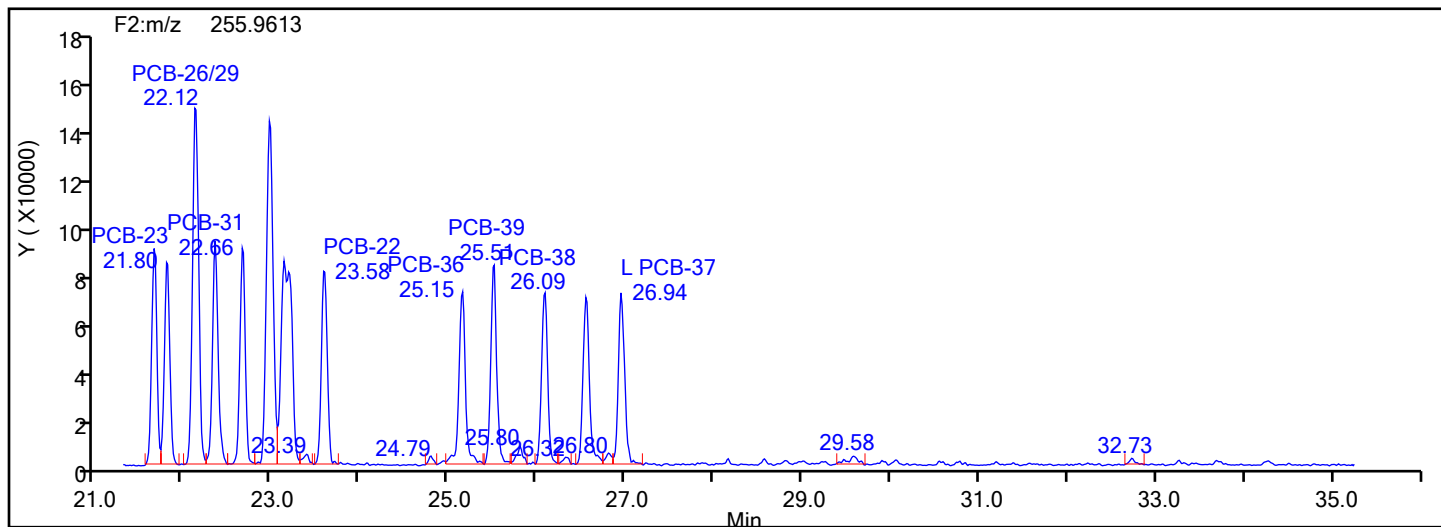
Worklist#: 87130

Sample Line#: 3

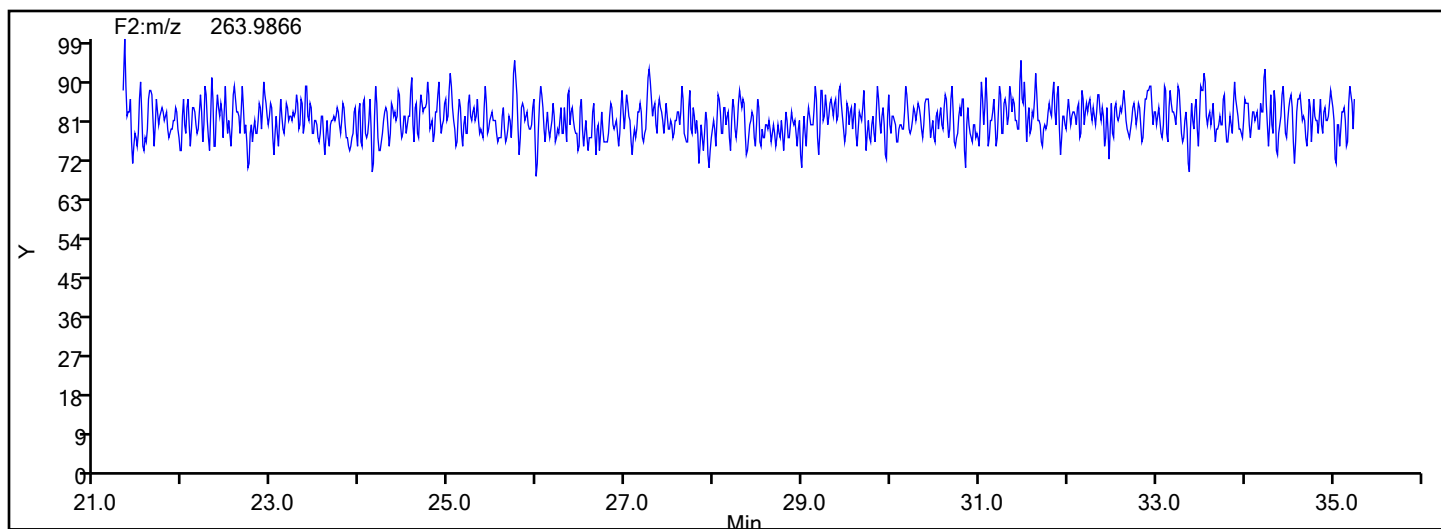
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

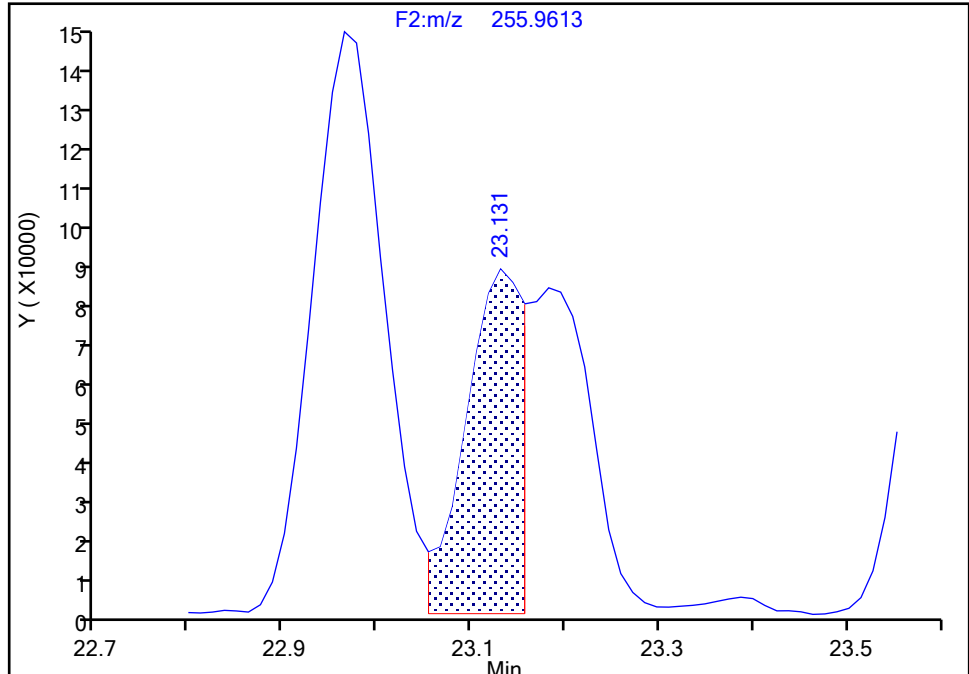
Detector F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 1

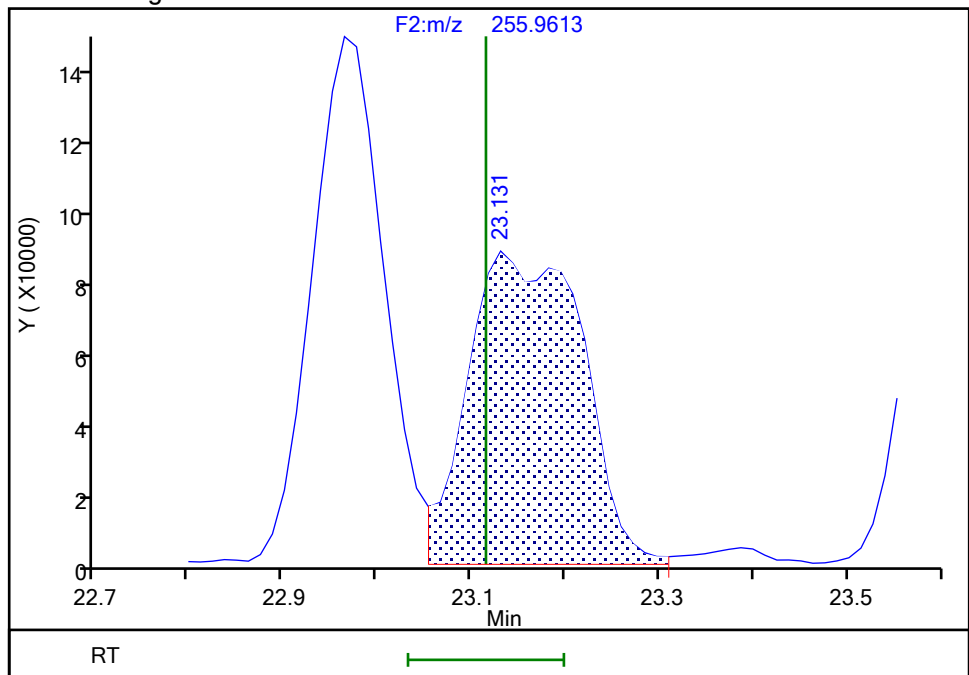
RT: 23.13  
Area: 341530  
Amount: 5.112120  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.13  
Area: 720072  
Amount: 9.960208  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:42:53 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

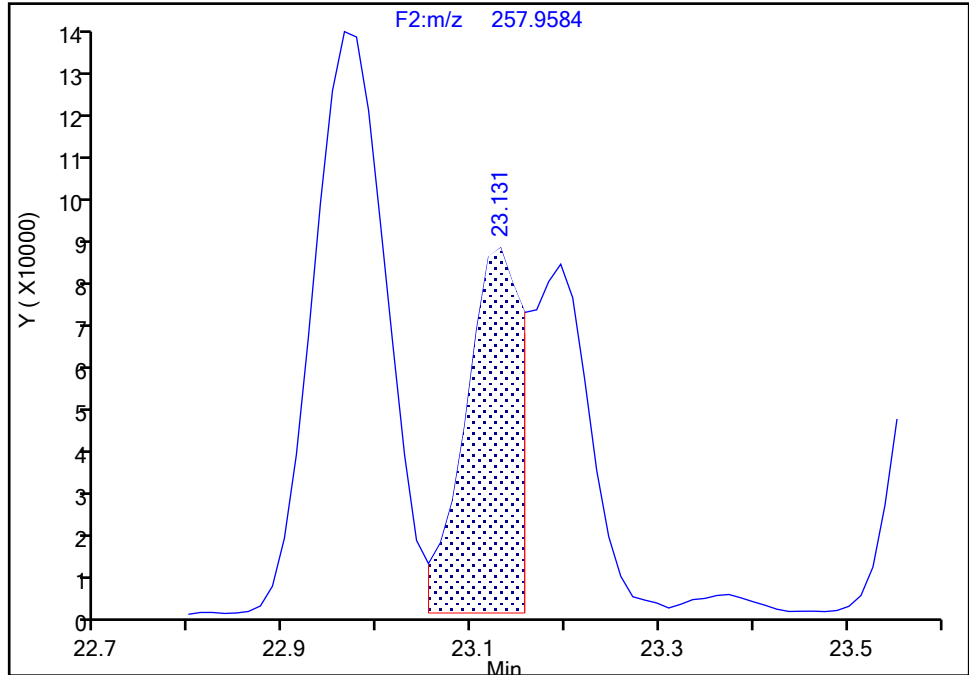
F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 2

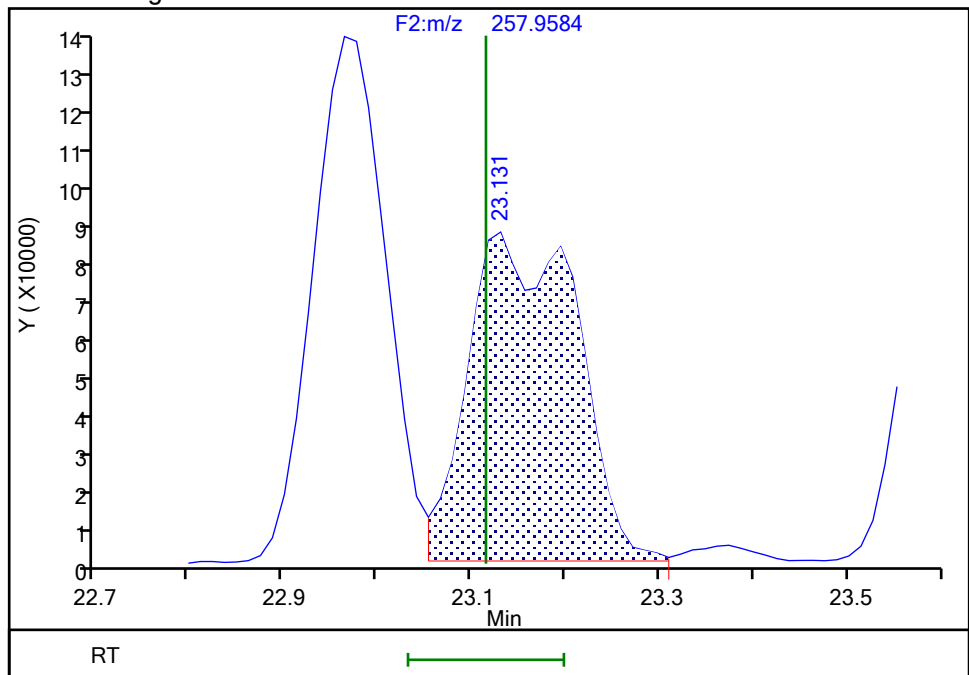
RT: 23.13  
Area: 335268  
Amount: 5.112120  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.13  
Area: 683628  
Amount: 9.960208  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:43:00 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

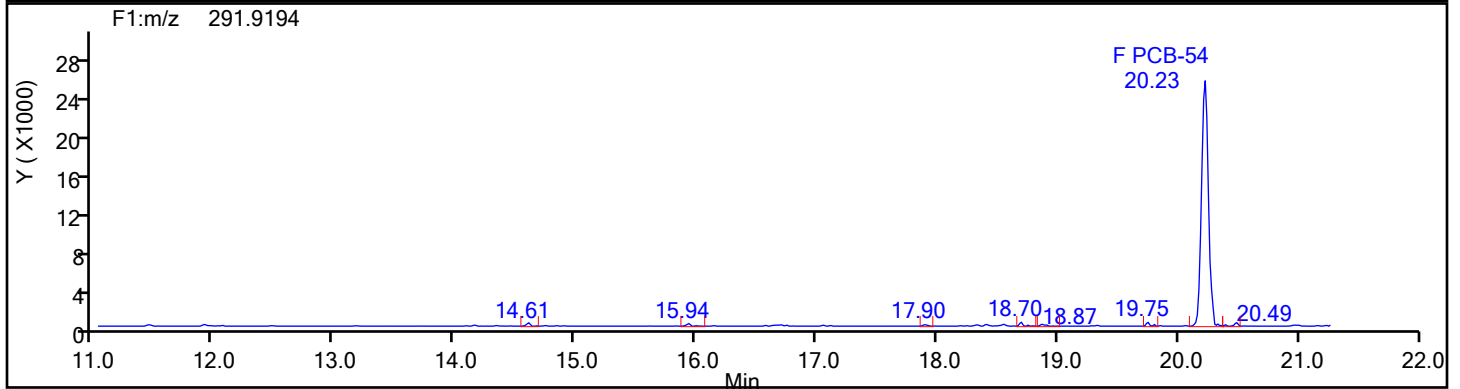
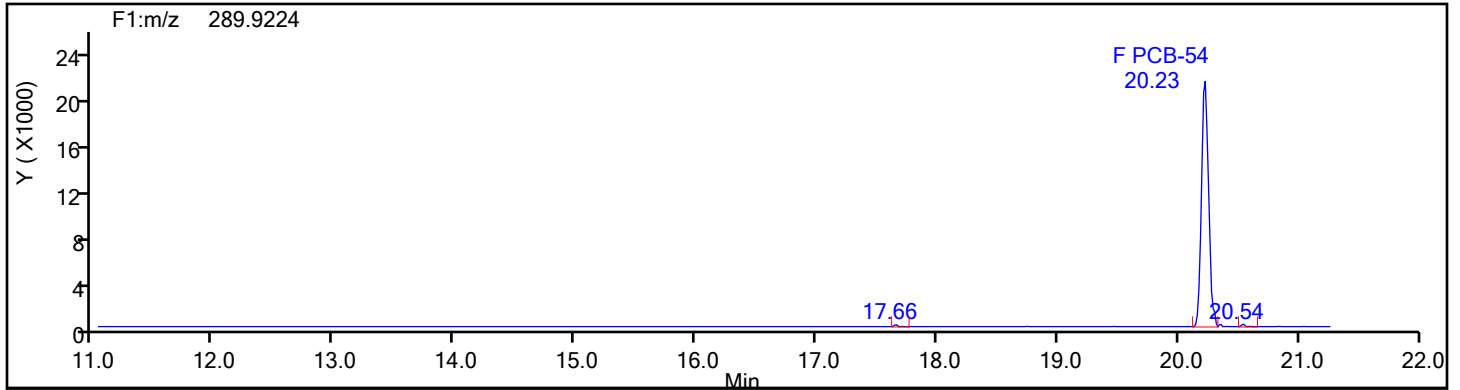
Worklist#: 87130

Sample Line#: 3

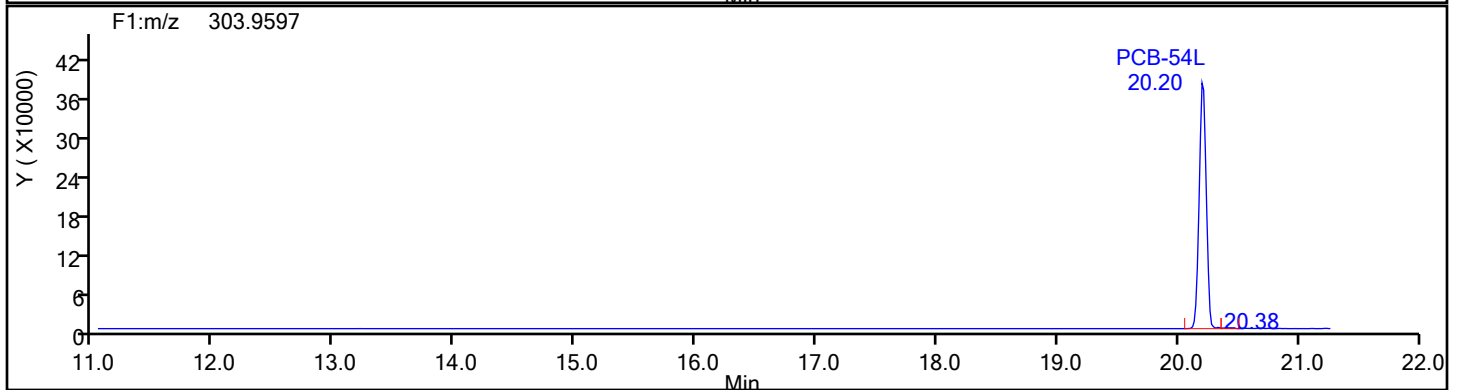
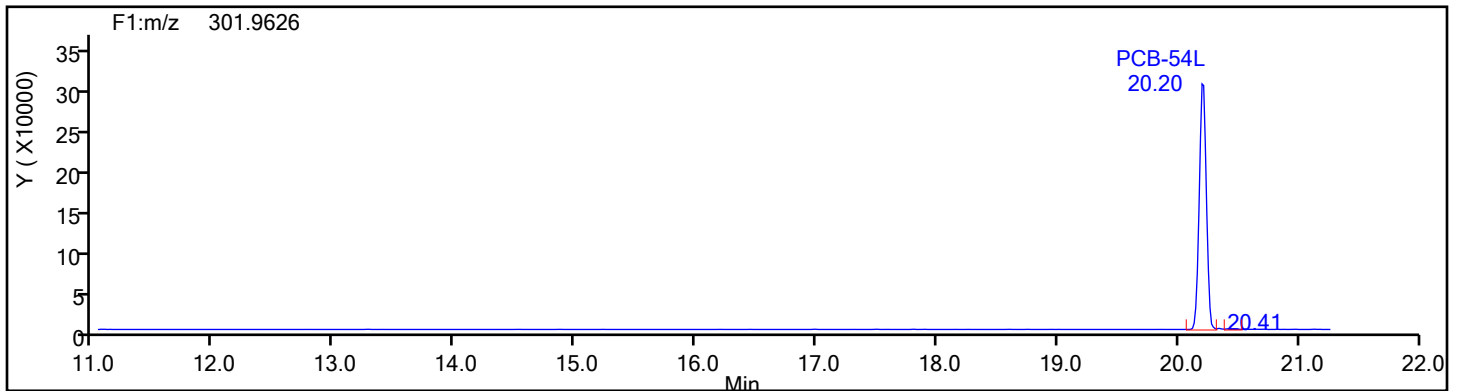
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



TePCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

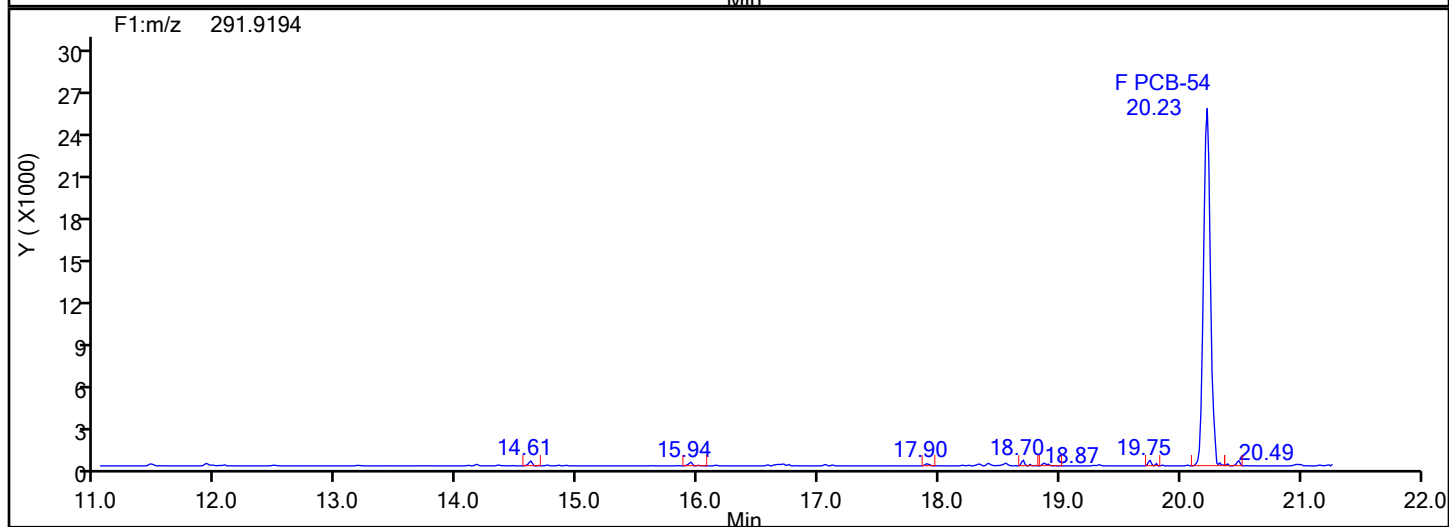
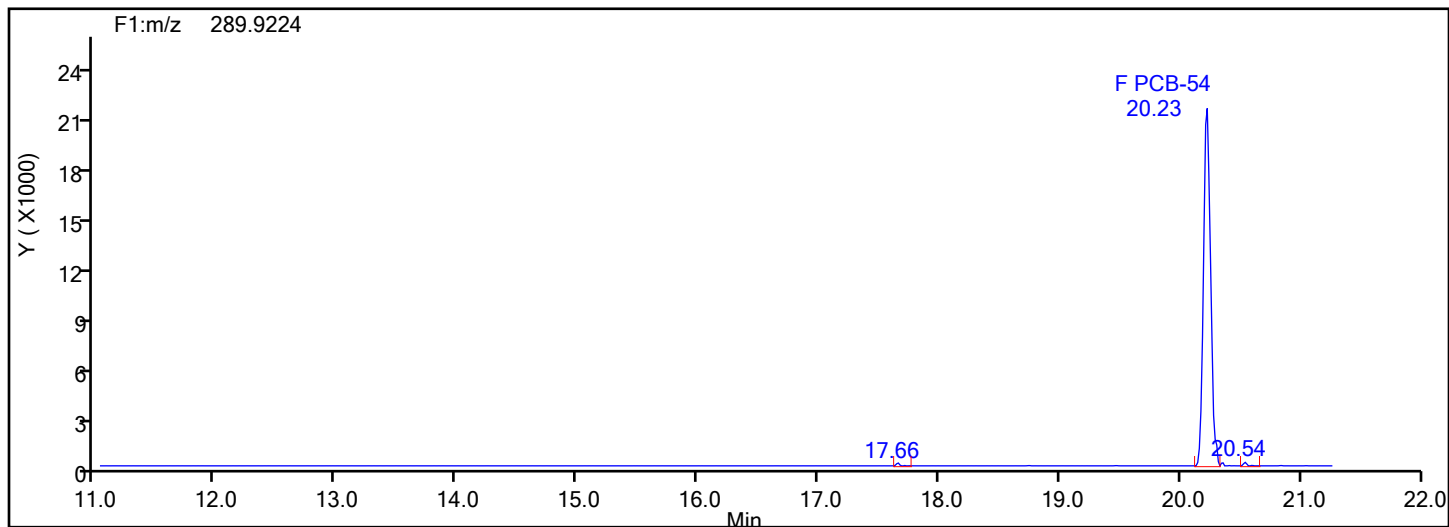
Worklist#: 87130

Sample Line#: 3

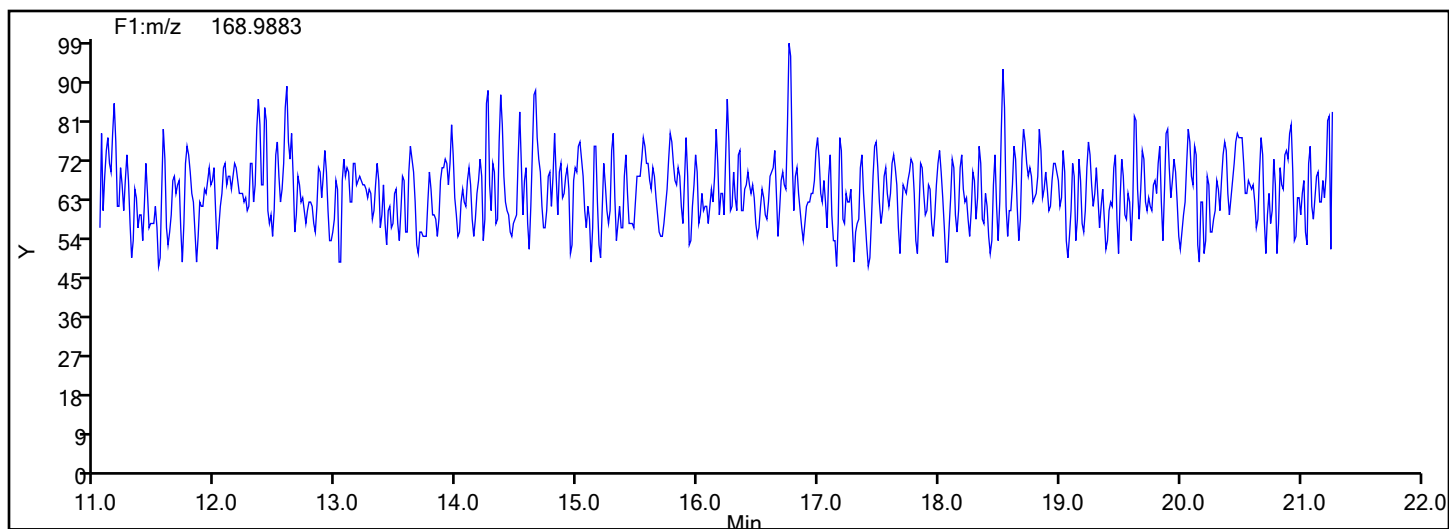
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



TePCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

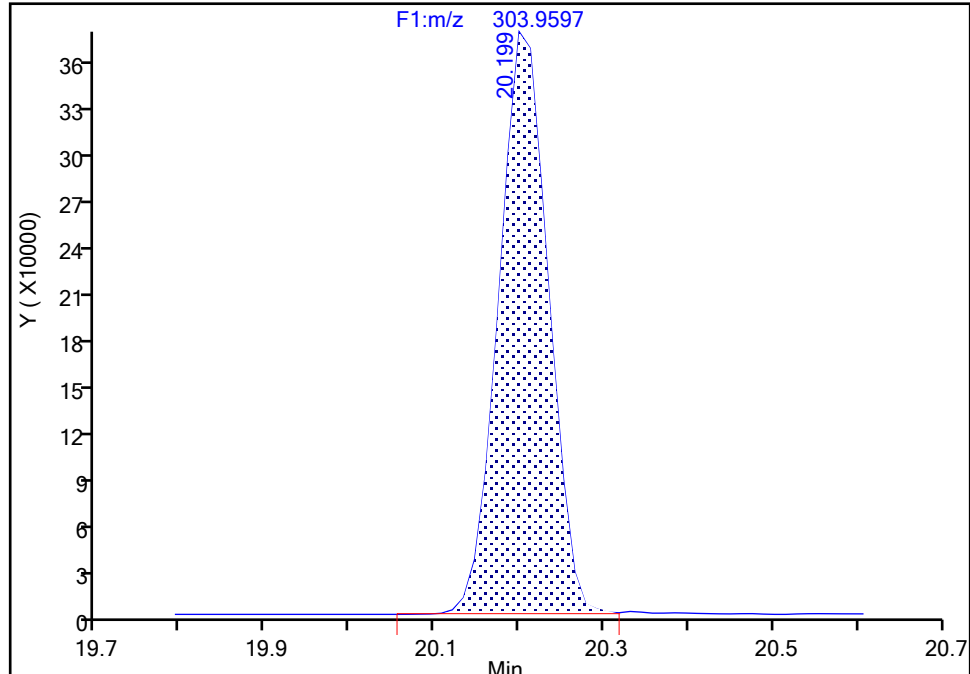
Detector F1(11.07 :21.70 )

**PCB-54L, CAS: 234432-88-3**

Signal: 2

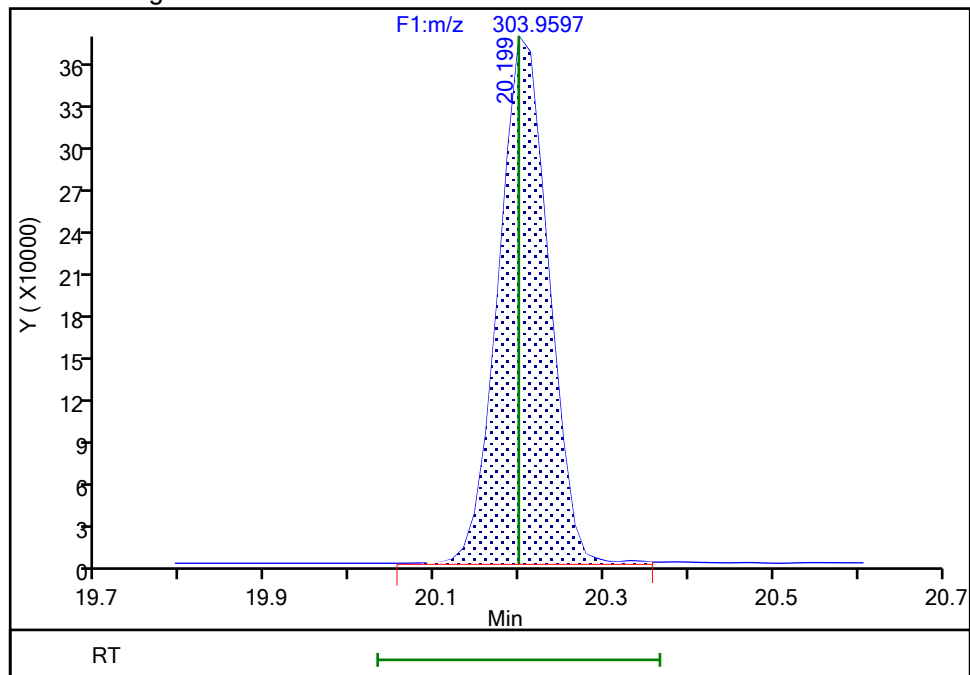
RT: 20.20  
Area: 1539448  
Amount: 88.210787  
Amount Units: pg/ul

## Processing Integration Results



RT: 20.20  
Area: 1551267  
Amount: 95.415041  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:43:30 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

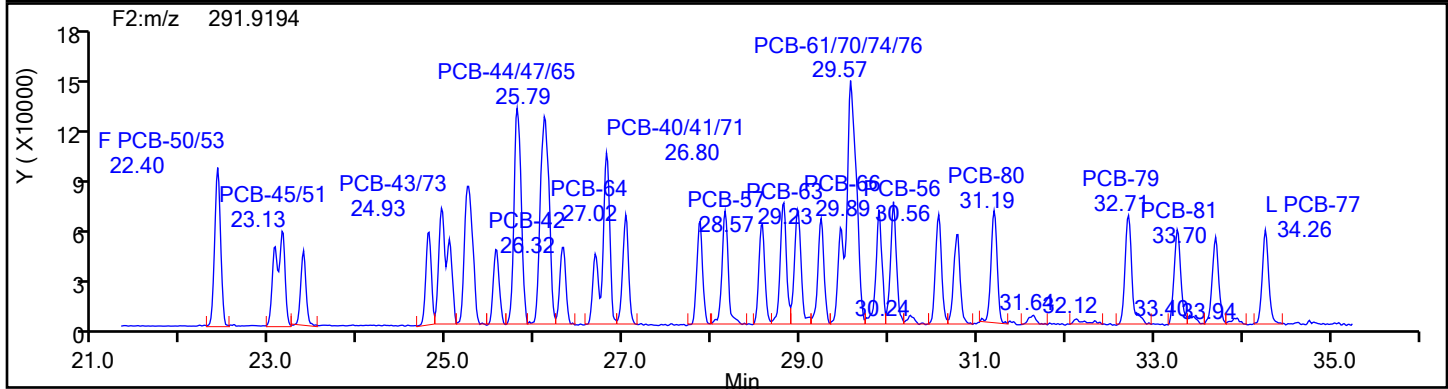
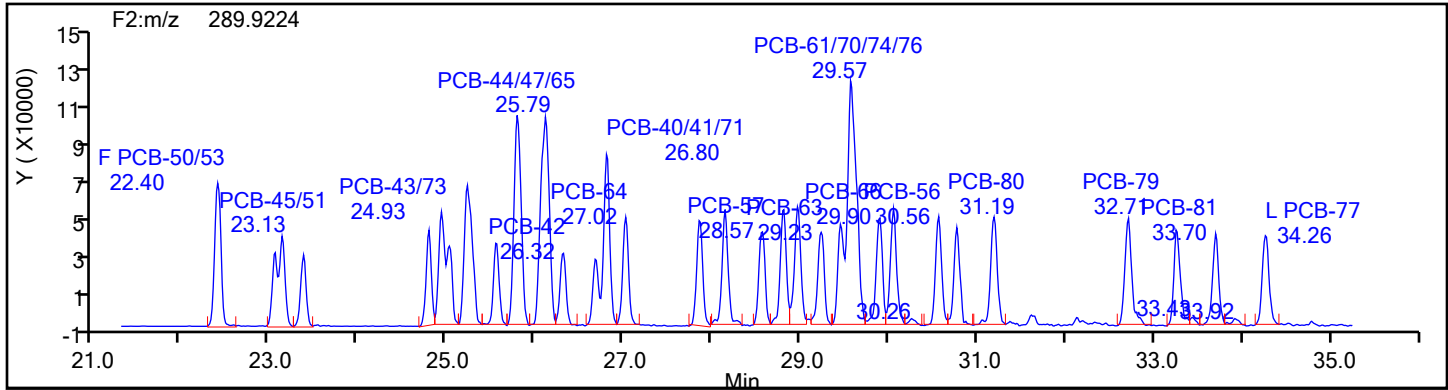
Worklist#: 87130

Sample Line#: 3

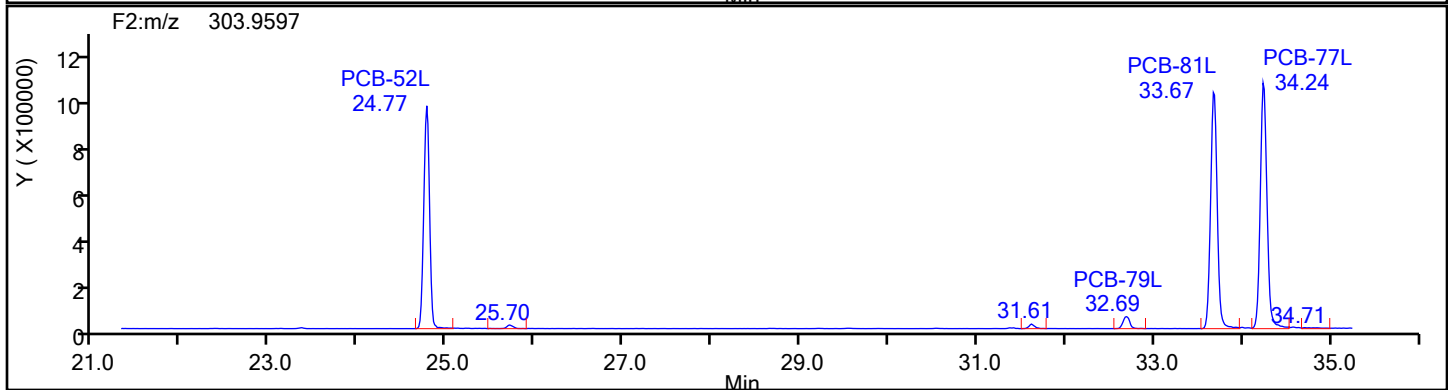
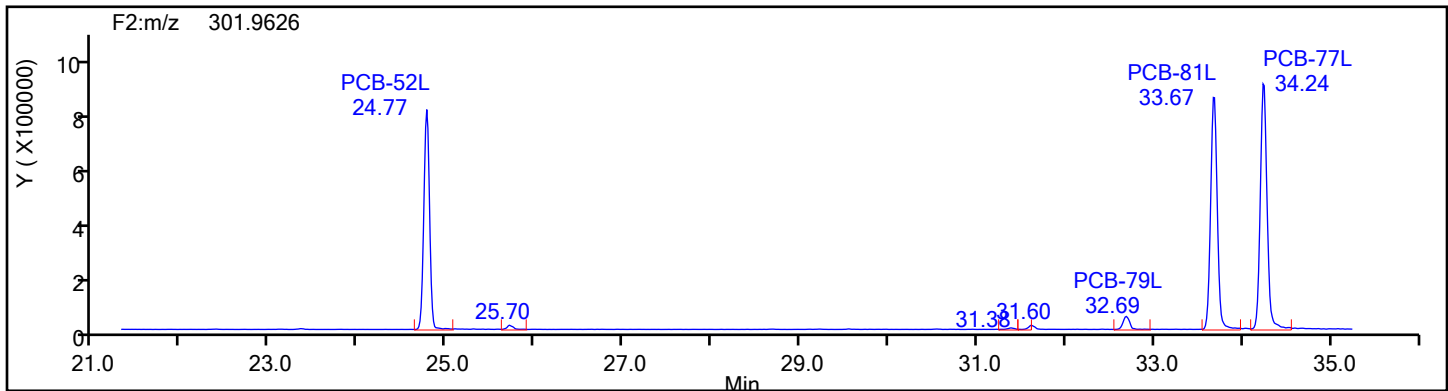
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



TePCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

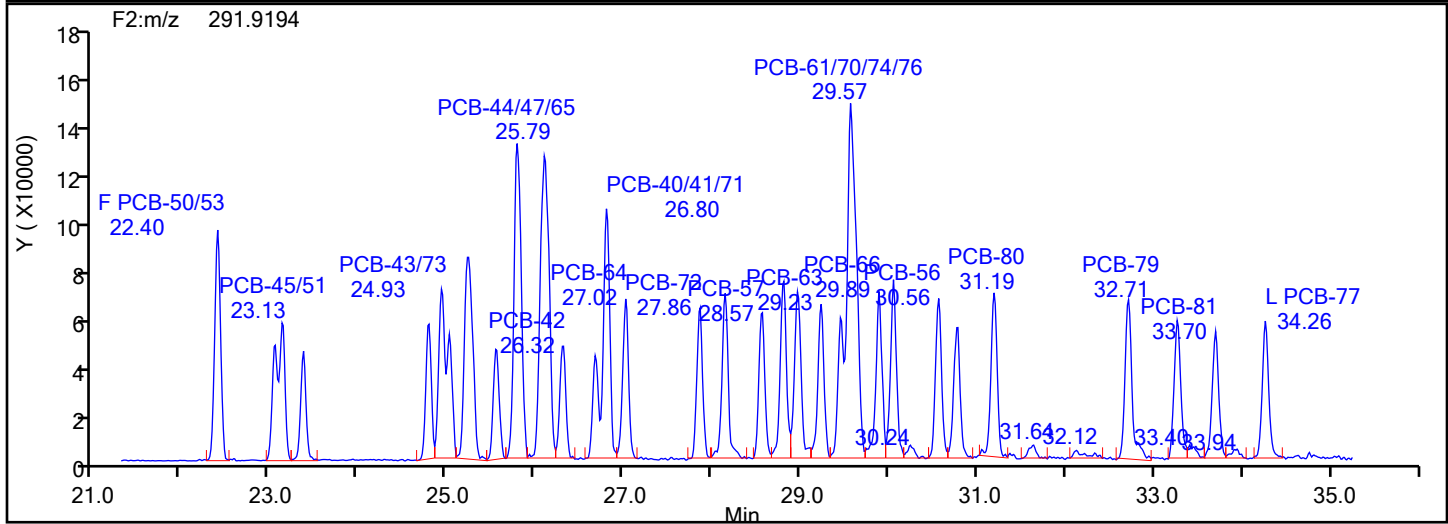
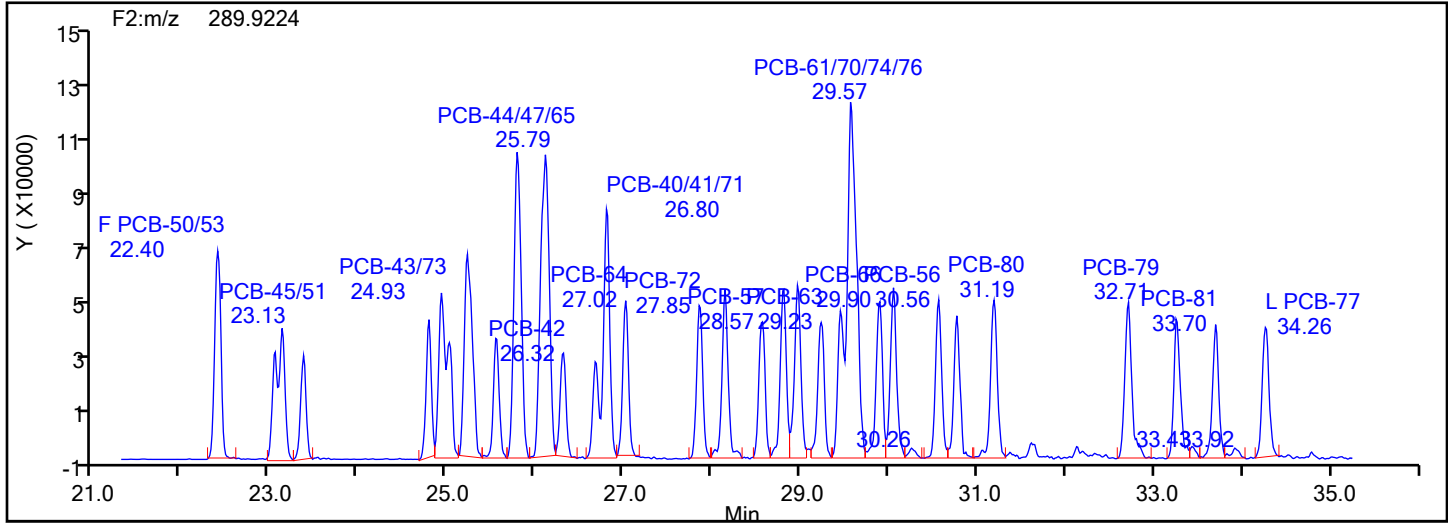
Worklist#: 87130

Sample Line#: 3

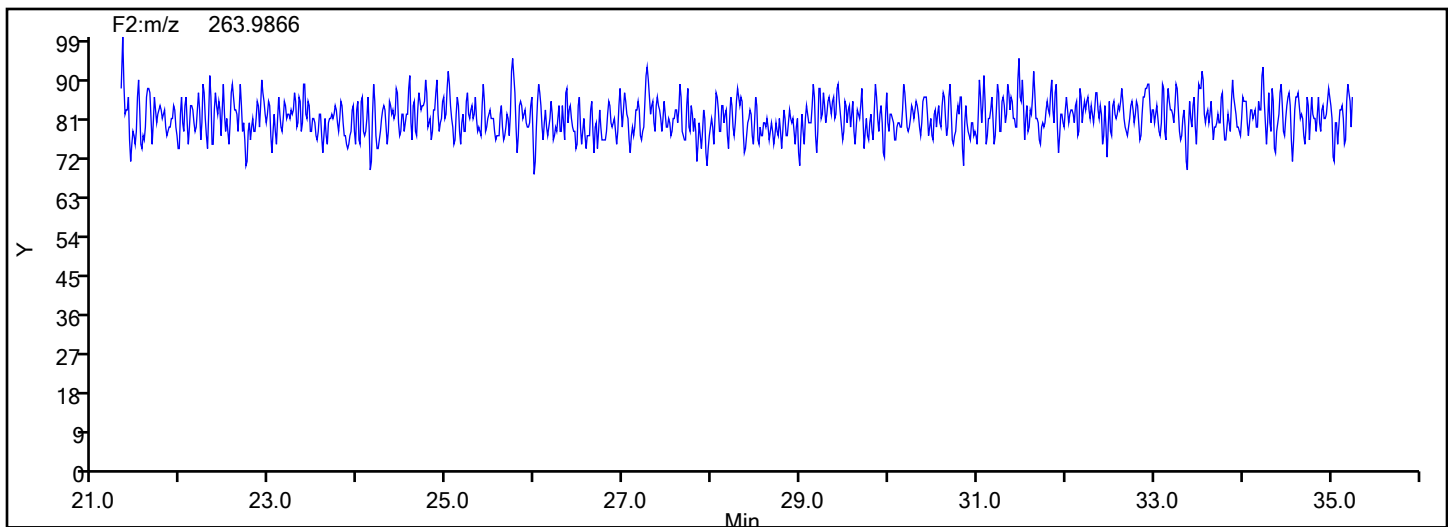
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



## TePCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

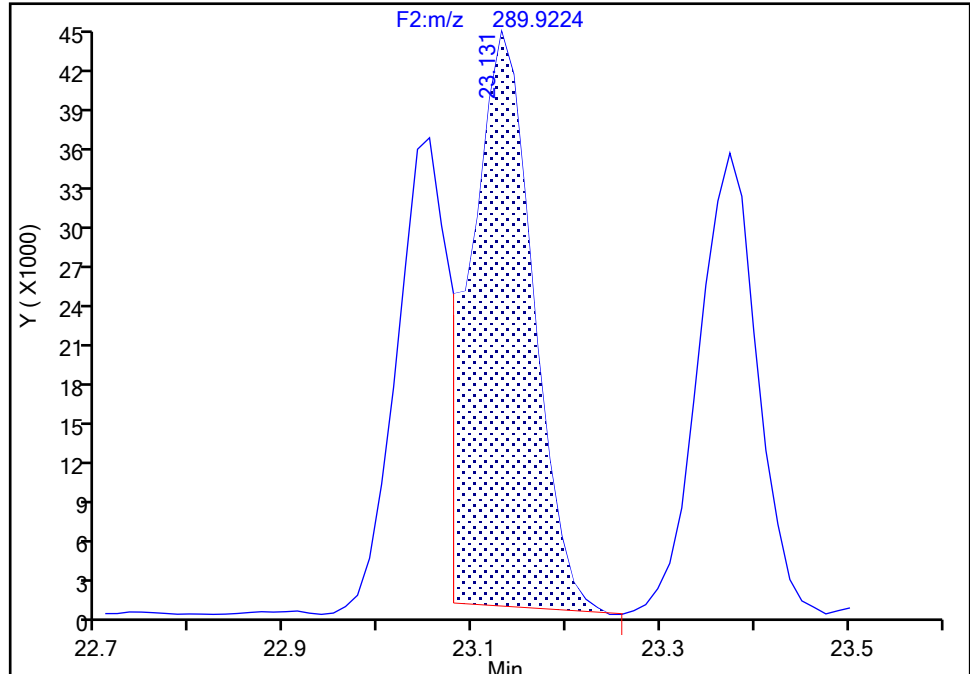
Detector F2(21.81 :35.54 )

**PCB-45/51, CAS: STL01804**

Signal: 1

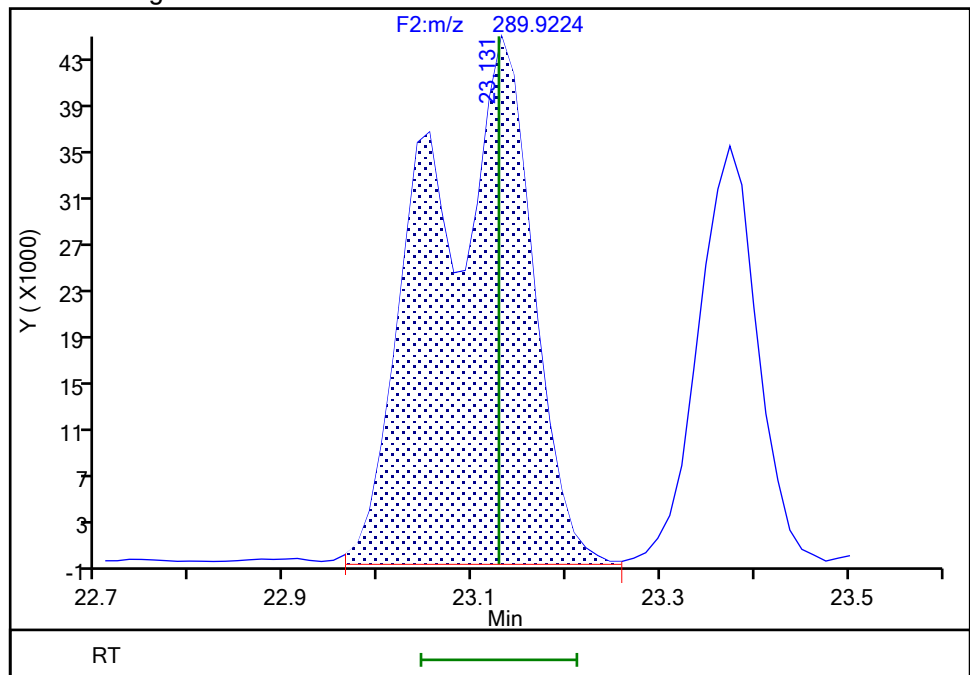
RT: 23.13  
Area: 197949  
Amount: 6.095820  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.13  
Area: 337953  
Amount: 9.812546  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:43:46 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

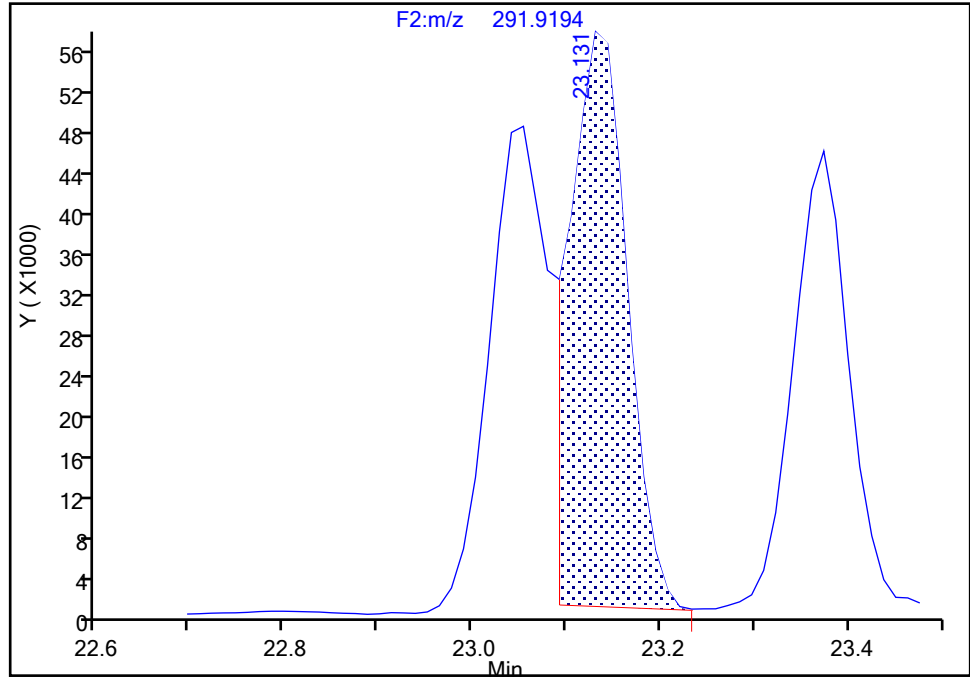
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d  
Injection Date: 31-May-2024 18:00:00 Instrument ID: D2D  
Lims ID: IC L3  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-45/51, CAS: STL01804**

Signal: 2

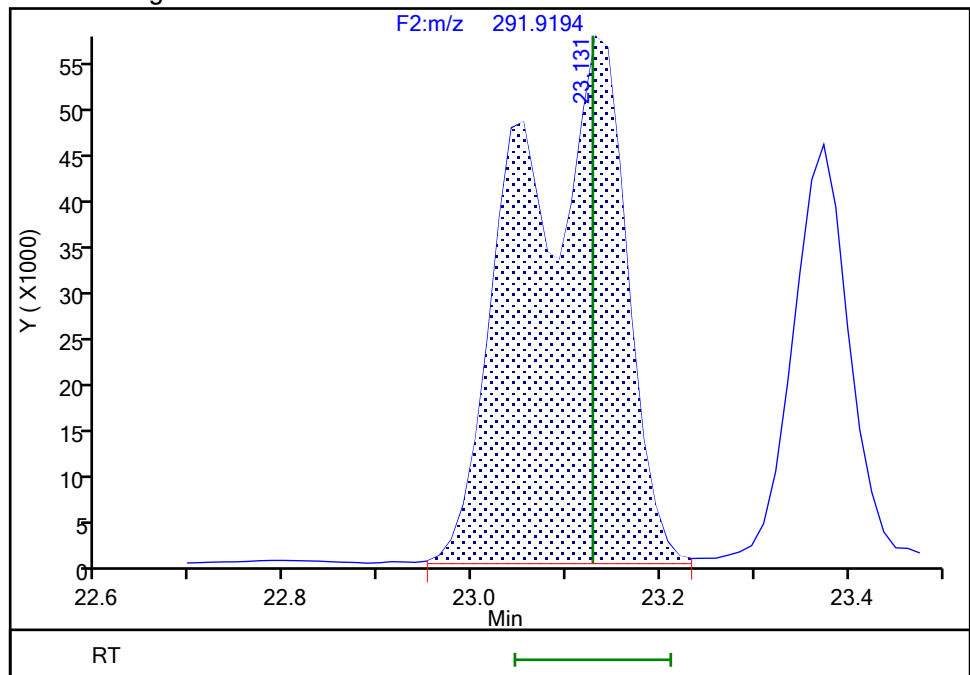
RT: 23.13  
Area: 234999  
Amount: 6.095820  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.13  
Area: 450602  
Amount: 9.812546  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:43:54 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 2024052904  
9/6/2024  
4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

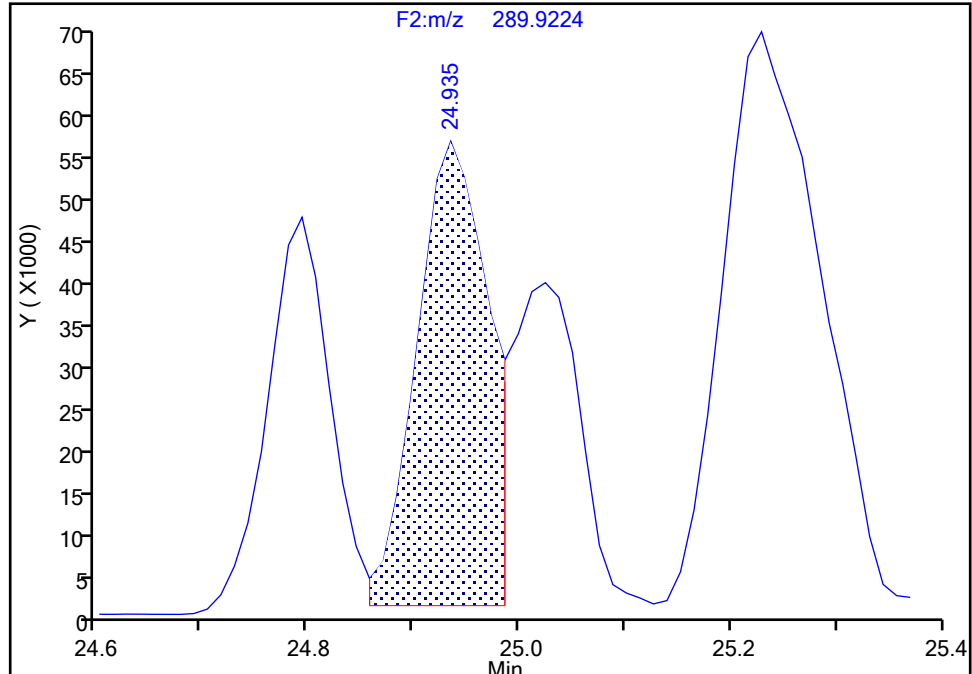
Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 1

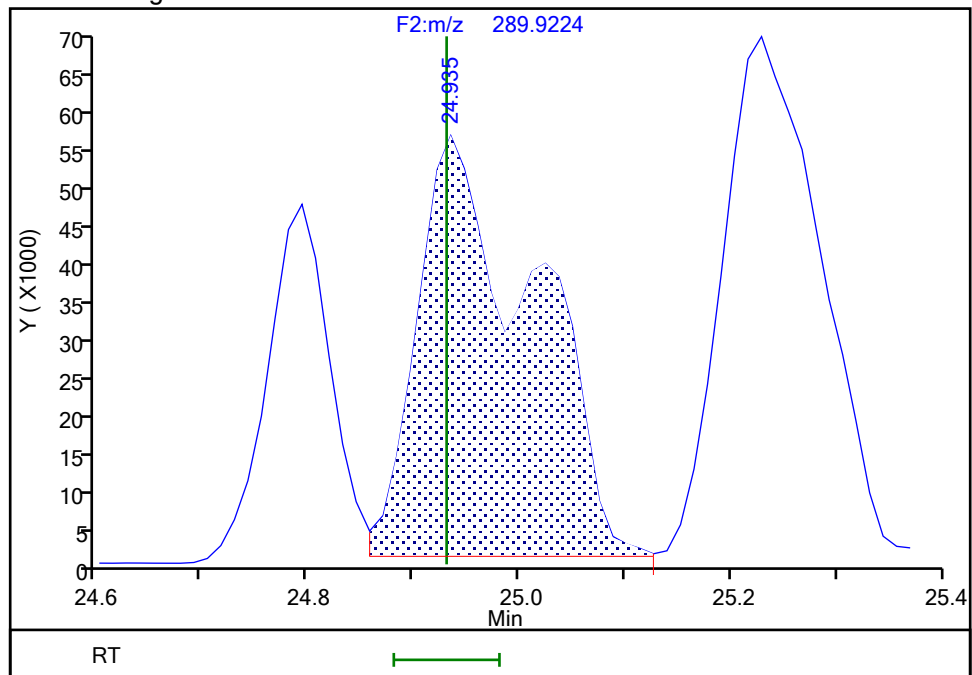
RT: 24.93  
Area: 254165  
Amount: 6.401675  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.93  
Area: 423345  
Amount: 9.702556  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:44:11 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline



## Eurofins Knoxville

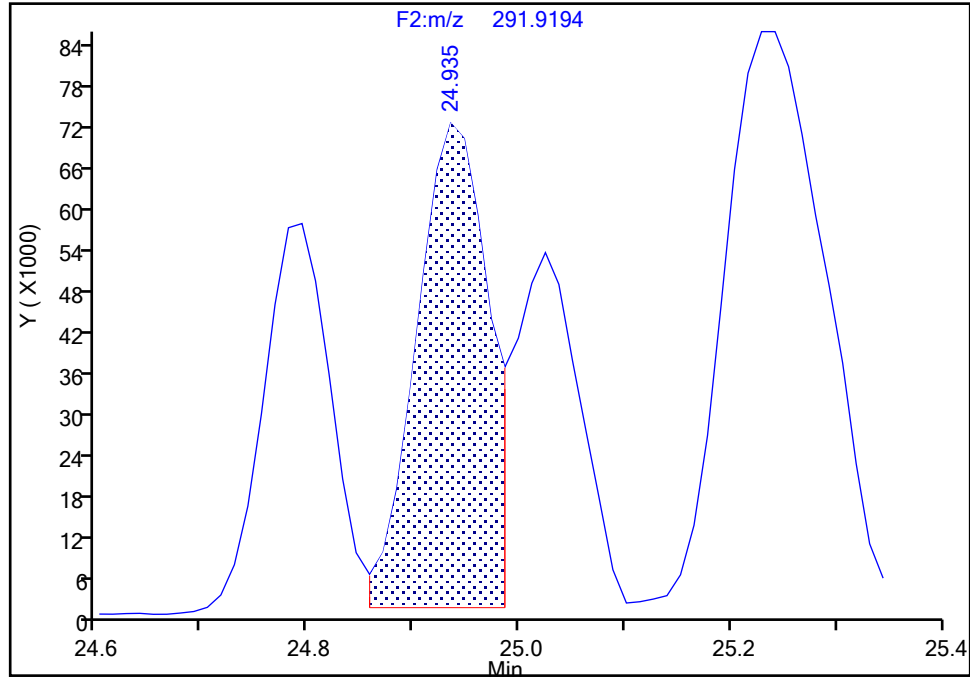
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d  
Injection Date: 31-May-2024 18:00:00 Instrument ID: D2D  
Lims ID: IC L3  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-43/73, CAS: STL02293

Signal: 2

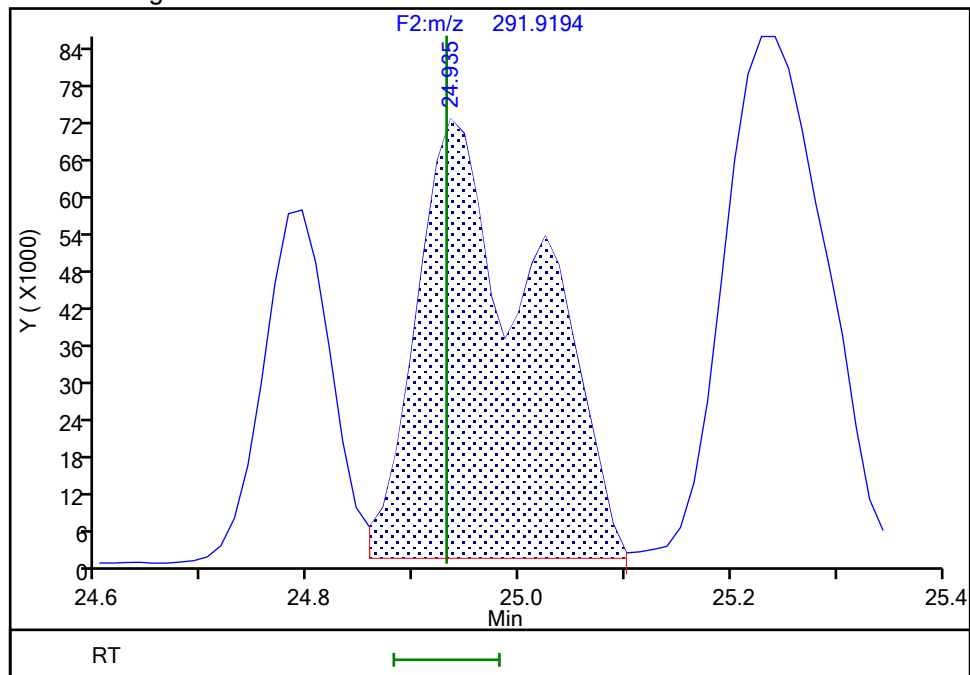
RT: 24.93  
Area: 330449  
Amount: 6.401675  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.93  
Area: 551591  
Amount: 9.702556  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:44:16 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 2024052906  
9/6/2024  
4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

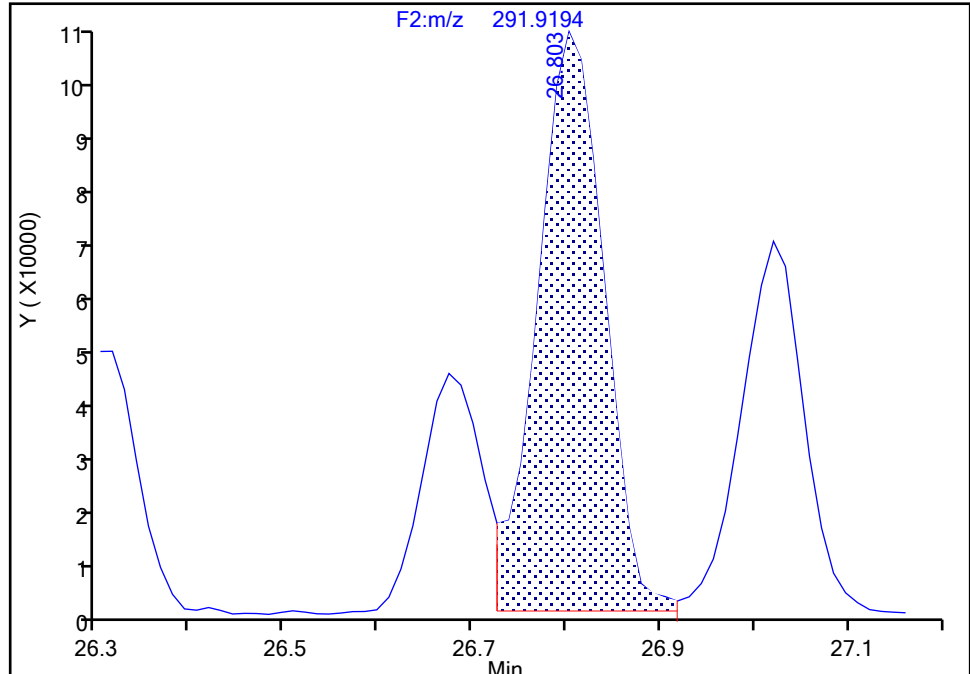
Detector F2(21.81 :35.54 )

PCB-40/41/71, CAS: STL02292

Signal: 2

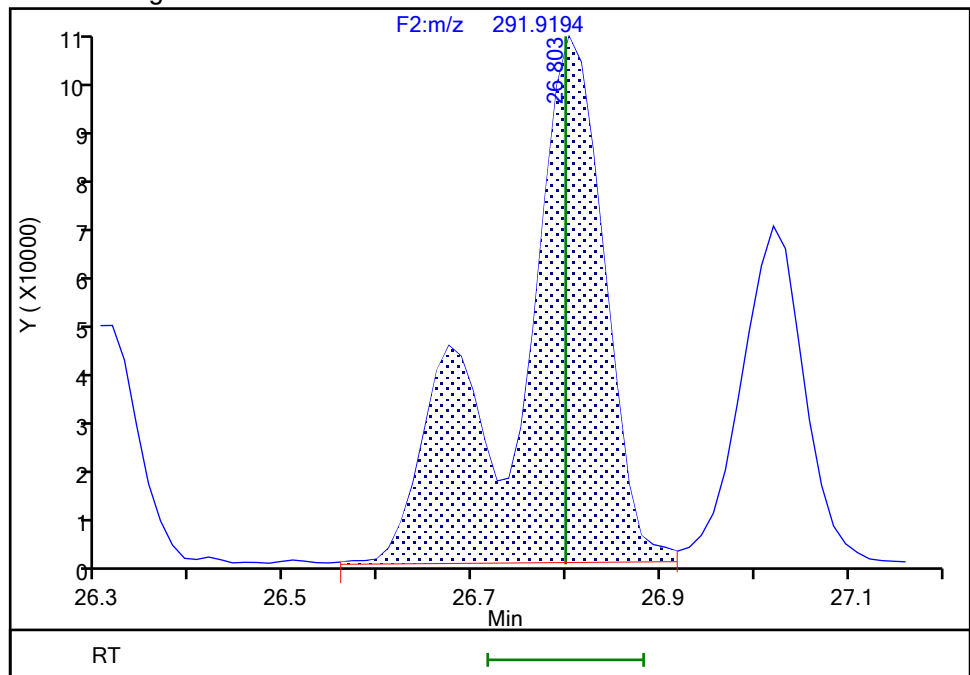
RT: 26.80  
Area: 516277  
Amount: 11.476659  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.80  
Area: 706287  
Amount: 14.423267  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:44:28 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

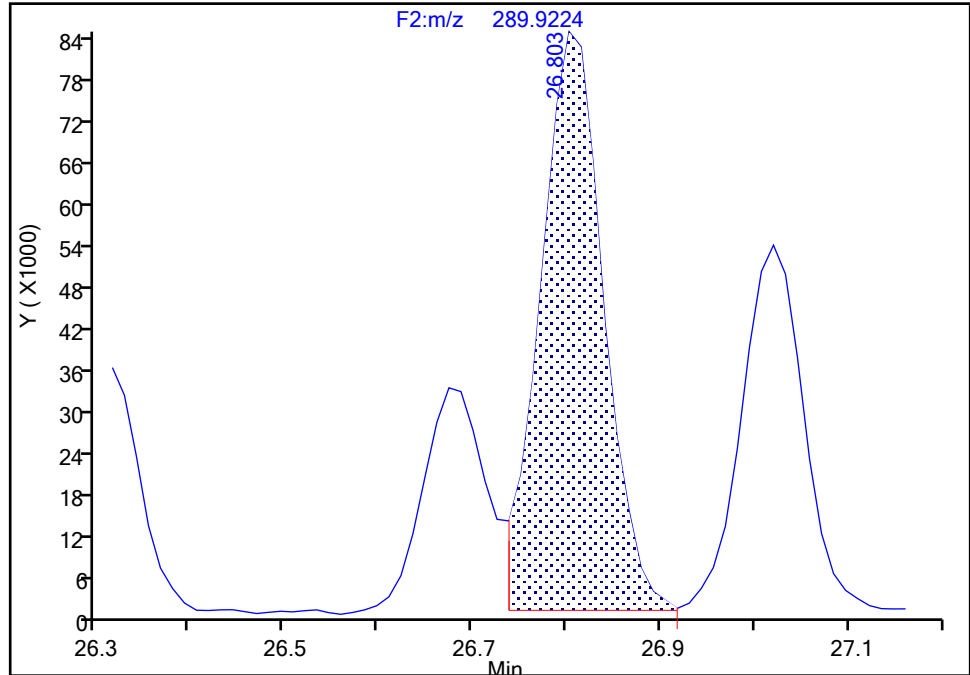
Detector F2(21.81 :35.54 )

**PCB-40/41/71, CAS: STL02292**

Signal: 1

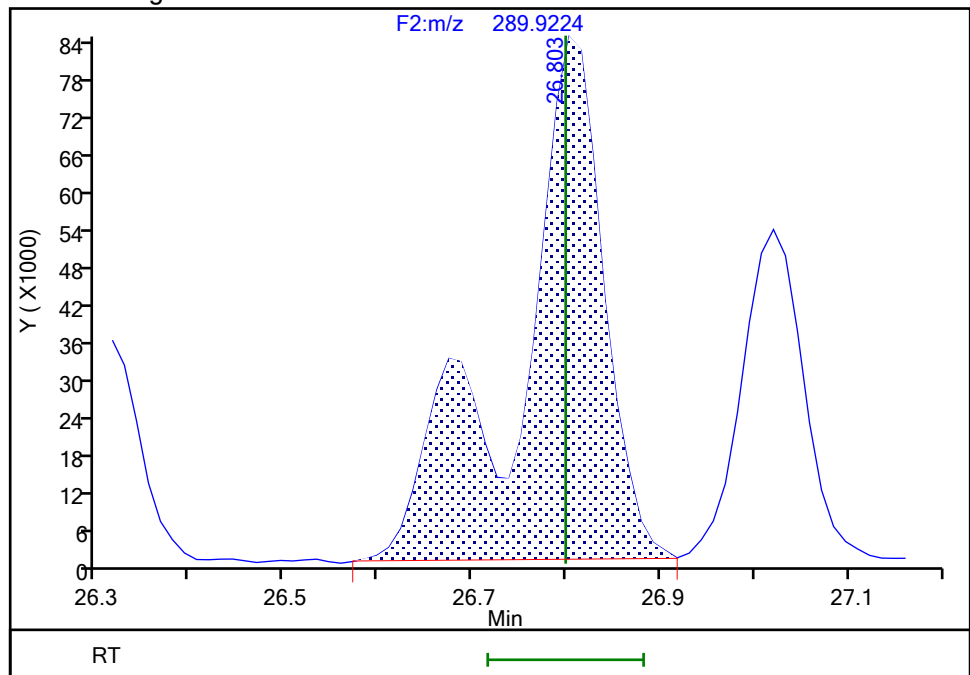
RT: 26.80  
Area: 387522  
Amount: 11.476659  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.80  
Area: 536815  
Amount: 14.423267  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:44:35 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 2024052908

9/6/2024  
4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

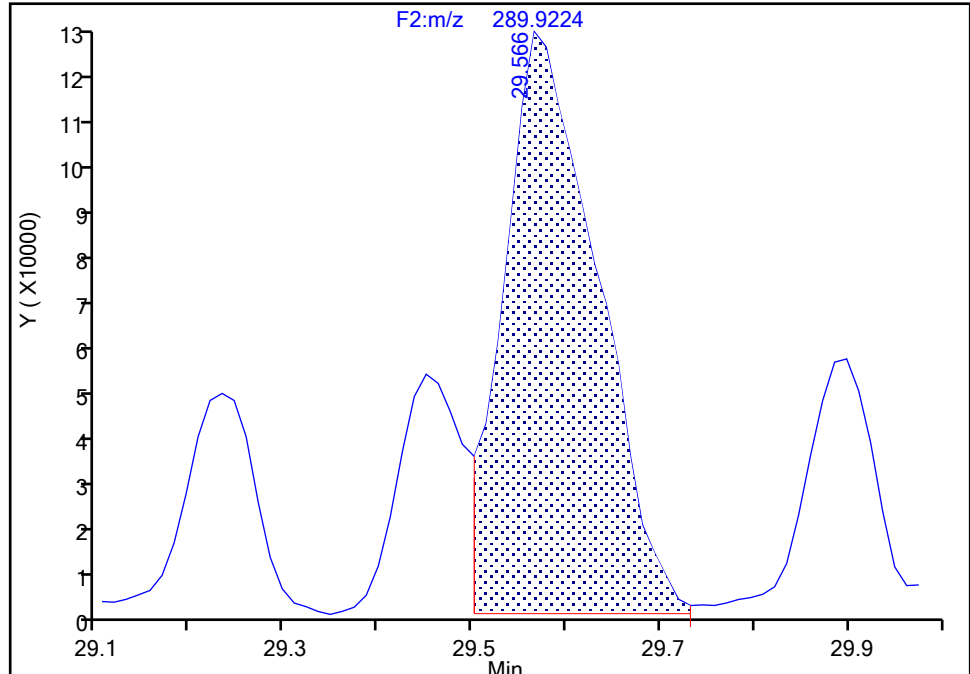
Detector F2(21.81 :35.54 )

**PCB-61/70/74/76, CAS: STL01808**

Signal: 1

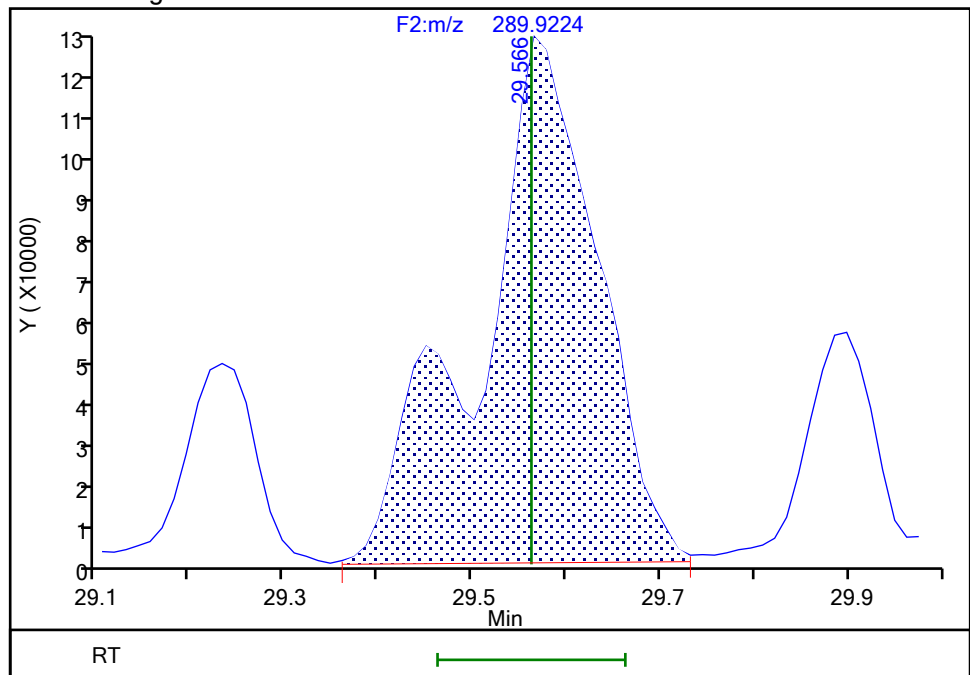
RT: 29.57  
Area: 824311  
Amount: 18.540425  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.57  
Area: 1056982  
Amount: 19.171899  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:44:47 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

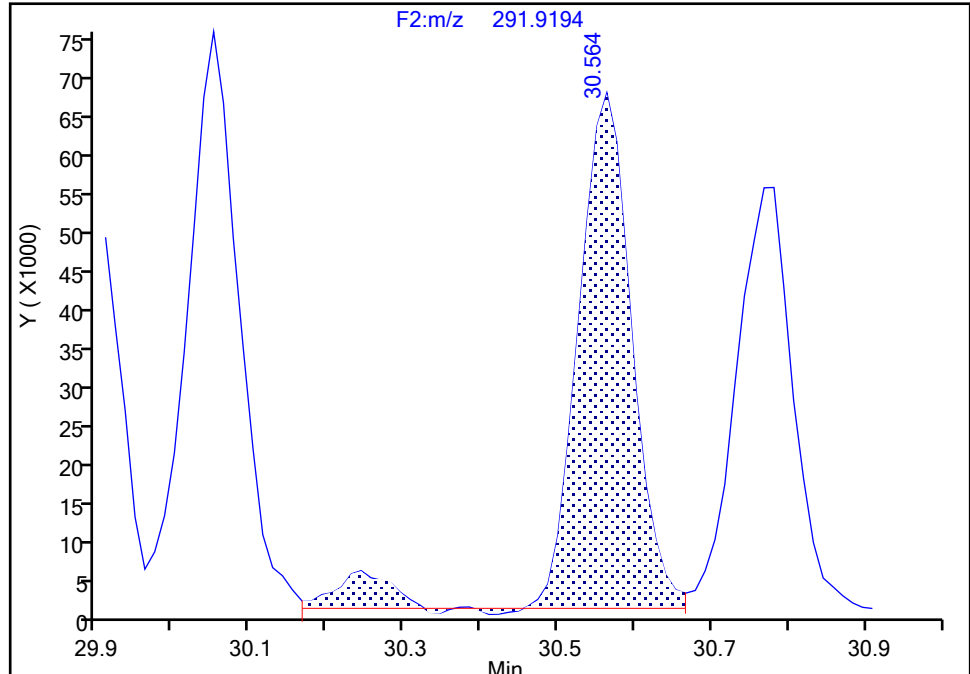
F2(21.81 :35.54 )

**PCB-56, CAS: 41464-43-1**

Signal: 2

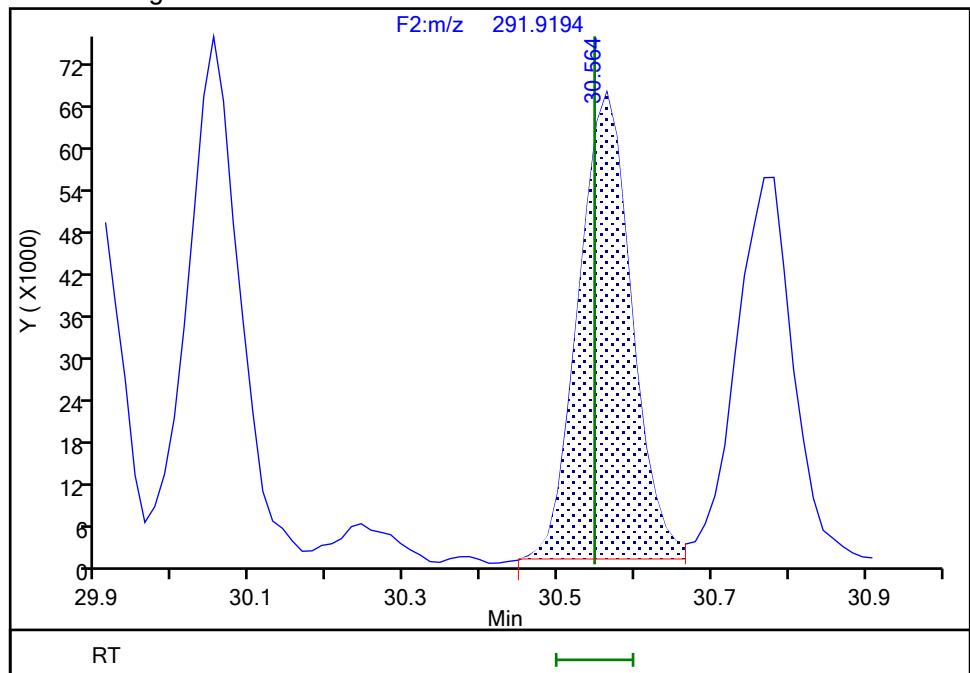
RT: 30.56  
Area: 341256  
Amount: 4.942673  
Amount Units: pg/ul

## Processing Integration Results



RT: 30.56  
Area: 318235  
Amount: 4.811515  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:45:03 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

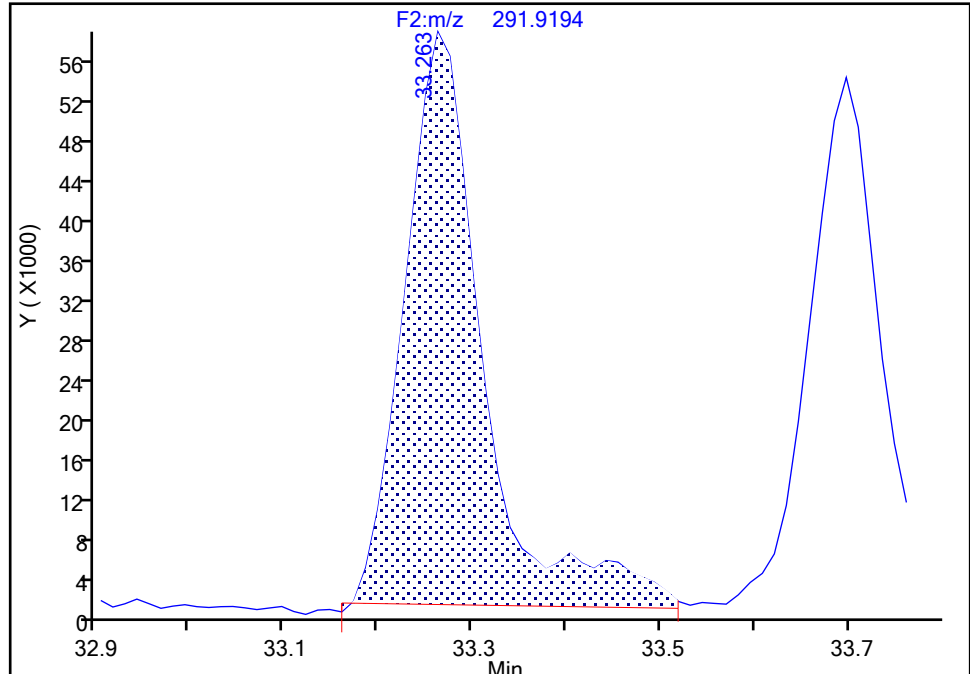
Detector F2(21.81 :35.54 )

**PCB-78, CAS: 70362-49-1**

Signal: 2

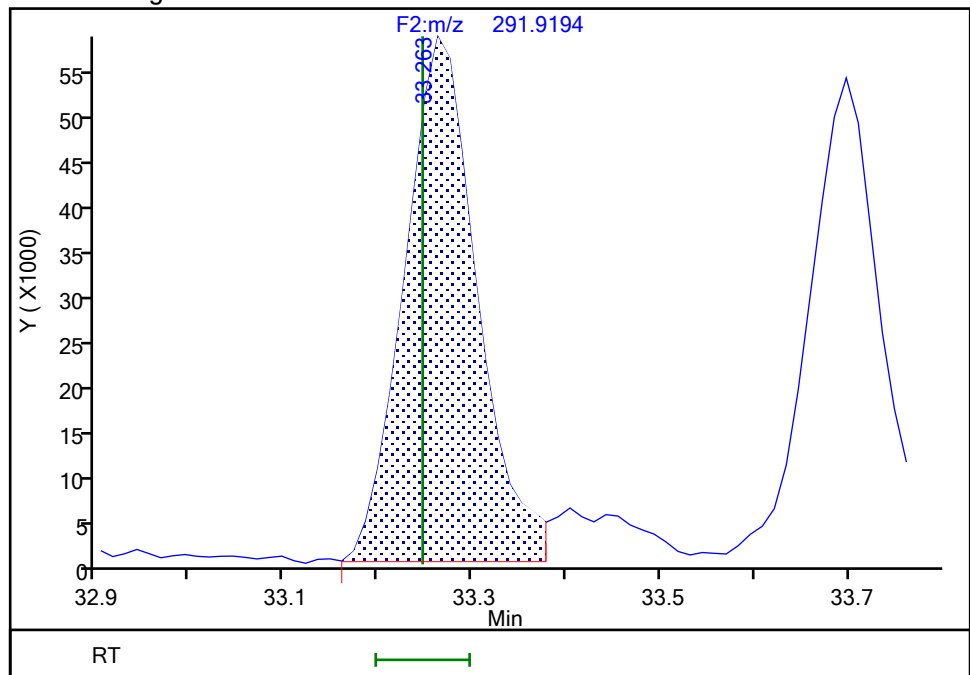
RT: 33.26  
Area: 334181  
Amount: 4.918346  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.26  
Area: 311315  
Amount: 4.884871  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:45:21 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

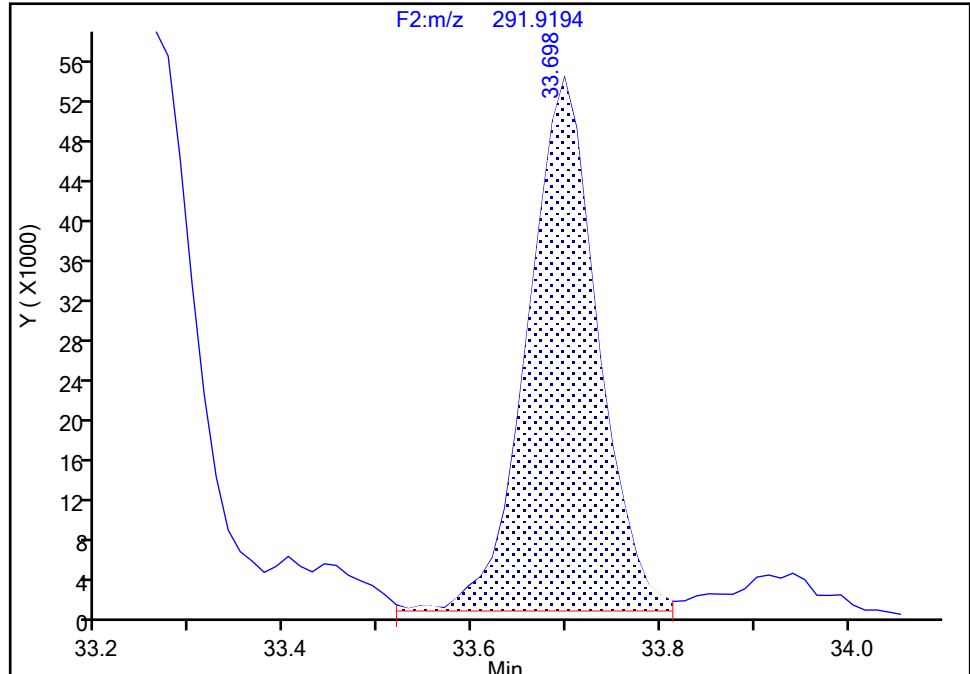
F2(21.81 :35.54 )

**PCB-81, CAS: 70362-50-4**

Signal: 2

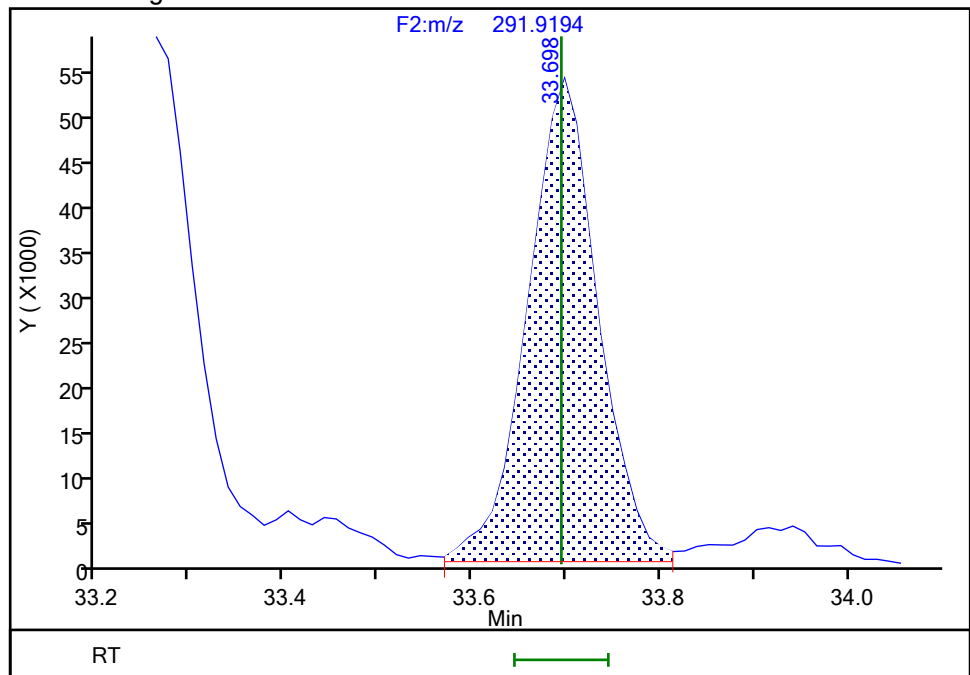
RT: 33.70  
Area: 278092  
Amount: 4.973199  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.70  
Area: 277706  
Amount: 4.914192  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:45:31 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

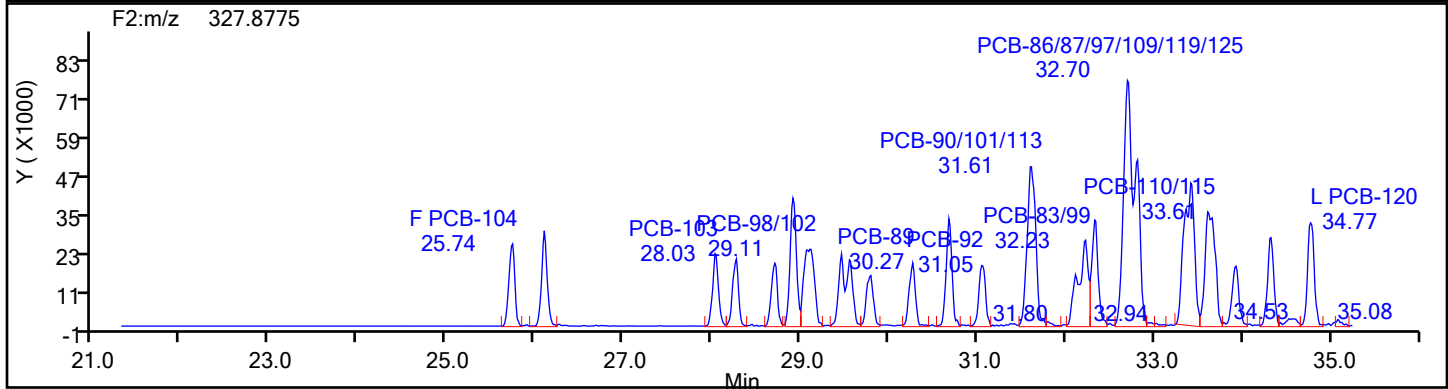
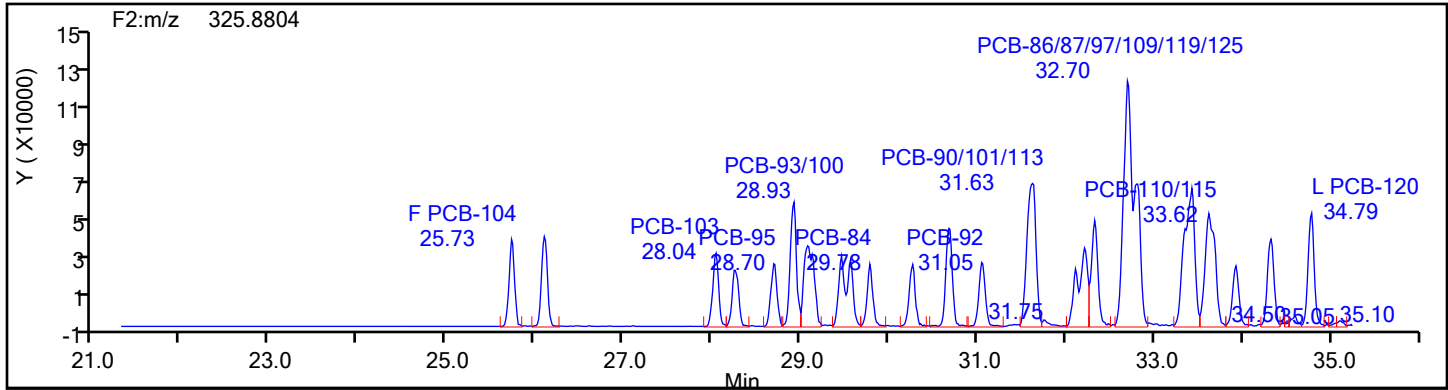
Worklist#: 87130

Sample Line#: 3

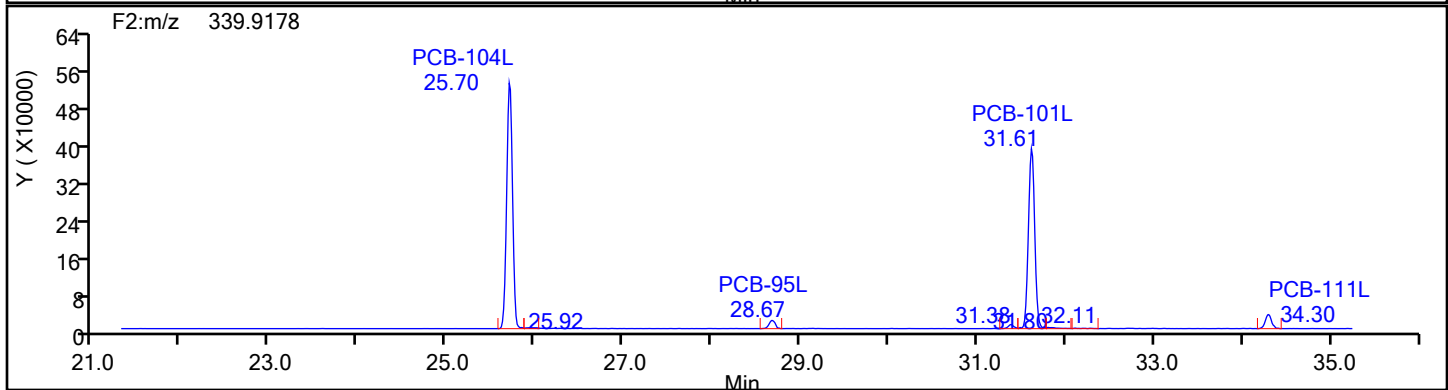
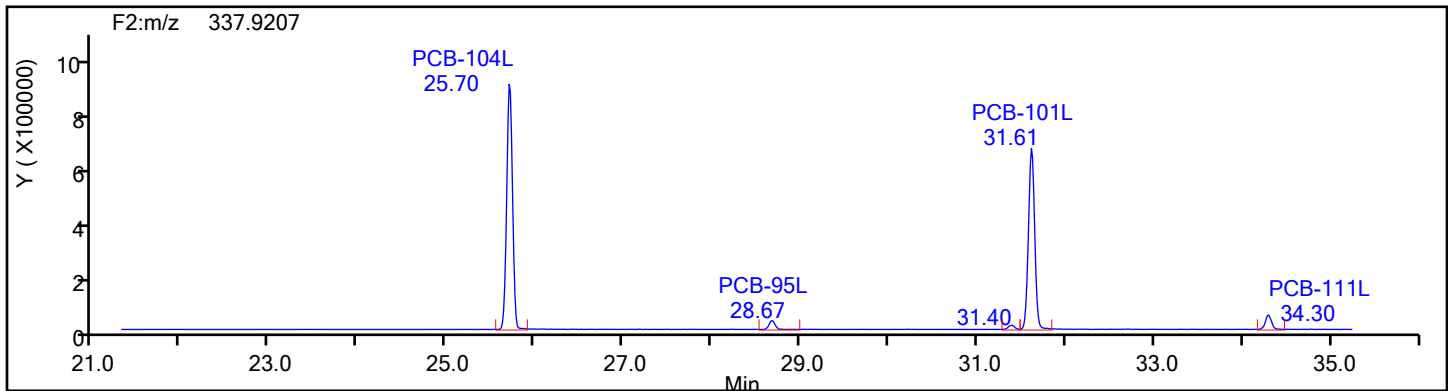
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F2



## PePCB F2 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

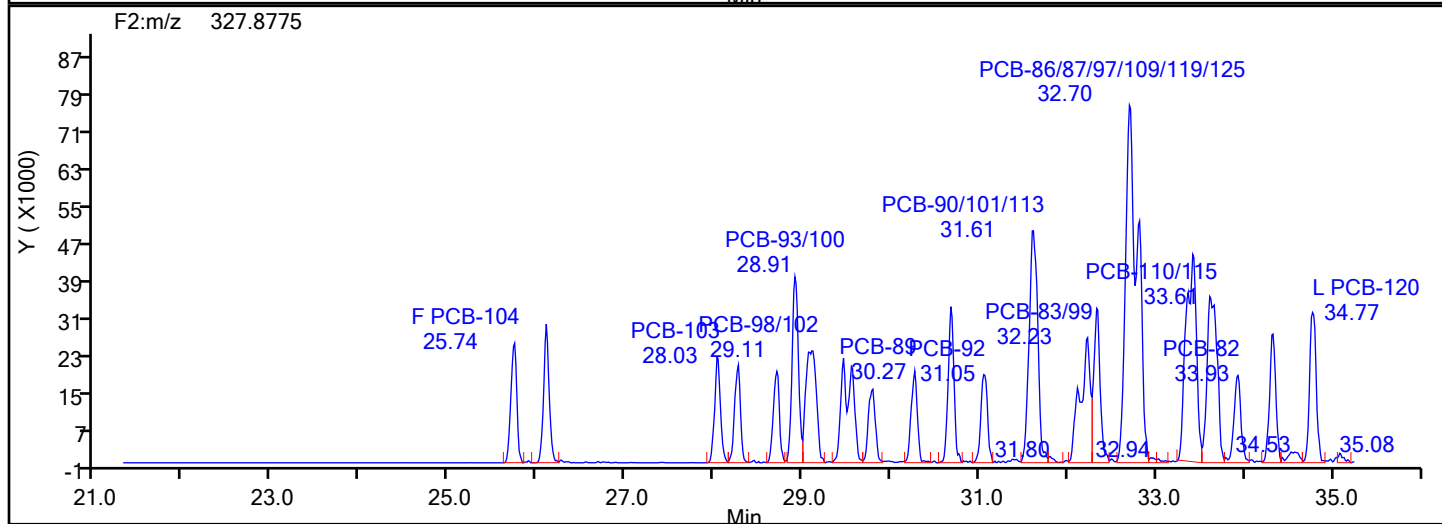
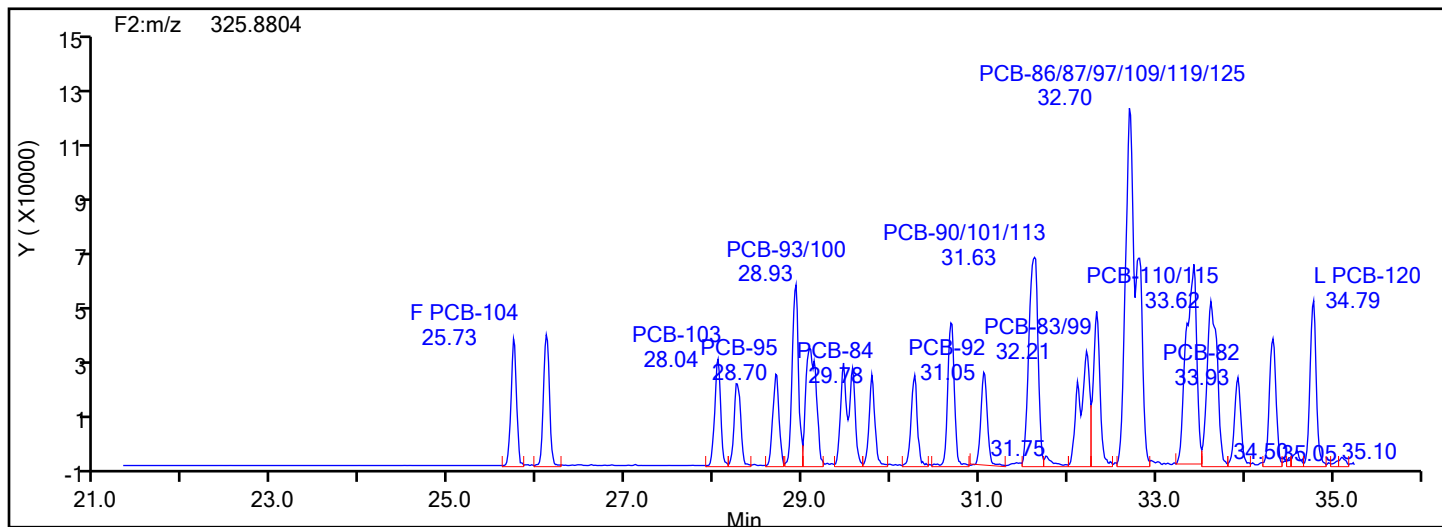
Worklist#: 87130

Sample Line#: 3

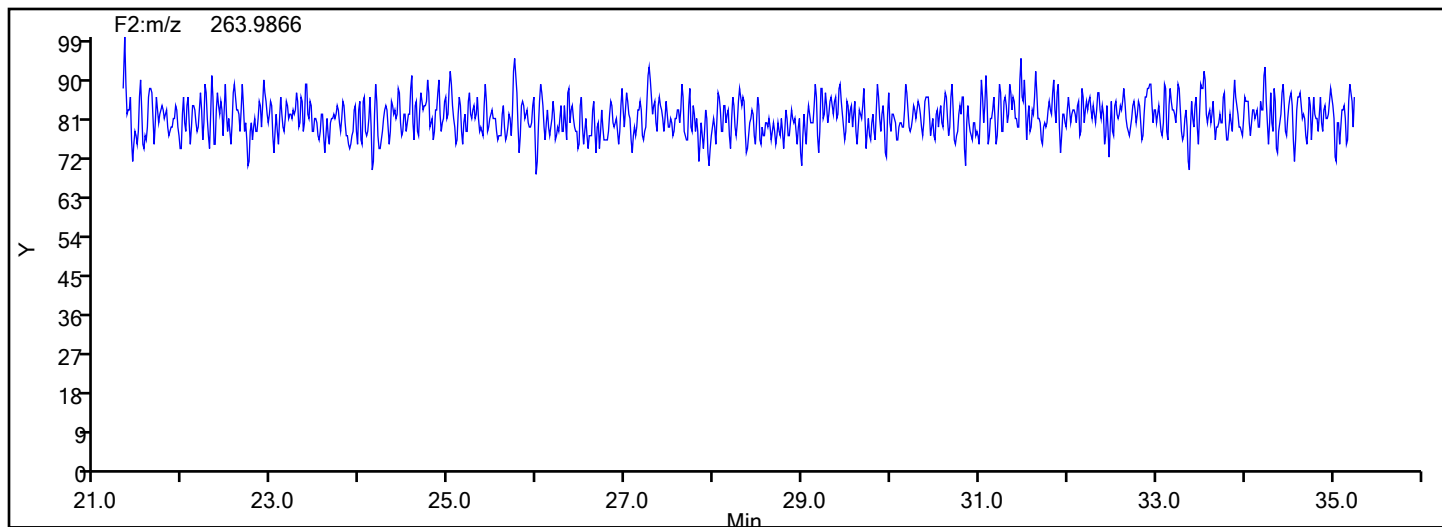
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F2



## PePCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

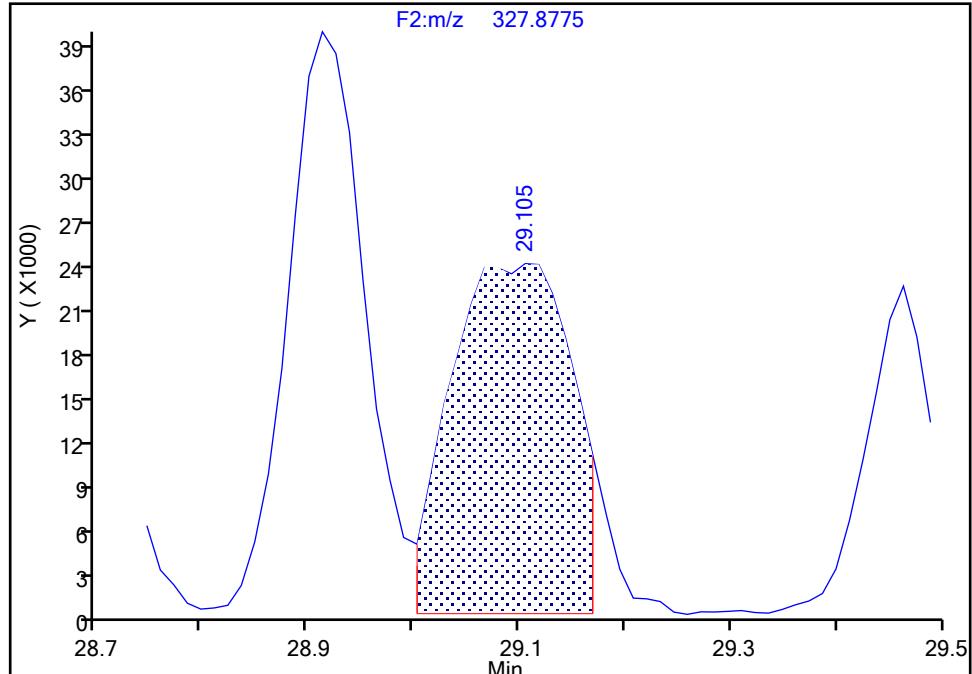
Detector F2(21.81 :35.54 )

**PCB-98/102, CAS: STL01843**

Signal: 2

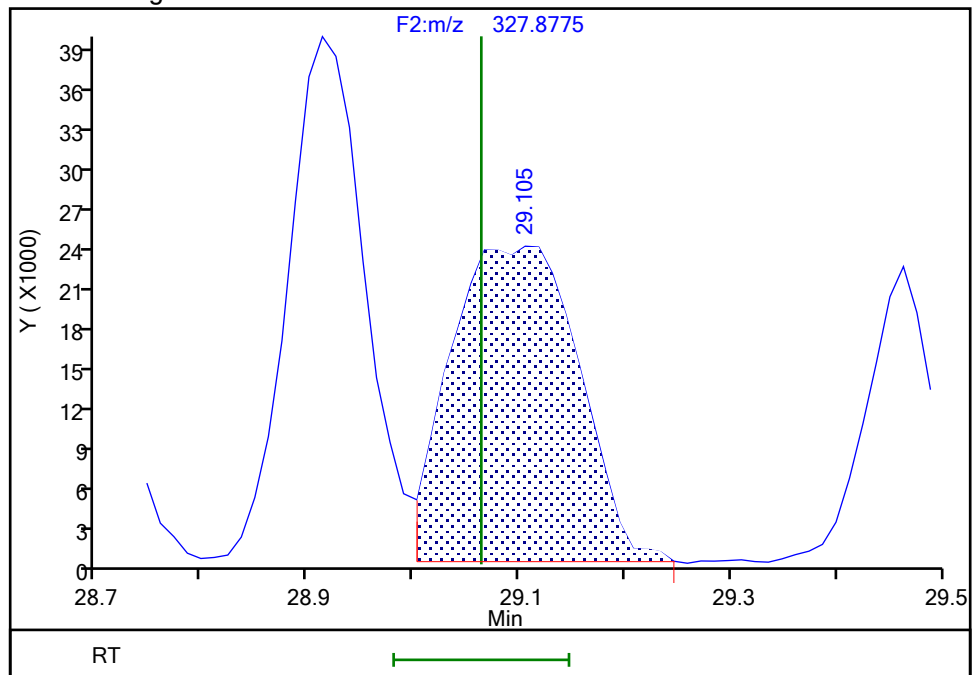
RT: 29.11  
Area: 186251  
Amount: 9.475668  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.11  
Area: 199350  
Amount: 10.104036  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:46:07 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

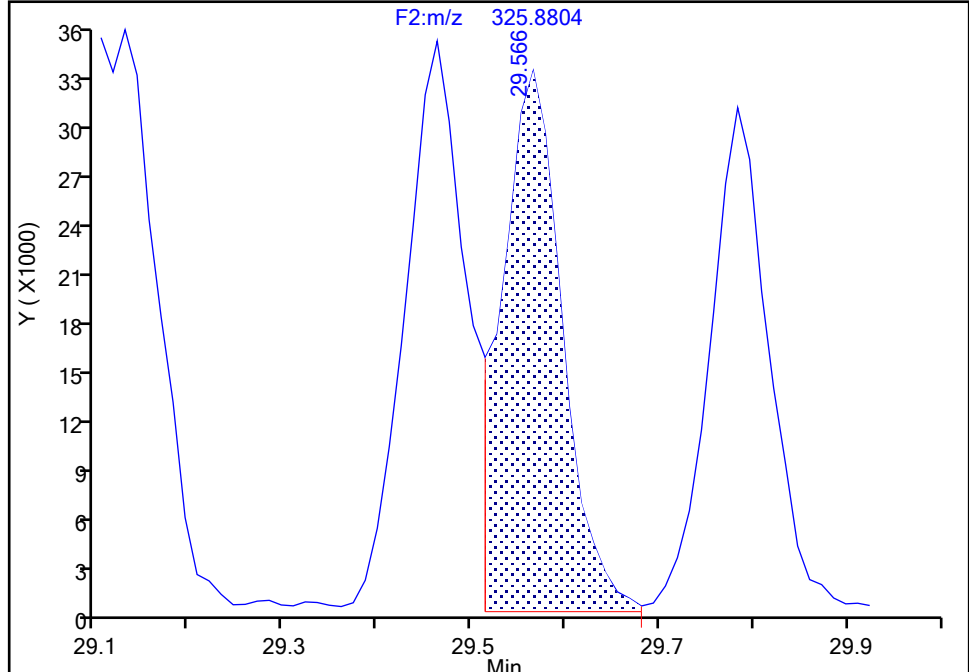
Detector F2(21.81 :35.54 )

PCB-88/91, CAS: STL01812

Signal: 1

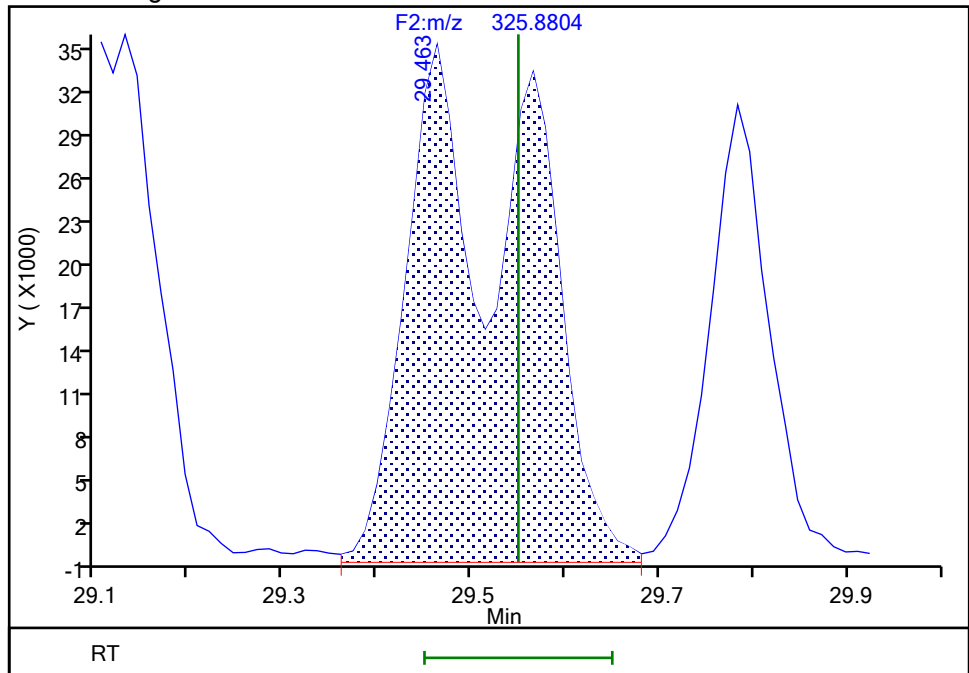
RT: 29.57  
Area: 147771  
Amount: 5.359548  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.46  
Area: 306322  
Amount: 9.844164  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:46:20 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

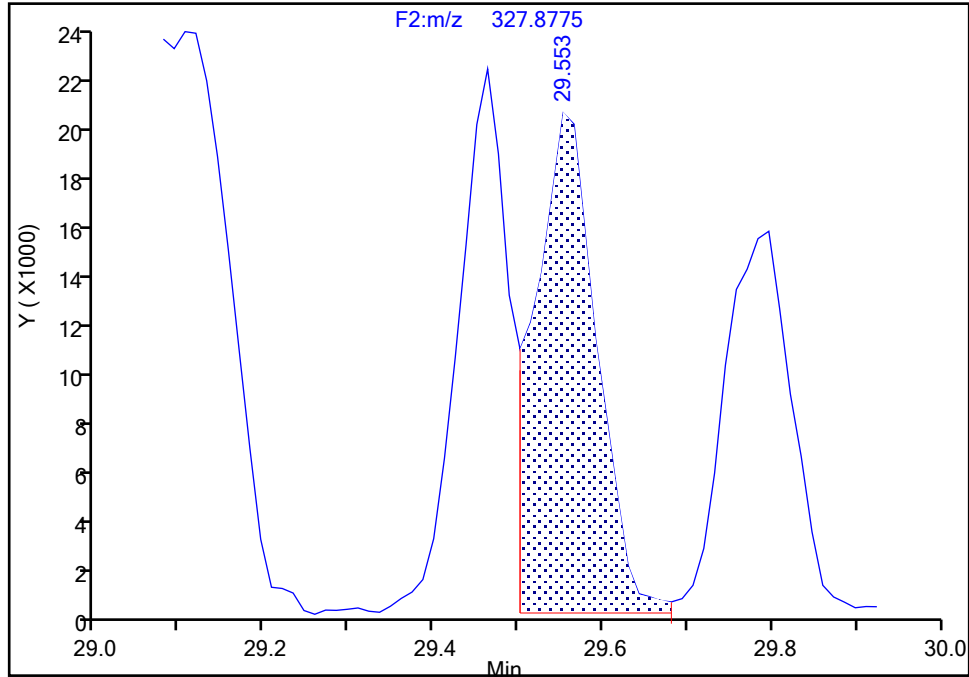
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d  
Injection Date: 31-May-2024 18:00:00 Instrument ID: D2D  
Lims ID: IC L3  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

## PCB-88/91, CAS: STL01812

Signal: 2

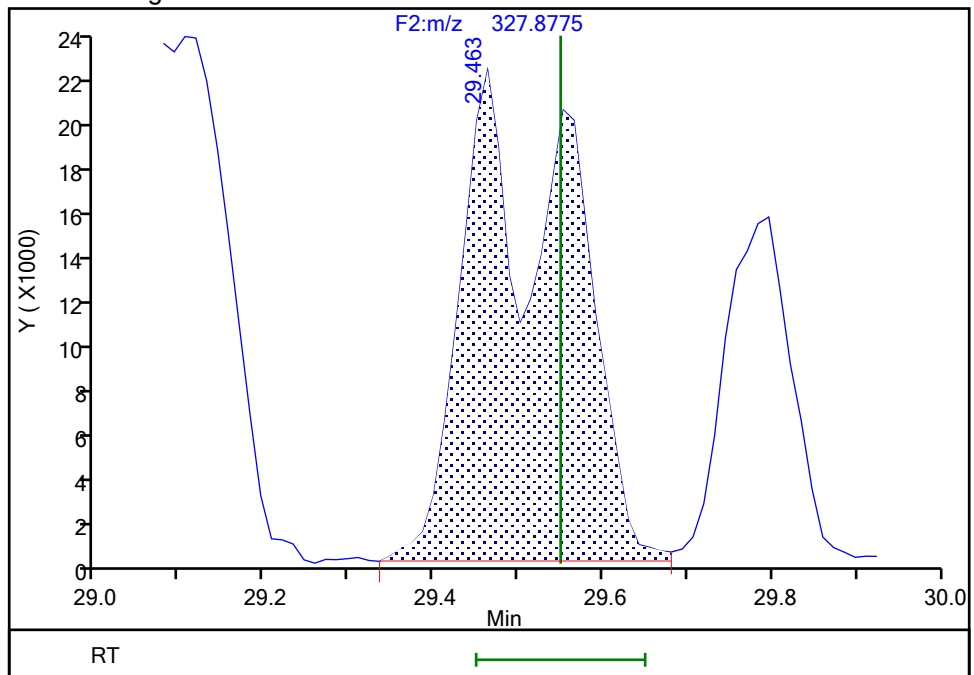
RT: 29.55  
Area: 102135  
Amount: 5.359548  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.46  
Area: 191203  
Amount: 9.844164  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:46:26 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 2024052917  
9/6/2024  
4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

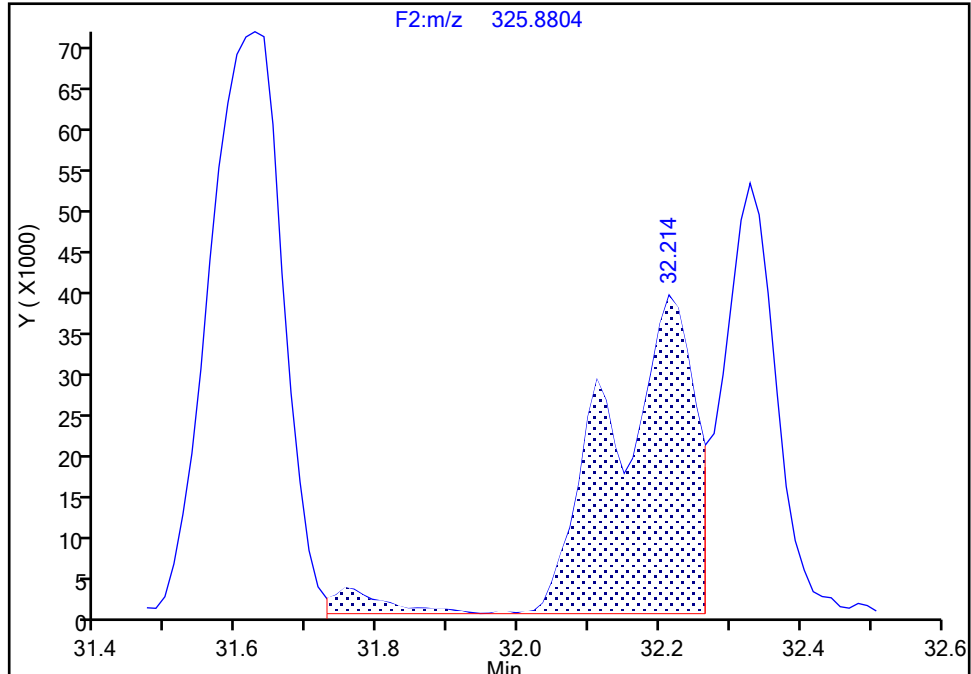
Detector F2(21.81 :35.54 )

**PCB-83/99, CAS: STL01809**

Signal: 1

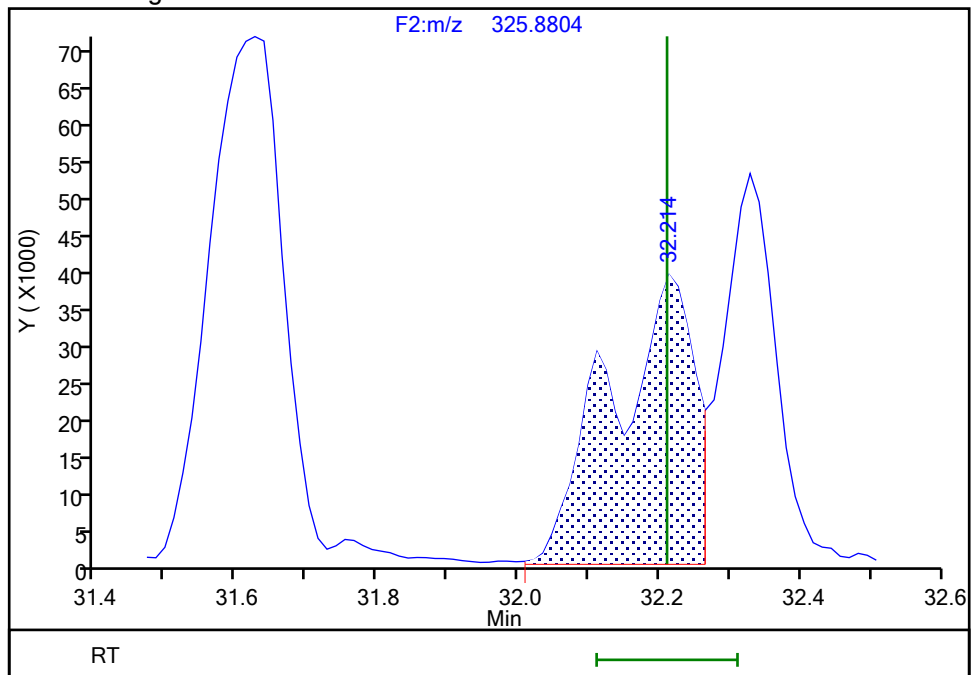
RT: 32.21  
Area: 334118  
Amount: 9.973734  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.21  
Area: 315858  
Amount: 10.000444  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:46:40 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

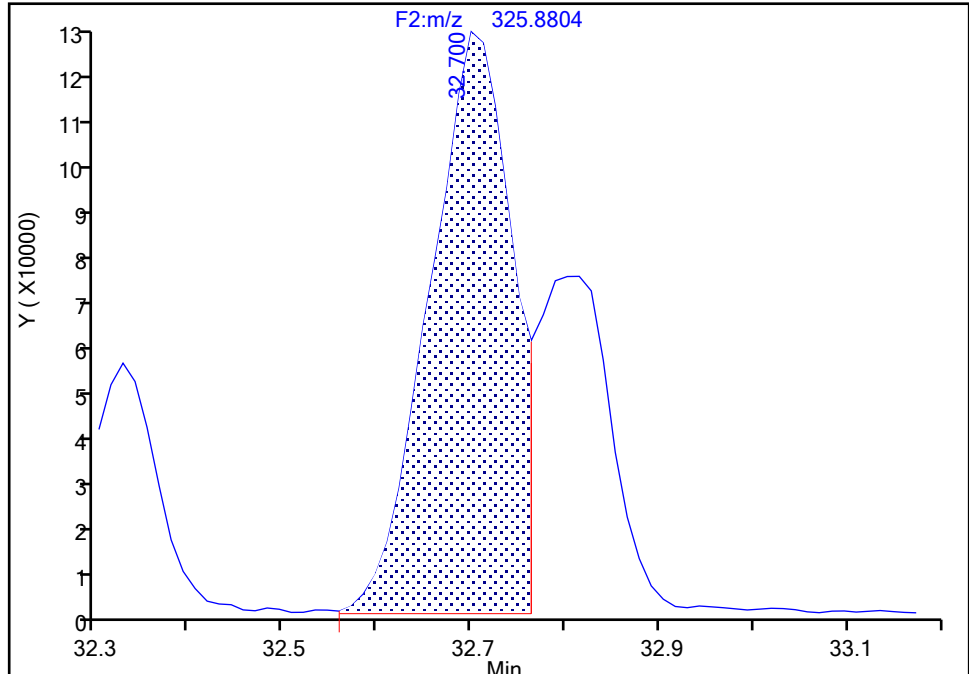
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi3.d  
Injection Date: 31-May-2024 18:00:00 Instrument ID: D2D  
Lims ID: IC L3  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-86/87/97/109/119/125, CAS: STL02295

Signal: 1

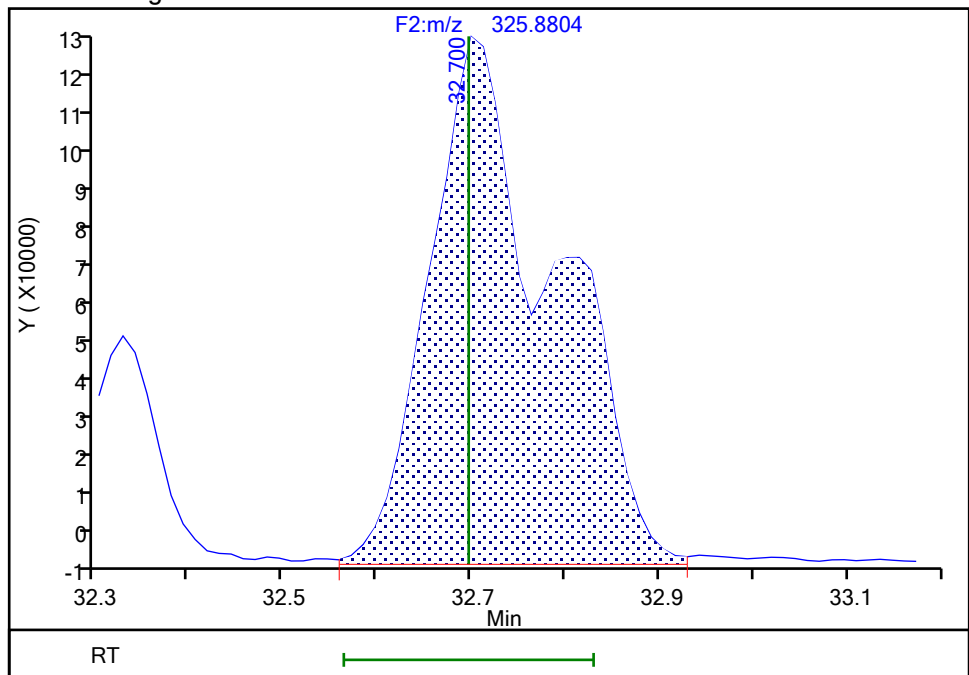
RT: 32.70  
Area: 743812  
Amount: 19.598860  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.70  
Area: 1133108  
Amount: 27.958304  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:46:58 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

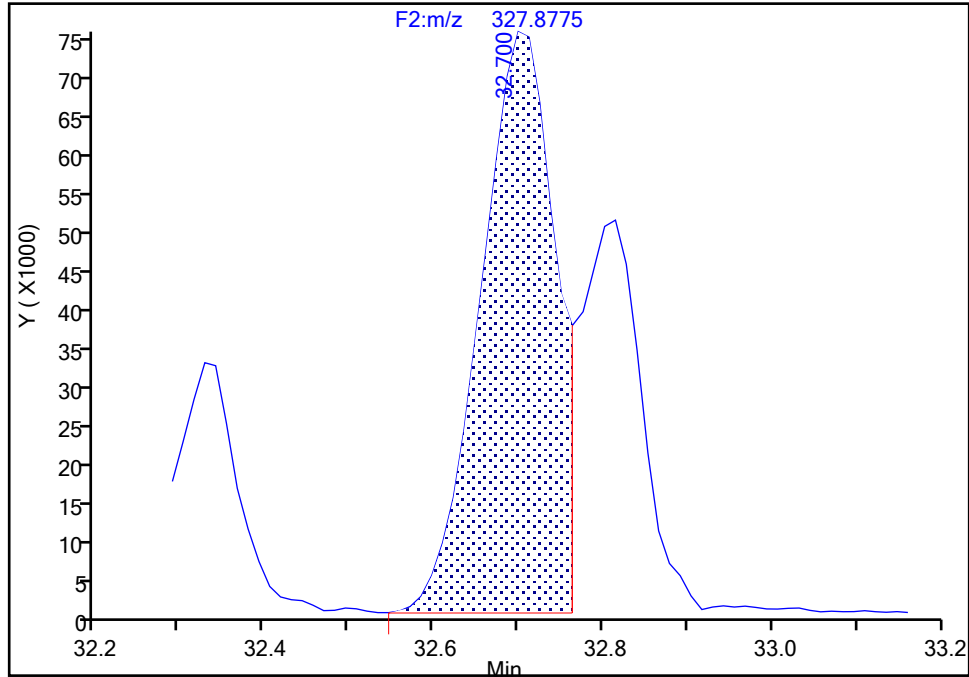
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d  
Injection Date: 31-May-2024 18:00:00 Instrument ID: D2D  
Lims ID: IC L3  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-86/87/97/109/119/125, CAS: STL02295

Signal: 2

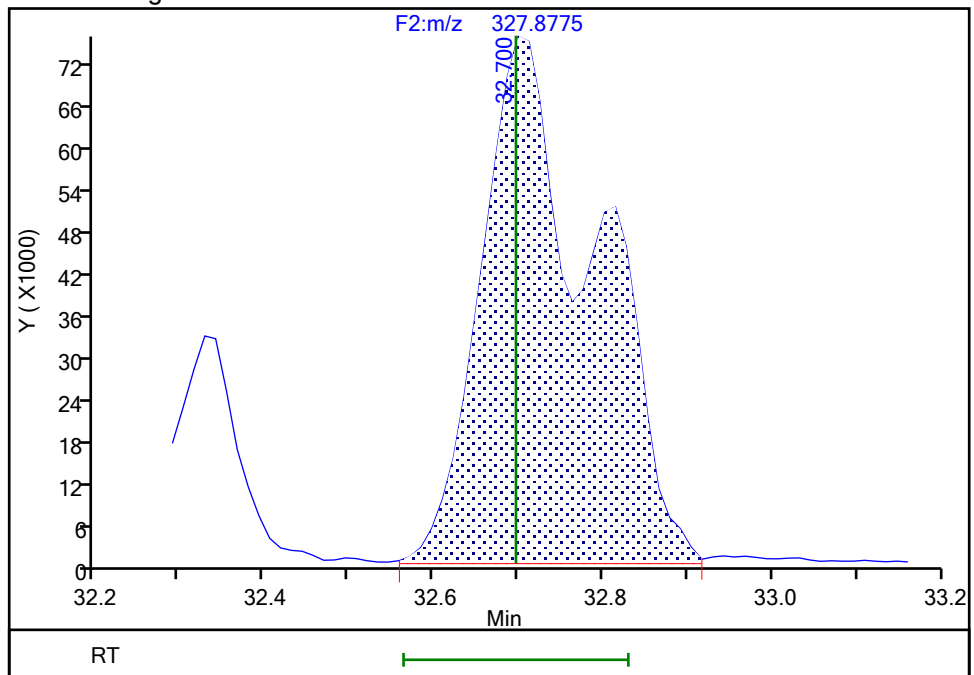
RT: 32.70  
Area: 461152  
Amount: 19.598860  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.70  
Area: 713670  
Amount: 27.958304  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:47:03 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

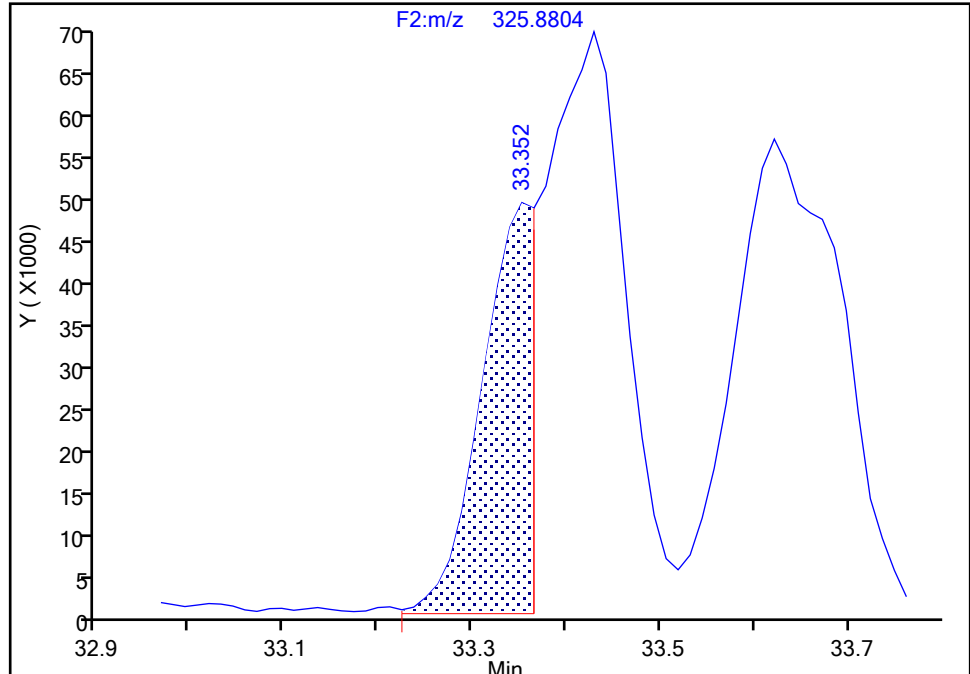
Detector F2(21.81 :35.54 )

**PCB-85/116/117, CAS: STL01810**

Signal: 1

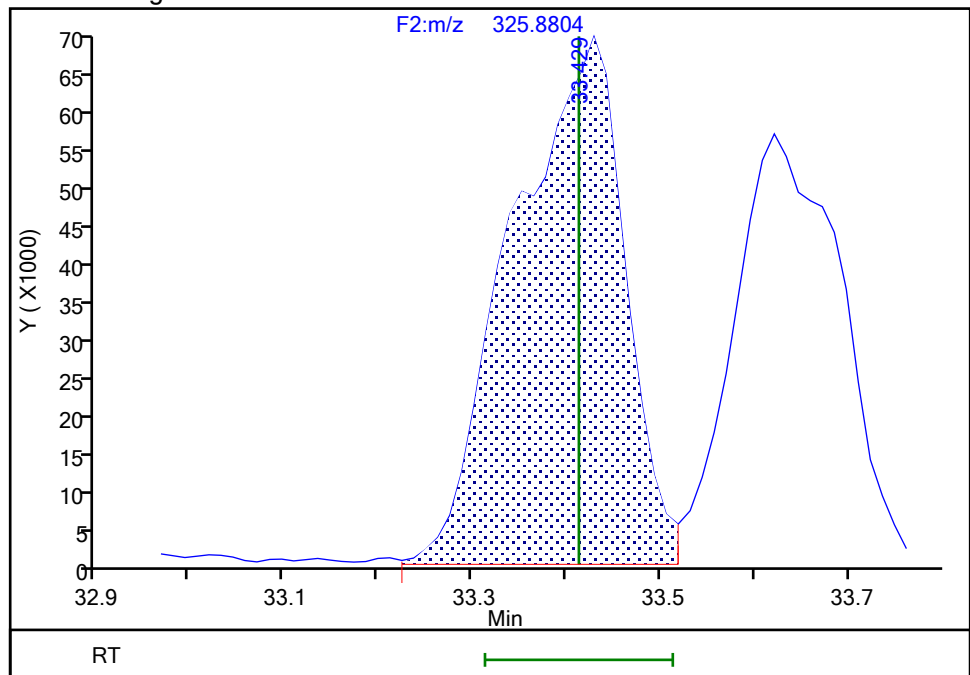
RT: 33.35  
Area: 180066  
Amount: 5.936423  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.43  
Area: 572951  
Amount: 14.293951  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:47:15 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline



## Eurofins Knoxville

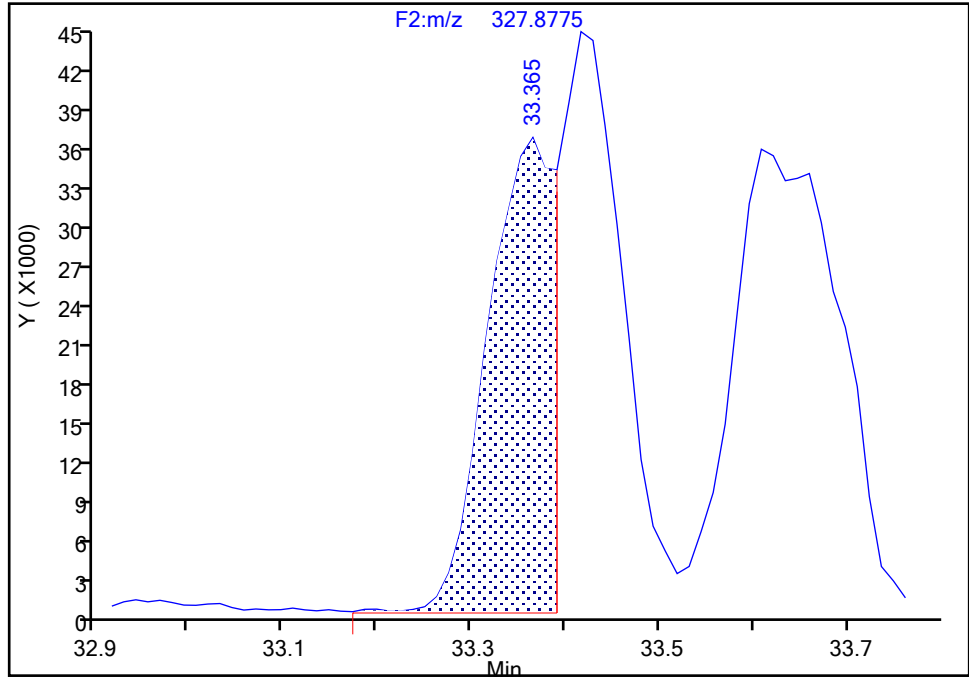
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d  
Injection Date: 31-May-2024 18:00:00 Instrument ID: D2D  
Lims ID: IC L3  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-85/116/117, CAS: STL01810

Signal: 2

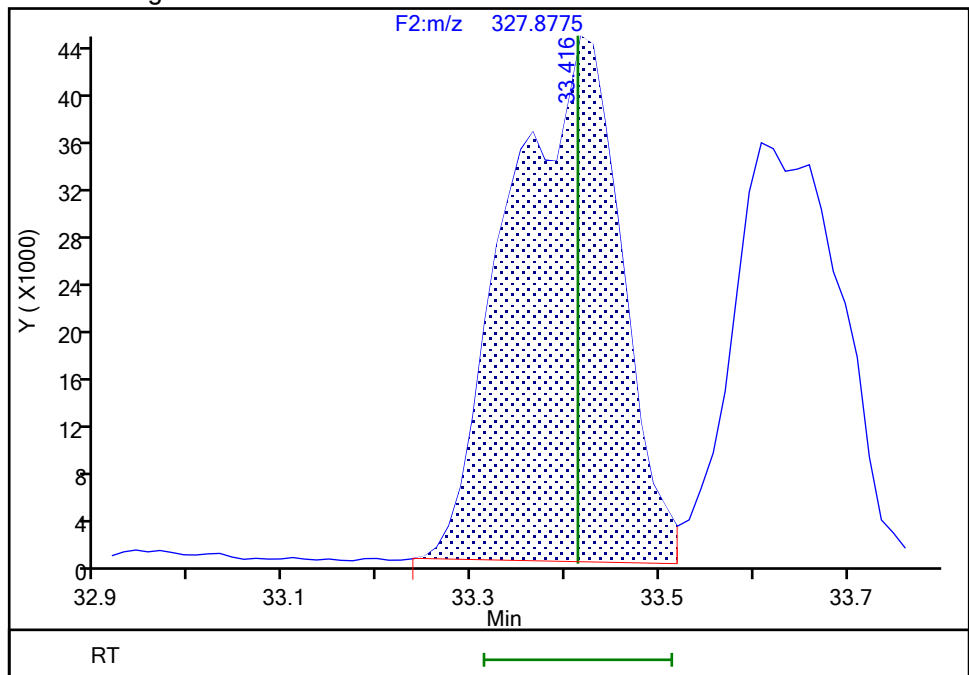
RT: 33.37  
Area: 172825  
Amount: 5.936423  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.42  
Area: 365388  
Amount: 14.293951  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:47:21 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 2024052922

9/6/2024  
4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

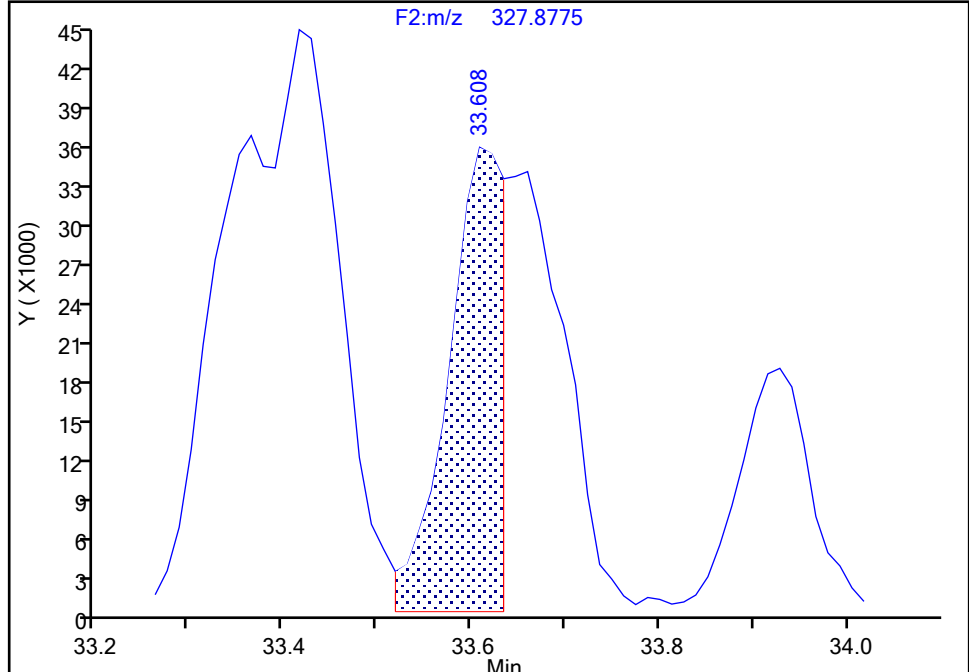
Detector F2(21.81 :35.54 )

**PCB-110/115, CAS: STL01826**

Signal: 2

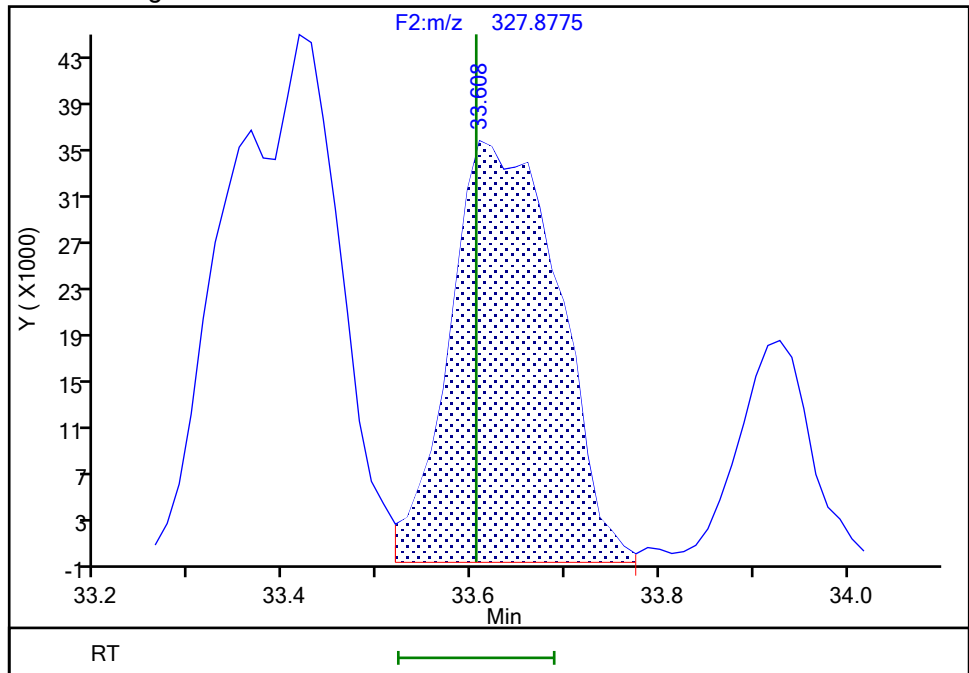
RT: 33.61  
Area: 135008  
Amount: 7.549598  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.61  
Area: 283256  
Amount: 9.765207  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:47:30 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

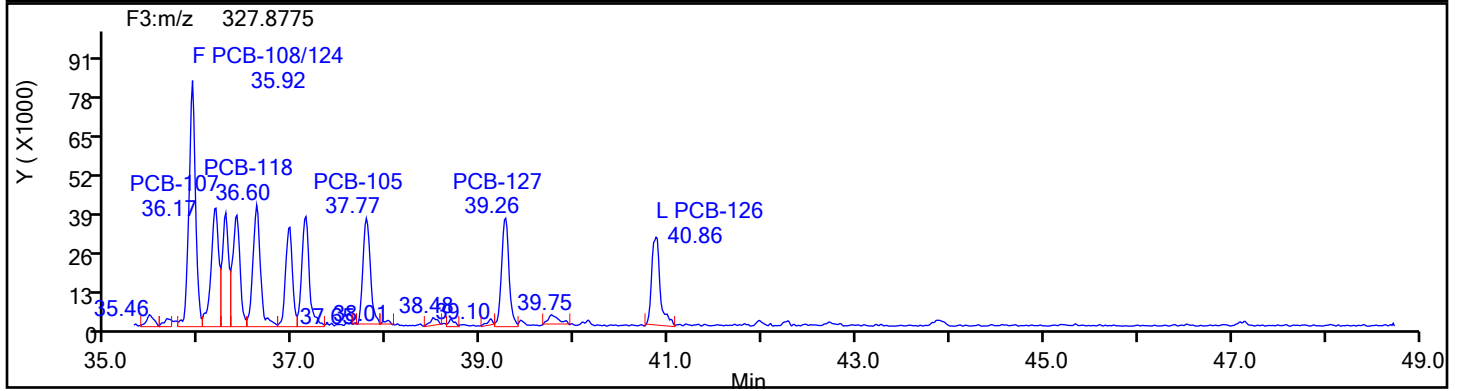
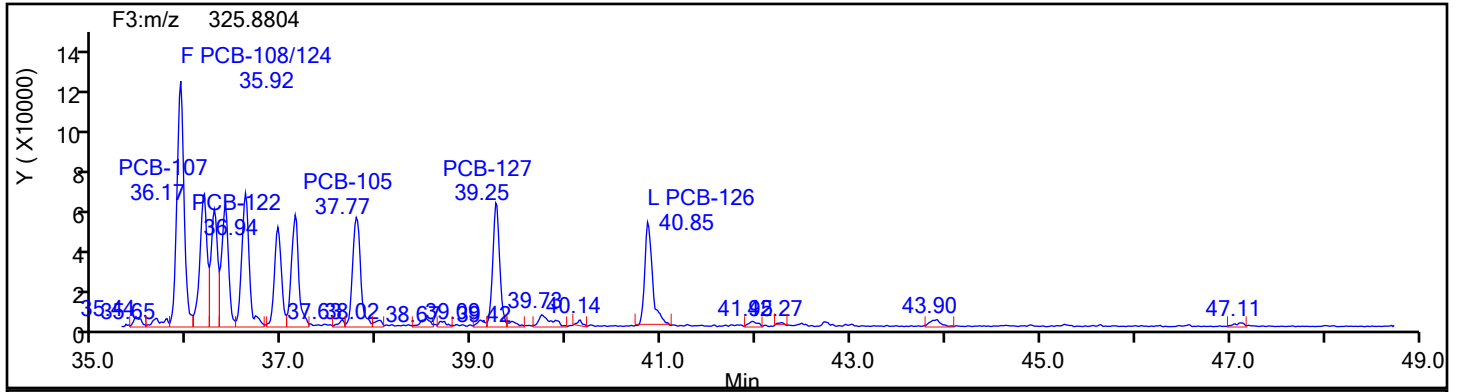
Worklist#: 87130

Sample Line#: 3

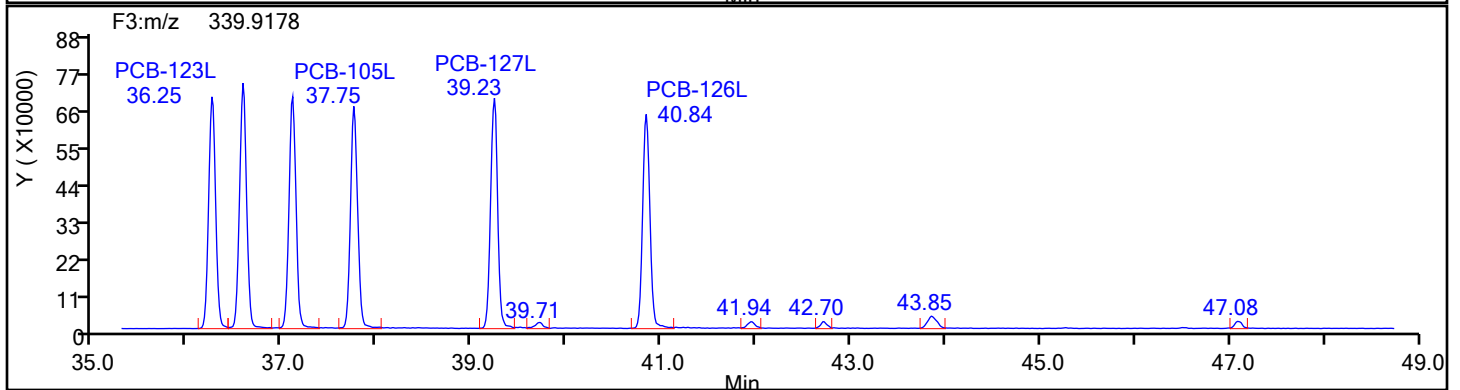
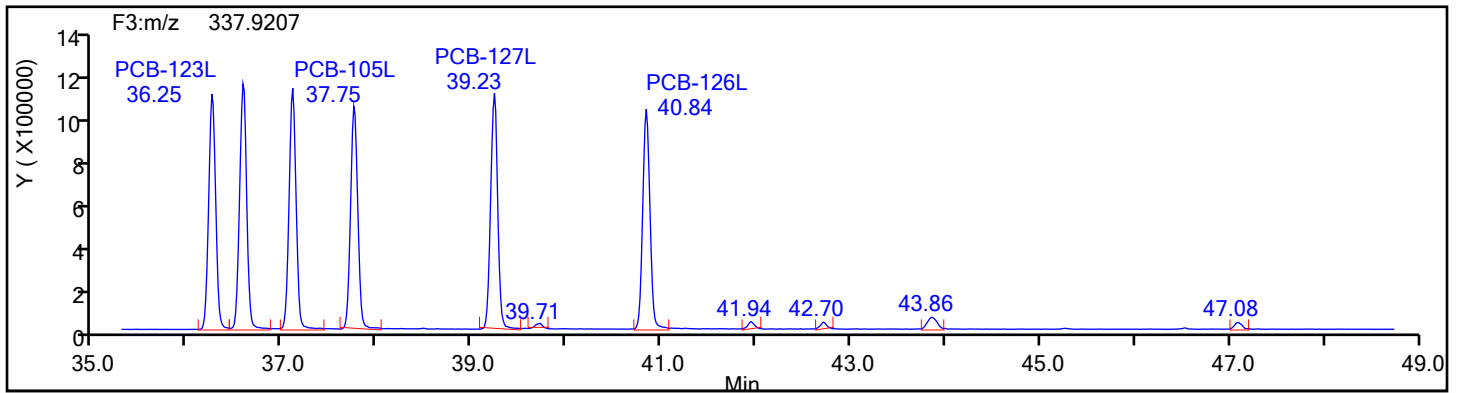
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



PePCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

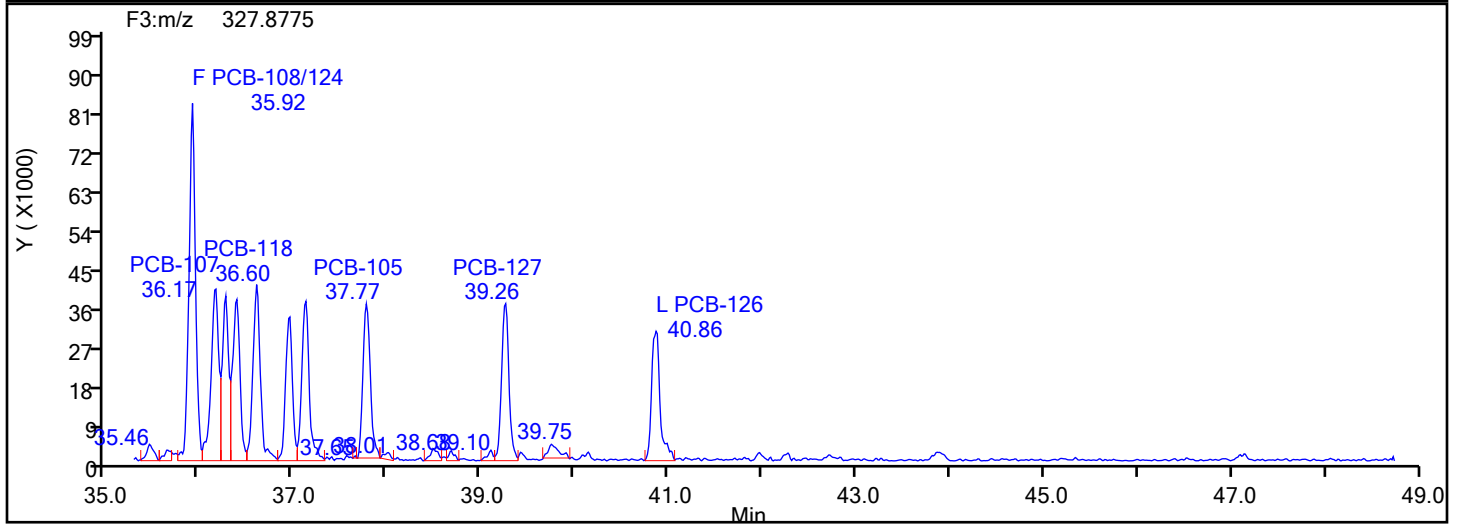
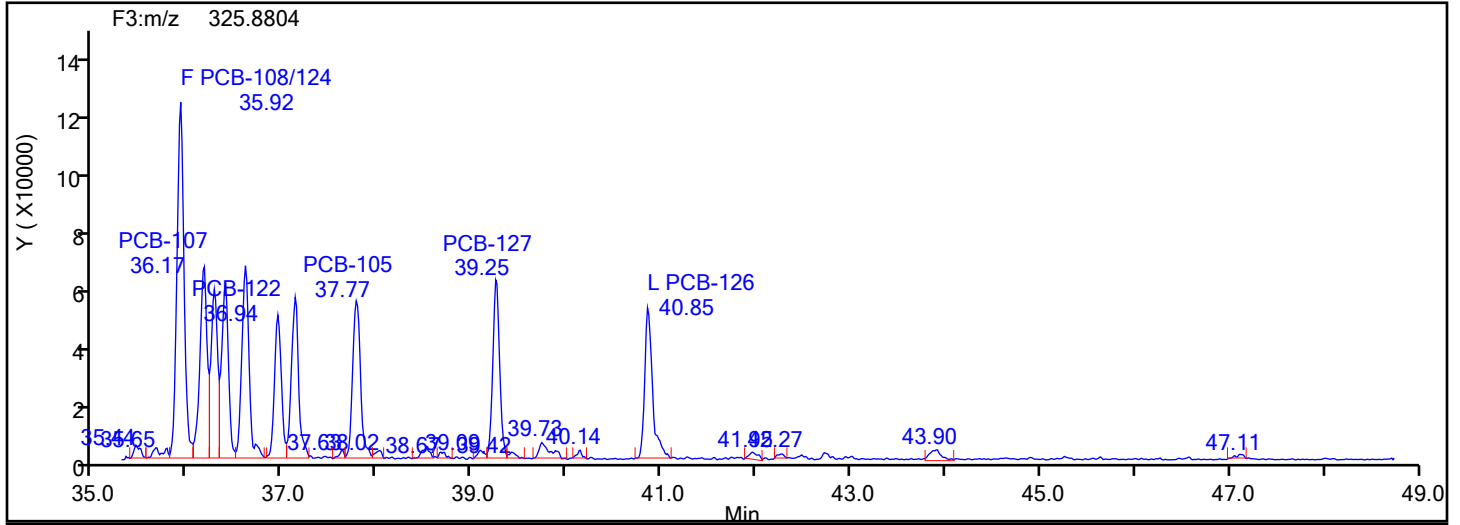
Worklist#: 87130

Sample Line#: 3

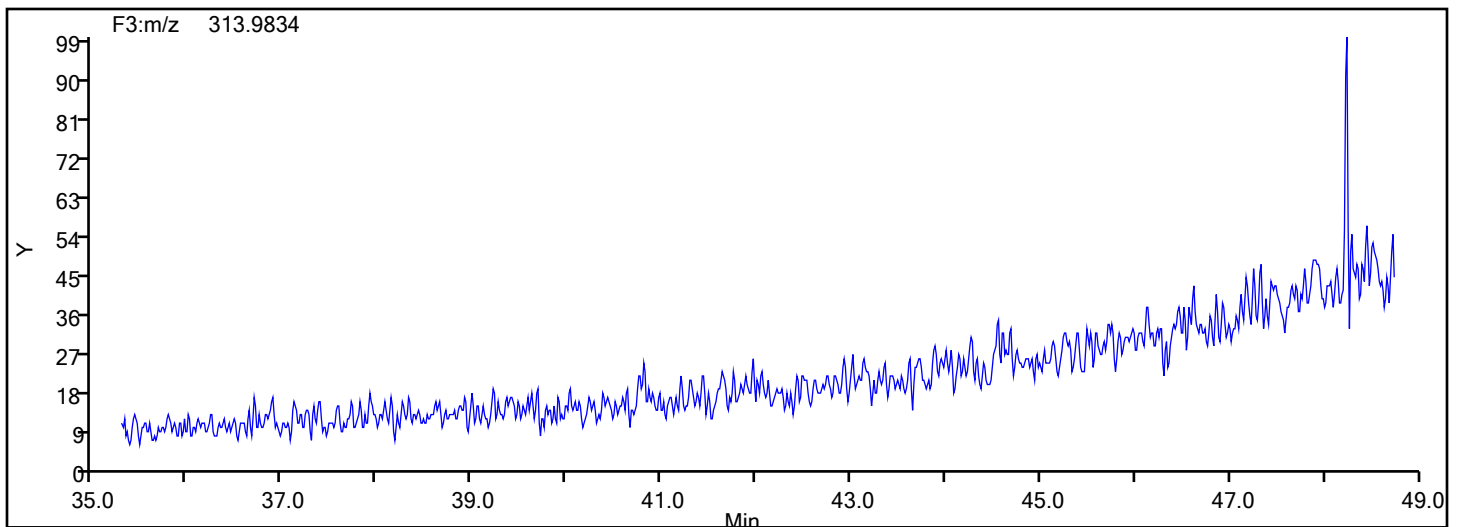
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



## PePCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

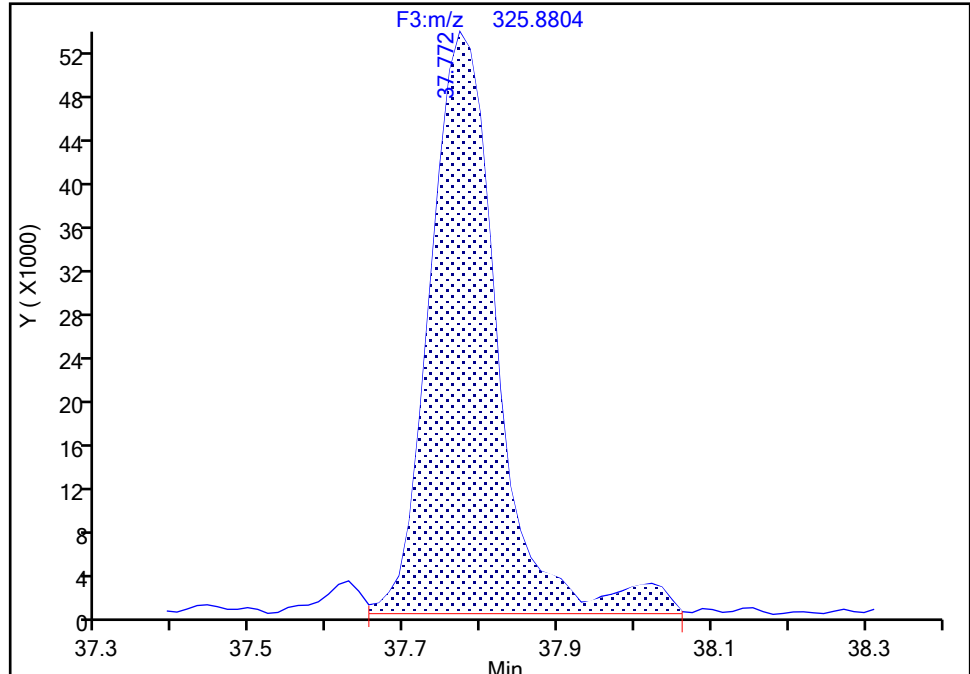
Detector F3(35.64 :49.10 )

PCB-105, CAS: 32598-14-4

Signal: 1

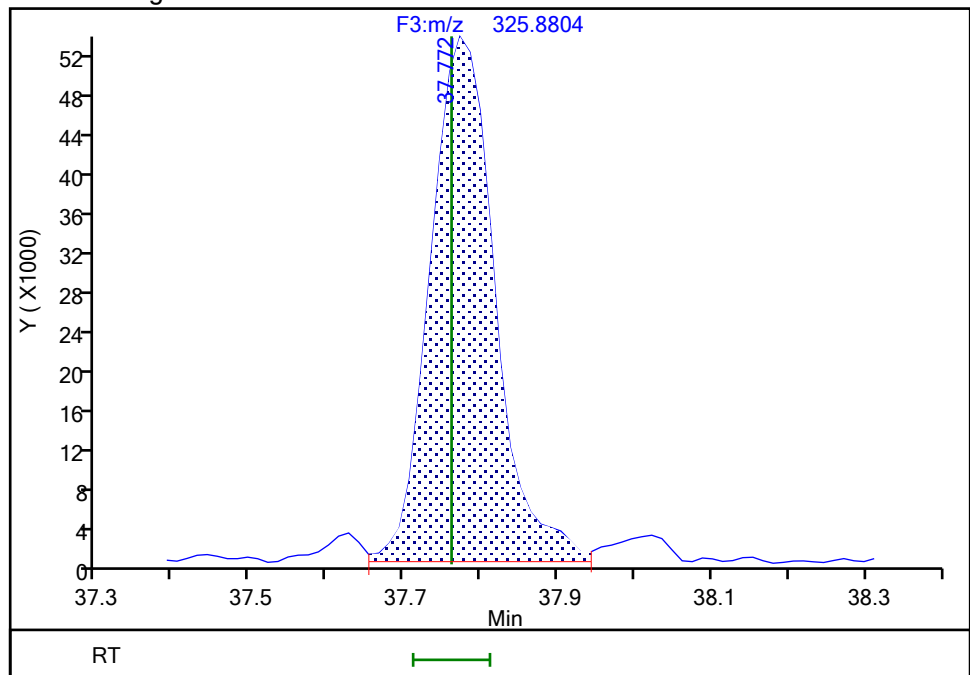
RT: 37.77  
Area: 326291  
Amount: 4.977767  
Amount Units: pg/ul

## Processing Integration Results



RT: 37.77  
Area: 313087  
Amount: 4.755654  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:47:51 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

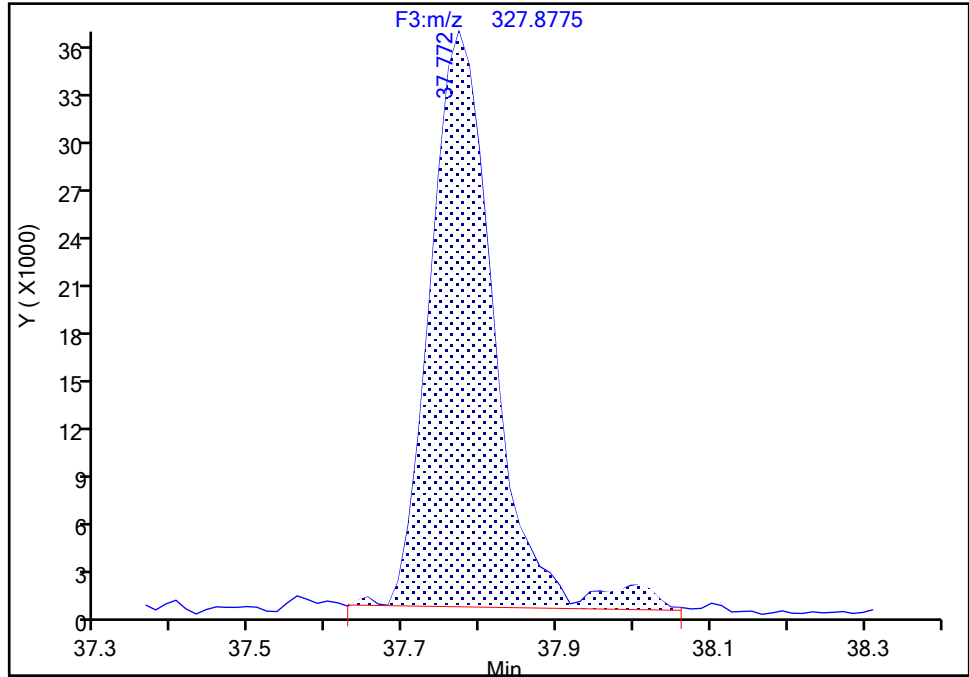
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d  
Injection Date: 31-May-2024 18:00:00 Instrument ID: D2D  
Lims ID: IC L3  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-105, CAS: 32598-14-4

Signal: 2

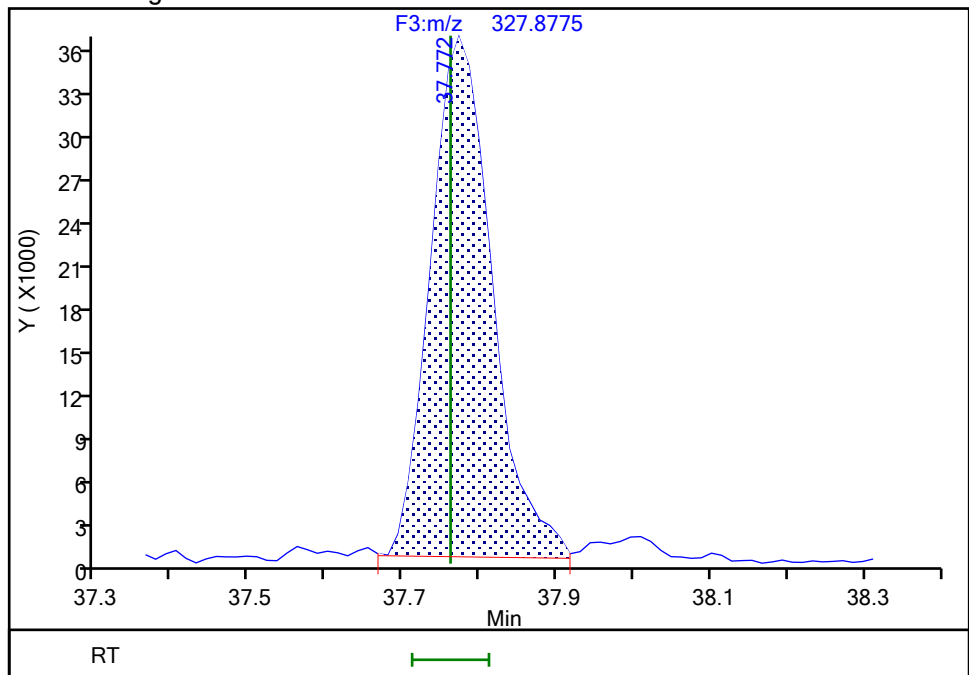
RT: 37.77  
Area: 209289  
Amount: 4.977767  
Amount Units: pg/ul

## Processing Integration Results



RT: 37.77  
Area: 200314  
Amount: 4.755654  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:47:55 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

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BASFHWC-Pass 2024052927  
9/6/2024  
4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

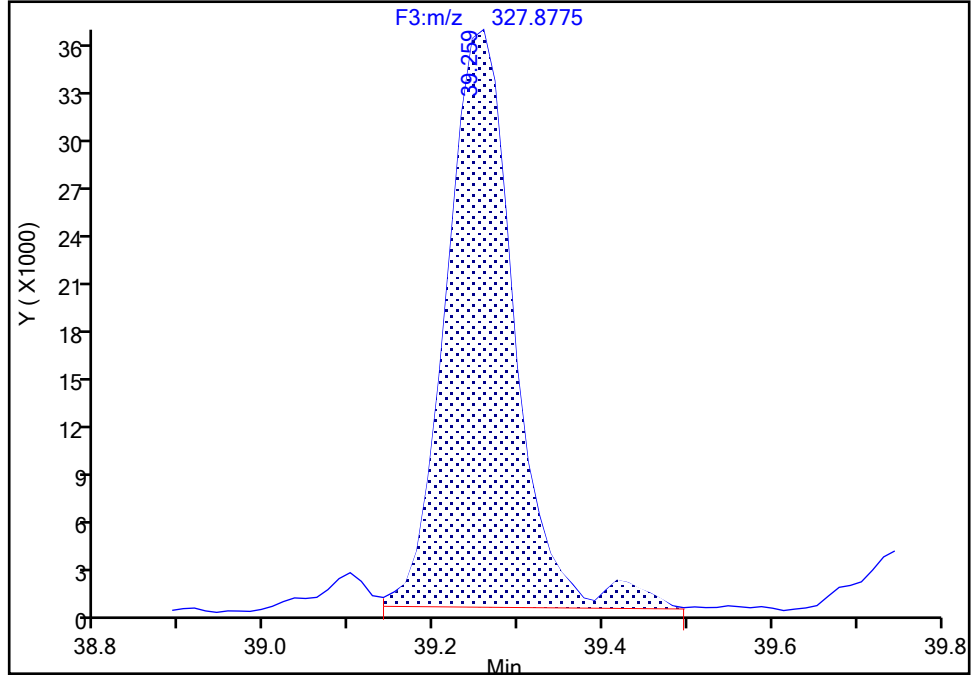
Detector F3(35.64 :49.10 )

**PCB-127, CAS: 39635-33-1**

Signal: 2

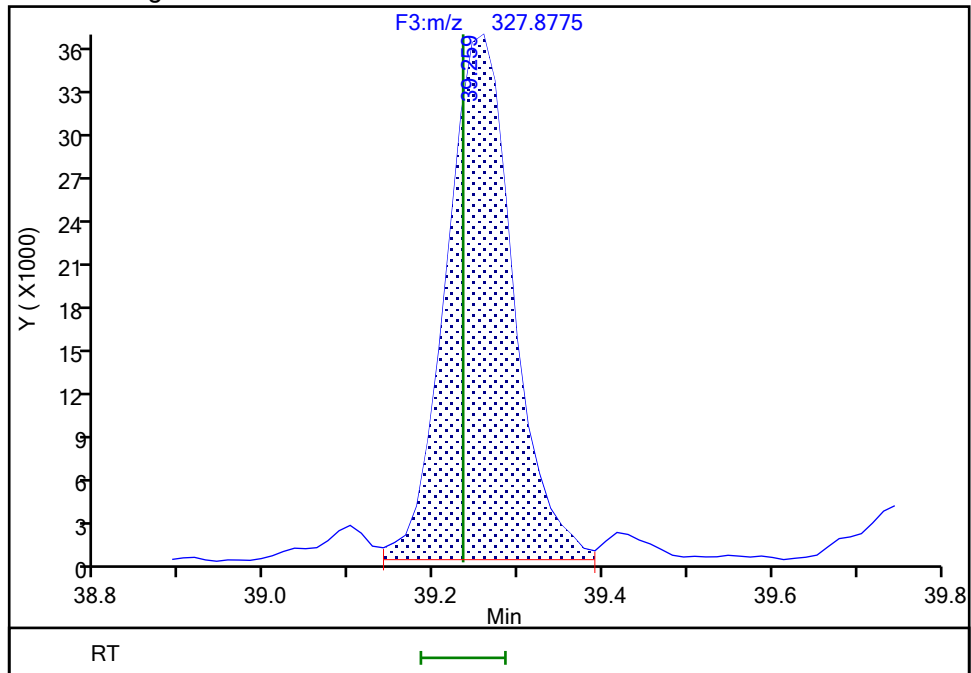
RT: 39.26  
Area: 202843  
Amount: 4.610039  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.26  
Area: 200669  
Amount: 4.755101  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:48:32 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

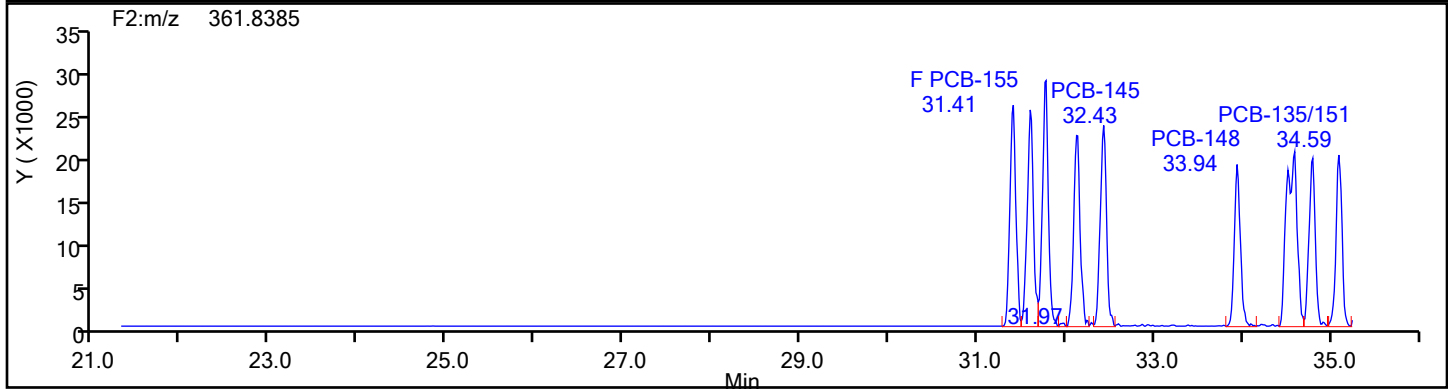
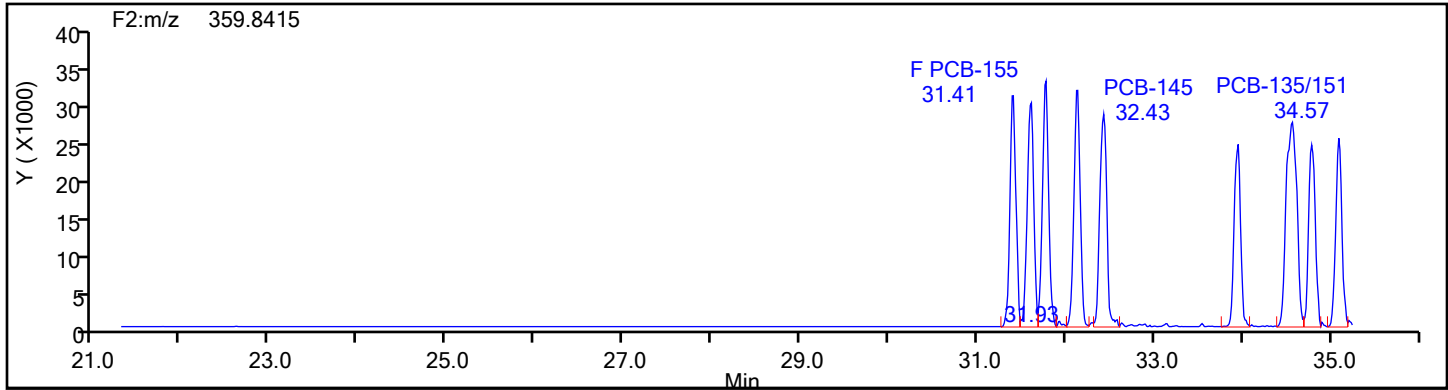
Worklist#: 87130

Sample Line#: 3

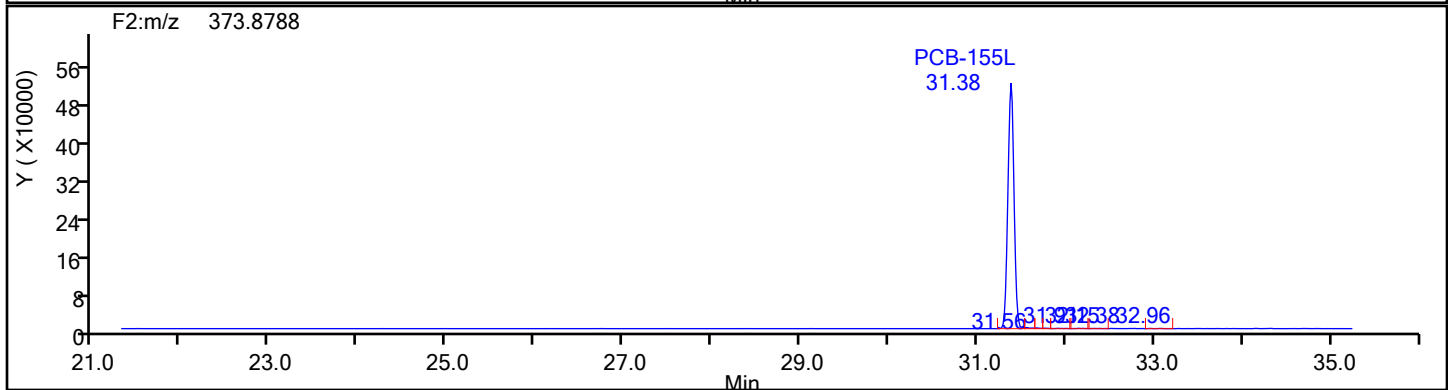
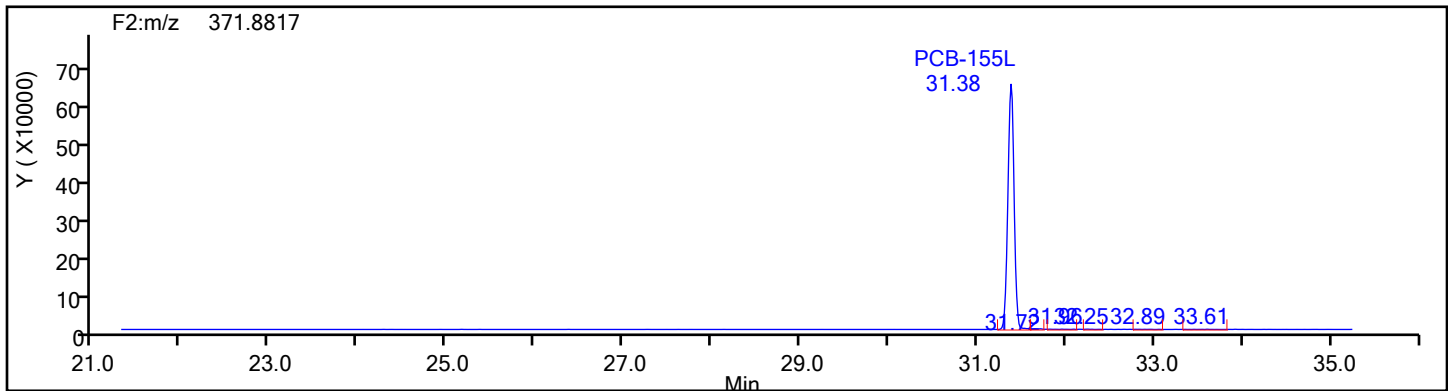
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F2



HxPCB F2 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

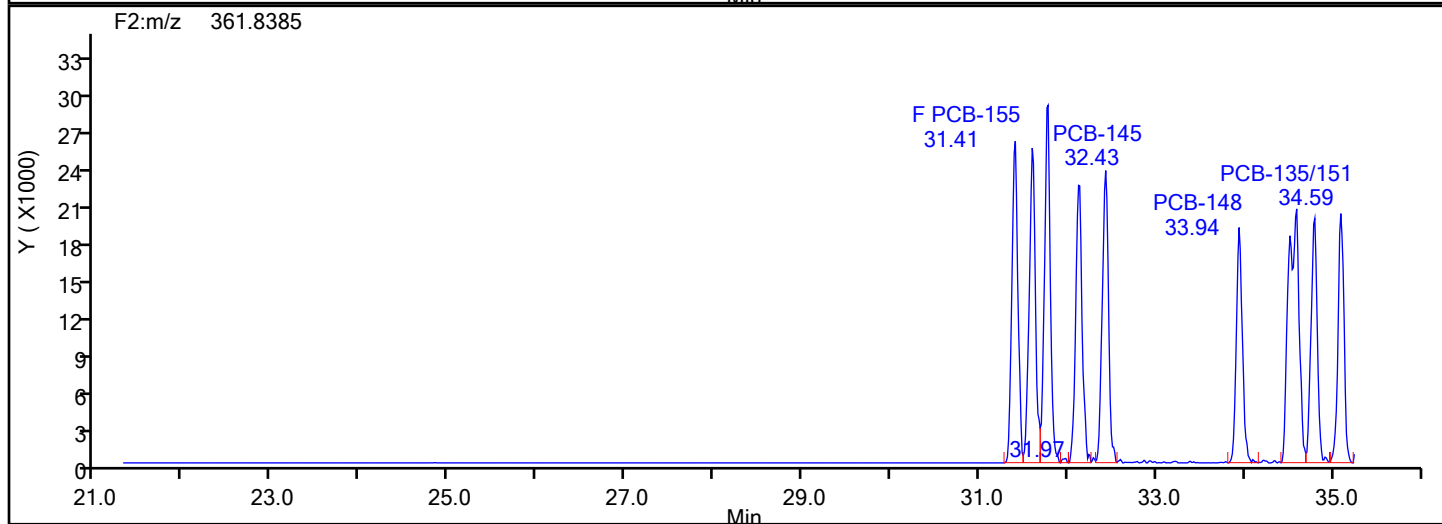
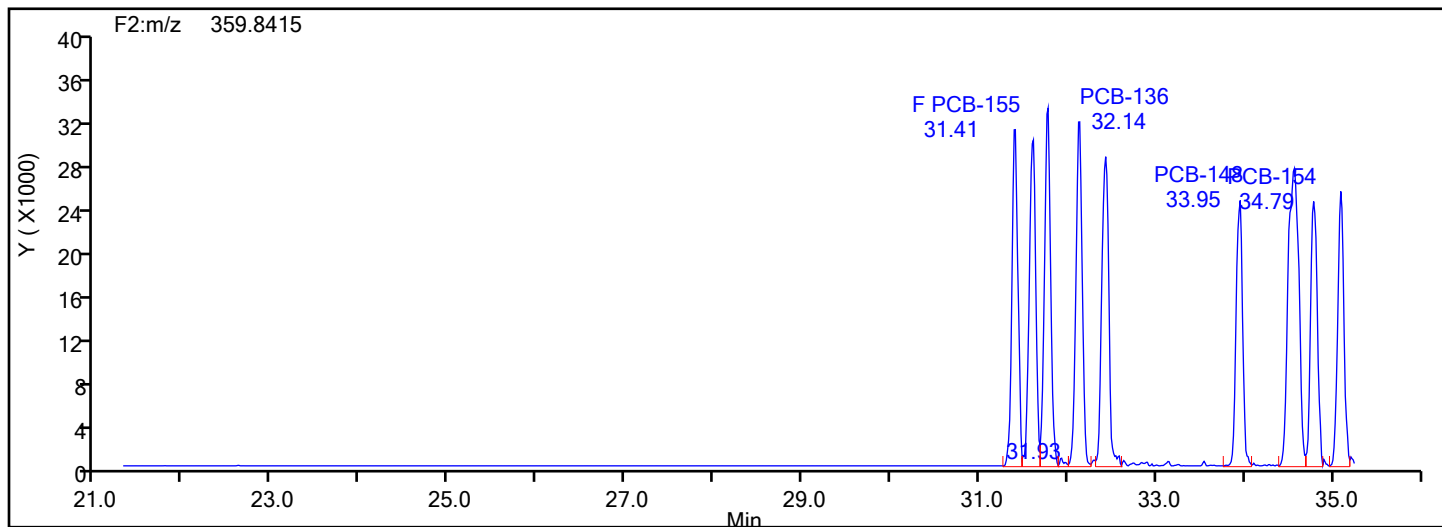
Worklist#: 87130

Sample Line#: 3

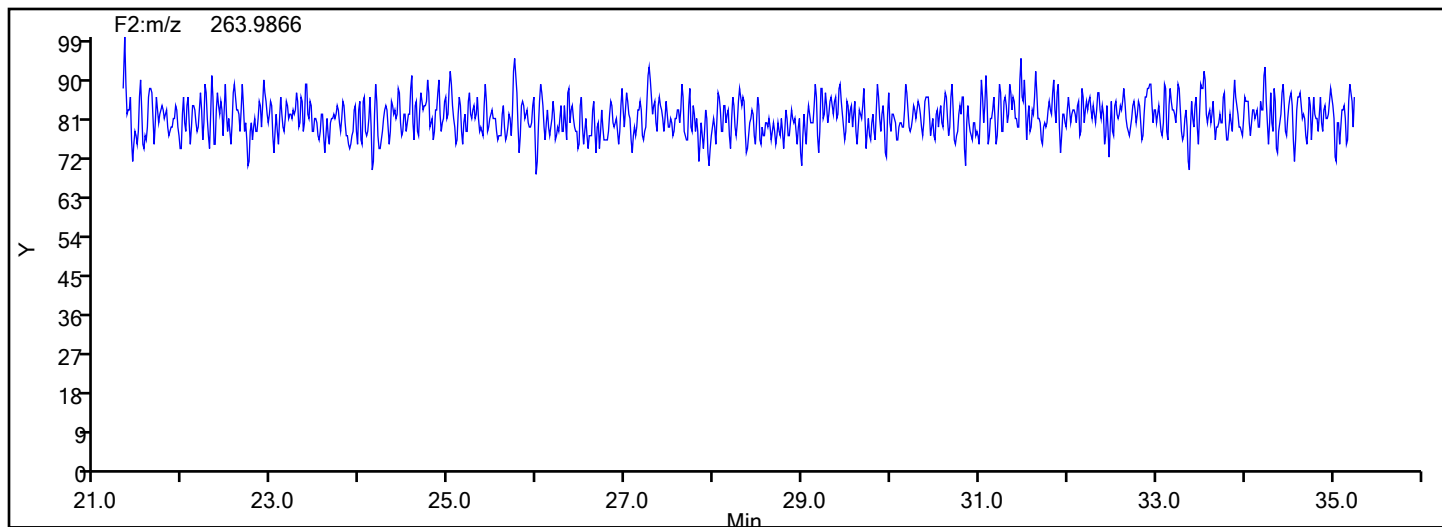
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F2



## HxPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

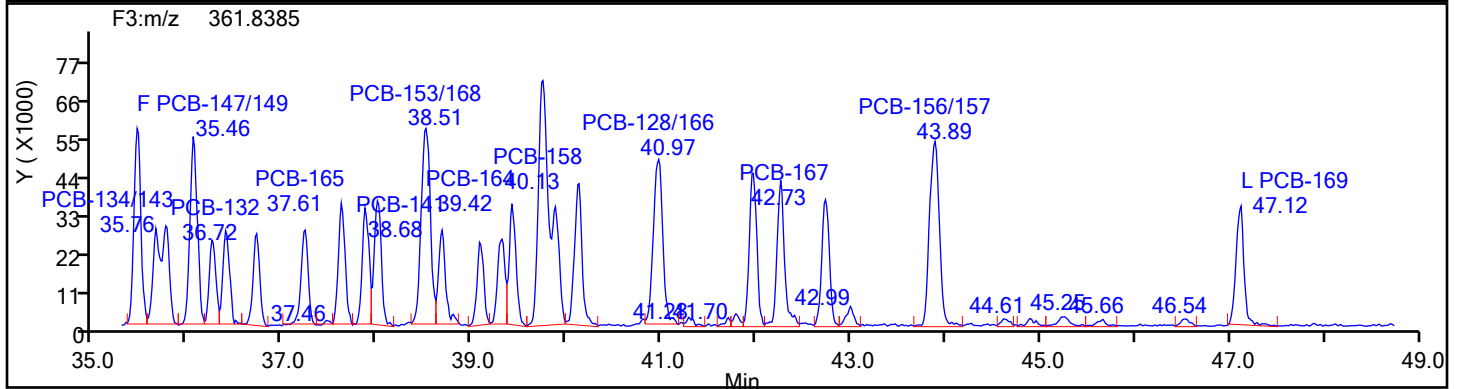
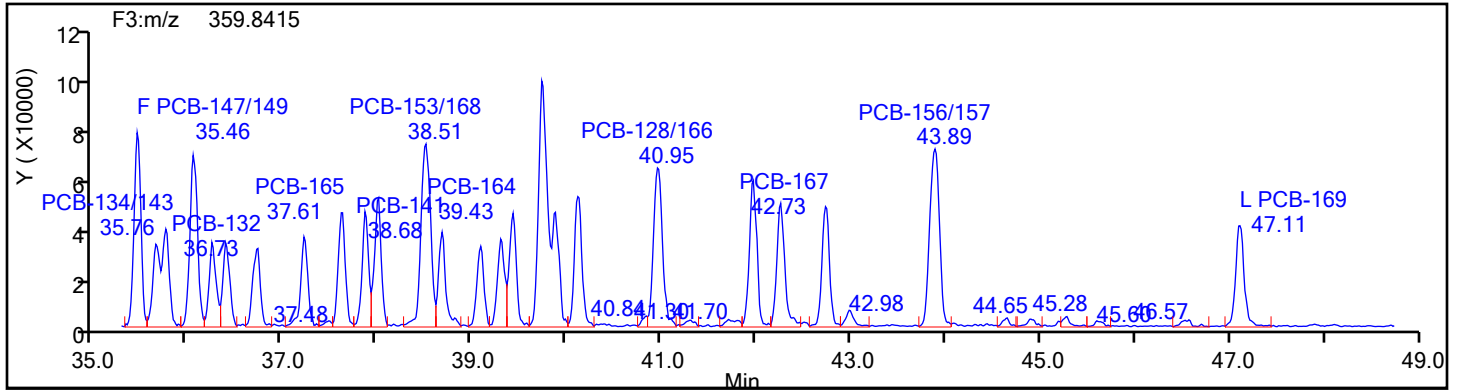
Worklist#: 87130

Sample Line#: 3

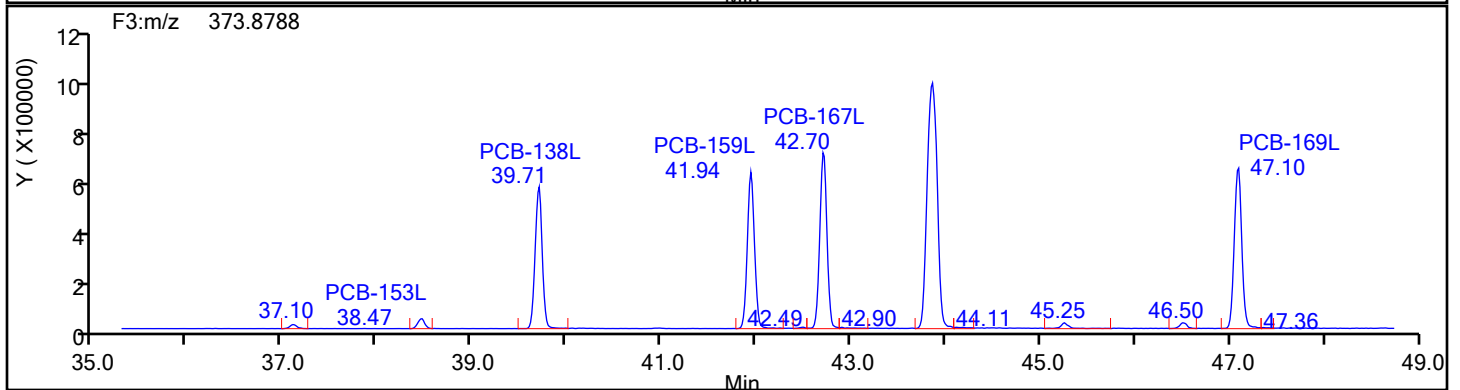
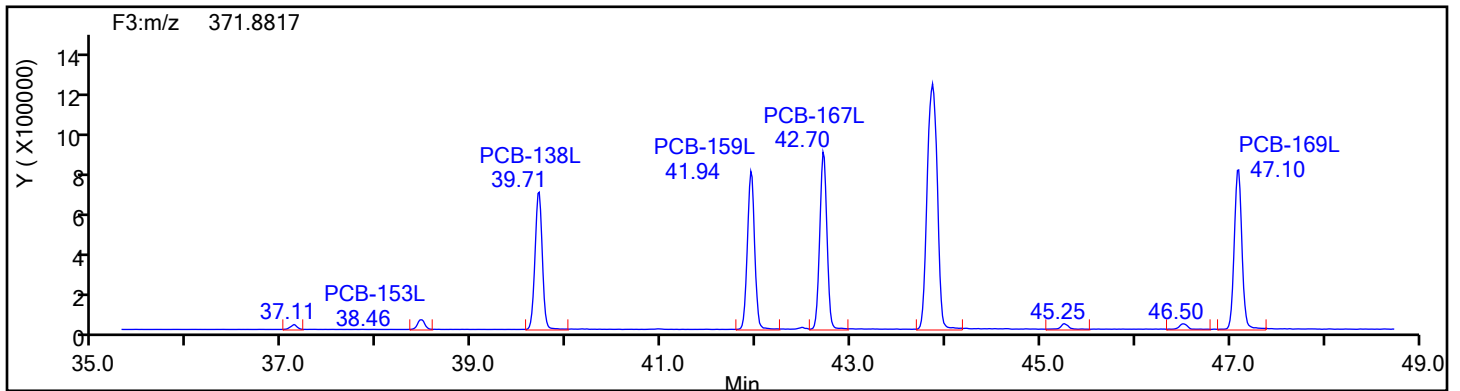
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



## HxPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

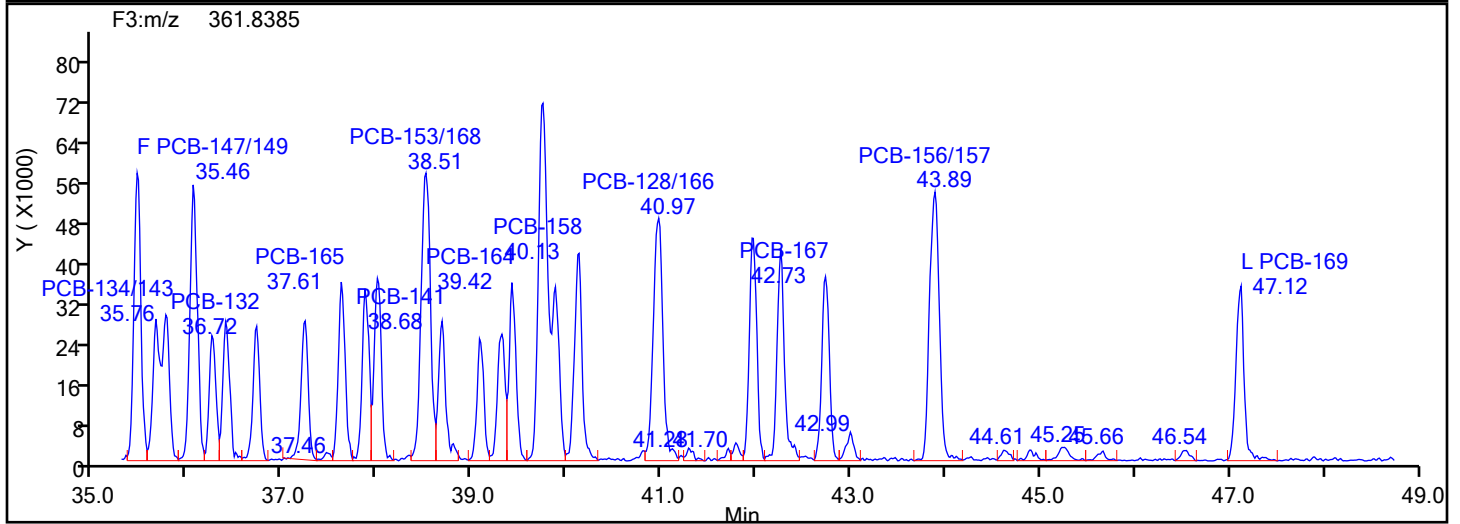
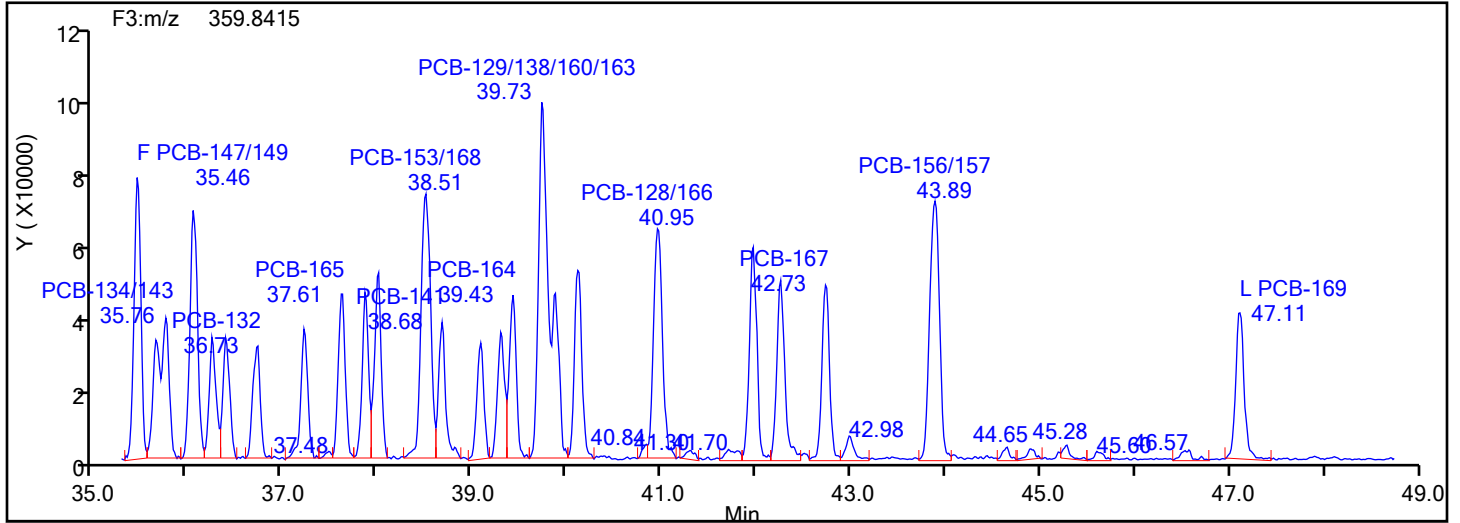
Worklist#: 87130

Sample Line#: 3

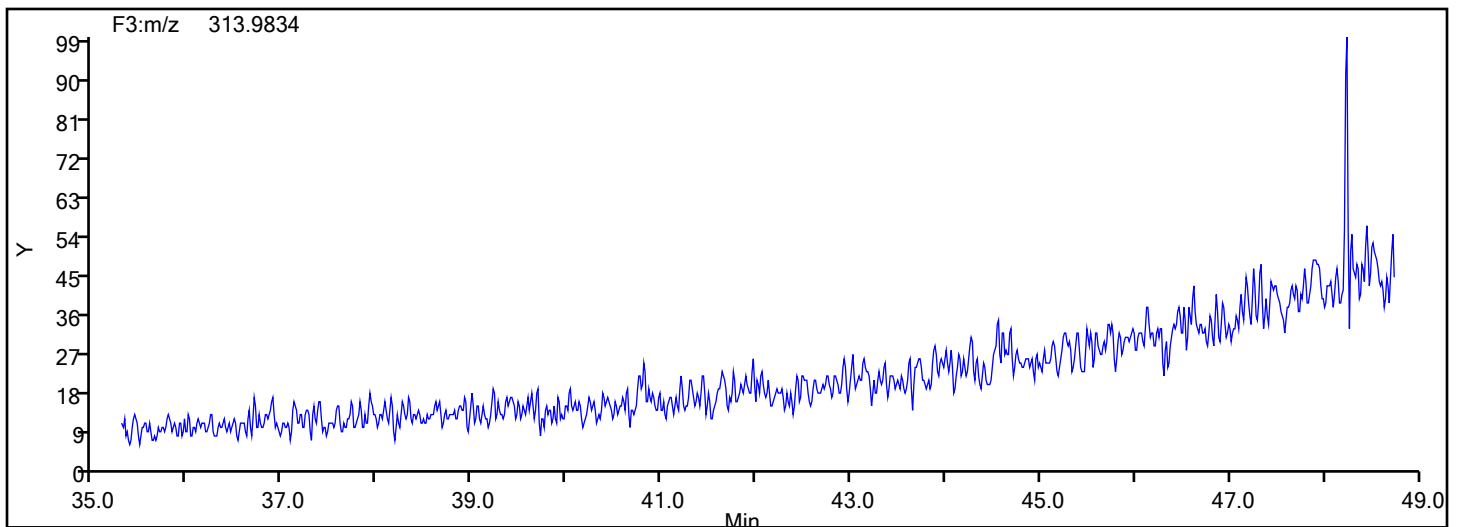
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



## HxPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

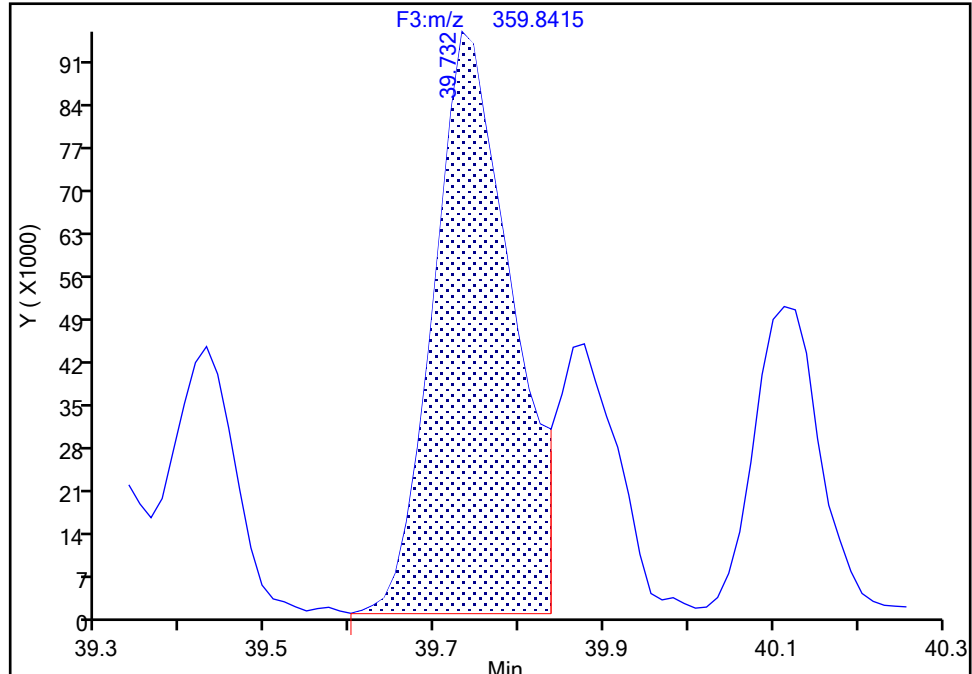
F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 1

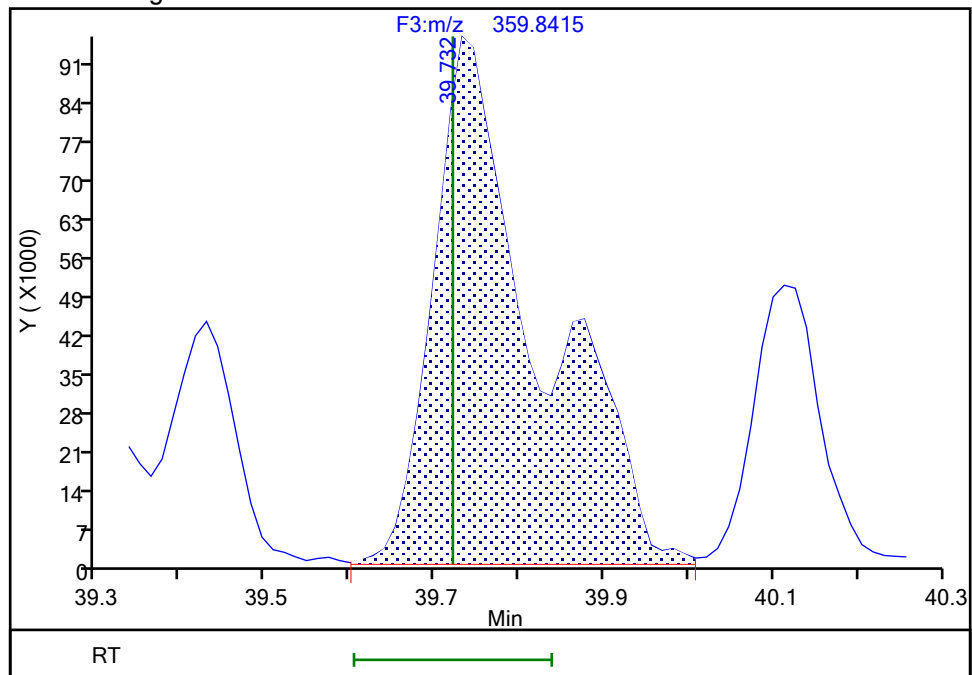
RT: 39.73  
Area: 605540  
Amount: 17.339974  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.73  
Area: 820981  
Amount: 19.465175  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:50:06 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

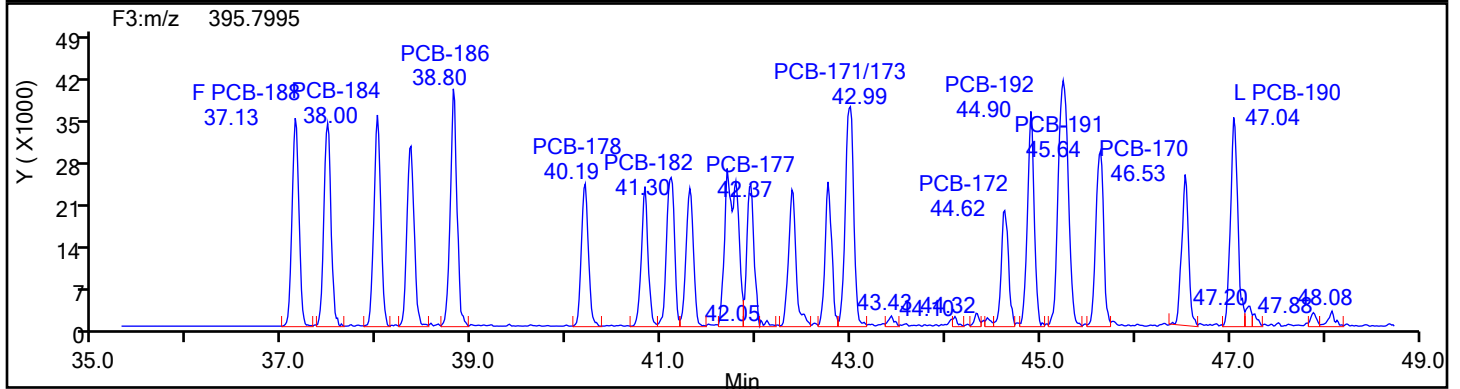
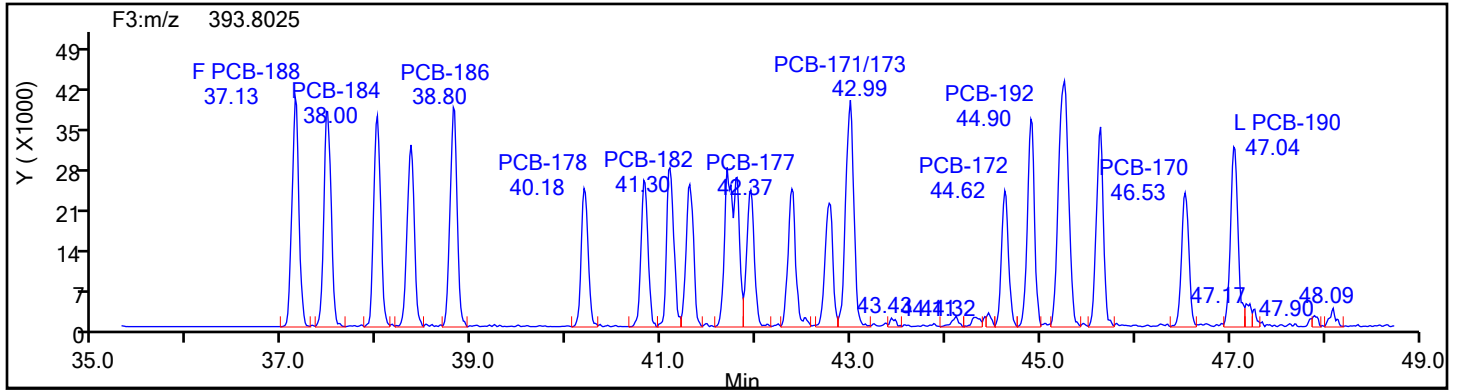
Worklist#: 87130

Sample Line#: 3

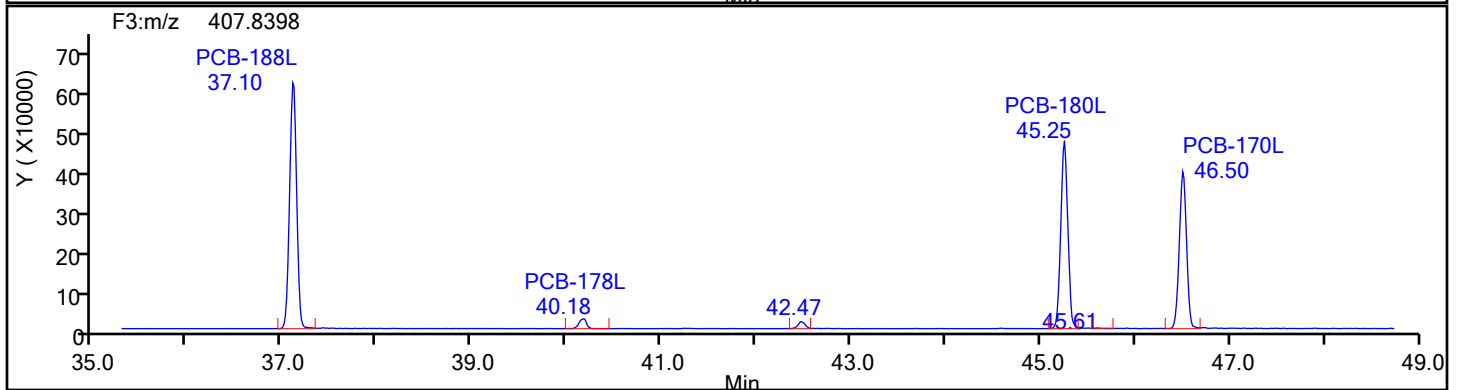
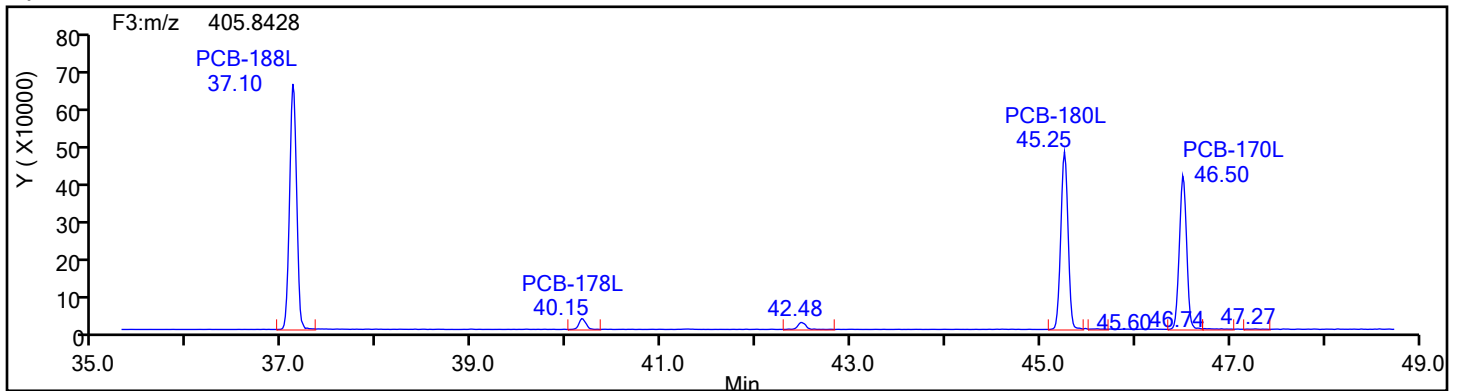
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



## HpPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

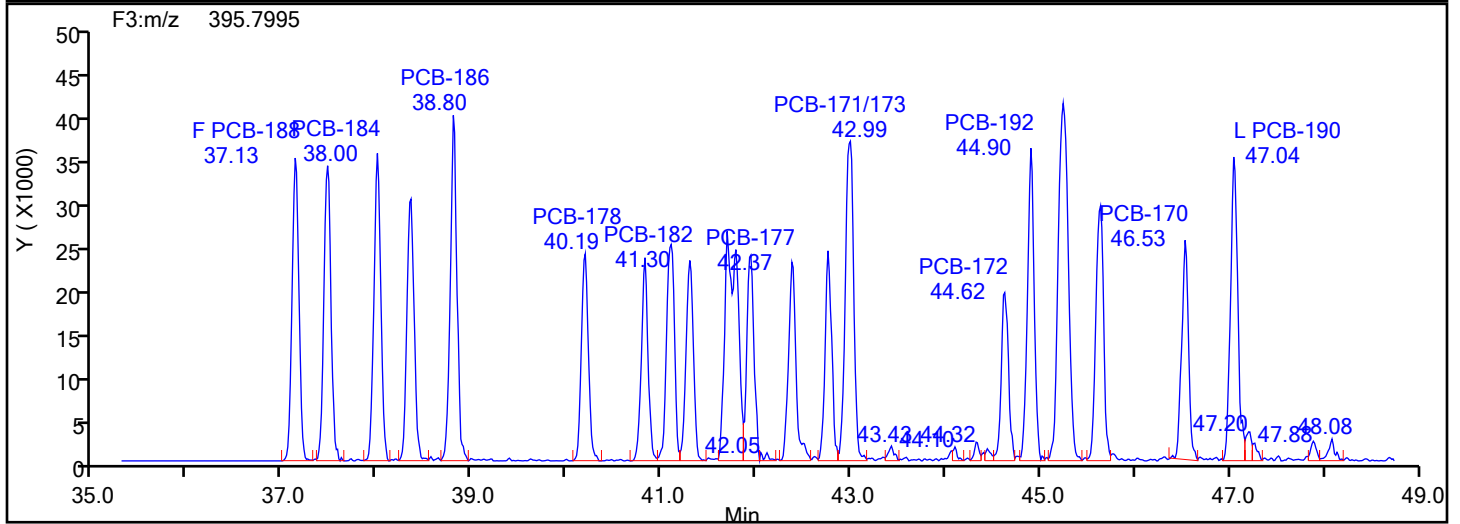
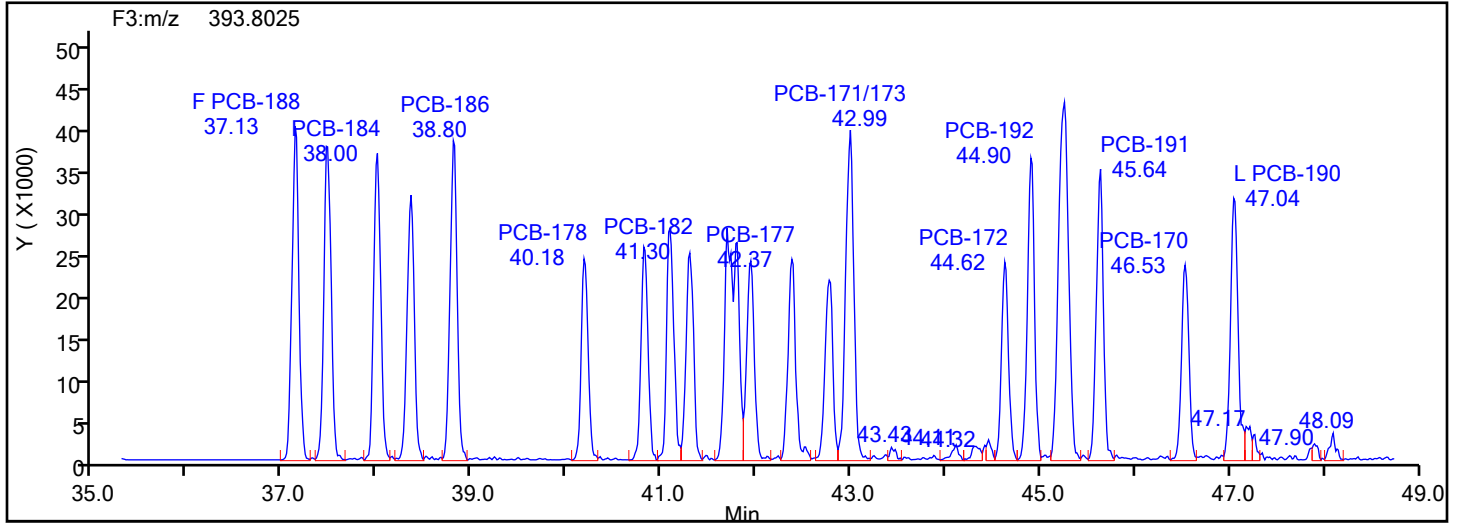
Worklist#: 87130

Sample Line#: 3

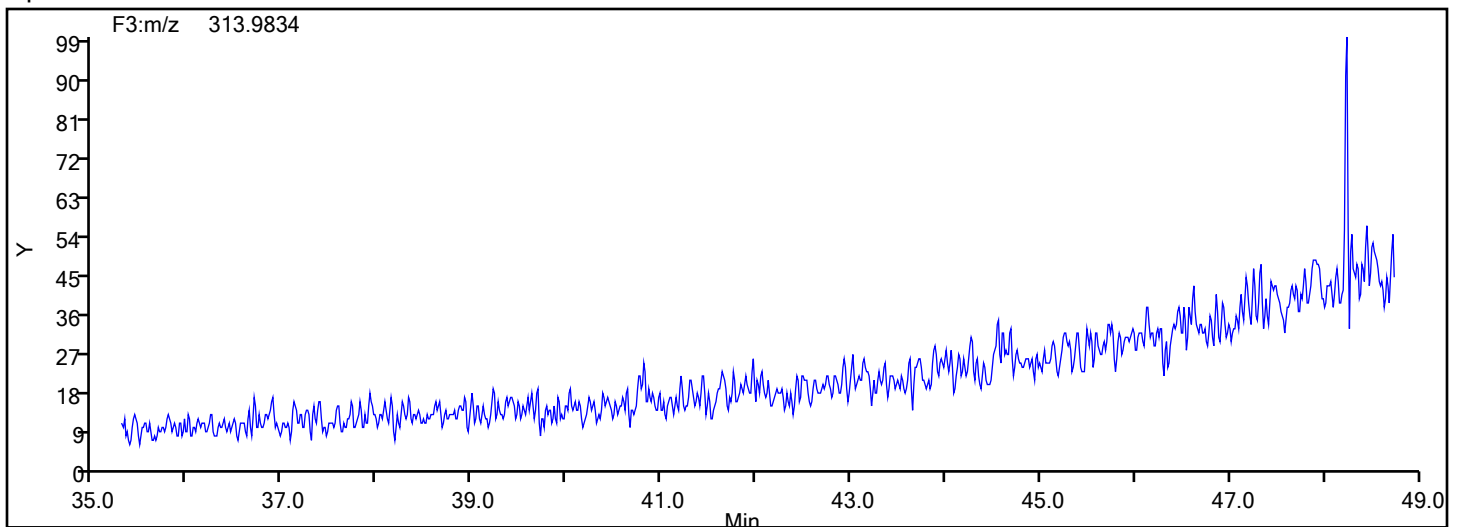
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



## HpPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

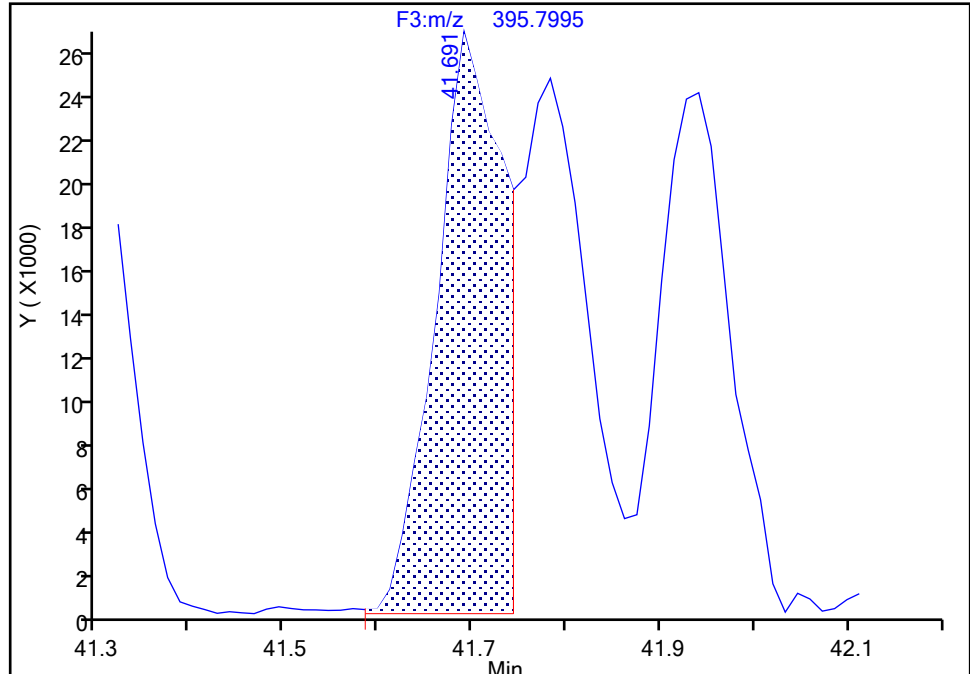
Detector F3(35.64 :49.10 )

**PCB-183/185, CAS: STL02297**

Signal: 2

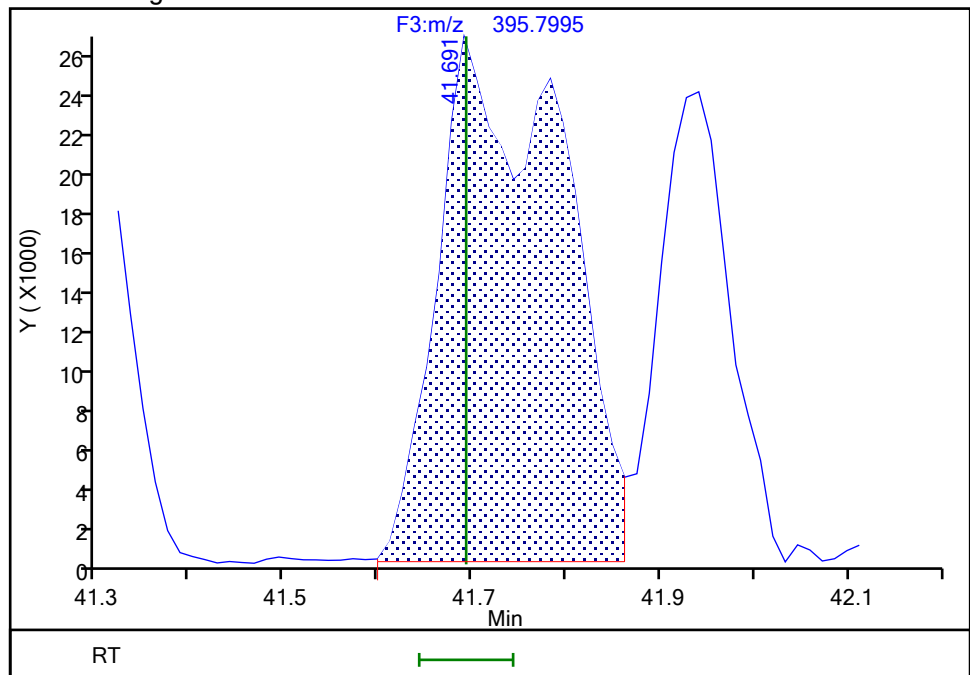
RT: 41.69  
Area: 127948  
Amount: 7.395438  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.69  
Area: 244261  
Amount: 9.336683  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:50:46 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

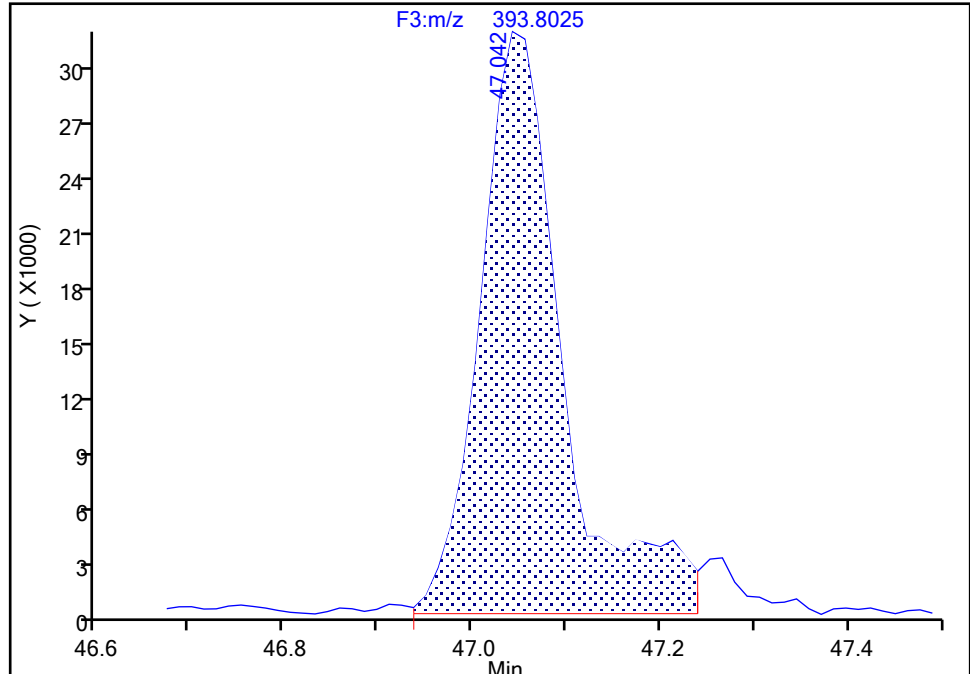
F3(35.64 :49.10 )

PCB-190, CAS: 41411-64-7

Signal: 1

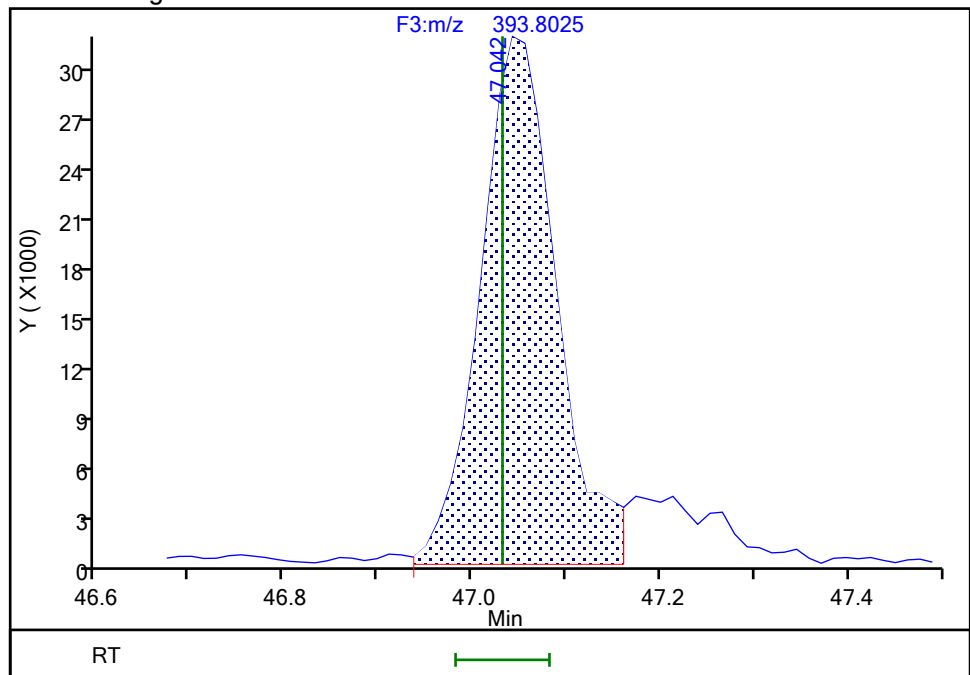
RT: 47.04  
Area: 192417  
Amount: 5.044239  
Amount Units: pg/ul

## Processing Integration Results



RT: 47.04  
Area: 175590  
Amount: 4.967529  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:51:03 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

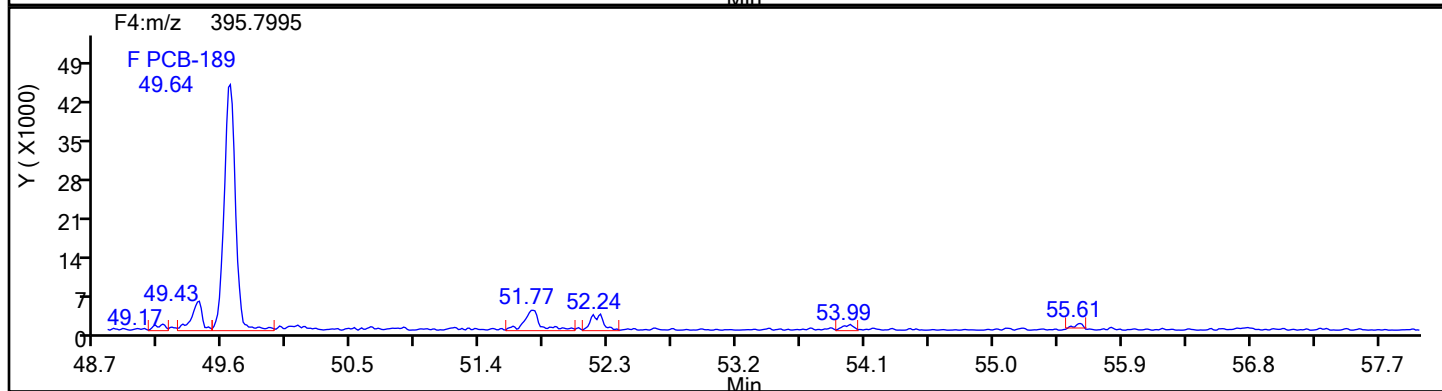
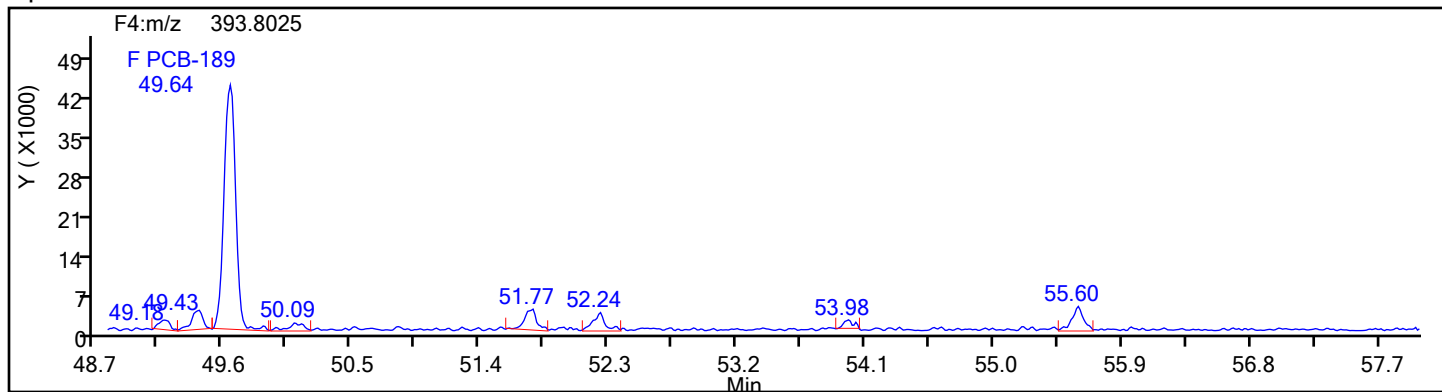
Worklist#: 87130

Sample Line#: 3

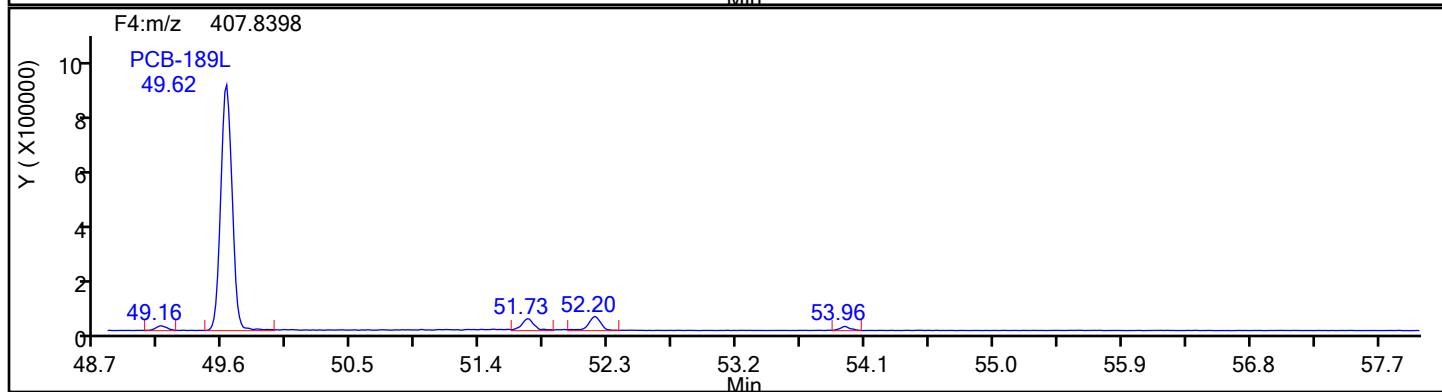
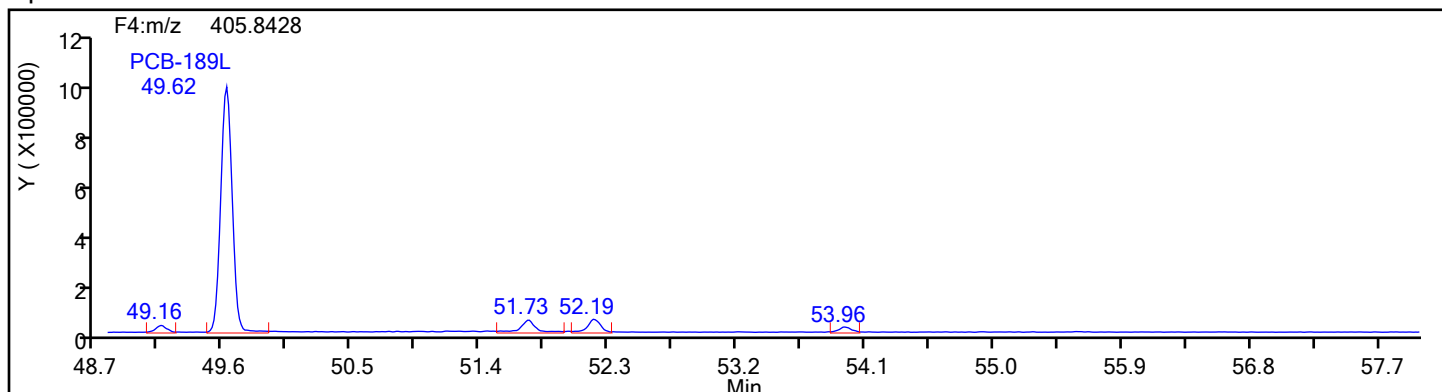
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

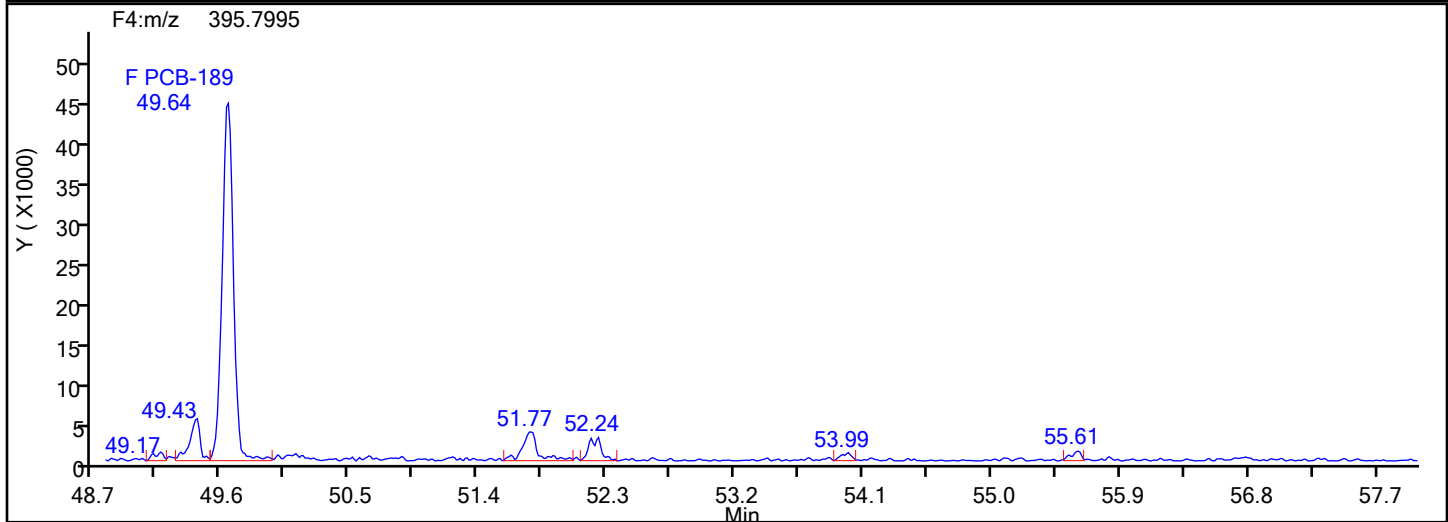
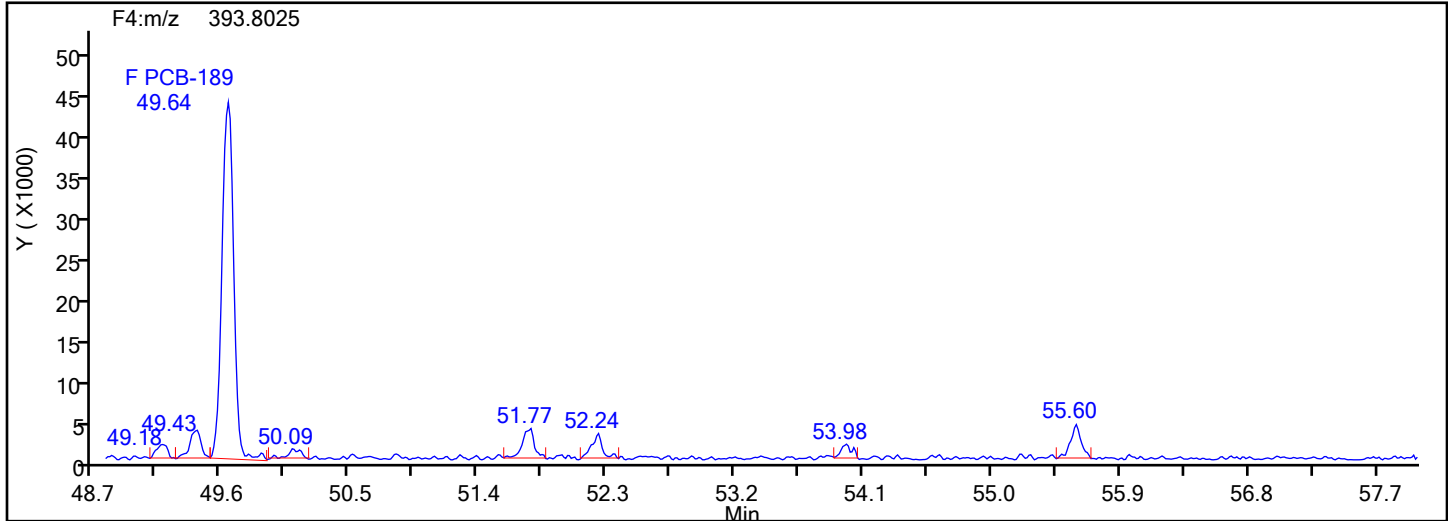
Worklist#: 87130

Sample Line#: 3

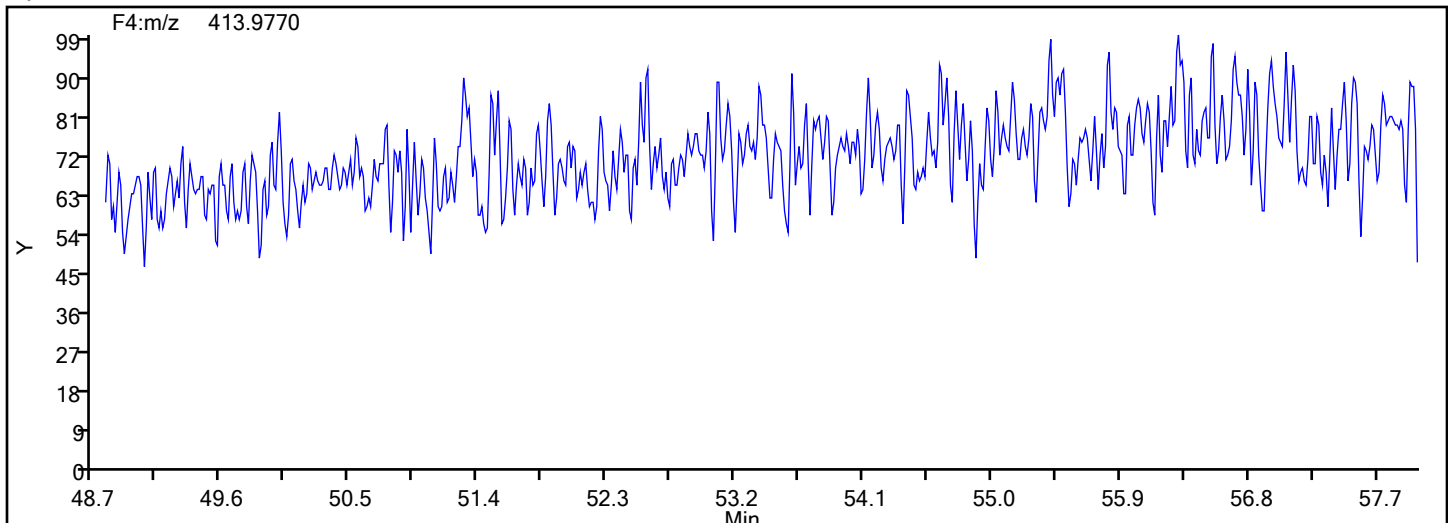
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

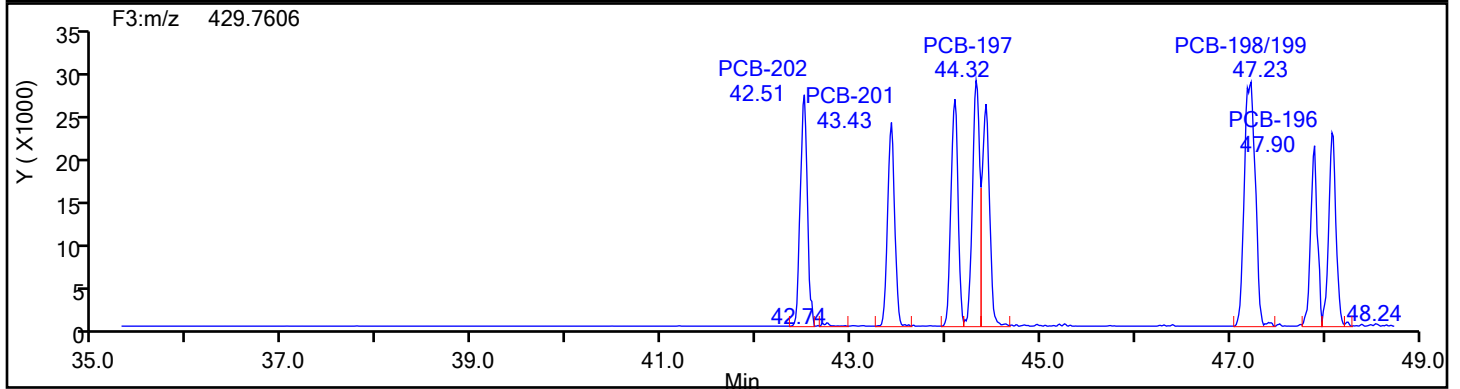
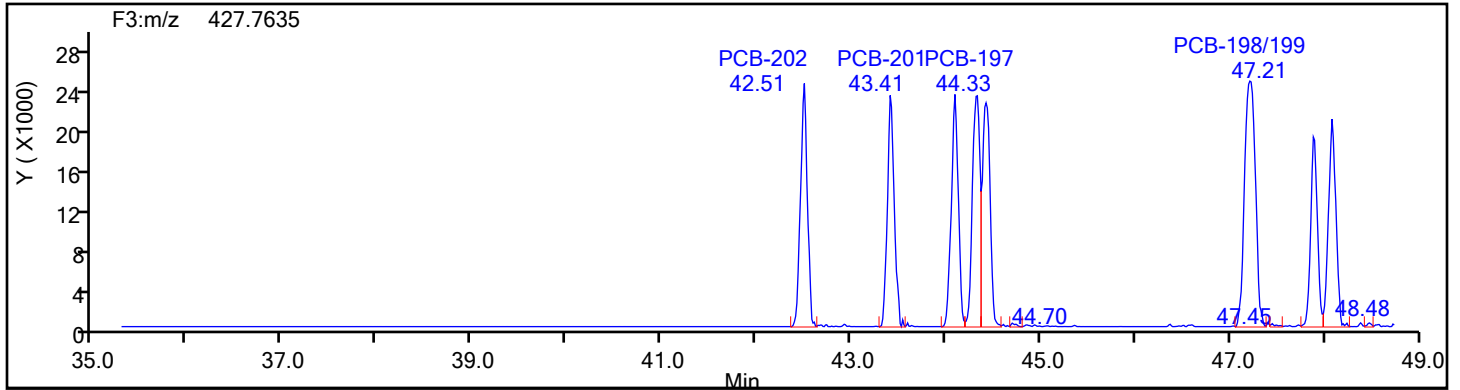
Worklist#: 87130

Sample Line#: 3

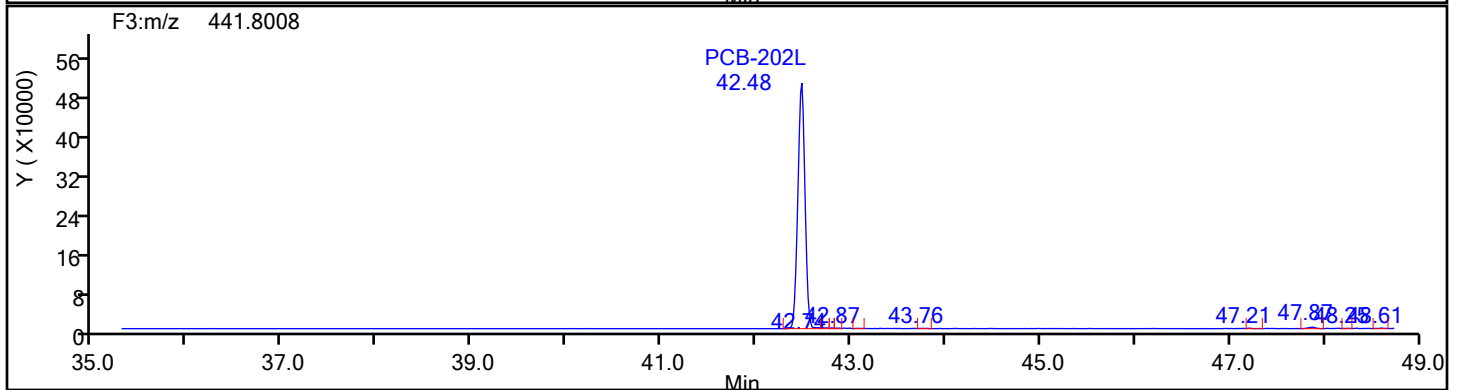
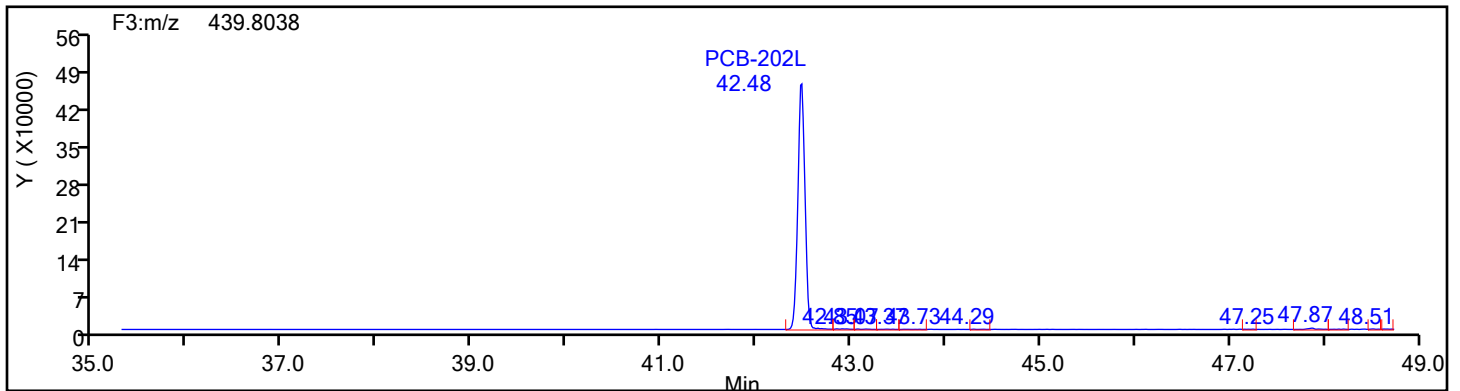
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3



OcPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

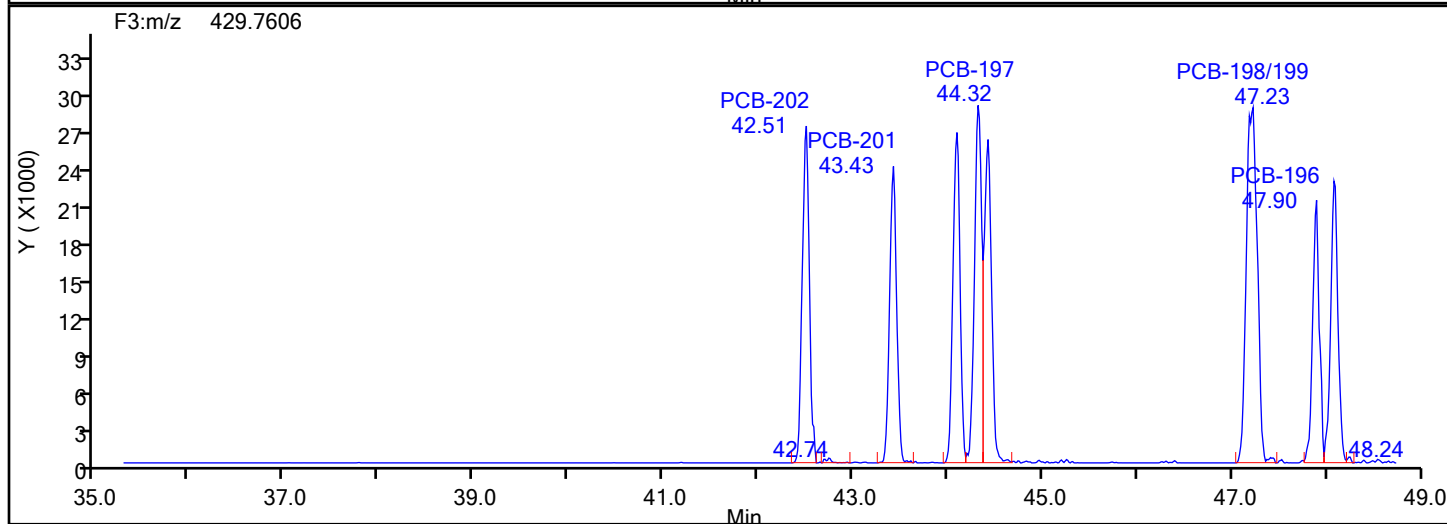
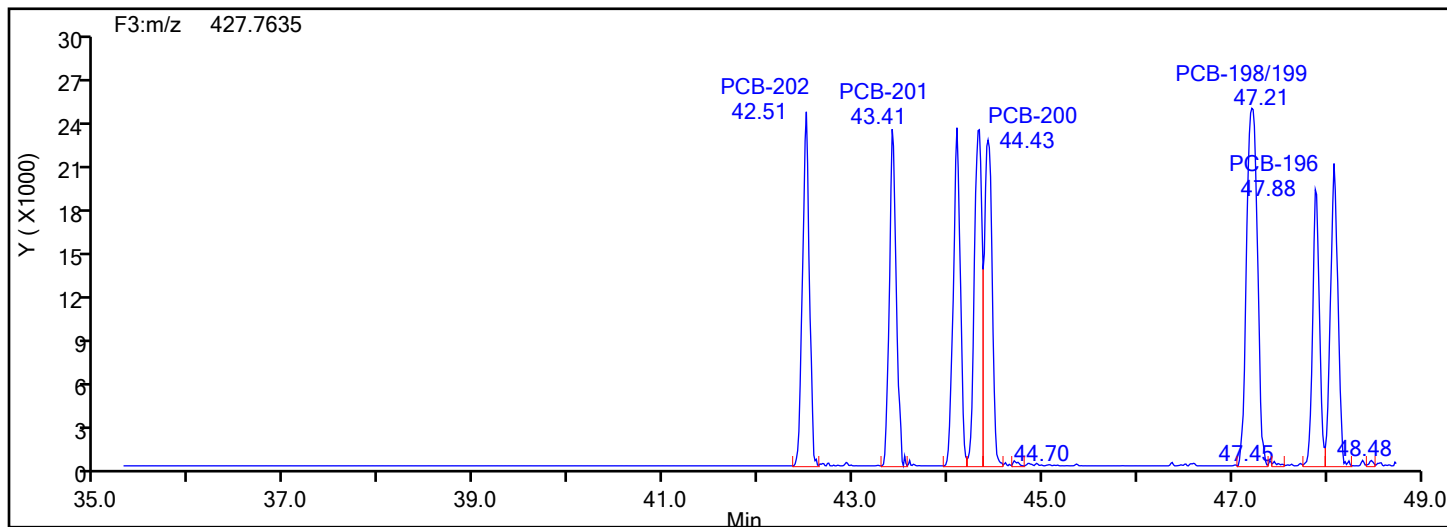
Worklist#: 87130

Sample Line#: 3

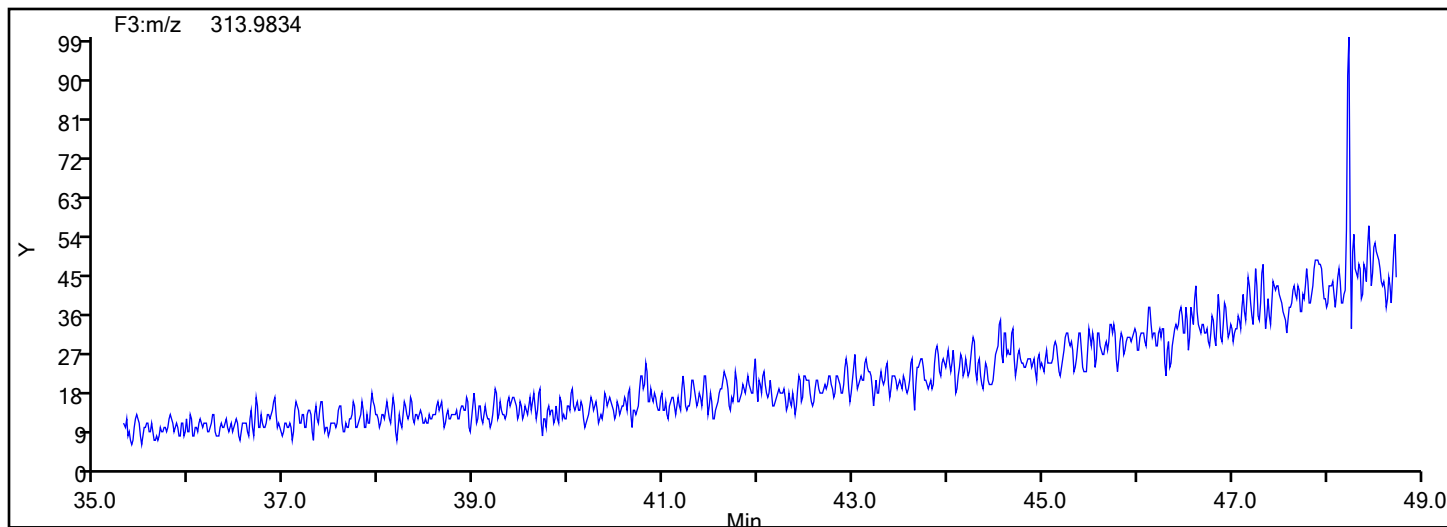
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3



## OcPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

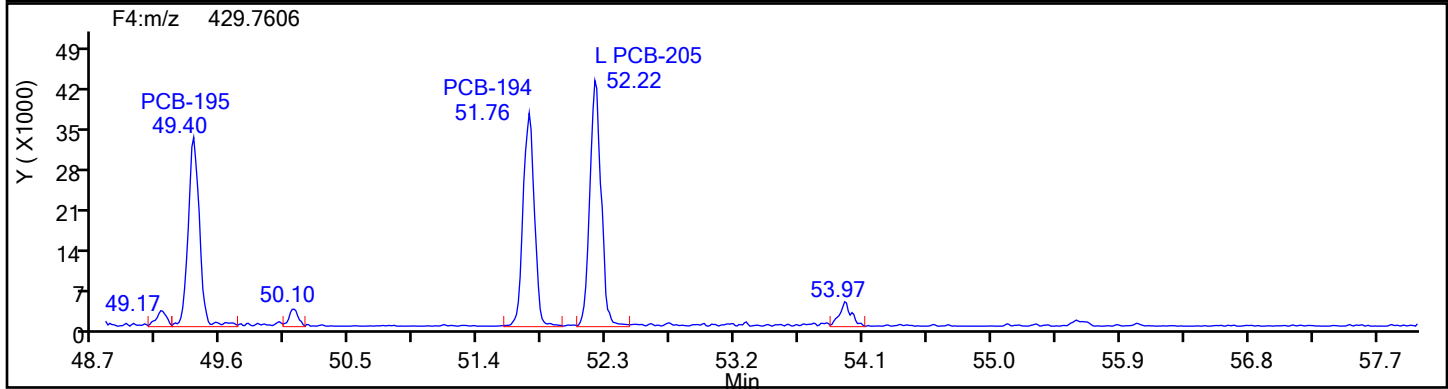
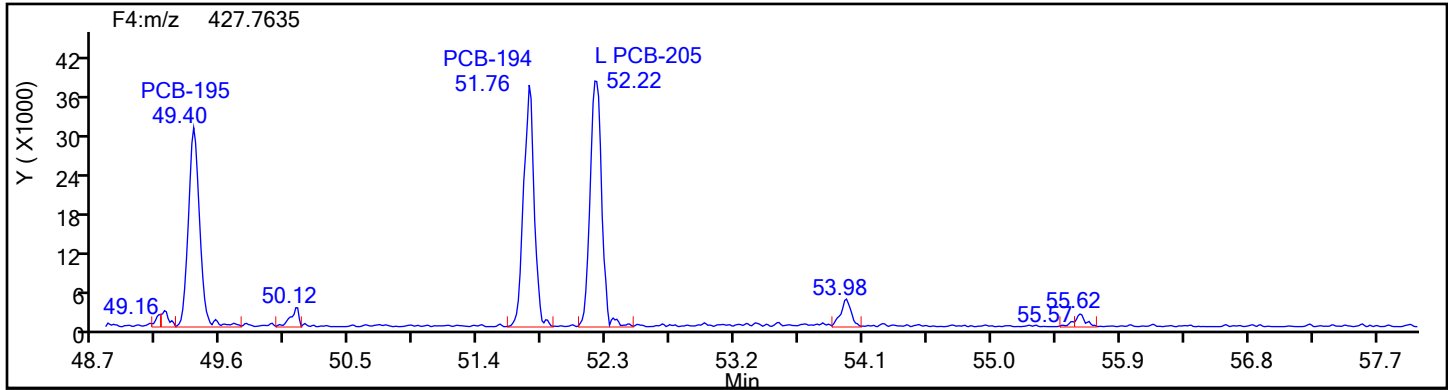
Worklist#: 87130

Sample Line#: 3

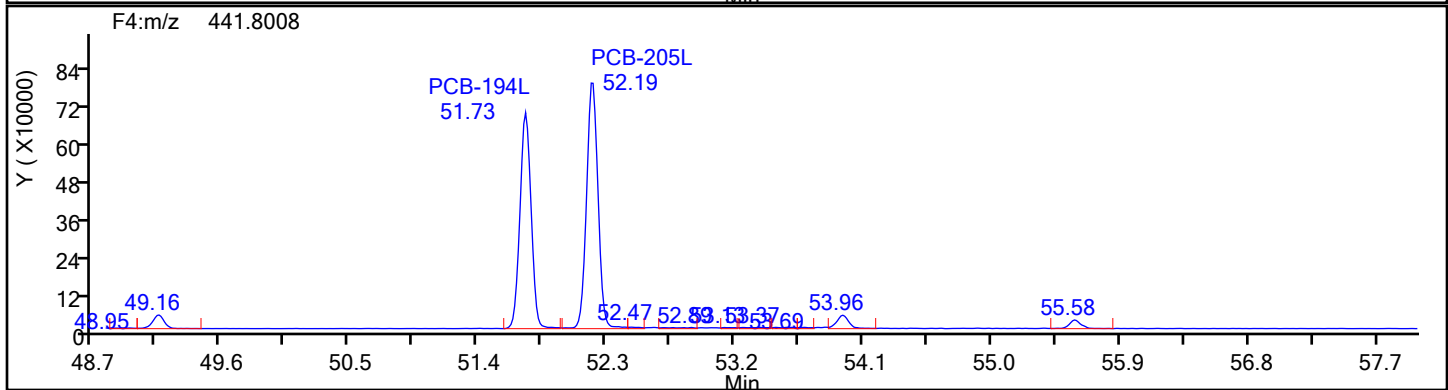
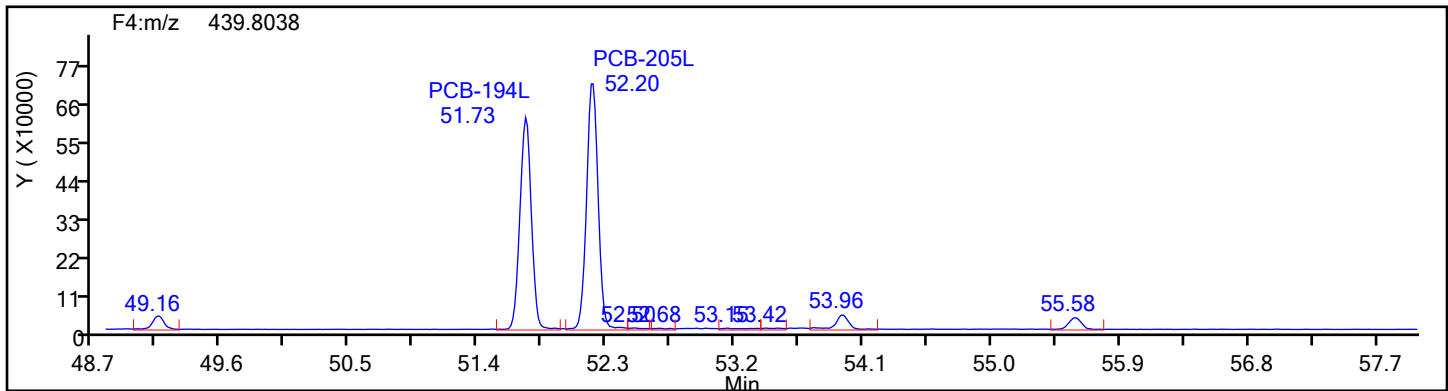
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4



OcPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

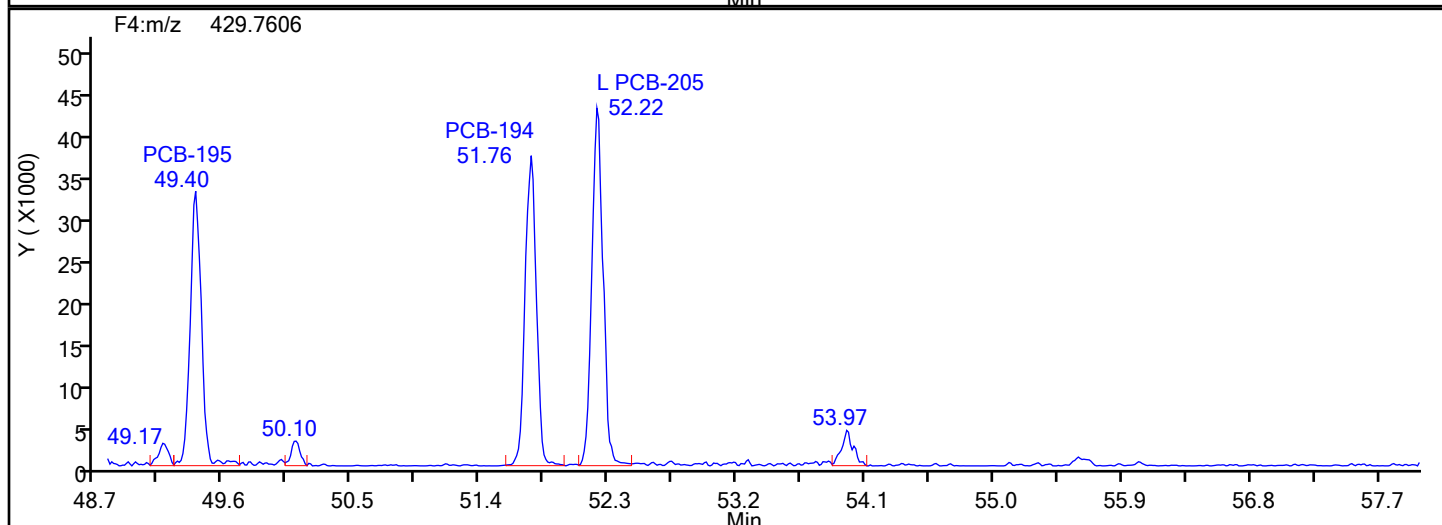
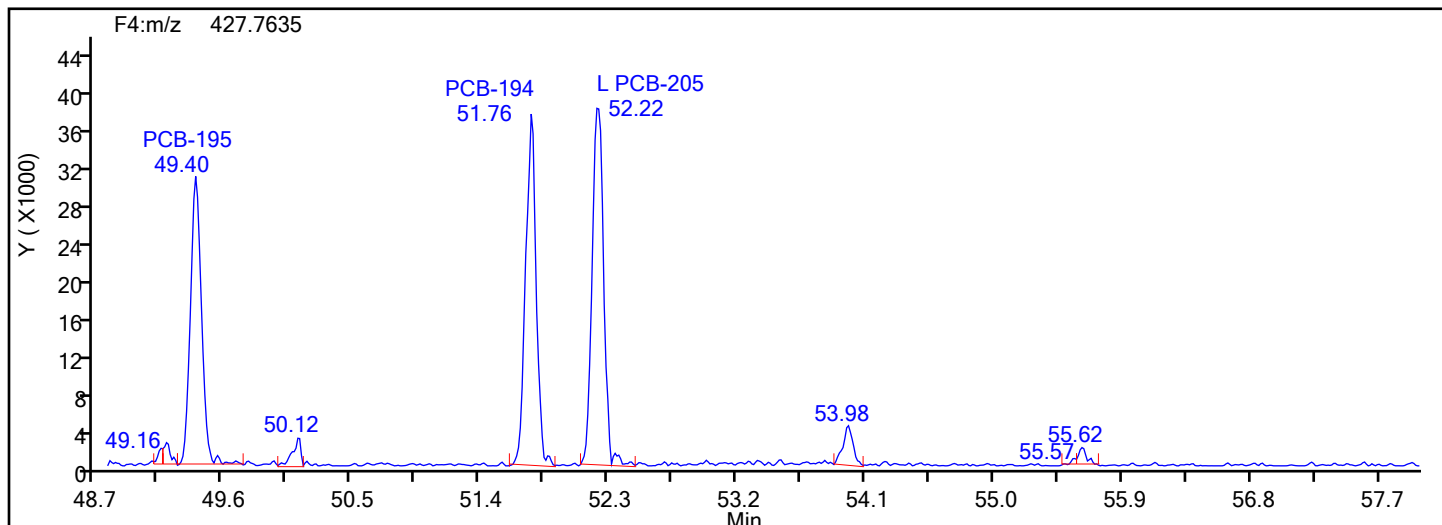
Worklist#: 87130

Sample Line#: 3

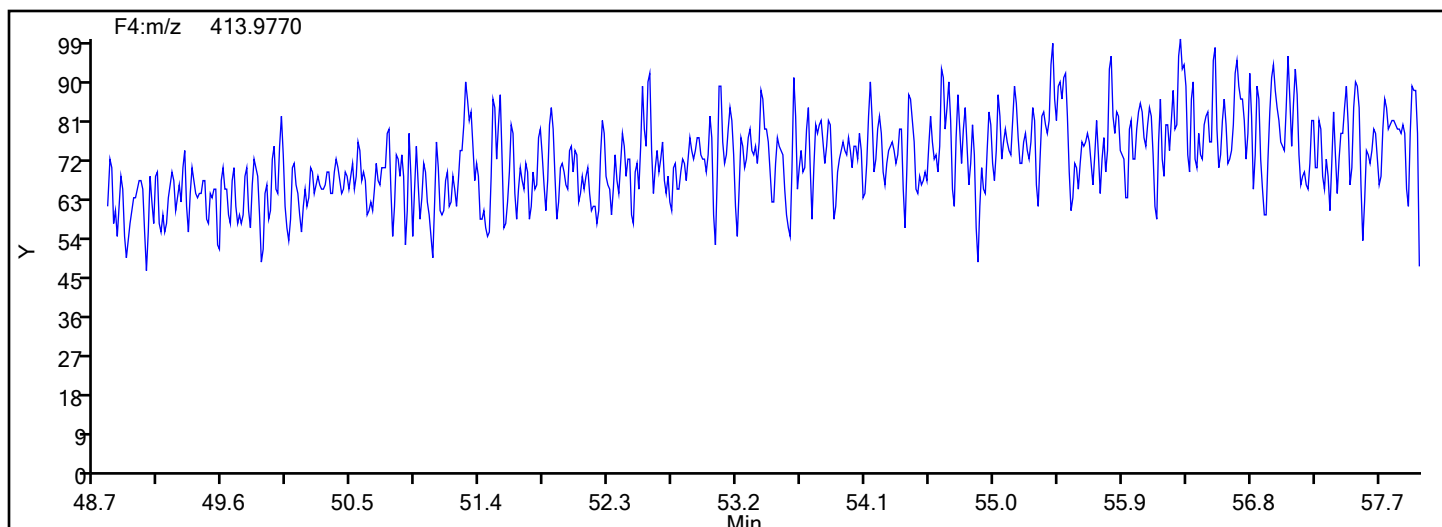
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4

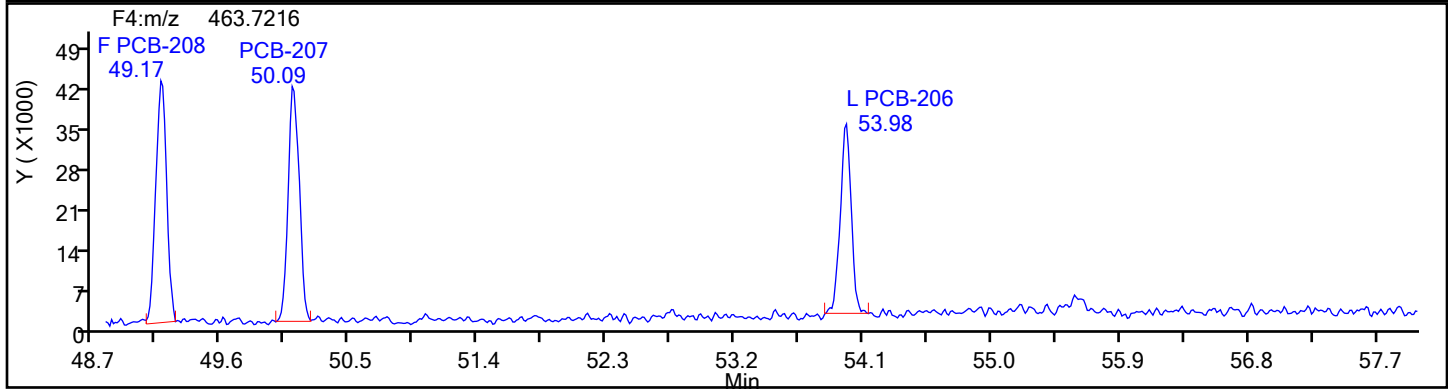
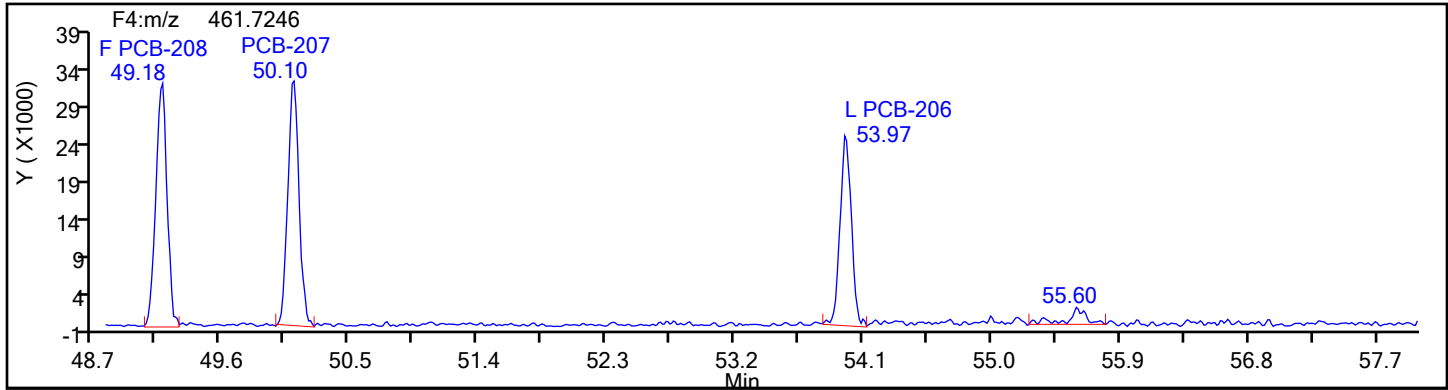


## OcPCB F4 Lock Mass

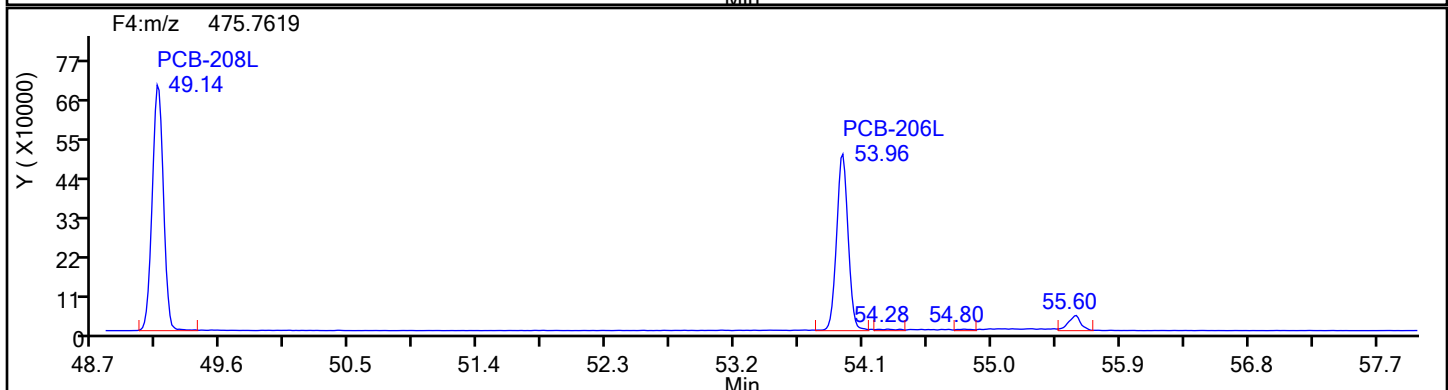
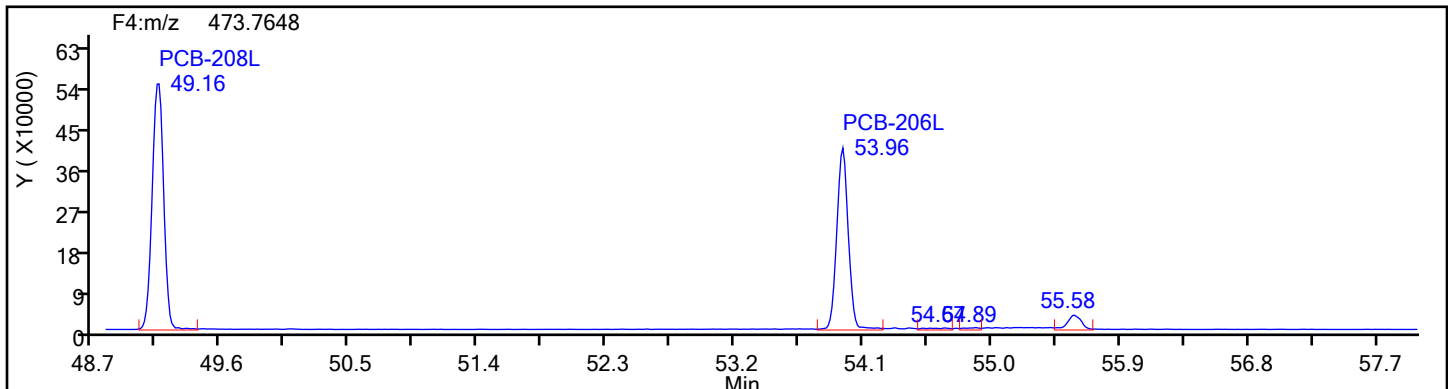


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d  
Injection Date: 31-May-2024 18:00:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 3  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4



## NoPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

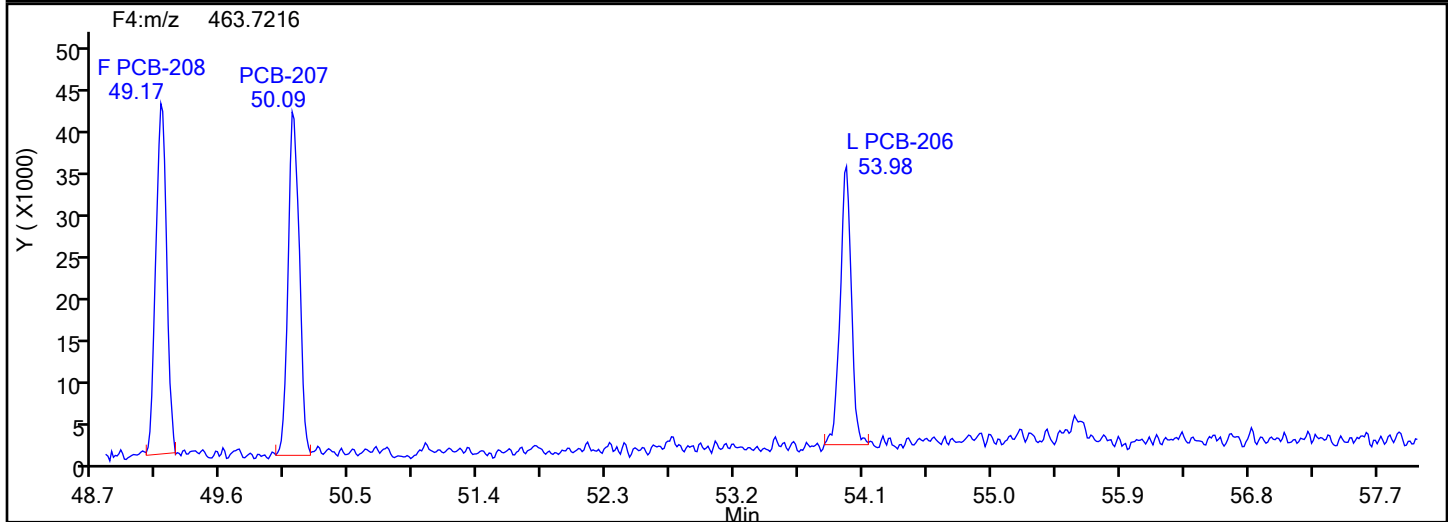
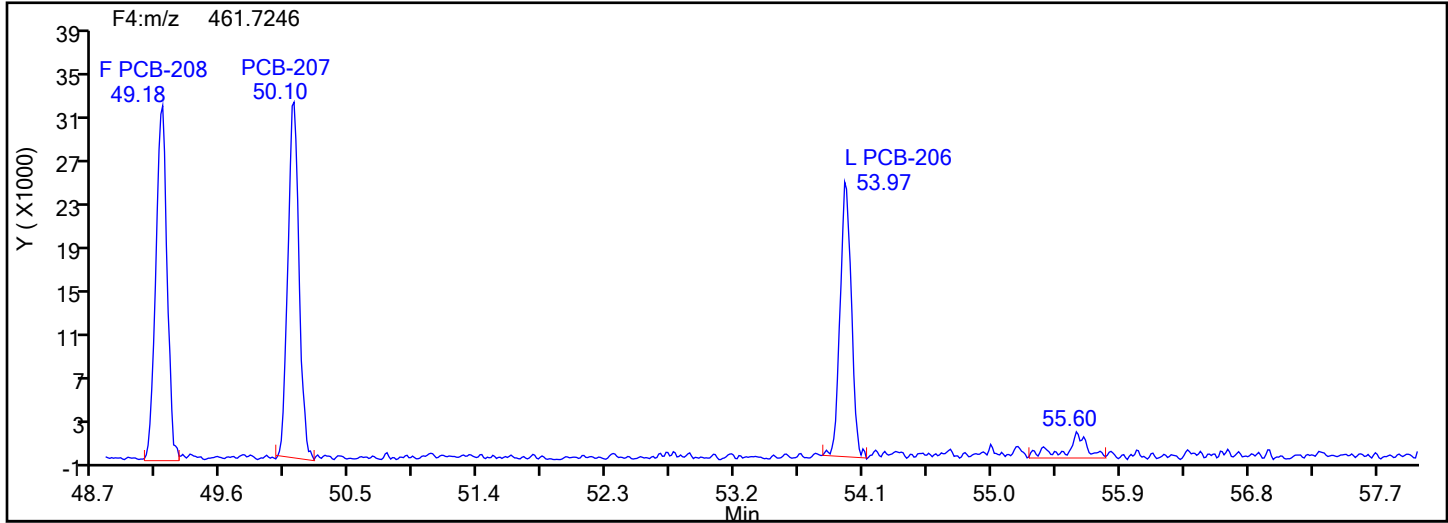
Worklist#: 87130

Sample Line#: 3

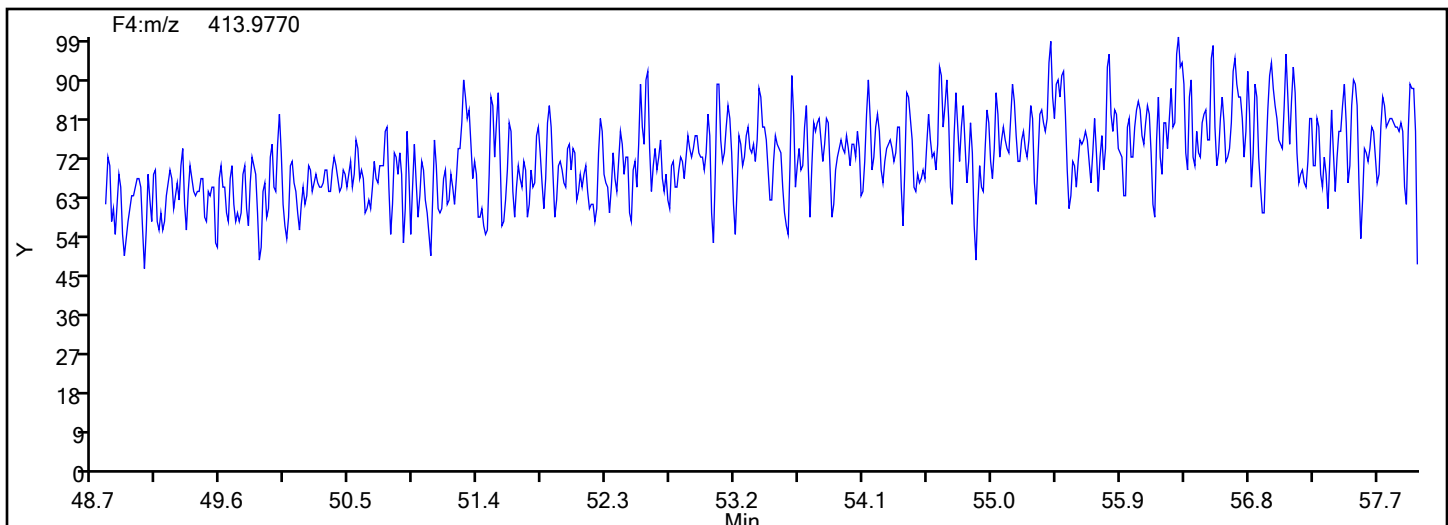
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



NoPCB F4 Lock Mass





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

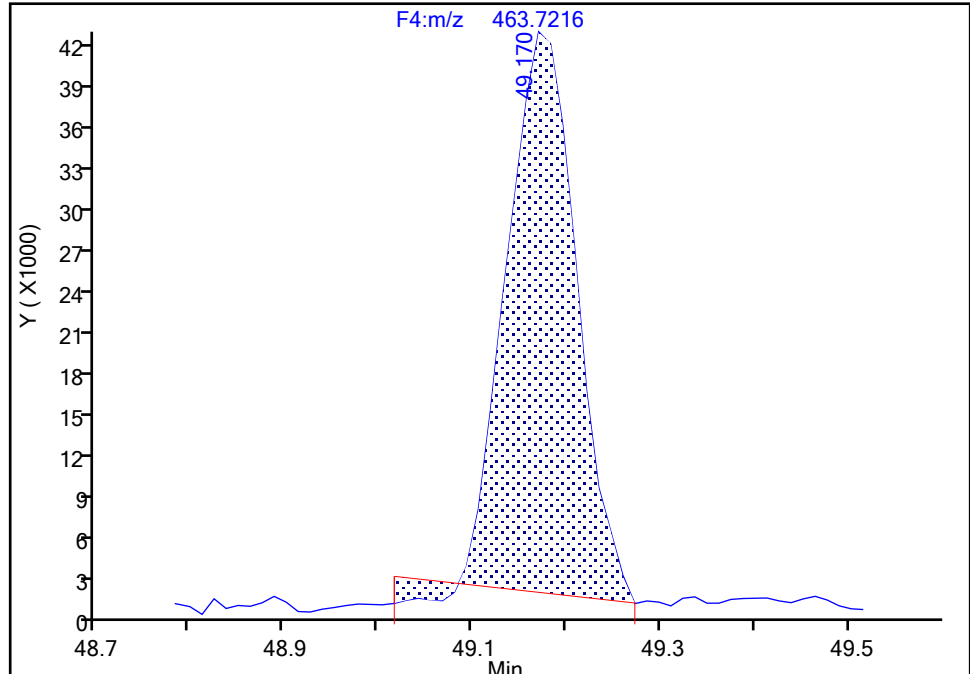
Detector F4(49.20 :57.50 )

**PCB-208, CAS: 52663-77-1**

Signal: 2

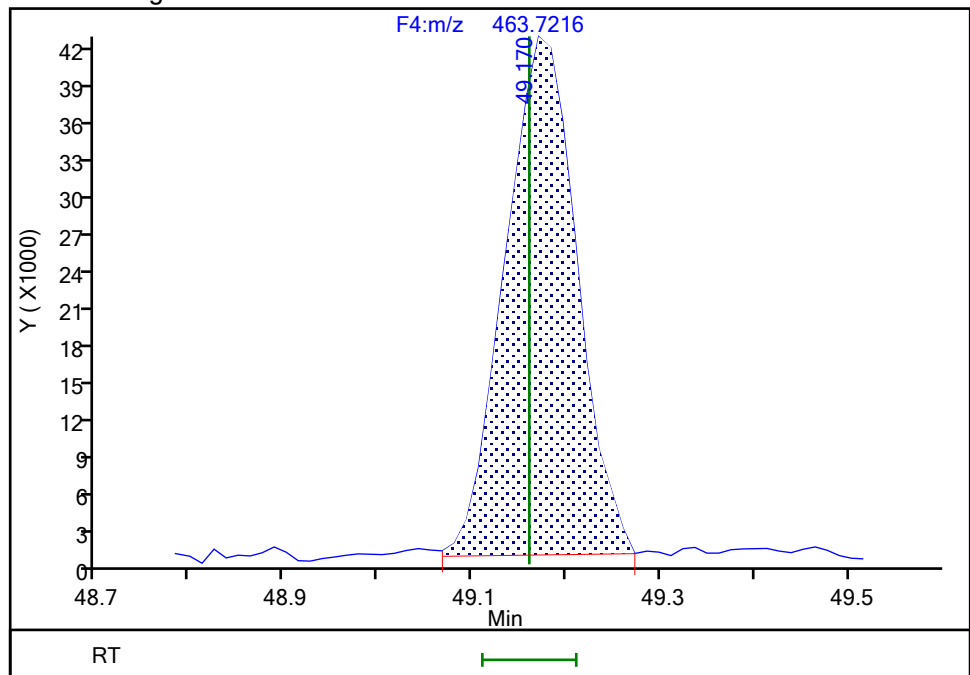
RT: 49.17  
Area: 207739  
Amount: 5.025504  
Amount Units: pg/ul

## Processing Integration Results



RT: 49.17  
Area: 222670  
Amount: 5.121125  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:51:29 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

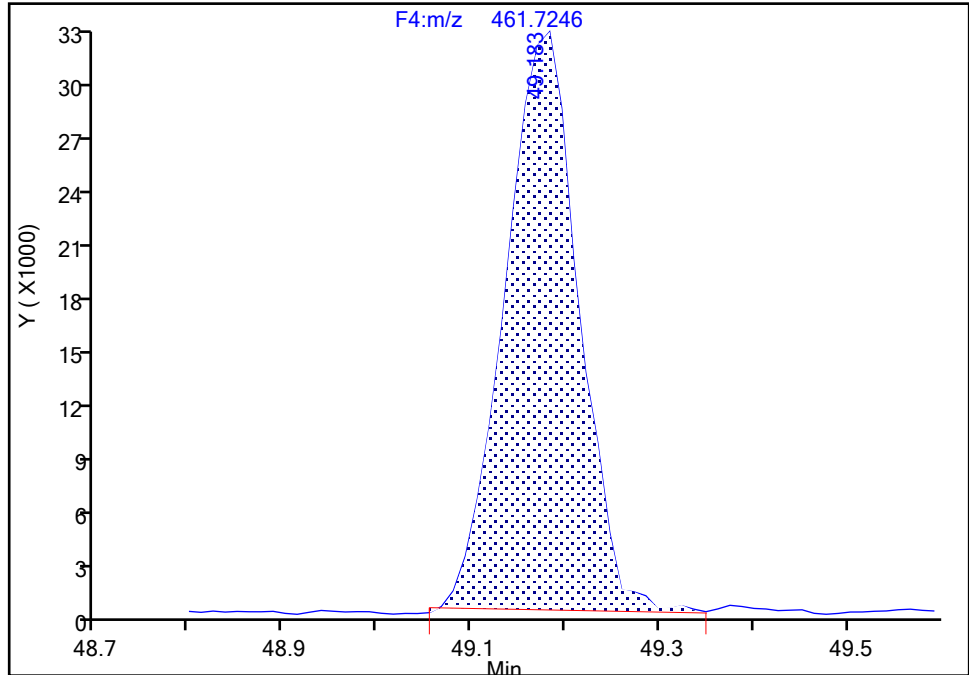
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d  
Injection Date: 31-May-2024 18:00:00 Instrument ID: D2D  
Lims ID: IC L3  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F4(49.20 :57.50 )

PCB-208, CAS: 52663-77-1

Signal: 1

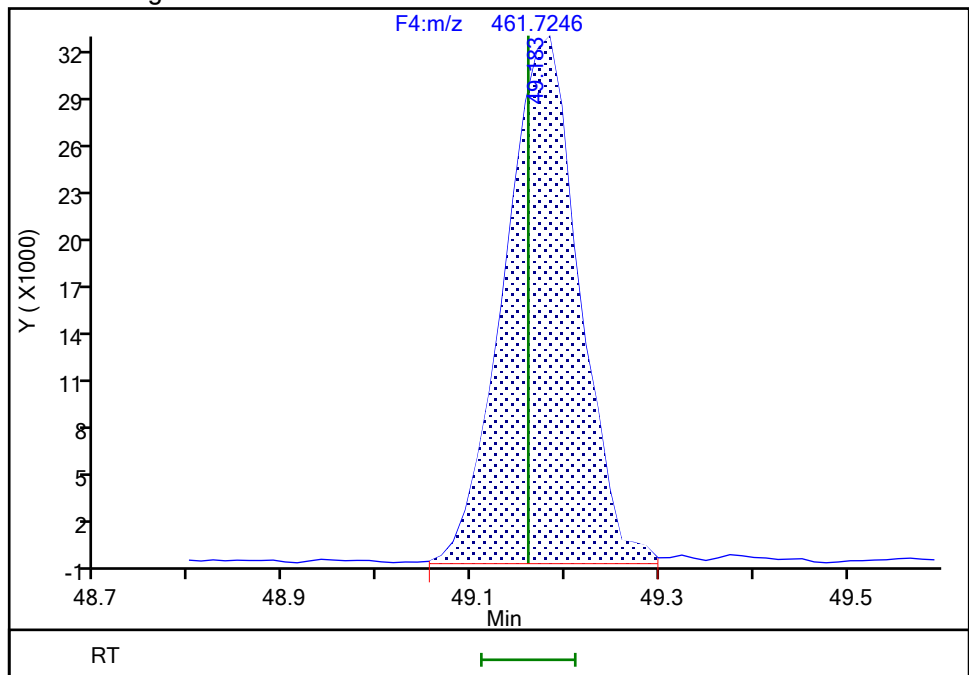
RT: 49.18  
Area: 173223  
Amount: 5.025504  
Amount Units: pg/ul

## Processing Integration Results



RT: 49.18  
Area: 176905  
Amount: 5.121125  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:51:35 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 2024052947

9/6/2024  
4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

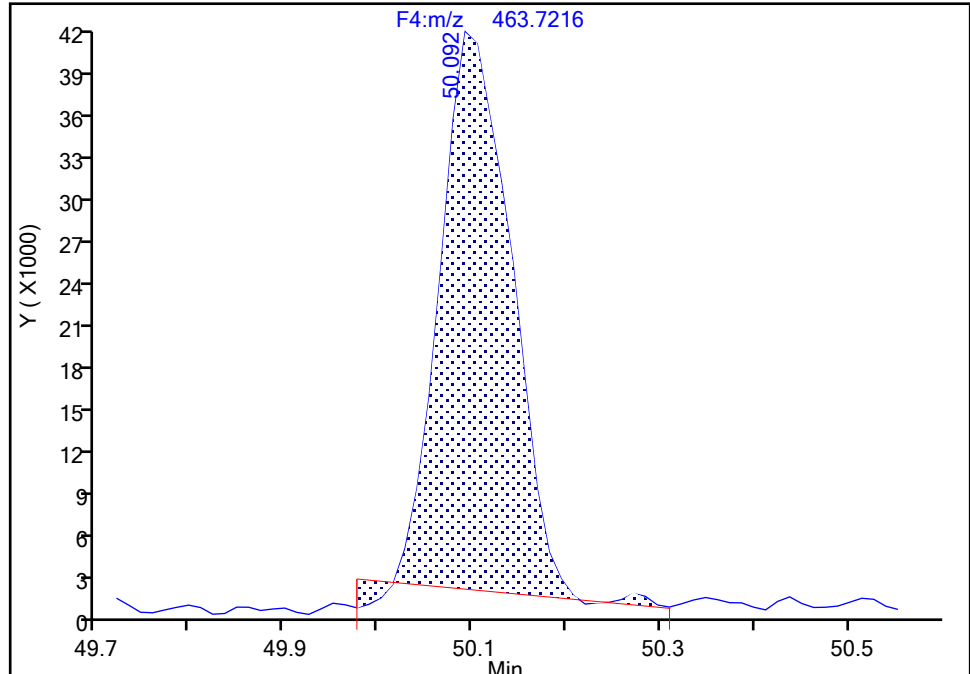
Detector F4(49.20 :57.50 )

**PCB-207, CAS: 52663-79-3**

Signal: 2

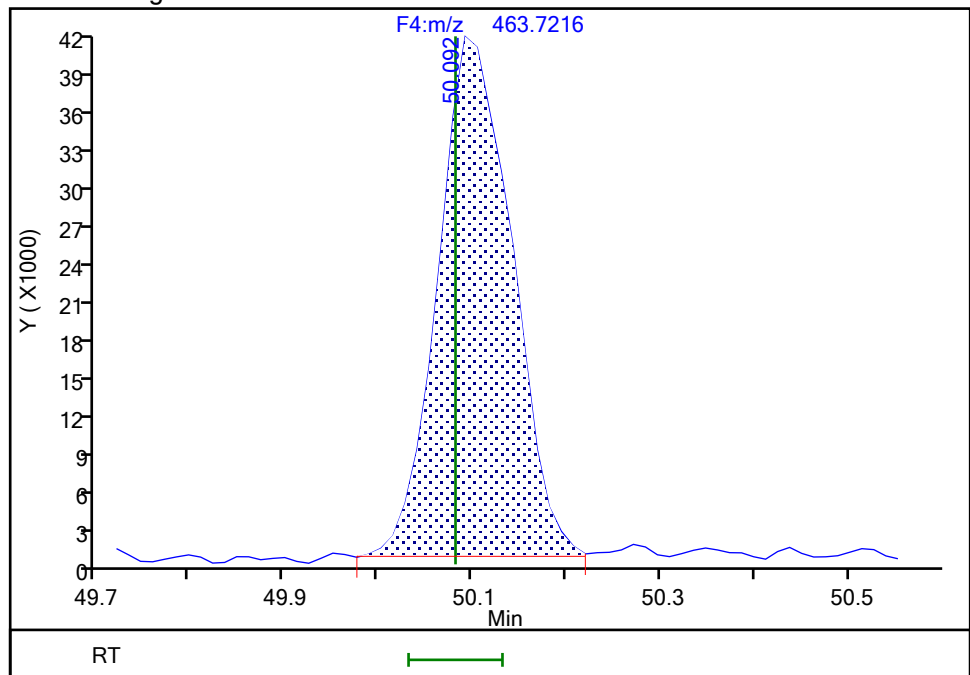
RT: 50.09  
Area: 206224  
Amount: 4.785694  
Amount Units: pg/ul

## Processing Integration Results



RT: 50.09  
Area: 223758  
Amount: 4.884898  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:51:45 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d

Injection Date: 31-May-2024 18:00:00

Instrument ID: D2D

Lims ID: IC L3

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

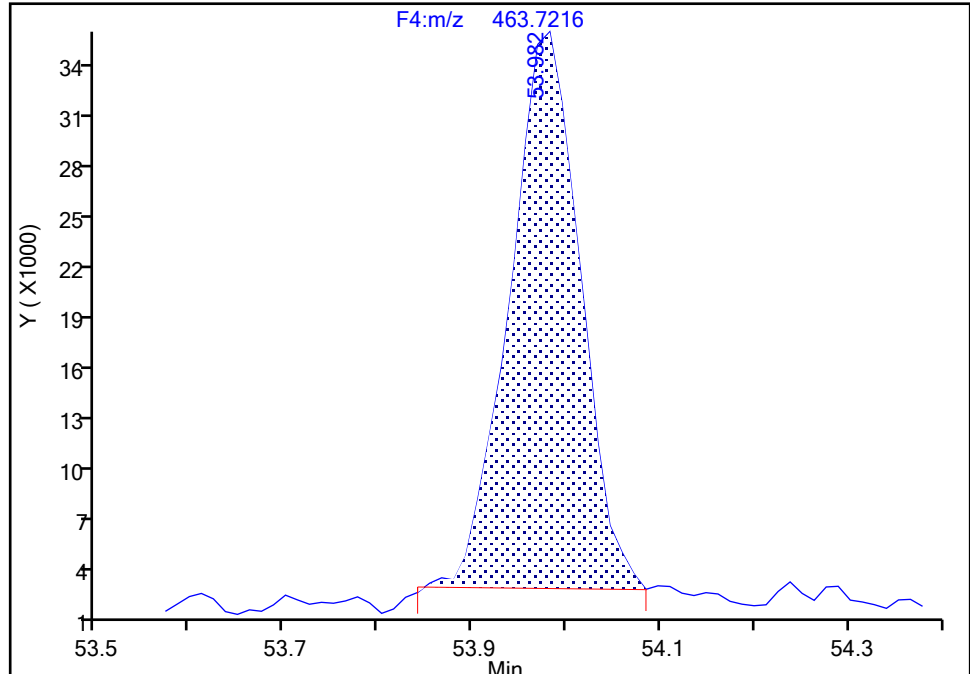
Detector F4(49.20 :57.50 )

PCB-206, CAS: 40186-72-9

Signal: 2

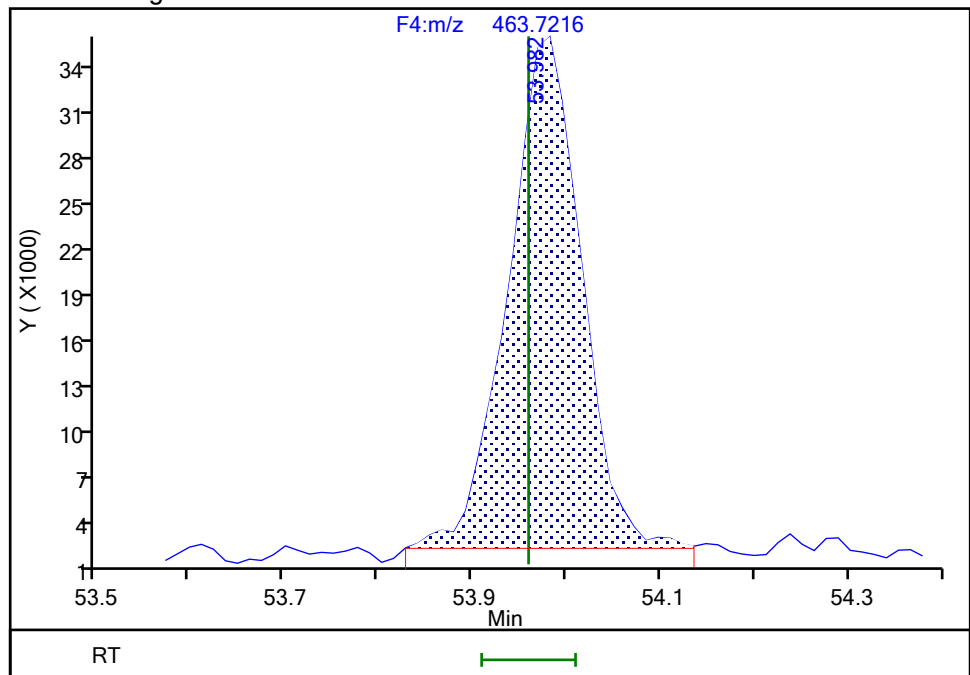
RT: 53.98  
Area: 168889  
Amount: 4.578046  
Amount Units: pg/ul

## Processing Integration Results



RT: 53.98  
Area: 179481  
Amount: 4.733555  
Amount Units: pg/ul

## Manual Integration Results



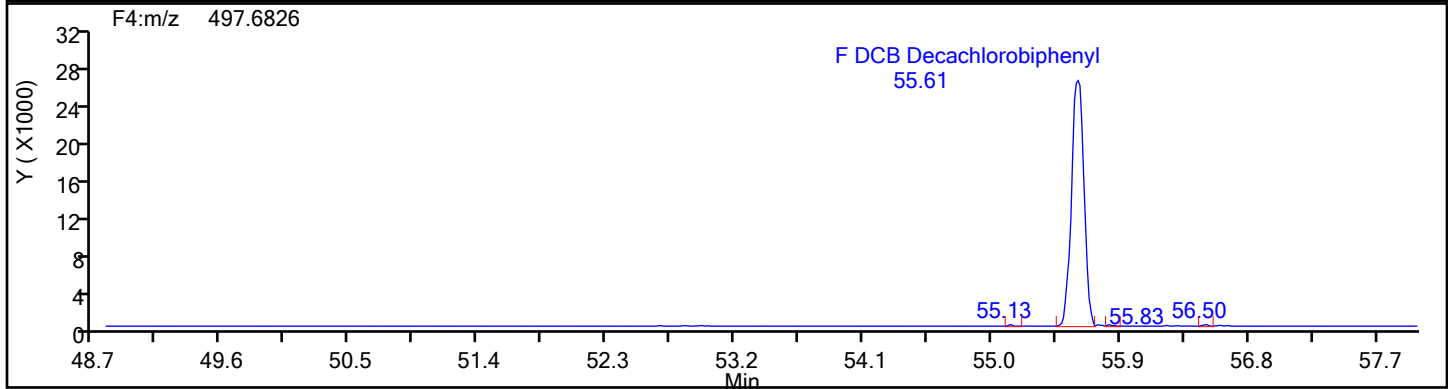
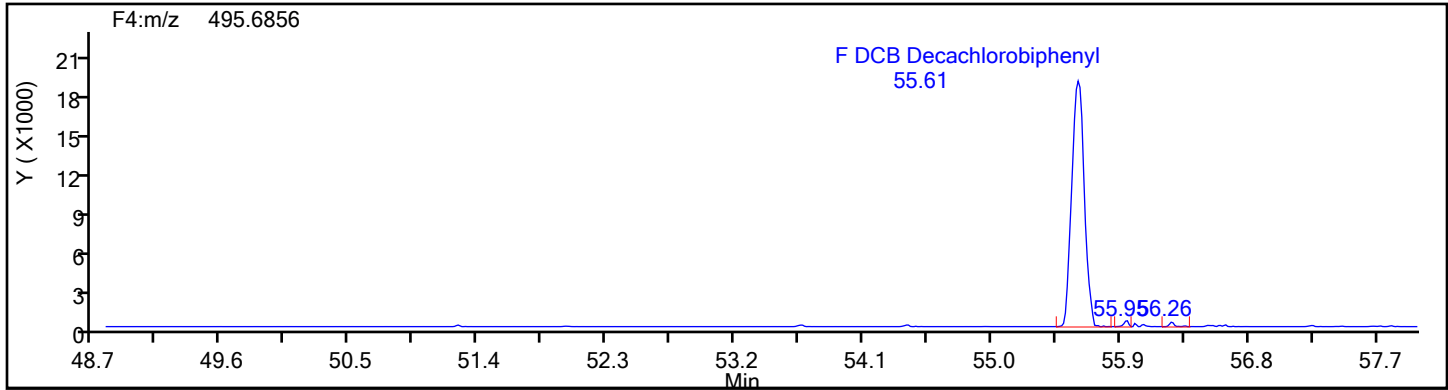
Reviewer: V4XA, 31-May-2024 21:51:58 -04:00:00 (UTC)

Audit Action: Manually Integrated

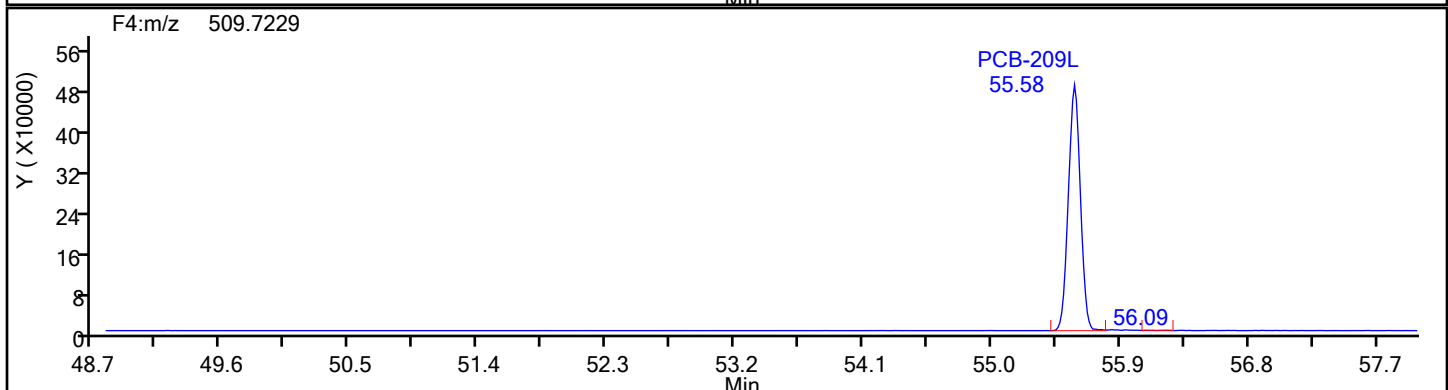
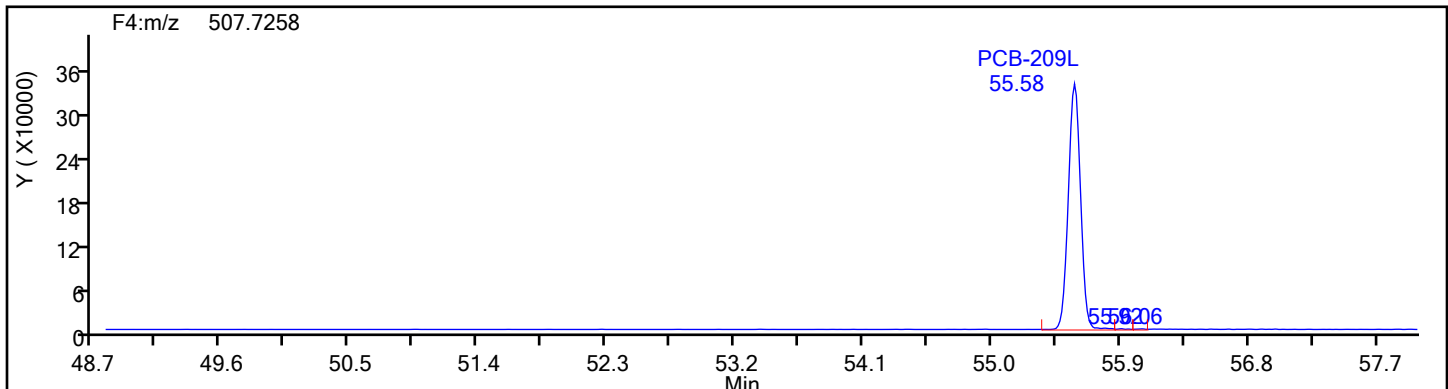
Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d  
Injection Date: 31-May-2024 18:00:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 3  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4

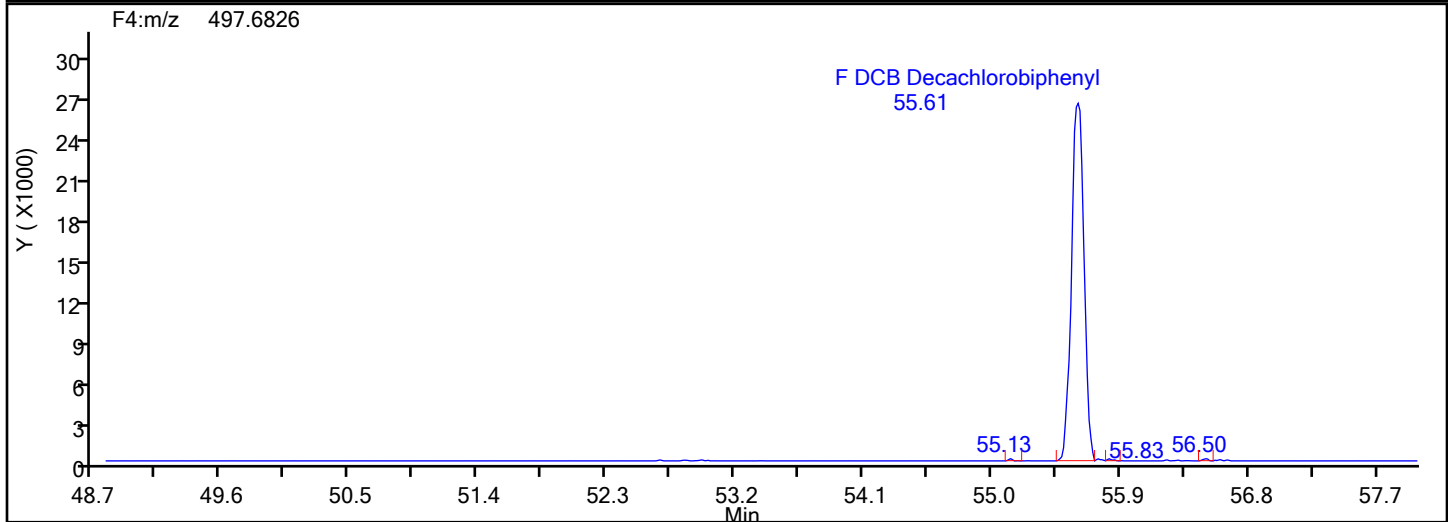
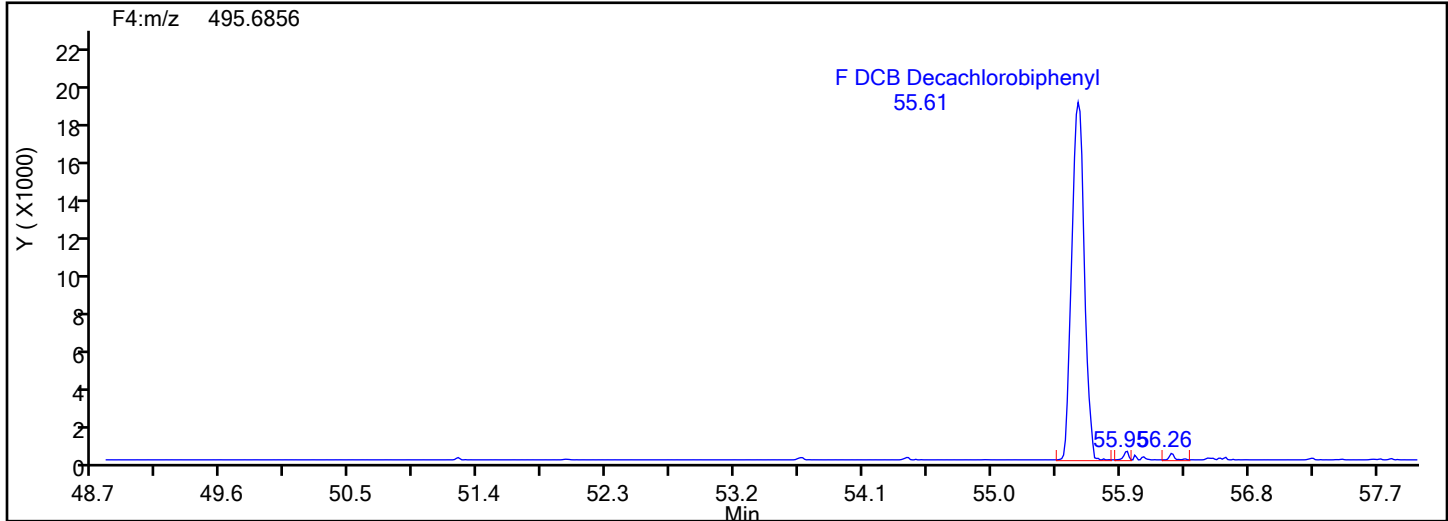


## DePCB F4 Standards

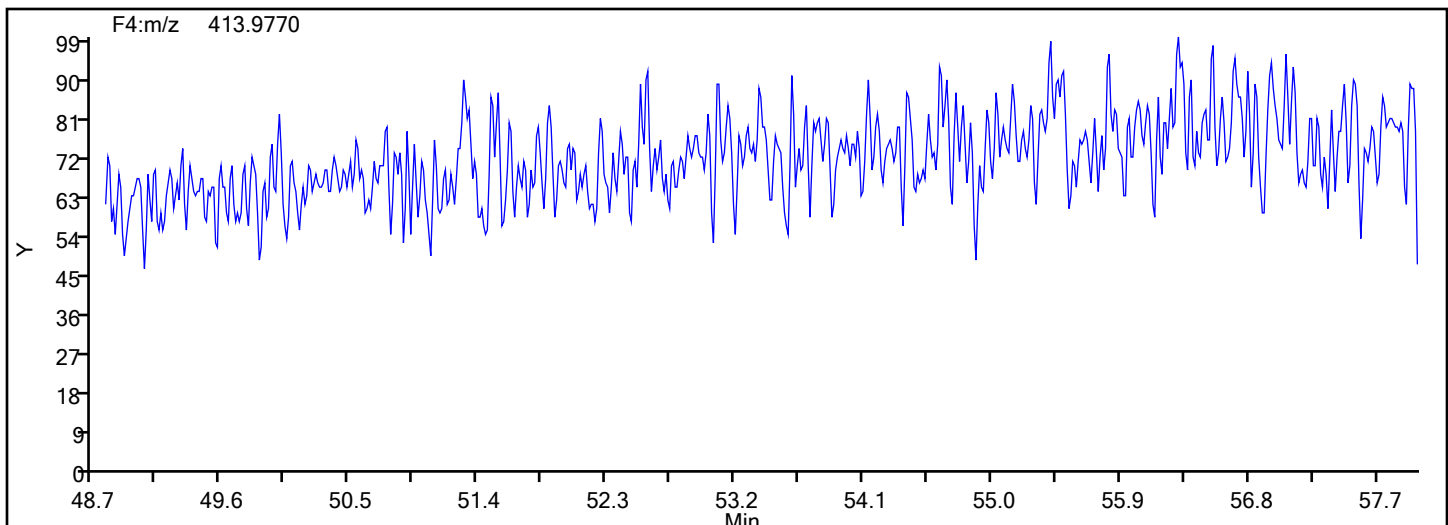


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi3.d  
Injection Date: 31-May-2024 18:00:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 3  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4



## DePCB F4 Lock Mass



Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d  
Lims ID: IC L4  
Client ID:  
Sample Type: IC Calib Level: 4  
Inject. Date: 31-May-2024 19:10:00 ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0032883-004  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Sublist: chrom-PCBs\_D2D\*sub16  
Method: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 04-Jun-2024 14:27:46 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: V4XA

Date: 31-May-2024 21:28:40

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total Monochlorobiphenyls					149.5	149.5	0.2043	0.2043		
D PCB-1L	11:36	13654287	3.17	1.6108	101.9	101.9	0.3060	0.3060	102	
D PCB-3L	13:46	13165806	3.18	1.5891	99.6	99.6	0.3101	0.3101	99.64	
PCB-1	11:37	8260359	3.19	1.2191	49.6	49.6	0.1822	0.1822	99.25	
PCB-2	13:36	7886042	3.16	1.1805	49.8	49.8	0.2074	0.2074	99.63	
PCB-3	13:47	8044849	3.08	1.2206	50.1	50.1	0.2233	0.2233	100	
S Total Dichlorobiphenyls					596.4	596.4	0.0398	0.0398		
D PCB-4L	14:02	5474214	1.57	0.6475	101.7	101.7	0.1177	0.1177	102	
* PCB-9L	15:59	8314907	1.64		100.0	100.0				
\$ PCB-8L	16:50	4194596	1.64	1.2066	48.5	48.5	0.0758	0.0758	97.04	
D PCB-15L	19:54	8855244	1.66	1.0789	98.7	98.7	0.0706	0.0706	98.71	
PCB-4	14:02	3479874	1.53	1.2818	49.6	49.6	0.0467	0.0467	99.18	
PCB-10	14:13	4792674	1.61	1.3149	50.9	50.9	0.0416	0.0416	102	
PCB-9	16:00	5083530	1.60	1.4224	49.9	49.9	0.0385	0.0385	99.76	
PCB-7	16:10	4950093	1.58	1.4134	48.9	48.9	0.0387	0.0387	97.76	
PCB-6	16:25	5408103	1.60	1.5421	48.9	48.9	0.0355	0.0355	97.90	
PCB-5	16:43	4844644	1.64	1.3395	50.5	50.5	0.0409	0.0409	101	
PCB-8	16:50	5621585	1.60	1.5889	49.4	49.4	0.0344	0.0344	98.76	
PCB-14	18:28	5066034	1.62	1.4025	50.4	50.4	0.0390	0.0390	101	
PCB-11	19:18	4598736	1.60	1.2951	49.6	49.6	0.0423	0.0423	99.12	
PCB-12	19:36	9487445	1.61	1.3358	99.1	99.1	0.0410	0.0410	99.13	
PCB-13 (C12)	19:36	9487445	1.61	1.3358	99.1	99.1	0.0410	0.0410	99.13	
PCB-15	19:55	5621988	1.64	1.2903	49.2	49.2	0.0391	0.0391	98.41	
S Total Trichlorobiphenyls					1185.4	1185.4	0.3790	0.3790		
D PCB-19L	17:08	3406868	1.06	0.6285	100.2	100.2	0.2286	0.2286	100	
* PCB-32L	20:23	5407330	1.09		100.0	100.0				
* PCB-31L	22:38	15561763	1.05		100.0	100.0				
\$ PCB-28L	22:56	7682166	1.04	1.0494	47.0	47.0	0.0838	0.0838	94.08	
D PCB-37L	26:55	13535671	1.07	0.8749	99.4	99.4	0.1006	0.1006	99.41	
PCB-19	17:09	2152324	1.07	1.2809	49.3	49.3	0.0278	0.0278	98.64	
PCB-18	18:59	6054511	1.05	1.7652	100.7	100.7	0.0202	0.0202	101	
PCB-30 (C18)	18:59	6054511	1.05	1.7652	100.7	100.7	0.0202	0.0202	101	
PCB-17	19:26	2122247	1.06	1.2430	50.1	50.1	0.0286	0.0286	100	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-27	19:39	3179572	1.04	1.8327	50.9	50.9	0.0194	0.0194	102	
PCB-24	19:46	2814319	1.03	1.6777	49.2	49.2	0.0212	0.0212	98.48	
PCB-16	19:53	1959828	1.08	1.1286	51.0	51.0	0.0316	0.0316	102	
PCB-32	20:23	3076908	1.05	1.8324	49.3	49.3	0.0194	0.0194	98.57	
PCB-34	21:39	7616885	1.06	1.1277	49.9	49.9	0.5753	0.5753	99.80	
PCB-23	21:48	7186368	1.05	1.0813	49.1	49.1	0.6000	0.6000	98.20	
PCB-26	22:08	14701213	1.05	1.1255	96.5	96.5	0.5765	0.5765	96.50	
PCB-29 (C26)	22:08	14701213	1.05	1.1255	96.5	96.5	0.5765	0.5765	96.50	
PCB-25	22:21	8444656	1.04	1.2728	49.0	49.0	0.5097	0.5097	98.03	
PCB-31	22:40	7458669	1.05	1.1532	47.8	47.8	0.5626	0.5626	95.56	
PCB-20	22:58	15507992	1.06	1.1718	97.8	97.8	0.5537	0.5537	97.77	
PCB-28 (C20)	22:58	15507992	1.06	1.1718	97.8	97.8	0.5537	0.5537	97.77	
PCB-21	23:07	14314146	1.02	1.0746	98.4	98.4	0.6038	0.6038	98.41	M
PCB-33 (C21)	23:07	14314146	1.02	1.0746	98.4	98.4	0.6038	0.6038	98.41	M
PCB-22	23:35	7874512	1.04	1.1932	48.8	48.8	0.5437	0.5437	97.51	
PCB-36	25:09	7632212	1.02	1.1071	50.9	50.9	0.5861	0.5861	102	
PCB-39	25:30	7752224	1.07	1.1581	49.5	49.5	0.5602	0.5602	98.90	
PCB-38	26:05	7153021	1.07	1.0843	48.7	48.7	0.5983	0.5983	97.47	
PCB-35	26:32	7562291	1.04	1.1297	49.5	49.5	0.5743	0.5743	98.91	
PCB-37	26:57	7589418	1.03	1.1435	49.0	49.0	0.5674	0.5674	98.07	
S Total Tetrachlorobiphenyls					2058.1	2058.1	0.5133	0.5133		
D PCB-54L	20:12	3125781	0.82	0.5562	103.9	103.9	0.0976	0.0976	104	
* PCB-52L	24:46	7876230	0.79		100.0	100.0				
\$ PCB-79L	32:41	4986068	0.80	1.0018	49.8	49.8	0.4360	0.4360	99.60	
D PCB-81L	33:41	9689577	0.80	1.2470	98.7	98.7	0.3954	0.3954	98.66	
D PCB-77L	34:14	10298891	0.81	1.3212	99.0	99.0	0.3732	0.3732	98.97	
PCB-54	20:13	2056772	0.78	1.2733	51.7	51.7	0.0450	0.0450	103	
PCB-50	22:24	8406058	0.78	0.8578	98.1	98.1	0.6593	0.6593	98.05	
PCB-53 (C50)	22:24	8406058	0.78	0.8578	98.1	98.1	0.6593	0.6593	98.05	
PCB-45	23:08	8278212	0.78	0.8264	100.2	100.2	0.6844	0.6844	100	M
PCB-51 (C45)	23:08	8278212	0.78	0.8264	100.2	100.2	0.6844	0.6844	100	M
PCB-46	23:22	3495887	0.77	0.7101	49.3	49.3	0.7965	0.7965	98.52	
PCB-52	24:47	4723711	0.77	0.9194	51.4	51.4	0.6151	0.6151	103	M
PCB-43	24:56	10270296	0.79	1.0333	99.4	99.4	0.5473	0.5473	99.45	Ma
PCB-73 (C43)	24:56	10270296	0.79	1.0333	99.4	99.4	0.5473	0.5473	99.45	Ma
PCB-49	25:14	10490769	0.77	1.0685	98.2	98.2	0.5293	0.5293	98.24	Ma
PCB-69 (C49)	25:14	10490769	0.77	1.0685	98.2	98.2	0.5293	0.5293	98.24	Ma
PCB-48	25:33	4096041	0.78	0.8399	48.8	48.8	0.6734	0.6734	97.59	
PCB-44	25:48	14013306	0.80	0.9731	144.1	144.1	0.5812	0.5812	96.06	
PCB-47 (C44)	25:48	14013306	0.80	0.9731	144.1	144.1	0.5812	0.5812	96.06	
PCB-65 (C44)	25:48	14013306	0.80	0.9731	144.1	144.1	0.5812	0.5812	96.06	
PCB-59	26:06	16871670	0.80	1.1853	142.4	142.4	0.4772	0.4772	94.95	
PCB-62 (C59)	26:06	16871670	0.80	1.1853	142.4	142.4	0.4772	0.4772	94.95	
PCB-75 (C59)	26:06	16871670	0.80	1.1853	142.4	142.4	0.4772	0.4772	94.95	
PCB-42	26:18	4062353	0.81	0.8097	50.2	50.2	0.6985	0.6985	100	
PCB-40	26:48	12777370	0.80	0.8863	144.2	144.2	0.6381	0.6381	96.16	M
PCB-41 (C40)	26:48	12777370	0.80	0.8863	144.2	144.2	0.6381	0.6381	96.16	M
PCB-71 (C40)	26:48	12777370	0.80	0.8863	144.2	144.2	0.6381	0.6381	96.16	M
PCB-64	27:01	5640018	0.80	1.1776	47.9	47.9	0.4803	0.4803	95.85	
PCB-72	27:51	5513402	0.79	1.0943	50.4	50.4	0.5168	0.5168	101	
PCB-68	28:09	6342042	0.80	1.2533	50.6	50.6	0.4513	0.4513	101	
PCB-57	28:34	5445573	0.80	1.0818	50.4	50.4	0.5228	0.5228	101	
PCB-58	28:48	6808166	0.80	1.3253	51.4	51.4	0.4267	0.4267	103	
PCB-67	28:58	6875936	0.80	1.4230	48.3	48.3	0.3974	0.3974	96.69	
PCB-63	29:14	5498511	0.83	1.1240	48.9	48.9	0.5032	0.5032	97.90	
PCB-61	29:34	24255009	0.80	1.2612	192.4	192.4	0.4484	0.4484	96.21	M
PCB-70 (C61)	29:34	24255009	0.80	1.2612	192.4	192.4	0.4484	0.4484	96.21	M
PCB-74 (C61)	29:34	24255009	0.80	1.2612	192.4	192.4	0.4484	0.4484	96.21	M
PCB-76 (C61)	29:34	24255009	0.80	1.2612	192.4	192.4	0.4484	0.4484	96.21	M
PCB-66	29:53	6312222	0.82	1.2583	50.2	50.2	0.4495	0.4495	100	
PCB-55	30:03	6483526	0.82	1.3236	49.0	49.0	0.4273	0.4273	98.02	



Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-56	30:33	6041547	0.81	1.2334	49.0	49.0	0.4585	0.4585	98.02	
PCB-60	30:46	5475280	0.80	1.1230	48.8	48.8	0.5036	0.5036	97.56	
PCB-80	31:11	6451950	0.77	1.3243	48.7	48.7	0.4271	0.4271	97.50	
PCB-79	32:42	6861599	0.79	1.4368	47.8	47.8	0.3936	0.3936	95.57	
PCB-78	33:15	5506314	0.78	1.1618	47.4	47.4	0.4868	0.4868	94.84	
PCB-81	33:42	5214743	0.78	1.0802	49.8	49.8	0.5270	0.5270	99.64	
PCB-77	34:16	5446719	0.76	1.0836	48.8	48.8	0.5186	0.5186	97.61	
S Total Pentachlorobiphenyls					2266.8	2266.8	0.2696	0.2696		
D PCB-104L	25:42	6455349	1.58	1.2161	101.5	101.5	0.0397	0.0397	102	
\$ PCB-95L	28:41	2314965	1.62	0.7218	49.7	49.7	0.0503	0.0503	99.37	
* PCB-101L	31:37	5228368	1.60		100.0	100.0				
\$ PCB-111L	34:17	3399701	1.59	1.3699	47.5	47.5	0.0353	0.0353	94.93	
D PCB-123L	36:15	9501201	1.57	0.9731	98.3	98.3	1.116	1.116	98.31	
D PCB-118L	36:34	10094764	1.57	1.0102	100.6	100.6	1.076	1.076	101	
D PCB-114L	37:06	9734953	1.60	0.9949	98.5	98.5	1.092	1.092	98.52	
D PCB-105L	37:45	9433900	1.59	0.9514	99.8	99.8	1.142	1.142	99.84	
* PCB-127L	39:14	9931738	1.57		100.0	100.0				
D PCB-126L	40:50	9388684	1.57	0.9439	100.2	100.2	1.151	1.151	100	
PCB-104	25:44	3284431	1.56	1.0087	50.4	50.4	0.0203	0.0203	101	
PCB-96	26:06	3505288	1.58	1.0940	49.6	49.6	0.0187	0.0187	99.27	
PCB-103	28:02	2810660	1.58	0.8741	49.8	49.8	0.0235	0.0235	99.62	
PCB-94	28:16	2353932	1.58	0.7640	47.7	47.7	0.0268	0.0268	95.46	
PCB-95	28:42	2613771	1.60	0.8033	50.4	50.4	0.0255	0.0255	101	
PCB-93	28:55	5326508	1.58	0.8429	97.9	97.9	0.0243	0.0243	97.90	
PCB-100 (C93)	28:55	5326508	1.58	0.8429	97.9	97.9	0.0243	0.0243	97.90	
PCB-98	29:04	5294749	1.60	0.8262	99.3	99.3	0.0248	0.0248	99.28	
PCB-102 (C98)	29:04	5294749	1.60	0.8262	99.3	99.3	0.0248	0.0248	99.28	
PCB-88	29:33	5073604	1.60	0.8013	98.1	98.1	0.0256	0.0256	98.09	
PCB-91 (C88)	29:33	5073604	1.60	0.8013	98.1	98.1	0.0256	0.0256	98.09	
PCB-84	29:47	2297413	1.57	0.7299	48.8	48.8	0.0281	0.0281	97.51	
PCB-89	30:16	2424086	1.59	0.7798	48.2	48.2	0.0263	0.0263	96.31	
PCB-121	30:41	4144482	1.64	1.2964	49.5	49.5	0.0158	0.0158	99.05	
PCB-92	31:03	2724348	1.60	0.8546	49.4	49.4	0.0240	0.0240	98.77	
PCB-90	31:37	9126697	1.58	0.9550	148.0	148.0	0.0215	0.0215	98.70	
PCB-101 (C90)	31:37	9126697	1.58	0.9550	148.0	148.0	0.0215	0.0215	98.70	
PCB-113 (C90)	31:37	9126697	1.58	0.9550	148.0	148.0	0.0215	0.0215	98.70	
PCB-83	32:13	5527064	1.61	0.8385	102.1	102.1	0.0245	0.0245	102	
PCB-99 (C83)	32:13	5527064	1.61	0.8385	102.1	102.1	0.0245	0.0245	102	
PCB-112	32:20	4359398	1.58	1.4111	47.9	47.9	0.0145	0.0145	95.71	
PCB-86	32:42	19399175	1.60	1.0473	286.9	286.9	0.0196	0.0196	95.65	M
PCB-87 (C86)	32:42	19399175	1.60	1.0473	286.9	286.9	0.0196	0.0196	95.65	M
PCB-97 (C86)	32:42	19399175	1.60	1.0473	286.9	286.9	0.0196	0.0196	95.65	M
PCB-109 (C86)	32:42	19399175	1.60	1.0473	286.9	286.9	0.0196	0.0196	95.65	M
PCB-119 (C86)	32:42	19399175	1.60	1.0473	286.9	286.9	0.0196	0.0196	95.65	M
PCB-125 (C86)	32:42	19399175	1.60	1.0473	286.9	286.9	0.0196	0.0196	95.65	M
PCB-85	33:25	9894792	1.61	1.0408	147.3	147.3	0.0197	0.0197	98.18	
PCB-116 (C85)	33:25	9894792	1.61	1.0408	147.3	147.3	0.0197	0.0197	98.18	
PCB-117 (C85)	33:25	9894792	1.61	1.0408	147.3	147.3	0.0197	0.0197	98.18	
PCB-110	33:37	7463251	1.57	1.1919	97.0	97.0	0.0172	0.0172	97.00	
PCB-115 (C110)	33:37	7463251	1.57	1.1919	97.0	97.0	0.0172	0.0172	97.00	
PCB-82	33:55	2659391	1.54	0.8303	49.6	49.6	0.0247	0.0247	99.23	
PCB-111	34:19	3825096	1.57	1.2125	48.9	48.9	0.0169	0.0169	97.74	
PCB-120	34:47	4697232	1.59	1.4762	49.3	49.3	0.0139	0.0139	98.58	
PCB-108	35:55	10706077	1.59	1.1405	97.5	97.5	0.7702	0.7702	97.47	
PCB-124 (C108)	35:55	10706077	1.59	1.1405	97.5	97.5	0.7702	0.7702	97.47	
PCB-107	36:09	5897415	1.57	1.2121	50.5	50.5	0.7248	0.7248	101	
PCB-123	36:16	5033992	1.69	1.0722	49.4	49.4	0.8206	0.8206	98.83	
PCB-106	36:23	5140106	1.45	1.0839	49.2	49.2	0.8105	0.8105	98.48	
PCB-118	36:36	6016008	1.58	1.2055	49.4	49.4	0.6916	0.6916	98.87	
PCB-122	36:56	4709445	1.58	0.9567	51.1	51.1	0.9182	0.9182	102	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-114	37:08	5307527	1.60	1.0842	50.3	50.3	0.7830	0.7830	101	
PCB-105	37:46	5526391	1.56	1.1879	49.3	49.3	0.7574	0.7574	98.63	
PCB-127	39:15	5642766	1.59	1.1394	51.4	51.4	0.7710	0.7710	103	
PCB-126	40:52	5411840	1.55	1.0976	52.5	52.5	0.8545	0.8545	105	
S Total Hexachlorobiphenyls					2088.6	2088.6	0.2613	0.2613		
D PCB-155L	31:23	5786925	1.29	1.0851	102.0	102.0	0.0250	0.0250	102	
\$ PCB-153L	38:27	3417541	1.31	0.9169	45.8	45.8	0.9578	0.9578	91.68	
* PCB-138L	39:41	6594689	1.30		100.0	100.0				
\$ PCB-159L	41:56	4385171	1.29	0.5118	102.9	102.9	1.435	1.435	103	
D PCB-167L	42:42	8329121	1.28	1.2572	100.5	100.5	0.7283	0.7283	100	
D PCB-156L	43:51	16048883	1.29	1.2106	201.0	201.0	0.7563	0.7563	101	
D PCB-157L (C156L)	43:51	16048883	1.29	1.2106	201.0	201.0	0.7563	0.7563	101	
D PCB-169L	47:05	8145884	1.28	1.2439	99.3	99.3	0.7361	0.7361	99.31	
PCB-155	31:25	2757196	1.29	0.9444	50.4	50.4	0.006493	0.006493	101	
PCB-152	31:36	2752865	1.25	0.9895	48.1	48.1	0.006197	0.006197	96.15	
PCB-150	31:46	2933125	1.28	1.0132	50.0	50.0	0.006052	0.006052	100	
PCB-136	32:08	2858801	1.28	1.0116	48.8	48.8	0.006062	0.006062	97.67	
PCB-145	32:25	2773933	1.29	0.9685	49.5	49.5	0.006331	0.006331	98.99	
PCB-148	33:57	2176255	1.30	0.7603	49.5	49.5	0.008065	0.008065	98.93	
PCB-135	34:32	4192182	1.24	0.7256	99.8	99.8	0.008451	0.008451	99.84	Ma
PCB-151 (C135)	34:32	4192182	1.24	0.7256	99.8	99.8	0.008451	0.008451	99.84	Ma
PCB-154	34:47	2371495	1.28	0.8129	50.4	50.4	0.007543	0.007543	101	
PCB-144	35:06	2232331	1.26	0.7852	49.1	49.1	0.007809	0.007809	98.25	
PCB-147	35:27	7067120	1.26	0.8950	97.1	97.1	0.3814	0.3814	97.12	
PCB-149 (C147)	35:27	7067120	1.26	0.8950	97.1	97.1	0.3814	0.3814	97.12	
PCB-134	35:45	6440496	1.27	0.7967	99.4	99.4	0.4285	0.4285	99.42	
PCB-143 (C134)	35:45	6440496	1.27	0.7967	99.4	99.4	0.4285	0.4285	99.42	
PCB-139	36:04	7038694	1.27	0.8769	98.7	98.7	0.3893	0.3893	98.72	
PCB-140 (C139)	36:04	7038694	1.27	0.8769	98.7	98.7	0.3893	0.3893	98.72	
PCB-131	36:15	3018928	1.27	0.7503	49.5	49.5	0.4549	0.4549	98.97	M
PCB-142	36:24	3115155	1.25	0.7507	51.0	51.0	0.4547	0.4547	102	M
PCB-132	36:43	2979191	1.25	0.7489	48.9	48.9	0.4558	0.4558	97.85	
PCB-133	37:14	3245992	1.28	0.8096	49.3	49.3	0.4216	0.4216	98.62	
PCB-165	37:37	4186901	1.30	1.0247	50.3	50.3	0.3331	0.3331	101	
PCB-146	37:52	3845405	1.27	0.9637	49.1	49.1	0.3542	0.3542	98.15	
PCB-161	38:00	4666072	1.28	1.1288	50.8	50.8	0.3024	0.3024	102	
PCB-153	38:30	8944568	1.26	1.0938	100.6	100.6	0.3121	0.3121	101	
PCB-168 (C153)	38:30	8944568	1.26	1.0938	100.6	100.6	0.3121	0.3121	101	
PCB-141	38:41	3461353	1.29	0.8755	48.6	48.6	0.3899	0.3899	97.25	
PCB-130	39:05	2838645	1.29	0.7051	49.5	49.5	0.4841	0.4841	99.02	
PCB-137	39:18	3298456	1.24	0.7767	52.2	52.2	0.4395	0.4395	104	
PCB-164	39:26	4200180	1.28	1.0382	49.8	49.8	0.3288	0.3288	99.51	
PCB-129	39:44	15110013	1.26	0.9464	196.4	196.4	0.3607	0.3607	98.18	M
PCB-138 (C129)	39:44	15110013	1.26	0.9464	196.4	196.4	0.3607	0.3607	98.18	M
PCB-160 (C129)	39:44	15110013	1.26	0.9464	196.4	196.4	0.3607	0.3607	98.18	M
PCB-163 (C129)	39:44	15110013	1.26	0.9464	196.4	196.4	0.3607	0.3607	98.18	M
PCB-158	40:07	5319521	1.25	1.3110	49.9	49.9	0.2604	0.2604	99.80	
PCB-128	40:57	8124665	1.22	0.9829	101.7	101.7	0.3473	0.3473	102	
PCB-166 (C128)	40:57	8124665	1.22	0.9829	101.7	101.7	0.3473	0.3473	102	
PCB-159	41:58	5578541	1.29	1.3856	49.5	49.5	0.2463	0.2463	99.03	
PCB-162	42:15	5046359	1.24	1.2571	49.4	49.4	0.2715	0.2715	98.74	
PCB-167	42:44	4608166	1.28	1.1159	49.6	49.6	0.2558	0.2558	99.16	
PCB-156	43:53	8938406	1.25	1.1104	100.3	100.3	0.3748	0.3748	100	
PCB-157 (C156)	43:53	8938406	1.25	1.1104	100.3	100.3	0.3748	0.3748	100	
PCB-169	47:06	4858941	1.28	1.1628	51.3	51.3	0.2522	0.2522	103	
S Total Heptachlorobiphenyls					1208.3	1208.3	0.0110	0.0110		
D PCB-188L	37:07	6587579	1.06	1.3133	100.8	100.8	0.0326	0.0326	101	
\$ PCB-178L	40:10	2454141	1.07	1.0313	47.8	47.8	0.0415	0.0415	95.61	
* PCB-180L	45:15	4977558	1.07		100.0	100.0				

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D PCB-170L	46:30	4156589	1.07	0.8362	99.9	99.9	0.0512	0.0512	99.86	
D PCB-189L	49:37	10070777	1.06	1.4414	99.7	99.7	0.4358	0.4358	99.65	
PCB-188	37:08	3706640	1.06	1.1350	49.6	49.6	0.001884	0.001884	99.15	
PCB-179	37:28	3733944	1.05	1.4276	48.7	48.7	0.001869	0.001869	97.38	
PCB-184	38:00	3714498	1.04	1.3672	50.6	50.6	0.001951	0.001951	101	
PCB-176	38:21	3337458	1.06	1.2331	50.4	50.4	0.002164	0.002164	101	
PCB-186	38:48	4051516	1.07	1.4737	51.2	51.2	0.001810	0.001810	102	
PCB-178	40:11	2440485	1.05	0.8946	50.8	50.8	0.002982	0.002982	102	
PCB-175	40:49	2569891	1.05	0.9524	50.2	50.2	0.002801	0.002801	100	
PCB-187	41:05	3023234	1.04	1.1018	51.1	51.1	0.002421	0.002421	102	
PCB-182	41:18	2647036	1.05	0.9247	53.3	53.3	0.002885	0.002885	107	
PCB-183	41:42	5114533	1.06	0.9825	96.9	96.9	0.002715	0.002715	96.90	Ma
PCB-185 (C183)	41:42	5114533	1.06	0.9825	96.9	96.9	0.002715	0.002715	96.90	Ma
PCB-174	41:56	2681848	1.06	0.9642	51.8	51.8	0.002767	0.002767	104	
PCB-177	42:22	2633576	1.00	0.9773	50.2	50.2	0.002730	0.002730	100	
PCB-181	42:45	2521026	1.08	0.9505	49.4	49.4	0.002807	0.002807	98.74	
PCB-171	42:59	4804669	1.06	0.9336	95.8	95.8	0.002857	0.002857	95.79	
PCB-173 (C171)	42:59	4804669	1.06	0.9336	95.8	95.8	0.002857	0.002857	95.79	
PCB-172	44:37	2347963	1.05	0.8519	51.3	51.3	0.003132	0.003132	103	
PCB-192	44:54	3758142	1.06	1.3459	52.0	52.0	0.001982	0.001982	104	
PCB-180	45:14	6380540	1.07	1.1676	101.7	101.7	0.002285	0.002285	102	
PCB-193 (C180)	45:14	6380540	1.07	1.1676	101.7	101.7	0.002285	0.002285	102	
PCB-191	45:37	3590548	1.05	1.2891	51.8	51.8	0.002069	0.002069	104	
PCB-170	46:32	2504084	1.04	1.1865	50.8	50.8	0.002987	0.002987	102	
PCB-190	47:02	3582145	1.06	1.3322	50.1	50.1	0.002002	0.002002	100	
PCB-189	49:38	4928731	1.04	0.9633	50.8	50.8	0.1812	0.1812	102	
S Total Octachlorobiphenyls					612.5	612.5	0.0700	0.0700		
D PCB-202L	42:28	4754288	0.90	0.9818	97.3	97.3	0.0212	0.0212	97.28	
* PCB-194L	51:43	7011099	0.92		100.0	100.0				
D PCB-205L	52:11	8337493	0.91	1.1786	100.9	100.9	0.0820	0.0820	101	
PCB-202	42:29	2654251	0.89	1.0359	53.9	53.9	0.0331	0.0331	108	
PCB-201	43:25	2419114	0.90	0.9754	52.2	52.2	0.0352	0.0352	104	
PCB-204	44:05	2562540	0.91	1.0485	51.4	51.4	0.0327	0.0327	103	
PCB-197	44:19	2790933	0.91	1.1458	51.2	51.2	0.0300	0.0300	102	
PCB-200	44:25	2461217	0.92	1.0072	51.4	51.4	0.0341	0.0341	103	
PCB-198	47:12	4197692	0.90	0.8698	101.5	101.5	0.0395	0.0395	102	
PCB-199 (C198)	47:12	4197692	0.90	0.8698	101.5	101.5	0.0395	0.0395	102	
PCB-196	47:53	1892682	0.92	0.7806	51.0	51.0	0.0440	0.0440	102	
PCB-203	48:05	2289580	0.93	0.9292	51.8	51.8	0.0369	0.0369	104	
PCB-195	49:23	3431947	0.91	0.8263	49.8	49.8	0.1859	0.1859	99.63	
PCB-194	51:44	3967420	0.90	0.9735	48.9	48.9	0.1578	0.1578	97.76	
PCB-205	52:13	4478090	0.90	1.0878	49.4	49.4	0.1412	0.1412	98.75	
S Total Nonachlorobiphenyls					146.1	146.1	0.2808	0.2808		
D PCB-208L	49:09	6680775	0.81	0.9576	99.5	99.5	0.2875	0.2875	99.51	
D PCB-206L	53:57	4903942	0.82	0.6947	100.7	100.7	0.3963	0.3963	101	
PCB-208	49:10	3774592	0.80	1.1374	49.7	49.7	0.2671	0.2671	99.34	
PCB-207	50:05	3878521	0.81	1.3756	48.7	48.7	0.2574	0.2574	97.35	
PCB-206	53:58	3124562	0.77	1.3346	47.7	47.7	0.3178	0.3178	95.48	M
D PCB-209L	55:34	4723291	0.71	0.6669	101.0	101.0	0.0521	0.0521	101	
DCB Decachlorobiphenyl	55:36	2603740	0.72	1.1004	50.1	50.1	0.0318	0.0318	100	
S Polychlorinated biphenyls, Total					10212	10212	0.2063	0.2063		

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

61CV1668CS3\_00019

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi4.d  
Lims ID: IC L4  
Client ID:  
Sample Type: IC Calib Level: 4  
Inject. Date: 31-May-2024 19:10:00 ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0032883-004  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Sublist: chrom-PCBs\_D2D\*sub16  
Method: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 04-Jun-2024 14:27:46 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: V4XA

Date: 31-May-2024 21:28:40

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:36	11:36	0	0.726	10378292	4043023	3400	8500	1189		
202.0766	11:36	11:36	0	0.726	3275995	1290206	1313	3282	983	3.17(2.66-3.60)	
PCB-3L											
200.0795	13:46	13:46	0	0.861	10013550	3298535	3400	8500	970		
202.0766	13:46	13:46	0	0.861	3152256	1047697	1313	3282	798	3.18(2.66-3.60)	
PCB-1											
188.0393	11:37	11:37	0	1.001	6290617	2506209	3342	8355	750		
190.0363	11:37	11:37	0	1.001	1969742	792083	1397	3492	567	3.19(2.66-3.60)	
PCB-2											
188.0393	13:36	13:36	0	0.989	5988227	2039269	3342	8355	610		
190.0363	13:36	13:36	0	0.989	1897815	648319	1397	3492	464	3.16(2.66-3.60)	
PCB-3											
188.0393	13:47	13:47	0	1.001	6073593	2001565	3342	8355	599		
190.0363	13:47	13:47	0	1.001	1971256	645771	1397	3492	462	3.08(2.66-3.60)	
PCB-4L											
234.0406	14:02	14:02	0	0.877	3346902	1112979	579	1447	1922		
236.0376	14:02	14:02	0	0.877	2127312	706863	150	375	4712	1.57(1.33-1.79)	
PCB-9L											
234.0406	15:59	15:59	0		5162483	1476828	579	1447	2551		
236.0376	15:59	15:59	0		3152424	913781	150	375	6092	1.64(1.33-1.79)	
PCB-8L											
234.0406	16:50	16:50	0	1.200	2605493	729678	579	1447	1260		
236.0376	16:50	16:50	0	1.200	1589103	443557	150	375	2957	1.64(1.33-1.79)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:54	19:54	0	1.245	5520100	1337303	579	1447	2310		
236.0376	19:54	19:54	0	1.245	3335144	825967	150	375	5506	1.66(1.33-1.79)	
PCB-4											
222.0003	14:02	14:02	0	1.001	2103864	704389	136	340	5179		
223.9974	14:02	14:02	0	1.001	1376010	460635	300	750	1535	1.53(1.33-1.79)	
PCB-10											
222.0003	14:13	14:13	0	1.013	2953900	957858	136	340	7043		
223.9974	14:13	14:13	0	1.013	1838774	593970	300	750	1980	1.61(1.33-1.79)	
PCB-9											
222.0003	16:00	16:00	0	1.141	3130109	895194	136	340	6582		
223.9974	16:00	16:00	0	1.141	1953421	563607	300	750	1879	1.60(1.33-1.79)	
PCB-7											
222.0003	16:10	16:10	0	1.153	3033451	871987	136	340	6412		
223.9974	16:10	16:10	0	1.153	1916642	545950	300	750	1820	1.58(1.33-1.79)	
PCB-6											
222.0003	16:25	16:25	0	1.171	3328817	918018	136	340	6750		
223.9974	16:25	16:25	0	1.171	2079286	571130	300	750	1904	1.60(1.33-1.79)	
PCB-5											
222.0003	16:43	16:43	0	1.192	3011145	834355	136	340	6135		
223.9974	16:43	16:43	0	1.192	1833499	505008	300	750	1683	1.64(1.33-1.79)	
PCB-8											
222.0003	16:50	16:50	0	1.201	3460322	945337	136	340	6951		
223.9974	16:50	16:50	0	1.201	2161263	601345	300	750	2004	1.60(1.33-1.79)	
PCB-14											
222.0003	18:28	18:28	0	0.927	3129135	806908	136	340	5933		
223.9974	18:28	18:28	0	0.927	1936899	488798	300	750	1629	1.62(1.33-1.79)	
PCB-11											
222.0003	19:18	19:18	0	0.970	2828865	696910	136	340	5124		
223.9974	19:18	19:18	0	0.970	1769871	445361	300	750	1485	1.60(1.33-1.79)	
PCB-12											
222.0003	19:36	19:36	0	0.985	5855257	962989	136	340	7081		
223.9974	19:36	19:36	0	0.985	3632188	606383	300	750	2021	1.61(1.33-1.79)	
PCB-13 (C12)											
222.0003	19:36	19:36	0	0.985	5855257	962989	136	340	7081		
223.9974	19:36	19:36	0	0.985	3632188	606383	300	750	2021	1.61(1.33-1.79)	
PCB-15											
222.0003	19:55	19:55	0	1.001	3493572	837160	136	340	6156		
223.9974	19:55	19:55	0	1.001	2128416	515666	300	750	1719	1.64(1.33-1.79)	
PCB-19L											
268.0016	17:08	17:08	0	0.841	1750807	486966	387	967	1258		
269.9986	17:08	17:08	0	0.841	1656061	453859	375	937	1210	1.06(0.88-1.20)	
PCB-32L											
268.0016	20:23	20:23	0		2824621	695706	387	967	1798		
269.9986	20:23	20:23	0		2582709	630237	375	937	1681	1.09(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-31L											
268.0016	22:38	22:38	0		7962003	1894734	756	1890	2506		
269.9986	22:38	22:38	0		7599760	1793669	542	1355	3309	1.05(0.88-1.20)	
PCB-28L											
268.0016	22:56	22:56	0	1.013	3925465	890634	756	1890	1178		
269.9986	22:56	22:56	0	1.013	3756701	838469	542	1355	1547	1.04(0.88-1.20)	
PCB-37L											
268.0016	26:55	26:55	0	1.189	6988299	1454248	756	1890	1924		
269.9986	26:55	26:55	0	1.189	6547372	1384396	542	1355	2554	1.07(0.88-1.20)	
PCB-19											
255.9613	17:09	17:09	0	1.001	1111991	306495	88	220	3483		
257.9584	17:09	17:09	0	1.001	1040333	288369	46	115	6269	1.07(0.88-1.20)	
PCB-18											
255.9613	18:59	18:59	0	1.108	3107998	586245	88	220	6662		
257.9584	18:59	18:59	0	1.108	2946513	553857	46	115	12040	1.05(0.88-1.20)	
PCB-30 (C18)											
255.9613	18:59	18:59	0	1.108	3107998	586245	88	220	6662		
257.9584	18:59	18:59	0	1.108	2946513	553857	46	115	12040	1.05(0.88-1.20)	
PCB-17											
255.9613	19:26	19:26	0	1.134	1092962	270857	88	220	3078		
257.9584	19:25	19:26	-1	1.134	1029285	254392	46	115	5530	1.06(0.88-1.20)	
PCB-27											
255.9613	19:39	19:39	0	1.147	1622473	403019	88	220	4580		
257.9584	19:39	19:39	0	1.147	1557099	390966	46	115	8499	1.04(0.88-1.20)	
PCB-24											
255.9613	19:46	19:46	0	1.154	1424998	366421	88	220	4164		
257.9584	19:46	19:46	0	1.154	1389321	362384	46	115	7878	1.03(0.88-1.20)	
PCB-16											
255.9613	19:53	19:53	0	1.161	1016275	250108	88	220	2842		
257.9584	19:53	19:53	0	1.161	943553	241993	46	115	5261	1.08(0.88-1.20)	
PCB-32											
255.9613	20:23	20:23	0	1.190	1573620	387081	88	220	4399		
257.9584	20:24	20:23	1	1.191	1503288	366708	46	115	7972	1.05(0.88-1.20)	
PCB-34											
255.9613	21:39	21:39	0	1.264	3910688	929086	4015	10037	231		
257.9584	21:40	21:39	1	1.265	3706197	879140	3352	8380	262	1.06(0.88-1.20)	
PCB-23											
255.9613	21:48	21:48	0	1.273	3680892	891044	4015	10037	222		
257.9584	21:48	21:48	0	1.273	3505476	854530	3352	8380	255	1.05(0.88-1.20)	
PCB-26											
255.9613	22:08	22:08	0	1.292	7520001	1587942	4015	10037	396		
257.9584	22:08	22:08	0	1.292	7181212	1501838	3352	8380	448	1.05(0.88-1.20)	
PCB-29 (C26)											
255.9613	22:08	22:08	0	1.292	7520001	1587942	4015	10037	396		
257.9584	22:08	22:08	0	1.292	7181212	1501838	3352	8380	448	1.05(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-25											
255.9613	22:21	22:21	0	0.830	4304967	954904	4015	10037	238		
257.9584	22:21	22:21	0	0.830	4139689	915161	3352	8380	273	1.04(0.88-1.20)	
PCB-31											
255.9613	22:40	22:40	0	0.842	3816402	879585	4015	10037	219		
257.9584	22:39	22:40	-1	0.841	3642267	843944	3352	8380	252	1.05(0.88-1.20)	
PCB-20											
255.9613	22:58	22:58	0	0.853	7992282	1516726	4015	10037	378		
257.9584	22:58	22:58	0	0.853	7515710	1468876	3352	8380	438	1.06(0.88-1.20)	
PCB-28 (C20)											
255.9613	22:58	22:58	0	0.853	7992282	1516726	4015	10037	378		
257.9584	22:58	22:58	0	0.853	7515710	1468876	3352	8380	438	1.06(0.88-1.20)	
PCB-21											
255.9613	23:07	23:07	0	0.859	7217221	899663	4015	10037	224		M
257.9584	23:07	23:07	0	0.859	7096925	876439	3352	8380	261	1.02(0.88-1.20)	M
PCB-33 (C21)											
255.9613	23:07	23:07	0	0.859	7217221	899663	4015	10037	224		M
257.9584	23:07	23:07	0	0.859	7096925	876439	3352	8380	261	1.02(0.88-1.20)	M
PCB-22											
255.9613	23:35	23:35	0	0.876	4006350	930000	4015	10037	232		
257.9584	23:35	23:35	0	0.876	3868162	884541	3352	8380	264	1.04(0.88-1.20)	
PCB-36											
255.9613	25:09	25:09	0	0.934	3856401	776191	4015	10037	193		
257.9584	25:09	25:09	0	0.934	3775811	766404	3352	8380	229	1.02(0.88-1.20)	
PCB-39											
255.9613	25:30	25:30	0	0.947	4000160	851728	4015	10037	212		
257.9584	25:30	25:30	0	0.947	3752064	825891	3352	8380	246	1.07(0.88-1.20)	
PCB-38											
255.9613	26:05	26:05	0	0.969	3689347	791444	4015	10037	197		
257.9584	26:05	26:05	0	0.969	3463674	732524	3352	8380	219	1.07(0.88-1.20)	
PCB-35											
255.9613	26:32	26:32	0	0.986	3848428	780522	4015	10037	194		
257.9584	26:32	26:32	0	0.986	3713863	755635	3352	8380	225	1.04(0.88-1.20)	
PCB-37											
255.9613	26:57	26:57	0	1.001	3857630	792105	4015	10037	197		
257.9584	26:57	26:57	0	1.001	3731788	767063	3352	8380	229	1.03(0.88-1.20)	
PCB-54L											
301.9626	20:12	20:12	0	0.816	1407829	344796	213	532	1619		
303.9597	20:12	20:12	0	0.816	1717952	422285	75	187	5630	0.82(0.65-0.89)	
PCB-52L											
301.9626	24:46	24:46	0		3472813	768008	1397	3492	550		
303.9597	24:46	24:46	0		4403417	972730	2036	5090	478	0.79(0.65-0.89)	
PCB-79L											
301.9626	32:41	32:41	0	0.970	2217256	446543	1397	3492	320		
303.9597	32:41	32:41	0	0.970	2768812	555333	2036	5090	273	0.80(0.65-0.89)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-81L											
301.9626	33:41	33:41	0	1.360	4317186	873577	1397	3492	625		
303.9597	33:41	33:41	0	1.360	5372391	1078359	2036	5090	530	0.80(0.65-0.89)	
PCB-77L											
301.9626	34:14	34:14	0	1.382	4611326	885191	1397	3492	634		
303.9597	34:14	34:14	0	1.382	5687565	1092358	2036	5090	537	0.81(0.65-0.89)	
PCB-54											
289.9224	20:13	20:13	0	1.000	904097	229578	48	120	4783		
291.9194	20:13	20:13	0	1.000	1152675	295293	128	320	2307	0.78(0.65-0.89)	
PCB-50											
289.9224	22:24	22:24	0	1.108	3692222	765285	2007	5017	381		
291.9194	22:24	22:24	0	1.108	4713836	959428	2438	6095	394	0.78(0.65-0.89)	
PCB-53 (C50)											
289.9224	22:24	22:24	0	1.108	3692222	765285	2007	5017	381		
291.9194	22:24	22:24	0	1.108	4713836	959428	2438	6095	394	0.78(0.65-0.89)	
PCB-45											
289.9224	23:08	23:08	0	1.145	3620739	458605	2007	5017	229		M
291.9194	23:08	23:08	0	1.145	4657473	583384	2438	6095	239	0.78(0.65-0.89)	M
PCB-51 (C45)											
289.9224	23:08	23:08	0	1.145	3620739	458605	2007	5017	229		M
291.9194	23:08	23:08	0	1.145	4657473	583384	2438	6095	239	0.78(0.65-0.89)	M
PCB-46											
289.9224	23:22	23:22	0	1.156	1520169	359530	2007	5017	179		
291.9194	23:22	23:22	0	1.156	1975718	465150	2438	6095	191	0.77(0.65-0.89)	
PCB-52											
289.9224	24:47	24:47	0	1.227	2056621	459718	2007	5017	229		M
291.9194	24:47	24:47	0	1.227	2667090	601228	2438	6095	247	0.77(0.65-0.89)	M
PCB-43											
289.9224	24:56	24:56	0	1.234	4529855	596533	2007	5017	297		Ma
291.9194	24:56	24:56	0	1.234	5740441	755545	2438	6095	310	0.79(0.65-0.89)	M
PCB-73 (C43)											
289.9224	24:56	24:56	0	1.234	4529855	596533	2007	5017	297		Ma
291.9194	24:56	24:56	0	1.234	5740441	755545	2438	6095	310	0.79(0.65-0.89)	M
PCB-49											
289.9224	25:14	25:14	0	1.249	4569817	689427	2007	5017	344		Ma
291.9194	25:13	25:14	-1	1.248	5920952	902796	2438	6095	370	0.77(0.65-0.89)	M
PCB-69 (C49)											
289.9224	25:14	25:14	0	1.249	4569817	689427	2007	5017	344		Ma
291.9194	25:13	25:14	-1	1.248	5920952	902796	2438	6095	370	0.77(0.65-0.89)	M
PCB-48											
289.9224	25:33	25:33	0	1.265	1794492	399619	2007	5017	199		
291.9194	25:33	25:33	0	1.265	2301549	514127	2438	6095	211	0.78(0.65-0.89)	
PCB-44											
289.9224	25:48	25:48	0	1.277	6229082	1107299	2007	5017	552		
291.9194	25:48	25:48	0	1.277	7784224	1373156	2438	6095	563	0.80(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-47 (C44)											
289.9224	25:48	25:48	0	1.277	6229082	1107299	2007	5017	552		
291.9194	25:48	25:48	0	1.277	7784224	1373156	2438	6095	563	0.80(0.65-0.89)	
PCB-65 (C44)											
289.9224	25:48	25:48	0	1.277	6229082	1107299	2007	5017	552		
291.9194	25:48	25:48	0	1.277	7784224	1373156	2438	6095	563	0.80(0.65-0.89)	
PCB-59											
289.9224	26:06	26:06	0	1.292	7492080	1075036	2007	5017	536		
291.9194	26:06	26:06	0	1.292	9379590	1347985	2438	6095	553	0.80(0.65-0.89)	
PCB-62 (C59)											
289.9224	26:06	26:06	0	1.292	7492080	1075036	2007	5017	536		
291.9194	26:06	26:06	0	1.292	9379590	1347985	2438	6095	553	0.80(0.65-0.89)	
PCB-75 (C59)											
289.9224	26:06	26:06	0	1.292	7492080	1075036	2007	5017	536		
291.9194	26:06	26:06	0	1.292	9379590	1347985	2438	6095	553	0.80(0.65-0.89)	
PCB-42											
289.9224	26:18	26:18	0	1.302	1818546	385105	2007	5017	192		
291.9194	26:18	26:18	0	1.302	2243807	493298	2438	6095	202	0.81(0.65-0.89)	
PCB-40											
289.9224	26:48	26:48	0	1.327	5676547	871573	2007	5017	434		M
291.9194	26:48	26:48	0	1.327	7100823	1084644	2438	6095	445	0.80(0.65-0.89)	M
PCB-41 (C40)											
289.9224	26:48	26:48	0	1.327	5676547	871573	2007	5017	434		M
291.9194	26:48	26:48	0	1.327	7100823	1084644	2438	6095	445	0.80(0.65-0.89)	M
PCB-71 (C40)											
289.9224	26:48	26:48	0	1.327	5676547	871573	2007	5017	434		M
291.9194	26:48	26:48	0	1.327	7100823	1084644	2438	6095	445	0.80(0.65-0.89)	M
PCB-64											
289.9224	27:01	27:01	0	1.337	2498718	535237	2007	5017	267		
291.9194	27:01	27:01	0	1.337	3141300	666226	2438	6095	273	0.80(0.65-0.89)	
PCB-72											
289.9224	27:51	27:51	0	0.827	2441019	536446	2007	5017	267		
291.9194	27:51	27:51	0	0.827	3072383	673111	2438	6095	276	0.79(0.65-0.89)	
PCB-68											
289.9224	28:09	28:09	0	0.836	2812968	555647	2007	5017	277		
291.9194	28:08	28:09	-1	0.835	3529074	698370	2438	6095	286	0.80(0.65-0.89)	
PCB-57											
289.9224	28:34	28:34	0	0.848	2419329	519047	2007	5017	259		
291.9194	28:34	28:34	0	0.848	3026244	660394	2438	6095	271	0.80(0.65-0.89)	
PCB-58											
289.9224	28:48	28:48	0	0.855	3034594	622116	2007	5017	310		
291.9194	28:48	28:48	0	0.855	3773572	784981	2438	6095	322	0.80(0.65-0.89)	
PCB-67											
289.9224	28:58	28:58	0	0.860	3051846	599874	2007	5017	299		
291.9194	28:58	28:58	0	0.860	3824090	757913	2438	6095	311	0.80(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-63											
289.9224	29:14	29:14	0	0.868	2493719	496383	2007	5017	247		
291.9194	29:14	29:14	0	0.868	3004792	599489	2438	6095	246	0.83(0.65-0.89)	
PCB-61											
289.9224	29:34	29:34	0	0.878	10773903	1220235	2007	5017	608		M
291.9194	29:34	29:34	0	0.878	13481106	1531932	2438	6095	628	0.80(0.65-0.89)	M
PCB-70 (C61)											
289.9224	29:34	29:34	0	0.878	10773903	1220235	2007	5017	608		M
291.9194	29:34	29:34	0	0.878	13481106	1531932	2438	6095	628	0.80(0.65-0.89)	M
PCB-74 (C61)											
289.9224	29:34	29:34	0	0.878	10773903	1220235	2007	5017	608		M
291.9194	29:34	29:34	0	0.878	13481106	1531932	2438	6095	628	0.80(0.65-0.89)	M
PCB-76 (C61)											
289.9224	29:34	29:34	0	0.878	10773903	1220235	2007	5017	608		M
291.9194	29:34	29:34	0	0.878	13481106	1531932	2438	6095	628	0.80(0.65-0.89)	M
PCB-66											
289.9224	29:53	29:53	0	0.888	2842004	568003	2007	5017	283		
291.9194	29:53	29:53	0	0.888	3470218	701122	2438	6095	288	0.82(0.65-0.89)	
PCB-55											
289.9224	30:03	30:03	0	0.892	2921462	598936	2007	5017	298		
291.9194	30:03	30:03	0	0.892	3562064	732174	2438	6095	300	0.82(0.65-0.89)	
PCB-56											
289.9224	30:33	30:33	0	0.907	2710725	557215	2007	5017	278		
291.9194	30:33	30:33	0	0.907	3330822	675223	2438	6095	277	0.81(0.65-0.89)	
PCB-60											
289.9224	30:46	30:46	0	0.914	2428465	477796	2007	5017	238		
291.9194	30:46	30:46	0	0.914	3046815	620767	2438	6095	255	0.80(0.65-0.89)	
PCB-80											
289.9224	31:11	31:11	0	0.926	2813888	578323	2007	5017	288		
291.9194	31:11	31:11	0	0.926	3638062	732224	2438	6095	300	0.77(0.65-0.89)	
PCB-79											
289.9224	32:42	32:42	0	0.971	3021627	566596	2007	5017	282		
291.9194	32:42	32:42	0	0.971	3839972	724001	2438	6095	297	0.79(0.65-0.89)	
PCB-78											
289.9224	33:15	33:15	0	0.987	2418743	471340	2007	5017	235		
291.9194	33:15	33:15	0	0.987	3087571	598455	2438	6095	245	0.78(0.65-0.89)	
PCB-81											
289.9224	33:42	33:42	0	1.001	2292556	449662	2007	5017	224		
291.9194	33:41	33:42	-1	1.000	2922187	543759	2438	6095	223	0.78(0.65-0.89)	
PCB-77											
289.9224	34:16	34:16	0	1.001	2357929	471577	2007	5017	235		
291.9194	34:16	34:16	0	1.001	3088790	601620	2438	6095	247	0.76(0.65-0.89)	
PCB-104L											
337.9207	25:42	25:42	0	0.813	3951805	871207	149	372	5847		
339.9178	25:42	25:42	0	0.813	2503544	552806	58	145	9531	1.58(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-95L											
337.9207	28:41	28:41	0	1.116	1433005	295325	149	372	1982		
339.9178	28:41	28:41	0	1.116	881960	189083	58	145	3260	1.62(1.32-1.78)	
PCB-101L											
337.9207	31:37	31:37	0		3214893	664298	149	372	4458		
339.9178	31:37	31:37	0		2013475	406170	58	145	7003	1.60(1.32-1.78)	
PCB-111L											
337.9207	34:17	34:17	0	1.085	2088474	400727	149	372	2689		
339.9178	34:17	34:17	0	1.085	1311227	257817	58	145	4445	1.59(1.32-1.78)	
PCB-123L											
337.9207	36:15	36:15	0	1.146	5805680	1141595	5122	12805	223		
339.9178	36:15	36:15	0	1.146	3695521	725424	3163	7907	229	1.57(1.32-1.78)	
PCB-118L											
337.9207	36:34	36:34	0	1.157	6162016	1206740	5122	12805	236		
339.9178	36:34	36:34	0	1.157	3932748	763387	3163	7907	241	1.57(1.32-1.78)	
PCB-114L											
337.9207	37:06	37:06	0	1.173	5997457	1177940	5122	12805	230		
339.9178	37:06	37:06	0	1.173	3737496	757247	3163	7907	239	1.60(1.32-1.78)	
PCB-105L											
337.9207	37:45	37:45	0	1.194	5785442	1114112	5122	12805	218		
339.9178	37:45	37:45	0	1.194	3648458	711763	3163	7907	225	1.59(1.32-1.78)	
PCB-127L											
337.9207	39:14	39:14	0		6068789	1166672	5122	12805	228		
339.9178	39:14	39:14	0		3862949	739609	3163	7907	234	1.57(1.32-1.78)	
PCB-126L											
337.9207	40:50	40:50	0	1.292	5739026	1074442	5122	12805	210		
339.9178	40:50	40:50	0	1.292	3649658	677088	3163	7907	214	1.57(1.32-1.78)	
PCB-104											
325.8804	25:44	25:44	0	1.001	2002049	441777	94	235	4700		
327.8775	25:44	25:44	0	1.001	1282382	285979	23	57	12434	1.56(1.32-1.78)	
PCB-96											
325.8804	26:06	26:06	0	1.015	2147147	476785	94	235	5072		
327.8775	26:06	26:06	0	1.015	1358141	299861	23	57	13037	1.58(1.32-1.78)	
PCB-103											
325.8804	28:02	28:02	0	1.091	1722221	373034	94	235	3968		
327.8775	28:02	28:02	0	1.091	1088439	234914	23	57	10214	1.58(1.32-1.78)	
PCB-94											
325.8804	28:16	28:16	0	1.100	1440579	300531	94	235	3197		
327.8775	28:16	28:16	0	1.100	913353	193140	23	57	8397	1.58(1.32-1.78)	
PCB-95											
325.8804	28:42	28:42	0	1.117	1607755	343000	94	235	3649		
327.8775	28:42	28:42	0	1.117	1006016	206595	23	57	8982	1.60(1.32-1.78)	
PCB-93											
325.8804	28:55	28:55	0	1.125	3264013	676706	94	235	7199		
327.8775	28:55	28:55	0	1.125	2062495	415448	23	57	18063	1.58(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-100 (C93)											
325.8804	28:55	28:55	0	1.125	3264013	676706	94	235	7199		
327.8775	28:55	28:55	0	1.125	2062495	415448	23	57	18063	1.58(1.32-1.78)	
PCB-98											
325.8804	29:04	29:04	0	1.131	3256110	409179	94	235	4353		
327.8775	29:04	29:04	0	1.131	2038639	254415	23	57	11062	1.60(1.32-1.78)	
PCB-102 (C98)											
325.8804	29:04	29:04	0	1.131	3256110	409179	94	235	4353		
327.8775	29:04	29:04	0	1.131	2038639	254415	23	57	11062	1.60(1.32-1.78)	
PCB-88											
325.8804	29:33	29:33	0	1.150	3119379	336432	94	235	3579		
327.8775	29:33	29:33	0	1.150	1954225	216839	23	57	9428	1.60(1.32-1.78)	
PCB-91 (C88)											
325.8804	29:33	29:33	0	1.150	3119379	336432	94	235	3579		
327.8775	29:33	29:33	0	1.150	1954225	216839	23	57	9428	1.60(1.32-1.78)	
PCB-84											
325.8804	29:47	29:47	0	1.159	1403716	276200	94	235	2938		
327.8775	29:47	29:47	0	1.159	893697	179012	23	57	7783	1.57(1.32-1.78)	
PCB-89											
325.8804	30:16	30:16	0	1.177	1487509	302422	94	235	3217		
327.8775	30:16	30:16	0	1.177	936577	193670	23	57	8420	1.59(1.32-1.78)	
PCB-121											
325.8804	30:41	30:41	0	1.194	2575538	528901	94	235	5627		
327.8775	30:40	30:41	-1	1.193	1568944	313817	23	57	13644	1.64(1.32-1.78)	
PCB-92											
325.8804	31:03	31:03	0	0.857	1674884	341536	94	235	3633		
327.8775	31:03	31:03	0	0.857	1049464	214906	23	57	9344	1.60(1.32-1.78)	
PCB-90											
325.8804	31:37	31:37	0	1.230	5585380	789224	94	235	8396		
327.8775	31:37	31:37	0	1.230	3541317	504402	23	57	21931	1.58(1.32-1.78)	
PCB-101 (C90)											
325.8804	31:37	31:37	0	1.230	5585380	789224	94	235	8396		
327.8775	31:37	31:37	0	1.230	3541317	504402	23	57	21931	1.58(1.32-1.78)	
PCB-113 (C90)											
325.8804	31:37	31:37	0	1.230	5585380	789224	94	235	8396		
327.8775	31:37	31:37	0	1.230	3541317	504402	23	57	21931	1.58(1.32-1.78)	
PCB-83											
325.8804	32:13	32:13	0	1.253	3412625	423953	94	235	4510		
327.8775	32:13	32:13	0	1.253	2114439	269337	23	57	11710	1.61(1.32-1.78)	
PCB-99 (C83)											
325.8804	32:13	32:13	0	1.253	3412625	423953	94	235	4510		
327.8775	32:13	32:13	0	1.253	2114439	269337	23	57	11710	1.61(1.32-1.78)	
PCB-112											
325.8804	32:20	32:20	0	1.258	2670198	518656	94	235	5518		
327.8775	32:20	32:20	0	1.258	1689200	325711	23	57	14161	1.58(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-86											M
325.8804	32:42	32:42	0	1.272	11933595	1243816	94	235	13232		M
327.8775	32:42	32:42	-1	1.272	7465580	789731	23	57	34336	1.60(1.32-1.78)	M
PCB-87 (C86)											M
325.8804	32:42	32:42	0	1.272	11933595	1243816	94	235	13232		M
327.8775	32:42	32:42	-1	1.272	7465580	789731	23	57	34336	1.60(1.32-1.78)	M
PCB-97 (C86)											M
325.8804	32:42	32:42	0	1.272	11933595	1243816	94	235	13232		M
327.8775	32:42	32:42	-1	1.272	7465580	789731	23	57	34336	1.60(1.32-1.78)	M
PCB-109 (C86)											M
325.8804	32:42	32:42	0	1.272	11933595	1243816	94	235	13232		M
327.8775	32:42	32:42	-1	1.272	7465580	789731	23	57	34336	1.60(1.32-1.78)	M
PCB-119 (C86)											M
325.8804	32:42	32:42	0	1.272	11933595	1243816	94	235	13232		M
327.8775	32:42	32:42	-1	1.272	7465580	789731	23	57	34336	1.60(1.32-1.78)	M
PCB-125 (C86)											M
325.8804	32:42	32:42	0	1.272	11933595	1243816	94	235	13232		M
327.8775	32:42	32:42	-1	1.272	7465580	789731	23	57	34336	1.60(1.32-1.78)	M
PCB-85											
325.8804	33:25	33:25	0	1.300	6097296	729554	94	235	7761		
327.8775	33:25	33:25	0	1.300	3797496	450828	23	57	19601	1.61(1.32-1.78)	
PCB-116 (C85)											
325.8804	33:25	33:25	0	1.300	6097296	729554	94	235	7761		
327.8775	33:25	33:25	0	1.300	3797496	450828	23	57	19601	1.61(1.32-1.78)	
PCB-117 (C85)											
325.8804	33:25	33:25	0	1.300	6097296	729554	94	235	7761		
327.8775	33:25	33:25	0	1.300	3797496	450828	23	57	19601	1.61(1.32-1.78)	
PCB-110											
325.8804	33:37	33:37	0	1.308	4560996	550778	94	235	5859		
327.8775	33:37	33:37	0	1.308	2902255	349589	23	57	15200	1.57(1.32-1.78)	
PCB-115 (C110)											
325.8804	33:37	33:37	0	1.308	4560996	550778	94	235	5859		
327.8775	33:37	33:37	0	1.308	2902255	349589	23	57	15200	1.57(1.32-1.78)	
PCB-82											
325.8804	33:55	33:55	0	1.320	1613453	302761	94	235	3221		
327.8775	33:55	33:55	0	1.320	1045938	202821	23	57	8818	1.54(1.32-1.78)	
PCB-111											
325.8804	34:19	34:19	0	1.335	2335173	456313	94	235	4854		
327.8775	34:19	34:19	0	1.335	1489923	289166	23	57	12572	1.57(1.32-1.78)	
PCB-120											
325.8804	34:47	34:47	0	1.353	2885764	550612	94	235	5858		
327.8775	34:47	34:47	0	1.353	1811468	356079	23	57	15482	1.59(1.32-1.78)	
PCB-108											
325.8804	35:55	35:55	0	1.397	6579703	1269304	3761	9402	337		
327.8775	35:55	35:55	0	1.397	4126374	791233	2810	7025	282	1.59(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-124 (C108)											
325.8804	35:55	35:55	0	1.397	6579703	1269304	3761	9402	337		
327.8775	35:55	35:55	0	1.397	4126374	791233	2810	7025	282	1.59(1.32-1.78)	
PCB-107											
325.8804	36:09	36:09	0	1.406	3598917	640109	3761	9402	170		
327.8775	36:10	36:09	1	1.407	2298498	411041	2810	7025	146	1.57(1.32-1.78)	
PCB-123											
325.8804	36:16	36:16	0	1.001	3161819	607282	3761	9402	161		
327.8775	36:16	36:16	0	1.001	1872173	389063	2810	7025	138	1.69(1.32-1.78)	
PCB-106											
325.8804	36:23	36:23	0	1.004	3045625	627785	3761	9402	167		
327.8775	36:23	36:23	0	1.004	2094481	397038	2810	7025	141	1.45(1.32-1.78)	
PCB-118											
325.8804	36:36	36:36	0	1.001	3685248	687971	3761	9402	183		
327.8775	36:36	36:36	0	1.001	2330760	436085	2810	7025	155	1.58(1.32-1.78)	
PCB-122											
325.8804	36:56	36:56	0	1.010	2884618	554457	3761	9402	147		
327.8775	36:56	36:56	0	1.010	1824827	362406	2810	7025	129	1.58(1.32-1.78)	
PCB-114											
325.8804	37:08	37:08	0	1.001	3265805	595189	3761	9402	158		
327.8775	37:08	37:08	0	1.001	2041722	374140	2810	7025	133	1.60(1.32-1.78)	
PCB-105											
325.8804	37:46	37:46	0	1.001	3371548	625558	3761	9402	166		
327.8775	37:46	37:46	0	1.001	2154843	397116	2810	7025	141	1.56(1.32-1.78)	
PCB-127											
325.8804	39:15	39:15	0	1.040	3465005	627477	3761	9402	167		
327.8775	39:15	39:15	0	1.040	2177761	382258	2810	7025	136	1.59(1.32-1.78)	
PCB-126											
325.8804	40:52	40:52	0	1.001	3292748	549992	3761	9402	146		
327.8775	40:52	40:52	0	1.001	2119092	353738	2810	7025	126	1.55(1.32-1.78)	
PCB-155L											
371.8817	31:23	31:23	0	0.791	3257270	660505	70	175	9436		
373.8788	31:22	31:23	-1	0.790	2529655	513681	46	115	11167	1.29(1.05-1.43)	
PCB-153L											
371.8817	38:27	38:27	0	0.901	1935812	371807	2444	6110	152		
373.8788	38:27	38:27	0	0.901	1481729	282805	2169	5422	130	1.31(1.05-1.43)	
PCB-138L											
371.8817	39:41	39:41	0		3729250	717137	2444	6110	293		
373.8788	39:42	39:41	1		2865439	542376	2169	5422	250	1.30(1.05-1.43)	
PCB-159L											
371.8817	41:56	41:56	0	0.982	4385171	843891	2444	6110	345		
373.8788	41:56	41:56	0	0.982	3401457	660859	2169	5422	305	1.29(0.00-0.00)	
PCB-167L											
371.8817	42:42	42:42	0	1.076	4672513	879045	2444	6110	360		
373.8788	42:42	42:42	0	1.076	3656608	691360	2169	5422	319	1.28(1.05-1.43)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-156L											
371.8817	43:51	43:51	0	1.105	9033854	1211285	2444	6110	496		
373.8788	43:51	43:51	0	1.105	7015029	942510	2169	5422	435	1.29(1.05-1.43)	
PCB-157L (C156L)											
371.8817	43:51	43:51	0	1.105	9033854	1211285	2444	6110	496		
373.8788	43:51	43:51	0	1.105	7015029	942510	2169	5422	435	1.29(1.05-1.43)	
PCB-169L											
371.8817	47:05	47:05	0	1.186	4570629	851282	2444	6110	348		
373.8788	47:05	47:05	0	1.186	3575255	676718	2169	5422	312	1.28(1.05-1.43)	
PCB-155											
359.8415	31:25	31:25	0	1.001	1551501	320228	14	35	22873		
361.8385	31:24	31:25	-1	1.000	1205695	248802	15	37	16587	1.29(1.05-1.43)	
PCB-152											
359.8415	31:36	31:36	0	1.007	1531535	309585	14	35	22113		
361.8385	31:36	31:36	0	1.007	1221330	244311	15	37	16287	1.25(1.05-1.43)	
PCB-150											
359.8415	31:46	31:46	0	1.012	1647132	340356	14	35	24311		
361.8385	31:46	31:46	0	1.012	1285993	261802	15	37	17453	1.28(1.05-1.43)	
PCB-136											
359.8415	32:08	32:08	0	1.024	1607291	324088	14	35	23149		
361.8385	32:08	32:08	0	1.024	1251510	253361	15	37	16891	1.28(1.05-1.43)	
PCB-145											
359.8415	32:25	32:25	0	1.033	1563820	302118	14	35	21580		
361.8385	32:25	32:25	0	1.033	1210113	244554	15	37	16304	1.29(1.05-1.43)	
PCB-148											
359.8415	33:57	33:57	0	1.082	1231487	249307	14	35	17808		
361.8385	33:57	33:57	0	1.082	944768	189380	15	37	12625	1.30(1.05-1.43)	
PCB-135											
359.8415	34:32	34:32	0	1.100	2316873	263391	14	35	18814		Ma
361.8385	34:32	34:32	0	1.100	1875309	209193	15	37	13946	1.24(1.05-1.43)	M
PCB-151 (C135)											
359.8415	34:32	34:32	0	1.100	2316873	263391	14	35	18814		Ma
361.8385	34:32	34:32	0	1.100	1875309	209193	15	37	13946	1.24(1.05-1.43)	M
PCB-154											
359.8415	34:47	34:47	0	1.108	1330712	264146	14	35	18868		
361.8385	34:47	34:47	0	1.108	1040783	204861	15	37	13657	1.28(1.05-1.43)	
PCB-144											
359.8415	35:06	35:06	0	1.118	1246158	243699	14	35	17407		
361.8385	35:06	35:06	0	1.118	986173	193270	15	37	12885	1.26(1.05-1.43)	
PCB-147											
359.8415	35:27	35:27	0	1.130	3933253	778924	1008	2520	773		
361.8385	35:27	35:27	0	1.130	3133867	619812	785	1962	790	1.26(1.05-1.43)	
PCB-149 (C147)											
359.8415	35:27	35:27	0	1.130	3933253	778924	1008	2520	773		
361.8385	35:27	35:27	0	1.130	3133867	619812	785	1962	790	1.26(1.05-1.43)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-134											
359.8415	35:45	35:45	0	1.139	3601502	377426	1008	2520	374		
361.8385	35:45	35:45	0	1.139	2838994	290659	785	1962	370	1.27(1.05-1.43)	
PCB-143 (C134)											
359.8415	35:45	35:45	0	1.139	3601502	377426	1008	2520	374		
361.8385	35:45	35:45	0	1.139	2838994	290659	785	1962	370	1.27(1.05-1.43)	
PCB-139											
359.8415	36:04	36:04	0	1.149	3933590	687129	1008	2520	682		
361.8385	36:04	36:04	0	1.149	3105104	548671	785	1962	699	1.27(1.05-1.43)	
PCB-140 (C139)											
359.8415	36:04	36:04	0	1.149	3933590	687129	1008	2520	682		
361.8385	36:04	36:04	0	1.149	3105104	548671	785	1962	699	1.27(1.05-1.43)	
PCB-131											
359.8415	36:15	36:15	0	1.155	1687175	334025	1008	2520	331		M
361.8385	36:15	36:15	0	1.155	1331753	269140	785	1962	343	1.27(1.05-1.43)	M
PCB-142											
359.8415	36:24	36:24	0	1.160	1733270	337603	1008	2520	335		M
361.8385	36:24	36:24	0	1.160	1381885	271204	785	1962	345	1.25(1.05-1.43)	M
PCB-132											
359.8415	36:43	36:43	0	1.170	1652199	321485	1008	2520	319		
361.8385	36:43	36:43	0	1.170	1326992	253704	785	1962	323	1.25(1.05-1.43)	
PCB-133											
359.8415	37:14	37:14	0	1.186	1821701	339181	1008	2520	336		
361.8385	37:14	37:14	0	1.186	1424291	267937	785	1962	341	1.28(1.05-1.43)	
PCB-165											
359.8415	37:37	37:37	0	0.881	2363040	453975	1008	2520	450		
361.8385	37:38	37:37	1	0.881	1823861	353139	785	1962	450	1.30(1.05-1.43)	
PCB-146											
359.8415	37:52	37:52	0	0.887	2148749	415011	1008	2520	412		
361.8385	37:52	37:52	-1	0.887	1696656	333062	785	1962	424	1.27(1.05-1.43)	
PCB-161											
359.8415	38:00	38:00	0	0.890	2621108	512234	1008	2520	508		
361.8385	38:00	38:00	0	0.890	2044964	396454	785	1962	505	1.28(1.05-1.43)	
PCB-153											
359.8415	38:30	38:30	0	0.901	4983489	714786	1008	2520	709		
361.8385	38:30	38:30	1	0.902	3961079	562837	785	1962	717	1.26(1.05-1.43)	
PCB-168 (C153)											
359.8415	38:30	38:30	0	0.901	4983489	714786	1008	2520	709		
361.8385	38:30	38:30	1	0.902	3961079	562837	785	1962	717	1.26(1.05-1.43)	
PCB-141											
359.8415	38:41	38:41	0	0.906	1947775	364426	1008	2520	362		
361.8385	38:41	38:41	0	0.906	1513578	284802	785	1962	363	1.29(1.05-1.43)	
PCB-130											
359.8415	39:05	39:05	0	0.915	1601211	302566	1008	2520	300		
361.8385	39:05	39:05	0	0.915	1237434	240551	785	1962	306	1.29(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-137											
359.8415	39:18	39:18	0	0.920	1828119	355133	1008	2520	352		
361.8385	39:18	39:18	0	0.920	1470337	279527	785	1962	356	1.24(1.05-1.43)	
PCB-164											
359.8415	39:26	39:26	0	0.923	2355056	457987	1008	2520	454		
361.8385	39:25	39:26	-1	0.923	1845124	352711	785	1962	449	1.28(1.05-1.43)	
PCB-129											
359.8415	39:44	39:44	0	0.930	8427795	930274	1008	2520	923		M
361.8385	39:44	39:44	0	0.930	6682218	748596	785	1962	954	1.26(1.05-1.43)	M
PCB-138 (C129)											
359.8415	39:44	39:44	0	0.930	8427795	930274	1008	2520	923		M
361.8385	39:44	39:44	0	0.930	6682218	748596	785	1962	954	1.26(1.05-1.43)	M
PCB-160 (C129)											
359.8415	39:44	39:44	0	0.930	8427795	930274	1008	2520	923		M
361.8385	39:44	39:44	0	0.930	6682218	748596	785	1962	954	1.26(1.05-1.43)	M
PCB-163 (C129)											
359.8415	39:44	39:44	0	0.930	8427795	930274	1008	2520	923		M
361.8385	39:44	39:44	0	0.930	6682218	748596	785	1962	954	1.26(1.05-1.43)	M
PCB-158											
359.8415	40:07	40:07	0	0.939	2955869	553491	1008	2520	549		
361.8385	40:07	40:07	0	0.939	2363652	439507	785	1962	560	1.25(1.05-1.43)	
PCB-128											
359.8415	40:57	40:57	0	0.959	4466821	672295	1008	2520	667		
361.8385	40:57	40:57	0	0.959	3657844	530567	785	1962	676	1.22(1.05-1.43)	
PCB-166 (C128)											
359.8415	40:57	40:57	0	0.959	4466821	672295	1008	2520	667		
361.8385	40:57	40:57	0	0.959	3657844	530567	785	1962	676	1.22(1.05-1.43)	
PCB-159											
359.8415	41:58	41:58	0	0.983	3137876	586838	1008	2520	582		
361.8385	41:58	41:58	0	0.983	2440665	455213	785	1962	580	1.29(1.05-1.43)	
PCB-162											
359.8415	42:15	42:15	0	0.990	2793137	511299	1008	2520	507		
361.8385	42:15	42:15	0	0.990	2253222	402492	785	1962	513	1.24(1.05-1.43)	
PCB-167											
359.8415	42:44	42:44	0	1.001	2586477	482486	1008	2520	479		
361.8385	42:44	42:44	0	1.001	2021689	384259	785	1962	490	1.28(1.05-1.43)	
PCB-156											
359.8415	43:53	43:53	0	1.001	4958599	660795	1008	2520	656		
361.8385	43:53	43:53	0	1.001	3979807	528989	785	1962	674	1.25(1.05-1.43)	
PCB-157 (C156)											
359.8415	43:53	43:53	0	1.001	4958599	660795	1008	2520	656		
361.8385	43:53	43:53	0	1.001	3979807	528989	785	1962	674	1.25(1.05-1.43)	
PCB-169											
359.8415	47:06	47:06	0	1.001	2731112	460895	1008	2520	457		
361.8385	47:06	47:06	0	1.001	2127829	367226	785	1962	468	1.28(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-188L											
405.8428	37:07	37:07	0	0.820	3390997	647639	106	265	6110		
407.8398	37:06	37:07	-1	0.820	3196582	614748	52	130	11822	1.06(0.89-1.21)	
PCB-178L											
405.8428	40:10	40:10	0	0.888	1268374	239712	106	265	2261		
407.8398	40:09	40:10	-1	0.887	1185767	225896	52	130	4344	1.07(0.89-1.21)	
PCB-180L											
405.8428	45:15	45:15	0		2568508	474635	106	265	4478		
407.8398	45:15	45:15	0		2409050	448677	52	130	8628	1.07(0.89-1.21)	
PCB-170L											
405.8428	46:30	46:30	0	1.028	2144599	393977	106	265	3717		
407.8398	46:30	46:30	0	1.028	2011990	367812	52	130	7073	1.07(0.89-1.21)	
PCB-189L											
405.8428	49:37	49:37	0	1.096	5177539	911013	1628	4070	560		
407.8398	49:36	49:37	-1	1.096	4893238	882502	1626	4065	543	1.06(0.89-1.21)	
PCB-188											
393.8025	37:08	37:08	0	1.001	1906918	363165	2	5	181583		
395.7995	37:08	37:08	0	1.001	1799722	344515	9	22	38279	1.06(0.89-1.21)	
PCB-179											
393.8025	37:28	37:28	0	1.010	1909337	379833	2	5	189917		
395.7995	37:28	37:28	0	1.010	1824607	355678	9	22	39520	1.05(0.89-1.21)	
PCB-184											
393.8025	38:00	38:00	0	1.024	1892683	358370	2	5	179185		
395.7995	38:00	38:00	0	1.024	1821815	348626	9	22	38736	1.04(0.89-1.21)	
PCB-176											
393.8025	38:21	38:21	0	1.033	1717852	328373	2	5	164187		
395.7995	38:21	38:21	0	1.033	1619606	309049	9	22	34339	1.06(0.89-1.21)	
PCB-186											
393.8025	38:48	38:48	0	1.045	2090399	402372	2	5	201186		
395.7995	38:48	38:48	0	1.045	1961117	370019	9	22	41113	1.07(0.89-1.21)	
PCB-178											
393.8025	40:11	40:11	0	1.083	1251827	247537	2	5	123769		
395.7995	40:11	40:11	-1	1.083	1188658	225408	9	22	25045	1.05(0.89-1.21)	
PCB-175											
393.8025	40:49	40:49	0	1.100	1313506	246290	2	5	123145		
395.7995	40:48	40:49	-1	1.100	1256385	243837	9	22	27093	1.05(0.89-1.21)	
PCB-187											
393.8025	41:05	41:05	0	1.107	1539415	294124	2	5	147062		
395.7995	41:05	41:05	0	1.107	1483819	280053	9	22	31117	1.04(0.89-1.21)	
PCB-182											
393.8025	41:18	41:18	0	1.113	1357585	259715	2	5	129858		
395.7995	41:18	41:18	0	1.113	1289451	251200	9	22	27911	1.05(0.89-1.21)	
PCB-183											
393.8025	41:42	41:42	0	1.124	2628001	274235	2	5	137118		Ma
395.7995	41:42	41:42	0	1.124	2486532	260035	9	22	28893	1.06(0.89-1.21)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-185 (C183)											Ma M
393.8025	41:42	41:42	0	1.124	2628001	274235	2	5	137118		
395.7995	41:42	41:42	0	1.124	2486532	260035	9	22	28893	1.06(0.89-1.21)	
PCB-174											
393.8025	41:56	41:56	0	1.130	1382890	268892	2	5	134446		
395.7995	41:56	41:56	0	1.130	1298958	249998	9	22	27778	1.06(0.89-1.21)	
PCB-177											
393.8025	42:22	42:22	0	1.142	1317062	238481	2	5	119241		
395.7995	42:22	42:22	0	1.142	1316514	232510	9	22	25834	1.00(0.89-1.21)	
PCB-181											
393.8025	42:45	42:45	0	1.152	1309193	249662	2	5	124831		
395.7995	42:45	42:45	0	1.152	1211833	231137	9	22	25682	1.08(0.89-1.21)	
PCB-171											
393.8025	42:59	42:59	0	1.158	2467648	409790	2	5	204895		
395.7995	42:59	42:59	0	1.158	2337021	379542	9	22	42171	1.06(0.89-1.21)	
PCB-173 (C171)											
393.8025	42:59	42:59	0	1.158	2467648	409790	2	5	204895		
395.7995	42:59	42:59	0	1.158	2337021	379542	9	22	42171	1.06(0.89-1.21)	
PCB-172											
393.8025	44:37	44:37	0	0.899	1200782	233906	2	5	116953		
395.7995	44:37	44:37	0	0.899	1147181	214947	9	22	23883	1.05(0.89-1.21)	
PCB-192											
393.8025	44:54	44:54	0	0.905	1936935	362962	2	5	181481		
395.7995	44:54	44:54	0	0.905	1821207	344791	9	22	38310	1.06(0.89-1.21)	
PCB-180											
393.8025	45:14	45:14	0	0.912	3302667	423702	2	5	211851		
395.7995	45:14	45:14	-1	0.911	3077873	392513	9	22	43613	1.07(0.89-1.21)	
PCB-193 (C180)											
393.8025	45:14	45:14	0	0.912	3302667	423702	2	5	211851		
395.7995	45:14	45:14	-1	0.911	3077873	392513	9	22	43613	1.07(0.89-1.21)	
PCB-191											
393.8025	45:37	45:37	0	0.919	1843223	351659	2	5	175830		
395.7995	45:37	45:37	0	0.919	1747325	324624	9	22	36069	1.05(0.89-1.21)	
PCB-170											
393.8025	46:32	46:32	0	0.938	1278454	228946	2	5	114473		
395.7995	46:32	46:32	0	0.938	1225630	220603	9	22	24511	1.04(0.89-1.21)	
PCB-190											
393.8025	47:02	47:02	0	0.948	1842203	338530	2	5	169265		
395.7995	47:02	47:02	0	0.948	1739942	319162	9	22	35462	1.06(0.89-1.21)	
PCB-189											
393.8025	49:38	49:38	0	1.000	2516603	449894	787	1967	572		
395.7995	49:38	49:38	0	1.000	2412128	445339	465	1162	958	1.04(0.89-1.21)	
PCB-202L											
439.8038	42:28	42:28	0	0.821	2255092	422922	39	97	10844		
441.8008	42:29	42:28	1	0.821	2499196	471635	38	95	12411	0.90(0.76-1.02)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-194L											
439.8038	51:43	51:43	0		3362707	620941	250	625	2484		
441.8008	51:43	51:43	0		3648392	674097	251	627	2686	0.92(0.76-1.02)	
PCB-205L											
439.8038	52:11	52:11	0	1.009	3962585	704738	250	625	2819		
441.8008	52:11	52:11	0	1.009	4374908	776279	251	627	3093	0.91(0.76-1.02)	
PCB-202											
427.7635	42:29	42:29	0	1.001	1251662	241380	51	127	4733		
429.7606	42:29	42:29	0	1.001	1402589	268049	72	180	3723	0.89(0.76-1.02)	
PCB-201											
427.7635	43:25	43:25	0	1.022	1147960	212934	51	127	4175		
429.7606	43:25	43:25	0	1.022	1271154	239345	72	180	3324	0.90(0.76-1.02)	
PCB-204											
427.7635	44:05	44:05	0	1.038	1221595	229432	51	127	4499		
429.7606	44:05	44:05	0	1.038	1340945	251734	72	180	3496	0.91(0.76-1.02)	
PCB-197											
427.7635	44:19	44:19	0	1.044	1331905	249833	51	127	4899		
429.7606	44:19	44:19	0	1.044	1459028	274266	72	180	3809	0.91(0.76-1.02)	
PCB-200											
427.7635	44:25	44:25	0	1.046	1181192	228255	51	127	4476		
429.7606	44:25	44:25	0	1.046	1280025	253295	72	180	3518	0.92(0.76-1.02)	
PCB-198											
427.7635	47:12	47:12	0	1.112	1983914	250914	51	127	4920		
429.7606	47:11	47:12	-1	1.111	2213778	275523	72	180	3827	0.90(0.76-1.02)	
PCB-199 (C198)											
427.7635	47:12	47:12	0	1.112	1983914	250914	51	127	4920		
429.7606	47:11	47:12	-1	1.111	2213778	275523	72	180	3827	0.90(0.76-1.02)	
PCB-196											
427.7635	47:53	47:53	0	0.917	905436	170211	51	127	3337		
429.7606	47:53	47:53	0	0.917	987246	184071	72	180	2557	0.92(0.76-1.02)	
PCB-203											
427.7635	48:05	48:05	0	0.921	1102302	203152	51	127	3983		
429.7606	48:05	48:05	0	0.921	1187278	216676	72	180	3009	0.93(0.76-1.02)	
PCB-195											
427.7635	49:23	49:23	0	0.946	1635171	296266	472	1180	628		
429.7606	49:23	49:23	0	0.946	1796776	331167	438	1095	756	0.91(0.76-1.02)	
PCB-194											
427.7635	51:44	51:44	0	0.991	1877668	346067	472	1180	733		
429.7606	51:44	51:44	0	0.991	2089752	377920	438	1095	863	0.90(0.76-1.02)	
PCB-205											
427.7635	52:13	52:13	0	1.000	2116332	381152	472	1180	808		
429.7606	52:13	52:13	0	1.000	2361758	425228	438	1095	971	0.90(0.76-1.02)	
PCB-208L											
473.7648	49:09	49:09	0	0.950	2989638	548455	593	1482	925		
475.7619	49:09	49:09	0	0.950	3691137	673270	833	2082	808	0.81(0.65-0.89)	

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-206L											
473.7648	53:57	53:57	0	1.043	2206564	390041	593	1482	658		
475.7619	53:57	53:57	0	1.043	2697378	485236	833	2082	583	0.82(0.65-0.89)	
PCB-208											
461.7246	49:10	49:10	0	1.001	1674736	306423	503	1257	609		
463.7216	49:10	49:10	0	1.001	2099856	394691	982	2455	402	0.80(0.65-0.89)	
PCB-207											
461.7246	50:05	50:05	0	1.019	1731554	322149	503	1257	640		
463.7216	50:05	50:05	0	1.019	2146967	396465	982	2455	404	0.81(0.65-0.89)	
PCB-206											
461.7246	53:58	53:58	0	1.000	1363275	241413	503	1257	480		M
463.7216	53:58	53:58	0	1.000	1761287	313621	982	2455	319	0.77(0.65-0.89)	M
PCB-209L											
507.7258	55:34	55:34	0	1.074	1960174	329111	112	280	2938		
509.7229	55:34	55:34	0	1.074	2763117	486124	68	170	7149	0.71(0.59-0.79)	
DCB Decachlorobiphenyl											
495.6856	55:36	55:36	0	1.000	1086029	181678	83	207	2189		
497.6826	55:36	55:36	0	1.000	1517711	260666	31	77	8409	0.72(0.59-0.79)	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

### Reagents:

61CV1668CS3\_00019

Amount Added: 20.00

Units: uL

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

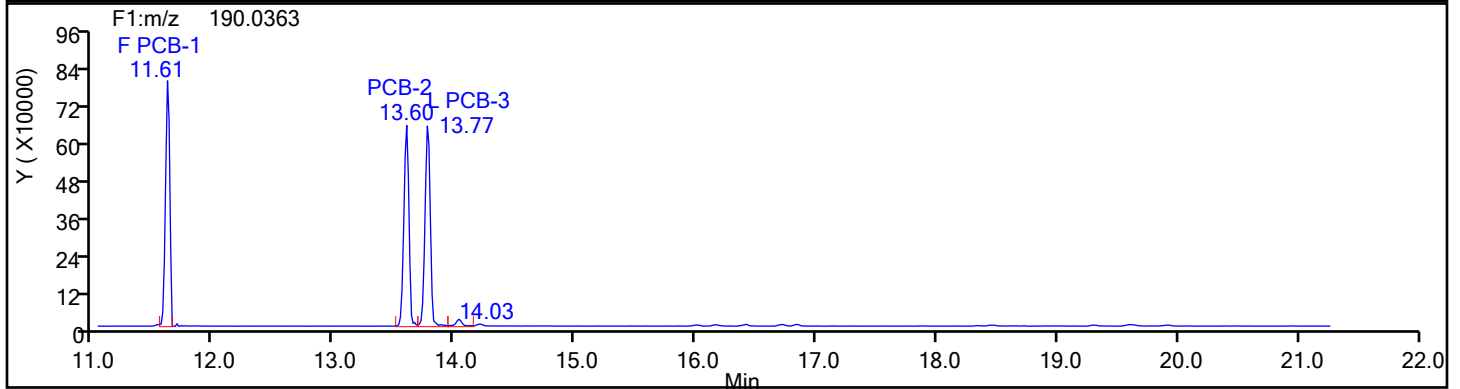
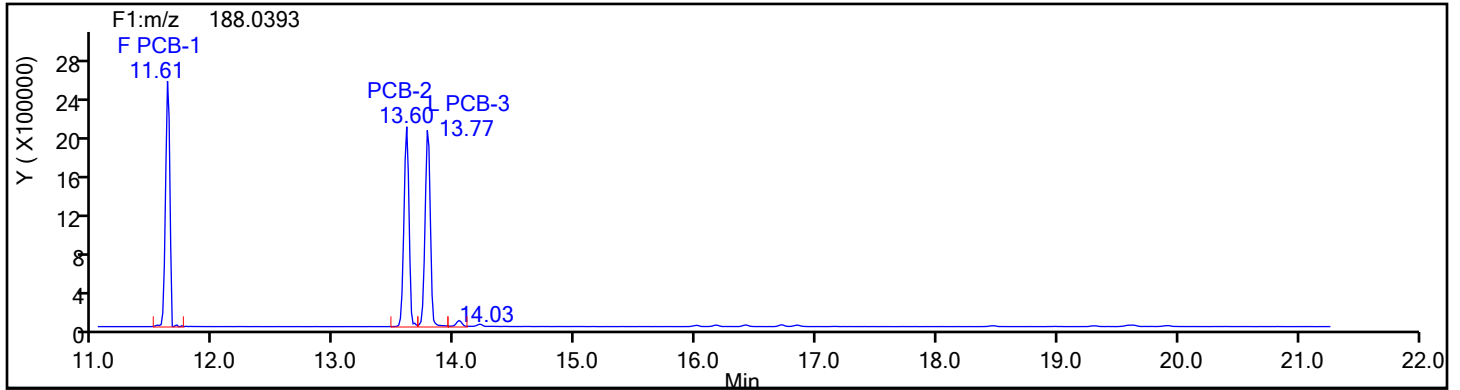
Worklist#: 87130

Sample Line#: 4

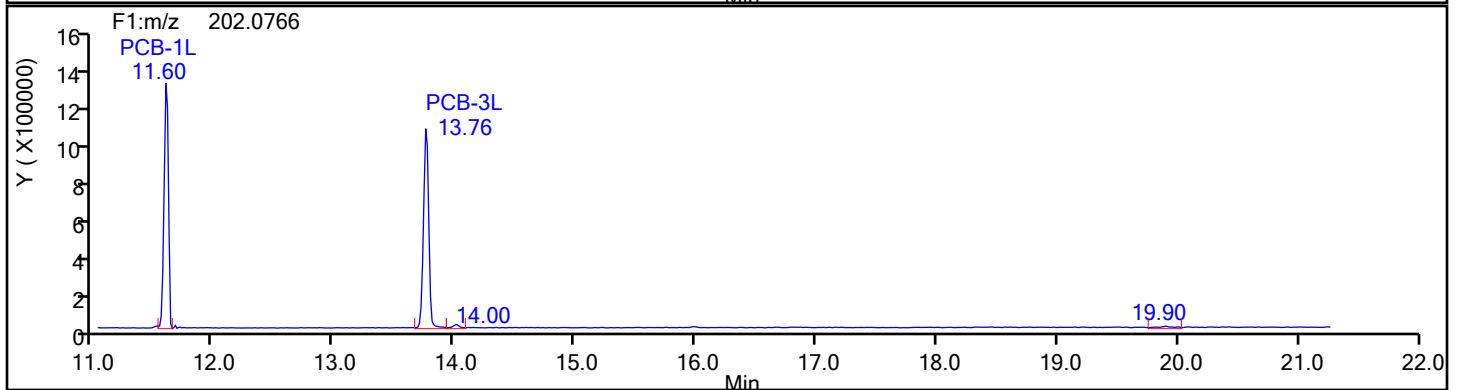
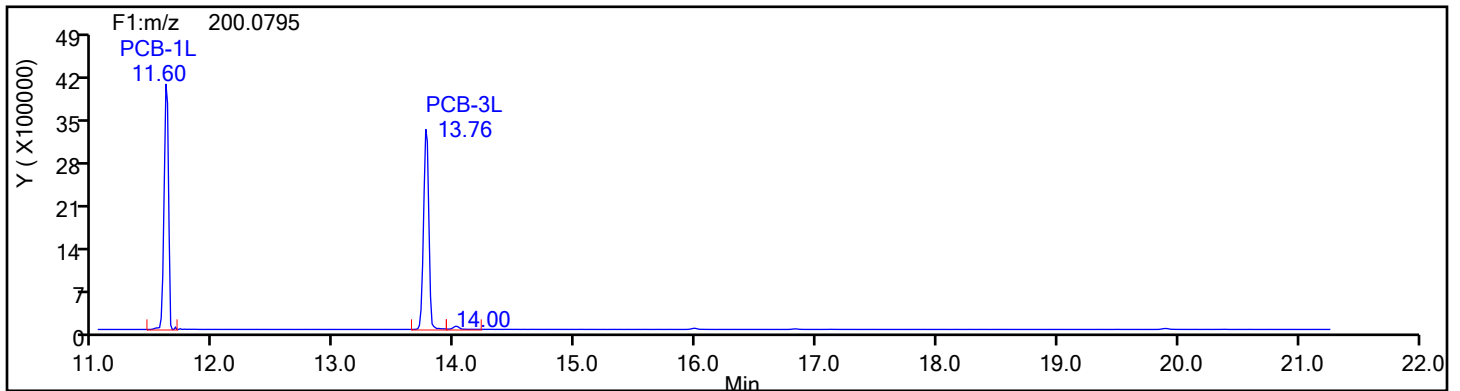
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

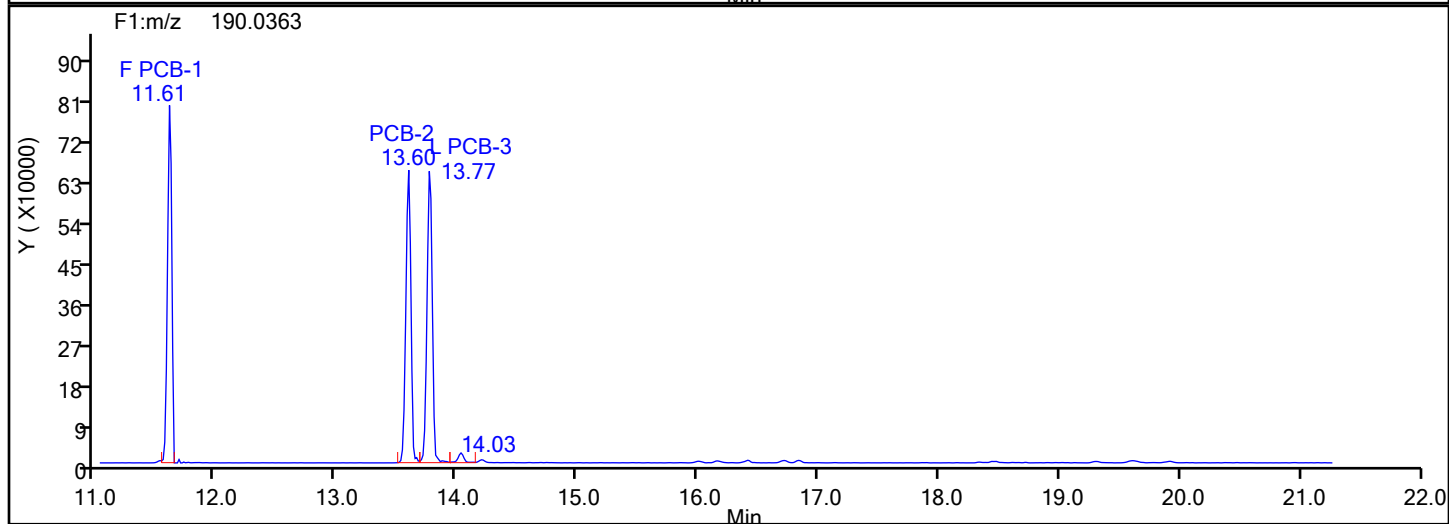
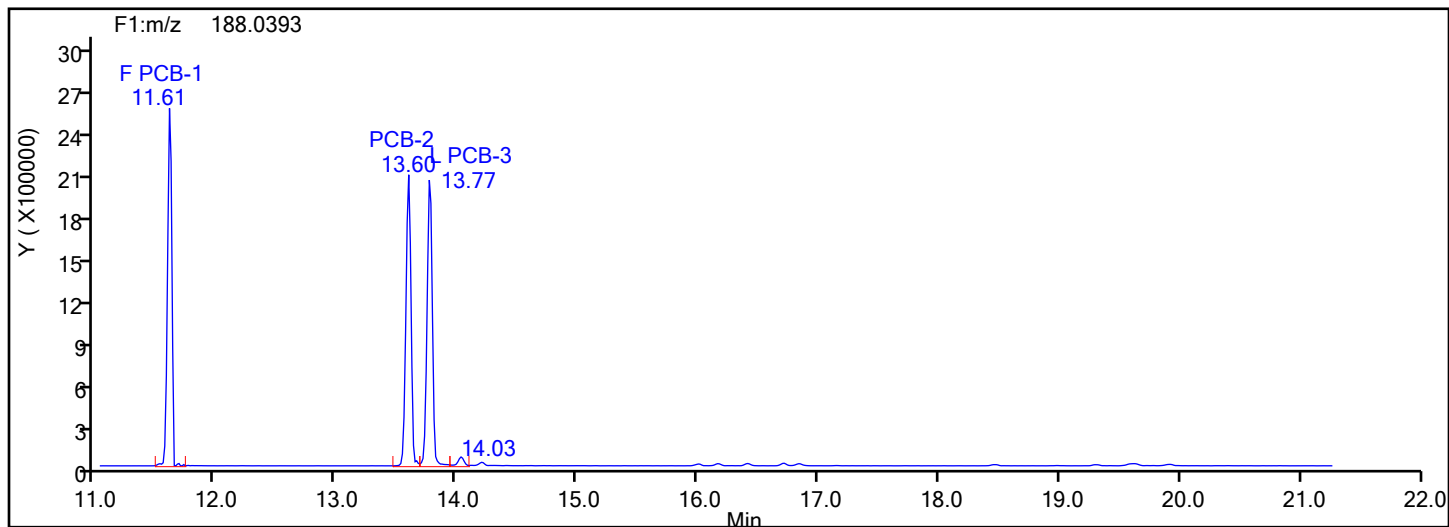
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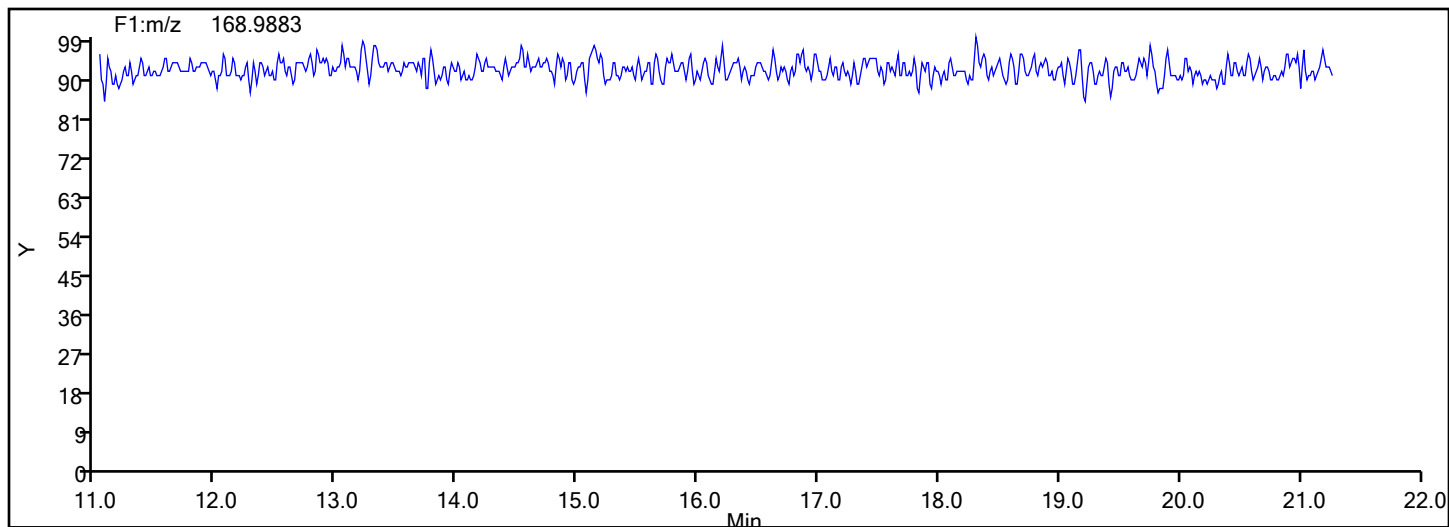
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Lock Mass





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

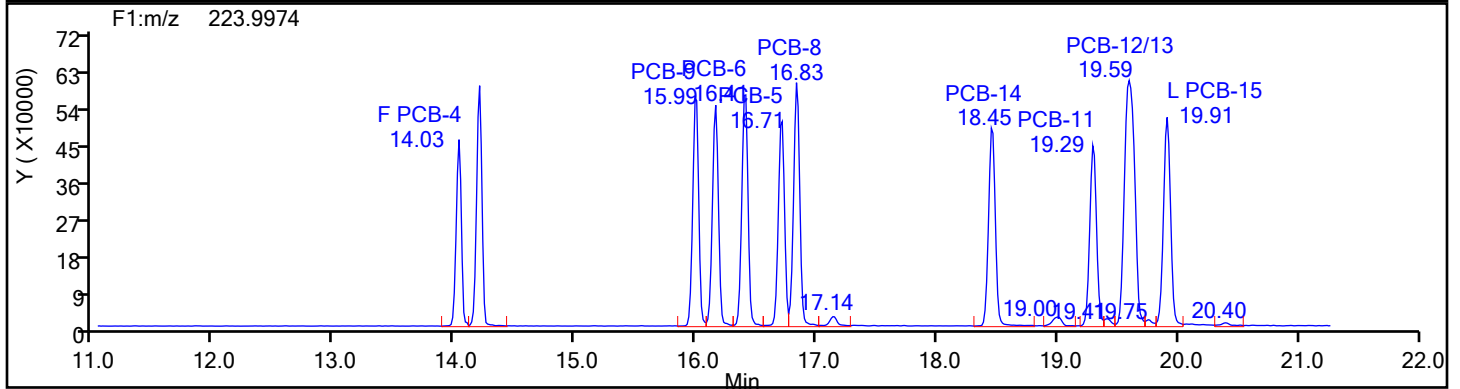
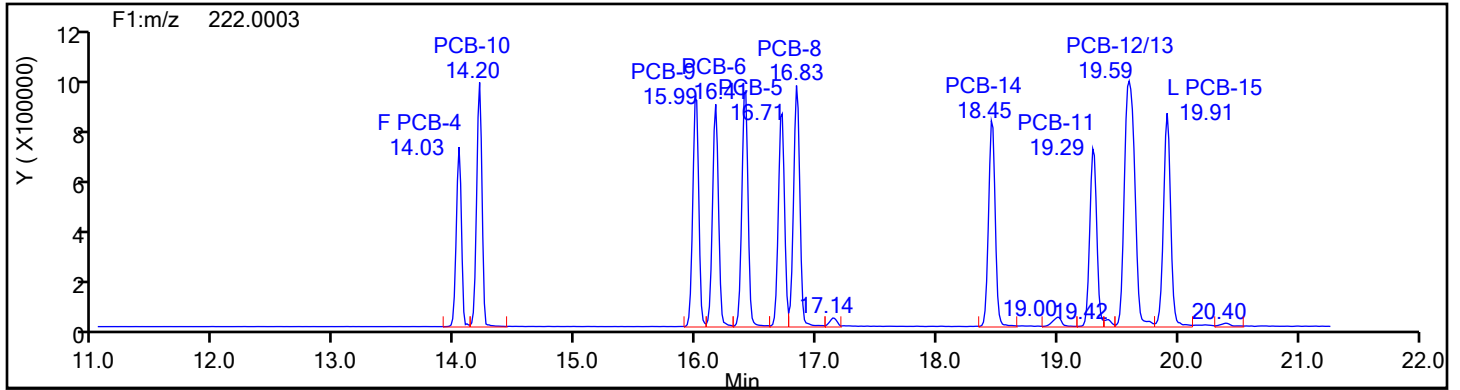
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Sample Line#: 4

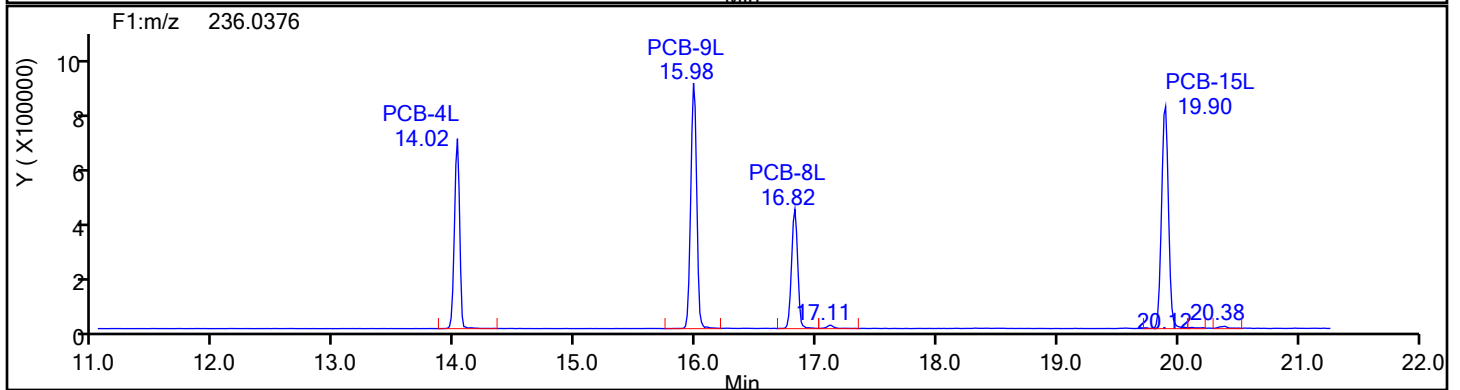
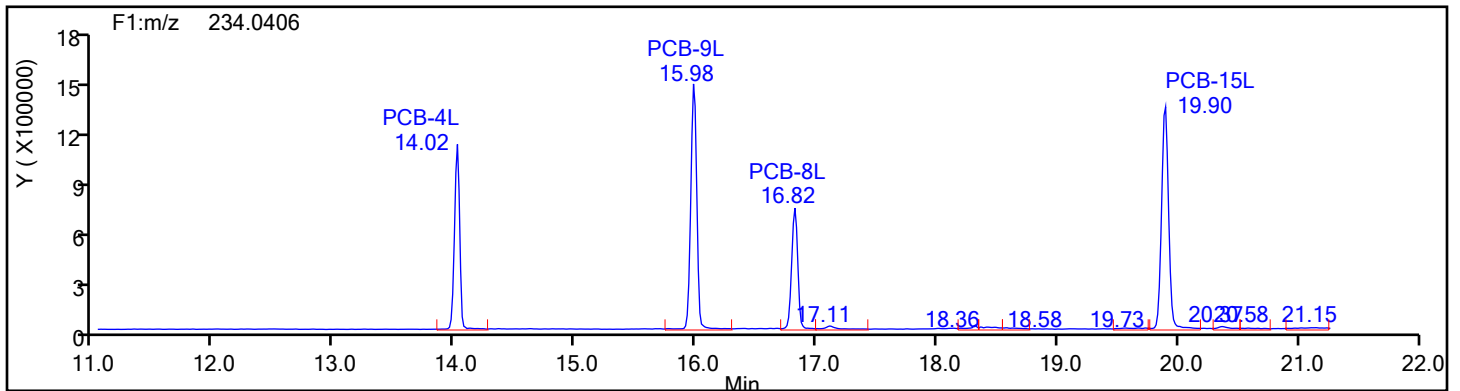
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

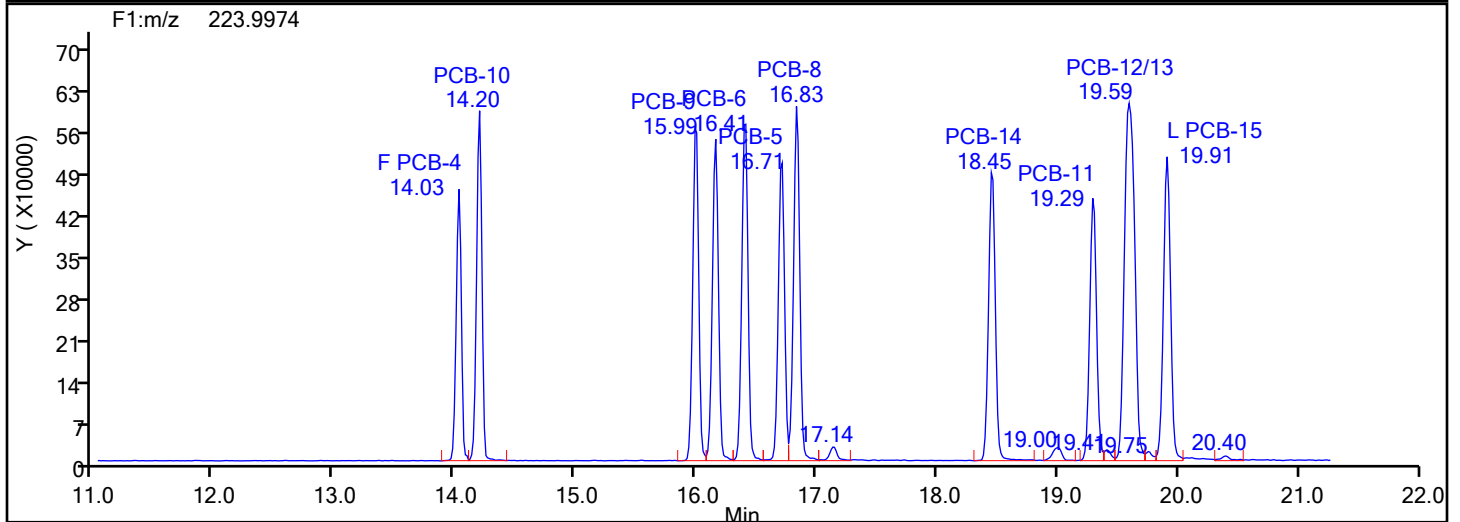
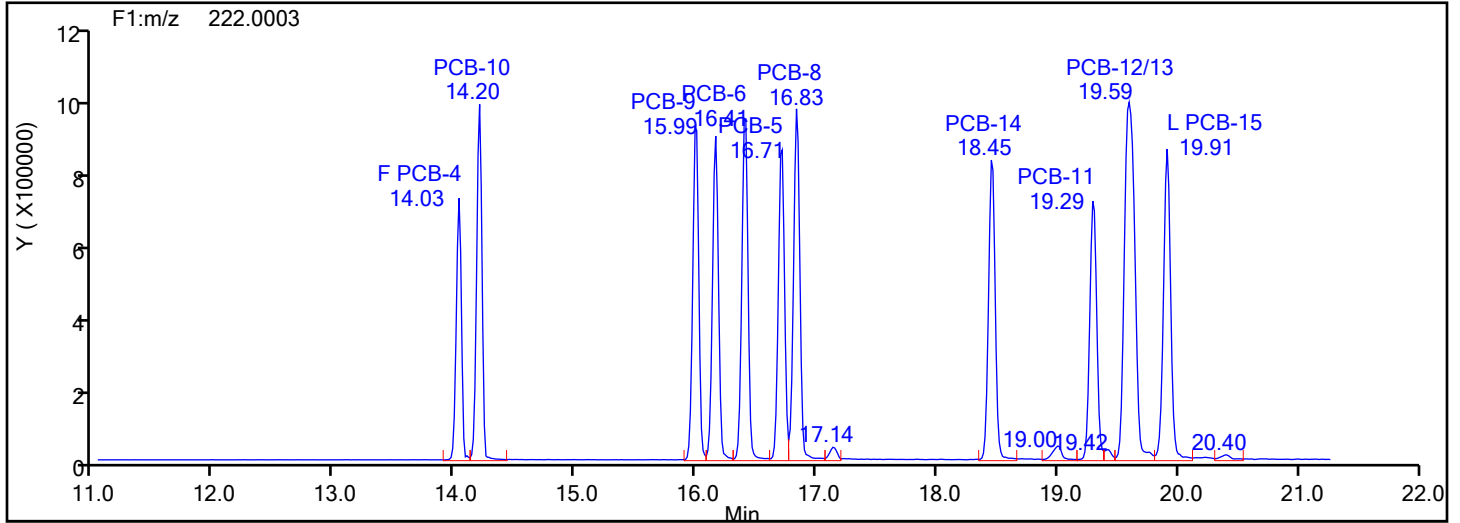
Worklist#: 87130

Sample Line#: 4

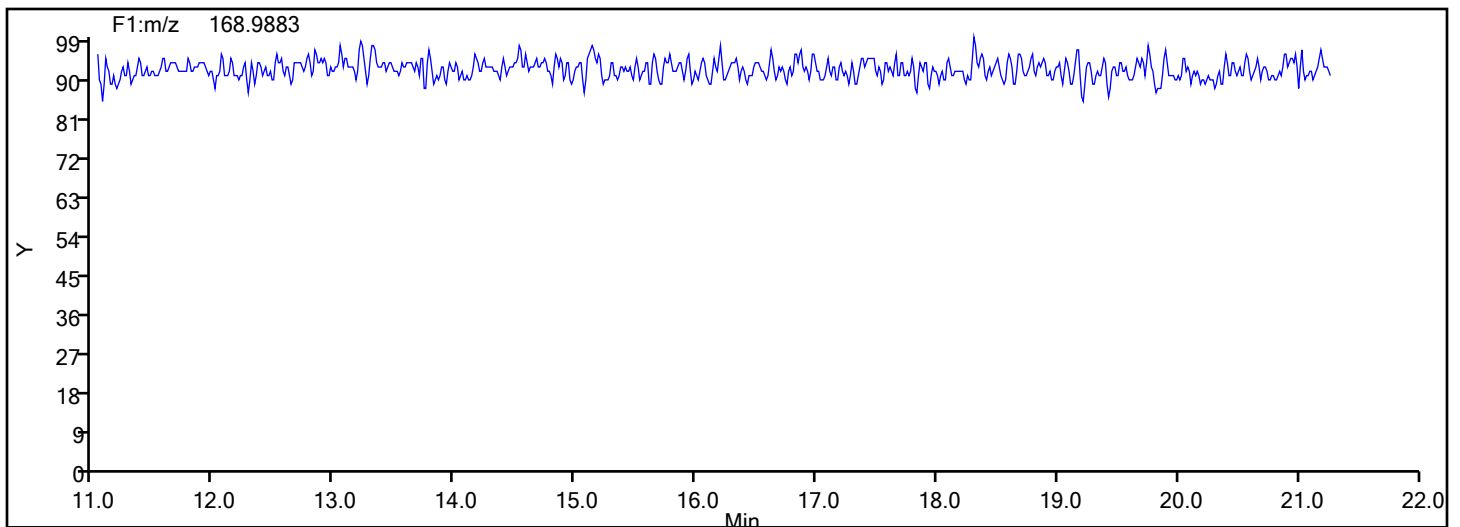
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1

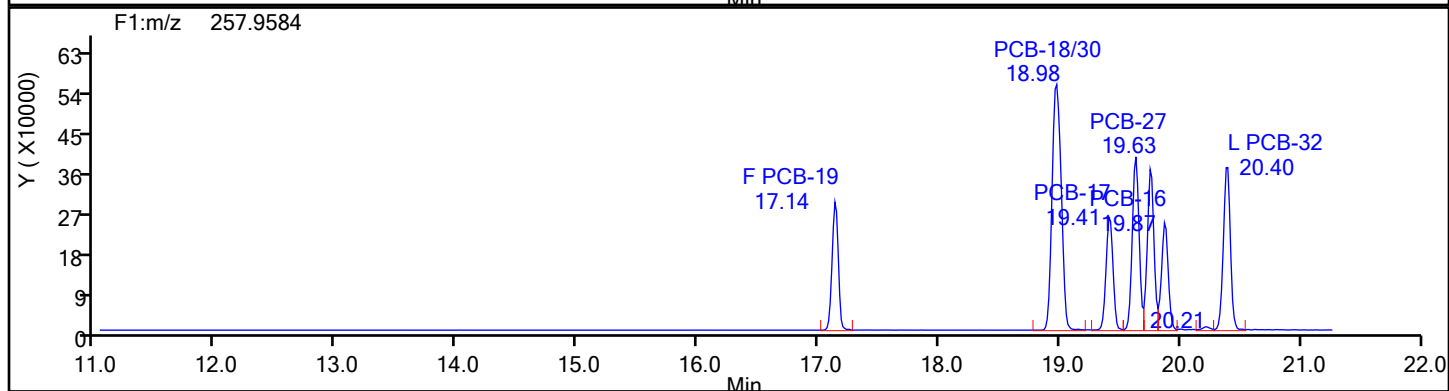
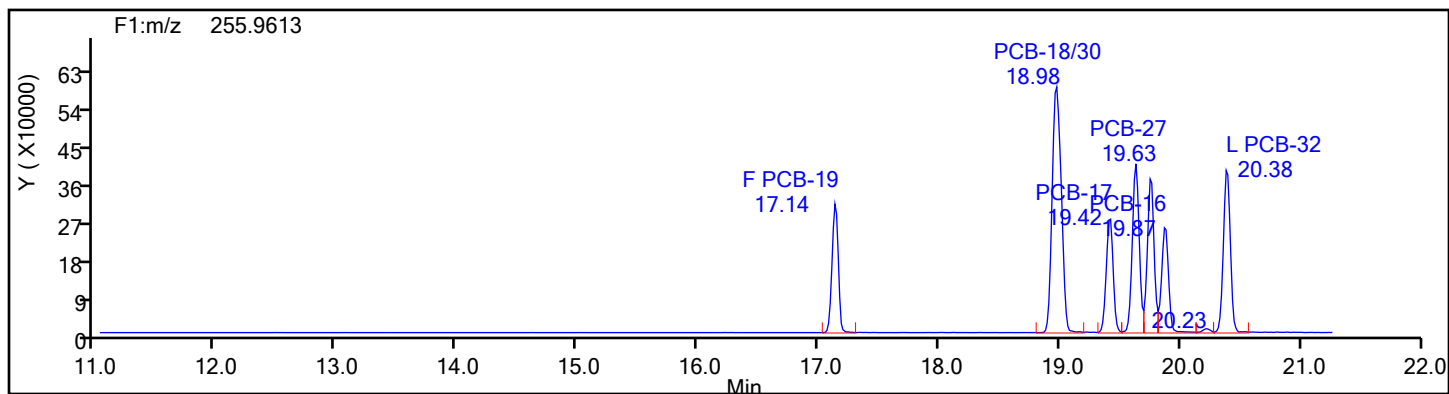


DiPCB F1 Lock Mass

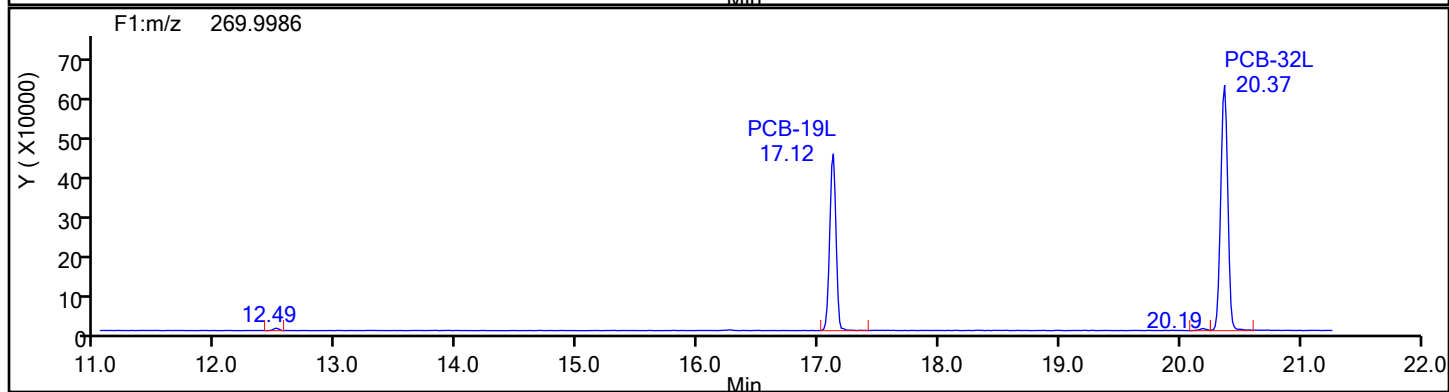
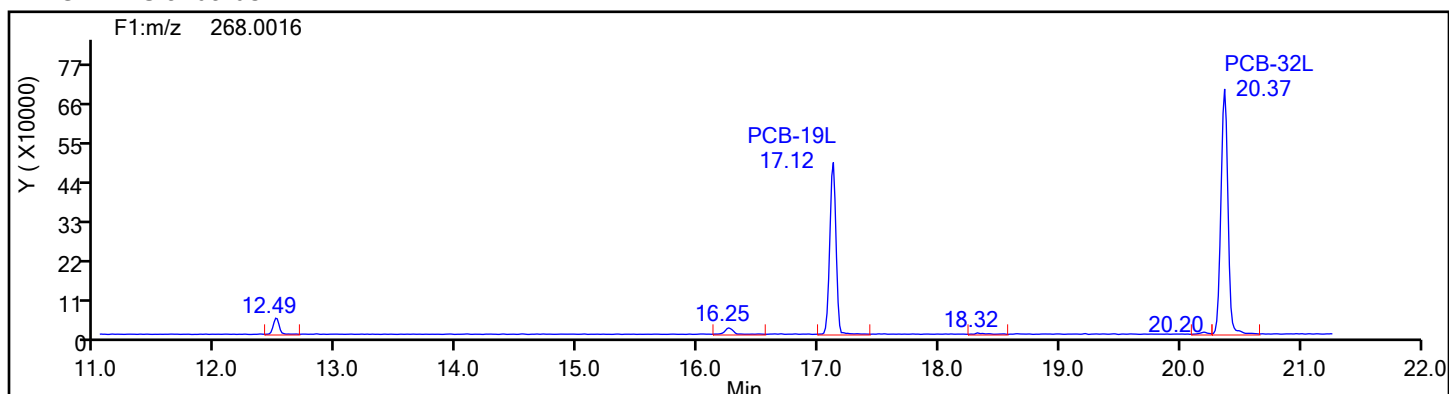


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 4  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F1



## TriPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

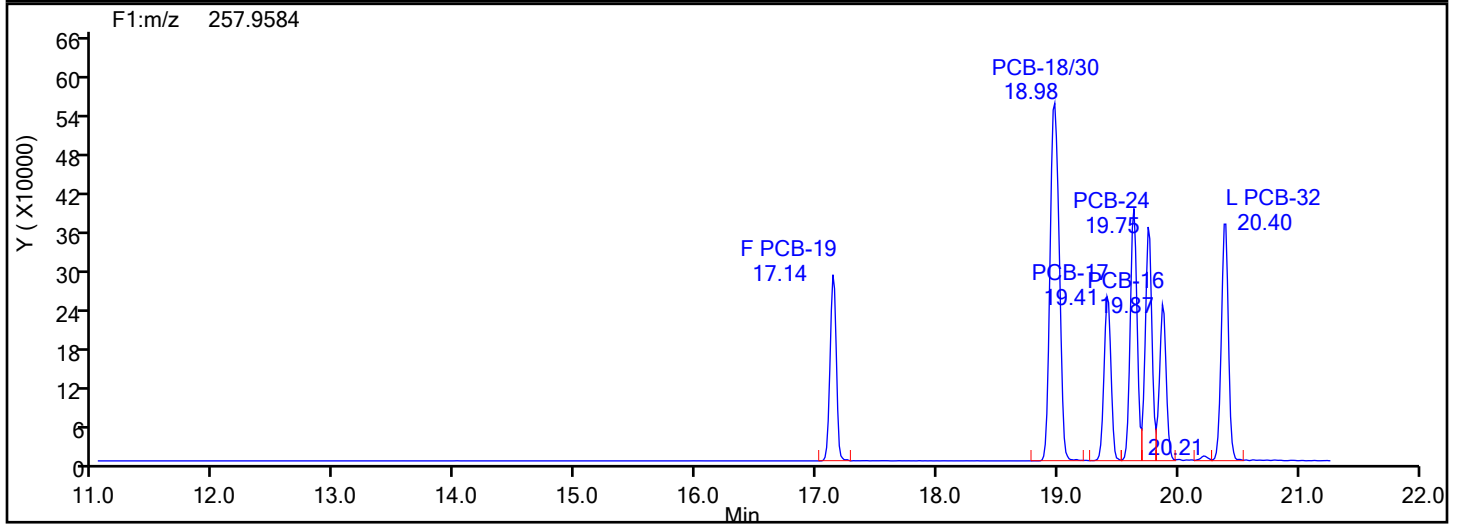
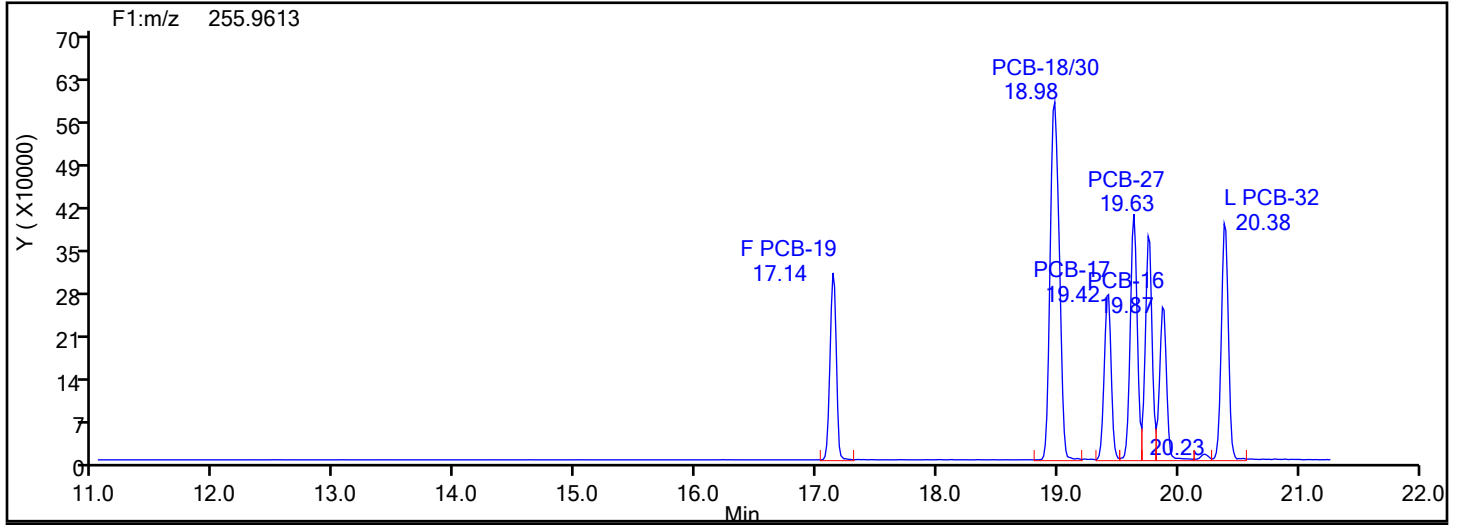
Worklist#: 87130

Sample Line#: 4

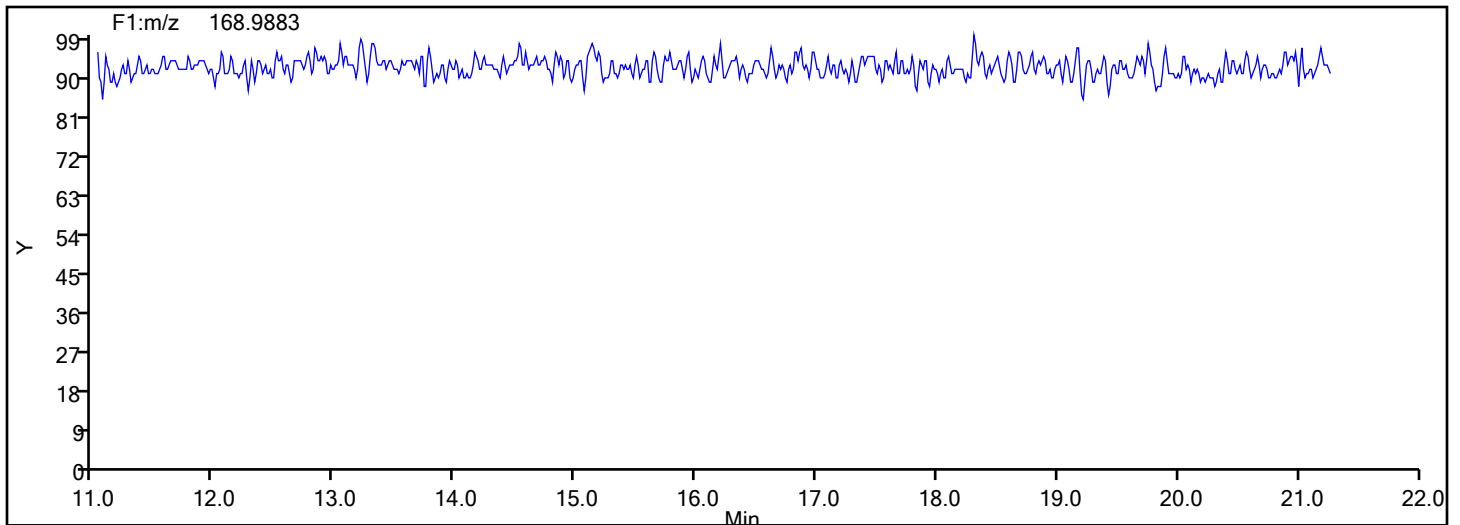
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

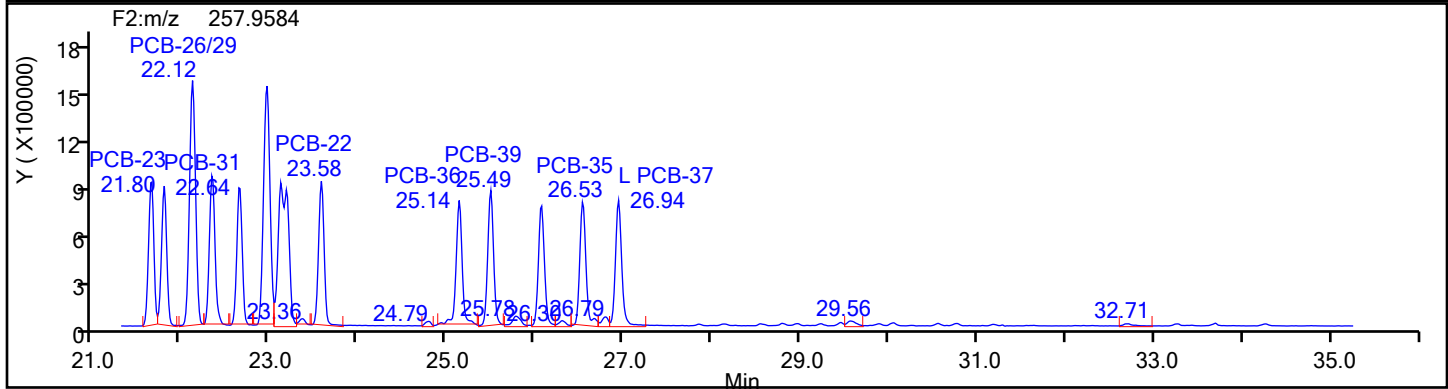
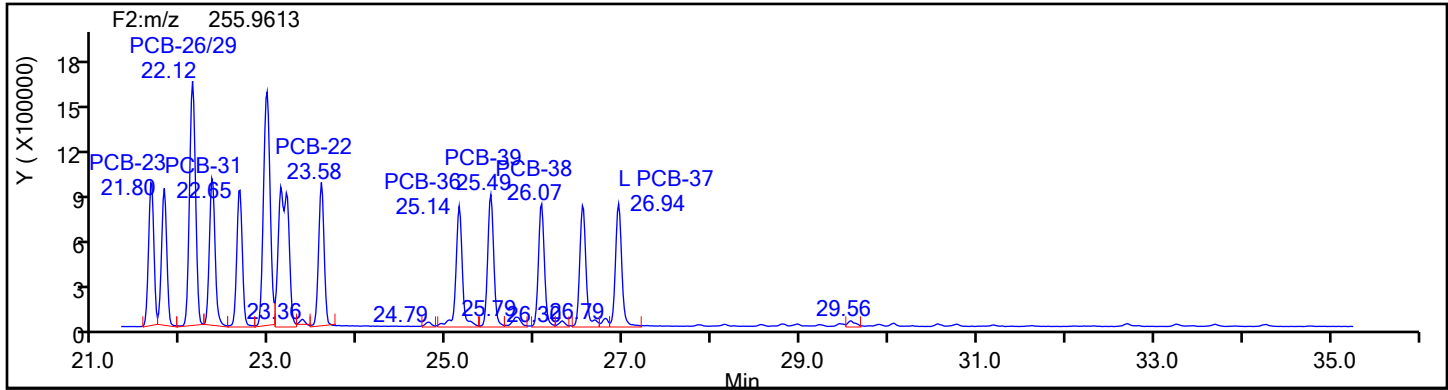
Worklist#: 87130

Sample Line#: 4

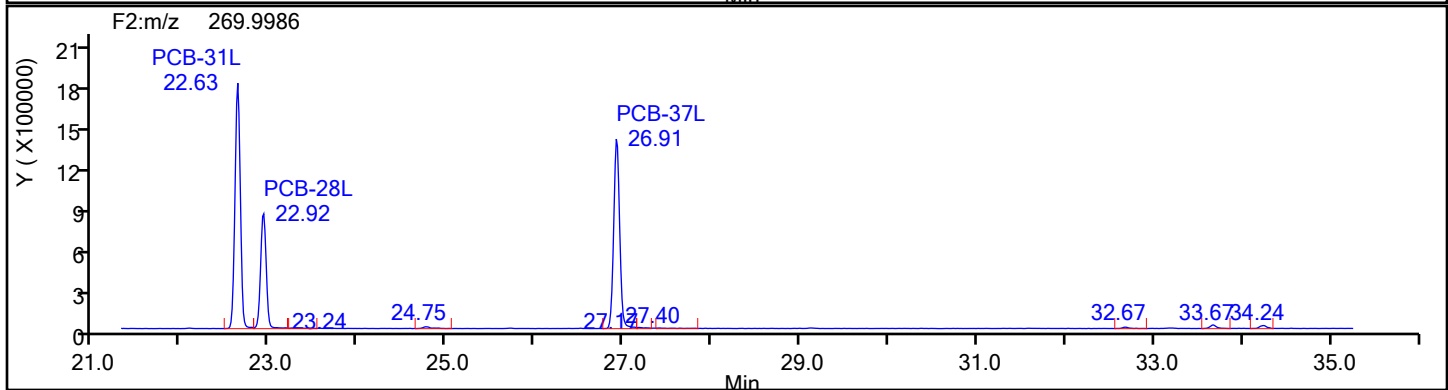
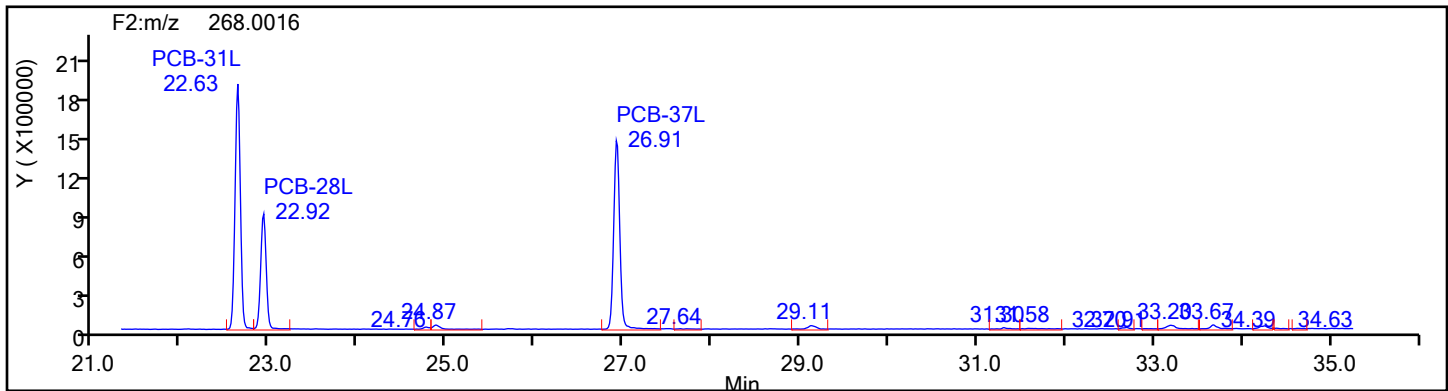
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

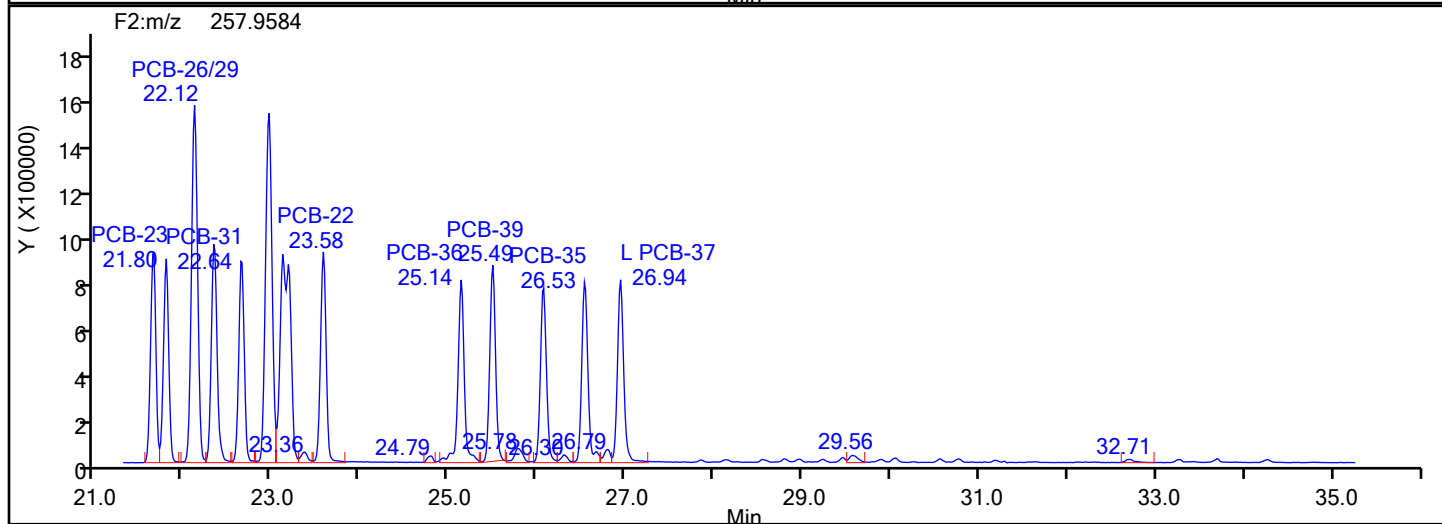
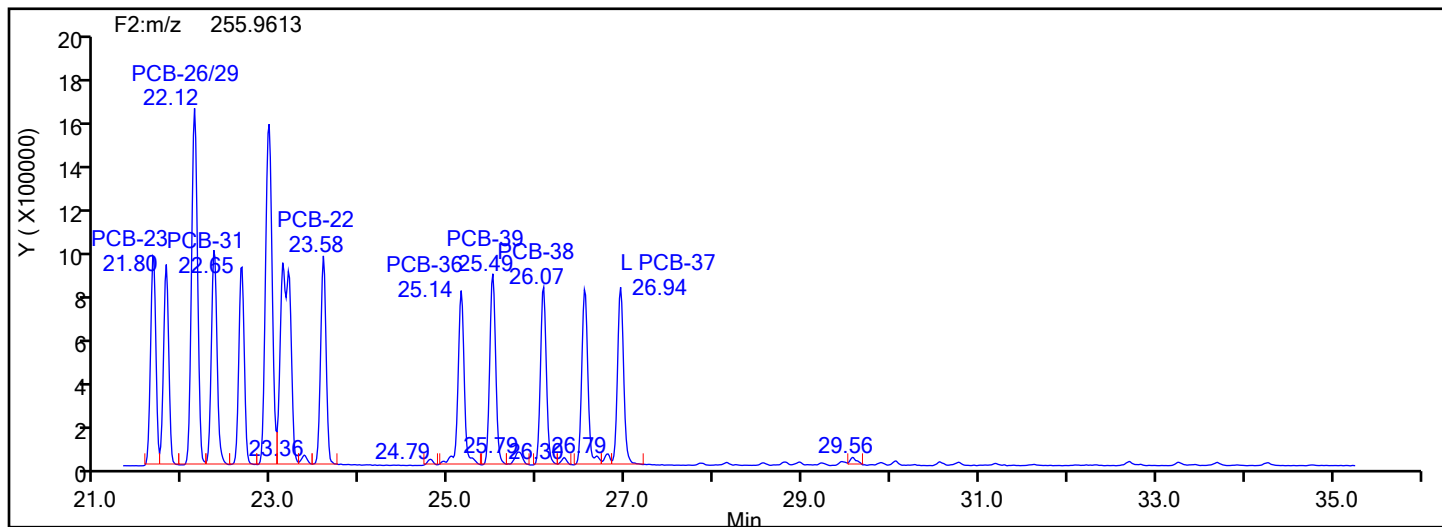
Worklist#: 87130

Sample Line#: 4

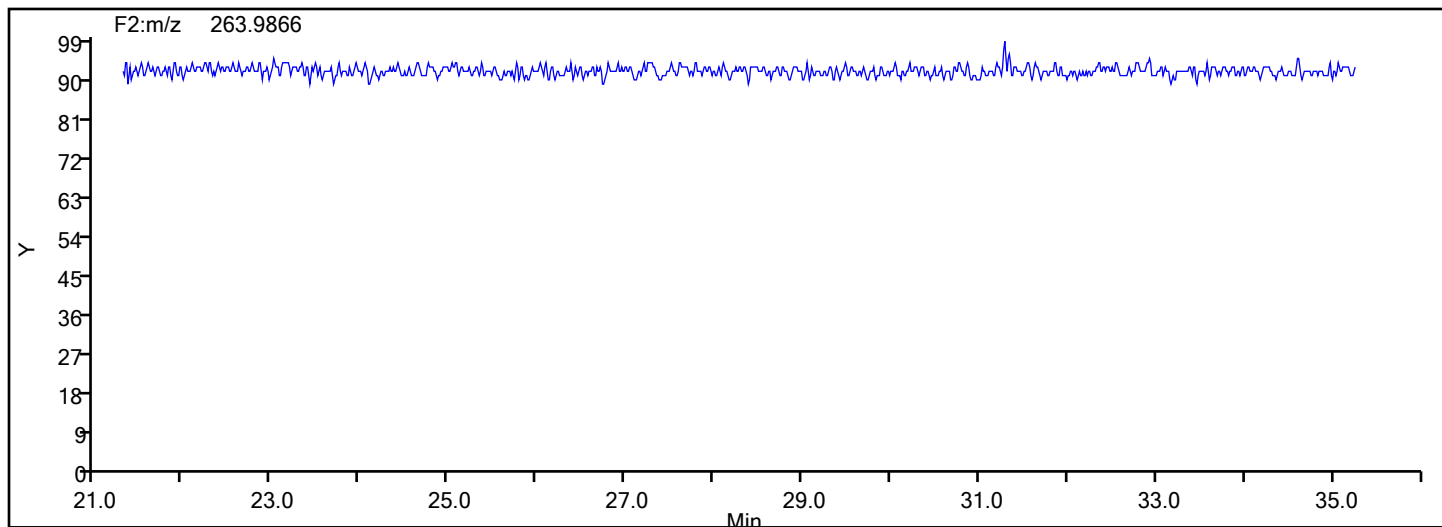
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

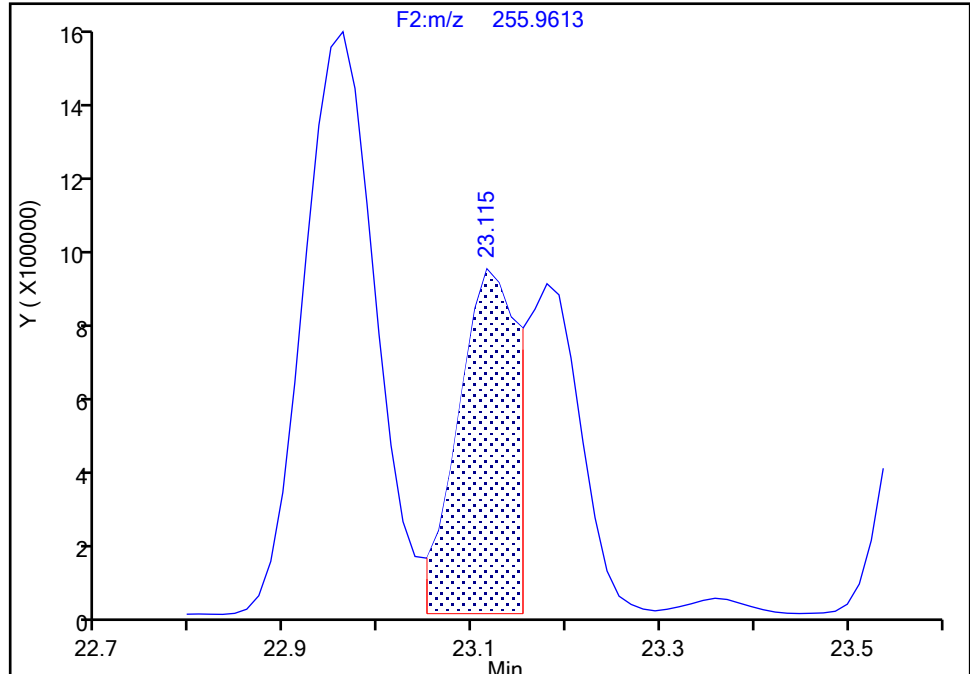
Detector F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 1

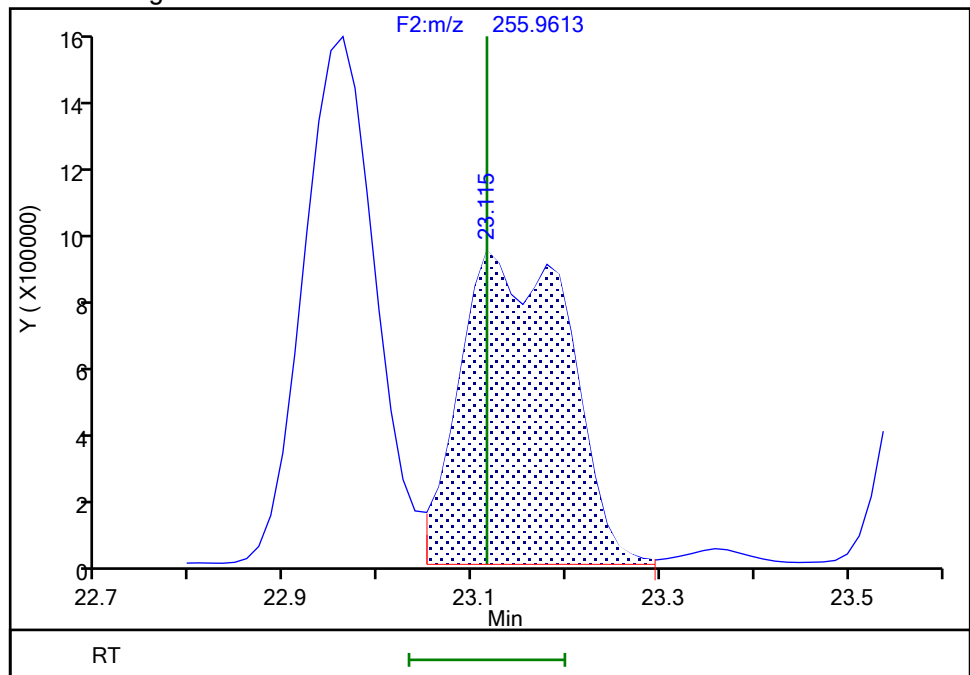
RT: 23.12  
Area: 3808070  
Amount: 61.066350  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.12  
Area: 7217221  
Amount: 98.411321  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:23:18 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

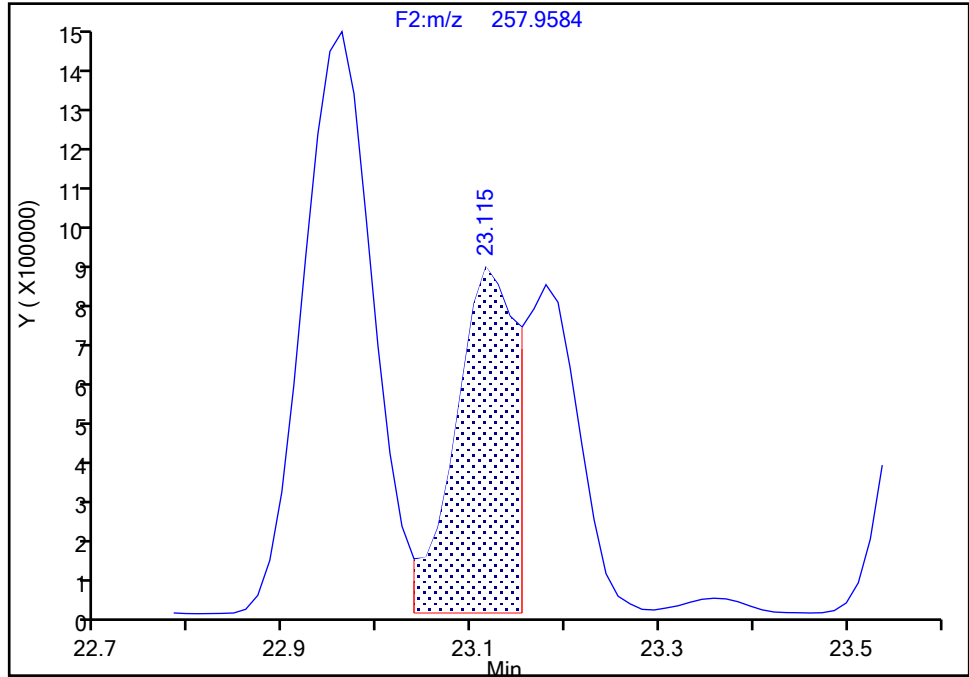
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Instrument ID: D2D  
Lims ID: IC L4  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 2

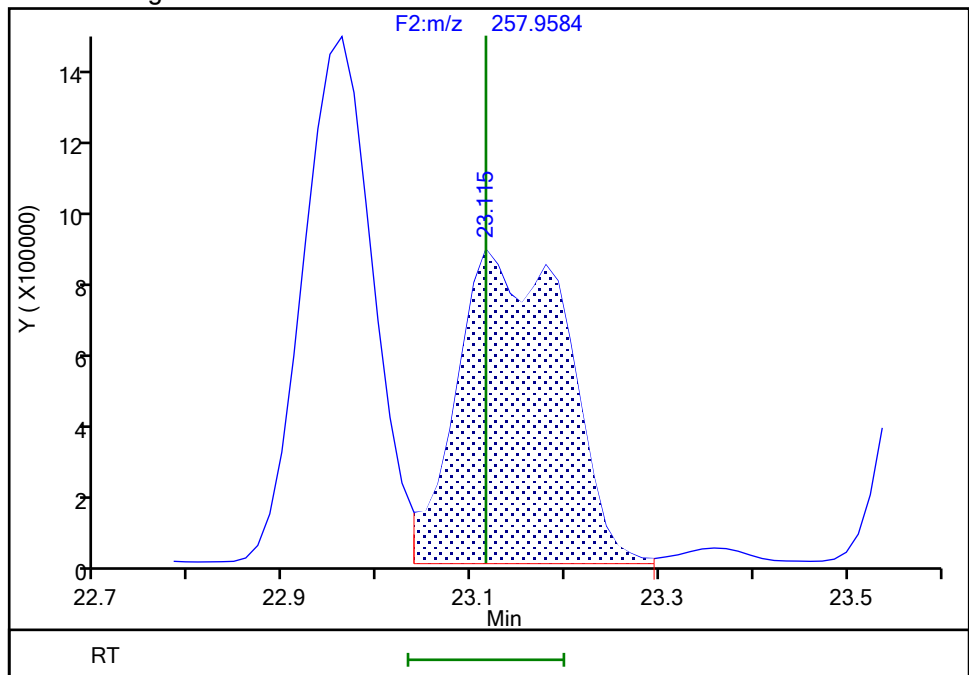
RT: 23.12  
Area: 3822480  
Amount: 61.066350  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.12  
Area: 7096925  
Amount: 98.411321  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:23:24 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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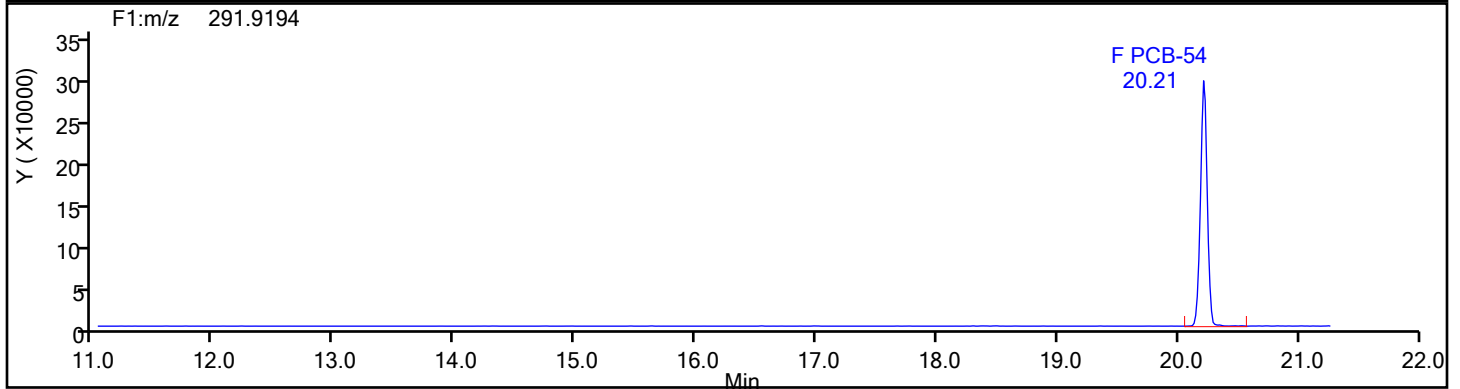
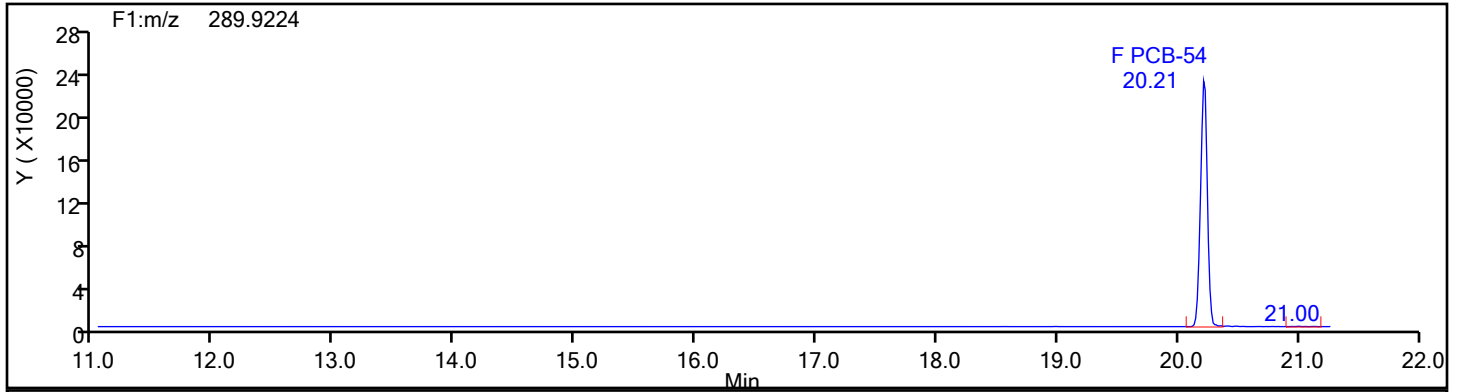
BASFHWC-Pass 2024052985

9/6/2024  
4:19:54 PM

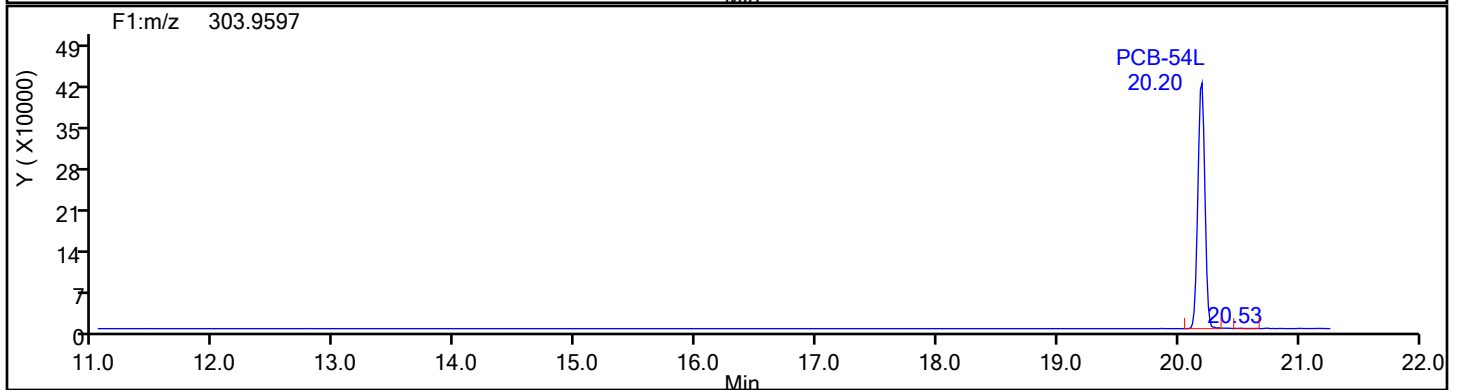
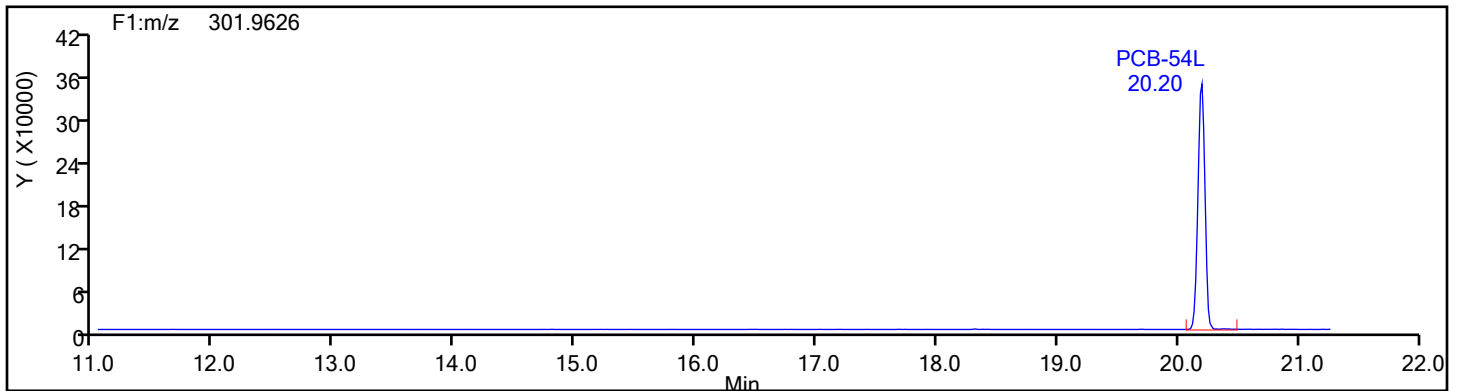


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 4  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1



## TePCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

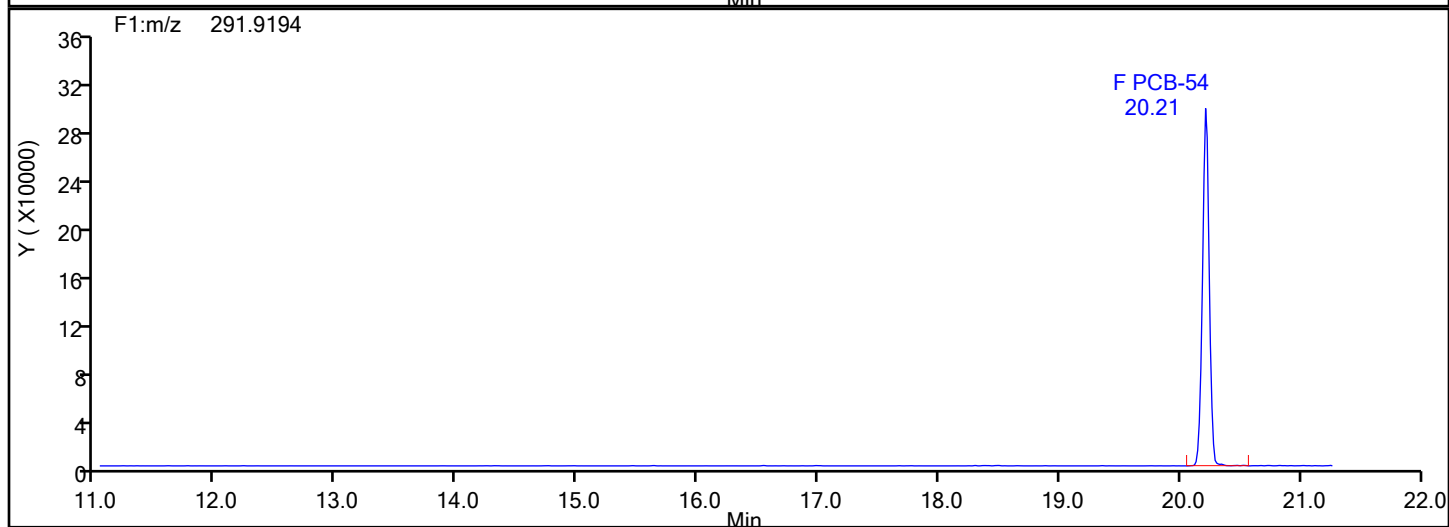
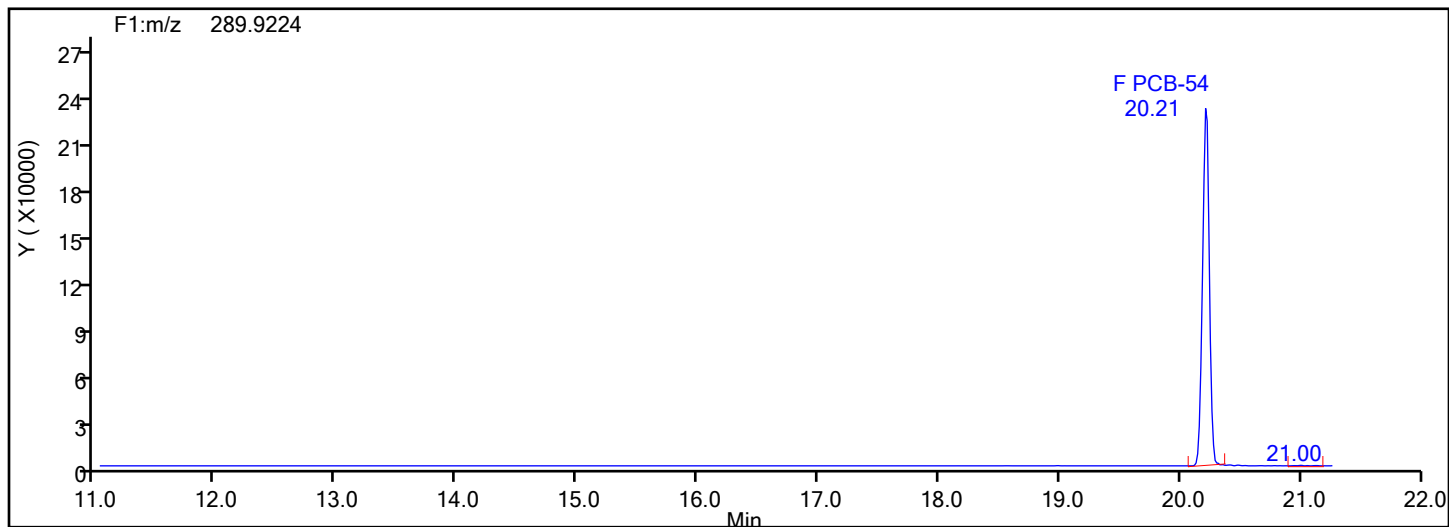
Worklist#: 87130

Sample Line#: 4

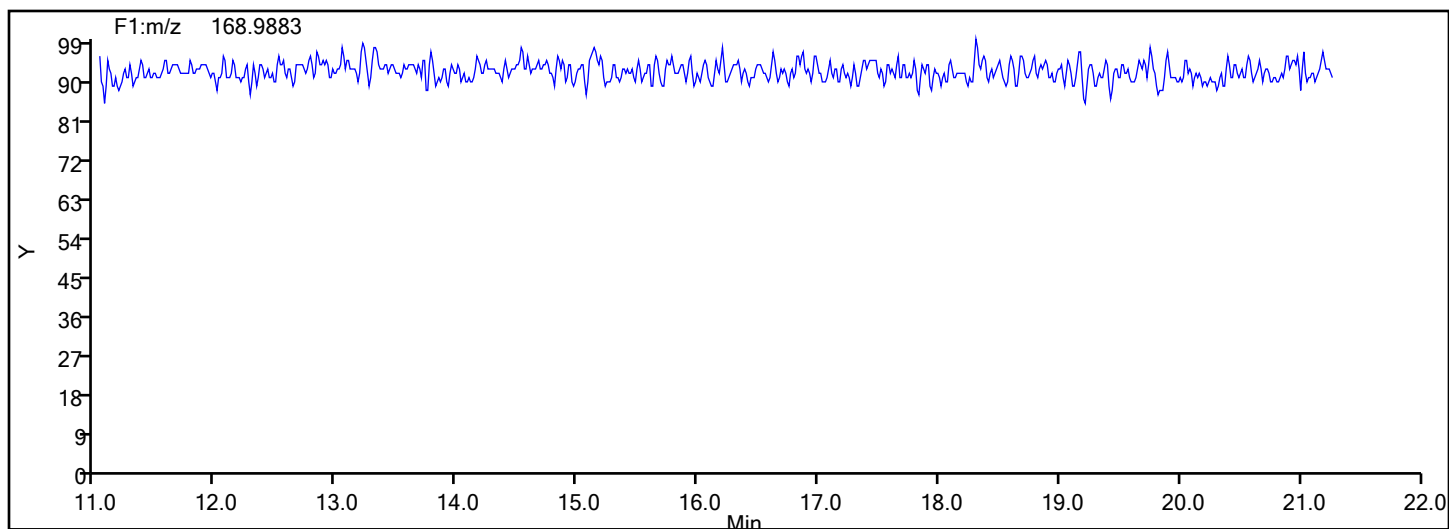
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



TePCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

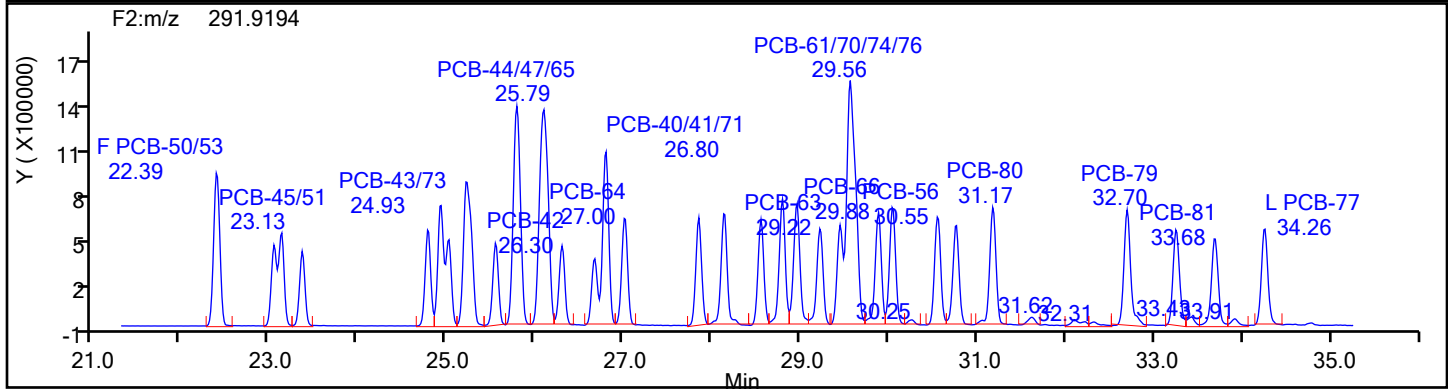
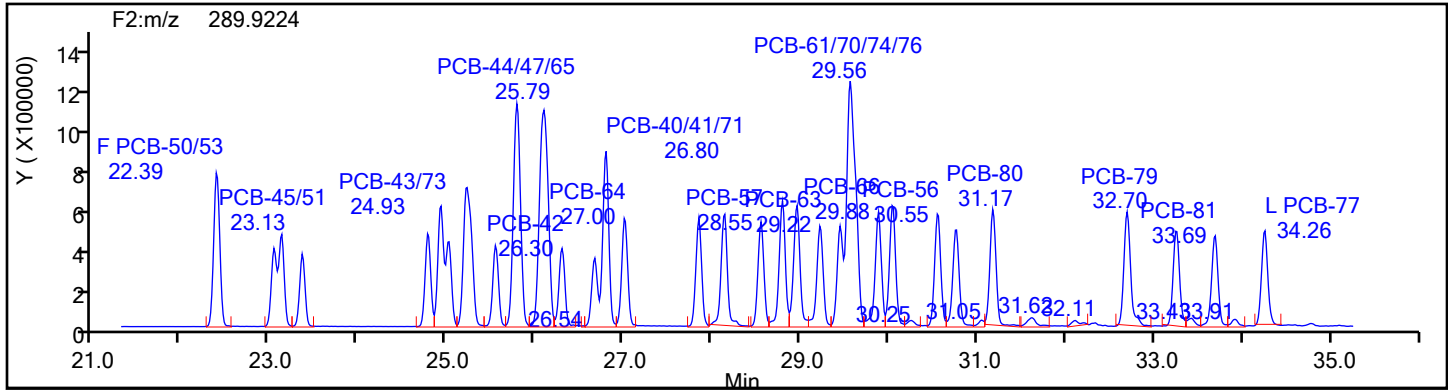
Worklist#: 87130

Sample Line#: 4

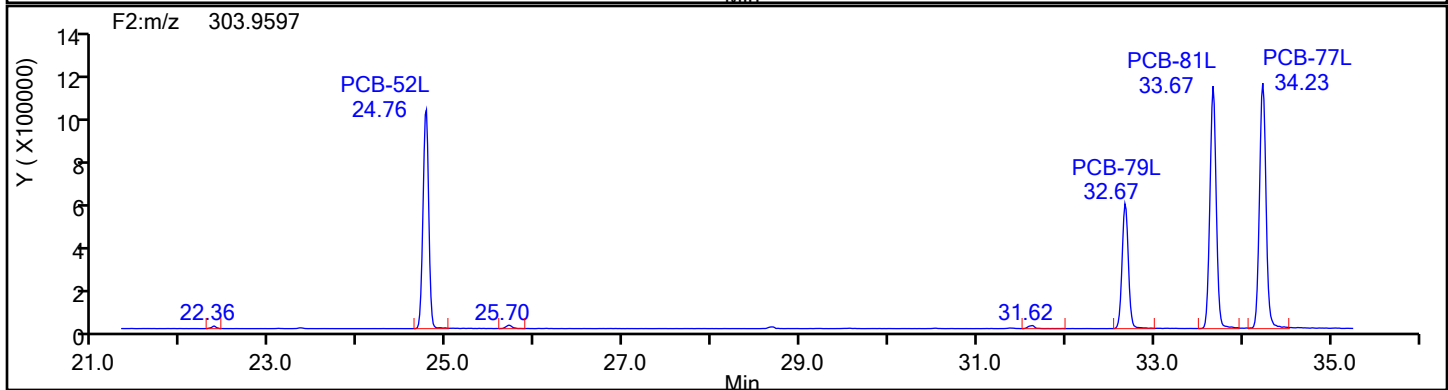
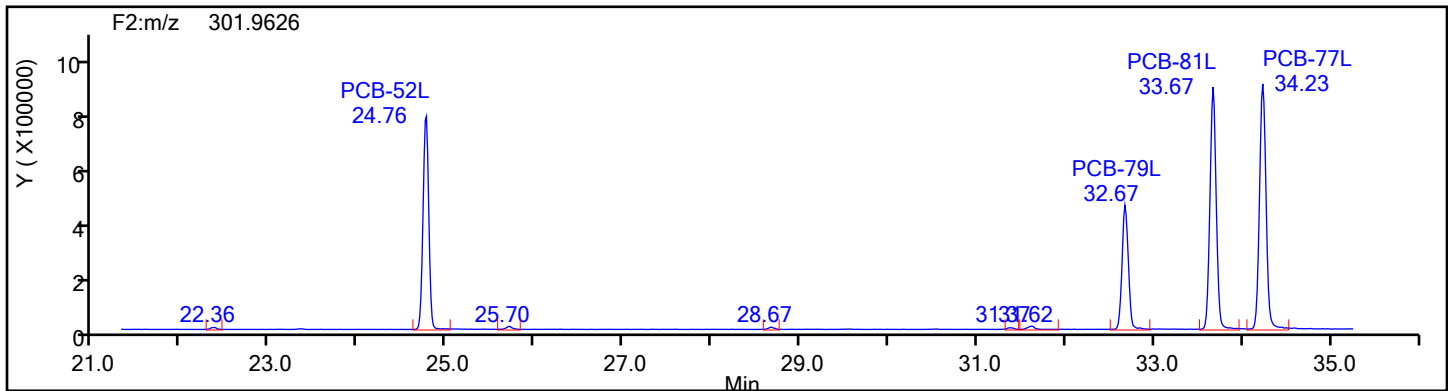
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



TePCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

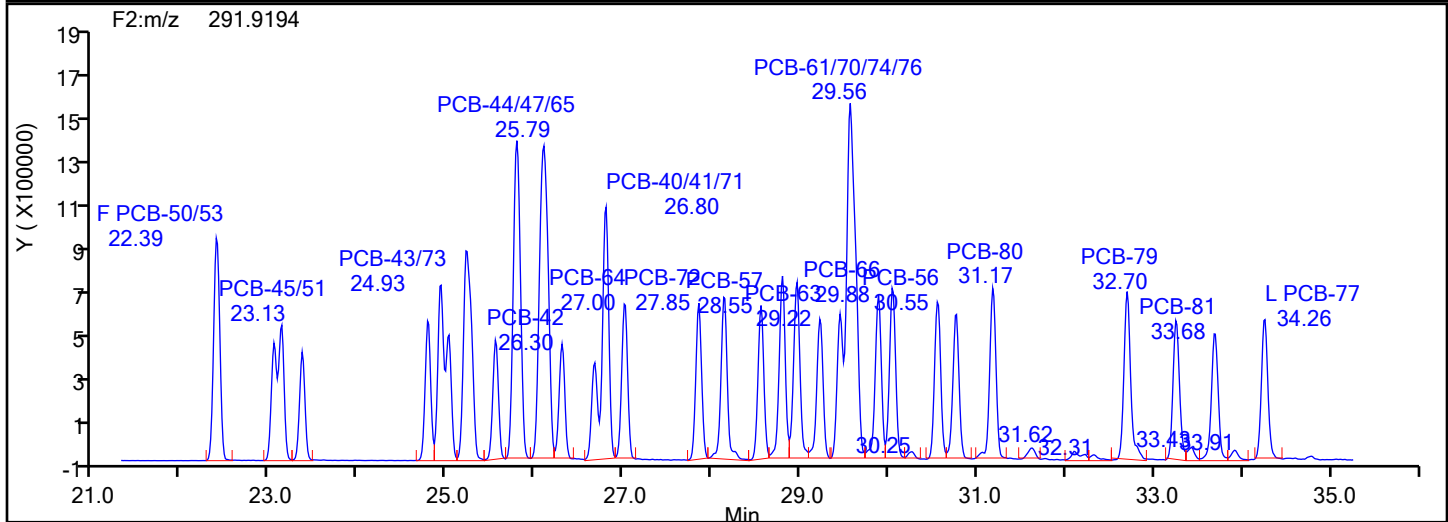
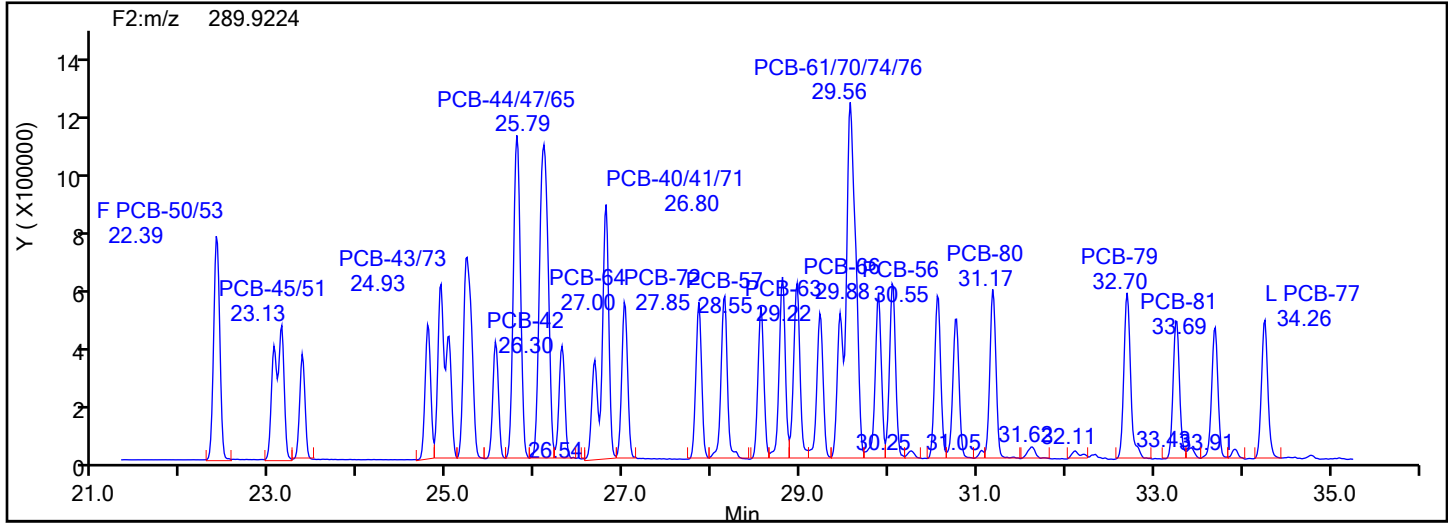
Worklist#: 87130

Sample Line#: 4

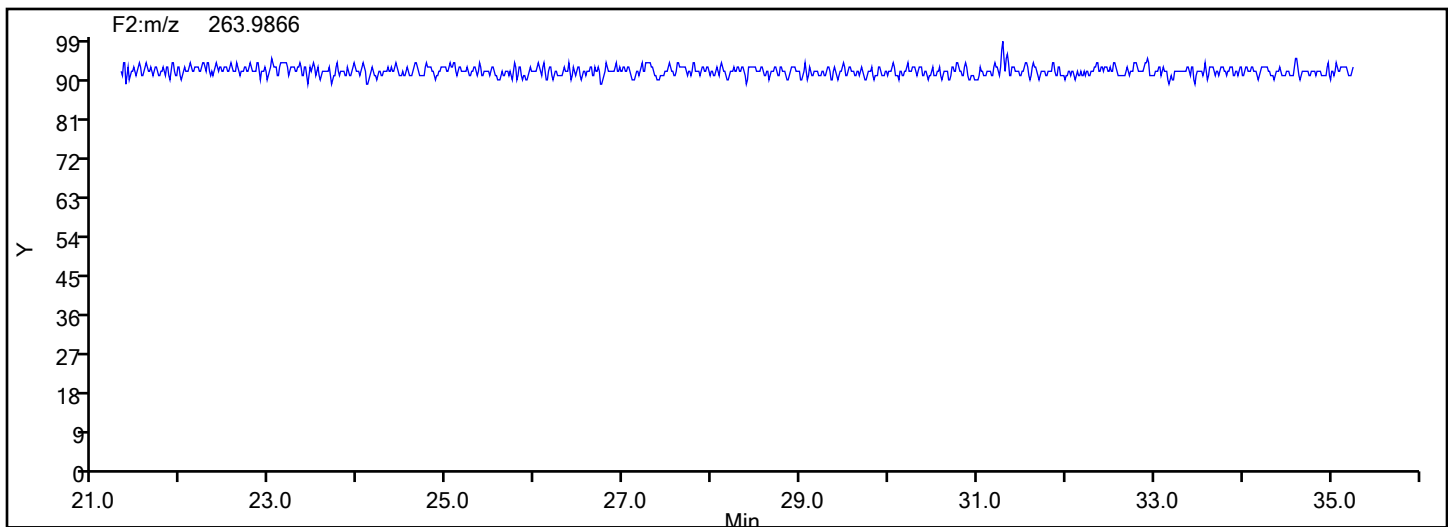
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



## TePCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

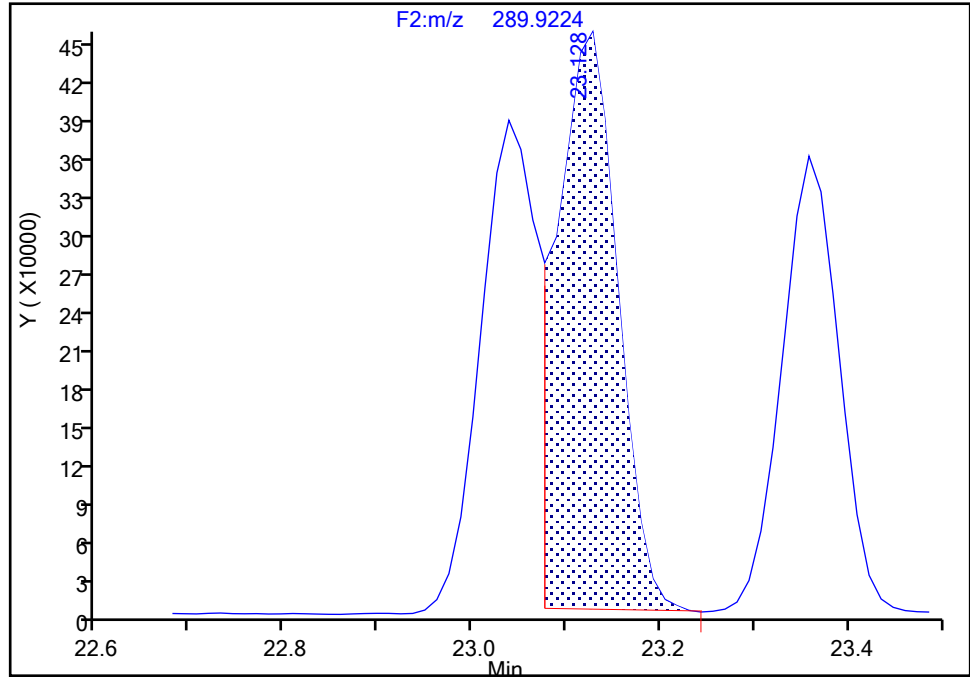
Detector F2(21.81 :35.54 )

**PCB-45/51, CAS: STL01804**

Signal: 1

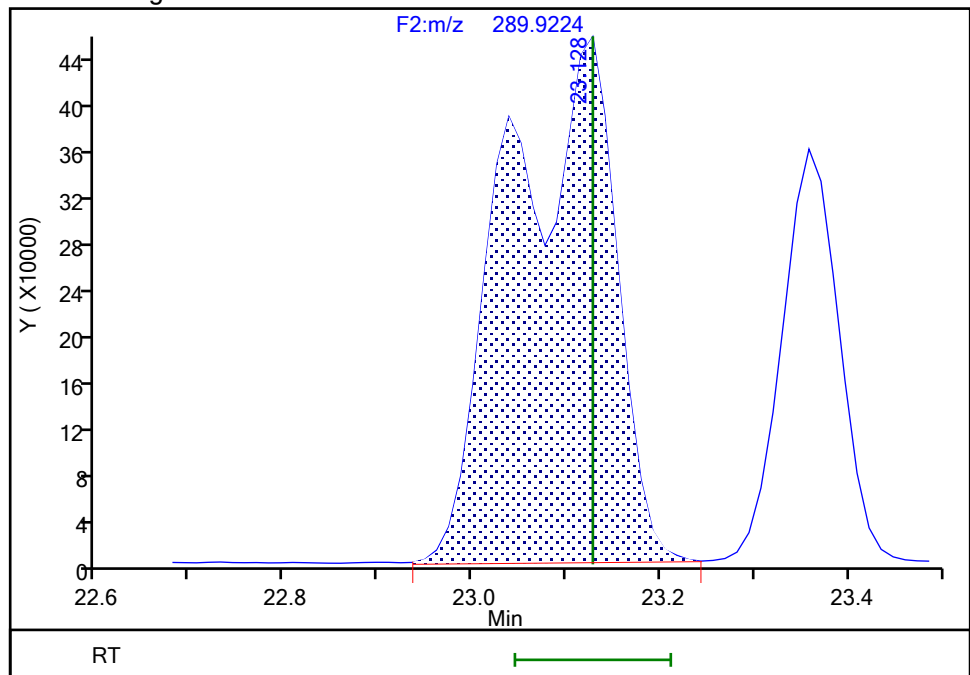
RT: 23.13  
Area: 2002794  
Amount: 67.548238  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.13  
Area: 3620739  
Amount: 100.2261  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:23:44 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

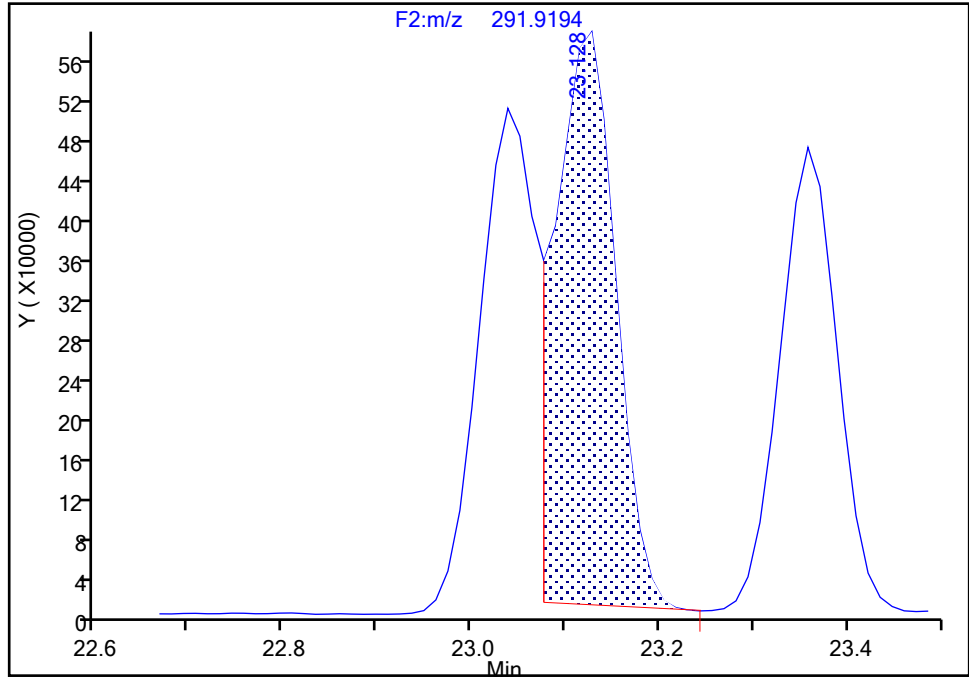
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Instrument ID: D2D  
Lims ID: IC L4  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-45/51, CAS: STL01804**

Signal: 2

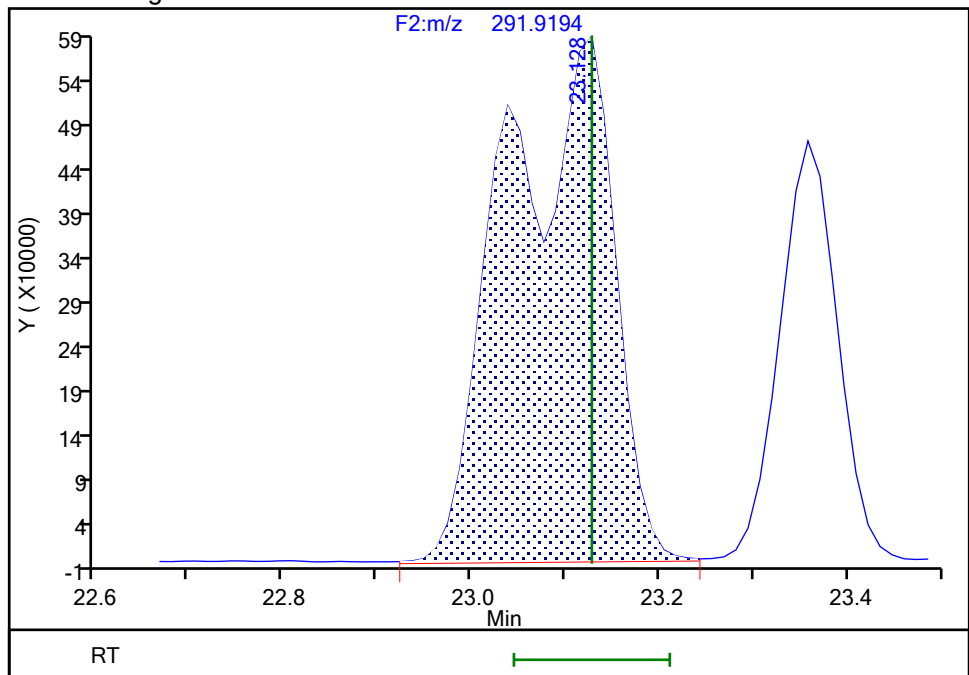
RT: 23.13  
Area: 2503417  
Amount: 67.548238  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.13  
Area: 4657473  
Amount: 100.2261  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:23:50 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFWC-Pass 2024052991

9/6/2024  
4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

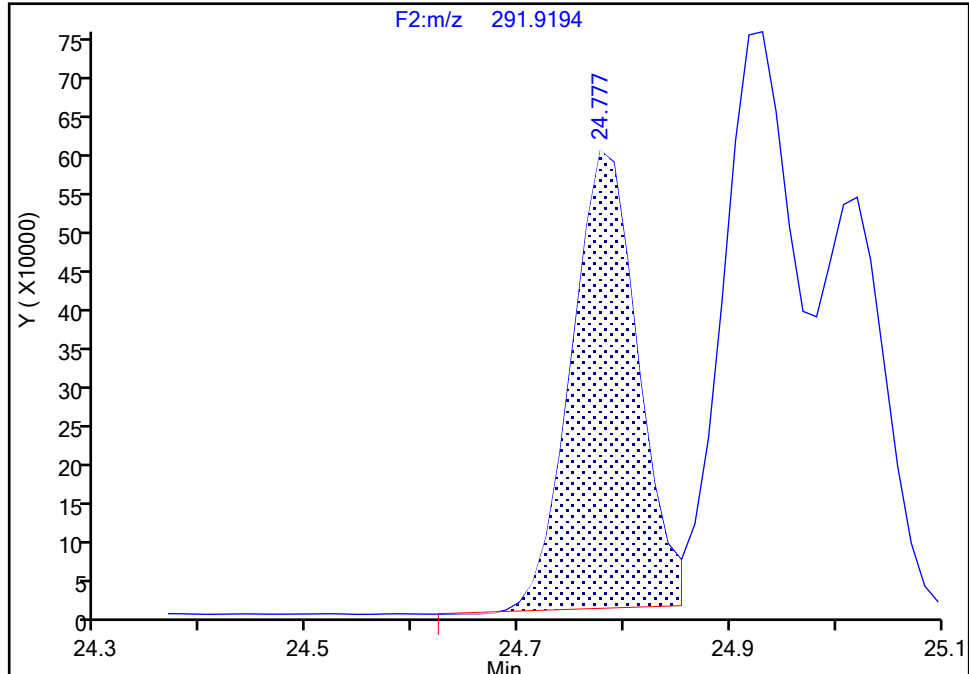
Detector F2(21.81 :35.54 )

PCB-52, CAS: 35693-99-3

Signal: 2

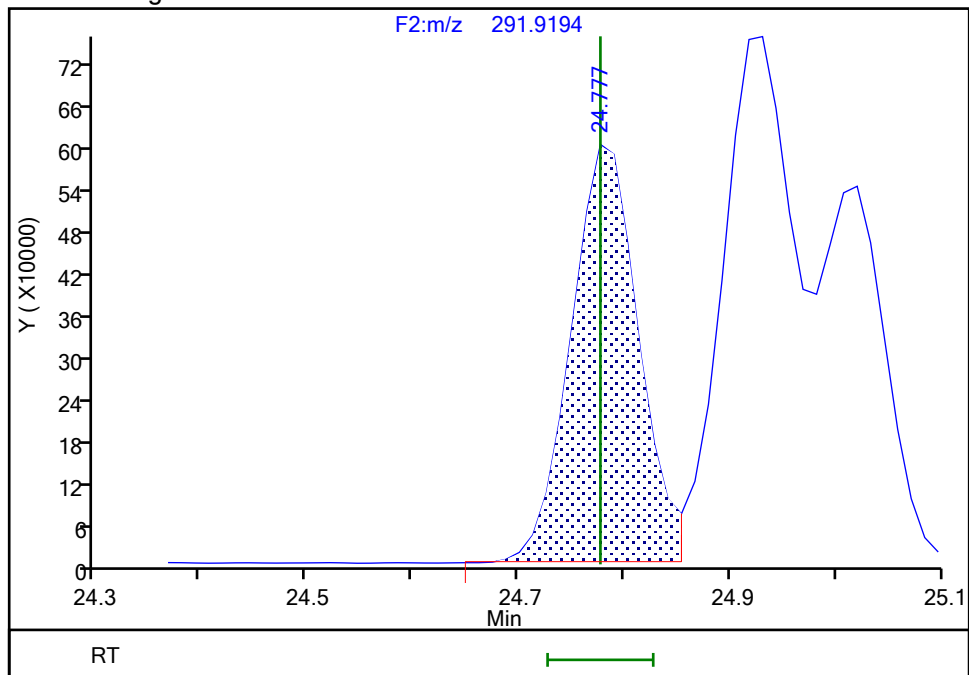
RT: 24.78  
Area: 2593697  
Amount: 51.914694  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.78  
Area: 2667090  
Amount: 51.406431  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:24:32 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

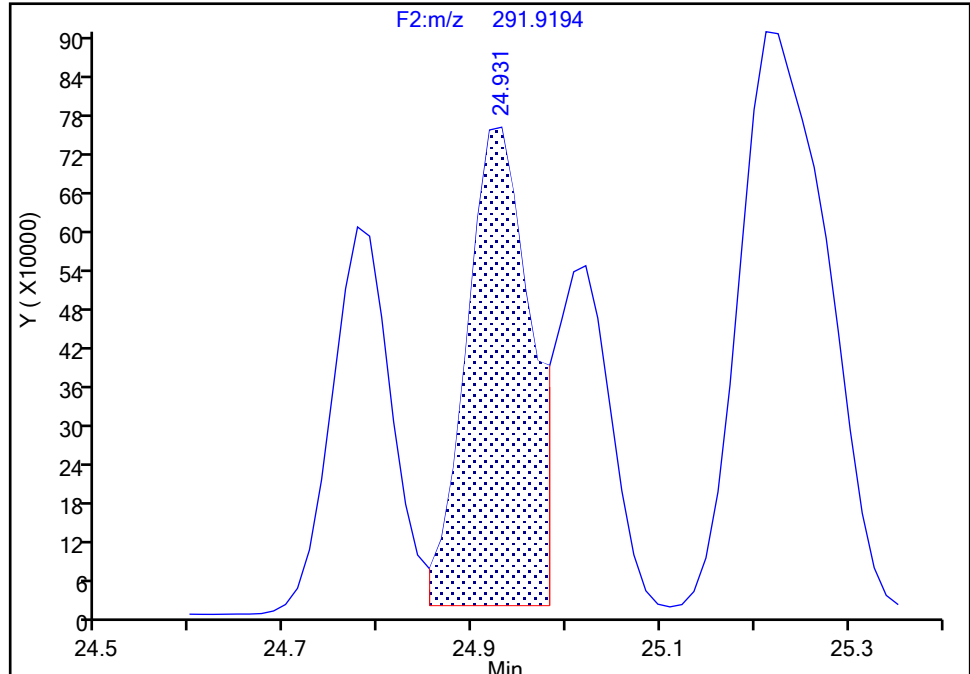
Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 2

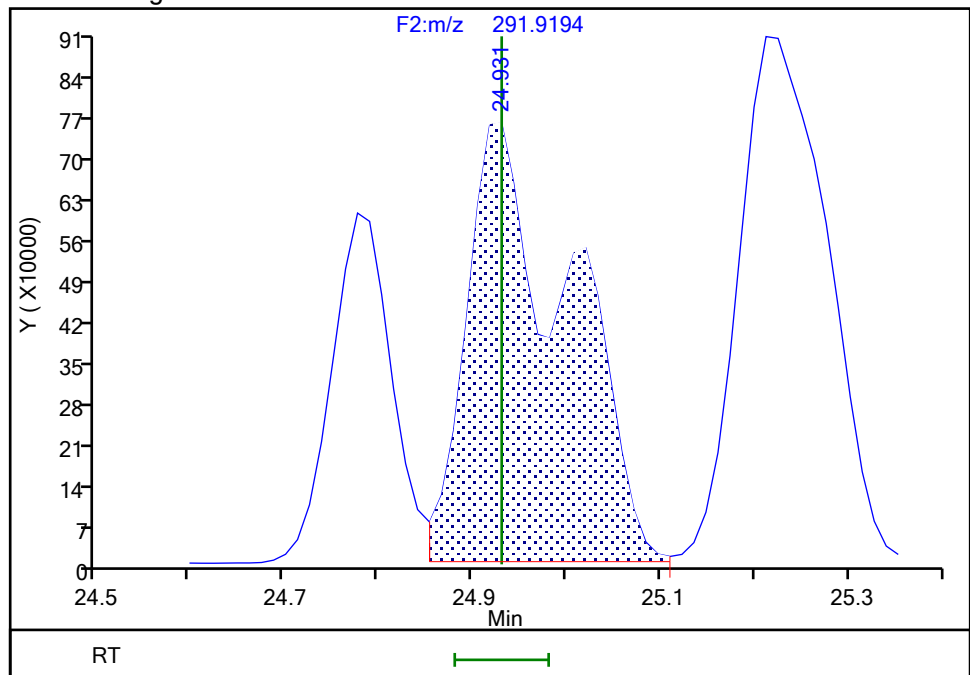
RT: 24.93  
Area: 3481878  
Amount: 72.083869  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.93  
Area: 5740441  
Amount: 99.446054  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:24:39 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak



## Eurofins Knoxville

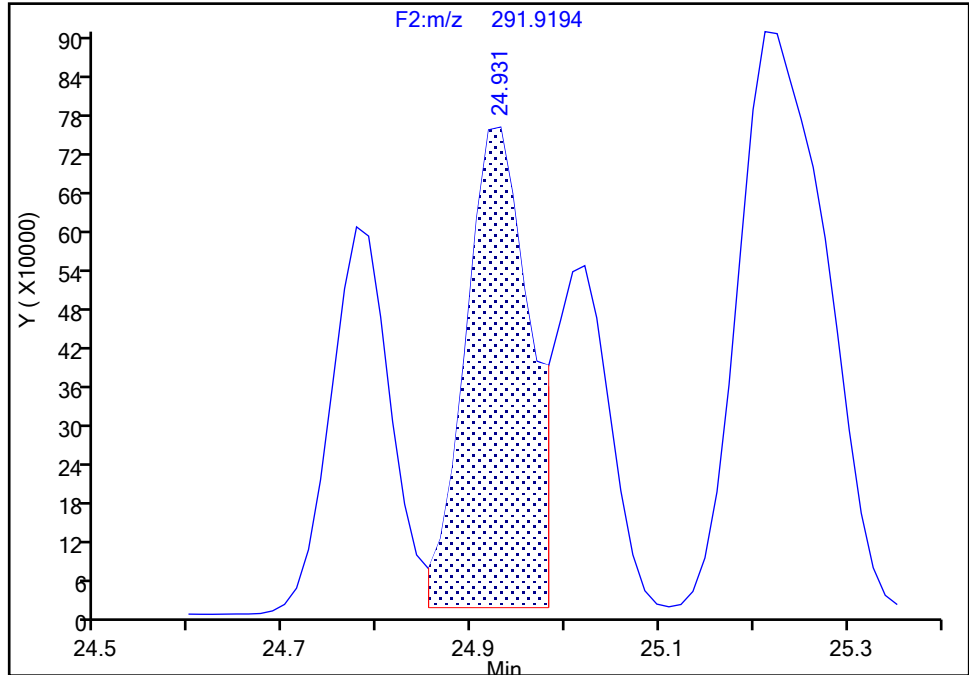
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Instrument ID: D2D  
Lims ID: IC L4  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 2

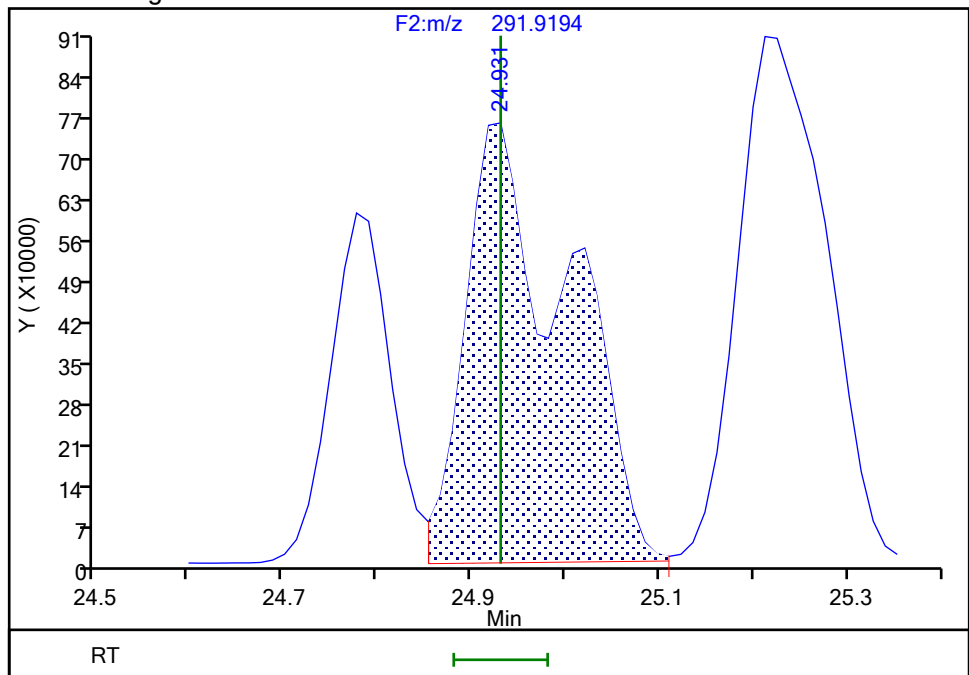
RT: 24.93  
Area: 3481878  
Amount: 72.083869  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.93  
Area: 5740441  
Amount: 99.446054  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:24:40 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

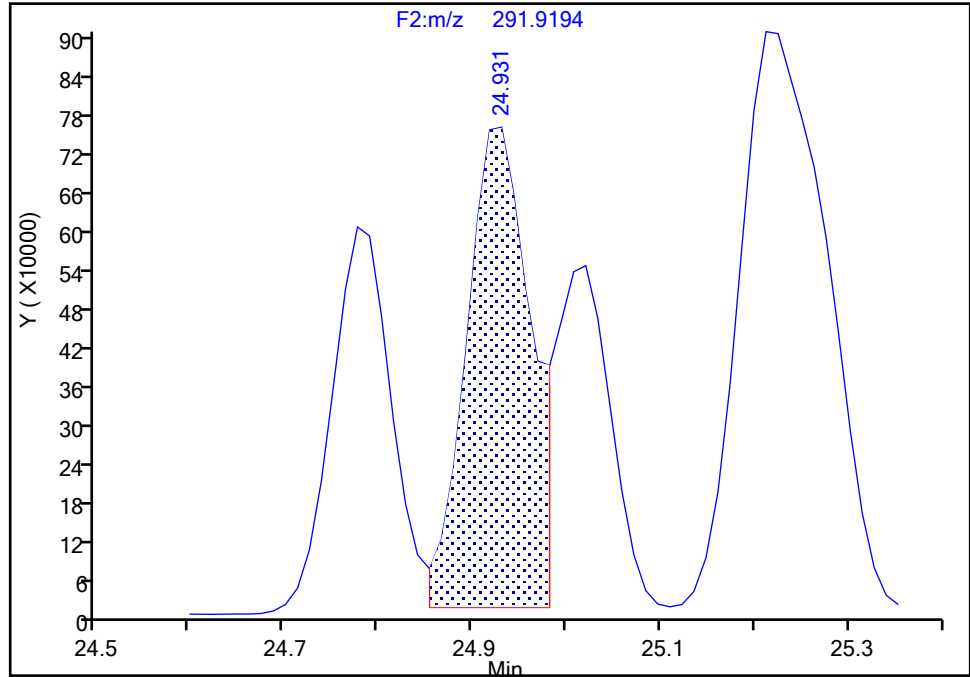
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Instrument ID: D2D  
Lims ID: IC L4  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 3

RT: 24.93  
Area: 6287281  
Amount: 72.083869  
Amount Units: pg/ul

## Processing Integration Results



## Manual Integration Results

RT: 24.93  
Area: 10270296  
Amount: 99.446054  
Amount Units: pg/ul

Reviewer: V4XA, 31-May-2024 21:24:40 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

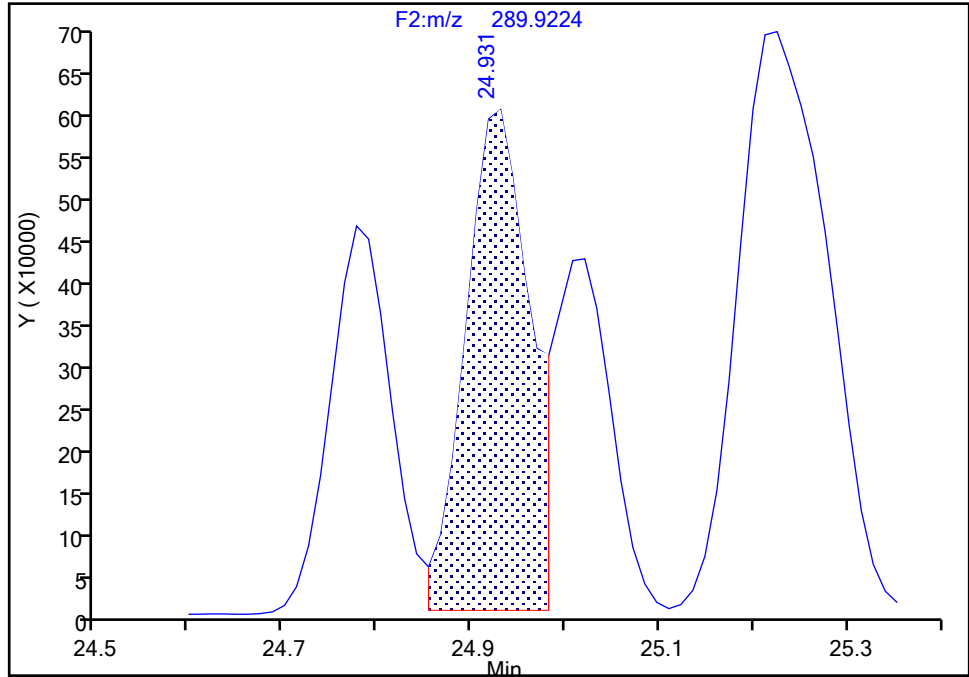
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Instrument ID: D2D  
Lims ID: IC L4  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 1

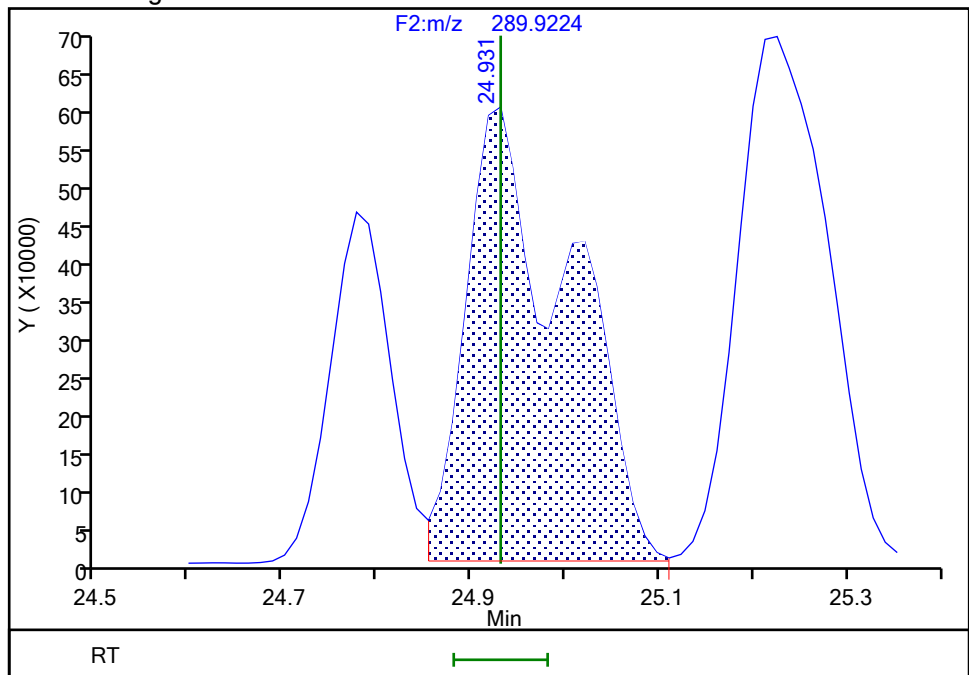
RT: 24.93  
Area: 2805403  
Amount: 72.083869  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.93  
Area: 4529855  
Amount: 99.446054  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:24:42 -04:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

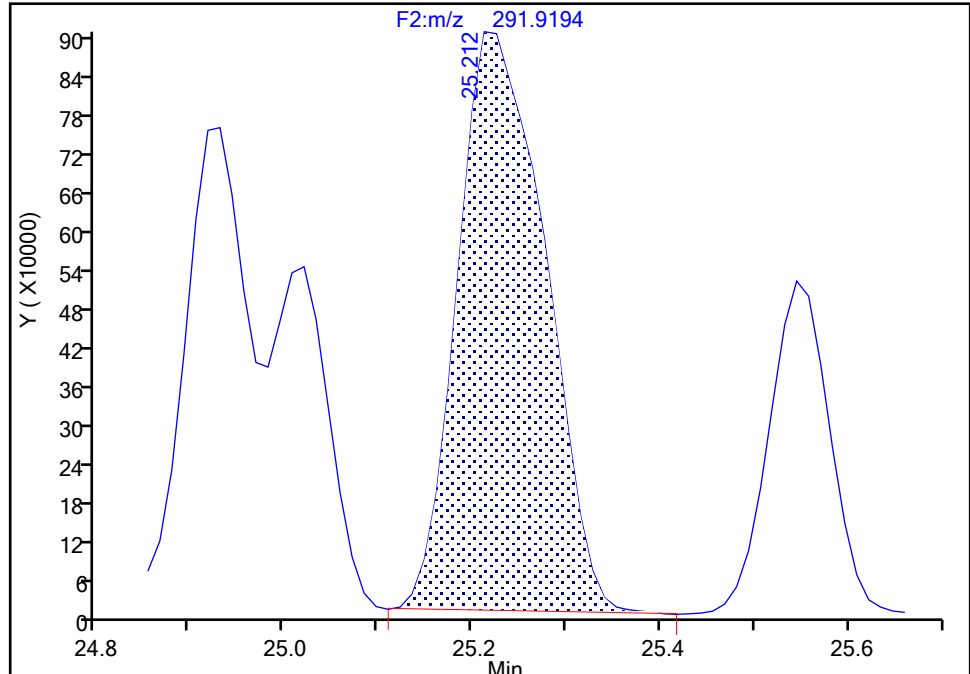
Detector F2(21.81 :35.54 )

PCB-49/69, CAS: STL01805

Signal: 2

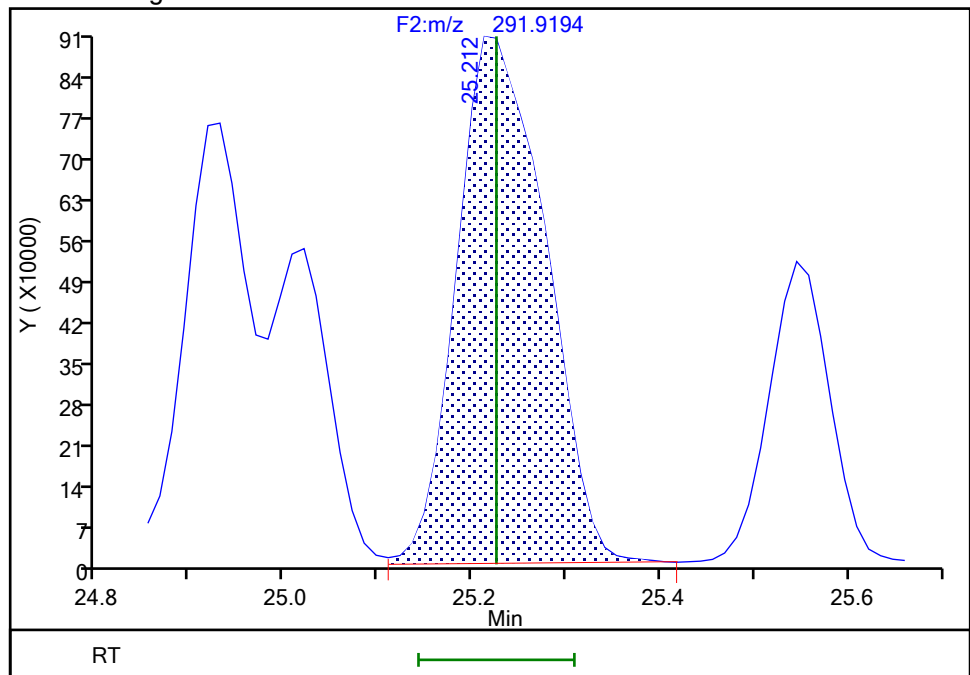
RT: 25.21  
Area: 5829549  
Amount: 101.3990  
Amount Units: pg/ul

## Processing Integration Results



RT: 25.21  
Area: 5920952  
Amount: 98.235687  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:24:21 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

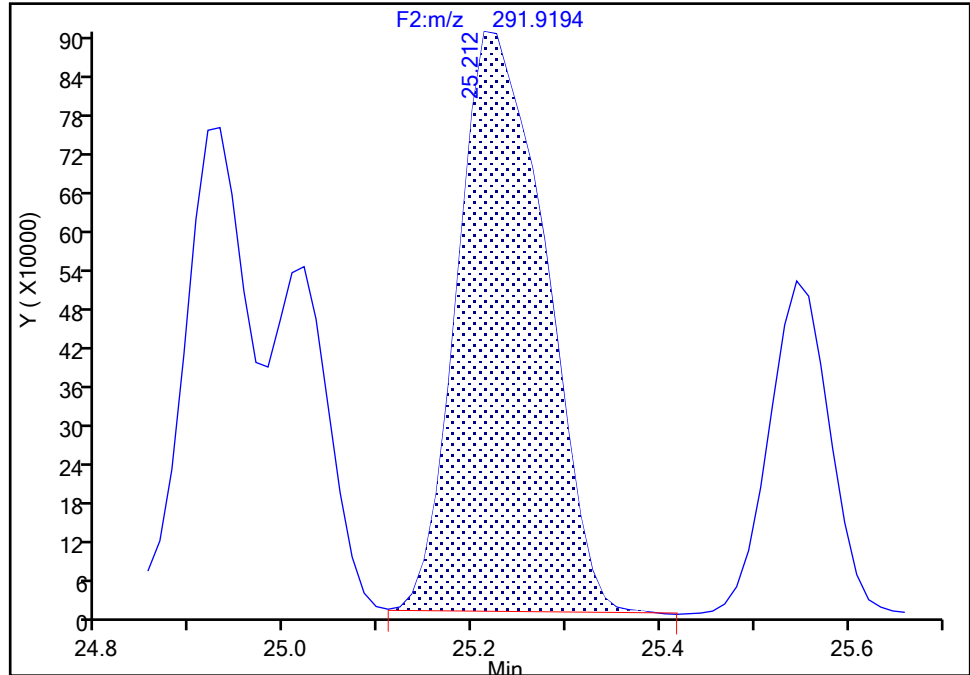
F2(21.81 :35.54 )

**PCB-49/69, CAS: STL01805**

Signal: 2

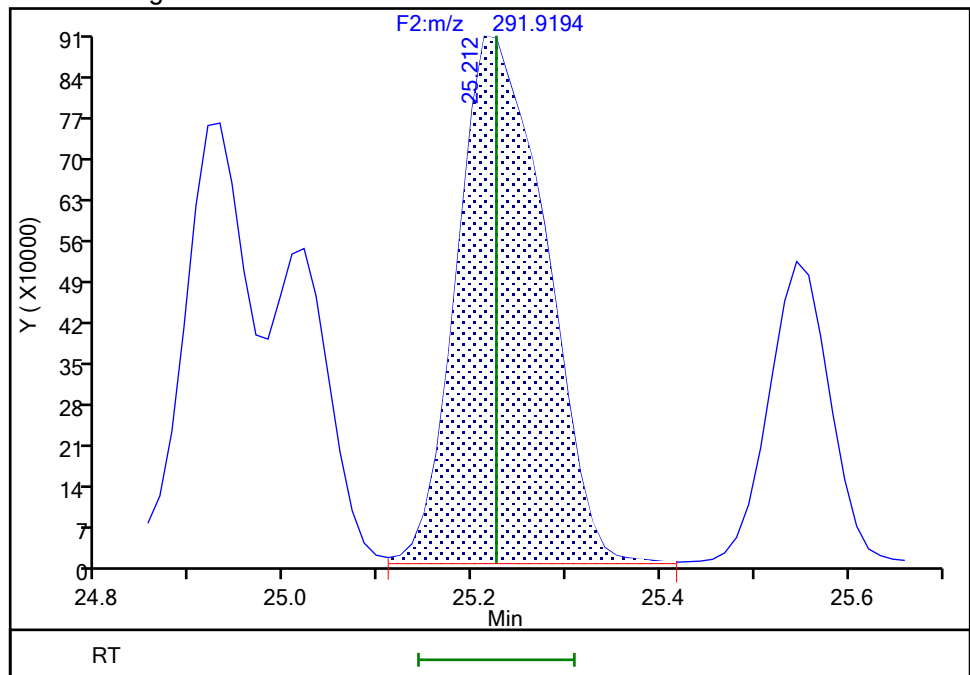
RT: 25.21  
Area: 5829549  
Amount: 101.3990  
Amount Units: pg/ul

## Processing Integration Results



RT: 25.21  
Area: 5920952  
Amount: 98.235687  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:24:45 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

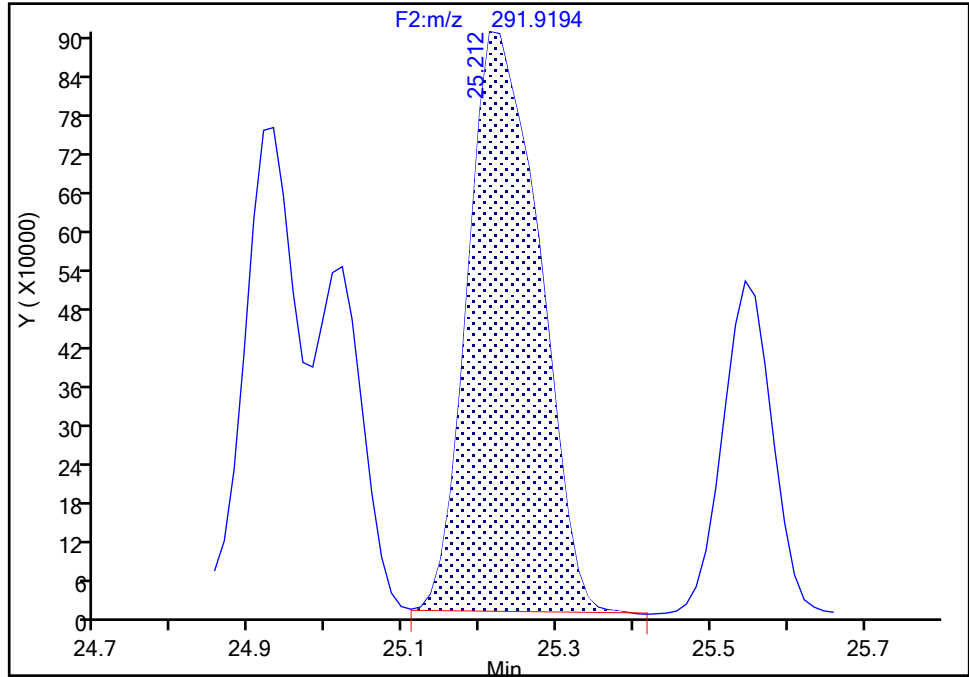
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Instrument ID: D2D  
Lims ID: IC L4  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-49/69, CAS: STL01805**

Signal: 3

RT: 25.23  
Area: 10399366  
Amount: 101.3990  
Amount Units: pg/ul

## Processing Integration Results



## Manual Integration Results

RT: 25.23  
Area: 10490769  
Amount: 98.235687  
Amount Units: pg/ul  
Reviewer: V4XA, 31-May-2024 21:24:45 -04:00:00 (UTC)  
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

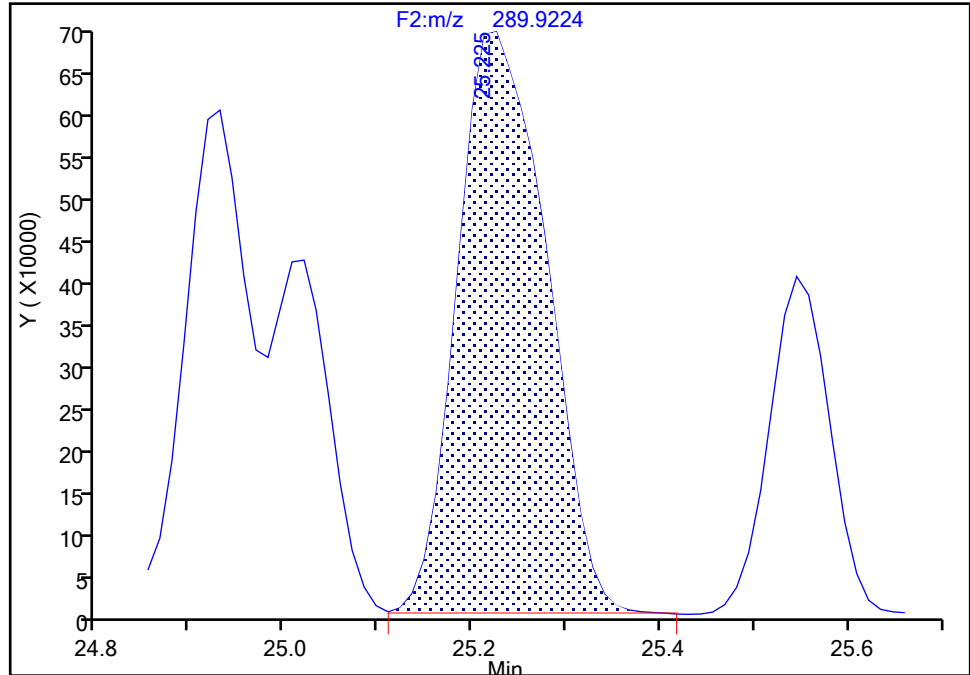
F2(21.81 :35.54 )

**PCB-49/69, CAS: STL01805**

Signal: 1

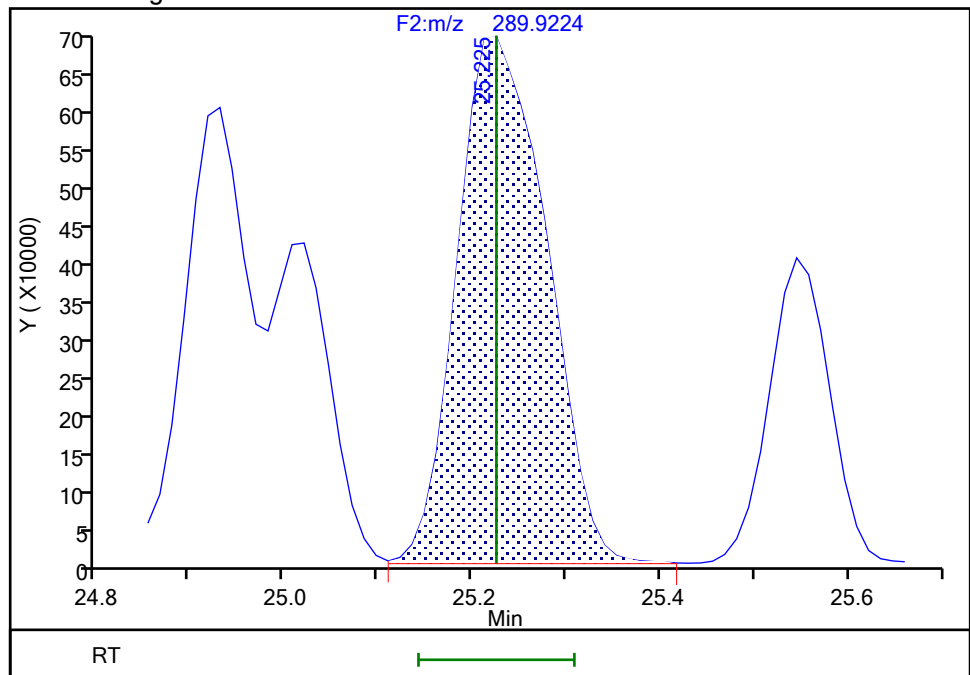
RT: 25.23  
Area: 4569817  
Amount: 101.3990  
Amount Units: pg/ul

## Processing Integration Results



RT: 25.23  
Area: 4569817  
Amount: 98.235687  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:24:47 -04:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

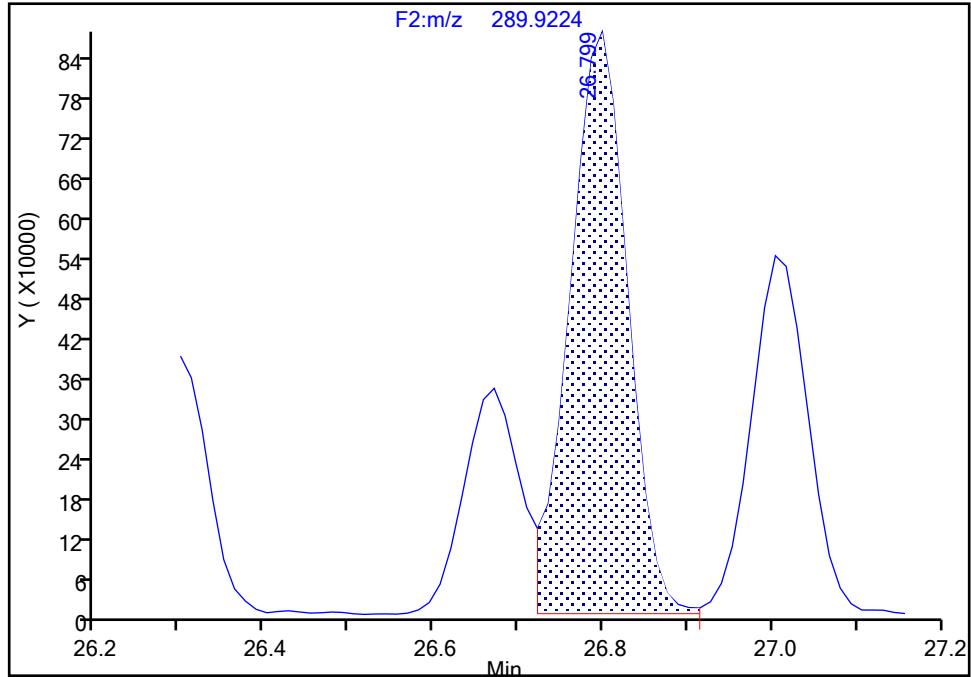
Detector F2(21.81 :35.54 )

PCB-40/41/71, CAS: STL02292

Signal: 1

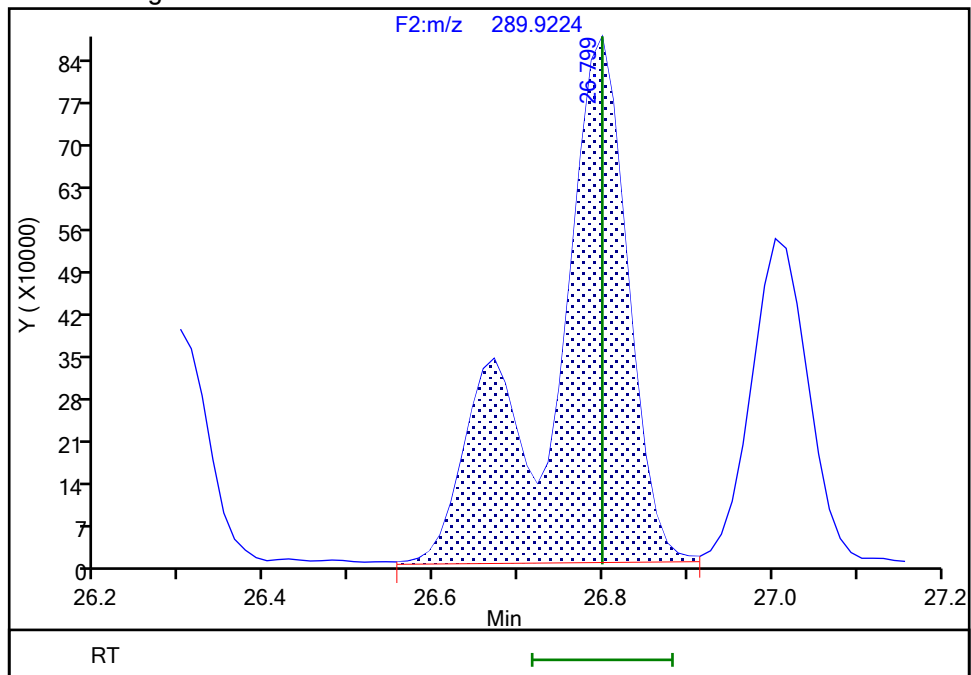
RT: 26.80  
Area: 4106860  
Amount: 120.2858  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.80  
Area: 5676547  
Amount: 144.2424  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:25:15 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline



## Eurofins Knoxville

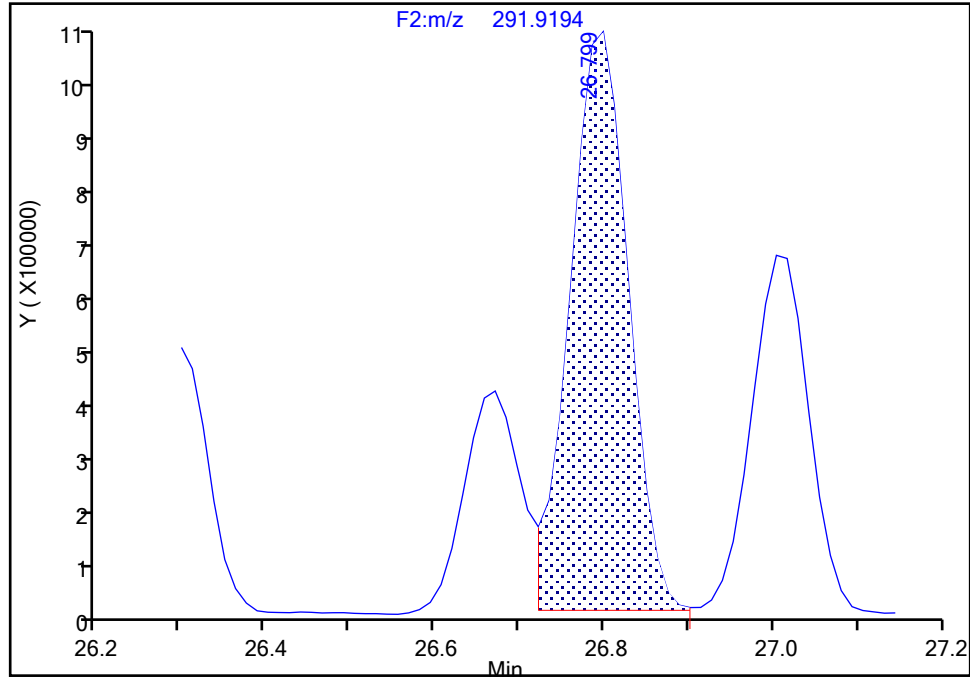
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Instrument ID: D2D  
Lims ID: IC L4  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-40/41/71, CAS: STL02292

Signal: 2

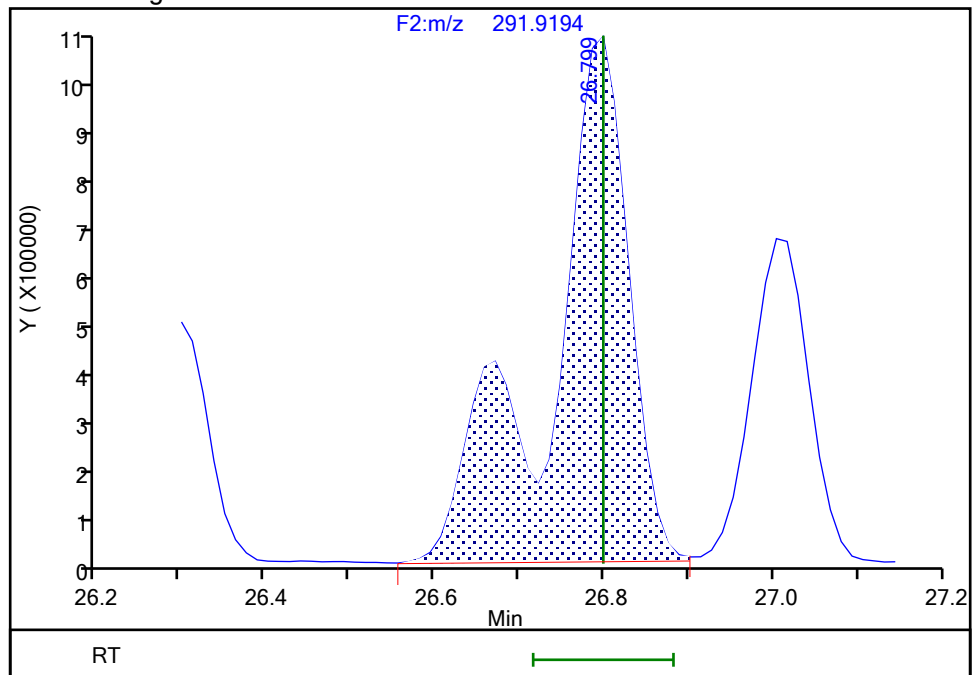
RT: 26.80  
Area: 5159837  
Amount: 120.2858  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.80  
Area: 7100823  
Amount: 144.2424  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:25:21 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

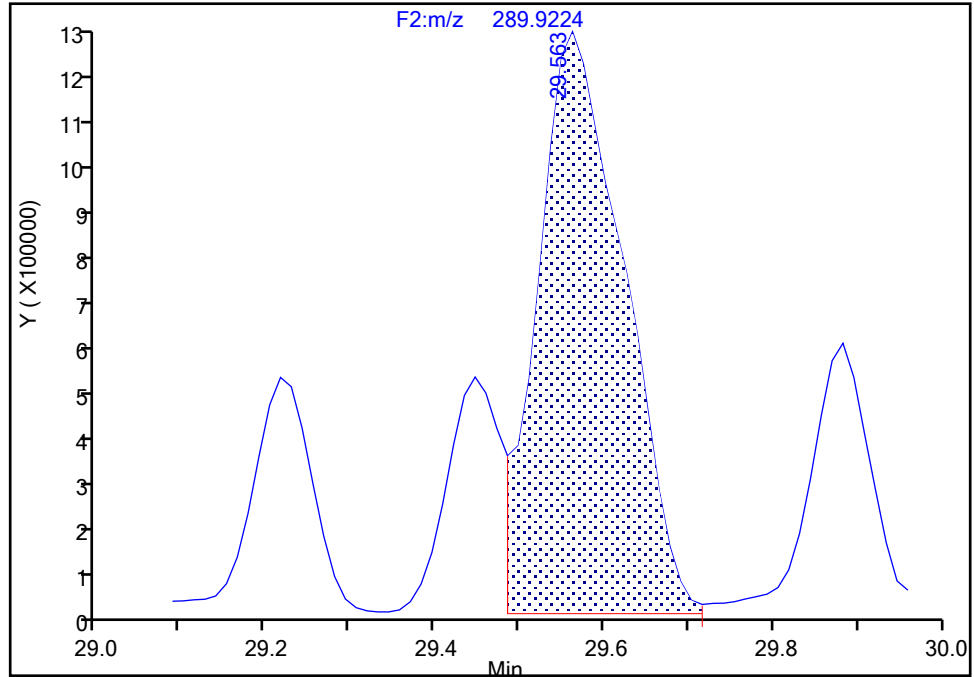
Detector F2(21.81 :35.54 )

**PCB-61/70/74/76, CAS: STL01808**

Signal: 1

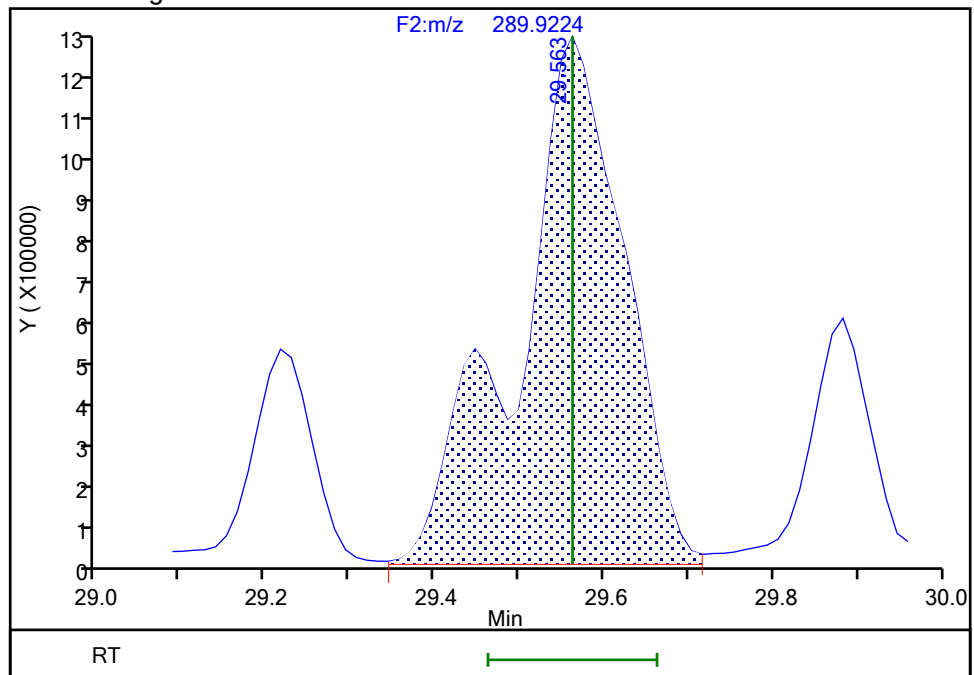
RT: 29.56  
Area: 8639683  
Amount: 171.0726  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.56  
Area: 10773903  
Amount: 192.4208  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:25:38 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

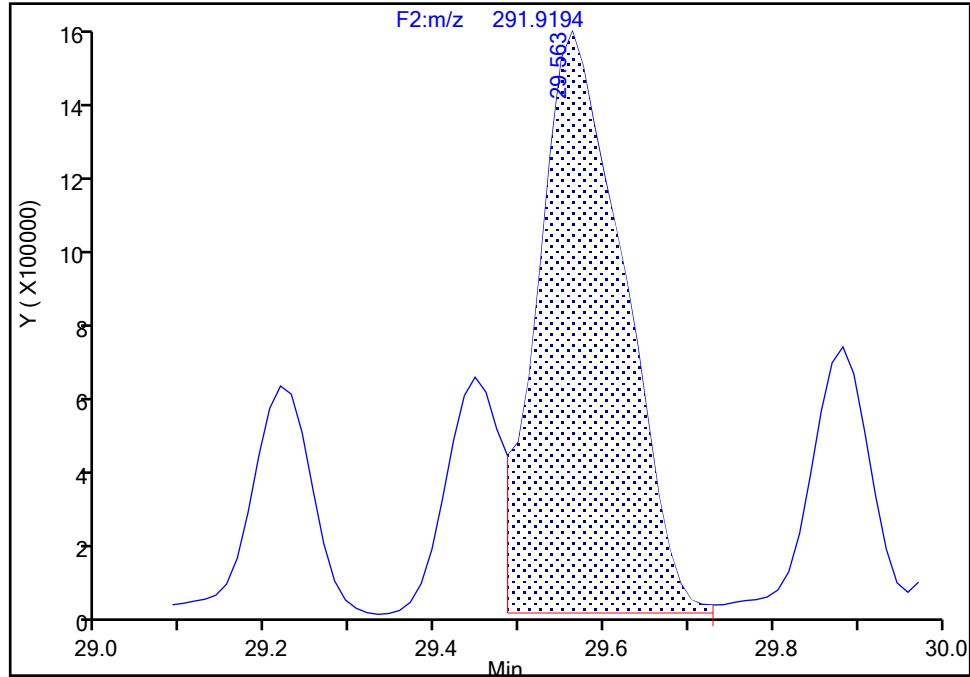
Detector F2(21.81 :35.54 )

**PCB-61/70/74/76, CAS: STL01808**

Signal: 2

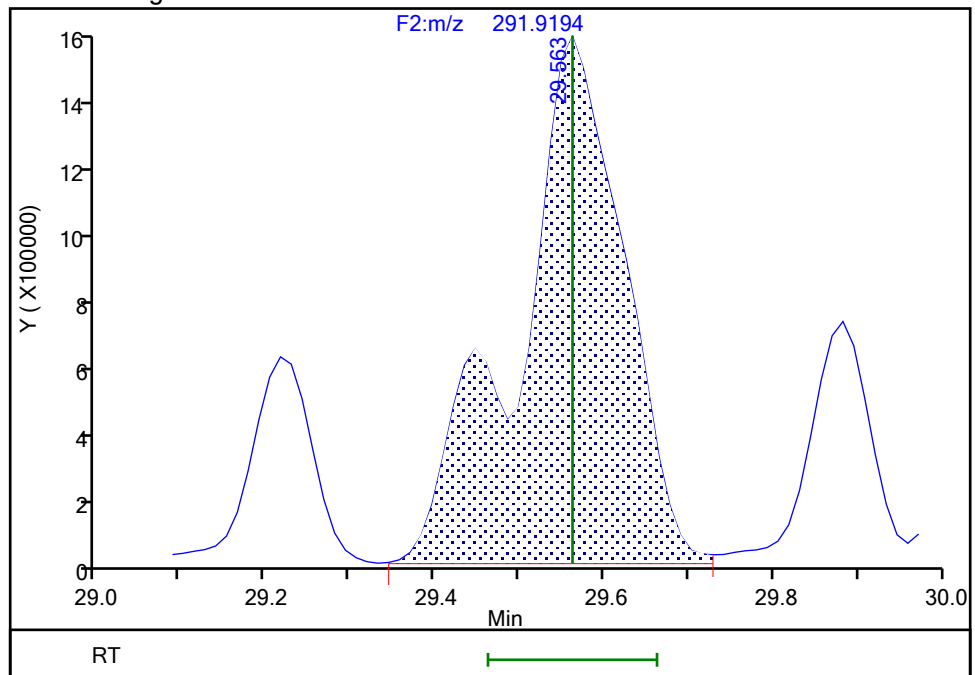
RT: 29.56  
Area: 10760126  
Amount: 171.0726  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.56  
Area: 13481106  
Amount: 192.4208  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:25:46 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

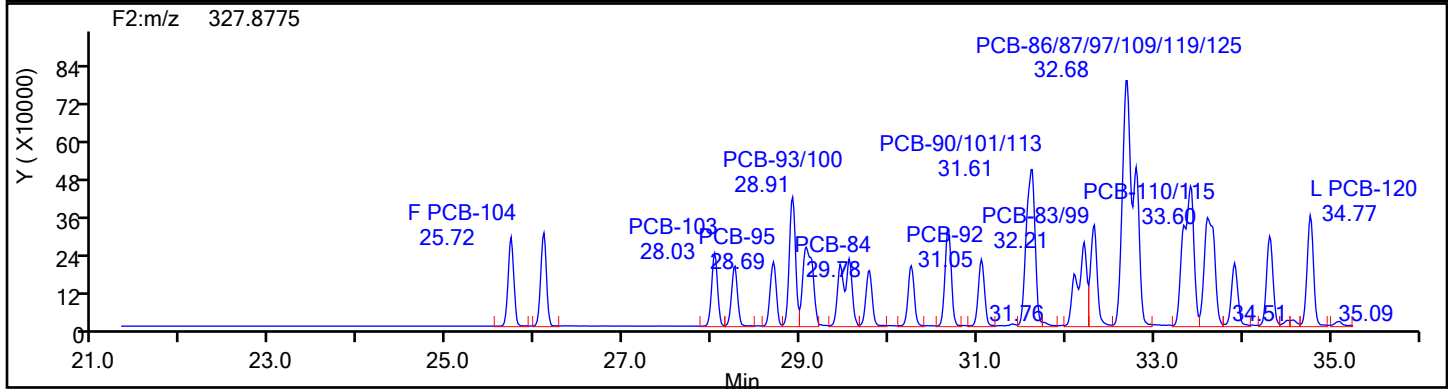
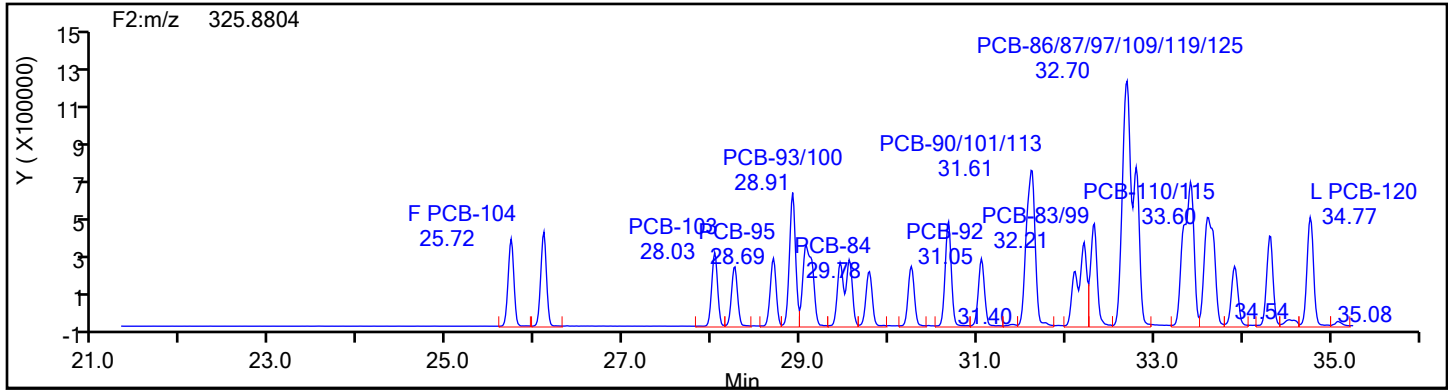
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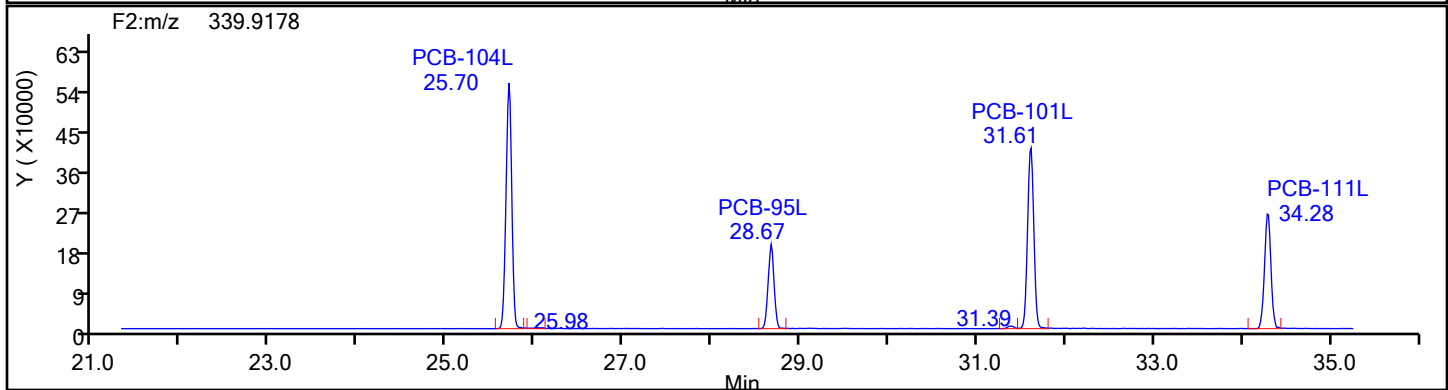
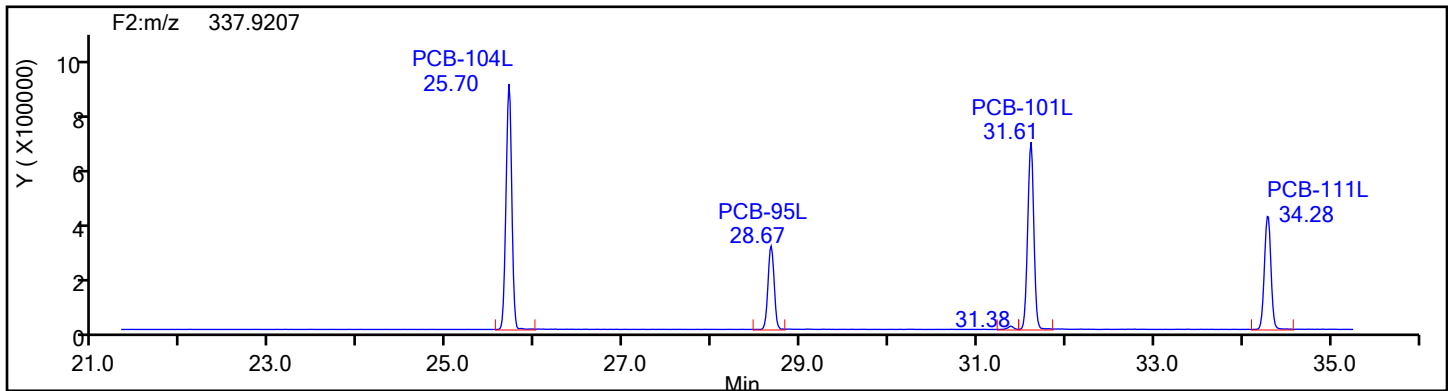
9/6/2024  
4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 4  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2

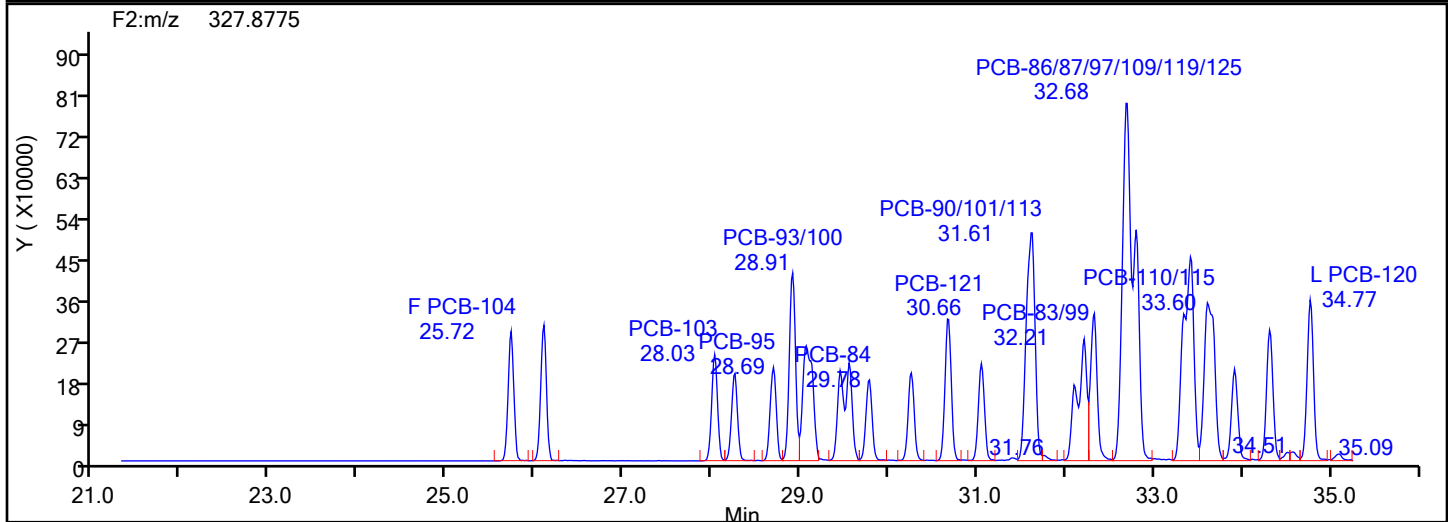
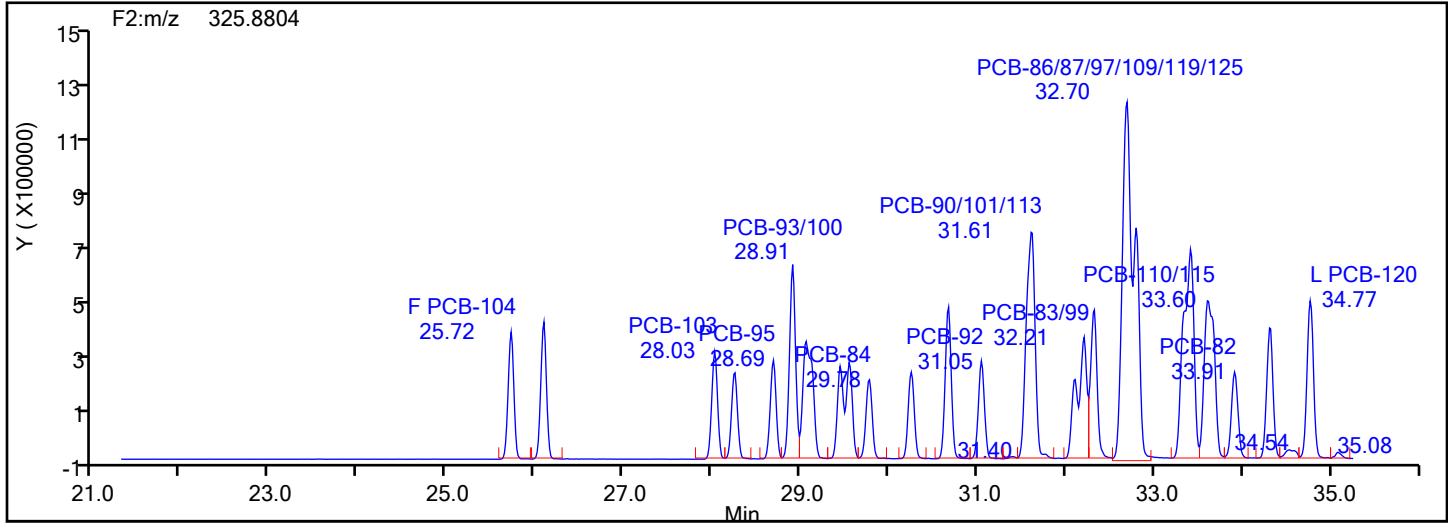


## PePCB F2 Standards

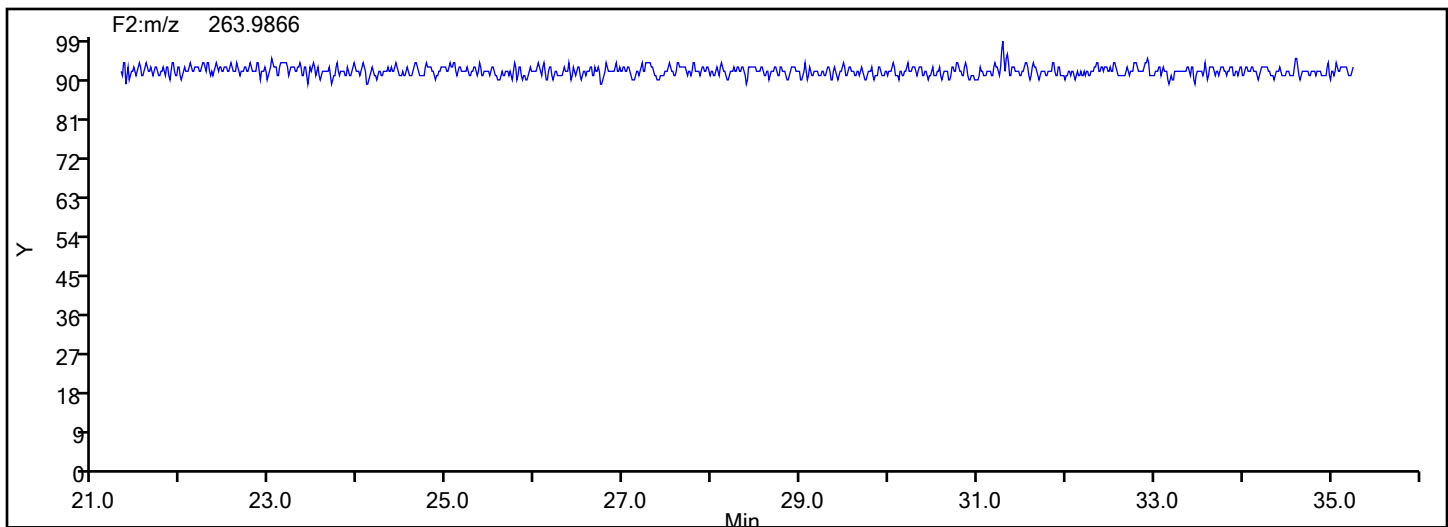


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 4  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2



## PePCB F2 Lock Mass



## Eurofins Knoxville

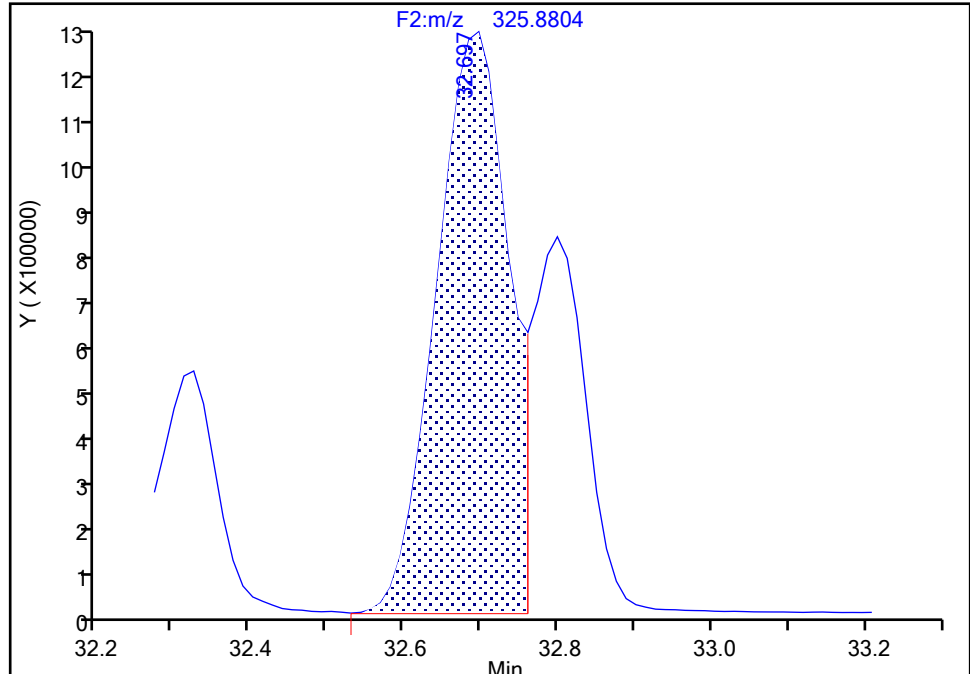
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Instrument ID: D2D  
Lims ID: IC L4  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-86/87/97/109/119/125, CAS: STL02295

Signal: 1

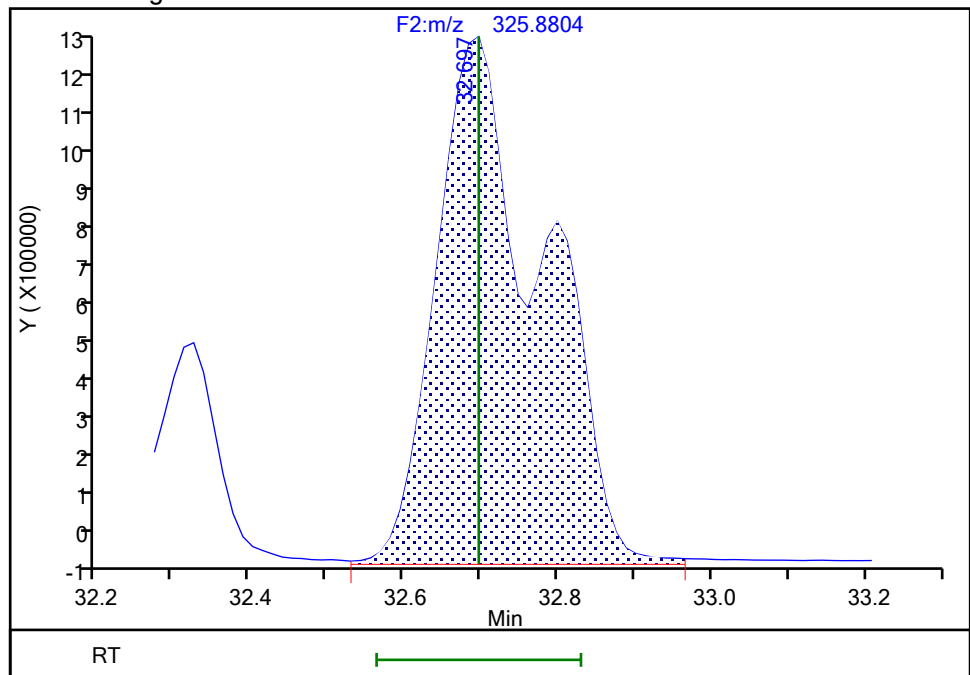
RT: 32.70  
Area: 8077860  
Amount: 221.5580  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.70  
Area: 11933595  
Amount: 286.9480  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:26:52 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

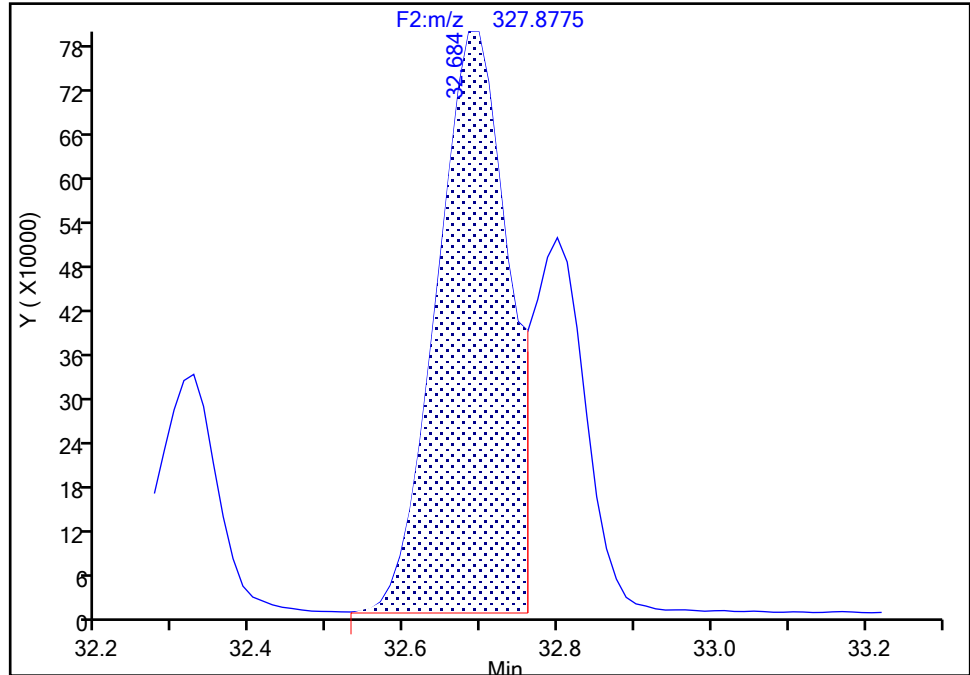
F2(21.81 :35.54 )

**PCB-86/87/97/109/119/125, CAS: STL02295**

Signal: 2

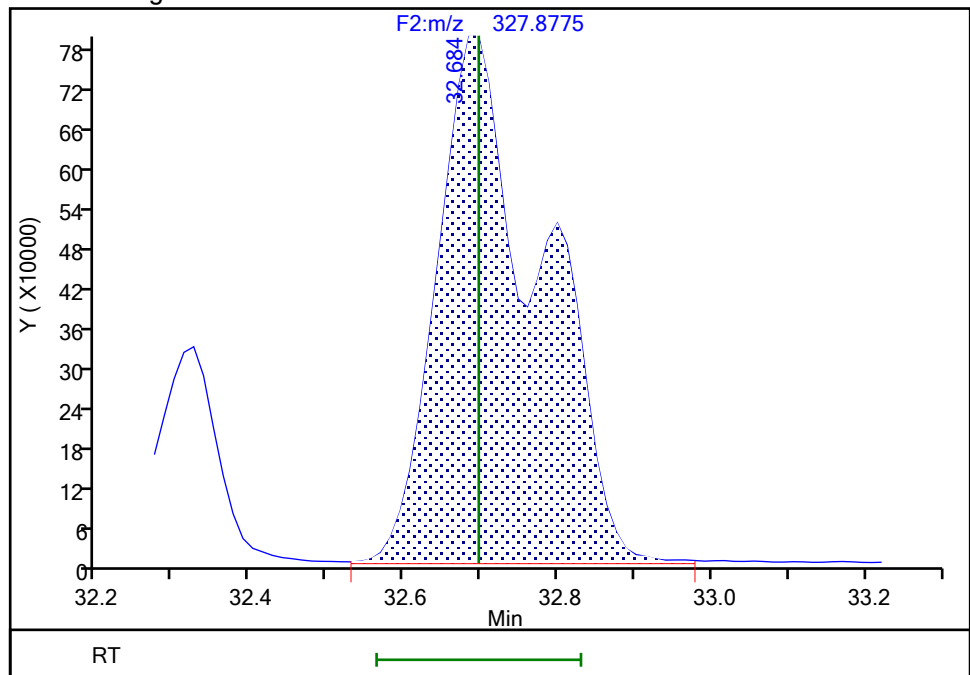
RT: 32.68  
Area: 5097479  
Amount: 221.5580  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.68  
Area: 7465580  
Amount: 286.9480  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:27:06 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

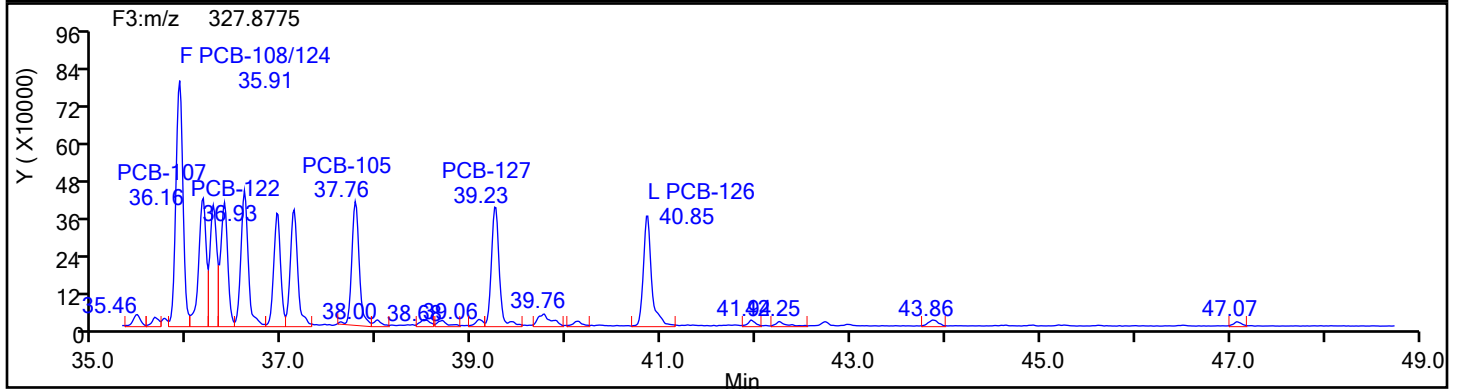
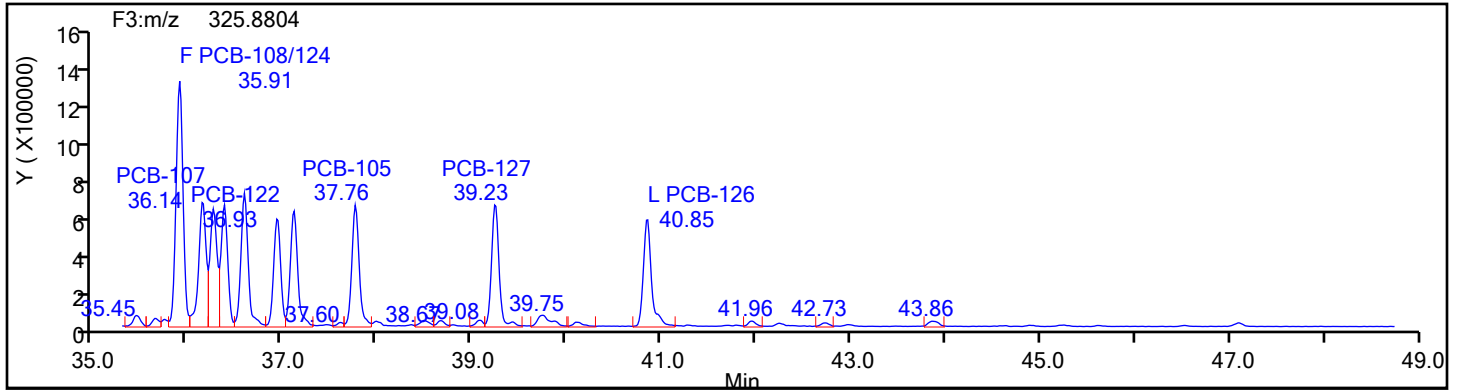
Worklist#: 87130

Sample Line#: 4

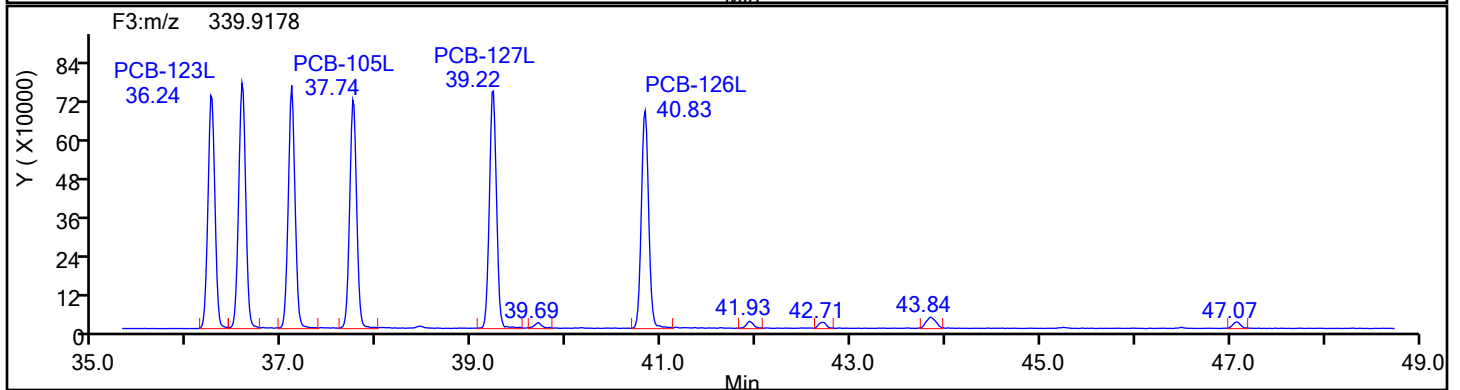
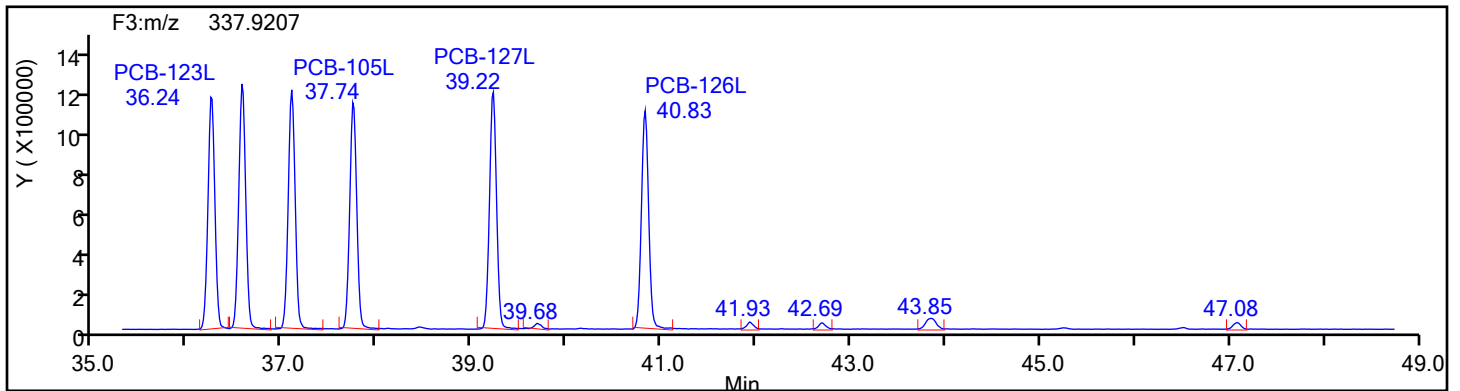
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



PePCB F3 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

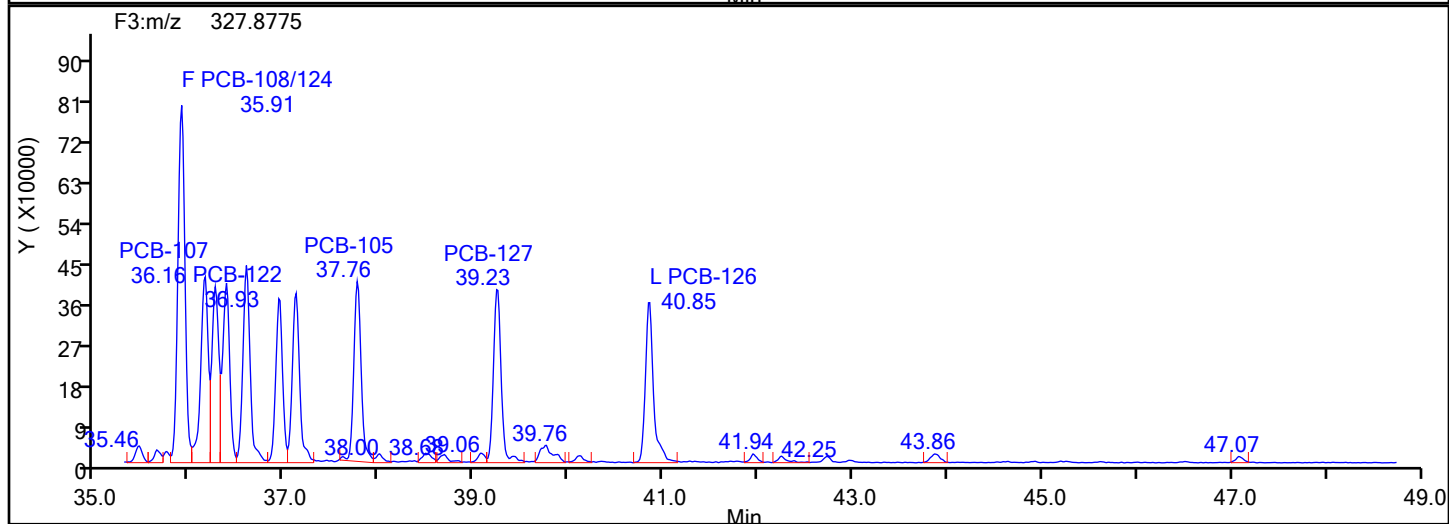
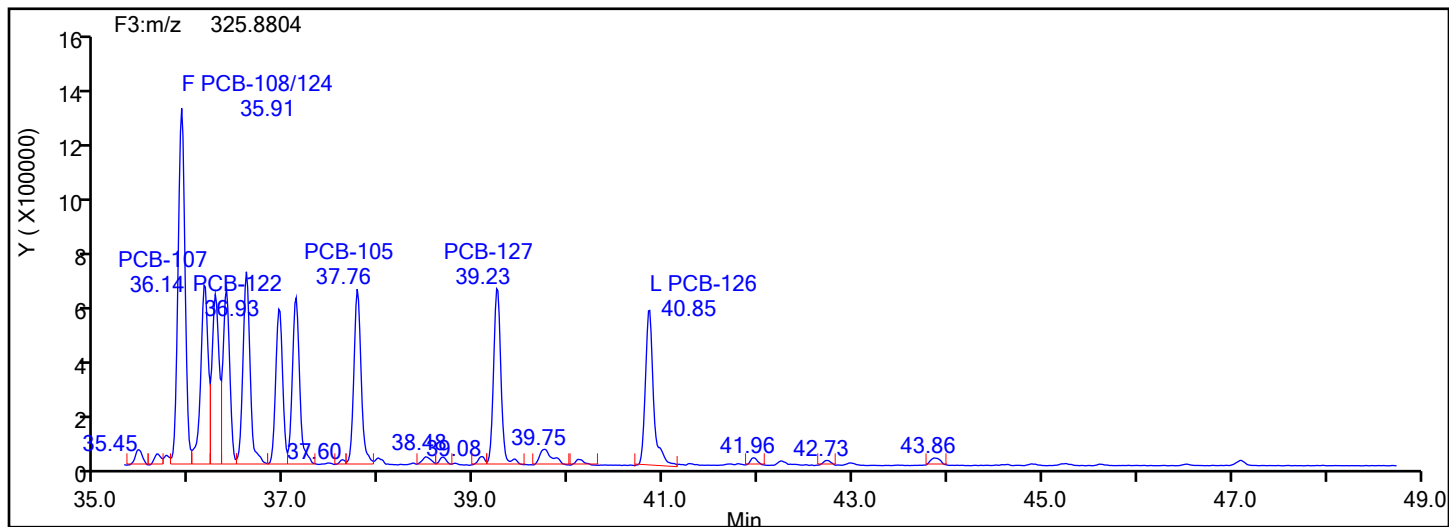
Worklist#: 87130

Sample Line#: 4

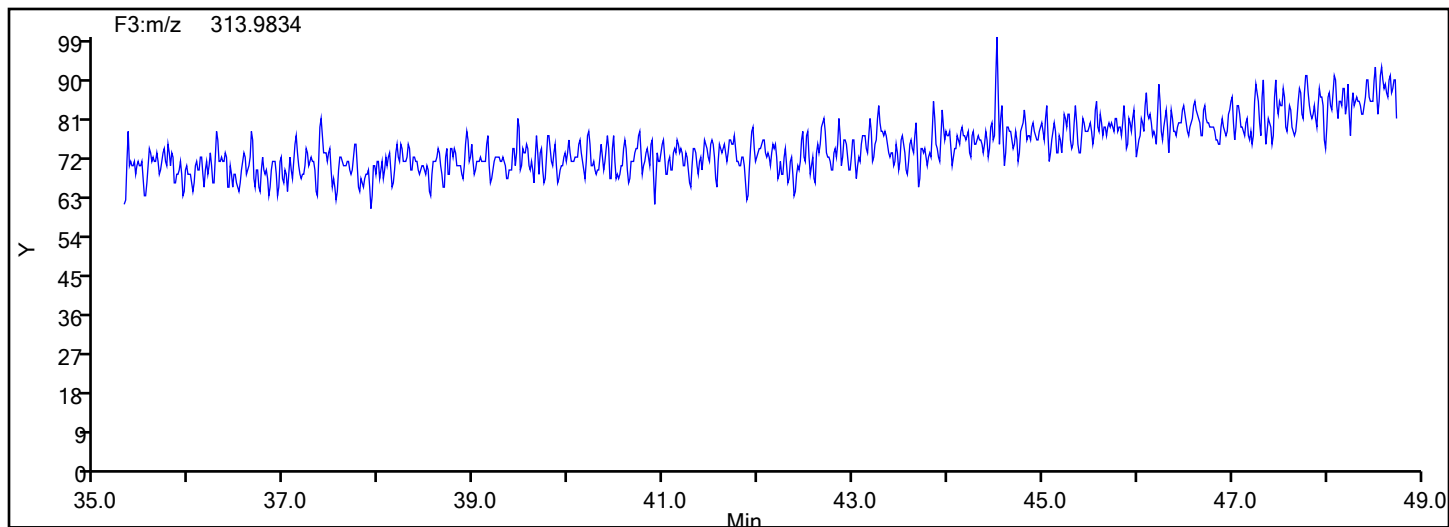
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



## PePCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

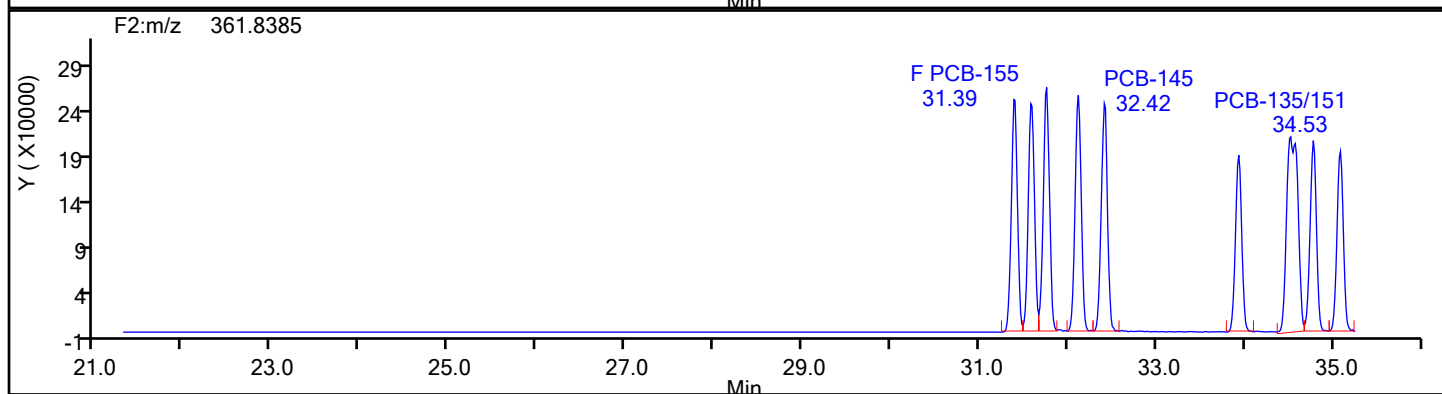
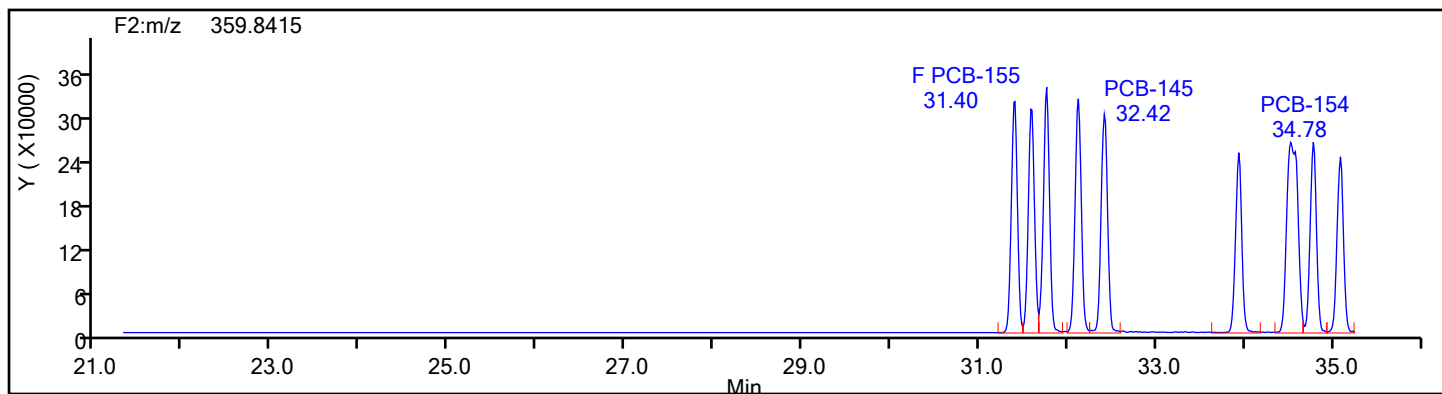
Worklist#: 87130

Sample Line#: 4

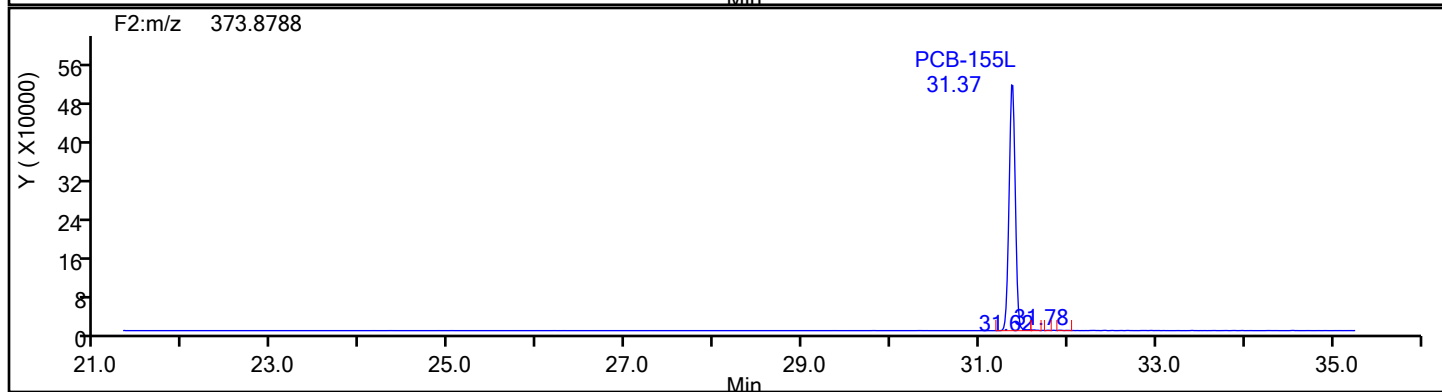
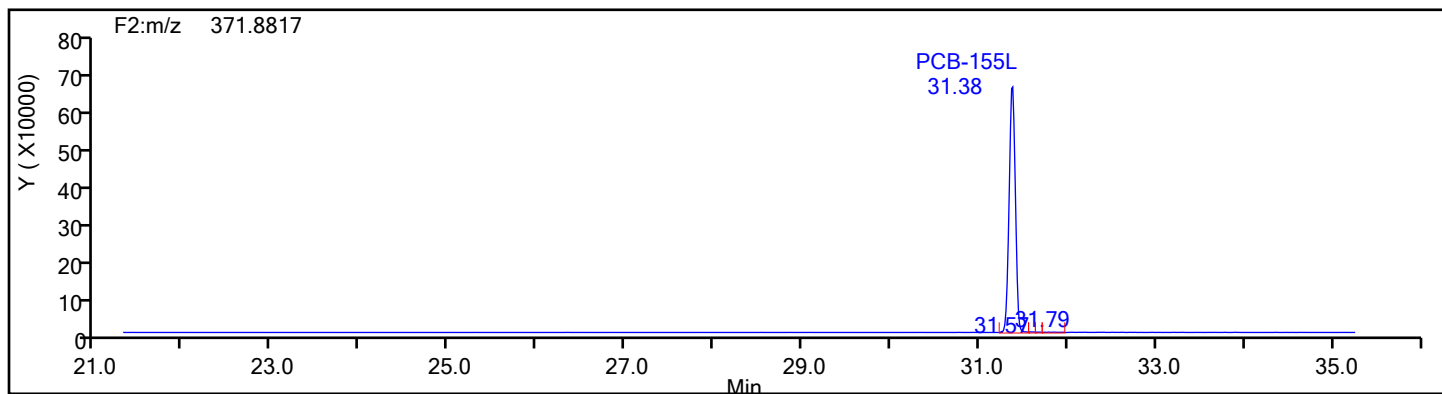
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F2

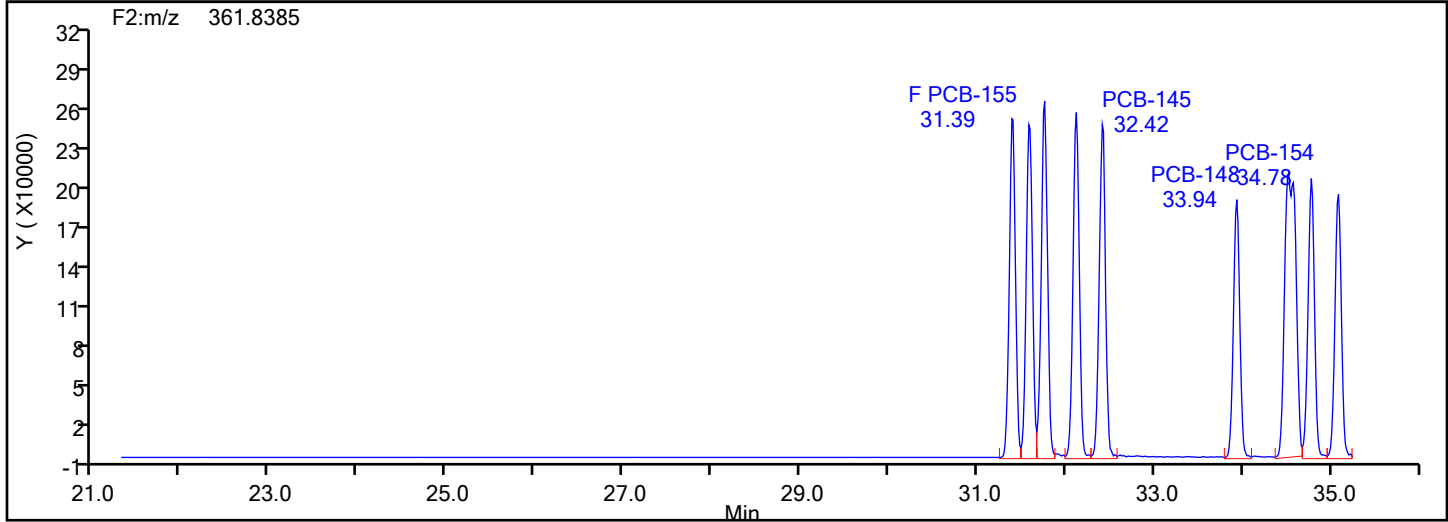
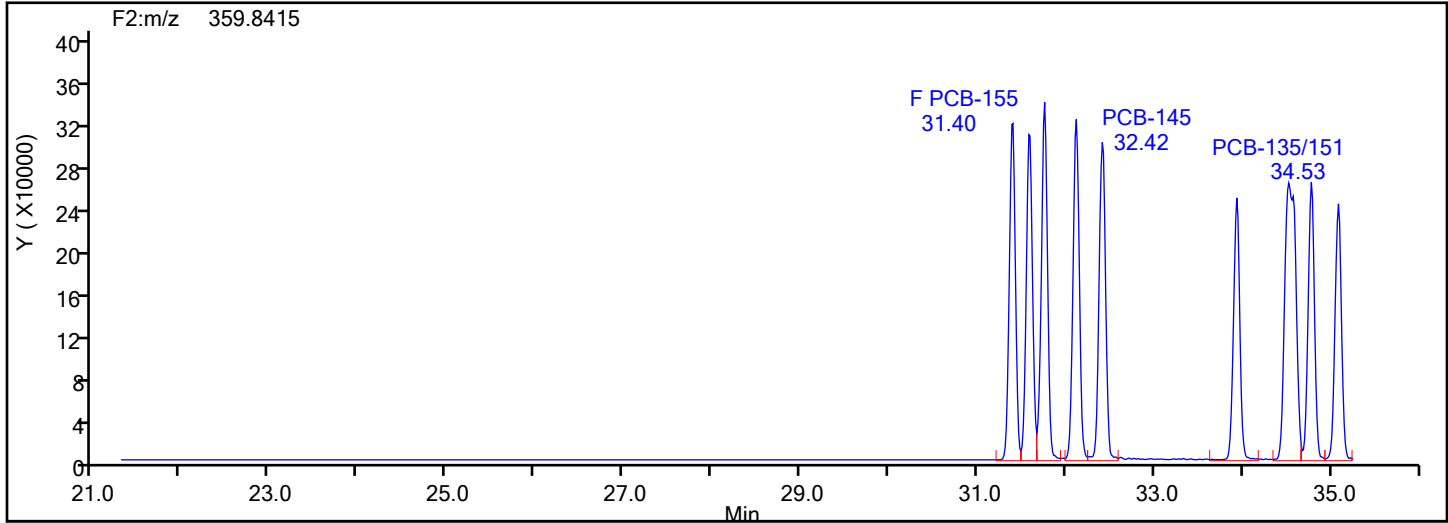


HxPCB F2 Standards

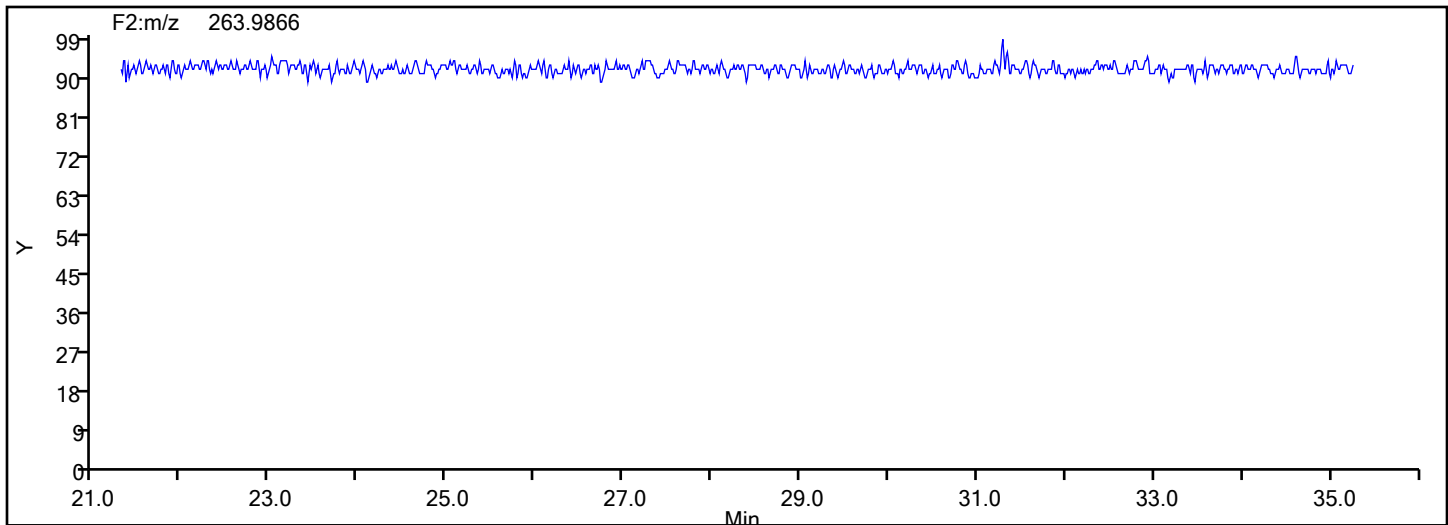


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 4  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2



## HxPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

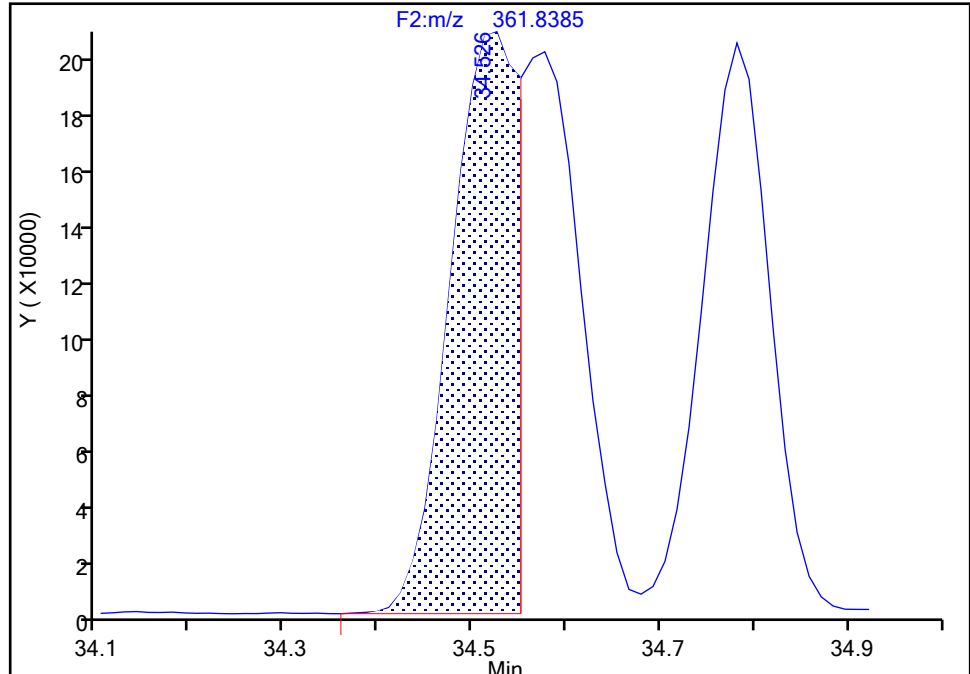
Detector F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 2

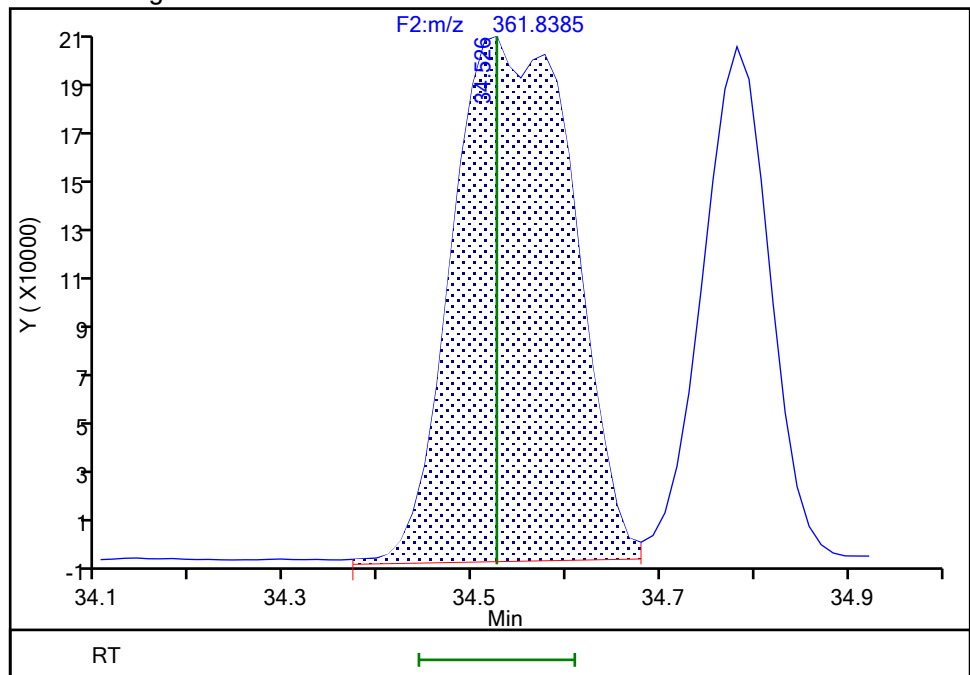
RT: 34.53  
Area: 1006492  
Amount: 89.546723  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.53  
Area: 1875309  
Amount: 99.842500  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 20:54:13 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

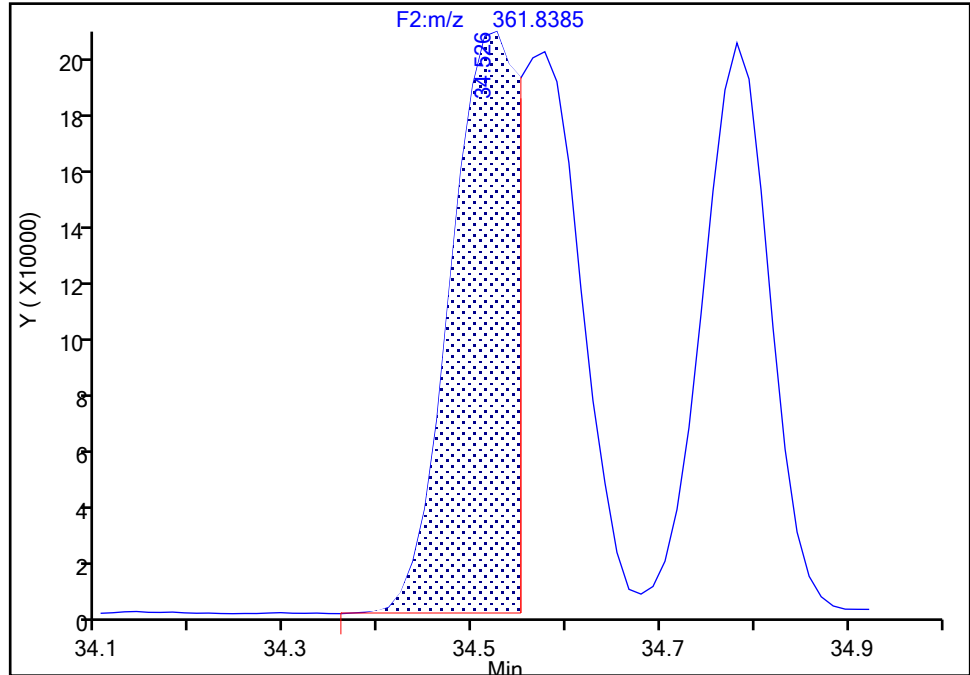
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Instrument ID: D2D  
Lims ID: IC L4  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 2

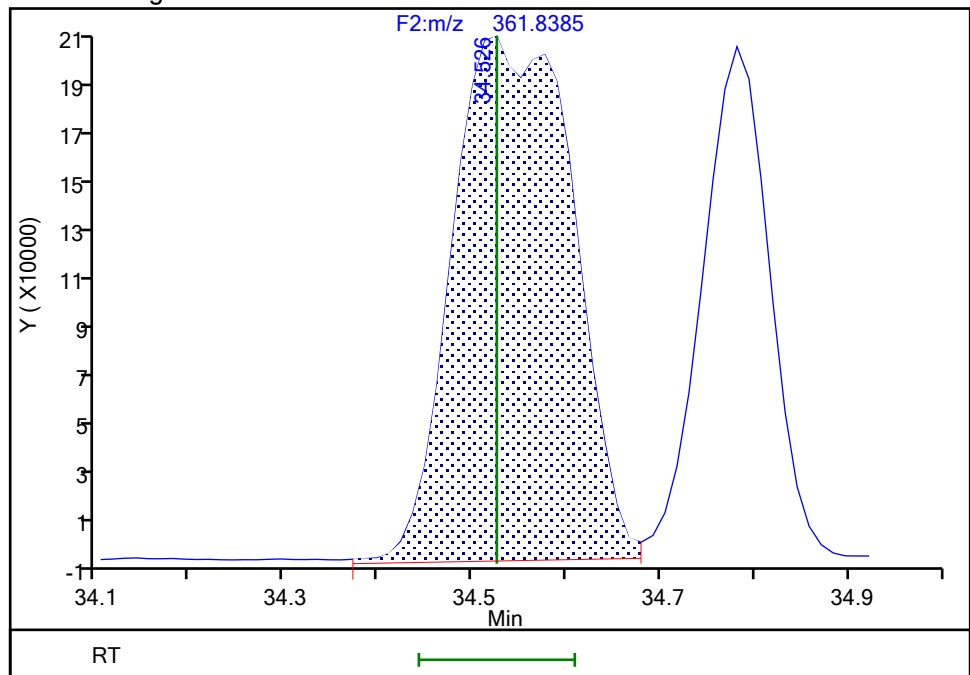
RT: 34.53  
Area: 1006492  
Amount: 89.546723  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.53  
Area: 1875309  
Amount: 99.842500  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 20:54:17 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

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9/6/2024  
4:19:54 PM

## Eurofins Knoxville

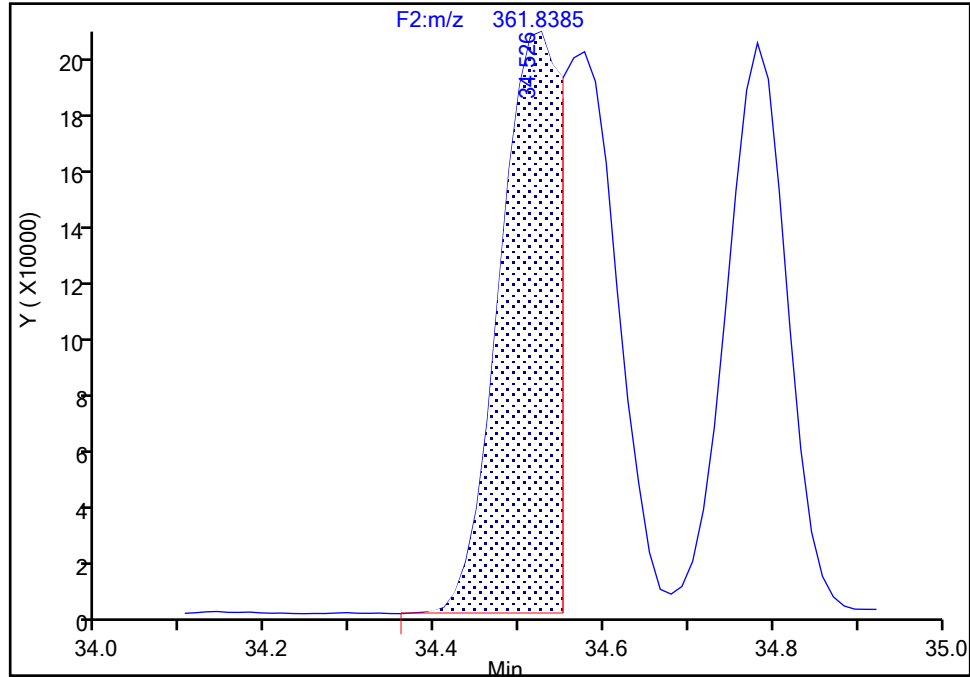
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Instrument ID: D2D  
Lims ID: IC L4  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 3

RT: 34.53  
Area: 3323365  
Amount: 89.546723  
Amount Units: pg/ul

## Processing Integration Results



## Manual Integration Results

RT: 34.53  
Area: 4192182  
Amount: 99.842500  
Amount Units: pg/ul  
Reviewer: V4XA, 31-May-2024 20:54:17 -04:00:00 (UTC)  
Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

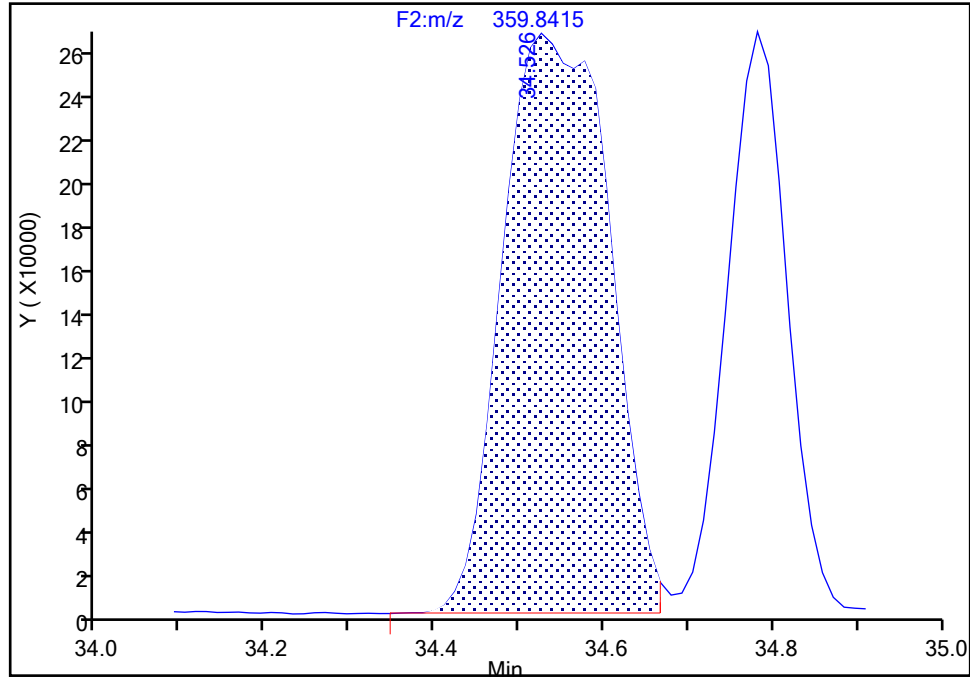
Detector F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 1

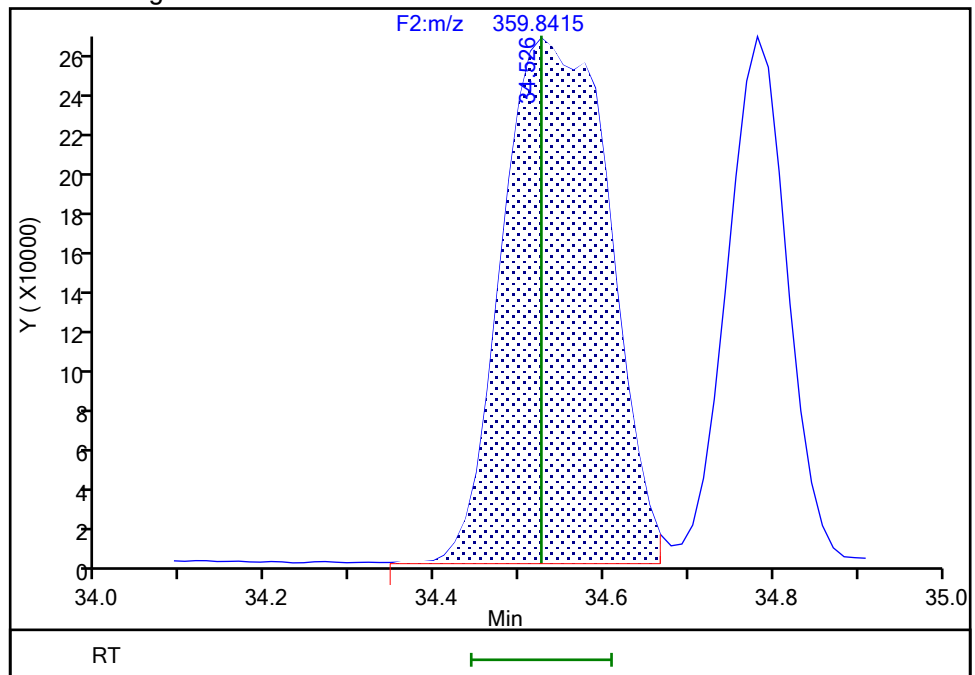
RT: 34.53  
Area: 2316873  
Amount: 89.546723  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.53  
Area: 2316873  
Amount: 99.842500  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 20:54:19 -04:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

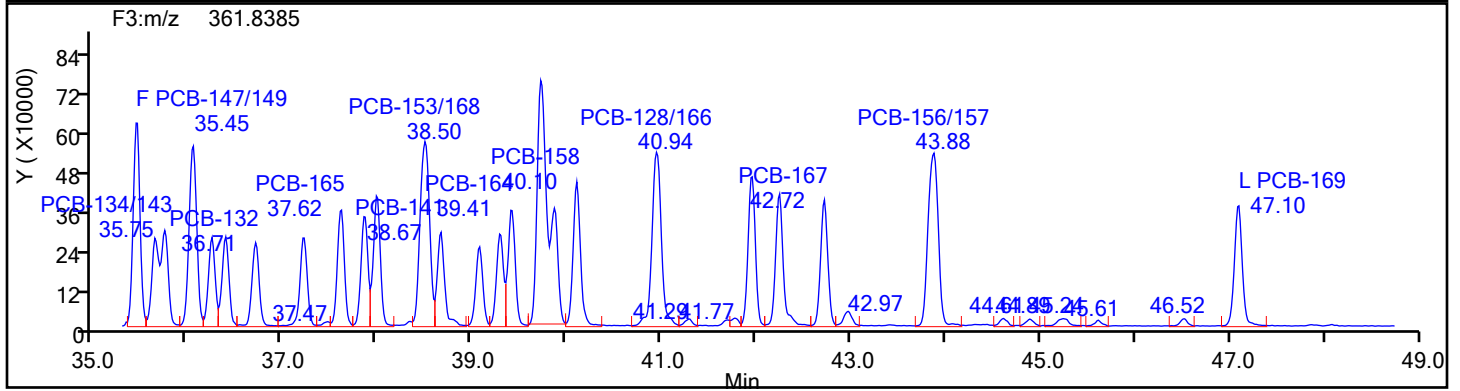
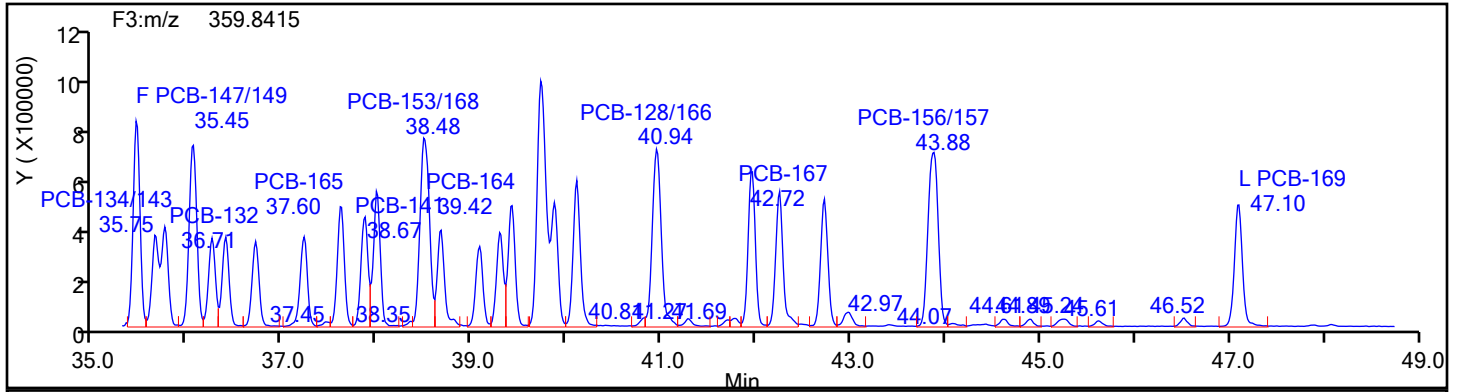
Worklist#: 87130

Sample Line#: 4

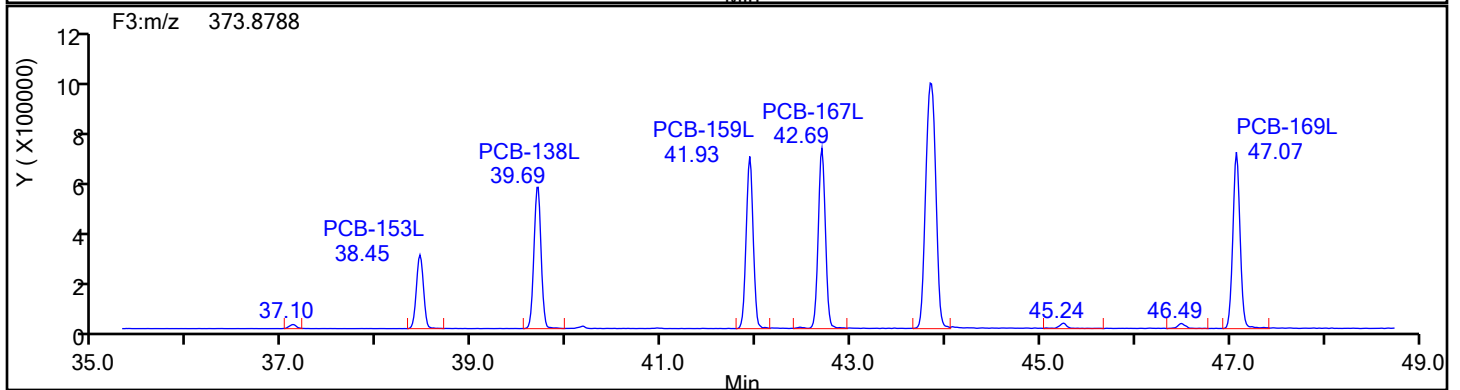
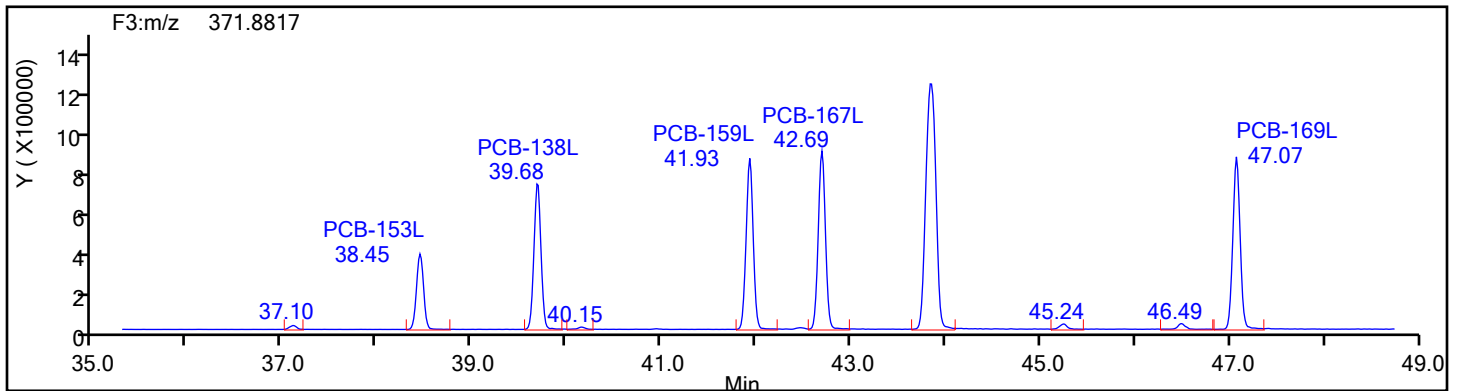
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



HxPCB F3 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

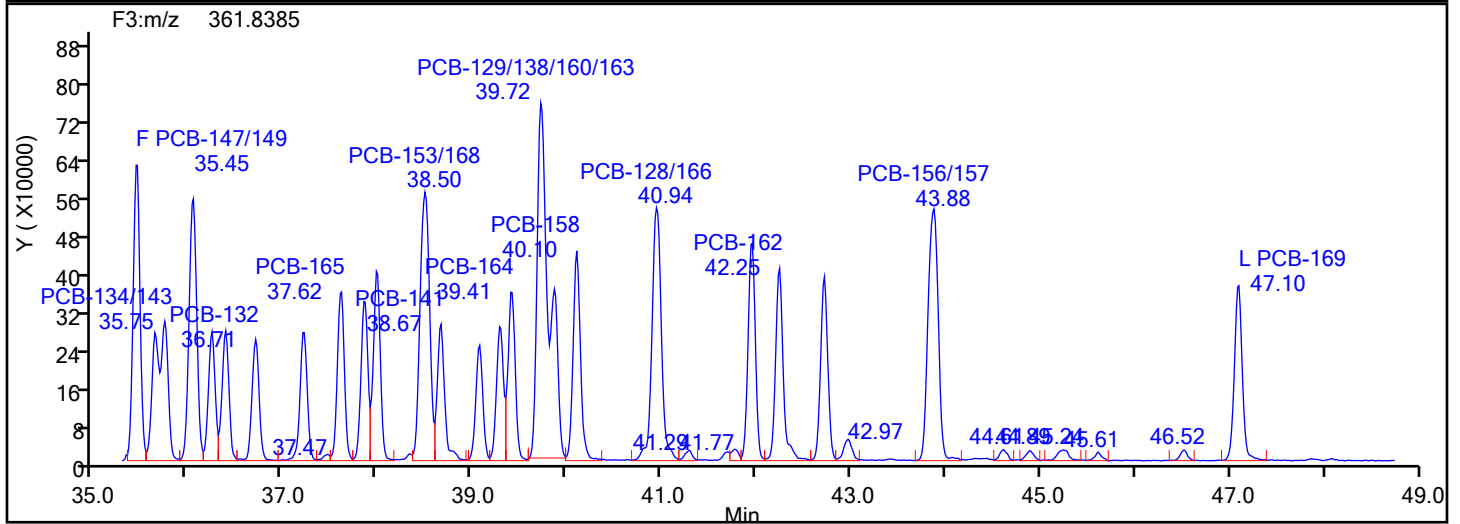
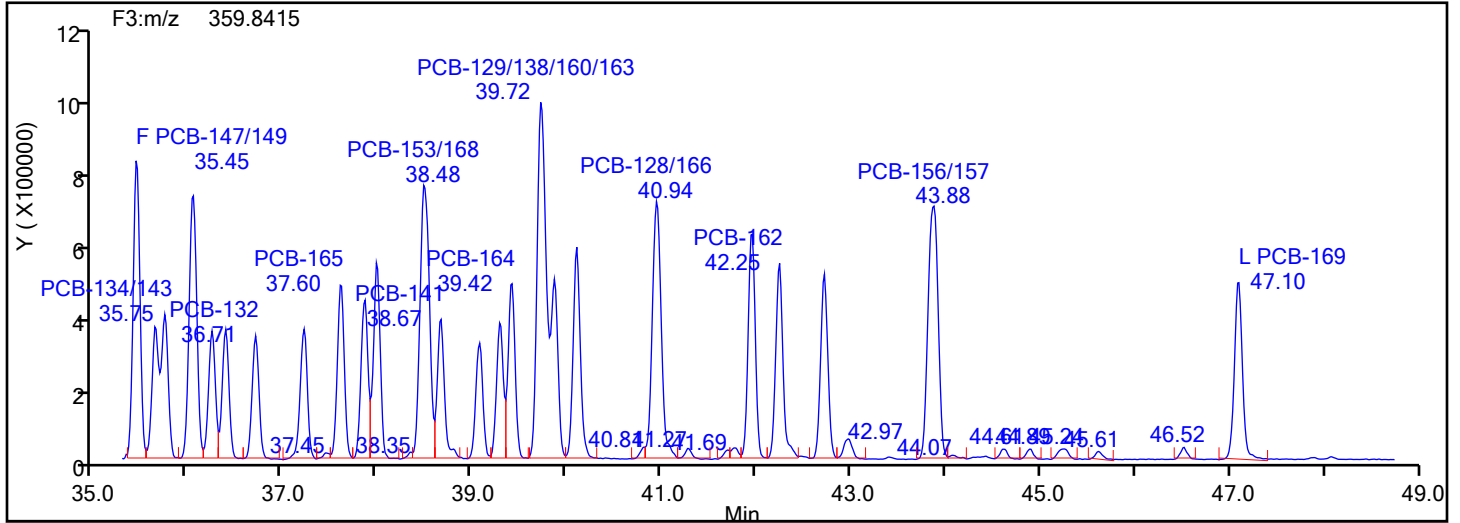
Worklist#: 87130

Sample Line#: 4

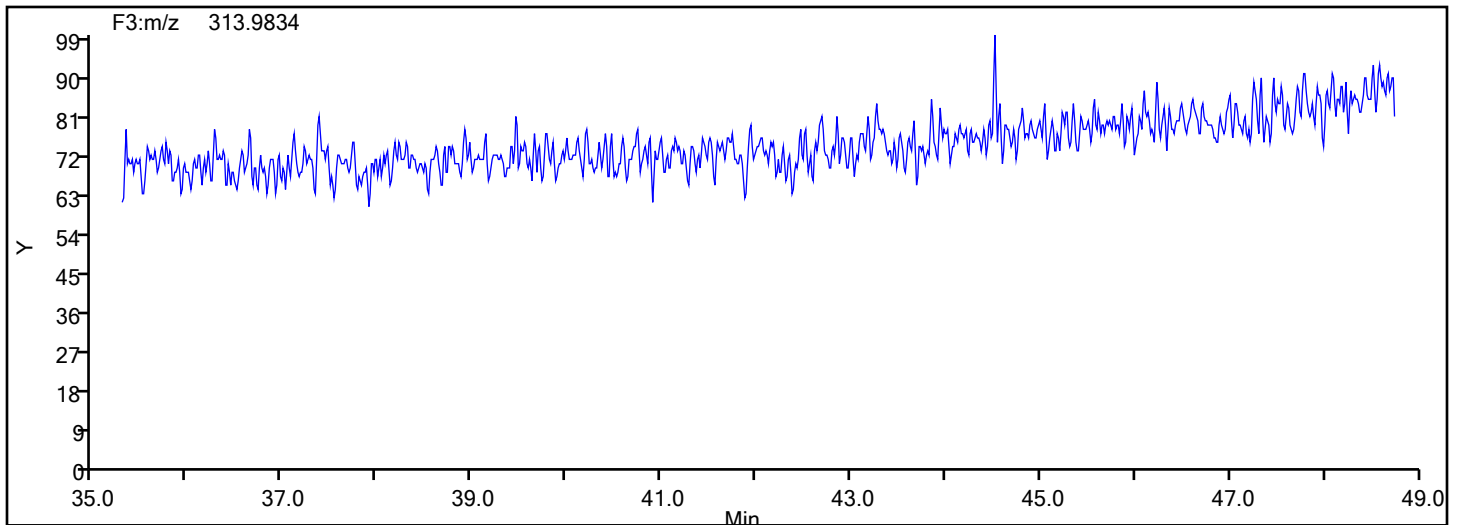
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



## HxPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

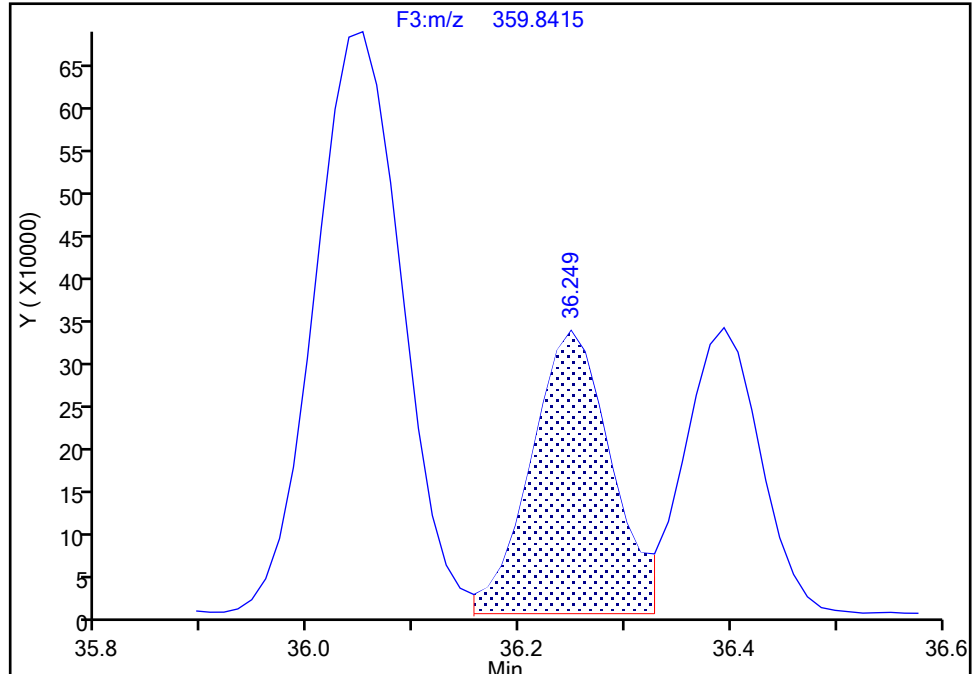
Detector F3(35.64 :49.10 )

**PCB-131, CAS: 61798-70-7**

Signal: 1

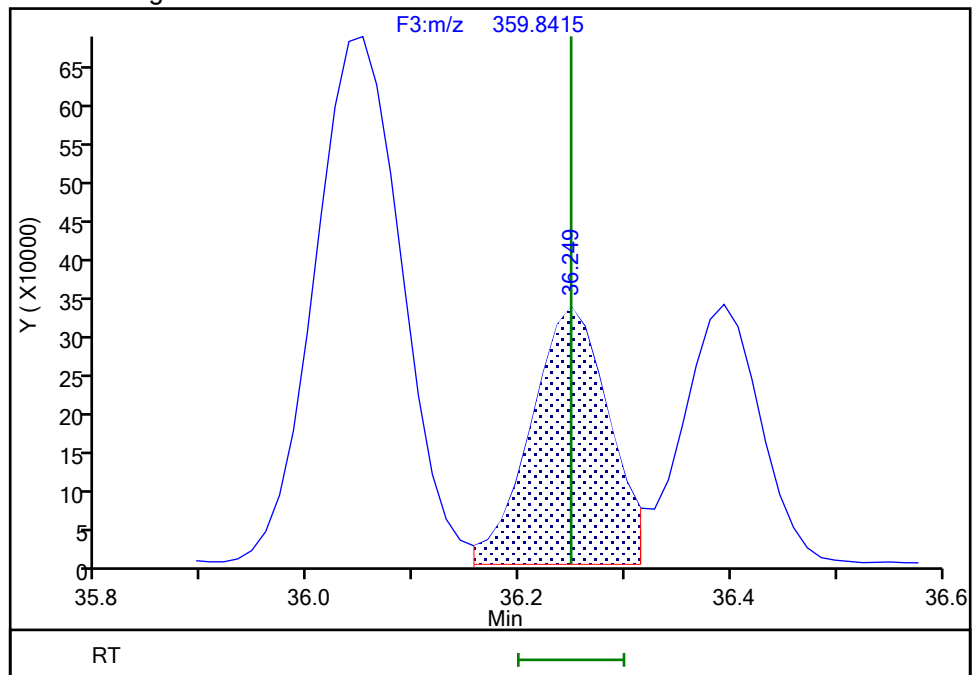
RT: 36.25  
Area: 1750783  
Amount: 48.362613  
Amount Units: pg/ul

## Processing Integration Results



RT: 36.25  
Area: 1687175  
Amount: 49.486092  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:37:53 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

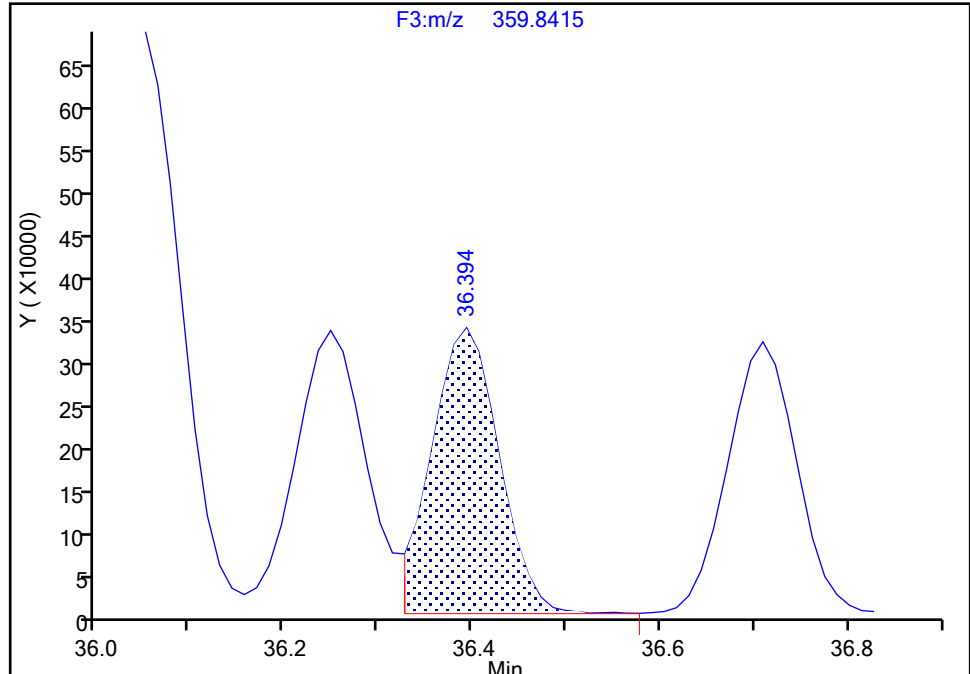
Detector F3(35.64 :49.10 )

**PCB-142, CAS: 41411-61-4**

Signal: 1

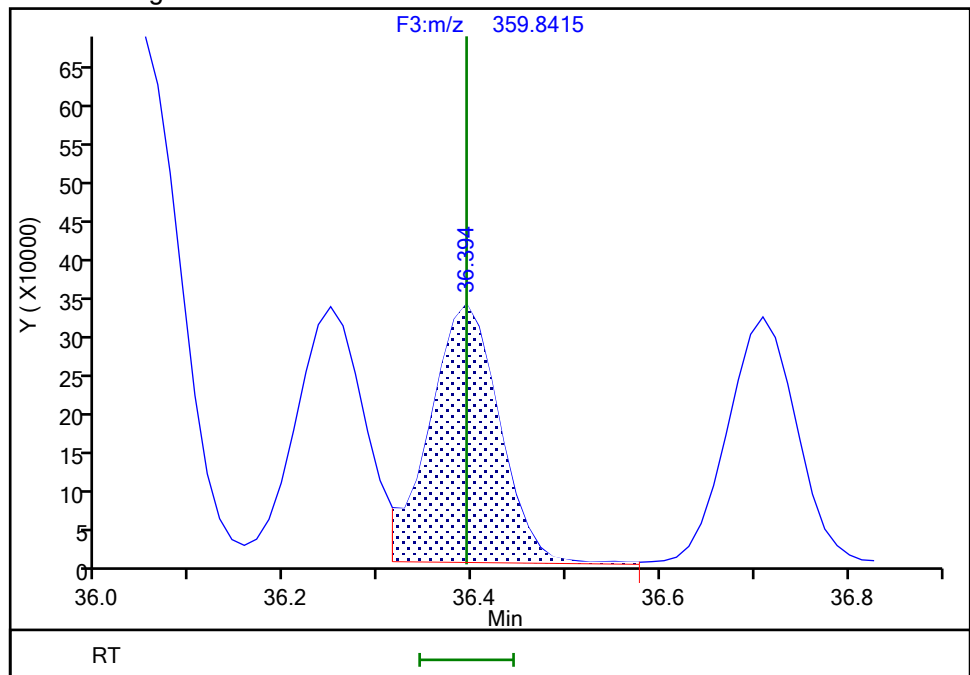
RT: 36.39  
Area: 1682262  
Amount: 49.938791  
Amount Units: pg/ul

## Processing Integration Results



RT: 36.39  
Area: 1733270  
Amount: 51.034948  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:37:53 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

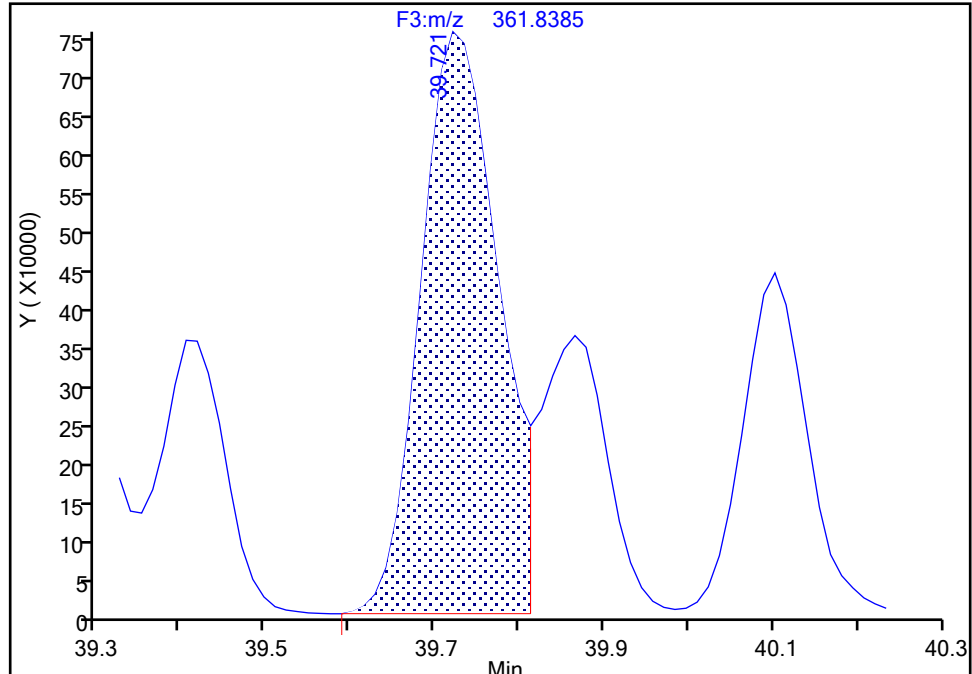
Detector F3(35.64 :49.10 )

**PCB-129/138/160/163, CAS: STL02296**

Signal: 2

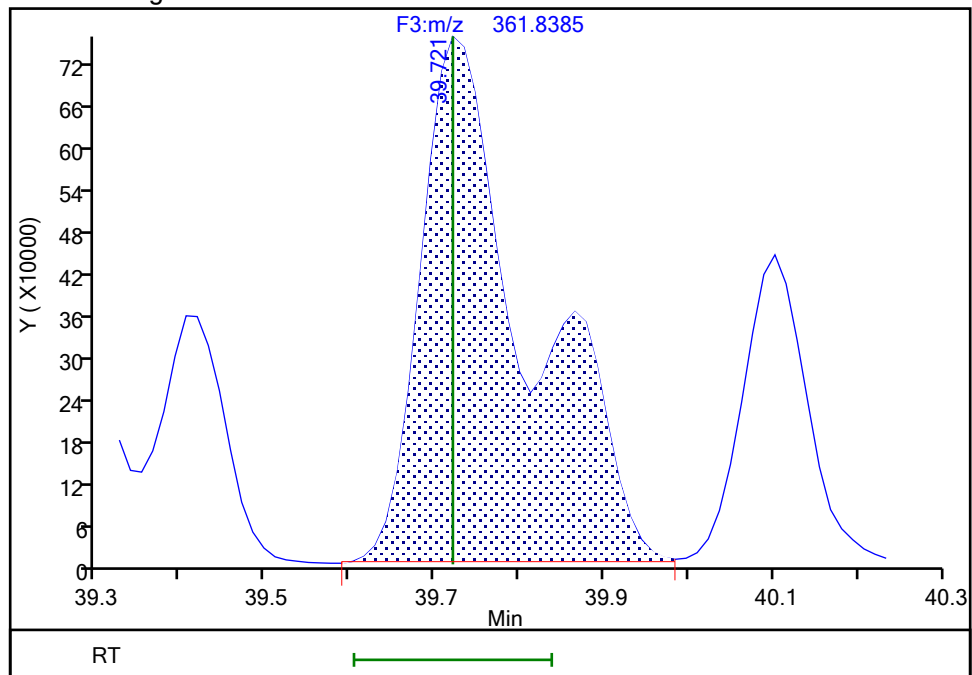
RT: 39.72  
Area: 4769883  
Amount: 156.8483  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.72  
Area: 6682218  
Amount: 196.3569  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:27:38 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#: 0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

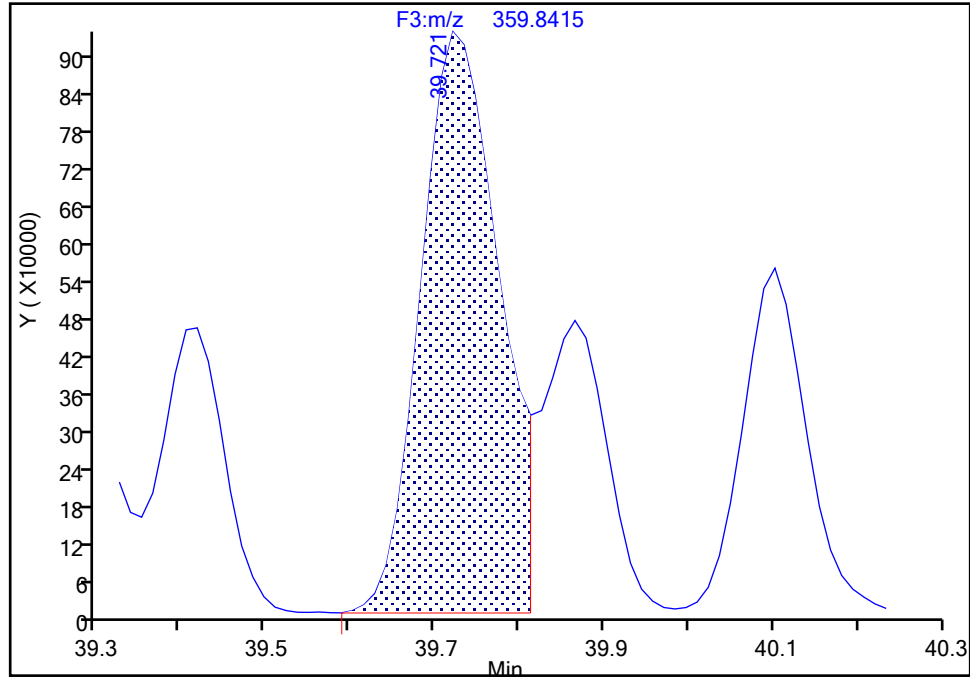
Detector F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 1

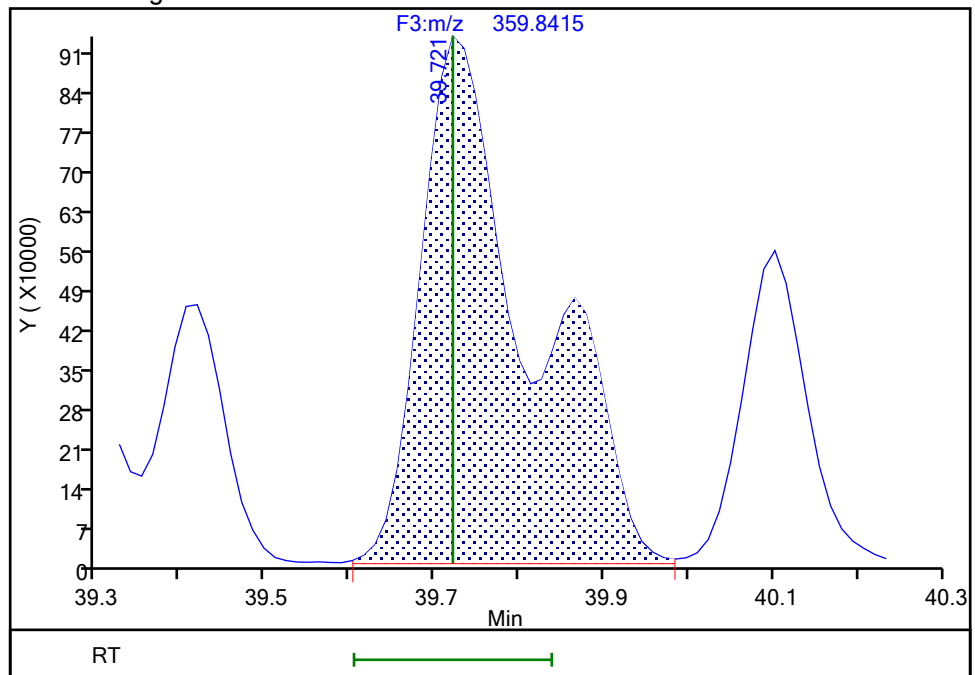
RT: 39.72  
Area: 5977025  
Amount: 156.8483  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.72  
Area: 8427795  
Amount: 196.3569  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:27:45 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

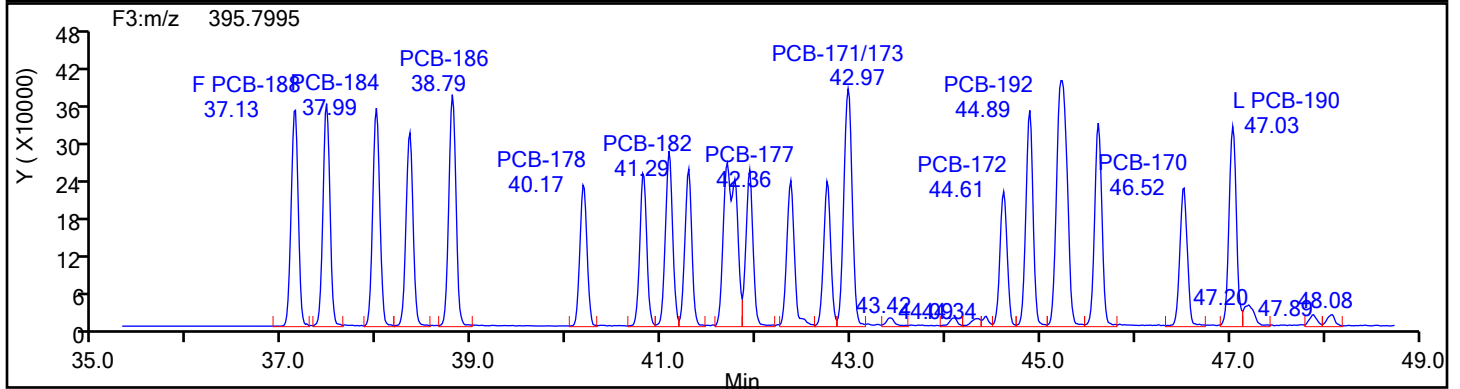
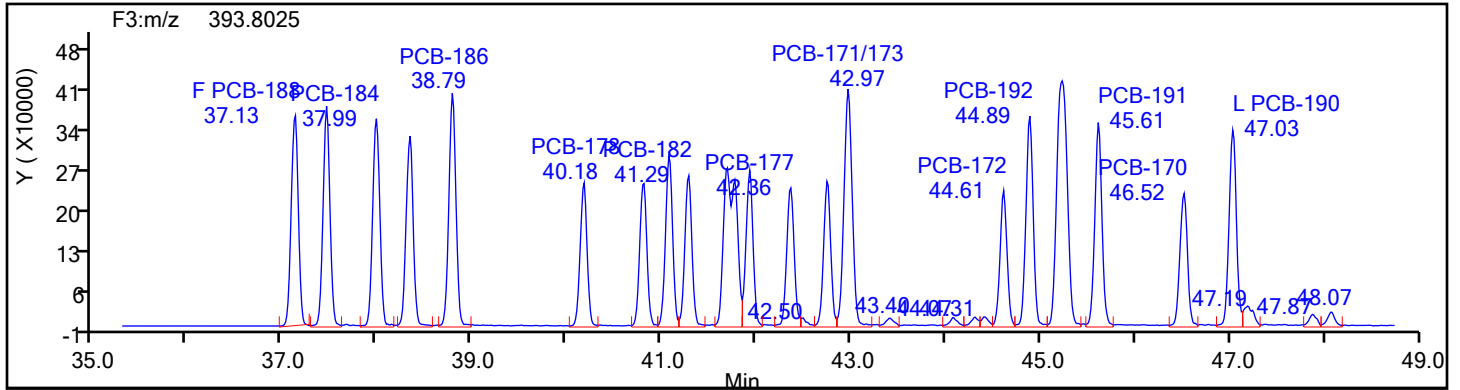
Worklist#: 87130

Sample Line#: 4

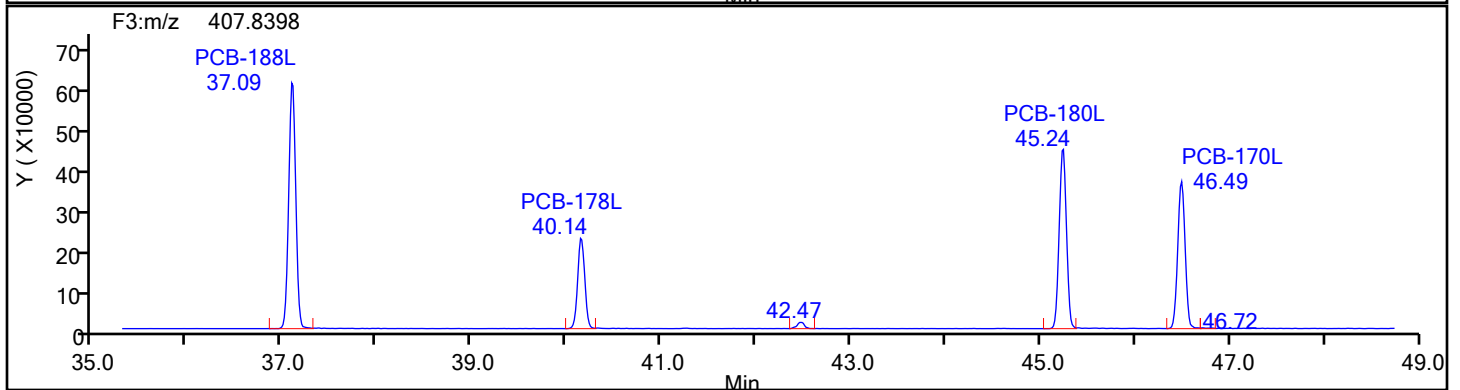
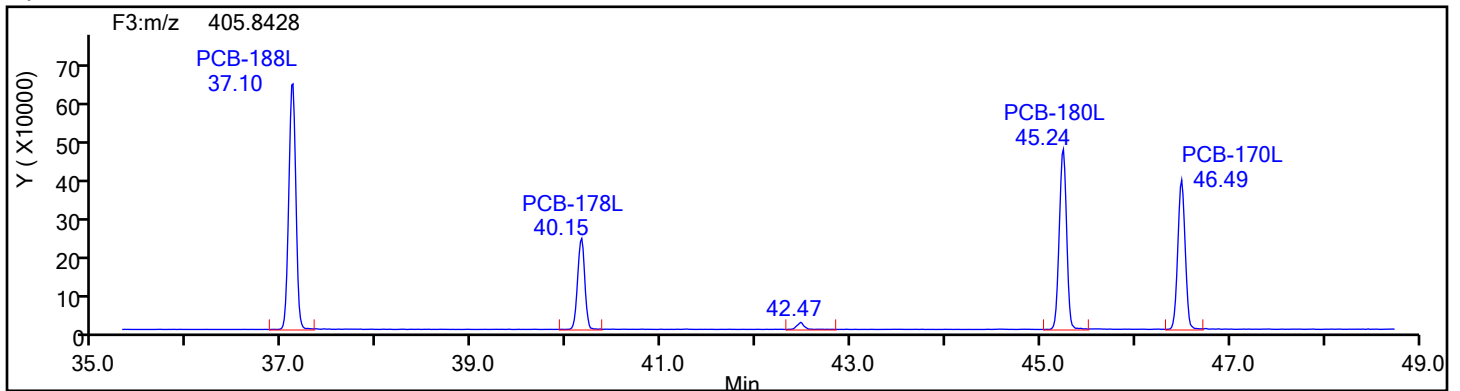
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



## HpPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

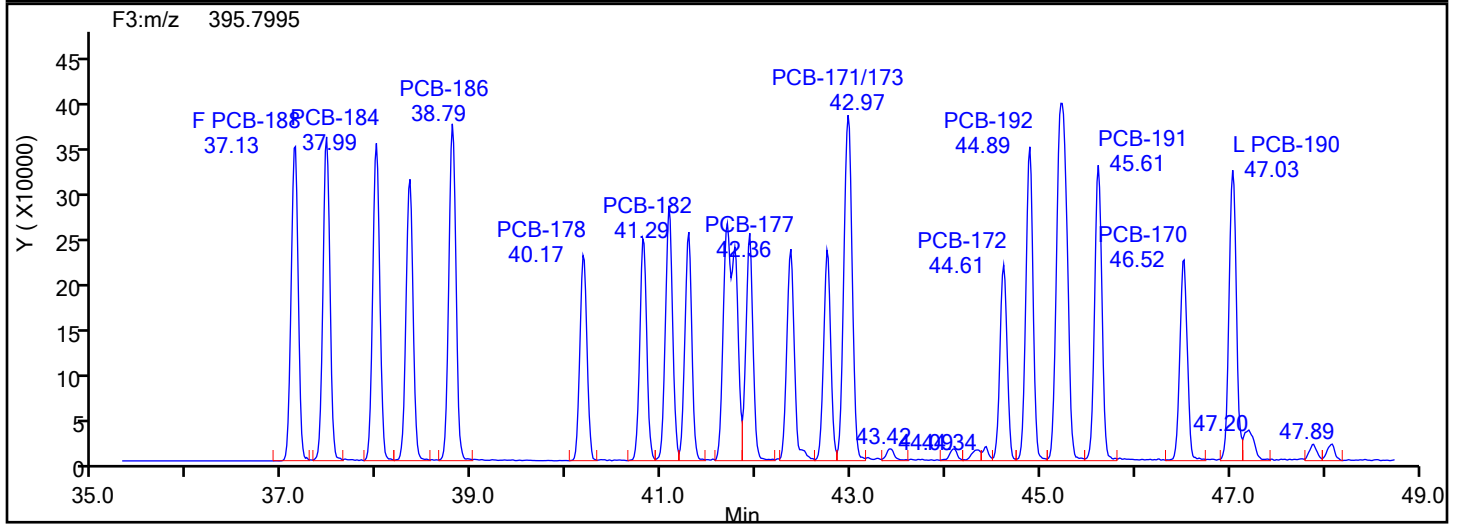
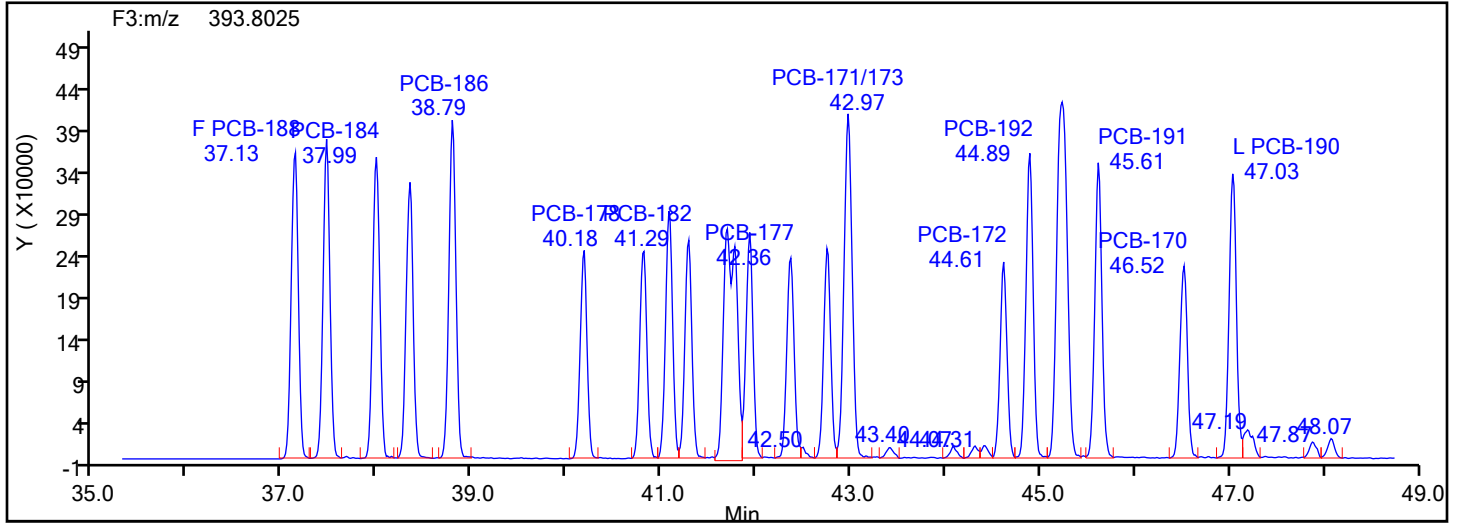
Worklist#: 87130

Sample Line#: 4

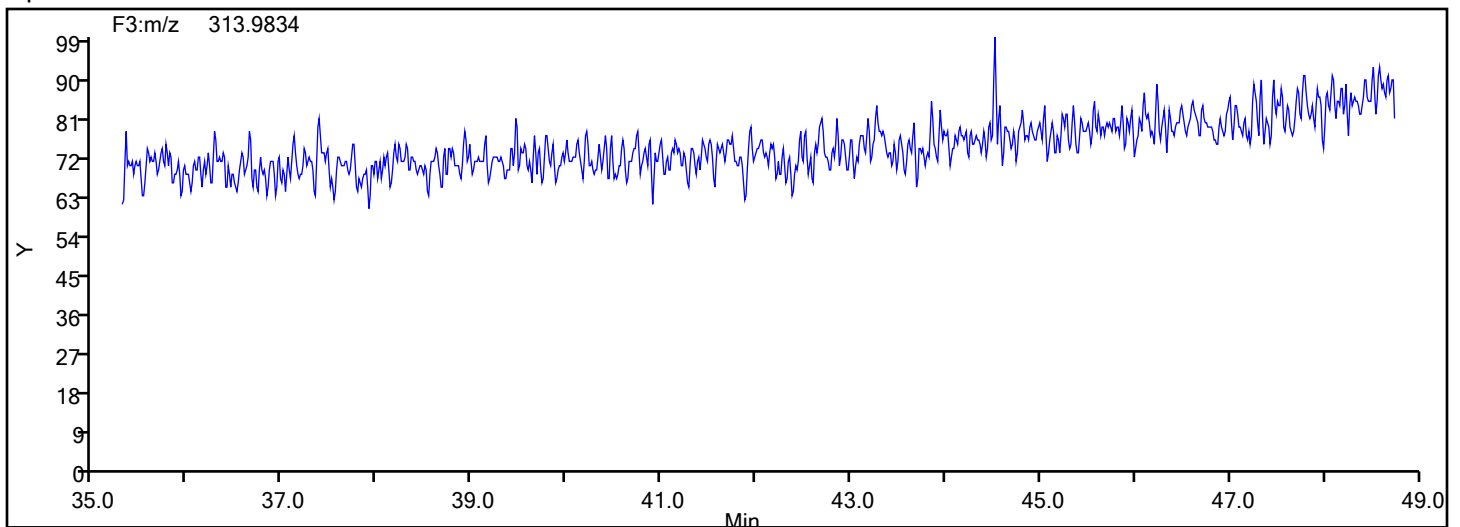
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



## HpPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

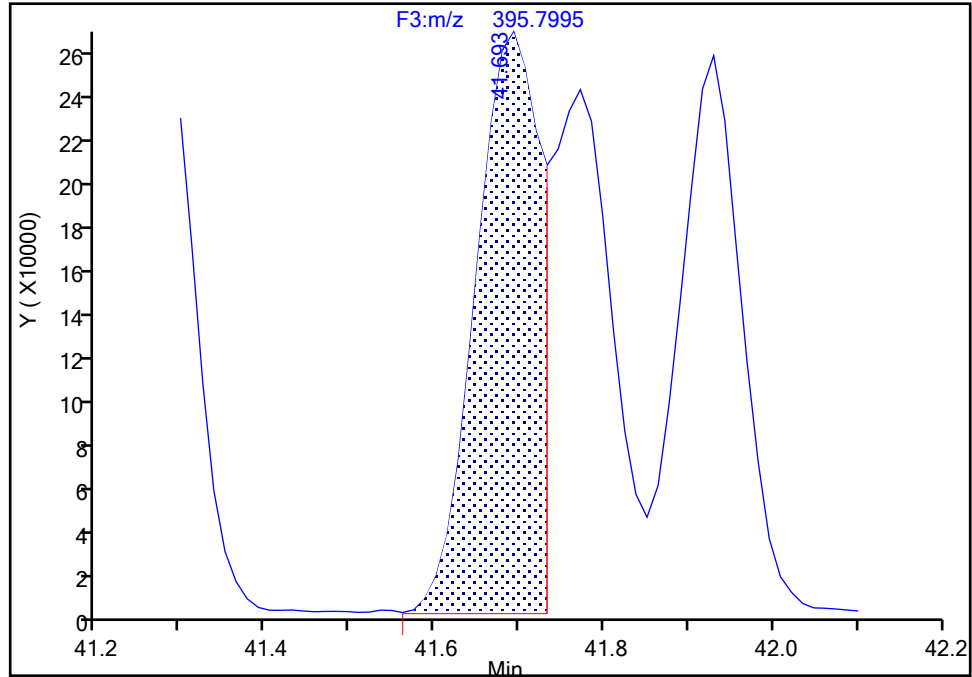
Detector F3(35.64 :49.10 )

**PCB-183/185, CAS: STL02297**

Signal: 2

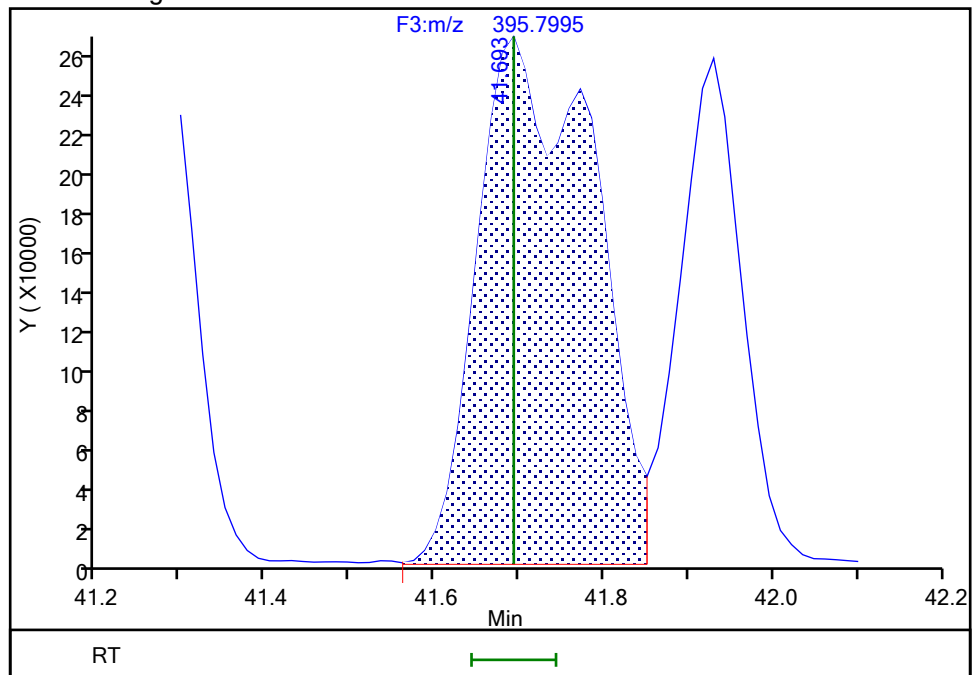
RT: 41.69  
Area: 1353022  
Amount: 58.163319  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.69  
Area: 2486532  
Amount: 96.902129  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:28:05 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

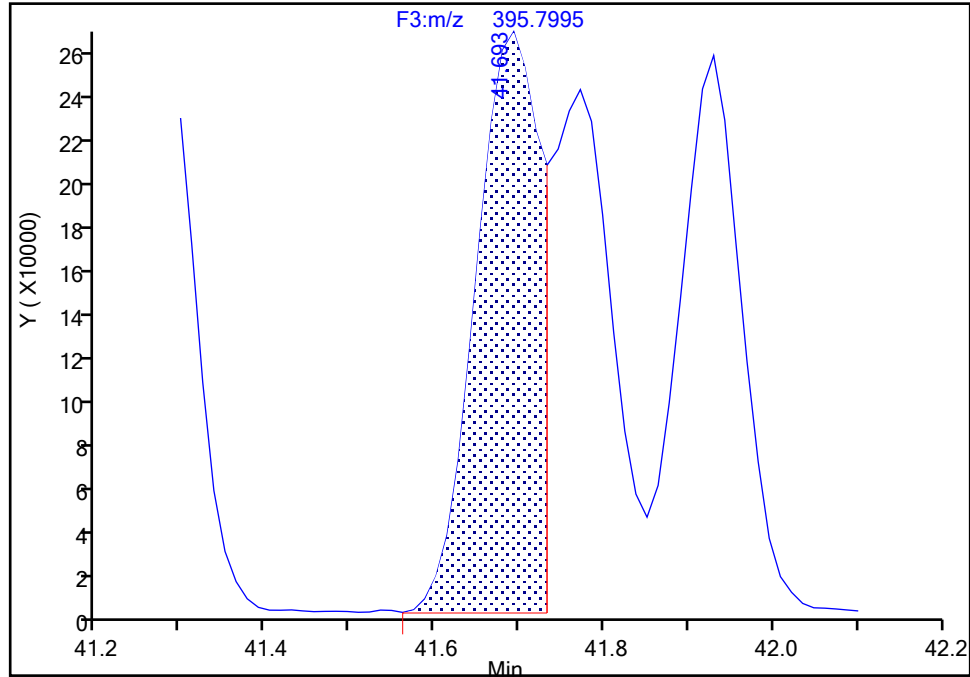
Detector F3(35.64 :49.10 )

**PCB-183/185, CAS: STL02297**

Signal: 2

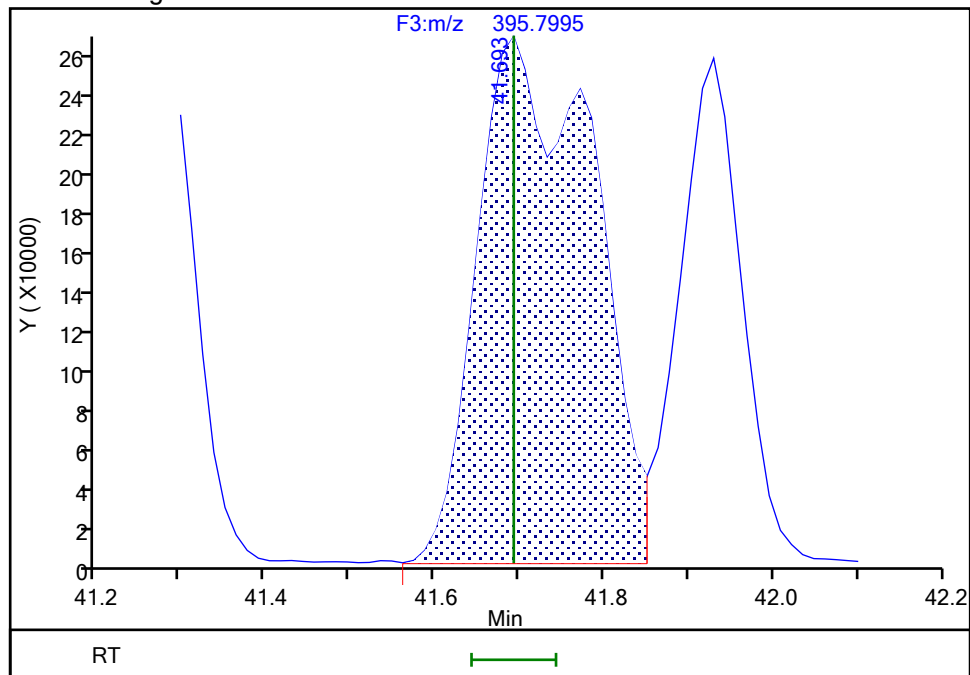
RT: 41.69  
Area: 1353022  
Amount: 58.163319  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.69  
Area: 2486532  
Amount: 96.902129  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:28:23 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#:

4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

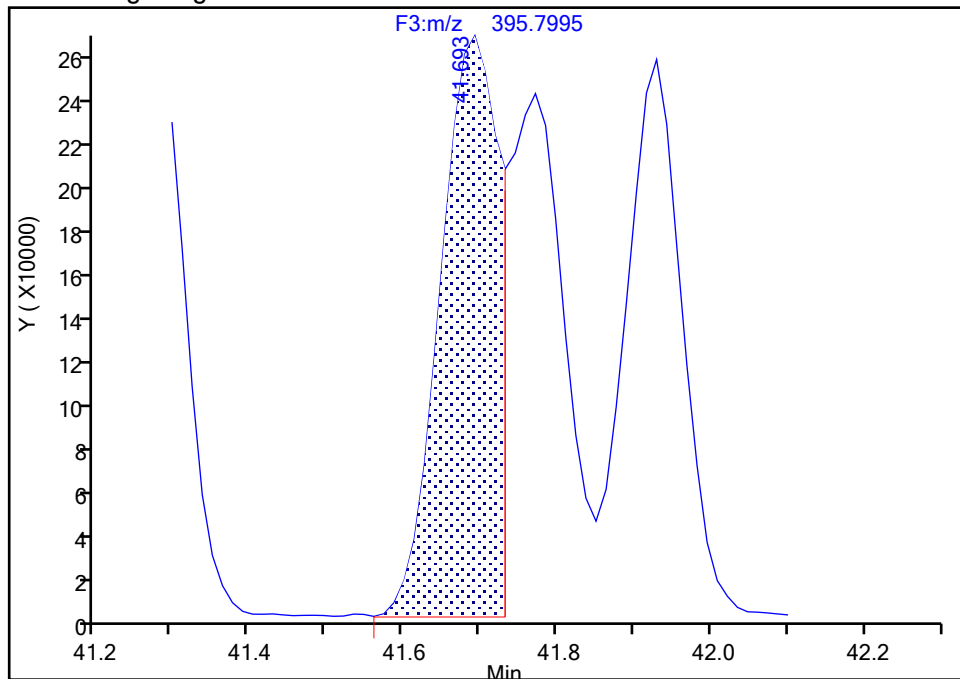
Detector F3(35.64 :49.10 )

**PCB-183/185, CAS: STL02297**

Signal: 3

RT: 41.69  
Area: 2755275  
Amount: 58.163319  
Amount Units: pg/ul

## Processing Integration Results



## Manual Integration Results

RT: 41.69  
Area: 5114533  
Amount: 96.902129  
Amount Units: pg/ul

Reviewer: V4XA, 31-May-2024 21:28:23 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

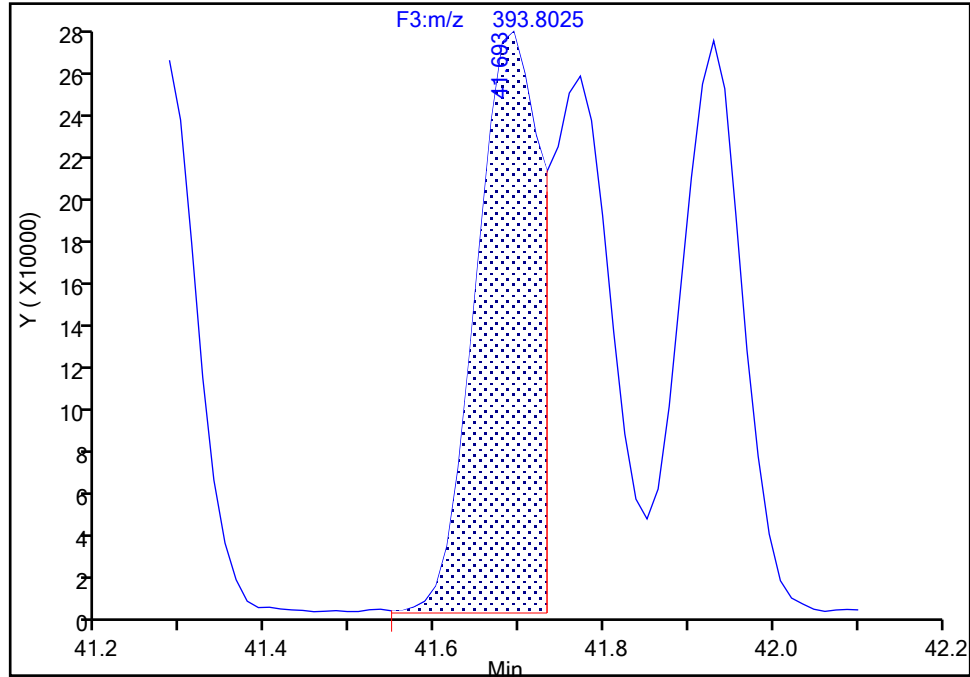
Detector F3(35.64 :49.10 )

**PCB-183/185, CAS: STL02297**

Signal: 1

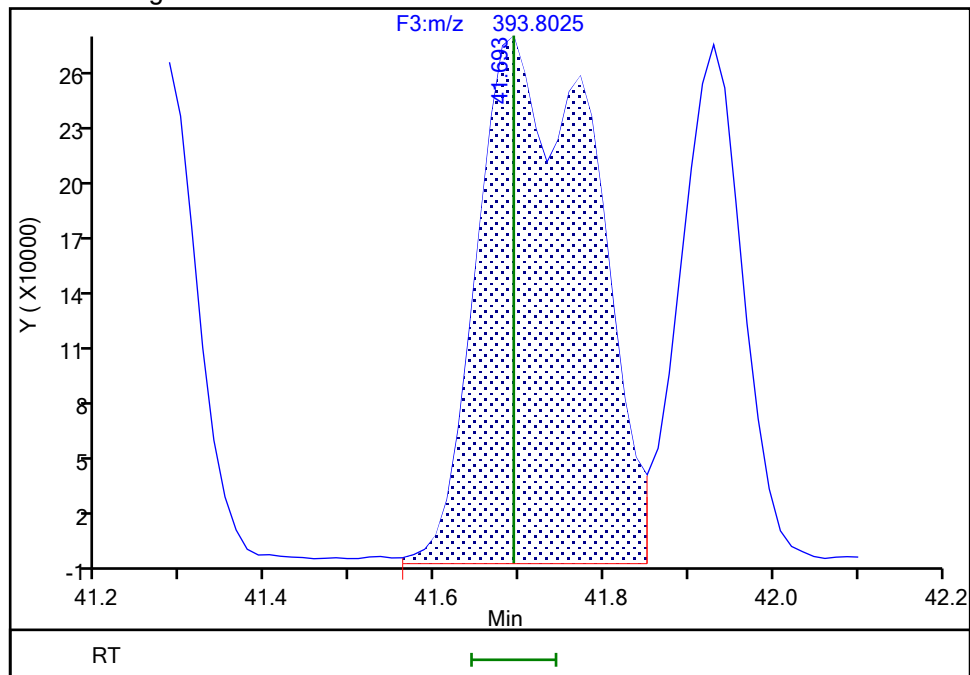
RT: 41.69  
Area: 1402253  
Amount: 58.163319  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.69  
Area: 2628001  
Amount: 96.902129  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 31-May-2024 21:28:26 -04:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

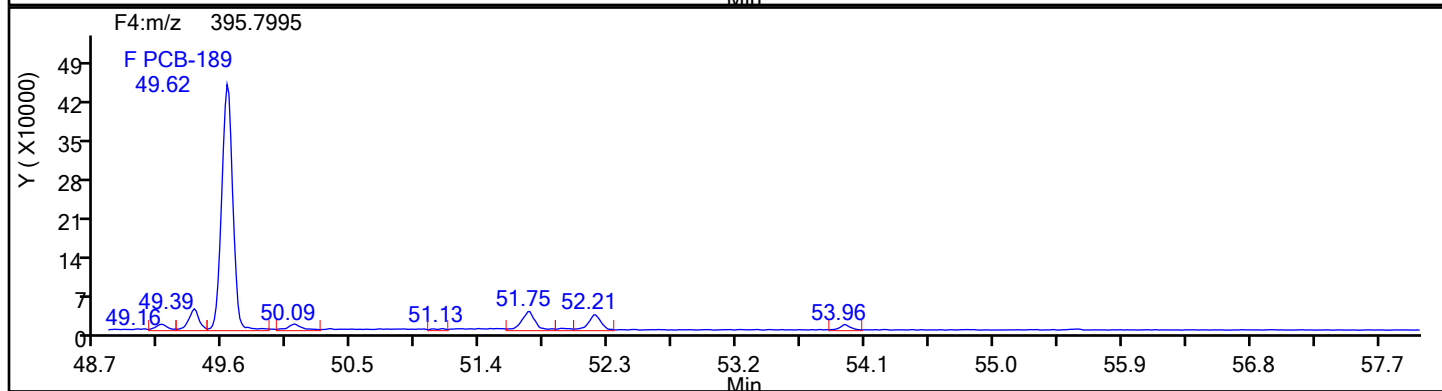
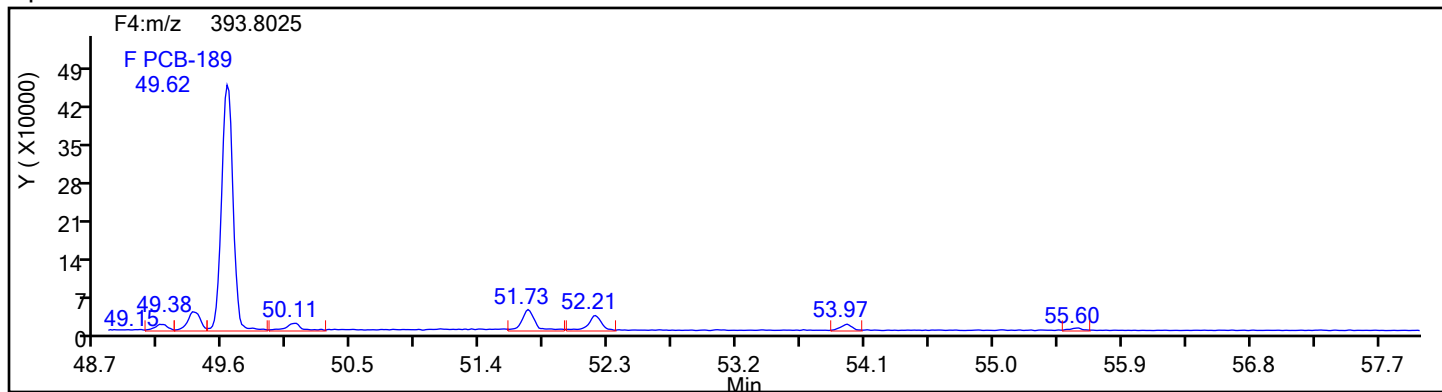
Worklist#: 87130

Sample Line#: 4

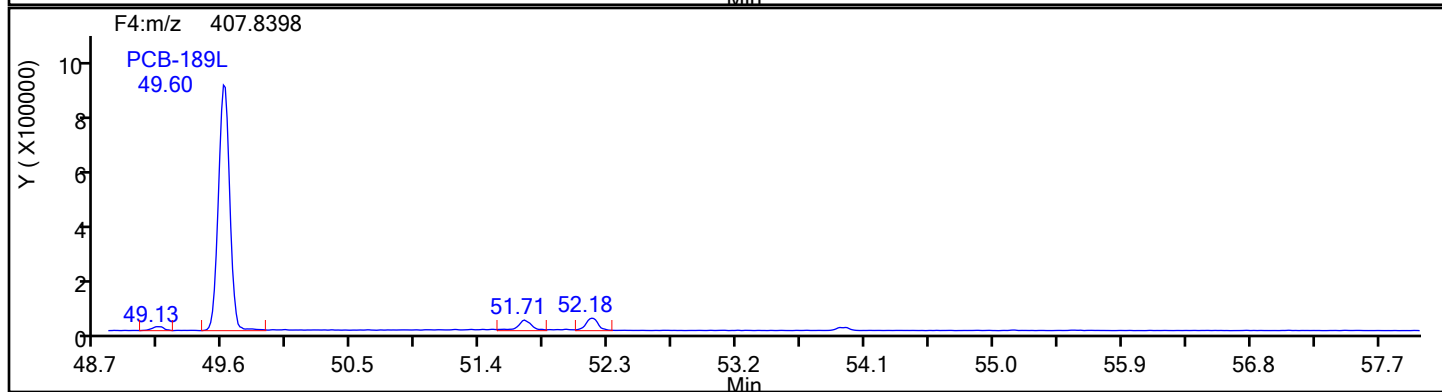
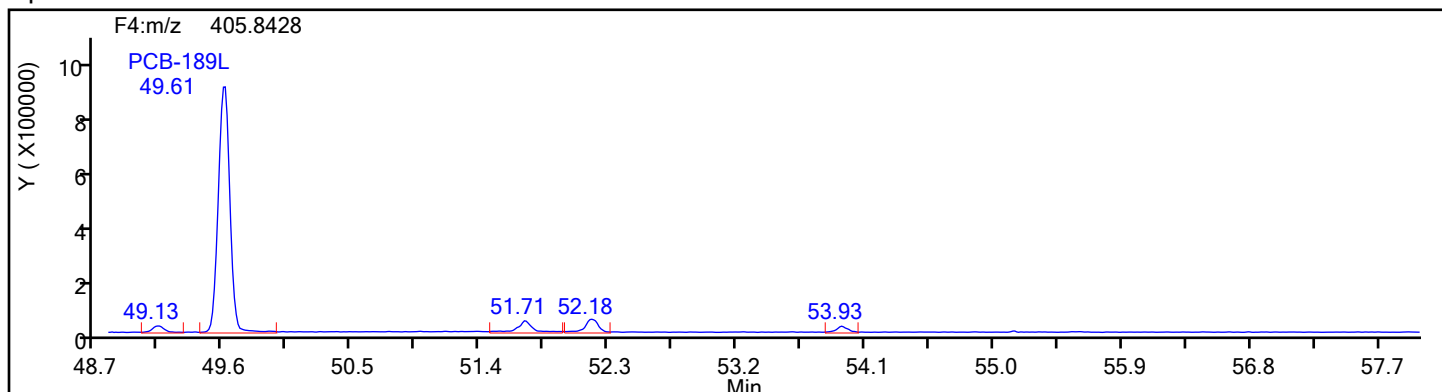
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

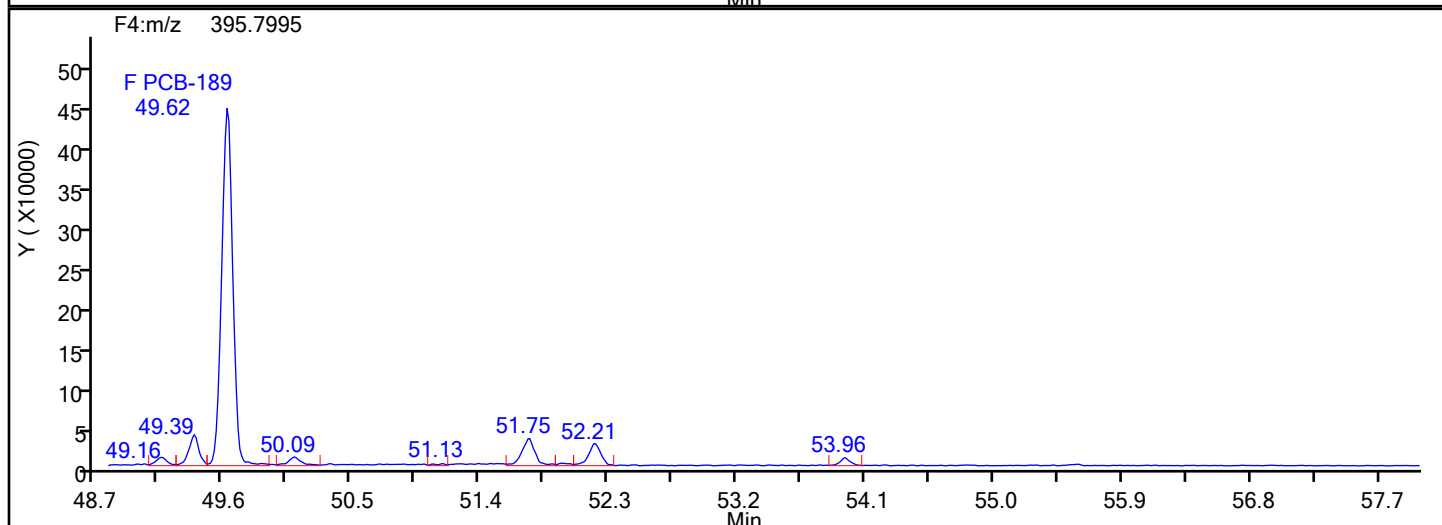
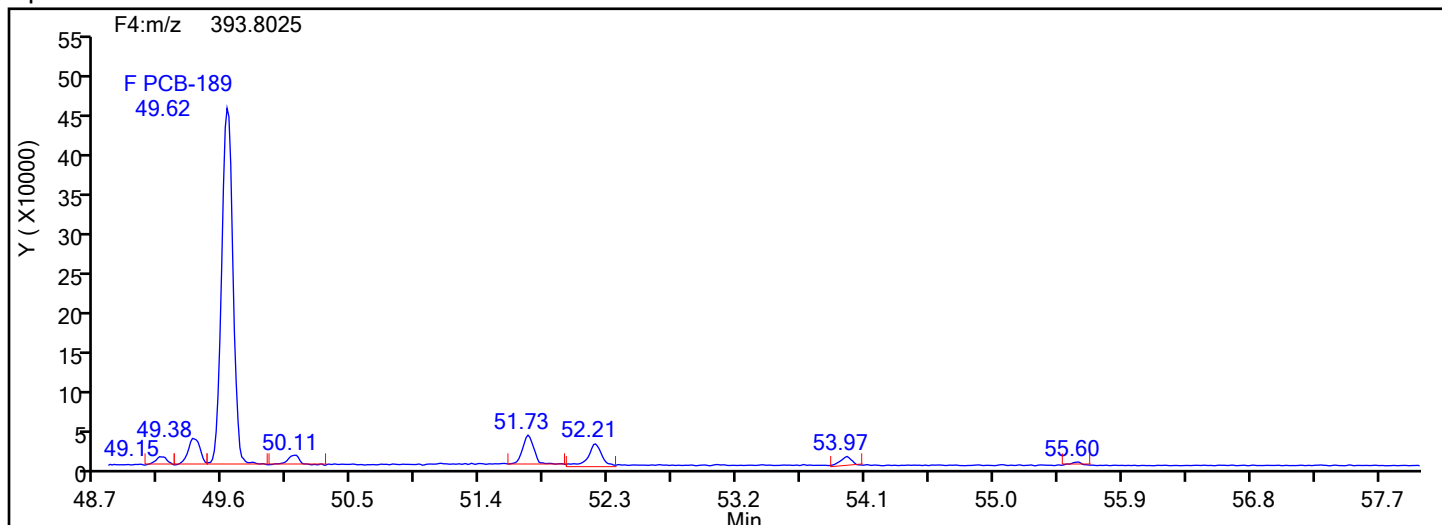
Worklist#: 87130

Sample Line#: 4

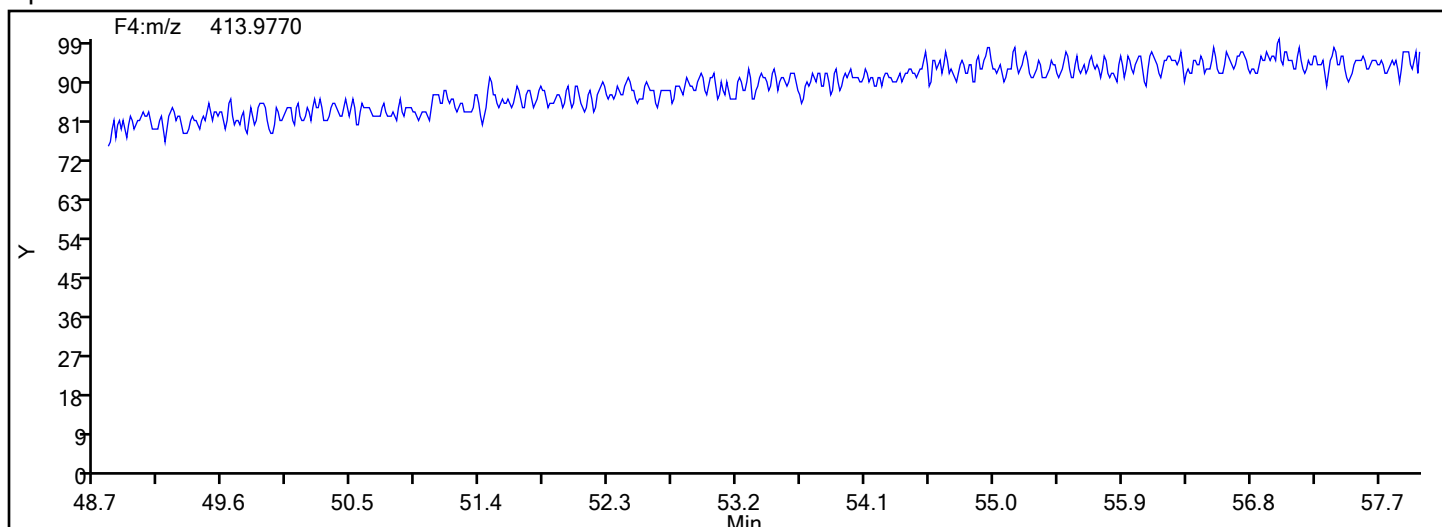
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

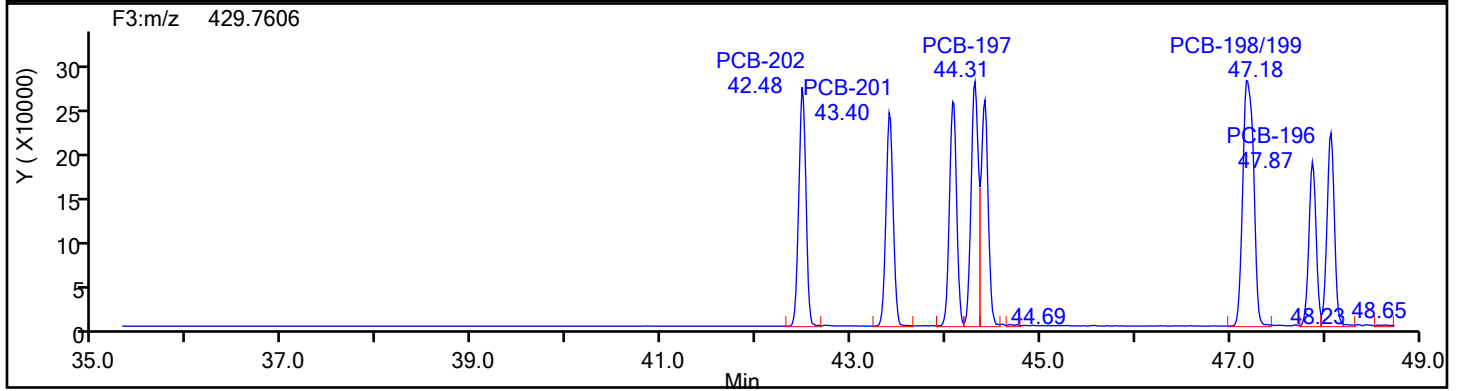
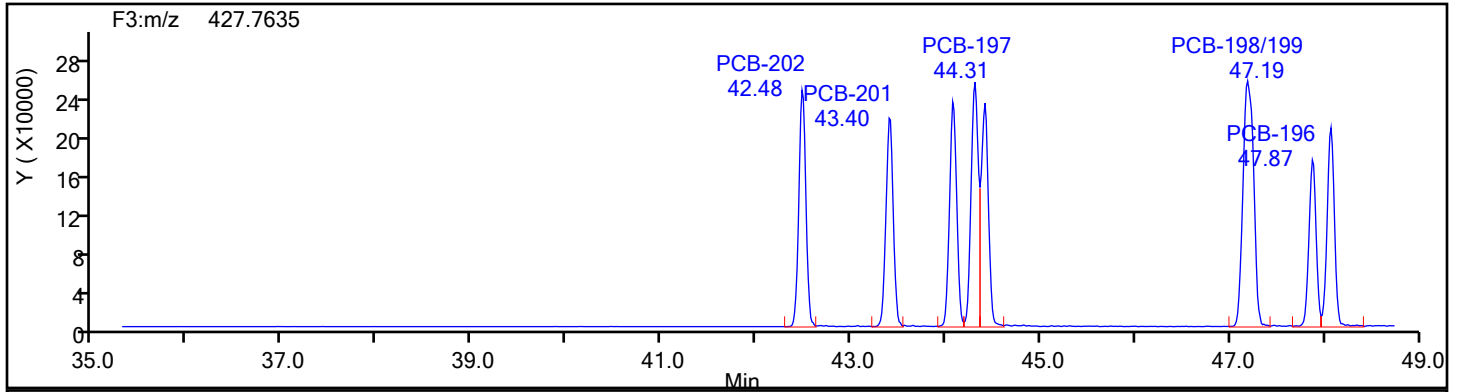
Worklist#: 87130

Sample Line#: 4

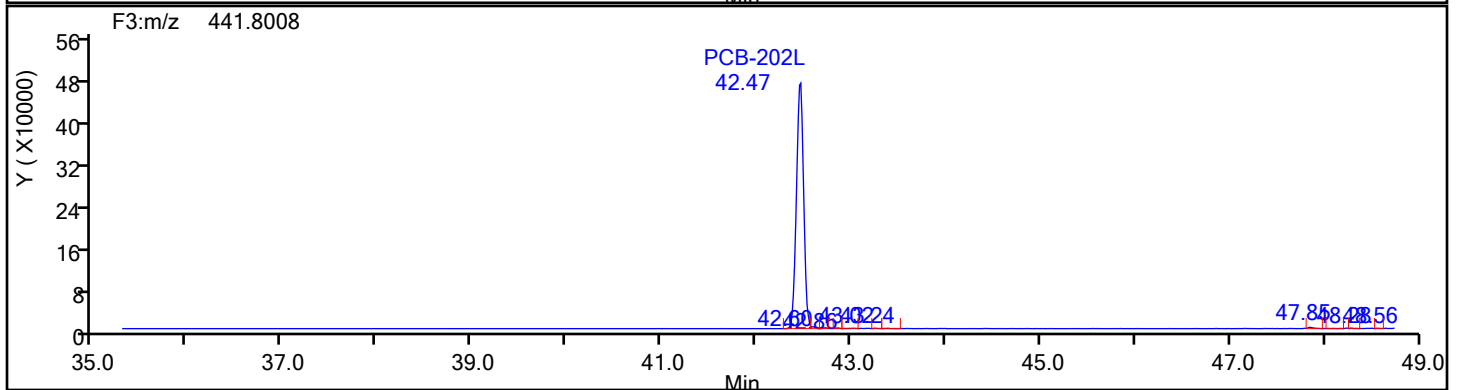
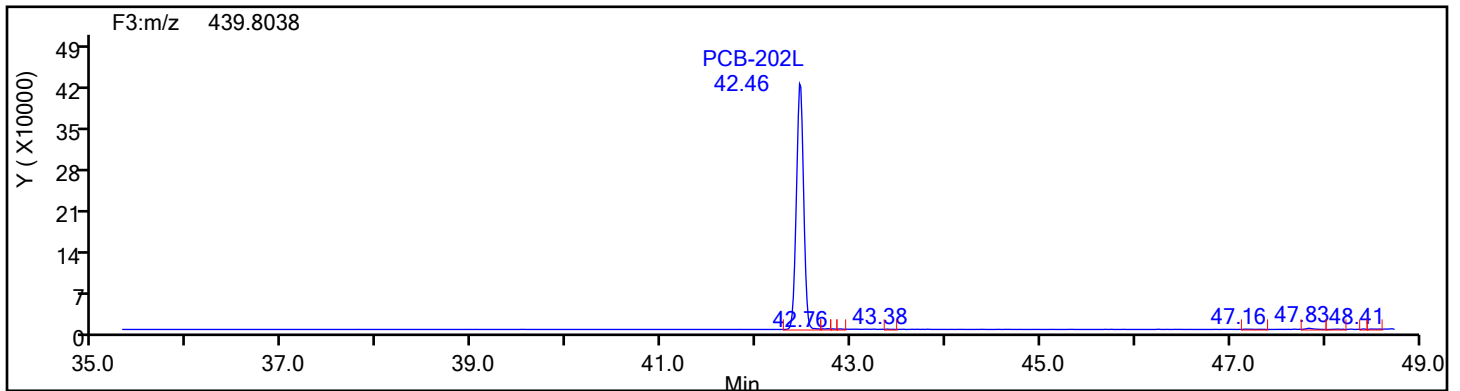
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3

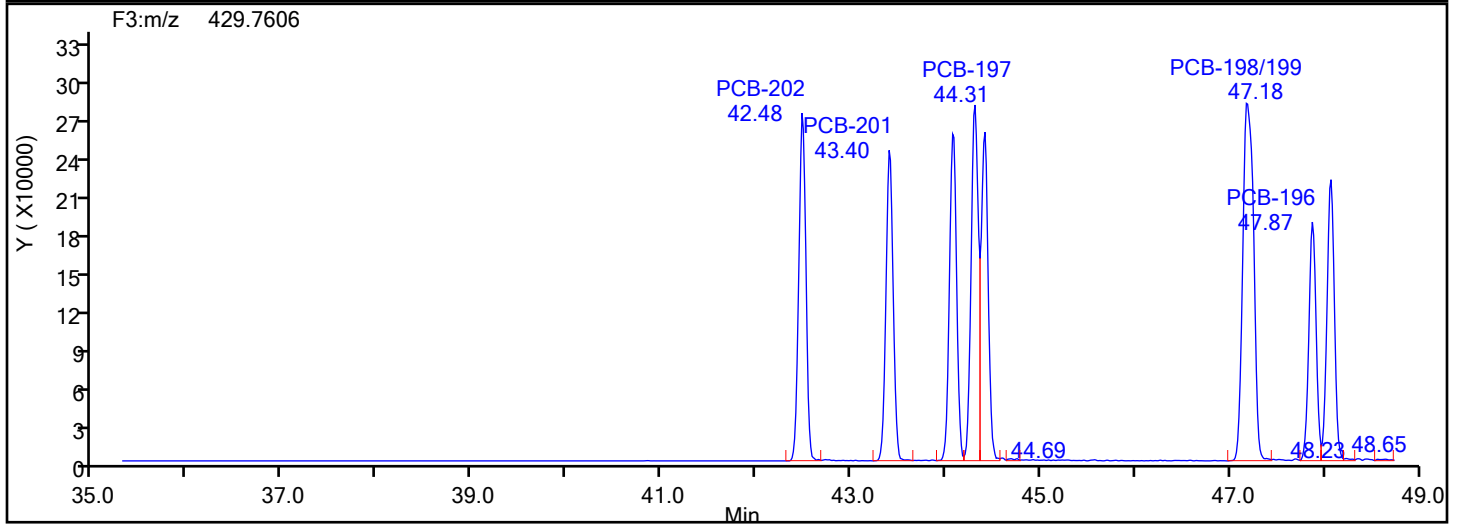
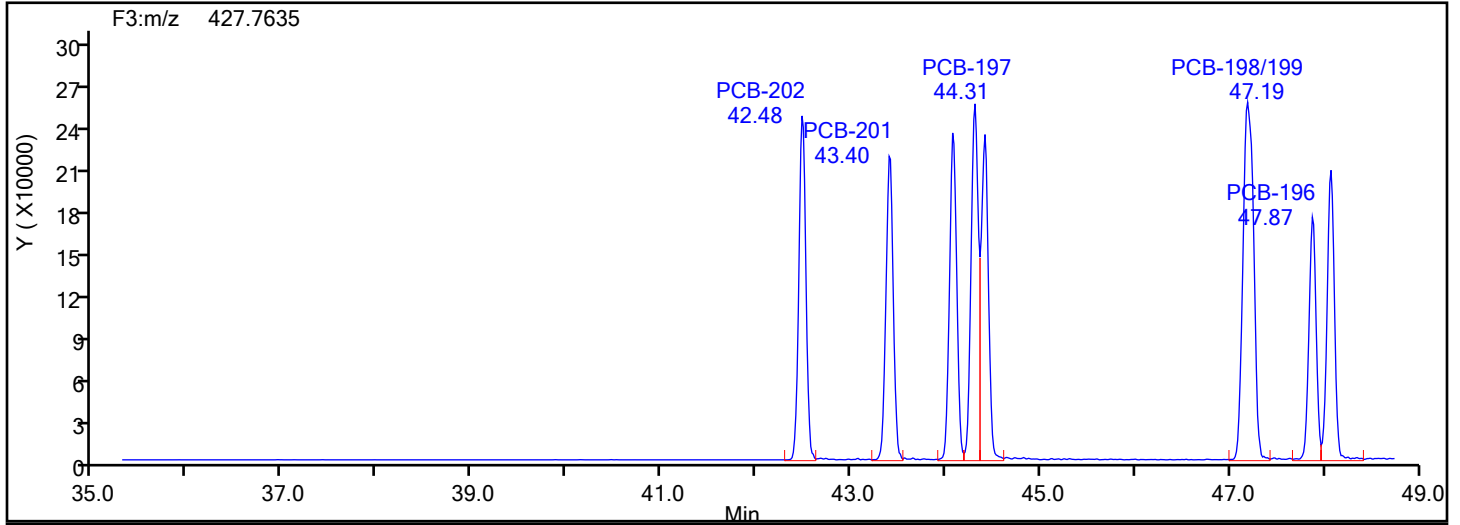


OcPCB F3 Standards

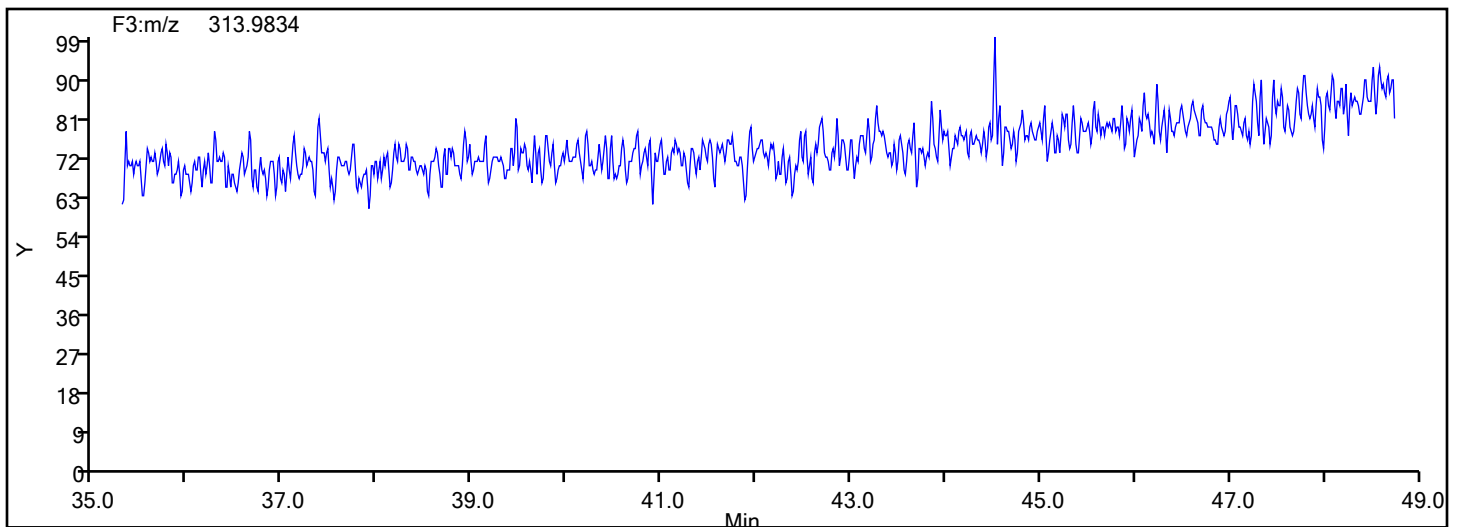


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 4  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3



## OcPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

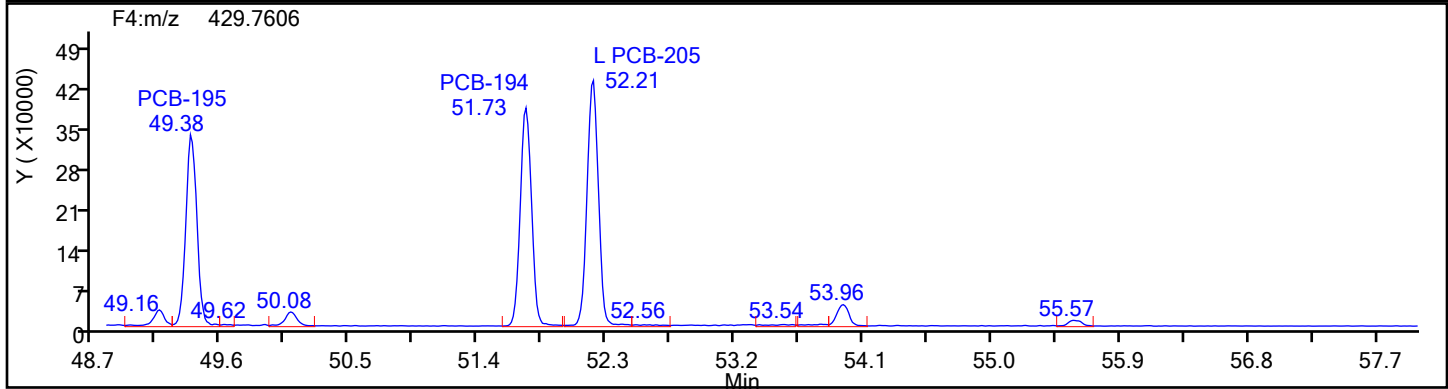
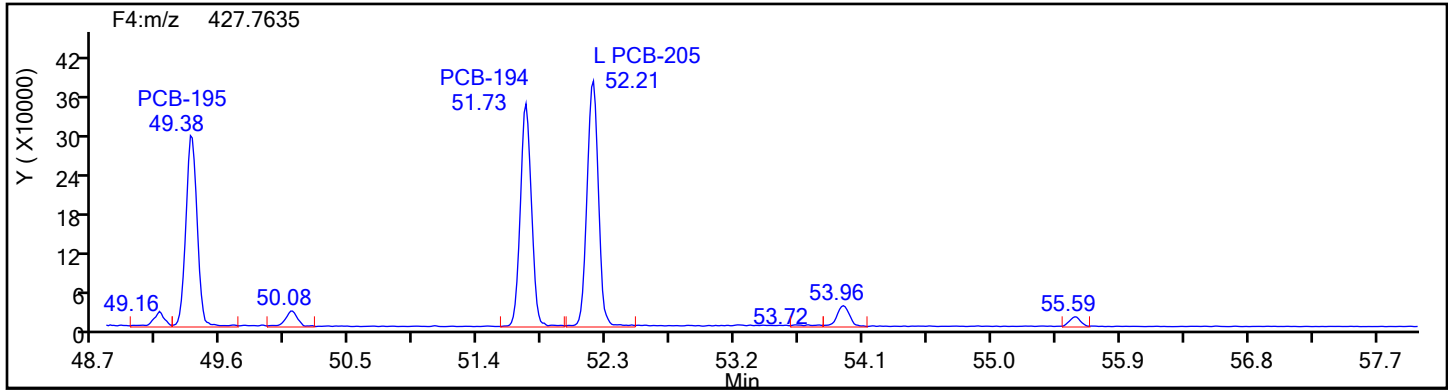
Worklist#: 87130

Sample Line#: 4

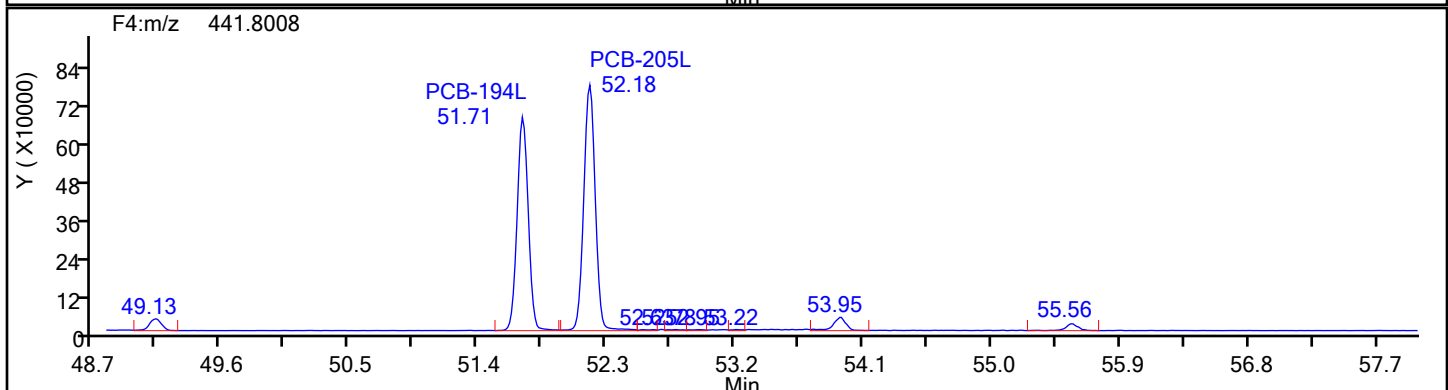
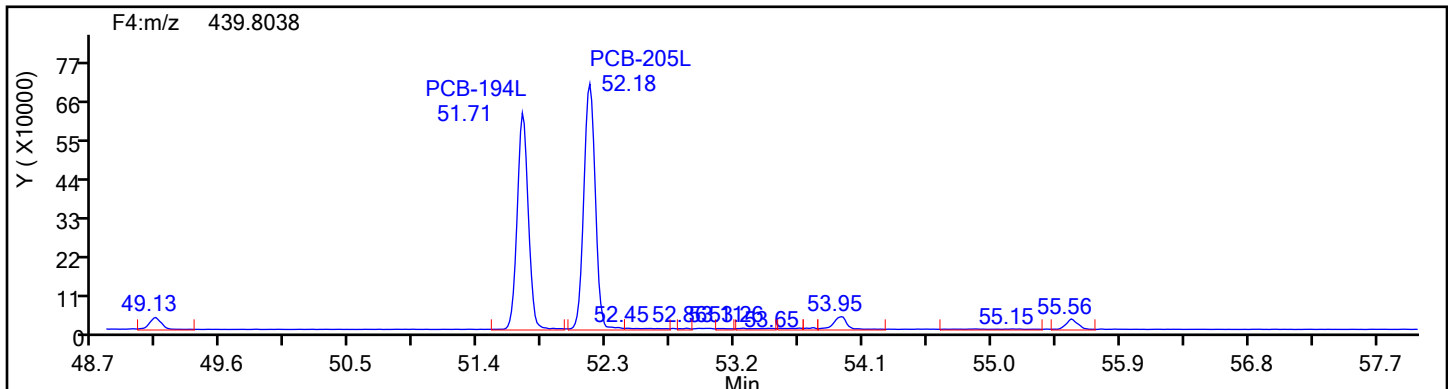
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4



OcPCB F4 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

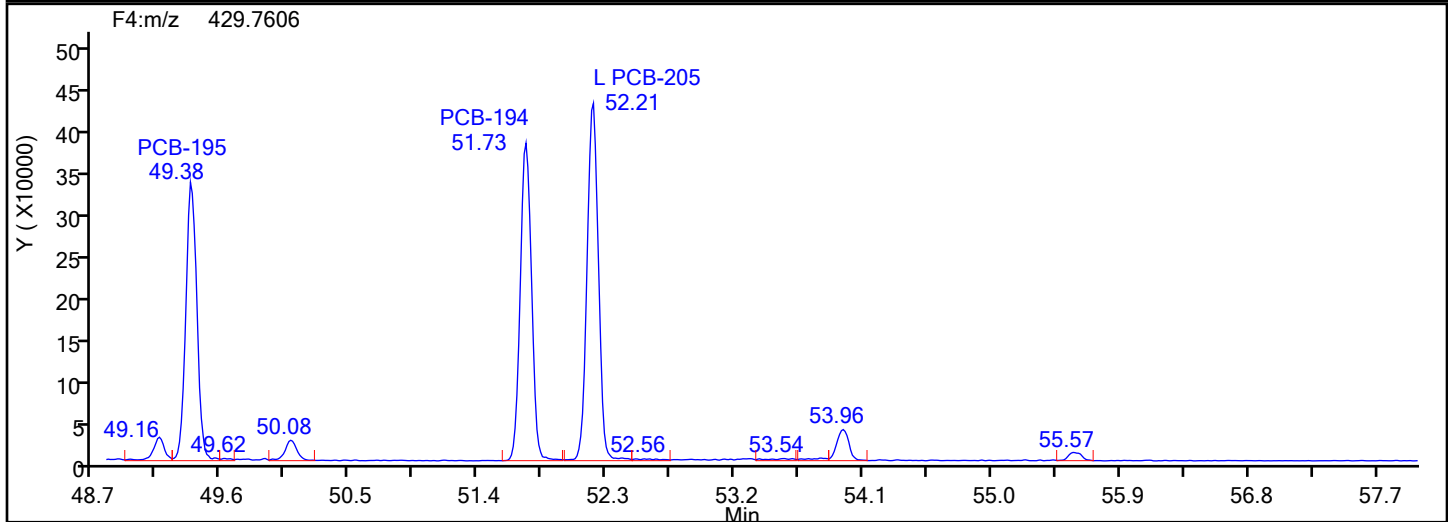
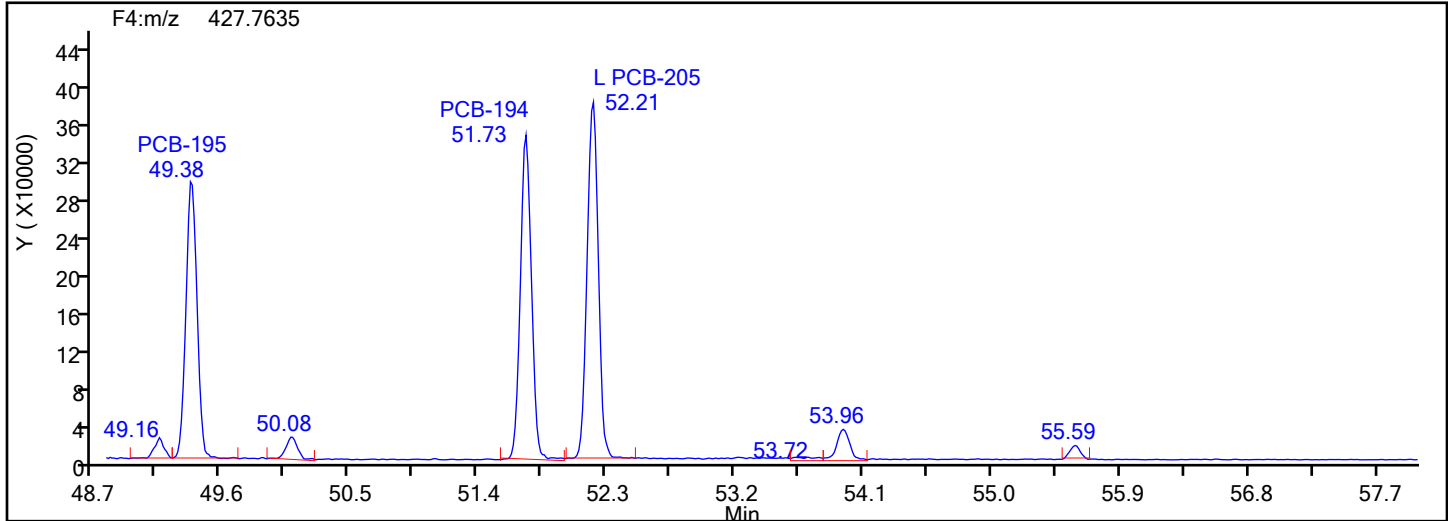
Worklist#: 87130

Sample Line#: 4

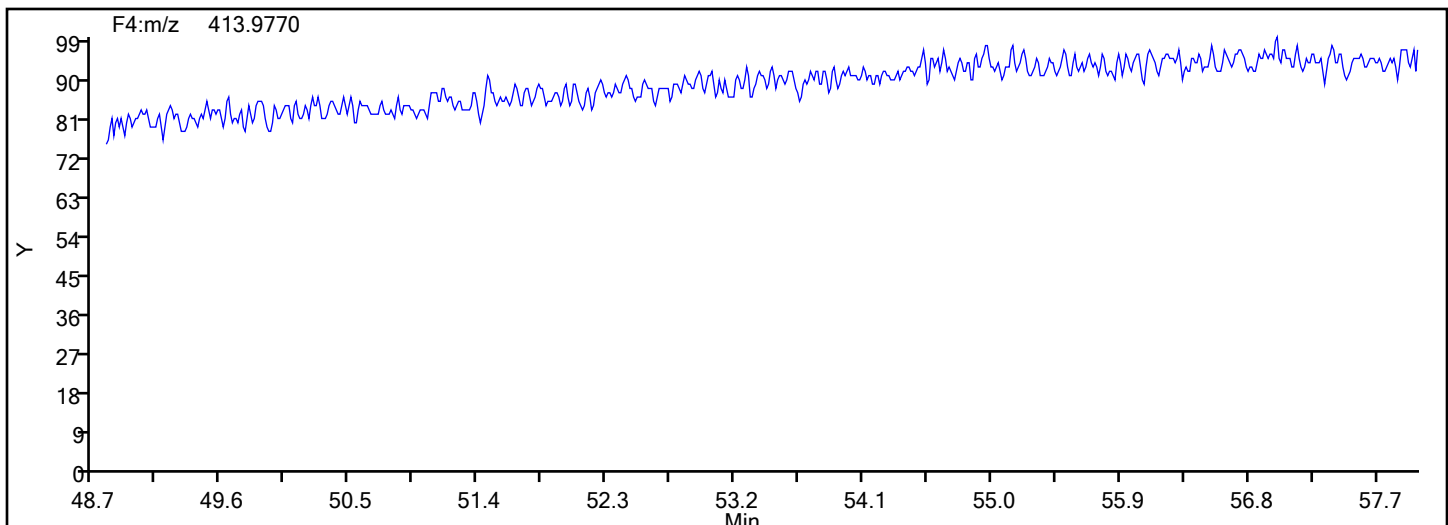
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4

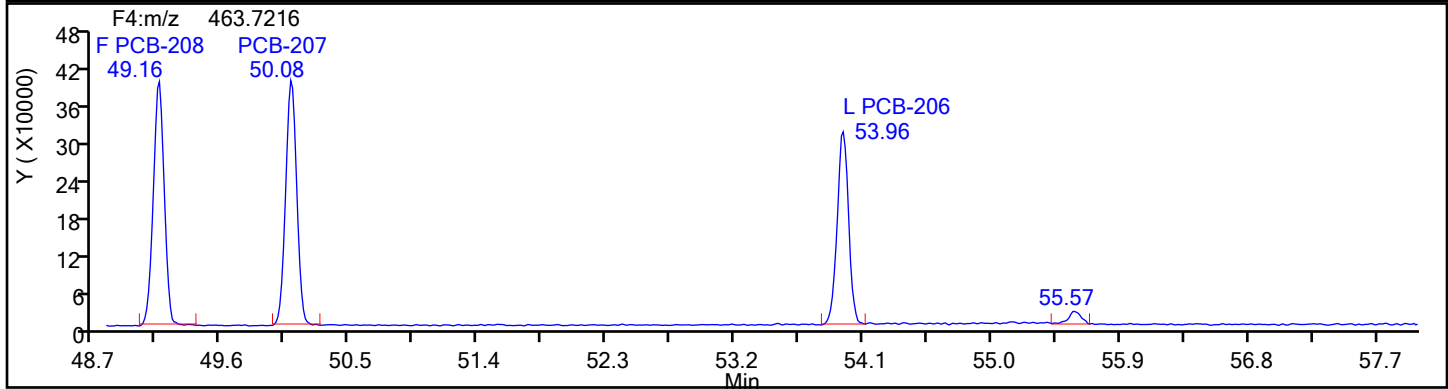
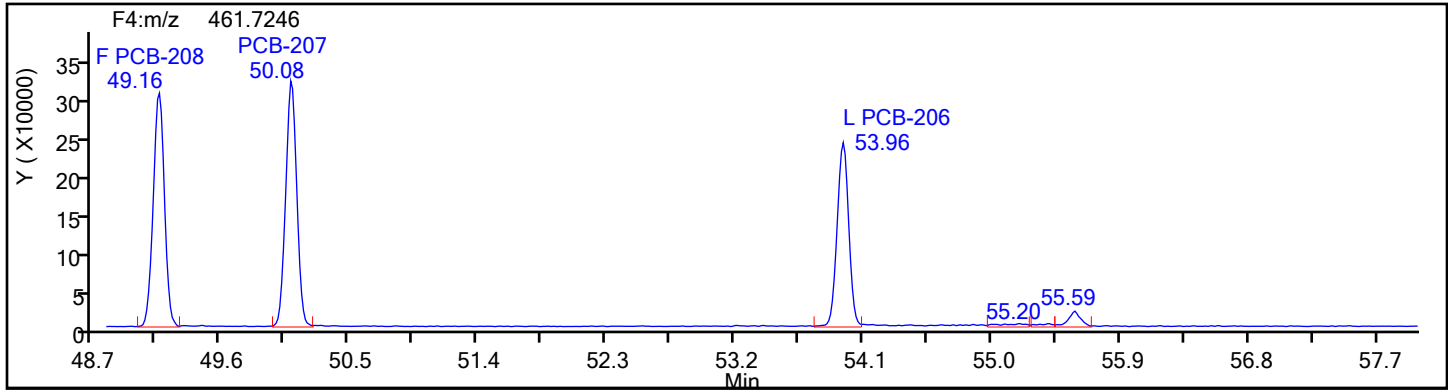


## OcPCB F4 Lock Mass

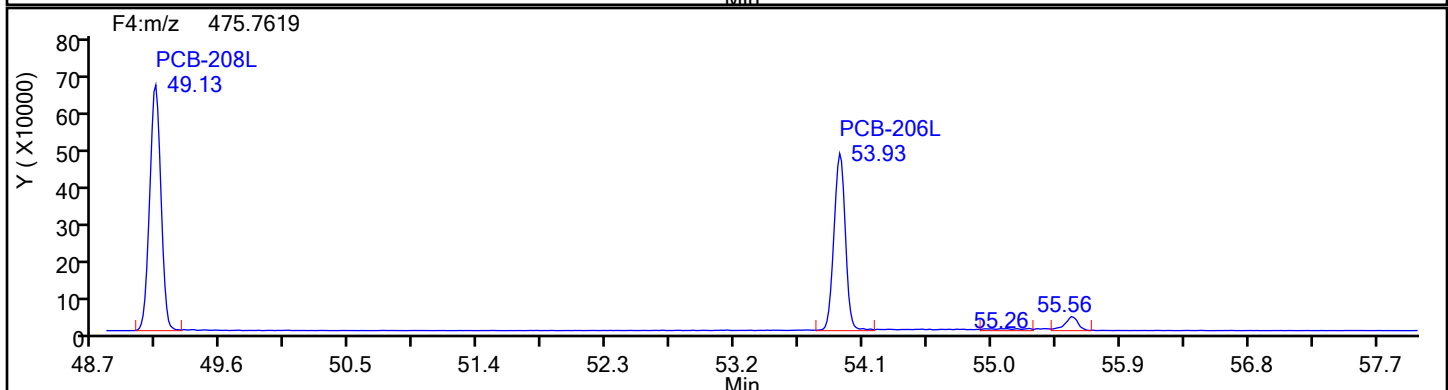
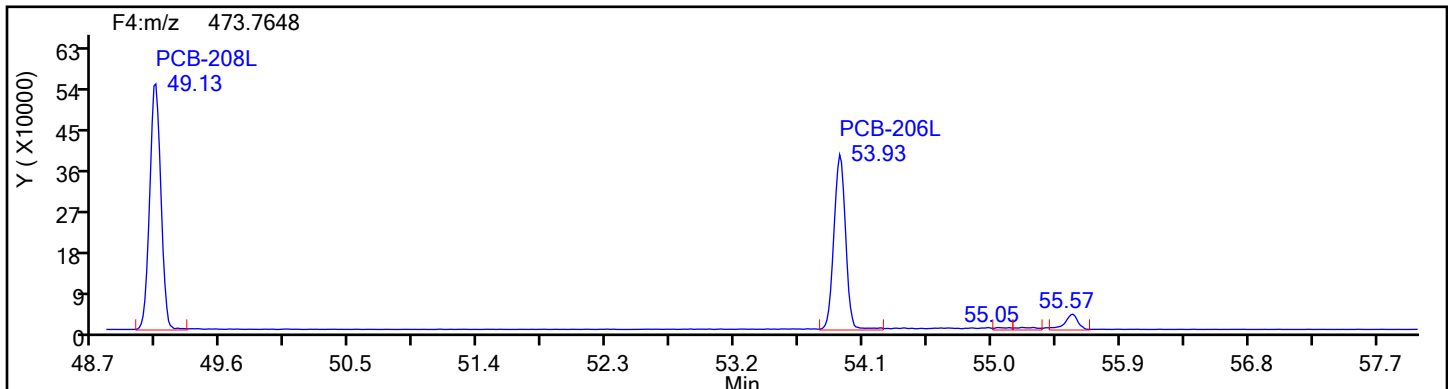


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 4  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4



## NoPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

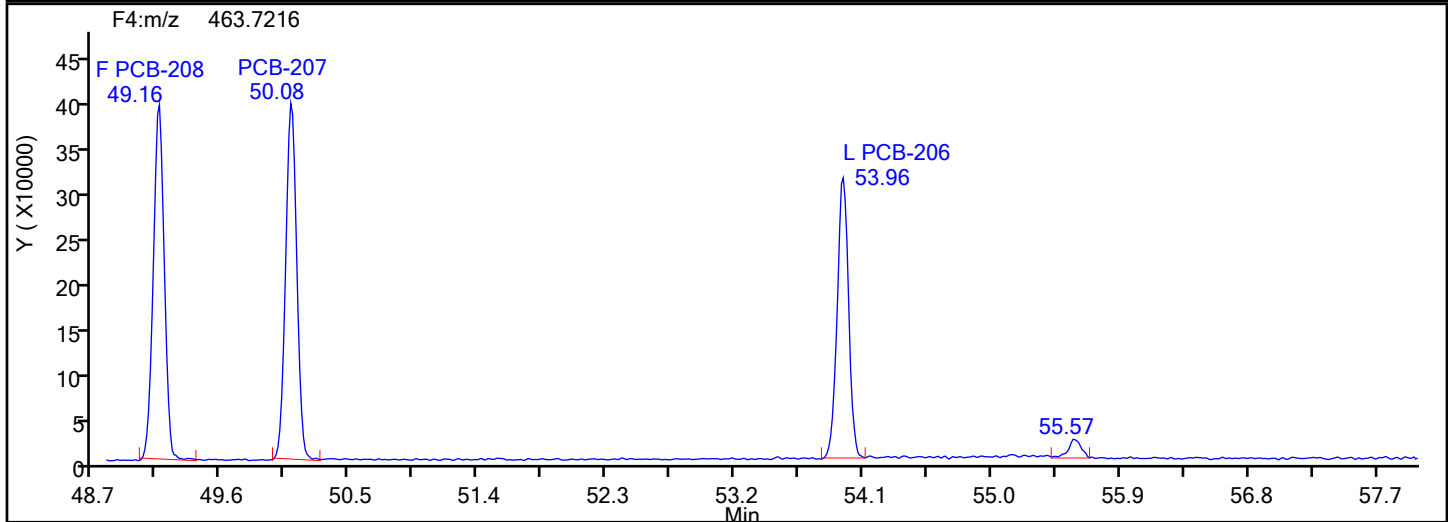
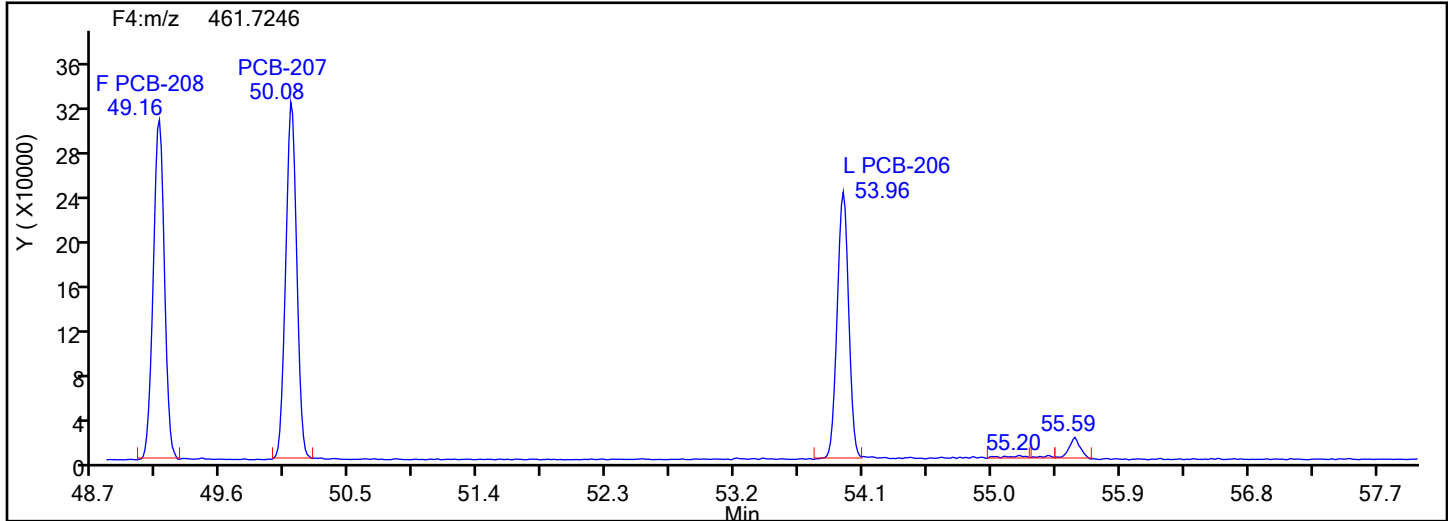
Worklist#: 87130

Sample Line#: 4

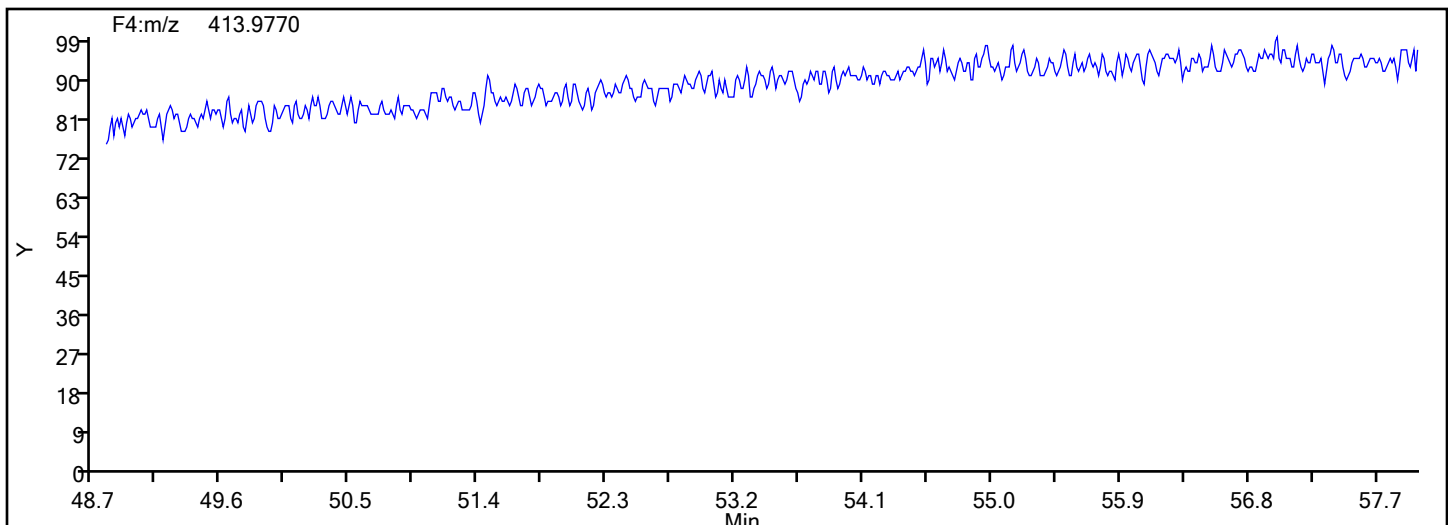
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



NoPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d

Injection Date: 31-May-2024 19:10:00

Instrument ID: D2D

Lims ID: IC L4

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 4

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

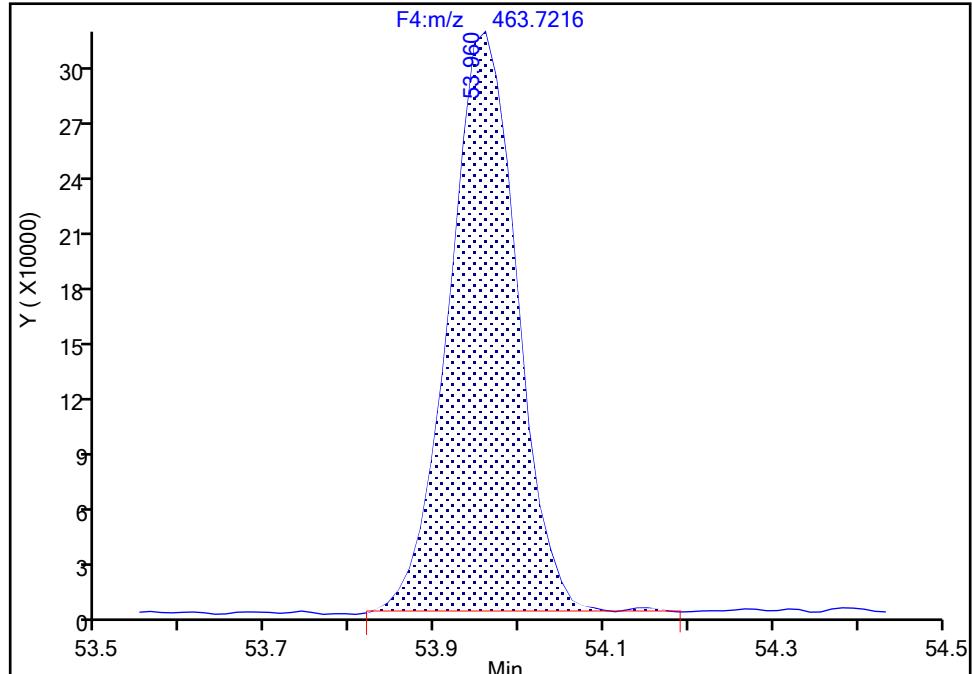
Detector F4(49.20 :57.50 )

**PCB-206, CAS: 40186-72-9**

Signal: 2

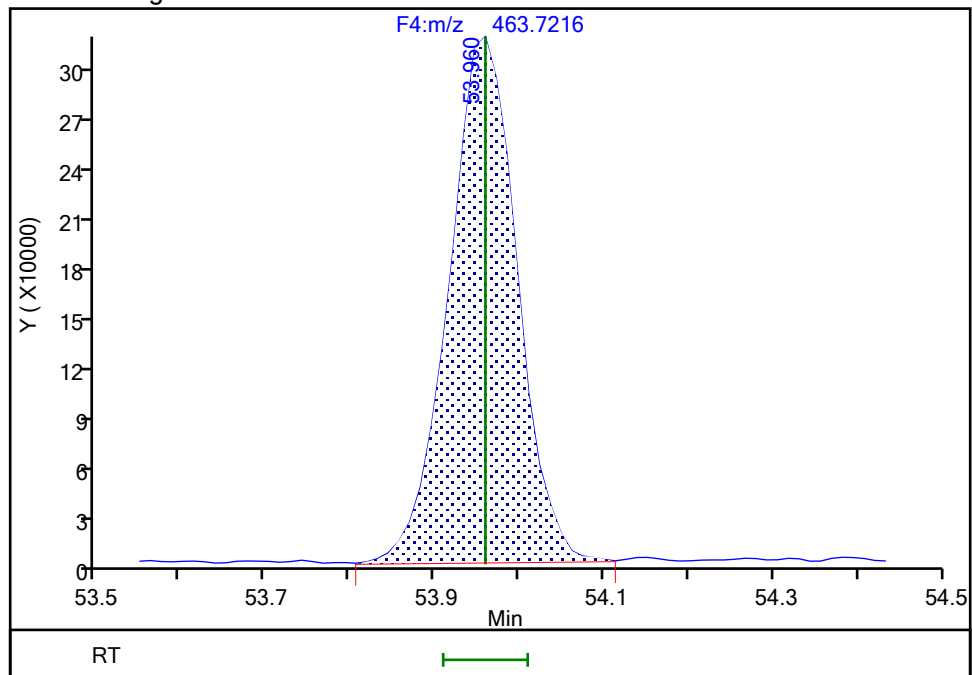
RT: 53.96  
Area: 1747998  
Amount: 47.494765  
Amount Units: pg/ul

## Processing Integration Results



RT: 53.96  
Area: 1761287  
Amount: 47.741918  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:12:59 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

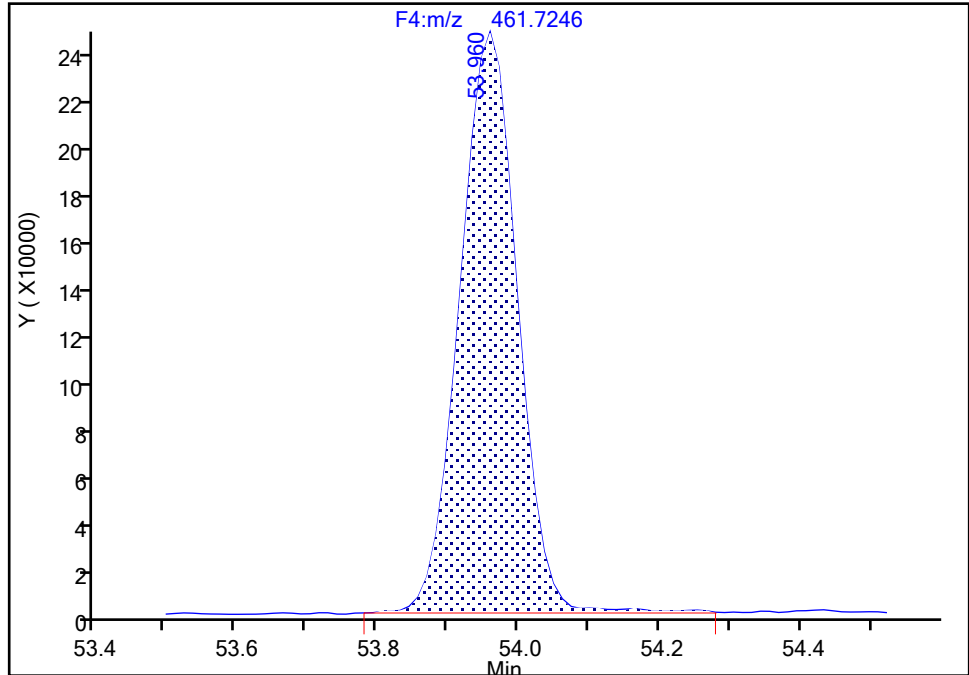
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Instrument ID: D2D  
Lims ID: IC L4  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 4  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F4(49.20 :57.50 )

**PCB-206, CAS: 40186-72-9**

Signal: 1

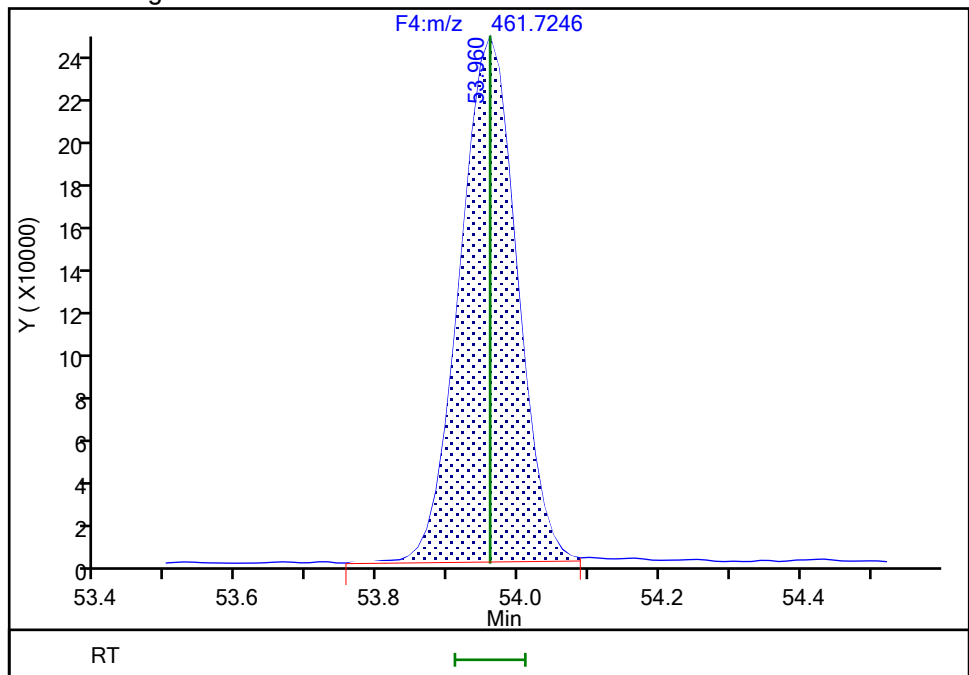
RT: 53.96  
Area: 1370361  
Amount: 47.494765  
Amount Units: pg/ul

## Processing Integration Results



RT: 53.96  
Area: 1363275  
Amount: 47.741918  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:13:08 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

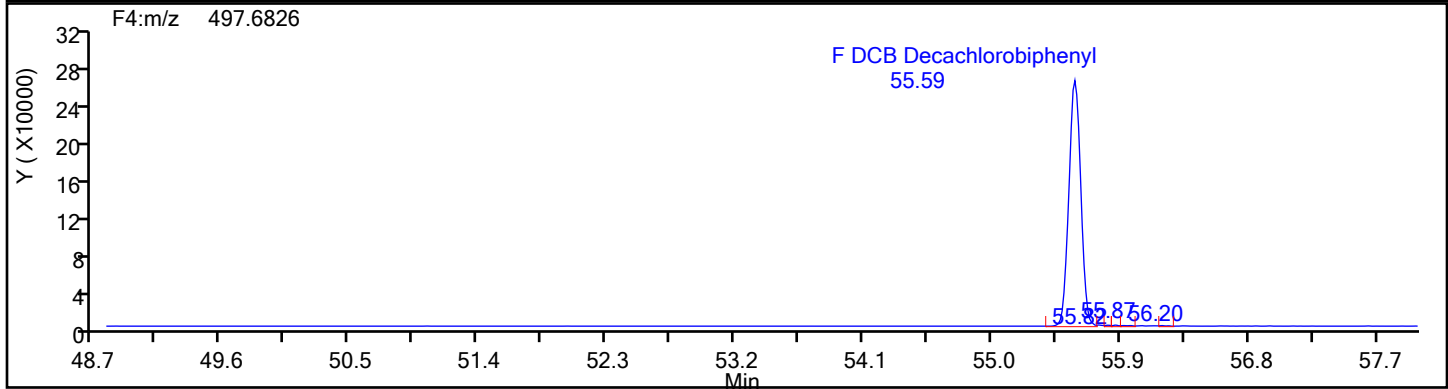
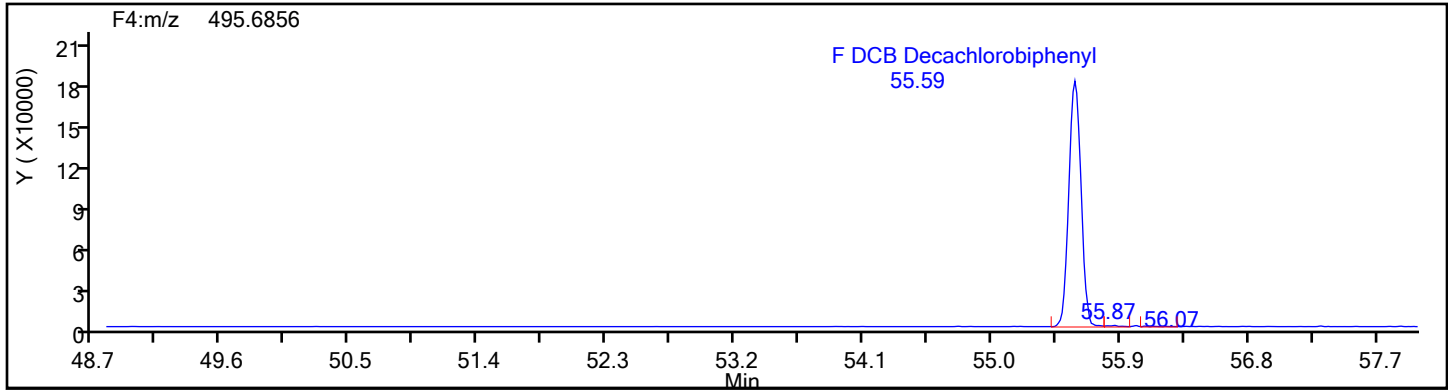
Page 2038 of 3199

BASFHWC-Pass 2024-06-04 13:03:38

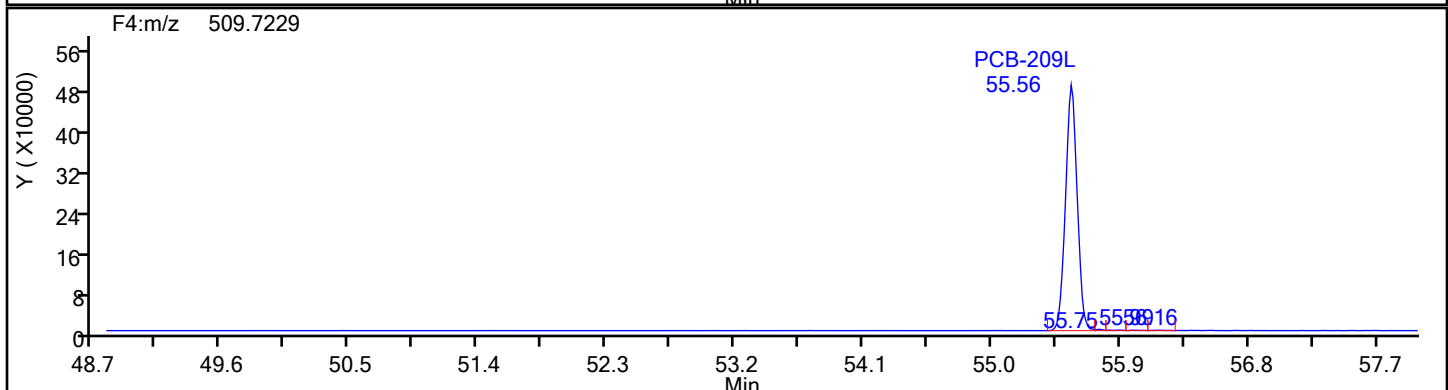
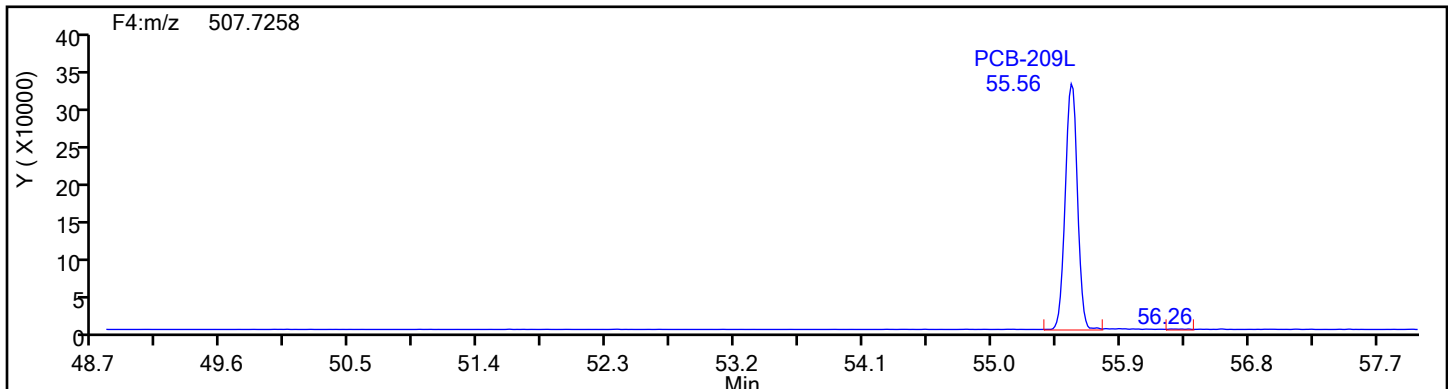
9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 4  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4

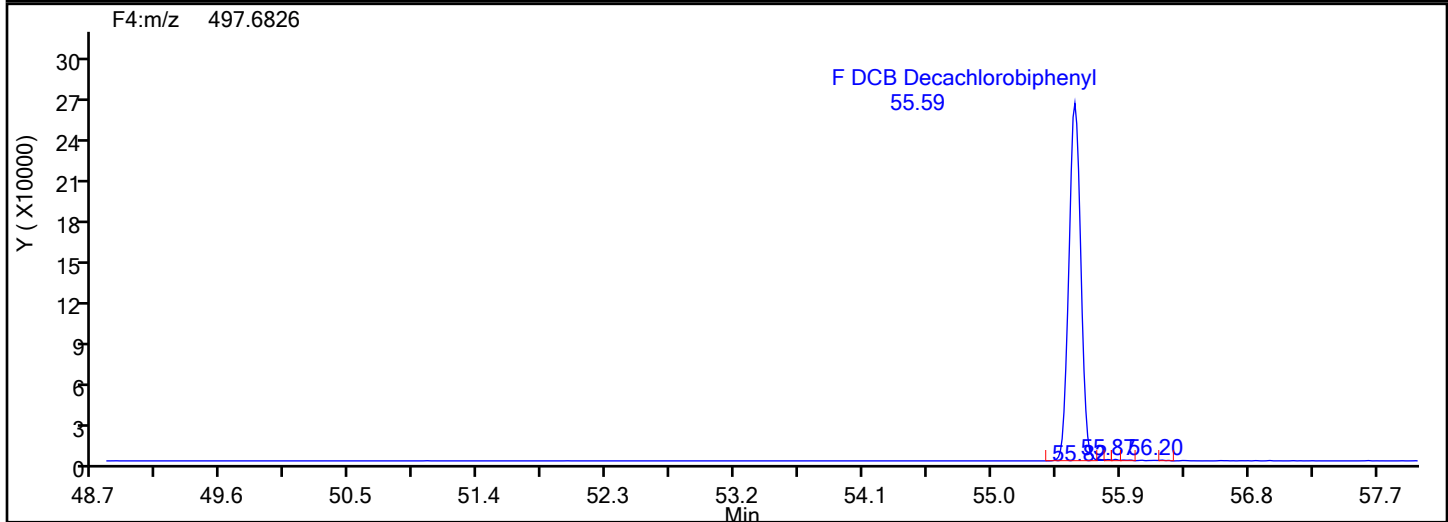
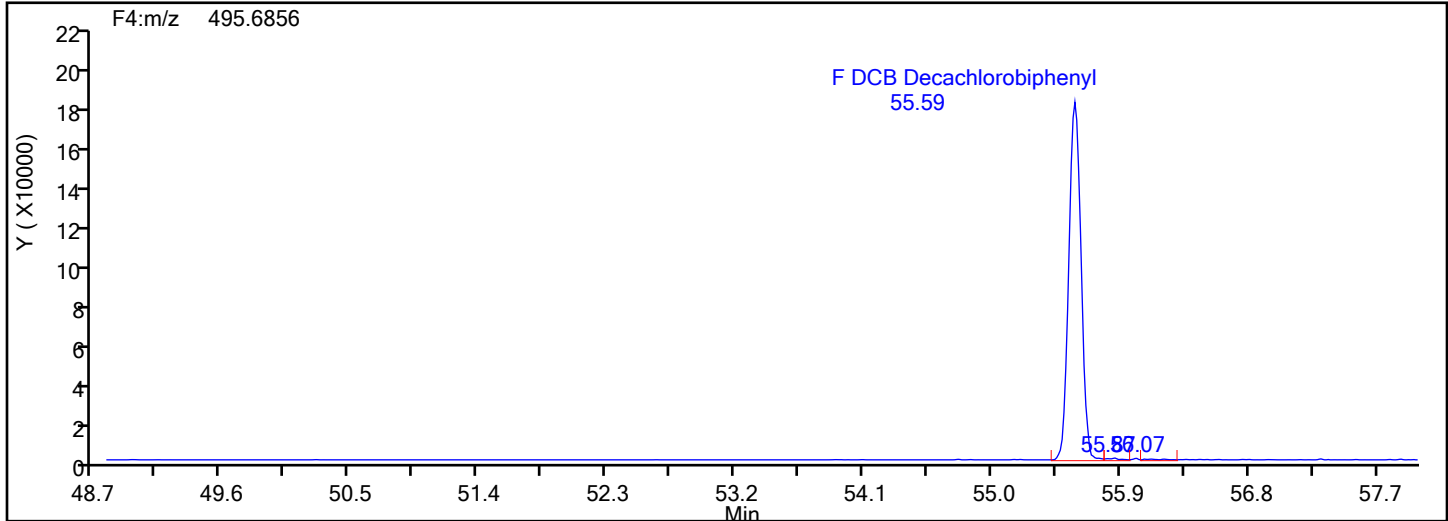


## DePCB F4 Standards

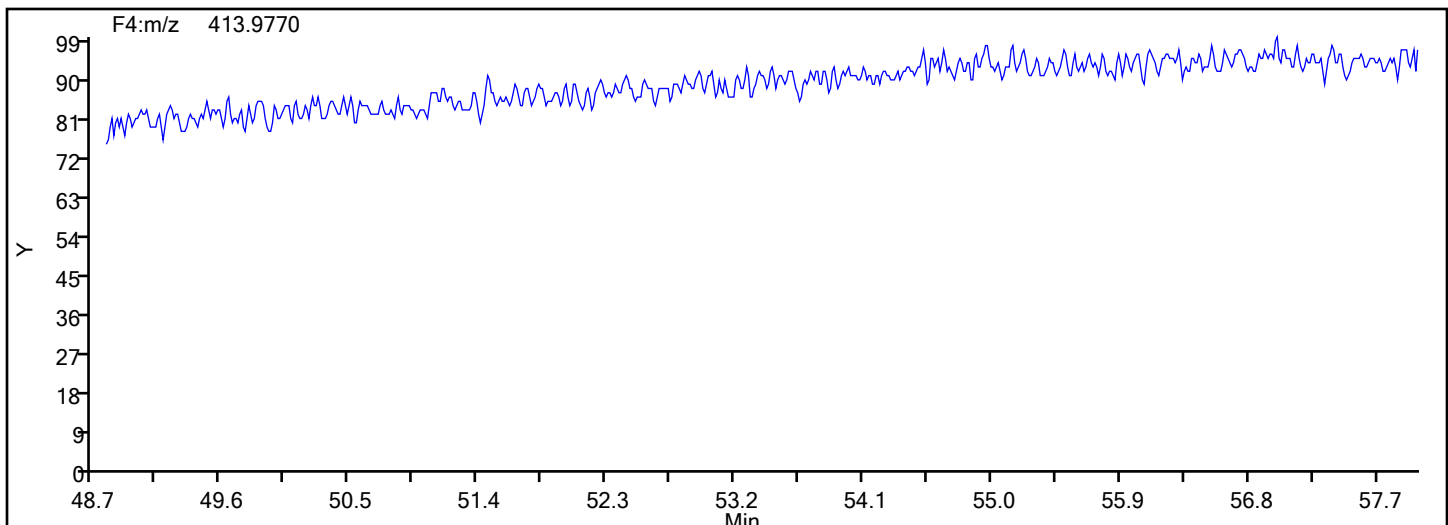


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi4.d  
Injection Date: 31-May-2024 19:10:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 4  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4



## DePCB F4 Lock Mass



Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d  
Lims ID: IC L5  
Client ID:  
Sample Type: IC Calib Level: 5  
Inject. Date: 31-May-2024 20:12:00 ALS Bottle#: 0 Worklist Smp#: 5  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0032883-005  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Sublist: chrom-PCBs\_D2D\*sub16  
Method: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 04-Jun-2024 14:28:19 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: V4XA

Date: 01-Jun-2024 03:02:33

Compound	RT (min.)	Area	Ratio	lcal RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total Monochlorobiphenyls					1217.8	1217.8	1.154	1.154		
D PCB-1L	11:36	13820437	3.16	1.6108	98.0	98.0	0.8301	0.8301	97.96	
D PCB-3L	13:45	13803706	3.20	1.5891	99.2	99.2	0.8414	0.8414	99.18	
PCB-1	11:36	68569399	3.29	1.2191	407.0	407.0	1.062	1.062	102	
PCB-2	13:36	67117936	3.26	1.1805	411.6	411.6	1.175	1.175	103	
PCB-3	13:46	67267765	3.23	1.2206	399.2	399.2	1.225	1.225	99.81	
S Total Dichlorobiphenyls					4678.9	4678.9	0.0272	0.0272		
D PCB-4L	14:01	5561618	1.57	0.6475	98.1	98.1	0.1179	0.1179	98.07	
* PCB-9L	15:58	8758158	1.62		100.0	100.0				
\$ PCB-8L	16:48	33958319	1.61	1.2066	371.9	371.9	0.0782	0.0782	92.96	
D PCB-15L	19:53	9575202	1.63	1.0789	101.3	101.3	0.0707	0.0707	101	
PCB-4	14:02	27890333	1.59	1.2818	391.2	391.2	0.0340	0.0340	97.81	
PCB-10	14:12	38655568	1.60	1.3149	388.4	388.4	0.0284	0.0284	97.11	
PCB-9	15:59	42181873	1.60	1.4224	391.8	391.8	0.0263	0.0263	97.95	
PCB-7	16:09	41182455	1.60	1.4134	385.0	385.0	0.0264	0.0264	96.24	
PCB-6	16:24	44979638	1.61	1.5421	385.4	385.4	0.0242	0.0242	96.35	
PCB-5	16:42	40020538	1.61	1.3395	394.8	394.8	0.0279	0.0279	98.69	
PCB-8	16:50	47031816	1.61	1.5889	391.1	391.1	0.0235	0.0235	97.78	
PCB-14	18:27	41013941	1.60	1.4025	386.4	386.4	0.0266	0.0266	96.60	
PCB-11	19:17	38153224	1.60	1.2951	389.3	389.3	0.0288	0.0288	97.31	
PCB-12	19:35	80149527	1.61	1.3358	792.8	792.8	0.0280	0.0280	99.10	
PCB-13 (C12)	19:35	80149527	1.61	1.3358	792.8	792.8	0.0280	0.0280	99.10	
PCB-15	19:54	47283812	1.61	1.2903	382.7	382.7	0.0253	0.0253	95.68	
S Total Trichlorobiphenyls					9347.4	9347.4	2.029	2.029		
D PCB-19L	17:06	3537933	1.07	0.6285	97.7	97.7	0.6831	0.6831	97.68	
* PCB-32L	20:22	5762324	1.10		100.0	100.0				
* PCB-31L	22:37	16737748	1.05		100.0	100.0				
\$ PCB-28L	22:55	63120528	1.05	1.0494	359.4	359.4	0.0845	0.0845	89.84	
D PCB-37L	26:55	14730805	1.06	0.8749	100.6	100.6	0.1013	0.1013	101	
PCB-19	17:08	18011092	1.06	1.2809	397.4	397.4	0.0291	0.0291	99.36	
PCB-18	18:58	49683955	1.06	1.7652	795.6	795.6	0.0211	0.0211	99.44	
PCB-30 (C18)	18:58	49683955	1.06	1.7652	795.6	795.6	0.0211	0.0211	99.44	
PCB-17	19:24	17339157	1.06	1.2430	394.3	394.3	0.0300	0.0300	98.57	



Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-27	19:38	26360662	1.06	1.8327	406.5	406.5	0.0203	0.0203	102	
PCB-24	19:45	23939751	1.05	1.6777	403.3	403.3	0.0222	0.0222	101	
PCB-16	19:52	16041877	1.05	1.1286	401.8	401.8	0.0330	0.0330	100	
PCB-32	20:23	25877431	1.05	1.8324	399.2	399.2	0.0203	0.0203	99.79	
PCB-34	21:38	63733574	1.06	1.1277	383.6	383.6	3.136	3.136	95.91	
PCB-23	21:48	59373148	1.04	1.0813	372.7	372.7	3.271	3.271	93.19	
PCB-26	22:07	130294664	1.05	1.1255	785.9	785.9	3.142	3.142	98.24	
PCB-29 (C26)	22:07	130294664	1.05	1.1255	785.9	785.9	3.142	3.142	98.24	
PCB-25	22:20	71143057	1.05	1.2728	379.4	379.4	2.779	2.779	94.86	
PCB-31	22:39	63731167	1.04	1.1532	375.1	375.1	3.067	3.067	93.79	
PCB-20	22:57	135356691	1.04	1.1718	784.1	784.1	3.018	3.018	98.02	
PCB-28 (C20)	22:57	135356691	1.04	1.1718	784.1	784.1	3.018	3.018	98.02	
PCB-21	23:07	121766982	1.03	1.0746	769.2	769.2	3.291	3.291	96.16	M
PCB-33 (C21)	23:07	121766982	1.03	1.0746	769.2	769.2	3.291	3.291	96.16	M
PCB-22	23:34	67196694	1.06	1.1932	382.3	382.3	2.964	2.964	95.57	
PCB-36	25:08	61342563	1.05	1.1071	376.2	376.2	3.195	3.195	94.04	
PCB-39	25:29	65934116	1.05	1.1581	386.5	386.5	3.054	3.054	96.62	
PCB-38	26:04	61948482	1.06	1.0843	387.8	387.8	3.262	3.262	96.96	
PCB-35	26:32	65004472	1.03	1.1297	390.6	390.6	3.131	3.131	97.66	
PCB-37	26:56	63280259	1.05	1.1435	375.7	375.7	3.093	3.093	93.92	
S Total Tetrachlorobiphenyls					15935	15935	2.936	2.936		
D PCB-54L	20:12	3162909	0.80	0.5562	98.7	98.7	0.0286	0.0286	98.68	
* PCB-52L	24:46	8264898	0.81		100.0	100.0				
\$ PCB-79L	32:41	42309500	0.80	1.0018	387.7	387.7	0.1449	0.1449	96.92	
D PCB-81L	33:40	10335461	0.79	1.2470	100.3	100.3	0.1356	0.1356	100	
D PCB-77L	34:14	11450569	0.81	1.3212	104.9	104.9	0.1280	0.1280	105	
PCB-54	20:12	16256949	0.81	1.2733	403.7	403.7	0.0496	0.0496	101	
PCB-50	22:23	70687479	0.78	0.8578	756.5	756.5	3.781	3.781	94.56	
PCB-53 (C50)	22:23	70687479	0.78	0.8578	756.5	756.5	3.781	3.781	94.56	
PCB-45	23:07	69485788	0.79	0.8264	771.9	771.9	3.925	3.925	96.48	M
PCB-51 (C45)	23:07	69485788	0.79	0.8264	771.9	771.9	3.925	3.925	96.48	M
PCB-46	23:21	28834506	0.80	0.7101	372.8	372.8	4.568	4.568	93.20	
PCB-52	24:46	38354033	0.80	0.9194	383.0	383.0	3.528	3.528	95.74	
PCB-43	24:56	84403637	0.79	1.0333	749.8	749.8	3.139	3.139	93.73	M
PCB-73 (C43)	24:56	84403637	0.79	1.0333	749.8	749.8	3.139	3.139	93.73	M
PCB-49	25:13	86848614	0.79	1.0685	746.2	746.2	3.035	3.035	93.27	
PCB-69 (C49)	25:13	86848614	0.79	1.0685	746.2	746.2	3.035	3.035	93.27	
PCB-48	25:32	34271968	0.79	0.8399	374.6	374.6	3.862	3.862	93.65	
PCB-44	25:47	120748315	0.78	0.9731	1139.1	1139.1	3.333	3.333	94.93	
PCB-47 (C44)	25:47	120748315	0.78	0.9731	1139.1	1139.1	3.333	3.333	94.93	
PCB-65 (C44)	25:47	120748315	0.78	0.9731	1139.1	1139.1	3.333	3.333	94.93	
PCB-59	26:05	147870904	0.78	1.1853	1145.3	1145.3	2.737	2.737	95.44	
PCB-62 (C59)	26:05	147870904	0.78	1.1853	1145.3	1145.3	2.737	2.737	95.44	
PCB-75 (C59)	26:05	147870904	0.78	1.1853	1145.3	1145.3	2.737	2.737	95.44	
PCB-42	26:18	33116229	0.79	0.8097	375.5	375.5	4.006	4.006	93.87	
PCB-40	26:48	109543755	0.78	0.8863	1134.6	1134.6	3.659	3.659	94.55	M
PCB-41 (C40)	26:48	109543755	0.78	0.8863	1134.6	1134.6	3.659	3.659	94.55	M
PCB-71 (C40)	26:48	109543755	0.78	0.8863	1134.6	1134.6	3.659	3.659	94.55	M
PCB-64	27:00	47066920	0.79	1.1776	366.9	366.9	2.754	2.754	91.73	
PCB-72	27:51	45559809	0.80	1.0943	382.2	382.2	2.964	2.964	95.55	
PCB-68	28:08	52714819	0.78	1.2533	386.1	386.1	2.588	2.588	96.53	
PCB-57	28:33	45493698	0.78	1.0818	386.1	386.1	2.998	2.998	96.51	
PCB-58	28:47	56416890	0.79	1.3253	390.8	390.8	2.447	2.447	97.69	
PCB-67	28:57	58816773	0.79	1.4230	379.4	379.4	2.279	2.279	94.86	
PCB-63	29:13	45663130	0.79	1.1240	373.0	373.0	2.886	2.886	93.24	
PCB-61	29:33	211563594	0.78	1.2612	1539.9	1539.9	2.572	2.572	96.24	M
PCB-70 (C61)	29:33	211563594	0.78	1.2612	1539.9	1539.9	2.572	2.572	96.24	M
PCB-74 (C61)	29:33	211563594	0.78	1.2612	1539.9	1539.9	2.572	2.572	96.24	M
PCB-76 (C61)	29:33	211563594	0.78	1.2612	1539.9	1539.9	2.572	2.572	96.24	M
PCB-66	29:53	52981003	0.78	1.2583	386.5	386.5	2.578	2.578	96.64	
PCB-55	30:03	54230284	0.79	1.3236	376.1	376.1	2.450	2.450	94.03	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-56	30:33	50251634	0.79	1.2334	374.0	374.0	2.630	2.630	93.50	
PCB-60	30:46	45739750	0.79	1.1230	373.9	373.9	2.888	2.888	93.47	
PCB-80	31:10	54703996	0.80	1.3243	379.2	379.2	2.449	2.449	94.81	
PCB-79	32:41	58766091	0.79	1.4368	375.5	375.5	2.257	2.257	93.87	
PCB-78	33:15	46136888	0.78	1.1618	364.5	364.5	2.792	2.792	91.14	
PCB-81	33:41	42731408	0.79	1.0802	382.7	382.7	3.042	3.042	95.69	
PCB-77	34:15	45244571	0.79	1.0836	364.7	364.7	2.955	2.955	91.16	
S Total Pentachlorobiphenyls					18026	18026	1.410	1.410		
D PCB-104L	25:42	6672003	1.61	1.2161	97.4	97.4	0.0255	0.0255	97.39	
\$ PCB-95L	28:40	18806941	1.59	0.7218	390.5	390.5	0.0346	0.0346	97.63	
* PCB-101L	31:36	5633550	1.58		100.0	100.0				
\$ PCB-111L	34:17	27823366	1.60	1.3699	360.5	360.5	0.0226	0.0226	90.13	
D PCB-123L	36:15	10377703	1.58	0.9731	100.6	100.6	1.159	1.159	101	
D PCB-118L	36:34	10740248	1.60	1.0102	100.3	100.3	1.116	1.116	100	
D PCB-114L	37:06	10559524	1.60	0.9949	100.2	100.2	1.133	1.133	100	
D PCB-105L	37:44	10096861	1.59	0.9514	100.2	100.2	1.185	1.185	100	
* PCB-127L	39:13	10595355	1.61		100.0	100.0				
D PCB-126L	40:50	10103302	1.58	0.9439	101.0	101.0	1.195	1.195	101	
PCB-104	25:43	26991793	1.59	1.0087	401.1	401.1	0.0414	0.0414	100	
PCB-96	26:05	29124757	1.58	1.0940	399.0	399.0	0.0382	0.0382	99.75	
PCB-103	28:01	23026262	1.59	0.8741	394.8	394.8	0.0478	0.0478	98.70	
PCB-94	28:15	19293687	1.58	0.7640	378.5	378.5	0.0547	0.0547	94.62	
PCB-95	28:41	21743452	1.58	0.8033	405.7	405.7	0.0520	0.0520	101	
PCB-93	28:54	43937859	1.60	0.8429	781.3	781.3	0.0496	0.0496	97.66	
PCB-100 (C93)	28:54	43937859	1.60	0.8429	781.3	781.3	0.0496	0.0496	97.66	
PCB-98	29:04	43293553	1.58	0.8262	785.4	785.4	0.0506	0.0506	98.18	M
PCB-102 (C98)	29:04	43293553	1.58	0.8262	785.4	785.4	0.0506	0.0506	98.18	M
PCB-88	29:33	42407684	1.58	0.8013	793.2	793.2	0.0522	0.0522	99.15	
PCB-91 (C88)	29:33	42407684	1.58	0.8013	793.2	793.2	0.0522	0.0522	99.15	
PCB-84	29:46	18942616	1.58	0.7299	389.0	389.0	0.0573	0.0573	97.24	
PCB-89	30:15	19980724	1.60	0.7798	384.0	384.0	0.0536	0.0536	96.01	
PCB-121	30:40	34064929	1.60	1.2964	393.8	393.8	0.0322	0.0322	98.46	
PCB-92	31:02	22258079	1.58	0.8546	390.4	390.4	0.0489	0.0489	97.60	
PCB-90	31:36	75031128	1.59	0.9550	1177.6	1177.6	0.0438	0.0438	98.13	
PCB-101 (C90)	31:36	75031128	1.59	0.9550	1177.6	1177.6	0.0438	0.0438	98.13	
PCB-113 (C90)	31:36	75031128	1.59	0.9550	1177.6	1177.6	0.0438	0.0438	98.13	
PCB-83	32:12	44113984	1.58	0.8385	788.5	788.5	0.0499	0.0499	98.57	
PCB-99 (C83)	32:12	44113984	1.58	0.8385	788.5	788.5	0.0499	0.0499	98.57	
PCB-112	32:19	36244741	1.58	1.4111	385.0	385.0	0.0296	0.0296	96.24	
PCB-86	32:41	167069124	1.61	1.0473	2391.0	2391.0	0.0399	0.0399	99.63	M
PCB-87 (C86)	32:41	167069124	1.61	1.0473	2391.0	2391.0	0.0399	0.0399	99.63	M
PCB-97 (C86)	32:41	167069124	1.61	1.0473	2391.0	2391.0	0.0399	0.0399	99.63	M
PCB-109 (C86)	32:41	167069124	1.61	1.0473	2391.0	2391.0	0.0399	0.0399	99.63	M
PCB-119 (C86)	32:41	167069124	1.61	1.0473	2391.0	2391.0	0.0399	0.0399	99.63	M
PCB-125 (C86)	32:41	167069124	1.61	1.0473	2391.0	2391.0	0.0399	0.0399	99.63	M
PCB-85	33:25	81508464	1.59	1.0408	1173.8	1173.8	0.0402	0.0402	97.81	
PCB-116 (C85)	33:25	81508464	1.59	1.0408	1173.8	1173.8	0.0402	0.0402	97.81	
PCB-117 (C85)	33:25	81508464	1.59	1.0408	1173.8	1173.8	0.0402	0.0402	97.81	
PCB-110	33:36	61605039	1.58	1.1919	774.7	774.7	0.0351	0.0351	96.84	M
PCB-115 (C110)	33:36	61605039	1.58	1.1919	774.7	774.7	0.0351	0.0351	96.84	M
PCB-82	33:54	21705824	1.60	0.8303	391.8	391.8	0.0504	0.0504	97.95	
PCB-111	34:19	31849869	1.58	1.2125	393.7	393.7	0.0345	0.0345	98.42	
PCB-120	34:47	38221427	1.58	1.4762	388.1	388.1	0.0283	0.0283	97.01	
PCB-108	35:54	91375734	1.59	1.1405	772.2	772.2	4.173	4.173	96.52	
PCB-124 (C108)	35:54	91375734	1.59	1.1405	772.2	772.2	4.173	4.173	96.52	
PCB-107	36:09	48169388	1.55	1.2121	383.0	383.0	3.926	3.926	95.76	
PCB-123	36:16	43726655	1.57	1.0722	393.0	393.0	4.294	4.294	98.24	
PCB-106	36:22	43503164	1.56	1.0839	386.8	386.8	4.390	4.390	96.71	
PCB-118	36:35	49487841	1.57	1.2055	382.2	382.2	3.812	3.812	95.55	
PCB-122	36:56	38072113	1.57	0.9567	383.5	383.5	4.974	4.974	95.89	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-114	37:07	44610183	1.56	1.0842	389.7	389.7	4.349	4.349	97.42	
PCB-105	37:46	45872125	1.58	1.1879	382.5	382.5	4.101	4.101	95.61	
PCB-127	39:14	46076121	1.57	1.1394	389.8	389.8	4.177	4.177	97.44	
PCB-126	40:51	44661015	1.58	1.0976	402.7	402.7	4.590	4.590	101	
S Total Hexachlorobiphenyls					16547	16547	1.592	1.592		
D PCB-155L	31:22	5892178	1.25	1.0851	96.4	96.4	0.0349	0.0349	96.39	
\$ PCB-153L	38:27	27374804	1.28	0.9169	348.1	348.1	0.8737	0.8737	87.02	
* PCB-138L	39:41	7155531	1.28		100.0	100.0				
\$ PCB-159L	41:56	4551409	1.30	0.5118	101.6	101.6	1.285	1.285	102	
D PCB-167L	42:42	8748546	1.27	1.2572	97.2	97.2	0.6533	0.6533	97.25	
D PCB-156L	43:50	16797326	1.28	1.2106	193.9	193.9	0.6785	0.6785	96.95	
D PCB-157L (C156L)	43:50	16797326	1.28	1.2106	193.9	193.9	0.6785	0.6785	96.95	
D PCB-169L	47:05	8761705	1.28	1.2439	98.4	98.4	0.6604	0.6604	98.44	
PCB-155	31:24	22251730	1.26	0.9444	399.9	399.9	0.0297	0.0297	99.97	
PCB-152	31:35	22836429	1.26	0.9895	391.7	391.7	0.0284	0.0284	97.92	
PCB-150	31:45	23890856	1.27	1.0132	400.2	400.2	0.0277	0.0277	100	
PCB-136	32:07	23743749	1.27	1.0116	398.4	398.4	0.0277	0.0277	99.59	
PCB-145	32:25	22672411	1.28	0.9685	397.3	397.3	0.0290	0.0290	99.33	
PCB-148	33:56	17957394	1.27	0.7603	400.9	400.9	0.0369	0.0369	100	
PCB-135	34:31	34125616	1.27	0.7256	798.2	798.2	0.0387	0.0387	99.78	M
PCB-151 (C135)	34:31	34125616	1.27	0.7256	798.2	798.2	0.0387	0.0387	99.78	M
PCB-154	34:47	19278459	1.26	0.8129	402.5	402.5	0.0345	0.0345	101	
PCB-144	35:05	18139372	1.26	0.7852	392.1	392.1	0.0357	0.0357	98.01	
PCB-147	35:27	59645820	1.26	0.8950	777.0	777.0	2.328	2.328	97.13	
PCB-149 (C147)	35:27	59645820	1.26	0.8950	777.0	777.0	2.328	2.328	97.13	
PCB-134	35:45	52378003	1.26	0.7967	766.5	766.5	2.615	2.615	95.82	
PCB-143 (C134)	35:45	52378003	1.26	0.7967	766.5	766.5	2.615	2.615	95.82	
PCB-139	36:03	59038438	1.26	0.8769	785.0	785.0	2.376	2.376	98.13	
PCB-140 (C139)	36:03	59038438	1.26	0.8769	785.0	785.0	2.376	2.376	98.13	
PCB-131	36:15	25806641	1.26	0.7503	401.0	401.0	2.777	2.777	100	
PCB-142	36:23	25727292	1.25	0.7507	399.6	399.6	2.775	2.775	99.89	
PCB-132	36:42	24603976	1.25	0.7489	383.0	383.0	2.782	2.782	95.76	
PCB-133	37:13	28247093	1.25	0.8096	406.8	406.8	2.574	2.574	102	
PCB-165	37:37	34588489	1.26	1.0247	393.5	393.5	2.033	2.033	98.39	
PCB-146	37:52	32748351	1.25	0.9637	396.2	396.2	2.162	2.162	99.05	
PCB-161	37:59	38113824	1.26	1.1288	393.7	393.7	1.846	1.846	98.42	
PCB-153	38:29	74572114	1.26	1.0938	794.9	794.9	1.905	1.905	99.36	
PCB-168 (C153)	38:29	74572114	1.26	1.0938	794.9	794.9	1.905	1.905	99.36	
PCB-141	38:40	29064533	1.26	0.8755	387.1	387.1	2.380	2.380	96.76	
PCB-130	39:04	23530162	1.26	0.7051	389.1	389.1	2.955	2.955	97.27	
PCB-137	39:18	25797296	1.25	0.7767	387.3	387.3	2.683	2.683	96.82	
PCB-164	39:25	35754648	1.27	1.0382	401.5	401.5	2.007	2.007	100	
PCB-129	39:44	127135379	1.26	0.9464	1566.2	1566.2	2.202	2.202	97.89	M
PCB-138 (C129)	39:44	127135379	1.26	0.9464	1566.2	1566.2	2.202	2.202	97.89	M
PCB-160 (C129)	39:44	127135379	1.26	0.9464	1566.2	1566.2	2.202	2.202	97.89	M
PCB-163 (C129)	39:44	127135379	1.26	0.9464	1566.2	1566.2	2.202	2.202	97.89	M
PCB-158	40:06	43420955	1.27	1.3110	386.1	386.1	1.589	1.589	96.54	Ma
PCB-128	40:57	68077278	1.25	0.9829	807.5	807.5	2.120	2.120	101	
PCB-166 (C128)	40:57	68077278	1.25	0.9829	807.5	807.5	2.120	2.120	101	
PCB-159	41:58	46357455	1.25	1.3856	390.1	390.1	1.504	1.504	97.52	
PCB-162	42:15	41684795	1.25	1.2571	386.6	386.6	1.657	1.657	96.65	
PCB-167	42:43	37916934	1.25	1.1159	388.4	388.4	1.533	1.533	97.10	
PCB-156	43:52	73585151	1.25	1.1104	789.0	789.0	2.343	2.343	98.63	
PCB-157 (C156)	43:52	73585151	1.25	1.1104	789.0	789.0	2.343	2.343	98.63	
PCB-169	47:05	39746833	1.28	1.1628	390.1	390.1	1.518	1.518	97.53	
S Total Heptachlorobiphenyls					9335.4	9335.4	0.0337	0.0337		
D PCB-188L	37:06	7006215	1.08	1.3133	100.5	100.5	0.0452	0.0452	100	
\$ PCB-178L	40:09	20165082	1.08	1.0313	368.2	368.2	0.0575	0.0575	92.06	
* PCB-180L	45:14	5309833	1.07		100.0	100.0				

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D PCB-170L	46:30	4386822	1.04	0.8362	98.8	98.8	0.0709	0.0709	98.80	
D PCB-189L	49:36	10502203	1.06	1.4414	99.5	99.5	0.5233	0.5233	99.49	
PCB-188	37:07	30886057	1.06	1.1350	388.4	388.4	0.0130	0.0130	97.10	
PCB-179	37:28	31130650	1.06	1.4276	382.8	382.8	0.0130	0.0130	95.70	
PCB-184	37:59	31018294	1.06	1.3672	398.3	398.3	0.0135	0.0135	99.57	
PCB-176	38:20	27007633	1.05	1.2331	384.5	384.5	0.0150	0.0150	96.12	
PCB-186	38:48	33163682	1.05	1.4737	395.0	395.0	0.0126	0.0126	98.76	
PCB-178	40:10	20314842	1.05	0.8946	398.6	398.6	0.0207	0.0207	99.66	
PCB-175	40:48	21220414	1.05	0.9524	391.1	391.1	0.0194	0.0194	97.78	
PCB-187	41:05	24989319	1.05	1.1018	398.1	398.1	0.0168	0.0168	99.53	
PCB-182	41:17	21292850	1.06	0.9247	404.2	404.2	0.0200	0.0200	101	
PCB-183	41:42	41853835	1.07	0.9825	747.8	747.8	0.0188	0.0188	93.48	Ma
PCB-185 (C183)	41:42	41853835	1.07	0.9825	747.8	747.8	0.0188	0.0188	93.48	Ma
PCB-174	41:56	21783169	1.05	0.9642	396.6	396.6	0.0192	0.0192	99.15	
PCB-177	42:22	21710754	1.05	0.9773	390.0	390.0	0.0189	0.0189	97.50	
PCB-181	42:45	21004998	1.04	0.9505	387.9	387.9	0.0195	0.0195	96.98	
PCB-171	42:58	39921079	1.06	0.9336	750.6	750.6	0.0198	0.0198	93.83	
PCB-173 (C171)	42:58	39921079	1.06	0.9336	750.6	750.6	0.0198	0.0198	93.83	
PCB-172	44:37	18849904	1.05	0.8519	388.4	388.4	0.0217	0.0217	97.11	
PCB-192	44:54	30290999	1.06	1.3459	395.1	395.1	0.0138	0.0138	98.77	
PCB-180	45:14	51963197	1.06	1.1676	781.3	781.3	0.0159	0.0159	97.66	
PCB-193 (C180)	45:14	51963197	1.06	1.1676	781.3	781.3	0.0159	0.0159	97.66	
PCB-191	45:37	29149341	1.05	1.2891	396.9	396.9	0.0144	0.0144	99.24	
PCB-170	46:31	19833085	1.07	1.1865	381.0	381.0	0.0211	0.0211	95.26	
PCB-190	47:02	29063711	1.07	1.3322	383.0	383.0	0.0139	0.0139	95.74	
PCB-189	49:38	40021622	1.05	0.9633	395.6	395.6	0.3673	0.3673	98.90	
S Total Octachlorobiphenyls					4709.7	4709.7	0.5380	0.5380		
D PCB-202L	42:28	5079458	0.91	0.9818	97.4	97.4	0.0159	0.0159	97.43	
* PCB-194L	51:43	7323260	0.91		100.0	100.0				
D PCB-205L	52:11	8638618	0.92	1.1786	100.1	100.1	0.0710	0.0710	100	
PCB-202	42:29	21547219	0.90	1.0359	409.5	409.5	0.0265	0.0265	102	
PCB-201	43:24	19791616	0.91	0.9754	399.5	399.5	0.0281	0.0281	99.87	
PCB-204	44:05	20940493	0.90	1.0485	393.2	393.2	0.0262	0.0262	98.30	
PCB-197	44:19	22095397	0.90	1.1458	379.6	379.6	0.0239	0.0239	94.91	
PCB-200	44:25	20163621	0.92	1.0072	394.1	394.1	0.0272	0.0272	98.53	
PCB-198	47:12	34466252	0.90	0.8698	780.1	780.1	0.0315	0.0315	97.52	
PCB-199 (C198)	47:12	34466252	0.90	0.8698	780.1	780.1	0.0315	0.0315	97.52	
PCB-196	47:53	15393419	0.91	0.7806	388.2	388.2	0.0351	0.0351	97.05	
PCB-203	48:05	18781869	0.91	0.9292	397.9	397.9	0.0295	0.0295	99.48	
PCB-195	49:24	28114967	0.90	0.8263	393.9	393.9	2.181	2.181	98.47	
PCB-194	51:44	32373452	0.89	0.9735	385.0	385.0	1.852	1.852	96.24	
PCB-205	52:13	36524269	0.91	1.0878	388.7	388.7	1.657	1.657	97.17	
S Total Nonachlorobiphenyls					1133.6	1133.6	0.5639	0.5639		
D PCB-208L	49:08	7135804	0.80	0.9576	101.8	101.8	0.2341	0.2341	102	
D PCB-206L	53:56	5087280	0.82	0.6947	100.0	100.0	0.3227	0.3227	100	
PCB-208	49:10	31300386	0.78	1.1374	385.6	385.6	0.5345	0.5345	96.41	
PCB-207	50:05	31656277	0.79	1.3756	376.5	376.5	0.5166	0.5166	94.14	
PCB-206	53:58	25218974	0.79	1.3346	371.4	371.4	0.6407	0.6407	92.86	
D PCB-209L	55:35	4867564	0.71	0.6669	99.7	99.7	0.0649	0.0649	99.67	
DCB Decachlorobiphenyl	55:36	20909699	0.71	1.1004	390.4	390.4	0.0167	0.0167	97.59	
S Polychlorinated biphenyls, Total					80103	80103	1.016	1.016		

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

61L41668P\_00006

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi5.d  
Lims ID: IC L5  
Client ID:  
Sample Type: IC Calib Level: 5  
Inject. Date: 31-May-2024 20:12:00 ALS Bottle#: 0 Worklist Smp#: 5  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0032883-005  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Sublist: chrom-PCBs\_D2D\*sub16  
Method: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 04-Jun-2024 14:28:19 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: V4XA

Date: 01-Jun-2024 03:02:33

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:36	11:36	-1	0.726	10499896	4198021	10819	27047	388		
202.0766	11:36	11:36	-1	0.726	3320541	1323401	3105	7762	426	3.16(2.66-3.60)	
PCB-3L											
200.0795	13:45	13:46	-1	0.861	10518916	3643335	10819	27047	337		
202.0766	13:45	13:46	-1	0.861	3284790	1138975	3105	7762	367	3.20(2.66-3.60)	
PCB-1											
188.0393	11:36	11:37	-1	1.001	52567345	21590493	21610	54025	999		
190.0363	11:36	11:37	-1	1.001	16002054	6532639	6987	17467	935	3.29(2.66-3.60)	
PCB-2											
188.0393	13:36	13:36	-1	0.989	51348814	17597324	21610	54025	814		
190.0363	13:36	13:36	-1	0.989	15769122	5303272	6987	17467	759	3.26(2.66-3.60)	
PCB-3											
188.0393	13:46	13:47	-1	1.001	51380244	17946321	21610	54025	830		
190.0363	13:46	13:47	-1	1.001	15887521	5461066	6987	17467	782	3.23(2.66-3.60)	
PCB-4L											
234.0406	14:01	14:02	-1	0.877	3393758	1102554	615	1537	1793		
236.0376	14:01	14:02	-1	0.877	2167860	702670	180	450	3904	1.57(1.33-1.79)	
PCB-9L											
234.0406	15:58	15:59	-1		5411179	1596131	615	1537	2595		
236.0376	15:58	15:59	-1		3346979	1007278	180	450	5596	1.62(1.33-1.79)	
PCB-8L											
234.0406	16:48	16:50	-2	1.199	20947142	5874636	615	1537	9552		
236.0376	16:48	16:50	-2	1.199	13011177	3675874	180	450	20422	1.61(1.33-1.79)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:53	19:54	-1	1.245	5935483	1491131	615	1537	2425		
236.0376	19:53	19:54	-1	1.245	3639719	917458	180	450	5097	1.63(1.33-1.79)	
PCB-4											
222.0003	14:02	14:02	-1	1.001	17125120	5792666	139	347	41674		
223.9974	14:02	14:02	-1	1.001	10765213	3590885	176	440	20403	1.59(1.33-1.79)	
PCB-10											
222.0003	14:12	14:13	-1	1.013	23788672	7684901	139	347	55287		
223.9974	14:12	14:13	-1	1.013	14866896	4745168	176	440	26961	1.60(1.33-1.79)	
PCB-9											
222.0003	15:59	16:00	-1	1.141	25947466	7827851	139	347	56315		
223.9974	15:59	16:00	-1	1.141	16234407	4866647	176	440	27651	1.60(1.33-1.79)	
PCB-7											
222.0003	16:09	16:10	-1	1.153	25344499	7265656	139	347	52271		
223.9974	16:09	16:10	-2	1.152	15837956	4529524	176	440	25736	1.60(1.33-1.79)	
PCB-6											
222.0003	16:24	16:25	-2	1.170	27732482	8207660	139	347	59048		
223.9974	16:24	16:25	-2	1.170	17247156	5056931	176	440	28733	1.61(1.33-1.79)	
PCB-5											
222.0003	16:42	16:43	-2	1.192	24668749	7089107	139	347	51001		
223.9974	16:42	16:43	-2	1.192	15351789	4393456	176	440	24963	1.61(1.33-1.79)	
PCB-8											
222.0003	16:50	16:50	-1	1.201	28996587	8328197	139	347	59915		
223.9974	16:50	16:50	-1	1.201	18035229	5152470	176	440	29275	1.61(1.33-1.79)	
PCB-14											
222.0003	18:27	18:28	-1	0.927	25213771	6854207	139	347	49311		
223.9974	18:27	18:28	-1	0.927	15800170	4277730	176	440	24305	1.60(1.33-1.79)	
PCB-11											
222.0003	19:17	19:18	-1	0.970	23488532	6267377	139	347	45089		
223.9974	19:17	19:18	-1	0.970	14664692	3910870	176	440	22221	1.60(1.33-1.79)	
PCB-12											
222.0003	19:35	19:36	-2	0.984	49408565	8392868	139	347	60380		
223.9974	19:35	19:36	-2	0.984	30740962	5217436	176	440	29645	1.61(1.33-1.79)	
PCB-13 (C12)											
222.0003	19:35	19:36	-2	0.984	49408565	8392868	139	347	60380		
223.9974	19:35	19:36	-2	0.984	30740962	5217436	176	440	29645	1.61(1.33-1.79)	
PCB-15											
222.0003	19:54	19:55	-1	1.001	29162144	7221687	139	347	51955		
223.9974	19:54	19:55	-1	1.001	18121668	4507472	176	440	25611	1.61(1.33-1.79)	
PCB-19L											
268.0016	17:06	17:08	-2	0.840	1829473	502199	905	2262	555		
269.9986	17:06	17:08	-2	0.840	1708460	470154	1528	3820	308	1.07(0.88-1.20)	
PCB-32L											
268.0016	20:22	20:23	-1		3018197	723962	905	2262	800		
269.9986	20:22	20:23	-1		2744127	692559	1528	3820	453	1.10(0.88-1.20)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-31L											
268.0016	22:37	22:38	-1		8581779	2065110	874	2185	2363		
269.9986	22:37	22:38	-1		8155969	1968392	556	1390	3540	1.05(0.88-1.20)	
PCB-28L											
268.0016	22:55	22:56	-1	1.013	32391092	7626916	874	2185	8726		
269.9986	22:55	22:56	-1	1.013	30729436	7307491	556	1390	13143	1.05(0.88-1.20)	
PCB-37L											
268.0016	26:55	26:55	-1	1.189	7573702	1631541	874	2185	1867		
269.9986	26:55	26:55	-1	1.189	7157103	1570970	556	1390	2825	1.06(0.88-1.20)	
PCB-19											
255.9613	17:08	17:09	-1	1.002	9275969	2592939	66	165	39287		
257.9584	17:08	17:09	-1	1.002	8735123	2454816	79	197	31074	1.06(0.88-1.20)	
PCB-18											
255.9613	18:58	18:59	-1	1.109	25519771	4914657	66	165	74465		
257.9584	18:57	18:59	-2	1.108	24164184	4688146	79	197	59344	1.06(0.88-1.20)	
PCB-30 (C18)											
255.9613	18:58	18:59	-1	1.109	25519771	4914657	66	165	74465		
257.9584	18:57	18:59	-2	1.108	24164184	4688146	79	197	59344	1.06(0.88-1.20)	
PCB-17											
255.9613	19:24	19:26	-2	1.135	8919519	2281516	66	165	34568		
257.9584	19:24	19:26	-2	1.135	8419638	2152476	79	197	27247	1.06(0.88-1.20)	
PCB-27											
255.9613	19:38	19:39	-1	1.148	13533947	3445740	66	165	52208		
257.9584	19:38	19:39	-1	1.148	12826715	3262599	79	197	41299	1.06(0.88-1.20)	
PCB-24											
255.9613	19:45	19:46	-1	1.155	12241488	3105438	66	165	47052		
257.9584	19:45	19:46	-1	1.155	11698263	2945413	79	197	37284	1.05(0.88-1.20)	
PCB-16											
255.9613	19:52	19:53	-1	1.162	8226613	2110810	66	165	31982		
257.9584	19:52	19:53	-1	1.162	7815264	1959309	79	197	24801	1.05(0.88-1.20)	
PCB-32											
255.9613	20:23	20:23	-1	1.192	13256398	3275466	66	165	49628		
257.9584	20:23	20:23	-1	1.192	12621033	3130282	79	197	39624	1.05(0.88-1.20)	
PCB-34											
255.9613	21:38	21:39	-1	1.265	32745543	8016693	23154	57885	346		
257.9584	21:38	21:39	-1	1.265	30988031	7632742	22151	55377	345	1.06(0.88-1.20)	
PCB-23											
255.9613	21:48	21:48	-1	1.274	30315107	7381738	23154	57885	319		
257.9584	21:48	21:48	-1	1.274	29058041	7037873	22151	55377	318	1.04(0.88-1.20)	
PCB-26											
255.9613	22:07	22:08	-1	1.293	66680760	14331555	23154	57885	619		
257.9584	22:07	22:08	-1	1.293	63613904	13616308	22151	55377	615	1.05(0.88-1.20)	
PCB-29 (C26)											
255.9613	22:07	22:08	-1	1.293	66680760	14331555	23154	57885	619		
257.9584	22:07	22:08	-1	1.293	63613904	13616308	22151	55377	615	1.05(0.88-1.20)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-25											
255.9613	22:20	22:21	-1	0.830	36470489	8333326	23154	57885	360		
257.9584	22:20	22:21	-1	0.830	34672568	7829965	22151	55377	353	1.05(0.88-1.20)	
PCB-31											
255.9613	22:39	22:40	-1	0.842	32476974	7710222	23154	57885	333		
257.9584	22:39	22:40	-1	0.842	31254193	7419289	22151	55377	335	1.04(0.88-1.20)	
PCB-20											
255.9613	22:57	22:58	-1	0.853	68894723	13821483	23154	57885	597		
257.9584	22:57	22:58	-1	0.853	66461968	13383374	22151	55377	604	1.04(0.88-1.20)	
PCB-28 (C20)											
255.9613	22:57	22:58	-1	0.853	68894723	13821483	23154	57885	597		
257.9584	22:57	22:58	-1	0.853	66461968	13383374	22151	55377	604	1.04(0.88-1.20)	
PCB-21											
255.9613	23:07	23:07	-1	0.859	61897185	7846418	23154	57885	339		M
257.9584	23:07	23:07	-1	0.859	59869797	7552076	22151	55377	341	1.03(0.88-1.20)	M
PCB-33 (C21)											
255.9613	23:07	23:07	-1	0.859	61897185	7846418	23154	57885	339		M
257.9584	23:07	23:07	-1	0.859	59869797	7552076	22151	55377	341	1.03(0.88-1.20)	M
PCB-22											
255.9613	23:34	23:35	-1	0.876	34499171	8137093	23154	57885	351		
257.9584	23:34	23:35	-1	0.876	32697523	7673610	22151	55377	346	1.06(0.88-1.20)	
PCB-36											
255.9613	25:08	25:09	-1	0.934	31347288	6777980	23154	57885	293		
257.9584	25:08	25:09	-1	0.934	29995275	6531454	22151	55377	295	1.05(0.88-1.20)	
PCB-39											
255.9613	25:29	25:30	-1	0.947	33790805	7562066	23154	57885	327		
257.9584	25:29	25:30	-1	0.947	32143311	7157383	22151	55377	323	1.05(0.88-1.20)	
PCB-38											
255.9613	26:04	26:05	-1	0.969	31803876	7164978	23154	57885	309		
257.9584	26:04	26:05	-1	0.969	30144606	6756682	22151	55377	305	1.06(0.88-1.20)	
PCB-35											
255.9613	26:32	26:32	-1	0.986	32910785	7272006	23154	57885	314		
257.9584	26:32	26:32	-1	0.986	32093687	6905650	22151	55377	312	1.03(0.88-1.20)	
PCB-37											
255.9613	26:56	26:57	-1	1.001	32362844	7155081	23154	57885	309		
257.9584	26:56	26:57	-1	1.001	30917415	6830742	22151	55377	308	1.05(0.88-1.20)	
PCB-54L											
301.9626	20:12	20:12	-1	0.816	1405547	341568	84	210	4066		
303.9597	20:12	20:12	-1	0.816	1757362	428899	6	15	71483	0.80(0.65-0.89)	
PCB-52L											
301.9626	24:46	24:46	-1		3693083	829495	597	1492	1389		
303.9597	24:46	24:46	-1		4571815	1012108	649	1622	1559	0.81(0.65-0.89)	
PCB-79L											
301.9626	32:41	32:41	0	0.971	18813935	3902461	597	1492	6537		
303.9597	32:41	32:41	0	0.971	23495565	4853340	649	1622	7478	0.80(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-81L											
301.9626	33:40	33:41	-1	1.360	4569478	932159	597	1492	1561		
303.9597	33:40	33:41	-1	1.360	5765983	1185814	649	1622	1827	0.79(0.65-0.89)	
PCB-77L											
301.9626	34:14	34:14	-1	1.382	5138114	984600	597	1492	1649		
303.9597	34:14	34:14	-1	1.382	6312455	1189506	649	1622	1833	0.81(0.65-0.89)	
PCB-54											
289.9224	20:12	20:13	-1	1.000	7283061	1843939	51	127	36156		
291.9194	20:12	20:13	-1	1.000	8973888	2249882	144	360	15624	0.81(0.65-0.89)	
PCB-50											
289.9224	22:23	22:24	-1	1.108	31048634	6450170	11985	29962	538		
291.9194	22:23	22:24	-1	1.108	39638845	8263179	15858	39645	521	0.78(0.65-0.89)	
PCB-53 (C50)											
289.9224	22:23	22:24	-1	1.108	31048634	6450170	11985	29962	538		
291.9194	22:23	22:24	-1	1.108	39638845	8263179	15858	39645	521	0.78(0.65-0.89)	
PCB-45											
289.9224	23:07	23:08	-1	1.145	30645858	3968119	11985	29962	331		M
291.9194	23:07	23:08	-1	1.145	38839930	4973541	15858	39645	314	0.79(0.65-0.89)	M
PCB-51 (C45)											
289.9224	23:07	23:08	-1	1.145	30645858	3968119	11985	29962	331		M
291.9194	23:07	23:08	-1	1.145	38839930	4973541	15858	39645	314	0.79(0.65-0.89)	M
PCB-46											
289.9224	23:21	23:22	-1	1.157	12780266	3004695	11985	29962	251		
291.9194	23:21	23:22	-1	1.157	16054240	3753956	15858	39645	237	0.80(0.65-0.89)	
PCB-52											
289.9224	24:46	24:47	-1	1.227	16997835	3818410	11985	29962	319		
291.9194	24:46	24:47	-1	1.227	21356198	4841032	15858	39645	305	0.80(0.65-0.89)	
PCB-43											
289.9224	24:56	24:56	-1	1.234	37178269	4927779	11985	29962	411		M
291.9194	24:56	24:56	-1	1.234	47225368	6296996	15858	39645	397	0.79(0.65-0.89)	M
PCB-73 (C43)											
289.9224	24:56	24:56	-1	1.234	37178269	4927779	11985	29962	411		M
291.9194	24:56	24:56	-1	1.234	47225368	6296996	15858	39645	397	0.79(0.65-0.89)	M
PCB-49											
289.9224	25:13	25:14	-1	1.249	38275650	5858472	11985	29962	489		
291.9194	25:13	25:14	-1	1.249	48572964	7397560	15858	39645	466	0.79(0.65-0.89)	
PCB-69 (C49)											
289.9224	25:13	25:14	-1	1.249	38275650	5858472	11985	29962	489		
291.9194	25:13	25:14	-1	1.249	48572964	7397560	15858	39645	466	0.79(0.65-0.89)	
PCB-48											
289.9224	25:32	25:33	-1	1.265	15119844	3404443	11985	29962	284		
291.9194	25:32	25:33	-1	1.265	19152124	4315899	15858	39645	272	0.79(0.65-0.89)	
PCB-44											
289.9224	25:47	25:48	-1	1.277	53047964	9666463	11985	29962	807		
291.9194	25:47	25:48	-1	1.277	67700351	12358426	15858	39645	779	0.78(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-47 (C44)											
289.9224	25:47	25:48	-1	1.277	53047964	9666463	11985	29962	807		
291.9194	25:47	25:48	-1	1.277	67700351	12358426	15858	39645	779	0.78(0.65-0.89)	
PCB-65 (C44)											
289.9224	25:47	25:48	-1	1.277	53047964	9666463	11985	29962	807		
291.9194	25:47	25:48	-1	1.277	67700351	12358426	15858	39645	779	0.78(0.65-0.89)	
PCB-59											
289.9224	26:05	26:06	-1	1.292	64900099	9573023	11985	29962	799		
291.9194	26:05	26:06	-1	1.292	82970805	12200986	15858	39645	769	0.78(0.65-0.89)	
PCB-62 (C59)											
289.9224	26:05	26:06	-1	1.292	64900099	9573023	11985	29962	799		
291.9194	26:05	26:06	-1	1.292	82970805	12200986	15858	39645	769	0.78(0.65-0.89)	
PCB-75 (C59)											
289.9224	26:05	26:06	-1	1.292	64900099	9573023	11985	29962	799		
291.9194	26:05	26:06	-1	1.292	82970805	12200986	15858	39645	769	0.78(0.65-0.89)	
PCB-42											
289.9224	26:18	26:18	-1	1.302	14647872	3288662	11985	29962	274		
291.9194	26:18	26:18	-1	1.302	18468357	4131349	15858	39645	261	0.79(0.65-0.89)	
PCB-40											
289.9224	26:48	26:48	-1	1.327	48057577	7516308	11985	29962	627		M
291.9194	26:48	26:48	-1	1.327	61486178	9580775	15858	39645	604	0.78(0.65-0.89)	M
PCB-41 (C40)											
289.9224	26:48	26:48	-1	1.327	48057577	7516308	11985	29962	627		M
291.9194	26:48	26:48	-1	1.327	61486178	9580775	15858	39645	604	0.78(0.65-0.89)	M
PCB-71 (C40)											
289.9224	26:48	26:48	-1	1.327	48057577	7516308	11985	29962	627		M
291.9194	26:48	26:48	-1	1.327	61486178	9580775	15858	39645	604	0.78(0.65-0.89)	M
PCB-64											
289.9224	27:00	27:01	-1	1.337	20703479	4478816	11985	29962	374		
291.9194	27:00	27:01	-1	1.337	26363441	5720820	15858	39645	361	0.79(0.65-0.89)	
PCB-72											
289.9224	27:51	27:51	-1	0.827	20184549	4428709	11985	29962	370		
291.9194	27:51	27:51	-1	0.827	25375260	5665296	15858	39645	357	0.80(0.65-0.89)	
PCB-68											
289.9224	28:08	28:09	-1	0.836	23058556	4670938	11985	29962	390		
291.9194	28:08	28:09	-1	0.836	29656263	5939346	15858	39645	375	0.78(0.65-0.89)	
PCB-57											
289.9224	28:33	28:34	-1	0.848	19971461	4310538	11985	29962	360		
291.9194	28:33	28:34	-1	0.848	25522237	5486100	15858	39645	346	0.78(0.65-0.89)	
PCB-58											
289.9224	28:47	28:48	-1	0.855	24841978	5171706	11985	29962	432		
291.9194	28:47	28:48	-1	0.855	31574912	6628287	15858	39645	418	0.79(0.65-0.89)	
PCB-67											
289.9224	28:57	28:58	-1	0.860	25918946	5245140	11985	29962	438		
291.9194	28:57	28:58	-1	0.860	32897827	6710193	15858	39645	423	0.79(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-63											
289.9224	29:13	29:14	0	0.868	20163244	4147399	11985	29962	346		
291.9194	29:13	29:14	0	0.868	25499886	5242981	15858	39645	331	0.79(0.65-0.89)	
PCB-61											
289.9224	29:33	29:34	-1	0.878	92572268	10911381	11985	29962	910		M
291.9194	29:33	29:34	-1	0.878	118991326	14173722	15858	39645	894	0.78(0.65-0.89)	M
PCB-70 (C61)											
289.9224	29:33	29:34	-1	0.878	92572268	10911381	11985	29962	910		M
291.9194	29:33	29:34	-1	0.878	118991326	14173722	15858	39645	894	0.78(0.65-0.89)	M
PCB-74 (C61)											
289.9224	29:33	29:34	-1	0.878	92572268	10911381	11985	29962	910		M
291.9194	29:33	29:34	-1	0.878	118991326	14173722	15858	39645	894	0.78(0.65-0.89)	M
PCB-76 (C61)											
289.9224	29:33	29:34	-1	0.878	92572268	10911381	11985	29962	910		M
291.9194	29:33	29:34	-1	0.878	118991326	14173722	15858	39645	894	0.78(0.65-0.89)	M
PCB-66											
289.9224	29:53	29:53	-1	0.887	23297327	4782605	11985	29962	399		
291.9194	29:53	29:53	-1	0.887	29683676	6147242	15858	39645	388	0.78(0.65-0.89)	
PCB-55											
289.9224	30:03	30:03	0	0.892	23868544	5020534	11985	29962	419		
291.9194	30:03	30:03	0	0.892	30361740	6401441	15858	39645	404	0.79(0.65-0.89)	
PCB-56											
289.9224	30:33	30:33	-1	0.907	22138128	4649879	11985	29962	388		
291.9194	30:33	30:33	-1	0.907	28113506	5940457	15858	39645	375	0.79(0.65-0.89)	
PCB-60											
289.9224	30:46	30:46	-1	0.914	20162897	4129204	11985	29962	345		
291.9194	30:46	30:46	-1	0.914	25576853	5248560	15858	39645	331	0.79(0.65-0.89)	
PCB-80											
289.9224	31:10	31:11	-1	0.926	24248510	4869692	11985	29962	406		
291.9194	31:10	31:11	-1	0.926	30455486	6161428	15858	39645	389	0.80(0.65-0.89)	
PCB-79											
289.9224	32:41	32:42	-1	0.971	25881910	4980417	11985	29962	416		
291.9194	32:41	32:42	-1	0.971	32884181	6368136	15858	39645	402	0.79(0.65-0.89)	
PCB-78											
289.9224	33:15	33:15	0	0.988	20252892	4013245	11985	29962	335		
291.9194	33:15	33:15	0	0.988	25883996	5184409	15858	39645	327	0.78(0.65-0.89)	
PCB-81											
289.9224	33:41	33:42	-1	1.001	18823030	3711092	11985	29962	310		
291.9194	33:41	33:42	-1	1.001	23908378	4671043	15858	39645	295	0.79(0.65-0.89)	
PCB-77											
289.9224	34:15	34:16	-1	1.001	19939084	4035093	11985	29962	337		
291.9194	34:15	34:16	-1	1.001	25305487	5095681	15858	39645	321	0.79(0.65-0.89)	
PCB-104L											
337.9207	25:42	25:42	-1	0.813	4115986	911822	113	282	8069		
339.9178	25:42	25:42	-1	0.813	2556017	571161	35	87	16319	1.61(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-95L											
337.9207	28:40	28:41	-1	1.116	11552735	2434662	113	282	21546		
339.9178	28:40	28:41	-1	1.116	7254206	1533843	35	87	43824	1.59(1.32-1.78)	
PCB-101L											
337.9207	31:36	31:37	-1		3450720	735833	113	282	6512		
339.9178	31:36	31:37	-1		2182830	457789	35	87	13080	1.58(1.32-1.78)	
PCB-111L											
337.9207	34:17	34:17	0	1.085	17118191	3425571	113	282	30315		
339.9178	34:17	34:17	0	1.085	10705175	2157409	35	87	61640	1.60(1.32-1.78)	
PCB-123L											
337.9207	36:15	36:15	0	1.147	6356450	1285843	5518	13795	233		
339.9178	36:15	36:15	0	1.147	4021253	802670	3723	9307	216	1.58(1.32-1.78)	
PCB-118L											
337.9207	36:34	36:34	0	1.157	6609999	1288487	5518	13795	234		
339.9178	36:34	36:34	0	1.157	4130249	804055	3723	9307	216	1.60(1.32-1.78)	
PCB-114L											
337.9207	37:06	37:06	0	1.174	6505303	1259091	5518	13795	228		
339.9178	37:05	37:06	-1	1.173	4054221	780103	3723	9307	210	1.60(1.32-1.78)	
PCB-105L											
337.9207	37:44	37:45	0	1.194	6192666	1207667	5518	13795	219		
339.9178	37:44	37:45	0	1.194	3904195	766070	3723	9307	206	1.59(1.32-1.78)	
PCB-127L											
337.9207	39:13	39:14	-1		6530367	1264882	5518	13795	229		
339.9178	39:13	39:14	-1		4064988	784130	3723	9307	211	1.61(1.32-1.78)	
PCB-126L											
337.9207	40:50	40:50	0	1.292	6183273	1168925	5518	13795	212		
339.9178	40:50	40:50	0	1.292	3920029	739706	3723	9307	199	1.58(1.32-1.78)	
PCB-104											
325.8804	25:43	25:44	-1	1.001	16562646	3648861	176	440	20732		
327.8775	25:43	25:44	-1	1.001	10429147	2298692	72	180	31926	1.59(1.32-1.78)	
PCB-96											
325.8804	26:05	26:06	-1	1.015	17827479	3965370	176	440	22531		
327.8775	26:05	26:06	-1	1.015	11297278	2491538	72	180	34605	1.58(1.32-1.78)	
PCB-103											
325.8804	28:01	28:02	-1	1.091	14134986	3012600	176	440	17117		
327.8775	28:01	28:02	-1	1.091	8891276	1894090	72	180	26307	1.59(1.32-1.78)	
PCB-94											
325.8804	28:15	28:16	-1	1.100	11807228	2514482	176	440	14287		
327.8775	28:15	28:16	-1	1.100	7486459	1593487	72	180	22132	1.58(1.32-1.78)	
PCB-95											
325.8804	28:41	28:42	-1	1.117	13331631	2886470	176	440	16400		
327.8775	28:41	28:42	-1	1.117	8411821	1793743	72	180	24913	1.58(1.32-1.78)	
PCB-93											
325.8804	28:54	28:55	-1	1.125	27011792	5525339	176	440	31394		
327.8775	28:54	28:55	-1	1.125	16926067	3451625	72	180	47939	1.60(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-100 (C93)											
325.8804	28:54	28:55	-1	1.125	27011792	5525339	176	440	31394		
327.8775	28:54	28:55	-1	1.125	16926067	3451625	72	180	47939	1.60(1.32-1.78)	
PCB-98											
325.8804	29:04	29:04	-1	1.131	26531184	3329904	176	440	18920		M
327.8775	29:04	29:04	-1	1.131	16762369	2086308	72	180	28977	1.58(1.32-1.78)	M
PCB-102 (C98)											
325.8804	29:04	29:04	-1	1.131	26531184	3329904	176	440	18920		M
327.8775	29:04	29:04	-1	1.131	16762369	2086308	72	180	28977	1.58(1.32-1.78)	M
PCB-88											
325.8804	29:33	29:33	-1	1.150	25981572	2825522	176	440	16054		
327.8775	29:33	29:33	-1	1.150	16426112	1780698	72	180	24732	1.58(1.32-1.78)	
PCB-91 (C88)											
325.8804	29:33	29:33	-1	1.150	25981572	2825522	176	440	16054		
327.8775	29:33	29:33	-1	1.150	16426112	1780698	72	180	24732	1.58(1.32-1.78)	
PCB-84											
325.8804	29:46	29:47	-1	1.159	11604519	2389938	176	440	13579		
327.8775	29:46	29:47	-1	1.159	7338097	1530570	72	180	21258	1.58(1.32-1.78)	
PCB-89											
325.8804	30:15	30:16	-1	1.177	12282608	2577865	176	440	14647		
327.8775	30:15	30:16	-1	1.177	7698116	1591552	72	180	22105	1.60(1.32-1.78)	
PCB-121											
325.8804	30:40	30:41	-1	1.194	20949740	4299713	176	440	24430		
327.8775	30:40	30:41	-1	1.194	13115189	2699710	72	180	37496	1.60(1.32-1.78)	
PCB-92											
325.8804	31:02	31:03	-1	0.856	13645980	2811326	176	440	15973		
327.8775	31:02	31:03	-1	0.856	8612099	1789982	72	180	24861	1.58(1.32-1.78)	
PCB-90											
325.8804	31:36	31:37	-1	1.230	46067511	6768862	176	440	38459		
327.8775	31:36	31:37	-1	1.230	28963617	4274615	72	180	59370	1.59(1.32-1.78)	
PCB-101 (C90)											
325.8804	31:36	31:37	-1	1.230	46067511	6768862	176	440	38459		
327.8775	31:36	31:37	-1	1.230	28963617	4274615	72	180	59370	1.59(1.32-1.78)	
PCB-113 (C90)											
325.8804	31:36	31:37	-1	1.230	46067511	6768862	176	440	38459		
327.8775	31:36	31:37	-1	1.230	28963617	4274615	72	180	59370	1.59(1.32-1.78)	
PCB-83											
325.8804	32:12	32:13	-1	1.253	27000672	3432014	176	440	19500		
327.8775	32:12	32:13	-1	1.253	17113312	2164383	72	180	30061	1.58(1.32-1.78)	
PCB-99 (C83)											
325.8804	32:12	32:13	-1	1.253	27000672	3432014	176	440	19500		
327.8775	32:12	32:13	-1	1.253	17113312	2164383	72	180	30061	1.58(1.32-1.78)	
PCB-112											
325.8804	32:19	32:20	-1	1.258	22203726	4464855	176	440	25368		
327.8775	32:19	32:20	-1	1.258	14041015	2797768	72	180	38858	1.58(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-86											M
325.8804	32:41	32:42	-1	1.272	103164202	11354840	176	440	64516		M
327.8775	32:41	32:42	-1	1.272	63904922	7000207	72	180	97225	1.61(1.32-1.78)	M
PCB-87 (C86)											M
325.8804	32:41	32:42	-1	1.272	103164202	11354840	176	440	64516		M
327.8775	32:41	32:42	-1	1.272	63904922	7000207	72	180	97225	1.61(1.32-1.78)	M
PCB-97 (C86)											M
325.8804	32:41	32:42	-1	1.272	103164202	11354840	176	440	64516		M
327.8775	32:41	32:42	-1	1.272	63904922	7000207	72	180	97225	1.61(1.32-1.78)	M
PCB-109 (C86)											M
325.8804	32:41	32:42	-1	1.272	103164202	11354840	176	440	64516		M
327.8775	32:41	32:42	-1	1.272	63904922	7000207	72	180	97225	1.61(1.32-1.78)	M
PCB-119 (C86)											M
325.8804	32:41	32:42	-1	1.272	103164202	11354840	176	440	64516		M
327.8775	32:41	32:42	-1	1.272	63904922	7000207	72	180	97225	1.61(1.32-1.78)	M
PCB-125 (C86)											M
325.8804	32:41	32:42	-1	1.272	103164202	11354840	176	440	64516		M
327.8775	32:41	32:42	-1	1.272	63904922	7000207	72	180	97225	1.61(1.32-1.78)	M
PCB-85											
325.8804	33:25	33:25	0	1.301	49981854	6095286	176	440	34632		
327.8775	33:24	33:25	-1	1.300	31526610	3836023	72	180	53278	1.59(1.32-1.78)	
PCB-116 (C85)											
325.8804	33:25	33:25	0	1.301	49981854	6095286	176	440	34632		
327.8775	33:24	33:25	-1	1.300	31526610	3836023	72	180	53278	1.59(1.32-1.78)	
PCB-117 (C85)											
325.8804	33:25	33:25	0	1.301	49981854	6095286	176	440	34632		
327.8775	33:24	33:25	-1	1.300	31526610	3836023	72	180	53278	1.59(1.32-1.78)	
PCB-110											M
325.8804	33:36	33:37	-1	1.308	37768952	4514296	176	440	25649		
327.8775	33:36	33:37	-1	1.308	23836087	2803436	72	180	38937	1.58(1.32-1.78)	M
PCB-115 (C110)											M
325.8804	33:36	33:37	-1	1.308	37768952	4514296	176	440	25649		
327.8775	33:36	33:37	-1	1.308	23836087	2803436	72	180	38937	1.58(1.32-1.78)	M
PCB-82											
325.8804	33:54	33:55	-1	1.320	13353583	2566933	176	440	14585		
327.8775	33:54	33:55	-1	1.320	8352241	1610559	72	180	22369	1.60(1.32-1.78)	
PCB-111											
325.8804	34:19	34:19	0	1.336	19497058	3905402	176	440	22190		
327.8775	34:19	34:19	0	1.336	12352811	2477599	72	180	34411	1.58(1.32-1.78)	
PCB-120											
325.8804	34:47	34:47	0	1.354	23386560	4679515	176	440	26588		
327.8775	34:46	34:47	-1	1.353	14834867	2964250	72	180	41170	1.58(1.32-1.78)	
PCB-108											
325.8804	35:54	35:55	-1	1.397	56112216	10894674	23384	58460	466		
327.8775	35:54	35:55	-1	1.397	35263518	6847660	15078	37695	454	1.59(1.32-1.78)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-124 (C108)											
325.8804	35:54	35:55	-1	1.397	56112216	10894674	23384	58460	466		
327.8775	35:54	35:55	-1	1.397	35263518	6847660	15078	37695	454	1.59(1.32-1.78)	
PCB-107											
325.8804	36:09	36:09	0	1.407	29263623	5567936	23384	58460	238		
327.8775	36:09	36:09	0	1.407	18905765	3537259	15078	37695	235	1.55(1.32-1.78)	
PCB-123											
325.8804	36:16	36:16	0	1.001	26699152	5186378	23384	58460	222		
327.8775	36:16	36:16	0	1.001	17027503	3294302	15078	37695	218	1.57(1.32-1.78)	
PCB-106											
325.8804	36:22	36:23	-1	1.004	26537350	5306112	23384	58460	227		
327.8775	36:22	36:23	-1	1.004	16965814	3365227	15078	37695	223	1.56(1.32-1.78)	
PCB-118											
325.8804	36:35	36:36	-1	1.000	30206837	5637865	23384	58460	241		
327.8775	36:35	36:36	-1	1.000	19281004	3593433	15078	37695	238	1.57(1.32-1.78)	
PCB-122											
325.8804	36:56	36:56	0	1.010	23233300	4707830	23384	58460	201		
327.8775	36:56	36:56	0	1.010	14838813	2965557	15078	37695	197	1.57(1.32-1.78)	
PCB-114											
325.8804	37:07	37:08	-1	1.000	27187817	5064584	23384	58460	217		
327.8775	37:07	37:08	-1	1.000	17422366	3235541	15078	37695	215	1.56(1.32-1.78)	
PCB-105											
325.8804	37:46	37:46	0	1.001	28114444	5318905	23384	58460	227		
327.8775	37:46	37:46	0	1.001	17757681	3322599	15078	37695	220	1.58(1.32-1.78)	
PCB-127											
325.8804	39:14	39:15	0	1.040	28164286	5242721	23384	58460	224		
327.8775	39:14	39:15	0	1.040	17911835	3295039	15078	37695	219	1.57(1.32-1.78)	
PCB-126											
325.8804	40:51	40:52	-1	1.000	27357863	4711472	23384	58460	201		
327.8775	40:51	40:52	-1	1.000	17303152	2992269	15078	37695	198	1.58(1.32-1.78)	
PCB-155L											
371.8817	31:22	31:23	-1	0.791	3272192	675452	81	202	8339		
373.8788	31:22	31:23	-1	0.791	2619986	560781	100	250	5608	1.25(1.05-1.43)	
PCB-153L											
371.8817	38:27	38:27	0	0.901	15384626	3011029	2447	6117	1230		
373.8788	38:27	38:27	0	0.901	11990178	2361961	2020	5050	1169	1.28(1.05-1.43)	
PCB-138L											
371.8817	39:41	39:41	0		4021576	761724	2447	6117	311		
373.8788	39:41	39:41	0		3133955	597812	2020	5050	296	1.28(1.05-1.43)	
PCB-159L											
371.8817	41:56	41:56	0	0.982	4551409	893154	2447	6117	365		
373.8788	41:56	41:56	0	0.982	3500550	684821	2020	5050	339	1.30(0.00-0.00)	
PCB-167L											
371.8817	42:42	42:42	0	1.076	4894808	949592	2447	6117	388		
373.8788	42:42	42:42	0	1.076	3853738	748063	2020	5050	370	1.27(1.05-1.43)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-156L											
371.8817	43:50	43:51	0	1.105	9427602	1256749	2447	6117	514		
373.8788	43:50	43:51	0	1.105	7369724	975988	2020	5050	483	1.28(1.05-1.43)	
PCB-157L (C156L)											
371.8817	43:50	43:51	0	1.105	9427602	1256749	2447	6117	514		
373.8788	43:50	43:51	0	1.105	7369724	975988	2020	5050	483	1.28(1.05-1.43)	
PCB-169L											
371.8817	47:05	47:05	0	1.186	4916242	916681	2447	6117	375		
373.8788	47:05	47:05	0	1.186	3845463	728494	2020	5050	361	1.28(1.05-1.43)	
PCB-155											
359.8415	31:24	31:25	-1	1.001	12402388	2564079	62	155	41356		
361.8385	31:24	31:25	-1	1.001	9849342	2028692	77	192	26347	1.26(1.05-1.43)	
PCB-152											
359.8415	31:35	31:36	0	1.007	12749448	2632383	62	155	42458		
361.8385	31:35	31:36	0	1.007	10086981	2076319	77	192	26965	1.26(1.05-1.43)	
PCB-150											
359.8415	31:45	31:46	-1	1.012	13352317	2720812	62	155	43884		
361.8385	31:45	31:46	-1	1.012	10538539	2149647	77	192	27917	1.27(1.05-1.43)	
PCB-136											
359.8415	32:07	32:08	-1	1.024	13269139	2656693	62	155	42850		
361.8385	32:07	32:08	-1	1.024	10474610	2087707	77	192	27113	1.27(1.05-1.43)	
PCB-145											
359.8415	32:25	32:25	-1	1.033	12720068	2589014	62	155	41758		
361.8385	32:25	32:25	-1	1.033	9952343	2017679	77	192	26204	1.28(1.05-1.43)	
PCB-148											
359.8415	33:56	33:57	-1	1.082	10032646	2019314	62	155	32570		
361.8385	33:56	33:57	-1	1.082	7924748	1602259	77	192	20809	1.27(1.05-1.43)	
PCB-135											
359.8415	34:31	34:32	-1	1.100	19071661	2211848	62	155	35675		M
361.8385	34:31	34:32	-1	1.100	15053955	1741114	77	192	22612	1.27(1.05-1.43)	M
PCB-151 (C135)											
359.8415	34:31	34:32	-1	1.100	19071661	2211848	62	155	35675		M
361.8385	34:31	34:32	-1	1.100	15053955	1741114	77	192	22612	1.27(1.05-1.43)	M
PCB-154											
359.8415	34:47	34:47	-1	1.108	10765269	2174852	62	155	35078		
361.8385	34:47	34:47	-1	1.108	8513190	1703607	77	192	22125	1.26(1.05-1.43)	
PCB-144											
359.8415	35:05	35:06	-1	1.118	10112340	2006757	62	155	32367		
361.8385	35:05	35:06	-1	1.118	8027032	1594884	77	192	20713	1.26(1.05-1.43)	
PCB-147											
359.8415	35:27	35:27	0	1.130	33290962	6809592	7018	17545	970		
361.8385	35:27	35:27	0	1.130	26354858	5371373	4599	11497	1168	1.26(1.05-1.43)	
PCB-149 (C147)											
359.8415	35:27	35:27	0	1.130	33290962	6809592	7018	17545	970		
361.8385	35:27	35:27	0	1.130	26354858	5371373	4599	11497	1168	1.26(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-134											
359.8415	35:45	35:45	-1	1.139	29163231	3052586	7018	17545	435		
361.8385	35:45	35:45	-1	1.139	23214772	2420877	4599	11497	526	1.26(1.05-1.43)	
PCB-143 (C134)											
359.8415	35:45	35:45	-1	1.139	29163231	3052586	7018	17545	435		
361.8385	35:45	35:45	-1	1.139	23214772	2420877	4599	11497	526	1.26(1.05-1.43)	
PCB-139											
359.8415	36:03	36:04	-1	1.149	32892022	5980835	7018	17545	852		
361.8385	36:03	36:04	-1	1.149	26146416	4775232	4599	11497	1038	1.26(1.05-1.43)	
PCB-140 (C139)											
359.8415	36:03	36:04	-1	1.149	32892022	5980835	7018	17545	852		
361.8385	36:03	36:04	-1	1.149	26146416	4775232	4599	11497	1038	1.26(1.05-1.43)	
PCB-131											
359.8415	36:15	36:15	-1	1.155	14367703	2800912	7018	17545	399		
361.8385	36:15	36:15	-1	1.155	11438938	2238869	4599	11497	487	1.26(1.05-1.43)	
PCB-142											
359.8415	36:23	36:24	-1	1.160	14279654	2850607	7018	17545	406		
361.8385	36:23	36:24	-1	1.160	11447638	2289825	4599	11497	498	1.25(1.05-1.43)	
PCB-132											
359.8415	36:42	36:43	-1	1.170	13661131	2714090	7018	17545	387		
361.8385	36:42	36:43	-1	1.170	10942845	2164599	4599	11497	471	1.25(1.05-1.43)	
PCB-133											
359.8415	37:13	37:14	-1	1.186	15673775	3034629	7018	17545	432		
361.8385	37:13	37:14	-1	1.186	12573318	2407911	4599	11497	524	1.25(1.05-1.43)	
PCB-165											
359.8415	37:37	37:37	0	0.881	19300636	3808288	7018	17545	543		
361.8385	37:37	37:37	0	0.881	15287853	3022284	4599	11497	657	1.26(1.05-1.43)	
PCB-146											
359.8415	37:52	37:52	-1	0.887	18188179	3575888	7018	17545	510		
361.8385	37:52	37:52	-1	0.887	14560172	2883285	4599	11497	627	1.25(1.05-1.43)	
PCB-161											
359.8415	37:59	38:00	0	0.890	21251579	4230862	7018	17545	603		
361.8385	37:59	38:00	0	0.890	16862245	3346103	4599	11497	728	1.26(1.05-1.43)	
PCB-153											
359.8415	38:29	38:30	0	0.901	41584061	5988173	7018	17545	853		
361.8385	38:29	38:30	0	0.901	32988053	4780134	4599	11497	1039	1.26(1.05-1.43)	
PCB-168 (C153)											
359.8415	38:29	38:30	0	0.901	41584061	5988173	7018	17545	853		
361.8385	38:29	38:30	0	0.901	32988053	4780134	4599	11497	1039	1.26(1.05-1.43)	
PCB-141											
359.8415	38:40	38:41	-1	0.905	16194557	2920342	7018	17545	416		
361.8385	38:40	38:41	-1	0.905	12869976	2334490	4599	11497	508	1.26(1.05-1.43)	
PCB-130											
359.8415	39:04	39:05	-1	0.915	13116472	2604384	7018	17545	371		
361.8385	39:04	39:05	-1	0.915	10413690	2054855	4599	11497	447	1.26(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-137											
359.8415	39:18	39:18	0	0.920	14331117	2927825	7018	17545	417		
361.8385	39:18	39:18	0	0.920	11466179	2347456	4599	11497	510	1.25(1.05-1.43)	
PCB-164											
359.8415	39:25	39:26	-1	0.923	19991096	3736989	7018	17545	532		
361.8385	39:25	39:26	-1	0.923	15763552	2931595	4599	11497	637	1.27(1.05-1.43)	
PCB-129											
359.8415	39:44	39:44	0	0.930	70852247	8207715	7018	17545	1170		M
361.8385	39:44	39:44	0	0.930	56283132	6469680	4599	11497	1407	1.26(1.05-1.43)	M
PCB-138 (C129)											
359.8415	39:44	39:44	0	0.930	70852247	8207715	7018	17545	1170		M
361.8385	39:44	39:44	0	0.930	56283132	6469680	4599	11497	1407	1.26(1.05-1.43)	M
PCB-160 (C129)											
359.8415	39:44	39:44	0	0.930	70852247	8207715	7018	17545	1170		M
361.8385	39:44	39:44	0	0.930	56283132	6469680	4599	11497	1407	1.26(1.05-1.43)	M
PCB-163 (C129)											
359.8415	39:44	39:44	0	0.930	70852247	8207715	7018	17545	1170		M
361.8385	39:44	39:44	0	0.930	56283132	6469680	4599	11497	1407	1.26(1.05-1.43)	M
PCB-158											
359.8415	40:06	40:07	0	0.939	24273259	4495028	7018	17545	640		Ma
361.8385	40:06	40:07	0	0.939	19147696	3534956	4599	11497	769	1.27(1.05-1.43)	M
PCB-128											
359.8415	40:57	40:57	0	0.959	37887683	5769411	7018	17545	822		
361.8385	40:57	40:57	0	0.959	30189595	4546093	4599	11497	988	1.25(1.05-1.43)	
PCB-166 (C128)											
359.8415	40:57	40:57	0	0.959	37887683	5769411	7018	17545	822		
361.8385	40:57	40:57	0	0.959	30189595	4546093	4599	11497	988	1.25(1.05-1.43)	
PCB-159											
359.8415	41:58	41:58	0	0.983	25758437	4981564	7018	17545	710		
361.8385	41:58	41:58	0	0.983	20599018	3902089	4599	11497	848	1.25(1.05-1.43)	
PCB-162											
359.8415	42:15	42:15	0	0.990	23165310	4172381	7018	17545	595		
361.8385	42:15	42:15	0	0.990	18519485	3308080	4599	11497	719	1.25(1.05-1.43)	
PCB-167											
359.8415	42:43	42:44	0	1.001	21086036	4067502	7018	17545	580		
361.8385	42:43	42:44	0	1.001	16830898	3209669	4599	11497	698	1.25(1.05-1.43)	
PCB-156											
359.8415	43:52	43:53	-1	1.001	40941586	5502007	7018	17545	784		
361.8385	43:52	43:53	-1	1.001	32643565	4370876	4599	11497	950	1.25(1.05-1.43)	
PCB-157 (C156)											
359.8415	43:52	43:53	-1	1.001	40941586	5502007	7018	17545	784		
361.8385	43:52	43:53	-1	1.001	32643565	4370876	4599	11497	950	1.25(1.05-1.43)	
PCB-169											
359.8415	47:05	47:06	-1	1.000	22284432	3935033	7018	17545	561		
361.8385	47:05	47:06	-1	1.000	17462401	3105432	4599	11497	675	1.28(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-188L											
405.8428	37:06	37:07	-1	0.820	3642228	723802	100	250	7238		
407.8398	37:06	37:07	-1	0.820	3363987	669566	136	340	4923	1.08(0.89-1.21)	
PCB-178L											
405.8428	40:09	40:10	-1	0.887	10456618	1989208	100	250	19892		
407.8398	40:09	40:10	-1	0.887	9708464	1866869	136	340	13727	1.08(0.89-1.21)	
PCB-180L											
405.8428	45:14	45:15	-1		2744400	512502	100	250	5125		
407.8398	45:15	45:15	0		2565433	482035	136	340	3544	1.07(0.89-1.21)	
PCB-170L											
405.8428	46:30	46:30	0	1.028	2233737	415377	100	250	4154		
407.8398	46:30	46:30	0	1.028	2153085	405266	136	340	2980	1.04(0.89-1.21)	
PCB-189L											
405.8428	49:36	49:37	-1	1.097	5405857	996635	1973	4932	505		
407.8398	49:36	49:37	-1	1.097	5096346	946628	2013	5032	470	1.06(0.89-1.21)	
PCB-188											
393.8025	37:07	37:08	-1	1.001	15894739	3132976	11	27	284816		
395.7995	37:07	37:08	-1	1.001	14991318	2987713	71	177	42080	1.06(0.89-1.21)	
PCB-179											
393.8025	37:28	37:28	0	1.010	16030052	3057679	11	27	277971		
395.7995	37:27	37:28	-1	1.010	15100598	2875089	71	177	40494	1.06(0.89-1.21)	
PCB-184											
393.8025	37:59	38:00	0	1.024	15965361	3088111	11	27	280737		
395.7995	37:59	38:00	0	1.024	15052933	2938274	71	177	41384	1.06(0.89-1.21)	
PCB-176											
393.8025	38:20	38:21	-1	1.033	13860308	2648177	11	27	240743		
395.7995	38:20	38:21	-1	1.033	13147325	2536184	71	177	35721	1.05(0.89-1.21)	
PCB-186											
393.8025	38:48	38:48	0	1.046	17015723	3231270	11	27	293752		
395.7995	38:48	38:48	0	1.046	16147959	3080332	71	177	43385	1.05(0.89-1.21)	
PCB-178											
393.8025	40:10	40:11	-1	1.083	10411544	2012862	11	27	182988		
395.7995	40:10	40:11	-1	1.083	9903298	1922922	71	177	27083	1.05(0.89-1.21)	
PCB-175											
393.8025	40:48	40:49	-1	1.100	10849325	2059997	11	27	187273		
395.7995	40:48	40:49	-1	1.100	10371089	1959556	71	177	27599	1.05(0.89-1.21)	
PCB-187											
393.8025	41:05	41:05	0	1.107	12824617	2477324	11	27	225211		
395.7995	41:05	41:05	0	1.107	12164702	2335192	71	177	32890	1.05(0.89-1.21)	
PCB-182											
393.8025	41:17	41:18	0	1.113	10977177	2063310	11	27	187574		
395.7995	41:17	41:18	0	1.113	10315673	1969940	71	177	27746	1.06(0.89-1.21)	
PCB-183											
393.8025	41:42	41:42	0	1.124	21620931	2252527	11	27	204775		Ma
395.7995	41:42	41:42	0	1.124	20232904	2088923	71	177	29421	1.07(0.89-1.21)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-185 (C183)											Ma
393.8025	41:42	41:42	0	1.124	21620931	2252527	11	27	204775		M
395.7995	41:42	41:42	0	1.124	20232904	2088923	71	177	29421	1.07(0.89-1.21)	
PCB-174											
393.8025	41:56	41:56	0	1.130	11163861	2131369	11	27	193761		
395.7995	41:56	41:56	0	1.130	10619308	2010855	71	177	28322	1.05(0.89-1.21)	
PCB-177											
393.8025	42:22	42:22	0	1.142	11137128	1983115	11	27	180283		
395.7995	42:22	42:22	0	1.142	10573626	1894997	71	177	26690	1.05(0.89-1.21)	
PCB-181											
393.8025	42:45	42:45	0	1.152	10730603	2042497	11	27	185682		
395.7995	42:45	42:45	0	1.152	10274395	1968457	71	177	27725	1.04(0.89-1.21)	
PCB-171											
393.8025	42:58	42:59	0	1.158	20556308	3405250	11	27	309568		
395.7995	42:58	42:59	0	1.158	19364771	3182250	71	177	44820	1.06(0.89-1.21)	
PCB-173 (C171)											
393.8025	42:58	42:59	0	1.158	20556308	3405250	11	27	309568		
395.7995	42:58	42:59	0	1.158	19364771	3182250	71	177	44820	1.06(0.89-1.21)	
PCB-172											
393.8025	44:37	44:37	0	0.899	9666253	1881153	11	27	171014		
395.7995	44:37	44:37	0	0.899	9183651	1768963	71	177	24915	1.05(0.89-1.21)	
PCB-192											
393.8025	44:54	44:54	0	0.905	15562900	2937197	11	27	267018		
395.7995	44:54	44:54	0	0.905	14728099	2739160	71	177	38580	1.06(0.89-1.21)	
PCB-180											
393.8025	45:14	45:14	0	0.912	26706443	3556777	11	27	323343		
395.7995	45:14	45:14	0	0.912	25256754	3372007	71	177	47493	1.06(0.89-1.21)	
PCB-193 (C180)											
393.8025	45:14	45:14	0	0.912	26706443	3556777	11	27	323343		
395.7995	45:14	45:14	0	0.912	25256754	3372007	71	177	47493	1.06(0.89-1.21)	
PCB-191											
393.8025	45:37	45:37	0	0.920	14935038	2766774	11	27	251525		
395.7995	45:37	45:37	0	0.920	14214303	2633578	71	177	37093	1.05(0.89-1.21)	
PCB-170											
393.8025	46:31	46:32	0	0.938	10232586	1870309	11	27	170028		
395.7995	46:31	46:32	-1	0.938	9600499	1755081	71	177	24719	1.07(0.89-1.21)	
PCB-190											
393.8025	47:02	47:02	0	0.948	15017752	2773774	11	27	252161		
395.7995	47:02	47:02	0	0.948	14045959	2624209	71	177	36961	1.07(0.89-1.21)	
PCB-189											
393.8025	49:38	49:38	0	1.001	20534056	3848208	1643	4107	2342		
395.7995	49:38	49:38	0	1.001	19487566	3634362	1107	2767	3283	1.05(0.89-1.21)	
PCB-202L											
439.8038	42:28	42:28	0	0.821	2418394	446788	30	75	14893		
441.8008	42:28	42:28	1	0.821	2661064	508757	32	80	15899	0.91(0.76-1.02)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-194L											
439.8038	51:43	51:43	0		3485452	632444	278	695	2275		
441.8008	51:43	51:43	0		3837808	688713	164	410	4199	0.91(0.76-1.02)	
PCB-205L											
439.8038	52:11	52:11	0	1.009	4129550	754744	278	695	2715		
441.8008	52:11	52:11	0	1.009	4509068	812981	164	410	4957	0.92(0.76-1.02)	
PCB-202											
427.7635	42:29	42:29	0	1.001	10202791	1921272	47	117	40878		
429.7606	42:29	42:29	0	1.001	11344428	2160861	58	145	37256	0.90(0.76-1.02)	
PCB-201											
427.7635	43:24	43:25	0	1.022	9429617	1790526	47	117	38096		
429.7606	43:24	43:25	0	1.022	10361999	1935083	58	145	33364	0.91(0.76-1.02)	
PCB-204											
427.7635	44:05	44:05	0	1.038	9940326	1884926	47	117	40105		
429.7606	44:05	44:05	0	1.038	11000167	2083443	58	145	35921	0.90(0.76-1.02)	
PCB-197											
427.7635	44:19	44:19	0	1.044	10467948	1945914	47	117	41402		
429.7606	44:19	44:19	0	1.044	11627449	2198335	58	145	37902	0.90(0.76-1.02)	
PCB-200											
427.7635	44:25	44:25	0	1.046	9646190	1851944	47	117	39403		
429.7606	44:25	44:25	0	1.046	10517431	2027054	58	145	34949	0.92(0.76-1.02)	
PCB-198											
427.7635	47:12	47:12	0	1.112	16331274	2078516	47	117	44224		
429.7606	47:12	47:12	0	1.112	18134978	2282982	58	145	39362	0.90(0.76-1.02)	
PCB-199 (C198)											
427.7635	47:12	47:12	0	1.112	16331274	2078516	47	117	44224		
429.7606	47:12	47:12	0	1.112	18134978	2282982	58	145	39362	0.90(0.76-1.02)	
PCB-196											
427.7635	47:53	47:53	0	0.917	7330695	1374396	47	117	29242		
429.7606	47:53	47:53	0	0.917	8062724	1508186	58	145	26003	0.91(0.76-1.02)	
PCB-203											
427.7635	48:05	48:05	0	0.921	8974073	1665288	47	117	35432		
429.7606	48:05	48:05	0	0.921	9807796	1823811	58	145	31445	0.91(0.76-1.02)	
PCB-195											
427.7635	49:24	49:23	1	0.947	13278629	2435810	1197	2992	2035		
429.7606	49:24	49:23	1	0.947	14836338	2712844	10107	25267	268	0.90(0.76-1.02)	
PCB-194											
427.7635	51:44	51:44	0	0.991	15278609	2814671	1197	2992	2351		
429.7606	51:44	51:44	0	0.991	17094843	3126885	10107	25267	309	0.89(0.76-1.02)	
PCB-205											
427.7635	52:13	52:13	0	1.000	17359047	3148703	1197	2992	2630		
429.7606	52:13	52:13	0	1.000	19165222	3522416	10107	25267	349	0.91(0.76-1.02)	
PCB-208L											
473.7648	49:08	49:09	0	0.950	3160520	579728	635	1587	913		
475.7619	49:08	49:09	0	0.950	3975284	728325	550	1375	1324	0.80(0.65-0.89)	

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-206L											
473.7648	53:56	53:57	0	1.043	2295828	414632	635	1587	653		
475.7619	53:56	53:57	0	1.043	2791452	515362	550	1375	937	0.82(0.65-0.89)	
PCB-208											
461.7246	49:10	49:10	0	1.001	13762182	2600944	1799	4497	1446		
463.7216	49:10	49:10	0	1.001	17538204	3273965	1382	3455	2369	0.78(0.65-0.89)	
PCB-207											
461.7246	50:05	50:05	0	1.019	13947336	2590680	1799	4497	1440		
463.7216	50:05	50:05	0	1.019	17708941	3285222	1382	3455	2377	0.79(0.65-0.89)	
PCB-206											
461.7246	53:58	53:58	0	1.000	11132917	2038968	1799	4497	1133		
463.7216	53:58	53:58	0	1.000	14086057	2581506	1382	3455	1868	0.79(0.65-0.89)	
PCB-209L											
507.7258	55:35	55:34	1	1.075	2023837	339841	158	395	2151		
509.7229	55:34	55:34	0	1.075	2843727	486553	71	177	6853	0.71(0.59-0.79)	
DCB Decachlorobiphenyl											
495.6856	55:36	55:36	0	1.000	8716853	1501897	46	115	32650		
497.6826	55:36	55:36	0	1.000	12192846	2098977	15	37	139932	0.71(0.59-0.79)	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

### Reagents:

61L41668P\_00006

Amount Added: 20.00

Units: uL

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

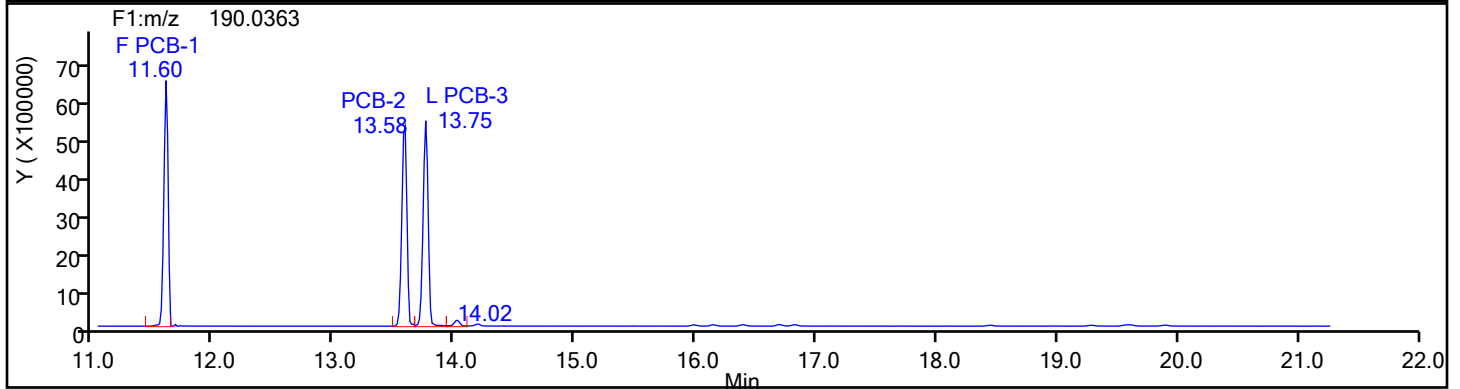
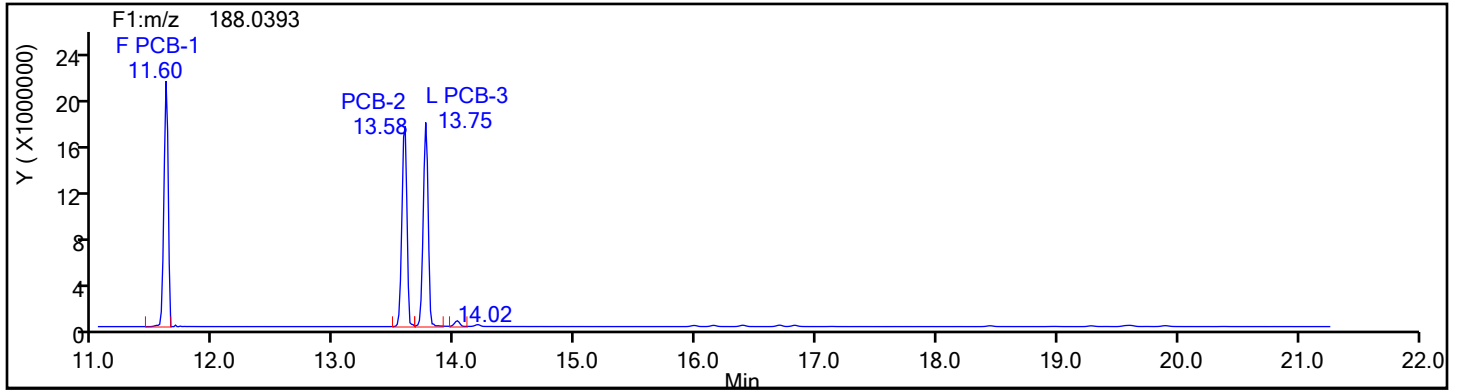
Worklist#: 87130

Sample Line#: 5

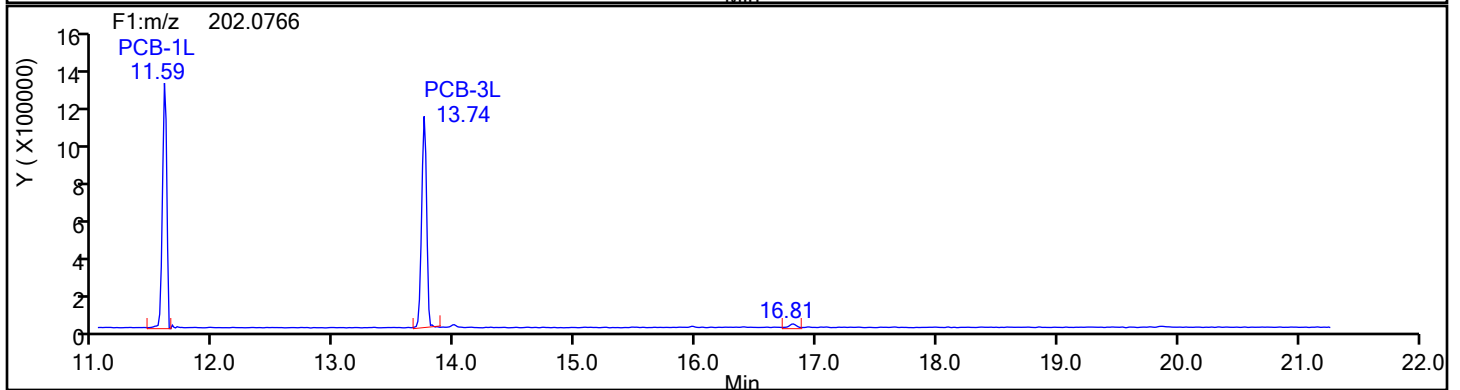
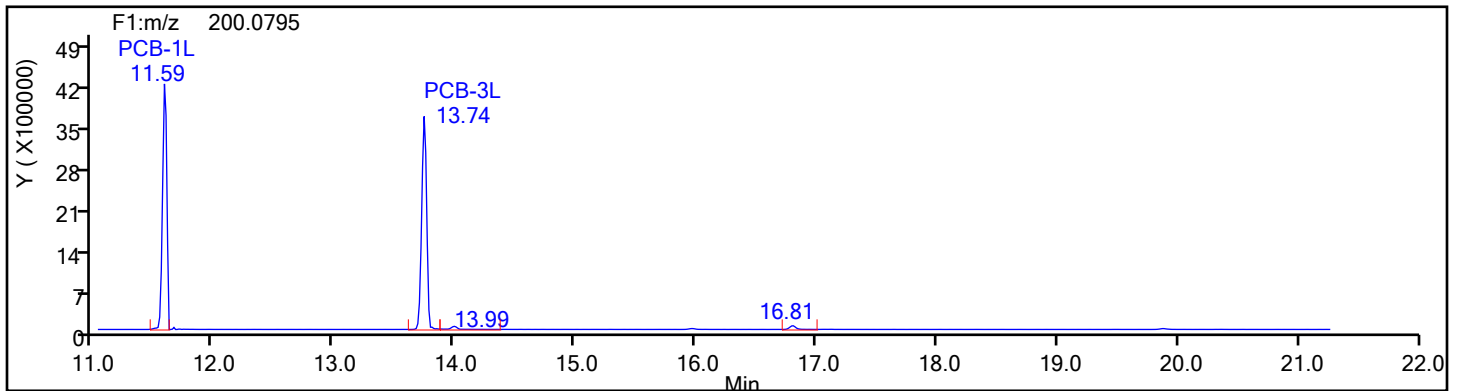
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

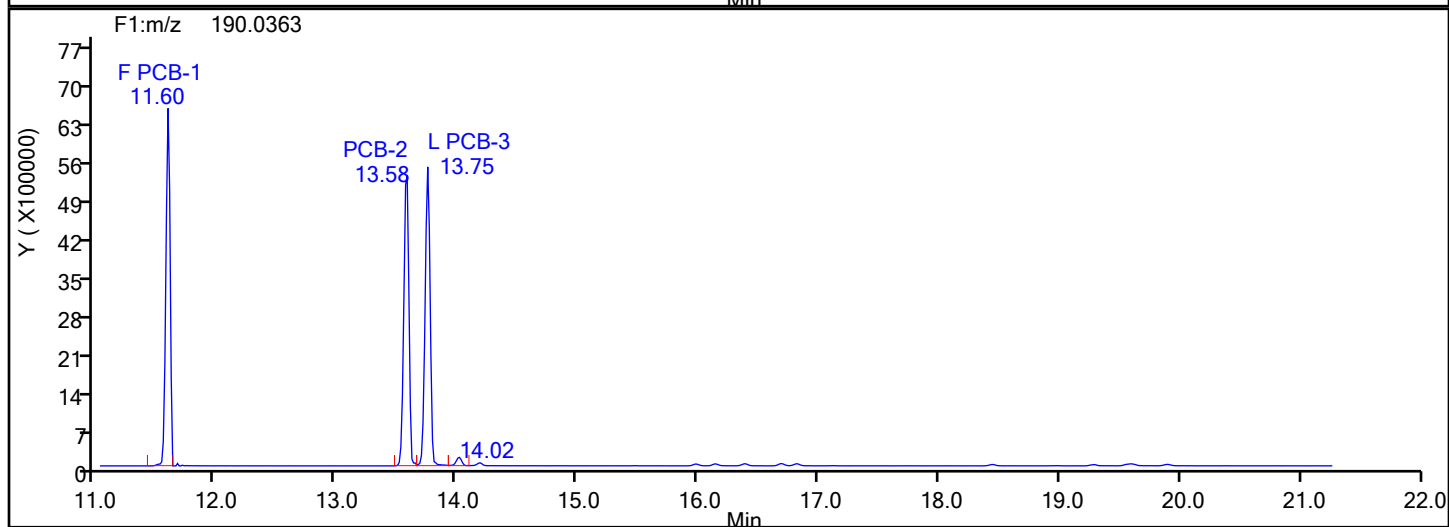
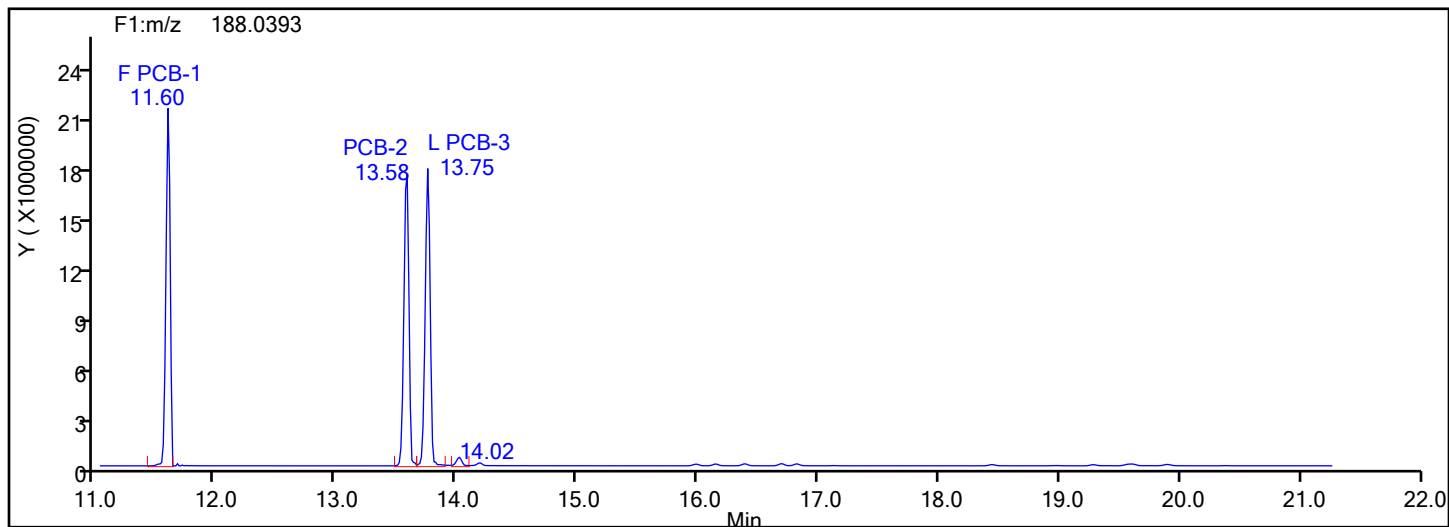
Worklist#: 87130

Sample Line#: 5

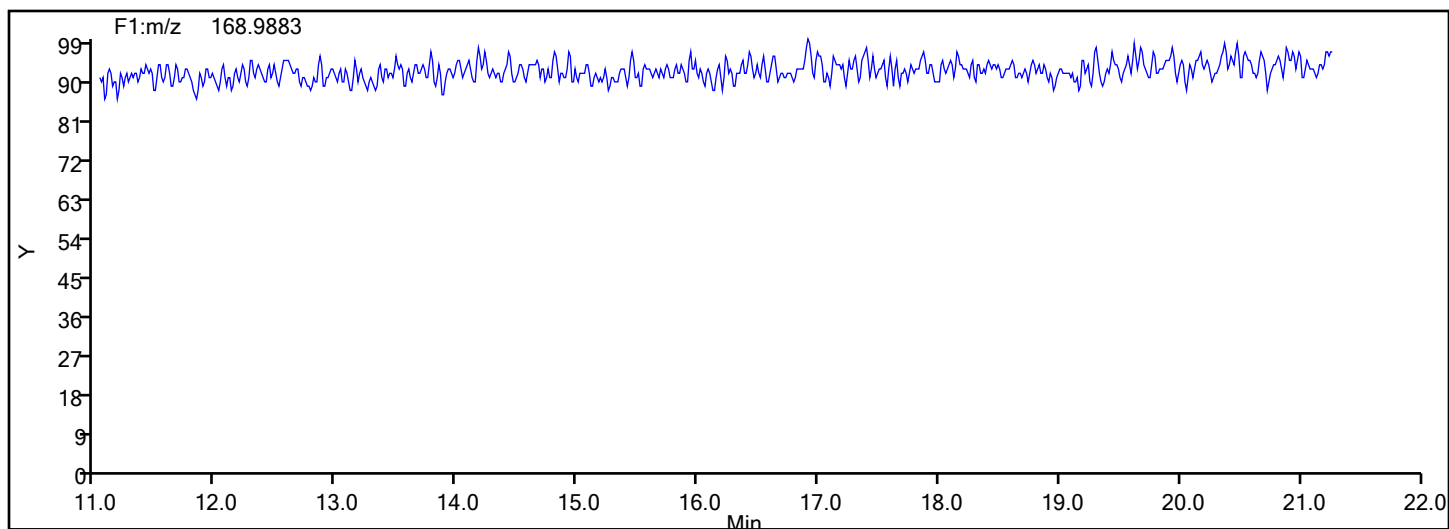
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

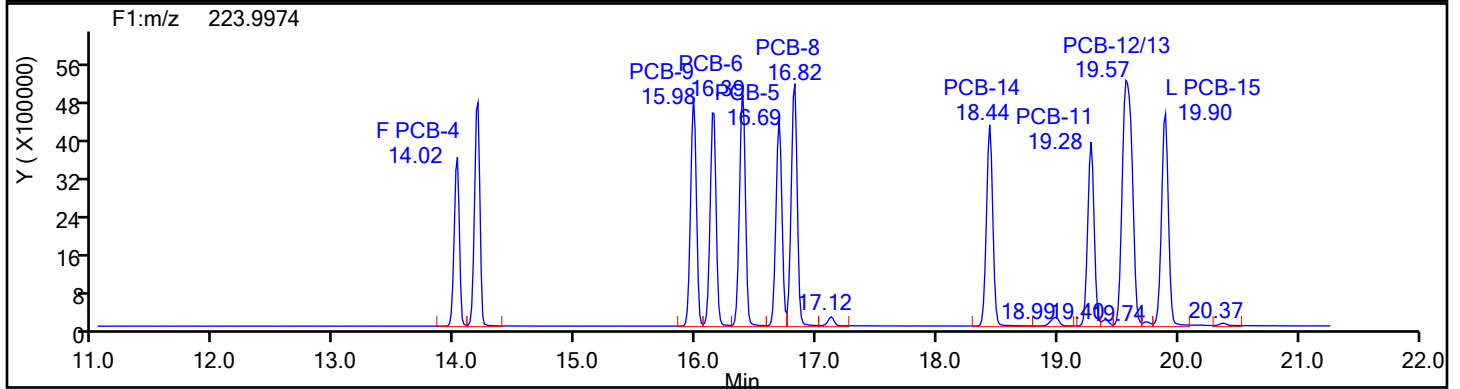
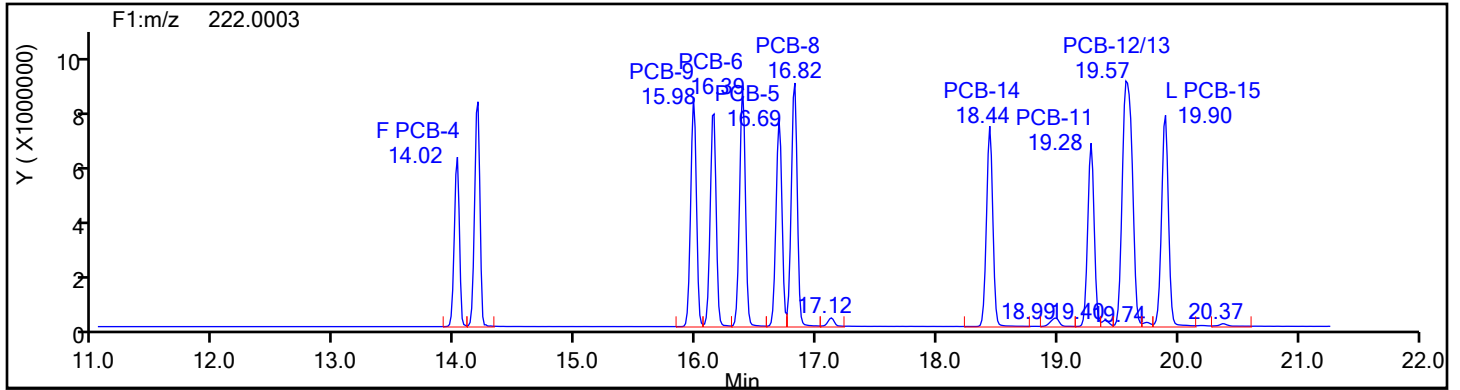
Worklist#: 87130

Sample Line#: 5

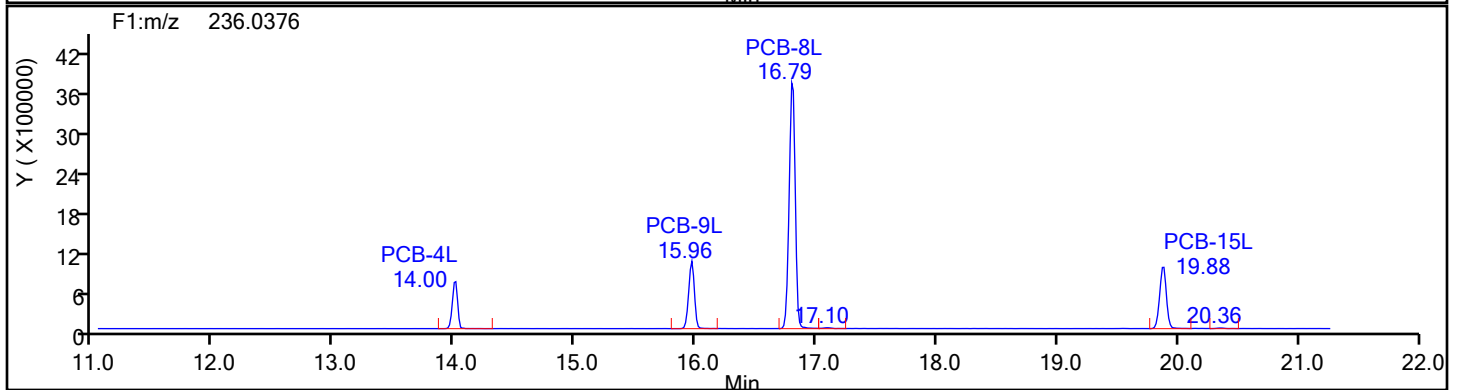
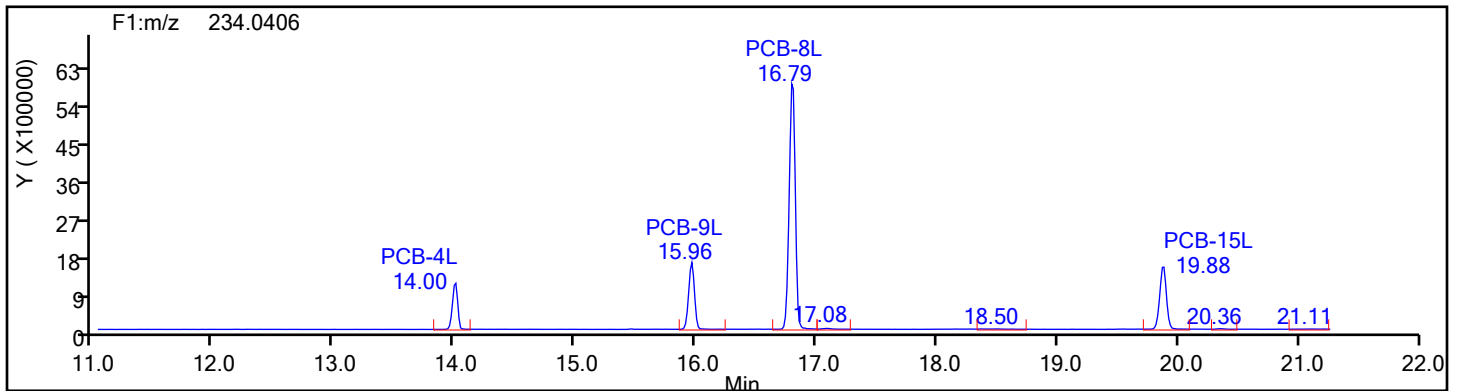
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

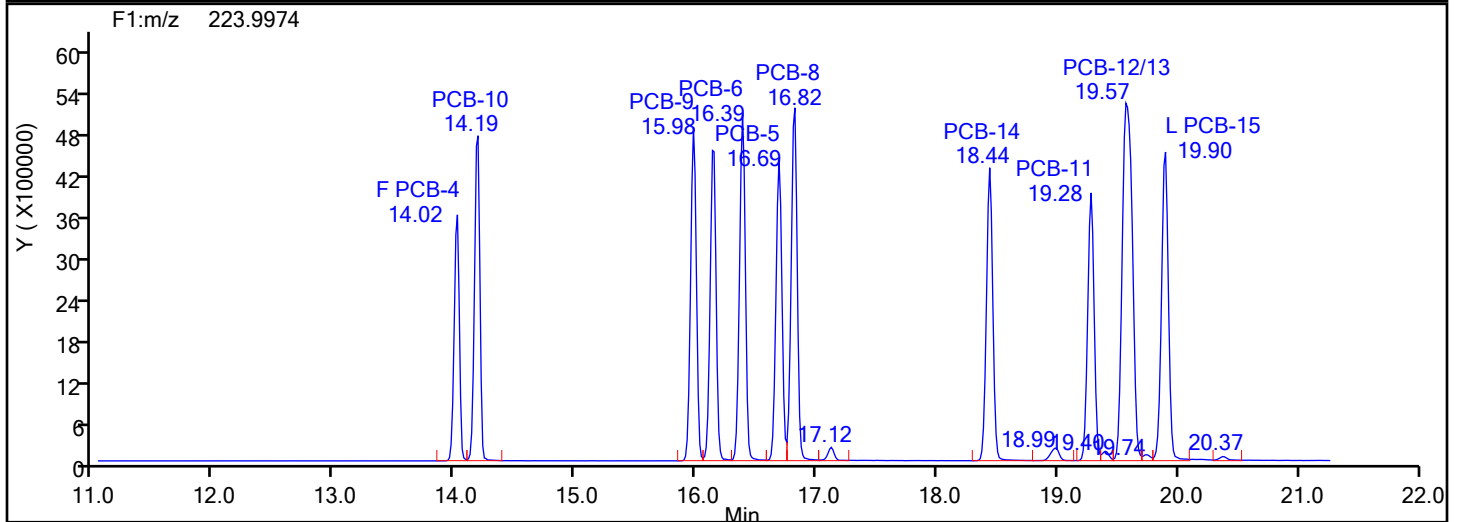
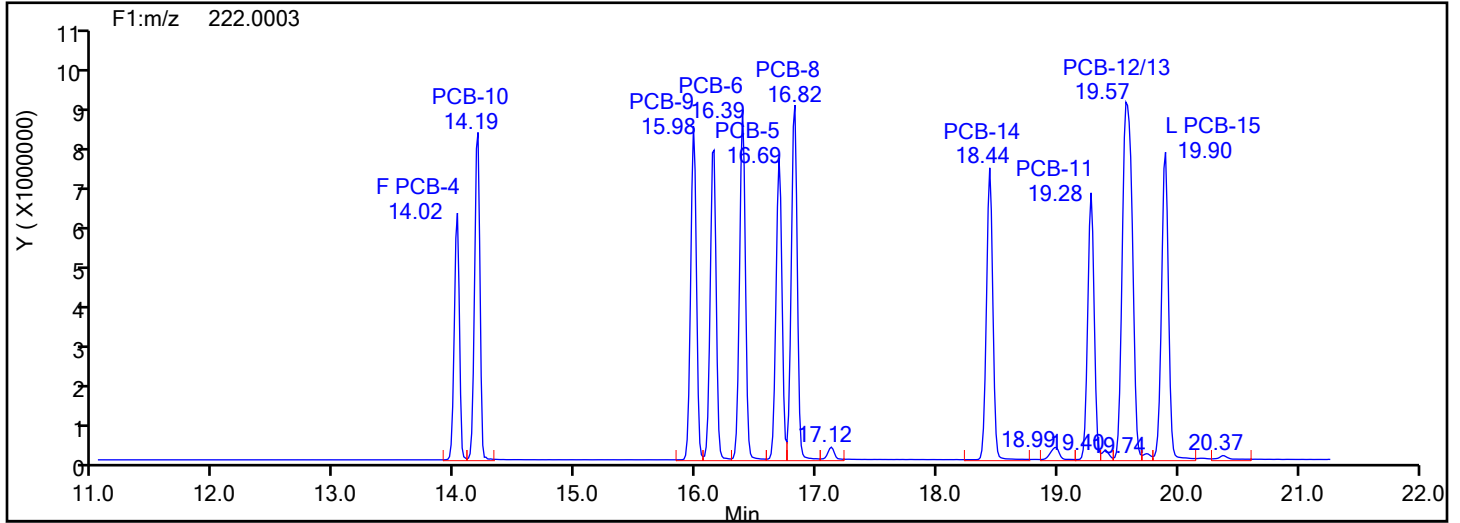
Worklist#: 87130

Sample Line#: 5

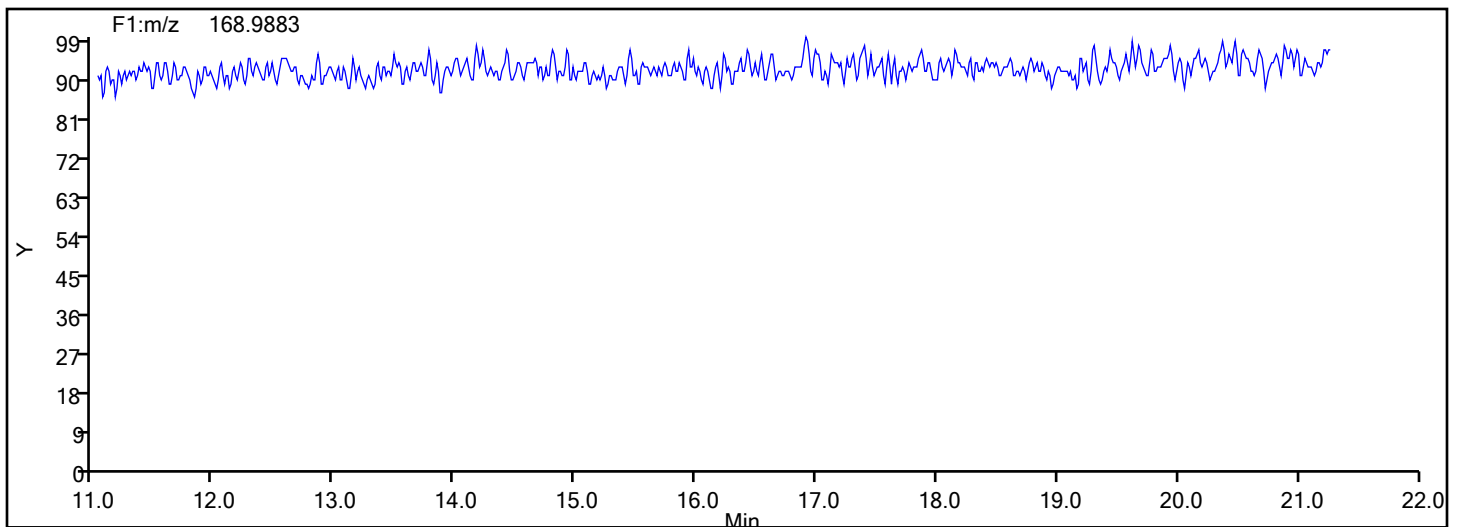
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

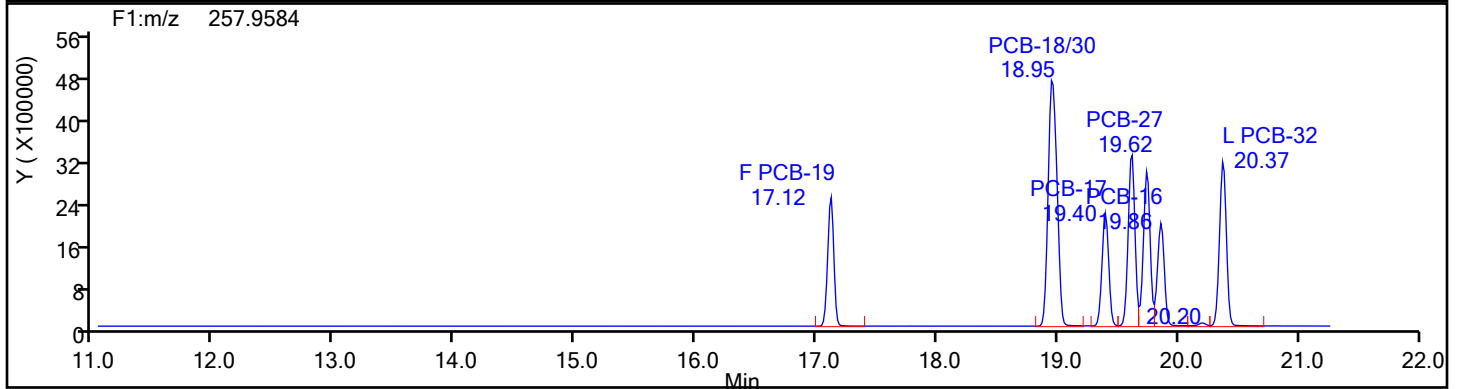
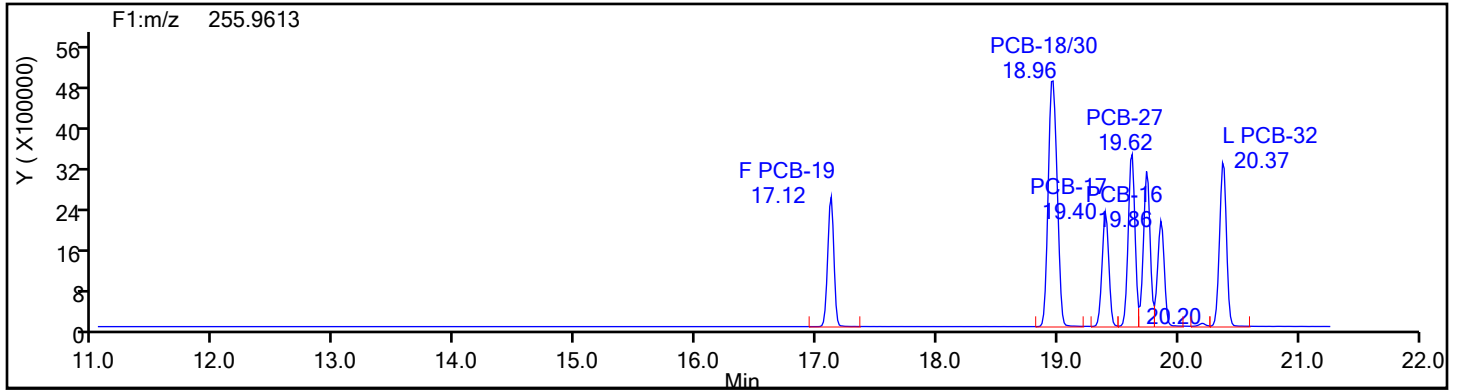
Worklist#: 87130

Sample Line#: 5

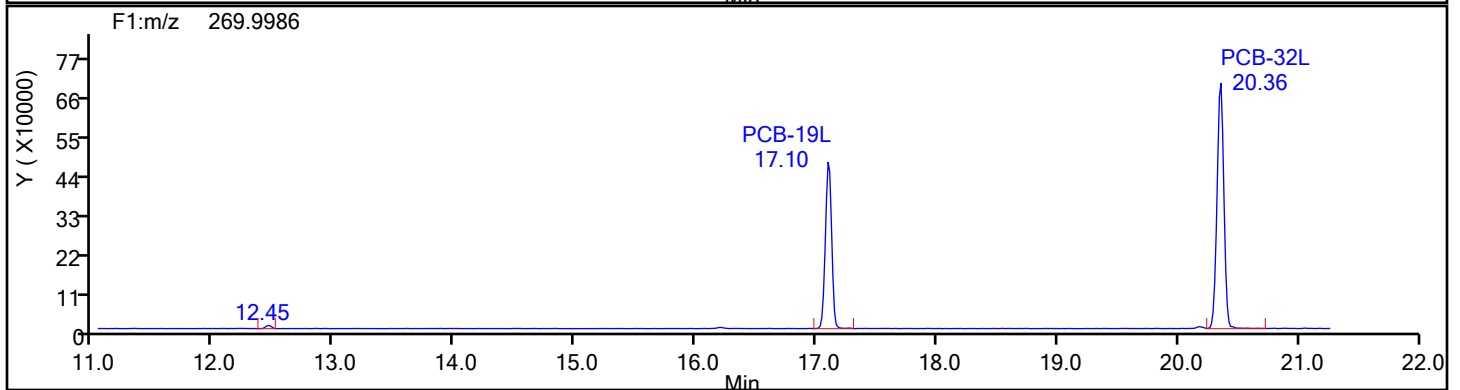
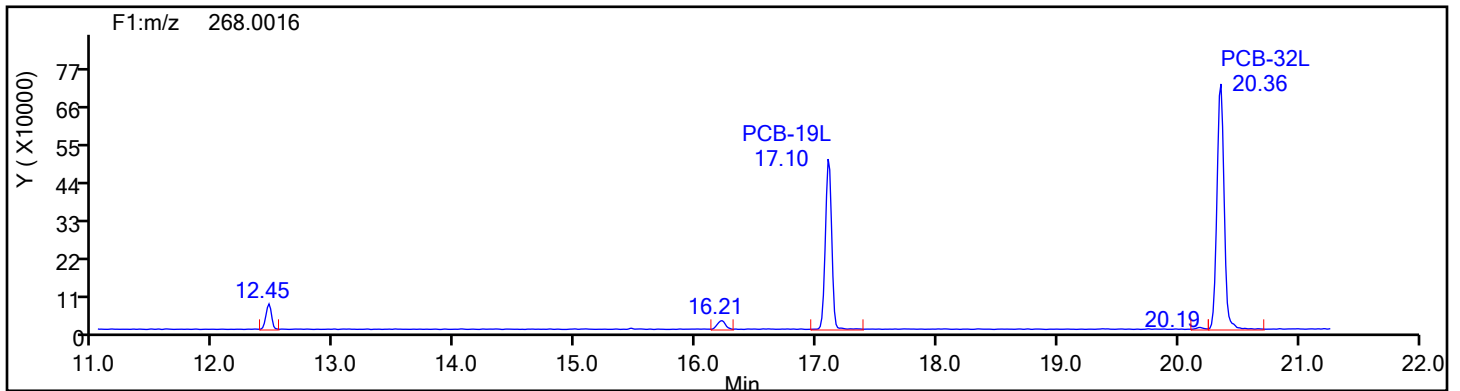
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

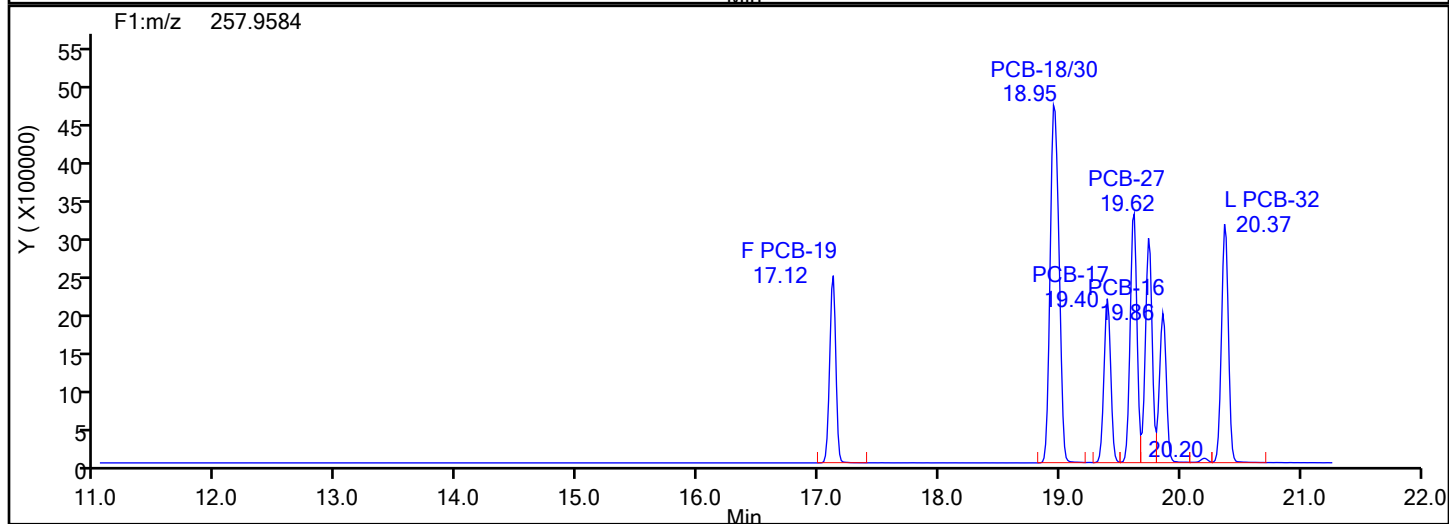
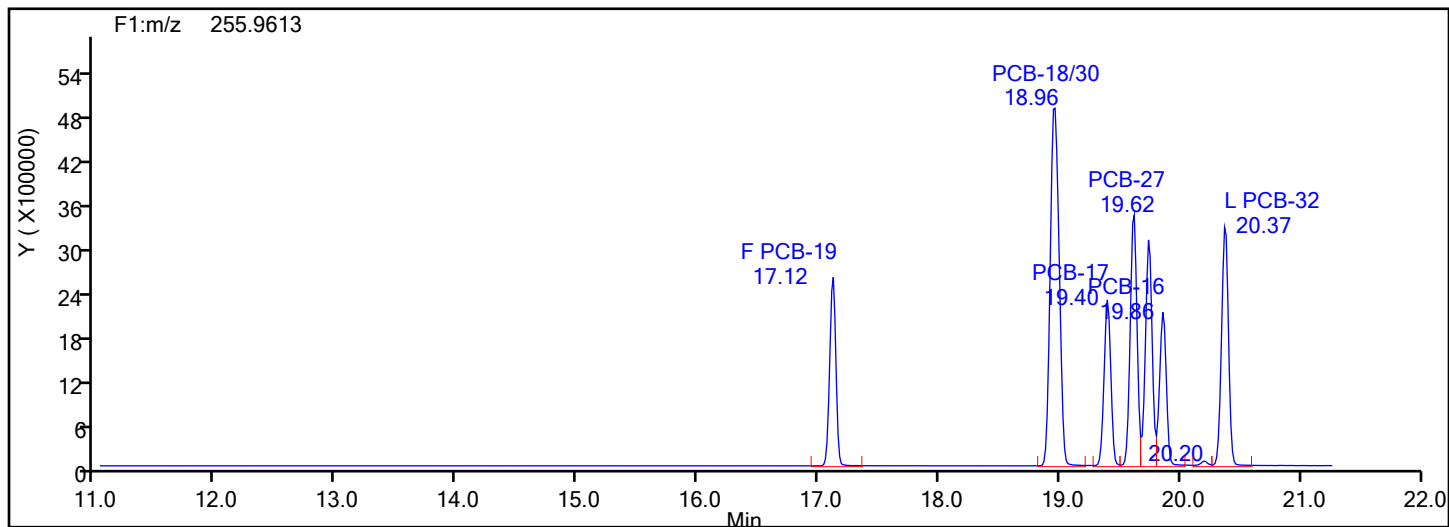
Worklist#: 87130

Sample Line#: 5

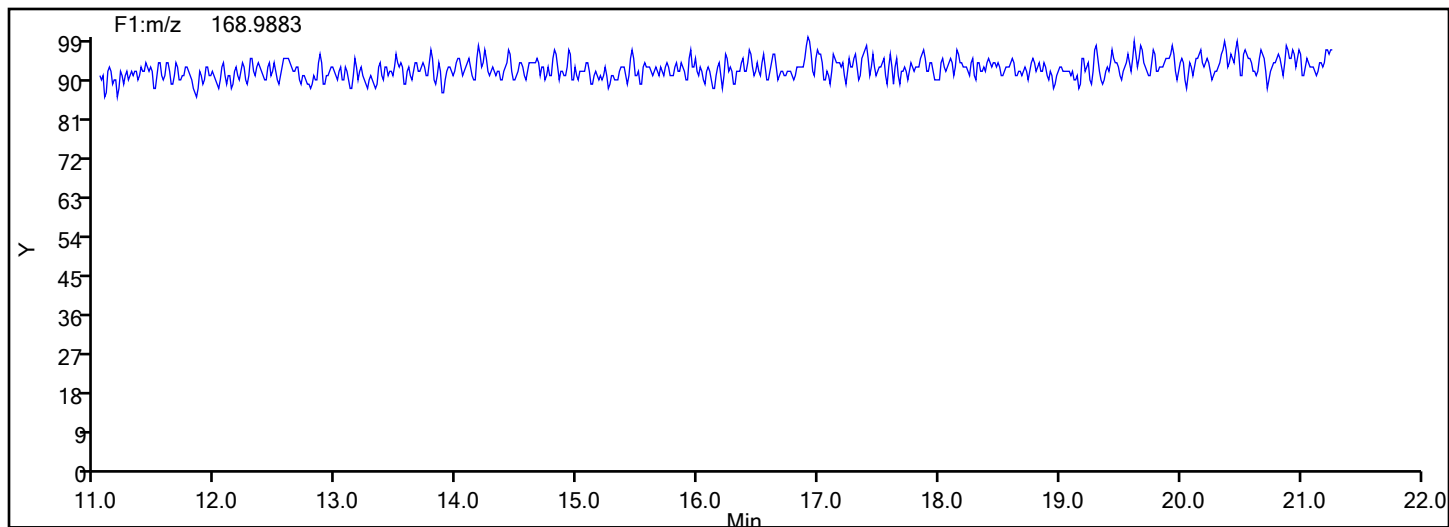
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

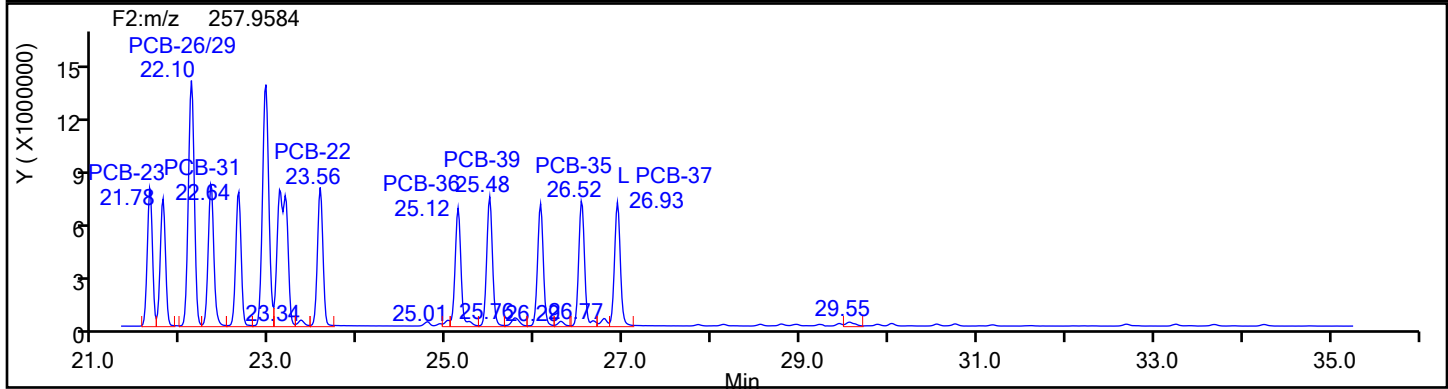
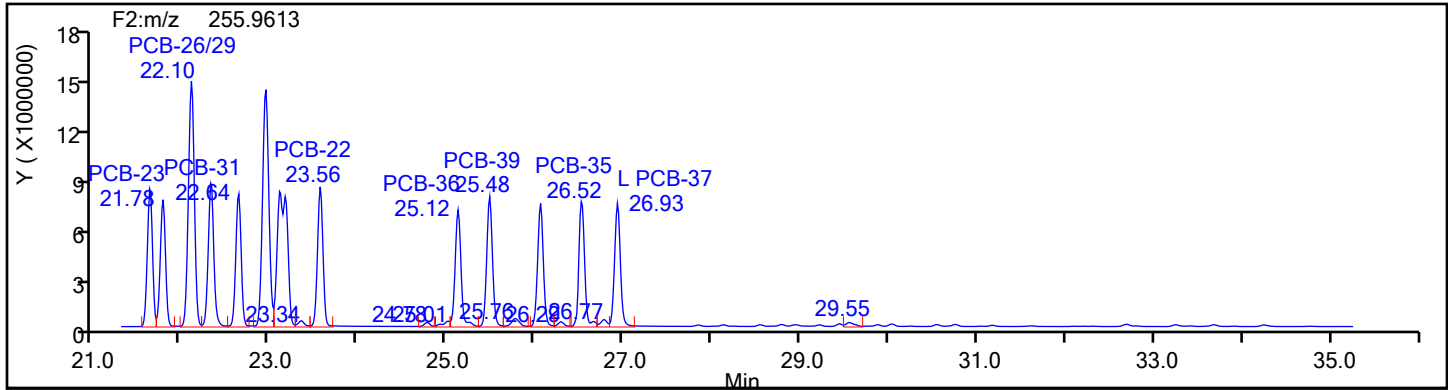
Worklist#: 87130

Sample Line#: 5

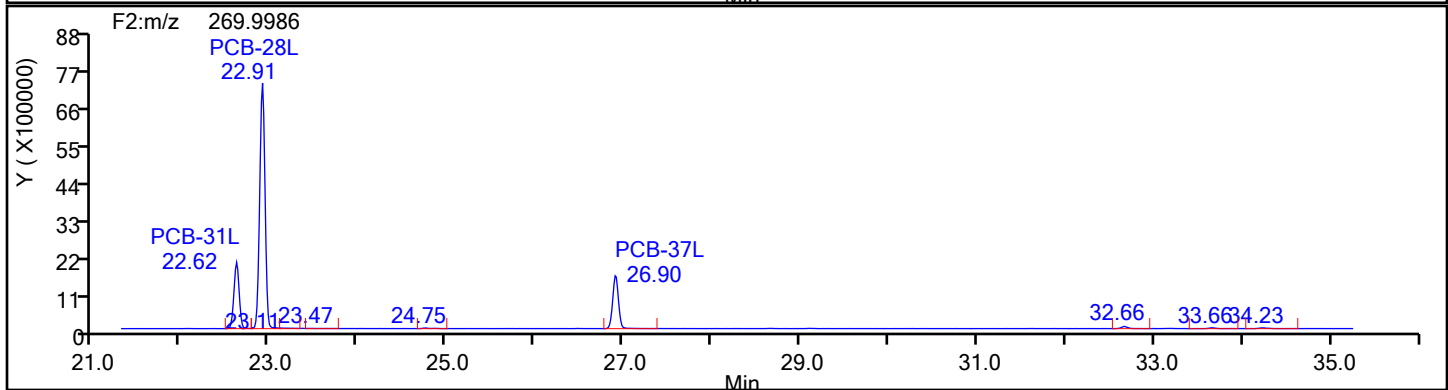
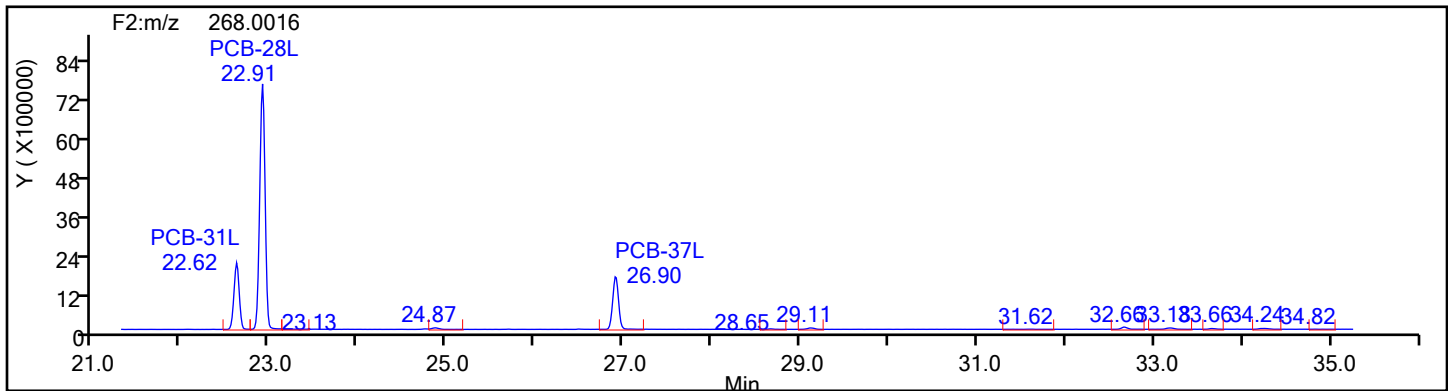
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

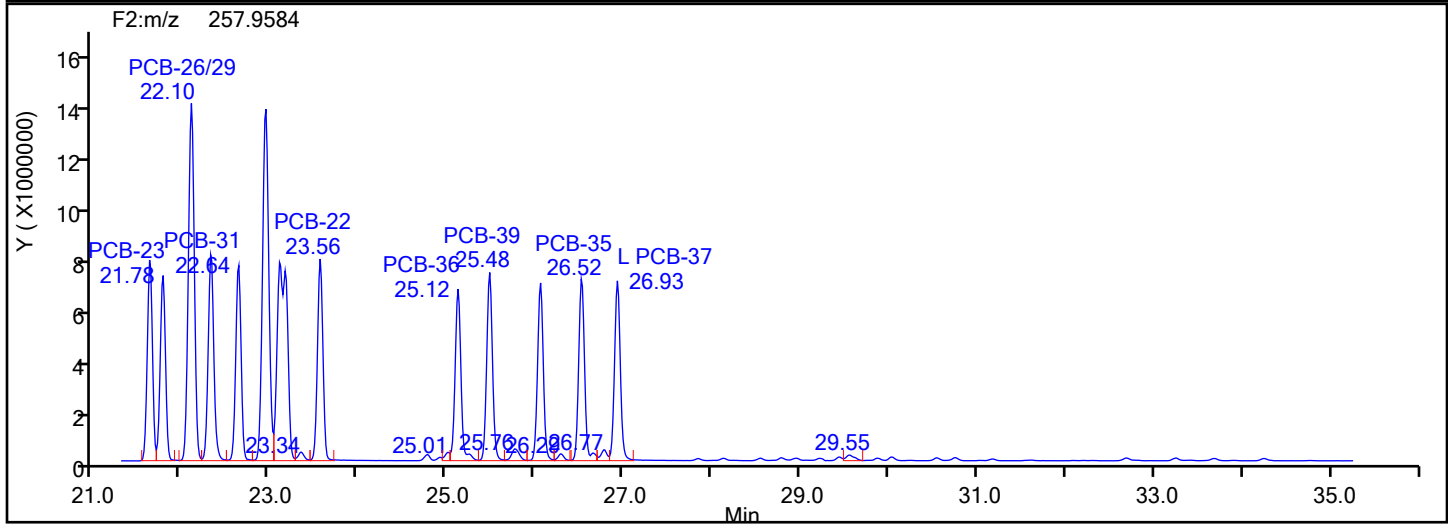
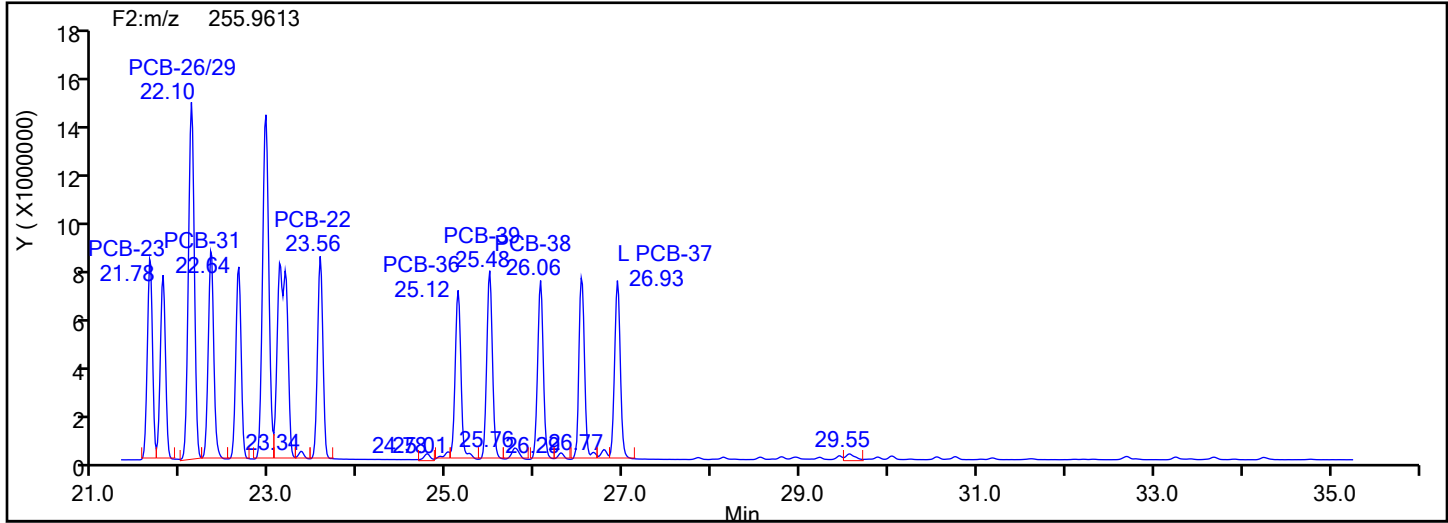
Worklist#: 87130

Sample Line#: 5

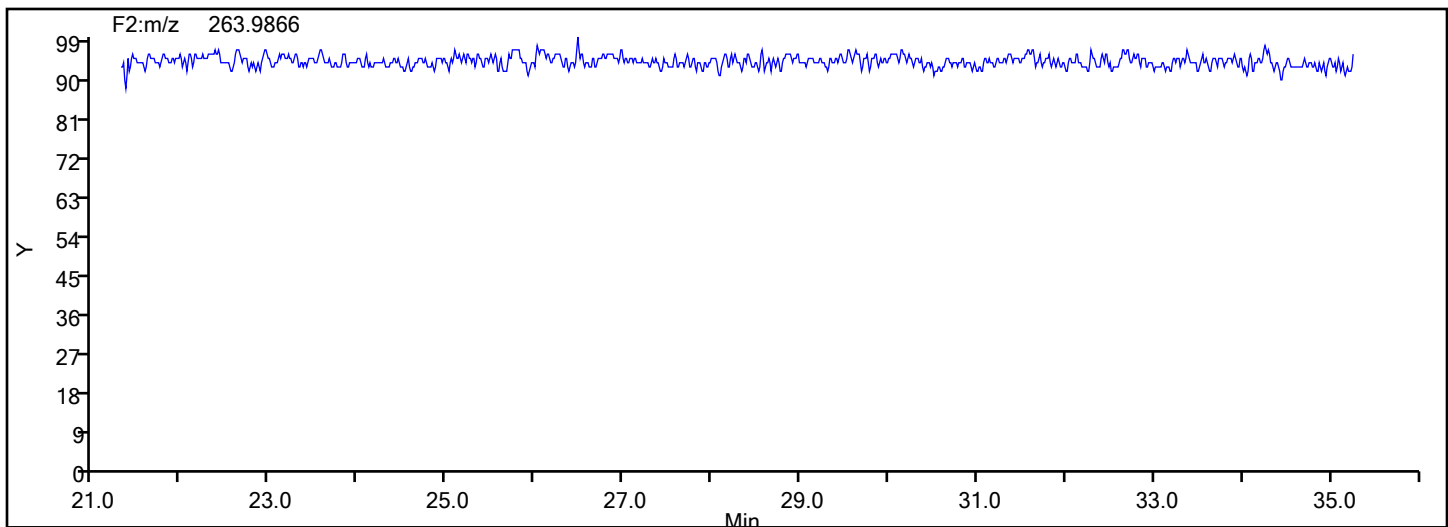
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Instrument ID: D2D

Lims ID: IC L5

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 5

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

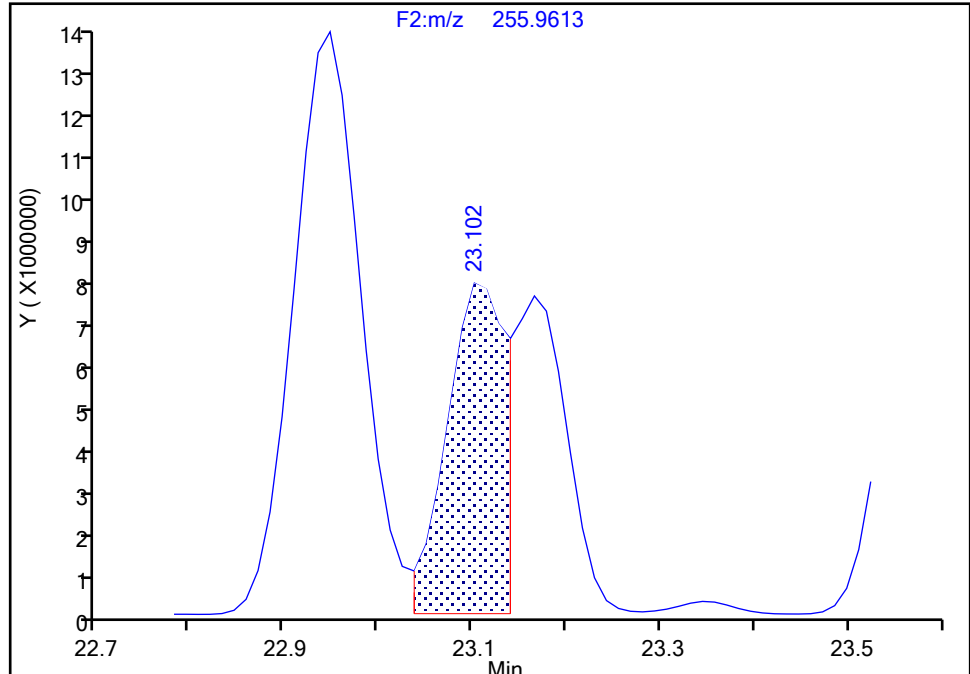
Detector F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 1

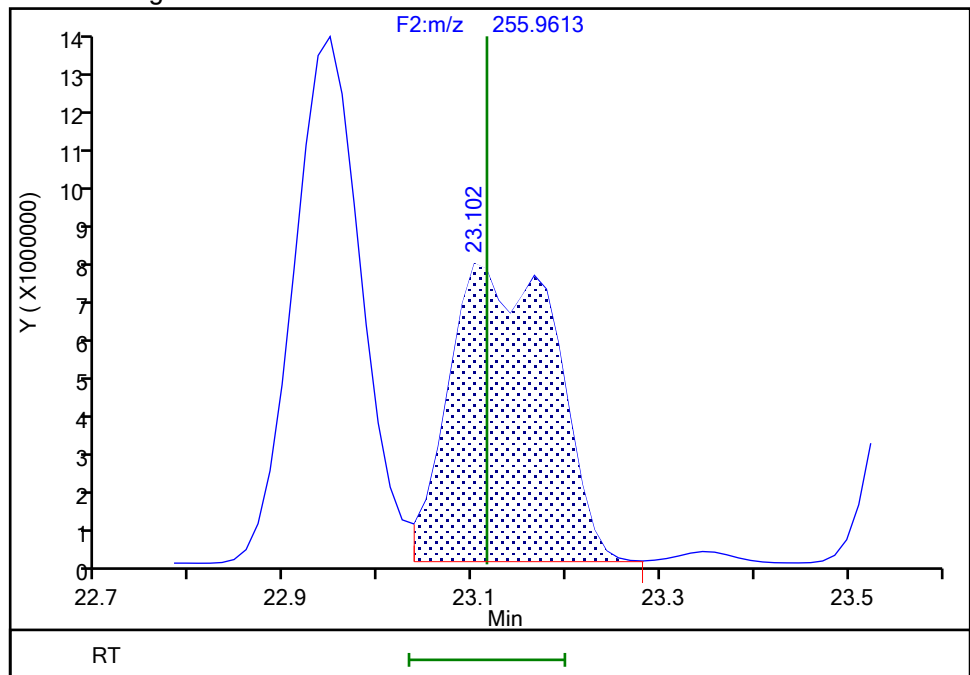
RT: 23.10  
Area: 32747425  
Amount: 487.1424  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.10  
Area: 61897185  
Amount: 769.2411  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 02:57:09 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline



## Eurofins Knoxville

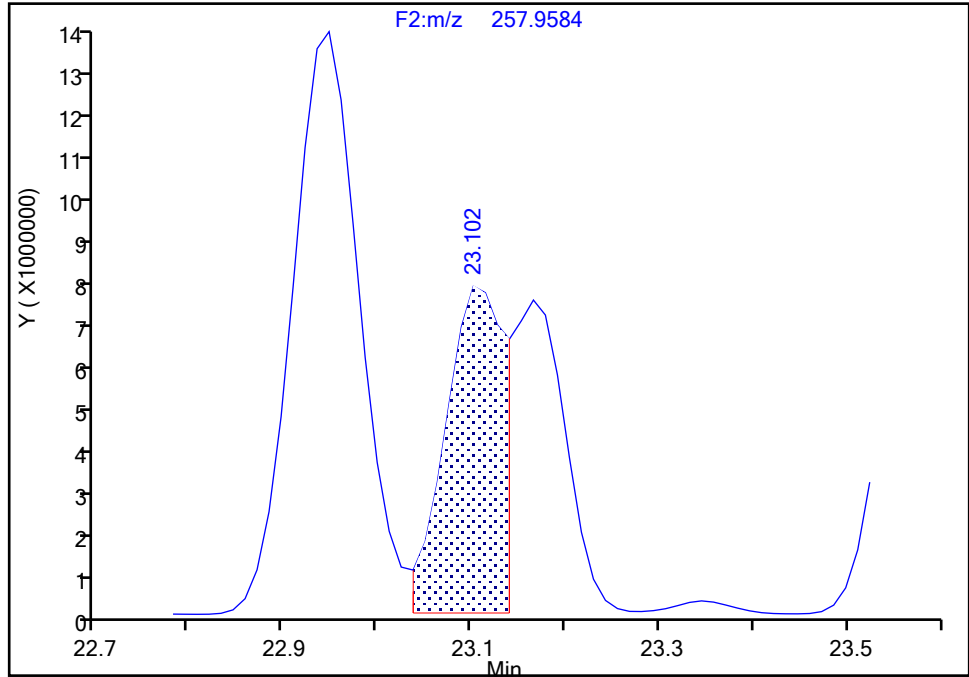
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d  
Injection Date: 31-May-2024 20:12:00 Instrument ID: D2D  
Lims ID: IC L5  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 5  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 2

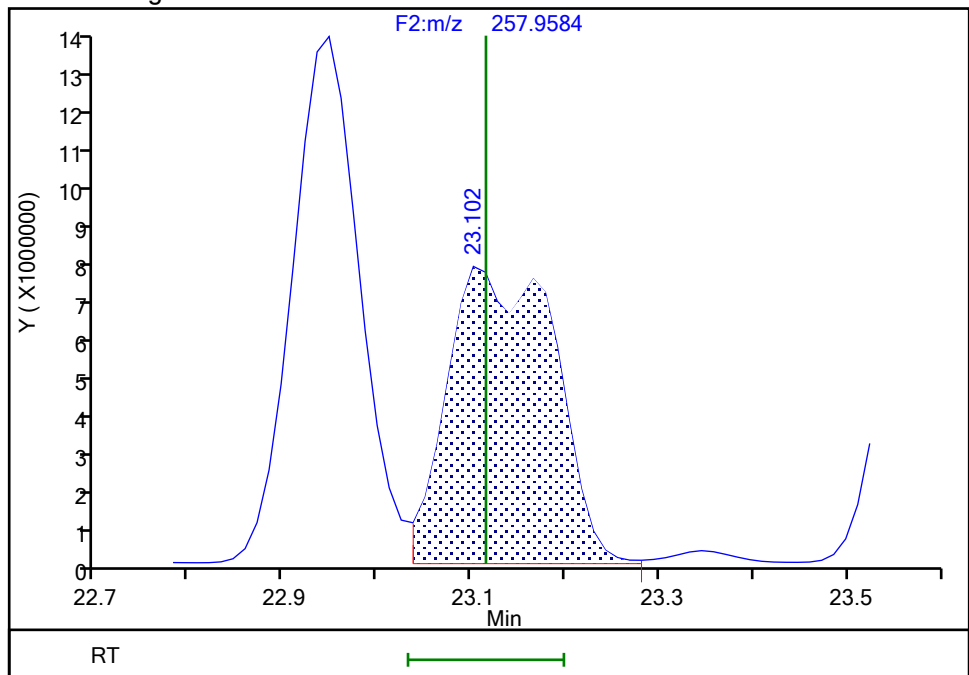
RT: 23.10  
Area: 31717636  
Amount: 487.1424  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.10  
Area: 59869797  
Amount: 769.2411  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 02:57:14 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Page 2074 of 3199

BASFHWC-Pass 20240604 3074

9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

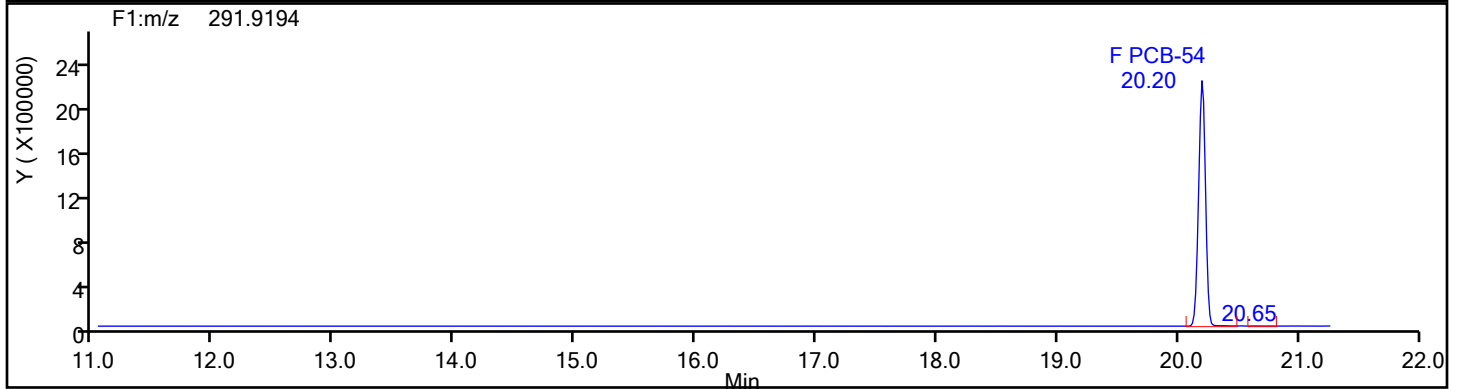
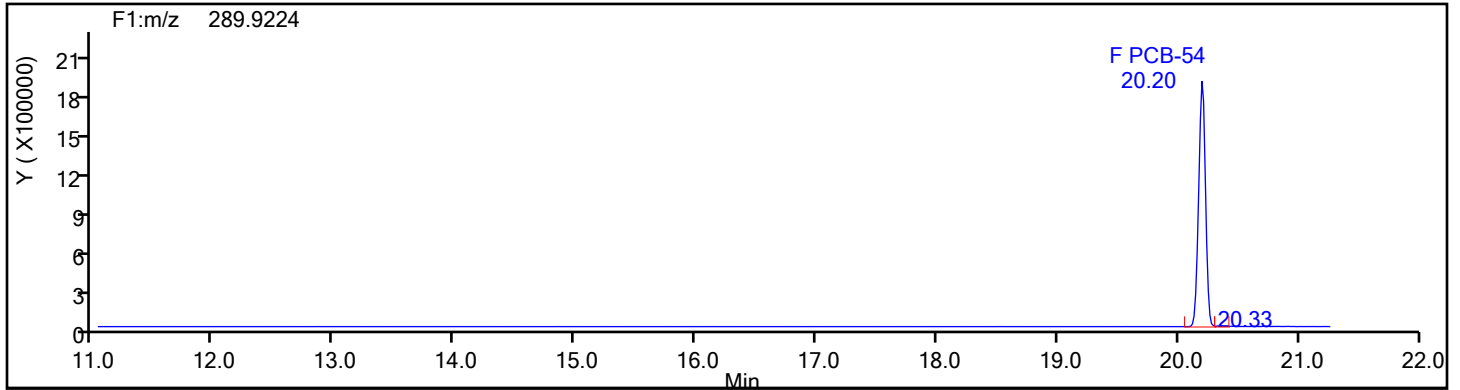
Worklist#: 87130

Sample Line#: 5

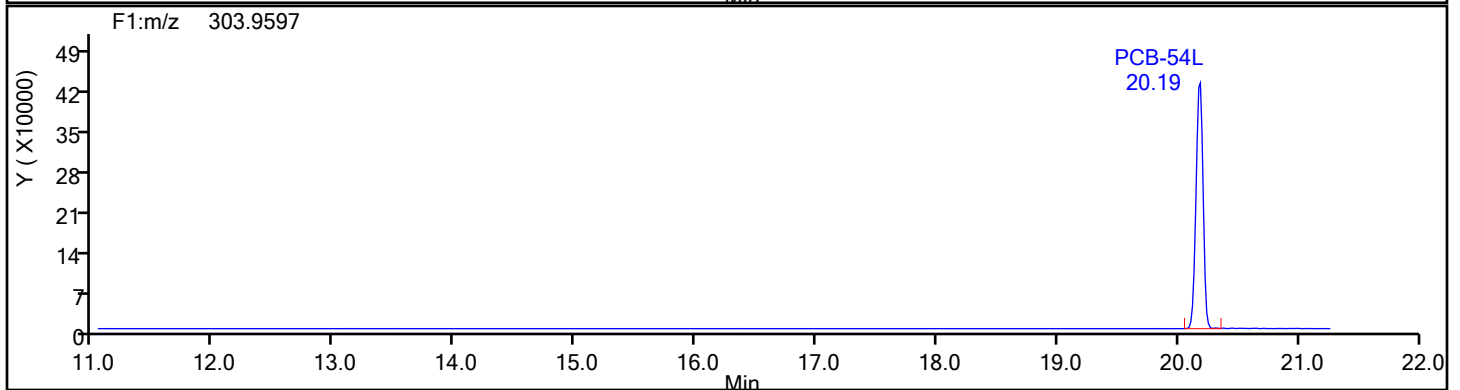
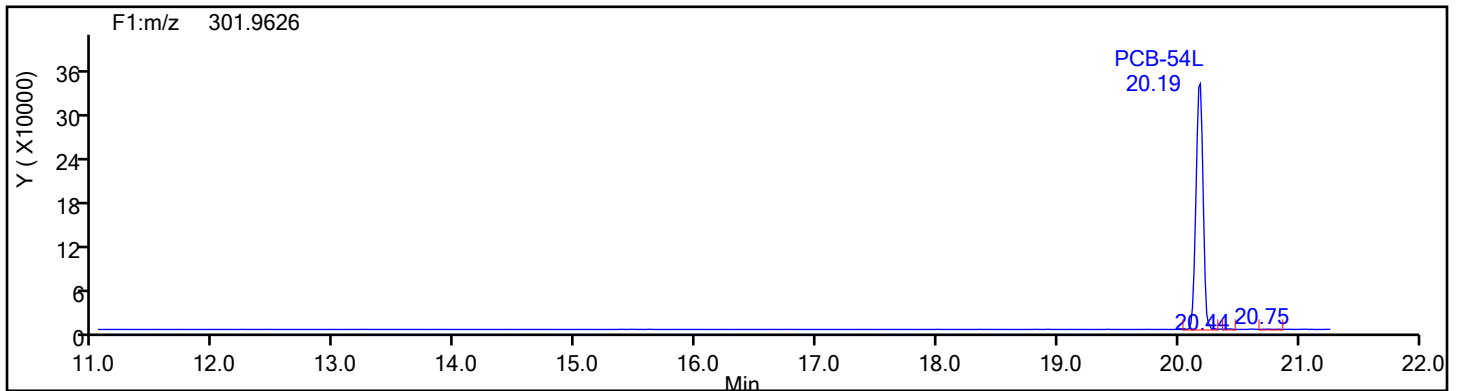
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



TePCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

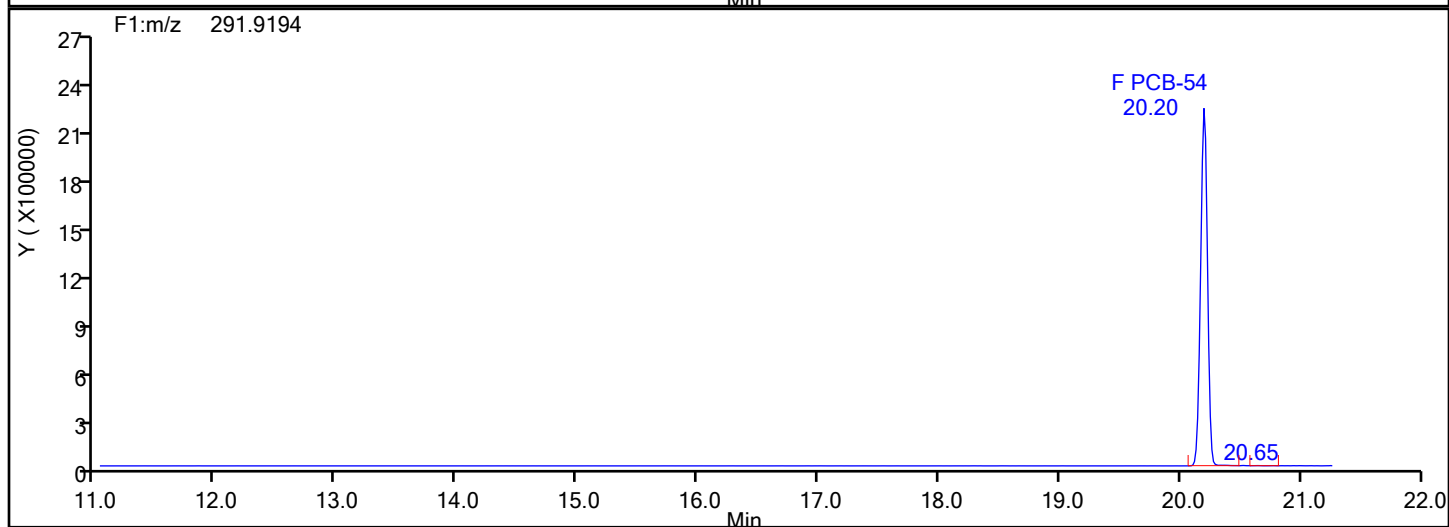
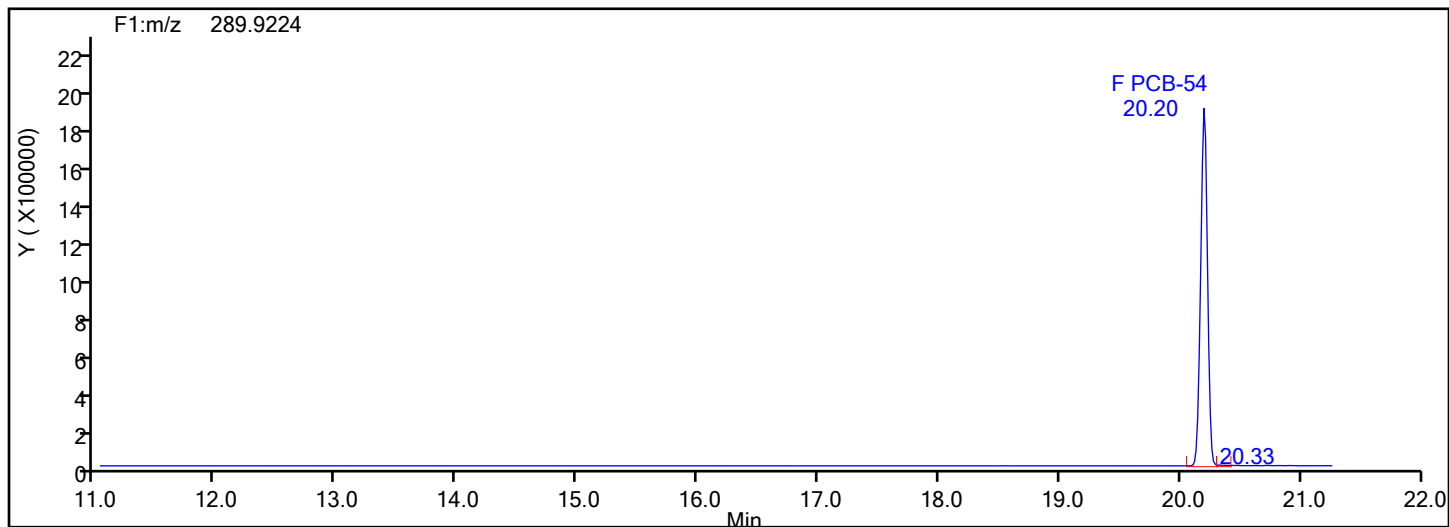
Worklist#: 87130

Sample Line#: 5

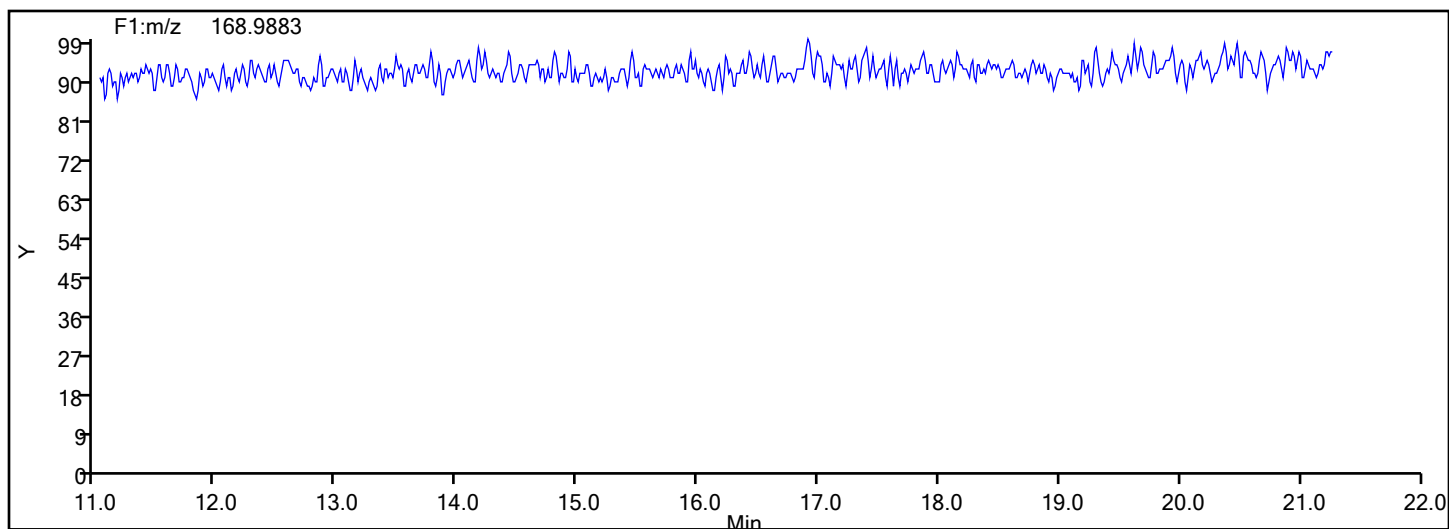
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



TePCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

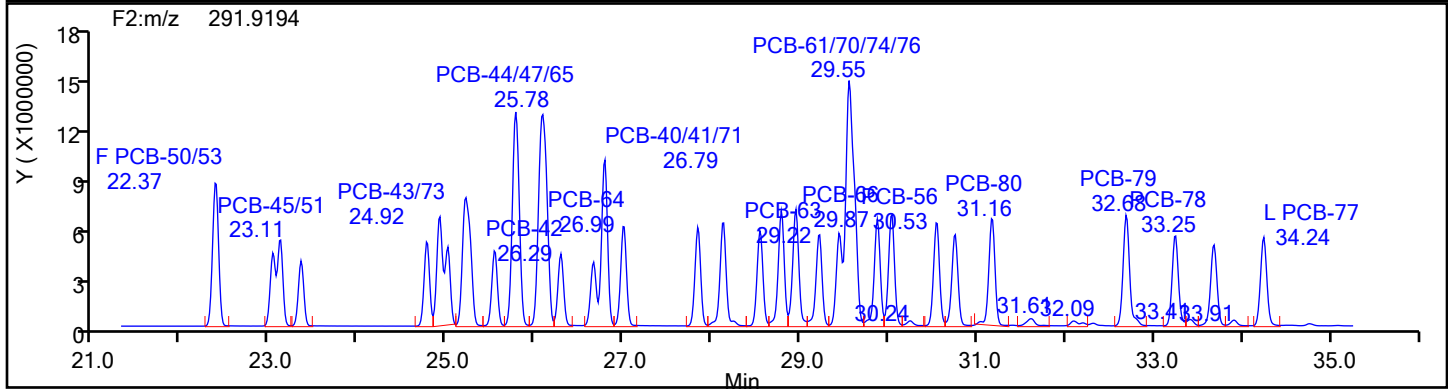
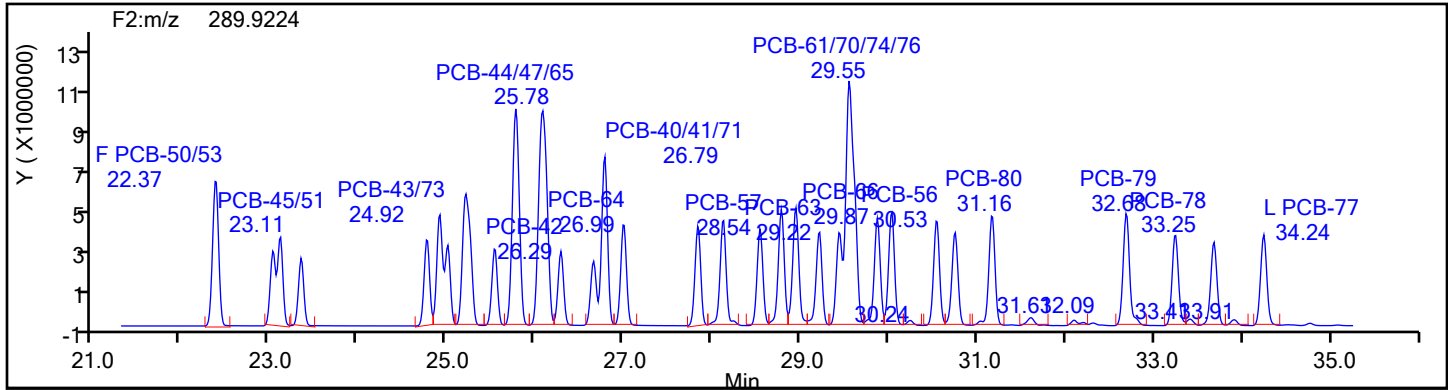
Worklist#: 87130

Sample Line#: 5

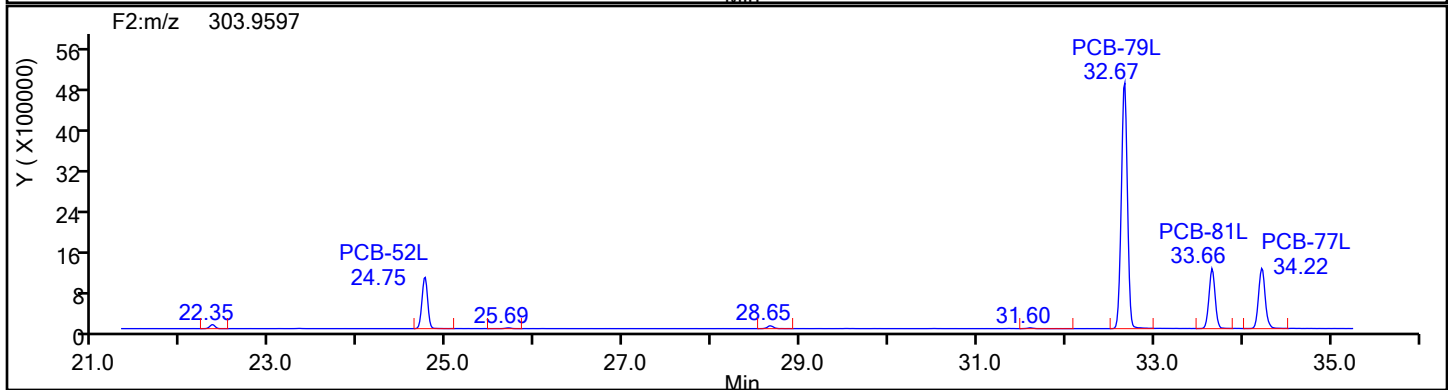
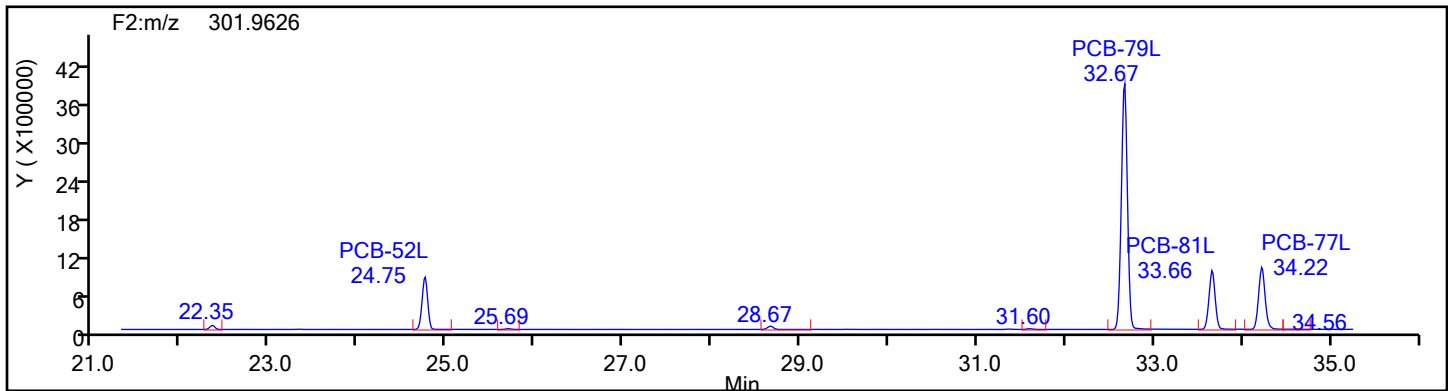
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



TePCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

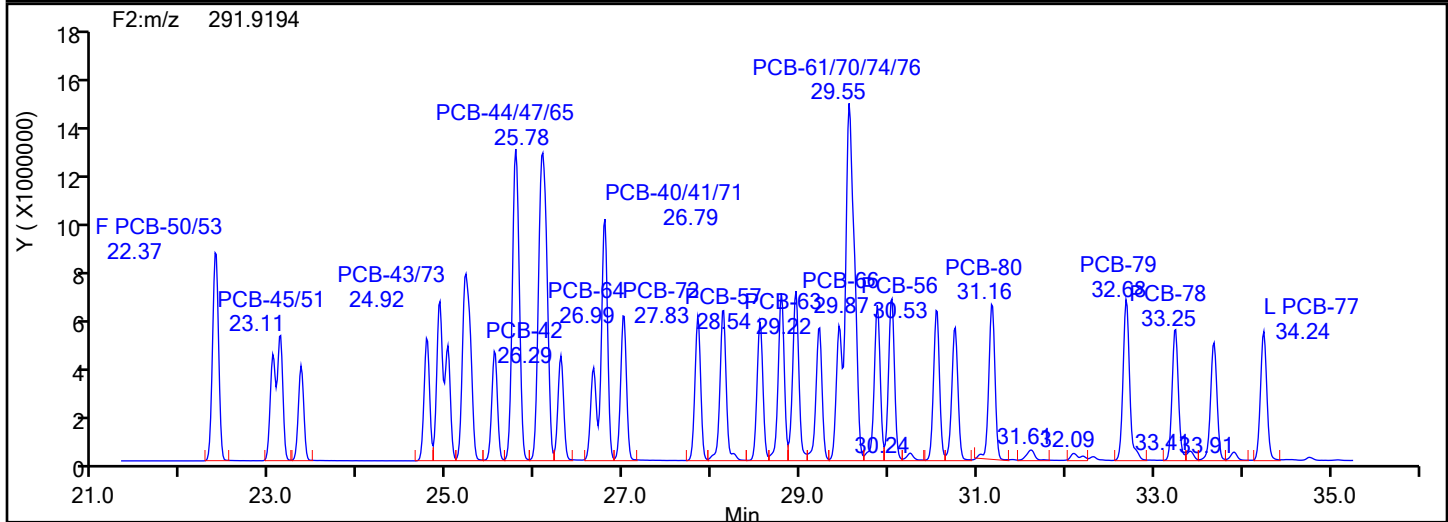
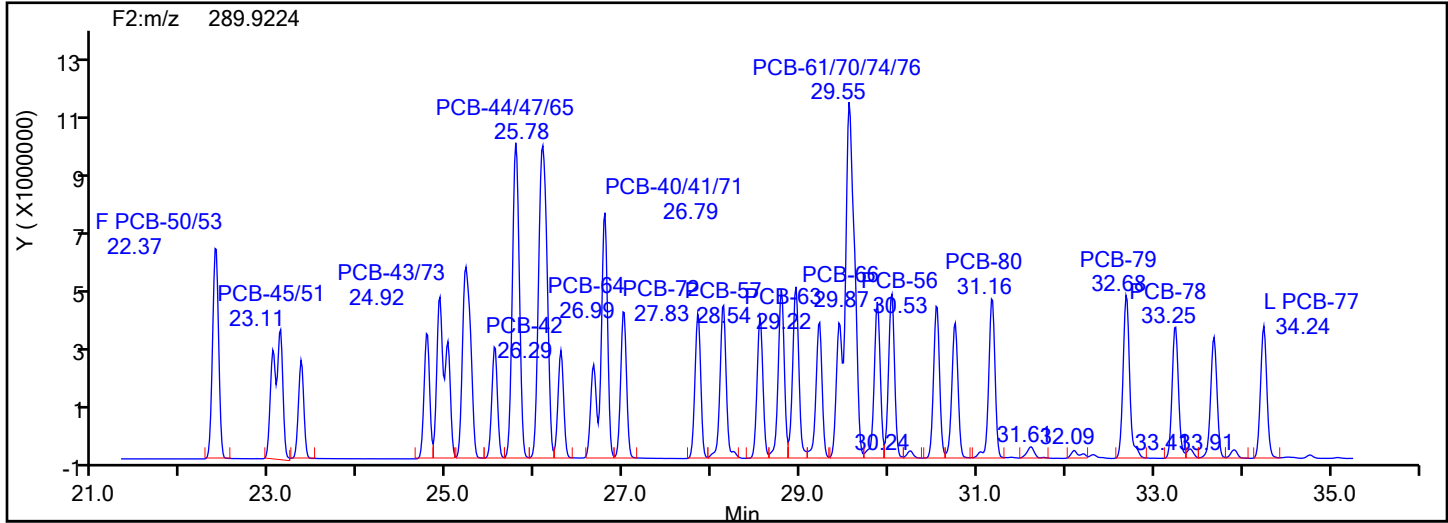
Worklist#: 87130

Sample Line#: 5

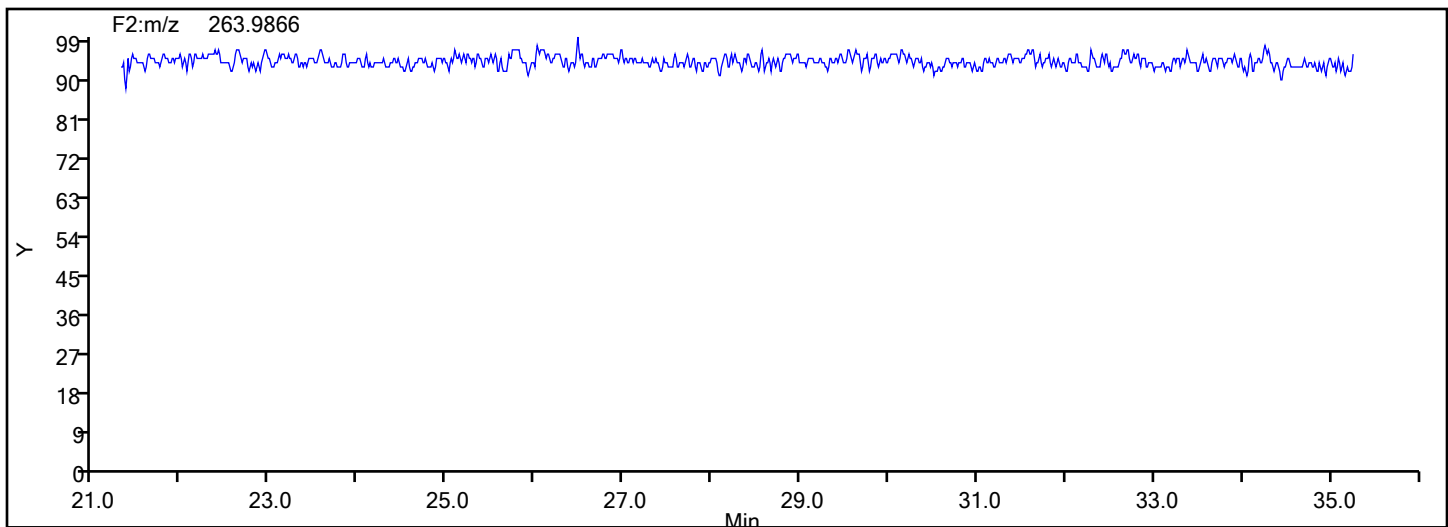
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



## TePCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Instrument ID: D2D

Lims ID: IC L5

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 5

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

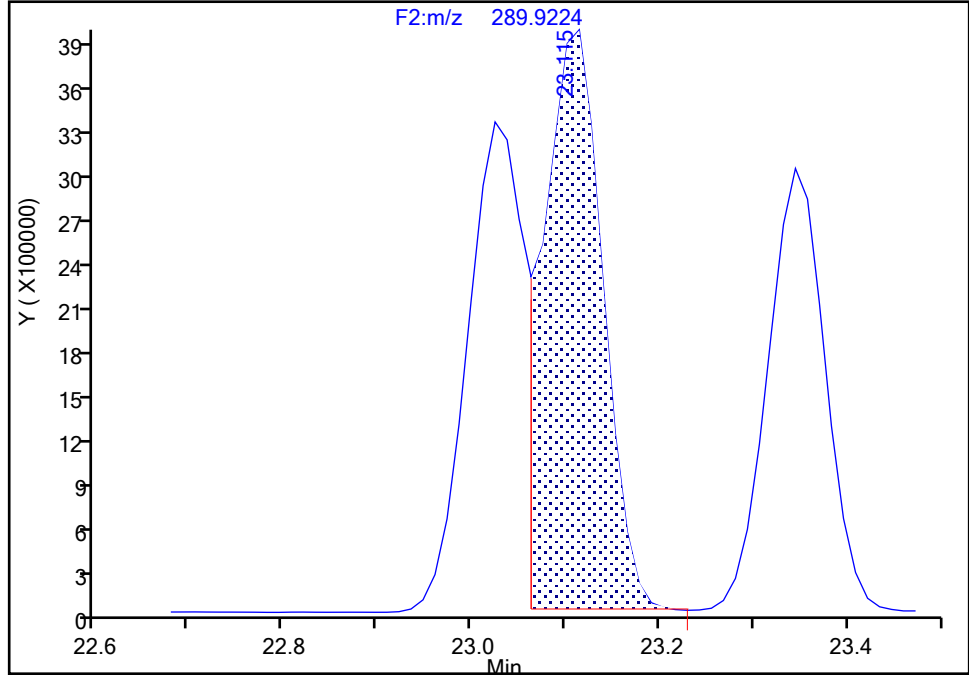
Detector F2(21.81 :35.54 )

PCB-45/51, CAS: STL01804

Signal: 1

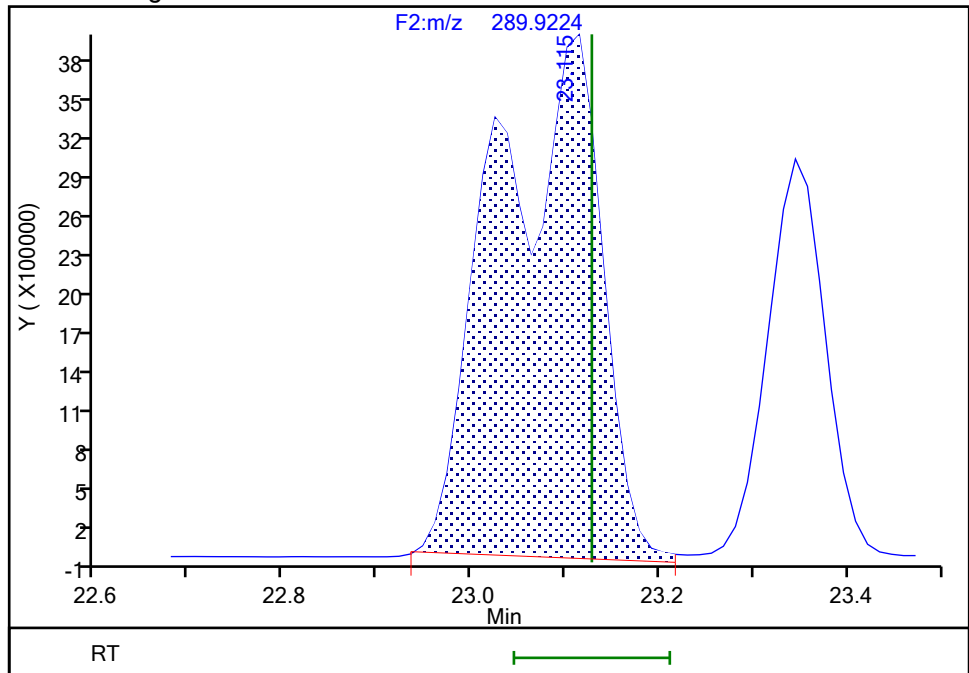
RT: 23.11  
Area: 16898449  
Amount: 501.6231  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.11  
Area: 30645858  
Amount: 771.8655  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 02:57:39 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

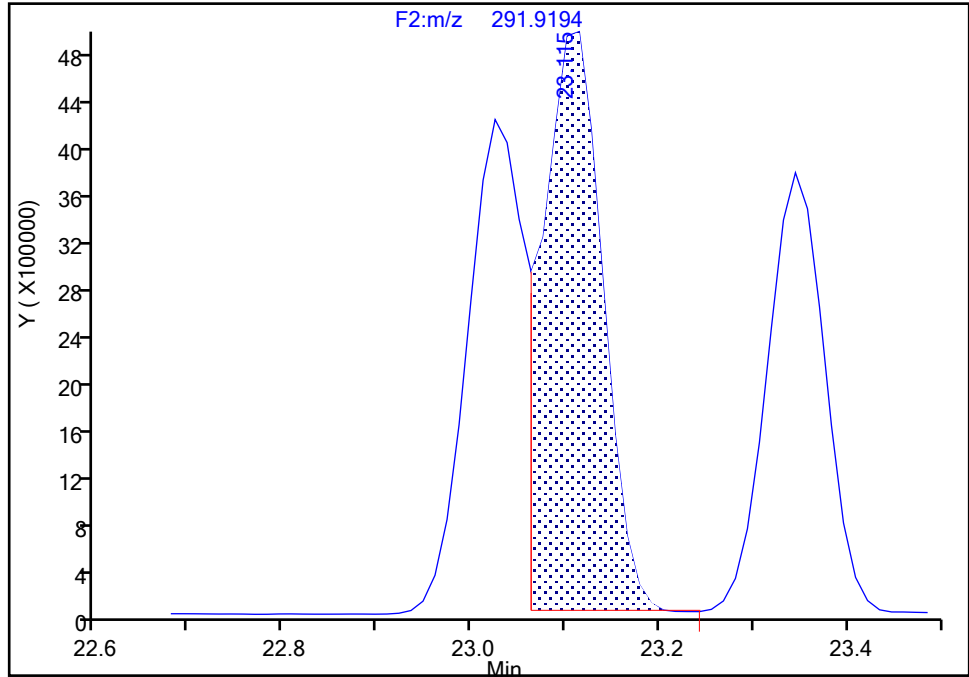
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d  
Injection Date: 31-May-2024 20:12:00 Instrument ID: D2D  
Lims ID: IC L5  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 5  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-45/51, CAS: STL01804**

Signal: 2

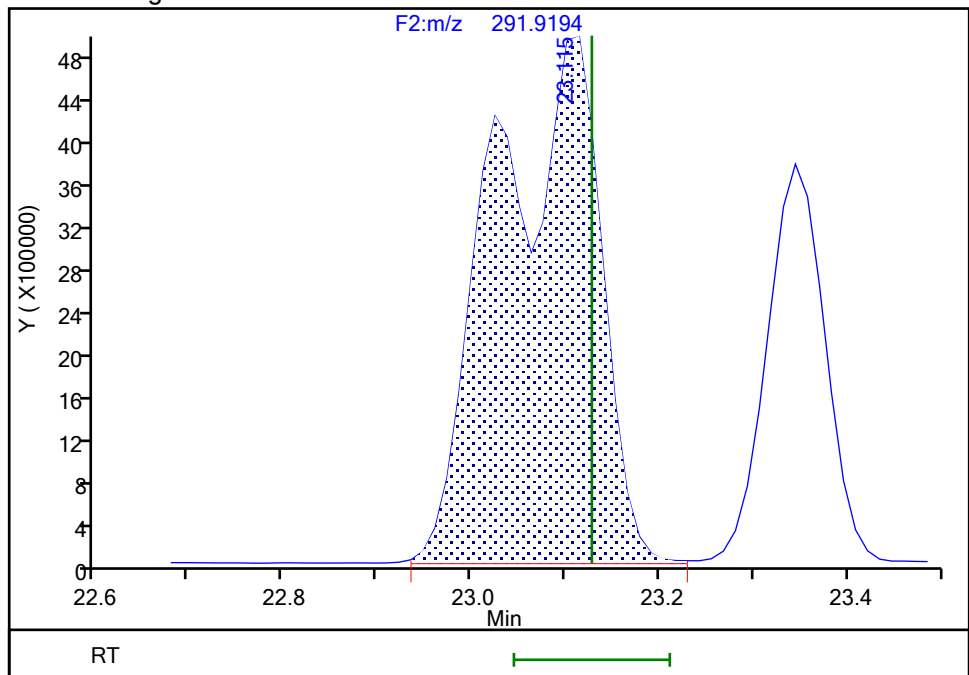
RT: 23.11  
Area: 21433250  
Amount: 501.6231  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.11  
Area: 38839930  
Amount: 771.8655  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 02:57:44 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 2024-06-04 09:06:24  
4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Instrument ID: D2D

Lims ID: IC L5

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 5

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

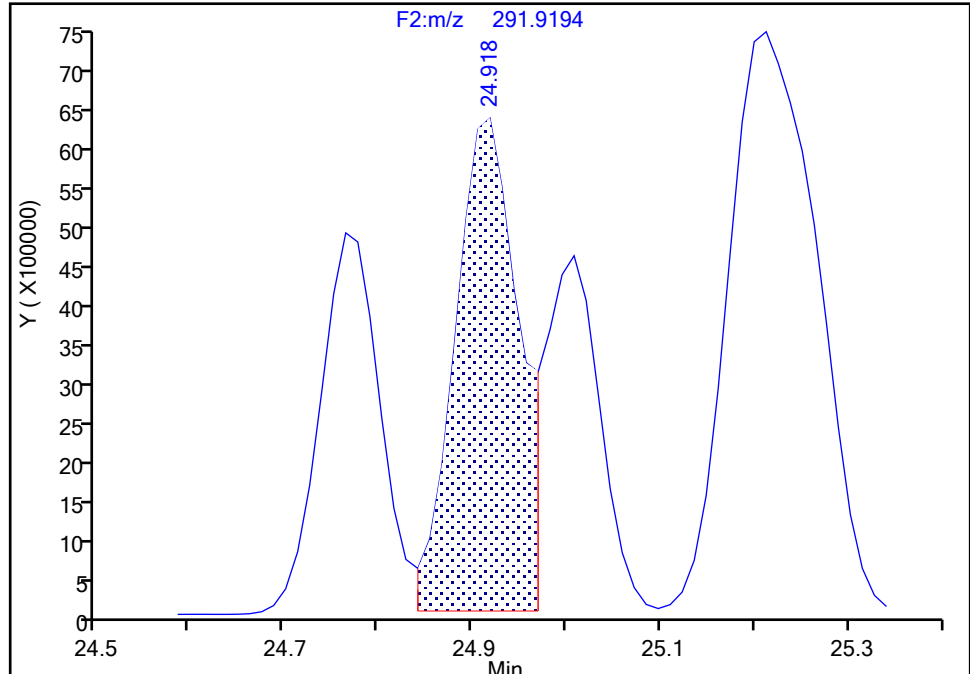
Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 2

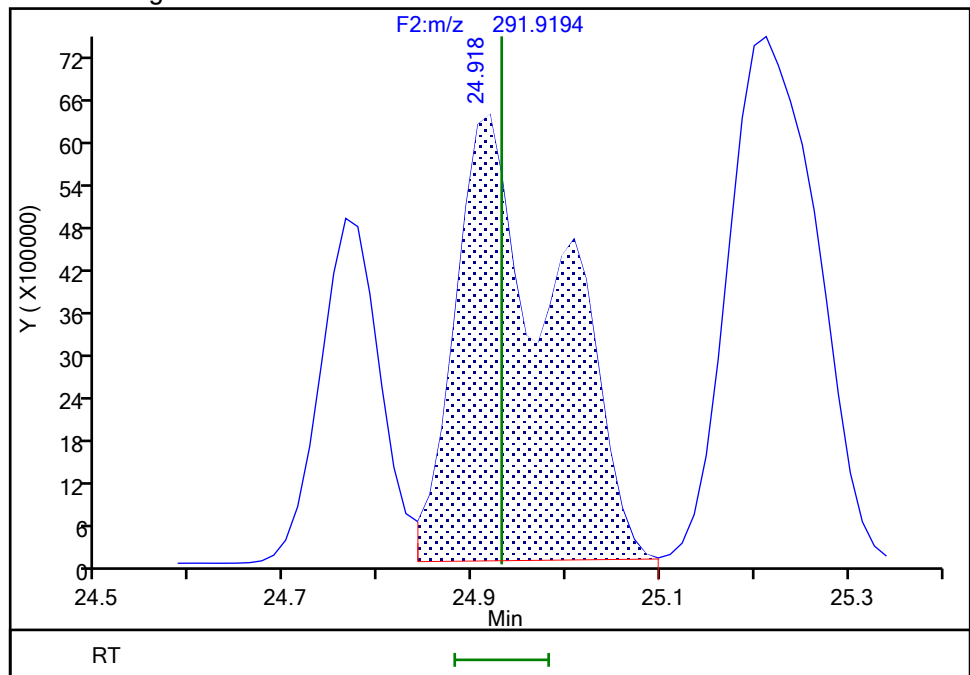
RT: 24.92  
Area: 29202623  
Amount: 531.4284  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.92  
Area: 47225368  
Amount: 749.8375  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 02:57:53 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline



## Eurofins Knoxville

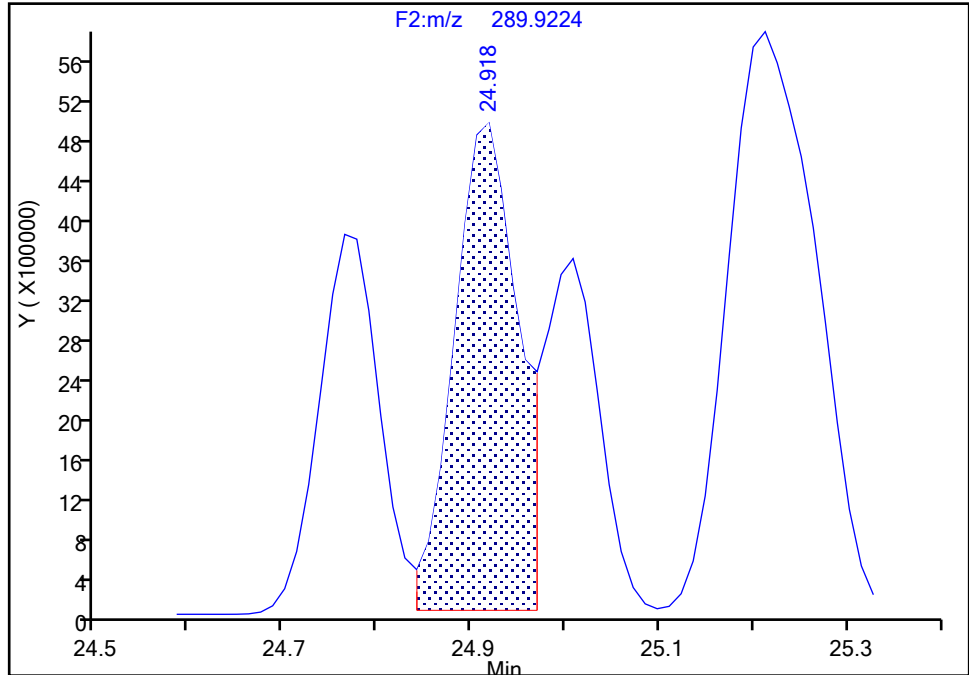
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d  
Injection Date: 31-May-2024 20:12:00 Instrument ID: D2D  
Lims ID: IC L5  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 5  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-43/73, CAS: STL02293

Signal: 1

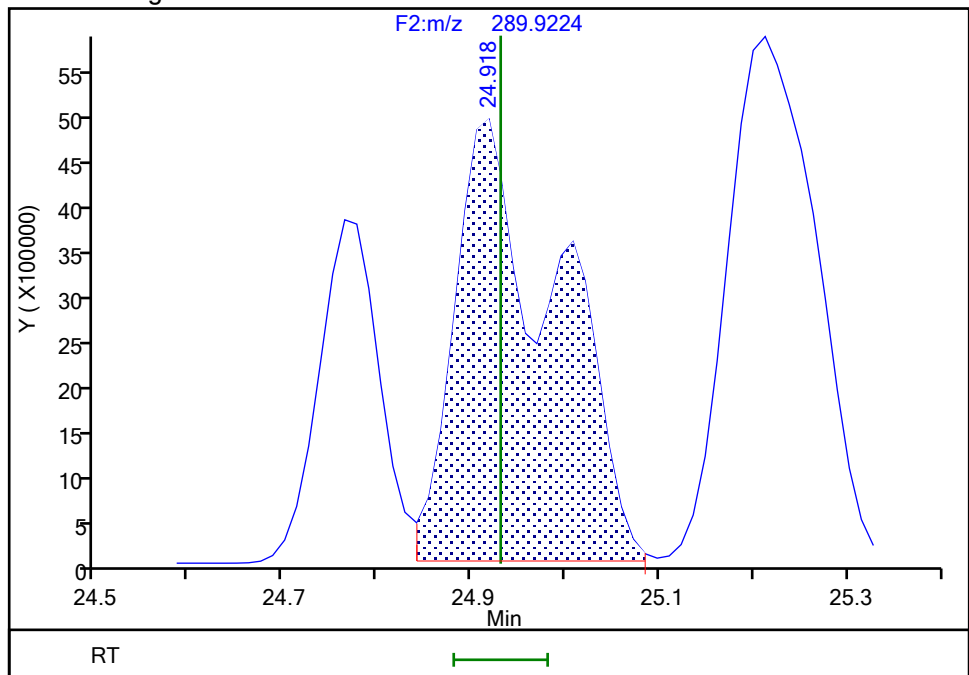
RT: 24.92  
Area: 22988569  
Amount: 531.4284  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.92  
Area: 37178269  
Amount: 749.8375  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 02:57:59 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Instrument ID: D2D

Lims ID: IC L5

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 5

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

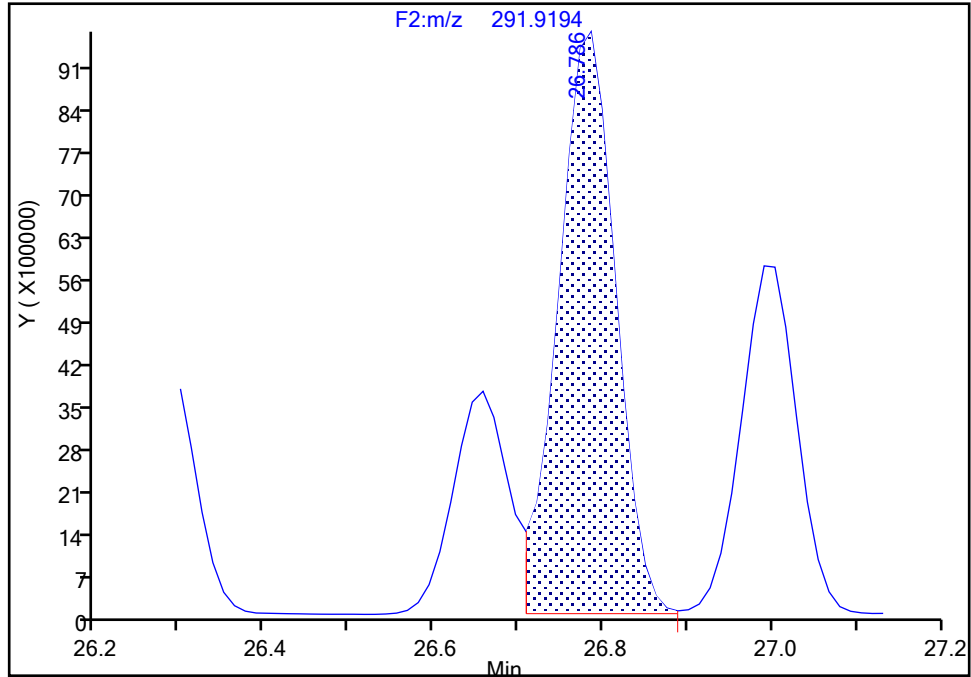
Detector F2(21.81 :35.54 )

**PCB-40/41/71, CAS: STL02292**

Signal: 2

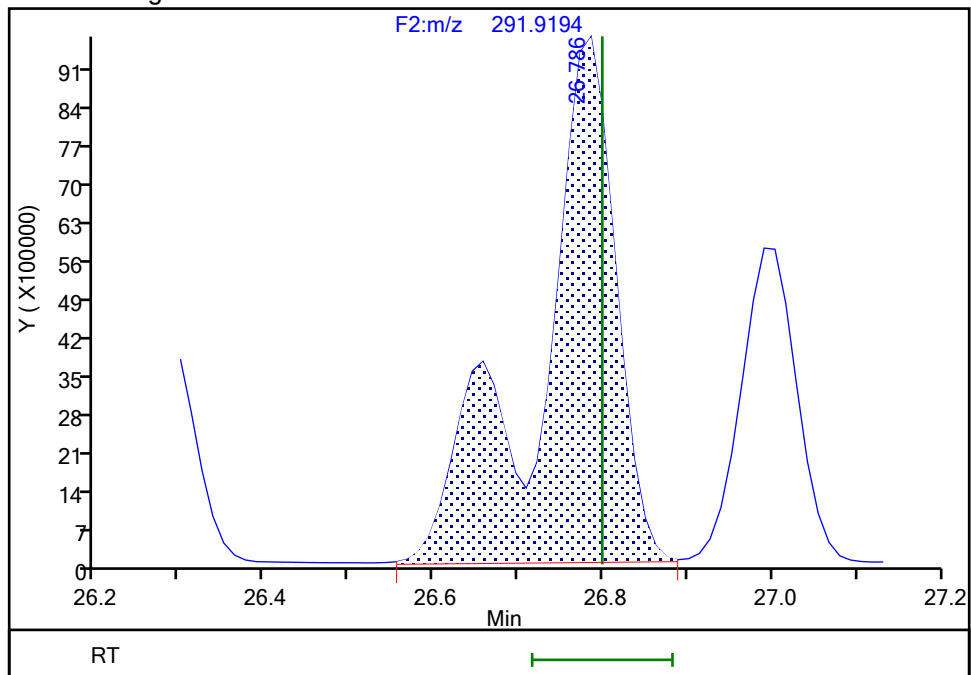
RT: 26.79  
Area: 44846660  
Amount: 906.5085  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.79  
Area: 61486178  
Amount: 1134.5940  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 02:58:11 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Instrument ID: D2D

Lims ID: IC L5

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 5

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

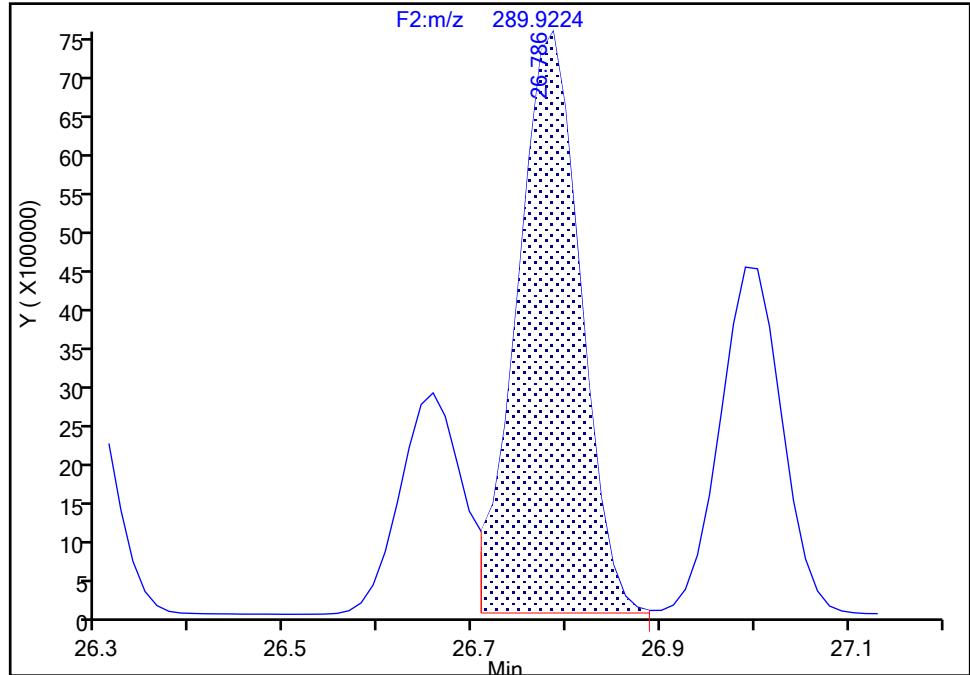
Detector F2(21.81 :35.54 )

**PCB-40/41/71, CAS: STL02292**

Signal: 1

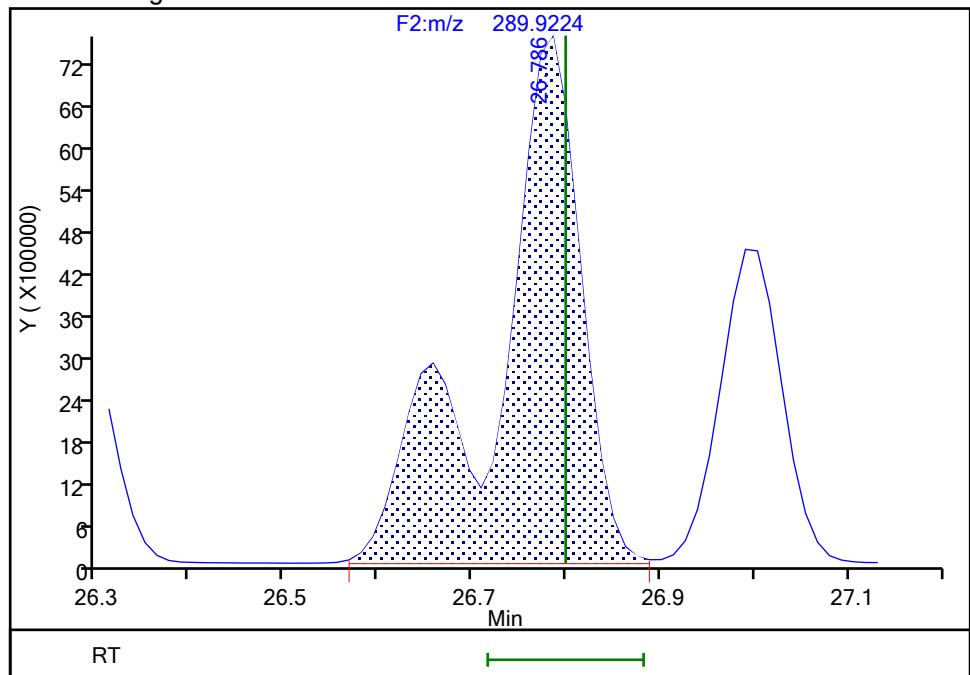
RT: 26.79  
Area: 35210554  
Amount: 906.5085  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.79  
Area: 48057577  
Amount: 1134.5940  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 02:58:15 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Instrument ID: D2D

Lims ID: IC L5

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 5

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

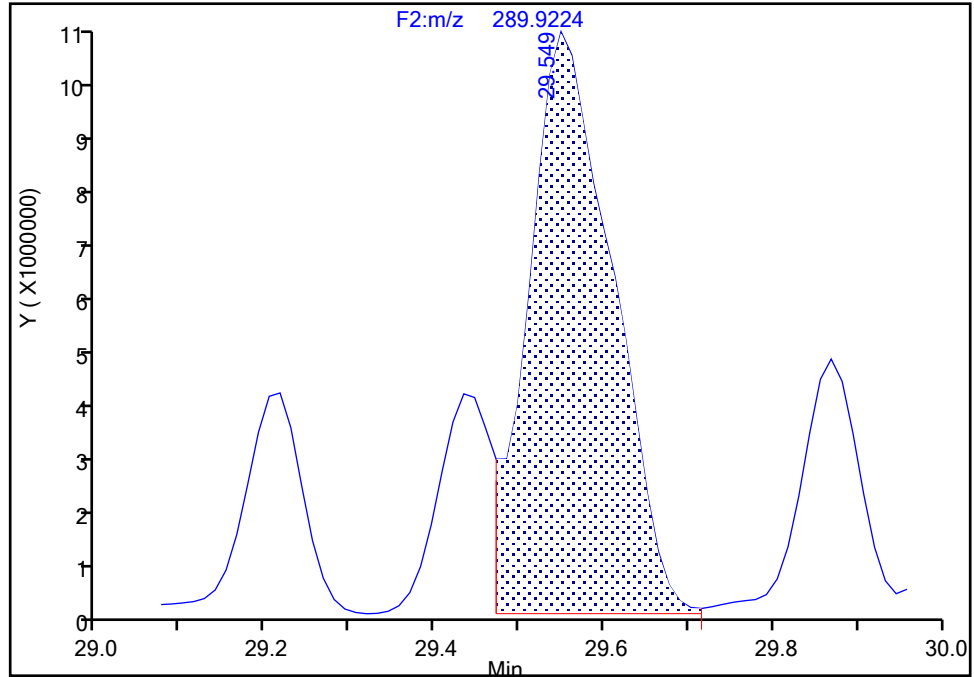
Detector F2(21.81 :35.54 )

**PCB-61/70/74/76, CAS: STL01808**

Signal: 1

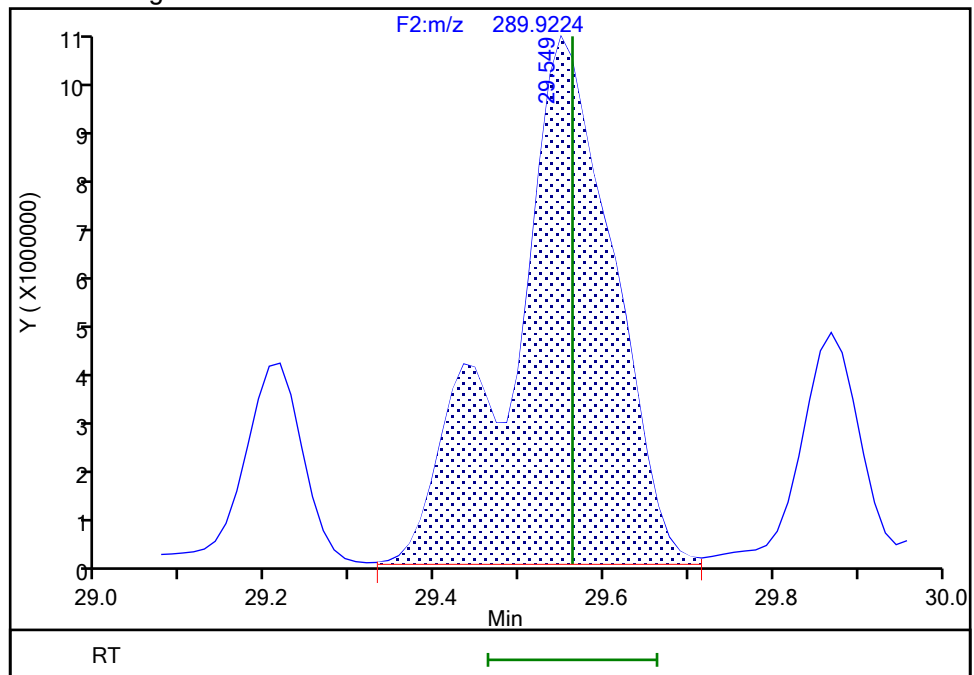
RT: 29.55  
Area: 75252399  
Amount: 1432.6490  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.55  
Area: 92572268  
Amount: 1539.9013  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 02:58:26 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

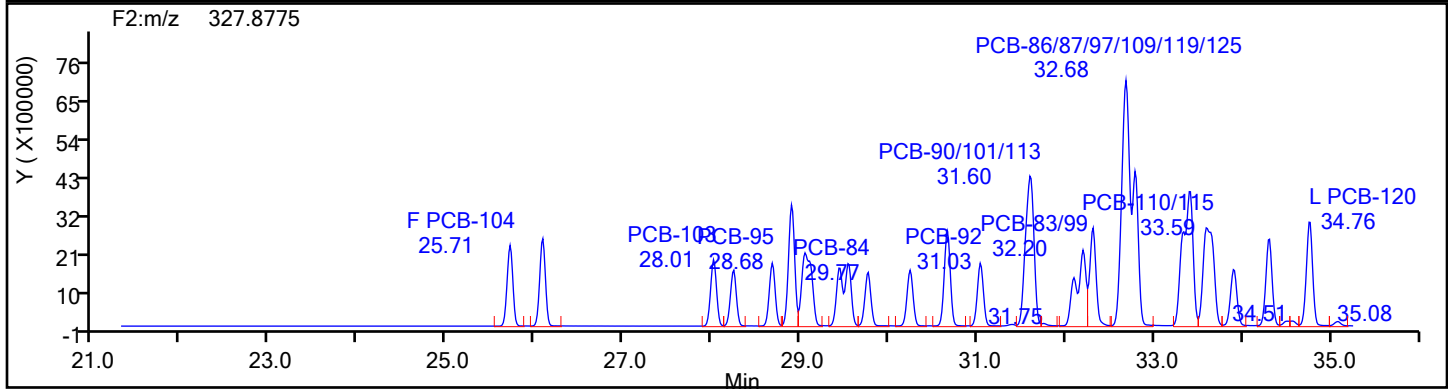
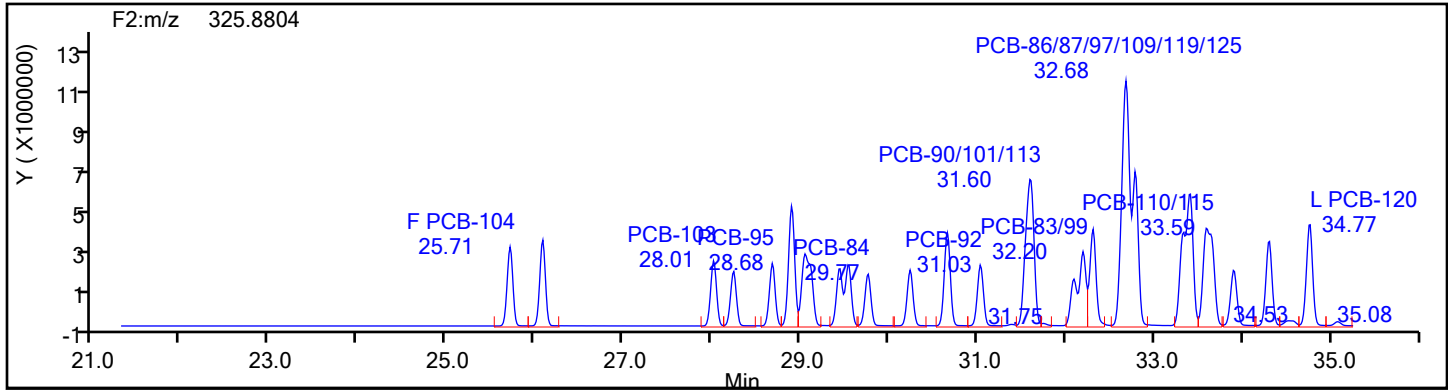
Worklist#: 87130

Sample Line#: 5

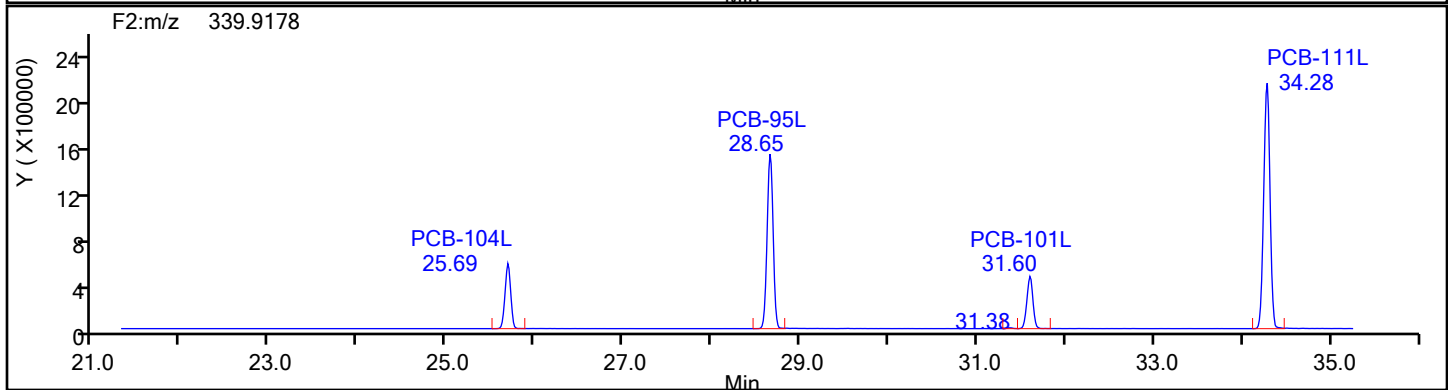
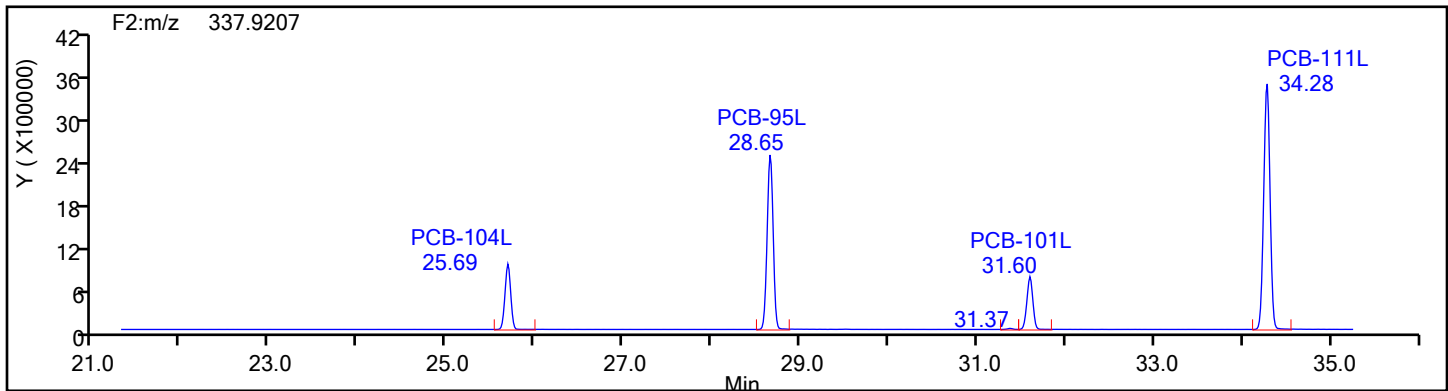
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F2



## PePCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

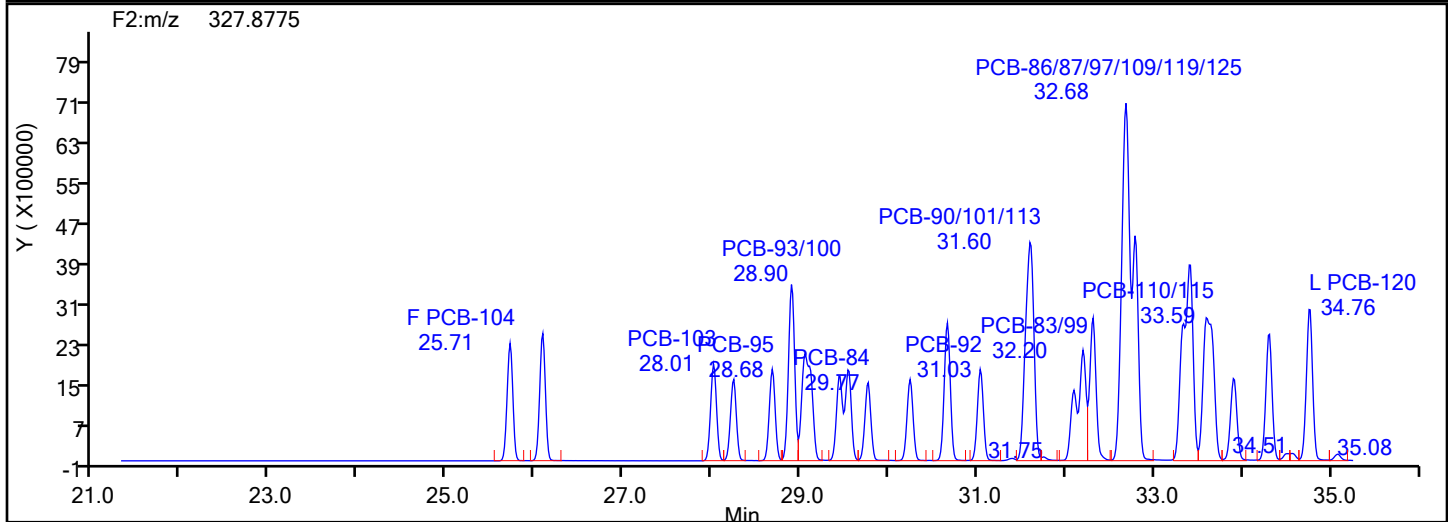
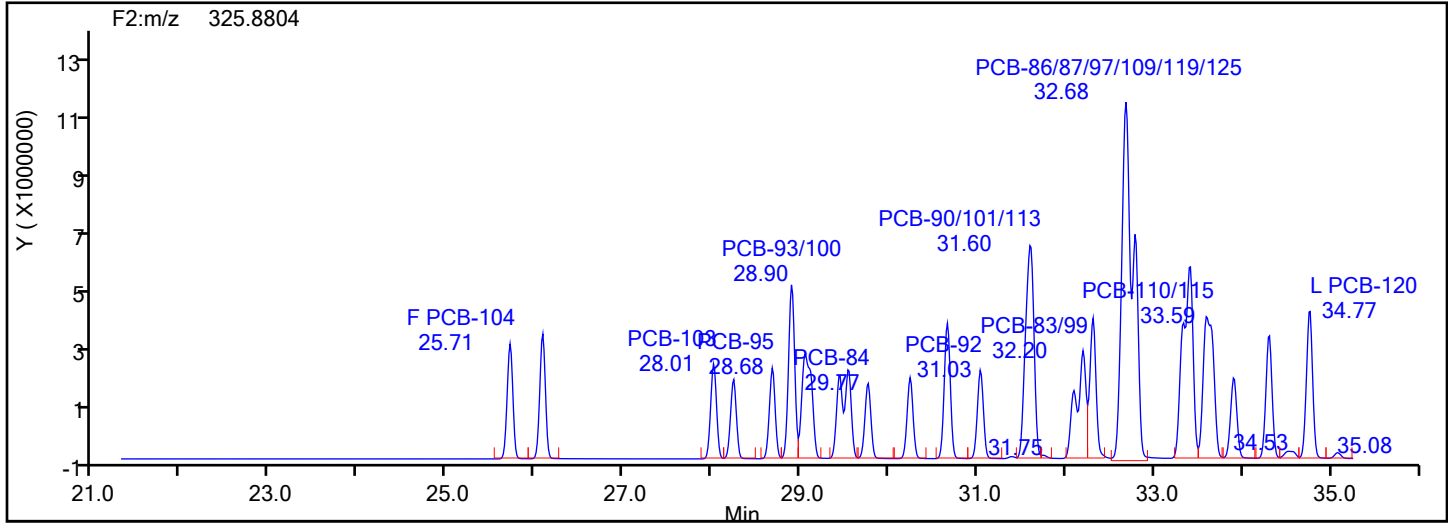
Worklist#: 87130

Sample Line#: 5

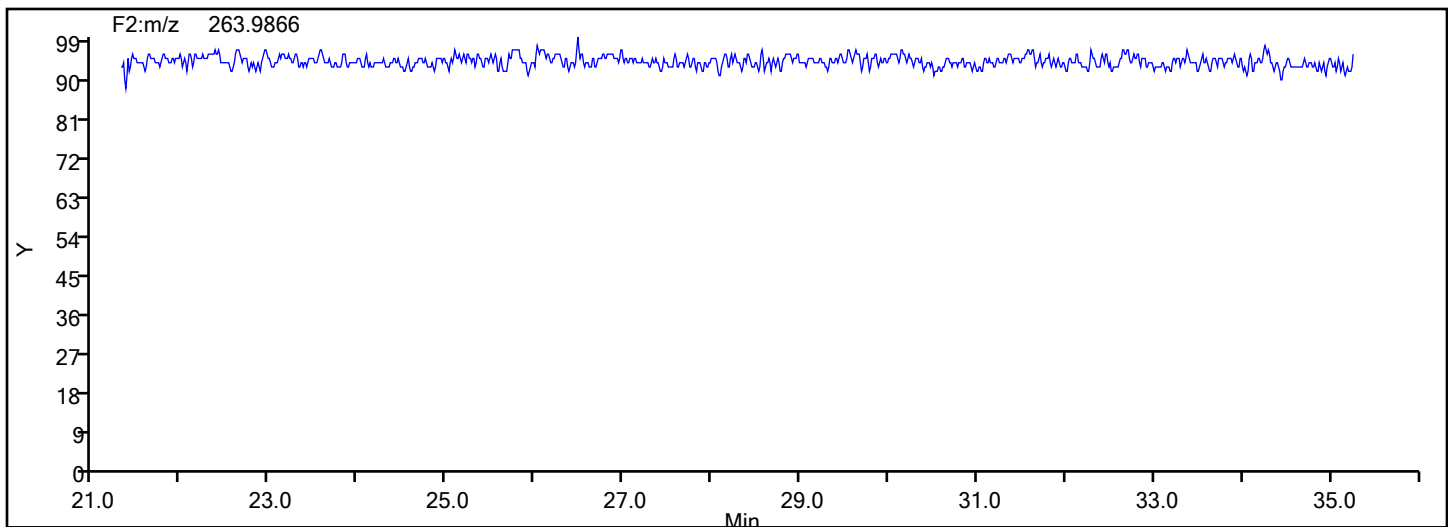
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F2



## PePCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Instrument ID: D2D

Lims ID: IC L5

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 5

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

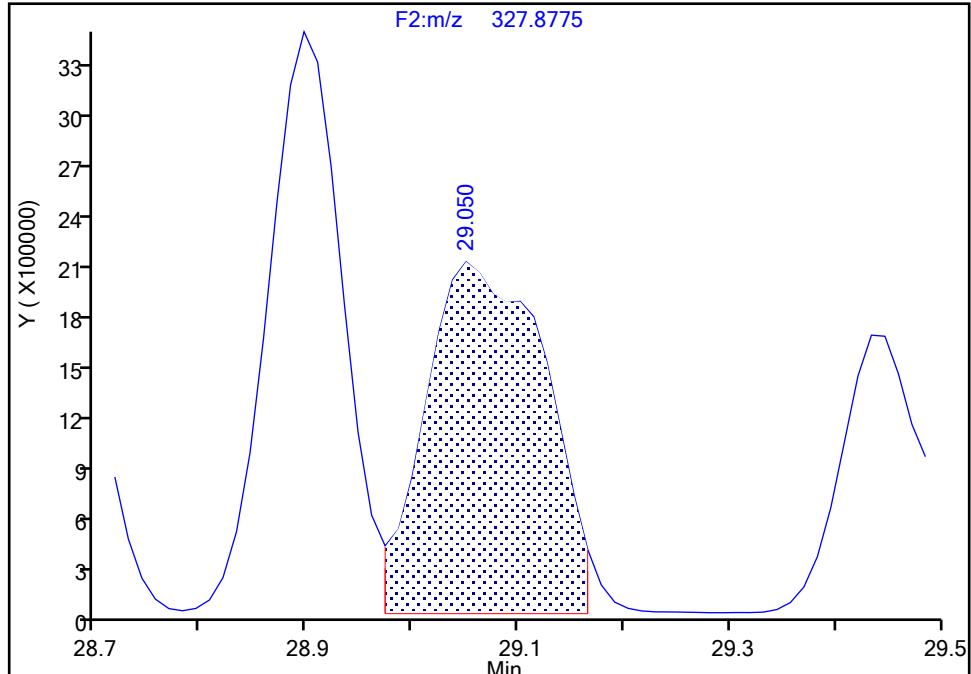
Detector F2(21.81 :35.54 )

**PCB-98/102, CAS: STL01843**

Signal: 2

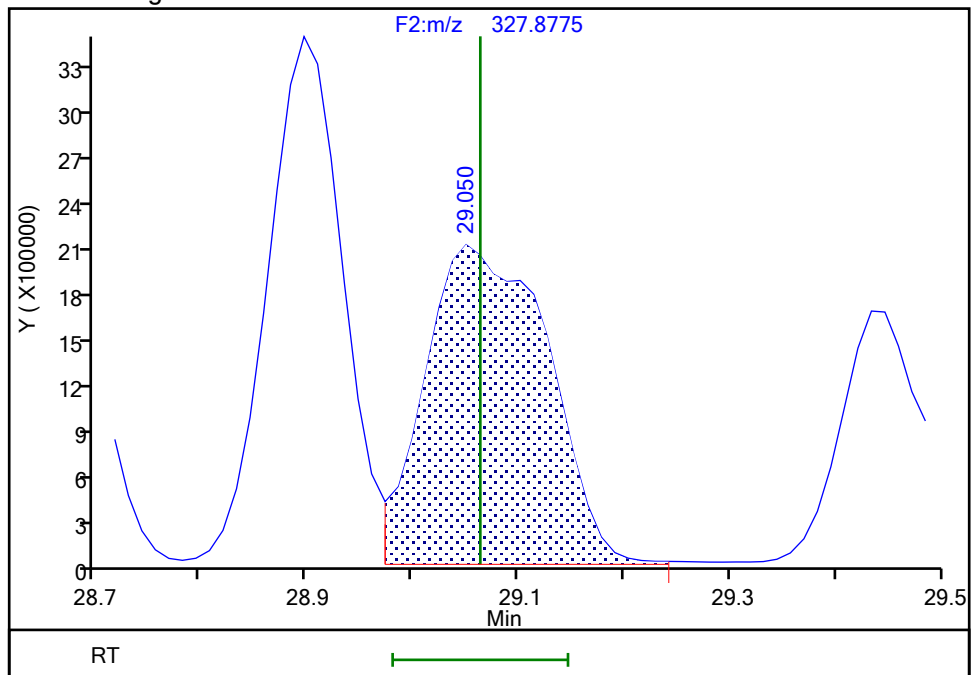
RT: 29.05  
Area: 16404335  
Amount: 779.9834  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.05  
Area: 16762369  
Amount: 785.4233  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 02:58:46 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

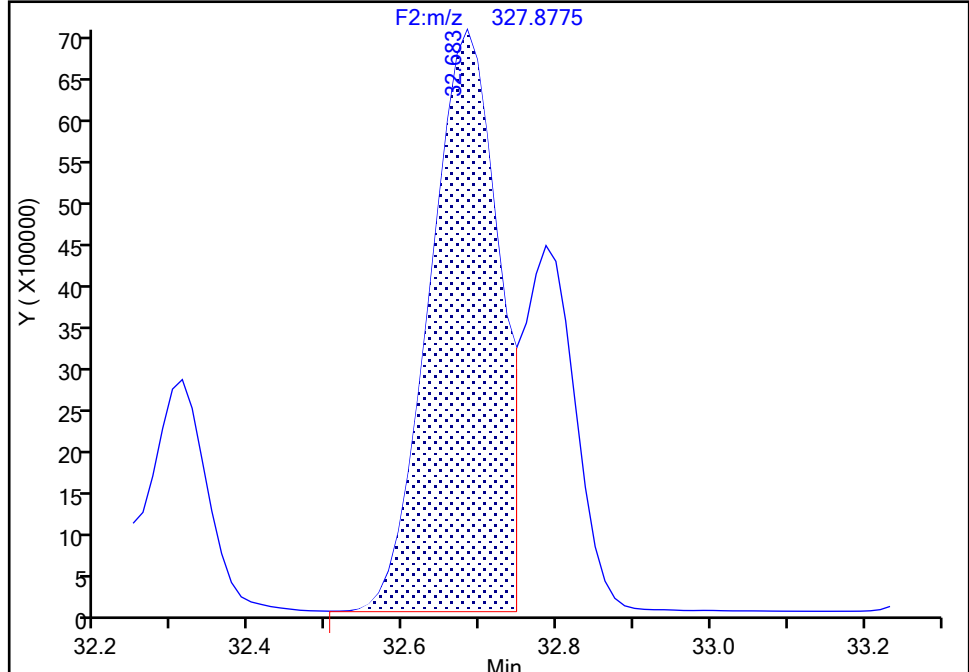
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d  
Injection Date: 31-May-2024 20:12:00 Instrument ID: D2D  
Lims ID: IC L5  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 5  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-86/87/97/109/119/125, CAS: STL02295

Signal: 2

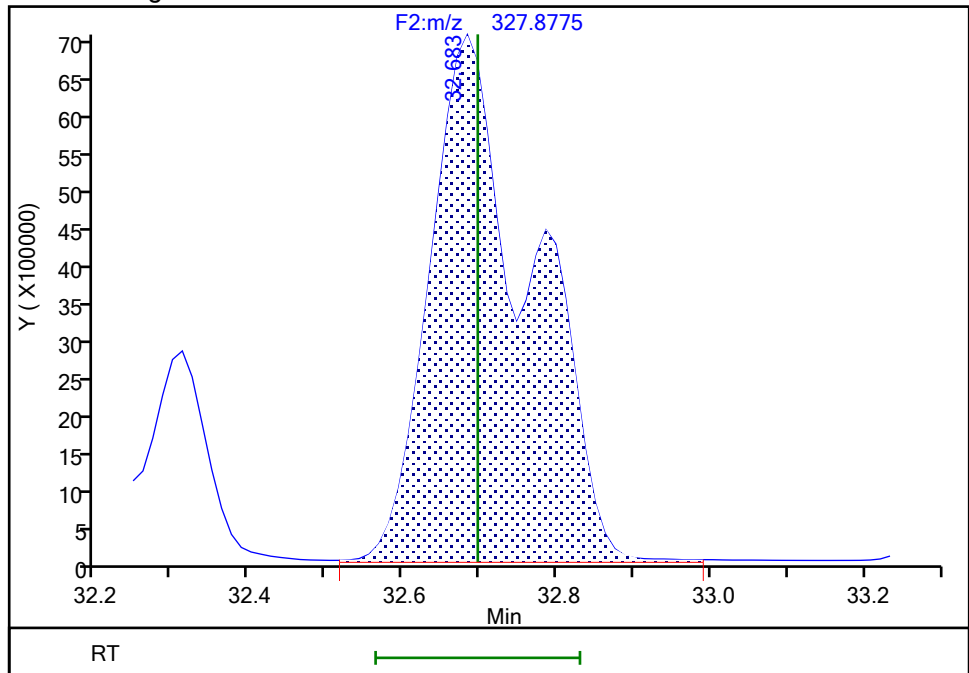
RT: 32.68  
Area: 43345087  
Amount: 1824.1601  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.68  
Area: 63904922  
Amount: 2391.0004  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 02:58:58 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline



## Eurofins Knoxville

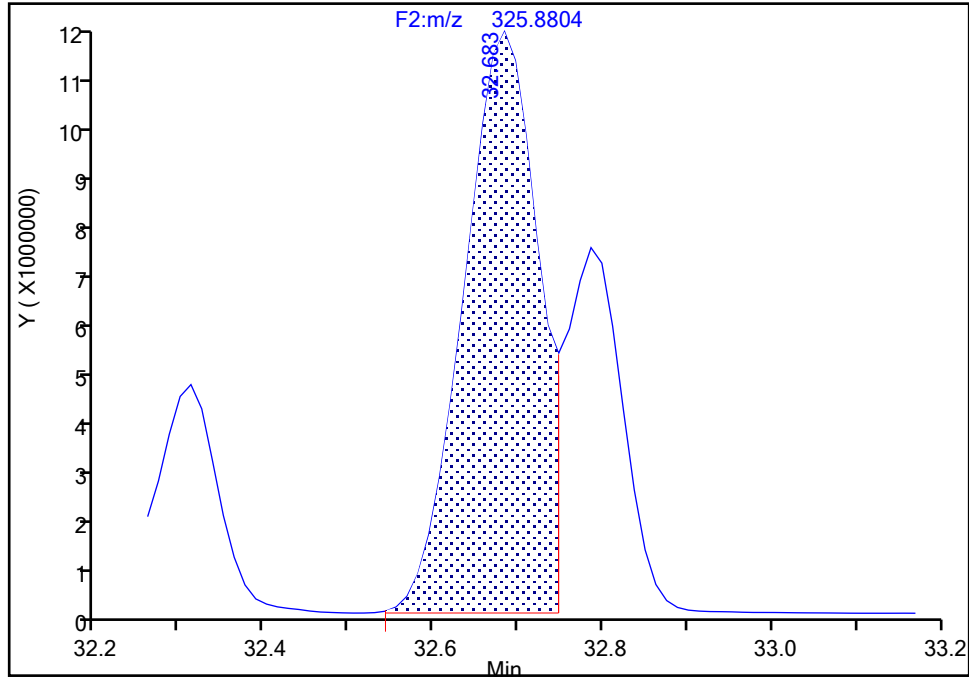
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d  
Injection Date: 31-May-2024 20:12:00 Instrument ID: D2D  
Lims ID: IC L5  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 5  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-86/87/97/109/119/125, CAS: STL02295

Signal: 1

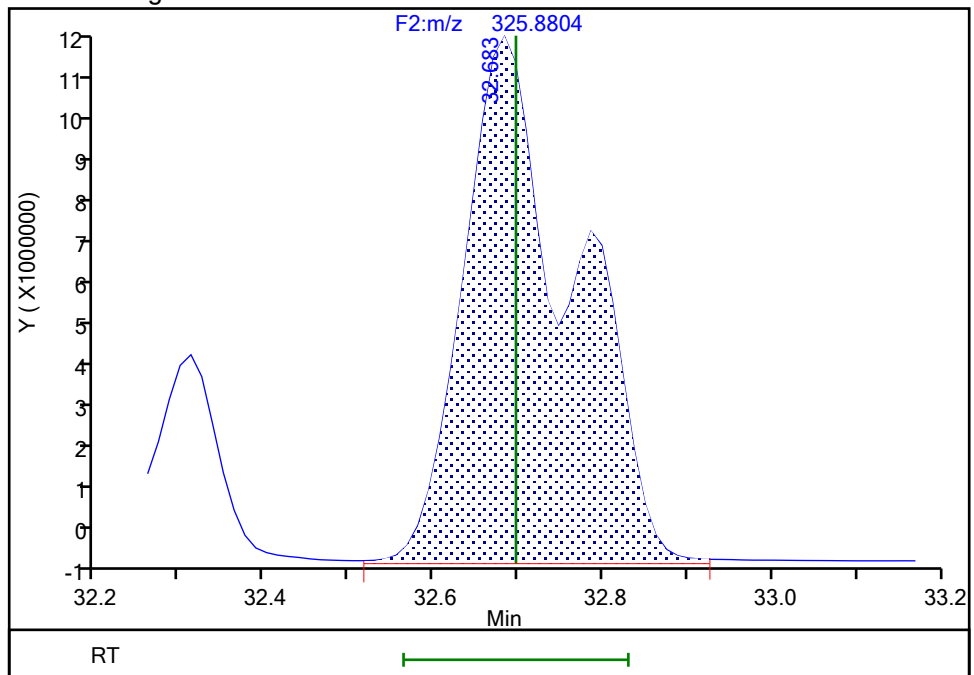
RT: 32.68  
Area: 69451865  
Amount: 1824.1601  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.68  
Area: 103164202  
Amount: 2391.0004  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 02:59:08 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Instrument ID: D2D

Lims ID: IC L5

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 5

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

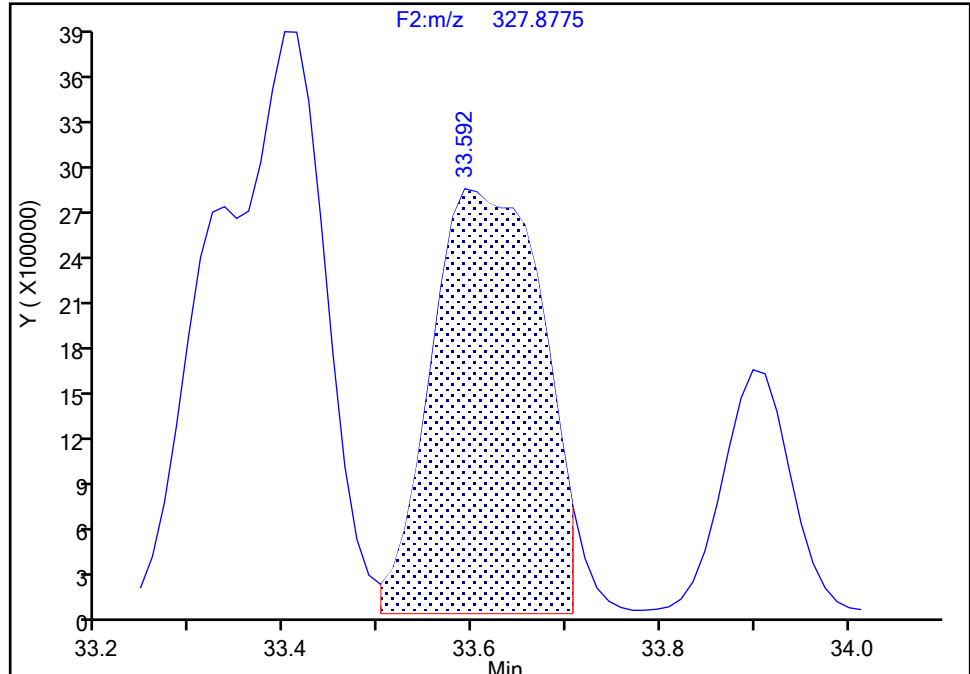
Detector F2(21.81 :35.54 )

**PCB-110/115, CAS: STL01826**

Signal: 2

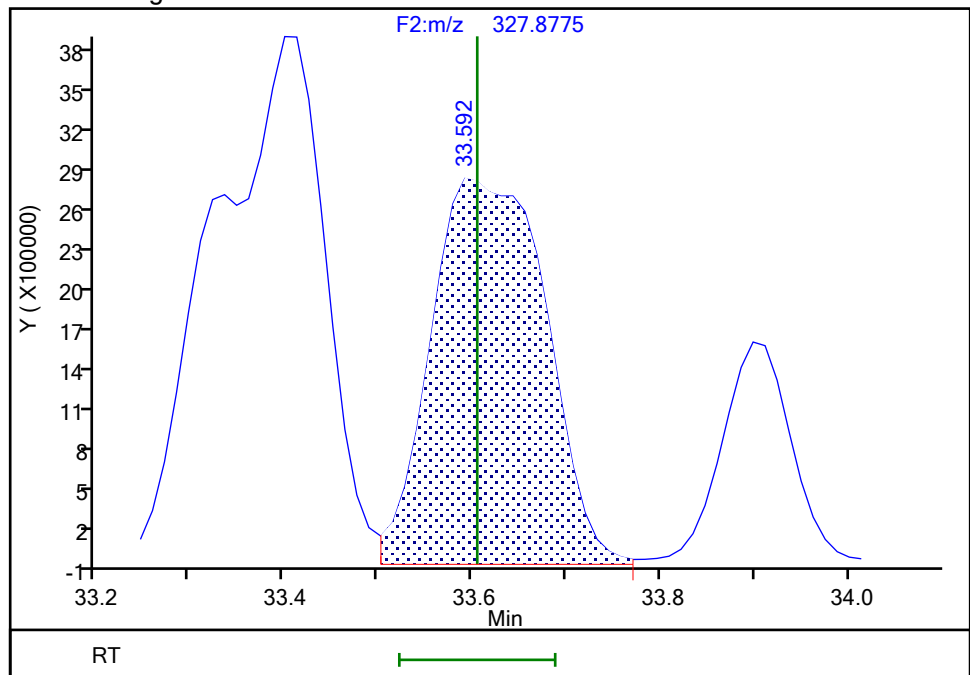
RT: 33.59  
Area: 23018669  
Amount: 766.0630  
Amount Units: pg/ul

## Processing Integration Results



RT: 33.59  
Area: 23836087  
Amount: 774.7018  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 02:59:18 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

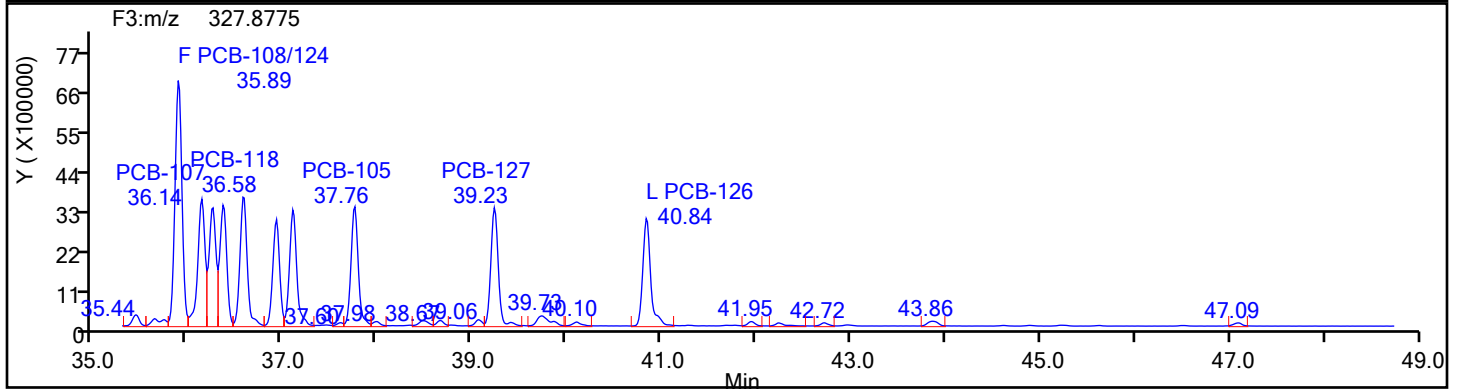
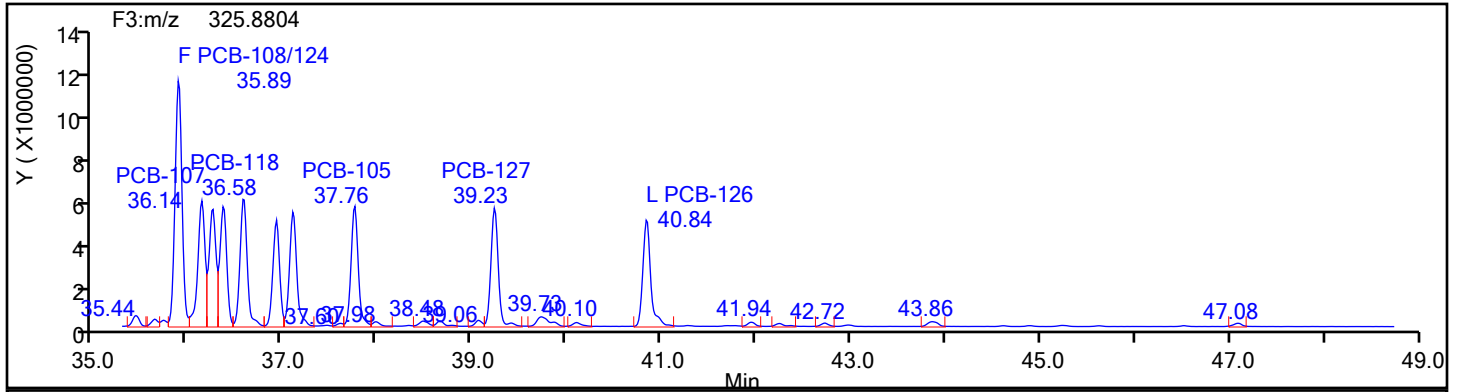
Worklist#: 87130

Sample Line#: 5

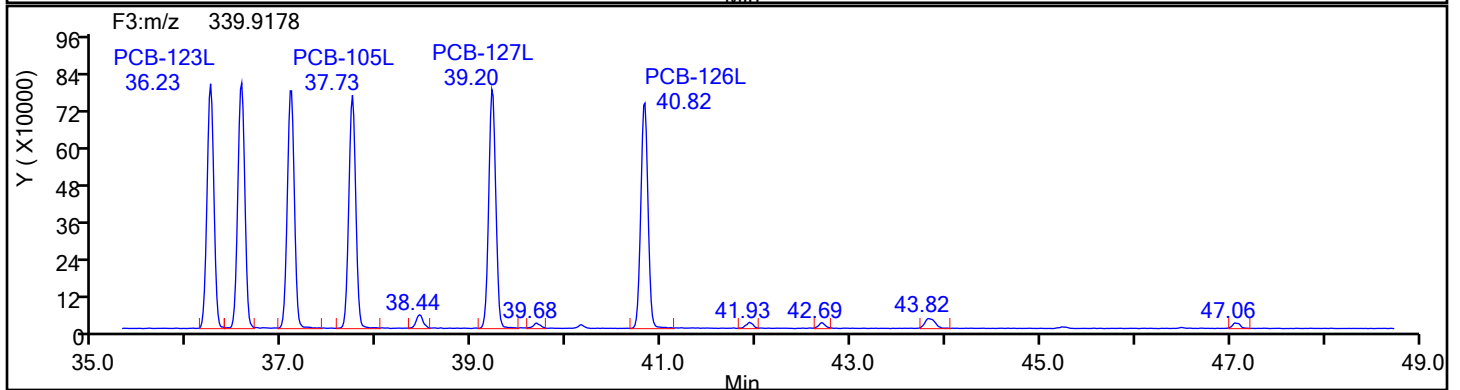
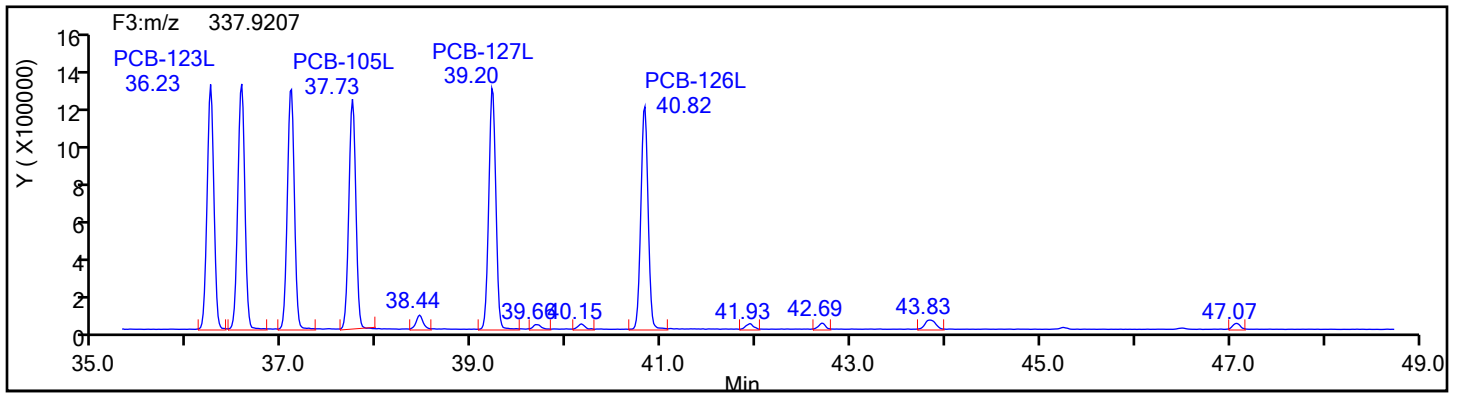
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



PePCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

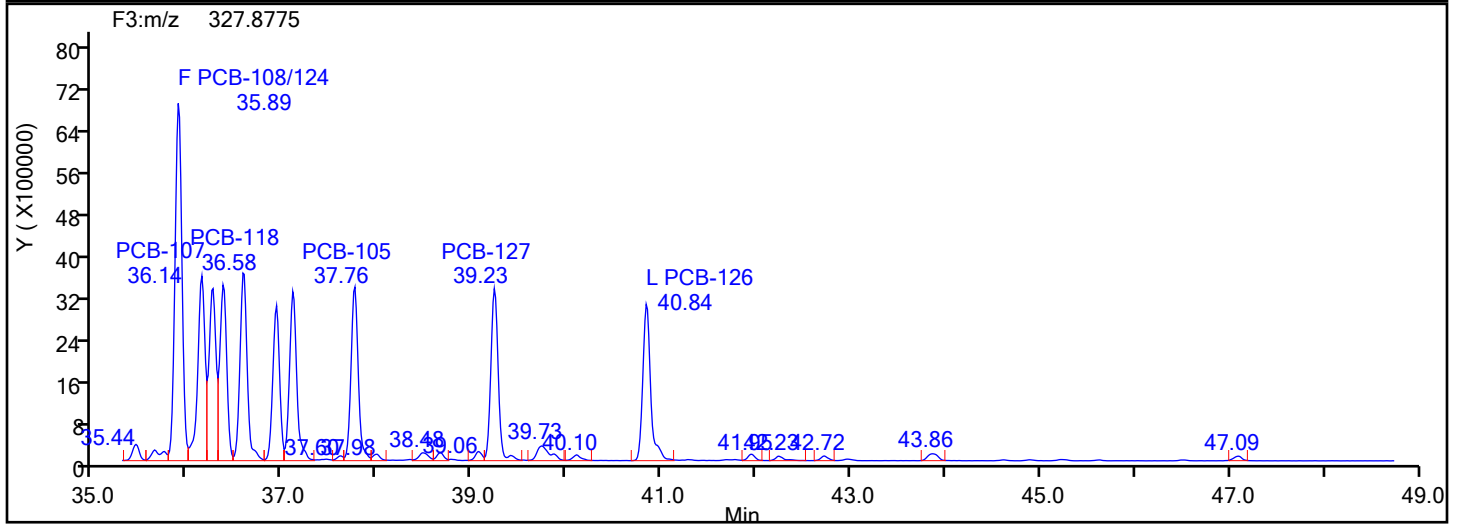
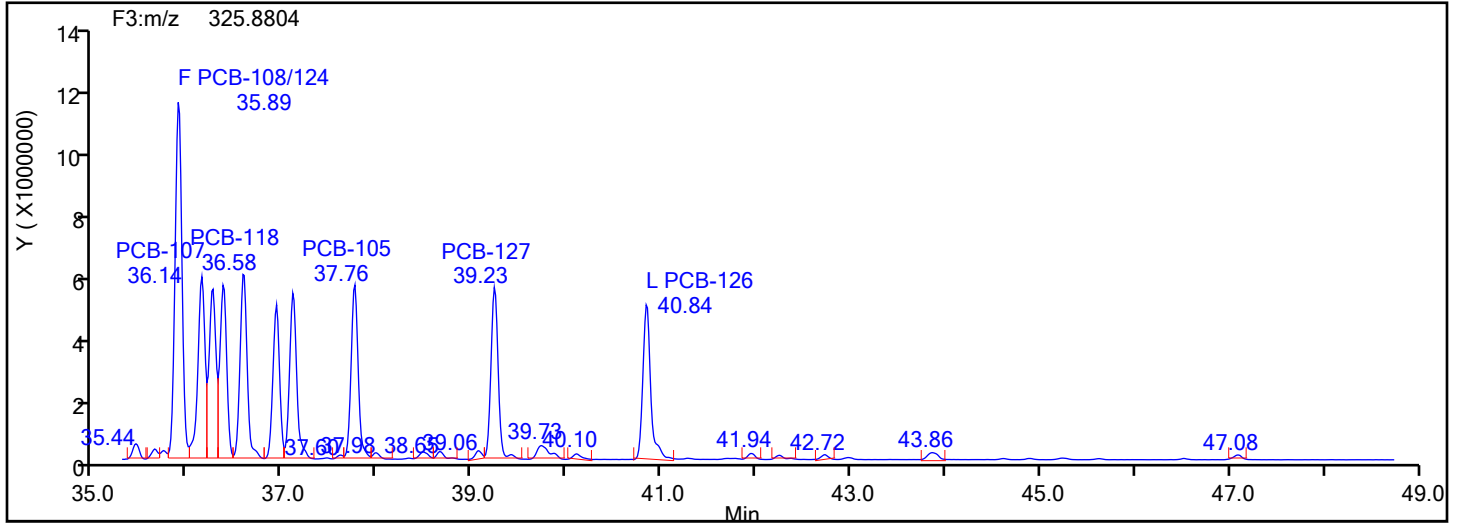
Worklist#: 87130

Sample Line#: 5

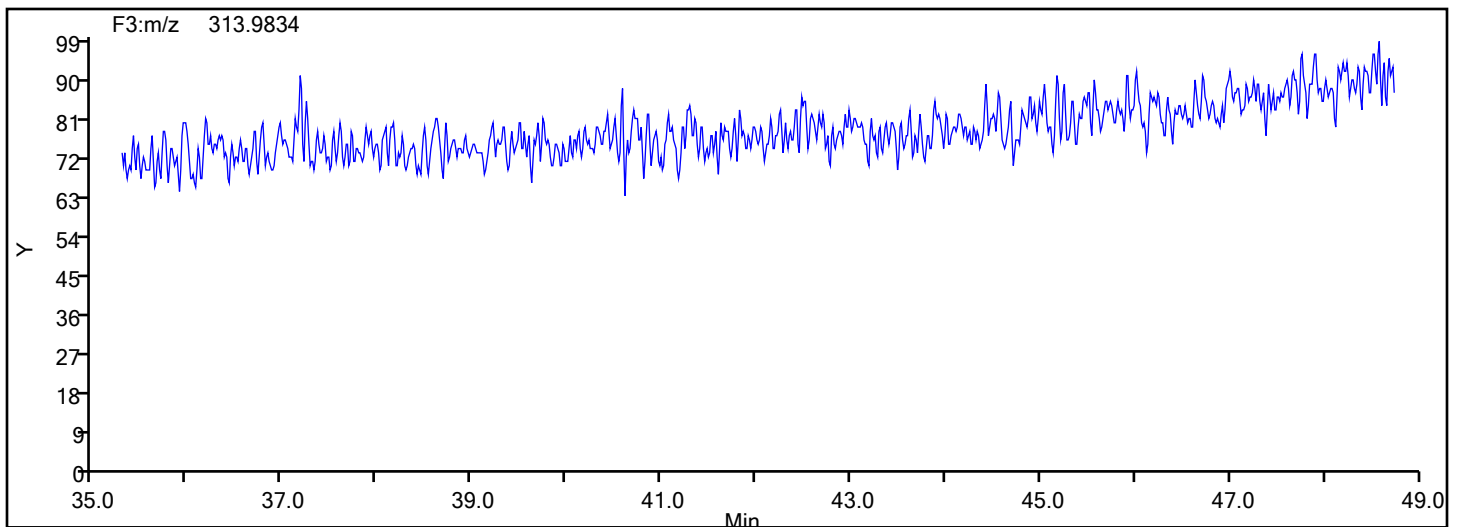
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



## PePCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

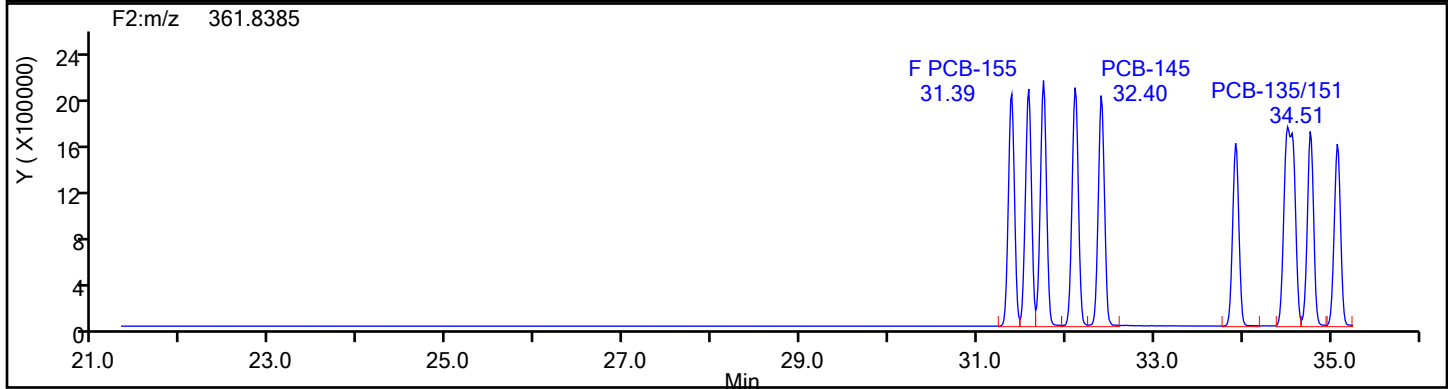
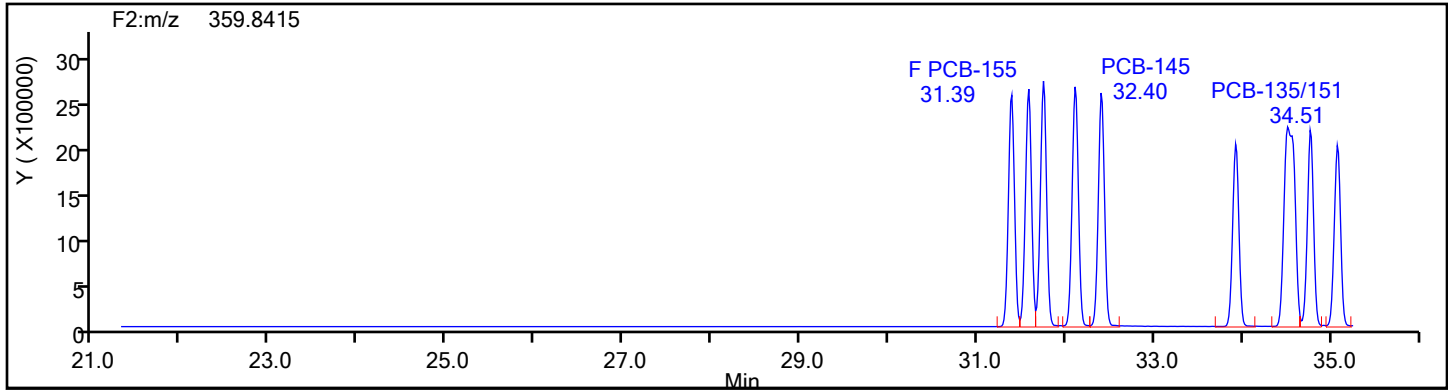
Worklist#: 87130

Sample Line#: 5

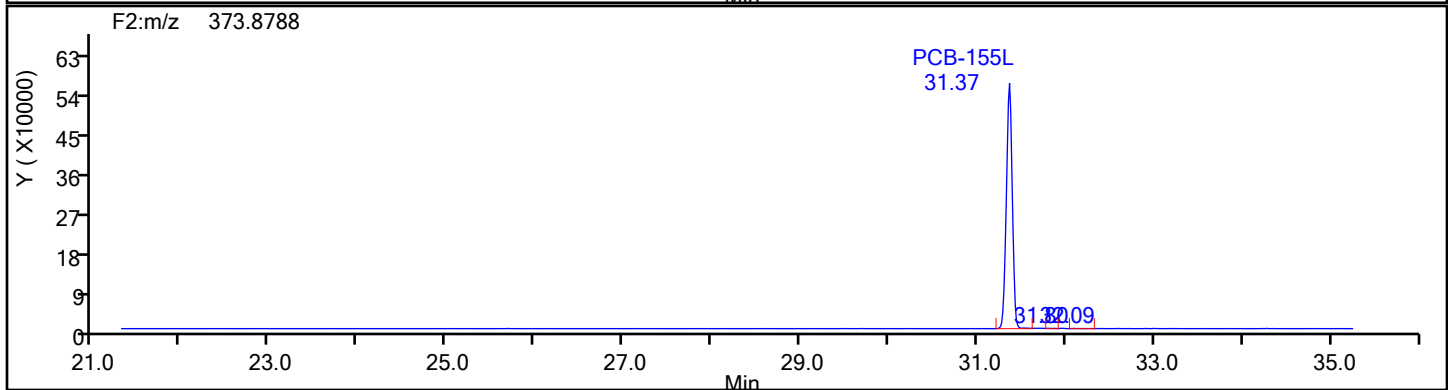
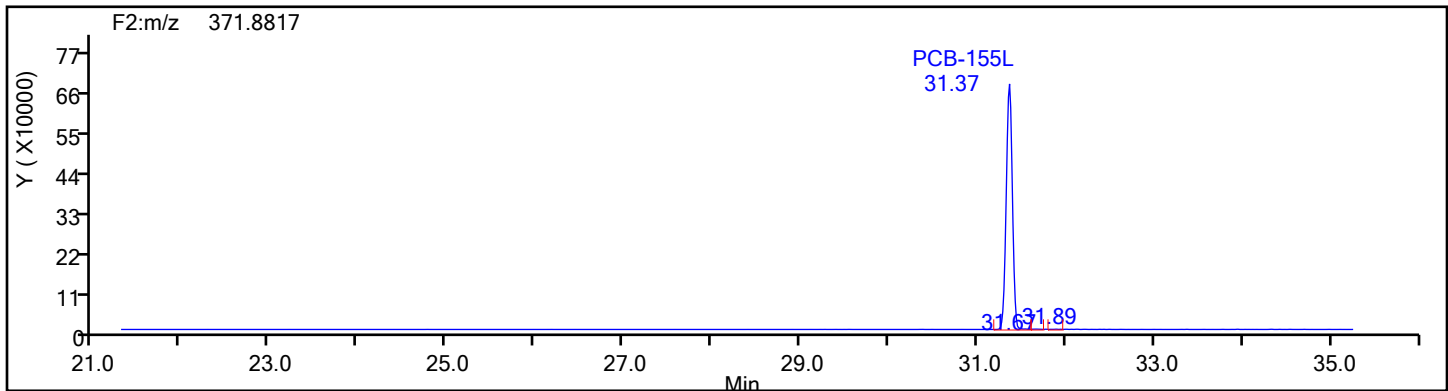
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F2

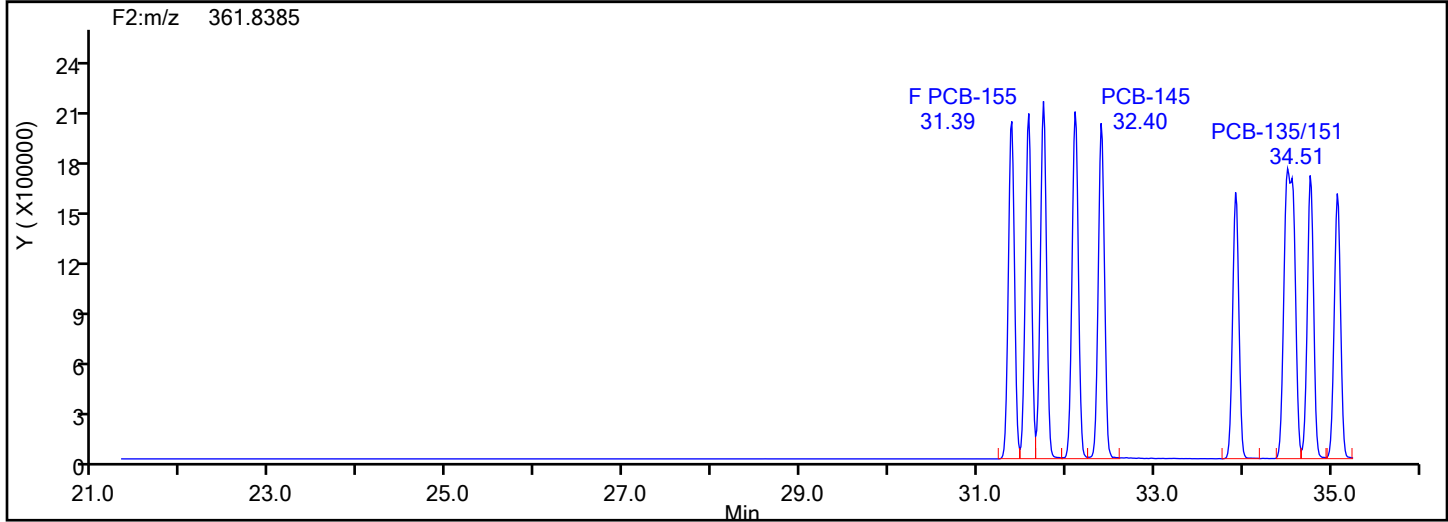
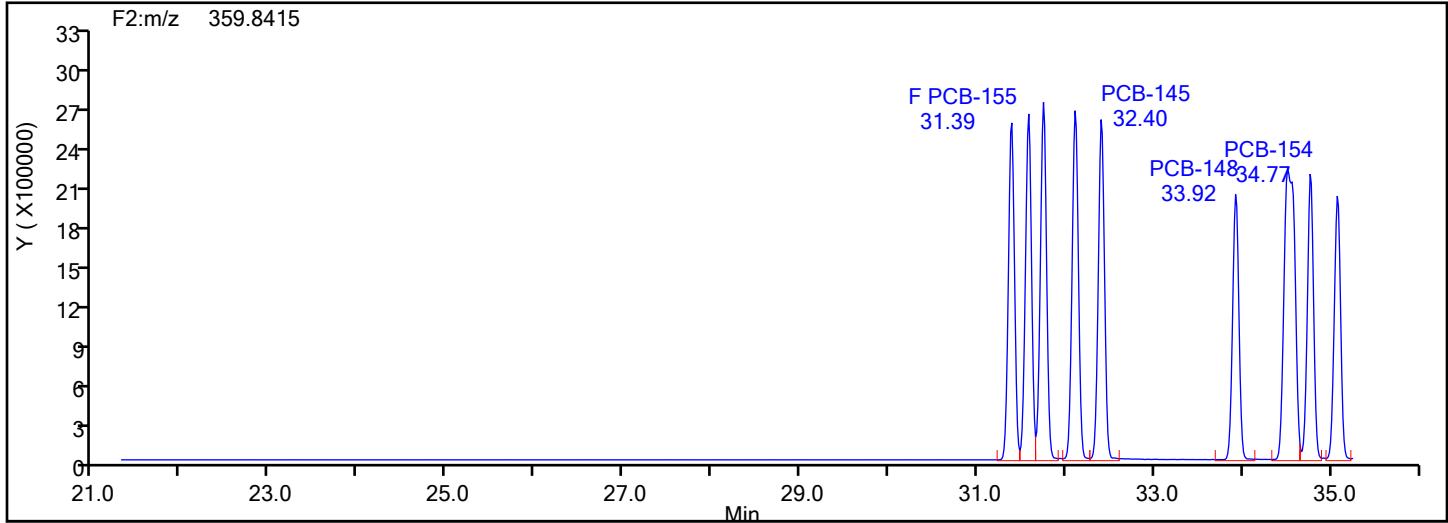


HxPCB F2 Standards

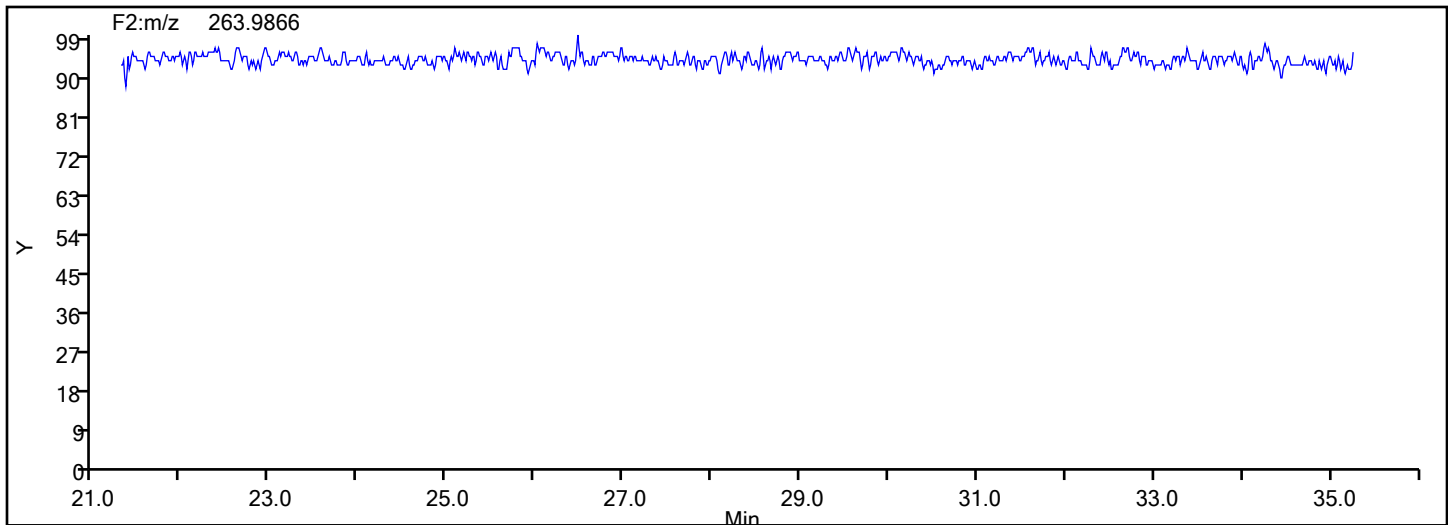


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d  
Injection Date: 31-May-2024 20:12:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 5  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2



## HxPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Instrument ID: D2D

Lims ID: IC L5

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 5

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

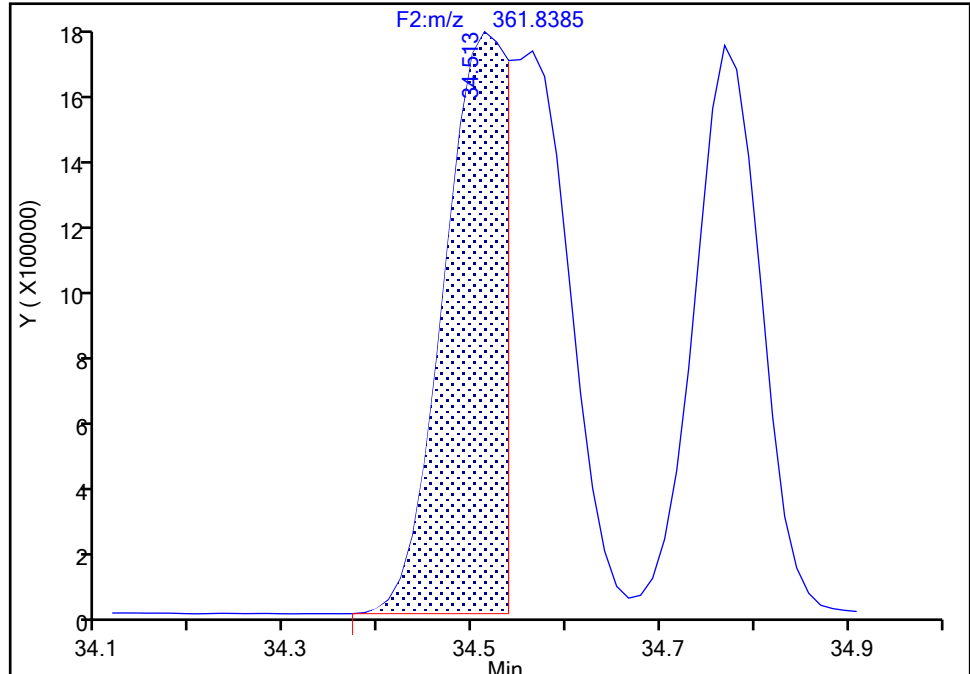
Detector F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 2

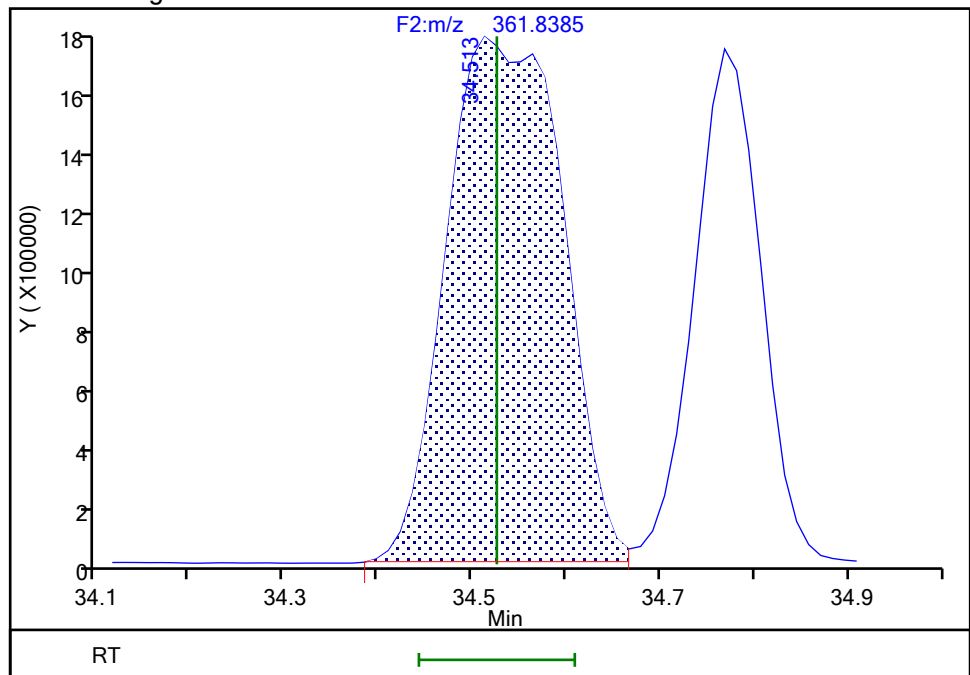
RT: 34.51  
Area: 7808092  
Amount: 713.7008  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.51  
Area: 15053955  
Amount: 798.2296  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 02:59:38 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

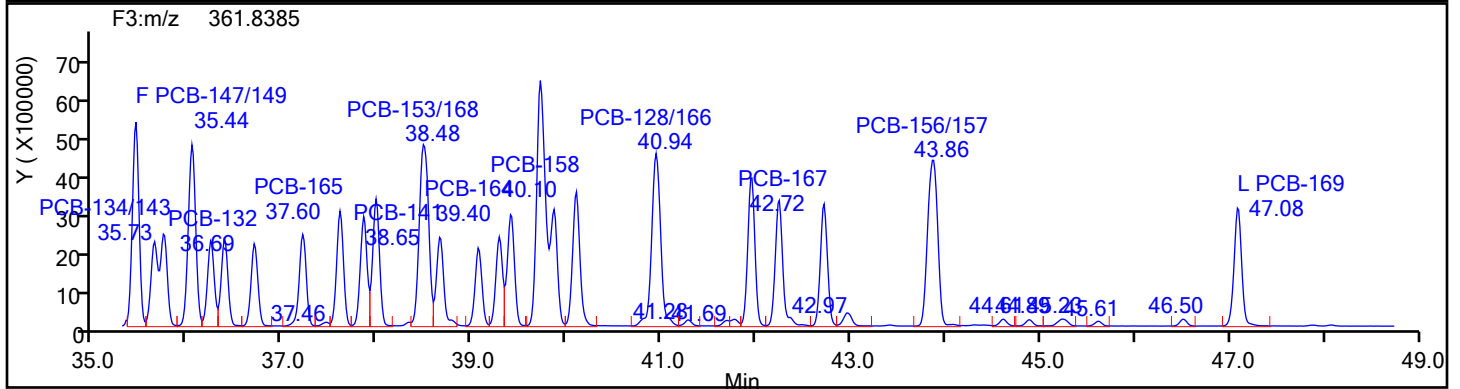
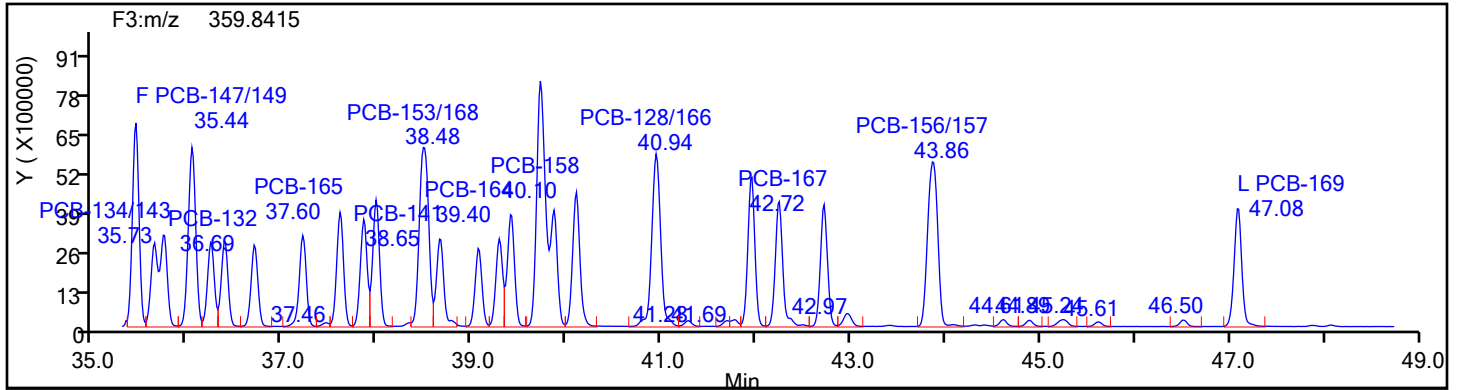
Worklist#: 87130

Sample Line#: 5

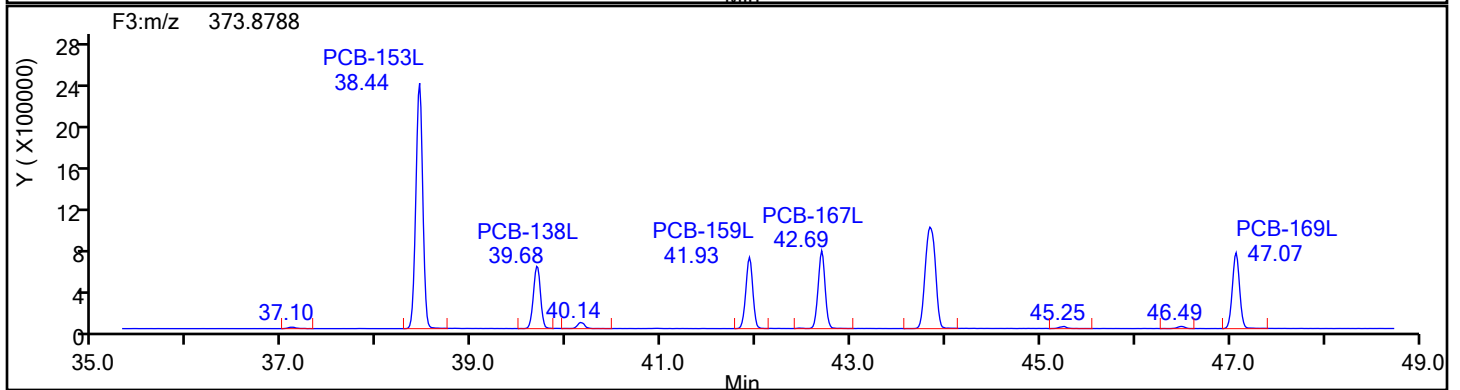
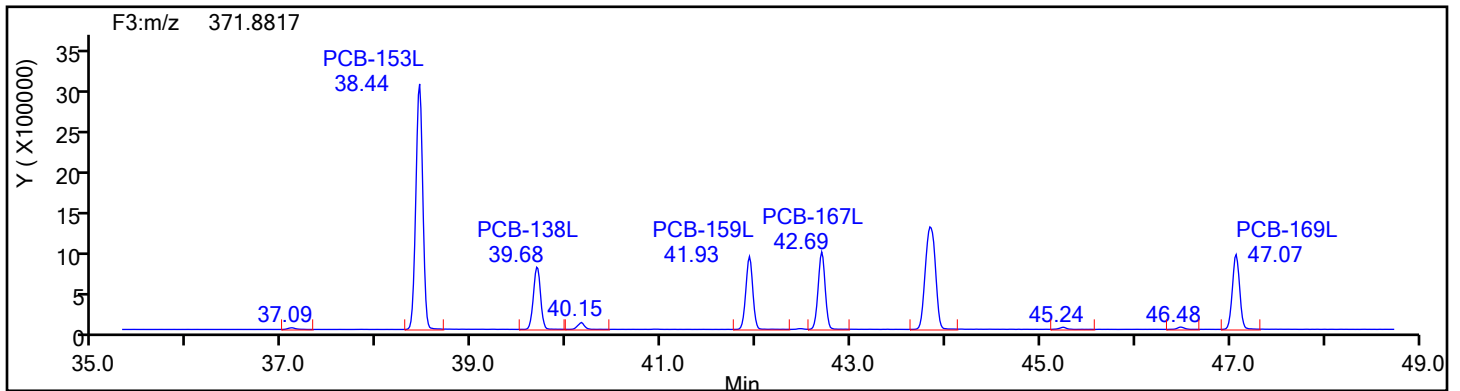
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



HxPCB F3 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

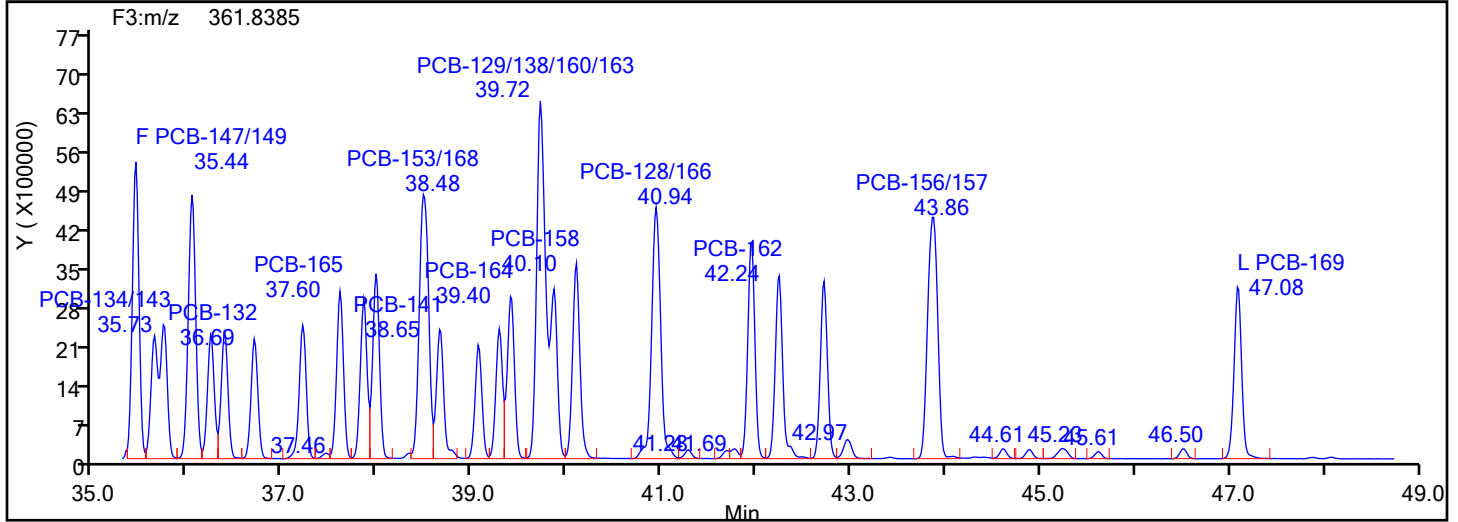
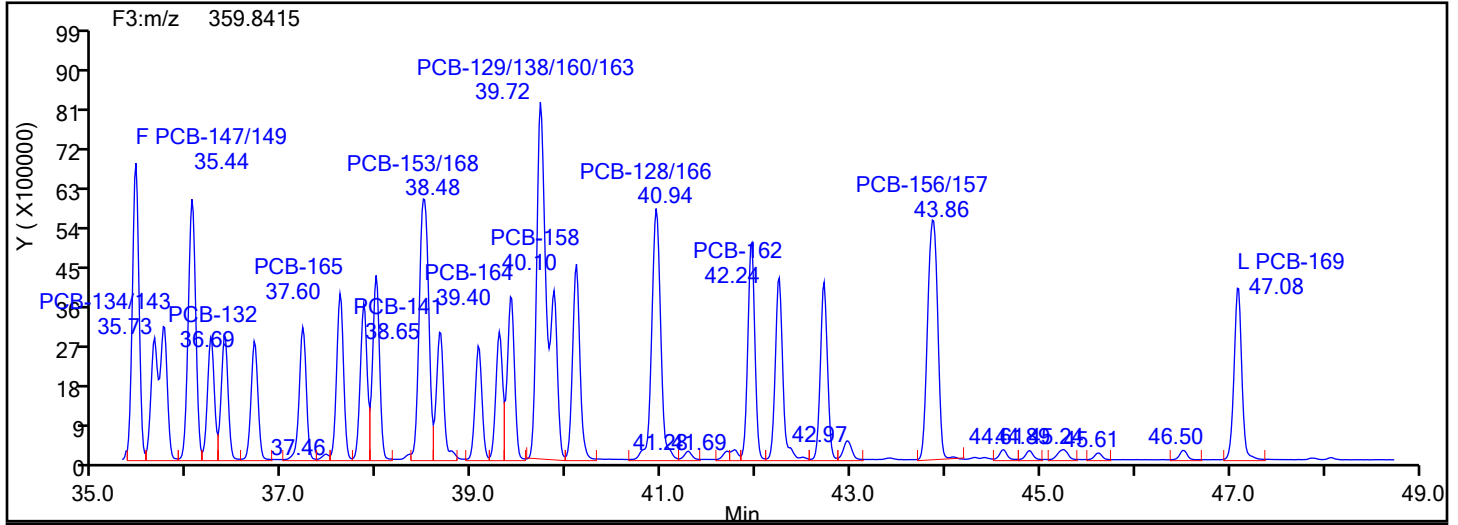
Worklist#: 87130

Sample Line#: 5

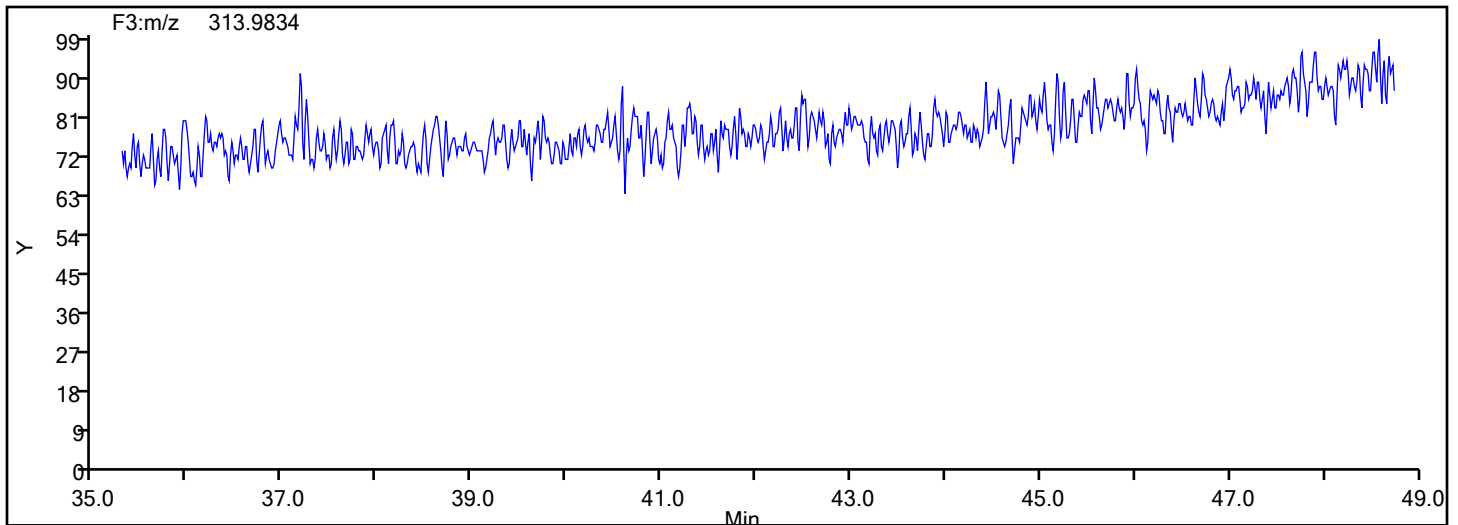
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



## HxPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Instrument ID: D2D

Lims ID: IC L5

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 5

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

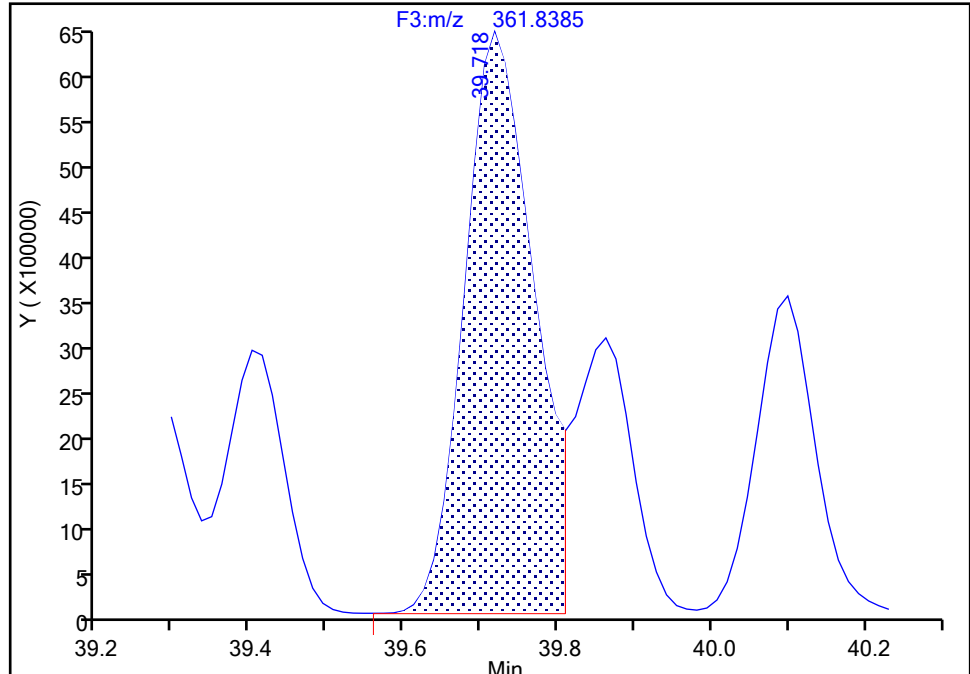
Detector F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 2

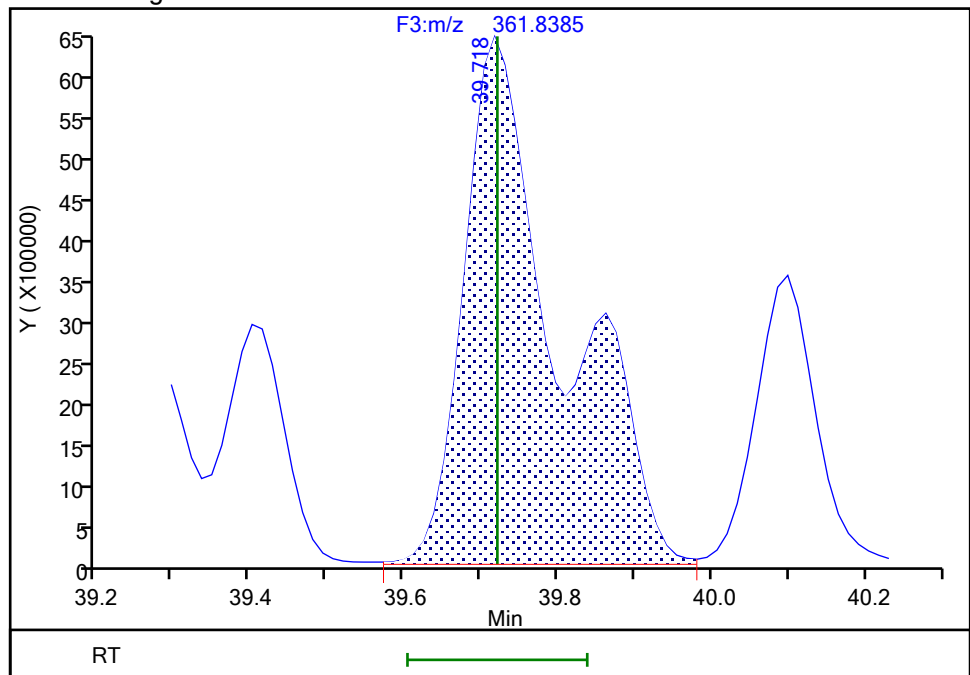
RT: 39.72  
Area: 40418410  
Amount: 1242.9142  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.72  
Area: 56283132  
Amount: 1566.2464  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:00:37 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

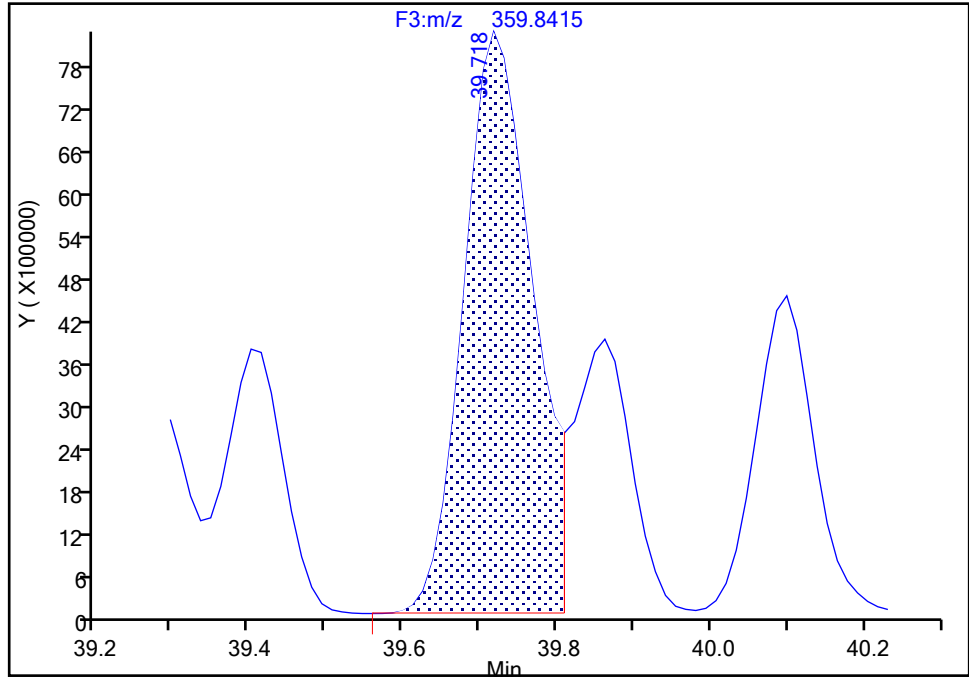
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d  
Injection Date: 31-May-2024 20:12:00 Instrument ID: D2D  
Lims ID: IC L5  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 5  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 1

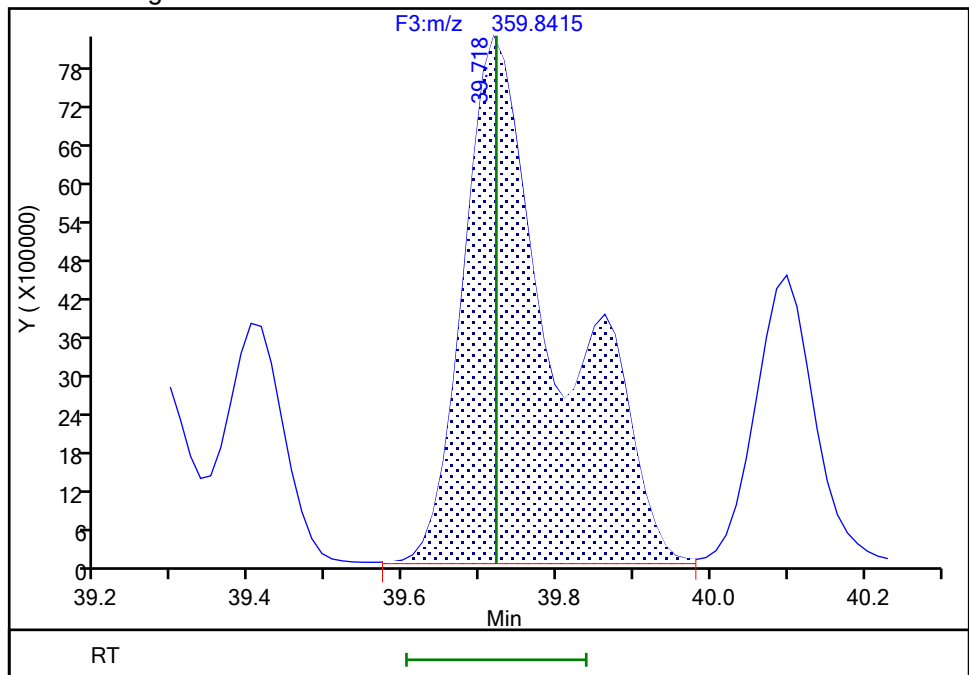
RT: 39.72  
Area: 51062148  
Amount: 1242.9142  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.72  
Area: 70852247  
Amount: 1566.2464  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:00:55 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Instrument ID: D2D

Lims ID: IC L5

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 5

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

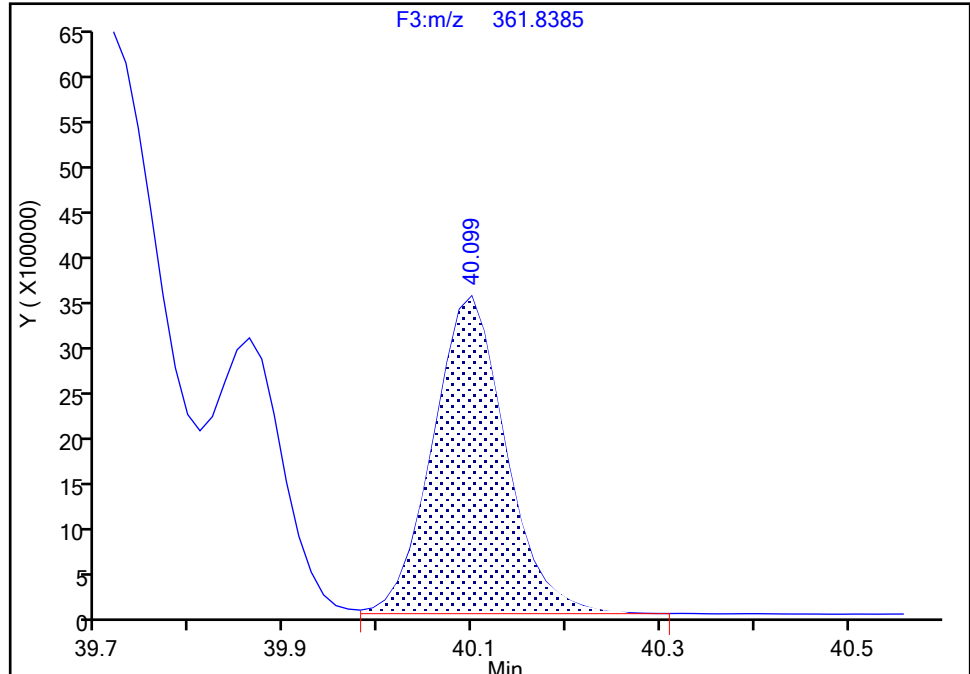
Detector F3(35.64 :49.10 )

PCB-158, CAS: 74472-42-7

Signal: 2

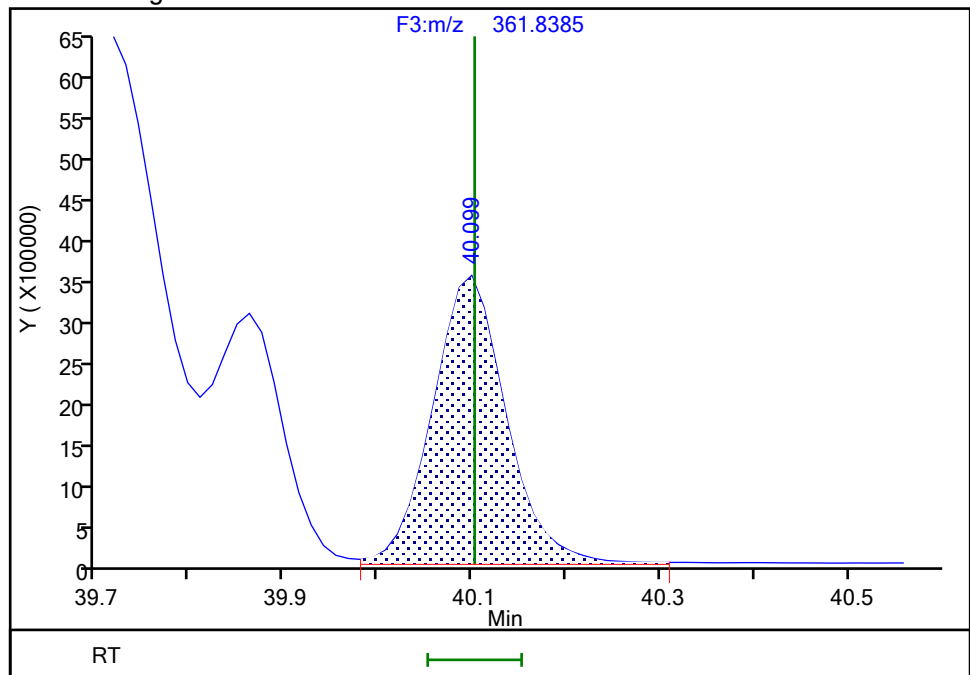
RT: 40.10  
Area: 19147696  
Amount: 385.2197  
Amount Units: pg/ul

## Processing Integration Results



RT: 40.10  
Area: 19147696  
Amount: 386.1452  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:01:09 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

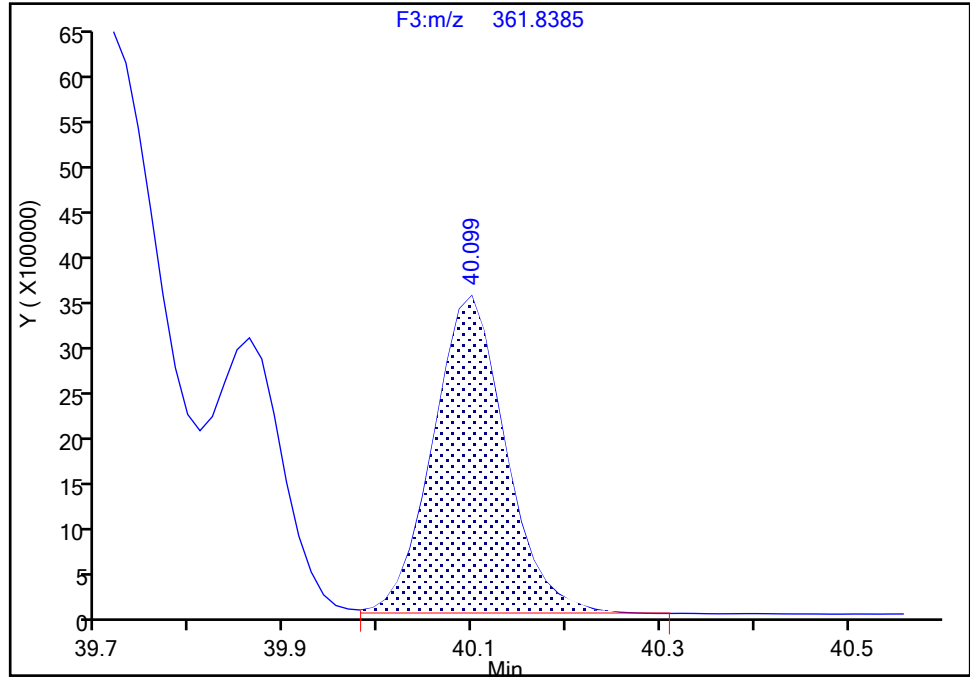
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d  
Injection Date: 31-May-2024 20:12:00 Instrument ID: D2D  
Lims ID: IC L5  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 5  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

**PCB-158, CAS: 74472-42-7**

Signal: 3

RT: 40.10  
Area: 43296990  
Amount: 385.2197  
Amount Units: pg/ul

## Processing Integration Results



## Manual Integration Results

RT: 40.10  
Area: 43420955  
Amount: 386.1452  
Amount Units: pg/ul

Reviewer: V4XA, 01-Jun-2024 03:01:09 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Instrument ID: D2D

Lims ID: IC L5

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 5

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

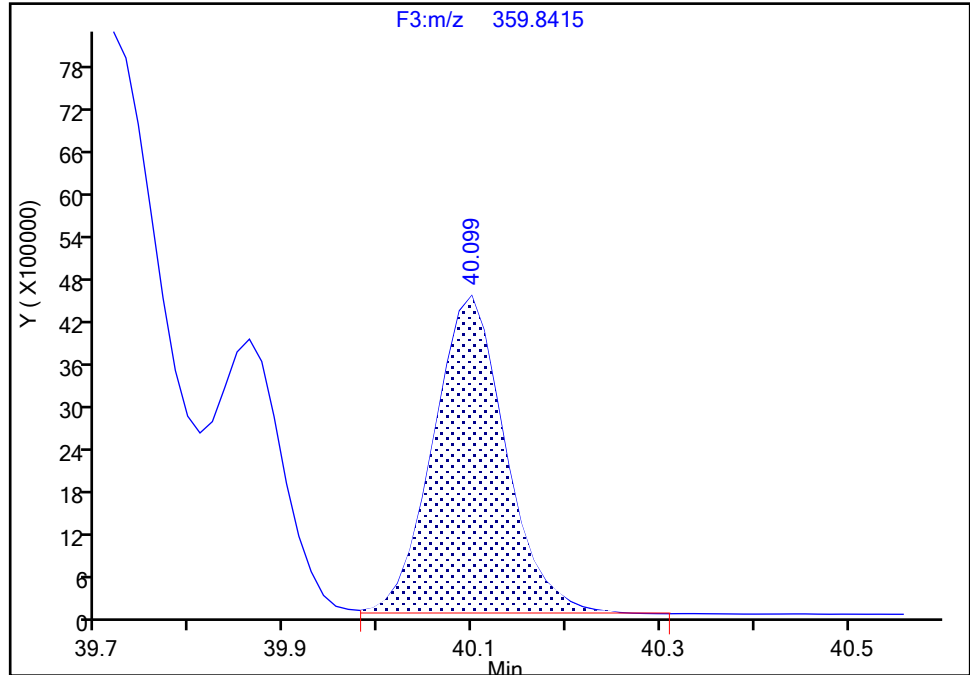
F3(35.64 :49.10 )

**PCB-158, CAS: 74472-42-7**

Signal: 1

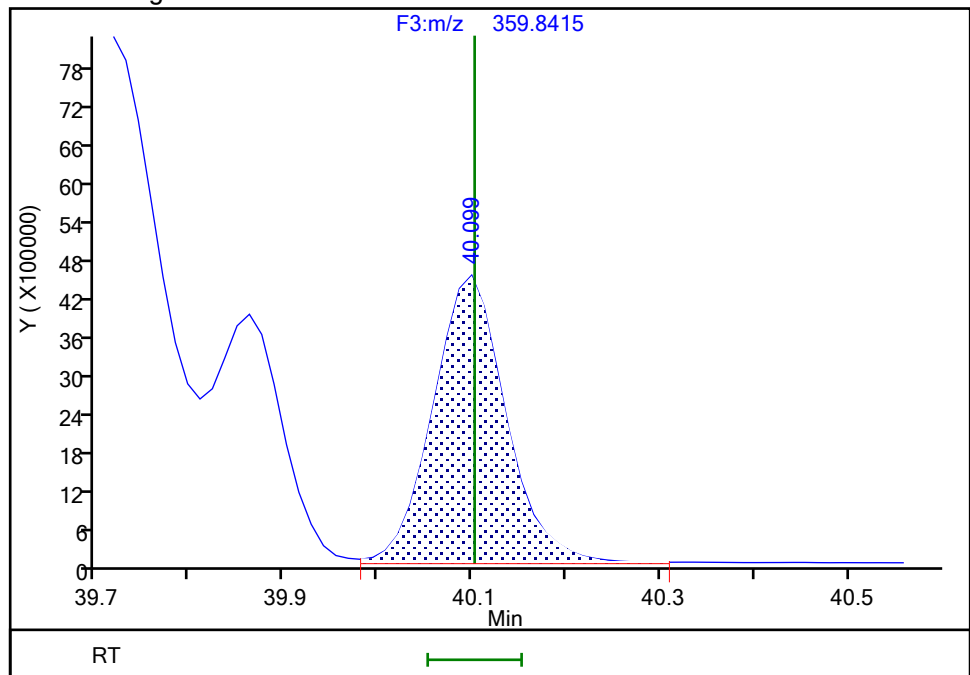
RT: 40.10  
Area: 24149294  
Amount: 385.2197  
Amount Units: pg/ul

## Processing Integration Results



RT: 40.10  
Area: 24273259  
Amount: 386.1452  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:01:11 -04:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

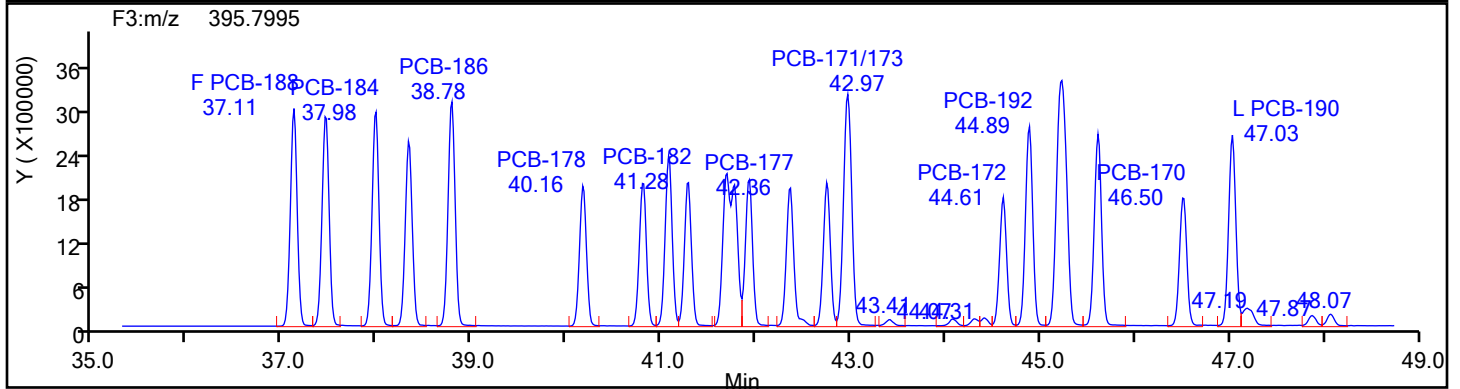
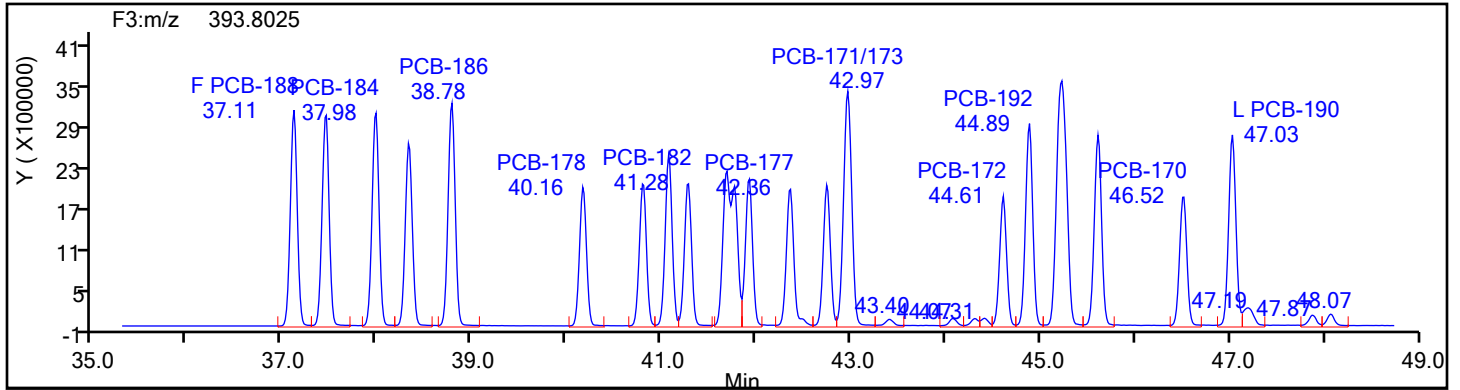
Worklist#: 87130

Sample Line#: 5

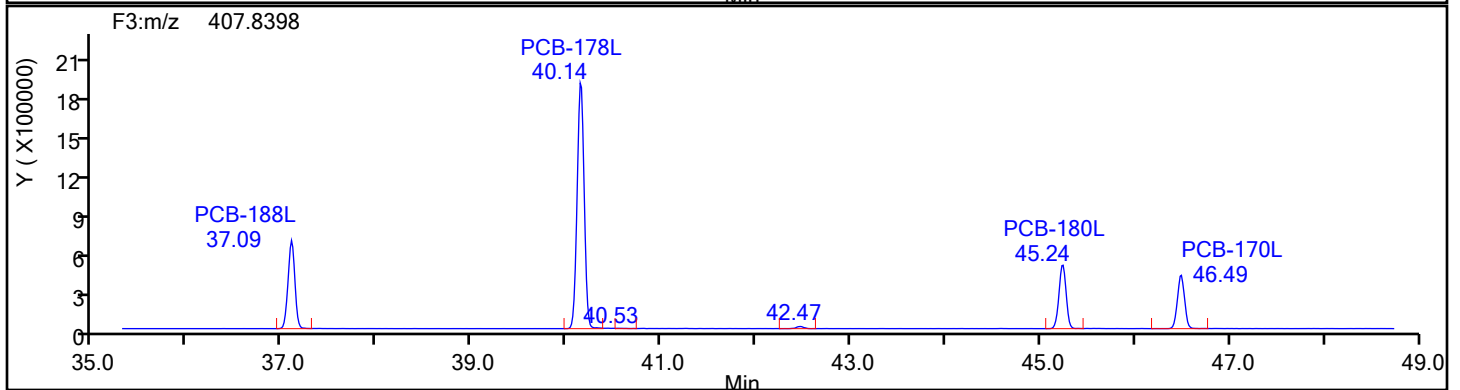
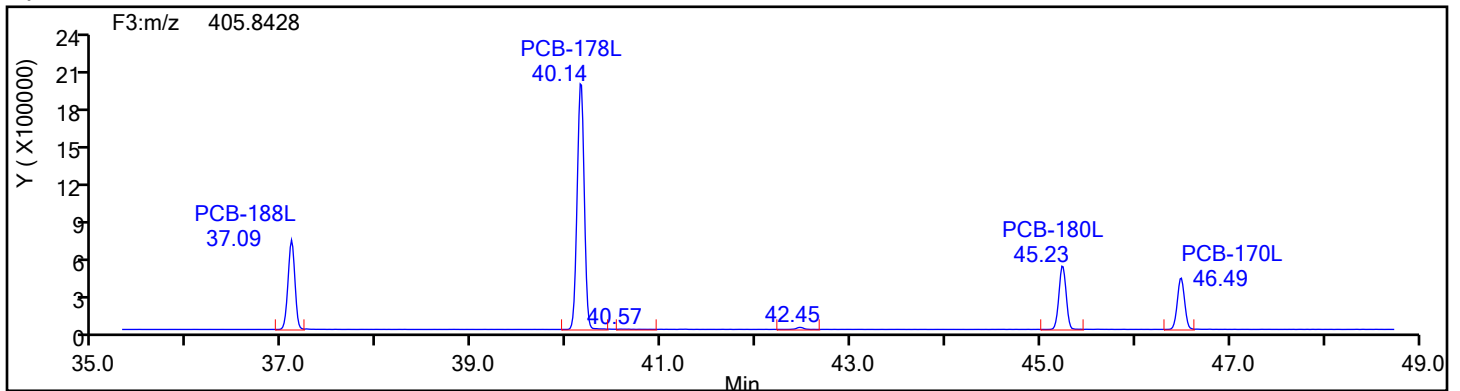
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



HpPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

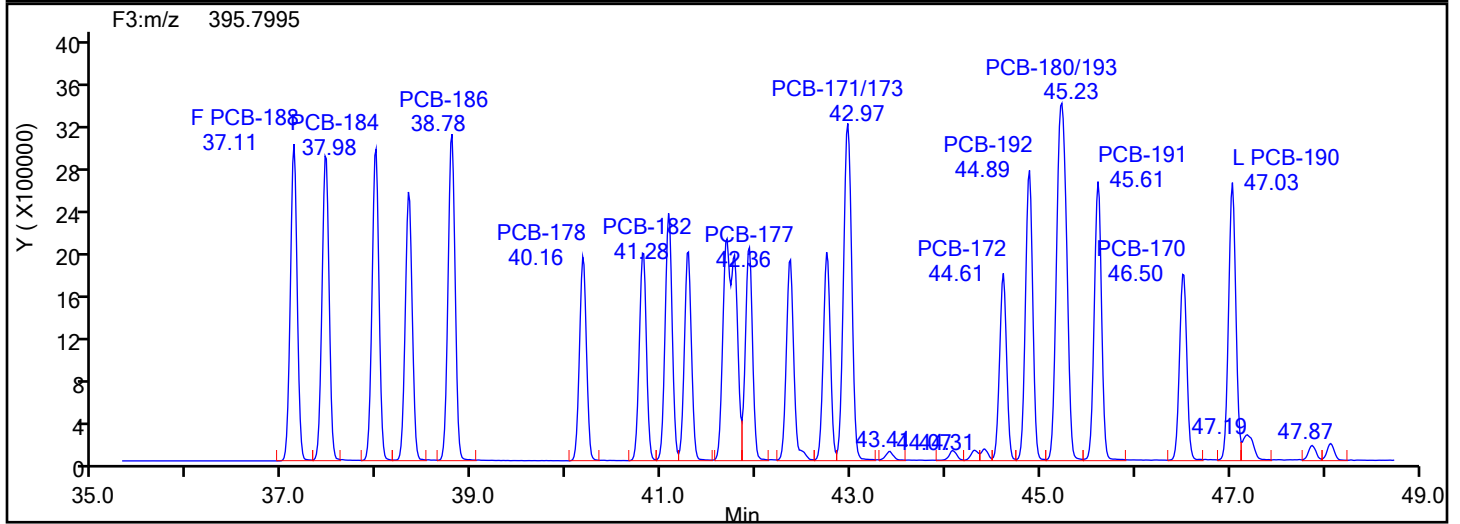
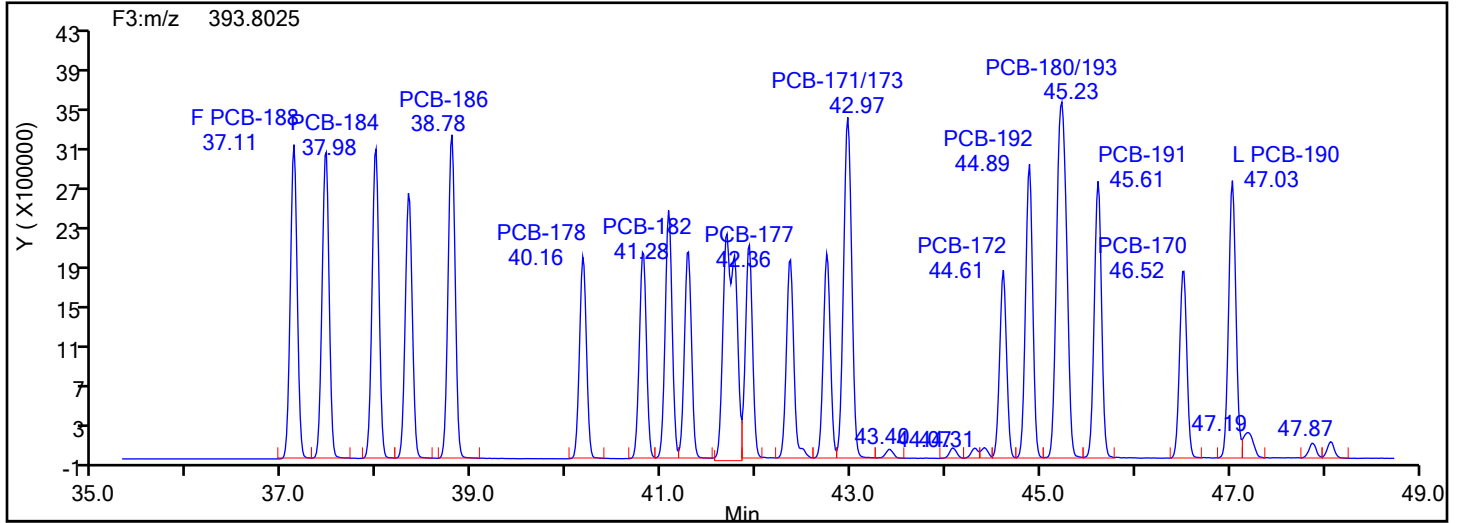
Worklist#: 87130

Sample Line#: 5

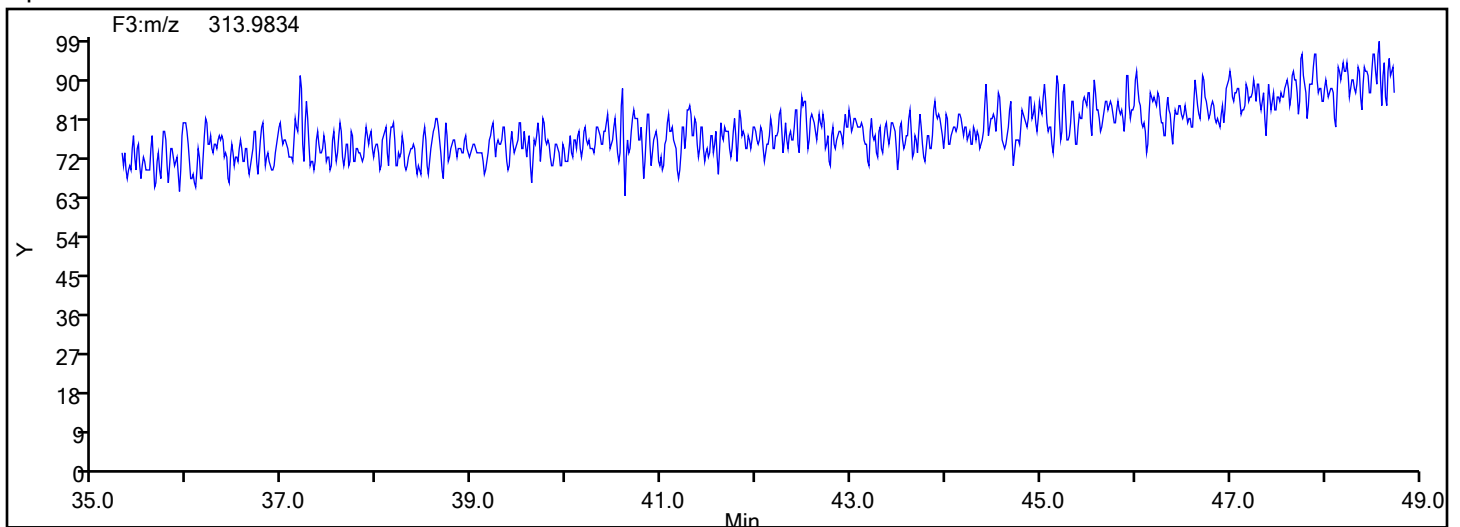
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



## HpPCB F3 Lock Mass





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Instrument ID: D2D

Lims ID: IC L5

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 5

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

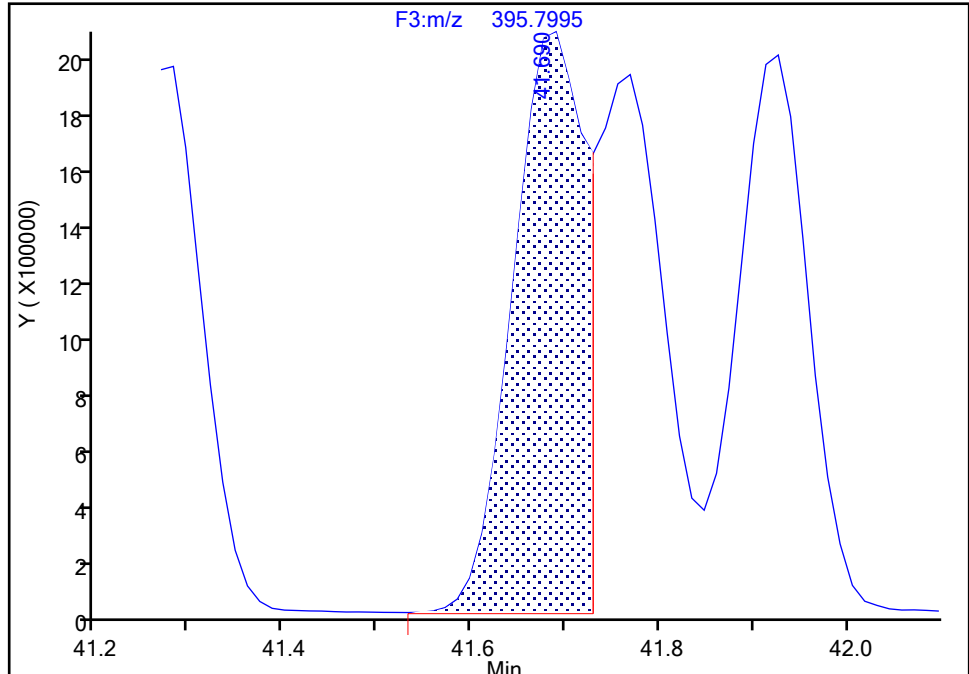
Detector F3(35.64 :49.10 )

**PCB-183/185, CAS: STL02297**

Signal: 2

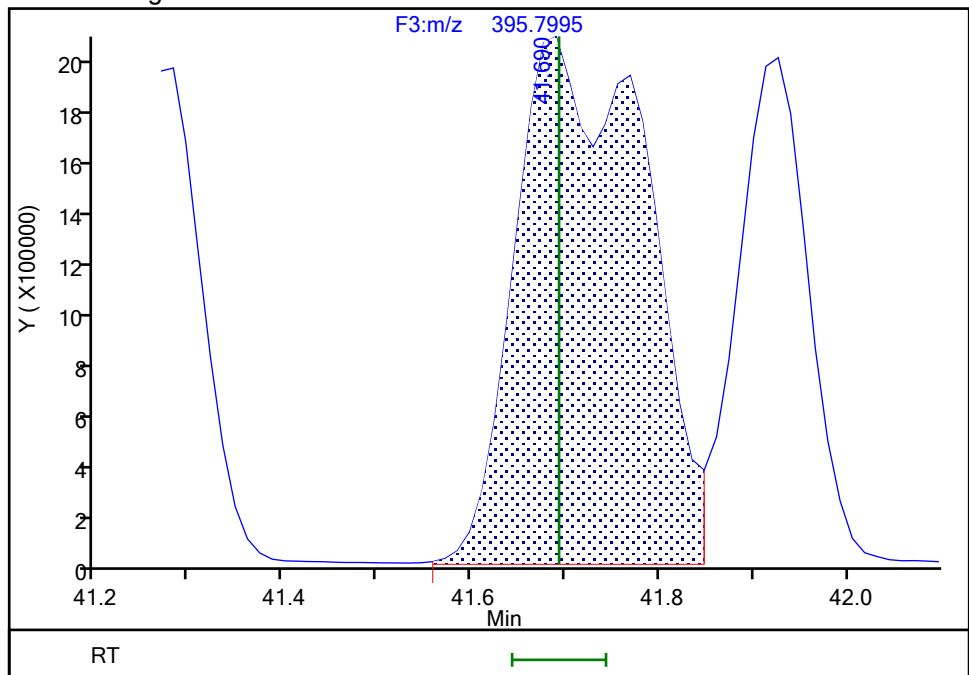
RT: 41.69  
Area: 10997351  
Amount: 473.7894  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.69  
Area: 20232904  
Amount: 747.8180  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:01:36 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

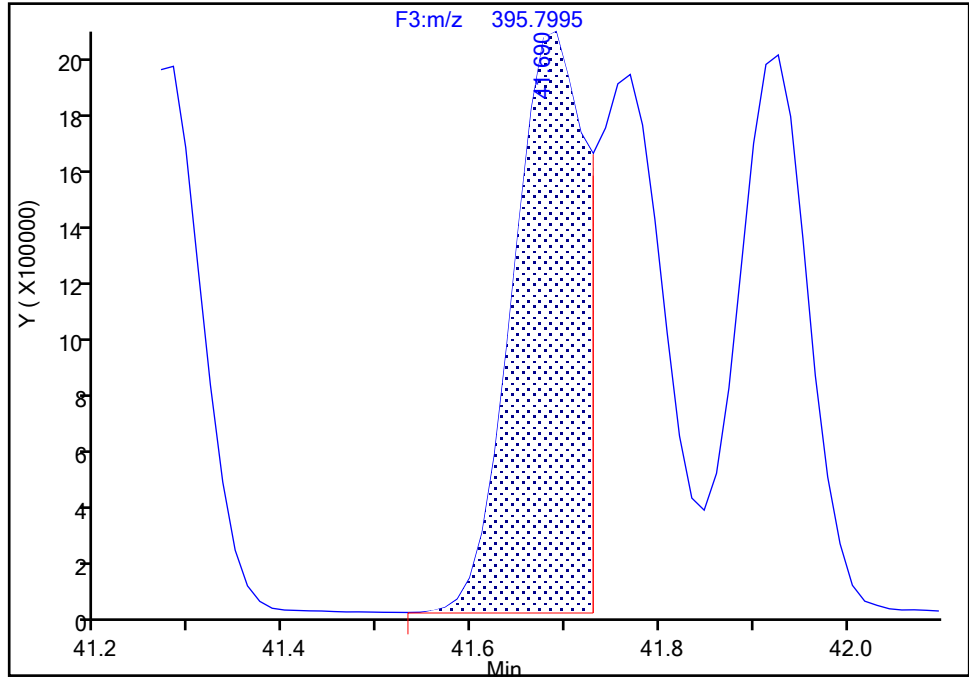
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d  
Injection Date: 31-May-2024 20:12:00 Instrument ID: D2D  
Lims ID: IC L5  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 5  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

**PCB-183/185, CAS: STL02297**

Signal: 2

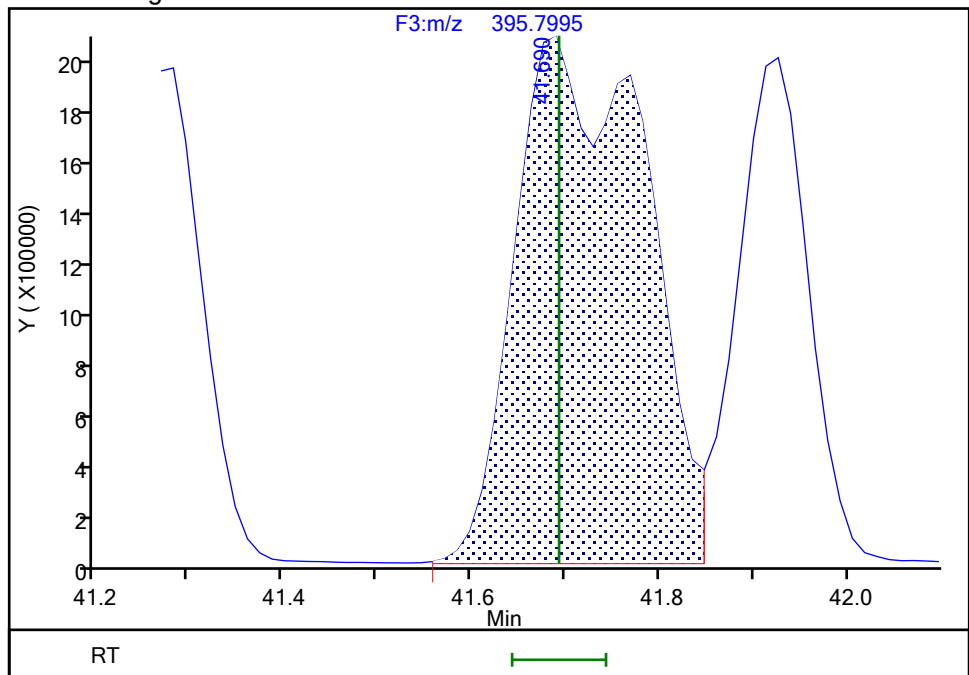
RT: 41.69  
Area: 10997351  
Amount: 473.7894  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.69  
Area: 20232904  
Amount: 747.8180  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:01:55 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

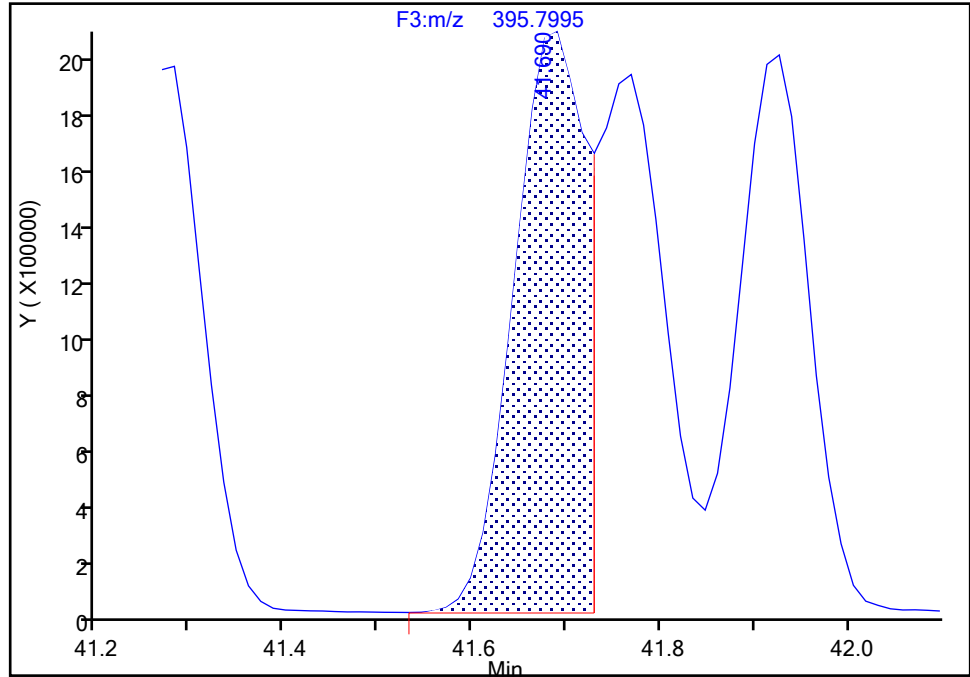
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d  
Injection Date: 31-May-2024 20:12:00 Instrument ID: D2D  
Lims ID: IC L5  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 5  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

**PCB-183/185, CAS: STL02297**

Signal: 3

RT: 41.69  
Area: 22664276  
Amount: 473.7894  
Amount Units: pg/ul

## Processing Integration Results



## Manual Integration Results

RT: 41.69  
Area: 41853835  
Amount: 747.8180  
Amount Units: pg/ul

Reviewer: V4XA, 01-Jun-2024 03:01:55 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Instrument ID: D2D

Lims ID: IC L5

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 5

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

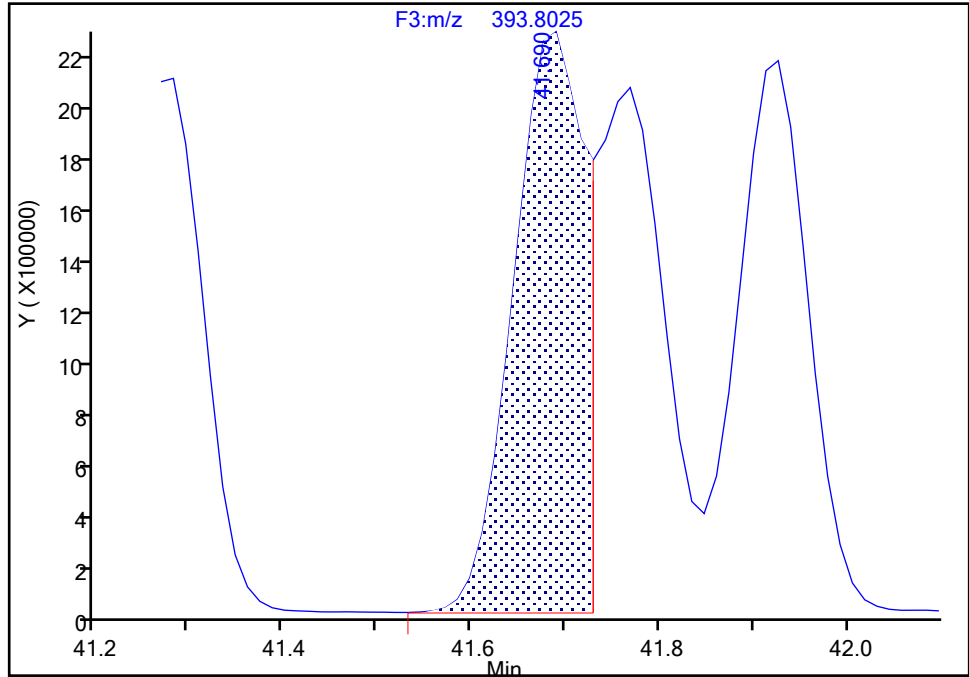
Detector F3(35.64 :49.10 )

**PCB-183/185, CAS: STL02297**

Signal: 1

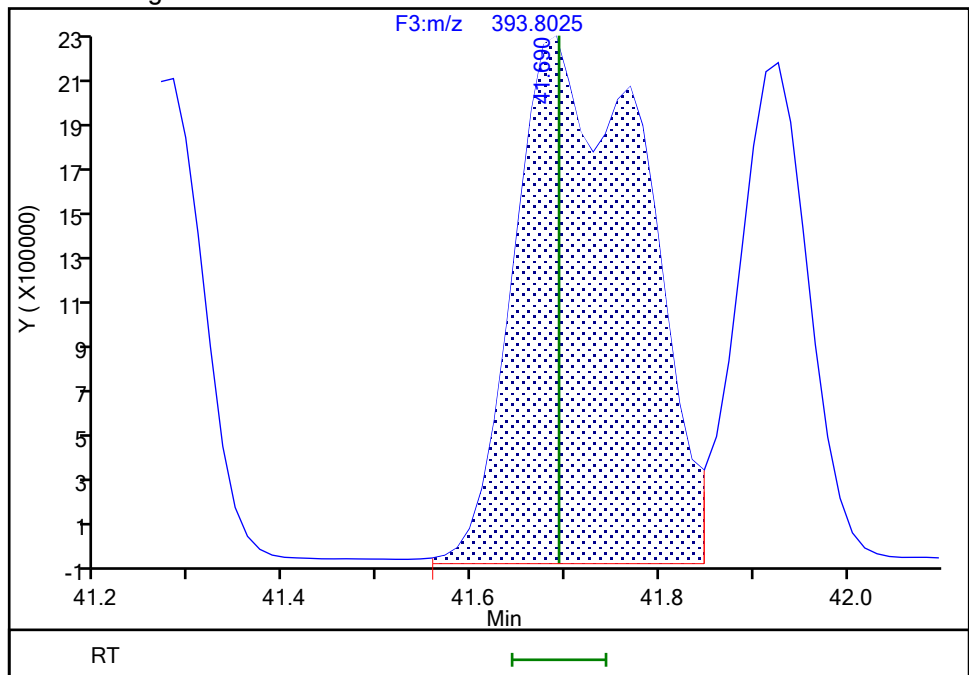
RT: 41.69  
Area: 11666925  
Amount: 473.7894  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.69  
Area: 21620931  
Amount: 747.8180  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:01:57 -04:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

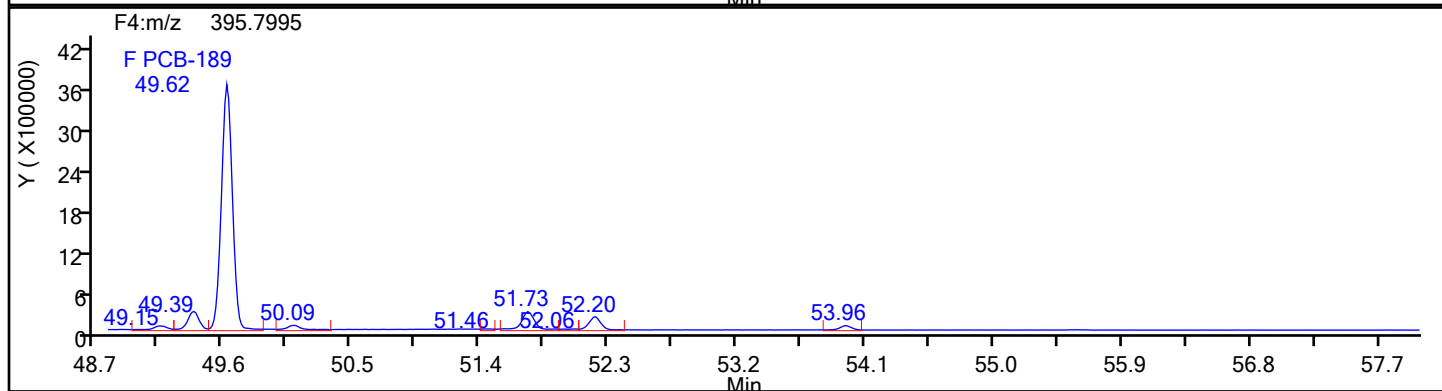
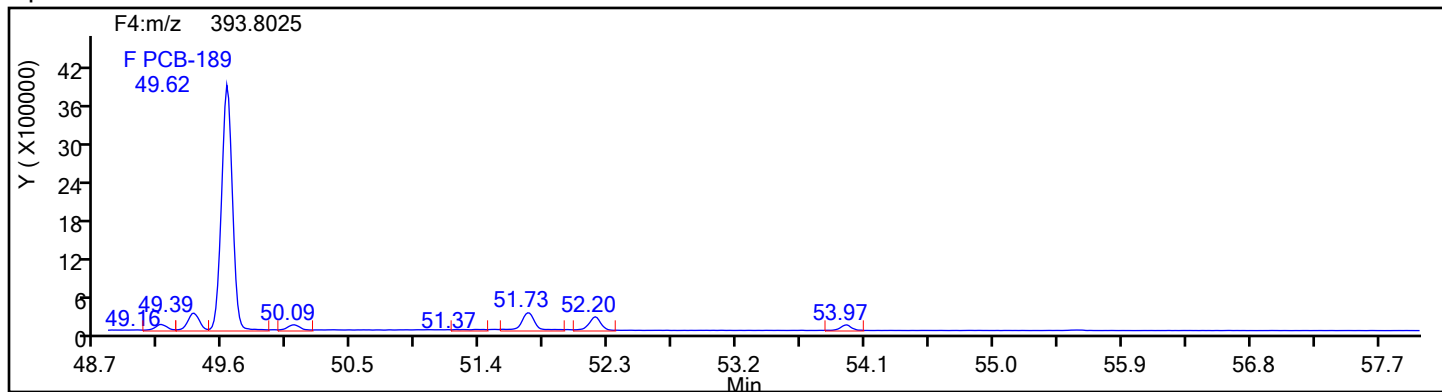
Worklist#: 87130

Sample Line#: 5

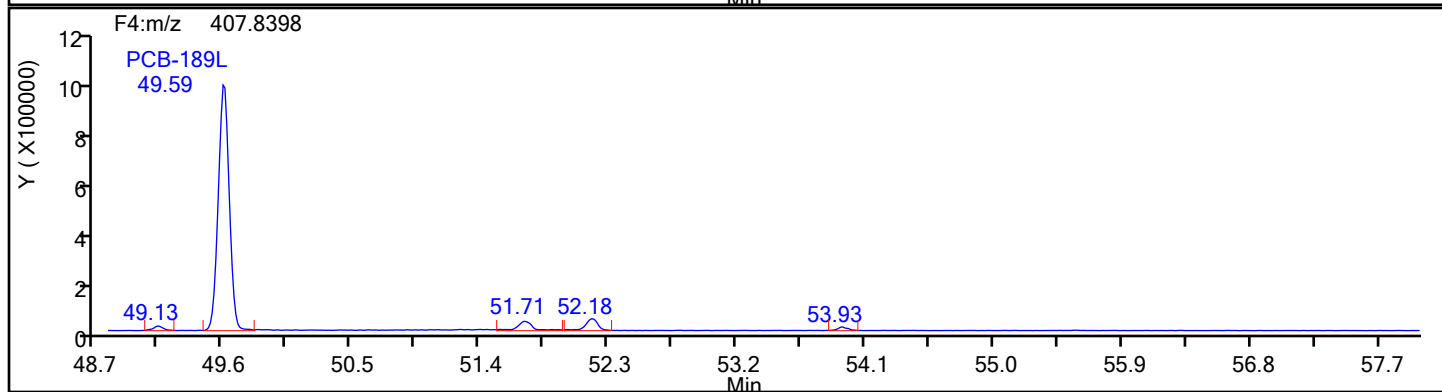
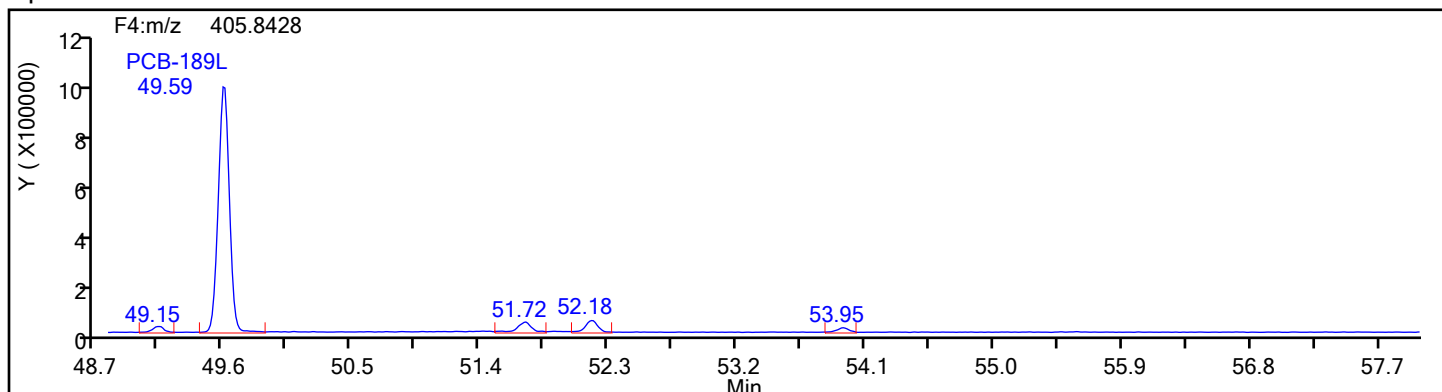
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

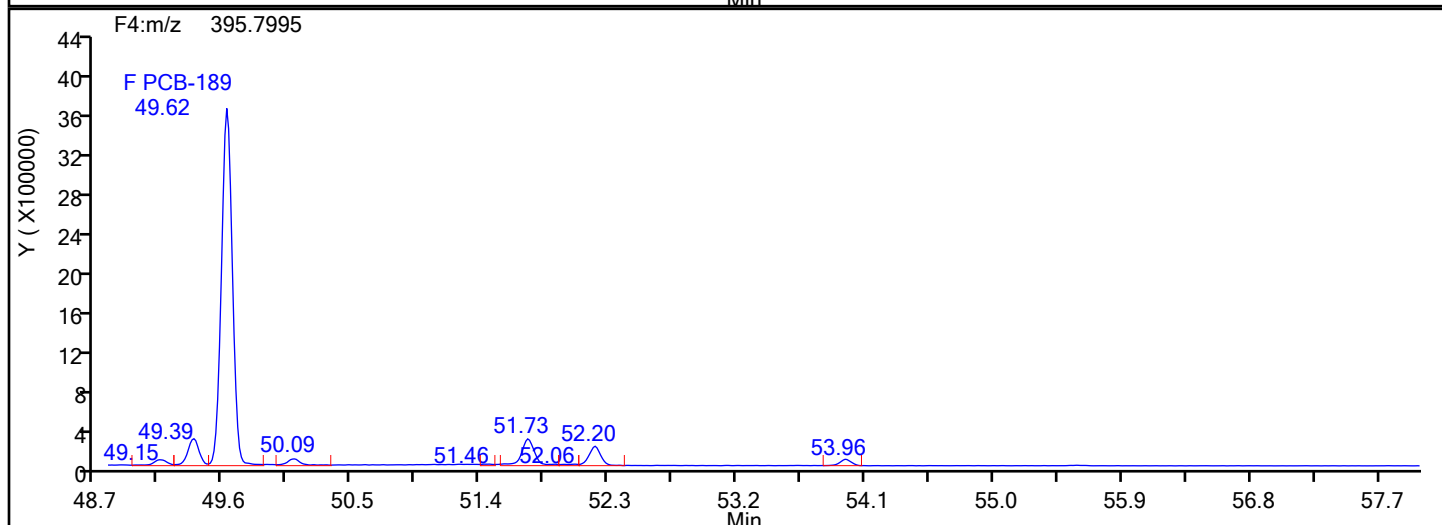
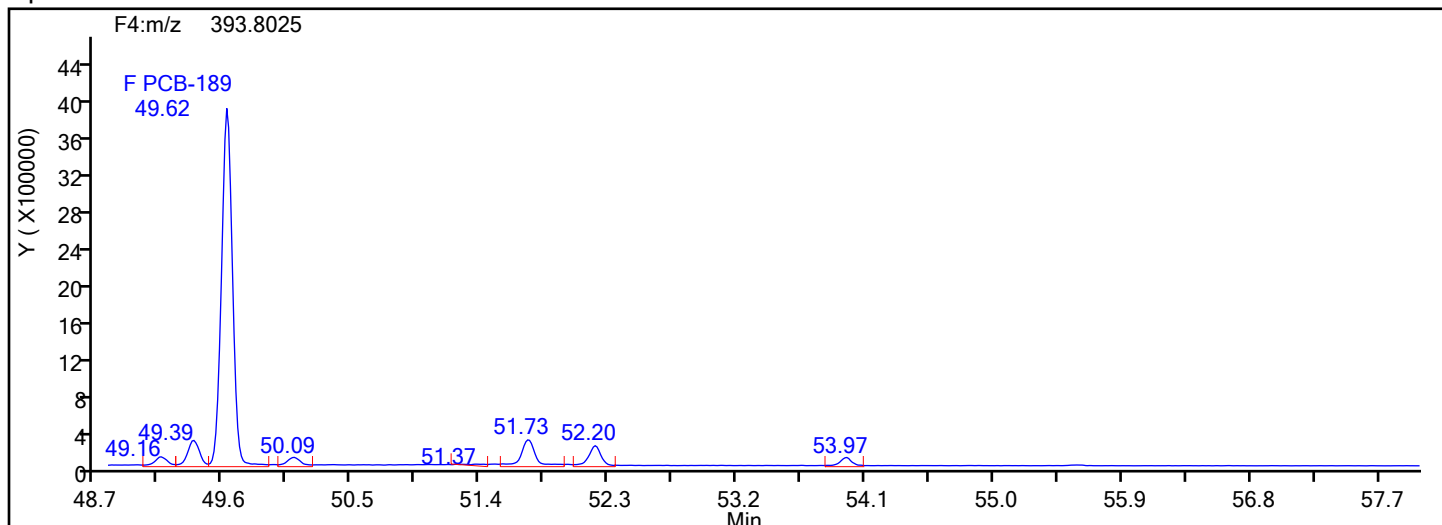
Worklist#: 87130

Sample Line#: 5

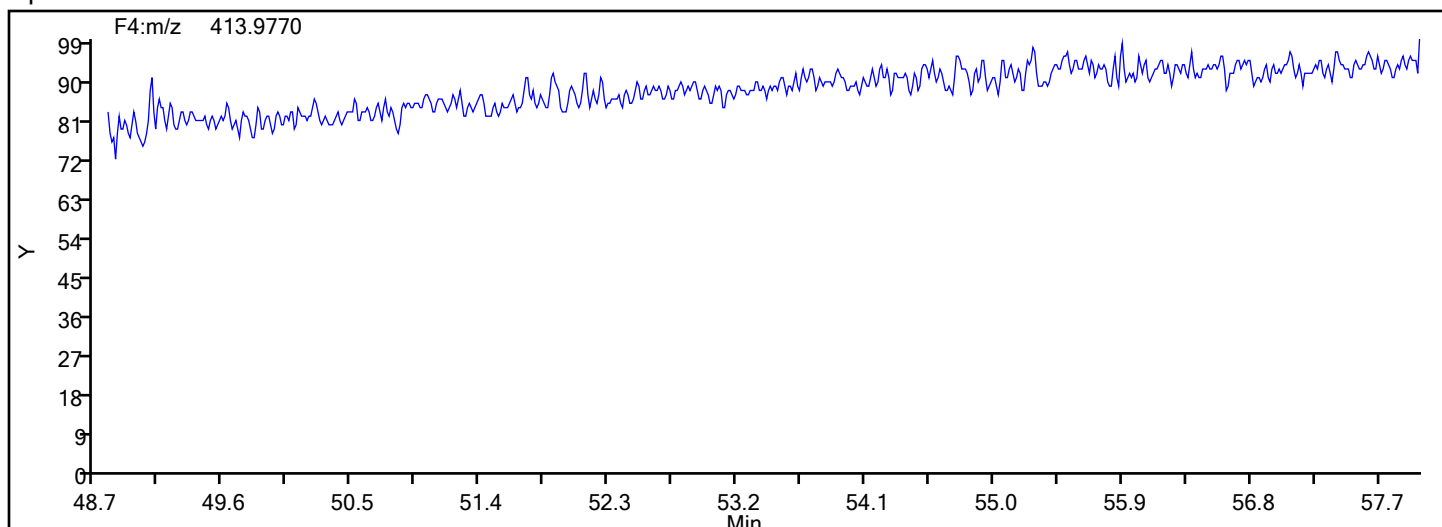
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



## HpPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

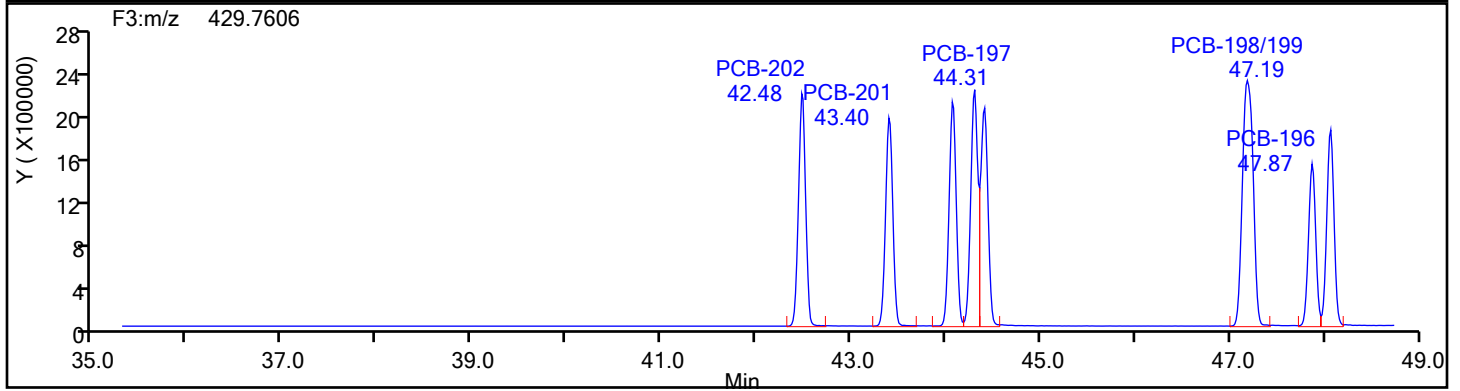
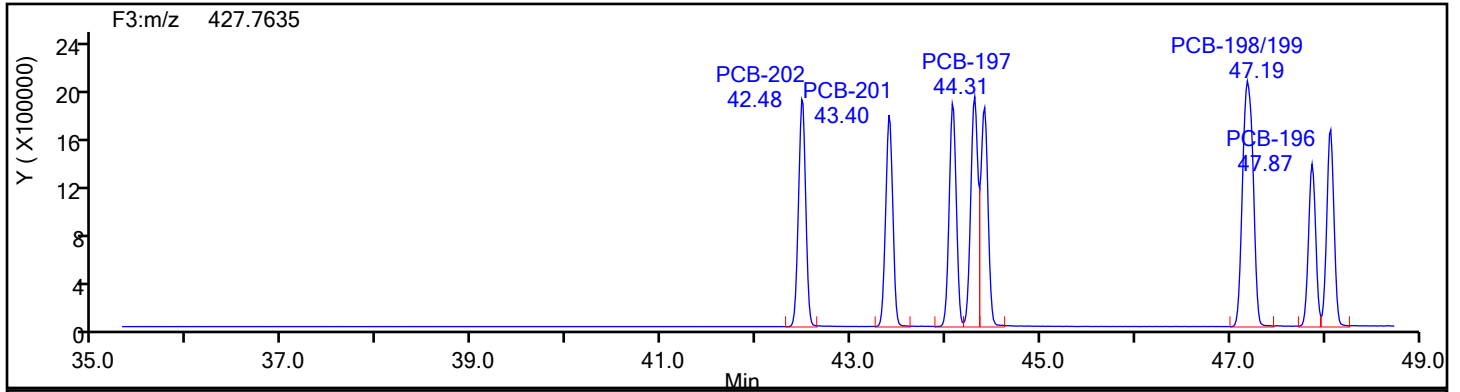
Worklist#: 87130

Sample Line#: 5

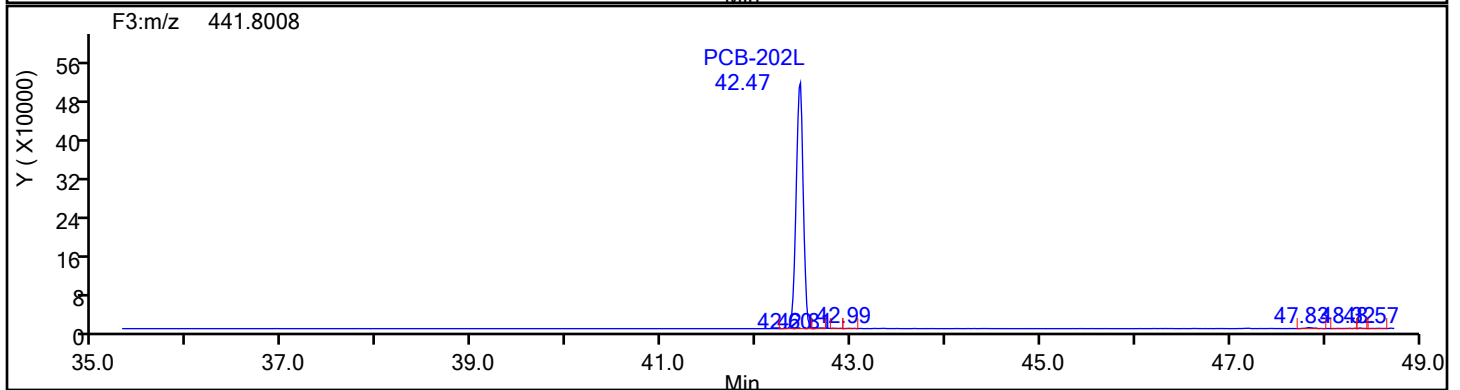
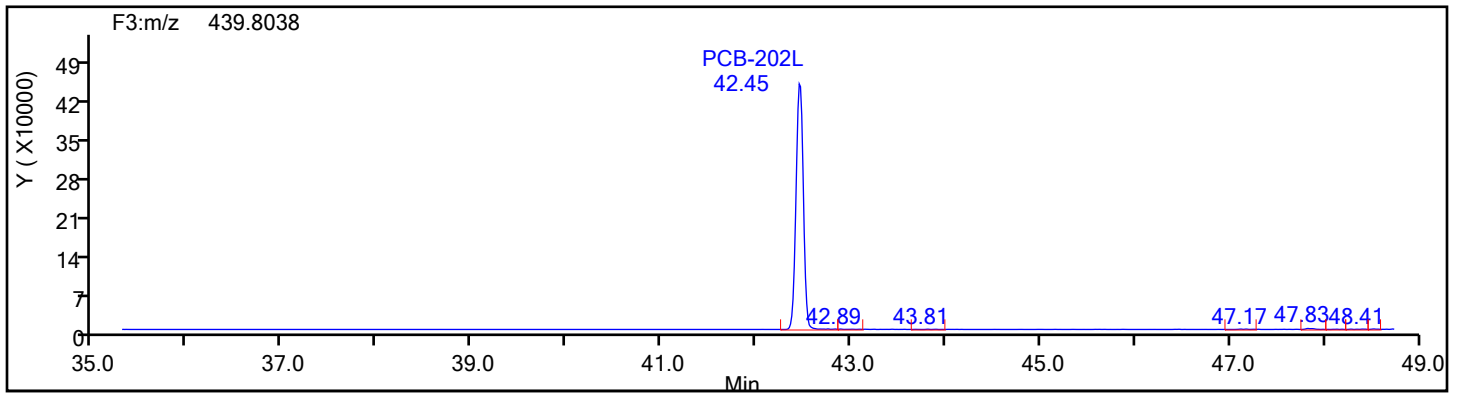
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3

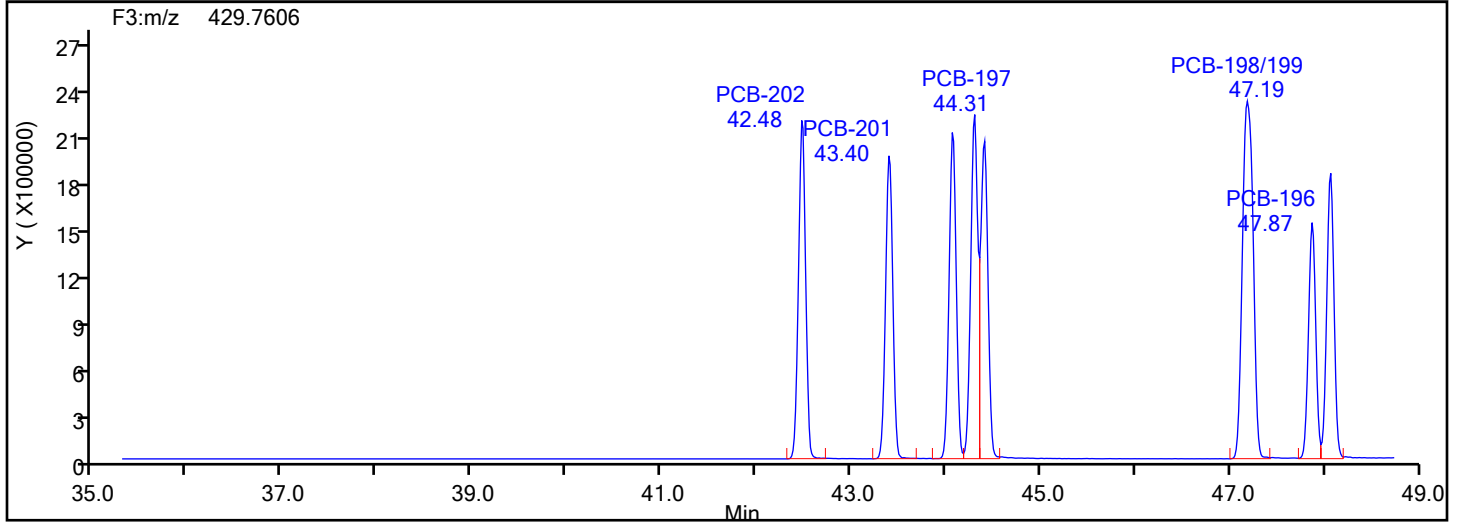
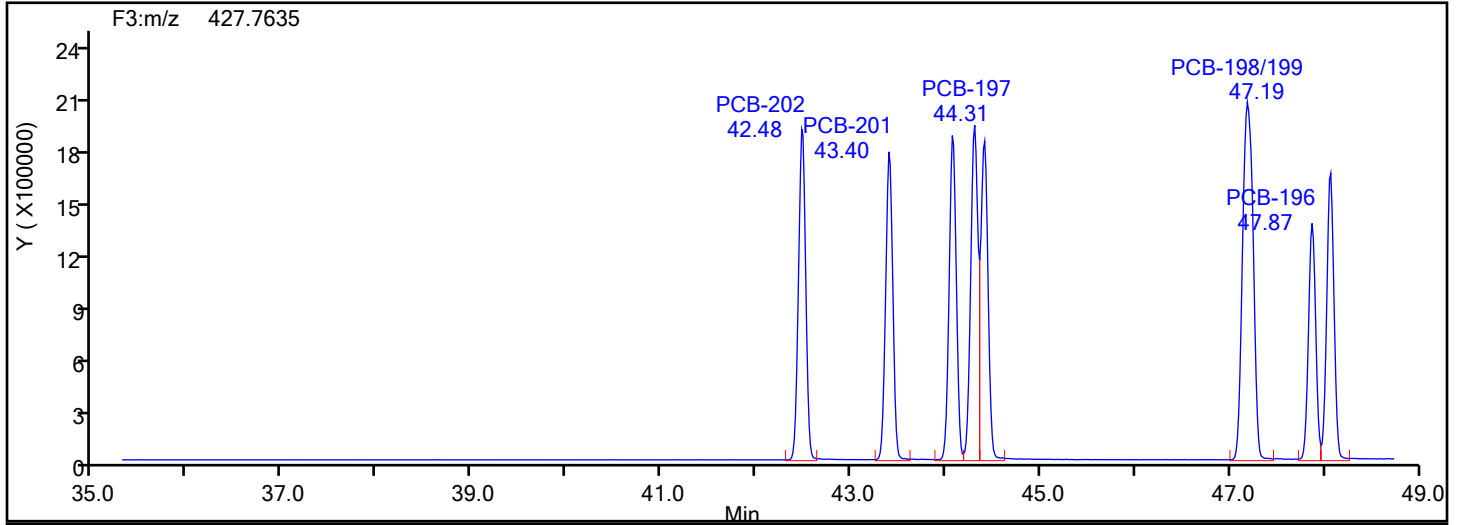


OcPCB F3 Standards

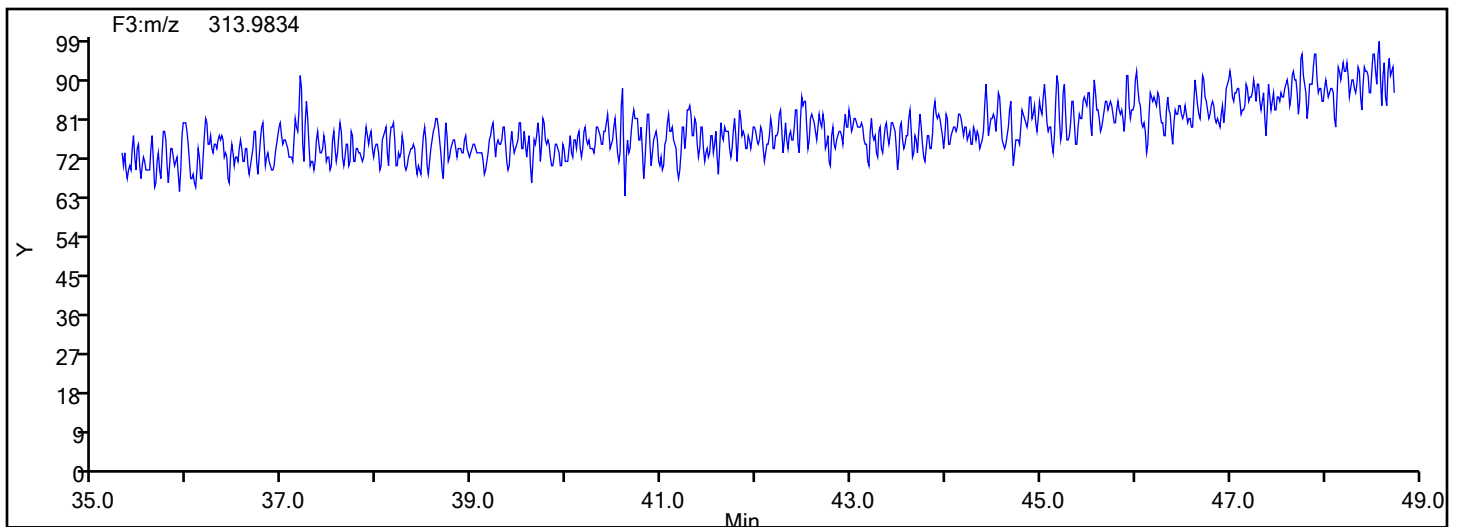


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d  
Injection Date: 31-May-2024 20:12:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 5  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3



## OcPCB F3 Lock Mass





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

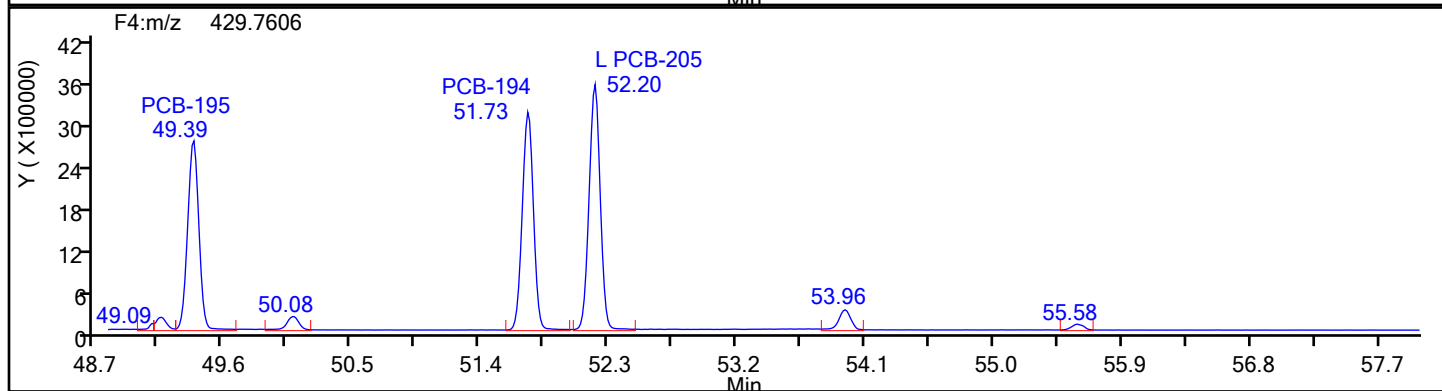
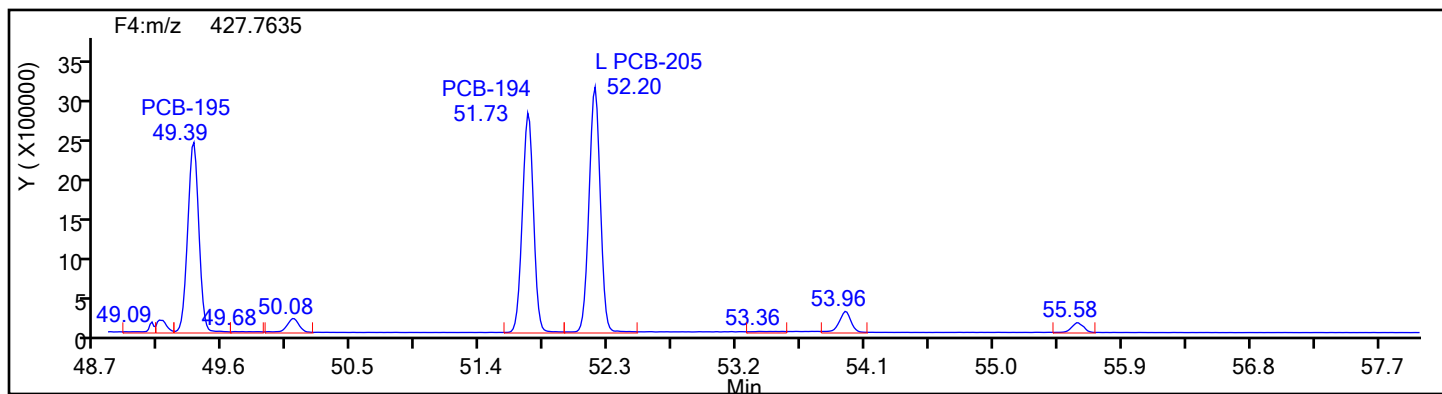
Worklist#: 87130

Sample Line#: 5

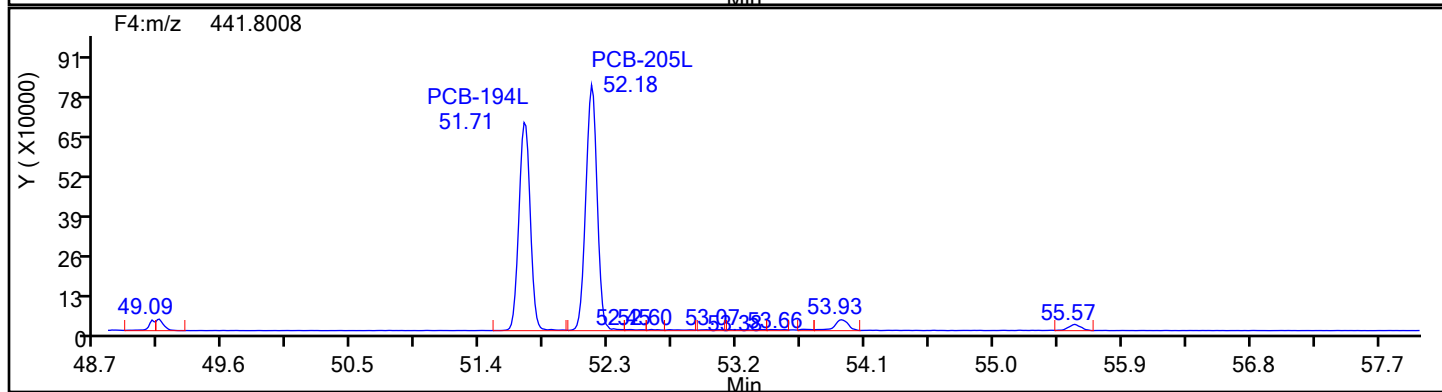
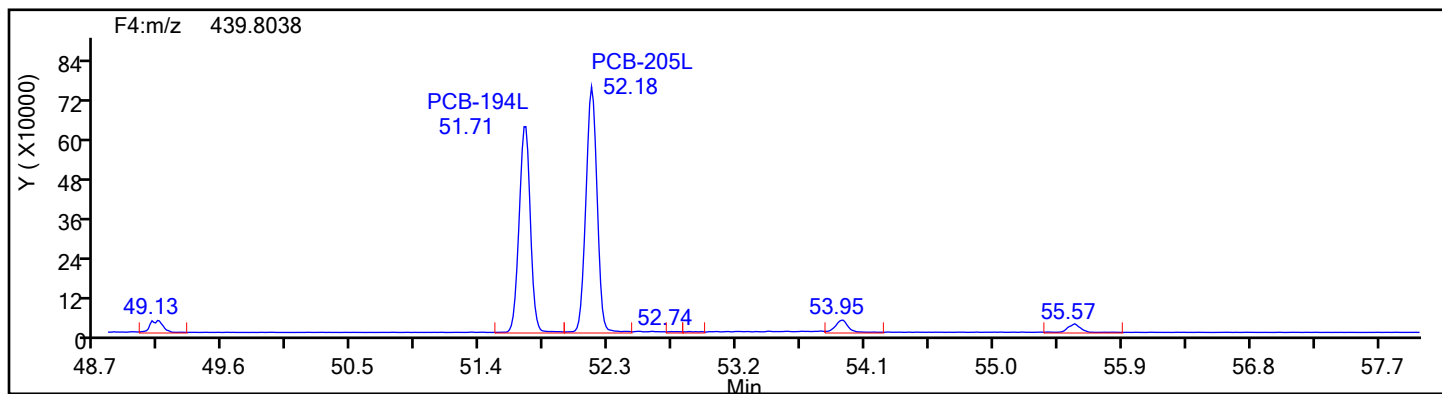
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4



OcPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

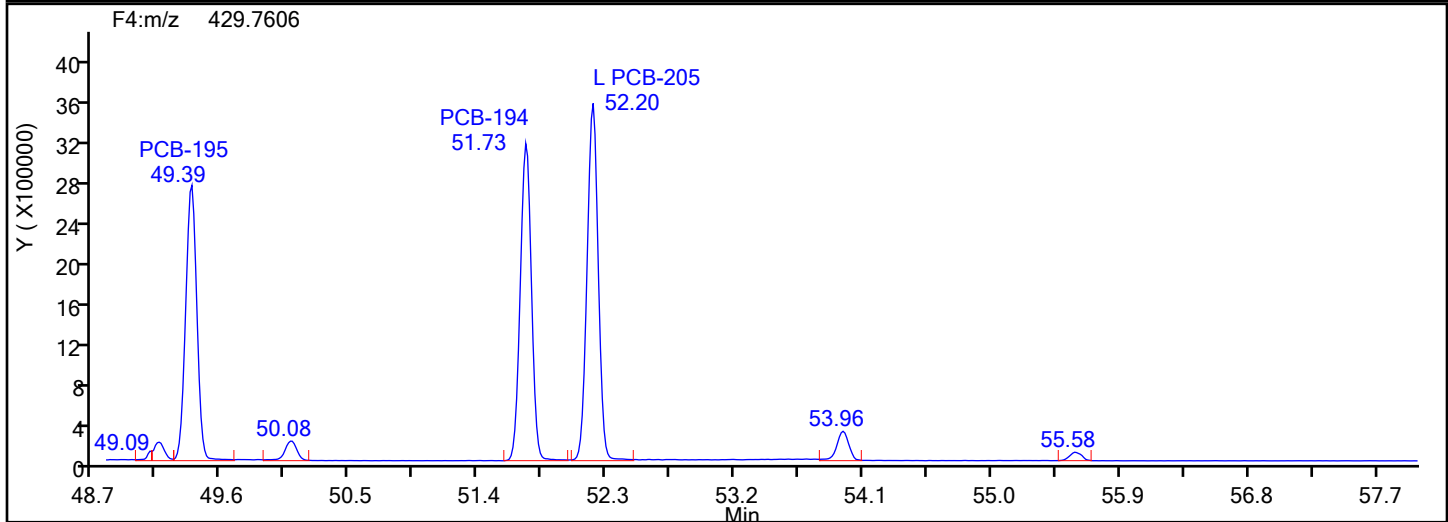
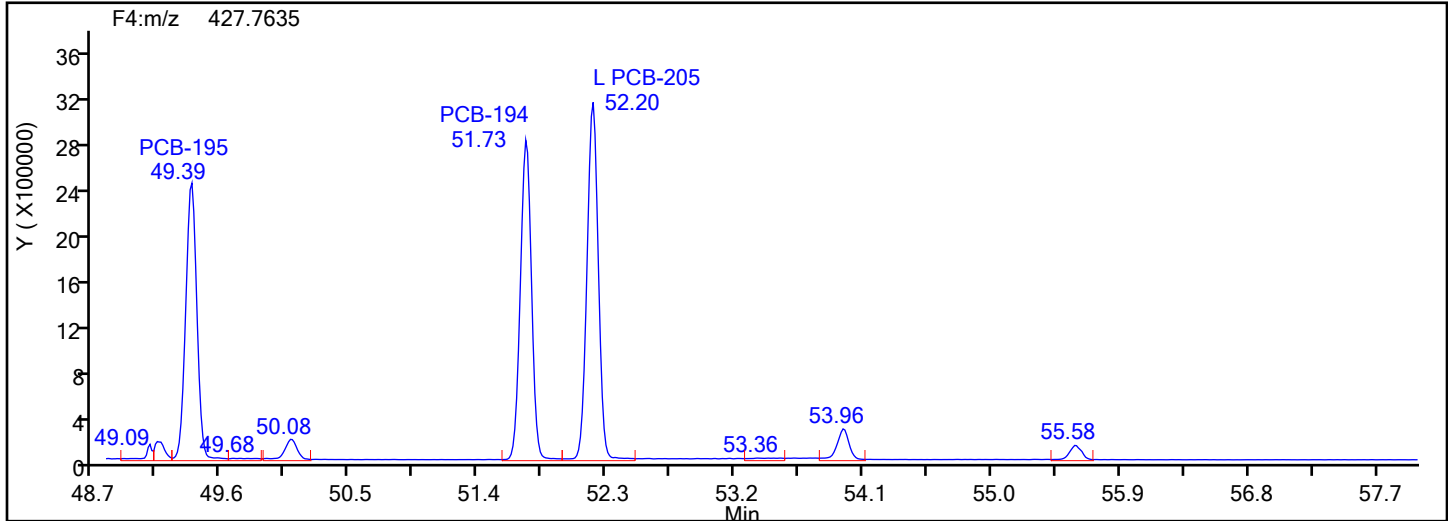
Worklist#: 87130

Sample Line#: 5

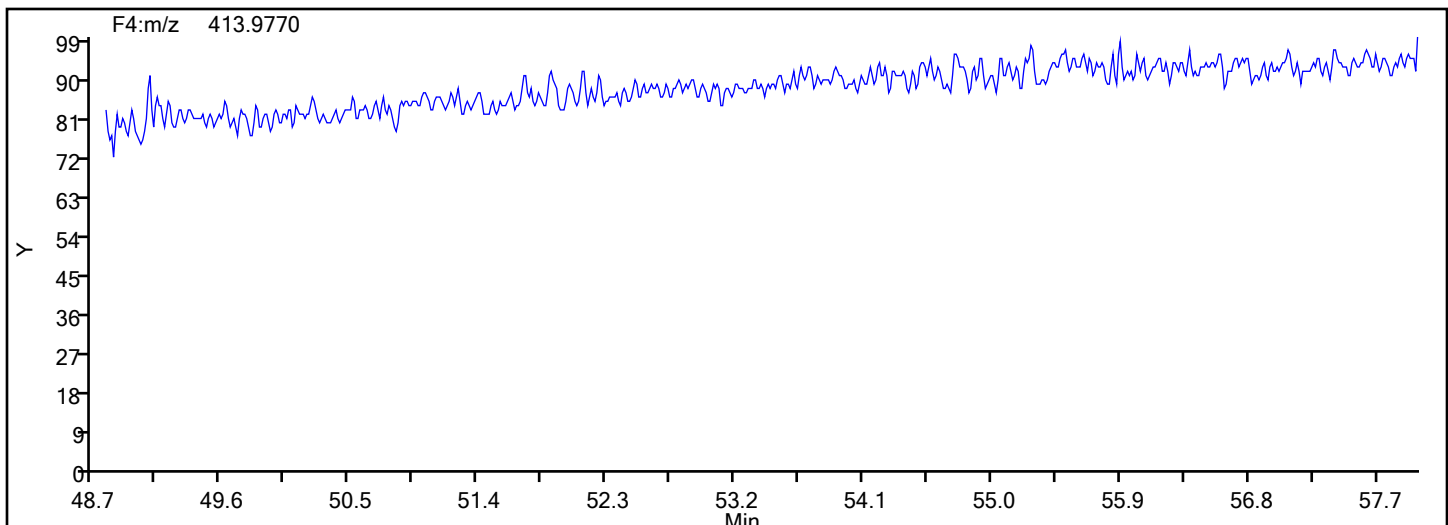
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4

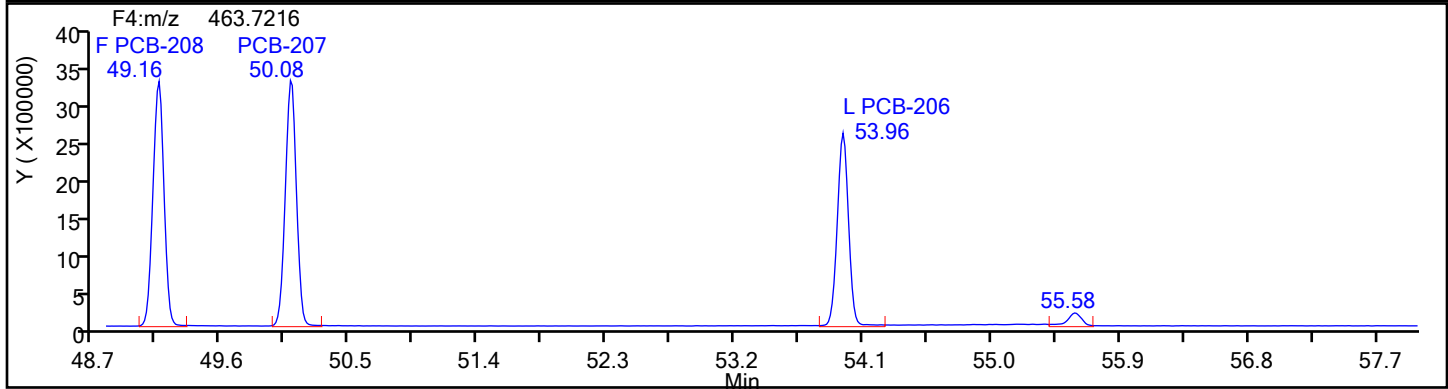
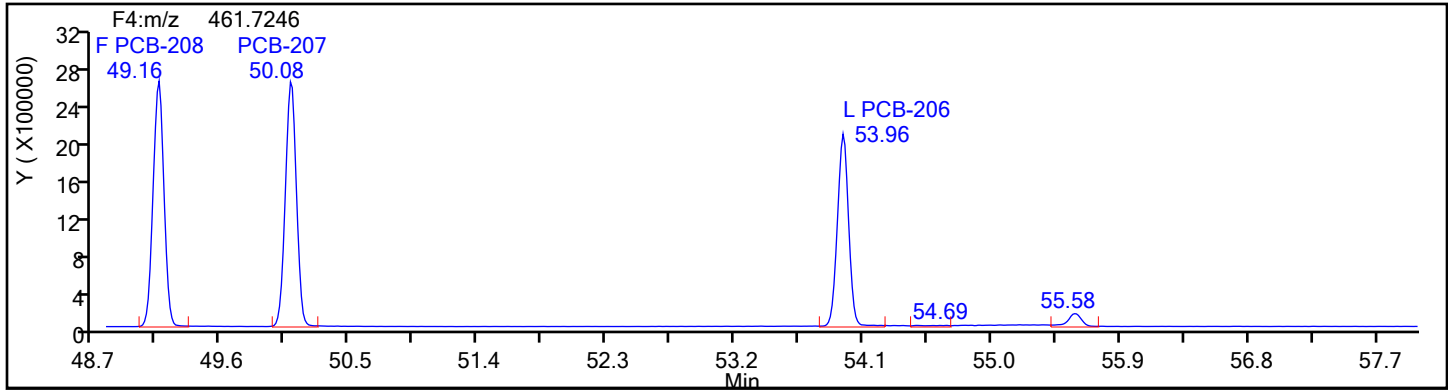


OcPCB F4 Lock Mass

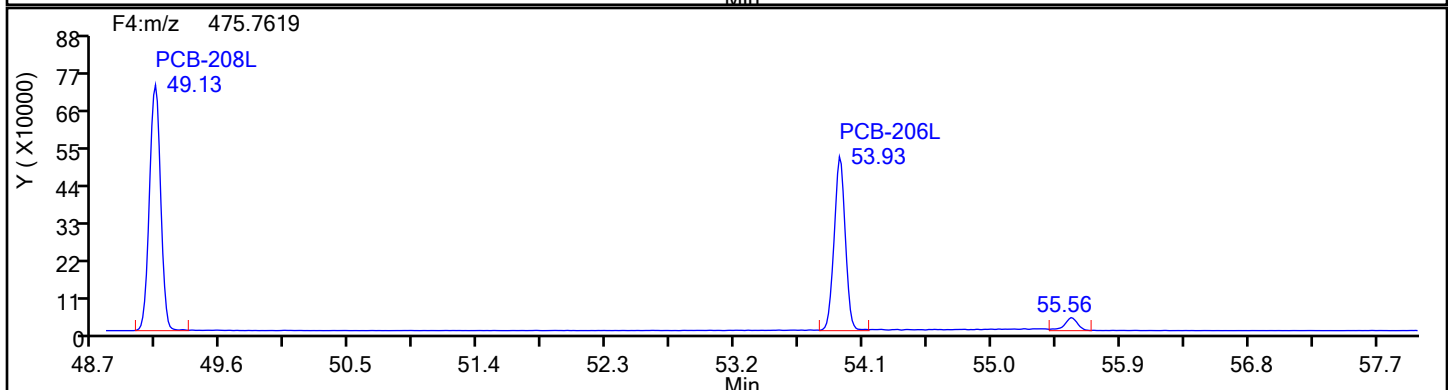
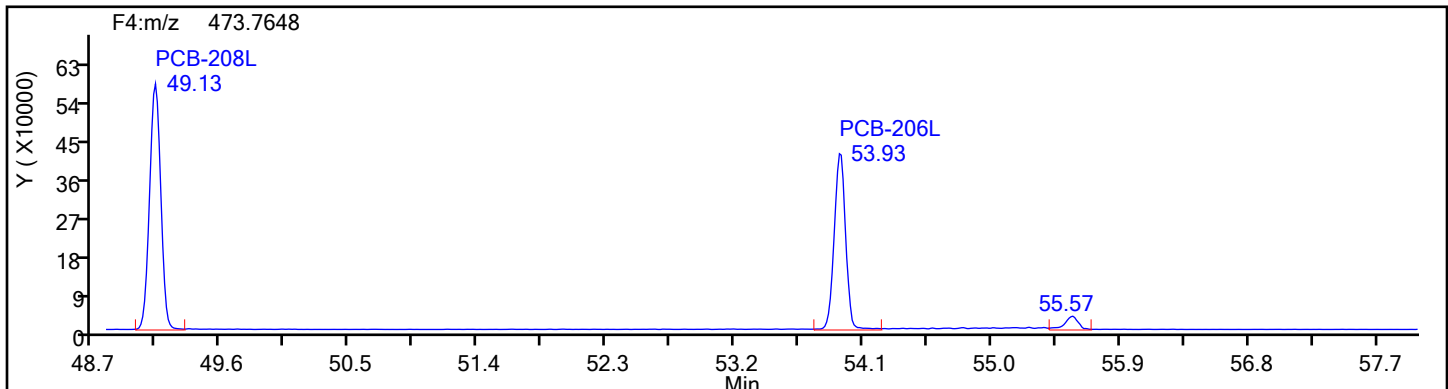


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi5.d  
Injection Date: 31-May-2024 20:12:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 5  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4



## NoPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

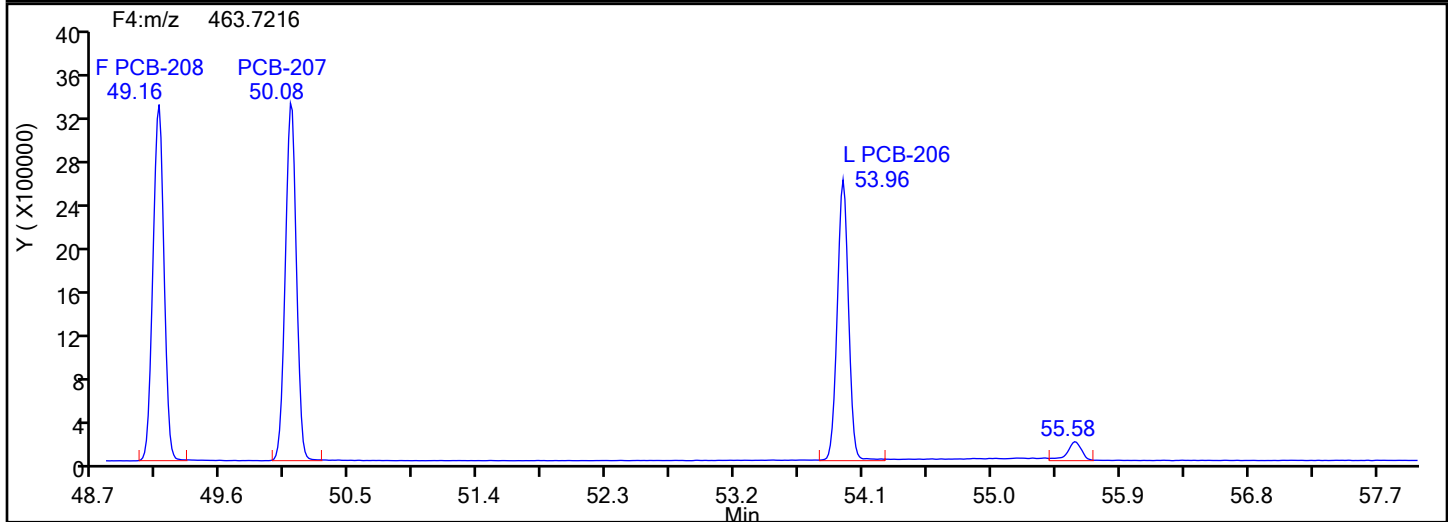
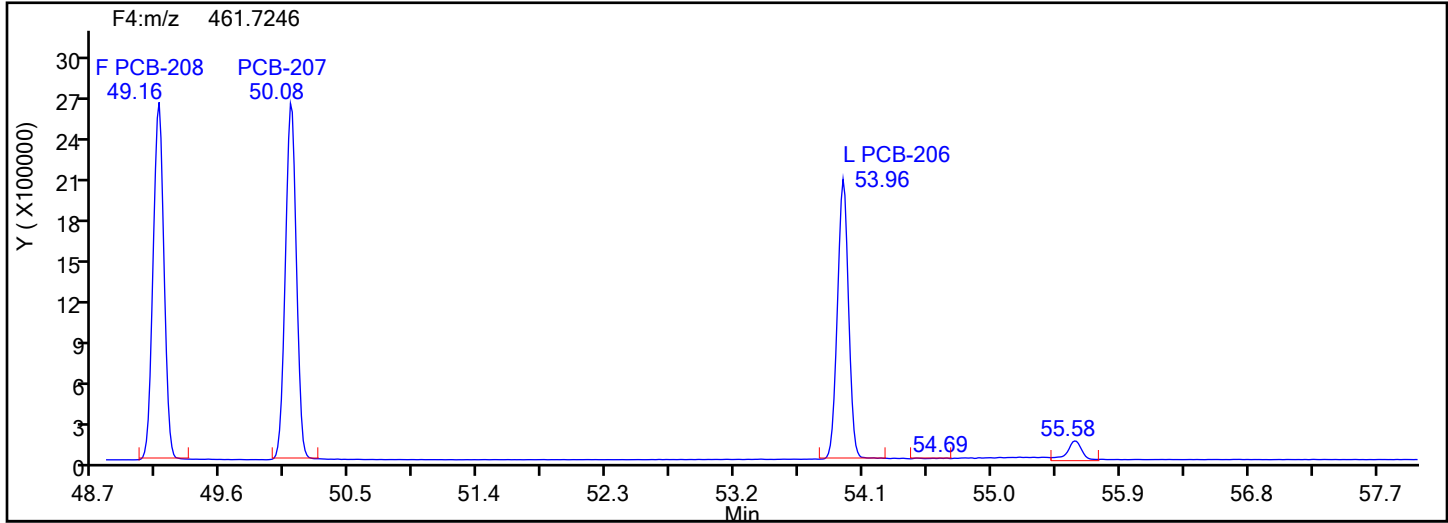
Worklist#: 87130

Sample Line#: 5

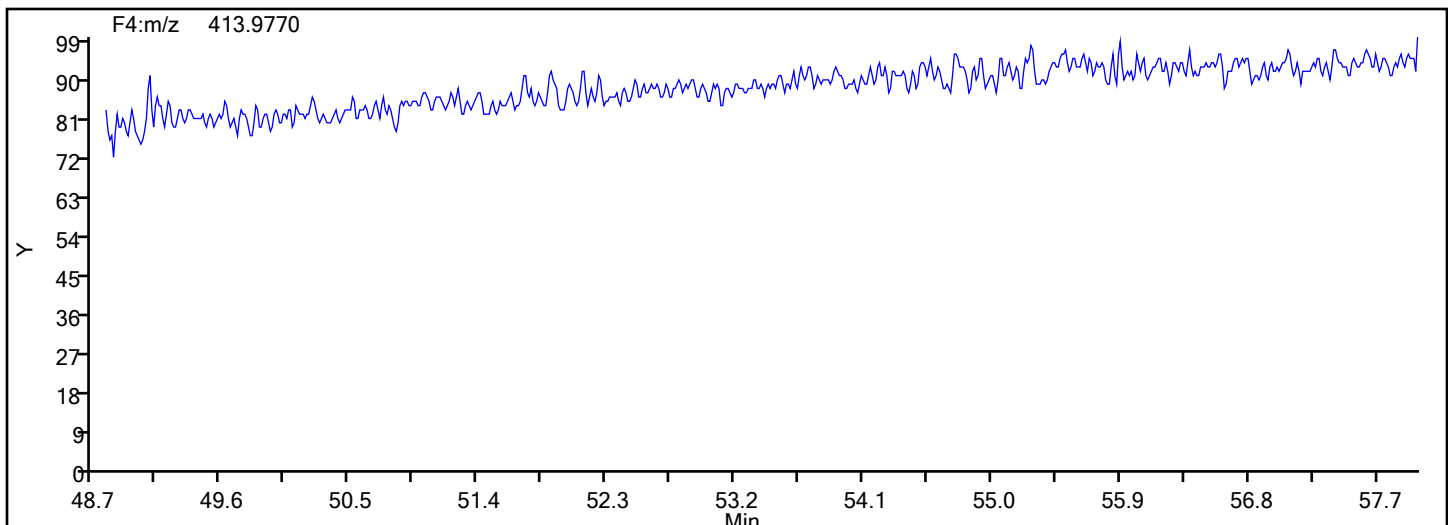
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



## NoPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

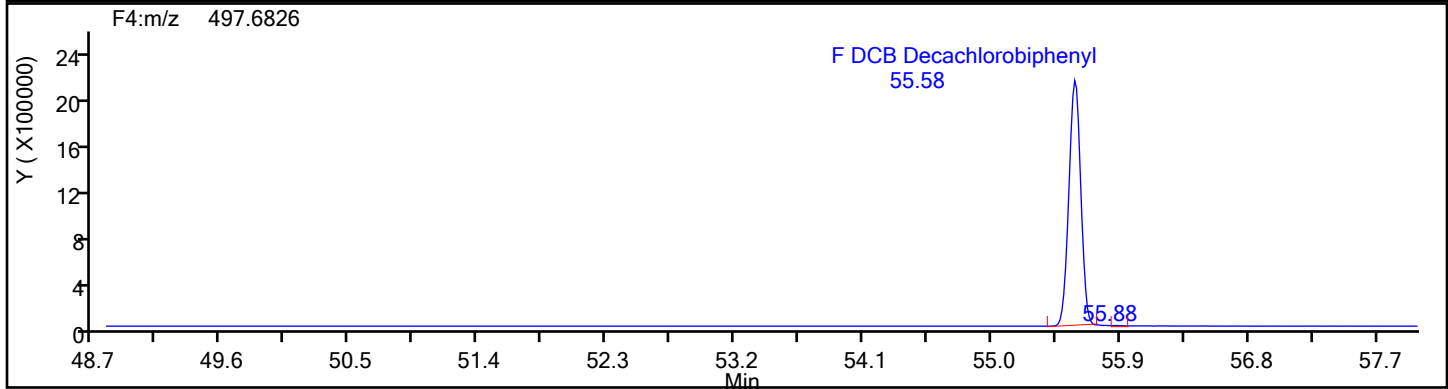
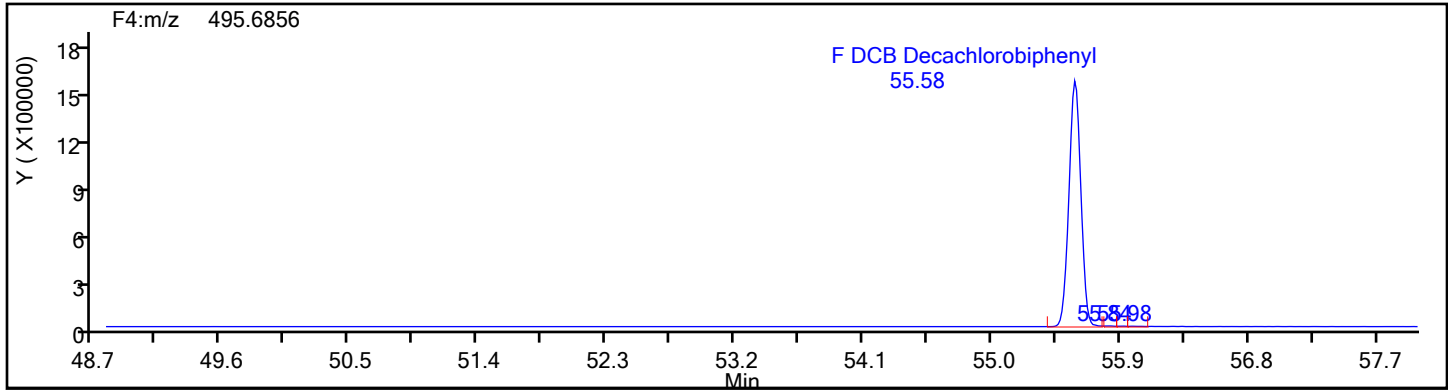
Worklist#: 87130

Sample Line#: 5

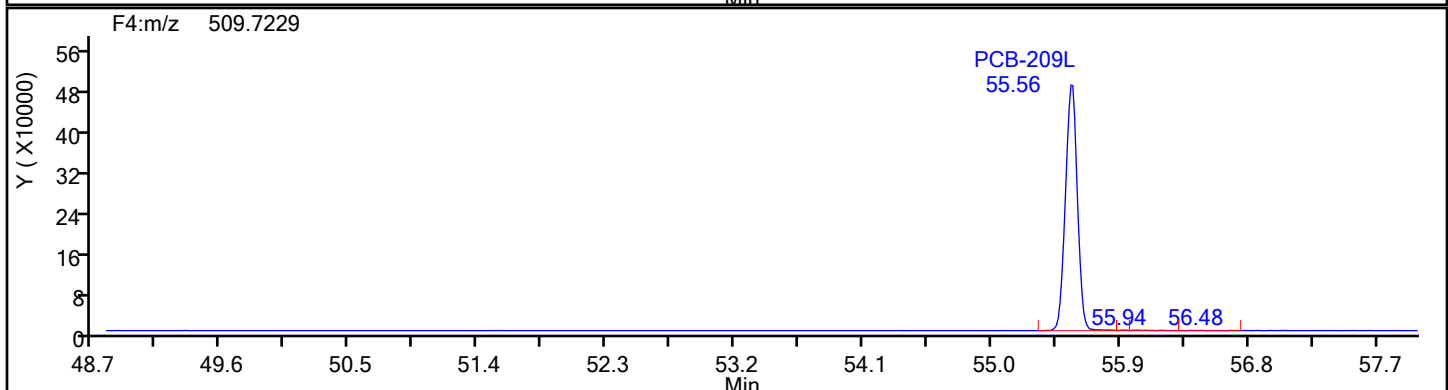
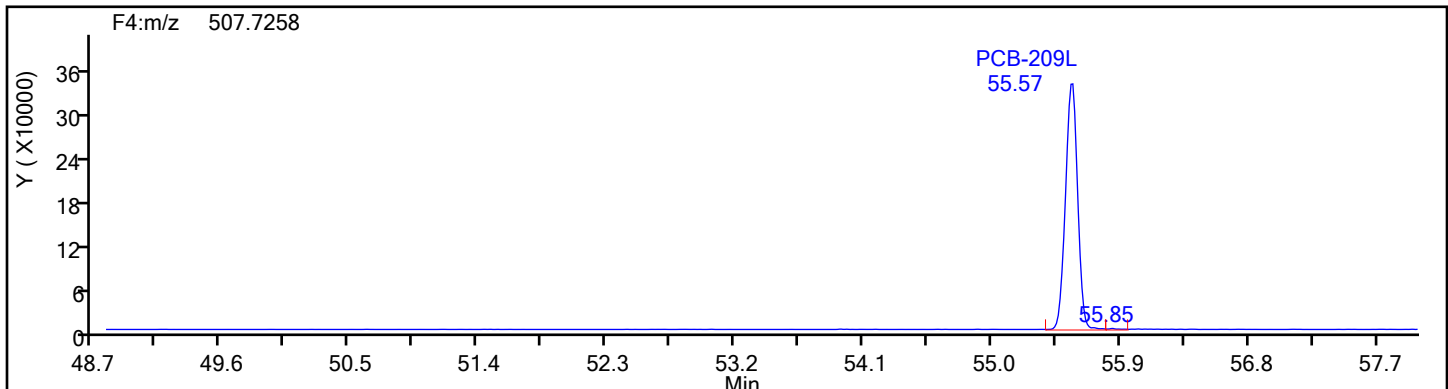
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



DePCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi5.d

Injection Date: 31-May-2024 20:12:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

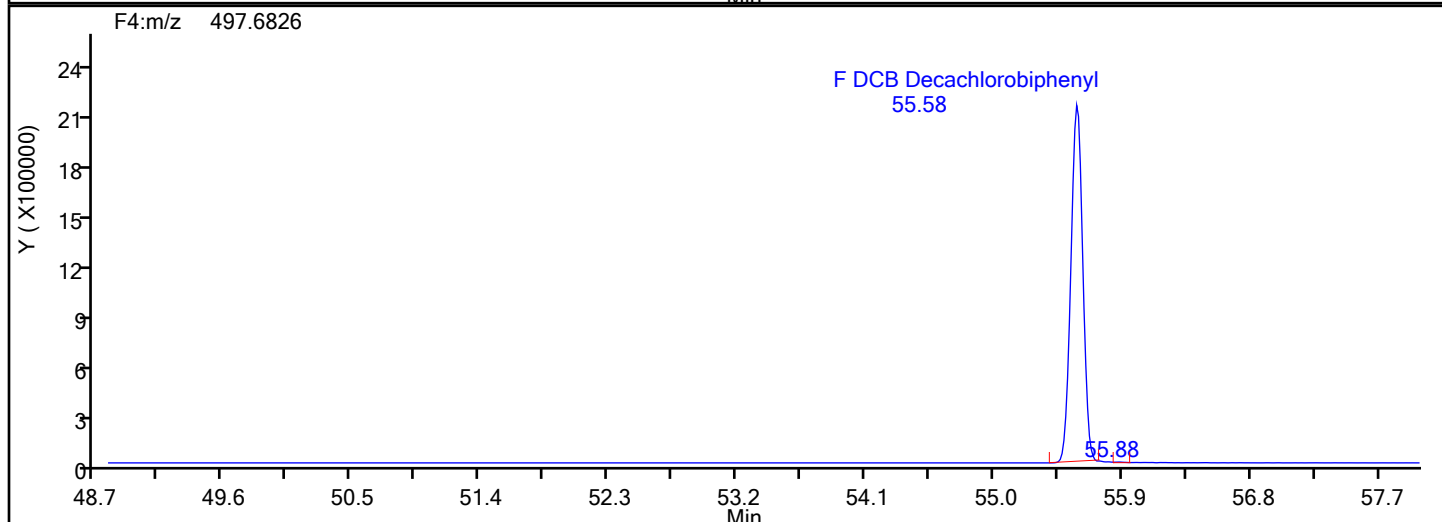
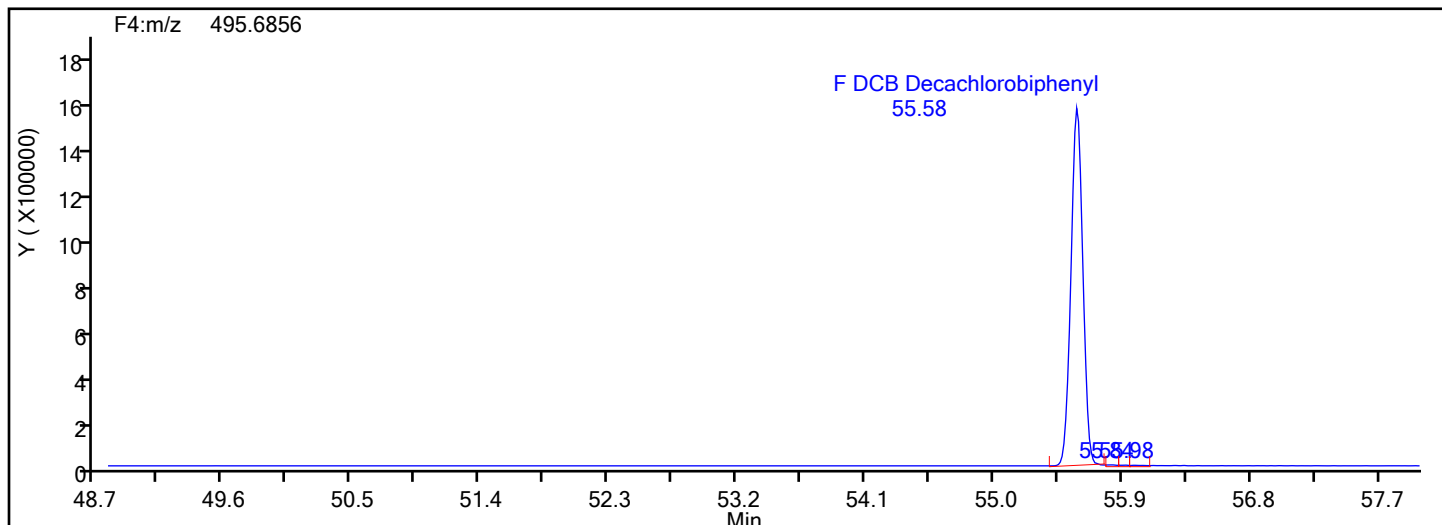
Worklist#: 87130

Sample Line#: 5

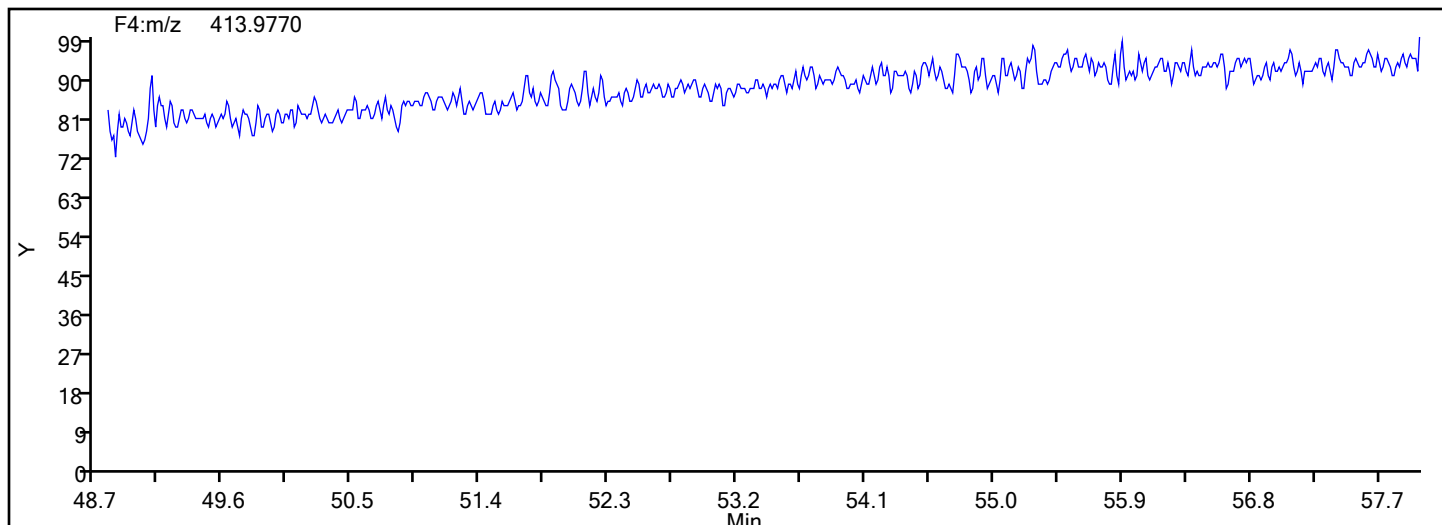
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



## DePCB F4 Lock Mass



Eurofins Knoxville  
Target Compound Quantitation Report

Data File:	\\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d		
Lims ID:	IC L6		
Client ID:			
Sample Type:	IC	Calib Level:	6
Inject. Date:	31-May-2024 21:13:00	ALS Bottle#:	0
Injection Vol:	1.0 ul	Dil. Factor:	1.0000
Sample Info:			
Misc. Info.:	140-0032883-006		
Operator ID:	Xcalibur_System	Instrument ID:	D2D
Sublist:	chrom-PCBs_D2D*sub16		
Method:	\\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\PCBs_D2D.m		
Limit Group:	HR - EPA_23 PCB ICAL		
Last Update:	04-Jun-2024 14:25:39	Calib Date:	31-May-2024 21:13:00
Integrator:	Picker		
Quant Method:	Isotopic Dilution	Quant By:	Initial Calibration
Last ICal File:	\\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d		
Column 1 :	SPB-Octyl ( 0.25 mm)	Det: F1(11.07 :21.70 )	
Process Host:	CTX1616		

First Level Reviewer: P0IK

Date: 04-Jun-2024 14:25:39

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total Monochlorobiphenyls					6050.2	5949.6	4.701	4.701		RQ
D PCB-1L	11:34	14103562	3.21	1.6108	98.8	98.8	0.2774	0.2774	98.76	
D PCB-3L	13:43	14397062	3.23	1.5891	102.2	102.2	0.2812	0.2812	102	
PCB-1	11:35	309510797	3.13	1.2191	1900.7	1800.1	4.344	4.344	95.03	RQ
PCB-2	13:34	353084495	2.92	1.1805	2098.9	2098.9	4.790	4.790	105	
PCB-3	13:44	360356023	2.98	1.2206	2050.6	2050.6	4.970	4.970	103	
S Total Dichlorobiphenyls					25569	25569	0.0304	0.0304		
D PCB-4L	13:59	5672202	1.58	0.6475	98.8	98.8	0.1387	0.1387	98.80	
* PCB-9L	15:57	8865731	1.63		100.0	100.0				
D PCB-15L	19:52	10031243	1.62	1.0789	104.9	104.9	0.0832	0.0832	105	
PCB-4	14:00	152709290	1.62	1.2818	2100.3	2100.3	0.0384	0.0384	105	
PCB-10	14:10	219606512	1.65	1.3149	2127.2	2127.2	0.0317	0.0317	106	
PCB-9	15:58	234989711	1.65	1.4224	2104.0	2104.0	0.0293	0.0293	105	
PCB-7	16:08	231331814	1.64	1.4134	2084.5	2084.5	0.0295	0.0295	104	
PCB-6	16:22	255647445	1.65	1.5421	2111.4	2111.4	0.0271	0.0271	106	
PCB-5	16:41	222818417	1.66	1.3395	2118.6	2118.6	0.0311	0.0311	106	
PCB-8	16:48	268244897	1.65	1.5889	2150.2	2150.2	0.0263	0.0263	108	
PCB-14	18:26	231080321	1.65	1.4025	2098.5	2098.5	0.0297	0.0297	105	
PCB-11	19:16	216275260	1.64	1.2951	2126.9	2126.9	0.0322	0.0322	106	
PCB-12	19:34	468162119	1.66	1.3358	4463.7	4463.7	0.0312	0.0312	112	
PCB-13 (C12)	19:34	468162119	1.66	1.3358	4463.7	4463.7	0.0312	0.0312	112	
PCB-15	19:53	269724618	1.64	1.2903	2083.9	2083.9	0.0281	0.0281	104	
S Total Trichlorobiphenyls					51916	51916	7.558	7.558		
D PCB-19L	17:05	3634856	1.08	0.6285	98.0	98.0	0.2793	0.2793	97.99	
* PCB-32L	20:20	5901385	1.09		100.0	100.0				
* PCB-31L	22:37	17316704	1.05		100.0	100.0				
D PCB-37L	26:54	15552321	1.07	0.8749	102.6	102.6	0.1085	0.1085	103	
PCB-19	17:06	94419028	1.05	1.2809	2028.0	2028.0	0.0572	0.0572	101	
PCB-18	18:57	272933390	1.05	1.7652	4253.7	4253.7	0.0415	0.0415	106	
PCB-30 (C18)	18:57	272933390	1.05	1.7652	4253.7	4253.7	0.0415	0.0415	106	
PCB-17	19:23	91948427	1.05	1.2430	2035.1	2035.1	0.0590	0.0590	102	
PCB-27	19:37	145107554	1.05	1.8327	2178.3	2178.3	0.0400	0.0400	109	
PCB-24	19:44	131161059	1.05	1.6777	2150.9	2150.9	0.0437	0.0437	108	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-16	19:51	85816817	1.06	1.1286	2092.0	2092.0	0.0650	0.0650	105	
PCB-32	20:22	140138189	1.06	1.8324	2104.0	2104.0	0.0400	0.0400	105	
PCB-34	21:37	373345873	1.06	1.1277	2128.7	2128.7	11.7	11.7	106	
PCB-23	21:47	352538213	1.04	1.0813	2096.3	2096.3	12.2	12.2	105	
PCB-26	22:06	788218448	1.02	1.1255	4503.2	4503.2	11.7	11.7	113	
PCB-29 (C26)	22:06	788218448	1.02	1.1255	4503.2	4503.2	11.7	11.7	113	
PCB-25	22:19	436326451	1.04	1.2728	2204.3	2204.3	10.4	10.4	110	
PCB-31	22:38	378421846	1.04	1.1532	2109.9	2109.9	11.4	11.4	105	
PCB-20	22:56	842454191	1.03	1.1718	4622.7	4622.7	11.3	11.3	116	
PCB-28 (C20)	22:56	842454191	1.03	1.1718	4622.7	4622.7	11.3	11.3	116	
PCB-21	23:06	749389733	1.03	1.0746	4484.1	4484.1	12.3	12.3	112	M
PCB-33 (C21)	23:06	749389733	1.03	1.0746	4484.1	4484.1	12.3	12.3	112	M
PCB-22	23:33	398788093	1.05	1.1932	2148.9	2148.9	11.1	11.1	107	
PCB-36	25:07	361500062	1.11	1.1071	2099.6	2099.6	11.9	11.9	105	
PCB-39	25:28	394634471	1.05	1.1581	2191.0	2191.0	11.4	11.4	110	
PCB-38	26:03	383822577	1.05	1.0843	2276.0	2276.0	12.2	12.2	114	
PCB-35	26:31	371576451	1.05	1.1297	2114.9	2114.9	11.7	11.7	106	
PCB-37	26:55	372528859	1.05	1.1435	2094.7	2094.7	11.5	11.5	105	
S Total Tetrachlorobiphenyls					91427	91427	10.7	10.7		
D PCB-54L	20:10	3193810	0.79	0.5562	97.3	97.3	0.0513	0.0513	97.30	M
* PCB-52L	24:45	8475970	0.80		100.0	100.0				
D PCB-81L	33:40	11264701	0.81	1.2470	106.6	106.6	0.1274	0.1274	107	
D PCB-77L	34:13	11187391	0.81	1.3212	99.9	99.9	0.1202	0.1202	99.90	
PCB-54	20:12	84275390	0.80	1.2733	2072.3	2072.3	0.0719	0.0719	104	
PCB-50	22:23	424571971	0.77	0.8578	4409.1	4409.1	13.8	13.8	110	
PCB-53 (C50)	22:23	424571971	0.77	0.8578	4409.1	4409.1	13.8	13.8	110	
PCB-45	23:06	401693892	0.80	0.8264	4329.7	4329.7	14.4	14.4	108	M
PCB-51 (C45)	23:06	401693892	0.80	0.8264	4329.7	4329.7	14.4	14.4	108	M
PCB-46	23:20	157969398	0.78	0.7101	1981.7	1981.7	16.7	16.7	99.08	
PCB-52	24:46	214166805	0.77	0.9194	2075.0	2075.0	12.9	12.9	104	
PCB-43	24:55	489361192	0.76	1.0333	4218.5	4218.5	11.5	11.5	105	Ma
PCB-73 (C43)	24:55	489361192	0.76	1.0333	4218.5	4218.5	11.5	11.5	105	Ma
PCB-49	25:12	518749137	0.76	1.0685	4324.6	4324.6	11.1	11.1	108	M
PCB-69 (C49)	25:12	518749137	0.76	1.0685	4324.6	4324.6	11.1	11.1	108	M
PCB-48	25:32	194390518	0.78	0.8399	2061.7	2061.7	14.1	14.1	103	
PCB-44	25:47	773503972	0.77	0.9731	7080.7	7080.7	12.2	12.2	118	
PCB-47 (C44)	25:47	773503972	0.77	0.9731	7080.7	7080.7	12.2	12.2	118	
PCB-65 (C44)	25:47	773503972	0.77	0.9731	7080.7	7080.7	12.2	12.2	118	
PCB-59	26:05	952848187	0.77	1.1853	7161.2	7161.2	10.0	10.0	119	
PCB-62 (C59)	26:05	952848187	0.77	1.1853	7161.2	7161.2	10.0	10.0	119	
PCB-75 (C59)	26:05	952848187	0.77	1.1853	7161.2	7161.2	10.0	10.0	119	
PCB-42	26:17	186831580	0.78	0.8097	2055.5	2055.5	14.7	14.7	103	
PCB-40	26:47	641280083	0.76	0.8863	6445.0	6445.0	13.4	13.4	107	Ma
PCB-41 (C40)	26:47	641280083	0.76	0.8863	6445.0	6445.0	13.4	13.4	107	Ma
PCB-71 (C40)	26:47	641280083	0.76	0.8863	6445.0	6445.0	13.4	13.4	107	Ma
PCB-64	27:00	268312321	0.77	1.1776	2029.7	2029.7	10.1	10.1	101	
PCB-72	27:50	260036448	0.78	1.0943	2116.8	2116.8	10.9	10.9	106	
PCB-68	28:07	302767134	0.77	1.2533	2151.9	2151.9	9.475	9.475	108	
PCB-57	28:33	259652587	0.77	1.0818	2138.0	2138.0	11.0	11.0	107	
PCB-58	28:47	332927040	0.77	1.3253	2237.6	2237.6	8.960	8.960	112	
PCB-67	28:57	349063048	0.78	1.4230	2185.0	2185.0	8.345	8.345	109	
PCB-63	29:13	261710211	0.77	1.1240	2074.1	2074.1	10.6	10.6	104	
PCB-61	29:33	1322616466	0.80	1.2612	9341.3	9341.3	9.415	9.415	117	
PCB-70 (C61)	29:33	1322616466	0.80	1.2612	9341.3	9341.3	9.415	9.415	117	
PCB-74 (C61)	29:33	1322616466	0.80	1.2612	9341.3	9341.3	9.415	9.415	117	
PCB-76 (C61)	29:33	1322616466	0.80	1.2612	9341.3	9341.3	9.415	9.415	117	
PCB-66	29:52	306877309	0.77	1.2583	2172.6	2172.6	9.438	9.438	109	
PCB-55	30:02	318274904	0.77	1.3236	2141.9	2141.9	8.971	8.971	107	
PCB-56	30:32	290239949	0.77	1.2334	2096.2	2096.2	9.628	9.628	105	
PCB-60	30:45	262262219	0.77	1.1230	2080.2	2080.2	10.6	10.6	104	
PCB-80	31:10	317715187	0.78	1.3243	2137.2	2137.2	8.967	8.967	107	



Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-79	32:42	354295498	0.77	1.4368	2196.5	2196.5	8.265	8.265	110	
PCB-78	33:15	259722209	0.78	1.1618	1991.3	1991.3	10.2	10.2	99.57	
PCB-81	33:41	246419766	0.78	1.0802	2025.1	2025.1	10.9	10.9	101	
PCB-77	34:15	254122136	0.77	1.0836	2096.3	2096.3	11.1	11.1	105	
S Total Pentachlorobiphenyls					98197	98197	4.748	4.748		
D PCB-104L	25:42	6975966	1.61	1.2161	94.1	94.1	0.0335	0.0335	94.11	
* PCB-101L	31:36	6095567	1.60		100.0	100.0				
D PCB-123L	36:15	11406816	1.61	0.9731	104.7	104.7	0.8209	0.8209	105	
D PCB-118L	36:34	11370905	1.59	1.0102	100.6	100.6	0.7908	0.7908	101	
D PCB-114L	37:06	11474644	1.60	0.9949	103.0	103.0	0.8029	0.8029	103	
D PCB-105L	37:44	10771838	1.58	0.9514	101.1	101.1	0.8396	0.8396	101	
* PCB-127L	39:13	11193535	1.59		100.0	100.0				
D PCB-126L	40:49	11098540	1.58	0.9439	105.0	105.0	0.8463	0.8463	105	
PCB-104	25:42	148594312	1.61	1.0087	2111.7	2111.7	0.0696	0.0696	106	
PCB-96	26:05	165718292	1.62	1.0940	2171.4	2171.4	0.0642	0.0642	109	
PCB-103	28:01	125264432	1.61	0.8741	2054.2	2054.2	0.0803	0.0803	103	
PCB-94	28:14	104404112	1.61	0.7640	1958.9	1958.9	0.0919	0.0919	97.94	
PCB-95	28:41	115750524	1.60	0.8033	2065.6	2065.6	0.0874	0.0874	103	
PCB-93	28:54	255671436	1.63	0.8429	4348.3	4348.3	0.0833	0.0833	109	
PCB-100 (C93)	28:54	255671436	1.63	0.8429	4348.3	4348.3	0.0833	0.0833	109	
PCB-98	29:03	237097257	1.62	0.8262	4113.9	4113.9	0.0850	0.0850	103	
PCB-102 (C98)	29:03	237097257	1.62	0.8262	4113.9	4113.9	0.0850	0.0850	103	
PCB-88	29:33	238830684	1.62	0.8013	4272.6	4272.6	0.0876	0.0876	107	
PCB-91 (C88)	29:33	238830684	1.62	0.8013	4272.6	4272.6	0.0876	0.0876	107	
PCB-84	29:46	101701980	1.61	0.7299	1997.3	1997.3	0.0962	0.0962	99.86	
PCB-89	30:15	106371354	1.61	0.7798	1955.3	1955.3	0.0900	0.0900	97.77	
PCB-121	30:40	189494866	1.62	1.2964	2095.3	2095.3	0.0541	0.0541	105	M
PCB-92	31:02	119034801	1.63	0.8546	1996.8	1996.8	0.0821	0.0821	99.84	M
PCB-90	31:37	445746570	1.64	0.9550	6690.9	6690.9	0.0735	0.0735	112	
PCB-101 (C90)	31:37	445746570	1.64	0.9550	6690.9	6690.9	0.0735	0.0735	112	
PCB-113 (C90)	31:37	445746570	1.64	0.9550	6690.9	6690.9	0.0735	0.0735	112	
PCB-83	32:12	241281713	1.61	0.8385	4124.9	4124.9	0.0837	0.0837	103	
PCB-99 (C83)	32:12	241281713	1.61	0.8385	4124.9	4124.9	0.0837	0.0837	103	
PCB-112	32:19	200578005	1.62	1.4111	2037.6	2037.6	0.0497	0.0497	102	
PCB-86	32:41	1031232134	1.68	1.0473	14115	14115	0.0670	0.0670	118	M
PCB-87 (C86)	32:41	1031232134	1.68	1.0473	14115	14115	0.0670	0.0670	118	M
PCB-97 (C86)	32:41	1031232134	1.68	1.0473	14115	14115	0.0670	0.0670	118	M
PCB-109 (C86)	32:41	1031232134	1.68	1.0473	14115	14115	0.0670	0.0670	118	M
PCB-119 (C86)	32:41	1031232134	1.68	1.0473	14115	14115	0.0670	0.0670	118	M
PCB-125 (C86)	32:41	1031232134	1.68	1.0473	14115	14115	0.0670	0.0670	118	M
PCB-85	33:25	471144048	1.63	1.0408	6489.1	6489.1	0.0674	0.0674	108	
PCB-116 (C85)	33:25	471144048	1.63	1.0408	6489.1	6489.1	0.0674	0.0674	108	
PCB-117 (C85)	33:25	471144048	1.63	1.0408	6489.1	6489.1	0.0674	0.0674	108	
PCB-110	33:36	348252734	1.63	1.1919	4188.6	4188.6	0.0589	0.0589	105	
PCB-115 (C110)	33:36	348252734	1.63	1.1919	4188.6	4188.6	0.0589	0.0589	105	
PCB-82	33:54	118090307	1.61	0.8303	2038.7	2038.7	0.0845	0.0845	102	
PCB-111	34:19	172673938	1.62	1.2125	2041.4	2041.4	0.0579	0.0579	102	
PCB-120	34:46	217057638	1.63	1.4762	2107.7	2107.7	0.0475	0.0475	105	
PCB-108	35:54	576858278	1.66	1.1405	4506.1	4506.1	14.2	14.2	113	
PCB-124 (C108)	35:54	576858278	1.66	1.1405	4506.1	4506.1	14.2	14.2	113	
PCB-107	36:09	280088284	1.61	1.2121	2058.7	2058.7	13.4	13.4	103	
PCB-123	36:16	259083255	1.62	1.0722	2118.3	2118.3	14.6	14.6	106	
PCB-106	36:22	259205947	1.61	1.0839	2130.5	2130.5	14.9	14.9	107	
PCB-118	36:35	282900049	1.62	1.2055	2063.7	2063.7	13.0	13.0	103	
PCB-122	36:56	217083178	1.61	0.9567	2021.5	2021.5	16.9	16.9	101	
PCB-114	37:07	259907186	1.61	1.0842	2089.2	2089.2	14.7	14.7	104	
PCB-105	37:46	263476320	1.60	1.1879	2059.1	2059.1	14.2	14.2	103	
PCB-127	39:14	264011122	1.61	1.1394	2064.4	2064.4	14.2	14.2	103	
PCB-126	40:51	256982981	1.61	1.0976	2109.6	2109.6	15.4	15.4	105	
S Total Hexachlorobiphenyls					88220	88220	4.989	4.989		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D PCB-155L	31:22	6037909	1.27	1.0851	91.3	91.3	0.0236	0.0236	91.28	
* PCB-138L	39:41	7617968	1.29		100.0	100.0				
\$ PCB-159L	41:56	4754884	1.29	0.5118	99.9	99.9	1.026	1.026	99.93	
D PCB-167L	42:42	9296213	1.30	1.2572	97.1	97.1	0.5148	0.5148	97.06	
D PCB-156L	43:51	18003846	1.29	1.2106	195.2	195.2	0.5347	0.5347	97.61	
D PCB-157L (C156L)	43:51	18003846	1.29	1.2106	195.2	195.2	0.5347	0.5347	97.61	
D PCB-169L	47:05	9278382	1.28	1.2439	97.9	97.9	0.5204	0.5204	97.92	
PCB-155	31:24	117062772	1.28	0.9444	2052.9	2052.9	0.0776	0.0776	103	
PCB-152	31:35	127316142	1.27	0.9895	2130.9	2130.9	0.0740	0.0740	107	
PCB-150	31:45	127390982	1.28	1.0132	2082.3	2082.3	0.0723	0.0723	104	
PCB-136	32:07	128715901	1.29	1.0116	2107.4	2107.4	0.0724	0.0724	105	
PCB-145	32:24	121971700	1.28	0.9685	2085.8	2085.8	0.0756	0.0756	104	
PCB-148	33:56	97145990	1.27	0.7603	2116.2	2116.2	0.0964	0.0964	106	
PCB-135	34:31	185302824	1.27	0.7256	4229.8	4229.8	0.1010	0.1010	106	M
PCB-151 (C135)	34:31	185302824	1.27	0.7256	4229.8	4229.8	0.1010	0.1010	106	M
PCB-154	34:46	103679991	1.28	0.8129	2112.4	2112.4	0.0901	0.0901	106	
PCB-144	35:05	96362038	1.28	0.7852	2032.4	2032.4	0.0933	0.0933	102	
PCB-147	35:27	357302891	1.28	0.8950	4365.8	4365.8	7.302	7.302	109	
PCB-149 (C147)	35:27	357302891	1.28	0.8950	4365.8	4365.8	7.302	7.302	109	
PCB-134	35:45	291141501	1.27	0.7967	3996.3	3996.3	8.203	8.203	99.91	
PCB-143 (C134)	35:45	291141501	1.27	0.7967	3996.3	3996.3	8.203	8.203	99.91	
PCB-139	36:03	349280537	1.27	0.8769	4355.9	4355.9	7.453	7.453	109	
PCB-140 (C139)	36:03	349280537	1.27	0.8769	4355.9	4355.9	7.453	7.453	109	
PCB-131	36:15	145204904	1.26	0.7503	2116.4	2116.4	8.710	8.710	106	
PCB-142	36:23	147452709	1.27	0.7507	2147.9	2147.9	8.706	8.706	107	
PCB-132	36:42	134732483	1.27	0.7489	1967.3	1967.3	8.726	8.726	98.36	
PCB-133	37:13	147730024	1.27	0.8096	1995.5	1995.5	8.073	8.073	99.77	
PCB-165	37:37	191105968	1.27	1.0247	2039.4	2039.4	6.378	6.378	102	
PCB-146	37:52	183787905	1.26	0.9637	2085.5	2085.5	6.782	6.782	104	
PCB-161	37:59	217946430	1.28	1.1288	2111.5	2111.5	5.790	5.790	106	
PCB-153	38:29	433749157	1.28	1.0938	4336.6	4336.6	5.975	5.975	108	
PCB-168 (C153)	38:29	433749157	1.28	1.0938	4336.6	4336.6	5.975	5.975	108	
PCB-141	38:40	155876662	1.27	0.8755	1946.9	1946.9	7.465	7.465	97.35	
PCB-130	39:04	126435560	1.26	0.7051	1960.9	1960.9	9.268	9.268	98.04	
PCB-137	39:18	145652162	1.26	0.7767	2050.8	2050.8	8.415	8.415	103	
PCB-164	39:25	196637037	1.27	1.0382	2071.1	2071.1	6.295	6.295	104	
PCB-129	39:44	763652147	1.27	0.9464	8823.8	8823.8	6.905	6.905	110	M
PCB-138 (C129)	39:44	763652147	1.27	0.9464	8823.8	8823.8	6.905	6.905	110	M
PCB-160 (C129)	39:44	763652147	1.27	0.9464	8823.8	8823.8	6.905	6.905	110	M
PCB-163 (C129)	39:44	763652147	1.27	0.9464	8823.8	8823.8	6.905	6.905	110	M
PCB-158	40:06	240225815	1.28	1.3110	2003.7	2003.7	4.985	4.985	100	
PCB-128	40:57	400795430	1.27	0.9829	4458.9	4458.9	6.649	6.649	111	
PCB-166 (C128)	40:57	400795430	1.27	0.9829	4458.9	4458.9	6.649	6.649	111	
PCB-159	41:58	268867618	1.27	1.3856	2121.9	2121.9	4.717	4.717	106	
PCB-162	42:15	227875192	1.27	1.2571	1982.3	1982.3	5.199	5.199	99.11	
PCB-167	42:43	213807712	1.27	1.1159	2061.1	2061.1	4.915	4.915	103	
PCB-156	43:53	422223885	1.26	1.1104	4224.0	4224.0	7.237	7.237	106	
PCB-157 (C156)	43:53	422223885	1.26	1.1104	4224.0	4224.0	7.237	7.237	106	
PCB-169	47:06	220826313	1.28	1.1628	2046.7	2046.7	4.755	4.755	102	
S Total Heptachlorobiphenyls					48937	48937	0.1057	0.1057		
D PCB-188L	37:06	7440630	1.05	1.3133	101.8	101.8	0.0381	0.0381	102	
* PCB-180L	45:15	5566234	1.10		100.0	100.0				
D PCB-170L	46:30	4404173	1.08	0.8362	94.6	94.6	0.0598	0.0598	94.62	
D PCB-189L	49:37	11047526	1.06	1.4414	102.5	102.5	0.2551	0.2551	102	
PCB-188	37:07	172058230	1.06	1.1350	2037.4	2037.4	0.0512	0.0512	102	
PCB-179	37:27	169294763	1.06	1.4276	2002.4	2002.4	0.0524	0.0524	100	
PCB-184	37:59	173580025	1.05	1.3672	2143.8	2143.8	0.0548	0.0548	107	
PCB-176	38:20	147820845	1.06	1.2331	2024.2	2024.2	0.0607	0.0607	101	
PCB-186	38:48	183358035	1.05	1.4737	2100.8	2100.8	0.0508	0.0508	105	
PCB-178	40:10	108531079	1.06	0.8946	2048.4	2048.4	0.0837	0.0837	102	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-175	40:48	114534847	1.05	0.9524	2030.6	2030.6	0.0786	0.0786	102	
PCB-187	41:05	135710155	1.06	1.1018	2079.7	2079.7	0.0679	0.0679	104	
PCB-182	41:17	113333574	1.05	0.9247	2069.5	2069.5	0.0810	0.0810	103	
PCB-183	41:42	226842465	1.07	0.9825	3898.5	3898.5	0.0762	0.0762	97.46	Ma
PCB-185 (C183)	41:42	226842465	1.07	0.9825	3898.5	3898.5	0.0762	0.0762	97.46	Ma
PCB-174	41:56	120778067	1.05	0.9642	2115.1	2115.1	0.0776	0.0776	106	
PCB-177	42:22	115865581	1.05	0.9773	2001.9	2001.9	0.0766	0.0766	100	
PCB-181	42:45	115218365	1.06	0.9505	2046.7	2046.7	0.0788	0.0788	102	
PCB-171	42:58	222795208	1.06	0.9336	4029.3	4029.3	0.0802	0.0802	101	
PCB-173 (C171)	42:58	222795208	1.06	0.9336	4029.3	4029.3	0.0802	0.0802	101	
PCB-172	44:37	98480427	1.04	0.8519	1952.0	1952.0	0.0879	0.0879	97.60	
PCB-192	44:54	164428936	1.06	1.3459	2062.9	2062.9	0.0556	0.0556	103	
PCB-180	45:14	287312478	1.05	1.1676	4155.0	4155.0	0.0641	0.0641	104	
PCB-193 (C180)	45:14	287312478	1.05	1.1676	4155.0	4155.0	0.0641	0.0641	104	
PCB-191	45:37	156918655	1.07	1.2891	2055.4	2055.4	0.0581	0.0581	103	
PCB-170	46:31	104308327	1.05	1.1865	1996.1	1996.1	0.0887	0.0887	99.81	
PCB-190	47:02	158352425	1.06	1.3322	2007.0	2007.0	0.0562	0.0562	100	
PCB-189	49:38	221399680	1.04	0.9633	2080.3	2080.3	0.8387	0.8387	104	
S Total Octachlorobiphenyls					24392	24392	0.3094	0.3094		
D PCB-202L	42:28	5299657	0.89	0.9818	97.0	97.0	0.0448	0.0448	96.97	
* PCB-194L	51:43	7477993	0.92		100.0	100.0				
D PCB-205L	52:11	8823289	0.92	1.1786	100.1	100.1	0.0560	0.0560	100	
PCB-202	42:29	114836205	0.90	1.0359	2091.8	2091.8	0.0662	0.0662	105	
PCB-201	43:24	104750814	0.90	0.9754	2026.5	2026.5	0.0703	0.0703	101	
PCB-204	44:05	111110035	0.90	1.0485	1999.5	1999.5	0.0654	0.0654	99.98	
PCB-197	44:19	119677701	0.90	1.1458	1970.9	1970.9	0.0598	0.0598	98.54	
PCB-200	44:25	107343183	0.90	1.0072	2011.1	2011.1	0.0681	0.0681	101	
PCB-198	47:12	190066454	0.90	0.8698	4123.3	4123.3	0.0788	0.0788	103	
PCB-199 (C198)	47:12	190066454	0.90	0.8698	4123.3	4123.3	0.0788	0.0788	103	
PCB-196	47:53	81076975	0.90	0.7806	1959.7	1959.7	0.0878	0.0878	97.99	
PCB-203	48:05	98693847	0.91	0.9292	2004.1	2004.1	0.0738	0.0738	100	
PCB-195	49:24	154147844	0.90	0.8263	2114.3	2114.3	1.086	1.086	106	
PCB-194	51:44	173567729	0.89	0.9735	2020.7	2020.7	0.9219	0.9219	101	
PCB-205	52:13	198631608	0.89	1.0878	2069.6	2069.6	0.8251	0.8251	103	
S Total Nonachlorobiphenyls					5919.4	5919.4	1.080	1.080		
D PCB-208L	49:08	7275684	0.81	0.9576	101.6	101.6	0.2816	0.2816	102	
D PCB-206L	53:56	5196483	0.82	0.6947	100.0	100.0	0.3881	0.3881	100	
PCB-208	49:10	166655336	0.78	1.1374	2013.8	2013.8	1.005	1.005	101	
PCB-207	50:05	170983014	0.78	1.3756	1993.2	1993.2	0.9857	0.9857	99.66	
PCB-206	53:58	132627452	0.78	1.3346	1912.4	1912.4	1.248	1.248	95.62	M
D PCB-209L	55:35	4902169	0.71	0.6669	98.3	98.3	0.0745	0.0745	98.30	
DCB Decachlorobiphenyl	55:35	109226464	0.70	1.1004	2024.8	2024.8	0.0364	0.0364	101	
S Polychlorinated biphenyls, Total					436602	436602	3.289	3.289		

**QC Flag Legend**

## Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

## Review Flags

M - Manually Integrated

a - User Assigned ID

**Reagents:**

61L51668P\_00006

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d  
Lims ID: IC L6  
Client ID:  
Sample Type: IC Calib Level: 6  
Inject. Date: 31-May-2024 21:13:00 ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0032883-006  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Sublist: chrom-PCBs\_D2D\*sub16  
Method: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 04-Jun-2024 14:25:39 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1616

First Level Reviewer: P0IK

Date: 04-Jun-2024 14:25:39

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
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## PCB-1L

200.0795	11:34	11:36	-2	0.725	10754013	4289788	3129	7822	1371		
202.0766	11:34	11:36	-2	0.725	3349549	1329717	1503	3757	885	3.21(2.66-3.60)	

## PCB-3L

200.0795	13:43	13:46	-2	0.861	10992517	3748060	3129	7822	1198		
202.0766	13:43	13:46	-2	0.861	3404545	1158657	1503	3757	771	3.23(2.66-3.60)	

## PCB-1

188.0393	11:35	11:37	-2	1.001	234568717	85607908	89899	224747	952		
190.0363	11:35	11:37	-2	1.001	92228311	38939705	29153	72882	1336	2.54(2.66-3.60)	
					Empc Correction	74942080	27350767	29153	72882	938	

RQ

## PCB-2

188.0393	13:34	13:36	-2	0.988	262988565	83986728	89899	224747	934		
190.0363	13:34	13:36	-2	0.988	90095930	32601300	29153	72882	1118	2.92(2.66-3.60)	

## PCB-3

188.0393	13:44	13:47	-2	1.001	269914050	86572525	89899	224747	963		
190.0363	13:44	13:47	-2	1.001	90441973	31826448	29153	72882	1092	2.98(2.66-3.60)	

## PCB-4L

234.0406	13:59	14:02	-2	0.877	3472582	1159519	752	1880	1542		
236.0376	13:59	14:02	-2	0.877	2199620	725220	179	447	4052	1.58(1.33-1.79)	

## PCB-9L

234.0406	15:57	15:59	-2		5493254	1600537	752	1880	2128		
236.0376	15:57	15:59	-2		3372477	990756	179	447	5535	1.63(1.33-1.79)	

## PCB-15L

234.0406	19:52	19:54	-2	1.246	6202272	1578840	752	1880	2100		
236.0376	19:52	19:54	-2	1.246	3828971	980067	179	447	5475	1.62(1.33-1.79)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-4											
222.0003	14:00	14:02	-2	1.001	94515395	32745412	171	427	191494		
223.9974	14:00	14:02	-2	1.001	58193895	20013994	200	500	100070	1.62(1.33-1.79)	
PCB-10											
222.0003	14:10	14:13	-2	1.013	136751884	47058628	171	427	275197		
223.9974	14:10	14:13	-2	1.013	82854628	27880362	200	500	139402	1.65(1.33-1.79)	
PCB-9											
222.0003	15:58	16:00	-2	1.142	146334689	44370793	171	427	259478		
223.9974	15:58	16:00	-2	1.142	88655022	26507740	200	500	132539	1.65(1.33-1.79)	
PCB-7											
222.0003	16:08	16:10	-2	1.153	143719888	44739433	171	427	261634		
223.9974	16:08	16:10	-2	1.153	87611926	27030236	200	500	135151	1.64(1.33-1.79)	
PCB-6											
222.0003	16:22	16:25	-3	1.170	159325476	47133801	171	427	275636		
223.9974	16:22	16:25	-3	1.170	96321969	28375772	200	500	141879	1.65(1.33-1.79)	
PCB-5											
222.0003	16:41	16:43	-2	1.193	138924762	40676201	171	427	237873		
223.9974	16:41	16:43	-2	1.193	83893655	24042204	200	500	120211	1.66(1.33-1.79)	
PCB-8											
222.0003	16:48	16:50	-2	1.201	166998039	50198121	171	427	293556		
223.9974	16:48	16:50	-2	1.201	101246858	30147292	200	500	150737	1.65(1.33-1.79)	
PCB-14											
222.0003	18:26	18:28	-2	0.928	143956666	40021865	171	427	234046		
223.9974	18:26	18:28	-2	0.928	87123655	23907292	200	500	119537	1.65(1.33-1.79)	
PCB-11											
222.0003	19:16	19:18	-2	0.970	134426111	36507497	171	427	213494		
223.9974	19:16	19:18	-2	0.970	81849149	22032348	200	500	110162	1.64(1.33-1.79)	
PCB-12											
222.0003	19:34	19:36	-2	0.985	291979442	50976617	171	427	298109		
223.9974	19:34	19:36	-2	0.985	176182677	30681308	200	500	153407	1.66(1.33-1.79)	
PCB-13 (C12)											
222.0003	19:34	19:36	-2	0.985	291979442	50976617	171	427	298109		
223.9974	19:34	19:36	-2	0.985	176182677	30681308	200	500	153407	1.66(1.33-1.79)	
PCB-15											
222.0003	19:53	19:55	-2	1.001	167697265	43484521	171	427	254295		
223.9974	19:53	19:55	-2	1.001	102027353	26117852	200	500	130589	1.64(1.33-1.79)	
PCB-19L											
268.0016	17:05	17:08	-2	0.840	1885439	523334	413	1032	1267		
269.9986	17:05	17:08	-2	0.840	1749417	482039	572	1430	843	1.08(0.88-1.20)	
PCB-32L											
268.0016	20:20	20:23	-2		3079097	727986	413	1032	1763		
269.9986	20:20	20:23	-2		2822288	674645	572	1430	1179	1.09(0.88-1.20)	
PCB-31L											
268.0016	22:37	22:38	-2		8885777	2163995	743	1857	2913		
269.9986	22:37	22:38	-2		8430927	2037598	853	2132	2389	1.05(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-37L											
268.0016	26:54	26:55	-1	1.190	8056279	1777948	743	1857	2393		
269.9986	26:54	26:55	-1	1.190	7496042	1667650	853	2132	1955	1.07(0.88-1.20)	
PCB-19											
255.9613	17:06	17:09	-2	1.001	48410130	13799356	148	370	93239		
257.9584	17:06	17:09	-2	1.001	46008898	13166279	147	367	89567	1.05(0.88-1.20)	
PCB-18											
255.9613	18:57	18:59	-2	1.109	139824358	27627938	148	370	186675		
257.9584	18:57	18:59	-2	1.109	133109032	26261185	147	367	178648	1.05(0.88-1.20)	
PCB-30 (C18)											
255.9613	18:57	18:59	-2	1.109	139824358	27627938	148	370	186675		
257.9584	18:57	18:59	-2	1.109	133109032	26261185	147	367	178648	1.05(0.88-1.20)	
PCB-17											
255.9613	19:23	19:26	-2	1.135	47187181	12350370	148	370	83448		
257.9584	19:23	19:26	-2	1.135	44761246	11790273	147	367	80206	1.05(0.88-1.20)	
PCB-27											
255.9613	19:37	19:39	-2	1.148	74417782	19342754	148	370	130694		
257.9584	19:36	19:39	-2	1.147	70689772	18379713	147	367	125032	1.05(0.88-1.20)	
PCB-24											
255.9613	19:44	19:46	-2	1.155	67298387	17488546	148	370	118166		
257.9584	19:44	19:46	-2	1.155	63862672	16569281	147	367	112716	1.05(0.88-1.20)	
PCB-16											
255.9613	19:51	19:53	-2	1.162	44137761	11444386	148	370	77327		
257.9584	19:51	19:53	-2	1.162	41679056	10820033	147	367	73606	1.06(0.88-1.20)	
PCB-32											
255.9613	20:22	20:23	-2	1.192	72044656	18307746	148	370	123701		
257.9584	20:22	20:23	-2	1.192	68093533	17292993	147	367	117639	1.06(0.88-1.20)	
PCB-34											
255.9613	21:37	21:39	-2	1.265	192350519	49279483	91549	228872	538		
257.9584	21:37	21:39	-2	1.265	180995354	46313612	90410	226025	512	1.06(0.88-1.20)	
PCB-23											
255.9613	21:47	21:48	-2	1.274	179749458	46158887	91549	228872	504		
257.9584	21:47	21:48	-2	1.274	172788755	44383619	90410	226025	491	1.04(0.88-1.20)	
PCB-26											
255.9613	22:06	22:08	-2	1.293	398686324	83910875	91549	228872	917		
257.9584	22:06	22:08	-2	1.293	389532124	83741462	90410	226025	926	1.02(0.88-1.20)	
PCB-29 (C26)											
255.9613	22:06	22:08	-2	1.293	398686324	83910875	91549	228872	917		
257.9584	22:06	22:08	-2	1.293	389532124	83741462	90410	226025	926	1.02(0.88-1.20)	
PCB-25											
255.9613	22:19	22:21	-2	0.829	222826290	52320592	91549	228872	572		
257.9584	22:19	22:21	-2	0.829	213500161	50247158	90410	226025	556	1.04(0.88-1.20)	
PCB-31											
255.9613	22:38	22:40	-2	0.841	192866238	49658665	91549	228872	542		
257.9584	22:38	22:40	-2	0.841	185555608	47756084	90410	226025	528	1.04(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-20											
255.9613	22:56	22:58	-2	0.853	426671973	83044052	91549	228872	907		
257.9584	22:56	22:58	-2	0.853	415782218	82778595	90410	226025	916	1.03(0.88-1.20)	
PCB-28 (C20)											
255.9613	22:56	22:58	-2	0.853	426671973	83044052	91549	228872	907		
257.9584	22:56	22:58	-2	0.853	415782218	82778595	90410	226025	916	1.03(0.88-1.20)	
PCB-21											
255.9613	23:06	23:07	-1	0.859	380418482	50532557	91549	228872	552		M
257.9584	23:06	23:07	-2	0.858	368971251	48927783	90410	226025	541	1.03(0.88-1.20)	M
PCB-33 (C21)											
255.9613	23:06	23:07	-1	0.859	380418482	50532557	91549	228872	552		M
257.9584	23:06	23:07	-2	0.858	368971251	48927783	90410	226025	541	1.03(0.88-1.20)	M
PCB-22											
255.9613	23:33	23:35	-2	0.875	203903665	51385849	91549	228872	561		
257.9584	23:33	23:35	-2	0.875	194884428	49338332	90410	226025	546	1.05(0.88-1.20)	
PCB-36											
255.9613	25:07	25:09	-2	0.933	189833401	41986793	91549	228872	459		
257.9584	25:07	25:09	-2	0.933	171666661	40424919	90410	226025	447	1.11(0.88-1.20)	
PCB-39											
255.9613	25:28	25:30	-2	0.947	201659782	46836641	91549	228872	512		
257.9584	25:28	25:30	-2	0.947	192974689	44712407	90410	226025	495	1.05(0.88-1.20)	
PCB-38											
255.9613	26:03	26:05	-2	0.968	196490344	44752898	91549	228872	489		
257.9584	26:03	26:05	-2	0.968	187332233	42937047	90410	226025	475	1.05(0.88-1.20)	
PCB-35											
255.9613	26:31	26:32	-1	0.986	190388812	44686478	91549	228872	488		
257.9584	26:31	26:32	-1	0.986	181187639	42609672	90410	226025	471	1.05(0.88-1.20)	
PCB-37											
255.9613	26:55	26:57	-2	1.000	191000617	42751493	91549	228872	467		
257.9584	26:55	26:57	-2	1.000	181528242	40748304	90410	226025	451	1.05(0.88-1.20)	
PCB-54L											
301.9626	20:10	20:12	-2	0.815	1410600	348536	93	232	3748		M
303.9597	20:10	20:12	-2	0.815	1783210	448882	67	167	6700	0.79(0.65-0.89)	M
PCB-52L											
301.9626	24:45	24:46	-2		3766633	836644	593	1482	1411		
303.9597	24:45	24:46	-2		4709337	1056827	610	1525	1733	0.80(0.65-0.89)	
PCB-81L											
301.9626	33:40	33:41	-1	1.360	5053228	1038580	593	1482	1751		
303.9597	33:40	33:41	-1	1.360	6211473	1286399	610	1525	2109	0.81(0.65-0.89)	
PCB-77L											
301.9626	34:13	34:14	-1	1.383	4996211	1018481	593	1482	1718		
303.9597	34:13	34:14	-1	1.383	6191180	1264068	610	1525	2072	0.81(0.65-0.89)	
PCB-54											
289.9224	20:12	20:13	-2	1.000	37405340	9622985	134	335	71813		
291.9194	20:12	20:13	-2	1.000	46870050	11943079	158	395	75589	0.80(0.65-0.89)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-50											
289.9224	22:23	22:24	-1	1.110	184304071	40095250	50155	125387	799		
291.9194	22:23	22:24	-1	1.110	240267900	52867577	59274	148185	892	0.77(0.65-0.89)	
PCB-53 (C50)											
289.9224	22:23	22:24	-1	1.110	184304071	40095250	50155	125387	799		
291.9194	22:23	22:24	-1	1.110	240267900	52867577	59274	148185	892	0.77(0.65-0.89)	
PCB-45											
289.9224	23:06	23:08	-2	1.146	178079818	23872137	50155	125387	476		M
291.9194	23:06	23:08	-2	1.146	223614074	30348240	59274	148185	512	0.80(0.65-0.89)	M
PCB-51 (C45)											
289.9224	23:06	23:08	-2	1.146	178079818	23872137	50155	125387	476		M
291.9194	23:06	23:08	-2	1.146	223614074	30348240	59274	148185	512	0.80(0.65-0.89)	M
PCB-46											
289.9224	23:20	23:22	-2	1.157	69320314	16740575	50155	125387	334		
291.9194	23:20	23:22	-2	1.157	88649084	21569295	59274	148185	364	0.78(0.65-0.89)	
PCB-52											
289.9224	24:46	24:47	-1	1.228	93446718	22095055	50155	125387	441		
291.9194	24:46	24:47	-1	1.228	120720087	28630291	59274	148185	483	0.77(0.65-0.89)	
PCB-43											
289.9224	24:55	24:56	-2	1.235	211426036	29403027	50155	125387	586		Ma
291.9194	24:55	24:56	-2	1.235	277935156	38825342	59274	148185	655	0.76(0.65-0.89)	M
PCB-73 (C43)											
289.9224	24:55	24:56	-2	1.235	211426036	29403027	50155	125387	586		Ma
291.9194	24:55	24:56	-2	1.235	277935156	38825342	59274	148185	655	0.76(0.65-0.89)	M
PCB-49											
289.9224	25:12	25:14	-2	1.250	224774717	34859765	50155	125387	695		M
291.9194	25:12	25:14	-2	1.250	293974420	45955966	59274	148185	775	0.76(0.65-0.89)	M
PCB-69 (C49)											
289.9224	25:12	25:14	-2	1.250	224774717	34859765	50155	125387	695		M
291.9194	25:12	25:14	-2	1.250	293974420	45955966	59274	148185	775	0.76(0.65-0.89)	M
PCB-48											
289.9224	25:32	25:33	-1	1.266	84936034	19392315	50155	125387	387		
291.9194	25:32	25:33	-1	1.266	109454484	25127096	59274	148185	424	0.78(0.65-0.89)	
PCB-44											
289.9224	25:47	25:48	-1	1.279	337181148	64523331	50155	125387	1286		
291.9194	25:46	25:48	-2	1.278	436322824	81724856	59274	148185	1379	0.77(0.65-0.89)	
PCB-47 (C44)											
289.9224	25:47	25:48	-1	1.279	337181148	64523331	50155	125387	1286		
291.9194	25:46	25:48	-2	1.278	436322824	81724856	59274	148185	1379	0.77(0.65-0.89)	
PCB-65 (C44)											
289.9224	25:47	25:48	-1	1.279	337181148	64523331	50155	125387	1286		
291.9194	25:46	25:48	-2	1.278	436322824	81724856	59274	148185	1379	0.77(0.65-0.89)	
PCB-59											
289.9224	26:05	26:06	-2	1.293	415385228	65768771	50155	125387	1311		
291.9194	26:05	26:06	-2	1.293	537462959	82023096	59274	148185	1384	0.77(0.65-0.89)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-62 (C59)											
289.9224	26:05	26:06	-2	1.293	415385228	65768771	50155	125387	1311		
291.9194	26:05	26:06	-2	1.293	537462959	82023096	59274	148185	1384	0.77(0.65-0.89)	
PCB-75 (C59)											
289.9224	26:05	26:06	-2	1.293	415385228	65768771	50155	125387	1311		
291.9194	26:05	26:06	-2	1.293	537462959	82023096	59274	148185	1384	0.77(0.65-0.89)	
PCB-42											
289.9224	26:17	26:18	-2	1.303	81689781	18571843	50155	125387	370		
291.9194	26:17	26:18	-2	1.303	105141799	24080056	59274	148185	406	0.78(0.65-0.89)	
PCB-40											
289.9224	26:47	26:48	-2	1.328	277234397	47517843	50155	125387	947		Ma
291.9194	26:47	26:48	-2	1.328	364045686	63156420	59274	148185	1066	0.76(0.65-0.89)	M
PCB-41 (C40)											
289.9224	26:47	26:48	-2	1.328	277234397	47517843	50155	125387	947		Ma
291.9194	26:47	26:48	-2	1.328	364045686	63156420	59274	148185	1066	0.76(0.65-0.89)	M
PCB-71 (C40)											
289.9224	26:47	26:48	-2	1.328	277234397	47517843	50155	125387	947		Ma
291.9194	26:47	26:48	-2	1.328	364045686	63156420	59274	148185	1066	0.76(0.65-0.89)	M
PCB-64											
289.9224	27:00	27:01	-1	1.339	116983650	26828099	50155	125387	535		
291.9194	27:00	27:01	-1	1.339	151328671	34988984	59274	148185	590	0.77(0.65-0.89)	
PCB-72											
289.9224	27:50	27:51	-1	0.827	113763062	25682704	50155	125387	512		
291.9194	27:50	27:51	-1	0.827	146273386	33256583	59274	148185	561	0.78(0.65-0.89)	
PCB-68											
289.9224	28:07	28:09	-2	0.835	131919696	27964582	50155	125387	558		
291.9194	28:07	28:09	-2	0.835	170847438	36510766	59274	148185	616	0.77(0.65-0.89)	
PCB-57											
289.9224	28:33	28:34	-1	0.848	113235321	25225776	50155	125387	503		
291.9194	28:33	28:34	-1	0.848	146417266	32725104	59274	148185	552	0.77(0.65-0.89)	
PCB-58											
289.9224	28:47	28:48	-1	0.855	145298829	31328835	50155	125387	625		
291.9194	28:47	28:48	-1	0.855	187628211	40707768	59274	148185	687	0.77(0.65-0.89)	
PCB-67											
289.9224	28:57	28:58	-1	0.860	152487042	31839299	50155	125387	635		
291.9194	28:57	28:58	-1	0.860	196576006	41472696	59274	148185	700	0.78(0.65-0.89)	
PCB-63											
289.9224	29:13	29:14	-1	0.868	113508185	24307267	50155	125387	485		
291.9194	29:13	29:14	-1	0.868	148202026	31811256	59274	148185	537	0.77(0.65-0.89)	
PCB-61											
289.9224	29:33	29:34	-1	0.878	587333618	76819011	50155	125387	1532		
291.9194	29:33	29:34	-2	0.878	735282848	83523768	59274	148185	1409	0.80(0.65-0.89)	
PCB-70 (C61)											
289.9224	29:33	29:34	-1	0.878	587333618	76819011	50155	125387	1532		
291.9194	29:33	29:34	-2	0.878	735282848	83523768	59274	148185	1409	0.80(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-74 (C61)											
289.9224	29:33	29:34	-1	0.878	587333618	76819011	50155	125387	1532		
291.9194	29:33	29:34	-2	0.878	735282848	83523768	59274	148185	1409	0.80(0.65-0.89)	
PCB-76 (C61)											
289.9224	29:33	29:34	-1	0.878	587333618	76819011	50155	125387	1532		
291.9194	29:33	29:34	-2	0.878	735282848	83523768	59274	148185	1409	0.80(0.65-0.89)	
PCB-66											
289.9224	29:52	29:53	-1	0.887	133135649	28380995	50155	125387	566		
291.9194	29:52	29:53	-1	0.887	173741660	37216184	59274	148185	628	0.77(0.65-0.89)	
PCB-55											
289.9224	30:02	30:03	-1	0.892	138556826	30598723	50155	125387	610		
291.9194	30:02	30:03	-1	0.892	179718078	39963320	59274	148185	674	0.77(0.65-0.89)	
PCB-56											
289.9224	30:32	30:33	-1	0.907	126483952	27609033	50155	125387	550		
291.9194	30:32	30:33	-1	0.907	163755997	35966266	59274	148185	607	0.77(0.65-0.89)	
PCB-60											
289.9224	30:45	30:46	-1	0.914	113992017	23957463	50155	125387	478		
291.9194	30:45	30:46	-1	0.914	148270202	31337130	59274	148185	529	0.77(0.65-0.89)	
PCB-80											
289.9224	31:10	31:11	-1	0.926	139046957	29819259	50155	125387	595		
291.9194	31:10	31:11	-1	0.926	178668230	38820797	59274	148185	655	0.78(0.65-0.89)	
PCB-79											
289.9224	32:42	32:42	0	0.971	154426670	31320343	50155	125387	624		
291.9194	32:42	32:42	0	0.971	199868828	40816688	59274	148185	689	0.77(0.65-0.89)	
PCB-78											
289.9224	33:15	33:15	0	0.988	113467309	23694400	50155	125387	472		
291.9194	33:15	33:15	0	0.988	146254900	30744591	59274	148185	519	0.78(0.65-0.89)	
PCB-81											
289.9224	33:41	33:42	-1	1.001	107771944	22576973	50155	125387	450		
291.9194	33:41	33:42	-1	1.001	138647822	29199662	59274	148185	493	0.78(0.65-0.89)	
PCB-77											
289.9224	34:15	34:16	-1	1.001	110855148	23436474	50155	125387	467		
291.9194	34:15	34:16	-1	1.001	143266988	30397880	59274	148185	513	0.77(0.65-0.89)	
PCB-104L											
337.9207	25:42	25:42	-1	0.813	4307701	910320	123	307	7401		
339.9178	25:41	25:42	-2	0.813	2668265	557097	85	212	6554	1.61(1.32-1.78)	
PCB-101L											
337.9207	31:36	31:37	-1		3752075	786809	123	307	6397		
339.9178	31:36	31:37	-1		2343492	489973	85	212	5764	1.60(1.32-1.78)	
PCB-123L											
337.9207	36:15	36:15	0	1.147	7036968	1430234	4417	11042	324		
339.9178	36:15	36:15	0	1.147	4369848	885744	2498	6245	355	1.61(1.32-1.78)	
PCB-118L											
337.9207	36:34	36:34	0	1.157	6977058	1420821	4417	11042	322		
339.9178	36:34	36:34	0	1.157	4393847	880594	2498	6245	353	1.59(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-114L											
337.9207	37:06	37:06	0	1.174	7064640	1396573	4417	11042	316		
339.9178	37:05	37:06	-1	1.174	4410004	866573	2498	6245	347	1.60(1.32-1.78)	
PCB-105L											
337.9207	37:44	37:45	0	1.194	6593584	1315083	4417	11042	298		
339.9178	37:44	37:45	0	1.194	4178254	831810	2498	6245	333	1.58(1.32-1.78)	
PCB-127L											
337.9207	39:13	39:14	-1		6873404	1319760	4417	11042	299		
339.9178	39:13	39:14	-1		4320131	844335	2498	6245	338	1.59(1.32-1.78)	
PCB-126L											
337.9207	40:49	40:50	-1	1.292	6804853	1311983	4417	11042	297		
339.9178	40:49	40:50	-1	1.292	4293687	820299	2498	6245	328	1.58(1.32-1.78)	
PCB-104											
325.8804	25:42	25:44	-2	1.000	91641439	19929678	204	510	97695		
327.8775	25:42	25:44	-2	1.000	56952873	12327076	208	520	59265	1.61(1.32-1.78)	
PCB-96											
325.8804	26:05	26:06	-2	1.015	102542335	23072958	204	510	113103		
327.8775	26:05	26:06	-2	1.015	63175957	14145257	208	520	68006	1.62(1.32-1.78)	
PCB-103											
325.8804	28:01	28:02	-1	1.091	77236926	16910337	204	510	82894		
327.8775	28:01	28:02	-1	1.091	48027506	10390134	208	520	49953	1.61(1.32-1.78)	
PCB-94											
325.8804	28:14	28:16	-2	1.099	64361646	14100993	204	510	69123		
327.8775	28:14	28:16	-2	1.099	40042466	8717686	208	520	41912	1.61(1.32-1.78)	
PCB-95											
325.8804	28:41	28:42	-1	1.117	71189073	15374081	204	510	75363		
327.8775	28:41	28:42	-1	1.117	44561451	9459574	208	520	45479	1.60(1.32-1.78)	
PCB-93											
325.8804	28:54	28:55	-1	1.125	158361435	33130497	204	510	162404		
327.8775	28:54	28:55	-1	1.125	97310001	20216438	208	520	97194	1.63(1.32-1.78)	
PCB-100 (C93)											
325.8804	28:54	28:55	-1	1.125	158361435	33130497	204	510	162404		
327.8775	28:54	28:55	-1	1.125	97310001	20216438	208	520	97194	1.63(1.32-1.78)	
PCB-98											
325.8804	29:03	29:04	-1	1.131	146632704	18581249	204	510	91085		
327.8775	29:03	29:04	-1	1.131	90464553	11494262	208	520	55261	1.62(1.32-1.78)	
PCB-102 (C98)											
325.8804	29:03	29:04	-1	1.131	146632704	18581249	204	510	91085		
327.8775	29:03	29:04	-1	1.131	90464553	11494262	208	520	55261	1.62(1.32-1.78)	
PCB-88											
325.8804	29:33	29:33	-1	1.150	147628102	16750593	204	510	82111		
327.8775	29:33	29:33	-1	1.150	91202582	10353526	208	520	49777	1.62(1.32-1.78)	
PCB-91 (C88)											
325.8804	29:33	29:33	-1	1.150	147628102	16750593	204	510	82111		
327.8775	29:33	29:33	-1	1.150	91202582	10353526	208	520	49777	1.62(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-84											
325.8804	29:46	29:47	-2	1.158	62771900	13215233	204	510	64781		
327.8775	29:46	29:47	-2	1.158	38930080	8148115	208	520	39174	1.61(1.32-1.78)	
PCB-89											
325.8804	30:15	30:16	-1	1.177	65561089	13914881	204	510	68210		
327.8775	30:15	30:16	-1	1.177	40810265	8540278	208	520	41059	1.61(1.32-1.78)	
PCB-121											
325.8804	30:40	30:41	-1	1.194	117242210	25241857	204	510	123735		M
327.8775	30:40	30:41	-1	1.194	72252656	15416769	208	520	74119	1.62(1.32-1.78)	M
PCB-92											
325.8804	31:02	31:03	-1	0.856	73842228	15561985	204	510	76284		M
327.8775	31:02	31:03	-1	0.856	45192573	9580350	208	520	46059	1.63(1.32-1.78)	M
PCB-90											
325.8804	31:37	31:37	0	1.231	276731051	42024193	204	510	206001		
327.8775	31:37	31:37	0	1.231	169015519	25248630	208	520	121388	1.64(1.32-1.78)	
PCB-101 (C90)											
325.8804	31:37	31:37	0	1.231	276731051	42024193	204	510	206001		
327.8775	31:37	31:37	0	1.231	169015519	25248630	208	520	121388	1.64(1.32-1.78)	
PCB-113 (C90)											
325.8804	31:37	31:37	0	1.231	276731051	42024193	204	510	206001		
327.8775	31:37	31:37	0	1.231	169015519	25248630	208	520	121388	1.64(1.32-1.78)	
PCB-83											
325.8804	32:12	32:13	-1	1.253	148800636	19443457	204	510	95311		
327.8775	32:12	32:13	-1	1.253	92481077	11981942	208	520	57605	1.61(1.32-1.78)	
PCB-99 (C83)											
325.8804	32:12	32:13	-1	1.253	148800636	19443457	204	510	95311		
327.8775	32:12	32:13	-1	1.253	92481077	11981942	208	520	57605	1.61(1.32-1.78)	
PCB-112											
325.8804	32:19	32:20	-1	1.258	123930141	25631489	204	510	125645		
327.8775	32:19	32:20	-1	1.258	76647864	15734390	208	520	75646	1.62(1.32-1.78)	
PCB-86											
325.8804	32:41	32:42	-1	1.272	646388537	77541249	204	510	380104		M
327.8775	32:41	32:42	-1	1.272	384843597	45992658	208	520	221119	1.68(1.32-1.78)	M
PCB-87 (C86)											
325.8804	32:41	32:42	-1	1.272	646388537	77541249	204	510	380104		M
327.8775	32:41	32:42	-1	1.272	384843597	45992658	208	520	221119	1.68(1.32-1.78)	M
PCB-97 (C86)											
325.8804	32:41	32:42	-1	1.272	646388537	77541249	204	510	380104		M
327.8775	32:41	32:42	-1	1.272	384843597	45992658	208	520	221119	1.68(1.32-1.78)	M
PCB-109 (C86)											
325.8804	32:41	32:42	-1	1.272	646388537	77541249	204	510	380104		M
327.8775	32:41	32:42	-1	1.272	384843597	45992658	208	520	221119	1.68(1.32-1.78)	M
PCB-119 (C86)											
325.8804	32:41	32:42	-1	1.272	646388537	77541249	204	510	380104		M
327.8775	32:41	32:42	-1	1.272	384843597	45992658	208	520	221119	1.68(1.32-1.78)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-125 (C86)											M
325.8804	32:41	32:42	-1	1.272	646388537	77541249	204	510	380104		M
327.8775	32:41	32:42	-1	1.272	384843597	45992658	208	520	221119	1.68(1.32-1.78)	M
PCB-85											
325.8804	33:25	33:25	0	1.301	291983408	37945601	204	510	186008		
327.8775	33:25	33:25	0	1.301	179160640	22995062	208	520	110553	1.63(1.32-1.78)	
PCB-116 (C85)											
325.8804	33:25	33:25	0	1.301	291983408	37945601	204	510	186008		
327.8775	33:25	33:25	0	1.301	179160640	22995062	208	520	110553	1.63(1.32-1.78)	
PCB-117 (C85)											
325.8804	33:25	33:25	0	1.301	291983408	37945601	204	510	186008		
327.8775	33:25	33:25	0	1.301	179160640	22995062	208	520	110553	1.63(1.32-1.78)	
PCB-110											
325.8804	33:36	33:37	-1	1.308	215889105	26218497	204	510	128522		
327.8775	33:36	33:37	-1	1.308	132363629	16037238	208	520	77102	1.63(1.32-1.78)	
PCB-115 (C110)											
325.8804	33:36	33:37	-1	1.308	215889105	26218497	204	510	128522		
327.8775	33:36	33:37	-1	1.308	132363629	16037238	208	520	77102	1.63(1.32-1.78)	
PCB-82											
325.8804	33:54	33:55	-1	1.320	72783513	14579713	204	510	71469		
327.8775	33:54	33:55	-1	1.320	45306794	8962422	208	520	43089	1.61(1.32-1.78)	
PCB-111											
325.8804	34:19	34:19	0	1.336	106780366	21942785	204	510	107563		
327.8775	34:19	34:19	0	1.336	65893572	13465718	208	520	64739	1.62(1.32-1.78)	
PCB-120											
325.8804	34:46	34:47	-1	1.353	134486894	28035841	204	510	137431		
327.8775	34:46	34:47	-1	1.353	82570744	17174646	208	520	82570	1.63(1.32-1.78)	
PCB-108											
325.8804	35:54	35:55	-1	1.397	359691900	74837936	89870	224675	833		
327.8775	35:54	35:55	-1	1.397	217166378	44709148	54755	136887	817	1.66(1.32-1.78)	
PCB-124 (C108)											
325.8804	35:54	35:55	-1	1.397	359691900	74837936	89870	224675	833		
327.8775	35:54	35:55	-1	1.397	217166378	44709148	54755	136887	817	1.66(1.32-1.78)	
PCB-107											
325.8804	36:09	36:09	0	1.407	172718968	33521584	89870	224675	373		
327.8775	36:09	36:09	0	1.407	107369316	20596508	54755	136887	376	1.61(1.32-1.78)	
PCB-123											
325.8804	36:16	36:16	0	1.001	160230112	33326256	89870	224675	371		
327.8775	36:16	36:16	0	1.001	98853143	20231964	54755	136887	369	1.62(1.32-1.78)	
PCB-106											
325.8804	36:22	36:23	-1	1.004	160067274	33627824	89870	224675	374		
327.8775	36:22	36:23	-1	1.004	99138673	20763420	54755	136887	379	1.61(1.32-1.78)	
PCB-118											
325.8804	36:35	36:36	-1	1.000	174825425	34549424	89870	224675	384		
327.8775	36:35	36:36	-1	1.000	108074624	21075996	54755	136887	385	1.62(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-122											
325.8804	36:56	36:56	0	1.010	133990253	27722160	89870	224675	308		
327.8775	36:56	36:56	0	1.010	83092925	17085468	54755	136887	312	1.61(1.32-1.78)	
PCB-114											
325.8804	37:07	37:08	-1	1.000	160312832	31933104	89870	224675	355		
327.8775	37:07	37:08	-1	1.000	99594354	19609628	54755	136887	358	1.61(1.32-1.78)	
PCB-105											
325.8804	37:46	37:46	0	1.001	162331124	32150026	89870	224675	358		
327.8775	37:46	37:46	0	1.001	101145196	19783101	54755	136887	361	1.60(1.32-1.78)	
PCB-127											
325.8804	39:14	39:15	0	1.040	162924856	32273840	89870	224675	359		
327.8775	39:14	39:15	0	1.040	101086266	19800348	54755	136887	362	1.61(1.32-1.78)	
PCB-126											
325.8804	40:51	40:52	-1	1.001	158585239	29099978	89870	224675	324		
327.8775	40:51	40:52	-1	1.001	98397742	17806698	54755	136887	325	1.61(1.32-1.78)	
PCB-155L											
371.8817	31:22	31:23	-1	0.790	3375391	685626	73	182	9392		
373.8788	31:22	31:23	-1	0.790	2662518	549678	58	145	9477	1.27(1.05-1.43)	
PCB-138L											
371.8817	39:41	39:41	0		4295640	816748	2233	5582	366		
373.8788	39:41	39:41	0		3322328	637083	1531	3827	416	1.29(1.05-1.43)	
PCB-159L											
371.8817	41:56	41:56	0	0.982	4754884	936530	2233	5582	419		
373.8788	41:56	41:56	0	0.982	3673590	727866	1531	3827	475	1.29(0.00-0.00)	
PCB-167L											
371.8817	42:42	42:42	0	1.076	5249808	1001272	2233	5582	448		
373.8788	42:42	42:42	0	1.076	4046405	790891	1531	3827	517	1.30(1.05-1.43)	
PCB-156L											
371.8817	43:51	43:51	1	1.105	10141823	1376667	2233	5582	617		
373.8788	43:51	43:51	1	1.105	7862023	1069682	1531	3827	699	1.29(1.05-1.43)	
PCB-157L (C156L)											
371.8817	43:51	43:51	1	1.105	10141823	1376667	2233	5582	617		
373.8788	43:51	43:51	1	1.105	7862023	1069682	1531	3827	699	1.29(1.05-1.43)	
PCB-169L											
371.8817	47:05	47:05	0	1.186	5216558	993155	2233	5582	445		
373.8788	47:05	47:05	0	1.186	4061824	784689	1531	3827	513	1.28(1.05-1.43)	
PCB-155											
359.8415	31:24	31:25	-1	1.001	65706395	13562326	192	480	70637		
361.8385	31:24	31:25	-1	1.001	51356377	10648978	170	425	62641	1.28(1.05-1.43)	
PCB-152											
359.8415	31:35	31:36	0	1.007	71324068	14975190	192	480	77996		
361.8385	31:35	31:36	0	1.007	55992074	11665810	170	425	68622	1.27(1.05-1.43)	
PCB-150											
359.8415	31:45	31:46	-1	1.012	71628088	15006934	192	480	78161		
361.8385	31:45	31:46	-1	1.012	55762894	11615378	170	425	68326	1.28(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-136											
359.8415	32:07	32:08	-1	1.024	72449923	15091158	192	480	78600		
361.8385	32:07	32:08	-1	1.024	56265978	11739026	170	425	69053	1.29(1.05-1.43)	
PCB-145											
359.8415	32:24	32:25	-1	1.033	68489150	14361046	192	480	74797		
361.8385	32:24	32:25	-1	1.033	53482550	11300498	170	425	66474	1.28(1.05-1.43)	
PCB-148											
359.8415	33:56	33:57	-1	1.082	54371007	11316356	192	480	58939		
361.8385	33:56	33:57	-1	1.082	42774983	8842898	170	425	52017	1.27(1.05-1.43)	
PCB-135											
359.8415	34:31	34:32	-1	1.100	103820478	11980899	192	480	62401		M
361.8385	34:31	34:32	-1	1.100	81482346	9409403	170	425	55349	1.27(1.05-1.43)	M
PCB-151 (C135)											
359.8415	34:31	34:32	-1	1.100	103820478	11980899	192	480	62401		M
361.8385	34:31	34:32	-1	1.100	81482346	9409403	170	425	55349	1.27(1.05-1.43)	M
PCB-154											
359.8415	34:46	34:47	-1	1.109	58114683	12025446	192	480	62633		
361.8385	34:46	34:47	-1	1.109	45565308	9399698	170	425	55292	1.28(1.05-1.43)	
PCB-144											
359.8415	35:05	35:06	-1	1.118	54042862	11115878	192	480	57895		
361.8385	35:05	35:06	-1	1.118	42319176	8692370	170	425	51132	1.28(1.05-1.43)	
PCB-147											
359.8415	35:27	35:27	0	1.130	200483332	43211349	23763	59407	1818		
361.8385	35:27	35:27	0	1.130	156819559	33479555	15556	38890	2152	1.28(1.05-1.43)	
PCB-149 (C147)											
359.8415	35:27	35:27	0	1.130	200483332	43211349	23763	59407	1818		
361.8385	35:27	35:27	0	1.130	156819559	33479555	15556	38890	2152	1.28(1.05-1.43)	
PCB-134											
359.8415	35:45	35:45	-1	1.139	162847019	17534351	23763	59407	738		
361.8385	35:45	35:45	-1	1.139	128294482	13724803	15556	38890	882	1.27(1.05-1.43)	
PCB-143 (C134)											
359.8415	35:45	35:45	-1	1.139	162847019	17534351	23763	59407	738		
361.8385	35:45	35:45	-1	1.139	128294482	13724803	15556	38890	882	1.27(1.05-1.43)	
PCB-139											
359.8415	36:03	36:04	-1	1.149	195711517	37761228	23763	59407	1589		
361.8385	36:03	36:04	-1	1.149	153569020	29441667	15556	38890	1893	1.27(1.05-1.43)	
PCB-140 (C139)											
359.8415	36:03	36:04	-1	1.149	195711517	37761228	23763	59407	1589		
361.8385	36:03	36:04	-1	1.149	153569020	29441667	15556	38890	1893	1.27(1.05-1.43)	
PCB-131											
359.8415	36:15	36:15	-1	1.155	81022824	16396532	23763	59407	690		
361.8385	36:15	36:15	-1	1.155	64182080	12983683	15556	38890	835	1.26(1.05-1.43)	
PCB-142											
359.8415	36:23	36:24	-1	1.160	82460255	17122833	23763	59407	721		
361.8385	36:23	36:24	-1	1.160	64992454	13576835	15556	38890	873	1.27(1.05-1.43)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-132											
359.8415	36:42	36:43	-1	1.170	75403630	15508049	23763	59407	653		
361.8385	36:42	36:43	-1	1.170	59328853	12227459	15556	38890	786	1.27(1.05-1.43)	
PCB-133											
359.8415	37:13	37:14	-1	1.186	82622143	16295272	23763	59407	686		
361.8385	37:13	37:14	-1	1.186	65107881	12852802	15556	38890	826	1.27(1.05-1.43)	
PCB-165											
359.8415	37:37	37:37	0	0.881	106965169	21398791	23763	59407	901		
361.8385	37:37	37:37	0	0.881	84140799	16827523	15556	38890	1082	1.27(1.05-1.43)	
PCB-146											
359.8415	37:52	37:52	-1	0.887	102556513	20464185	23763	59407	861		
361.8385	37:52	37:52	-1	0.887	81231392	16215939	15556	38890	1042	1.26(1.05-1.43)	
PCB-161											
359.8415	37:59	38:00	0	0.890	122208045	25964884	23763	59407	1093		
361.8385	37:59	38:00	0	0.890	95738385	20221315	15556	38890	1300	1.28(1.05-1.43)	
PCB-153											
359.8415	38:29	38:30	0	0.901	243532467	37310649	23763	59407	1570		
361.8385	38:29	38:30	0	0.901	190216690	28949635	15556	38890	1861	1.28(1.05-1.43)	
PCB-168 (C153)											
359.8415	38:29	38:30	0	0.901	243532467	37310649	23763	59407	1570		
361.8385	38:29	38:30	0	0.901	190216690	28949635	15556	38890	1861	1.28(1.05-1.43)	
PCB-141											
359.8415	38:40	38:41	-1	0.905	87183530	16663515	23763	59407	701		
361.8385	38:40	38:41	-1	0.905	68693132	13112195	15556	38890	843	1.27(1.05-1.43)	
PCB-130											
359.8415	39:04	39:05	-1	0.915	70590154	14191917	23763	59407	597		
361.8385	39:04	39:05	-1	0.915	55845406	11226755	15556	38890	722	1.26(1.05-1.43)	
PCB-137											
359.8415	39:18	39:18	0	0.920	81266004	16759642	23763	59407	705		
361.8385	39:18	39:18	0	0.920	64386158	13221507	15556	38890	850	1.26(1.05-1.43)	
PCB-164											
359.8415	39:25	39:26	-1	0.923	110180720	21678450	23763	59407	912		
361.8385	39:25	39:26	-1	0.923	86456317	16986755	15556	38890	1092	1.27(1.05-1.43)	
PCB-129											
359.8415	39:44	39:44	0	0.930	427397226	54463465	23763	59407	2292		M
361.8385	39:44	39:44	0	0.930	336254921	42135505	15556	38890	2709	1.27(1.05-1.43)	M
PCB-138 (C129)											
359.8415	39:44	39:44	0	0.930	427397226	54463465	23763	59407	2292		M
361.8385	39:44	39:44	0	0.930	336254921	42135505	15556	38890	2709	1.27(1.05-1.43)	M
PCB-160 (C129)											
359.8415	39:44	39:44	0	0.930	427397226	54463465	23763	59407	2292		M
361.8385	39:44	39:44	0	0.930	336254921	42135505	15556	38890	2709	1.27(1.05-1.43)	M
PCB-163 (C129)											
359.8415	39:44	39:44	0	0.930	427397226	54463465	23763	59407	2292		M
361.8385	39:44	39:44	0	0.930	336254921	42135505	15556	38890	2709	1.27(1.05-1.43)	M



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-158											
359.8415	40:06	40:07	0	0.939	134649798	25747198	23763	59407	1084		
361.8385	40:06	40:07	0	0.939	105576017	20078467	15556	38890	1291	1.28(1.05-1.43)	
PCB-128											
359.8415	40:57	40:57	0	0.959	224532589	36841557	23763	59407	1550		
361.8385	40:57	40:57	0	0.959	176262841	28855584	15556	38890	1855	1.27(1.05-1.43)	
PCB-166 (C128)											
359.8415	40:57	40:57	0	0.959	224532589	36841557	23763	59407	1550		
361.8385	40:57	40:57	0	0.959	176262841	28855584	15556	38890	1855	1.27(1.05-1.43)	
PCB-159											
359.8415	41:58	41:58	0	0.983	150673522	30877043	23763	59407	1299		
361.8385	41:58	41:58	0	0.983	118194096	24096899	15556	38890	1549	1.27(1.05-1.43)	
PCB-162											
359.8415	42:15	42:15	0	0.990	127518301	24165293	23763	59407	1017		
361.8385	42:15	42:15	0	0.990	100356891	18921603	15556	38890	1216	1.27(1.05-1.43)	
PCB-167											
359.8415	42:43	42:44	0	1.001	119669602	23770381	23763	59407	1000		
361.8385	42:43	42:44	0	1.001	94138110	18595971	15556	38890	1195	1.27(1.05-1.43)	
PCB-156											
359.8415	43:53	43:53	0	1.001	235593787	33821858	23763	59407	1423		
361.8385	43:53	43:53	0	1.001	186630098	26543048	15556	38890	1706	1.26(1.05-1.43)	
PCB-157 (C156)											
359.8415	43:53	43:53	0	1.001	235593787	33821858	23763	59407	1423		
361.8385	43:53	43:53	0	1.001	186630098	26543048	15556	38890	1706	1.26(1.05-1.43)	
PCB-169											
359.8415	47:06	47:06	0	1.001	123900521	23210929	23763	59407	977		
361.8385	47:06	47:06	0	1.001	96925792	18089681	15556	38890	1163	1.28(1.05-1.43)	
PCB-188L											
405.8428	37:06	37:07	-1	0.820	3810326	749037	139	347	5389		
407.8398	37:06	37:07	-1	0.820	3630304	723097	71	177	10184	1.05(0.89-1.21)	
PCB-180L											
405.8428	45:15	45:15	0		2912463	555051	139	347	3993		
407.8398	45:15	45:15	0		2653771	494294	71	177	6962	1.10(0.89-1.21)	
PCB-170L											
405.8428	46:30	46:30	0	1.028	2282840	420841	139	347	3028		
407.8398	46:30	46:30	0	1.028	2121333	391359	71	177	5512	1.08(0.89-1.21)	
PCB-189L											
405.8428	49:37	49:37	0	1.096	5686955	1057620	686	1715	1542		
407.8398	49:37	49:37	0	1.096	5360571	997675	1347	3367	741	1.06(0.89-1.21)	
PCB-188											
393.8025	37:07	37:08	-1	1.001	88590608	18021968	211	527	85412		
395.7995	37:07	37:08	-1	1.001	83467622	17002107	131	327	129787	1.06(0.89-1.21)	
PCB-179											
393.8025	37:27	37:28	-1	1.010	87088746	17711221	211	527	83939		
395.7995	37:27	37:28	-1	1.010	82206017	16754555	131	327	127897	1.06(0.89-1.21)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-184											
393.8025	37:59	38:00	0	1.024	89044754	17993333	211	527	85276		
395.7995	37:59	38:00	0	1.024	84535271	16957563	131	327	129447	1.05(0.89-1.21)	
PCB-176											
393.8025	38:20	38:21	-1	1.033	75912817	15207541	211	527	72074		
395.7995	38:20	38:21	-1	1.033	71908028	14408059	131	327	109985	1.06(0.89-1.21)	
PCB-186											
393.8025	38:48	38:48	0	1.046	94010378	18645621	211	527	88368		
395.7995	38:48	38:48	0	1.046	89347657	17743739	131	327	135448	1.05(0.89-1.21)	
PCB-178											
393.8025	40:10	40:11	-1	1.083	55938483	10960757	211	527	51947		
395.7995	40:10	40:11	-1	1.083	52592596	10324347	131	327	78812	1.06(0.89-1.21)	
PCB-175											
393.8025	40:48	40:49	-1	1.100	58681950	11492981	211	527	54469		
395.7995	40:48	40:49	-1	1.100	55852897	10954619	131	327	83623	1.05(0.89-1.21)	
PCB-187											
393.8025	41:05	41:05	0	1.107	69711534	13878901	211	527	65777		
395.7995	41:05	41:05	0	1.107	65998621	13174139	131	327	100566	1.06(0.89-1.21)	
PCB-182											
393.8025	41:17	41:18	-1	1.113	58163539	11271541	211	527	53420		
395.7995	41:17	41:18	-1	1.113	55170035	10674555	131	327	81485	1.05(0.89-1.21)	
PCB-183											
393.8025	41:42	41:42	0	1.124	117147097	12359720	211	527	58577		Ma
395.7995	41:42	41:42	0	1.124	109695368	11725491	131	327	89508	1.07(0.89-1.21)	M
PCB-185 (C183)											
393.8025	41:42	41:42	0	1.124	117147097	12359720	211	527	58577		Ma
395.7995	41:42	41:42	0	1.124	109695368	11725491	131	327	89508	1.07(0.89-1.21)	M
PCB-174											
393.8025	41:56	41:56	0	1.130	61920573	12119925	211	527	57440		
395.7995	41:56	41:56	0	1.130	58857494	11538299	131	327	88079	1.05(0.89-1.21)	
PCB-177											
393.8025	42:22	42:22	0	1.142	59424413	11026805	211	527	52260		
395.7995	42:21	42:22	-1	1.142	56441168	10389883	131	327	79312	1.05(0.89-1.21)	
PCB-181											
393.8025	42:45	42:45	0	1.152	59210779	11665013	211	527	55284		
395.7995	42:45	42:45	0	1.152	56007586	11011195	131	327	84055	1.06(0.89-1.21)	
PCB-171											
393.8025	42:58	42:59	0	1.158	114380196	20149365	211	527	95495		
395.7995	42:58	42:59	0	1.158	108415012	19154811	131	327	146220	1.06(0.89-1.21)	
PCB-173 (C171)											
393.8025	42:58	42:59	0	1.158	114380196	20149365	211	527	95495		
395.7995	42:58	42:59	0	1.158	108415012	19154811	131	327	146220	1.06(0.89-1.21)	
PCB-172											
393.8025	44:37	44:37	0	0.899	50296390	9575285	211	527	45381		
395.7995	44:37	44:37	0	0.899	48184037	9183355	131	327	70102	1.04(0.89-1.21)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-192											
393.8025	44:54	44:54	0	0.905	84437333	16501621	211	527	78207		
395.7995	44:54	44:54	0	0.905	79991603	15661179	131	327	119551	1.06(0.89-1.21)	
PCB-180											
393.8025	45:14	45:14	0	0.912	147423551	20060533	211	527	95074		
395.7995	45:14	45:14	0	0.912	139888927	19041659	131	327	145356	1.05(0.89-1.21)	
PCB-193 (C180)											
393.8025	45:14	45:14	0	0.912	147423551	20060533	211	527	95074		
395.7995	45:14	45:14	0	0.912	139888927	19041659	131	327	145356	1.05(0.89-1.21)	
PCB-191											
393.8025	45:37	45:37	0	0.919	80941413	15733877	211	527	74568		
395.7995	45:37	45:37	0	0.919	75977242	14856059	131	327	113405	1.07(0.89-1.21)	
PCB-170											
393.8025	46:31	46:32	0	0.938	53503962	10206837	211	527	48374		
395.7995	46:31	46:32	0	0.938	50804365	9646203	131	327	73635	1.05(0.89-1.21)	
PCB-190											
393.8025	47:02	47:02	0	0.948	81369215	15287669	211	527	72453		
395.7995	47:02	47:02	0	0.948	76983210	14562171	131	327	111162	1.06(0.89-1.21)	
PCB-189											
393.8025	49:38	49:38	0	1.000	112922183	21964048	3458	8645	6352		
395.7995	49:38	49:38	0	1.000	108477497	21166671	3184	7960	6648	1.04(0.89-1.21)	
PCB-202L											
439.8038	42:28	42:28	0	0.821	2498219	475987	64	160	7437		
441.8008	42:28	42:28	0	0.821	2801438	526051	121	302	4348	0.89(0.76-1.02)	
PCB-194L											
439.8038	51:43	51:43	0		3592214	660804	196	490	3371		
441.8008	51:43	51:43	1		3885779	721433	169	422	4269	0.92(0.76-1.02)	
PCB-205L											
439.8038	52:11	52:11	0	1.009	4229058	753316	196	490	3843		
441.8008	52:11	52:11	0	1.009	4594231	825501	169	422	4885	0.92(0.76-1.02)	
PCB-202											
427.7635	42:29	42:29	0	1.001	54297981	10483901	148	370	70837		
429.7606	42:29	42:29	0	1.001	60538224	11651819	127	317	91747	0.90(0.76-1.02)	
PCB-201											
427.7635	43:24	43:25	0	1.022	49654885	9560253	148	370	64596		
429.7606	43:24	43:25	0	1.022	55095929	10561452	127	317	83161	0.90(0.76-1.02)	
PCB-204											
427.7635	44:05	44:05	0	1.038	52752859	10231485	148	370	69132		
429.7606	44:05	44:05	0	1.038	58357176	11309996	127	317	89055	0.90(0.76-1.02)	
PCB-197											
427.7635	44:19	44:19	0	1.044	56582273	10830269	148	370	73177		
429.7606	44:19	44:19	0	1.044	63095428	12039340	127	317	94798	0.90(0.76-1.02)	
PCB-200											
427.7635	44:25	44:25	0	1.046	50924709	10079933	148	370	68108		
429.7606	44:25	44:25	0	1.046	56418474	11160492	127	317	87878	0.90(0.76-1.02)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-198											
427.7635	47:12	47:12	0	1.112	89927644	11538109	148	370	77960		
429.7606	47:12	47:12	0	1.112	100138810	12784556	127	317	100666	0.90(0.76-1.02)	
PCB-199 (C198)											
427.7635	47:12	47:12	0	1.112	89927644	11538109	148	370	77960		
429.7606	47:12	47:12	0	1.112	100138810	12784556	127	317	100666	0.90(0.76-1.02)	
PCB-196											
427.7635	47:53	47:53	0	0.917	38498870	7361120	148	370	49737		
429.7606	47:53	47:53	0	0.917	42578105	8018111	127	317	63135	0.90(0.76-1.02)	
PCB-203											
427.7635	48:05	48:05	0	0.921	46981287	8847805	148	370	59782		
429.7606	48:05	48:05	0	0.921	51712560	9816492	127	317	77295	0.91(0.76-1.02)	
PCB-195											
427.7635	49:24	49:23	1	0.947	72820219	13840162	2371	5927	5837		
429.7606	49:24	49:23	1	0.947	81327625	15453088	3297	8242	4687	0.90(0.76-1.02)	
PCB-194											
427.7635	51:44	51:44	0	0.991	81740556	15676873	2371	5927	6612		
429.7606	51:44	51:44	0	0.991	91827173	17696528	3297	8242	5367	0.89(0.76-1.02)	
PCB-205											
427.7635	52:13	52:13	0	1.000	93687224	17590743	2371	5927	7419		
429.7606	52:13	52:13	0	1.000	104944384	19787457	3297	8242	6002	0.89(0.76-1.02)	
PCB-208L											
473.7648	49:08	49:09	0	0.950	3260539	614013	931	2327	660		
475.7619	49:08	49:09	0	0.950	4015145	752424	560	1400	1344	0.81(0.65-0.89)	
PCB-206L											
473.7648	53:56	53:57	0	1.043	2334750	421215	931	2327	452		
475.7619	53:56	53:57	0	1.043	2861733	516695	560	1400	923	0.82(0.65-0.89)	
PCB-208											
461.7246	49:10	49:10	0	1.001	73033644	14091736	3209	8022	4391		
463.7216	49:10	49:10	0	1.001	93621692	18104805	3040	7600	5956	0.78(0.65-0.89)	
PCB-207											
461.7246	50:05	50:05	0	1.019	74939361	14301127	3209	8022	4457		
463.7216	50:05	50:05	0	1.019	96043653	18416076	3040	7600	6058	0.78(0.65-0.89)	
PCB-206											
461.7246	53:58	53:58	0	1.000	58039089	10750763	3209	8022	3350		M
463.7216	53:58	53:58	0	1.000	74588363	13891142	3040	7600	4569	0.78(0.65-0.89)	M
PCB-209L											
507.7258	55:35	55:34	1	1.075	2043151	345671	197	492	1755		
509.7229	55:35	55:34	1	1.075	2859018	491621	78	195	6303	0.71(0.59-0.79)	
DCB Decachlorobiphenyl											
495.6856	55:35	55:36	0	1.000	44895758	7820681	72	180	108621		
497.6826	55:35	55:36	0	1.000	64330706	11324650	62	155	182656	0.70(0.59-0.79)	

**QC Flag Legend**

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

61L51668P\_00006

Amount Added: 20.00

Units: uL

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

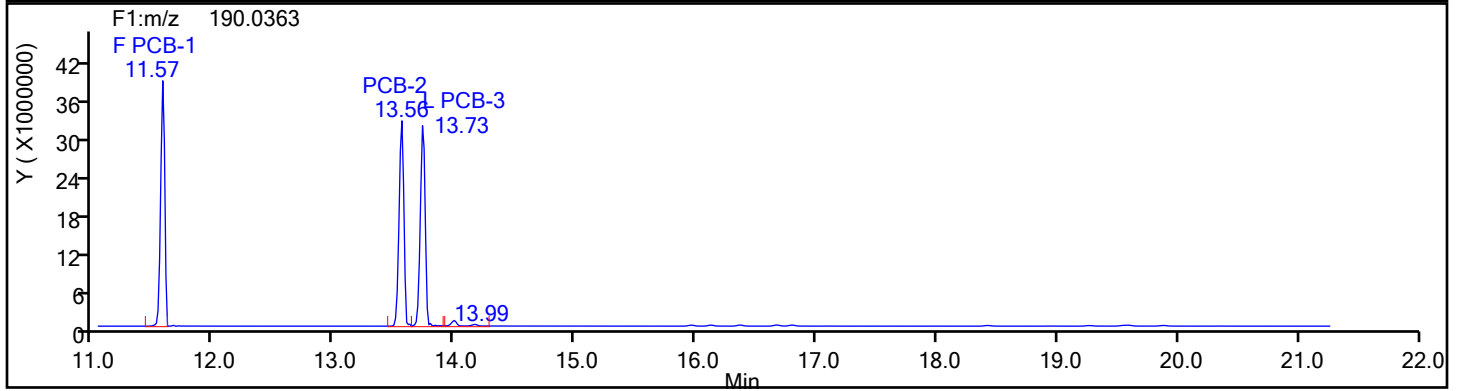
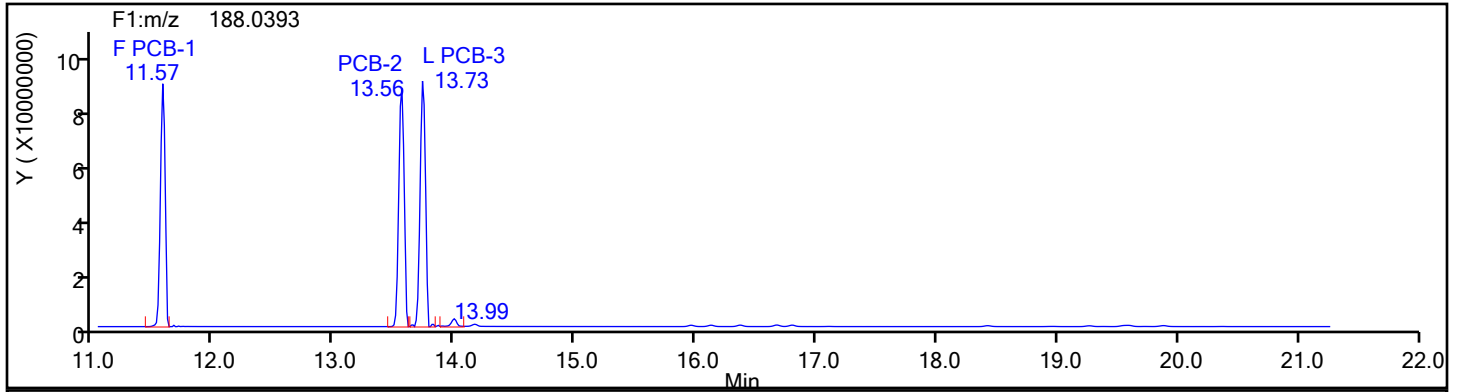
Worklist#: 87130

Sample Line#: 6

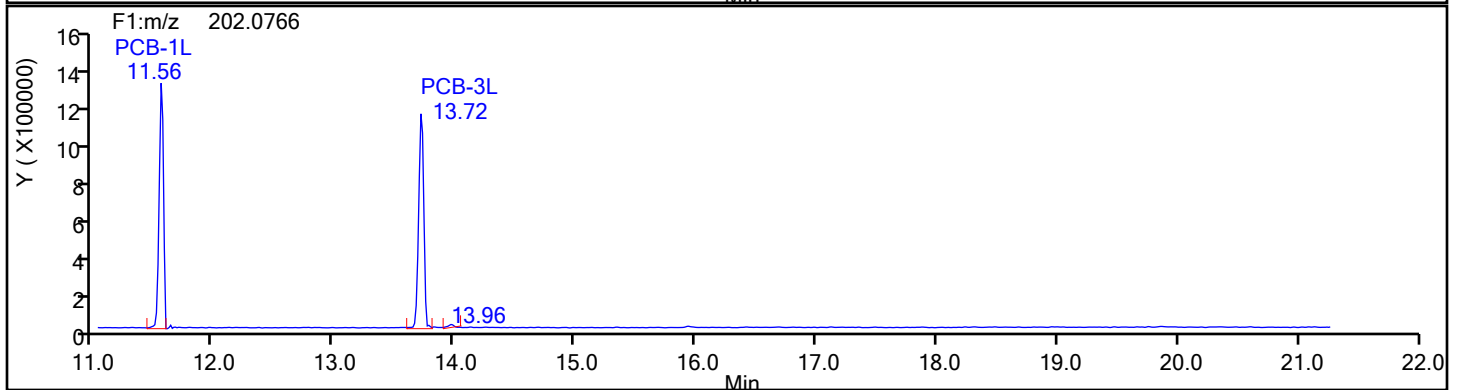
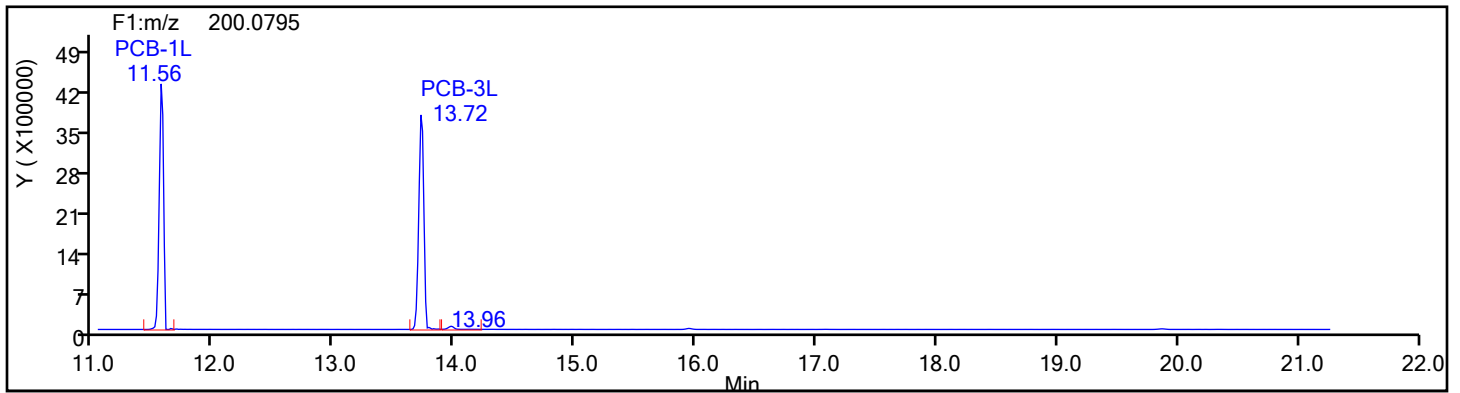
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

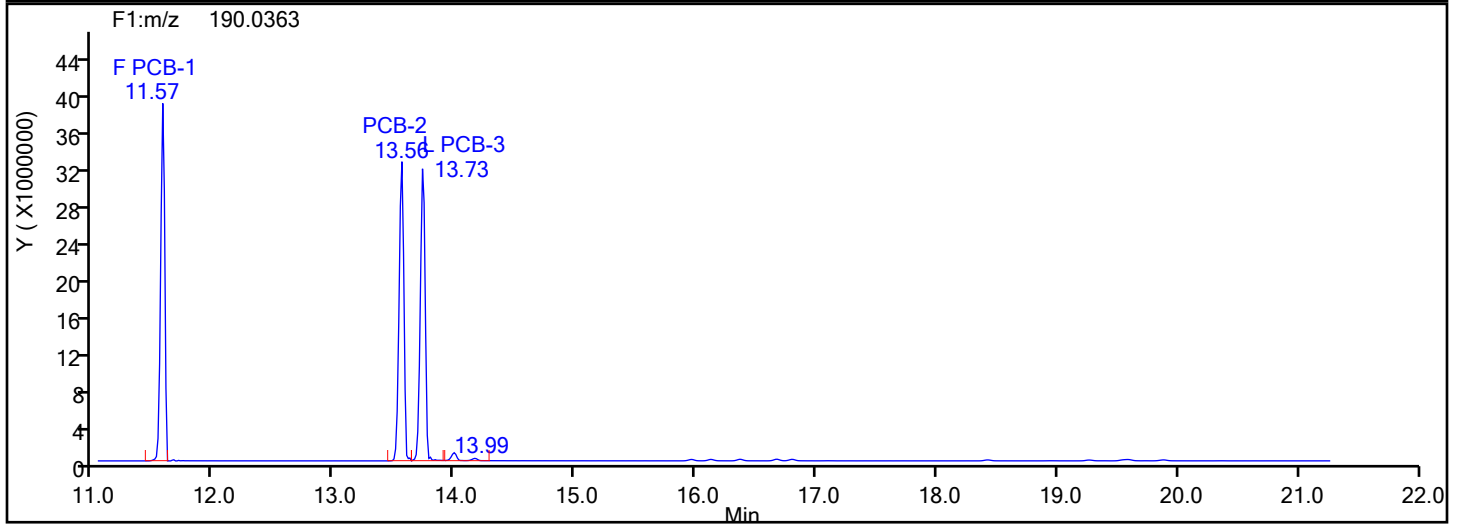
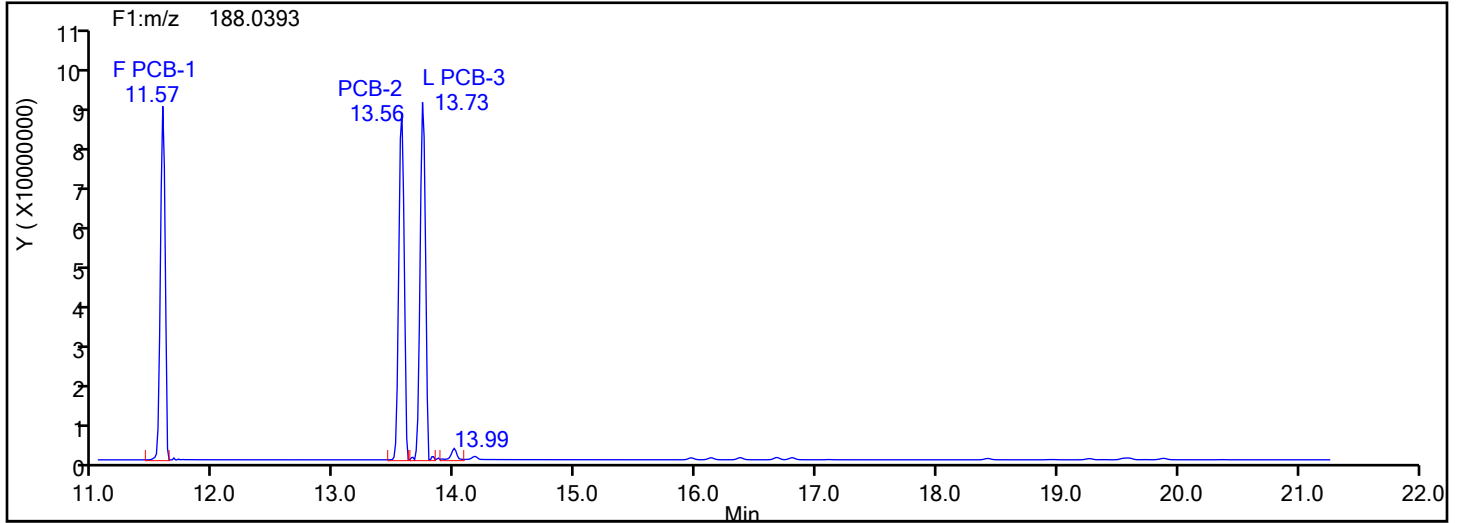
Worklist#: 87130

Sample Line#: 6

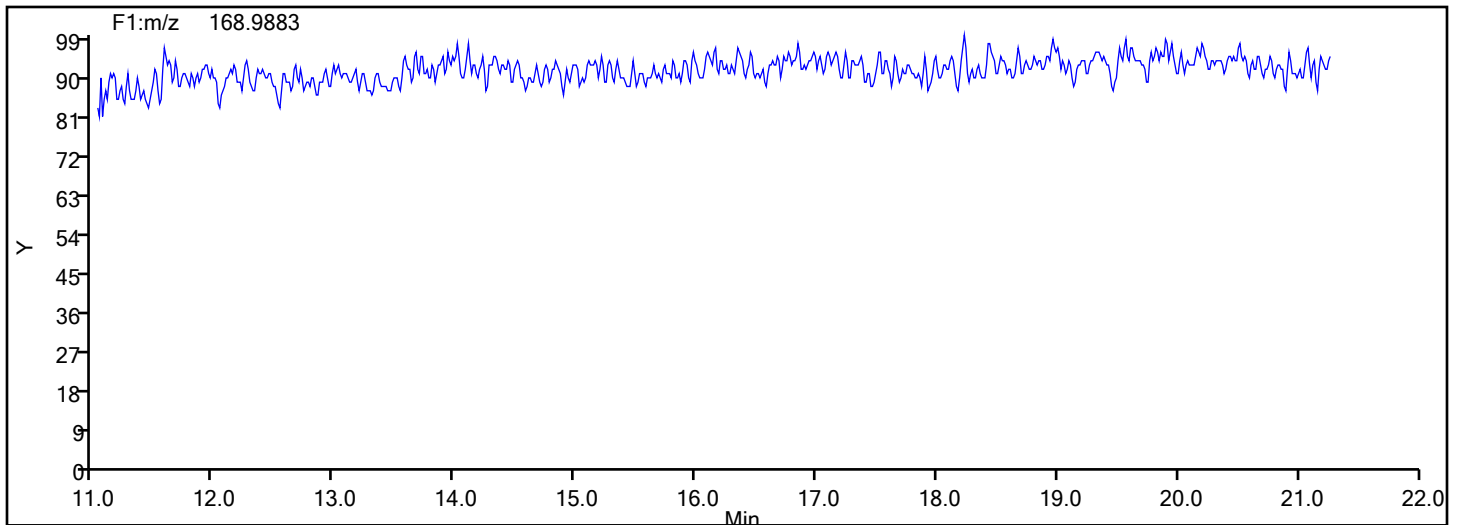
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

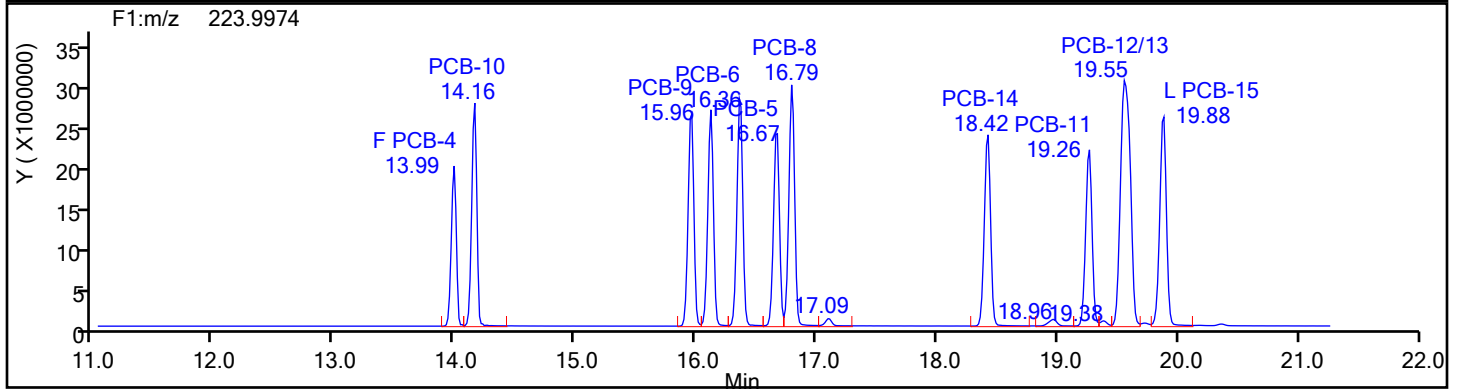
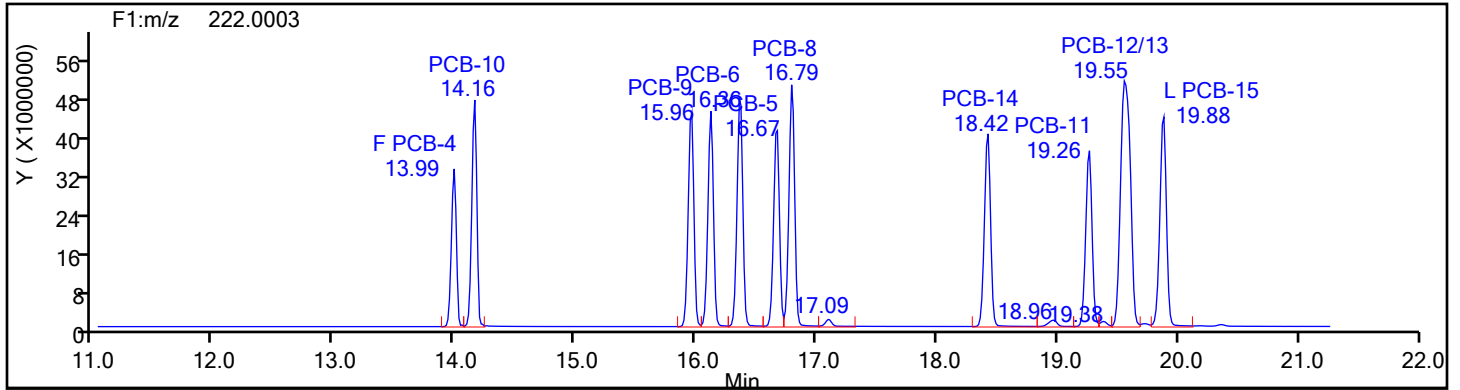
Worklist#: 87130

Sample Line#: 6

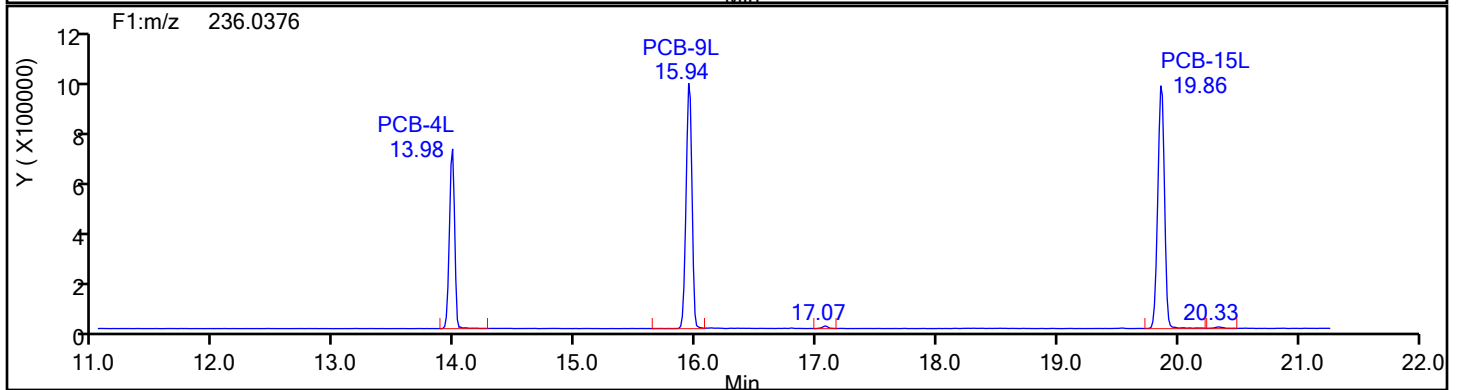
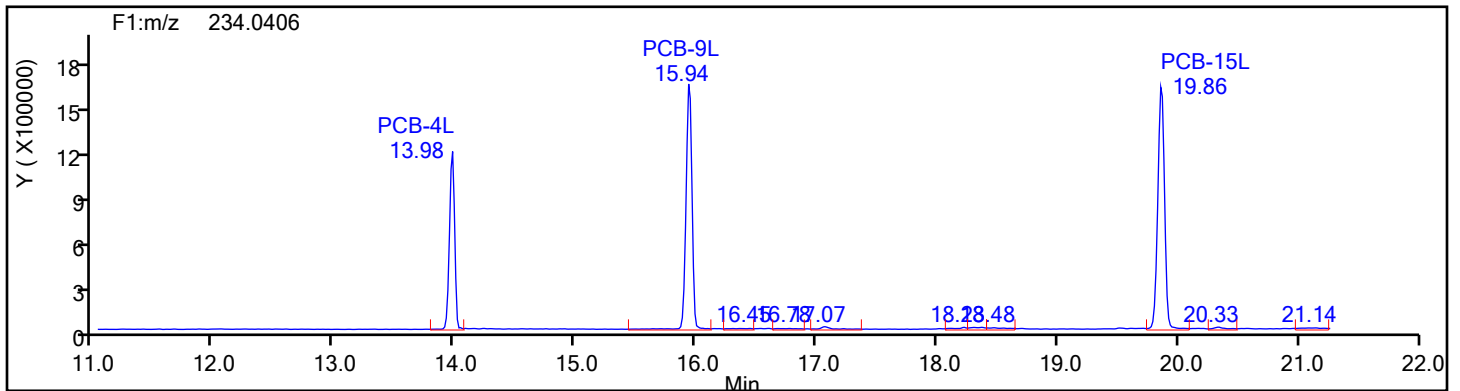
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

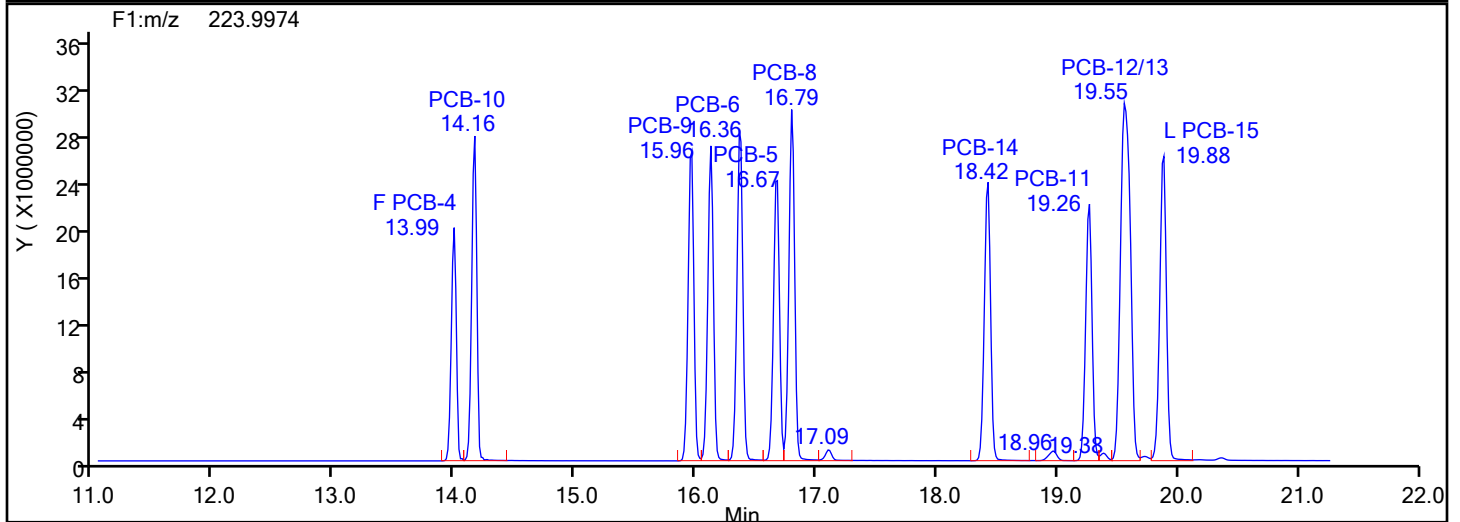
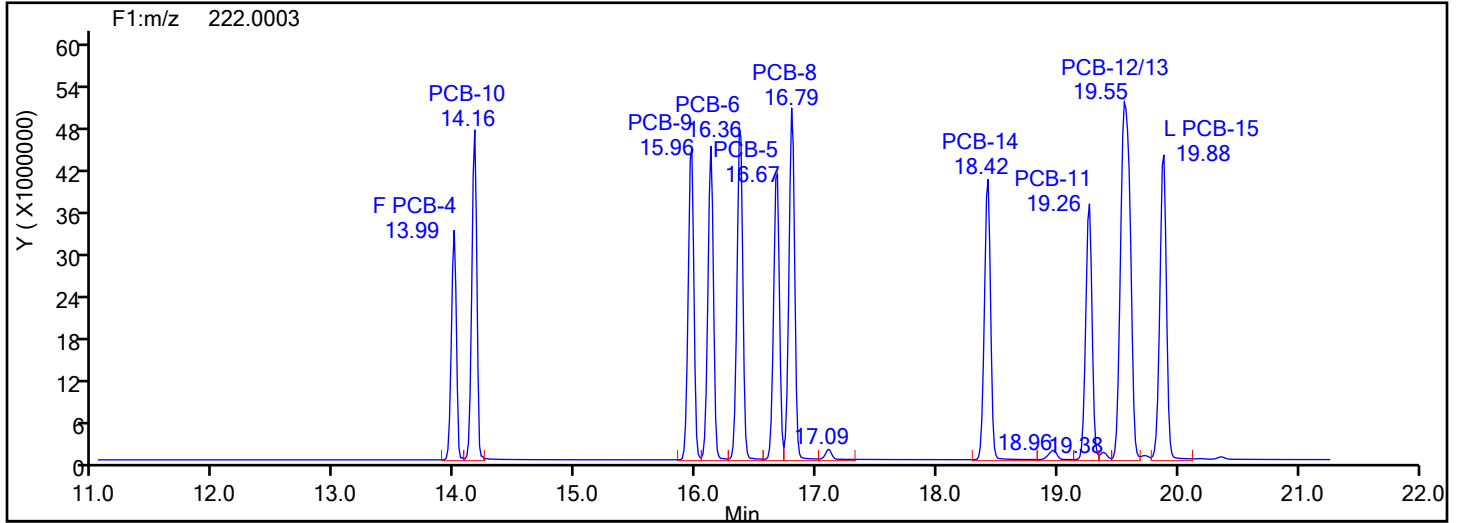
Worklist#: 87130

Sample Line#: 6

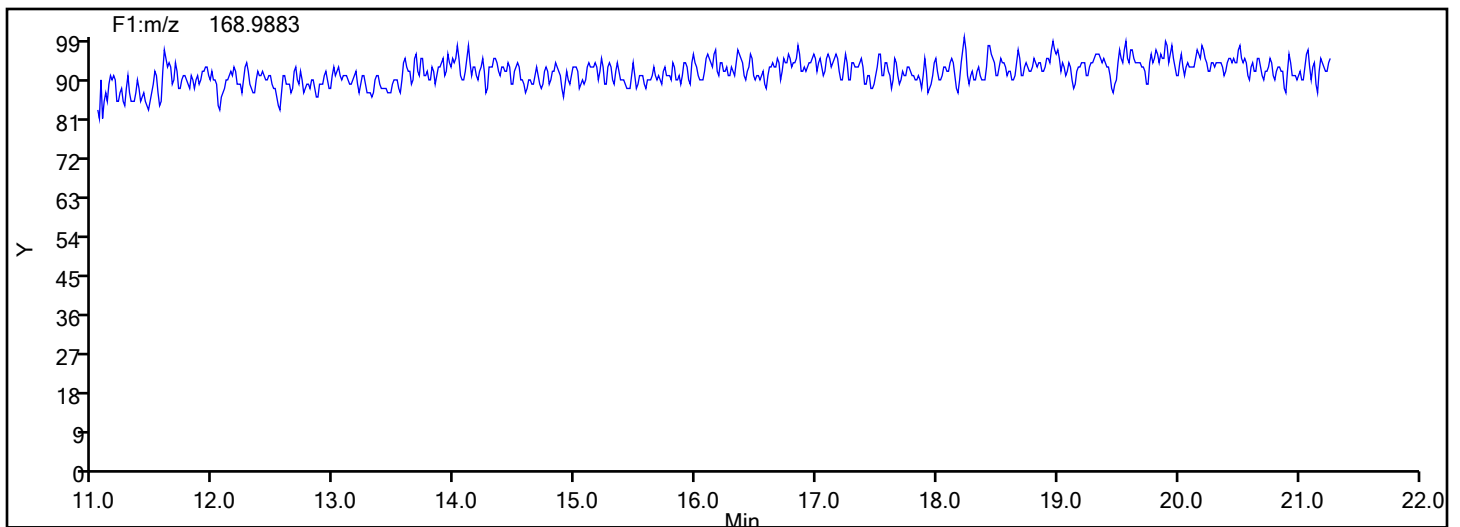
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

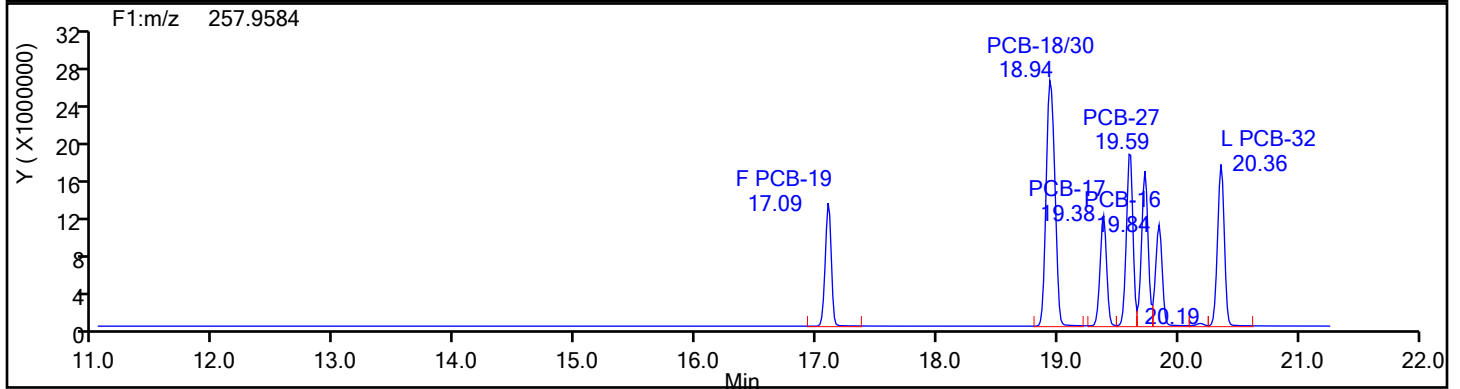
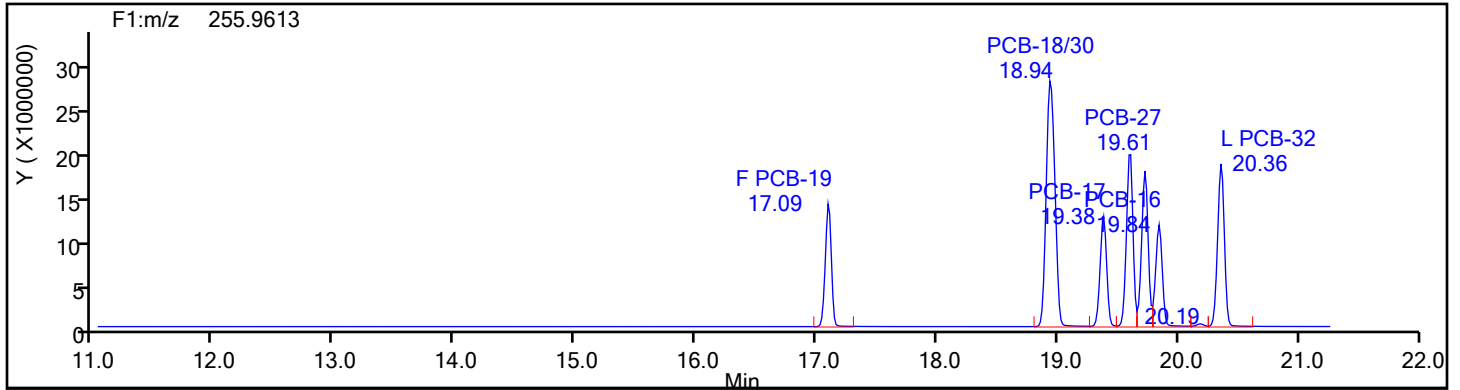
Worklist#: 87130

Sample Line#: 6

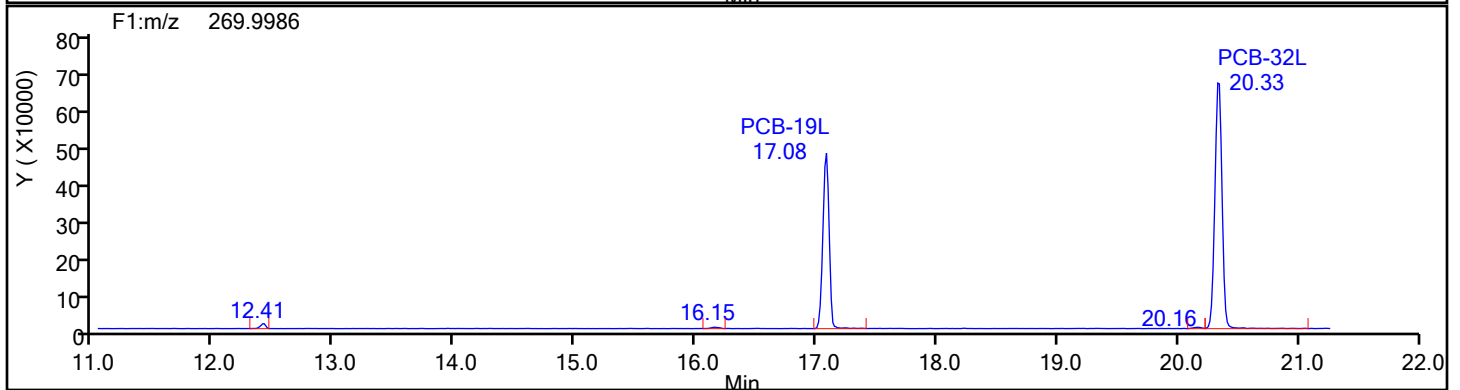
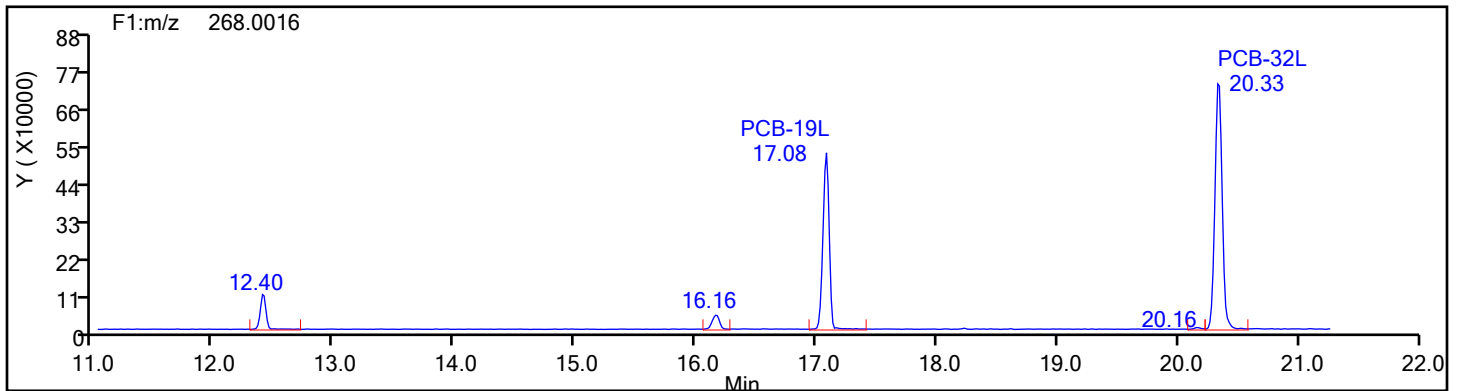
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

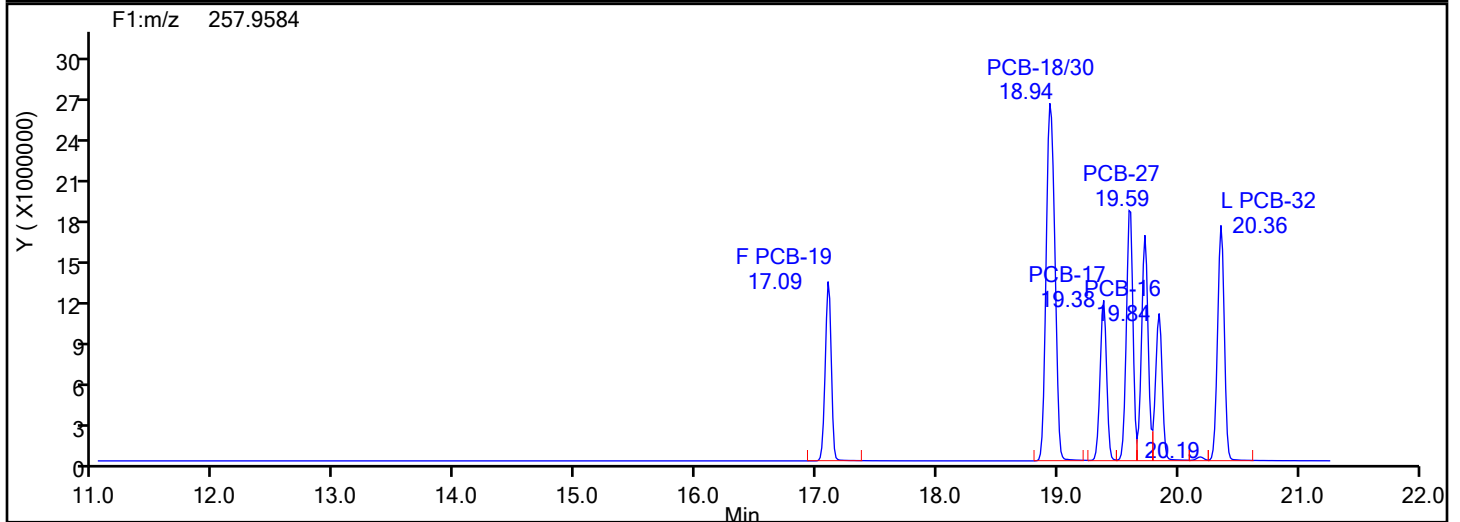
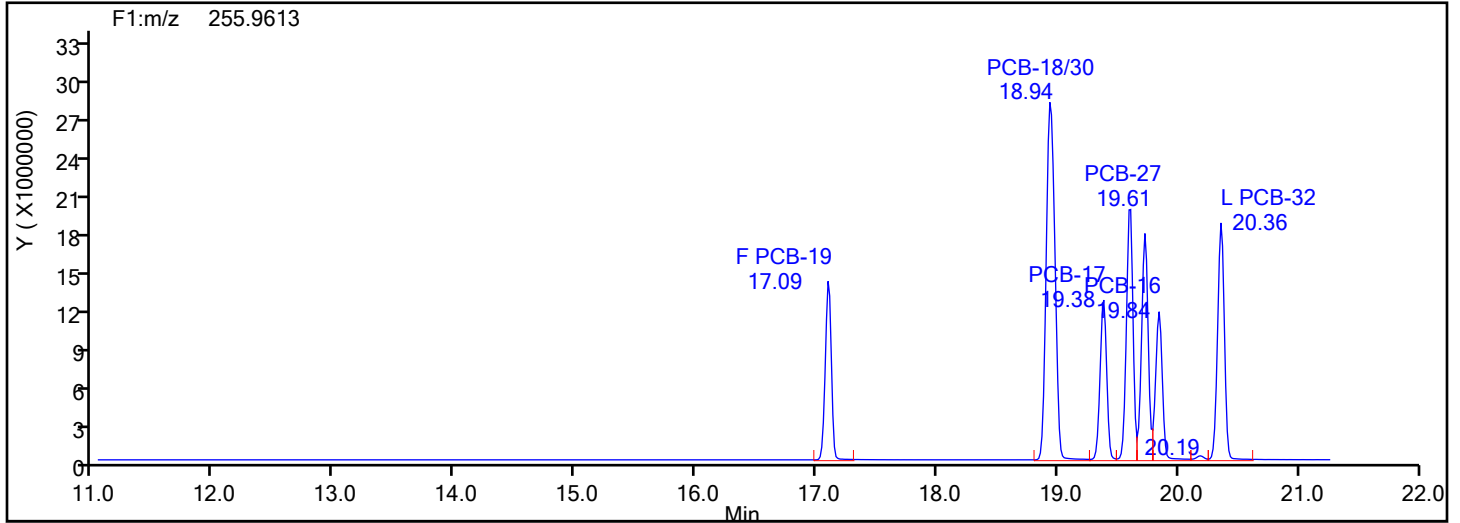
Worklist#: 87130

Sample Line#: 6

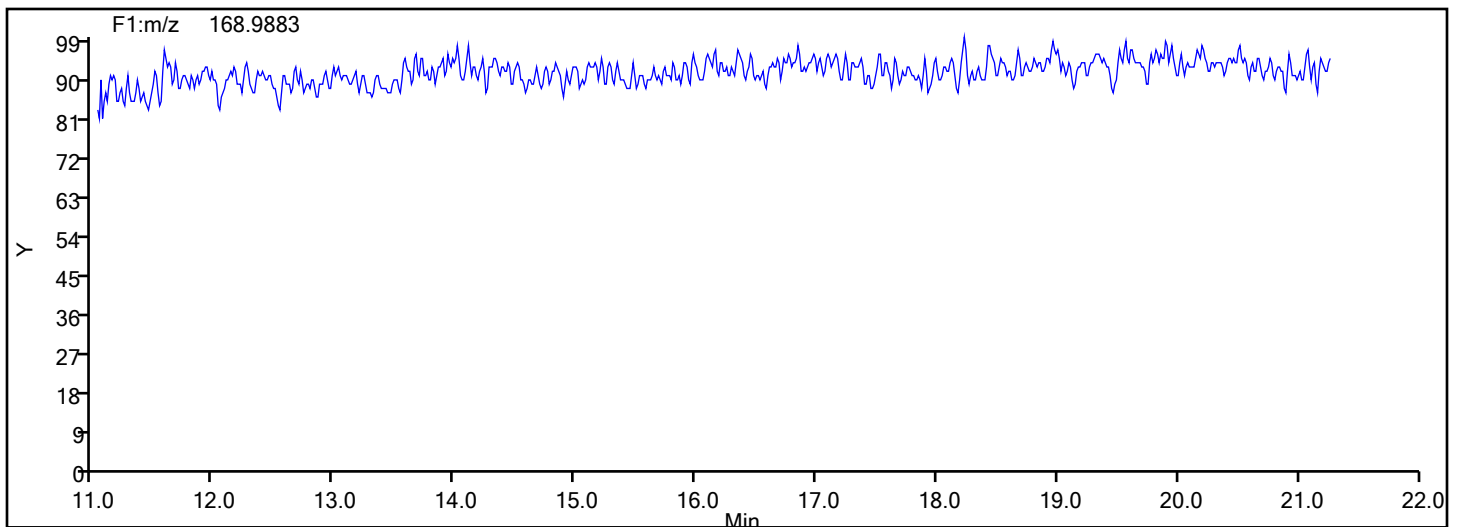
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

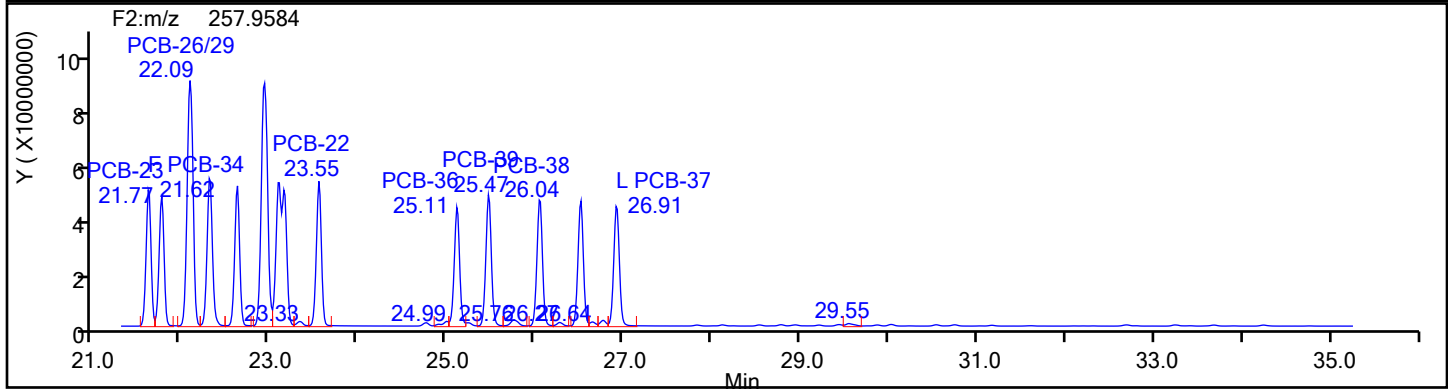
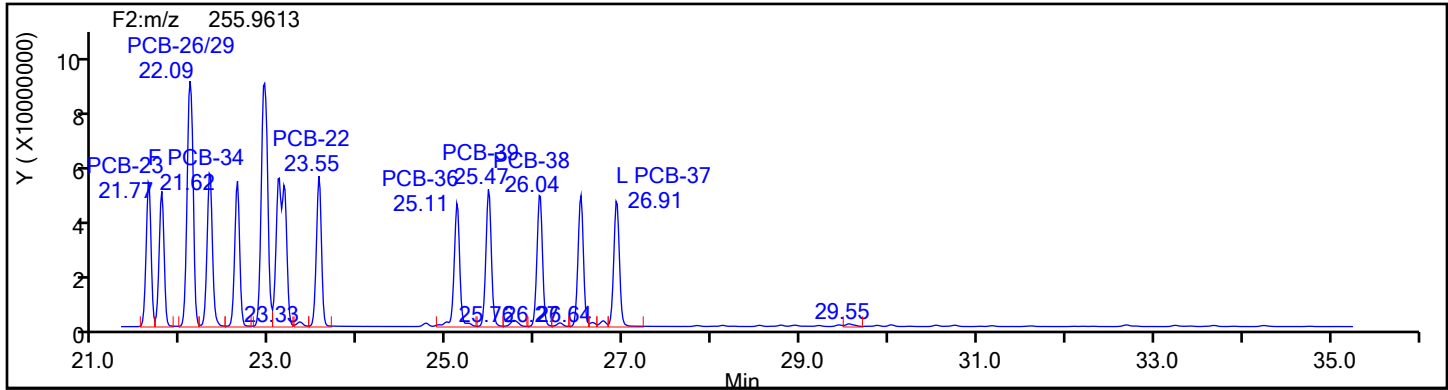
Worklist#: 87130

Sample Line#: 6

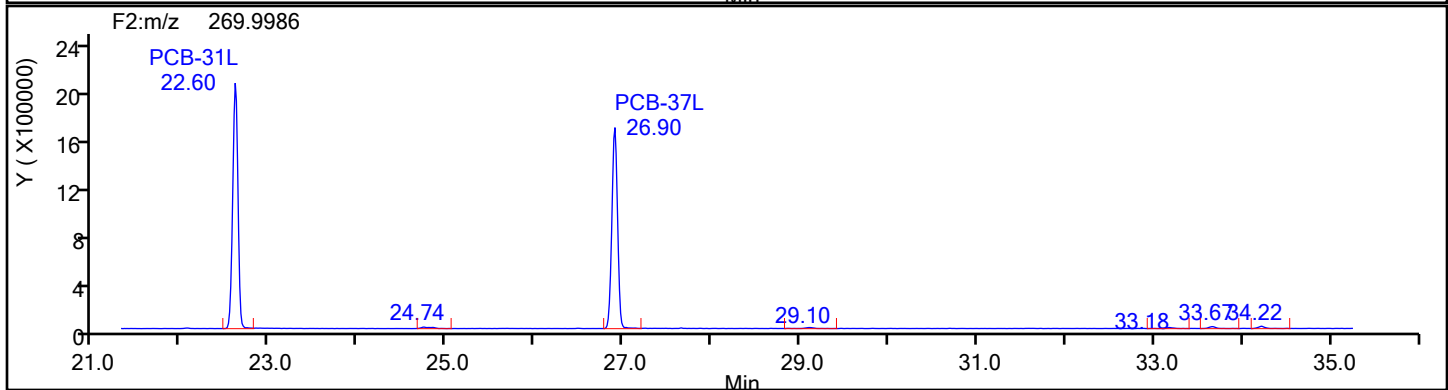
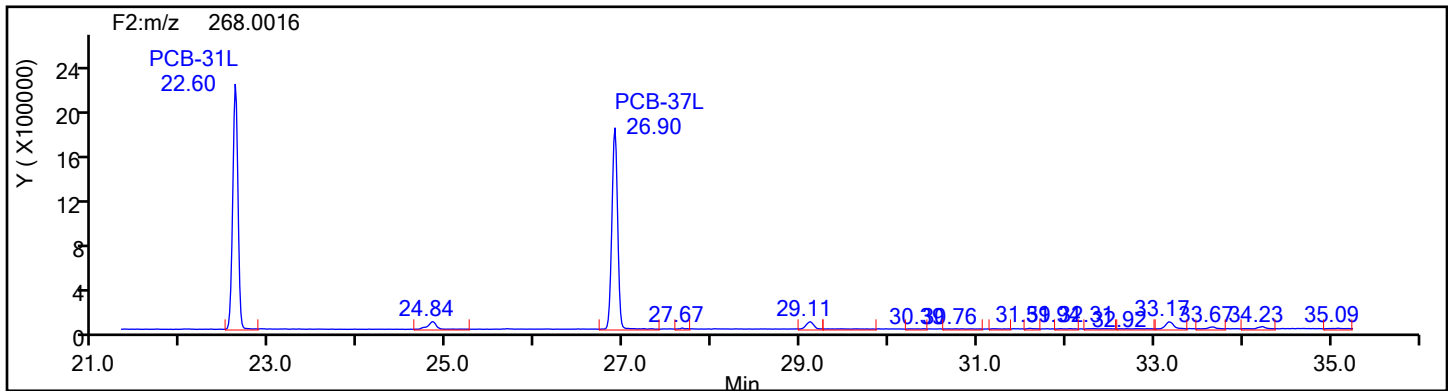
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

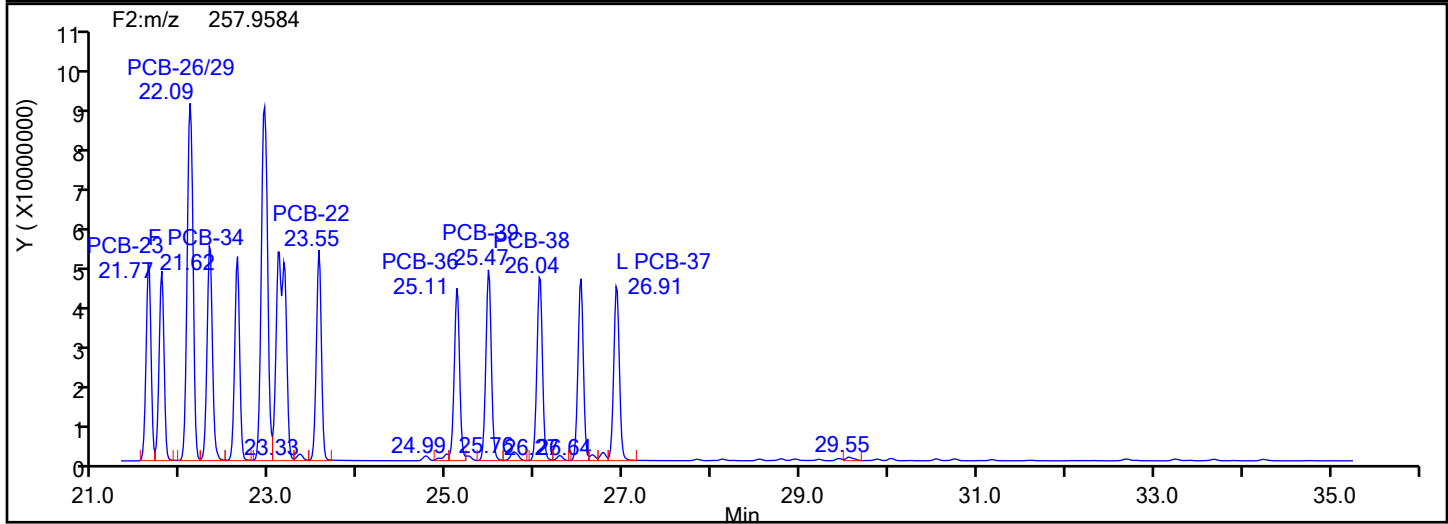
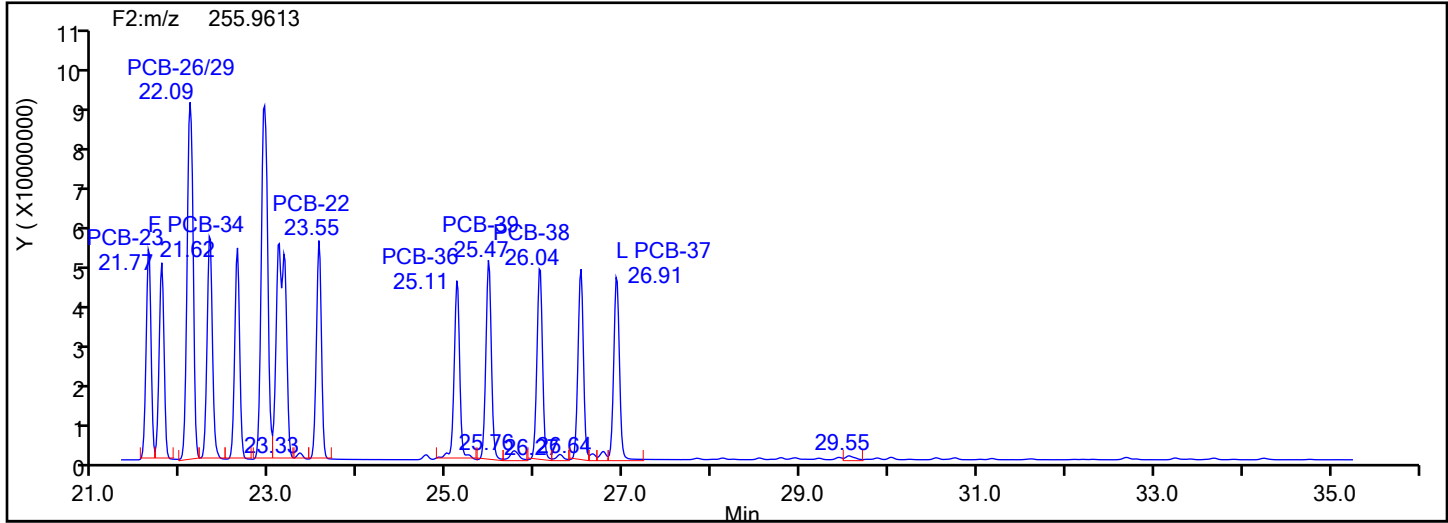
Worklist#: 87130

Sample Line#: 6

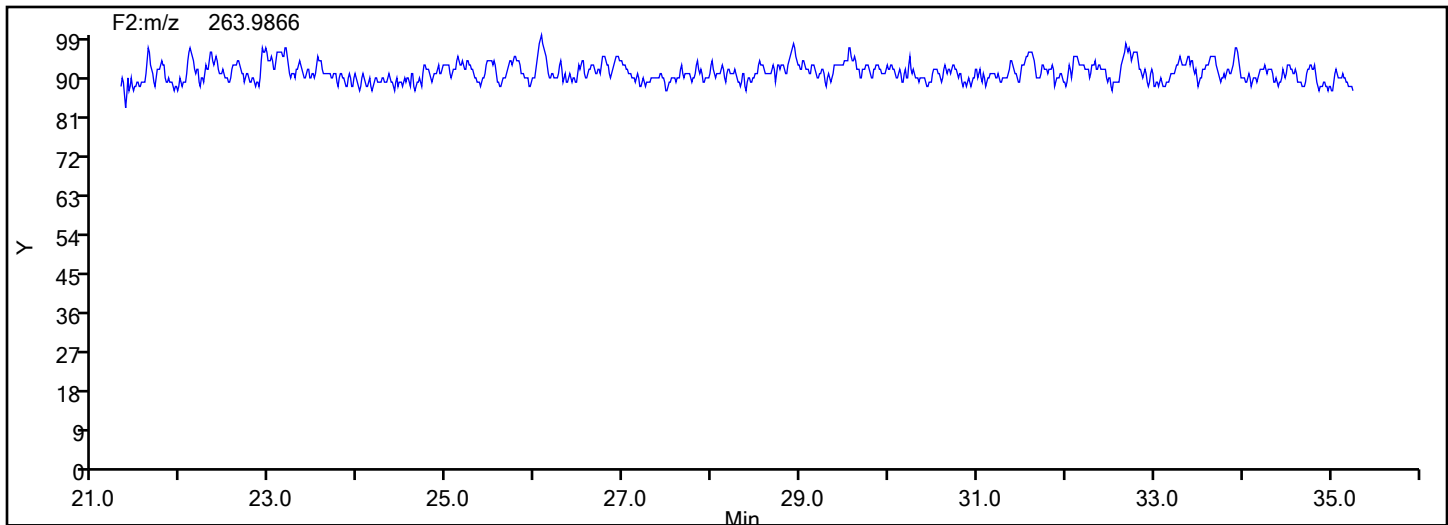
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Instrument ID: D2D

Lims ID: IC L6

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 6

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

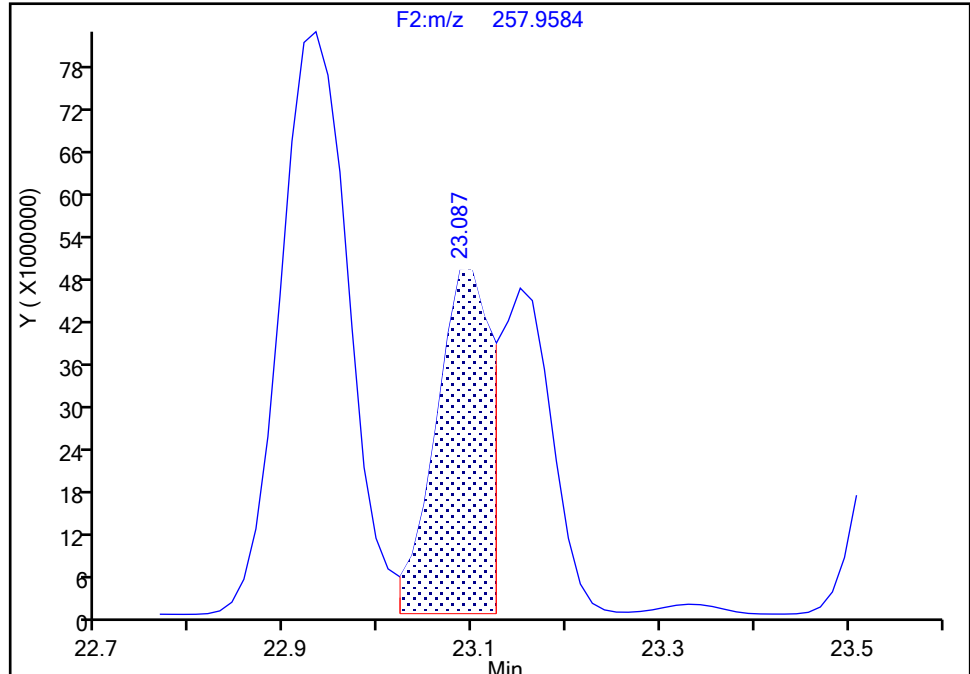
Detector F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 2

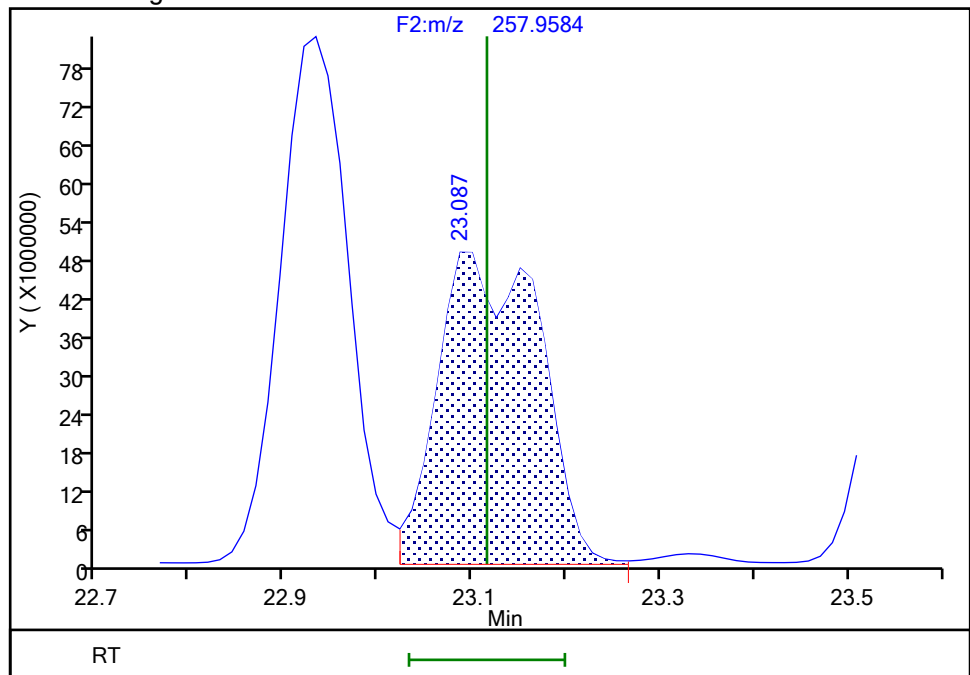
RT: 23.09  
Area: 193872911  
Amount: 2587.0057  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.09  
Area: 368971251  
Amount: 4484.0654  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:03:09 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Instrument ID: D2D

Lims ID: IC L6

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 6

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

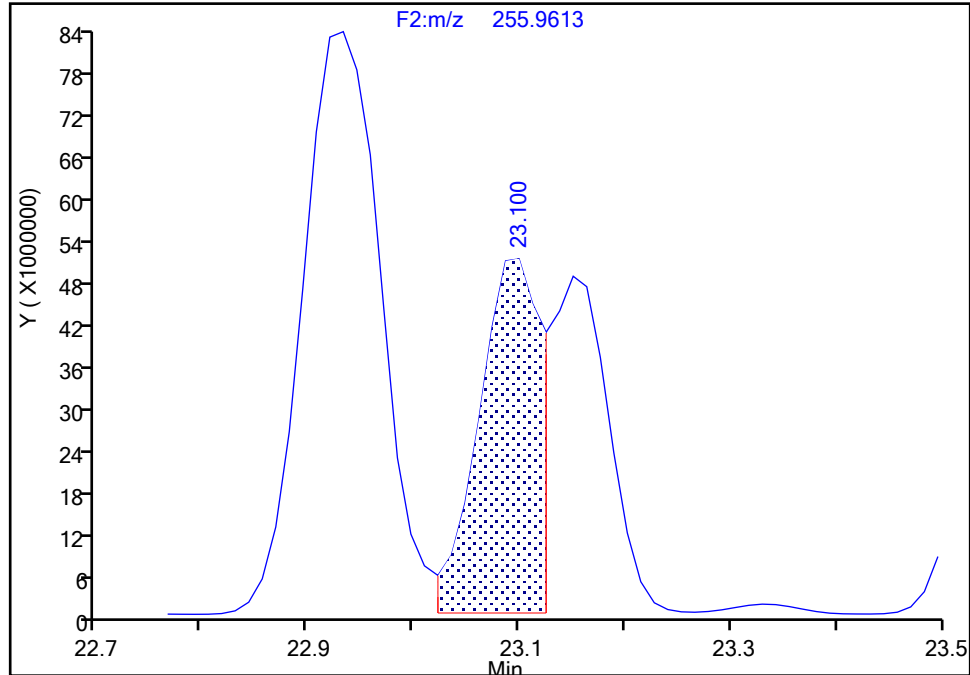
Detector F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 1

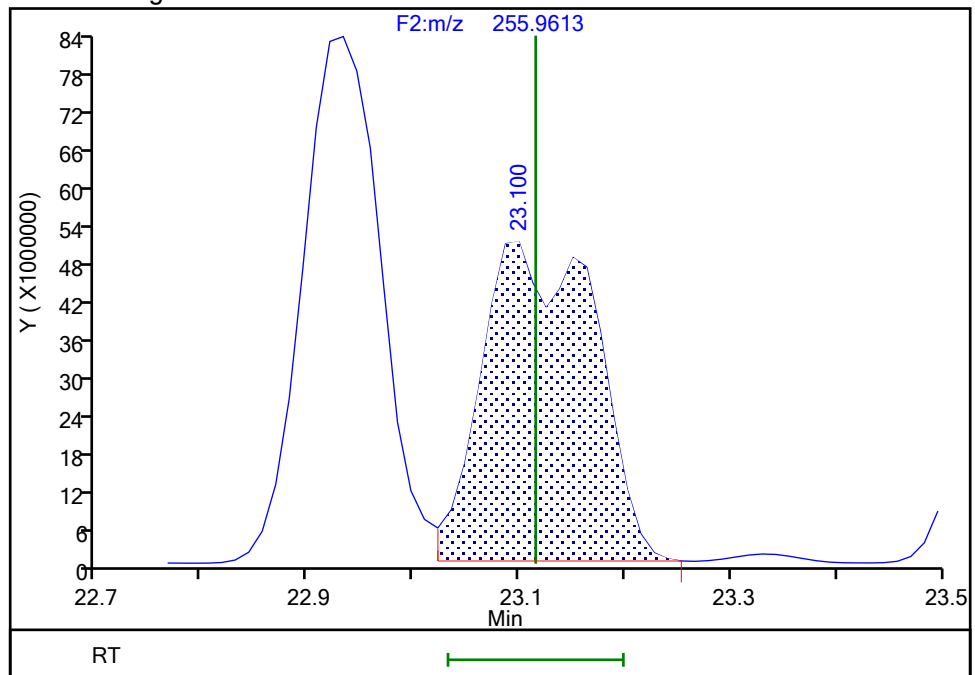
RT: 23.10  
Area: 200171472  
Amount: 2587.0057  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.10  
Area: 380418482  
Amount: 4484.0654  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:03:16 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Page 2152 of 3199

BASFHWC-Pass 2024-06-04 15:23

9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

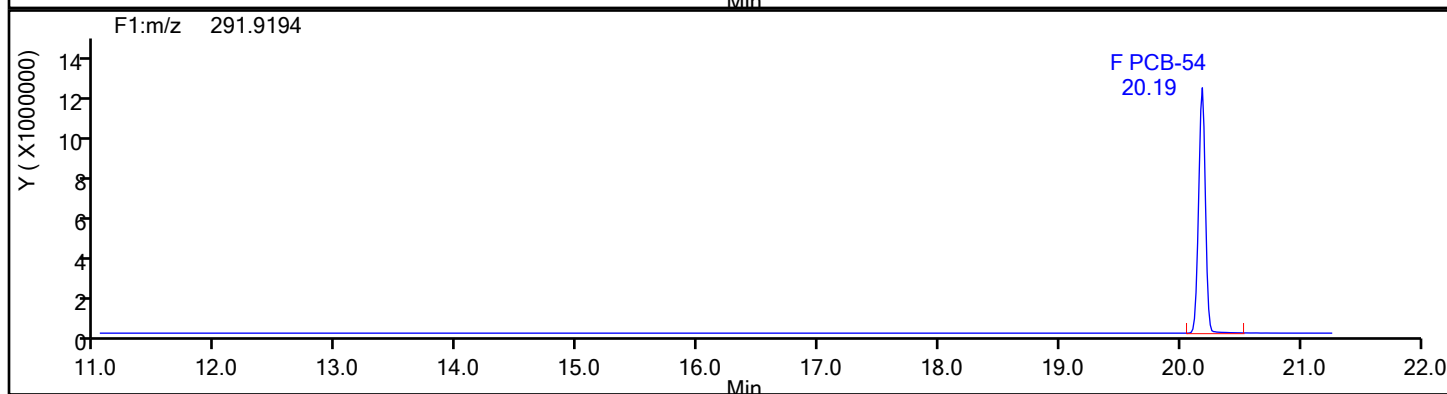
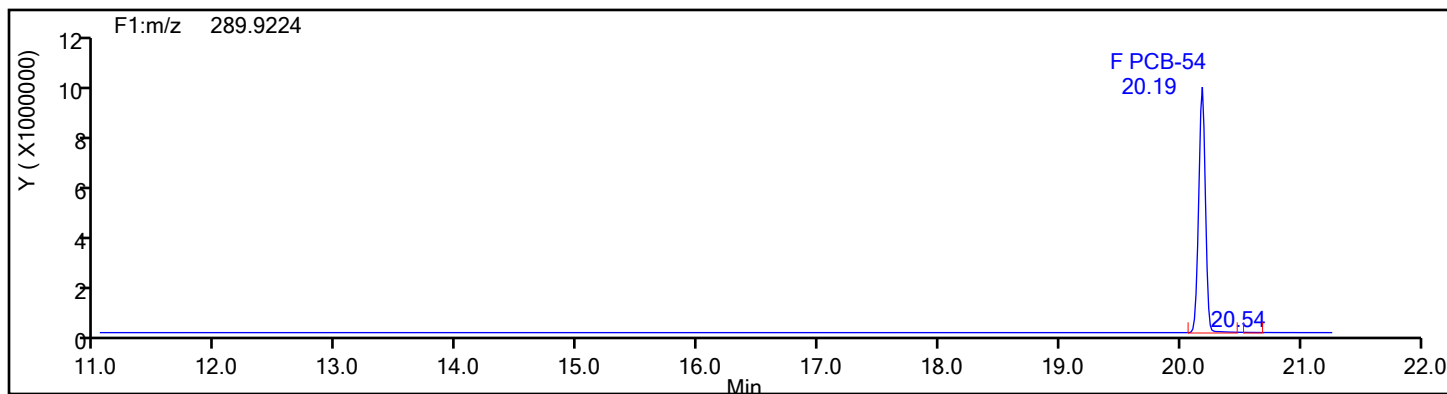
Worklist#: 87130

Sample Line#: 6

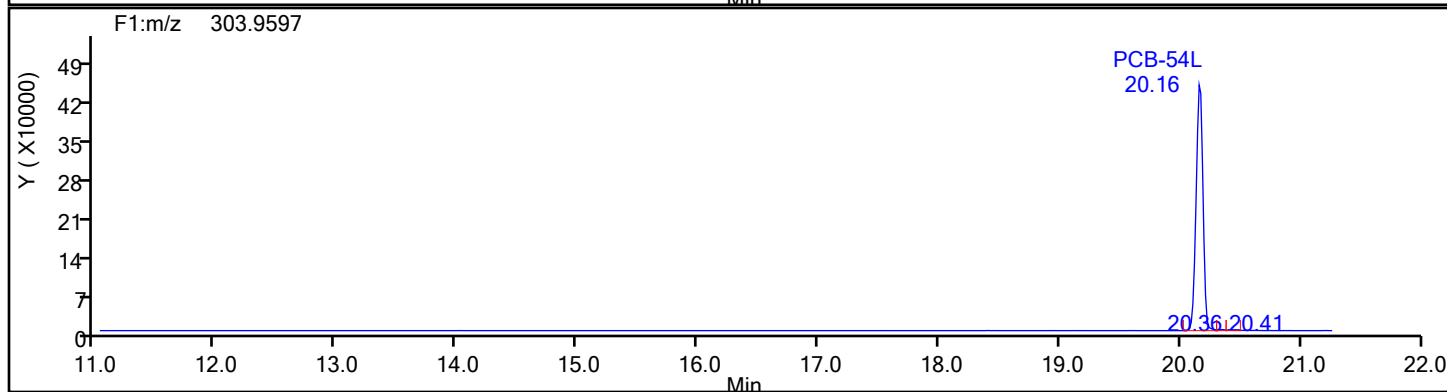
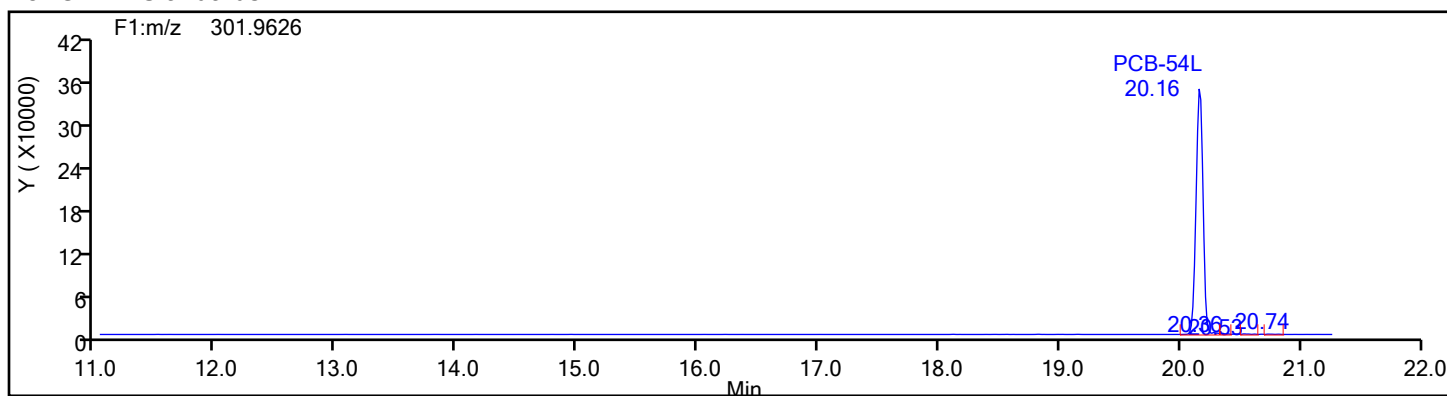
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



TePCB F1 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

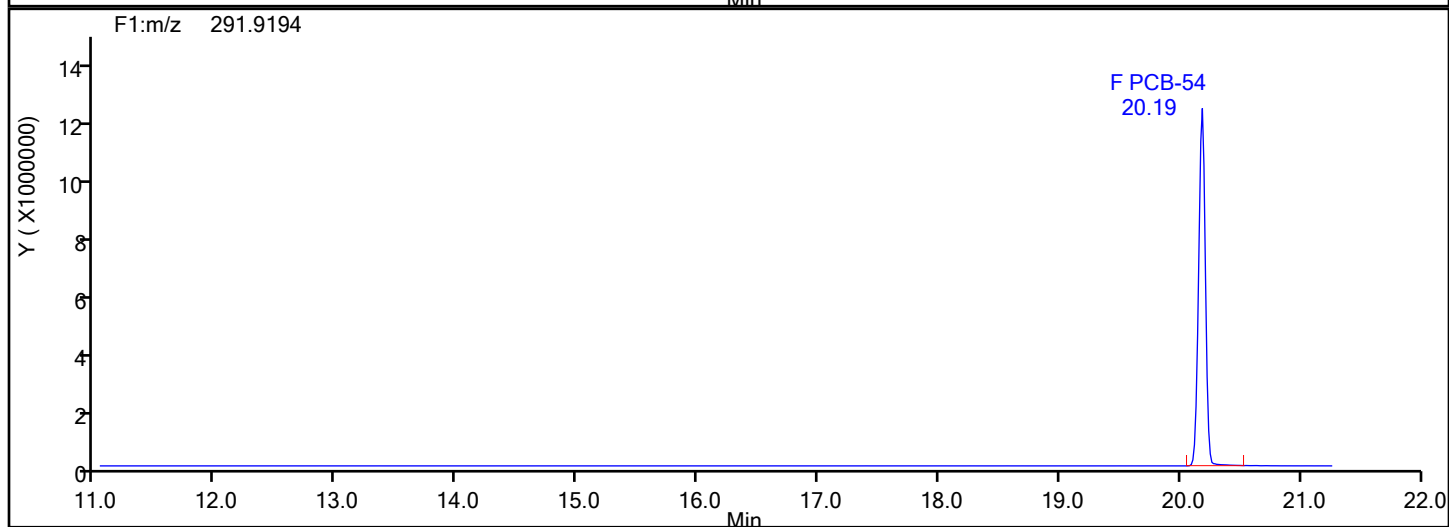
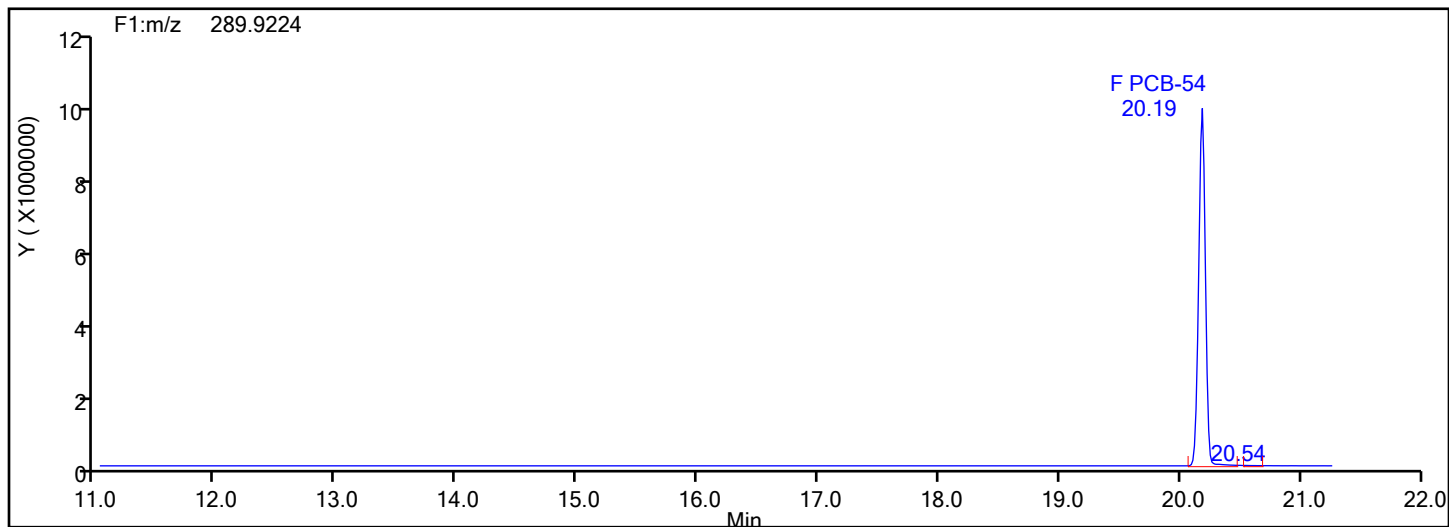
Worklist#: 87130

Sample Line#: 6

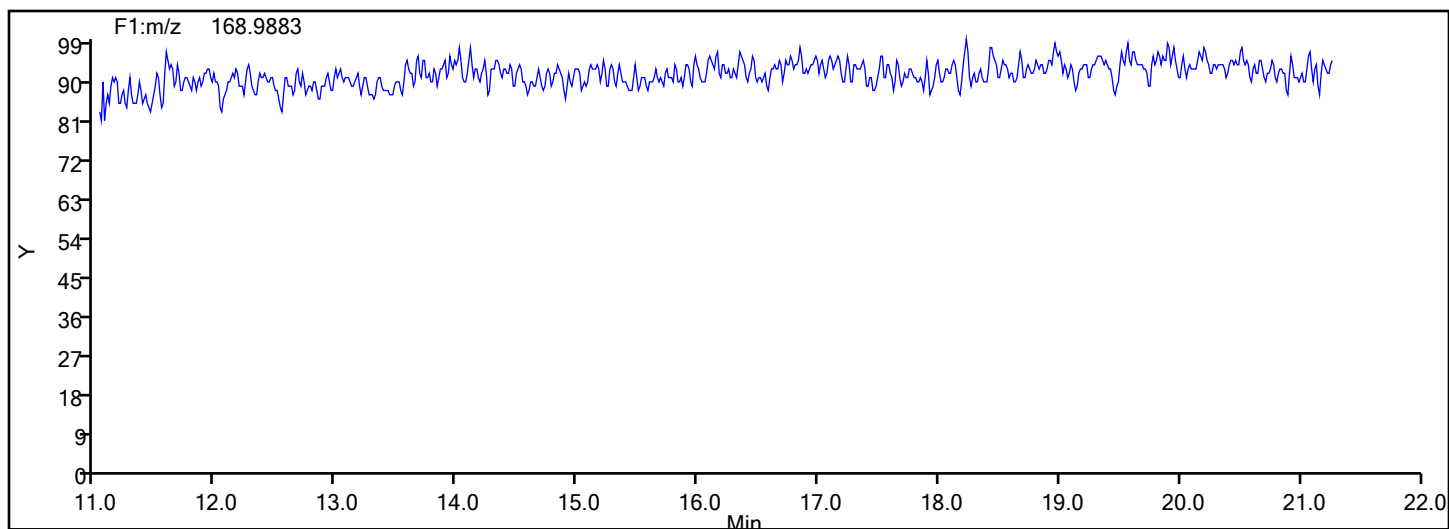
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



TePCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Instrument ID: D2D

Lims ID: IC L6

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 6

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

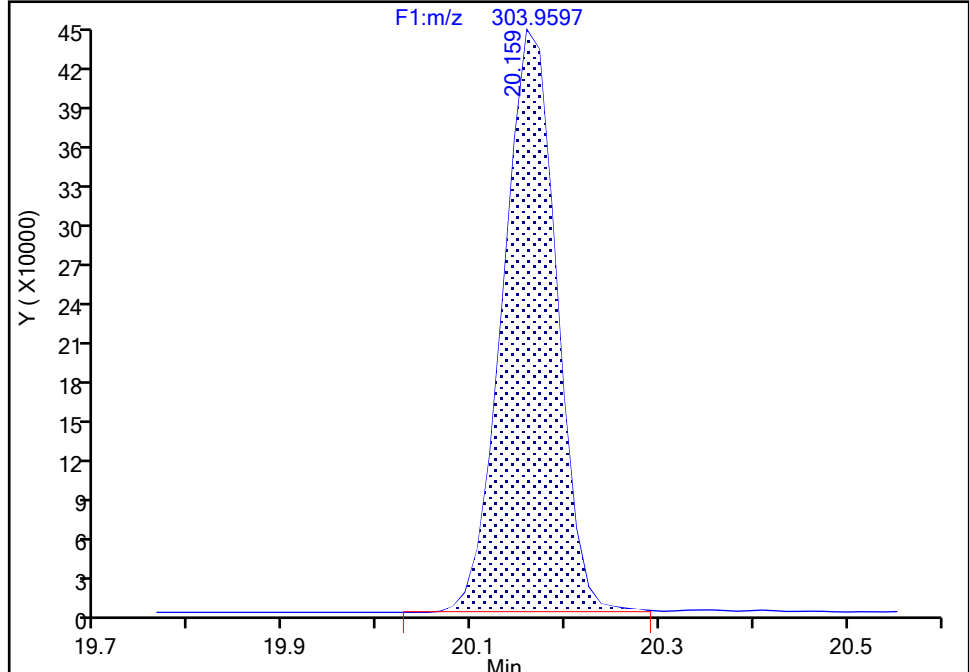
Detector F1(11.07 :21.70 )

**PCB-54L, CAS: 234432-88-3**

Signal: 2

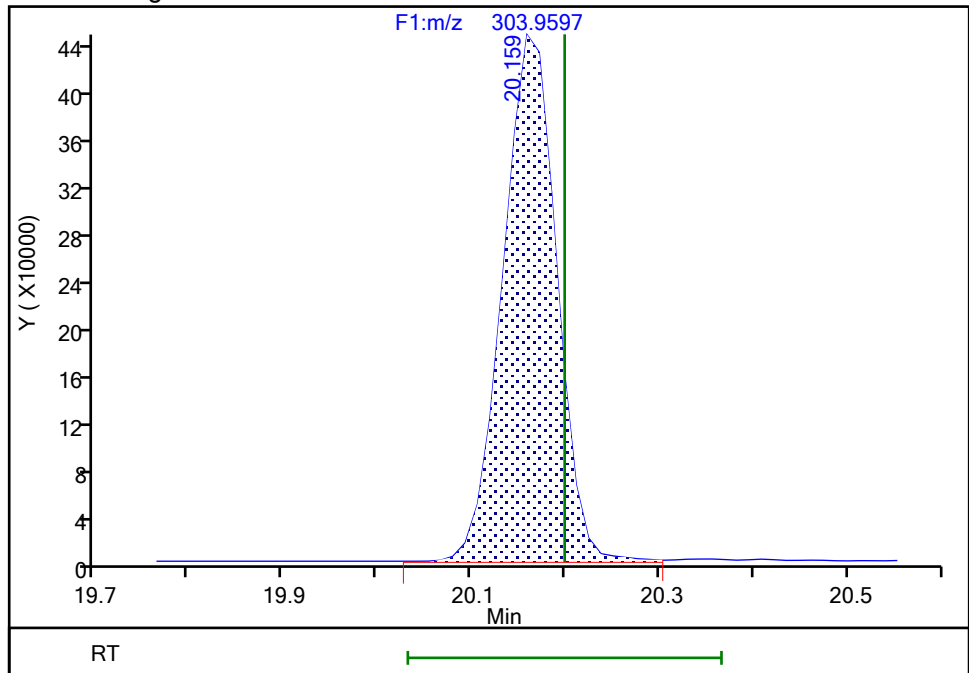
RT: 20.16  
Area: 1770178  
Amount: 96.965661  
Amount Units: pg/ul

## Processing Integration Results



RT: 20.16  
Area: 1783210  
Amount: 97.298516  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:03:37 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

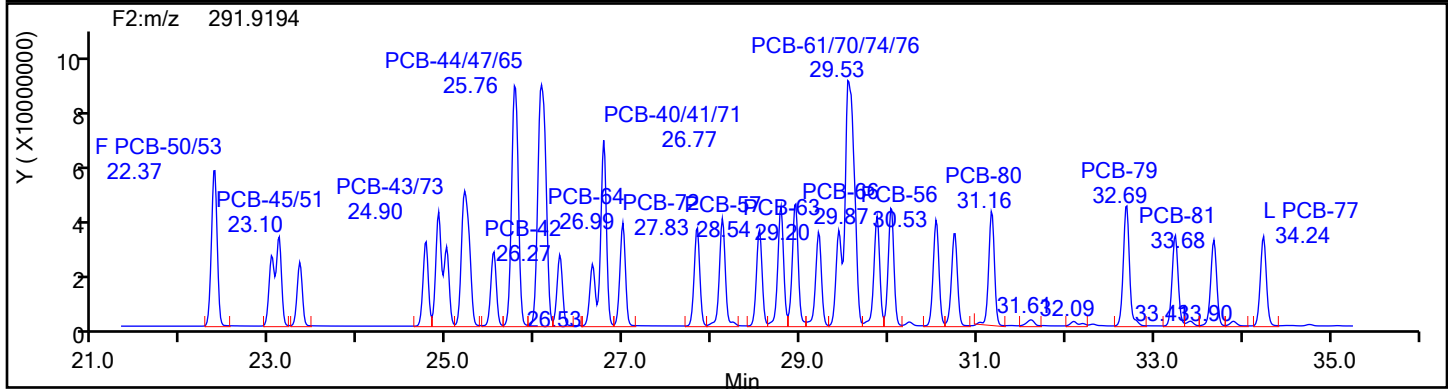
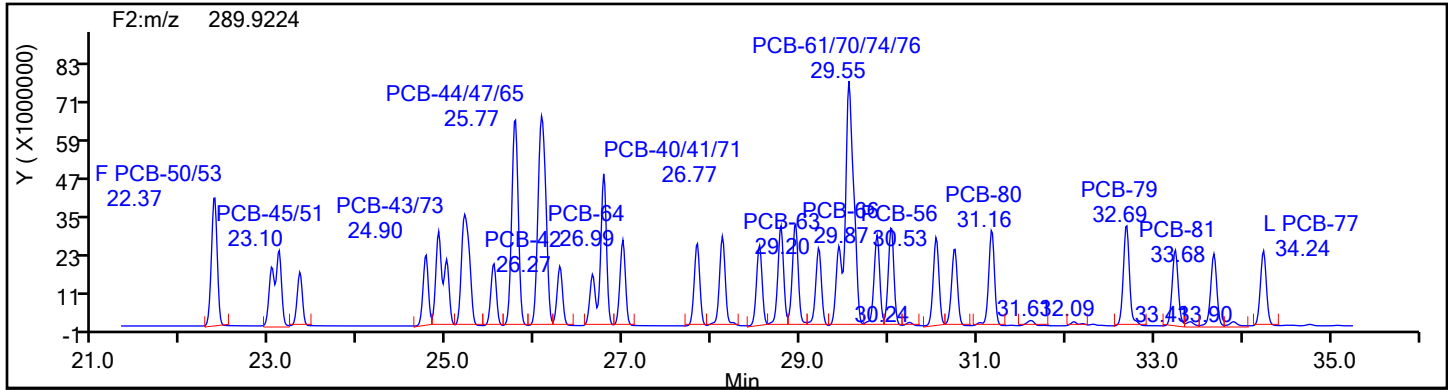
Worklist#: 87130

Sample Line#: 6

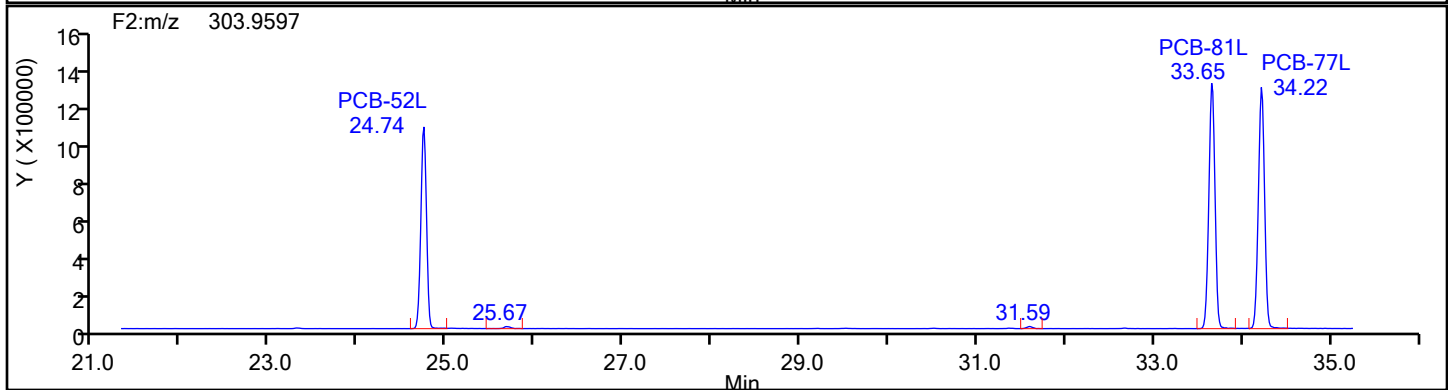
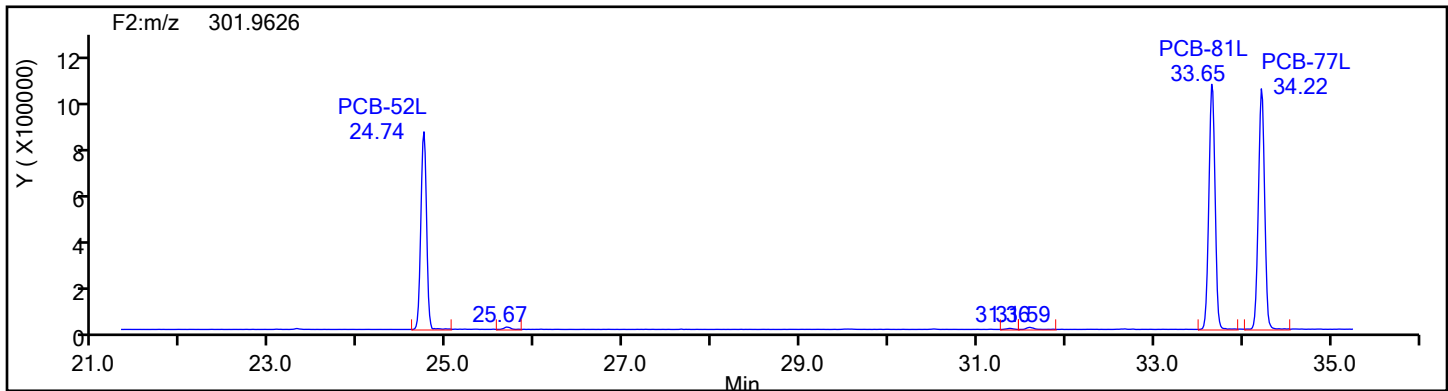
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



TePCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

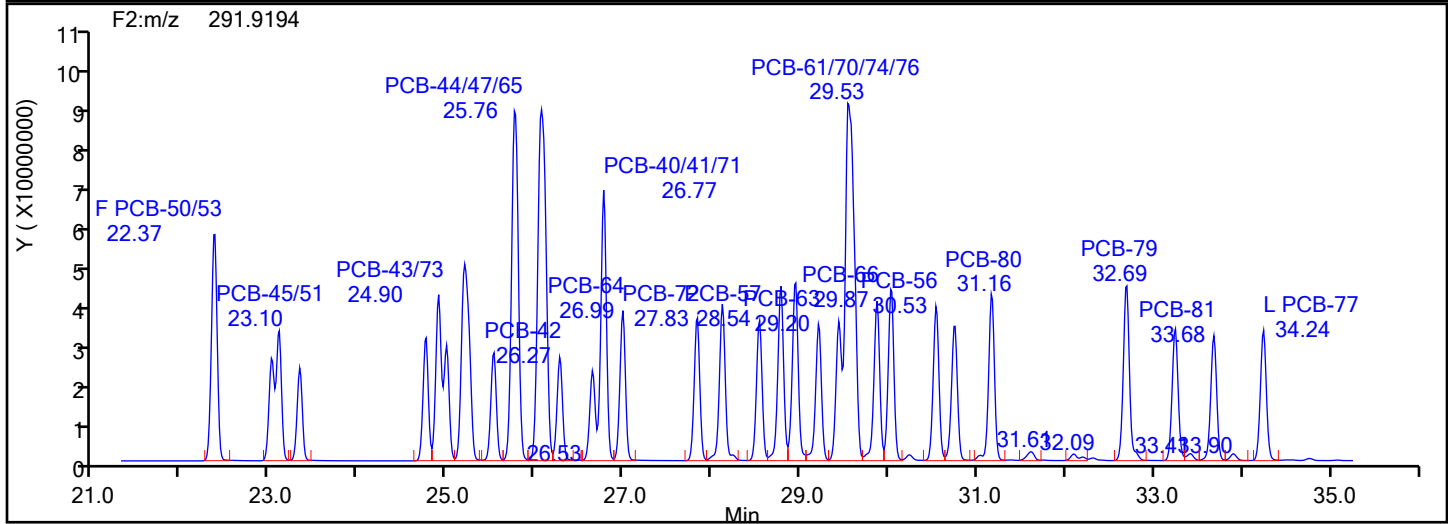
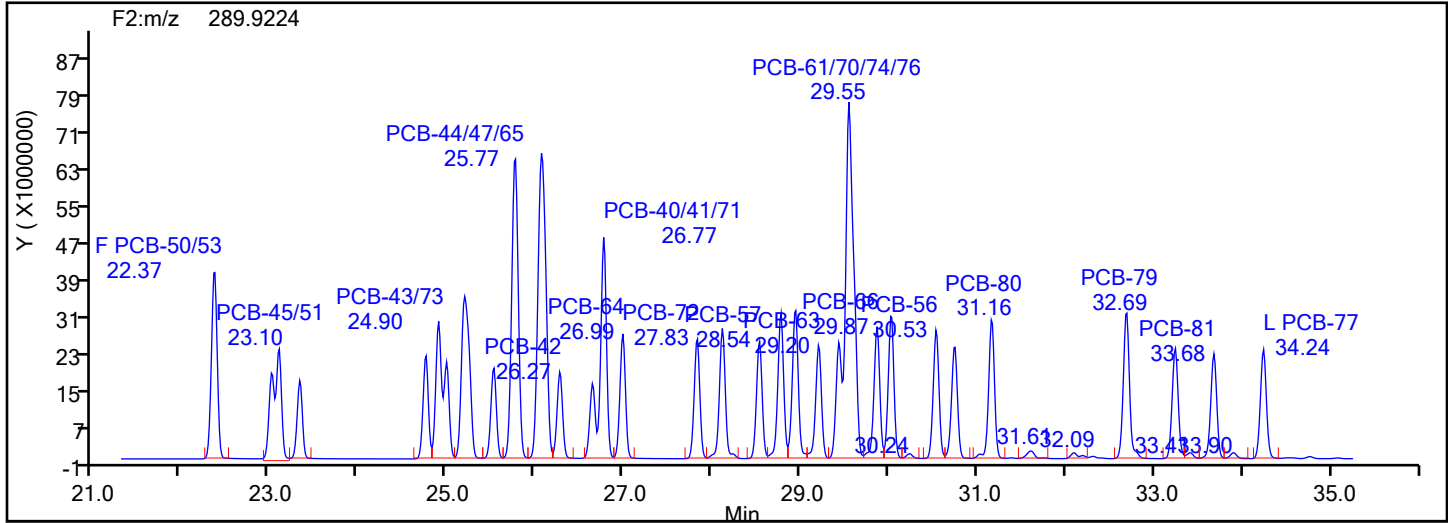
Worklist#: 87130

Sample Line#: 6

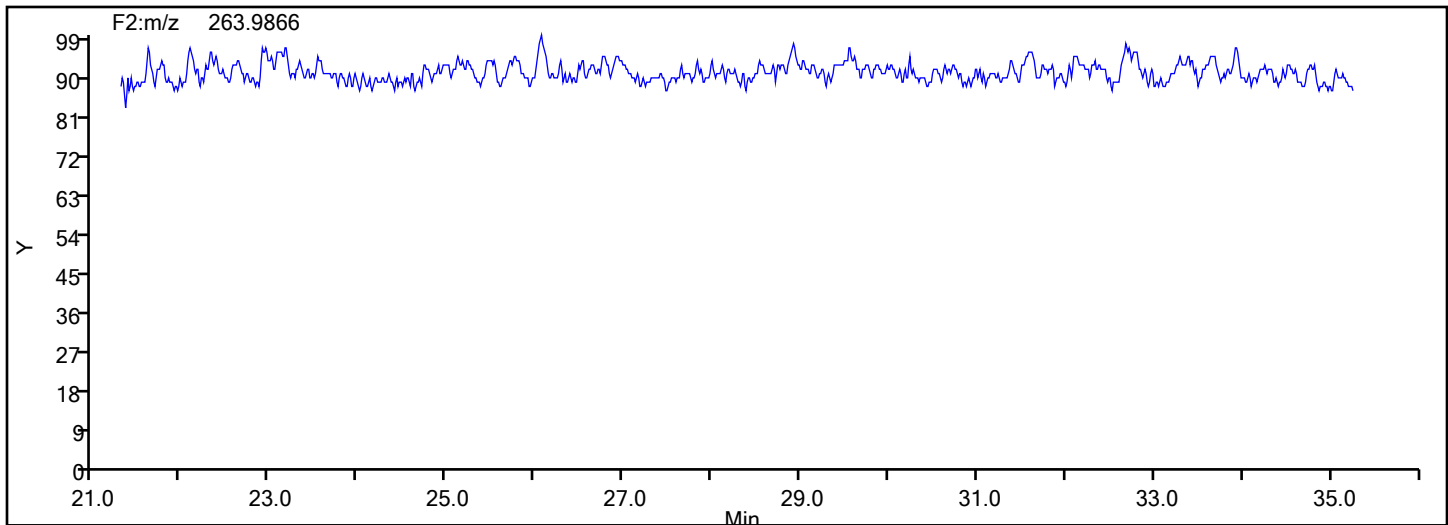
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



## TePCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Instrument ID: D2D

Lims ID: IC L6

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 6

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

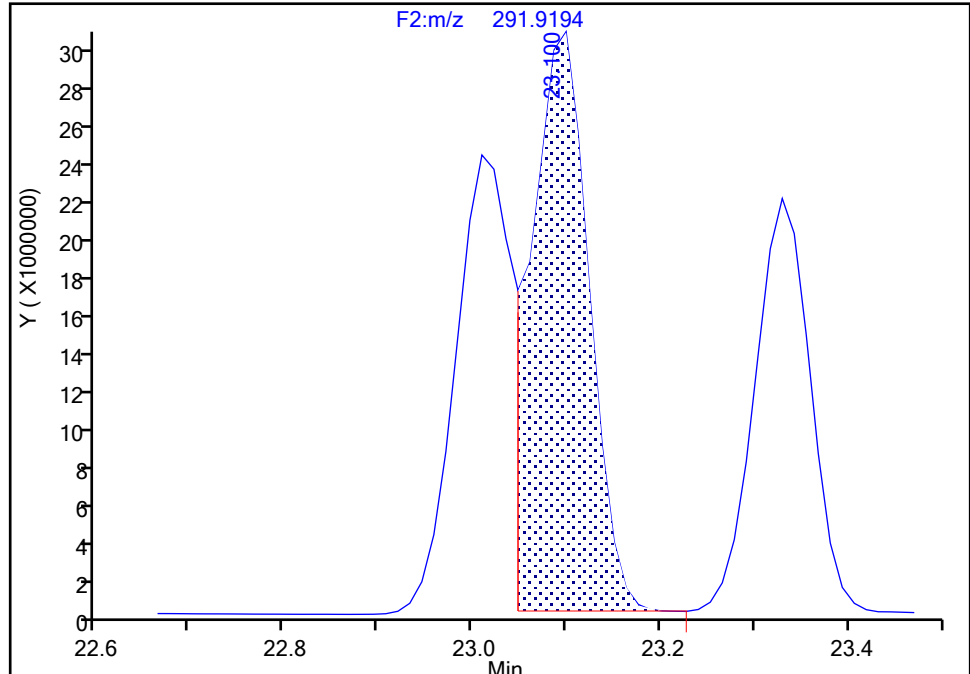
Detector F2(21.81 :35.54 )

**PCB-45/51, CAS: STL01804**

Signal: 2

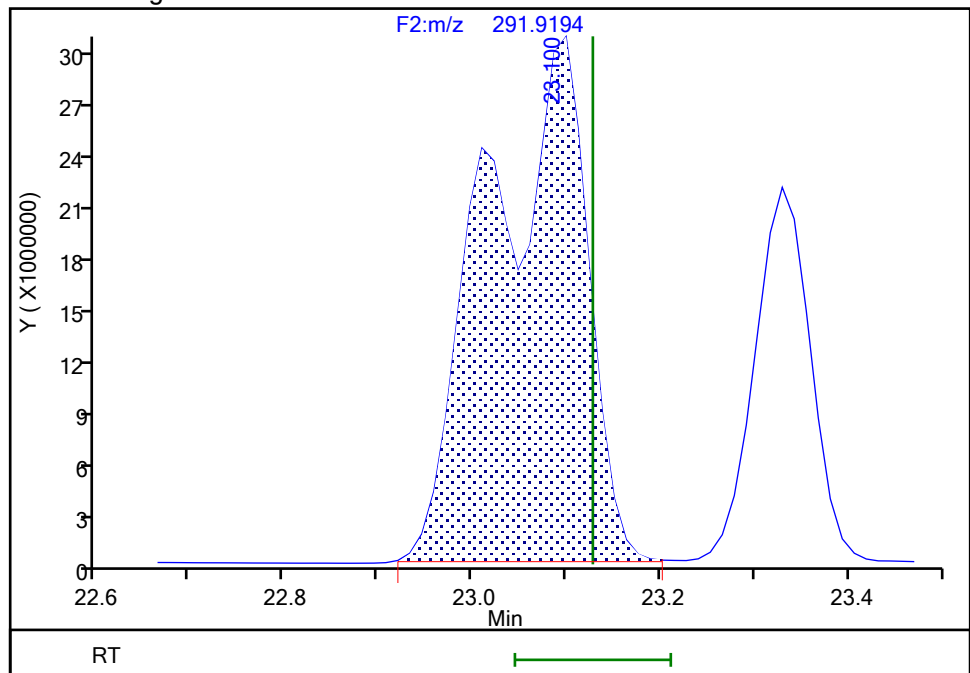
RT: 23.10  
Area: 126924557  
Amount: 2641.0659  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.10  
Area: 223614074  
Amount: 4329.7434  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:03:50 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

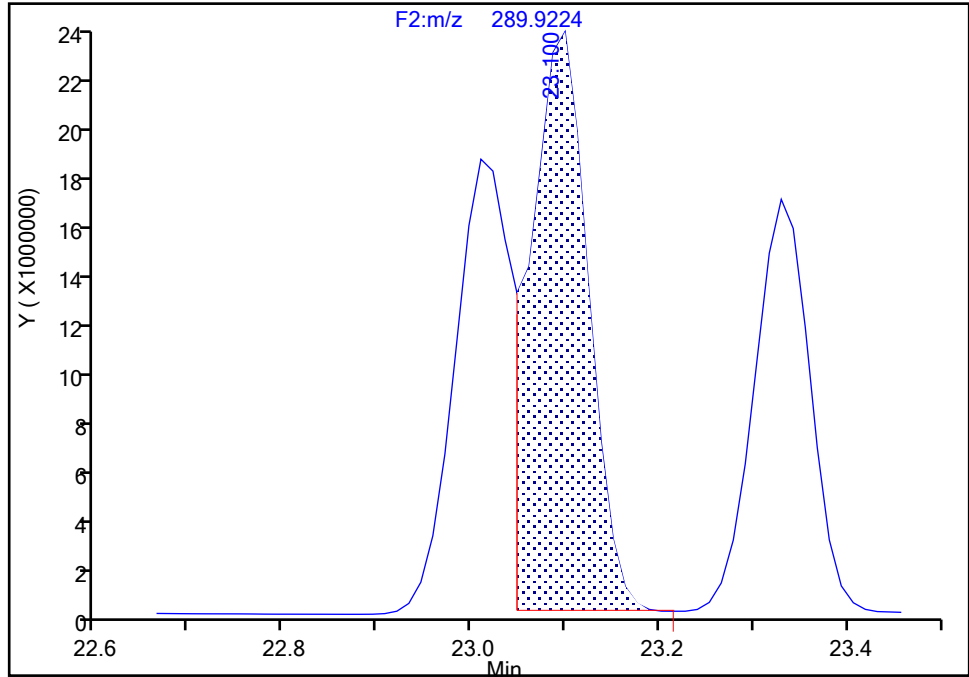
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Injection Date: 31-May-2024 21:13:00 Instrument ID: D2D  
Lims ID: IC L6  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-45/51, CAS: STL01804**

Signal: 1

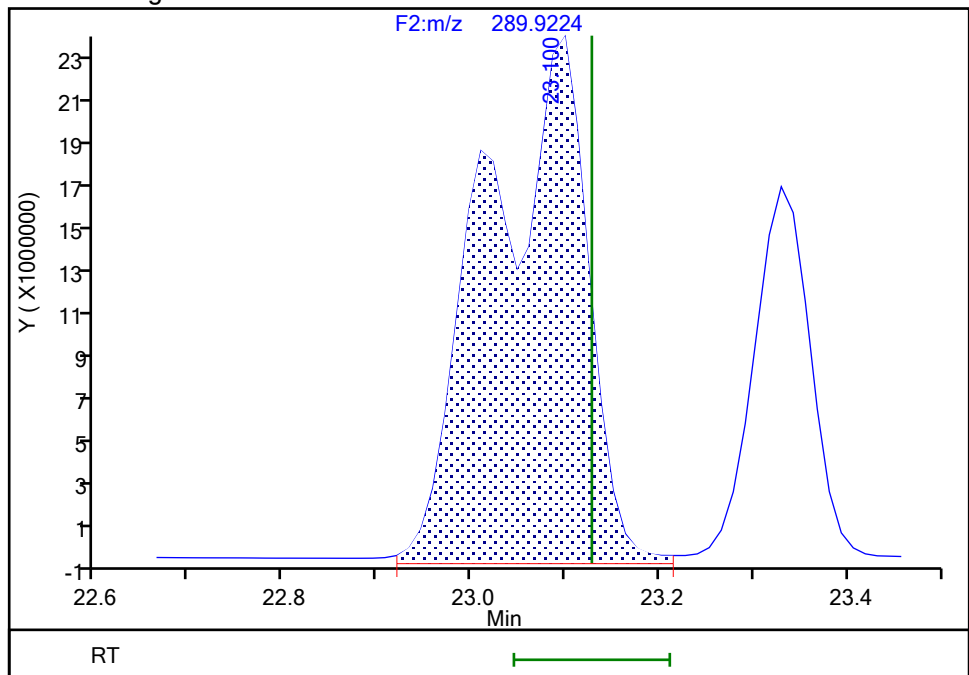
RT: 23.10  
Area: 98729299  
Amount: 2641.0659  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.10  
Area: 178079818  
Amount: 4329.7434  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:03:54 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Page 2159 of 3199

BASFWC-Pass 20240603159

9/6/2024  
4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Instrument ID: D2D

Lims ID: IC L6

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 6

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

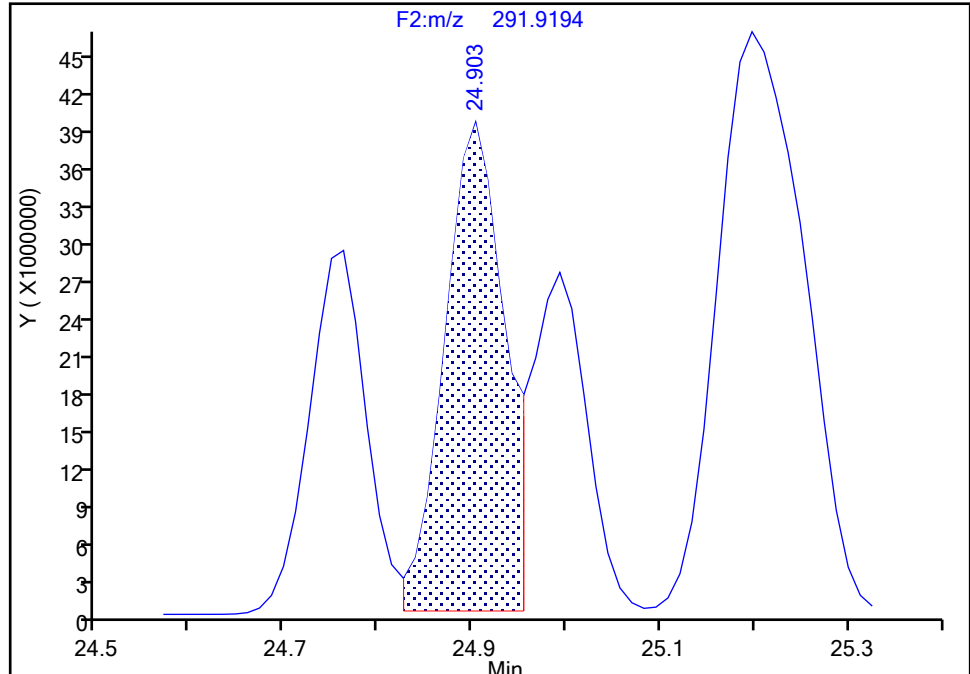
Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 2

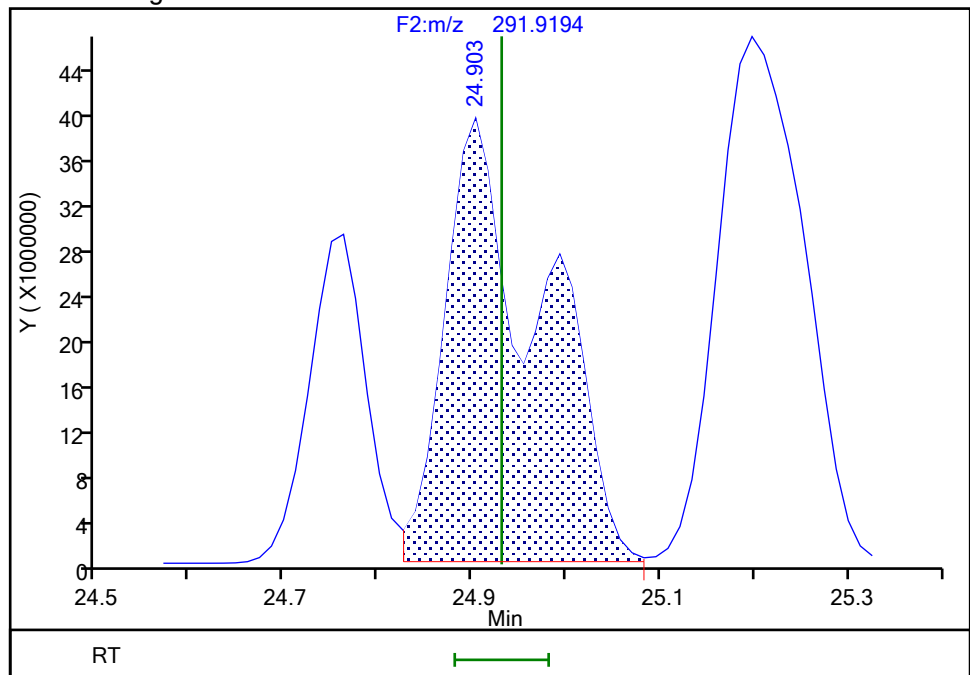
RT: 24.90  
Area: 169772440  
Amount: 2777.6048  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.90  
Area: 277935156  
Amount: 4218.4880  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:04:29 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

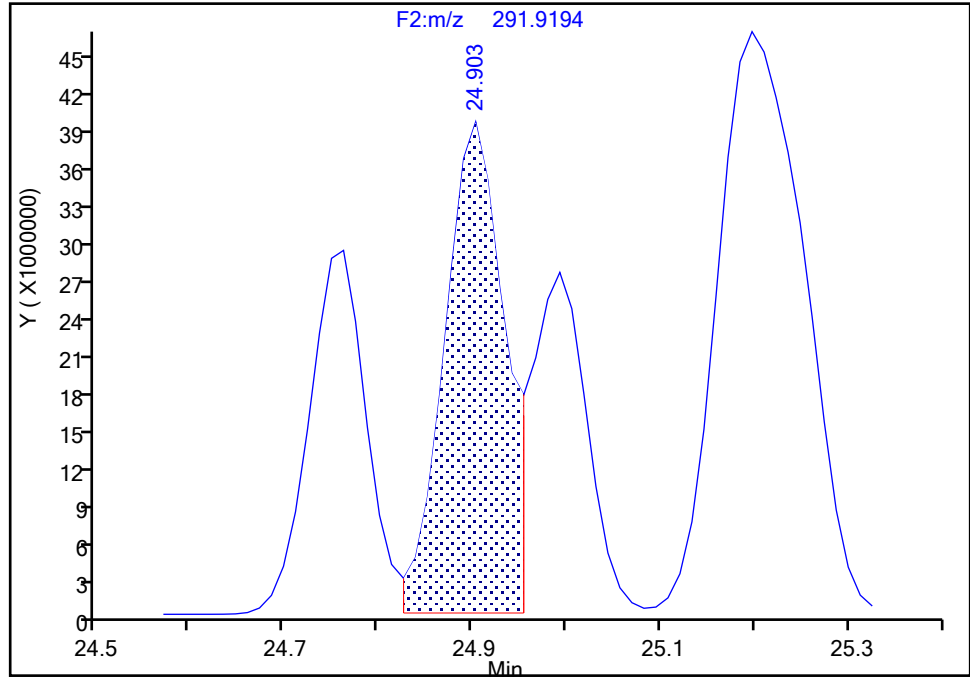
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Injection Date: 31-May-2024 21:13:00 Instrument ID: D2D  
Lims ID: IC L6  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 2

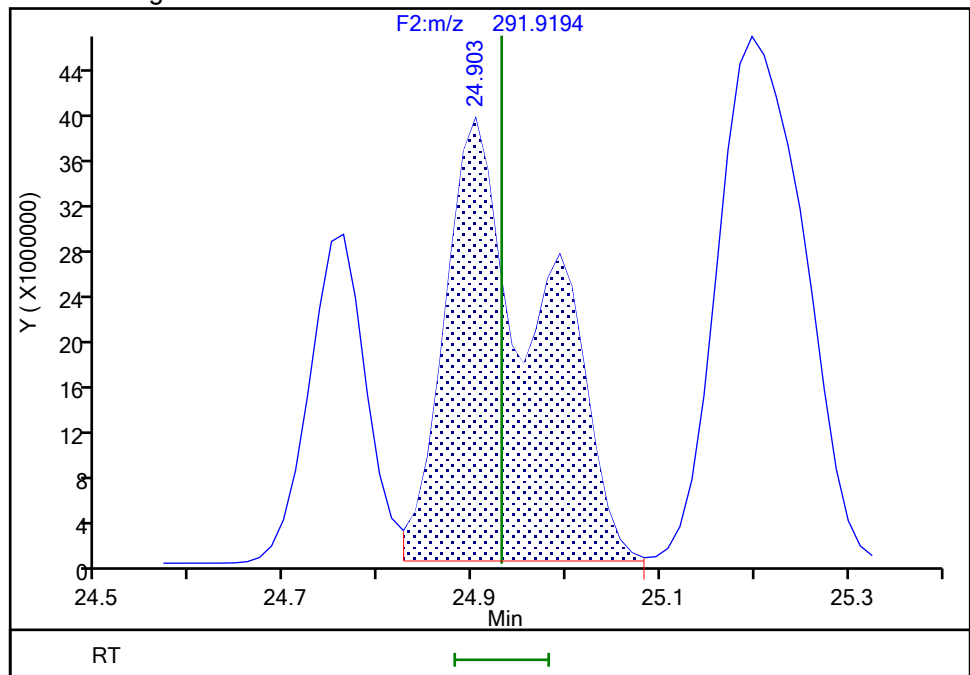
RT: 24.90  
Area: 169772440  
Amount: 2777.6048  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.90  
Area: 277935156  
Amount: 4218.4880  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:04:35 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID



## Eurofins Knoxville

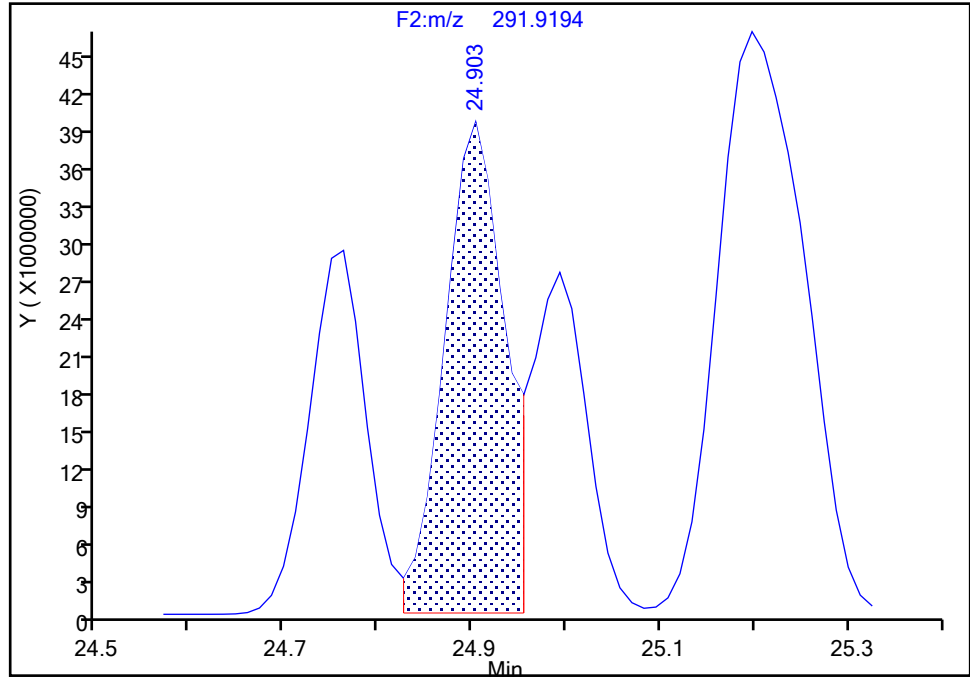
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Injection Date: 31-May-2024 21:13:00 Instrument ID: D2D  
Lims ID: IC L6  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 3

RT: 24.90  
Area: 300336589  
Amount: 2777.6048  
Amount Units: pg/ul

## Processing Integration Results



## Manual Integration Results

RT: 24.90  
Area: 489361192  
Amount: 4218.4880  
Amount Units: pg/ul

Reviewer: V4XA, 01-Jun-2024 03:04:35 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

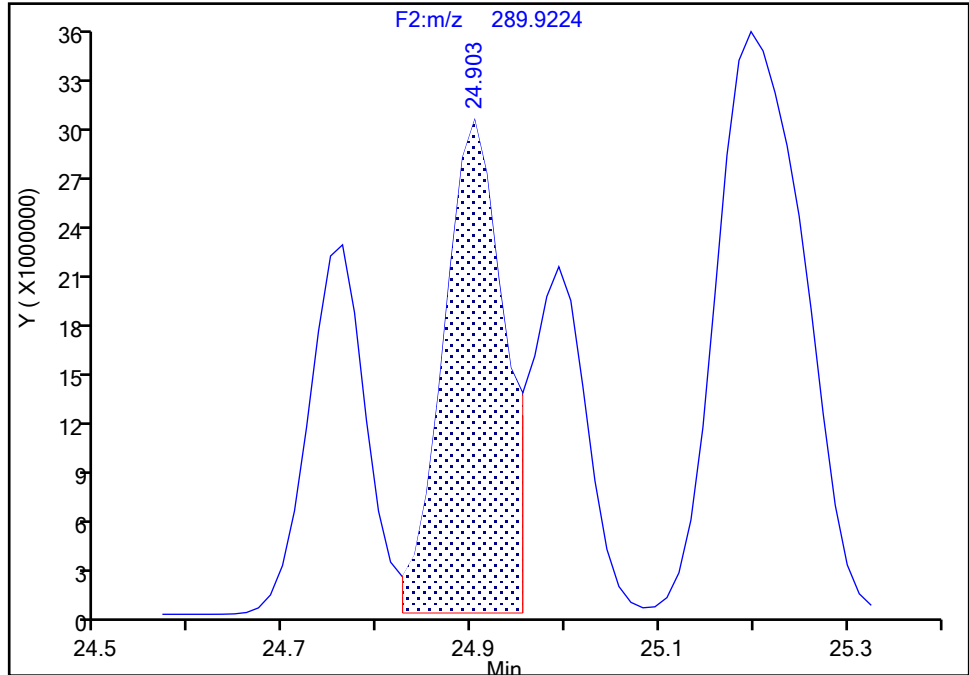
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Injection Date: 31-May-2024 21:13:00 Instrument ID: D2D  
Lims ID: IC L6  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-43/73, CAS: STL02293

Signal: 1

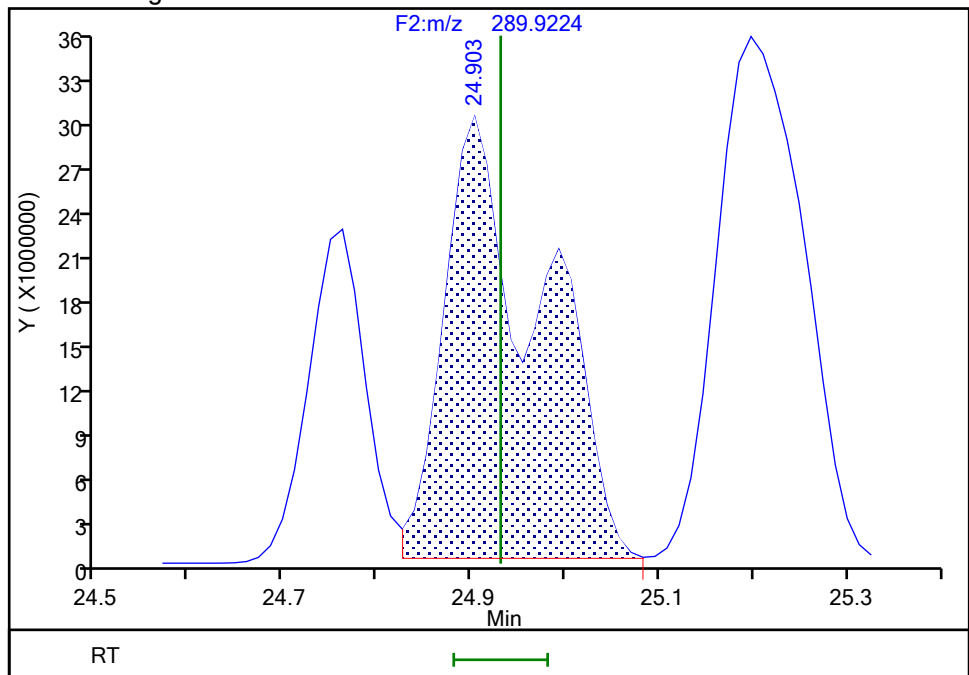
RT: 24.90  
Area: 130564149  
Amount: 2777.6048  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.90  
Area: 211426036  
Amount: 4218.4880  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:04:37 -04:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Instrument ID: D2D

Lims ID: IC L6

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 6

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

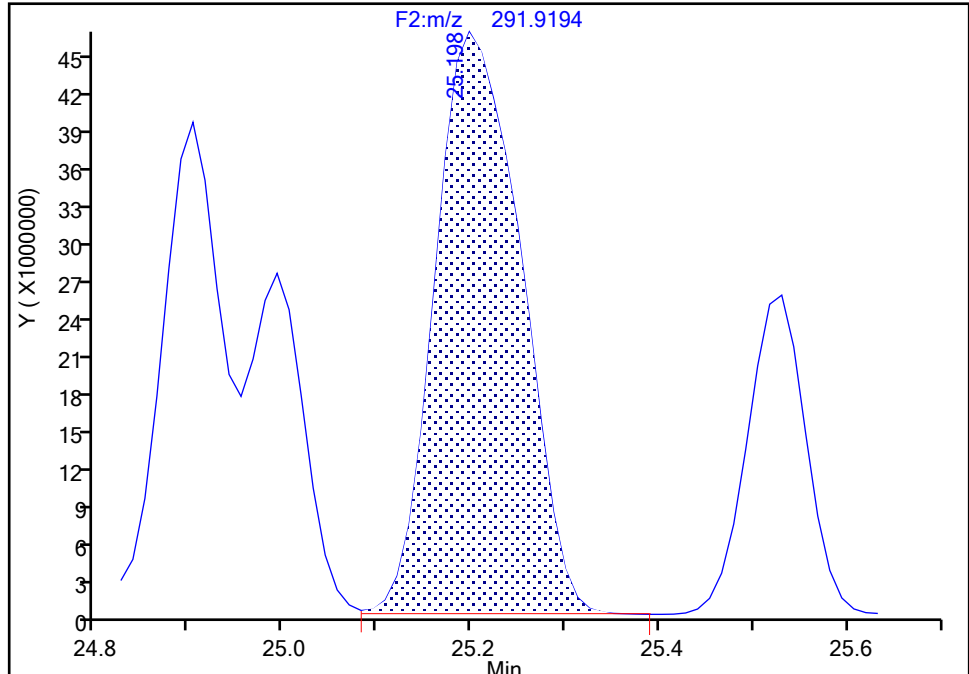
Detector F2(21.81 :35.54 )

PCB-49/69, CAS: STL01805

Signal: 2

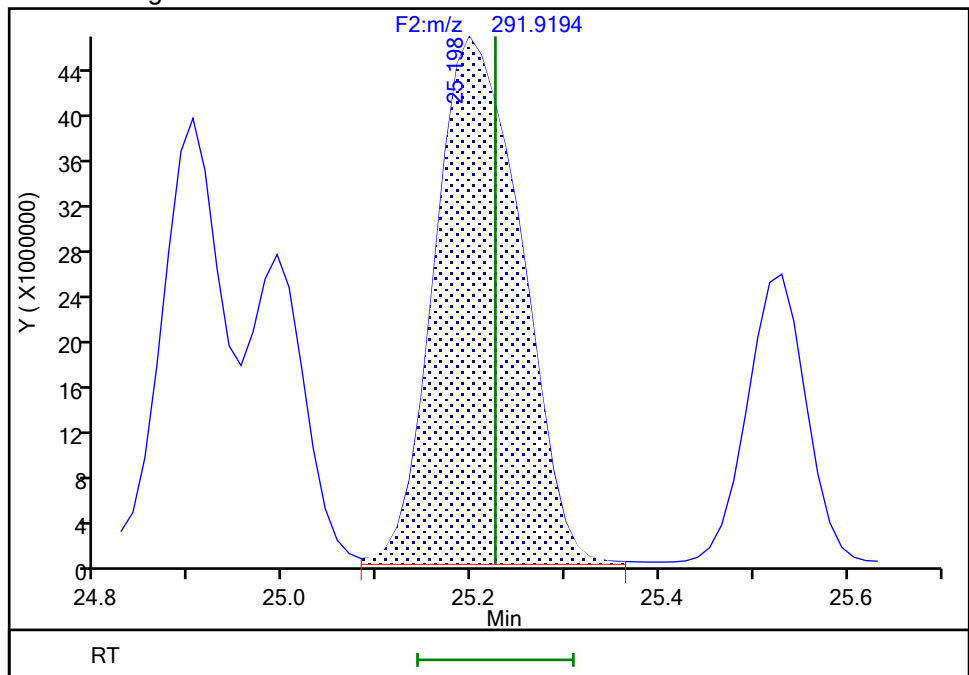
RT: 25.20  
Area: 292362083  
Amount: 4313.5357  
Amount Units: pg/ul

## Processing Integration Results



RT: 25.20  
Area: 293974420  
Amount: 4324.5612  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:04:29 -04:00:00 (UTC)

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Instrument ID: D2D

Lims ID: IC L6

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 6

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

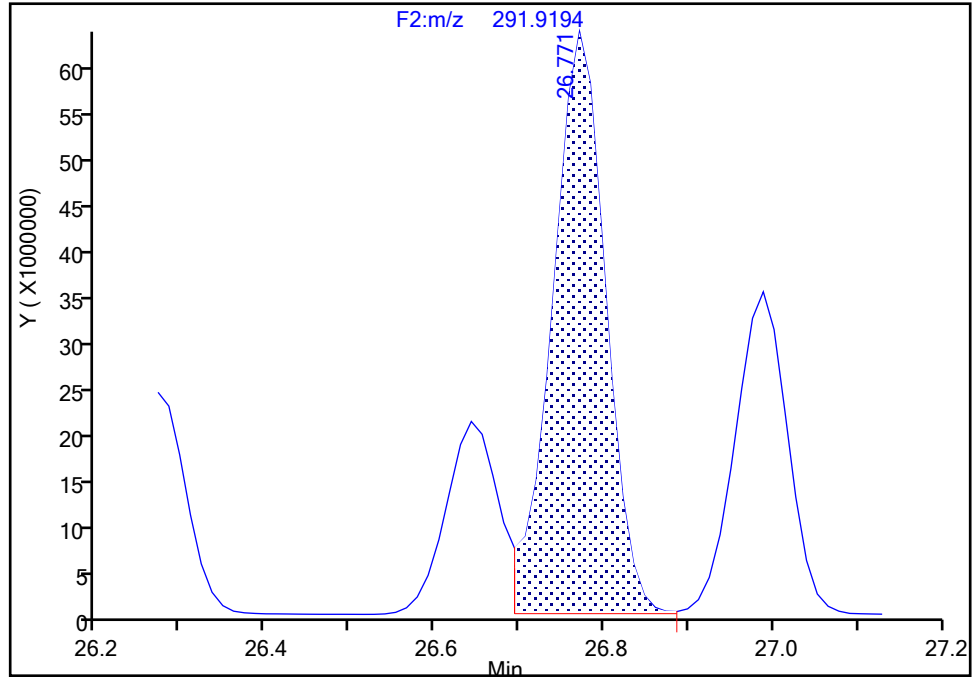
Detector F2(21.81 :35.54 )

**PCB-40/41/71, CAS: STL02292**

Signal: 2

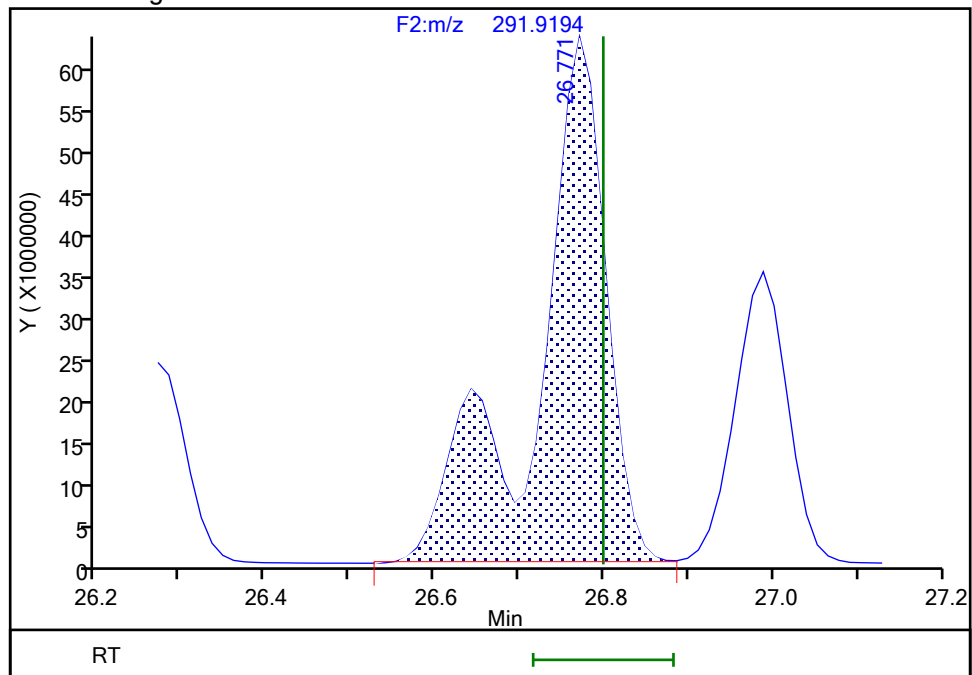
RT: 26.77  
Area: 276411598  
Amount: 5120.9933  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.77  
Area: 364045686  
Amount: 6444.9845  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:05:08 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Instrument ID: D2D

Lims ID: IC L6

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 6

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

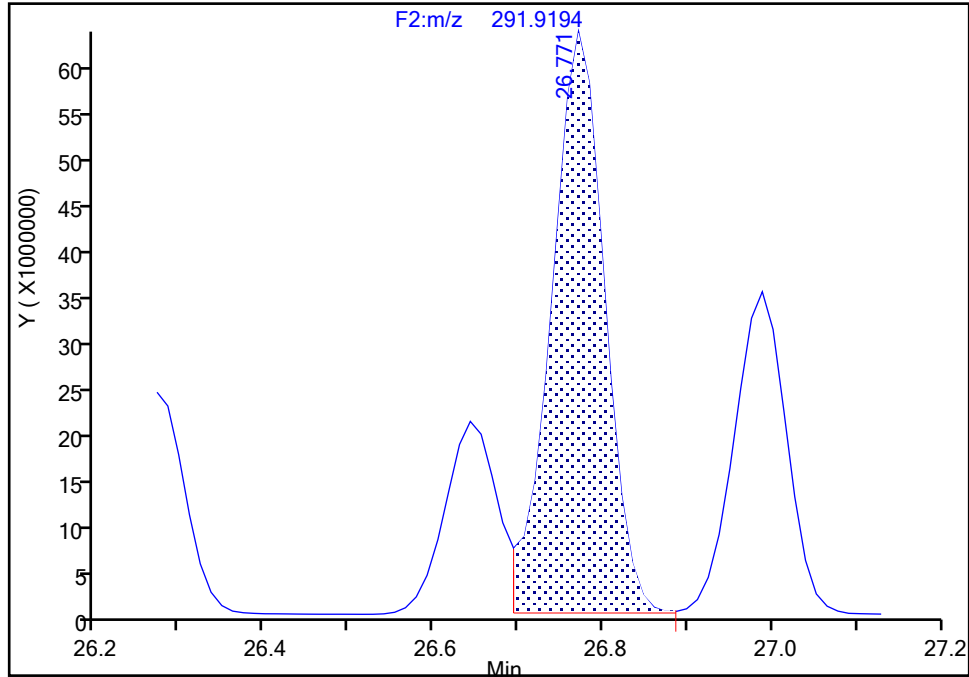
Detector F2(21.81 :35.54 )

**PCB-40/41/71, CAS: STL02292**

Signal: 2

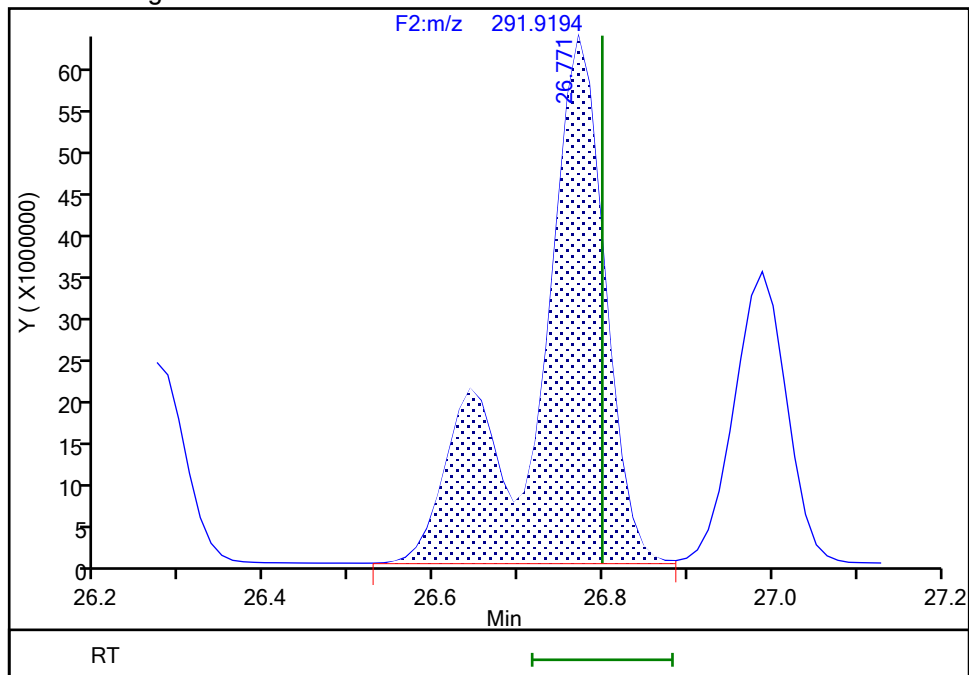
RT: 26.77  
Area: 276411598  
Amount: 5120.9933  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.77  
Area: 364045686  
Amount: 6444.9845  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:05:30 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

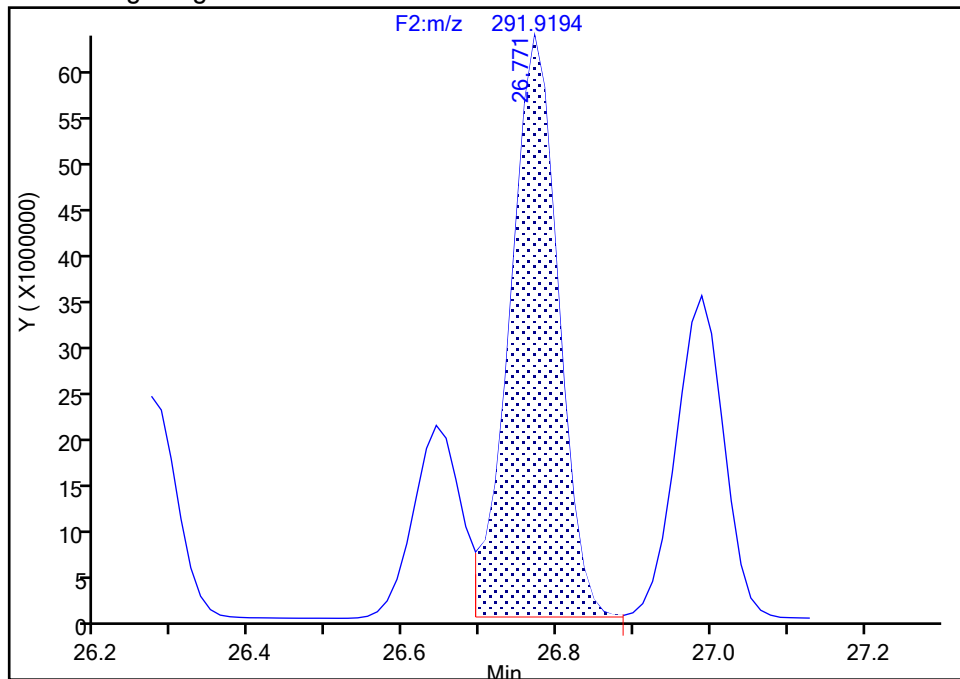
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Injection Date: 31-May-2024 21:13:00 Instrument ID: D2D  
Lims ID: IC L6  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-40/41/71, CAS: STL02292

Signal: 3

RT: 26.77  
Area: 487694602  
Amount: 5120.9933  
Amount Units: pg/ul

## Processing Integration Results



## Manual Integration Results

RT: 26.77  
Area: 641280083  
Amount: 6444.9845  
Amount Units: pg/ul

Reviewer: V4XA, 01-Jun-2024 03:05:30 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Instrument ID: D2D

Lims ID: IC L6

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 6

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

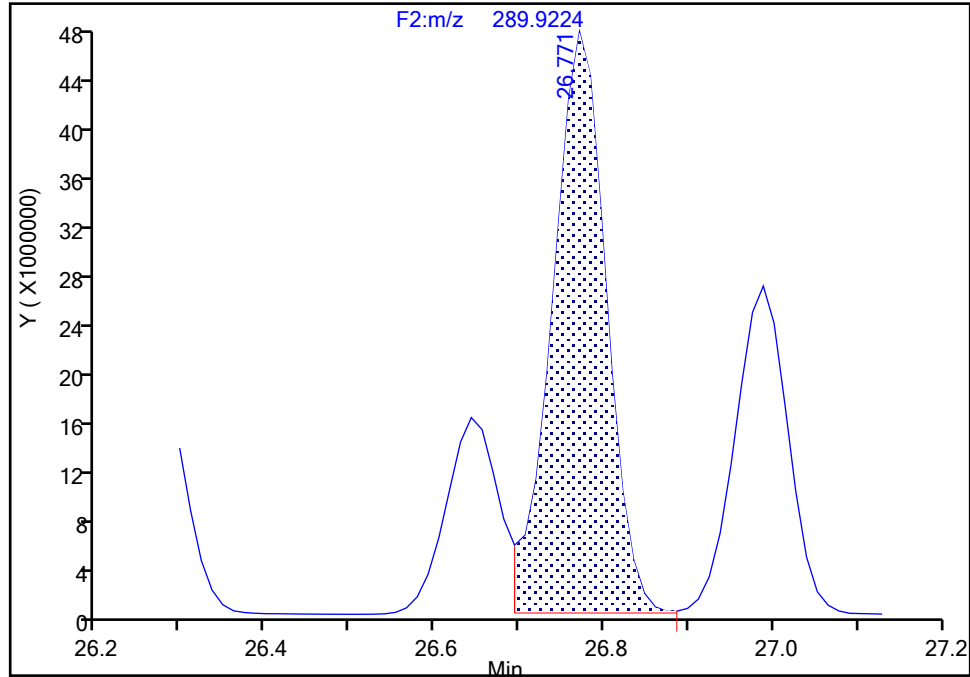
F2(21.81 :35.54 )

PCB-40/41/71, CAS: STL02292

Signal: 1

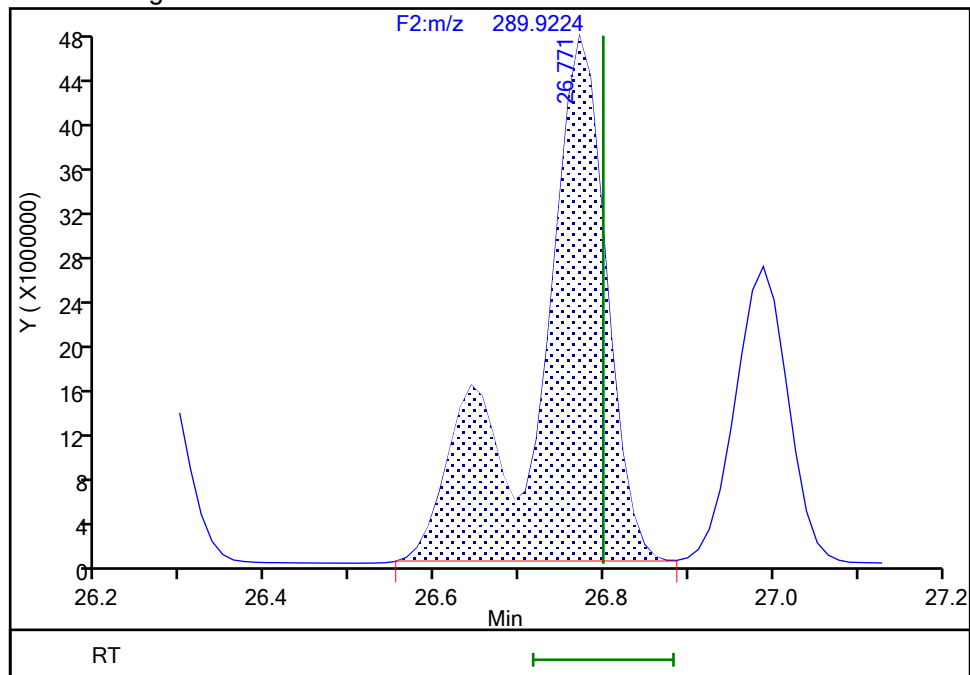
RT: 26.77  
Area: 211283004  
Amount: 5120.9933  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.77  
Area: 277234397  
Amount: 6444.9845  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:05:32 -04:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

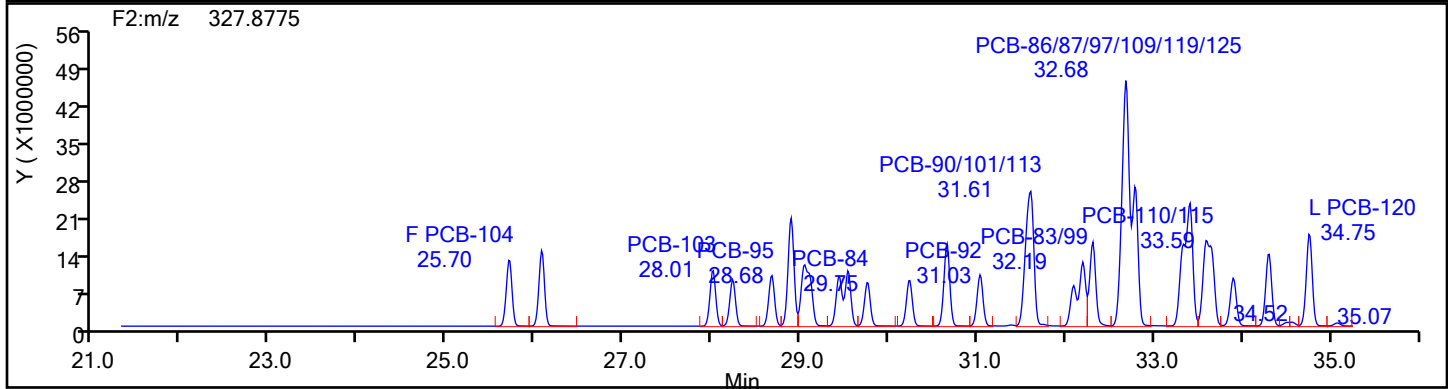
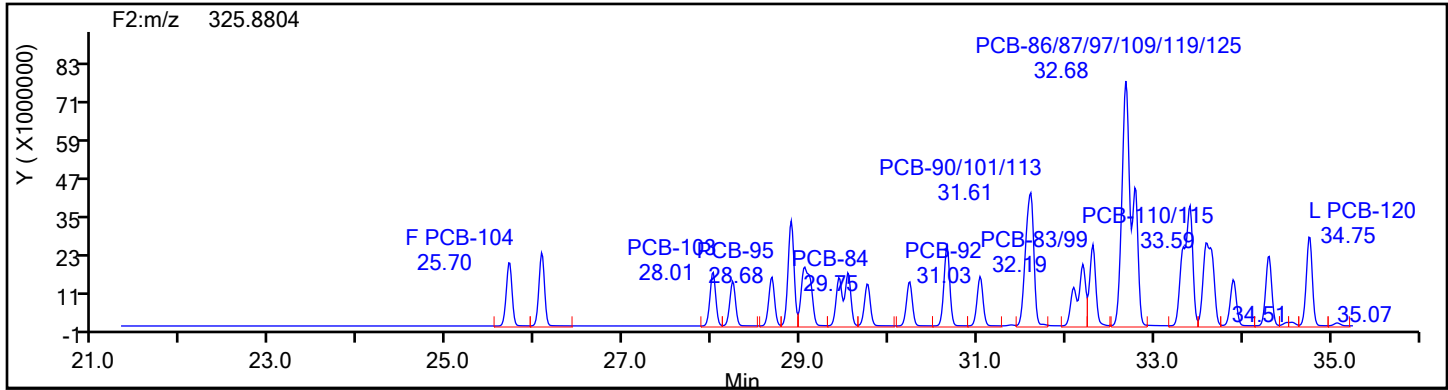
Worklist#: 87130

Sample Line#: 6

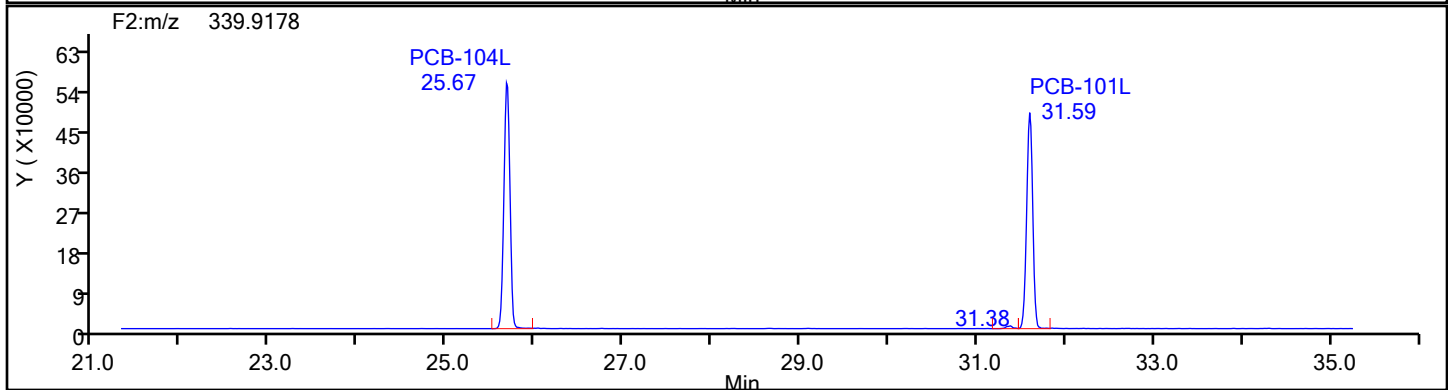
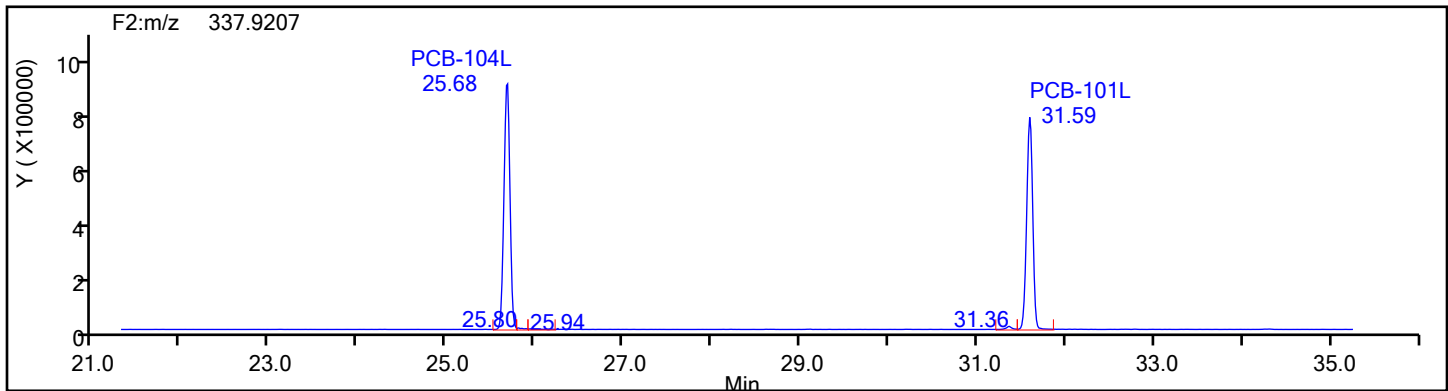
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F2



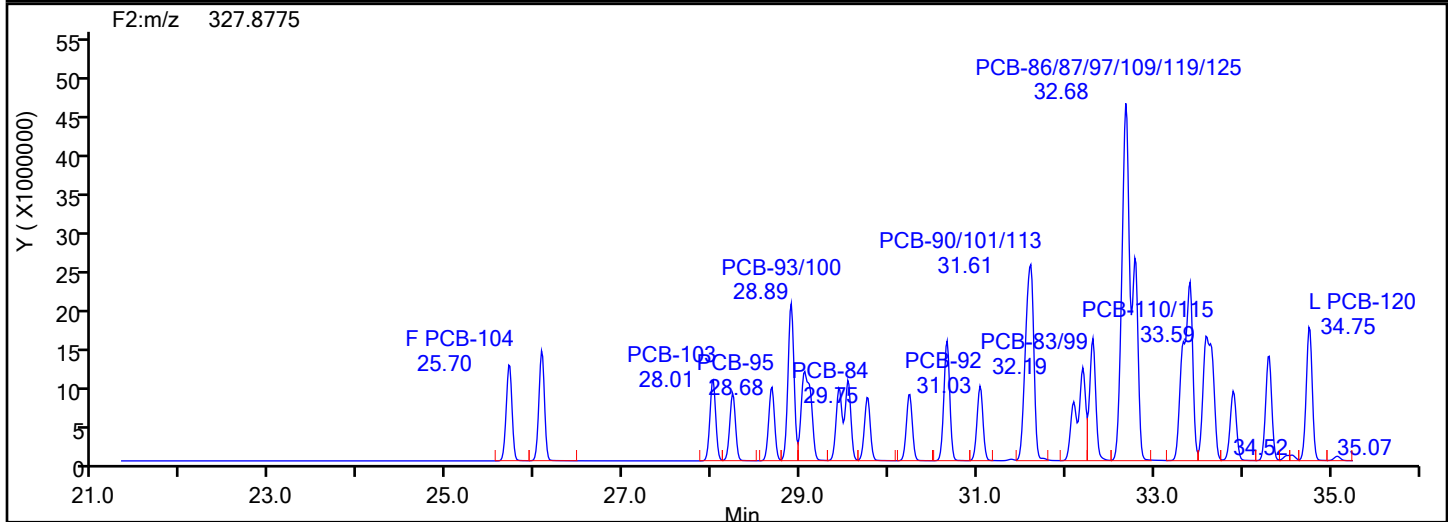
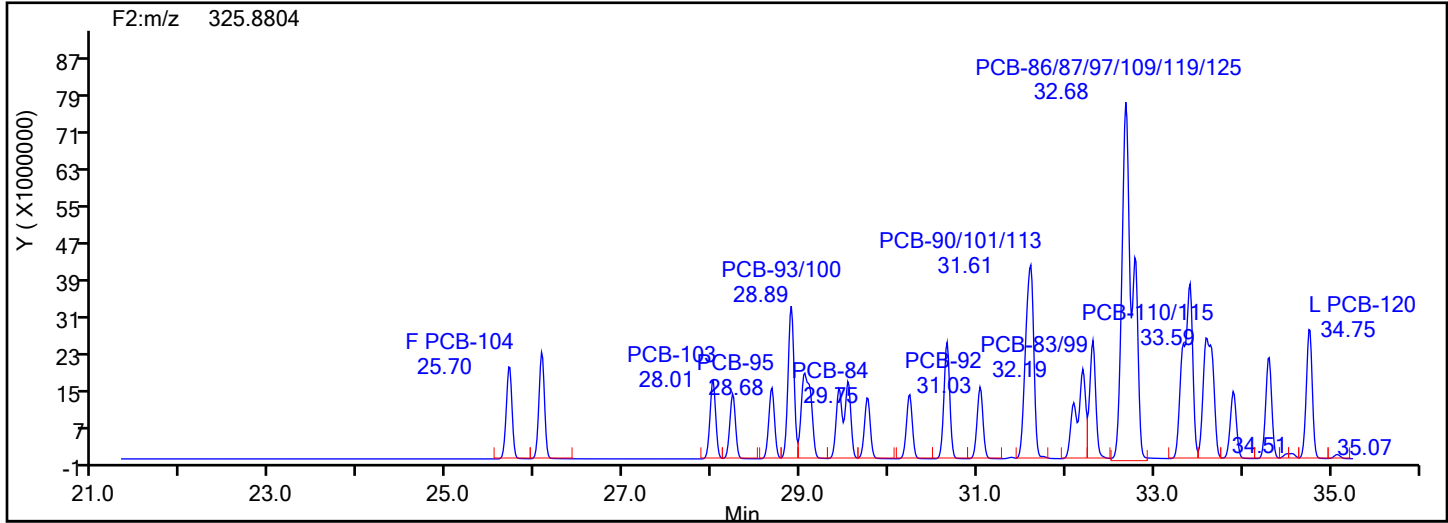
PePCB F2 Standards



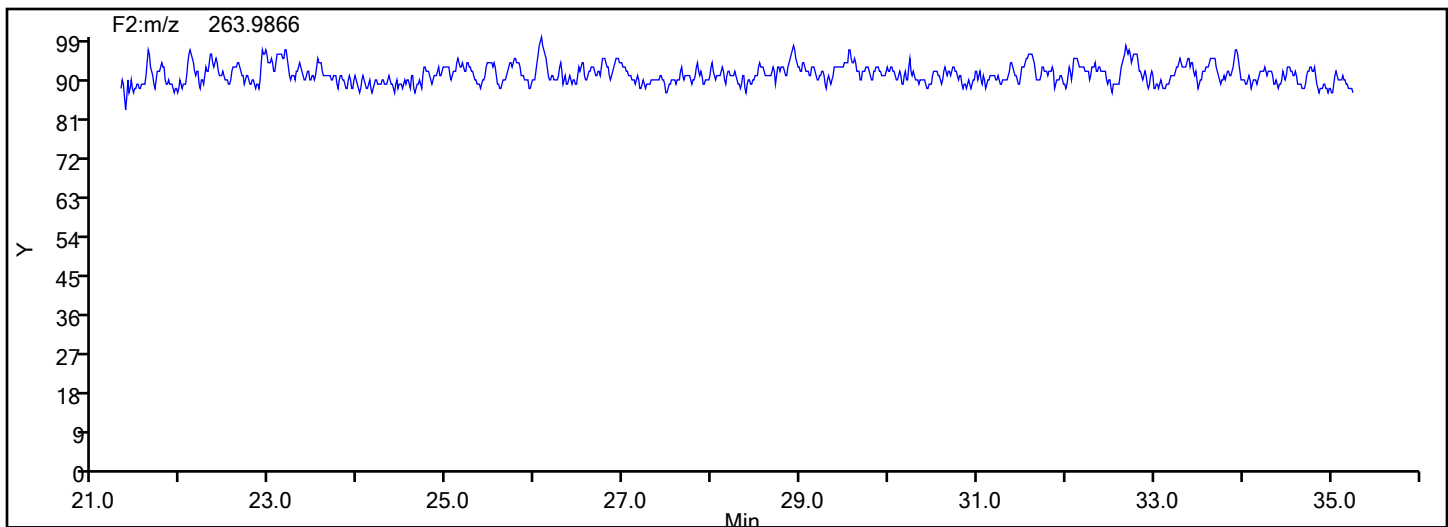


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Injection Date: 31-May-2024 21:13:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2



## PePCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Instrument ID: D2D

Lims ID: IC L6

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 6

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

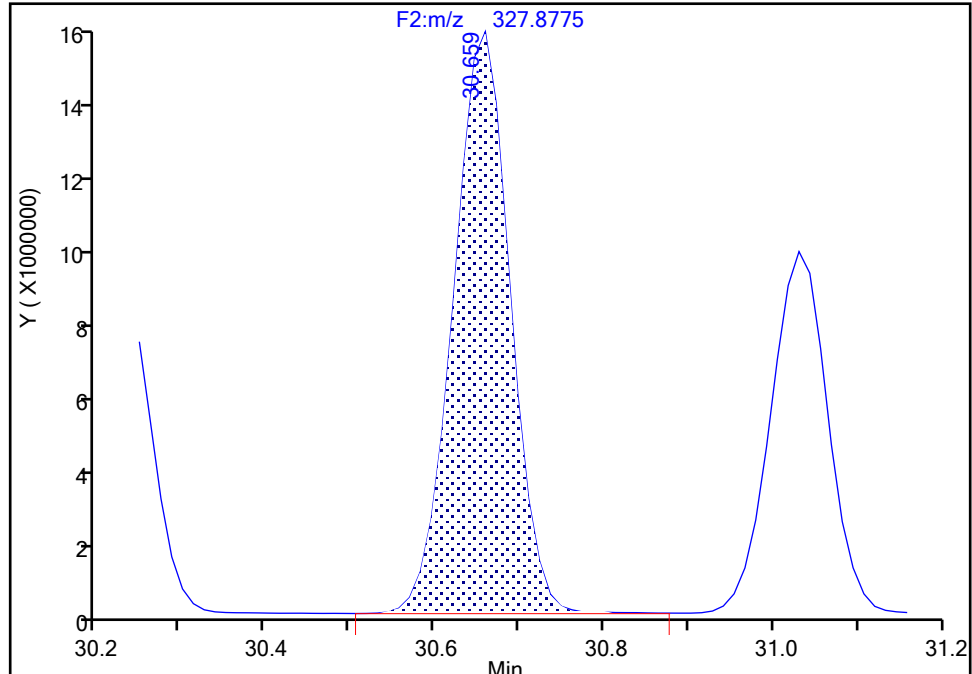
Detector F2(21.81 :35.54 )

**PCB-121, CAS: 56558-18-0**

Signal: 2

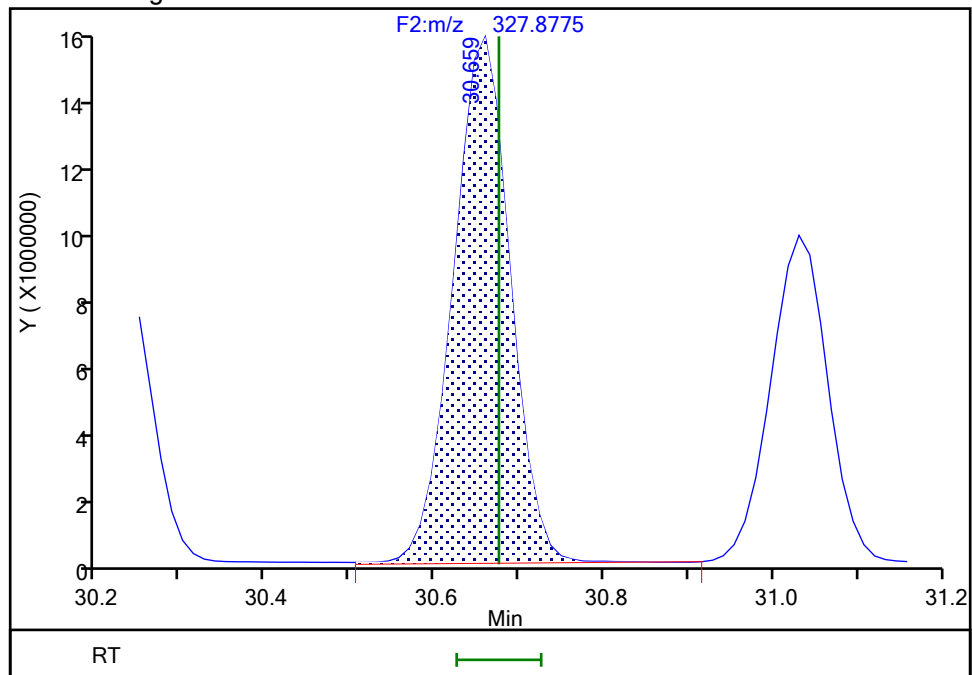
RT: 30.66  
Area: 72472187  
Amount: 2097.3363  
Amount Units: pg/ul

## Processing Integration Results



RT: 30.66  
Area: 72252656  
Amount: 2095.3331  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:06:01 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Instrument ID: D2D

Lims ID: IC L6

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 6

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

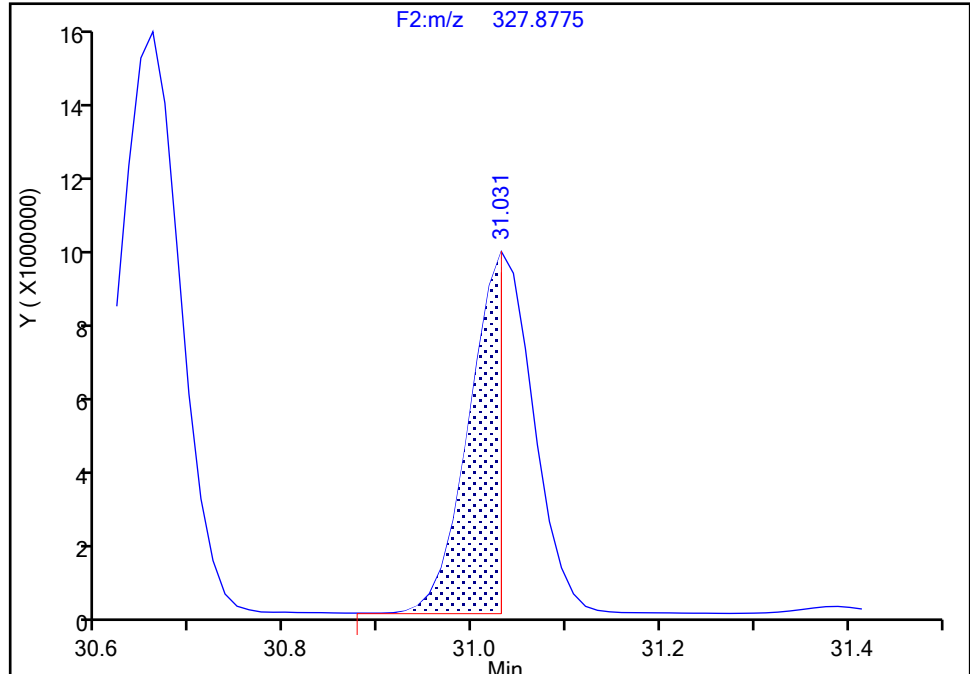
Detector F2(21.81 :35.54 )

**PCB-92, CAS: 52663-61-3**

Signal: 2

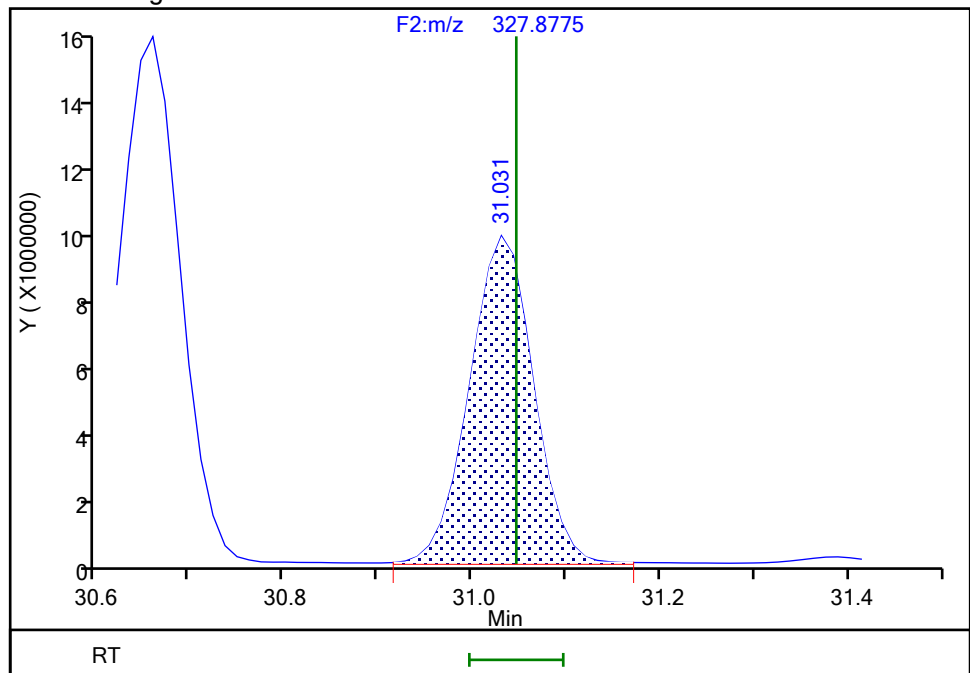
RT: 31.03  
Area: 22578720  
Amount: 1670.2216  
Amount Units: pg/ul

## Processing Integration Results



RT: 31.03  
Area: 45192573  
Amount: 1996.7618  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:06:01 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Instrument ID: D2D

Lims ID: IC L6

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 6

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

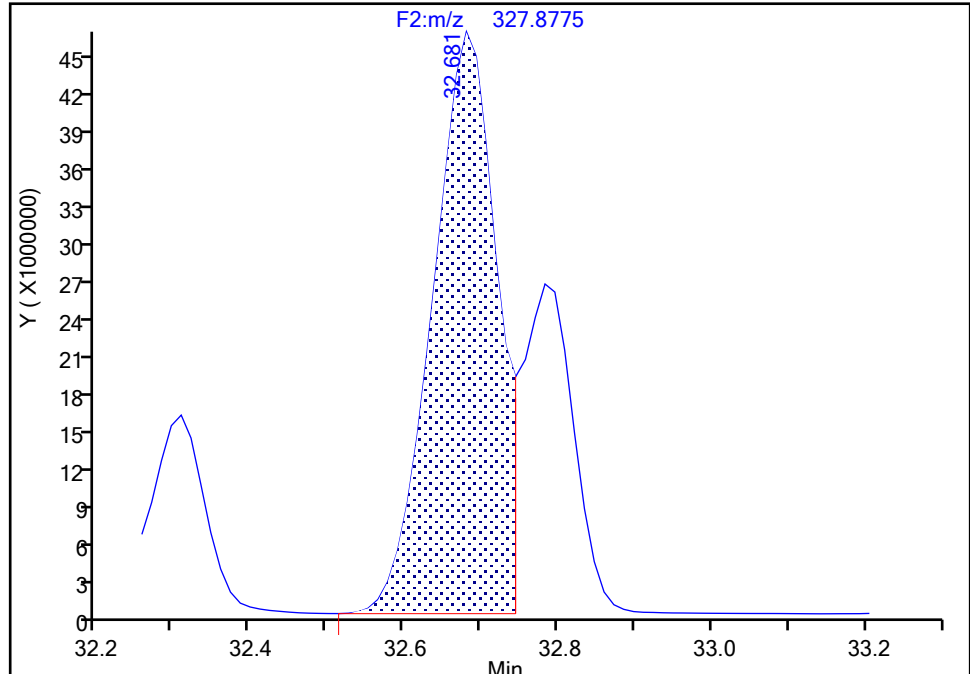
F2(21.81 :35.54 )

PCB-86/87/97/109/119/125, CAS: STL02295

Signal: 2

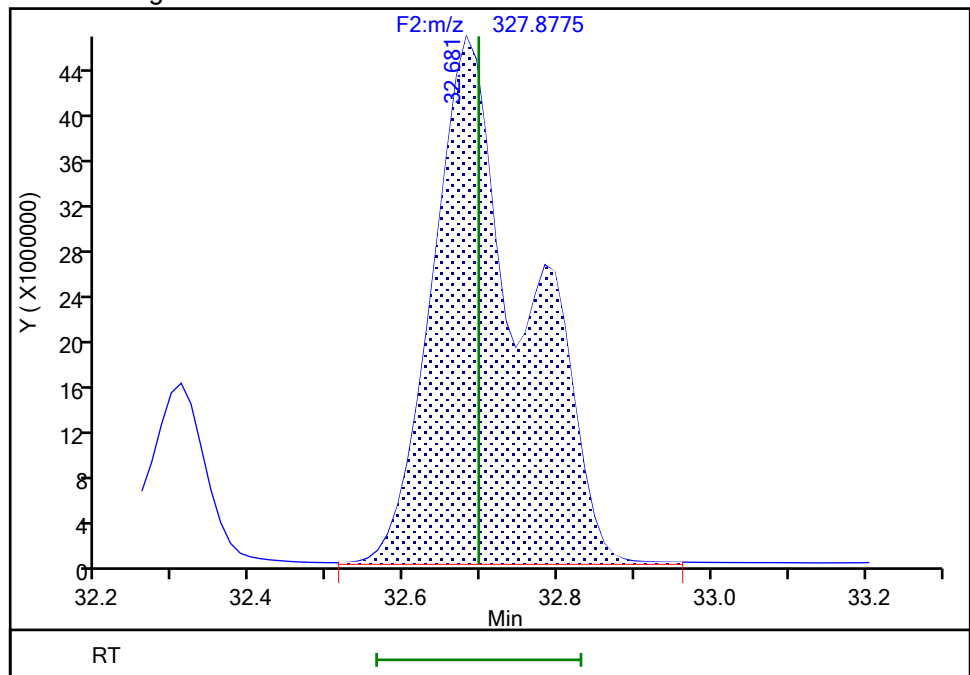
RT: 32.68  
Area: 265602402  
Amount: 10348  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.68  
Area: 384843597  
Amount: 14115  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:06:14 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

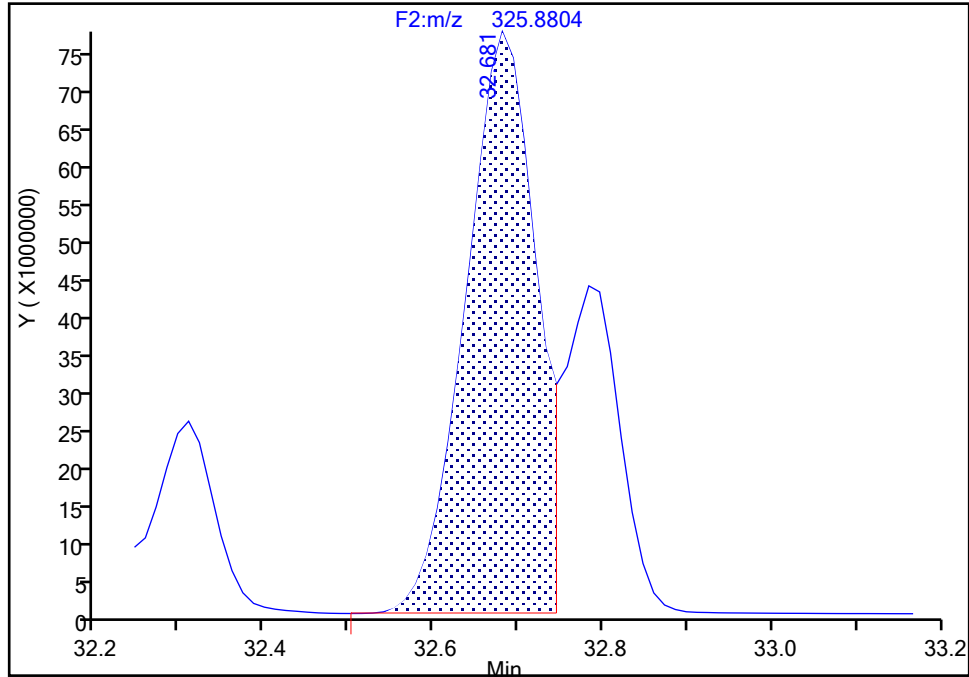
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Injection Date: 31-May-2024 21:13:00 Instrument ID: D2D  
Lims ID: IC L6  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-86/87/97/109/119/125, CAS: STL02295

Signal: 1

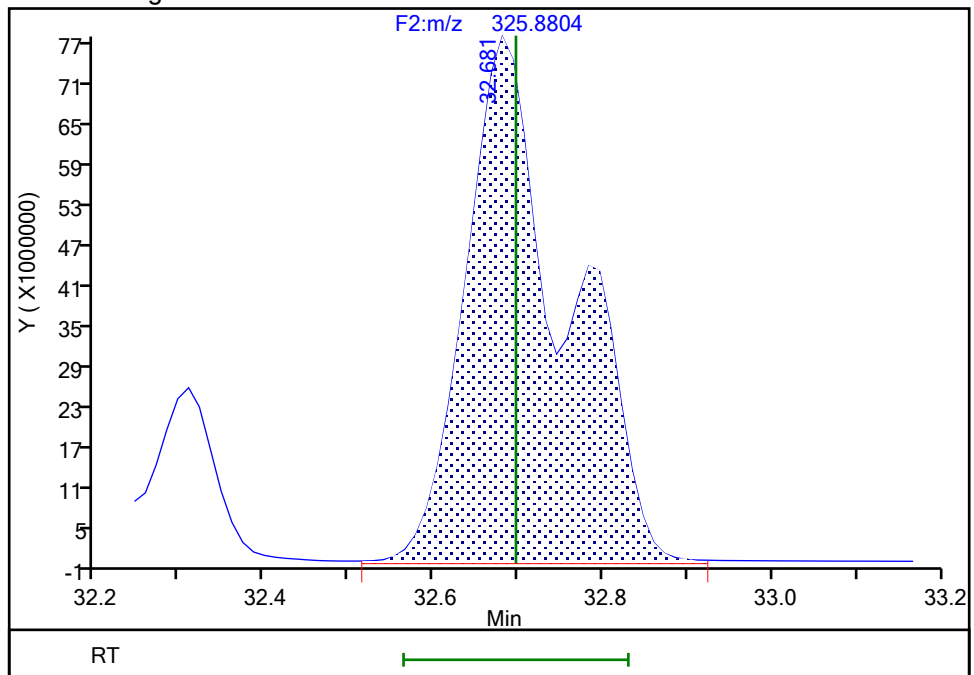
RT: 32.68  
Area: 444165024  
Amount: 10348  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.68  
Area: 646388537  
Amount: 14115  
Amount Units: pg/ul

## Manual Integration Results

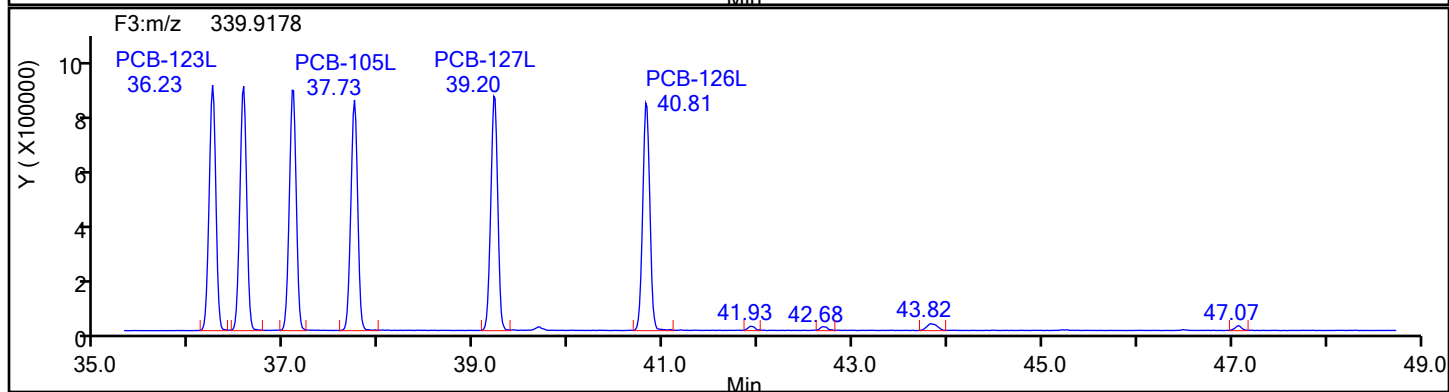
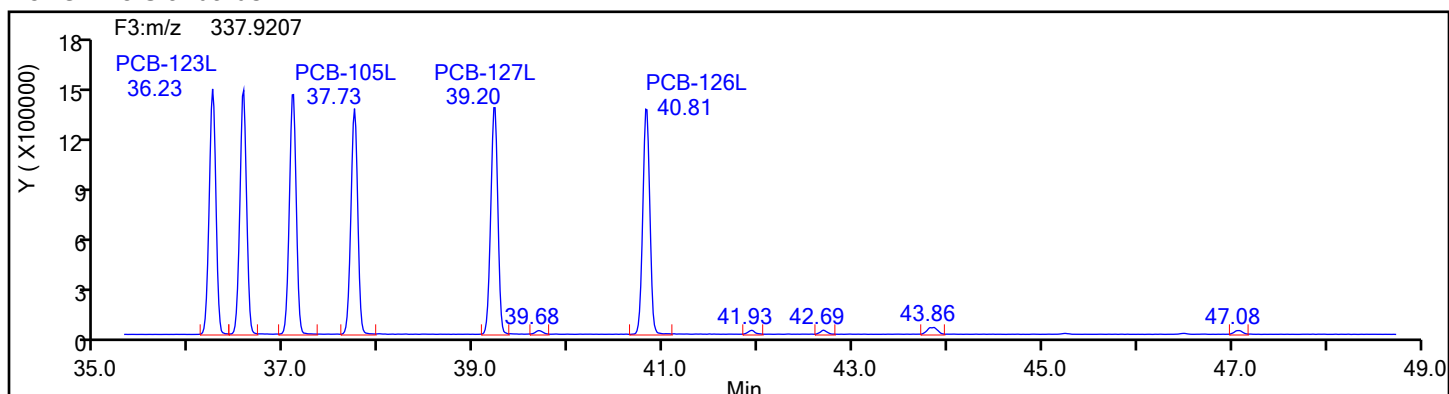
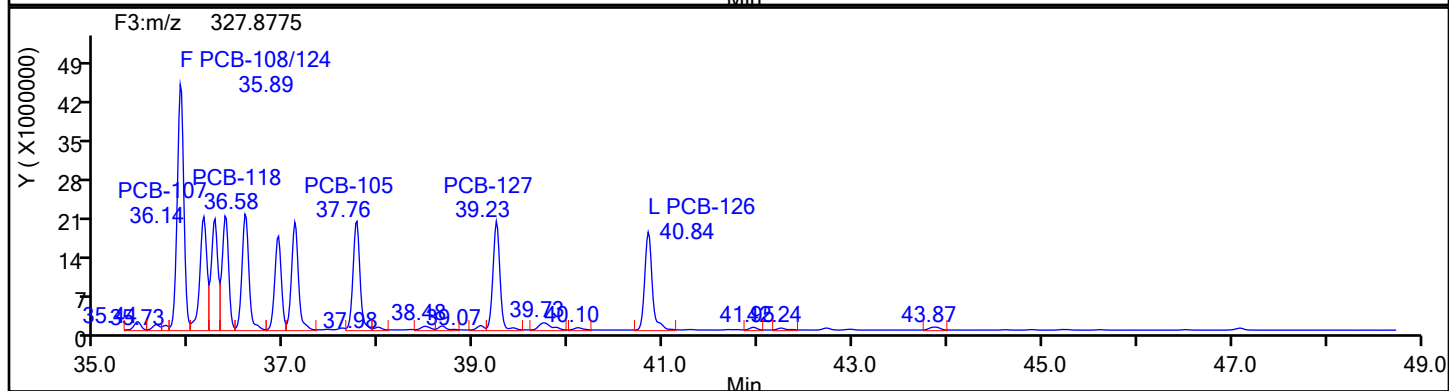


Reviewer: V4XA, 01-Jun-2024 03:06:19 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Column Dia: 0.25 mm



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

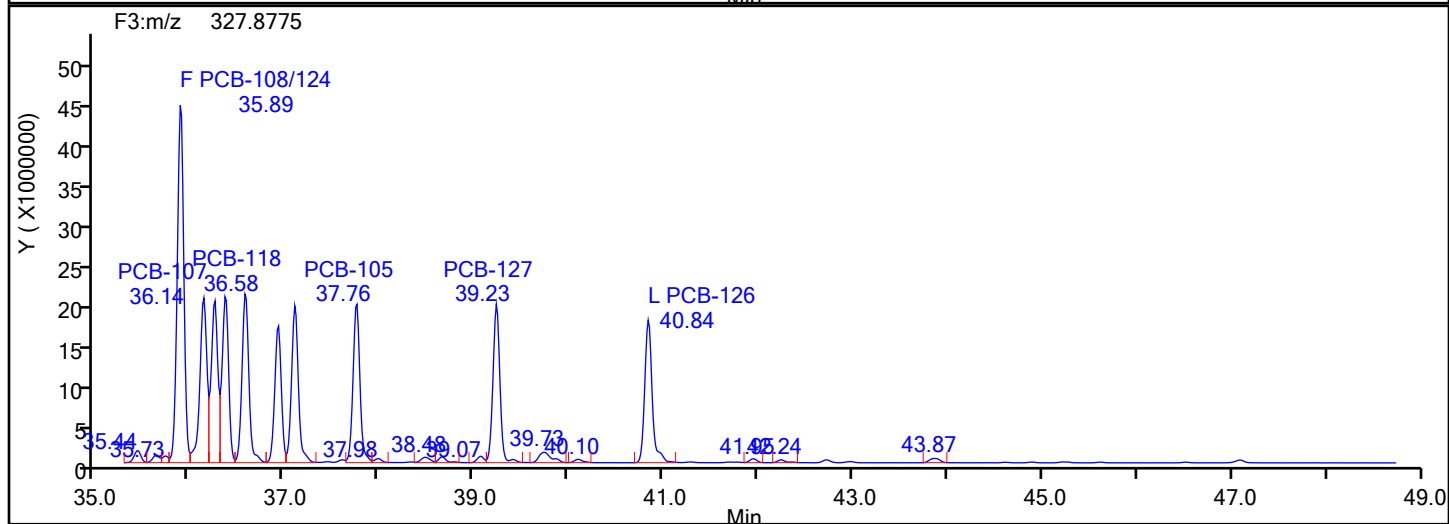
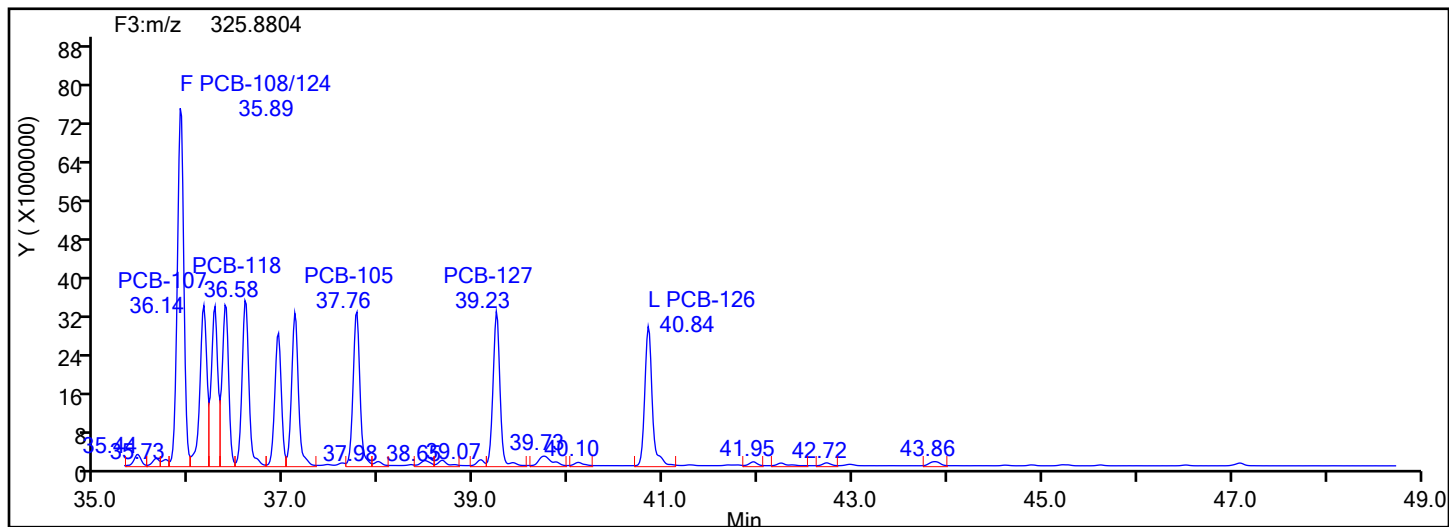
Worklist#: 87130

Sample Line#: 6

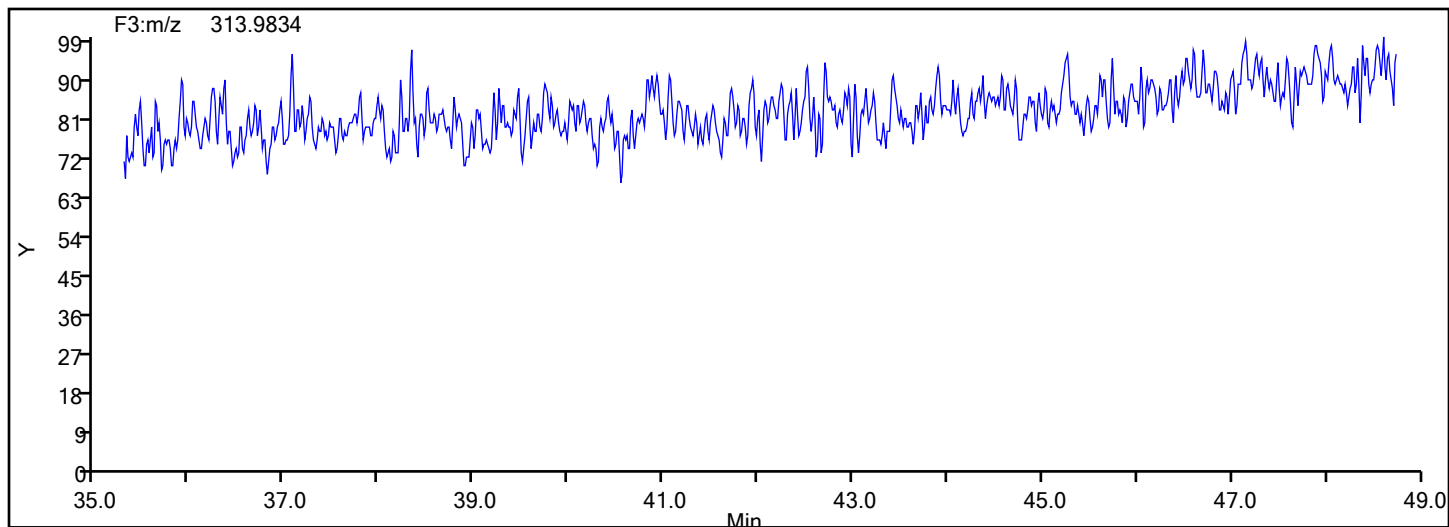
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3

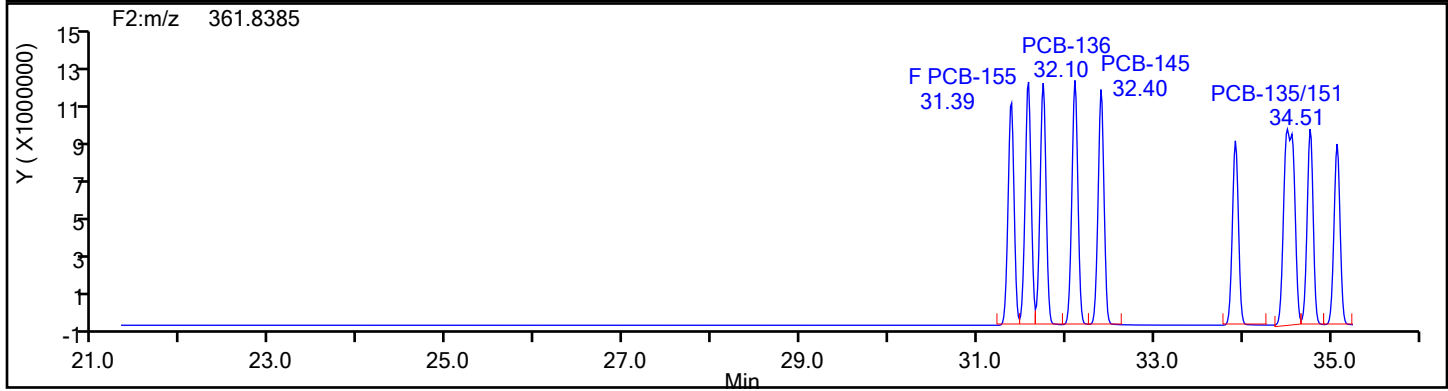
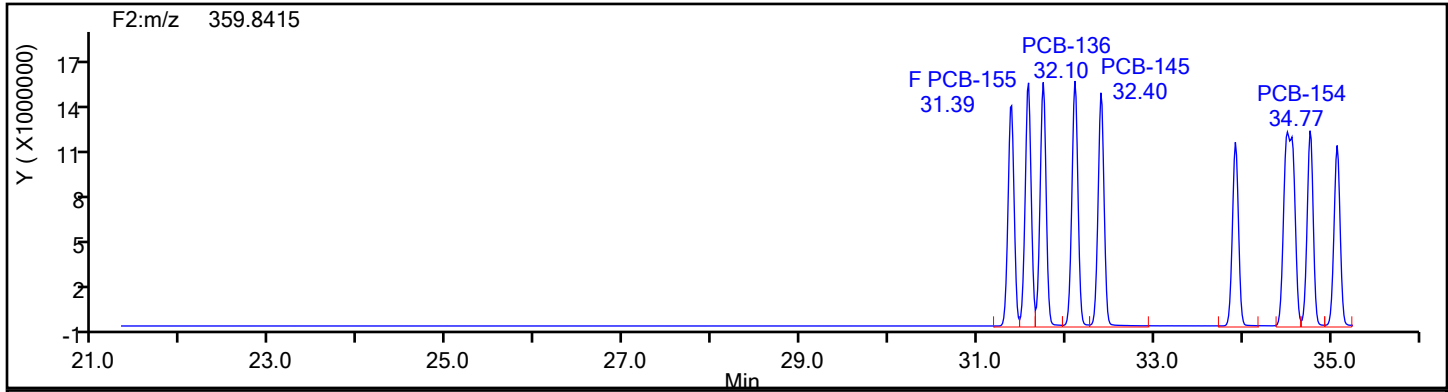


## PePCB F3 Lock Mass

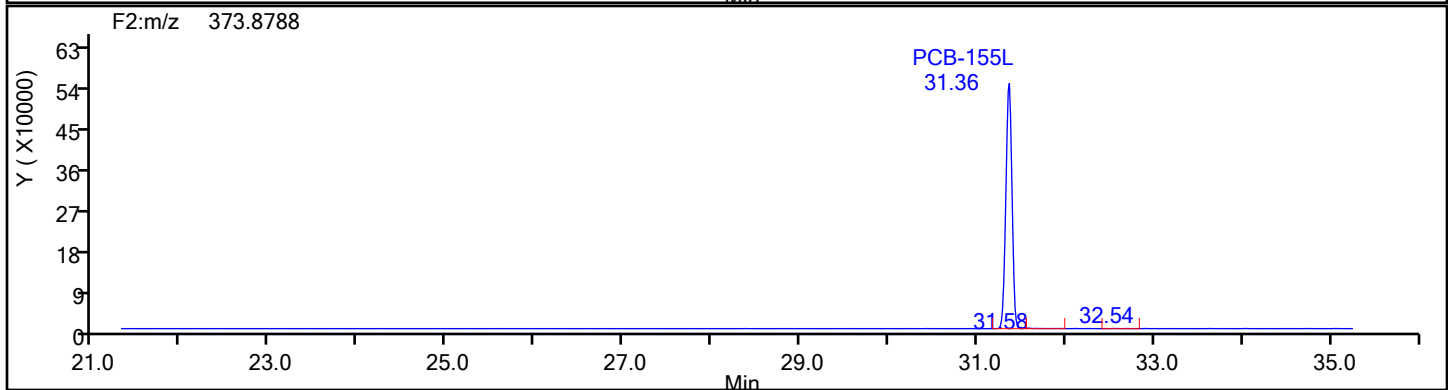
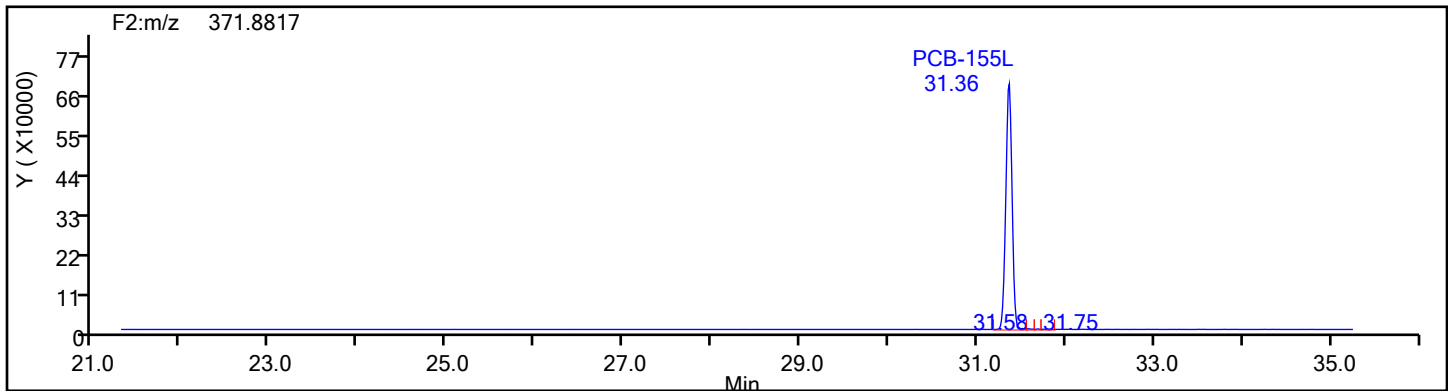


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Injection Date: 31-May-2024 21:13:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2



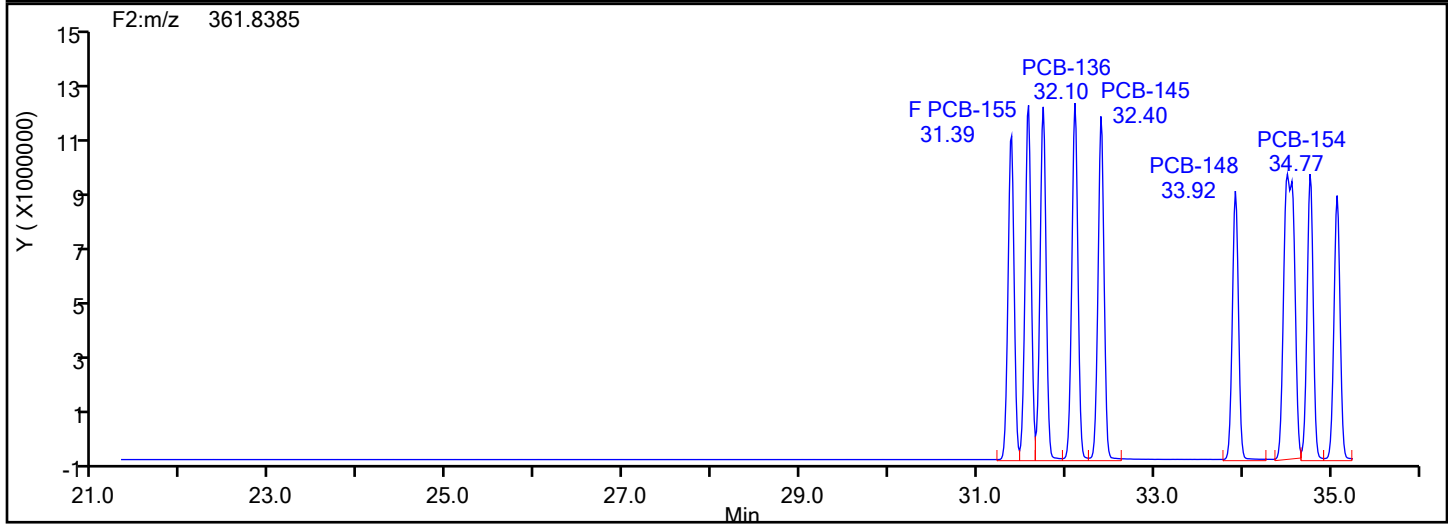
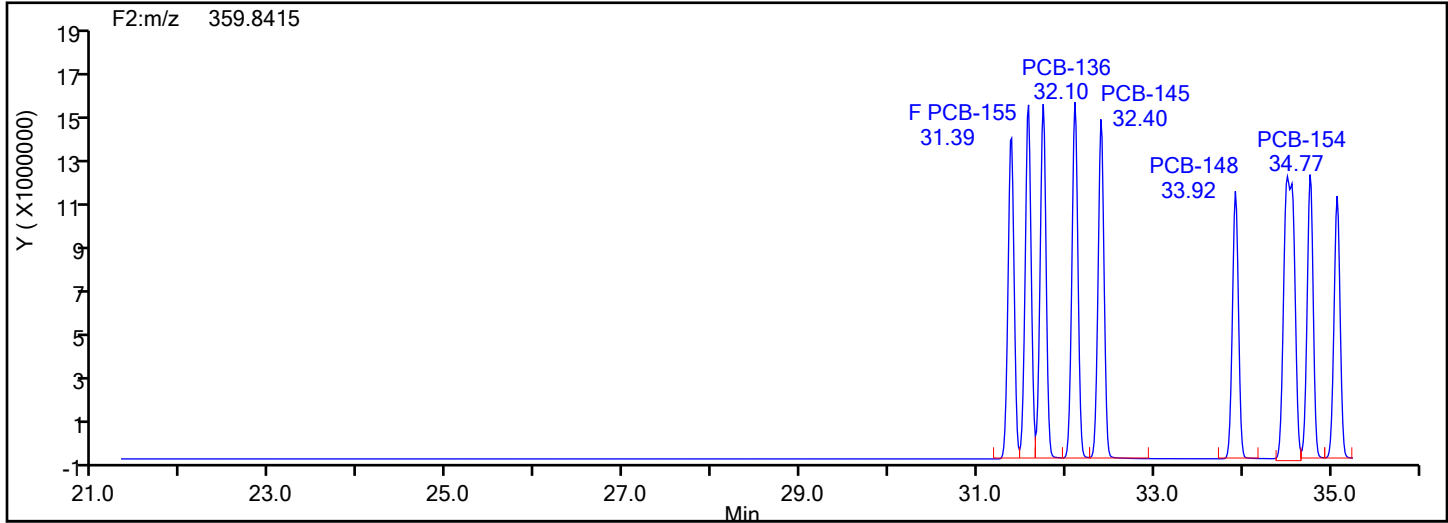
## HxPCB F2 Standards



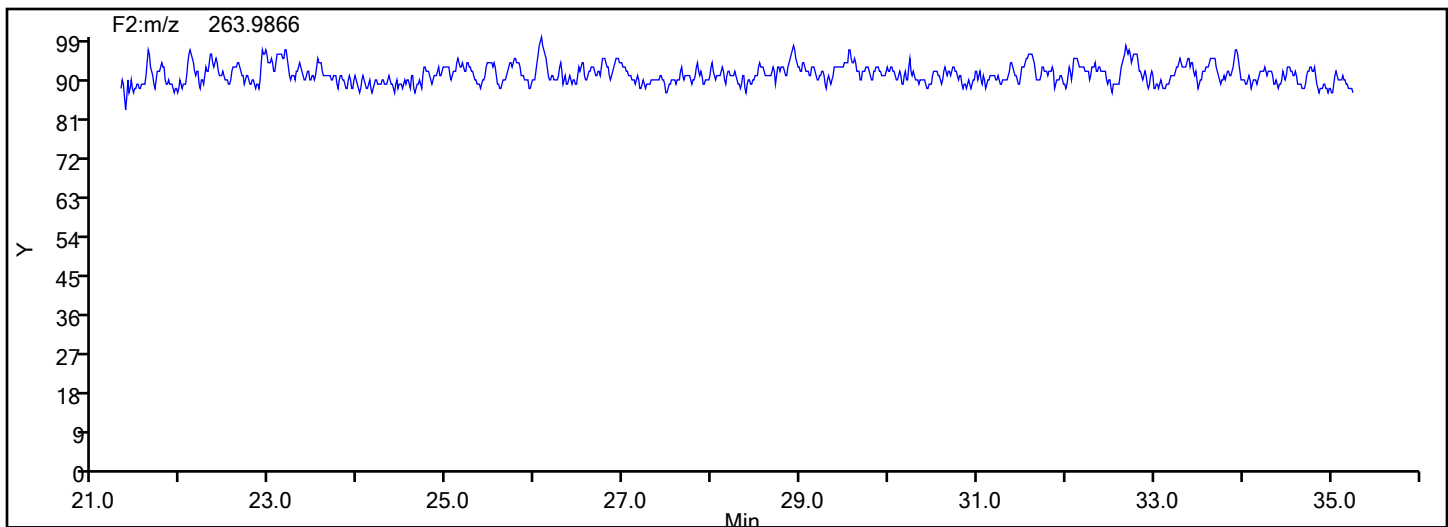


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Injection Date: 31-May-2024 21:13:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2



## HxPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Instrument ID: D2D

Lims ID: IC L6

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 6

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

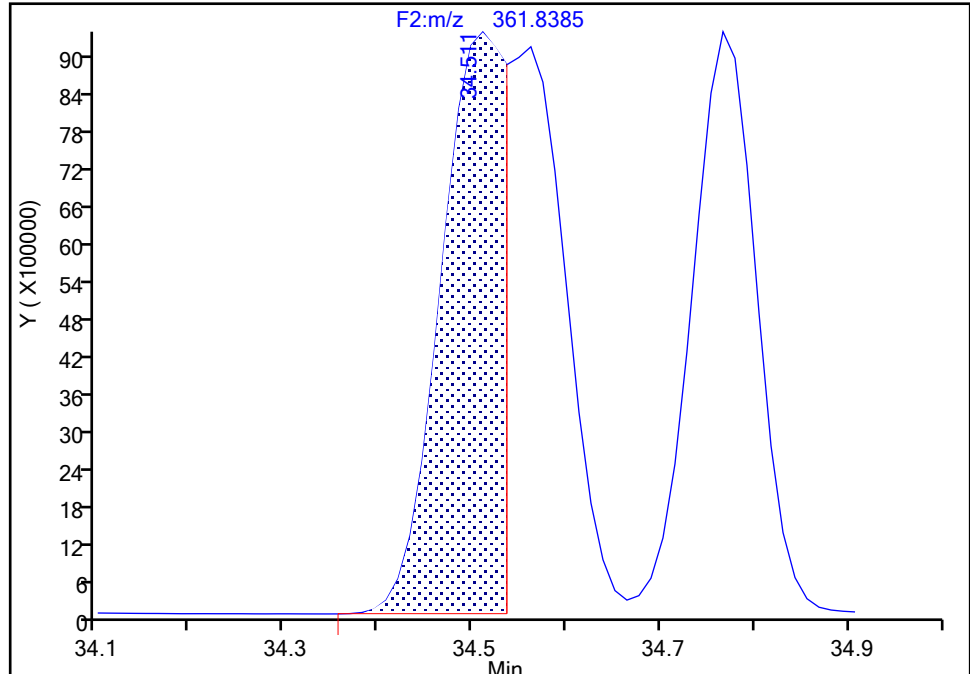
Detector F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 2

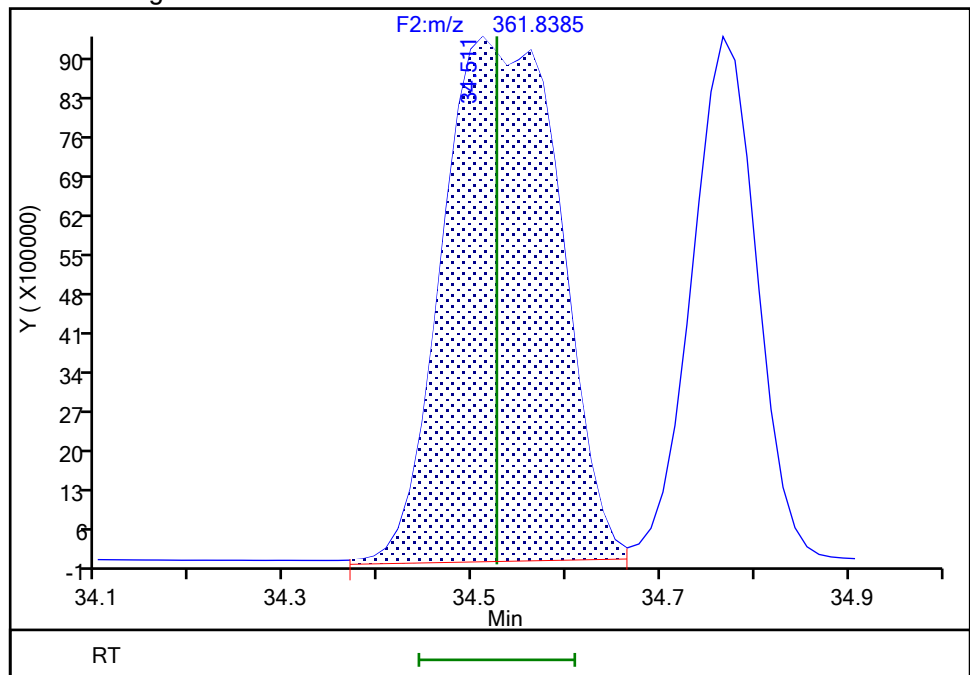
RT: 34.51  
Area: 42930870  
Amount: 2423.1663  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.51  
Area: 81482346  
Amount: 4229.7884  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:06:41 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

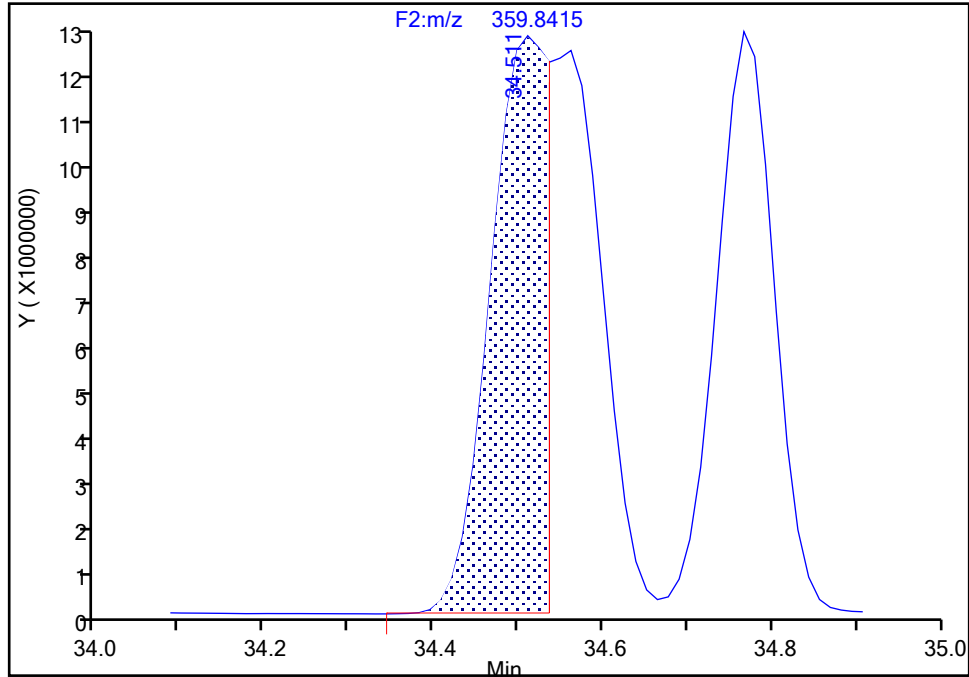
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Injection Date: 31-May-2024 21:13:00 Instrument ID: D2D  
Lims ID: IC L6  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 1

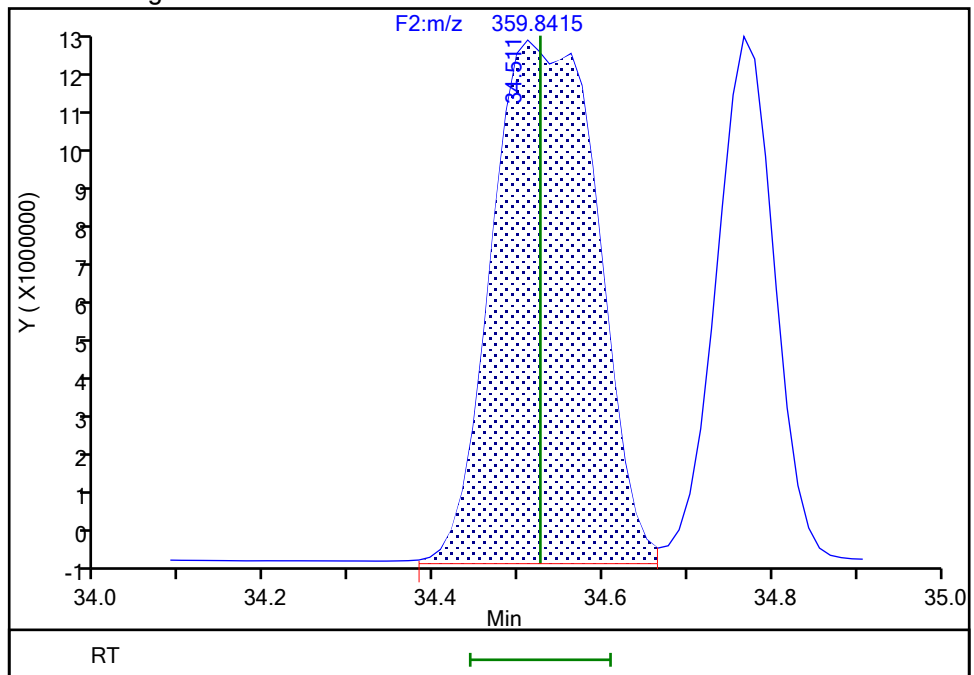
RT: 34.51  
Area: 54337182  
Amount: 2423.1663  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.51  
Area: 103820478  
Amount: 4229.7884  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:06:46 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

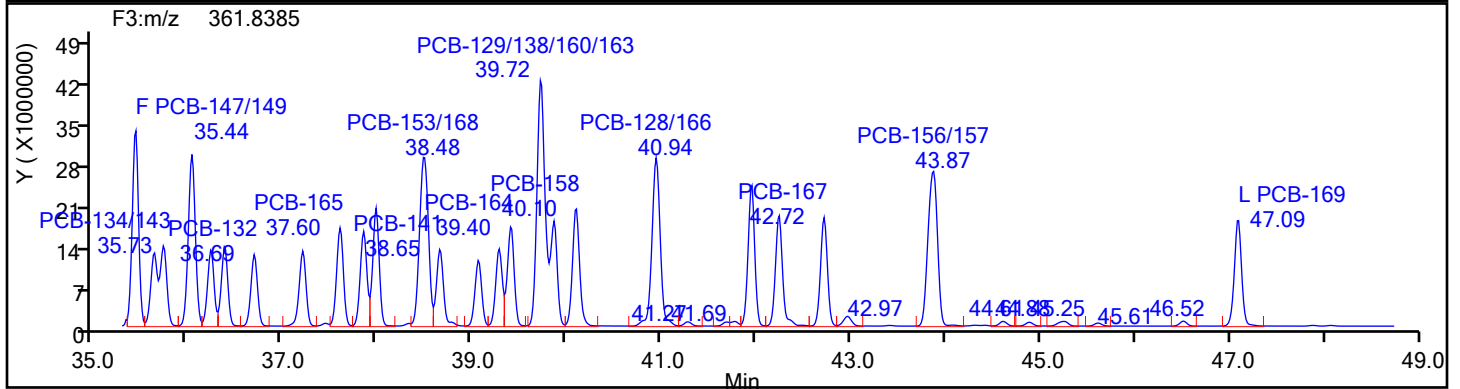
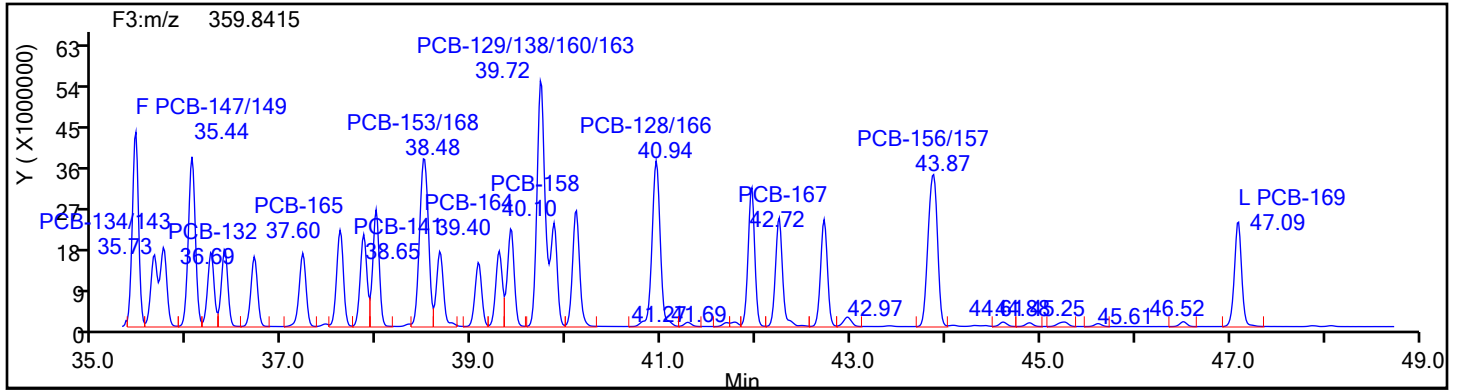
Worklist#: 87130

Sample Line#: 6

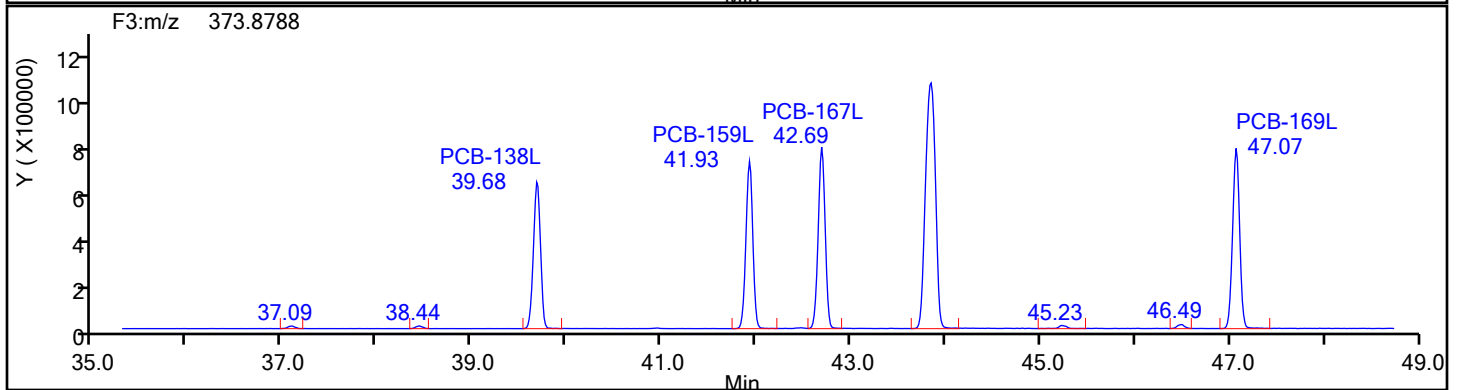
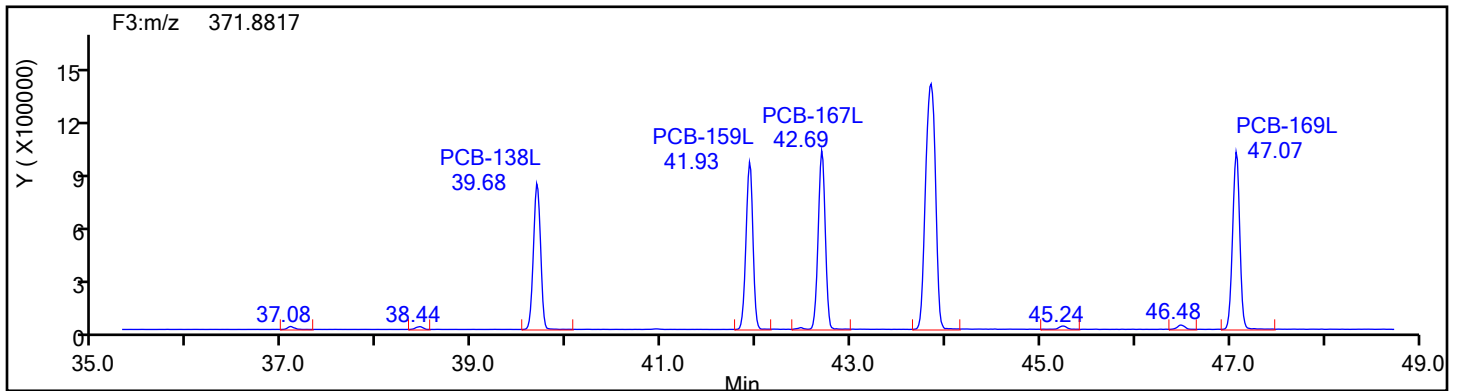
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



HxPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

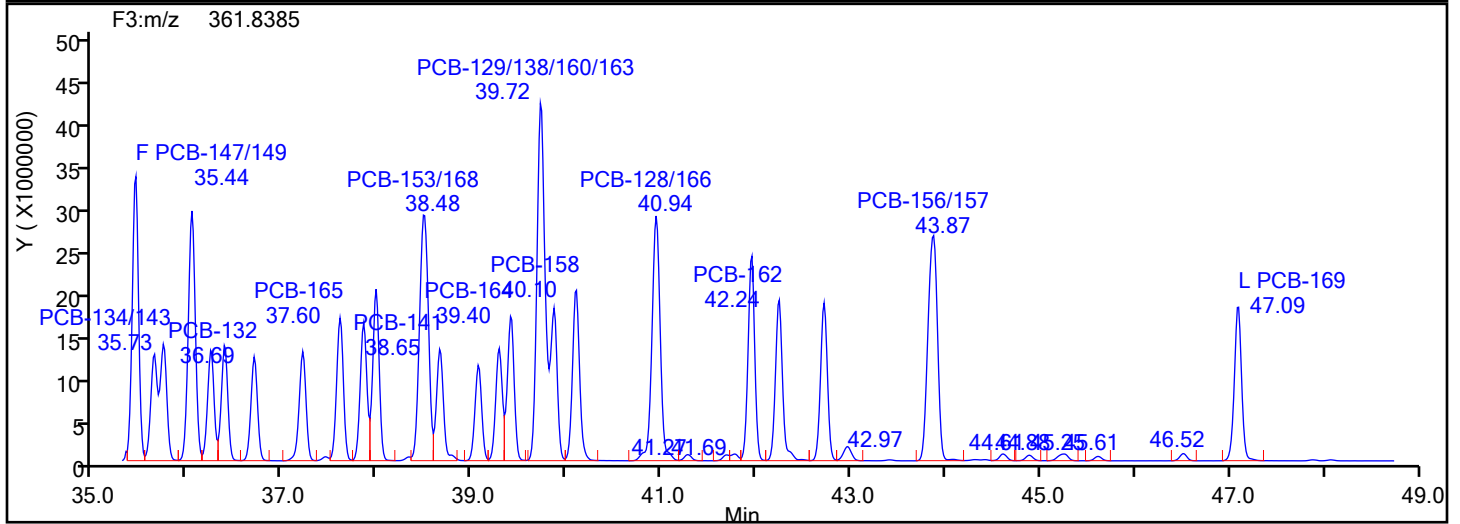
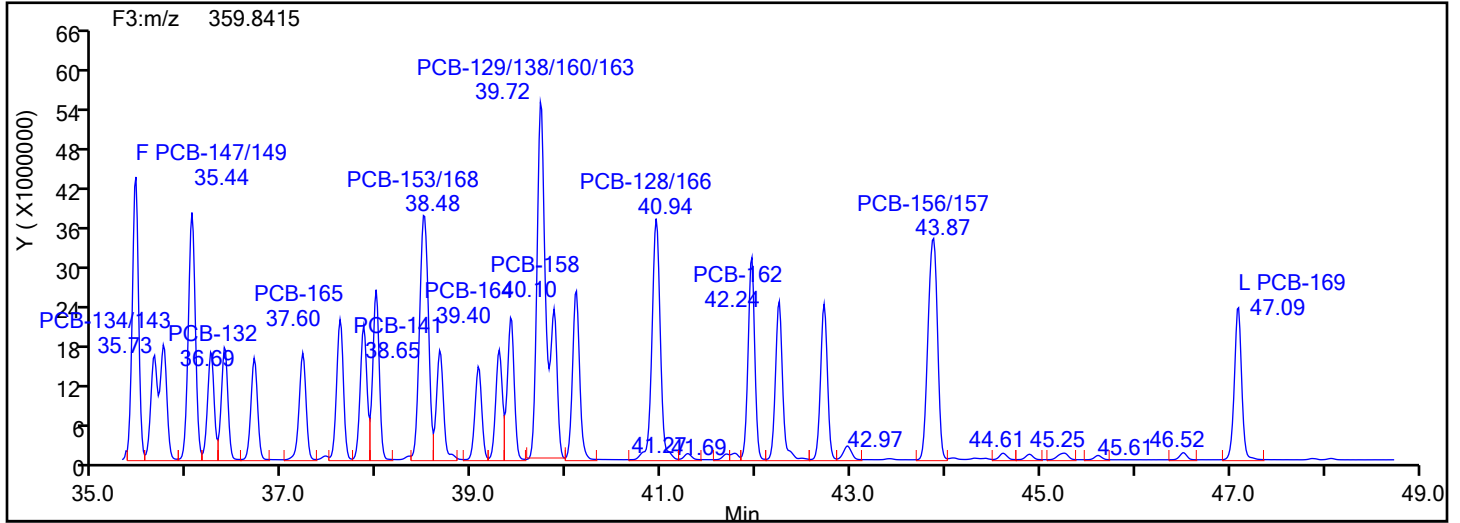
Worklist#: 87130

Sample Line#: 6

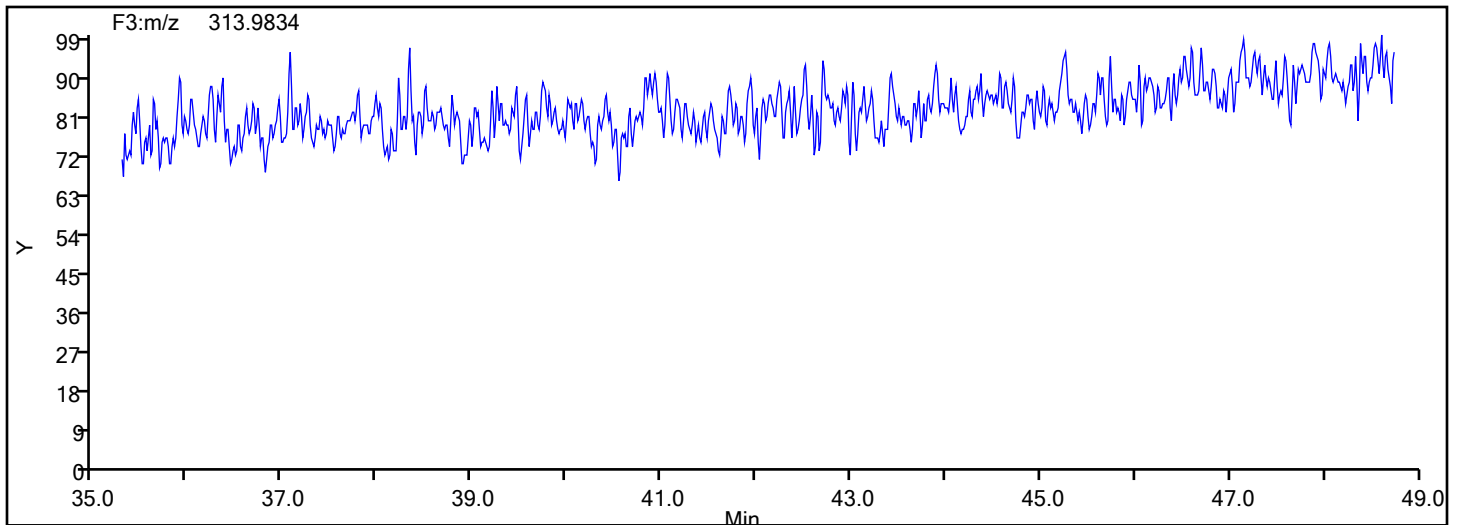
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



## HxPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Instrument ID: D2D

Lims ID: IC L6

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 6

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

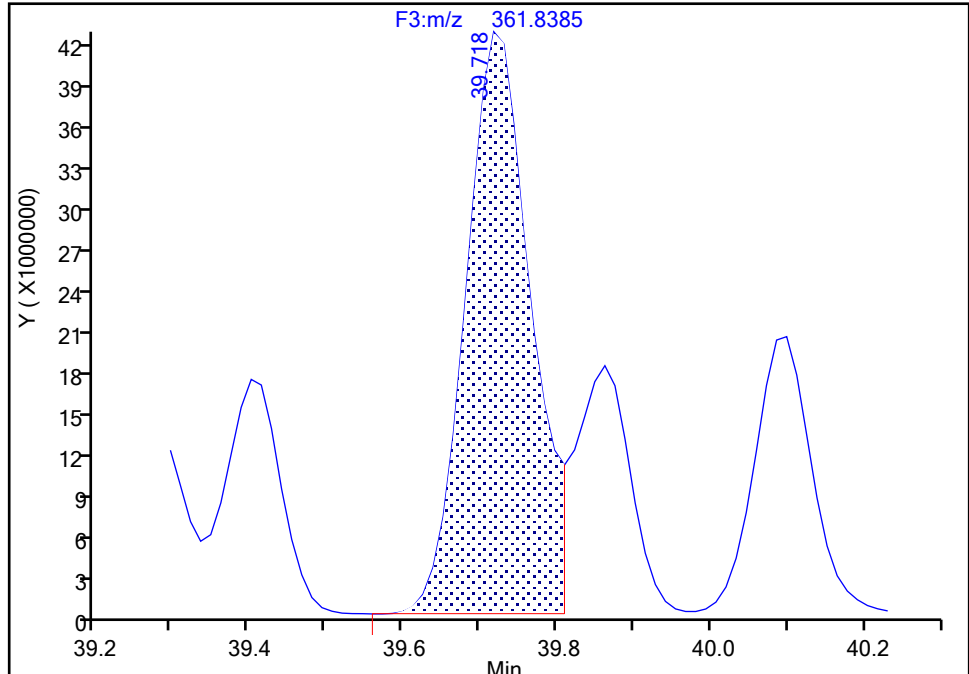
Detector F3(35.64 :49.10 )

**PCB-129/138/160/163, CAS: STL02296**

Signal: 2

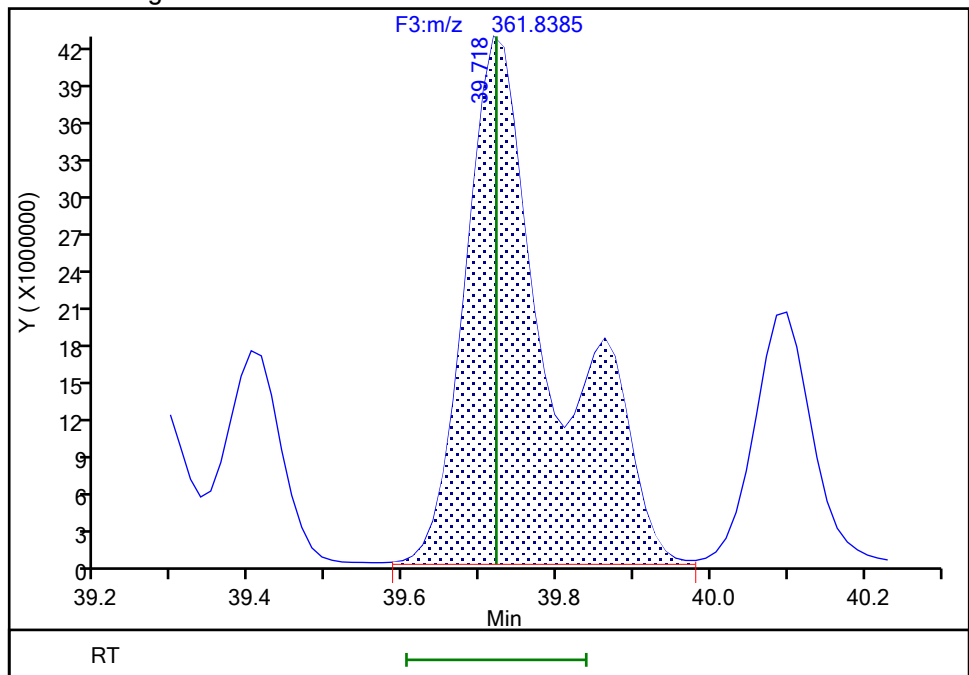
RT: 39.72  
Area: 247810200  
Amount: 6869.7619  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.72  
Area: 336254921  
Amount: 8823.7691  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:07:02 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Instrument ID: D2D

Lims ID: IC L6

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 6

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

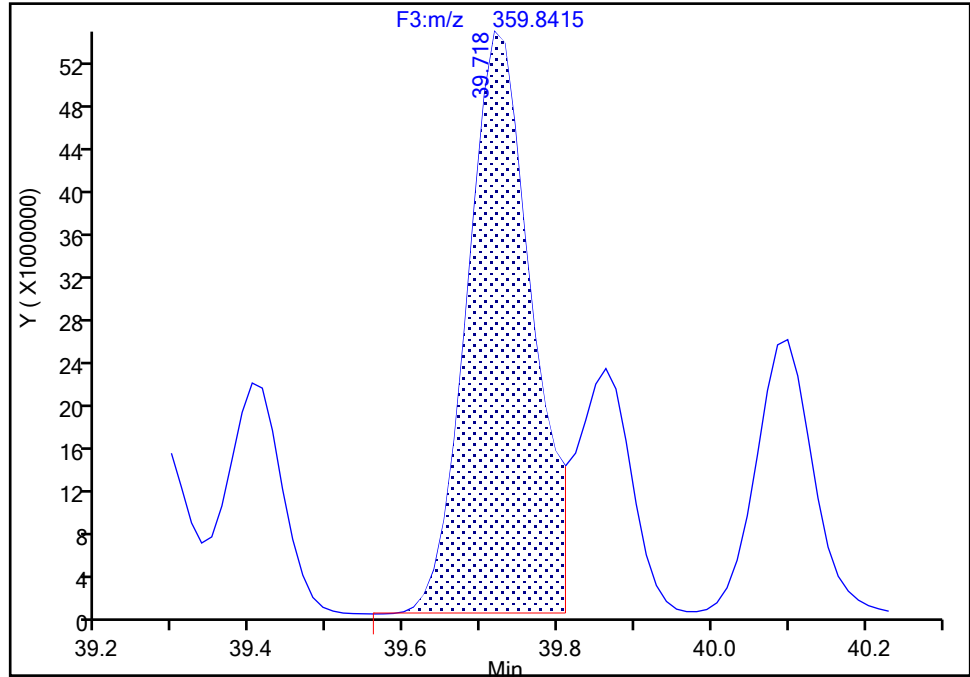
F3(35.64 :49.10 )

**PCB-129/138/160/163, CAS: STL02296**

Signal: 1

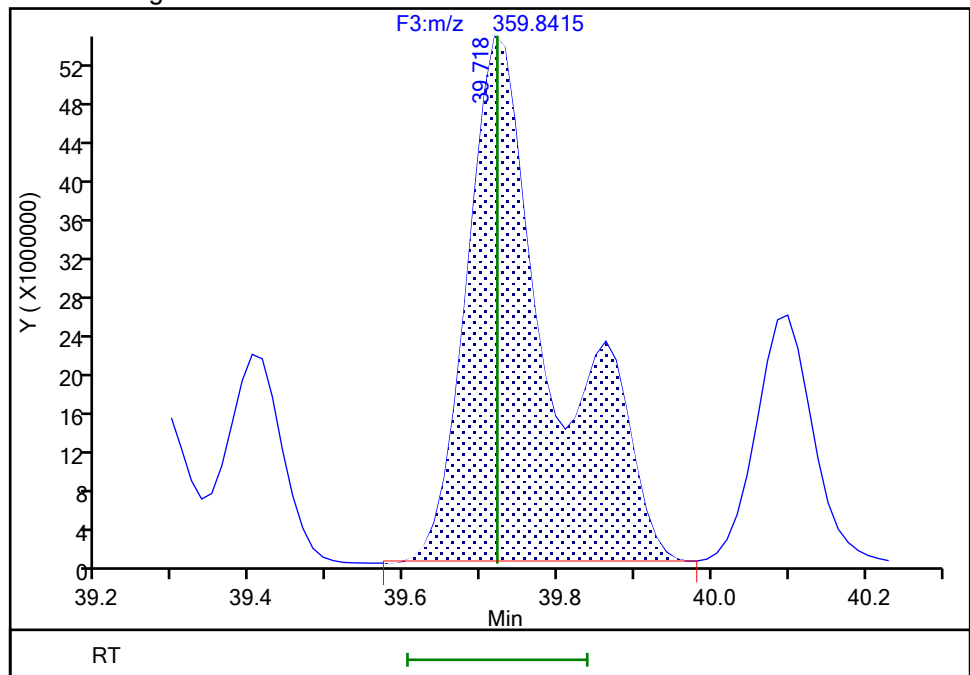
RT: 39.72  
Area: 318487189  
Amount: 6869.7619  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.72  
Area: 427397226  
Amount: 8823.7691  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:07:10 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

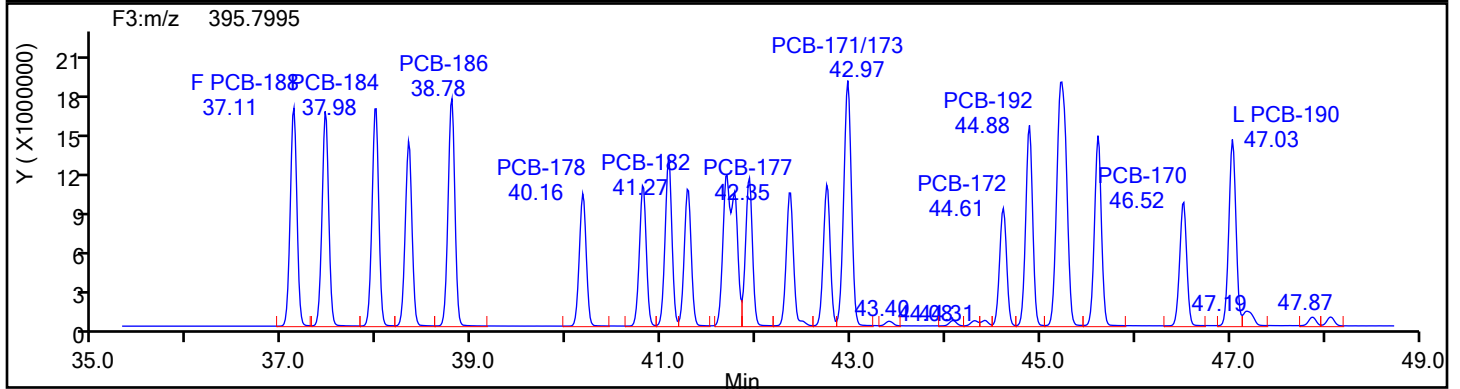
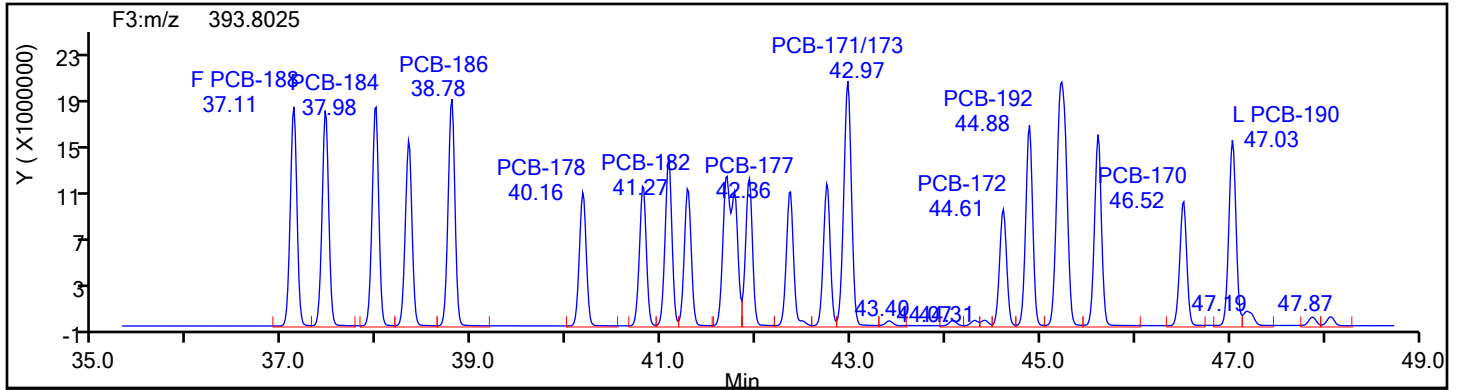
Worklist#: 87130

Sample Line#: 6

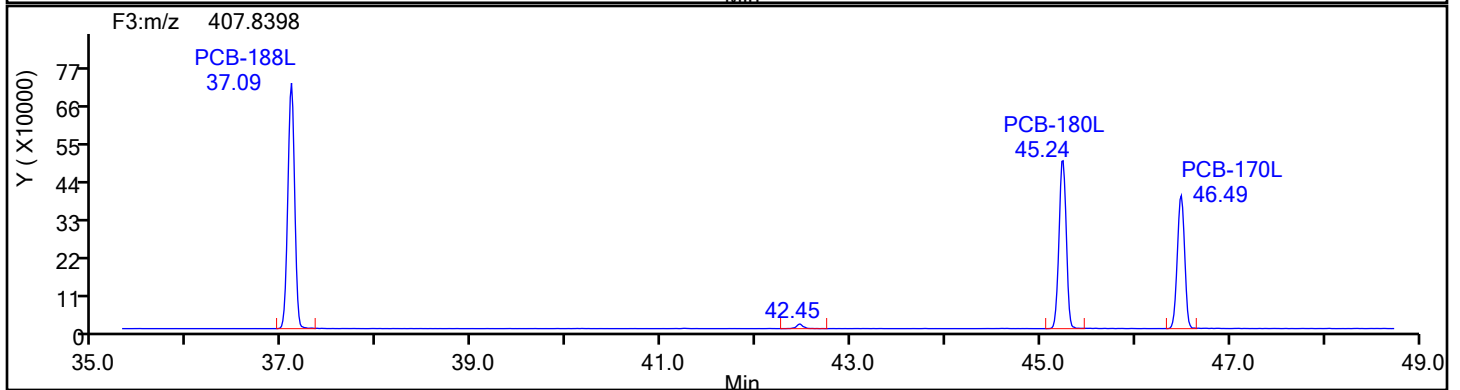
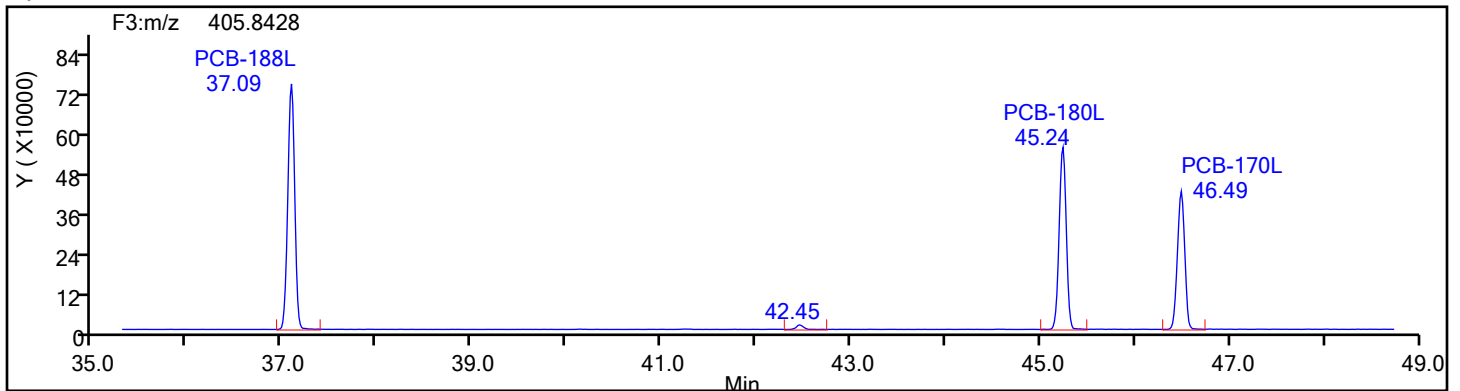
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



HpPCB F3 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

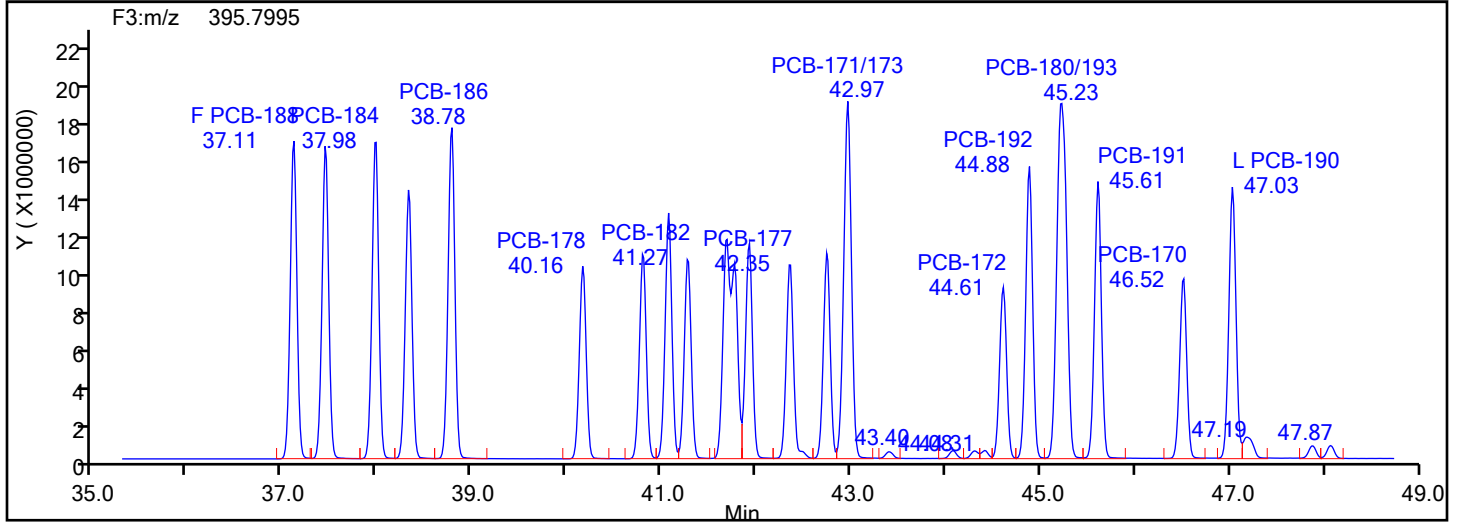
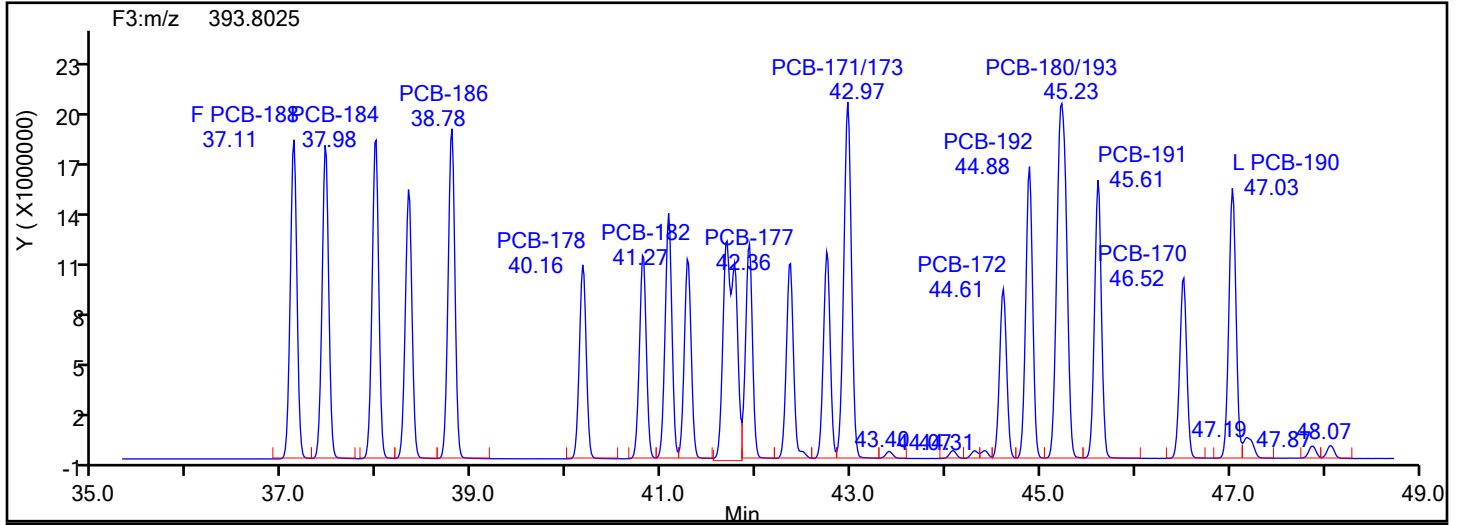
Worklist#: 87130

Sample Line#: 6

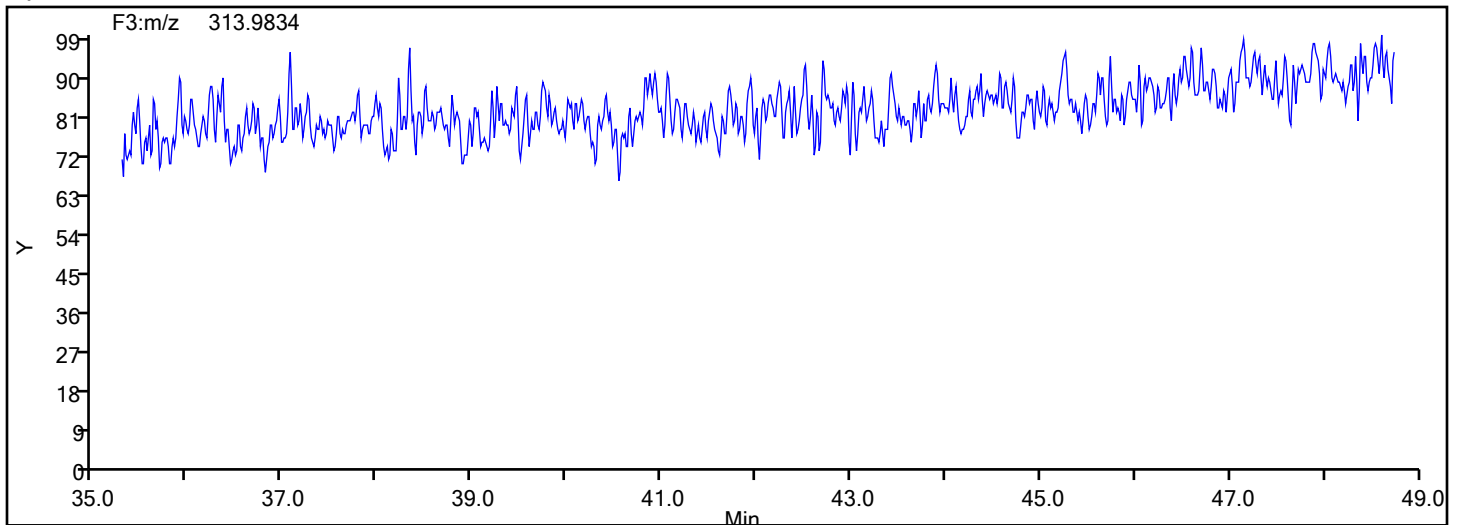
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



## HpPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Instrument ID: D2D

Lims ID: IC L6

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 6

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

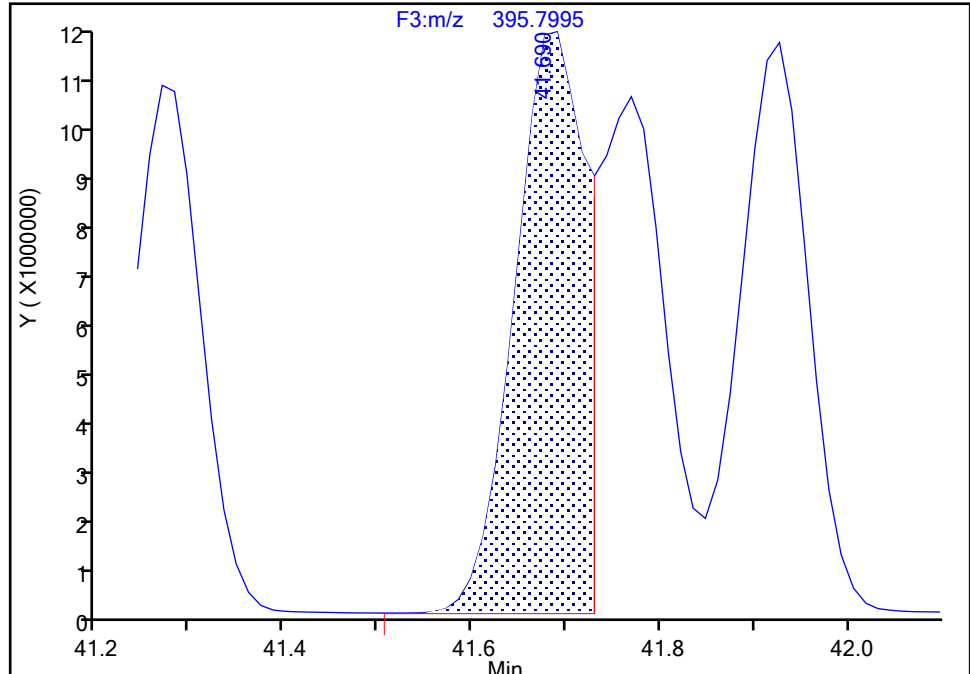
Detector F3(35.64 :49.10 )

**PCB-183/185, CAS: STL02297**

Signal: 2

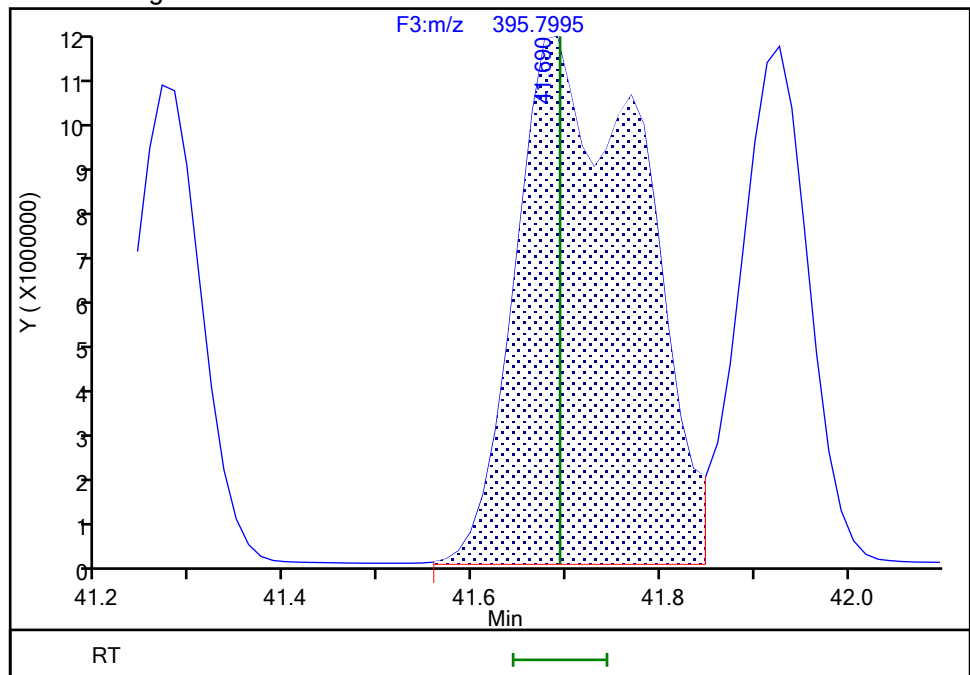
RT: 41.69  
Area: 60297364  
Amount: 2295.3297  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.69  
Area: 109695368  
Amount: 3898.4922  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:07:29 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

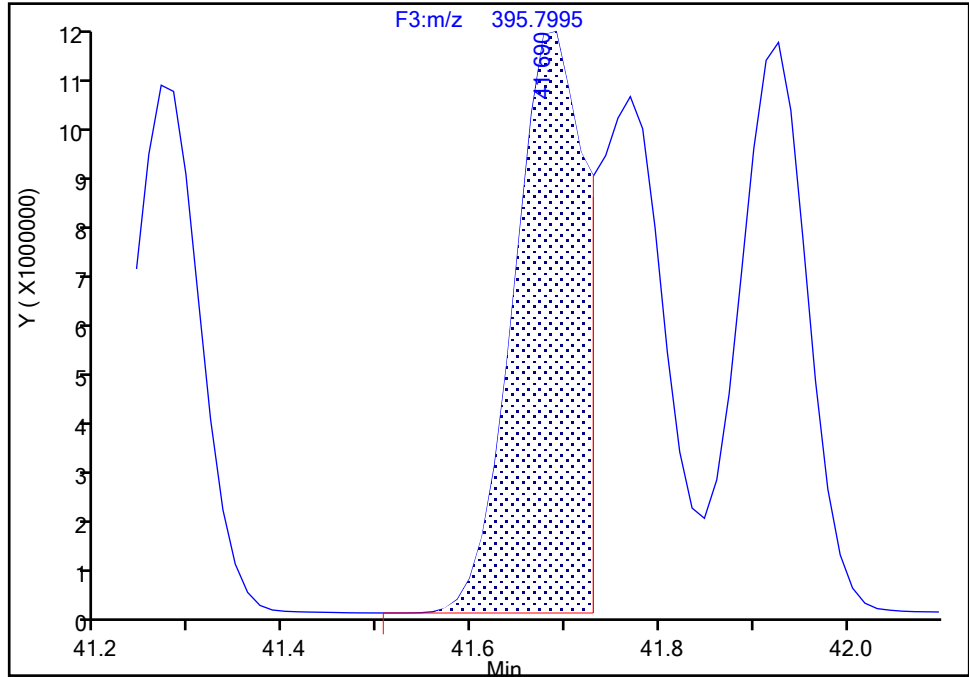
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Injection Date: 31-May-2024 21:13:00 Instrument ID: D2D  
Lims ID: IC L6  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-183/185, CAS: STL02297

Signal: 2

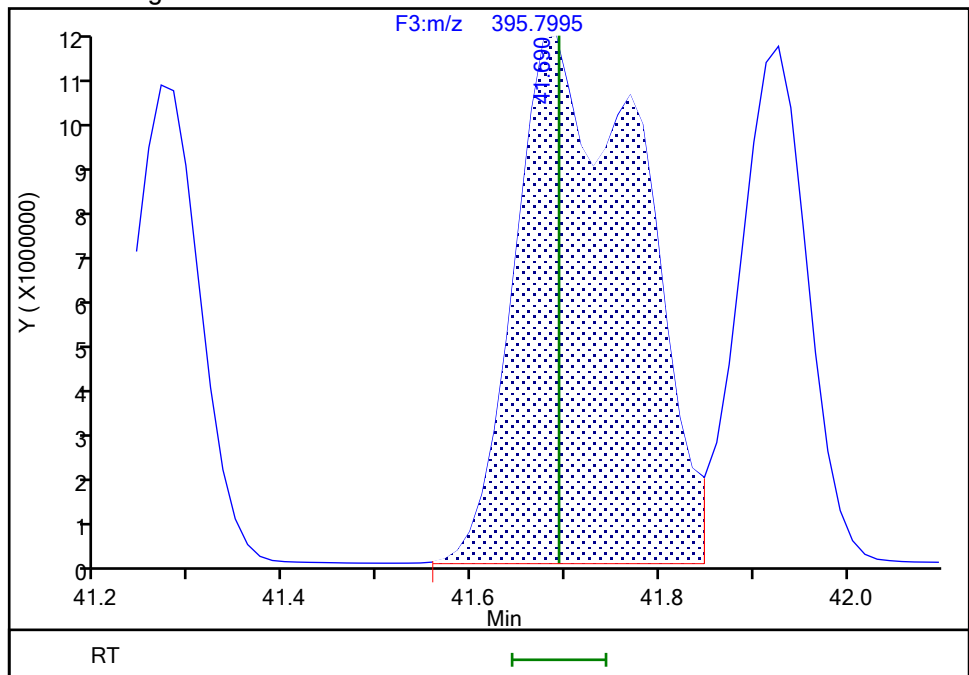
RT: 41.69  
Area: 60297364  
Amount: 2295.3297  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.69  
Area: 109695368  
Amount: 3898.4922  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:07:58 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

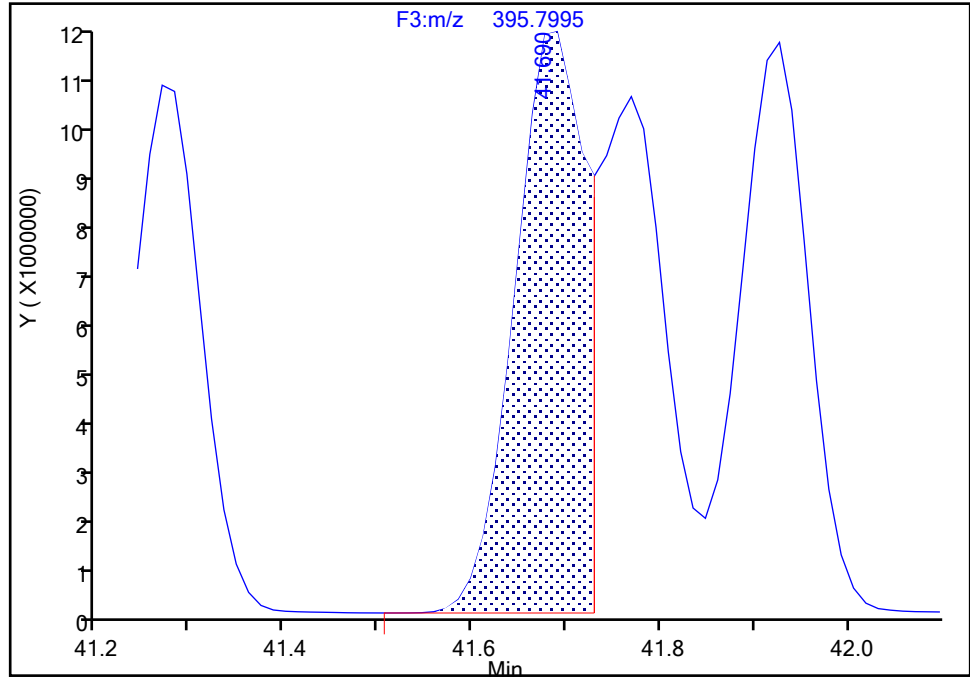
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Injection Date: 31-May-2024 21:13:00 Instrument ID: D2D  
Lims ID: IC L6  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

**PCB-183/185, CAS: STL02297**

Signal: 3

RT: 41.69  
Area: 123693877  
Amount: 2295.3297  
Amount Units: pg/ul

## Processing Integration Results



## Manual Integration Results

RT: 41.69  
Area: 226842465  
Amount: 3898.4922  
Amount Units: pg/ul

Reviewer: V4XA, 01-Jun-2024 03:07:58 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

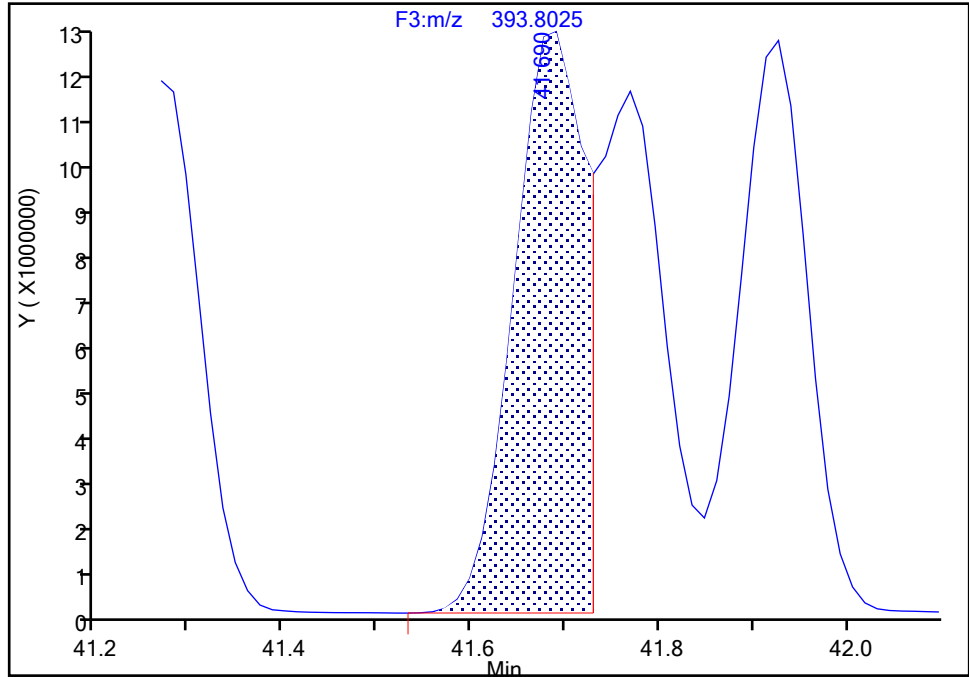
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Injection Date: 31-May-2024 21:13:00 Instrument ID: D2D  
Lims ID: IC L6  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-183/185, CAS: STL02297

Signal: 1

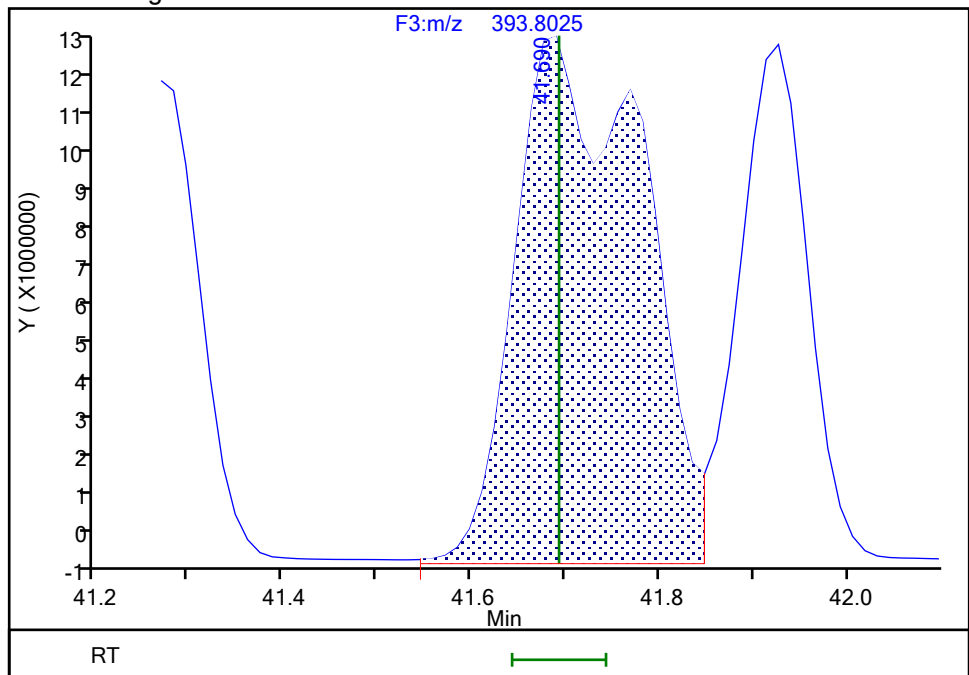
RT: 41.69  
Area: 63396513  
Amount: 2295.3297  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.69  
Area: 117147097  
Amount: 3898.4922  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:08:01 -04:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

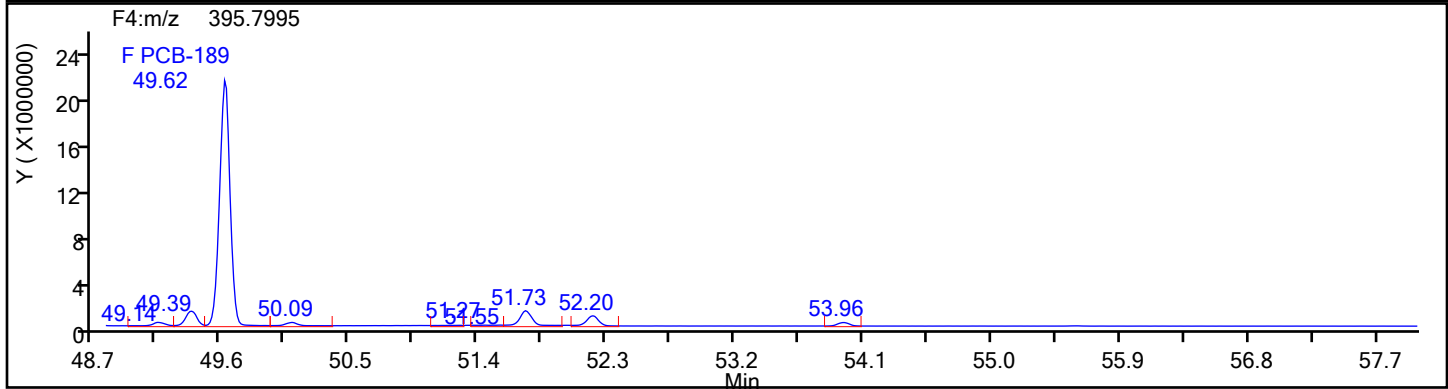
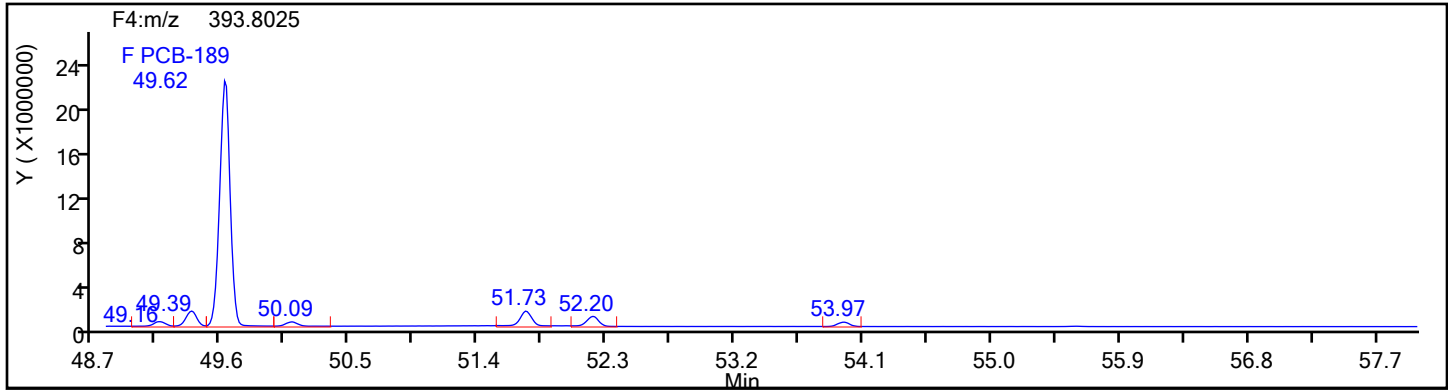
Worklist#: 87130

Sample Line#: 6

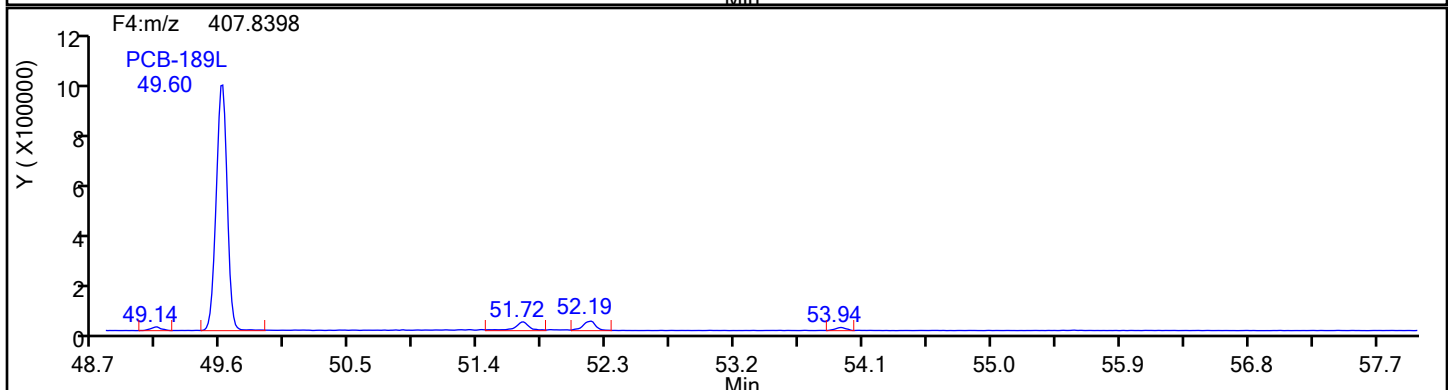
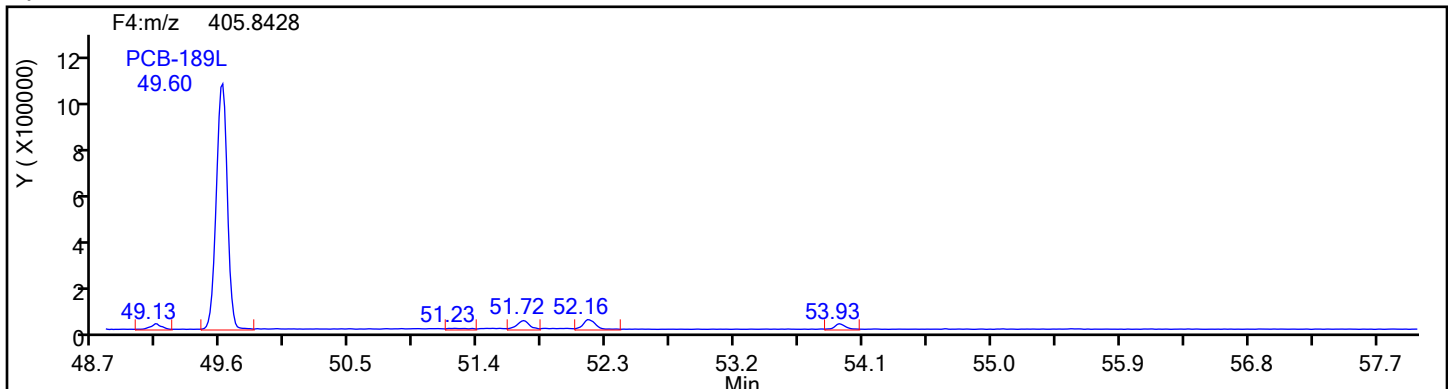
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

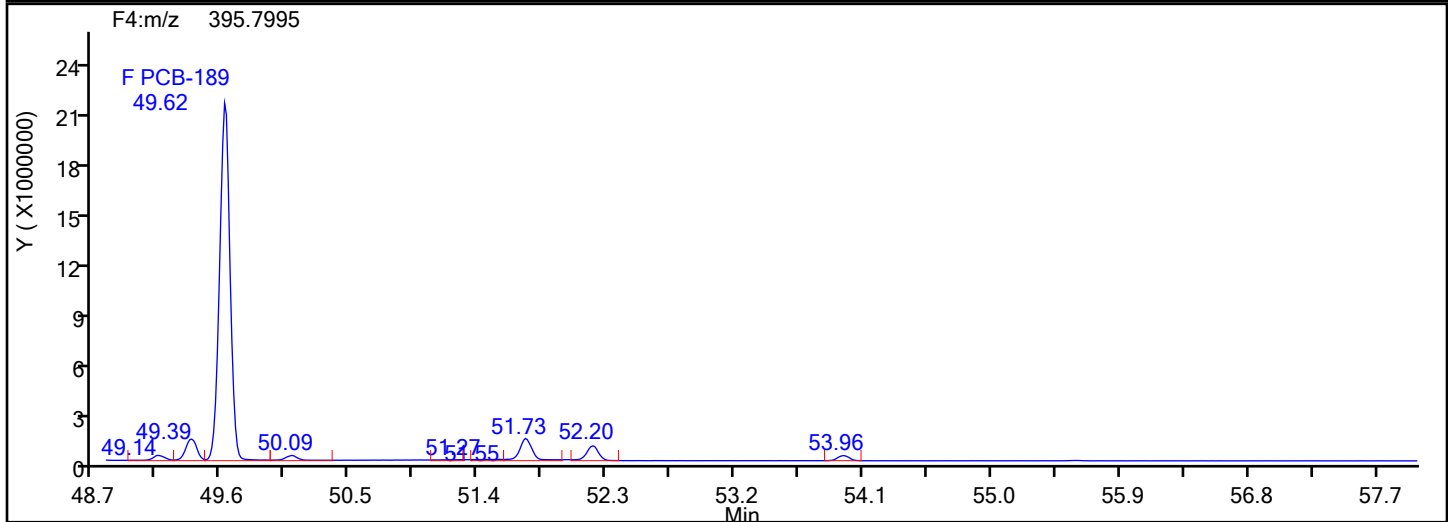
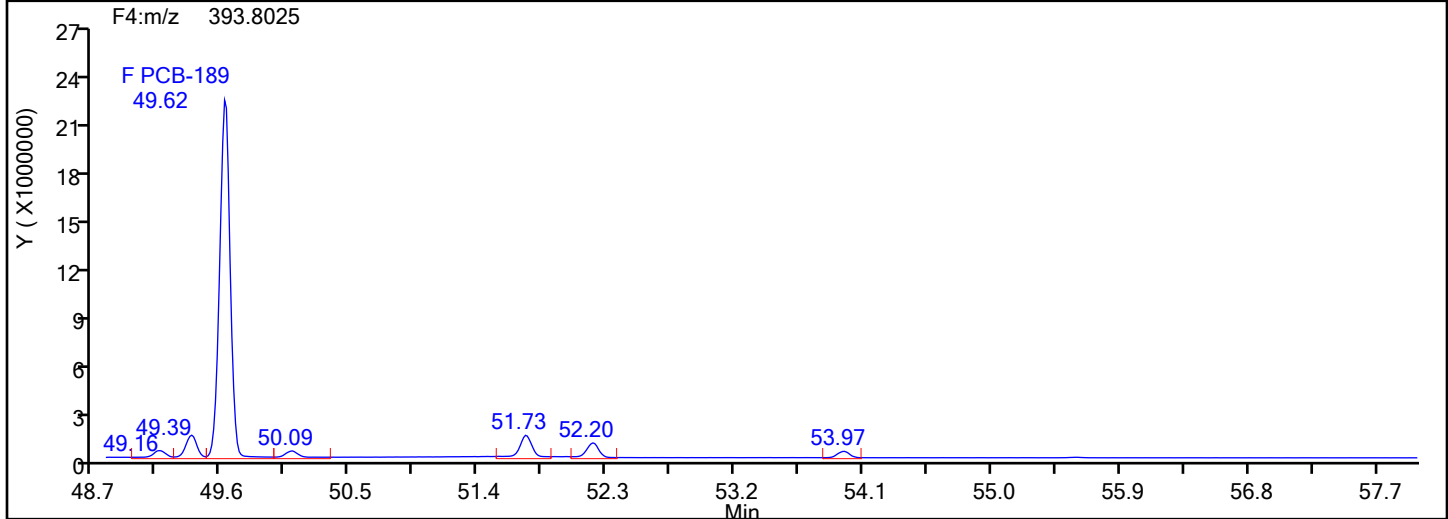
Worklist#: 87130

Sample Line#: 6

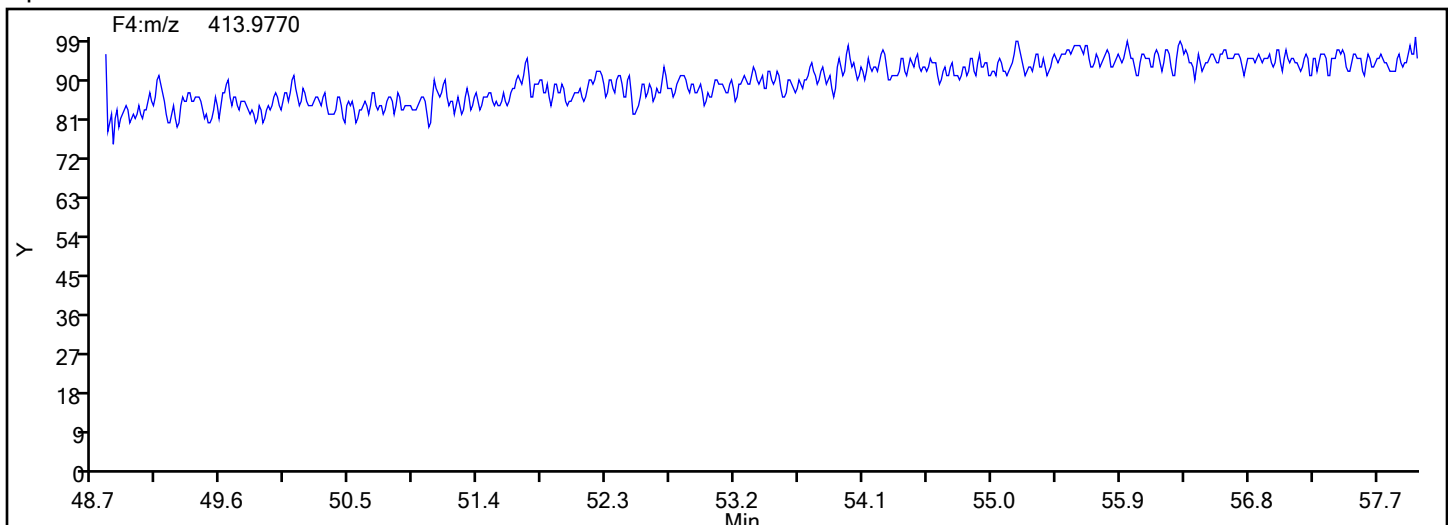
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

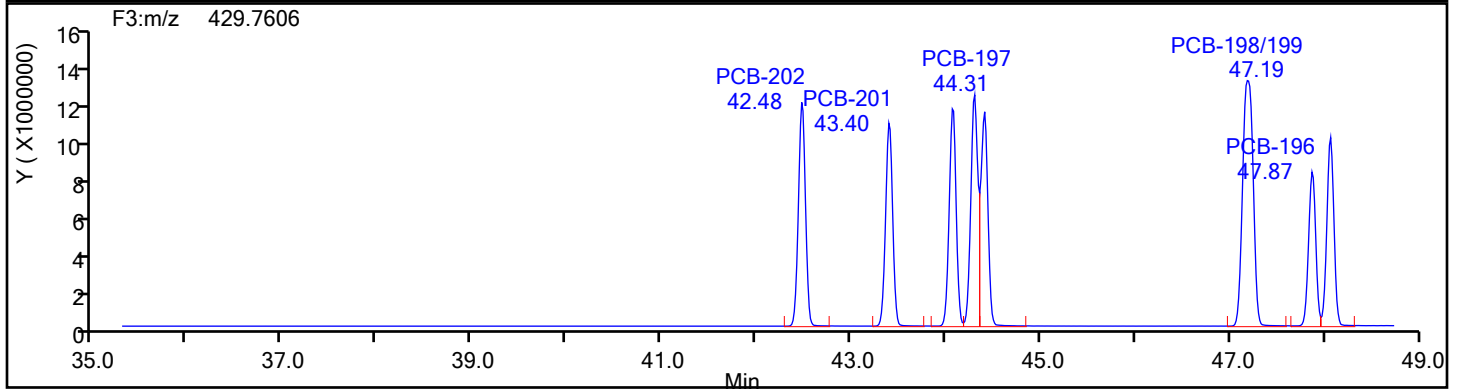
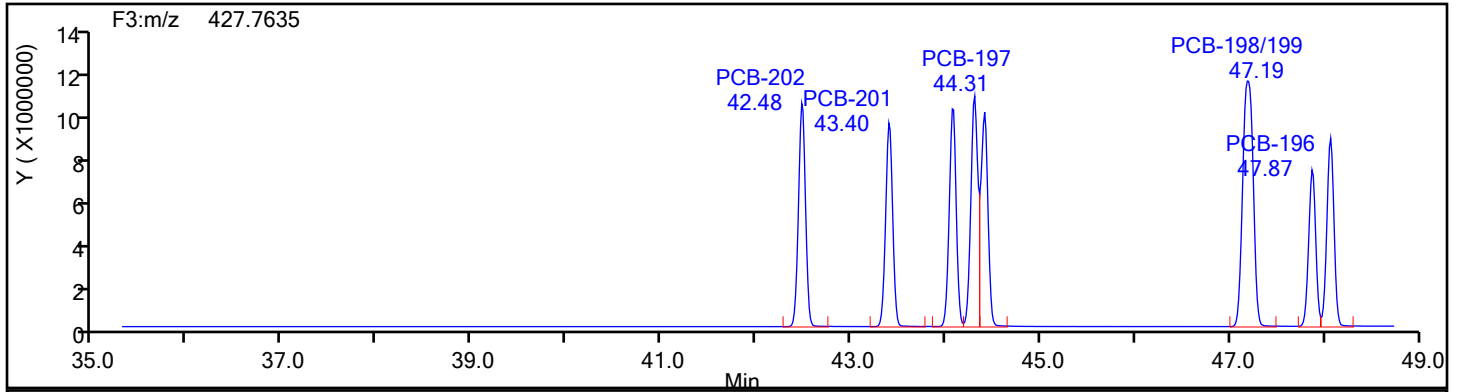
Worklist#: 87130

Sample Line#: 6

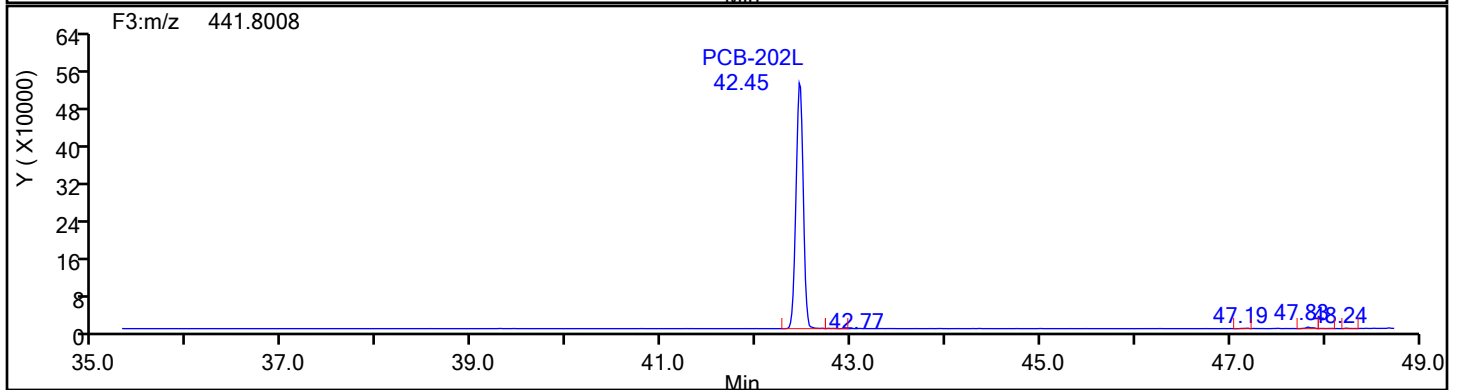
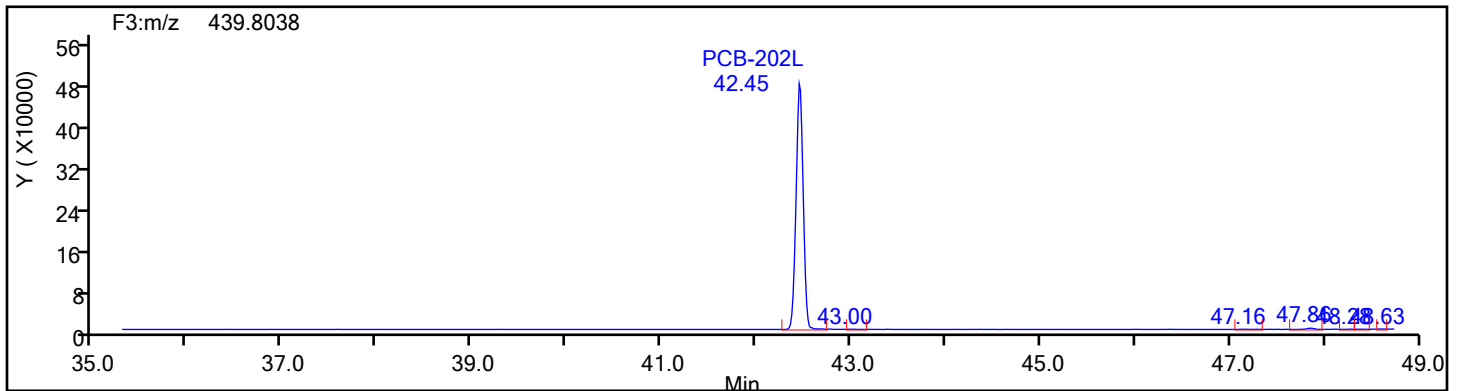
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3



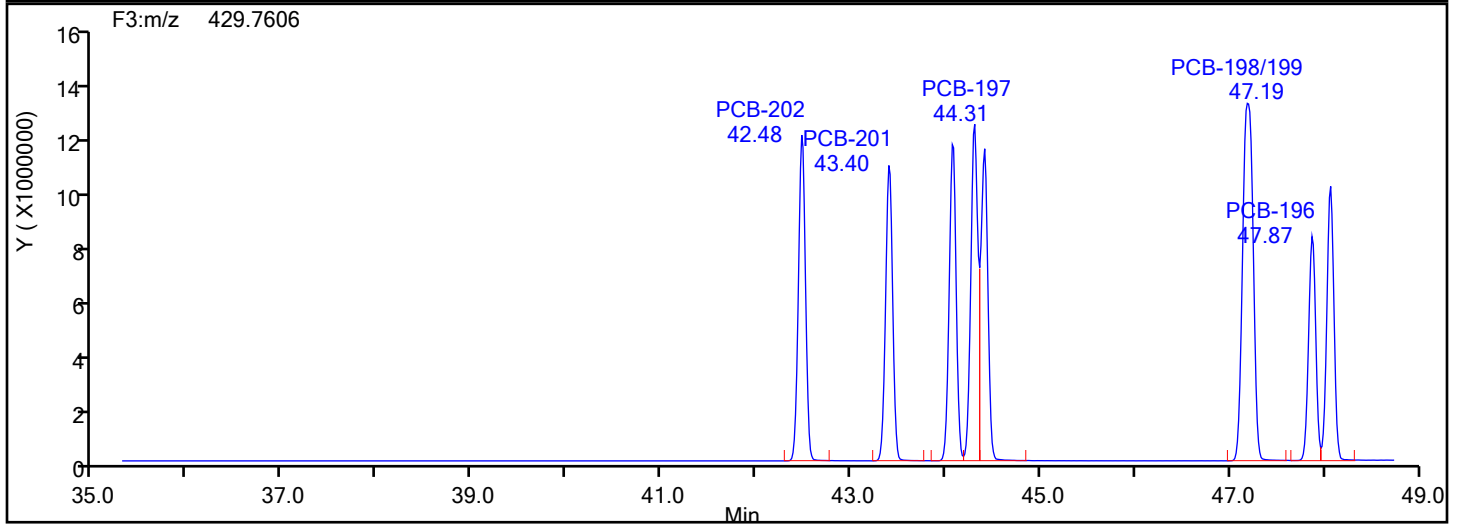
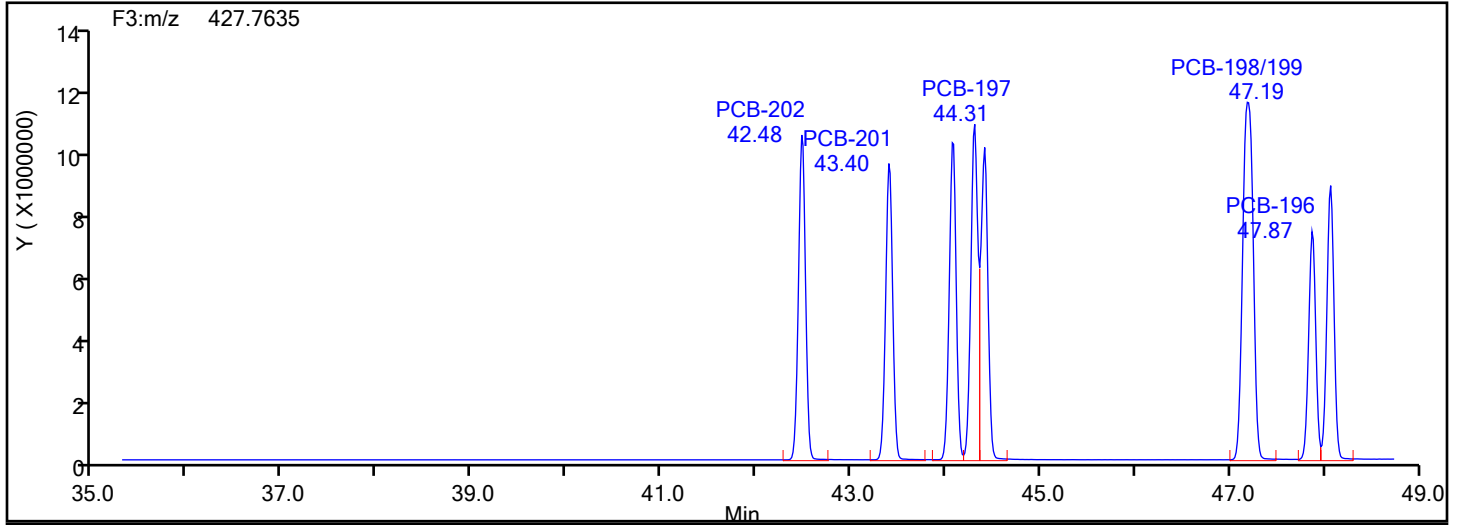
OcPCB F3 Standards



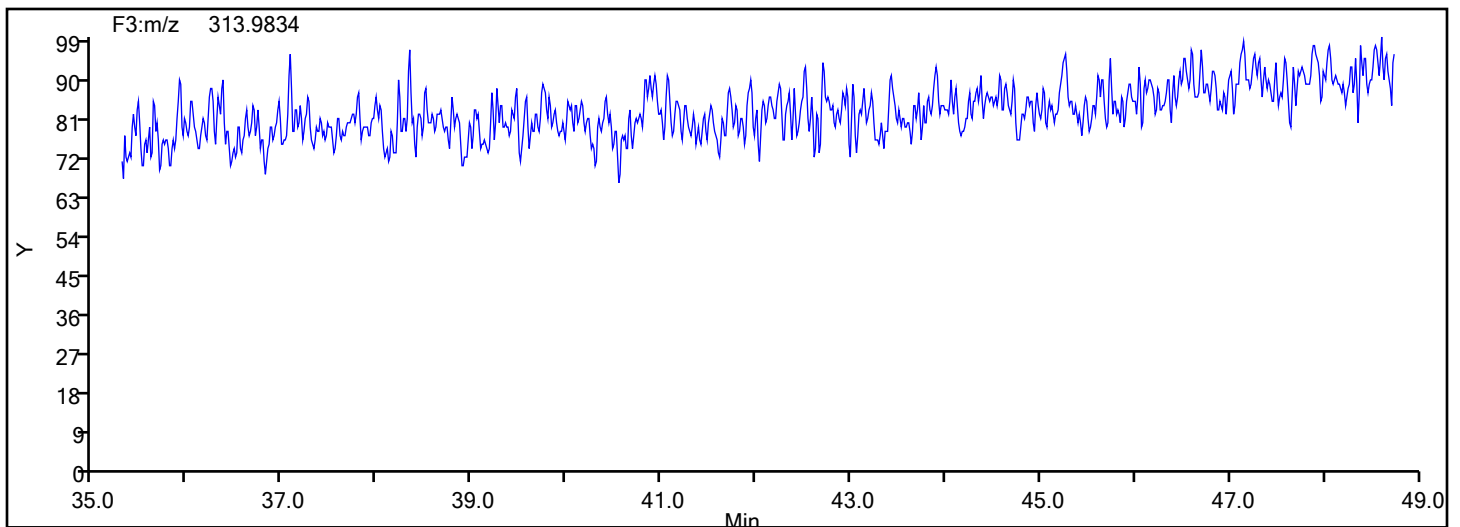


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Injection Date: 31-May-2024 21:13:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3



## OcPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

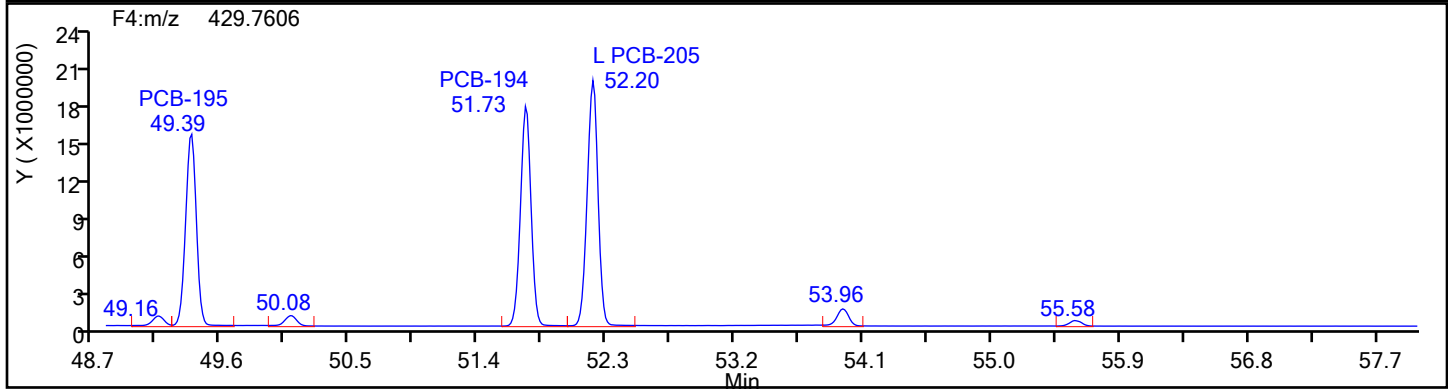
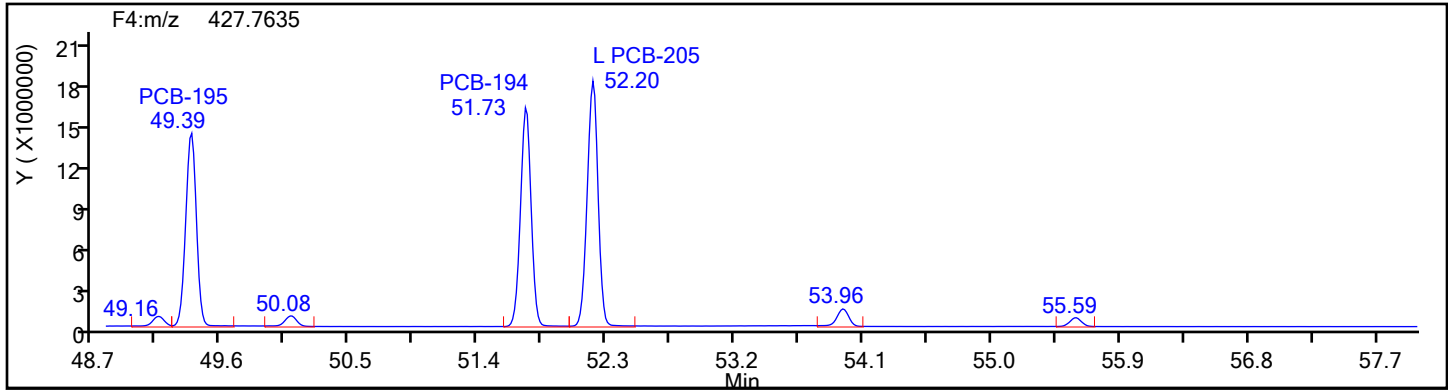
Worklist#: 87130

Sample Line#: 6

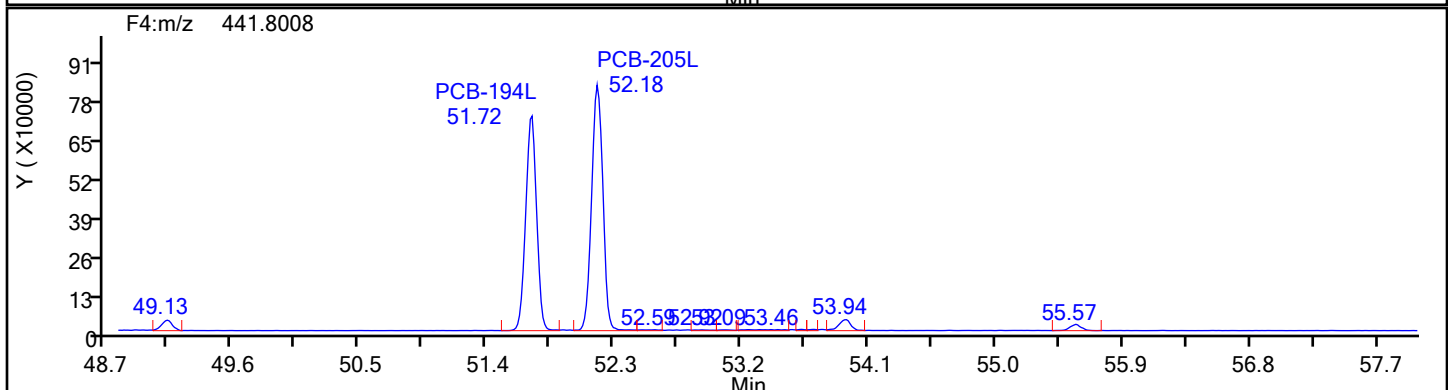
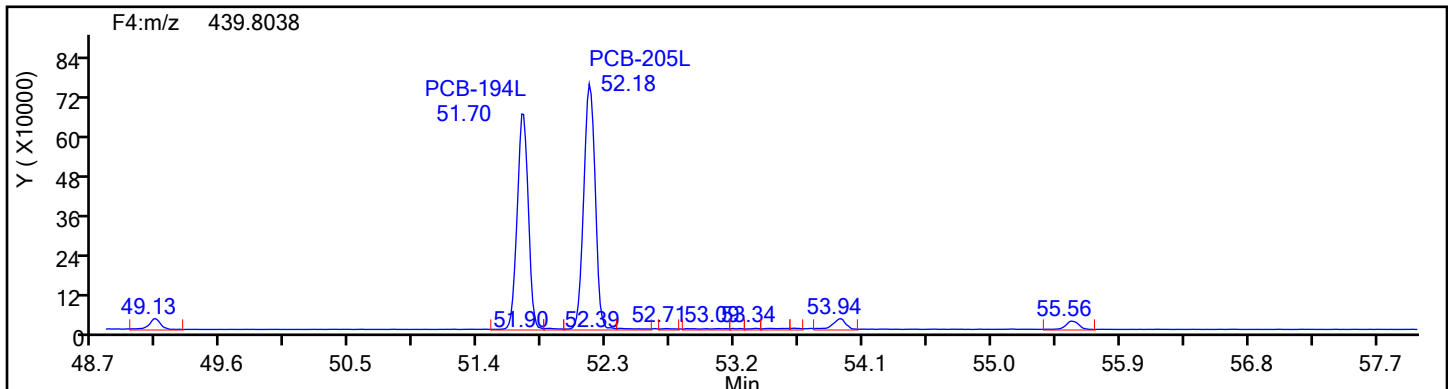
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4



OcPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

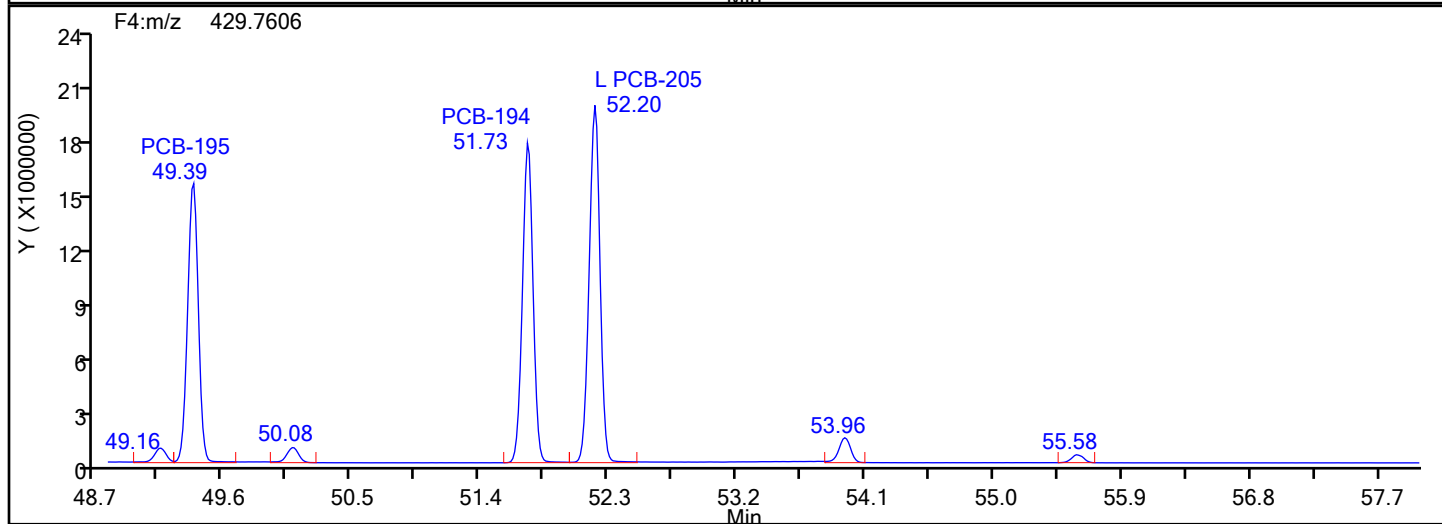
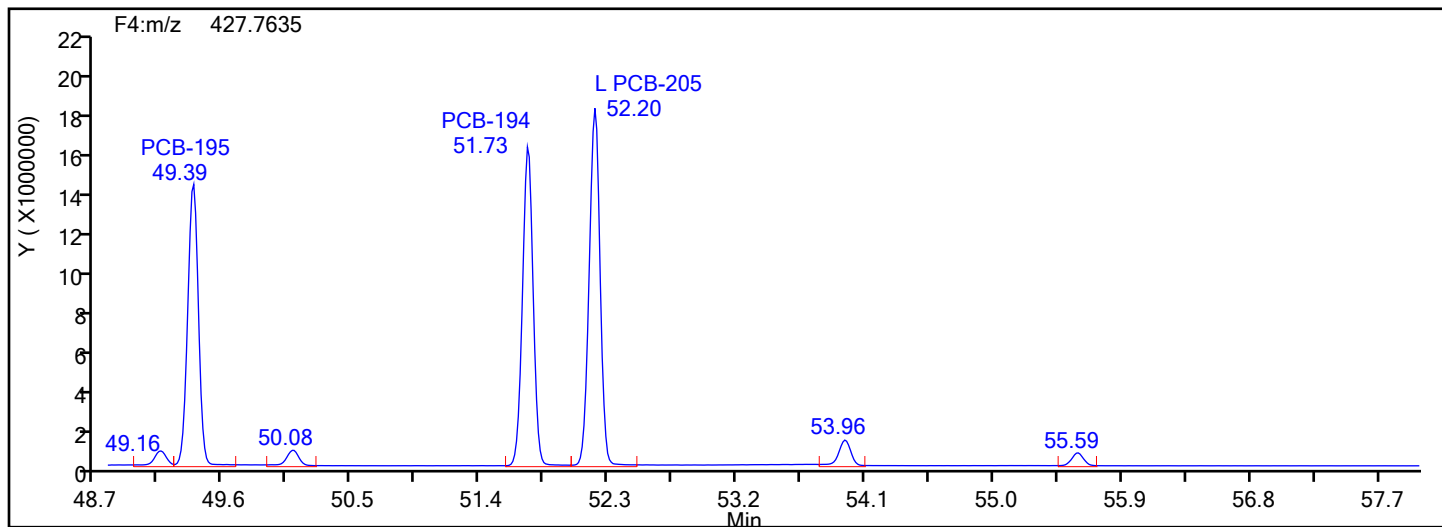
Worklist#: 87130

Sample Line#: 6

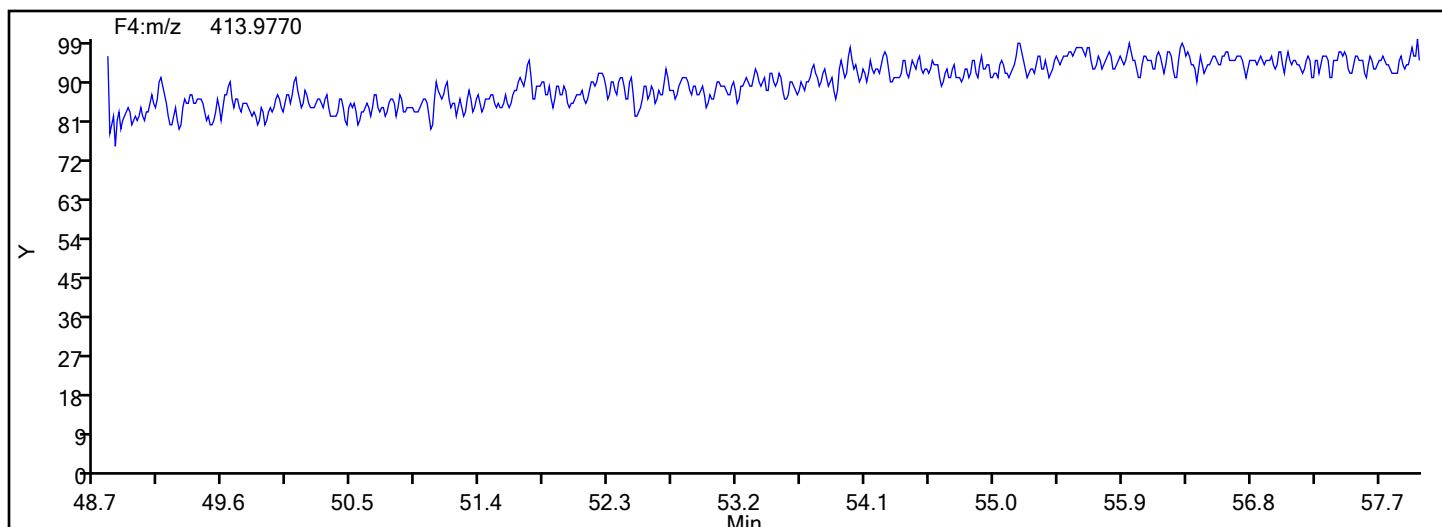
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4

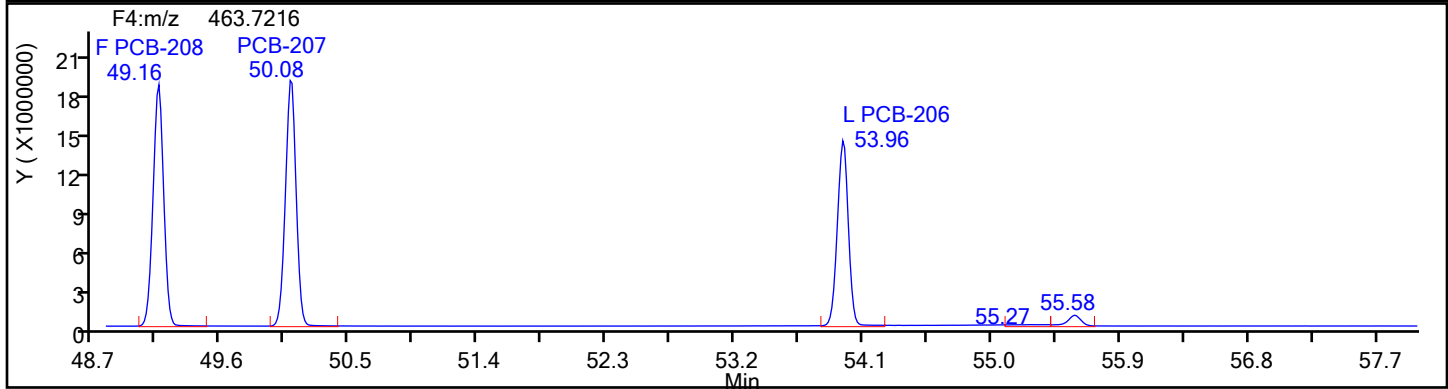
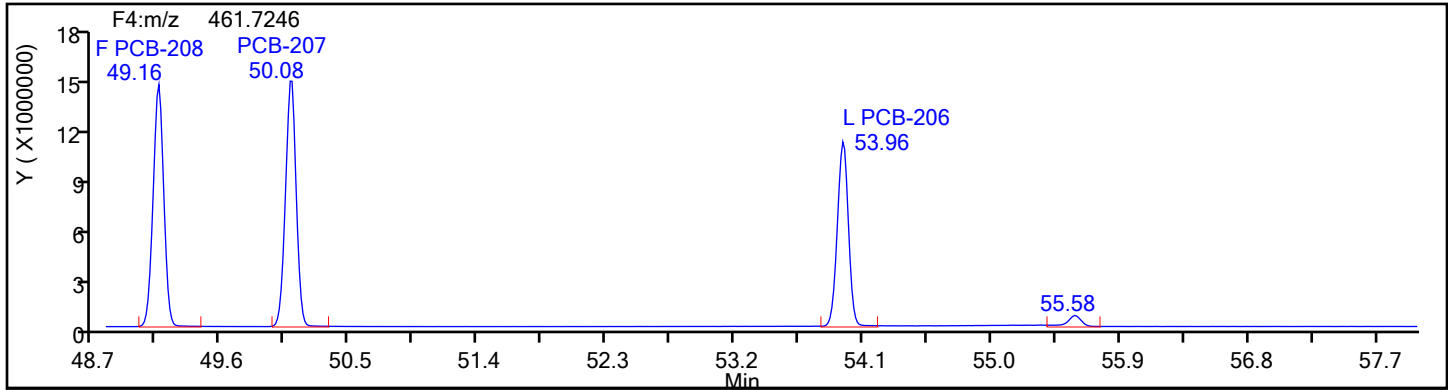


OcPCB F4 Lock Mass

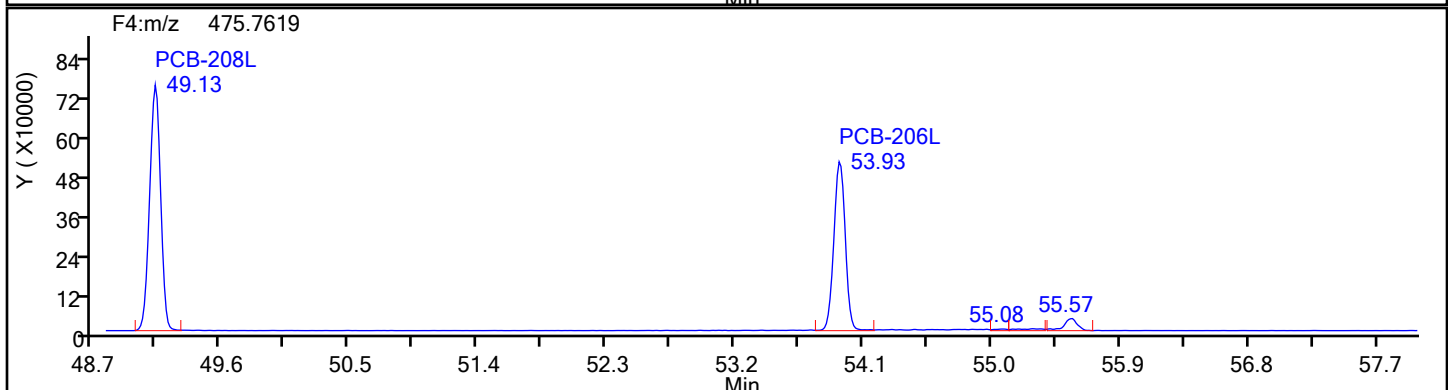
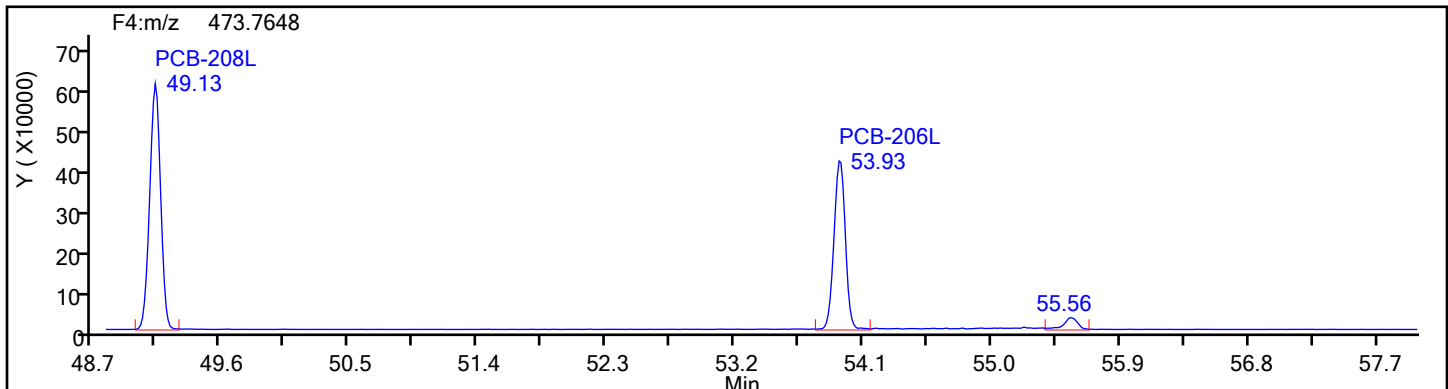


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Injection Date: 31-May-2024 21:13:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 6  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4



## NoPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

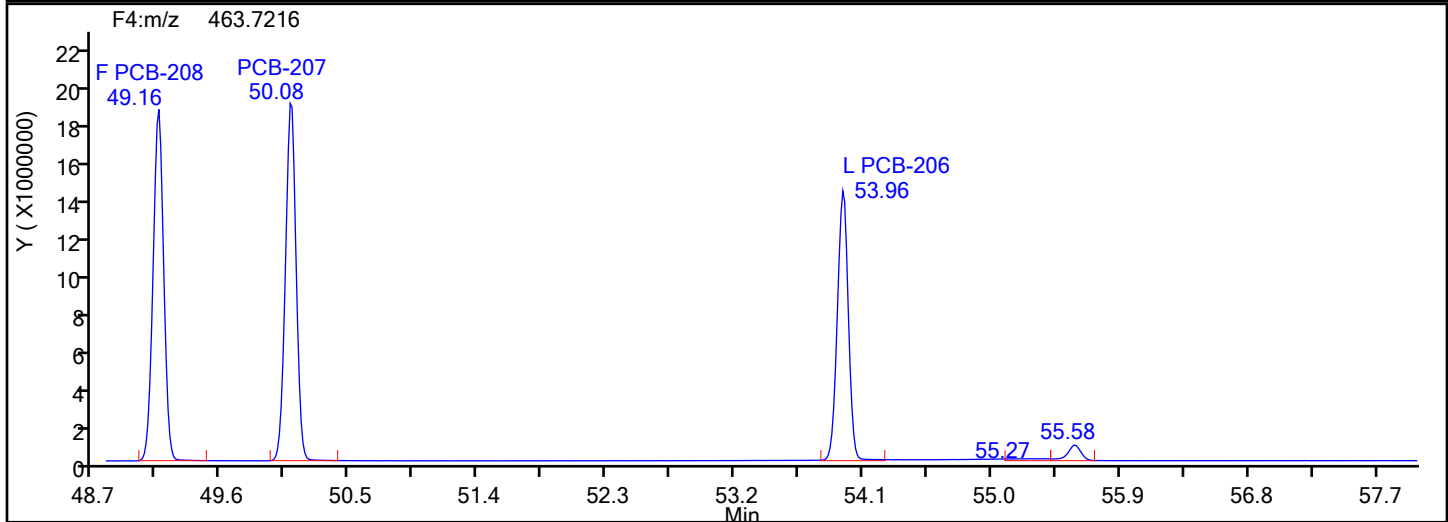
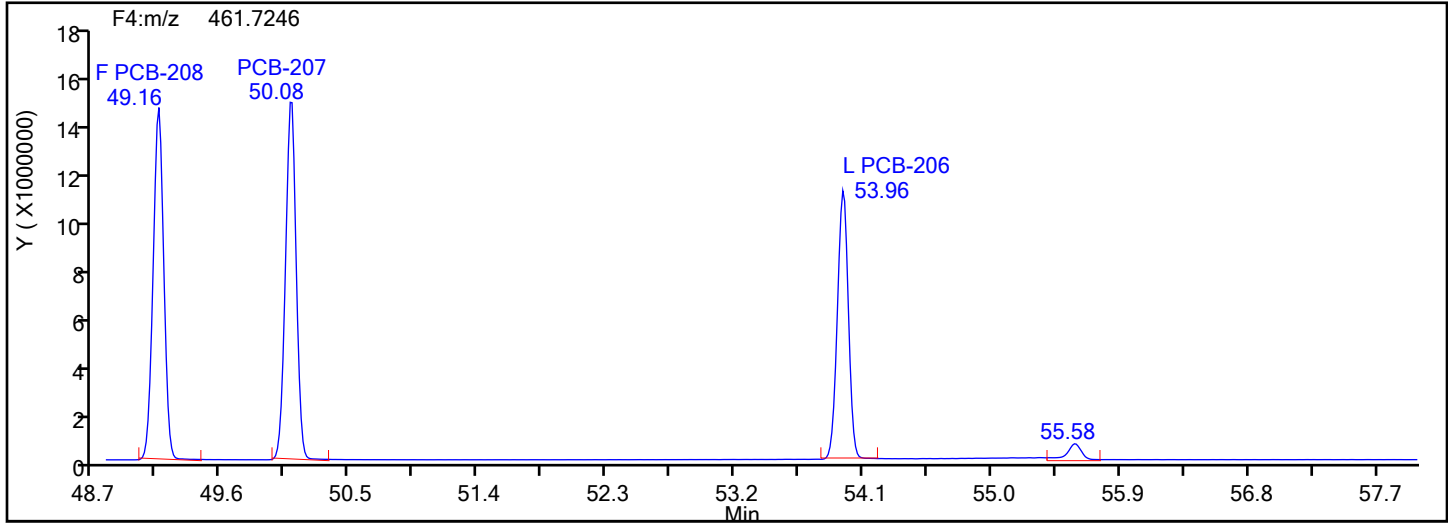
Worklist#: 87130

Sample Line#: 6

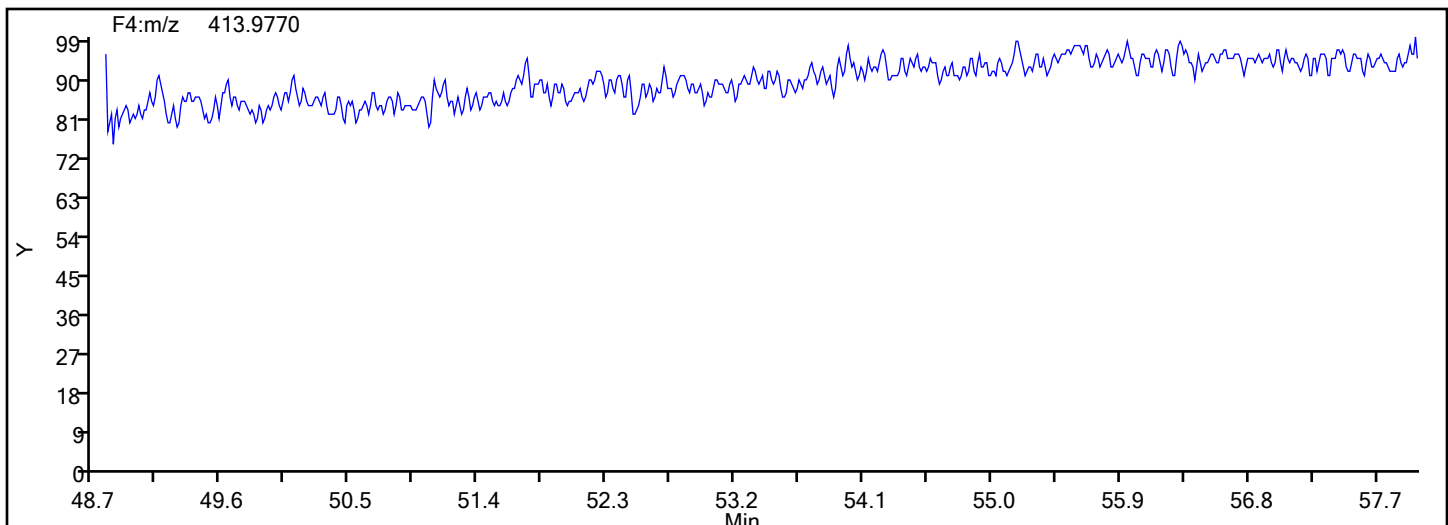
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



NoPCB F4 Lock Mass



## Eurofins Knoxville

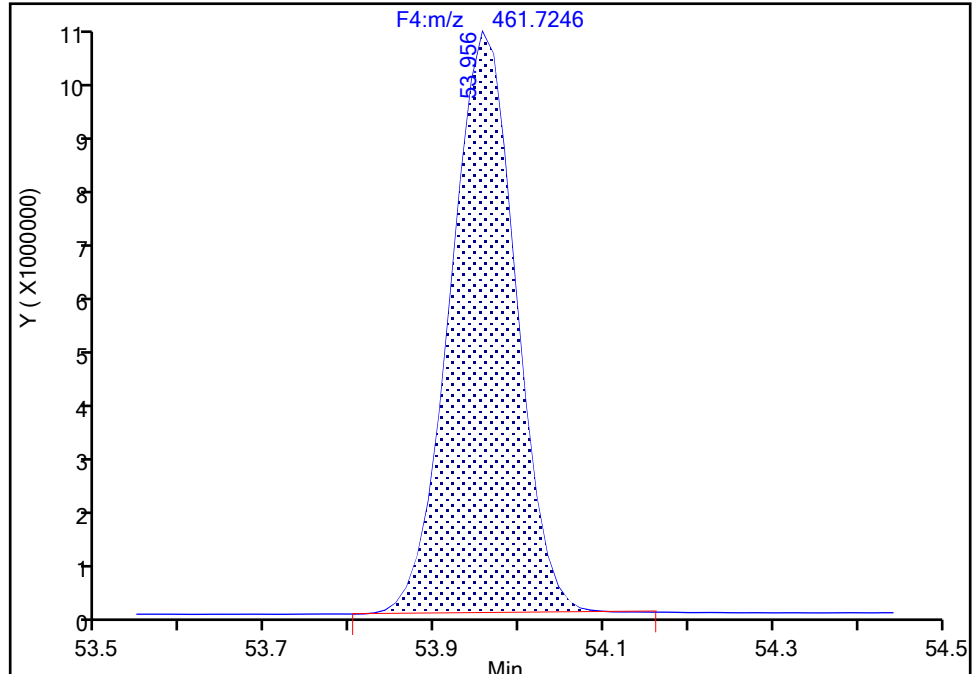
Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d  
Injection Date: 31-May-2024 21:13:00 Instrument ID: D2D  
Lims ID: IC L6  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 6  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F4(49.20 :57.50 )

PCB-206, CAS: 40186-72-9

Signal: 1

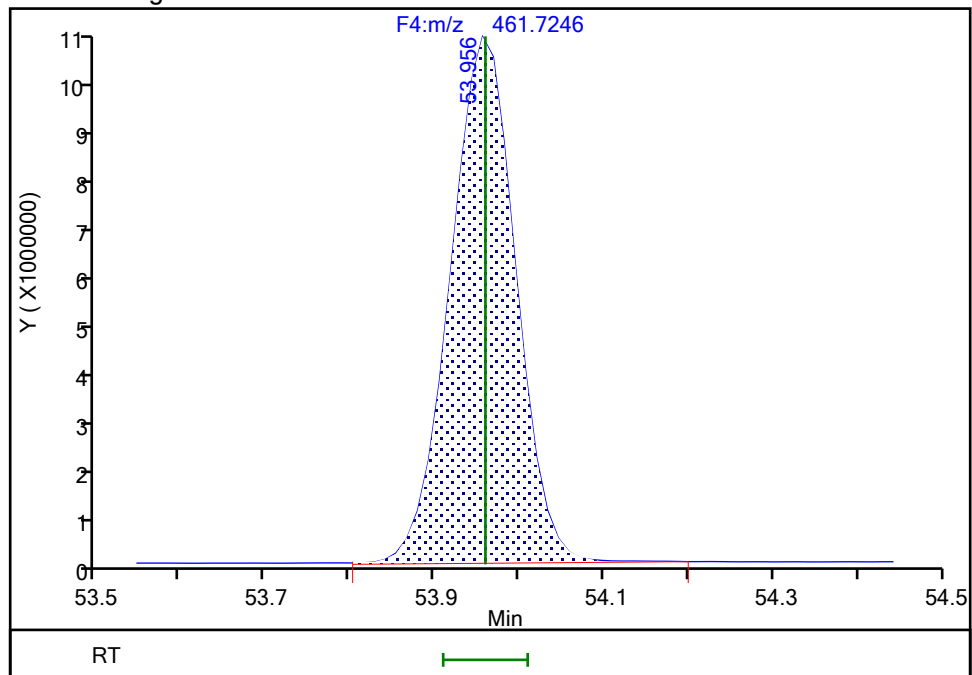
RT: 53.96  
Area: 57730691  
Amount: 1902.5597  
Amount Units: pg/ul

## Processing Integration Results



RT: 53.96  
Area: 58039089  
Amount: 1912.4054  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 01-Jun-2024 03:12:28 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

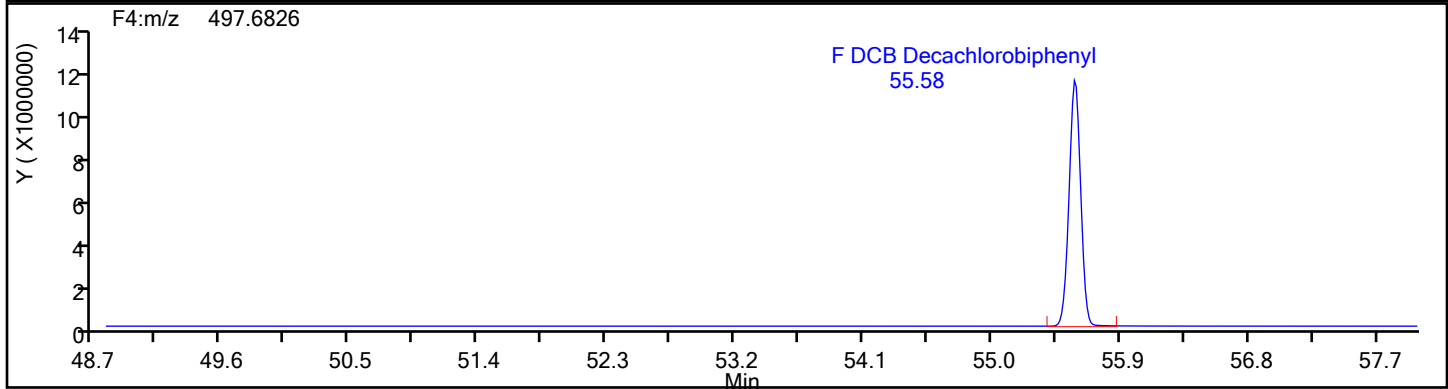
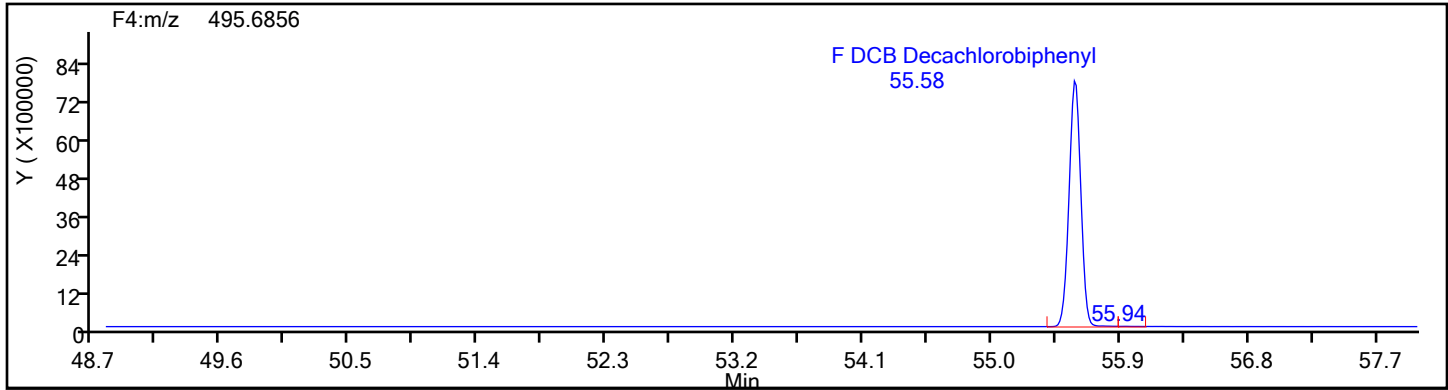
Worklist#: 87130

Sample Line#: 6

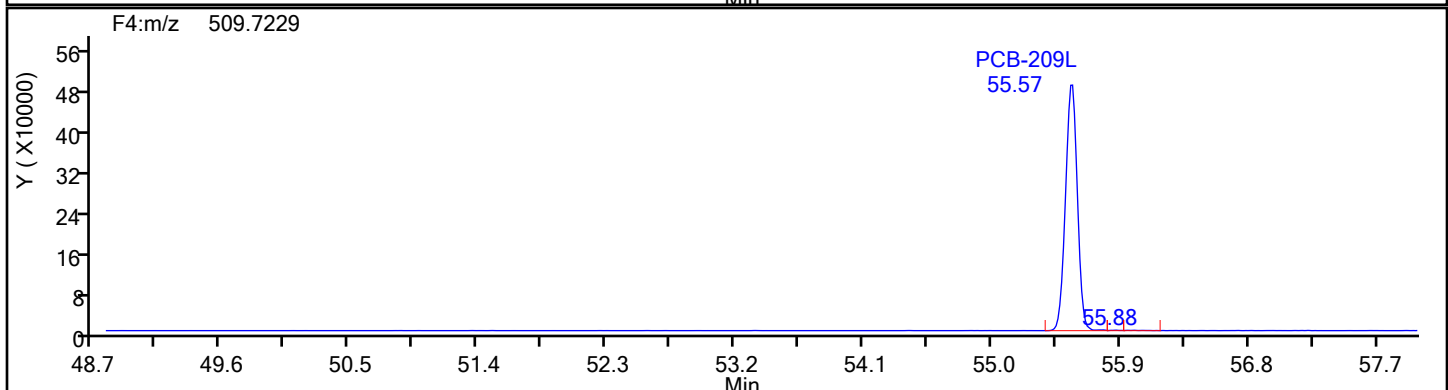
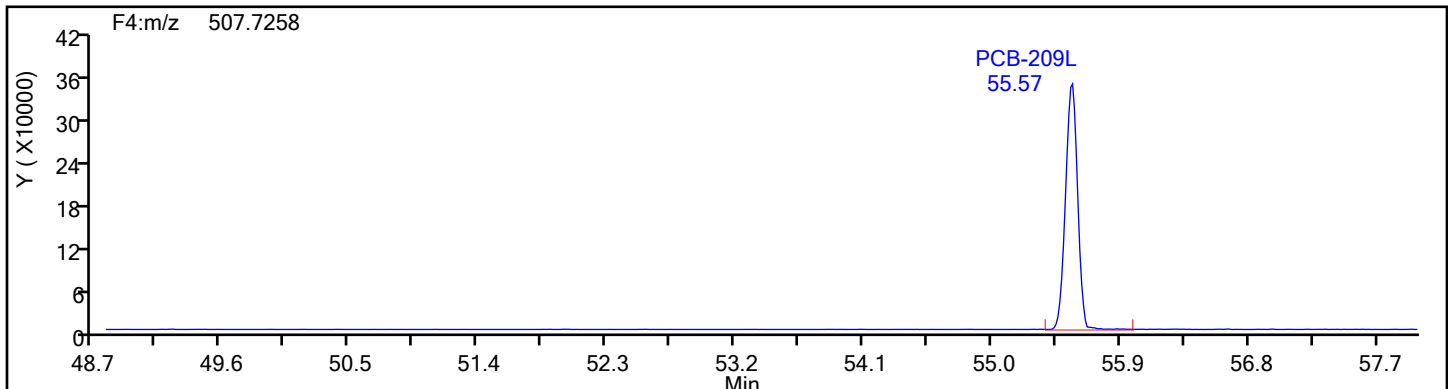
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



DePCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d

Injection Date: 31-May-2024 21:13:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

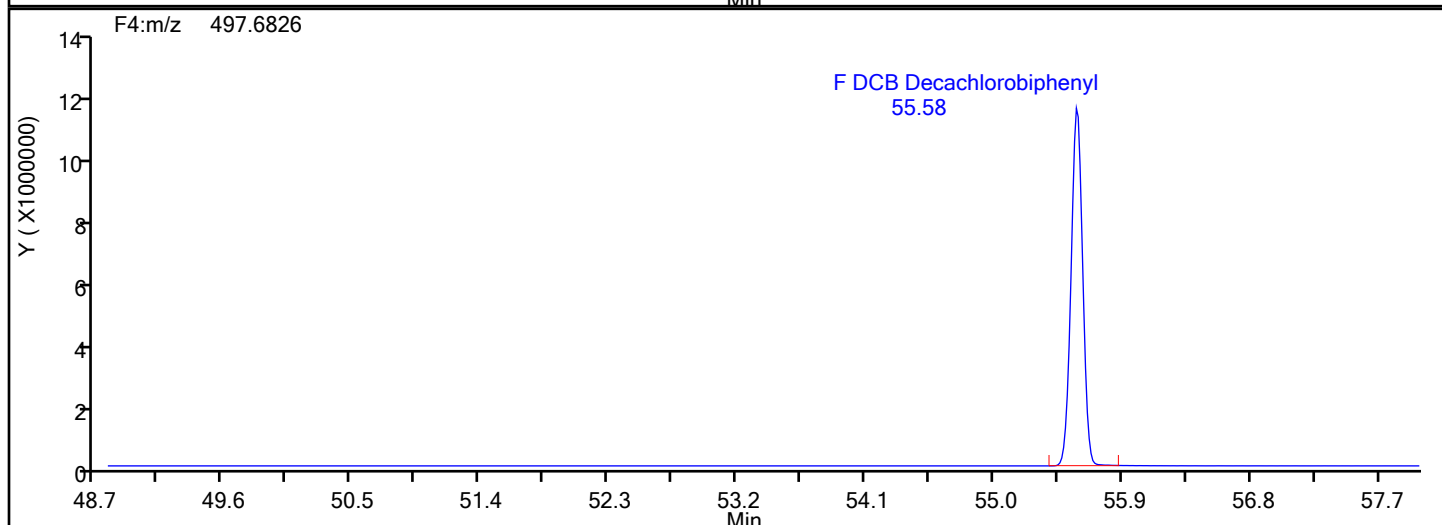
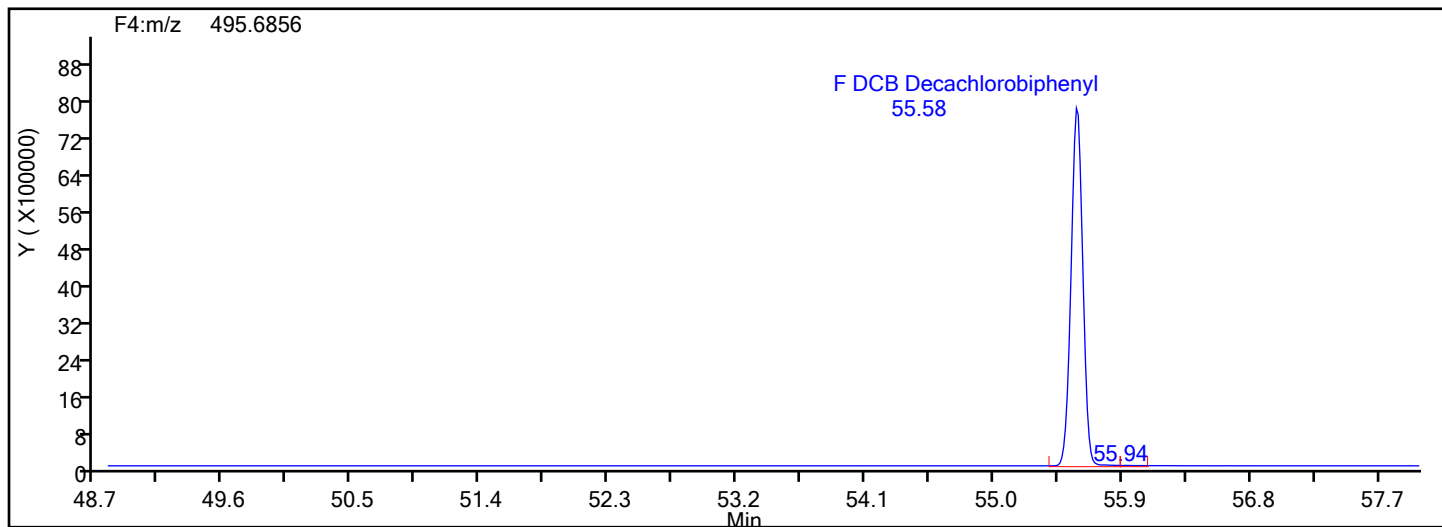
Worklist#: 87130

Sample Line#: 6

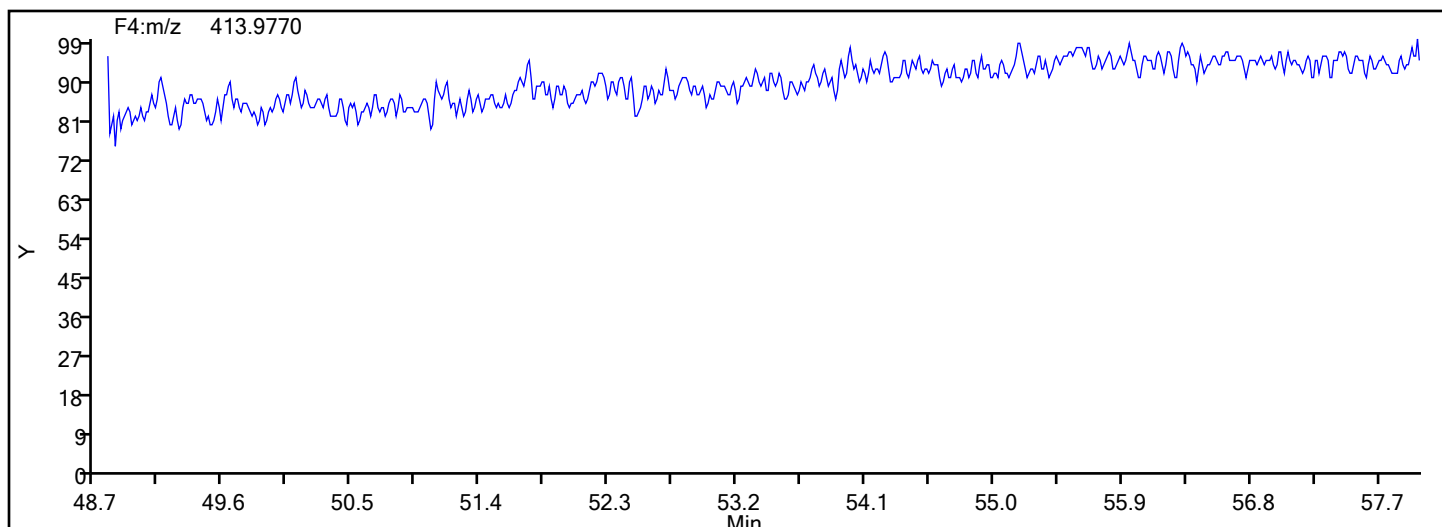
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



DePCB F4 Lock Mass





# Calibration

/ DCB Decachlorobiphenyl

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

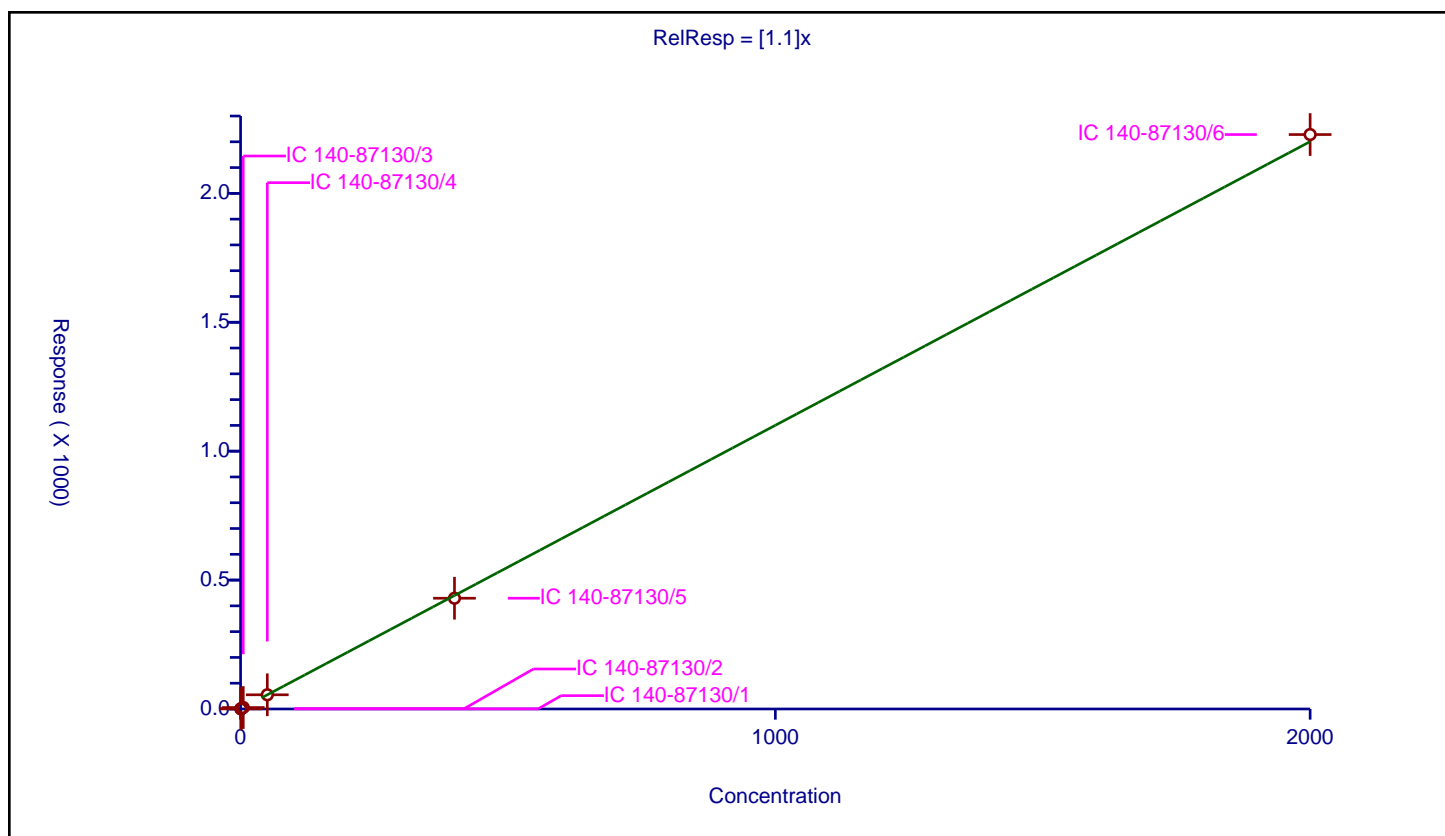
## Curve Coefficients

Intercept: 0  
 Slope: 1.1

## Error Coefficients

Relative Standard Deviation: 1.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.548818	100.0	5278978.0	1.097637	Y
2	IC 140-87130/2	1.0	1.096209	100.0	4729024.0	1.096209	Y
3	IC 140-87130/3	5.0	5.590182	100.0	4889751.0	1.118036	Y
4	IC 140-87130/4	50.0	55.125547	100.0	4723291.0	1.102511	Y
5	IC 140-87130/5	400.0	429.572143	100.0	4867564.0	1.07393	Y
6	IC 140-87130/6	2000.0	2228.125224	100.0	4902169.0	1.114063	Y



# Calibration

/ PCB-1

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

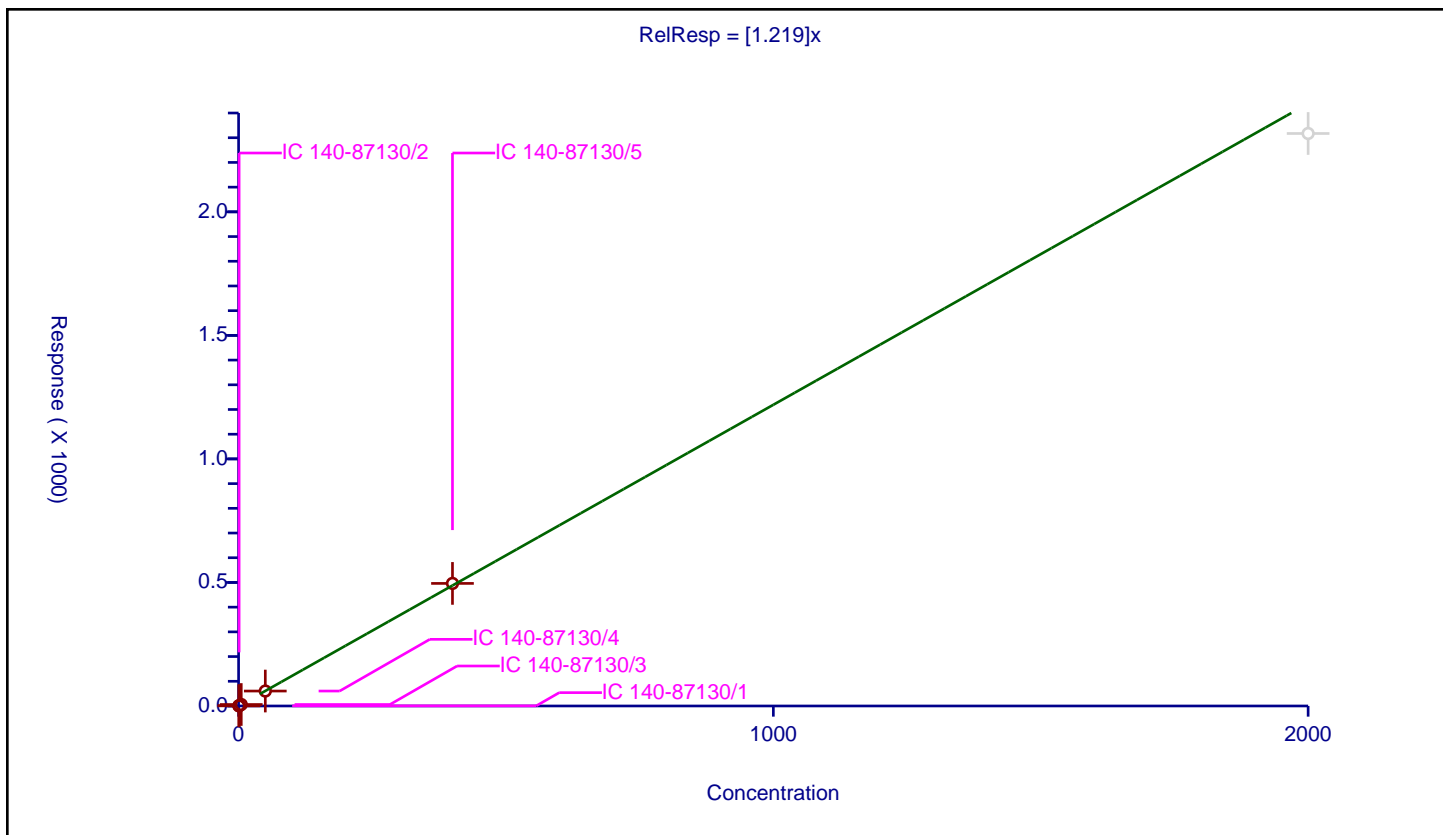
## Curve Coefficients

Intercept: 0  
 Slope: 1.219

## Error Coefficients

Relative Standard Deviation: 2.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.597017	100.0	14676977.0	1.194033	Y
2	IC 140-87130/2	1.0	1.250029	100.0	13411930.0	1.250029	Y
3	IC 140-87130/3	5.0	6.006275	100.0	13253788.0	1.201255	Y
4	IC 140-87130/4	50.0	60.496451	100.0	13654287.0	1.209929	Y
5	IC 140-87130/5	400.0	496.144941	100.0	13820437.0	1.240362	Y
6	IC 140-87130/6	2000.0	2317.124057	100.0	14103562.0	1.158562	N



# Calibration

/ PCB-10

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

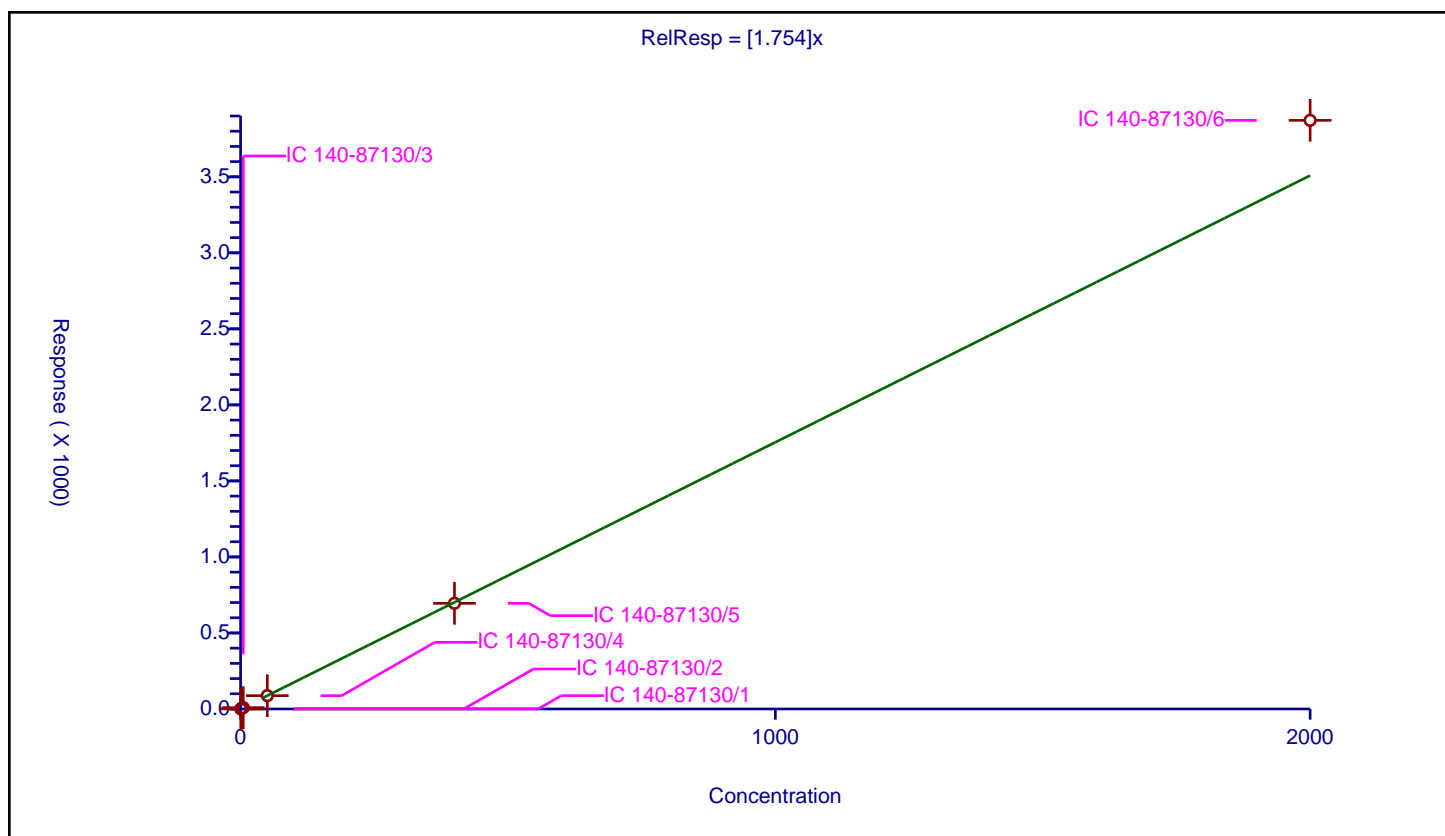
## Curve Coefficients

Intercept: 0  
Slope: 1.754

## Error Coefficients

Relative Standard Deviation: 5.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.821438	100.0	5904521.0	1.642877	Y
2	IC 140-87130/2	1.0	1.670823	100.0	5442766.0	1.670823	Y
3	IC 140-87130/3	5.0	8.937908	100.0	5279032.0	1.787582	Y
4	IC 140-87130/4	50.0	87.549993	100.0	5474214.0	1.751	Y
5	IC 140-87130/5	400.0	695.041767	100.0	5561618.0	1.737604	Y
6	IC 140-87130/6	2000.0	3871.627139	100.0	5672202.0	1.935814	Y



# Calibration

/ PCB-100

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

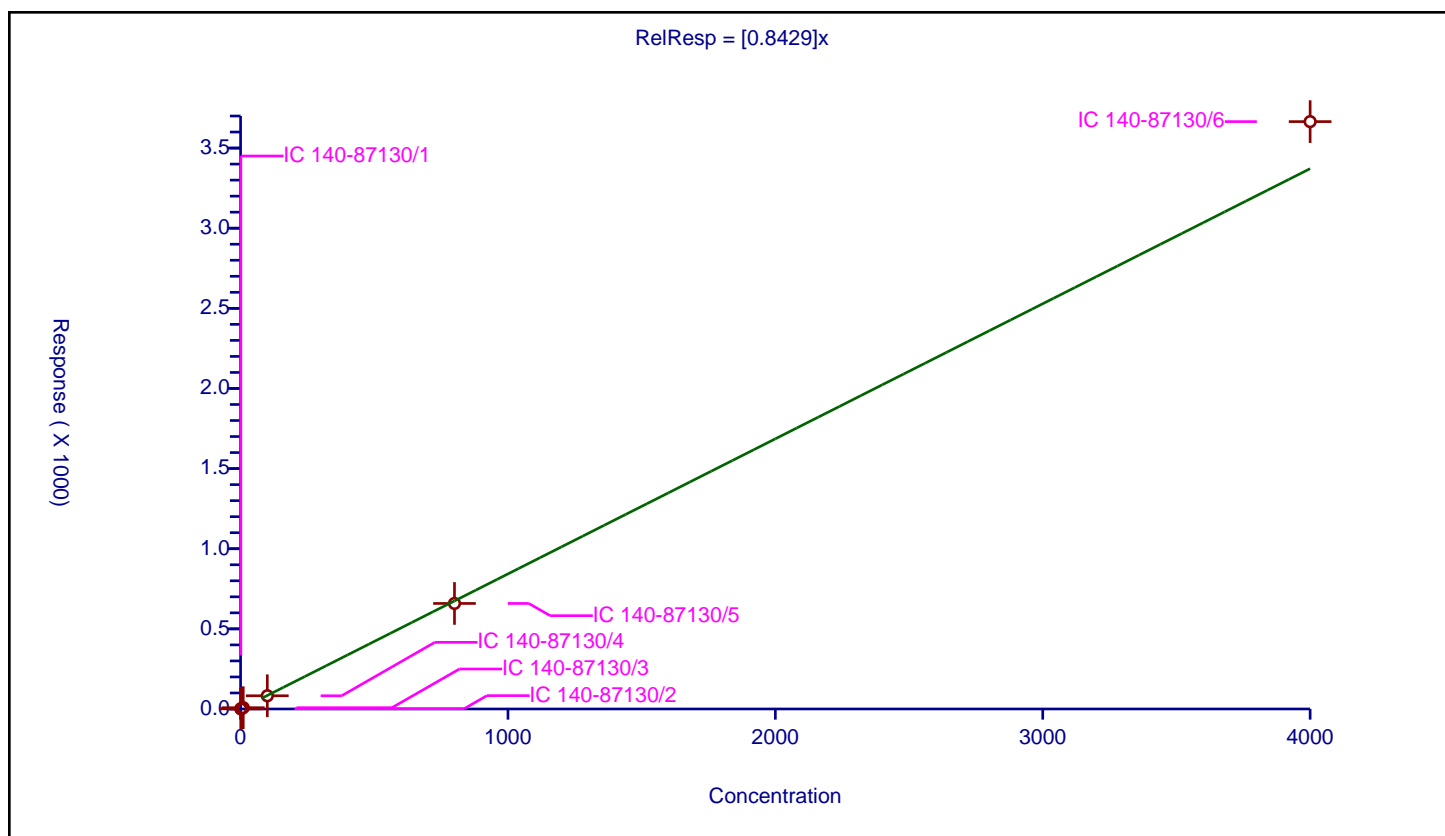
## Curve Coefficients

Intercept: 0  
Slope: 0.8429

## Error Coefficients

Relative Standard Deviation: 4.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.852714	100.0	6938320.0	0.852714	Y
2	IC 140-87130/2	2.0	1.667508	100.0	6240748.0	0.833754	Y
3	IC 140-87130/3	10.0	8.061721	100.0	6307301.0	0.806172	Y
4	IC 140-87130/4	100.0	82.513091	100.0	6455349.0	0.825131	Y
5	IC 140-87130/5	800.0	658.540756	100.0	6672003.0	0.823176	Y
6	IC 140-87130/6	4000.0	3665.032714	100.0	6975966.0	0.916258	Y



# Calibration

/ PCB-101

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

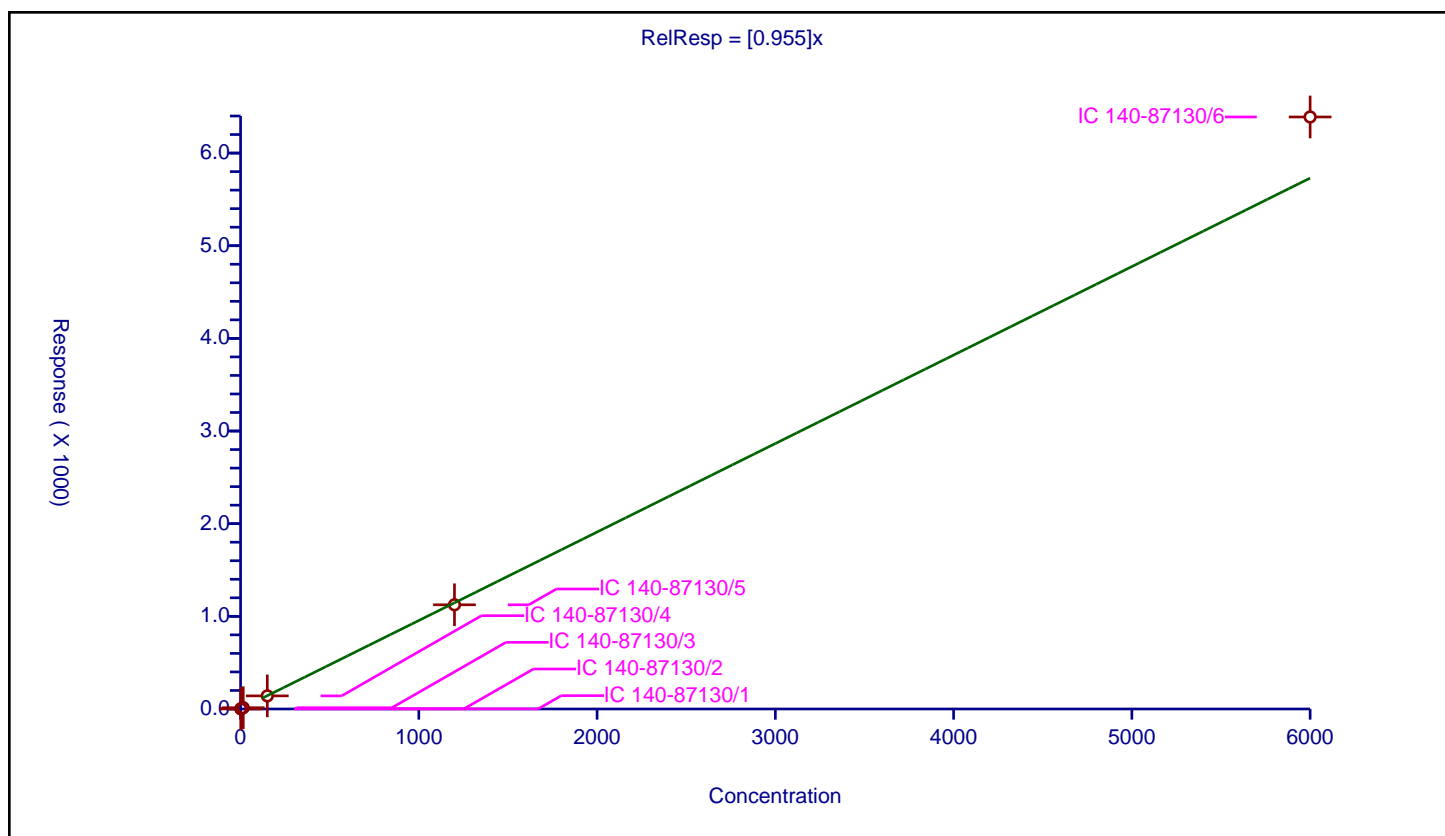
## Curve Coefficients

Intercept: 0  
Slope: 0.955

## Error Coefficients

Relative Standard Deviation: 5.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.423053	100.0	6938320.0	0.948702	Y
2	IC 140-87130/2	3.0	2.801892	100.0	6240748.0	0.933964	Y
3	IC 140-87130/3	15.0	13.539722	100.0	6307301.0	0.902648	Y
4	IC 140-87130/4	150.0	141.38193	100.0	6455349.0	0.942546	Y
5	IC 140-87130/5	1200.0	1124.566761	100.0	6672003.0	0.937139	Y
6	IC 140-87130/6	6000.0	6389.746882	100.0	6975966.0	1.064958	Y



# Calibration

/ PCB-102

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

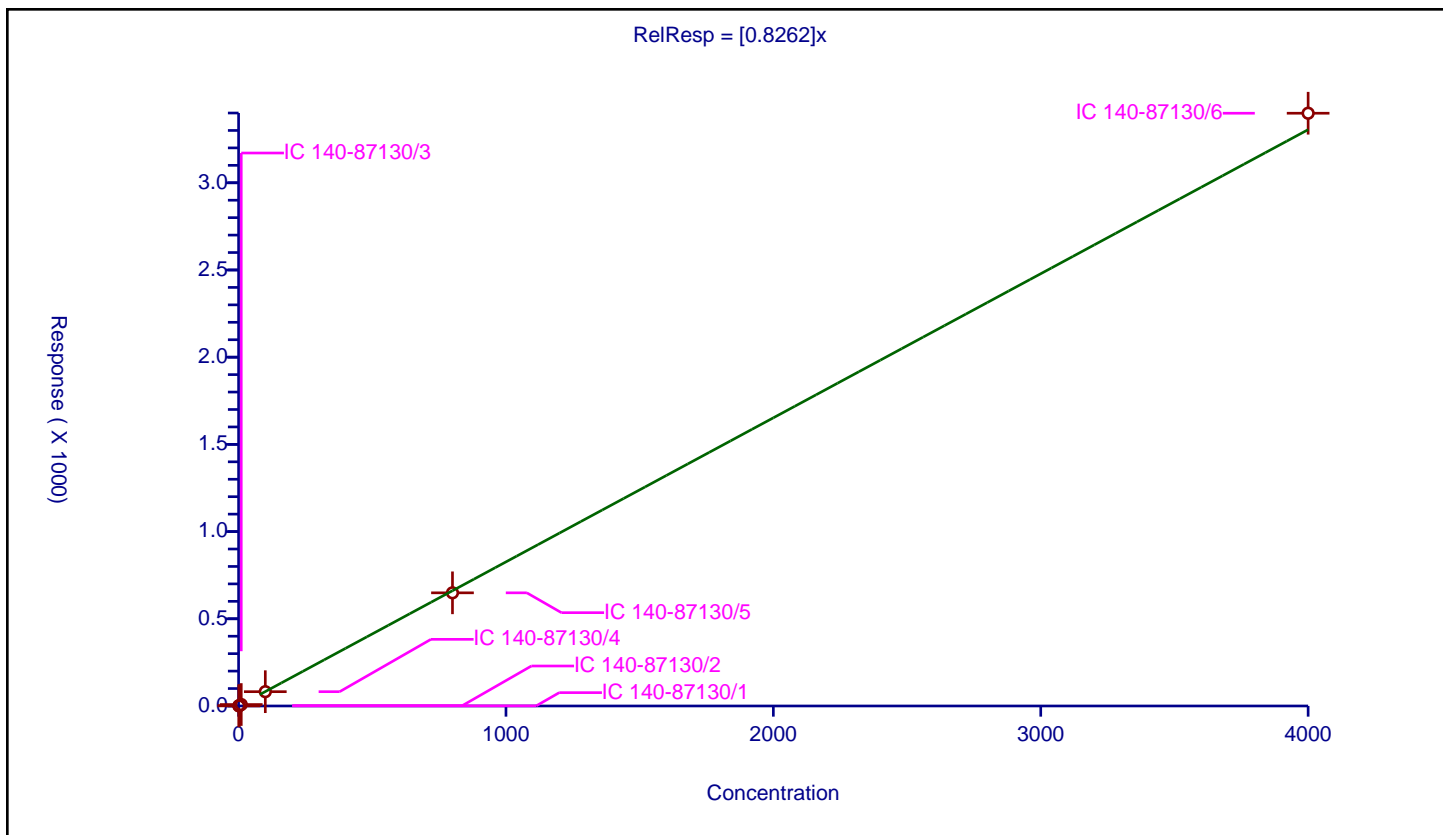
## Curve Coefficients

Intercept: 0  
 Slope: 0.8262

## Error Coefficients

Relative Standard Deviation: 1.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.825603	100.0	6938320.0	0.825603	Y
2	IC 140-87130/2	2.0	1.631167	100.0	6240748.0	0.815583	Y
3	IC 140-87130/3	10.0	8.347532	100.0	6307301.0	0.834753	Y
4	IC 140-87130/4	100.0	82.021111	100.0	6455349.0	0.820211	Y
5	IC 140-87130/5	800.0	648.883896	100.0	6672003.0	0.811105	Y
6	IC 140-87130/6	4000.0	3398.773116	100.0	6975966.0	0.849693	Y



# Calibration

/ PCB-103

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

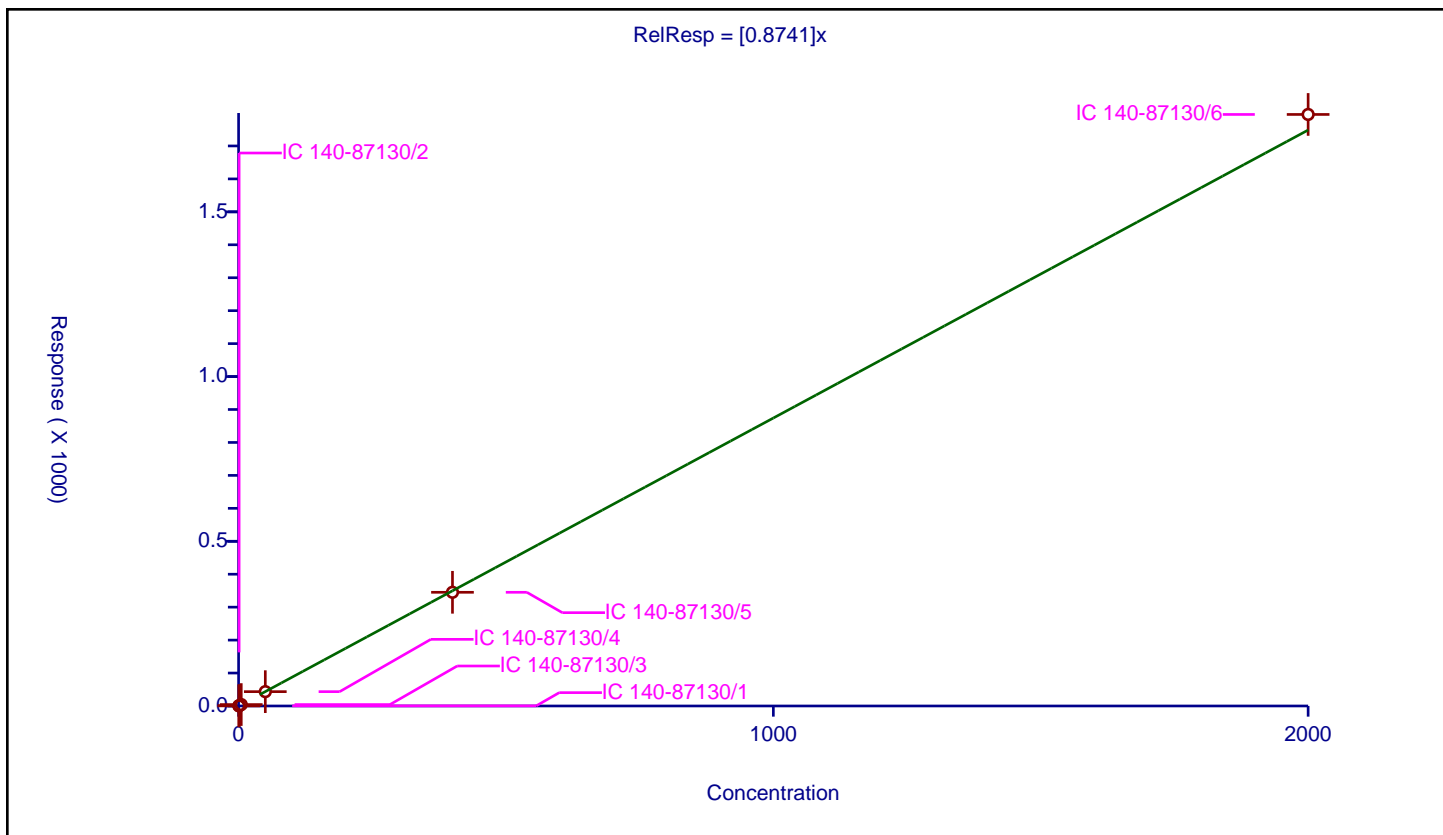
## Curve Coefficients

Intercept: 0  
 Slope: 0.8741

## Error Coefficients

Relative Standard Deviation: 1.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.436777	100.0	6938320.0	0.873554	Y
2	IC 140-87130/2	1.0	0.875055	100.0	6240748.0	0.875055	Y
3	IC 140-87130/3	5.0	4.323926	100.0	6307301.0	0.864785	Y
4	IC 140-87130/4	50.0	43.540016	100.0	6455349.0	0.8708	Y
5	IC 140-87130/5	400.0	345.117681	100.0	6672003.0	0.862794	Y
6	IC 140-87130/6	2000.0	1795.657146	100.0	6975966.0	0.897829	Y



# Calibration

/ PCB-104

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

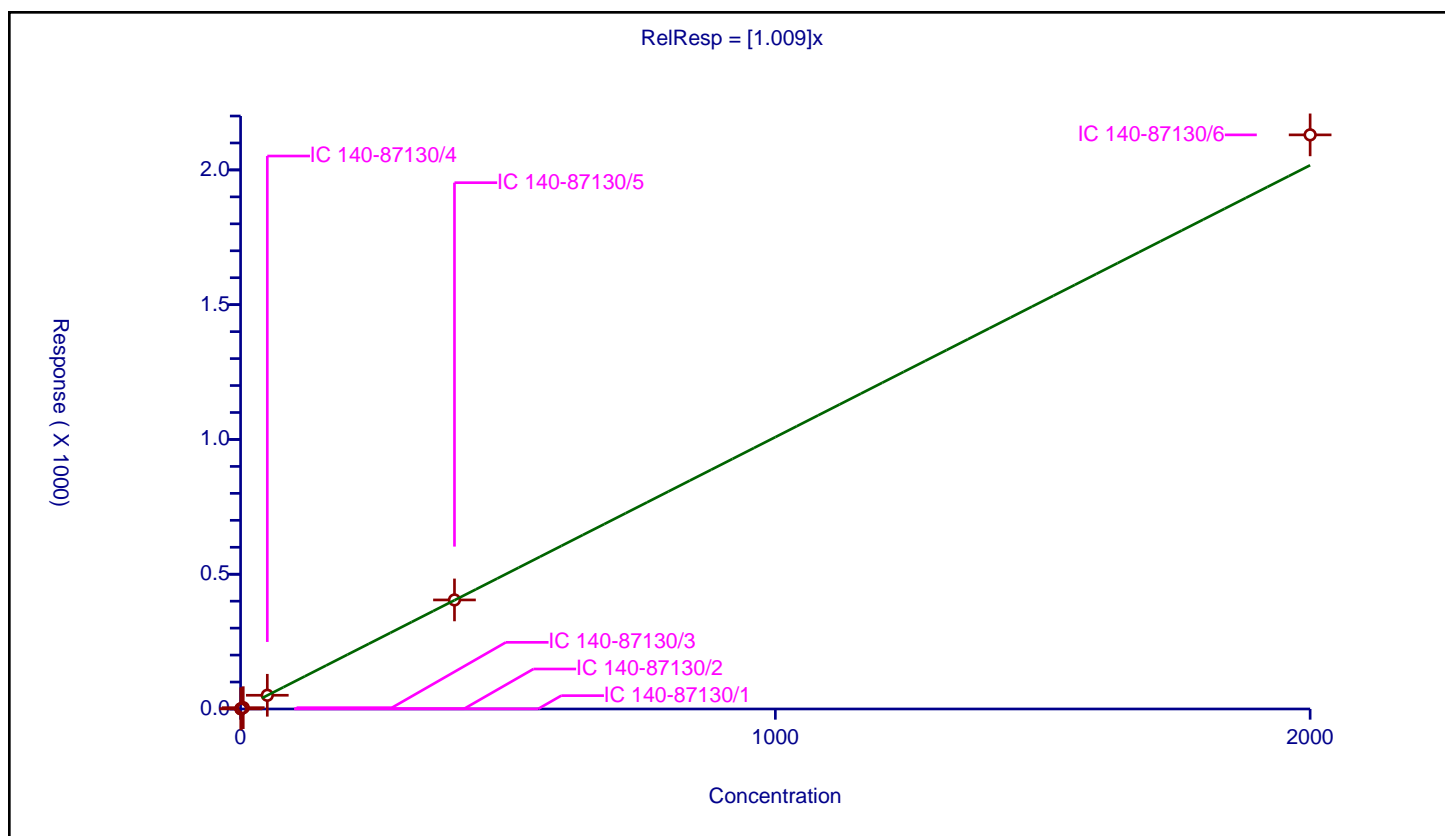
## Curve Coefficients

Intercept: 0  
Slope: 1.009

## Error Coefficients

Relative Standard Deviation: 3.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.500899	100.0	6938320.0	1.001799	Y
2	IC 140-87130/2	1.0	0.985907	100.0	6240748.0	0.985907	Y
3	IC 140-87130/3	5.0	4.852313	100.0	6307301.0	0.970463	Y
4	IC 140-87130/4	50.0	50.879217	100.0	6455349.0	1.017584	Y
5	IC 140-87130/5	400.0	404.55307	100.0	6672003.0	1.011383	Y
6	IC 140-87130/6	2000.0	2130.089396	100.0	6975966.0	1.065045	Y





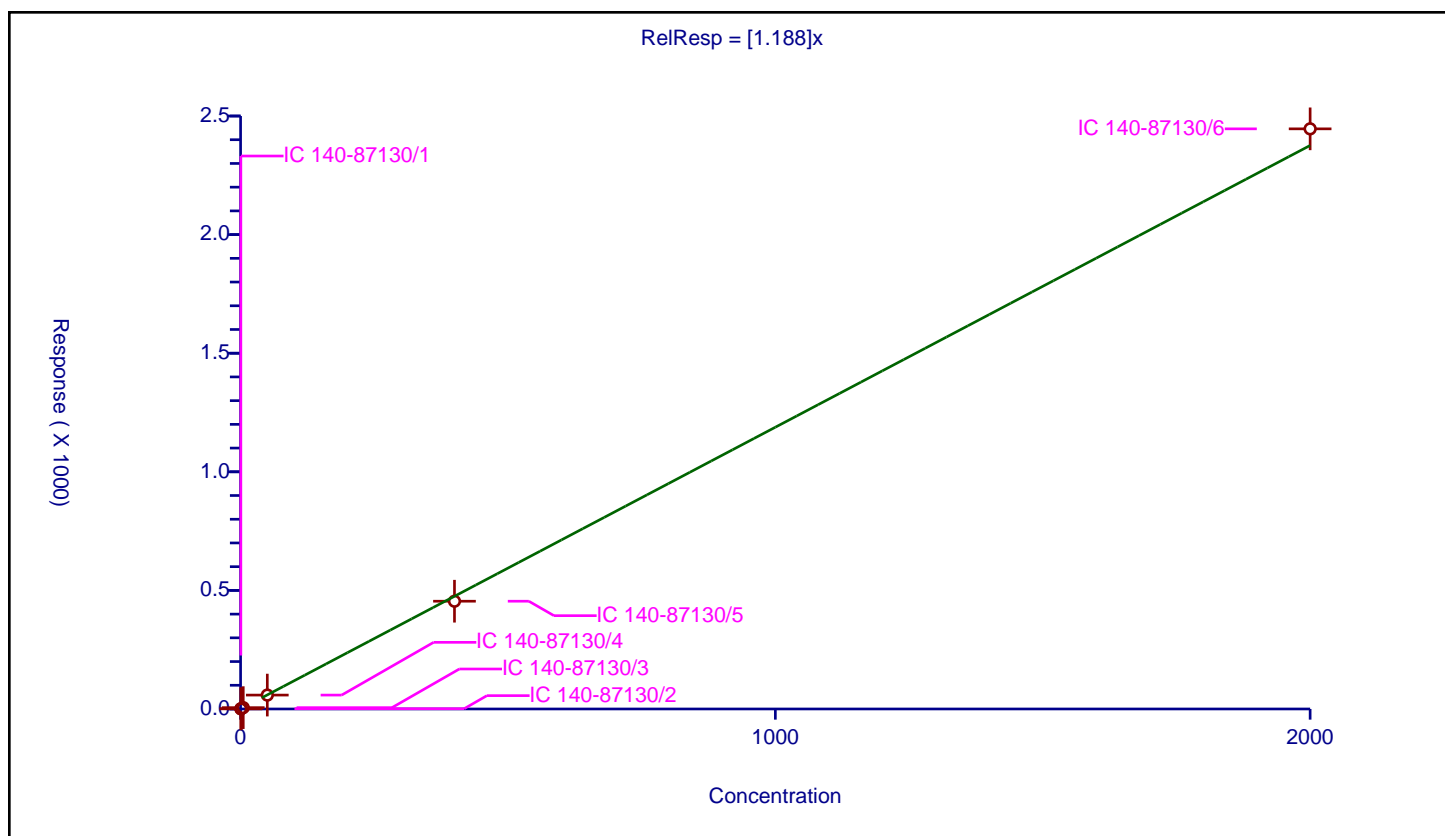
**/ PCB-105**

### Curve Coefficients

### Error Coefficients

**Relative Standard Deviation:** 5.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.643369	100.0	10177357.0	1.286739	Y
2	IC 140-87130/2	1.0	1.18048	100.0	9101468.0	1.18048	Y
3	IC 140-87130/3	5.0	5.649296	100.0	9087875.0	1.129859	Y
4	IC 140-87130/4	50.0	58.580131	100.0	9433900.0	1.171603	Y
5	IC 140-87130/5	400.0	454.320655	100.0	10096861.0	1.135802	Y
6	IC 140-87130/6	2000.0	2445.973658	100.0	10771838.0	1.222987	Y



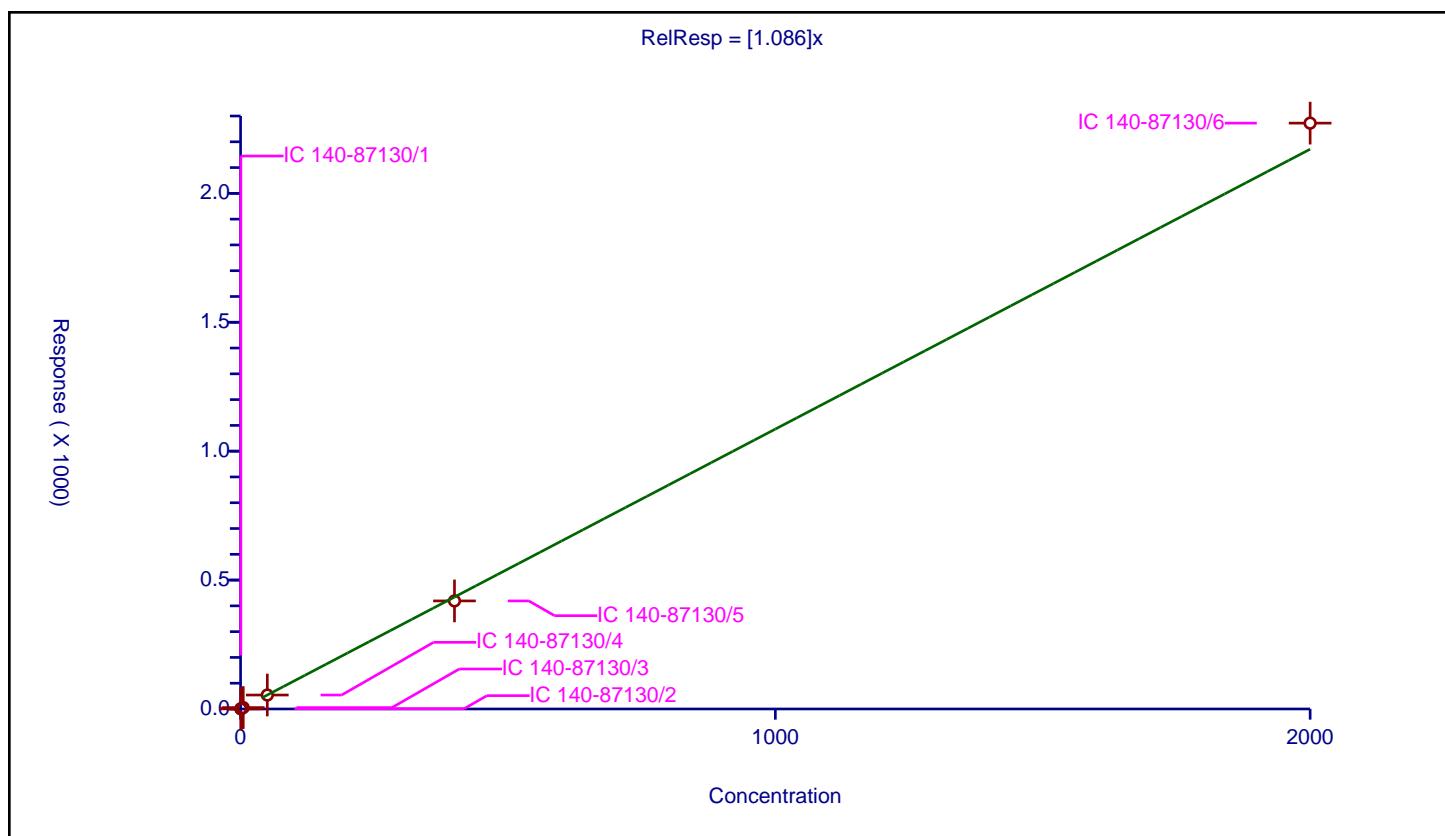
**/ PCB-106**

### Curve Coefficients

### Error Coefficients

**Relative Standard Deviation:** 2.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.552515	100.0	10371480.0	1.10503	Y
2	IC 140-87130/2	1.0	1.066747	100.0	9073751.0	1.066747	Y
3	IC 140-87130/3	5.0	5.379468	100.0	9321962.0	1.075894	Y
4	IC 140-87130/4	50.0	54.09954	100.0	9501201.0	1.081991	Y
5	IC 140-87130/5	400.0	419.198391	100.0	10377703.0	1.047996	Y
6	IC 140-87130/6	2000.0	2272.377735	100.0	11406816.0	1.136189	Y



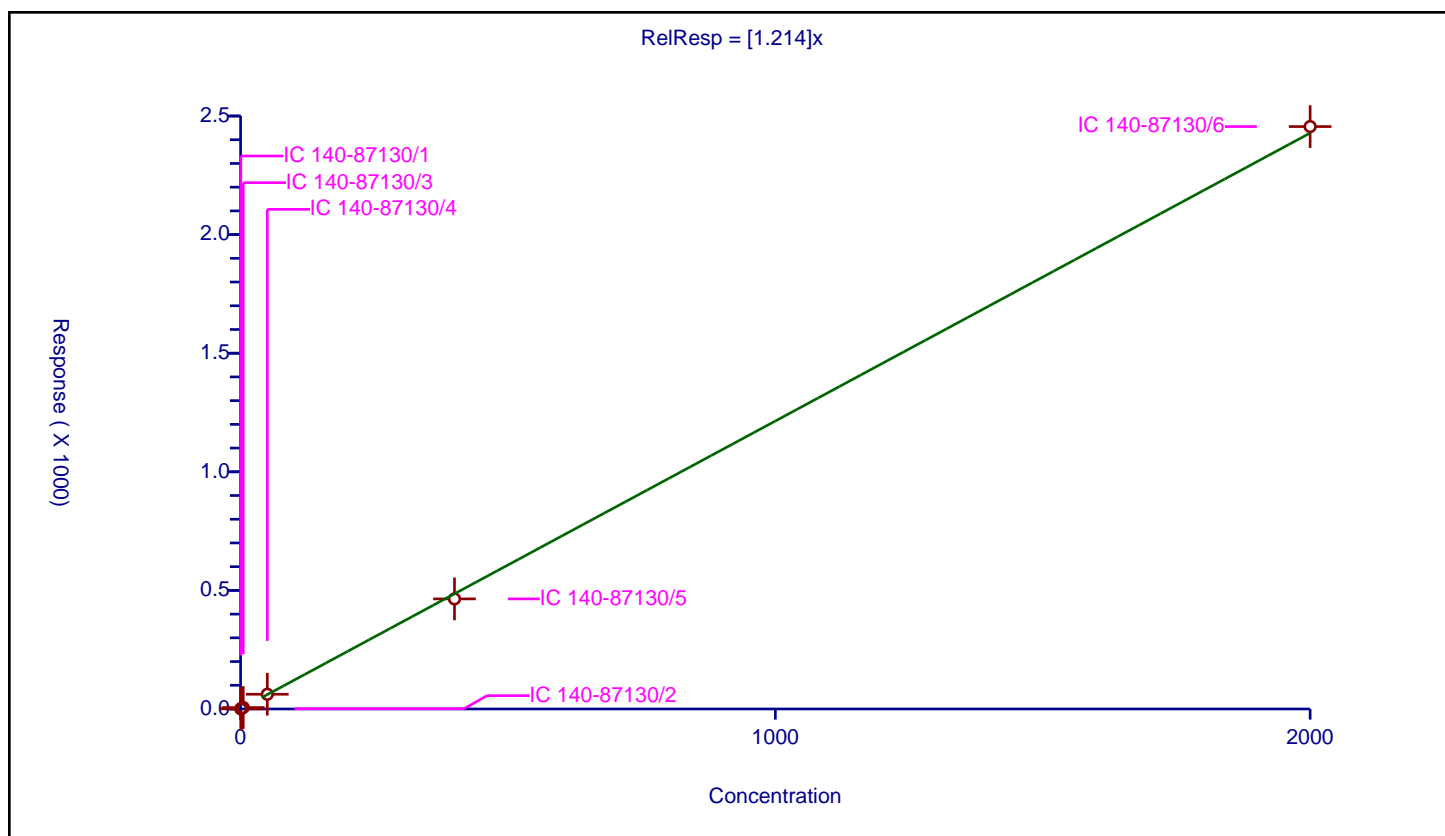
**/ PCB-107**

## Curve Coefficients

### Error Coefficients

**Relative Standard Deviation:** 4.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.644141	100.0	10371480.0	1.288283	Y
2	IC 140-87130/2	1.0	1.130128	100.0	9073751.0	1.130128	Y
3	IC 140-87130/3	5.0	6.181971	100.0	9321962.0	1.236394	Y
4	IC 140-87130/4	50.0	62.070206	100.0	9501201.0	1.241404	Y
5	IC 140-87130/5	400.0	464.16233	100.0	10377703.0	1.160406	Y
6	IC 140-87130/6	2000.0	2455.446673	100.0	11406816.0	1.227723	Y



# Calibration

/ PCB-108

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

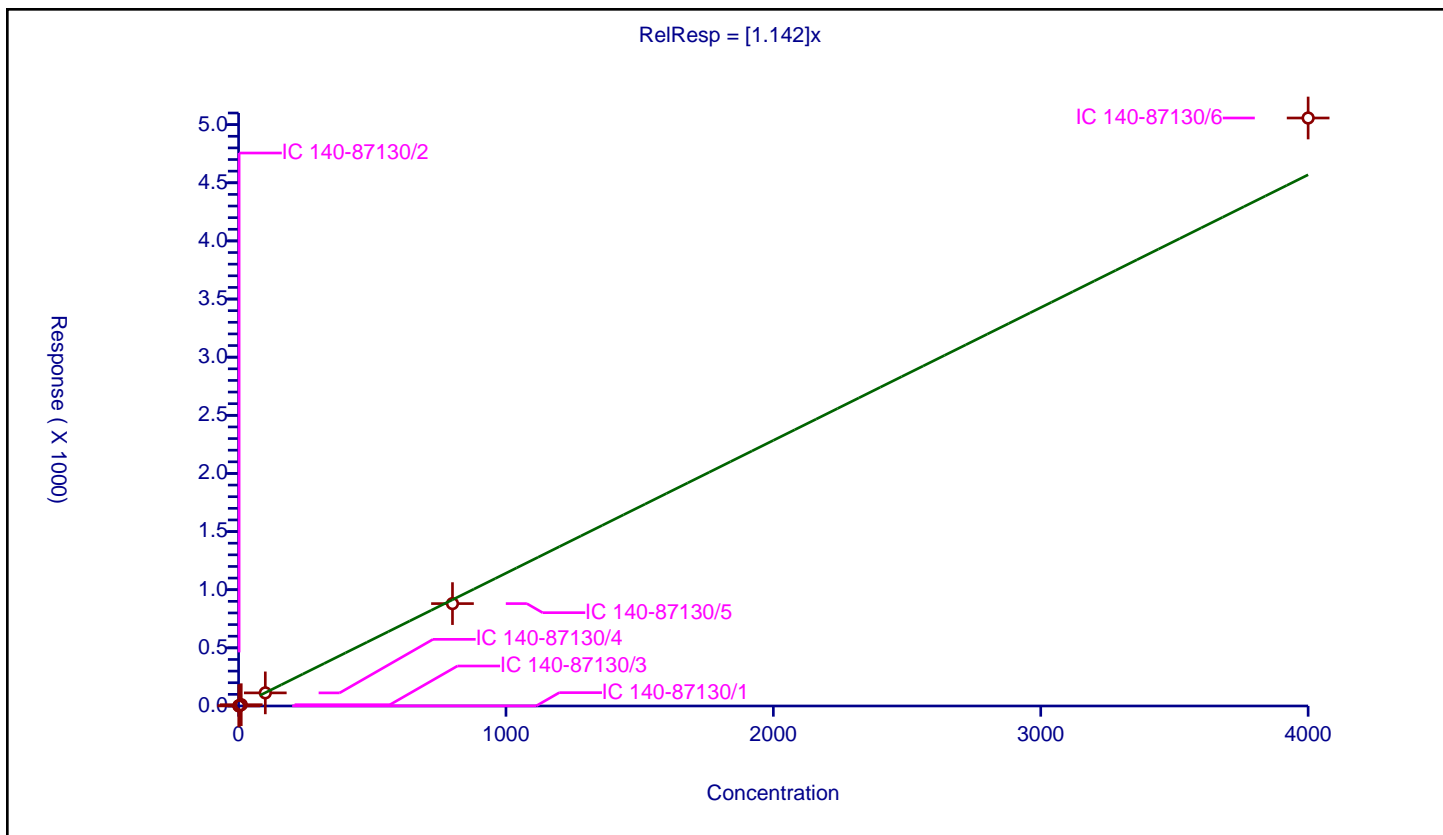
## Curve Coefficients

Intercept: 0  
 Slope: 1.142

## Error Coefficients

Relative Standard Deviation: 5.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.102851	100.0	10371480.0	1.102851	Y
2	IC 140-87130/2	2.0	2.298608	100.0	9073751.0	1.149304	Y
3	IC 140-87130/3	10.0	11.092751	100.0	9321962.0	1.109275	Y
4	IC 140-87130/4	100.0	112.681302	100.0	9501201.0	1.126813	Y
5	IC 140-87130/5	800.0	880.500569	100.0	10377703.0	1.100626	Y
6	IC 140-87130/6	4000.0	5057.136698	100.0	11406816.0	1.264284	Y



# Calibration

/ PCB-108/124

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

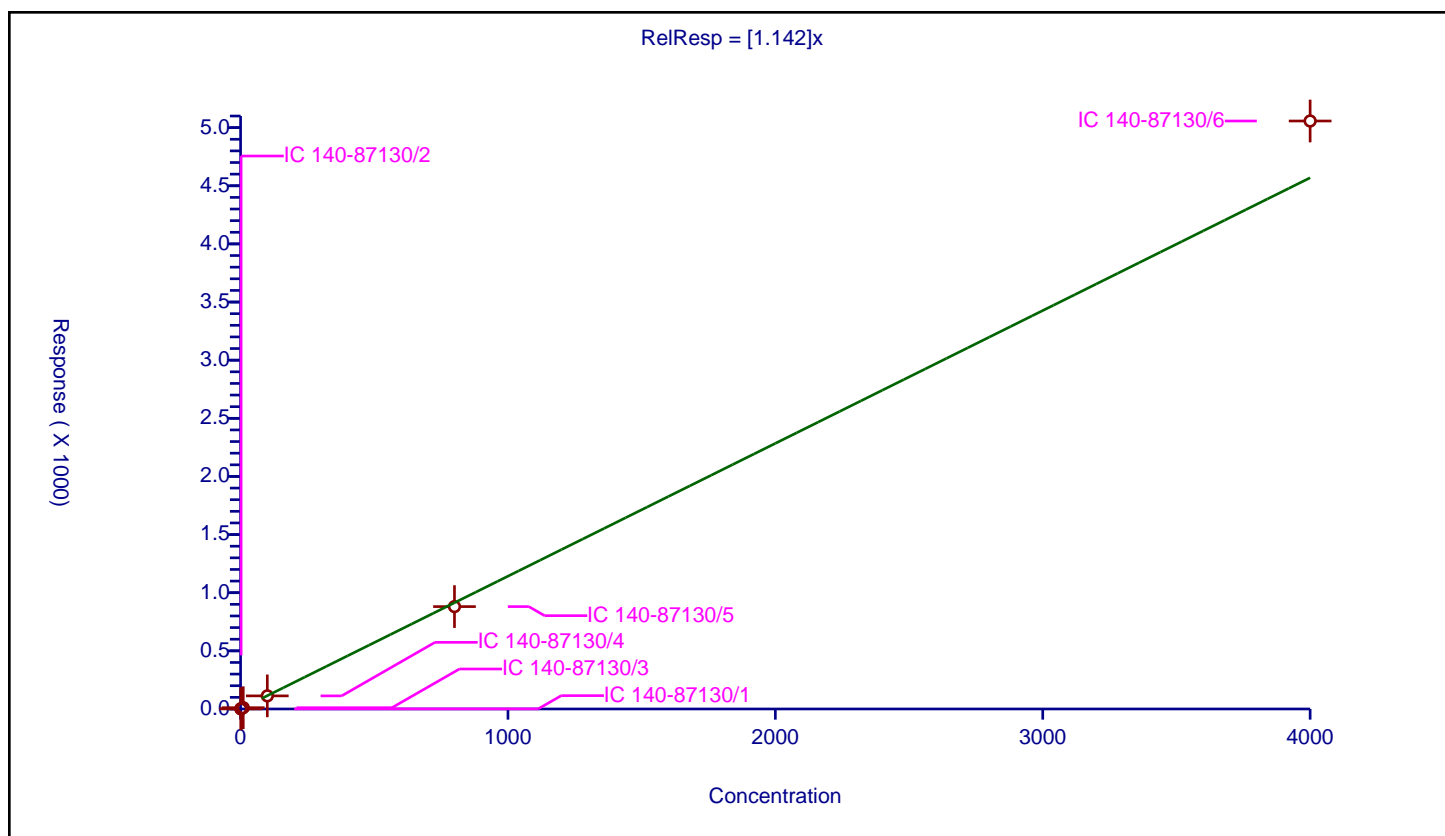
## Curve Coefficients

Intercept: 0  
 Slope: 1.142

## Error Coefficients

Relative Standard Deviation: 5.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.102851	100.0	10371480.0	1.102851	Y
2	IC 140-87130/2	2.0	2.298608	100.0	9073751.0	1.149304	Y
3	IC 140-87130/3	10.0	11.092751	100.0	9321962.0	1.109275	Y
4	IC 140-87130/4	100.0	112.681302	100.0	9501201.0	1.126813	Y
5	IC 140-87130/5	800.0	880.500569	100.0	10377703.0	1.100626	Y
6	IC 140-87130/6	4000.0	5057.136698	100.0	11406816.0	1.264284	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

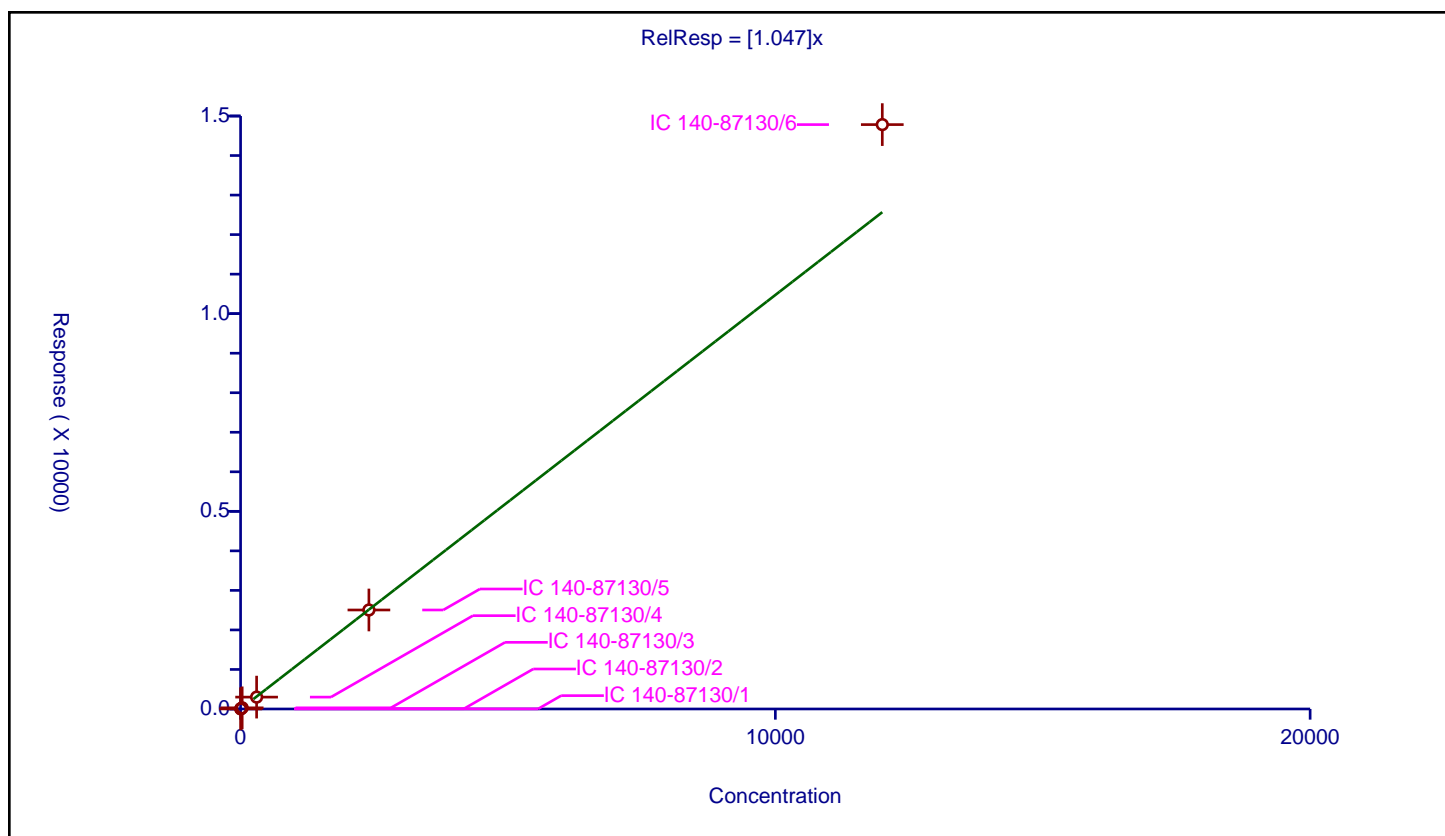
## Curve Coefficients

Intercept: 0  
Slope: 1.047

## Error Coefficients

Relative Standard Deviation: 8.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	3.0	3.046213	100.0	6938320.0	1.015404	Y
2	IC 140-87130/2	6.0	6.09177	100.0	6240748.0	1.015295	Y
3	IC 140-87130/3	30.0	29.280004	100.0	6307301.0	0.976	Y
4	IC 140-87130/4	300.0	300.513187	100.0	6455349.0	1.001711	Y
5	IC 140-87130/5	2400.0	2504.032507	100.0	6672003.0	1.043347	Y
6	IC 140-87130/6	12000.0	14782.642777	100.0	6975966.0	1.231887	Y



# Calibration

/ PCB-11

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

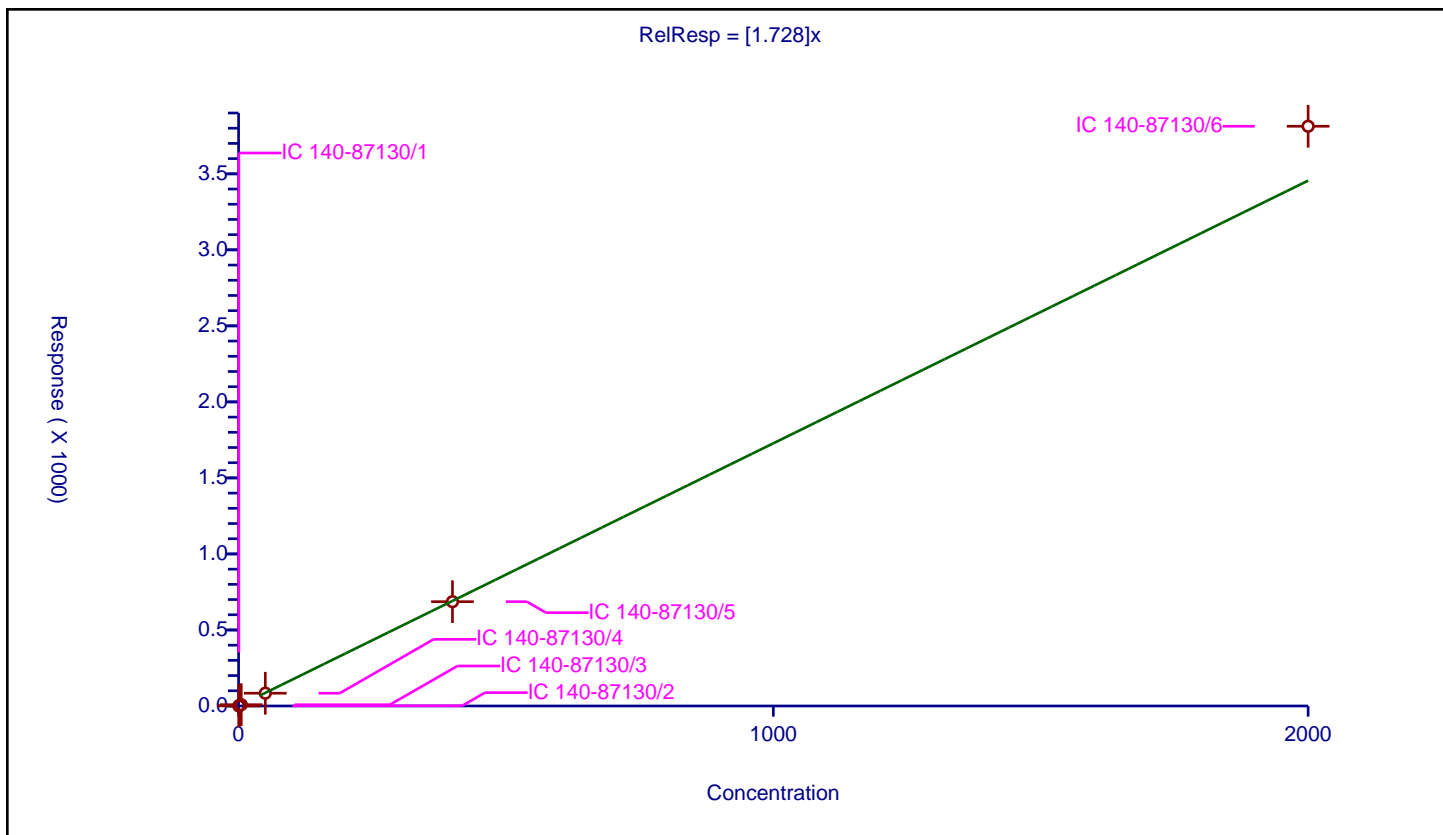
## Curve Coefficients

Intercept: 0  
 Slope: 1.728

## Error Coefficients

Relative Standard Deviation: 7.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.905984	100.0	5904521.0	1.811967	Y
2	IC 140-87130/2	1.0	1.53648	100.0	5442766.0	1.53648	Y
3	IC 140-87130/3	5.0	8.577671	100.0	5279032.0	1.715534	Y
4	IC 140-87130/4	50.0	84.007238	100.0	5474214.0	1.680145	Y
5	IC 140-87130/5	400.0	686.009431	100.0	5561618.0	1.715024	Y
6	IC 140-87130/6	2000.0	3812.897707	100.0	5672202.0	1.906449	Y



# Calibration

/ PCB-110

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

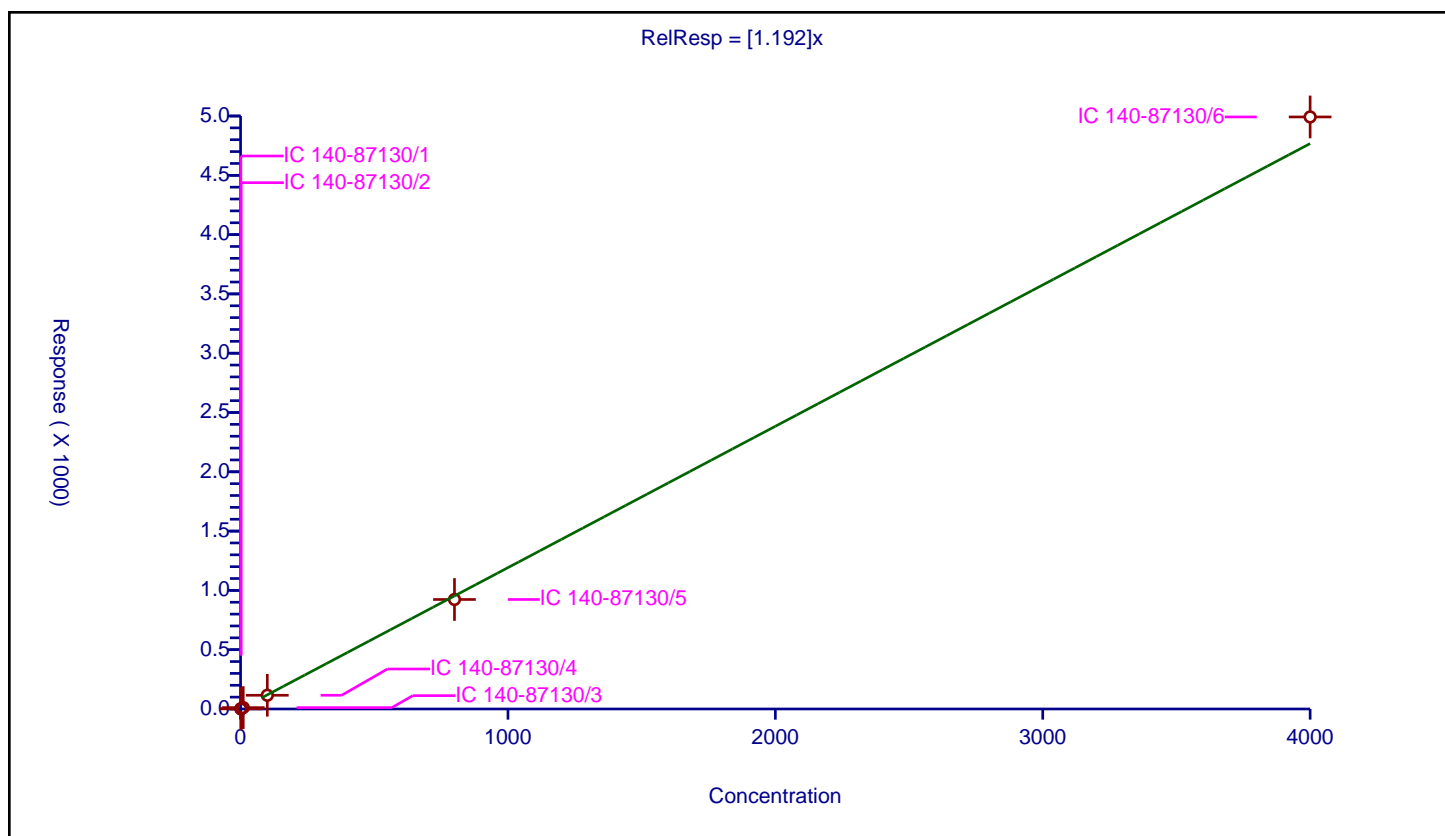
## Curve Coefficients

Intercept: 0  
Slope: 1.192

## Error Coefficients

Relative Standard Deviation: 3.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.201905	100.0	6938320.0	1.201905	Y
2	IC 140-87130/2	2.0	2.454065	100.0	6240748.0	1.227032	Y
3	IC 140-87130/3	10.0	11.638766	100.0	6307301.0	1.163877	Y
4	IC 140-87130/4	100.0	115.613439	100.0	6455349.0	1.156134	Y
5	IC 140-87130/5	800.0	923.3365	100.0	6672003.0	1.154171	Y
6	IC 140-87130/6	4000.0	4992.179348	100.0	6975966.0	1.248045	Y





# Calibration

/ PCB-110/115

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

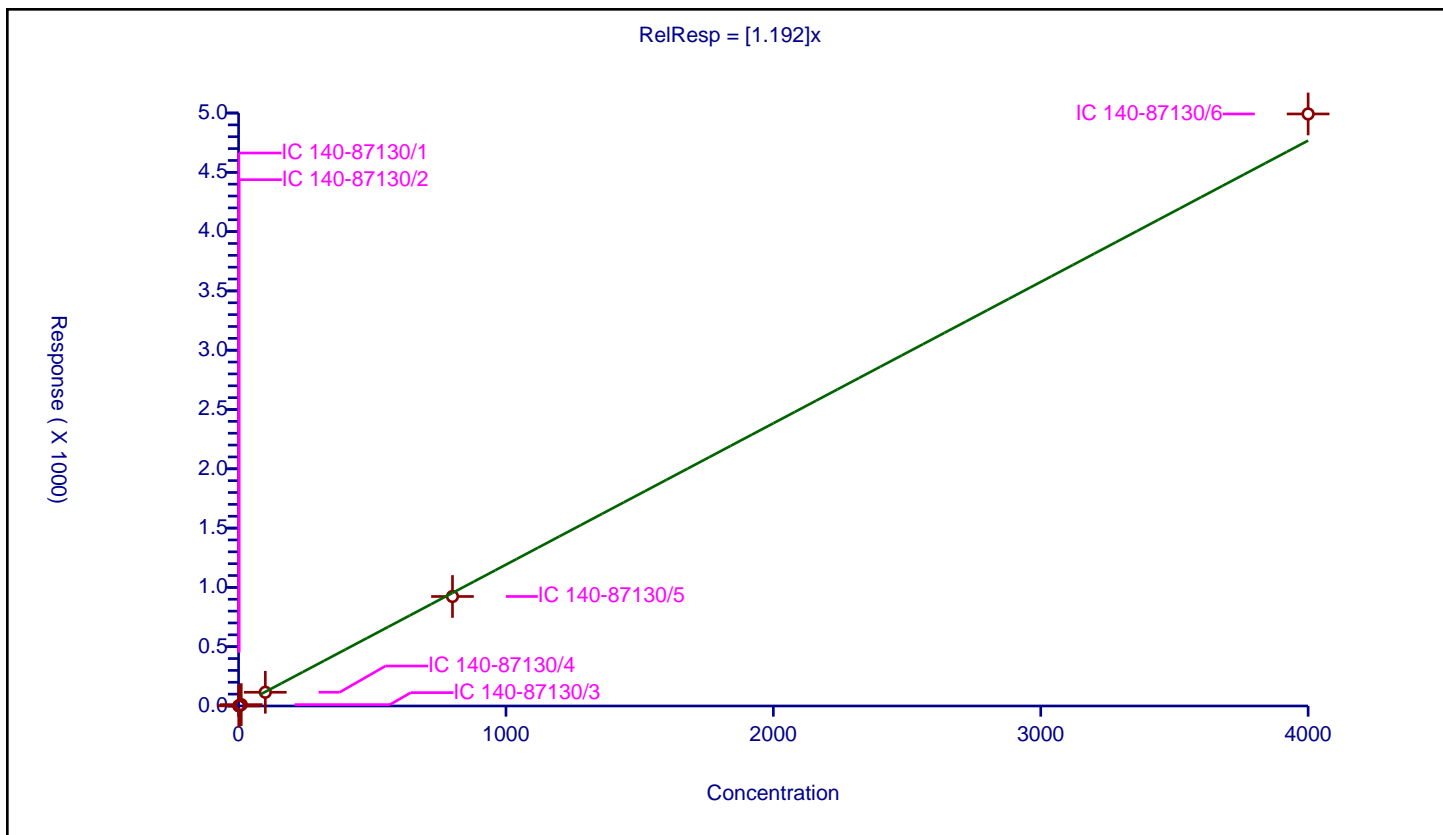
## Curve Coefficients

Intercept: 0  
 Slope: 1.192

## Error Coefficients

Relative Standard Deviation: 3.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.201905	100.0	6938320.0	1.201905	Y
2	IC 140-87130/2	2.0	2.454065	100.0	6240748.0	1.227032	Y
3	IC 140-87130/3	10.0	11.638766	100.0	6307301.0	1.163877	Y
4	IC 140-87130/4	100.0	115.613439	100.0	6455349.0	1.156134	Y
5	IC 140-87130/5	800.0	923.3365	100.0	6672003.0	1.154171	Y
6	IC 140-87130/6	4000.0	4992.179348	100.0	6975966.0	1.248045	Y



**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

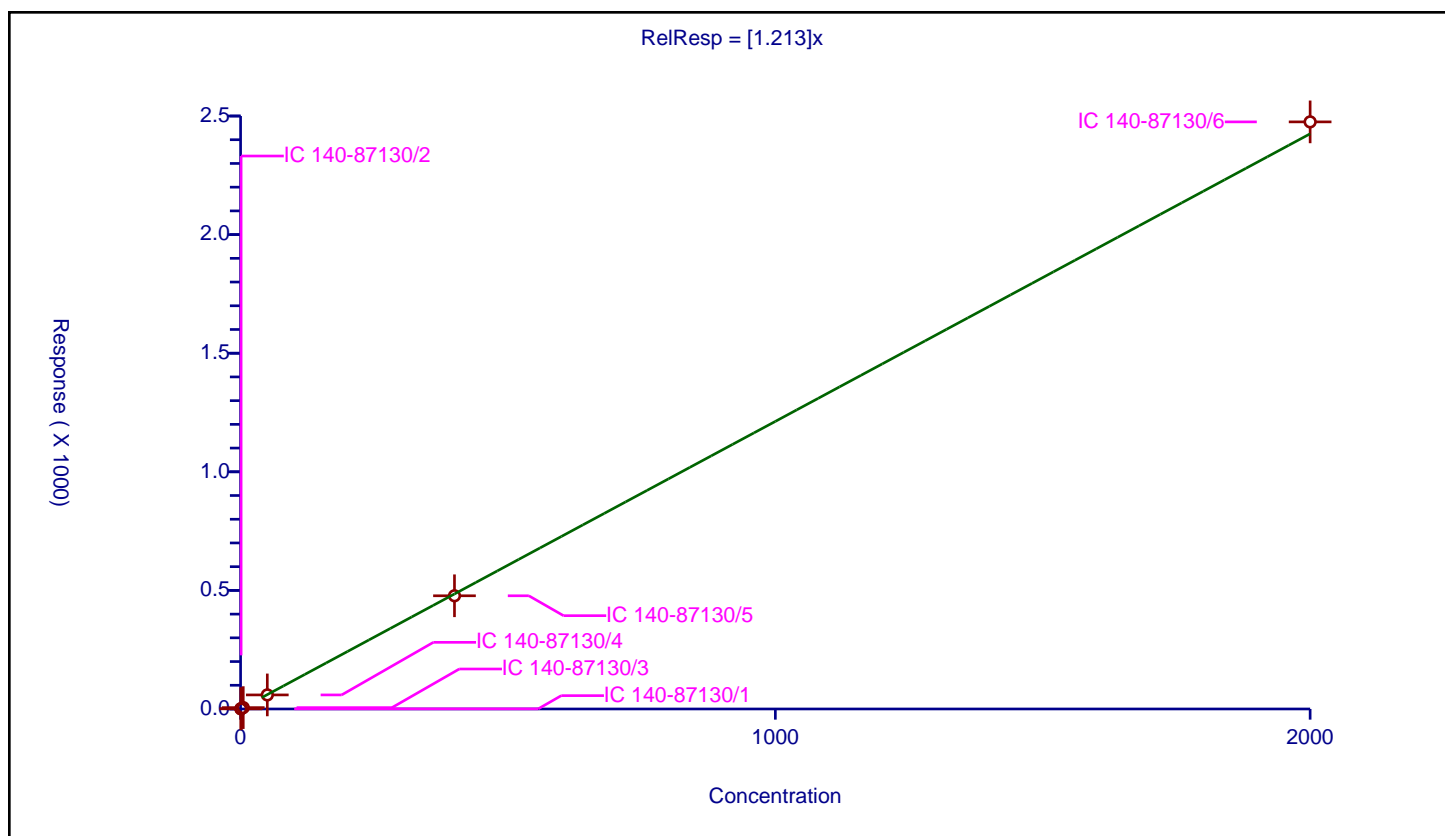
## Curve Coefficients

**Intercept:** 0  
**Slope:** 1.213

## Error Coefficients

**Relative Standard Deviation:** 5.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.579305	100.0	6938320.0	1.158609	Y
2	IC 140-87130/2	1.0	1.336875	100.0	6240748.0	1.336875	Y
3	IC 140-87130/3	5.0	5.817496	100.0	6307301.0	1.163499	Y
4	IC 140-87130/4	50.0	59.254674	100.0	6455349.0	1.185093	Y
5	IC 140-87130/5	400.0	477.365927	100.0	6672003.0	1.193415	Y
6	IC 140-87130/6	2000.0	2475.269203	100.0	6975966.0	1.237635	Y



## Calibration

/ PCB-111L

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: ISTD  
Response Base: AREA  
RF Rounding: 0

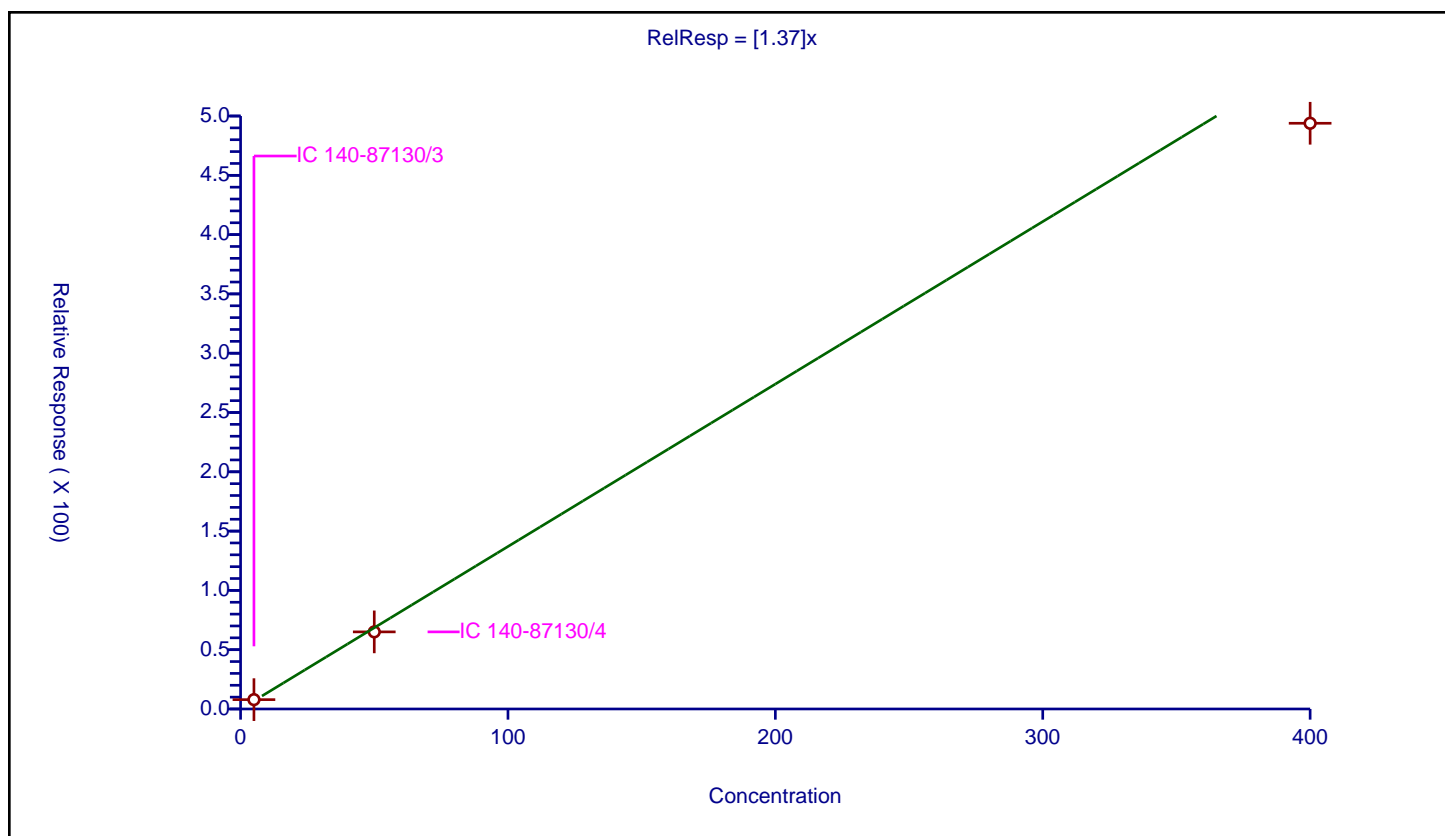
## Curve Coefficients

Intercept: 0  
Slope: 1.37

## Error Coefficients

Relative Standard Deviation: 13.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/3	5.0	7.872484	100.0	5008775.0	1.574497	Y
2	IC 140-87130/4	50.0	65.024134	100.0	5228368.0	1.300483	Y
3	IC 140-87130/5	400.0	493.88691	100.0	5633550.0	1.234717	Y



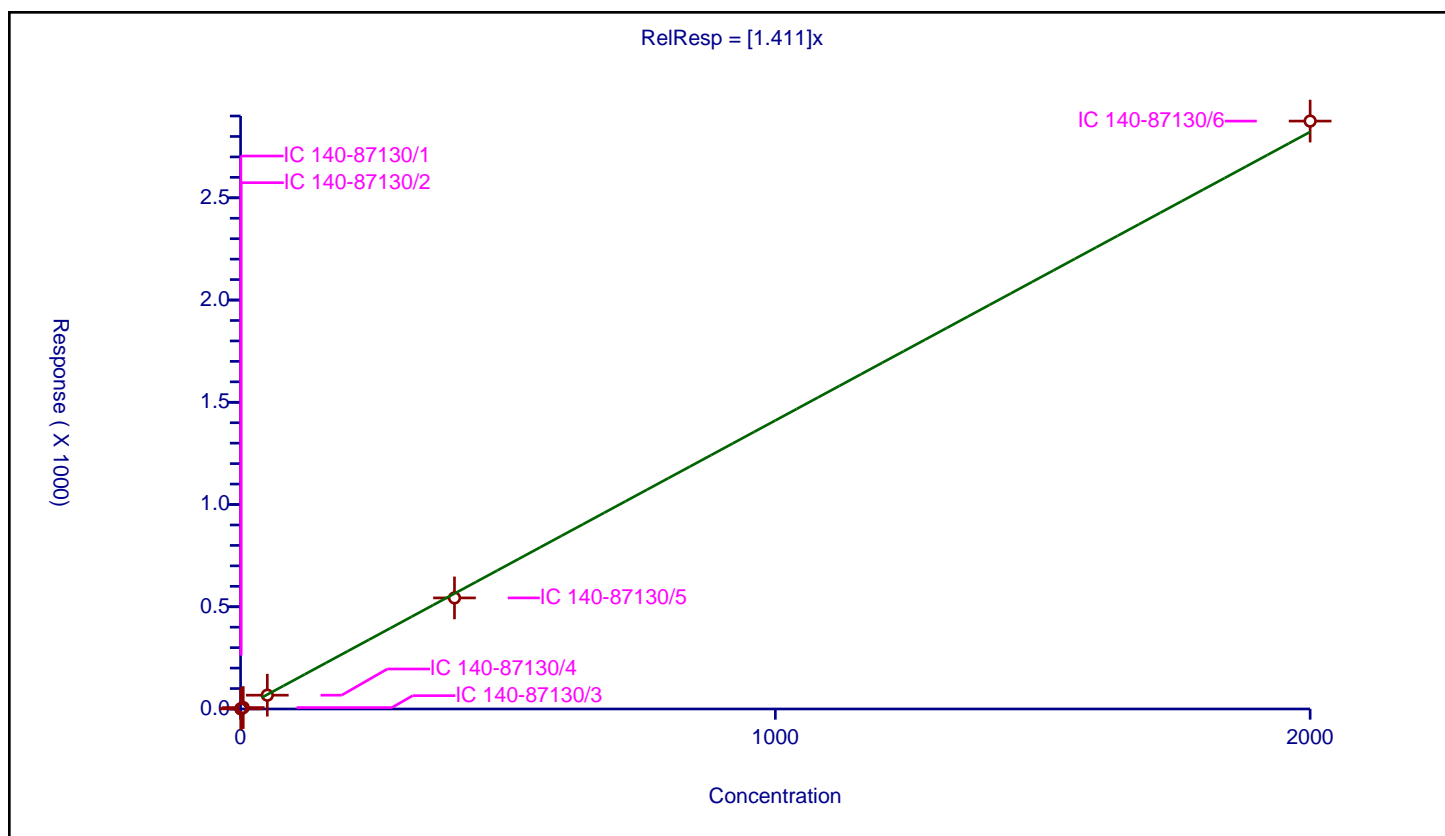
## / PCB-112

## Curve Coefficients

### Error Coefficients

**Relative Standard Deviation:** 3.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.722279	100.0	6938320.0	1.444557	Y
2	IC 140-87130/2	1.0	1.488507	100.0	6240748.0	1.488507	Y
3	IC 140-87130/3	5.0	6.936121	100.0	6307301.0	1.387224	Y
4	IC 140-87130/4	50.0	67.531562	100.0	6455349.0	1.350631	Y
5	IC 140-87130/5	400.0	543.236282	100.0	6672003.0	1.358091	Y
6	IC 140-87130/6	2000.0	2875.272113	100.0	6975966.0	1.437636	Y



## Calibration

/ PCB-113

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

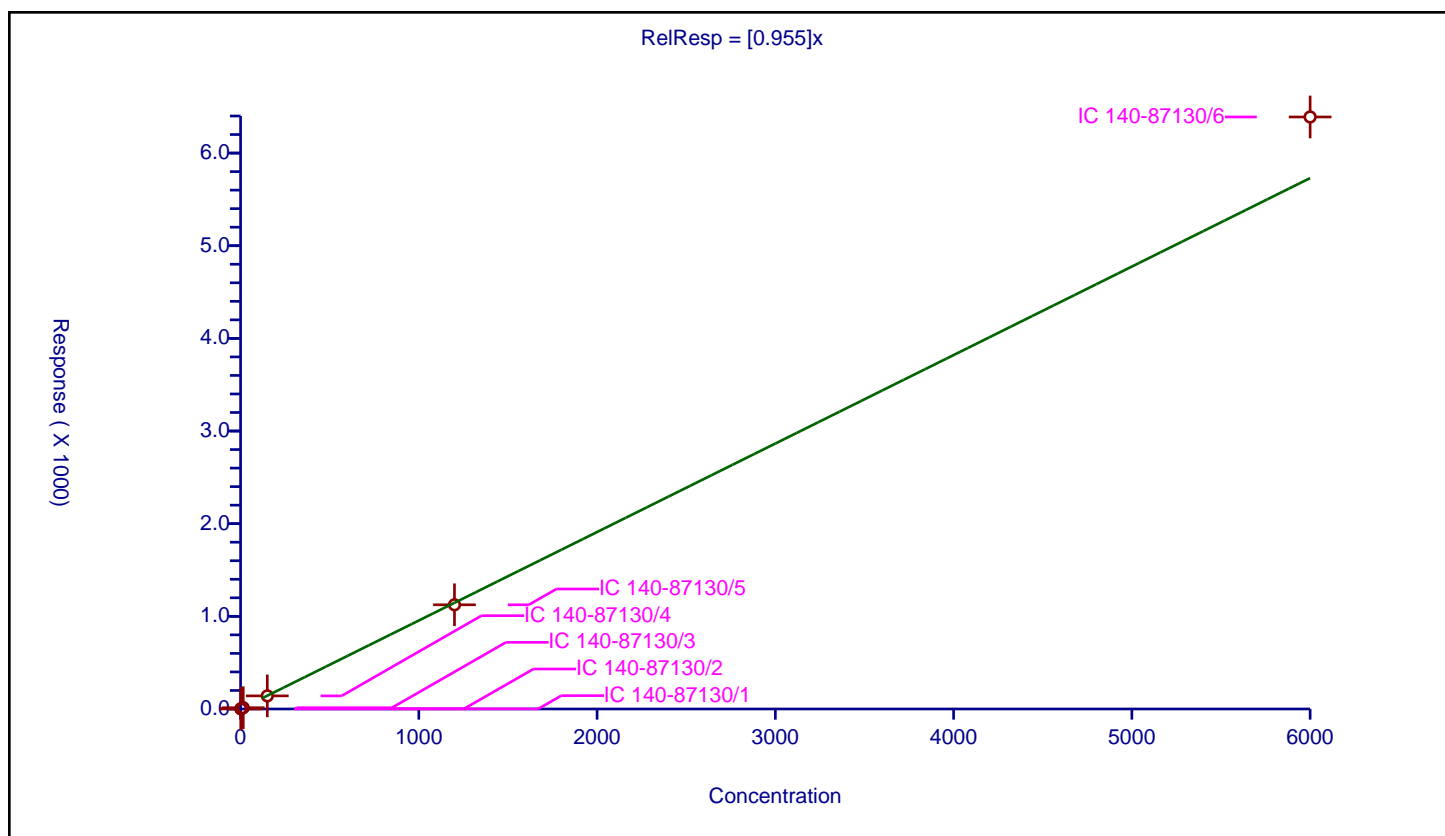
## Curve Coefficients

Intercept: 0  
Slope: 0.955

## Error Coefficients

Relative Standard Deviation: 5.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.423053	100.0	6938320.0	0.948702	Y
2	IC 140-87130/2	3.0	2.801892	100.0	6240748.0	0.933964	Y
3	IC 140-87130/3	15.0	13.539722	100.0	6307301.0	0.902648	Y
4	IC 140-87130/4	150.0	141.38193	100.0	6455349.0	0.942546	Y
5	IC 140-87130/5	1200.0	1124.566761	100.0	6672003.0	0.937139	Y
6	IC 140-87130/6	6000.0	6389.746882	100.0	6975966.0	1.064958	Y



# Calibration

/ PCB-114

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

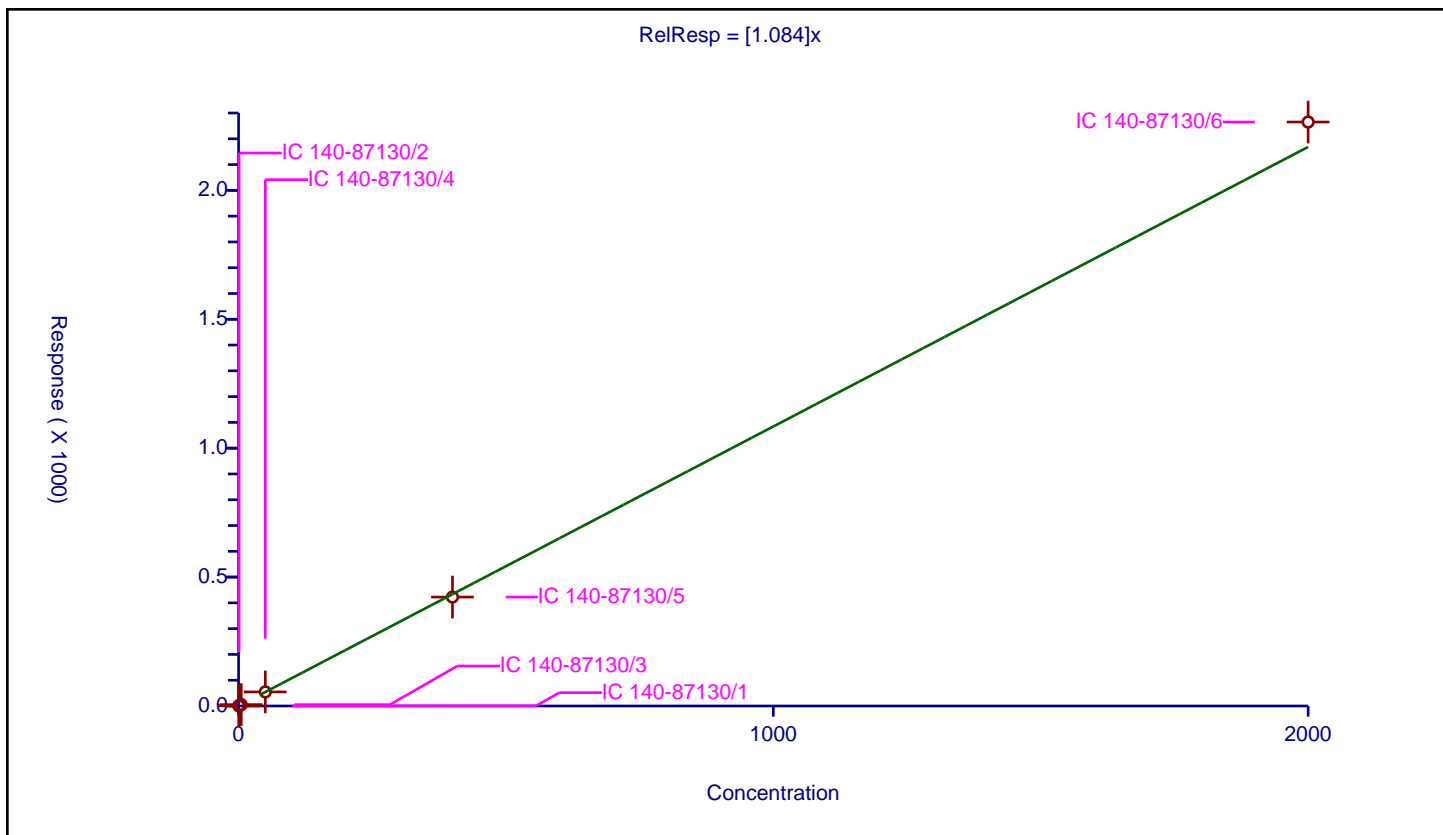
## Curve Coefficients

Intercept: 0  
 Slope: 1.084

## Error Coefficients

Relative Standard Deviation: 2.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.530477	100.0	10504311.0	1.060955	Y
2	IC 140-87130/2	1.0	1.106681	100.0	9705413.0	1.106681	Y
3	IC 140-87130/3	5.0	5.290959	100.0	9387618.0	1.058192	Y
4	IC 140-87130/4	50.0	54.520315	100.0	9734953.0	1.090406	Y
5	IC 140-87130/5	400.0	422.463958	100.0	10559524.0	1.05616	Y
6	IC 140-87130/6	2000.0	2265.056641	100.0	11474644.0	1.132528	Y



# Calibration

/ PCB-115

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

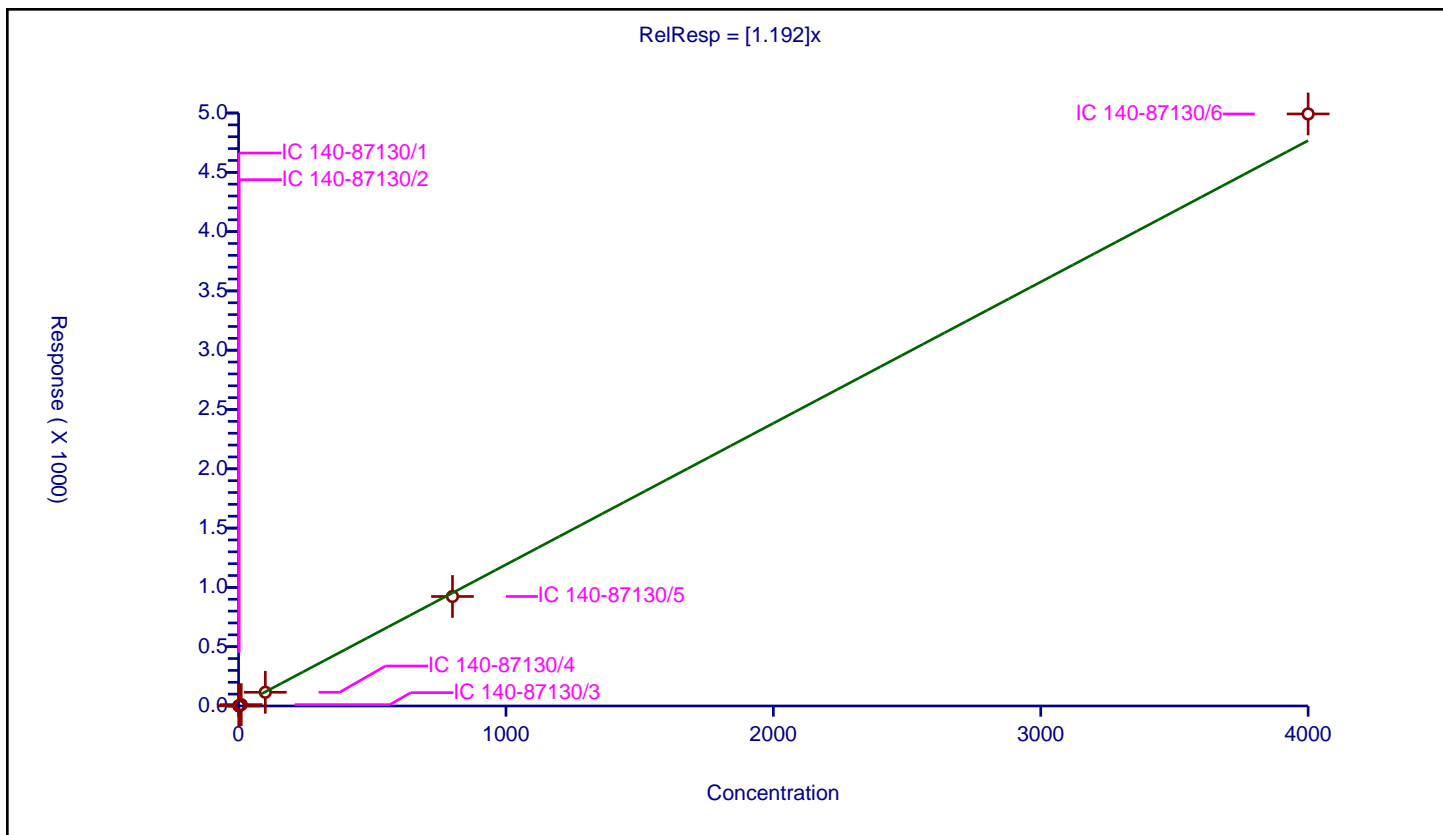
## Curve Coefficients

Intercept: 0  
 Slope: 1.192

## Error Coefficients

Relative Standard Deviation: 3.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.201905	100.0	6938320.0	1.201905	Y
2	IC 140-87130/2	2.0	2.454065	100.0	6240748.0	1.227032	Y
3	IC 140-87130/3	10.0	11.638766	100.0	6307301.0	1.163877	Y
4	IC 140-87130/4	100.0	115.613439	100.0	6455349.0	1.156134	Y
5	IC 140-87130/5	800.0	923.3365	100.0	6672003.0	1.154171	Y
6	IC 140-87130/6	4000.0	4992.179348	100.0	6975966.0	1.248045	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

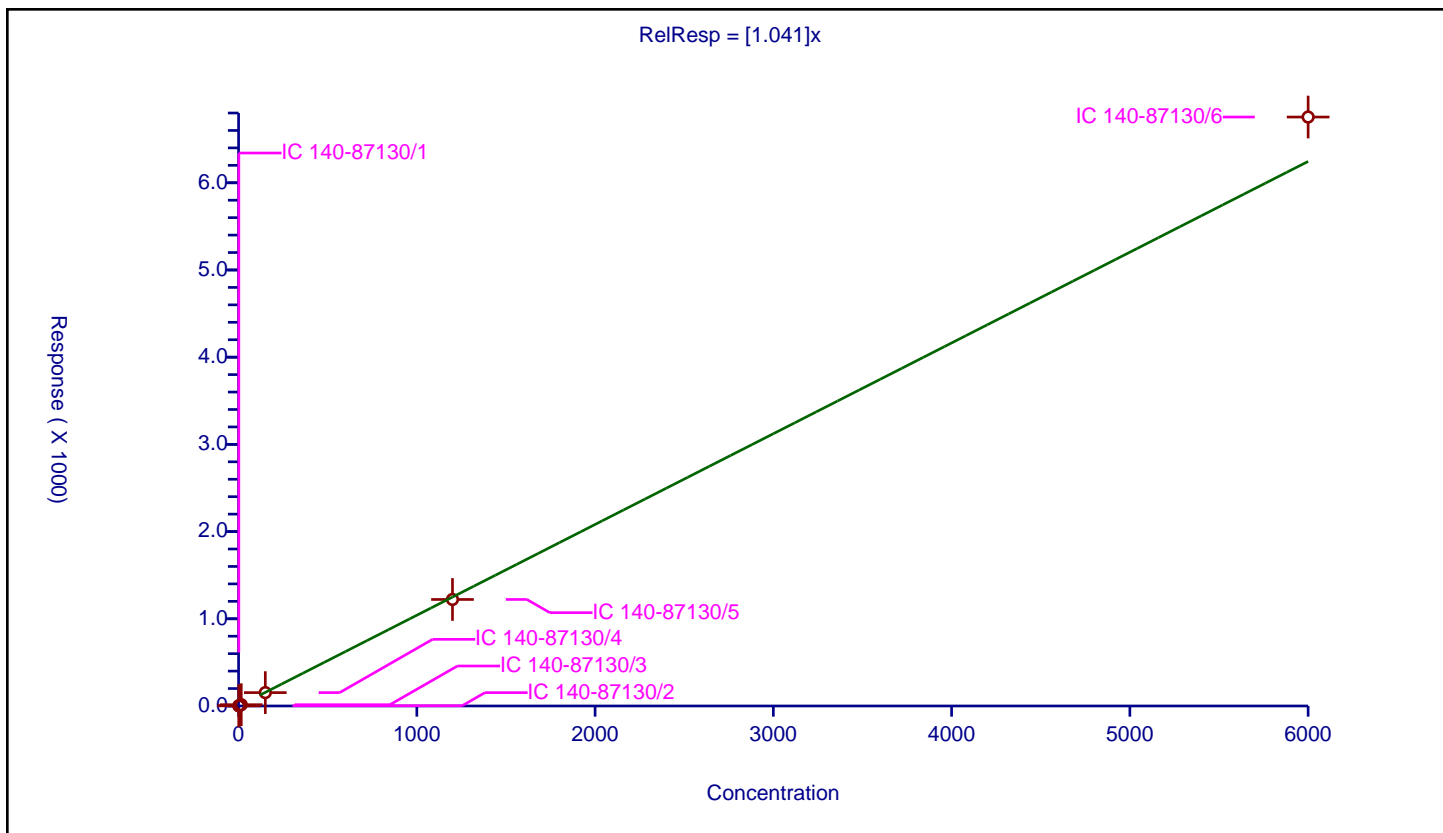
## Curve Coefficients

Intercept: 0  
Slope: 1.041

## Error Coefficients

Relative Standard Deviation: 4.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.585528	100.0	6938320.0	1.057019	Y
2	IC 140-87130/2	3.0	3.091152	100.0	6240748.0	1.030384	Y
3	IC 140-87130/3	15.0	14.877029	100.0	6307301.0	0.991802	Y
4	IC 140-87130/4	150.0	153.280512	100.0	6455349.0	1.02187	Y
5	IC 140-87130/5	1200.0	1221.649091	100.0	6672003.0	1.018041	Y
6	IC 140-87130/6	6000.0	6753.818009	100.0	6975966.0	1.125636	Y





# Calibration

/ PCB-117

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

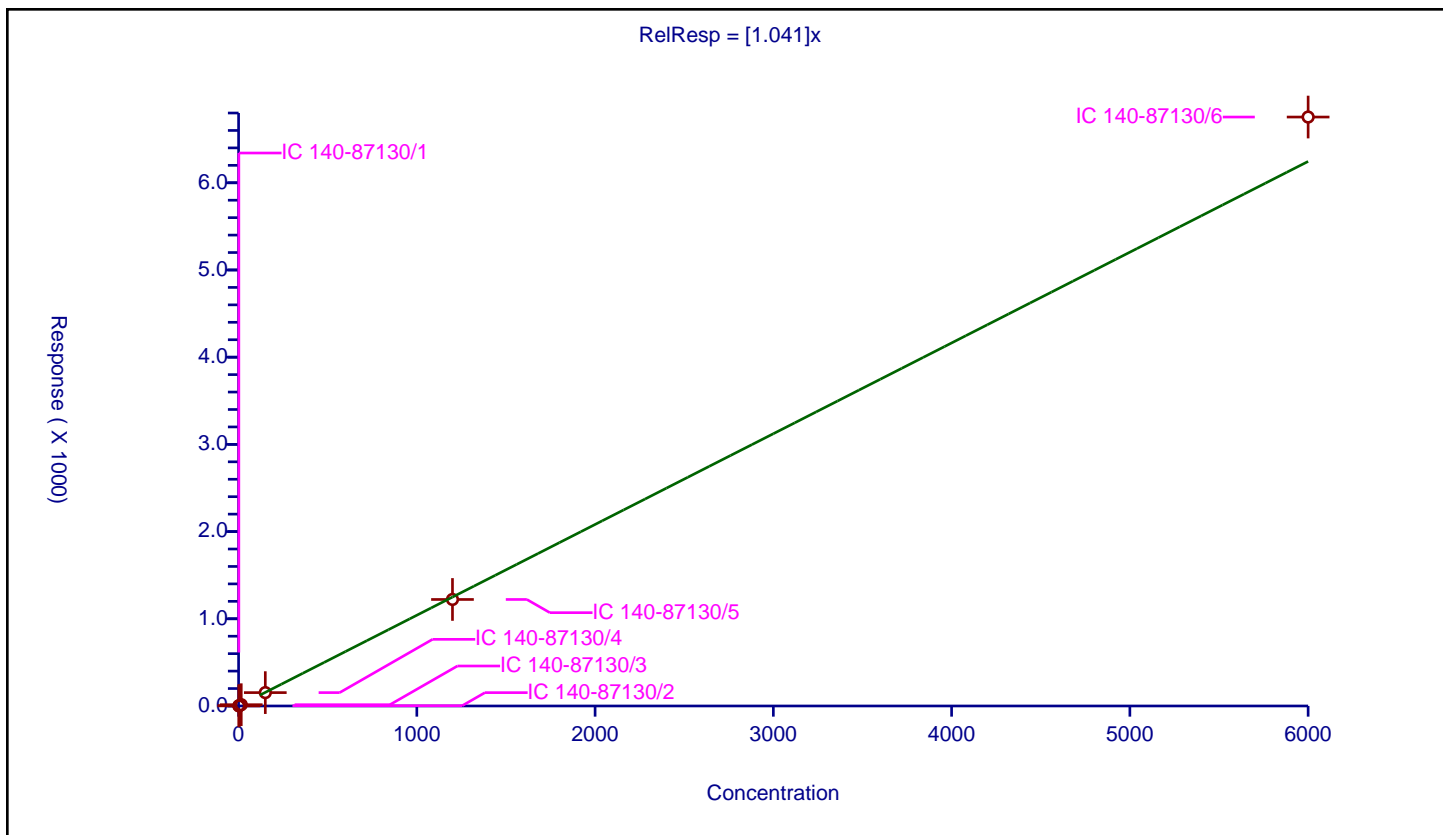
## Curve Coefficients

Intercept: 0  
 Slope: 1.041

## Error Coefficients

Relative Standard Deviation: 4.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.585528	100.0	6938320.0	1.057019	Y
2	IC 140-87130/2	3.0	3.091152	100.0	6240748.0	1.030384	Y
3	IC 140-87130/3	15.0	14.877029	100.0	6307301.0	0.991802	Y
4	IC 140-87130/4	150.0	153.280512	100.0	6455349.0	1.02187	Y
5	IC 140-87130/5	1200.0	1221.649091	100.0	6672003.0	1.018041	Y
6	IC 140-87130/6	6000.0	6753.818009	100.0	6975966.0	1.125636	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

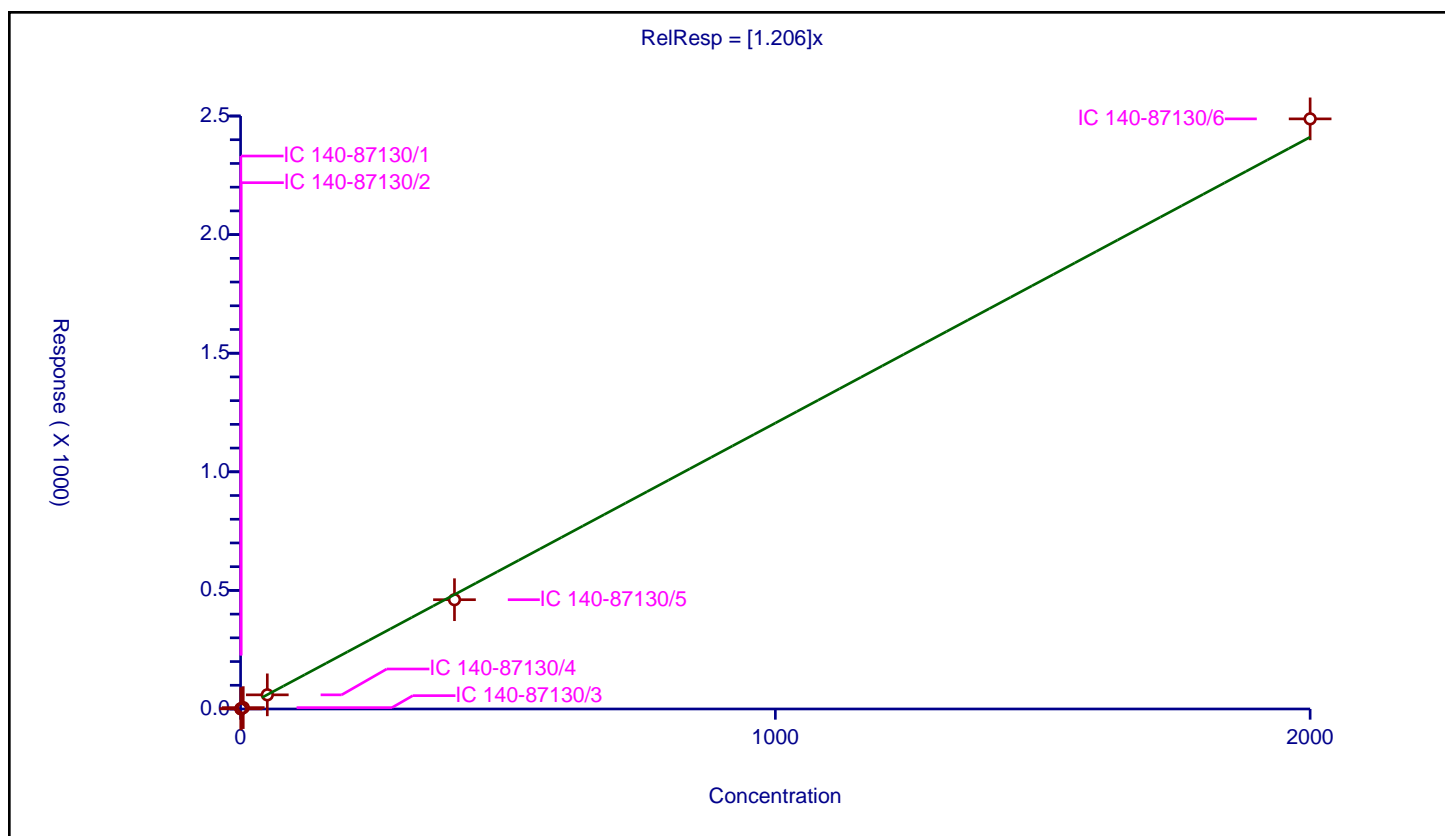
## Curve Coefficients

Intercept: 0  
Slope: 1.206

## Error Coefficients

Relative Standard Deviation: 3.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.609173	100.0	10759990.0	1.218347	Y
2	IC 140-87130/2	1.0	1.261874	100.0	9353232.0	1.261874	Y
3	IC 140-87130/3	5.0	5.826279	100.0	9948185.0	1.165256	Y
4	IC 140-87130/4	50.0	59.595331	100.0	10094764.0	1.191907	Y
5	IC 140-87130/5	400.0	460.770003	100.0	10740248.0	1.151925	Y
6	IC 140-87130/6	2000.0	2487.929052	100.0	11370905.0	1.243965	Y



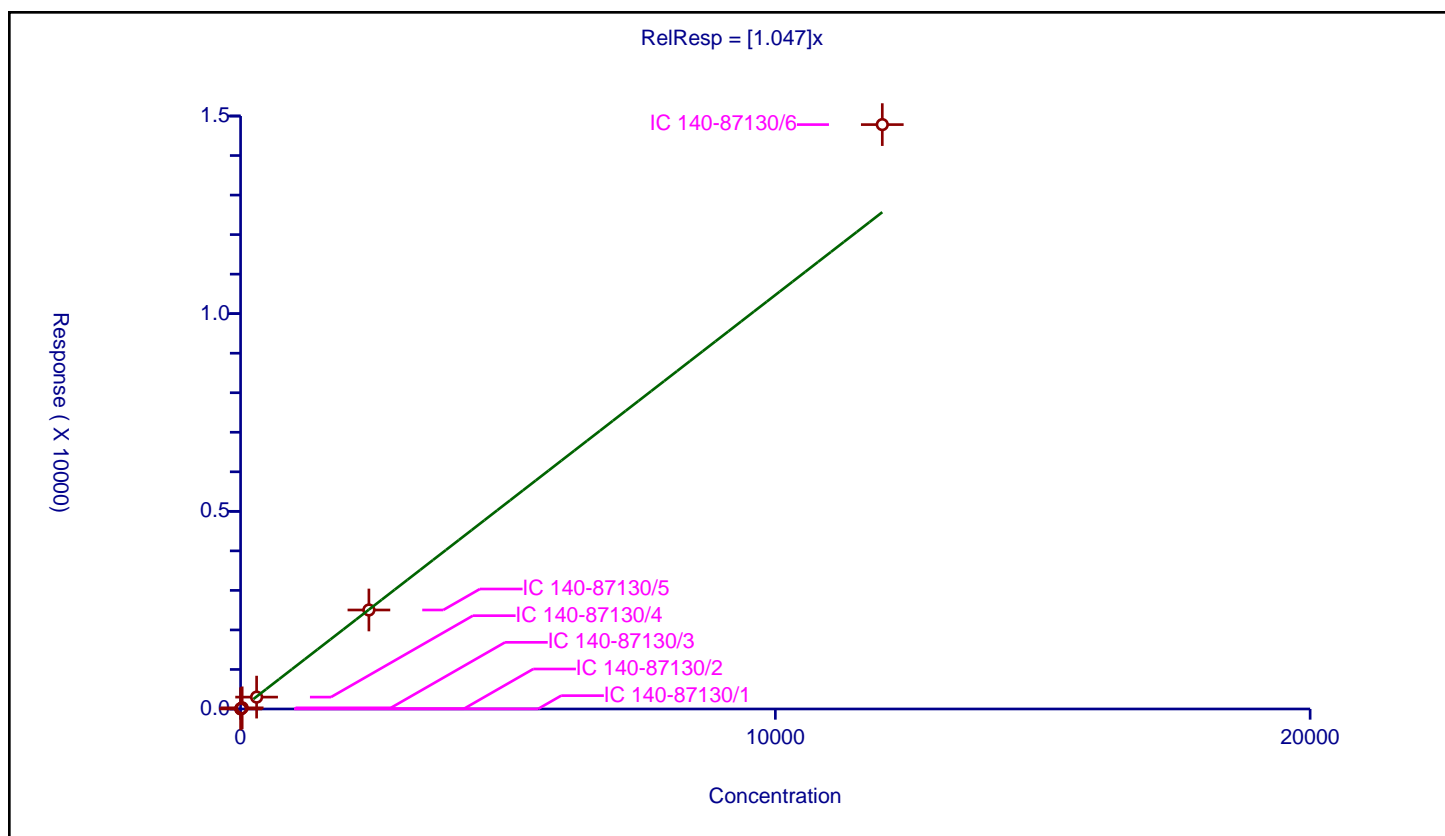
**/ PCB-119**

### Curve Coefficients

### Error Coefficients

**Relative Standard Deviation:** 8.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	3.0	3.046213	100.0	6938320.0	1.015404	Y
2	IC 140-87130/2	6.0	6.09177	100.0	6240748.0	1.015295	Y
3	IC 140-87130/3	30.0	29.280004	100.0	6307301.0	0.976	Y
4	IC 140-87130/4	300.0	300.513187	100.0	6455349.0	1.001711	Y
5	IC 140-87130/5	2400.0	2504.032507	100.0	6672003.0	1.043347	Y
6	IC 140-87130/6	12000.0	14782.642777	100.0	6975966.0	1.231887	Y



# Calibration

/ PCB-12

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

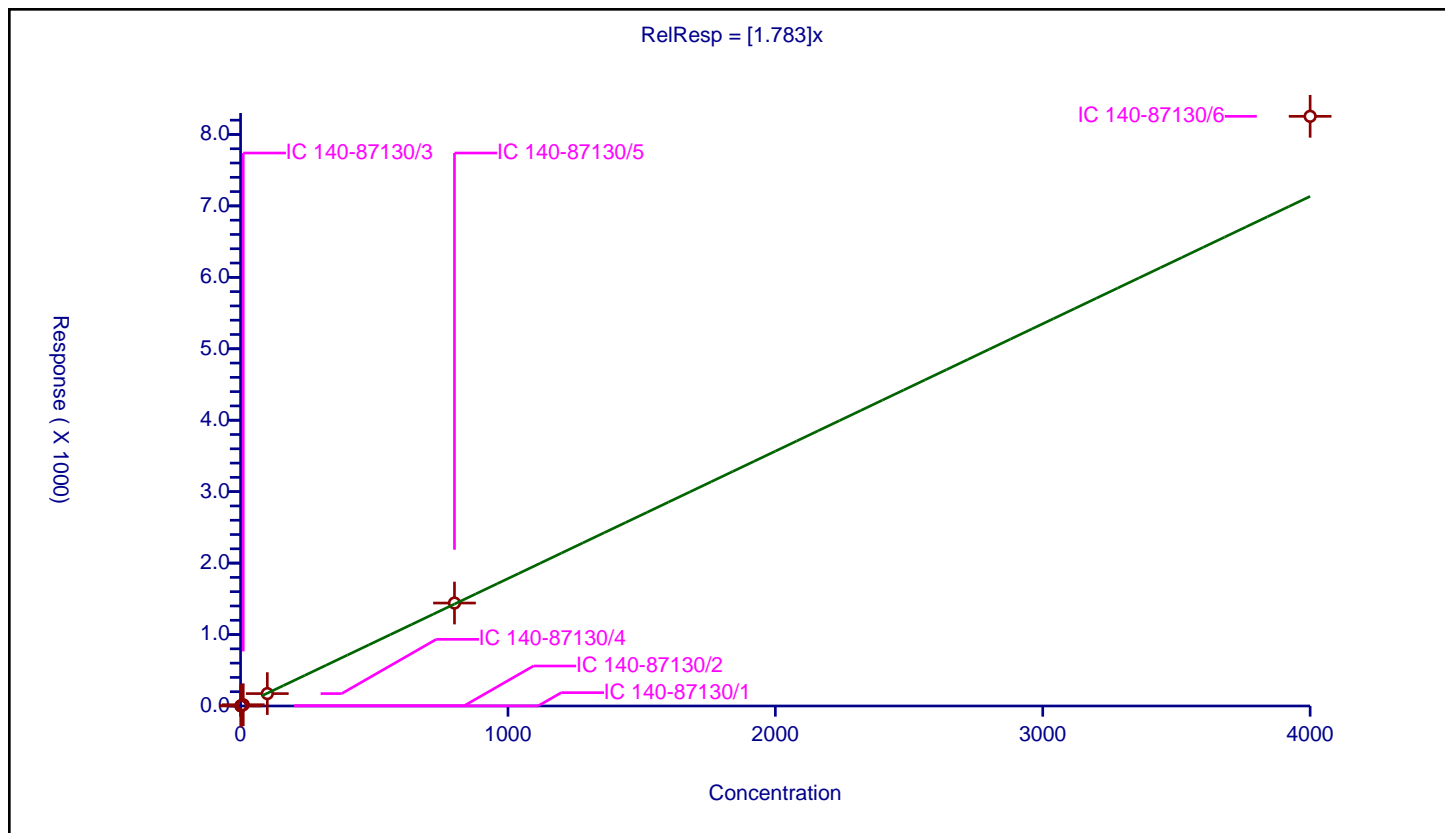
## Curve Coefficients

Intercept: 0  
 Slope: 1.783

## Error Coefficients

Relative Standard Deviation: 8.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.645773	100.0	5904521.0	1.645773	Y
2	IC 140-87130/2	2.0	3.337329	100.0	5442766.0	1.668664	Y
3	IC 140-87130/3	10.0	17.87178	100.0	5279032.0	1.787178	Y
4	IC 140-87130/4	100.0	173.311548	100.0	5474214.0	1.733115	Y
5	IC 140-87130/5	800.0	1441.118879	100.0	5561618.0	1.801399	Y
6	IC 140-87130/6	4000.0	8253.622121	100.0	5672202.0	2.063406	Y



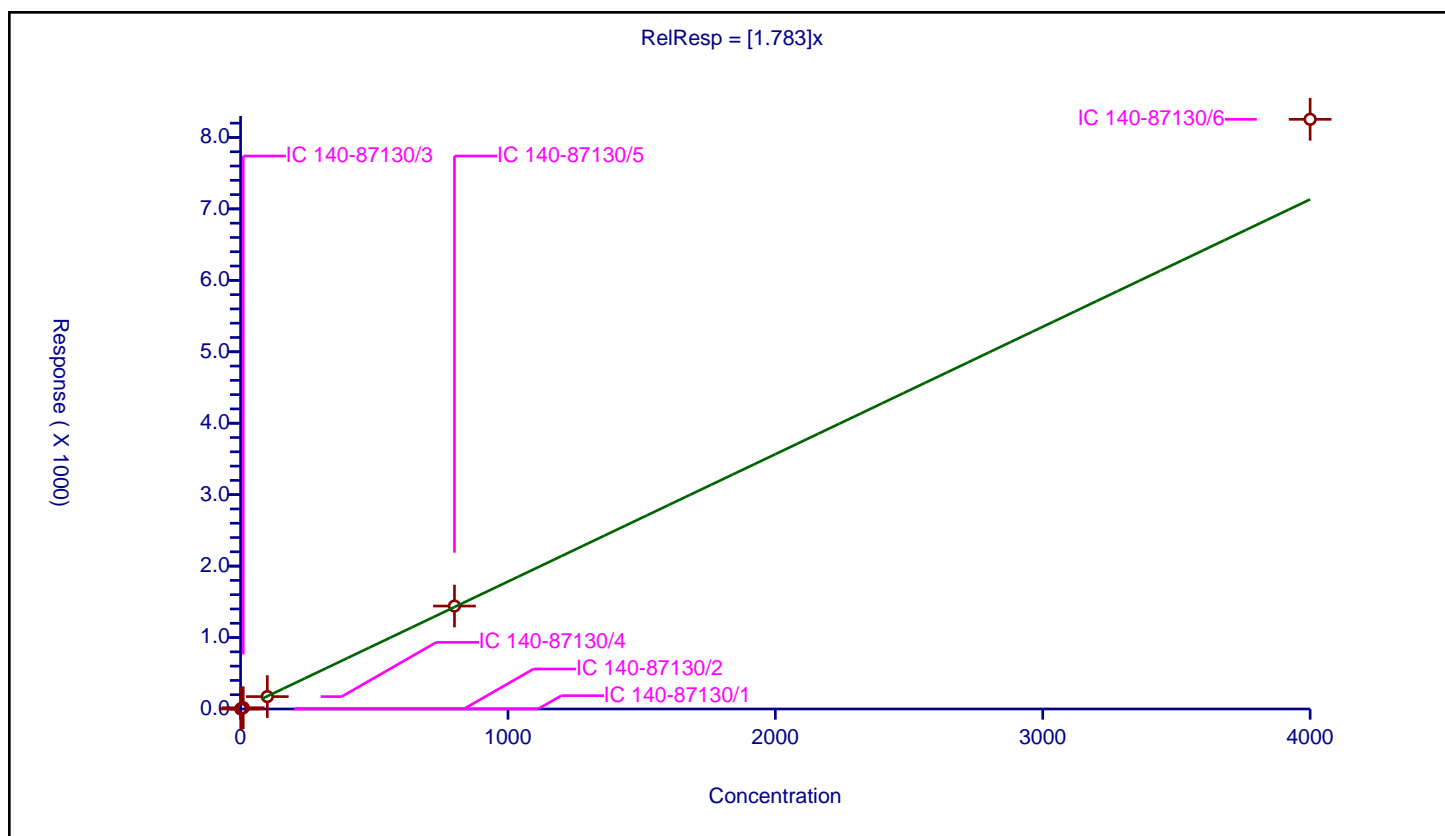
## / PCB-12/13

## Curve Coefficients

### Error Coefficients

**Relative Standard Deviation:** 8.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.645773	100.0	5904521.0	1.645773	Y
2	IC 140-87130/2	2.0	3.337329	100.0	5442766.0	1.668664	Y
3	IC 140-87130/3	10.0	17.87178	100.0	5279032.0	1.787178	Y
4	IC 140-87130/4	100.0	173.311548	100.0	5474214.0	1.733115	Y
5	IC 140-87130/5	800.0	1441.118879	100.0	5561618.0	1.801399	Y
6	IC 140-87130/6	4000.0	8253.622121	100.0	5672202.0	2.063406	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

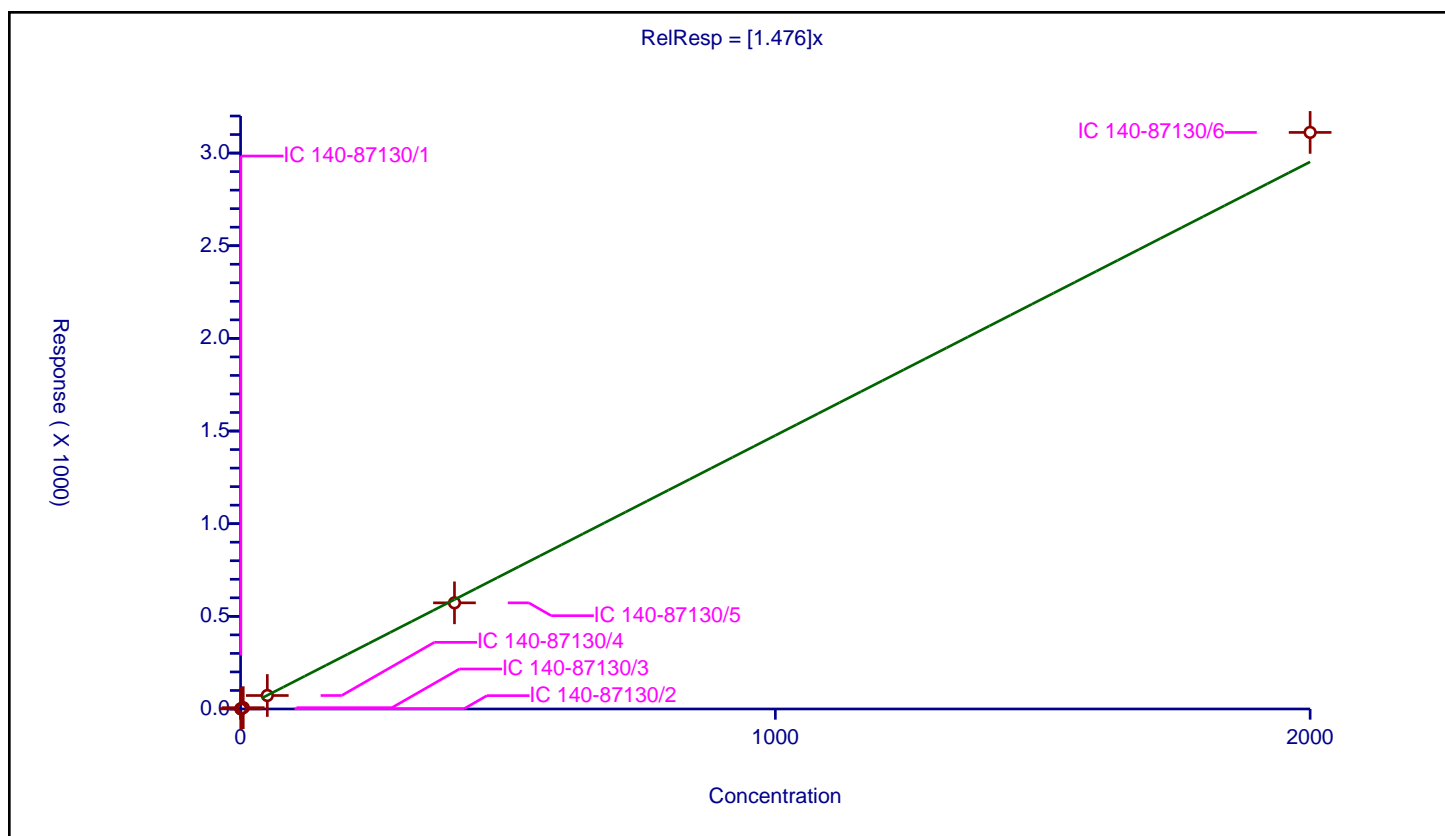
## Curve Coefficients

Intercept: 0  
Slope: 1.476

## Error Coefficients

Relative Standard Deviation: 3.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.764782	100.0	6938320.0	1.529563	Y
2	IC 140-87130/2	1.0	1.468894	100.0	6240748.0	1.468894	Y
3	IC 140-87130/3	5.0	7.079066	100.0	6307301.0	1.415813	Y
4	IC 140-87130/4	50.0	72.764958	100.0	6455349.0	1.455299	Y
5	IC 140-87130/5	400.0	572.862857	100.0	6672003.0	1.432157	Y
6	IC 140-87130/6	2000.0	3111.506535	100.0	6975966.0	1.555753	Y



## Calibration

/ PCB-121

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

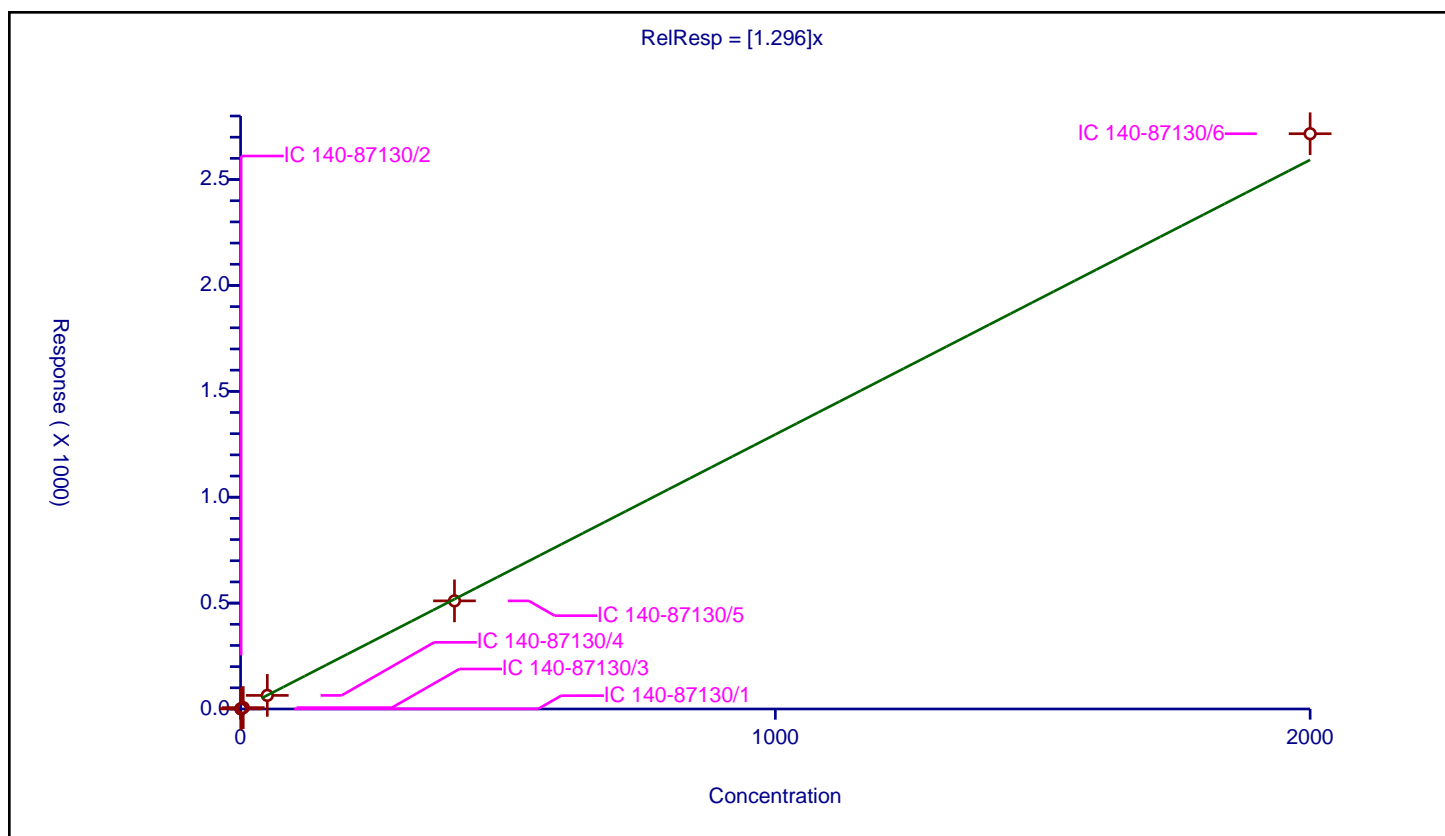
## Curve Coefficients

Intercept: 0  
Slope: 1.296

## Error Coefficients

Relative Standard Deviation: 2.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.626074	100.0	6938320.0	1.252147	Y
2	IC 140-87130/2	1.0	1.317791	100.0	6240748.0	1.317791	Y
3	IC 140-87130/3	5.0	6.449113	100.0	6307301.0	1.289823	Y
4	IC 140-87130/4	50.0	64.202292	100.0	6455349.0	1.284046	Y
5	IC 140-87130/5	400.0	510.565253	100.0	6672003.0	1.276413	Y
6	IC 140-87130/6	2000.0	2716.396066	100.0	6975966.0	1.358198	Y



# Calibration

/ PCB-122

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

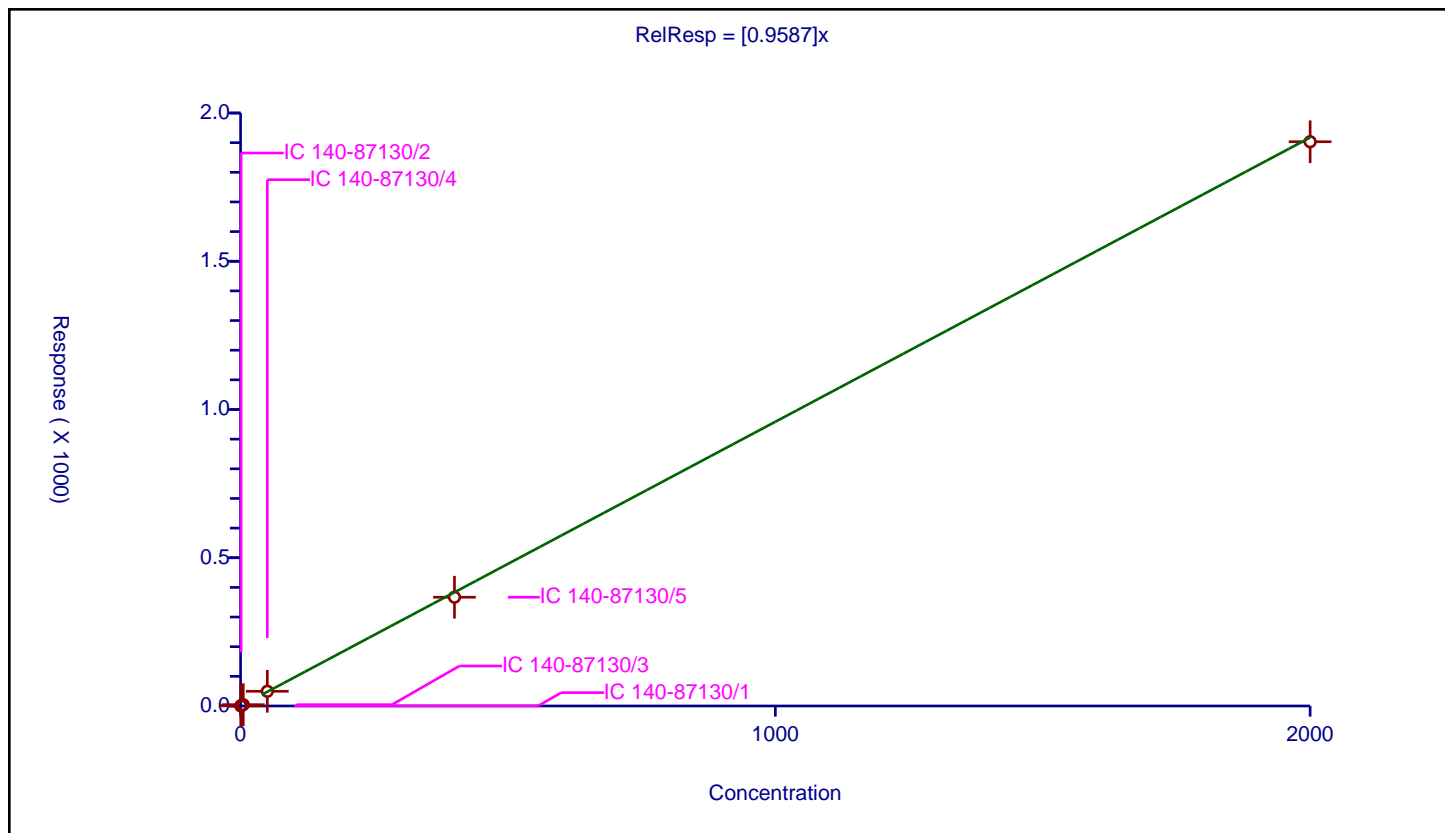
## Curve Coefficients

Intercept: 0  
 Slope: 0.9587

## Error Coefficients

Relative Standard Deviation: 5.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.477126	100.0	10371480.0	0.954251	Y
2	IC 140-87130/2	1.0	1.043538	100.0	9073751.0	1.043538	Y
3	IC 140-87130/3	5.0	4.470647	100.0	9321962.0	0.894129	Y
4	IC 140-87130/4	50.0	49.566839	100.0	9501201.0	0.991337	Y
5	IC 140-87130/5	400.0	366.864546	100.0	10377703.0	0.917161	Y
6	IC 140-87130/6	2000.0	1903.10055	100.0	11406816.0	0.95155	Y





Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

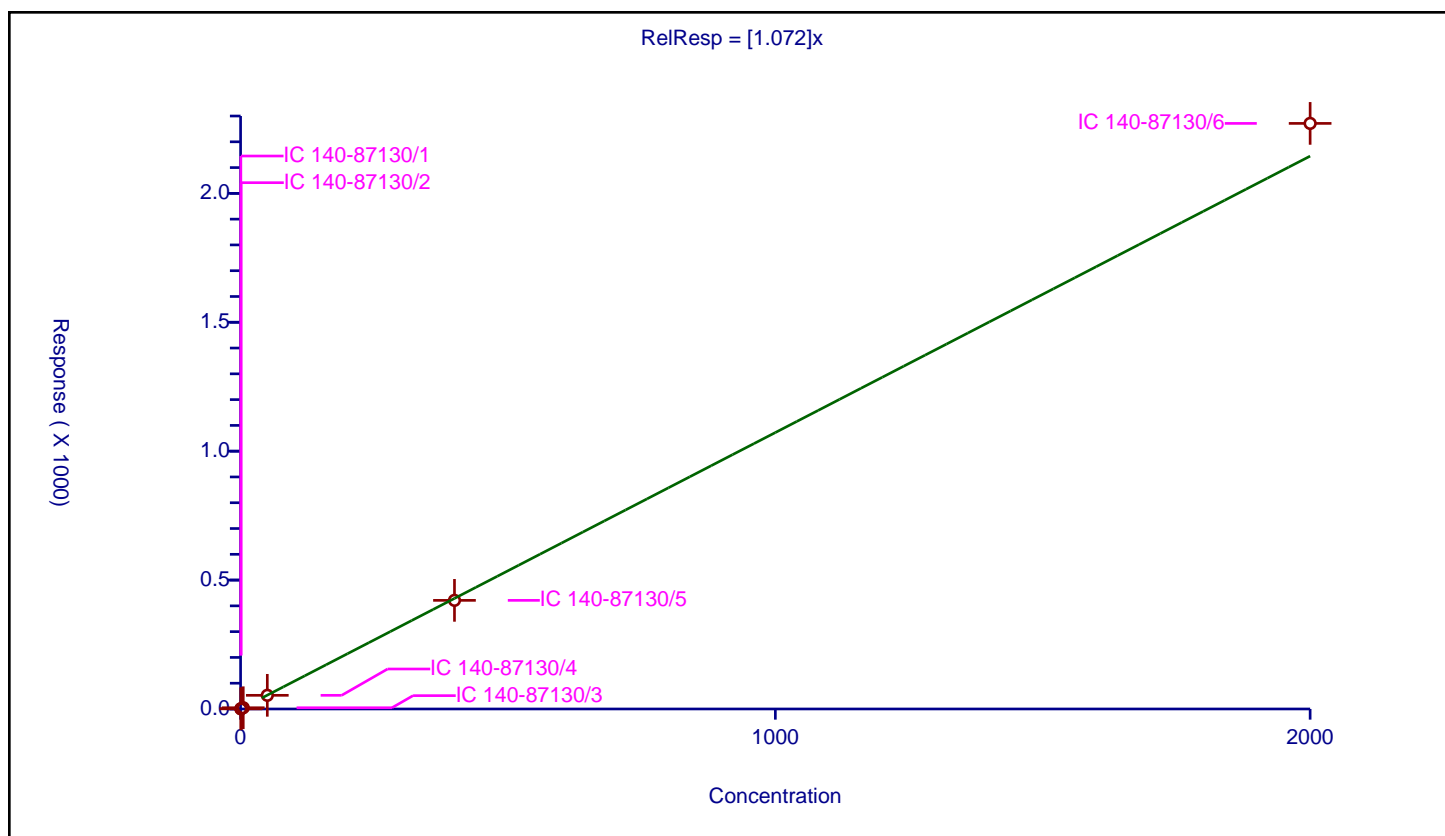
## Curve Coefficients

Intercept: 0  
Slope: 1.072

## Error Coefficients

Relative Standard Deviation: 6.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.542661	100.0	10371480.0	1.085322	Y
2	IC 140-87130/2	1.0	1.145469	100.0	9073751.0	1.145469	Y
3	IC 140-87130/3	5.0	4.769908	100.0	9321962.0	0.953982	Y
4	IC 140-87130/4	50.0	52.982691	100.0	9501201.0	1.059654	Y
5	IC 140-87130/5	400.0	421.35196	100.0	10377703.0	1.05338	Y
6	IC 140-87130/6	2000.0	2271.302132	100.0	11406816.0	1.135651	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

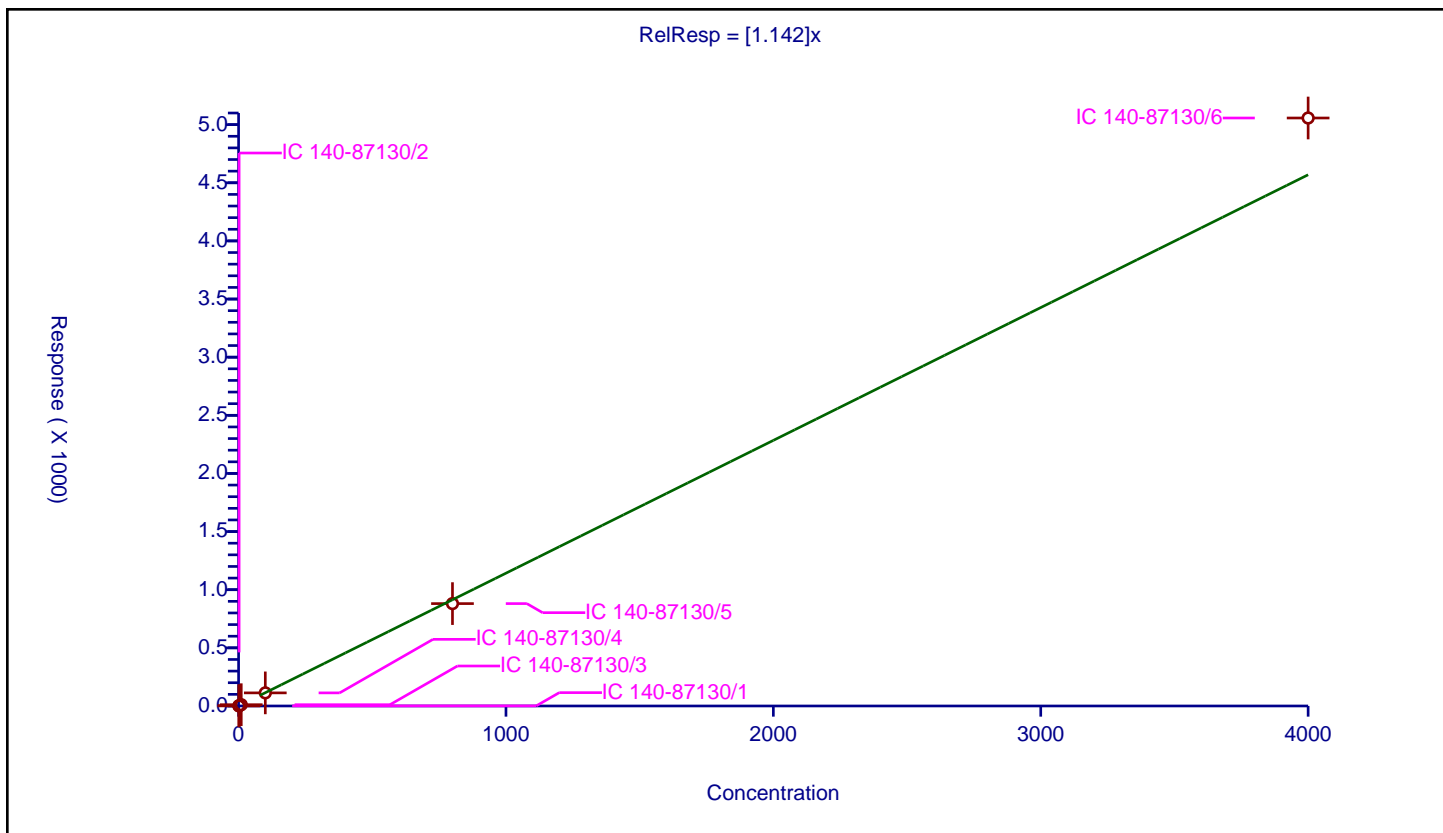
## Curve Coefficients

Intercept: 0  
Slope: 1.142

## Error Coefficients

Relative Standard Deviation: 5.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.102851	100.0	10371480.0	1.102851	Y
2	IC 140-87130/2	2.0	2.298608	100.0	9073751.0	1.149304	Y
3	IC 140-87130/3	10.0	11.092751	100.0	9321962.0	1.109275	Y
4	IC 140-87130/4	100.0	112.681302	100.0	9501201.0	1.126813	Y
5	IC 140-87130/5	800.0	880.500569	100.0	10377703.0	1.100626	Y
6	IC 140-87130/6	4000.0	5057.136698	100.0	11406816.0	1.264284	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

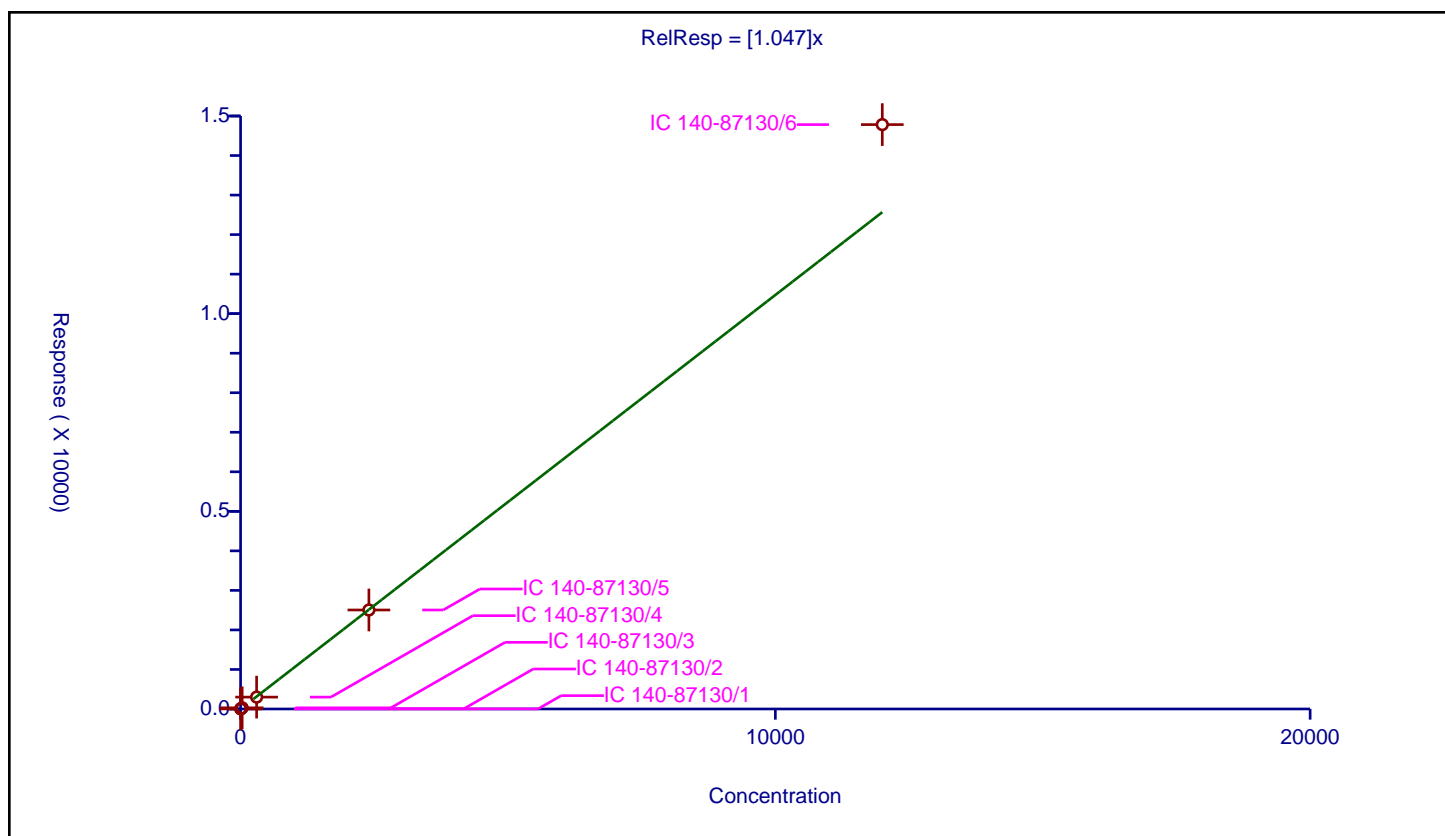
## Curve Coefficients

Intercept: 0  
Slope: 1.047

## Error Coefficients

Relative Standard Deviation: 8.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	3.0	3.046213	100.0	6938320.0	1.015404	Y
2	IC 140-87130/2	6.0	6.09177	100.0	6240748.0	1.015295	Y
3	IC 140-87130/3	30.0	29.280004	100.0	6307301.0	0.976	Y
4	IC 140-87130/4	300.0	300.513187	100.0	6455349.0	1.001711	Y
5	IC 140-87130/5	2400.0	2504.032507	100.0	6672003.0	1.043347	Y
6	IC 140-87130/6	12000.0	14782.642777	100.0	6975966.0	1.231887	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

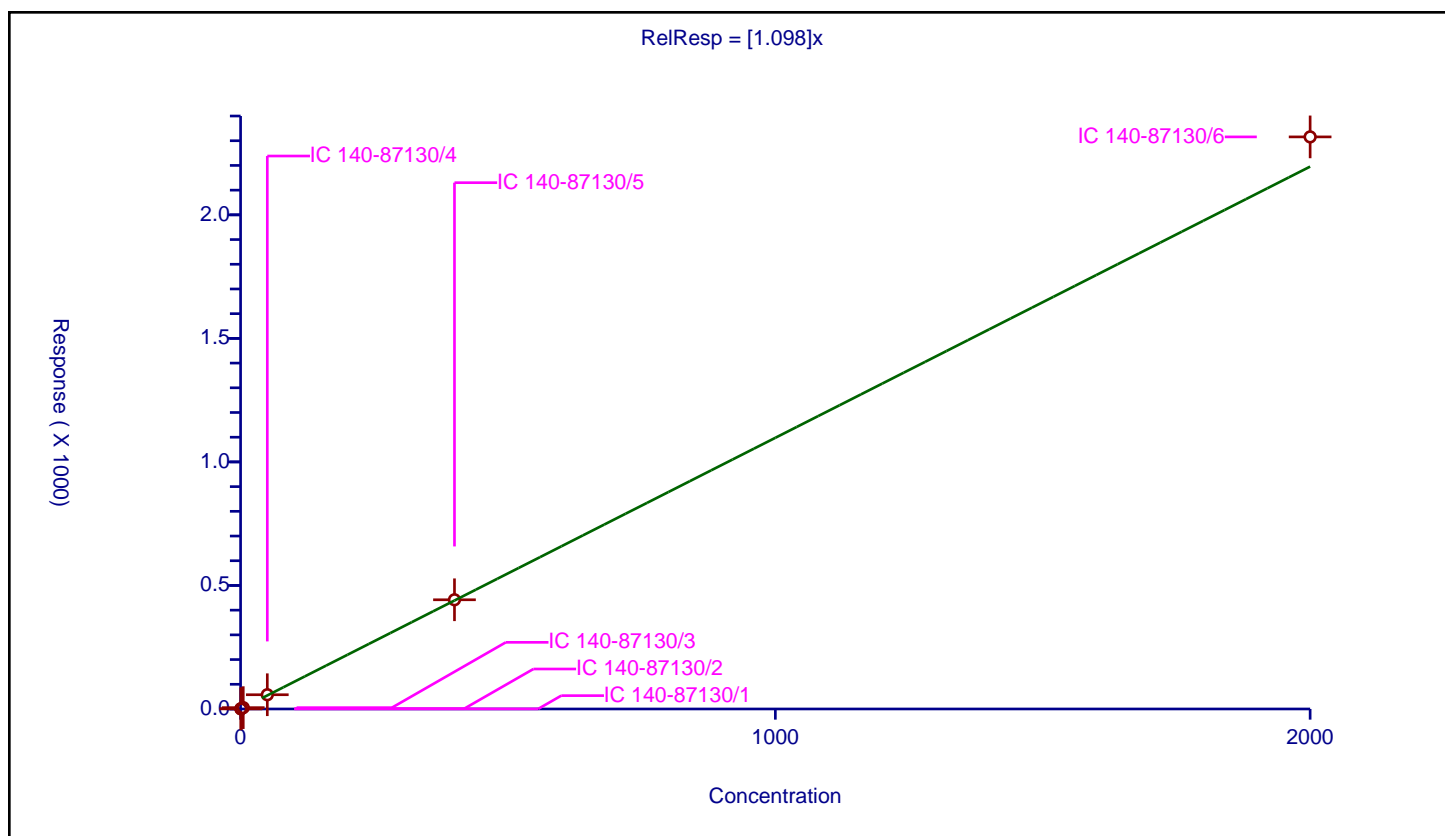
## Curve Coefficients

Intercept: 0  
Slope: 1.098

## Error Coefficients

Relative Standard Deviation: 5.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.497752	100.0	9958778.0	0.995504	Y
2	IC 140-87130/2	1.0	1.094031	100.0	8756063.0	1.094031	Y
3	IC 140-87130/3	5.0	5.401953	100.0	8945635.0	1.080391	Y
4	IC 140-87130/4	50.0	57.642157	100.0	9388684.0	1.152843	Y
5	IC 140-87130/5	400.0	442.04375	100.0	10103302.0	1.105109	Y
6	IC 140-87130/6	2000.0	2315.466548	100.0	11098540.0	1.157733	Y



# Calibration

/ PCB-127

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

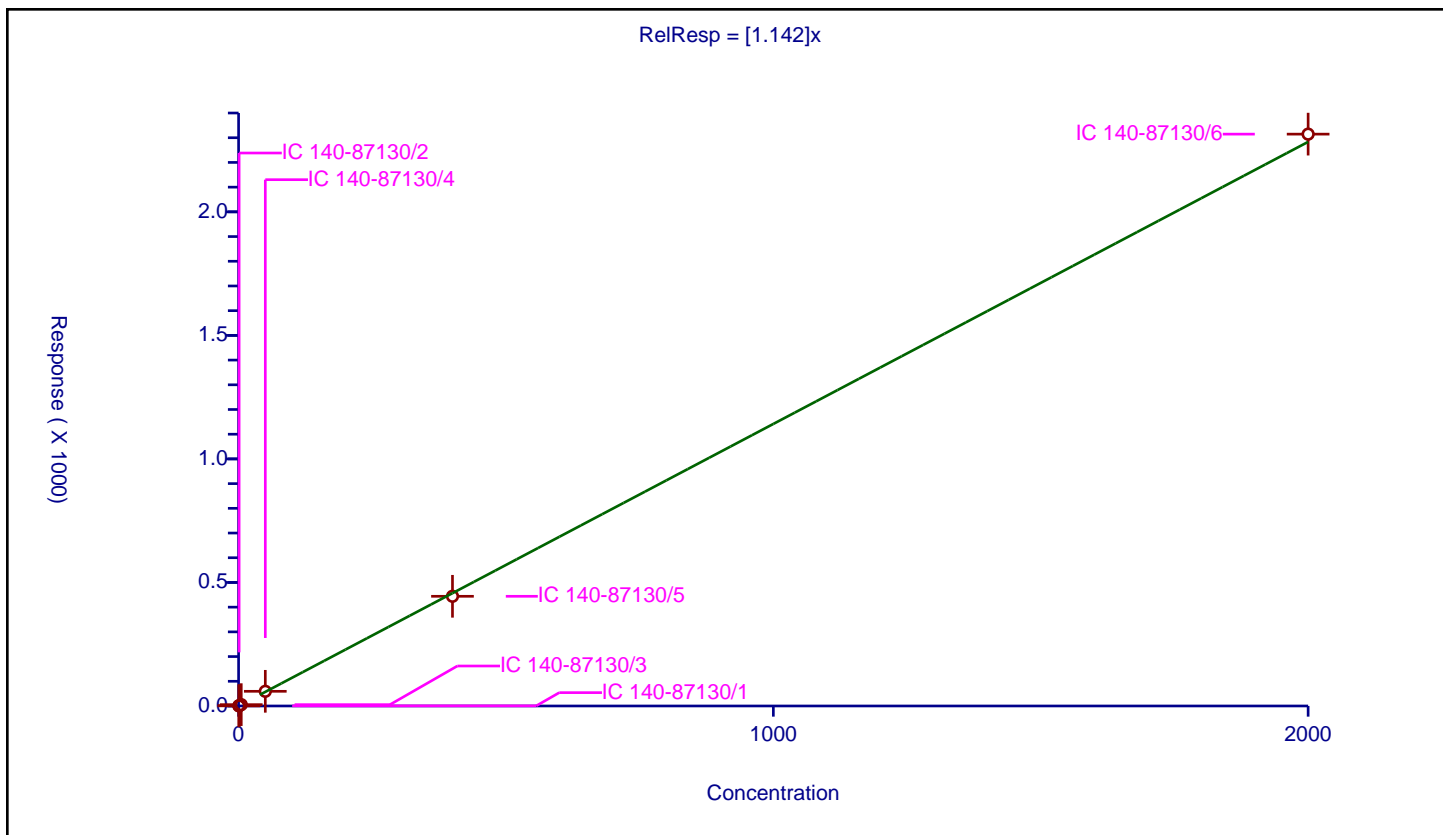
## Curve Coefficients

Intercept: 0  
Slope: 1.142

## Error Coefficients

Relative Standard Deviation: 4.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.554569	100.0	10371480.0	1.109138	Y
2	IC 140-87130/2	1.0	1.199857	100.0	9073751.0	1.199857	Y
3	IC 140-87130/3	5.0	5.427334	100.0	9321962.0	1.085467	Y
4	IC 140-87130/4	50.0	59.390029	100.0	9501201.0	1.187801	Y
5	IC 140-87130/5	400.0	443.991517	100.0	10377703.0	1.109979	Y
6	IC 140-87130/6	2000.0	2314.503206	100.0	11406816.0	1.157252	Y



# Calibration

/ PCB-128

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

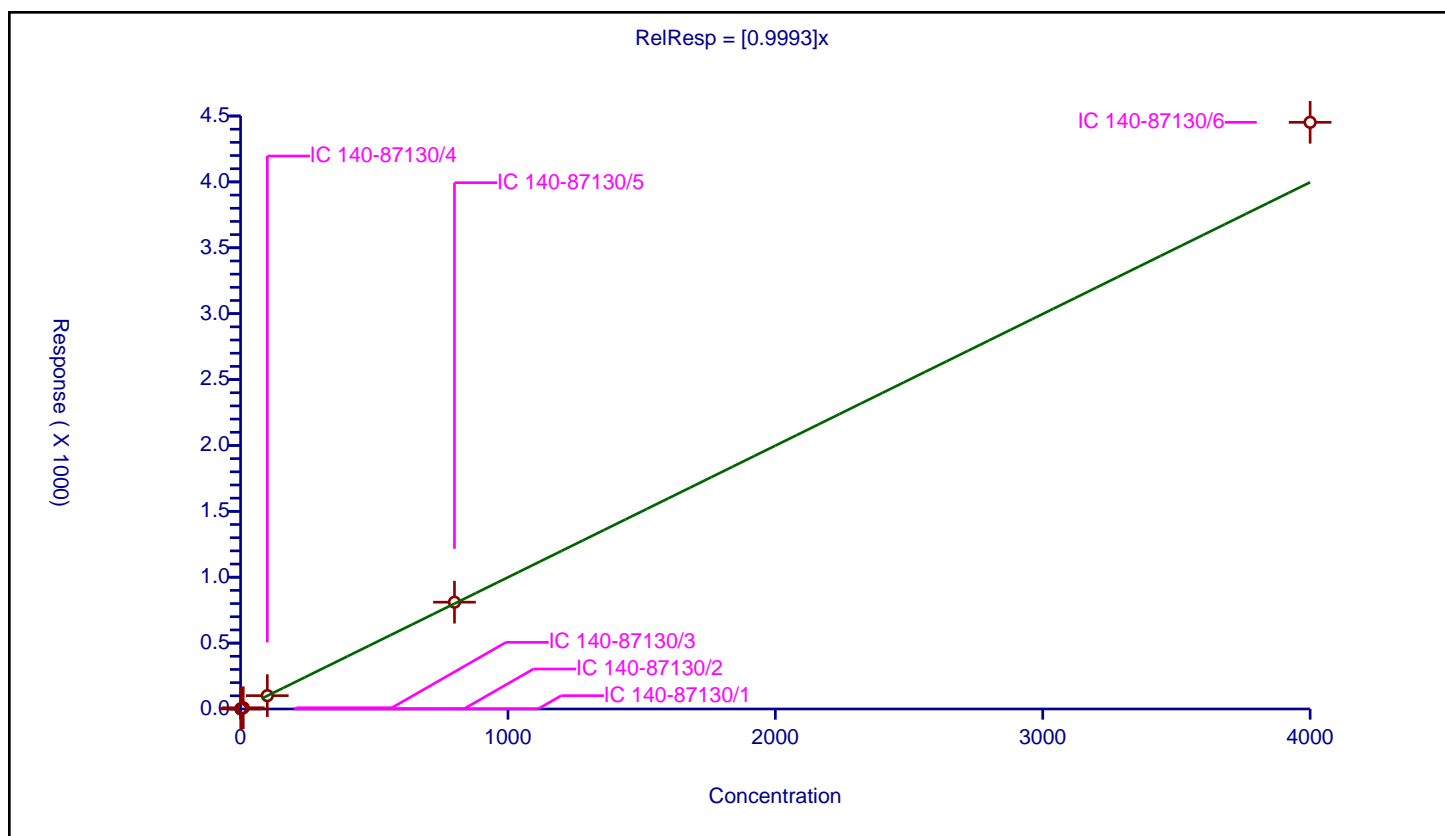
## Curve Coefficients

Intercept: 0  
 Slope: 0.9993

## Error Coefficients

Relative Standard Deviation: 6.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.978717	200.0	17145311.0	0.978717	Y
2	IC 140-87130/2	2.0	1.885788	200.0	16075823.0	0.942894	Y
3	IC 140-87130/3	10.0	9.351869	200.0	15994835.0	0.935187	Y
4	IC 140-87130/4	100.0	101.248978	200.0	16048883.0	1.01249	Y
5	IC 140-87130/5	800.0	810.572802	200.0	16797326.0	1.013216	Y
6	IC 140-87130/6	4000.0	4452.331241	200.0	18003846.0	1.113083	Y



# Calibration

/ PCB-128/166

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

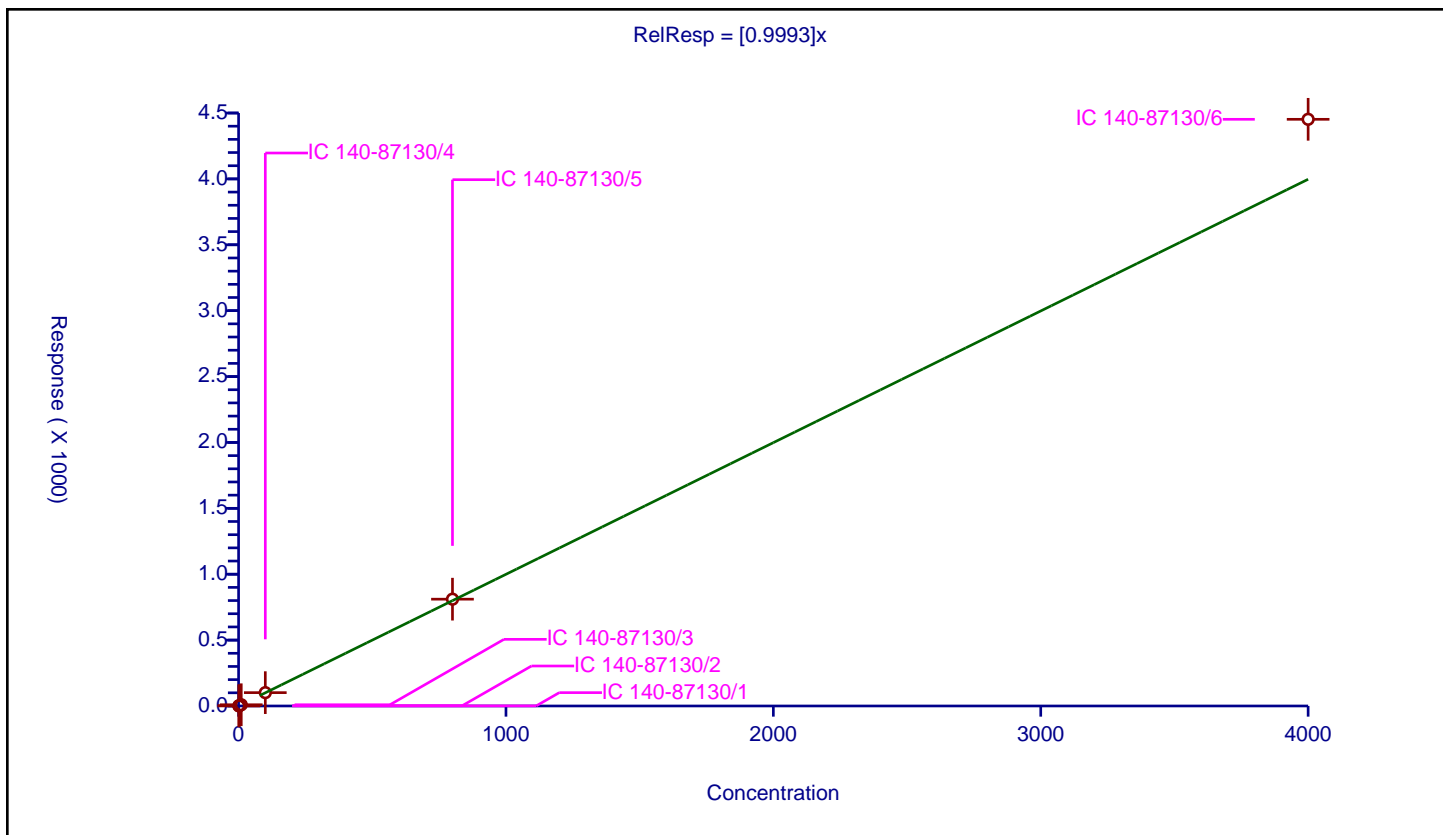
## Curve Coefficients

Intercept: 0  
 Slope: 0.9993

## Error Coefficients

Relative Standard Deviation: 6.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.978717	200.0	17145311.0	0.978717	Y
2	IC 140-87130/2	2.0	1.885788	200.0	16075823.0	0.942894	Y
3	IC 140-87130/3	10.0	9.351869	200.0	15994835.0	0.935187	Y
4	IC 140-87130/4	100.0	101.248978	200.0	16048883.0	1.01249	Y
5	IC 140-87130/5	800.0	810.572802	200.0	16797326.0	1.013216	Y
6	IC 140-87130/6	4000.0	4452.331241	200.0	18003846.0	1.113083	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

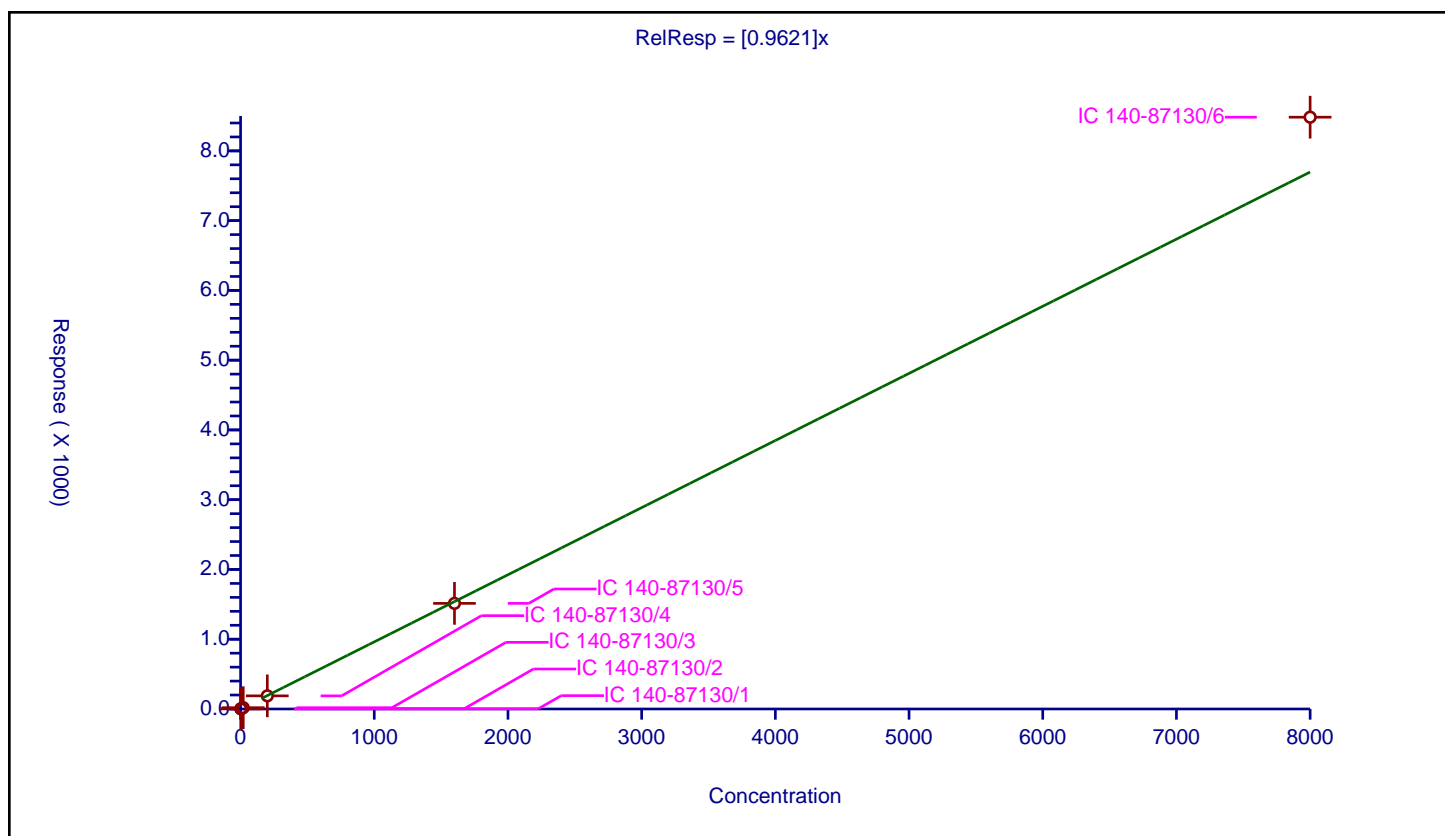
## Curve Coefficients

Intercept: 0  
Slope: 0.9621

## Error Coefficients

Relative Standard Deviation: 5.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	2.0	1.921855	200.0	17145311.0	0.960927	Y
2	IC 140-87130/2	4.0	3.770532	200.0	16075823.0	0.942633	Y
3	IC 140-87130/3	20.0	18.421809	200.0	15994835.0	0.92109	Y
4	IC 140-87130/4	200.0	188.299871	200.0	16048883.0	0.941499	Y
5	IC 140-87130/5	1600.0	1513.757356	200.0	16797326.0	0.946098	Y
6	IC 140-87130/6	8000.0	8483.211276	200.0	18003846.0	1.060401	Y





# Calibration

/ PCB-129/138/160/163

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

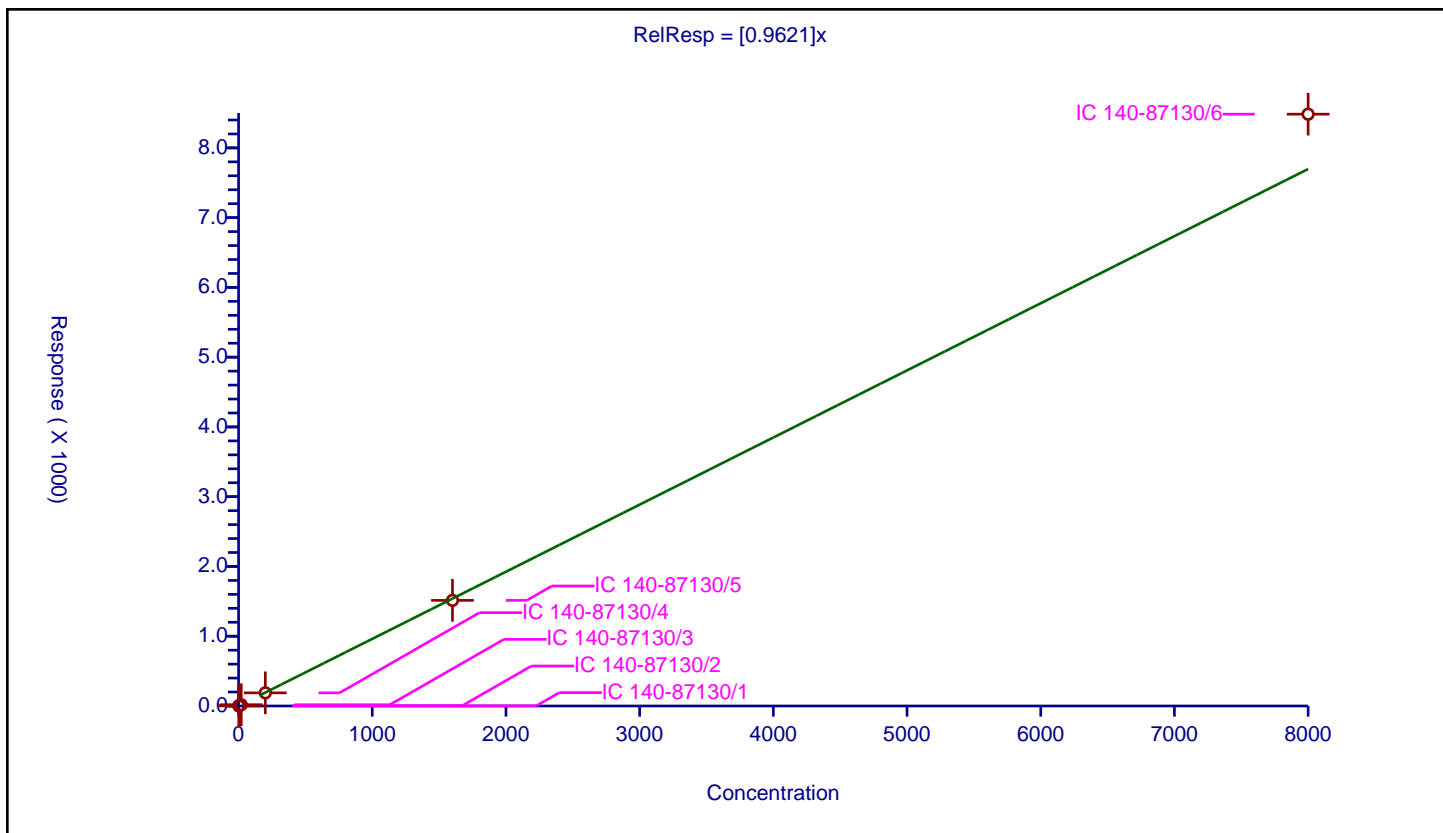
## Curve Coefficients

Intercept: 0  
 Slope: 0.9621

## Error Coefficients

Relative Standard Deviation: 5.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	2.0	1.921855	200.0	17145311.0	0.960927	Y
2	IC 140-87130/2	4.0	3.770532	200.0	16075823.0	0.942633	Y
3	IC 140-87130/3	20.0	18.421809	200.0	15994835.0	0.92109	Y
4	IC 140-87130/4	200.0	188.299871	200.0	16048883.0	0.941499	Y
5	IC 140-87130/5	1600.0	1513.757356	200.0	16797326.0	0.946098	Y
6	IC 140-87130/6	8000.0	8483.211276	200.0	18003846.0	1.060401	Y



**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

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**Curve Coefficients**


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**Intercept:** 0  
**Slope:** 1.783

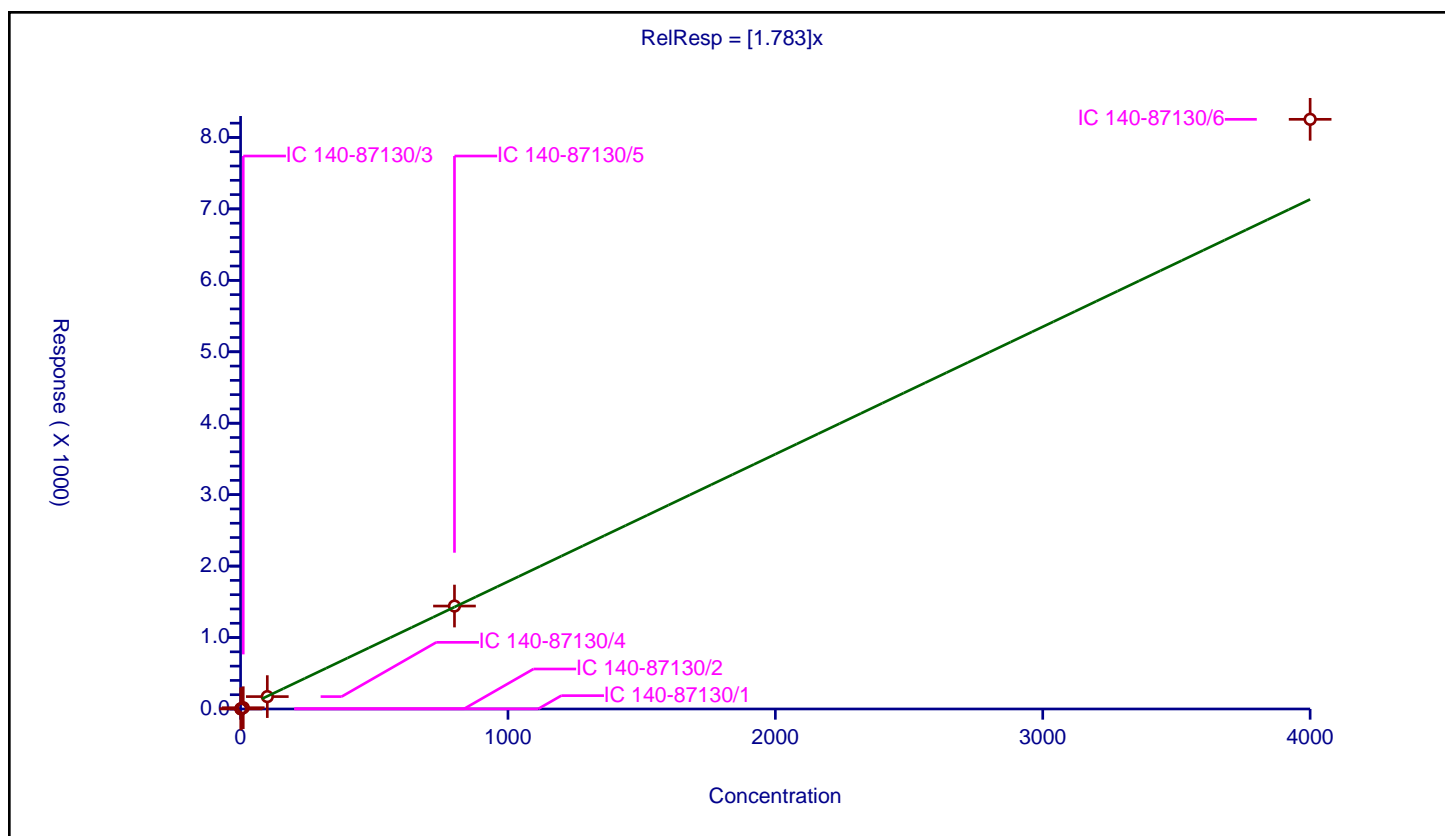
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**Error Coefficients**


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**Relative Standard Deviation:** 8.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.645773	100.0	5904521.0	1.645773	Y
2	IC 140-87130/2	2.0	3.337329	100.0	5442766.0	1.668664	Y
3	IC 140-87130/3	10.0	17.87178	100.0	5279032.0	1.787178	Y
4	IC 140-87130/4	100.0	173.311548	100.0	5474214.0	1.733115	Y
5	IC 140-87130/5	800.0	1441.118879	100.0	5561618.0	1.801399	Y
6	IC 140-87130/6	4000.0	8253.622121	100.0	5672202.0	2.063406	Y



## Calibration

/ PCB-130

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

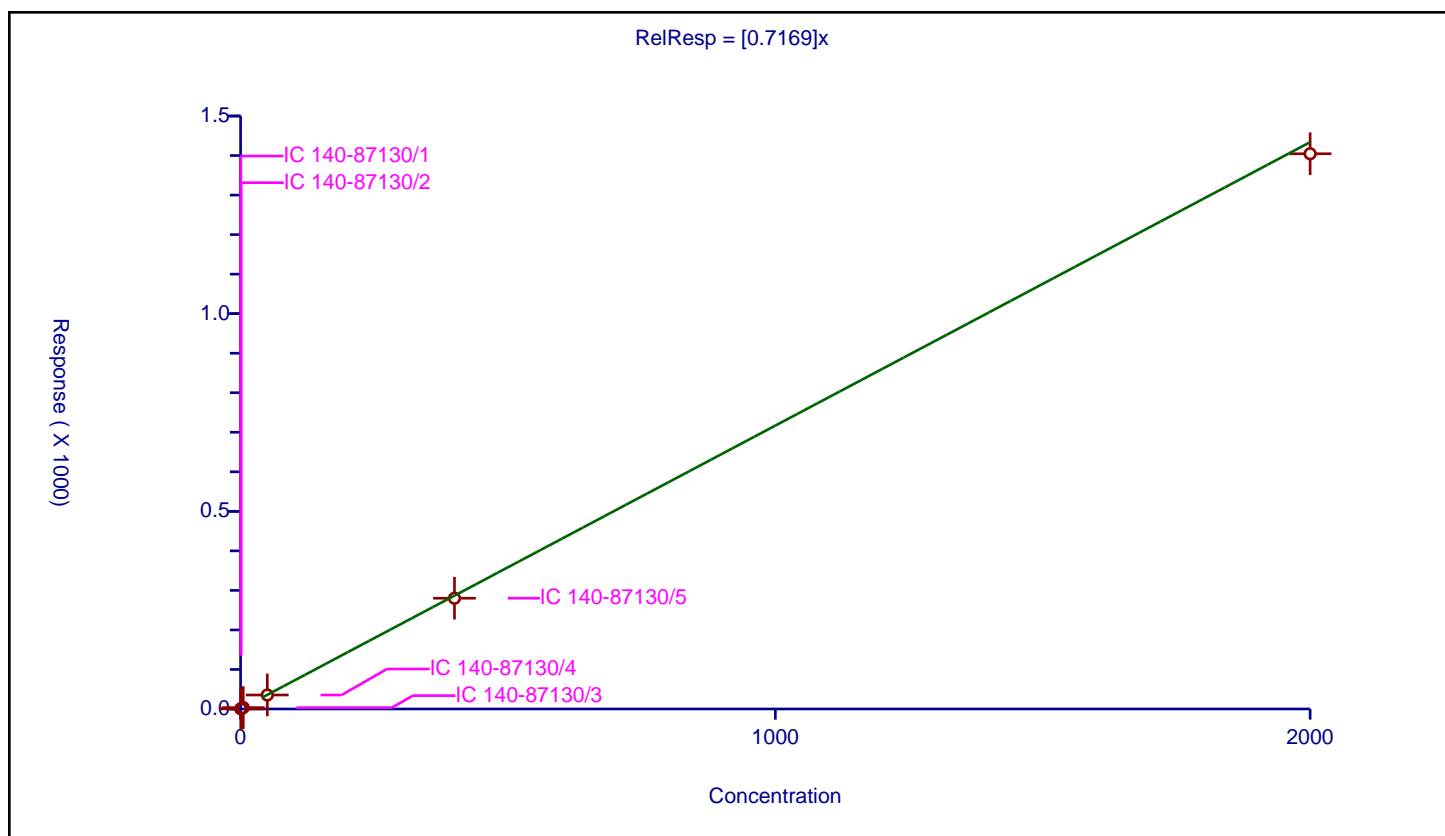
## Curve Coefficients

Intercept: 0  
Slope: 0.7169

## Error Coefficients

Relative Standard Deviation: 3.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.374983	200.0	17145311.0	0.749966	Y
2	IC 140-87130/2	1.0	0.742768	200.0	16075823.0	0.742768	Y
3	IC 140-87130/3	5.0	3.49154	200.0	15994835.0	0.698308	Y
4	IC 140-87130/4	50.0	35.374985	200.0	16048883.0	0.7075	Y
5	IC 140-87130/5	400.0	280.165569	200.0	16797326.0	0.700414	Y
6	IC 140-87130/6	2000.0	1404.539452	200.0	18003846.0	0.70227	Y



# Calibration

/ PCB-131

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

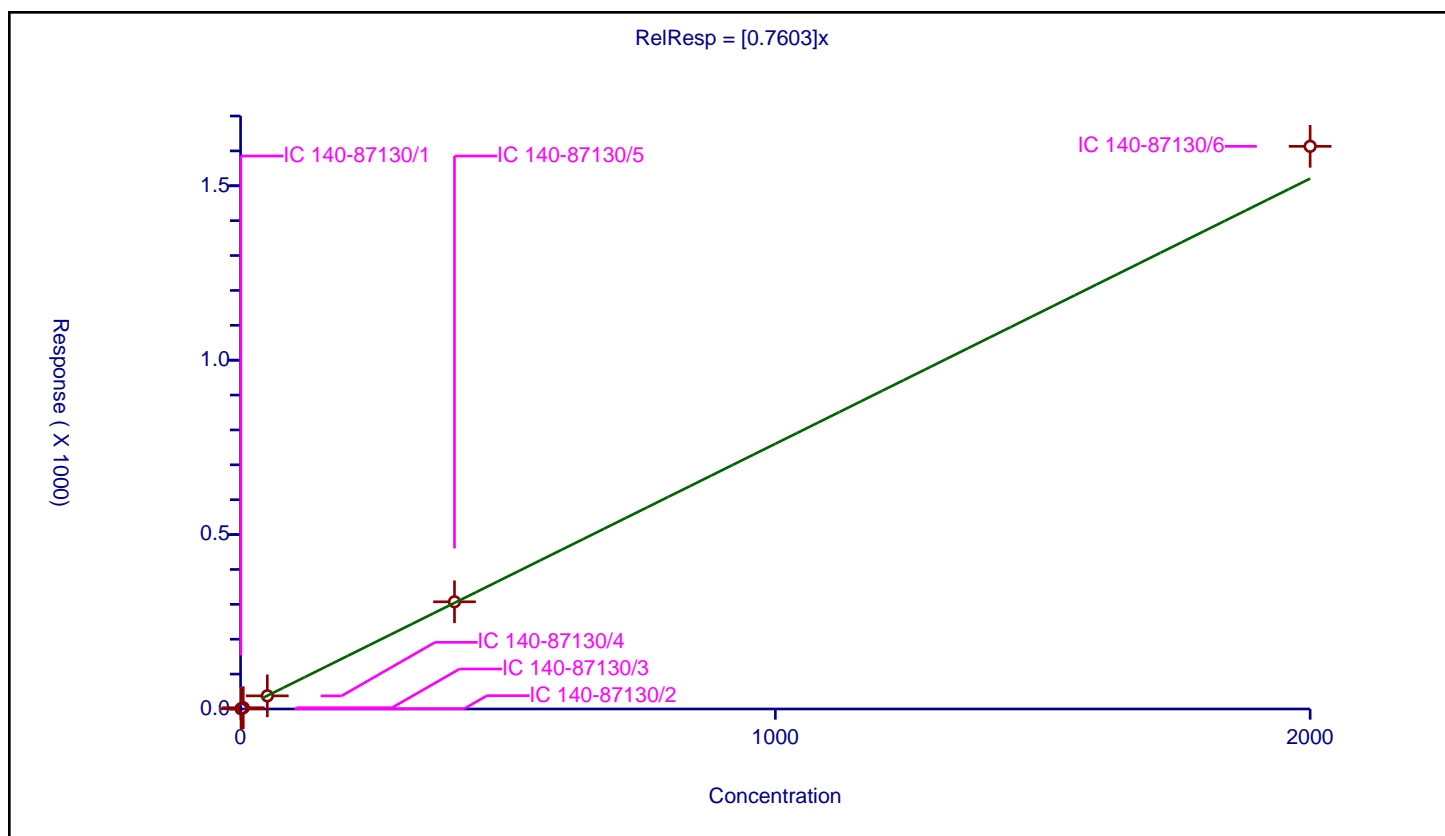
## Curve Coefficients

Intercept: 0  
 Slope: 0.7603

## Error Coefficients

Relative Standard Deviation: 4.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.495879	200.0	17145311.0	0.991758	N
2	IC 140-87130/2	1.0	0.750033	200.0	16075823.0	0.750033	Y
3	IC 140-87130/3	5.0	3.621982	200.0	15994835.0	0.724396	Y
4	IC 140-87130/4	50.0	37.621659	200.0	16048883.0	0.752433	Y
5	IC 140-87130/5	400.0	307.270824	200.0	16797326.0	0.768177	Y
6	IC 140-87130/6	2000.0	1613.043169	200.0	18003846.0	0.806522	Y



# Calibration

/ PCB-132

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

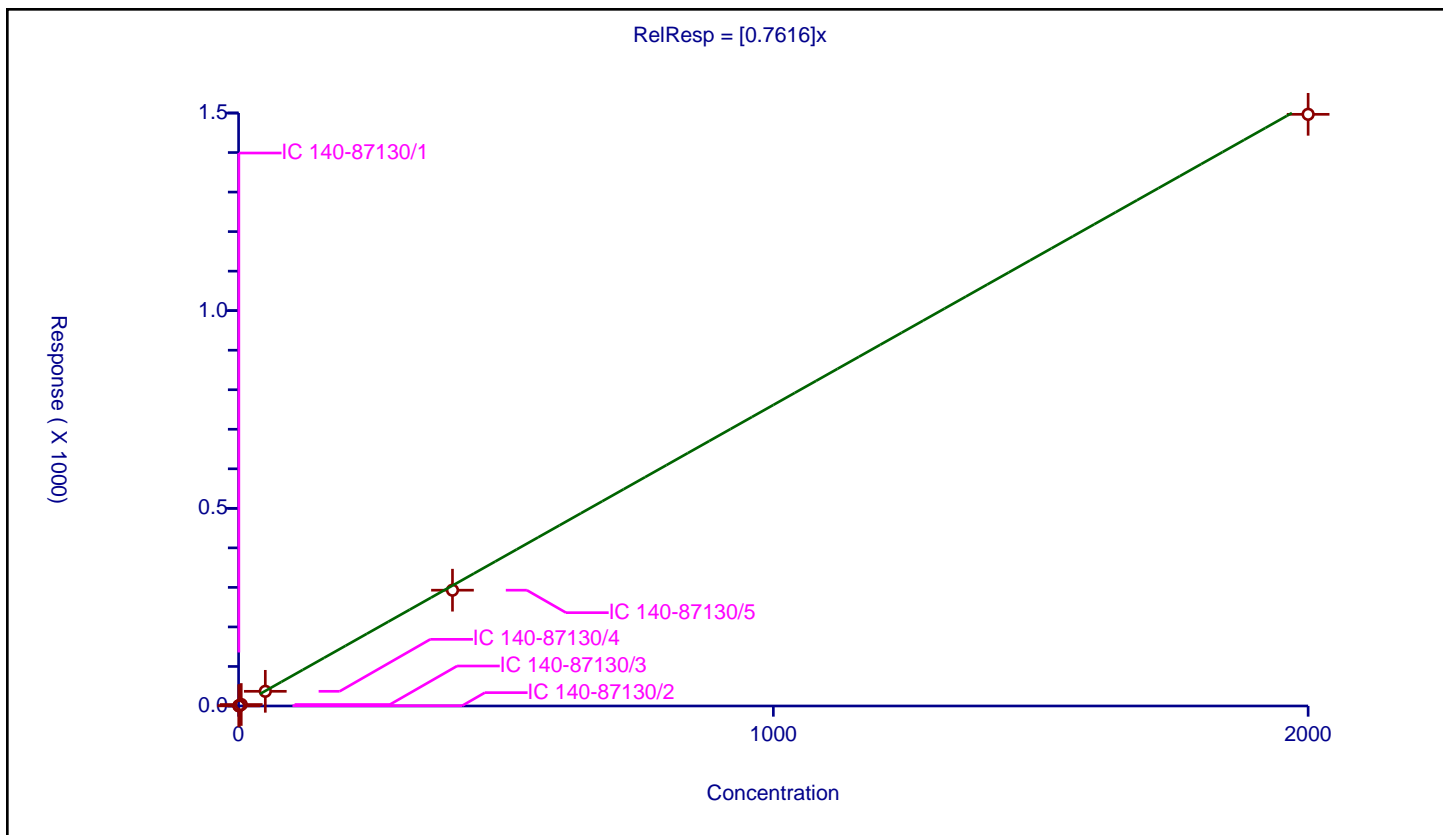
## Curve Coefficients

Intercept: 0  
 Slope: 0.7616

## Error Coefficients

Relative Standard Deviation: 6.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.426916	200.0	17145311.0	0.853831	Y
2	IC 140-87130/2	1.0	0.740528	200.0	16075823.0	0.740528	Y
3	IC 140-87130/3	5.0	3.758438	200.0	15994835.0	0.751688	Y
4	IC 140-87130/4	50.0	37.126459	200.0	16048883.0	0.742529	Y
5	IC 140-87130/5	400.0	292.951104	200.0	16797326.0	0.732378	Y
6	IC 140-87130/6	2000.0	1496.707792	200.0	18003846.0	0.748354	Y



# Calibration

/ PCB-133

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

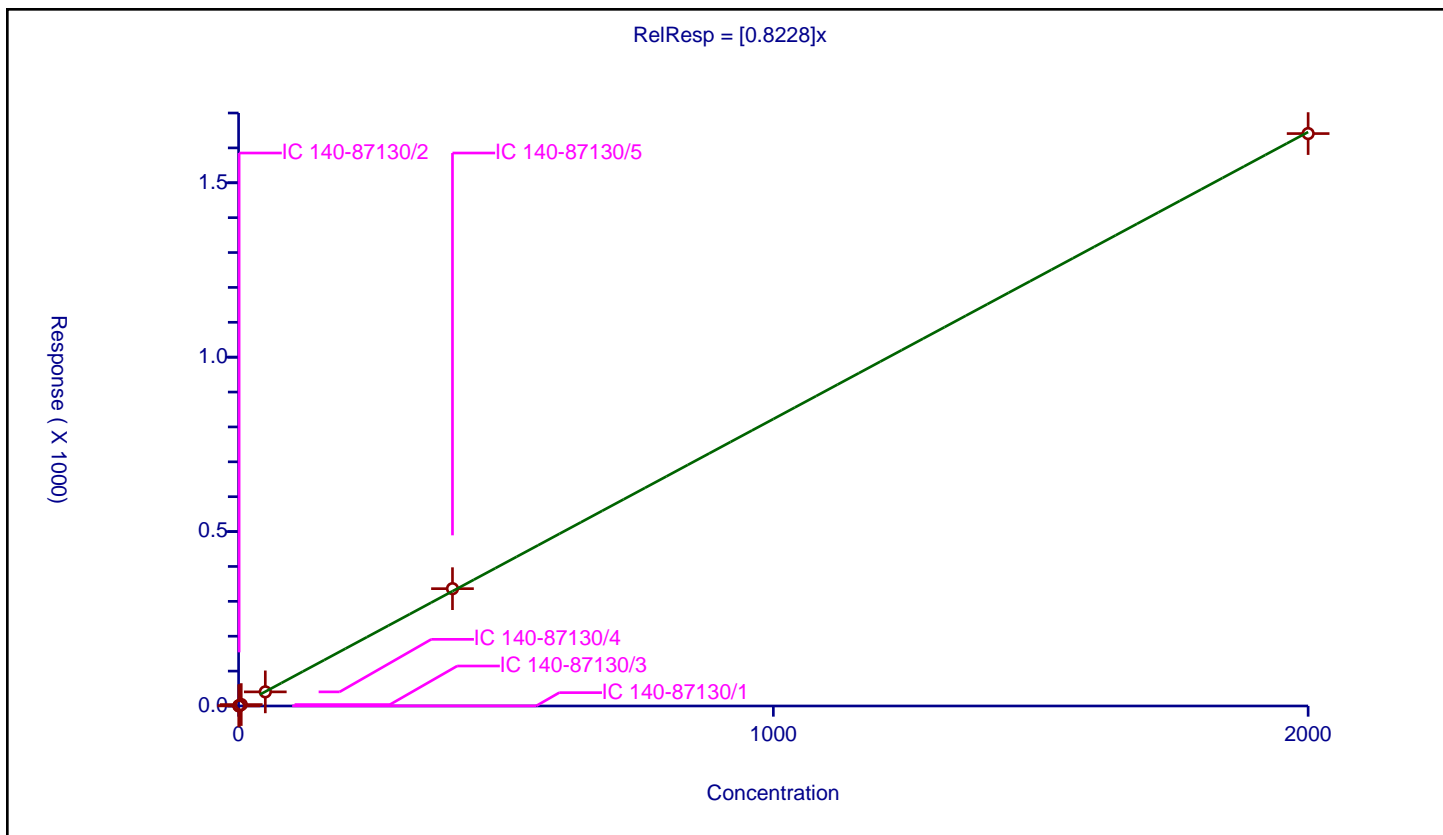
## Curve Coefficients

Intercept: 0  
Slope: 0.8228

## Error Coefficients

Relative Standard Deviation: 5.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.377678	200.0	17145311.0	0.755355	Y
2	IC 140-87130/2	1.0	0.890231	200.0	16075823.0	0.890231	Y
3	IC 140-87130/3	5.0	4.102987	200.0	15994835.0	0.820597	Y
4	IC 140-87130/4	50.0	40.451314	200.0	16048883.0	0.809026	Y
5	IC 140-87130/5	400.0	336.328449	200.0	16797326.0	0.840821	Y
6	IC 140-87130/6	2000.0	1641.094064	200.0	18003846.0	0.820547	Y



# Calibration

/ PCB-134

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

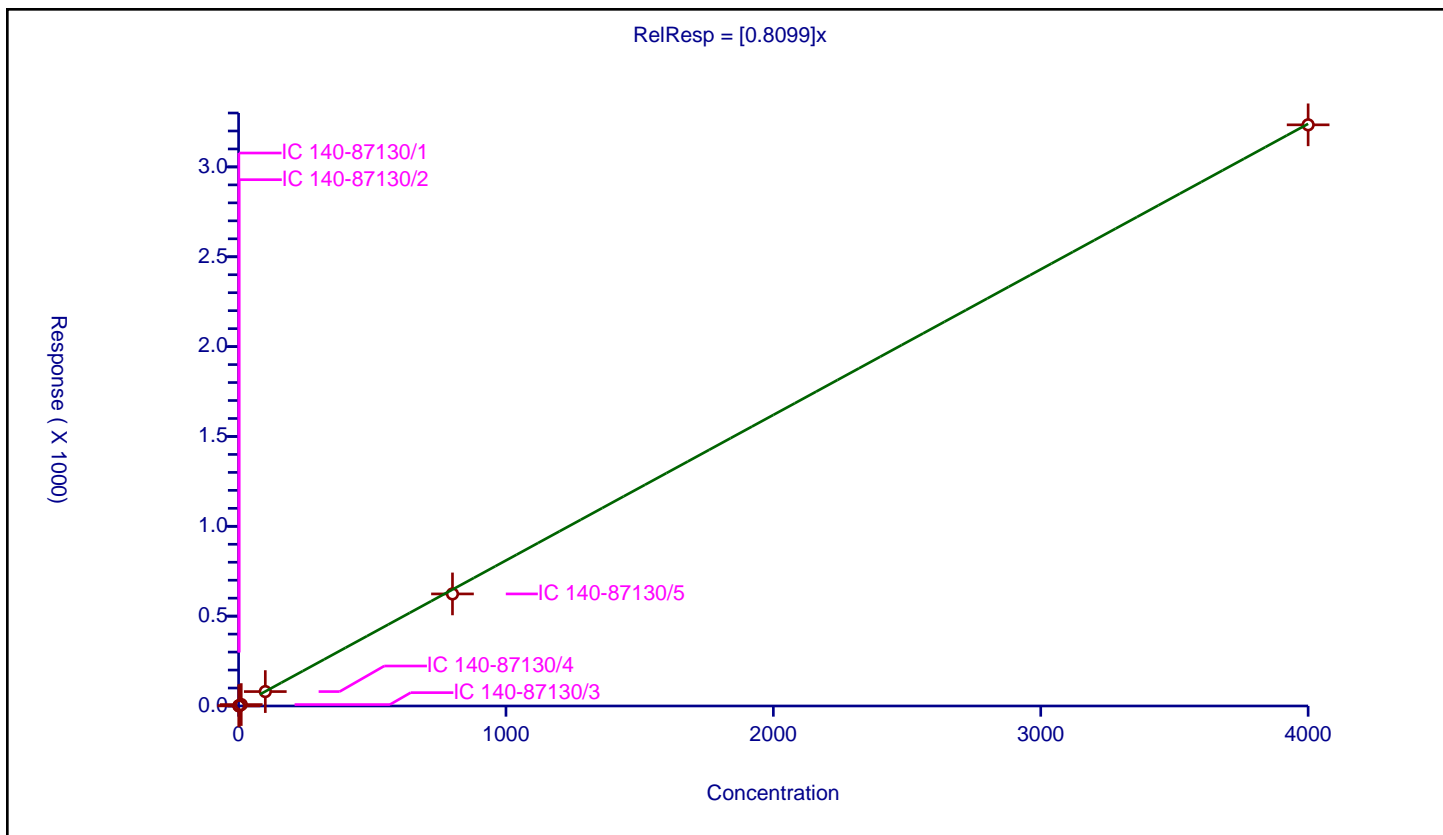
## Curve Coefficients

Intercept: 0  
 Slope: 0.8099

## Error Coefficients

Relative Standard Deviation: 3.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.853761	200.0	17145311.0	0.853761	Y
2	IC 140-87130/2	2.0	1.628296	200.0	16075823.0	0.814148	Y
3	IC 140-87130/3	10.0	8.010286	200.0	15994835.0	0.801029	Y
4	IC 140-87130/4	100.0	80.260988	200.0	16048883.0	0.80261	Y
5	IC 140-87130/5	800.0	623.646919	200.0	16797326.0	0.779559	Y
6	IC 140-87130/6	4000.0	3234.214523	200.0	18003846.0	0.808554	Y



# Calibration

/ PCB-134/143

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

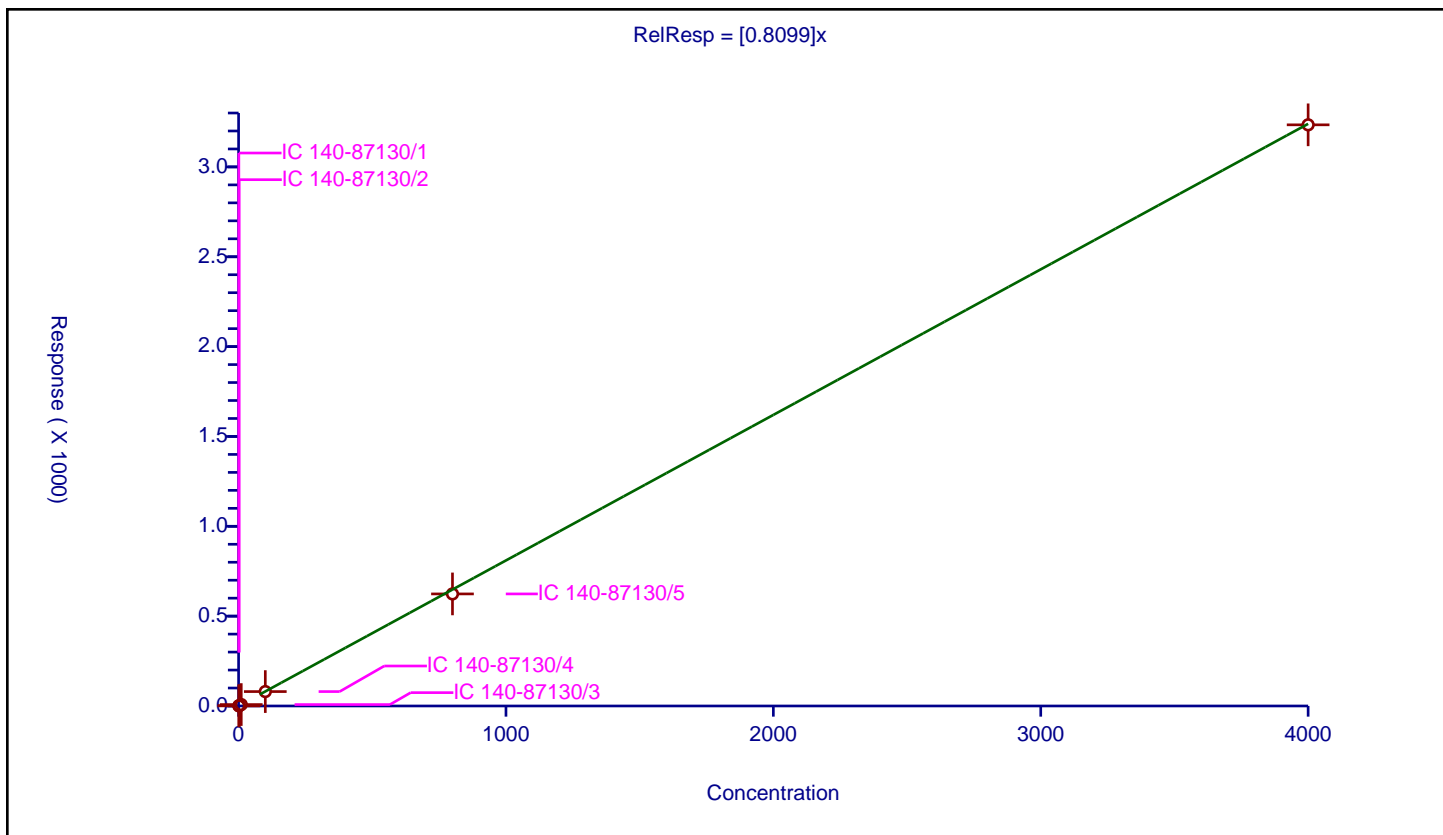
## Curve Coefficients

Intercept: 0  
 Slope: 0.8099

## Error Coefficients

Relative Standard Deviation: 3.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.853761	200.0	17145311.0	0.853761	Y
2	IC 140-87130/2	2.0	1.628296	200.0	16075823.0	0.814148	Y
3	IC 140-87130/3	10.0	8.010286	200.0	15994835.0	0.801029	Y
4	IC 140-87130/4	100.0	80.260988	200.0	16048883.0	0.80261	Y
5	IC 140-87130/5	800.0	623.646919	200.0	16797326.0	0.779559	Y
6	IC 140-87130/6	4000.0	3234.214523	200.0	18003846.0	0.808554	Y





Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

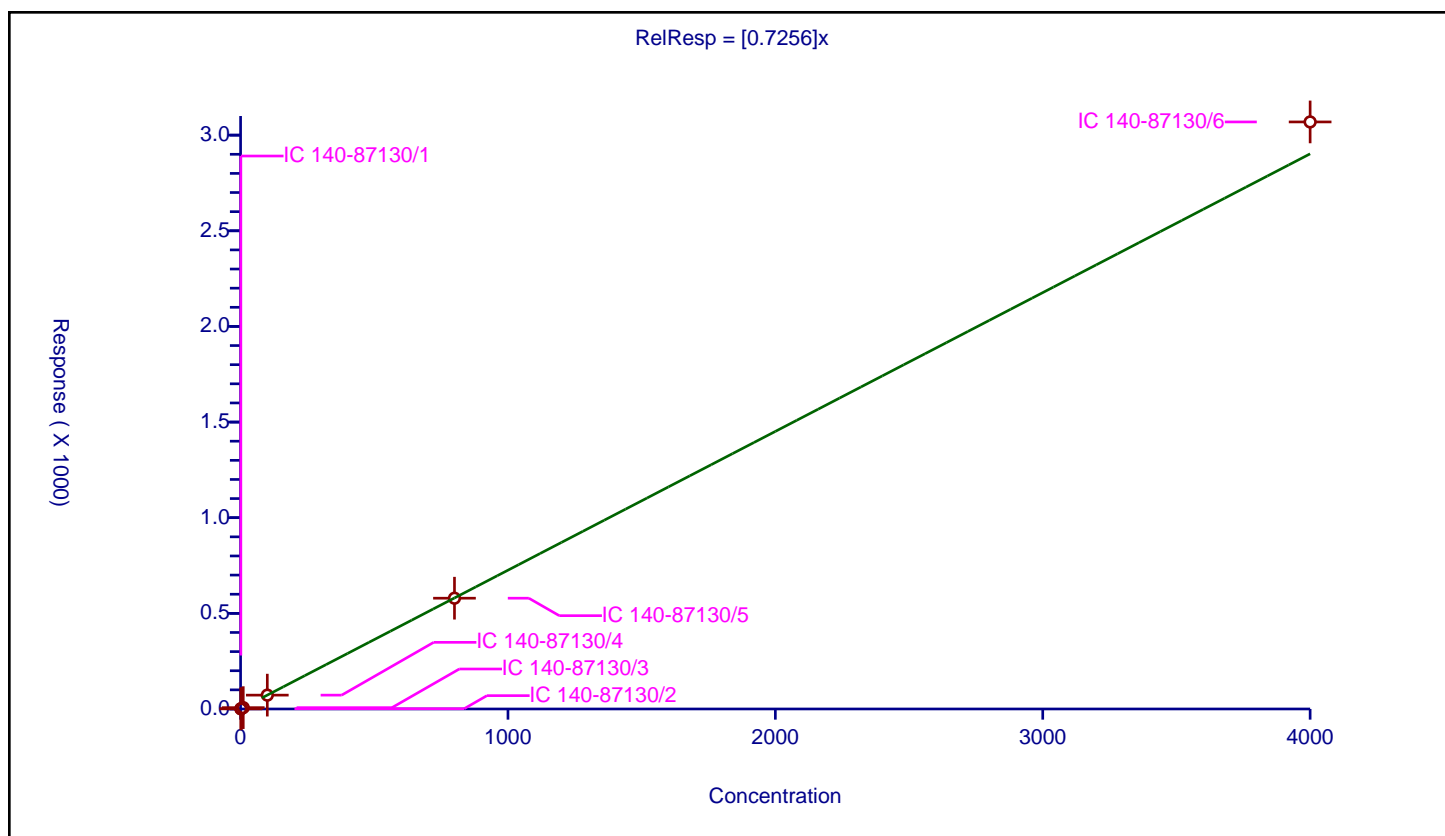
## Curve Coefficients

Intercept: 0  
Slope: 0.7256

## Error Coefficients

Relative Standard Deviation: 3.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.728518	100.0	6307321.0	0.728518	Y
2	IC 140-87130/2	2.0	1.405889	100.0	5566942.0	0.702944	Y
3	IC 140-87130/3	10.0	7.063016	100.0	5708638.0	0.706302	Y
4	IC 140-87130/4	100.0	72.442307	100.0	5786925.0	0.724423	Y
5	IC 140-87130/5	800.0	579.168111	100.0	5892178.0	0.72396	Y
6	IC 140-87130/6	4000.0	3068.99001	100.0	6037909.0	0.767248	Y



# Calibration

/ PCB-135/151

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

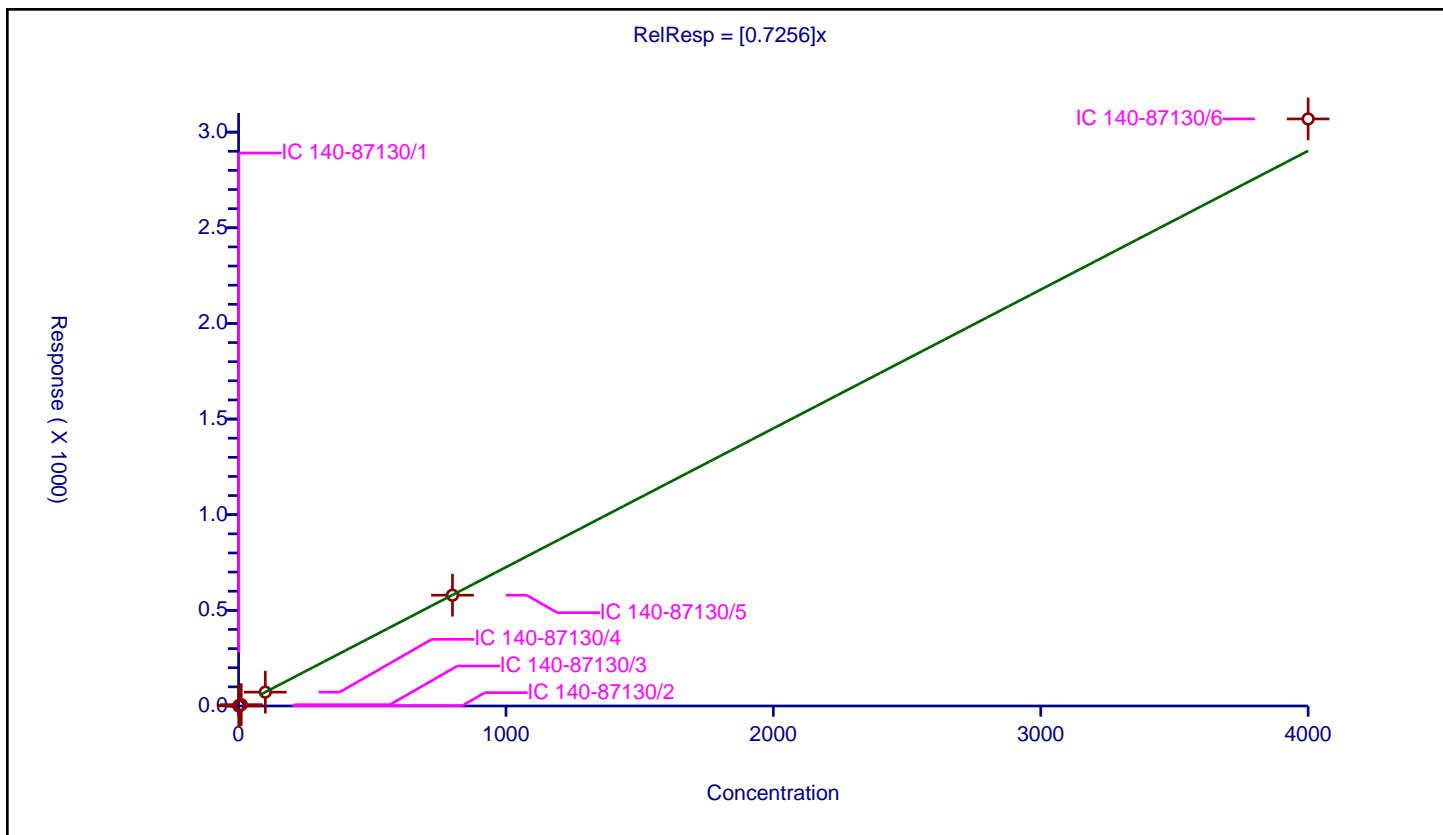
## Curve Coefficients

Intercept: 0  
 Slope: 0.7256

## Error Coefficients

Relative Standard Deviation: 3.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.728518	100.0	6307321.0	0.728518	Y
2	IC 140-87130/2	2.0	1.405889	100.0	5566942.0	0.702944	Y
3	IC 140-87130/3	10.0	7.063016	100.0	5708638.0	0.706302	Y
4	IC 140-87130/4	100.0	72.442307	100.0	5786925.0	0.724423	Y
5	IC 140-87130/5	800.0	579.168111	100.0	5892178.0	0.72396	Y
6	IC 140-87130/6	4000.0	3068.99001	100.0	6037909.0	0.767248	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

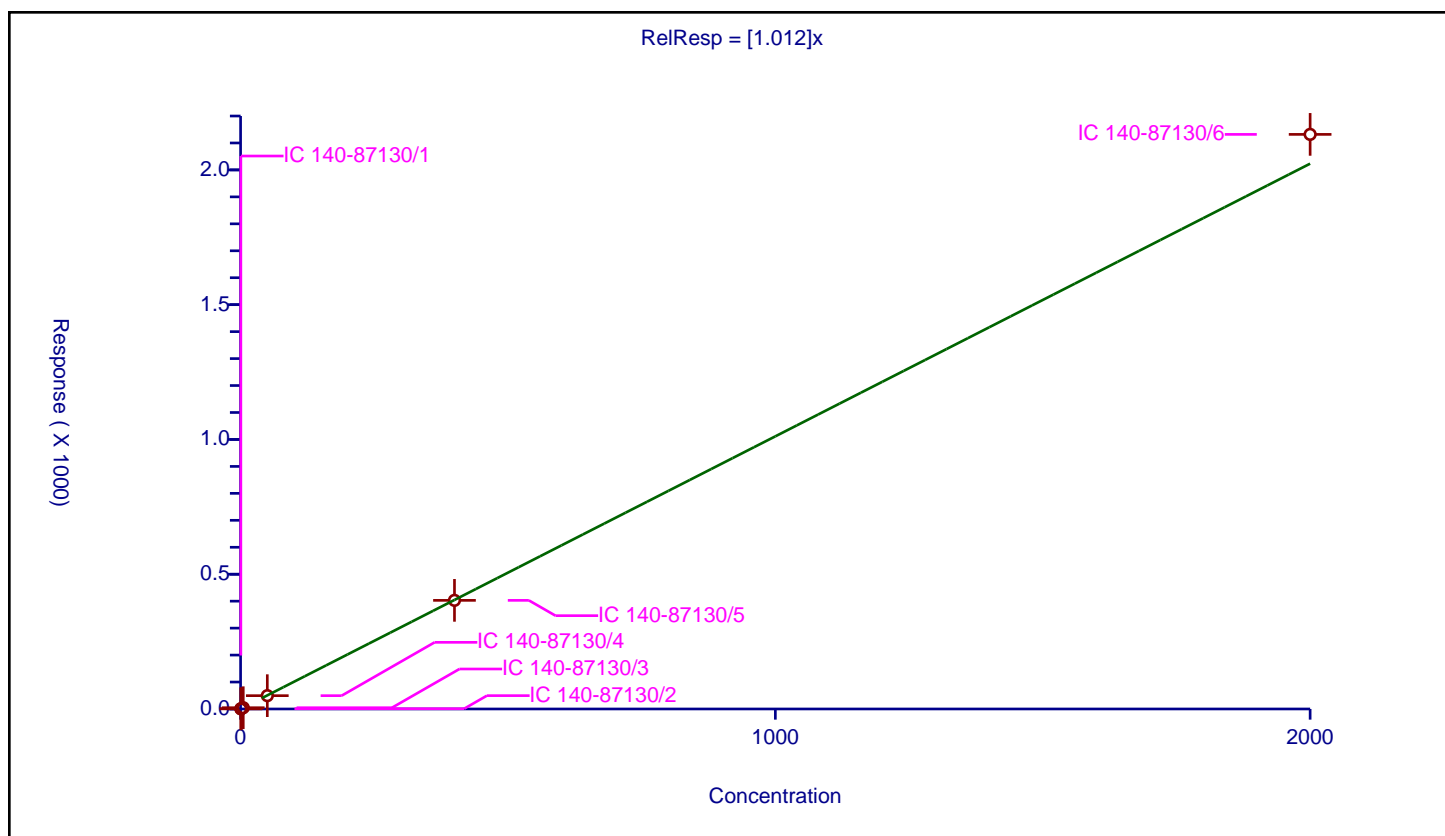
## Curve Coefficients

Intercept: 0  
Slope: 1.012

## Error Coefficients

Relative Standard Deviation: 4.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.529337	100.0	6307321.0	1.058675	Y
2	IC 140-87130/2	1.0	1.000837	100.0	5566942.0	1.000837	Y
3	IC 140-87130/3	5.0	4.743653	100.0	5708638.0	0.948731	Y
4	IC 140-87130/4	50.0	49.401038	100.0	5786925.0	0.988021	Y
5	IC 140-87130/5	400.0	402.970667	100.0	5892178.0	1.007427	Y
6	IC 140-87130/6	2000.0	2131.795974	100.0	6037909.0	1.065898	Y



# Calibration

/ PCB-137

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

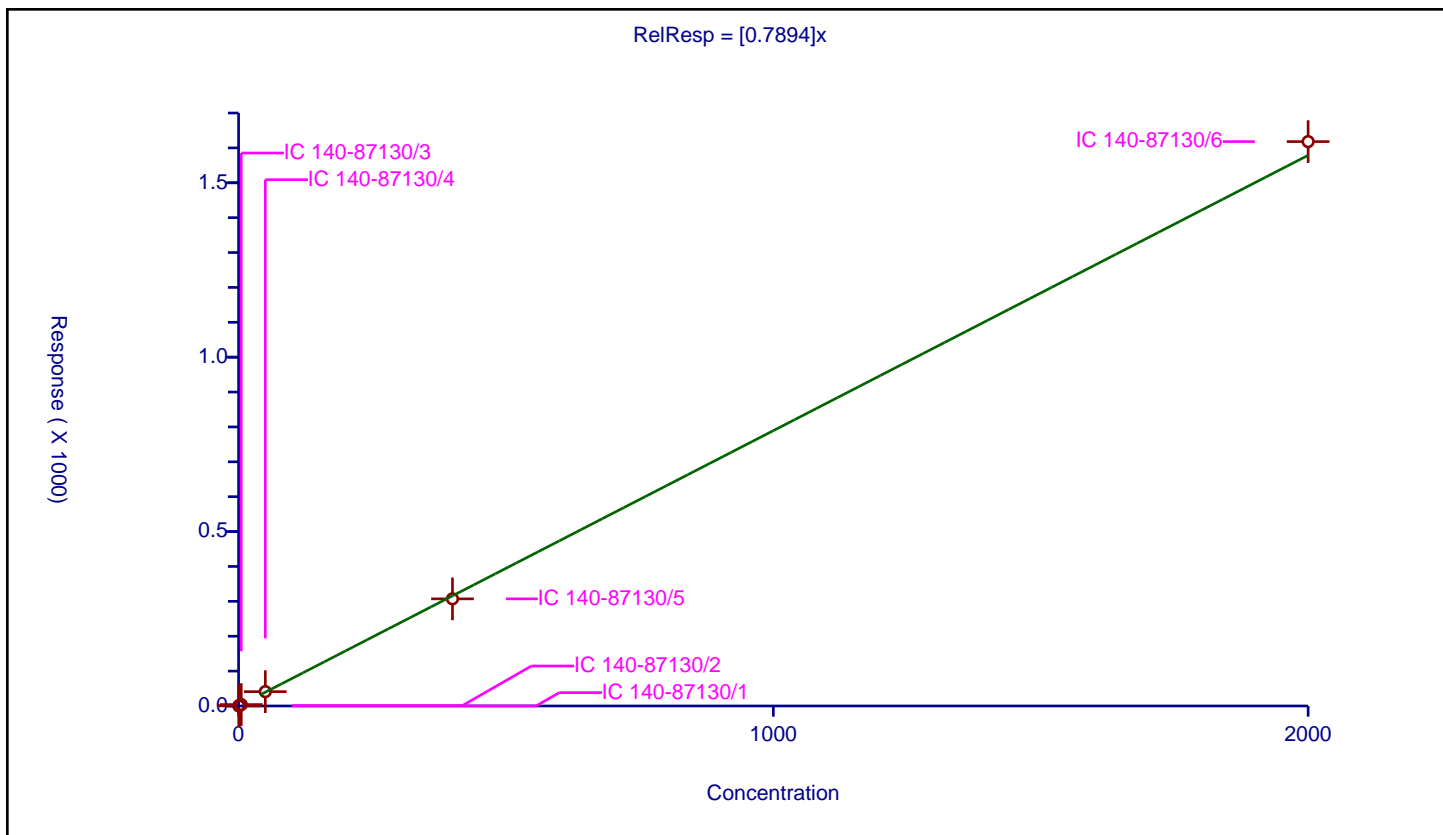
## Curve Coefficients

Intercept: 0  
Slope: 0.7894

## Error Coefficients

Relative Standard Deviation: 3.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.387068	200.0	17145311.0	0.774136	Y
2	IC 140-87130/2	1.0	0.766692	200.0	16075823.0	0.766692	Y
3	IC 140-87130/3	5.0	3.98191	200.0	15994835.0	0.796382	Y
4	IC 140-87130/4	50.0	41.105116	200.0	16048883.0	0.822102	Y
5	IC 140-87130/5	400.0	307.159556	200.0	16797326.0	0.767899	Y
6	IC 140-87130/6	2000.0	1618.01164	200.0	18003846.0	0.809006	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

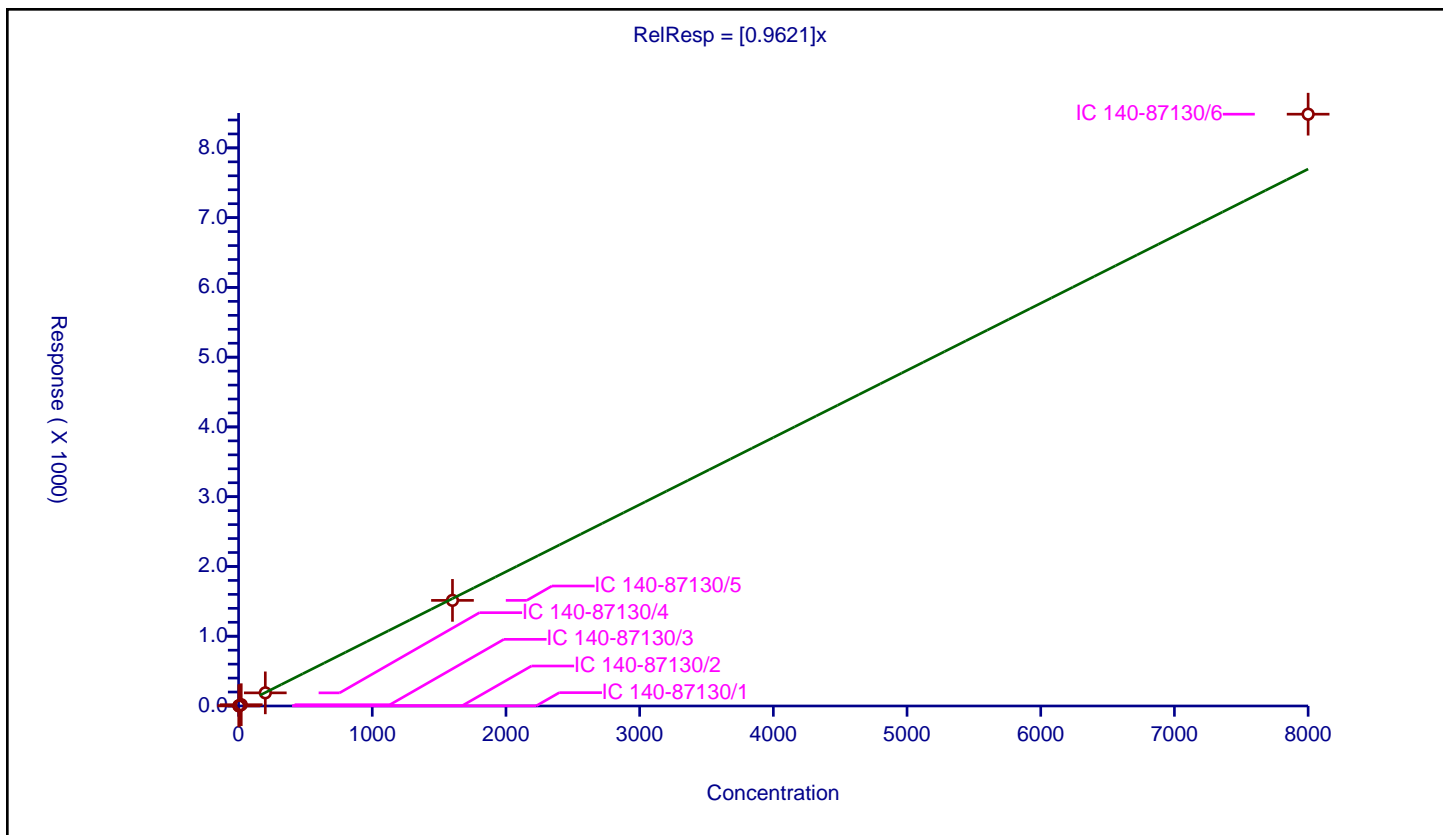
## Curve Coefficients

Intercept: 0  
Slope: 0.9621

## Error Coefficients

Relative Standard Deviation: 5.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	2.0	1.921855	200.0	17145311.0	0.960927	Y
2	IC 140-87130/2	4.0	3.770532	200.0	16075823.0	0.942633	Y
3	IC 140-87130/3	20.0	18.421809	200.0	15994835.0	0.92109	Y
4	IC 140-87130/4	200.0	188.299871	200.0	16048883.0	0.941499	Y
5	IC 140-87130/5	1600.0	1513.757356	200.0	16797326.0	0.946098	Y
6	IC 140-87130/6	8000.0	8483.211276	200.0	18003846.0	1.060401	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

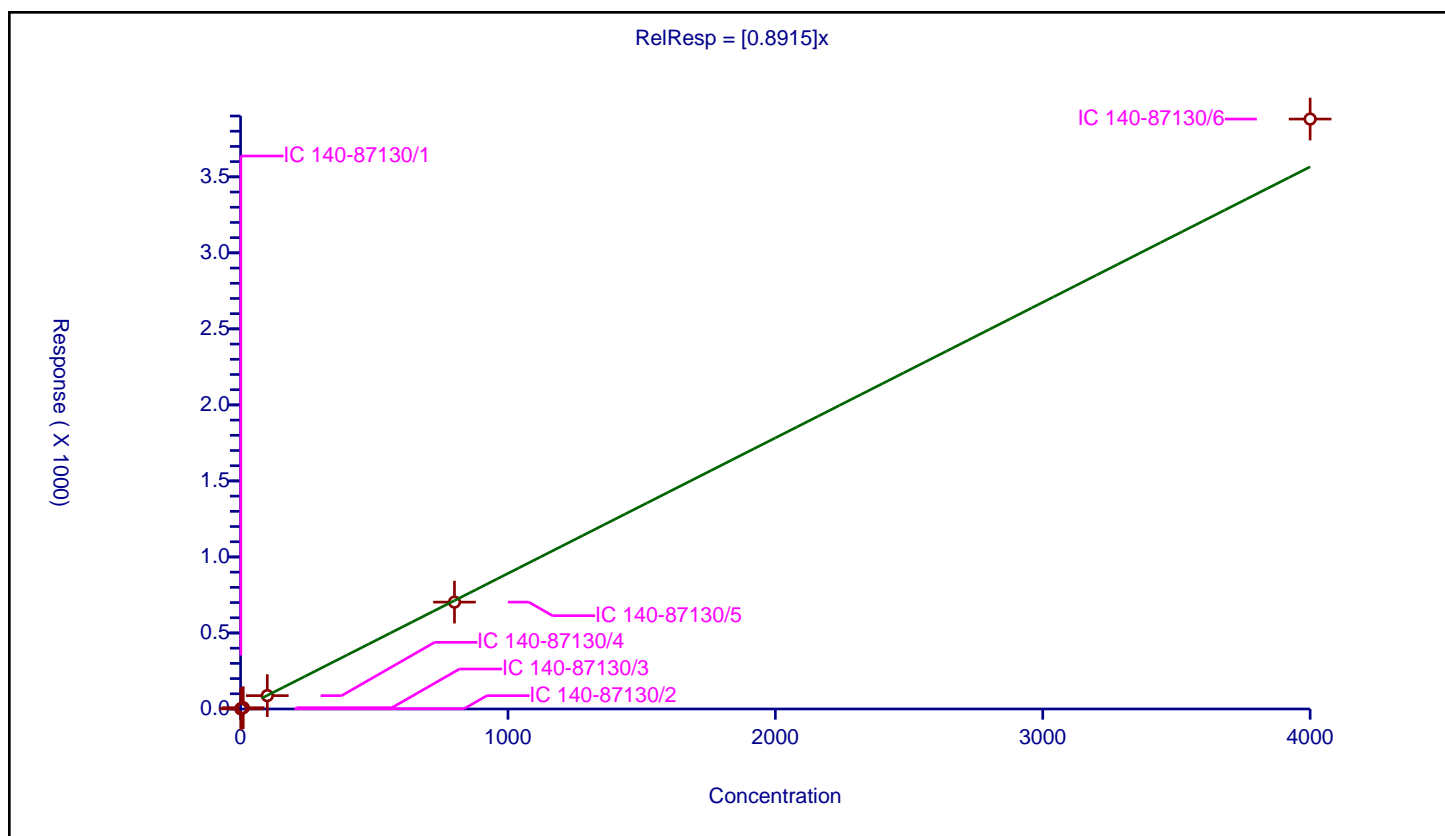
## Curve Coefficients

Intercept: 0  
Slope: 0.8915

## Error Coefficients

Relative Standard Deviation: 4.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.89873	200.0	17145311.0	0.89873	Y
2	IC 140-87130/2	2.0	1.76409	200.0	16075823.0	0.882045	Y
3	IC 140-87130/3	10.0	8.421819	200.0	15994835.0	0.842182	Y
4	IC 140-87130/4	100.0	87.715687	200.0	16048883.0	0.877157	Y
5	IC 140-87130/5	800.0	702.950434	200.0	16797326.0	0.878688	Y
6	IC 140-87130/6	4000.0	3880.065815	200.0	18003846.0	0.970016	Y



# Calibration

/ PCB-139/140

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

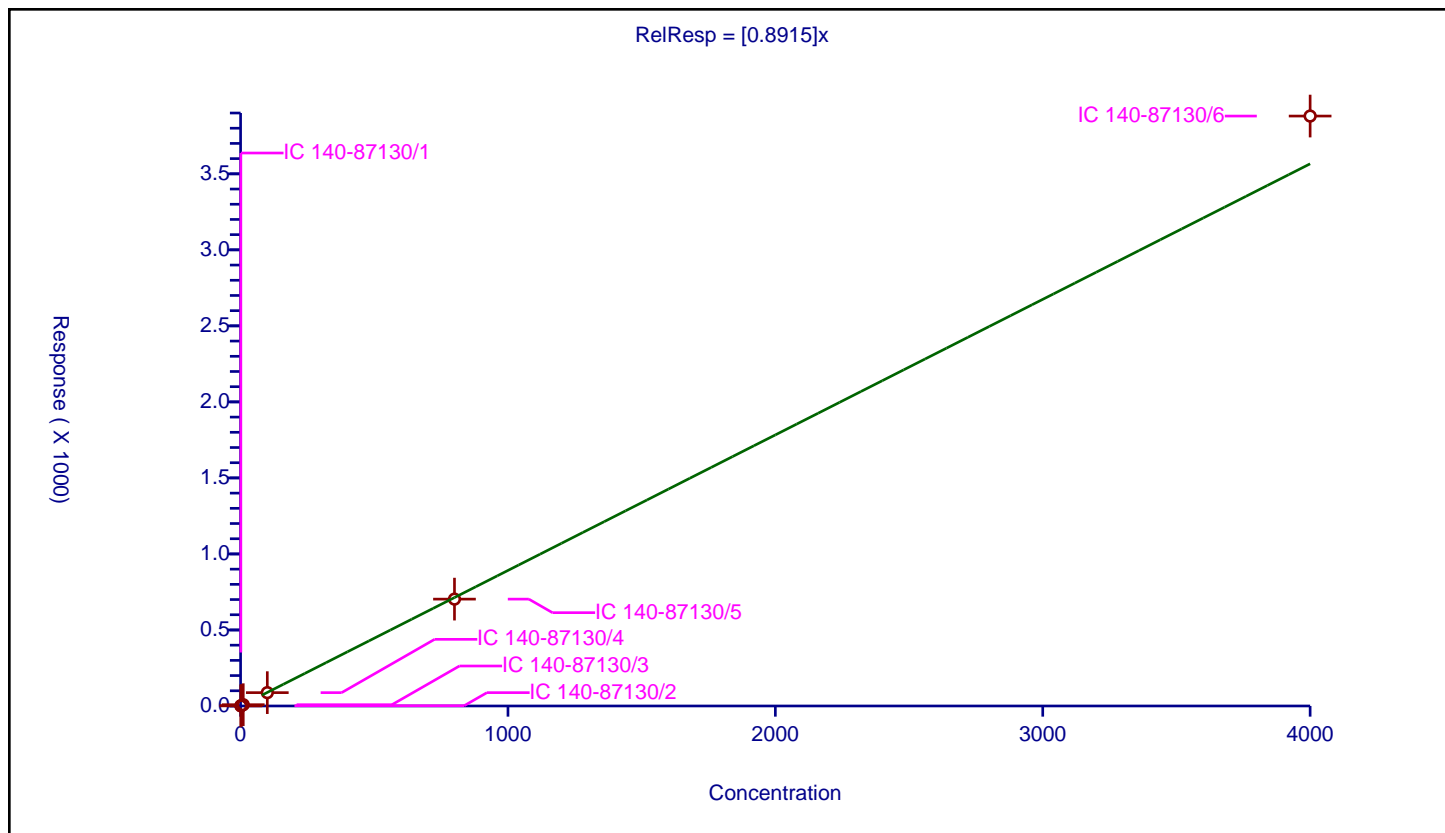
## Curve Coefficients

Intercept: 0  
Slope: 0.8915

## Error Coefficients

Relative Standard Deviation: 4.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.89873	200.0	17145311.0	0.89873	Y
2	IC 140-87130/2	2.0	1.76409	200.0	16075823.0	0.882045	Y
3	IC 140-87130/3	10.0	8.421819	200.0	15994835.0	0.842182	Y
4	IC 140-87130/4	100.0	87.715687	200.0	16048883.0	0.877157	Y
5	IC 140-87130/5	800.0	702.950434	200.0	16797326.0	0.878688	Y
6	IC 140-87130/6	4000.0	3880.065815	200.0	18003846.0	0.970016	Y



**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

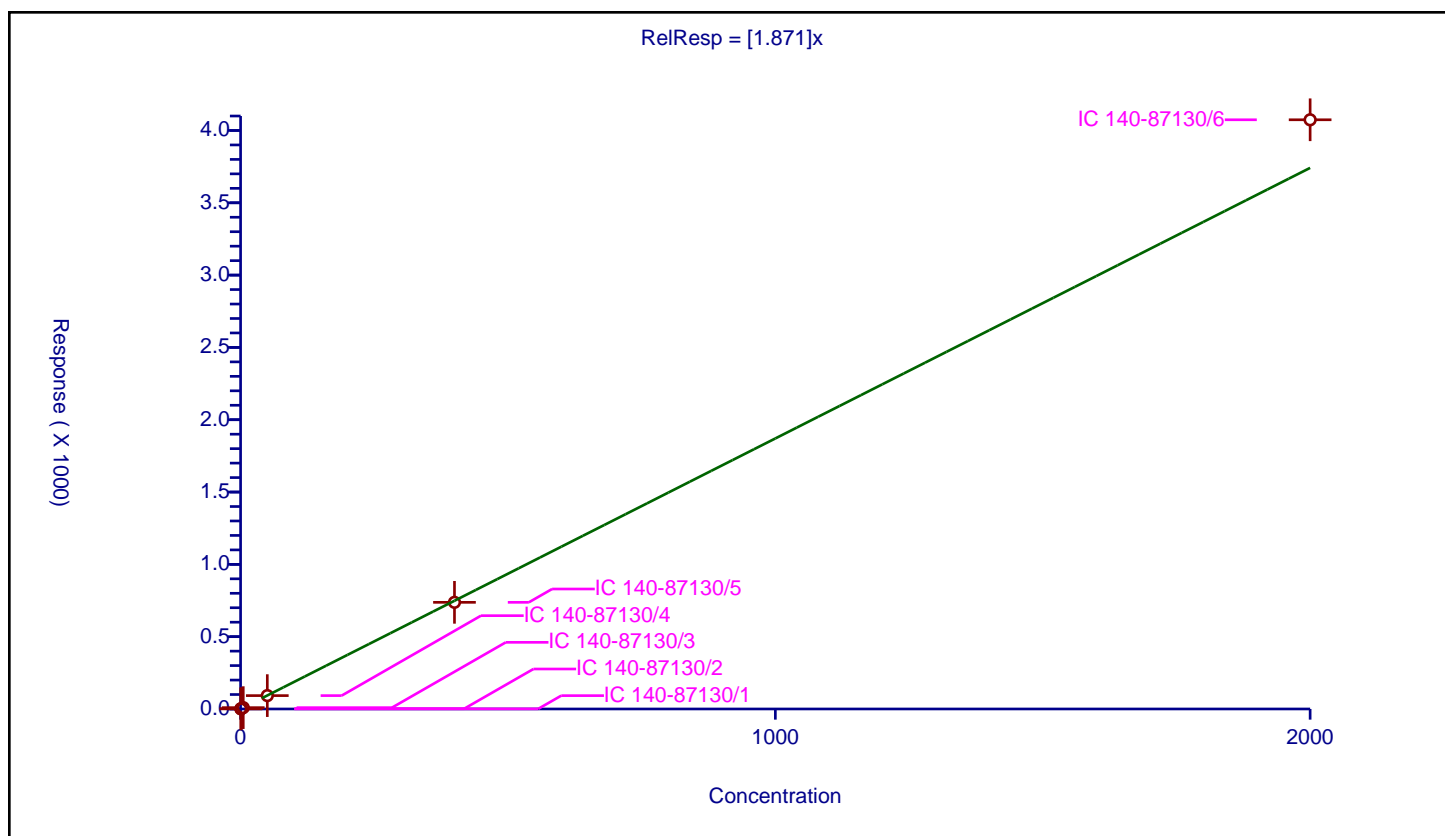
## Curve Coefficients

**Intercept:** 0  
**Slope:** 1.871

## Error Coefficients

**Relative Standard Deviation:** 4.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.933302	100.0	5904521.0	1.866604	Y
2	IC 140-87130/2	1.0	1.758407	100.0	5442766.0	1.758407	Y
3	IC 140-87130/3	5.0	9.337166	100.0	5279032.0	1.867433	Y
4	IC 140-87130/4	50.0	92.543587	100.0	5474214.0	1.850872	Y
5	IC 140-87130/5	400.0	737.446207	100.0	5561618.0	1.843616	Y
6	IC 140-87130/6	2000.0	4073.908528	100.0	5672202.0	2.036954	Y





Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

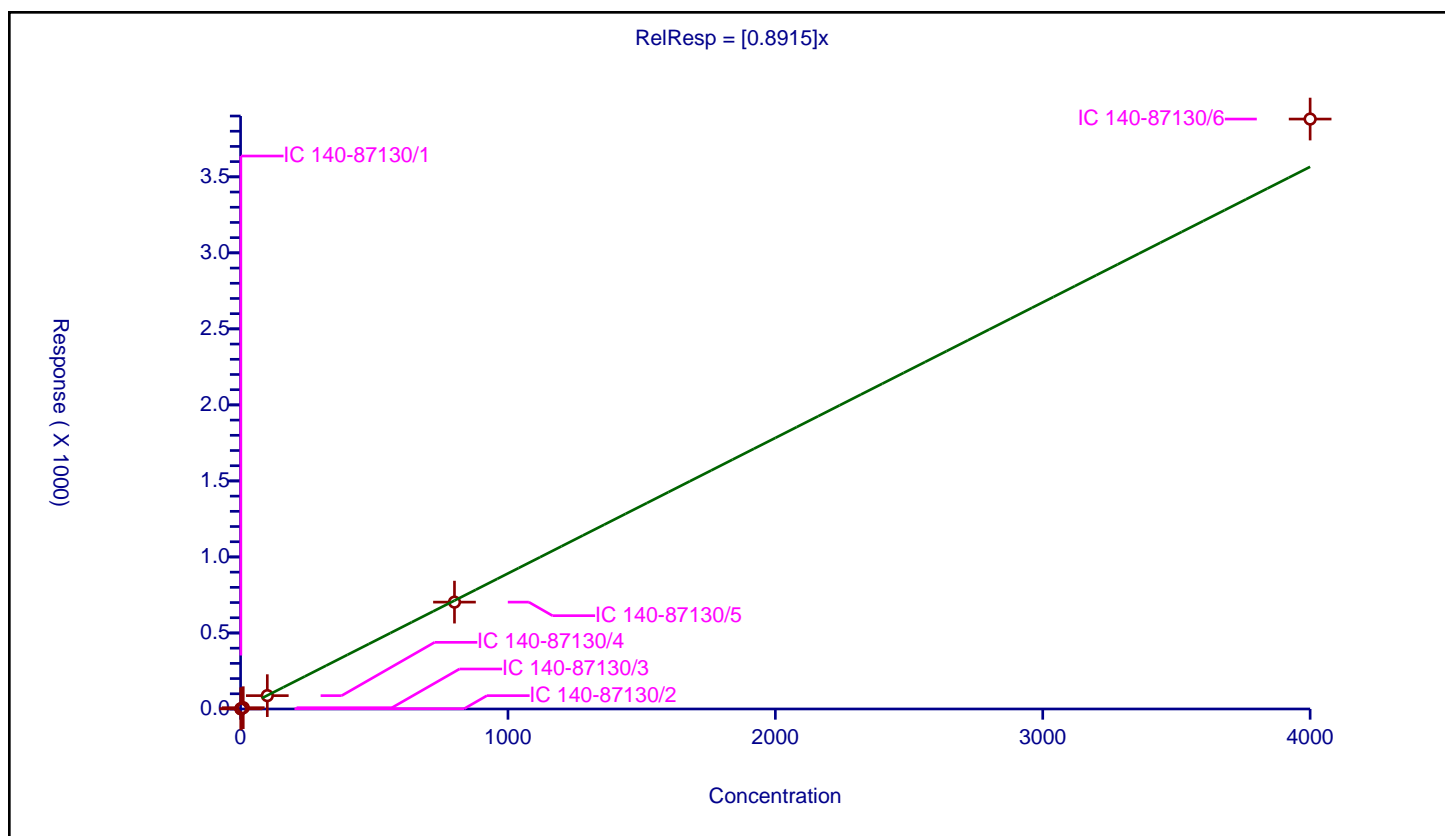
## Curve Coefficients

Intercept: 0  
Slope: 0.8915

## Error Coefficients

Relative Standard Deviation: 4.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.89873	200.0	17145311.0	0.89873	Y
2	IC 140-87130/2	2.0	1.76409	200.0	16075823.0	0.882045	Y
3	IC 140-87130/3	10.0	8.421819	200.0	15994835.0	0.842182	Y
4	IC 140-87130/4	100.0	87.715687	200.0	16048883.0	0.877157	Y
5	IC 140-87130/5	800.0	702.950434	200.0	16797326.0	0.878688	Y
6	IC 140-87130/6	4000.0	3880.065815	200.0	18003846.0	0.970016	Y



# Calibration

/ PCB-141

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

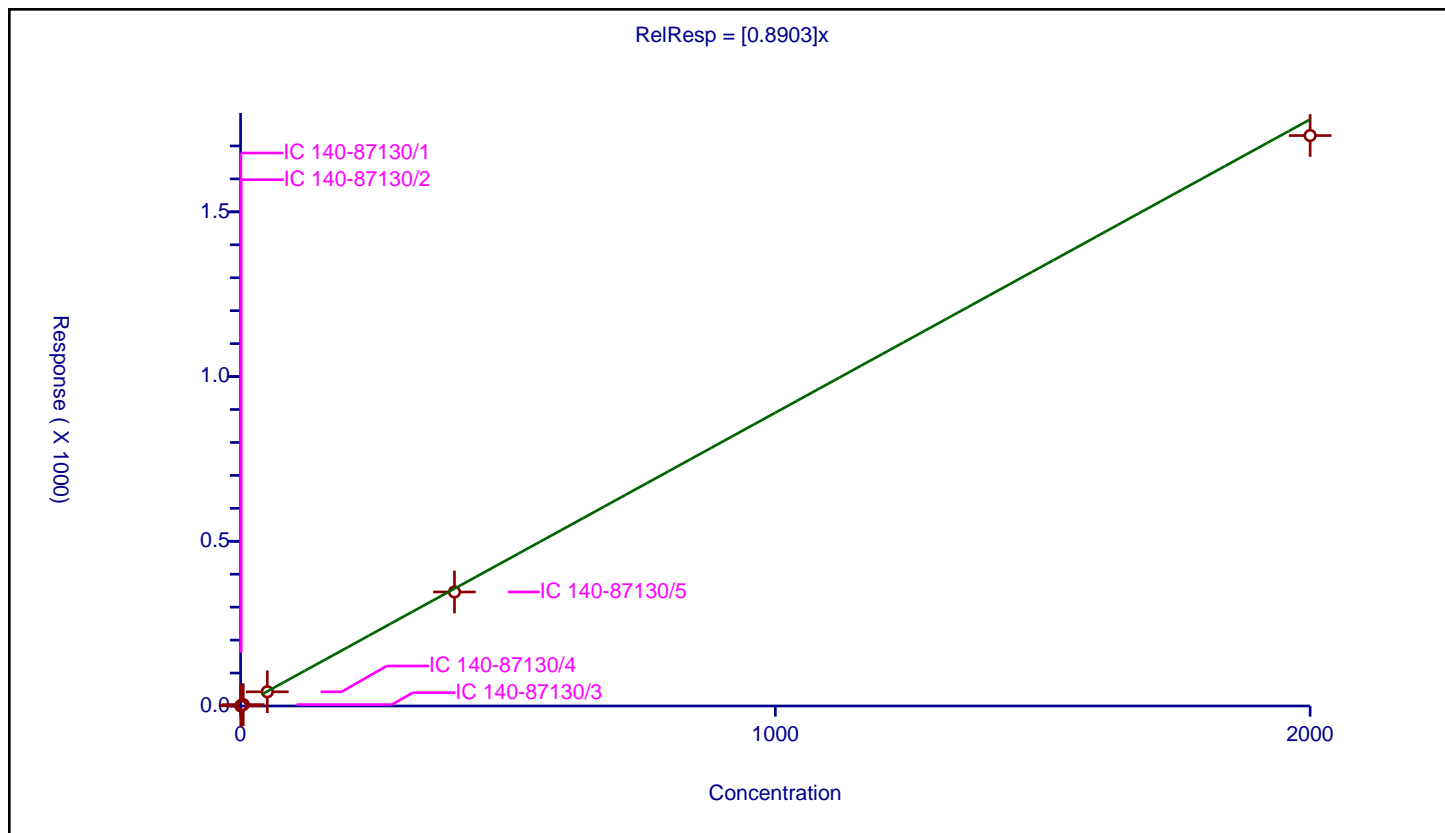
## Curve Coefficients

Intercept: 0  
 Slope: 0.8903

## Error Coefficients

Relative Standard Deviation: 5.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.48601	200.0	17145311.0	0.972021	Y
2	IC 140-87130/2	1.0	0.929644	200.0	16075823.0	0.929644	Y
3	IC 140-87130/3	5.0	4.232141	200.0	15994835.0	0.846428	Y
4	IC 140-87130/4	50.0	43.135127	200.0	16048883.0	0.862703	Y
5	IC 140-87130/5	400.0	346.061427	200.0	16797326.0	0.865154	Y
6	IC 140-87130/6	2000.0	1731.592927	200.0	18003846.0	0.865796	Y



## Calibration

/ PCB-142

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

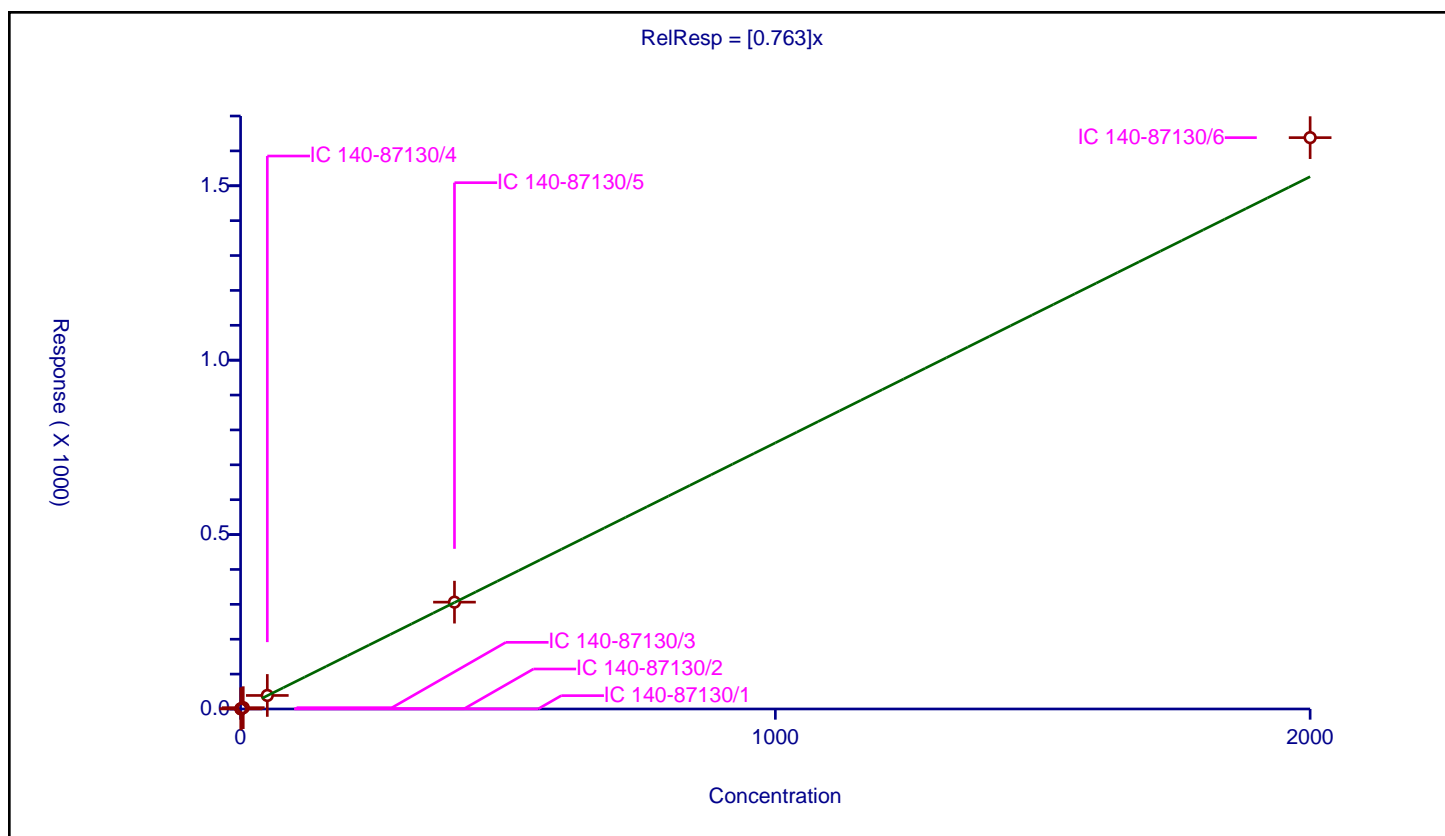
## Curve Coefficients

Intercept: 0  
Slope: 0.763

## Error Coefficients

Relative Standard Deviation: 4.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.366992	200.0	17145311.0	0.733985	Y
2	IC 140-87130/2	1.0	0.729767	200.0	16075823.0	0.729767	Y
3	IC 140-87130/3	5.0	3.765791	200.0	15994835.0	0.753158	Y
4	IC 140-87130/4	50.0	38.820833	200.0	16048883.0	0.776417	Y
5	IC 140-87130/5	400.0	306.326043	200.0	16797326.0	0.765815	Y
6	IC 140-87130/6	2000.0	1638.013444	200.0	18003846.0	0.819007	Y



# Calibration

/ PCB-143

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

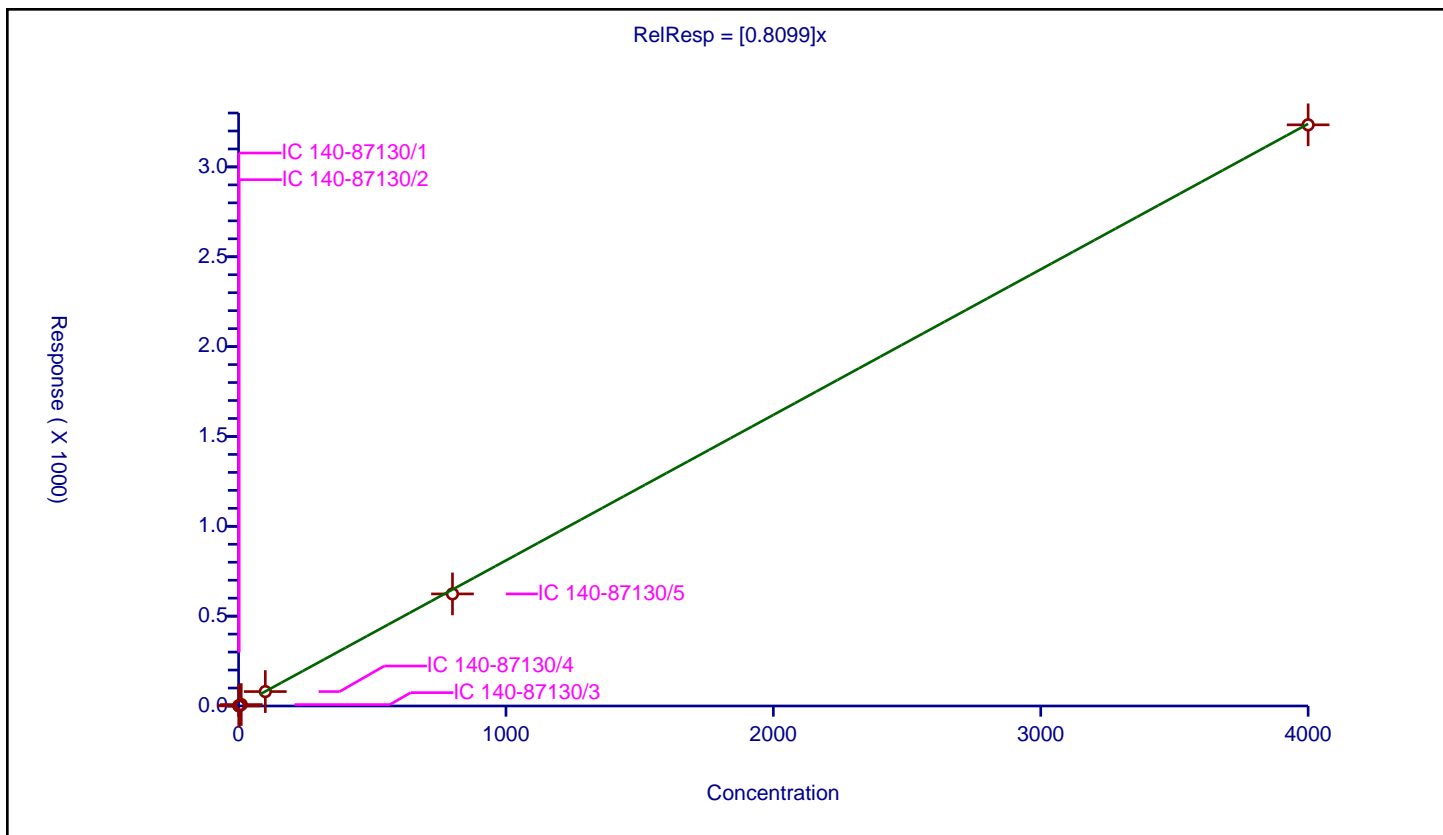
## Curve Coefficients

Intercept: 0  
 Slope: 0.8099

## Error Coefficients

Relative Standard Deviation: 3.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.853761	200.0	17145311.0	0.853761	Y
2	IC 140-87130/2	2.0	1.628296	200.0	16075823.0	0.814148	Y
3	IC 140-87130/3	10.0	8.010286	200.0	15994835.0	0.801029	Y
4	IC 140-87130/4	100.0	80.260988	200.0	16048883.0	0.80261	Y
5	IC 140-87130/5	800.0	623.646919	200.0	16797326.0	0.779559	Y
6	IC 140-87130/6	4000.0	3234.214523	200.0	18003846.0	0.808554	Y



# Calibration

/ PCB-144

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

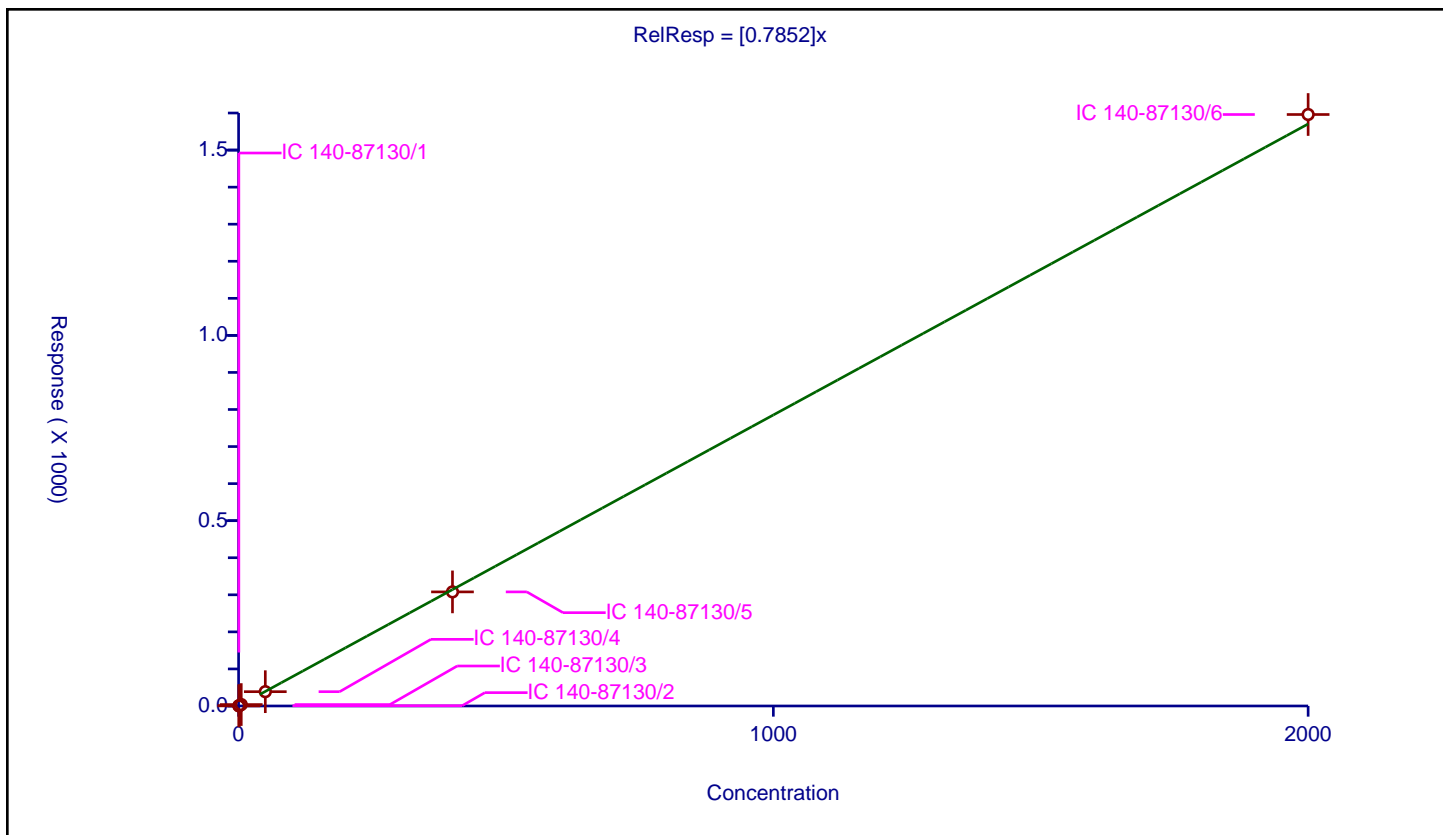
## Curve Coefficients

Intercept: 0  
 Slope: 0.7852

## Error Coefficients

Relative Standard Deviation: 3.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.41279	100.0	6307321.0	0.82558	Y
2	IC 140-87130/2	1.0	0.783931	100.0	5566942.0	0.783931	Y
3	IC 140-87130/3	5.0	3.813957	100.0	5708638.0	0.762791	Y
4	IC 140-87130/4	50.0	38.575427	100.0	5786925.0	0.771509	Y
5	IC 140-87130/5	400.0	307.855126	100.0	5892178.0	0.769638	Y
6	IC 140-87130/6	2000.0	1595.950486	100.0	6037909.0	0.797975	Y



# Calibration

/ PCB-145

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

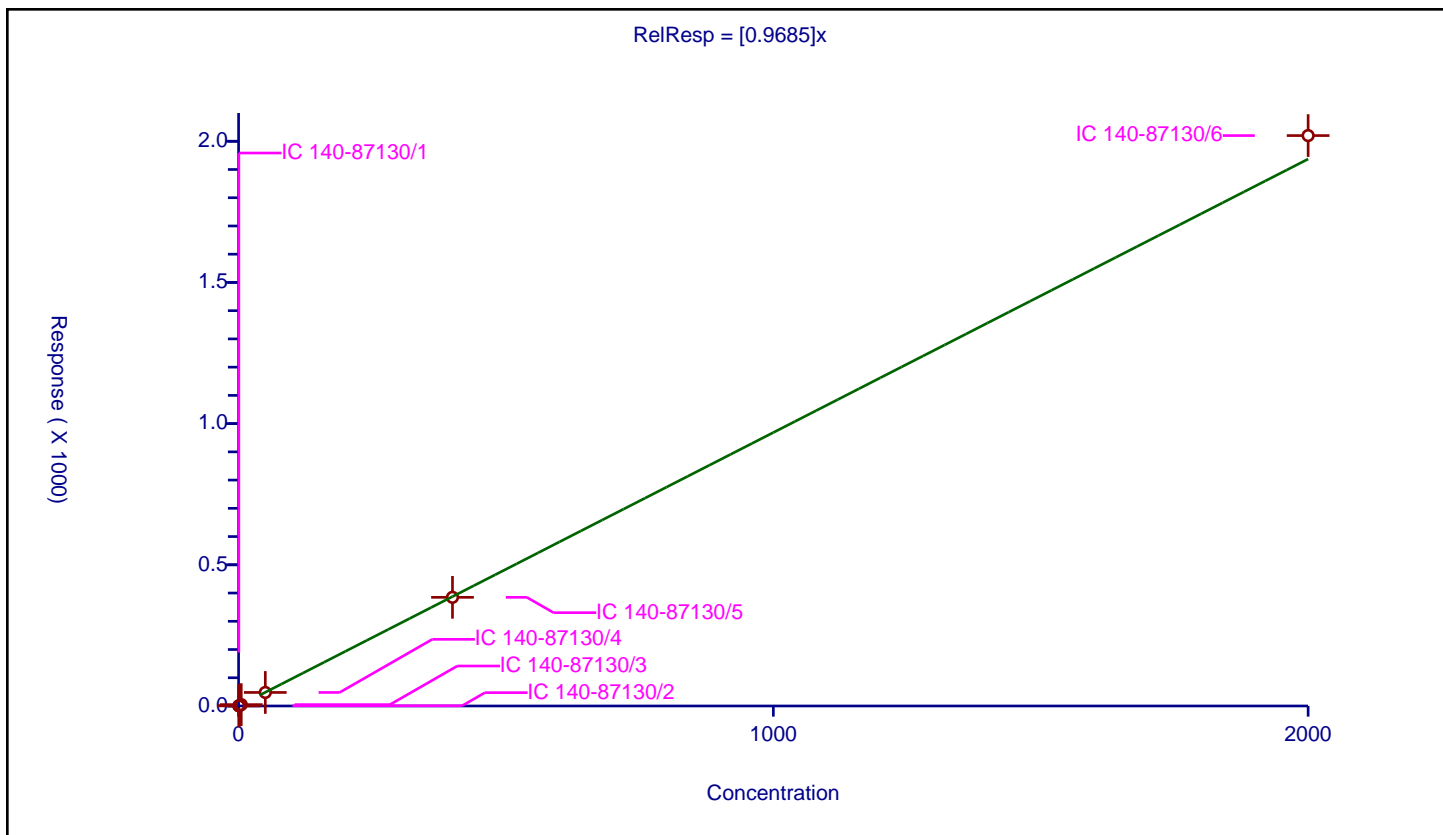
## Curve Coefficients

Intercept: 0  
 Slope: 0.9685

## Error Coefficients

Relative Standard Deviation: 3.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.498246	100.0	6307321.0	0.996493	Y
2	IC 140-87130/2	1.0	0.92011	100.0	5566942.0	0.92011	Y
3	IC 140-87130/3	5.0	4.817839	100.0	5708638.0	0.963568	Y
4	IC 140-87130/4	50.0	47.93449	100.0	5786925.0	0.95869	Y
5	IC 140-87130/5	400.0	384.788291	100.0	5892178.0	0.961971	Y
6	IC 140-87130/6	2000.0	2020.098349	100.0	6037909.0	1.010049	Y



# Calibration

/ PCB-146

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

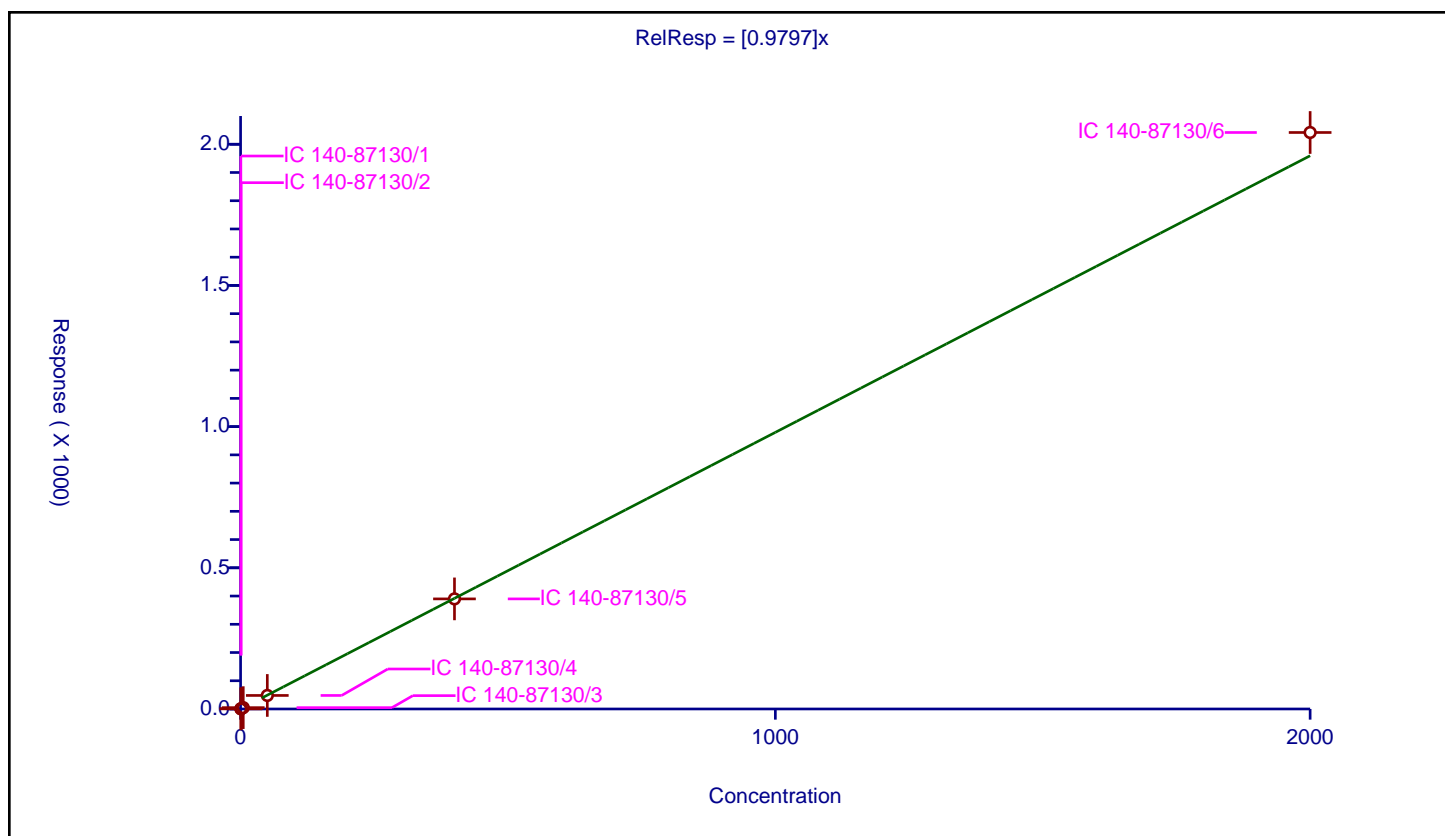
## Curve Coefficients

Intercept: 0  
 Slope: 0.9797

## Error Coefficients

Relative Standard Deviation: 2.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.49035	200.0	17145311.0	0.9807	Y
2	IC 140-87130/2	1.0	0.996254	200.0	16075823.0	0.996254	Y
3	IC 140-87130/3	5.0	4.734766	200.0	15994835.0	0.946953	Y
4	IC 140-87130/4	50.0	47.921154	200.0	16048883.0	0.958423	Y
5	IC 140-87130/5	400.0	389.923384	200.0	16797326.0	0.974808	Y
6	IC 140-87130/6	2000.0	2041.6516	200.0	18003846.0	1.020826	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

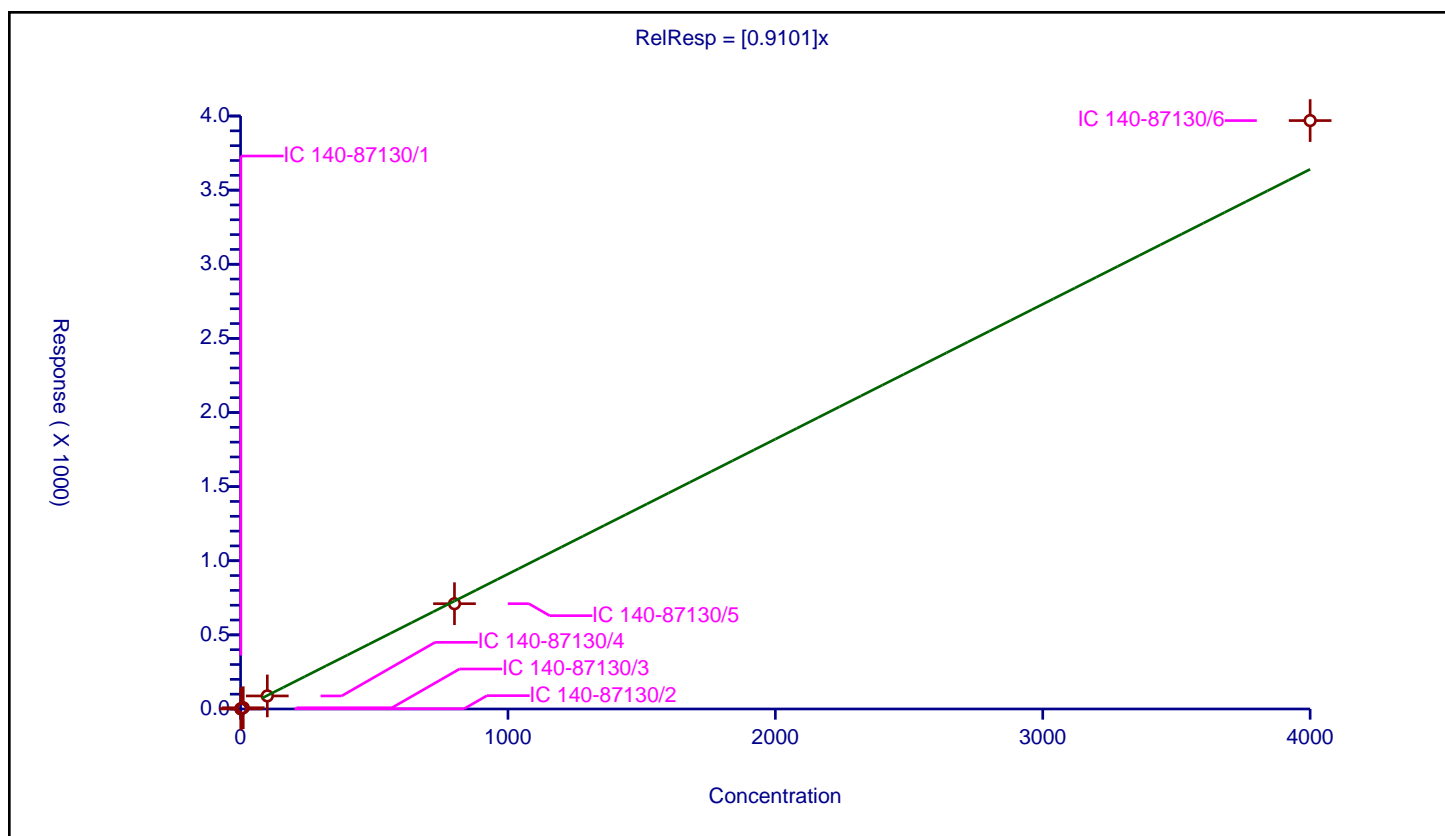
## Curve Coefficients

Intercept: 0  
Slope: 0.9101

## Error Coefficients

Relative Standard Deviation: 7.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.99794	200.0	17145311.0	0.99794	Y
2	IC 140-87130/2	2.0	1.715968	200.0	16075823.0	0.857984	Y
3	IC 140-87130/3	10.0	8.442125	200.0	15994835.0	0.844213	Y
4	IC 140-87130/4	100.0	88.06993	200.0	16048883.0	0.880699	Y
5	IC 140-87130/5	800.0	710.182323	200.0	16797326.0	0.887728	Y
6	IC 140-87130/6	4000.0	3969.18404	200.0	18003846.0	0.992296	Y





# Calibration

/ PCB-147/149

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

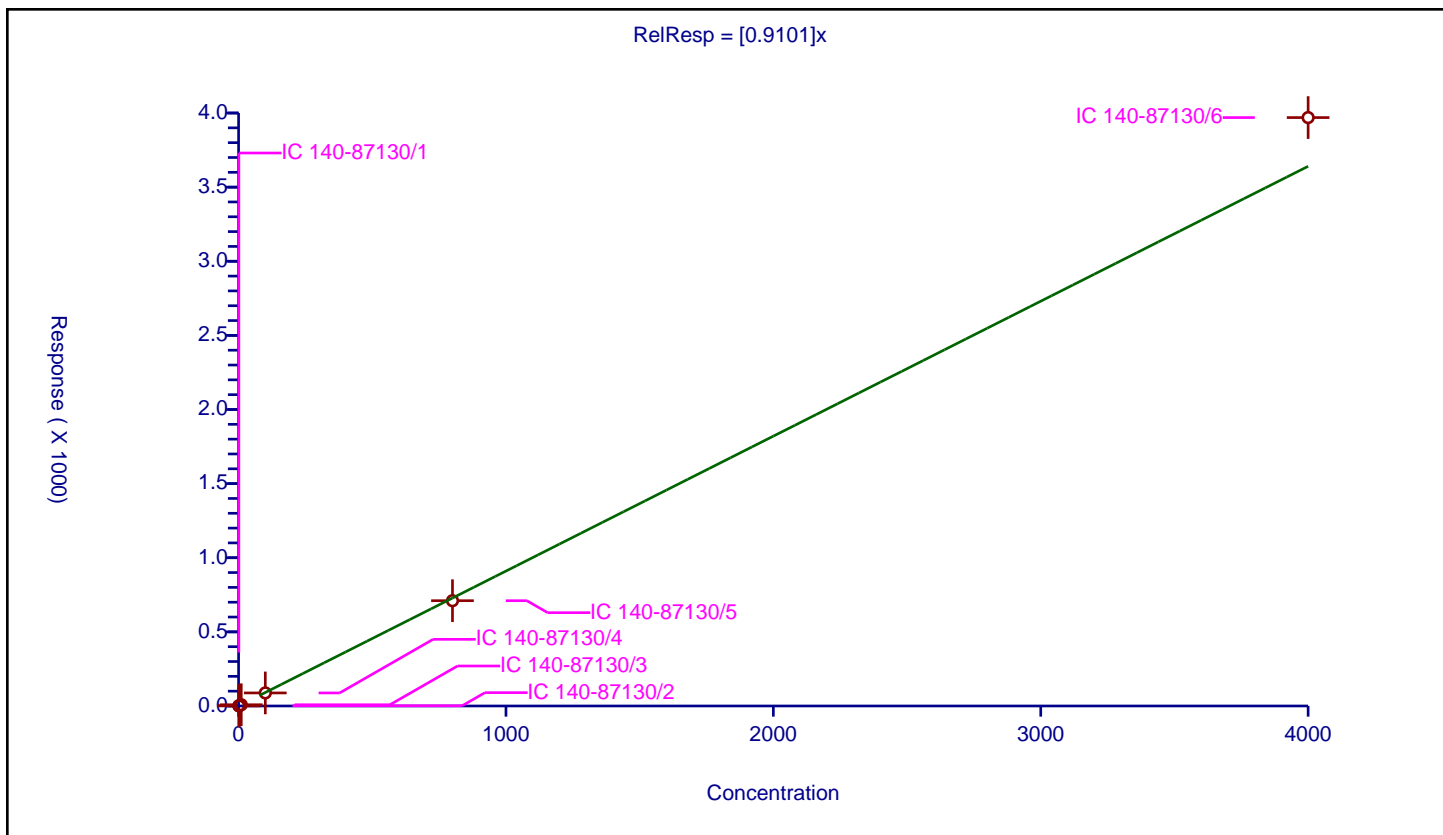
## Curve Coefficients

Intercept: 0  
 Slope: 0.9101

## Error Coefficients

Relative Standard Deviation: 7.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.99794	200.0	17145311.0	0.99794	Y
2	IC 140-87130/2	2.0	1.715968	200.0	16075823.0	0.857984	Y
3	IC 140-87130/3	10.0	8.442125	200.0	15994835.0	0.844213	Y
4	IC 140-87130/4	100.0	88.06993	200.0	16048883.0	0.880699	Y
5	IC 140-87130/5	800.0	710.182323	200.0	16797326.0	0.887728	Y
6	IC 140-87130/6	4000.0	3969.18404	200.0	18003846.0	0.992296	Y



# Calibration

/ PCB-148

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

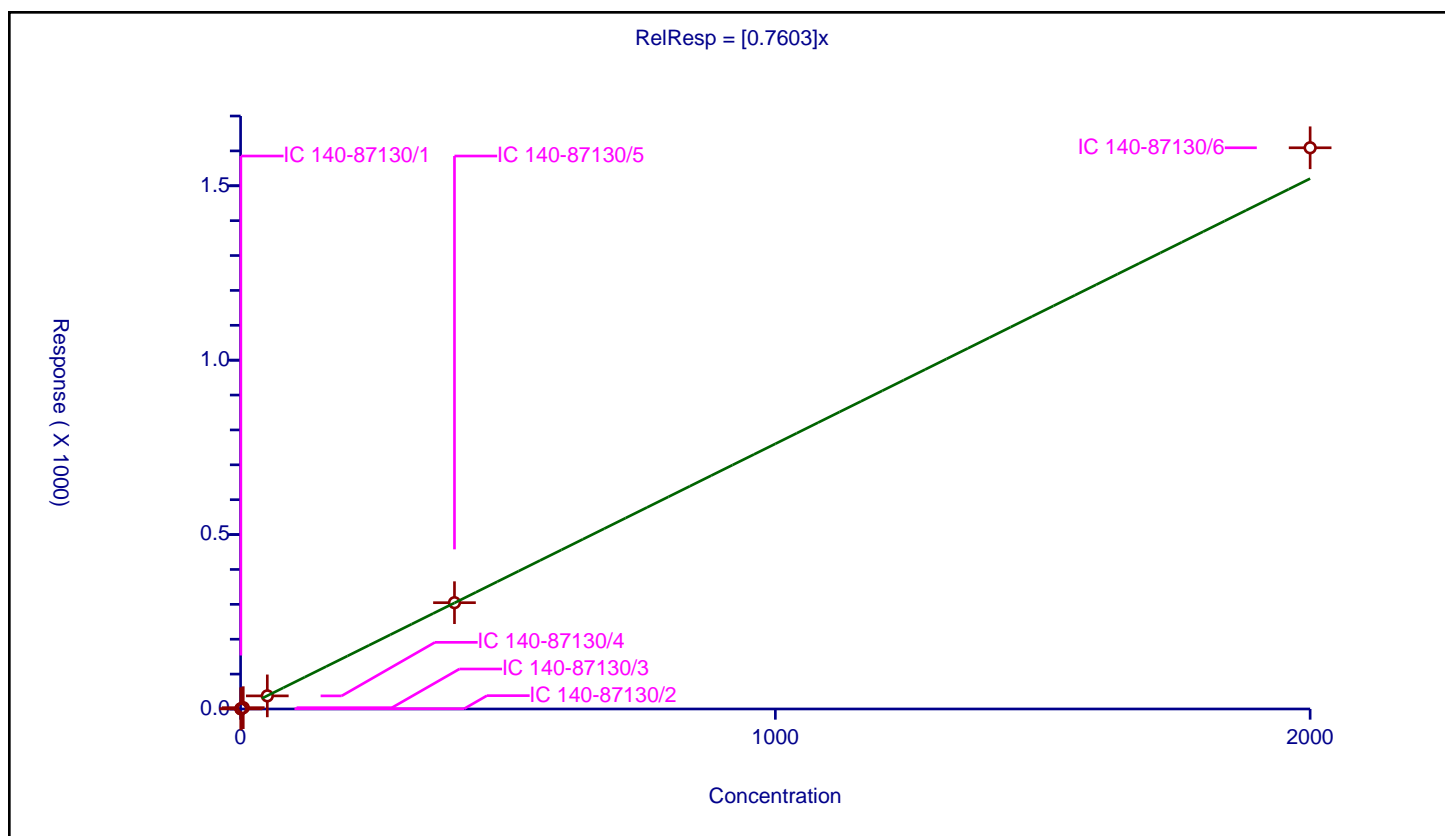
## Curve Coefficients

Intercept: 0  
 Slope: 0.7603

## Error Coefficients

Relative Standard Deviation: 3.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.382302	100.0	6307321.0	0.764604	Y
2	IC 140-87130/2	1.0	0.725138	100.0	5566942.0	0.725138	Y
3	IC 140-87130/3	5.0	3.767291	100.0	5708638.0	0.753458	Y
4	IC 140-87130/4	50.0	37.606414	100.0	5786925.0	0.752128	Y
5	IC 140-87130/5	400.0	304.766658	100.0	5892178.0	0.761917	Y
6	IC 140-87130/6	2000.0	1608.934318	100.0	6037909.0	0.804467	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

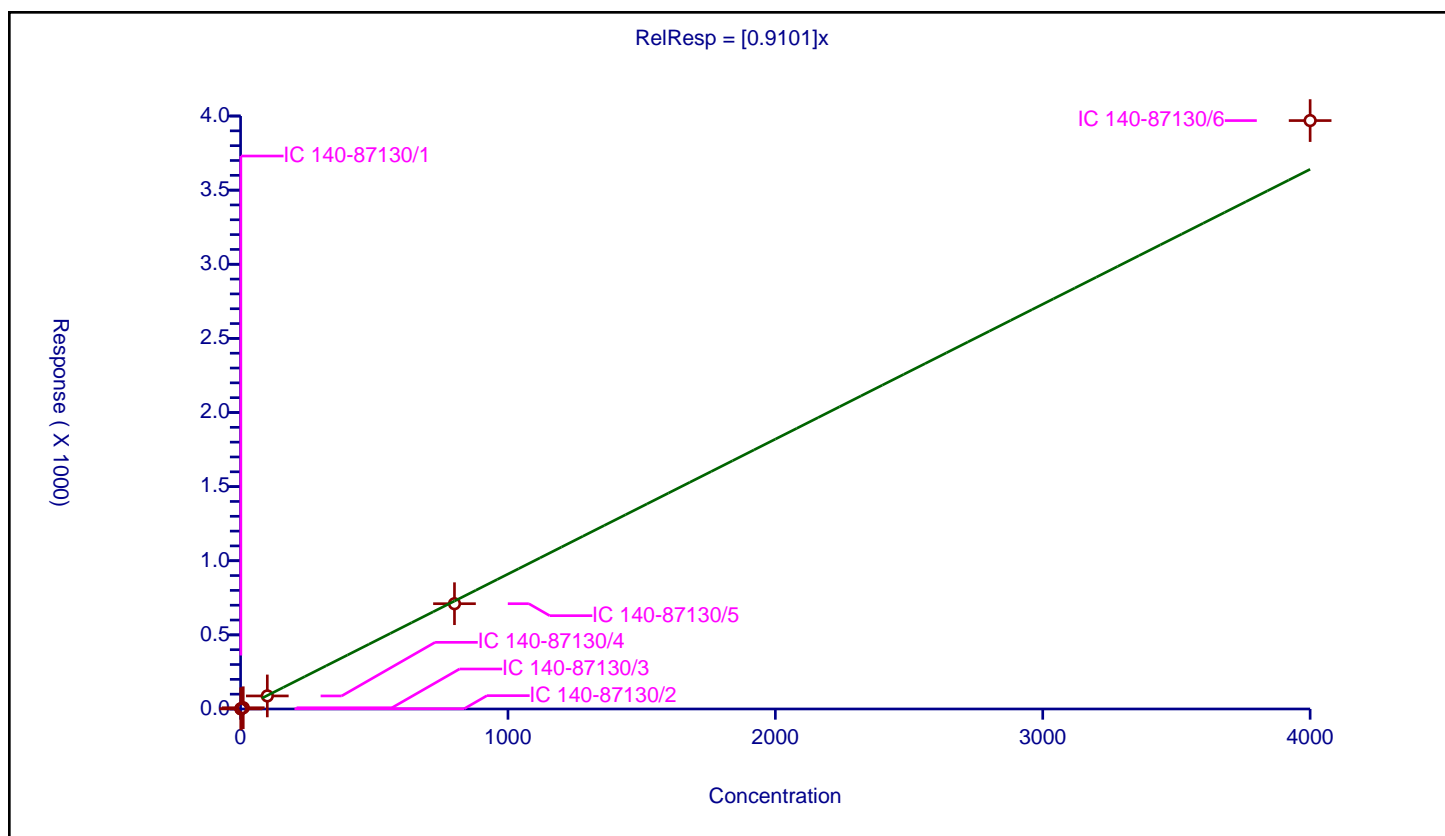
## Curve Coefficients

Intercept: 0  
Slope: 0.9101

## Error Coefficients

Relative Standard Deviation: 7.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.99794	200.0	17145311.0	0.99794	Y
2	IC 140-87130/2	2.0	1.715968	200.0	16075823.0	0.857984	Y
3	IC 140-87130/3	10.0	8.442125	200.0	15994835.0	0.844213	Y
4	IC 140-87130/4	100.0	88.06993	200.0	16048883.0	0.880699	Y
5	IC 140-87130/5	800.0	710.182323	200.0	16797326.0	0.887728	Y
6	IC 140-87130/6	4000.0	3969.18404	200.0	18003846.0	0.992296	Y



# Calibration

/ PCB-15

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

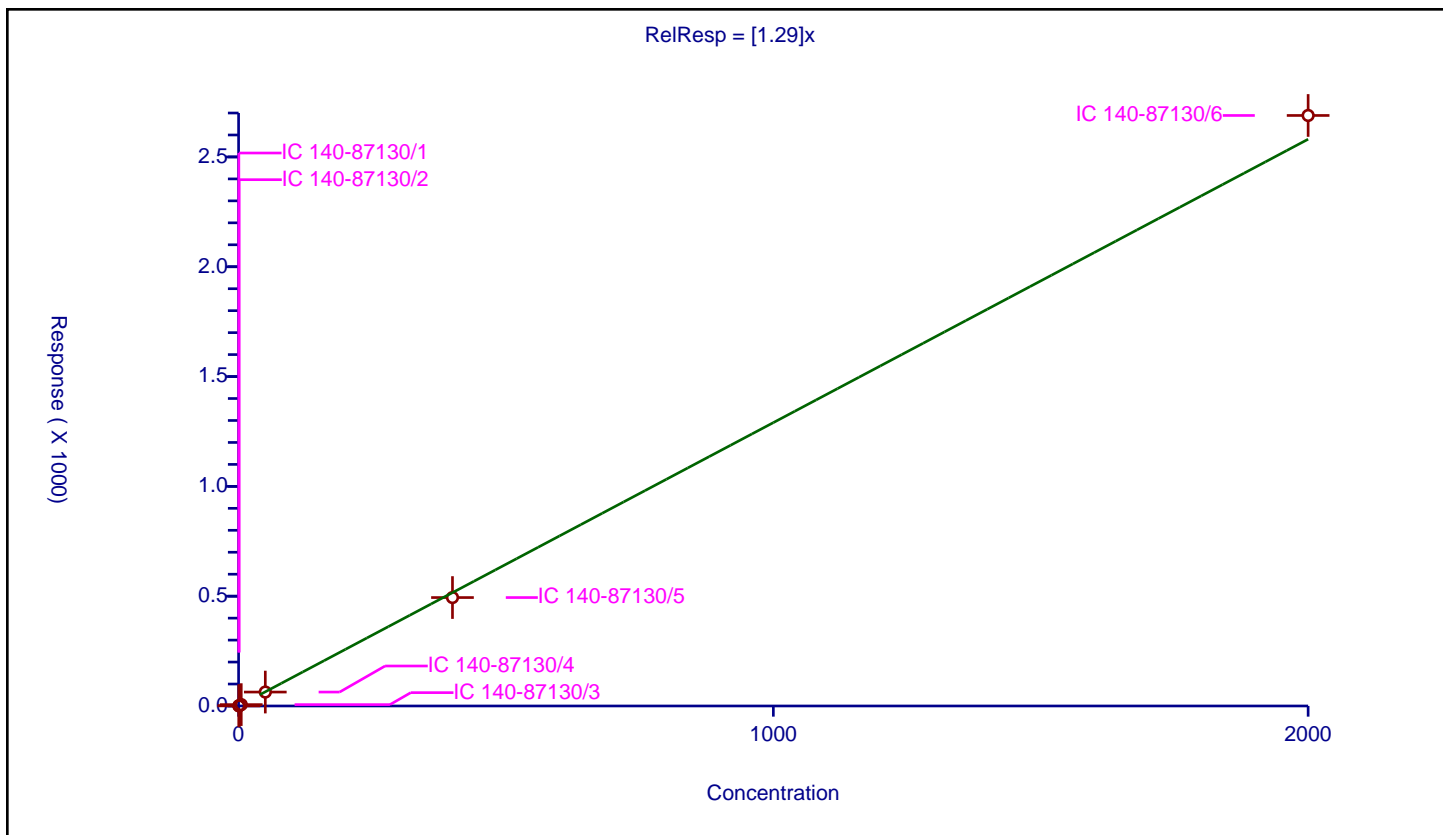
## Curve Coefficients

Intercept: 0  
 Slope: 1.29

## Error Coefficients

Relative Standard Deviation: 3.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.673614	100.0	9483770.0	1.347228	Y
2	IC 140-87130/2	1.0	1.291522	100.0	8819361.0	1.291522	Y
3	IC 140-87130/3	5.0	6.271571	100.0	8806182.0	1.254314	Y
4	IC 140-87130/4	50.0	63.487669	100.0	8855244.0	1.269753	Y
5	IC 140-87130/5	400.0	493.815295	100.0	9575202.0	1.234538	Y
6	IC 140-87130/6	2000.0	2688.84542	100.0	10031243.0	1.344423	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

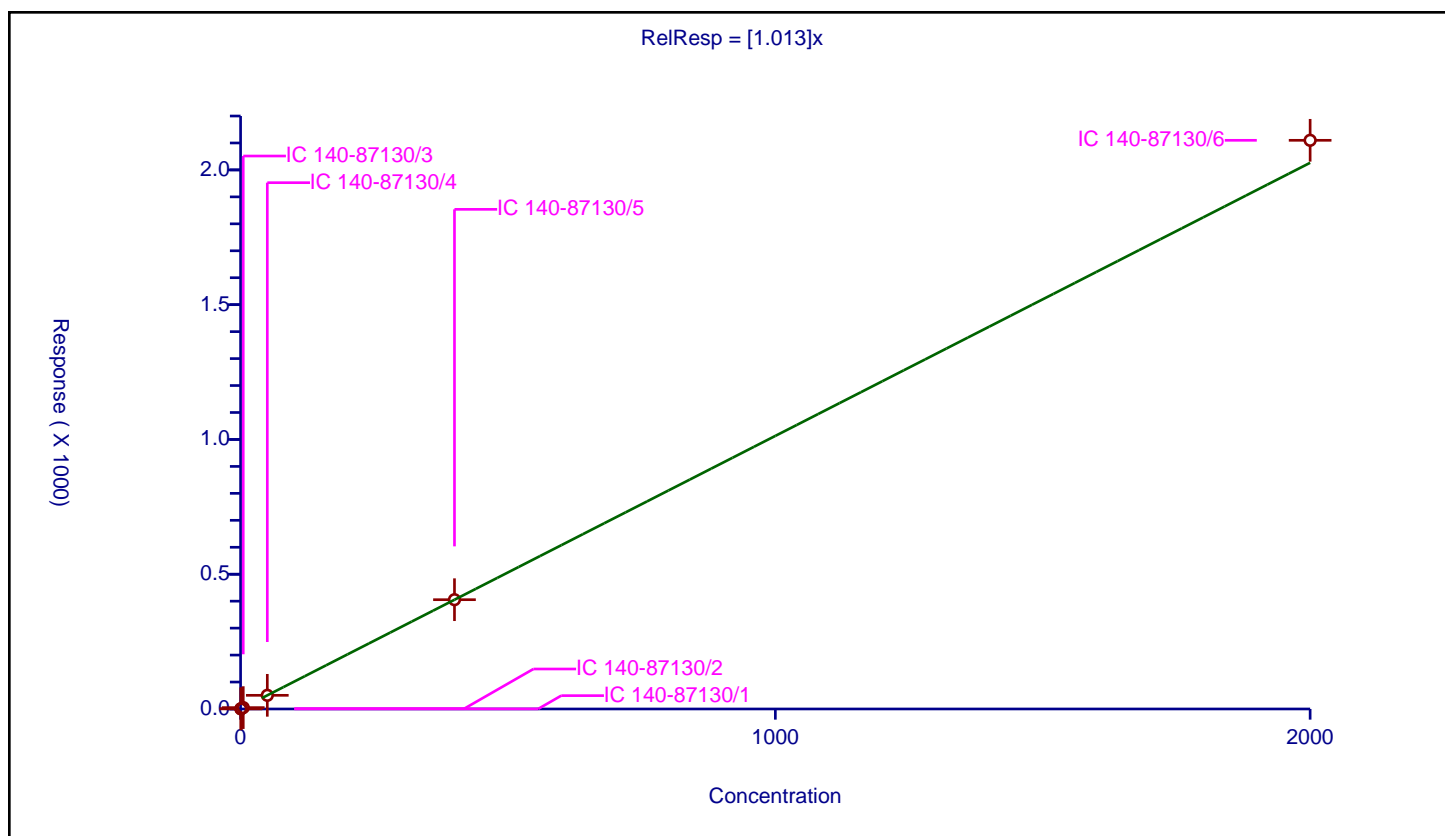
## Curve Coefficients

Intercept: 0  
Slope: 1.013

## Error Coefficients

Relative Standard Deviation: 2.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.48152	100.0	6307321.0	0.96304	Y
2	IC 140-87130/2	1.0	1.00795	100.0	5566942.0	1.00795	Y
3	IC 140-87130/3	5.0	5.130628	100.0	5708638.0	1.026126	Y
4	IC 140-87130/4	50.0	50.685381	100.0	5786925.0	1.013708	Y
5	IC 140-87130/5	400.0	405.467316	100.0	5892178.0	1.013668	Y
6	IC 140-87130/6	2000.0	2109.852633	100.0	6037909.0	1.054926	Y



# Calibration

/ PCB-151

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

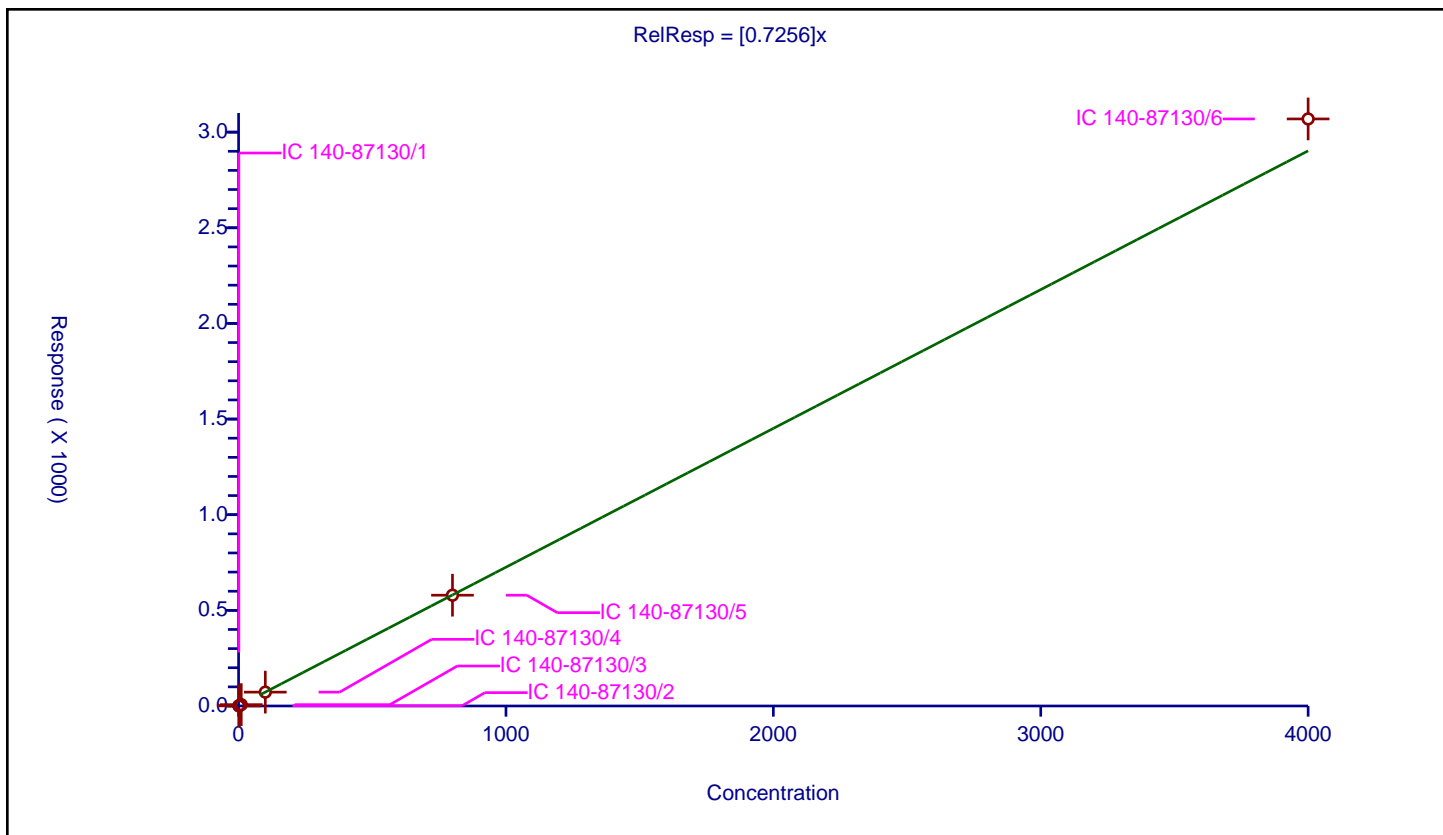
## Curve Coefficients

Intercept: 0  
 Slope: 0.7256

## Error Coefficients

Relative Standard Deviation: 3.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.728518	100.0	6307321.0	0.728518	Y
2	IC 140-87130/2	2.0	1.405889	100.0	5566942.0	0.702944	Y
3	IC 140-87130/3	10.0	7.063016	100.0	5708638.0	0.706302	Y
4	IC 140-87130/4	100.0	72.442307	100.0	5786925.0	0.724423	Y
5	IC 140-87130/5	800.0	579.168111	100.0	5892178.0	0.72396	Y
6	IC 140-87130/6	4000.0	3068.99001	100.0	6037909.0	0.767248	Y



**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

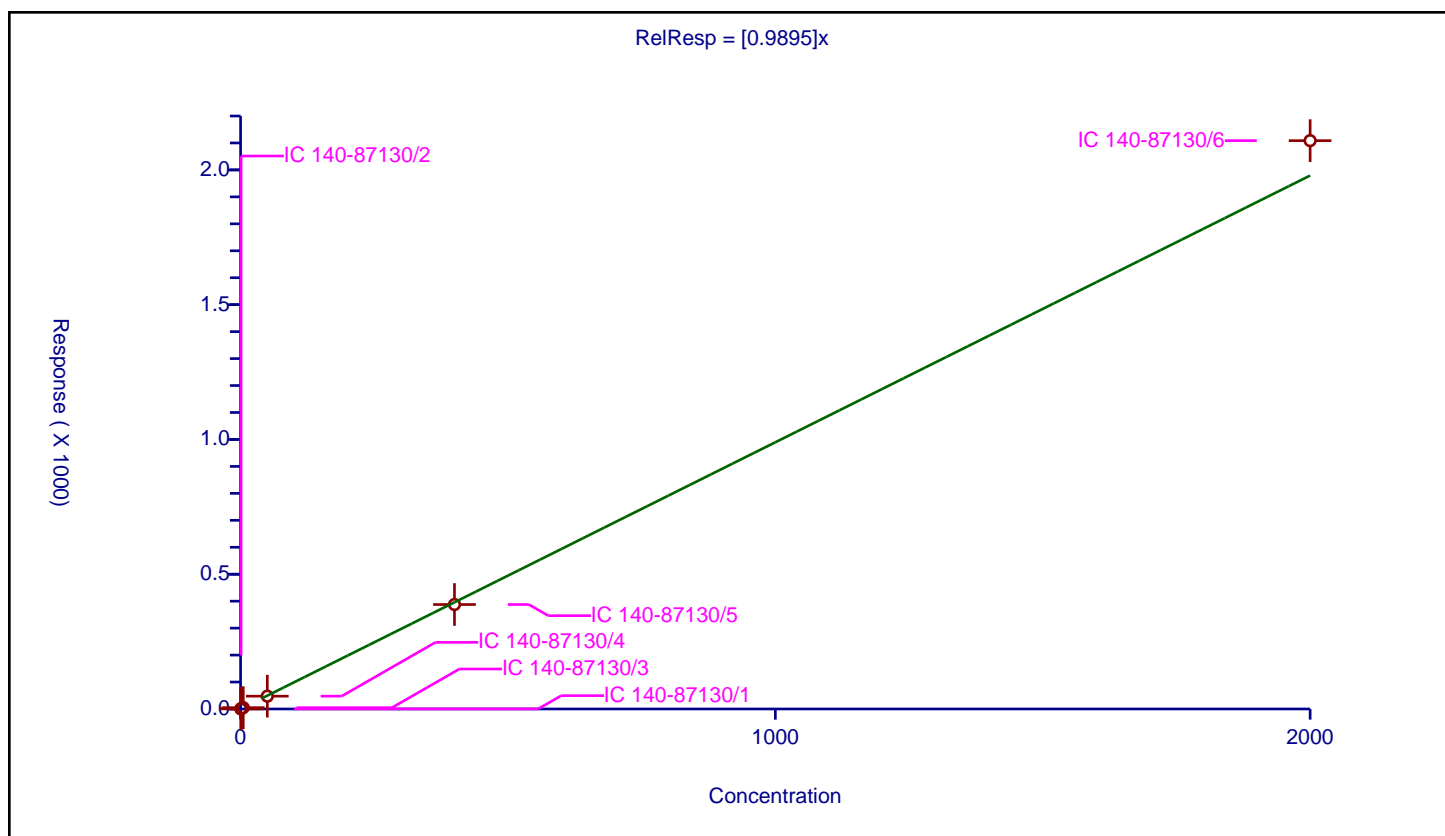
## Curve Coefficients

**Intercept:** 0  
**Slope:** 0.9895

## Error Coefficients

**Relative Standard Deviation:** 3.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.492412	100.0	6307321.0	0.984824	Y
2	IC 140-87130/2	1.0	0.995142	100.0	5566942.0	0.995142	Y
3	IC 140-87130/3	5.0	4.912643	100.0	5708638.0	0.982529	Y
4	IC 140-87130/4	50.0	47.570428	100.0	5786925.0	0.951409	Y
5	IC 140-87130/5	400.0	387.571947	100.0	5892178.0	0.96893	Y
6	IC 140-87130/6	2000.0	2108.613131	100.0	6037909.0	1.054307	Y



**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

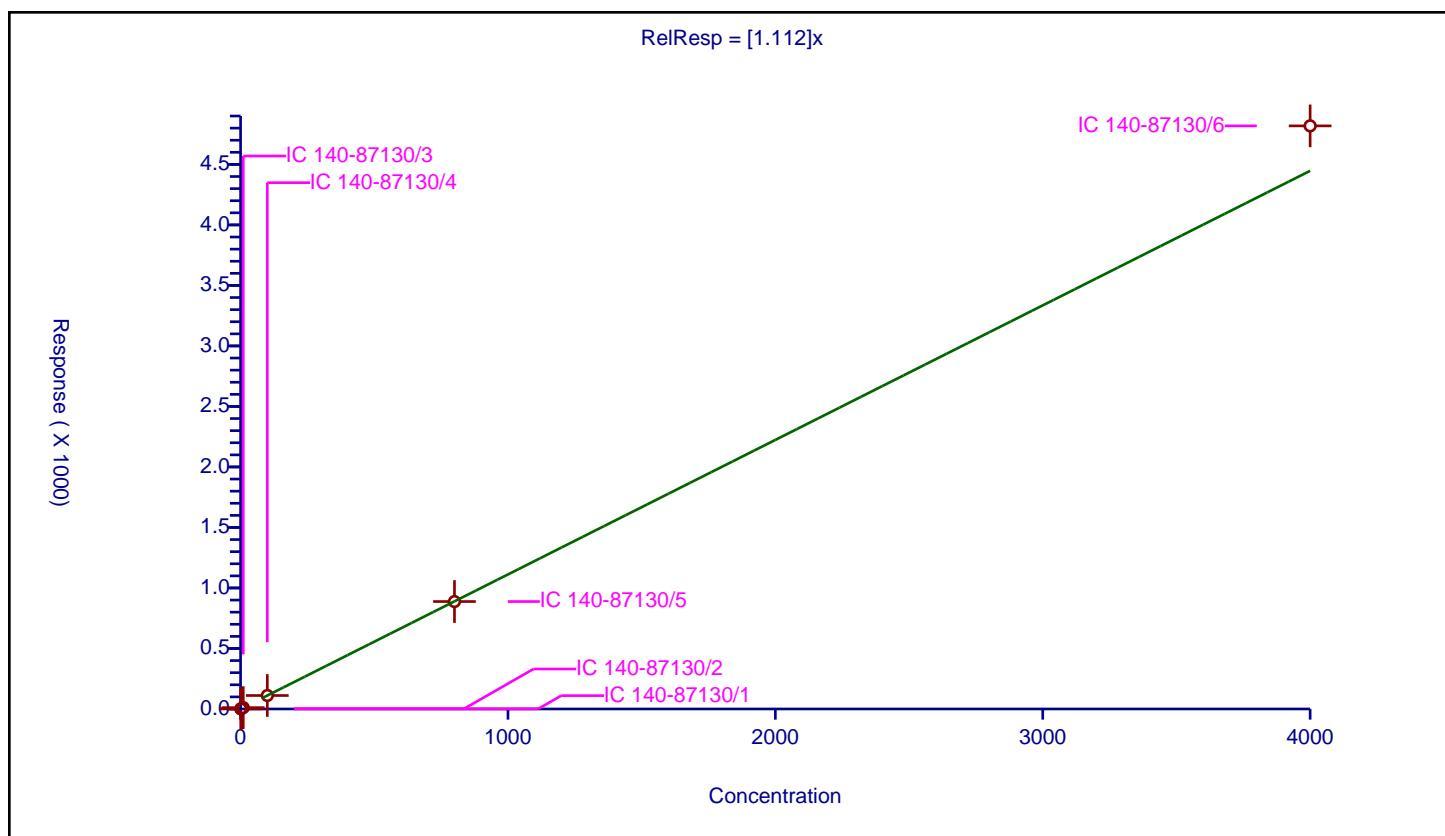
## Curve Coefficients

**Intercept:** 0  
**Slope:** 1.112

## Error Coefficients

**Relative Standard Deviation:** 4.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.08579	200.0	17145311.0	1.08579	Y
2	IC 140-87130/2	2.0	2.076199	200.0	16075823.0	1.038099	Y
3	IC 140-87130/3	10.0	11.172444	200.0	15994835.0	1.117244	Y
4	IC 140-87130/4	100.0	111.466549	200.0	16048883.0	1.114665	Y
5	IC 140-87130/5	800.0	887.904587	200.0	16797326.0	1.109881	Y
6	IC 140-87130/6	4000.0	4818.405545	200.0	18003846.0	1.204601	Y





# Calibration

/ PCB-153/168

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

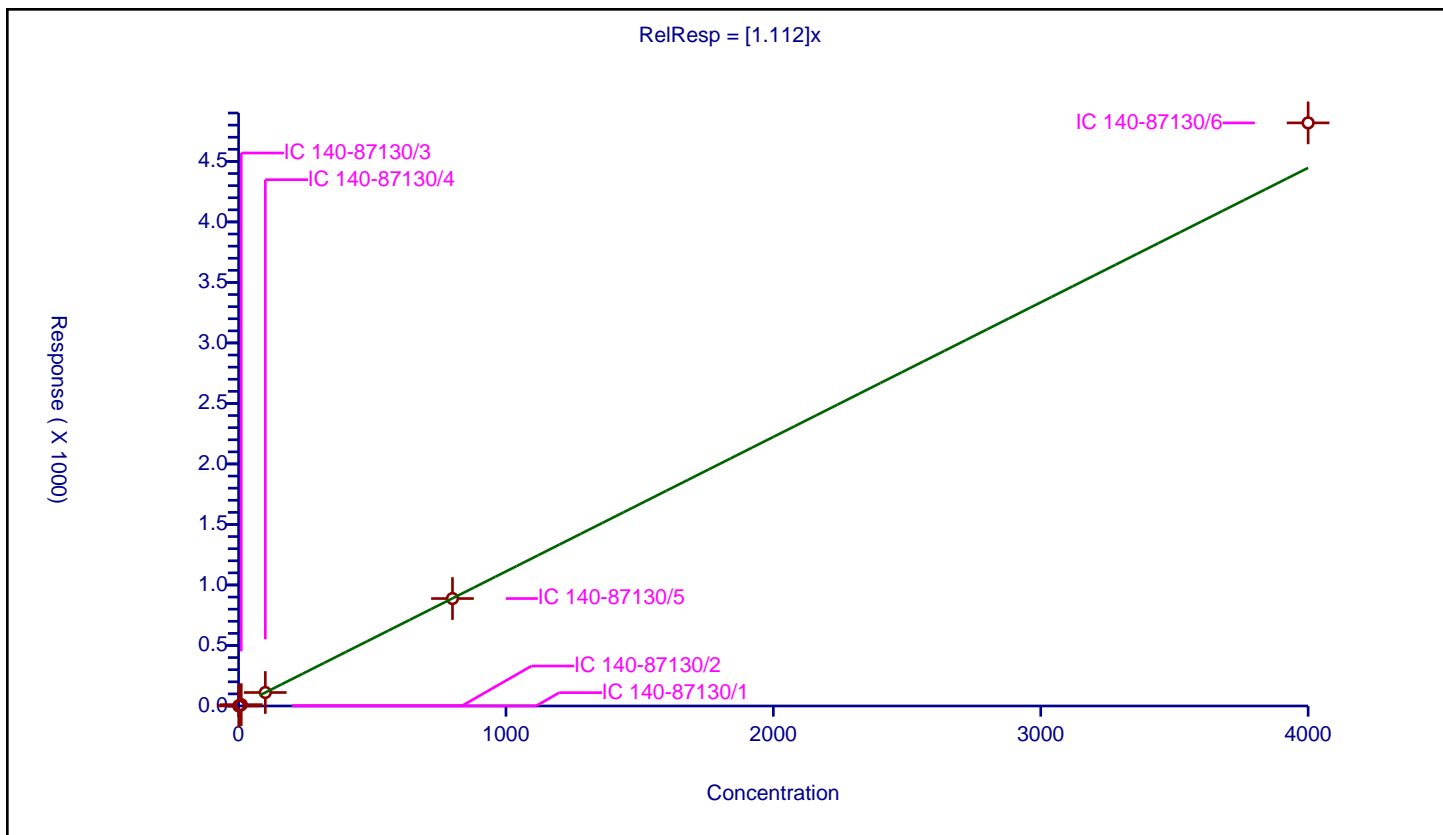
## Curve Coefficients

Intercept: 0  
 Slope: 1.112

## Error Coefficients

Relative Standard Deviation: 4.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.08579	200.0	17145311.0	1.08579	Y
2	IC 140-87130/2	2.0	2.076199	200.0	16075823.0	1.038099	Y
3	IC 140-87130/3	10.0	11.172444	200.0	15994835.0	1.117244	Y
4	IC 140-87130/4	100.0	111.466549	200.0	16048883.0	1.114665	Y
5	IC 140-87130/5	800.0	887.904587	200.0	16797326.0	1.109881	Y
6	IC 140-87130/6	4000.0	4818.405545	200.0	18003846.0	1.204601	Y



# Calibration

/ PCB-153L

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

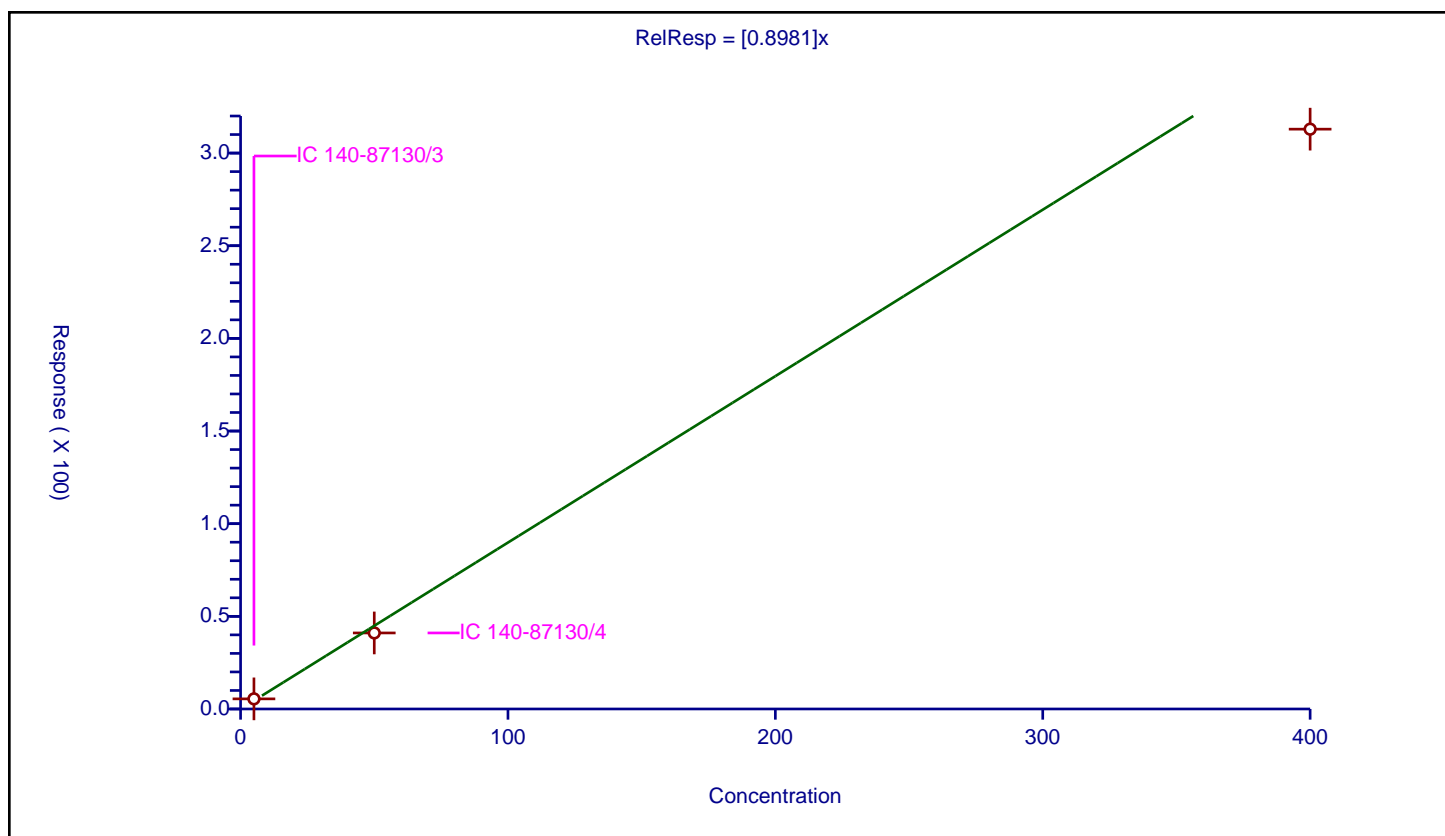
## Curve Coefficients

Intercept: 0  
 Slope: 0.8981

## Error Coefficients

Relative Standard Deviation: 18.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/3	5.0	5.456872	100.0	8150383.0	1.091374	Y
2	IC 140-87130/4	50.0	41.031232	100.0	8329121.0	0.820625	Y
3	IC 140-87130/5	400.0	312.906899	100.0	8748546.0	0.782267	Y



# Calibration

/ PCB-154

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

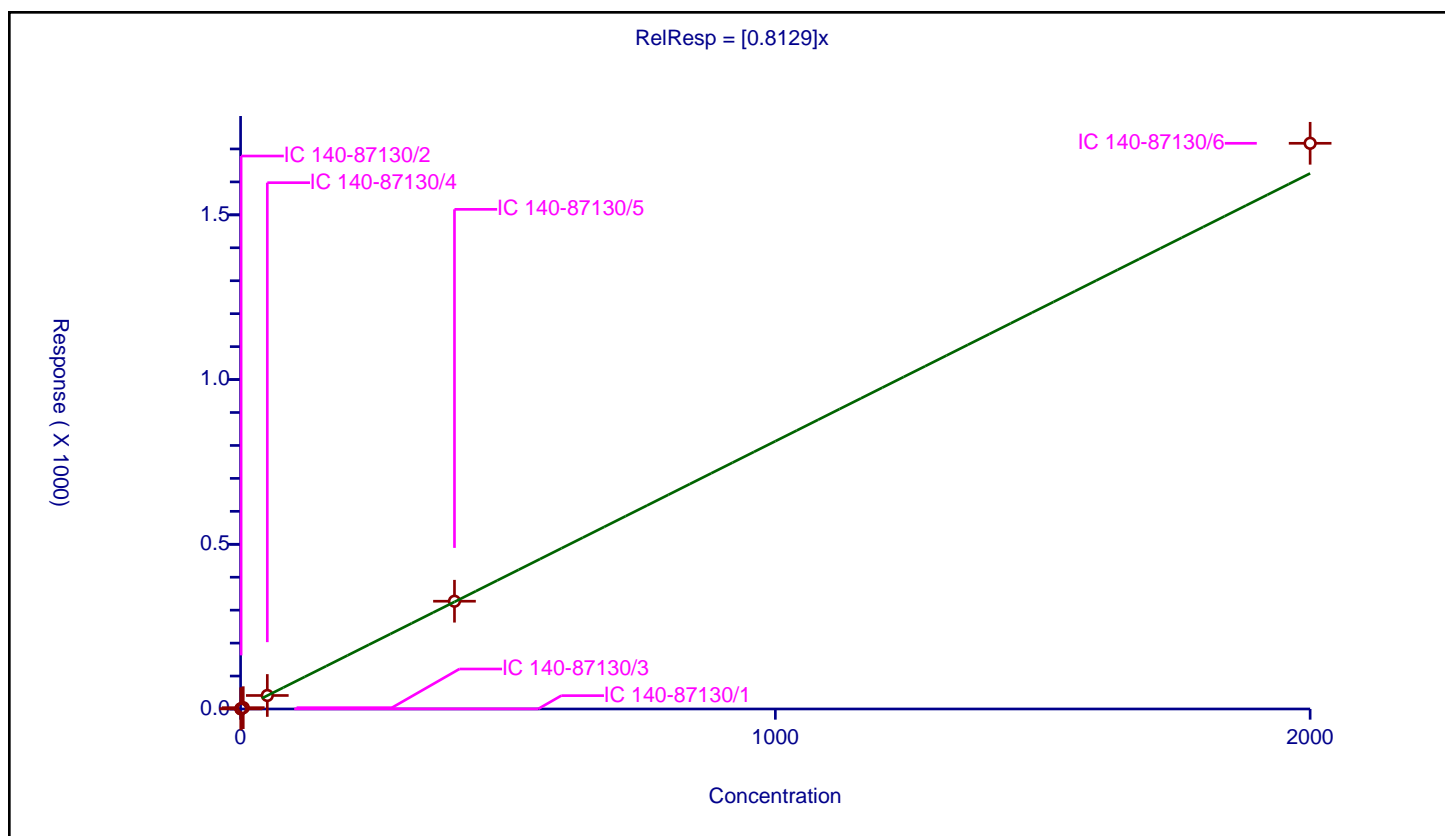
## Curve Coefficients

Intercept: 0  
 Slope: 0.8129

## Error Coefficients

Relative Standard Deviation: 5.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.370554	100.0	6307321.0	0.741107	Y
2	IC 140-87130/2	1.0	0.840497	100.0	5566942.0	0.840497	Y
3	IC 140-87130/3	5.0	3.997836	100.0	5708638.0	0.799567	Y
4	IC 140-87130/4	50.0	40.980227	100.0	5786925.0	0.819605	Y
5	IC 140-87130/5	400.0	327.187315	100.0	5892178.0	0.817968	Y
6	IC 140-87130/6	2000.0	1717.150606	100.0	6037909.0	0.858575	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

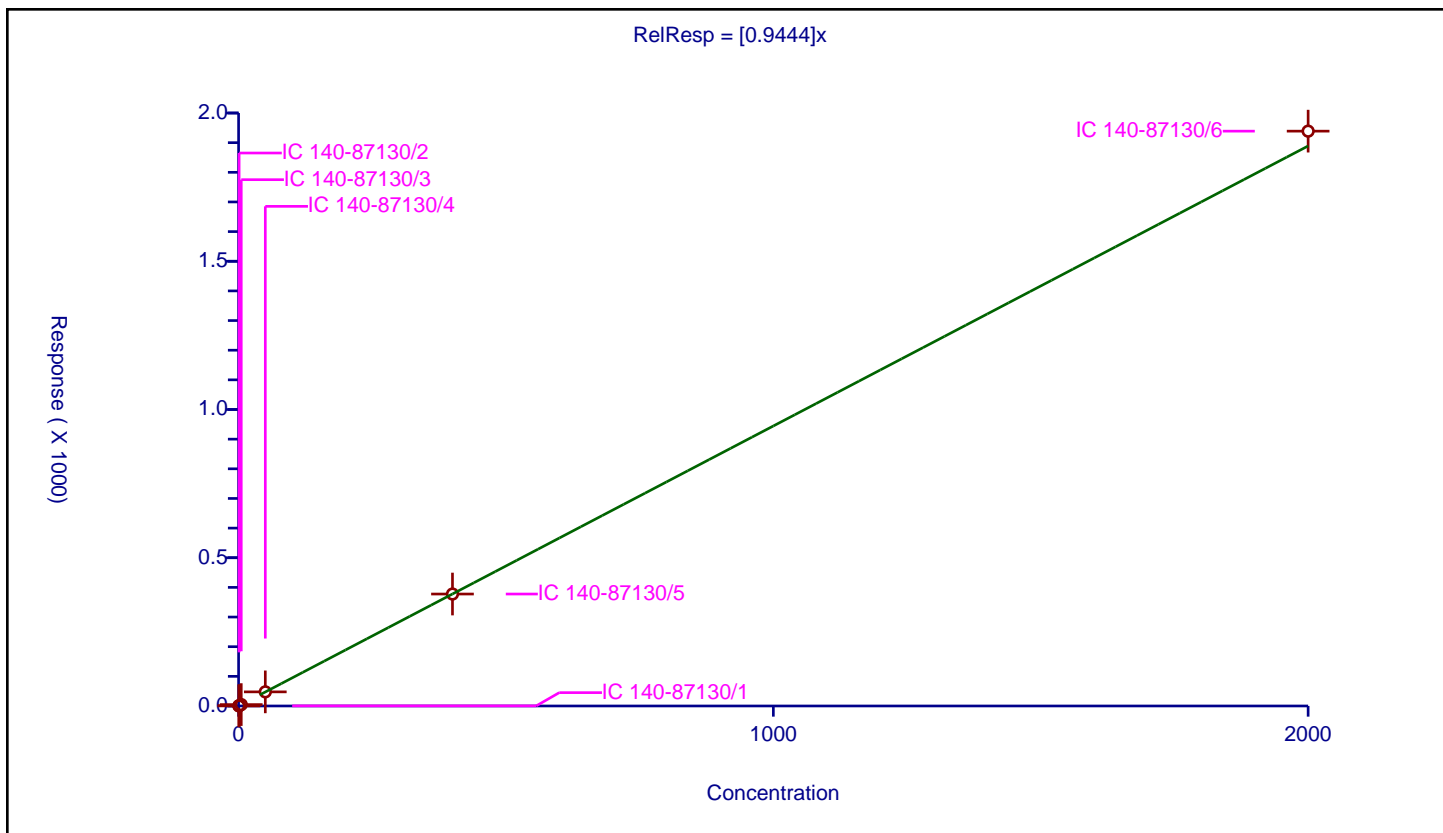
## Curve Coefficients

Intercept: 0  
Slope: 0.9444

## Error Coefficients

Relative Standard Deviation: 3.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.444563	100.0	6307321.0	0.889126	Y
2	IC 140-87130/2	1.0	0.965503	100.0	5566942.0	0.965503	Y
3	IC 140-87130/3	5.0	4.727082	100.0	5708638.0	0.945416	Y
4	IC 140-87130/4	50.0	47.645269	100.0	5786925.0	0.952905	Y
5	IC 140-87130/5	400.0	377.648639	100.0	5892178.0	0.944122	Y
6	IC 140-87130/6	2000.0	1938.79656	100.0	6037909.0	0.969398	Y



# Calibration

/ PCB-156

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

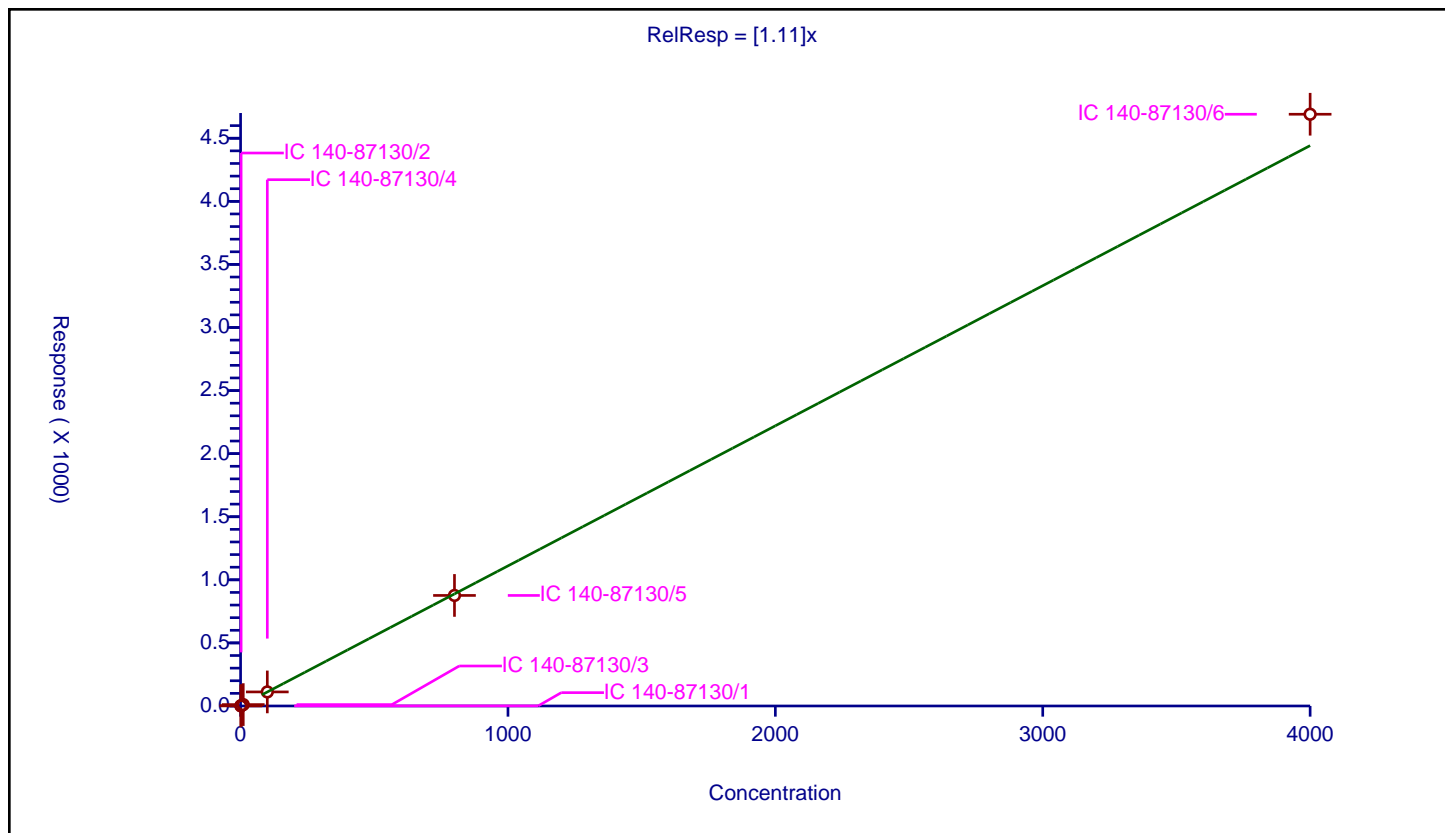
## Curve Coefficients

Intercept: 0  
Slope: 1.11

## Error Coefficients

Relative Standard Deviation: 4.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.031781	200.0	17145311.0	1.031781	Y
2	IC 140-87130/2	2.0	2.281252	200.0	16075823.0	1.140626	Y
3	IC 140-87130/3	10.0	11.084466	200.0	15994835.0	1.108447	Y
4	IC 140-87130/4	100.0	111.389758	200.0	16048883.0	1.113898	Y
5	IC 140-87130/5	800.0	876.153157	200.0	16797326.0	1.095191	Y
6	IC 140-87130/6	4000.0	4690.374323	200.0	18003846.0	1.172594	Y



# Calibration

/ PCB-156/157

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

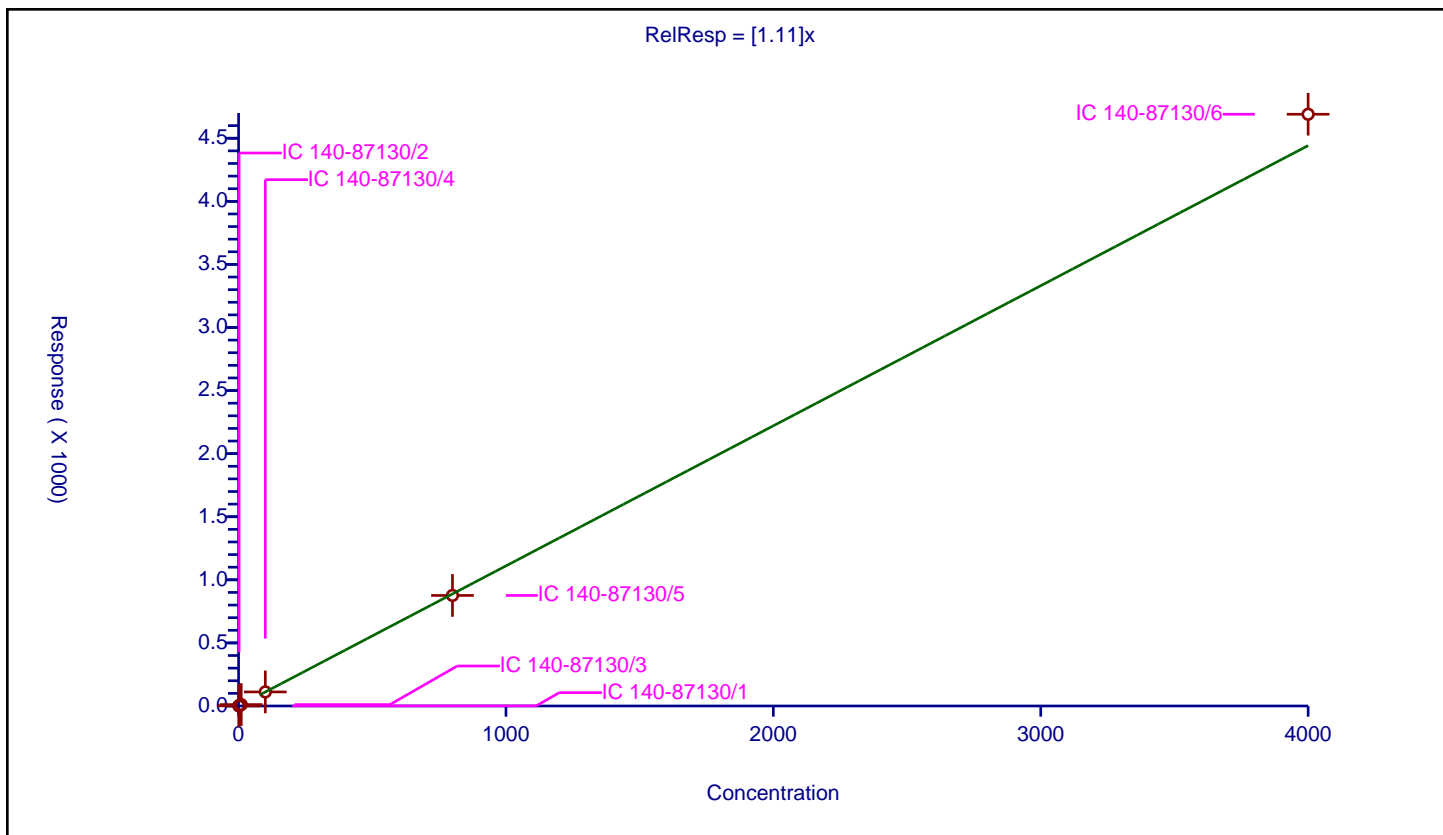
## Curve Coefficients

Intercept: 0  
Slope: 1.11

## Error Coefficients

Relative Standard Deviation: 4.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.031781	200.0	17145311.0	1.031781	Y
2	IC 140-87130/2	2.0	2.281252	200.0	16075823.0	1.140626	Y
3	IC 140-87130/3	10.0	11.084466	200.0	15994835.0	1.108447	Y
4	IC 140-87130/4	100.0	111.389758	200.0	16048883.0	1.113898	Y
5	IC 140-87130/5	800.0	876.153157	200.0	16797326.0	1.095191	Y
6	IC 140-87130/6	4000.0	4690.374323	200.0	18003846.0	1.172594	Y



# Calibration

/ PCB-157

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

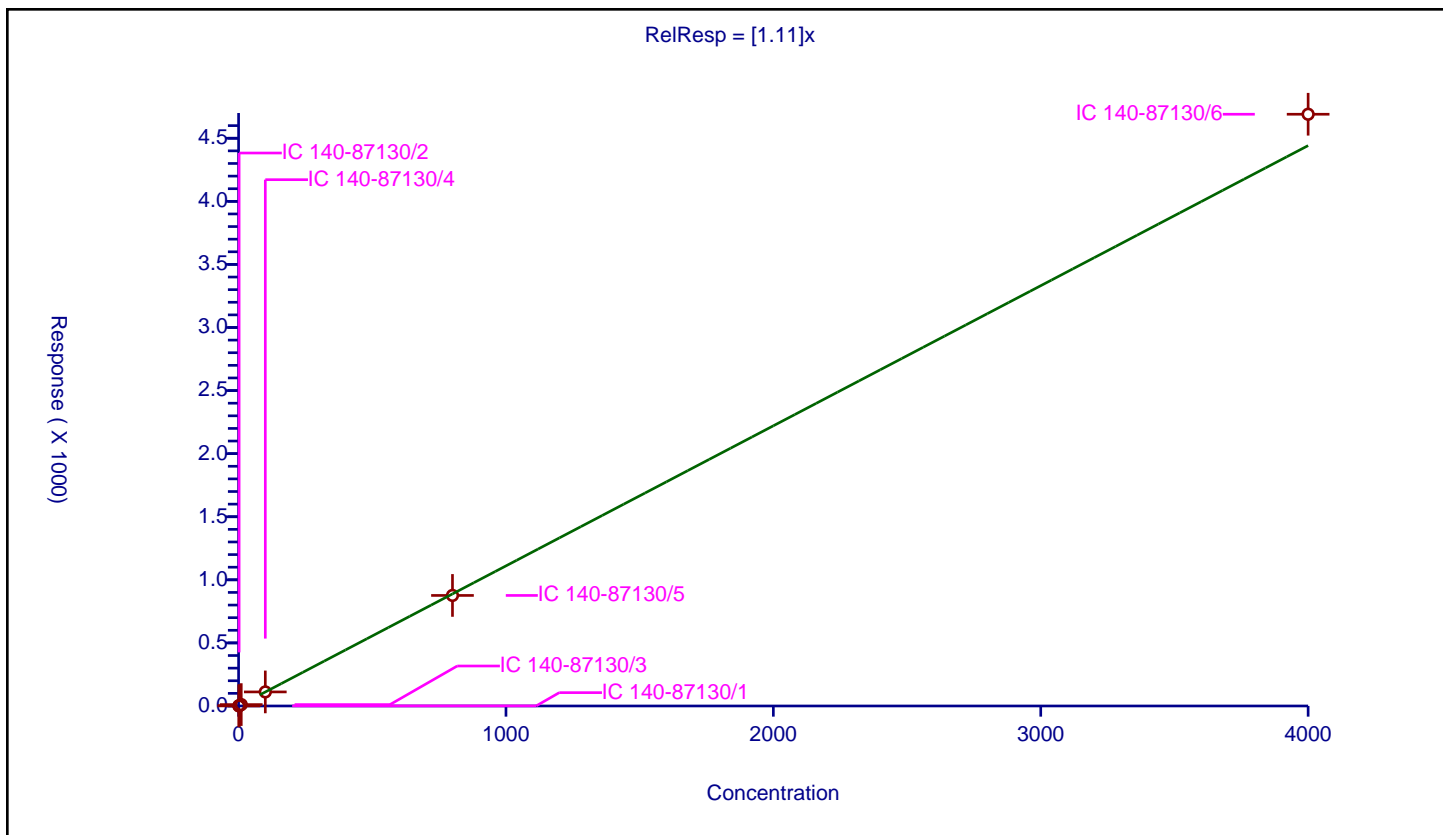
## Curve Coefficients

Intercept: 0  
Slope: 1.11

## Error Coefficients

Relative Standard Deviation: 4.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.031781	200.0	17145311.0	1.031781	Y
2	IC 140-87130/2	2.0	2.281252	200.0	16075823.0	1.140626	Y
3	IC 140-87130/3	10.0	11.084466	200.0	15994835.0	1.108447	Y
4	IC 140-87130/4	100.0	111.389758	200.0	16048883.0	1.113898	Y
5	IC 140-87130/5	800.0	876.153157	200.0	16797326.0	1.095191	Y
6	IC 140-87130/6	4000.0	4690.374323	200.0	18003846.0	1.172594	Y



# Calibration

/ PCB-158

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

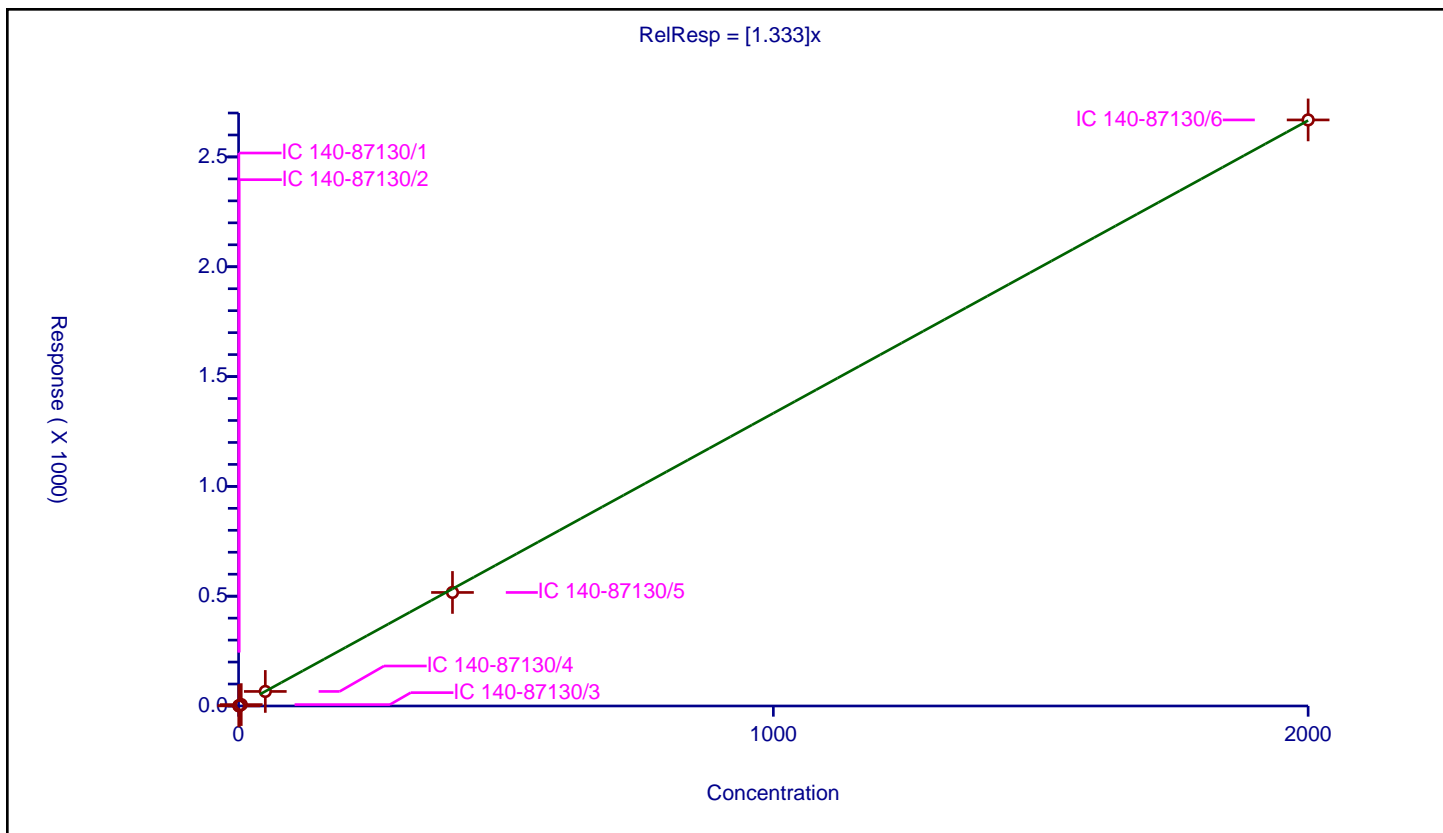
## Curve Coefficients

Intercept: 0  
 Slope: 1.333

## Error Coefficients

Relative Standard Deviation: 3.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.703294	200.0	17145311.0	1.406589	Y
2	IC 140-87130/2	1.0	1.363426	200.0	16075823.0	1.363426	Y
3	IC 140-87130/3	5.0	6.376583	200.0	15994835.0	1.275317	Y
4	IC 140-87130/4	50.0	66.29148	200.0	16048883.0	1.32583	Y
5	IC 140-87130/5	400.0	516.99842	200.0	16797326.0	1.292496	Y
6	IC 140-87130/6	2000.0	2668.60553	200.0	18003846.0	1.334303	Y





Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

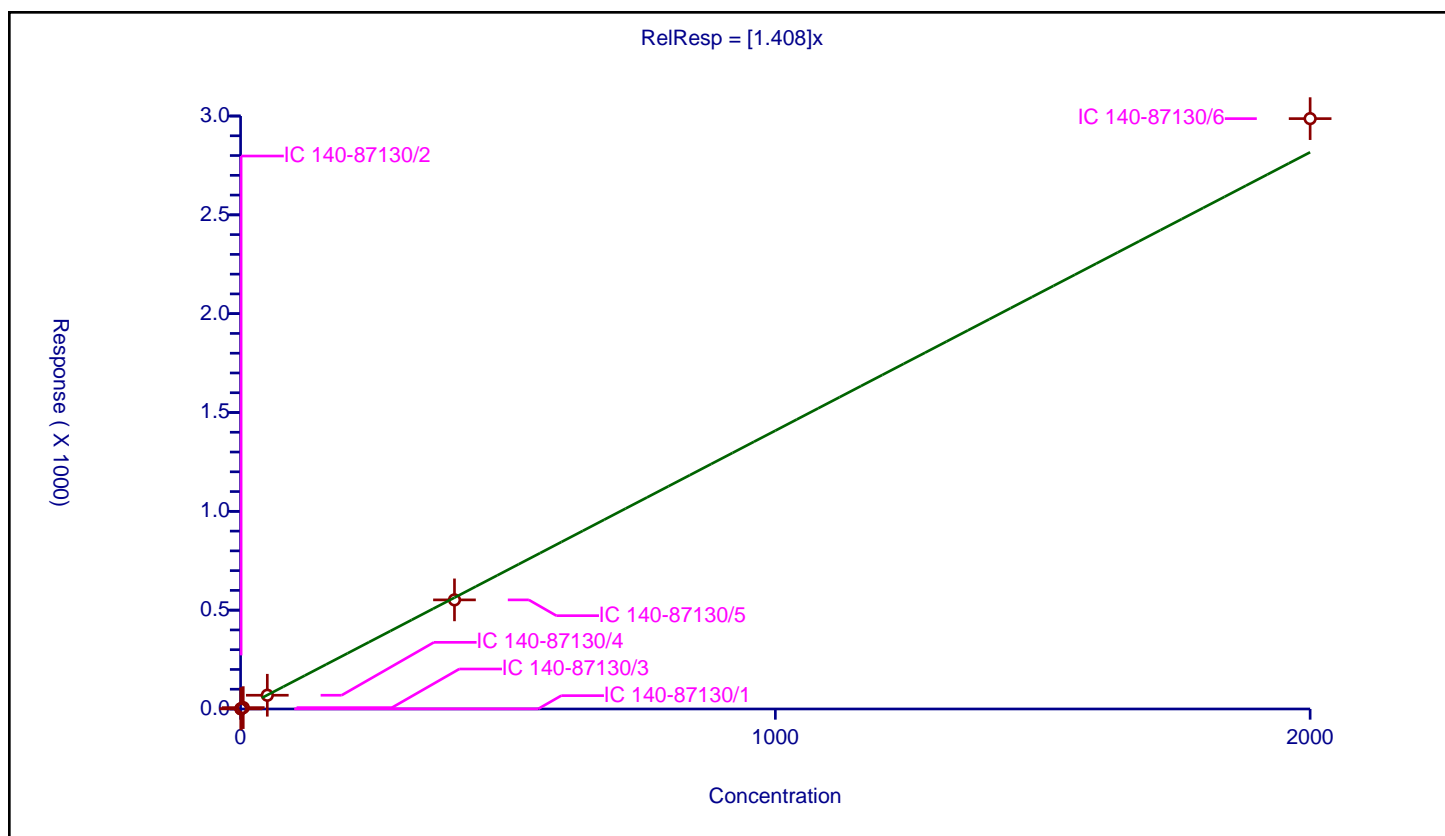
## Curve Coefficients

Intercept: 0  
Slope: 1.408

## Error Coefficients

Relative Standard Deviation: 3.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.681014	200.0	17145311.0	1.362028	Y
2	IC 140-87130/2	1.0	1.428816	200.0	16075823.0	1.428816	Y
3	IC 140-87130/3	5.0	6.978053	200.0	15994835.0	1.395611	Y
4	IC 140-87130/4	50.0	69.519368	200.0	16048883.0	1.390387	Y
5	IC 140-87130/5	400.0	551.962318	200.0	16797326.0	1.379906	Y
6	IC 140-87130/6	2000.0	2986.779802	200.0	18003846.0	1.49339	Y



# Calibration

/ PCB-159L

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

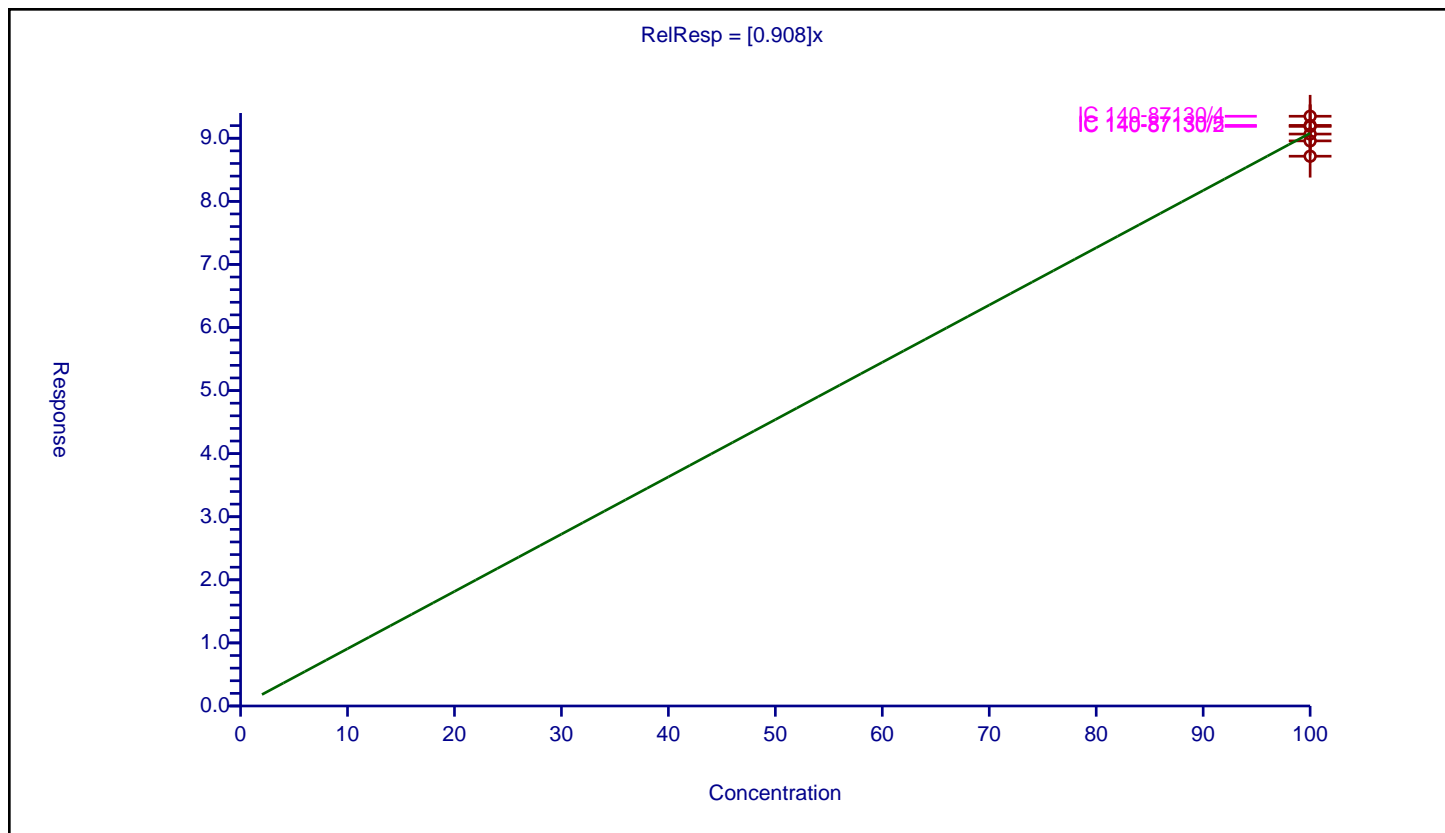
## Curve Coefficients

Intercept: 0  
Slope: 0.908

## Error Coefficients

Relative Standard Deviation: 2.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	100.0	87.152373	100.0	9105316.0	0.871524	Y
2	IC 140-87130/2	100.0	91.879793	100.0	8343026.0	0.918798	Y
3	IC 140-87130/3	100.0	89.580502	100.0	8150383.0	0.895805	Y
4	IC 140-87130/4	100.0	93.486792	100.0	8329121.0	0.934868	Y
5	IC 140-87130/5	100.0	92.037683	100.0	8748546.0	0.920377	Y
6	IC 140-87130/6	100.0	90.665672	100.0	9296213.0	0.906657	Y



# Calibration

/ PCB-16

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

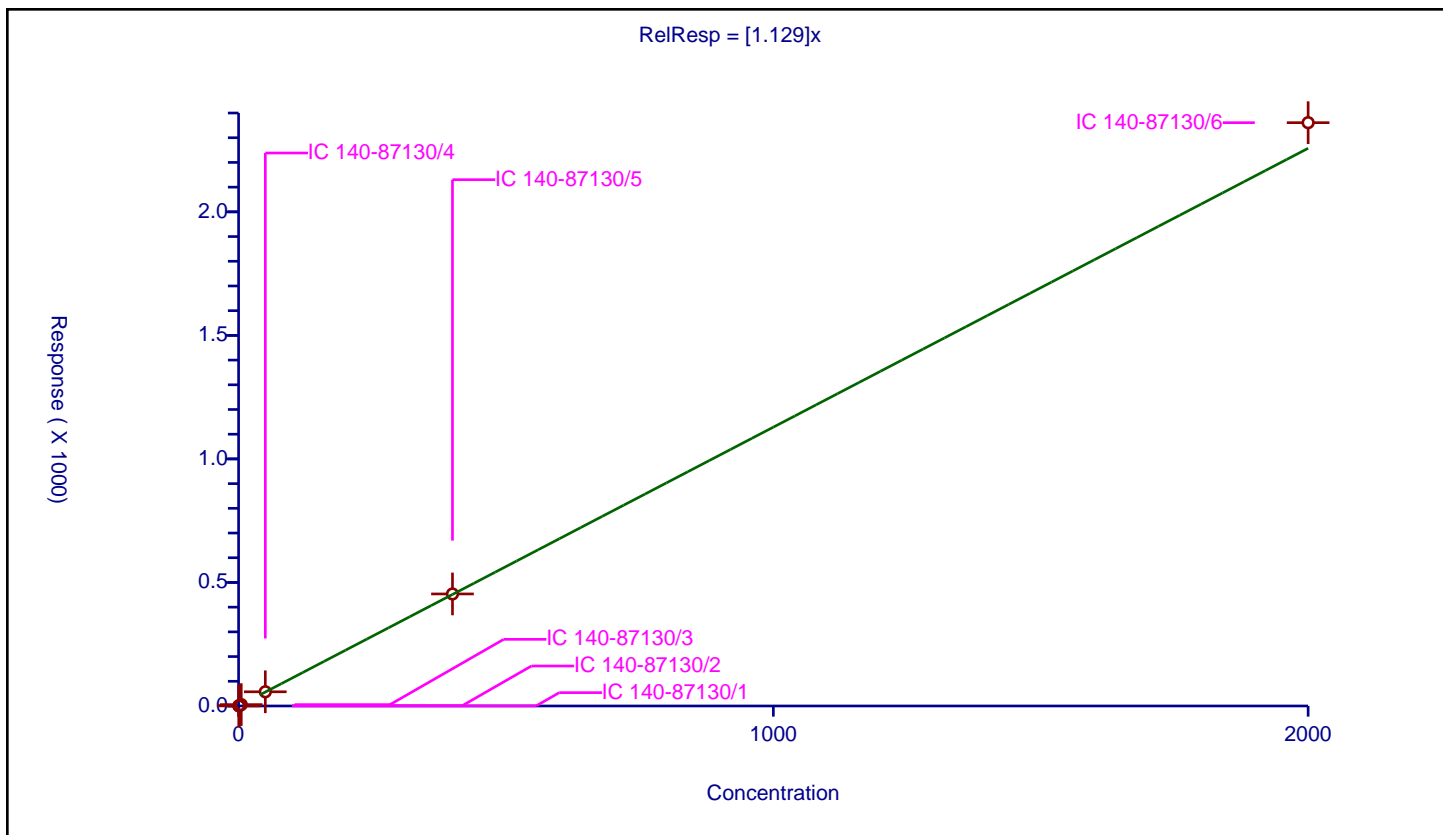
## Curve Coefficients

Intercept: 0  
Slope: 1.129

## Error Coefficients

Relative Standard Deviation: 3.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.563663	100.0	3711790.0	1.127327	Y
2	IC 140-87130/2	1.0	1.063131	100.0	3424036.0	1.063131	Y
3	IC 140-87130/3	5.0	5.582269	100.0	3389482.0	1.116454	Y
4	IC 140-87130/4	50.0	57.525798	100.0	3406868.0	1.150516	Y
5	IC 140-87130/5	400.0	453.425121	100.0	3537933.0	1.133563	Y
6	IC 140-87130/6	2000.0	2360.941314	100.0	3634856.0	1.180471	Y



# Calibration

/ PCB-160

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

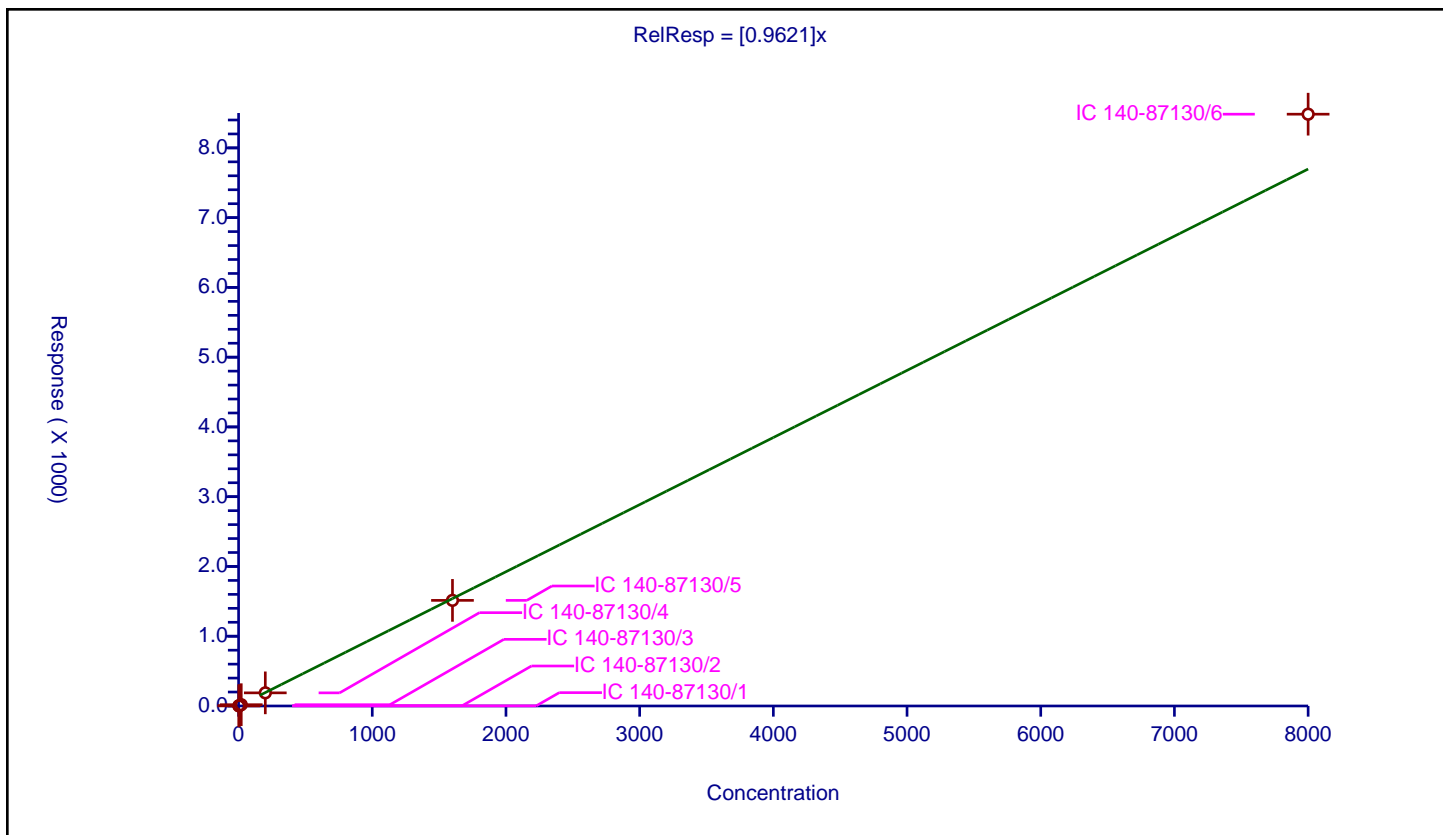
## Curve Coefficients

Intercept: 0  
 Slope: 0.9621

## Error Coefficients

Relative Standard Deviation: 5.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	2.0	1.921855	200.0	17145311.0	0.960927	Y
2	IC 140-87130/2	4.0	3.770532	200.0	16075823.0	0.942633	Y
3	IC 140-87130/3	20.0	18.421809	200.0	15994835.0	0.92109	Y
4	IC 140-87130/4	200.0	188.299871	200.0	16048883.0	0.941499	Y
5	IC 140-87130/5	1600.0	1513.757356	200.0	16797326.0	0.946098	Y
6	IC 140-87130/6	8000.0	8483.211276	200.0	18003846.0	1.060401	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

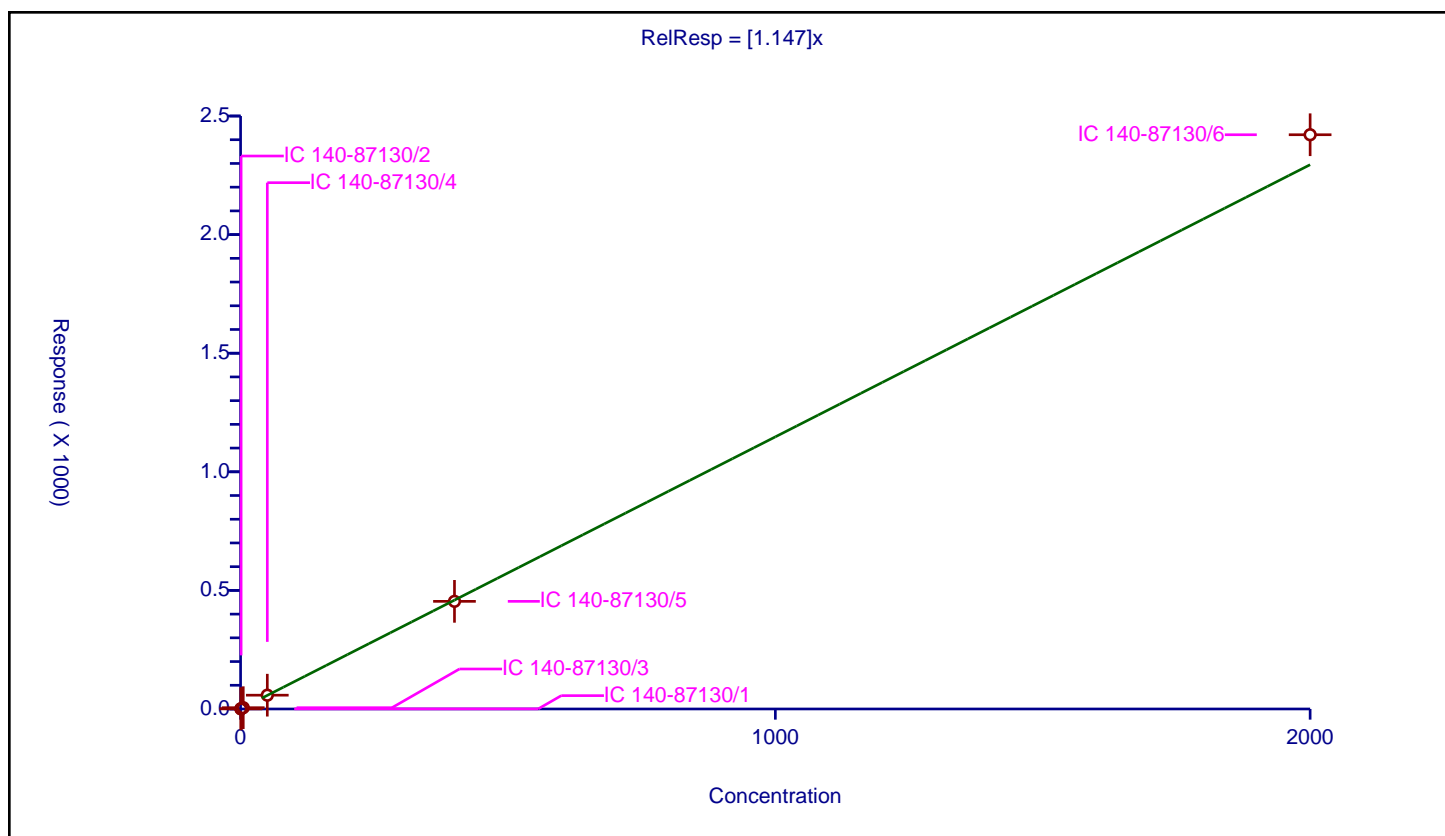
## Curve Coefficients

Intercept: 0  
Slope: 1.147

## Error Coefficients

Relative Standard Deviation: 4.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.547625	200.0	17145311.0	1.09525	Y
2	IC 140-87130/2	1.0	1.183404	200.0	16075823.0	1.183404	Y
3	IC 140-87130/3	5.0	5.486896	200.0	15994835.0	1.097379	Y
4	IC 140-87130/4	50.0	58.148246	200.0	16048883.0	1.162965	Y
5	IC 140-87130/5	400.0	453.808231	200.0	16797326.0	1.134521	Y
6	IC 140-87130/6	2000.0	2421.10969	200.0	18003846.0	1.210555	Y



# Calibration

/ PCB-162

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

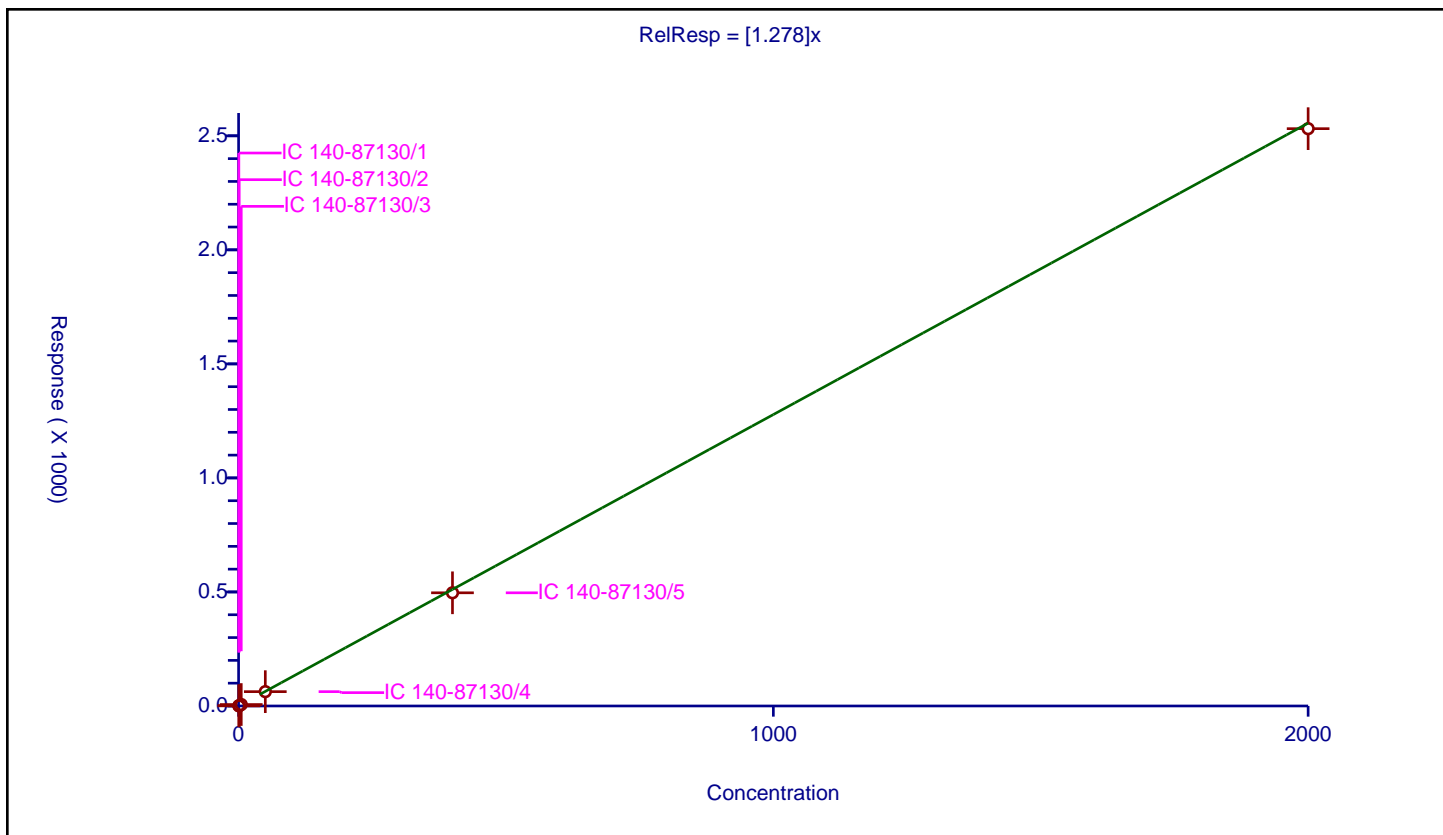
## Curve Coefficients

Intercept: 0  
Slope: 1.278

## Error Coefficients

Relative Standard Deviation: 2.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.645086	200.0	17145311.0	1.290172	Y
2	IC 140-87130/2	1.0	1.327895	200.0	16075823.0	1.327895	Y
3	IC 140-87130/3	5.0	6.422936	200.0	15994835.0	1.284587	Y
4	IC 140-87130/4	50.0	62.887355	200.0	16048883.0	1.257747	Y
5	IC 140-87130/5	400.0	496.326558	200.0	16797326.0	1.240816	Y
6	IC 140-87130/6	2000.0	2531.405701	200.0	18003846.0	1.265703	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

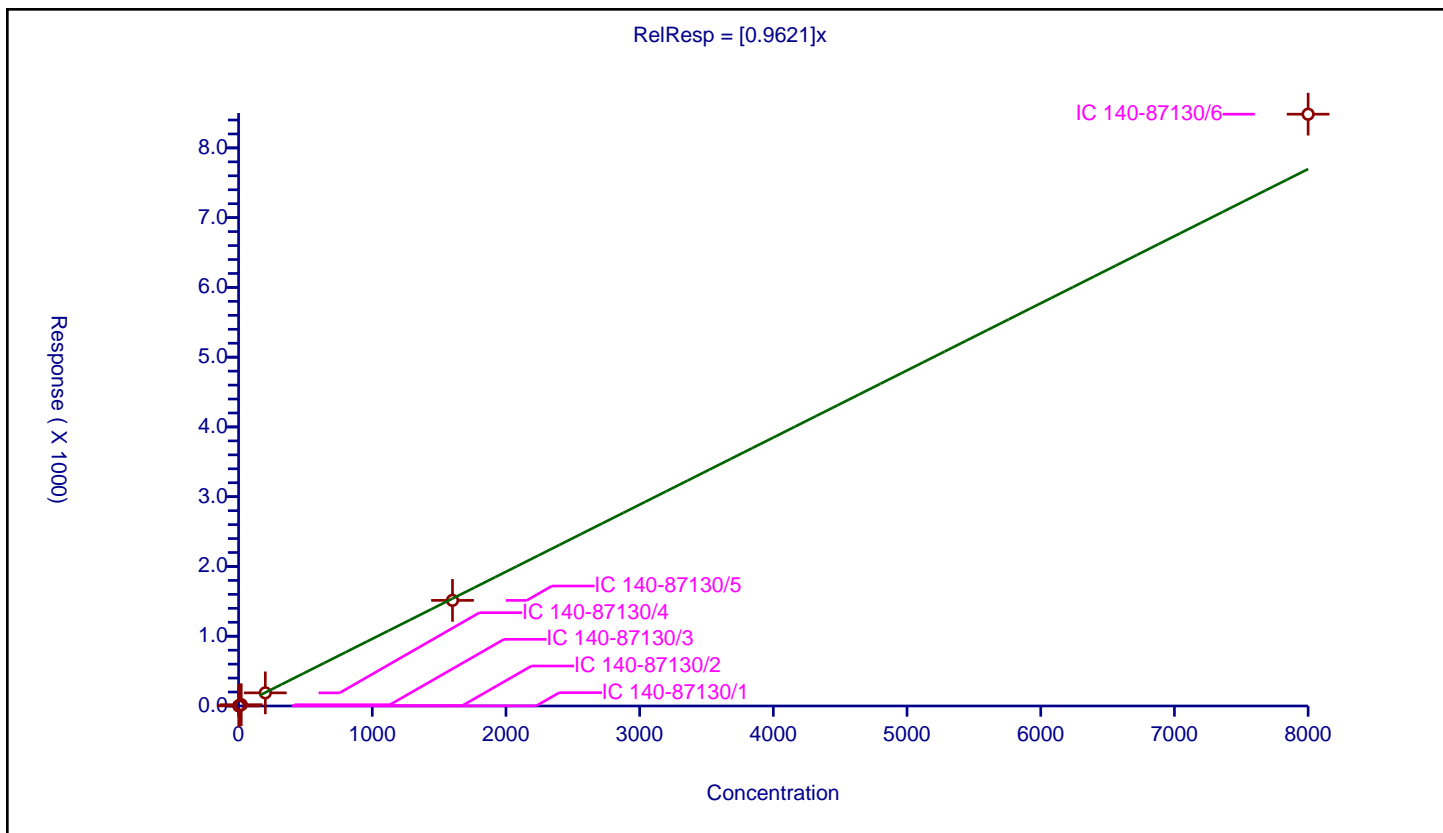
## Curve Coefficients

Intercept: 0  
Slope: 0.9621

## Error Coefficients

Relative Standard Deviation: 5.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	2.0	1.921855	200.0	17145311.0	0.960927	Y
2	IC 140-87130/2	4.0	3.770532	200.0	16075823.0	0.942633	Y
3	IC 140-87130/3	20.0	18.421809	200.0	15994835.0	0.92109	Y
4	IC 140-87130/4	200.0	188.299871	200.0	16048883.0	0.941499	Y
5	IC 140-87130/5	1600.0	1513.757356	200.0	16797326.0	0.946098	Y
6	IC 140-87130/6	8000.0	8483.211276	200.0	18003846.0	1.060401	Y



# Calibration

/ PCB-164

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

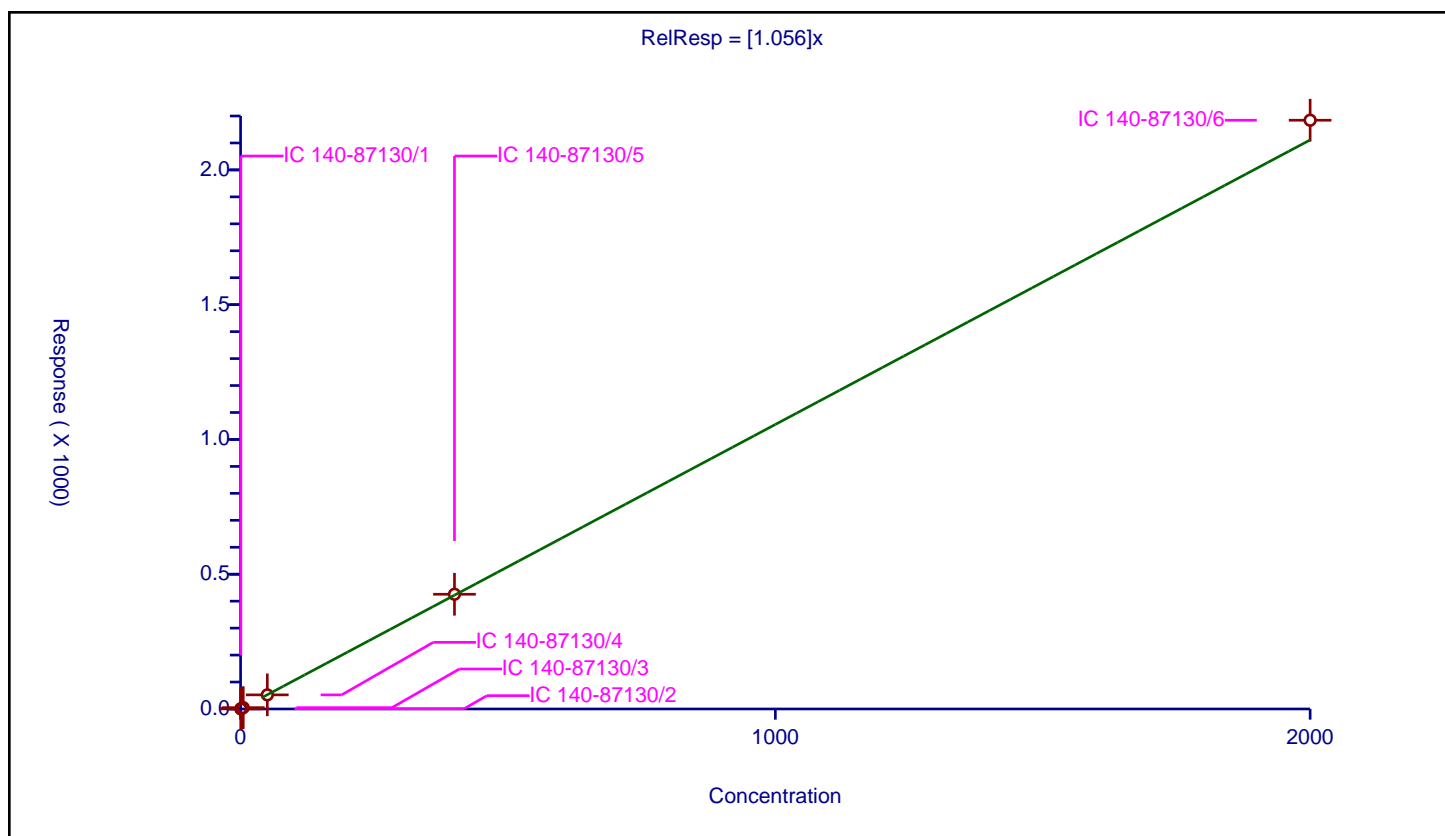
## Curve Coefficients

Intercept: 0  
 Slope: 1.056

## Error Coefficients

Relative Standard Deviation: 3.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.542002	200.0	17145311.0	1.084005	Y
2	IC 140-87130/2	1.0	1.043891	200.0	16075823.0	1.043891	Y
3	IC 140-87130/3	5.0	5.01168	200.0	15994835.0	1.002336	Y
4	IC 140-87130/4	50.0	52.342334	200.0	16048883.0	1.046847	Y
5	IC 140-87130/5	400.0	425.718332	200.0	16797326.0	1.064296	Y
6	IC 140-87130/6	2000.0	2184.389236	200.0	18003846.0	1.092195	Y





Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

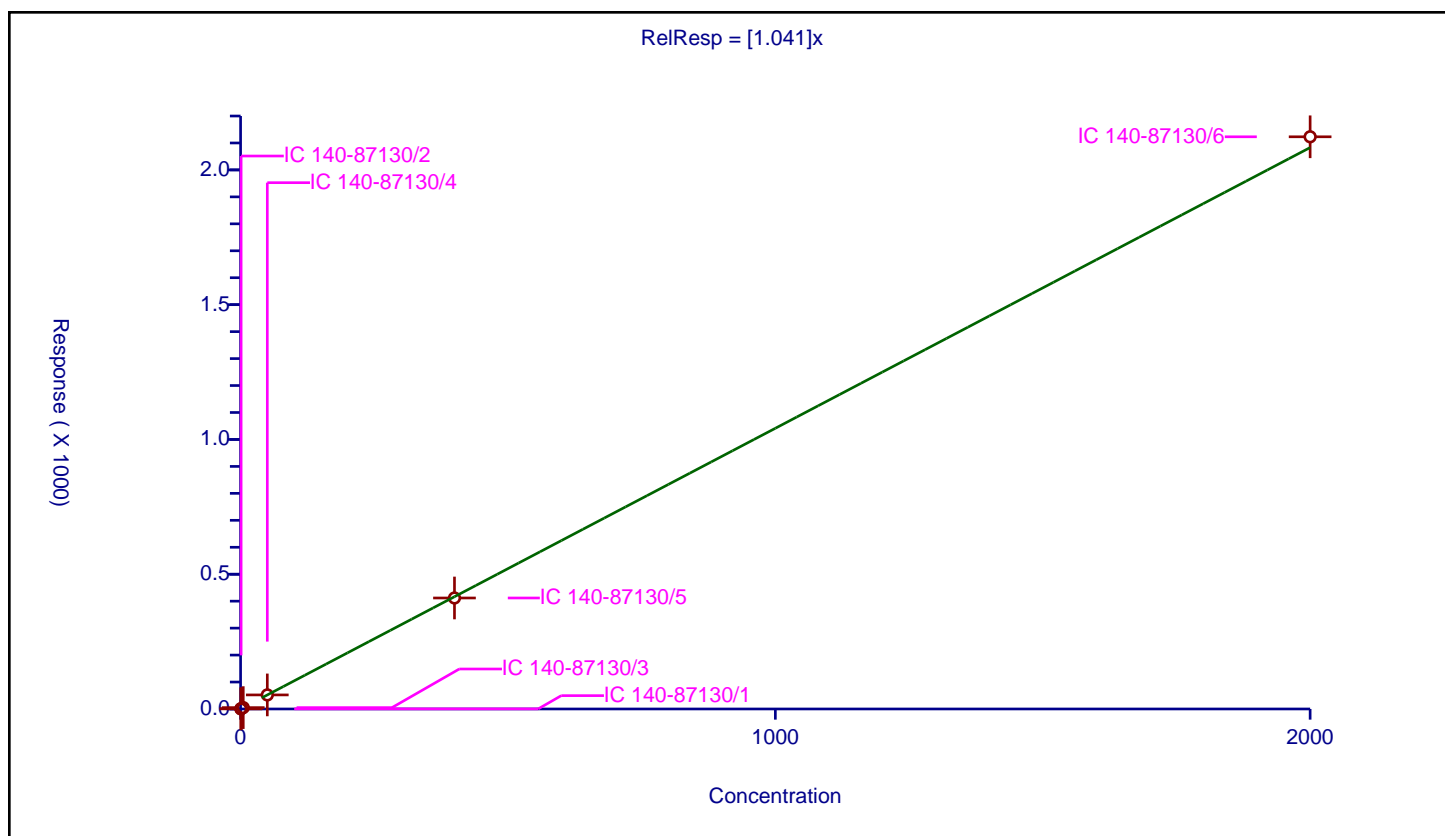
## Curve Coefficients

Intercept: 0  
Slope: 1.041

## Error Coefficients

Relative Standard Deviation: 3.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.492858	200.0	17145311.0	0.985716	Y
2	IC 140-87130/2	1.0	1.107303	200.0	16075823.0	1.107303	Y
3	IC 140-87130/3	5.0	5.106886	200.0	15994835.0	1.021377	Y
4	IC 140-87130/4	50.0	52.176852	200.0	16048883.0	1.043537	Y
5	IC 140-87130/5	400.0	411.833276	200.0	16797326.0	1.029583	Y
6	IC 140-87130/6	2000.0	2122.946042	200.0	18003846.0	1.061473	Y



# Calibration

/ PCB-166

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

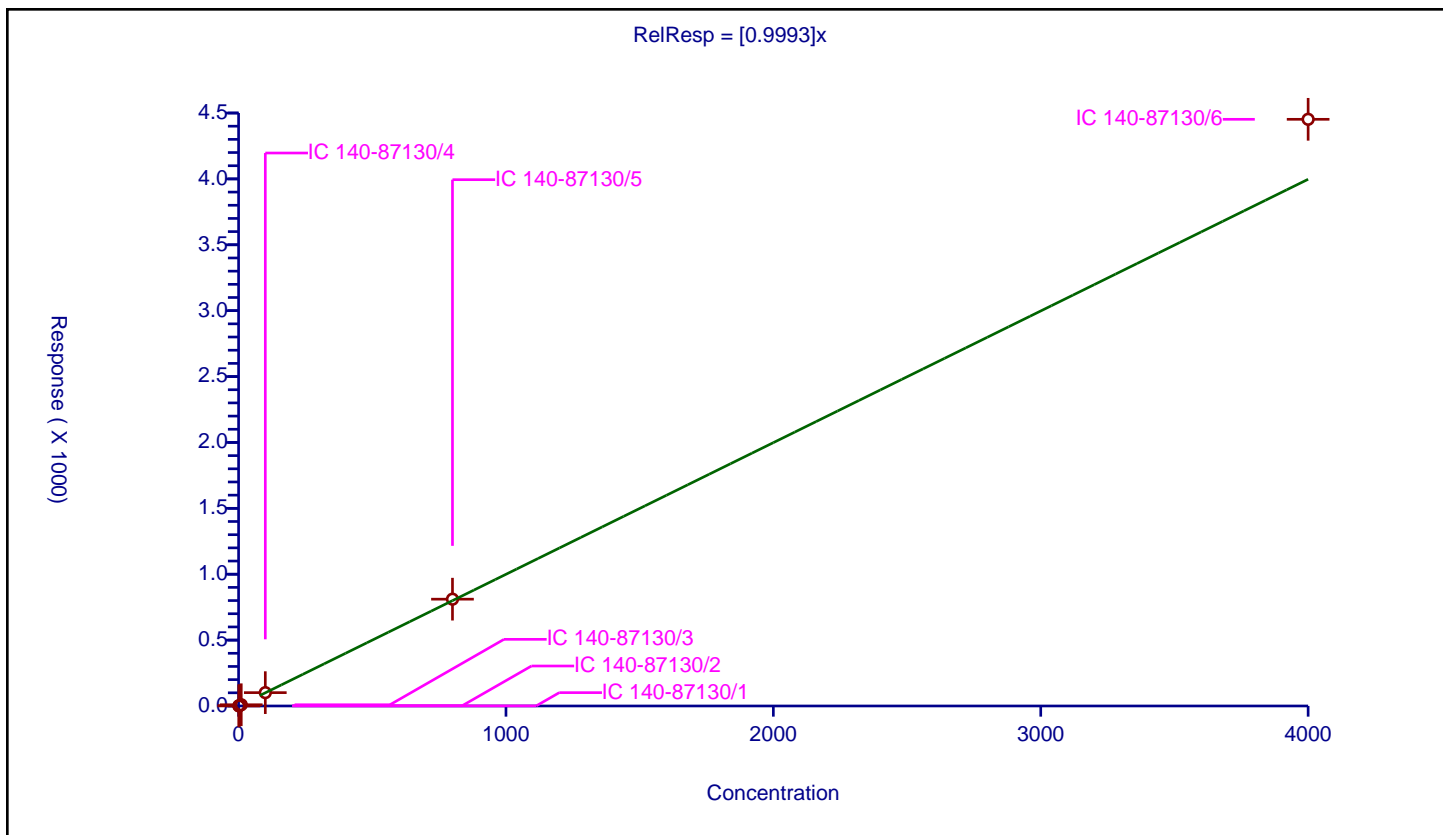
## Curve Coefficients

Intercept: 0  
 Slope: 0.9993

## Error Coefficients

Relative Standard Deviation: 6.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.978717	200.0	17145311.0	0.978717	Y
2	IC 140-87130/2	2.0	1.885788	200.0	16075823.0	0.942894	Y
3	IC 140-87130/3	10.0	9.351869	200.0	15994835.0	0.935187	Y
4	IC 140-87130/4	100.0	101.248978	200.0	16048883.0	1.01249	Y
5	IC 140-87130/5	800.0	810.572802	200.0	16797326.0	1.013216	Y
6	IC 140-87130/6	4000.0	4452.331241	200.0	18003846.0	1.113083	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

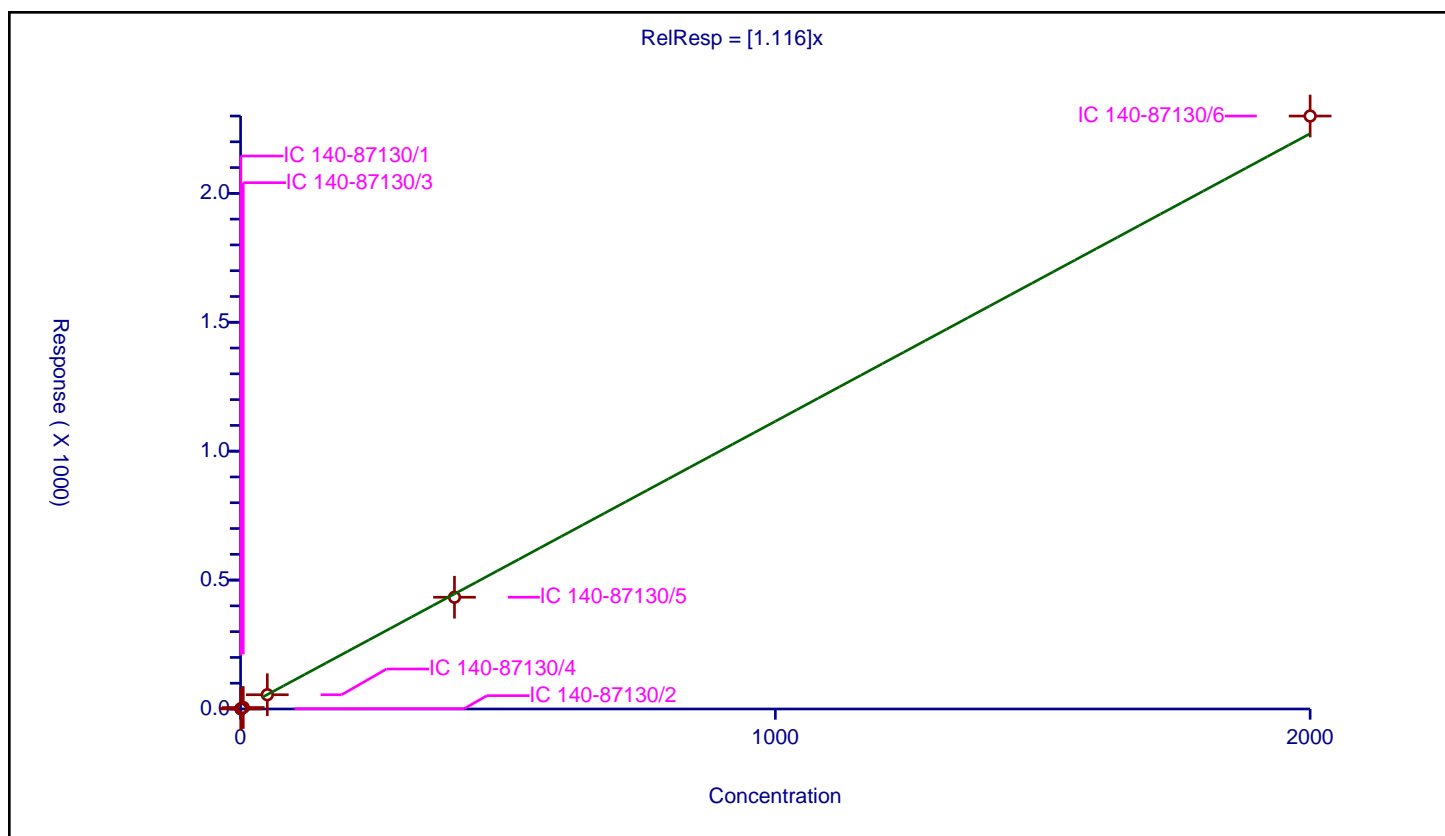
## Curve Coefficients

Intercept: 0  
Slope: 1.116

## Error Coefficients

Relative Standard Deviation: 2.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.562594	100.0	9105316.0	1.125189	Y
2	IC 140-87130/2	1.0	1.089125	100.0	8343026.0	1.089125	Y
3	IC 140-87130/3	5.0	5.704848	100.0	8150383.0	1.14097	Y
4	IC 140-87130/4	50.0	55.325958	100.0	8329121.0	1.106519	Y
5	IC 140-87130/5	400.0	433.408409	100.0	8748546.0	1.083521	Y
6	IC 140-87130/6	2000.0	2299.944203	100.0	9296213.0	1.149972	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

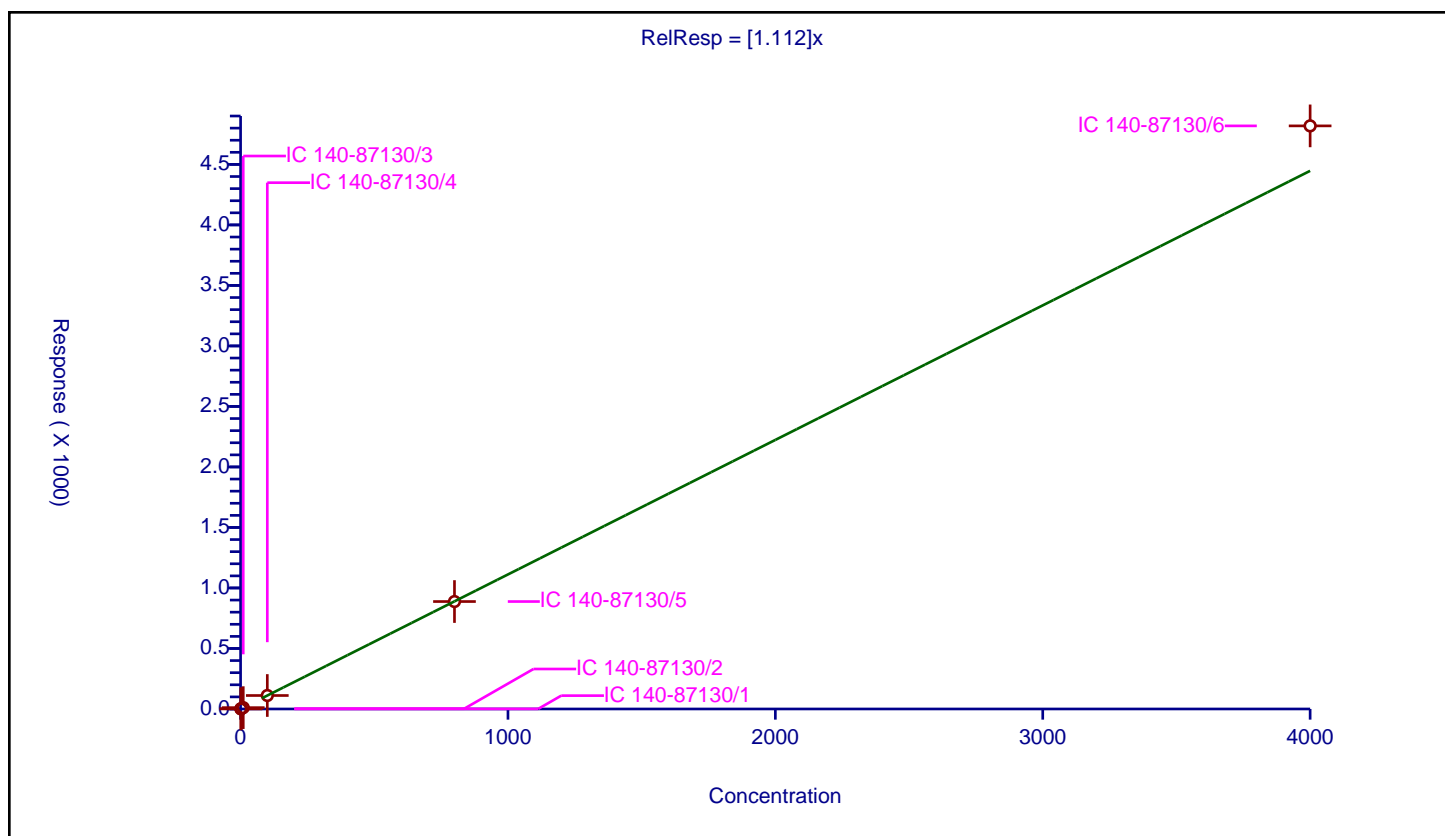
## Curve Coefficients

Intercept: 0  
Slope: 1.112

## Error Coefficients

Relative Standard Deviation: 4.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.08579	200.0	17145311.0	1.08579	Y
2	IC 140-87130/2	2.0	2.076199	200.0	16075823.0	1.038099	Y
3	IC 140-87130/3	10.0	11.172444	200.0	15994835.0	1.117244	Y
4	IC 140-87130/4	100.0	111.466549	200.0	16048883.0	1.114665	Y
5	IC 140-87130/5	800.0	887.904587	200.0	16797326.0	1.109881	Y
6	IC 140-87130/6	4000.0	4818.405545	200.0	18003846.0	1.204601	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

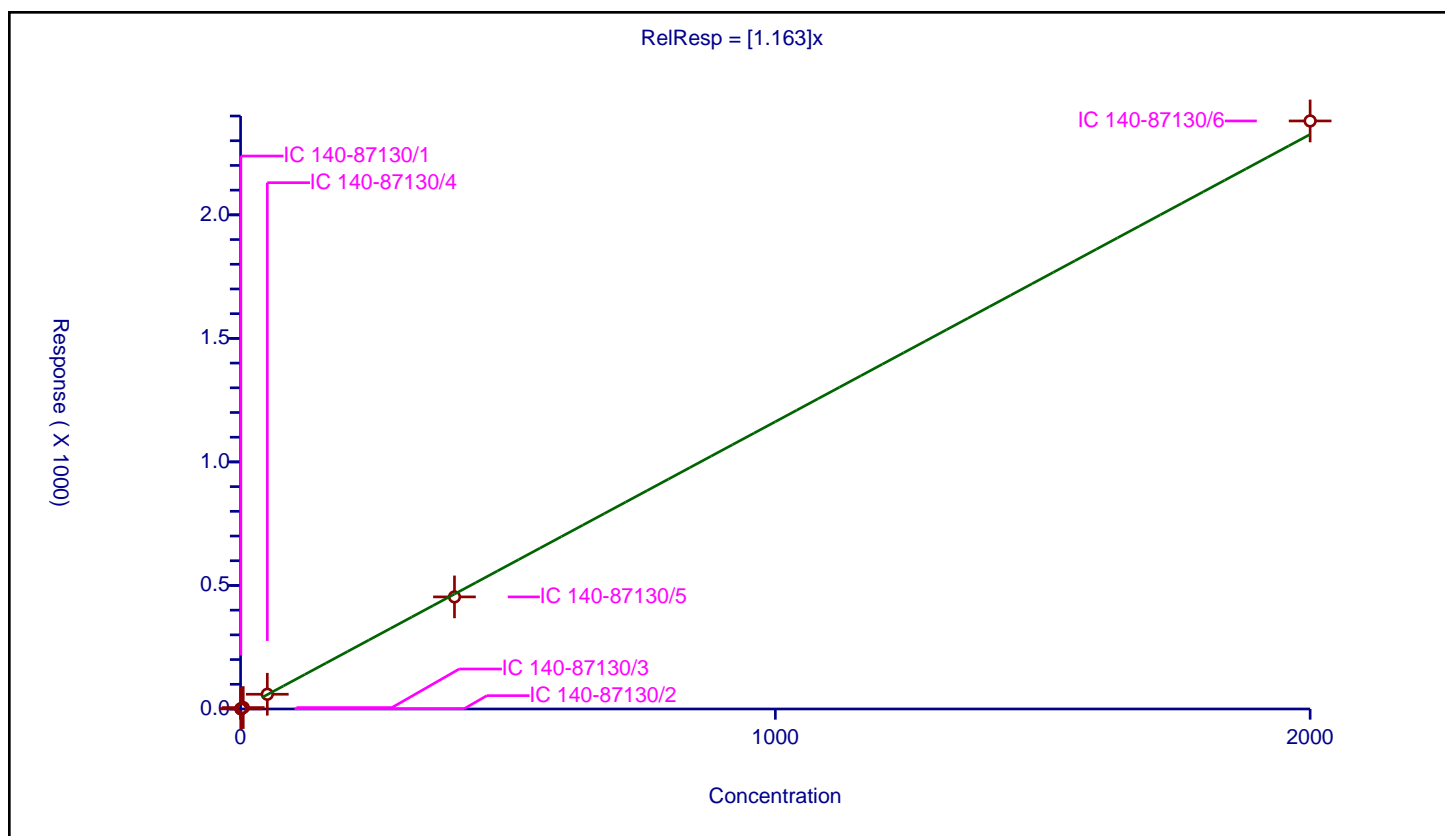
## Curve Coefficients

Intercept: 0  
Slope: 1.163

## Error Coefficients

Relative Standard Deviation: 3.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.598025	100.0	9181390.0	1.19605	Y
2	IC 140-87130/2	1.0	1.109058	100.0	8243482.0	1.109058	Y
3	IC 140-87130/3	5.0	5.774115	100.0	7844285.0	1.154823	Y
4	IC 140-87130/4	50.0	59.649033	100.0	8145884.0	1.192981	Y
5	IC 140-87130/5	400.0	453.642676	100.0	8761705.0	1.134107	Y
6	IC 140-87130/6	2000.0	2380.008853	100.0	9278382.0	1.190004	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

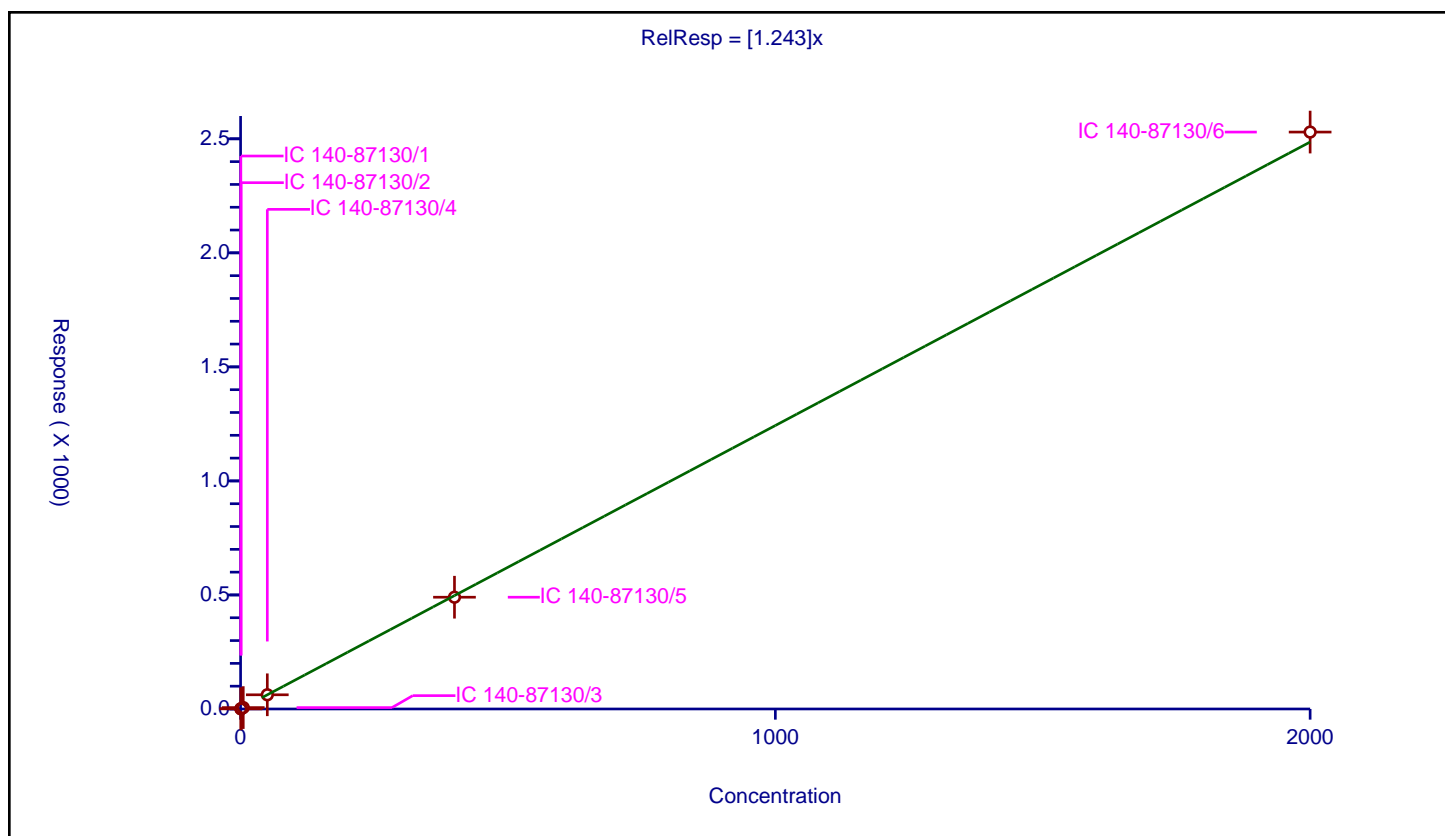
## Curve Coefficients

Intercept: 0  
Slope: 1.243

## Error Coefficients

Relative Standard Deviation: 1.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.624146	100.0	3711790.0	1.248293	Y
2	IC 140-87130/2	1.0	1.257347	100.0	3424036.0	1.257347	Y
3	IC 140-87130/3	5.0	6.082463	100.0	3389482.0	1.216493	Y
4	IC 140-87130/4	50.0	62.293197	100.0	3406868.0	1.245864	Y
5	IC 140-87130/5	400.0	490.092859	100.0	3537933.0	1.225232	Y
6	IC 140-87130/6	2000.0	2529.630527	100.0	3634856.0	1.264815	Y



# Calibration

/ PCB-170

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

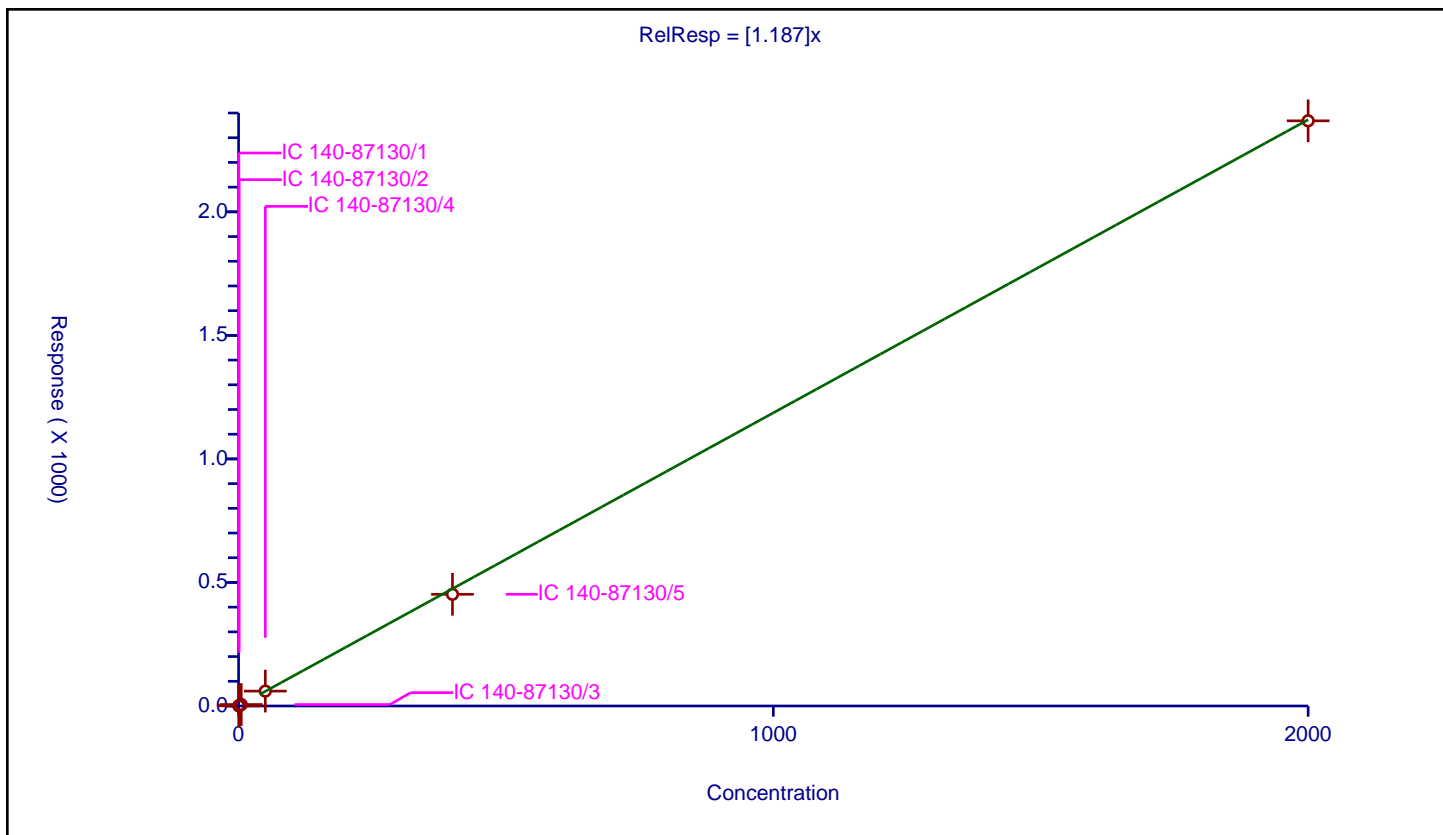
## Curve Coefficients

Intercept: 0  
 Slope: 1.187

## Error Coefficients

Relative Standard Deviation: 2.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.609129	100.0	4764508.0	1.218258	Y
2	IC 140-87130/2	1.0	1.210137	100.0	4277780.0	1.210137	Y
3	IC 140-87130/3	5.0	5.856648	100.0	4357834.0	1.17133	Y
4	IC 140-87130/4	50.0	60.243724	100.0	4156589.0	1.204874	Y
5	IC 140-87130/5	400.0	452.105989	100.0	4386822.0	1.130265	Y
6	IC 140-87130/6	2000.0	2368.397586	100.0	4404173.0	1.184199	Y



# Calibration

/ PCB-171

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

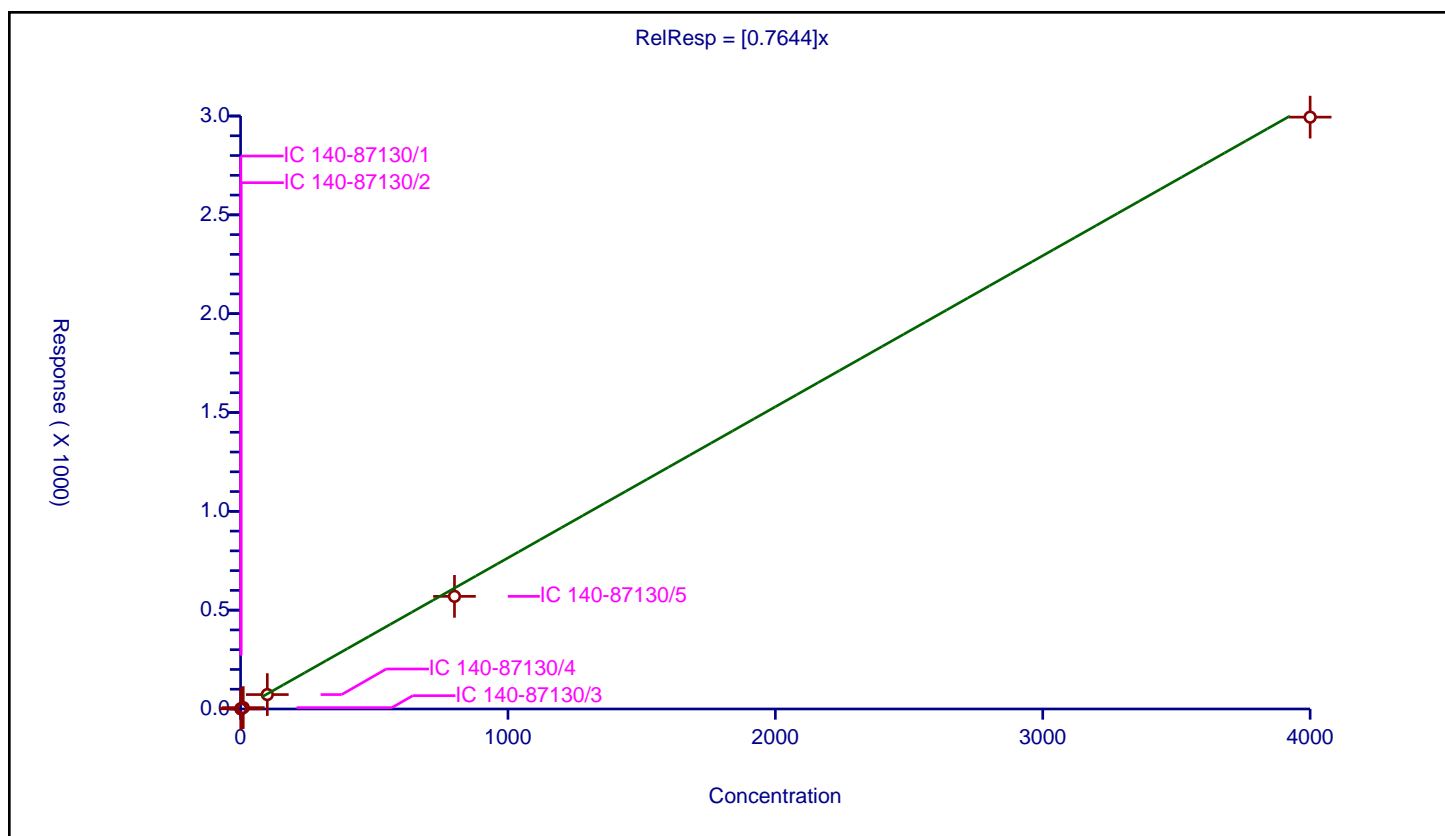
## Curve Coefficients

Intercept: 0  
 Slope: 0.7644

## Error Coefficients

Relative Standard Deviation: 8.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.849611	100.0	7116082.0	0.849611	Y
2	IC 140-87130/2	2.0	1.696349	100.0	6585200.0	0.848175	Y
3	IC 140-87130/3	10.0	6.987251	100.0	6664037.0	0.698725	Y
4	IC 140-87130/4	100.0	72.935277	100.0	6587579.0	0.729353	Y
5	IC 140-87130/5	800.0	569.795232	100.0	7006215.0	0.712244	Y
6	IC 140-87130/6	4000.0	2994.305697	100.0	7440630.0	0.748576	Y





# Calibration

/ PCB-171/173

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

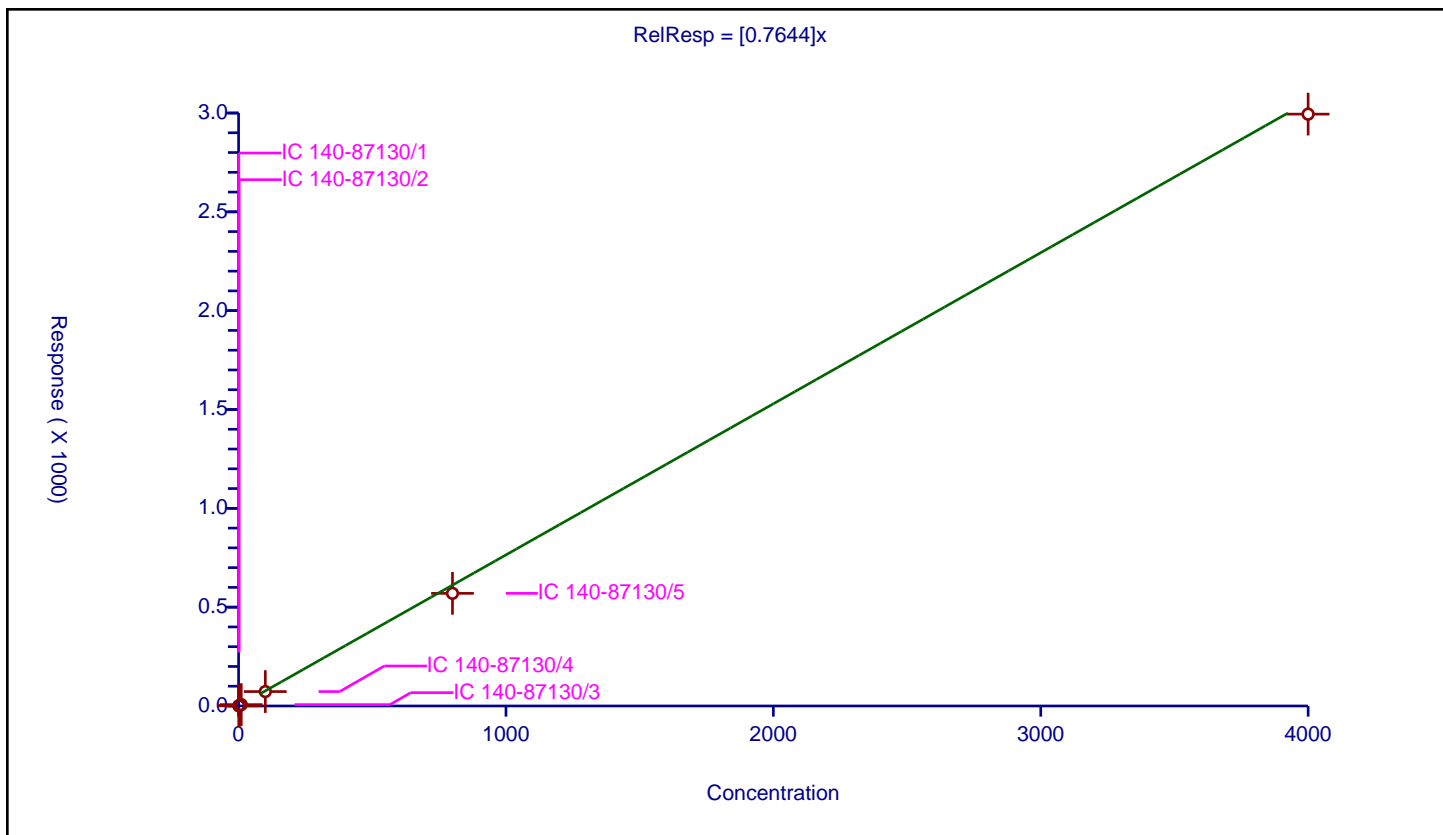
## Curve Coefficients

Intercept: 0  
 Slope: 0.7644

## Error Coefficients

Relative Standard Deviation: 8.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.849611	100.0	7116082.0	0.849611	Y
2	IC 140-87130/2	2.0	1.696349	100.0	6585200.0	0.848175	Y
3	IC 140-87130/3	10.0	6.987251	100.0	6664037.0	0.698725	Y
4	IC 140-87130/4	100.0	72.935277	100.0	6587579.0	0.729353	Y
5	IC 140-87130/5	800.0	569.795232	100.0	7006215.0	0.712244	Y
6	IC 140-87130/6	4000.0	2994.305697	100.0	7440630.0	0.748576	Y



# Calibration

/ PCB-172

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

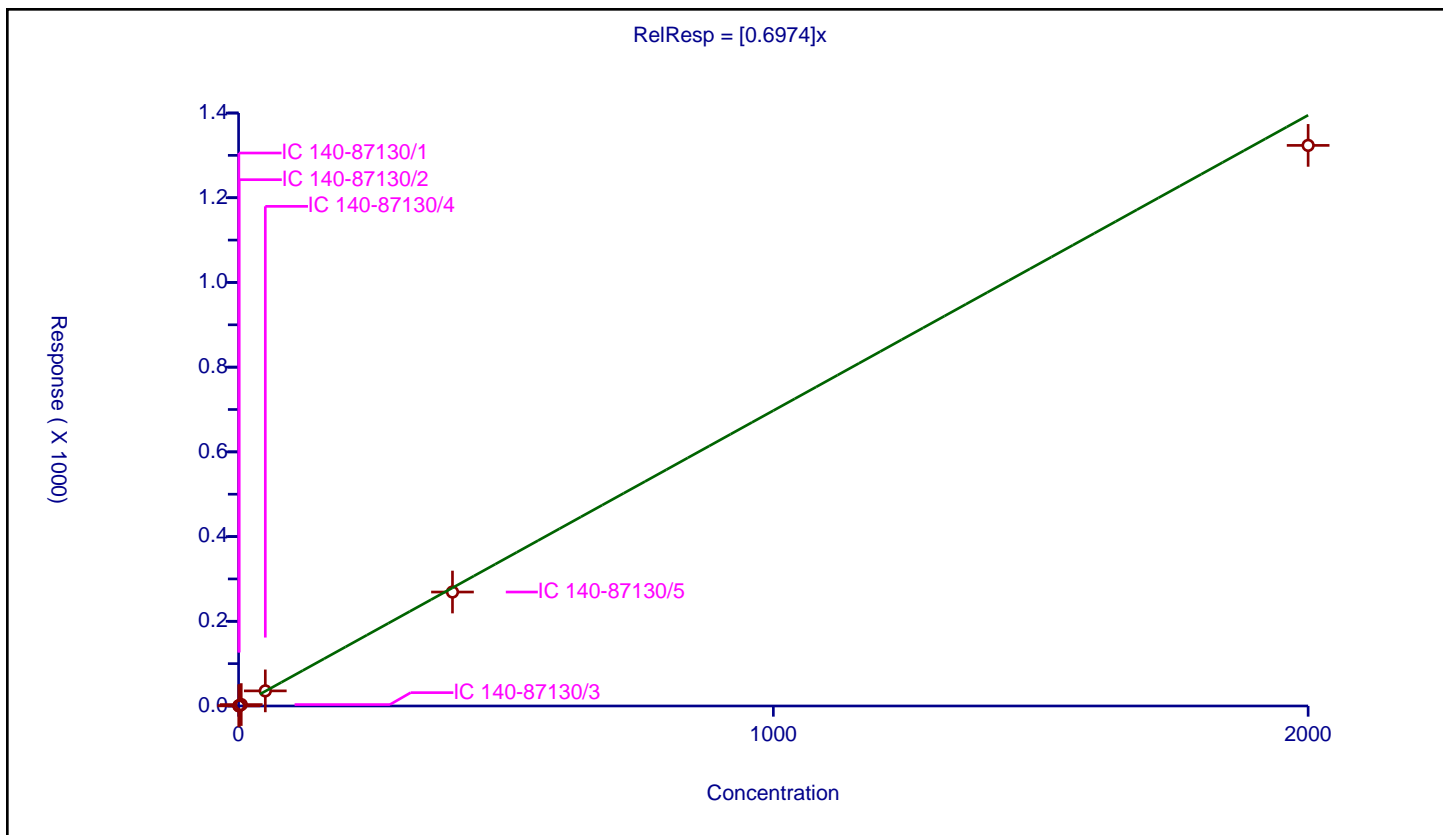
## Curve Coefficients

Intercept: 0  
 Slope: 0.6974

## Error Coefficients

Relative Standard Deviation: 4.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.371412	100.0	7116082.0	0.742824	Y
2	IC 140-87130/2	1.0	0.716652	100.0	6585200.0	0.716652	Y
3	IC 140-87130/3	5.0	3.389327	100.0	6664037.0	0.677865	Y
4	IC 140-87130/4	50.0	35.642275	100.0	6587579.0	0.712845	Y
5	IC 140-87130/5	400.0	269.045469	100.0	7006215.0	0.672614	Y
6	IC 140-87130/6	2000.0	1323.549578	100.0	7440630.0	0.661775	Y



# Calibration

/ PCB-173

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

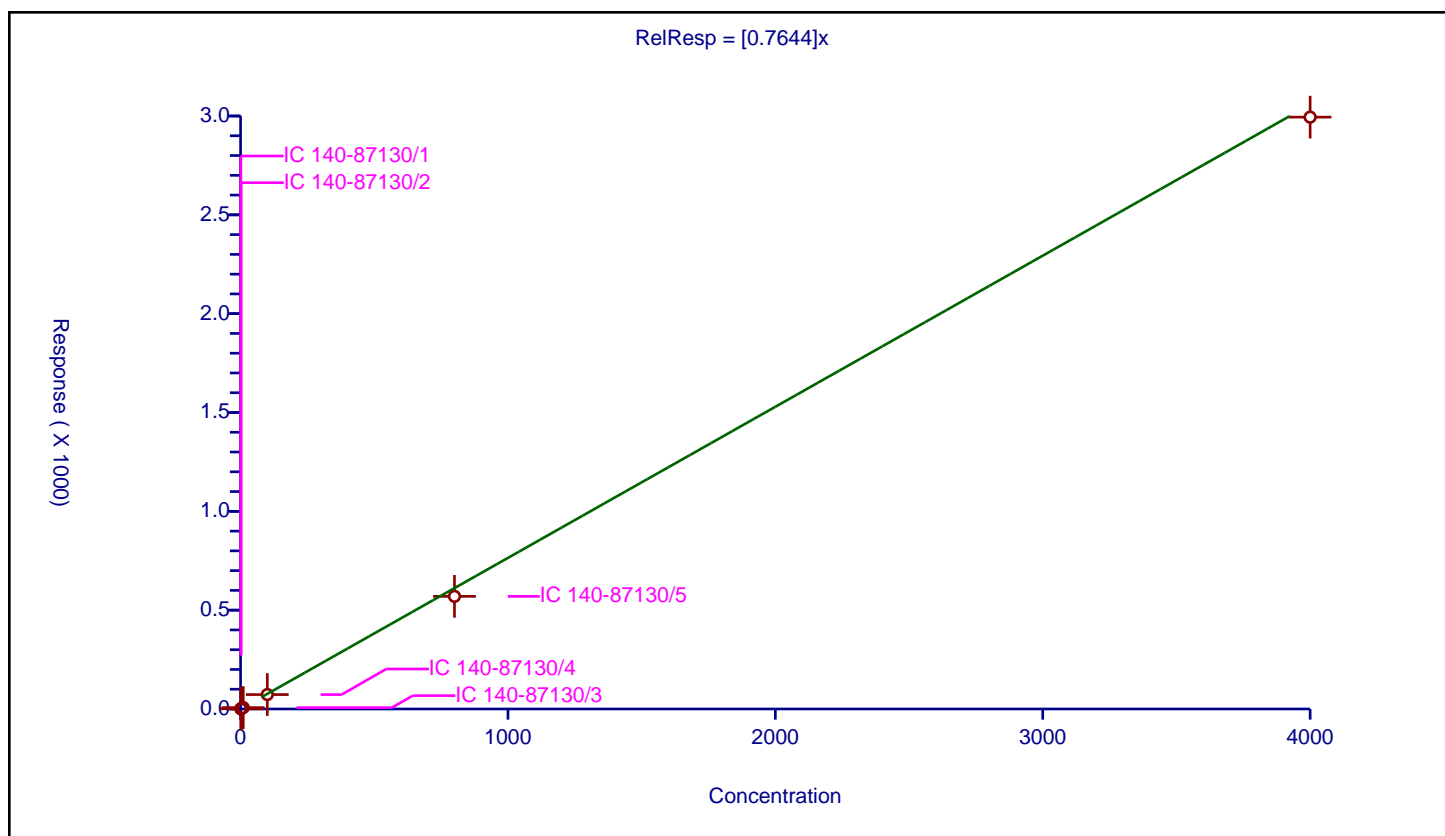
## Curve Coefficients

Intercept: 0  
 Slope: 0.7644

## Error Coefficients

Relative Standard Deviation: 8.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.849611	100.0	7116082.0	0.849611	Y
2	IC 140-87130/2	2.0	1.696349	100.0	6585200.0	0.848175	Y
3	IC 140-87130/3	10.0	6.987251	100.0	6664037.0	0.698725	Y
4	IC 140-87130/4	100.0	72.935277	100.0	6587579.0	0.729353	Y
5	IC 140-87130/5	800.0	569.795232	100.0	7006215.0	0.712244	Y
6	IC 140-87130/6	4000.0	2994.305697	100.0	7440630.0	0.748576	Y



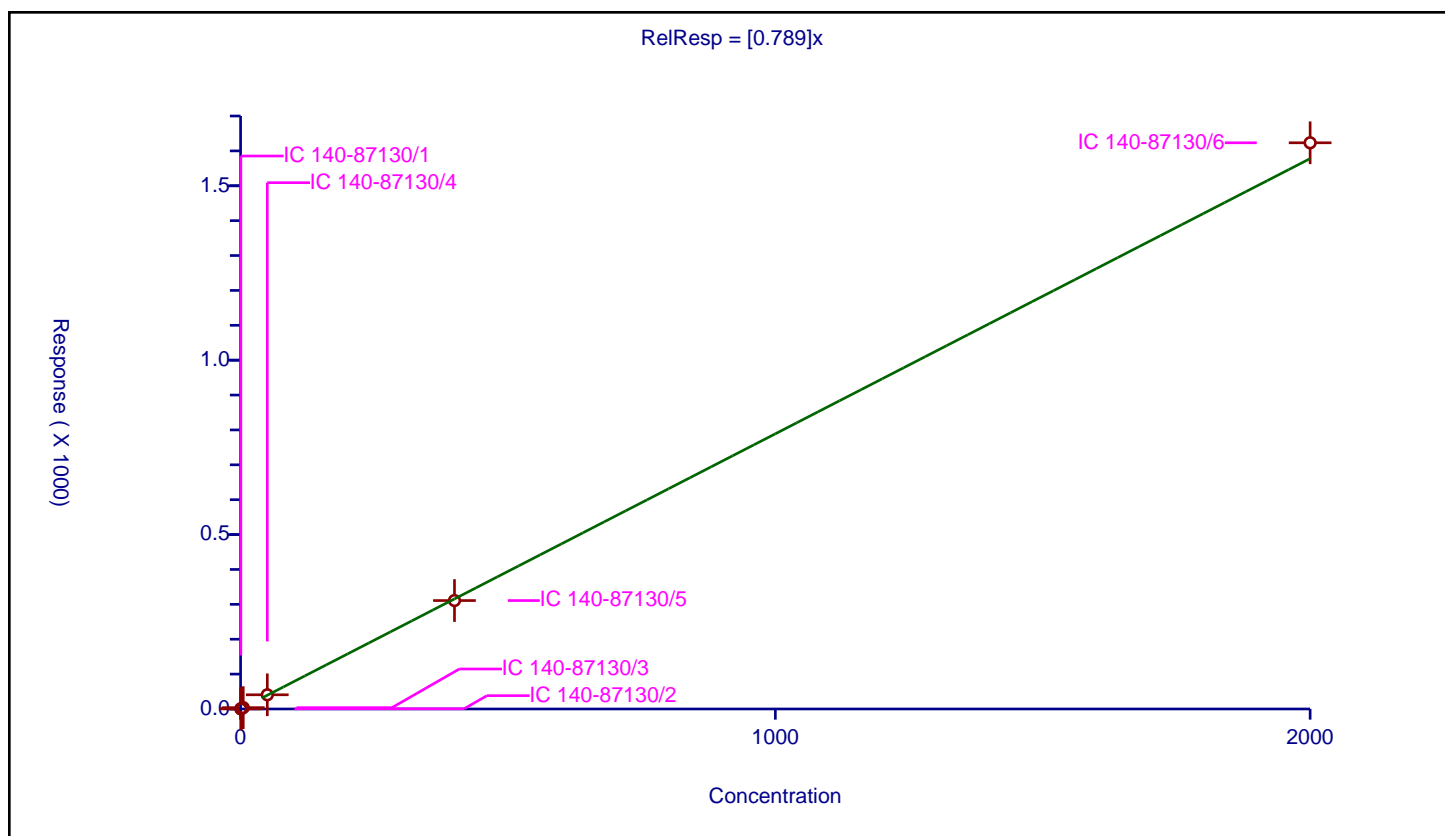
## / PCB-174

### Curve Coefficients

### Error Coefficients

**Relative Standard Deviation:** 6.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.424531	100.0	7116082.0	0.849063	Y
2	IC 140-87130/2	1.0	0.704458	100.0	6585200.0	0.704458	Y
3	IC 140-87130/3	5.0	3.885423	100.0	6664037.0	0.777085	Y
4	IC 140-87130/4	50.0	40.710677	100.0	6587579.0	0.814214	Y
5	IC 140-87130/5	400.0	310.912083	100.0	7006215.0	0.77728	Y
6	IC 140-87130/6	2000.0	1623.223665	100.0	7440630.0	0.811612	Y



# Calibration

/ PCB-175

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

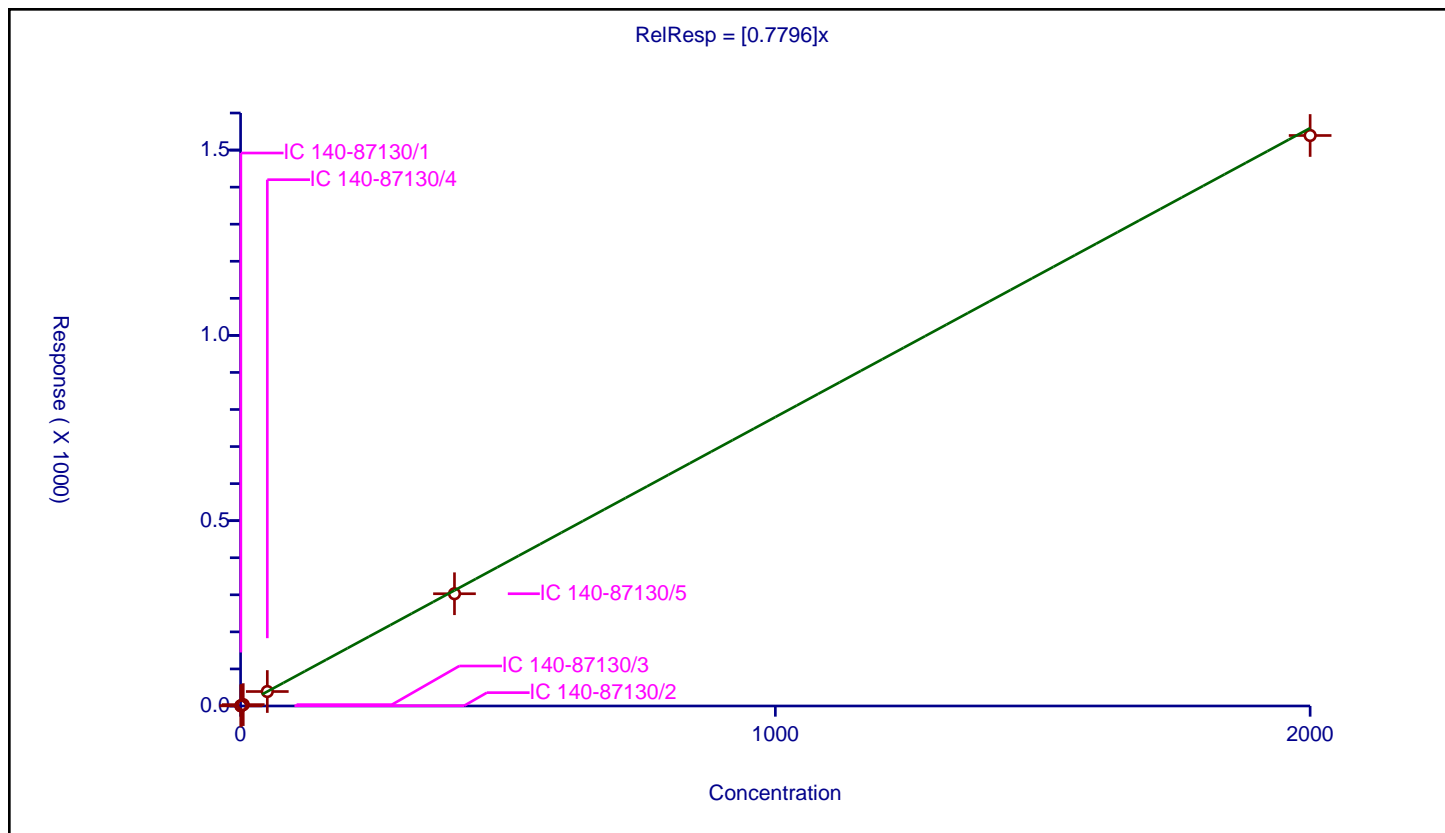
## Curve Coefficients

Intercept: 0  
 Slope: 0.7796

## Error Coefficients

Relative Standard Deviation: 5.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.43486	100.0	7116082.0	0.86972	Y
2	IC 140-87130/2	1.0	0.762209	100.0	6585200.0	0.762209	Y
3	IC 140-87130/3	5.0	3.694262	100.0	6664037.0	0.738852	Y
4	IC 140-87130/4	50.0	39.01116	100.0	6587579.0	0.780223	Y
5	IC 140-87130/5	400.0	302.879857	100.0	7006215.0	0.7572	Y
6	IC 140-87130/6	2000.0	1539.316523	100.0	7440630.0	0.769658	Y



# Calibration

/ PCB-176

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

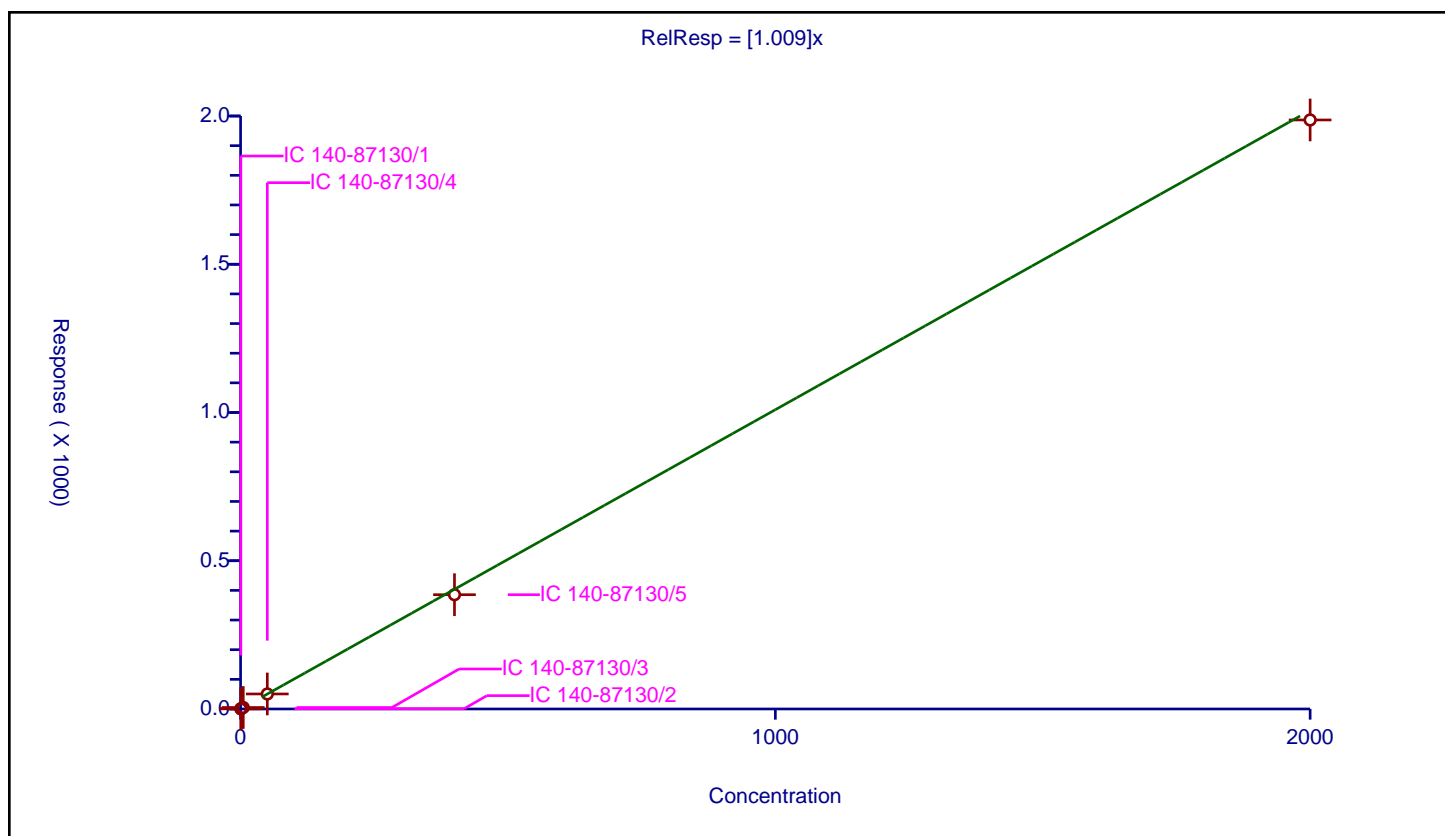
## Curve Coefficients

Intercept: 0  
 Slope: 1.009

## Error Coefficients

Relative Standard Deviation: 6.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.570314	100.0	7116082.0	1.140628	Y
2	IC 140-87130/2	1.0	0.950039	100.0	6585200.0	0.950039	Y
3	IC 140-87130/3	5.0	4.979729	100.0	6664037.0	0.995946	Y
4	IC 140-87130/4	50.0	50.662891	100.0	6587579.0	1.013258	Y
5	IC 140-87130/5	400.0	385.481076	100.0	7006215.0	0.963703	Y
6	IC 140-87130/6	2000.0	1986.671088	100.0	7440630.0	0.993336	Y



# Calibration

/ PCB-177

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

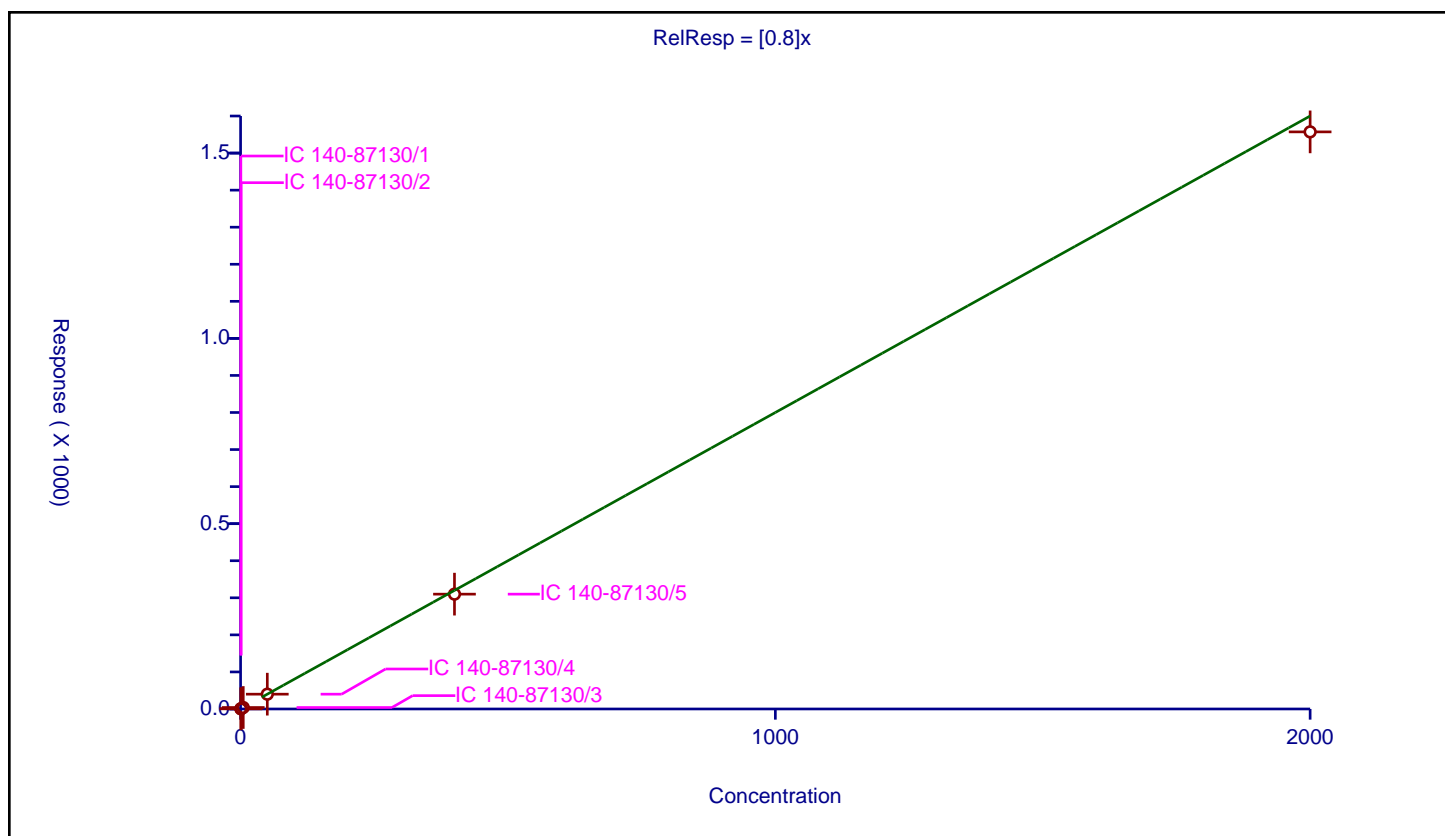
## Curve Coefficients

Intercept: 0  
 Slope: 0.8

## Error Coefficients

Relative Standard Deviation: 3.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.420231	100.0	7116082.0	0.840462	Y
2	IC 140-87130/2	1.0	0.811016	100.0	6585200.0	0.811016	Y
3	IC 140-87130/3	5.0	3.977904	100.0	6664037.0	0.795581	Y
4	IC 140-87130/4	50.0	39.977904	100.0	6587579.0	0.799558	Y
5	IC 140-87130/5	400.0	309.878501	100.0	7006215.0	0.774696	Y
6	IC 140-87130/6	2000.0	1557.201218	100.0	7440630.0	0.778601	Y



# Calibration

/ PCB-178

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

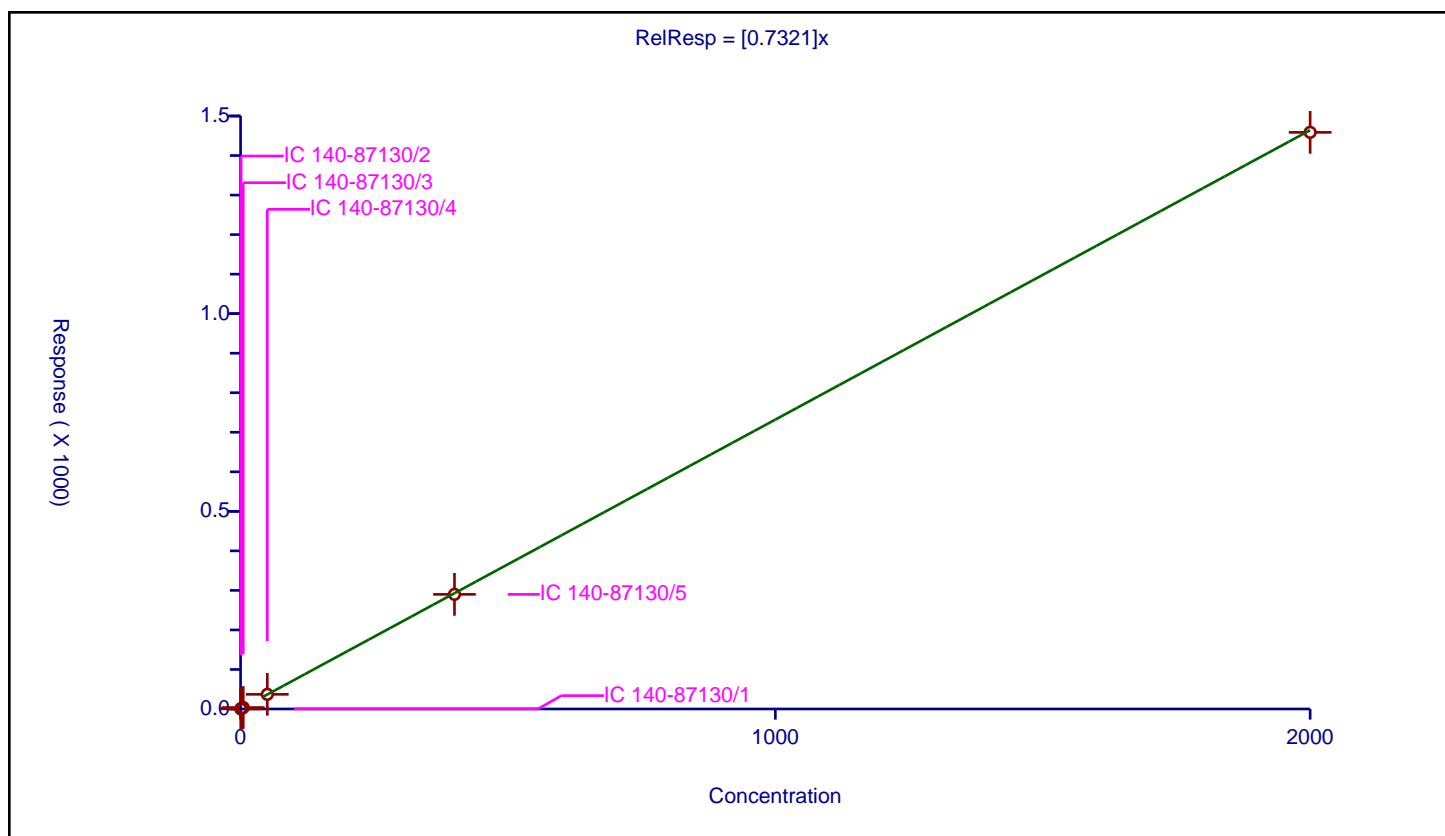
## Curve Coefficients

Intercept: 0  
 Slope: 0.7321

## Error Coefficients

Relative Standard Deviation: 1.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.355308	100.0	7116082.0	0.710616	Y
2	IC 140-87130/2	1.0	0.746462	100.0	6585200.0	0.746462	Y
3	IC 140-87130/3	5.0	3.700895	100.0	6664037.0	0.740179	Y
4	IC 140-87130/4	50.0	37.046766	100.0	6587579.0	0.740935	Y
5	IC 140-87130/5	400.0	289.95459	100.0	7006215.0	0.724886	Y
6	IC 140-87130/6	2000.0	1458.627549	100.0	7440630.0	0.729314	Y





# Calibration

/ PCB-178L

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

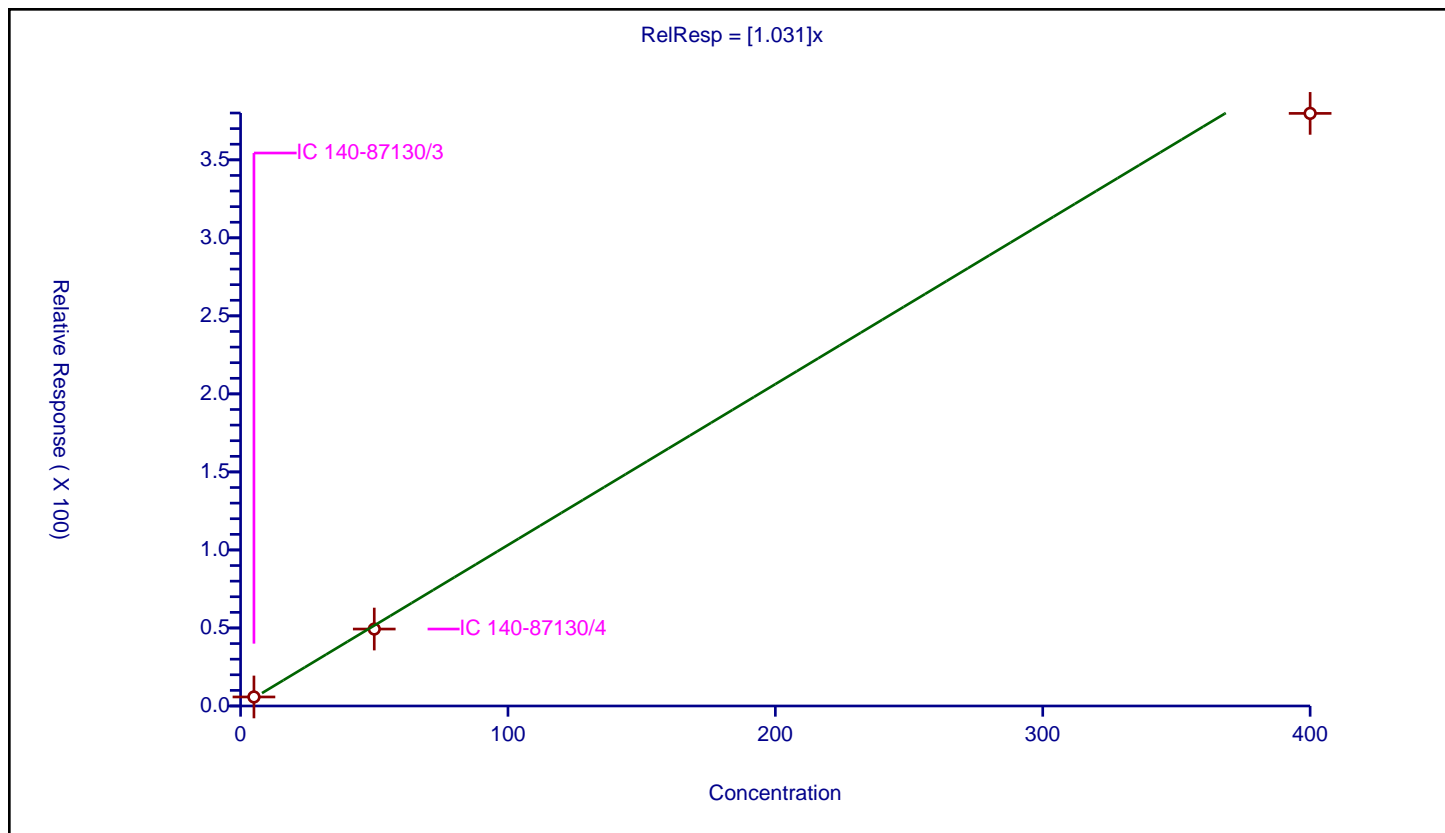
## Curve Coefficients

Intercept: 0  
 Slope: 1.031

## Error Coefficients

Relative Standard Deviation: 10.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/3	5.0	5.792413	100.0	5019998.0	1.158483	Y
2	IC 140-87130/4	50.0	49.304117	100.0	4977558.0	0.986082	Y
3	IC 140-87130/5	400.0	379.768667	100.0	5309833.0	0.949422	Y



# Calibration

/ PCB-179

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

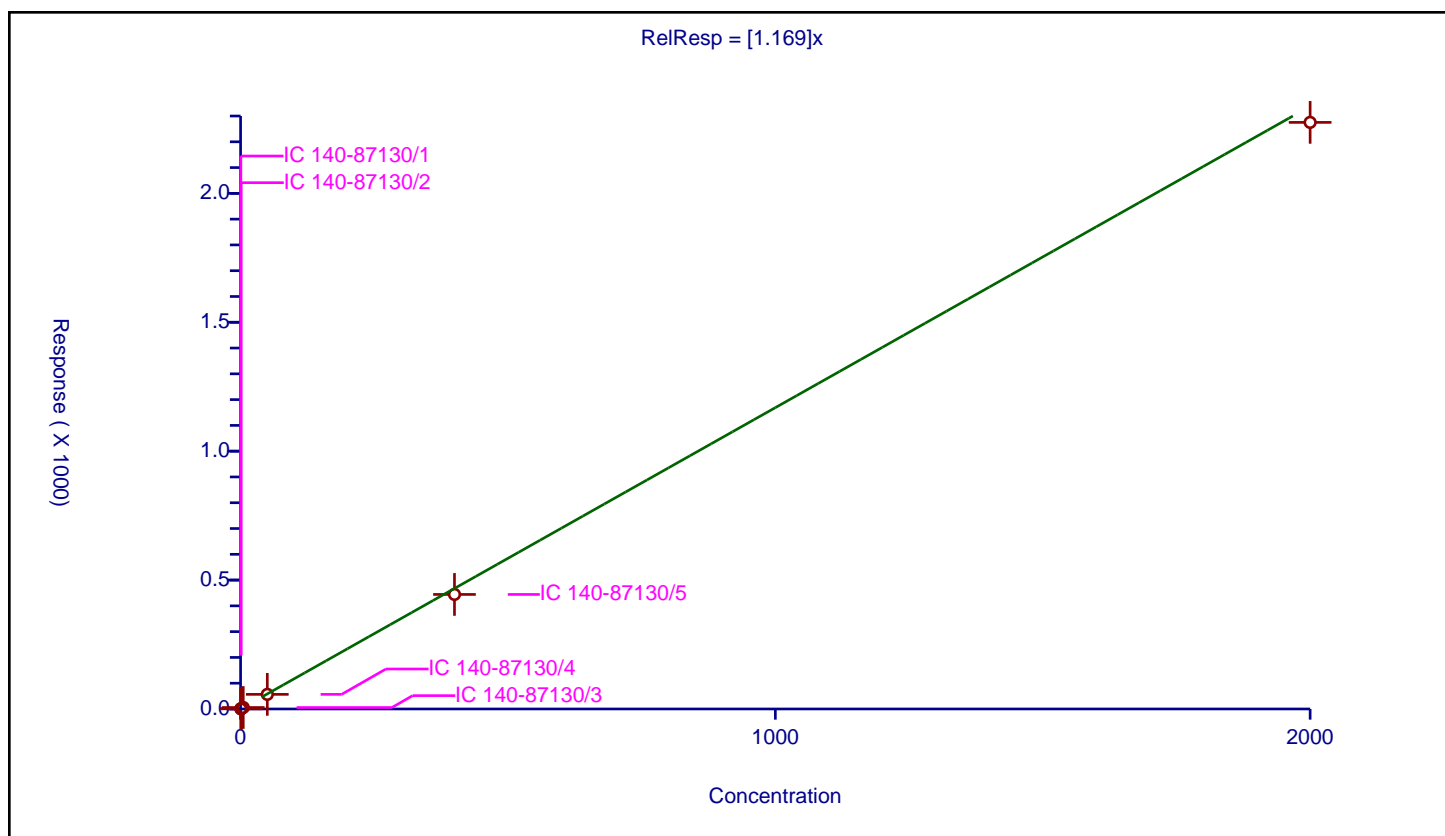
## Curve Coefficients

Intercept: 0  
Slope: 1.169

## Error Coefficients

Relative Standard Deviation: 6.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.657342	100.0	7116082.0	1.314684	Y
2	IC 140-87130/2	1.0	1.170838	100.0	6585200.0	1.170838	Y
3	IC 140-87130/3	5.0	5.728405	100.0	6664037.0	1.145681	Y
4	IC 140-87130/4	50.0	56.681582	100.0	6587579.0	1.133632	Y
5	IC 140-87130/5	400.0	444.329071	100.0	7006215.0	1.110823	Y
6	IC 140-87130/6	2000.0	2275.27458	100.0	7440630.0	1.137637	Y



**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

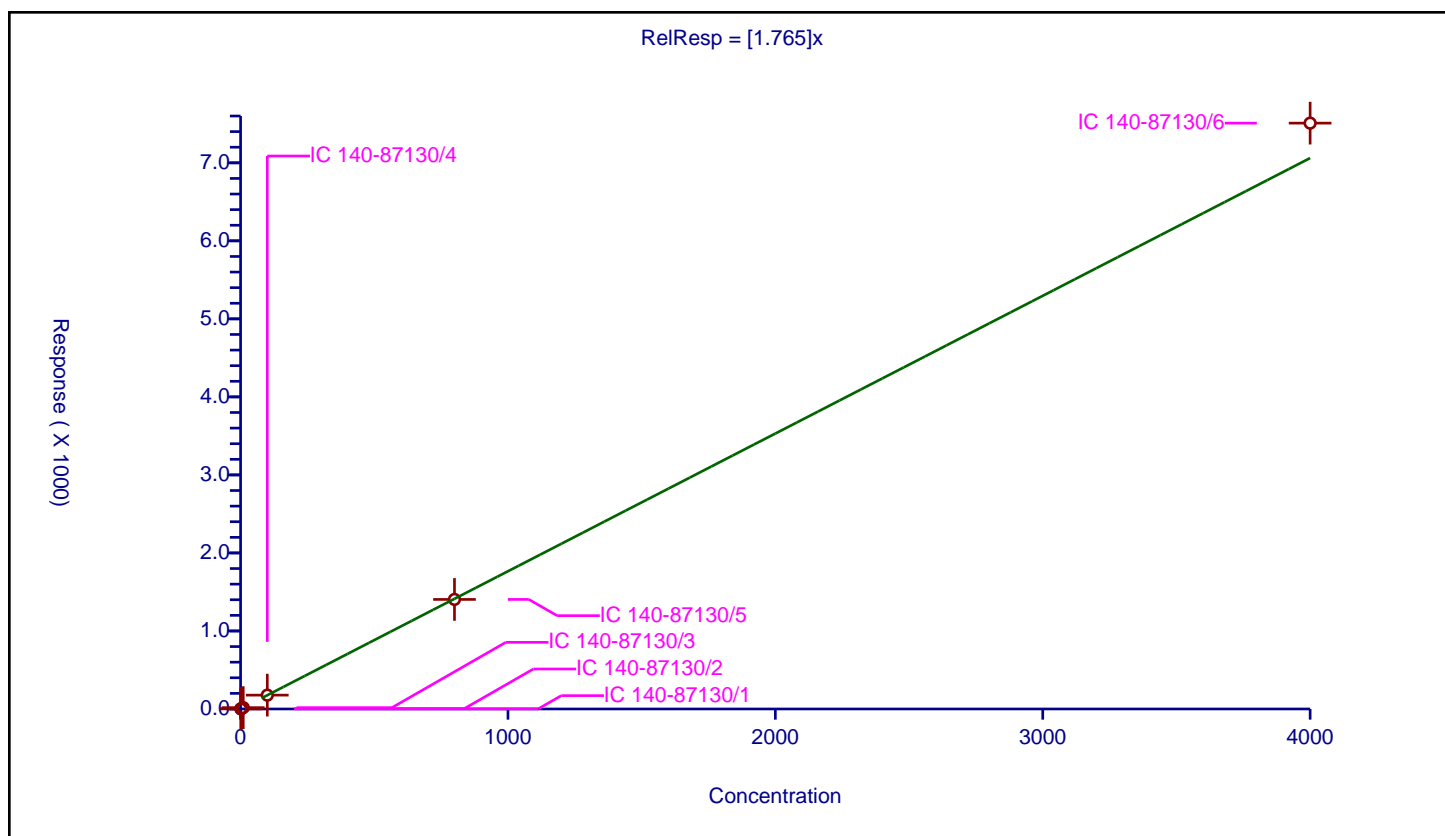
## Curve Coefficients

**Intercept:** 0  
**Slope:** 1.765

## Error Coefficients

**Relative Standard Deviation:** 3.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.697941	100.0	3711790.0	1.697941	Y
2	IC 140-87130/2	2.0	3.493684	100.0	3424036.0	1.746842	Y
3	IC 140-87130/3	10.0	17.367846	100.0	3389482.0	1.736785	Y
4	IC 140-87130/4	100.0	177.714869	100.0	3406868.0	1.777149	Y
5	IC 140-87130/5	800.0	1404.321535	100.0	3537933.0	1.755402	Y
6	IC 140-87130/6	4000.0	7508.781366	100.0	3634856.0	1.877195	Y



# Calibration

/ PCB-18/30

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

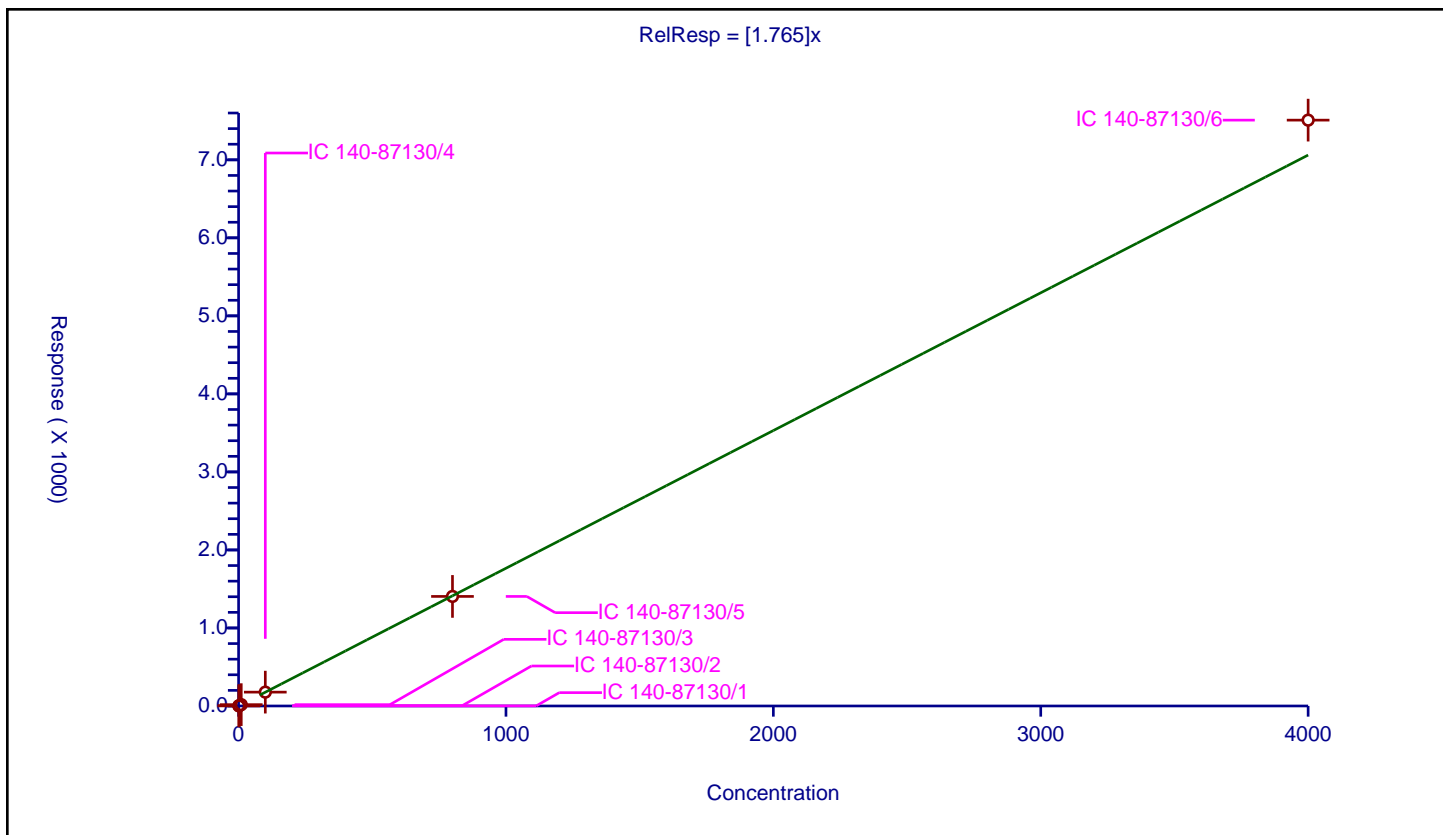
## Curve Coefficients

Intercept: 0  
 Slope: 1.765

## Error Coefficients

Relative Standard Deviation: 3.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.697941	100.0	3711790.0	1.697941	Y
2	IC 140-87130/2	2.0	3.493684	100.0	3424036.0	1.746842	Y
3	IC 140-87130/3	10.0	17.367846	100.0	3389482.0	1.736785	Y
4	IC 140-87130/4	100.0	177.714869	100.0	3406868.0	1.777149	Y
5	IC 140-87130/5	800.0	1404.321535	100.0	3537933.0	1.755402	Y
6	IC 140-87130/6	4000.0	7508.781366	100.0	3634856.0	1.877195	Y



# Calibration

/ PCB-180

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

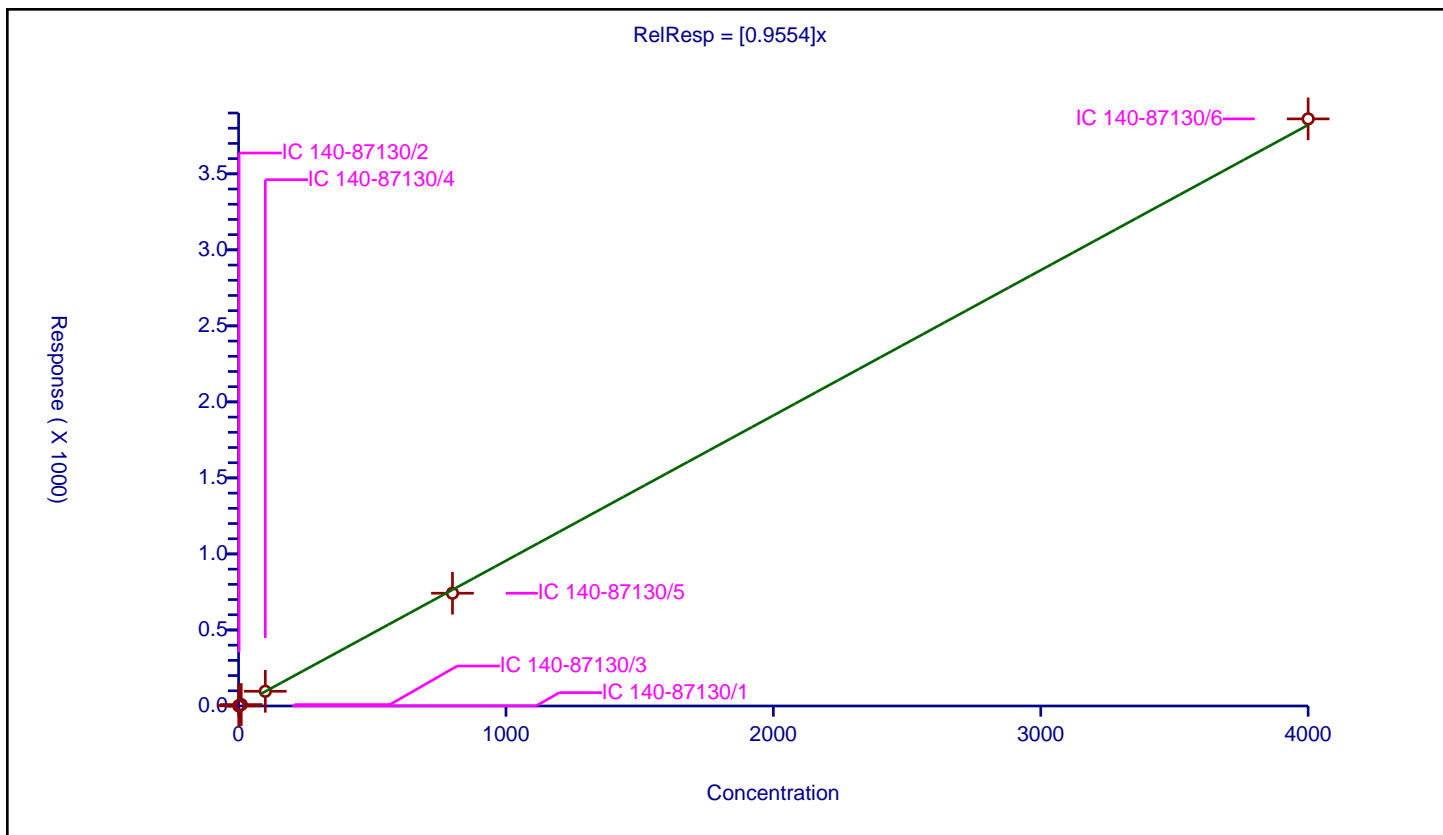
## Curve Coefficients

Intercept: 0  
 Slope: 0.9554

## Error Coefficients

Relative Standard Deviation: 2.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.940616	100.0	7116082.0	0.940616	Y
2	IC 140-87130/2	2.0	1.980942	100.0	6585200.0	0.990471	Y
3	IC 140-87130/3	10.0	9.403114	100.0	6664037.0	0.940311	Y
4	IC 140-87130/4	100.0	96.857131	100.0	6587579.0	0.968571	Y
5	IC 140-87130/5	800.0	741.672886	100.0	7006215.0	0.927091	Y
6	IC 140-87130/6	4000.0	3861.399881	100.0	7440630.0	0.96535	Y



# Calibration

/ PCB-180/193

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

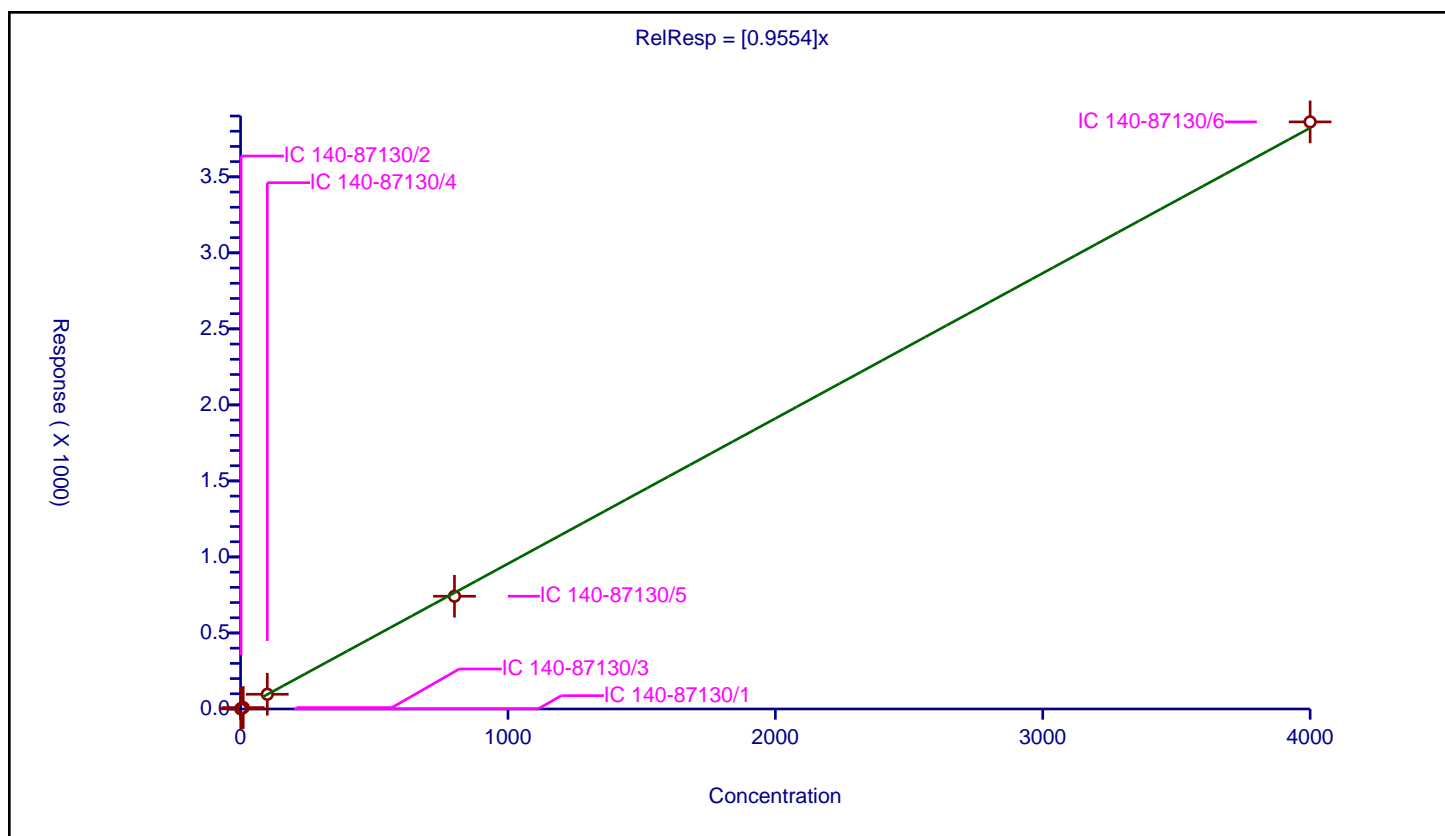
## Curve Coefficients

Intercept: 0  
 Slope: 0.9554

## Error Coefficients

Relative Standard Deviation: 2.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.940616	100.0	7116082.0	0.940616	Y
2	IC 140-87130/2	2.0	1.980942	100.0	6585200.0	0.990471	Y
3	IC 140-87130/3	10.0	9.403114	100.0	6664037.0	0.940311	Y
4	IC 140-87130/4	100.0	96.857131	100.0	6587579.0	0.968571	Y
5	IC 140-87130/5	800.0	741.672886	100.0	7006215.0	0.927091	Y
6	IC 140-87130/6	4000.0	3861.399881	100.0	7440630.0	0.96535	Y



# Calibration

/ PCB-181

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

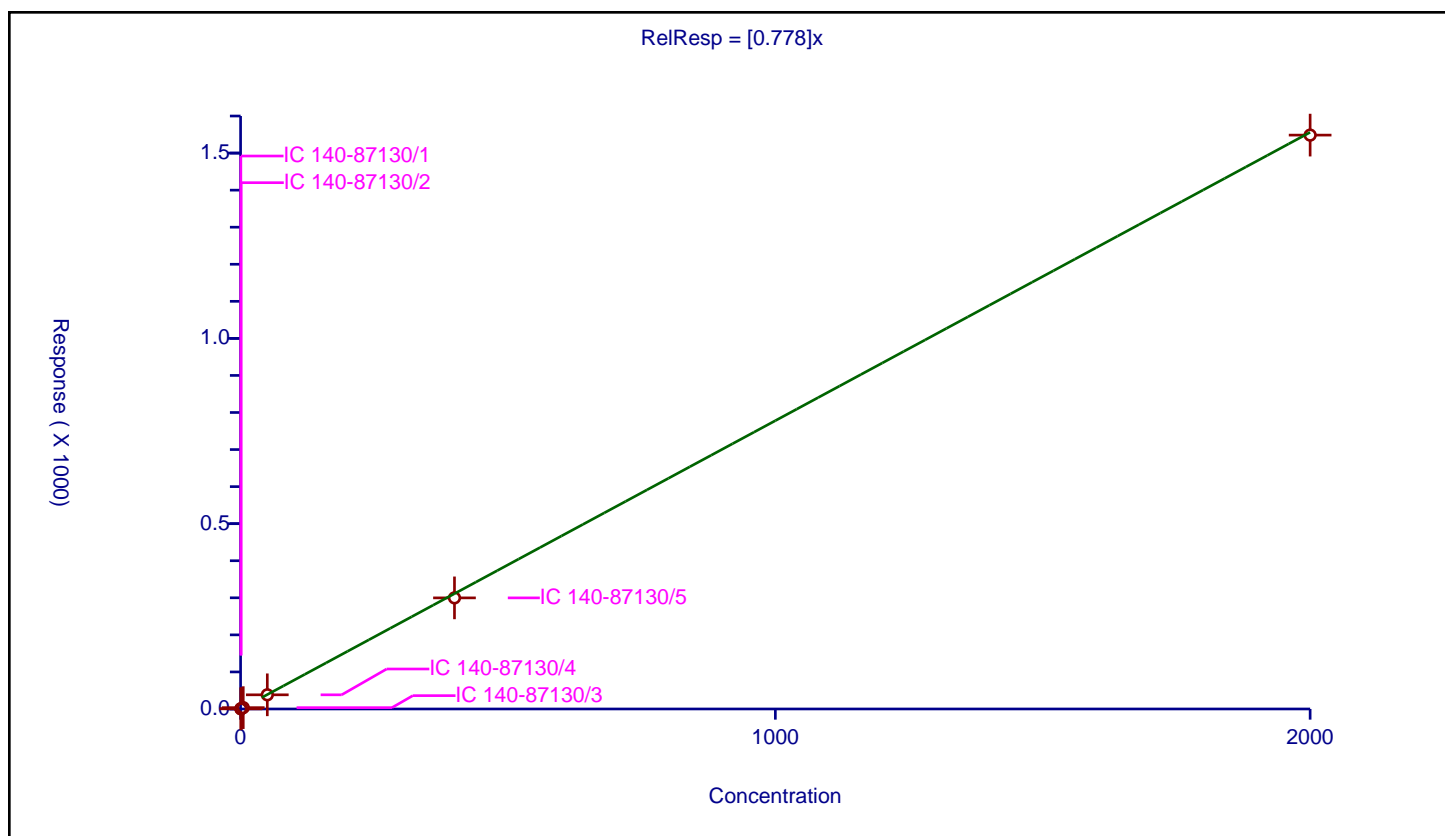
## Curve Coefficients

Intercept: 0  
 Slope: 0.778

## Error Coefficients

Relative Standard Deviation: 5.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.402427	100.0	7116082.0	0.804853	Y
2	IC 140-87130/2	1.0	0.844409	100.0	6585200.0	0.844409	Y
3	IC 140-87130/3	5.0	3.647774	100.0	6664037.0	0.729555	Y
4	IC 140-87130/4	50.0	38.269385	100.0	6587579.0	0.765388	Y
5	IC 140-87130/5	400.0	299.805216	100.0	7006215.0	0.749513	Y
6	IC 140-87130/6	2000.0	1548.502815	100.0	7440630.0	0.774251	Y



# Calibration

/ PCB-182

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

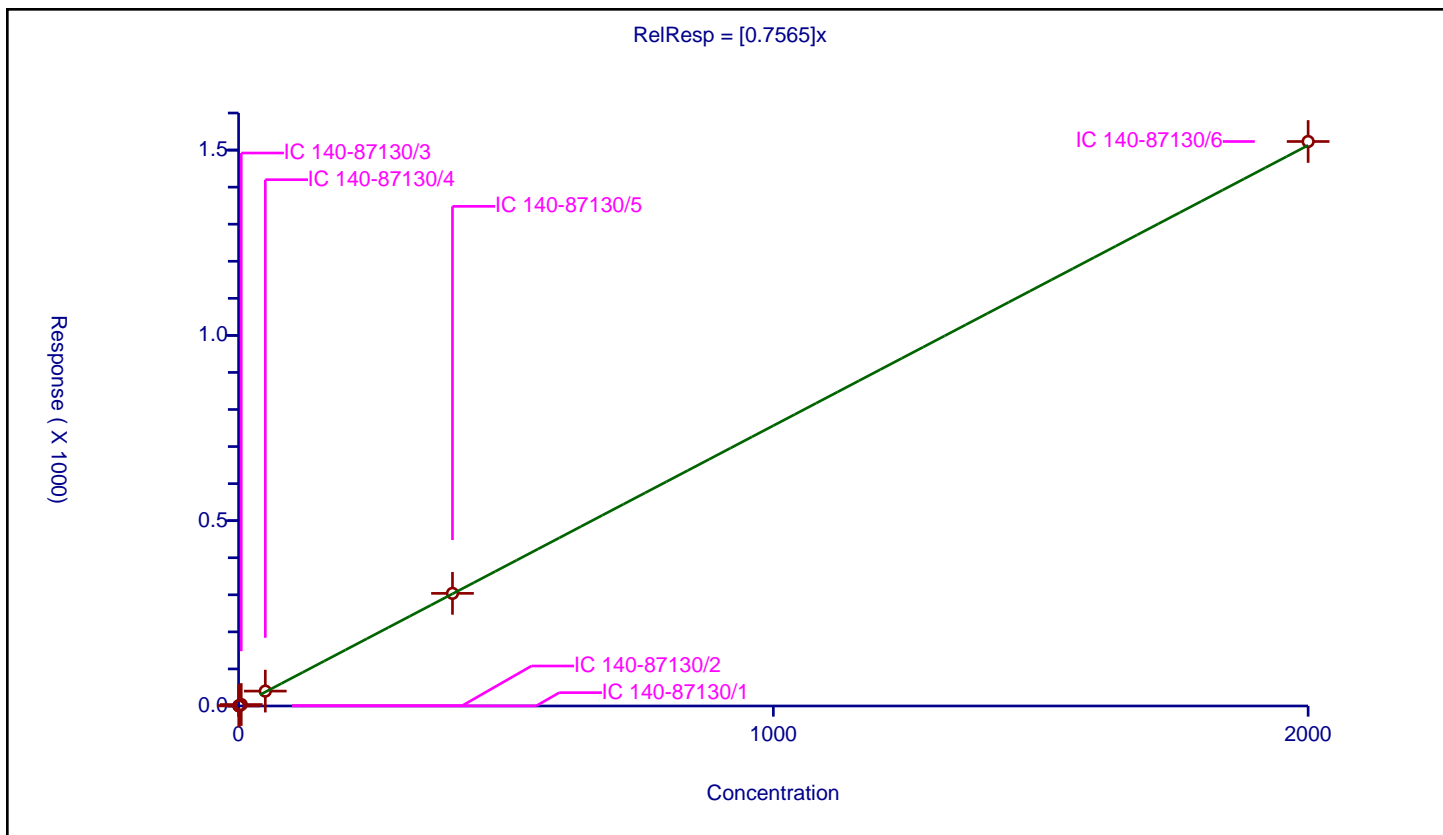
## Curve Coefficients

Intercept: 0  
 Slope: 0.7565

## Error Coefficients

Relative Standard Deviation: 5.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.346314	100.0	7116082.0	0.692628	Y
2	IC 140-87130/2	1.0	0.731823	100.0	6585200.0	0.731823	Y
3	IC 140-87130/3	5.0	3.946692	100.0	6664037.0	0.789338	Y
4	IC 140-87130/4	50.0	40.182228	100.0	6587579.0	0.803645	Y
5	IC 140-87130/5	400.0	303.913739	100.0	7006215.0	0.759784	Y
6	IC 140-87130/6	2000.0	1523.171748	100.0	7440630.0	0.761586	Y





Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

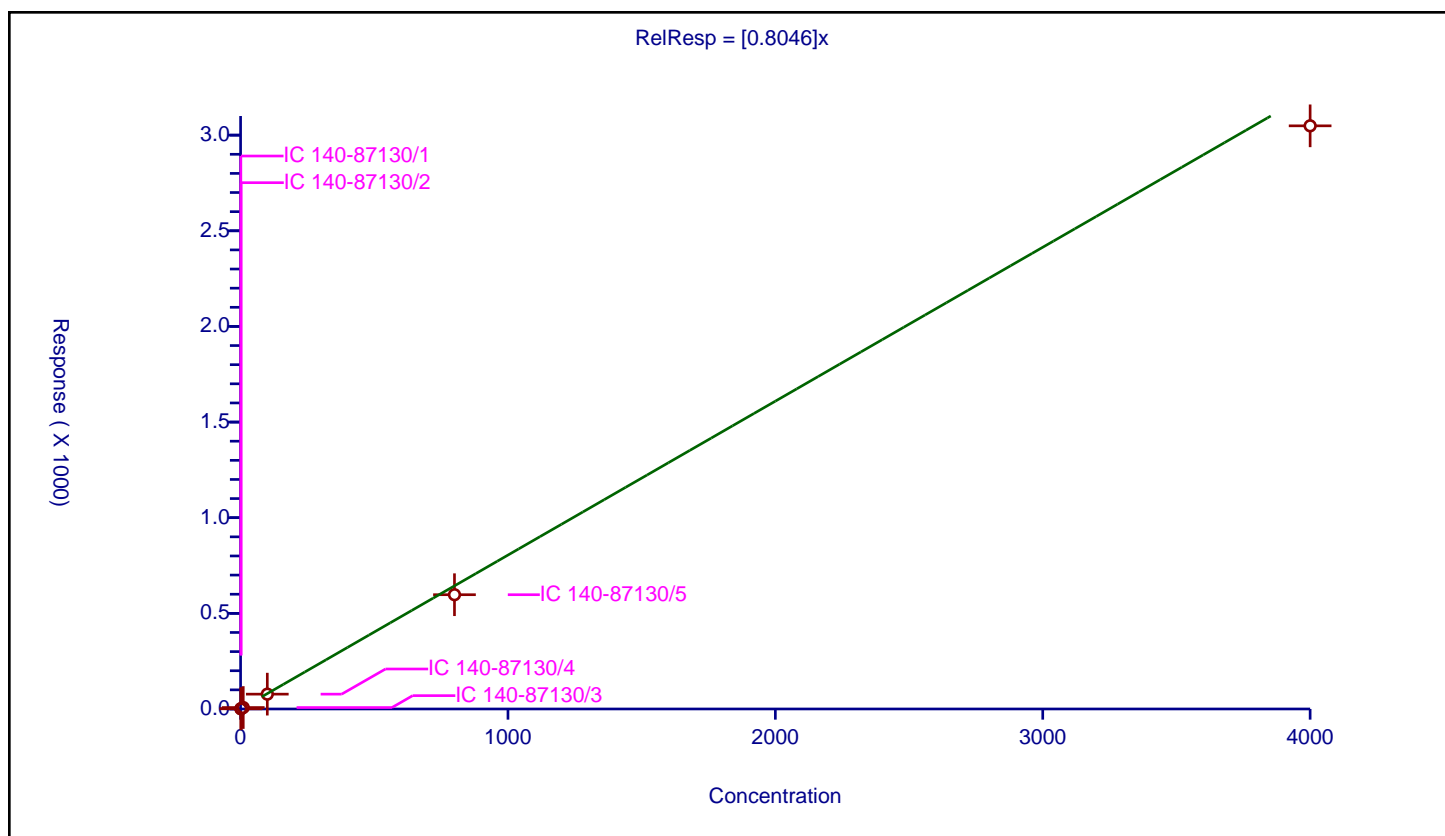
## Curve Coefficients

Intercept: 0  
Slope: 0.8046

## Error Coefficients

Relative Standard Deviation: 8.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.903503	100.0	7116082.0	0.903503	Y
2	IC 140-87130/2	2.0	1.760584	100.0	6585200.0	0.880292	Y
3	IC 140-87130/3	10.0	7.585957	100.0	6664037.0	0.758596	Y
4	IC 140-87130/4	100.0	77.639039	100.0	6587579.0	0.77639	Y
5	IC 140-87130/5	800.0	597.381539	100.0	7006215.0	0.746727	Y
6	IC 140-87130/6	4000.0	3048.699707	100.0	7440630.0	0.762175	Y



# Calibration

/ PCB-183/185

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

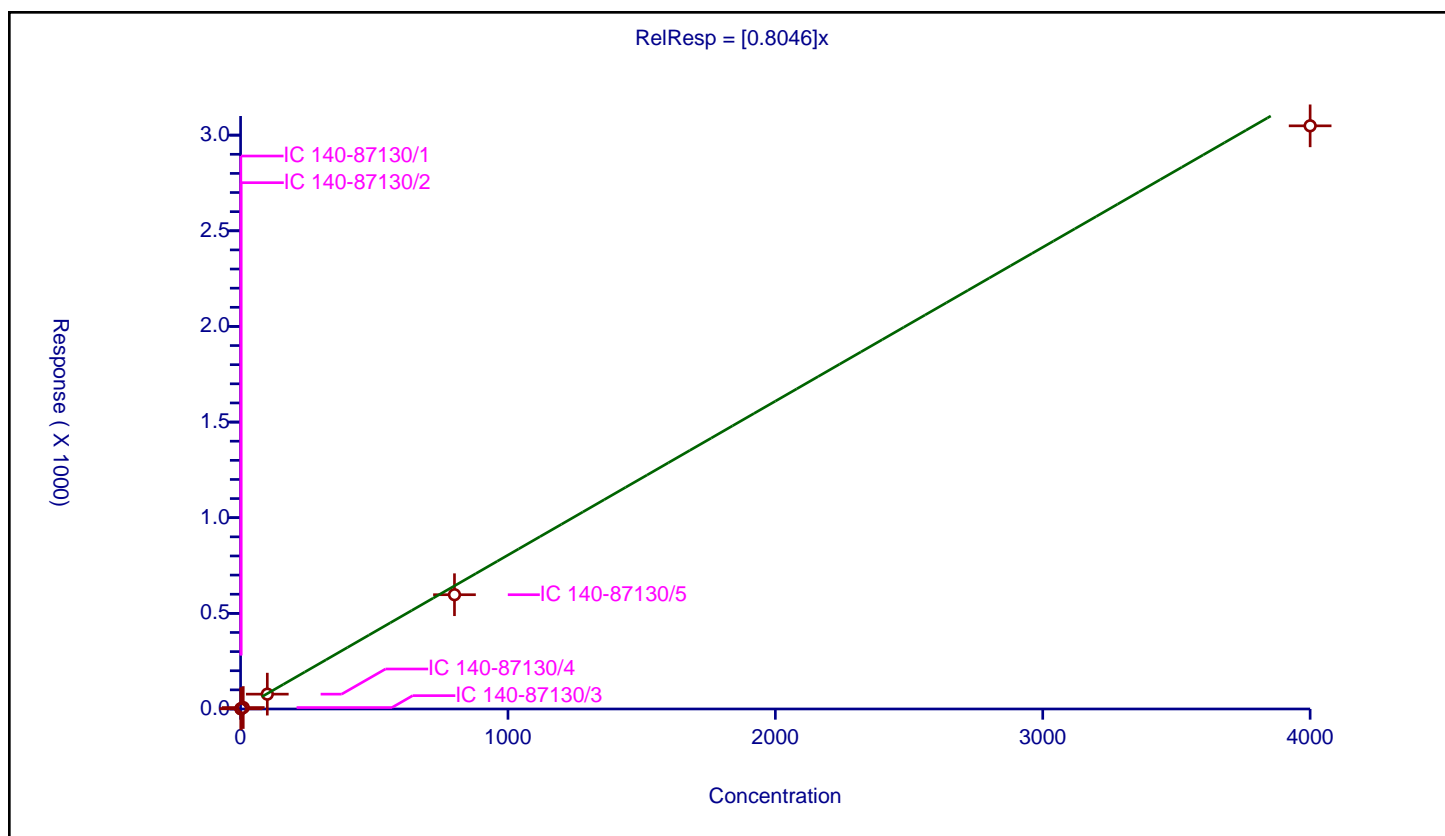
## Curve Coefficients

Intercept: 0  
Slope: 0.8046

## Error Coefficients

Relative Standard Deviation: 8.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.903503	100.0	7116082.0	0.903503	Y
2	IC 140-87130/2	2.0	1.760584	100.0	6585200.0	0.880292	Y
3	IC 140-87130/3	10.0	7.585957	100.0	6664037.0	0.758596	Y
4	IC 140-87130/4	100.0	77.639039	100.0	6587579.0	0.77639	Y
5	IC 140-87130/5	800.0	597.381539	100.0	7006215.0	0.746727	Y
6	IC 140-87130/6	4000.0	3048.699707	100.0	7440630.0	0.762175	Y



# Calibration

/ PCB-184

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

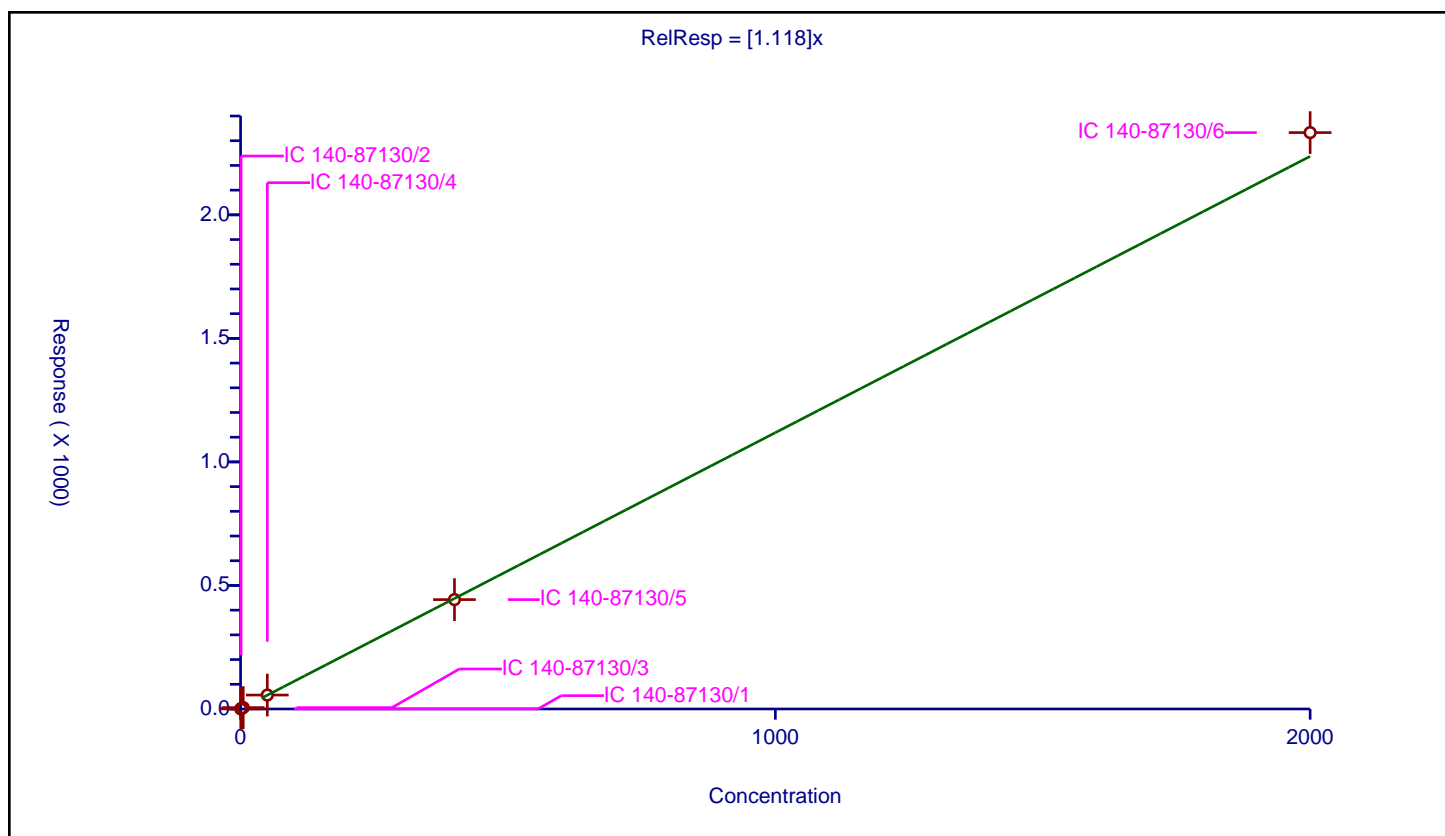
## Curve Coefficients

Intercept: 0  
 Slope: 1.118

## Error Coefficients

Relative Standard Deviation: 2.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.535885	100.0	7116082.0	1.07177	Y
2	IC 140-87130/2	1.0	1.125995	100.0	6585200.0	1.125995	Y
3	IC 140-87130/3	5.0	5.558913	100.0	6664037.0	1.111783	Y
4	IC 140-87130/4	50.0	56.38639	100.0	6587579.0	1.127728	Y
5	IC 140-87130/5	400.0	442.725409	100.0	7006215.0	1.106814	Y
6	IC 140-87130/6	2000.0	2332.867311	100.0	7440630.0	1.166434	Y



# Calibration

/ PCB-185

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

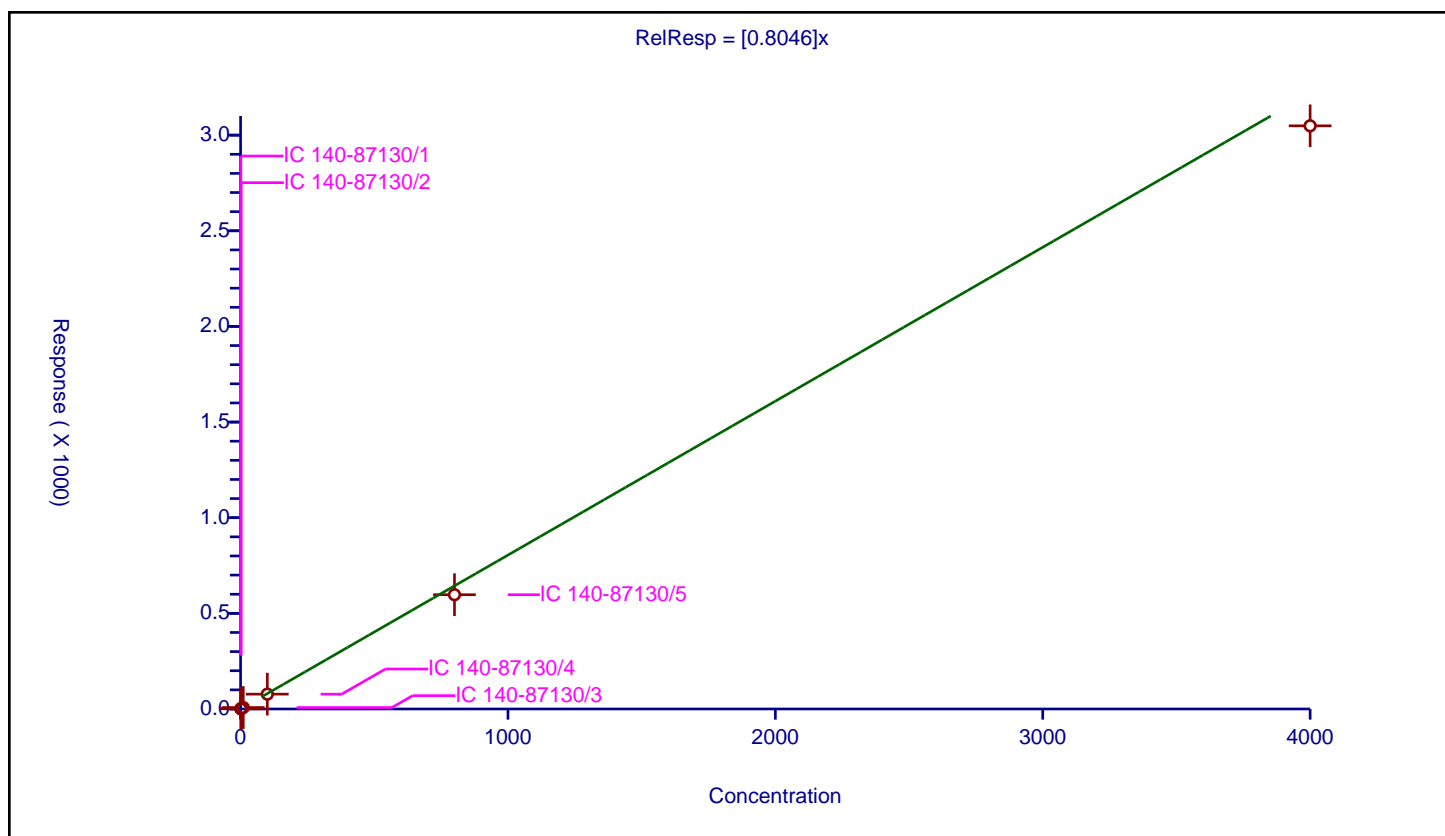
## Curve Coefficients

Intercept: 0  
 Slope: 0.8046

## Error Coefficients

Relative Standard Deviation: 8.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.903503	100.0	7116082.0	0.903503	Y
2	IC 140-87130/2	2.0	1.760584	100.0	6585200.0	0.880292	Y
3	IC 140-87130/3	10.0	7.585957	100.0	6664037.0	0.758596	Y
4	IC 140-87130/4	100.0	77.639039	100.0	6587579.0	0.77639	Y
5	IC 140-87130/5	800.0	597.381539	100.0	7006215.0	0.746727	Y
6	IC 140-87130/6	4000.0	3048.699707	100.0	7440630.0	0.762175	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

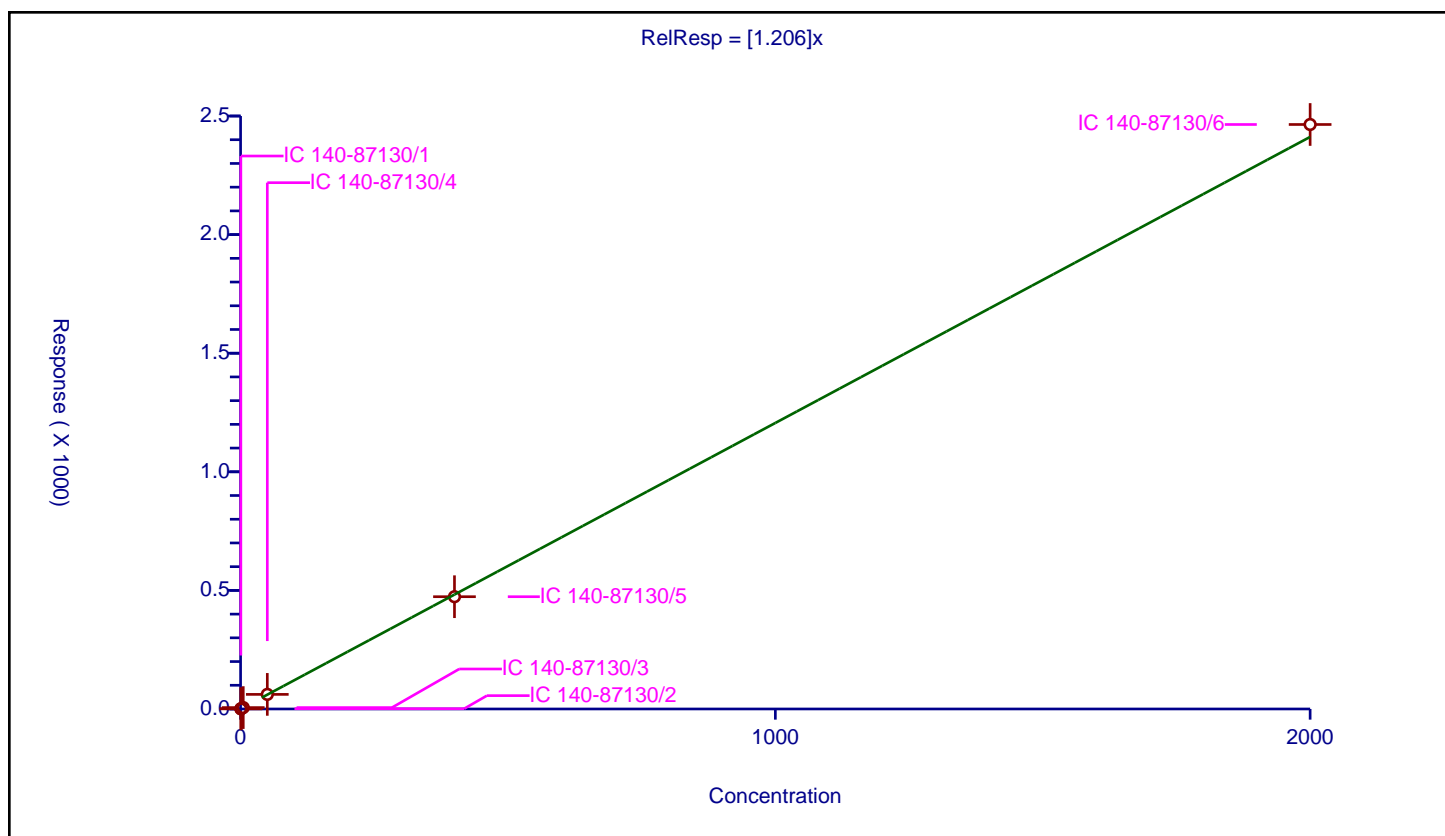
## Curve Coefficients

Intercept: 0  
Slope: 1.206

## Error Coefficients

Relative Standard Deviation: 3.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.628604	100.0	7116082.0	1.257209	Y
2	IC 140-87130/2	1.0	1.149077	100.0	6585200.0	1.149077	Y
3	IC 140-87130/3	5.0	5.918064	100.0	6664037.0	1.183613	Y
4	IC 140-87130/4	50.0	61.502352	100.0	6587579.0	1.230047	Y
5	IC 140-87130/5	400.0	473.346622	100.0	7006215.0	1.183367	Y
6	IC 140-87130/6	2000.0	2464.281049	100.0	7440630.0	1.232141	Y



## Calibration

/ PCB-187

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

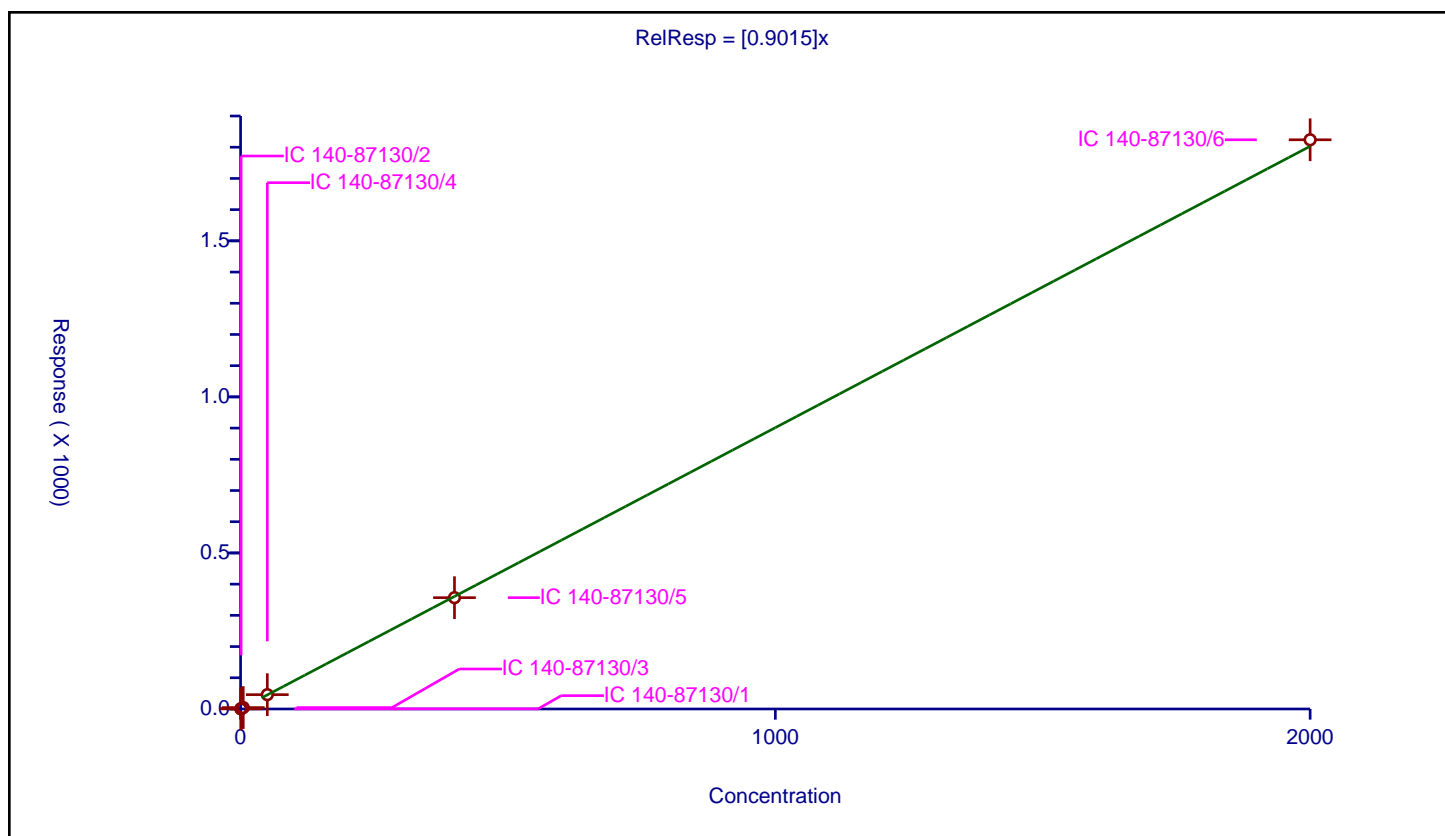
## Curve Coefficients

Intercept: 0  
Slope: 0.9015

## Error Coefficients

Relative Standard Deviation: 2.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.436364	100.0	7116082.0	0.872727	Y
2	IC 140-87130/2	1.0	0.925348	100.0	6585200.0	0.925348	Y
3	IC 140-87130/3	5.0	4.447409	100.0	6664037.0	0.889482	Y
4	IC 140-87130/4	50.0	45.892945	100.0	6587579.0	0.917859	Y
5	IC 140-87130/5	400.0	356.673596	100.0	7006215.0	0.891684	Y
6	IC 140-87130/6	2000.0	1823.906779	100.0	7440630.0	0.911953	Y



# Calibration

/ PCB-188

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

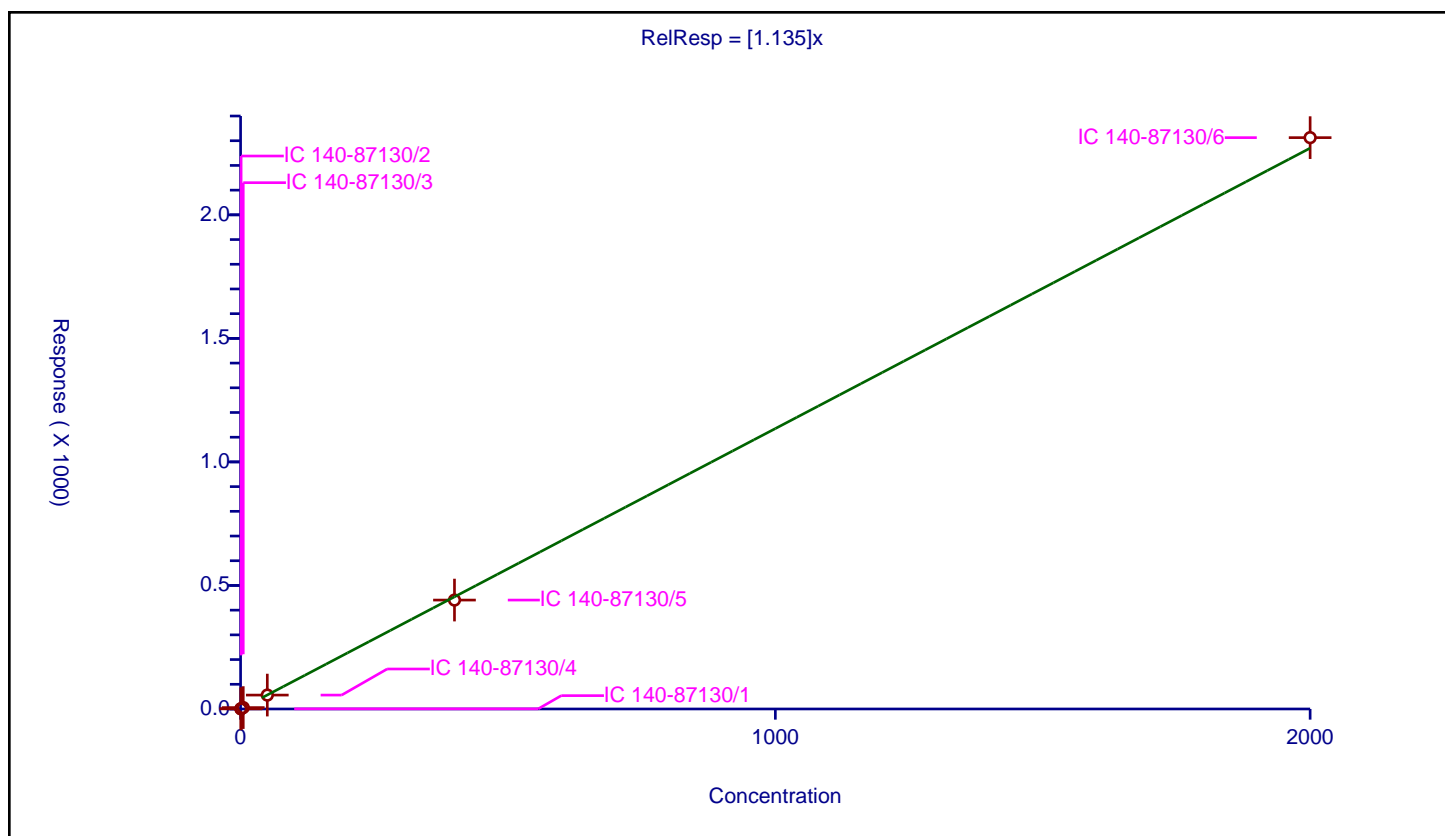
## Curve Coefficients

Intercept: 0  
 Slope: 1.135

## Error Coefficients

Relative Standard Deviation: 2.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.557793	100.0	7116082.0	1.115586	Y
2	IC 140-87130/2	1.0	1.170443	100.0	6585200.0	1.170443	Y
3	IC 140-87130/3	5.0	5.700374	100.0	6664037.0	1.140075	Y
4	IC 140-87130/4	50.0	56.267105	100.0	6587579.0	1.125342	Y
5	IC 140-87130/5	400.0	440.837985	100.0	7006215.0	1.102095	Y
6	IC 140-87130/6	2000.0	2312.414809	100.0	7440630.0	1.156207	Y



# Calibration

/ PCB-189

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

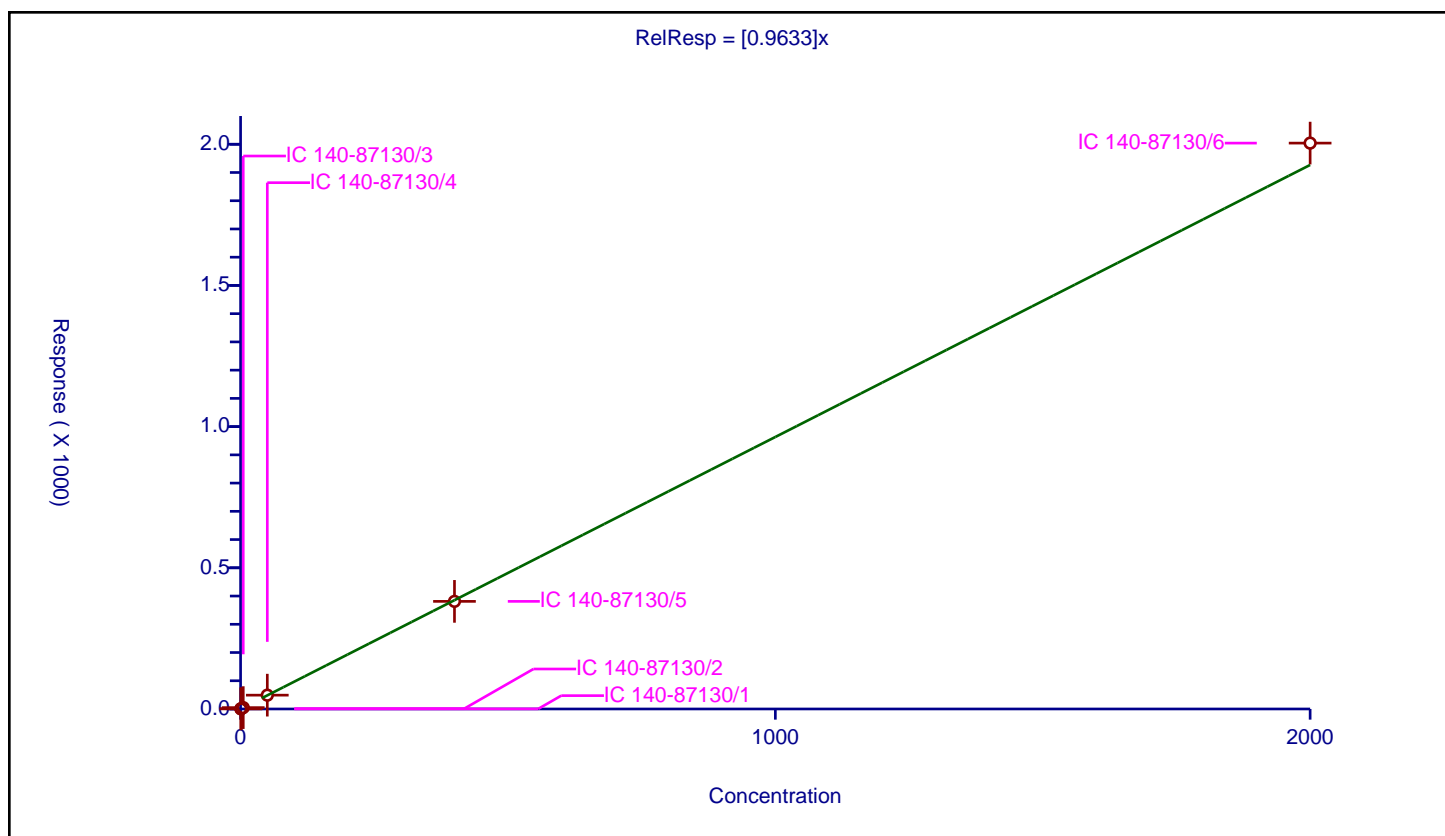
## Curve Coefficients

Intercept: 0  
 Slope: 0.9633

## Error Coefficients

Relative Standard Deviation: 2.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.468643	100.0	11329298.0	0.937287	Y
2	IC 140-87130/2	1.0	0.945522	100.0	10353644.0	0.945522	Y
3	IC 140-87130/3	5.0	4.818192	100.0	10235768.0	0.963638	Y
4	IC 140-87130/4	50.0	48.940921	100.0	10070777.0	0.978818	Y
5	IC 140-87130/5	400.0	381.078351	100.0	10502203.0	0.952696	Y
6	IC 140-87130/6	2000.0	2004.065707	100.0	11047526.0	1.002033	Y





**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

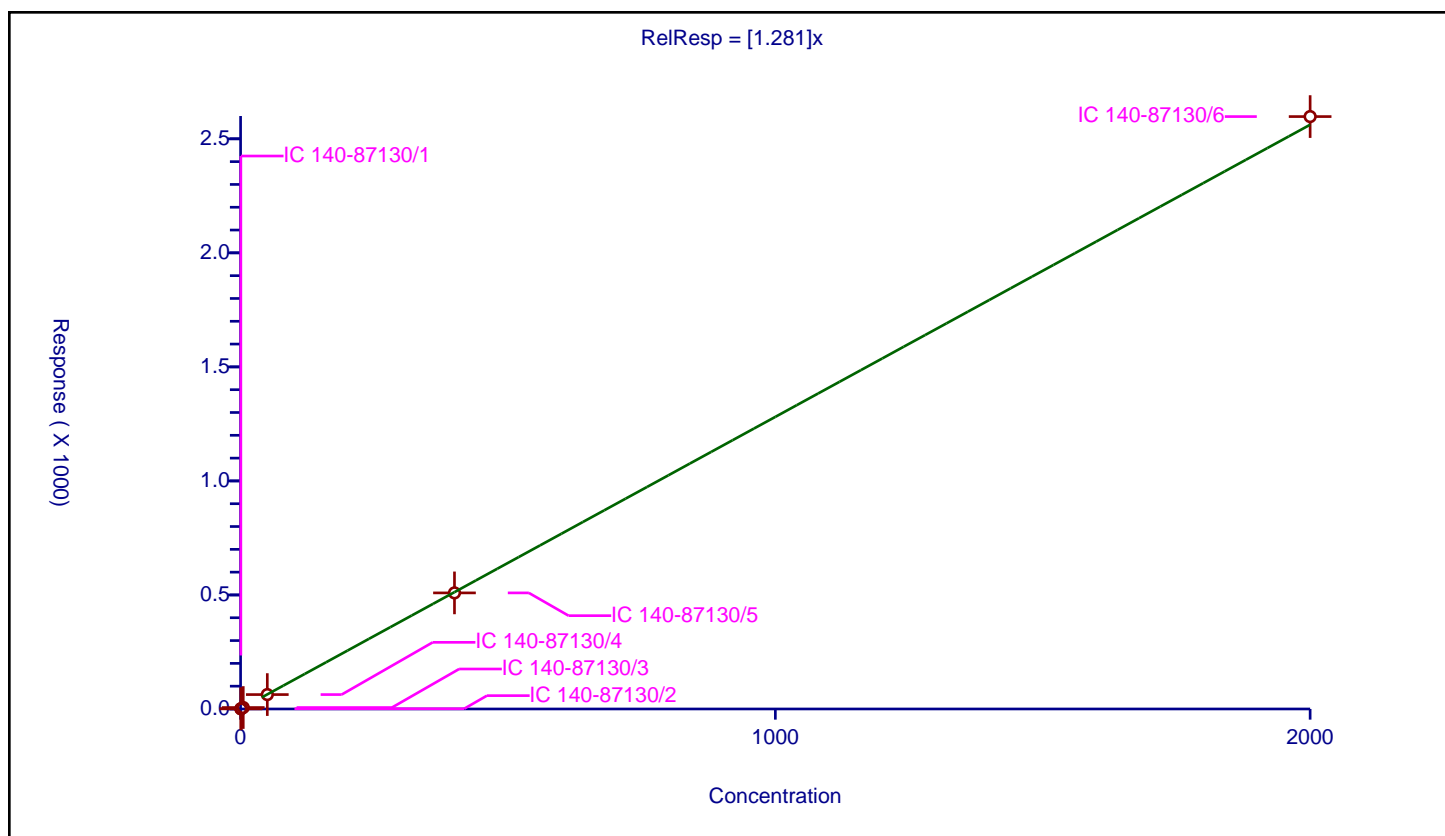
## Curve Coefficients

**Intercept:** 0  
**Slope:** 1.281

## Error Coefficients

**Relative Standard Deviation:** 9.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.734093	100.0	3711790.0	1.468187	Y
2	IC 140-87130/2	1.0	1.107786	100.0	3424036.0	1.107786	Y
3	IC 140-87130/3	5.0	6.371947	100.0	3389482.0	1.274389	Y
4	IC 140-87130/4	50.0	63.176031	100.0	3406868.0	1.263521	Y
5	IC 140-87130/5	400.0	509.085164	100.0	3537933.0	1.272713	Y
6	IC 140-87130/6	2000.0	2597.600235	100.0	3634856.0	1.2988	Y



## Calibration

/ PCB-190

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

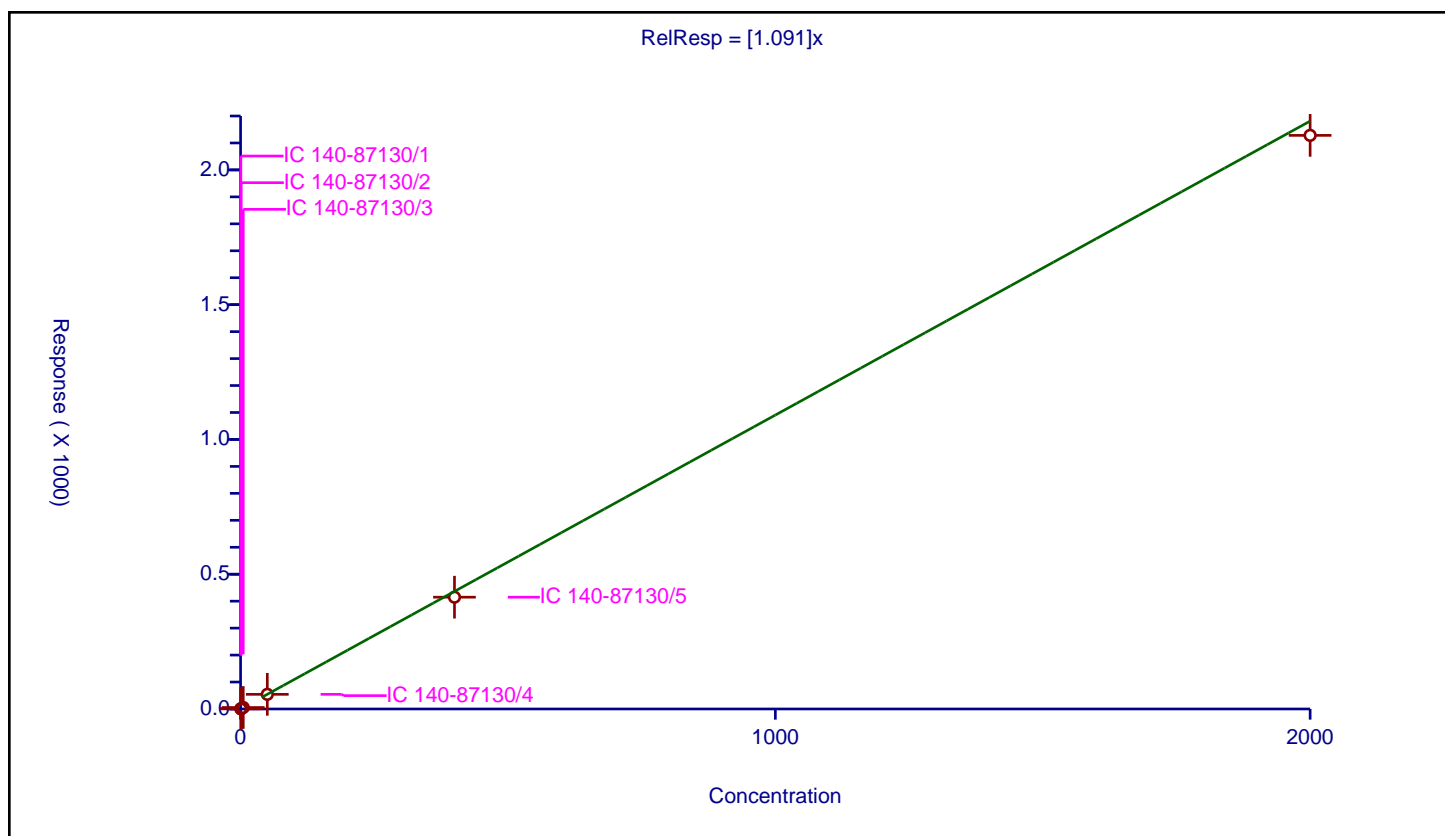
## Curve Coefficients

Intercept: 0  
Slope: 1.091

## Error Coefficients

Relative Standard Deviation: 3.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.563751	100.0	7116082.0	1.127502	Y
2	IC 140-87130/2	1.0	1.132585	100.0	6585200.0	1.132585	Y
3	IC 140-87130/3	5.0	5.472809	100.0	6664037.0	1.094562	Y
4	IC 140-87130/4	50.0	54.377261	100.0	6587579.0	1.087545	Y
5	IC 140-87130/5	400.0	414.827564	100.0	7006215.0	1.037069	Y
6	IC 140-87130/6	2000.0	2128.212598	100.0	7440630.0	1.064106	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

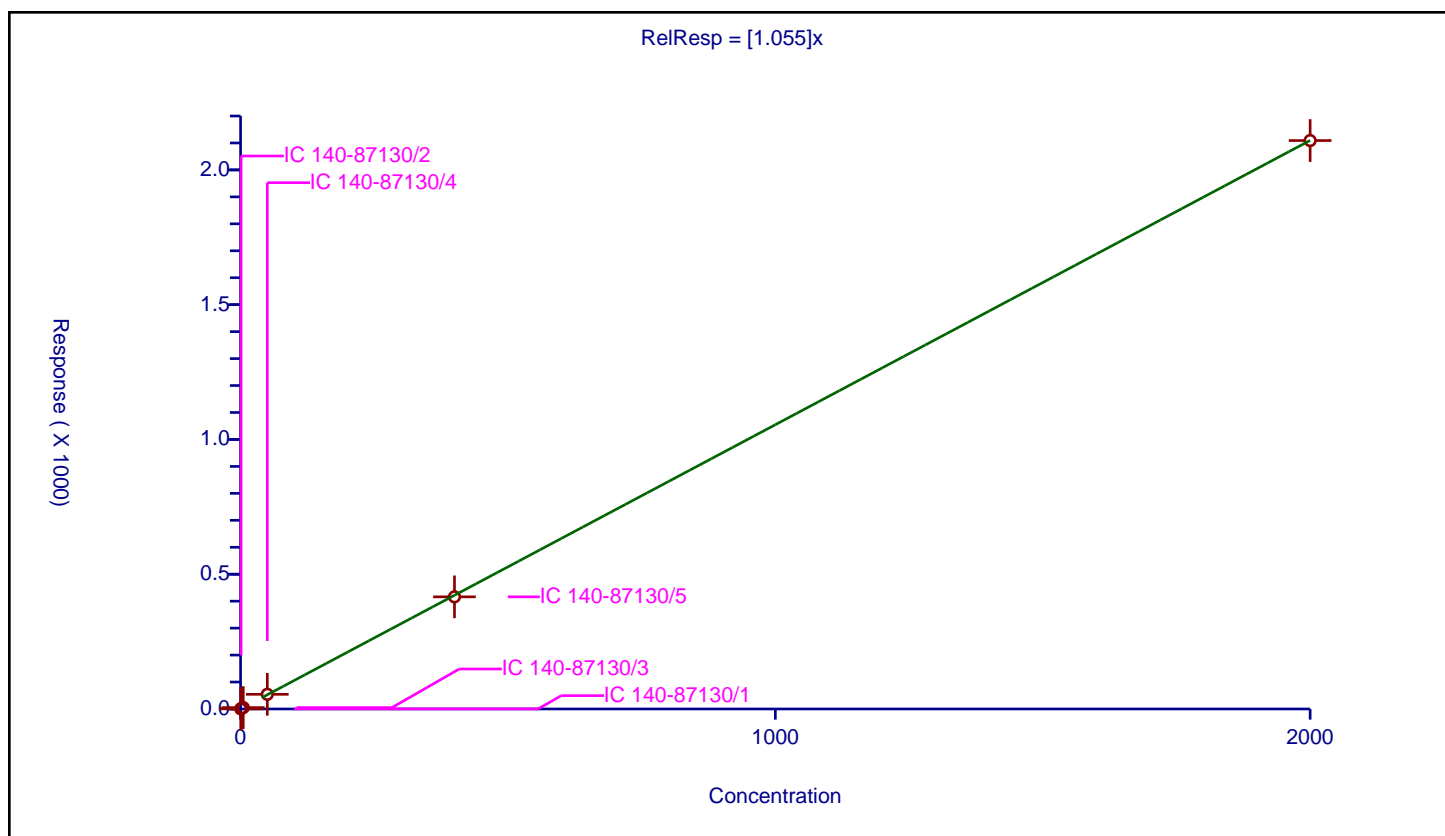
## Curve Coefficients

Intercept: 0  
Slope: 1.055

## Error Coefficients

Relative Standard Deviation: 3.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.494977	100.0	7116082.0	0.989955	Y
2	IC 140-87130/2	1.0	1.108121	100.0	6585200.0	1.108121	Y
3	IC 140-87130/3	5.0	5.228152	100.0	6664037.0	1.04563	Y
4	IC 140-87130/4	50.0	54.504819	100.0	6587579.0	1.090096	Y
5	IC 140-87130/5	400.0	416.049764	100.0	7006215.0	1.040124	Y
6	IC 140-87130/6	2000.0	2108.943127	100.0	7440630.0	1.054472	Y



# Calibration

/ PCB-192

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

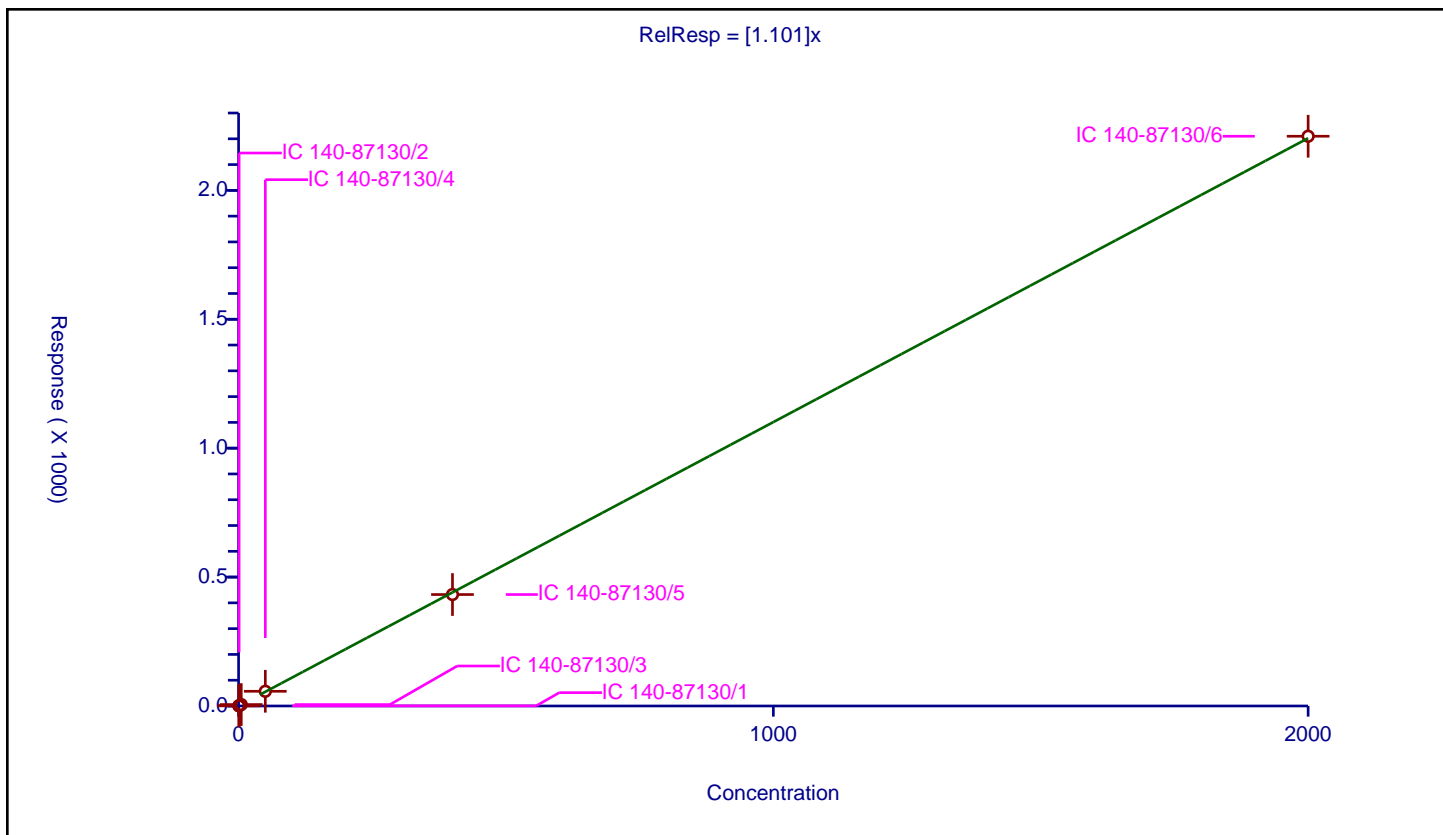
## Curve Coefficients

Intercept: 0  
 Slope: 1.101

## Error Coefficients

Relative Standard Deviation: 3.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.520286	100.0	7116082.0	1.040573	Y
2	IC 140-87130/2	1.0	1.140785	100.0	6585200.0	1.140785	Y
3	IC 140-87130/3	5.0	5.494882	100.0	6664037.0	1.098976	Y
4	IC 140-87130/4	50.0	57.04891	100.0	6587579.0	1.140978	Y
5	IC 140-87130/5	400.0	432.344697	100.0	7006215.0	1.080862	Y
6	IC 140-87130/6	2000.0	2209.879217	100.0	7440630.0	1.10494	Y



# Calibration

/ PCB-193

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

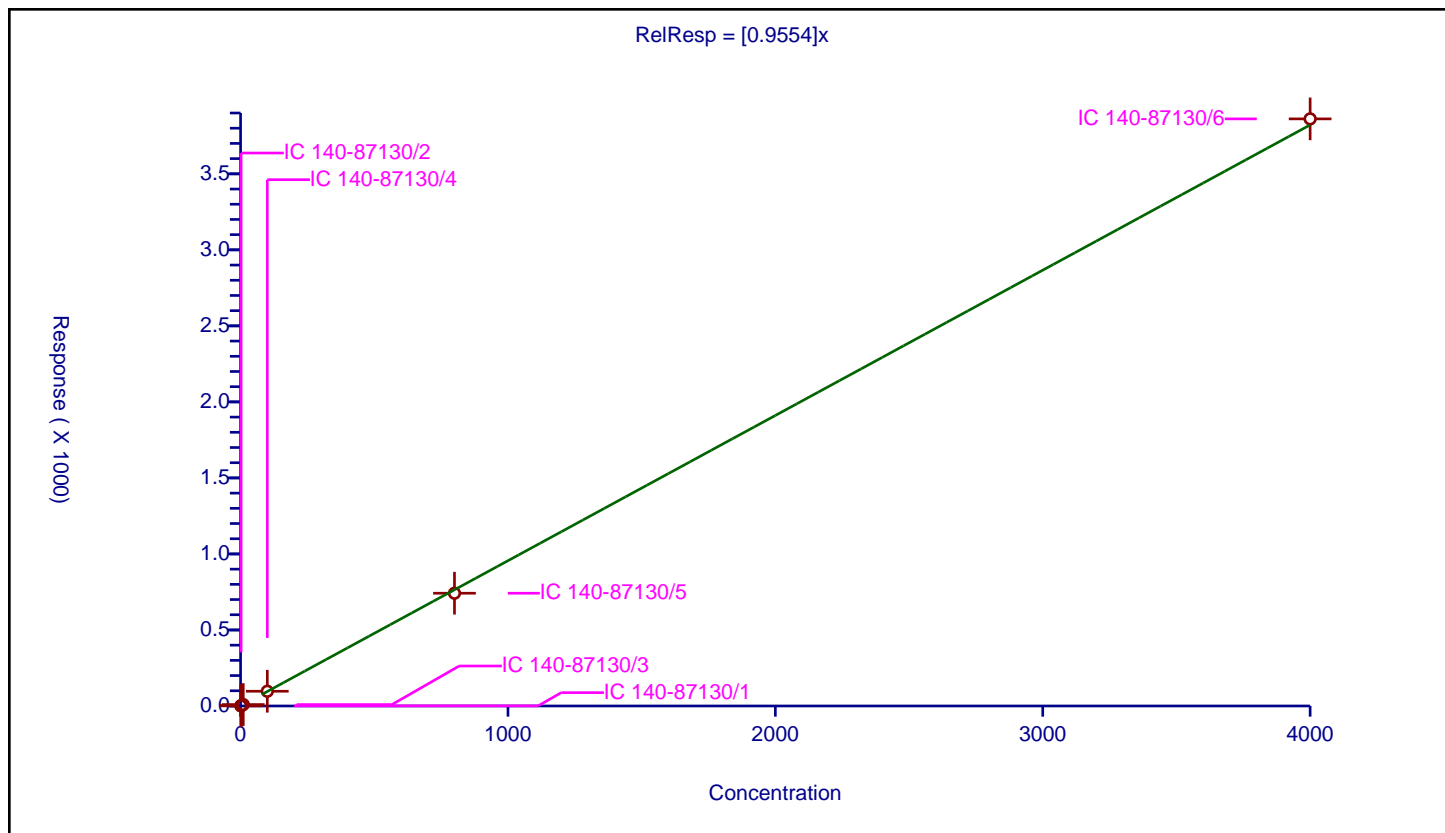
## Curve Coefficients

Intercept: 0  
Slope: 0.9554

## Error Coefficients

Relative Standard Deviation: 2.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.940616	100.0	7116082.0	0.940616	Y
2	IC 140-87130/2	2.0	1.980942	100.0	6585200.0	0.990471	Y
3	IC 140-87130/3	10.0	9.403114	100.0	6664037.0	0.940311	Y
4	IC 140-87130/4	100.0	96.857131	100.0	6587579.0	0.968571	Y
5	IC 140-87130/5	800.0	741.672886	100.0	7006215.0	0.927091	Y
6	IC 140-87130/6	4000.0	3861.399881	100.0	7440630.0	0.96535	Y



# Calibration

/ PCB-194

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

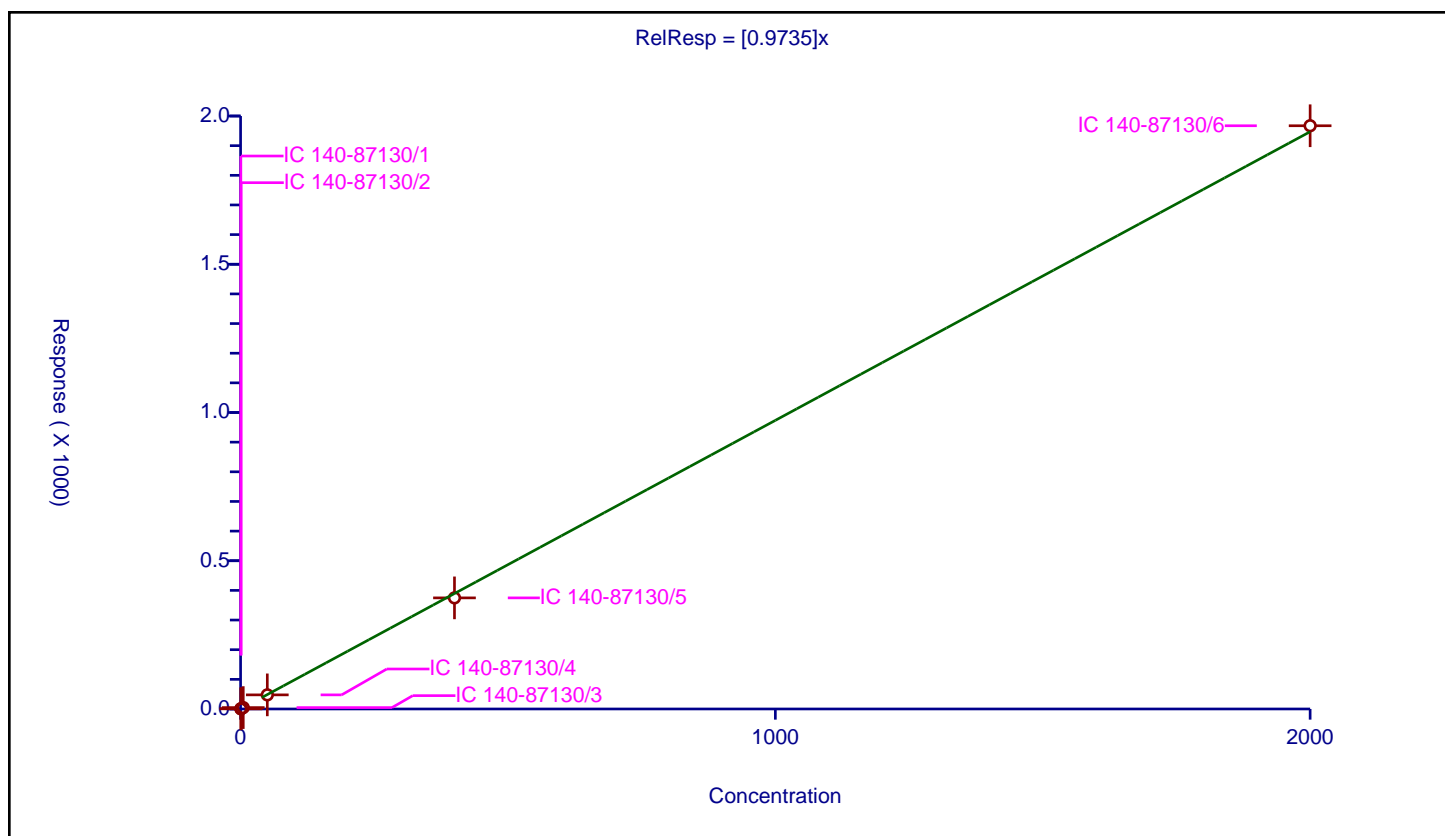
## Curve Coefficients

Intercept: 0  
 Slope: 0.9735

## Error Coefficients

Relative Standard Deviation: 4.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.516466	100.0	9259085.0	1.032931	Y
2	IC 140-87130/2	1.0	0.999097	100.0	8466946.0	0.999097	Y
3	IC 140-87130/3	5.0	4.68423	100.0	8416261.0	0.936846	Y
4	IC 140-87130/4	50.0	47.585287	100.0	8337493.0	0.951706	Y
5	IC 140-87130/5	400.0	374.752675	100.0	8638618.0	0.936882	Y
6	IC 140-87130/6	2000.0	1967.154527	100.0	8823289.0	0.983577	Y



# Calibration

/ PCB-195

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

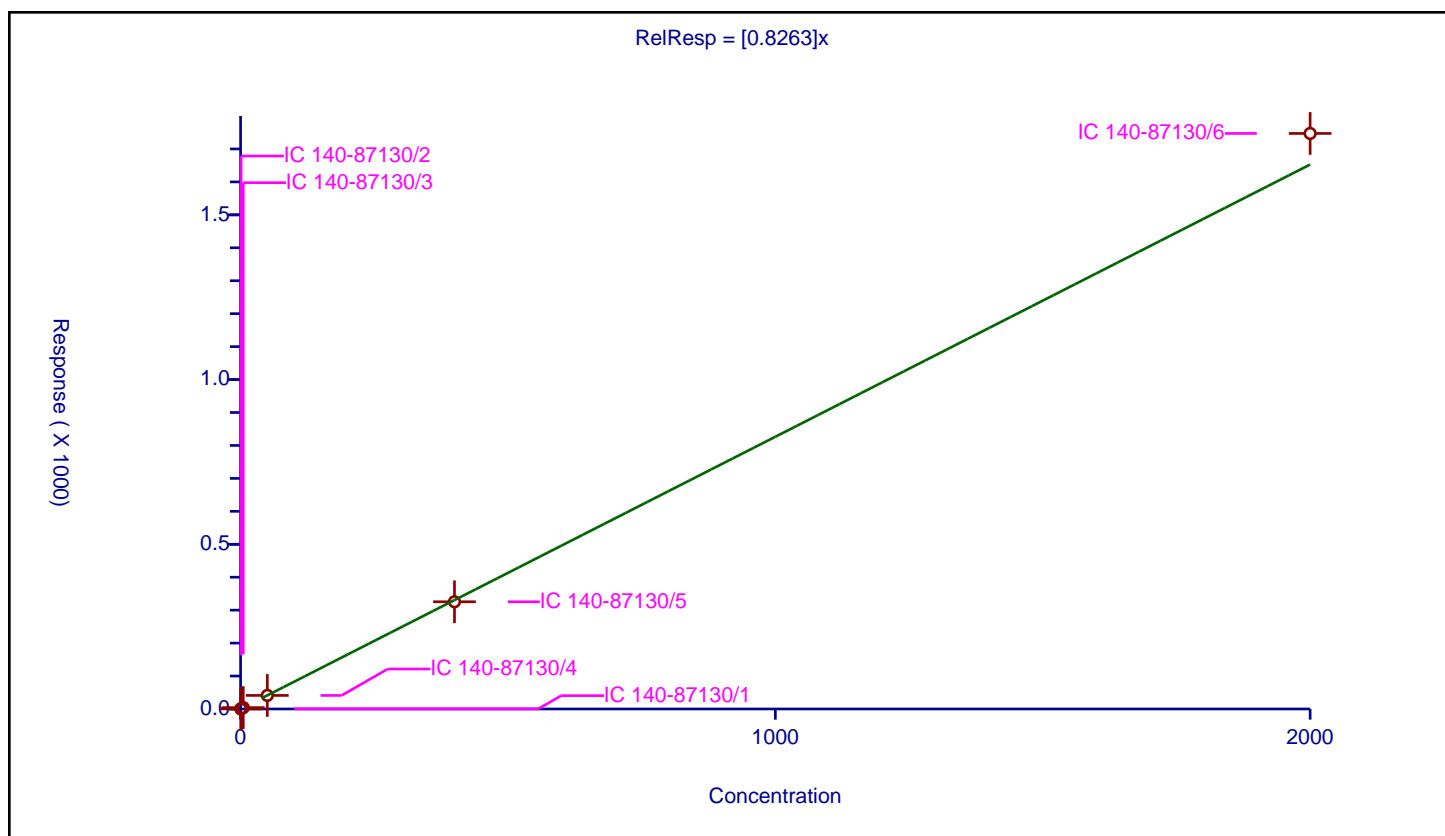
## Curve Coefficients

Intercept: 0  
 Slope: 0.8263

## Error Coefficients

Relative Standard Deviation: 6.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.37022	100.0	9259085.0	0.74044	Y
2	IC 140-87130/2	1.0	0.879514	100.0	8466946.0	0.879514	Y
3	IC 140-87130/3	5.0	4.137823	100.0	8416261.0	0.827565	Y
4	IC 140-87130/4	50.0	41.162817	100.0	8337493.0	0.823256	Y
5	IC 140-87130/5	400.0	325.456769	100.0	8638618.0	0.813642	Y
6	IC 140-87130/6	2000.0	1747.0565	100.0	8823289.0	0.873528	Y



## Calibration

/ PCB-196

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

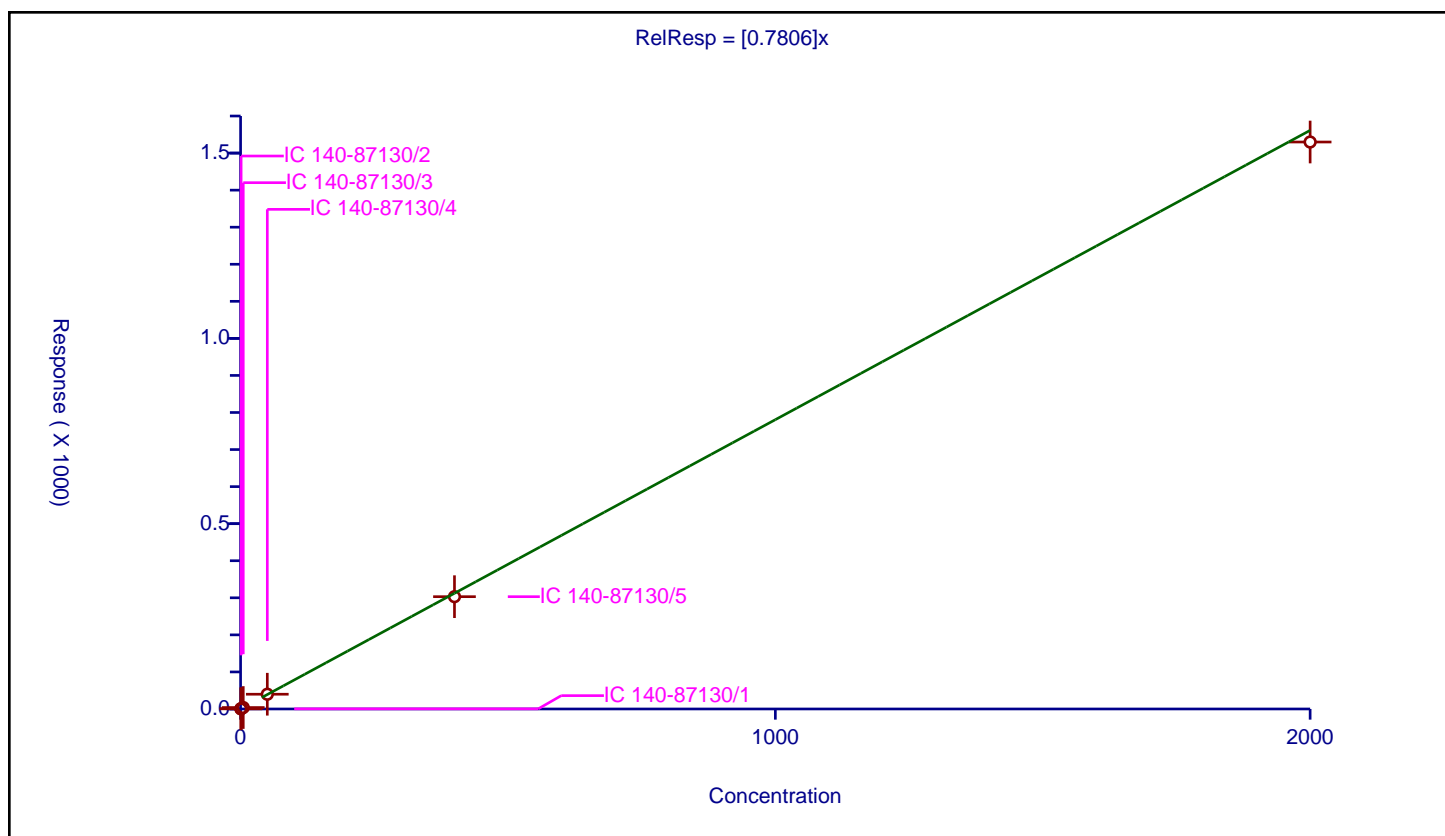
## Curve Coefficients

Intercept: 0  
Slope: 0.7806

## Error Coefficients

Relative Standard Deviation: 2.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.387234	100.0	5622444.0	0.774467	Y
2	IC 140-87130/2	1.0	0.808707	100.0	5103331.0	0.808707	Y
3	IC 140-87130/3	5.0	3.909539	100.0	5089577.0	0.781908	Y
4	IC 140-87130/4	50.0	39.809999	100.0	4754288.0	0.7962	Y
5	IC 140-87130/5	400.0	303.052393	100.0	5079458.0	0.757631	Y
6	IC 140-87130/6	2000.0	1529.853253	100.0	5299657.0	0.764927	Y





# Calibration

/ PCB-197

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

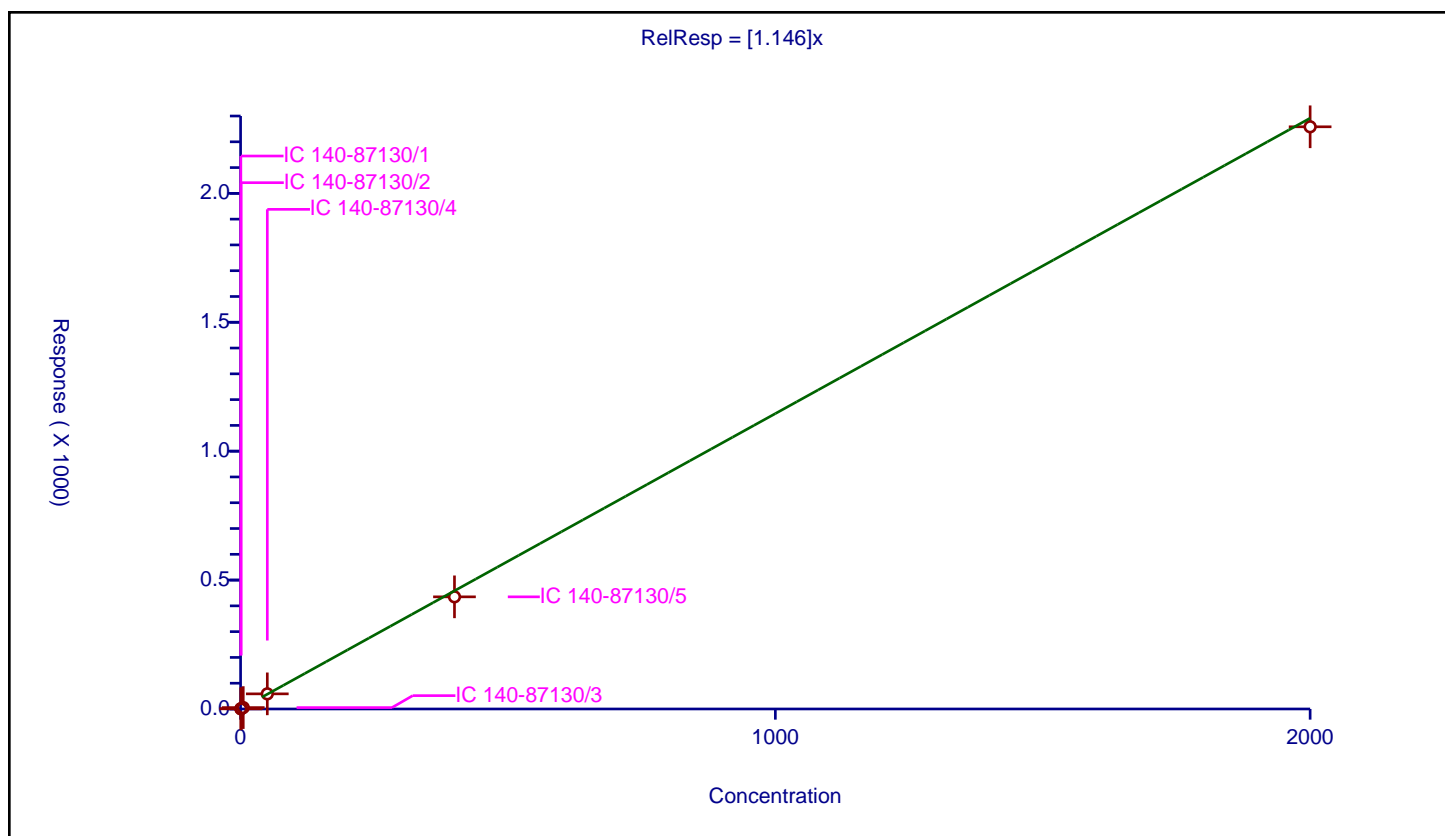
## Curve Coefficients

Intercept: 0  
Slope: 1.146

## Error Coefficients

Relative Standard Deviation: 4.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.614466	100.0	5622444.0	1.228932	Y
2	IC 140-87130/2	1.0	1.162123	100.0	5103331.0	1.162123	Y
3	IC 140-87130/3	5.0	5.464973	100.0	5089577.0	1.092995	Y
4	IC 140-87130/4	50.0	58.70349	100.0	4754288.0	1.17407	Y
5	IC 140-87130/5	400.0	434.995171	100.0	5079458.0	1.087488	Y
6	IC 140-87130/6	2000.0	2258.215975	100.0	5299657.0	1.129108	Y



# Calibration

/ PCB-198

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

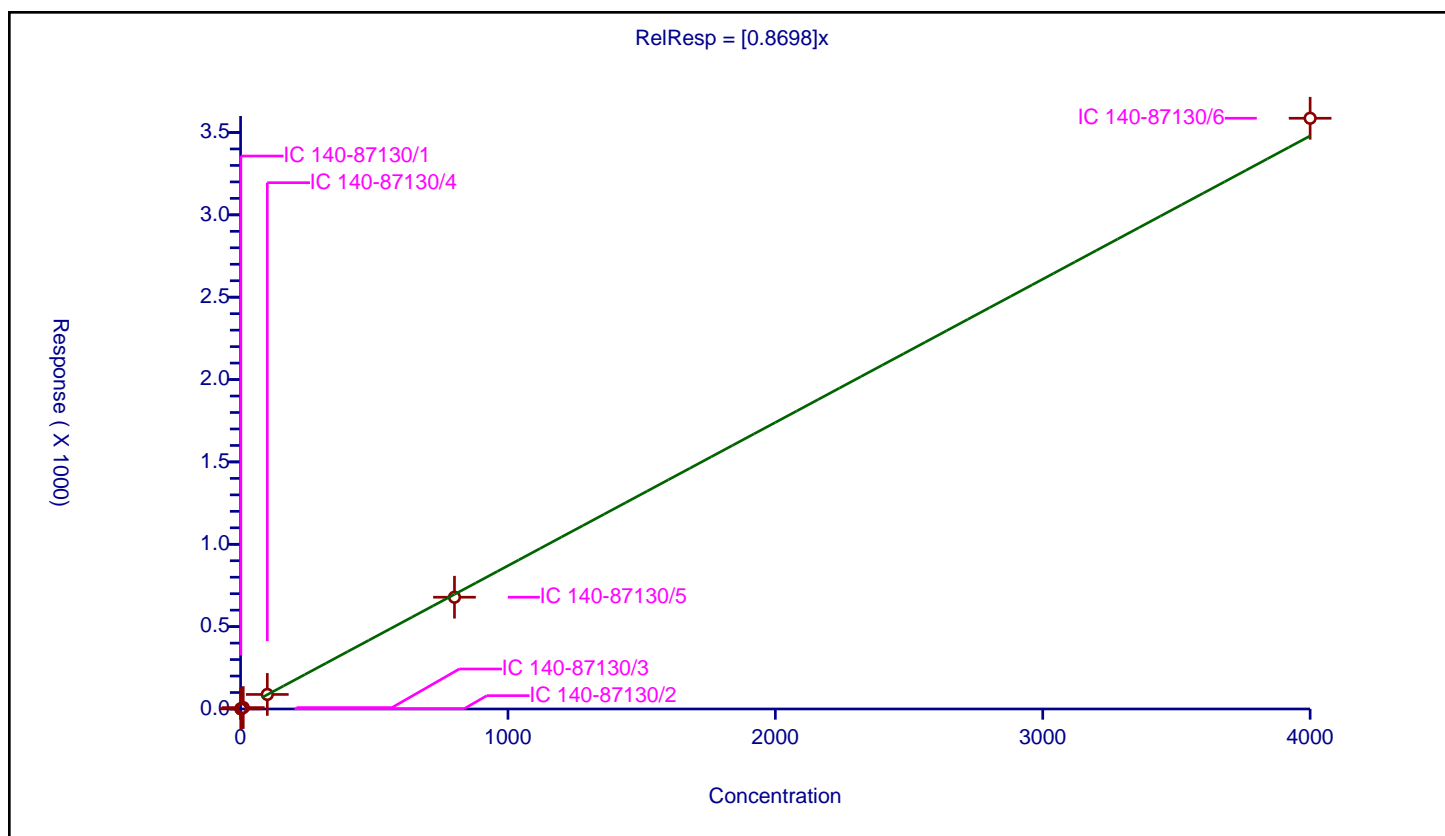
## Curve Coefficients

Intercept: 0  
 Slope: 0.8698

## Error Coefficients

Relative Standard Deviation: 2.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.881894	100.0	5622444.0	0.881894	Y
2	IC 140-87130/2	2.0	1.72697	100.0	5103331.0	0.863485	Y
3	IC 140-87130/3	10.0	8.456361	100.0	5089577.0	0.845636	Y
4	IC 140-87130/4	100.0	88.292758	100.0	4754288.0	0.882928	Y
5	IC 140-87130/5	800.0	678.541923	100.0	5079458.0	0.848177	Y
6	IC 140-87130/6	4000.0	3586.39161	100.0	5299657.0	0.896598	Y



# Calibration

/ PCB-198/199

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

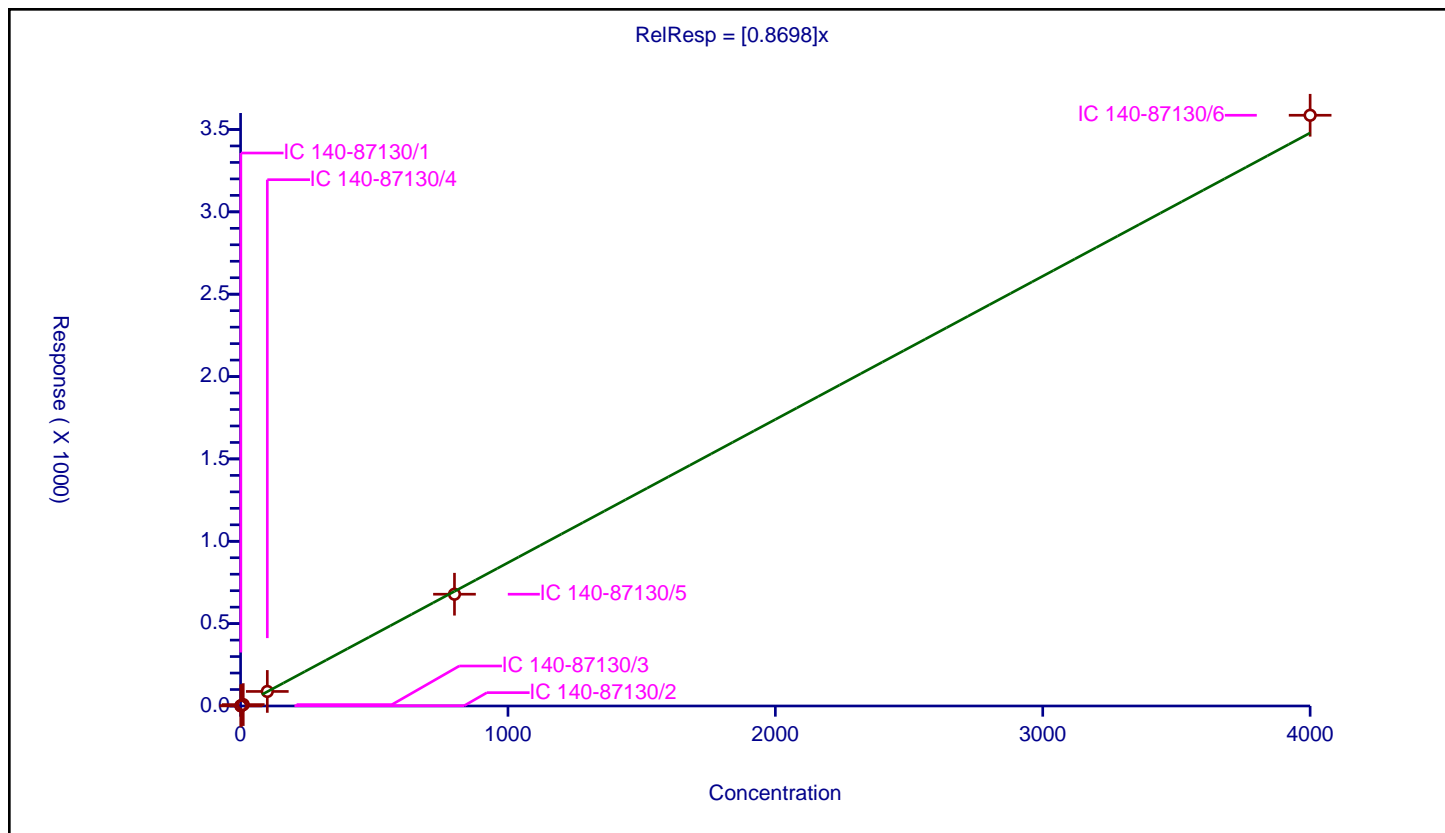
## Curve Coefficients

Intercept: 0  
Slope: 0.8698

## Error Coefficients

Relative Standard Deviation: 2.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.881894	100.0	5622444.0	0.881894	Y
2	IC 140-87130/2	2.0	1.72697	100.0	5103331.0	0.863485	Y
3	IC 140-87130/3	10.0	8.456361	100.0	5089577.0	0.845636	Y
4	IC 140-87130/4	100.0	88.292758	100.0	4754288.0	0.882928	Y
5	IC 140-87130/5	800.0	678.541923	100.0	5079458.0	0.848177	Y
6	IC 140-87130/6	4000.0	3586.39161	100.0	5299657.0	0.896598	Y



# Calibration

/ PCB-199

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

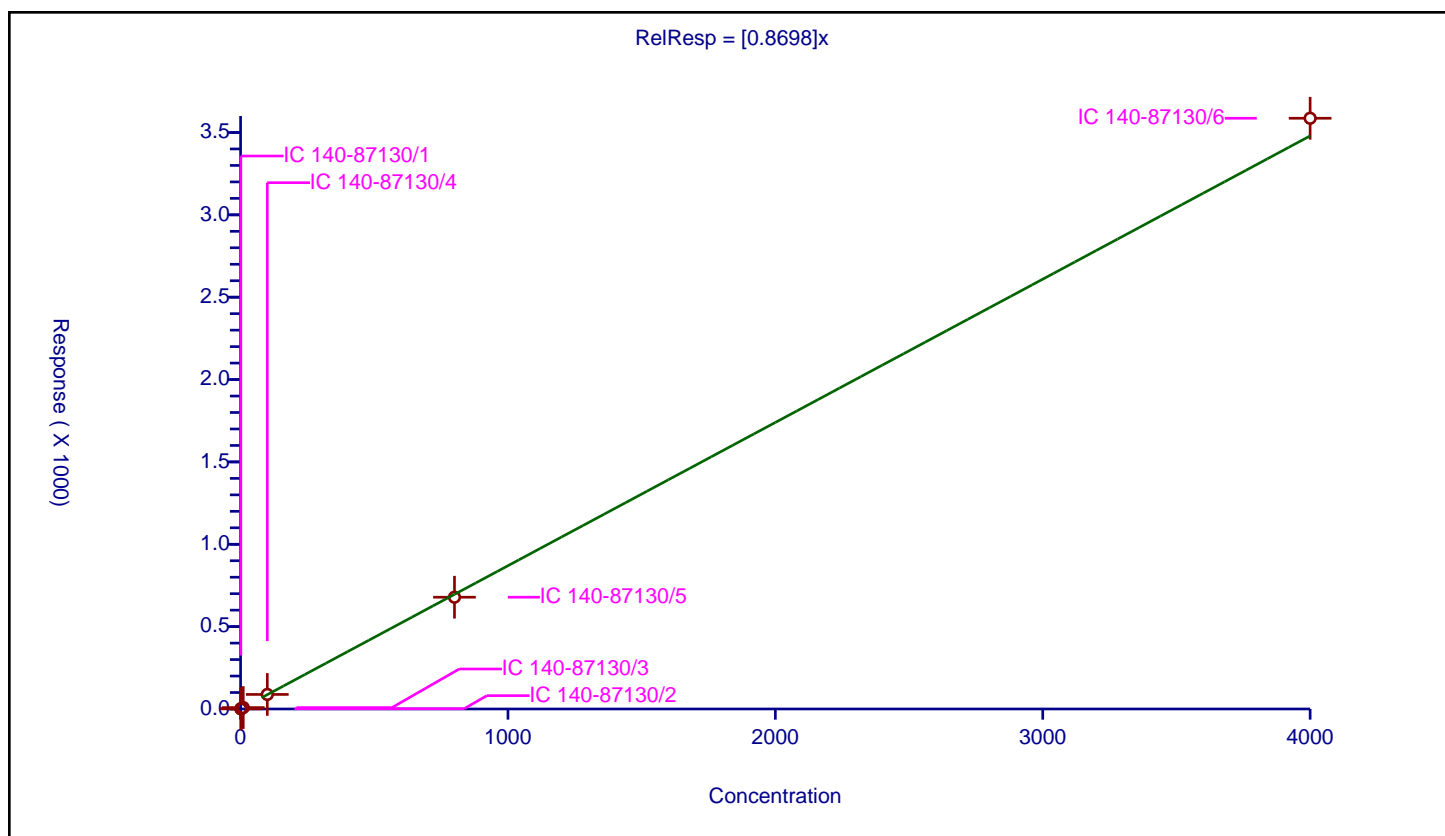
## Curve Coefficients

Intercept: 0  
 Slope: 0.8698

## Error Coefficients

Relative Standard Deviation: 2.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.881894	100.0	5622444.0	0.881894	Y
2	IC 140-87130/2	2.0	1.72697	100.0	5103331.0	0.863485	Y
3	IC 140-87130/3	10.0	8.456361	100.0	5089577.0	0.845636	Y
4	IC 140-87130/4	100.0	88.292758	100.0	4754288.0	0.882928	Y
5	IC 140-87130/5	800.0	678.541923	100.0	5079458.0	0.848177	Y
6	IC 140-87130/6	4000.0	3586.39161	100.0	5299657.0	0.896598	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

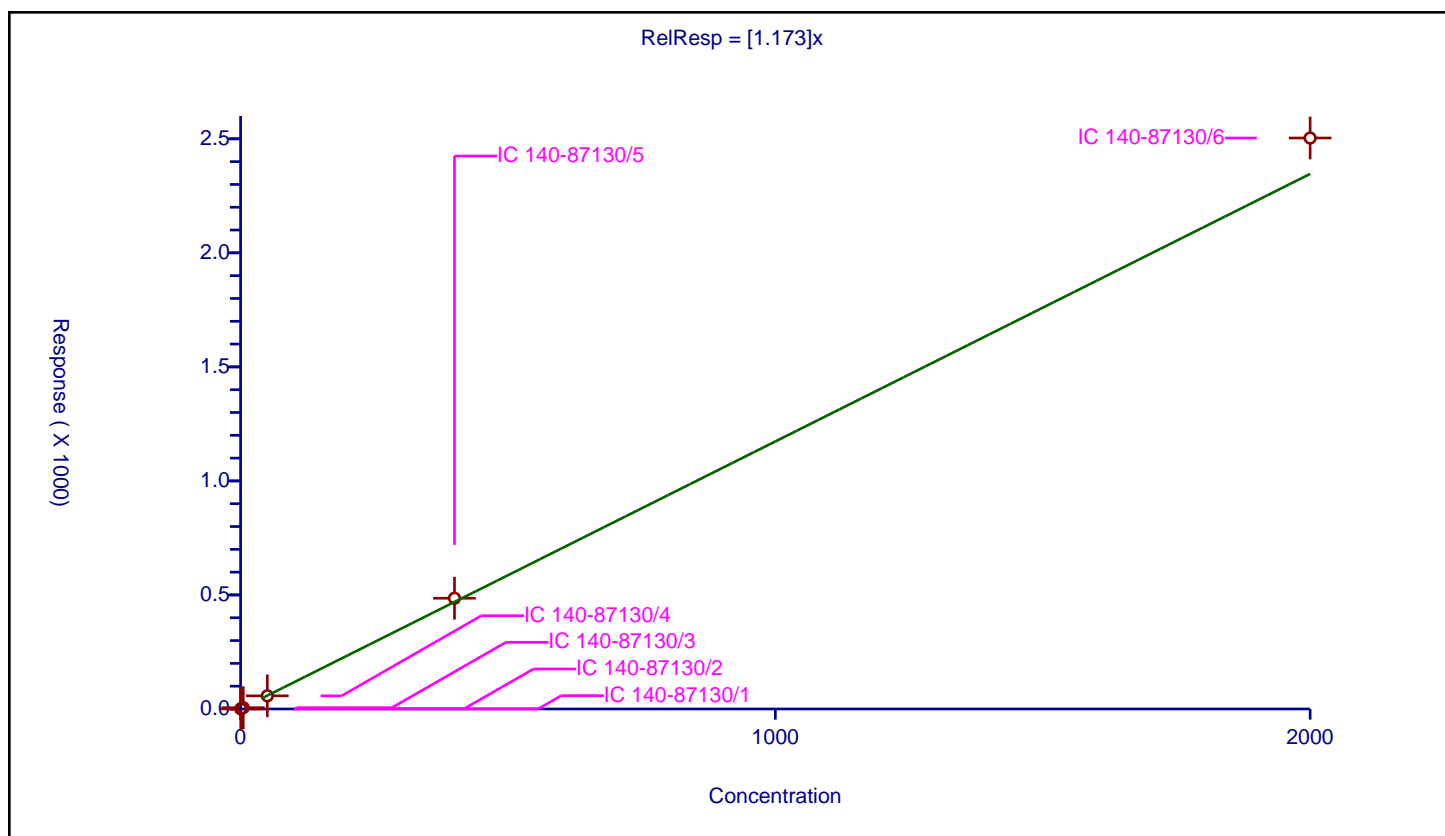
## Curve Coefficients

Intercept: 0  
Slope: 1.173

## Error Coefficients

Relative Standard Deviation: 4.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.56171	100.0	14676977.0	1.123419	Y
2	IC 140-87130/2	1.0	1.134341	100.0	13411930.0	1.134341	Y
3	IC 140-87130/3	5.0	5.797565	100.0	13253788.0	1.159513	Y
4	IC 140-87130/4	50.0	57.755063	100.0	13654287.0	1.155101	Y
5	IC 140-87130/5	400.0	485.642646	100.0	13820437.0	1.214107	Y
6	IC 140-87130/6	2000.0	2503.512907	100.0	14103562.0	1.251756	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

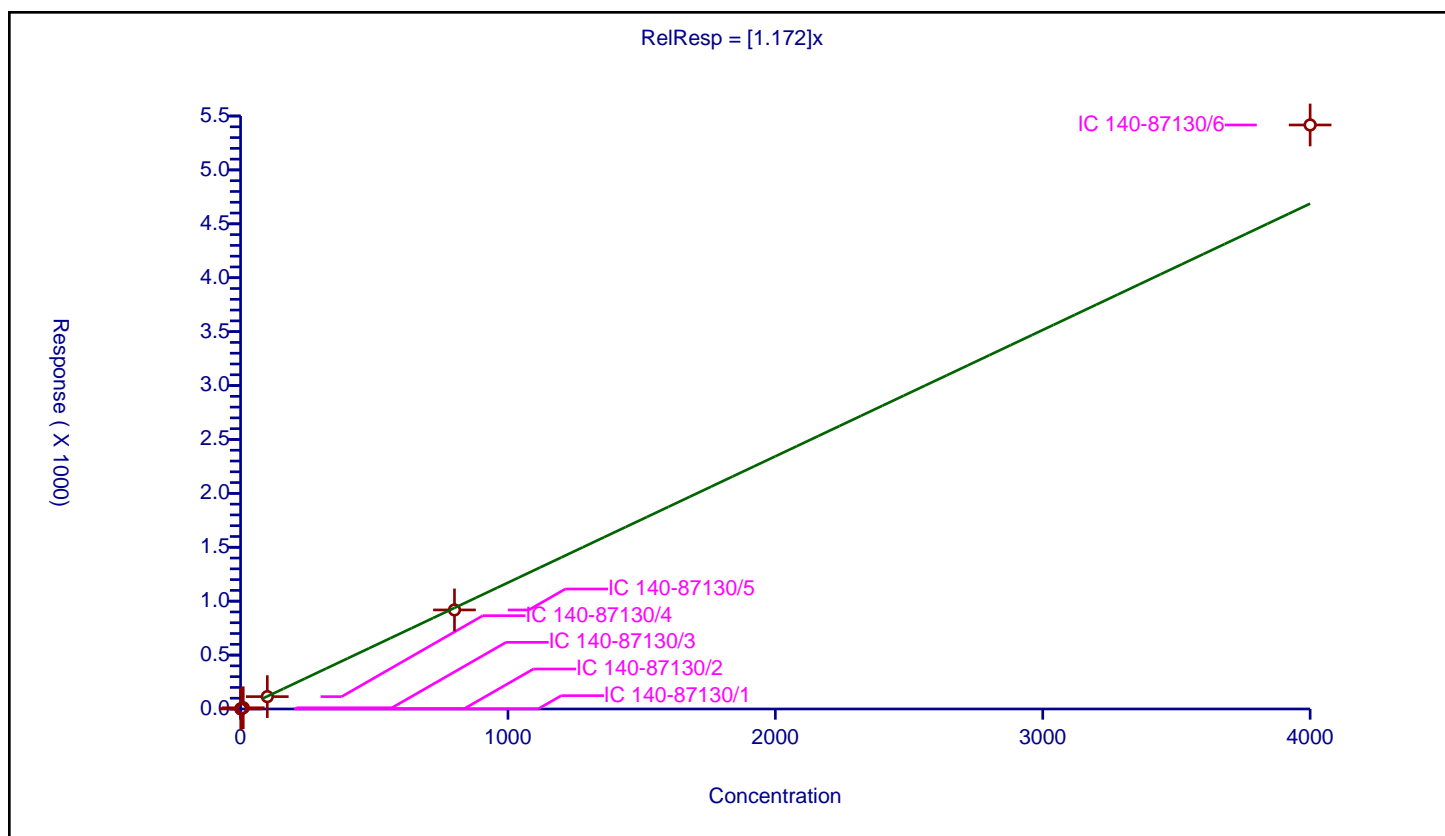
## Curve Coefficients

Intercept: 0  
Slope: 1.172

## Error Coefficients

Relative Standard Deviation: 7.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.125553	100.0	14507892.0	1.125553	Y
2	IC 140-87130/2	2.0	2.250698	100.0	13255798.0	1.125349	Y
3	IC 140-87130/3	10.0	11.314001	100.0	13114910.0	1.1314	Y
4	IC 140-87130/4	100.0	114.571284	100.0	13535671.0	1.145713	Y
5	IC 140-87130/5	800.0	918.868256	100.0	14730805.0	1.148585	Y
6	IC 140-87130/6	4000.0	5416.90331	100.0	15552321.0	1.354226	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

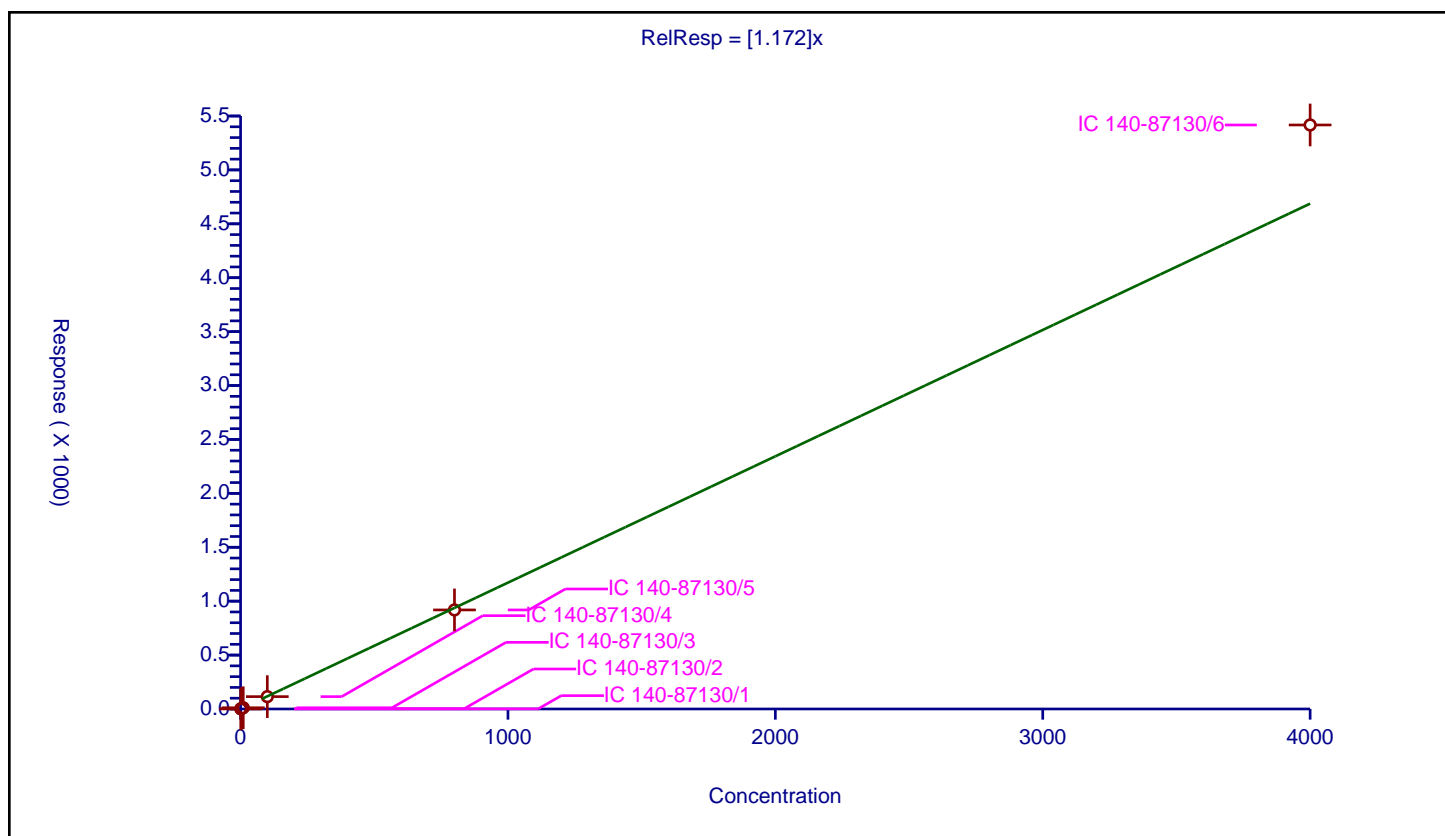
## Curve Coefficients

Intercept: 0  
Slope: 1.172

## Error Coefficients

Relative Standard Deviation: 7.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.125553	100.0	14507892.0	1.125553	Y
2	IC 140-87130/2	2.0	2.250698	100.0	13255798.0	1.125349	Y
3	IC 140-87130/3	10.0	11.314001	100.0	13114910.0	1.1314	Y
4	IC 140-87130/4	100.0	114.571284	100.0	13535671.0	1.145713	Y
5	IC 140-87130/5	800.0	918.868256	100.0	14730805.0	1.148585	Y
6	IC 140-87130/6	4000.0	5416.90331	100.0	15552321.0	1.354226	Y



## Calibration

/ PCB-200

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

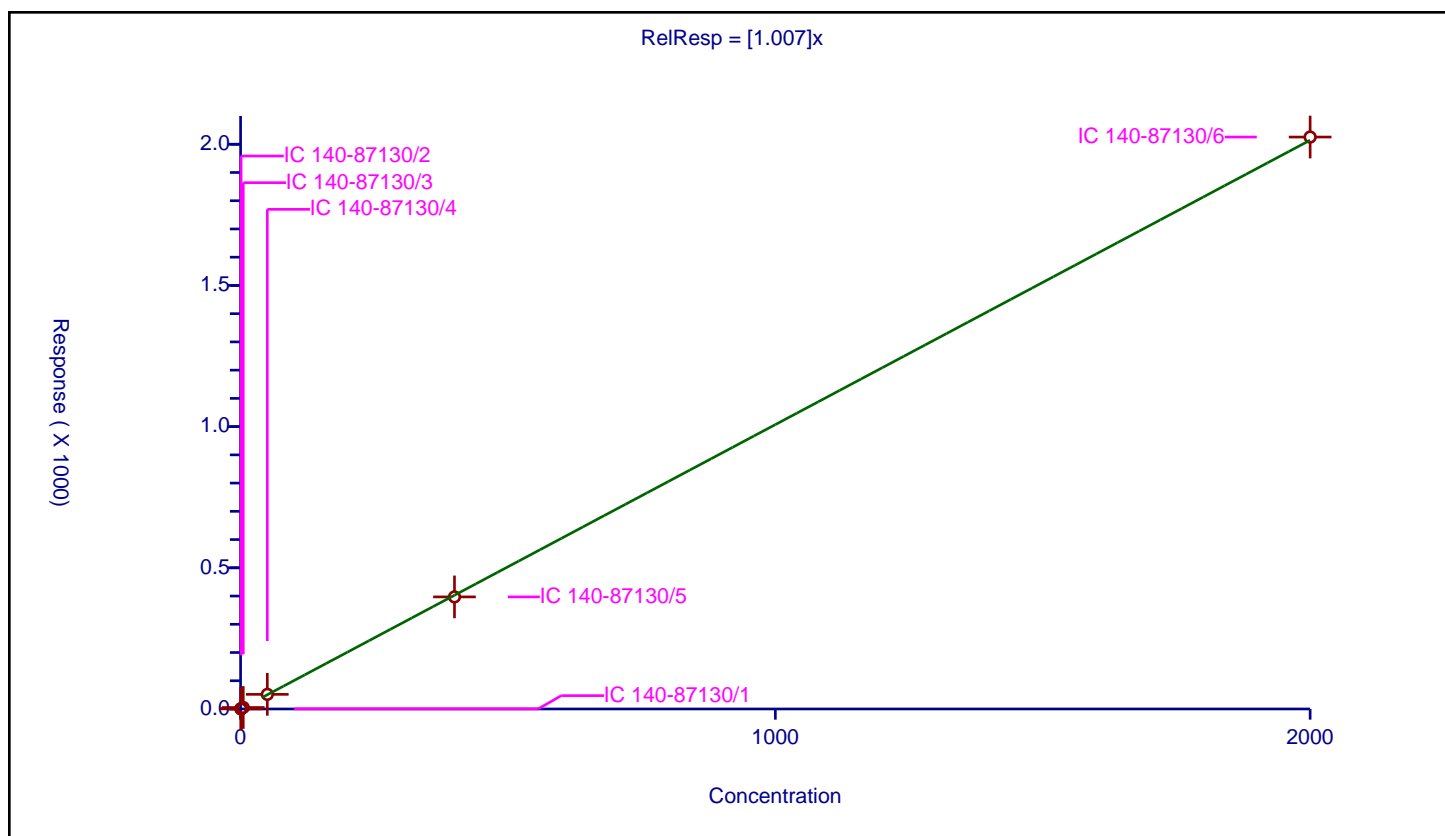
## Curve Coefficients

Intercept: 0  
Slope: 1.007

## Error Coefficients

Relative Standard Deviation: 4.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.461383	100.0	5622444.0	0.922766	Y
2	IC 140-87130/2	1.0	1.039615	100.0	5103331.0	1.039615	Y
3	IC 140-87130/3	5.0	5.200629	100.0	5089577.0	1.040126	Y
4	IC 140-87130/4	50.0	51.768362	100.0	4754288.0	1.035367	Y
5	IC 140-87130/5	400.0	396.964026	100.0	5079458.0	0.99241	Y
6	IC 140-87130/6	2000.0	2025.474158	100.0	5299657.0	1.012737	Y





# Calibration

/ PCB-201

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

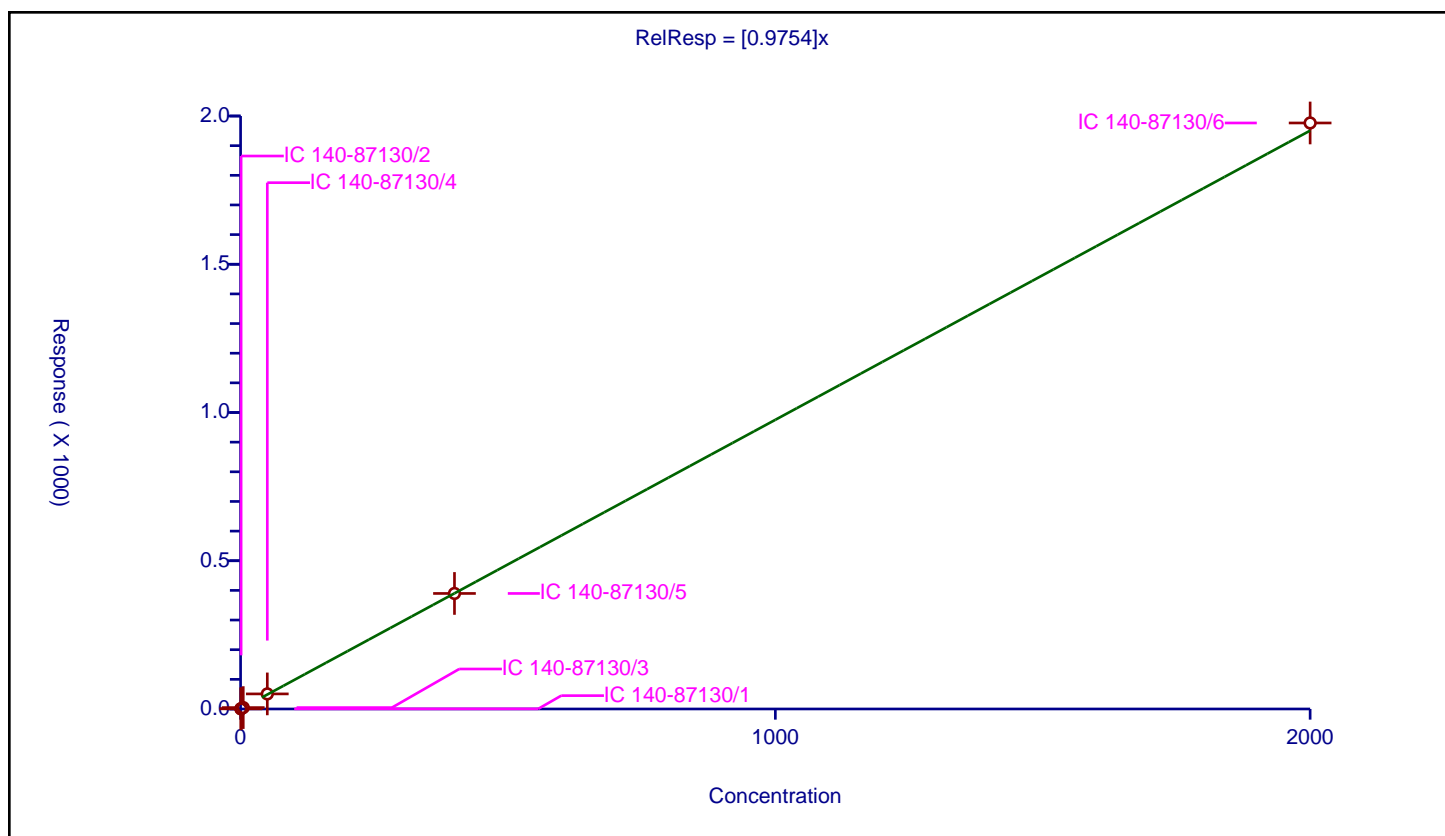
## Curve Coefficients

Intercept: 0  
 Slope: 0.9754

## Error Coefficients

Relative Standard Deviation: 3.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.463571	100.0	5622444.0	0.927141	Y
2	IC 140-87130/2	1.0	0.993312	100.0	5103331.0	0.993312	Y
3	IC 140-87130/3	5.0	4.758627	100.0	5089577.0	0.951725	Y
4	IC 140-87130/4	50.0	50.882782	100.0	4754288.0	1.017656	Y
5	IC 140-87130/5	400.0	389.640312	100.0	5079458.0	0.974101	Y
6	IC 140-87130/6	2000.0	1976.55837	100.0	5299657.0	0.988279	Y



# Calibration

/ PCB-202

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

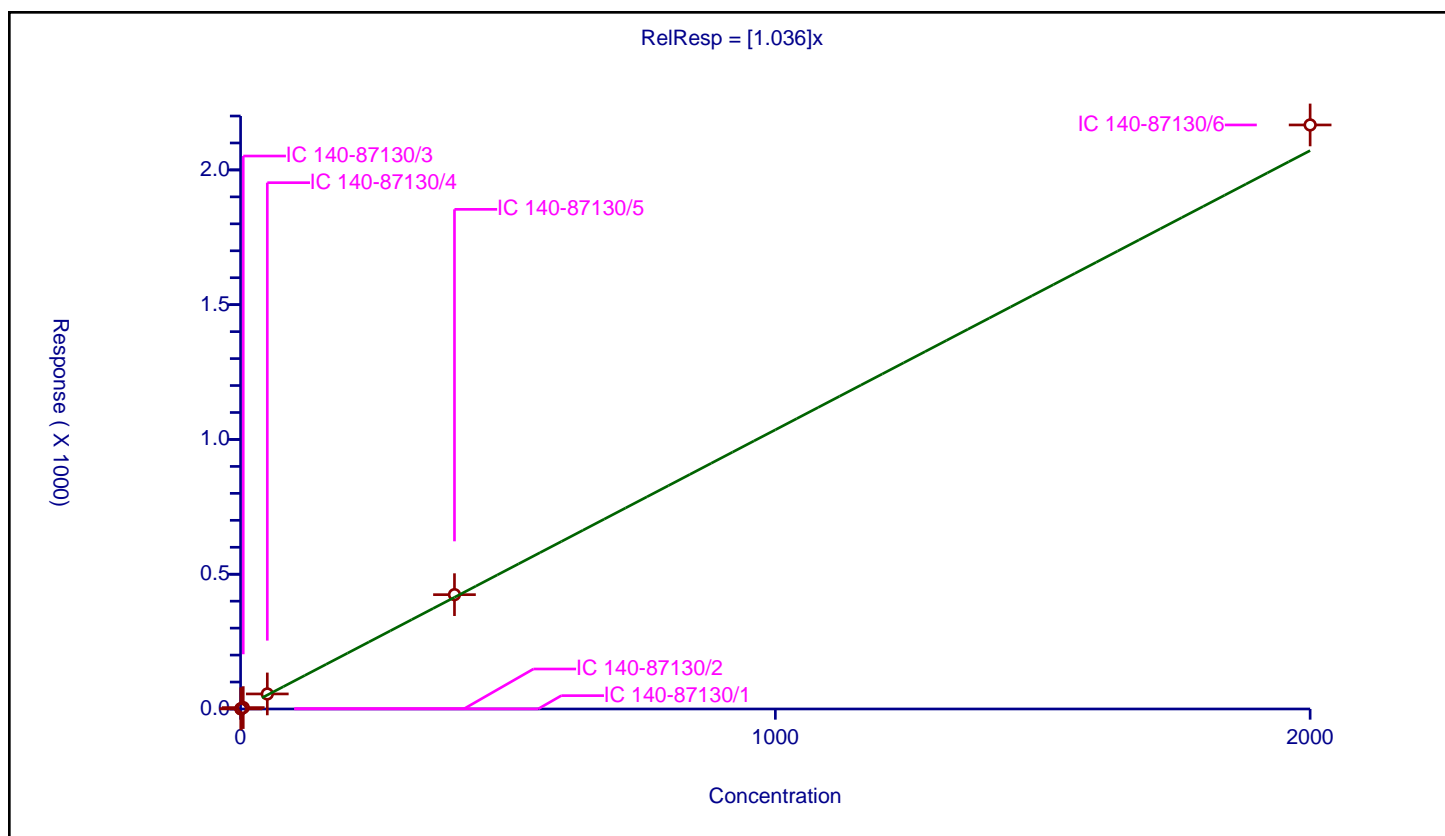
## Curve Coefficients

Intercept: 0  
 Slope: 1.036

## Error Coefficients

Relative Standard Deviation: 6.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.457346	100.0	5622444.0	0.914691	Y
2	IC 140-87130/2	1.0	1.000699	100.0	5103331.0	1.000699	Y
3	IC 140-87130/3	5.0	5.196267	100.0	5089577.0	1.039253	Y
4	IC 140-87130/4	50.0	55.82857	100.0	4754288.0	1.116571	Y
5	IC 140-87130/5	400.0	424.203114	100.0	5079458.0	1.060508	Y
6	IC 140-87130/6	2000.0	2166.861082	100.0	5299657.0	1.083431	Y



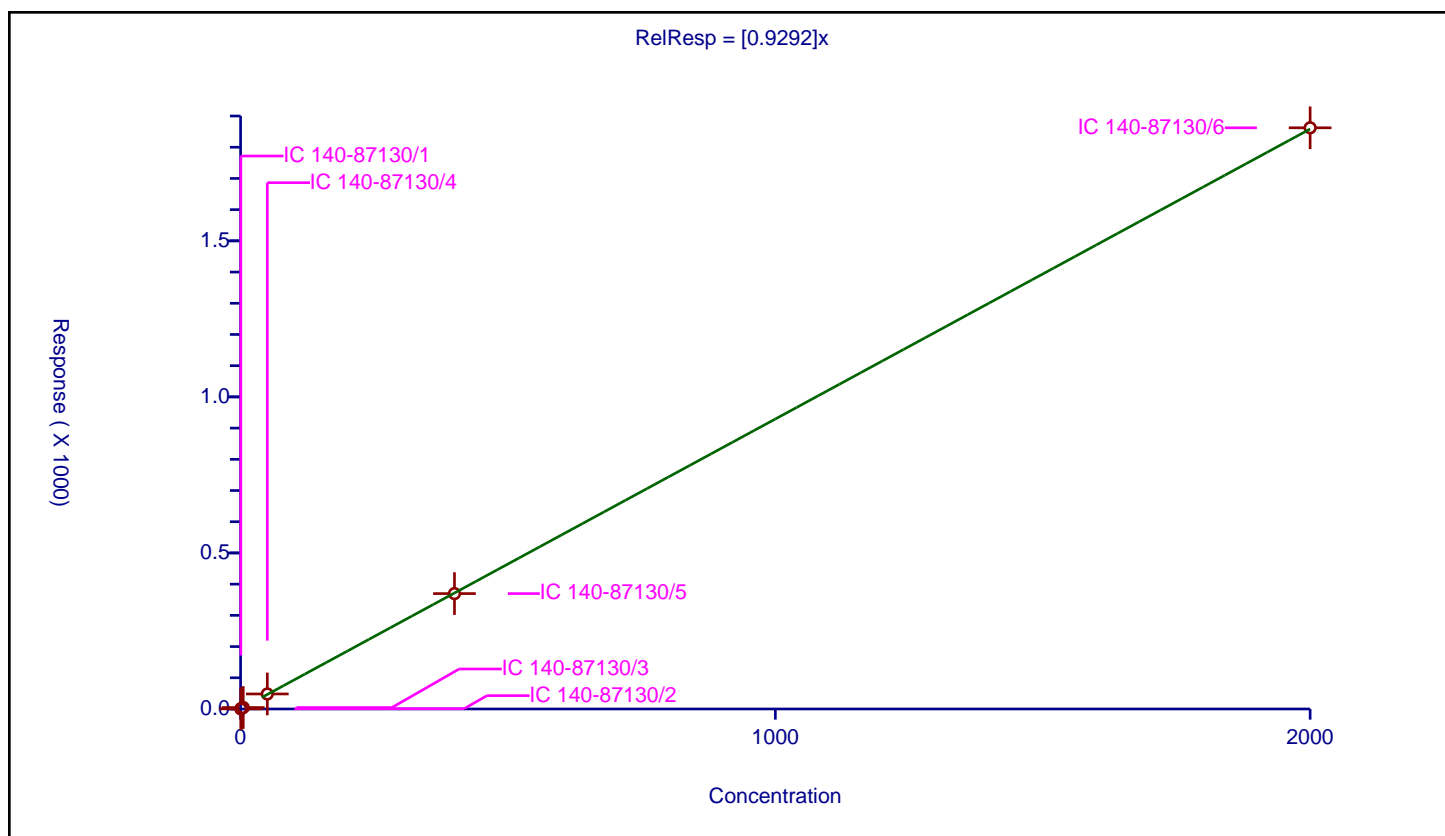
## / PCB-203

## Curve Coefficients

### Error Coefficients

**Relative Standard Deviation:** 2.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.472855	100.0	5622444.0	0.94571	Y
2	IC 140-87130/2	1.0	0.884246	100.0	5103331.0	0.884246	Y
3	IC 140-87130/3	5.0	4.633136	100.0	5089577.0	0.926627	Y
4	IC 140-87130/4	50.0	48.15821	100.0	4754288.0	0.963164	Y
5	IC 140-87130/5	400.0	369.761282	100.0	5079458.0	0.924403	Y
6	IC 140-87130/6	2000.0	1862.268577	100.0	5299657.0	0.931134	Y



# Calibration

/ PCB-204

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

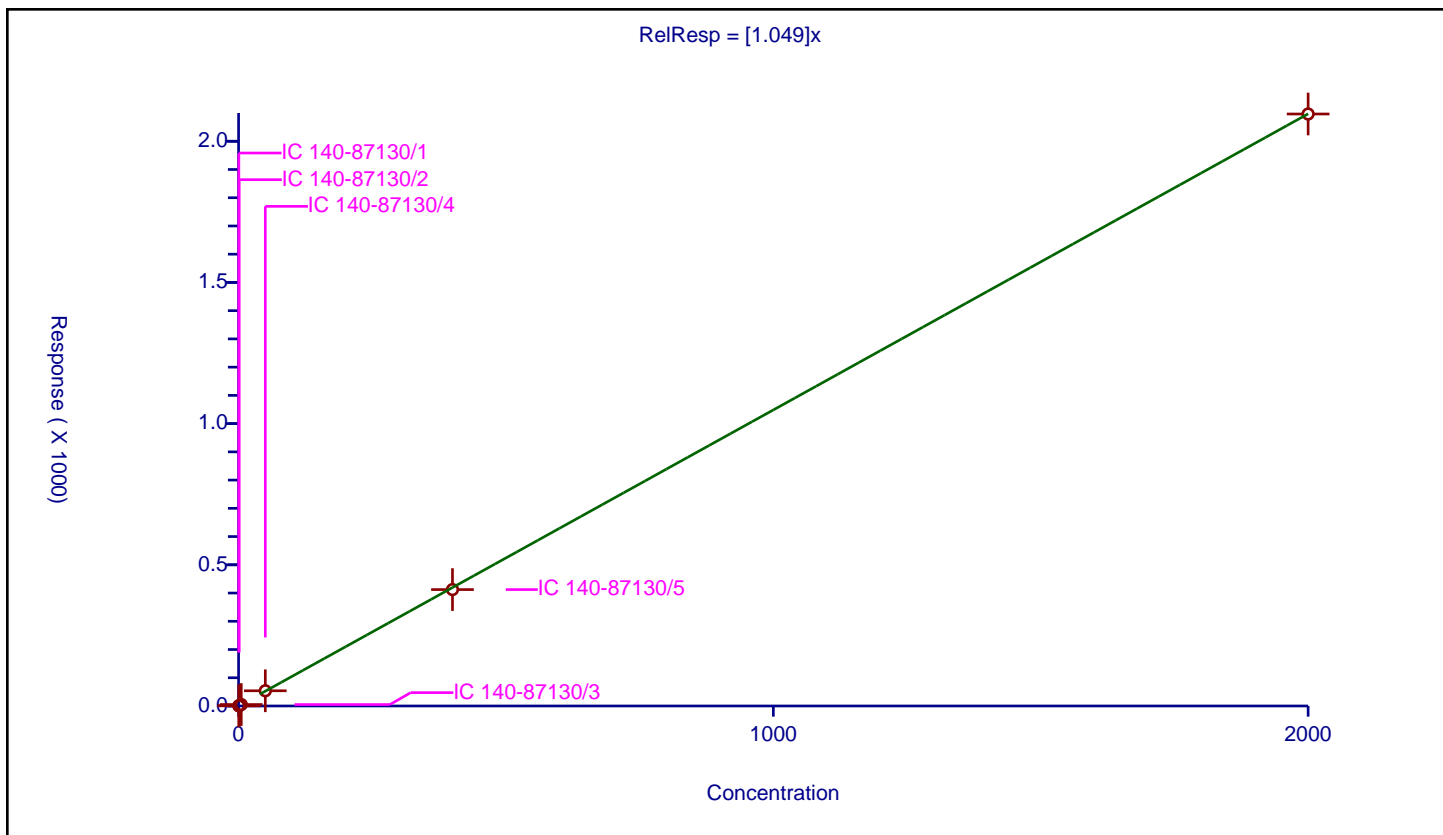
## Curve Coefficients

Intercept: 0  
 Slope: 1.049

## Error Coefficients

Relative Standard Deviation: 2.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.532491	100.0	5622444.0	1.064982	Y
2	IC 140-87130/2	1.0	1.048786	100.0	5103331.0	1.048786	Y
3	IC 140-87130/3	5.0	5.102251	100.0	5089577.0	1.02045	Y
4	IC 140-87130/4	50.0	53.899553	100.0	4754288.0	1.077991	Y
5	IC 140-87130/5	400.0	412.258414	100.0	5079458.0	1.030646	Y
6	IC 140-87130/6	2000.0	2096.551437	100.0	5299657.0	1.048276	Y



# Calibration

/ PCB-205

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

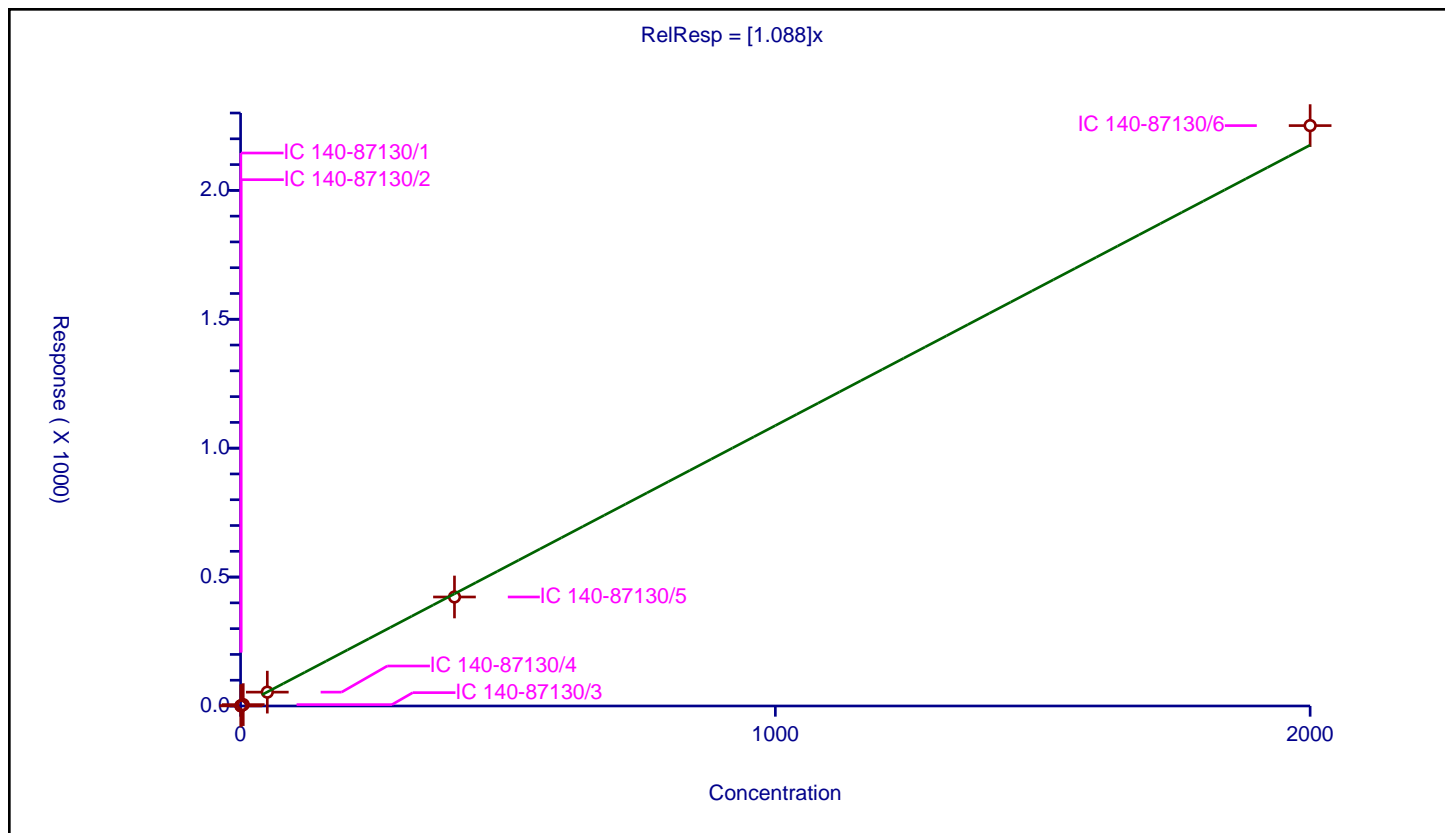
## Curve Coefficients

Intercept: 0  
 Slope: 1.088

## Error Coefficients

Relative Standard Deviation: 2.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.546091	100.0	9259085.0	1.092181	Y
2	IC 140-87130/2	1.0	1.112361	100.0	8466946.0	1.112361	Y
3	IC 140-87130/3	5.0	5.325952	100.0	8416261.0	1.06519	Y
4	IC 140-87130/4	50.0	53.71027	100.0	8337493.0	1.074205	Y
5	IC 140-87130/5	400.0	422.802224	100.0	8638618.0	1.057006	Y
6	IC 140-87130/6	2000.0	2251.219562	100.0	8823289.0	1.12561	Y



# Calibration

/ PCB-206

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

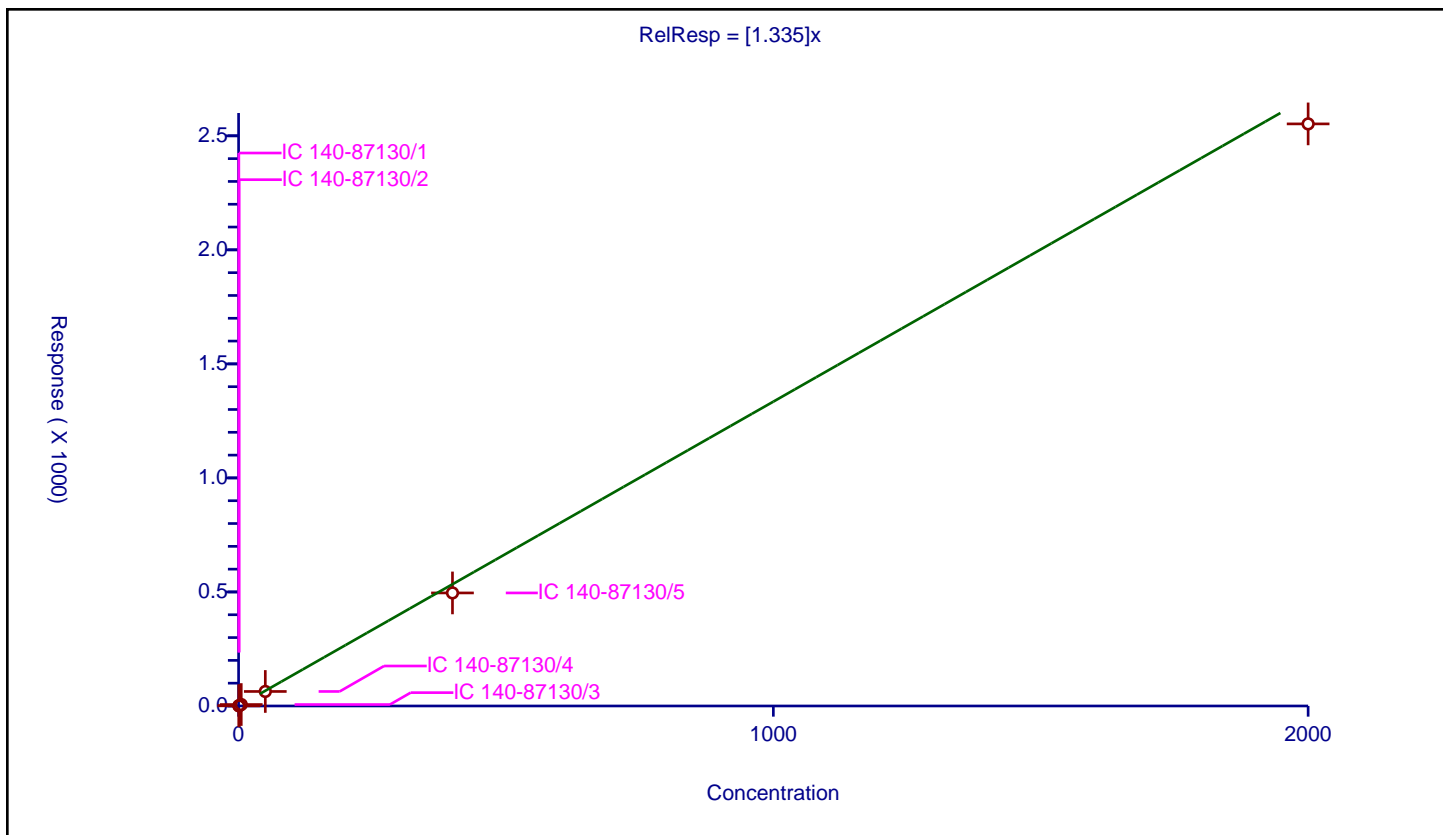
## Curve Coefficients

Intercept: 0  
 Slope: 1.335

## Error Coefficients

Relative Standard Deviation: 9.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.790021	100.0	5499727.0	1.580042	Y
2	IC 140-87130/2	1.0	1.374218	100.0	4908757.0	1.374218	Y
3	IC 140-87130/3	5.0	6.317299	100.0	5024711.0	1.26346	Y
4	IC 140-87130/4	50.0	63.715313	100.0	4903942.0	1.274306	Y
5	IC 140-87130/5	400.0	495.726085	100.0	5087280.0	1.239315	Y
6	IC 140-87130/6	2000.0	2552.25413	100.0	5196483.0	1.276127	Y



# Calibration

/ PCB-207

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

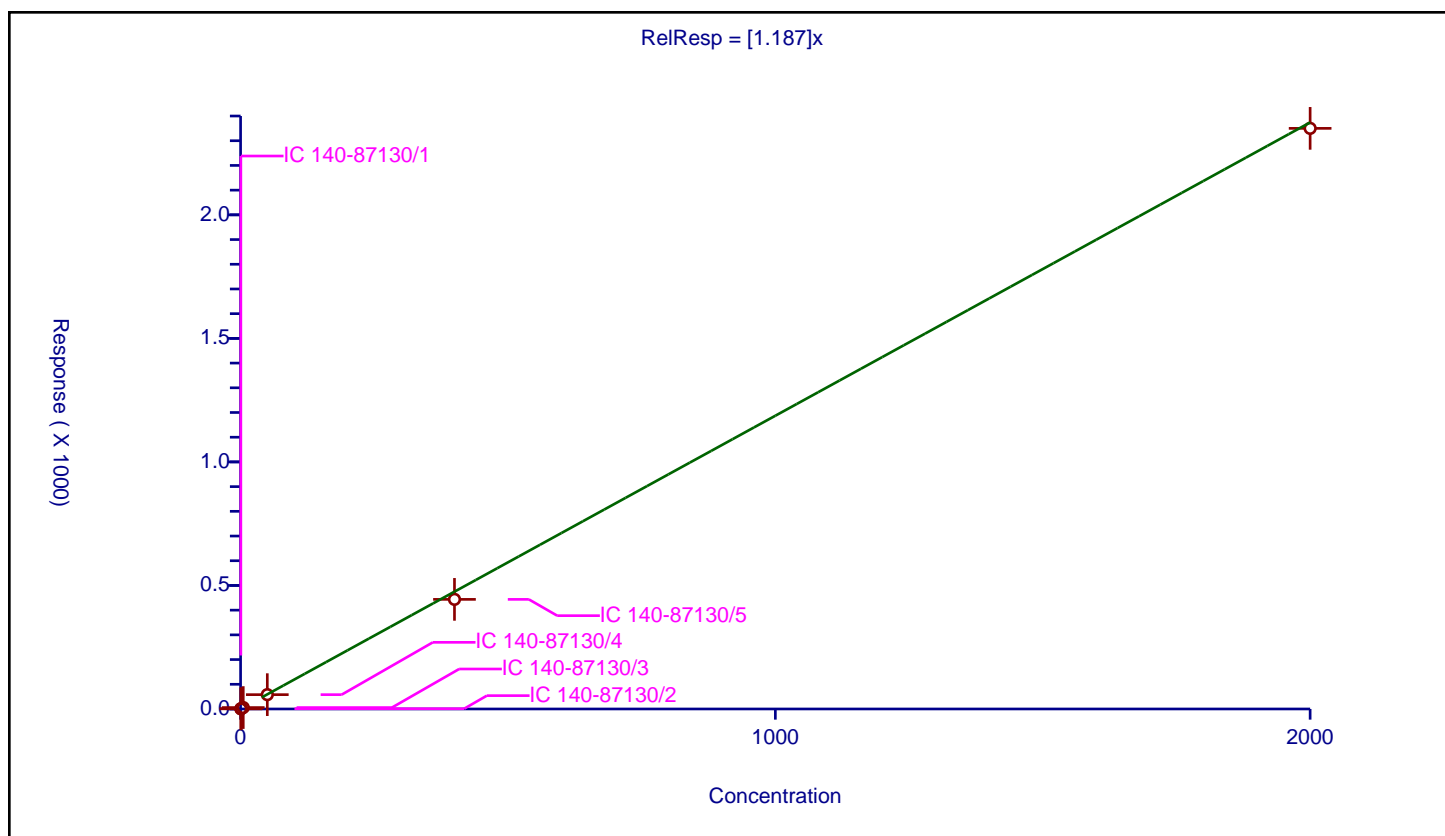
## Curve Coefficients

Intercept: 0  
 Slope: 1.187

## Error Coefficients

Relative Standard Deviation: 6.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.665599	100.0	7500908.0	1.331199	Y
2	IC 140-87130/2	1.0	1.181299	100.0	6757986.0	1.181299	Y
3	IC 140-87130/3	5.0	5.820938	100.0	6859651.0	1.164188	Y
4	IC 140-87130/4	50.0	58.054956	100.0	6680775.0	1.161099	Y
5	IC 140-87130/5	400.0	443.625932	100.0	7135804.0	1.109065	Y
6	IC 140-87130/6	2000.0	2350.061025	100.0	7275684.0	1.175031	Y



**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

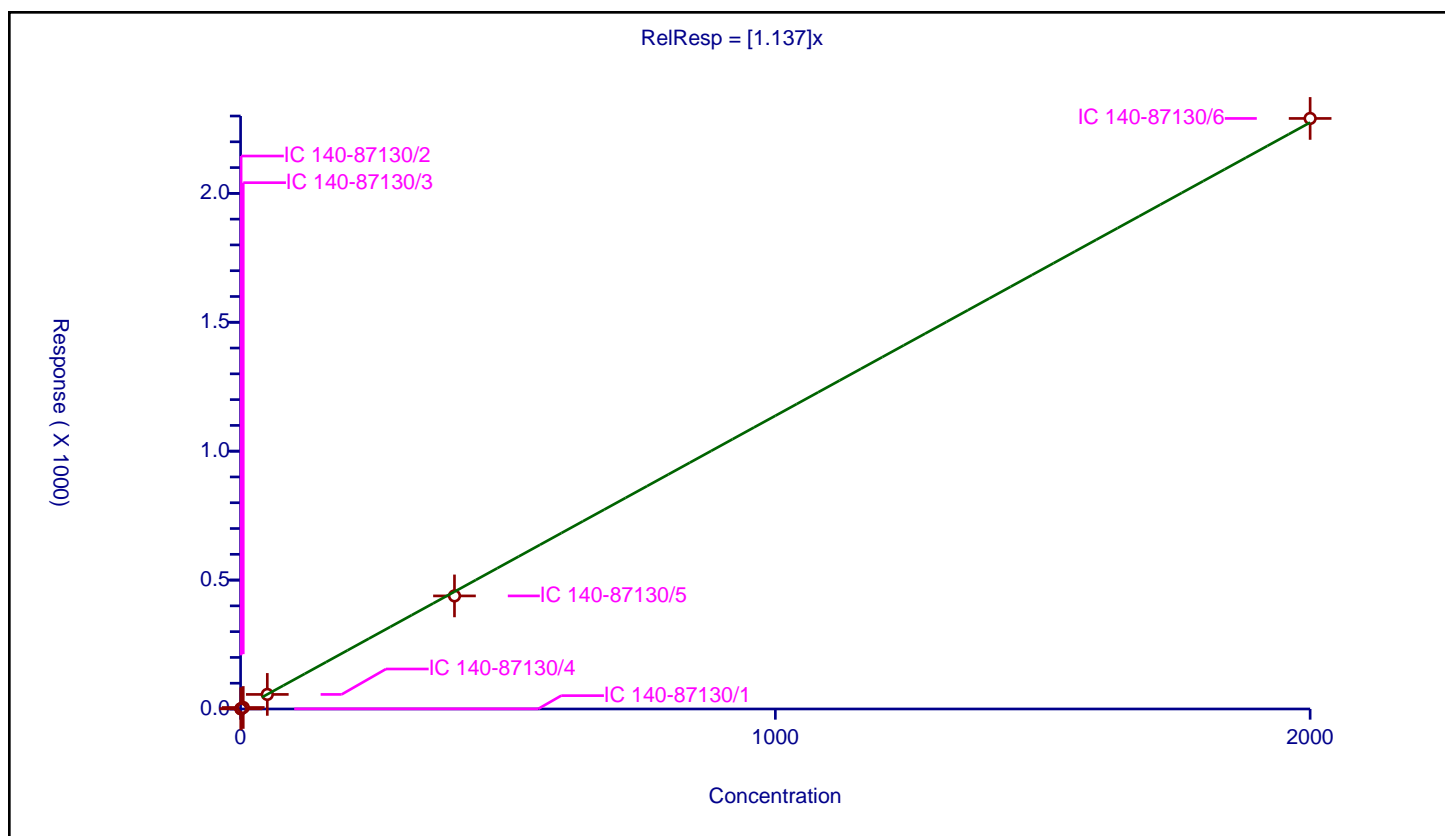
## Curve Coefficients

**Intercept:** 0  
**Slope:** 1.137

## Error Coefficients

**Relative Standard Deviation:** 2.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.554533	100.0	7500908.0	1.109066	Y
2	IC 140-87130/2	1.0	1.178739	100.0	6757986.0	1.178739	Y
3	IC 140-87130/3	5.0	5.825005	100.0	6859651.0	1.165001	Y
4	IC 140-87130/4	50.0	56.499313	100.0	6680775.0	1.129986	Y
5	IC 140-87130/5	400.0	438.638533	100.0	7135804.0	1.096596	Y
6	IC 140-87130/6	2000.0	2290.579635	100.0	7275684.0	1.14529	Y





# Calibration

/ PCB-21

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

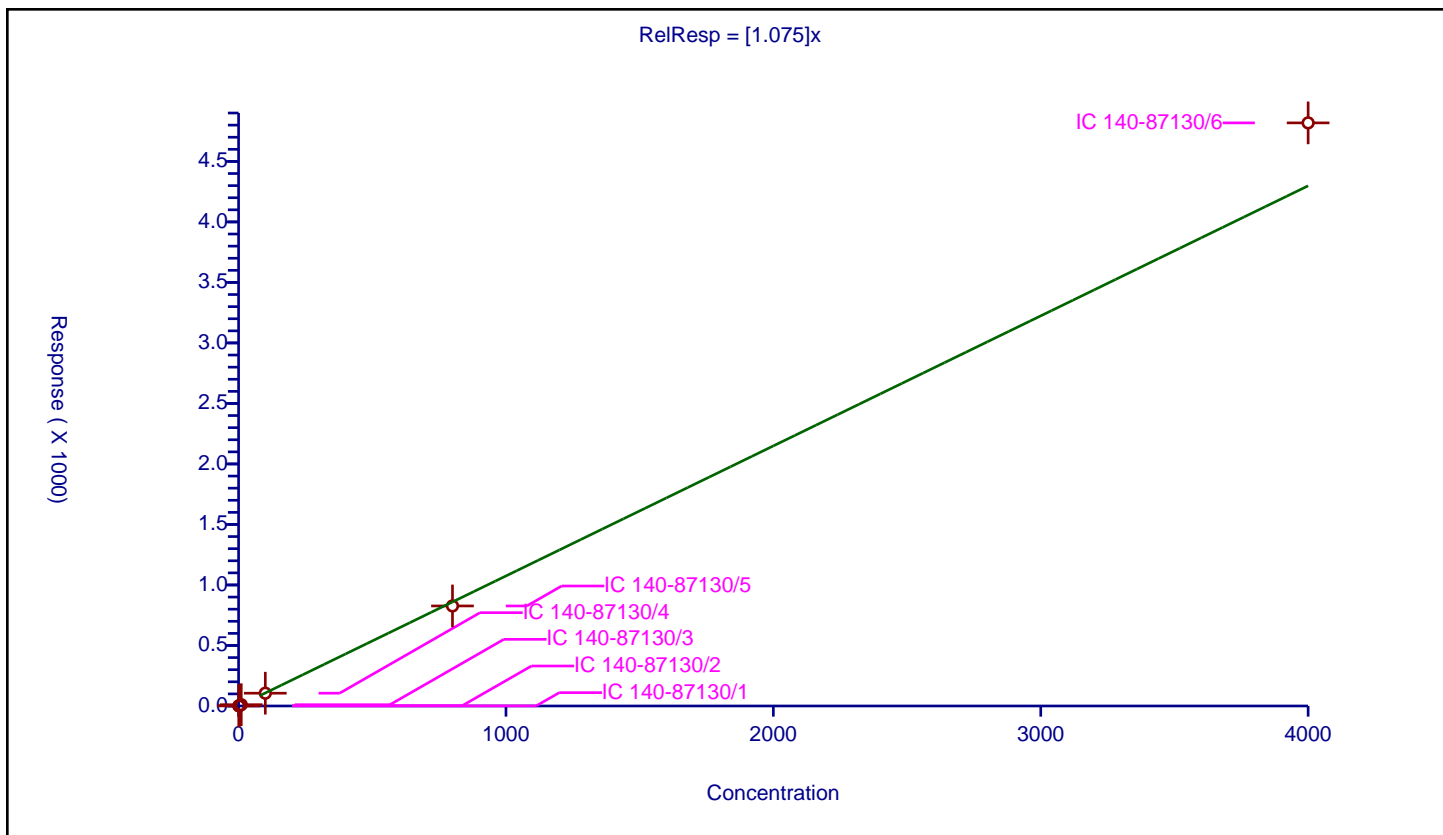
## Curve Coefficients

Intercept: 0  
 Slope: 1.075

## Error Coefficients

Relative Standard Deviation: 6.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.018136	100.0	14507892.0	1.018136	Y
2	IC 140-87130/2	2.0	2.127311	100.0	13255798.0	1.063655	Y
3	IC 140-87130/3	10.0	10.703085	100.0	13114910.0	1.070309	Y
4	IC 140-87130/4	100.0	105.751285	100.0	13535671.0	1.057513	Y
5	IC 140-87130/5	800.0	826.614581	100.0	14730805.0	1.033268	Y
6	IC 140-87130/6	4000.0	4818.507366	100.0	15552321.0	1.204627	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

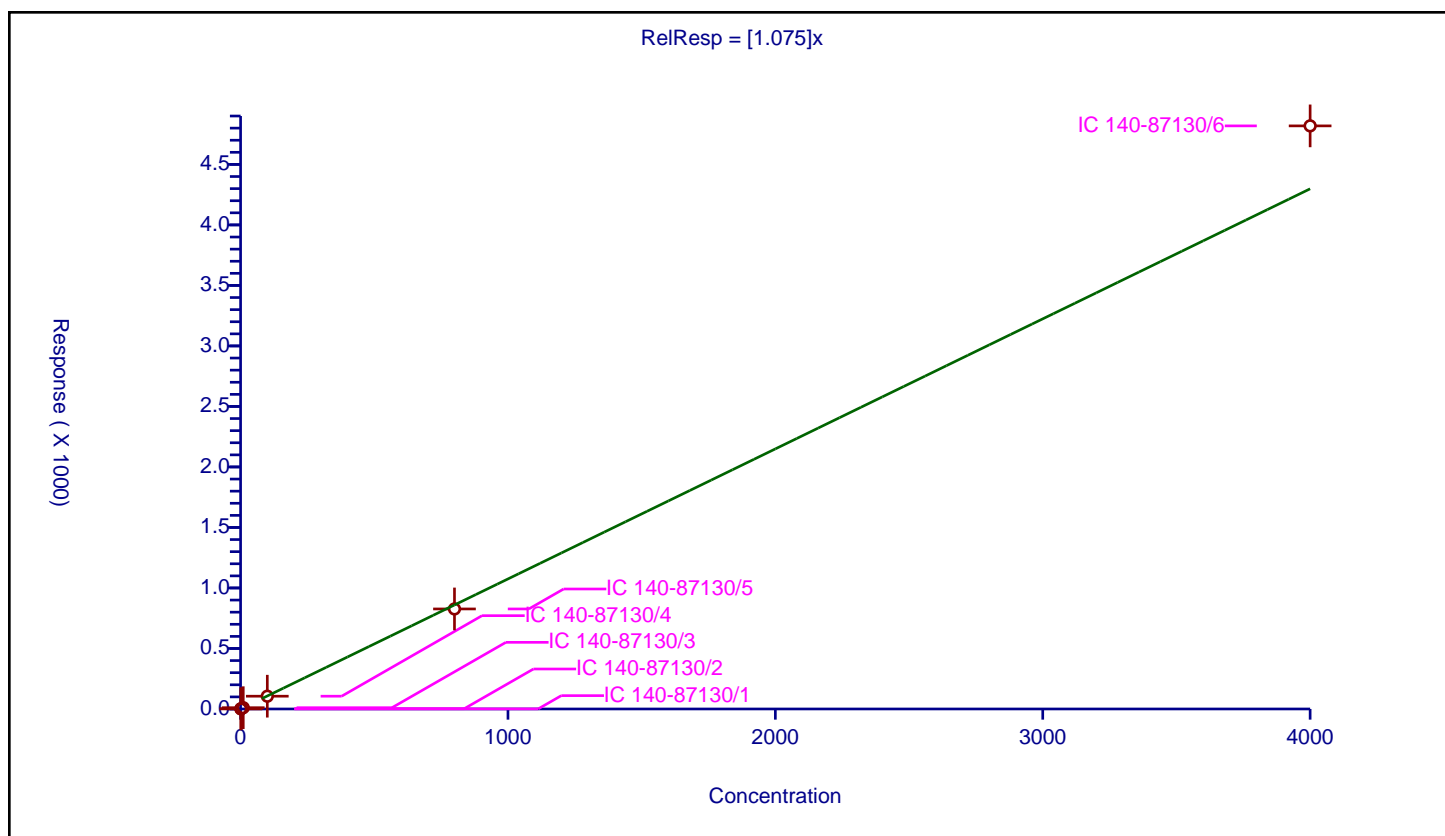
## Curve Coefficients

Intercept: 0  
Slope: 1.075

## Error Coefficients

Relative Standard Deviation: 6.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.018136	100.0	14507892.0	1.018136	Y
2	IC 140-87130/2	2.0	2.127311	100.0	13255798.0	1.063655	Y
3	IC 140-87130/3	10.0	10.703085	100.0	13114910.0	1.070309	Y
4	IC 140-87130/4	100.0	105.751285	100.0	13535671.0	1.057513	Y
5	IC 140-87130/5	800.0	826.614581	100.0	14730805.0	1.033268	Y
6	IC 140-87130/6	4000.0	4818.507366	100.0	15552321.0	1.204627	Y



# Calibration

/ PCB-22

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

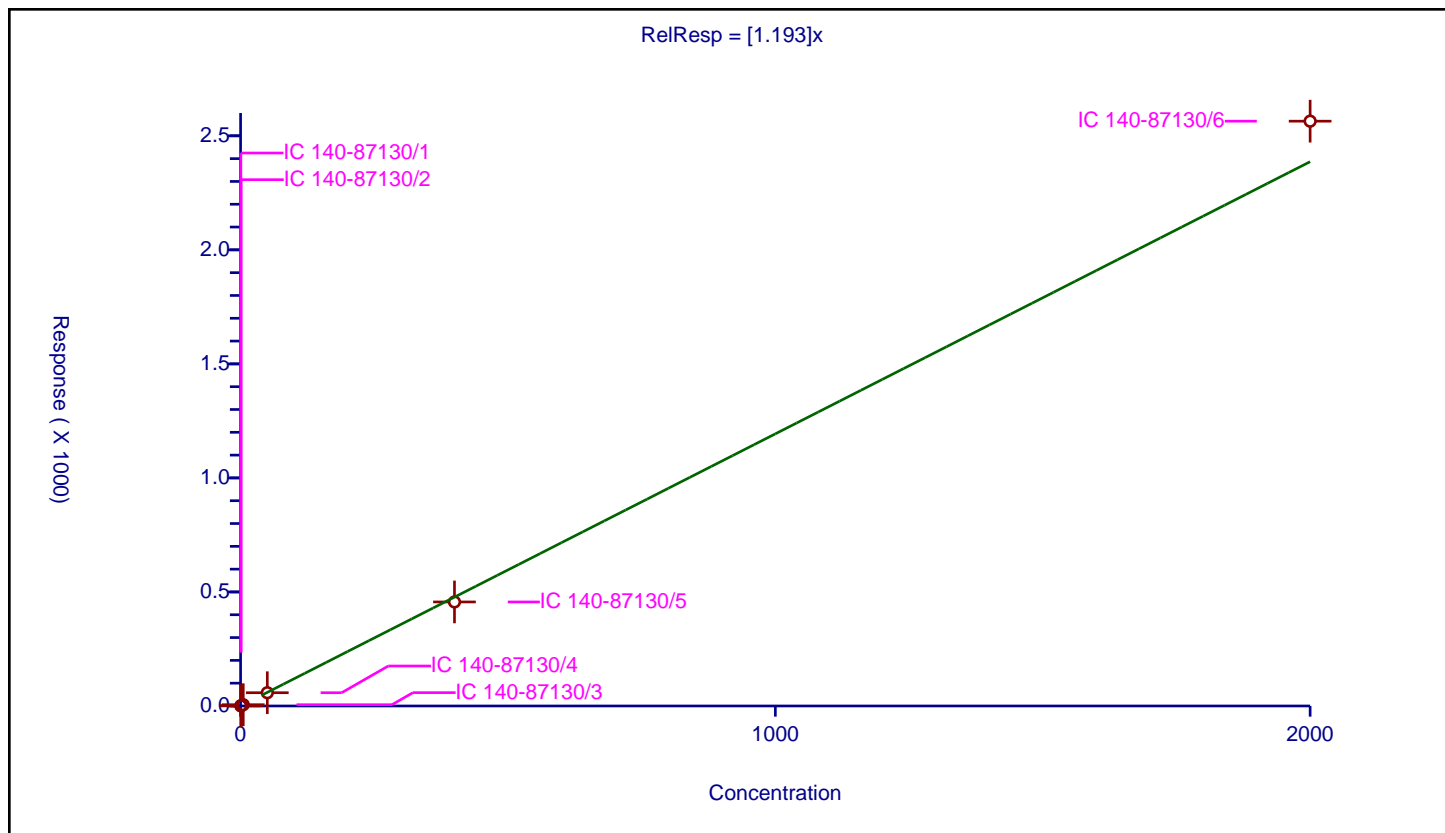
## Curve Coefficients

Intercept: 0  
Slope: 1.193

## Error Coefficients

Relative Standard Deviation: 5.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.60272	100.0	14507892.0	1.20544	Y
2	IC 140-87130/2	1.0	1.240031	100.0	13255798.0	1.240031	Y
3	IC 140-87130/3	5.0	5.639909	100.0	13114910.0	1.127982	Y
4	IC 140-87130/4	50.0	58.176	100.0	13535671.0	1.16352	Y
5	IC 140-87130/5	400.0	456.164439	100.0	14730805.0	1.140411	Y
6	IC 140-87130/6	2000.0	2564.170923	100.0	15552321.0	1.282085	Y



# Calibration

/ PCB-23

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

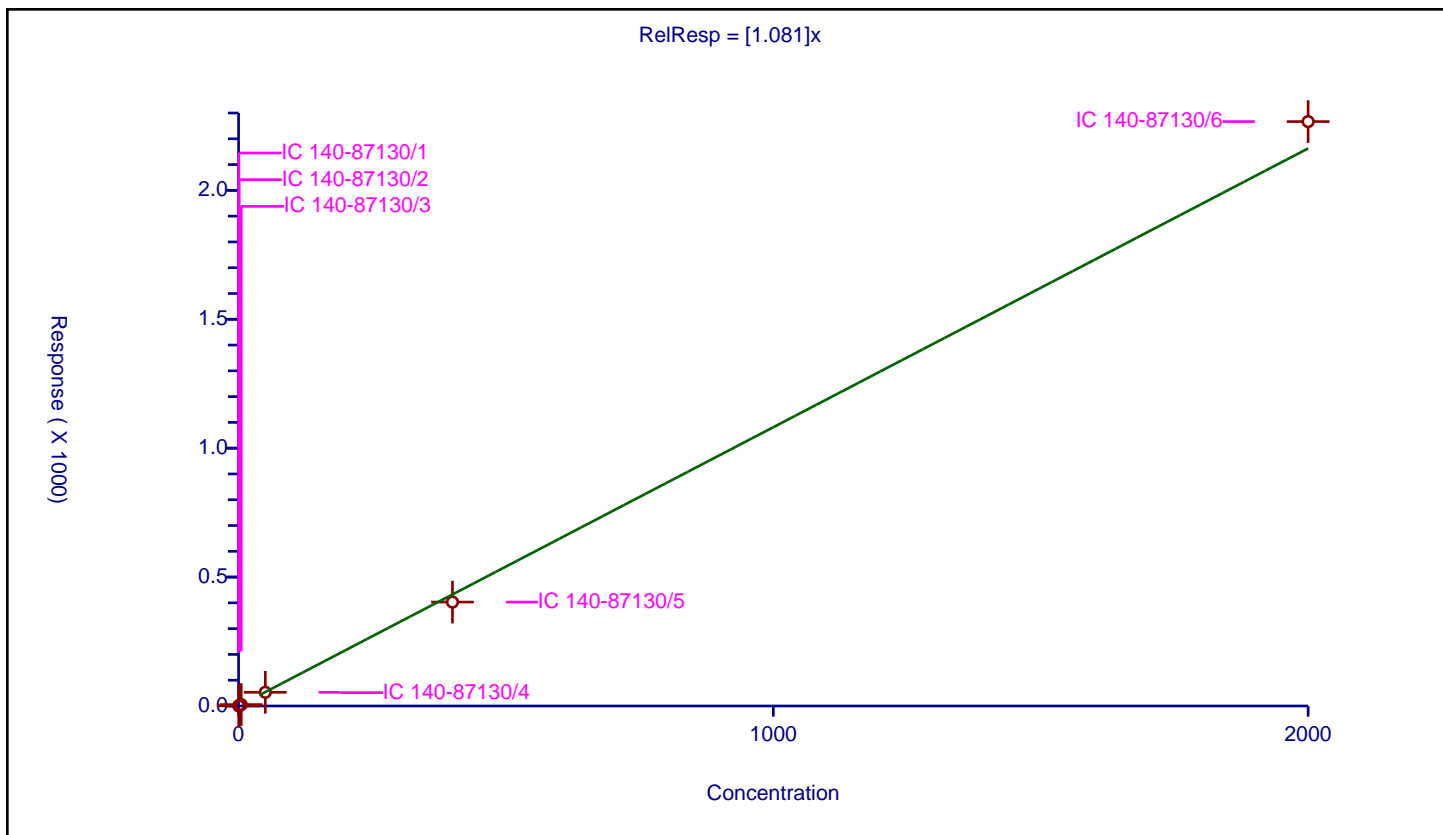
## Curve Coefficients

Intercept: 0  
Slope: 1.081

## Error Coefficients

Relative Standard Deviation: 4.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.542298	100.0	14507892.0	1.084596	Y
2	IC 140-87130/2	1.0	1.117639	100.0	13255798.0	1.117639	Y
3	IC 140-87130/3	5.0	5.413869	100.0	13114910.0	1.082774	Y
4	IC 140-87130/4	50.0	53.092071	100.0	13535671.0	1.061841	Y
5	IC 140-87130/5	400.0	403.054334	100.0	14730805.0	1.007636	Y
6	IC 140-87130/6	2000.0	2266.78843	100.0	15552321.0	1.133394	Y



**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

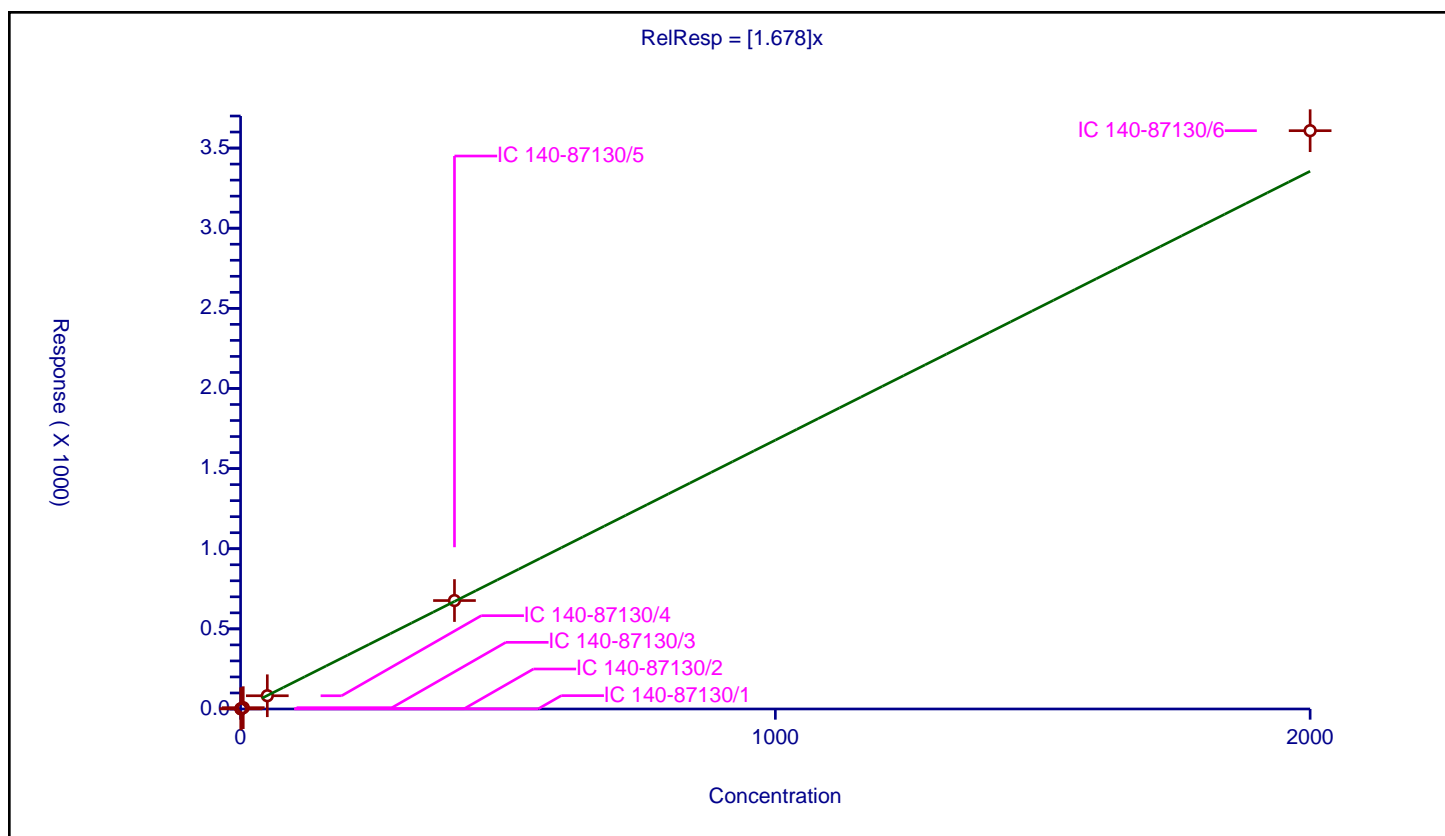
## Curve Coefficients

**Intercept:** 0  
**Slope:** 1.678

## Error Coefficients

**Relative Standard Deviation:** 4.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.832321	100.0	3711790.0	1.664642	Y
2	IC 140-87130/2	1.0	1.622033	100.0	3424036.0	1.622033	Y
3	IC 140-87130/3	5.0	8.156379	100.0	3389482.0	1.631276	Y
4	IC 140-87130/4	50.0	82.607222	100.0	3406868.0	1.652144	Y
5	IC 140-87130/5	400.0	676.659253	100.0	3537933.0	1.691648	Y
6	IC 140-87130/6	2000.0	3608.425176	100.0	3634856.0	1.804213	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

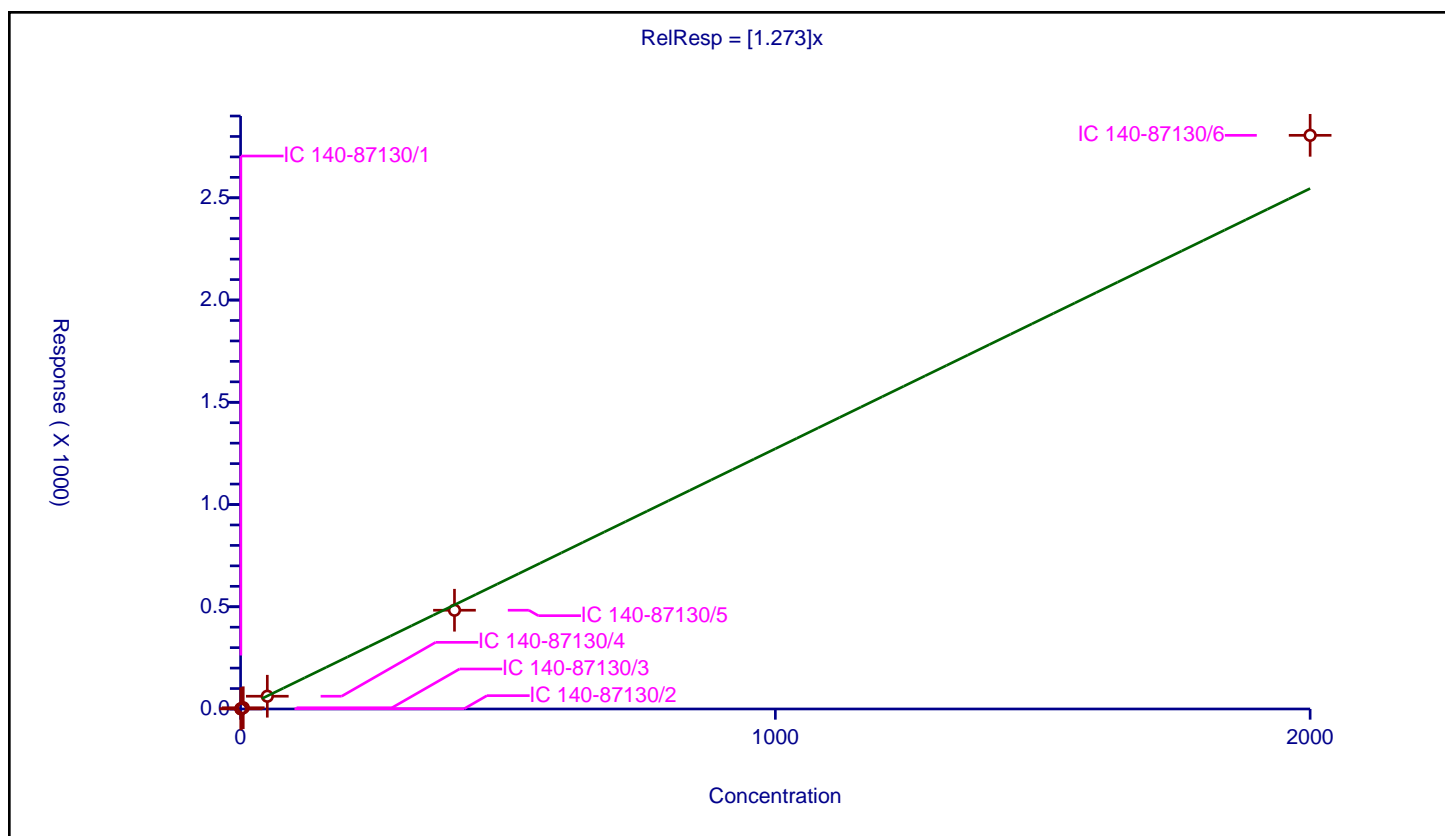
## Curve Coefficients

Intercept: 0  
Slope: 1.273

## Error Coefficients

Relative Standard Deviation: 6.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.673964	100.0	14507892.0	1.347928	Y
2	IC 140-87130/2	1.0	1.213575	100.0	13255798.0	1.213575	Y
3	IC 140-87130/3	5.0	6.086302	100.0	13114910.0	1.21726	Y
4	IC 140-87130/4	50.0	62.388159	100.0	13535671.0	1.247763	Y
5	IC 140-87130/5	400.0	482.954306	100.0	14730805.0	1.207386	Y
6	IC 140-87130/6	2000.0	2805.539128	100.0	15552321.0	1.40277	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

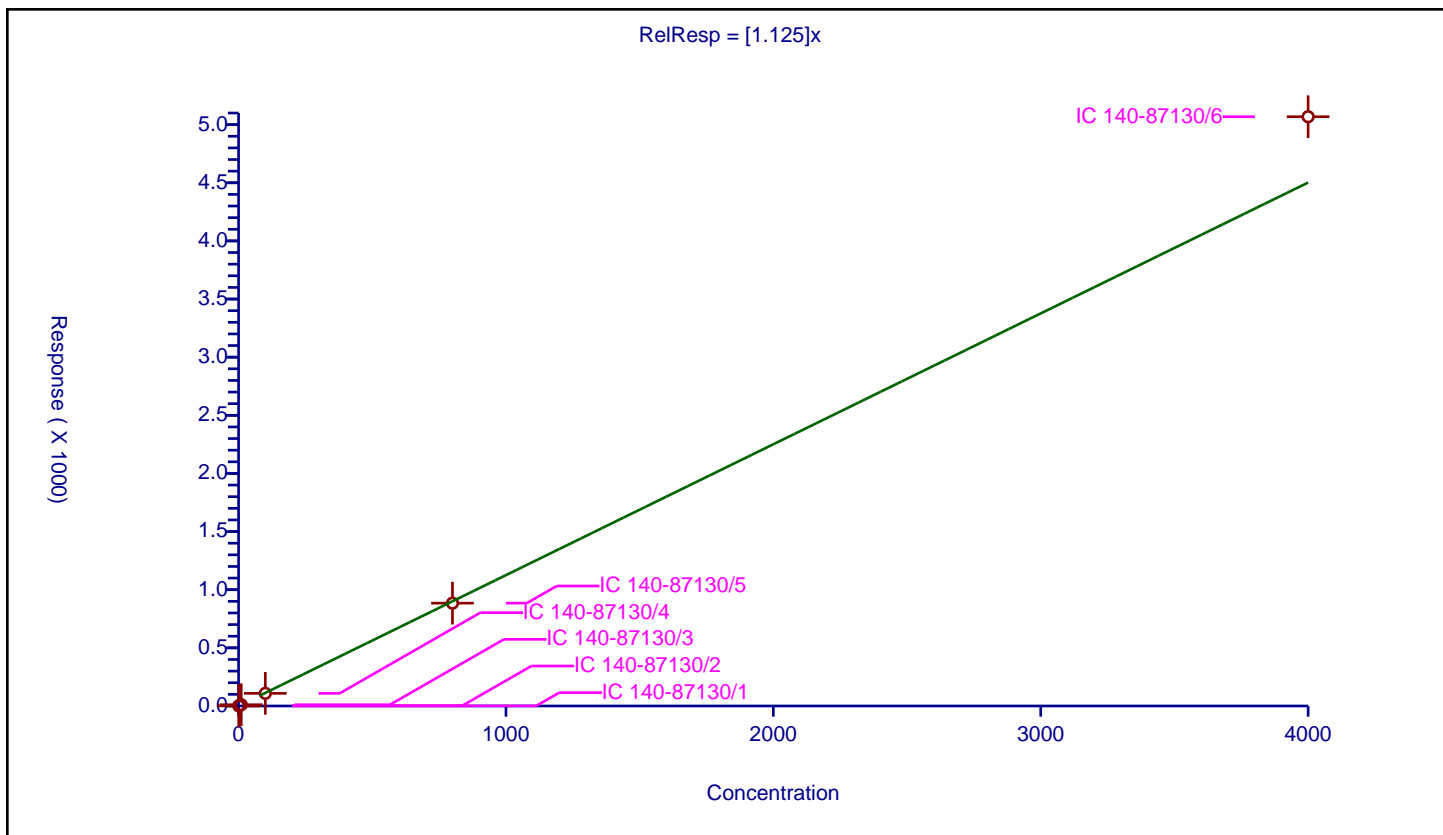
## Curve Coefficients

Intercept: 0  
Slope: 1.125

## Error Coefficients

Relative Standard Deviation: 6.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.087491	100.0	14507892.0	1.087491	Y
2	IC 140-87130/2	2.0	2.23807	100.0	13255798.0	1.119035	Y
3	IC 140-87130/3	10.0	10.874516	100.0	13114910.0	1.087452	Y
4	IC 140-87130/4	100.0	108.610892	100.0	13535671.0	1.086109	Y
5	IC 140-87130/5	800.0	884.50471	100.0	14730805.0	1.105631	Y
6	IC 140-87130/6	4000.0	5068.172448	100.0	15552321.0	1.267043	Y



# Calibration

/ PCB-26/29

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

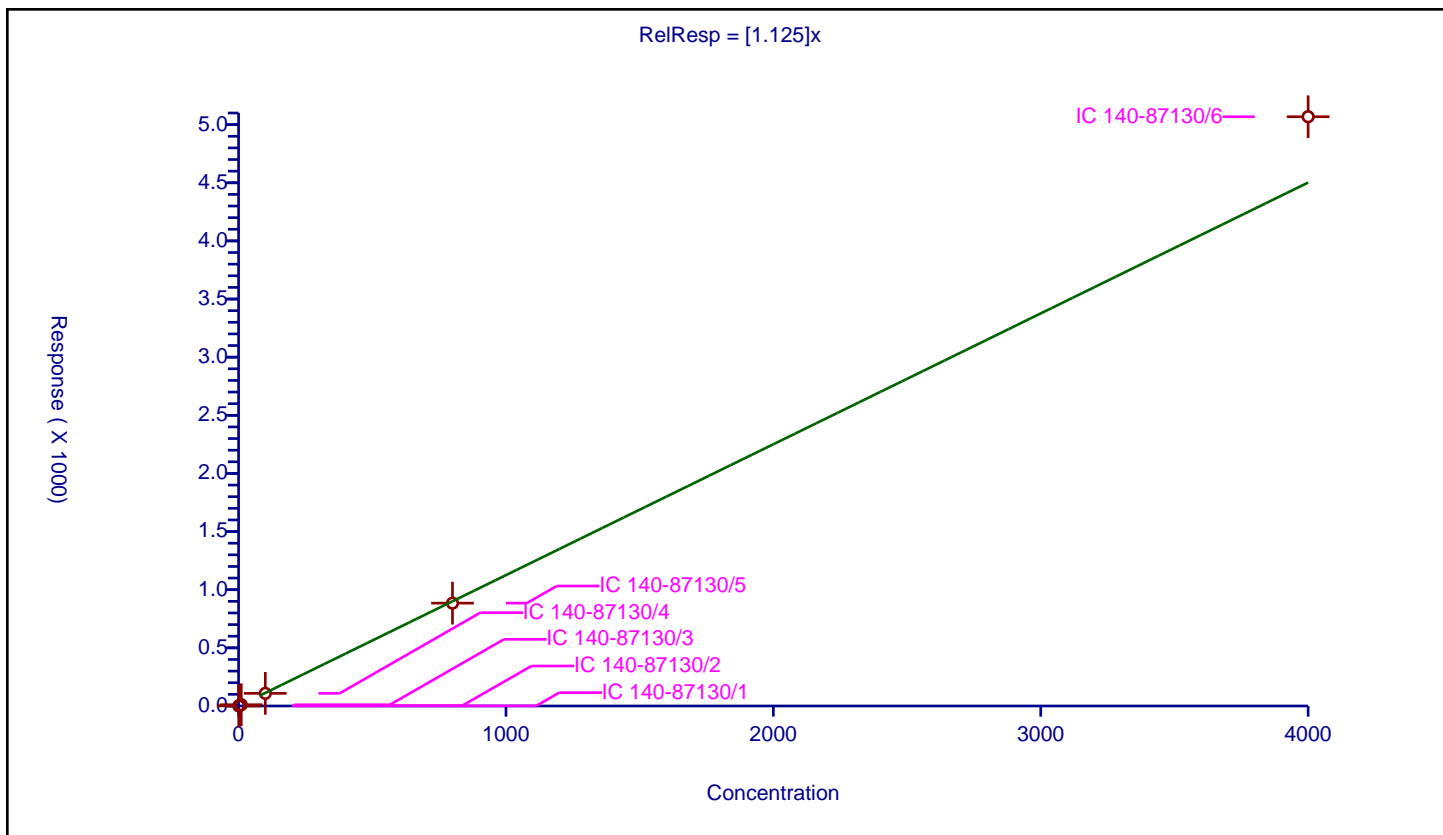
## Curve Coefficients

Intercept: 0  
 Slope: 1.125

## Error Coefficients

Relative Standard Deviation: 6.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.087491	100.0	14507892.0	1.087491	Y
2	IC 140-87130/2	2.0	2.23807	100.0	13255798.0	1.119035	Y
3	IC 140-87130/3	10.0	10.874516	100.0	13114910.0	1.087452	Y
4	IC 140-87130/4	100.0	108.610892	100.0	13535671.0	1.086109	Y
5	IC 140-87130/5	800.0	884.50471	100.0	14730805.0	1.105631	Y
6	IC 140-87130/6	4000.0	5068.172448	100.0	15552321.0	1.267043	Y





Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

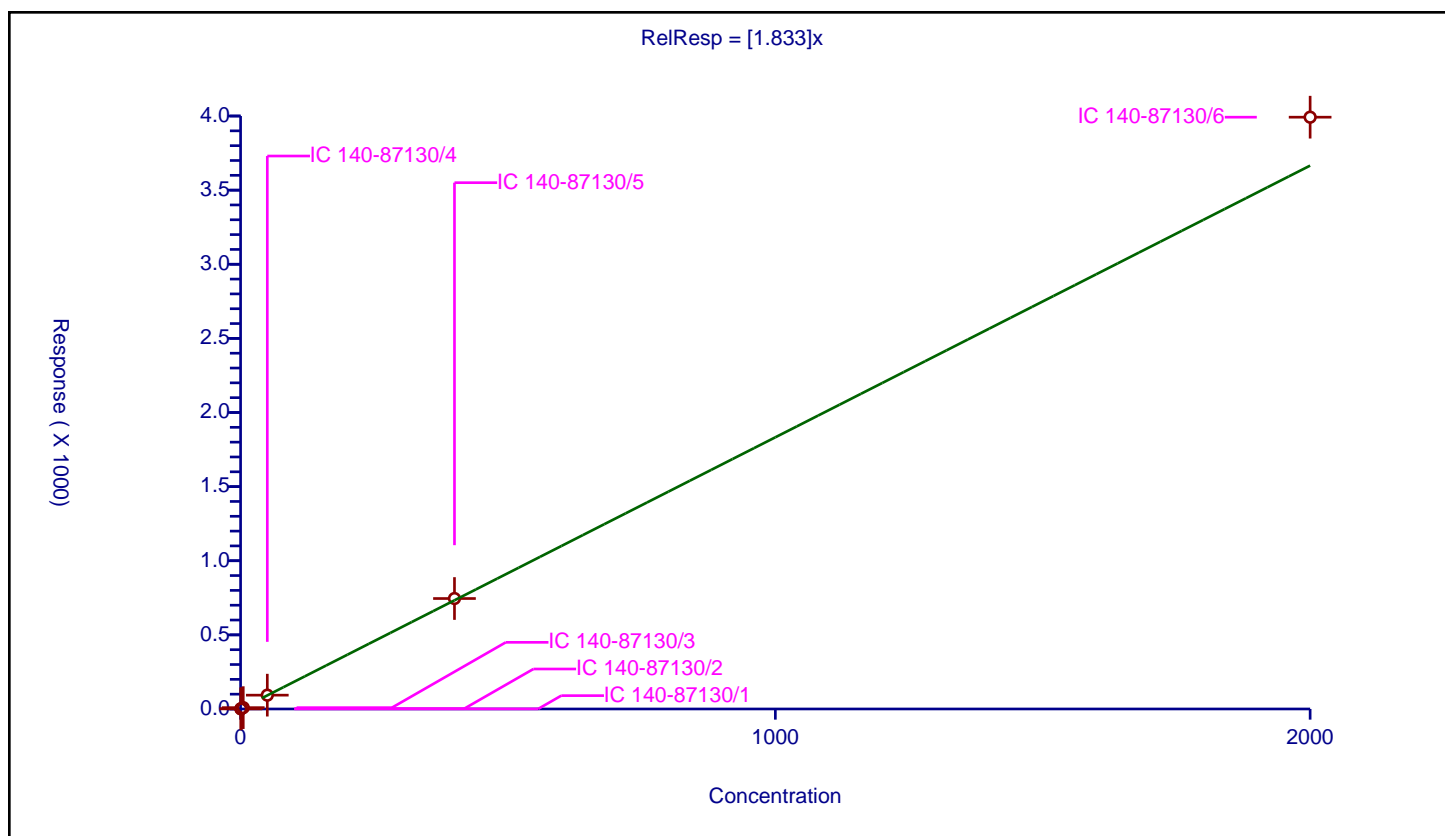
## Curve Coefficients

Intercept: 0  
Slope: 1.833

## Error Coefficients

Relative Standard Deviation: 6.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.817234	100.0	3711790.0	1.634467	Y
2	IC 140-87130/2	1.0	1.804099	100.0	3424036.0	1.804099	Y
3	IC 140-87130/3	5.0	9.161901	100.0	3389482.0	1.83238	Y
4	IC 140-87130/4	50.0	93.3283	100.0	3406868.0	1.866566	Y
5	IC 140-87130/5	400.0	745.086524	100.0	3537933.0	1.862716	Y
6	IC 140-87130/6	2000.0	3992.112865	100.0	3634856.0	1.996056	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

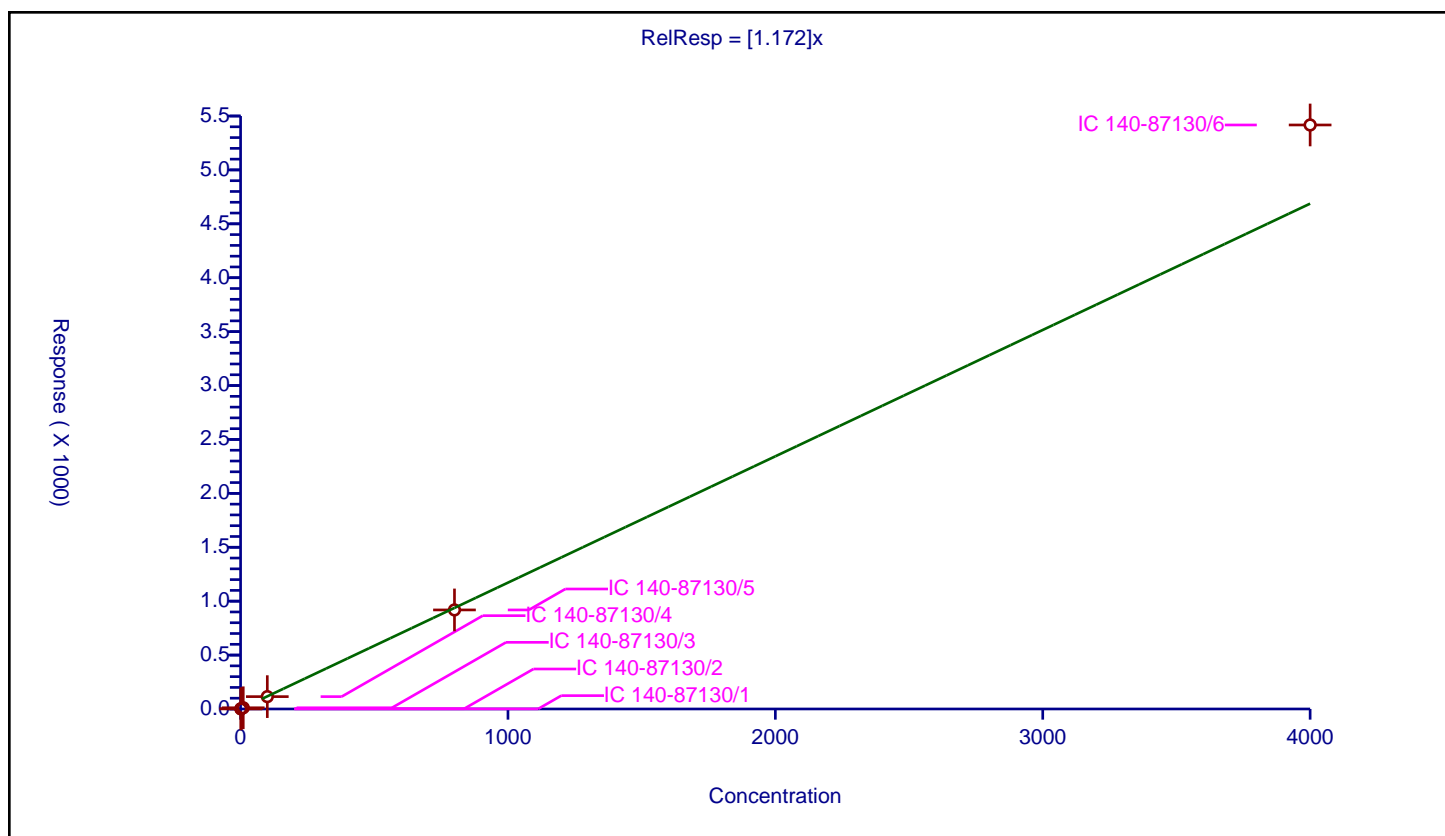
## Curve Coefficients

Intercept: 0  
Slope: 1.172

## Error Coefficients

Relative Standard Deviation: 7.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.125553	100.0	14507892.0	1.125553	Y
2	IC 140-87130/2	2.0	2.250698	100.0	13255798.0	1.125349	Y
3	IC 140-87130/3	10.0	11.314001	100.0	13114910.0	1.1314	Y
4	IC 140-87130/4	100.0	114.571284	100.0	13535671.0	1.145713	Y
5	IC 140-87130/5	800.0	918.868256	100.0	14730805.0	1.148585	Y
6	IC 140-87130/6	4000.0	5416.90331	100.0	15552321.0	1.354226	Y



# Calibration

/ PCB-28L

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: ISTD  
 Response Base: AREA  
 RF Rounding: 0

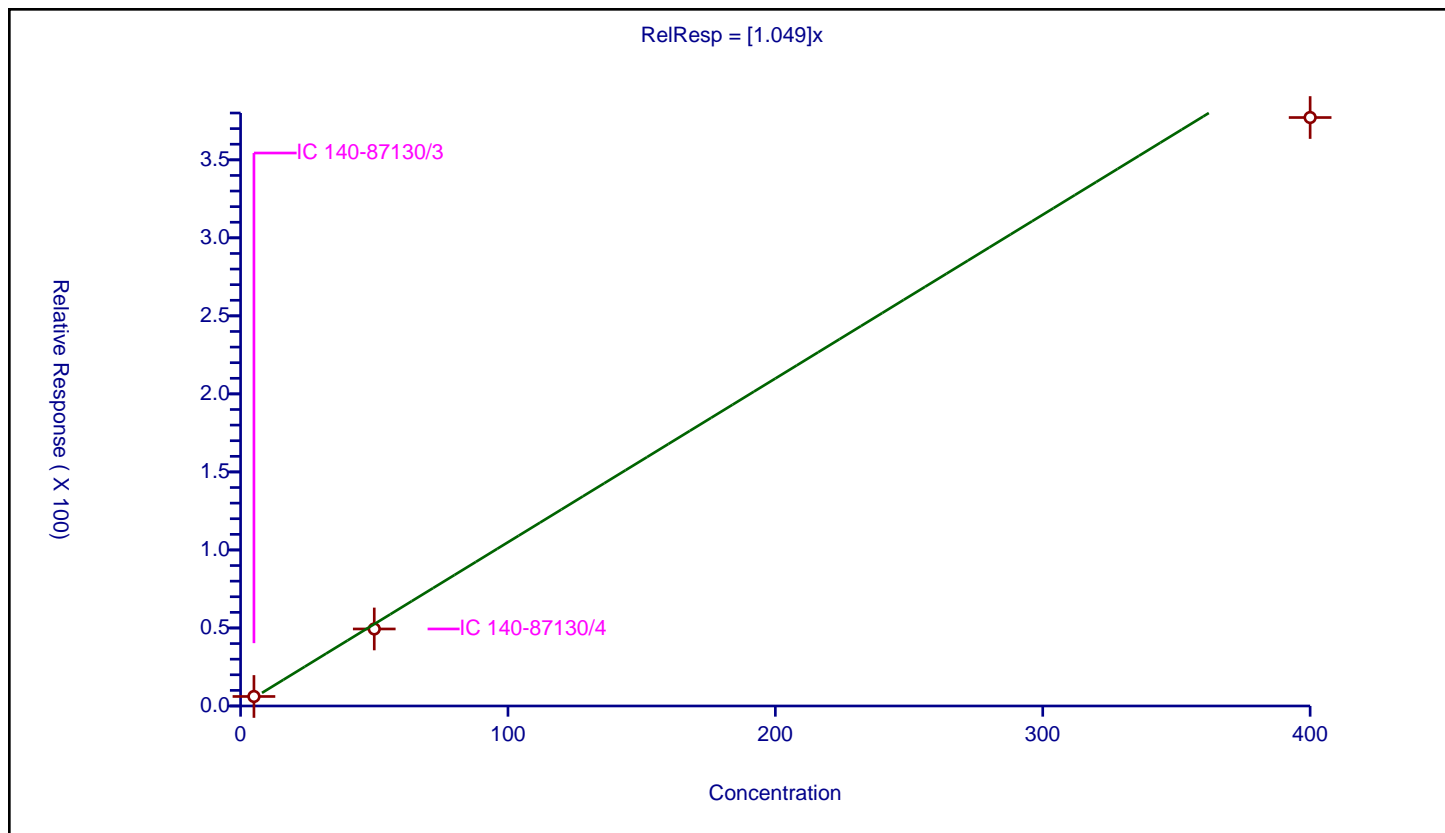
## Curve Coefficients

Intercept: 0  
 Slope: 1.049

## Error Coefficients

Relative Standard Deviation: 14.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/3	5.0	6.0904	100.0	15275204.0	1.21808	Y
2	IC 140-87130/4	50.0	49.365653	100.0	15561763.0	0.987313	Y
3	IC 140-87130/5	400.0	377.114819	100.0	16737748.0	0.942787	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

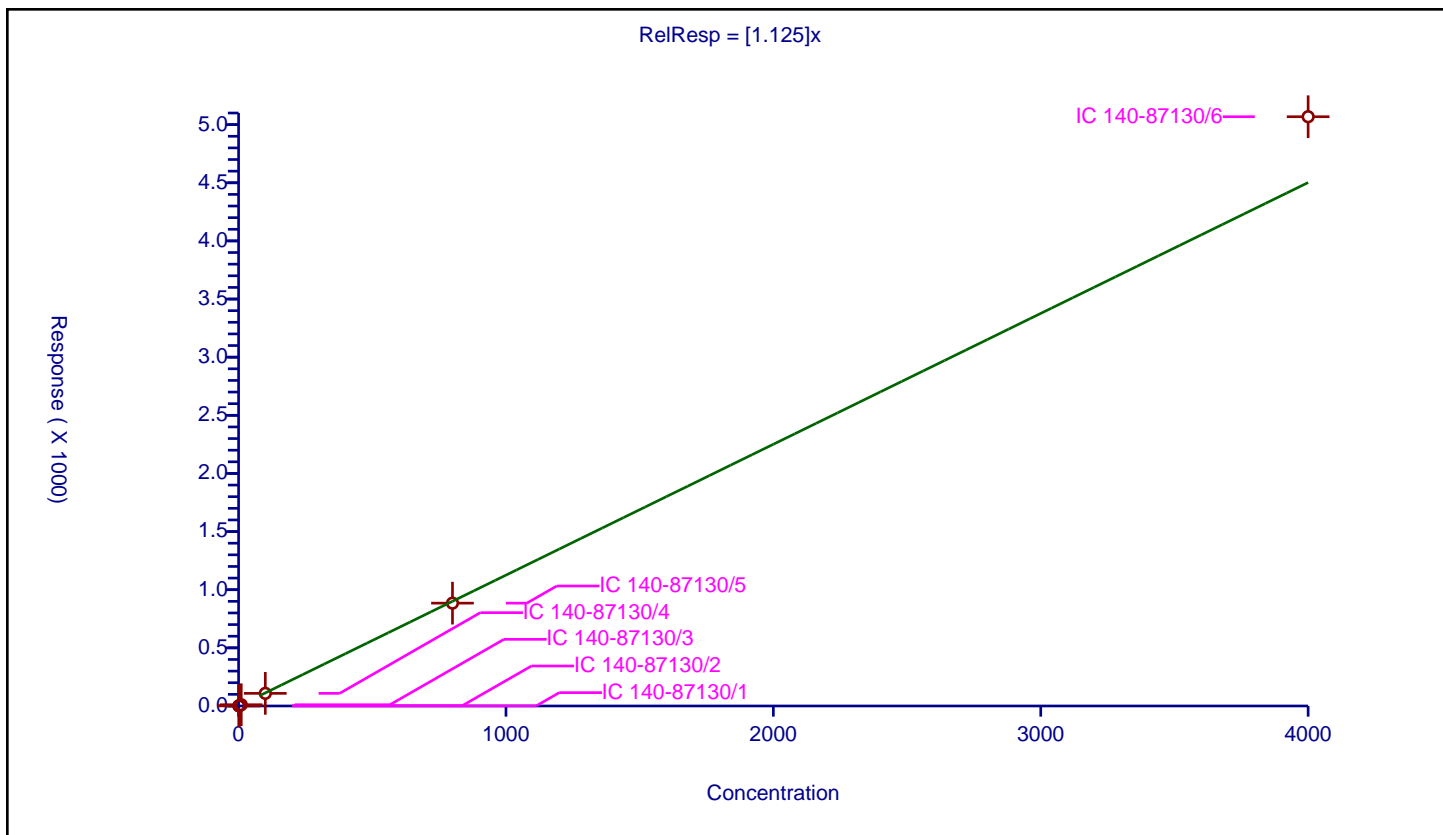
## Curve Coefficients

Intercept: 0  
Slope: 1.125

## Error Coefficients

Relative Standard Deviation: 6.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.087491	100.0	14507892.0	1.087491	Y
2	IC 140-87130/2	2.0	2.23807	100.0	13255798.0	1.119035	Y
3	IC 140-87130/3	10.0	10.874516	100.0	13114910.0	1.087452	Y
4	IC 140-87130/4	100.0	108.610892	100.0	13535671.0	1.086109	Y
5	IC 140-87130/5	800.0	884.50471	100.0	14730805.0	1.105631	Y
6	IC 140-87130/6	4000.0	5068.172448	100.0	15552321.0	1.267043	Y



# Calibration

/ PCB-3

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

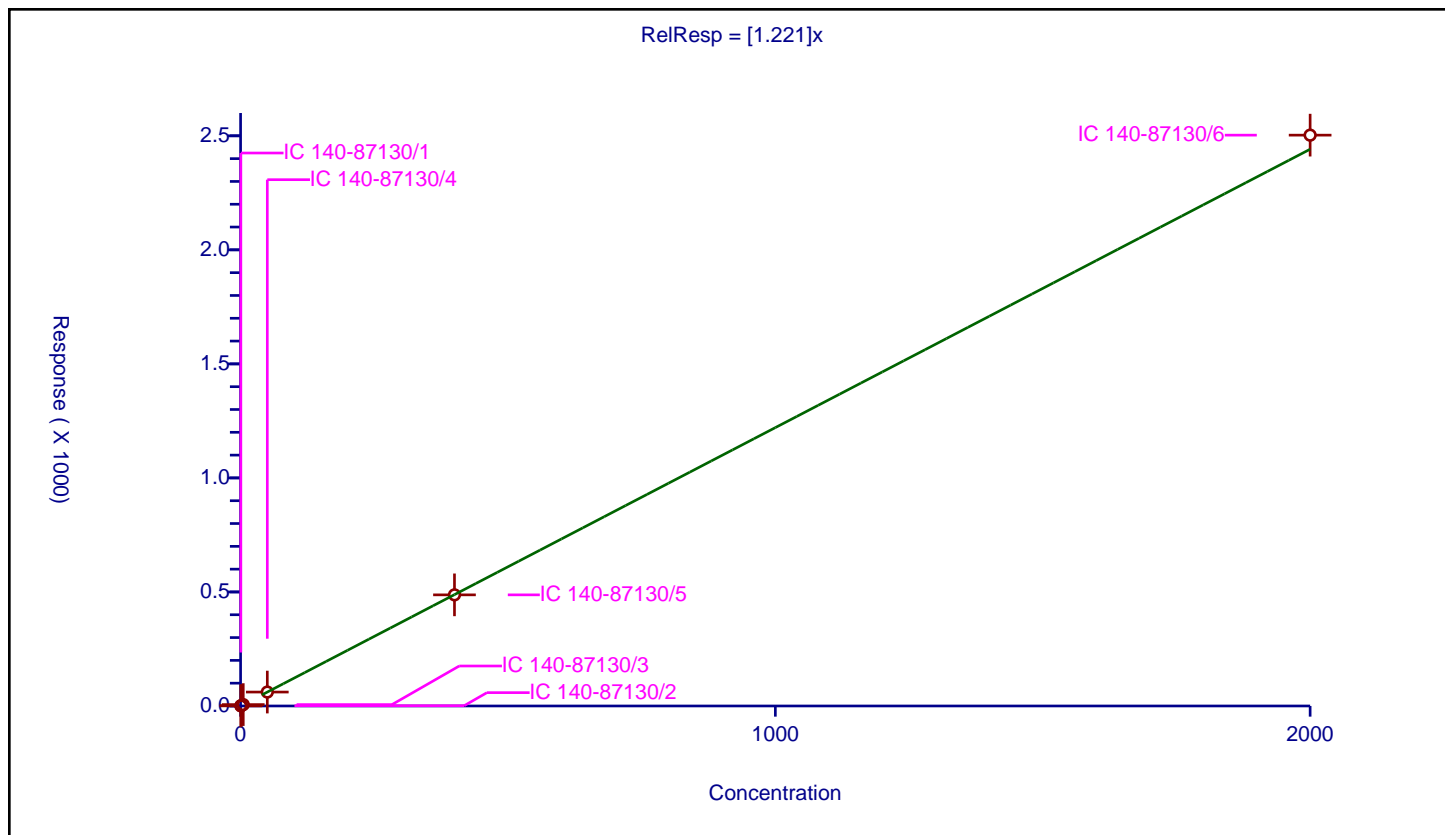
## Curve Coefficients

Intercept: 0  
 Slope: 1.221

## Error Coefficients

Relative Standard Deviation: 1.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.617382	100.0	14134368.0	1.234763	Y
2	IC 140-87130/2	1.0	1.180658	100.0	13166477.0	1.180658	Y
3	IC 140-87130/3	5.0	6.081014	100.0	13154993.0	1.216203	Y
4	IC 140-87130/4	50.0	61.104113	100.0	13165806.0	1.222082	Y
5	IC 140-87130/5	400.0	487.316703	100.0	13803706.0	1.218292	Y
6	IC 140-87130/6	2000.0	2502.98306	100.0	14397062.0	1.251492	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

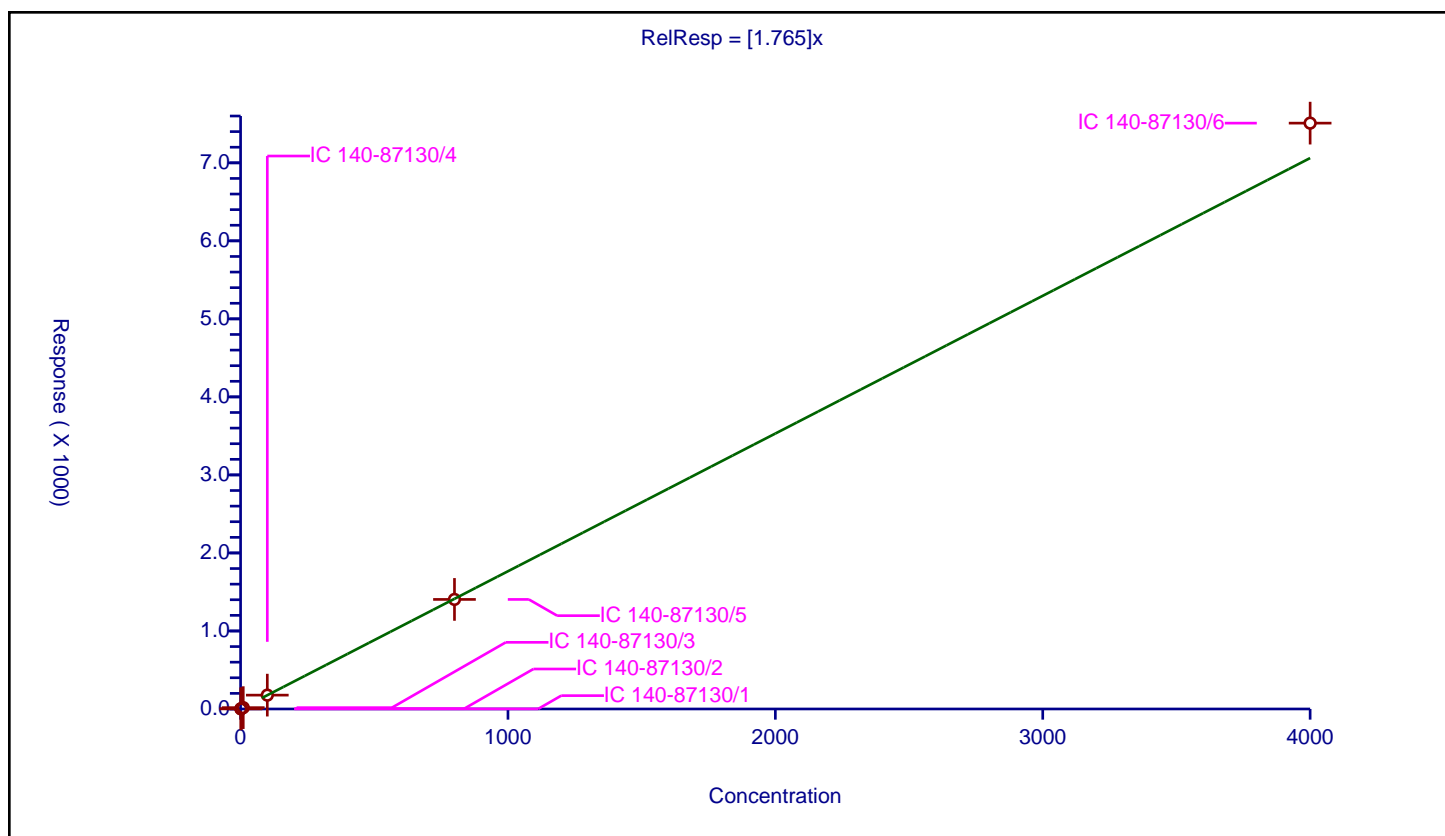
## Curve Coefficients

Intercept: 0  
Slope: 1.765

## Error Coefficients

Relative Standard Deviation: 3.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.697941	100.0	3711790.0	1.697941	Y
2	IC 140-87130/2	2.0	3.493684	100.0	3424036.0	1.746842	Y
3	IC 140-87130/3	10.0	17.367846	100.0	3389482.0	1.736785	Y
4	IC 140-87130/4	100.0	177.714869	100.0	3406868.0	1.777149	Y
5	IC 140-87130/5	800.0	1404.321535	100.0	3537933.0	1.755402	Y
6	IC 140-87130/6	4000.0	7508.781366	100.0	3634856.0	1.877195	Y



# Calibration

/ PCB-31

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

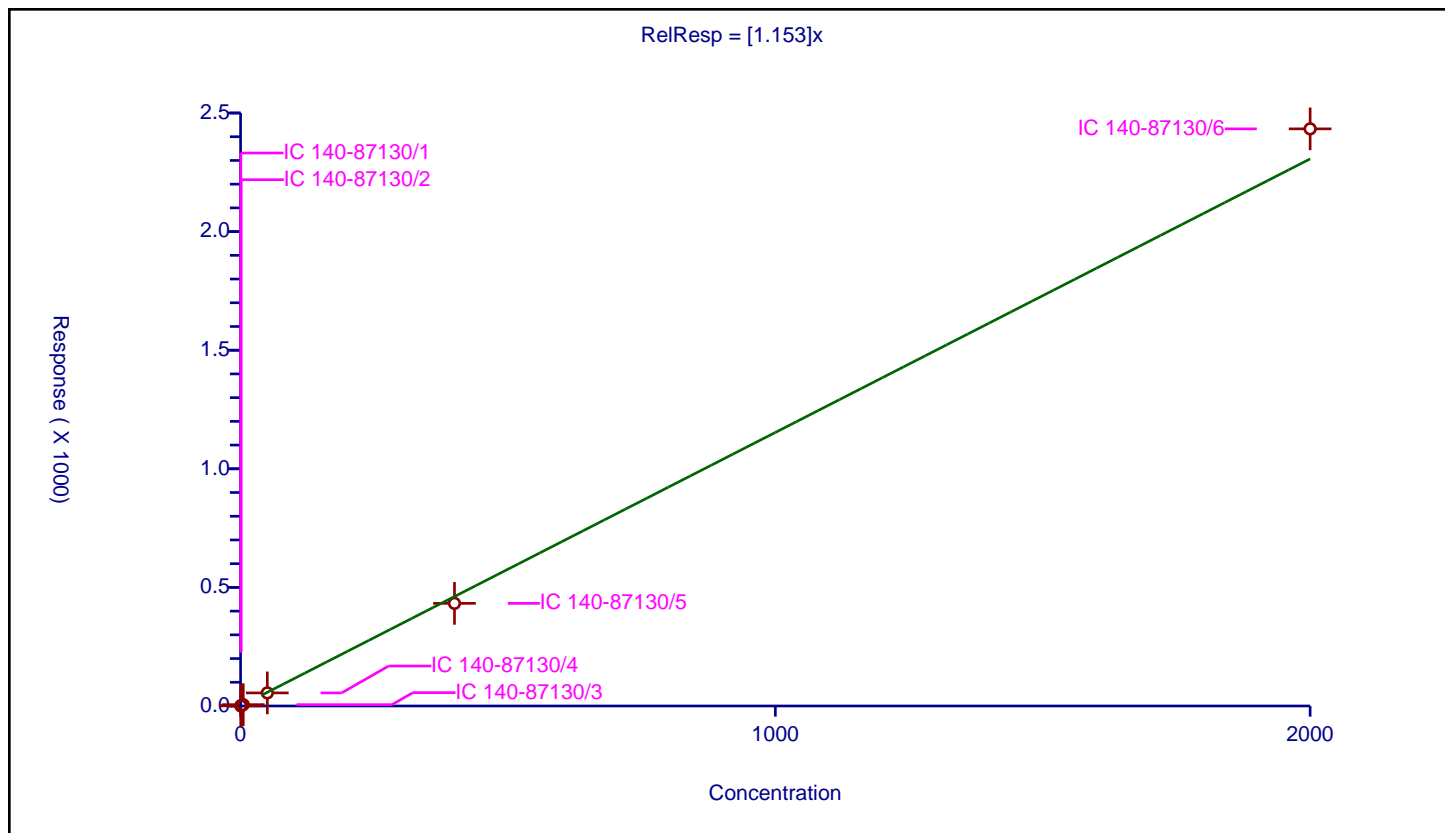
## Curve Coefficients

Intercept: 0  
Slope: 1.153

## Error Coefficients

Relative Standard Deviation: 4.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.584882	100.0	14507892.0	1.169763	Y
2	IC 140-87130/2	1.0	1.213363	100.0	13255798.0	1.213363	Y
3	IC 140-87130/3	5.0	5.680359	100.0	13114910.0	1.136072	Y
4	IC 140-87130/4	50.0	55.103799	100.0	13535671.0	1.102076	Y
5	IC 140-87130/5	400.0	432.638725	100.0	14730805.0	1.081597	Y
6	IC 140-87130/6	2000.0	2433.21782	100.0	15552321.0	1.216609	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

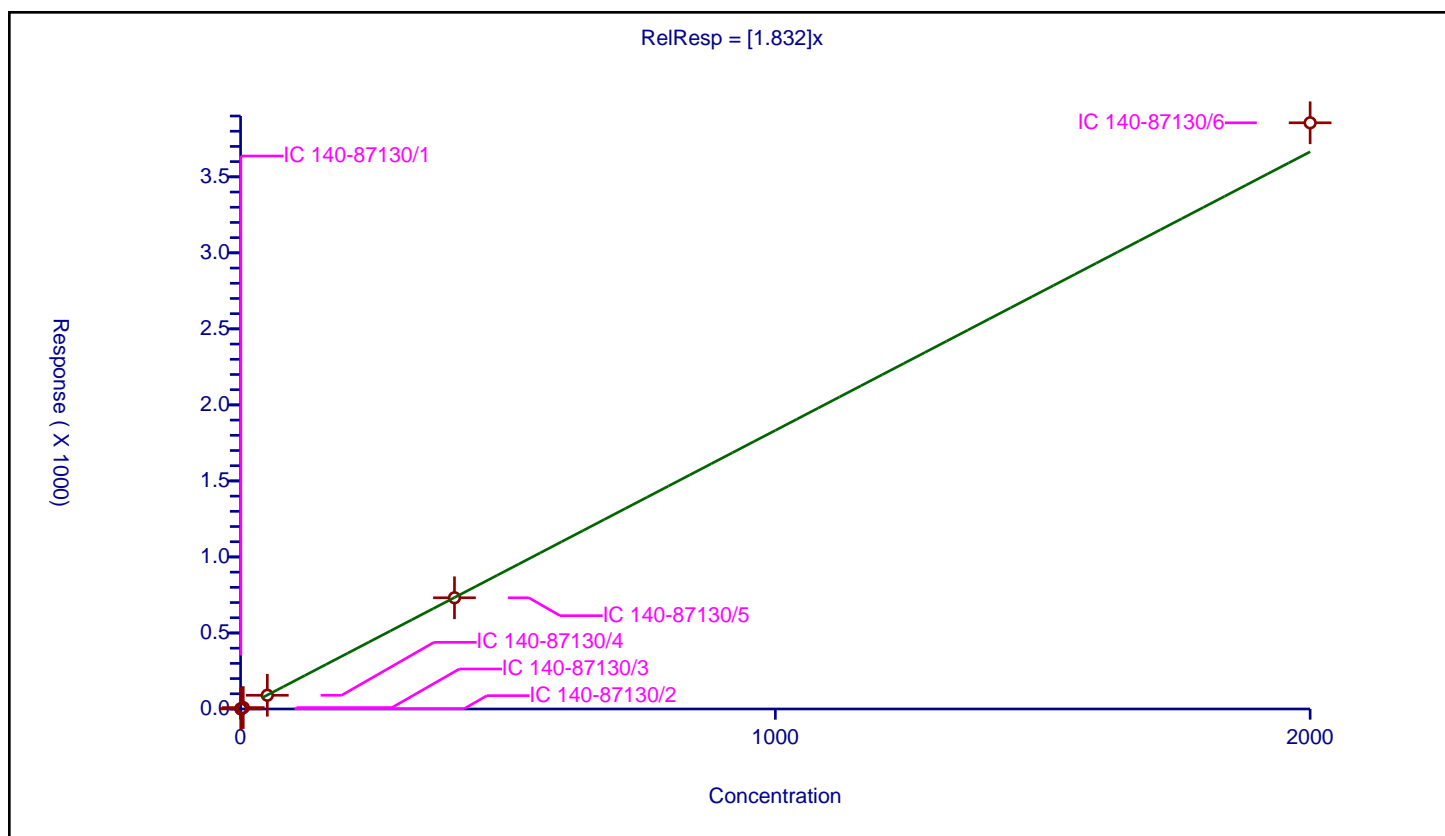
## Curve Coefficients

Intercept: 0  
Slope: 1.832

## Error Coefficients

Relative Standard Deviation: 3.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.921792	100.0	3711790.0	1.843585	Y
2	IC 140-87130/2	1.0	1.758948	100.0	3424036.0	1.758948	Y
3	IC 140-87130/3	5.0	9.147651	100.0	3389482.0	1.82953	Y
4	IC 140-87130/4	50.0	90.314858	100.0	3406868.0	1.806297	Y
5	IC 140-87130/5	400.0	731.427955	100.0	3537933.0	1.82857	Y
6	IC 140-87130/6	2000.0	3855.398646	100.0	3634856.0	1.927699	Y





# Calibration

/ PCB-33

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

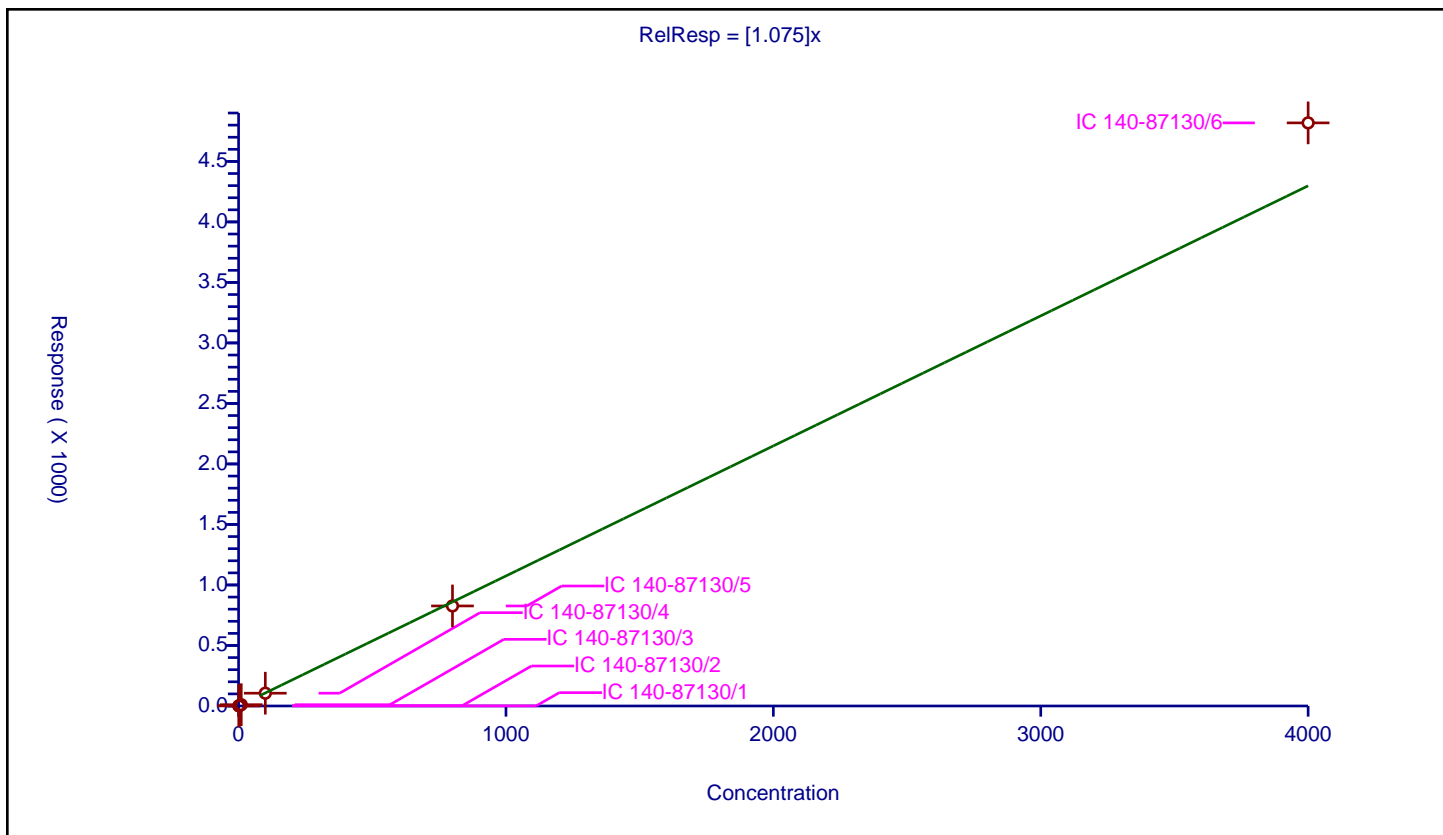
## Curve Coefficients

Intercept: 0  
 Slope: 1.075

## Error Coefficients

Relative Standard Deviation: 6.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.018136	100.0	14507892.0	1.018136	Y
2	IC 140-87130/2	2.0	2.127311	100.0	13255798.0	1.063655	Y
3	IC 140-87130/3	10.0	10.703085	100.0	13114910.0	1.070309	Y
4	IC 140-87130/4	100.0	105.751285	100.0	13535671.0	1.057513	Y
5	IC 140-87130/5	800.0	826.614581	100.0	14730805.0	1.033268	Y
6	IC 140-87130/6	4000.0	4818.507366	100.0	15552321.0	1.204627	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

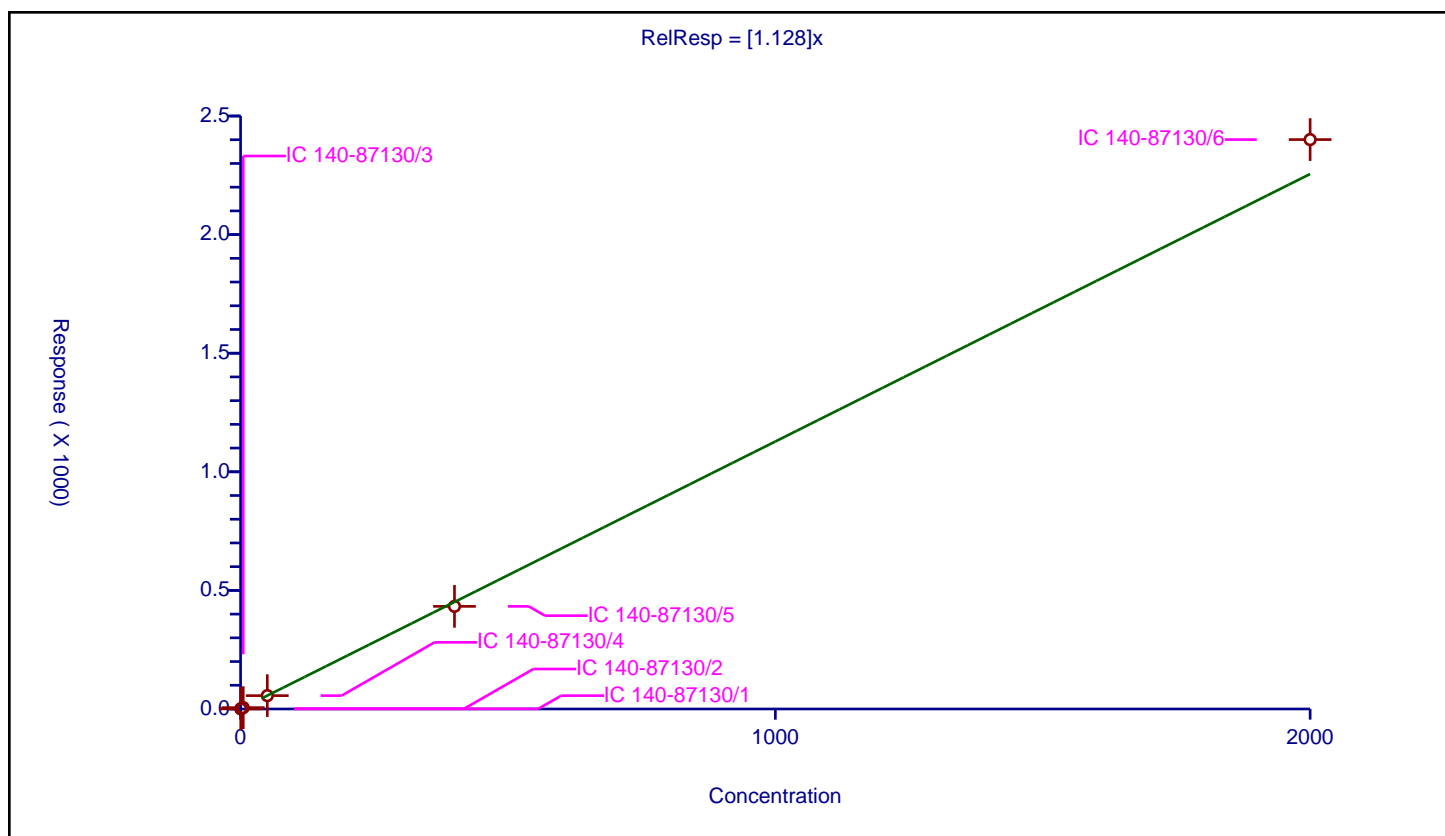
## Curve Coefficients

Intercept: 0  
Slope: 1.128

## Error Coefficients

Relative Standard Deviation: 3.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.563776	100.0	14507892.0	1.127552	Y
2	IC 140-87130/2	1.0	1.100062	100.0	13255798.0	1.100062	Y
3	IC 140-87130/3	5.0	5.657286	100.0	13114910.0	1.131457	Y
4	IC 140-87130/4	50.0	56.272681	100.0	13535671.0	1.125454	Y
5	IC 140-87130/5	400.0	432.655065	100.0	14730805.0	1.081638	Y
6	IC 140-87130/6	2000.0	2400.579778	100.0	15552321.0	1.20029	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

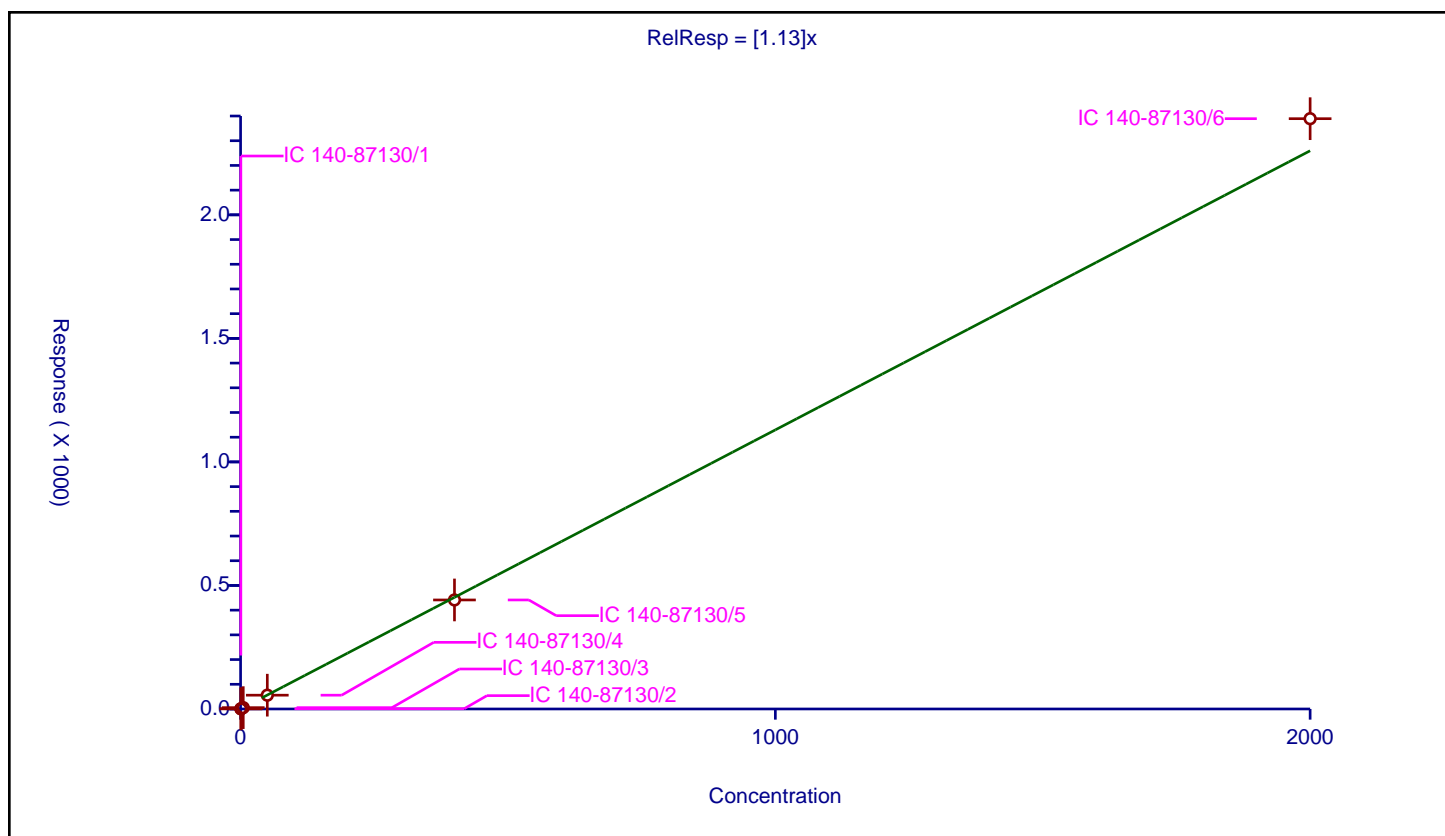
## Curve Coefficients

Intercept: 0  
Slope: 1.13

## Error Coefficients

Relative Standard Deviation: 4.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.593215	100.0	14507892.0	1.18643	Y
2	IC 140-87130/2	1.0	1.076827	100.0	13255798.0	1.076827	Y
3	IC 140-87130/3	5.0	5.498276	100.0	13114910.0	1.099655	Y
4	IC 140-87130/4	50.0	55.869347	100.0	13535671.0	1.117387	Y
5	IC 140-87130/5	400.0	441.28255	100.0	14730805.0	1.103206	Y
6	IC 140-87130/6	2000.0	2389.202557	100.0	15552321.0	1.194601	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

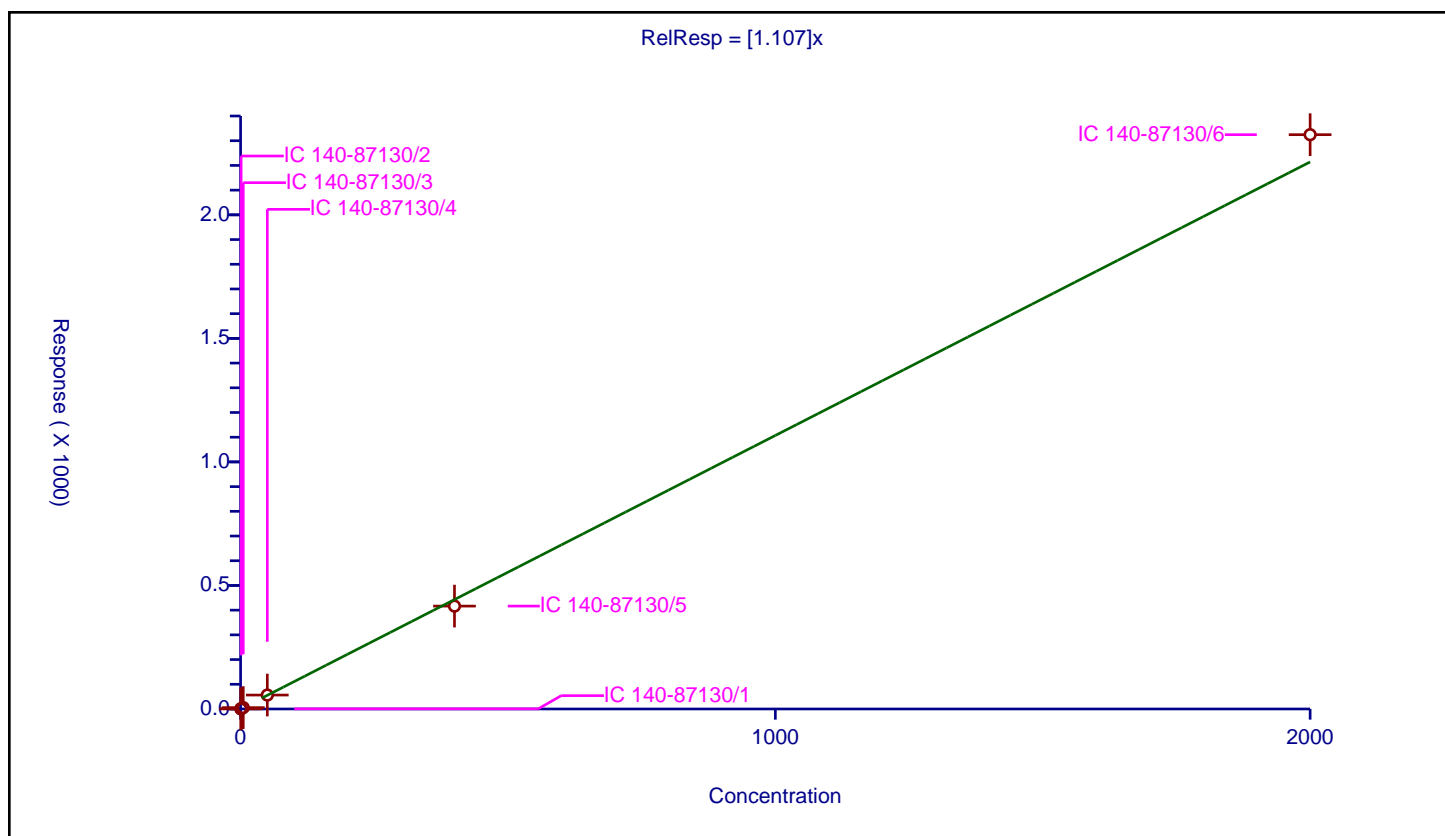
## Curve Coefficients

Intercept: 0  
Slope: 1.107

## Error Coefficients

Relative Standard Deviation: 4.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.529546	100.0	14507892.0	1.059093	Y
2	IC 140-87130/2	1.0	1.136786	100.0	13255798.0	1.136786	Y
3	IC 140-87130/3	5.0	5.57727	100.0	13114910.0	1.115454	Y
4	IC 140-87130/4	50.0	56.385915	100.0	13535671.0	1.127718	Y
5	IC 140-87130/5	400.0	416.423699	100.0	14730805.0	1.041059	Y
6	IC 140-87130/6	2000.0	2324.412298	100.0	15552321.0	1.162206	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

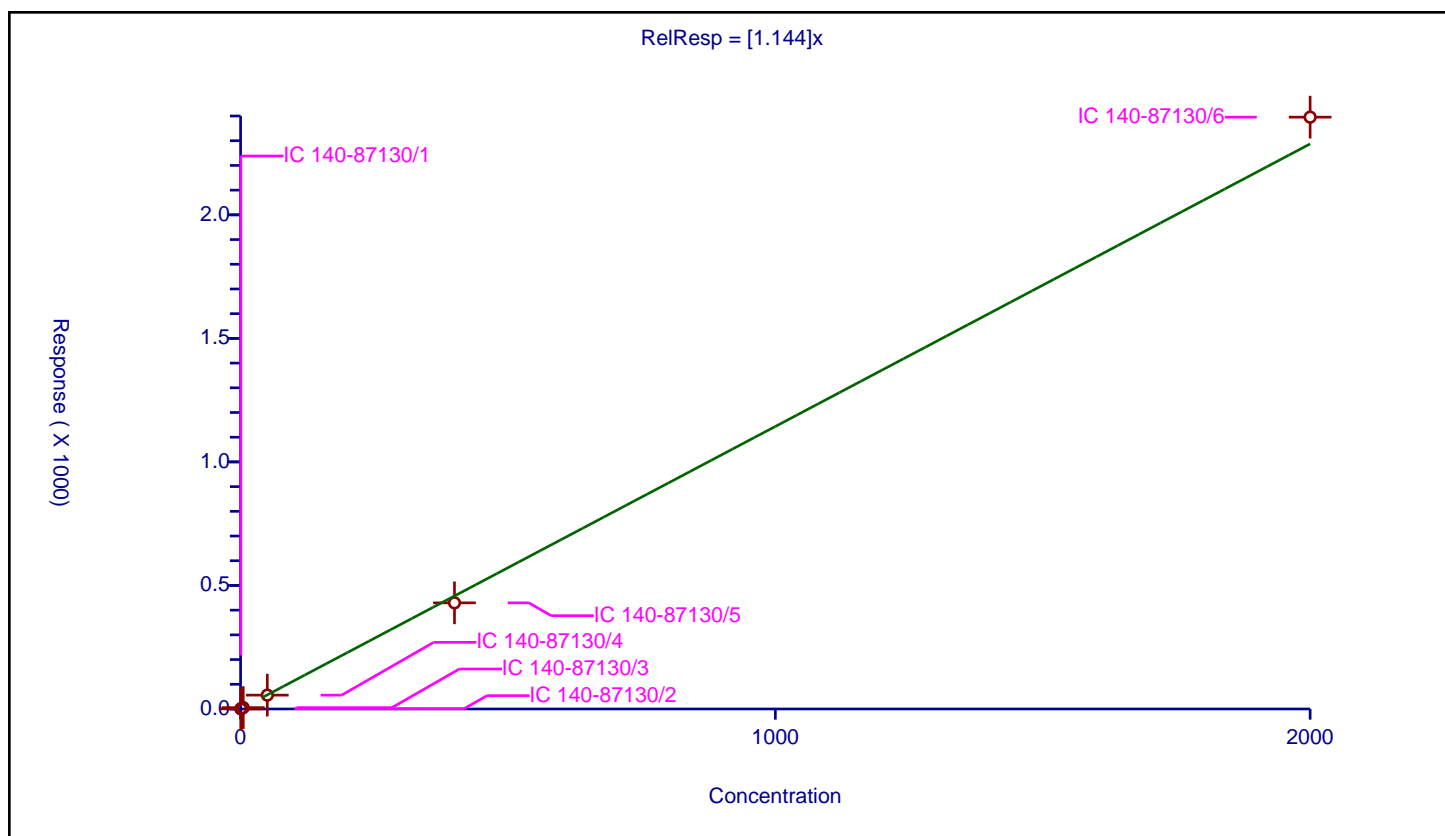
## Curve Coefficients

Intercept: 0  
Slope: 1.144

## Error Coefficients

Relative Standard Deviation: 5.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.622316	100.0	14507892.0	1.244633	Y
2	IC 140-87130/2	1.0	1.120151	100.0	13255798.0	1.120151	Y
3	IC 140-87130/3	5.0	5.516561	100.0	13114910.0	1.103312	Y
4	IC 140-87130/4	50.0	56.069758	100.0	13535671.0	1.121395	Y
5	IC 140-87130/5	400.0	429.577739	100.0	14730805.0	1.073944	Y
6	IC 140-87130/6	2000.0	2395.326453	100.0	15552321.0	1.197663	Y



**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

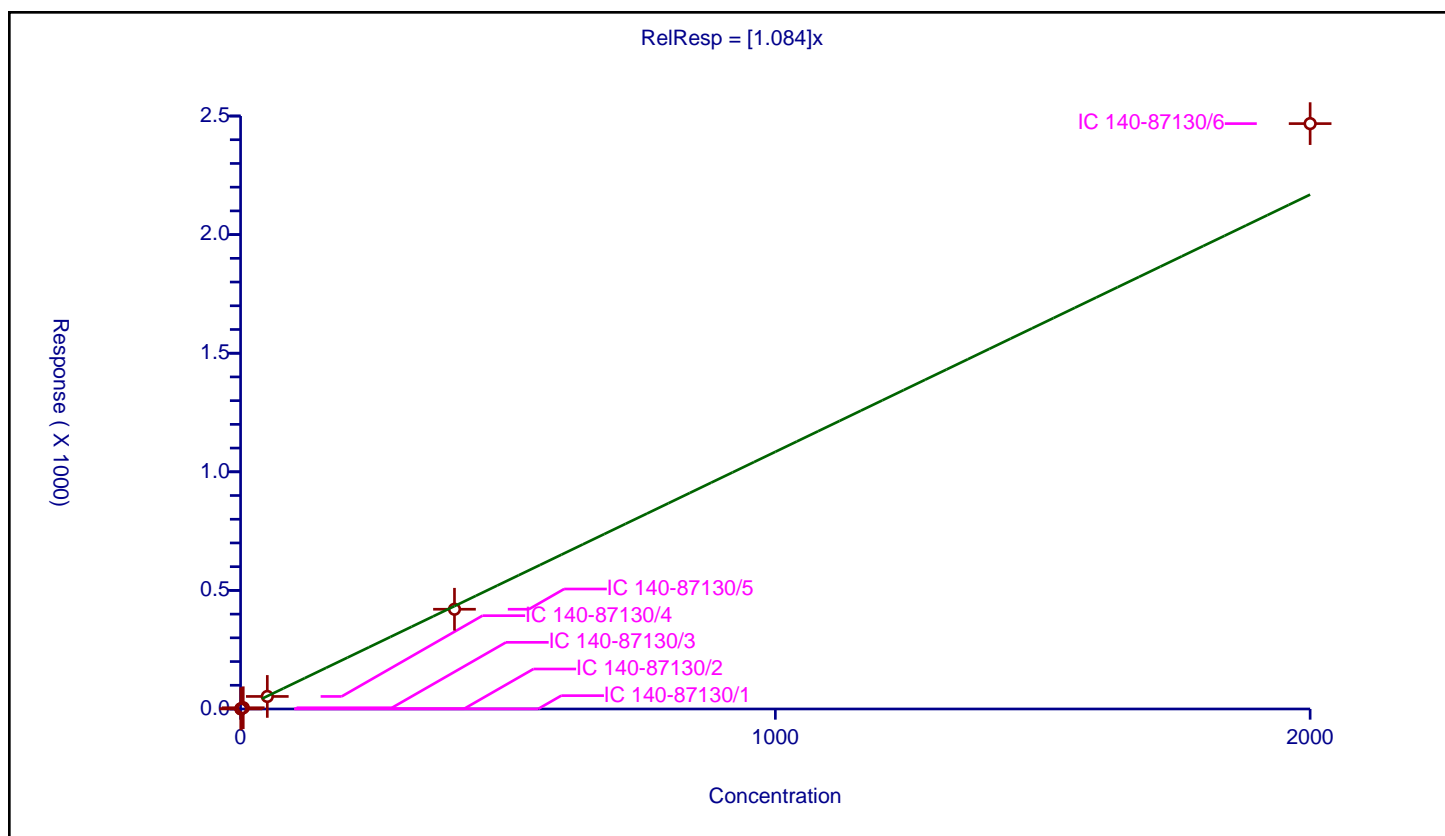
## Curve Coefficients

**Intercept:** 0  
**Slope:** 1.084

## Error Coefficients

**Relative Standard Deviation:** 6.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.525011	100.0	14507892.0	1.050022	Y
2	IC 140-87130/2	1.0	1.076125	100.0	13255798.0	1.076125	Y
3	IC 140-87130/3	5.0	5.187546	100.0	13114910.0	1.037509	Y
4	IC 140-87130/4	50.0	52.845707	100.0	13535671.0	1.056914	Y
5	IC 140-87130/5	400.0	420.536977	100.0	14730805.0	1.051342	Y
6	IC 140-87130/6	2000.0	2467.944026	100.0	15552321.0	1.233972	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

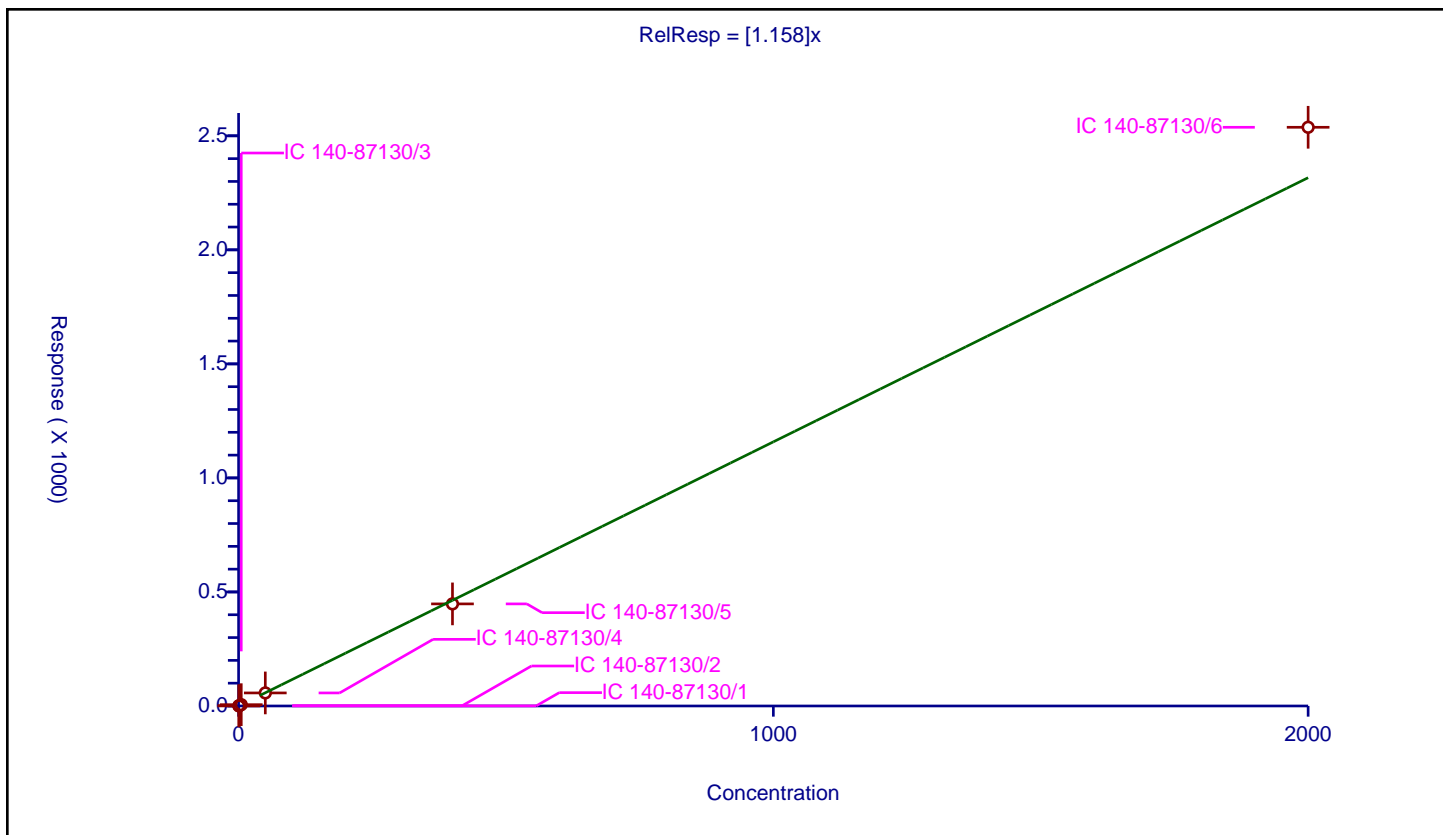
## Curve Coefficients

Intercept: 0  
Slope: 1.158

## Error Coefficients

Relative Standard Deviation: 4.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.559309	100.0	14507892.0	1.118619	Y
2	IC 140-87130/2	1.0	1.137834	100.0	13255798.0	1.137834	Y
3	IC 140-87130/3	5.0	5.796189	100.0	13114910.0	1.159238	Y
4	IC 140-87130/4	50.0	57.27255	100.0	13535671.0	1.145451	Y
5	IC 140-87130/5	400.0	447.593434	100.0	14730805.0	1.118984	Y
6	IC 140-87130/6	2000.0	2537.463514	100.0	15552321.0	1.268732	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

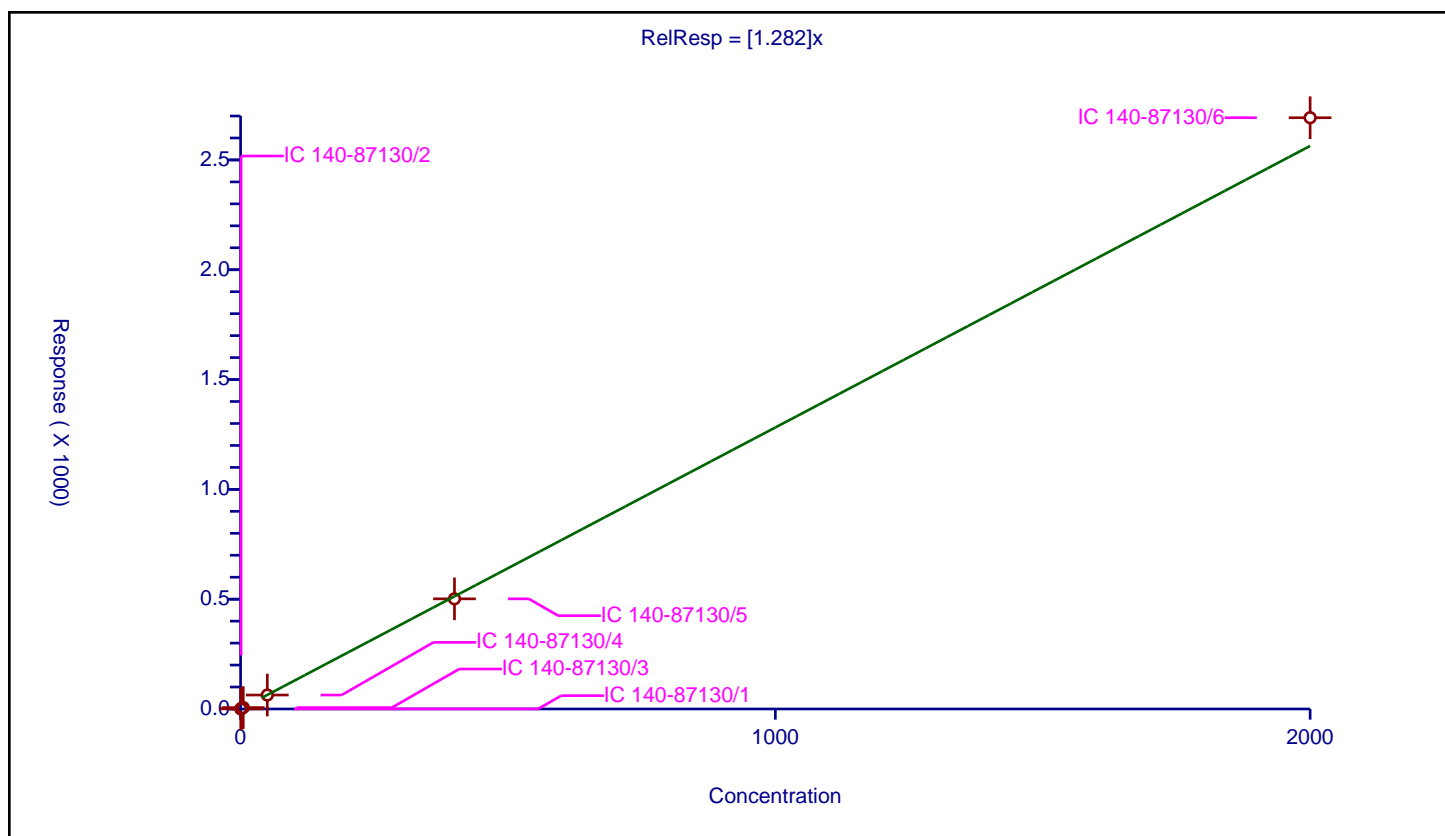
## Curve Coefficients

Intercept: 0  
Slope: 1.282

## Error Coefficients

Relative Standard Deviation: 3.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.616036	100.0	5904521.0	1.232073	Y
2	IC 140-87130/2	1.0	1.309647	100.0	5442766.0	1.309647	Y
3	IC 140-87130/3	5.0	6.390433	100.0	5279032.0	1.278087	Y
4	IC 140-87130/4	50.0	63.568468	100.0	5474214.0	1.271369	Y
5	IC 140-87130/5	400.0	501.47876	100.0	5561618.0	1.253697	Y
6	IC 140-87130/6	2000.0	2692.23998	100.0	5672202.0	1.34612	Y





# Calibration

/ PCB-40

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

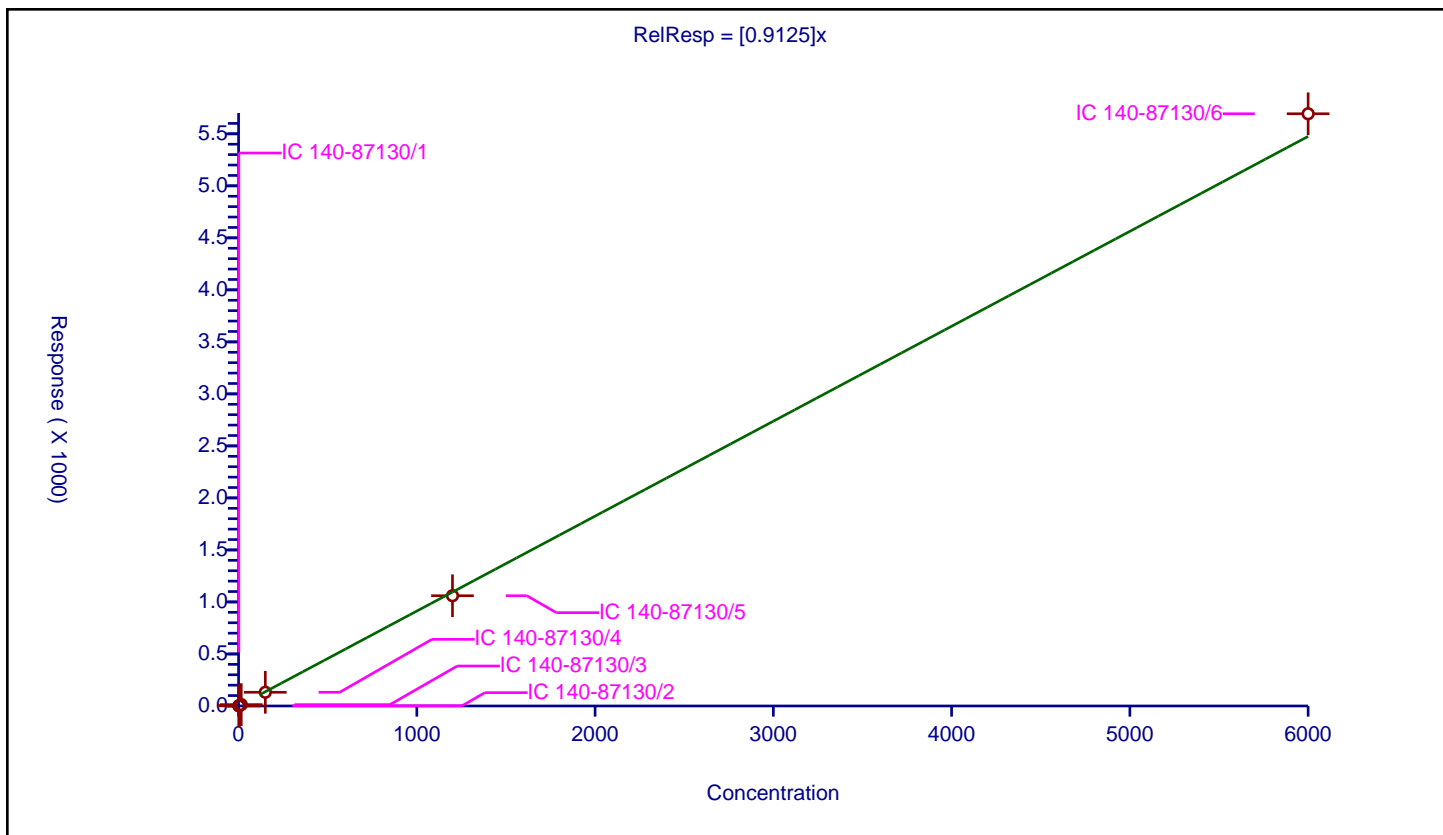
## Curve Coefficients

Intercept: 0  
 Slope: 0.9125

## Error Coefficients

Relative Standard Deviation: 4.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.47845	100.0	10352263.0	0.985633	Y
2	IC 140-87130/2	3.0	2.69336	100.0	9378026.0	0.897787	Y
3	IC 140-87130/3	15.0	13.208581	100.0	9411321.0	0.880572	Y
4	IC 140-87130/4	150.0	131.86716	100.0	9689577.0	0.879114	Y
5	IC 140-87130/5	1200.0	1059.882622	100.0	10335461.0	0.883236	Y
6	IC 140-87130/6	6000.0	5692.828269	100.0	11264701.0	0.948805	Y



# Calibration

/ PCB-40/41/71

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

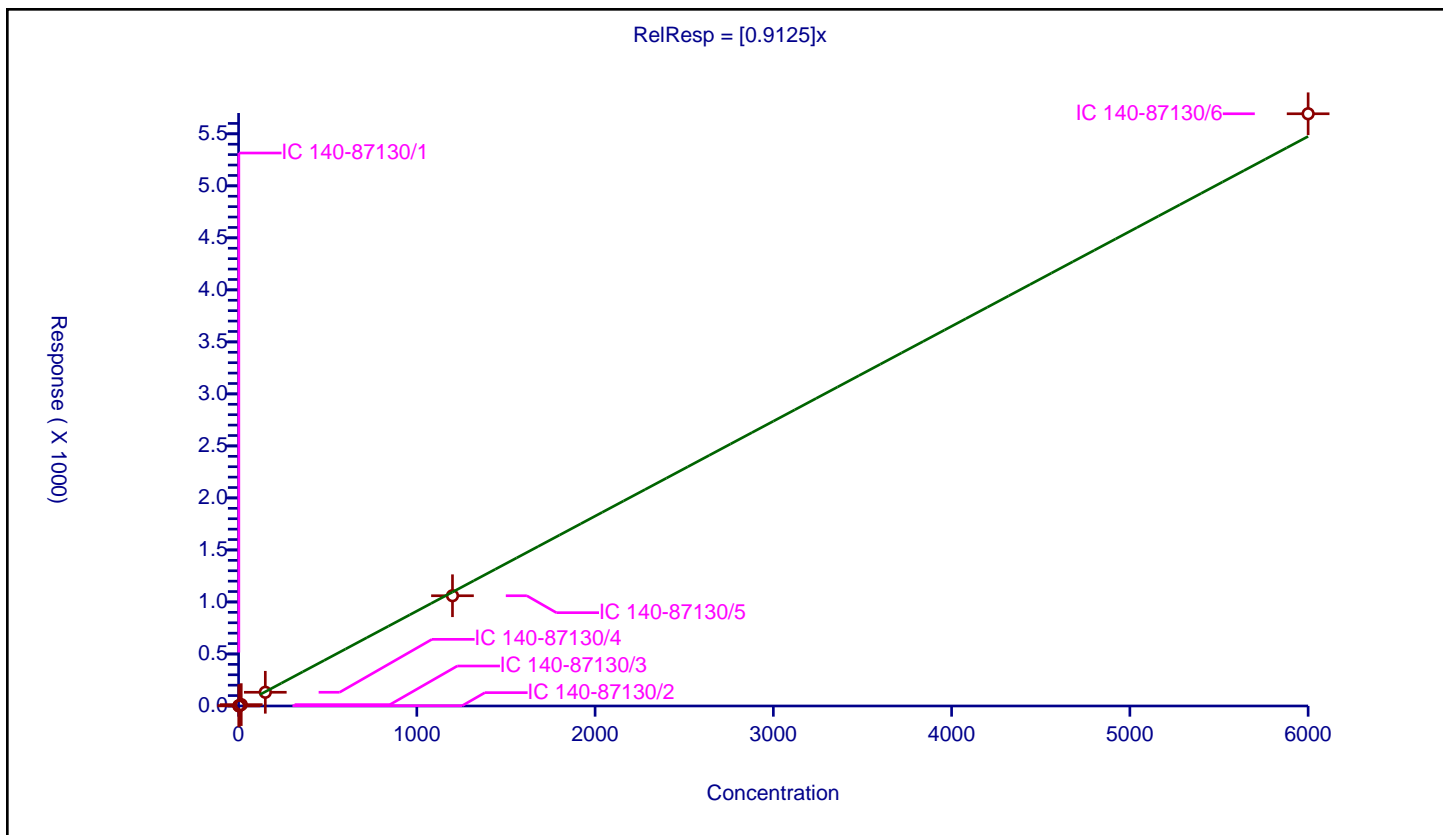
## Curve Coefficients

Intercept: 0  
Slope: 0.9125

## Error Coefficients

Relative Standard Deviation: 4.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.47845	100.0	10352263.0	0.985633	Y
2	IC 140-87130/2	3.0	2.69336	100.0	9378026.0	0.897787	Y
3	IC 140-87130/3	15.0	13.208581	100.0	9411321.0	0.880572	Y
4	IC 140-87130/4	150.0	131.86716	100.0	9689577.0	0.879114	Y
5	IC 140-87130/5	1200.0	1059.882622	100.0	10335461.0	0.883236	Y
6	IC 140-87130/6	6000.0	5692.828269	100.0	11264701.0	0.948805	Y



# Calibration

/ PCB-41

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

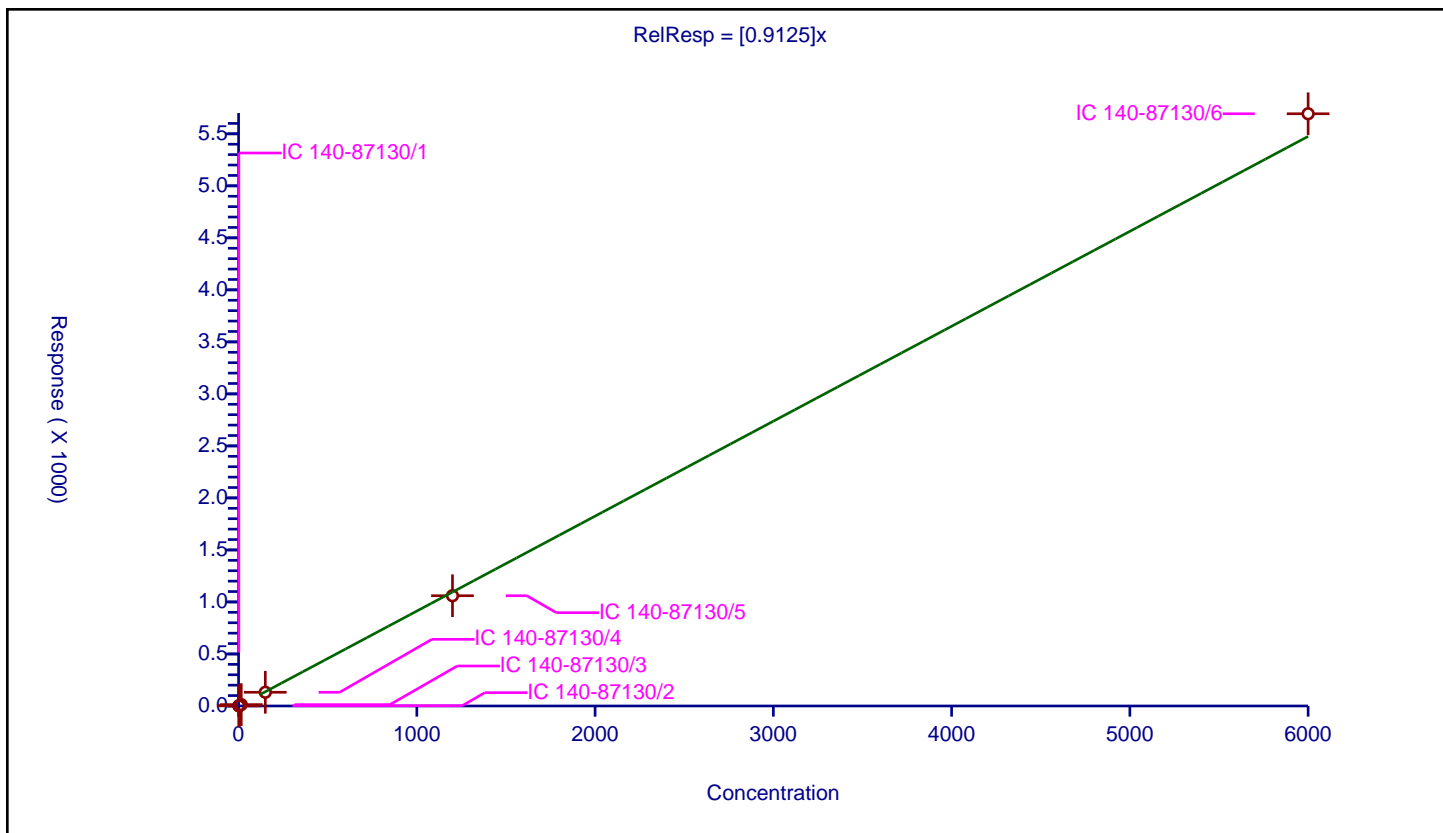
## Curve Coefficients

Intercept: 0  
Slope: 0.9125

## Error Coefficients

Relative Standard Deviation: 4.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.47845	100.0	10352263.0	0.985633	Y
2	IC 140-87130/2	3.0	2.69336	100.0	9378026.0	0.897787	Y
3	IC 140-87130/3	15.0	13.208581	100.0	9411321.0	0.880572	Y
4	IC 140-87130/4	150.0	131.86716	100.0	9689577.0	0.879114	Y
5	IC 140-87130/5	1200.0	1059.882622	100.0	10335461.0	0.883236	Y
6	IC 140-87130/6	6000.0	5692.828269	100.0	11264701.0	0.948805	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

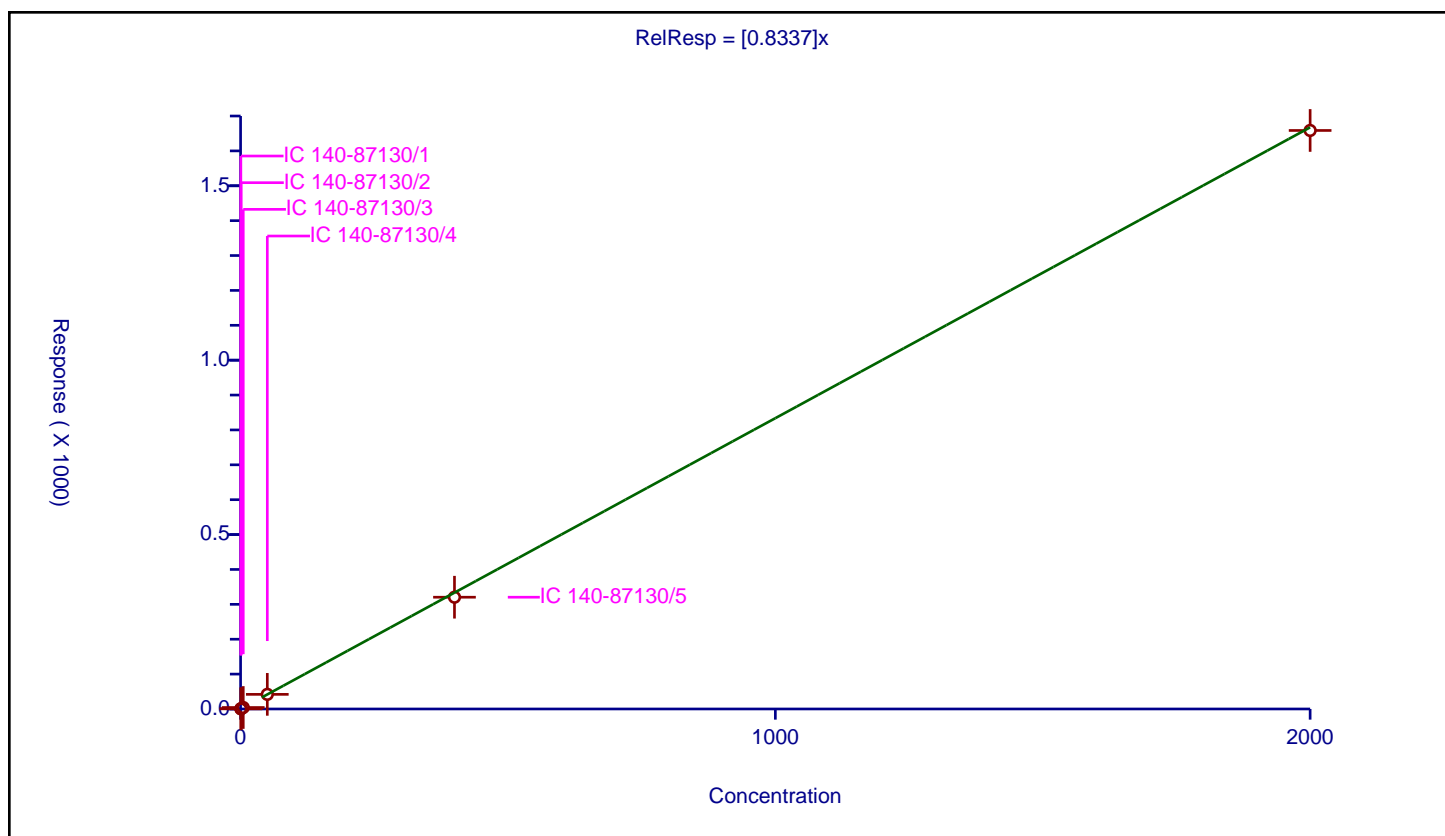
## Curve Coefficients

Intercept: 0  
Slope: 0.8337

## Error Coefficients

Relative Standard Deviation: 2.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.41986	100.0	10352263.0	0.83972	Y
2	IC 140-87130/2	1.0	0.846767	100.0	9378026.0	0.846767	Y
3	IC 140-87130/3	5.0	4.235898	100.0	9411321.0	0.84718	Y
4	IC 140-87130/4	50.0	41.924978	100.0	9689577.0	0.8385	Y
5	IC 140-87130/5	400.0	320.413661	100.0	10335461.0	0.801034	Y
6	IC 140-87130/6	2000.0	1658.557826	100.0	11264701.0	0.829279	Y



# Calibration

/ PCB-43

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

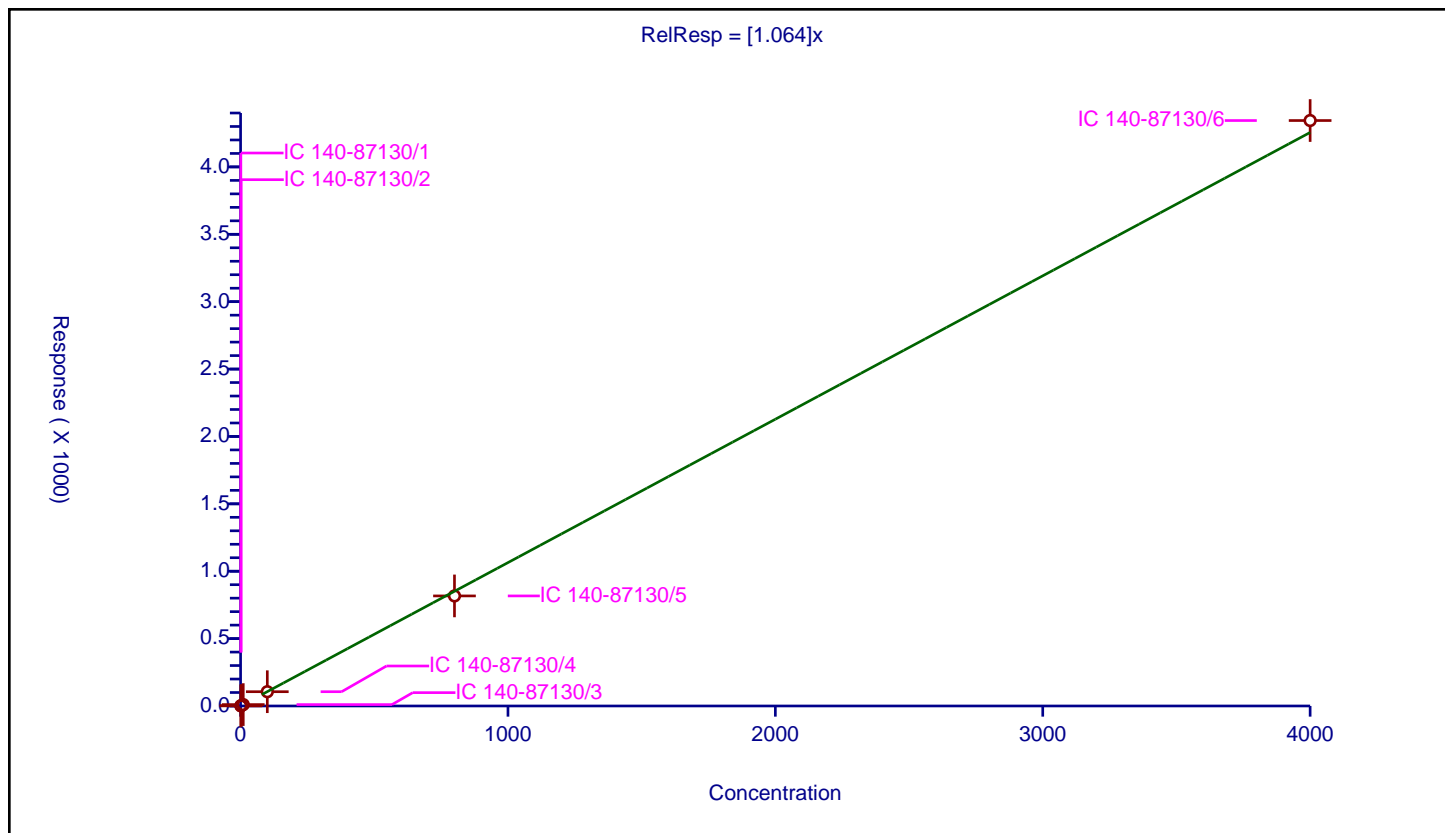
## Curve Coefficients

Intercept: 0  
Slope: 1.064

## Error Coefficients

Relative Standard Deviation: 3.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.113409	100.0	10352263.0	1.113409	Y
2	IC 140-87130/2	2.0	2.135076	100.0	9378026.0	1.067538	Y
3	IC 140-87130/3	10.0	10.359183	100.0	9411321.0	1.035918	Y
4	IC 140-87130/4	100.0	105.993234	100.0	9689577.0	1.059932	Y
5	IC 140-87130/5	800.0	816.641241	100.0	10335461.0	1.020802	Y
6	IC 140-87130/6	4000.0	4344.200454	100.0	11264701.0	1.08605	Y



# Calibration

/ PCB-43/73

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

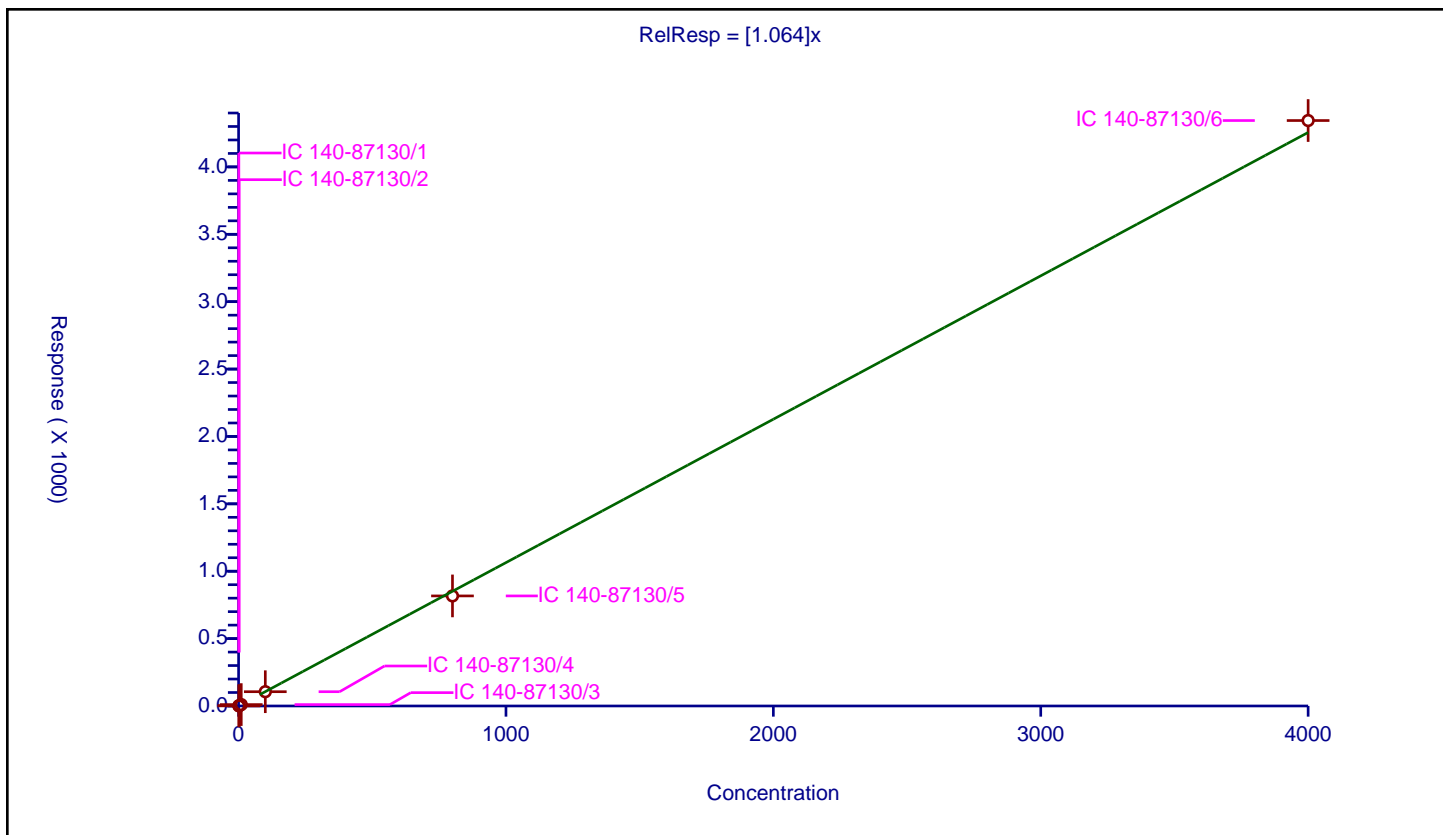
## Curve Coefficients

Intercept: 0  
Slope: 1.064

## Error Coefficients

Relative Standard Deviation: 3.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.113409	100.0	10352263.0	1.113409	Y
2	IC 140-87130/2	2.0	2.135076	100.0	9378026.0	1.067538	Y
3	IC 140-87130/3	10.0	10.359183	100.0	9411321.0	1.035918	Y
4	IC 140-87130/4	100.0	105.993234	100.0	9689577.0	1.059932	Y
5	IC 140-87130/5	800.0	816.641241	100.0	10335461.0	1.020802	Y
6	IC 140-87130/6	4000.0	4344.200454	100.0	11264701.0	1.08605	Y



# Calibration

/ PCB-44

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

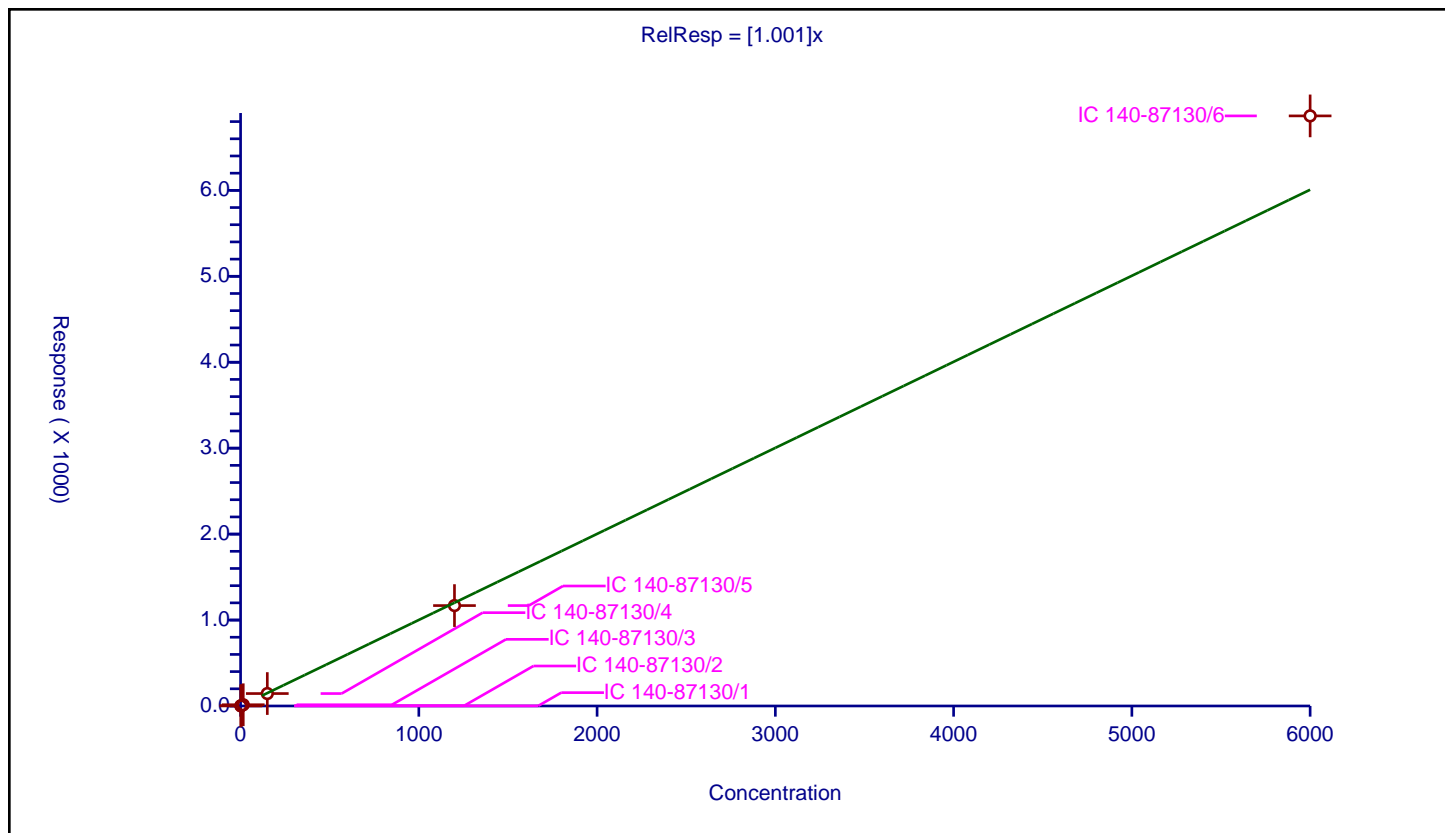
## Curve Coefficients

Intercept: 0  
 Slope: 1.001

## Error Coefficients

Relative Standard Deviation: 7.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.477822	100.0	10352263.0	0.985215	Y
2	IC 140-87130/2	3.0	2.962852	100.0	9378026.0	0.987617	Y
3	IC 140-87130/3	15.0	14.283308	100.0	9411321.0	0.952221	Y
4	IC 140-87130/4	150.0	144.622474	100.0	9689577.0	0.96415	Y
5	IC 140-87130/5	1200.0	1168.291526	100.0	10335461.0	0.973576	Y
6	IC 140-87130/6	6000.0	6866.617871	100.0	11264701.0	1.144436	Y



# Calibration

/ PCB-44/47/65

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

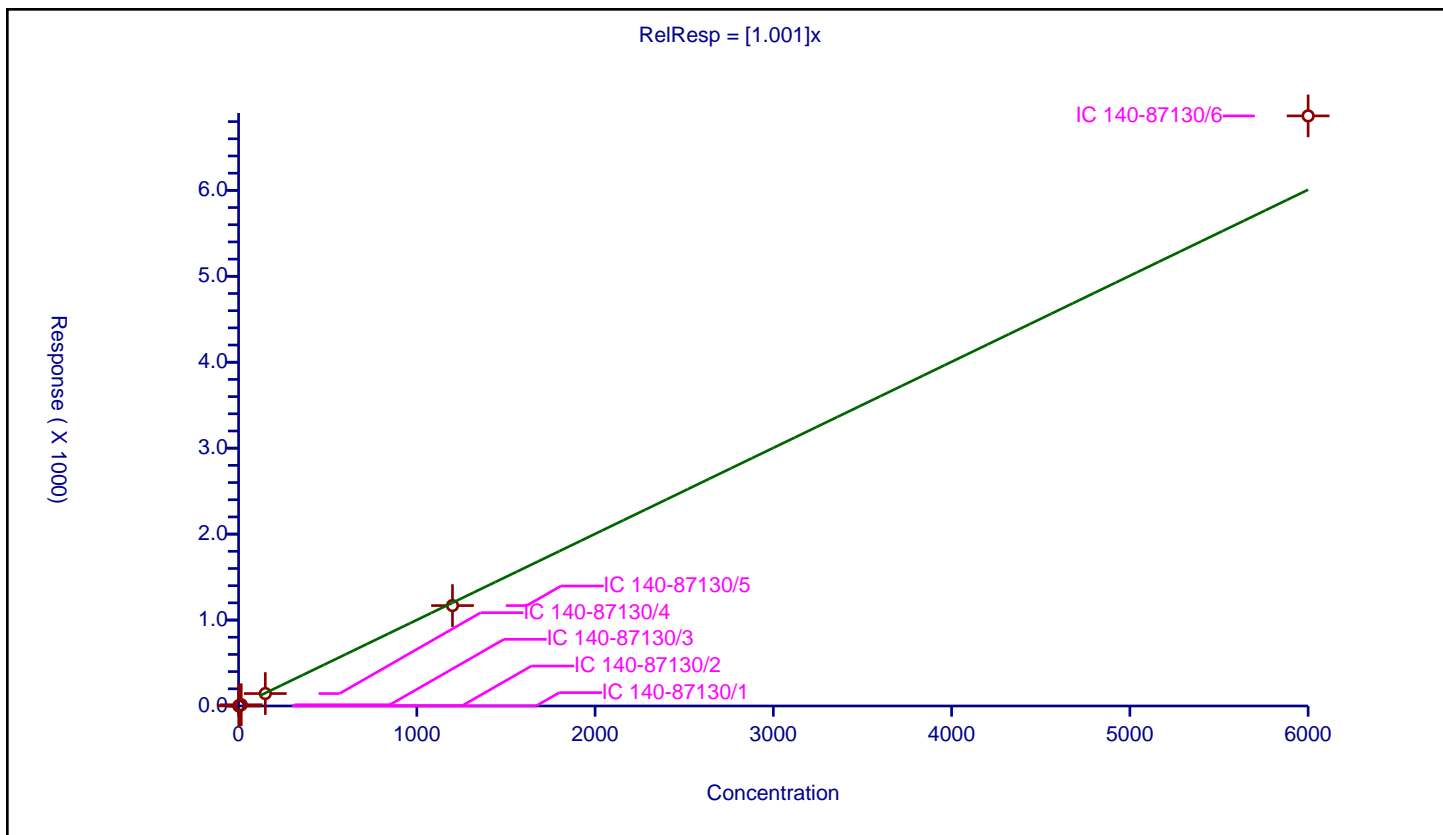
## Curve Coefficients

Intercept: 0  
 Slope: 1.001

## Error Coefficients

Relative Standard Deviation: 7.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.477822	100.0	10352263.0	0.985215	Y
2	IC 140-87130/2	3.0	2.962852	100.0	9378026.0	0.987617	Y
3	IC 140-87130/3	15.0	14.283308	100.0	9411321.0	0.952221	Y
4	IC 140-87130/4	150.0	144.622474	100.0	9689577.0	0.96415	Y
5	IC 140-87130/5	1200.0	1168.291526	100.0	10335461.0	0.973576	Y
6	IC 140-87130/6	6000.0	6866.617871	100.0	11264701.0	1.144436	Y





# Calibration

/ PCB-45

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

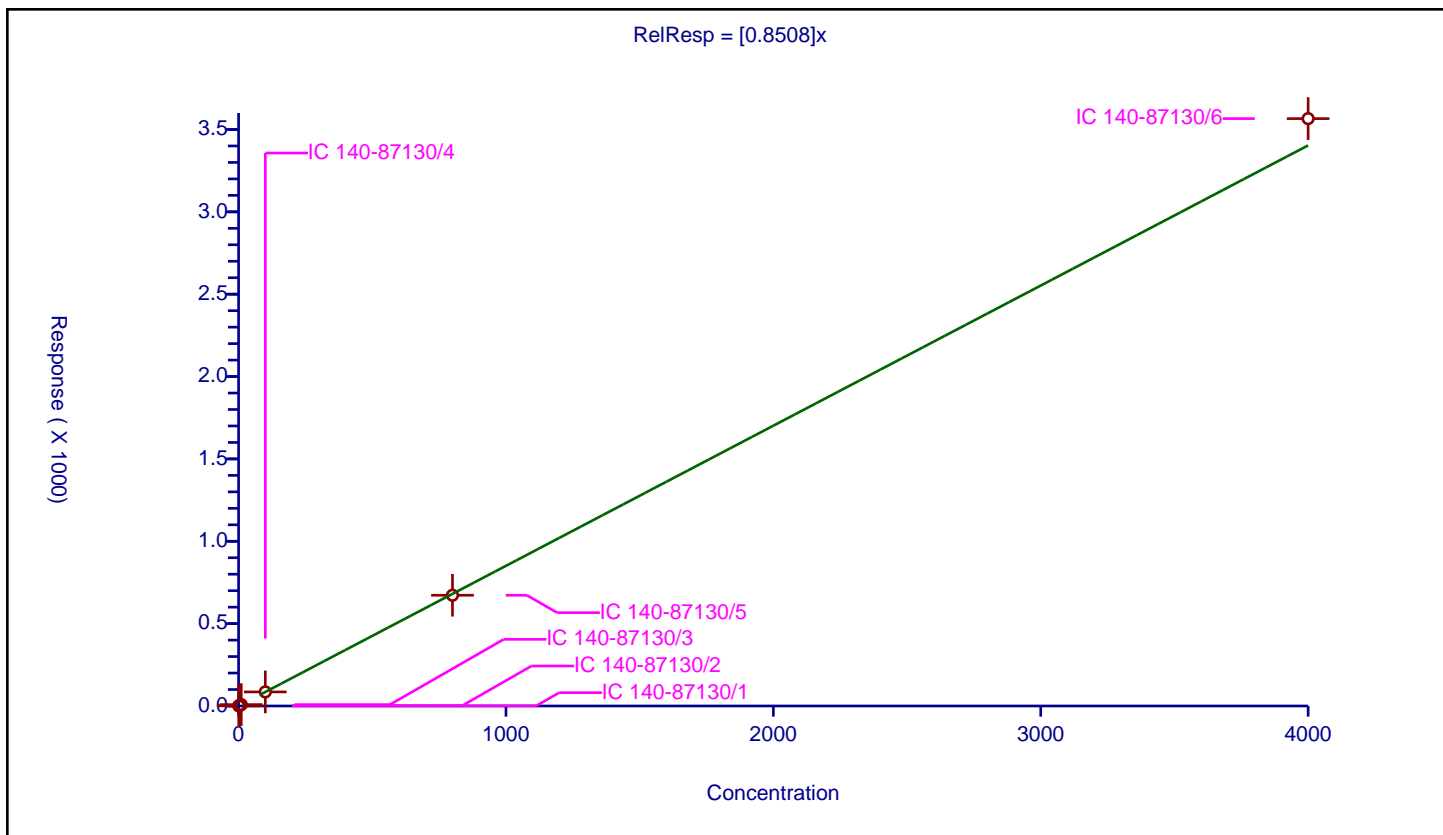
## Curve Coefficients

Intercept: 0  
Slope: 0.8508

## Error Coefficients

Relative Standard Deviation: 2.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.83999	100.0	10352263.0	0.83999	Y
2	IC 140-87130/2	2.0	1.681751	100.0	9378026.0	0.840875	Y
3	IC 140-87130/3	10.0	8.378792	100.0	9411321.0	0.837879	Y
4	IC 140-87130/4	100.0	85.434194	100.0	9689577.0	0.854342	Y
5	IC 140-87130/5	800.0	672.30468	100.0	10335461.0	0.840381	Y
6	IC 140-87130/6	4000.0	3565.952545	100.0	11264701.0	0.891488	Y



# Calibration

/ PCB-45/51

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

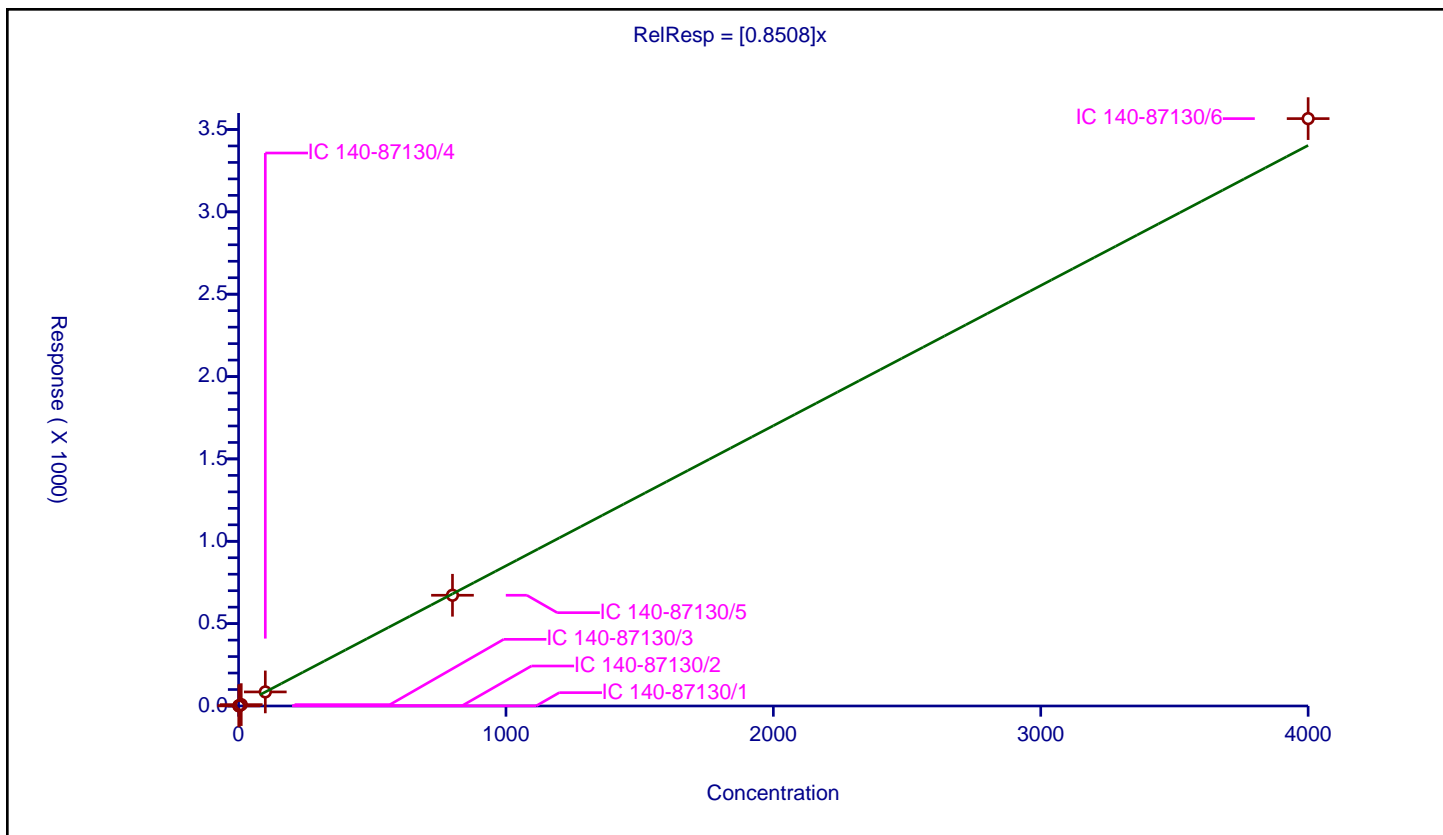
## Curve Coefficients

Intercept: 0  
 Slope: 0.8508

## Error Coefficients

Relative Standard Deviation: 2.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.83999	100.0	10352263.0	0.83999	Y
2	IC 140-87130/2	2.0	1.681751	100.0	9378026.0	0.840875	Y
3	IC 140-87130/3	10.0	8.378792	100.0	9411321.0	0.837879	Y
4	IC 140-87130/4	100.0	85.434194	100.0	9689577.0	0.854342	Y
5	IC 140-87130/5	800.0	672.30468	100.0	10335461.0	0.840381	Y
6	IC 140-87130/6	4000.0	3565.952545	100.0	11264701.0	0.891488	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

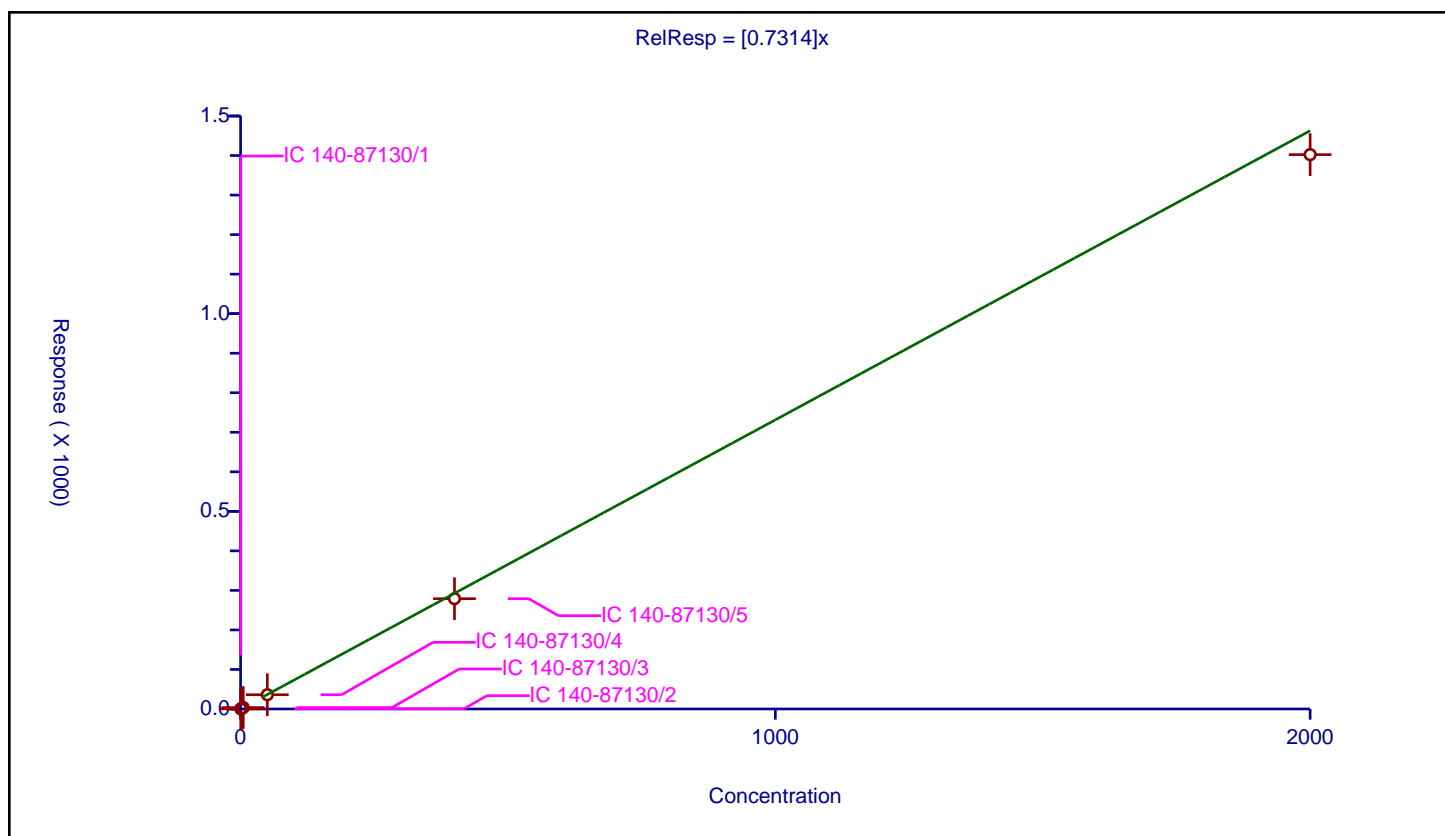
## Curve Coefficients

Intercept: 0  
Slope: 0.7314

## Error Coefficients

Relative Standard Deviation: 7.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.421087	100.0	10352263.0	0.842173	Y
2	IC 140-87130/2	1.0	0.701907	100.0	9378026.0	0.701907	Y
3	IC 140-87130/3	5.0	3.620894	100.0	9411321.0	0.724179	Y
4	IC 140-87130/4	50.0	36.07884	100.0	9689577.0	0.721577	Y
5	IC 140-87130/5	400.0	278.986162	100.0	10335461.0	0.697465	Y
6	IC 140-87130/6	2000.0	1402.339911	100.0	11264701.0	0.70117	Y



# Calibration

/ PCB-47

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

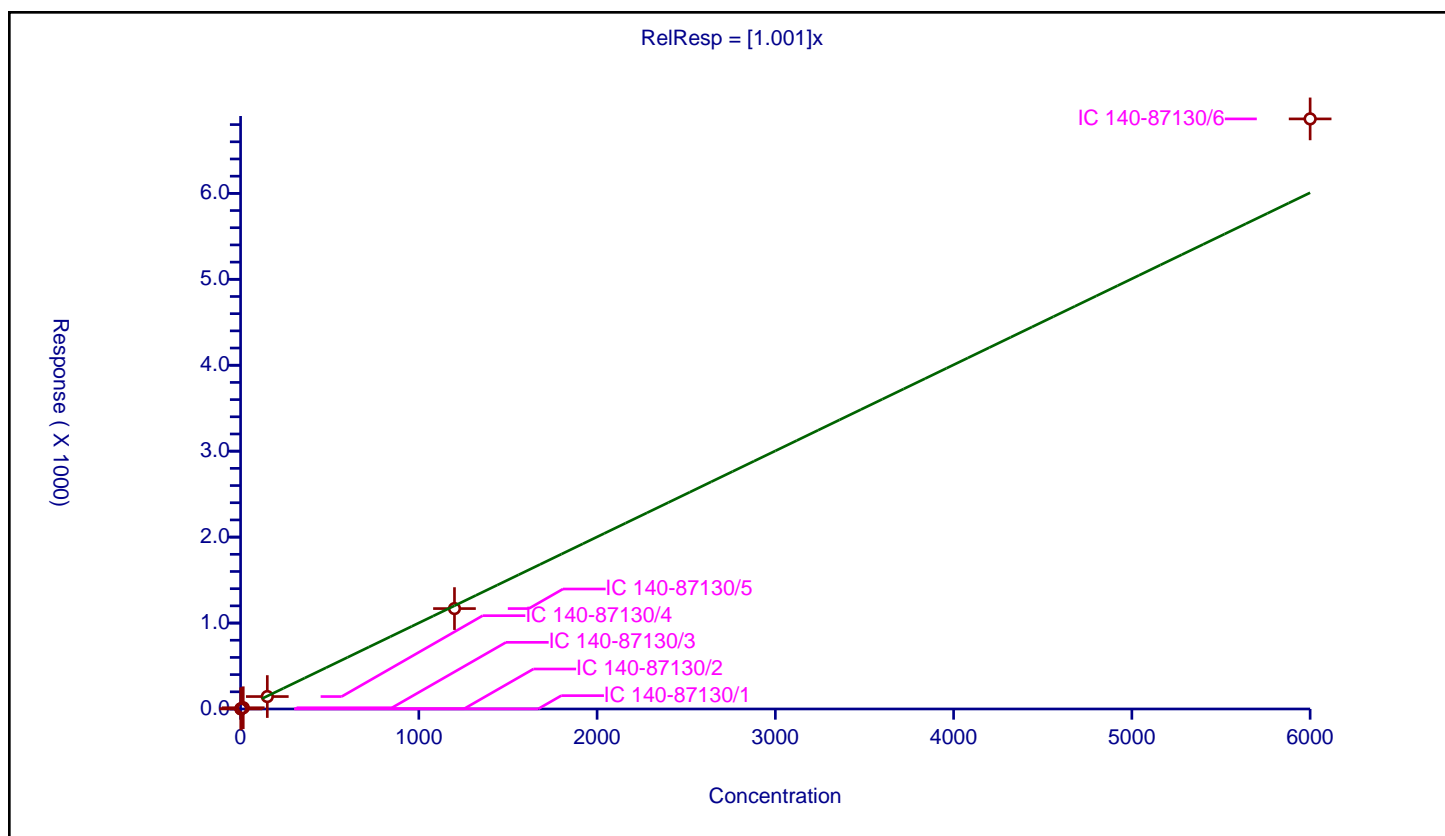
## Curve Coefficients

Intercept: 0  
 Slope: 1.001

## Error Coefficients

Relative Standard Deviation: 7.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.477822	100.0	10352263.0	0.985215	Y
2	IC 140-87130/2	3.0	2.962852	100.0	9378026.0	0.987617	Y
3	IC 140-87130/3	15.0	14.283308	100.0	9411321.0	0.952221	Y
4	IC 140-87130/4	150.0	144.622474	100.0	9689577.0	0.96415	Y
5	IC 140-87130/5	1200.0	1168.291526	100.0	10335461.0	0.973576	Y
6	IC 140-87130/6	6000.0	6866.617871	100.0	11264701.0	1.144436	Y



# Calibration

/ PCB-48

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

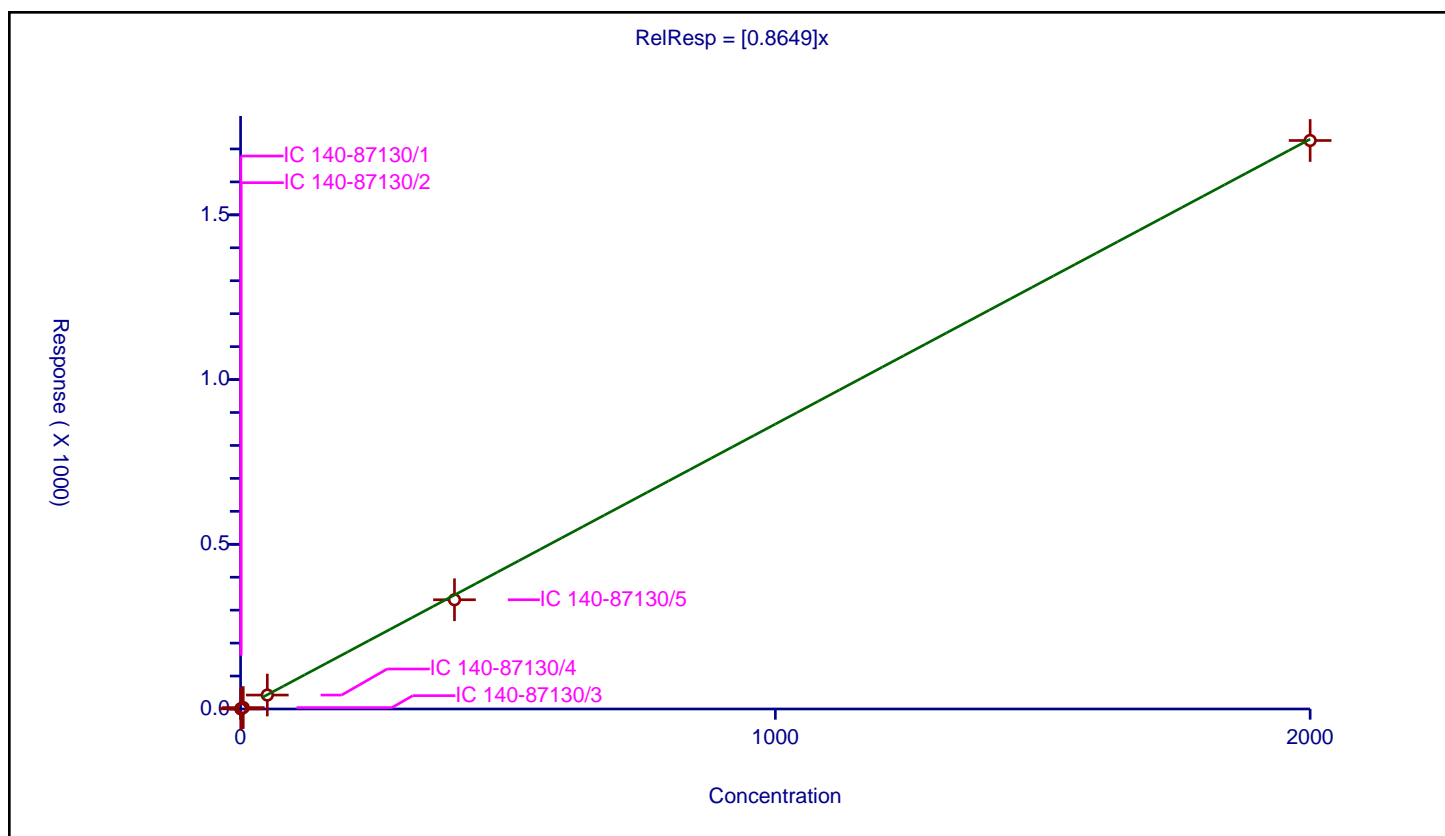
## Curve Coefficients

Intercept: 0  
 Slope: 0.8649

## Error Coefficients

Relative Standard Deviation: 3.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.451447	100.0	10352263.0	0.902894	Y
2	IC 140-87130/2	1.0	0.895178	100.0	9378026.0	0.895178	Y
3	IC 140-87130/3	5.0	4.269263	100.0	9411321.0	0.853853	Y
4	IC 140-87130/4	50.0	42.27265	100.0	9689577.0	0.845453	Y
5	IC 140-87130/5	400.0	331.59593	100.0	10335461.0	0.82899	Y
6	IC 140-87130/6	2000.0	1725.660699	100.0	11264701.0	0.86283	Y



# Calibration

/ PCB-49

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

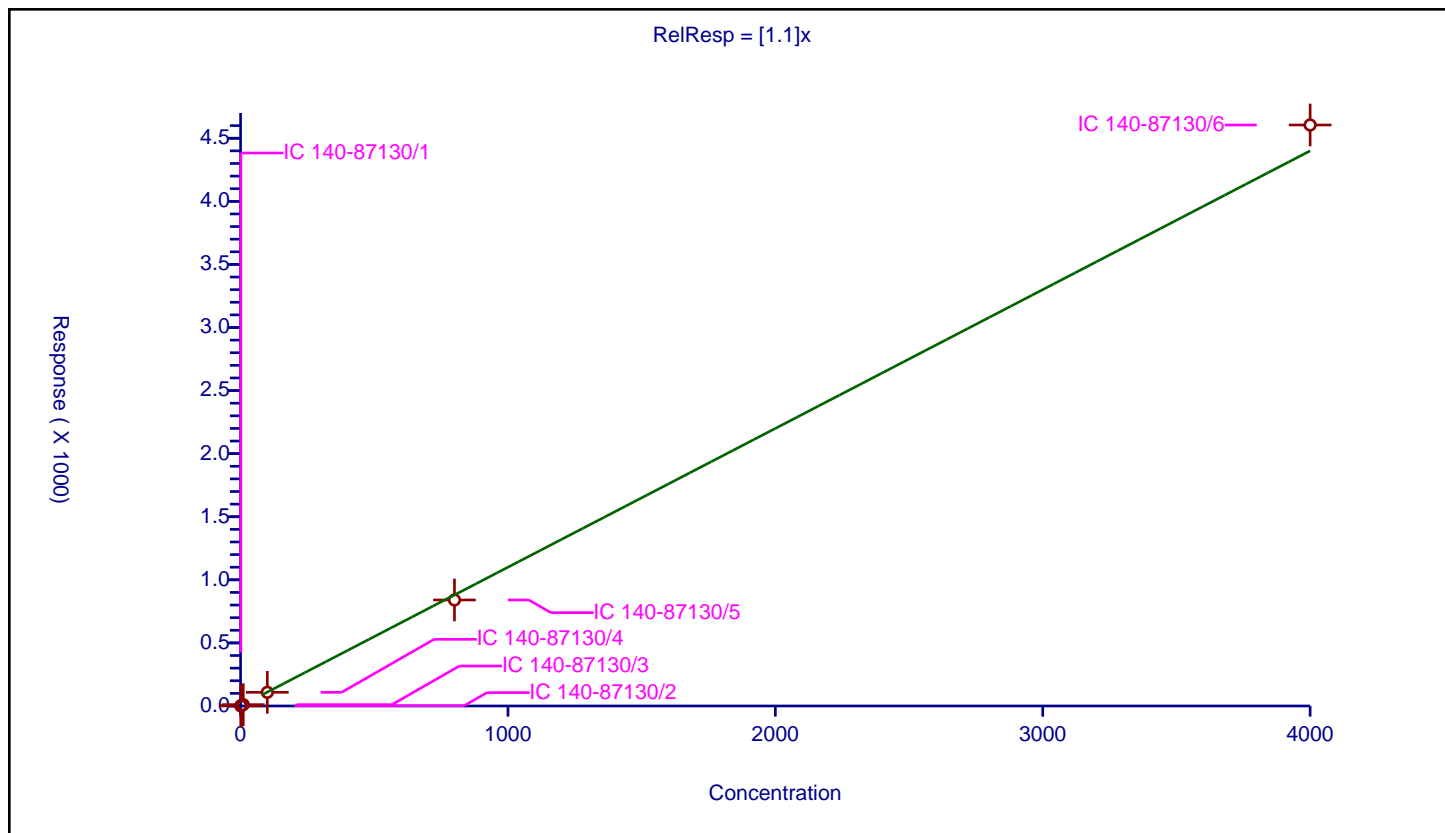
## Curve Coefficients

Intercept: 0  
Slope: 1.1

## Error Coefficients

Relative Standard Deviation: 4.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.173569	100.0	10352263.0	1.173569	Y
2	IC 140-87130/2	2.0	2.152852	100.0	9378026.0	1.076426	Y
3	IC 140-87130/3	10.0	10.656952	100.0	9411321.0	1.065695	Y
4	IC 140-87130/4	100.0	108.268596	100.0	9689577.0	1.082686	Y
5	IC 140-87130/5	800.0	840.297438	100.0	10335461.0	1.050372	Y
6	IC 140-87130/6	4000.0	4605.085719	100.0	11264701.0	1.151271	Y



# Calibration

/ PCB-49/69

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

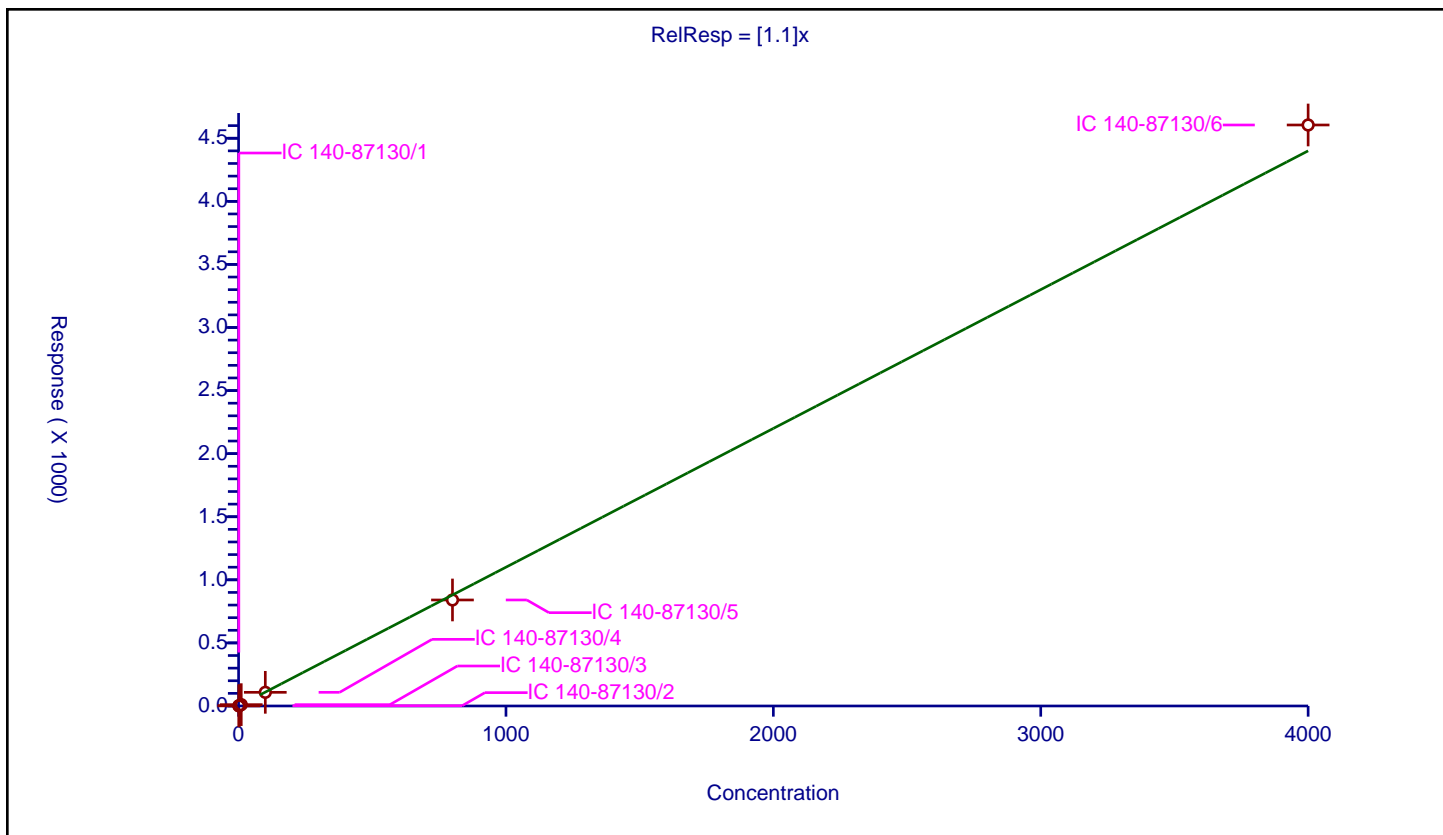
## Curve Coefficients

Intercept: 0  
 Slope: 1.1

## Error Coefficients

Relative Standard Deviation: 4.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.173569	100.0	10352263.0	1.173569	Y
2	IC 140-87130/2	2.0	2.152852	100.0	9378026.0	1.076426	Y
3	IC 140-87130/3	10.0	10.656952	100.0	9411321.0	1.065695	Y
4	IC 140-87130/4	100.0	108.268596	100.0	9689577.0	1.082686	Y
5	IC 140-87130/5	800.0	840.297438	100.0	10335461.0	1.050372	Y
6	IC 140-87130/6	4000.0	4605.085719	100.0	11264701.0	1.151271	Y



# Calibration

/ PCB-5

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

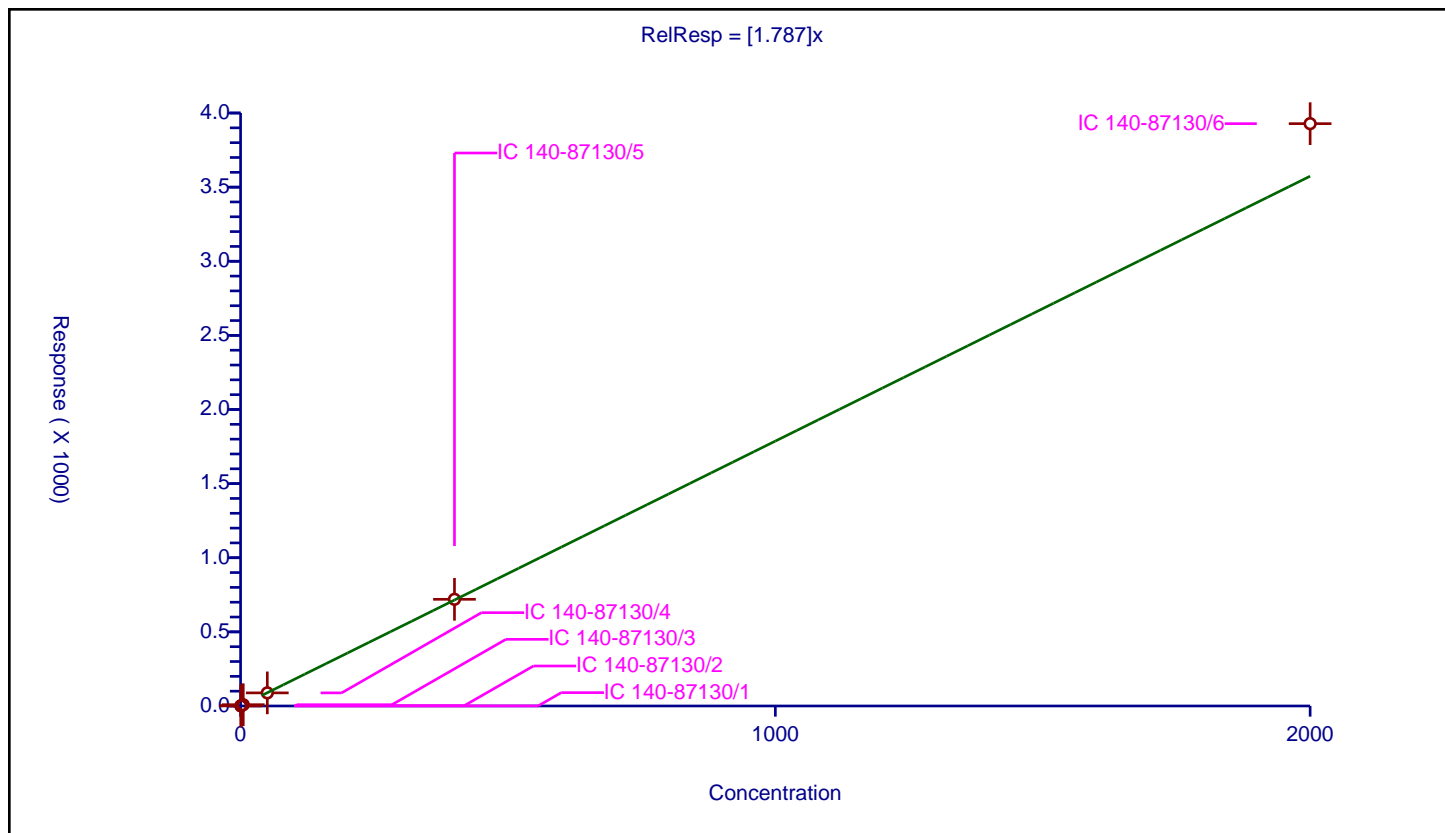
## Curve Coefficients

Intercept: 0  
Slope: 1.787

## Error Coefficients

Relative Standard Deviation: 5.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.872535	100.0	5904521.0	1.74507	Y
2	IC 140-87130/2	1.0	1.710031	100.0	5442766.0	1.710031	Y
3	IC 140-87130/3	5.0	8.665964	100.0	5279032.0	1.733193	Y
4	IC 140-87130/4	50.0	88.499354	100.0	5474214.0	1.769987	Y
5	IC 140-87130/5	400.0	719.584445	100.0	5561618.0	1.798961	Y
6	IC 140-87130/6	2000.0	3928.252502	100.0	5672202.0	1.964126	Y





# Calibration

/ PCB-50

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

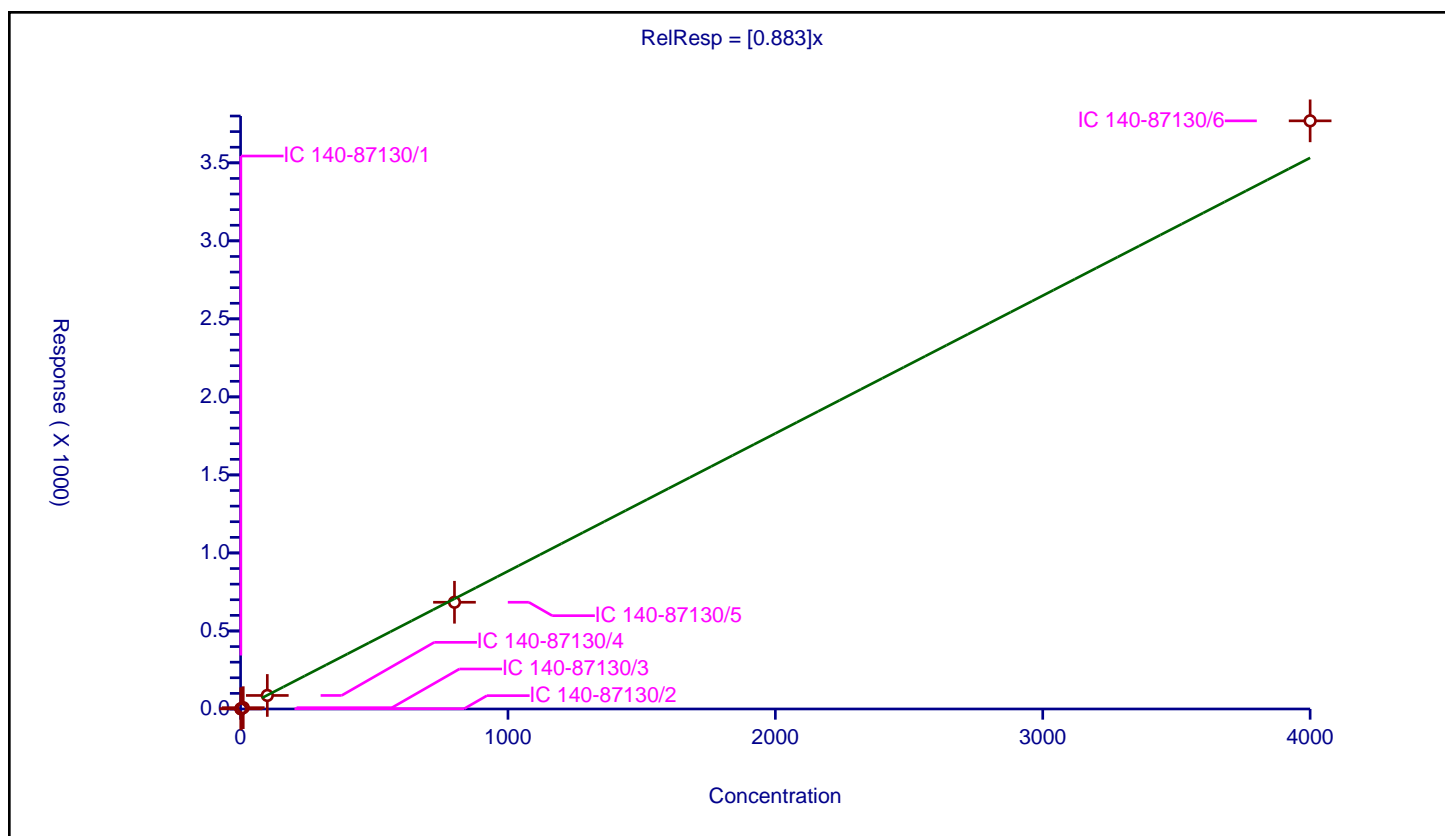
## Curve Coefficients

Intercept: 0  
Slope: 0.883

## Error Coefficients

Relative Standard Deviation: 4.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.929536	100.0	10352263.0	0.929536	Y
2	IC 140-87130/2	2.0	1.711394	100.0	9378026.0	0.855697	Y
3	IC 140-87130/3	10.0	8.478693	100.0	9411321.0	0.847869	Y
4	IC 140-87130/4	100.0	86.753612	100.0	9689577.0	0.867536	Y
5	IC 140-87130/5	800.0	683.931554	100.0	10335461.0	0.854914	Y
6	IC 140-87130/6	4000.0	3769.047851	100.0	11264701.0	0.942262	Y



# Calibration

/ PCB-50/53

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

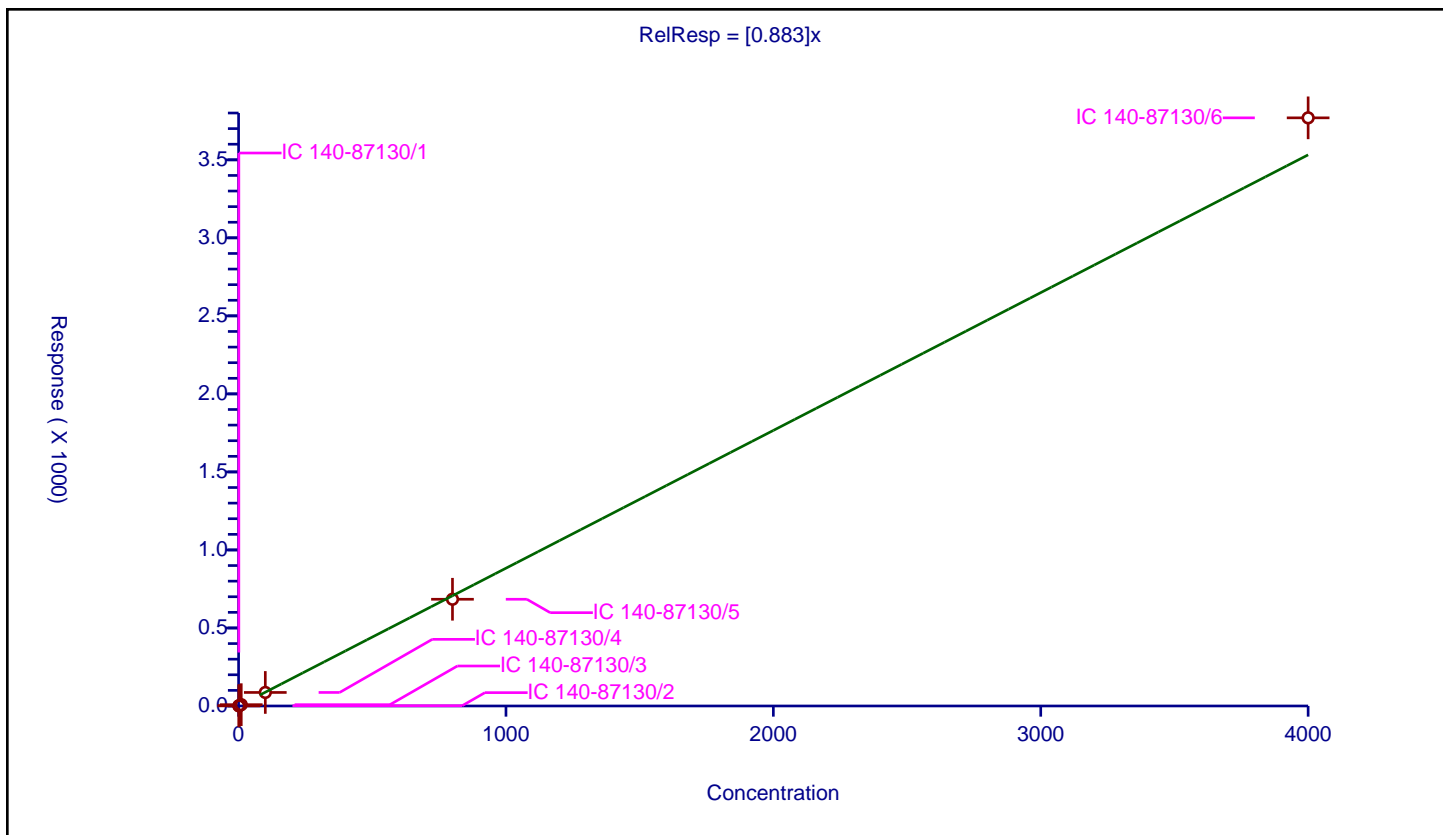
## Curve Coefficients

Intercept: 0  
 Slope: 0.883

## Error Coefficients

Relative Standard Deviation: 4.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.929536	100.0	10352263.0	0.929536	Y
2	IC 140-87130/2	2.0	1.711394	100.0	9378026.0	0.855697	Y
3	IC 140-87130/3	10.0	8.478693	100.0	9411321.0	0.847869	Y
4	IC 140-87130/4	100.0	86.753612	100.0	9689577.0	0.867536	Y
5	IC 140-87130/5	800.0	683.931554	100.0	10335461.0	0.854914	Y
6	IC 140-87130/6	4000.0	3769.047851	100.0	11264701.0	0.942262	Y



# Calibration

/ PCB-51

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

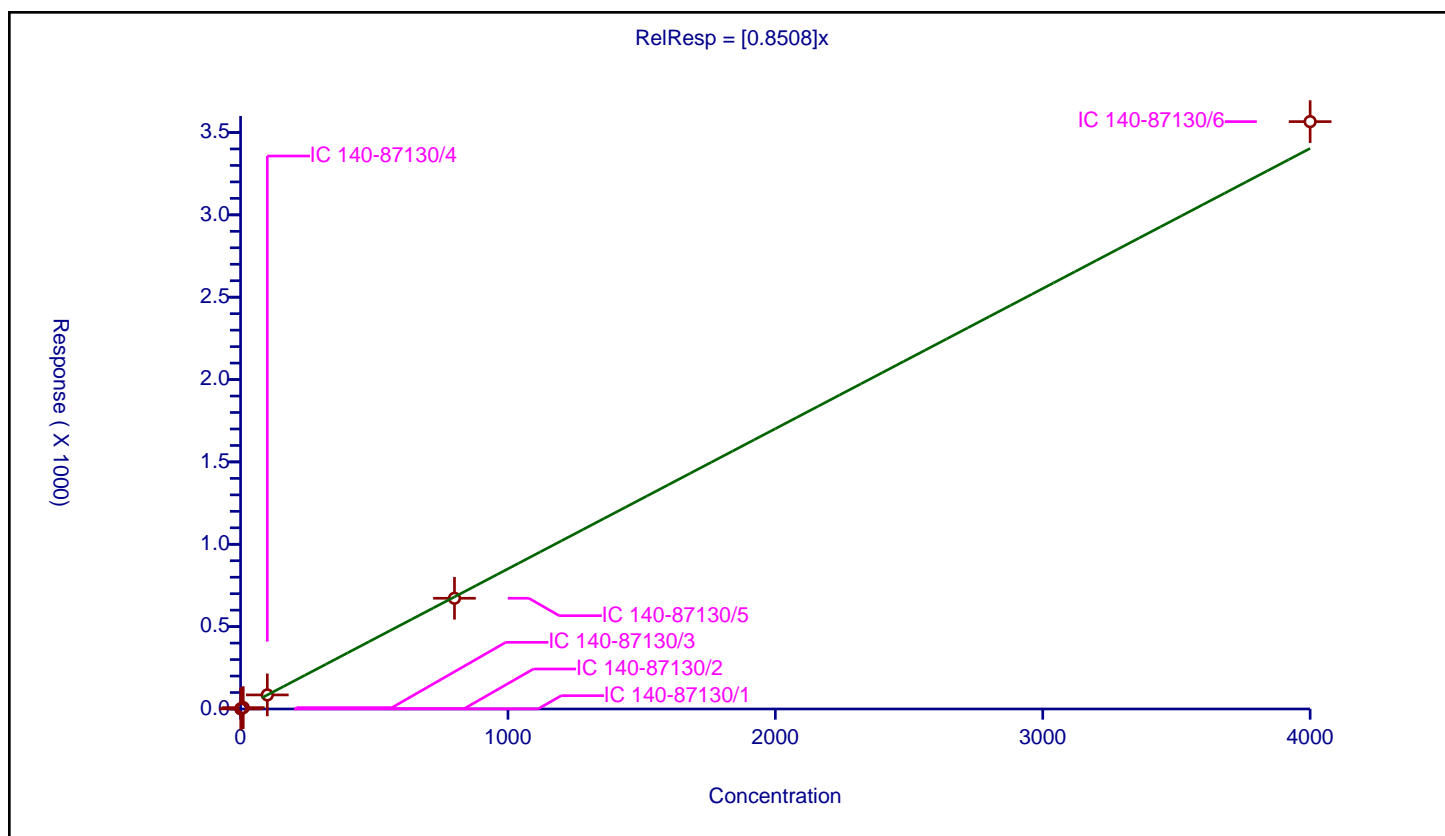
## Curve Coefficients

Intercept: 0  
Slope: 0.8508

## Error Coefficients

Relative Standard Deviation: 2.4

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.83999	100.0	10352263.0	0.83999	Y
2	IC 140-87130/2	2.0	1.681751	100.0	9378026.0	0.840875	Y
3	IC 140-87130/3	10.0	8.378792	100.0	9411321.0	0.837879	Y
4	IC 140-87130/4	100.0	85.434194	100.0	9689577.0	0.854342	Y
5	IC 140-87130/5	800.0	672.30468	100.0	10335461.0	0.840381	Y
6	IC 140-87130/6	4000.0	3565.952545	100.0	11264701.0	0.891488	Y



# Calibration

/ PCB-52

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

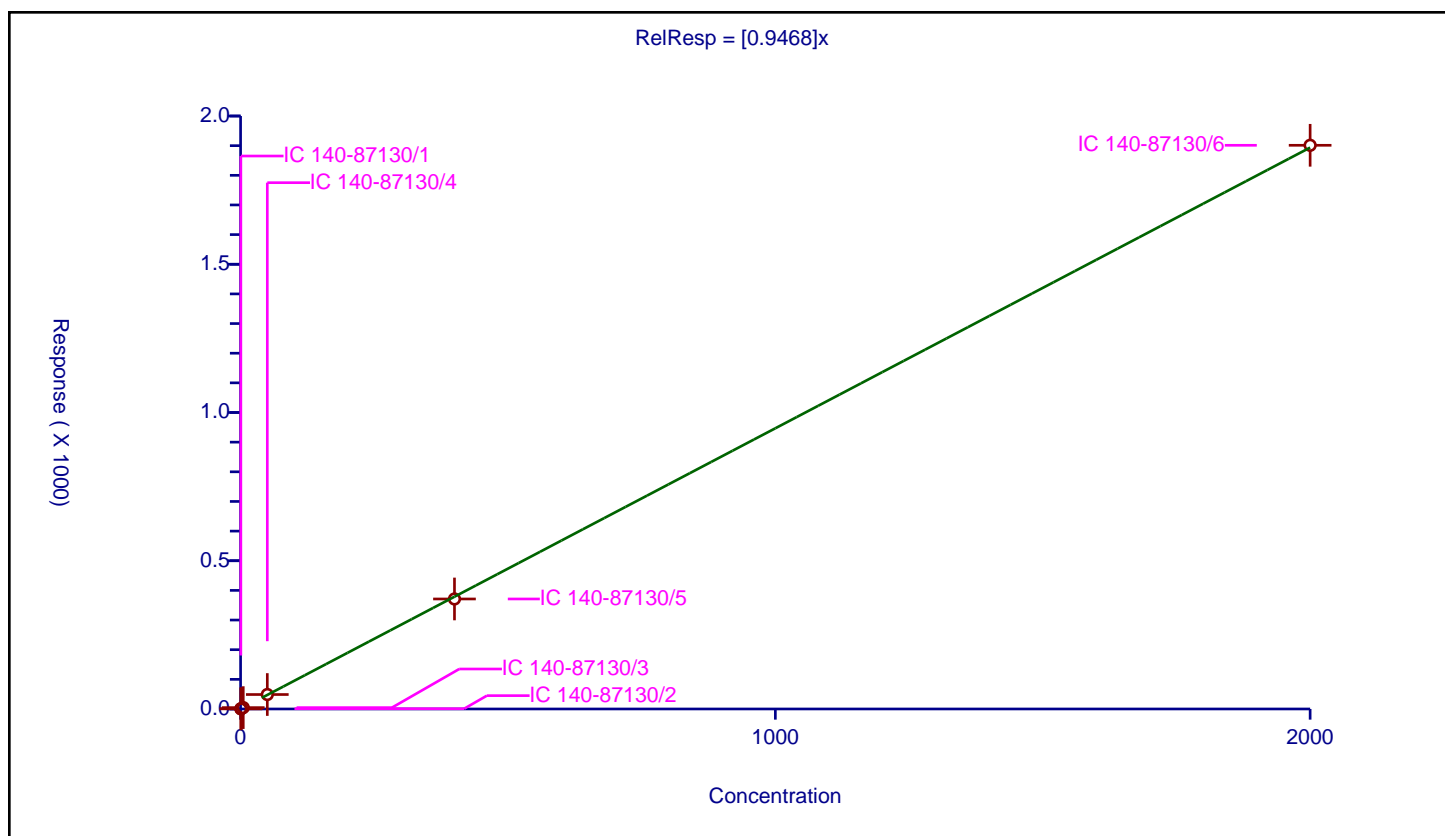
## Curve Coefficients

Intercept: 0  
 Slope: 0.9468

## Error Coefficients

Relative Standard Deviation: 1.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.47861	100.0	10352263.0	0.957221	Y
2	IC 140-87130/2	1.0	0.935517	100.0	9378026.0	0.935517	Y
3	IC 140-87130/3	5.0	4.673403	100.0	9411321.0	0.934681	Y
4	IC 140-87130/4	50.0	48.750436	100.0	9689577.0	0.975009	Y
5	IC 140-87130/5	400.0	371.091652	100.0	10335461.0	0.927729	Y
6	IC 140-87130/6	2000.0	1901.220503	100.0	11264701.0	0.95061	Y



# Calibration

/ PCB-53

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

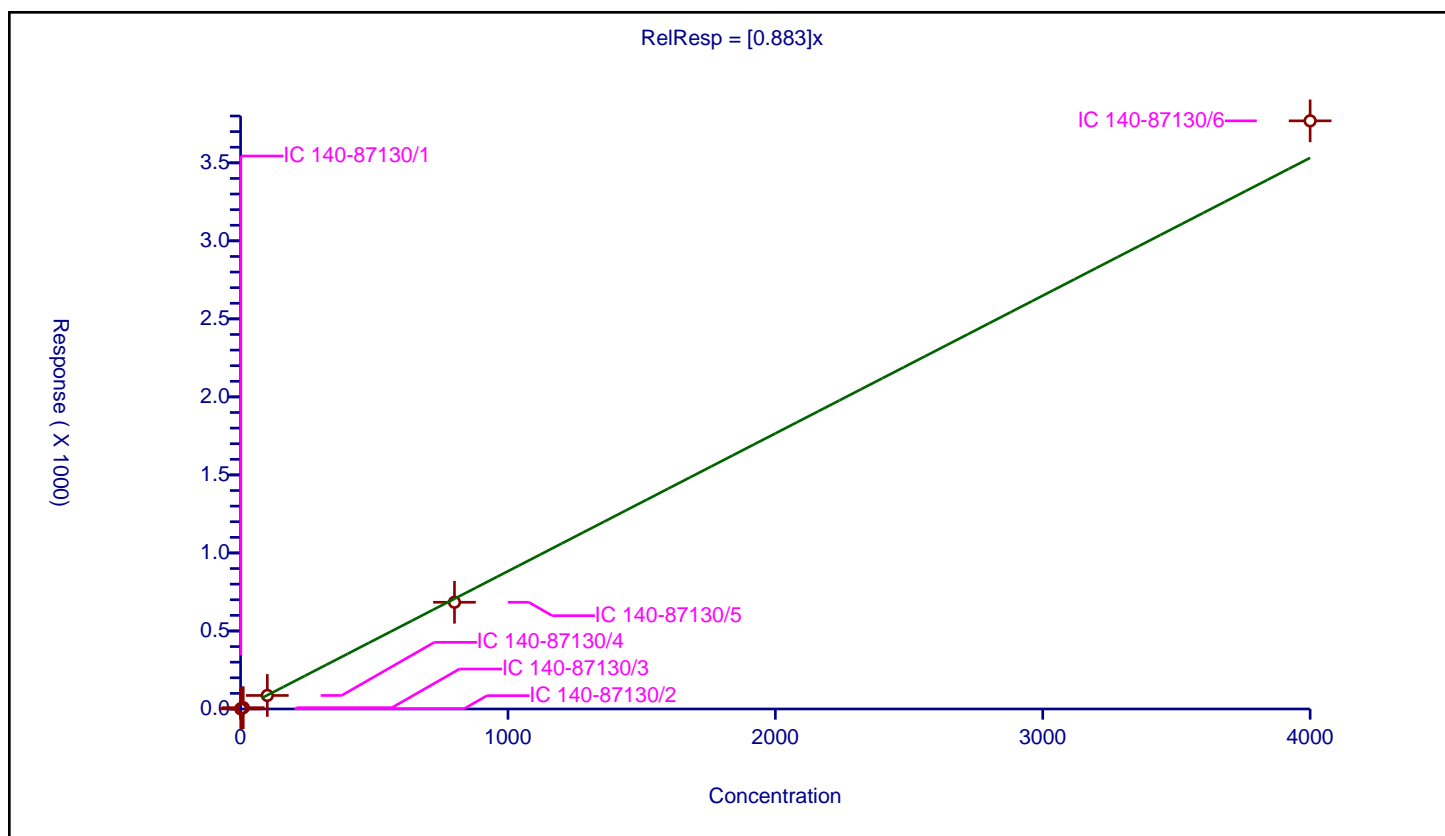
## Curve Coefficients

Intercept: 0  
Slope: 0.883

## Error Coefficients

Relative Standard Deviation: 4.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.929536	100.0	10352263.0	0.929536	Y
2	IC 140-87130/2	2.0	1.711394	100.0	9378026.0	0.855697	Y
3	IC 140-87130/3	10.0	8.478693	100.0	9411321.0	0.847869	Y
4	IC 140-87130/4	100.0	86.753612	100.0	9689577.0	0.867536	Y
5	IC 140-87130/5	800.0	683.931554	100.0	10335461.0	0.854914	Y
6	IC 140-87130/6	4000.0	3769.047851	100.0	11264701.0	0.942262	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

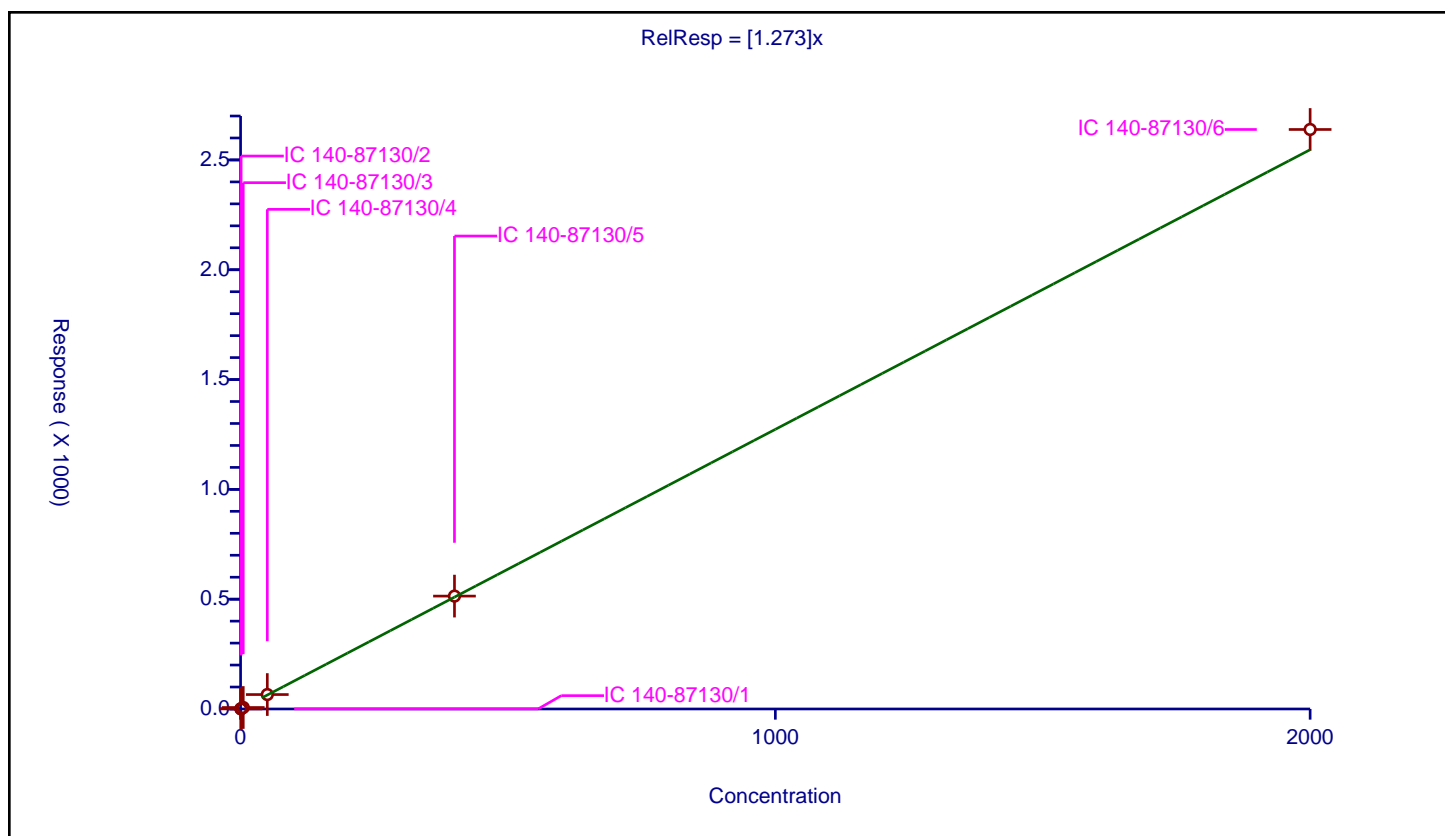
## Curve Coefficients

Intercept: 0  
Slope: 1.273

## Error Coefficients

Relative Standard Deviation: 8.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.527395	100.0	3394991.0	1.054789	Y
2	IC 140-87130/2	1.0	1.324963	100.0	3010951.0	1.324963	Y
3	IC 140-87130/3	5.0	6.698994	100.0	2803421.0	1.339799	Y
4	IC 140-87130/4	50.0	65.800259	100.0	3125781.0	1.316005	Y
5	IC 140-87130/5	400.0	513.98725	100.0	3162909.0	1.284968	Y
6	IC 140-87130/6	2000.0	2638.710193	100.0	3193810.0	1.319355	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

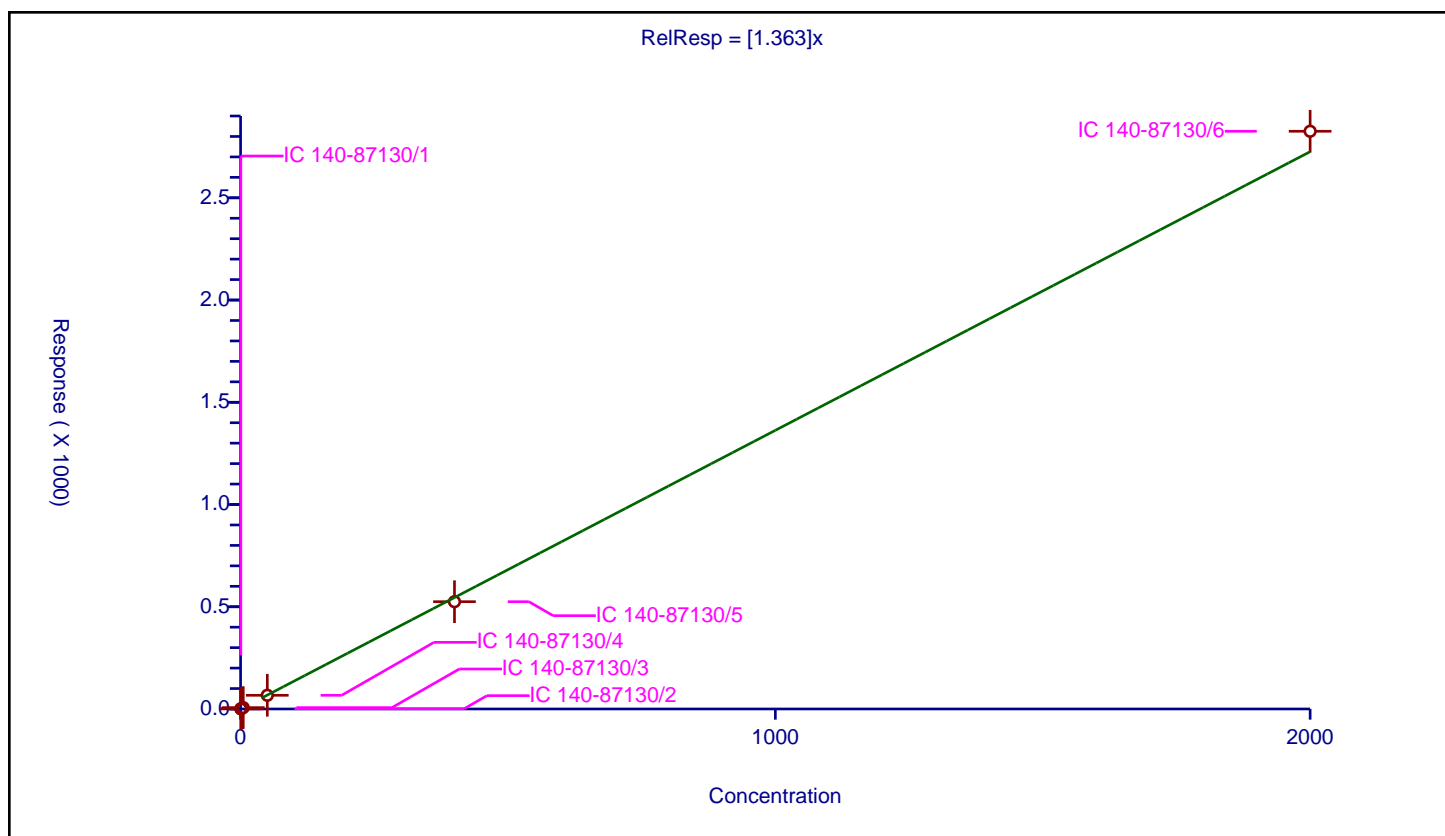
## Curve Coefficients

Intercept: 0  
Slope: 1.363

## Error Coefficients

Relative Standard Deviation: 6.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.7503	100.0	10352263.0	1.500599	Y
2	IC 140-87130/2	1.0	1.274383	100.0	9378026.0	1.274383	Y
3	IC 140-87130/3	5.0	6.694958	100.0	9411321.0	1.338992	Y
4	IC 140-87130/4	50.0	66.912374	100.0	9689577.0	1.338247	Y
5	IC 140-87130/5	400.0	524.701162	100.0	10335461.0	1.311753	Y
6	IC 140-87130/6	2000.0	2825.418127	100.0	11264701.0	1.412709	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

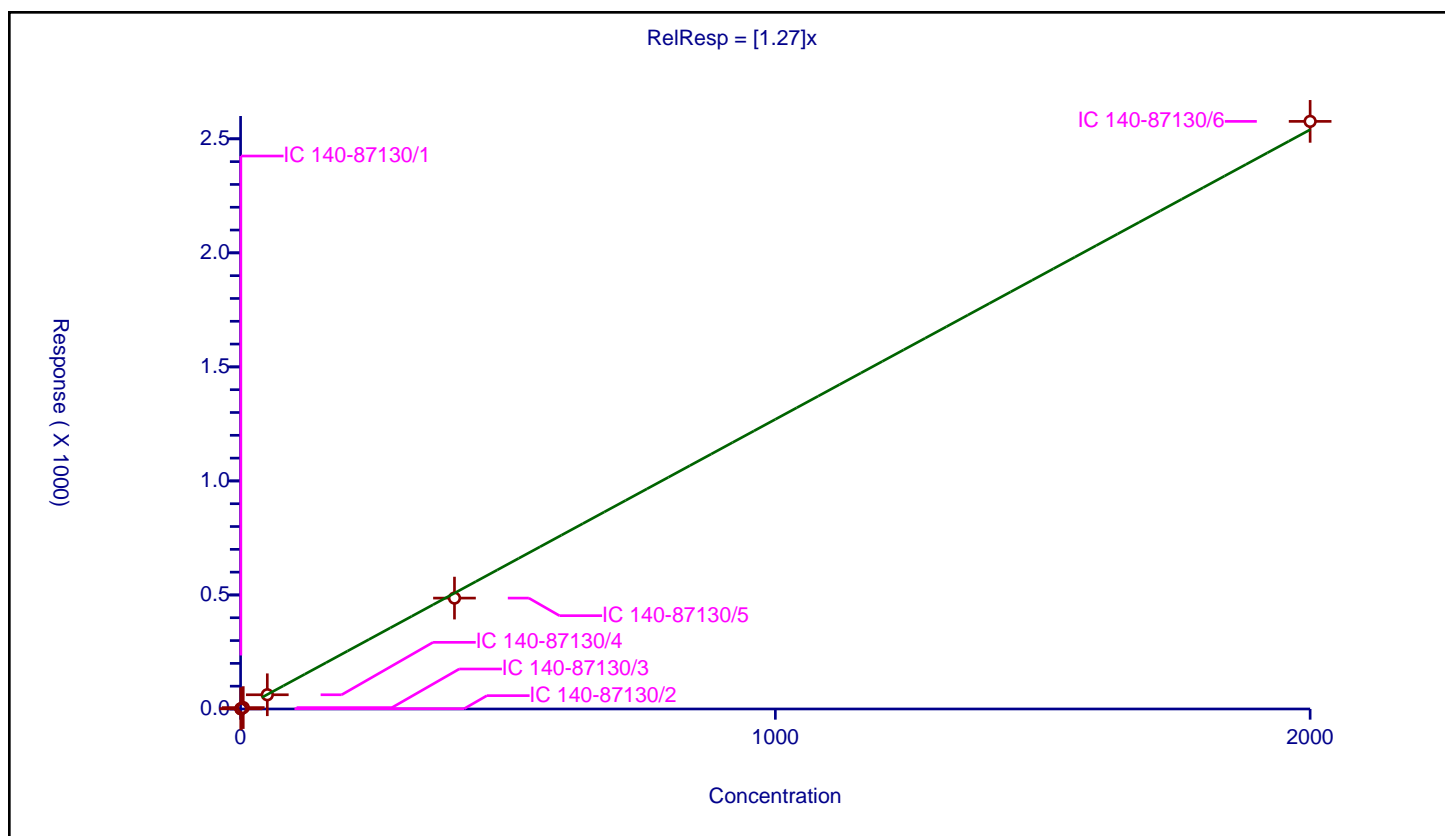
## Curve Coefficients

Intercept: 0  
Slope: 1.27

## Error Coefficients

Relative Standard Deviation: 7.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.721185	100.0	10352263.0	1.442371	Y
2	IC 140-87130/2	1.0	1.200711	100.0	9378026.0	1.200711	Y
3	IC 140-87130/3	5.0	6.131732	100.0	9411321.0	1.226346	Y
4	IC 140-87130/4	50.0	62.350988	100.0	9689577.0	1.24702	Y
5	IC 140-87130/5	400.0	486.206024	100.0	10335461.0	1.215515	Y
6	IC 140-87130/6	2000.0	2576.543745	100.0	11264701.0	1.288272	Y





# Calibration

/ PCB-57

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

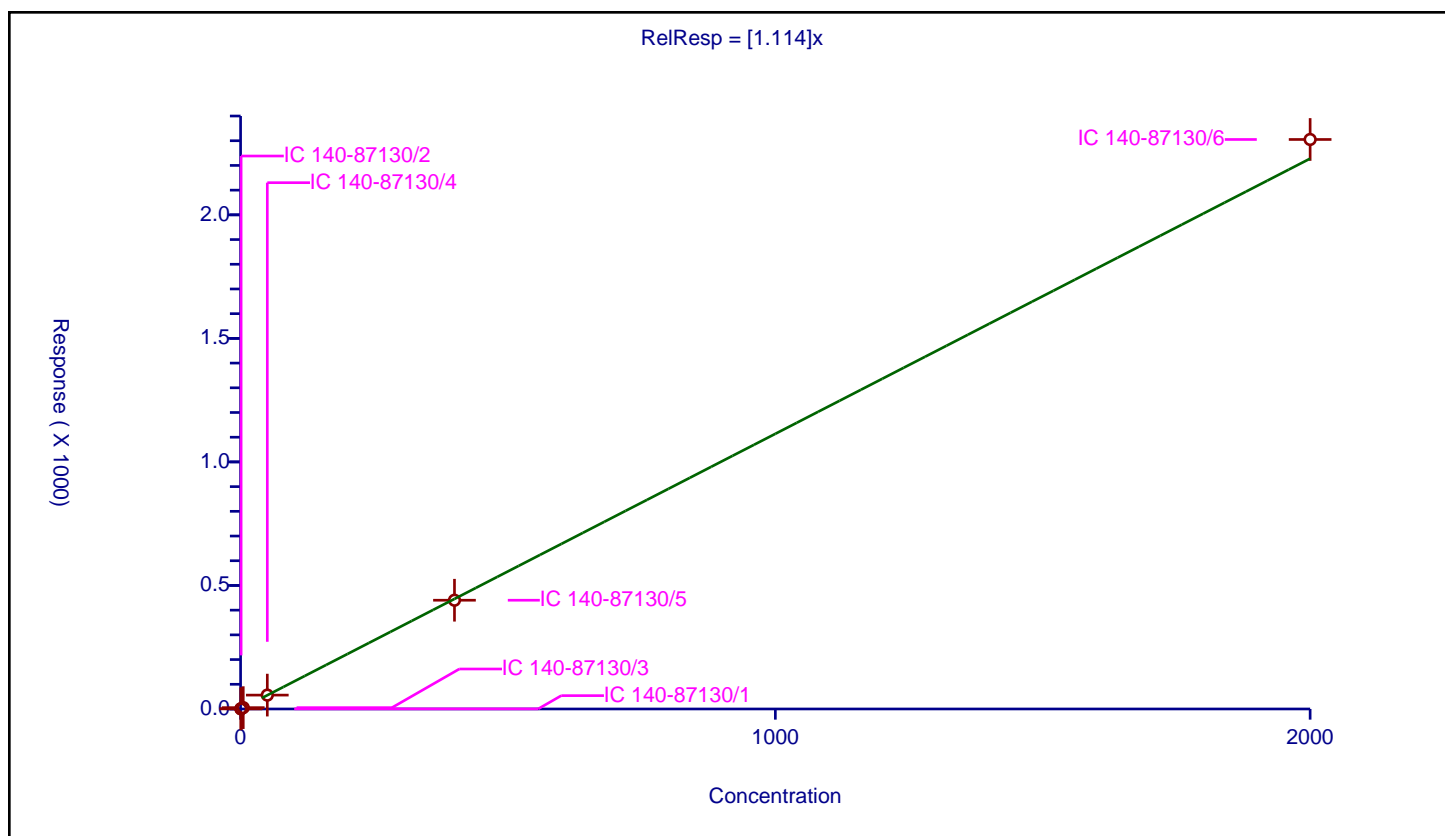
## Curve Coefficients

Intercept: 0  
Slope: 1.114

## Error Coefficients

Relative Standard Deviation: 3.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.530493	100.0	10352263.0	1.060985	Y
2	IC 140-87130/2	1.0	1.149901	100.0	9378026.0	1.149901	Y
3	IC 140-87130/3	5.0	5.475012	100.0	9411321.0	1.095002	Y
4	IC 140-87130/4	50.0	56.200317	100.0	9689577.0	1.124006	Y
5	IC 140-87130/5	400.0	440.170961	100.0	10335461.0	1.100427	Y
6	IC 140-87130/6	2000.0	2305.01091	100.0	11264701.0	1.152505	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

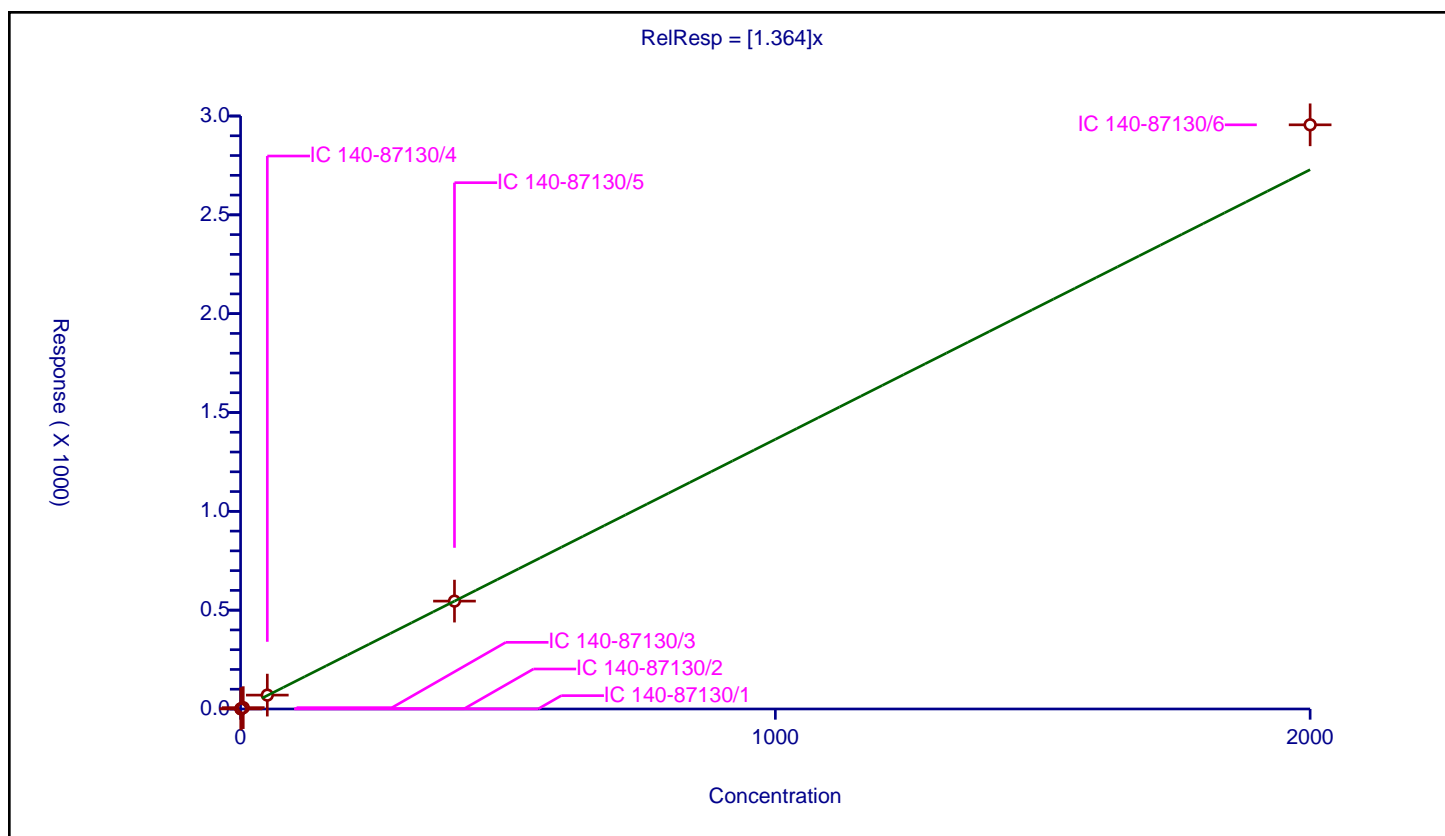
## Curve Coefficients

Intercept: 0  
Slope: 1.364

## Error Coefficients

Relative Standard Deviation: 5.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.662531	100.0	10352263.0	1.325063	Y
2	IC 140-87130/2	1.0	1.255083	100.0	9378026.0	1.255083	Y
3	IC 140-87130/3	5.0	6.788739	100.0	9411321.0	1.357748	Y
4	IC 140-87130/4	50.0	70.262778	100.0	9689577.0	1.405256	Y
5	IC 140-87130/5	400.0	545.857509	100.0	10335461.0	1.364644	Y
6	IC 140-87130/6	2000.0	2955.489365	100.0	11264701.0	1.477745	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

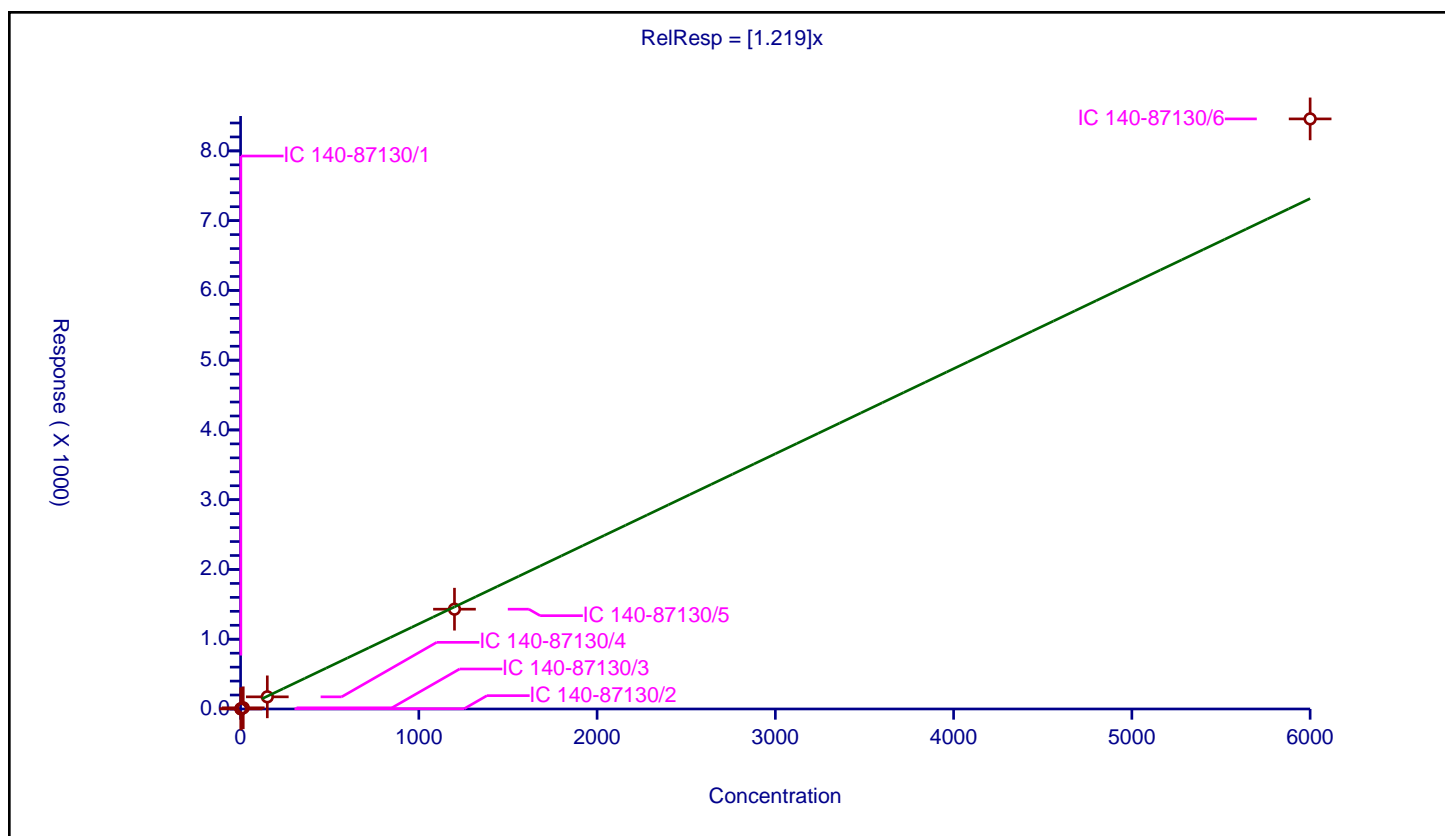
## Curve Coefficients

Intercept: 0  
Slope: 1.219

## Error Coefficients

Relative Standard Deviation: 8.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.866558	100.0	10352263.0	1.244372	Y
2	IC 140-87130/2	3.0	3.532332	100.0	9378026.0	1.177444	Y
3	IC 140-87130/3	15.0	16.979104	100.0	9411321.0	1.13194	Y
4	IC 140-87130/4	150.0	174.121842	100.0	9689577.0	1.160812	Y
5	IC 140-87130/5	1200.0	1430.71416	100.0	10335461.0	1.192262	Y
6	IC 140-87130/6	6000.0	8458.708198	100.0	11264701.0	1.409785	Y



# Calibration

/ PCB-59/62/75

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

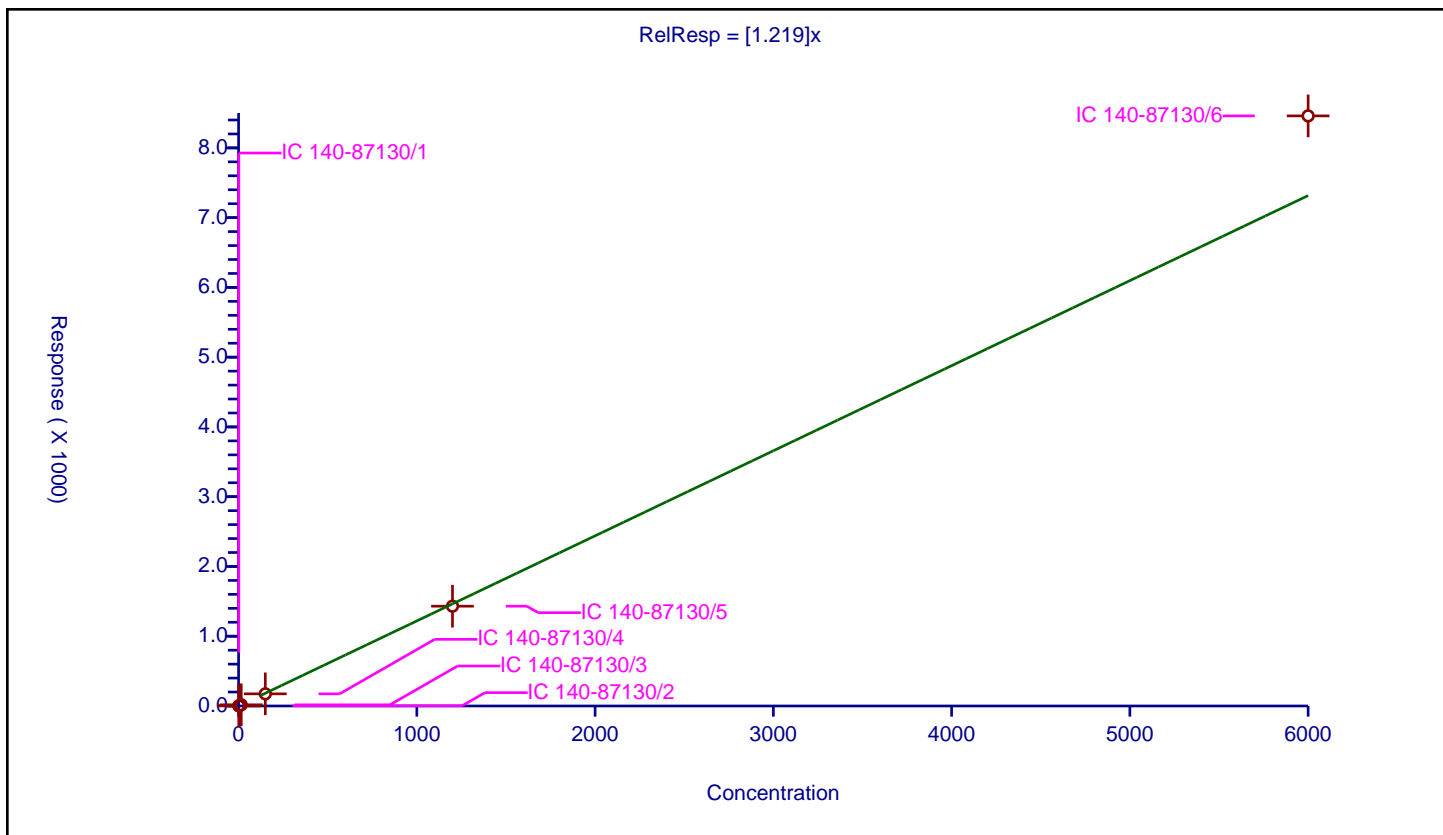
## Curve Coefficients

Intercept: 0  
 Slope: 1.219

## Error Coefficients

Relative Standard Deviation: 8.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.866558	100.0	10352263.0	1.244372	Y
2	IC 140-87130/2	3.0	3.532332	100.0	9378026.0	1.177444	Y
3	IC 140-87130/3	15.0	16.979104	100.0	9411321.0	1.13194	Y
4	IC 140-87130/4	150.0	174.121842	100.0	9689577.0	1.160812	Y
5	IC 140-87130/5	1200.0	1430.71416	100.0	10335461.0	1.192262	Y
6	IC 140-87130/6	6000.0	8458.708198	100.0	11264701.0	1.409785	Y



# Calibration

/ PCB-6

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

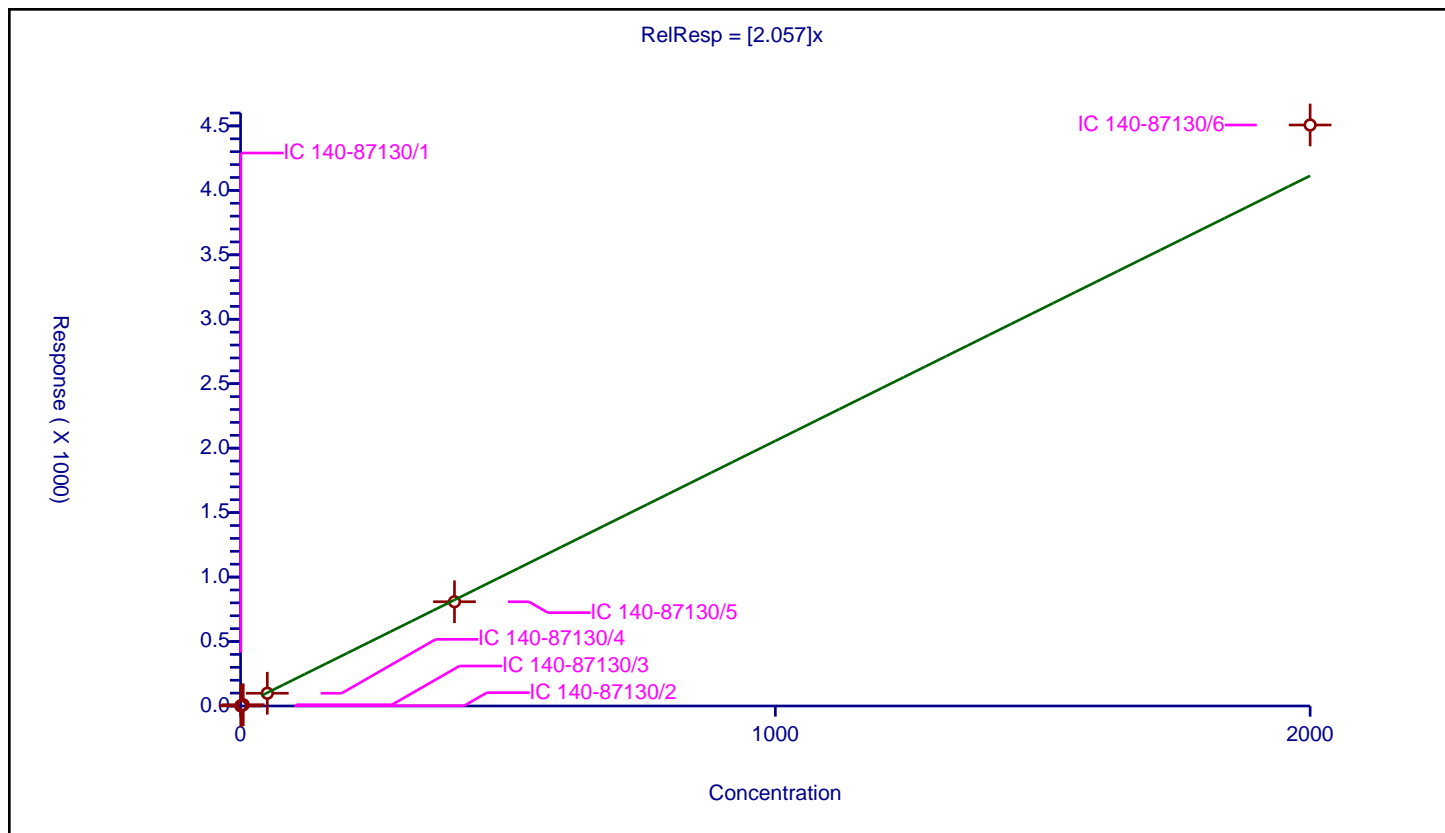
## Curve Coefficients

Intercept: 0  
Slope: 2.057

## Error Coefficients

Relative Standard Deviation: 5.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	1.064168	100.0	5904521.0	2.128335	Y
2	IC 140-87130/2	1.0	1.998451	100.0	5442766.0	1.998451	Y
3	IC 140-87130/3	5.0	9.80909	100.0	5279032.0	1.961818	Y
4	IC 140-87130/4	50.0	98.79232	100.0	5474214.0	1.975846	Y
5	IC 140-87130/5	400.0	808.750943	100.0	5561618.0	2.021877	Y
6	IC 140-87130/6	2000.0	4507.022934	100.0	5672202.0	2.253511	Y



# Calibration

/ PCB-60

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

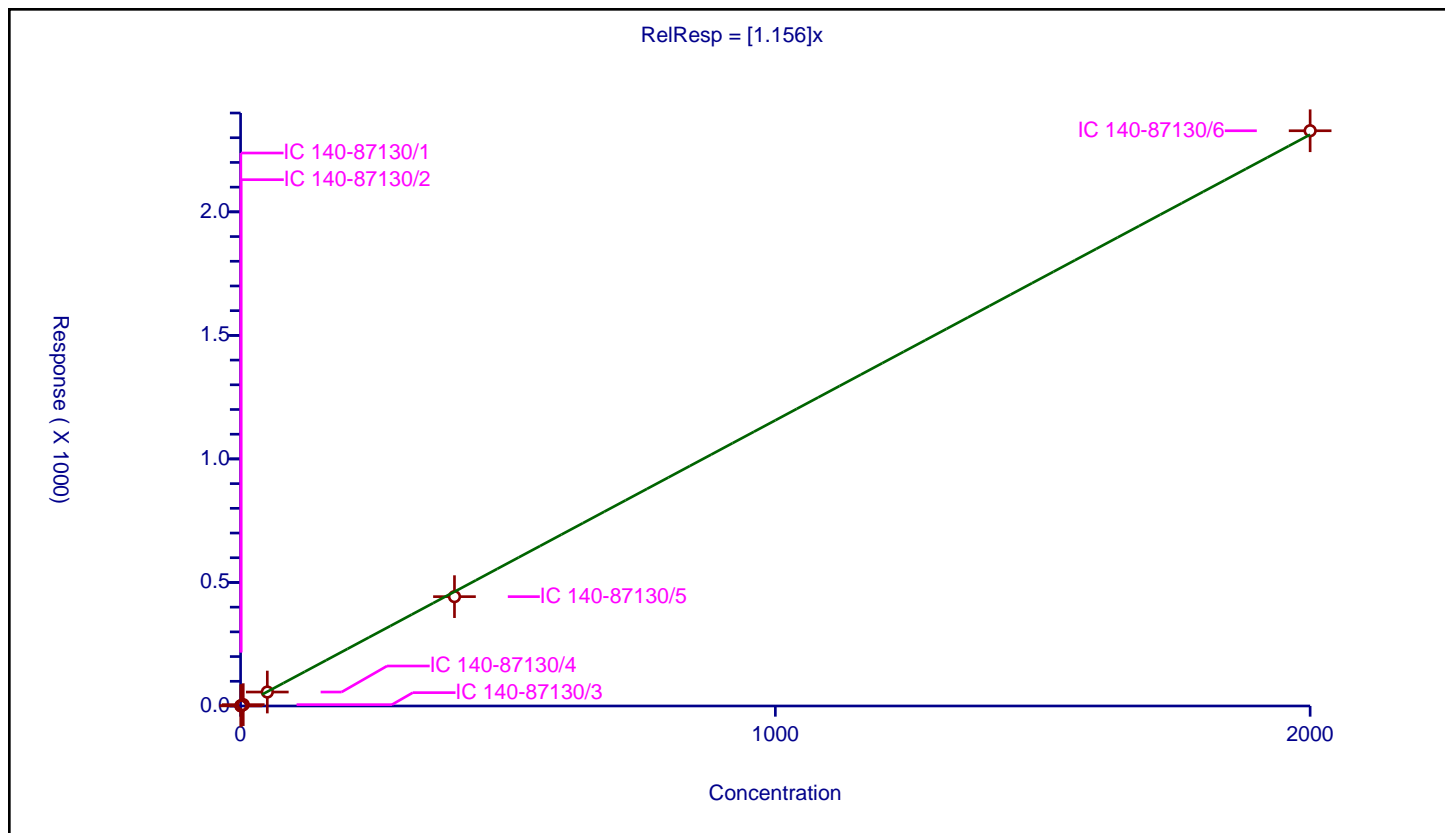
## Curve Coefficients

Intercept: 0  
Slope: 1.156

## Error Coefficients

Relative Standard Deviation: 6.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.584143	100.0	10352263.0	1.168286	Y
2	IC 140-87130/2	1.0	1.283522	100.0	9378026.0	1.283522	Y
3	IC 140-87130/3	5.0	5.427495	100.0	9411321.0	1.085499	Y
4	IC 140-87130/4	50.0	56.506904	100.0	9689577.0	1.130138	Y
5	IC 140-87130/5	400.0	442.551619	100.0	10335461.0	1.106379	Y
6	IC 140-87130/6	2000.0	2328.177366	100.0	11264701.0	1.164089	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

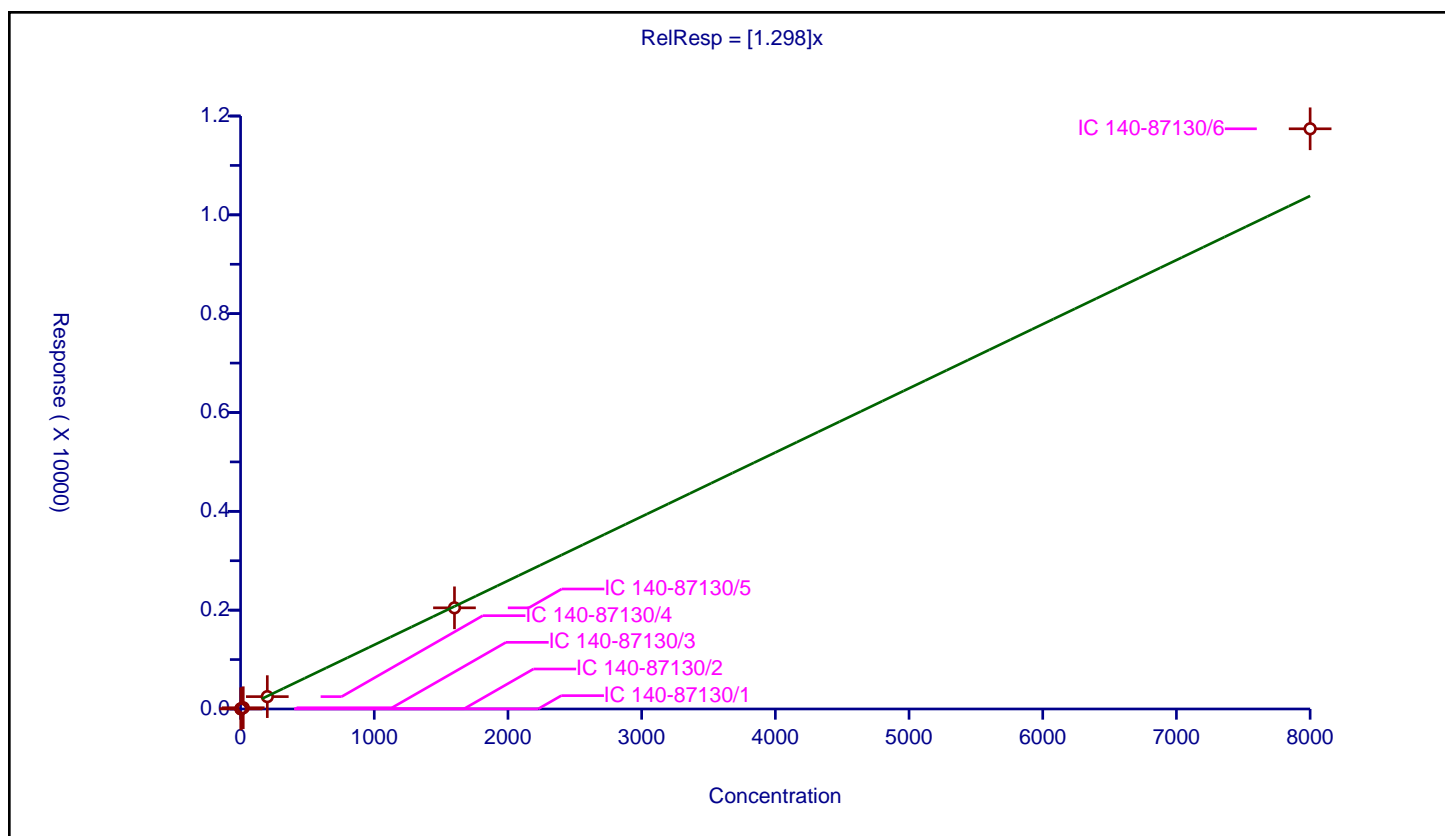
## Curve Coefficients

Intercept: 0  
Slope: 1.298

## Error Coefficients

Relative Standard Deviation: 6.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	2.0	2.559344	100.0	10352263.0	1.279672	Y
2	IC 140-87130/2	4.0	5.038128	100.0	9378026.0	1.259532	Y
3	IC 140-87130/3	20.0	24.983804	100.0	9411321.0	1.24919	Y
4	IC 140-87130/4	200.0	250.320618	100.0	9689577.0	1.251603	Y
5	IC 140-87130/5	1600.0	2046.968142	100.0	10335461.0	1.279355	Y
6	IC 140-87130/6	8000.0	11741.247868	100.0	11264701.0	1.467656	Y



# Calibration

/ PCB-61/70/74/76

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

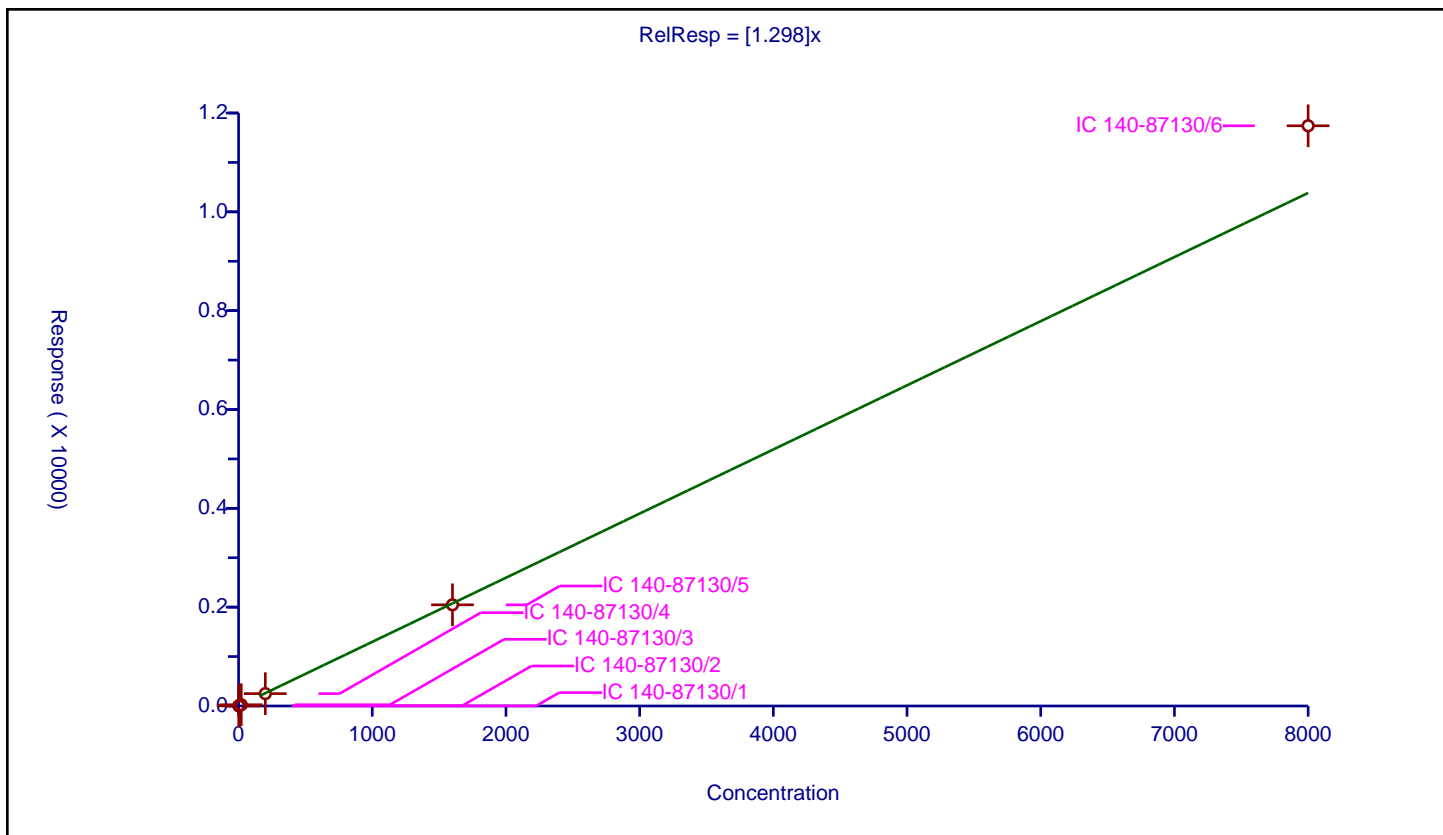
## Curve Coefficients

Intercept: 0  
 Slope: 1.298

## Error Coefficients

Relative Standard Deviation: 6.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	2.0	2.559344	100.0	10352263.0	1.279672	Y
2	IC 140-87130/2	4.0	5.038128	100.0	9378026.0	1.259532	Y
3	IC 140-87130/3	20.0	24.983804	100.0	9411321.0	1.24919	Y
4	IC 140-87130/4	200.0	250.320618	100.0	9689577.0	1.251603	Y
5	IC 140-87130/5	1600.0	2046.968142	100.0	10335461.0	1.279355	Y
6	IC 140-87130/6	8000.0	11741.247868	100.0	11264701.0	1.467656	Y





# Calibration

/ PCB-62

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

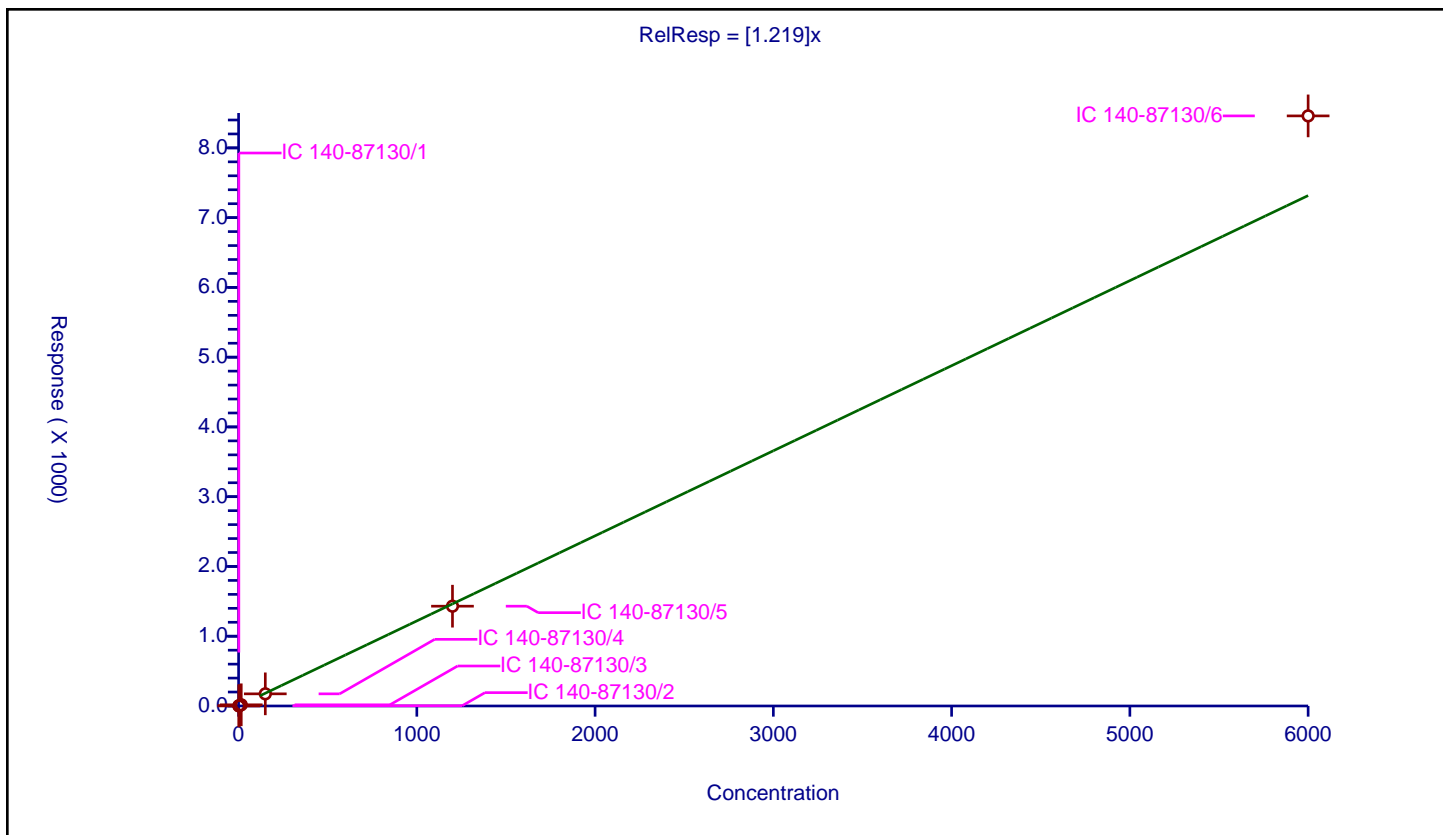
## Curve Coefficients

Intercept: 0  
Slope: 1.219

## Error Coefficients

Relative Standard Deviation: 8.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.866558	100.0	10352263.0	1.244372	Y
2	IC 140-87130/2	3.0	3.532332	100.0	9378026.0	1.177444	Y
3	IC 140-87130/3	15.0	16.979104	100.0	9411321.0	1.13194	Y
4	IC 140-87130/4	150.0	174.121842	100.0	9689577.0	1.160812	Y
5	IC 140-87130/5	1200.0	1430.71416	100.0	10335461.0	1.192262	Y
6	IC 140-87130/6	6000.0	8458.708198	100.0	11264701.0	1.409785	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

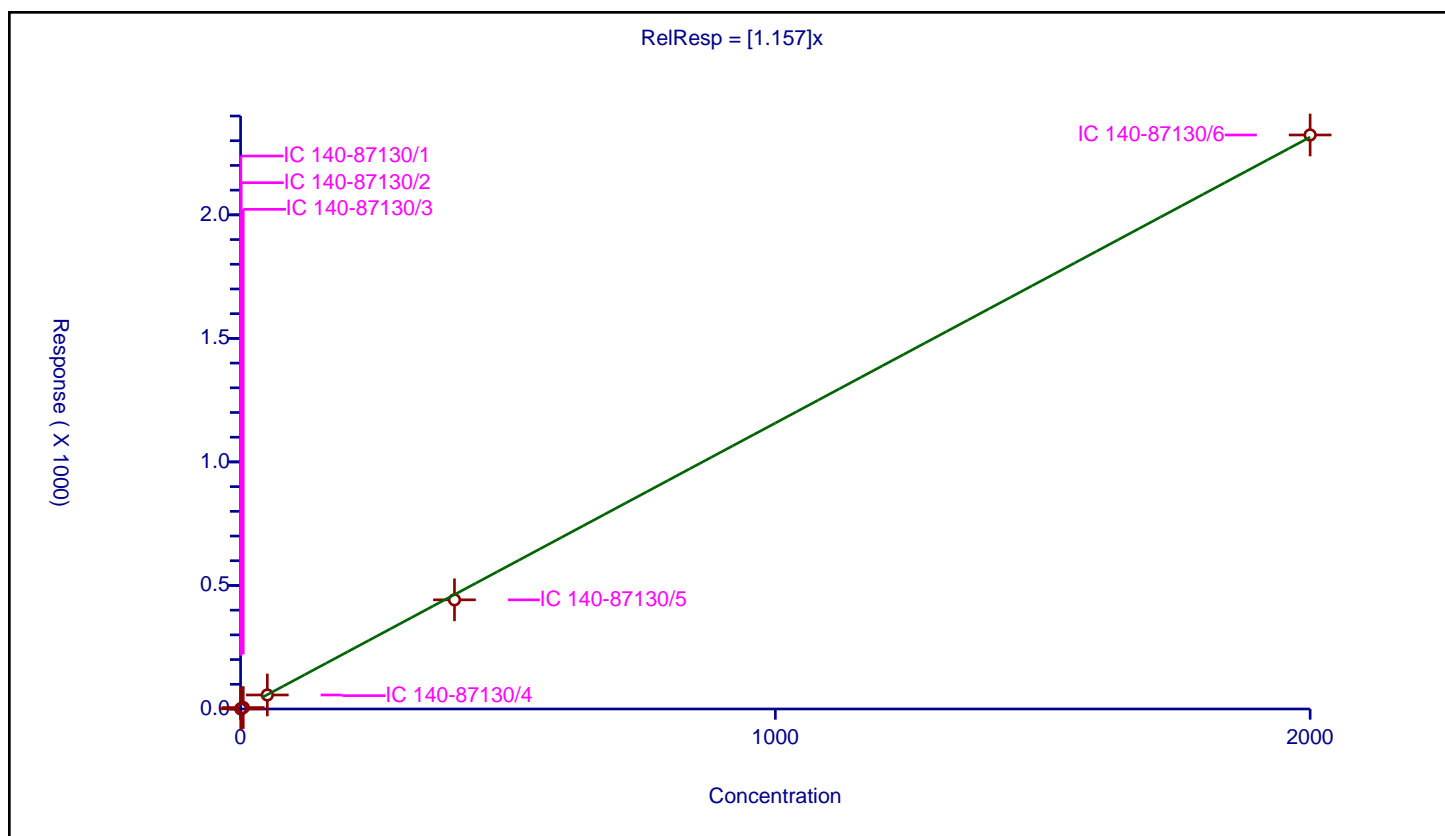
## Curve Coefficients

Intercept: 0  
Slope: 1.157

## Error Coefficients

Relative Standard Deviation: 3.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.586538	100.0	10352263.0	1.173077	Y
2	IC 140-87130/2	1.0	1.21211	100.0	9378026.0	1.21211	Y
3	IC 140-87130/3	5.0	5.788412	100.0	9411321.0	1.157682	Y
4	IC 140-87130/4	50.0	56.746657	100.0	9689577.0	1.134933	Y
5	IC 140-87130/5	400.0	441.810288	100.0	10335461.0	1.104526	Y
6	IC 140-87130/6	2000.0	2323.277031	100.0	11264701.0	1.161639	Y



## Calibration

/ PCB-64

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

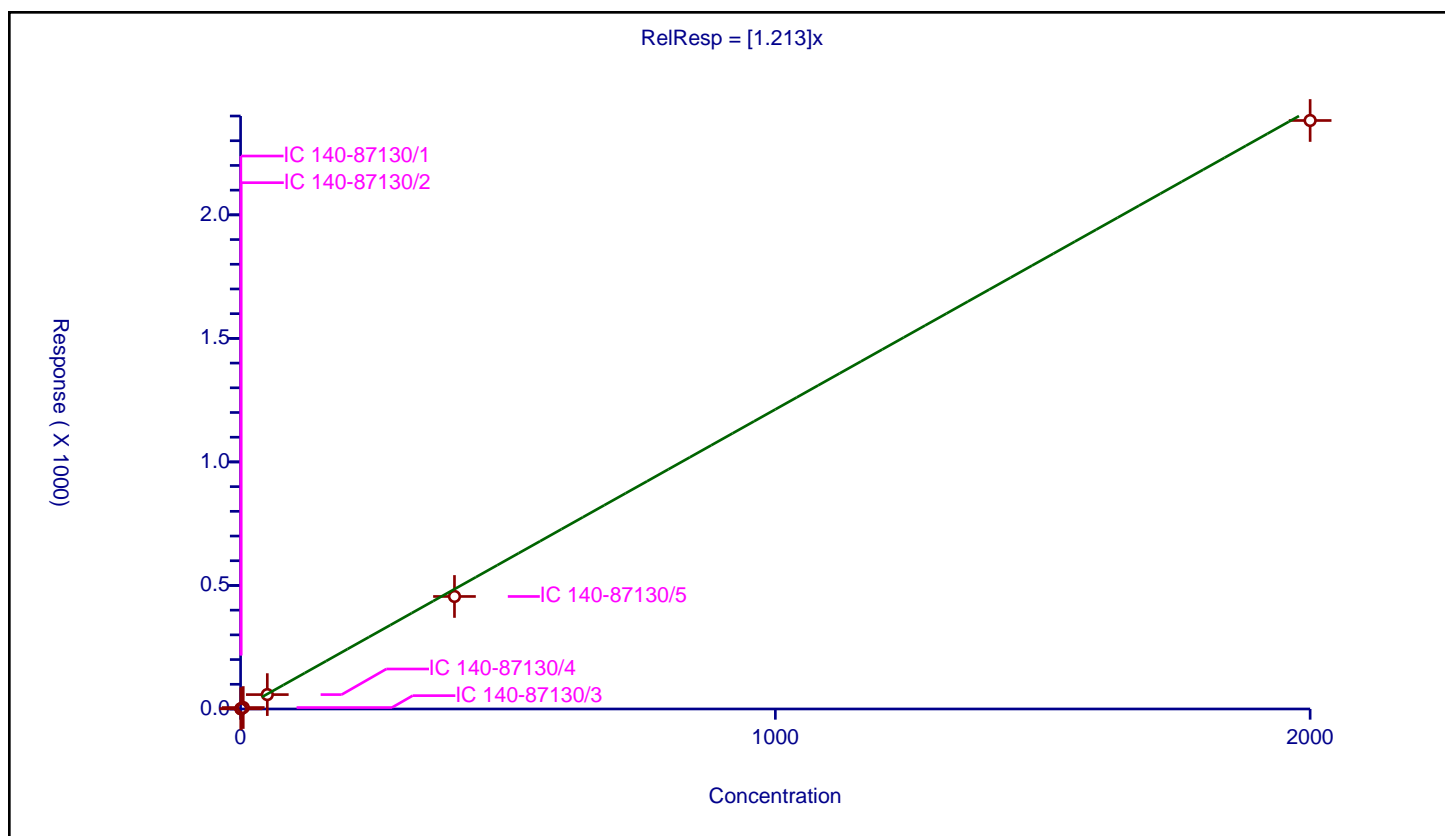
## Curve Coefficients

Intercept: 0  
Slope: 1.213

## Error Coefficients

Relative Standard Deviation: 6.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.660213	100.0	10352263.0	1.320426	Y
2	IC 140-87130/2	1.0	1.293726	100.0	9378026.0	1.293726	Y
3	IC 140-87130/3	5.0	5.840423	100.0	9411321.0	1.168085	Y
4	IC 140-87130/4	50.0	58.207061	100.0	9689577.0	1.164141	Y
5	IC 140-87130/5	400.0	455.392556	100.0	10335461.0	1.138481	Y
6	IC 140-87130/6	2000.0	2381.885866	100.0	11264701.0	1.190943	Y



# Calibration

/ PCB-65

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

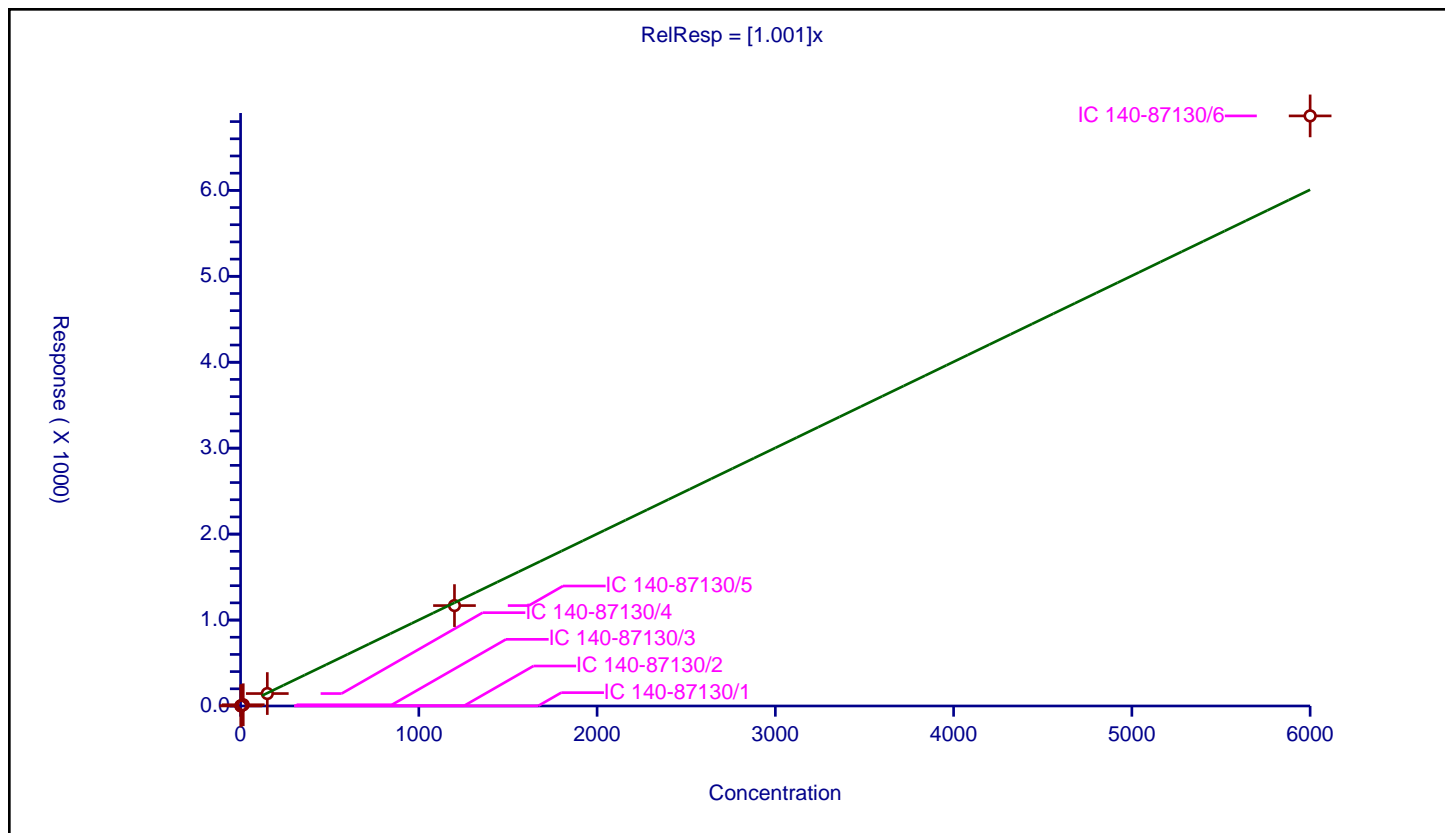
## Curve Coefficients

Intercept: 0  
 Slope: 1.001

## Error Coefficients

Relative Standard Deviation: 7.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.477822	100.0	10352263.0	0.985215	Y
2	IC 140-87130/2	3.0	2.962852	100.0	9378026.0	0.987617	Y
3	IC 140-87130/3	15.0	14.283308	100.0	9411321.0	0.952221	Y
4	IC 140-87130/4	150.0	144.622474	100.0	9689577.0	0.96415	Y
5	IC 140-87130/5	1200.0	1168.291526	100.0	10335461.0	0.973576	Y
6	IC 140-87130/6	6000.0	6866.617871	100.0	11264701.0	1.144436	Y



# Calibration

/ PCB-66

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

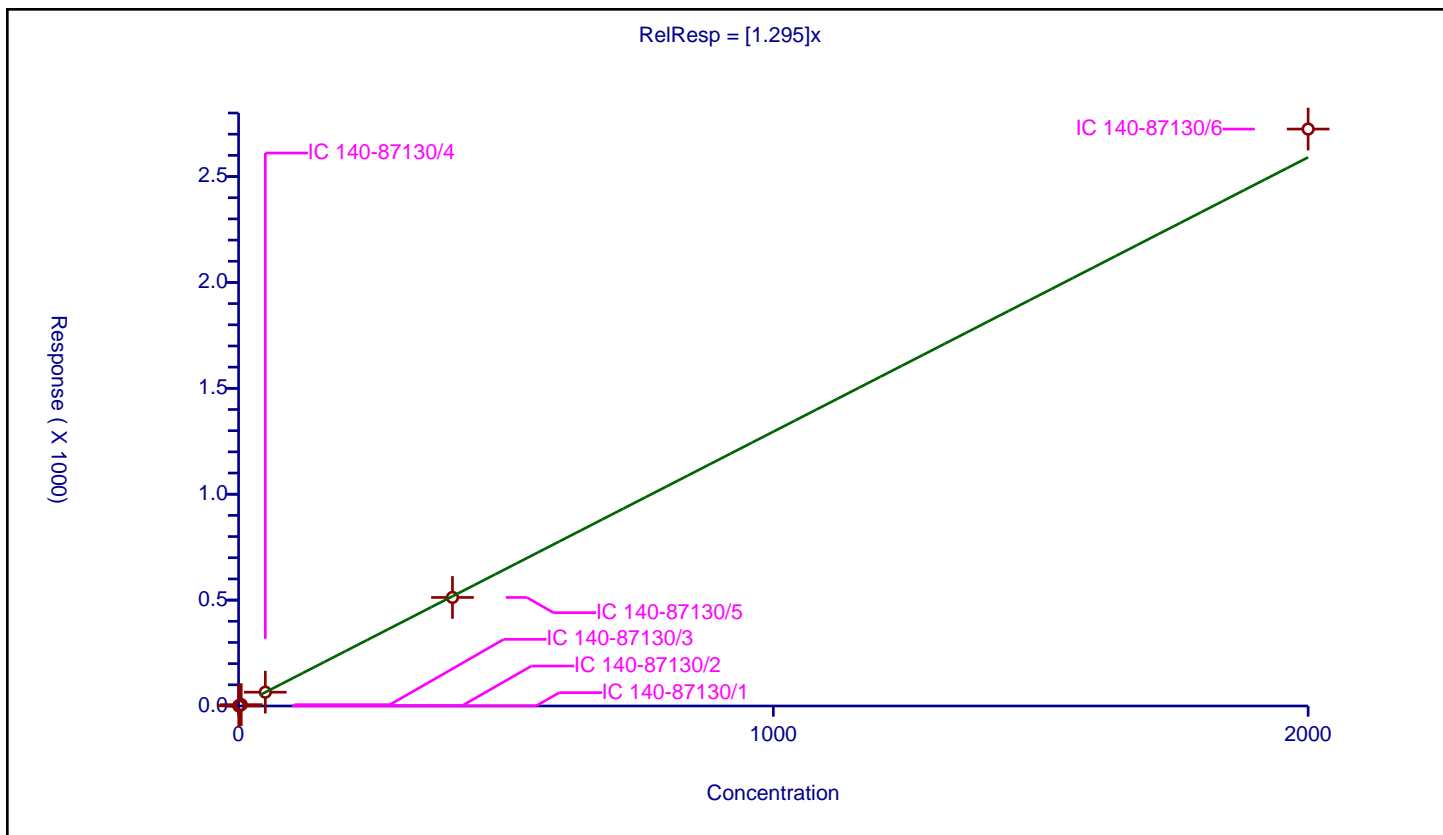
## Curve Coefficients

Intercept: 0  
Slope: 1.295

## Error Coefficients

Relative Standard Deviation: 2.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.639464	100.0	10352263.0	1.278928	Y
2	IC 140-87130/2	1.0	1.269617	100.0	9378026.0	1.269617	Y
3	IC 140-87130/3	5.0	6.385852	100.0	9411321.0	1.27717	Y
4	IC 140-87130/4	50.0	65.144454	100.0	9689577.0	1.302889	Y
5	IC 140-87130/5	400.0	512.613835	100.0	10335461.0	1.281535	Y
6	IC 140-87130/6	2000.0	2724.238389	100.0	11264701.0	1.362119	Y



# Calibration

/ PCB-67

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

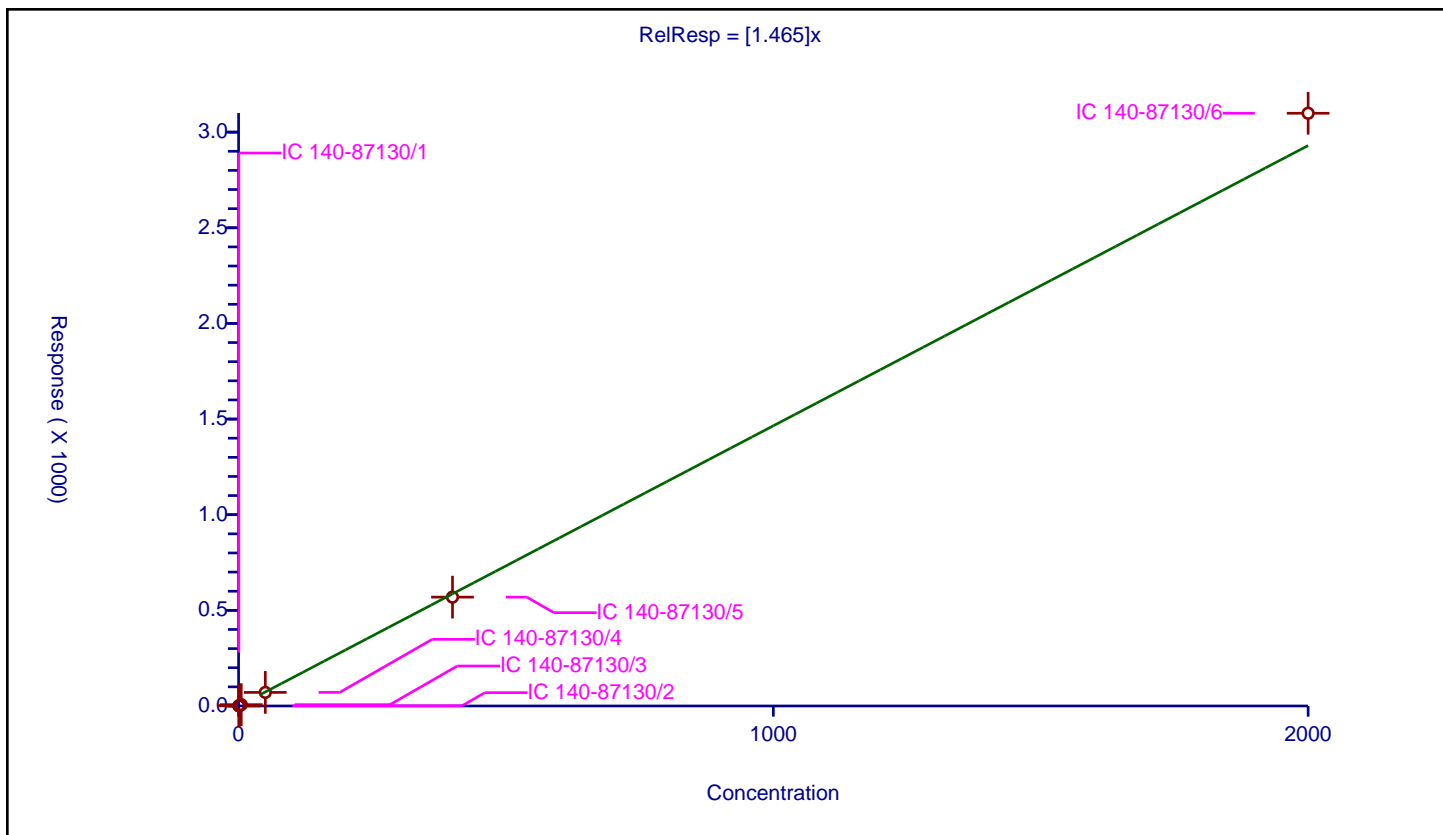
## Curve Coefficients

Intercept: 0  
Slope: 1.465

## Error Coefficients

Relative Standard Deviation: 4.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.76959	100.0	10352263.0	1.53918	Y
2	IC 140-87130/2	1.0	1.450231	100.0	9378026.0	1.450231	Y
3	IC 140-87130/3	5.0	7.044229	100.0	9411321.0	1.408846	Y
4	IC 140-87130/4	50.0	70.96219	100.0	9689577.0	1.419244	Y
5	IC 140-87130/5	400.0	569.077403	100.0	10335461.0	1.422694	Y
6	IC 140-87130/6	2000.0	3098.733362	100.0	11264701.0	1.549367	Y



# Calibration

/ PCB-68

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

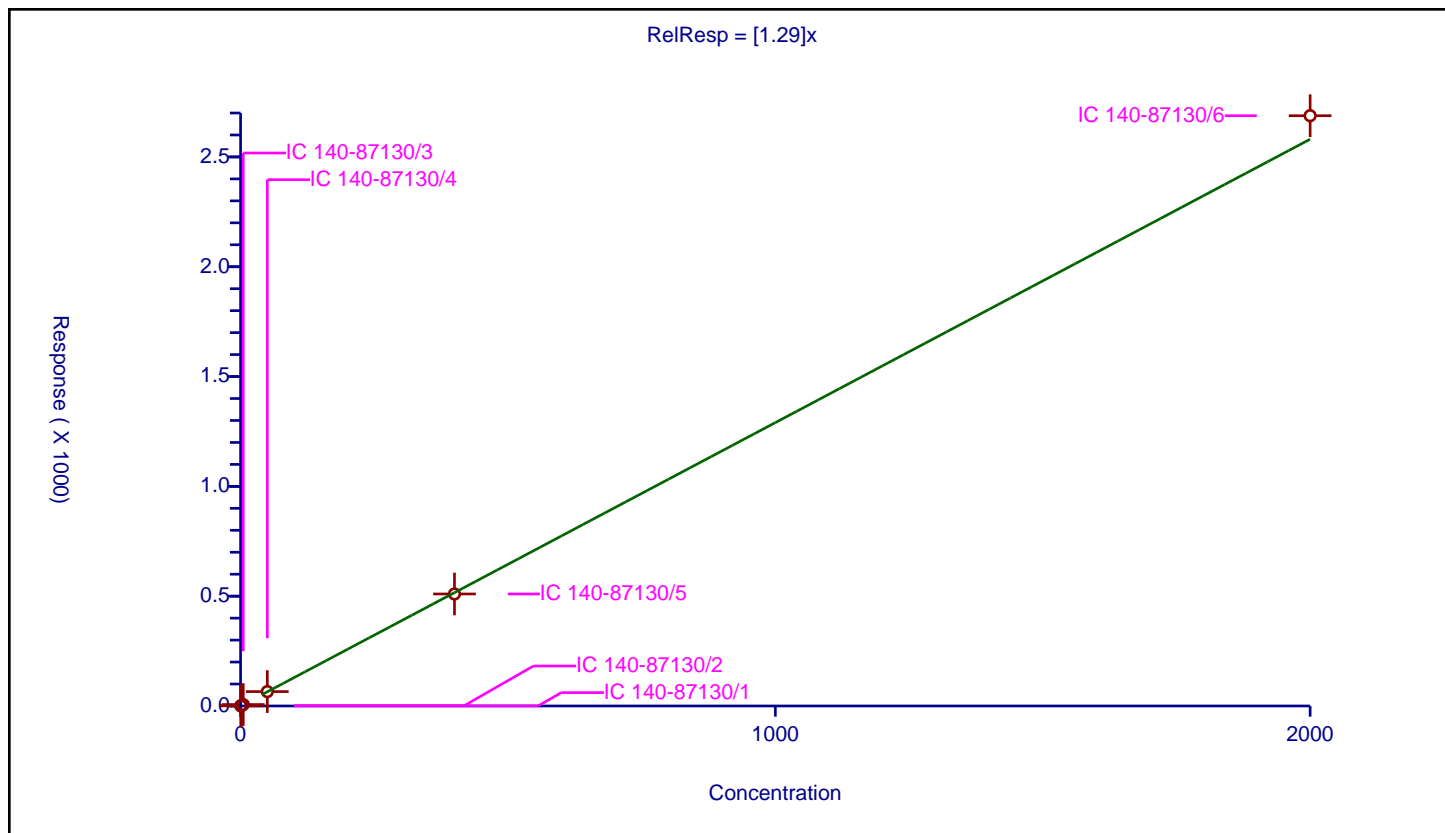
## Curve Coefficients

Intercept: 0  
 Slope: 1.29

## Error Coefficients

Relative Standard Deviation: 3.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.606167	100.0	10352263.0	1.212334	Y
2	IC 140-87130/2	1.0	1.286401	100.0	9378026.0	1.286401	Y
3	IC 140-87130/3	5.0	6.575751	100.0	9411321.0	1.31515	Y
4	IC 140-87130/4	50.0	65.452207	100.0	9689577.0	1.309044	Y
5	IC 140-87130/5	400.0	510.038391	100.0	10335461.0	1.275096	Y
6	IC 140-87130/6	2000.0	2687.75118	100.0	11264701.0	1.343876	Y



# Calibration

/ PCB-69

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

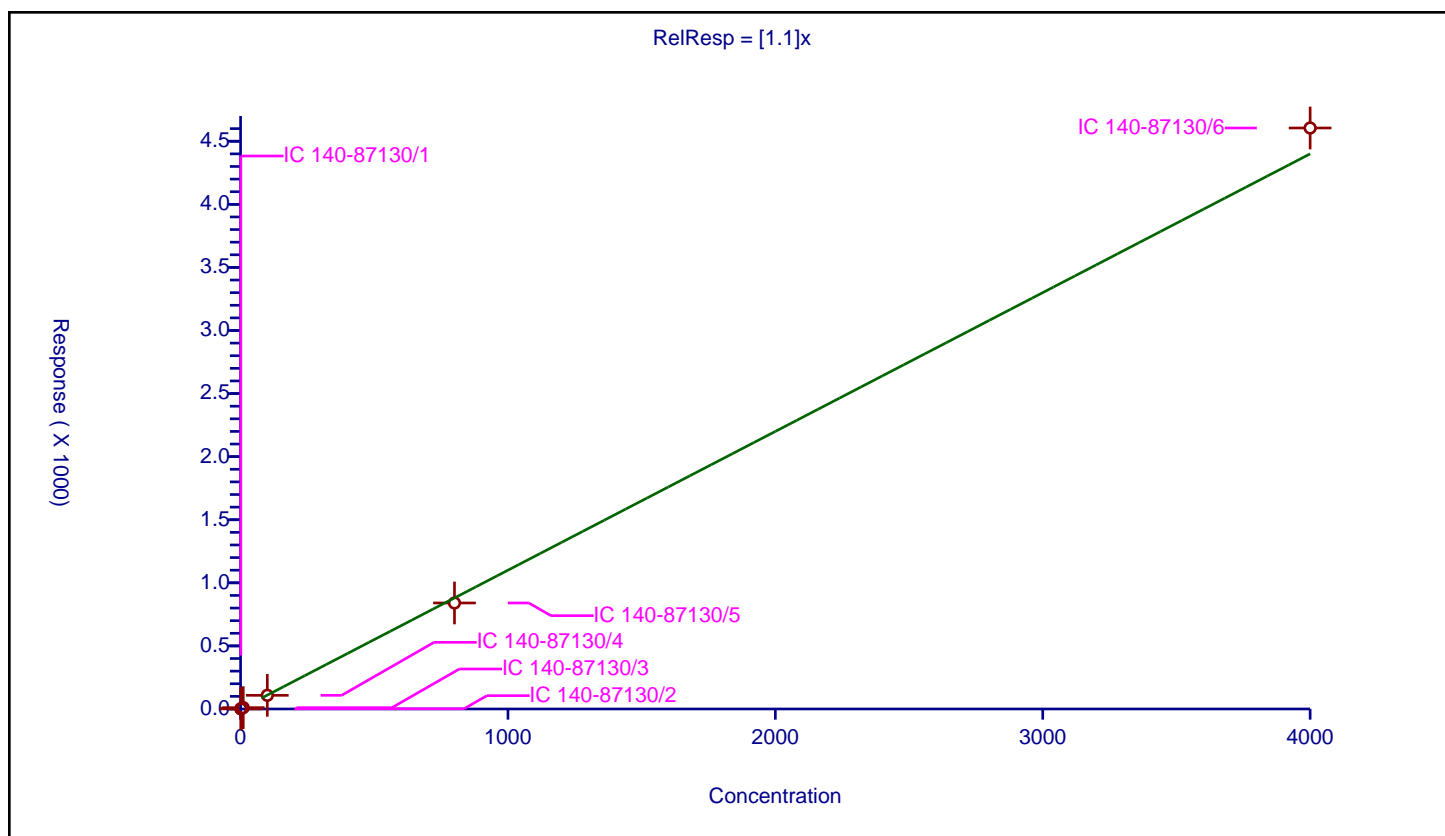
## Curve Coefficients

Intercept: 0  
Slope: 1.1

## Error Coefficients

Relative Standard Deviation: 4.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.173569	100.0	10352263.0	1.173569	Y
2	IC 140-87130/2	2.0	2.152852	100.0	9378026.0	1.076426	Y
3	IC 140-87130/3	10.0	10.656952	100.0	9411321.0	1.065695	Y
4	IC 140-87130/4	100.0	108.268596	100.0	9689577.0	1.082686	Y
5	IC 140-87130/5	800.0	840.297438	100.0	10335461.0	1.050372	Y
6	IC 140-87130/6	4000.0	4605.085719	100.0	11264701.0	1.151271	Y





# Calibration

/ PCB-7

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

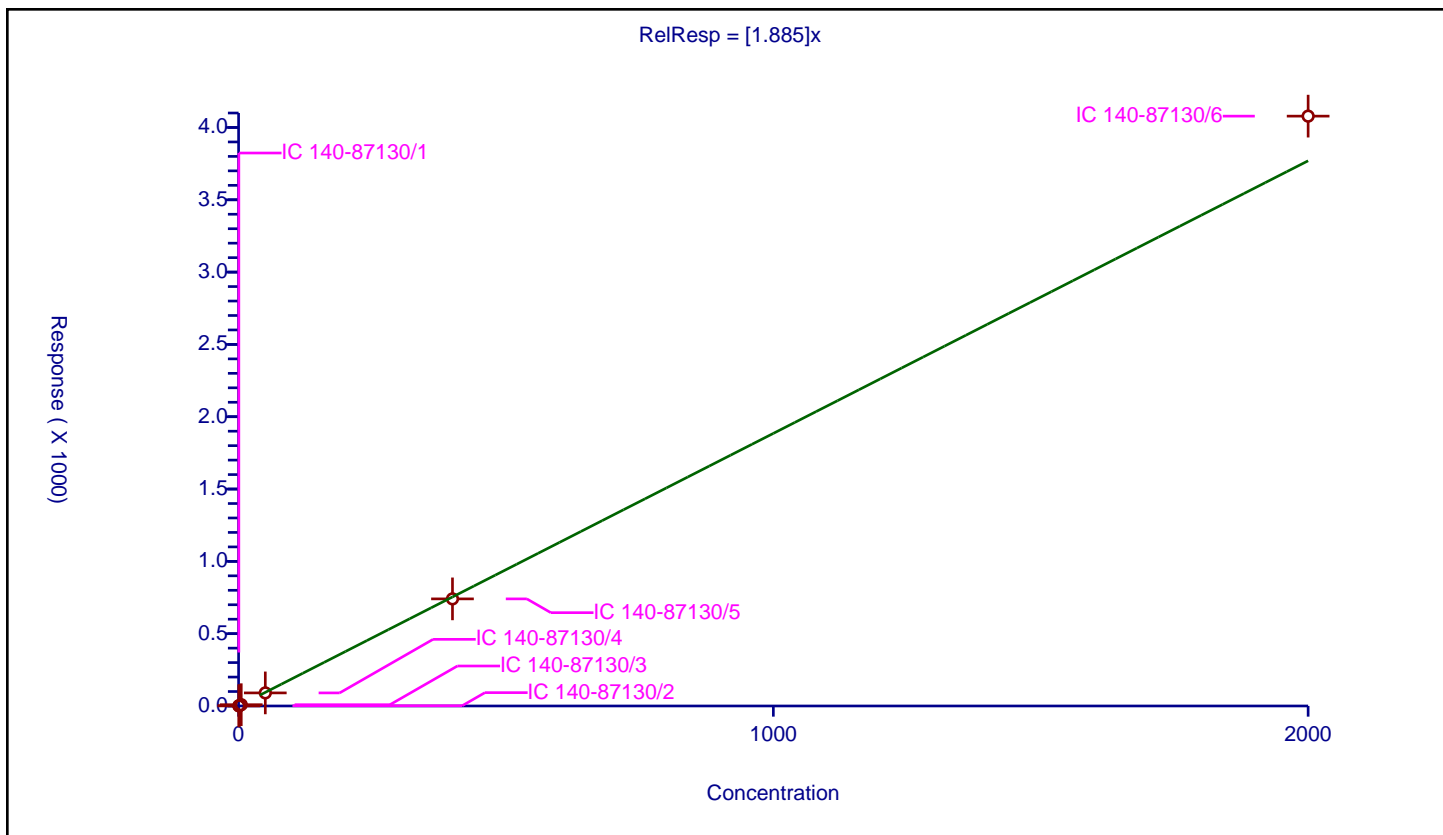
## Curve Coefficients

Intercept: 0  
Slope: 1.885

## Error Coefficients

Relative Standard Deviation: 5.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.984957	100.0	5904521.0	1.969914	Y
2	IC 140-87130/2	1.0	1.833443	100.0	5442766.0	1.833443	Y
3	IC 140-87130/3	5.0	9.032736	100.0	5279032.0	1.806547	Y
4	IC 140-87130/4	50.0	90.425639	100.0	5474214.0	1.808513	Y
5	IC 140-87130/5	400.0	740.476153	100.0	5561618.0	1.85119	Y
6	IC 140-87130/6	2000.0	4078.342309	100.0	5672202.0	2.039171	Y



# Calibration

/ PCB-70

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

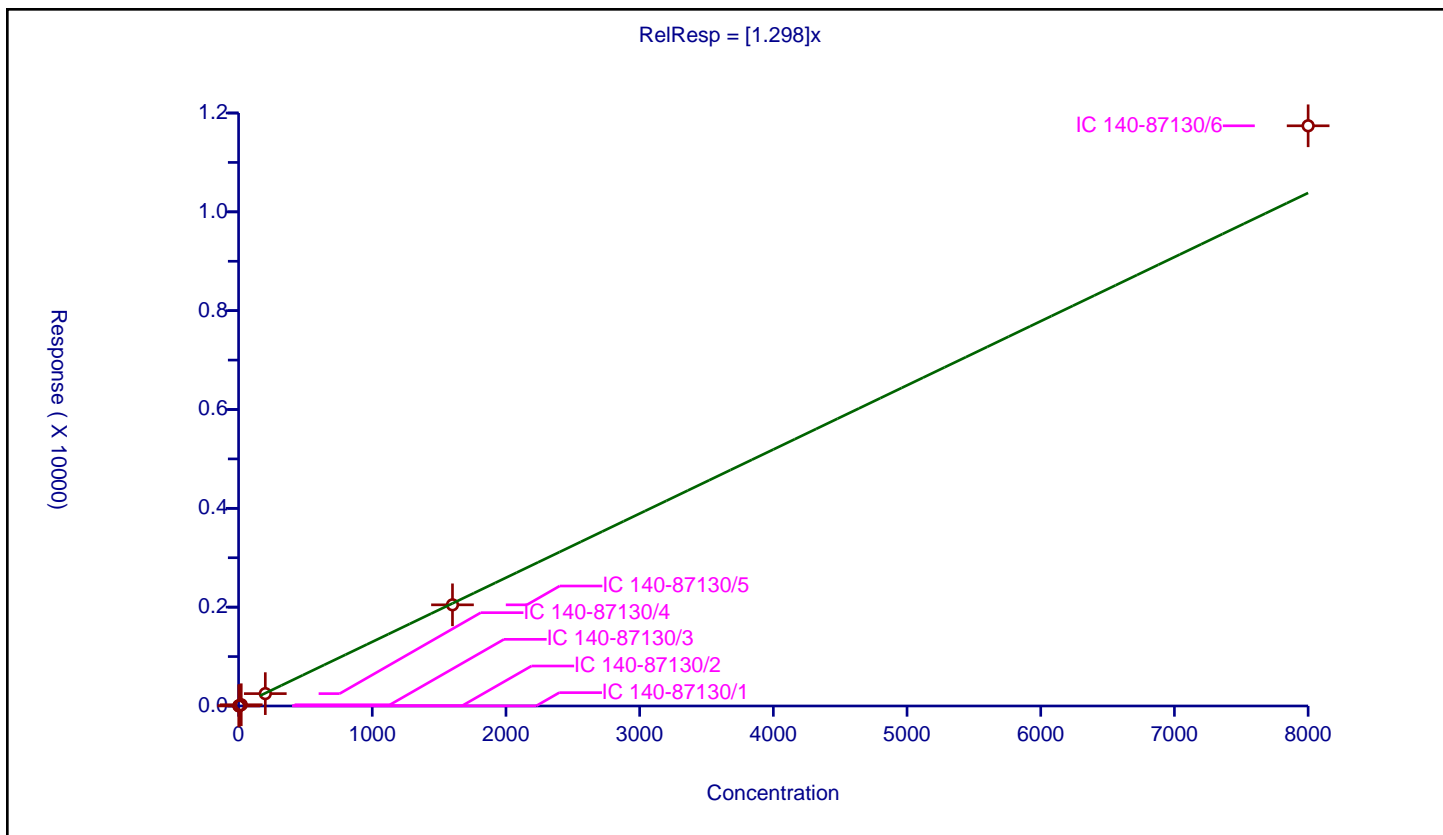
## Curve Coefficients

Intercept: 0  
 Slope: 1.298

## Error Coefficients

Relative Standard Deviation: 6.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	2.0	2.559344	100.0	10352263.0	1.279672	Y
2	IC 140-87130/2	4.0	5.038128	100.0	9378026.0	1.259532	Y
3	IC 140-87130/3	20.0	24.983804	100.0	9411321.0	1.24919	Y
4	IC 140-87130/4	200.0	250.320618	100.0	9689577.0	1.251603	Y
5	IC 140-87130/5	1600.0	2046.968142	100.0	10335461.0	1.279355	Y
6	IC 140-87130/6	8000.0	11741.247868	100.0	11264701.0	1.467656	Y



# Calibration

/ PCB-71

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

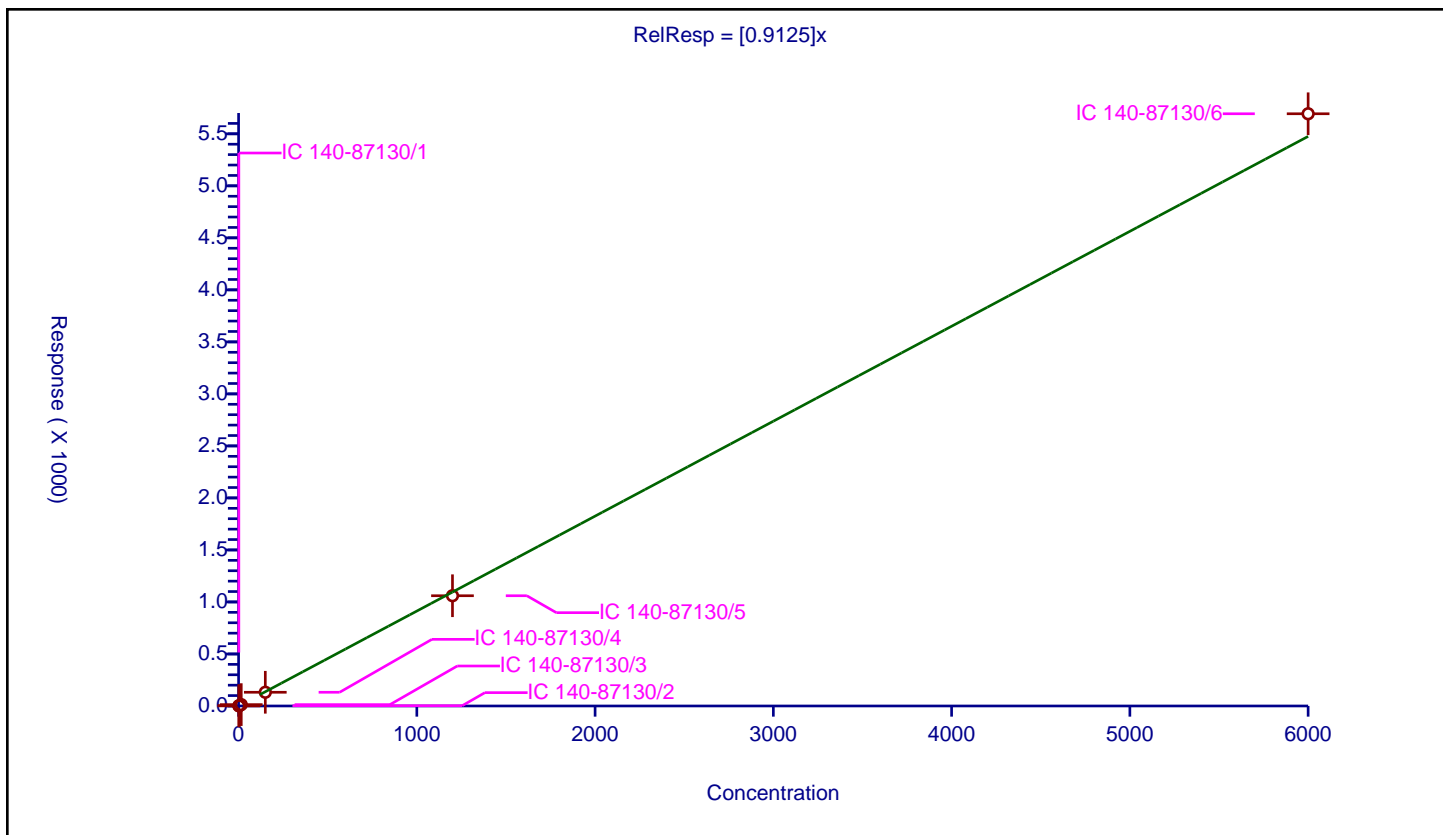
## Curve Coefficients

Intercept: 0  
Slope: 0.9125

## Error Coefficients

Relative Standard Deviation: 4.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.47845	100.0	10352263.0	0.985633	Y
2	IC 140-87130/2	3.0	2.69336	100.0	9378026.0	0.897787	Y
3	IC 140-87130/3	15.0	13.208581	100.0	9411321.0	0.880572	Y
4	IC 140-87130/4	150.0	131.86716	100.0	9689577.0	0.879114	Y
5	IC 140-87130/5	1200.0	1059.882622	100.0	10335461.0	0.883236	Y
6	IC 140-87130/6	6000.0	5692.828269	100.0	11264701.0	0.948805	Y



# Calibration

/ PCB-72

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

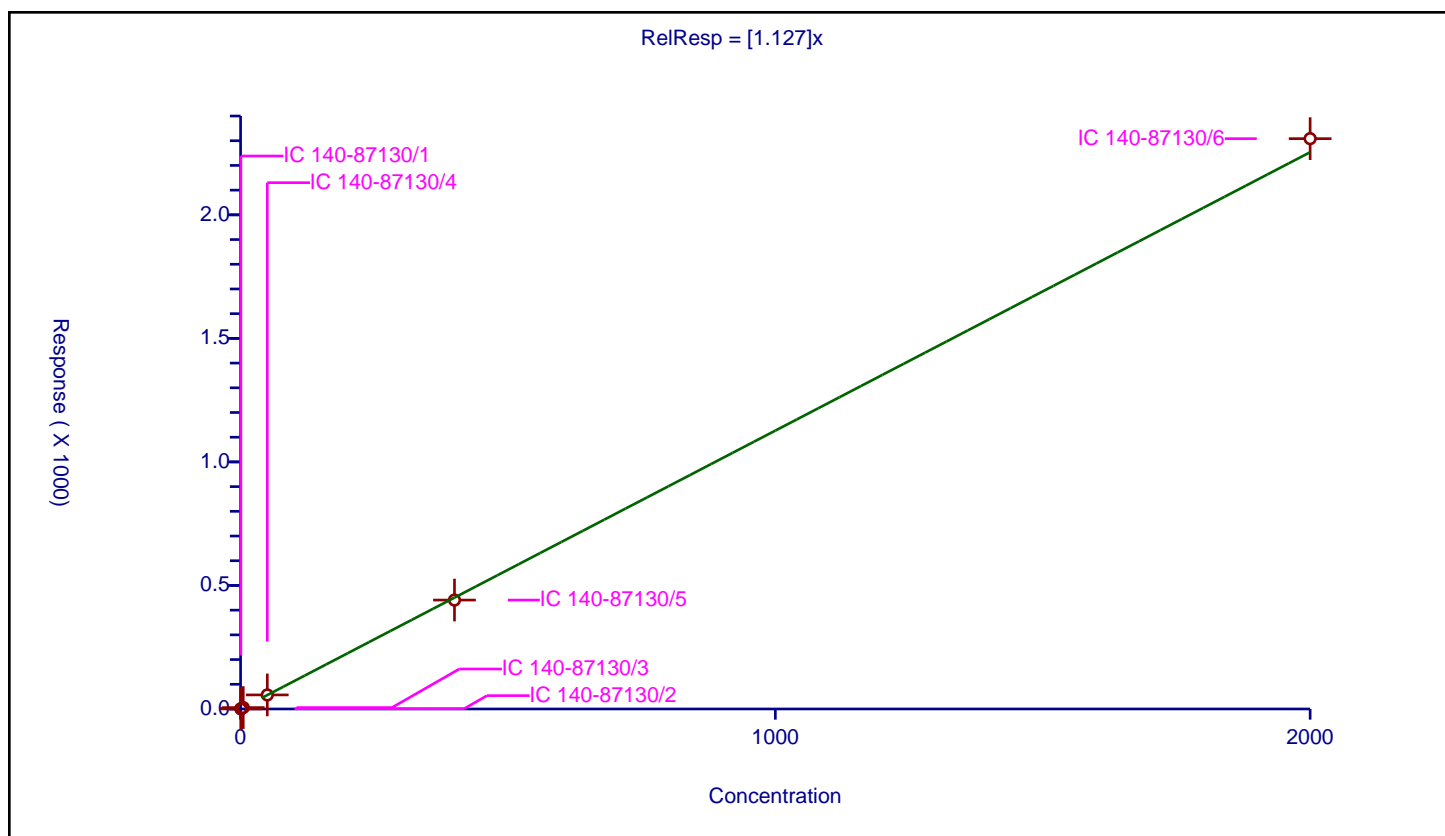
## Curve Coefficients

Intercept: 0  
Slope: 1.127

## Error Coefficients

Relative Standard Deviation: 2.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.573015	100.0	10352263.0	1.14603	Y
2	IC 140-87130/2	1.0	1.09618	100.0	9378026.0	1.09618	Y
3	IC 140-87130/3	5.0	5.619275	100.0	9411321.0	1.123855	Y
4	IC 140-87130/4	50.0	56.900337	100.0	9689577.0	1.138007	Y
5	IC 140-87130/5	400.0	440.810613	100.0	10335461.0	1.102027	Y
6	IC 140-87130/6	2000.0	2308.418555	100.0	11264701.0	1.154209	Y



# Calibration

/ PCB-73

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

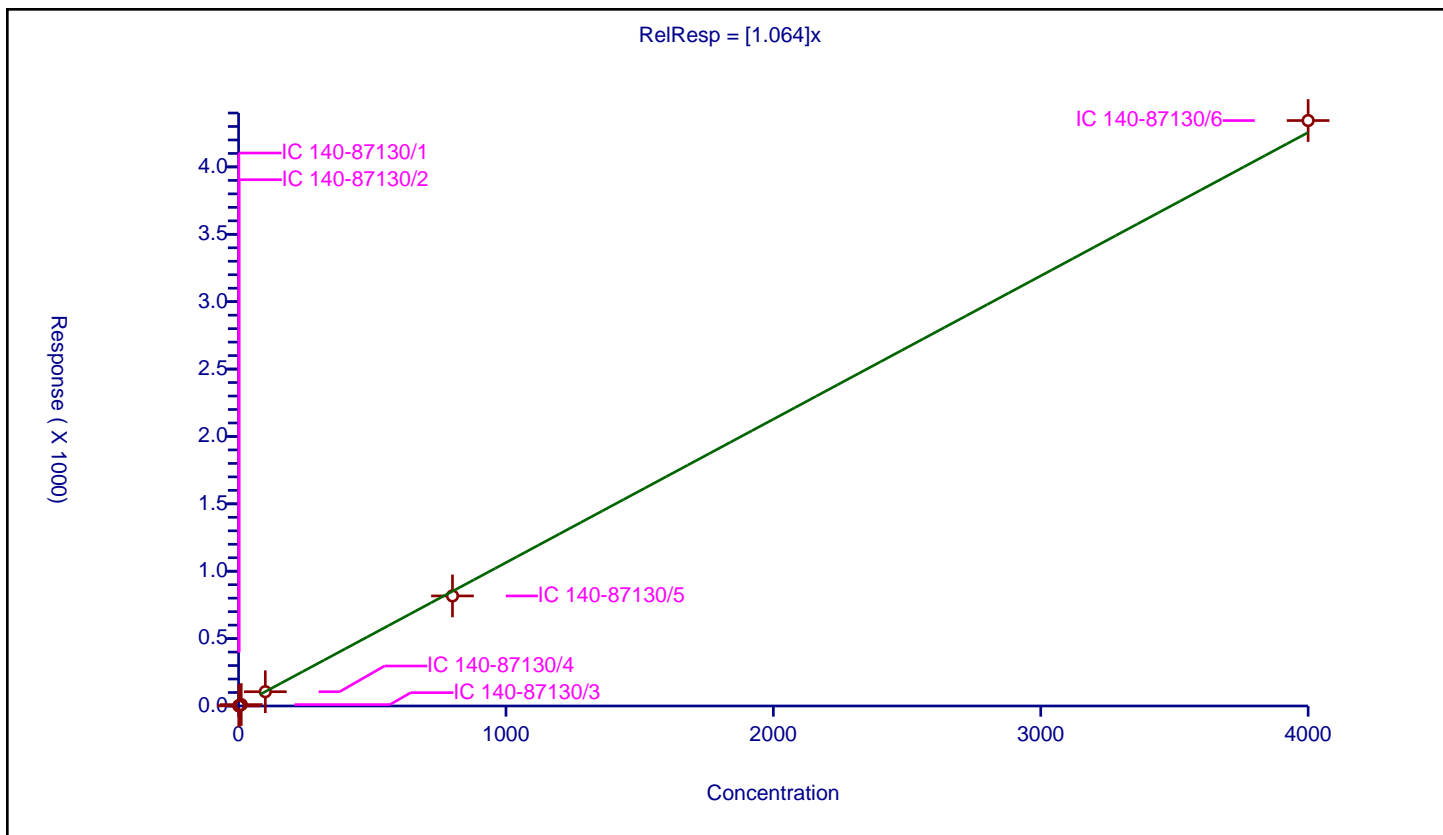
## Curve Coefficients

Intercept: 0  
 Slope: 1.064

## Error Coefficients

Relative Standard Deviation: 3.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	1.113409	100.0	10352263.0	1.113409	Y
2	IC 140-87130/2	2.0	2.135076	100.0	9378026.0	1.067538	Y
3	IC 140-87130/3	10.0	10.359183	100.0	9411321.0	1.035918	Y
4	IC 140-87130/4	100.0	105.993234	100.0	9689577.0	1.059932	Y
5	IC 140-87130/5	800.0	816.641241	100.0	10335461.0	1.020802	Y
6	IC 140-87130/6	4000.0	4344.200454	100.0	11264701.0	1.08605	Y



## Calibration

/ PCB-74

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

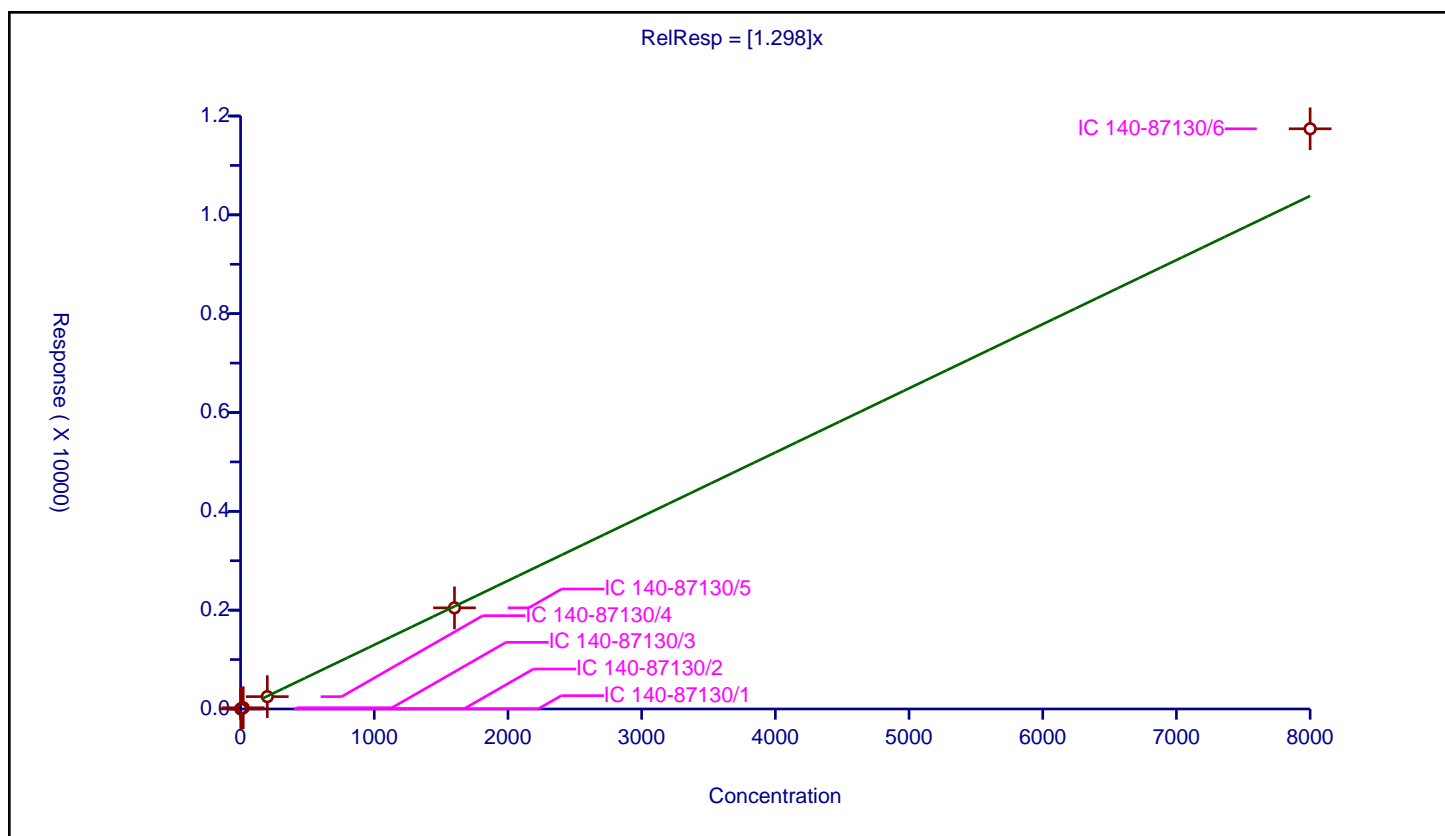
## Curve Coefficients

Intercept: 0  
Slope: 1.298

## Error Coefficients

Relative Standard Deviation: 6.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	2.0	2.559344	100.0	10352263.0	1.279672	Y
2	IC 140-87130/2	4.0	5.038128	100.0	9378026.0	1.259532	Y
3	IC 140-87130/3	20.0	24.983804	100.0	9411321.0	1.24919	Y
4	IC 140-87130/4	200.0	250.320618	100.0	9689577.0	1.251603	Y
5	IC 140-87130/5	1600.0	2046.968142	100.0	10335461.0	1.279355	Y
6	IC 140-87130/6	8000.0	11741.247868	100.0	11264701.0	1.467656	Y



# Calibration

/ PCB-75

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

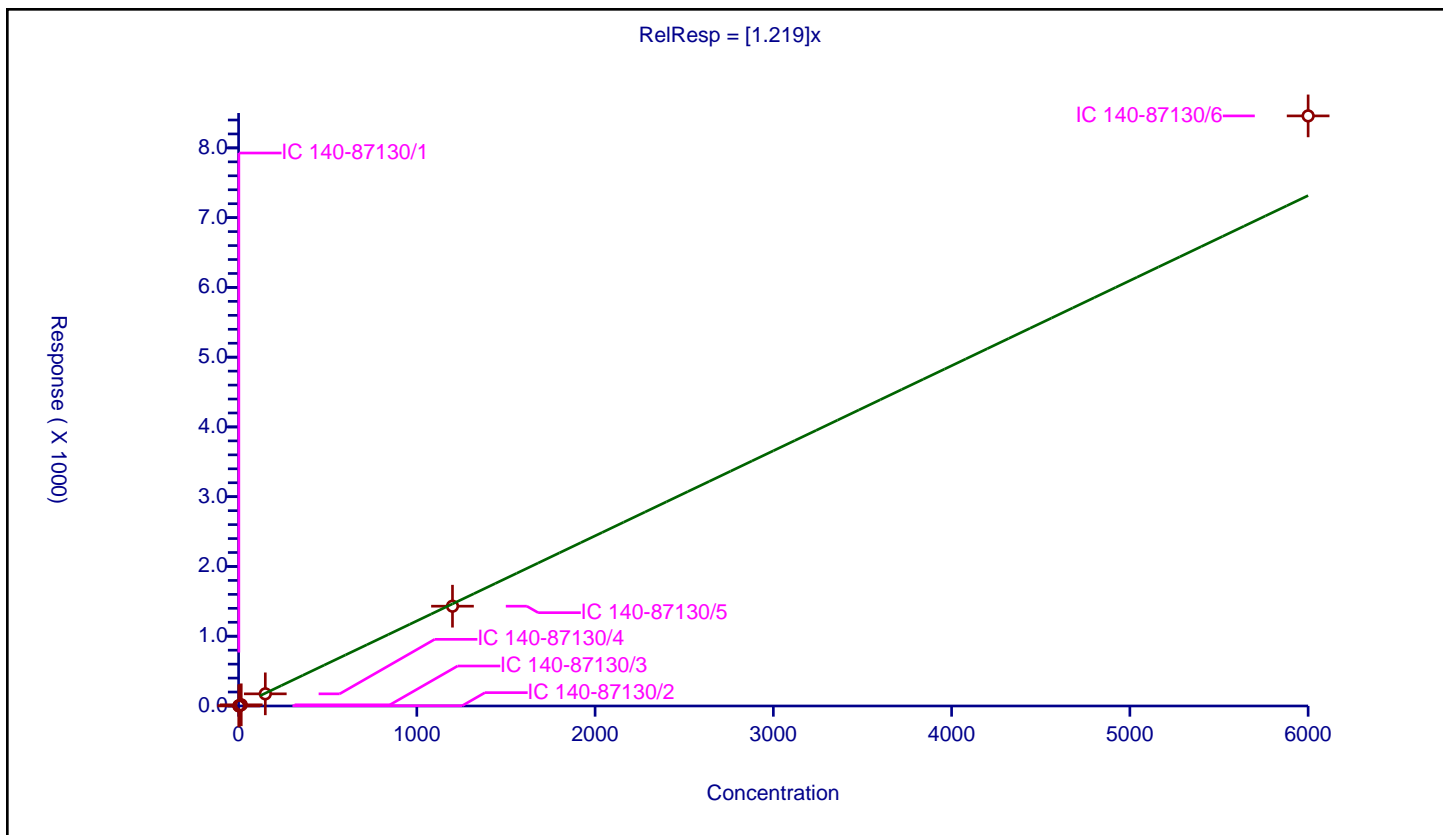
## Curve Coefficients

Intercept: 0  
 Slope: 1.219

## Error Coefficients

Relative Standard Deviation: 8.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.866558	100.0	10352263.0	1.244372	Y
2	IC 140-87130/2	3.0	3.532332	100.0	9378026.0	1.177444	Y
3	IC 140-87130/3	15.0	16.979104	100.0	9411321.0	1.13194	Y
4	IC 140-87130/4	150.0	174.121842	100.0	9689577.0	1.160812	Y
5	IC 140-87130/5	1200.0	1430.71416	100.0	10335461.0	1.192262	Y
6	IC 140-87130/6	6000.0	8458.708198	100.0	11264701.0	1.409785	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

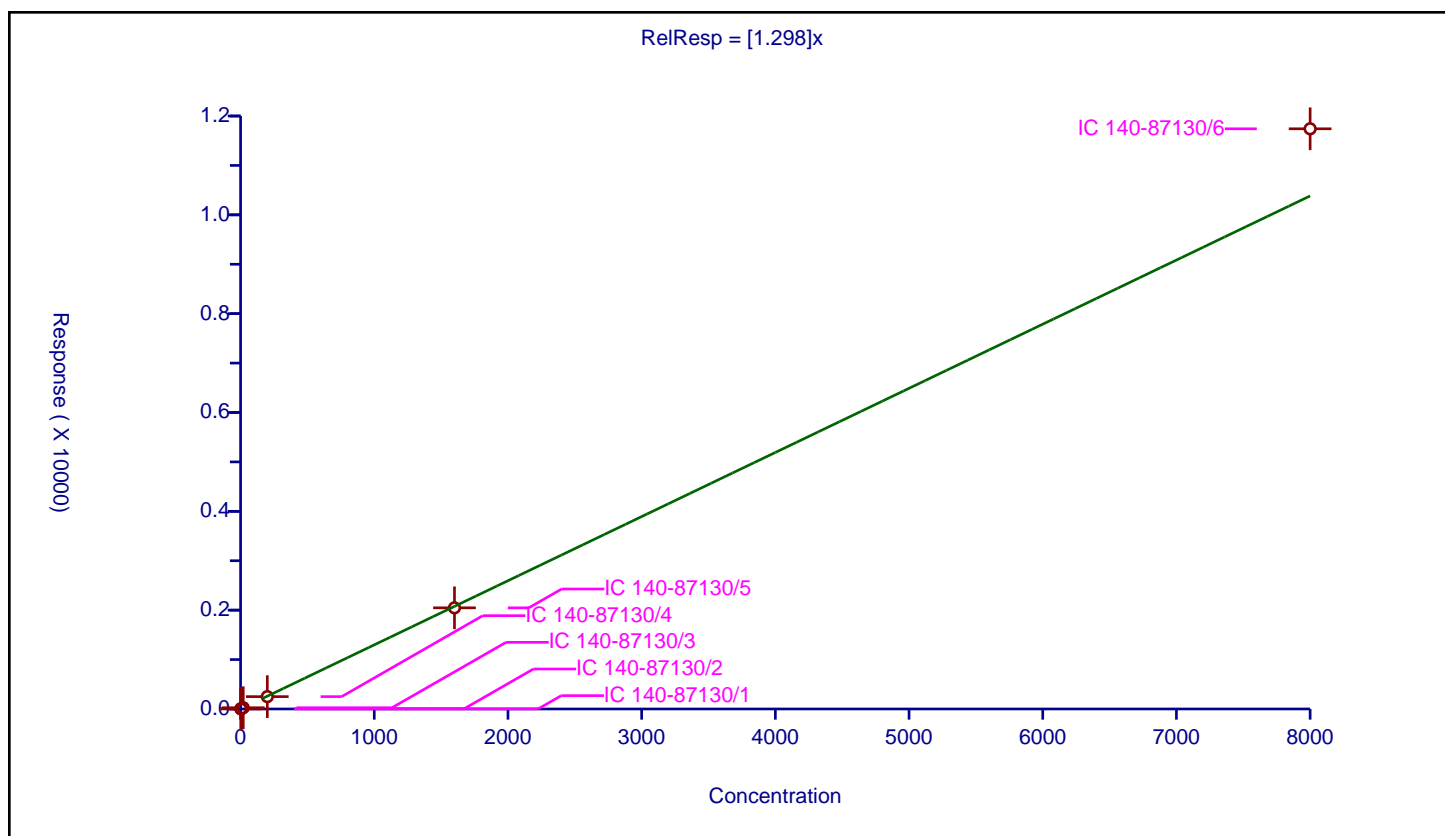
## Curve Coefficients

Intercept: 0  
Slope: 1.298

## Error Coefficients

Relative Standard Deviation: 6.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	2.0	2.559344	100.0	10352263.0	1.279672	Y
2	IC 140-87130/2	4.0	5.038128	100.0	9378026.0	1.259532	Y
3	IC 140-87130/3	20.0	24.983804	100.0	9411321.0	1.24919	Y
4	IC 140-87130/4	200.0	250.320618	100.0	9689577.0	1.251603	Y
5	IC 140-87130/5	1600.0	2046.968142	100.0	10335461.0	1.279355	Y
6	IC 140-87130/6	8000.0	11741.247868	100.0	11264701.0	1.467656	Y





# Calibration

/ PCB-77

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

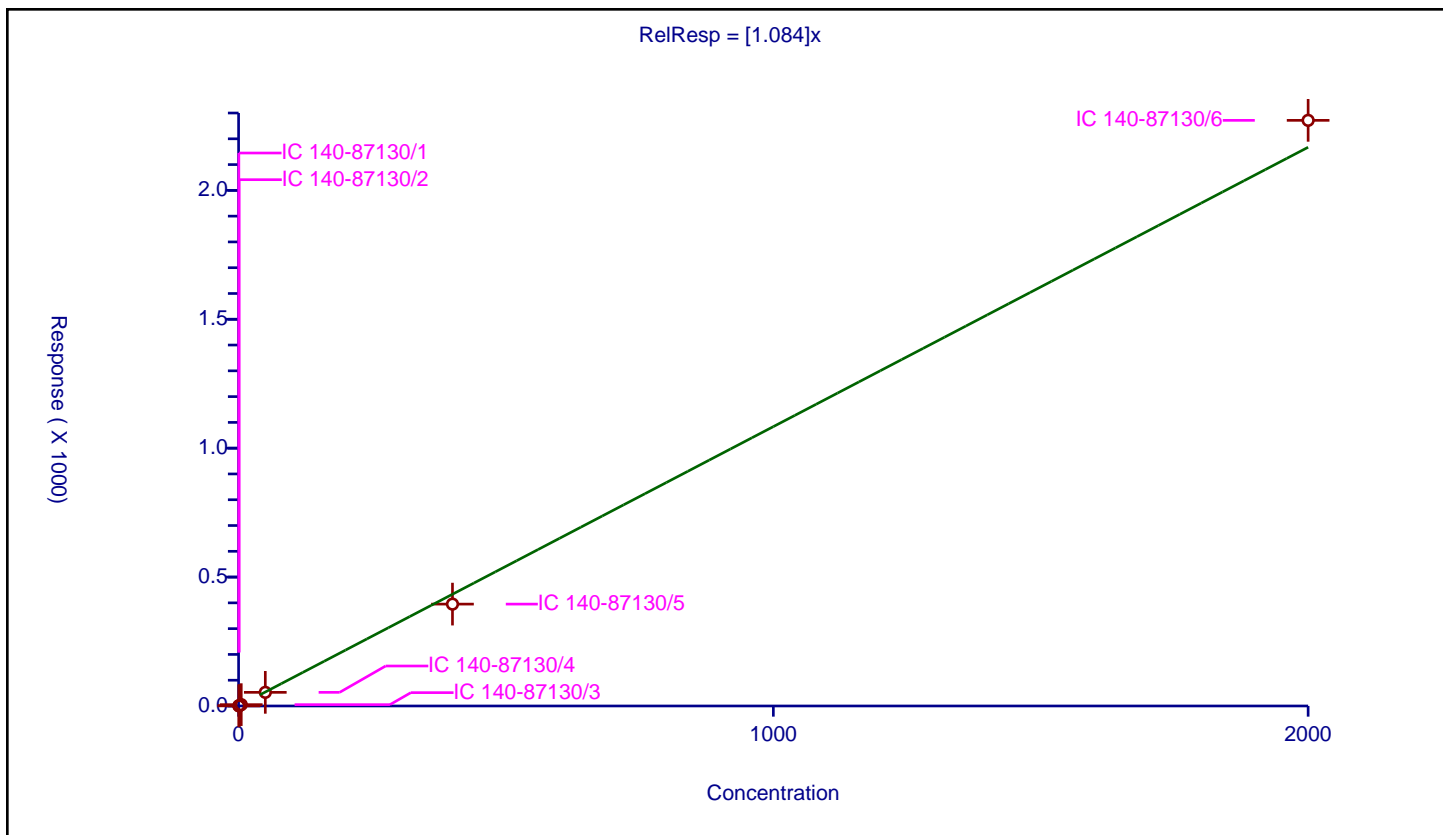
## Curve Coefficients

Intercept: 0  
 Slope: 1.084

## Error Coefficients

Relative Standard Deviation: 6.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.584412	100.0	11078136.0	1.168825	Y
2	IC 140-87130/2	1.0	1.114915	100.0	9952597.0	1.114915	Y
3	IC 140-87130/3	5.0	5.182303	100.0	10036639.0	1.036461	Y
4	IC 140-87130/4	50.0	52.886461	100.0	10298891.0	1.057729	Y
5	IC 140-87130/5	400.0	395.129456	100.0	11450569.0	0.987824	Y
6	IC 140-87130/6	2000.0	2271.504911	100.0	11187391.0	1.135752	Y



# Calibration

/ PCB-78

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

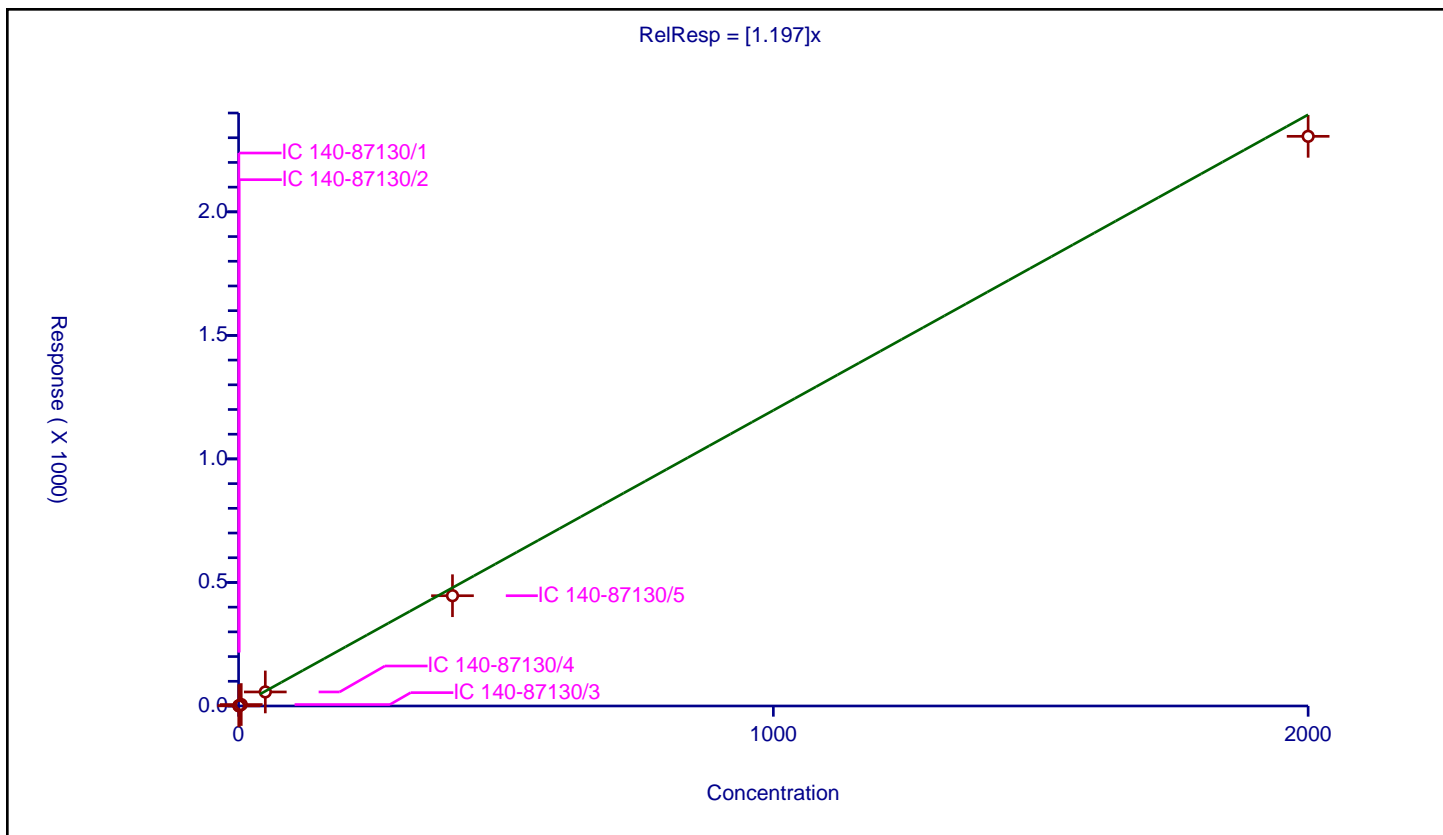
## Curve Coefficients

Intercept: 0  
Slope: 1.197

## Error Coefficients

Relative Standard Deviation: 7.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.68414	100.0	10352263.0	1.368281	Y
2	IC 140-87130/2	1.0	1.233095	100.0	9378026.0	1.233095	Y
3	IC 140-87130/3	5.0	5.863959	100.0	9411321.0	1.172792	Y
4	IC 140-87130/4	50.0	56.827187	100.0	9689577.0	1.136544	Y
5	IC 140-87130/5	400.0	446.394099	100.0	10335461.0	1.115985	Y
6	IC 140-87130/6	2000.0	2305.628964	100.0	11264701.0	1.152814	Y



# Calibration

/ PCB-79

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

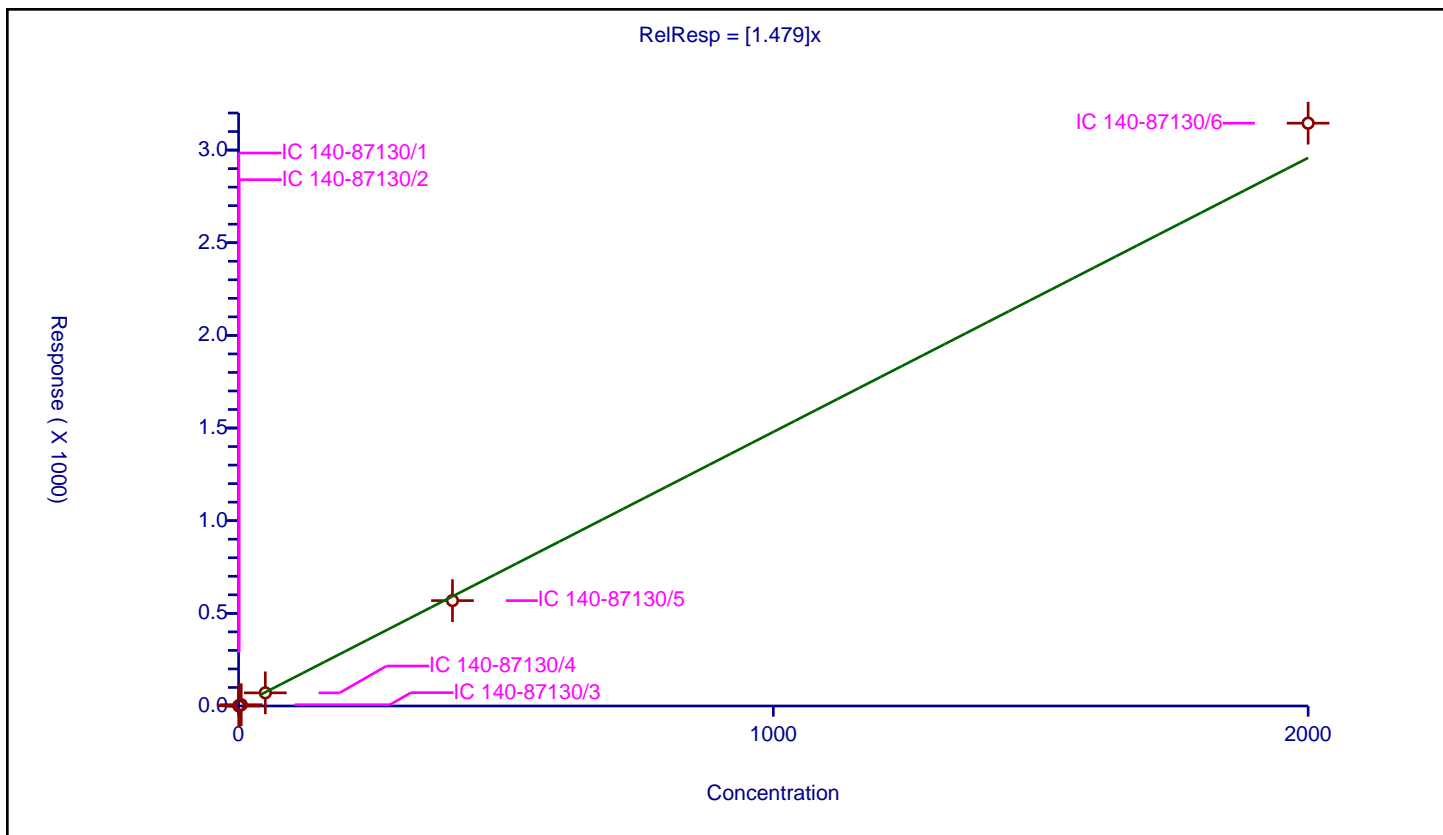
## Curve Coefficients

Intercept: 0  
Slope: 1.479

## Error Coefficients

Relative Standard Deviation: 5.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.747614	100.0	10352263.0	1.495229	Y
2	IC 140-87130/2	1.0	1.574468	100.0	9378026.0	1.574468	Y
3	IC 140-87130/3	5.0	6.968533	100.0	9411321.0	1.393707	Y
4	IC 140-87130/4	50.0	70.814226	100.0	9689577.0	1.416285	Y
5	IC 140-87130/5	400.0	568.587033	100.0	10335461.0	1.421468	Y
6	IC 140-87130/6	2000.0	3145.18333	100.0	11264701.0	1.572592	Y



# Calibration

/ PCB-79L

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

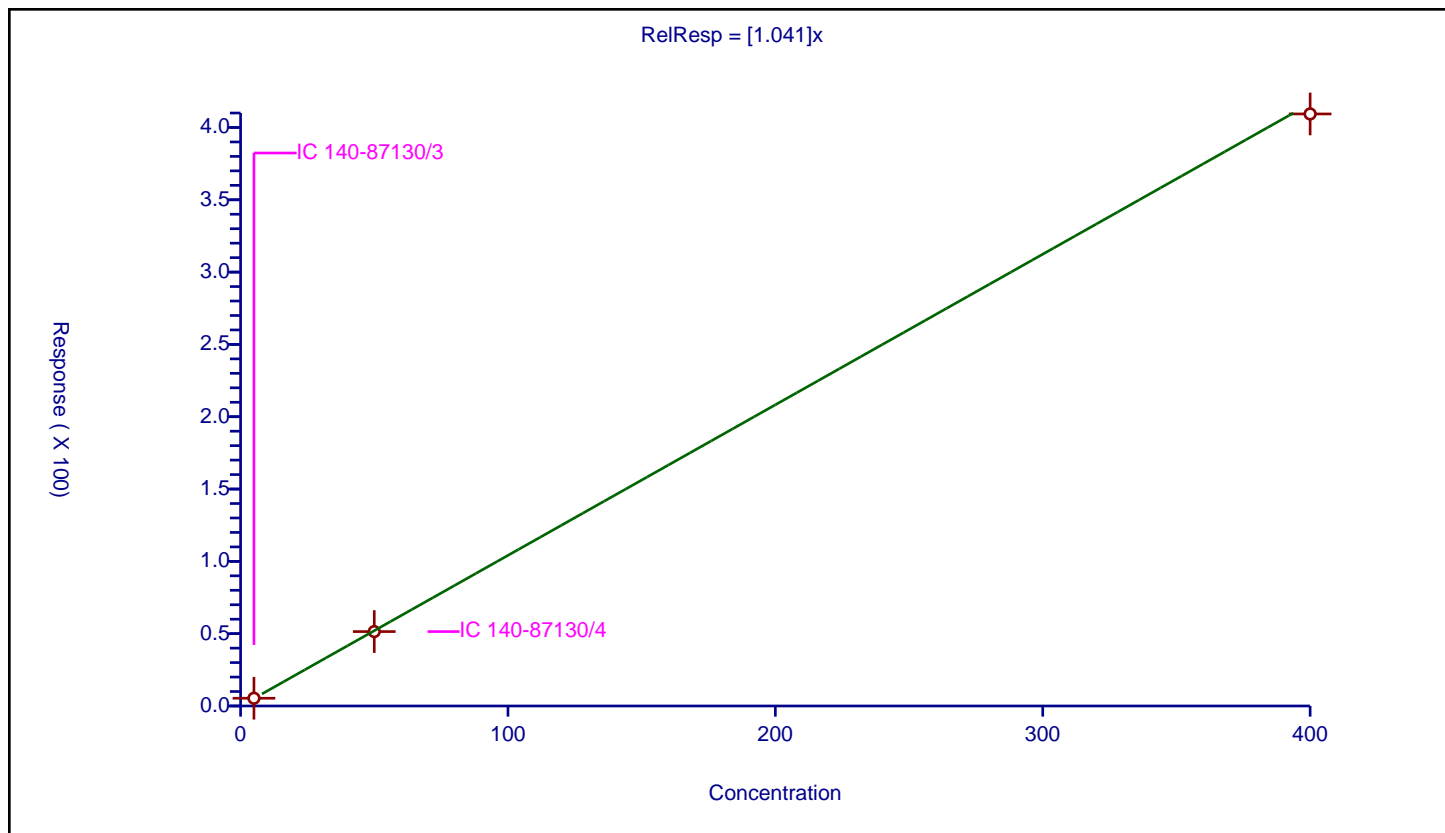
## Curve Coefficients

Intercept: 0  
 Slope: 1.041

## Error Coefficients

Relative Standard Deviation: 2.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/3	5.0	5.355592	100.0	9411321.0	1.071118	Y
2	IC 140-87130/4	50.0	51.458056	100.0	9689577.0	1.029161	Y
3	IC 140-87130/5	400.0	409.362485	100.0	10335461.0	1.023406	Y



# Calibration

/ PCB-8

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

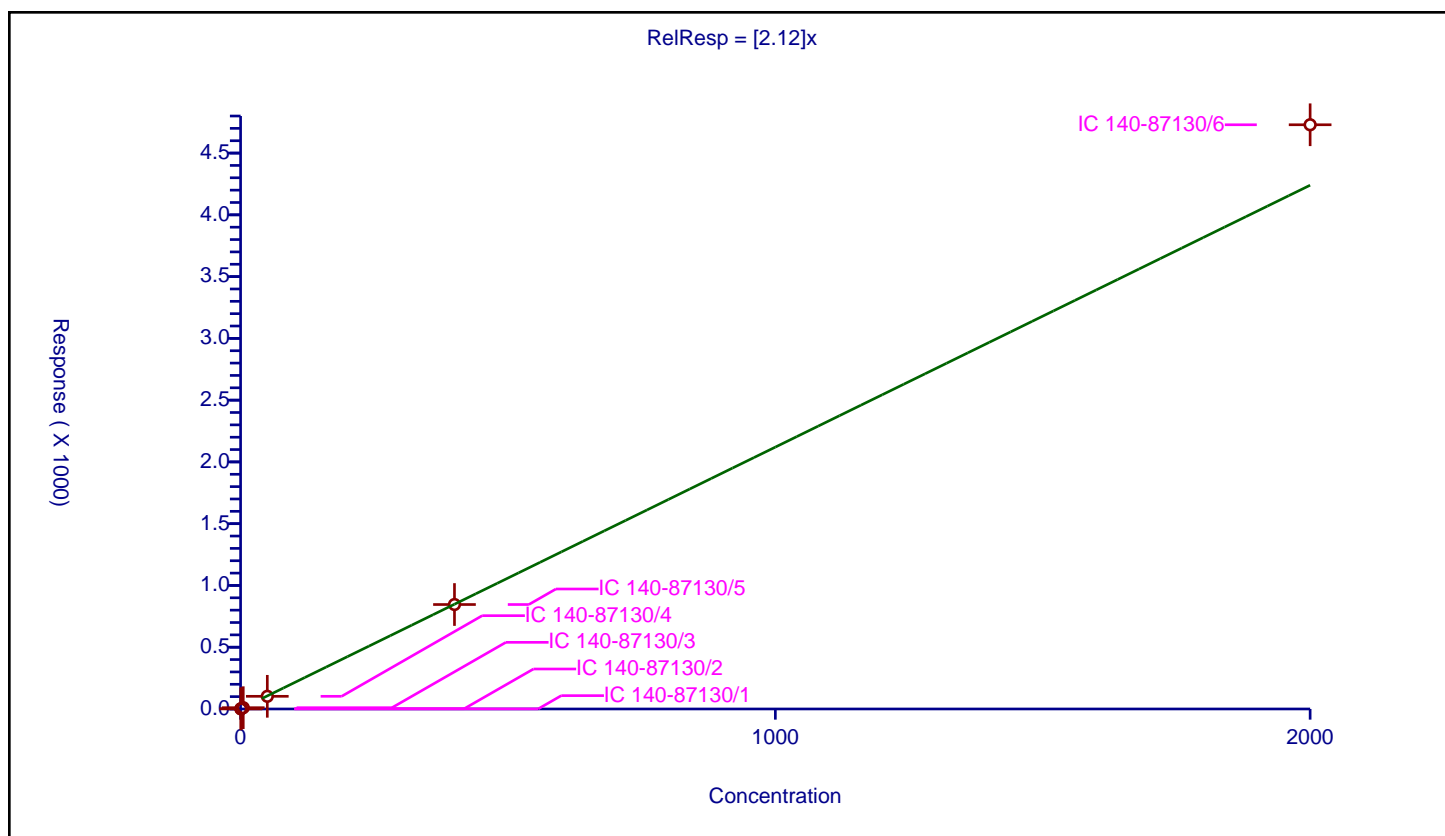
## Curve Coefficients

Intercept: 0  
Slope: 2.12

## Error Coefficients

Relative Standard Deviation: 6.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	1.049653	100.0	5904521.0	2.099307	Y
2	IC 140-87130/2	1.0	1.993839	100.0	5442766.0	1.993839	Y
3	IC 140-87130/3	5.0	10.469003	100.0	5279032.0	2.093801	Y
4	IC 140-87130/4	50.0	102.692094	100.0	5474214.0	2.053842	Y
5	IC 140-87130/5	400.0	845.649881	100.0	5561618.0	2.114125	Y
6	IC 140-87130/6	2000.0	4729.113967	100.0	5672202.0	2.364557	Y



# Calibration

/ PCB-80

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

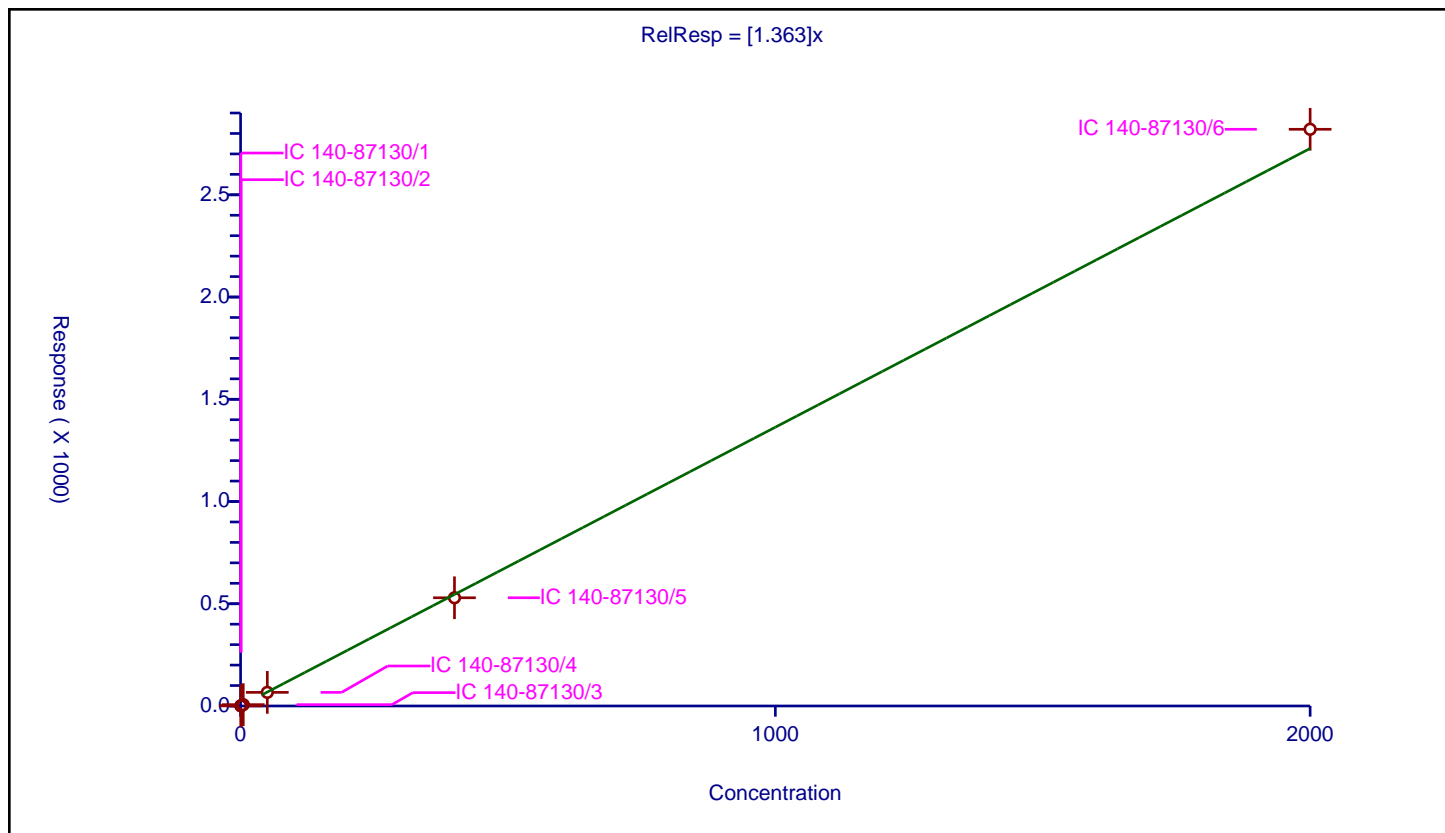
## Curve Coefficients

Intercept: 0  
Slope: 1.363

## Error Coefficients

Relative Standard Deviation: 3.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.717428	100.0	10352263.0	1.434855	Y
2	IC 140-87130/2	1.0	1.365874	100.0	9378026.0	1.365874	Y
3	IC 140-87130/3	5.0	6.57286	100.0	9411321.0	1.314572	Y
4	IC 140-87130/4	50.0	66.586498	100.0	9689577.0	1.33173	Y
5	IC 140-87130/5	400.0	529.284528	100.0	10335461.0	1.323211	Y
6	IC 140-87130/6	2000.0	2820.449358	100.0	11264701.0	1.410225	Y



# Calibration

/ PCB-81

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

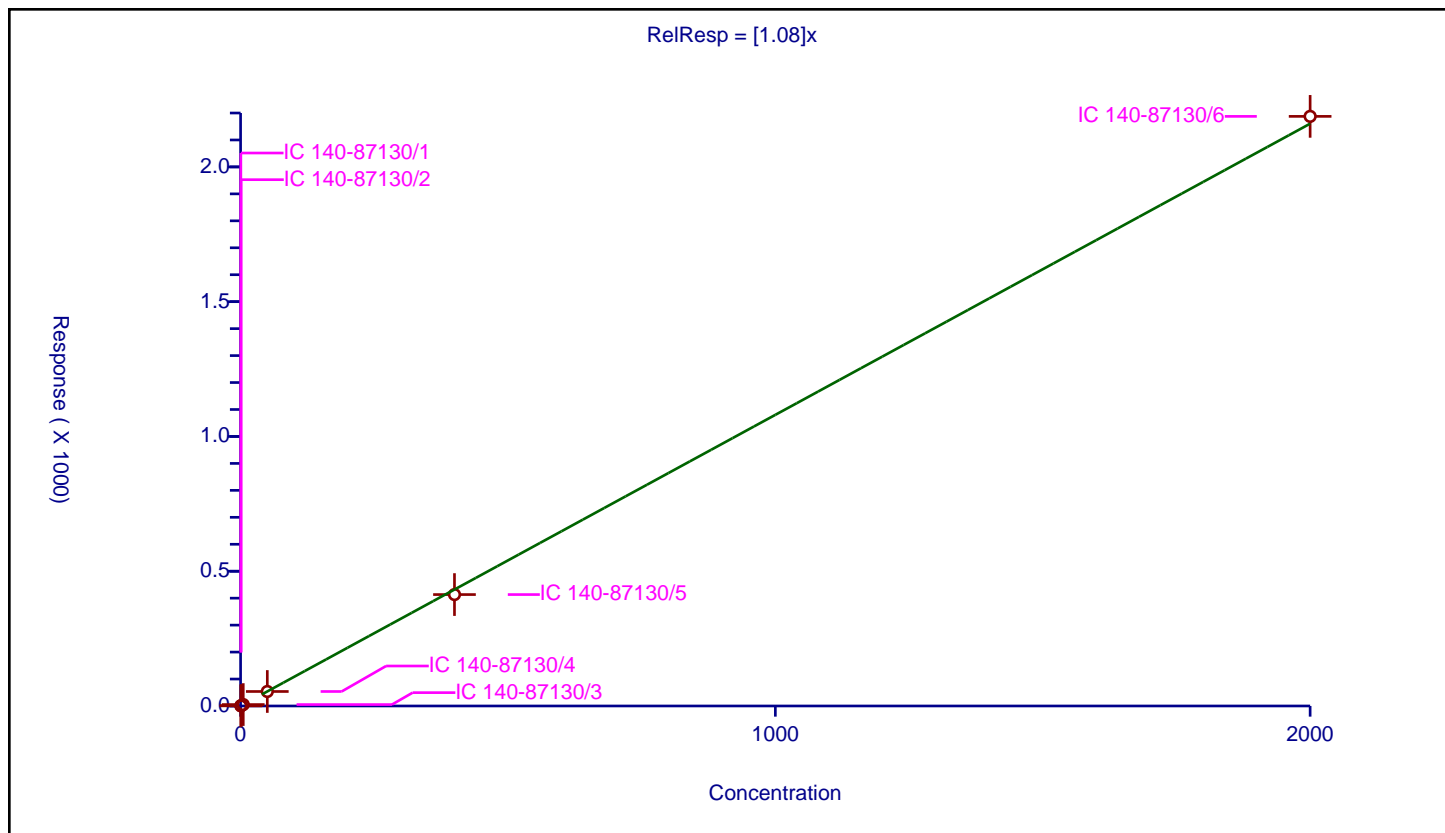
## Curve Coefficients

Intercept: 0  
 Slope: 1.08

## Error Coefficients

Relative Standard Deviation: 2.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.559887	100.0	10352263.0	1.119774	Y
2	IC 140-87130/2	1.0	1.09602	100.0	9378026.0	1.09602	Y
3	IC 140-87130/3	5.0	5.308309	100.0	9411321.0	1.061662	Y
4	IC 140-87130/4	50.0	53.818067	100.0	9689577.0	1.076361	Y
5	IC 140-87130/5	400.0	413.444625	100.0	10335461.0	1.033612	Y
6	IC 140-87130/6	2000.0	2187.539341	100.0	11264701.0	1.09377	Y



# Calibration

/ PCB-82

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

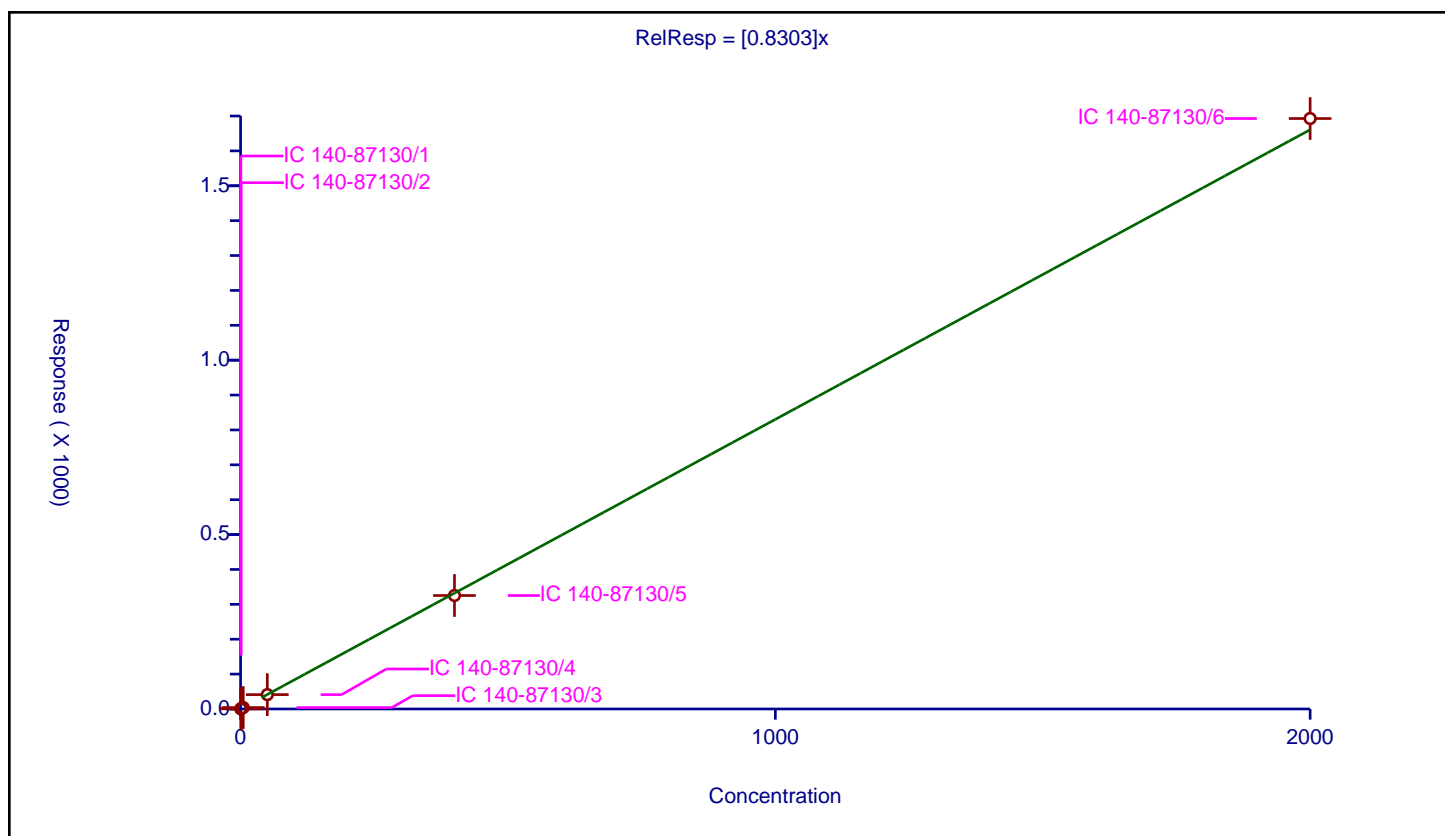
## Curve Coefficients

Intercept: 0  
Slope: 0.8303

## Error Coefficients

Relative Standard Deviation: 1.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.417147	100.0	6938320.0	0.834294	Y
2	IC 140-87130/2	1.0	0.847078	100.0	6240748.0	0.847078	Y
3	IC 140-87130/3	5.0	4.084679	100.0	6307301.0	0.816936	Y
4	IC 140-87130/4	50.0	41.196704	100.0	6455349.0	0.823934	Y
5	IC 140-87130/5	400.0	325.326952	100.0	6672003.0	0.813317	Y
6	IC 140-87130/6	2000.0	1692.81655	100.0	6975966.0	0.846408	Y





# Calibration

/ PCB-83

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

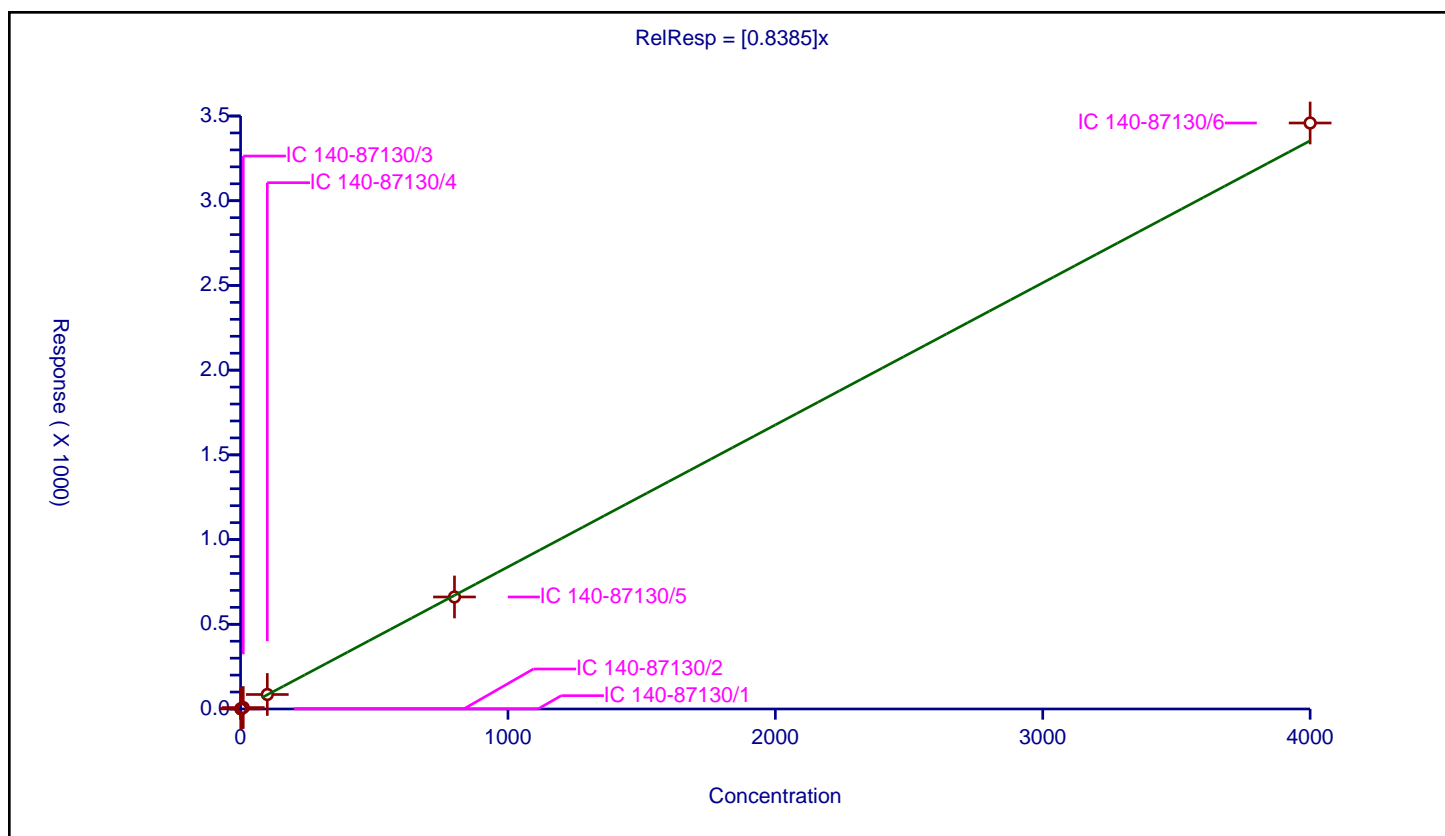
## Curve Coefficients

Intercept: 0  
 Slope: 0.8385

## Error Coefficients

Relative Standard Deviation: 2.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.833516	100.0	6938320.0	0.833516	Y
2	IC 140-87130/2	2.0	1.623187	100.0	6240748.0	0.811593	Y
3	IC 140-87130/3	10.0	8.385393	100.0	6307301.0	0.838539	Y
4	IC 140-87130/4	100.0	85.61991	100.0	6455349.0	0.856199	Y
5	IC 140-87130/5	800.0	661.180518	100.0	6672003.0	0.826476	Y
6	IC 140-87130/6	4000.0	3458.757009	100.0	6975966.0	0.864689	Y



# Calibration

/ PCB-83/99

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

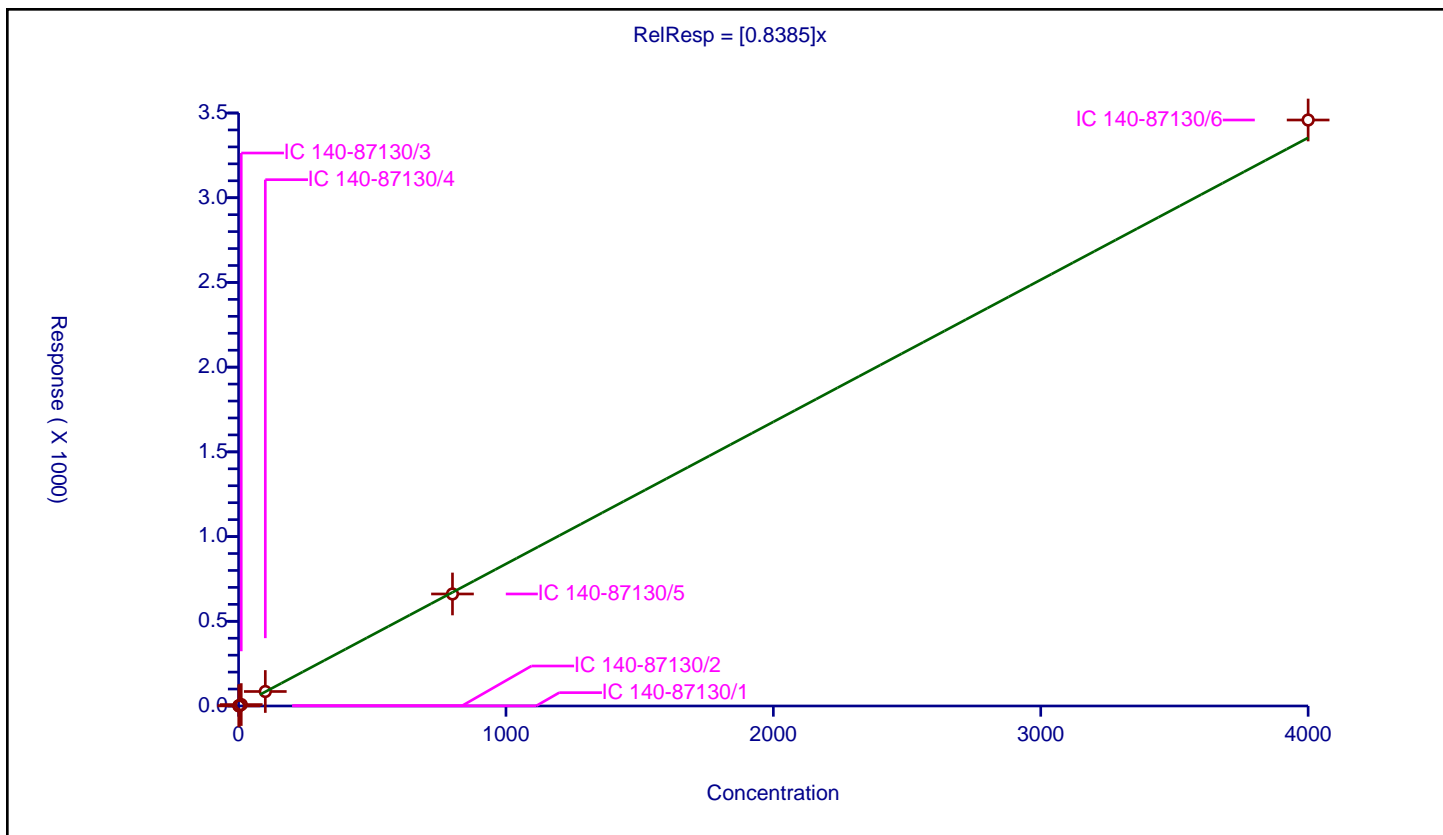
## Curve Coefficients

Intercept: 0  
 Slope: 0.8385

## Error Coefficients

Relative Standard Deviation: 2.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.833516	100.0	6938320.0	0.833516	Y
2	IC 140-87130/2	2.0	1.623187	100.0	6240748.0	0.811593	Y
3	IC 140-87130/3	10.0	8.385393	100.0	6307301.0	0.838539	Y
4	IC 140-87130/4	100.0	85.61991	100.0	6455349.0	0.856199	Y
5	IC 140-87130/5	800.0	661.180518	100.0	6672003.0	0.826476	Y
6	IC 140-87130/6	4000.0	3458.757009	100.0	6975966.0	0.864689	Y



# Calibration

/ PCB-84

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

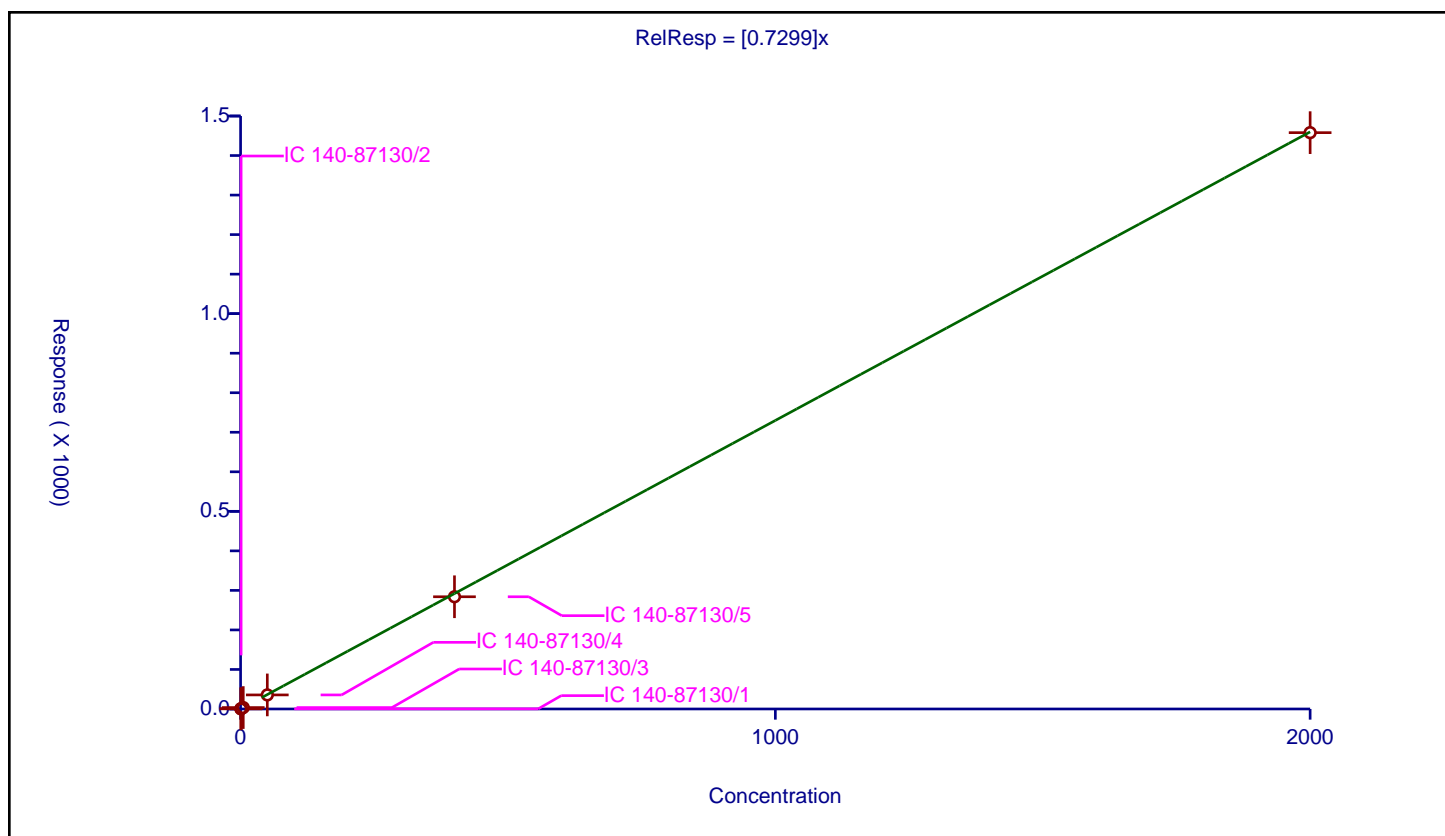
## Curve Coefficients

Intercept: 0  
 Slope: 0.7299

## Error Coefficients

Relative Standard Deviation: 4.0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.362638	100.0	6938320.0	0.725276	Y
2	IC 140-87130/2	1.0	0.788015	100.0	6240748.0	0.788015	Y
3	IC 140-87130/3	5.0	3.578979	100.0	6307301.0	0.715796	Y
4	IC 140-87130/4	50.0	35.589292	100.0	6455349.0	0.711786	Y
5	IC 140-87130/5	400.0	283.911983	100.0	6672003.0	0.70978	Y
6	IC 140-87130/6	2000.0	1457.890993	100.0	6975966.0	0.728945	Y



# Calibration

/ PCB-85

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

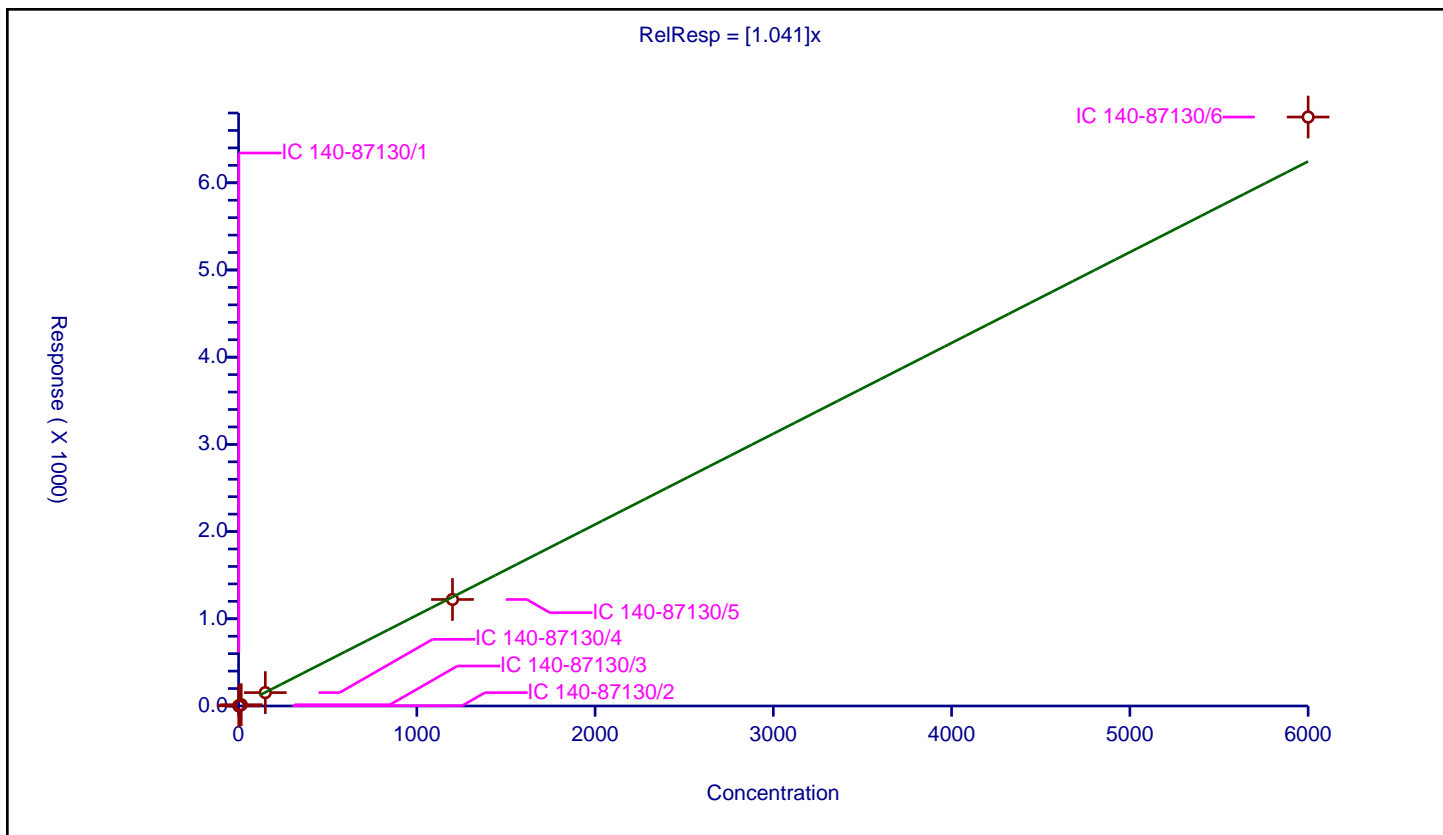
## Curve Coefficients

Intercept: 0  
Slope: 1.041

## Error Coefficients

Relative Standard Deviation: 4.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.585528	100.0	6938320.0	1.057019	Y
2	IC 140-87130/2	3.0	3.091152	100.0	6240748.0	1.030384	Y
3	IC 140-87130/3	15.0	14.877029	100.0	6307301.0	0.991802	Y
4	IC 140-87130/4	150.0	153.280512	100.0	6455349.0	1.02187	Y
5	IC 140-87130/5	1200.0	1221.649091	100.0	6672003.0	1.018041	Y
6	IC 140-87130/6	6000.0	6753.818009	100.0	6975966.0	1.125636	Y



# Calibration

/ PCB-85/116/117

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

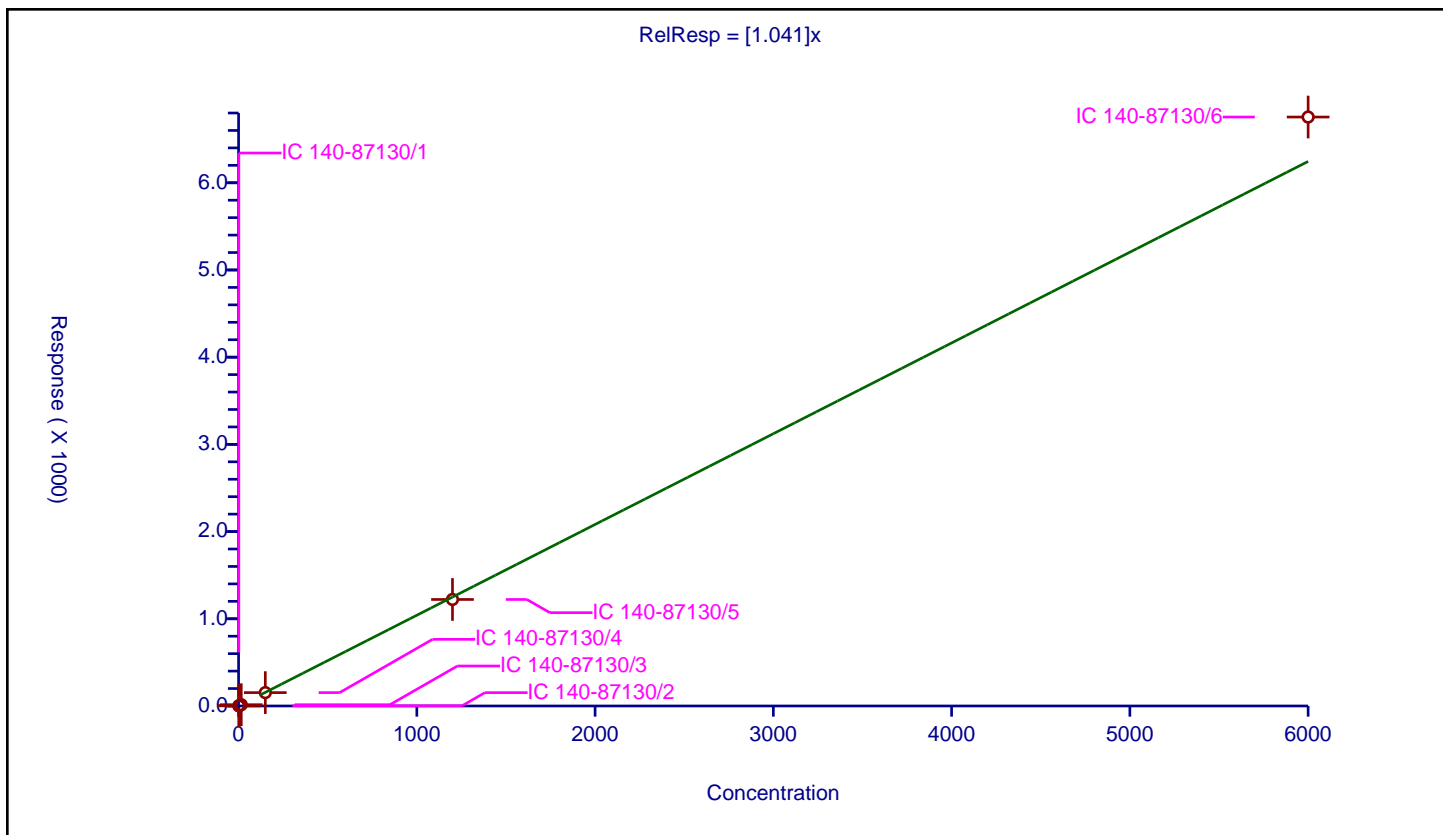
## Curve Coefficients

Intercept: 0  
 Slope: 1.041

## Error Coefficients

Relative Standard Deviation: 4.5

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.585528	100.0	6938320.0	1.057019	Y
2	IC 140-87130/2	3.0	3.091152	100.0	6240748.0	1.030384	Y
3	IC 140-87130/3	15.0	14.877029	100.0	6307301.0	0.991802	Y
4	IC 140-87130/4	150.0	153.280512	100.0	6455349.0	1.02187	Y
5	IC 140-87130/5	1200.0	1221.649091	100.0	6672003.0	1.018041	Y
6	IC 140-87130/6	6000.0	6753.818009	100.0	6975966.0	1.125636	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

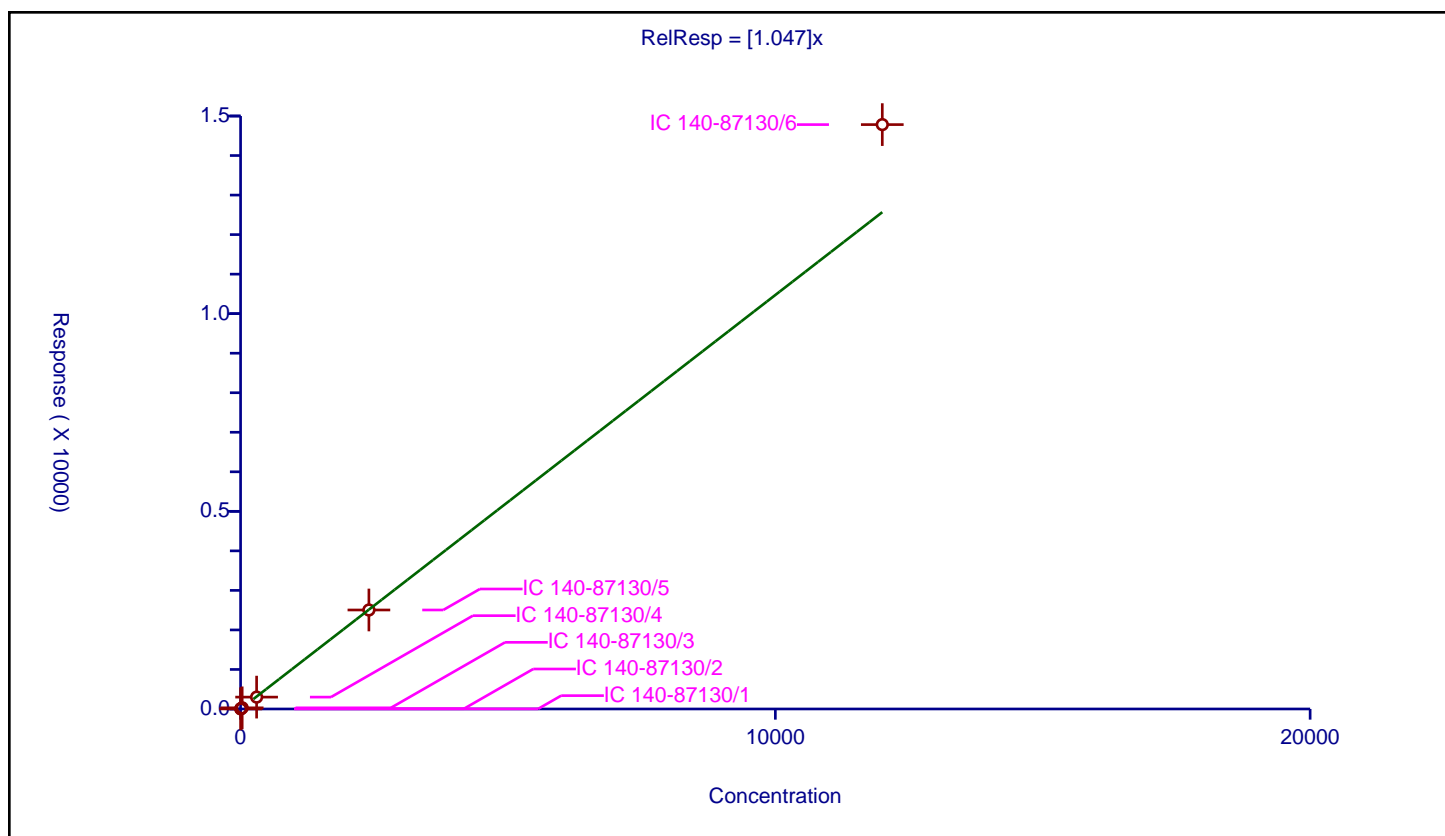
## Curve Coefficients

Intercept: 0  
Slope: 1.047

## Error Coefficients

Relative Standard Deviation: 8.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	3.0	3.046213	100.0	6938320.0	1.015404	Y
2	IC 140-87130/2	6.0	6.09177	100.0	6240748.0	1.015295	Y
3	IC 140-87130/3	30.0	29.280004	100.0	6307301.0	0.976	Y
4	IC 140-87130/4	300.0	300.513187	100.0	6455349.0	1.001711	Y
5	IC 140-87130/5	2400.0	2504.032507	100.0	6672003.0	1.043347	Y
6	IC 140-87130/6	12000.0	14782.642777	100.0	6975966.0	1.231887	Y



# Calibration

/ PCB-86/87/97/109/119/125

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

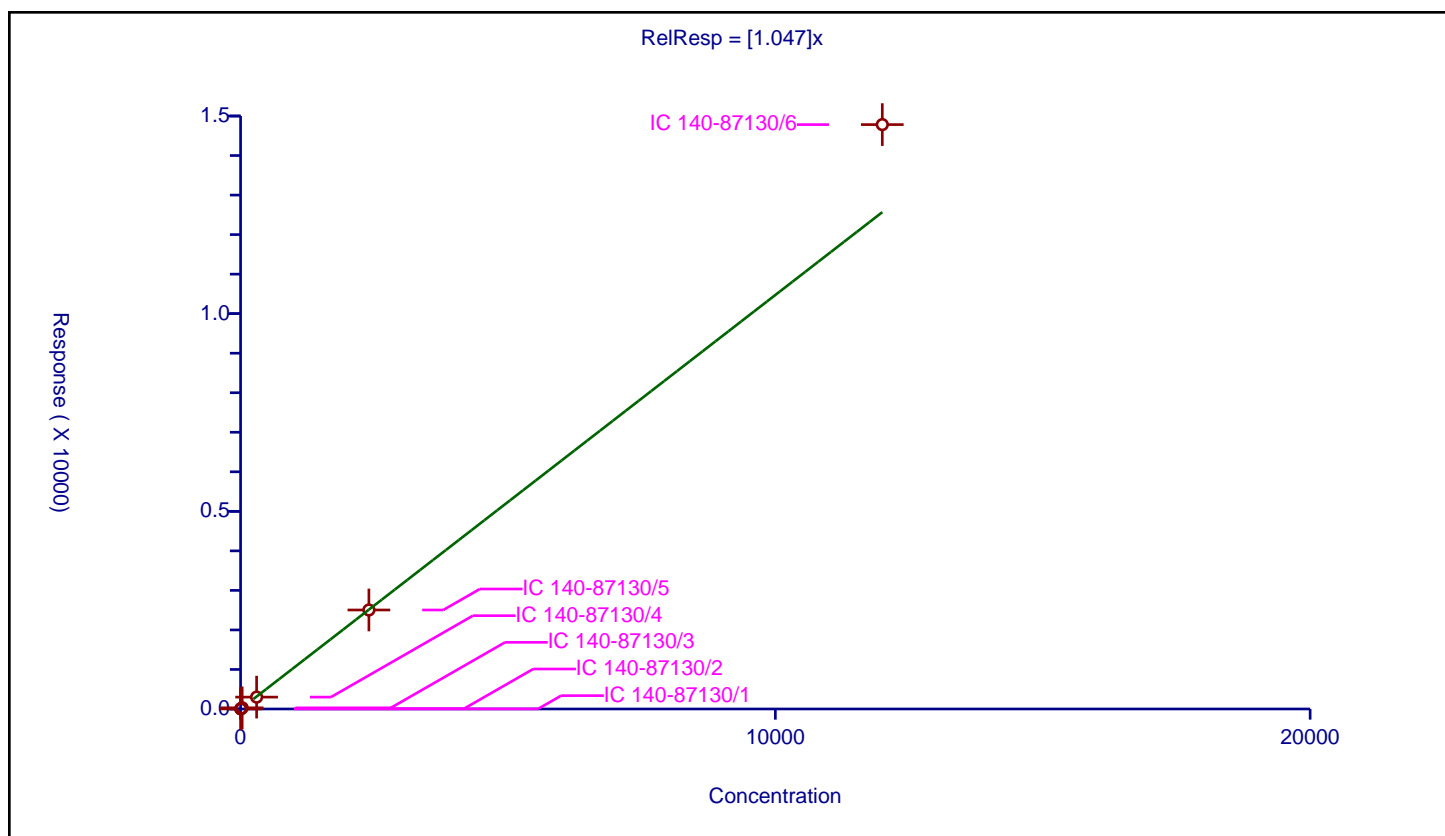
## Curve Coefficients

Intercept: 0  
Slope: 1.047

## Error Coefficients

Relative Standard Deviation: 8.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	3.0	3.046213	100.0	6938320.0	1.015404	Y
2	IC 140-87130/2	6.0	6.09177	100.0	6240748.0	1.015295	Y
3	IC 140-87130/3	30.0	29.280004	100.0	6307301.0	0.976	Y
4	IC 140-87130/4	300.0	300.513187	100.0	6455349.0	1.001711	Y
5	IC 140-87130/5	2400.0	2504.032507	100.0	6672003.0	1.043347	Y
6	IC 140-87130/6	12000.0	14782.642777	100.0	6975966.0	1.231887	Y



# Calibration

/ PCB-87

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

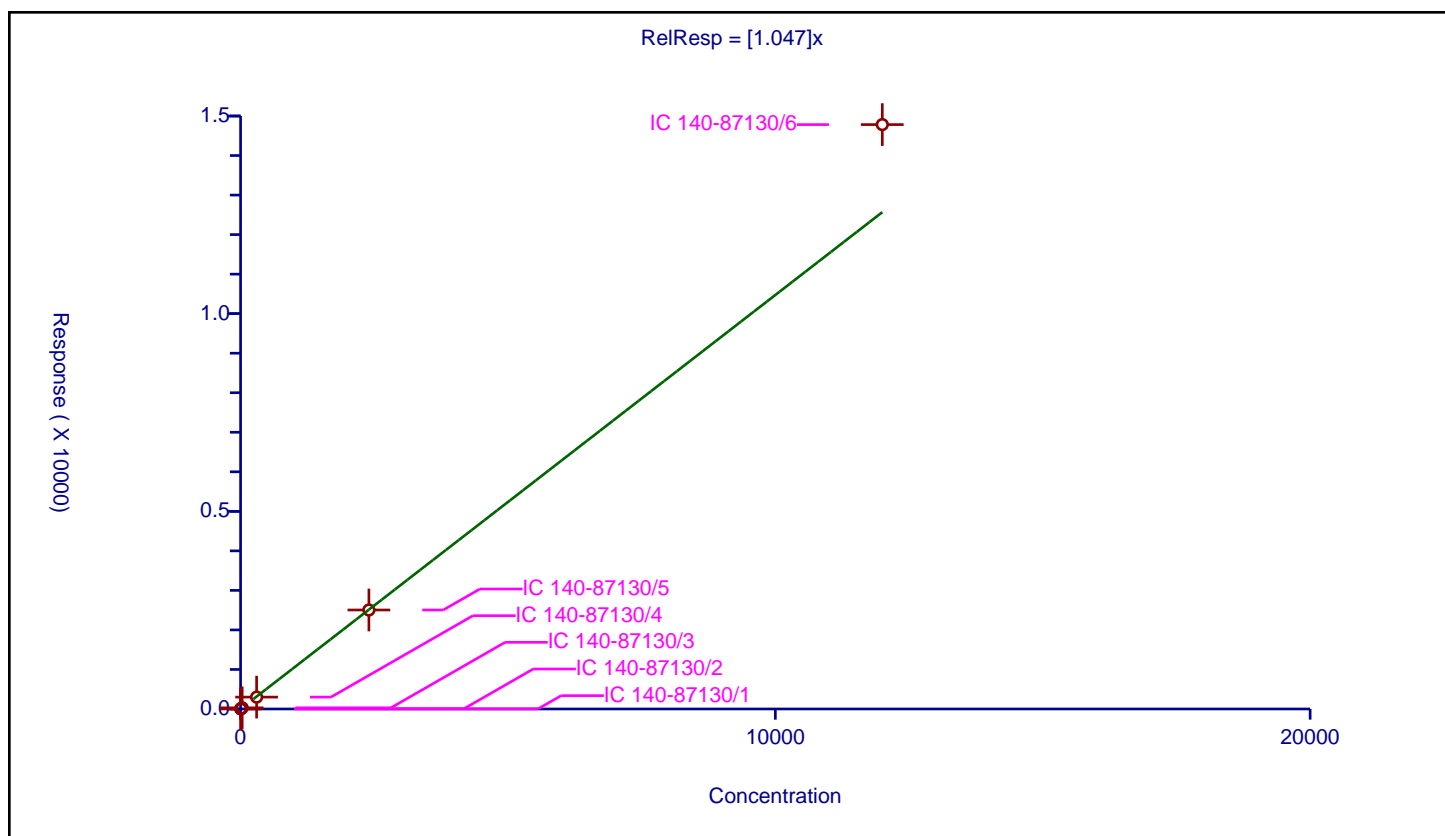
## Curve Coefficients

Intercept: 0  
Slope: 1.047

## Error Coefficients

Relative Standard Deviation: 8.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	3.0	3.046213	100.0	6938320.0	1.015404	Y
2	IC 140-87130/2	6.0	6.09177	100.0	6240748.0	1.015295	Y
3	IC 140-87130/3	30.0	29.280004	100.0	6307301.0	0.976	Y
4	IC 140-87130/4	300.0	300.513187	100.0	6455349.0	1.001711	Y
5	IC 140-87130/5	2400.0	2504.032507	100.0	6672003.0	1.043347	Y
6	IC 140-87130/6	12000.0	14782.642777	100.0	6975966.0	1.231887	Y





Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

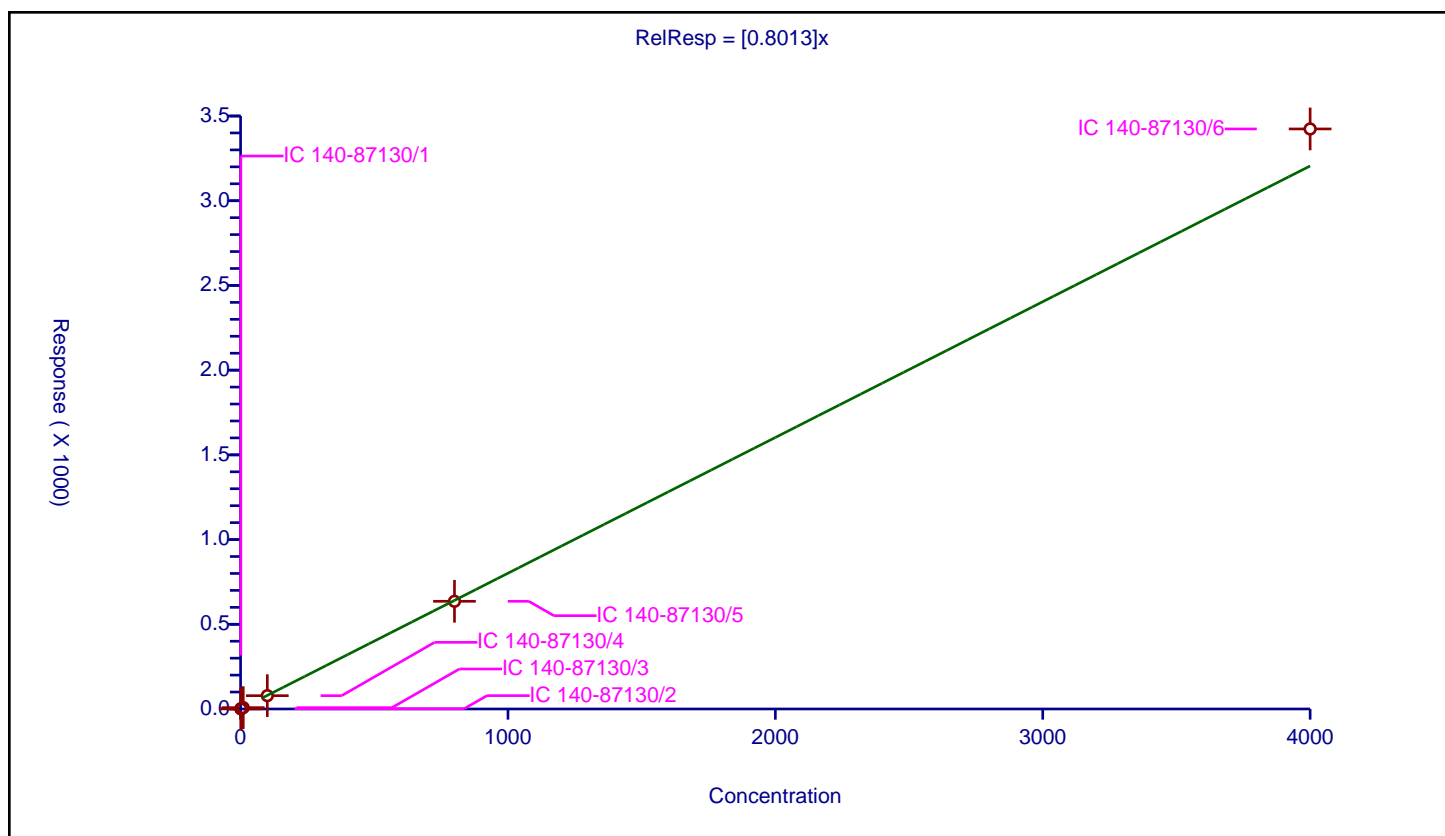
## Curve Coefficients

Intercept: 0  
Slope: 0.8013

## Error Coefficients

Relative Standard Deviation: 4.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.836571	100.0	6938320.0	0.836571	Y
2	IC 140-87130/2	2.0	1.492049	100.0	6240748.0	0.746024	Y
3	IC 140-87130/3	10.0	7.888081	100.0	6307301.0	0.788808	Y
4	IC 140-87130/4	100.0	78.595348	100.0	6455349.0	0.785953	Y
5	IC 140-87130/5	800.0	635.606489	100.0	6672003.0	0.794508	Y
6	IC 140-87130/6	4000.0	3423.621675	100.0	6975966.0	0.855905	Y



# Calibration

/ PCB-88/91

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

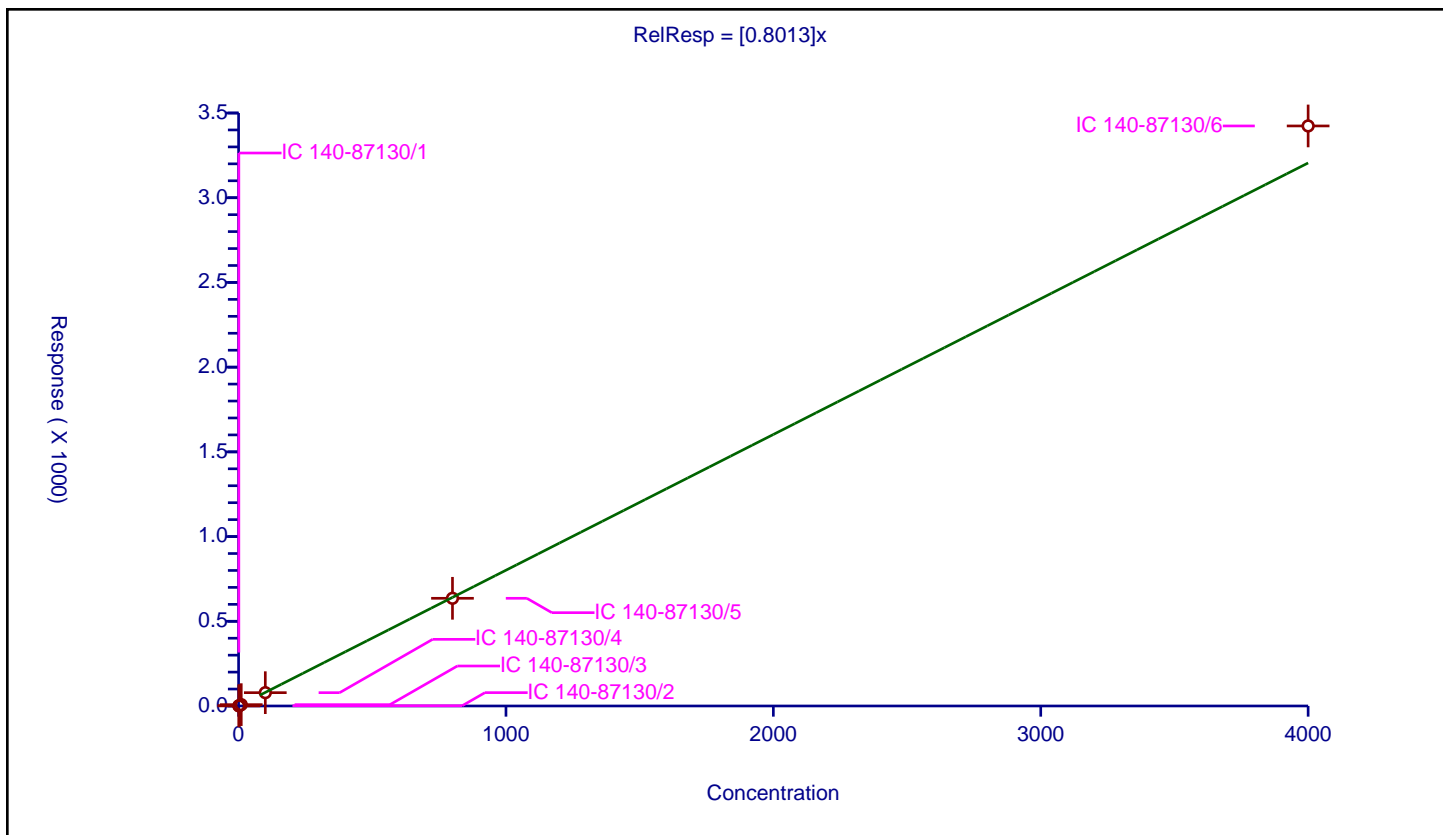
## Curve Coefficients

Intercept: 0  
 Slope: 0.8013

## Error Coefficients

Relative Standard Deviation: 4.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.836571	100.0	6938320.0	0.836571	Y
2	IC 140-87130/2	2.0	1.492049	100.0	6240748.0	0.746024	Y
3	IC 140-87130/3	10.0	7.888081	100.0	6307301.0	0.788808	Y
4	IC 140-87130/4	100.0	78.595348	100.0	6455349.0	0.785953	Y
5	IC 140-87130/5	800.0	635.606489	100.0	6672003.0	0.794508	Y
6	IC 140-87130/6	4000.0	3423.621675	100.0	6975966.0	0.855905	Y



# Calibration

/ PCB-89

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

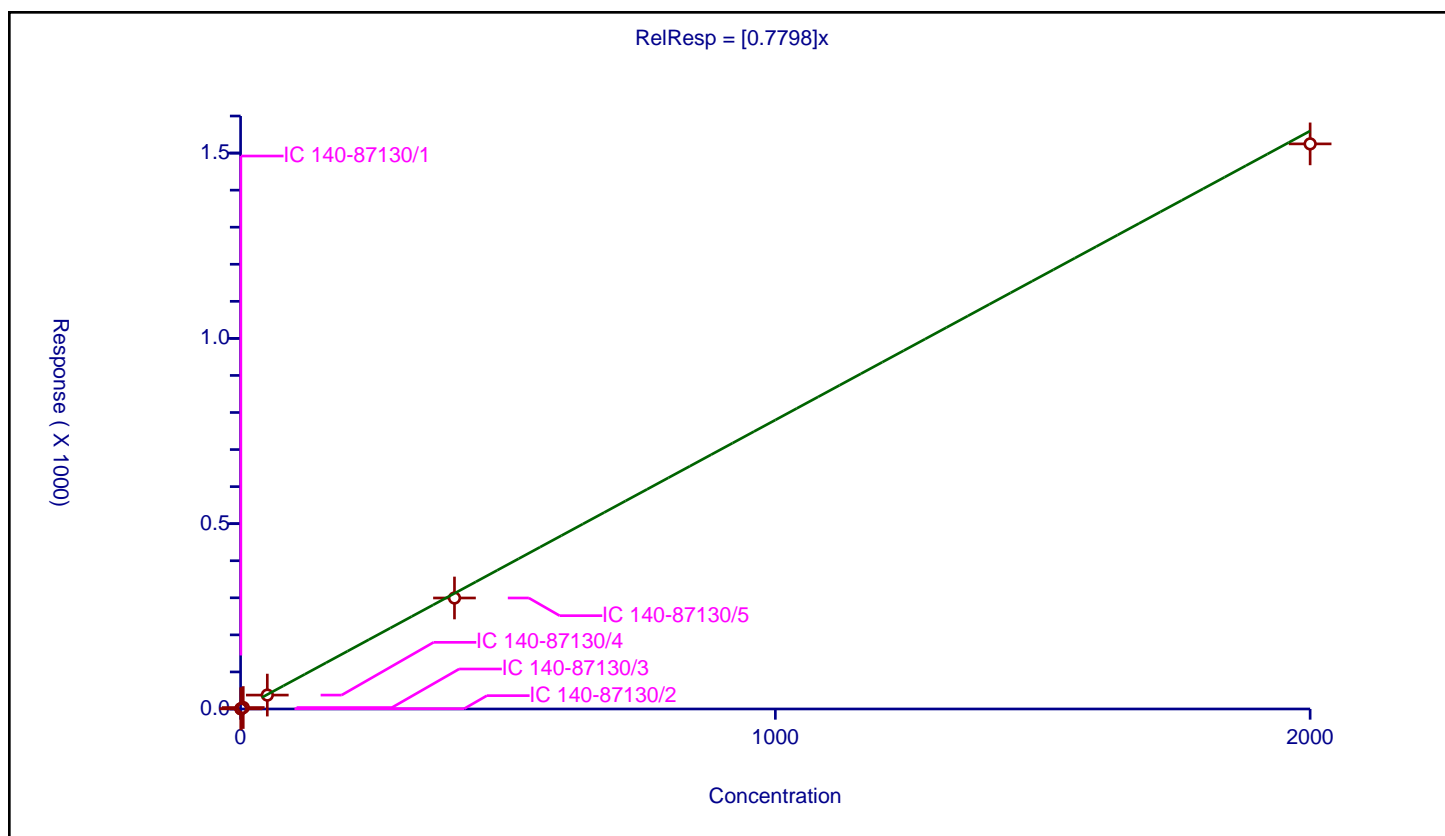
## Curve Coefficients

Intercept: 0  
 Slope: 0.7798

## Error Coefficients

Relative Standard Deviation: 7.2

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.445929	100.0	6938320.0	0.891859	Y
2	IC 140-87130/2	1.0	0.746401	100.0	6240748.0	0.746401	Y
3	IC 140-87130/3	5.0	3.892885	100.0	6307301.0	0.778577	Y
4	IC 140-87130/4	50.0	37.551587	100.0	6455349.0	0.751032	Y
5	IC 140-87130/5	400.0	299.471148	100.0	6672003.0	0.748678	Y
6	IC 140-87130/6	2000.0	1524.826153	100.0	6975966.0	0.762413	Y



## Calibration

/ PCB-8L

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

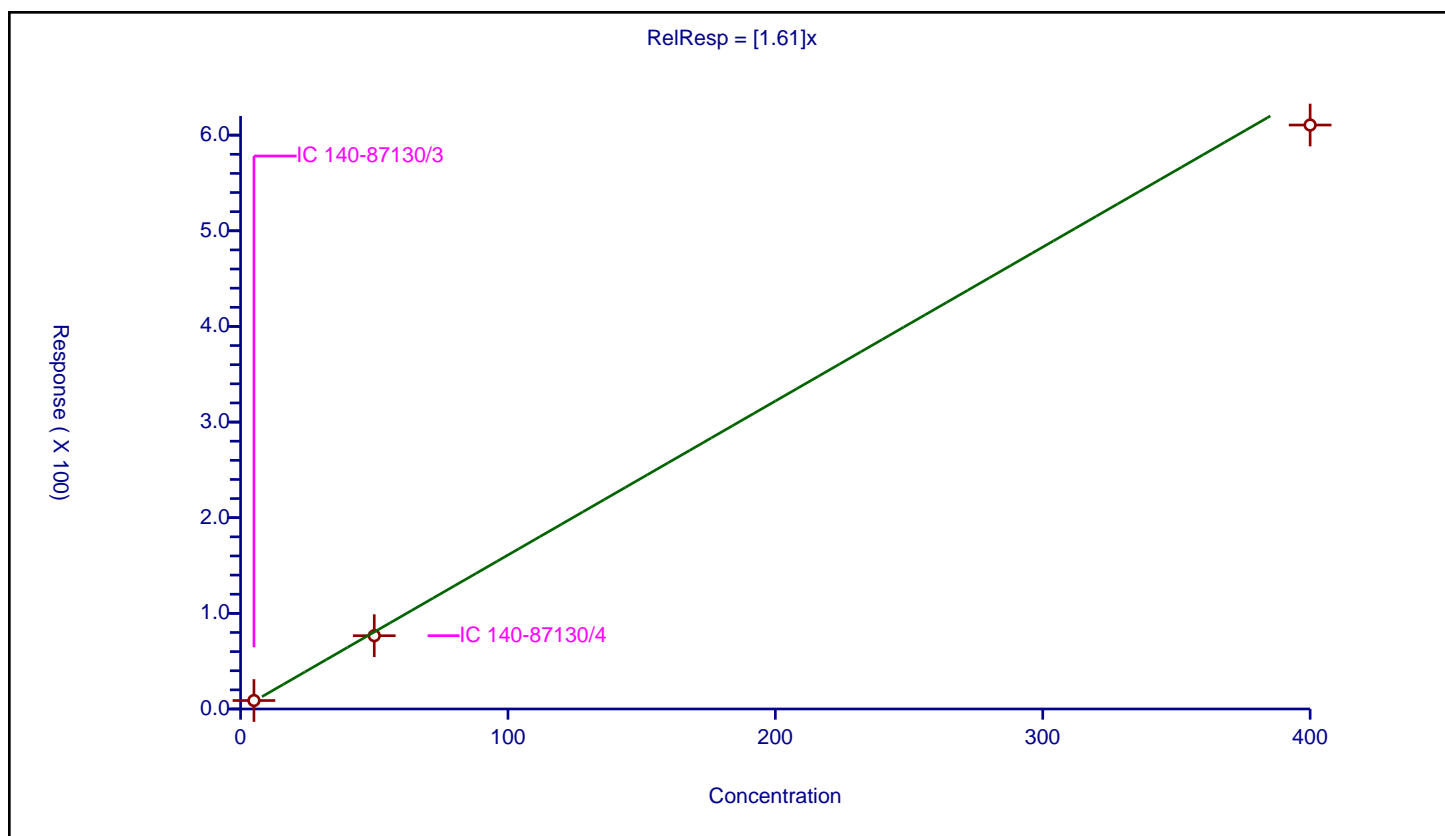
## Curve Coefficients

Intercept: 0  
Slope: 1.61

## Error Coefficients

Relative Standard Deviation: 8.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/3	5.0	8.853044	100.0	5279032.0	1.770609	Y
2	IC 140-87130/4	50.0	76.624626	100.0	5474214.0	1.532493	Y
3	IC 140-87130/5	400.0	610.583449	100.0	5561618.0	1.526459	Y



# Calibration

/ PCB-9

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

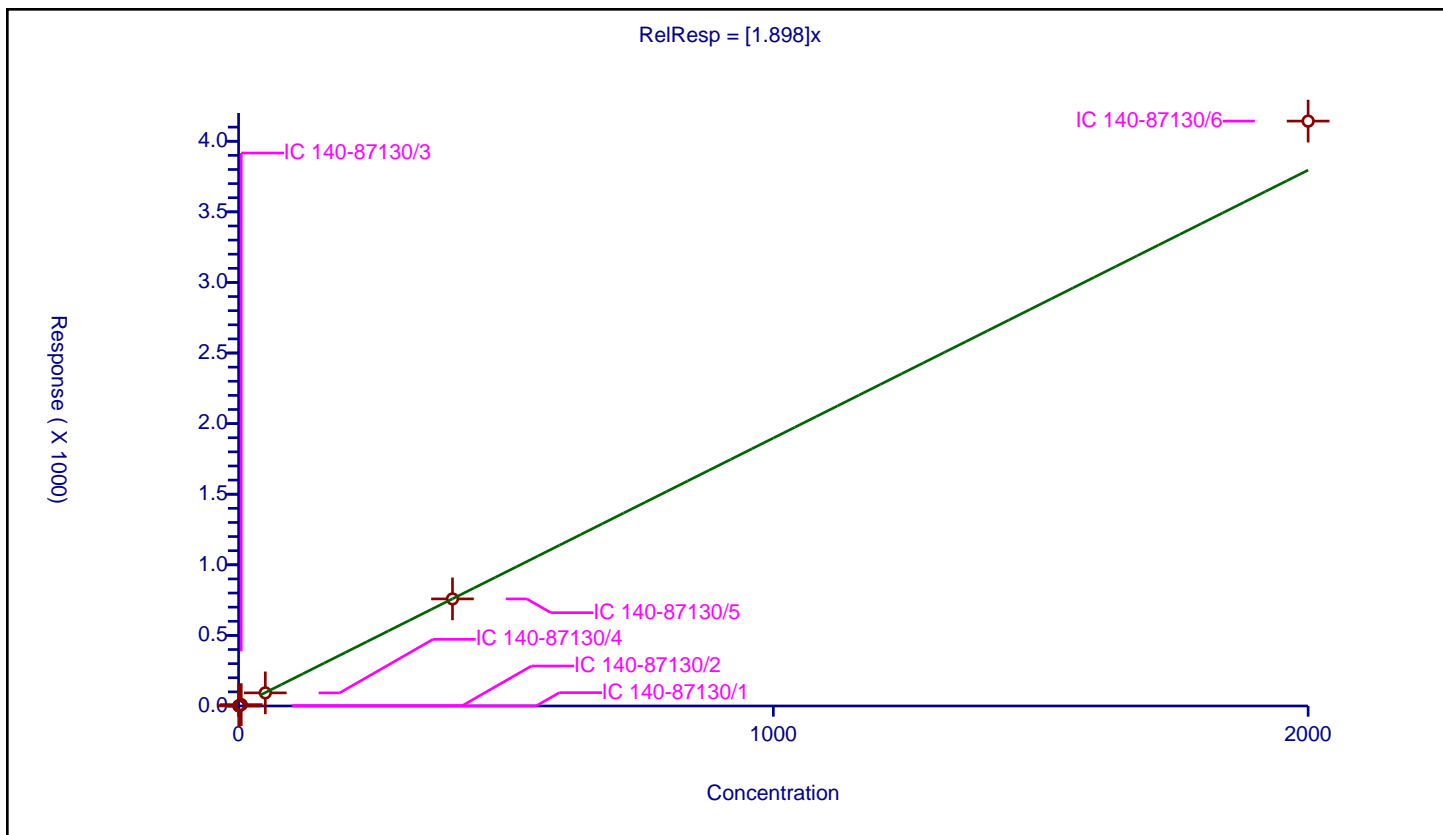
## Curve Coefficients

Intercept: 0  
Slope: 1.898

## Error Coefficients

Relative Standard Deviation: 5.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.87223	100.0	5904521.0	1.74446	Y
2	IC 140-87130/2	1.0	1.869803	100.0	5442766.0	1.869803	Y
3	IC 140-87130/3	5.0	9.73902	100.0	5279032.0	1.947804	Y
4	IC 140-87130/4	50.0	92.863195	100.0	5474214.0	1.857264	Y
5	IC 140-87130/5	400.0	758.446067	100.0	5561618.0	1.896115	Y
6	IC 140-87130/6	2000.0	4142.830439	100.0	5672202.0	2.071415	Y



# Calibration

/ PCB-90

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

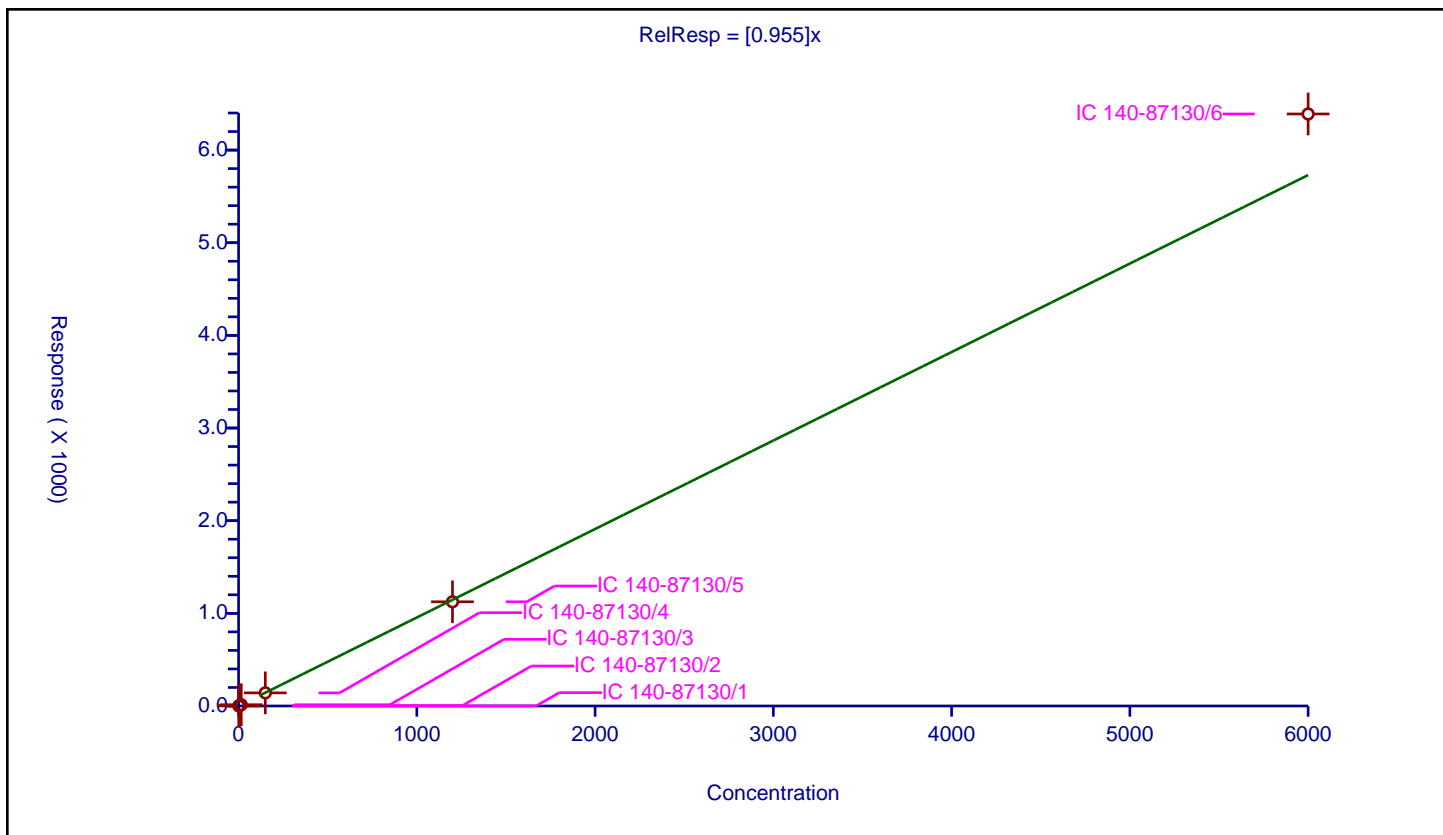
## Curve Coefficients

Intercept: 0  
 Slope: 0.955

## Error Coefficients

Relative Standard Deviation: 5.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.423053	100.0	6938320.0	0.948702	Y
2	IC 140-87130/2	3.0	2.801892	100.0	6240748.0	0.933964	Y
3	IC 140-87130/3	15.0	13.539722	100.0	6307301.0	0.902648	Y
4	IC 140-87130/4	150.0	141.38193	100.0	6455349.0	0.942546	Y
5	IC 140-87130/5	1200.0	1124.566761	100.0	6672003.0	0.937139	Y
6	IC 140-87130/6	6000.0	6389.746882	100.0	6975966.0	1.064958	Y



# Calibration

/ PCB-90/101/113

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

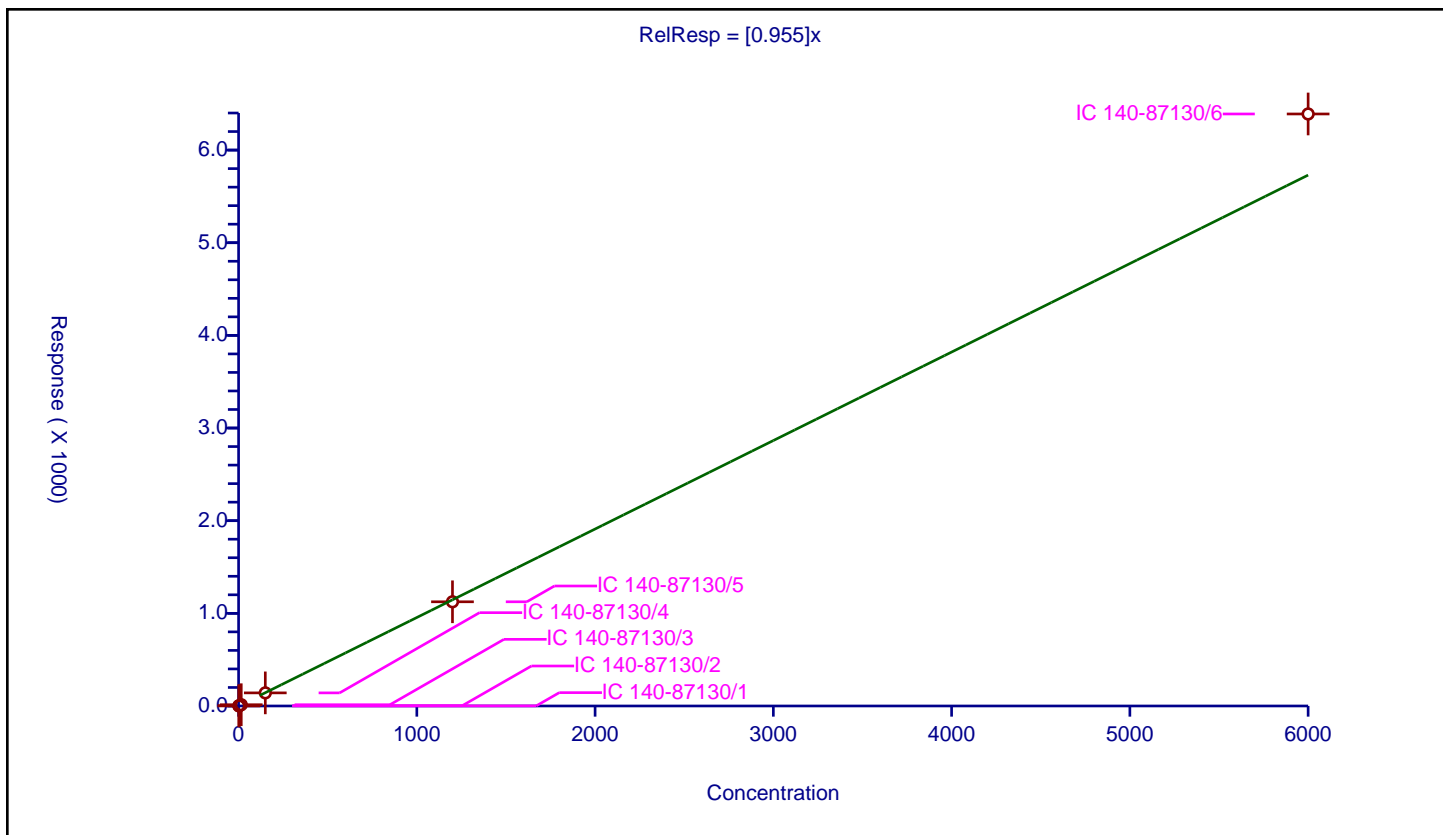
## Curve Coefficients

Intercept: 0  
 Slope: 0.955

## Error Coefficients

Relative Standard Deviation: 5.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.5	1.423053	100.0	6938320.0	0.948702	Y
2	IC 140-87130/2	3.0	2.801892	100.0	6240748.0	0.933964	Y
3	IC 140-87130/3	15.0	13.539722	100.0	6307301.0	0.902648	Y
4	IC 140-87130/4	150.0	141.38193	100.0	6455349.0	0.942546	Y
5	IC 140-87130/5	1200.0	1124.566761	100.0	6672003.0	0.937139	Y
6	IC 140-87130/6	6000.0	6389.746882	100.0	6975966.0	1.064958	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

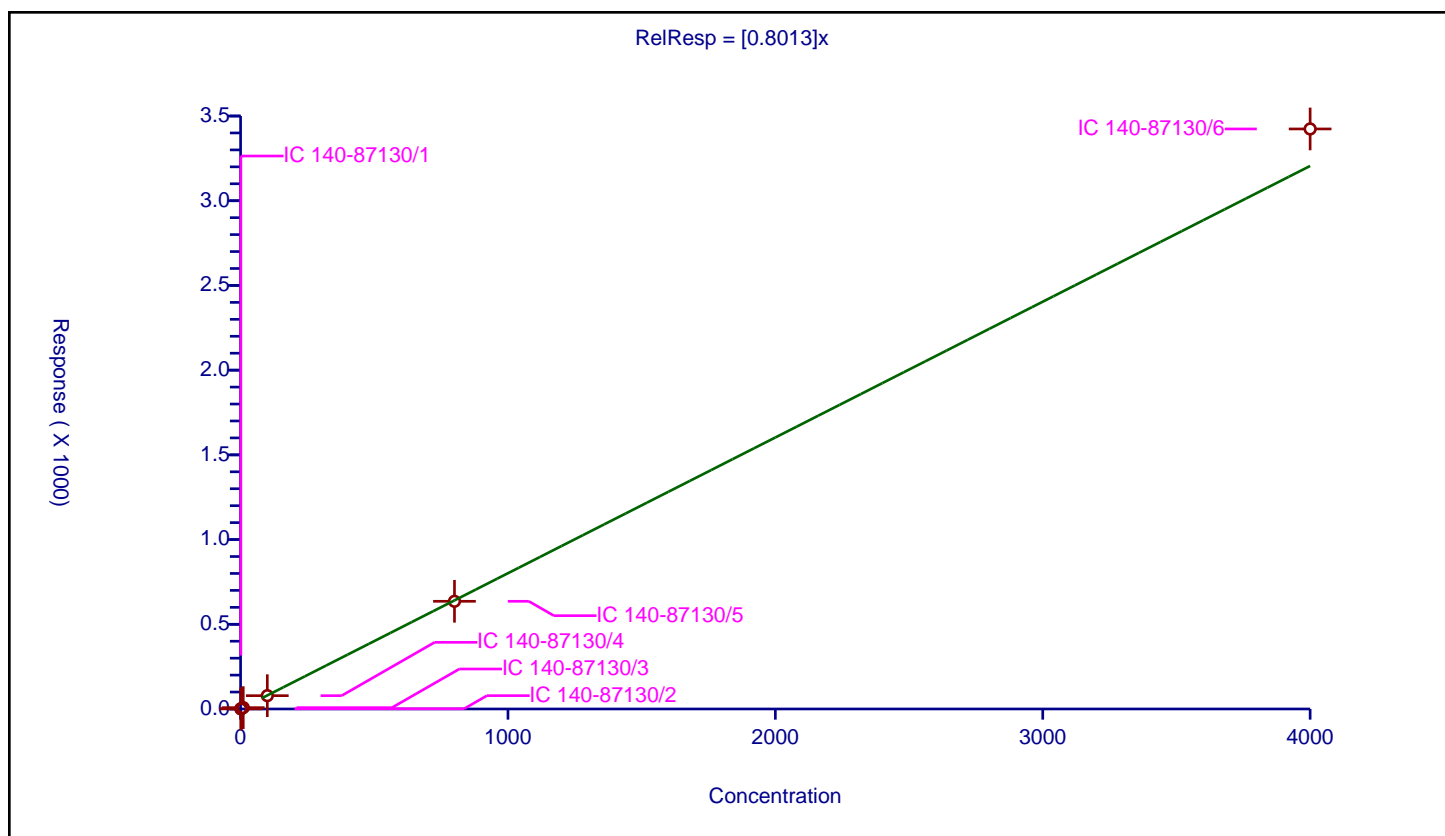
## Curve Coefficients

Intercept: 0  
Slope: 0.8013

## Error Coefficients

Relative Standard Deviation: 4.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.836571	100.0	6938320.0	0.836571	Y
2	IC 140-87130/2	2.0	1.492049	100.0	6240748.0	0.746024	Y
3	IC 140-87130/3	10.0	7.888081	100.0	6307301.0	0.788808	Y
4	IC 140-87130/4	100.0	78.595348	100.0	6455349.0	0.785953	Y
5	IC 140-87130/5	800.0	635.606489	100.0	6672003.0	0.794508	Y
6	IC 140-87130/6	4000.0	3423.621675	100.0	6975966.0	0.855905	Y





## Calibration

/ PCB-92

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

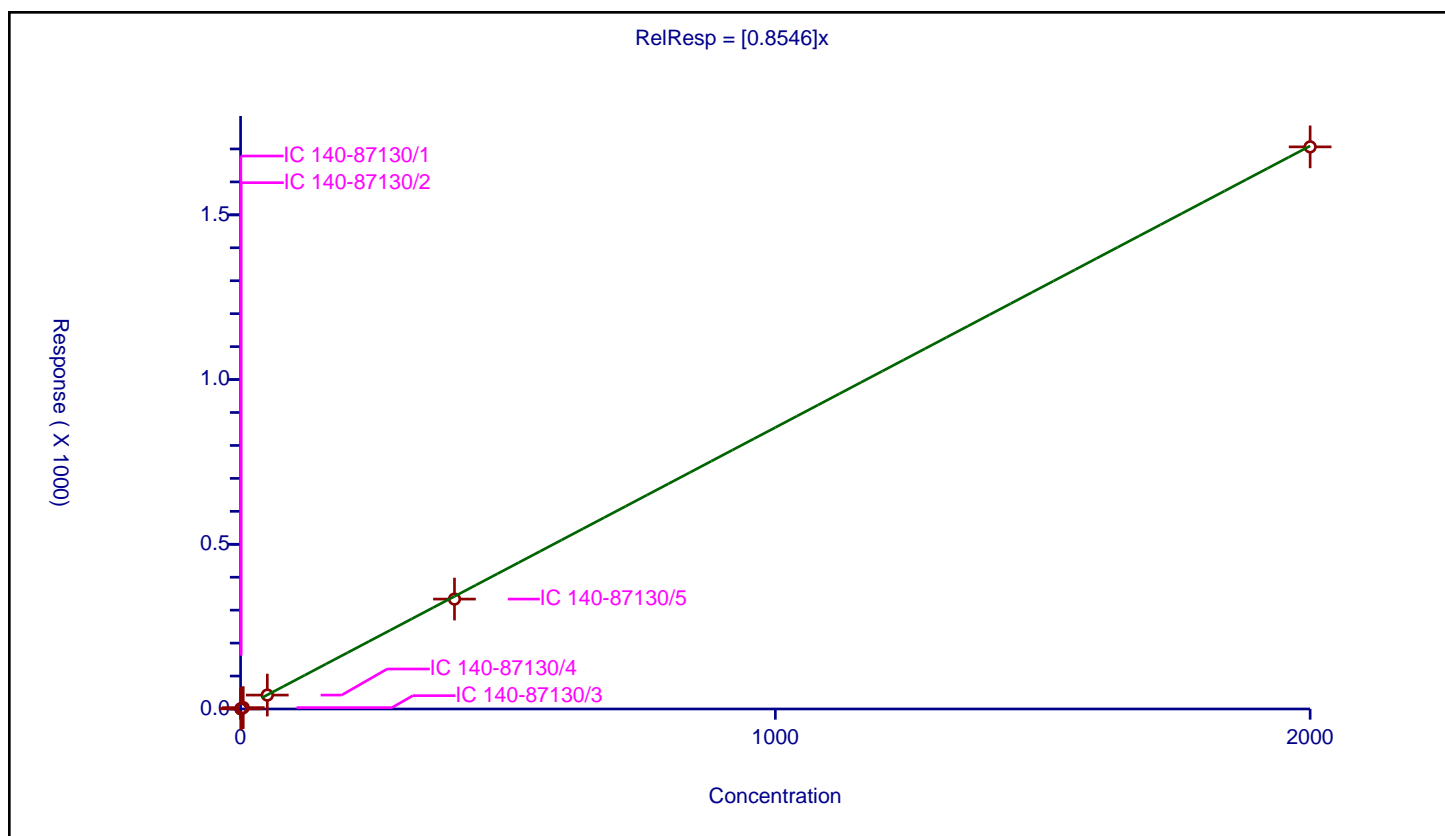
## Curve Coefficients

Intercept: 0  
Slope: 0.8546

## Error Coefficients

Relative Standard Deviation: 3.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.431473	100.0	6938320.0	0.862947	Y
2	IC 140-87130/2	1.0	0.905997	100.0	6240748.0	0.905997	Y
3	IC 140-87130/3	5.0	4.13589	100.0	6307301.0	0.827178	Y
4	IC 140-87130/4	50.0	42.202954	100.0	6455349.0	0.844059	Y
5	IC 140-87130/5	400.0	333.604152	100.0	6672003.0	0.83401	Y
6	IC 140-87130/6	2000.0	1706.355808	100.0	6975966.0	0.853178	Y



# Calibration

/ PCB-93

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

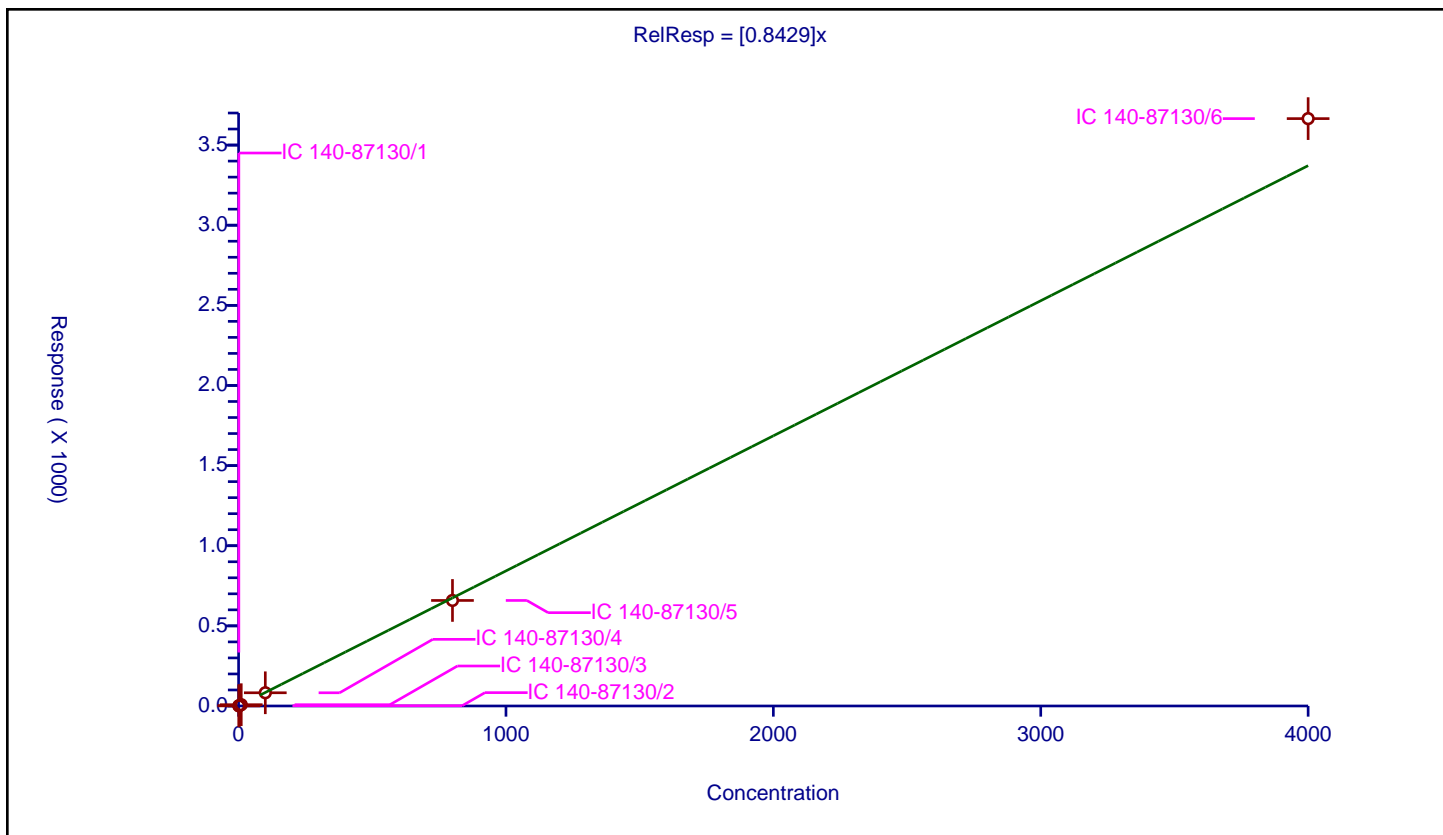
## Curve Coefficients

Intercept: 0  
 Slope: 0.8429

## Error Coefficients

Relative Standard Deviation: 4.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.852714	100.0	6938320.0	0.852714	Y
2	IC 140-87130/2	2.0	1.667508	100.0	6240748.0	0.833754	Y
3	IC 140-87130/3	10.0	8.061721	100.0	6307301.0	0.806172	Y
4	IC 140-87130/4	100.0	82.513091	100.0	6455349.0	0.825131	Y
5	IC 140-87130/5	800.0	658.540756	100.0	6672003.0	0.823176	Y
6	IC 140-87130/6	4000.0	3665.032714	100.0	6975966.0	0.916258	Y



# Calibration

/ PCB-93/100

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

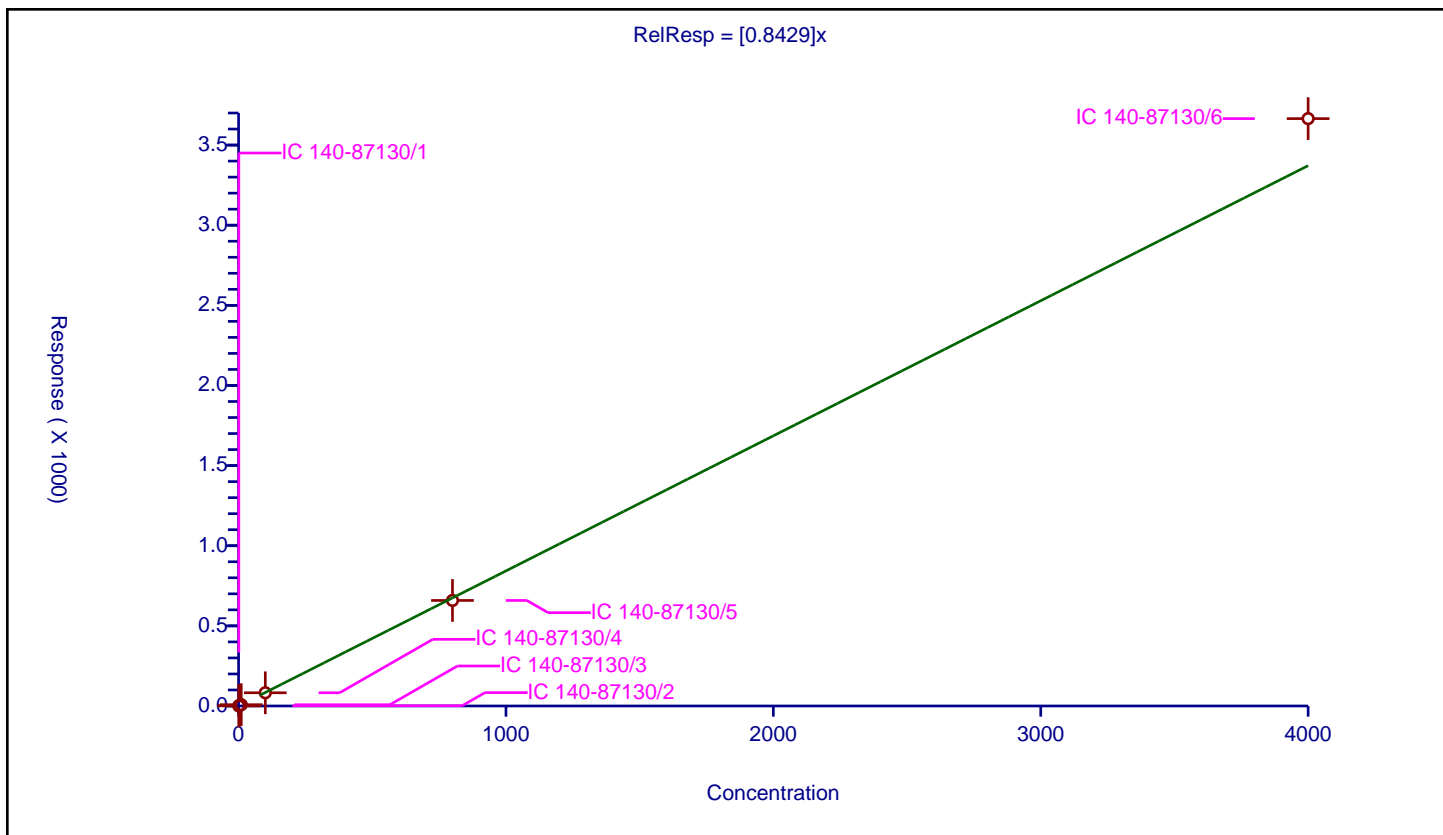
## Curve Coefficients

Intercept: 0  
 Slope: 0.8429

## Error Coefficients

Relative Standard Deviation: 4.6

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.852714	100.0	6938320.0	0.852714	Y
2	IC 140-87130/2	2.0	1.667508	100.0	6240748.0	0.833754	Y
3	IC 140-87130/3	10.0	8.061721	100.0	6307301.0	0.806172	Y
4	IC 140-87130/4	100.0	82.513091	100.0	6455349.0	0.825131	Y
5	IC 140-87130/5	800.0	658.540756	100.0	6672003.0	0.823176	Y
6	IC 140-87130/6	4000.0	3665.032714	100.0	6975966.0	0.916258	Y



# Calibration

/ PCB-94

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

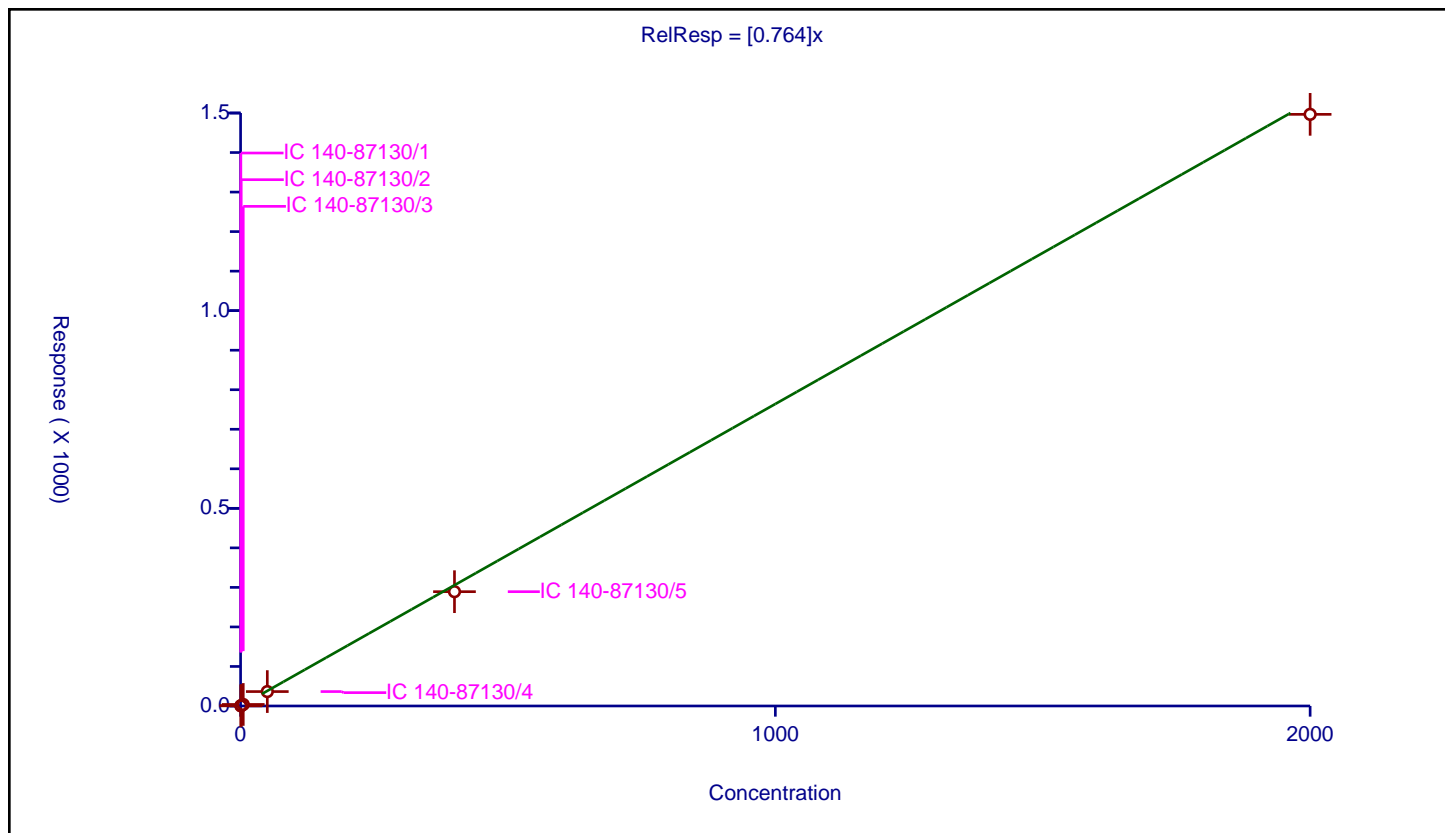
## Curve Coefficients

Intercept: 0  
 Slope: 0.764

## Error Coefficients

Relative Standard Deviation: 4.8

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.399996	100.0	6938320.0	0.799992	Y
2	IC 140-87130/2	1.0	0.811922	100.0	6240748.0	0.811922	Y
3	IC 140-87130/3	5.0	3.858291	100.0	6307301.0	0.771658	Y
4	IC 140-87130/4	50.0	36.464829	100.0	6455349.0	0.729297	Y
5	IC 140-87130/5	400.0	289.173836	100.0	6672003.0	0.722935	Y
6	IC 140-87130/6	2000.0	1496.625872	100.0	6975966.0	0.748313	Y



## Calibration

/ PCB-95

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

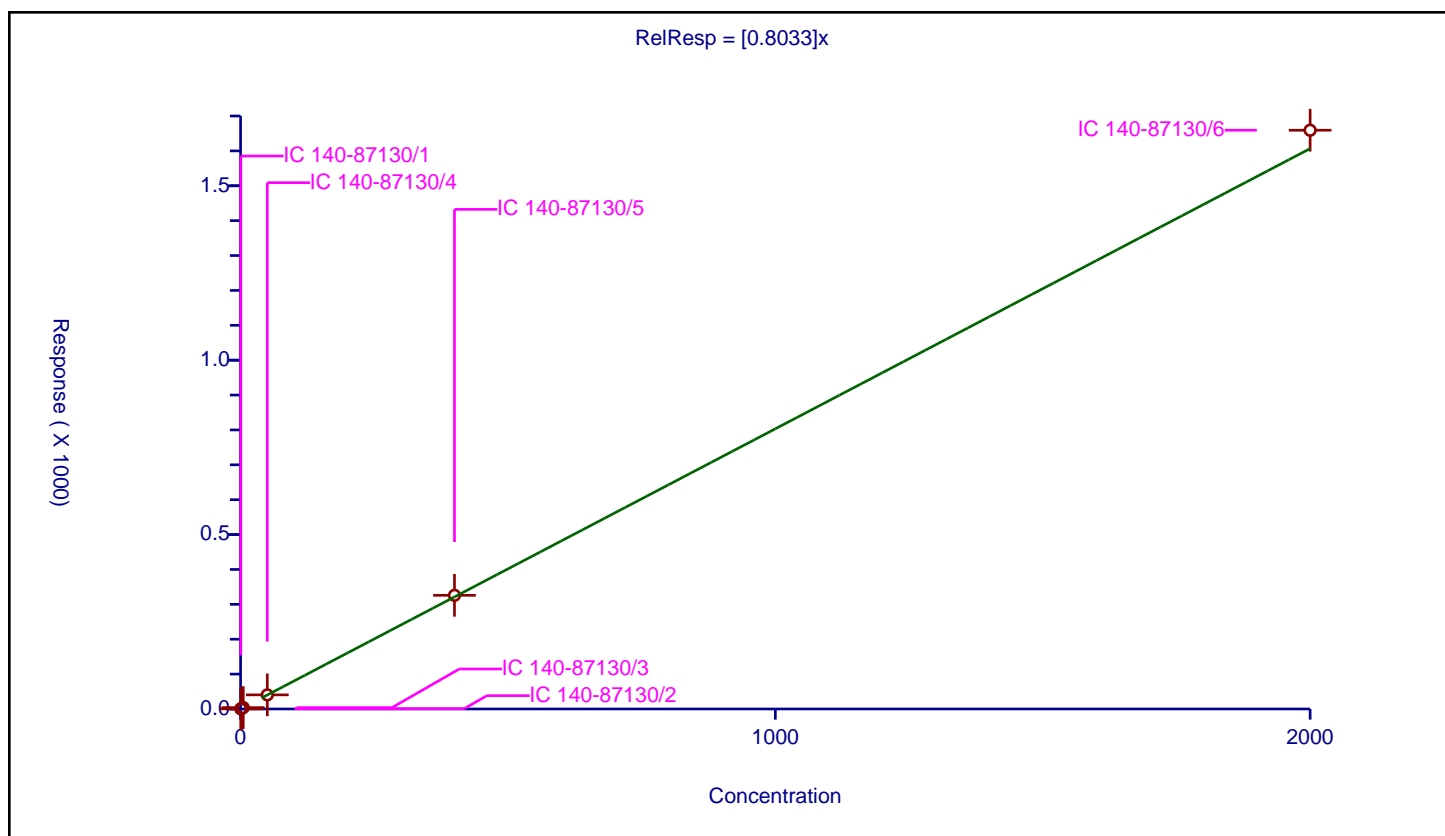
## Curve Coefficients

Intercept: 0  
Slope: 0.8033

## Error Coefficients

Relative Standard Deviation: 2.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.404839	100.0	6938320.0	0.809677	Y
2	IC 140-87130/2	1.0	0.771622	100.0	6240748.0	0.771622	Y
3	IC 140-87130/3	5.0	3.921138	100.0	6307301.0	0.784228	Y
4	IC 140-87130/4	50.0	40.490003	100.0	6455349.0	0.8098	Y
5	IC 140-87130/5	400.0	325.890921	100.0	6672003.0	0.814727	Y
6	IC 140-87130/6	2000.0	1659.27592	100.0	6975966.0	0.829638	Y



# Calibration

/ PCB-95L

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

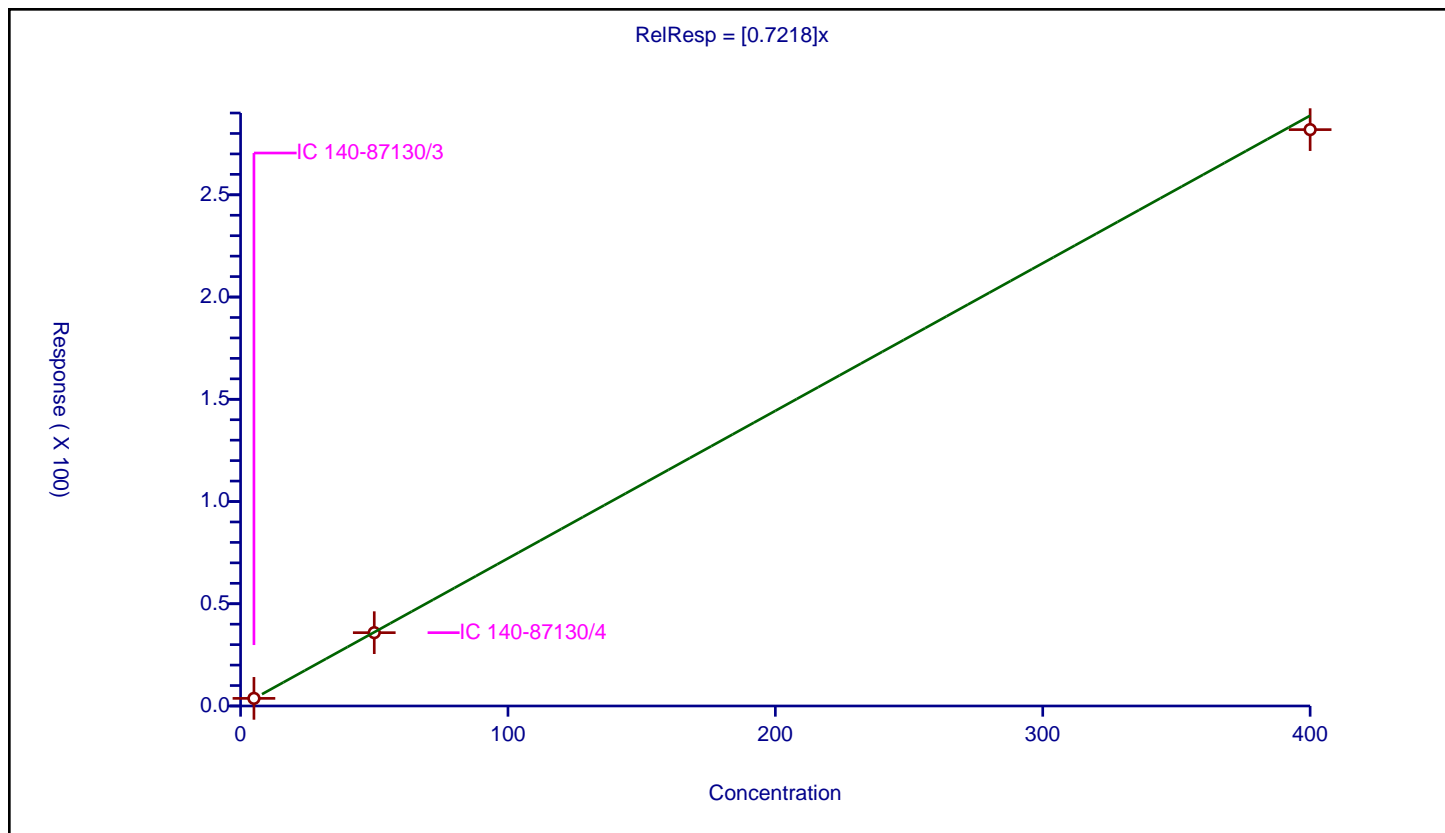
## Curve Coefficients

Intercept: 0  
 Slope: 0.7218

## Error Coefficients

Relative Standard Deviation: 2.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/3	5.0	3.717501	100.0	6307301.0	0.7435	Y
2	IC 140-87130/4	50.0	35.86119	100.0	6455349.0	0.717224	Y
3	IC 140-87130/5	400.0	281.878485	100.0	6672003.0	0.704696	Y



**Curve Type:** Average  
**Weighting:** Conc\_Sq  
**Origin:** Force  
**Dependency:** Response  
**Calib Mode:** IsoDil  
**Response Base:** AREA  
**RF Rounding:** 0

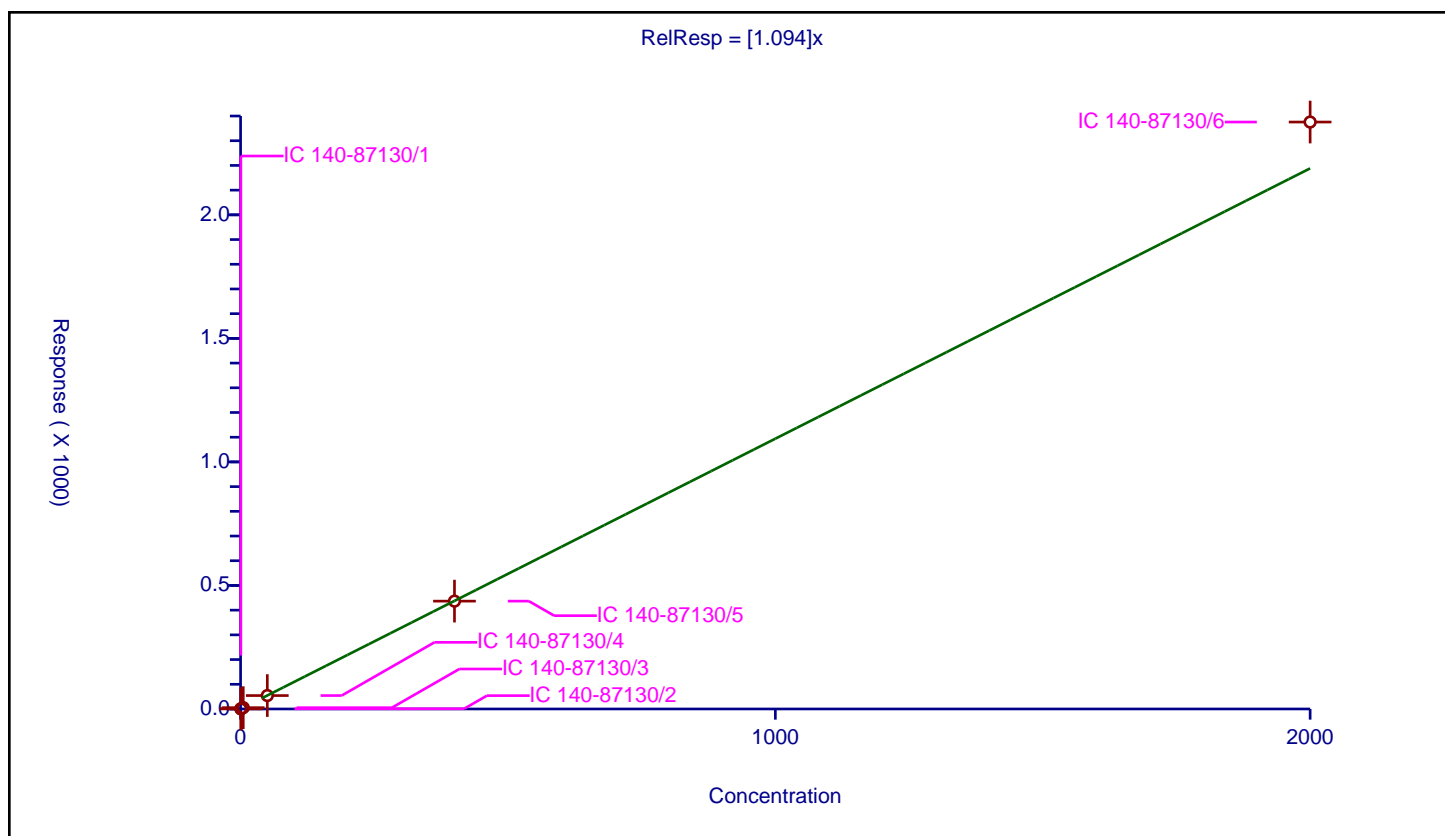
## Curve Coefficients

**Intercept:** 0  
**Slope:** 1.094

## Error Coefficients

**Relative Standard Deviation:** 5.1

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	0.5	0.554745	100.0	6938320.0	1.10949	Y
2	IC 140-87130/2	1.0	1.015583	100.0	6240748.0	1.015583	Y
3	IC 140-87130/3	5.0	5.369507	100.0	6307301.0	1.073901	Y
4	IC 140-87130/4	50.0	54.300519	100.0	6455349.0	1.08601	Y
5	IC 140-87130/5	400.0	436.521941	100.0	6672003.0	1.091305	Y
6	IC 140-87130/6	2000.0	2375.560489	100.0	6975966.0	1.18778	Y



Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

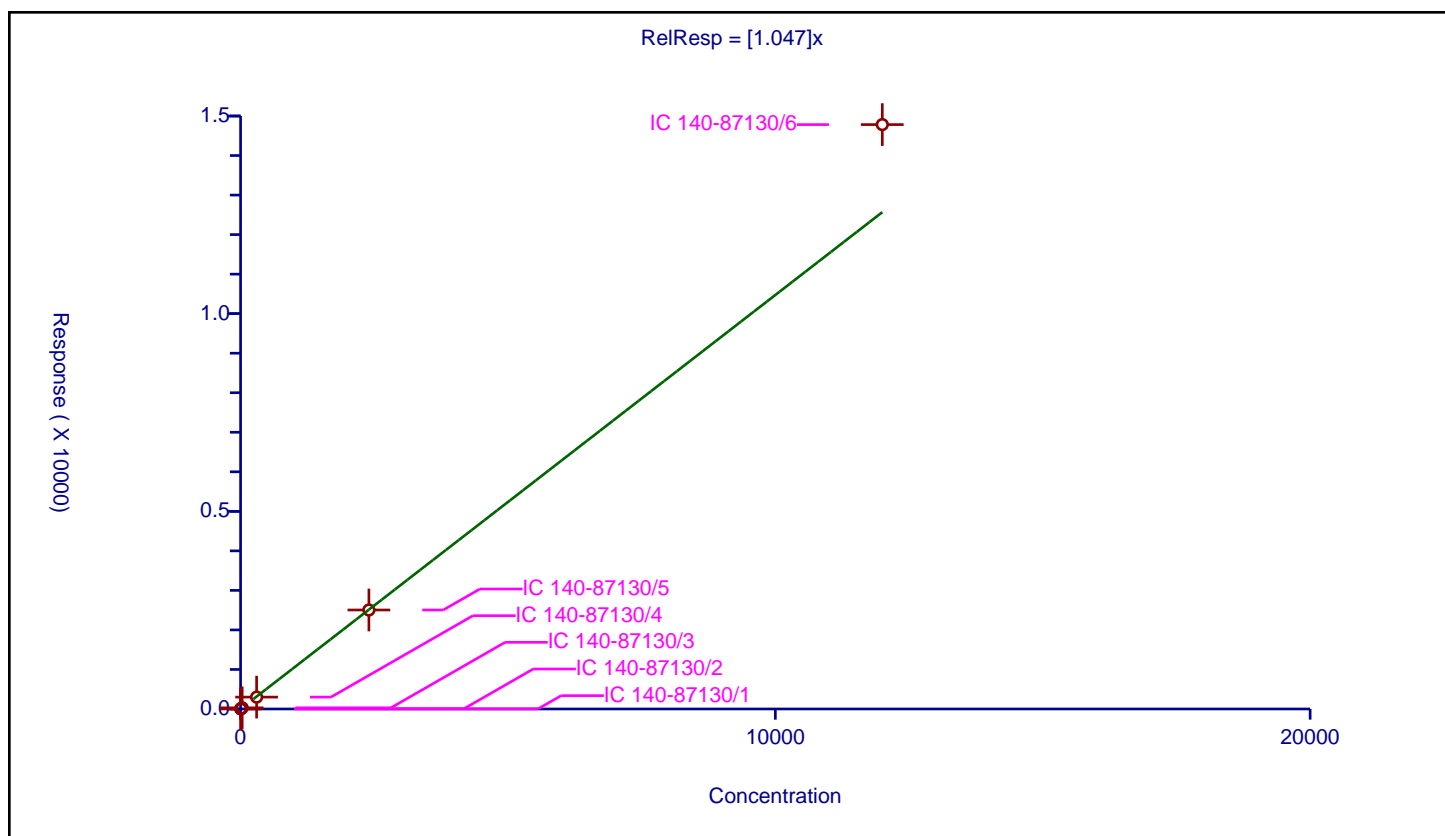
## Curve Coefficients

Intercept: 0  
Slope: 1.047

## Error Coefficients

Relative Standard Deviation: 8.9

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	3.0	3.046213	100.0	6938320.0	1.015404	Y
2	IC 140-87130/2	6.0	6.09177	100.0	6240748.0	1.015295	Y
3	IC 140-87130/3	30.0	29.280004	100.0	6307301.0	0.976	Y
4	IC 140-87130/4	300.0	300.513187	100.0	6455349.0	1.001711	Y
5	IC 140-87130/5	2400.0	2504.032507	100.0	6672003.0	1.043347	Y
6	IC 140-87130/6	12000.0	14782.642777	100.0	6975966.0	1.231887	Y





# Calibration

/ PCB-98

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

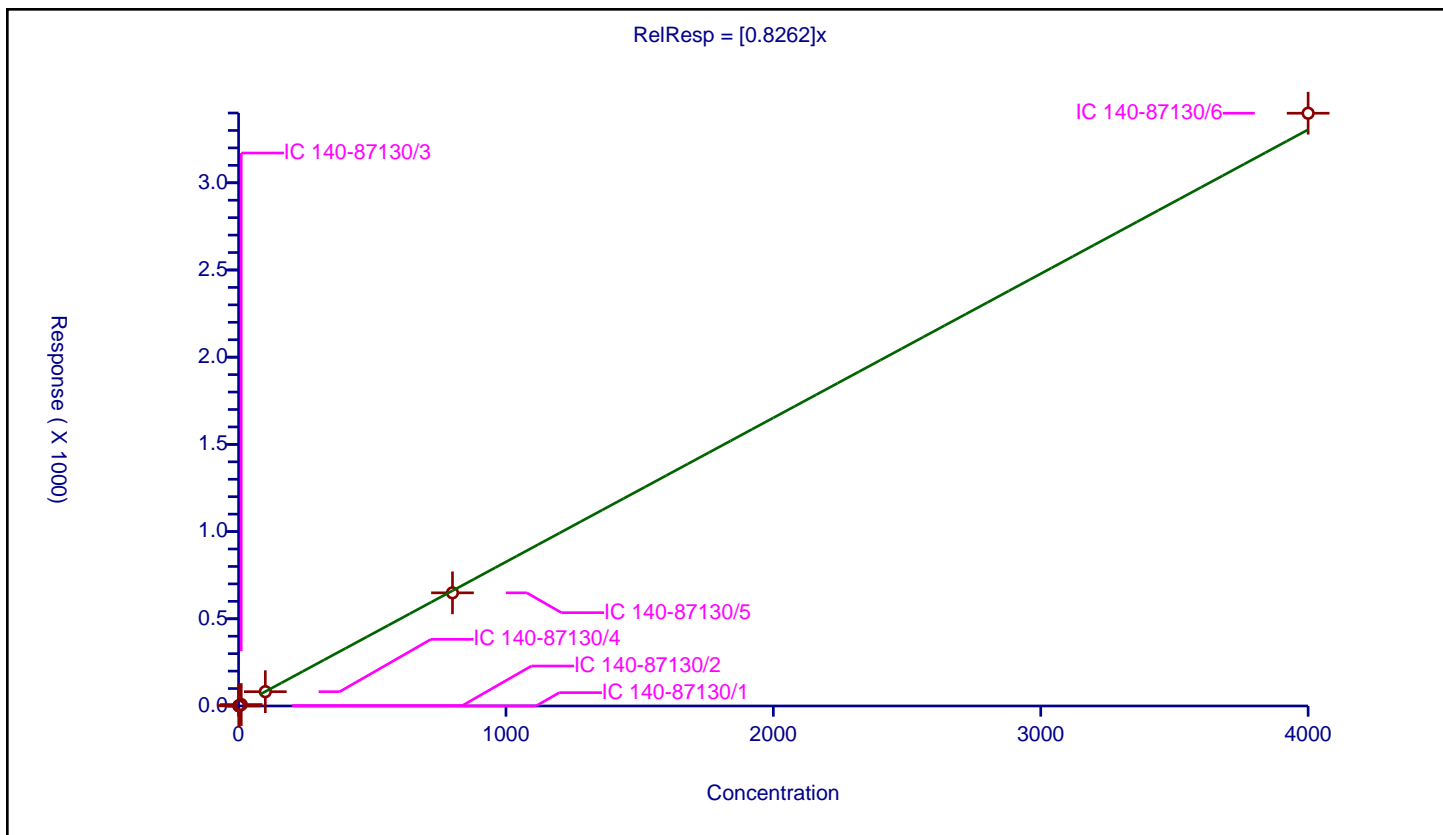
## Curve Coefficients

Intercept: 0  
 Slope: 0.8262

## Error Coefficients

Relative Standard Deviation: 1.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.825603	100.0	6938320.0	0.825603	Y
2	IC 140-87130/2	2.0	1.631167	100.0	6240748.0	0.815583	Y
3	IC 140-87130/3	10.0	8.347532	100.0	6307301.0	0.834753	Y
4	IC 140-87130/4	100.0	82.021111	100.0	6455349.0	0.820211	Y
5	IC 140-87130/5	800.0	648.883896	100.0	6672003.0	0.811105	Y
6	IC 140-87130/6	4000.0	3398.773116	100.0	6975966.0	0.849693	Y



# Calibration

/ PCB-98/102

Curve Type: Average  
 Weighting: Conc\_Sq  
 Origin: Force  
 Dependency: Response  
 Calib Mode: IsoDil  
 Response Base: AREA  
 RF Rounding: 0

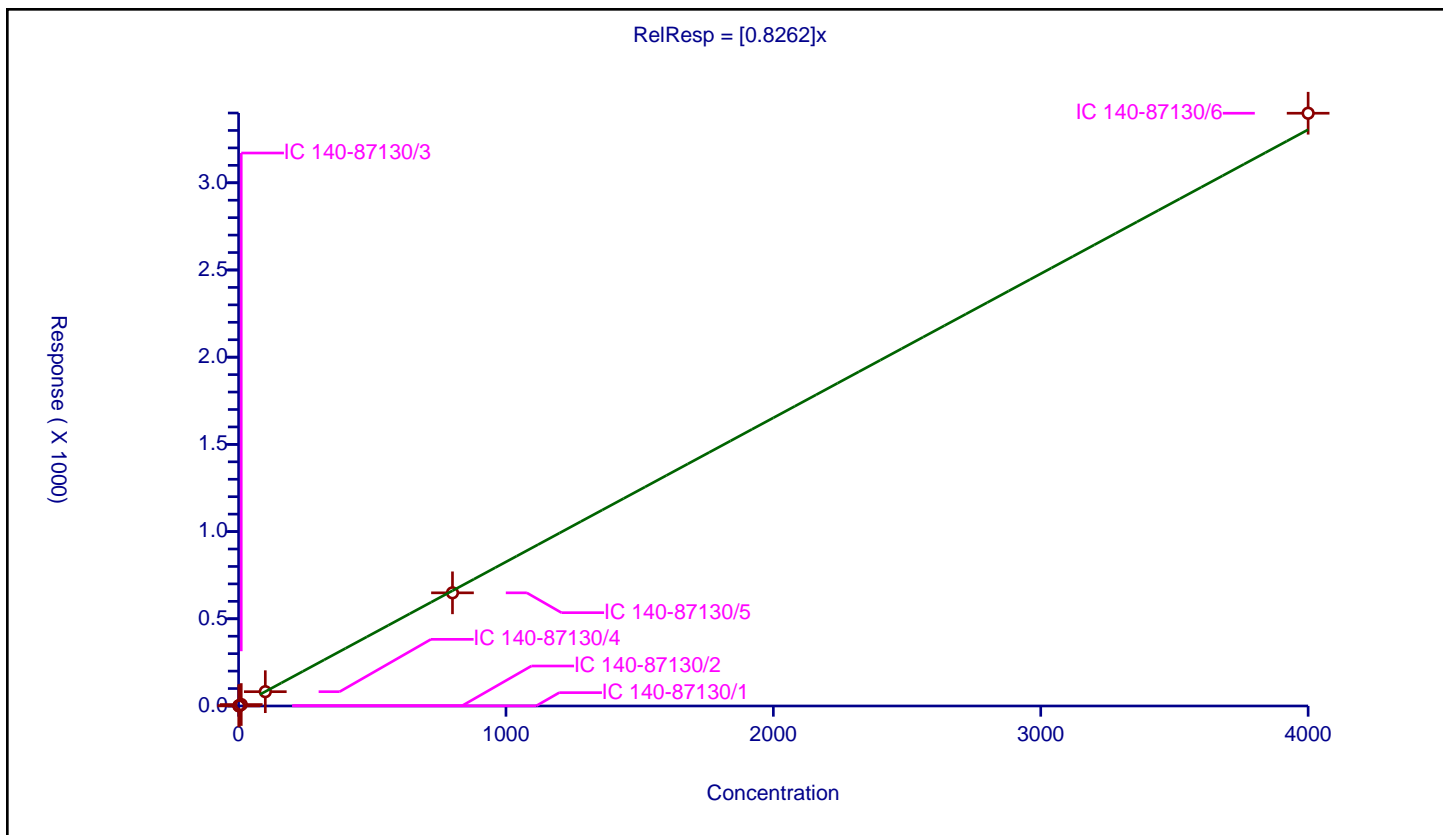
## Curve Coefficients

Intercept: 0  
 Slope: 0.8262

## Error Coefficients

Relative Standard Deviation: 1.7

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.825603	100.0	6938320.0	0.825603	Y
2	IC 140-87130/2	2.0	1.631167	100.0	6240748.0	0.815583	Y
3	IC 140-87130/3	10.0	8.347532	100.0	6307301.0	0.834753	Y
4	IC 140-87130/4	100.0	82.021111	100.0	6455349.0	0.820211	Y
5	IC 140-87130/5	800.0	648.883896	100.0	6672003.0	0.811105	Y
6	IC 140-87130/6	4000.0	3398.773116	100.0	6975966.0	0.849693	Y



# Calibration

/ PCB-99

Curve Type: Average  
Weighting: Conc\_Sq  
Origin: Force  
Dependency: Response  
Calib Mode: IsoDil  
Response Base: AREA  
RF Rounding: 0

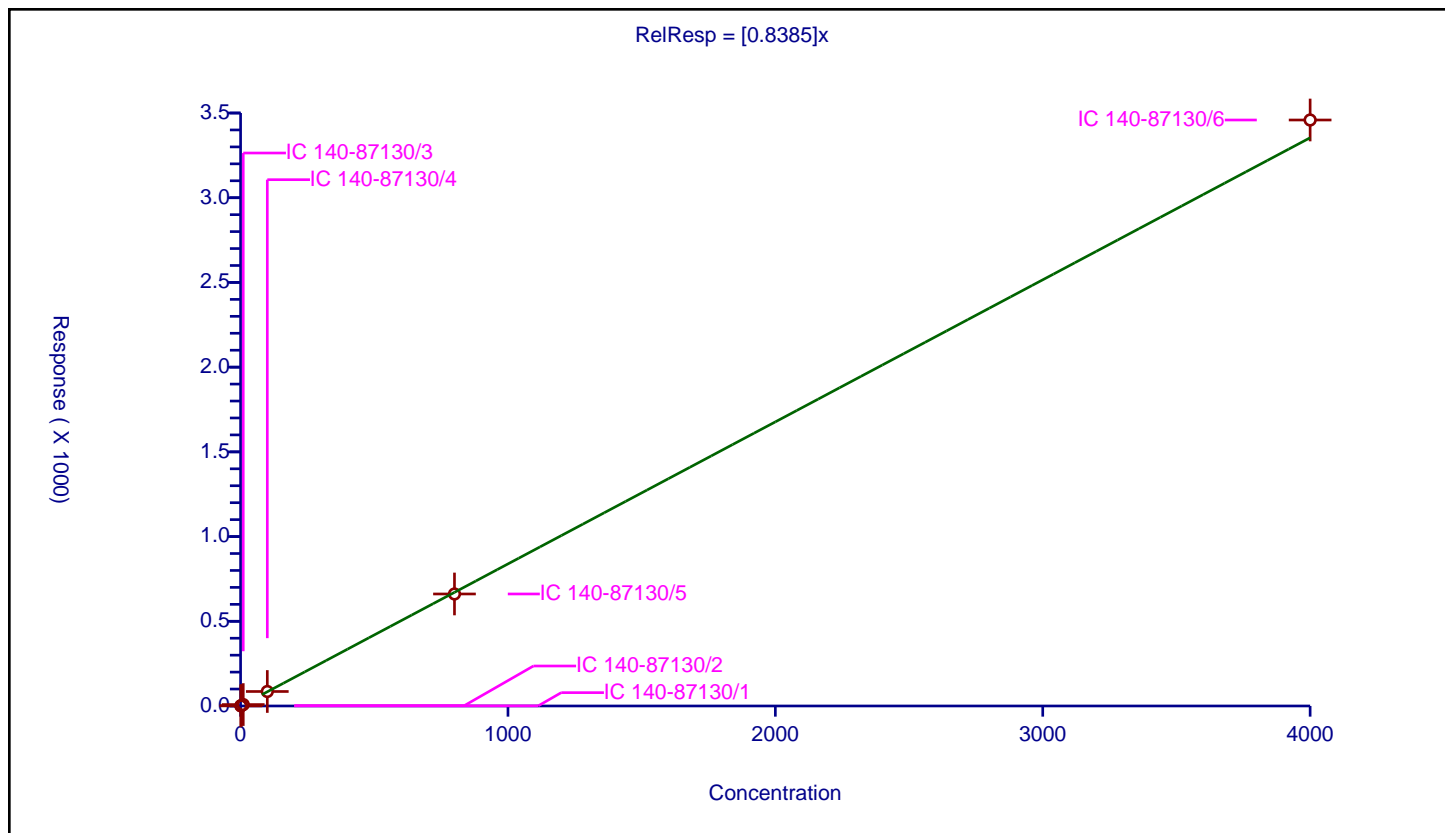
## Curve Coefficients

Intercept: 0  
Slope: 0.8385

## Error Coefficients

Relative Standard Deviation: 2.3

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 140-87130/1	1.0	0.833516	100.0	6938320.0	0.833516	Y
2	IC 140-87130/2	2.0	1.623187	100.0	6240748.0	0.811593	Y
3	IC 140-87130/3	10.0	8.385393	100.0	6307301.0	0.838539	Y
4	IC 140-87130/4	100.0	85.61991	100.0	6455349.0	0.856199	Y
5	IC 140-87130/5	800.0	661.180518	100.0	6672003.0	0.826476	Y
6	IC 140-87130/6	4000.0	3458.757009	100.0	6975966.0	0.864689	Y



FORM VI  
RESOLUTION CHECK SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID (1): WDMCCV 140-88747/1 Instrument ID (1): D2D  
GC Column (1): SPB-Octyl ID: 0.25 (mm) Date Analyzed (1): 07/15/2024 12:43

ANALYTE	RT	RESOLUTION (%)
PCB-34	21.60	10
PCB-187	40.95	4

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Column: SPB-Octyl ( 0.25 mm)  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL

PCB-34 - PCB-23, Signal: 2

## Isotopic Dilution PCB Method

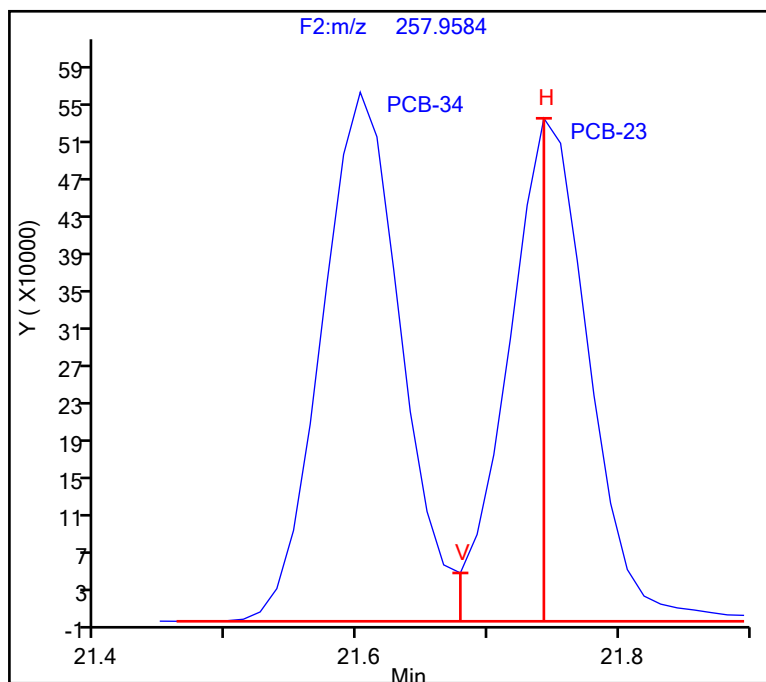
$$\%R = (V / H) * 100$$

V (Valley Height) = 51283

H (Peak Height) = 533822

$$\%R = 10 \leq 40$$

Passed



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System  
Injection Vol: 1.0 ul  
Method: PCBs\_D2D

ALS Bottle#: 0 Worklist Smp#: 1  
Column: SPB-Octyl ( 0.25 mm)  
Limit Group: HR - EPA\_23 PCB ICAL

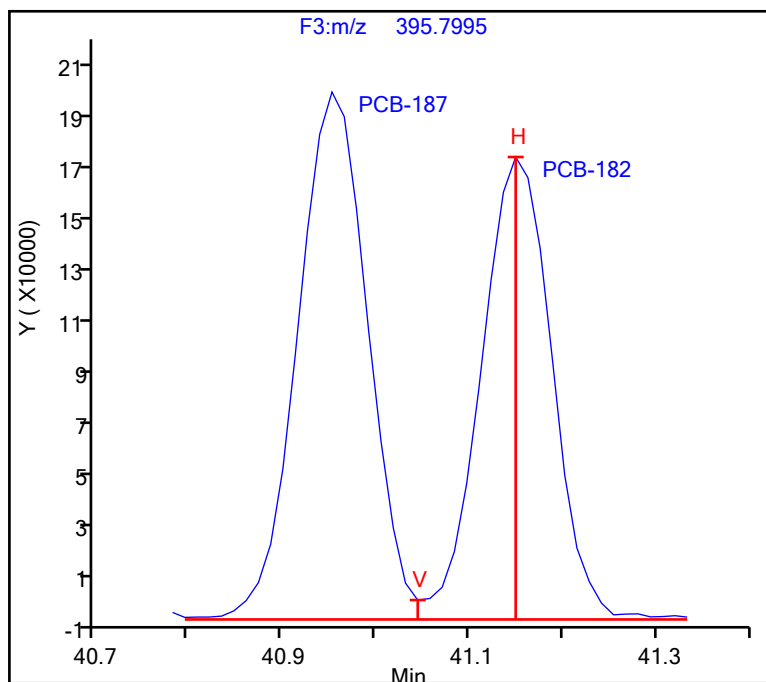
PCB-187 - PCB-182, Signal: 2

## Isotopic Dilution PCB Method

$$\%R = (V / H) * 100$$

V (Valley Height) = 7093  
H (Peak Height) = 169127

$\%R = 4 \leq 40$   
Passed



FORM VI  
RESOLUTION CHECK SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID (1): WDMCCV 140-88809/1 Instrument ID (1): D2D  
GC Column (1): SPB-Octyl ID: 0.25 (mm) Date Analyzed (1): 07/16/2024 11:46

ANALYTE	RT	RESOLUTION (%)
PCB-34	21.63	11
PCB-187	41.00	4

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System  
Injection Vol: 1.0 ul  
Method: PCBs\_D2D

ALS Bottle#: 0 Worklist Smp#: 1  
Column: SPB-Octyl ( 0.25 mm)  
Limit Group: HR - EPA\_23 PCB ICAL

PCB-34 - PCB-23, Signal: 2

## Isotopic Dilution PCB Method

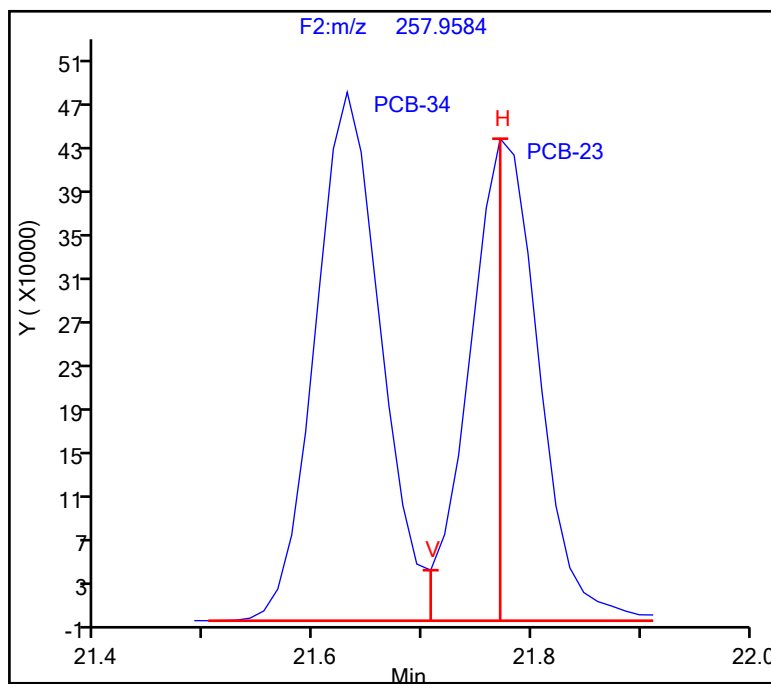
$$\%R = (V / H) * 100$$

V (Valley Height) = 45723

H (Peak Height) = 436263

$$\%R = 11 \leq 40$$

Passed





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System  
Injection Vol: 1.0 ul  
Method: PCBs\_D2D

ALS Bottle#: 0 Worklist Smp#: 1  
Column: SPB-Octyl ( 0.25 mm)  
Limit Group: HR - EPA\_23 PCB ICAL

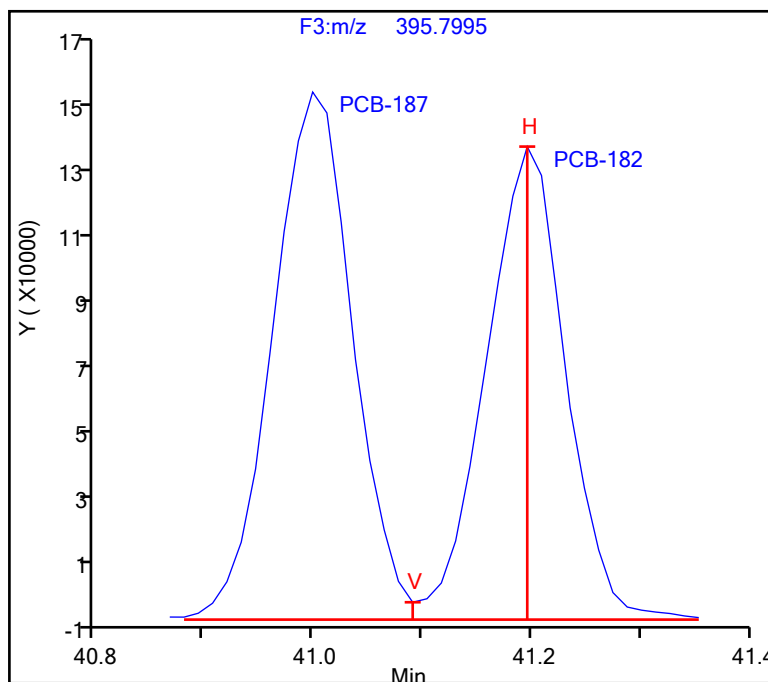
PCB-187 - PCB-182, Signal: 2

## Isotopic Dilution PCB Method

$$\%R = (V / H) * 100$$

V (Valley Height) = 4918  
H (Peak Height) = 133999

$\%R = 4 \leq 40$   
Passed



FORM VI  
RESOLUTION CHECK SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID (1): WDMCCV 140-88834/1 Instrument ID (1): D2D  
GC Column (1): SPB-Octyl ID: 0.25 (mm) Date Analyzed (1): 07/16/2024 23:14

ANALYTE	RT	RESOLUTION (%)
PCB-34	21.62	11
PCB-187	40.99	2

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System  
Injection Vol: 1.0 ul  
Method: PCBs\_D2D

ALS Bottle#: 0 Worklist Smp#: 1  
Column: SPB-Octyl ( 0.25 mm)  
Limit Group: HR - EPA\_23 PCB ICAL

PCB-34 - PCB-23, Signal: 2

## Isotopic Dilution PCB Method

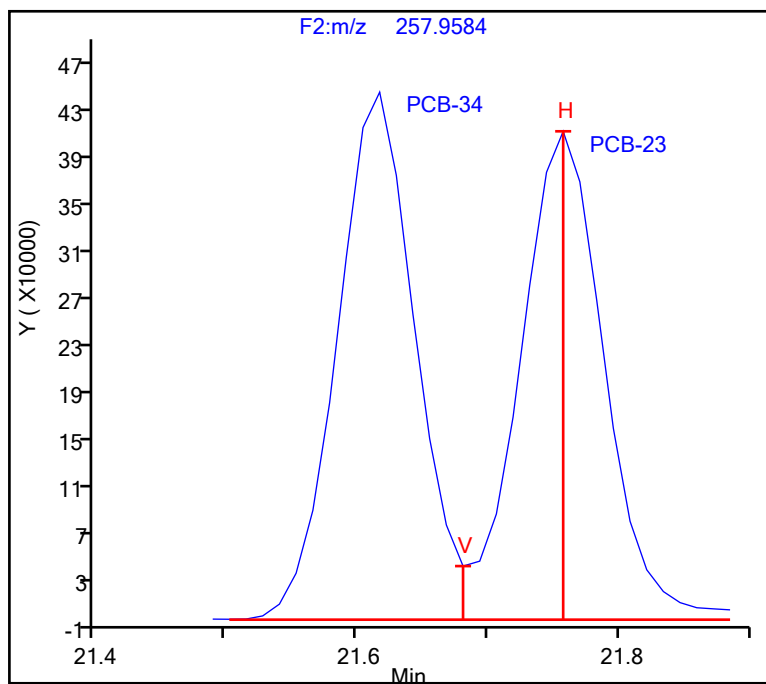
$$\%R = (V / H) * 100$$

V (Valley Height) = 44396

H (Peak Height) = 404593

$$\%R = 11 \leq 40$$

Passed



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System  
Injection Vol: 1.0 ul  
Method: PCBs\_D2D

ALS Bottle#: 0 Worklist Smp#: 1  
Column: SPB-Octyl ( 0.25 mm)  
Limit Group: HR - EPA\_23 PCB ICAL

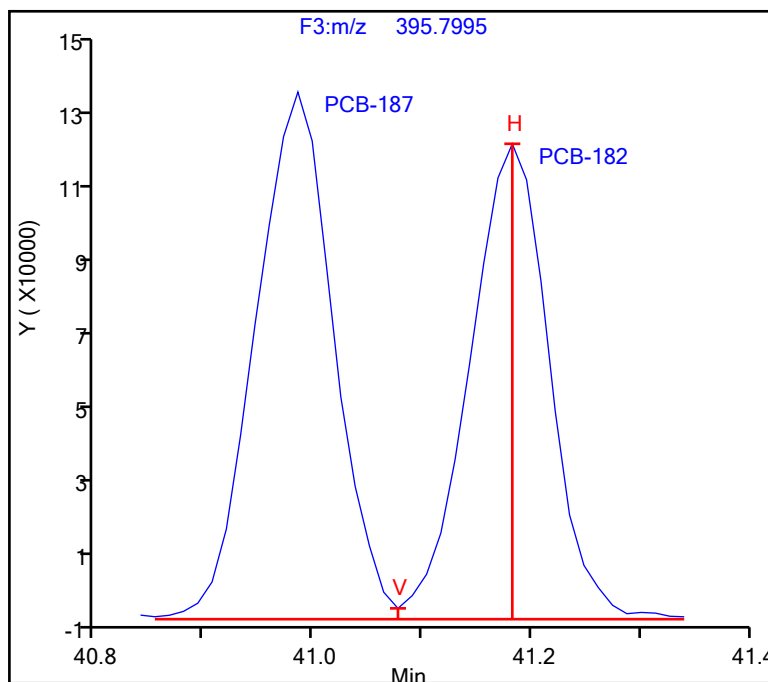
PCB-187 - PCB-182, Signal: 2

## Isotopic Dilution PCB Method

$$\%R = (V / H) * 100$$

V (Valley Height) = 2712  
H (Peak Height) = 119049

$\%R = 2 \leq 40$   
Passed



FORM VI  
RESOLUTION CHECK SUMMARY

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID (1): WDMCCV 140-88871/1 Instrument ID (1): D2D  
GC Column (1): SPB-Octyl ID: 0.25 (mm) Date Analyzed (1): 07/17/2024 12:39

ANALYTE	RT	RESOLUTION (%)
PCB-34	21.60	11
PCB-187	40.96	4

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Injection Date: 17-Jul-2024 12:39:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System  
Injection Vol: 1.0 ul  
Method: PCBs\_D2D

ALS Bottle#: 0 Worklist Smp#: 1  
Column: SPB-Octyl ( 0.25 mm)  
Limit Group: HR - EPA\_23 PCB ICAL

PCB-34 - PCB-23, Signal: 2

## Isotopic Dilution PCB Method

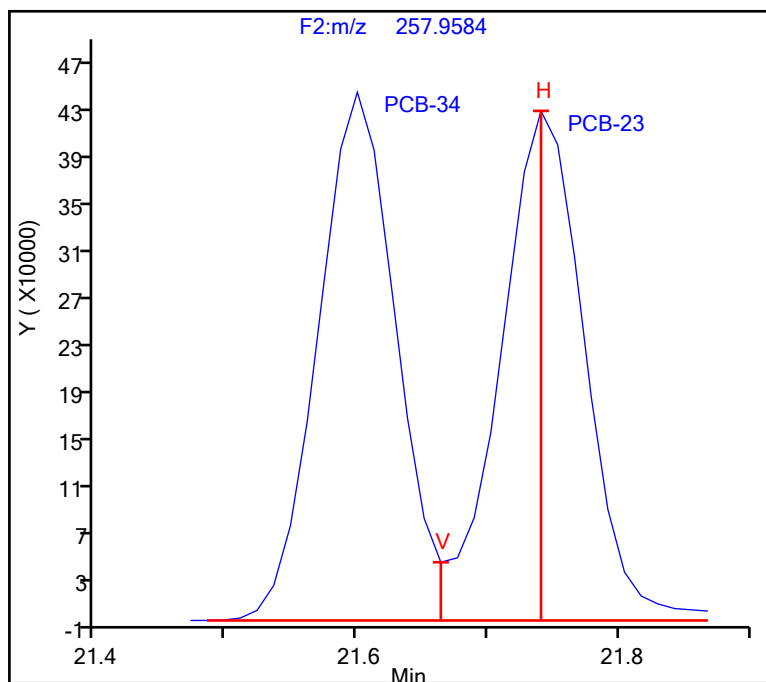
$$\%R = (V / H) * 100$$

V (Valley Height) = 48945

H (Peak Height) = 428310

$$\%R = 11 \leq 40$$

Passed



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Injection Date: 17-Jul-2024 12:39:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System  
Injection Vol: 1.0 ul  
Method: PCBs\_D2D

ALS Bottle#: 0 Worklist Smp#: 1  
Column: SPB-Octyl ( 0.25 mm)  
Limit Group: HR - EPA\_23 PCB ICAL

PCB-187 - PCB-182, Signal: 2

## Isotopic Dilution PCB Method

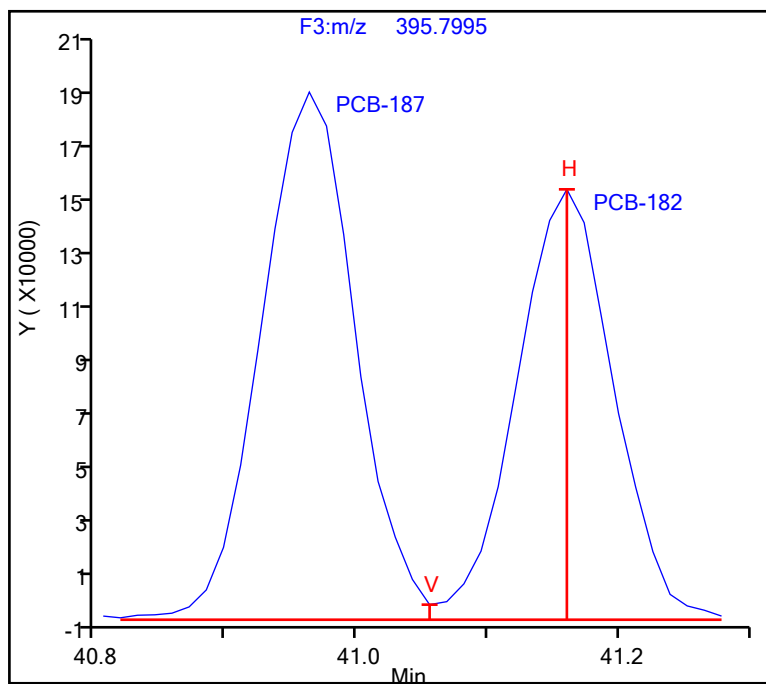
$$\%R = (V / H) * 100$$

V (Valley Height) = 5444

H (Peak Height) = 155498

$$\%R = 4 \leq 40$$

Passed



FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID: ICV 140-87130/7 Calibration Date: 05/31/2024 22:58  
Instrument ID: D2D Calib Start Date: 05/31/2024 14:36  
GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13  
Lab File ID: d2240531icv.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1L	Ave	1.611	1.602		99.4	100	-0.6	
PCB-3L	Ave	1.589	1.572		98.9	100	-1.1	
PCB-4L	Ave	0.6475	0.6470		99.9	100	-0.0	
PCB-19L	Ave	0.6285	0.6153		97.9	100	-2.1	
PCB-15L	Ave	1.079	1.068		99.0	100	-1.0	
PCB-54L	Ave	0.5562	0.5760		104	100	3.5	
PCB-104L	Ave	1.216	1.240		102	100	2.0	
PCB-37L	Ave	0.8749	0.8784		100	100	0.4	
PCB-155L	Ave	1.085	1.107		102	100	2.0	
PCB-81L	Ave	1.247	1.239		99.4	100	-0.6	
PCB-77L	Ave	1.321	1.319		99.8	100	-0.2	
PCB-123L	Ave	0.9731	0.9662		99.3	100	-0.7	
PCB-118L	Ave	1.010	1.010		100	100	0.0	
PCB-114L	Ave	0.9949	0.9887		99.4	100	-0.6	
PCB-188L	Ave	1.313	1.305		99.3	100	-0.7	
PCB-105L	Ave	0.9514	0.9507		99.9	100	-0.0	
PCB-126L	Ave	0.9439	0.9575		101	100	1.4	
PCB-202L	Ave	0.9818	0.9717		99.0	100	-1.0	
PCB-167L	Ave	1.257	1.287		102	100	2.3	
PCB-156L	Ave	1.211	1.226		203	200	1.3	
PCB-156L/157L	Ave	1.211	1.226		203	200	1.3	
PCB-157L	Ave	1.211	1.226		203	200	1.3	
PCB-170L	Ave	0.8362	0.8245		98.6	100	-1.4	
PCB-169L	Ave	1.244	1.250		101	100	0.5	
PCB-208L	Ave	0.9576	0.9509		99.3	100	-0.7	
PCB-189L	Ave	1.441	1.459		101	100	1.2	
PCB-205L	Ave	1.179	1.195		101	100	1.4	
PCB-206L	Ave	0.6947	0.7121		103	100	2.5	
PCB-209L	Ave	0.6669	0.6837		103	100	2.5	



FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: ICV 140-87130/7 Calibration Date: 05/31/2024 22:58

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240531icv.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
PCB-1	AveID	1.219	1.149		47.1	50.0	94	70-130
PCB-2	AveID	1.181	1.115		47.2	50.0	94	70-130
PCB-3	AveID	1.221	1.170		47.9	50.0	96	70-130
PCB-4	AveID	1.282	1.154		45.0	50.0	90	70-130
PCB-10	AveID	1.315	1.428		54.3	50.0	109	70-130
PCB-9	AveID	1.422	1.369		48.1	50.0	96	70-130
PCB-7	AveID	1.413	1.412		49.9	50.0	100	70-130
PCB-6	AveID	1.542	1.393		45.2	50.0	90	70-130
PCB-5	AveID	1.339	1.380		51.5	50.0	103	70-130
PCB-8	AveID	1.589	1.481		46.6	50.0	93	70-130
PCB-19	AveID	1.281	1.218		47.5	50.0	95	70-130
PCB-14	AveID	1.402	1.395		49.8	50.0	99	70-130
PCB-18	AveID	1.765	1.608		91.1	100	91	70-130
PCB-18/30	AveID	1.765	1.608		91.1	100	91	70-130
PCB-30	AveID	1.765	1.608		91.1	100	91	70-130
PCB-11	AveID	1.295	1.339		51.7	50.0	103	70-130
PCB-17	AveID	1.243	1.402		56.4	50.0	113	70-130
PCB-12	AveID	1.336	1.487		111	100	111	70-130
PCB-12/13	AveID	1.336	1.487		111	100	111	70-130
PCB-13	AveID	1.336	1.487		111	100	111	70-130
PCB-27	AveID	1.833	1.850		50.5	50.0	101	70-130
PCB-24	AveID	1.678	1.757		52.4	50.0	105	70-130
PCB-16	AveID	1.129	1.193		52.9	50.0	106	70-130
PCB-15	AveID	1.290	1.218		47.2	50.0	94	70-130
PCB-54	AveID	1.273	1.393		109	100	109	70-130
PCB-32	AveID	1.832	1.953		53.3	50.0	107	70-130
PCB-34	AveID	1.128	1.077		47.7	50.0	95	70-130
PCB-23	AveID	1.081	1.073		49.6	50.0	99	70-130
PCB-26	AveID	1.125	1.136		101	100	101	70-130
PCB-26/29	AveID	1.125	1.136		101	100	101	70-130
PCB-29	AveID	1.125	1.136		101	100	101	70-130
PCB-25	AveID	1.273	1.217		47.8	50.0	96	70-130
PCB-50	AveID	0.8578	0.8549		199	200	100	70-130
PCB-50/53	AveID	0.8578	0.8549		199	200	100	70-130
PCB-53	AveID	0.8578	0.8549		199	200	100	70-130
PCB-31	AveID	1.153	1.163		50.4	50.0	101	70-130
PCB-20	AveID	1.172	1.133		96.7	100	97	70-130
PCB-20/28	AveID	1.172	1.133		96.7	100	97	70-130
PCB-28	AveID	1.172	1.133		96.7	100	97	70-130
PCB-21	AveID	1.075	1.145		107	100	107	70-130
PCB-21/33	AveID	1.075	1.145		107	100	107	70-130

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: ICV 140-87130/7 Calibration Date: 05/31/2024 22:58

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240531icv.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
PCB-33	AveID	1.075	1.145		107	100	107	70-130
PCB-45	AveID	0.8264	0.8245		200	200	100	70-130
PCB-45/51	AveID	0.8264	0.8245		200	200	100	70-130
PCB-51	AveID	0.8264	0.8245		200	200	100	70-130
PCB-46	AveID	0.7101	0.7715		109	100	109	70-130
PCB-22	AveID	1.193	1.041		43.6	50.0	87	70-130
PCB-52	AveID	0.9194	0.8343		90.7	100	91	70-130
PCB-43	AveID	1.033	0.9371		181	200	91	70-130
PCB-43/73	AveID	1.033	0.9371		181	200	91	70-130
PCB-73	AveID	1.033	0.9371		181	200	91	70-130
PCB-36	AveID	1.107	1.255		56.7	50.0	113	70-130
PCB-49	AveID	1.069	1.049		196	200	98	70-130
PCB-49/69	AveID	1.069	1.049		196	200	98	70-130
PCB-69	AveID	1.069	1.049		196	200	98	70-130
PCB-39	AveID	1.158	1.078		46.5	50.0	93	70-130
PCB-48	AveID	0.8399	0.8578		102	100	102	70-130
PCB-104	AveID	1.009	1.263		125	100	125	70-130
PCB-44	AveID	0.9731	0.9426		291	300	97	70-130
PCB-44/47/65	AveID	0.9731	0.9426		291	300	97	70-130
PCB-47	AveID	0.9731	0.9426		291	300	97	70-130
PCB-65	AveID	0.9731	0.9426		291	300	97	70-130
PCB-38	AveID	1.084	1.160		53.5	50.0	107	70-130
PCB-96	AveID	1.094	1.011		92.4	100	92	70-130
PCB-59	AveID	1.185	1.181		299	300	100	70-130
PCB-59/62/75	AveID	1.185	1.181		299	300	100	70-130
PCB-62	AveID	1.185	1.181		299	300	100	70-130
PCB-75	AveID	1.185	1.181		299	300	100	70-130
PCB-42	AveID	0.8097	0.7739		95.6	100	96	70-130
PCB-35	AveID	1.130	1.106		49.0	50.0	98	70-130
PCB-40	AveID	0.8863	0.8636		292	300	97	70-130
PCB-40/41/71	AveID	0.8863	0.8636		292	300	97	70-130
PCB-41	AveID	0.8863	0.8636		292	300	97	70-130
PCB-71	AveID	0.8863	0.8636		292	300	97	70-130
PCB-37	AveID	1.144	1.147		50.2	50.0	100	70-130
PCB-64	AveID	1.178	1.201		102	100	102	70-130
PCB-72	AveID	1.094	1.191		109	100	109	70-130
PCB-103	AveID	0.8741	0.8351		95.5	100	96	70-130
PCB-68	AveID	1.253	1.274		102	100	102	70-130
PCB-94	AveID	0.7640	0.7974		104	100	104	70-130
PCB-57	AveID	1.082	1.145		106	100	106	70-130
PCB-95	AveID	0.8033	0.7312		91.0	100	91	70-130

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID: ICV 140-87130/7 Calibration Date: 05/31/2024 22:58  
Instrument ID: D2D Calib Start Date: 05/31/2024 14:36  
GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13  
Lab File ID: d2240531icv.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
PCB-58	AveID	1.325	1.171		88.4	100	88	70-130
PCB-100	AveID	0.8429	0.8829		210	200	105	70-130
PCB-93	AveID	0.8429	0.8829		210	200	105	70-130
PCB-93/100	AveID	0.8429	0.8829		210	200	105	70-130
PCB-67	AveID	1.423	1.417		99.6	100	100	70-130
PCB-102	AveID	0.8262	0.8523		206	200	103	70-130
PCB-98	AveID	0.8262	0.8523		206	200	103	70-130
PCB-98/102	AveID	0.8262	0.8523		206	200	103	70-130
PCB-63	AveID	1.124	1.232		110	100	110	70-130
PCB-88	AveID	0.8013	0.7989		199	200	100	70-130
PCB-88/91	AveID	0.8013	0.7989		199	200	100	70-130
PCB-91	AveID	0.8013	0.7989		199	200	100	70-130
PCB-61	AveID	1.261	1.191		378	400	94	70-130
PCB-61/70/74/76	AveID	1.261	1.191		378	400	94	70-130
PCB-70	AveID	1.261	1.191		378	400	94	70-130
PCB-74	AveID	1.261	1.191		378	400	94	70-130
PCB-76	AveID	1.261	1.191		378	400	94	70-130
PCB-84	AveID	0.7299	0.8132		111	100	111	70-130
PCB-66	AveID	1.258	1.208		96.0	100	96	70-130
PCB-55	AveID	1.324	1.110		83.9	100	84	70-130
PCB-89	AveID	0.7798	0.6977		89.5	100	89	70-130
PCB-56	AveID	1.233	1.112		90.1	100	90	70-130
PCB-121	AveID	1.296	1.173		90.5	100	91	70-130
PCB-60	AveID	1.123	1.177		105	100	105	70-130
PCB-92	AveID	0.8546	0.7291		85.3	100	85	70-130
PCB-80	AveID	1.324	1.414		107	100	107	70-130
PCB-155	AveID	0.9444	1.062		113	100	112	70-130
PCB-152	AveID	0.9895	0.9505		96.1	100	96	70-130
PCB-101	AveID	0.9550	0.9763		307	300	102	70-130
PCB-113	AveID	0.9550	0.9763		307	300	102	70-130
PCB-90	AveID	0.9550	0.9763		307	300	102	70-130
PCB-90/101/113	AveID	0.9550	0.9763		307	300	102	70-130
PCB-150	AveID	1.013	1.069		106	100	105	70-130
PCB-136	AveID	1.012	0.9664		95.5	100	96	70-130
PCB-83	AveID	0.8385	0.7949		190	200	95	70-130
PCB-83/99	AveID	0.8385	0.7949		190	200	95	70-130
PCB-99	AveID	0.8385	0.7949		190	200	95	70-130
PCB-112	AveID	1.411	1.291		91.5	100	91	70-130
PCB-145	AveID	0.9685	1.019		105	100	105	70-130
PCB-109	AveID	1.047	1.001		574	600	96	70-130
PCB-119	AveID	1.047	1.001		574	600	96	70-130

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: ICV 140-87130/7 Calibration Date: 05/31/2024 22:58

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d224053licv.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
PCB-125	AveID	1.047	1.001		574	600	96	70-130
PCB-79	AveID	1.437	1.400		97.4	100	97	70-130
PCB-86	AveID	1.047	1.001		574	600	96	70-130
PCB-86/87/97/109/119/125	AveID	1.047	1.001		574	600	96	70-130
PCB-87	AveID	1.047	1.001		574	600	96	70-130
PCB-97	AveID	1.047	1.001		574	600	96	70-130
PCB-78	AveID	1.162	1.065		91.7	100	92	70-130
PCB-116	AveID	1.041	1.039		300	300	100	70-130
PCB-117	AveID	1.041	1.039		300	300	100	70-130
PCB-85	AveID	1.041	1.039		300	300	100	70-130
PCB-85/116/117	AveID	1.041	1.039		300	300	100	70-130
PCB-110	AveID	1.192	1.118		188	200	94	70-130
PCB-110/115	AveID	1.192	1.118		188	200	94	70-130
PCB-115	AveID	1.192	1.118		188	200	94	70-130
PCB-81	AveID	1.080	1.082		100	100	100	70-130
PCB-82	AveID	0.8303	0.7499		90.3	100	90	70-130
PCB-148	AveID	0.7603	0.7170		94.3	100	94	70-130
PCB-77	AveID	1.084	1.123		104	100	104	70-130
PCB-111	AveID	1.213	1.220		101	100	101	70-130
PCB-135	AveID	0.7256	0.7119		196	200	98	70-130
PCB-135/151	AveID	0.7256	0.7119		196	200	98	70-130
PCB-151	AveID	0.7256	0.7119		196	200	98	70-130
PCB-120	AveID	1.476	1.168		79.1	100	79	70-130
PCB-154	AveID	0.8129	0.9550		118	100	117	70-130
PCB-144	AveID	0.7852	0.7252		92.4	100	92	70-130
PCB-147	AveID	0.8950	0.9068		203	200	101	70-130
PCB-147/149	AveID	0.8950	0.9068		203	200	101	70-130
PCB-149	AveID	0.8950	0.9068		203	200	101	70-130
PCB-134	AveID	0.7967	0.7322		184	200	92	70-130
PCB-134/143	AveID	0.7967	0.7322		184	200	92	70-130
PCB-143	AveID	0.7967	0.7322		184	200	92	70-130
PCB-108	AveID	1.141	1.092		192	200	96	70-130
PCB-108/124	AveID	1.141	1.092		192	200	96	70-130
PCB-124	AveID	1.141	1.092		192	200	96	70-130
PCB-139	AveID	0.8769	0.9117		208	200	104	70-130
PCB-139/140	AveID	0.8769	0.9117		208	200	104	70-130
PCB-140	AveID	0.8769	0.9117		208	200	104	70-130
PCB-107	AveID	1.212	1.347		111	100	111	70-130
PCB-131	AveID	0.7503	0.7482		99.7	100	100	70-130
PCB-123	AveID	1.072	1.170		109	100	109	70-130
PCB-106	AveID	1.084	1.036		95.6	100	96	70-130

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: ICV 140-87130/7 Calibration Date: 05/31/2024 22:58

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d224053licv.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
PCB-142	AveID	0.7507	0.7009		93.4	100	93	70-130
PCB-118	AveID	1.206	1.164		96.6	100	97	70-130
PCB-132	AveID	0.7489	0.7731		103	100	103	70-130
PCB-122	AveID	0.9567	0.8244		86.2	100	86	70-130
PCB-114	AveID	1.084	1.198		111	100	110	70-130
PCB-188	AveID	1.135	1.094		96.4	100	96	70-130
PCB-133	AveID	0.8096	0.7674		94.8	100	95	70-130
PCB-179	AveID	1.428	1.355		95.0	100	95	70-130
PCB-165	AveID	1.025	1.035		101	100	101	70-130
PCB-105	AveID	1.188	1.019		85.8	100	86	70-130
PCB-146	AveID	0.9637	0.997		103	100	103	70-130
PCB-184	AveID	1.367	1.441		105	100	105	70-130
PCB-161	AveID	1.129	1.137		101	100	101	70-130
PCB-176	AveID	1.233	1.339		109	100	109	70-130
PCB-153	AveID	1.094	1.059		194	200	97	70-130
PCB-153/168	AveID	1.094	1.059		194	200	97	70-130
PCB-168	AveID	1.094	1.059		194	200	97	70-130
PCB-141	AveID	0.8755	0.9597		110	100	110	70-130
PCB-186	AveID	1.474	1.315		89.2	100	89	70-130
PCB-130	AveID	0.7051	0.7475		106	100	106	70-130
PCB-127	AveID	1.139	1.130		99.2	100	99	70-130
PCB-137	AveID	0.7767	0.8332		107	100	107	70-130
PCB-164	AveID	1.038	1.221		118	100	118	70-130
PCB-129	AveID	0.9464	0.9336		395	400	99	70-130
PCB-129/138/160/163	AveID	0.9464	0.9336		395	400	99	70-130
PCB-138	AveID	0.9464	0.9336		395	400	99	70-130
PCB-160	AveID	0.9464	0.9336		395	400	99	70-130
PCB-163	AveID	0.9464	0.9336		395	400	99	70-130
PCB-158	AveID	1.311	1.375		105	100	105	70-130
PCB-178	AveID	0.8946	0.9371		105	100	105	70-130
PCB-175	AveID	0.9524	1.006		106	100	106	70-130
PCB-126	AveID	1.098	1.156		105	100	105	70-130
PCB-128	AveID	0.9829	1.021		208	200	104	70-130
PCB-128/166	AveID	0.9829	1.021		208	200	104	70-130
PCB-166	AveID	0.9829	1.021		208	200	104	70-130
PCB-187	AveID	1.102	1.066		96.8	100	97	70-130
PCB-182	AveID	0.9247	1.108		120	100	120	70-130
PCB-183	AveID	0.9825	1.030		210	200	105	70-130
PCB-183/185	AveID	0.9825	1.030		210	200	105	70-130
PCB-185	AveID	0.9825	1.030		210	200	105	70-130
PCB-174	AveID	0.9642	1.059		110	100	110	70-130

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: ICV 140-87130/7 Calibration Date: 05/31/2024 22:58

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d224053licv.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
PCB-159	AveID	1.386	1.223		88.3	100	88	70-130
PCB-162	AveID	1.257	1.256		99.9	100	100	70-130
PCB-177	AveID	0.9773	0.9705		99.3	100	99	70-130
PCB-202	AveID	1.036	1.147		166	150	111	70-130
PCB-167	AveID	1.116			105	100	105	70-130
PCB-181	AveID	0.9505	0.9734		102	100	102	70-130
PCB-171	AveID	0.9336	0.9451		202	200	101	70-130
PCB-171/173	AveID	0.9336	0.9451		202	200	101	70-130
PCB-173	AveID	0.9336	0.9451		202	200	101	70-130
PCB-201	AveID	0.9754	1.182		182	150	121	70-130
PCB-156	AveID	1.110	1.136		205	200	102	70-130
PCB-156/157	AveID	1.110	1.136		205	200	102	70-130
PCB-157	AveID	1.110	1.136		205	200	102	70-130
PCB-204	AveID	1.049	1.143		164	150	109	70-130
PCB-197	AveID	1.146	1.072		140	150	94	70-130
PCB-200	AveID	1.007	1.121		167	150	111	70-130
PCB-172	AveID	0.8519	0.9291		109	100	109	70-130
PCB-192	AveID	1.346	1.188		88.3	100	88	70-130
PCB-180	AveID	1.168	1.237		212	200	106	70-130
PCB-180/193	AveID	1.168	1.237		212	200	106	70-130
PCB-193	AveID	1.168	1.237		212	200	106	70-130
PCB-191	AveID	1.289	1.335		104	100	104	70-130
PCB-170	AveID	1.187	1.248		105	100	105	70-130
PCB-190	AveID	1.332	1.297		97.4	100	97	70-130
PCB-169	AveID	1.163	1.151		99.0	100	99	70-130
PCB-198	AveID	0.8698	0.7707		266	300	89	70-130
PCB-198/199	AveID	0.8698	0.7707		266	300	89	70-130
PCB-199	AveID	0.8698	0.7707		266	300	89	70-130
PCB-196	AveID	0.7806	0.8313		160	150	106	70-130
PCB-203	AveID	0.9292	0.8581		139	150	92	70-130
PCB-208	AveID	1.137	1.121		148	150	99	70-130
PCB-195	AveID	0.8263	0.7848		143	150	95	70-130
PCB-189	AveID	0.9633	1.028		107	100	107	70-130
PCB-207	AveID	1.376	1.307		143	150	95	70-130
PCB-194	AveID	0.9735	0.9023		139	150	93	70-130
PCB-205	AveID	1.088	1.125		155	150	103	70-130
PCB-206	AveID	1.335	1.185		133	150	89	70-130
PCB-209	AveID	1.100	1.108		151	150	101	70-130
PCB-8L	AveID	1.207	1.152		47.8	50.0	96	70-130
PCB-28L	Ave	1.049	0.9712		46.3	50.0	93	70-130
PCB-95L	AveID	0.7218	0.6977		48.3	50.0	97	70-130

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID: ICV 140-87130/7 Calibration Date: 05/31/2024 22:58  
Instrument ID: D2D Calib Start Date: 05/31/2024 14:36  
GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13  
Lab File ID: d2240531icv.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%REC	%REC LIMITS
PCB-79L	AveID	1.002	0.9895		49.4	50.0	99	70-130
PCB-111L	Ave	1.370	1.294		47.2	50.0	94	70-130
PCB-153L	AveID	0.9169	0.8168		44.5	50.0	89	70-130
PCB-178L	Ave	1.031	0.9547		46.3	50.0	93	70-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d  
Lims ID: ICV  
Client ID:  
Sample Type: ICV  
Inject. Date: 31-May-2024 22:58:00 ALS Bottle#: 0 Worklist Smp#: 7  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0032883-007  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Sublist:  
Method: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 25-Jun-2024 14:34:14 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1632

First Level Reviewer: P0IK

Date: 01-Jun-2024 11:13:58

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total Monochlorobiphenyls					142.3	142.3	0.1520	0.1520		
D PCB-1L	11:36	13414069	3.05	1.6108	99.4	99.4	0.3050	0.3050	99.43	
D PCB-3L	13:45	13162192	3.20	1.5891	98.9	98.9	0.3091	0.3091	98.89	
PCB-1	11:36	7705547	3.15	1.2191	47.1	47.1	0.1363	0.1363	94.24	
PCB-2	13:35	7406759	3.15	1.1805	47.2	47.2	0.1544	0.1544	94.43	
PCB-3	13:46	7702403	3.18	1.2206	47.9	47.9	0.1655	0.1655	95.89	
S Total Dichlorobiphenyls					600.7	600.7	0.0371	0.0371		
D PCB-4L	14:00	5419001	1.61	0.6475	99.9	99.9	0.2147	0.2147	99.92	
* PCB-9L	15:58	8375462	1.59		100.0	100.0				
\$ PCB-8L	16:48	4139554	1.62	1.2066	47.8	47.8	0.1418	0.1418	95.51	
D PCB-15L	19:53	8949015	1.65	1.0789	99.0	99.0	0.1288	0.1288	99.03	
PCB-4	14:01	3127338	1.60	1.2818	45.0	45.0	0.0447	0.0447	90.04	
PCB-10	14:11	5130776	1.61	1.3149	54.3	54.3	0.0388	0.0388	109	
PCB-9	15:59	4916901	1.64	1.4224	48.1	48.1	0.0359	0.0359	96.23	
PCB-7	16:09	5070472	1.57	1.4134	49.9	49.9	0.0361	0.0361	99.87	
PCB-6	16:23	5004501	1.60	1.5421	45.2	45.2	0.0331	0.0331	90.35	
PCB-5	16:42	4956608	1.59	1.3395	51.5	51.5	0.0381	0.0381	103	
PCB-8	16:50	5320885	1.59	1.5889	46.6	46.6	0.0321	0.0321	93.23	
PCB-14	18:27	5012029	1.59	1.4025	49.7	49.7	0.0364	0.0364	99.49	
PCB-11	19:17	4810913	1.59	1.2951	51.7	51.7	0.0394	0.0394	103	
PCB-12	19:35	10683830	1.59	1.3358	111.3	111.3	0.0382	0.0382	111	
PCB-13 (C12)	19:35	10683830	1.59	1.3358	111.3	111.3	0.0382	0.0382	111	
PCB-15	19:54	5451192	1.60	1.2903	47.2	47.2	0.0356	0.0356	94.42	
S Total Trichlorobiphenyls					1203.3	1203.3	0.6825	0.6825		
D PCB-19L	17:06	3365213	1.06	0.6285	97.9	97.9	0.4414	0.4414	97.89	
* PCB-32L	20:22	5469284	1.12		100.0	100.0				
* PCB-31L	22:37	15618533	1.05		100.0	100.0				
\$ PCB-28L	22:55	7584009	1.04	1.0494	46.3	46.3	0.0861	0.0861	92.54	
D PCB-37L	26:54	13719981	1.07	0.8749	100.4	100.4	0.1032	0.1032	100	
PCB-19	17:08	2049308	1.04	1.2809	47.5	47.5	0.0689	0.0689	95.08	
PCB-18	18:57	5412289	1.06	1.7652	91.1	91.1	0.0500	0.0500	91.11	
PCB-30 (C18)	18:57	5412289	1.06	1.7652	91.1	91.1	0.0500	0.0500	91.11	
PCB-17	19:24	2359724	1.04	1.2430	56.4	56.4	0.0710	0.0710	113	



Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-27	19:38	3112171	1.03	1.8327	50.5	50.5	0.0481	0.0481	101	
PCB-24	19:45	2956499	1.04	1.6777	52.4	52.4	0.0526	0.0526	105	
PCB-16	19:52	2007108	1.05	1.1286	52.8	52.8	0.0782	0.0782	106	
PCB-32	20:23	3286329	1.05	1.8324	53.3	53.3	0.0481	0.0481	107	
PCB-34	21:38	7386673	1.06	1.1277	47.7	47.7	1.027	1.027	95.48	
PCB-23	21:47	7363564	1.07	1.0813	49.6	49.6	1.071	1.071	99.27	
PCB-26	22:07	15586173	1.05	1.1255	100.9	100.9	1.029	1.029	101	
PCB-29 (C26)	22:07	15586173	1.05	1.1255	100.9	100.9	1.029	1.029	101	
PCB-25	22:20	8348692	1.06	1.2728	47.8	47.8	0.9102	0.9102	95.62	
PCB-31	22:38	7977672	1.05	1.1532	50.4	50.4	1.005	1.005	101	
PCB-20	22:57	15549506	1.06	1.1718	96.7	96.7	0.9886	0.9886	96.72	
PCB-28 (C20)	22:57	15549506	1.06	1.1718	96.7	96.7	0.9886	0.9886	96.72	
PCB-21	23:06	15708308	1.03	1.0746	106.5	106.5	1.078	1.078	107	M
PCB-33 (C21)	23:06	15708308	1.03	1.0746	106.5	106.5	1.078	1.078	107	M
PCB-22	23:34	7141111	1.05	1.1932	43.6	43.6	0.9709	0.9709	87.24	
PCB-36	25:08	8610244	1.12	1.1071	56.7	56.7	1.046	1.046	113	
PCB-39	25:29	7392700	1.04	1.1581	46.5	46.5	1.000	1.000	93.05	
PCB-38	26:04	7958217	1.06	1.0843	53.5	53.5	1.068	1.068	107	
PCB-35	26:31	7588192	1.07	1.1297	49.0	49.0	1.025	1.025	97.92	
PCB-37	26:56	7868173	1.06	1.1435	50.2	50.2	1.013	1.013	100	
S Total Tetrachlorobiphenyls					4133.2	4133.2	0.7839	0.7839		
D PCB-54L	20:11	3150116	0.82	0.5562	103.5	103.5	0.0525	0.0525	104	
* PCB-52L	24:45	7783825	0.80		100.0	100.0				
\$ PCB-79L	32:41	4925323	0.80	1.0018	49.4	49.4	0.3933	0.3933	98.77	
D PCB-81L	33:40	9646433	0.81	1.2470	99.4	99.4	0.3558	0.3558	99.39	
D PCB-77L	34:13	10262985	0.80	1.3212	99.8	99.8	0.3358	0.3358	99.80	
PCB-54	20:12	4387976	0.79	1.2733	109.4	109.4	0.0935	0.0935	109	
PCB-50	22:23	17020303	0.79	0.8578	199.3	199.3	1.006	1.006	99.66	
PCB-53 (C50)	22:23	17020303	0.79	0.8578	199.3	199.3	1.006	1.006	99.66	
PCB-45	23:06	16414642	0.79	0.8264	199.5	199.5	1.044	1.044	99.76	M
PCB-51 (C45)	23:06	16414642	0.79	0.8264	199.5	199.5	1.044	1.044	99.76	M
PCB-46	23:21	7680120	0.79	0.7101	108.6	108.6	1.215	1.215	109	
PCB-52	24:46	8305512	0.80	0.9194	90.7	90.7	0.9384	0.9384	90.74	
PCB-43	24:55	18656318	0.79	1.0333	181.4	181.4	0.8350	0.8350	90.68	M
PCB-73 (C43)	24:55	18656318	0.79	1.0333	181.4	181.4	0.8350	0.8350	90.68	M
PCB-49	25:13	20893404	0.79	1.0685	196.4	196.4	0.8075	0.8075	98.21	
PCB-69 (C49)	25:13	20893404	0.79	1.0685	196.4	196.4	0.8075	0.8075	98.21	
PCB-48	25:32	8538932	0.79	0.8399	102.1	102.1	1.027	1.027	102	
PCB-44	25:47	28148593	0.80	0.9731	290.6	290.6	0.8867	0.8867	96.86	
PCB-47 (C44)	25:47	28148593	0.80	0.9731	290.6	290.6	0.8867	0.8867	96.86	
PCB-65 (C44)	25:47	28148593	0.80	0.9731	290.6	290.6	0.8867	0.8867	96.86	
PCB-59	26:05	35280314	0.80	1.1853	299.0	299.0	0.7280	0.7280	99.67	
PCB-62 (C59)	26:05	35280314	0.80	1.1853	299.0	299.0	0.7280	0.7280	99.67	
PCB-75 (C59)	26:05	35280314	0.80	1.1853	299.0	299.0	0.7280	0.7280	99.67	
PCB-42	26:18	7704424	0.77	0.8097	95.6	95.6	1.066	1.066	95.59	
PCB-40	26:47	25791445	0.80	0.8863	292.3	292.3	0.9735	0.9735	97.44	M
PCB-41 (C40)	26:47	25791445	0.80	0.8863	292.3	292.3	0.9735	0.9735	97.44	M
PCB-71 (C40)	26:47	25791445	0.80	0.8863	292.3	292.3	0.9735	0.9735	97.44	M
PCB-64	27:00	11956915	0.78	1.1776	102.0	102.0	0.7327	0.7327	102	
PCB-72	27:50	11854927	0.81	1.0943	108.8	108.8	0.7885	0.7885	109	
PCB-68	28:07	12678056	0.81	1.2533	101.6	101.6	0.6885	0.6885	102	
PCB-57	28:33	11397207	0.79	1.0818	105.8	105.8	0.7976	0.7976	106	
PCB-58	28:47	11659254	0.80	1.3253	88.4	88.4	0.6510	0.6510	88.37	
PCB-67	28:57	14108728	0.79	1.4230	99.6	99.6	0.6063	0.6063	99.60	
PCB-63	29:13	12259353	0.79	1.1240	109.6	109.6	0.7677	0.7677	110	
PCB-61	29:33	47420190	0.79	1.2612	377.7	377.7	0.6841	0.6841	94.42	
PCB-70 (C61)	29:33	47420190	0.79	1.2612	377.7	377.7	0.6841	0.6841	94.42	
PCB-74 (C61)	29:33	47420190	0.79	1.2612	377.7	377.7	0.6841	0.6841	94.42	
PCB-76 (C61)	29:33	47420190	0.79	1.2612	377.7	377.7	0.6841	0.6841	94.42	
PCB-66	29:52	12027199	0.79	1.2583	96.0	96.0	0.6857	0.6857	96.02	
PCB-55	30:02	11053300	0.79	1.3236	83.9	83.9	0.6519	0.6519	83.89	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-56	30:32	11065342	0.79	1.2334	90.1	90.1	0.6996	0.6996	90.12	
PCB-60	30:45	11714864	0.79	1.1230	104.8	104.8	0.7683	0.7683	105	
PCB-80	31:10	14080645	0.80	1.3243	106.8	106.8	0.6516	0.6516	107	
PCB-79	32:41	13935476	0.80	1.4368	97.4	97.4	0.6005	0.6005	97.43	
PCB-78	33:15	10602840	0.80	1.1618	91.7	91.7	0.7426	0.7426	91.67	
PCB-81	33:41	10440515	0.81	1.0802	100.2	100.2	0.8094	0.8094	100	
PCB-77	34:15	11527488	0.79	1.0836	103.7	103.7	0.7860	0.7860	104	
S Total Pentachlorobiphenyls					4510.1	4510.1	0.4493	0.4493		
D PCB-104L	25:41	6421083	1.59	1.2161	102.0	102.0	0.0354	0.0354	102	
\$ PCB-95L	28:40	2240078	1.60	0.7218	48.3	48.3	0.0427	0.0427	96.66	
* PCB-101L	31:36	5178918	1.59		100.0	100.0				
\$ PCB-111L	34:17	3351426	1.63	1.3699	47.2	47.2	0.0314	0.0314	94.48	
D PCB-123L	36:14	9572782	1.59	0.9731	99.3	99.3	1.187	1.187	99.29	
D PCB-118L	36:34	10007737	1.59	1.0102	100.0	100.0	1.143	1.143	100	
D PCB-114L	37:06	9795358	1.58	0.9949	99.4	99.4	1.161	1.161	99.38	
D PCB-105L	37:44	9418380	1.60	0.9514	99.9	99.9	1.214	1.214	99.92	
* PCB-127L	39:13	9907302	1.59		100.0	100.0				
D PCB-126L	40:50	9486247	1.59	0.9439	101.4	101.4	1.224	1.224	101	
PCB-104	25:43	8111515	1.58	1.0087	125.2	125.2	0.0552	0.0552	125	
PCB-96	26:04	6493983	1.57	1.0940	92.4	92.4	0.0509	0.0509	92.44	
PCB-103	28:01	5362312	1.59	0.8741	95.5	95.5	0.0637	0.0637	95.54	
PCB-94	28:15	5120381	1.56	0.7640	104.4	104.4	0.0728	0.0728	104	
PCB-95	28:41	4695325	1.57	0.8033	91.0	91.0	0.0693	0.0693	91.03	
PCB-93	28:54	11337838	1.58	0.8429	209.5	209.5	0.0660	0.0660	105	
PCB-100 (C93)	28:54	11337838	1.58	0.8429	209.5	209.5	0.0660	0.0660	105	
PCB-98	29:03	10945909	1.56	0.8262	206.3	206.3	0.0674	0.0674	103	M
PCB-102 (C98)	29:03	10945909	1.56	0.8262	206.3	206.3	0.0674	0.0674	103	M
PCB-88	29:33	10260203	1.58	0.8013	199.4	199.4	0.0695	0.0695	99.71	
PCB-91 (C88)	29:33	10260203	1.58	0.8013	199.4	199.4	0.0695	0.0695	99.71	
PCB-84	29:46	5221560	1.62	0.7299	111.4	111.4	0.0762	0.0762	111	
PCB-89	30:15	4480089	1.54	0.7798	89.5	89.5	0.0714	0.0714	89.47	
PCB-121	30:40	7533942	1.60	1.2964	90.5	90.5	0.0429	0.0429	90.51	
PCB-92	31:02	4681623	1.58	0.8546	85.3	85.3	0.0651	0.0651	85.32	
PCB-90	31:37	18807306	1.58	0.9550	306.7	306.7	0.0583	0.0583	102	
PCB-101 (C90)	31:37	18807306	1.58	0.9550	306.7	306.7	0.0583	0.0583	102	
PCB-113 (C90)	31:37	18807306	1.58	0.9550	306.7	306.7	0.0583	0.0583	102	
PCB-83	32:12	10207726	1.58	0.8385	189.6	189.6	0.0664	0.0664	94.80	
PCB-99 (C83)	32:12	10207726	1.58	0.8385	189.6	189.6	0.0664	0.0664	94.80	
PCB-112	32:19	8287611	1.60	1.4111	91.5	91.5	0.0394	0.0394	91.47	
PCB-86	32:41	38576882	1.56	1.0473	573.7	573.7	0.0531	0.0531	95.61	M
PCB-87 (C86)	32:41	38576882	1.56	1.0473	573.7	573.7	0.0531	0.0531	95.61	M
PCB-97 (C86)	32:41	38576882	1.56	1.0473	573.7	573.7	0.0531	0.0531	95.61	M
PCB-109 (C86)	32:41	38576882	1.56	1.0473	573.7	573.7	0.0531	0.0531	95.61	M
PCB-119 (C86)	32:41	38576882	1.56	1.0473	573.7	573.7	0.0531	0.0531	95.61	M
PCB-125 (C86)	32:41	38576882	1.56	1.0473	573.7	573.7	0.0531	0.0531	95.61	M
PCB-85	33:24	20019818	1.59	1.0408	299.6	299.6	0.0535	0.0535	99.85	
PCB-116 (C85)	33:24	20019818	1.59	1.0408	299.6	299.6	0.0535	0.0535	99.85	
PCB-117 (C85)	33:24	20019818	1.59	1.0408	299.6	299.6	0.0535	0.0535	99.85	
PCB-110	33:37	14360543	1.58	1.1919	187.6	187.6	0.0467	0.0467	93.82	
PCB-115 (C110)	33:37	14360543	1.58	1.1919	187.6	187.6	0.0467	0.0467	93.82	
PCB-82	33:54	4814852	1.58	0.8303	90.3	90.3	0.0670	0.0670	90.31	
PCB-111	34:18	7831052	1.56	1.2125	100.6	100.6	0.0459	0.0459	101	
PCB-120	34:46	7497947	1.59	1.4762	79.1	79.1	0.0377	0.0377	79.10	
PCB-108	35:54	21095145	1.57	1.1405	191.5	191.5	1.237	1.237	95.77	
PCB-124 (C108)	35:54	21095145	1.57	1.1405	191.5	191.5	1.237	1.237	95.77	
PCB-107	36:09	13007450	1.56	1.2121	111.1	111.1	1.164	1.164	111	
PCB-123	36:16	11197845	1.57	1.0722	109.1	109.1	1.291	1.291	109	
PCB-106	36:22	10002249	1.58	1.0839	95.6	95.6	1.302	1.302	95.57	
PCB-118	36:35	11653704	1.56	1.2055	96.6	96.6	1.124	1.124	96.59	
PCB-122	36:56	7960489	1.57	0.9567	86.2	86.2	1.475	1.475	86.17	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-114	37:06	11734136	1.57	1.0842	110.5	110.5	1.295	1.295	110	
PCB-105	37:46	9597079	1.55	1.1879	85.8	85.8	1.213	1.213	85.78	
PCB-127	39:14	10912279	1.60	1.1394	99.2	99.2	1.239	1.239	99.18	
PCB-126	40:50	10965999	1.58	1.0976	105.3	105.3	1.350	1.350	105	
S Total Hexachlorobiphenyls					4243.4	4243.4	0.6932	0.6932		
D PCB-155L	31:22	5734390	1.30	1.0851	102.0	102.0	0.0185	0.0185	102	
\$ PCB-153L	38:27	3343428	1.30	0.9169	44.5	44.5	0.4214	0.4214	89.08	
* PCB-138L	39:41	6563932	1.28		100.0	100.0				
\$ PCB-159L	41:56	4312836	1.30	0.5118	99.8	99.8	0.6210	0.6210	99.77	
D PCB-167L	42:42	8445294	1.31	1.2572	102.3	102.3	0.3206	0.3206	102	
D PCB-156L	43:50	16094647	1.28	1.2106	202.5	202.5	0.3330	0.3330	101	
D PCB-157L (C156L)	43:50	16094647	1.28	1.2106	202.5	202.5	0.3330	0.3330	101	
D PCB-169L	47:04	8207279	1.29	1.2439	100.5	100.5	0.3241	0.3241	101	
PCB-155	31:24	6090078	1.28	0.9444	112.5	112.5	0.0796	0.0796	112	
PCB-152	31:35	5450811	1.27	0.9895	96.1	96.1	0.0760	0.0760	96.06	
PCB-150	31:45	6127358	1.25	1.0132	105.5	105.5	0.0742	0.0742	105	
PCB-136	32:07	5541573	1.28	1.0116	95.5	95.5	0.0744	0.0744	95.53	
PCB-145	32:24	5840861	1.26	0.9685	105.2	105.2	0.0777	0.0777	105	
PCB-148	33:56	4111619	1.25	0.7603	94.3	94.3	0.0989	0.0989	94.31	
PCB-135	34:34	8164147	1.26	0.7256	196.2	196.2	0.1037	0.1037	98.11	M
PCB-151 (C135)	34:34	8164147	1.26	0.7256	196.2	196.2	0.1037	0.1037	98.11	M
PCB-154	34:46	5476583	1.25	0.8129	117.5	117.5	0.0925	0.0925	117	
PCB-144	35:05	4158464	1.28	0.7852	92.4	92.4	0.0958	0.0958	92.35	
PCB-147	35:27	14847787	1.26	0.8950	202.6	202.6	0.9838	0.9838	101	
PCB-149 (C147)	35:27	14847787	1.26	0.8950	202.6	202.6	0.9838	0.9838	101	
PCB-134	35:44	11988900	1.25	0.7967	183.8	183.8	1.105	1.105	91.91	
PCB-143 (C134)	35:44	11988900	1.25	0.7967	183.8	183.8	1.105	1.105	91.91	
PCB-139	36:02	14927416	1.24	0.8769	207.9	207.9	1.004	1.004	104	
PCB-140 (C139)	36:02	14927416	1.24	0.8769	207.9	207.9	1.004	1.004	104	
PCB-131	36:14	6125595	1.25	0.7503	99.7	99.7	1.174	1.174	99.73	
PCB-142	36:23	5738296	1.24	0.7507	93.4	93.4	1.173	1.173	93.37	
PCB-132	36:42	6329307	1.24	0.7489	103.2	103.2	1.176	1.176	103	
PCB-133	37:13	6282580	1.24	0.8096	94.8	94.8	1.088	1.088	94.79	
PCB-165	37:36	8477247	1.26	1.0247	101.1	101.1	0.8592	0.8592	101	
PCB-146	37:51	8161387	1.24	0.9637	103.4	103.4	0.9137	0.9137	103	
PCB-161	37:59	9304402	1.25	1.1288	100.7	100.7	0.7800	0.7800	101	
PCB-153	38:30	17338020	1.25	1.0938	193.6	193.6	0.8050	0.8050	96.81	
PCB-168 (C153)	38:30	17338020	1.25	1.0938	193.6	193.6	0.8050	0.8050	96.81	
PCB-141	38:39	7856757	1.24	0.8755	109.6	109.6	1.006	1.006	110	
PCB-130	39:04	6119481	1.24	0.7051	106.0	106.0	1.249	1.249	106	
PCB-137	39:17	6821305	1.21	0.7767	107.3	107.3	1.134	1.134	107	
PCB-164	39:24	9995366	1.25	1.0382	117.6	117.6	0.8480	0.8480	118	
PCB-129	39:43	30572353	1.26	0.9464	394.6	394.6	0.9303	0.9303	98.65	M
PCB-138 (C129)	39:43	30572353	1.26	0.9464	394.6	394.6	0.9303	0.9303	98.65	M
PCB-160 (C129)	39:43	30572353	1.26	0.9464	394.6	394.6	0.9303	0.9303	98.65	M
PCB-163 (C129)	39:43	30572353	1.26	0.9464	394.6	394.6	0.9303	0.9303	98.65	M
PCB-158	40:06	11258096	1.24	1.3110	104.9	104.9	0.6716	0.6716	105	
PCB-128	40:57	16714613	1.24	0.9829	207.7	207.7	0.8958	0.8958	104	
PCB-166 (C128)	40:57	16714613	1.24	0.9829	207.7	207.7	0.8958	0.8958	104	
PCB-159	41:57	10014801	1.23	1.3856	88.3	88.3	0.6354	0.6354	88.28	
PCB-162	42:14	10282972	1.22	1.2571	99.9	99.9	0.7004	0.7004	99.92	
PCB-167	42:43	9852940	1.23	1.1159	104.6	104.6	0.6491	0.6491	105	
PCB-156	43:52	18279006	1.24	1.1104	204.6	204.6	0.9827	0.9827	102	
PCB-157 (C156)	43:52	18279006	1.24	1.1104	204.6	204.6	0.9827	0.9827	102	
PCB-169	47:05	9448864	1.27	1.1628	99.0	99.0	0.6468	0.6468	99.01	
S Total Heptachlorobiphenyls					2467.5	2467.5	0.0680	0.0680		
D PCB-188L	37:06	6609962	1.05	1.3133	99.3	99.3	0.0226	0.0226	99.34	
\$ PCB-178L	40:09	2418279	1.05	1.0313	46.3	46.3	0.0287	0.0287	92.57	
* PCB-180L	45:14	5066313	1.06		100.0	100.0				

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D PCB-170L	46:29	4177003	1.08	0.8362	98.6	98.6	0.0354	0.0354	98.60	
D PCB-189L	49:36	10375043	1.07	1.4414	101.2	101.2	0.3972	0.3972	101	
PCB-188	37:07	7230306	1.08	1.1350	96.4	96.4	0.0462	0.0462	96.38	
PCB-179	37:27	7310684	1.07	1.4276	94.9	94.9	0.0460	0.0460	94.95	
PCB-184	37:58	7772186	1.05	1.3672	105.4	105.4	0.0480	0.0480	105	
PCB-176	38:20	7223648	1.06	1.2331	108.6	108.6	0.0533	0.0533	109	
PCB-186	38:47	7091463	1.04	1.4737	89.2	89.2	0.0446	0.0446	89.22	
PCB-178	40:10	5054358	1.06	0.8946	104.8	104.8	0.0734	0.0734	105	
PCB-175	40:48	5425795	1.06	0.9524	105.6	105.6	0.0690	0.0690	106	
PCB-187	41:05	5750661	1.07	1.1018	96.8	96.8	0.0596	0.0596	96.77	
PCB-182	41:16	5978453	1.06	0.9247	119.9	119.9	0.0710	0.0710	120	
PCB-183	41:41	11114963	1.04	0.9825	209.8	209.8	0.0668	0.0668	105	M
PCB-185 (C183)	41:41	11114963	1.04	0.9825	209.8	209.8	0.0668	0.0668	105	M
PCB-174	41:55	5712753	1.07	0.9642	109.9	109.9	0.0681	0.0681	110	
PCB-177	42:21	5234215	0.99	0.9773	99.3	99.3	0.0672	0.0672	99.30	
PCB-181	42:45	5249952	1.06	0.9505	102.4	102.4	0.0691	0.0691	102	
PCB-171	42:58	10194311	1.05	0.9336	202.4	202.4	0.0703	0.0703	101	
PCB-173 (C171)	42:58	10194311	1.05	0.9336	202.4	202.4	0.0703	0.0703	101	
PCB-172	44:36	5010827	1.05	0.8519	109.1	109.1	0.0771	0.0771	109	
PCB-192	44:53	6407979	1.07	1.3459	88.3	88.3	0.0488	0.0488	88.28	
PCB-180	45:13	13348093	1.06	1.1676	212.0	212.0	0.0562	0.0562	106	
PCB-193 (C180)	45:13	13348093	1.06	1.1676	212.0	212.0	0.0562	0.0562	106	
PCB-191	45:37	7199239	1.06	1.2891	103.5	103.5	0.0509	0.0509	104	
PCB-170	46:30	5214600	1.04	1.1865	105.2	105.2	0.0741	0.0741	105	
PCB-190	47:02	6997680	1.06	1.3322	97.4	97.4	0.0493	0.0493	97.39	
PCB-189	49:38	10666309	1.05	0.9633	106.7	106.7	0.2183	0.2183	107	
S Total Octachlorobiphenyls					1819.4	1819.4	0.1226	0.1226		
D PCB-202L	42:27	4923092	0.90	0.9818	99.0	99.0	0.0140	0.0140	98.97	
* PCB-194L	51:43	7109366	0.91		100.0	100.0				
D PCB-205L	52:10	8498492	0.92	1.1786	101.4	101.4	0.0712	0.0712	101	
PCB-202	42:29	8468737	0.90	1.0359	166.1	166.1	0.0575	0.0575	111	
PCB-201	43:24	8730003	0.91	0.9754	181.8	181.8	0.0610	0.0610	121	
PCB-204	44:05	8442210	0.91	1.0485	163.5	163.5	0.0568	0.0568	109	
PCB-197	44:18	7912802	0.89	1.1458	140.3	140.3	0.0520	0.0520	93.52	
PCB-200	44:25	8280585	0.91	1.0072	167.0	167.0	0.0591	0.0591	111	
PCB-198	47:12	11381972	0.90	0.8698	265.8	265.8	0.0685	0.0685	88.60	
PCB-199 (C198)	47:12	11381972	0.90	0.8698	265.8	265.8	0.0685	0.0685	88.60	
PCB-196	47:53	6138982	0.89	0.7806	159.7	159.7	0.0763	0.0763	106	
PCB-203	48:04	6336967	0.91	0.9292	138.5	138.5	0.0641	0.0641	92.35	
PCB-195	49:23	10004472	0.90	0.8263	142.5	142.5	0.3271	0.3271	94.98	
PCB-194	51:44	11502338	0.91	0.9735	139.0	139.0	0.2776	0.2776	92.69	
PCB-205	52:12	14343070	0.90	1.0878	155.2	155.2	0.2485	0.2485	103	
S Total Nonachlorobiphenyls					423.6	423.6	0.3600	0.3600		
D PCB-208L	49:08	6760397	0.82	0.9576	99.3	99.3	0.2461	0.2461	99.30	
D PCB-206L	53:56	5062798	0.82	0.6947	102.5	102.5	0.3392	0.3392	103	
PCB-208	49:09	11369581	0.78	1.1374	147.9	147.9	0.3498	0.3498	98.57	
PCB-207	50:05	11589174	0.79	1.3756	142.5	142.5	0.3311	0.3311	95.01	
PCB-206	53:57	8998894	0.80	1.3346	133.2	133.2	0.3990	0.3990	88.79	
D PCB-209L	55:34	4860874	0.73	0.6669	102.5	102.5	0.0770	0.0770	103	
DCB Decachlorobiphenyl	55:35	8078366	0.70	1.1004	151.0	151.0	0.0505	0.0505	101	
S Polychlorinated biphenyls, Total					19552	19552	0.3608	0.3608		

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

61MX209ICVS\_00010

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531icv.d  
Lims ID: ICV  
Client ID:  
Sample Type: ICV  
Inject. Date: 31-May-2024 22:58:00 ALS Bottle#: 0 Worklist Smp#: 7  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0032883-007  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Sublist:  
  
Method: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 25-Jun-2024 14:34:14 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d  
  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1632

First Level Reviewer: P0IK

Date: 01-Jun-2024 11:13:58

Signal	RT (min.)	Adj RT (min.)	¶ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:36	11:36	-1	0.726	10103777	4095861	3106	7765	1319		
202.0766	11:36	11:36	-1	0.726	3310292	1331893	1619	4047	823	3.05(2.66-3.60)	
PCB-3L											
200.0795	13:45	13:46	-1	0.861	10030467	3409421	3106	7765	1098		
202.0766	13:45	13:46	-1	0.861	3131725	1055587	1619	4047	652	3.20(2.66-3.60)	
PCB-1											
188.0393	11:36	11:37	-1	1.001	5850066	2371808	2745	6862	864		
190.0363	11:36	11:37	-1	1.001	1855481	744562	862	2155	864	3.15(2.66-3.60)	
PCB-2											
188.0393	13:35	13:36	-2	0.988	5623875	1844092	2745	6862	672		
190.0363	13:35	13:36	-2	0.988	1782884	586009	862	2155	680	3.15(2.66-3.60)	
PCB-3											
188.0393	13:46	13:47	-1	1.001	5859143	1964980	2745	6862	716		
190.0363	13:46	13:47	-1	1.001	1843260	617524	862	2155	716	3.18(2.66-3.60)	
PCB-4L											
234.0406	14:00	14:02	-2	0.876	3344986	1063170	1120	2800	949		
236.0376	14:00	14:02	-2	0.876	2074015	675055	217	542	3111	1.61(1.33-1.79)	
PCB-9L											
234.0406	15:58	15:59	-1		5147891	1483695	1120	2800	1325		
236.0376	15:58	15:59	-1		3227571	920658	217	542	4243	1.59(1.33-1.79)	
PCB-8L											
234.0406	16:48	16:50	-2	1.200	2560875	700385	1120	2800	625		
236.0376	16:48	16:50	-2	1.200	1578679	440253	217	542	2029	1.62(1.33-1.79)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:53	19:54	-2	1.245	5569429	1333844	1120	2800	1191		
236.0376	19:53	19:54	-2	1.245	3379586	834330	217	542	3845	1.65(1.33-1.79)	
PCB-4											
222.0003	14:01	14:02	-1	1.002	1925034	613170	147	367	4171		
223.9974	14:01	14:02	-1	1.002	1202304	380856	252	630	1511	1.60(1.33-1.79)	
PCB-10											
222.0003	14:11	14:13	-2	1.013	3166372	1003249	147	367	6825		
223.9974	14:11	14:13	-2	1.013	1964404	631997	252	630	2508	1.61(1.33-1.79)	
PCB-9											
222.0003	15:59	16:00	-1	1.142	3056424	916469	147	367	6234		
223.9974	15:59	16:00	-1	1.142	1860477	551822	252	630	2190	1.64(1.33-1.79)	
PCB-7											
222.0003	16:09	16:10	-2	1.153	3100401	891503	147	367	6065		
223.9974	16:09	16:10	-2	1.153	1970071	559010	252	630	2218	1.57(1.33-1.79)	
PCB-6											
222.0003	16:23	16:25	-2	1.171	3081385	875858	147	367	5958		
223.9974	16:23	16:25	-2	1.171	1923116	542995	252	630	2155	1.60(1.33-1.79)	
PCB-5											
222.0003	16:42	16:43	-2	1.193	3041883	865913	147	367	5891		
223.9974	16:42	16:43	-2	1.193	1914725	543382	252	630	2156	1.59(1.33-1.79)	
PCB-8											
222.0003	16:50	16:50	-1	1.202	3269707	892828	147	367	6074		
223.9974	16:49	16:50	-2	1.201	2051178	550386	252	630	2184	1.59(1.33-1.79)	
PCB-14											
222.0003	18:27	18:28	-1	0.928	3077529	817580	147	367	5562		
223.9974	18:27	18:28	-1	0.928	1934500	501236	252	630	1989	1.59(1.33-1.79)	
PCB-11											
222.0003	19:17	19:18	-1	0.970	2956006	745986	147	367	5075		
223.9974	19:17	19:18	-1	0.970	1854907	474147	252	630	1882	1.59(1.33-1.79)	
PCB-12											
222.0003	19:35	19:36	-1	0.985	6551161	1073913	147	367	7306		
223.9974	19:35	19:36	-1	0.985	4132669	684210	252	630	2715	1.59(1.33-1.79)	
PCB-13 (C12)											
222.0003	19:35	19:36	-1	0.985	6551161	1073913	147	367	7306		
223.9974	19:35	19:36	-1	0.985	4132669	684210	252	630	2715	1.59(1.33-1.79)	
PCB-15											
222.0003	19:54	19:55	-1	1.001	3350939	782858	147	367	5326		
223.9974	19:54	19:55	-1	1.001	2100253	483826	252	630	1920	1.60(1.33-1.79)	
PCB-19L											
268.0016	17:06	17:08	-2	0.840	1732998	475392	445	1112	1068		
269.9986	17:06	17:08	-2	0.840	1632215	450808	1019	2547	442	1.06(0.88-1.20)	
PCB-32L											
268.0016	20:22	20:23	-1		2891371	674119	445	1112	1515		
269.9986	20:22	20:23	-1		2577913	644990	1019	2547	633	1.12(0.88-1.20)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-31L											
268.0016	22:37	22:38	-1		8002433	1889916	810	2025	2333		
269.9986	22:37	22:38	-1		7616100	1792994	521	1302	3441	1.05(0.88-1.20)	
PCB-28L											
268.0016	22:55	22:56	-1	1.013	3873743	895493	810	2025	1106		
269.9986	22:55	22:56	-1	1.013	3710266	837875	521	1302	1608	1.04(0.88-1.20)	
PCB-37L											
268.0016	26:54	26:55	-1	1.190	7101526	1479555	810	2025	1827		
269.9986	26:54	26:55	-1	1.190	6618455	1372655	521	1302	2635	1.07(0.88-1.20)	
PCB-19											
255.9613	17:08	17:09	-1	1.002	1046701	279702	211	527	1326		
257.9584	17:07	17:09	-2	1.001	1002607	271758	116	290	2343	1.04(0.88-1.20)	
PCB-18											
255.9613	18:57	18:59	-2	1.108	2781051	529177	211	527	2508		
257.9584	18:57	18:59	-2	1.108	2631238	493719	116	290	4256	1.06(0.88-1.20)	
PCB-30 (C18)											
255.9613	18:57	18:59	-2	1.108	2781051	529177	211	527	2508		
257.9584	18:57	18:59	-2	1.108	2631238	493719	116	290	4256	1.06(0.88-1.20)	
PCB-17											
255.9613	19:24	19:26	-2	1.135	1202754	306907	211	527	1455		
257.9584	19:24	19:26	-2	1.135	1156970	293962	116	290	2534	1.04(0.88-1.20)	
PCB-27											
255.9613	19:38	19:39	-1	1.148	1582269	396871	211	527	1881		
257.9584	19:37	19:39	-2	1.147	1529902	372926	116	290	3215	1.03(0.88-1.20)	
PCB-24											
255.9613	19:45	19:46	-1	1.155	1504350	375414	211	527	1779		
257.9584	19:45	19:46	-1	1.155	1452149	376031	116	290	3242	1.04(0.88-1.20)	
PCB-16											
255.9613	19:52	19:53	-1	1.162	1030230	261432	211	527	1239		
257.9584	19:52	19:53	-1	1.162	976878	247521	116	290	2134	1.05(0.88-1.20)	
PCB-32											
255.9613	20:23	20:23	-1	1.192	1682114	415647	211	527	1970		
257.9584	20:23	20:23	-1	1.192	1604215	403987	116	290	3483	1.05(0.88-1.20)	
PCB-34											
255.9613	21:38	21:39	-1	1.265	3797306	924707	7638	19095	121		
257.9584	21:38	21:39	-1	1.265	3589367	879511	5579	13947	158	1.06(0.88-1.20)	
PCB-23											
255.9613	21:47	21:48	-1	1.274	3807327	894920	7638	19095	117		
257.9584	21:47	21:48	-1	1.274	3556237	839685	5579	13947	151	1.07(0.88-1.20)	
PCB-26											
255.9613	22:07	22:08	-1	1.293	7998616	1624921	7638	19095	213		
257.9584	22:07	22:08	-1	1.293	7587557	1580194	5579	13947	283	1.05(0.88-1.20)	
PCB-29 (C26)											
255.9613	22:07	22:08	-1	1.293	7998616	1624921	7638	19095	213		
257.9584	22:07	22:08	-1	1.293	7587557	1580194	5579	13947	283	1.05(0.88-1.20)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-25											
255.9613	22:20	22:21	-1	0.830	4297437	911223	7638	19095	119		
257.9584	22:20	22:21	-1	0.830	4051255	853504	5579	13947	153	1.06(0.88-1.20)	
PCB-31											
255.9613	22:38	22:40	-2	0.841	4092978	943513	7638	19095	124		
257.9584	22:38	22:40	-2	0.841	3884694	904096	5579	13947	162	1.05(0.88-1.20)	
PCB-20											
255.9613	22:57	22:58	-1	0.853	8003444	1512347	7638	19095	198		
257.9584	22:57	22:58	-1	0.853	7546062	1449629	5579	13947	260	1.06(0.88-1.20)	
PCB-28 (C20)											
255.9613	22:57	22:58	-1	0.853	8003444	1512347	7638	19095	198		
257.9584	22:57	22:58	-1	0.853	7546062	1449629	5579	13947	260	1.06(0.88-1.20)	
PCB-21											
255.9613	23:06	23:07	-1	0.859	7956098	1000870	7638	19095	131		M
257.9584	23:06	23:07	-1	0.859	7752210	969315	5579	13947	174	1.03(0.88-1.20)	M
PCB-33 (C21)											
255.9613	23:06	23:07	-1	0.859	7956098	1000870	7638	19095	131		M
257.9584	23:06	23:07	-1	0.859	7752210	969315	5579	13947	174	1.03(0.88-1.20)	M
PCB-22											
255.9613	23:34	23:35	-1	0.876	3655206	842267	7638	19095	110		
257.9584	23:34	23:35	-1	0.876	3485905	798810	5579	13947	143	1.05(0.88-1.20)	
PCB-36											
255.9613	25:08	25:09	-1	0.934	4540214	882522	7638	19095	116		
257.9584	25:08	25:09	-1	0.934	4070030	828526	5579	13947	149	1.12(0.88-1.20)	
PCB-39											
255.9613	25:29	25:30	-1	0.947	3760741	789234	7638	19095	103		
257.9584	25:29	25:30	-1	0.947	3631959	759447	5579	13947	136	1.04(0.88-1.20)	
PCB-38											
255.9613	26:04	26:05	-1	0.969	4102901	877260	7638	19095	115		
257.9584	26:04	26:05	-1	0.969	3855316	824339	5579	13947	148	1.06(0.88-1.20)	
PCB-35											
255.9613	26:31	26:32	-1	0.986	3921309	785906	7638	19095	103		
257.9584	26:31	26:32	-1	0.986	3666883	736665	5579	13947	132	1.07(0.88-1.20)	
PCB-37											
255.9613	26:56	26:57	-1	1.001	4057382	824639	7638	19095	108		
257.9584	26:56	26:57	-1	1.001	3810791	794829	5579	13947	142	1.06(0.88-1.20)	
PCB-54L											
301.9626	20:11	20:12	-2	0.815	1418019	347973	146	365	2383		
303.9597	20:11	20:12	-2	0.815	1732097	439160	8	20	54895	0.82(0.65-0.89)	
PCB-52L											
301.9626	24:45	24:46	-2		3456171	771135	1272	3180	606		
303.9597	24:45	24:46	-2		4327654	957616	1796	4490	533	0.80(0.65-0.89)	
PCB-79L											
301.9626	32:41	32:41	0	0.971	2192285	441931	1272	3180	347		
303.9597	32:40	32:41	-1	0.970	2733038	553333	1796	4490	308	0.80(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-81L											
301.9626	33:40	33:41	-1	1.360	4308382	864591	1272	3180	680		
303.9597	33:40	33:41	-1	1.360	5338051	1056607	1796	4490	588	0.81(0.65-0.89)	
PCB-77L											
301.9626	34:13	34:14	-1	1.383	4563300	872792	1272	3180	686		
303.9597	34:13	34:14	-1	1.383	5699685	1099462	1796	4490	612	0.80(0.65-0.89)	
PCB-54											
289.9224	20:12	20:13	-1	1.000	1939754	496773	183	457	2715		
291.9194	20:12	20:13	-1	1.000	2448222	619151	192	480	3225	0.79(0.65-0.89)	
PCB-50											
289.9224	22:23	22:24	-1	1.109	7508551	1520529	3079	7697	494		
291.9194	22:23	22:24	-1	1.109	9511752	1951569	3640	9100	536	0.79(0.65-0.89)	
PCB-53 (C50)											
289.9224	22:23	22:24	-1	1.109	7508551	1520529	3079	7697	494		
291.9194	22:23	22:24	-1	1.109	9511752	1951569	3640	9100	536	0.79(0.65-0.89)	
PCB-45											
289.9224	23:06	23:08	-2	1.145	7266784	922591	3079	7697	300		M
291.9194	23:06	23:08	-2	1.145	9147858	1162065	3640	9100	319	0.79(0.65-0.89)	M
PCB-51 (C45)											
289.9224	23:06	23:08	-2	1.145	7266784	922591	3079	7697	300		M
291.9194	23:06	23:08	-2	1.145	9147858	1162065	3640	9100	319	0.79(0.65-0.89)	M
PCB-46											
289.9224	23:21	23:22	-1	1.157	3391513	798861	3079	7697	259		
291.9194	23:21	23:22	-1	1.157	4288607	1003242	3640	9100	276	0.79(0.65-0.89)	
PCB-52											
289.9224	24:46	24:47	-1	1.228	3687517	835179	3079	7697	271		
291.9194	24:46	24:47	-1	1.228	4617995	1048972	3640	9100	288	0.80(0.65-0.89)	
PCB-43											
289.9224	24:55	24:56	-1	1.235	8232470	1181226	3079	7697	384		M
291.9194	24:55	24:56	-2	1.235	10423848	1485849	3640	9100	408	0.79(0.65-0.89)	M
PCB-73 (C43)											
289.9224	24:55	24:56	-1	1.235	8232470	1181226	3079	7697	384		M
291.9194	24:55	24:56	-2	1.235	10423848	1485849	3640	9100	408	0.79(0.65-0.89)	M
PCB-49											
289.9224	25:13	25:14	-1	1.250	9217804	1370345	3079	7697	445		
291.9194	25:13	25:14	-1	1.250	11675600	1750179	3640	9100	481	0.79(0.65-0.89)	
PCB-69 (C49)											
289.9224	25:13	25:14	-1	1.250	9217804	1370345	3079	7697	445		
291.9194	25:13	25:14	-1	1.250	11675600	1750179	3640	9100	481	0.79(0.65-0.89)	
PCB-48											
289.9224	25:32	25:33	-1	1.266	3761963	851454	3079	7697	277		
291.9194	25:32	25:33	-1	1.266	4776969	1070664	3640	9100	294	0.79(0.65-0.89)	
PCB-44											
289.9224	25:47	25:48	-1	1.278	12479341	2247450	3079	7697	730		
291.9194	25:47	25:48	-1	1.278	15669252	2847732	3640	9100	782	0.80(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-47 (C44)											
289.9224	25:47	25:48	-1	1.278	12479341	2247450	3079	7697	730		
291.9194	25:47	25:48	-1	1.278	15669252	2847732	3640	9100	782	0.80(0.65-0.89)	
PCB-65 (C44)											
289.9224	25:47	25:48	-1	1.278	12479341	2247450	3079	7697	730		
291.9194	25:47	25:48	-1	1.278	15669252	2847732	3640	9100	782	0.80(0.65-0.89)	
PCB-59											
289.9224	26:05	26:06	-1	1.293	15647059	2235842	3079	7697	726		
291.9194	26:05	26:06	-1	1.293	19633255	2829582	3640	9100	777	0.80(0.65-0.89)	
PCB-62 (C59)											
289.9224	26:05	26:06	-1	1.293	15647059	2235842	3079	7697	726		
291.9194	26:05	26:06	-1	1.293	19633255	2829582	3640	9100	777	0.80(0.65-0.89)	
PCB-75 (C59)											
289.9224	26:05	26:06	-1	1.293	15647059	2235842	3079	7697	726		
291.9194	26:05	26:06	-1	1.293	19633255	2829582	3640	9100	777	0.80(0.65-0.89)	
PCB-42											
289.9224	26:18	26:18	-1	1.303	3359085	745228	3079	7697	242		
291.9194	26:18	26:18	-1	1.303	4345339	956578	3640	9100	263	0.77(0.65-0.89)	
PCB-40											
289.9224	26:47	26:48	-2	1.327	11455207	1738694	3079	7697	565		M
291.9194	26:47	26:48	-2	1.327	14336238	2175715	3640	9100	598	0.80(0.65-0.89)	M
PCB-41 (C40)											
289.9224	26:47	26:48	-2	1.327	11455207	1738694	3079	7697	565		M
291.9194	26:47	26:48	-2	1.327	14336238	2175715	3640	9100	598	0.80(0.65-0.89)	M
PCB-71 (C40)											
289.9224	26:47	26:48	-2	1.327	11455207	1738694	3079	7697	565		M
291.9194	26:47	26:48	-2	1.327	14336238	2175715	3640	9100	598	0.80(0.65-0.89)	M
PCB-64											
289.9224	27:00	27:01	-1	1.338	5246898	1140770	3079	7697	371		
291.9194	27:00	27:01	-1	1.338	6710017	1452540	3640	9100	399	0.78(0.65-0.89)	
PCB-72											
289.9224	27:50	27:51	-1	0.827	5289603	1145156	3079	7697	372		
291.9194	27:50	27:51	-1	0.827	6565324	1425591	3640	9100	392	0.81(0.65-0.89)	
PCB-68											
289.9224	28:07	28:09	-2	0.835	5656579	1099567	3079	7697	357		
291.9194	28:07	28:09	-2	0.835	7021477	1397838	3640	9100	384	0.81(0.65-0.89)	
PCB-57											
289.9224	28:33	28:34	-1	0.848	5039105	1076197	3079	7697	350		
291.9194	28:33	28:34	-1	0.848	6358102	1375881	3640	9100	378	0.79(0.65-0.89)	
PCB-58											
289.9224	28:47	28:48	-1	0.855	5176893	1063979	3079	7697	346		
291.9194	28:47	28:48	-1	0.855	6482361	1333018	3640	9100	366	0.80(0.65-0.89)	
PCB-67											
289.9224	28:57	28:58	-1	0.860	6227236	1210732	3079	7697	393		
291.9194	28:57	28:58	-1	0.860	7881492	1546045	3640	9100	425	0.79(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-63											
289.9224	29:13	29:14	-1	0.868	5423527	1089464	3079	7697	354		
291.9194	29:13	29:14	-1	0.868	6835826	1372350	3640	9100	377	0.79(0.65-0.89)	
PCB-61											
289.9224	29:33	29:34	-1	0.878	20914188	2330691	3079	7697	757		
291.9194	29:33	29:34	-1	0.878	26506002	2975026	3640	9100	817	0.79(0.65-0.89)	
PCB-70 (C61)											
289.9224	29:33	29:34	-1	0.878	20914188	2330691	3079	7697	757		
291.9194	29:33	29:34	-1	0.878	26506002	2975026	3640	9100	817	0.79(0.65-0.89)	
PCB-74 (C61)											
289.9224	29:33	29:34	-1	0.878	20914188	2330691	3079	7697	757		
291.9194	29:33	29:34	-1	0.878	26506002	2975026	3640	9100	817	0.79(0.65-0.89)	
PCB-76 (C61)											
289.9224	29:33	29:34	-1	0.878	20914188	2330691	3079	7697	757		
291.9194	29:33	29:34	-1	0.878	26506002	2975026	3640	9100	817	0.79(0.65-0.89)	
PCB-66											
289.9224	29:52	29:53	-1	0.887	5322566	1060845	3079	7697	345		
291.9194	29:52	29:53	-1	0.887	6704633	1361616	3640	9100	374	0.79(0.65-0.89)	
PCB-55											
289.9224	30:02	30:03	0	0.892	4892403	1008379	3079	7697	328		
291.9194	30:02	30:03	-1	0.892	6160897	1266861	3640	9100	348	0.79(0.65-0.89)	
PCB-56											
289.9224	30:32	30:33	-1	0.907	4870744	1000617	3079	7697	325		
291.9194	30:33	30:33	0	0.908	6194598	1259566	3640	9100	346	0.79(0.65-0.89)	
PCB-60											
289.9224	30:45	30:46	-1	0.914	5172901	1057678	3079	7697	344		
291.9194	30:45	30:46	-1	0.914	6541963	1324261	3640	9100	364	0.79(0.65-0.89)	
PCB-80											
289.9224	31:10	31:11	-1	0.926	6237956	1241113	3079	7697	403		
291.9194	31:10	31:11	-1	0.926	7842689	1574931	3640	9100	433	0.80(0.65-0.89)	
PCB-79											
289.9224	32:41	32:42	-1	0.971	6199108	1193231	3079	7697	388		
291.9194	32:41	32:42	-1	0.971	7736368	1491950	3640	9100	410	0.80(0.65-0.89)	
PCB-78											
289.9224	33:15	33:15	0	0.988	4701413	887555	3079	7697	288		
291.9194	33:15	33:15	0	0.988	5901427	1157905	3640	9100	318	0.80(0.65-0.89)	
PCB-81											
289.9224	33:41	33:42	-1	1.001	4661203	888530	3079	7697	289		
291.9194	33:41	33:42	-1	1.001	5779312	1112088	3640	9100	306	0.81(0.65-0.89)	
PCB-77											
289.9224	34:15	34:16	-1	1.001	5090422	986507	3079	7697	320		
291.9194	34:15	34:16	-1	1.001	6437066	1241053	3640	9100	341	0.79(0.65-0.89)	
PCB-104L											
337.9207	25:41	25:42	-1	0.813	3945007	897940	86	215	10441		
339.9178	25:41	25:42	-1	0.813	2476076	561112	94	235	5969	1.59(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-95L											
337.9207	28:40	28:41	-1	1.116	1377977	294169	86	215	3421		
339.9178	28:40	28:41	-1	1.116	862101	191325	94	235	2035	1.60(1.32-1.78)	
PCB-101L											
337.9207	31:36	31:37	-1		3180729	645710	86	215	7508		
339.9178	31:36	31:37	-1		1998189	400831	94	235	4264	1.59(1.32-1.78)	
PCB-111L											
337.9207	34:17	34:17	0	1.085	2075145	417586	86	215	4856		
339.9178	34:16	34:17	-1	1.085	1276281	263893	94	235	2807	1.63(1.32-1.78)	
PCB-123L											
337.9207	36:14	36:15	0	1.147	5869660	1170803	5247	13117	223		
339.9178	36:14	36:15	0	1.147	3703122	739285	3633	9082	203	1.59(1.32-1.78)	
PCB-118L											
337.9207	36:34	36:34	0	1.157	6143066	1196225	5247	13117	228		
339.9178	36:34	36:34	0	1.157	3864671	754827	3633	9082	208	1.59(1.32-1.78)	
PCB-114L											
337.9207	37:06	37:06	0	1.174	5991890	1148412	5247	13117	219		
339.9178	37:05	37:06	-1	1.173	3803468	734858	3633	9082	202	1.58(1.32-1.78)	
PCB-105L											
337.9207	37:44	37:45	0	1.194	5801657	1127585	5247	13117	215		
339.9178	37:44	37:45	0	1.194	3616723	707507	3633	9082	195	1.60(1.32-1.78)	
PCB-127L											
337.9207	39:13	39:14	-1		6084552	1180716	5247	13117	225		
339.9178	39:13	39:14	-1		3822750	741401	3633	9082	204	1.59(1.32-1.78)	
PCB-126L											
337.9207	40:50	40:50	0	1.292	5820339	1092467	5247	13117	208		
339.9178	40:49	40:50	-1	1.292	3665908	691827	3633	9082	190	1.59(1.32-1.78)	
PCB-104											
325.8804	25:43	25:44	-1	1.001	4970315	1094090	175	437	6252		
327.8775	25:43	25:44	-1	1.001	3141200	689066	150	375	4594	1.58(1.32-1.78)	
PCB-96											
325.8804	26:04	26:06	-2	1.015	3965677	853238	175	437	4876		
327.8775	26:04	26:06	-2	1.015	2528306	543557	150	375	3624	1.57(1.32-1.78)	
PCB-103											
325.8804	28:01	28:02	-1	1.091	3292810	688553	175	437	3935		
327.8775	28:01	28:02	-1	1.091	2069502	436911	150	375	2913	1.59(1.32-1.78)	
PCB-94											
325.8804	28:15	28:16	-1	1.100	3124029	645282	175	437	3687		
327.8775	28:14	28:16	-2	1.099	1996352	416634	150	375	2778	1.56(1.32-1.78)	
PCB-95											
325.8804	28:41	28:42	-1	1.117	2870473	604866	175	437	3456		
327.8775	28:41	28:42	-1	1.117	1824852	382101	150	375	2547	1.57(1.32-1.78)	
PCB-93											
325.8804	28:54	28:55	-1	1.125	6945007	1409471	175	437	8054		
327.8775	28:54	28:55	-1	1.125	4392831	893198	150	375	5955	1.58(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-100 (C93)											
325.8804	28:54	28:55	-1	1.125	6945007	1409471	175	437	8054		
327.8775	28:54	28:55	-1	1.125	4392831	893198	150	375	5955	1.58(1.32-1.78)	
PCB-98											
325.8804	29:03	29:04	-1	1.131	6677250	814225	175	437	4653		M
327.8775	29:03	29:04	-1	1.131	4268659	526991	150	375	3513	1.56(1.32-1.78)	M
PCB-102 (C98)											
325.8804	29:03	29:04	-1	1.131	6677250	814225	175	437	4653		M
327.8775	29:03	29:04	-1	1.131	4268659	526991	150	375	3513	1.56(1.32-1.78)	M
PCB-88											
325.8804	29:33	29:33	-1	1.150	6287512	723191	175	437	4133		
327.8775	29:33	29:33	-1	1.150	3972691	461744	150	375	3078	1.58(1.32-1.78)	
PCB-91 (C88)											
325.8804	29:33	29:33	-1	1.150	6287512	723191	175	437	4133		
327.8775	29:33	29:33	-1	1.150	3972691	461744	150	375	3078	1.58(1.32-1.78)	
PCB-84											
325.8804	29:46	29:47	-1	1.159	3225200	646939	175	437	3697		
327.8775	29:46	29:47	-1	1.159	1996360	401164	150	375	2674	1.62(1.32-1.78)	
PCB-89											
325.8804	30:15	30:16	-1	1.177	2719038	558420	175	437	3191		
327.8775	30:15	30:16	-1	1.177	1761051	356973	150	375	2380	1.54(1.32-1.78)	
PCB-121											
325.8804	30:40	30:41	-1	1.194	4634993	969529	175	437	5540		
327.8775	30:40	30:41	-1	1.194	2898949	600754	150	375	4005	1.60(1.32-1.78)	
PCB-92											
325.8804	31:02	31:03	-1	0.856	2864439	576958	175	437	3297		
327.8775	31:02	31:03	-1	0.856	1817184	361184	150	375	2408	1.58(1.32-1.78)	
PCB-90											
325.8804	31:37	31:37	0	1.231	11516863	1724783	175	437	9856		
327.8775	31:37	31:37	0	1.231	7290443	1071998	150	375	7147	1.58(1.32-1.78)	
PCB-101 (C90)											
325.8804	31:37	31:37	0	1.231	11516863	1724783	175	437	9856		
327.8775	31:37	31:37	0	1.231	7290443	1071998	150	375	7147	1.58(1.32-1.78)	
PCB-113 (C90)											
325.8804	31:37	31:37	0	1.231	11516863	1724783	175	437	9856		
327.8775	31:37	31:37	0	1.231	7290443	1071998	150	375	7147	1.58(1.32-1.78)	
PCB-83											
325.8804	32:12	32:13	-1	1.254	6253236	769809	175	437	4399		
327.8775	32:12	32:13	-1	1.254	3954490	483126	150	375	3221	1.58(1.32-1.78)	
PCB-99 (C83)											
325.8804	32:12	32:13	-1	1.254	6253236	769809	175	437	4399		
327.8775	32:12	32:13	-1	1.254	3954490	483126	150	375	3221	1.58(1.32-1.78)	
PCB-112											
325.8804	32:19	32:20	-1	1.258	5101475	998365	175	437	5705		
327.8775	32:19	32:20	-1	1.258	3186136	628612	150	375	4191	1.60(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-86											M
325.8804	32:41	32:42	-1	1.272	23519251	2503396	175	437	14305		M
327.8775	32:41	32:42	-1	1.272	15057631	1557378	150	375	10383	1.56(1.32-1.78)	M
PCB-87 (C86)											M
325.8804	32:41	32:42	-1	1.272	23519251	2503396	175	437	14305		M
327.8775	32:41	32:42	-1	1.272	15057631	1557378	150	375	10383	1.56(1.32-1.78)	M
PCB-97 (C86)											M
325.8804	32:41	32:42	-1	1.272	23519251	2503396	175	437	14305		M
327.8775	32:41	32:42	-1	1.272	15057631	1557378	150	375	10383	1.56(1.32-1.78)	M
PCB-109 (C86)											M
325.8804	32:41	32:42	-1	1.272	23519251	2503396	175	437	14305		M
327.8775	32:41	32:42	-1	1.272	15057631	1557378	150	375	10383	1.56(1.32-1.78)	M
PCB-119 (C86)											M
325.8804	32:41	32:42	-1	1.272	23519251	2503396	175	437	14305		M
327.8775	32:41	32:42	-1	1.272	15057631	1557378	150	375	10383	1.56(1.32-1.78)	M
PCB-125 (C86)											M
325.8804	32:41	32:42	-1	1.272	23519251	2503396	175	437	14305		M
327.8775	32:41	32:42	-1	1.272	15057631	1557378	150	375	10383	1.56(1.32-1.78)	M
PCB-85											
325.8804	33:24	33:25	-1	1.300	12280070	1489665	175	437	8512		
327.8775	33:24	33:25	-1	1.300	7739748	938017	150	375	6253	1.59(1.32-1.78)	
PCB-116 (C85)											
325.8804	33:24	33:25	-1	1.300	12280070	1489665	175	437	8512		
327.8775	33:24	33:25	-1	1.300	7739748	938017	150	375	6253	1.59(1.32-1.78)	
PCB-117 (C85)											
325.8804	33:24	33:25	-1	1.300	12280070	1489665	175	437	8512		
327.8775	33:24	33:25	-1	1.300	7739748	938017	150	375	6253	1.59(1.32-1.78)	
PCB-110											
325.8804	33:37	33:37	0	1.308	8804870	1025036	175	437	5857		
327.8775	33:37	33:37	0	1.308	5555673	659284	150	375	4395	1.58(1.32-1.78)	
PCB-115 (C110)											
325.8804	33:37	33:37	0	1.308	8804870	1025036	175	437	5857		
327.8775	33:37	33:37	0	1.308	5555673	659284	150	375	4395	1.58(1.32-1.78)	
PCB-82											
325.8804	33:54	33:55	-1	1.320	2950994	544151	175	437	3109		
327.8775	33:54	33:55	-1	1.320	1863858	342832	150	375	2286	1.58(1.32-1.78)	
PCB-111											
325.8804	34:18	34:19	-1	1.335	4776944	953835	175	437	5450		
327.8775	34:18	34:19	-1	1.335	3054108	601055	150	375	4007	1.56(1.32-1.78)	
PCB-120											
325.8804	34:46	34:47	-1	1.353	4605720	900570	175	437	5146		
327.8775	34:46	34:47	-1	1.353	2892227	572211	150	375	3815	1.59(1.32-1.78)	
PCB-108											
325.8804	35:54	35:55	-1	1.397	12878349	2458421	6049	15122	406		
327.8775	35:54	35:55	-1	1.397	8216796	1564060	4524	11310	346	1.57(1.32-1.78)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-124 (C108)											
325.8804	35:54	35:55	-1	1.397	12878349	2458421	6049	15122	406		
327.8775	35:54	35:55	-1	1.397	8216796	1564060	4524	11310	346	1.57(1.32-1.78)	
PCB-107											
325.8804	36:09	36:09	0	1.407	7924661	1469063	6049	15122	243		
327.8775	36:09	36:09	0	1.407	5082789	950730	4524	11310	210	1.56(1.32-1.78)	
PCB-123											
325.8804	36:16	36:16	0	1.001	6845228	1322505	6049	15122	219		
327.8775	36:16	36:16	0	1.001	4352617	836312	4524	11310	185	1.57(1.32-1.78)	
PCB-106											
325.8804	36:22	36:23	-1	1.004	6125838	1201365	6049	15122	199		
327.8775	36:22	36:23	-1	1.004	3876411	760237	4524	11310	168	1.58(1.32-1.78)	
PCB-118											
325.8804	36:35	36:36	-1	1.000	7093346	1292708	6049	15122	214		
327.8775	36:35	36:36	-1	1.000	4560358	828709	4524	11310	183	1.56(1.32-1.78)	
PCB-122											
325.8804	36:56	36:56	0	1.010	4868640	945045	6049	15122	156		
327.8775	36:56	36:56	0	1.010	3091849	615669	4524	11310	136	1.57(1.32-1.78)	
PCB-114											
325.8804	37:06	37:08	-1	1.000	7173348	1322839	6049	15122	219		
327.8775	37:06	37:08	-1	1.000	4560788	848772	4524	11310	188	1.57(1.32-1.78)	
PCB-105											
325.8804	37:46	37:46	0	1.001	5830889	1039658	6049	15122	172		
327.8775	37:45	37:46	-1	1.000	3766190	674957	4524	11310	149	1.55(1.32-1.78)	
PCB-127											
325.8804	39:14	39:15	0	1.040	6722234	1205018	6049	15122	199		
327.8775	39:14	39:15	0	1.040	4190045	767073	4524	11310	170	1.60(1.32-1.78)	
PCB-126											
325.8804	40:50	40:52	-1	1.000	6710597	1146373	6049	15122	190		
327.8775	40:50	40:52	-1	1.000	4255402	738709	4524	11310	163	1.58(1.32-1.78)	
PCB-155L											
371.8817	31:22	31:23	-1	0.790	3236837	659635	51	127	12934		
373.8788	31:22	31:23	-1	0.790	2497553	519602	33	82	15746	1.30(1.05-1.43)	
PCB-153L											
371.8817	38:27	38:27	0	0.900	1886831	360399	165	412	2184		
373.8788	38:27	38:27	0	0.900	1456597	277060	1856	4640	149	1.30(1.05-1.43)	
PCB-138L											
371.8817	39:41	39:41	0		3681908	707682	165	412	4289		
373.8788	39:41	39:41	0		2882024	545586	1856	4640	294	1.28(1.05-1.43)	
PCB-159L											
371.8817	41:56	41:56	0	0.982	4312836	821131	165	412	4977		
373.8788	41:55	41:56	-1	0.982	3318028	629774	1856	4640	339	1.30(0.00-0.00)	
PCB-167L											
371.8817	42:42	42:42	0	1.076	4782672	899237	165	412	5450		
373.8788	42:42	42:42	0	1.076	3662622	690148	1856	4640	372	1.31(1.05-1.43)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-156L											
371.8817	43:50	43:51	0	1.105	9039628	1181674	165	412	7162		
373.8788	43:50	43:51	0	1.105	7055019	928275	1856	4640	500	1.28(1.05-1.43)	
PCB-157L (C156L)											
371.8817	43:50	43:51	0	1.105	9039628	1181674	165	412	7162		
373.8788	43:50	43:51	0	1.105	7055019	928275	1856	4640	500	1.28(1.05-1.43)	
PCB-169L											
371.8817	47:04	47:05	0	1.186	4621255	858979	165	412	5206		
373.8788	47:04	47:05	0	1.186	3586024	671593	1856	4640	362	1.29(1.05-1.43)	
PCB-155											
359.8415	31:24	31:25	-1	1.001	3423414	679395	208	520	3266		
361.8385	31:24	31:25	-1	1.001	2666664	538086	147	367	3660	1.28(1.05-1.43)	
PCB-152											
359.8415	31:35	31:36	0	1.007	3047507	619126	208	520	2977		
361.8385	31:35	31:36	0	1.007	2403304	491932	147	367	3346	1.27(1.05-1.43)	
PCB-150											
359.8415	31:45	31:46	-1	1.012	3408883	678983	208	520	3264		
361.8385	31:45	31:46	-1	1.012	2718475	547506	147	367	3725	1.25(1.05-1.43)	
PCB-136											
359.8415	32:07	32:08	-1	1.024	3112024	624136	208	520	3001		
361.8385	32:07	32:08	-1	1.024	2429549	485399	147	367	3302	1.28(1.05-1.43)	
PCB-145											
359.8415	32:24	32:25	-1	1.033	3252992	638880	208	520	3072		
361.8385	32:25	32:25	0	1.033	2587869	504483	147	367	3432	1.26(1.05-1.43)	
PCB-148											
359.8415	33:56	33:57	-1	1.082	2286267	460304	208	520	2213		
361.8385	33:56	33:57	-1	1.082	1825352	366935	147	367	2496	1.25(1.05-1.43)	
PCB-135											
359.8415	34:34	34:32	2	1.102	4550681	501980	208	520	2413		M
361.8385	34:34	34:32	2	1.102	3613466	404607	147	367	2752	1.26(1.05-1.43)	M
PCB-151 (C135)											
359.8415	34:34	34:32	2	1.102	4550681	501980	208	520	2413		M
361.8385	34:34	34:32	2	1.102	3613466	404607	147	367	2752	1.26(1.05-1.43)	M
PCB-154											
359.8415	34:46	34:47	-1	1.108	3043947	607352	208	520	2920		
361.8385	34:46	34:47	-1	1.108	2432636	480602	147	367	3269	1.25(1.05-1.43)	
PCB-144											
359.8415	35:05	35:06	-1	1.118	2335991	461355	208	520	2218		
361.8385	35:05	35:06	-1	1.118	1822473	361277	147	367	2458	1.28(1.05-1.43)	
PCB-147											
359.8415	35:27	35:27	0	1.130	8267625	1672589	2719	6797	615		
361.8385	35:27	35:27	0	1.130	6580162	1334929	1886	4715	708	1.26(1.05-1.43)	
PCB-149 (C147)											
359.8415	35:27	35:27	0	1.130	8267625	1672589	2719	6797	615		
361.8385	35:27	35:27	0	1.130	6580162	1334929	1886	4715	708	1.26(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-134											
359.8415	35:44	35:45	-1	1.139	6668754	684003	2719	6797	252		
361.8385	35:44	35:45	-1	1.139	5320146	532316	1886	4715	282	1.25(1.05-1.43)	
PCB-143 (C134)											
359.8415	35:44	35:45	-1	1.139	6668754	684003	2719	6797	252		
361.8385	35:44	35:45	-1	1.139	5320146	532316	1886	4715	282	1.25(1.05-1.43)	
PCB-139											
359.8415	36:02	36:04	-1	1.149	8260616	1460924	2719	6797	537		
361.8385	36:02	36:04	-1	1.149	6666800	1168612	1886	4715	620	1.24(1.05-1.43)	
PCB-140 (C139)											
359.8415	36:02	36:04	-1	1.149	8260616	1460924	2719	6797	537		
361.8385	36:02	36:04	-1	1.149	6666800	1168612	1886	4715	620	1.24(1.05-1.43)	
PCB-131											
359.8415	36:14	36:15	-1	1.155	3399023	659195	2719	6797	242		
361.8385	36:14	36:15	-1	1.155	2726572	530364	1886	4715	281	1.25(1.05-1.43)	
PCB-142											
359.8415	36:23	36:24	-1	1.160	3172191	626792	2719	6797	231		
361.8385	36:23	36:24	-1	1.160	2566105	514056	1886	4715	273	1.24(1.05-1.43)	
PCB-132											
359.8415	36:42	36:43	-1	1.170	3498390	683595	2719	6797	251		
361.8385	36:42	36:43	-1	1.170	2830917	557675	1886	4715	296	1.24(1.05-1.43)	
PCB-133											
359.8415	37:13	37:14	-1	1.186	3472826	659110	2719	6797	242		
361.8385	37:13	37:14	-1	1.186	2809754	532295	1886	4715	282	1.24(1.05-1.43)	
PCB-165											
359.8415	37:36	37:37	0	0.881	4724402	934644	2719	6797	344		
361.8385	37:36	37:37	0	0.881	3752845	740627	1886	4715	393	1.26(1.05-1.43)	
PCB-146											
359.8415	37:51	37:52	-1	0.887	4519906	873952	2719	6797	321		
361.8385	37:51	37:52	-1	0.887	3641481	702218	1886	4715	372	1.24(1.05-1.43)	
PCB-161											
359.8415	37:59	38:00	0	0.890	5166670	1028442	2719	6797	378		
361.8385	37:59	38:00	0	0.890	4137732	820414	1886	4715	435	1.25(1.05-1.43)	
PCB-153											
359.8415	38:30	38:30	0	0.902	9632697	1396569	2719	6797	514		
361.8385	38:30	38:30	0	0.902	7705323	1111468	1886	4715	589	1.25(1.05-1.43)	
PCB-168 (C153)											
359.8415	38:30	38:30	0	0.902	9632697	1396569	2719	6797	514		
361.8385	38:30	38:30	0	0.902	7705323	1111468	1886	4715	589	1.25(1.05-1.43)	
PCB-141											
359.8415	38:39	38:41	-1	0.905	4356749	803270	2719	6797	295		
361.8385	38:39	38:41	-1	0.905	3500008	641579	1886	4715	340	1.24(1.05-1.43)	
PCB-130											
359.8415	39:04	39:05	-1	0.915	3392503	654070	2719	6797	241		
361.8385	39:04	39:05	-1	0.915	2726978	522713	1886	4715	277	1.24(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-137											
359.8415	39:17	39:18	0	0.920	3740933	745496	2719	6797	274		
361.8385	39:17	39:18	0	0.920	3080372	605157	1886	4715	321	1.21(1.05-1.43)	
PCB-164											
359.8415	39:24	39:26	-1	0.923	5553440	1057763	2719	6797	389		
361.8385	39:24	39:26	-1	0.923	4441926	833843	1886	4715	442	1.25(1.05-1.43)	
PCB-129											
359.8415	39:43	39:44	0	0.930	17023216	1862257	2719	6797	685		M
361.8385	39:43	39:44	0	0.930	13549137	1485875	1886	4715	788	1.26(1.05-1.43)	M
PCB-138 (C129)											
359.8415	39:43	39:44	0	0.930	17023216	1862257	2719	6797	685		M
361.8385	39:43	39:44	0	0.930	13549137	1485875	1886	4715	788	1.26(1.05-1.43)	M
PCB-160 (C129)											
359.8415	39:43	39:44	0	0.930	17023216	1862257	2719	6797	685		M
361.8385	39:43	39:44	0	0.930	13549137	1485875	1886	4715	788	1.26(1.05-1.43)	M
PCB-163 (C129)											
359.8415	39:43	39:44	0	0.930	17023216	1862257	2719	6797	685		M
361.8385	39:43	39:44	0	0.930	13549137	1485875	1886	4715	788	1.26(1.05-1.43)	M
PCB-158											
359.8415	40:06	40:07	0	0.939	6236353	1132240	2719	6797	416		
361.8385	40:05	40:07	-1	0.939	5021743	895627	1886	4715	475	1.24(1.05-1.43)	
PCB-128											
359.8415	40:57	40:57	0	0.959	9265833	1358905	2719	6797	500		
361.8385	40:56	40:57	-1	0.959	7448780	1086387	1886	4715	576	1.24(1.05-1.43)	
PCB-166 (C128)											
359.8415	40:57	40:57	0	0.959	9265833	1358905	2719	6797	500		
361.8385	40:56	40:57	-1	0.959	7448780	1086387	1886	4715	576	1.24(1.05-1.43)	
PCB-159											
359.8415	41:57	41:58	-1	0.982	5530168	1041554	2719	6797	383		
361.8385	41:57	41:58	-1	0.982	4484633	839095	1886	4715	445	1.23(1.05-1.43)	
PCB-162											
359.8415	42:14	42:15	-1	0.989	5643066	1004015	2719	6797	369		
361.8385	42:14	42:15	-1	0.989	4639906	810778	1886	4715	430	1.22(1.05-1.43)	
PCB-167											
359.8415	42:43	42:44	0	1.001	5427011	1011850	2719	6797	372		
361.8385	42:43	42:44	0	1.001	4425929	829096	1886	4715	440	1.23(1.05-1.43)	
PCB-156											
359.8415	43:52	43:53	-1	1.001	10127265	1339171	2719	6797	493		
361.8385	43:51	43:53	-2	1.000	8151741	1066491	1886	4715	565	1.24(1.05-1.43)	
PCB-157 (C156)											
359.8415	43:52	43:53	-1	1.001	10127265	1339171	2719	6797	493		
361.8385	43:51	43:53	-2	1.000	8151741	1066491	1886	4715	565	1.24(1.05-1.43)	
PCB-169											
359.8415	47:05	47:06	-1	1.000	5277331	919179	2719	6797	338		
361.8385	47:05	47:06	-1	1.000	4171533	719310	1886	4715	381	1.27(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-188L											
405.8428	37:06	37:07	-1	0.820	3378327	667769	50	125	13355		
407.8398	37:06	37:07	-1	0.820	3231635	643310	62	155	10376	1.05(0.89-1.21)	
PCB-178L											
405.8428	40:09	40:10	-1	0.887	1238512	231317	50	125	4626		
407.8398	40:09	40:10	-1	0.887	1179767	230498	62	155	3718	1.05(0.89-1.21)	
PCB-180L											
405.8428	45:14	45:15	-1		2609315	490821	50	125	9816		
407.8398	45:14	45:15	-1		2456998	454151	62	155	7325	1.06(0.89-1.21)	
PCB-170L											
405.8428	46:29	46:30	-1	1.028	2172983	407370	50	125	8147		
407.8398	46:30	46:30	0	1.028	2004020	373735	62	155	6028	1.08(0.89-1.21)	
PCB-189L											
405.8428	49:36	49:37	-1	1.097	5352309	993846	1111	2777	895		
407.8398	49:36	49:37	-1	1.097	5022734	914139	1909	4772	479	1.07(0.89-1.21)	
PCB-188											
393.8025	37:07	37:08	-1	1.001	3750366	746036	90	225	8289		
395.7995	37:07	37:08	-1	1.001	3479940	695531	185	462	3760	1.08(0.89-1.21)	
PCB-179											
393.8025	37:27	37:28	-1	1.010	3776100	716036	90	225	7956		
395.7995	37:27	37:28	-1	1.010	3534584	673941	185	462	3643	1.07(0.89-1.21)	
PCB-184											
393.8025	37:58	38:00	-1	1.024	3972950	758687	90	225	8430		
395.7995	37:58	38:00	-1	1.024	3799236	730690	185	462	3950	1.05(0.89-1.21)	
PCB-176											
393.8025	38:20	38:21	-1	1.033	3724635	705192	90	225	7835		
395.7995	38:20	38:21	-1	1.033	3499013	665545	185	462	3598	1.06(0.89-1.21)	
PCB-186											
393.8025	38:47	38:48	0	1.046	3607055	686680	90	225	7630		
395.7995	38:47	38:48	0	1.046	3484408	662988	185	462	3584	1.04(0.89-1.21)	
PCB-178											
393.8025	40:10	40:11	-1	1.083	2598475	494710	90	225	5497		
395.7995	40:10	40:11	-1	1.083	2455883	461843	185	462	2496	1.06(0.89-1.21)	
PCB-175											
393.8025	40:48	40:49	-1	1.100	2789029	529892	90	225	5888		
395.7995	40:48	40:49	-1	1.100	2636766	499737	185	462	2701	1.06(0.89-1.21)	
PCB-187											
393.8025	41:05	41:05	0	1.107	2968885	541557	90	225	6017		
395.7995	41:05	41:05	0	1.107	2781776	534149	185	462	2887	1.07(0.89-1.21)	
PCB-182											
393.8025	41:16	41:18	-1	1.113	3074190	588191	90	225	6535		
395.7995	41:16	41:18	-1	1.113	2904263	557135	185	462	3012	1.06(0.89-1.21)	
PCB-183											
393.8025	41:41	41:42	-1	1.124	5668555	606402	90	225	6738		M
395.7995	41:41	41:42	-1	1.124	5446408	560626	185	462	3030	1.04(0.89-1.21)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-185 (C183)											M
393.8025	41:41	41:42	-1	1.124	5668555	606402	90	225	6738		M
395.7995	41:41	41:42	-1	1.124	5446408	560626	185	462	3030	1.04(0.89-1.21)	M
PCB-174											
393.8025	41:55	41:56	-1	1.130	2954114	568489	90	225	6317		
395.7995	41:55	41:56	-1	1.130	2758639	534835	185	462	2891	1.07(0.89-1.21)	
PCB-177											
393.8025	42:21	42:22	-1	1.142	2598761	478406	90	225	5316		
395.7995	42:21	42:22	-1	1.142	2635454	451016	185	462	2438	0.99(0.89-1.21)	
PCB-181											
393.8025	42:45	42:45	0	1.152	2704744	510664	90	225	5674		
395.7995	42:45	42:45	0	1.152	2545208	488044	185	462	2638	1.06(0.89-1.21)	
PCB-171											
393.8025	42:58	42:59	0	1.159	5228087	848459	90	225	9427		
395.7995	42:58	42:59	0	1.159	4966224	788943	185	462	4265	1.05(0.89-1.21)	
PCB-173 (C171)											
393.8025	42:58	42:59	0	1.159	5228087	848459	90	225	9427		
395.7995	42:58	42:59	0	1.159	4966224	788943	185	462	4265	1.05(0.89-1.21)	
PCB-172											
393.8025	44:36	44:37	-1	0.899	2565831	469395	90	225	5216		
395.7995	44:37	44:37	0	0.899	2444996	452663	185	462	2447	1.05(0.89-1.21)	
PCB-192											
393.8025	44:53	44:54	-1	0.905	3309907	616848	90	225	6854		
395.7995	44:53	44:54	-1	0.905	3098072	579332	185	462	3132	1.07(0.89-1.21)	
PCB-180											
393.8025	45:13	45:14	-1	0.912	6860897	911561	90	225	10128		
395.7995	45:13	45:14	-1	0.912	6487196	871309	185	462	4710	1.06(0.89-1.21)	
PCB-193 (C180)											
393.8025	45:13	45:14	-1	0.912	6860897	911561	90	225	10128		
395.7995	45:13	45:14	-1	0.912	6487196	871309	185	462	4710	1.06(0.89-1.21)	
PCB-191											
393.8025	45:37	45:37	0	0.920	3696851	689822	90	225	7665		
395.7995	45:37	45:37	0	0.920	3502388	644505	185	462	3484	1.06(0.89-1.21)	
PCB-170											
393.8025	46:30	46:32	-1	0.938	2657108	490977	90	225	5455		
395.7995	46:30	46:32	-1	0.938	2557492	473371	185	462	2559	1.04(0.89-1.21)	
PCB-190											
393.8025	47:02	47:02	0	0.948	3605706	656895	90	225	7299		
395.7995	47:02	47:02	0	0.948	3391974	623690	185	462	3371	1.06(0.89-1.21)	
PCB-189											
393.8025	49:38	49:38	0	1.001	5461066	973634	938	2345	1038		
395.7995	49:38	49:38	0	1.001	5205243	945731	667	1667	1418	1.05(0.89-1.21)	
PCB-202L											
439.8038	42:27	42:28	0	0.821	2329254	446693	28	70	15953		
441.8008	42:27	42:28	0	0.821	2593838	485378	24	60	20224	0.90(0.76-1.02)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-194L											
439.8038	51:43	51:43	0		3382819	627342	122	305	5142		
441.8008	51:43	51:43	0		3726547	691291	321	802	2154	0.91(0.76-1.02)	
PCB-205L											
439.8038	52:10	52:11	-1	1.009	4062544	730307	122	305	5986		
441.8008	52:11	52:11	0	1.009	4435948	797659	321	802	2485	0.92(0.76-1.02)	
PCB-202											
427.7635	42:29	42:29	0	1.001	4016801	755995	82	205	9219		
429.7606	42:29	42:29	0	1.001	4451936	853705	140	350	6098	0.90(0.76-1.02)	
PCB-201											
427.7635	43:24	43:25	0	1.022	4156385	799459	82	205	9750		
429.7606	43:24	43:25	0	1.022	4573618	864876	140	350	6178	0.91(0.76-1.02)	
PCB-204											
427.7635	44:05	44:05	0	1.038	4032845	761792	82	205	9290		
429.7606	44:05	44:05	0	1.038	4409365	830238	140	350	5930	0.91(0.76-1.02)	
PCB-197											
427.7635	44:18	44:19	-1	1.043	3736624	734663	82	205	8959		
429.7606	44:18	44:19	-1	1.043	4176178	829326	140	350	5924	0.89(0.76-1.02)	
PCB-200											
427.7635	44:25	44:25	0	1.046	3946314	723429	82	205	8822		
429.7606	44:24	44:25	-1	1.046	4334271	788726	140	350	5634	0.91(0.76-1.02)	
PCB-198											
427.7635	47:12	47:12	0	1.112	5393438	673383	82	205	8212		
429.7606	47:12	47:12	0	1.112	5988534	737056	140	350	5265	0.90(0.76-1.02)	
PCB-199 (C198)											
427.7635	47:12	47:12	0	1.112	5393438	673383	82	205	8212		
429.7606	47:12	47:12	0	1.112	5988534	737056	140	350	5265	0.90(0.76-1.02)	
PCB-196											
427.7635	47:53	47:53	0	0.918	2895071	536113	82	205	6538		
429.7606	47:53	47:53	0	0.918	3243911	599537	140	350	4282	0.89(0.76-1.02)	
PCB-203											
427.7635	48:04	48:05	-1	0.921	3025190	547111	82	205	6672		
429.7606	48:04	48:05	-1	0.921	3311777	605013	140	350	4322	0.91(0.76-1.02)	
PCB-195											
427.7635	49:23	49:23	0	0.946	4733065	847348	895	2237	947		
429.7606	49:23	49:23	0	0.946	5271407	964193	757	1892	1274	0.90(0.76-1.02)	
PCB-194											
427.7635	51:44	51:44	0	0.992	5467988	1007507	895	2237	1126		
429.7606	51:44	51:44	0	0.992	6034350	1121390	757	1892	1481	0.91(0.76-1.02)	
PCB-205											
427.7635	52:12	52:13	-1	1.000	6798161	1208832	895	2237	1351		
429.7606	52:12	52:13	-1	1.000	7544909	1343915	757	1892	1775	0.90(0.76-1.02)	
PCB-208L											
473.7648	49:08	49:09	0	0.950	3041296	547519	561	1402	976		
475.7619	49:08	49:09	-1	0.950	3719101	685364	682	1705	1005	0.82(0.65-0.89)	

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-206L											
473.7648	53:56	53:57	0	1.043	2275732	420434	561	1402	749		
475.7619	53:56	53:57	0	1.043	2787066	500674	682	1705	734	0.82(0.65-0.89)	
PCB-208											
461.7246	49:09	49:10	-1	1.000	4971587	912861	865	2162	1055		
463.7216	49:09	49:10	-1	1.000	6397994	1174241	1097	2742	1070	0.78(0.65-0.89)	
PCB-207											
461.7246	50:05	50:05	0	1.019	5118756	951202	865	2162	1100		
463.7216	50:05	50:05	0	1.019	6470418	1179746	1097	2742	1075	0.79(0.65-0.89)	
PCB-206											
461.7246	53:57	53:58	-1	1.000	3990172	711220	865	2162	822		
463.7216	53:57	53:58	-1	1.000	5008722	906973	1097	2742	827	0.80(0.65-0.89)	
PCB-209L											
507.7258	55:34	55:34	0	1.075	2052514	351405	144	360	2440		
509.7229	55:34	55:34	0	1.075	2808360	479413	127	317	3775	0.73(0.59-0.79)	
DCB Decachlorobiphenyl											
495.6856	55:35	55:36	0	1.000	3319436	562420	80	200	7030		
497.6826	55:35	55:36	0	1.000	4758930	795243	105	262	7574	0.70(0.59-0.79)	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61MX209ICVS\_00010

Amount Added: 20.00

Units: uL

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

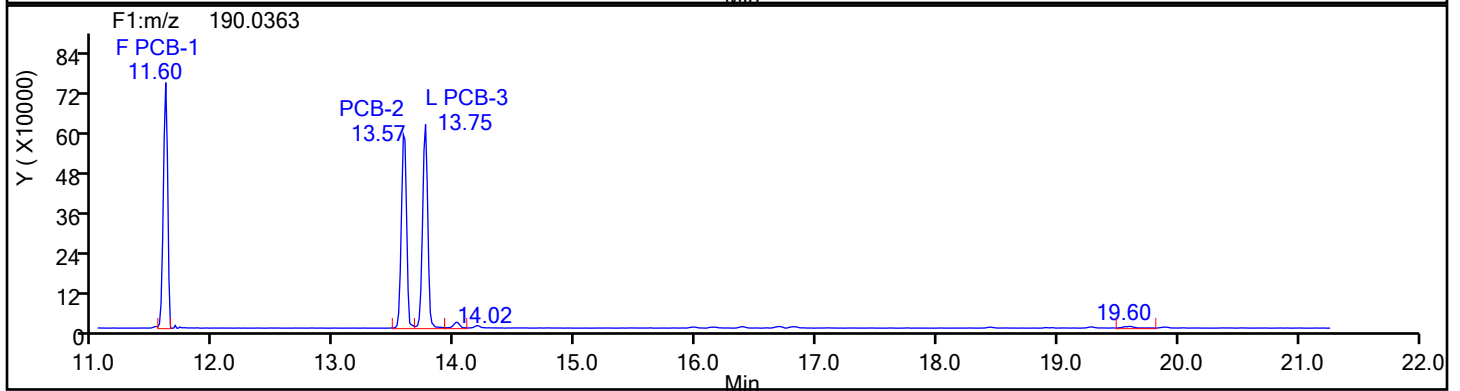
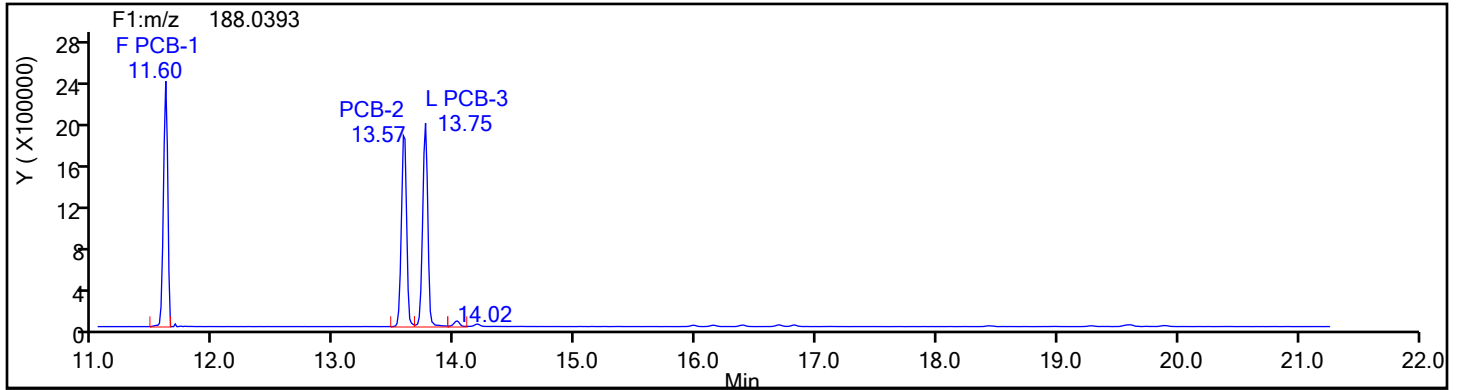
Worklist#: 87130

Sample Line#: 7

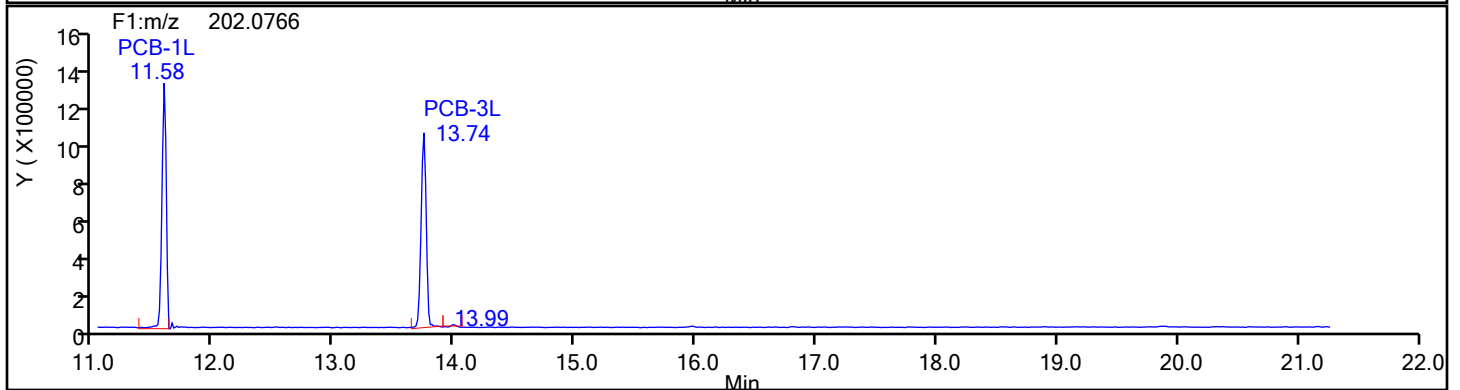
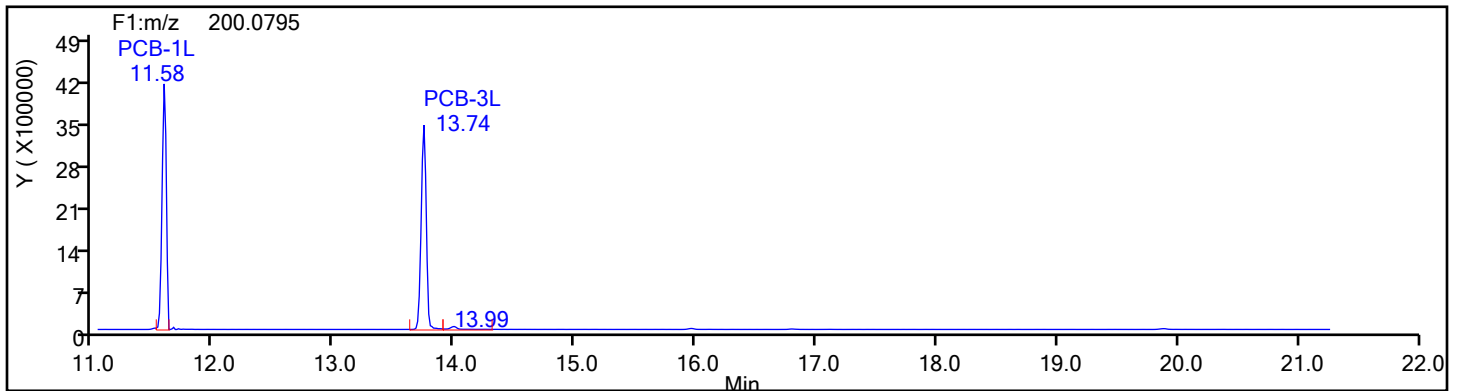
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

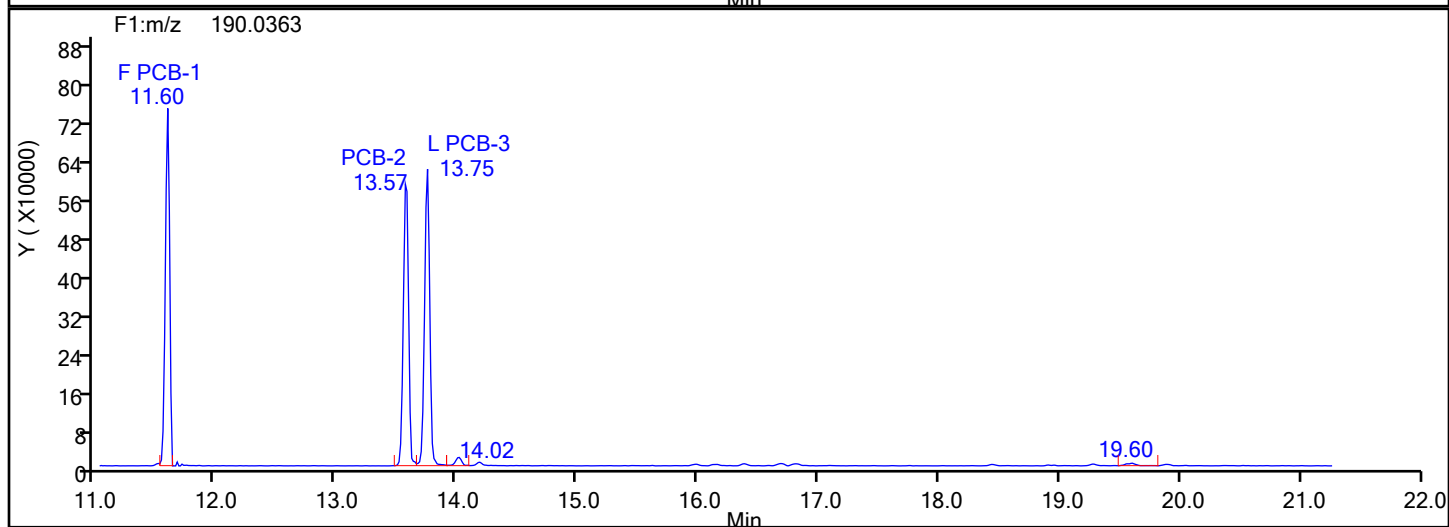
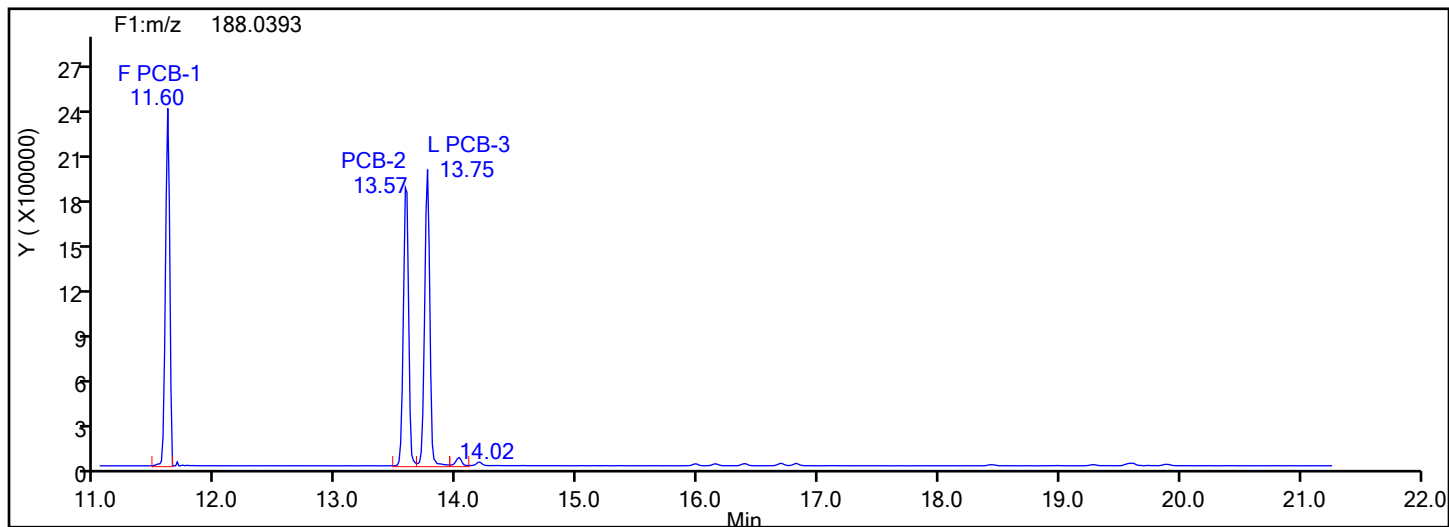
Worklist#: 87130

Sample Line#: 7

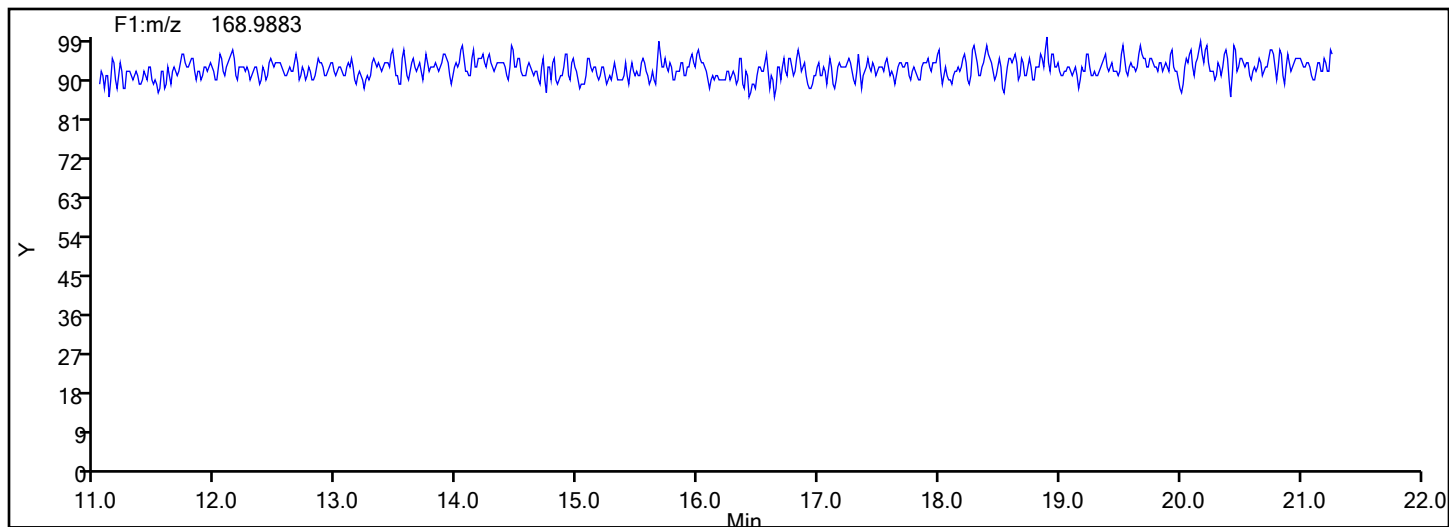
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

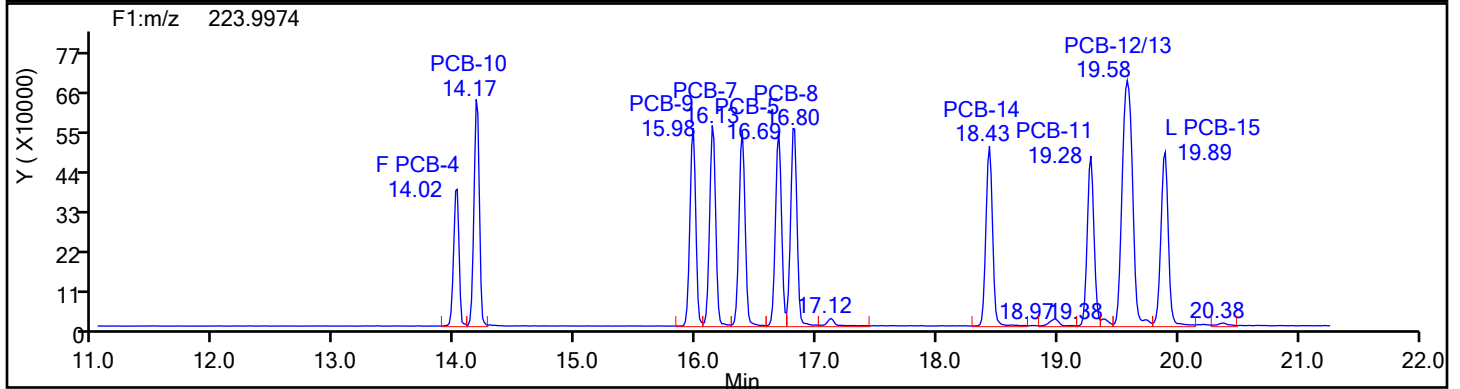
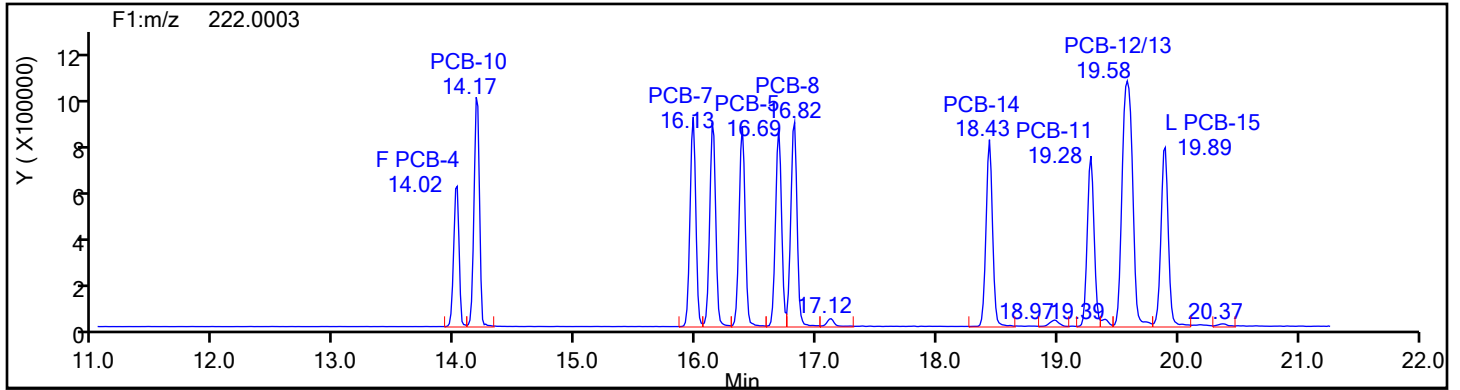
Worklist#: 87130

Sample Line#: 7

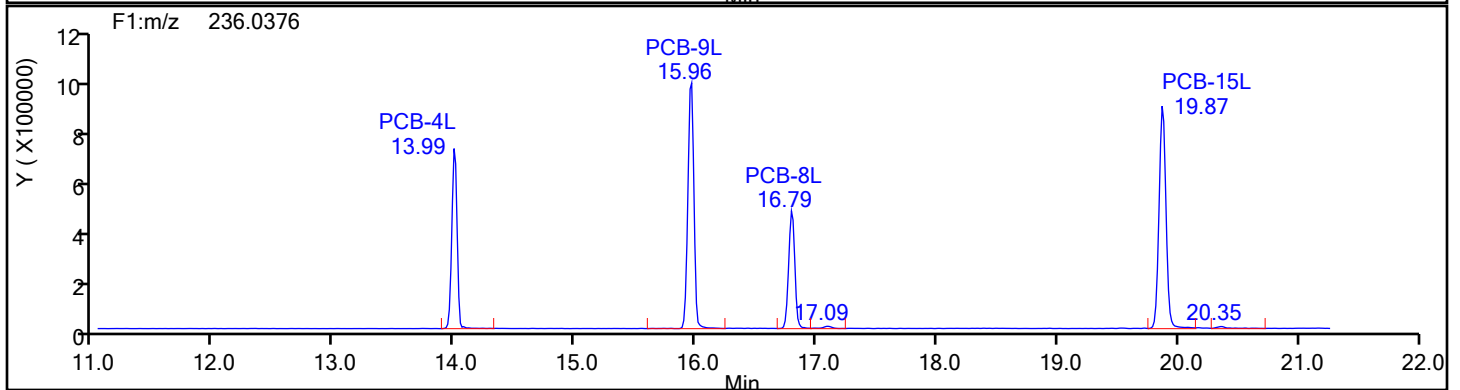
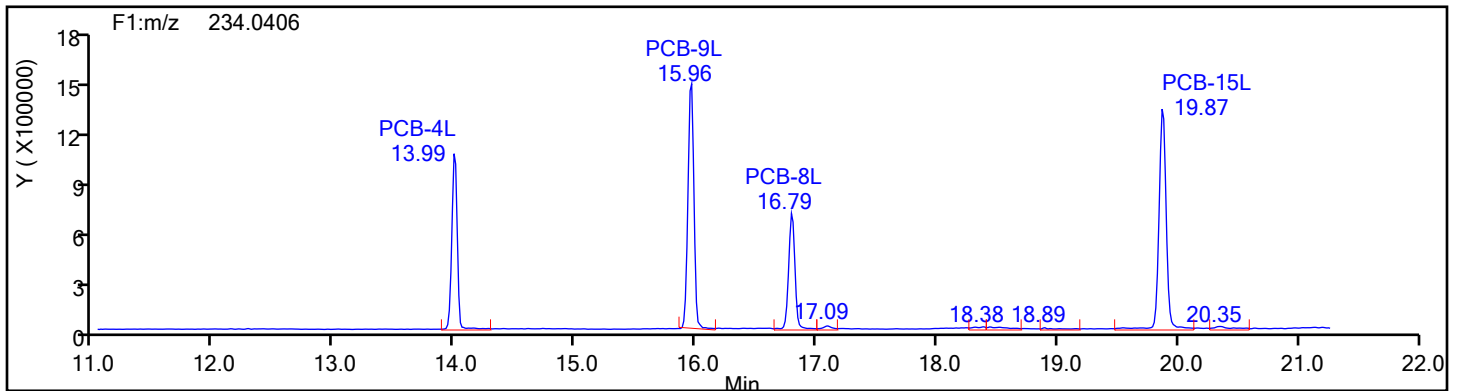
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

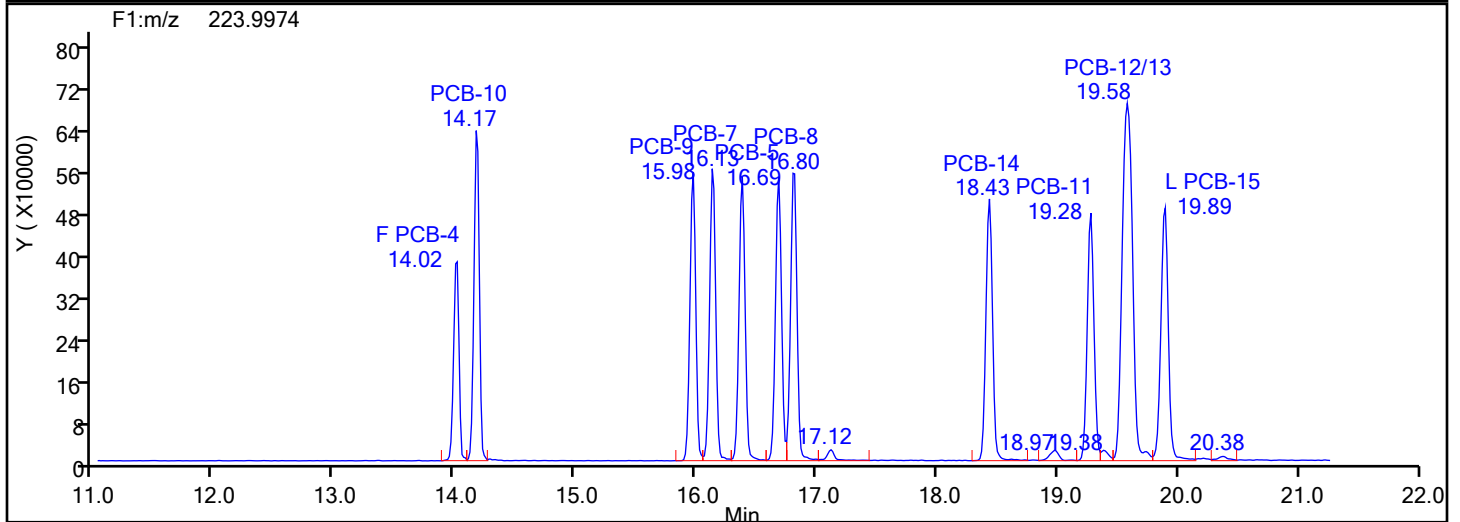
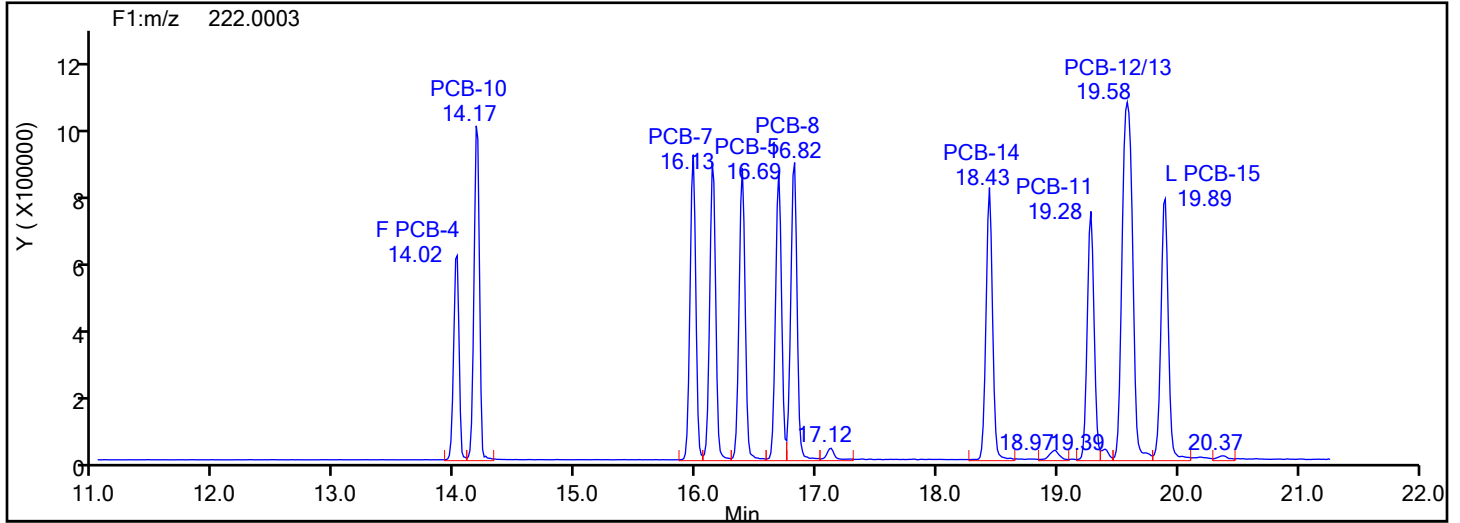
Worklist#: 87130

Sample Line#: 7

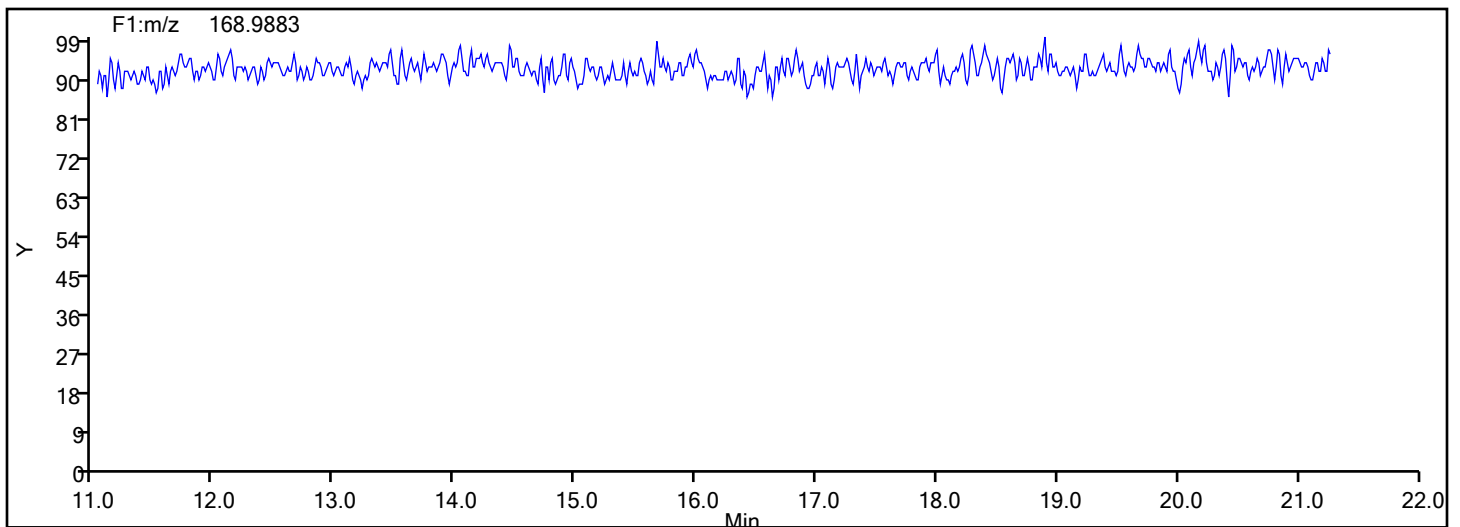
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

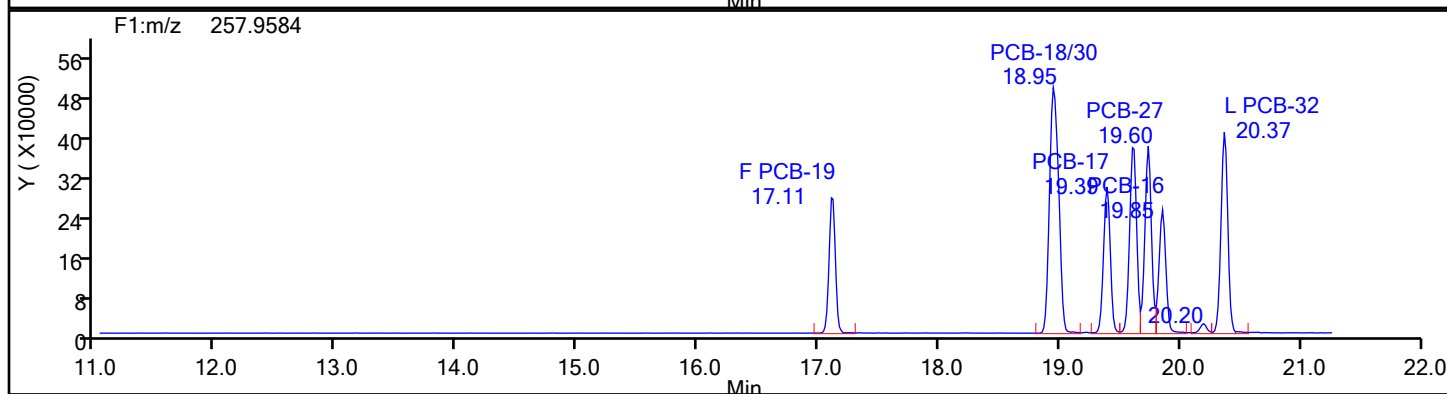
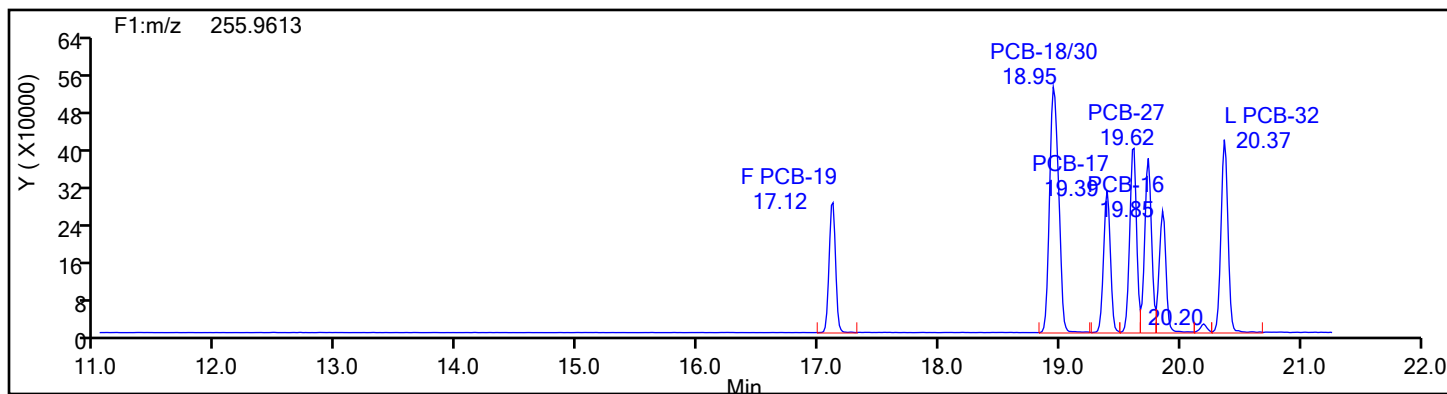
Worklist#: 87130

Sample Line#: 7

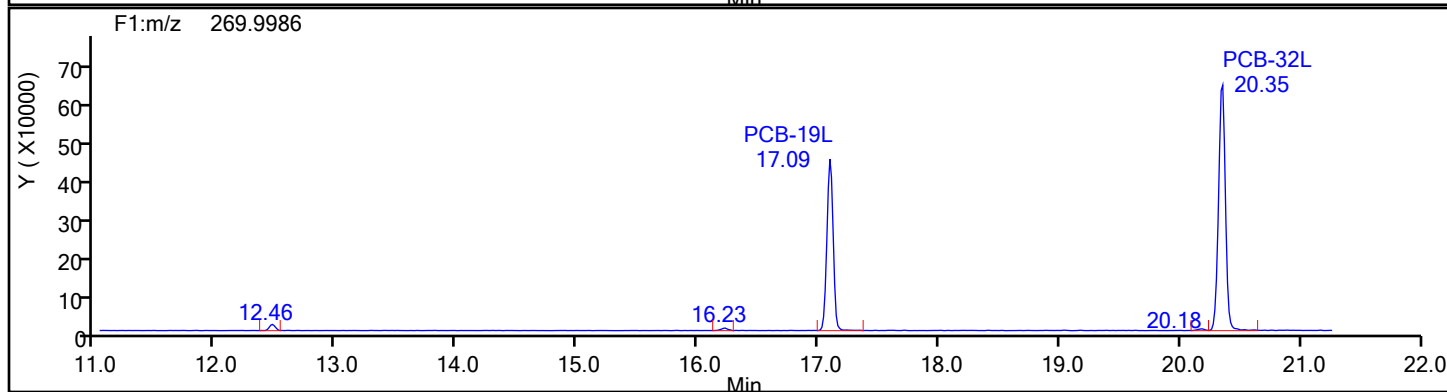
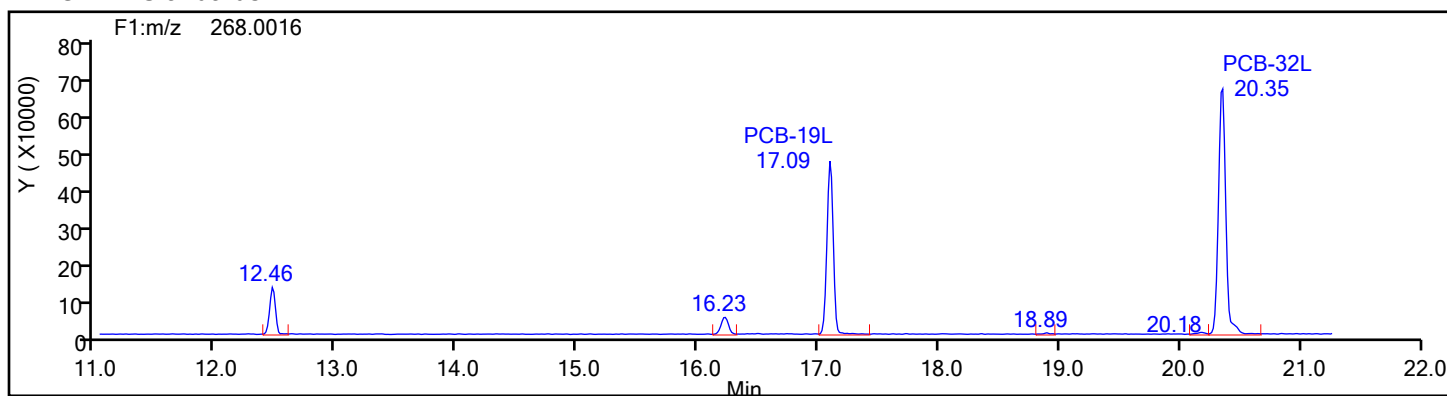
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531.icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

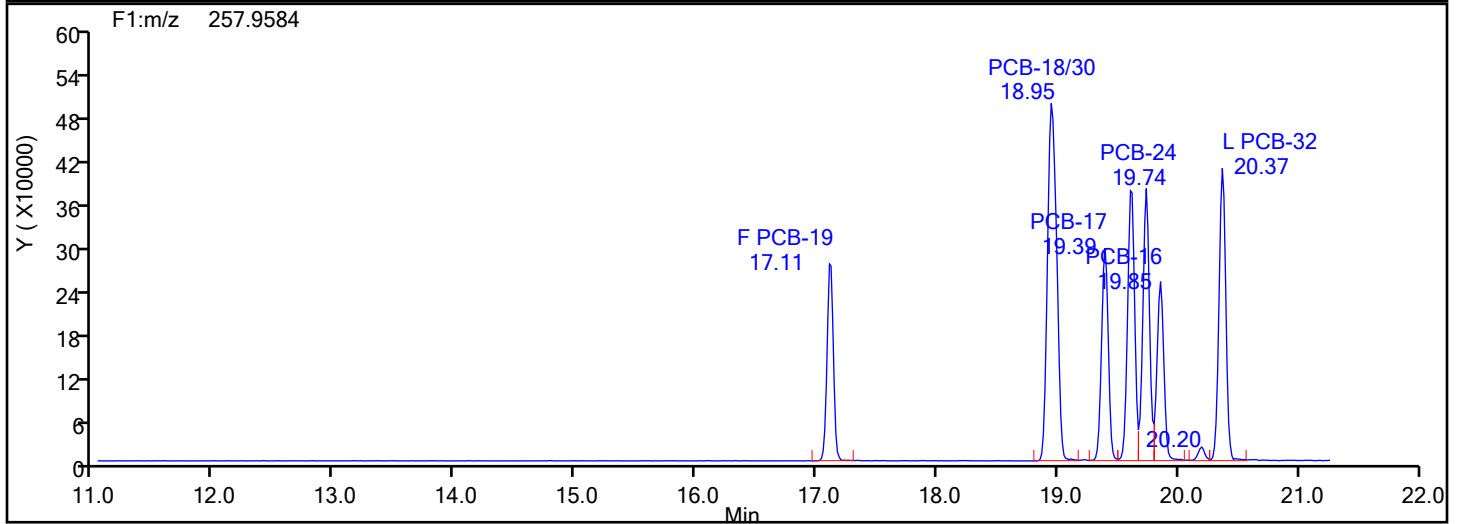
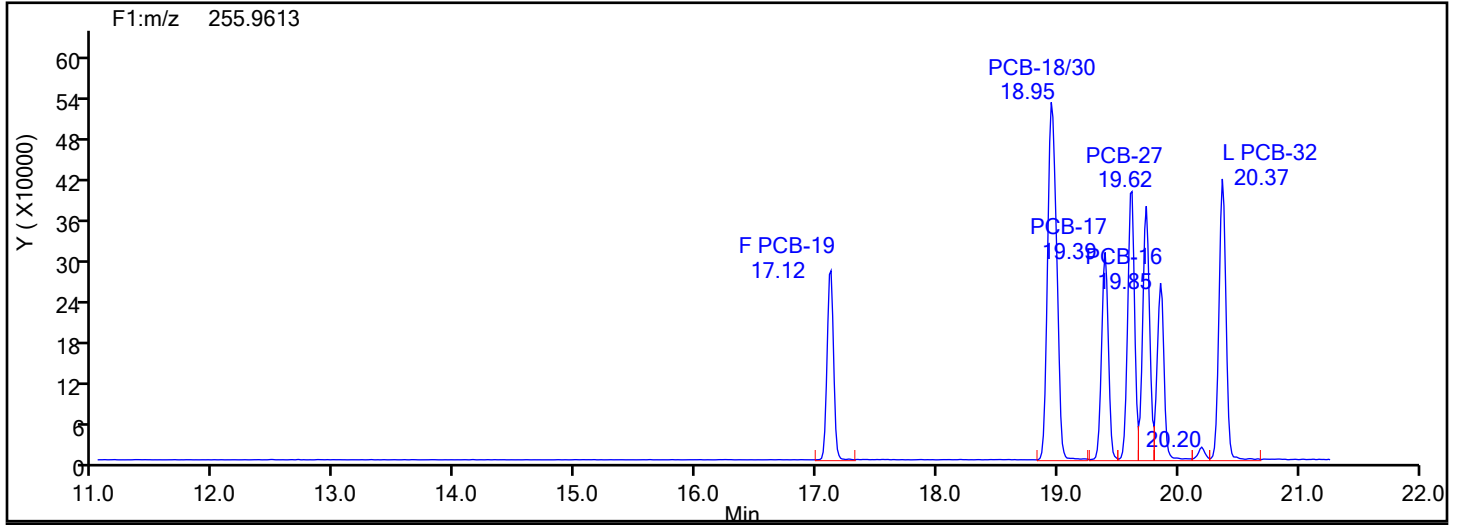
Worklist#: 87130

Sample Line#: 7

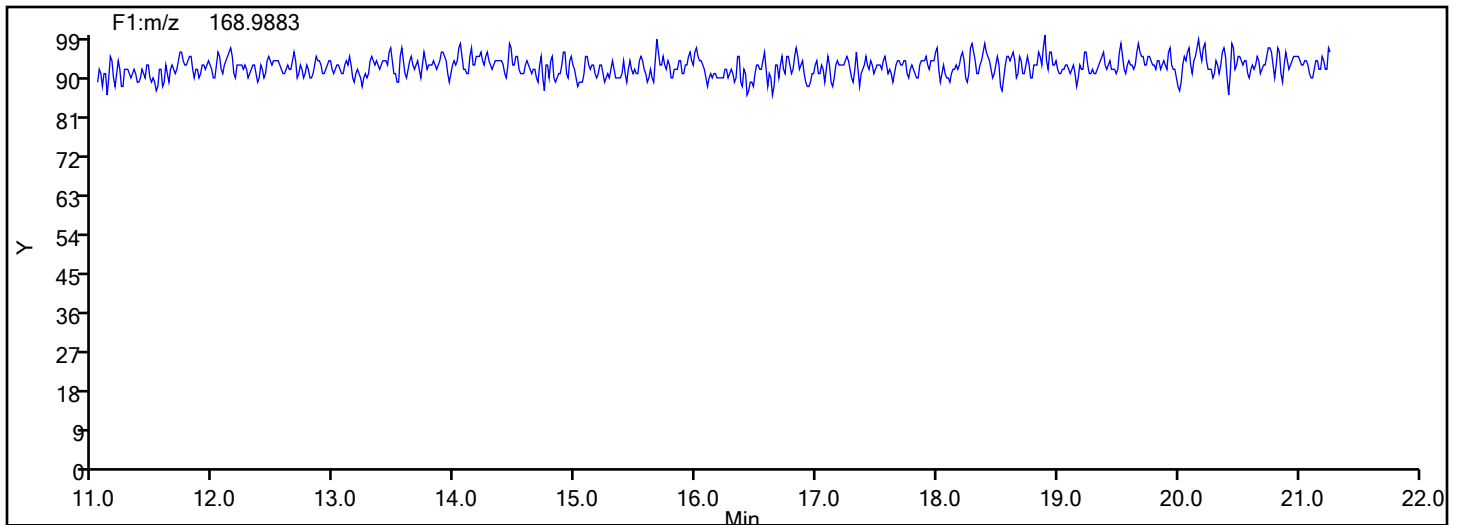
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\ld2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

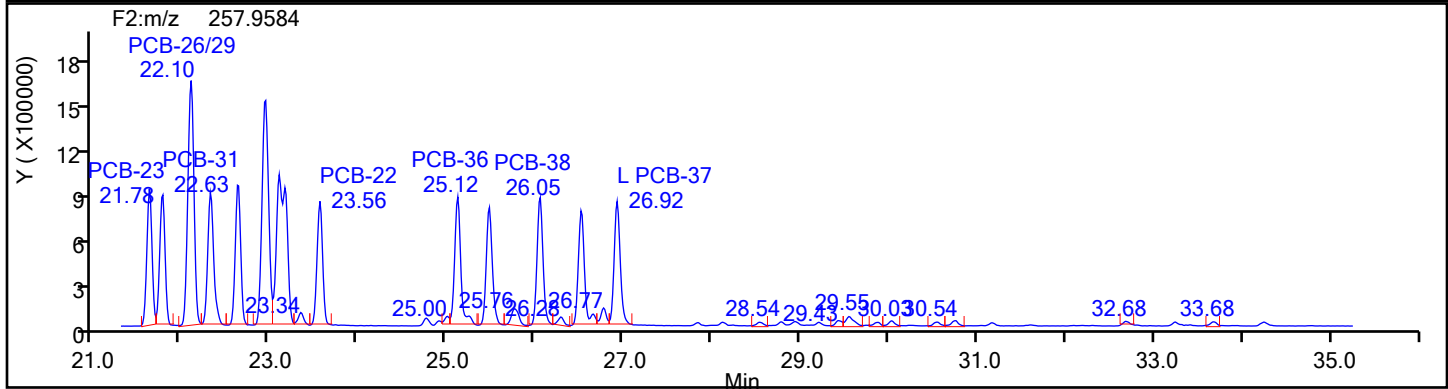
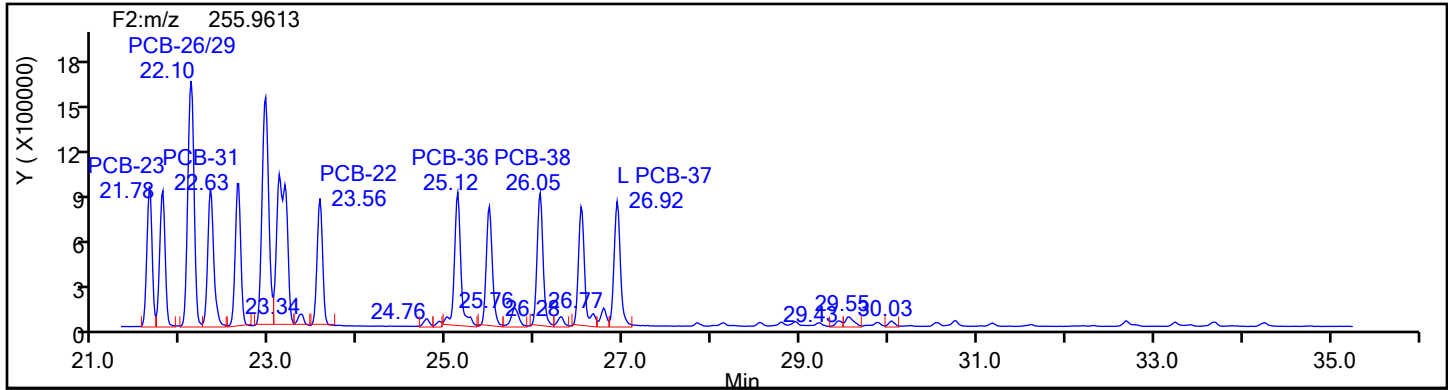
Worklist#: 87130

Sample Line#: 7

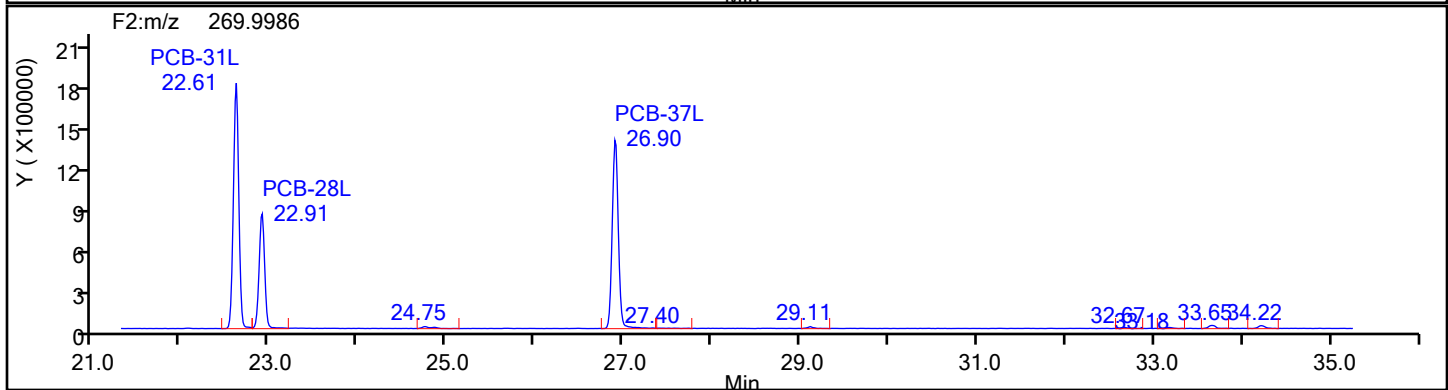
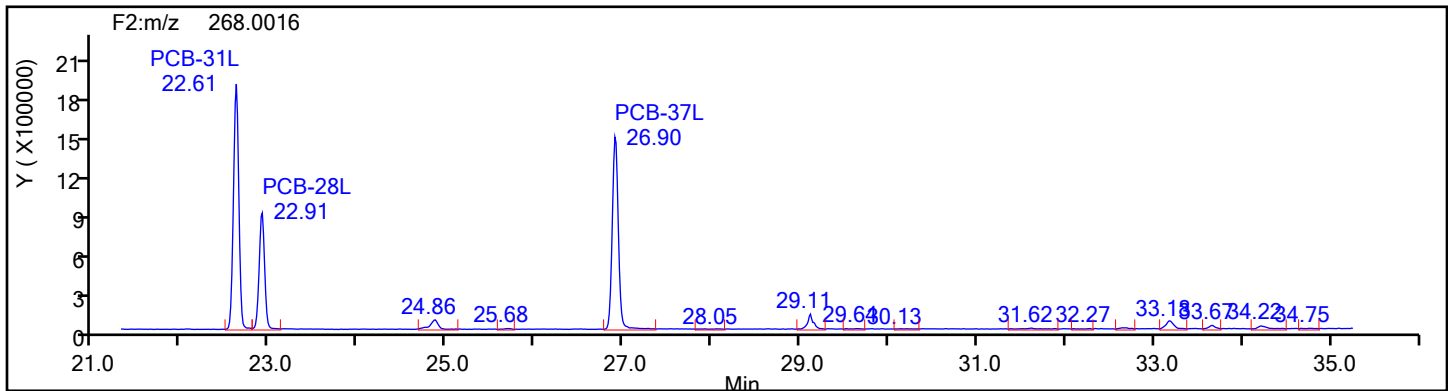
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

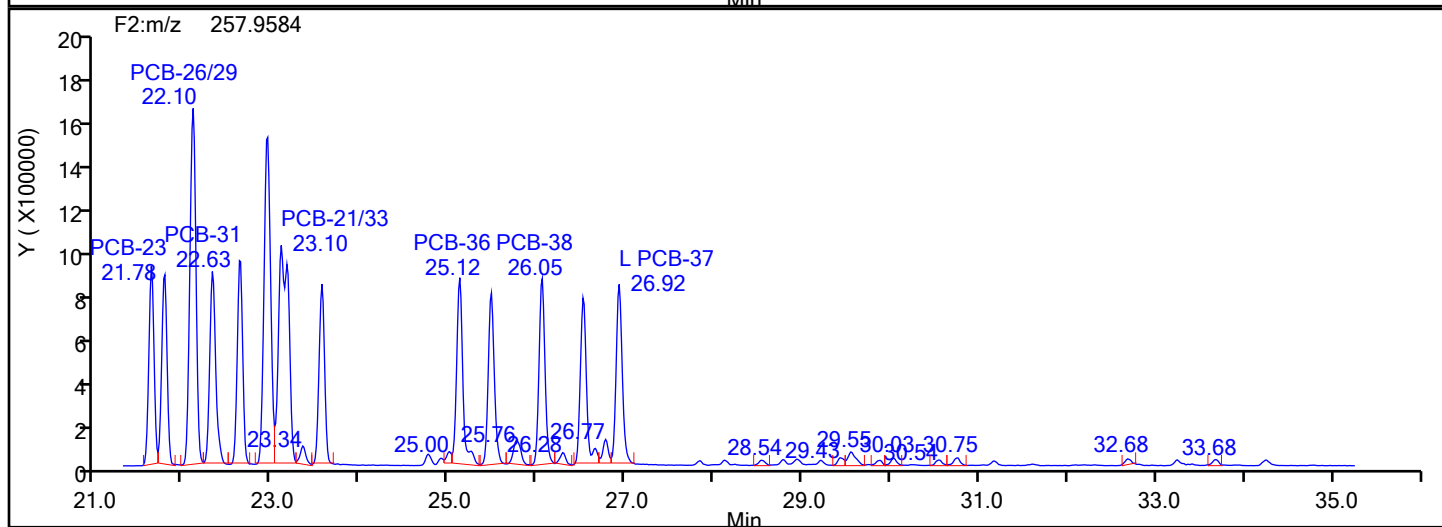
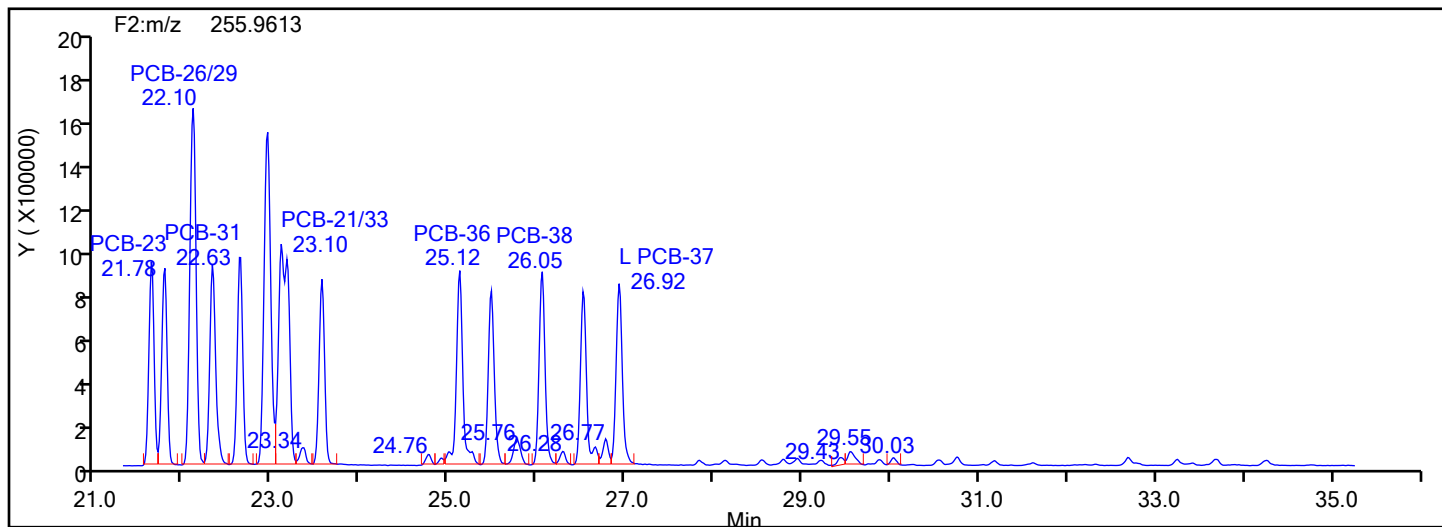
Worklist#: 87130

Sample Line#: 7

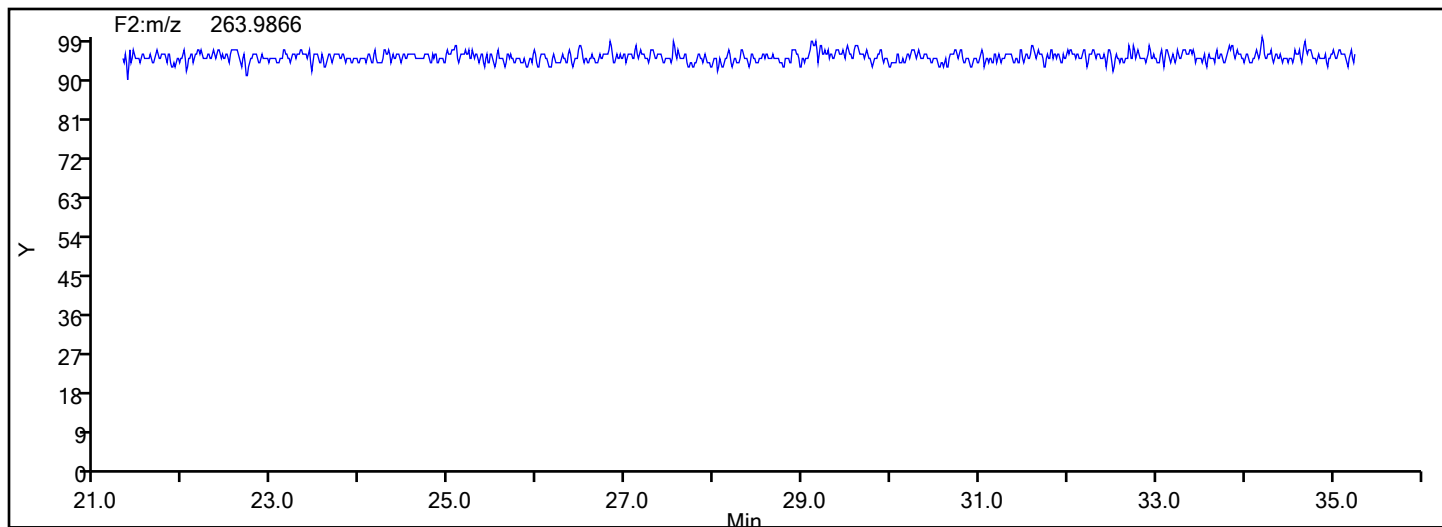
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Instrument ID: D2D

Lims ID: ICV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 7

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

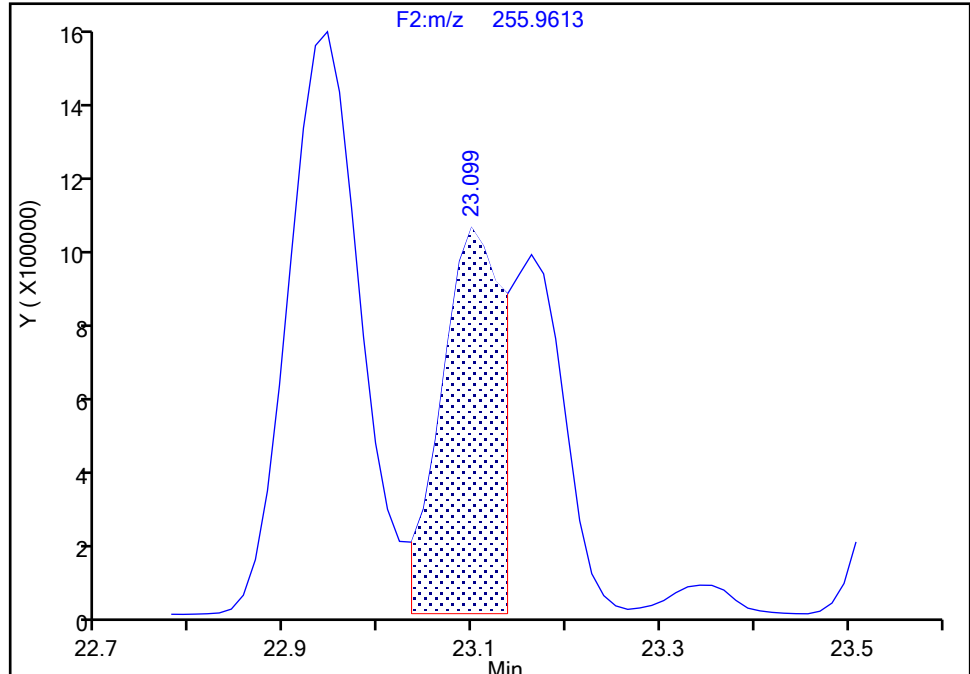
Detector F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 1

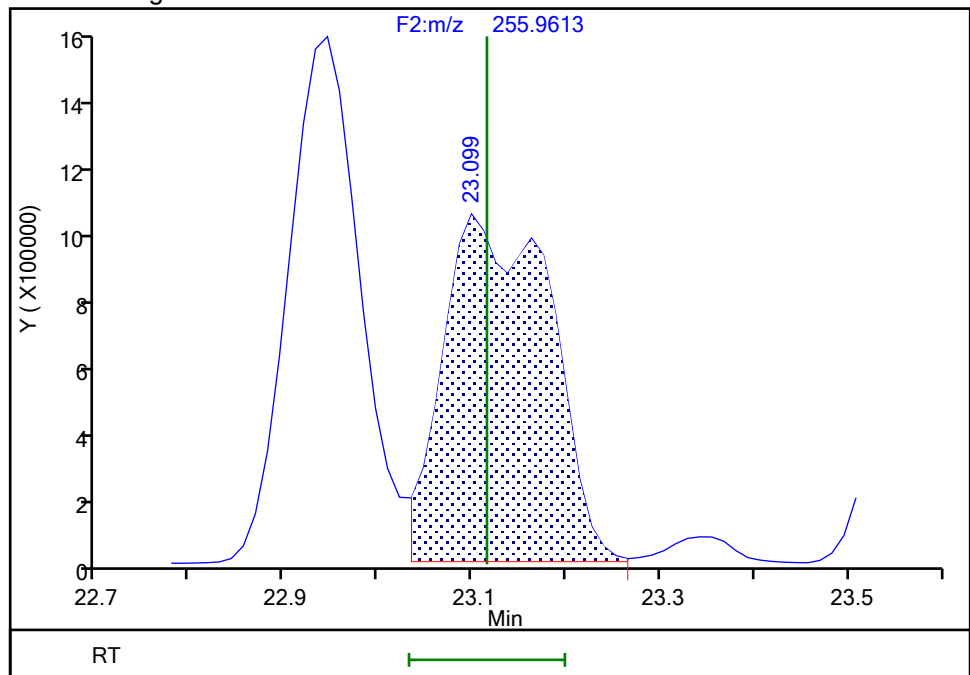
RT: 23.10  
Area: 4348927  
Amount: 58.859184  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.10  
Area: 7956098  
Amount: 106.5455  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:07:02 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Instrument ID: D2D

Lims ID: ICV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 7

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

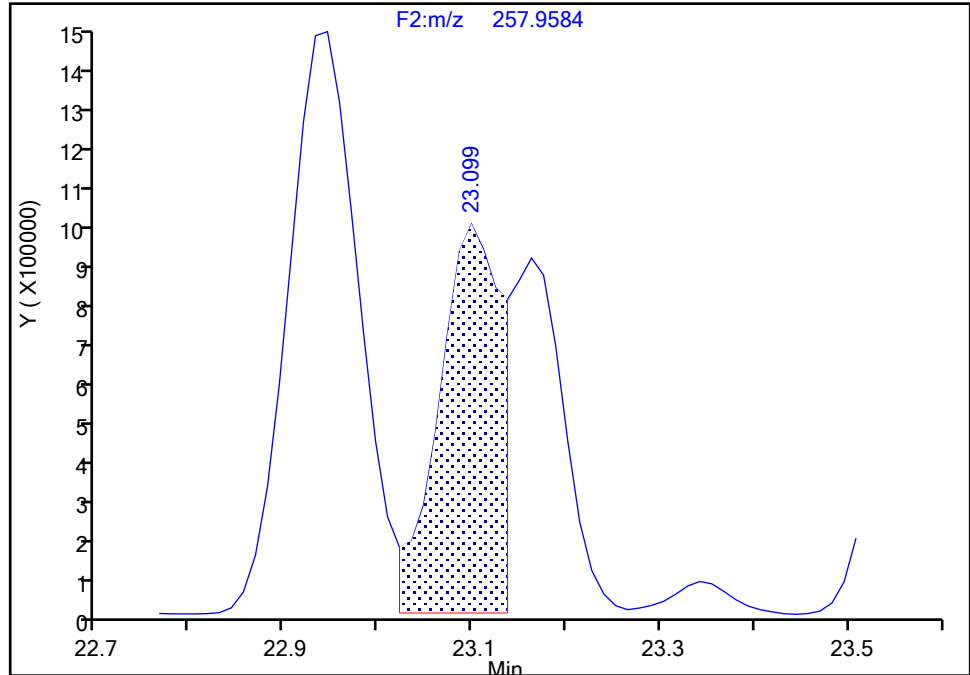
F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 2

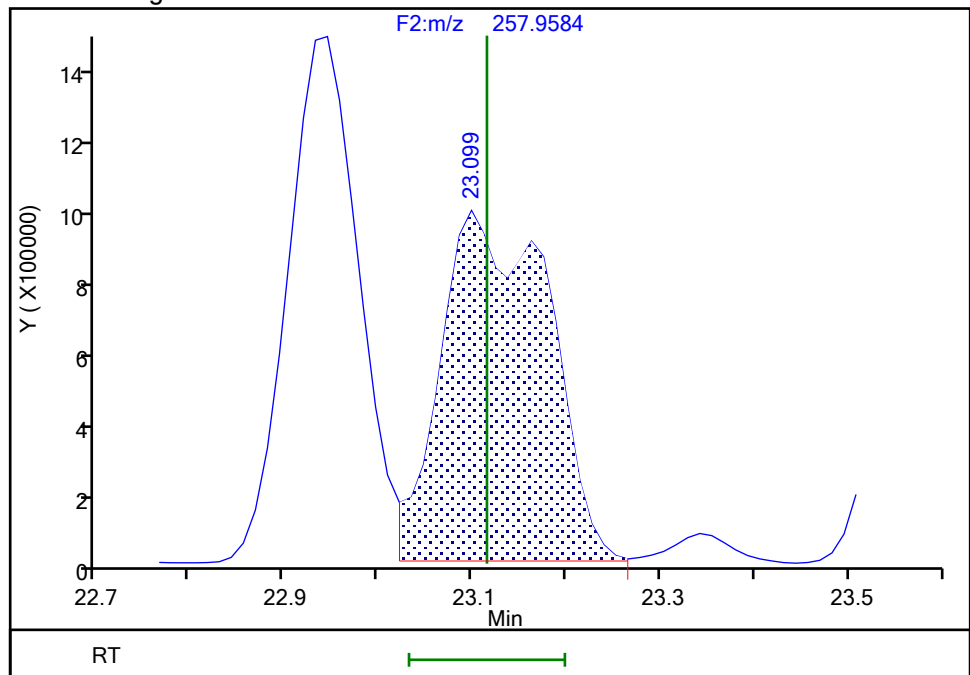
RT: 23.10  
Area: 4328847  
Amount: 58.859184  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.10  
Area: 7752210  
Amount: 106.5455  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:07:15 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

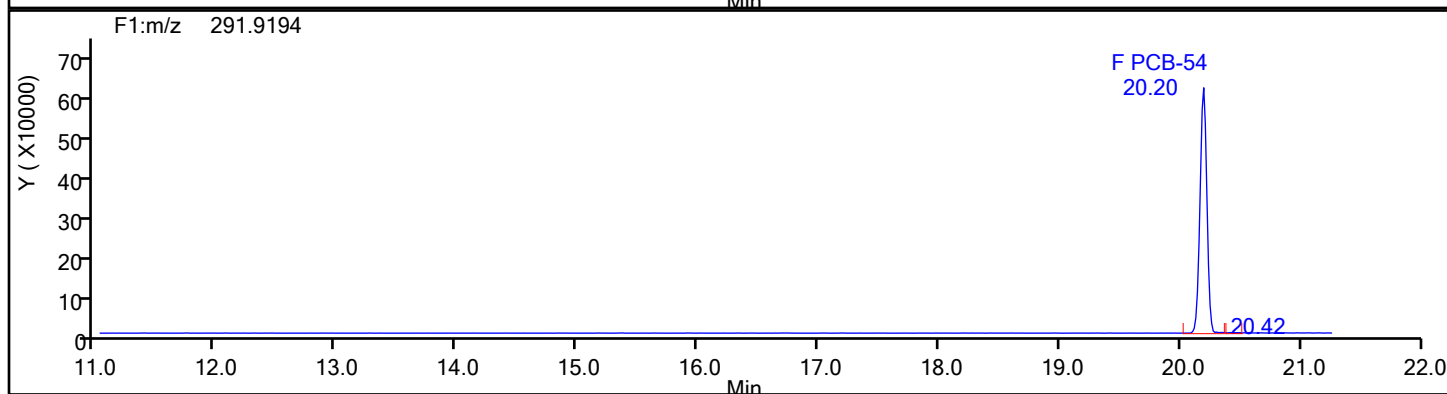
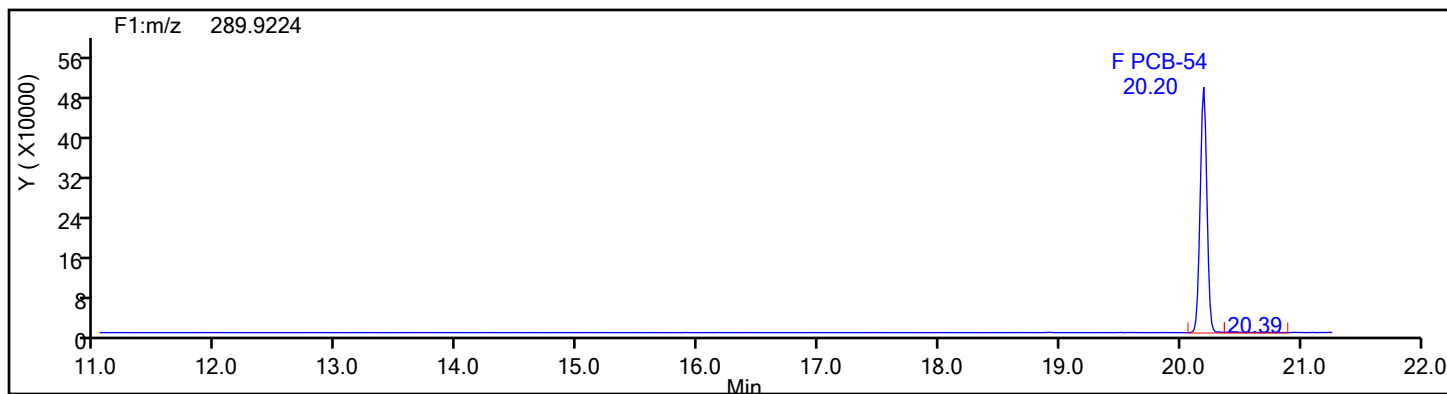
Worklist#: 87130

Sample Line#: 7

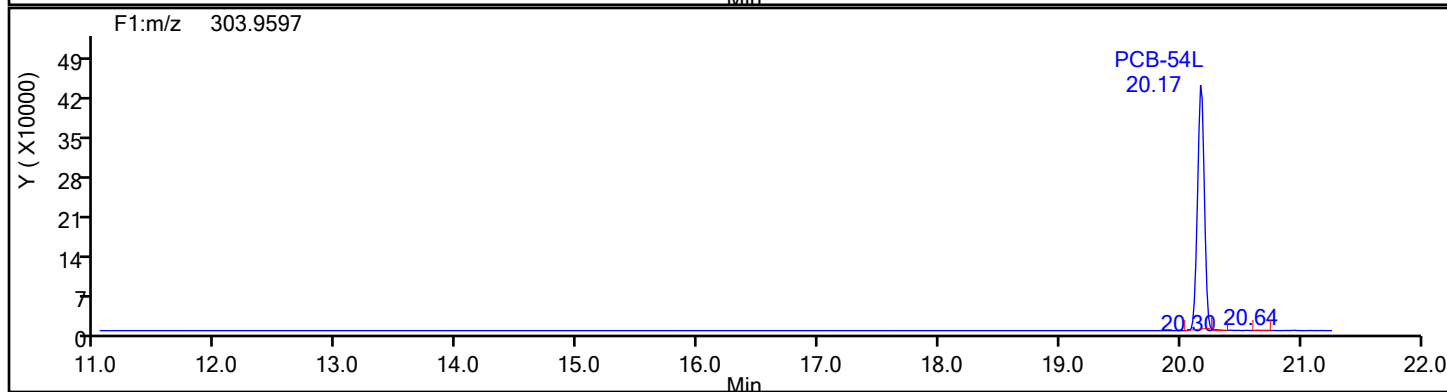
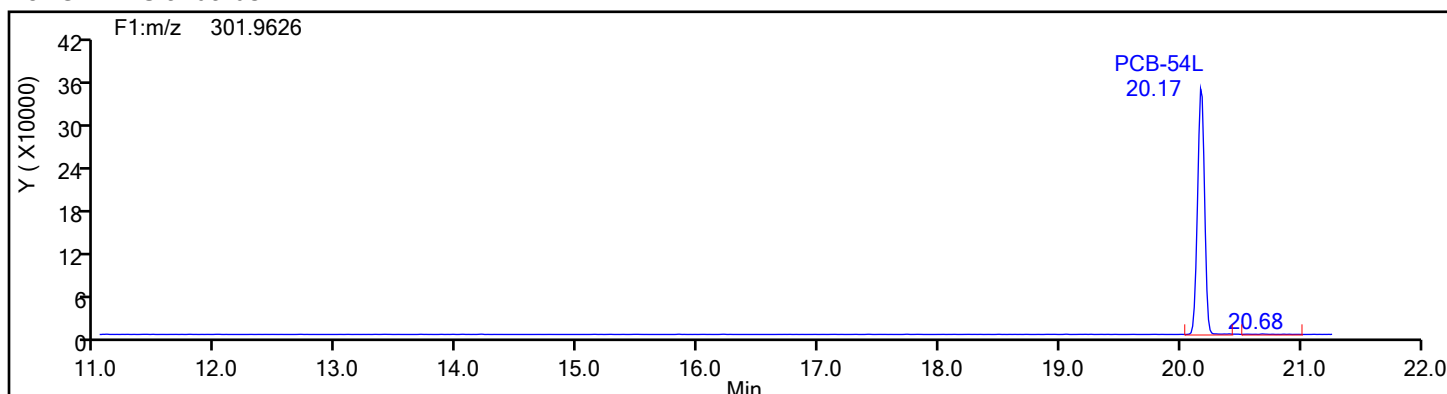
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1

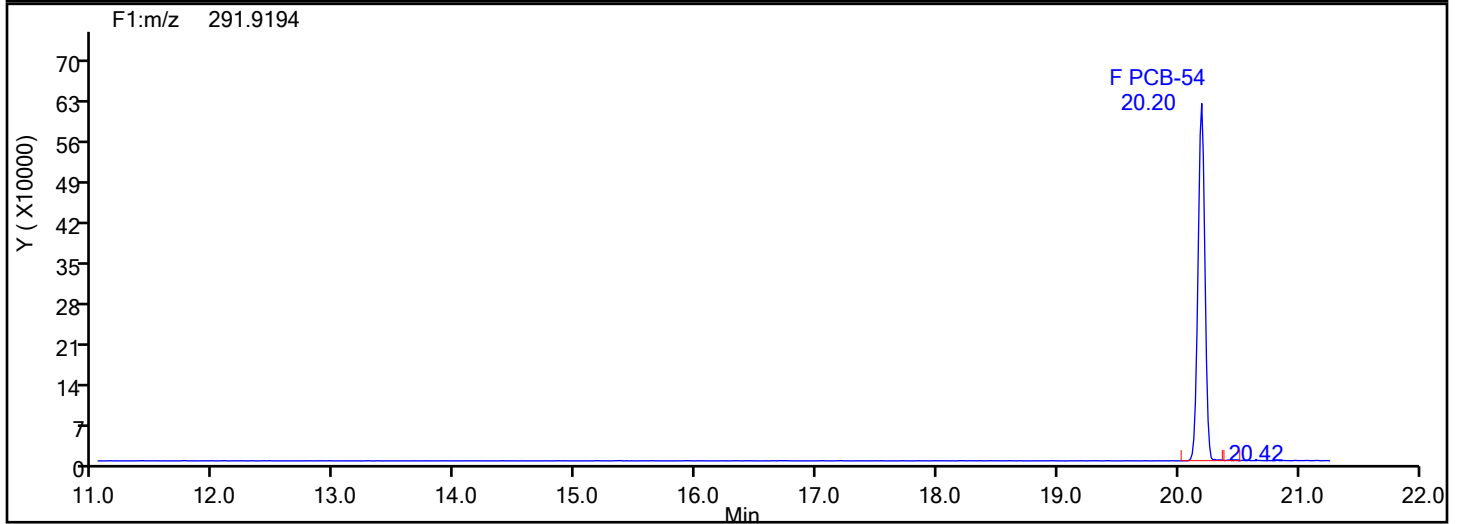
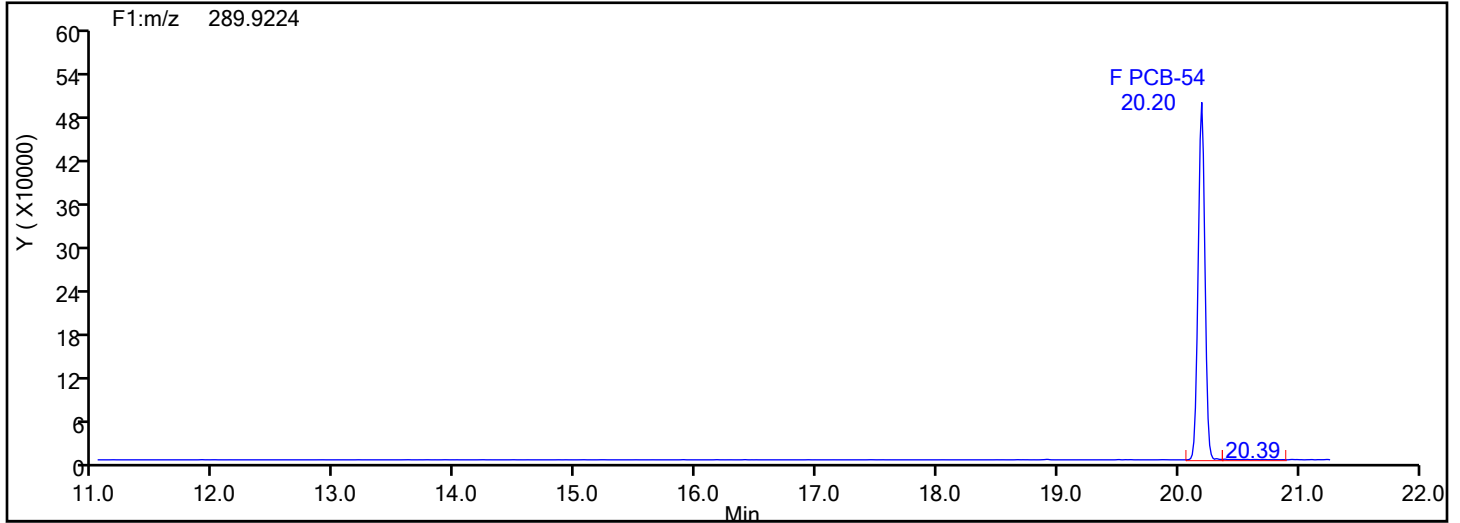


TePCB F1 Standards

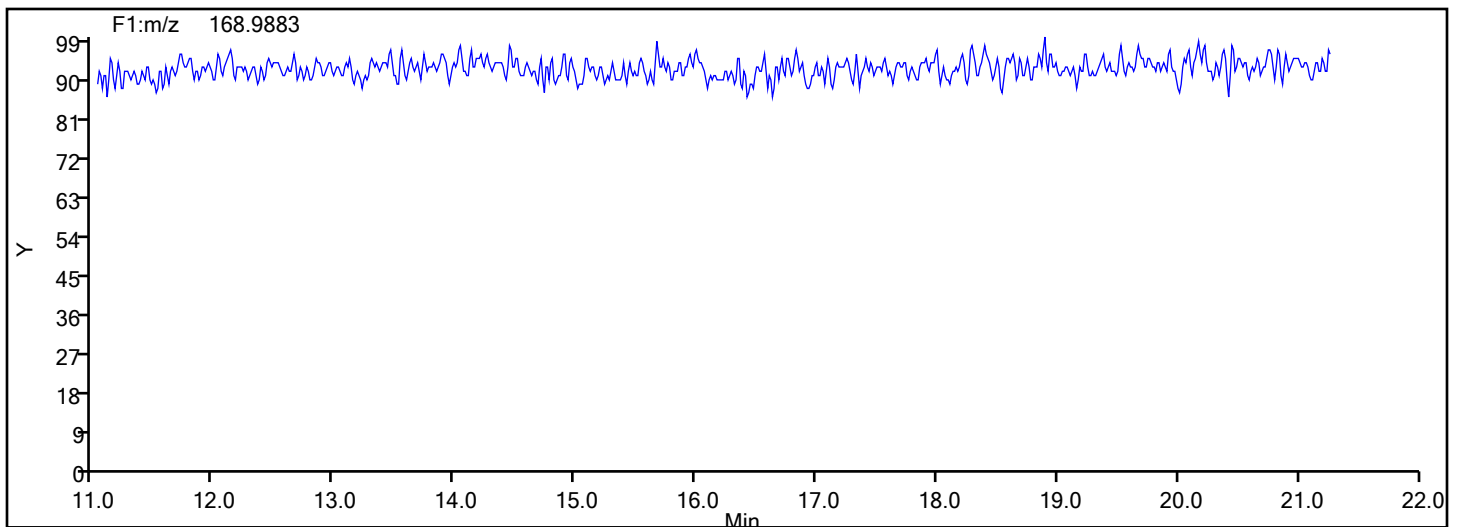


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d  
Injection Date: 31-May-2024 22:58:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1



## TePCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

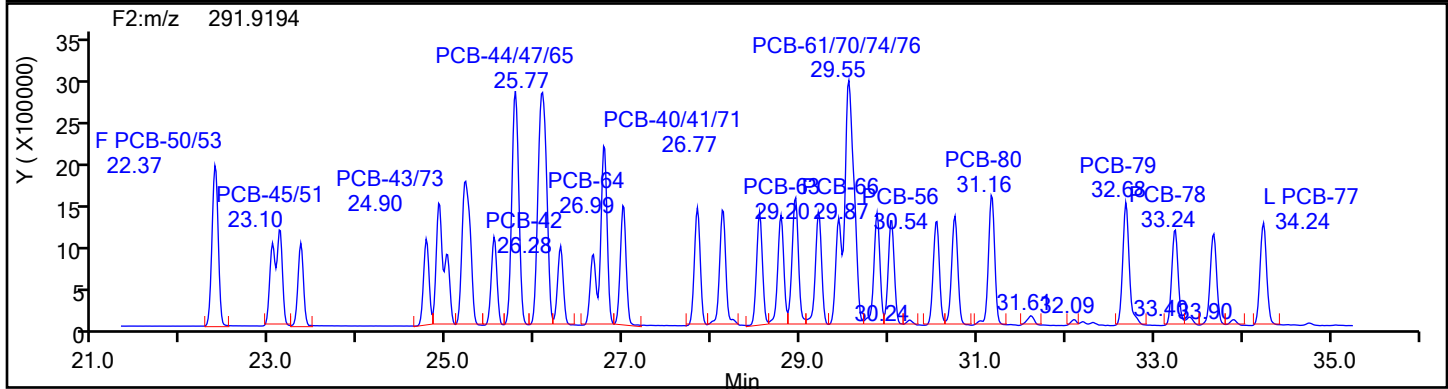
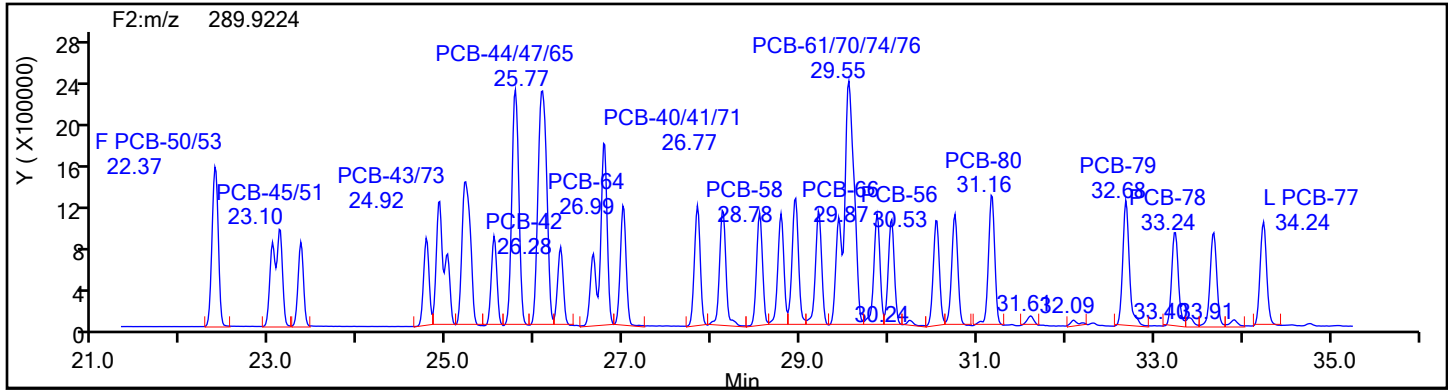
Worklist#: 87130

Sample Line#: 7

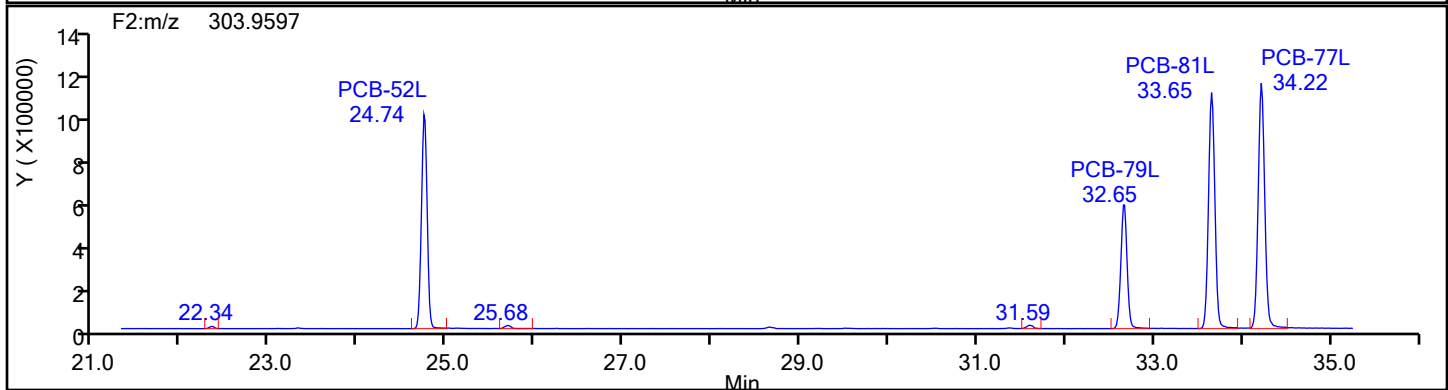
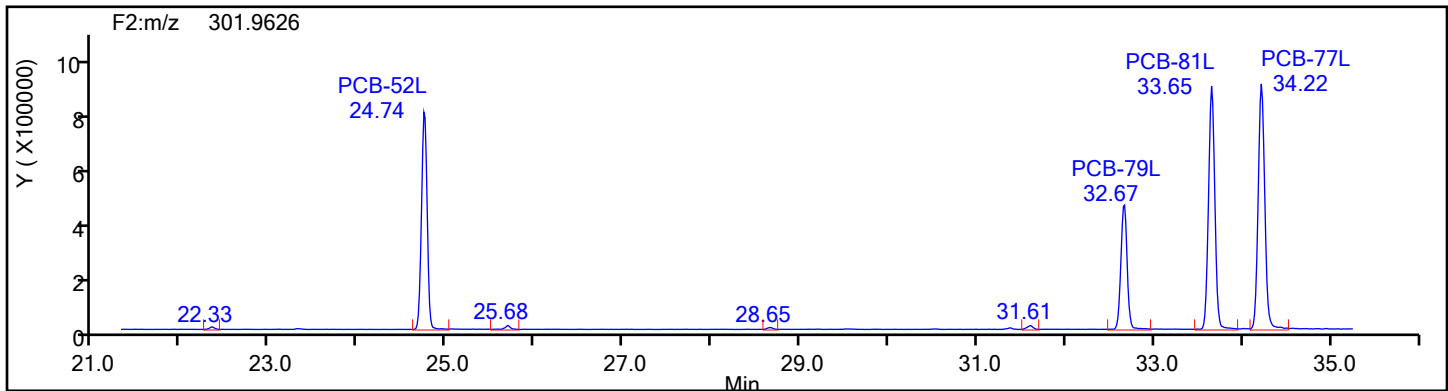
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



TePCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

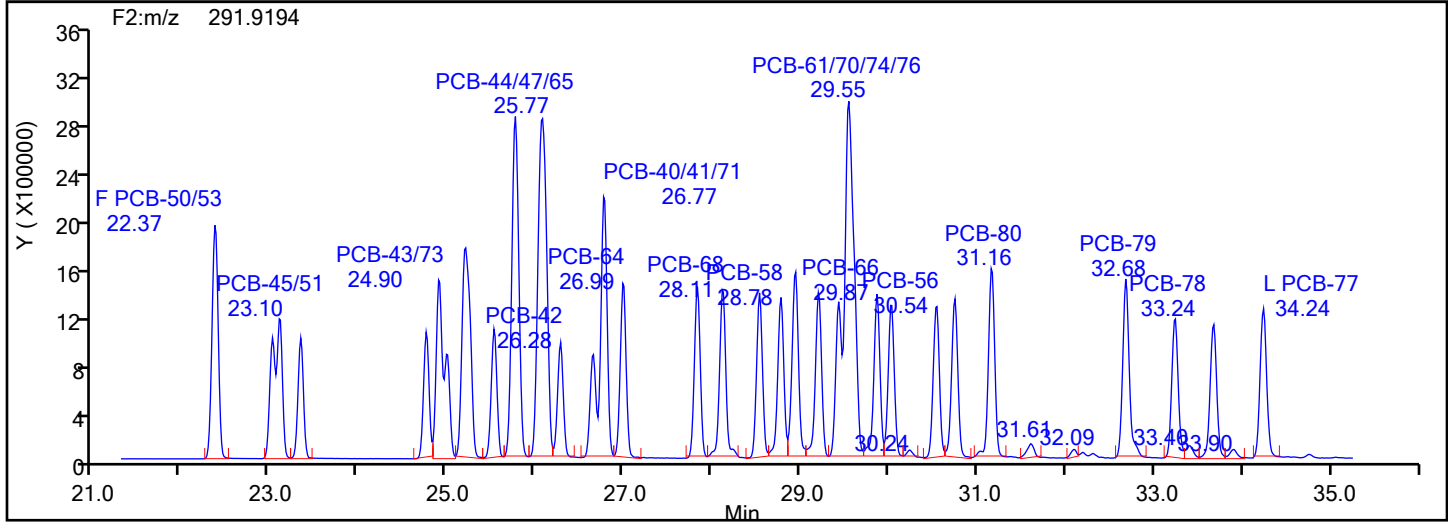
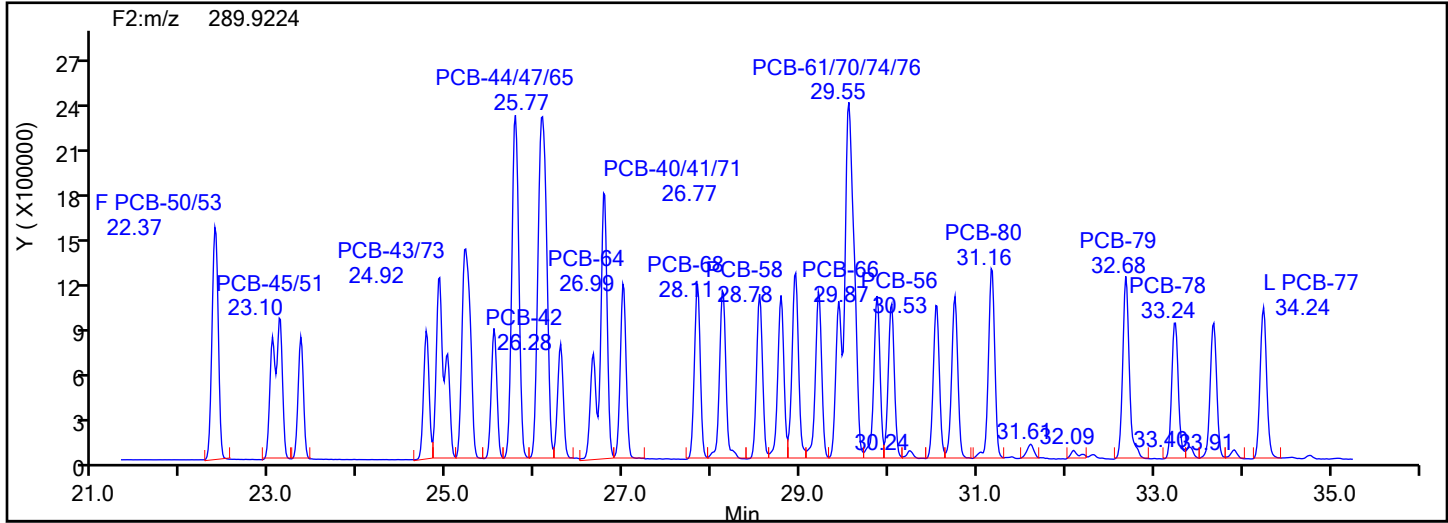
Worklist#: 87130

Sample Line#: 7

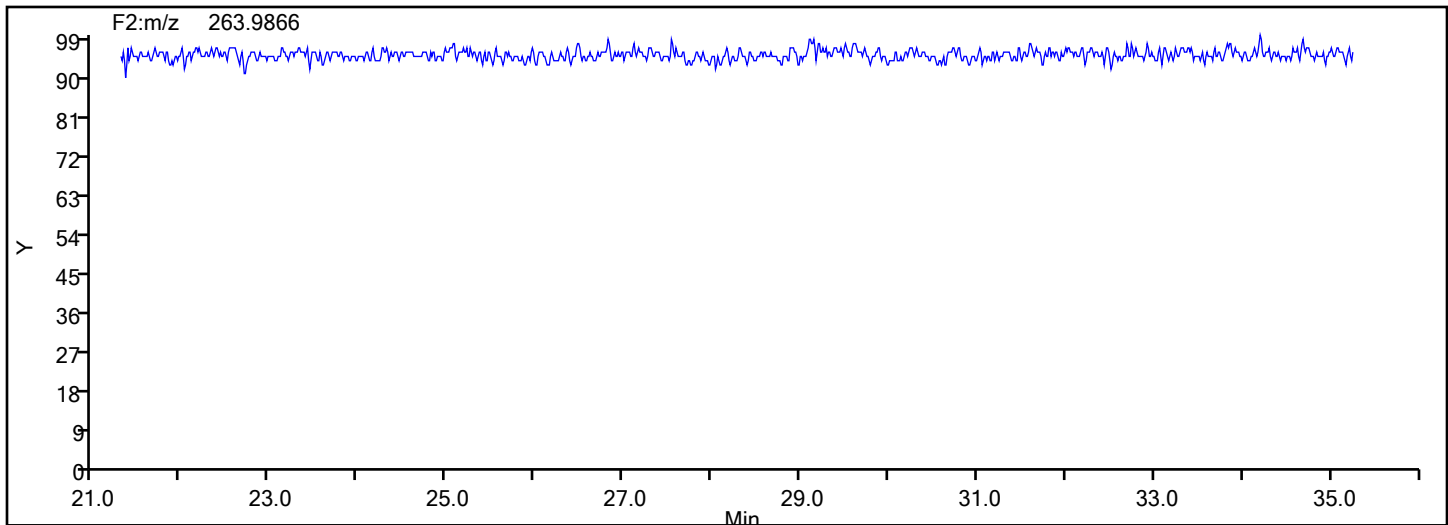
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



## TePCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Instrument ID: D2D

Lims ID: ICV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 7

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

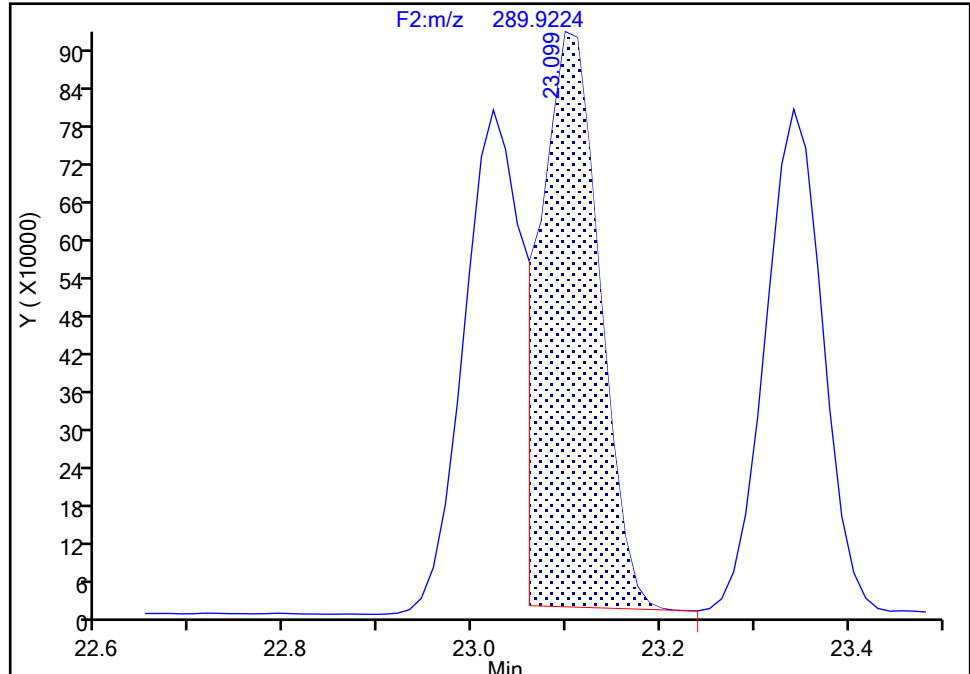
F2(21.81 :35.54 )

PCB-45/51, CAS: STL01804

Signal: 1

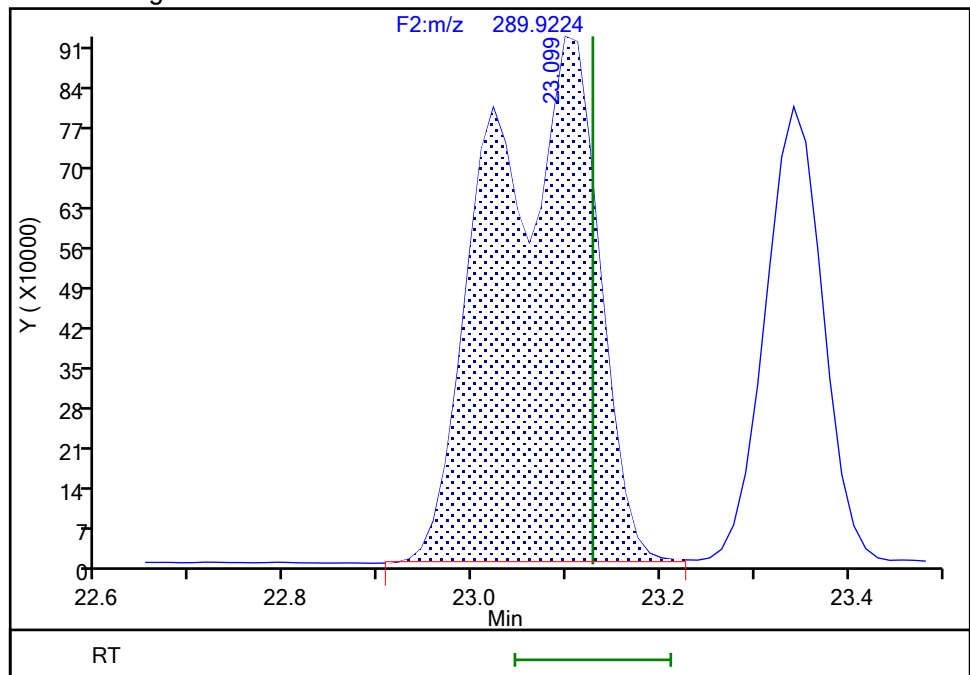
RT: 23.10  
Area: 3944356  
Amount: 108.0837  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.10  
Area: 7266784  
Amount: 199.5247  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:07:48 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Instrument ID: D2D

Lims ID: ICV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#: 0

Worklist Smp#: 7

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

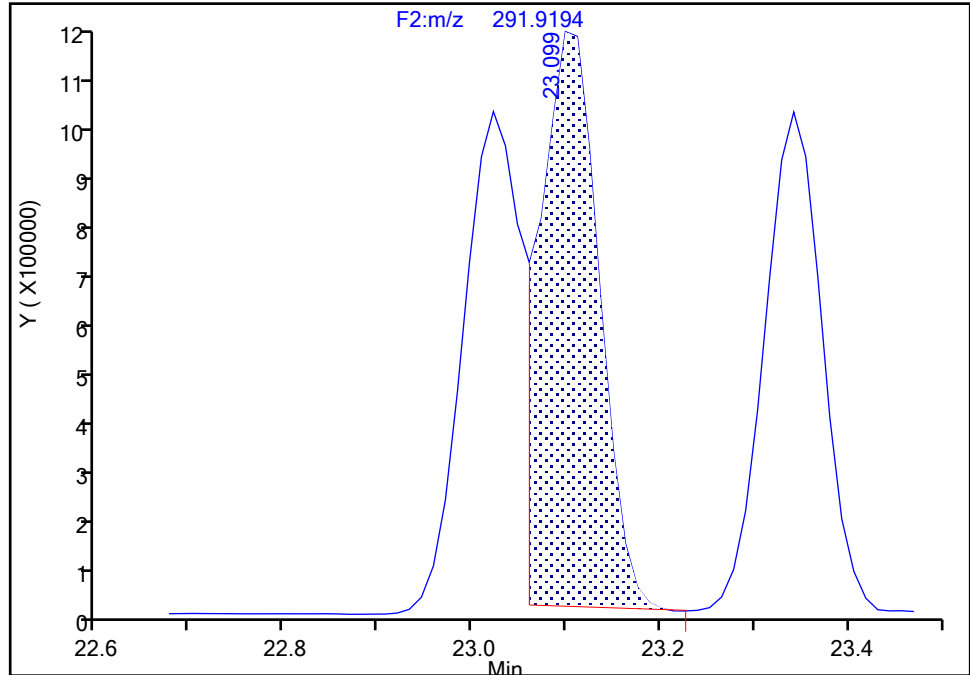
Detector F2(21.81 :35.54 )

**PCB-45/51, CAS: STL01804**

Signal: 2

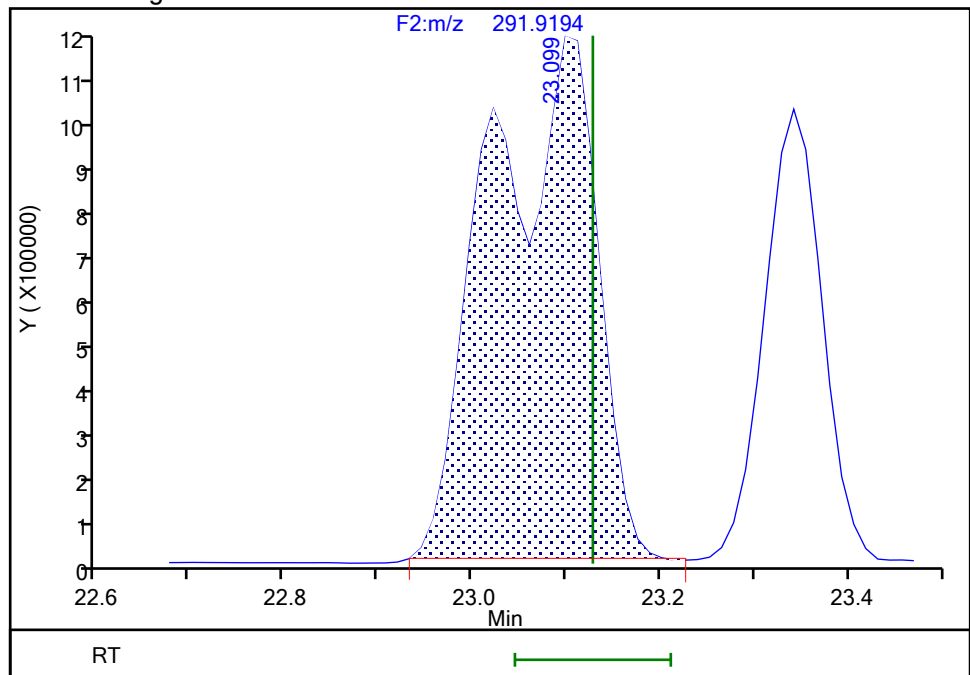
RT: 23.10  
Area: 4947557  
Amount: 108.0837  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.10  
Area: 9147858  
Amount: 199.5247  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:07:57 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Instrument ID: D2D

Lims ID: ICV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 7

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

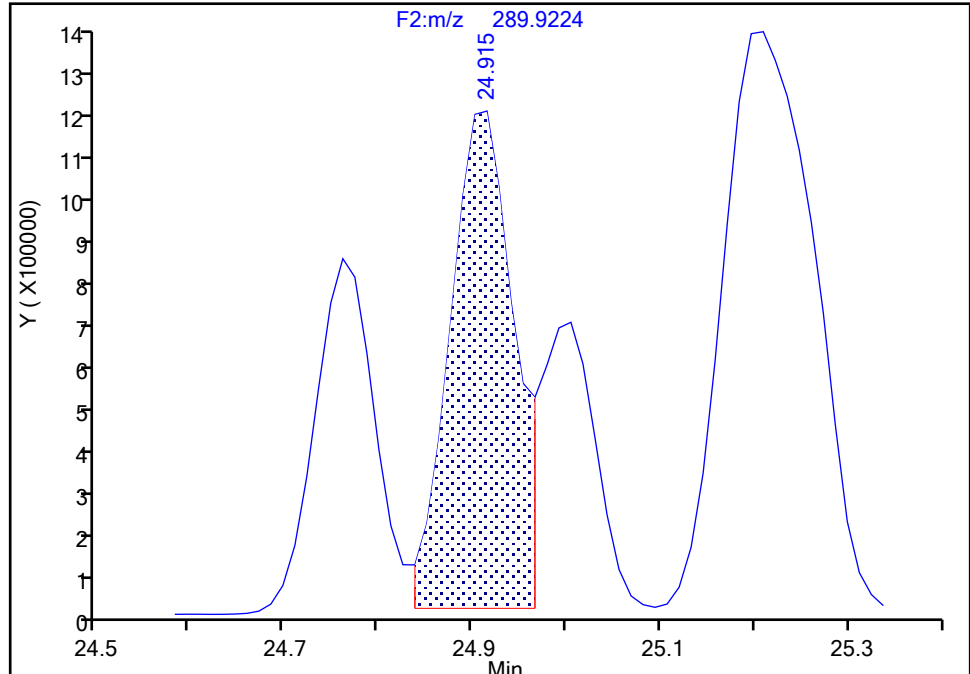
Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 1

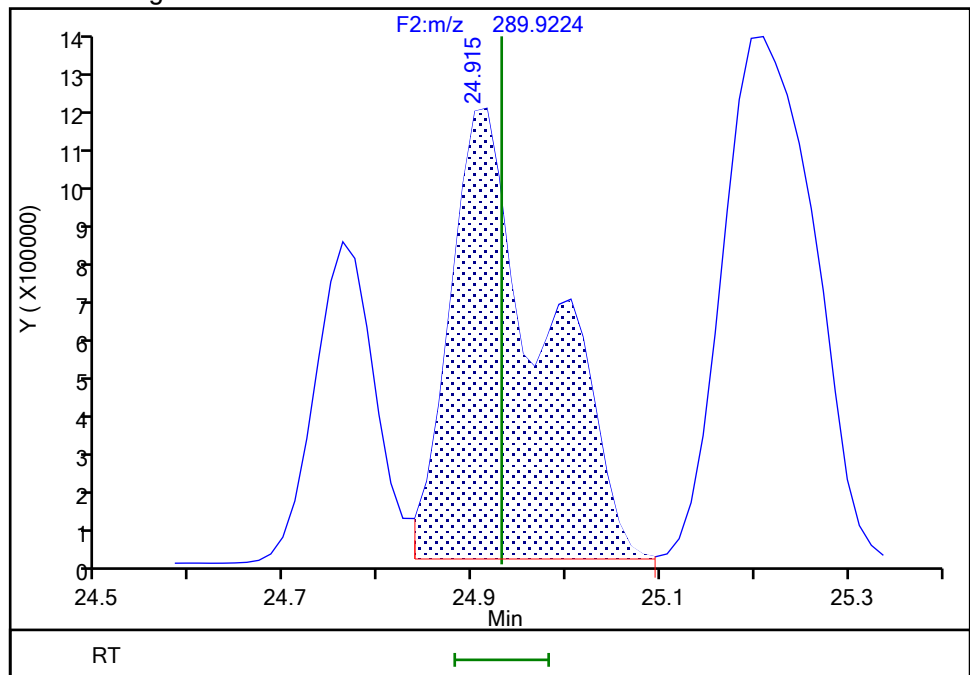
RT: 24.92  
Area: 5521608  
Amount: 120.8756  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.92  
Area: 8232470  
Amount: 181.3642  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:08:11 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Instrument ID: D2D

Lims ID: ICV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#: 0

Worklist Smp#: 7

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

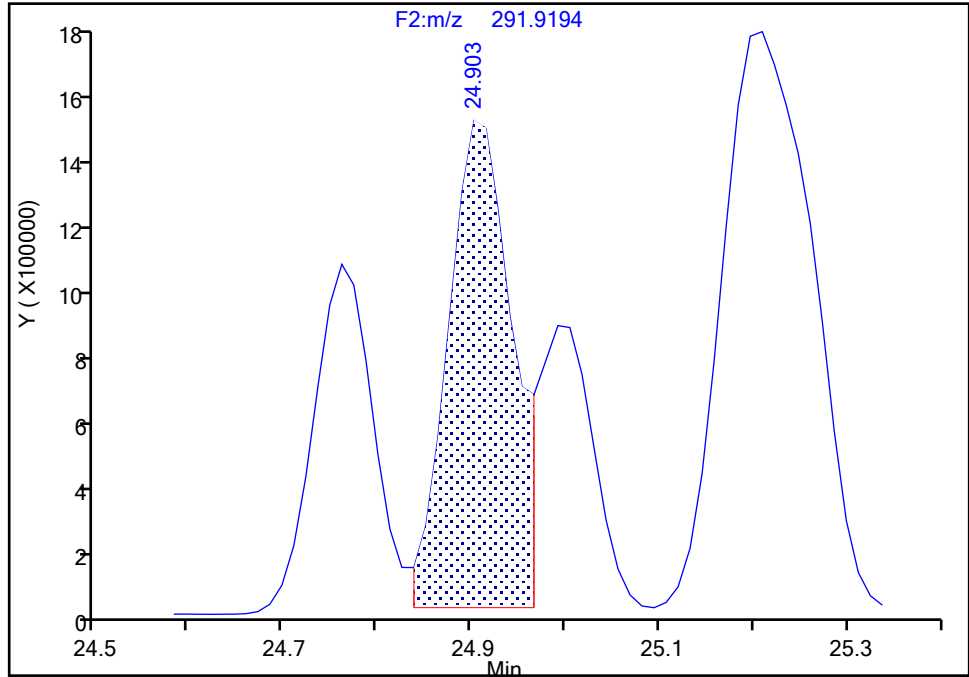
Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 2

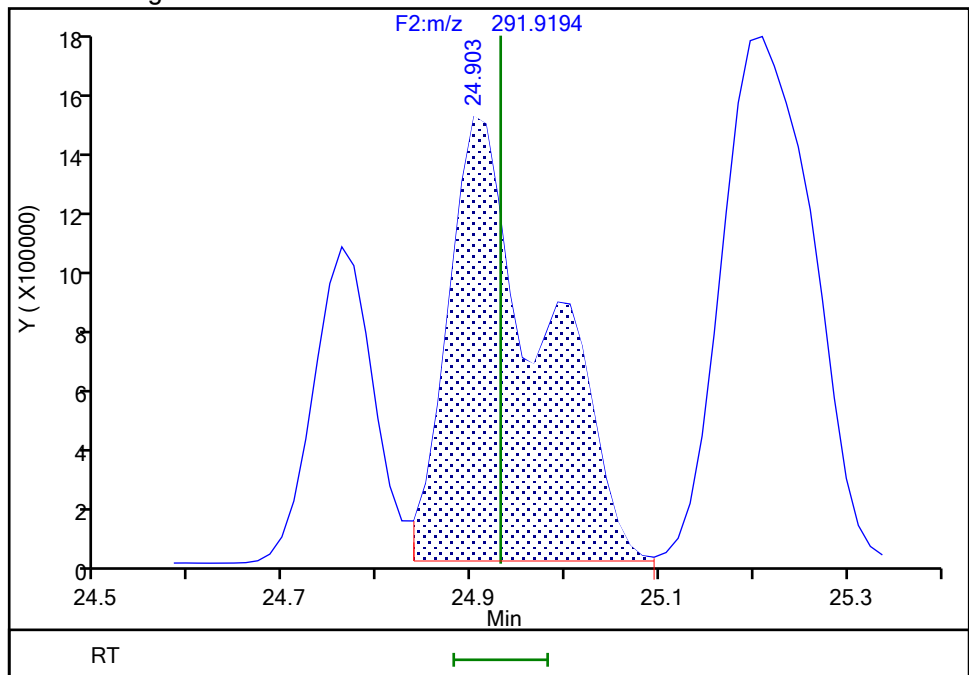
RT: 24.90  
Area: 6912452  
Amount: 120.8756  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.90  
Area: 10423848  
Amount: 181.3642  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:08:18 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Instrument ID: D2D

Lims ID: ICV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 7

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

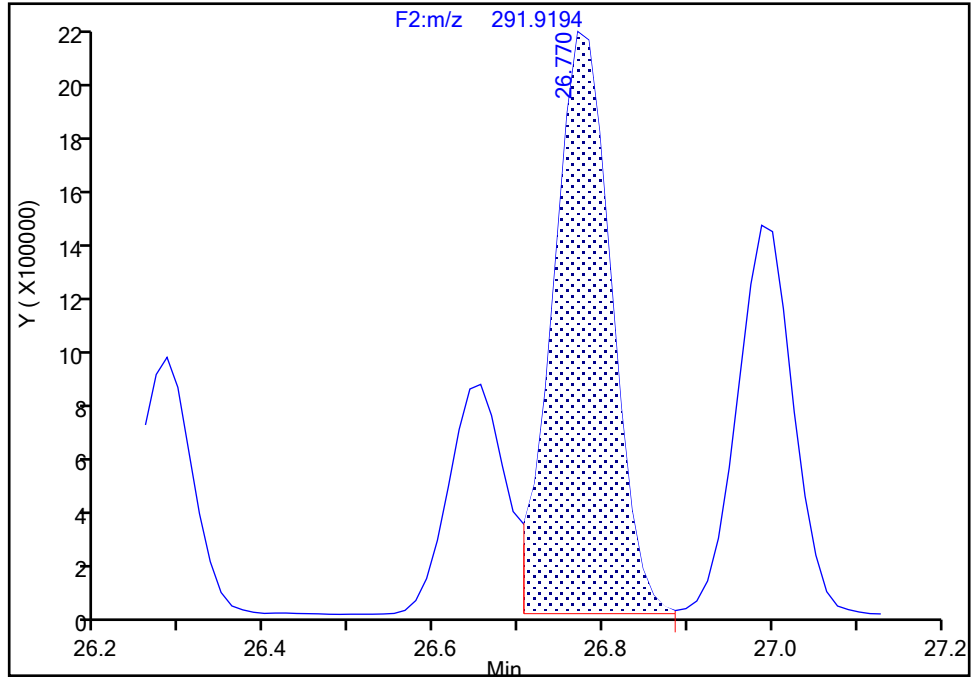
Detector F2(21.81 :35.54 )

PCB-40/41/71, CAS: STL02292

Signal: 2

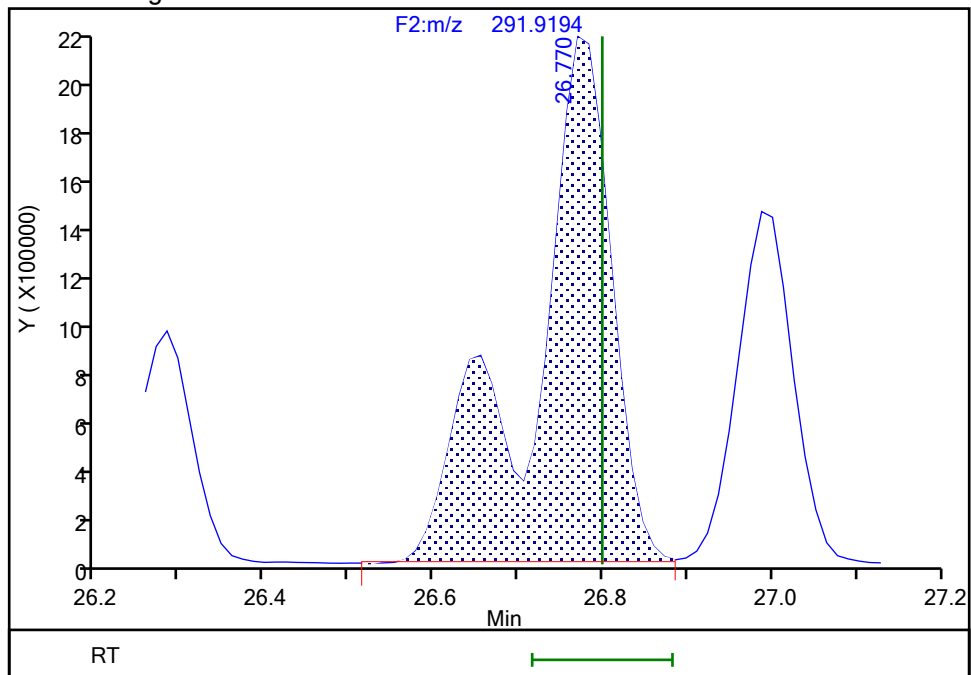
RT: 26.77  
Area: 10371796  
Amount: 211.0123  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.77  
Area: 14336238  
Amount: 292.3129  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:08:32 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Instrument ID: D2D

Lims ID: ICV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 7

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

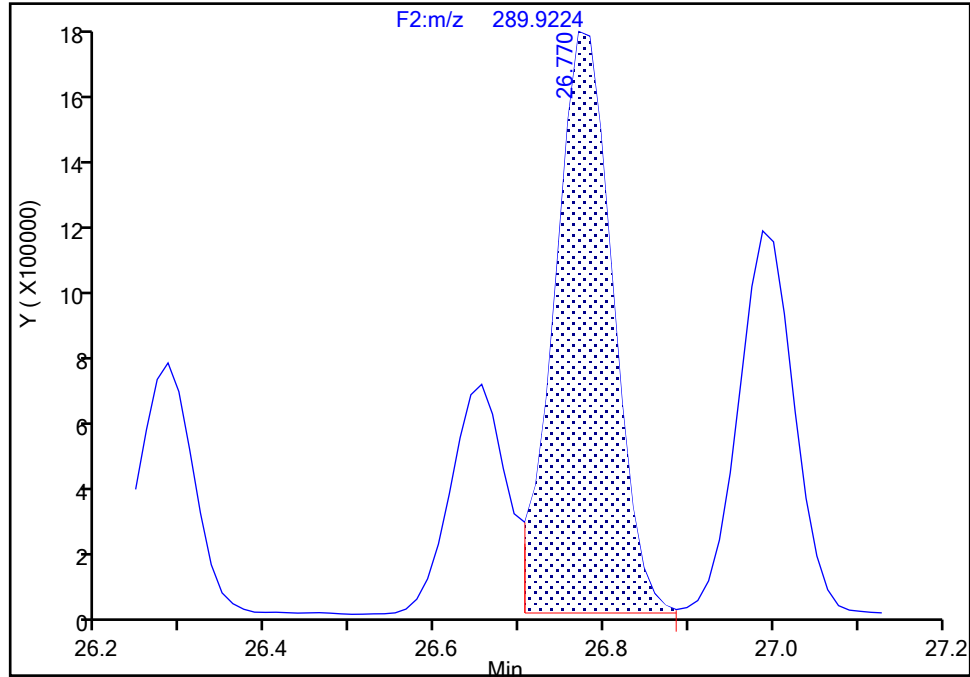
F2(21.81 :35.54 )

**PCB-40/41/71, CAS: STL02292**

Signal: 1

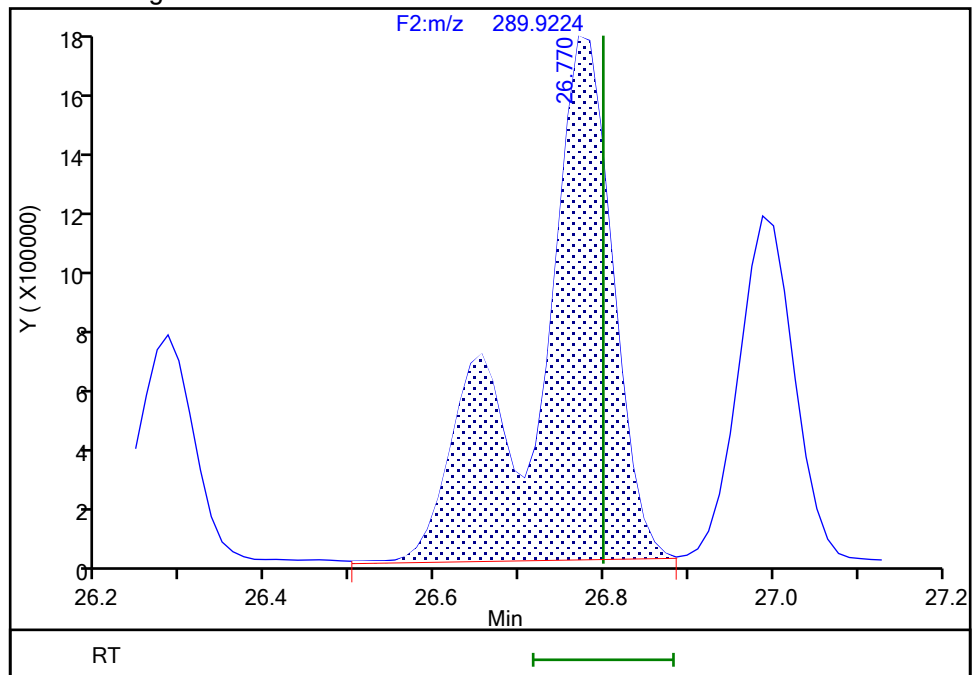
RT: 26.77  
Area: 8246305  
Amount: 211.0123  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.77  
Area: 11455207  
Amount: 292.3129  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:08:46 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

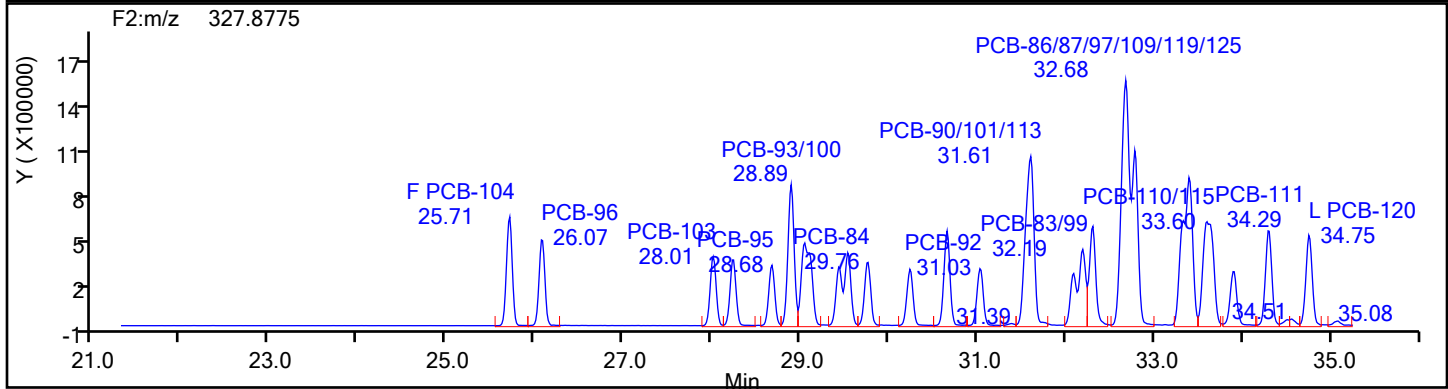
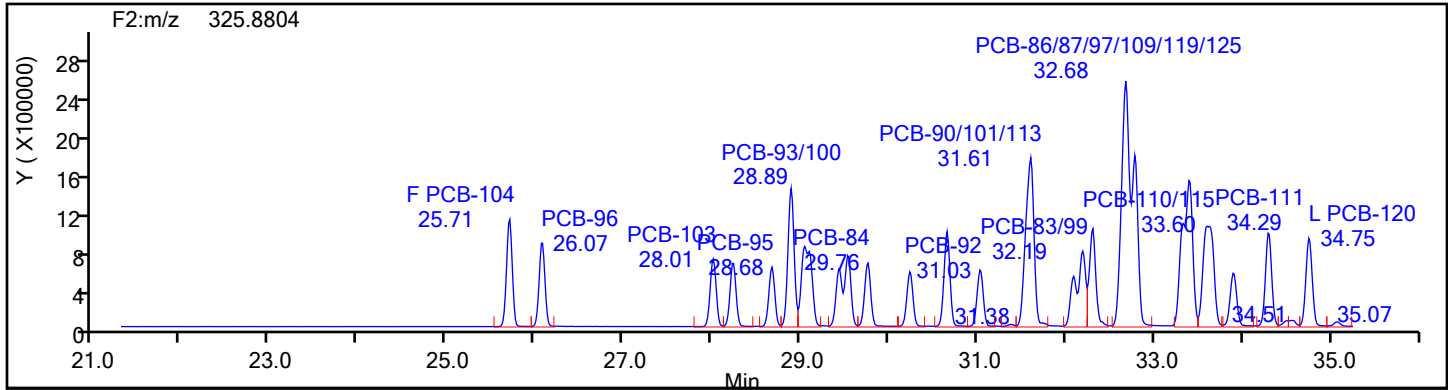
Worklist#: 87130

Sample Line#: 7

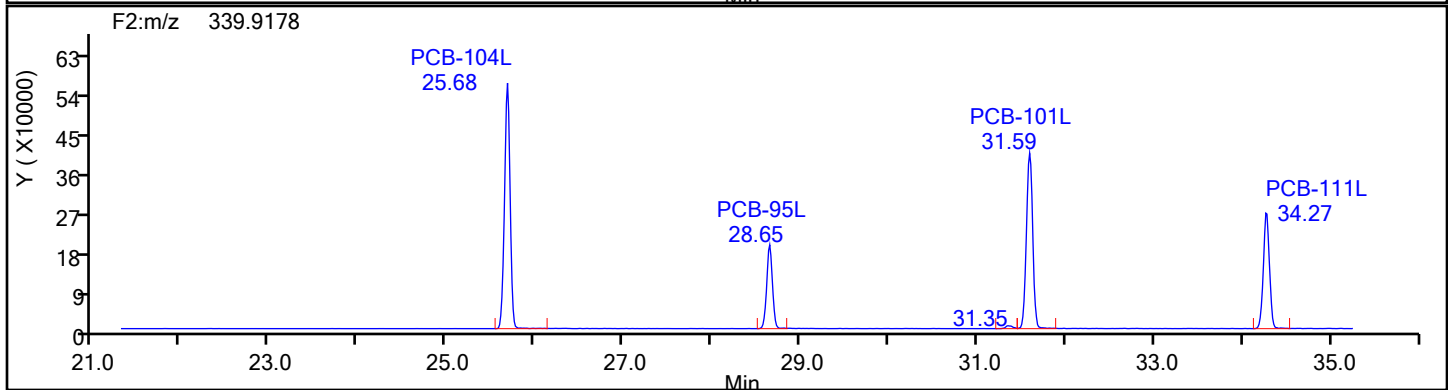
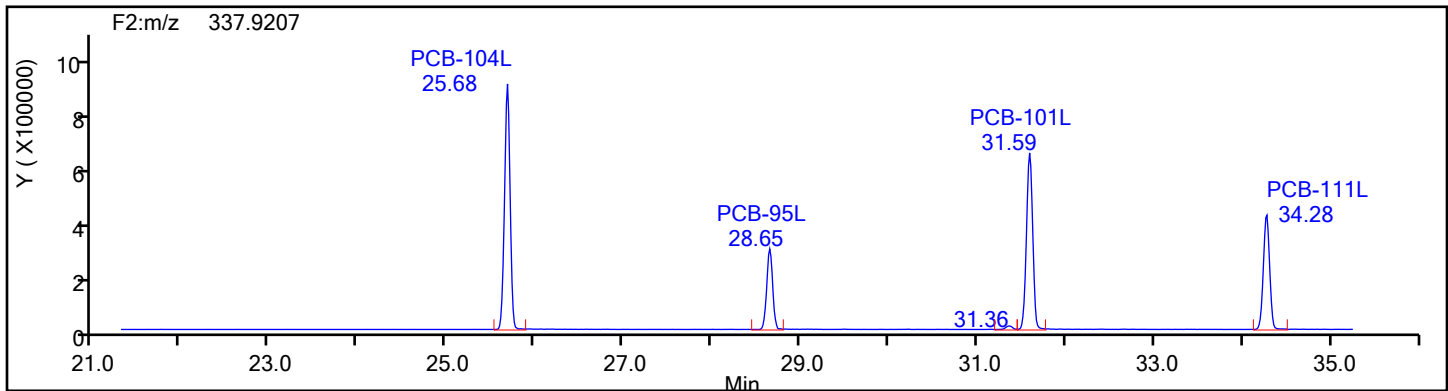
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F2

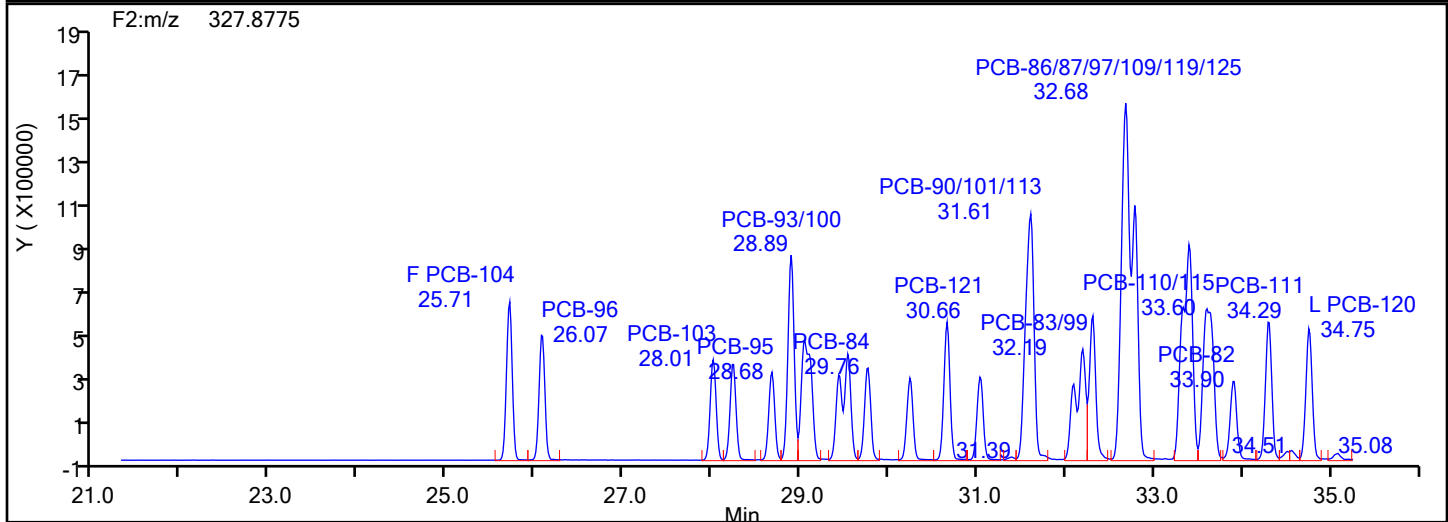
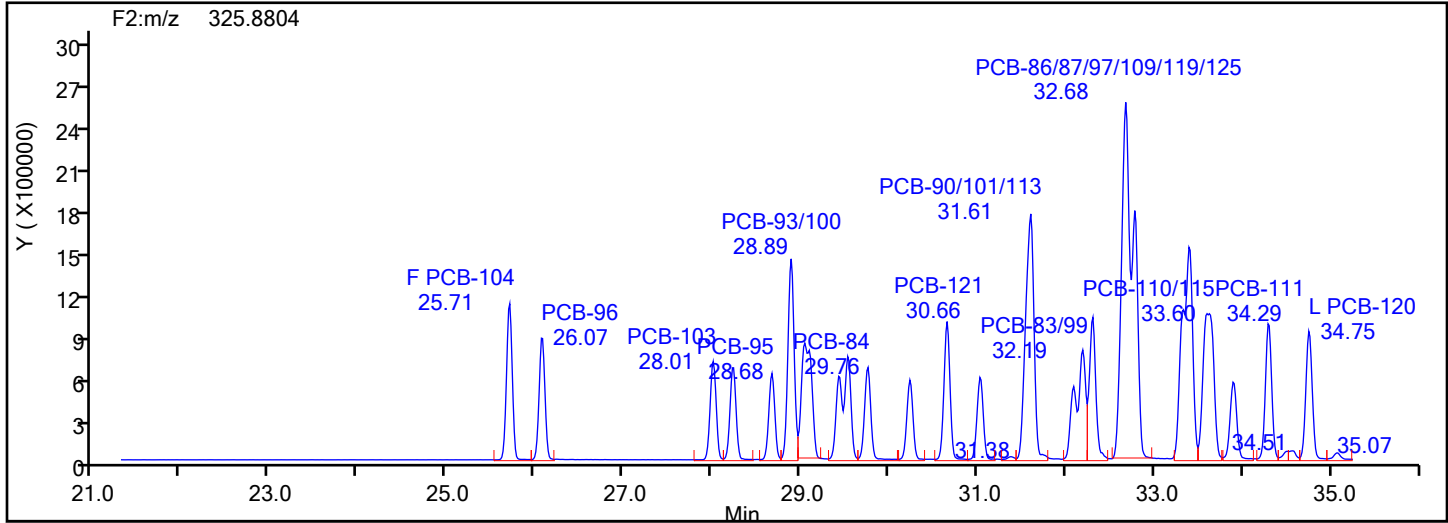


## PePCB F2 Standards

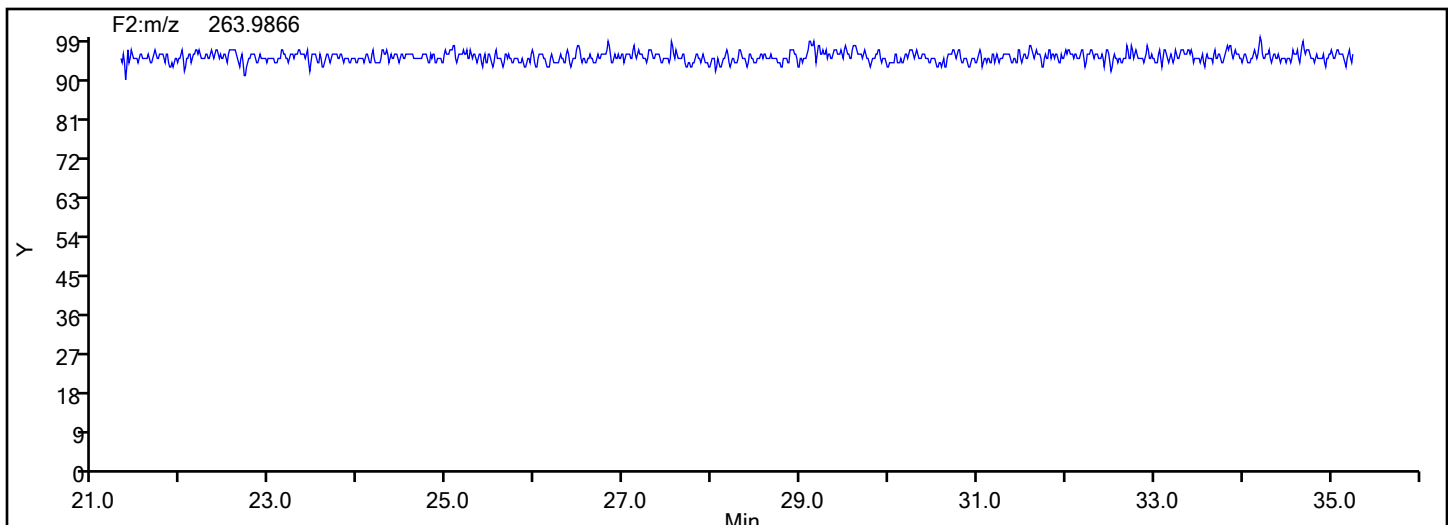


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d  
Injection Date: 31-May-2024 22:58:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2



## PePCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Instrument ID: D2D

Lims ID: ICV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 7

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

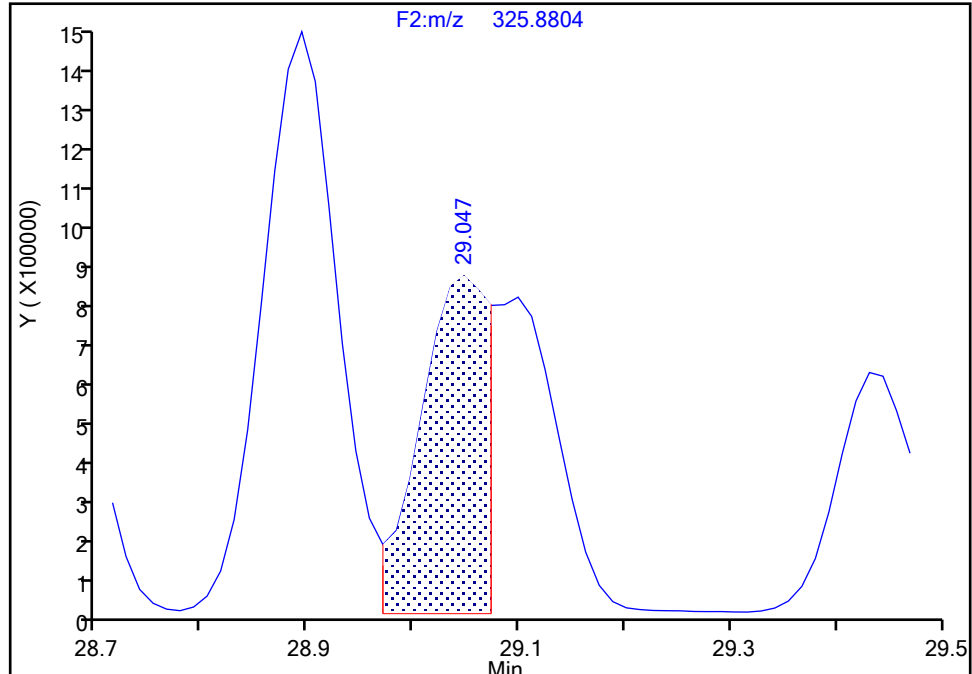
Detector F2(21.81 :35.54 )

**PCB-98/102, CAS: STL01843**

Signal: 1

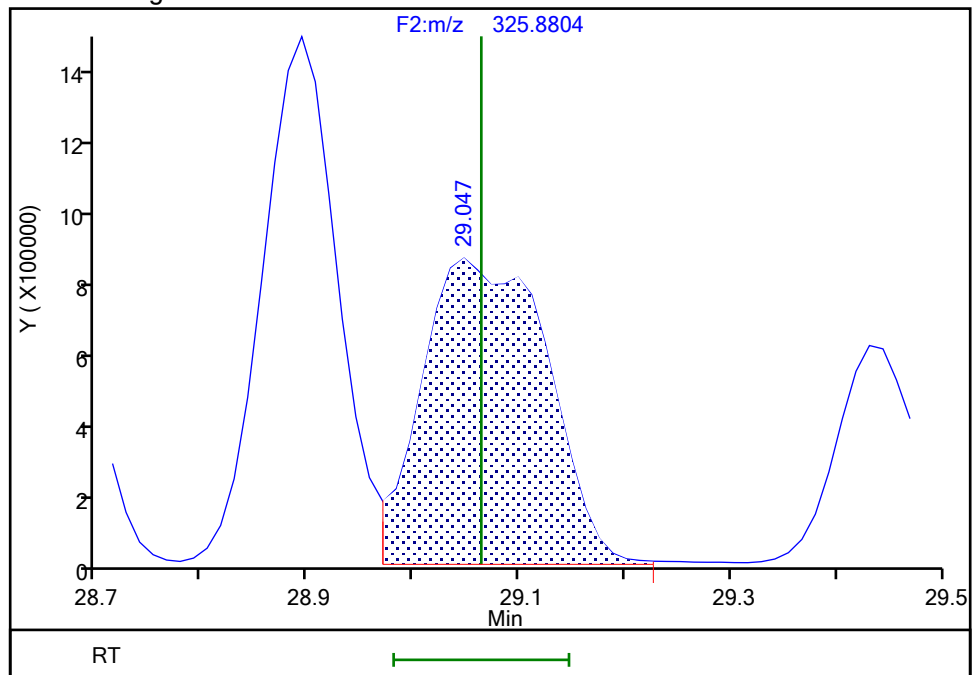
RT: 29.05  
Area: 3518179  
Amount: 143.9766  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.05  
Area: 6677250  
Amount: 206.3385  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:09:21 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Instrument ID: D2D

Lims ID: ICV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 7

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

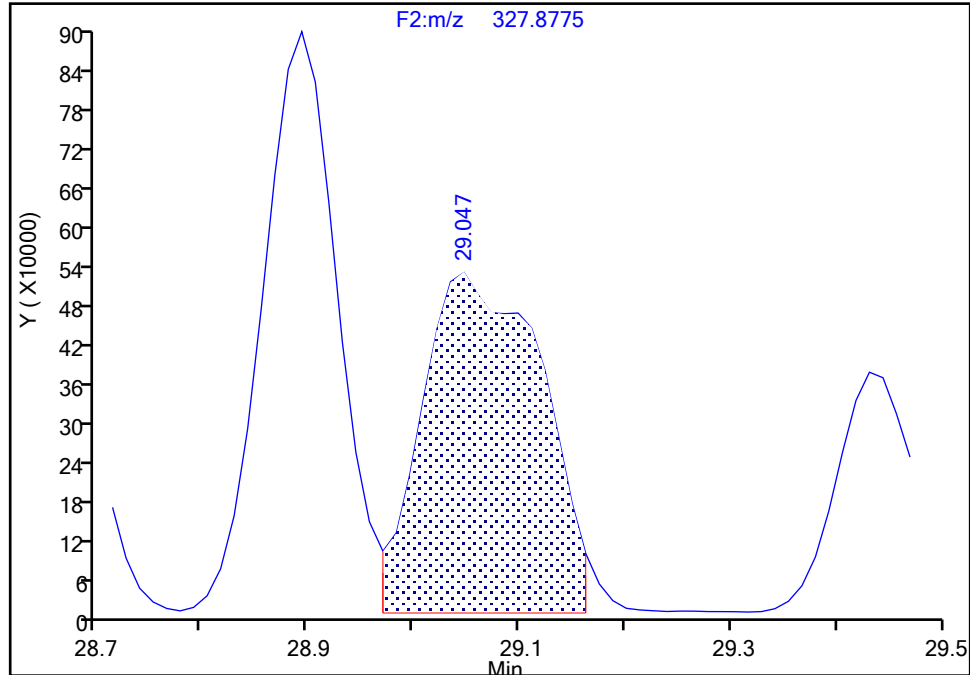
F2(21.81 :35.54 )

PCB-98/102, CAS: STL01843

Signal: 2

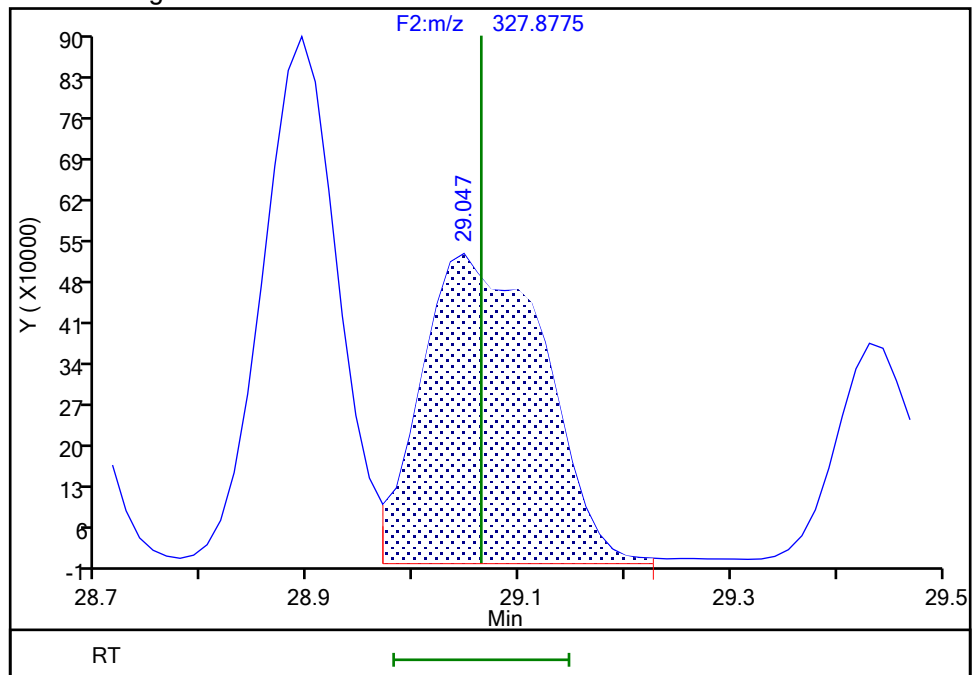
RT: 29.05  
Area: 4119534  
Amount: 143.9766  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.05  
Area: 4268659  
Amount: 206.3385  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:09:28 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531icv.d

Injection Date: 31-May-2024 22:58:00

Instrument ID: D2D

Lims ID: ICV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 7

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

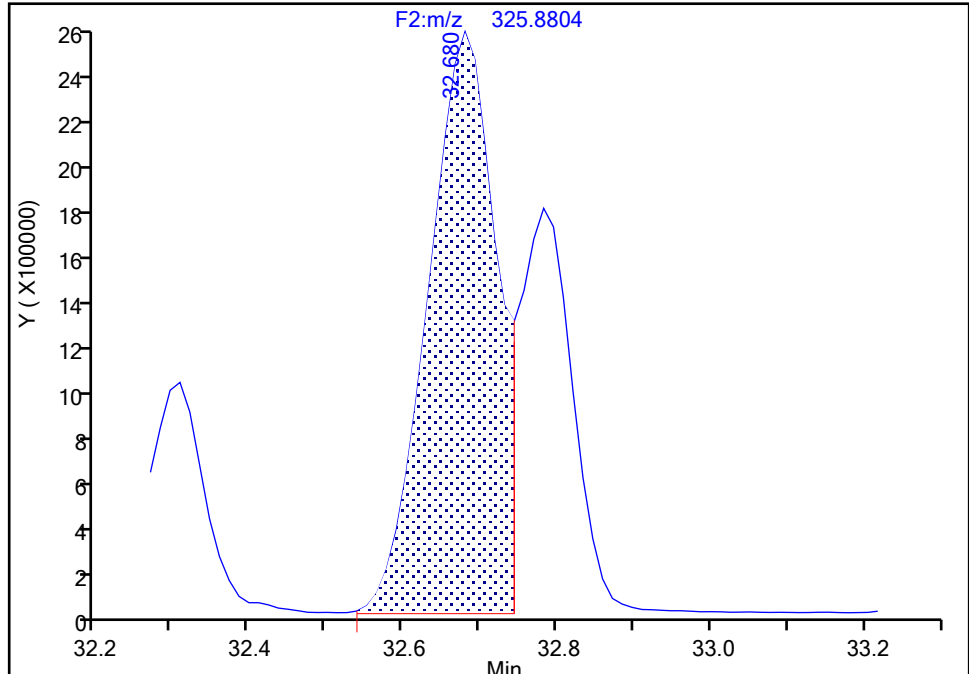
F2(21.81 :35.54 )

PCB-86/87/97/109/119/125, CAS: STL02295

Signal: 1

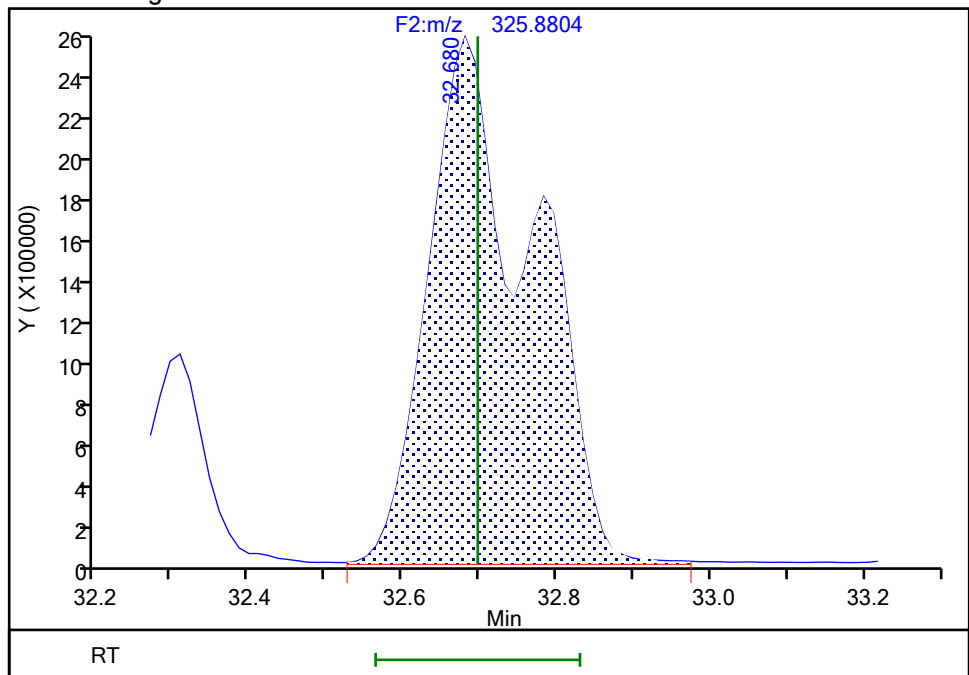
RT: 32.68  
Area: 15425847  
Amount: 374.4641  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.68  
Area: 23519251  
Amount: 573.6652  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:09:41 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Instrument ID: D2D

Lims ID: ICV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 7

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

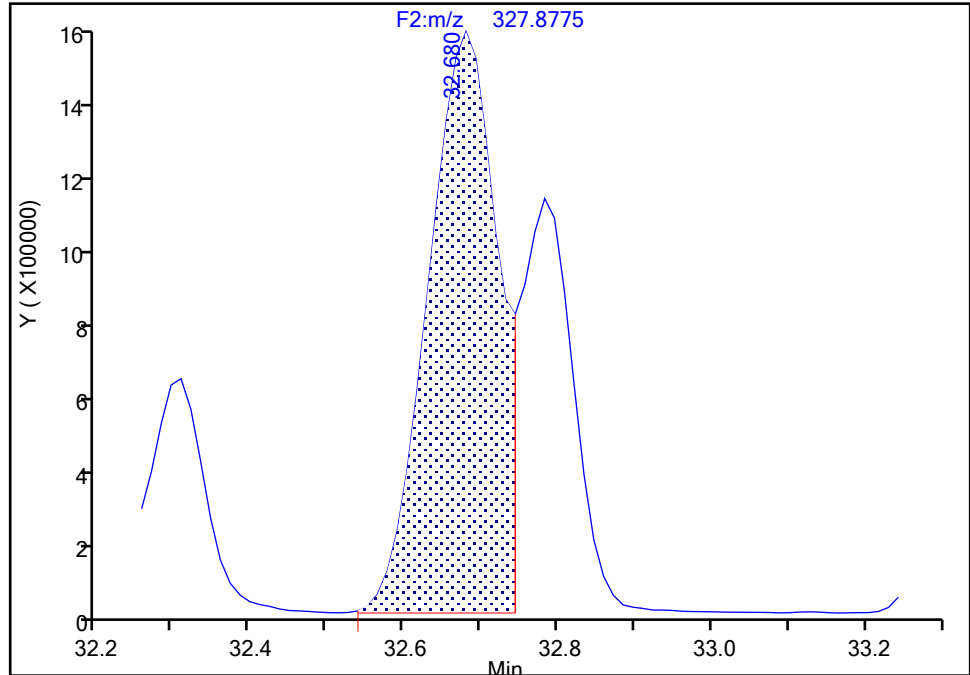
F2(21.81 :35.54 )

**PCB-86/87/97/109/119/125, CAS: STL02295**

Signal: 2

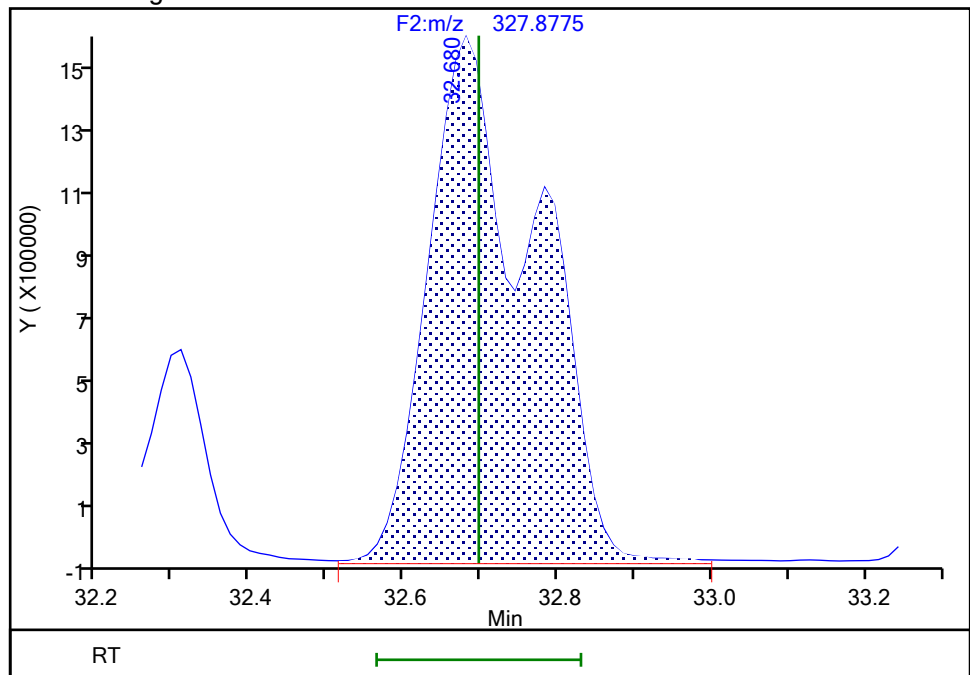
RT: 32.68  
Area: 9755487  
Amount: 374.4641  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.68  
Area: 15057631  
Amount: 573.6652  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:09:49 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

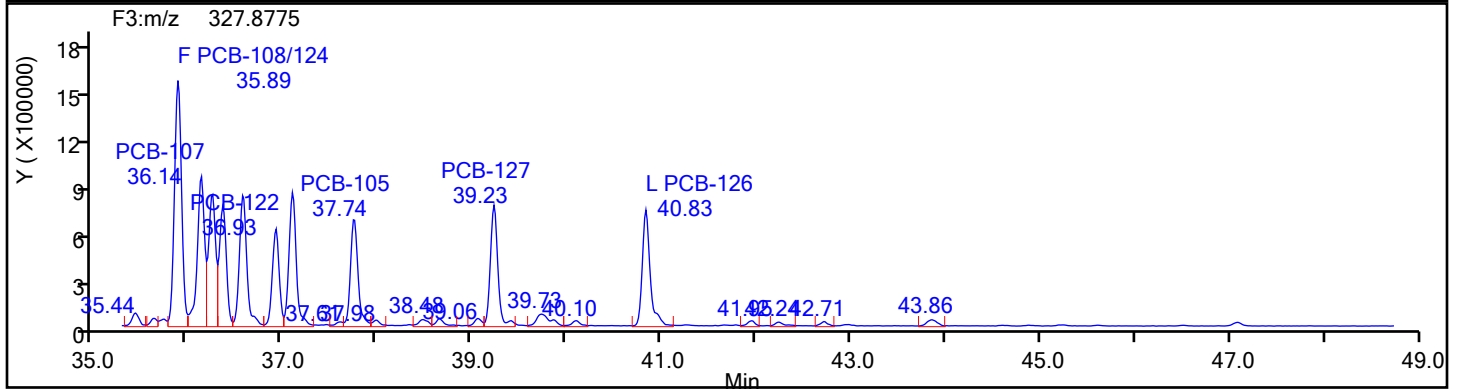
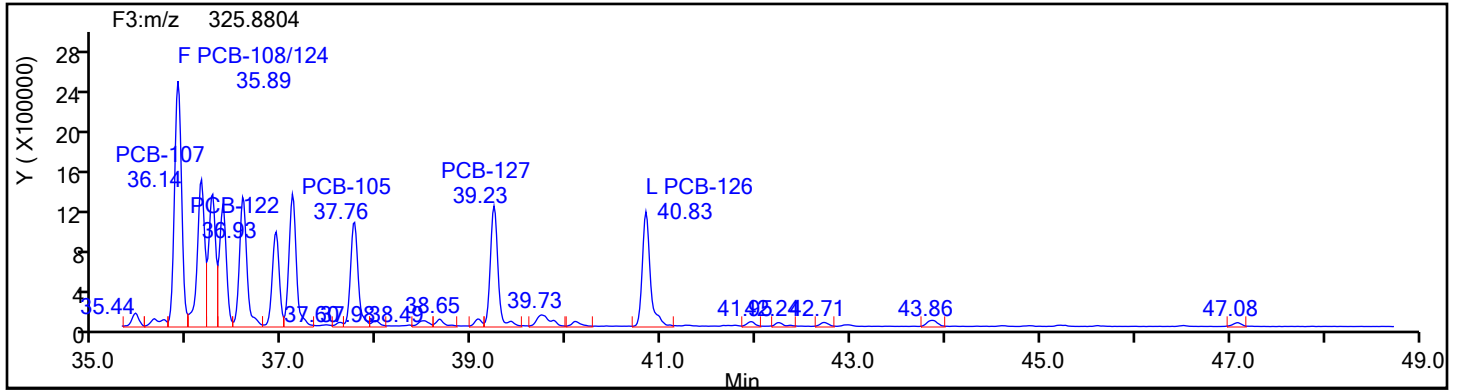
Worklist#: 87130

Sample Line#: 7

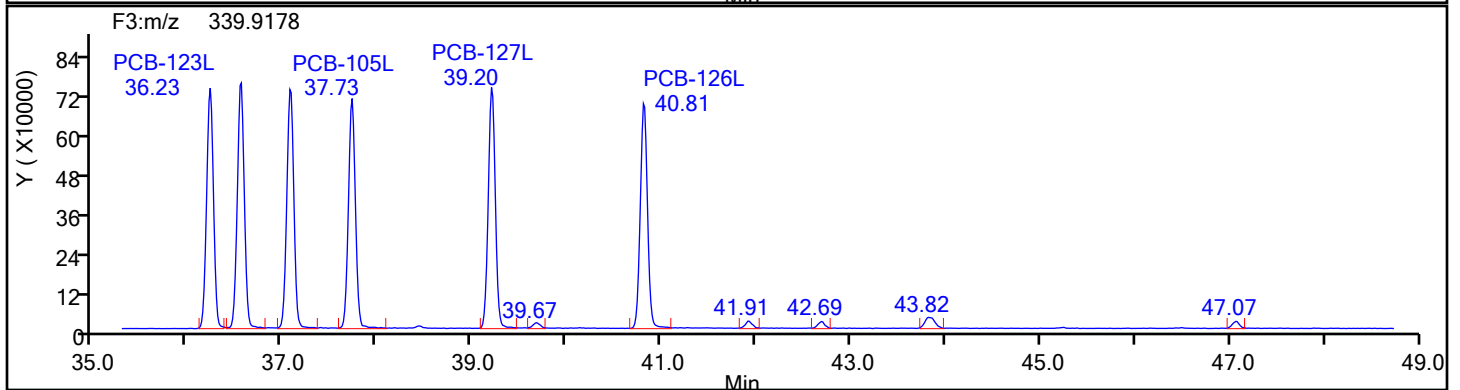
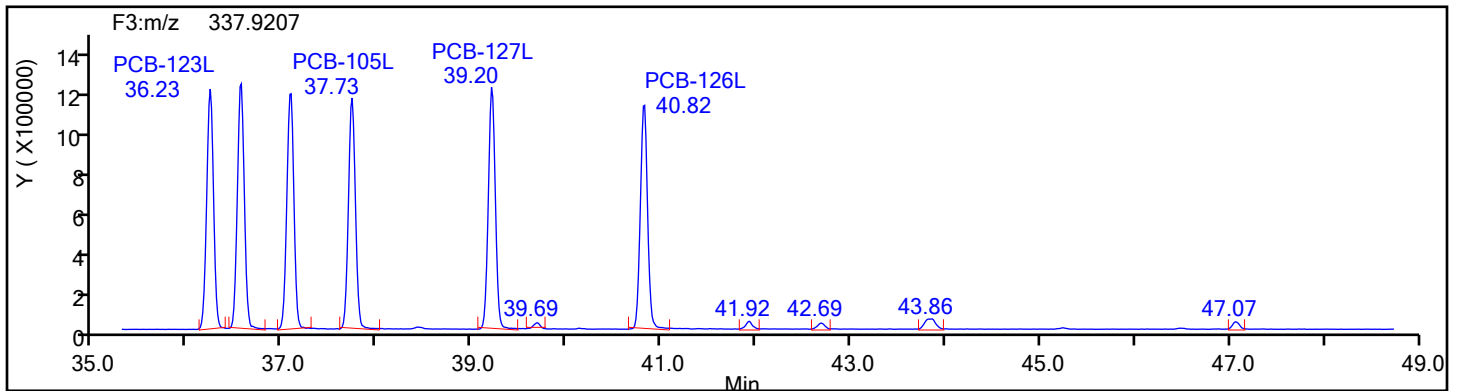
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



PePCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

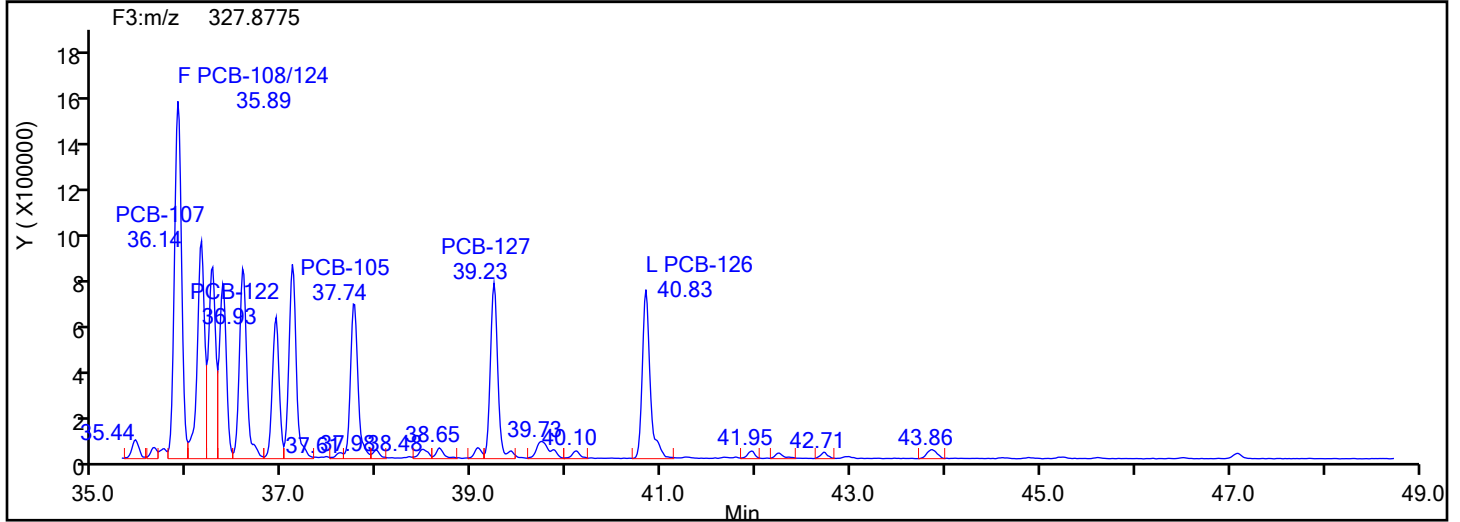
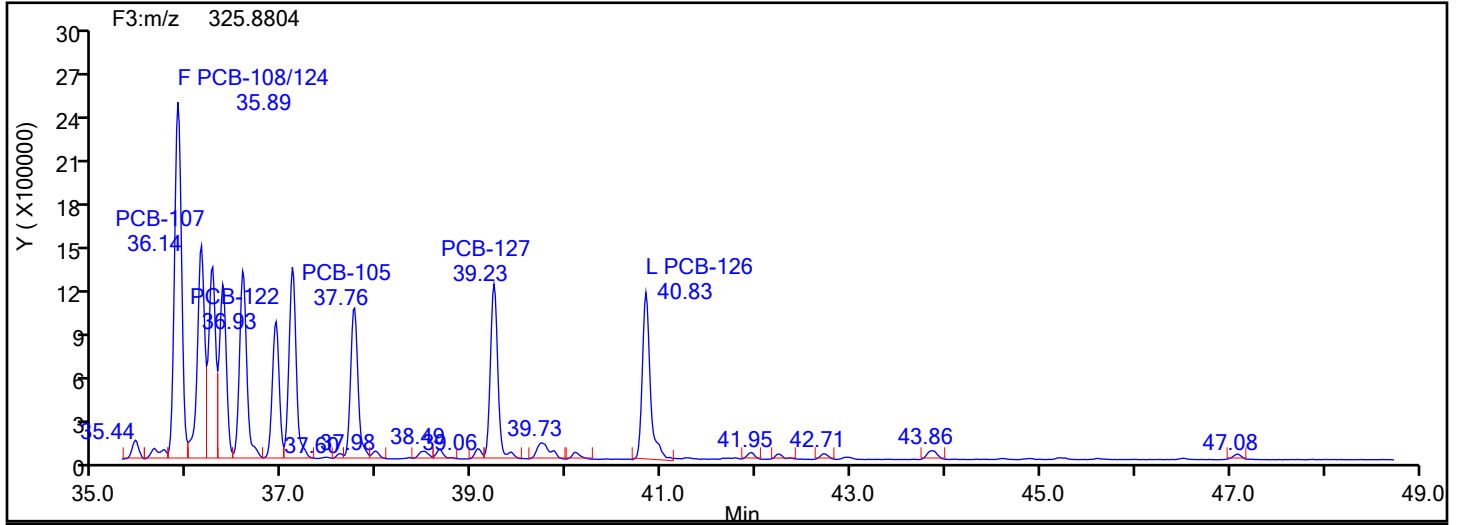
Worklist#: 87130

Sample Line#: 7

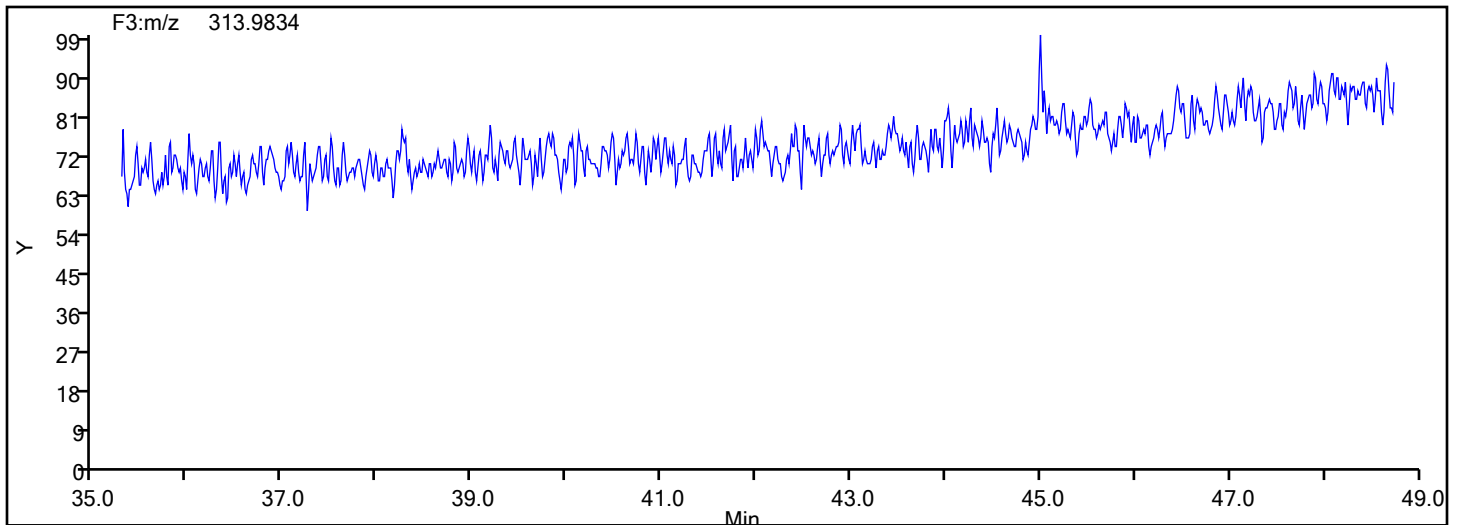
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



## PePCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

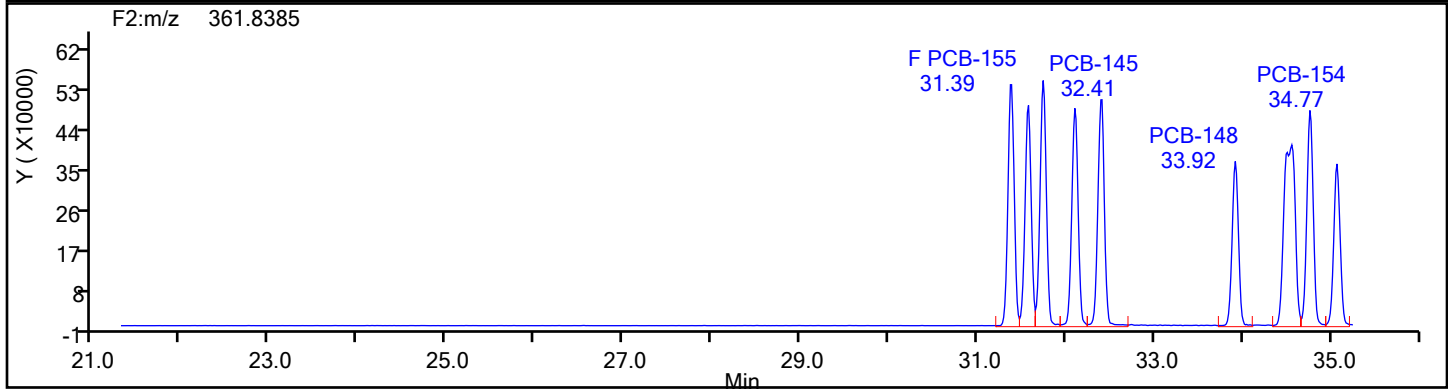
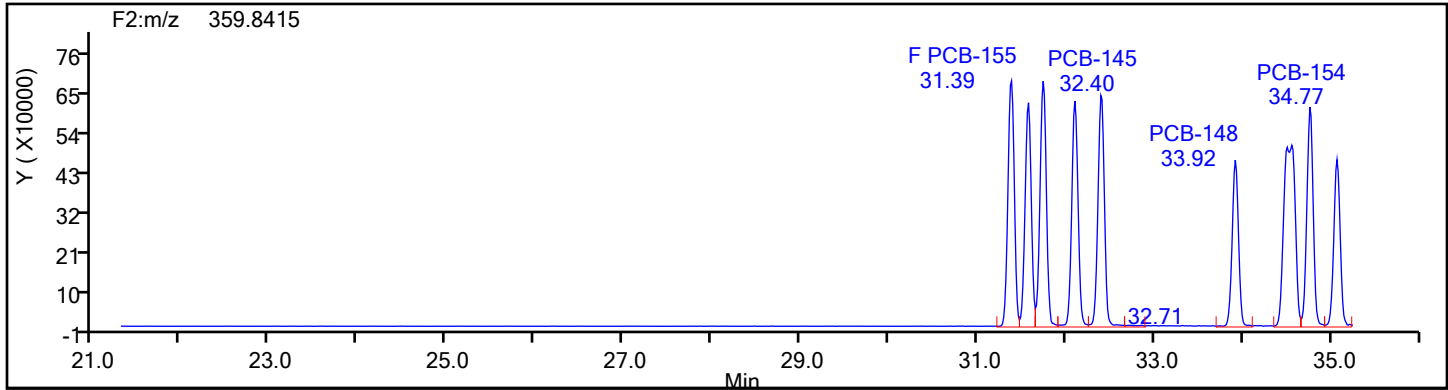
Worklist#: 87130

Sample Line#: 7

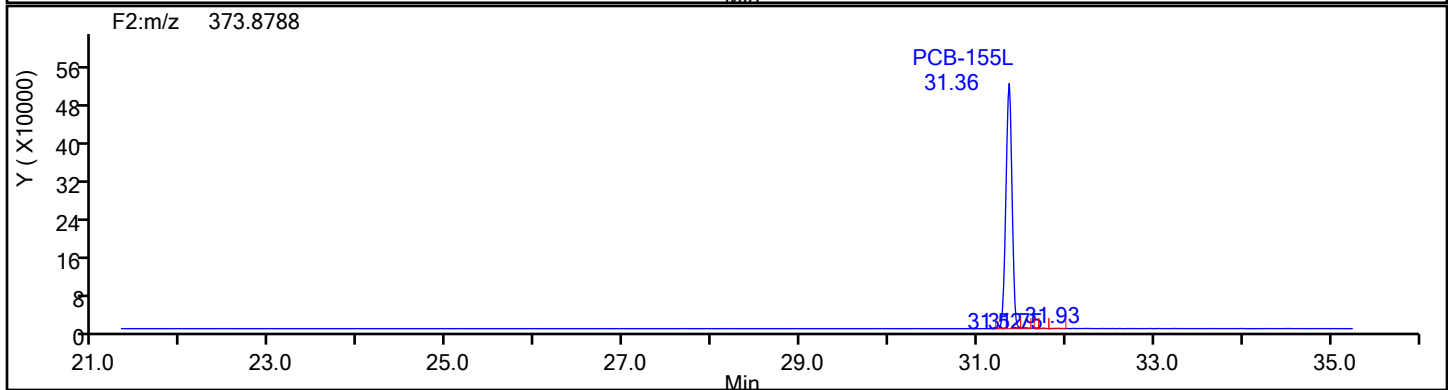
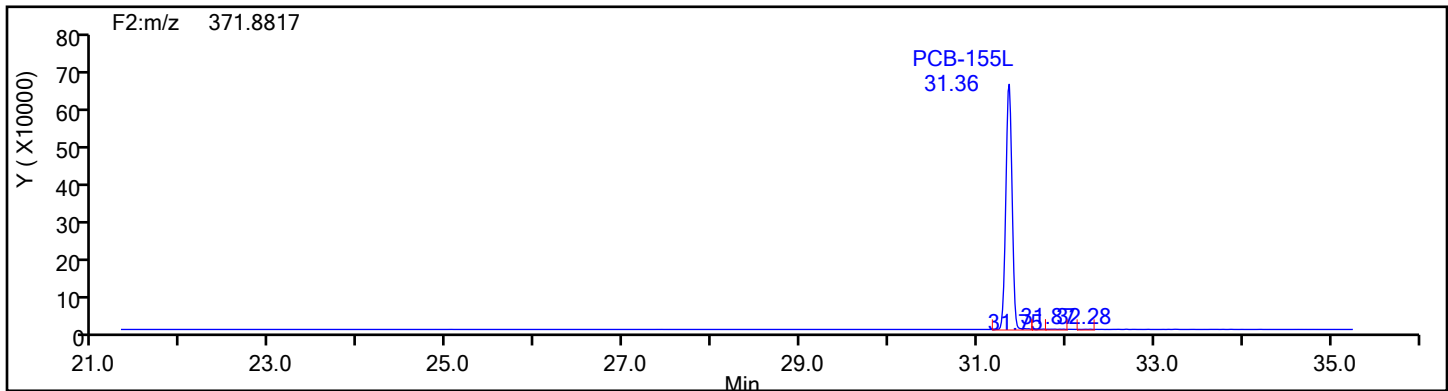
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F2

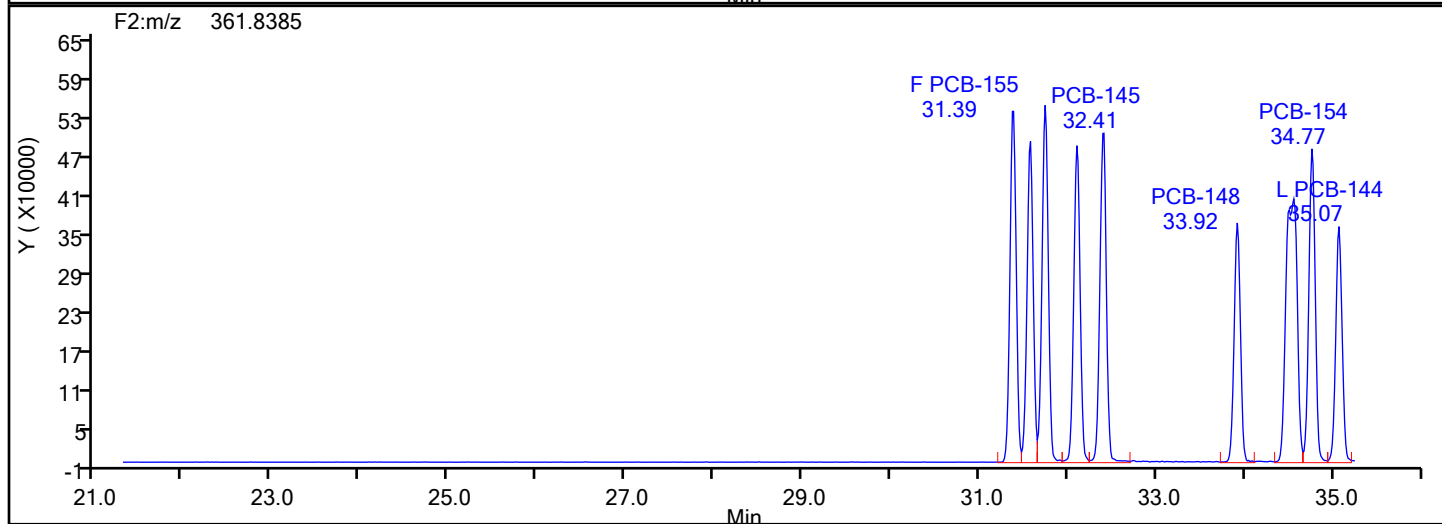
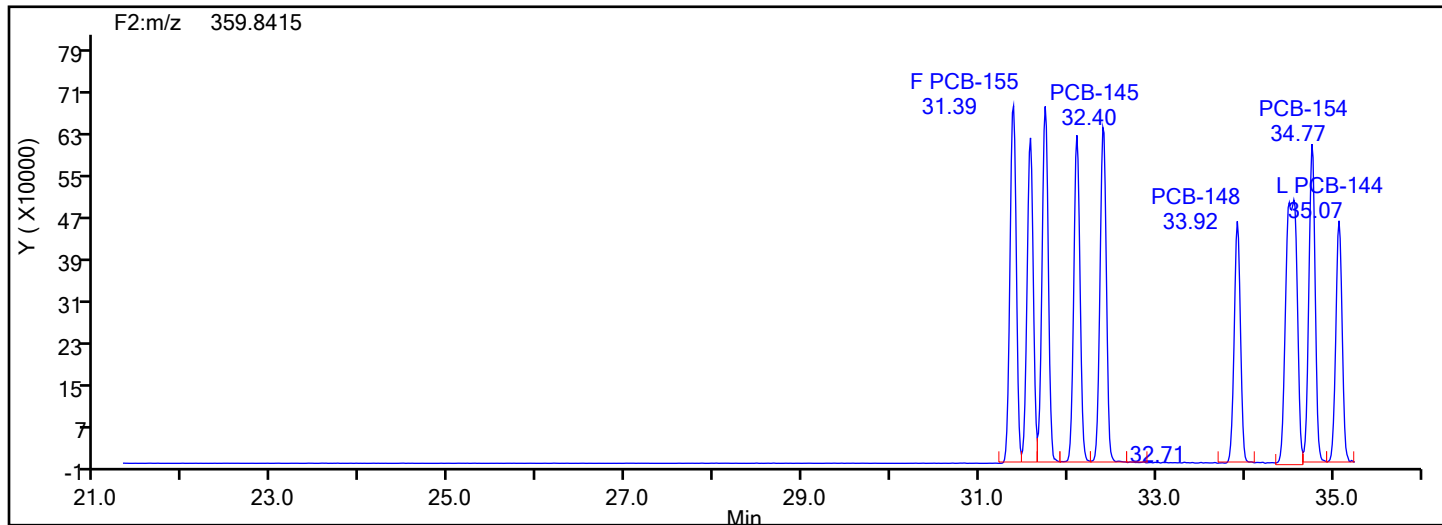


HxPCB F2 Standards

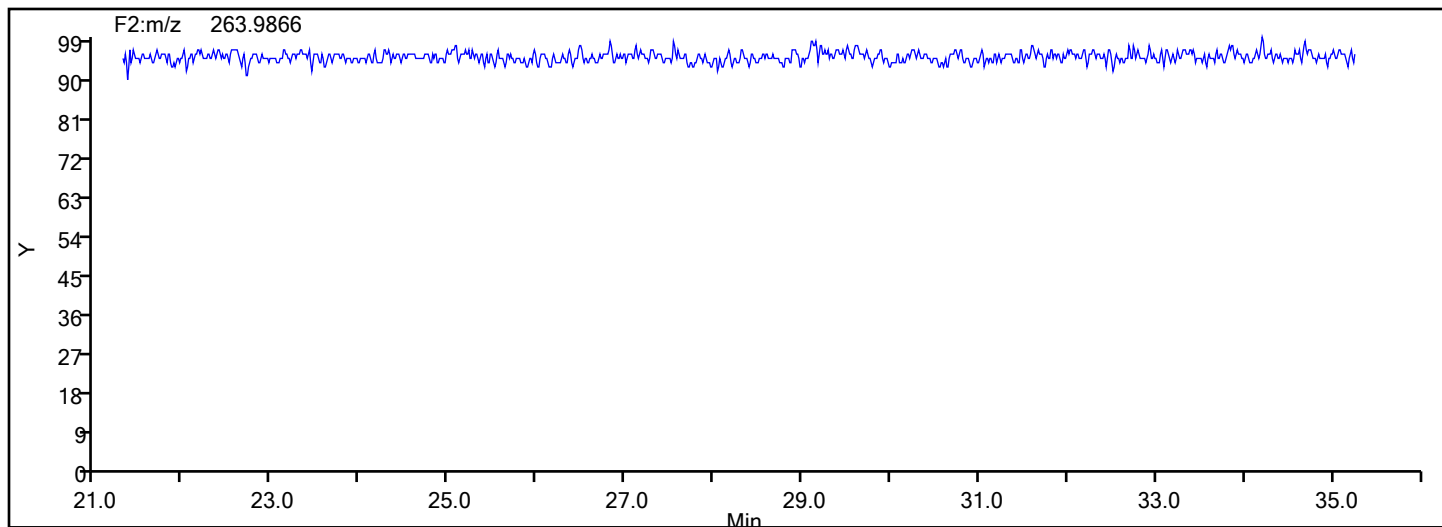


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d  
Injection Date: 31-May-2024 22:58:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2



## HxPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Instrument ID: D2D

Lims ID: ICV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 7

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

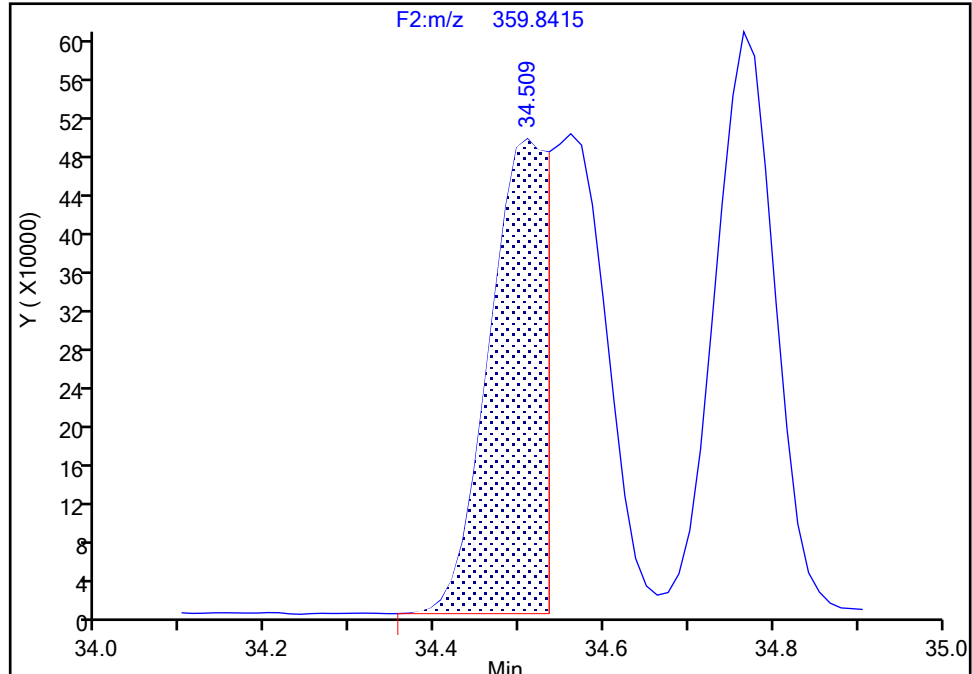
F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 1

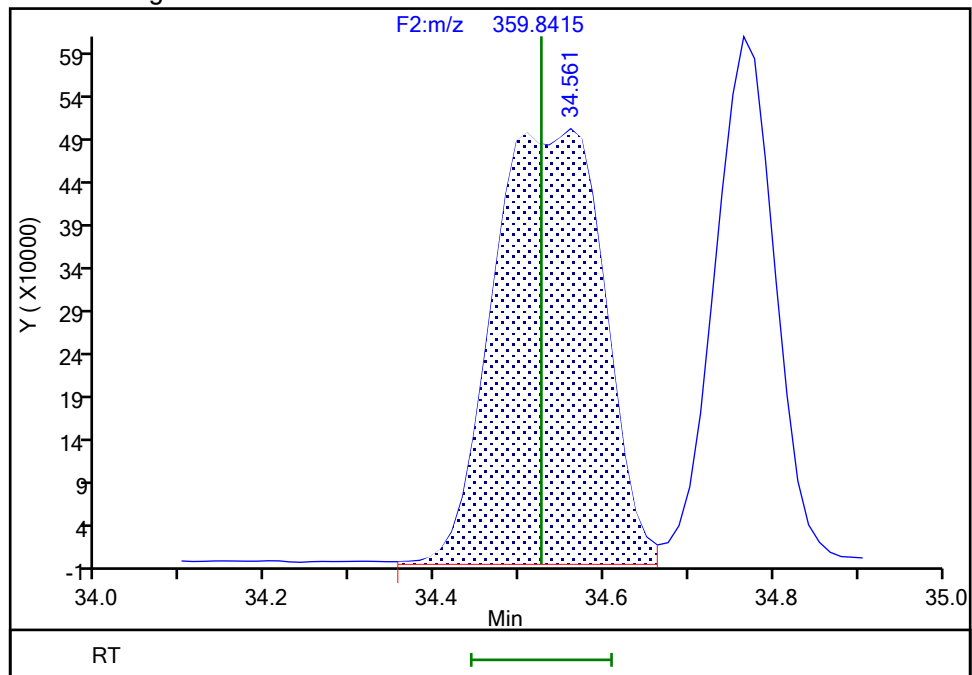
RT: 34.51  
Area: 2291087  
Amount: 91.434676  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.56  
Area: 4550681  
Amount: 196.2216  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:10:22 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Instrument ID: D2D

Lims ID: ICV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 7

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

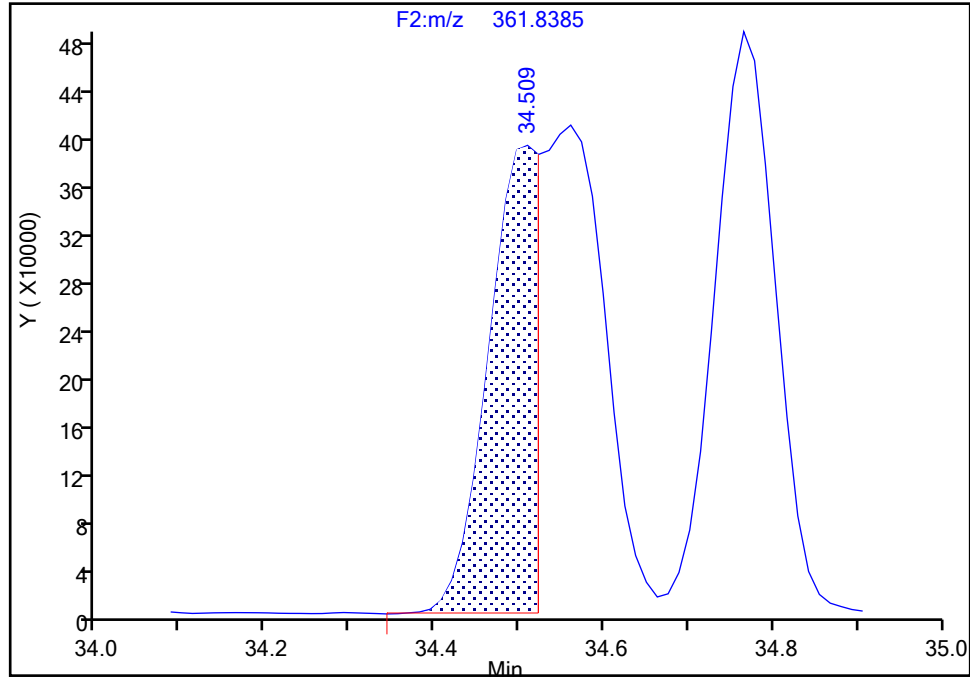
F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 2

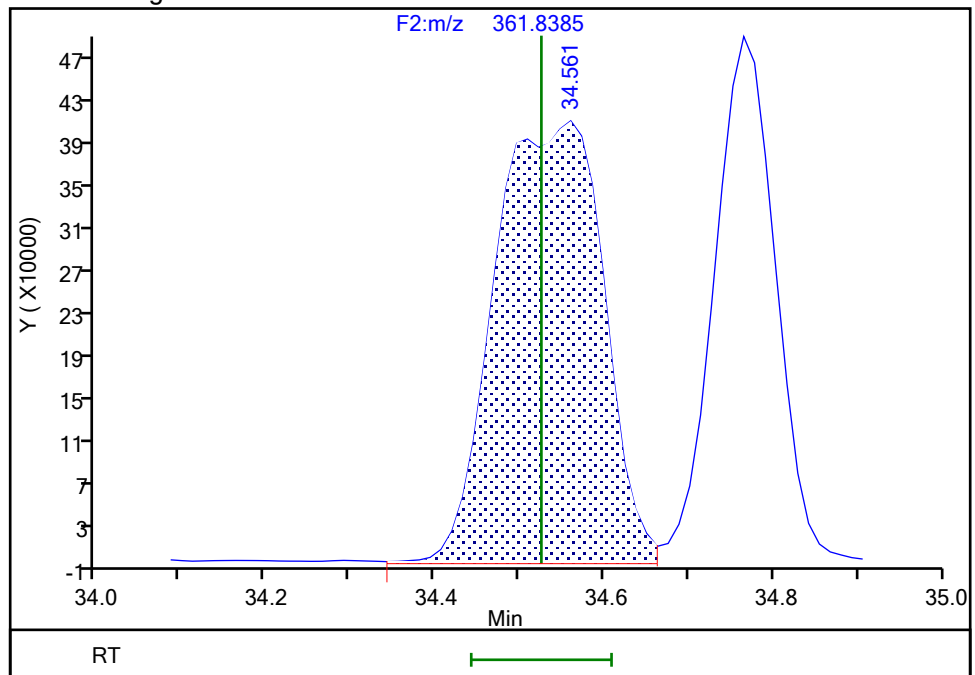
RT: 34.51  
Area: 1513215  
Amount: 91.434676  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.56  
Area: 3613466  
Amount: 196.2216  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:10:32 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

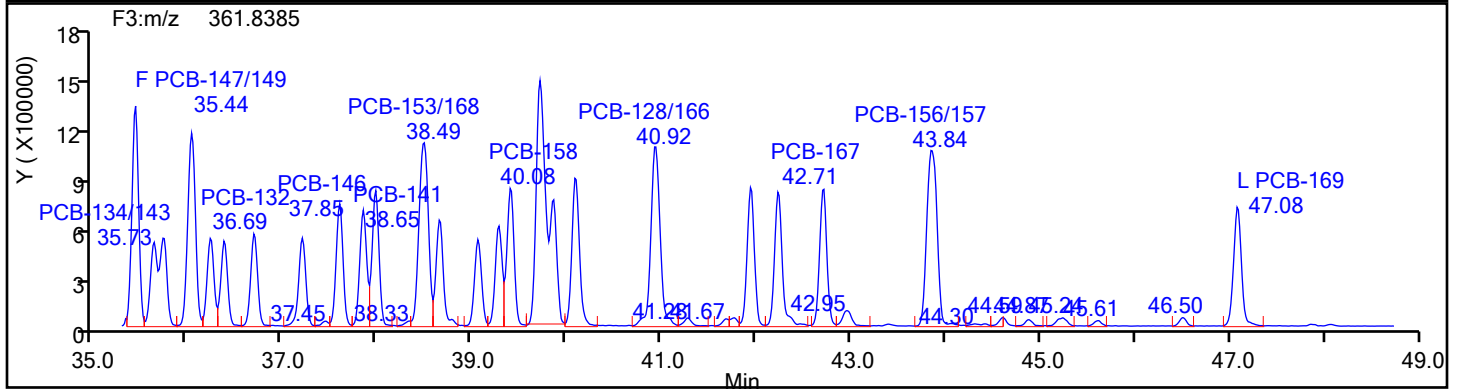
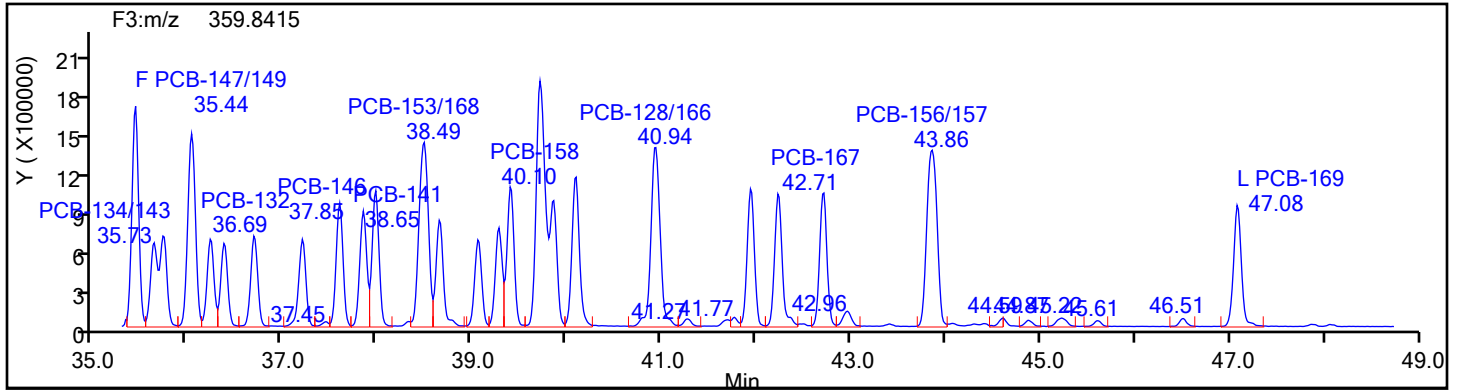
Worklist#: 87130

Sample Line#: 7

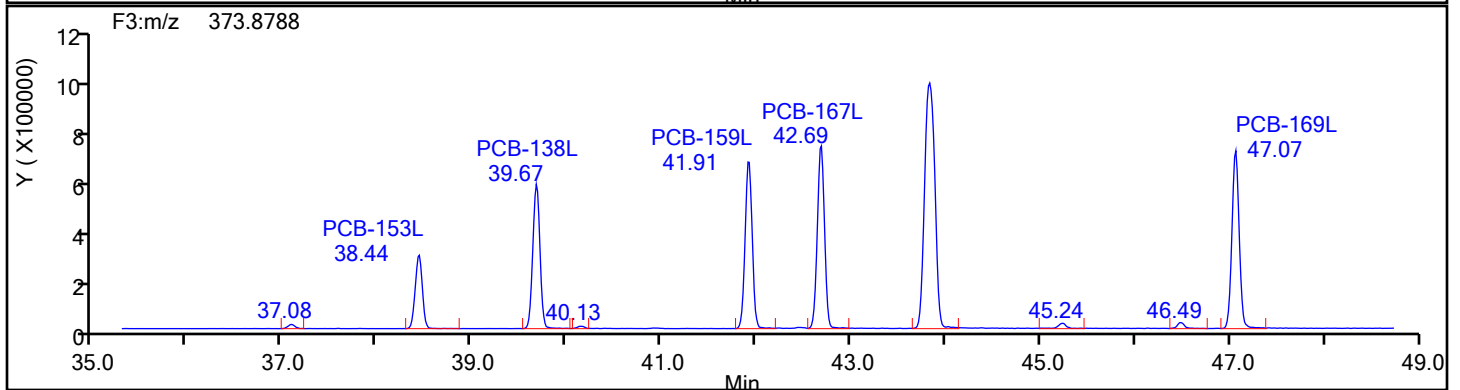
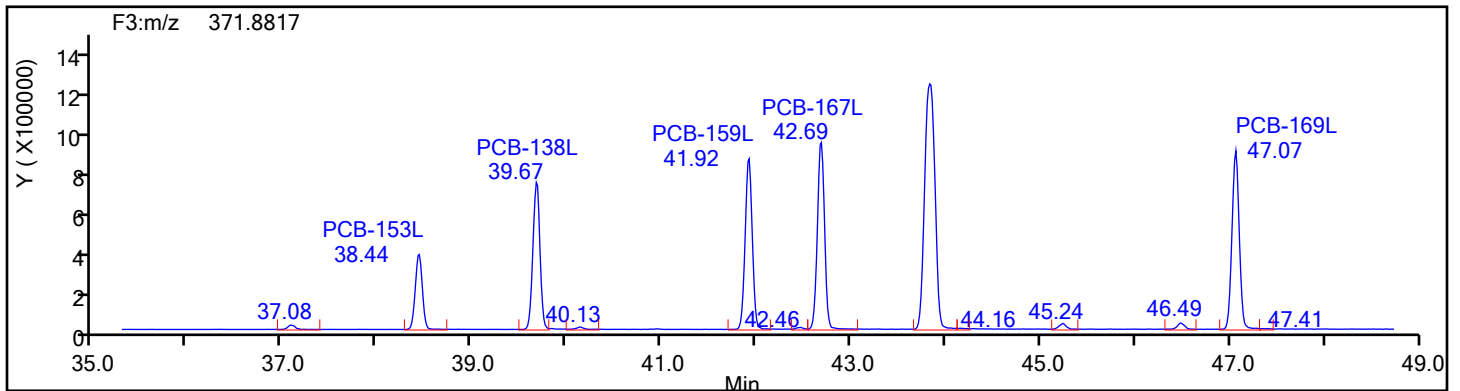
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



HxPCB F3 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

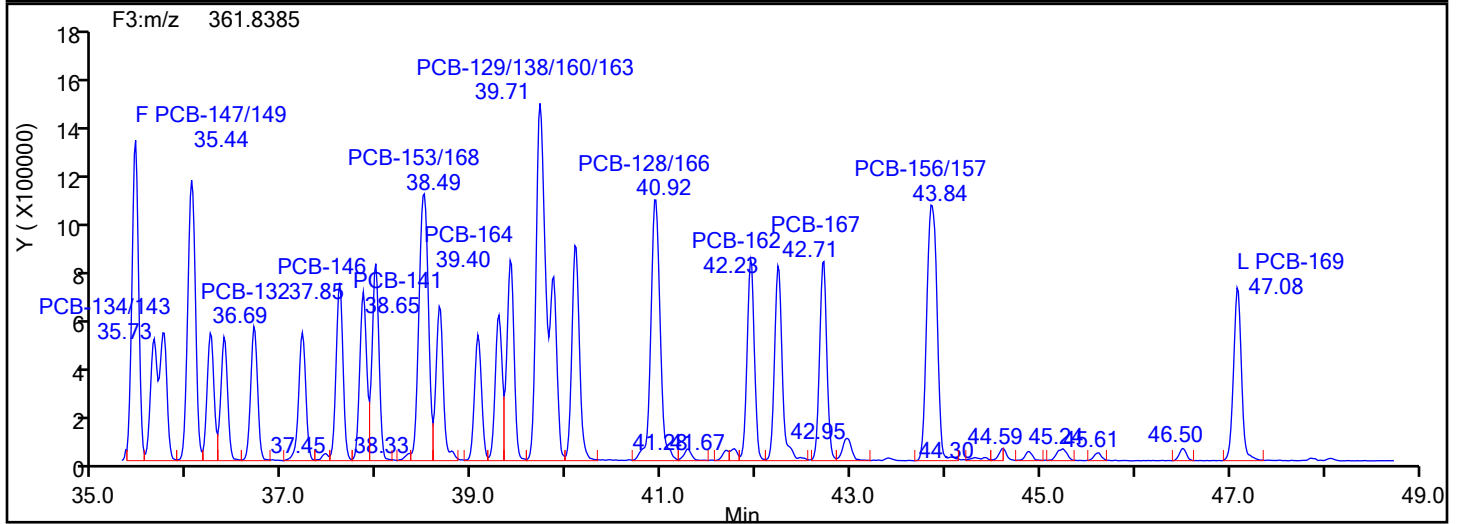
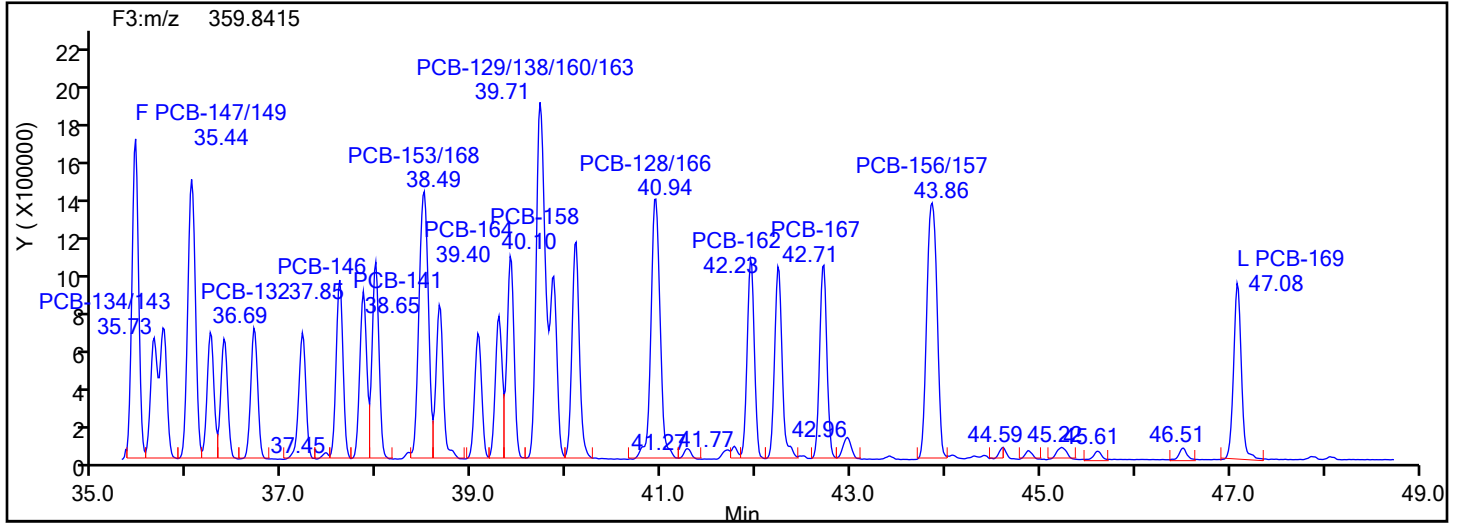
Worklist#: 87130

Sample Line#: 7

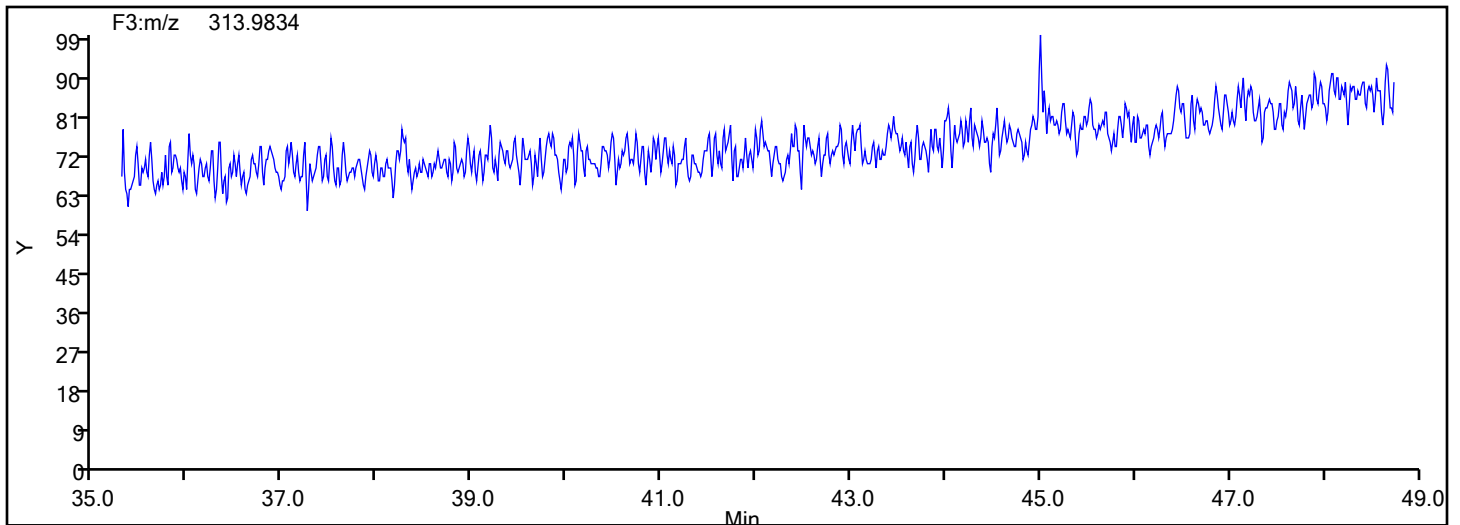
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



## HxPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Instrument ID: D2D

Lims ID: ICV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 7

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

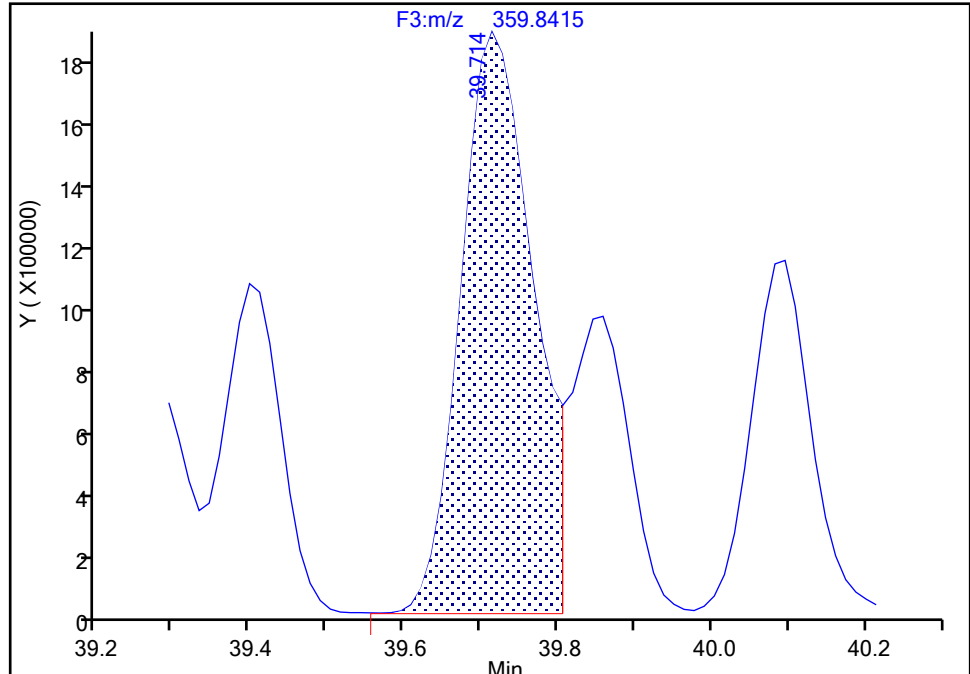
F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 1

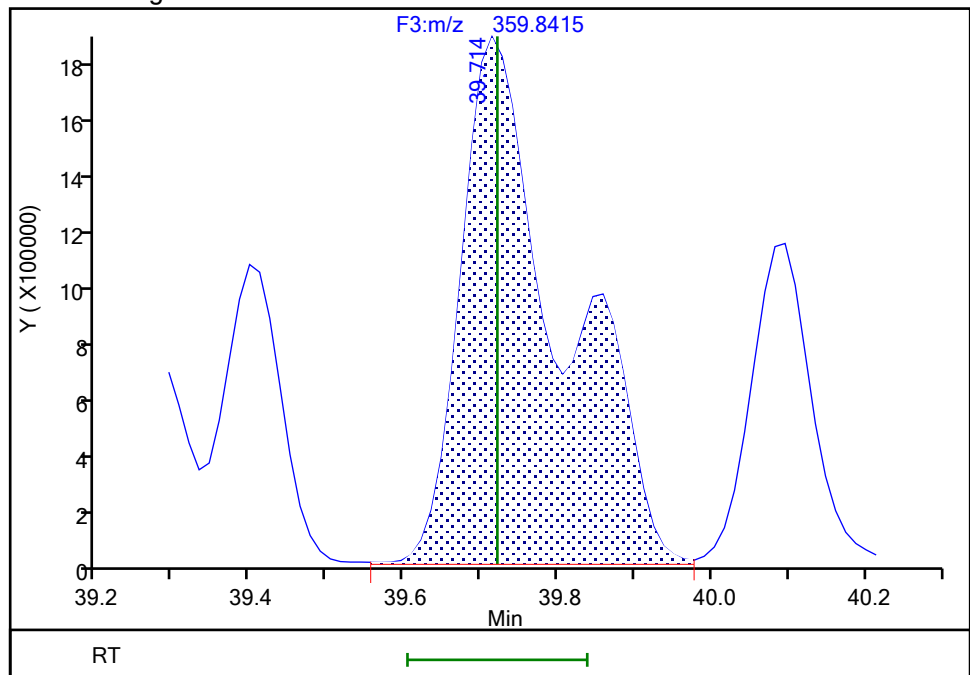
RT: 39.71  
Area: 12104636  
Amount: 281.2795  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.71  
Area: 17023216  
Amount: 394.5828  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:10:55 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Instrument ID: D2D

Lims ID: ICV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#: 0

Worklist Smp#: 7

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

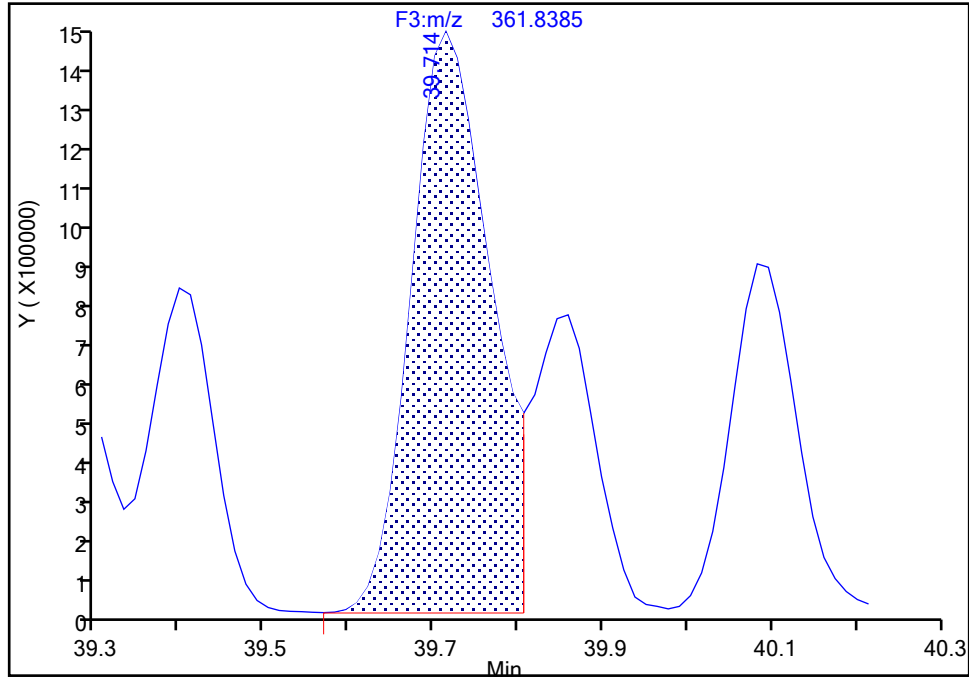
Detector F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 2

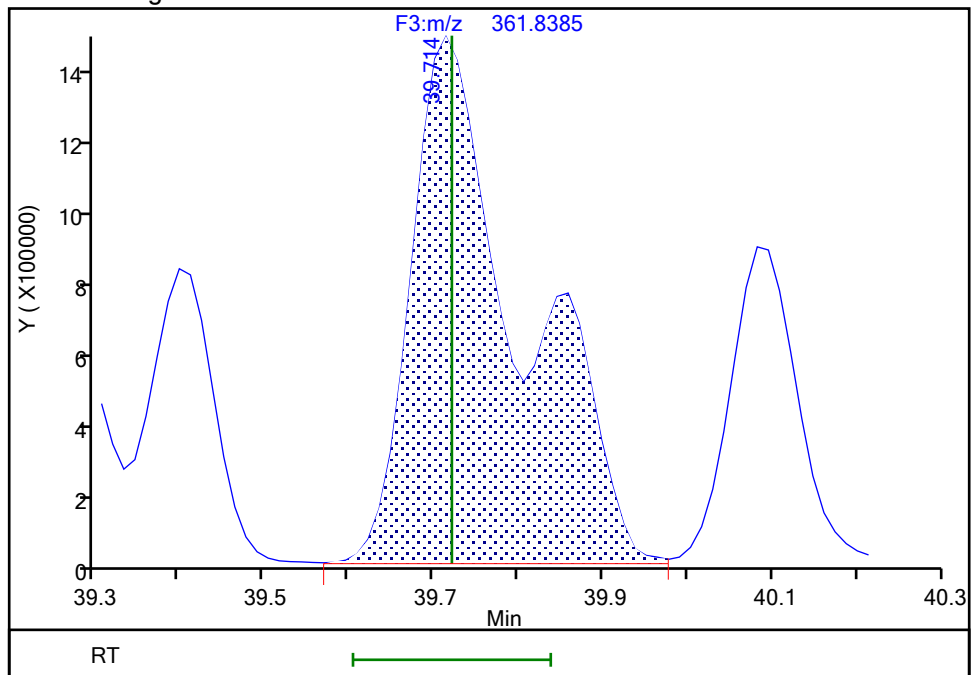
RT: 39.71  
Area: 9688953  
Amount: 281.2795  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.71  
Area: 13549137  
Amount: 394.5828  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:11:03 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531.icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

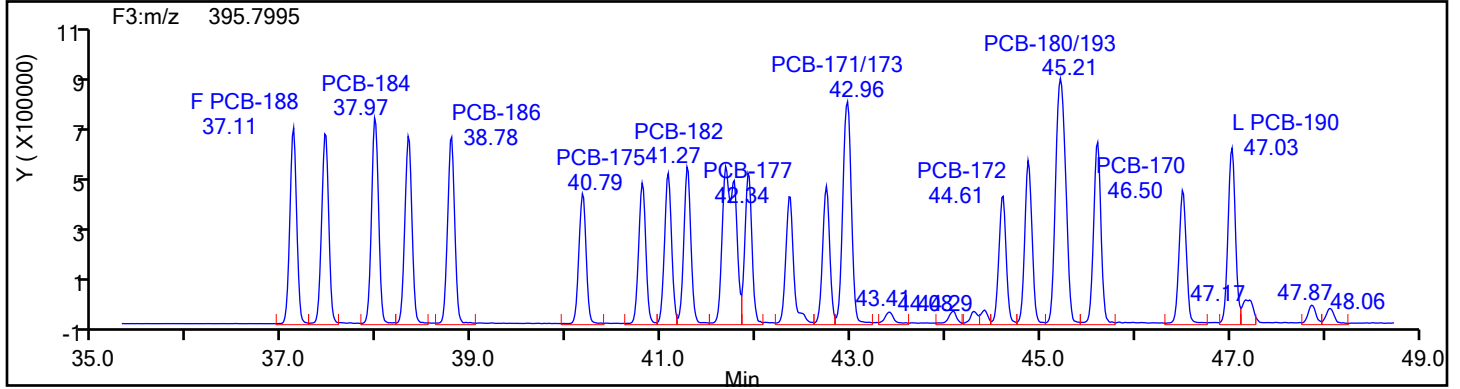
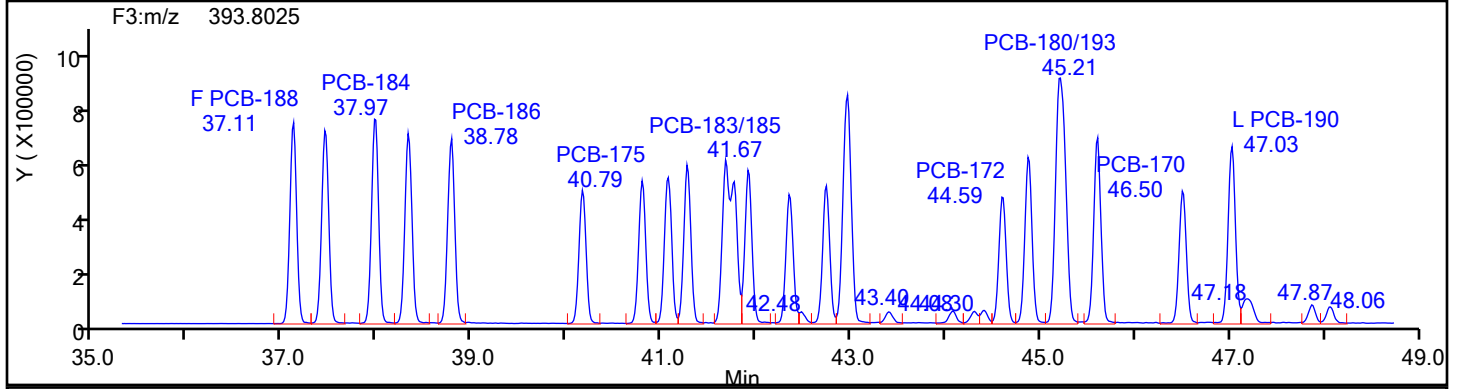
Worklist#: 87130

Sample Line#: 7

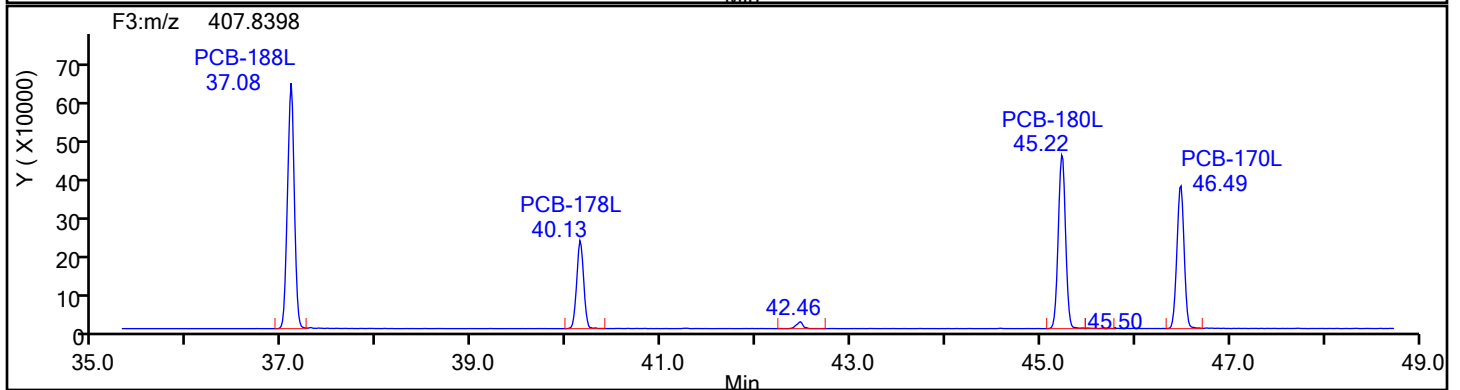
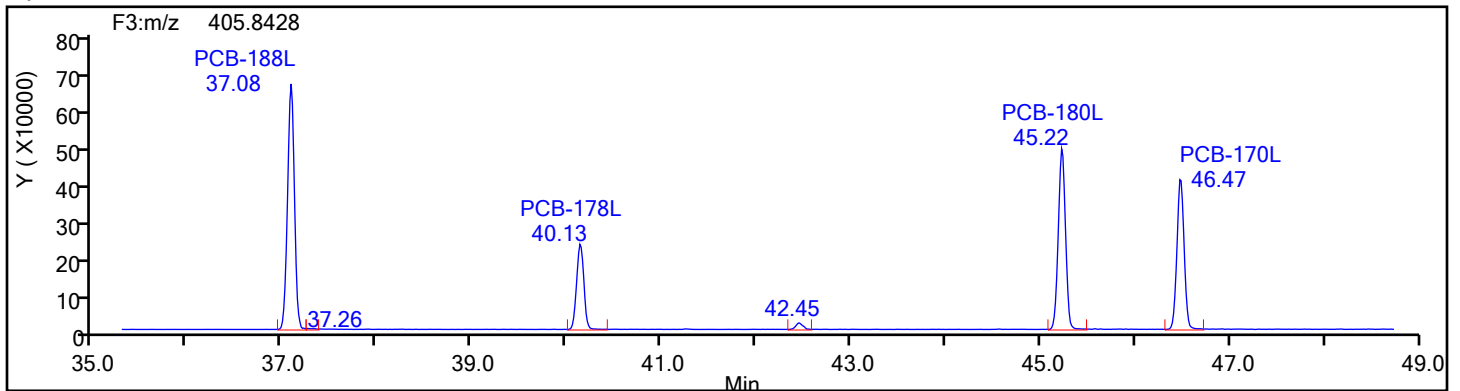
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



HpPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

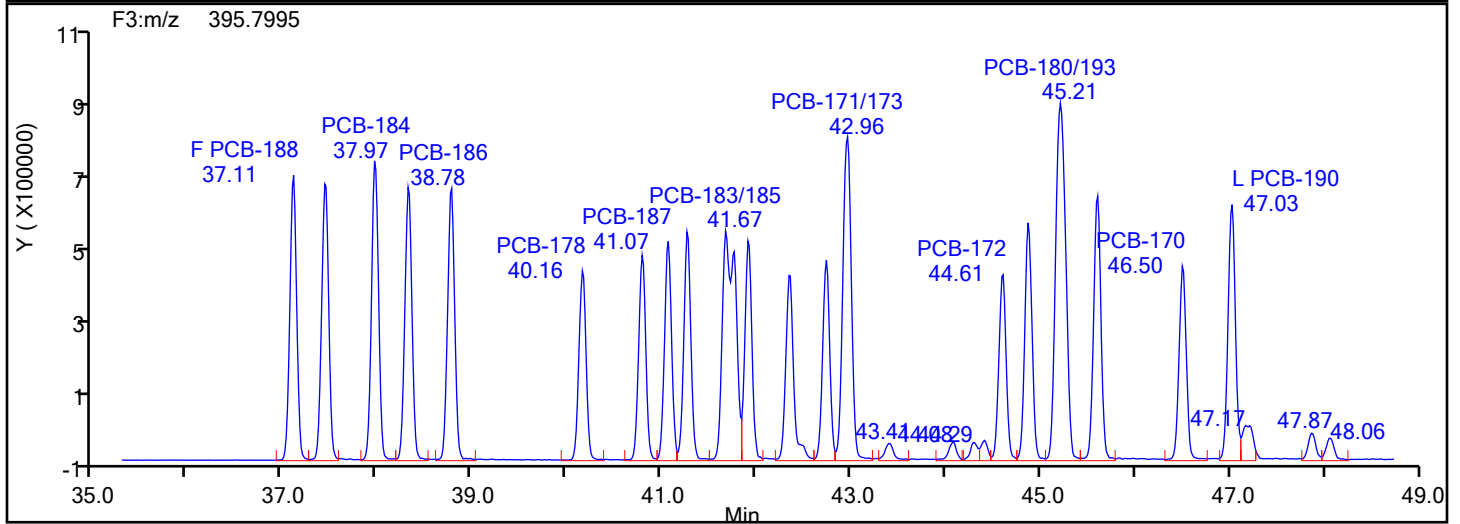
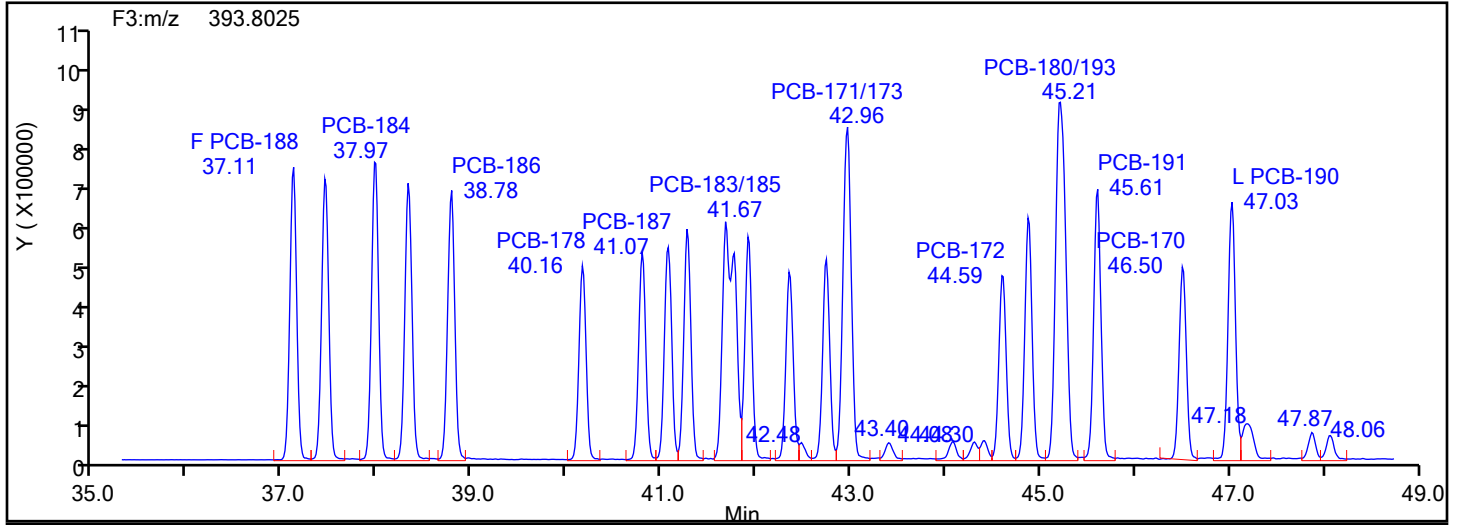
Worklist#: 87130

Sample Line#: 7

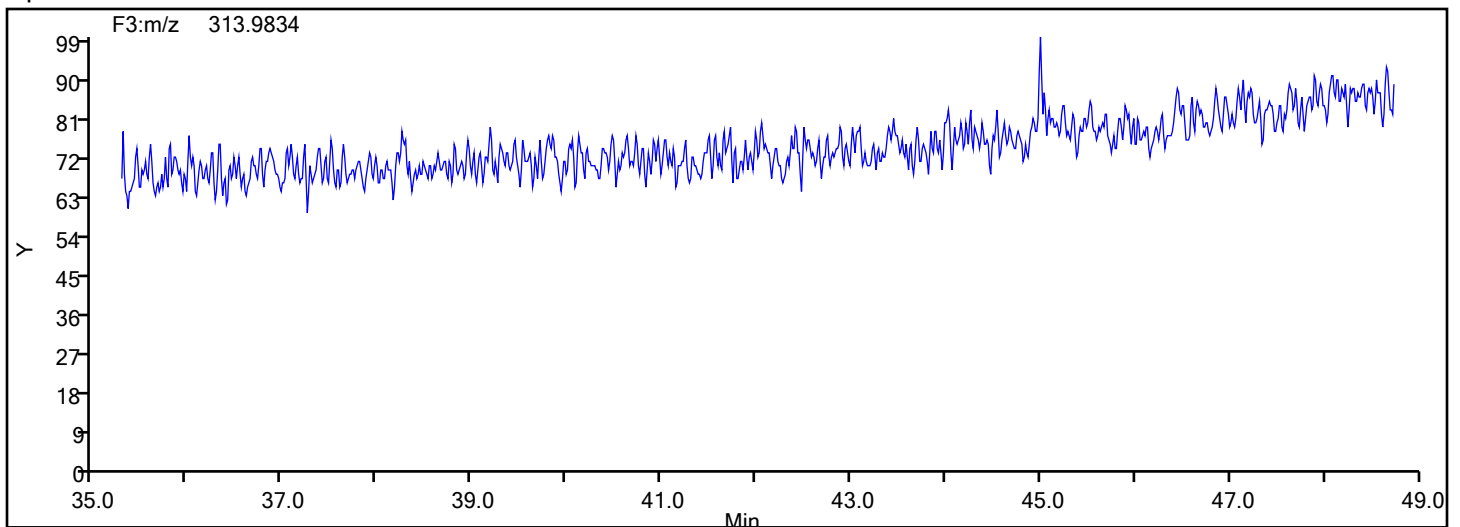
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



## HpPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Instrument ID: D2D

Lims ID: ICV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 7

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

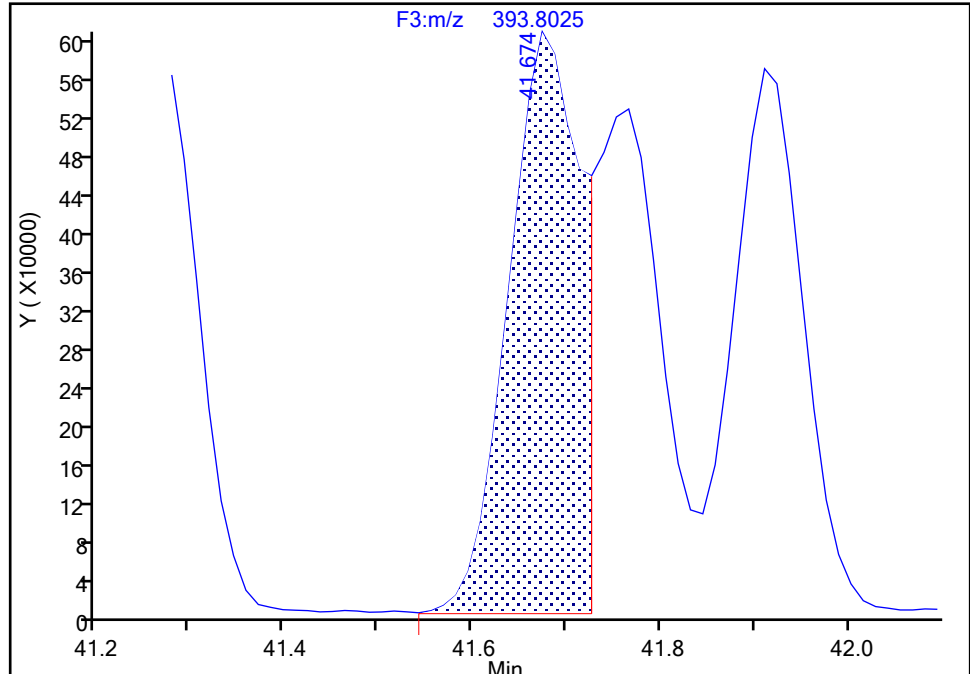
F3(35.64 :49.10 )

**PCB-183/185, CAS: STL02297**

Signal: 1

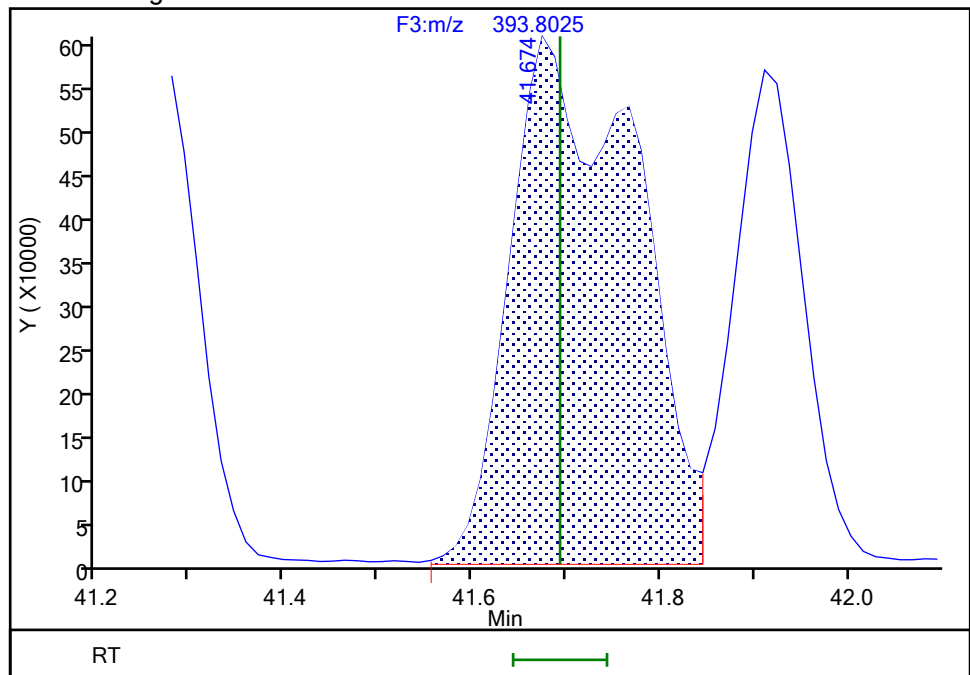
RT: 41.67  
Area: 3179859  
Amount: 117.0323  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.67  
Area: 5668555  
Amount: 209.7534  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:11:20 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Instrument ID: D2D

Lims ID: ICV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 7

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

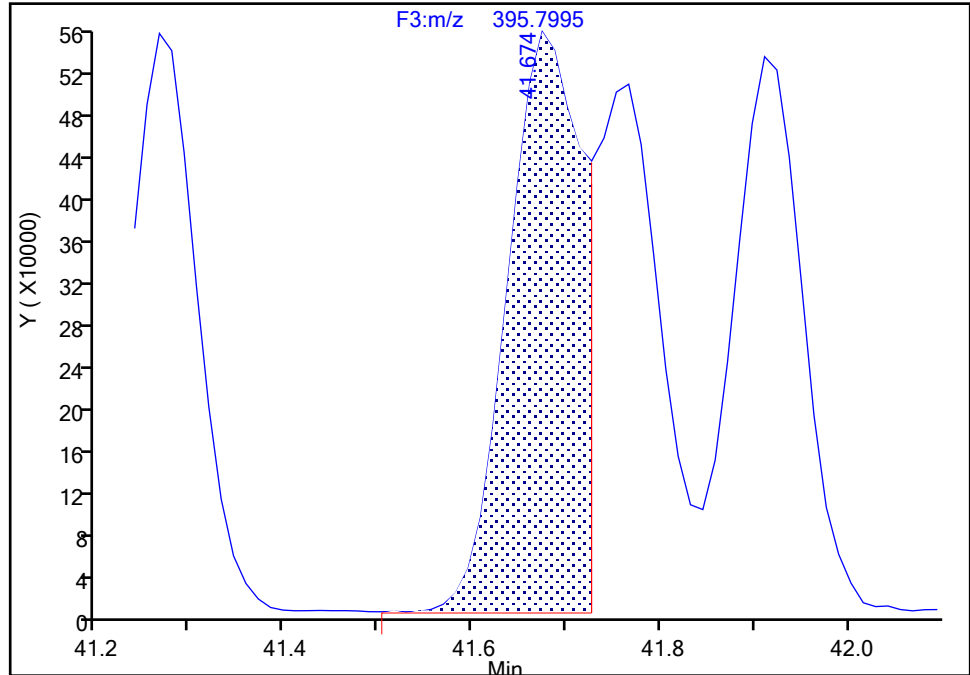
Detector F3(35.64 :49.10 )

**PCB-183/185, CAS: STL02297**

Signal: 2

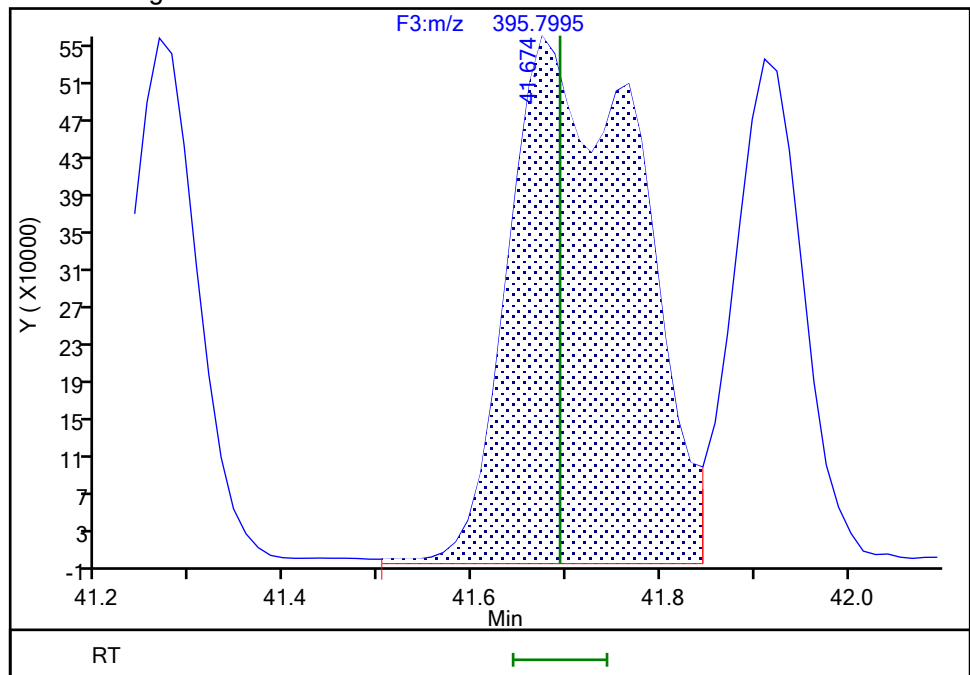
RT: 41.67  
Area: 3021759  
Amount: 117.0323  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.67  
Area: 5446408  
Amount: 209.7534  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 01-Jun-2024 11:11:30 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

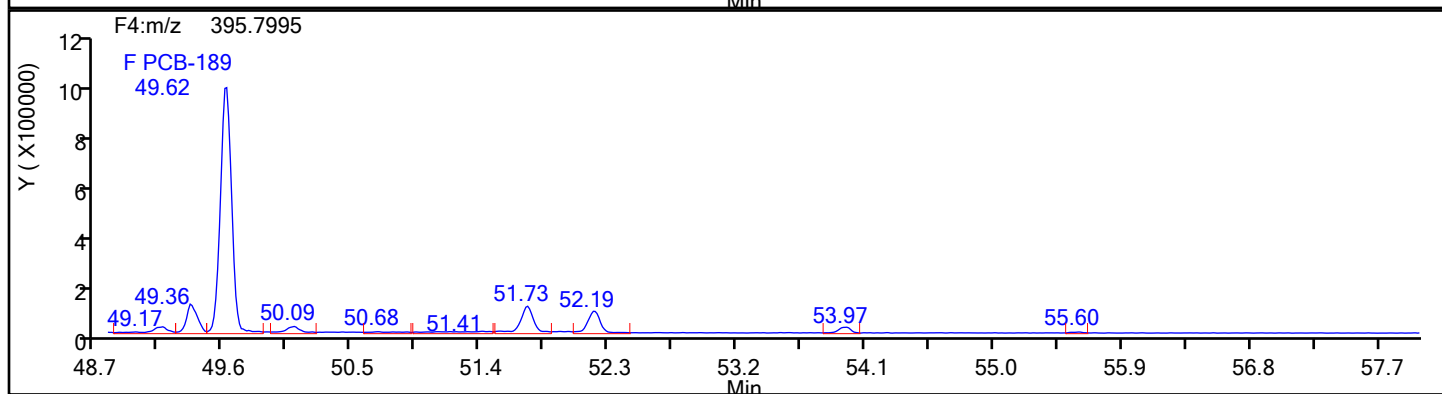
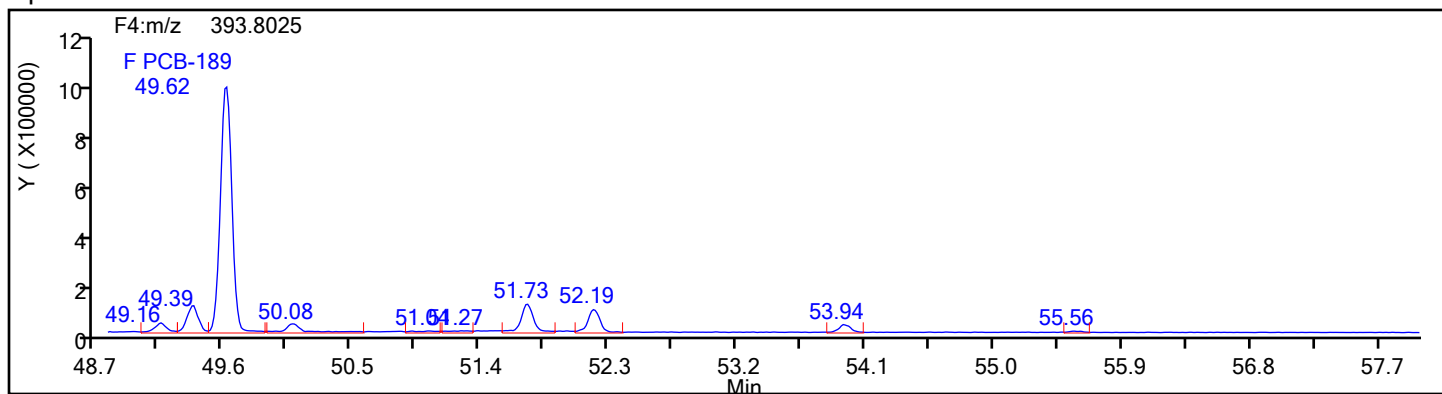
Worklist#: 87130

Sample Line#: 7

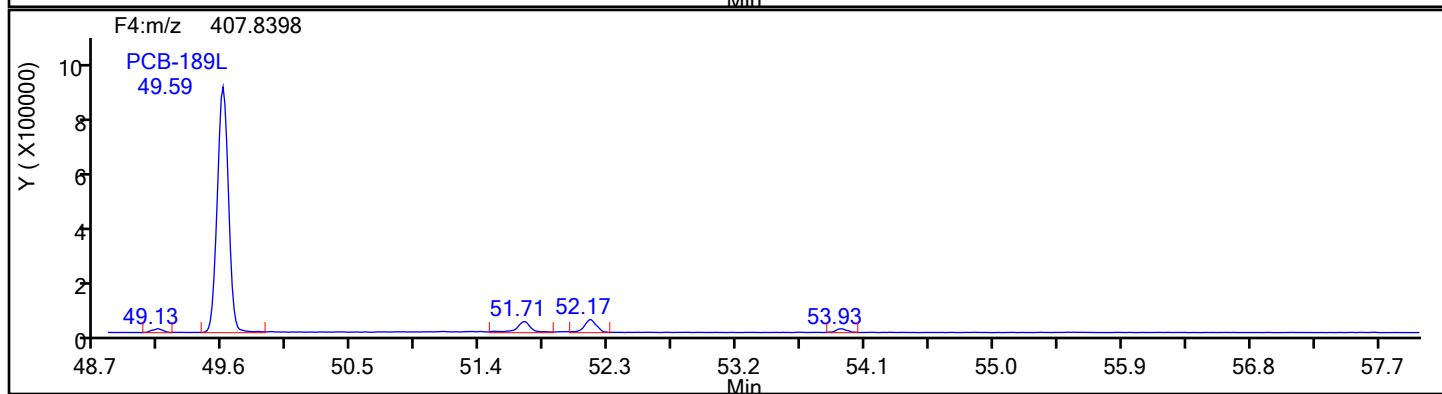
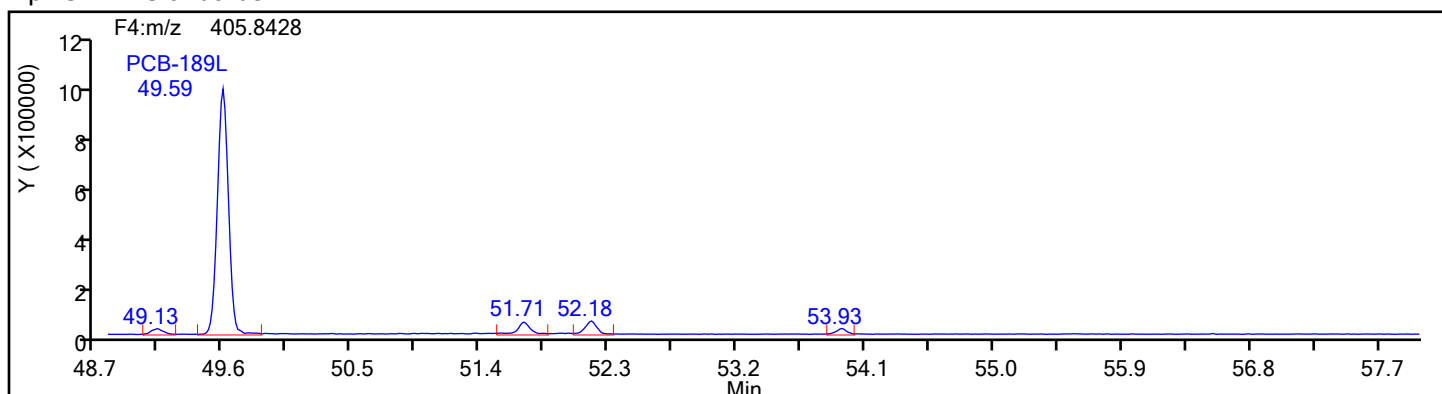
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

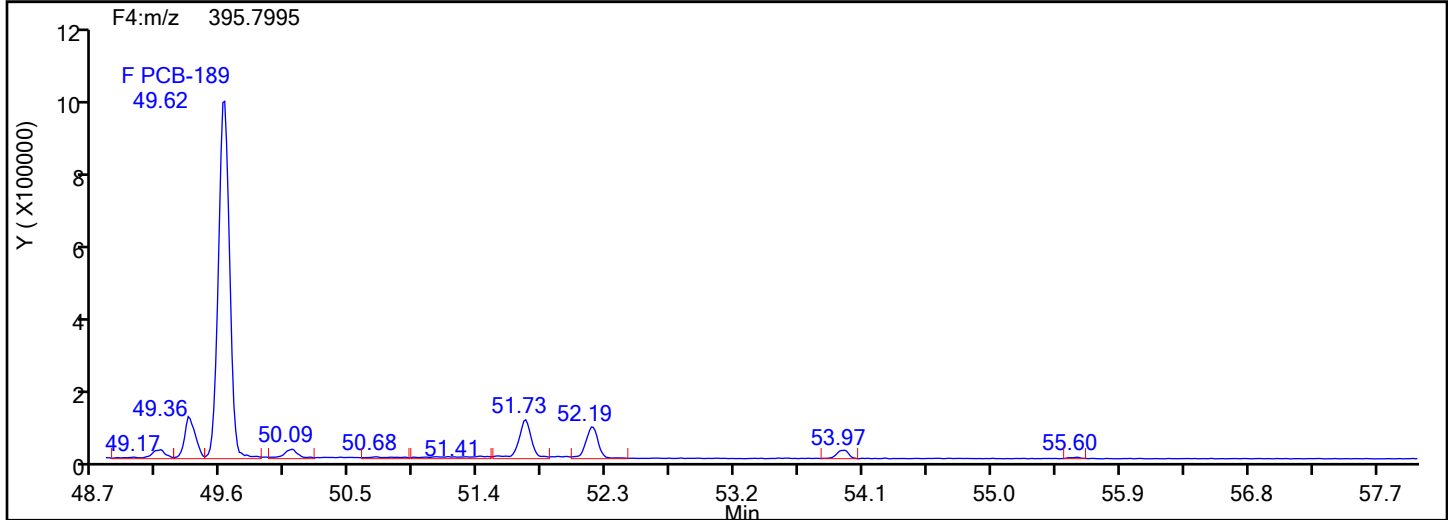
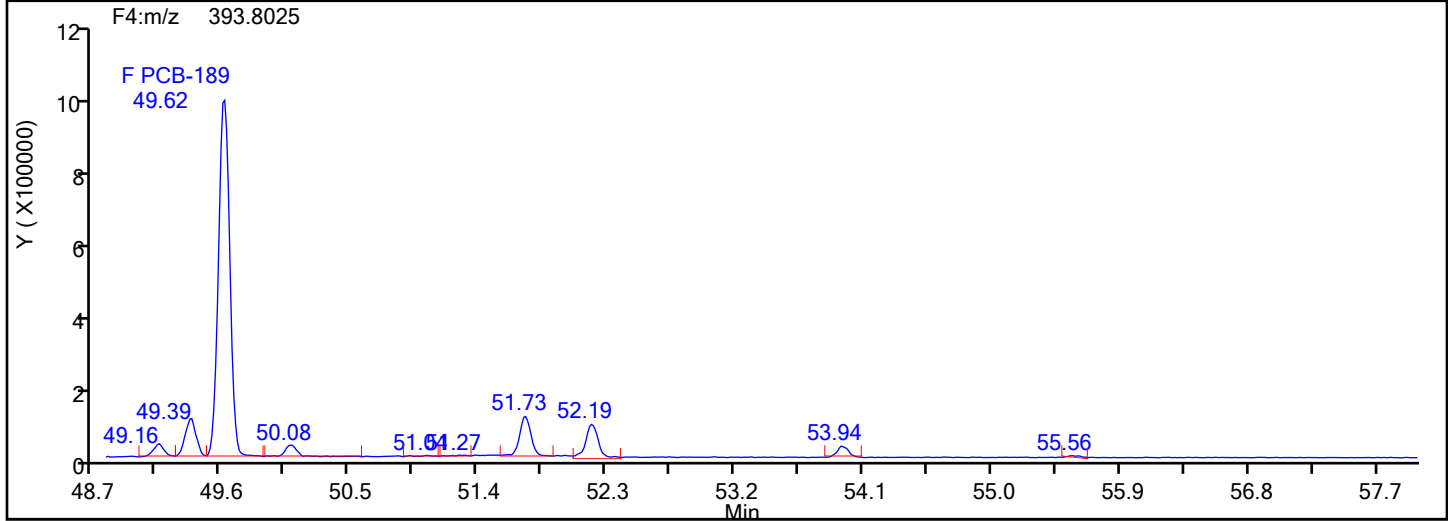
Worklist#: 87130

Sample Line#: 7

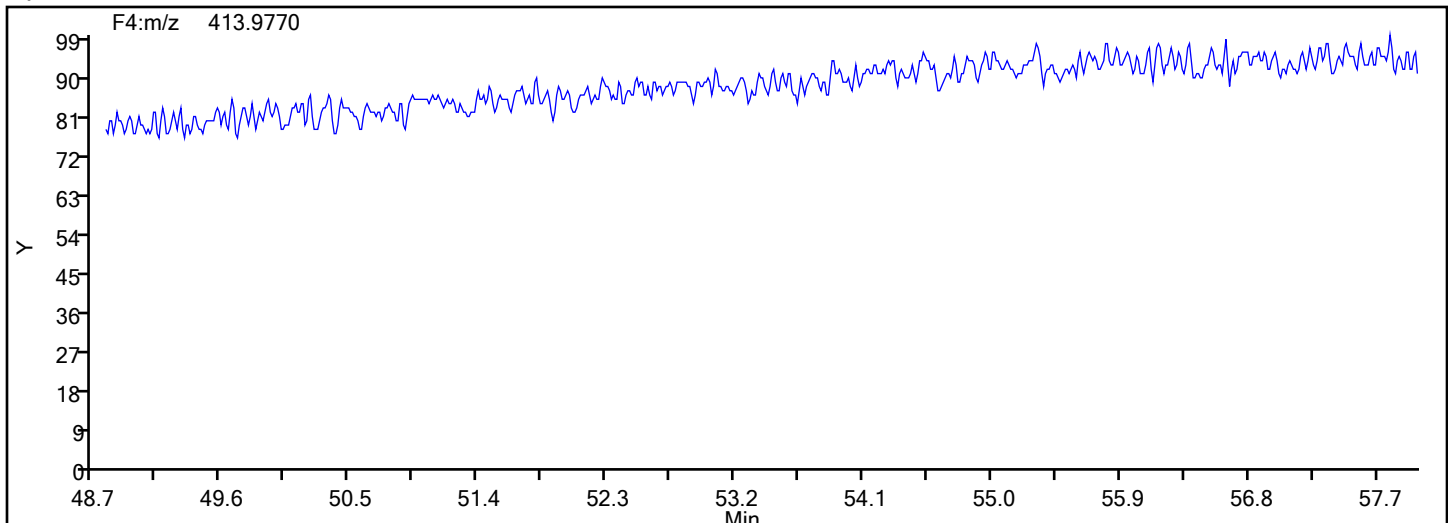
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

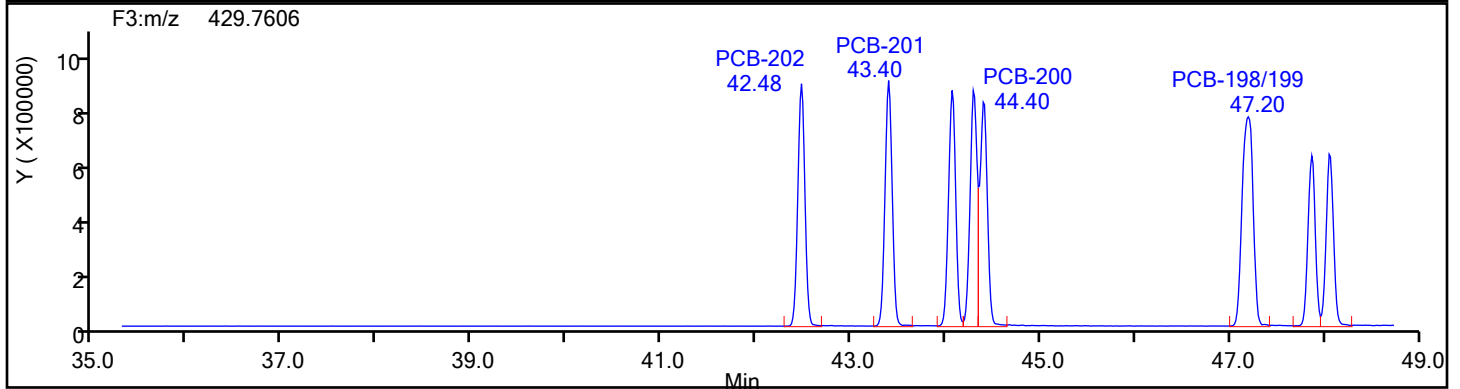
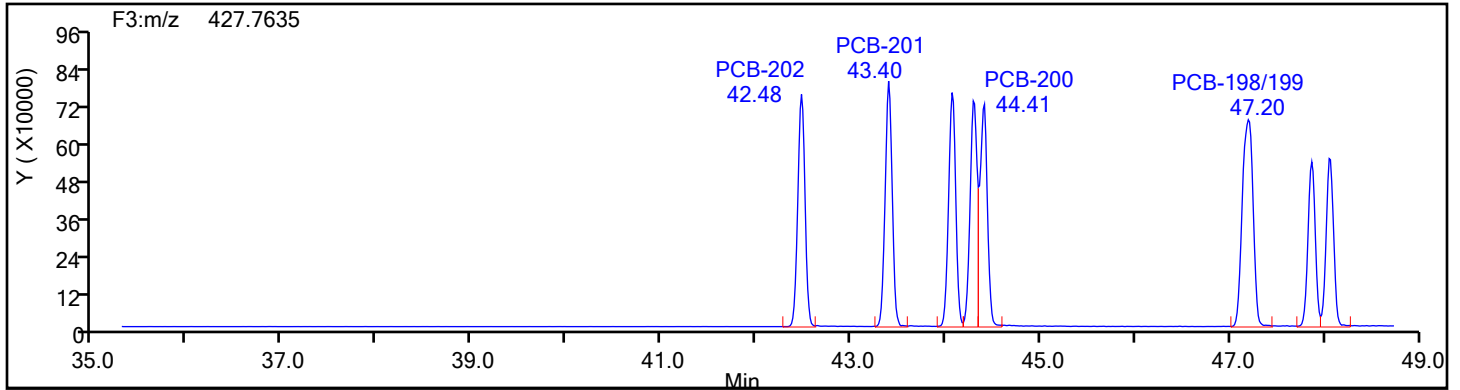
Worklist#: 87130

Sample Line#: 7

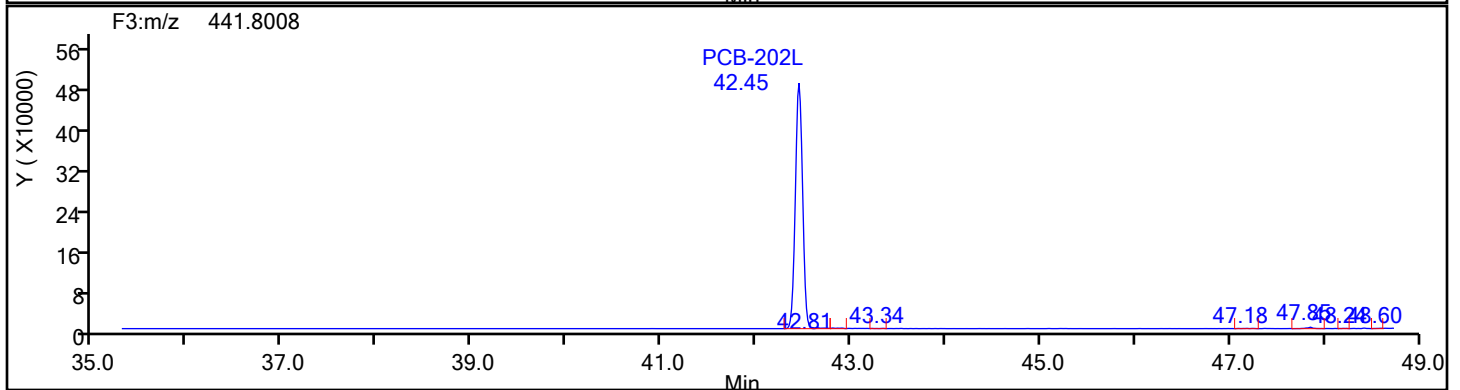
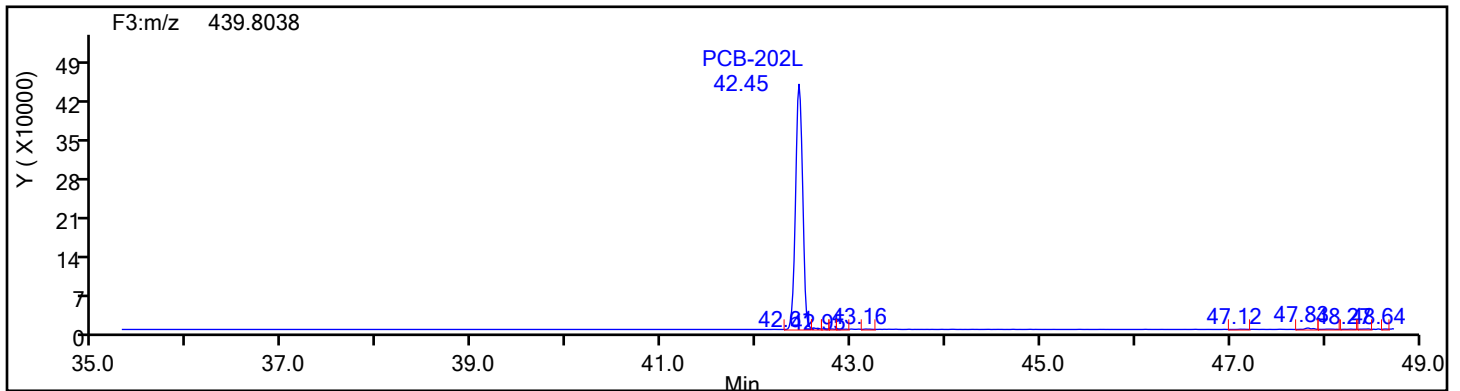
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3



OcPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

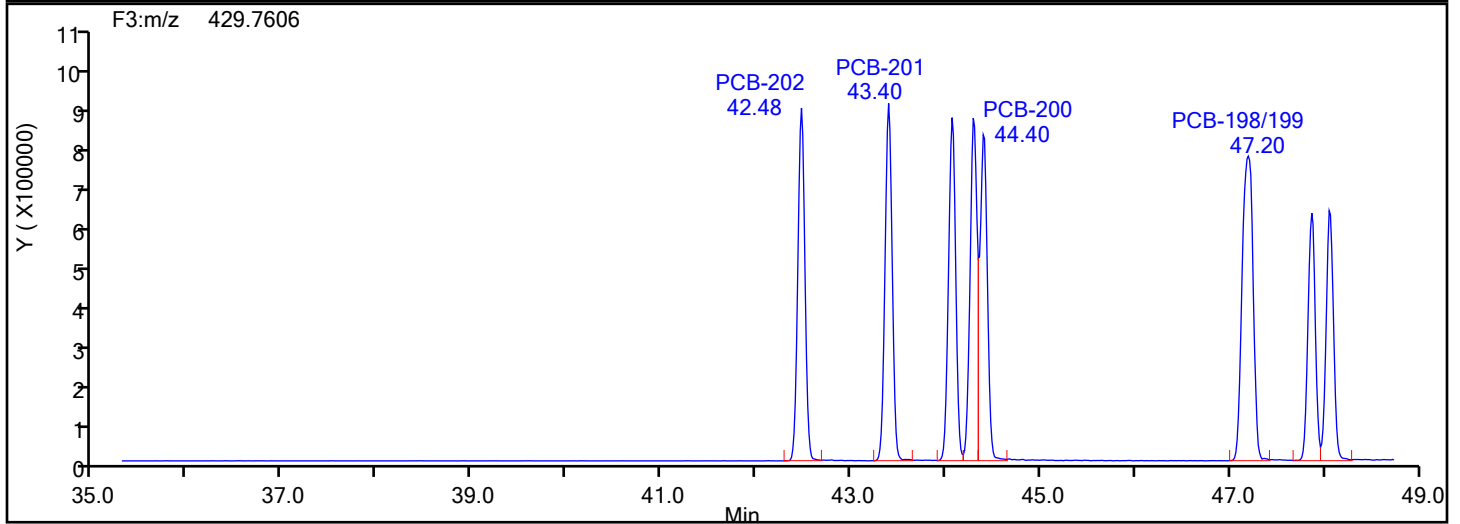
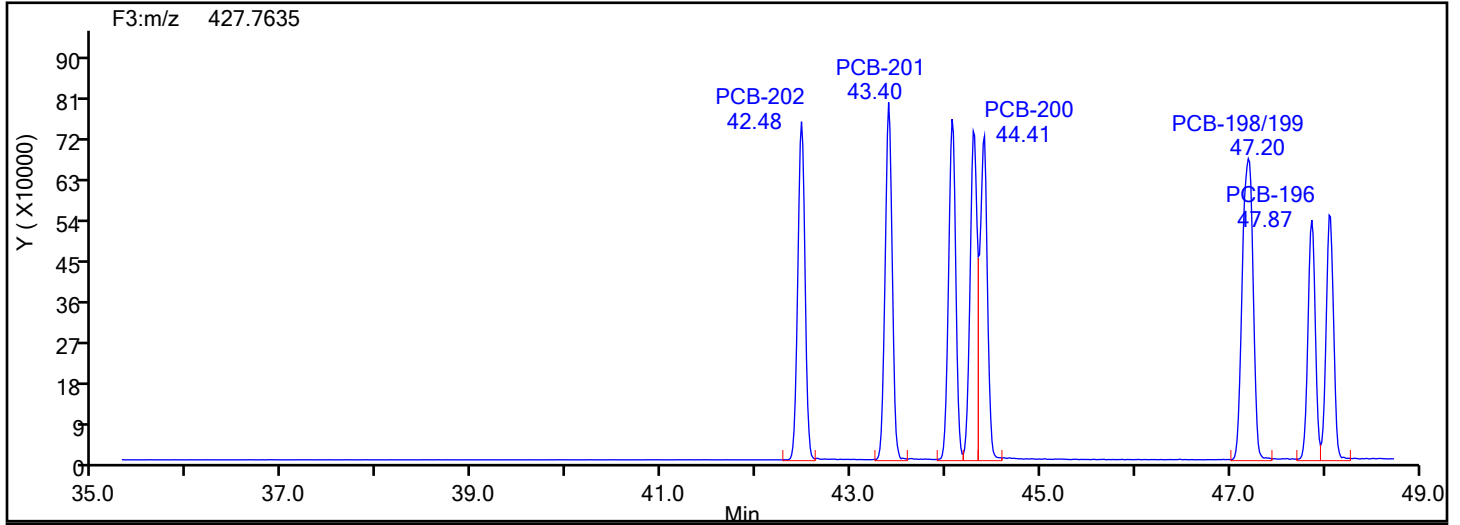
Worklist#: 87130

Sample Line#: 7

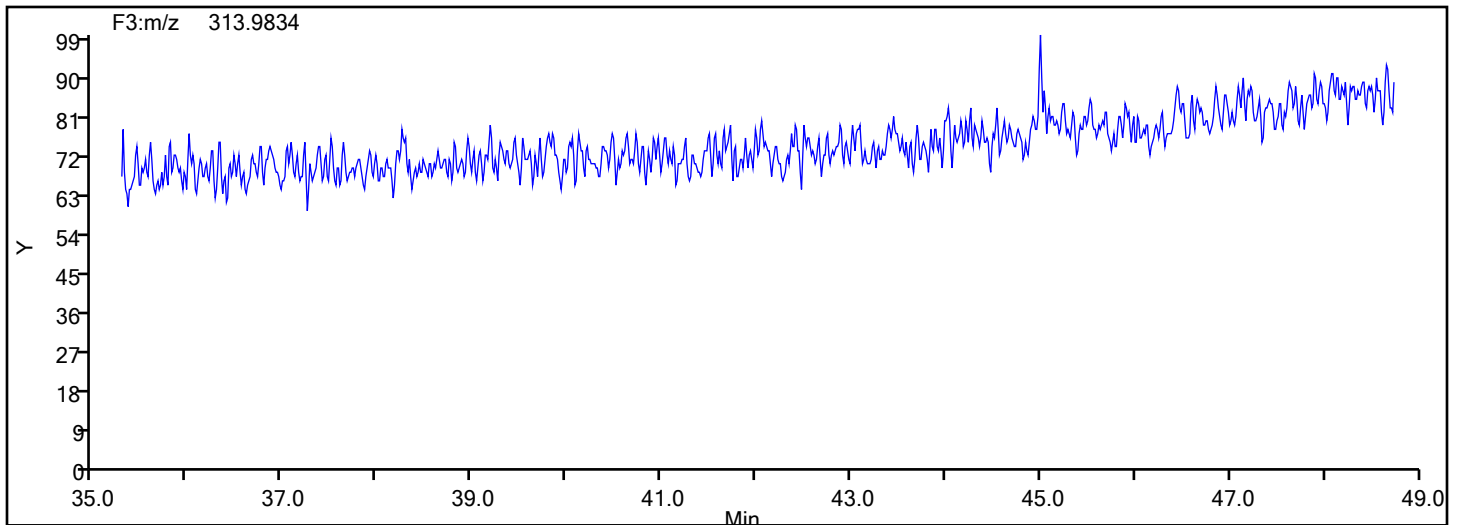
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3



## OcPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

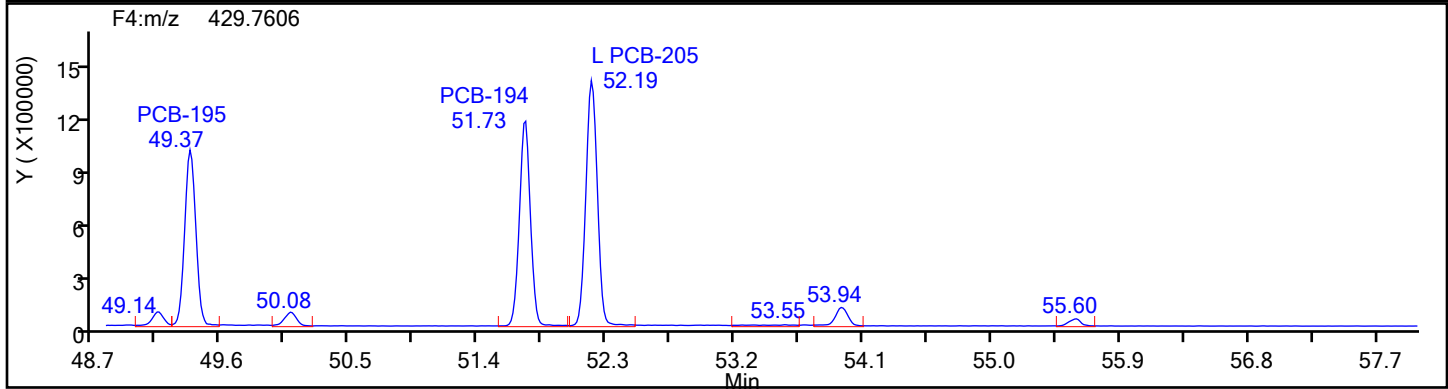
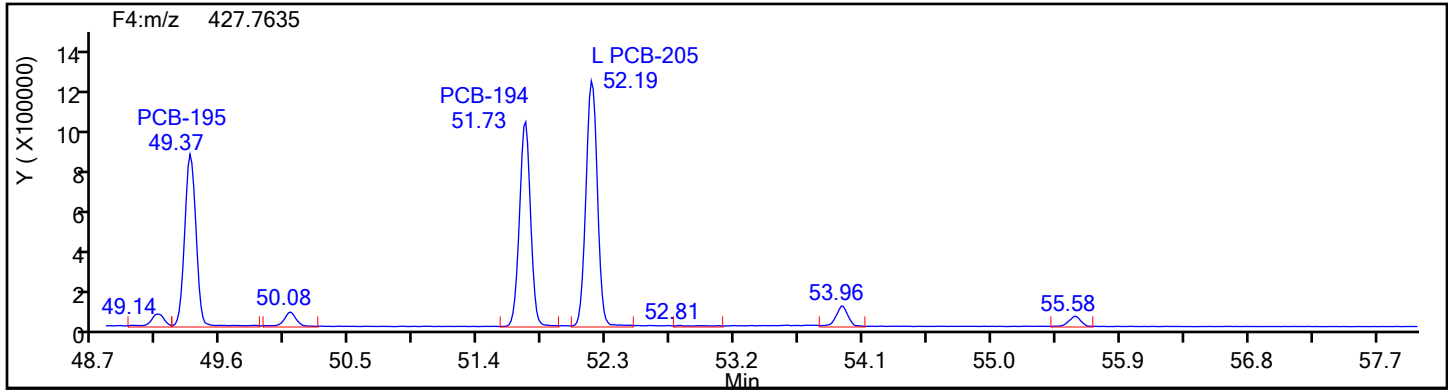
Worklist#: 87130

Sample Line#: 7

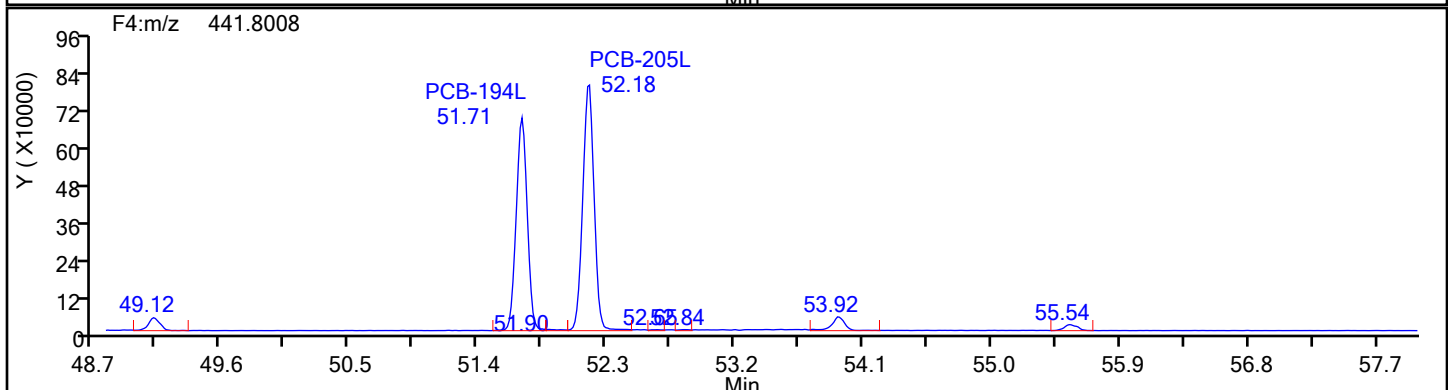
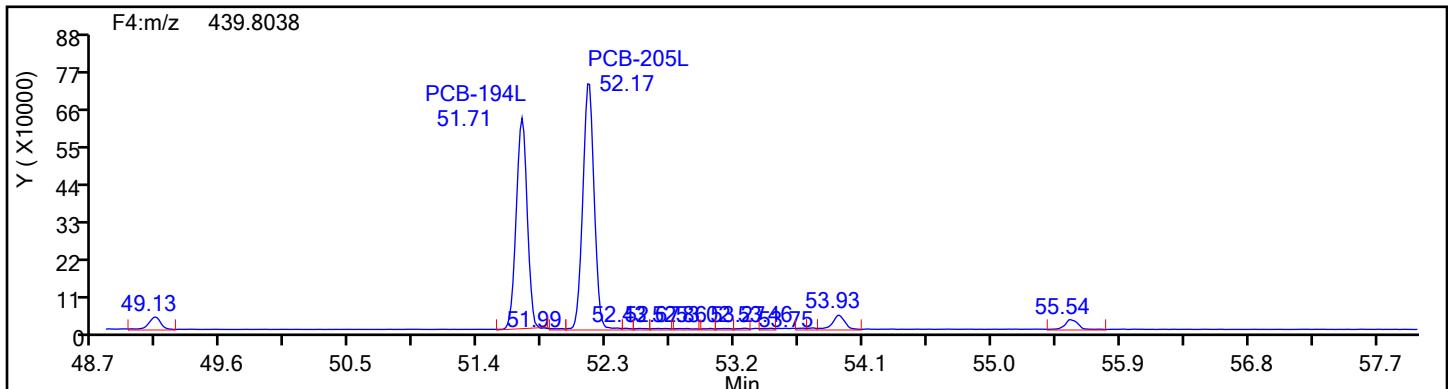
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4



OcPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

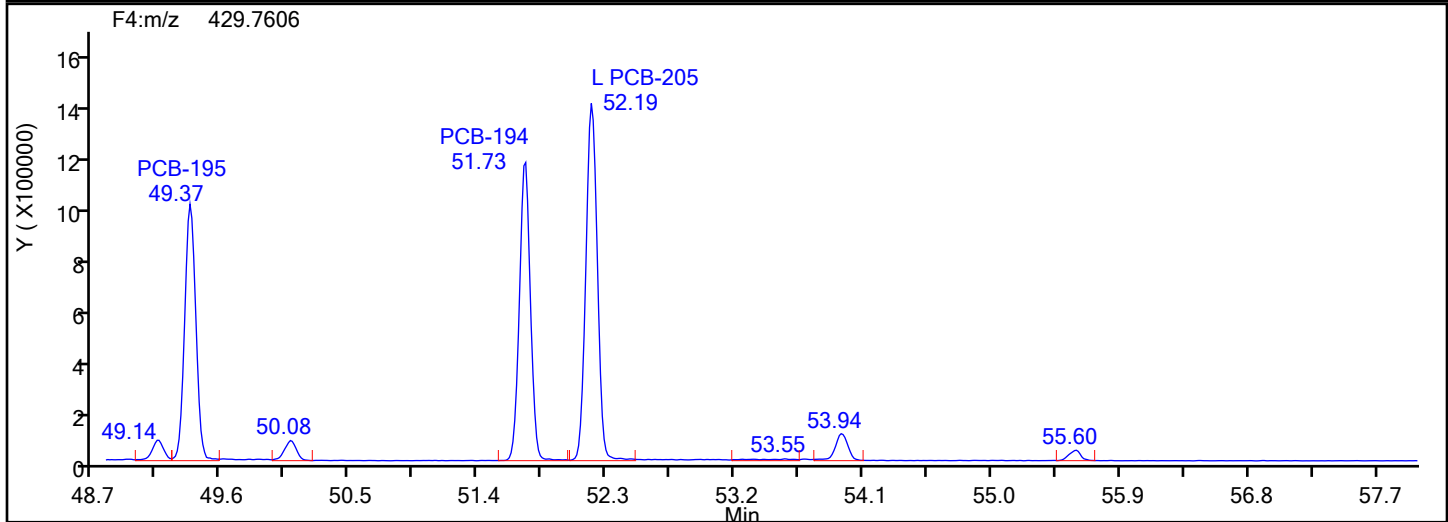
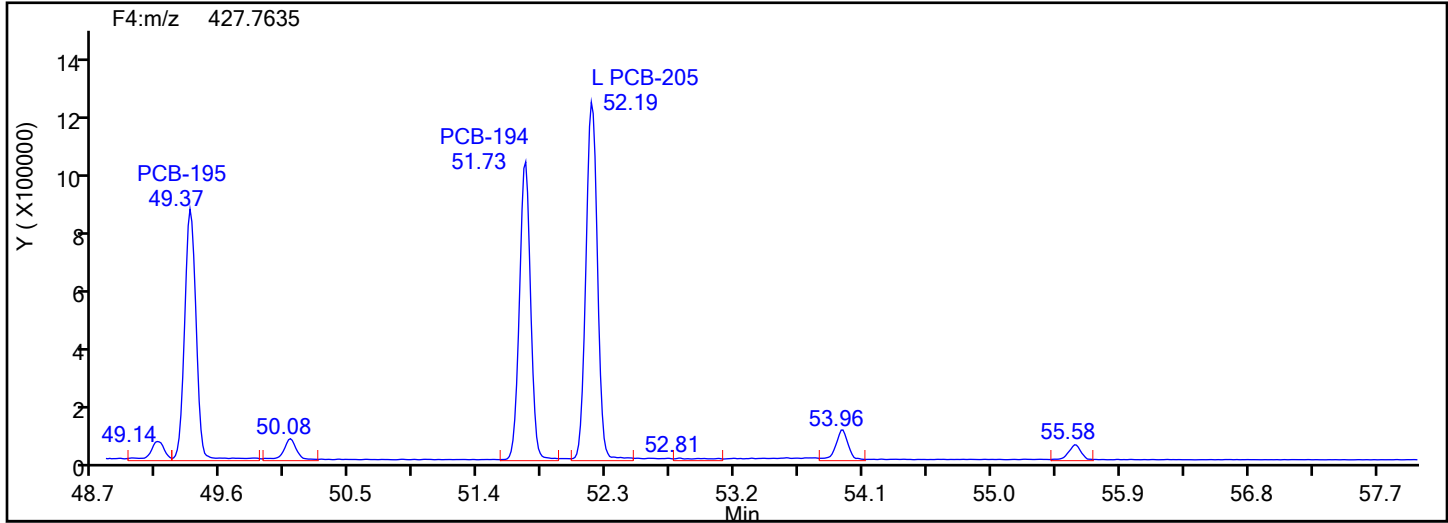
Worklist#: 87130

Sample Line#: 7

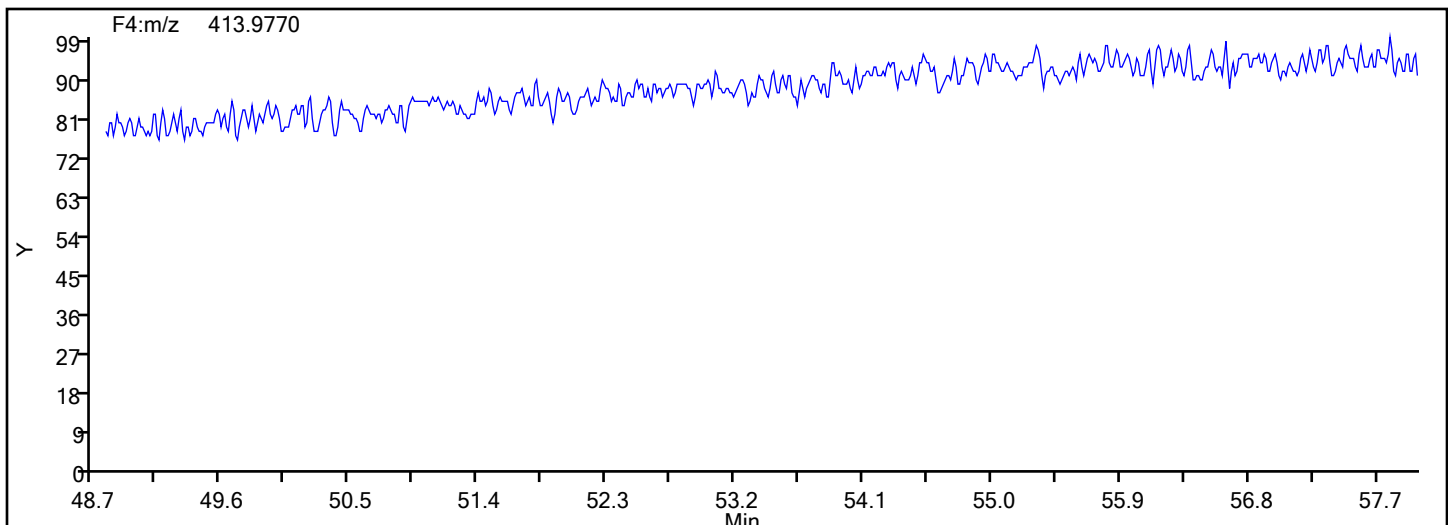
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4



## OcPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

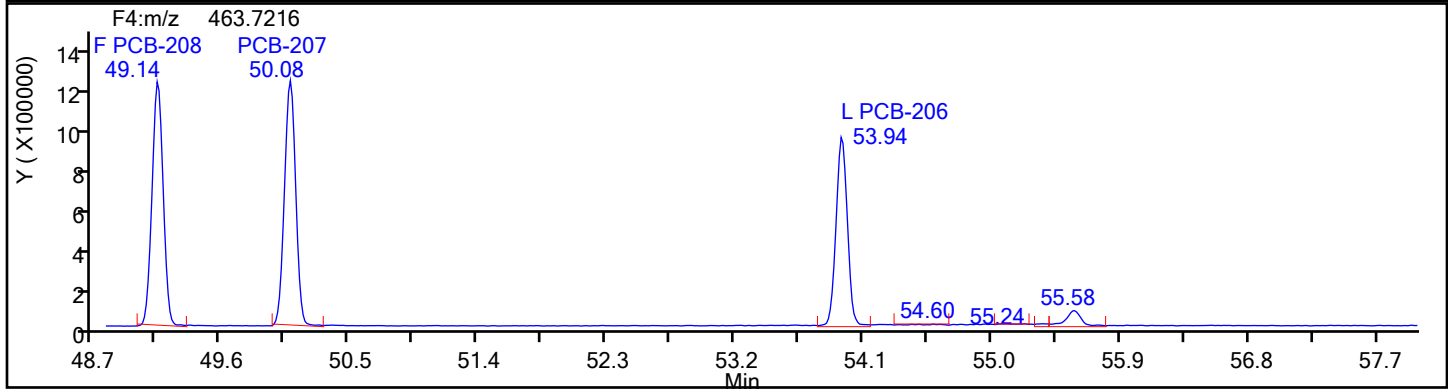
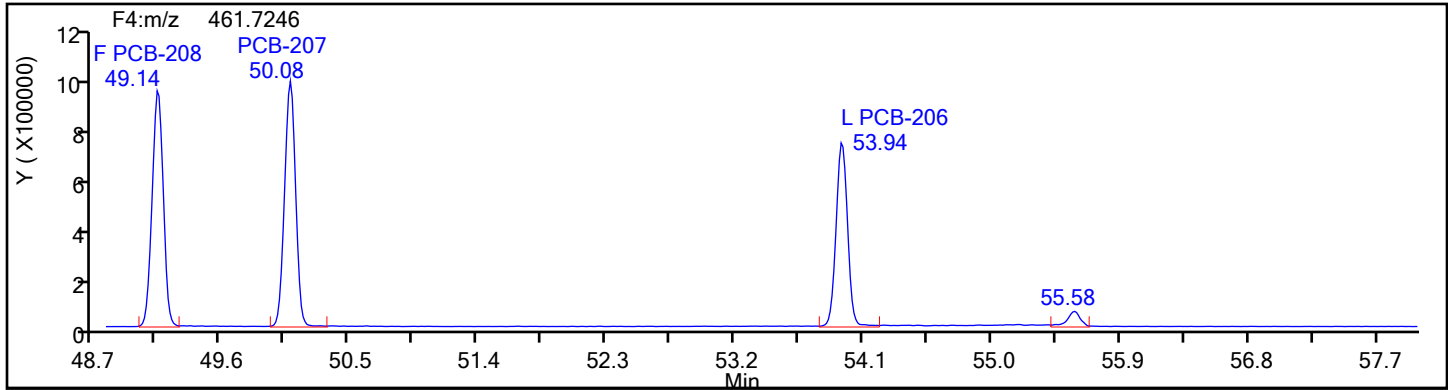
Worklist#: 87130

Sample Line#: 7

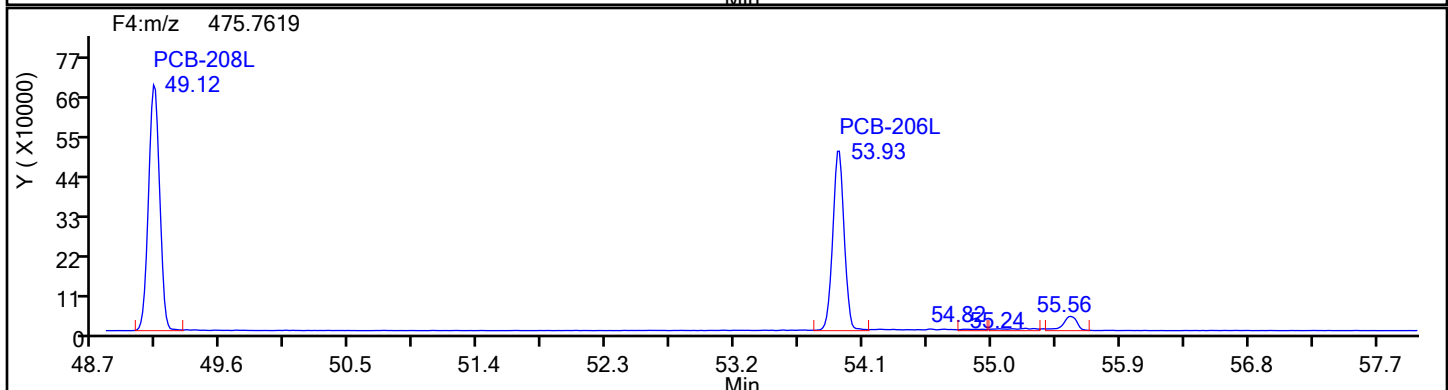
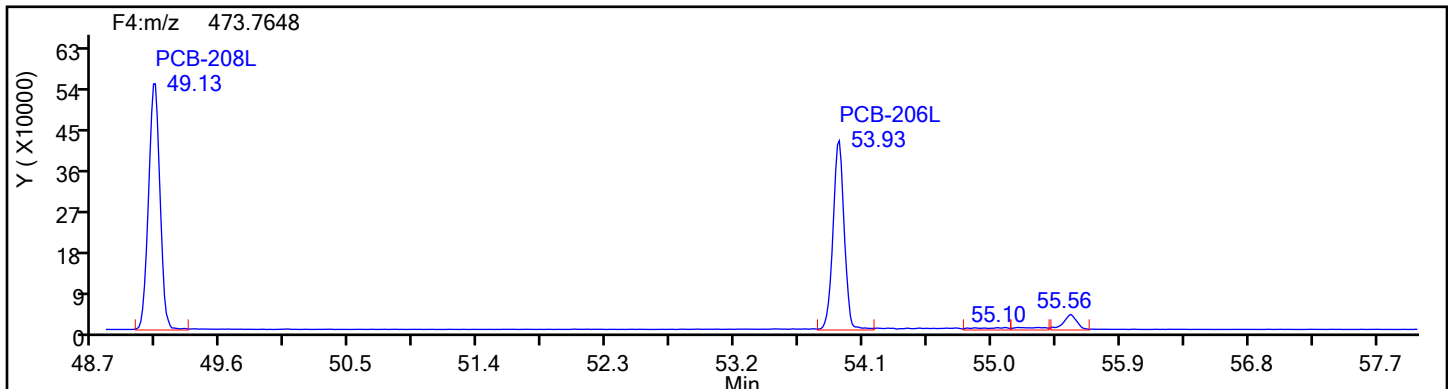
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



NoPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

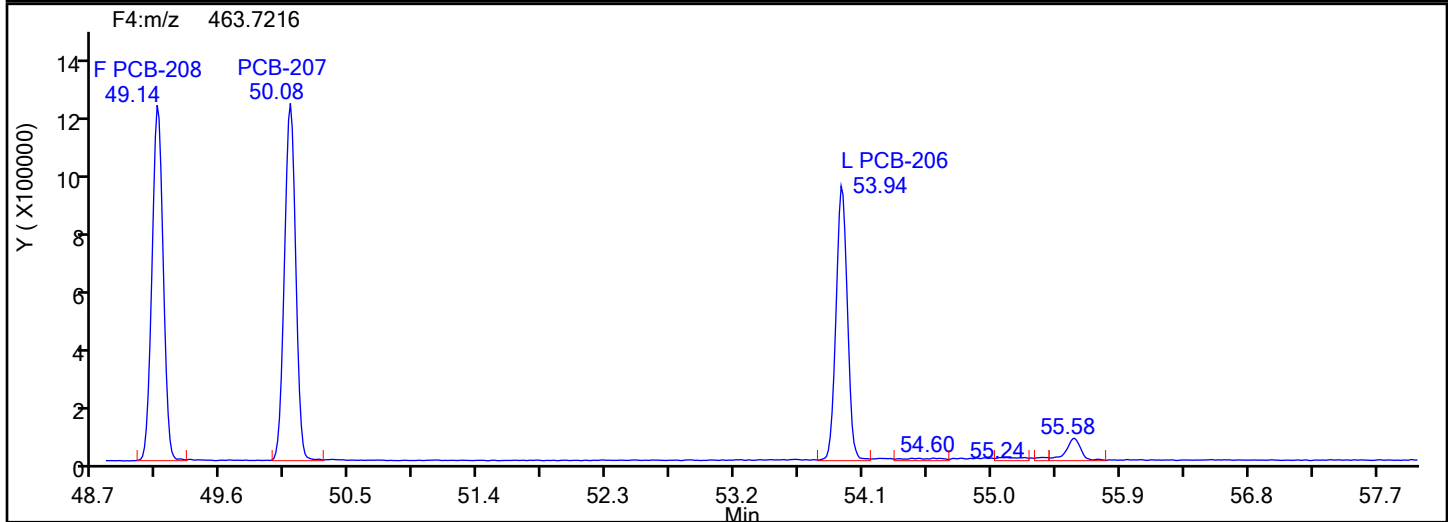
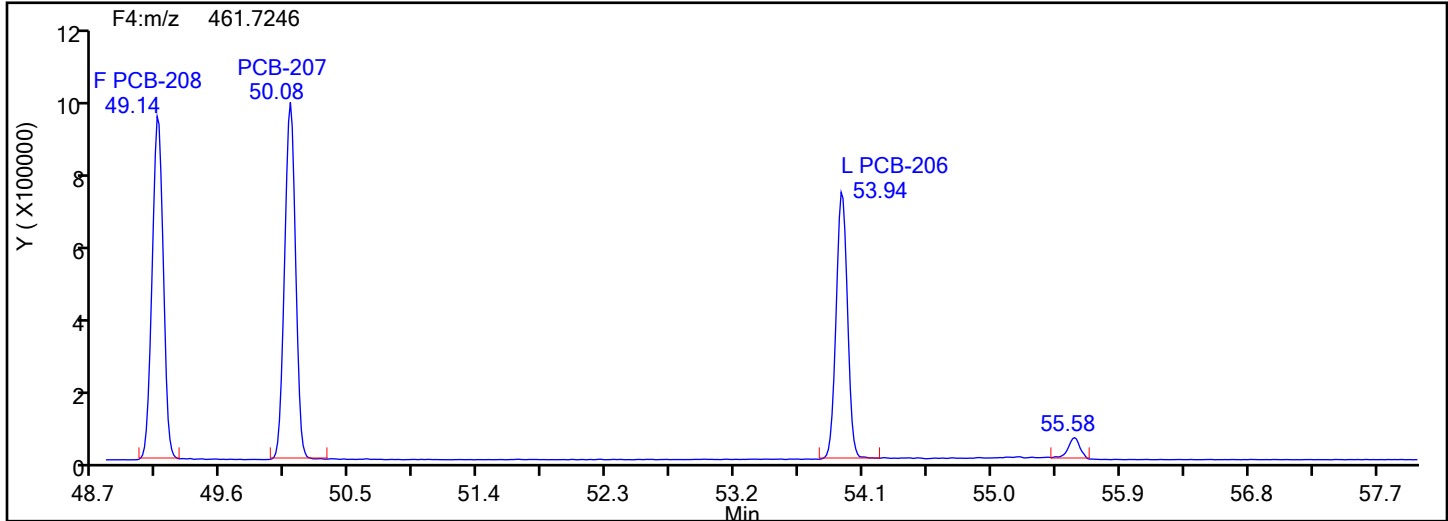
Worklist#: 87130

Sample Line#: 7

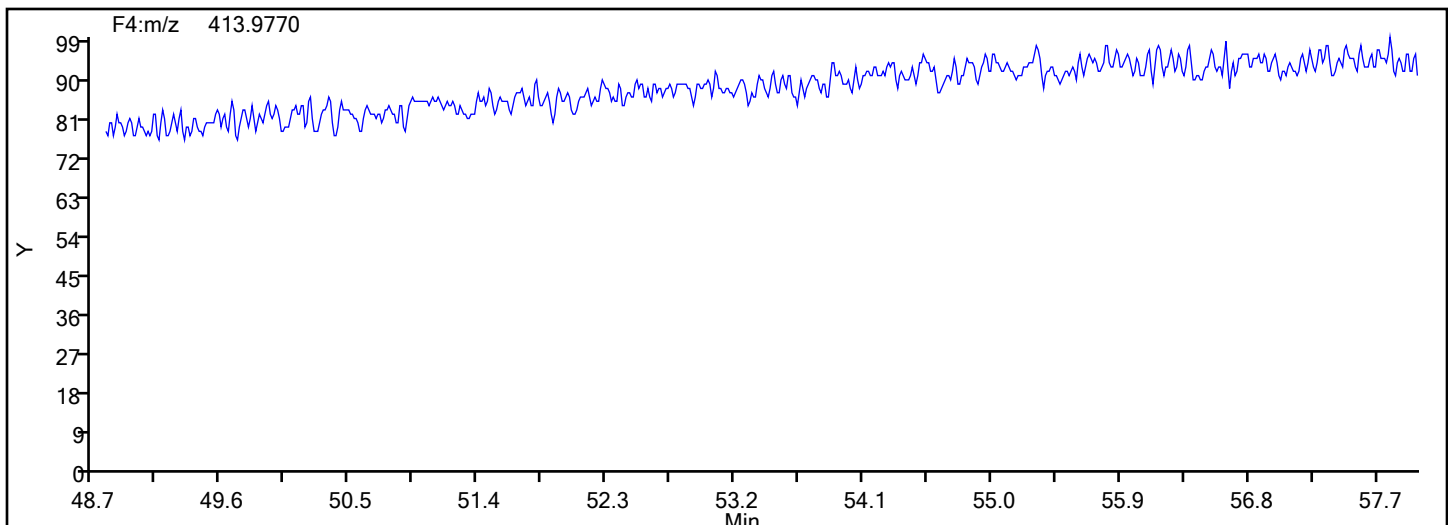
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



NoPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d

Injection Date: 31-May-2024 22:58:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

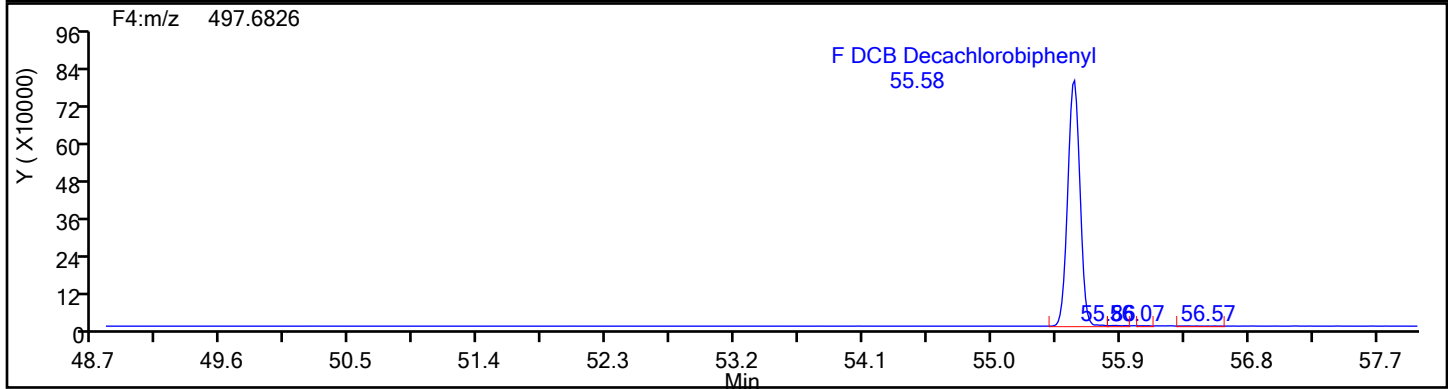
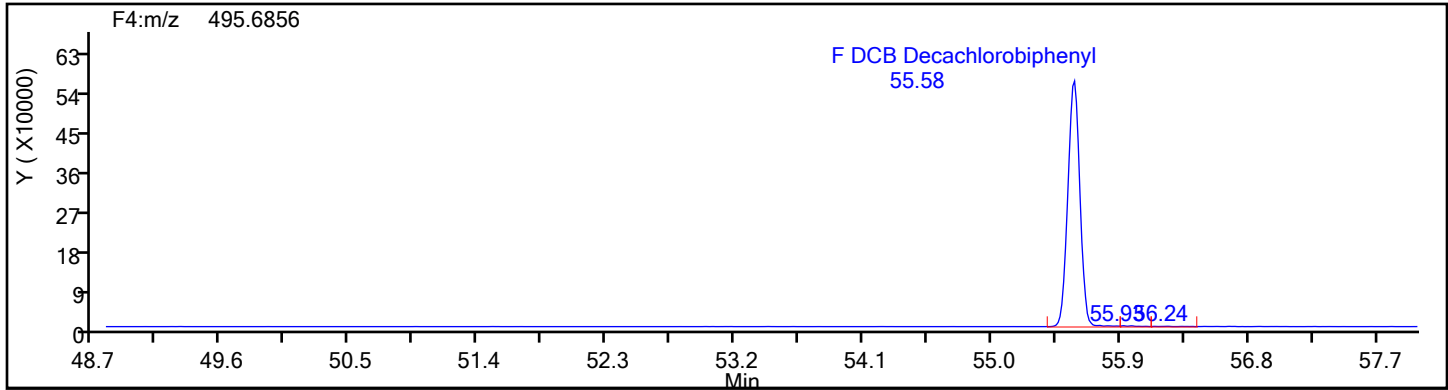
Worklist#: 87130

Sample Line#: 7

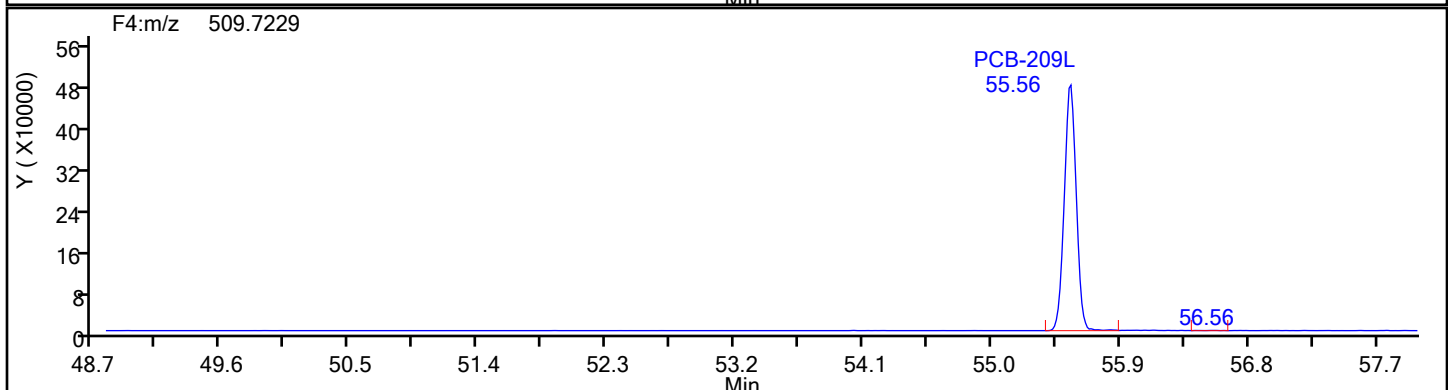
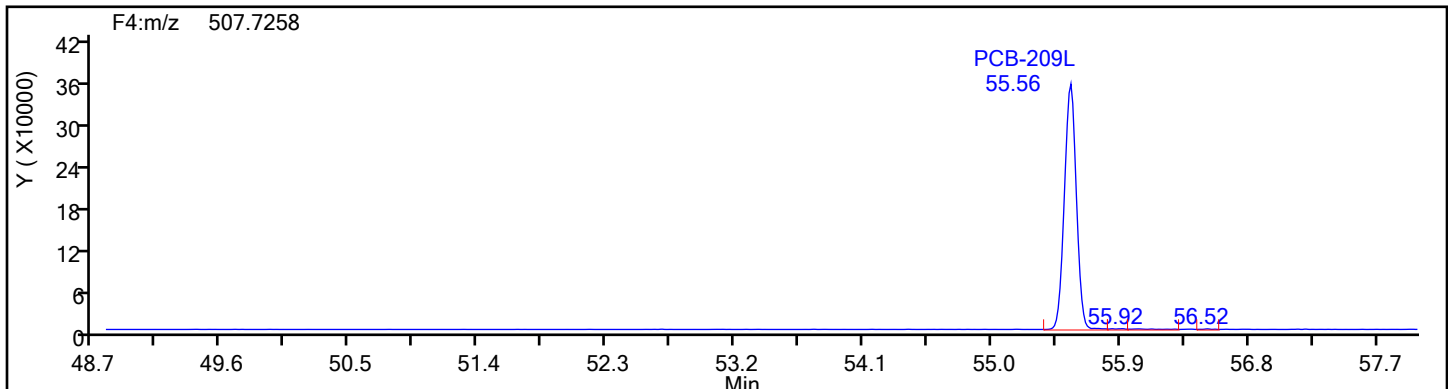
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



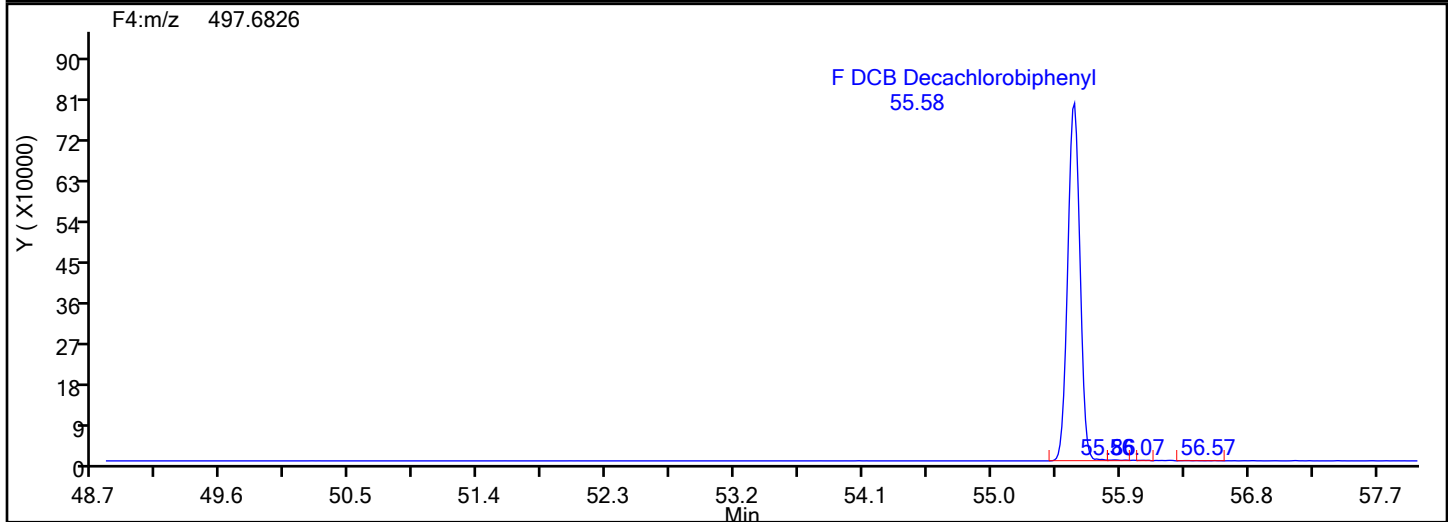
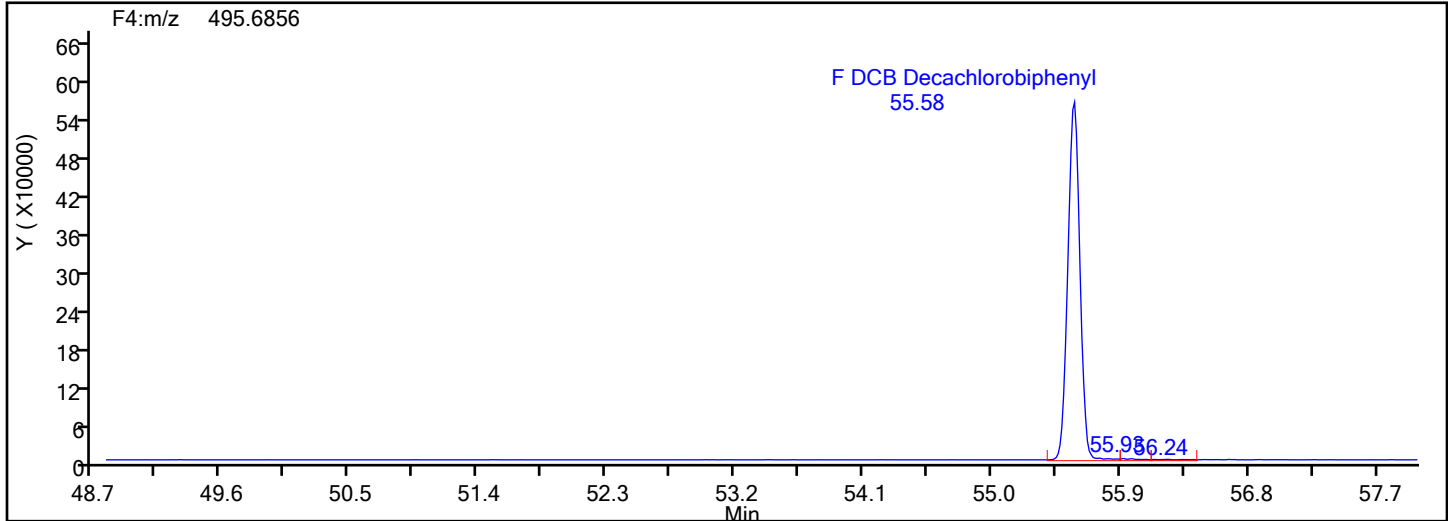
DePCB F4 Standards



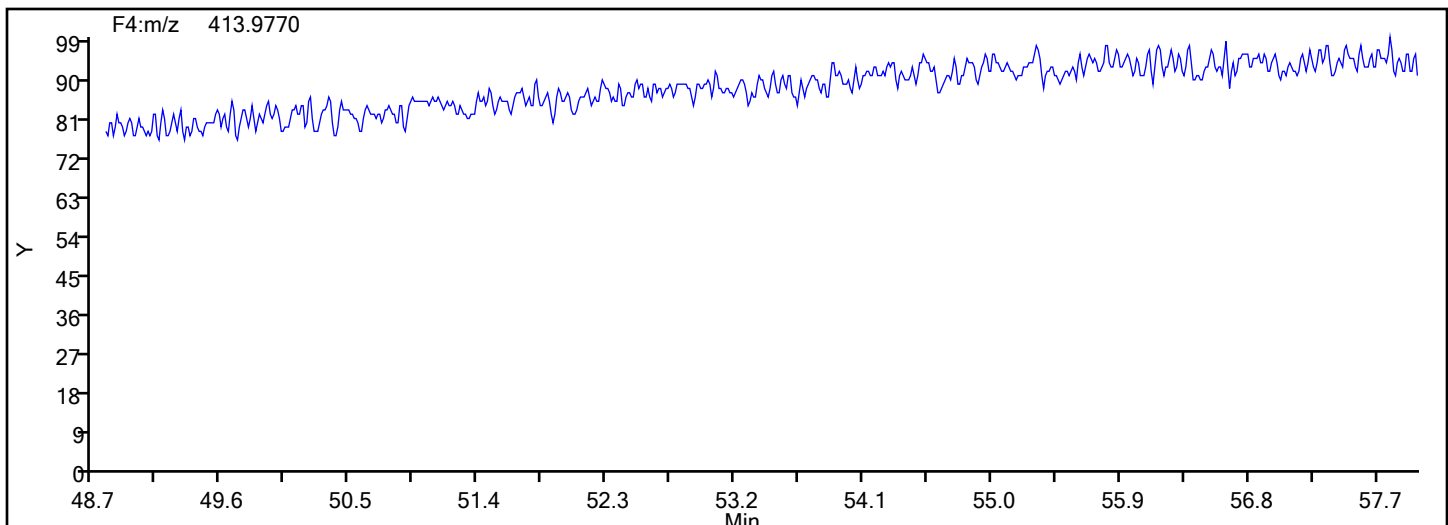


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531icv.d  
Injection Date: 31-May-2024 22:58:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 87130 Sample Line#: 7  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4



## DePCB F4 Lock Mass



FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: WDMCCV 140-88747/1 Calibration Date: 07/15/2024 12:43

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240715c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1	AveID	1.219	1.216		49.9	50.0	-0.2	25.0
PCB-2	AveID	1.181	1.186		50.2	50.0	0.5	25.0
PCB-3	AveID	1.221	1.242		50.9	50.0	1.8	25.0
PCB-4	AveID	1.282	1.298		50.6	50.0	1.2	25.0
PCB-10	AveID	1.315	1.399		53.2	50.0	6.4	25.0
PCB-9	AveID	1.422	1.469		51.7	50.0	3.3	25.0
PCB-7	AveID	1.413	1.433		50.7	50.0	1.4	25.0
PCB-6	AveID	1.542	1.589		51.5	50.0	3.0	25.0
PCB-5	AveID	1.339	1.365		51.0	50.0	1.9	25.0
PCB-8	AveID	1.589	1.653		52.0	50.0	4.1	25.0
PCB-19	AveID	1.281	1.263		49.3	50.0	-1.4	25.0
PCB-14	AveID	1.402	1.405		50.1	50.0	0.2	25.0
PCB-18	AveID	1.765	1.776		101	100	0.6	25.0
PCB-18/30	AveID	1.765	1.776		101	100	0.6	25.0
PCB-30	AveID	1.765	1.776		101	100	0.6	25.0
PCB-11	AveID	1.295	1.355		52.3	50.0	4.6	25.0
PCB-17	AveID	1.243	1.243		50.0	50.0	-0.0	25.0
PCB-12	AveID	1.336	1.365		102	100	2.2	25.0
PCB-12/13	AveID	1.336	1.365		102	100	2.2	25.0
PCB-13	AveID	1.336	1.365		102	100	2.2	25.0
PCB-27	AveID	1.833	1.891		51.6	50.0	3.2	25.0
PCB-24	AveID	1.678	1.716		51.2	50.0	2.3	25.0
PCB-16	AveID	1.129	1.160		51.4	50.0	2.8	25.0
PCB-15	AveID	1.290	1.341		52.0	50.0	3.9	25.0
PCB-54	AveID	1.273	1.310		51.4	50.0	2.9	25.0
PCB-32	AveID	1.832	1.884		51.4	50.0	2.8	25.0
PCB-34	AveID	1.128	1.135		50.3	50.0	0.7	25.0
PCB-23	AveID	1.081	1.098		50.8	50.0	1.6	25.0
PCB-26	AveID	1.125	1.133		101	100	0.7	25.0
PCB-26/29	AveID	1.125	1.133		101	100	0.7	25.0
PCB-29	AveID	1.125	1.133		101	100	0.7	25.0
PCB-25	AveID	1.273	1.326		52.1	50.0	4.1	25.0
PCB-50	AveID	0.8578	0.7929		92.4	100	-7.6	25.0
PCB-50/53	AveID	0.8578	0.7929		92.4	100	-7.6	25.0
PCB-53	AveID	0.8578	0.7929		92.4	100	-7.6	25.0
PCB-31	AveID	1.153	1.168		50.7	50.0	1.3	25.0
PCB-20	AveID	1.172	1.178		101	100	0.5	25.0
PCB-20/28	AveID	1.172	1.178		101	100	0.5	25.0
PCB-28	AveID	1.172	1.178		101	100	0.5	25.0
PCB-21	AveID	1.075	1.108		103	100	3.2	25.0
PCB-21/33	AveID	1.075	1.108		103	100	3.2	25.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: WDMCCV 140-88747/1 Calibration Date: 07/15/2024 12:43

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240715c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-33	AveID	1.075	1.108		103	100	3.2	25.0
PCB-45	AveID	0.8264	0.7706		93.3	100	-6.8	25.0
PCB-45/51	AveID	0.8264	0.7706		93.3	100	-6.8	25.0
PCB-51	AveID	0.8264	0.7706		93.3	100	-6.8	25.0
PCB-46	AveID	0.7101	0.6460		45.5	50.0	-9.0	25.0
PCB-22	AveID	1.193	1.230		51.5	50.0	3.1	25.0
PCB-52	AveID	0.9194	0.9292		50.5	50.0	1.1	25.0
PCB-43	AveID	1.033	1.049		102	100	1.5	25.0
PCB-43/73	AveID	1.033	1.049		102	100	1.5	25.0
PCB-73	AveID	1.033	1.049		102	100	1.5	25.0
PCB-36	AveID	1.107	1.129		51.0	50.0	2.0	25.0
PCB-49	AveID	1.069	1.040		97.3	100	-2.7	25.0
PCB-49/69	AveID	1.069	1.040		97.3	100	-2.7	25.0
PCB-69	AveID	1.069	1.040		97.3	100	-2.7	25.0
PCB-39	AveID	1.158	1.204		52.0	50.0	4.0	25.0
PCB-48	AveID	0.8399	0.8103		48.2	50.0	-3.5	25.0
PCB-104	AveID	1.009	1.017		50.4	50.0	0.8	25.0
PCB-44	AveID	0.9731	0.9378		145	150	-3.6	25.0
PCB-44/47/65	AveID	0.9731	0.9378		145	150	-3.6	25.0
PCB-47	AveID	0.9731	0.9378		145	150	-3.6	25.0
PCB-65	AveID	0.9731	0.9378		145	150	-3.6	25.0
PCB-38	AveID	1.084	1.084		50.0	50.0	-0.0	25.0
PCB-59	AveID	1.185	1.126		143	150	-5.0	25.0
PCB-59/62/75	AveID	1.185	1.126		143	150	-5.0	25.0
PCB-62	AveID	1.185	1.126		143	150	-5.0	25.0
PCB-75	AveID	1.185	1.126		143	150	-5.0	25.0
PCB-96	AveID	1.094	1.077		49.2	50.0	-1.6	25.0
PCB-42	AveID	0.8097	0.8169		50.5	50.0	0.9	25.0
PCB-35	AveID	1.130	1.164		51.5	50.0	3.0	25.0
PCB-40	AveID	0.8863	0.8587		145	150	-3.1	25.0
PCB-40/41/71	AveID	0.8863	0.8587		145	150	-3.1	25.0
PCB-41	AveID	0.8863	0.8587		145	150	-3.1	25.0
PCB-71	AveID	0.8863	0.8587		145	150	-3.1	25.0
PCB-37	AveID	1.144	1.143		50.0	50.0	-0.0	25.0
PCB-64	AveID	1.178	1.132		48.1	50.0	-3.8	25.0
PCB-72	AveID	1.094	1.080		49.4	50.0	-1.3	25.0
PCB-103	AveID	0.8741	0.8780		50.2	50.0	0.4	25.0
PCB-68	AveID	1.253	1.275		50.9	50.0	1.7	25.0
PCB-94	AveID	0.7640	0.7517		49.2	50.0	-1.6	25.0
PCB-57	AveID	1.082	1.119		51.7	50.0	3.4	25.0
PCB-95	AveID	0.8033	0.8278		51.5	50.0	3.1	25.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID: WDMCCV 140-88747/1 Calibration Date: 07/15/2024 12:43  
Instrument ID: D2D Calib Start Date: 05/31/2024 14:36  
GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13  
Lab File ID: d2240715c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-58	AveID	1.325	1.402		52.9	50.0	5.8	25.0
PCB-100	AveID	0.8429	0.8585		102	100	1.9	25.0
PCB-93	AveID	0.8429	0.8585		102	100	1.9	25.0
PCB-93/100	AveID	0.8429	0.8585		102	100	1.9	25.0
PCB-67	AveID	1.423	1.406		49.4	50.0	-1.2	25.0
PCB-102	AveID	0.8262	0.8391		102	100	1.6	25.0
PCB-98	AveID	0.8262	0.8391		102	100	1.6	25.0
PCB-98/102	AveID	0.8262	0.8391		102	100	1.6	25.0
PCB-63	AveID	1.124	1.166		51.9	50.0	3.7	25.0
PCB-88	AveID	0.8013	0.8325		104	100	3.9	25.0
PCB-88/91	AveID	0.8013	0.8325		104	100	3.9	25.0
PCB-91	AveID	0.8013	0.8325		104	100	3.9	25.0
PCB-61	AveID	1.261	1.260		200	200	-0.0	25.0
PCB-61/70/74/76	AveID	1.261	1.260		200	200	-0.0	25.0
PCB-70	AveID	1.261	1.260		200	200	-0.0	25.0
PCB-74	AveID	1.261	1.260		200	200	-0.0	25.0
PCB-76	AveID	1.261	1.260		200	200	-0.0	25.0
PCB-84	AveID	0.7299	0.7247		49.6	50.0	-0.7	25.0
PCB-66	AveID	1.258	1.317		52.3	50.0	4.7	25.0
PCB-55	AveID	1.324	1.375		51.9	50.0	3.9	25.0
PCB-89	AveID	0.7798	0.7714		49.5	50.0	-1.1	25.0
PCB-56	AveID	1.233	1.263		51.2	50.0	2.4	25.0
PCB-121	AveID	1.296	1.330		51.3	50.0	2.6	25.0
PCB-60	AveID	1.123	1.120		49.9	50.0	-0.2	25.0
PCB-92	AveID	0.8546	0.8550		50.0	50.0	0.0	25.0
PCB-80	AveID	1.324	1.338		50.5	50.0	1.1	25.0
PCB-155	AveID	0.9444	0.9917		52.5	50.0	5.0	25.0
PCB-152	AveID	0.9895	0.9933		50.2	50.0	0.4	25.0
PCB-101	AveID	0.9550	0.9342		147	150	-2.2	25.0
PCB-113	AveID	0.9550	0.9342		147	150	-2.2	25.0
PCB-90	AveID	0.9550	0.9342		147	150	-2.2	25.0
PCB-90/101/113	AveID	0.9550	0.9342		147	150	-2.2	25.0
PCB-150	AveID	1.013	1.050		51.8	50.0	3.7	25.0
PCB-136	AveID	1.012	1.024		50.6	50.0	1.2	25.0
PCB-83	AveID	0.8385	0.8570		102	100	2.2	25.0
PCB-83/99	AveID	0.8385	0.8570		102	100	2.2	25.0
PCB-99	AveID	0.8385	0.8570		102	100	2.2	25.0
PCB-112	AveID	1.411	1.408		49.9	50.0	-0.2	25.0
PCB-145	AveID	0.9685	1.028		53.1	50.0	6.2	25.0
PCB-109	AveID	1.047	1.035		297	300	-1.2	25.0
PCB-119	AveID	1.047	1.035		297	300	-1.2	25.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: WDMCCV 140-88747/1 Calibration Date: 07/15/2024 12:43

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240715c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-125	AveID	1.047	1.035		297	300	-1.2	25.0
PCB-86	AveID	1.047	1.035		297	300	-1.2	25.0
PCB-86/87/97/109/119/125	AveID	1.047	1.035		297	300	-1.2	25.0
PCB-87	AveID	1.047	1.035		297	300	-1.2	25.0
PCB-97	AveID	1.047	1.035		297	300	-1.2	25.0
PCB-79	AveID	1.437	1.320		46.0	50.0	-8.1	25.0
PCB-78	AveID	1.162	1.205		51.9	50.0	3.7	25.0
PCB-116	AveID	1.041	1.051		152	150	1.0	25.0
PCB-117	AveID	1.041	1.051		152	150	1.0	25.0
PCB-85	AveID	1.041	1.051		152	150	1.0	25.0
PCB-85/116/117	AveID	1.041	1.051		152	150	1.0	25.0
PCB-110	AveID	1.192	1.217		102	100	2.1	25.0
PCB-110/115	AveID	1.192	1.217		102	100	2.1	25.0
PCB-115	AveID	1.192	1.217		102	100	2.1	25.0
PCB-81	AveID	1.080	1.032		47.8	50.0	-4.4	25.0
PCB-148	AveID	0.7603	0.7877		51.8	50.0	3.6	25.0
PCB-82	AveID	0.8303	0.8386		50.5	50.0	1.0	25.0
PCB-77	AveID	1.084	1.050		48.5	50.0	-3.1	25.0
PCB-111	AveID	1.213	1.221		50.4	50.0	0.7	25.0
PCB-135	AveID	0.7256	0.7540		104	100	3.9	25.0
PCB-135/151	AveID	0.7256	0.7540		104	100	3.9	25.0
PCB-151	AveID	0.7256	0.7540		104	100	3.9	25.0
PCB-120	AveID	1.476	1.492		50.6	50.0	1.1	25.0
PCB-154	AveID	0.8129	0.8773		54.0	50.0	7.9	25.0
PCB-144	AveID	0.7852	0.8156		51.9	50.0	3.9	25.0
PCB-147	AveID	0.8950	0.8312		92.9	100	-7.1	25.0
PCB-147/149	AveID	0.8950	0.8312		92.9	100	-7.1	25.0
PCB-149	AveID	0.8950	0.8312		92.9	100	-7.1	25.0
PCB-134	AveID	0.7967	0.7130		89.5	100	-10.5	25.0
PCB-134/143	AveID	0.7967	0.7130		89.5	100	-10.5	25.0
PCB-143	AveID	0.7967	0.7130		89.5	100	-10.5	25.0
PCB-108	AveID	1.141	1.084		95.0	100	-5.0	25.0
PCB-108/124	AveID	1.141	1.084		95.0	100	-5.0	25.0
PCB-124	AveID	1.141	1.084		95.0	100	-5.0	25.0
PCB-139	AveID	0.8769	0.7878		89.8	100	-10.2	25.0
PCB-139/140	AveID	0.8769	0.7878		89.8	100	-10.2	25.0
PCB-140	AveID	0.8769	0.7878		89.8	100	-10.2	25.0
PCB-107	AveID	1.212	1.182		48.8	50.0	-2.5	25.0
PCB-131	AveID	0.7503	0.6712		44.7	50.0	-10.5	25.0
PCB-123	AveID	1.072	0.998		46.6	50.0	-6.9	25.0
PCB-106	AveID	1.084	1.100		50.7	50.0	1.5	25.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: WDMCCV 140-88747/1 Calibration Date: 07/15/2024 12:43

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240715c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-142	AveID	0.7507	0.7234		48.2	50.0	-3.6	25.0
PCB-118	AveID	1.206	1.165		48.3	50.0	-3.3	25.0
PCB-132	AveID	0.7489	0.6605		44.1	50.0	-11.8	25.0
PCB-122	AveID	0.9567	0.9574		50.0	50.0	0.0	25.0
PCB-188	AveID	1.135	1.152		50.8	50.0	1.5	25.0
PCB-114	AveID	1.084	1.113		51.4	50.0	2.7	25.0
PCB-133	AveID	0.8096	0.7078		43.7	50.0	-12.6	25.0
PCB-179	AveID	1.428	1.370		48.0	50.0	-4.1	25.0
PCB-165	AveID	1.025	0.9813		47.9	50.0	-4.2	25.0
PCB-105	AveID	1.188	1.209		50.9	50.0	1.8	25.0
PCB-146	AveID	0.9637	0.8763		45.5	50.0	-9.1	25.0
PCB-184	AveID	1.367	1.379		50.4	50.0	0.8	25.0
PCB-161	AveID	1.129	1.040		46.1	50.0	-7.9	25.0
PCB-176	AveID	1.233	1.210		49.1	50.0	-1.9	25.0
PCB-153	AveID	1.094	1.027		93.9	100	-6.1	25.0
PCB-153/168	AveID	1.094	1.027		93.9	100	-6.1	25.0
PCB-168	AveID	1.094	1.027		93.9	100	-6.1	25.0
PCB-141	AveID	0.8755	0.8060		46.0	50.0	-7.9	25.0
PCB-186	AveID	1.474	1.521		51.6	50.0	3.2	25.0
PCB-130	AveID	0.7051	0.6572		46.6	50.0	-6.8	25.0
PCB-127	AveID	1.139	1.161		51.0	50.0	1.9	25.0
PCB-137	AveID	0.7767	0.7463		48.1	50.0	-3.9	25.0
PCB-164	AveID	1.038	1.019		49.1	50.0	-1.9	25.0
PCB-129	AveID	0.9464	0.8910		188	200	-5.8	25.0
PCB-129/138/160/163	AveID	0.9464	0.8910		188	200	-5.8	25.0
PCB-138	AveID	0.9464	0.8910		188	200	-5.8	25.0
PCB-160	AveID	0.9464	0.8910		188	200	-5.8	25.0
PCB-163	AveID	0.9464	0.8910		188	200	-5.8	25.0
PCB-158	AveID	1.311	1.249		47.6	50.0	-4.7	25.0
PCB-178	AveID	0.8946	0.9140		51.1	50.0	2.2	25.0
PCB-175	AveID	0.9524	0.997		52.3	50.0	4.6	25.0
PCB-126	AveID	1.098	1.111		50.6	50.0	1.2	25.0
PCB-128	AveID	0.9829	0.9467		96.3	100	-3.7	25.0
PCB-128/166	AveID	0.9829	0.9467		96.3	100	-3.7	25.0
PCB-166	AveID	0.9829	0.9467		96.3	100	-3.7	25.0
PCB-187	AveID	1.102	1.147		52.0	50.0	4.1	25.0
PCB-182	AveID	0.9247	1.005		54.4	50.0	8.7	25.0
PCB-183	AveID	0.9825	0.9676		98.5	100	-1.5	25.0
PCB-183/185	AveID	0.9825	0.9676		98.5	100	-1.5	25.0
PCB-185	AveID	0.9825	0.9676		98.5	100	-1.5	25.0
PCB-174	AveID	0.9642	1.024		53.1	50.0	6.2	25.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: WDMCCV 140-88747/1 Calibration Date: 07/15/2024 12:43

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240715c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-159	AveID	1.386	1.330		48.0	50.0	-4.0	25.0
PCB-162	AveID	1.257	1.242		49.4	50.0	-1.2	25.0
PCB-177	AveID	0.9773	1.029		52.7	50.0	5.3	25.0
PCB-202	AveID	1.036	1.096		52.9	50.0	5.9	25.0
PCB-167	AveID	1.116	1.091		48.9	50.0	-2.2	25.0
PCB-181	AveID	0.9505	0.9896		52.1	50.0	4.1	25.0
PCB-171	AveID	0.9336	0.9425		101	100	0.9	25.0
PCB-171/173	AveID	0.9336	0.9425		101	100	0.9	25.0
PCB-173	AveID	0.9336	0.9425		101	100	0.9	25.0
PCB-201	AveID	0.9754	1.019		52.2	50.0	4.4	25.0
PCB-156	AveID	1.110	1.120		101	100	0.9	25.0
PCB-156/157	AveID	1.110	1.120		101	100	0.9	25.0
PCB-157	AveID	1.110	1.120		101	100	0.9	25.0
PCB-204	AveID	1.049	1.083		51.6	50.0	3.3	25.0
PCB-197	AveID	1.146	1.154		50.4	50.0	0.7	25.0
PCB-200	AveID	1.007	1.028		51.1	50.0	2.1	25.0
PCB-172	AveID	0.8519	0.9133		53.6	50.0	7.2	25.0
PCB-192	AveID	1.346	1.541		57.2	50.0	14.5	25.0
PCB-180	AveID	1.168	1.256		108	100	7.6	25.0
PCB-180/193	AveID	1.168	1.256		108	100	7.6	25.0
PCB-193	AveID	1.168	1.256		108	100	7.6	25.0
PCB-191	AveID	1.289	1.446		56.1	50.0	12.2	25.0
PCB-170	AveID	1.187	1.175		49.5	50.0	-1.0	25.0
PCB-190	AveID	1.332	1.511		56.7	50.0	13.4	25.0
PCB-169	AveID	1.163	1.144		49.2	50.0	-1.6	25.0
PCB-198	AveID	0.8698	0.8900		102	100	2.3	25.0
PCB-198/199	AveID	0.8698	0.8900		102	100	2.3	25.0
PCB-199	AveID	0.8698	0.8900		102	100	2.3	25.0
PCB-196	AveID	0.7806	0.8113		52.0	50.0	3.9	25.0
PCB-203	AveID	0.9292	1.006		54.1	50.0	8.3	25.0
PCB-208	AveID	1.137	1.138		50.0	50.0	0.0	25.0
PCB-195	AveID	0.8263	0.8087		48.9	50.0	-2.1	25.0
PCB-189	AveID	0.9633	1.020		52.9	50.0	5.9	25.0
PCB-207	AveID	1.376	1.300		47.2	50.0	-5.5	25.0
PCB-194	AveID	0.9735	0.9317		47.9	50.0	-4.3	25.0
PCB-205	AveID	1.088	1.075		49.4	50.0	-1.2	25.0
PCB-206	AveID	1.335	1.254		47.0	50.0	-6.1	25.0
PCB-209	AveID	1.100	1.105		50.2	50.0	0.4	25.0
PCB-1L	Ave	1.611	1.644		102	100	2.1	30.0
PCB-3L	Ave	1.589	1.543		97.1	100	-2.9	30.0
PCB-4L	Ave	0.6475	0.6462		99.8	100	-0.2	30.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: WDMCCV 140-88747/1 Calibration Date: 07/15/2024 12:43

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240715c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-19L	Ave	0.6285	0.6156		97.9	100	-2.1	30.0
PCB-15L	Ave	1.079	1.015		94.1	100	-5.9	30.0
PCB-54L	Ave	0.5562	0.6099		110	100	9.6	30.0
PCB-104L	Ave	1.216	1.249		103	100	2.7	30.0
PCB-37L	Ave	0.8749	0.8863		101	100	1.3	30.0
PCB-155L	Ave	1.085	1.093		101	100	0.8	30.0
PCB-81L	Ave	1.247	1.209		97.0	100	-3.0	30.0
PCB-77L	Ave	1.321	1.275		96.5	100	-3.5	30.0
PCB-123L	Ave	0.9731	0.9599		98.6	100	-1.4	30.0
PCB-118L	Ave	1.010	1.014		100	100	0.3	30.0
PCB-188L	Ave	1.313	1.225		93.3	100	-6.7	30.0
PCB-114L	Ave	0.9949	0.9697		97.5	100	-2.5	30.0
PCB-105L	Ave	0.9514	0.9422		99.0	100	-1.0	30.0
PCB-126L	Ave	0.9439	0.9733		103	100	3.1	30.0
PCB-202L	Ave	0.9818	0.9795		99.8	100	-0.2	30.0
PCB-167L	Ave	1.257	1.300		103	100	3.4	30.0
PCB-156L	Ave	1.211	1.262		208	200	4.2	30.0
PCB-156L/157L	Ave	1.211	1.262		208	200	4.2	30.0
PCB-157L	Ave	1.211	1.262		208	200	4.2	30.0
PCB-170L	Ave	0.8362	0.8384		100	100	0.3	30.0
PCB-169L	Ave	1.244	1.345		108	100	8.1	30.0
PCB-208L	Ave	0.9576	0.9865		103	100	3.0	30.0
PCB-189L	Ave	1.441	1.422		98.6	100	-1.4	30.0
PCB-205L	Ave	1.179	1.212		103	100	2.9	30.0
PCB-206L	Ave	0.6947	0.7319		105	100	5.3	30.0
PCB-209L	Ave	0.6669	0.7593		114	100	13.9	30.0
PCB-8L	AveID	1.207	1.148		47.6	50.0	-4.9	25.0
PCB-28L	Ave	1.049	0.9830		46.8	50.0	-6.3	30.0
PCB-95L	AveID	0.7218	0.7453		51.6	50.0	3.3	25.0
PCB-79L	AveID	1.002	0.9705		48.4	50.0	-3.1	25.0
PCB-111L	Ave	1.370	1.294		47.2	50.0	-5.6	30.0
PCB-153L	AveID	0.9169	0.7681		41.9	50.0	-16.2	25.0
PCB-178L	Ave	1.031	0.9173		44.5	50.0	-11.1	30.0



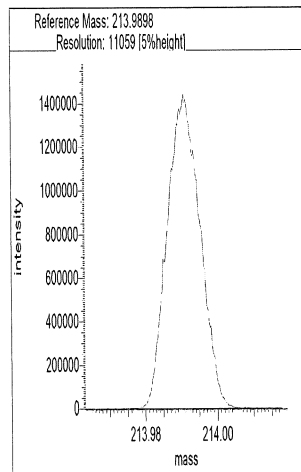
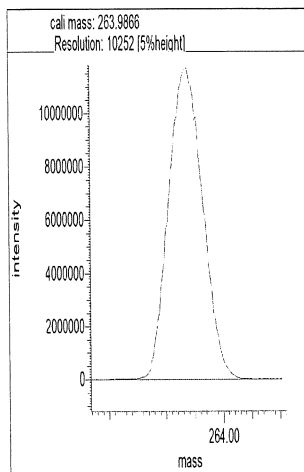
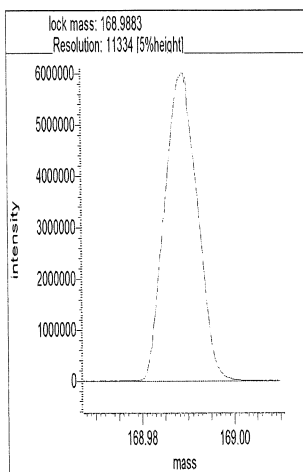
# Resolution Check Report ( DFS SN: 3190 )

Date: 15 Jul 2024 12:27  
MID Experiment: ResCheck\_1668  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43KnxPCB.lua  
Status: RESOLUTION PASSED

- d2240715r3

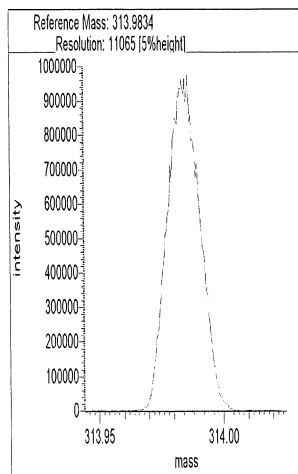
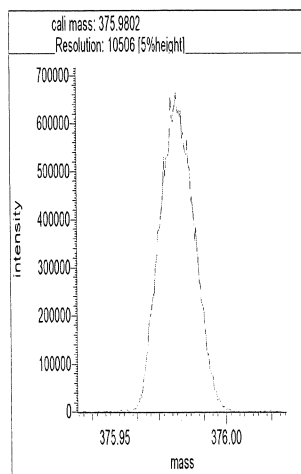
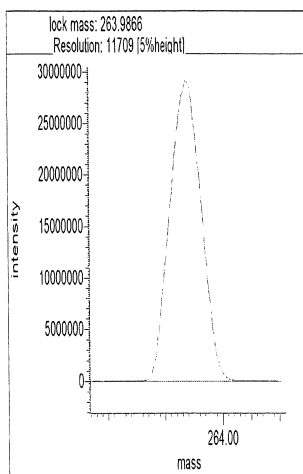
## Segment 1

Lock mass 168.9883 [m/z] Resolution: 11334 [5%height]  
Cali. mass 263.9866 [m/z] Resolution: 10252 [5%height]  
Ref. mass 213.9898 [m/z] Resolution: 11059 [5%height]



## Segment 2

Lock mass 263.9866 [m/z] Resolution: 11709 [5%height]  
Cali. mass 375.9802 [m/z] Resolution: 10506 [5%height]  
Ref. mass 313.9834 [m/z] Resolution: 11065 [5%height]

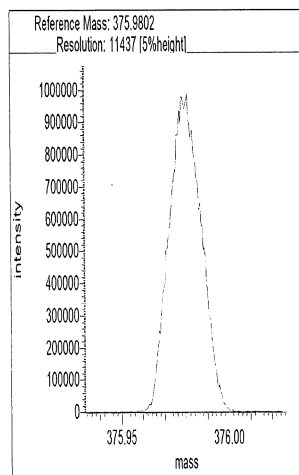
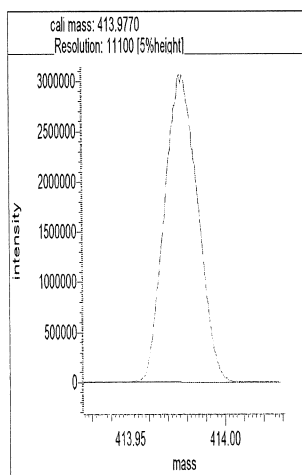
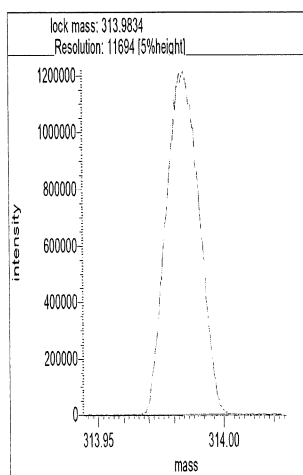


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 11694 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11100 [5%height]

Ref. mass 375.9802 [m/z] Resolution: 11437 [5%height]

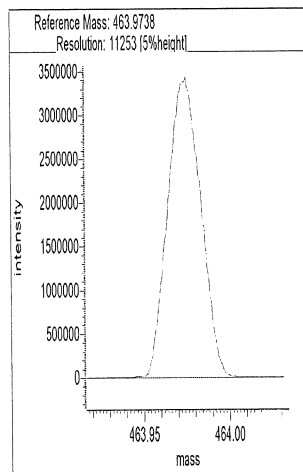
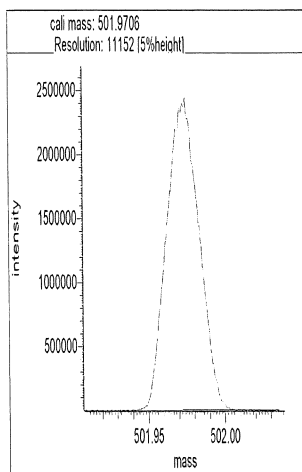
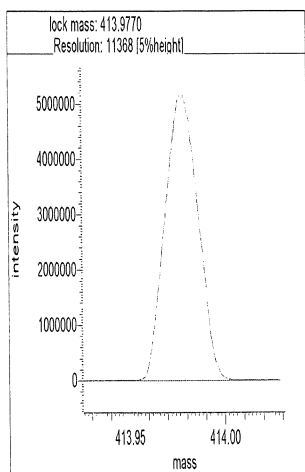


### Segment 4

Lock mass 413.9770 [m/z] Resolution: 11368 [5%height]

Cali. mass 501.9706 [m/z] Resolution: 11152 [5%height]

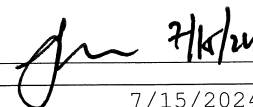
Ref. mass 463.9738 [m/z] Resolution: 11253 [5%height]



## Reports

12:37:16: Peak matching procedure started  
12:37:16:  
12:37:17: Reference mass: 168.98827  
12:37:17: Sample mass: 214.0  
12:37:18:  
12:37:18: Finding reference mass  
12:37:19: Finding sample mass  
12:37:19:  
12:37:25: [1] 213.9905 amu, mean: 213.9905  
12:37:29: [2] 213.9906 amu, mean: 213.9905 SD: 0.08 mmu or: 0.35 ppm  
12:37:32: [3] 213.9904 amu, mean: 213.9905 SD: 0.11 mmu or: 0.50 ppm  
12:37:35: [4] 213.9900 amu, mean: 213.9904 SD: 0.24 mmu or: 1.11 ppm  
12:37:35:  
12:37:35: Stop requested. Please wait for procedure to finish.  
12:37:35:  
12:37:38:  
12:37:39: Peakmatching stopped

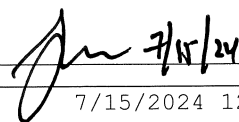
Signature



## Reports

12:37:45: Peak matching procedure started  
12:37:45:  
12:37:46: Reference mass: 213.98975  
12:37:46: Sample mass: 264.0  
12:37:47:  
12:37:47: Finding reference mass  
12:37:48: Finding sample mass  
12:37:49:  
12:37:54: [1] 263.9874 amu, mean: 263.9874  
12:37:58: [2] 263.9874 amu, mean: 263.9874 SD: 0.04 mmu or: 0.16 ppm  
12:38:01: [3] 263.9875 amu, mean: 263.9874 SD: 0.09 mmu or: 0.35 ppm  
12:38:04: [4] 263.9874 amu, mean: 263.9874 SD: 0.07 mmu or: 0.28 ppm  
12:38:04:  
12:38:04: Stop requested. Please wait for procedure to finish.  
12:38:04:  
12:38:07:  
12:38:08: Peakmatching stopped

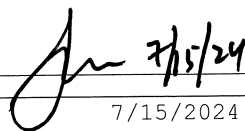
Signature \_\_\_\_\_

Handwritten signature in black ink, appearing to be "Jm 7/15/24".

## Reports

12:38:12: Peak matching procedure started  
12:38:13:  
12:38:13: Reference mass: 263.98656  
12:38:14: Sample mass: 314.0  
12:38:14:  
12:38:15: Finding reference mass  
12:38:16: Finding sample mass  
12:38:16:  
12:38:22: [1] 313.9845 amu, mean: 313.9845  
12:38:25: [2] 313.9846 amu, mean: 313.9846 SD: 0.08 mmu or: 0.24 ppm  
12:38:28: [3] 313.9844 amu, mean: 313.9845 SD: 0.10 mmu or: 0.32 ppm  
12:38:31: [4] 313.9843 amu, mean: 313.9845 SD: 0.13 mmu or: 0.42 ppm  
12:38:32:  
12:38:32: Stop requested. Please wait for procedure to finish.  
12:38:32:  
12:38:35:  
12:38:35: Peakmatching stopped

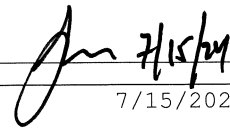
Signature \_\_\_\_\_

Handwritten signature in black ink, appearing to be 'Jm' followed by '7/15/24'.

## Reports

12:38:39: Peak matching procedure started  
12:38:40:  
12:38:40: Reference mass: 313.98336  
12:38:41: Sample mass: 376.0  
12:38:41:  
12:38:42: Finding reference mass  
12:38:43: Finding sample mass  
12:38:43:  
12:38:49: [1] 375.9814 amu, mean: 375.9814  
12:38:52: [2] 375.9813 amu, mean: 375.9814 SD: 0.06 mmu or: 0.16 ppm  
12:38:56: [3] 375.9815 amu, mean: 375.9814 SD: 0.08 mmu or: 0.20 ppm  
12:38:59: [4] 375.9810 amu, mean: 375.9813 SD: 0.22 mmu or: 0.59 ppm  
12:38:59:  
12:38:59: Stop requested. Please wait for procedure to finish.  
12:38:59:  
12:39:02:  
12:39:03: Peakmatching stopped

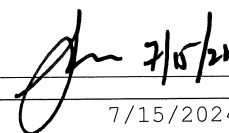
Signature \_\_\_\_\_



## Reports

12:38:39: Peak matching procedure started  
12:38:40:  
12:38:40: Reference mass: 313.98336  
12:38:41: Sample mass: 376.0  
12:38:41:  
12:38:42: Finding reference mass  
12:38:43: Finding sample mass  
12:38:43:  
12:38:49: [1] 375.9814 amu, mean: 375.9814  
12:38:52: [2] 375.9813 amu, mean: 375.9814 SD: 0.06 mmu or: 0.16 ppm  
12:38:56: [3] 375.9815 amu, mean: 375.9814 SD: 0.08 mmu or: 0.20 ppm  
12:38:59: [4] 375.9810 amu, mean: 375.9813 SD: 0.22 mmu or: 0.59 ppm  
12:38:59:  
12:38:59: Stop requested. Please wait for procedure to finish.  
12:38:59:  
12:39:02:  
12:39:03: Peakmatching stopped

Signature \_\_\_\_\_

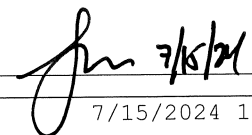
Handwritten signature in black ink, appearing to be "Jm 7/15/24".



## Reports

12:39:08: Peak matching procedure started  
12:39:09:  
12:39:09: Reference mass: 375.98017  
12:39:10: Sample mass: 414.0  
12:39:10:  
12:39:11: Finding reference mass  
12:39:12: Finding sample mass  
12:39:12:  
12:39:18: [1] 413.9775 amu, mean: 413.9775  
12:39:22: [2] 413.9783 amu, mean: 413.9779 SD: 0.52 mmu or: 1.25 ppm  
12:39:25: [3] 413.9779 amu, mean: 413.9779 SD: 0.37 mmu or: 0.88 ppm  
12:39:28: [4] 413.9778 amu, mean: 413.9779 SD: 0.30 mmu or: 0.73 ppm  
12:39:28:  
12:39:28: Stop requested. Please wait for procedure to finish.  
12:39:28:  
12:39:31:  
12:39:31: Peakmatching stopped

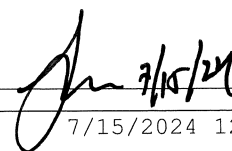
Signature \_\_\_\_\_

Handwritten signature in black ink, appearing to be "Jm 7/15/24".

## Reports

12:39:36: Peak matching procedure started  
12:39:36:  
12:39:37: Reference mass: 413.97698  
12:39:37: Sample mass: 464.0  
12:39:38:  
12:39:38: Finding reference mass  
12:39:39: Finding sample mass  
12:39:40:  
12:39:46: [1] 463.9740 amu, mean: 463.9740  
12:39:49: [2] 463.9736 amu, mean: 463.9738 SD: 0.28 mmu or: 0.60 ppm  
12:39:52: [3] 463.9737 amu, mean: 463.9738 SD: 0.20 mmu or: 0.44 ppm  
12:39:55: [4] 463.9741 amu, mean: 463.9739 SD: 0.24 mmu or: 0.52 ppm  
12:39:56:  
12:39:56: Stop requested. Please wait for procedure to finish.  
12:39:56:  
12:39:58:  
12:39:59: Peakmatching stopped

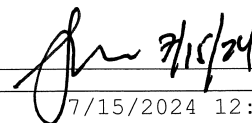
Signature \_\_\_\_\_

Handwritten signature in black ink, appearing to be "Jm 7/15/24".

## Reports

12:40:04: Peak matching procedure started  
12:40:05:  
12:40:06: Reference mass: 463.97378  
12:40:06: Sample mass: 502.0  
12:40:06:  
12:40:07: Finding reference mass  
12:40:08: Finding sample mass  
12:40:08:  
12:40:14: [1] 501.9714 amu, mean: 501.9714  
12:40:18: [2] 501.9700 amu, mean: 501.9707 SD: 0.95 mmu or: 1.89 ppm  
12:40:20: [3] 501.9703 amu, mean: 501.9706 SD: 0.71 mmu or: 1.40 ppm  
12:40:24: [4] 501.9697 amu, mean: 501.9704 SD: 0.71 mmu or: 1.41 ppm  
12:40:24:  
12:40:24: Stop requested. Please wait for procedure to finish.  
12:40:24:  
12:40:27:  
12:40:28: Peakmatching stopped

Signature \_\_\_\_\_

Handwritten signature in black ink, appearing to be "J. Smith" followed by the date "7/15/24".

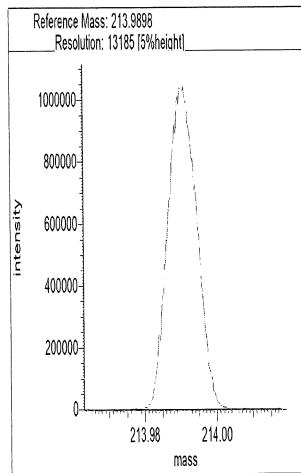
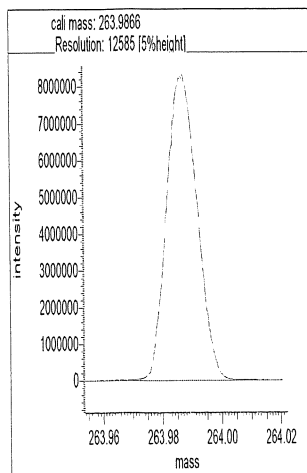
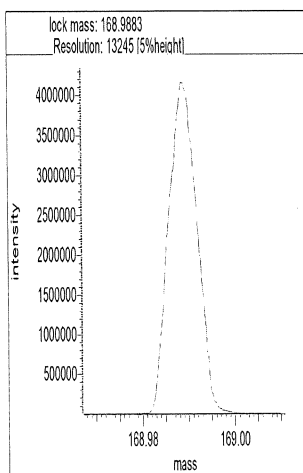
# Resolution Check Report ( DFS SN: 3190 )

Date: 15 Jul 2024 23:40  
MID Experiment: ResCheck\_1668  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43KnxPCB.lua  
Status: RESOLUTION PASSED

d2240715r4

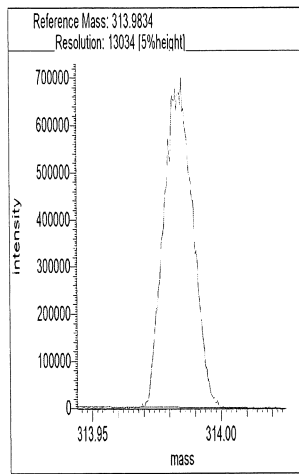
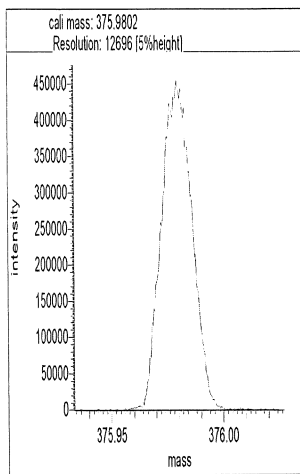
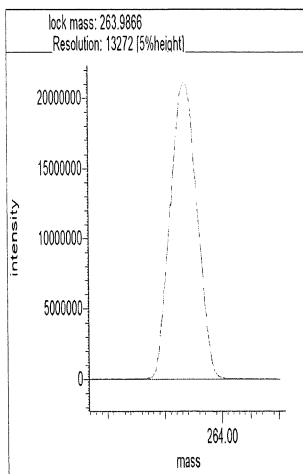
## Segment 1

Lock mass 168.9883 [m/z] Resolution: 13245 [5%height]  
Cali. mass 263.9866 [m/z] Resolution: 12585 [5%height]  
Ref. mass 213.9898 [m/z] Resolution: 13185 [5%height]



## Segment 2

Lock mass 263.9866 [m/z] Resolution: 13272 [5%height]  
Cali. mass 375.9802 [m/z] Resolution: 12696 [5%height]  
Ref. mass 313.9834 [m/z] Resolution: 13034 [5%height]

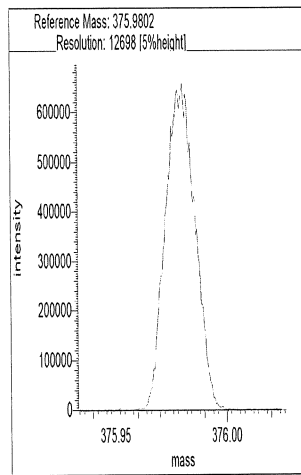
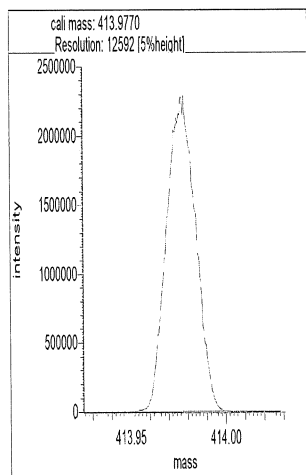
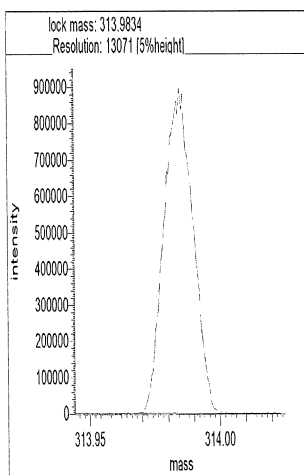


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 13071 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 12592 [5%height]

Ref. mass 375.9802 [m/z] Resolution: 12698 [5%height]

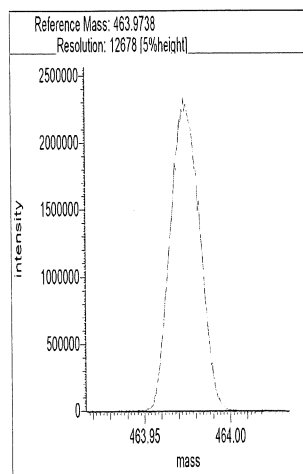
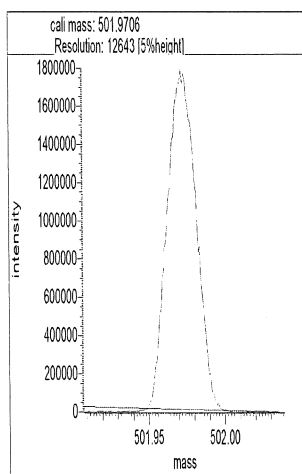
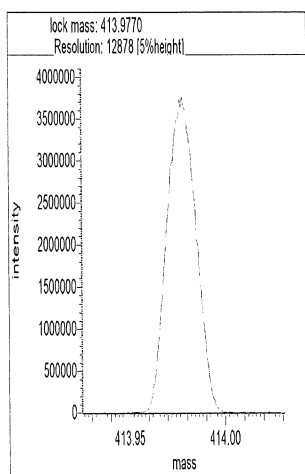


### Segment 4

Lock mass 413.9770 [m/z] Resolution: 12878 [5%height]

Cali. mass 501.9706 [m/z] Resolution: 12643 [5%height]


Ref. mass 463.9738 [m/z] Resolution: 12678 [5%height]



## Reports

23:48:40: Peak matching procedure started  
23:48:40:  
23:48:41: Reference mass: 168.98827  
23:48:41: Sample mass: 214.0  
23:48:42:  
23:48:42: Finding reference mass  
23:48:43: Finding sample mass  
23:48:44:  
23:48:50: [1] 213.9905 amu, mean: 213.9905  
23:48:53: [2] 213.9905 amu, mean: 213.9905 SD: 0.00 mmu or: 0.00 ppm  
23:48:56: [3] 213.9905 amu, mean: 213.9905 SD: 0.03 mmu or: 0.14 ppm  
23:48:59: [4] 213.9904 amu, mean: 213.9905 SD: 0.04 mmu or: 0.20 ppm  
23:49:00:  
23:49:00: Stop requested. Please wait for procedure to finish.  
23:49:00:  
23:49:03:  
23:49:03: Peakmatching stopped


Signature

 7-15-24

## Reports

23:49:27: Peak matching procedure started  
23:49:27:  
23:49:28: Reference mass: 213.98975  
23:49:28: Sample mass: 264.0  
23:49:29:  
23:49:29: Finding reference mass  
23:49:30: Finding sample mass  
23:49:31:  
23:49:36: [1] 263.9873 amu, mean: 263.9873  
23:49:39: [2] 263.9871 amu, mean: 263.9872 SD: 0.14 mmu or: 0.52 ppm  
23:49:43: [3] 263.9875 amu, mean: 263.9873 SD: 0.20 mmu or: 0.75 ppm  
23:49:46: [4] 263.9872 amu, mean: 263.9873 SD: 0.18 mmu or: 0.67 ppm  
23:49:46:  
23:49:46: Stop requested. Please wait for procedure to finish.  
23:49:46:  
23:49:49:  
23:49:50: Peakmatching stopped

Signature


 7-15-24



## Reports

23:50:10: Peak matching procedure started  
23:50:10:  
23:50:11: Reference mass: 263.98656  
23:50:11: Sample mass: 314.0  
23:50:12:  
23:50:12: Finding reference mass  
23:50:13: Finding sample mass  
23:50:14:  
23:50:20: [1] 313.9848 amu, mean: 313.9848  
23:50:23: [2] 313.9847 amu, mean: 313.9847 SD: 0.06 mmu or: 0.19 ppm  
23:50:26: [3] 313.9848 amu, mean: 313.9847 SD: 0.05 mmu or: 0.15 ppm  
23:50:29: [4] 313.9847 amu, mean: 313.9847 SD: 0.05 mmu or: 0.15 ppm  
23:50:30:  
23:50:30: Stop requested. Please wait for procedure to finish.  
23:50:30:  
23:50:32:  
23:50:33: Peakmatching stopped


Signature

 7-15-24

## Reports

23:50:55: Peak matching procedure started  
23:50:55:  
23:50:56: Reference mass: 313.98336  
23:50:56: Sample mass: 376.0  
23:50:57:  
23:50:57: Finding reference mass  
23:50:58: Finding sample mass  
23:50:59:  
23:51:04: [1] 375.9806 amu, mean: 375.9806  
23:51:08: [2] 375.9814 amu, mean: 375.9810 SD: 0.54 mmu or: 1.44 ppm  
23:51:11: [3] 375.9817 amu, mean: 375.9812 SD: 0.55 mmu or: 1.45 ppm  
23:51:14: [4] 375.9815 amu, mean: 375.9813 SD: 0.47 mmu or: 1.25 ppm  
23:51:15:  
23:51:15: Stop requested. Please wait for procedure to finish.  
23:51:15:  
23:51:17:  
23:51:18: Peakmatching stopped


Signature

 7-15-24

## Reports

23:50:55: Peak matching procedure started  
23:50:55:  
23:50:56: Reference mass: 313.98336  
23:50:56: Sample mass: 376.0  
23:50:57:  
23:50:57: Finding reference mass  
23:50:58: Finding sample mass  
23:50:59:  
23:51:04: [1] 375.9806 amu, mean: 375.9806  
23:51:08: [2] 375.9814 amu, mean: 375.9810 SD: 0.54 mmu or: 1.44 ppm  
23:51:11: [3] 375.9817 amu, mean: 375.9812 SD: 0.55 mmu or: 1.45 ppm  
23:51:14: [4] 375.9815 amu, mean: 375.9813 SD: 0.47 mmu or: 1.25 ppm  
23:51:15:  
23:51:15: Stop requested. Please wait for procedure to finish.  
23:51:15:  
23:51:17:  
23:51:18: Peakmatching stopped

Signature

 7-15-24

## Reports

23:51:47: Peak matching procedure started  
23:51:47:  
23:51:48: Reference mass: 375.98017  
23:51:48: Sample mass: 414.0  
23:51:49:  
23:51:49: Finding reference mass  
23:51:50: Finding sample mass  
23:51:51:  
23:51:56: [1] 413.9775 amu, mean: 413.9775  
23:52:00: [2] 413.9769 amu, mean: 413.9772 SD: 0.47 mmu or: 1.15 ppm  
23:52:03: [3] 413.9773 amu, mean: 413.9772 SD: 0.34 mmu or: 0.82 ppm  
23:52:06: [4] 413.9779 amu, mean: 413.9774 SD: 0.43 mmu or: 1.03 ppm  
23:52:07:  
23:52:07: Stop requested. Please wait for procedure to finish.  
23:52:07:  
23:52:09: [5] 413.9774 amu, mean: 413.9774 SD: 0.37 mmu or: 0.89 ppm  
23:52:11:  
23:52:11: Peakmatching stopped

Signature

Handwritten signature in black ink, appearing to be "L 7-15-24".

## Reports

23:52:34: Peak matching procedure started  
23:52:34:  
23:52:35: Reference mass: 413.97698  
23:52:35: Sample mass: 464.0  
23:52:36:  
23:52:36: Finding reference mass  
23:52:37: Finding sample mass  
23:52:38:  
23:52:44: [1] 463.9747 amu, mean: 463.9747  
23:52:47: [2] 463.9746 amu, mean: 463.9746 SD: 0.02 mmu or: 0.04 ppm  
23:52:50: [3] 463.9744 amu, mean: 463.9745 SD: 0.16 mmu or: 0.35 ppm  
23:52:53: [4] 463.9742 amu, mean: 463.9745 SD: 0.22 mmu or: 0.46 ppm  
23:52:53:  
23:52:53: Stop requested. Please wait for procedure to finish.  
23:52:53:  
23:52:56:  
23:52:57: Peakmatching stopped


Signature

Handwritten signature in black ink, appearing to be "L 7.15.24".

## Reports

23:53:23: Peak matching procedure started  
23:53:23:  
23:53:24: Reference mass: 463.97378  
23:53:24: Sample mass: 502.0  
23:53:25:  
23:53:25: Finding reference mass  
23:53:26: Finding sample mass  
23:53:27:  
23:53:32: [1] 501.9702 amu, mean: 501.9702  
23:53:36: [2] 501.9704 amu, mean: 501.9703 SD: 0.18 mmu or: 0.36 ppm  
23:53:39: [3] 501.9703 amu, mean: 501.9703 SD: 0.13 mmu or: 0.26 ppm  
23:53:42: [4] 501.9700 amu, mean: 501.9702 SD: 0.17 mmu or: 0.34 ppm  
23:53:43:  
23:53:43: Stop requested. Please wait for procedure to finish.  
23:53:43:  
23:53:45:  
23:53:46: Peakmatching stopped

Signature

 7-15-24

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Lims ID: WDMCCV  
Client ID:  
Sample Type: WDMCCV  
Inject. Date: 15-Jul-2024 12:43:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033504-001  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Sublist: chrom-PCBs\_D2D\*sub2  
  
Method: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 16-Jul-2024 18:24:57 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last Ical File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1661

First Level Reviewer: F9EE

Date: 15-Jul-2024 13:57:17

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total Monochlorobiphenyls					151.0	151.0	0.1788	0.1788		
D PCB-1L	11:39	10092533	3.21	1.6108	102.1	102.1	0.2975	0.2975	102	
D PCB-3L	13:47	9468950	3.29	1.5891	97.1	97.1	0.3016	0.3016	97.08	
PCB-1	11:40	6136656	3.26	1.2191	49.9	49.9	0.1528	0.1528	99.75	
PCB-2	13:38	5800905	3.15	1.1805	50.2	50.2	0.1803	0.1803	100	
PCB-3	13:48	5881217	3.14	1.2206	50.9	50.9	0.2034	0.2034	102	
S Total Dichlorobiphenyls					617.3	617.3	0.0679	0.0679		
D PCB-4L	14:02	3966046	1.62	0.6475	99.8	99.8	0.1256	0.1256	99.79	
* PCB-9L	15:59	6137586	1.65		100.0	100.0				
\$ PCB-8L	16:50	2926280	1.58	1.2066	47.6	47.6	0.0883	0.0883	95.13	
D PCB-15L	19:53	6231189	1.63	1.0789	94.1	94.1	0.0754	0.0754	94.10	
PCB-4	14:04	2573582	1.59	1.2818	50.6	50.6	0.0778	0.0778	101	
PCB-10	14:13	3566848	1.59	1.3149	53.2	53.2	0.0711	0.0711	106	
PCB-9	16:00	3745709	1.60	1.4224	51.6	51.6	0.0657	0.0657	103	
PCB-7	16:10	3652463	1.62	1.4134	50.7	50.7	0.0661	0.0661	101	
PCB-6	16:25	4050203	1.60	1.5421	51.5	51.5	0.0606	0.0606	103	
PCB-5	16:43	3481079	1.58	1.3395	51.0	51.0	0.0698	0.0698	102	
PCB-8	16:50	4214985	1.58	1.5889	52.0	52.0	0.0588	0.0588	104	
PCB-14	18:27	3582883	1.57	1.4025	50.1	50.1	0.0666	0.0666	100	
PCB-11	19:17	3454947	1.61	1.2951	52.3	52.3	0.0722	0.0722	105	
PCB-12	19:35	6959878	1.61	1.3358	102.2	102.2	0.0700	0.0700	102	
PCB-13 (C12)	19:35	6959878	1.61	1.3358	102.2	102.2	0.0700	0.0700	102	
PCB-15	19:54	4178354	1.58	1.2903	52.0	52.0	0.0681	0.0681	104	
S Total Trichlorobiphenyls					1219.6	1219.6	0.4614	0.4614		
D PCB-19L	17:08	2429449	1.03	0.6285	97.9	97.9	0.3736	0.3736	97.94	
* PCB-32L	20:21	3946295	1.08		100.0	100.0				
* PCB-31L	22:36	9681302	1.05		100.0	100.0				
\$ PCB-28L	22:53	4758391	1.06	1.0494	46.8	46.8	0.1283	0.1283	93.67	
D PCB-37L	26:53	8580254	1.08	0.8749	101.3	101.3	0.1539	0.1539	101	
PCB-19	17:08	1533705	1.03	1.2809	49.3	49.3	0.0594	0.0594	98.57	
PCB-18	18:56	4314953	1.08	1.7652	100.6	100.6	0.0431	0.0431	101	
PCB-30 (C18)	18:56	4314953	1.08	1.7652	100.6	100.6	0.0431	0.0431	101	
PCB-17	19:24	1509806	1.07	1.2430	50.0	50.0	0.0612	0.0612	100	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-27	19:37	2296954	1.08	1.8327	51.6	51.6	0.0415	0.0415	103	
PCB-24	19:45	2085018	1.07	1.6777	51.2	51.2	0.0453	0.0453	102	
PCB-16	19:52	1408981	1.02	1.1286	51.4	51.4	0.0674	0.0674	103	
PCB-32	20:22	2288763	1.09	1.8324	51.4	51.4	0.0415	0.0415	103	
PCB-34	21:37	4870711	1.06	1.1277	50.3	50.3	0.6884	0.6884	101	
PCB-23	21:45	4711376	1.07	1.0813	50.8	50.8	0.7180	0.7180	102	
PCB-26	22:05	9721334	1.06	1.1255	100.7	100.7	0.6898	0.6898	101	
PCB-29 (C26)	22:05	9721334	1.06	1.1255	100.7	100.7	0.6898	0.6898	101	
PCB-25	22:18	5686922	1.05	1.2728	52.1	52.1	0.6100	0.6100	104	
PCB-31	22:37	5011952	1.09	1.1532	50.7	50.7	0.6732	0.6732	101	
PCB-20	22:56	10103550	1.07	1.1718	100.5	100.5	0.6625	0.6625	100	
PCB-28 (C20)	22:56	10103550	1.07	1.1718	100.5	100.5	0.6625	0.6625	100	
PCB-21	23:05	9511054	1.06	1.0746	103.2	103.2	0.7225	0.7225	103	M
PCB-33 (C21)	23:05	9511054	1.06	1.0746	103.2	103.2	0.7225	0.7225	103	M
PCB-22	23:33	5276065	1.06	1.1932	51.5	51.5	0.6506	0.6506	103	
PCB-36	25:05	4844017	1.07	1.1071	51.0	51.0	0.7013	0.7013	102	
PCB-39	25:27	5165576	1.05	1.1581	52.0	52.0	0.6704	0.6704	104	
PCB-38	26:01	4648918	1.08	1.0843	50.0	50.0	0.7160	0.7160	99.94	
PCB-35	26:30	4992385	1.05	1.1297	51.5	51.5	0.6872	0.6872	103	
PCB-37	26:54	4904726	1.06	1.1435	50.0	50.0	0.6789	0.6789	99.98	
S Total Tetrachlorobiphenyls					2066.9	2066.9	0.4966	0.4966		
D PCB-54L	20:11	2406805	0.81	0.5562	109.6	109.6	0.0820	0.0820	110	
* PCB-52L	24:43	5274822	0.82		100.0	100.0				
\$ PCB-79L	32:36	3179266	0.80	1.0018	48.4	48.4	0.3782	0.3782	96.87	
D PCB-81L	33:37	6379489	0.81	1.2470	97.0	97.0	0.3157	0.3157	96.99	
D PCB-77L	34:11	6724777	0.81	1.3212	96.5	96.5	0.2980	0.2980	96.50	
PCB-54	20:12	1576104	0.76	1.2733	51.4	51.4	0.0241	0.0241	103	
PCB-50	22:21	5195273	0.80	0.8578	92.4	92.4	0.6388	0.6388	92.44	
PCB-53 (C50)	22:21	5195273	0.80	0.8578	92.4	92.4	0.6388	0.6388	92.44	
PCB-45	23:05	5049130	0.81	0.8264	93.2	93.2	0.6630	0.6630	93.25	M
PCB-51 (C45)	23:05	5049130	0.81	0.8264	93.2	93.2	0.6630	0.6630	93.25	M
PCB-46	23:20	2116383	0.79	0.7101	45.5	45.5	0.7716	0.7716	90.98	
PCB-52	24:44	3044210	0.84	0.9194	50.5	50.5	0.5960	0.5960	101	
PCB-43	24:52	6870992	0.79	1.0333	101.5	101.5	0.5303	0.5303	101	M
PCB-73 (C43)	24:52	6870992	0.79	1.0333	101.5	101.5	0.5303	0.5303	101	M
PCB-49	25:09	6812134	0.81	1.0685	97.3	97.3	0.5128	0.5128	97.30	
PCB-69 (C49)	25:09	6812134	0.81	1.0685	97.3	97.3	0.5128	0.5128	97.30	
PCB-48	25:30	2654686	0.80	0.8399	48.2	48.2	0.6524	0.6524	96.48	
PCB-44	25:44	9216727	0.81	0.9731	144.6	144.6	0.5631	0.5631	96.37	
PCB-47 (C44)	25:44	9216727	0.81	0.9731	144.6	144.6	0.5631	0.5631	96.37	
PCB-65 (C44)	25:44	9216727	0.81	0.9731	144.6	144.6	0.5631	0.5631	96.37	
PCB-59	26:03	11071364	0.80	1.1853	142.6	142.6	0.4623	0.4623	95.04	
PCB-62 (C59)	26:03	11071364	0.80	1.1853	142.6	142.6	0.4623	0.4623	95.04	
PCB-75 (C59)	26:03	11071364	0.80	1.1853	142.6	142.6	0.4623	0.4623	95.04	
PCB-42	26:15	2676352	0.81	0.8097	50.4	50.4	0.6768	0.6768	101	
PCB-40	26:45	8439693	0.80	0.8863	145.3	145.3	0.6182	0.6182	96.88	M
PCB-41 (C40)	26:45	8439693	0.80	0.8863	145.3	145.3	0.6182	0.6182	96.88	M
PCB-71 (C40)	26:45	8439693	0.80	0.8863	145.3	145.3	0.6182	0.6182	96.88	M
PCB-64	26:57	3709587	0.82	1.1776	48.1	48.1	0.4653	0.4653	96.16	
PCB-72	27:47	3539149	0.81	1.0943	49.4	49.4	0.5007	0.5007	98.72	
PCB-68	28:04	4176638	0.80	1.2533	50.9	50.9	0.4372	0.4372	102	
PCB-57	28:29	3665083	0.82	1.0818	51.7	51.7	0.5065	0.5065	103	
PCB-58	28:44	4594244	0.83	1.3253	52.9	52.9	0.4134	0.4134	106	
PCB-67	28:53	4605126	0.85	1.4230	49.4	49.4	0.3850	0.3850	98.78	
PCB-63	29:09	3818329	0.80	1.1240	51.8	51.8	0.4875	0.4875	104	
PCB-61	29:30	16515595	0.81	1.2612	199.9	199.9	0.4344	0.4344	99.93	
PCB-70 (C61)	29:30	16515595	0.81	1.2612	199.9	199.9	0.4344	0.4344	99.93	
PCB-74 (C61)	29:30	16515595	0.81	1.2612	199.9	199.9	0.4344	0.4344	99.93	
PCB-76 (C61)	29:30	16515595	0.81	1.2612	199.9	199.9	0.4344	0.4344	99.93	
PCB-66	29:49	4314258	0.85	1.2583	52.3	52.3	0.4355	0.4355	105	
PCB-55	29:59	4504041	0.79	1.3236	51.9	51.9	0.4140	0.4140	104	



Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-56	30:30	4136459	0.82	1.2334	51.2	51.2	0.4442	0.4442	102	
PCB-60	30:42	3670029	0.83	1.1230	49.9	49.9	0.4879	0.4879	99.75	
PCB-80	31:06	4384117	0.80	1.3243	50.5	50.5	0.4138	0.4138	101	
PCB-79	32:38	4325663	0.79	1.4368	45.9	45.9	0.3814	0.3814	91.90	
PCB-78	33:12	3947892	0.80	1.1618	51.9	51.9	0.4716	0.4716	104	
PCB-81	33:38	3292325	0.78	1.0802	47.8	47.8	0.5130	0.5130	95.55	
PCB-77	34:12	3530163	0.76	1.0836	48.4	48.4	0.5001	0.5001	96.89	
S Total Pentachlorobiphenyls					2301.9	2301.9	0.2331	0.2331		
D PCB-104L	25:38	4287767	1.58	1.2161	102.7	102.7	0.0569	0.0569	103	
\$ PCB-95L	28:37	1597776	1.58	0.7218	51.6	51.6	0.0686	0.0686	103	
* PCB-101L	31:31	3434161	1.61		100.0	100.0				
\$ PCB-111L	34:11	2221519	1.63	1.3699	47.2	47.2	0.0505	0.0505	94.44	
D PCB-123L	36:09	6415495	1.61	0.9731	98.6	98.6	1.034	1.034	98.64	
D PCB-118L	36:29	6773665	1.62	1.0102	100.3	100.3	0.996	0.996	100	
D PCB-114L	37:00	6481063	1.61	0.9949	97.5	97.5	1.011	1.011	97.47	
D PCB-105L	37:40	6296966	1.61	0.9514	99.0	99.0	1.058	1.058	99.03	
* PCB-127L	39:07	6683272	1.60		100.0	100.0				
D PCB-126L	40:45	6505068	1.59	0.9439	103.1	103.1	1.066	1.066	103	
PCB-104	25:40	2179434	1.62	1.0087	50.4	50.4	0.0669	0.0669	101	
PCB-96	26:04	2308468	1.65	1.0940	49.2	49.2	0.0617	0.0617	98.42	
PCB-103	27:57	1882260	1.55	0.8741	50.2	50.2	0.0772	0.0772	100	
PCB-94	28:12	1611490	1.58	0.7640	49.2	49.2	0.0883	0.0883	98.38	
PCB-95	28:39	1774809	1.51	0.8033	51.5	51.5	0.0840	0.0840	103	
PCB-93	28:50	3680909	1.60	0.8429	101.9	101.9	0.0800	0.0800	102	
PCB-100 (C93)	28:50	3680909	1.60	0.8429	101.9	101.9	0.0800	0.0800	102	
PCB-98	29:00	3597991	1.56	0.8262	101.6	101.6	0.0817	0.0817	102	
PCB-102 (C98)	29:00	3597991	1.56	0.8262	101.6	101.6	0.0817	0.0817	102	
PCB-88	29:29	3569437	1.63	0.8013	103.9	103.9	0.0842	0.0842	104	
PCB-91 (C88)	29:29	3569437	1.63	0.8013	103.9	103.9	0.0842	0.0842	104	
PCB-84	29:44	1553764	1.57	0.7299	49.6	49.6	0.0924	0.0924	99.29	
PCB-89	30:12	1653789	1.64	0.7798	49.5	49.5	0.0865	0.0865	98.92	
PCB-121	30:34	2851360	1.62	1.2964	51.3	51.3	0.0520	0.0520	103	
PCB-92	30:58	1833065	1.61	0.8546	50.0	50.0	0.0789	0.0789	100	
PCB-90	31:32	6008567	1.58	0.9550	146.7	146.7	0.0706	0.0706	97.82	
PCB-101 (C90)	31:32	6008567	1.58	0.9550	146.7	146.7	0.0706	0.0706	97.82	
PCB-113 (C90)	31:32	6008567	1.58	0.9550	146.7	146.7	0.0706	0.0706	97.82	
PCB-83	32:07	3674668	1.57	0.8385	102.2	102.2	0.0805	0.0805	102	
PCB-99 (C83)	32:07	3674668	1.57	0.8385	102.2	102.2	0.0805	0.0805	102	
PCB-112	32:15	3018557	1.58	1.4111	49.9	49.9	0.0478	0.0478	99.78	
PCB-86	32:36	13315467	1.61	1.0473	296.5	296.5	0.0644	0.0644	98.84	M
PCB-87 (C86)	32:36	13315467	1.61	1.0473	296.5	296.5	0.0644	0.0644	98.84	M
PCB-97 (C86)	32:36	13315467	1.61	1.0473	296.5	296.5	0.0644	0.0644	98.84	M
PCB-109 (C86)	32:36	13315467	1.61	1.0473	296.5	296.5	0.0644	0.0644	98.84	M
PCB-119 (C86)	32:36	13315467	1.61	1.0473	296.5	296.5	0.0644	0.0644	98.84	M
PCB-125 (C86)	32:36	13315467	1.61	1.0473	296.5	296.5	0.0644	0.0644	98.84	M
PCB-85	33:20	6759101	1.61	1.0408	151.5	151.5	0.0648	0.0648	101	
PCB-116 (C85)	33:20	6759101	1.61	1.0408	151.5	151.5	0.0648	0.0648	101	
PCB-117 (C85)	33:20	6759101	1.61	1.0408	151.5	151.5	0.0648	0.0648	101	
PCB-110	33:33	5219784	1.59	1.1919	102.1	102.1	0.0566	0.0566	102	
PCB-115 (C110)	33:33	5219784	1.59	1.1919	102.1	102.1	0.0566	0.0566	102	
PCB-82	33:51	1797915	1.61	0.8303	50.5	50.5	0.0813	0.0813	101	
PCB-111	34:13	2618207	1.57	1.2125	50.4	50.4	0.0556	0.0556	101	
PCB-120	34:40	3199433	1.61	1.4762	50.5	50.5	0.0457	0.0457	101	
PCB-108	35:49	7038509	1.61	1.1405	95.0	95.0	0.5577	0.5577	95.02	
PCB-124 (C108)	35:49	7038509	1.61	1.1405	95.0	95.0	0.5577	0.5577	95.02	
PCB-107	36:04	3837879	1.56	1.2121	48.8	48.8	0.5248	0.5248	97.51	
PCB-123	36:11	3202238	1.57	1.0722	46.6	46.6	0.5796	0.5796	93.10	
PCB-106	36:18	3571632	1.61	1.0839	50.7	50.7	0.5868	0.5868	101	
PCB-118	36:30	3946997	1.57	1.2055	48.3	48.3	0.4923	0.4923	96.67	
PCB-122	36:52	3108832	1.60	0.9567	50.0	50.0	0.6648	0.6648	100	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-114	37:02	3608047	1.56	1.0842	51.3	51.3	0.5703	0.5703	103	
PCB-105	37:41	3807630	1.57	1.1879	50.9	50.9	0.5661	0.5661	102	
PCB-127	39:09	3770230	1.53	1.1394	51.0	51.0	0.5582	0.5582	102	
PCB-126	40:46	3612118	1.58	1.0976	50.6	50.6	0.6229	0.6229	101	
S Total Hexachlorobiphenyls					2024.4	2024.4	0.2876	0.2876		
D PCB-155L	31:16	3754619	1.29	1.0851	100.8	100.8	0.0450	0.0450	101	
\$ PCB-153L	38:20	2256010	1.27	0.9169	41.9	41.9	0.4875	0.4875	83.77	
* PCB-138L	39:36	4546503	1.29		100.0	100.0				
D PCB-167L	42:35	5911855	1.28	1.2572	103.4	103.4	0.3671	0.3671	103	
D PCB-156L	43:45	11472848	1.30	1.2106	208.4	208.4	0.3812	0.3812	104	
D PCB-157L (C156L)	43:45	11472848	1.30	1.2106	208.4	208.4	0.3812	0.3812	104	
D PCB-169L	46:58	6113193	1.27	1.2439	108.1	108.1	0.3710	0.3710	108	
PCB-155	31:17	1861733	1.27	0.9444	52.5	52.5	0.0302	0.0302	105	
PCB-152	31:31	1864665	1.32	0.9895	50.2	50.2	0.0289	0.0289	100	
PCB-150	31:41	1971878	1.23	1.0132	51.8	51.8	0.0282	0.0282	104	
PCB-136	32:04	1922385	1.27	1.0116	50.6	50.6	0.0282	0.0282	101	
PCB-145	32:20	1930402	1.29	0.9685	53.1	53.1	0.0295	0.0295	106	
PCB-148	33:50	1478710	1.30	0.7603	51.8	51.8	0.0376	0.0376	104	
PCB-135	34:26	2830928	1.27	0.7256	103.9	103.9	0.0393	0.0393	104	M
PCB-151 (C135)	34:26	2830928	1.27	0.7256	103.9	103.9	0.0393	0.0393	104	M
PCB-154	34:40	1647035	1.29	0.8129	54.0	54.0	0.0351	0.0351	108	
PCB-144	35:00	1531134	1.31	0.7852	51.9	51.9	0.0364	0.0364	104	
PCB-147	35:22	4882797	1.24	0.8950	92.9	92.9	0.4093	0.4093	92.87	
PCB-149 (C147)	35:22	4882797	1.24	0.8950	92.9	92.9	0.4093	0.4093	92.87	
PCB-134	35:40	4188779	1.27	0.7967	89.5	89.5	0.4598	0.4598	89.50	
PCB-143 (C134)	35:40	4188779	1.27	0.7967	89.5	89.5	0.4598	0.4598	89.50	
PCB-139	35:57	4627962	1.26	0.8769	89.8	89.8	0.4178	0.4178	89.84	
PCB-140 (C139)	35:57	4627962	1.26	0.8769	89.8	89.8	0.4178	0.4178	89.84	
PCB-131	36:10	1971602	1.29	0.7503	44.7	44.7	0.4882	0.4882	89.46	
PCB-142	36:19	2124684	1.27	0.7507	48.2	48.2	0.4880	0.4880	96.36	
PCB-132	36:38	1939913	1.25	0.7489	44.1	44.1	0.4891	0.4891	88.19	
PCB-133	37:07	2078942	1.30	0.8096	43.7	43.7	0.4525	0.4525	87.43	
PCB-165	37:30	2882177	1.28	1.0247	47.9	47.9	0.3575	0.3575	95.76	
PCB-146	37:45	2573913	1.19	0.9637	45.5	45.5	0.3801	0.3801	90.93	
PCB-161	37:52	3054139	1.32	1.1288	46.1	46.1	0.3245	0.3245	92.12	
PCB-153	38:23	6032989	1.26	1.0938	93.9	93.9	0.3349	0.3349	93.89	
PCB-168 (C153)	38:23	6032989	1.26	1.0938	93.9	93.9	0.3349	0.3349	93.89	
PCB-141	38:34	2367353	1.25	0.8755	46.0	46.0	0.4184	0.4184	92.06	
PCB-130	38:59	1930471	1.27	0.7051	46.6	46.6	0.5195	0.5195	93.21	
PCB-137	39:11	2192203	1.26	0.7767	48.0	48.0	0.4717	0.4717	96.10	
PCB-164	39:19	2993131	1.31	1.0382	49.1	49.1	0.3528	0.3528	98.15	
PCB-129	39:37	10468769	1.23	0.9464	188.3	188.3	0.3871	0.3871	94.15	M
PCB-138 (C129)	39:37	10468769	1.23	0.9464	188.3	188.3	0.3871	0.3871	94.15	M
PCB-160 (C129)	39:37	10468769	1.23	0.9464	188.3	188.3	0.3871	0.3871	94.15	M
PCB-163 (C129)	39:37	10468769	1.23	0.9464	188.3	188.3	0.3871	0.3871	94.15	M
PCB-158	40:00	3668395	1.26	1.3110	47.6	47.6	0.2794	0.2794	95.26	
PCB-128	40:51	5561371	1.24	0.9829	96.3	96.3	0.3727	0.3727	96.31	
PCB-166 (C128)	40:51	5561371	1.24	0.9829	96.3	96.3	0.3727	0.3727	96.31	
PCB-159	41:50	3907502	1.25	1.3856	48.0	48.0	0.2644	0.2644	96.01	
PCB-162	42:08	3647133	1.26	1.2571	49.4	49.4	0.2914	0.2914	98.77	
PCB-167	42:36	3224755	1.29	1.1159	48.9	48.9	0.2650	0.2650	97.77	
PCB-156	43:46	6426787	1.27	1.1104	100.9	100.9	0.4253	0.4253	101	
PCB-157 (C156)	43:46	6426787	1.27	1.1104	100.9	100.9	0.4253	0.4253	101	
PCB-169	46:59	3496828	1.27	1.1628	49.2	49.2	0.2604	0.2604	98.38	
S Total Heptachlorobiphenyls					1250.5	1250.5	0.0406	0.0406		
D PCB-188L	36:59	4331771	1.05	1.3133	93.3	93.3	0.0402	0.0402	93.31	
\$ PCB-178L	40:02	1621319	1.07	1.0313	44.5	44.5	0.0512	0.0512	88.95	
* PCB-180L	45:07	3534829	1.10		100.0	100.0				
D PCB-170L	46:23	2963464	1.07	0.8362	100.3	100.3	0.0631	0.0631	100	
D PCB-189L	49:28	6799705	1.06	1.4414	98.6	98.6	0.5632	0.5632	98.62	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-188	37:00	2496181	1.06	1.1350	50.8	50.8	0.0260	0.0260	102	
PCB-179	37:23	2498084	1.07	1.4276	48.0	48.0	0.0250	0.0250	95.95	
PCB-184	37:52	2514570	1.06	1.3672	50.4	50.4	0.0261	0.0261	101	
PCB-176	38:15	2206867	1.07	1.2331	49.1	49.1	0.0290	0.0290	98.13	
PCB-186	38:42	2774823	1.06	1.4737	51.6	51.6	0.0242	0.0242	103	
PCB-178	40:04	1666959	1.04	0.8946	51.1	51.1	0.0399	0.0399	102	
PCB-175	40:41	1817435	1.04	0.9524	52.3	52.3	0.0375	0.0375	105	
PCB-187	40:58	2091272	1.08	1.1018	52.0	52.0	0.0324	0.0324	104	
PCB-182	41:09	1833582	1.05	0.9247	54.4	54.4	0.0386	0.0386	109	
PCB-183	41:34	3529318	1.07	0.9825	98.5	98.5	0.0364	0.0364	98.48	M
PCB-185 (C183)	41:34	3529318	1.07	0.9825	98.5	98.5	0.0364	0.0364	98.48	M
PCB-174	41:50	1867060	1.07	0.9642	53.1	53.1	0.0370	0.0370	106	
PCB-177	42:16	1877408	1.06	0.9773	52.7	52.7	0.0366	0.0366	105	
PCB-181	42:39	1804792	1.05	0.9505	52.1	52.1	0.0376	0.0376	104	
PCB-171	42:52	3437744	1.04	0.9336	100.9	100.9	0.0383	0.0383	101	
PCB-173 (C171)	42:52	3437744	1.04	0.9336	100.9	100.9	0.0383	0.0383	101	
PCB-172	44:30	1665742	1.10	0.8519	53.6	53.6	0.0419	0.0419	107	
PCB-192	44:46	2809675	1.05	1.3459	57.2	57.2	0.0265	0.0265	114	
PCB-180	45:07	4580759	1.07	1.1676	107.6	107.6	0.0306	0.0306	108	
PCB-193 (C180)	45:07	4580759	1.07	1.1676	107.6	107.6	0.0306	0.0306	108	
PCB-191	45:30	2637174	1.07	1.2891	56.1	56.1	0.0277	0.0277	112	
PCB-170	46:25	1740842	1.03	1.1865	49.5	49.5	0.0380	0.0380	99.02	
PCB-190	46:55	2756063	1.10	1.3322	56.7	56.7	0.0268	0.0268	113	M
PCB-189	49:30	3466824	1.04	0.9633	52.9	52.9	0.1970	0.1970	106	
S Total Octachlorobiphenyls					612.8	612.8	0.1130	0.1130		
D PCB-202L	42:20	3462449	0.91	0.9818	99.8	99.8	0.0744	0.0744	99.77	
* PCB-194L	51:35	4783363	0.92		100.0	100.0				
D PCB-205L	52:03	5799620	0.90	1.1786	102.9	102.9	0.0773	0.0773	103	
PCB-202	42:22	1898224	0.91	1.0359	52.9	52.9	0.0864	0.0864	106	
PCB-201	43:17	1763463	0.90	0.9754	52.2	52.2	0.0918	0.0918	104	
PCB-204	43:57	1874723	0.91	1.0485	51.6	51.6	0.0854	0.0854	103	
PCB-197	44:11	1998089	0.94	1.1458	50.4	50.4	0.0781	0.0781	101	
PCB-200	44:19	1780121	0.88	1.0072	51.0	51.0	0.0889	0.0889	102	
PCB-198	47:04	3081620	0.90	0.8698	102.3	102.3	0.1029	0.1029	102	
PCB-199 (C198)	47:04	3081620	0.90	0.8698	102.3	102.3	0.1029	0.1029	102	
PCB-196	47:44	1404484	0.89	0.7806	52.0	52.0	0.1147	0.1147	104	
PCB-203	47:56	1741984	0.92	0.9292	54.1	54.1	0.0964	0.0964	108	
PCB-195	49:16	2345142	0.91	0.8263	48.9	48.9	0.1911	0.1911	97.87	
PCB-194	51:36	2701711	0.88	0.9735	47.9	47.9	0.1622	0.1622	95.70	
PCB-205	52:04	3116212	0.89	1.0878	49.4	49.4	0.1452	0.1452	98.79	
S Total Nonachlorobiphenyls					144.2	144.2	0.4449	0.4449		
D PCB-208L	49:00	4718980	0.80	0.9576	103.0	103.0	0.1495	0.1495	103	
D PCB-206L	53:48	3500707	0.80	0.6947	105.3	105.3	0.2061	0.2061	105	
PCB-208	49:01	2684587	0.79	1.1374	50.0	50.0	0.4213	0.4213	100	
PCB-207	49:56	2670670	0.78	1.3756	47.2	47.2	0.4075	0.4075	94.48	
PCB-206	53:49	2194404	0.80	1.3346	47.0	47.0	0.5059	0.5059	93.94	
D PCB-209L	55:24	3632157	0.71	0.6669	113.9	113.9	0.0819	0.0819	114	
DCB Decachlorobiphenyl	55:25	2006180	0.71	1.1004	50.2	50.2	0.0903	0.0903	100	
S Polychlorinated biphenyls, Total					10288	10288	0.2484	0.2484		

**QC Flag Legend**

Processing Flags

Review Flags

M - Manually Integrated

**Reagents:**

61CV1668CS3\_00018

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Lims ID: WDMCCV  
Client ID:  
Sample Type: WDMCCV  
Inject. Date: 15-Jul-2024 12:43:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033504-001  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Sublist: chrom-PCBs\_D2D\*sub2  
Method: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 16-Jul-2024 18:24:57 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1661

First Level Reviewer: F9EE

Date: 15-Jul-2024 13:57:17

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:39	11:39	0	0.729	7692460	2968279	1872	4680	1586		
202.0766	11:39	11:39	0	0.729	2400073	933884	1422	3555	657	3.21(2.66-3.60)	
PCB-3L											
200.0795	13:47	13:47	0	0.863	7263076	2242100	1872	4680	1198		
202.0766	13:47	13:47	0	0.863	2205874	686214	1422	3555	483	3.29(2.66-3.60)	
PCB-1											
188.0393	11:40	11:40	0	1.001	4695605	1835445	2201	5502	834		
190.0363	11:40	11:40	0	1.001	1441051	578507	707	1767	818	3.26(2.66-3.60)	
PCB-2											
188.0393	13:38	13:38	0	0.989	4403545	1345777	2201	5502	611		
190.0363	13:38	13:38	0	0.989	1397360	426689	707	1767	604	3.15(2.66-3.60)	
PCB-3											
188.0393	13:48	13:48	0	1.001	4460479	1348293	2201	5502	613		
190.0363	13:48	13:48	0	1.001	1420738	437895	707	1767	619	3.14(2.66-3.60)	
PCB-4L											
234.0406	14:02	14:02	0	0.878	2453597	753206	415	1037	1815		
236.0376	14:02	14:02	0	0.878	1512449	474714	144	360	3297	1.62(1.33-1.79)	
PCB-9L											
234.0406	15:59	15:59	0		3820894	1068289	415	1037	2574		
236.0376	15:59	15:59	0		2316692	649836	144	360	4513	1.65(1.33-1.79)	
PCB-8L											
234.0406	16:50	16:50	0	1.199	1790210	472953	415	1037	1140		
236.0376	16:50	16:50	0	1.199	1136070	303903	144	360	2110	1.58(1.33-1.79)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:53	19:53	0	1.244	3864296	859458	415	1037	2071		
236.0376	19:53	19:53	0	1.244	2366893	534416	144	360	3711	1.63(1.33-1.79)	
PCB-4											
222.0003	14:04	14:04	0	1.002	1579610	497273	159	397	3128		
223.9974	14:04	14:04	0	1.002	993972	311036	331	827	940	1.59(1.33-1.79)	
PCB-10											
222.0003	14:13	14:13	0	1.013	2191895	691101	159	397	4347		
223.9974	14:13	14:13	0	1.013	1374953	430155	331	827	1300	1.59(1.33-1.79)	
PCB-9											
222.0003	16:00	16:00	0	1.140	2304750	652035	159	397	4101		
223.9974	16:00	16:00	0	1.140	1440959	403887	331	827	1220	1.60(1.33-1.79)	
PCB-7											
222.0003	16:10	16:10	0	1.152	2257757	610760	159	397	3841		
223.9974	16:09	16:10	-1	1.151	1394706	374729	331	827	1132	1.62(1.33-1.79)	
PCB-6											
222.0003	16:25	16:25	0	1.170	2489896	642796	159	397	4043		
223.9974	16:25	16:25	0	1.170	1560307	406075	331	827	1227	1.60(1.33-1.79)	
PCB-5											
222.0003	16:43	16:43	0	1.191	2130655	590379	159	397	3713		
223.9974	16:42	16:43	-1	1.190	1350424	368210	331	827	1112	1.58(1.33-1.79)	
PCB-8											
222.0003	16:50	16:50	0	1.200	2582381	672039	159	397	4227		
223.9974	16:50	16:50	0	1.200	1632604	429535	331	827	1298	1.58(1.33-1.79)	
PCB-14											
222.0003	18:27	18:27	0	0.927	2190736	531665	159	397	3344		
223.9974	18:27	18:27	0	0.927	1392147	339690	331	827	1026	1.57(1.33-1.79)	
PCB-11											
222.0003	19:17	19:17	0	0.970	2129631	473781	159	397	2980		
223.9974	19:17	19:17	0	0.970	1325316	296209	331	827	895	1.61(1.33-1.79)	
PCB-12											
222.0003	19:35	19:35	0	0.985	4293815	701754	159	397	4414		
223.9974	19:35	19:35	0	0.985	2666063	435692	331	827	1316	1.61(1.33-1.79)	
PCB-13 (C12)											
222.0003	19:35	19:35	0	0.985	4293815	701754	159	397	4414		
223.9974	19:35	19:35	0	0.985	2666063	435692	331	827	1316	1.61(1.33-1.79)	
PCB-15											
222.0003	19:54	19:54	0	1.001	2559043	535426	159	397	3367		
223.9974	19:54	19:54	0	1.001	1619311	339564	331	827	1026	1.58(1.33-1.79)	
PCB-19L											
268.0016	17:08	17:08	0	0.842	1233208	326820	435	1087	751		
269.9986	17:08	17:08	0	0.842	1196241	323996	455	1137	712	1.03(0.88-1.20)	
PCB-32L											
268.0016	20:21	20:21	0		2046589	489028	435	1087	1124		
269.9986	20:21	20:21	0		1899706	458436	455	1137	1008	1.08(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-31L											
268.0016	22:36	22:36	0		4954374	1122092	779	1947	1440		
269.9986	22:36	22:36	0		4726928	1062565	398	995	2670	1.05(0.88-1.20)	
PCB-28L											
268.0016	22:53	22:53	0	1.012	2444566	517402	779	1947	664		
269.9986	22:53	22:53	0	1.012	2313825	498769	398	995	1253	1.06(0.88-1.20)	
PCB-37L											
268.0016	26:53	26:53	0	1.190	4445912	828641	779	1947	1064		
269.9986	26:53	26:53	0	1.190	4134342	763003	398	995	1917	1.08(0.88-1.20)	
PCB-19											
255.9613	17:08	17:08	0	1.001	779836	213630	83	207	2574		
257.9584	17:08	17:08	0	1.001	753869	206507	115	287	1796	1.03(0.88-1.20)	
PCB-18											
255.9613	18:56	18:56	0	1.105	2244598	356373	83	207	4294		
257.9584	18:56	18:56	0	1.105	2070355	339234	115	287	2950	1.08(0.88-1.20)	
PCB-30 (C18)											
255.9613	18:56	18:56	0	1.105	2244598	356373	83	207	4294		
257.9584	18:56	18:56	0	1.105	2070355	339234	115	287	2950	1.08(0.88-1.20)	
PCB-17											
255.9613	19:24	19:24	0	1.133	780728	193795	83	207	2335		
257.9584	19:24	19:24	0	1.133	729078	184717	115	287	1606	1.07(0.88-1.20)	
PCB-27											
255.9613	19:37	19:37	0	1.145	1191792	299262	83	207	3606		
257.9584	19:37	19:37	1	1.146	1105162	272764	115	287	2372	1.08(0.88-1.20)	
PCB-24											
255.9613	19:45	19:45	0	1.153	1078783	269303	83	207	3245		
257.9584	19:45	19:45	0	1.153	1006235	251854	115	287	2190	1.07(0.88-1.20)	
PCB-16											
255.9613	19:52	19:52	0	1.160	711353	175243	83	207	2111		
257.9584	19:52	19:52	0	1.160	697628	169757	115	287	1476	1.02(0.88-1.20)	
PCB-32											
255.9613	20:22	20:22	0	1.190	1192419	289381	83	207	3487		
257.9584	20:22	20:22	0	1.190	1096344	263754	115	287	2294	1.09(0.88-1.20)	
PCB-34											
255.9613	21:37	21:37	0	1.262	2509373	603410	2111	5277	286		
257.9584	21:37	21:37	0	1.262	2361338	561491	2832	7080	198	1.06(0.88-1.20)	
PCB-23											
255.9613	21:45	21:45	0	1.270	2433359	570608	2111	5277	270		
257.9584	21:45	21:45	0	1.270	2278017	533822	2832	7080	188	1.07(0.88-1.20)	
PCB-26											
255.9613	22:05	22:05	0	1.289	4991127	1086630	2111	5277	515		
257.9584	22:05	22:05	0	1.289	4730207	1015988	2832	7080	359	1.06(0.88-1.20)	
PCB-29 (C26)											
255.9613	22:05	22:05	0	1.289	4991127	1086630	2111	5277	515		
257.9584	22:05	22:05	0	1.289	4730207	1015988	2832	7080	359	1.06(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-25											
255.9613	22:18	22:18	0	0.829	2914019	613700	2111	5277	291		
257.9584	22:18	22:18	0	0.829	2772903	582438	2832	7080	206	1.05(0.88-1.20)	
PCB-31											
255.9613	22:37	22:37	0	0.841	2613560	577619	2111	5277	274		
257.9584	22:37	22:37	0	0.841	2398392	531619	2832	7080	188	1.09(0.88-1.20)	
PCB-20											
255.9613	22:56	22:56	0	0.853	5214082	853074	2111	5277	404		
257.9584	22:56	22:56	0	0.853	4889468	809481	2832	7080	286	1.07(0.88-1.20)	
PCB-28 (C20)											
255.9613	22:56	22:56	0	0.853	5214082	853074	2111	5277	404		
257.9584	22:56	22:56	0	0.853	4889468	809481	2832	7080	286	1.07(0.88-1.20)	
PCB-21											
255.9613	23:05	23:05	0	0.858	4887833	574127	2111	5277	272		M
257.9584	23:05	23:05	0	0.858	4623221	546616	2832	7080	193	1.06(0.88-1.20)	M
PCB-33 (C21)											
255.9613	23:05	23:05	0	0.858	4887833	574127	2111	5277	272		M
257.9584	23:05	23:05	0	0.858	4623221	546616	2832	7080	193	1.06(0.88-1.20)	M
PCB-22											
255.9613	23:33	23:33	0	0.876	2718923	582266	2111	5277	276		
257.9584	23:32	23:33	-1	0.875	2557142	553324	2832	7080	195	1.06(0.88-1.20)	
PCB-36											
255.9613	25:05	25:05	0	0.933	2505357	502663	2111	5277	238		
257.9584	25:05	25:05	0	0.933	2338660	460605	2832	7080	163	1.07(0.88-1.20)	
PCB-39											
255.9613	25:27	25:27	0	0.946	2647047	533264	2111	5277	253		
257.9584	25:27	25:27	0	0.946	2518529	509980	2832	7080	180	1.05(0.88-1.20)	
PCB-38											
255.9613	26:01	26:01	0	0.968	2413084	487908	2111	5277	231		
257.9584	26:01	26:01	0	0.968	2235834	455935	2832	7080	161	1.08(0.88-1.20)	
PCB-35											
255.9613	26:30	26:30	0	0.985	2552462	493239	2111	5277	234		
257.9584	26:30	26:30	0	0.985	2439923	470889	2832	7080	166	1.05(0.88-1.20)	
PCB-37											
255.9613	26:54	26:54	0	1.000	2522360	481077	2111	5277	228		
257.9584	26:54	26:54	0	1.000	2382366	441132	2832	7080	156	1.06(0.88-1.20)	
PCB-54L											
301.9626	20:11	20:11	0	0.817	1076949	266351	125	312	2131		
303.9597	20:11	20:11	0	0.817	1329856	326954	48	120	6812	0.81(0.65-0.89)	
PCB-52L											
301.9626	24:43	24:43	0		2377534	526046	808	2020	651		
303.9597	24:43	24:43	0		2897288	636121	1022	2555	622	0.82(0.65-0.89)	
PCB-79L											
301.9626	32:36	32:36	0	0.970	1417761	275114	808	2020	340		
303.9597	32:36	32:36	0	0.970	1761505	349914	1022	2555	342	0.80(0.65-0.89)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-81L											
301.9626	33:37	33:37	0	1.360	2862029	536224	808	2020	664		
303.9597	33:36	33:37	-1	1.360	3517460	657922	1022	2555	644	0.81(0.65-0.89)	
PCB-77L											
301.9626	34:11	34:11	0	1.383	3017389	546835	808	2020	677		
303.9597	34:11	34:11	0	1.383	3707388	674269	1022	2555	660	0.81(0.65-0.89)	
PCB-54											
289.9224	20:12	20:12	0	1.000	680292	176465	22	55	8021		
291.9194	20:12	20:12	0	1.000	895812	227448	51	127	4460	0.76(0.65-0.89)	
PCB-50											
289.9224	22:21	22:21	0	1.107	2315839	542038	1381	3452	392		
291.9194	22:21	22:21	0	1.107	2879434	666367	1266	3165	526	0.80(0.65-0.89)	
PCB-53 (C50)											
289.9224	22:21	22:21	0	1.107	2315839	542038	1381	3452	392		
291.9194	22:21	22:21	0	1.107	2879434	666367	1266	3165	526	0.80(0.65-0.89)	
PCB-45											
289.9224	23:05	23:05	0	1.143	2257964	292696	1381	3452	212		M
291.9194	23:05	23:05	0	1.143	2791166	374368	1266	3165	296	0.81(0.65-0.89)	M
PCB-51 (C45)											
289.9224	23:05	23:05	0	1.143	2257964	292696	1381	3452	212		M
291.9194	23:05	23:05	0	1.143	2791166	374368	1266	3165	296	0.81(0.65-0.89)	M
PCB-46											
289.9224	23:20	23:20	0	1.156	932464	219807	1381	3452	159		
291.9194	23:20	23:20	0	1.156	1183919	275460	1266	3165	218	0.79(0.65-0.89)	
PCB-52											
289.9224	24:44	24:44	0	1.225	1391028	321975	1381	3452	233		
291.9194	24:44	24:44	0	1.225	1653182	388502	1266	3165	307	0.84(0.65-0.89)	
PCB-43											
289.9224	24:52	24:52	0	1.232	3028560	411697	1381	3452	298		M
291.9194	24:52	24:52	0	1.232	3842432	521015	1266	3165	412	0.79(0.65-0.89)	M
PCB-73 (C43)											
289.9224	24:52	24:52	0	1.232	3028560	411697	1381	3452	298		M
291.9194	24:52	24:52	0	1.232	3842432	521015	1266	3165	412	0.79(0.65-0.89)	M
PCB-49											
289.9224	25:09	25:09	0	1.246	3043738	435941	1381	3452	316		
291.9194	25:09	25:09	0	1.246	3768396	530521	1266	3165	419	0.81(0.65-0.89)	
PCB-69 (C49)											
289.9224	25:09	25:09	0	1.246	3043738	435941	1381	3452	316		
291.9194	25:09	25:09	0	1.246	3768396	530521	1266	3165	419	0.81(0.65-0.89)	
PCB-48											
289.9224	25:30	25:30	0	1.263	1177282	267167	1381	3452	193		
291.9194	25:30	25:30	0	1.263	1477404	324374	1266	3165	256	0.80(0.65-0.89)	
PCB-44											
289.9224	25:44	25:44	0	1.275	4136919	801598	1381	3452	580		
291.9194	25:44	25:44	-1	1.274	5079808	991994	1266	3165	784	0.81(0.65-0.89)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-47 (C44)											
289.9224	25:44	25:44	0	1.275	4136919	801598	1381	3452	580		
291.9194	25:44	25:44	-1	1.274	5079808	991994	1266	3165	784	0.81(0.65-0.89)	
PCB-65 (C44)											
289.9224	25:44	25:44	0	1.275	4136919	801598	1381	3452	580		
291.9194	25:44	25:44	-1	1.274	5079808	991994	1266	3165	784	0.81(0.65-0.89)	
PCB-59											
289.9224	26:03	26:03	0	1.290	4934126	771660	1381	3452	559		
291.9194	26:03	26:03	0	1.290	6137238	961320	1266	3165	759	0.80(0.65-0.89)	
PCB-62 (C59)											
289.9224	26:03	26:03	0	1.290	4934126	771660	1381	3452	559		
291.9194	26:03	26:03	0	1.290	6137238	961320	1266	3165	759	0.80(0.65-0.89)	
PCB-75 (C59)											
289.9224	26:03	26:03	0	1.290	4934126	771660	1381	3452	559		
291.9194	26:03	26:03	0	1.290	6137238	961320	1266	3165	759	0.80(0.65-0.89)	
PCB-42											
289.9224	26:15	26:15	0	1.300	1198314	253043	1381	3452	183		
291.9194	26:15	26:15	0	1.300	1478038	320634	1266	3165	253	0.81(0.65-0.89)	
PCB-40											
289.9224	26:45	26:45	0	1.325	3744710	594162	1381	3452	430		M
291.9194	26:45	26:45	0	1.325	4694983	759103	1266	3165	600	0.80(0.65-0.89)	M
PCB-41 (C40)											
289.9224	26:45	26:45	0	1.325	3744710	594162	1381	3452	430		M
291.9194	26:45	26:45	0	1.325	4694983	759103	1266	3165	600	0.80(0.65-0.89)	M
PCB-71 (C40)											
289.9224	26:45	26:45	0	1.325	3744710	594162	1381	3452	430		M
291.9194	26:45	26:45	0	1.325	4694983	759103	1266	3165	600	0.80(0.65-0.89)	M
PCB-64											
289.9224	26:57	26:57	0	1.335	1668138	352533	1381	3452	255		
291.9194	26:57	26:57	0	1.335	2041449	440595	1266	3165	348	0.82(0.65-0.89)	
PCB-72											
289.9224	27:47	27:47	0	0.827	1588684	343878	1381	3452	249		
291.9194	27:46	27:47	-1	0.826	1950465	405090	1266	3165	320	0.81(0.65-0.89)	
PCB-68											
289.9224	28:04	28:04	0	0.835	1854168	370044	1381	3452	268		
291.9194	28:04	28:04	0	0.835	2322470	464635	1266	3165	367	0.80(0.65-0.89)	
PCB-57											
289.9224	28:29	28:29	0	0.847	1649370	352169	1381	3452	255		
291.9194	28:29	28:29	0	0.847	2015713	433168	1266	3165	342	0.82(0.65-0.89)	
PCB-58											
289.9224	28:44	28:44	0	0.855	2089336	412640	1381	3452	299		
291.9194	28:44	28:44	0	0.855	2504908	508463	1266	3165	402	0.83(0.65-0.89)	
PCB-67											
289.9224	28:53	28:53	0	0.859	2118043	408570	1381	3452	296		
291.9194	28:53	28:53	0	0.859	2487083	511353	1266	3165	404	0.85(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-63											
289.9224	29:09	29:09	0	0.867	1702805	346037	1381	3452	251		
291.9194	29:09	29:09	0	0.867	2115524	449906	1266	3165	355	0.80(0.65-0.89)	
PCB-61											
289.9224	29:30	29:30	0	0.878	7370458	871531	1381	3452	631		
291.9194	29:30	29:30	0	0.878	9145137	1089031	1266	3165	860	0.81(0.65-0.89)	
PCB-70 (C61)											
289.9224	29:30	29:30	0	0.878	7370458	871531	1381	3452	631		
291.9194	29:30	29:30	0	0.878	9145137	1089031	1266	3165	860	0.81(0.65-0.89)	
PCB-74 (C61)											
289.9224	29:30	29:30	0	0.878	7370458	871531	1381	3452	631		
291.9194	29:30	29:30	0	0.878	9145137	1089031	1266	3165	860	0.81(0.65-0.89)	
PCB-76 (C61)											
289.9224	29:30	29:30	0	0.878	7370458	871531	1381	3452	631		
291.9194	29:30	29:30	0	0.878	9145137	1089031	1266	3165	860	0.81(0.65-0.89)	
PCB-66											
289.9224	29:49	29:49	0	0.887	1987163	391304	1381	3452	283		
291.9194	29:49	29:49	0	0.887	2327095	465754	1266	3165	368	0.85(0.65-0.89)	
PCB-55											
289.9224	29:59	29:59	0	0.892	1985372	391501	1381	3452	283		
291.9194	29:59	29:59	0	0.892	2518669	505330	1266	3165	399	0.79(0.65-0.89)	
PCB-56											
289.9224	30:30	30:30	0	0.907	1861995	371578	1381	3452	269		
291.9194	30:30	30:30	0	0.907	2274464	464718	1266	3165	367	0.82(0.65-0.89)	
PCB-60											
289.9224	30:42	30:42	0	0.913	1665274	327274	1381	3452	237		
291.9194	30:42	30:42	0	0.913	2004755	408097	1266	3165	322	0.83(0.65-0.89)	
PCB-80											
289.9224	31:06	31:06	0	0.925	1946092	385241	1381	3452	279		
291.9194	31:06	31:06	0	0.925	2438025	499502	1266	3165	395	0.80(0.65-0.89)	
PCB-79											
289.9224	32:38	32:38	0	0.971	1909985	363284	1381	3452	263		
291.9194	32:38	32:38	0	0.971	2415678	451912	1266	3165	357	0.79(0.65-0.89)	
PCB-78											
289.9224	33:12	33:12	0	0.987	1749931	305128	1381	3452	221		
291.9194	33:12	33:12	0	0.987	2197961	388546	1266	3165	307	0.80(0.65-0.89)	
PCB-81											
289.9224	33:38	33:38	0	1.000	1438574	281365	1381	3452	204		
291.9194	33:38	33:38	0	1.000	1853751	353552	1266	3165	279	0.78(0.65-0.89)	
PCB-77											
289.9224	34:12	34:12	0	1.001	1527184	280497	1381	3452	203		
291.9194	34:12	34:12	0	1.001	2002979	367177	1266	3165	290	0.76(0.65-0.89)	
PCB-104L											
337.9207	25:38	25:38	0	0.813	2629052	596599	127	317	4698		
339.9178	25:38	25:38	0	0.813	1658715	377207	66	165	5715	1.58(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-95L											
337.9207	28:37	28:37	0	1.116	979049	193504	127	317	1524		
339.9178	28:36	28:37	-1	1.116	618727	122831	66	165	1861	1.58(1.32-1.78)	
PCB-101L											
337.9207	31:31	31:31	0		2120714	429010	127	317	3378		
339.9178	31:31	31:31	0		1313447	267574	66	165	4054	1.61(1.32-1.78)	
PCB-111L											
337.9207	34:11	34:11	0	1.085	1378358	267374	127	317	2105		
339.9178	34:11	34:11	0	1.085	843161	168637	66	165	2555	1.63(1.32-1.78)	
PCB-123L											
337.9207	36:09	36:09	0	1.147	3954784	789179	2782	6955	284		
339.9178	36:09	36:09	0	1.147	2460711	495931	2189	5472	227	1.61(1.32-1.78)	
PCB-118L											
337.9207	36:29	36:29	0	1.158	4183998	819569	2782	6955	295		
339.9178	36:29	36:29	0	1.158	2589667	526323	2189	5472	240	1.62(1.32-1.78)	
PCB-114L											
337.9207	37:00	37:00	0	1.174	3999869	789726	2782	6955	284		
339.9178	37:00	37:00	0	1.174	2481194	501970	2189	5472	229	1.61(1.32-1.78)	
PCB-105L											
337.9207	37:40	37:40	0	1.195	3884386	734479	2782	6955	264		
339.9178	37:40	37:40	0	1.195	2412580	453272	2189	5472	207	1.61(1.32-1.78)	
PCB-127L											
337.9207	39:07	39:07	0		4115418	763481	2782	6955	274		
339.9178	39:07	39:07	0		2567854	471431	2189	5472	215	1.60(1.32-1.78)	
PCB-126L											
337.9207	40:45	40:45	0	1.293	3995582	717462	2782	6955	258		
339.9178	40:44	40:45	-1	1.293	2509486	450694	2189	5472	206	1.59(1.32-1.78)	
PCB-104											
325.8804	25:40	25:40	0	1.001	1347975	298735	208	520	1436		
327.8775	25:40	25:40	0	1.001	831459	188185	55	137	3422	1.62(1.32-1.78)	
PCB-96											
325.8804	26:04	26:04	0	1.016	1436081	310950	208	520	1495		
327.8775	26:04	26:04	0	1.016	872387	187396	55	137	3407	1.65(1.32-1.78)	
PCB-103											
325.8804	27:57	27:57	0	1.090	1143312	241268	208	520	1160		
327.8775	27:57	27:57	0	1.090	738948	154846	55	137	2815	1.55(1.32-1.78)	
PCB-94											
325.8804	28:12	28:12	0	1.100	985794	204125	208	520	981		
327.8775	28:12	28:12	0	1.100	625696	130571	55	137	2374	1.58(1.32-1.78)	
PCB-95											
325.8804	28:39	28:39	0	1.117	1067667	227316	208	520	1093		
327.8775	28:39	28:39	0	1.117	707142	149614	55	137	2720	1.51(1.32-1.78)	
PCB-93											
325.8804	28:50	28:50	0	1.125	2266077	391856	208	520	1884		
327.8775	28:50	28:50	0	1.125	1414832	239442	55	137	4353	1.60(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-100 (C93)											
325.8804	28:50	28:50	0	1.125	2266077	391856	208	520	1884		
327.8775	28:50	28:50	0	1.125	1414832	239442	55	137	4353	1.60(1.32-1.78)	
PCB-98											
325.8804	29:00	29:00	0	1.131	2189879	270412	208	520	1300		
327.8775	28:59	29:00	-1	1.131	1408112	172406	55	137	3135	1.56(1.32-1.78)	
PCB-102 (C98)											
325.8804	29:00	29:00	0	1.131	2189879	270412	208	520	1300		
327.8775	28:59	29:00	-1	1.131	1408112	172406	55	137	3135	1.56(1.32-1.78)	
PCB-88											
325.8804	29:29	29:29	0	1.150	2212122	240502	208	520	1156		
327.8775	29:29	29:29	0	1.150	1357315	147726	55	137	2686	1.63(1.32-1.78)	
PCB-91 (C88)											
325.8804	29:29	29:29	0	1.150	2212122	240502	208	520	1156		
327.8775	29:29	29:29	0	1.150	1357315	147726	55	137	2686	1.63(1.32-1.78)	
PCB-84											
325.8804	29:44	29:44	0	1.160	949492	191204	208	520	919		
327.8775	29:44	29:44	0	1.160	604272	120369	55	137	2189	1.57(1.32-1.78)	
PCB-89											
325.8804	30:12	30:12	0	1.178	1026354	208793	208	520	1004		
327.8775	30:12	30:12	0	1.178	627435	128477	55	137	2336	1.64(1.32-1.78)	
PCB-121											
325.8804	30:34	30:34	0	1.192	1762521	353112	208	520	1698		
327.8775	30:34	30:34	0	1.192	1088839	223024	55	137	4055	1.62(1.32-1.78)	
PCB-92											
325.8804	30:58	30:58	0	0.857	1130292	238426	208	520	1146		
327.8775	30:58	30:58	0	0.857	702773	142225	55	137	2586	1.61(1.32-1.78)	
PCB-90											
325.8804	31:32	31:32	0	1.230	3676696	564545	208	520	2714		
327.8775	31:32	31:32	0	1.230	2331871	354189	55	137	6440	1.58(1.32-1.78)	
PCB-101 (C90)											
325.8804	31:32	31:32	0	1.230	3676696	564545	208	520	2714		
327.8775	31:32	31:32	0	1.230	2331871	354189	55	137	6440	1.58(1.32-1.78)	
PCB-113 (C90)											
325.8804	31:32	31:32	0	1.230	3676696	564545	208	520	2714		
327.8775	31:32	31:32	0	1.230	2331871	354189	55	137	6440	1.58(1.32-1.78)	
PCB-83											
325.8804	32:07	32:07	0	1.253	2242655	289296	208	520	1391		
327.8775	32:07	32:07	0	1.253	1432013	190481	55	137	3463	1.57(1.32-1.78)	
PCB-99 (C83)											
325.8804	32:07	32:07	0	1.253	2242655	289296	208	520	1391		
327.8775	32:07	32:07	0	1.253	1432013	190481	55	137	3463	1.57(1.32-1.78)	
PCB-112											
325.8804	32:15	32:15	0	1.258	1847523	370740	208	520	1782		
327.8775	32:15	32:15	0	1.258	1171034	232473	55	137	4227	1.58(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-86											M
325.8804	32:36	32:36	0	1.272	8215337	866347	208	520	4165		M
327.8775	32:36	32:36	0	1.272	5100130	535653	55	137	9739	1.61(1.32-1.78)	M
PCB-87 (C86)											M
325.8804	32:36	32:36	0	1.272	8215337	866347	208	520	4165		M
327.8775	32:36	32:36	0	1.272	5100130	535653	55	137	9739	1.61(1.32-1.78)	M
PCB-97 (C86)											M
325.8804	32:36	32:36	0	1.272	8215337	866347	208	520	4165		M
327.8775	32:36	32:36	0	1.272	5100130	535653	55	137	9739	1.61(1.32-1.78)	M
PCB-109 (C86)											M
325.8804	32:36	32:36	0	1.272	8215337	866347	208	520	4165		M
327.8775	32:36	32:36	0	1.272	5100130	535653	55	137	9739	1.61(1.32-1.78)	M
PCB-119 (C86)											M
325.8804	32:36	32:36	0	1.272	8215337	866347	208	520	4165		M
327.8775	32:36	32:36	0	1.272	5100130	535653	55	137	9739	1.61(1.32-1.78)	M
PCB-125 (C86)											M
325.8804	32:36	32:36	0	1.272	8215337	866347	208	520	4165		M
327.8775	32:36	32:36	0	1.272	5100130	535653	55	137	9739	1.61(1.32-1.78)	M
PCB-85											
325.8804	33:20	33:20	0	1.300	4165810	500407	208	520	2406		
327.8775	33:20	33:20	0	1.300	2593291	302587	55	137	5502	1.61(1.32-1.78)	
PCB-116 (C85)											
325.8804	33:20	33:20	0	1.300	4165810	500407	208	520	2406		
327.8775	33:20	33:20	0	1.300	2593291	302587	55	137	5502	1.61(1.32-1.78)	
PCB-117 (C85)											
325.8804	33:20	33:20	0	1.300	4165810	500407	208	520	2406		
327.8775	33:20	33:20	0	1.300	2593291	302587	55	137	5502	1.61(1.32-1.78)	
PCB-110											
325.8804	33:33	33:33	0	1.309	3207424	457054	208	520	2197		
327.8775	33:33	33:33	0	1.309	2012360	290154	55	137	5276	1.59(1.32-1.78)	
PCB-115 (C110)											
325.8804	33:33	33:33	0	1.309	3207424	457054	208	520	2197		
327.8775	33:33	33:33	0	1.309	2012360	290154	55	137	5276	1.59(1.32-1.78)	
PCB-82											
325.8804	33:51	33:51	0	1.321	1109650	201159	208	520	967		
327.8775	33:51	33:51	0	1.321	688265	132392	55	137	2407	1.61(1.32-1.78)	
PCB-111											
325.8804	34:13	34:13	0	1.335	1600280	315839	208	520	1518		
327.8775	34:13	34:13	0	1.335	1017927	202410	55	137	3680	1.57(1.32-1.78)	
PCB-120											
325.8804	34:40	34:40	0	1.353	1974848	378582	208	520	1820		
327.8775	34:40	34:40	0	1.353	1224585	238273	55	137	4332	1.61(1.32-1.78)	
PCB-108											
325.8804	35:49	35:49	0	1.397	4344841	824997	1868	4670	442		
327.8775	35:49	35:49	0	1.397	2693668	498625	1327	3317	376	1.61(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-124 (C108)											
325.8804	35:49	35:49	0	1.397	4344841	824997	1868	4670	442		
327.8775	35:49	35:49	0	1.397	2693668	498625	1327	3317	376	1.61(1.32-1.78)	
PCB-107											
325.8804	36:04	36:04	0	1.407	2338601	430918	1868	4670	231		
327.8775	36:04	36:04	0	1.407	1499278	276317	1327	3317	208	1.56(1.32-1.78)	
PCB-123											
325.8804	36:11	36:11	0	1.001	1956177	406532	1868	4670	218		
327.8775	36:11	36:11	0	1.001	1246061	262391	1327	3317	198	1.57(1.32-1.78)	
PCB-106											
325.8804	36:18	36:18	0	1.004	2202359	429990	1868	4670	230		
327.8775	36:18	36:18	0	1.004	1369273	266057	1327	3317	200	1.61(1.32-1.78)	
PCB-118											
325.8804	36:30	36:30	0	1.001	2409189	441114	1868	4670	236		
327.8775	36:30	36:30	0	1.001	1537808	281906	1327	3317	212	1.57(1.32-1.78)	
PCB-122											
325.8804	36:52	36:52	0	1.010	1912176	389012	1868	4670	208		
327.8775	36:52	36:52	0	1.010	1196656	243673	1327	3317	184	1.60(1.32-1.78)	
PCB-114											
325.8804	37:02	37:02	0	1.001	2200075	393345	1868	4670	211		
327.8775	37:02	37:02	0	1.001	1407972	250048	1327	3317	188	1.56(1.32-1.78)	
PCB-105											
325.8804	37:41	37:41	0	1.001	2324271	419912	1868	4670	225		
327.8775	37:41	37:41	0	1.001	1483359	275075	1327	3317	207	1.57(1.32-1.78)	
PCB-127											
325.8804	39:09	39:09	0	1.039	2282403	421205	1868	4670	225		
327.8775	39:09	39:09	0	1.039	1487827	268279	1327	3317	202	1.53(1.32-1.78)	
PCB-126											
325.8804	40:46	40:46	0	1.000	2214352	375089	1868	4670	201		
327.8775	40:46	40:46	0	1.000	1397766	246058	1327	3317	185	1.58(1.32-1.78)	
PCB-155L											
371.8817	31:16	31:16	0	0.790	2113002	446036	49	122	9103		
373.8788	31:16	31:16	0	0.790	1641617	342031	87	217	3931	1.29(1.05-1.43)	
PCB-153L											
371.8817	38:20	38:20	0	0.900	1260321	250704	1102	2755	227		
373.8788	38:20	38:20	0	0.900	995689	199420	531	1327	376	1.27(1.05-1.43)	
PCB-138L											
371.8817	39:36	39:36	0		2559539	501195	1102	2755	455		
373.8788	39:35	39:36	-1		1986964	383316	531	1327	722	1.29(1.05-1.43)	
PCB-167L											
371.8817	42:35	42:35	0	1.075	3316383	636308	1102	2755	577		
373.8788	42:35	42:35	0	1.075	2595472	494885	531	1327	932	1.28(1.05-1.43)	
PCB-156L											
371.8817	43:45	43:45	0	1.105	6478707	797259	1102	2755	723		
373.8788	43:46	43:45	1	1.105	4994141	619467	531	1327	1167	1.30(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-157L (C156L)											
371.8817	43:45	43:45	0	1.105	6478707	797259	1102	2755	723		
373.8788	43:46	43:45	1	1.105	4994141	619467	531	1327	1167	1.30(1.05-1.43)	
PCB-169L											
371.8817	46:58	46:58	0	1.186	3416170	617633	1102	2755	560		
373.8788	46:59	46:58	1	1.186	2697023	487081	531	1327	917	1.27(1.05-1.43)	
PCB-155											
359.8415	31:17	31:17	0	1.001	1040671	215793	73	182	2956		
361.8385	31:17	31:17	0	1.001	821062	173492	17	42	10205	1.27(1.05-1.43)	
PCB-152											
359.8415	31:31	31:31	0	1.008	1061727	214227	73	182	2935		
361.8385	31:31	31:31	0	1.008	802938	166914	17	42	9818	1.32(1.05-1.43)	
PCB-150											
359.8415	31:41	31:41	0	1.013	1089244	224775	73	182	3079		
361.8385	31:40	31:41	-1	1.013	882634	174769	17	42	10281	1.23(1.05-1.43)	
PCB-136											
359.8415	32:04	32:04	0	1.026	1076357	216187	73	182	2961		
361.8385	32:04	32:04	0	1.026	846028	173694	17	42	10217	1.27(1.05-1.43)	
PCB-145											
359.8415	32:20	32:20	0	1.034	1088841	221997	73	182	3041		
361.8385	32:20	32:20	0	1.034	841561	173988	17	42	10235	1.29(1.05-1.43)	
PCB-148											
359.8415	33:50	33:50	0	1.082	835113	170103	73	182	2330		
361.8385	33:50	33:50	0	1.082	643597	131166	17	42	7716	1.30(1.05-1.43)	
PCB-135											
359.8415	34:26	34:26	0	1.101	1581874	178802	73	182	2449		M
361.8385	34:26	34:26	0	1.101	1249054	141935	17	42	8349	1.27(1.05-1.43)	M
PCB-151 (C135)											
359.8415	34:26	34:26	0	1.101	1581874	178802	73	182	2449		M
361.8385	34:26	34:26	0	1.101	1249054	141935	17	42	8349	1.27(1.05-1.43)	M
PCB-154											
359.8415	34:40	34:40	0	1.109	927543	182491	73	182	2500		
361.8385	34:40	34:40	0	1.109	719492	144228	17	42	8484	1.29(1.05-1.43)	
PCB-144											
359.8415	35:00	35:00	0	1.119	867927	173627	73	182	2378		
361.8385	35:00	35:00	0	1.119	663207	132532	17	42	7796	1.31(1.05-1.43)	
PCB-147											
359.8415	35:22	35:22	0	1.131	2704411	542066	807	2017	672		
361.8385	35:22	35:22	0	1.131	2178386	430535	531	1327	811	1.24(1.05-1.43)	
PCB-149 (C147)											
359.8415	35:22	35:22	0	1.131	2704411	542066	807	2017	672		
361.8385	35:22	35:22	0	1.131	2178386	430535	531	1327	811	1.24(1.05-1.43)	
PCB-134											
359.8415	35:40	35:40	0	1.141	2342721	247874	807	2017	307		
361.8385	35:40	35:40	0	1.141	1846058	202039	531	1327	380	1.27(1.05-1.43)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-143 (C134)											
359.8415	35:40	35:40	0	1.141	2342721	247874	807	2017	307		
361.8385	35:40	35:40	0	1.141	1846058	202039	531	1327	380	1.27(1.05-1.43)	
PCB-139											
359.8415	35:57	35:57	0	1.150	2577687	453964	807	2017	563		
361.8385	35:57	35:57	0	1.150	2050275	362910	531	1327	683	1.26(1.05-1.43)	
PCB-140 (C139)											
359.8415	35:57	35:57	0	1.150	2577687	453964	807	2017	563		
361.8385	35:57	35:57	0	1.150	2050275	362910	531	1327	683	1.26(1.05-1.43)	
PCB-131											
359.8415	36:10	36:10	0	1.157	1110236	227715	807	2017	282		
361.8385	36:10	36:10	0	1.157	861366	174253	531	1327	328	1.29(1.05-1.43)	
PCB-142											
359.8415	36:19	36:19	0	1.162	1187504	233908	807	2017	290		
361.8385	36:19	36:19	0	1.162	937180	190428	531	1327	359	1.27(1.05-1.43)	
PCB-132											
359.8415	36:38	36:38	0	1.172	1076394	209542	807	2017	260		
361.8385	36:38	36:38	0	1.172	863519	171569	531	1327	323	1.25(1.05-1.43)	
PCB-133											
359.8415	37:07	37:07	0	1.187	1176369	228916	807	2017	284		
361.8385	37:07	37:07	0	1.187	902573	177535	531	1327	334	1.30(1.05-1.43)	
PCB-165											
359.8415	37:30	37:30	0	0.881	1620035	333255	807	2017	413		
361.8385	37:30	37:30	0	0.881	1262142	263169	531	1327	496	1.28(1.05-1.43)	
PCB-146											
359.8415	37:45	37:45	0	0.887	1397738	288642	807	2017	358		
361.8385	37:45	37:45	0	0.887	1176175	228404	531	1327	430	1.19(1.05-1.43)	
PCB-161											
359.8415	37:52	37:52	0	0.890	1736167	326395	807	2017	404		
361.8385	37:53	37:52	1	0.890	1317972	254335	531	1327	479	1.32(1.05-1.43)	
PCB-153											
359.8415	38:23	38:23	0	0.902	3362727	492537	807	2017	610		
361.8385	38:23	38:23	0	0.902	2670262	386703	531	1327	728	1.26(1.05-1.43)	
PCB-168 (C153)											
359.8415	38:23	38:23	0	0.902	3362727	492537	807	2017	610		
361.8385	38:23	38:23	0	0.902	2670262	386703	531	1327	728	1.26(1.05-1.43)	
PCB-141											
359.8415	38:34	38:34	0	0.906	1317436	245333	807	2017	304		
361.8385	38:34	38:34	0	0.906	1049917	195044	531	1327	367	1.25(1.05-1.43)	
PCB-130											
359.8415	38:59	38:59	0	0.915	1078353	212768	807	2017	264		
361.8385	38:59	38:59	0	0.915	852118	174635	531	1327	329	1.27(1.05-1.43)	
PCB-137											
359.8415	39:11	39:11	0	0.920	1221627	246823	807	2017	306		
361.8385	39:11	39:11	0	0.920	970576	190454	531	1327	359	1.26(1.05-1.43)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-164											
359.8415	39:19	39:19	0	0.923	1700066	334884	807	2017	415		
361.8385	39:19	39:19	0	0.923	1293065	254607	531	1327	479	1.31(1.05-1.43)	
PCB-129											
359.8415	39:37	39:37	0	0.931	5781725	625985	807	2017	776		M
361.8385	39:37	39:37	0	0.931	4687044	500088	531	1327	942	1.23(1.05-1.43)	M
PCB-138 (C129)											
359.8415	39:37	39:37	0	0.931	5781725	625985	807	2017	776		M
361.8385	39:37	39:37	0	0.931	4687044	500088	531	1327	942	1.23(1.05-1.43)	M
PCB-160 (C129)											
359.8415	39:37	39:37	0	0.931	5781725	625985	807	2017	776		M
361.8385	39:37	39:37	0	0.931	4687044	500088	531	1327	942	1.23(1.05-1.43)	M
PCB-163 (C129)											
359.8415	39:37	39:37	0	0.931	5781725	625985	807	2017	776		M
361.8385	39:37	39:37	0	0.931	4687044	500088	531	1327	942	1.23(1.05-1.43)	M
PCB-158											
359.8415	40:00	40:00	0	0.940	2048049	376719	807	2017	467		
361.8385	40:00	40:00	0	0.940	1620346	298022	531	1327	561	1.26(1.05-1.43)	
PCB-128											
359.8415	40:51	40:51	0	0.960	3082624	406399	807	2017	504		
361.8385	40:51	40:51	0	0.960	2478747	322829	531	1327	608	1.24(1.05-1.43)	
PCB-166 (C128)											
359.8415	40:51	40:51	0	0.960	3082624	406399	807	2017	504		
361.8385	40:51	40:51	0	0.960	2478747	322829	531	1327	608	1.24(1.05-1.43)	
PCB-159											
359.8415	41:50	41:50	0	0.983	2173861	443408	807	2017	549		
361.8385	41:50	41:50	0	0.983	1733641	353602	531	1327	666	1.25(1.05-1.43)	
PCB-162											
359.8415	42:08	42:08	0	0.990	2035466	367862	807	2017	456		
361.8385	42:08	42:08	0	0.990	1611667	295396	531	1327	556	1.26(1.05-1.43)	
PCB-167											
359.8415	42:36	42:36	0	1.001	1815917	343885	807	2017	426		
361.8385	42:36	42:36	0	1.001	1408838	265819	531	1327	501	1.29(1.05-1.43)	
PCB-156											
359.8415	43:46	43:46	0	1.001	3598094	446620	807	2017	553		
361.8385	43:46	43:46	-1	1.000	2828693	351451	531	1327	662	1.27(1.05-1.43)	
PCB-157 (C156)											
359.8415	43:46	43:46	0	1.001	3598094	446620	807	2017	553		
361.8385	43:46	43:46	-1	1.000	2828693	351451	531	1327	662	1.27(1.05-1.43)	
PCB-169											
359.8415	46:59	46:59	0	1.001	1954292	341966	807	2017	424		
361.8385	46:59	46:59	0	1.001	1542536	268381	531	1327	505	1.27(1.05-1.43)	
PCB-188L											
405.8428	36:59	36:59	0	0.820	2216229	437889	94	235	4658		
407.8398	36:59	36:59	0	0.820	2115542	424845	52	130	8170	1.05(0.89-1.21)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-178L											
405.8428	40:02	40:02	0	0.888	837881	167330	94	235	1780		
407.8398	40:02	40:02	0	0.888	783438	151688	52	130	2917	1.07(0.89-1.21)	
PCB-180L											
405.8428	45:07	45:07	0		1848593	361206	94	235	3843		
407.8398	45:07	45:07	0		1686236	330383	52	130	6354	1.10(0.89-1.21)	
PCB-170L											
405.8428	46:23	46:23	0	1.028	1530889	289504	94	235	3080		
407.8398	46:23	46:23	0	1.028	1432575	275444	52	130	5297	1.07(0.89-1.21)	
PCB-189L											
405.8428	49:28	49:28	0	1.097	3505229	643628	1474	3685	437		
407.8398	49:28	49:28	0	1.097	3294476	599725	1422	3555	422	1.06(0.89-1.21)	
PCB-188											
393.8025	37:00	37:00	0	1.001	1286763	254761	43	107	5925		
395.7995	37:00	37:00	0	1.001	1209418	244864	59	147	4150	1.06(0.89-1.21)	
PCB-179											
393.8025	37:23	37:23	0	1.011	1289661	254291	43	107	5914		
395.7995	37:23	37:23	0	1.011	1208423	240988	59	147	4085	1.07(0.89-1.21)	
PCB-184											
393.8025	37:52	37:52	0	1.024	1291103	255559	43	107	5943		
395.7995	37:52	37:52	0	1.024	1223467	251089	59	147	4256	1.06(0.89-1.21)	
PCB-176											
393.8025	38:15	38:15	0	1.034	1143220	226694	43	107	5272		
395.7995	38:15	38:15	0	1.034	1063647	206845	59	147	3506	1.07(0.89-1.21)	
PCB-186											
393.8025	38:42	38:42	0	1.047	1428282	282818	43	107	6577		
395.7995	38:42	38:42	0	1.047	1346541	257372	59	147	4362	1.06(0.89-1.21)	
PCB-178											
393.8025	40:04	40:04	0	1.083	851298	170263	43	107	3960		
395.7995	40:04	40:04	0	1.083	815661	159368	59	147	2701	1.04(0.89-1.21)	
PCB-175											
393.8025	40:41	40:41	0	1.100	928297	184607	43	107	4293		
395.7995	40:42	40:41	1	1.101	889138	176313	59	147	2988	1.04(0.89-1.21)	
PCB-187											
393.8025	40:58	40:58	0	1.108	1087481	215378	43	107	5009		
395.7995	40:58	40:58	0	1.108	1003791	192892	59	147	3269	1.08(0.89-1.21)	
PCB-182											
393.8025	41:09	41:09	0	1.113	941258	175829	43	107	4089		
395.7995	41:09	41:09	0	1.113	892324	169127	59	147	2867	1.05(0.89-1.21)	
PCB-183											
393.8025	41:34	41:34	0	1.124	1827264	187068	43	107	4350		M
395.7995	41:34	41:34	0	1.124	1702054	177498	59	147	3008	1.07(0.89-1.21)	M
PCB-185 (C183)											
393.8025	41:34	41:34	0	1.124	1827264	187068	43	107	4350		M
395.7995	41:34	41:34	0	1.124	1702054	177498	59	147	3008	1.07(0.89-1.21)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-174											
393.8025	41:50	41:50	0	1.131	963631	188503	43	107	4384		
395.7995	41:50	41:50	0	1.131	903429	178913	59	147	3032	1.07(0.89-1.21)	
PCB-177											
393.8025	42:16	42:16	0	1.143	965234	185060	43	107	4304		
395.7995	42:16	42:16	0	1.143	912174	174740	59	147	2962	1.06(0.89-1.21)	
PCB-181											
393.8025	42:39	42:39	0	1.153	925516	174618	43	107	4061		
395.7995	42:39	42:39	0	1.153	879276	172752	59	147	2928	1.05(0.89-1.21)	
PCB-171											
393.8025	42:52	42:52	0	1.159	1751918	321849	43	107	7485		
395.7995	42:52	42:52	0	1.159	1685826	294372	59	147	4989	1.04(0.89-1.21)	
PCB-173 (C171)											
393.8025	42:52	42:52	0	1.159	1751918	321849	43	107	7485		
395.7995	42:52	42:52	0	1.159	1685826	294372	59	147	4989	1.04(0.89-1.21)	
PCB-172											
393.8025	44:30	44:30	0	0.899	871534	167782	43	107	3902		
395.7995	44:30	44:30	0	0.899	794208	152273	59	147	2581	1.10(0.89-1.21)	
PCB-192											
393.8025	44:46	44:46	0	0.905	1437214	275640	43	107	6410		
395.7995	44:46	44:46	0	0.905	1372461	259847	59	147	4404	1.05(0.89-1.21)	
PCB-180											
393.8025	45:07	45:07	0	0.912	2369584	333618	43	107	7759		
395.7995	45:06	45:07	-1	0.912	2211175	324131	59	147	5494	1.07(0.89-1.21)	
PCB-193 (C180)											
393.8025	45:07	45:07	0	0.912	2369584	333618	43	107	7759		
395.7995	45:06	45:07	-1	0.912	2211175	324131	59	147	5494	1.07(0.89-1.21)	
PCB-191											
393.8025	45:30	45:30	0	0.920	1363192	248839	43	107	5787		
395.7995	45:30	45:30	0	0.920	1273982	245006	59	147	4153	1.07(0.89-1.21)	
PCB-170											
393.8025	46:25	46:25	0	0.938	883135	167711	43	107	3900		
395.7995	46:24	46:25	-1	0.938	857707	167520	59	147	2839	1.03(0.89-1.21)	
PCB-190											
393.8025	46:55	46:55	0	0.948	1441458	265966	43	107	6185		M
395.7995	46:55	46:55	-1	0.948	1314605	241667	59	147	4096	1.10(0.89-1.21)	M
PCB-189											
393.8025	49:30	49:30	0	1.001	1770185	327344	482	1205	679		
395.7995	49:30	49:30	0	1.001	1696639	321126	462	1155	695	1.04(0.89-1.21)	
PCB-202L											
439.8038	42:20	42:20	0	0.821	1652787	323052	129	322	2504		
441.8008	42:21	42:20	1	0.821	1809662	349304	73	182	4785	0.91(0.76-1.02)	
PCB-194L											
439.8038	51:35	51:35	0		2295364	428423	156	390	2746		
441.8008	51:35	51:35	0		2487999	463408	169	422	2742	0.92(0.76-1.02)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-205L											
439.8038	52:03	52:03	0	1.009	2741559	505151	156	390	3238		
441.8008	52:03	52:03	0	1.009	3058061	568001	169	422	3361	0.90(0.76-1.02)	
PCB-202											
427.7635	42:22	42:22	0	1.001	903019	176481	151	377	1169		
429.7606	42:22	42:22	0	1.001	995205	197247	90	225	2192	0.91(0.76-1.02)	
PCB-201											
427.7635	43:17	43:17	0	1.022	836033	160257	151	377	1061		
429.7606	43:17	43:17	0	1.022	927430	176049	90	225	1956	0.90(0.76-1.02)	
PCB-204											
427.7635	43:57	43:57	0	1.038	895049	170134	151	377	1127		
429.7606	43:57	43:57	0	1.038	979674	187922	90	225	2088	0.91(0.76-1.02)	
PCB-197											
427.7635	44:11	44:11	0	1.043	969325	179574	151	377	1189		
429.7606	44:11	44:11	0	1.043	1028764	193492	90	225	2150	0.94(0.76-1.02)	
PCB-200											
427.7635	44:19	44:19	0	1.047	834727	166274	151	377	1101		
429.7606	44:19	44:19	0	1.047	945394	188341	90	225	2093	0.88(0.76-1.02)	
PCB-198											
427.7635	47:04	47:04	0	1.112	1458927	182475	151	377	1208		
429.7606	47:04	47:04	0	1.112	1622693	200750	90	225	2231	0.90(0.76-1.02)	
PCB-199 (C198)											
427.7635	47:04	47:04	0	1.112	1458927	182475	151	377	1208		
429.7606	47:04	47:04	0	1.112	1622693	200750	90	225	2231	0.90(0.76-1.02)	
PCB-196											
427.7635	47:44	47:44	0	0.917	660314	131891	151	377	873		
429.7606	47:44	47:44	0	0.917	744170	142305	90	225	1581	0.89(0.76-1.02)	
PCB-203											
427.7635	47:56	47:56	0	0.921	835955	158655	151	377	1051		
429.7606	47:56	47:56	0	0.921	906029	171899	90	225	1910	0.92(0.76-1.02)	
PCB-195											
427.7635	49:16	49:16	0	0.947	1115711	201620	383	957	526		
429.7606	49:16	49:16	0	0.947	1229431	230090	295	737	780	0.91(0.76-1.02)	
PCB-194											
427.7635	51:36	51:36	0	0.991	1264488	230456	383	957	602		
429.7606	51:36	51:36	0	0.991	1437223	269665	295	737	914	0.88(0.76-1.02)	
PCB-205											
427.7635	52:04	52:04	0	1.000	1464493	278271	383	957	727		
429.7606	52:04	52:04	0	1.000	1651719	312592	295	737	1060	0.89(0.76-1.02)	
PCB-208L											
473.7648	49:00	49:00	0	0.950	2096065	405577	278	695	1459		
475.7619	49:00	49:00	0	0.950	2622915	503619	233	582	2161	0.80(0.65-0.89)	
PCB-206L											
473.7648	53:48	53:48	0	1.043	1560092	283421	278	695	1020		
475.7619	53:48	53:48	0	1.043	1940615	361920	233	582	1553	0.80(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-208											
461.7246	49:01	49:01	0	1.000	1185988	224312	275	687	816		
463.7216	49:01	49:01	0	1.000	1498599	283003	1468	3670	193	0.79(0.65-0.89)	
PCB-207											
461.7246	49:56	49:56	0	1.019	1174225	223800	275	687	814		
463.7216	49:56	49:56	0	1.019	1496445	280830	1468	3670	191	0.78(0.65-0.89)	
PCB-206											
461.7246	53:49	53:49	0	1.000	972184	184436	275	687	671		
463.7216	53:49	53:49	0	1.000	1222220	234751	1468	3670	160	0.80(0.65-0.89)	
PCB-209L											
507.7258	55:24	55:24	0	1.074	1511895	265203	125	312	2122		
509.7229	55:24	55:24	0	1.074	2120262	368975	70	175	5271	0.71(0.59-0.79)	
DCB Decachlorobiphenyl											
495.6856	55:25	55:25	0	1.000	831767	140286	146	365	961		
497.6826	55:26	55:25	1	1.000	1174413	199331	106	265	1880	0.71(0.59-0.79)	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61CV1668CS3\_00018

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
CCV Relative RT Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
 Lims ID: WDMCCV  
 Client ID:  
 Sample Type: WDMCCV  
 Inject. Date: 15-Jul-2024 12:43:00 ALS Bottle#: 0 Worklist Smp#: 1  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info:  
 Misc. Info.: 140-0033504-001  
 Operator ID: Xcalibur\_System Instrument ID: D2D  
 Sublist: chrom-PCBs\_D2D\*sub2  
 Method: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\PCBs\_D2D.m  
 Limit Group: HR - EPA\_23 PCB ICAL  
 Last Update: 16-Jul-2024 18:24:57 Calib Date: 31-May-2024 21:13:00  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
 Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
 Process Host: CTX1661  
 First Level Reviewer: F9EE Date: 15-Jul-2024 13:57:17  
 Start Cal Date: 31-May-2024 14:36:00  
 End Cal Date: 31-May-2024 21:13:00

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-1L		11:34	11:39	5	15	0.7253	0.7285	0.717 - 0.7472
PCB-3L		13:43	13:47	4	15	0.8606	0.8626	0.849 - 0.8798
PCB-1	L	11:35	11:40	5		1.0011	1.0011	0.995 - 1.0085
PCB-2		13:34	13:38	4		0.9885	0.9886	0.985 - 0.9925
PCB-3	L	13:44	13:48	4		1.0010	1.0010	0.998 - 1.0048
PCB-4L		13:59	14:02	4	15	0.8771	0.8783	0.865 - 0.8956
PCB-9L		15:57	15:59	3		1.0000	1.0000	0.987 - 1.0128
PCB-8L		16:48	16:50	2		1.1991	1.1986	1.192 - 1.1989
PCB-15L		19:52	19:53	2	15	1.2459	1.2443	1.233 - 1.2530
PCB-4	L	14:00	14:04	4		1.0009	1.0019	0.994 - 1.0058
PCB-10		14:10	14:13	4		1.0132	1.0131	1.010 - 1.0168
PCB-9		15:58	16:00	2		1.1421	1.1395	1.135 - 1.1415
PCB-7		16:08	16:10	3		1.1534	1.1517	1.147 - 1.1538
PCB-6		16:22	16:25	4		1.1703	1.1695	1.164 - 1.1706
PCB-5		16:41	16:43	3		1.1929	1.1911	1.186 - 1.1926
PCB-8		16:48	16:50	3		1.2013	1.1995	1.194 - 1.2008
PCB-14		18:26	18:27	1		0.9278	0.9273	0.926 - 0.9305
PCB-11		19:16	19:17	1		0.9702	0.9696	0.968 - 0.9725
PCB-12/13		19:34	19:35	2		0.9848	0.9848	0.983 - 0.9875
PCB-15	L	19:53	19:54	1		1.0013	1.0007	0.997 - 1.0050
PCB-19L		17:05	17:08	3	15	0.8402	0.8417	0.831 - 0.8547
PCB-32L		20:20	20:21	1		1.0000	1.0000	0.998 - 1.0024
PCB-31L		22:37	22:36	0		1.0000	1.0000	0.998 - 1.0022
PCB-28L		22:55	22:53	-2		1.0130	1.0125	1.006 - 1.0201

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-37L		26:54	26:53	0	15	1.1902	1.1902	1.178 - 1.1995
PCB-19	L	17:06	17:08	3		1.0008	1.0008	0.996 - 1.0058
PCB-18/30		18:57	18:56	0		1.1085	1.1052	1.104 - 1.1093
PCB-17		19:23	19:24	1		1.1347	1.1328	1.129 - 1.1352
PCB-27		19:37	19:37	0		1.1478	1.1451	1.141 - 1.1471
PCB-24		19:44	19:45	1		1.1547	1.1528	1.148 - 1.1542
PCB-16		19:51	19:52	1		1.1617	1.1597	1.156 - 1.1621
PCB-32		20:22	20:22	1		1.1917	1.1896	1.185 - 1.1908
PCB-34		21:37	21:37	0		1.2654	1.2618	1.257 - 1.2623
PCB-23		21:47	21:45	-1		1.2744	1.2701	1.266 - 1.2715
PCB-26/29		22:06	22:05	0		1.2931	1.2895	1.282 - 1.2915
PCB-25		22:19	22:18	0		0.8293	0.8292	0.829 - 0.8325
PCB-31		22:38	22:37	0		0.8412	0.8411	0.840 - 0.8438
PCB-20/28		22:56	22:56	0		0.8526	0.8526	0.851 - 0.8568
PCB-21/33		23:06	23:05	-1		0.8588	0.8583	0.858 - 0.8637
PCB-22		23:33	23:33	0		0.8754	0.8759	0.875 - 0.8786
PCB-36		25:07	25:05	-1		0.9334	0.9330	0.932 - 0.9352
PCB-39		25:28	25:27	-1		0.9467	0.9463	0.945 - 0.9483
PCB-38		26:03	26:01	-1		0.9681	0.9677	0.966 - 0.9695
PCB-35		26:31	26:30	-1		0.9857	0.9853	0.984 - 0.9875
PCB-37	L	26:55	26:54	0		1.0005	1.0005	0.999 - 1.0024
PCB-54L		20:10	20:11	2	15	0.8149	0.8168	0.811 - 0.8247
PCB-52L		24:45	24:43	-1		1.0000	1.0000	0.992 - 1.0083
PCB-79L		32:41	32:36	-4		0.9707	0.9700	0.969 - 0.9718
PCB-81L		33:40	33:37	-2	15	1.3604	1.3600	1.351 - 1.3641
PCB-77L		34:13	34:11	-2	15	1.3832	1.3828	1.373 - 1.3867
PCB-54	L	20:12	20:12	1		1.0000	1.0000	0.996 - 1.0041
PCB-50/53		22:23	22:21	-1		1.1097	1.1071	1.102 - 1.1106
PCB-45/51		23:06	23:05	-1		1.1459	1.1432	1.137 - 1.1453
PCB-46		23:20	23:20	0		1.1573	1.1559	1.153 - 1.1576
PCB-52		24:46	24:44	-2		1.2284	1.2250	1.222 - 1.2263
PCB-43/73		24:55	24:52	-2		1.2353	1.2320	1.230 - 1.2346
PCB-49/69		25:12	25:09	-3		1.2499	1.2459	1.242 - 1.2499
PCB-48		25:32	25:30	-2		1.2665	1.2630	1.259 - 1.2636
PCB-44/47/65		25:47	25:44	-2		1.2785	1.2751	1.269 - 1.2770
PCB-59/62/75		26:05	26:03	-1		1.2931	1.2903	1.284 - 1.2919
PCB-42		26:17	26:15	-1		1.3033	1.3004	1.296 - 1.3007
PCB-40/41/71		26:47	26:45	-1		1.3280	*1.3251	1.317 - 1.3250
PCB-64		27:00	26:57	-2		1.3388	1.3352	1.331 - 1.3355
PCB-72		27:50	27:47	-3		0.8271	0.8266	0.826 - 0.8291
PCB-68		28:07	28:04	-3		0.8354	0.8349	0.835 - 0.8375
PCB-57		28:33	28:29	-3		0.8480	0.8475	0.847 - 0.8500
PCB-58		28:47	28:44	-3		0.8552	0.8547	0.854 - 0.8574
PCB-67		28:57	28:53	-4		0.8601	0.8593	0.859 - 0.8620
PCB-63		29:13	29:09	-3		0.8677	0.8673	0.866 - 0.8694
PCB-61/70/74/76		29:33	29:30	-3		0.8780	0.8775	0.875 - 0.8810



Compound	T/L	ICAL RT	CCV RT	Δ RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-66		29:52	29:49	-3		0.8875	0.8870	0.886 - 0.8894
PCB-55		30:02	29:59	-2		0.8920	0.8920	0.891 - 0.8943
PCB-56		30:32	30:30	-2		0.9072	0.9072	0.907 - 0.9098
PCB-60		30:45	30:42	-3		0.9137	0.9133	0.913 - 0.9158
PCB-80		31:10	31:06	-4		0.9259	0.9251	0.924 - 0.9268
PCB-79		32:42	32:38	-4		0.9715	0.9707	0.970 - 0.9726
PCB-78		33:15	33:12	-3		0.9878	0.9875	0.986 - 0.9890
PCB-81	T	33:41	33:38	-3		1.0008	1.0004	0.999 - 1.0020
PCB-77	T/L	34:15	34:12	-2		1.0007	1.0007	0.999 - 1.0019
PCB-104L		25:42	25:38	-3	15	0.8129	0.8134	0.810 - 0.8199
PCB-95L		28:40	28:37	-2		1.1155	1.1162	1.112 - 1.1179
PCB-101L		31:36	31:31	-5		1.0000	1.0000	0.994 - 1.0065
PCB-111L		34:17	34:11	-6		1.0850	1.0848	1.079 - 1.0891
PCB-123L		36:15	36:09	-5	15	1.1469	1.1471	1.141 - 1.1511
PCB-118L		36:34	36:29	-5	15	1.1573	1.1575	1.151 - 1.1614
PCB-114L		37:06	37:00	-5	15	1.1739	1.1742	1.168 - 1.1780
PCB-105L		37:44	37:40	-4	15	1.1943	1.1951	1.188 - 1.1989
PCB-127L		39:13	39:07	-5		1.0000	1.0000	0.995 - 1.0053
PCB-126L		40:49	40:45	-4	15	1.2917	1.2930	1.285 - 1.2956
PCB-104	L	25:42	25:40	-2		1.0005	1.0010	0.998 - 1.0039
PCB-96		26:05	26:04	0		1.0149	1.0165	1.013 - 1.0195
PCB-103		28:01	27:57	-4		1.0907	1.0903	1.087 - 1.0912
PCB-94		28:14	28:12	-2		1.0991	1.0997	1.097 - 1.1003
PCB-95		28:41	28:39	-2		1.1165	1.1172	1.113 - 1.1193
PCB-93/100		28:54	28:50	-4		1.1250	1.1247	1.120 - 1.1267
PCB-98/102		29:03	29:00	-3		1.1310	1.1311	1.127 - 1.1336
PCB-88/91		29:33	29:29	-3		1.1499	1.1501	1.143 - 1.1505
PCB-84		29:46	29:44	-1		1.1584	1.1596	1.157 - 1.1603
PCB-89		30:15	30:12	-2		1.1773	1.1780	1.175 - 1.1786
PCB-121		30:40	30:34	-5		1.1937	*1.1925	1.188 - 1.1922
PCB-92		31:02	30:58	-4		0.8564	0.8566	0.856 - 0.8589
PCB-90/101/113		31:37	31:32	-5		1.2306	1.2299	1.224 - 1.2307
PCB-83/99		32:12	32:07	-5		1.2535	*1.2528	1.245 - 1.2525
PCB-112		32:19	32:15	-4		1.2580	*1.2578	1.254 - 1.2574
PCB-86/87/97/109/119/125		32:41	32:36	-5		1.2724	1.2718	1.265 - 1.2756
PCB-85/116/117		33:25	33:20	-5		1.3008	1.3002	1.293 - 1.3007
PCB-110/115		33:36	33:33	-2		1.3078	1.3087	1.303 - 1.3092
PCB-82		33:54	33:51	-2		1.3198	*1.3206	1.316 - 1.3194
PCB-111		34:19	34:13	-5		1.3357	*1.3346	1.329 - 1.3330
PCB-120		34:46	34:40	-5		1.3531	*1.3526	1.348 - 1.3514
PCB-108/124		35:54	35:49	-4		1.3975	*1.3974	1.390 - 1.3967
PCB-107		36:09	36:04	-5		1.4072	*1.4066	1.401 - 1.4049
PCB-123	T	36:16	36:11	-5		1.0007	1.0007	1.000 - 1.0023
PCB-106		36:22	36:18	-4		1.0036	1.0040	1.003 - 1.0057
PCB-118	T	36:35	36:30	-4		1.0004	1.0007	0.999 - 1.0019
PCB-122		36:56	36:52	-4		1.0101	1.0105	1.009 - 1.0117

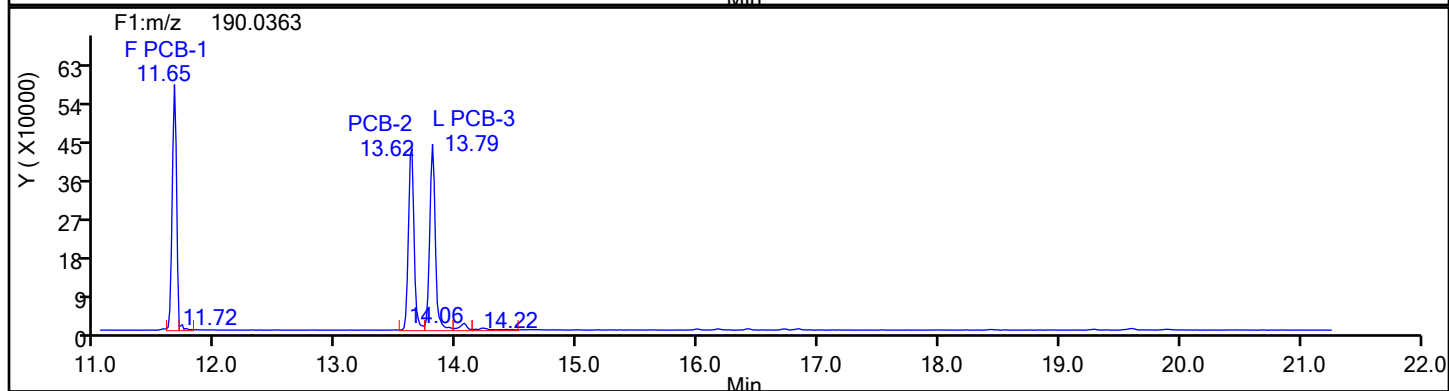
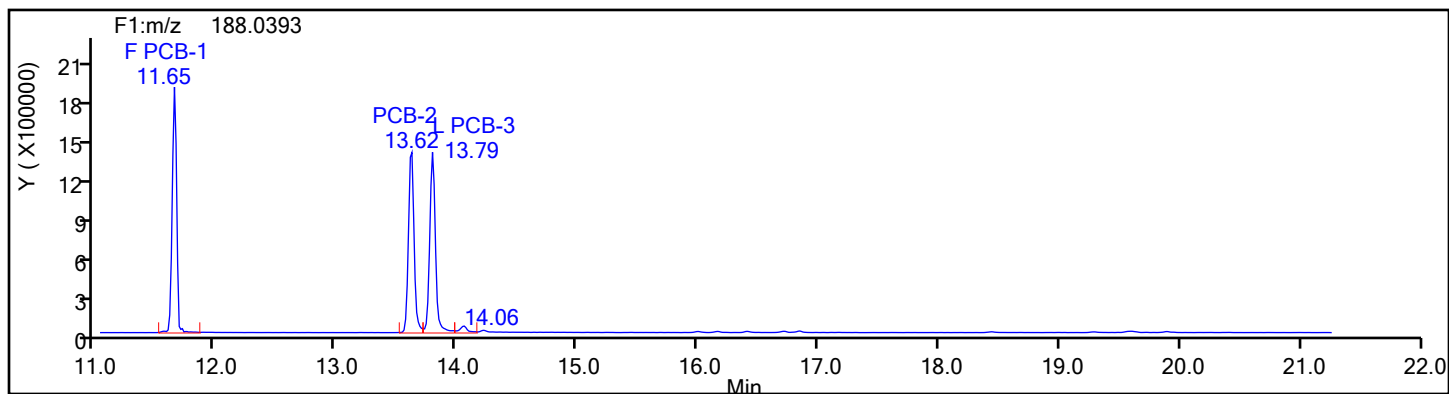


Compound	T/L	ICAL RT	CCV RT	Δ RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-114	T	37:07	37:02	-4		1.0004	1.0007	0.999 - 1.0018
PCB-105	T	37:46	37:41	-4		1.0007	1.0007	0.999 - 1.0018
PCB-127		39:14	39:09	-5		1.0397	1.0394	1.037 - 1.0399
PCB-126	T/L	40:51	40:46	-4		1.0006	1.0003	1.000 - 1.0016
PCB-155L		31:22	31:16	-6	15	0.7904	0.7895	0.787 - 0.7951
PCB-153L		38:27	38:20	-6		0.9005	0.9003	0.899 - 0.9028
PCB-138L		39:41	39:36	-5		1.0000	1.0000	0.979 - 1.0208
PCB-167L		42:42	42:35	-7	15	1.0759	1.0753	1.071 - 1.0792
PCB-156L/157L		43:51	43:45	-6	15	1.1050	1.1049	1.100 - 1.1084
PCB-169L		47:05	46:58	-6	15	1.1862	1.1861	1.184 - 1.1864
PCB-155	L	31:24	31:17	-6		1.0008	1.0008	0.998 - 1.0031
PCB-152		31:35	31:31	-4		1.0069	1.0082	1.006 - 1.0096
PCB-150		31:45	31:41	-4		1.0122	1.0135	1.011 - 1.0144
PCB-136		32:07	32:04	-2		1.0236	1.0258	1.024 - 1.0268
PCB-145		32:24	32:20	-4		1.0330	1.0344	1.033 - 1.0358
PCB-148		33:56	33:50	-5		1.0816	1.0822	1.080 - 1.0830
PCB-135/151		34:31	34:26	-5		1.1004	1.1014	1.099 - 1.1038
PCB-154		34:46	34:40	-6		1.1085	1.1092	1.106 - 1.1107
PCB-144		35:05	35:00	-5		1.1183	1.1194	1.117 - 1.1199
PCB-147/149		35:27	35:22	-5		1.1301	1.1313	1.127 - 1.1326
PCB-134/143		35:45	35:40	-4		1.1394	1.1409	1.136 - 1.1409
PCB-139/140		36:03	35:57	-5		1.1490	1.1502	1.146 - 1.1515
PCB-131		36:15	36:10	-4		1.1553	1.1569	1.154 - 1.1571
PCB-142		36:23	36:19	-4		1.1599	1.1615	1.159 - 1.1621
PCB-132		36:42	36:38	-3		1.1700	1.1720	1.168 - 1.1728
PCB-133		37:13	37:07	-6		1.1863	1.1872	1.184 - 1.1872
PCB-165		37:37	37:30	-6		0.8808	0.8809	0.880 - 0.8825
PCB-146		37:52	37:45	-6		0.8867	0.8868	0.886 - 0.8882
PCB-161		37:59	37:52	-6		0.8897	0.8895	0.889 - 0.8914
PCB-153/168		38:29	38:23	-6		0.9014	0.9016	0.900 - 0.9040
PCB-141		38:40	38:34	-5		0.9054	0.9059	0.905 - 0.9075
PCB-130		39:04	38:59	-5		0.9150	0.9155	0.915 - 0.9172
PCB-137		39:18	39:11	-6		0.9202	0.9204	0.920 - 0.9224
PCB-164		39:25	39:19	-5		0.9230	0.9235	0.923 - 0.9252
PCB-129/138/160/163		39:44	39:37	-6		0.9304	0.9306	0.930 - 0.9349
PCB-158		40:06	40:00	-6		0.9393	0.9395	0.939 - 0.9409
PCB-128/166		40:57	40:51	-5		0.9590	0.9596	0.958 - 0.9617
PCB-159		41:58	41:50	-7		0.9828	0.9827	0.982 - 0.9839
PCB-162		42:15	42:08	-7		0.9895	0.9895	0.988 - 0.9907
PCB-167	T	42:43	42:36	-7		1.0006	1.0006	0.999 - 1.0016
PCB-156/157	T	43:53	43:46	-6		1.0006	1.0006	0.999 - 1.0025
PCB-169	T/L	47:06	46:59	-6		1.0006	1.0006	0.999 - 1.0015
PCB-188L		37:06	36:59	-6	15	0.8198	0.8197	0.817 - 0.8243
PCB-178L		40:09	40:02	-6		0.8875	0.8876	0.884 - 0.8916
PCB-180L		45:15	45:07	-8		1.0000	1.0000	0.996 - 1.0037
PCB-170L		46:30	46:23	-6	15	1.0276	1.0283	1.024 - 1.0317

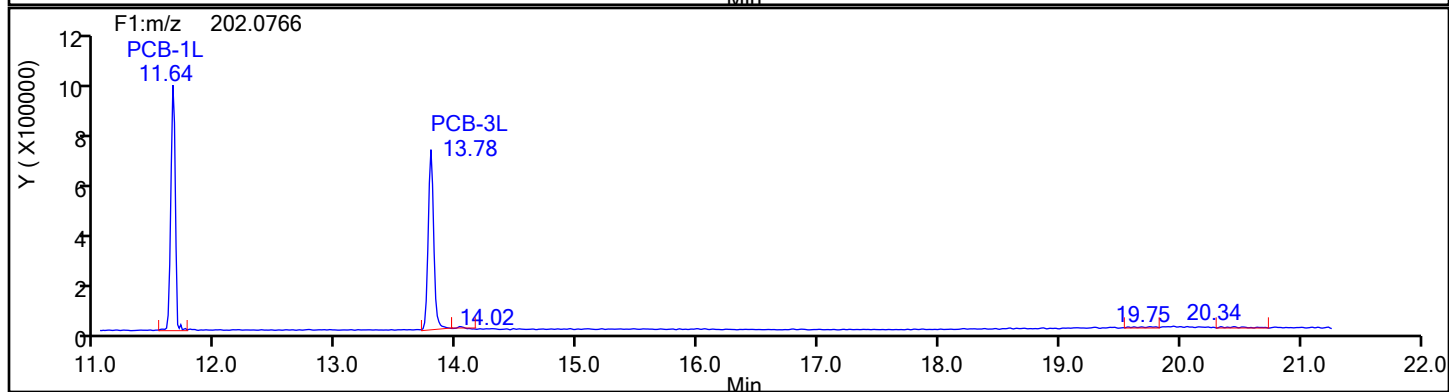
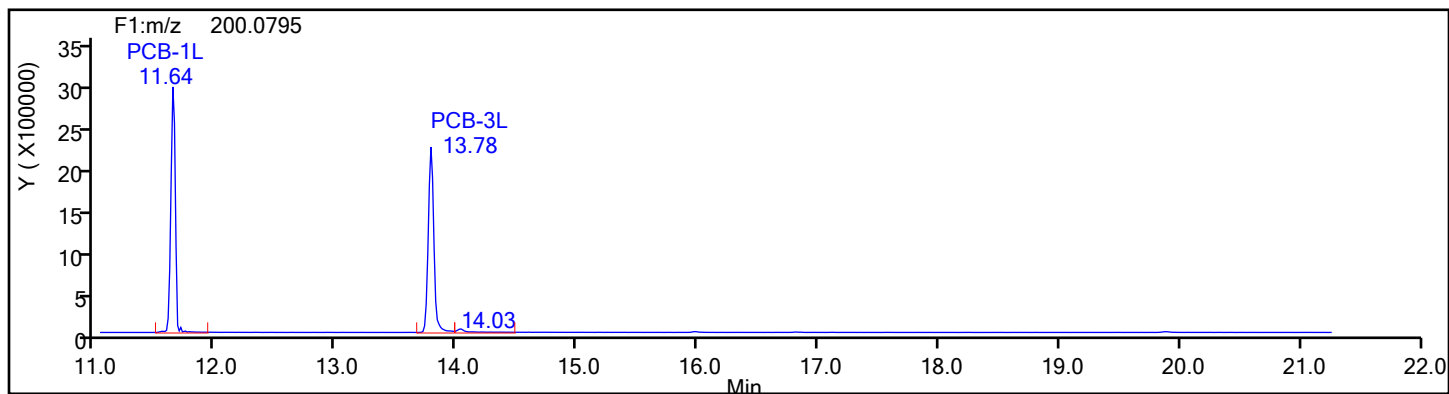
Compound	T/L	ICAL RT	CCV RT	Δ RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-189L		49:37	49:28	-8	15	1.0965	1.0967	1.093 - 1.1000
PCB-188	L	37:07	37:00	-6		1.0007	1.0007	1.000 - 1.0022
PCB-179		37:27	37:23	-4		1.0096	1.0107	1.009 - 1.0115
PCB-184		37:59	37:52	-7		1.0241	1.0238	1.023 - 1.0254
PCB-176		38:20	38:15	-5		1.0333	1.0341	1.033 - 1.0351
PCB-186		38:48	38:42	-5		1.0457	1.0465	1.045 - 1.0476
PCB-178		40:10	40:04	-6		1.0830	1.0835	1.081 - 1.0837
PCB-175		40:48	40:41	-7		1.1000	1.1002	1.098 - 1.1008
PCB-187		41:05	40:58	-7		1.1074	1.1076	1.106 - 1.1082
PCB-182		41:17	41:09	-7		1.1127	1.1130	1.111 - 1.1137
PCB-183/185		41:42	41:34	-7		1.1241	1.1240	1.123 - 1.1260
PCB-174		41:56	41:50	-6		1.1305	1.1311	1.129 - 1.1313
PCB-177		42:22	42:16	-6		1.1422	1.1428	1.140 - 1.1430
PCB-181		42:45	42:39	-6		1.1524	1.1531	1.151 - 1.1535
PCB-171/173		42:58	42:52	-6		1.1585	1.1592	1.156 - 1.1602
PCB-172		44:37	44:30	-7		0.8993	0.8993	0.899 - 0.9008
PCB-192		44:54	44:46	-7		0.9049	0.9049	0.904 - 0.9060
PCB-180/193		45:14	45:07	-7		0.9117	0.9118	0.911 - 0.9130
PCB-191		45:37	45:30	-7		0.9194	0.9195	0.919 - 0.9209
PCB-170		46:31	46:25	-6		0.9377	0.9381	0.937 - 0.9392
PCB-190		47:02	46:55	-6		0.9481	0.9485	0.948 - 0.9496
PCB-189	T/L	49:38	49:30	-7		1.0003	1.0005	0.999 - 1.0013
PCB-202L		42:28	42:20	-7	15	0.8211	0.8208	0.819 - 0.8249
PCB-194L		51:43	51:35	-7		1.0000	1.0000	0.996 - 1.0040
PCB-205L		52:11	52:03	-8	15	1.0092	1.0089	1.004 - 1.0138
PCB-202	L	42:29	42:22	-7		1.0006	1.0006	0.999 - 1.0027
PCB-201		43:24	43:17	-7		1.0223	1.0223	1.020 - 1.0237
PCB-204		44:05	43:57	-8		1.0381	1.0379	1.036 - 1.0388
PCB-197		44:19	44:11	-8		1.0437	1.0435	1.042 - 1.0445
PCB-200		44:25	44:19	-6		1.0462	1.0466	1.045 - 1.0473
PCB-198/199		47:12	47:04	-7		1.1115	1.1117	1.109 - 1.1132
PCB-196		47:53	47:44	-8		0.9175	0.9173	0.917 - 0.9189
PCB-203		48:05	47:56	-8		0.9212	0.9210	0.921 - 0.9226
PCB-195		49:24	49:16	-7		0.9465	0.9467	0.946 - 0.9481
PCB-194		51:44	51:36	-8		0.9914	0.9914	0.991 - 0.9926
PCB-205	L	52:13	52:04	-8		1.0005	1.0005	0.999 - 1.0013
PCB-208L		49:08	49:00	-8	15	0.9503	0.9499	0.947 - 0.9534
PCB-206L		53:56	53:48	-8	15	1.0431	1.0429	1.038 - 1.0472
PCB-208	L	49:10	49:01	-9		1.0005	1.0003	0.999 - 1.0013
PCB-207		50:05	49:56	-9		1.0193	1.0191	1.019 - 1.0205
PCB-206	L	53:58	53:49	-8		1.0005	1.0005	1.000 - 1.0015
PCB-209L		55:35	55:24	-10	15	1.0748	1.0741	1.069 - 1.0784
DCB Decachlorobiphenyl	L	55:35	55:25	-10		1.0002	1.0002	0.999 - 1.0012

## Eurofins Knoxville

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Injection Date: 15-Jul-2024 12:43:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88747 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
MoPCB F1



## MoPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d

Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

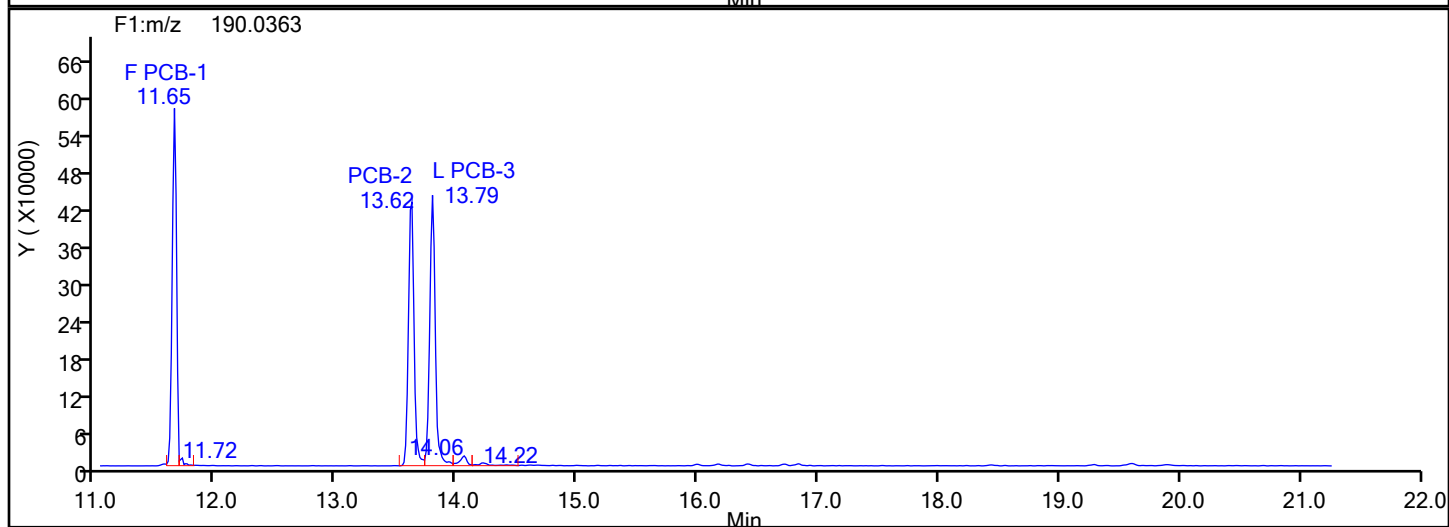
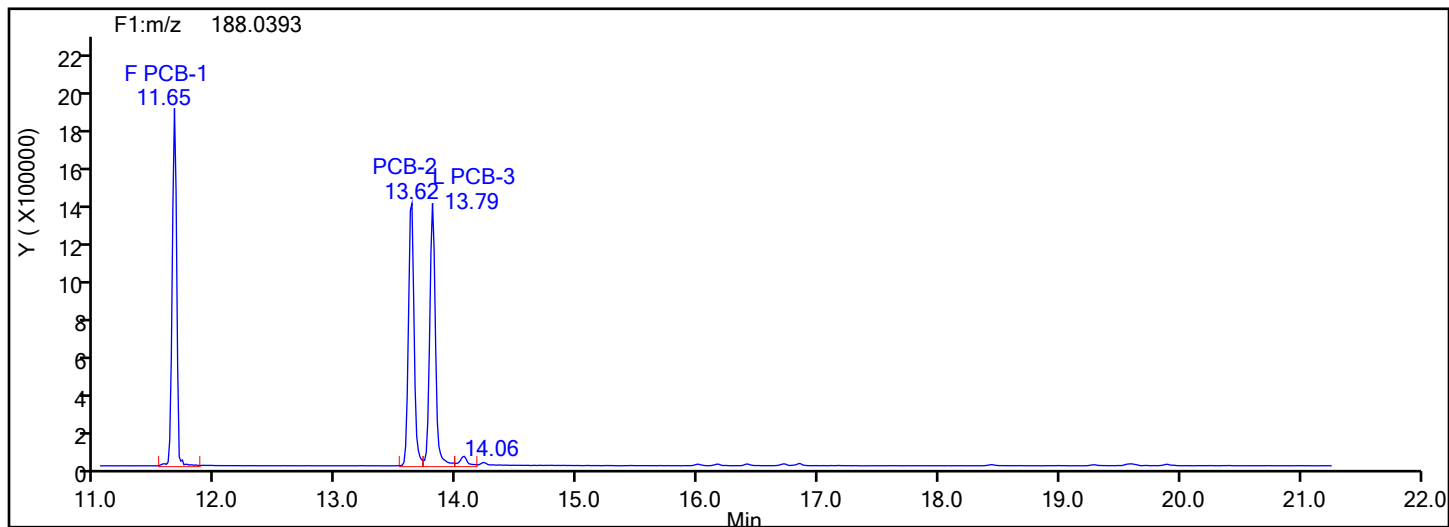
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Sample Line#: 1

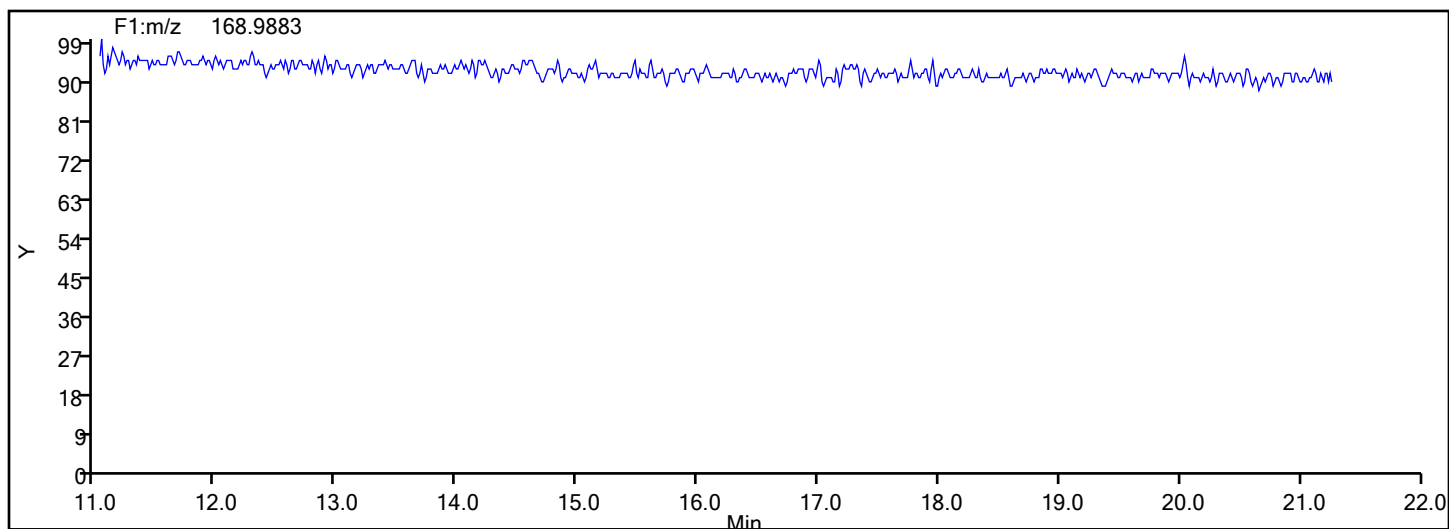
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Lock Mass



## Eurofins Knoxville

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Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

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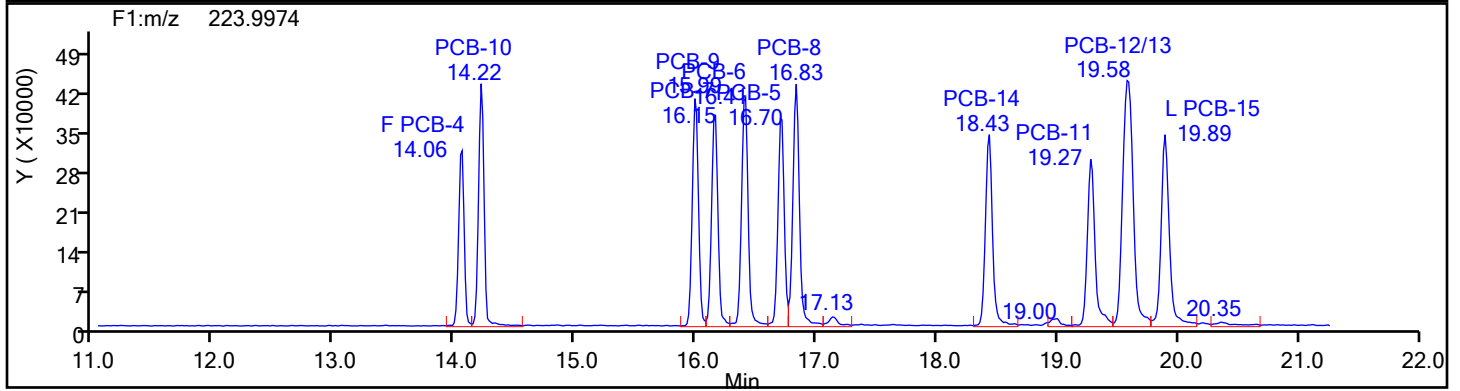
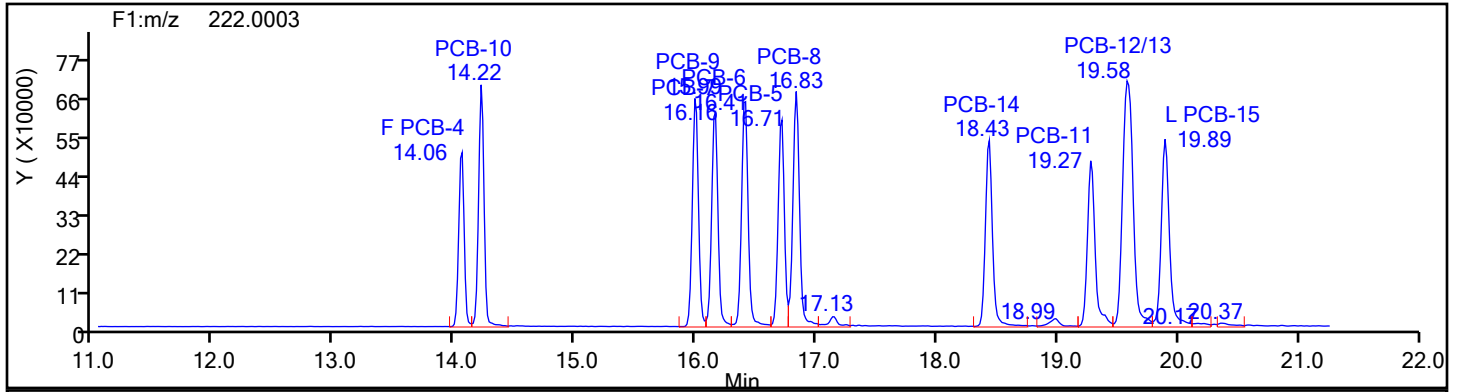
Worklist#: 88747

Sample Line#: 1

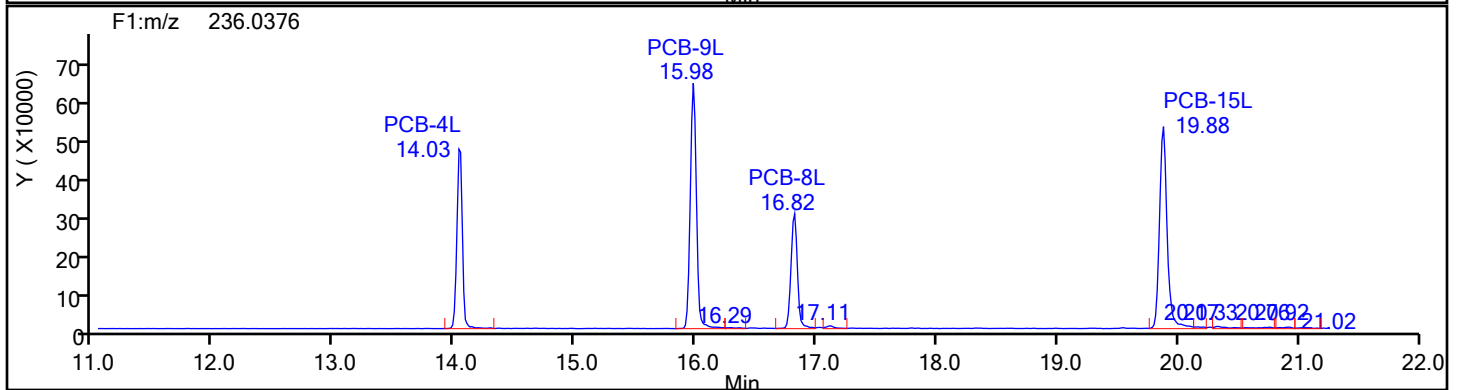
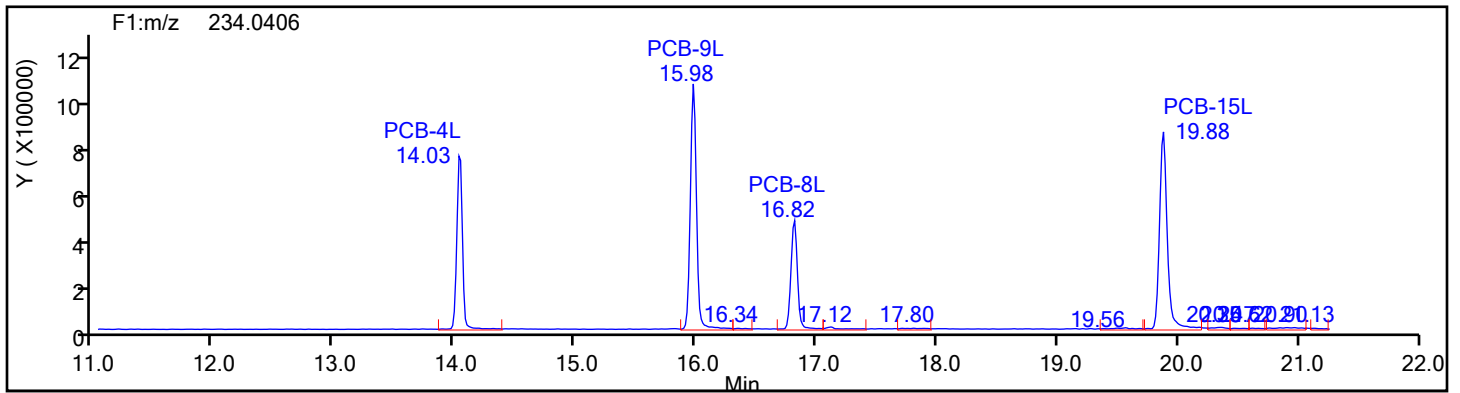
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1

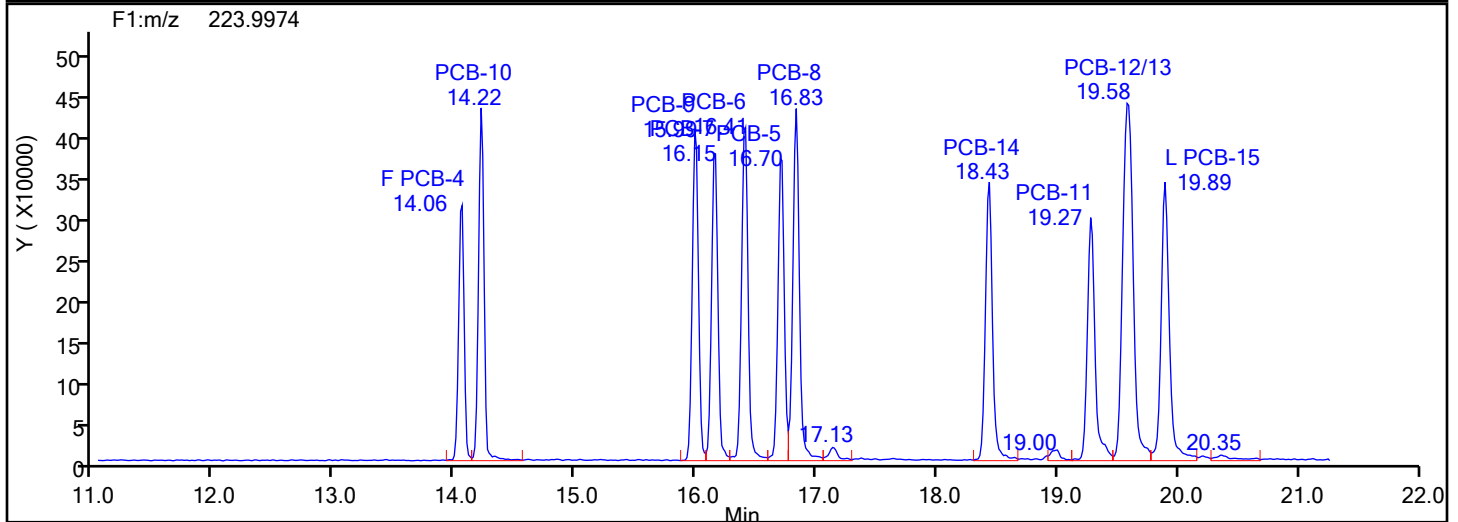
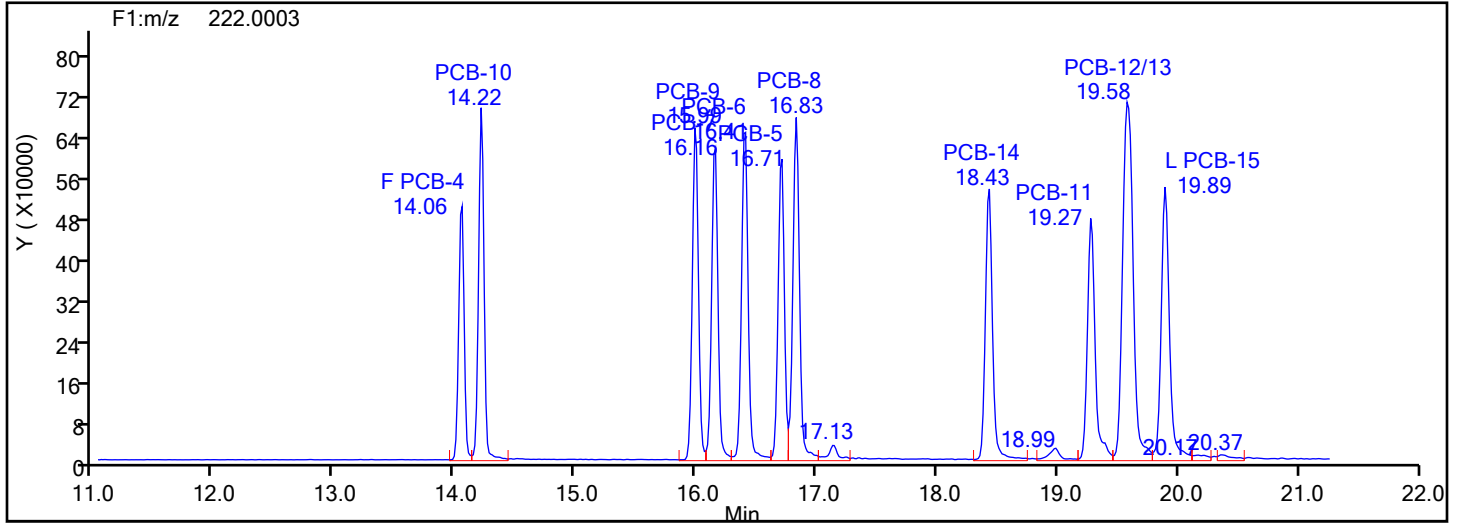


DiPCB F1 Standards

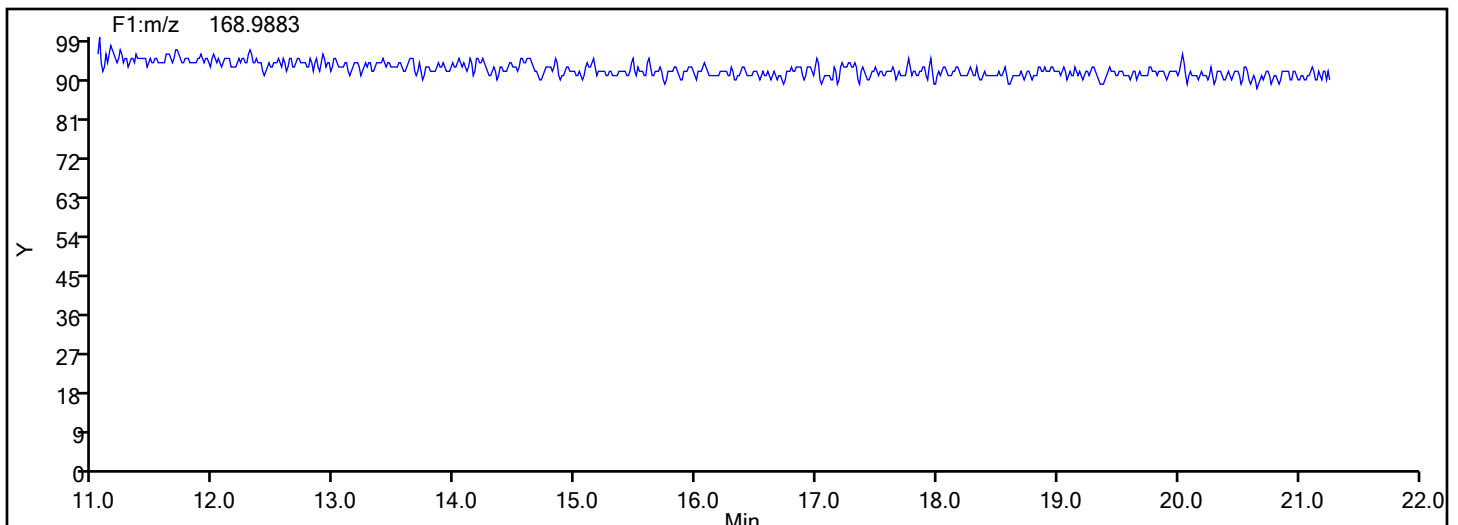


## Eurofins Knoxville

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Injection Date: 15-Jul-2024 12:43:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88747 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DiPCB F1



## DiPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d

Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

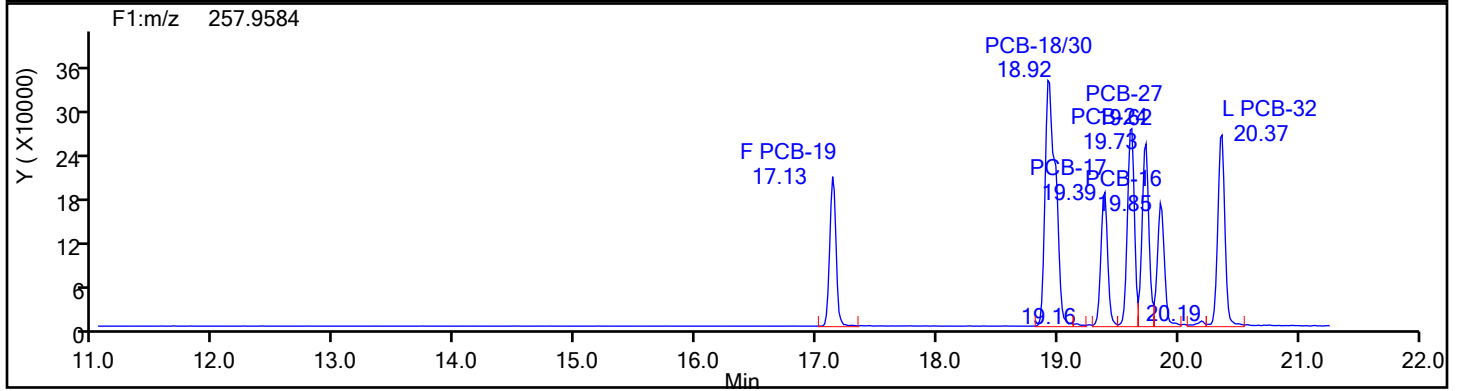
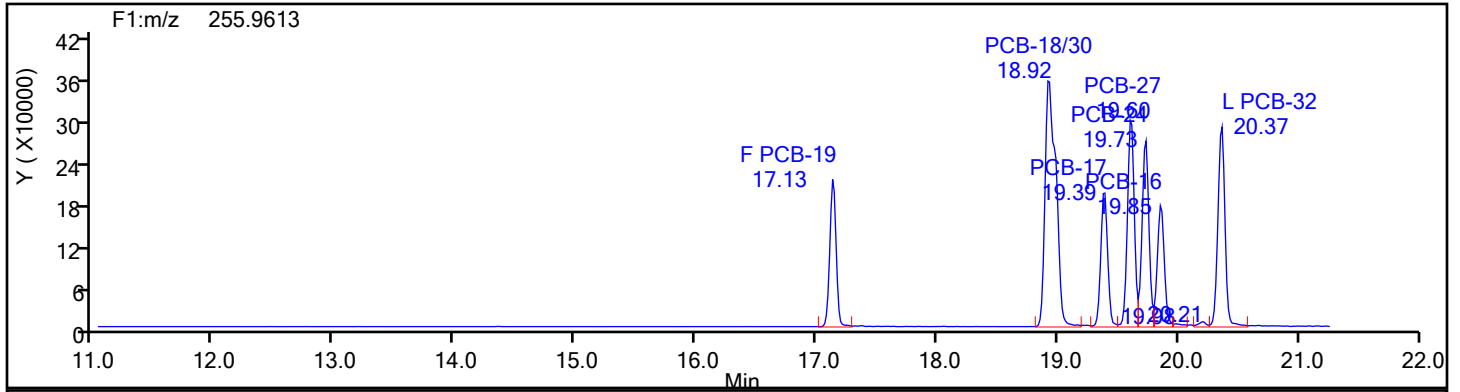
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Sample Line#: 1

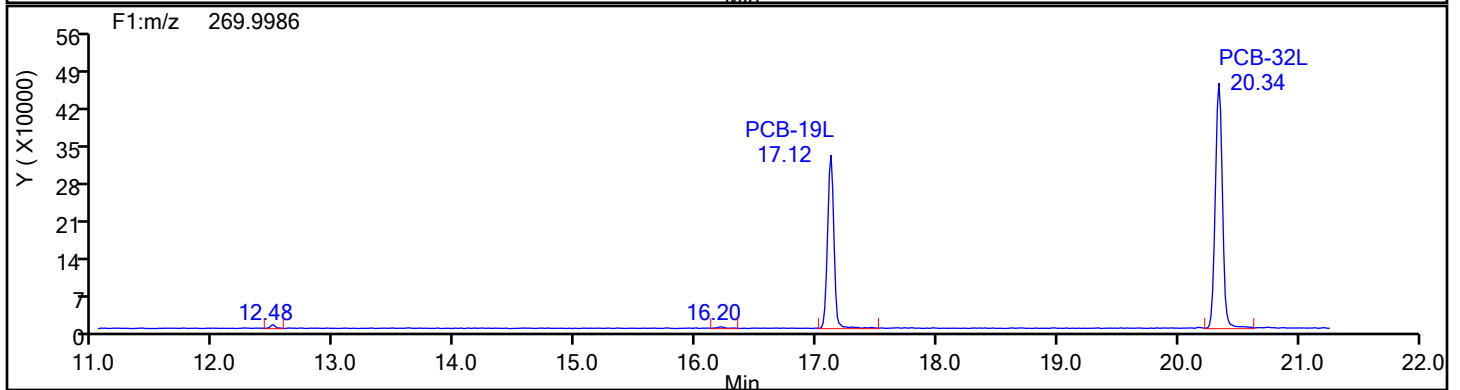
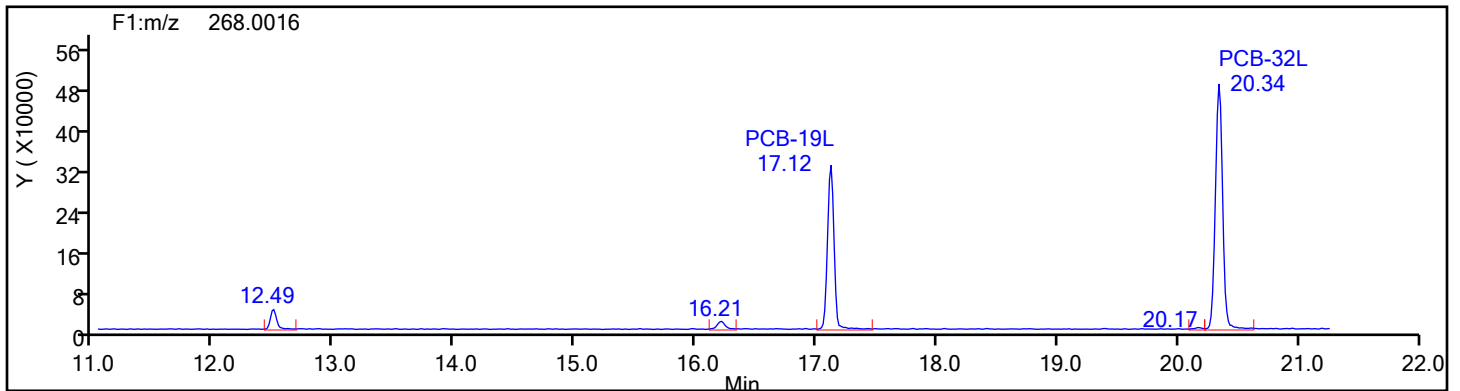
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1

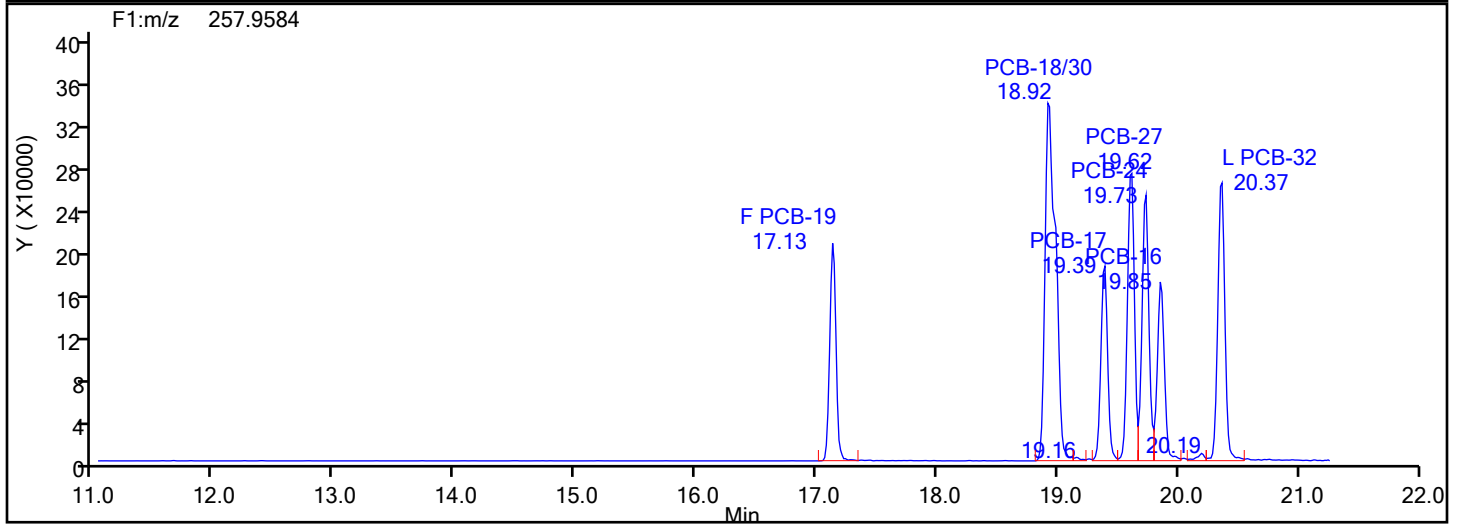
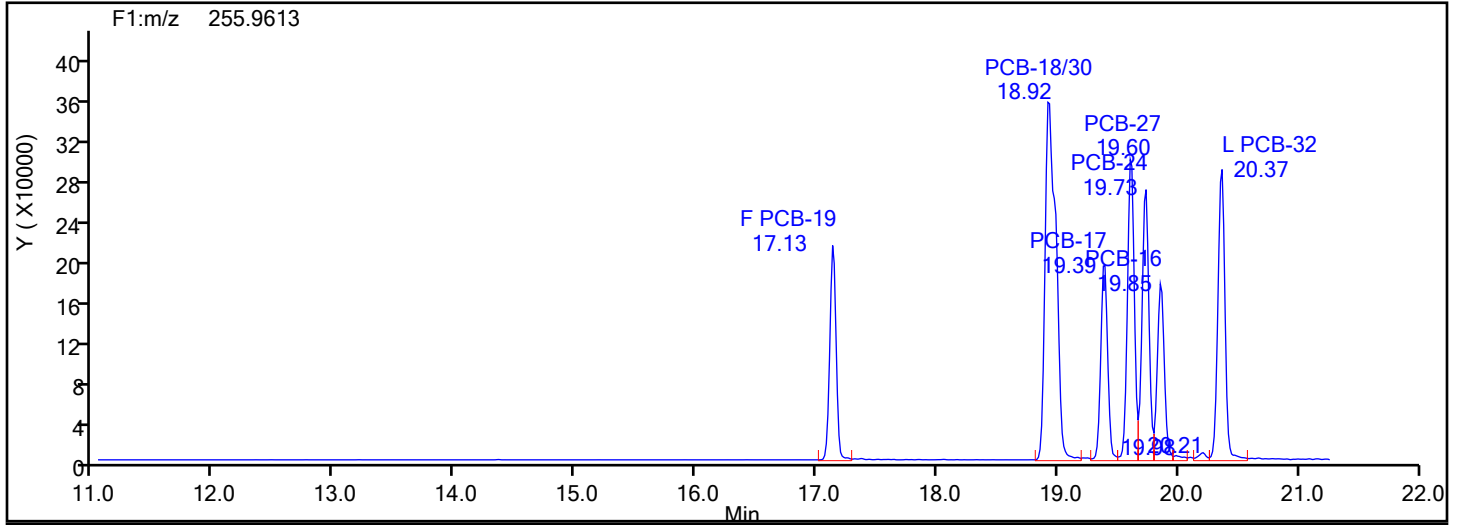


TriPCB F1 Standards

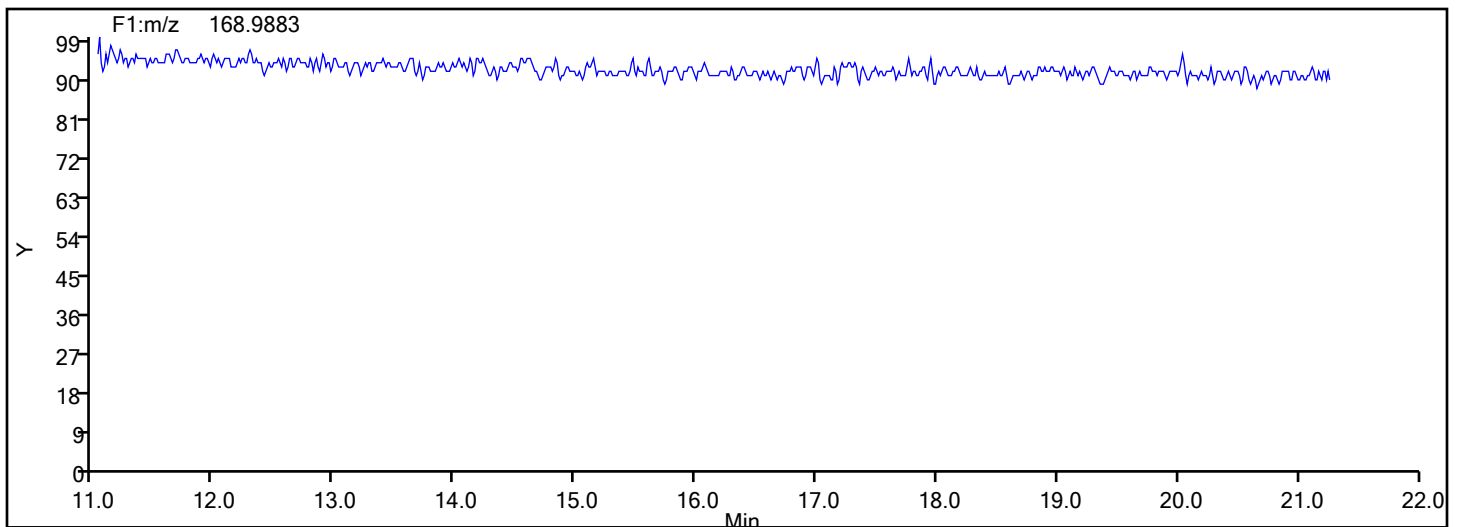


## Eurofins Knoxville

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Injection Date: 15-Jul-2024 12:43:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88747 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F1



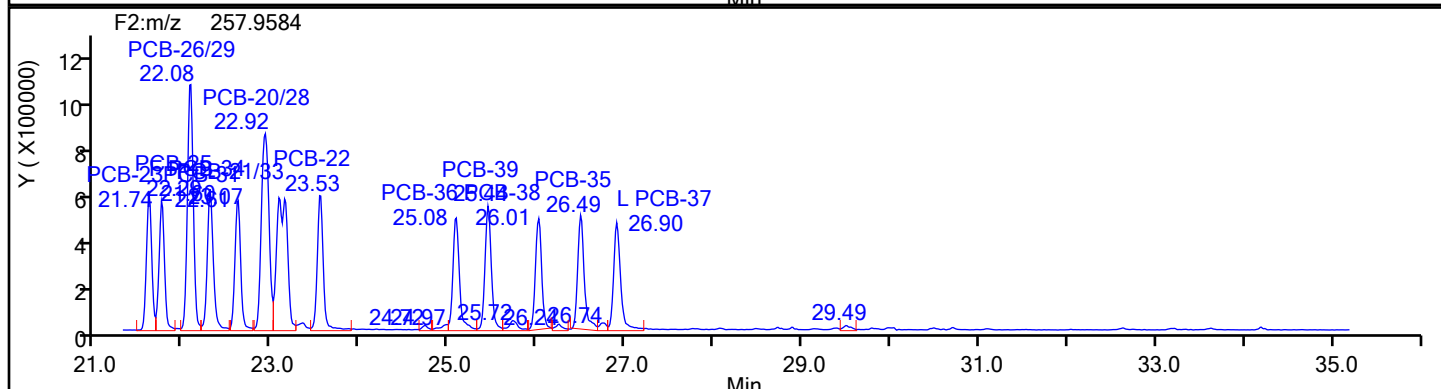
## TriPCB F1 Lock Mass



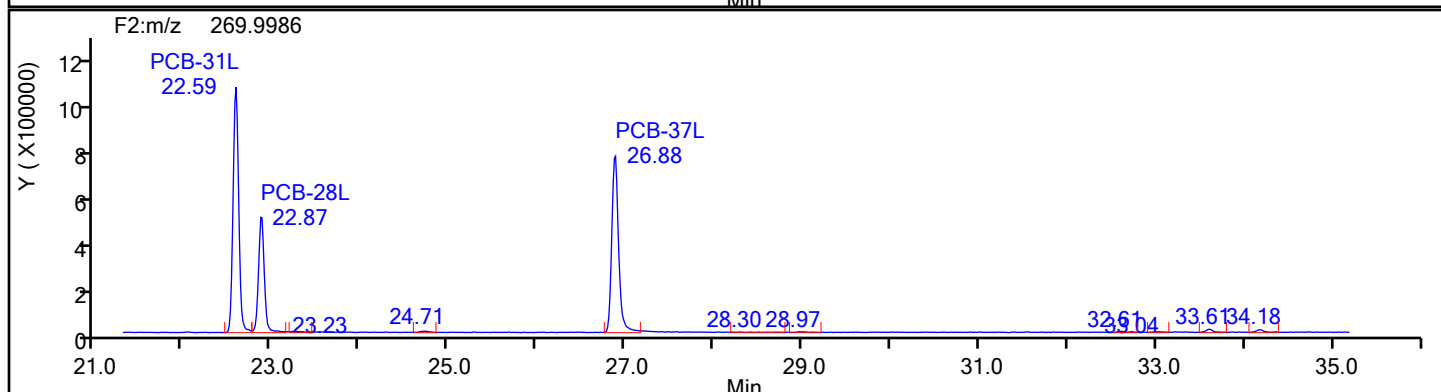
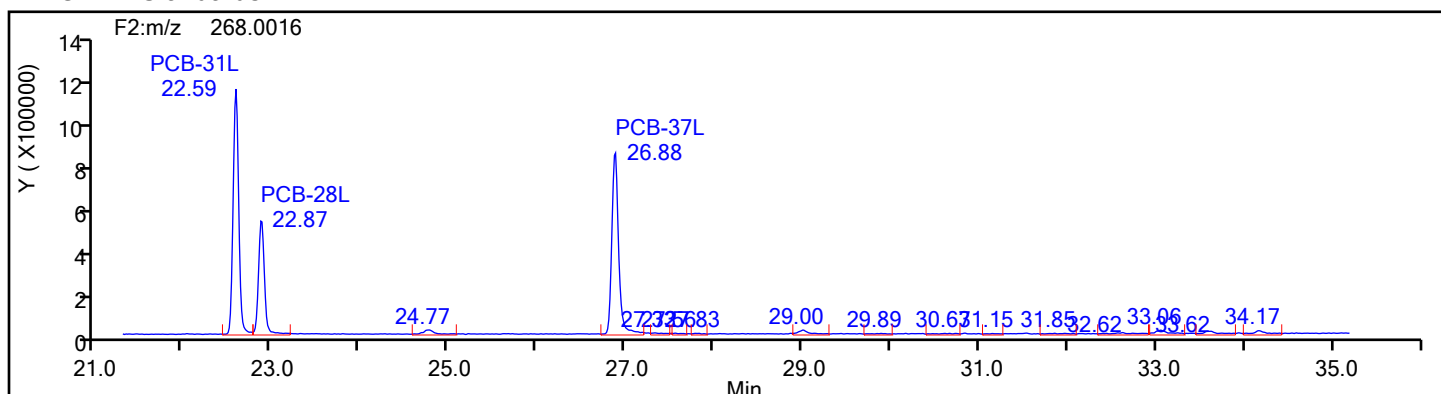


Column Dia: 0.25 mm

Column Dia: 0.25 mm



### TriPCB F2 Standards



## Eurofins Knoxville

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Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

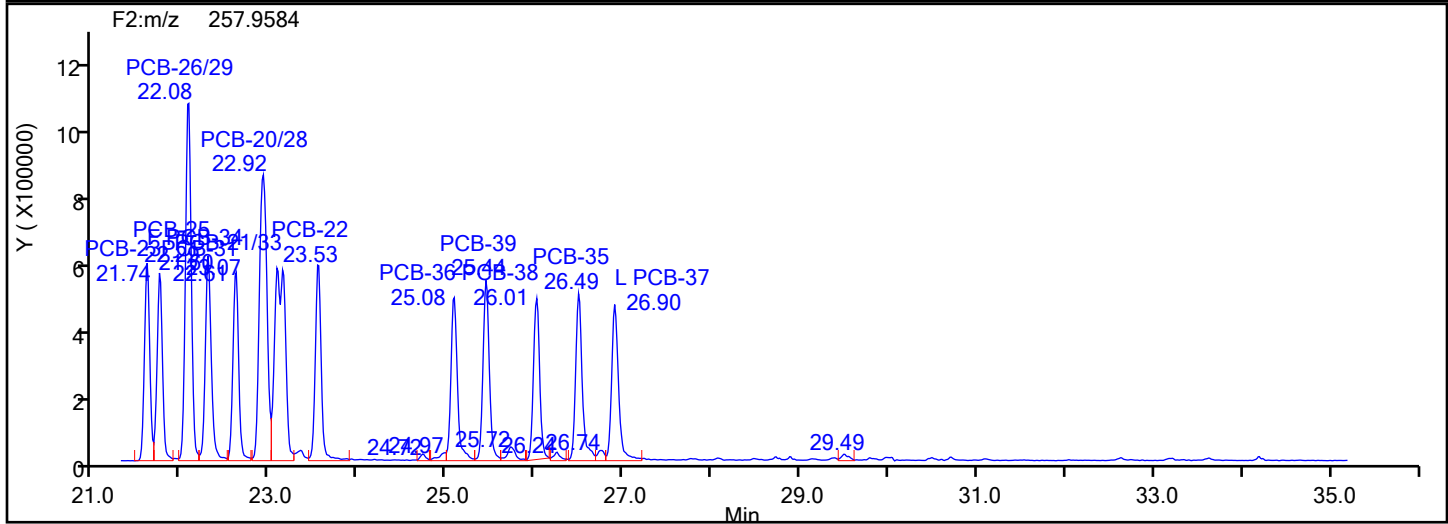
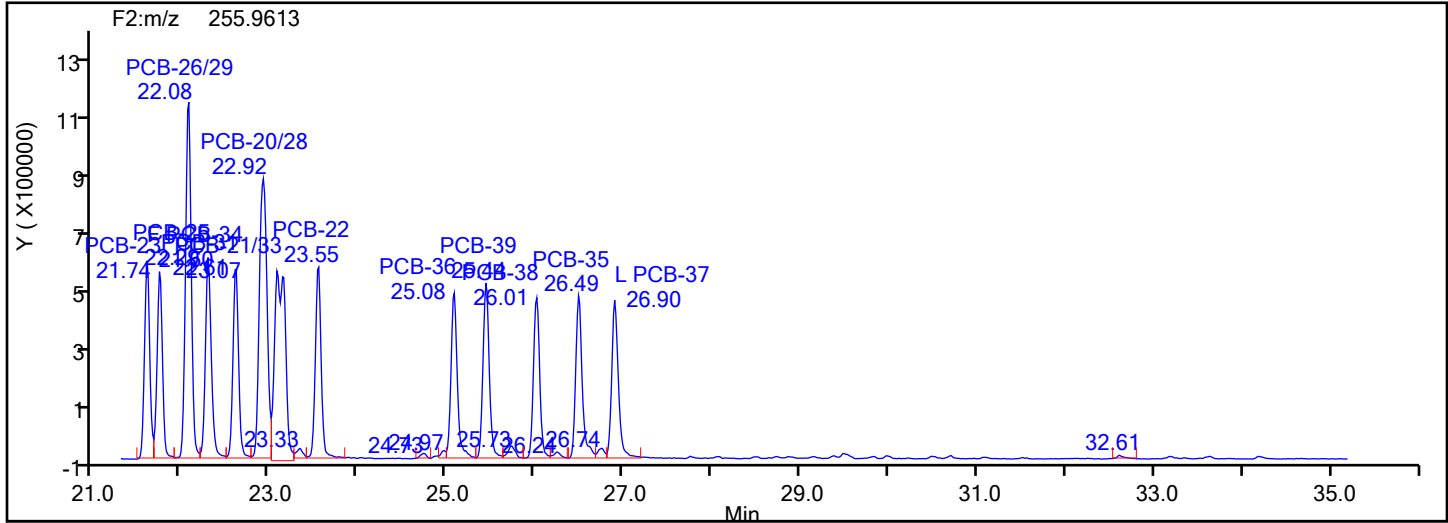
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Sample Line#: 1

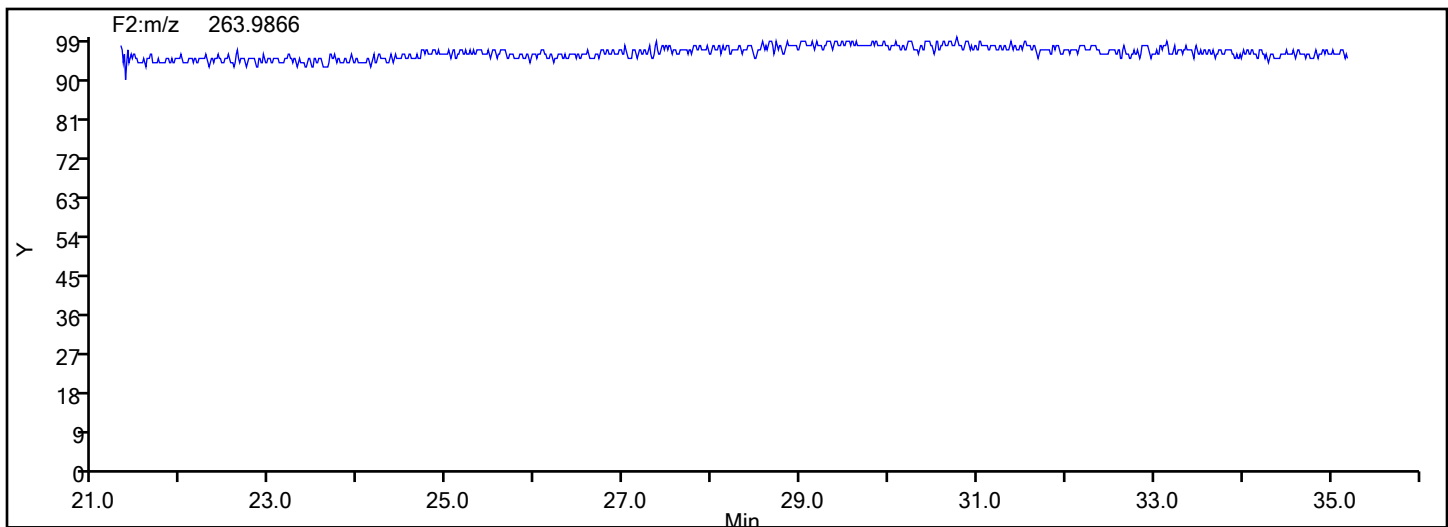
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



## TriPCB F2 Lock Mass



## Eurofins Knoxville

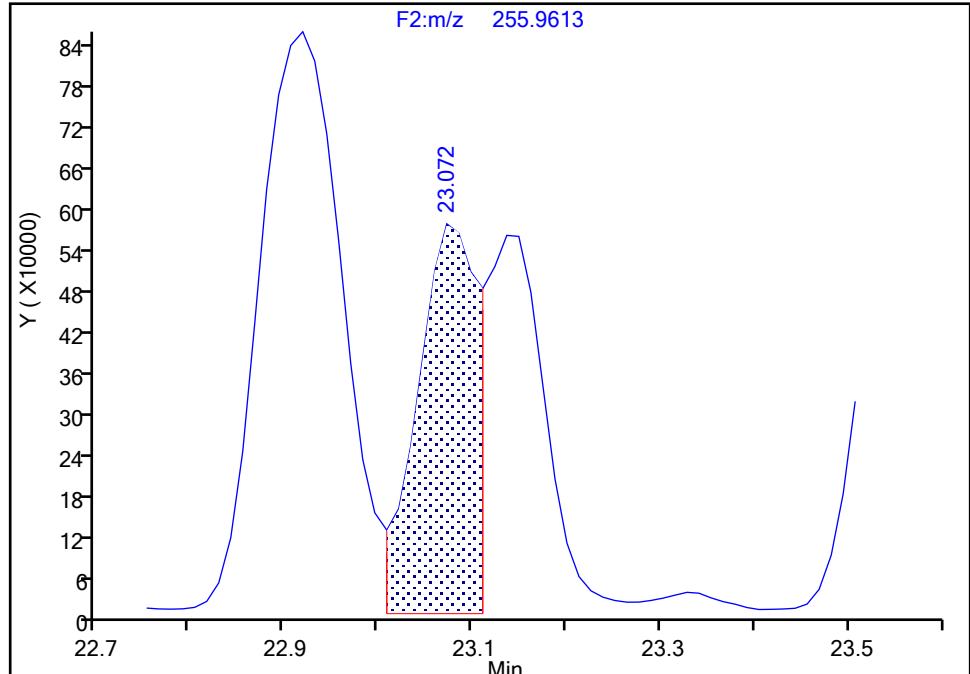
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Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 1

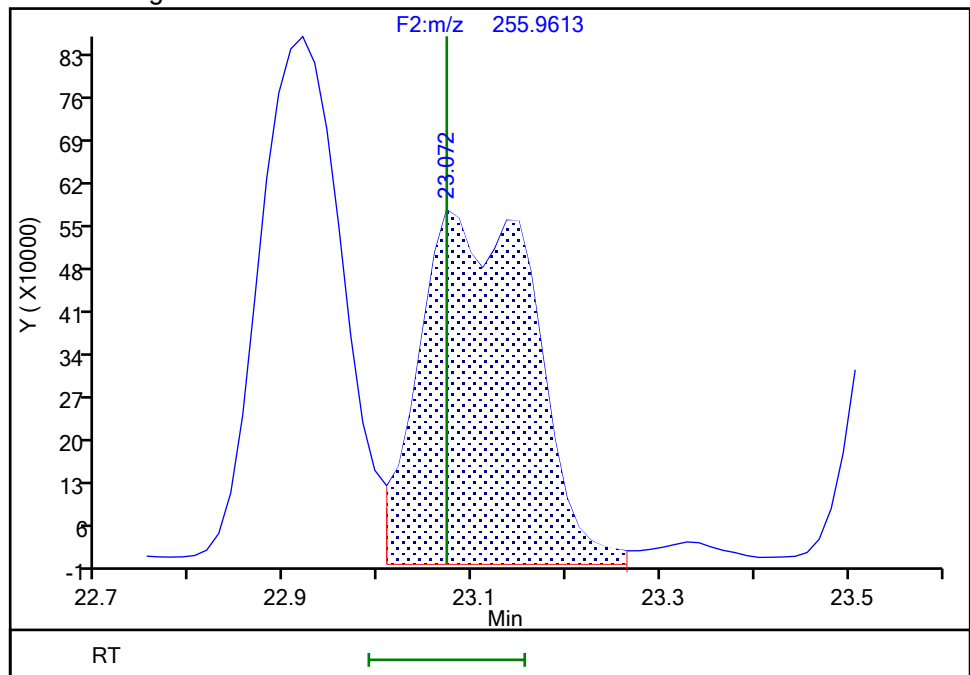
RT: 23.07  
Area: 2463946  
Amount: 52.159027  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.07  
Area: 4887833  
Amount: 103.1544  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 15-Jul-2024 13:50:32 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d

Injection Date: 15-Jul-2024 12:43:00

Instrument ID: D2D

Lims ID: WDMCCV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

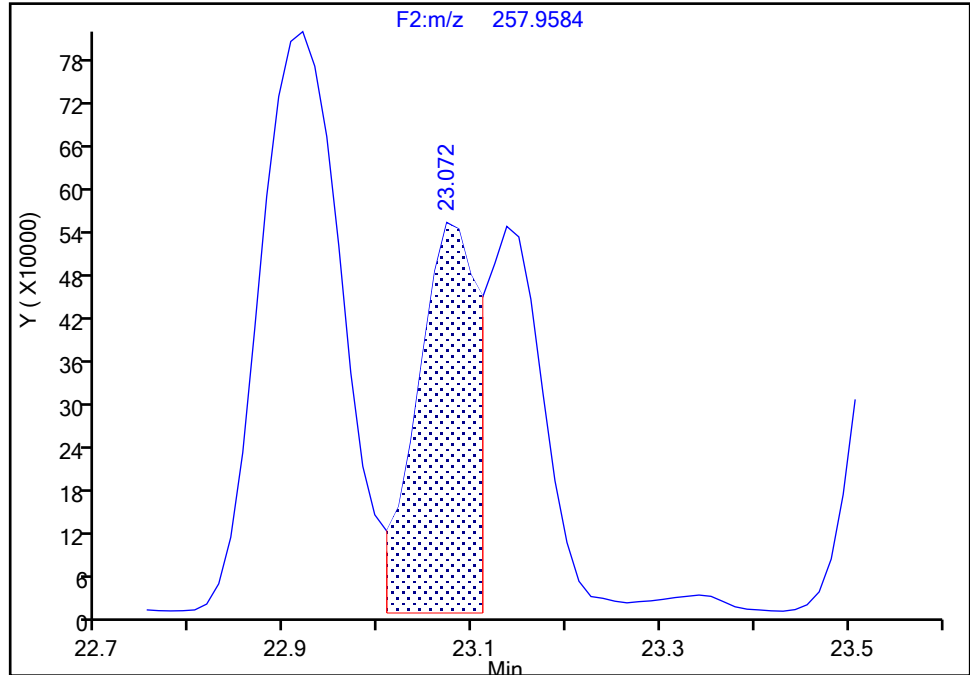
F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 2

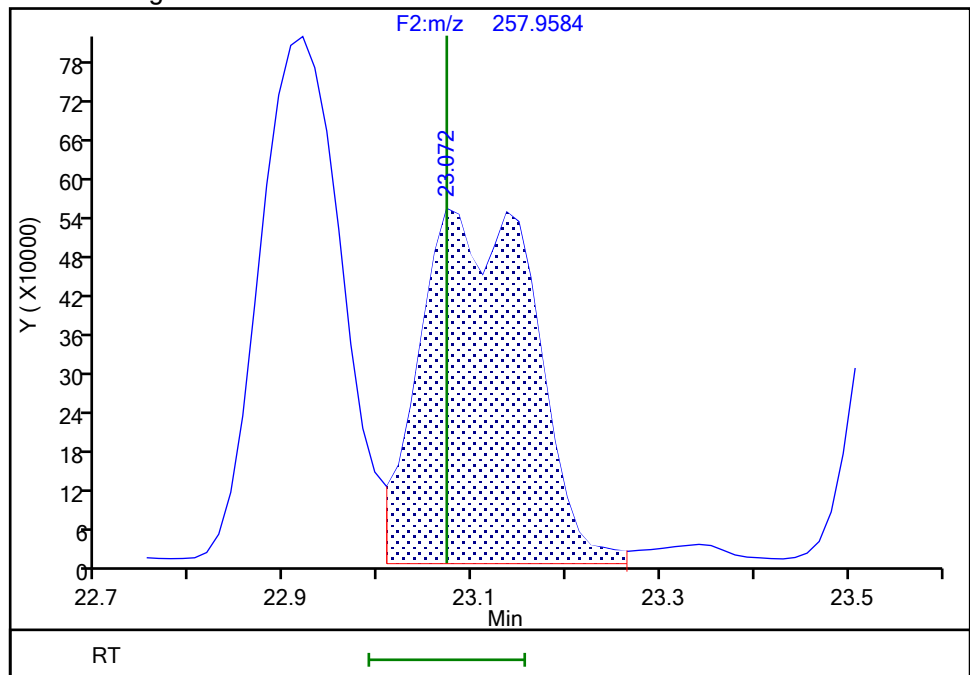
RT: 23.07  
Area: 2345225  
Amount: 52.159027  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.07  
Area: 4623221  
Amount: 103.1544  
Amount Units: pg/ul

## Manual Integration Results



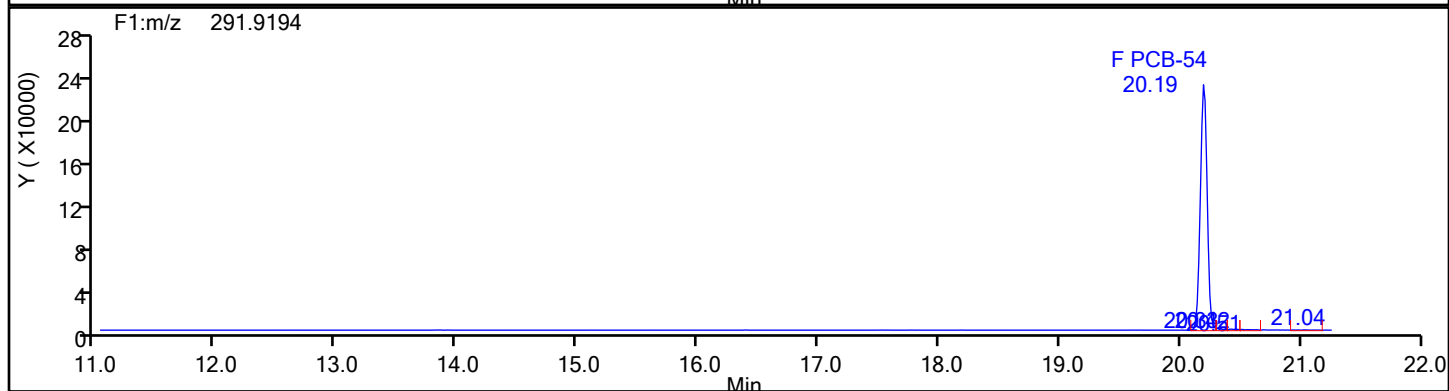
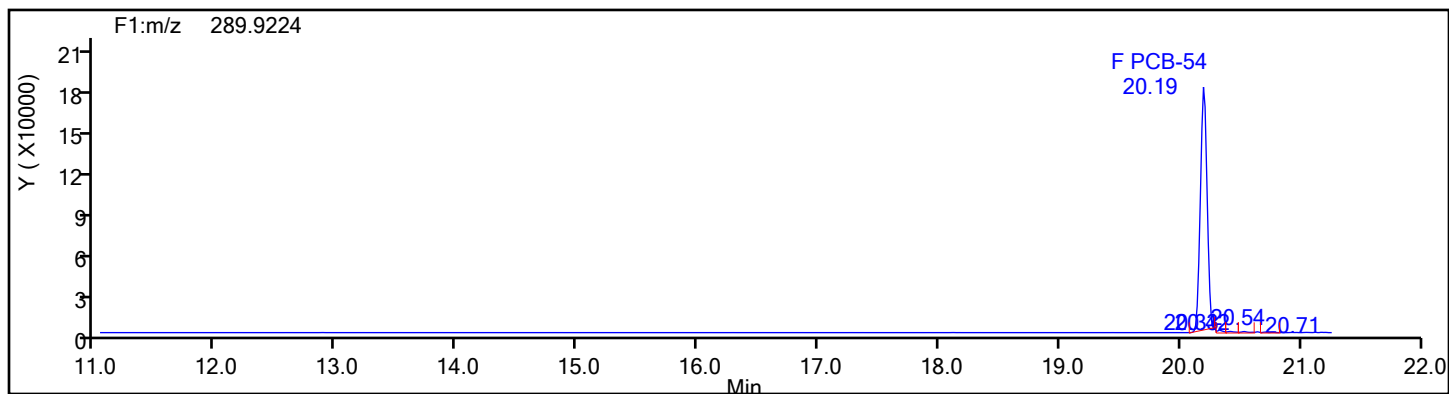
Reviewer: F9EE, 15-Jul-2024 13:50:40 -04:00:00 (UTC)

Audit Action: Manually Integrated

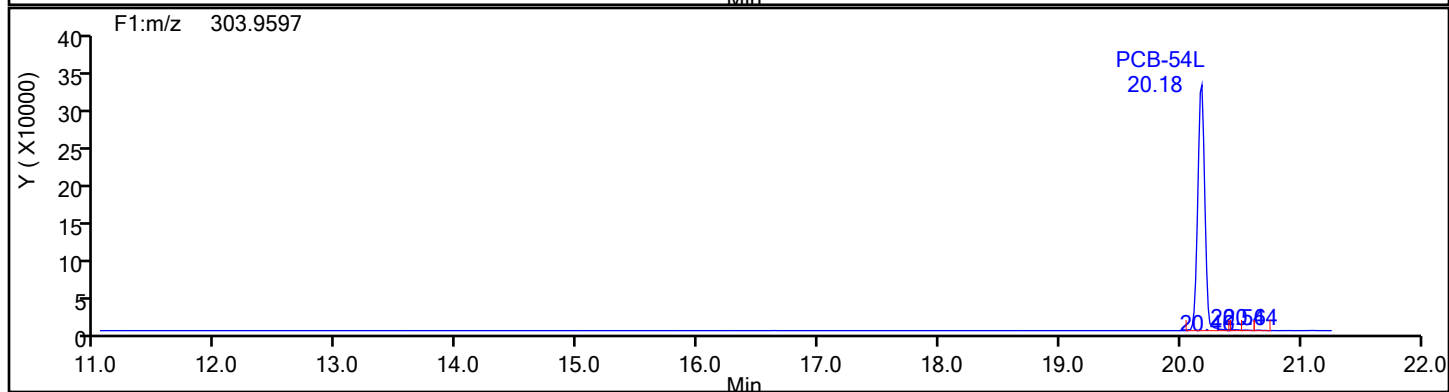
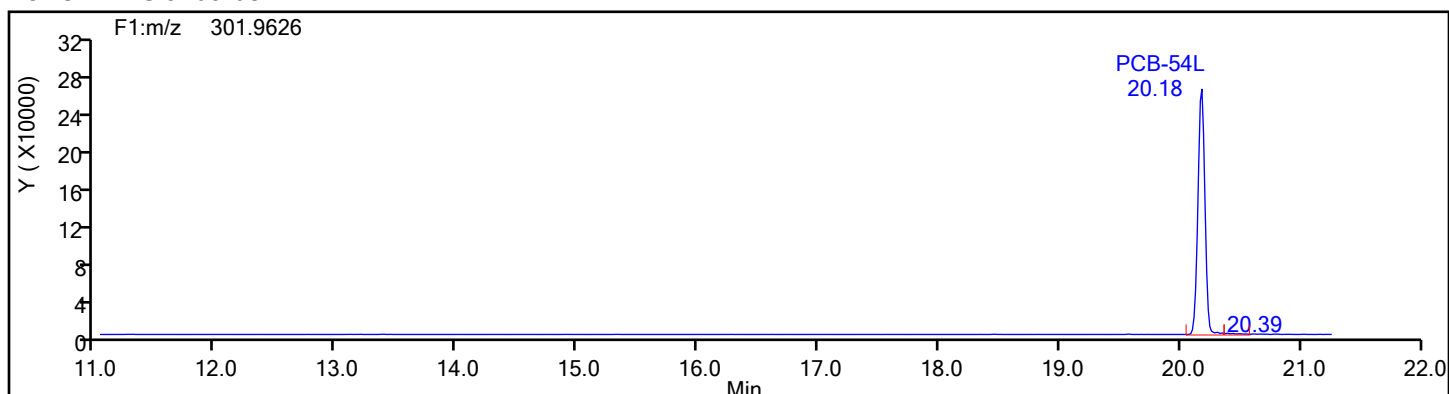
Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88747 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1



## TePCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d

Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

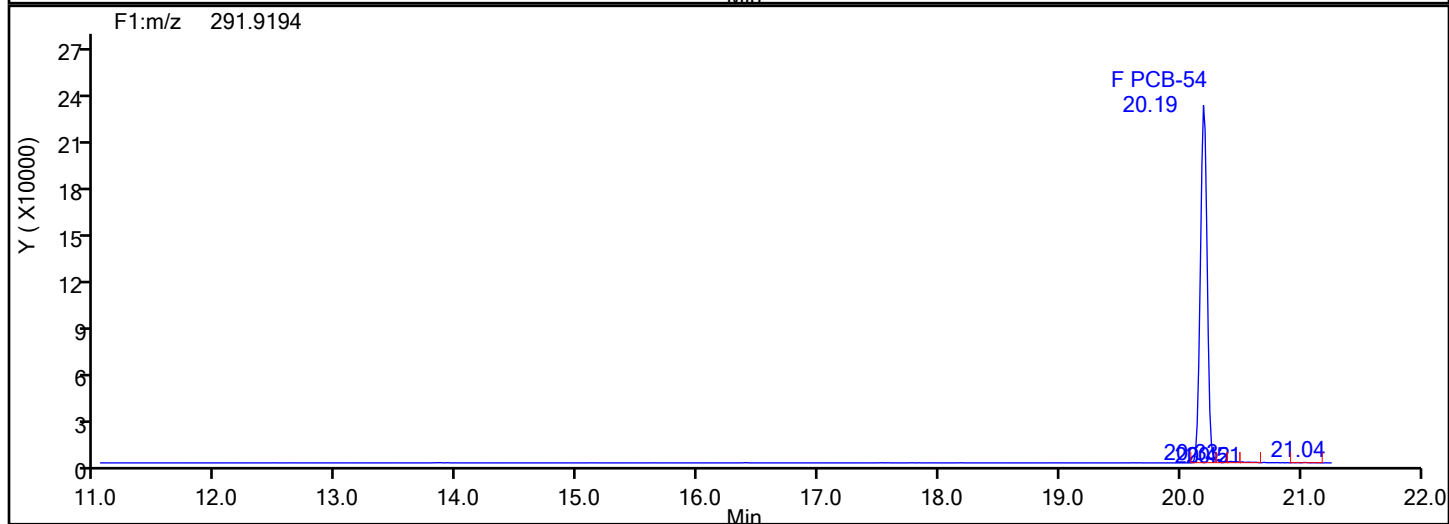
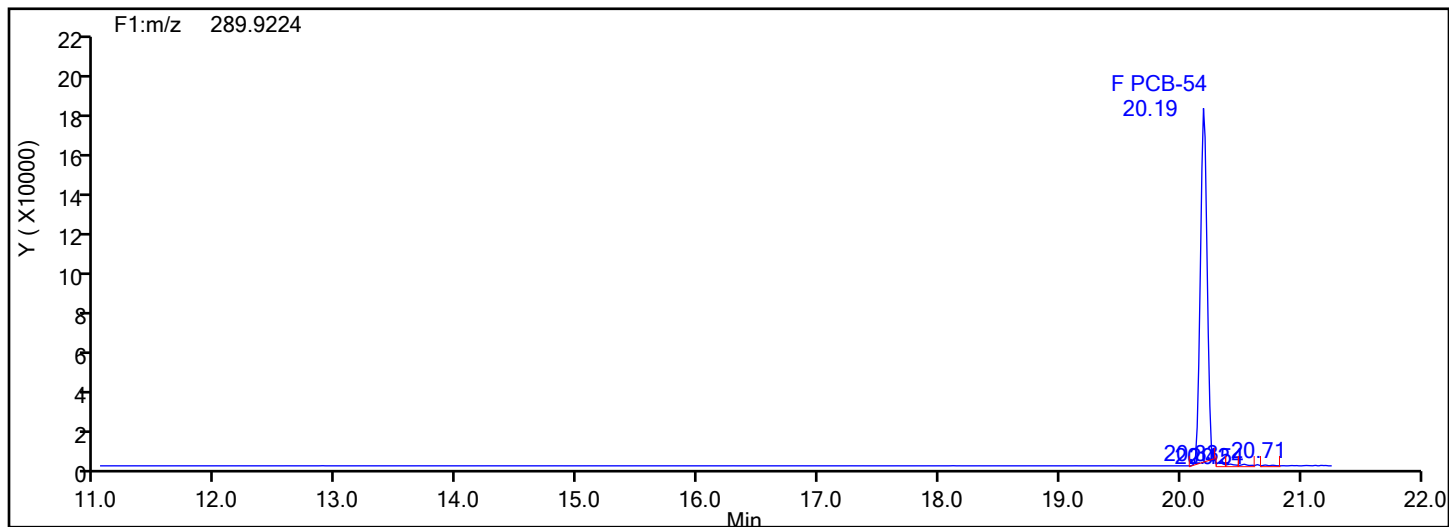
Worklist#: 88747

Sample Line#: 1

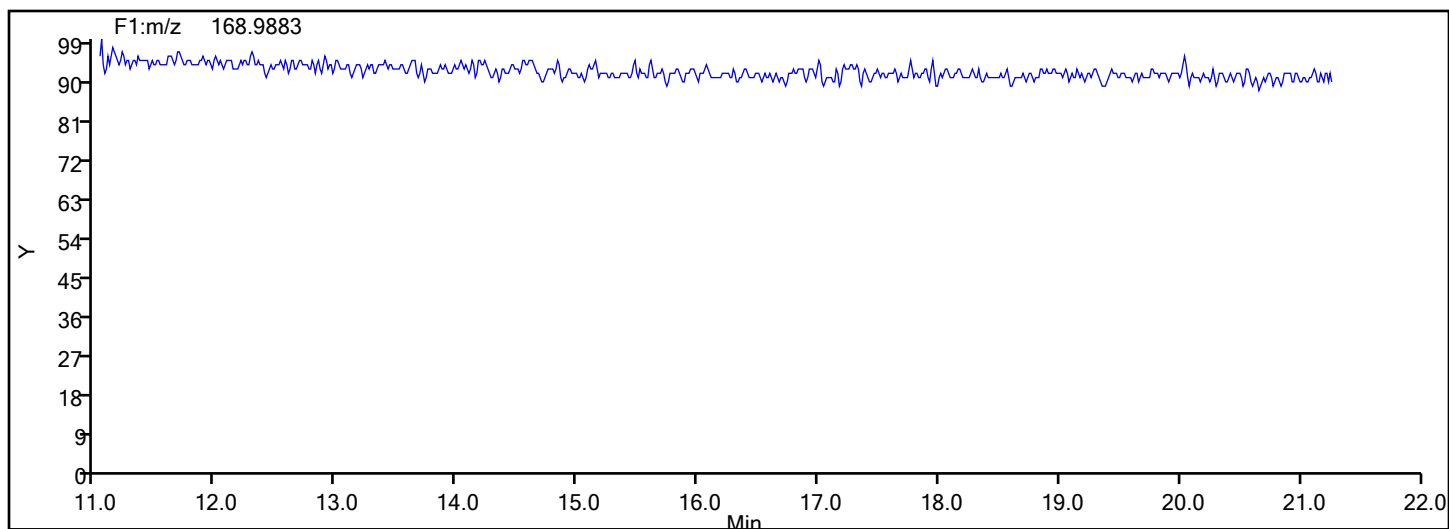
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



TePCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d

Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

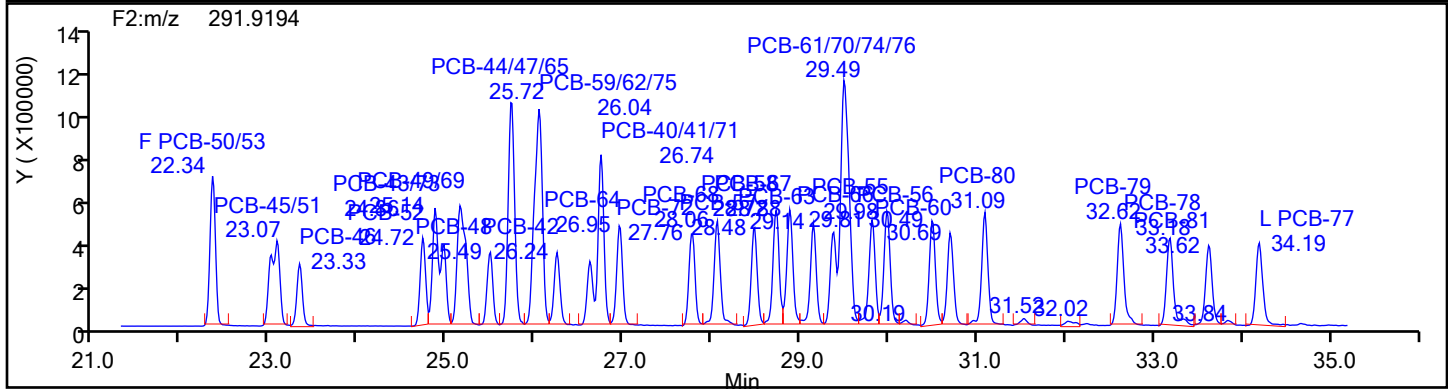
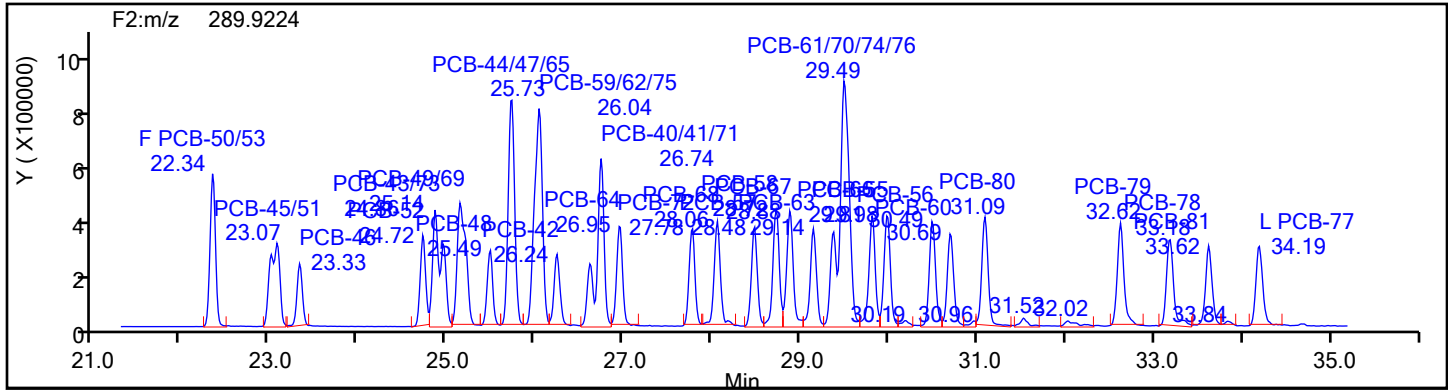
Worklist#: 88747

Sample Line#: 1

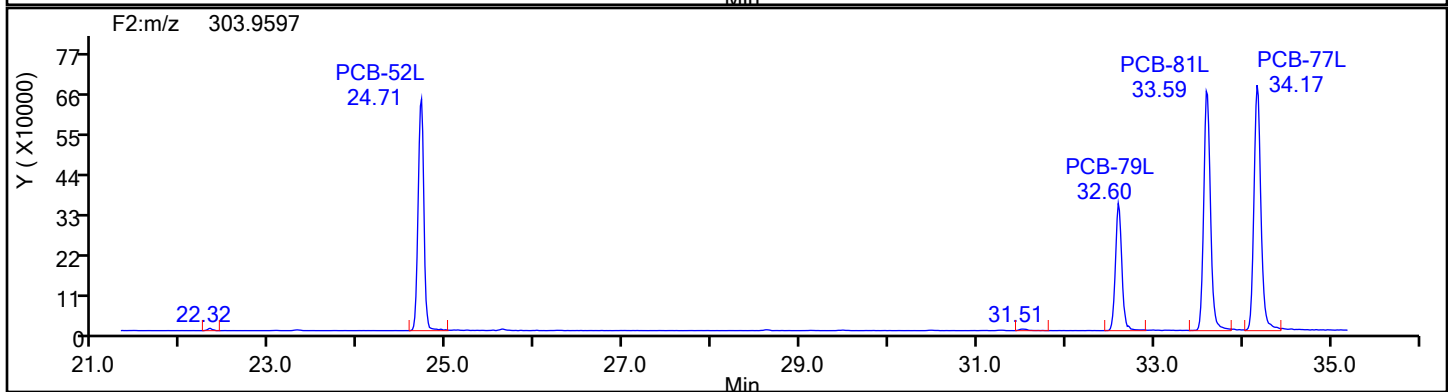
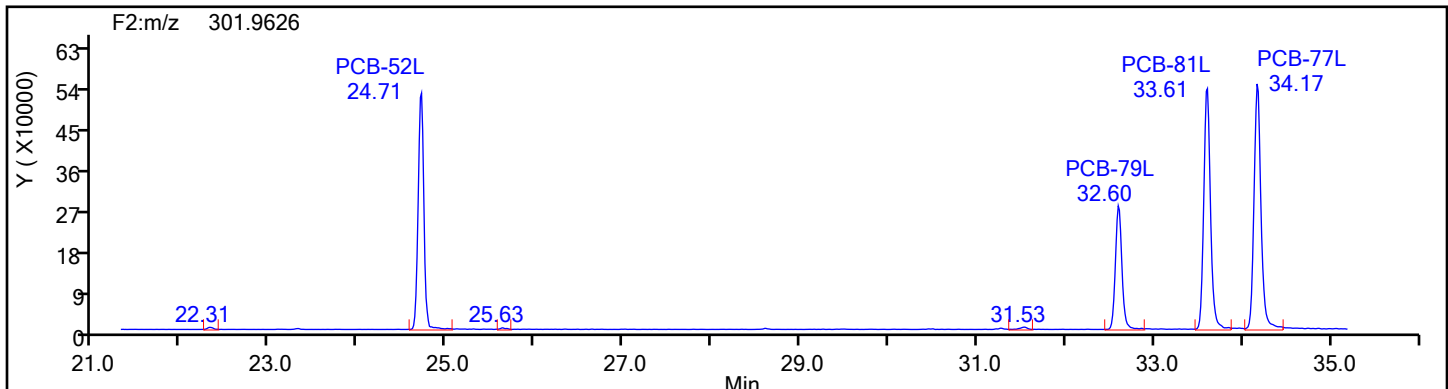
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



TePCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d

Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

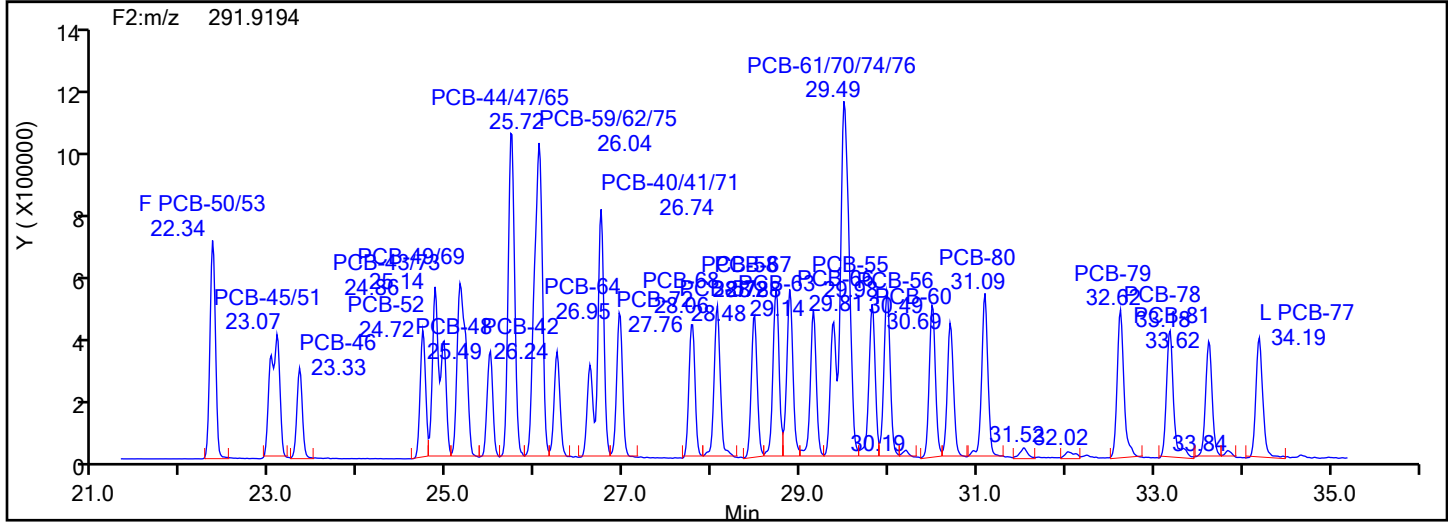
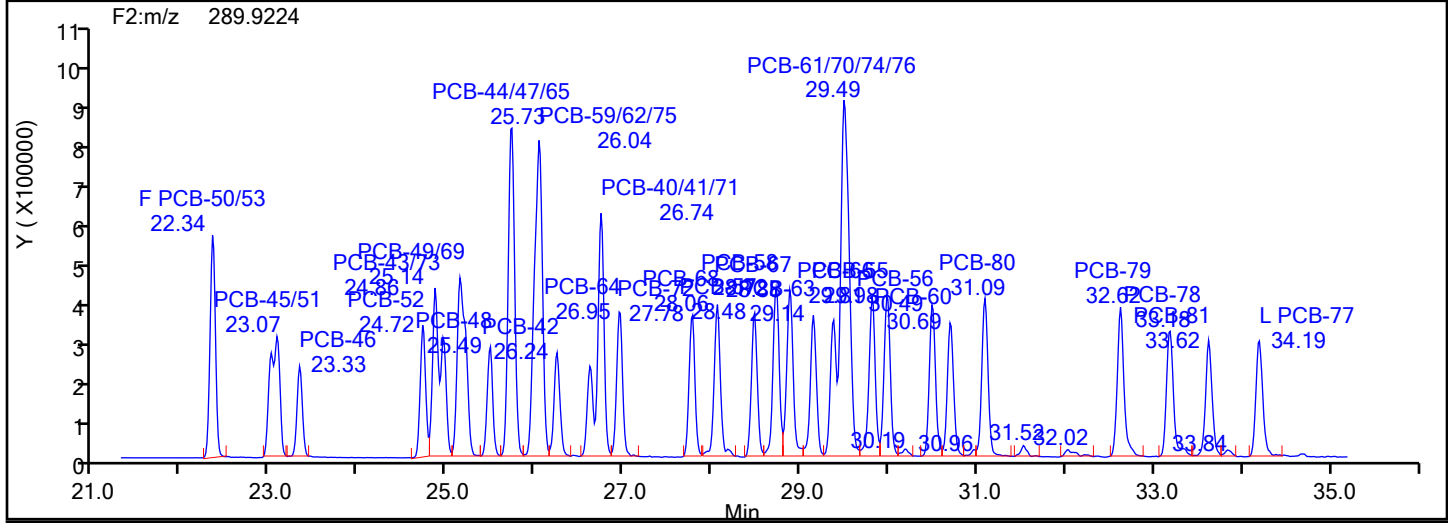
Worklist#: 88747

Sample Line#: 1

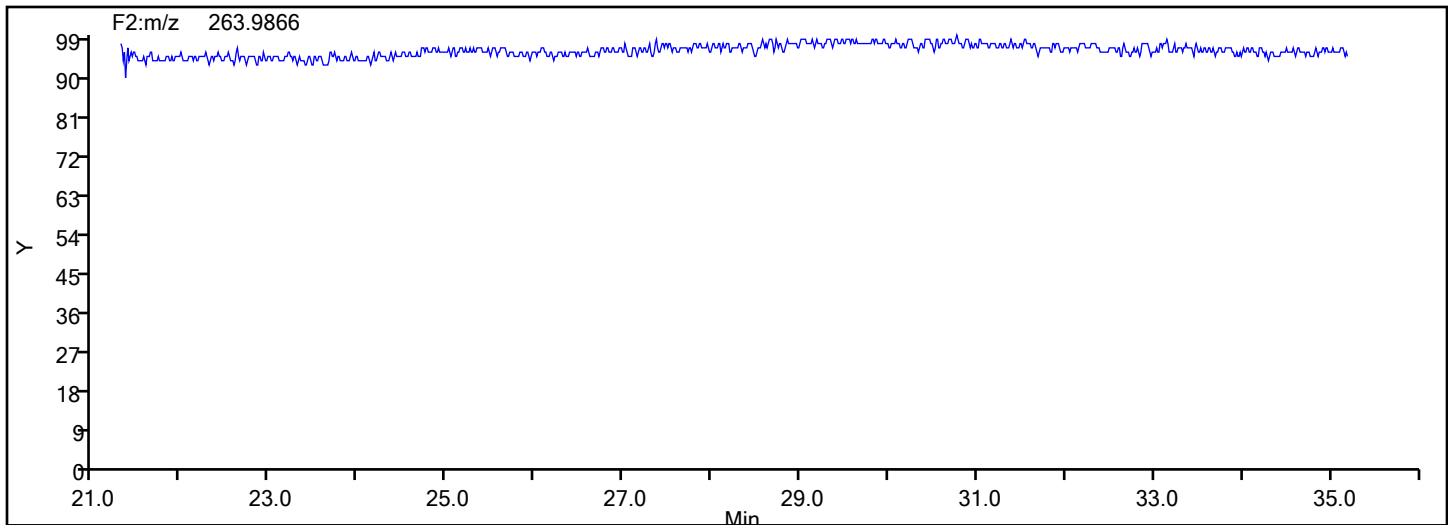
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



## TePCB F2 Lock Mass





## Eurofins Knoxville

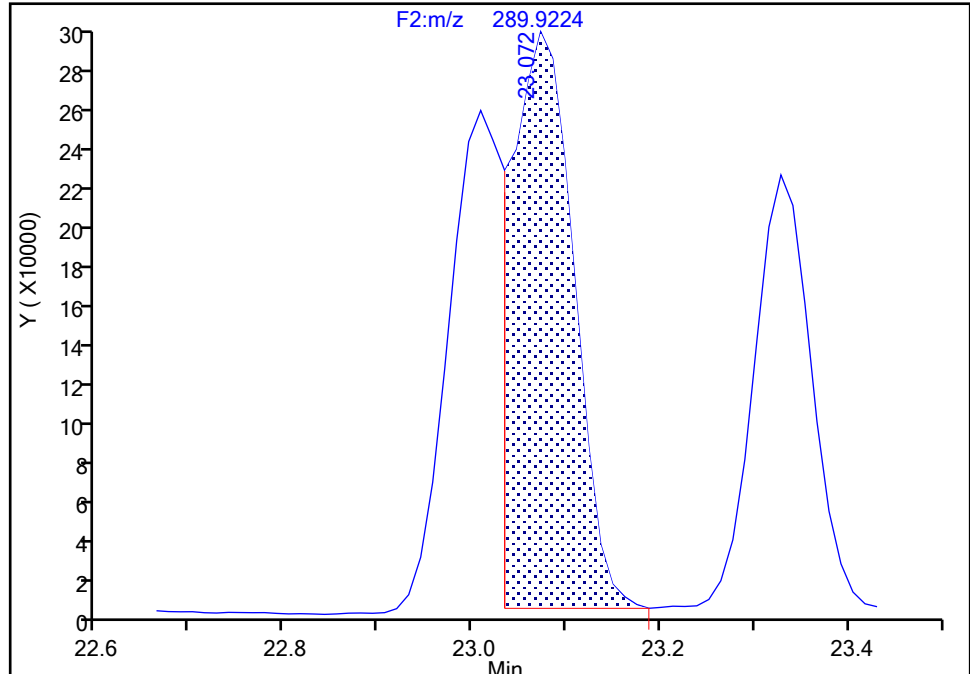
Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-45/51, CAS: STL01804

Signal: 1

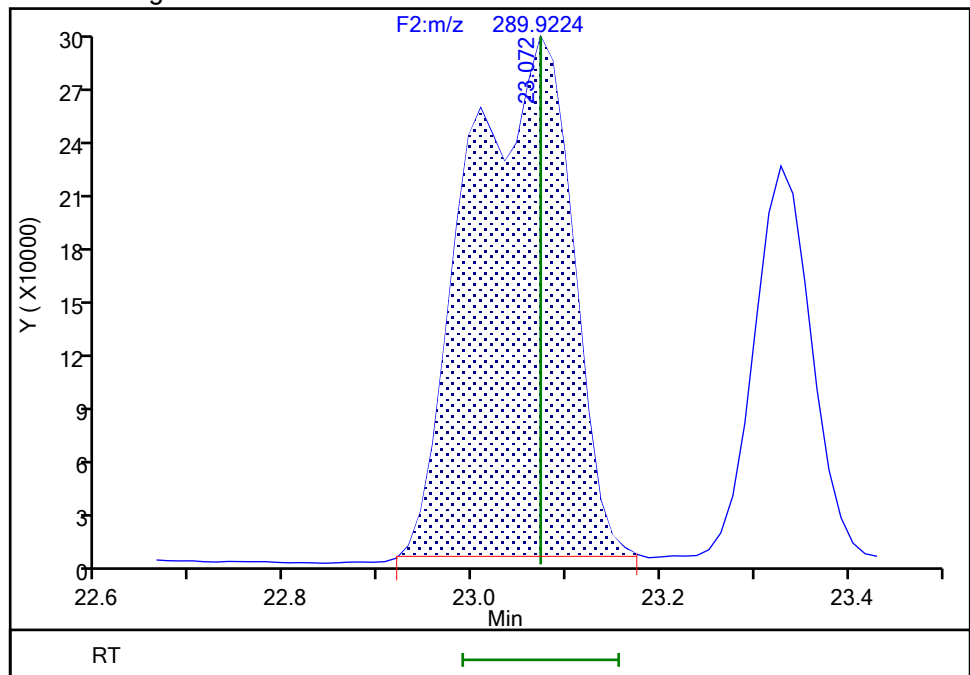
RT: 23.07  
Area: 1304043  
Amount: 54.049475  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.07  
Area: 2257964  
Amount: 93.245440  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 15-Jul-2024 13:50:49 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

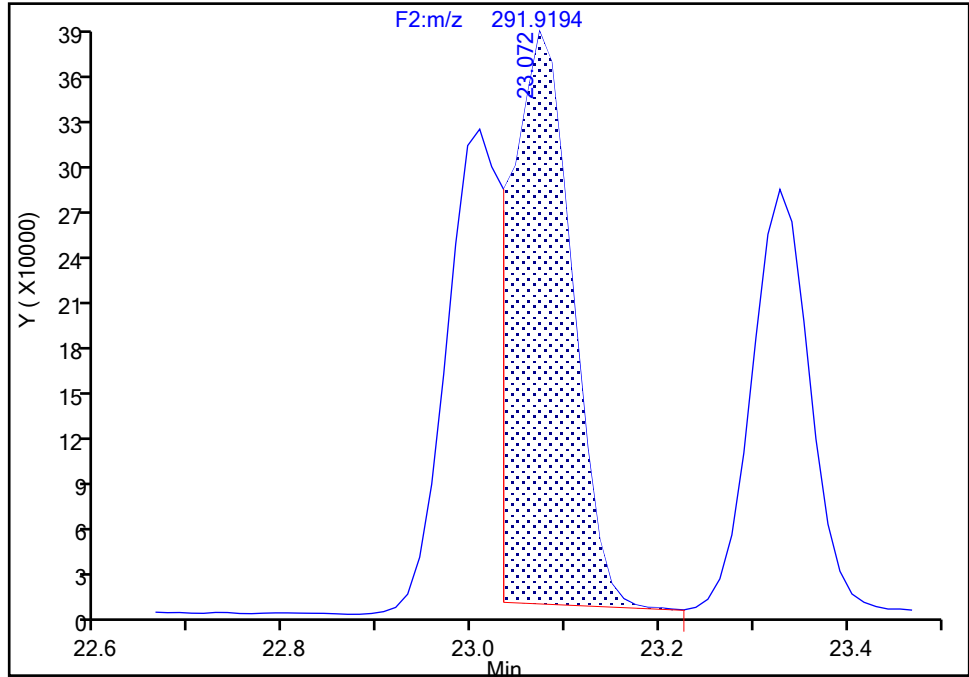
Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-45/51, CAS: STL01804**

Signal: 2

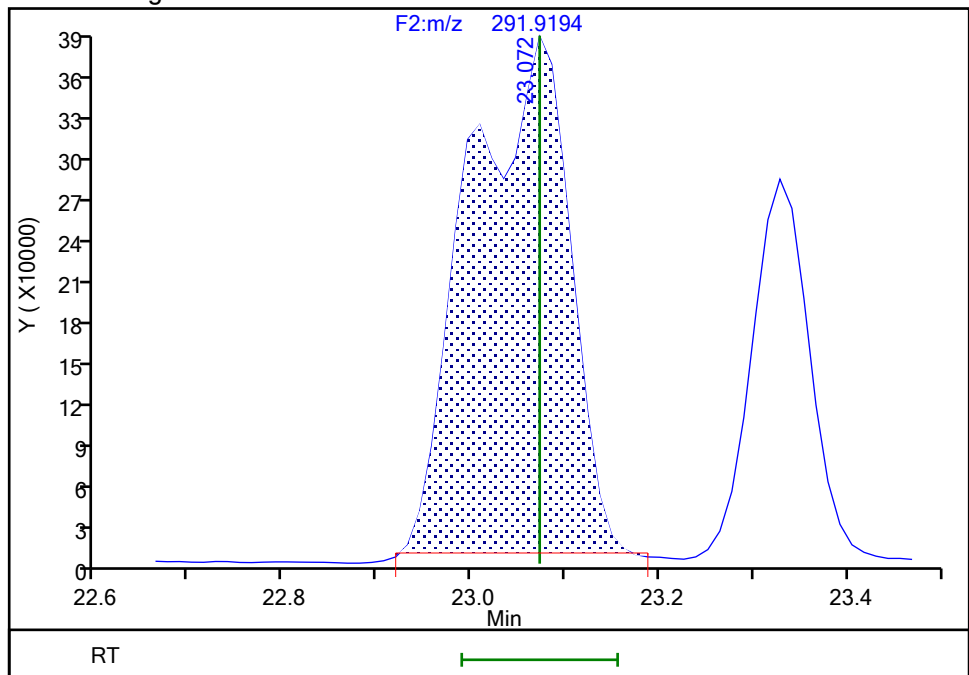
RT: 23.07  
Area: 1622672  
Amount: 54.049475  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.07  
Area: 2791166  
Amount: 93.245440  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 15-Jul-2024 13:50:55 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

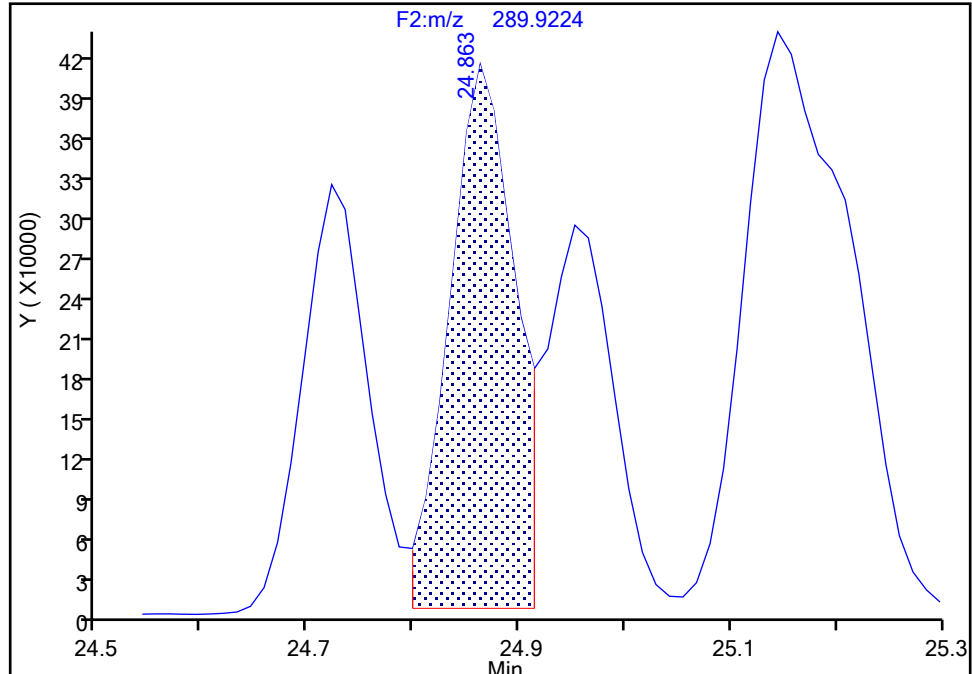
Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 1

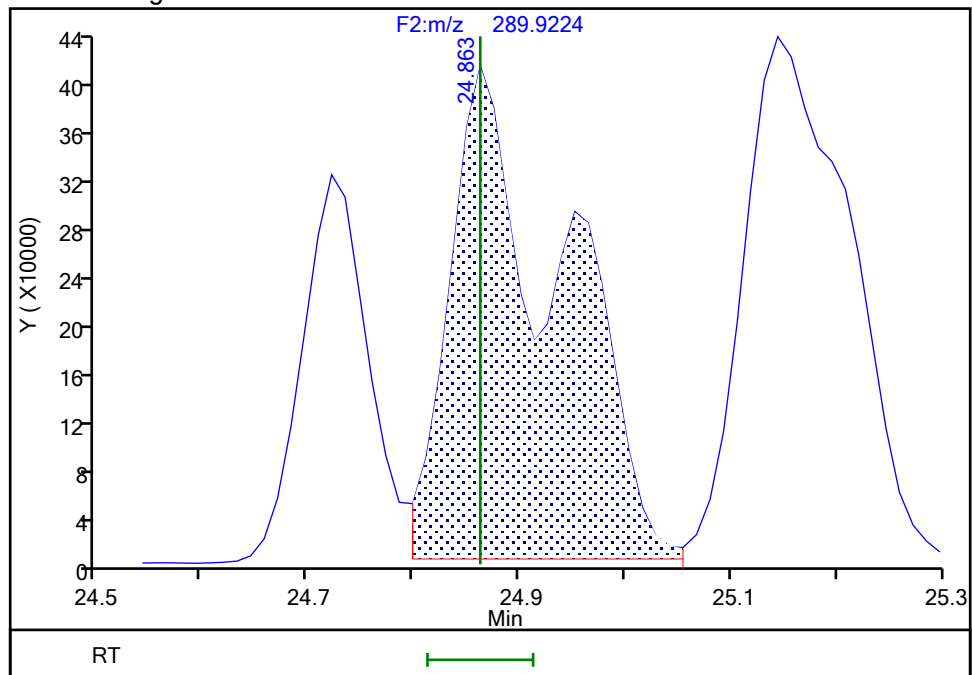
RT: 24.86  
Area: 1746342  
Amount: 59.214098  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.86  
Area: 3028560  
Amount: 101.4824  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 15-Jul-2024 13:51:20 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

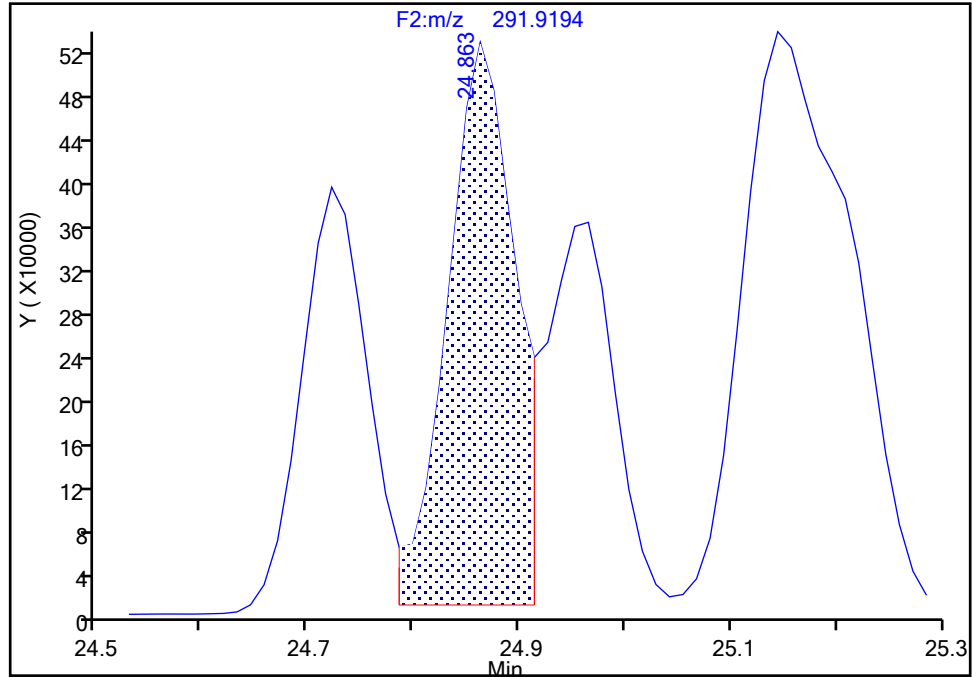
Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-43/73, CAS: STL02293

Signal: 2

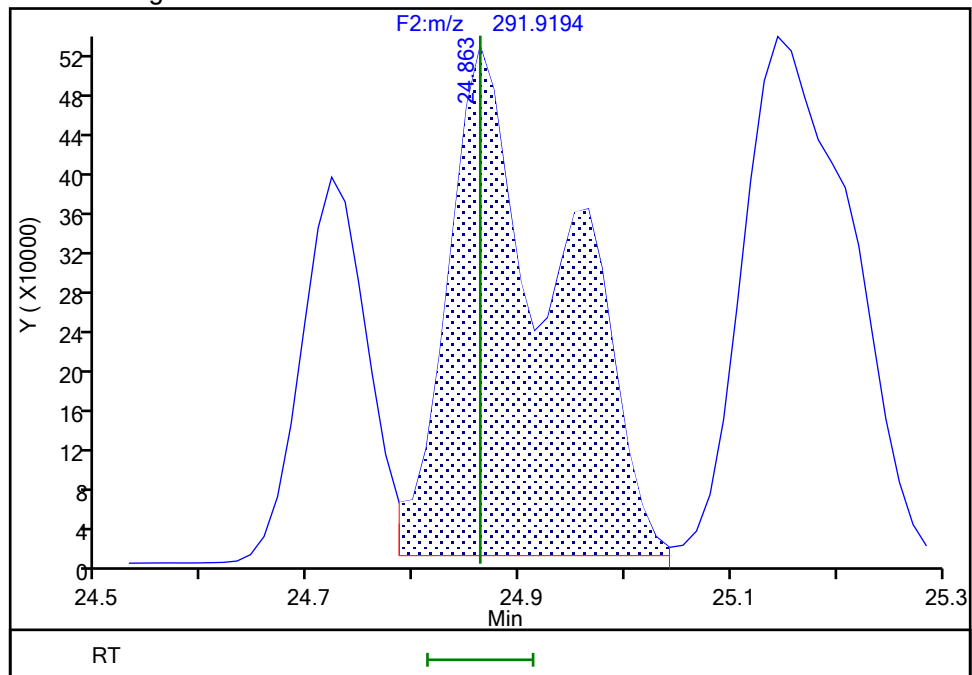
RT: 24.86  
Area: 2262821  
Amount: 59.214098  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.86  
Area: 3842432  
Amount: 101.4824  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 15-Jul-2024 13:51:27 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

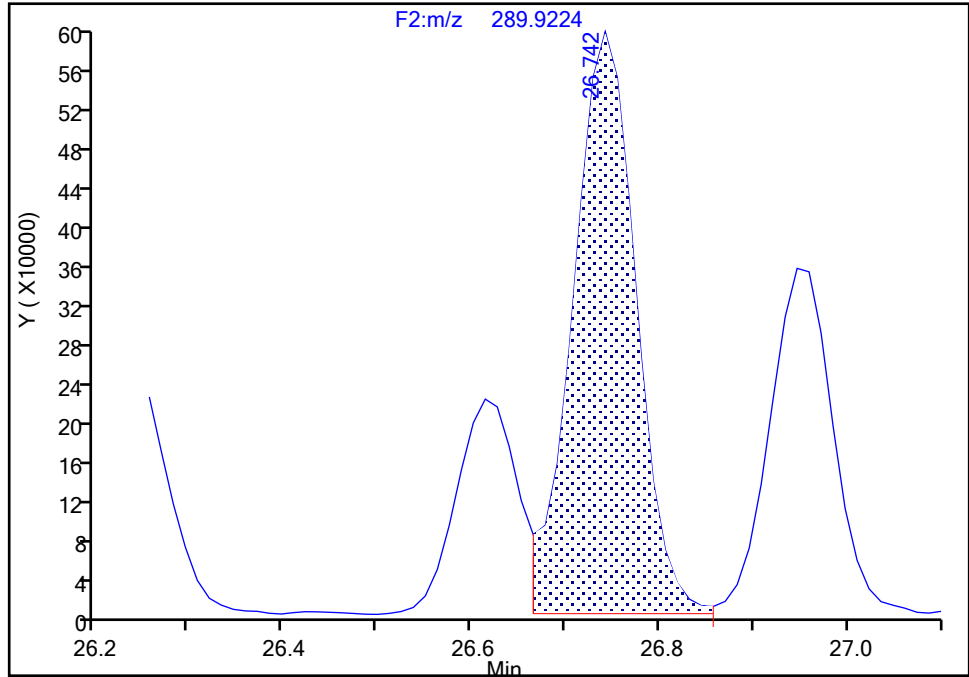
Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-40/41/71, CAS: STL02292

Signal: 1

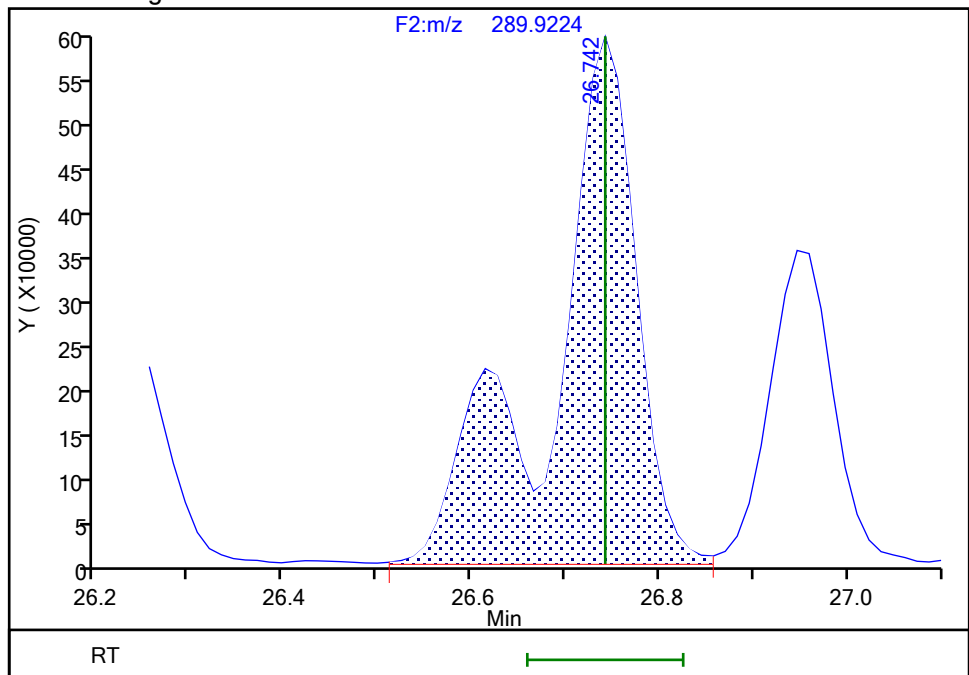
RT: 26.74  
Area: 2768666  
Amount: 107.1774  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.74  
Area: 3744710  
Amount: 145.3265  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 15-Jul-2024 13:51:47 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

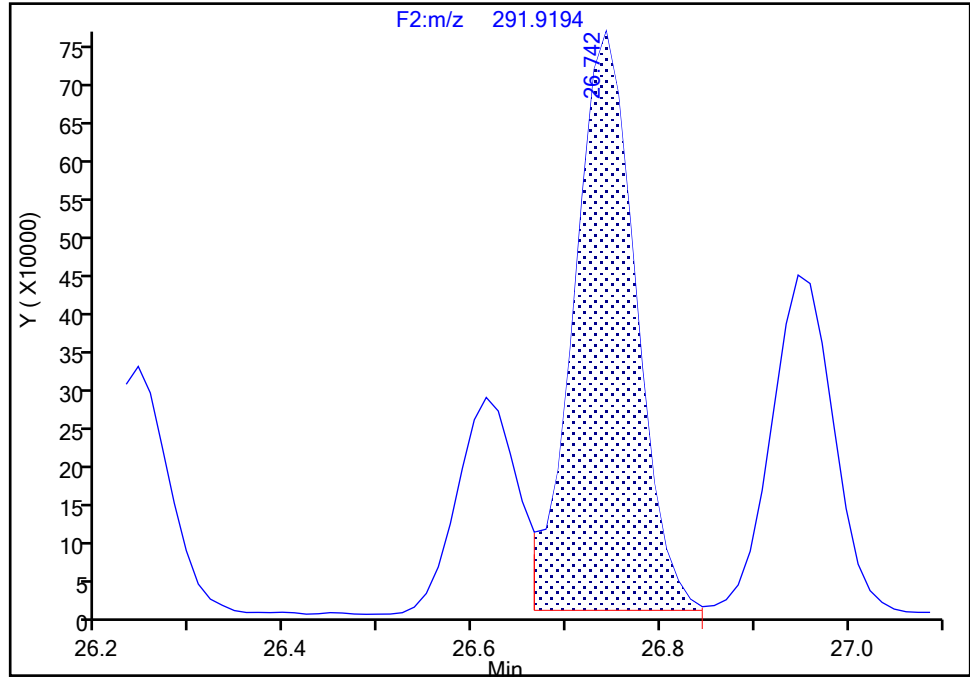
Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-40/41/71, CAS: STL02292**

Signal: 2

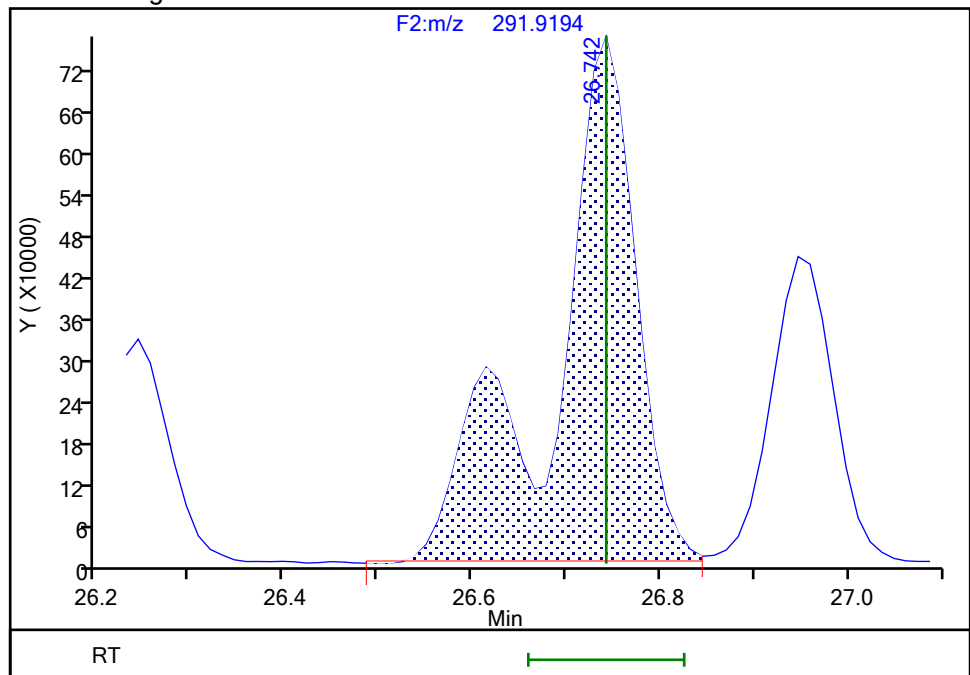
RT: 26.74  
Area: 3455557  
Amount: 107.1774  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.74  
Area: 4694983  
Amount: 145.3265  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 15-Jul-2024 13:51:53 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d

Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

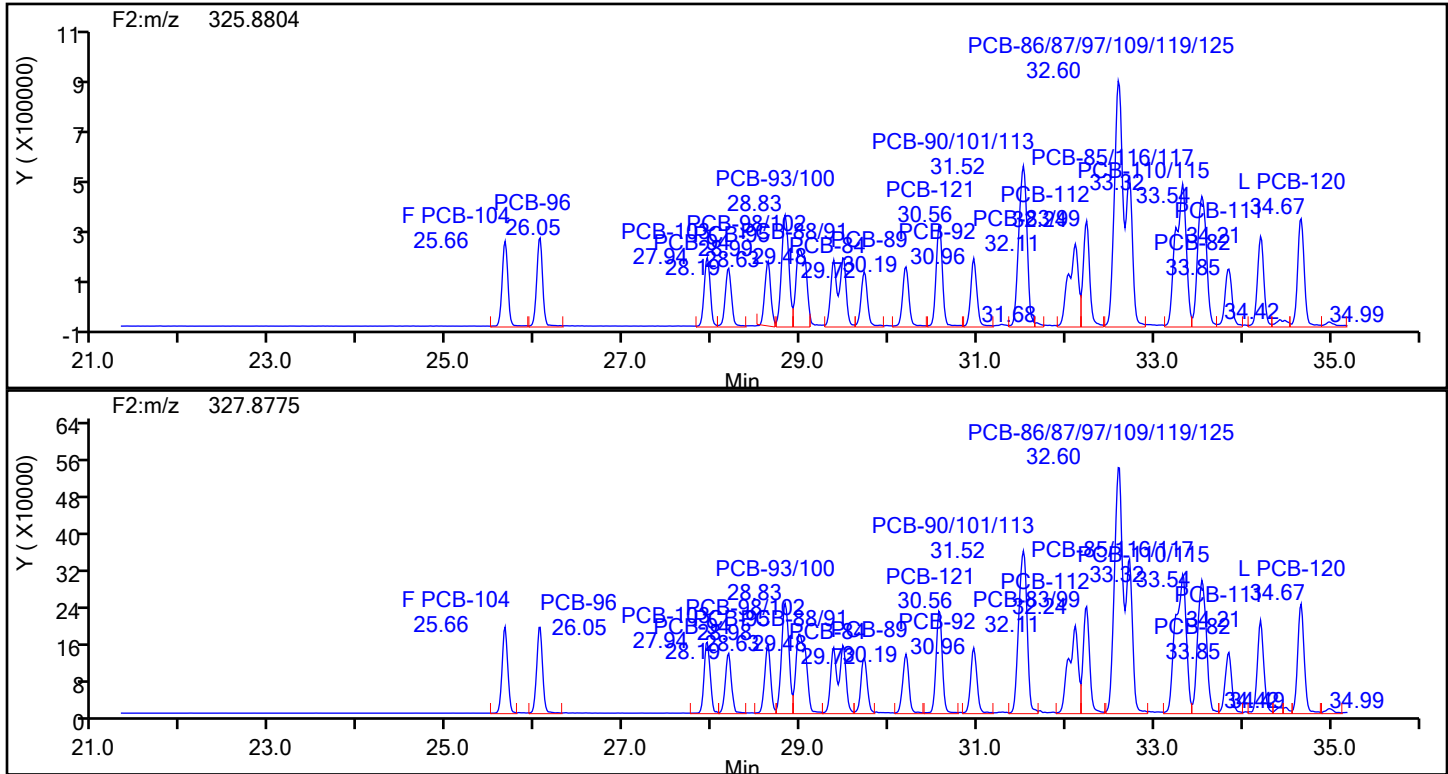
Worklist#: 88747

Sample Line#: 1

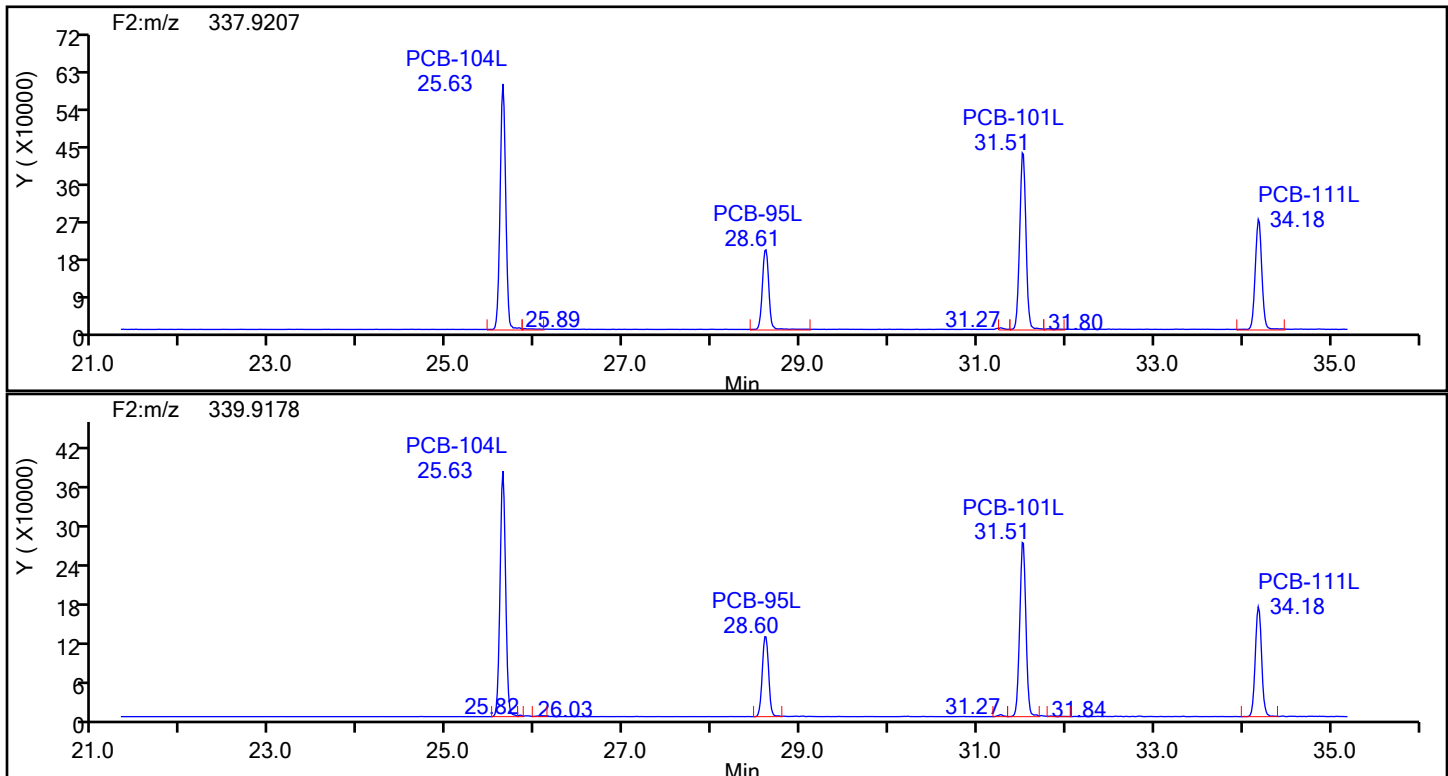
Column Type: SPB-Octyl

Column Dia: 0.25 mm

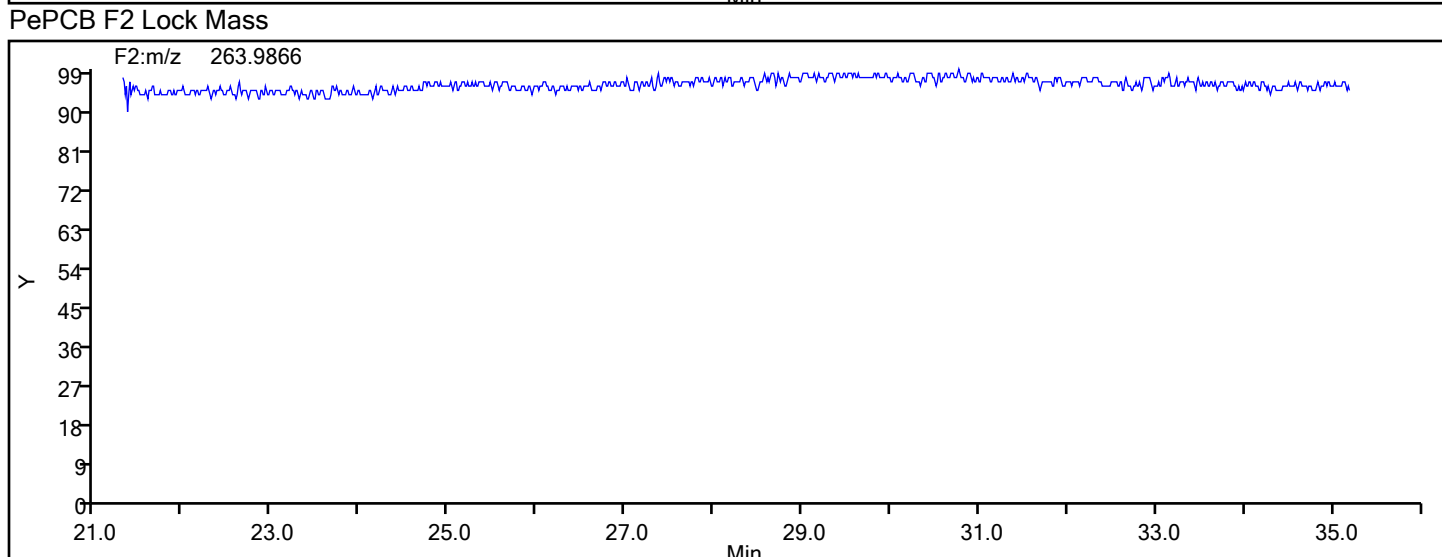
PePCB F2



## PePCB F2 Standards



Data File:	\\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d		
Injection Date:	15-Jul-2024 12:43:00	Injection Vol:	1.0 ul
Instrument ID:	D2D	Operator ID:	Xcalibur_System
Method:	PCBs_D2D	Limit Group:	HR - EPA_23 PCB ICAL
Client ID:			
Worklist#:	88747	Sample Line#:	1
Column Type:	SPB-Octyl	Column Dia:	0.25 mm
PePCB F2			





## Eurofins Knoxville

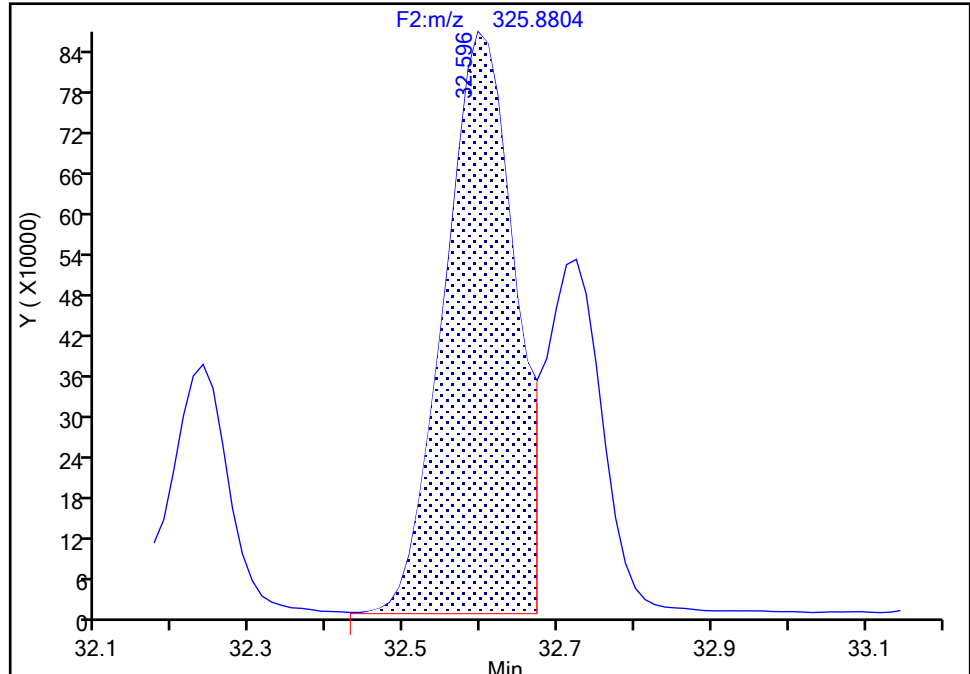
Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-86/87/97/109/119/125, CAS: STL02295

Signal: 1

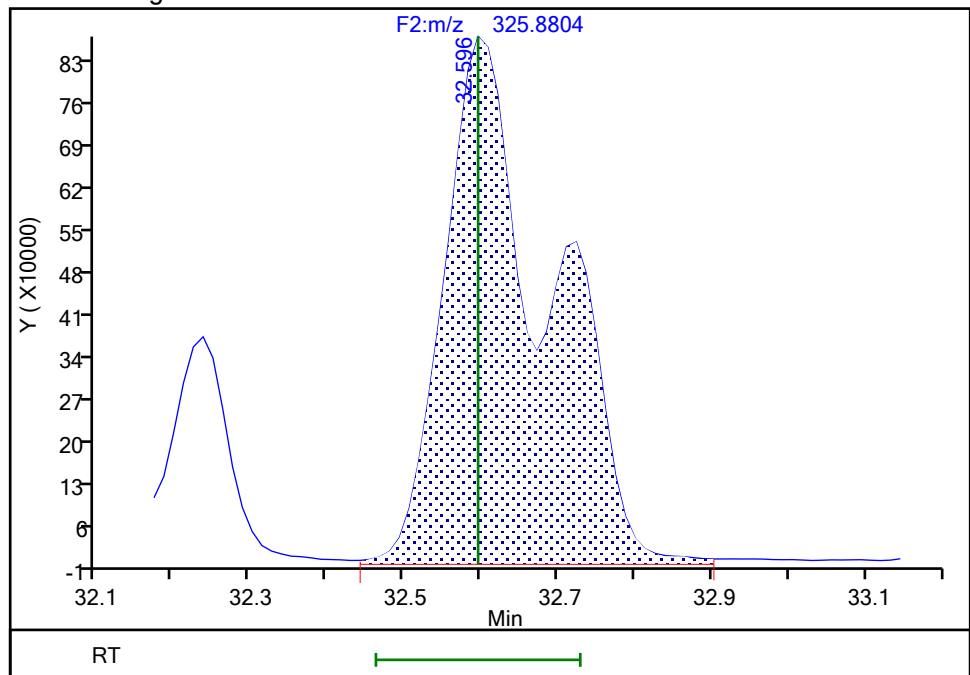
RT: 32.60  
Area: 5485149  
Amount: 198.1663  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.60  
Area: 8215337  
Amount: 296.5275  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 15-Jul-2024 13:52:28 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

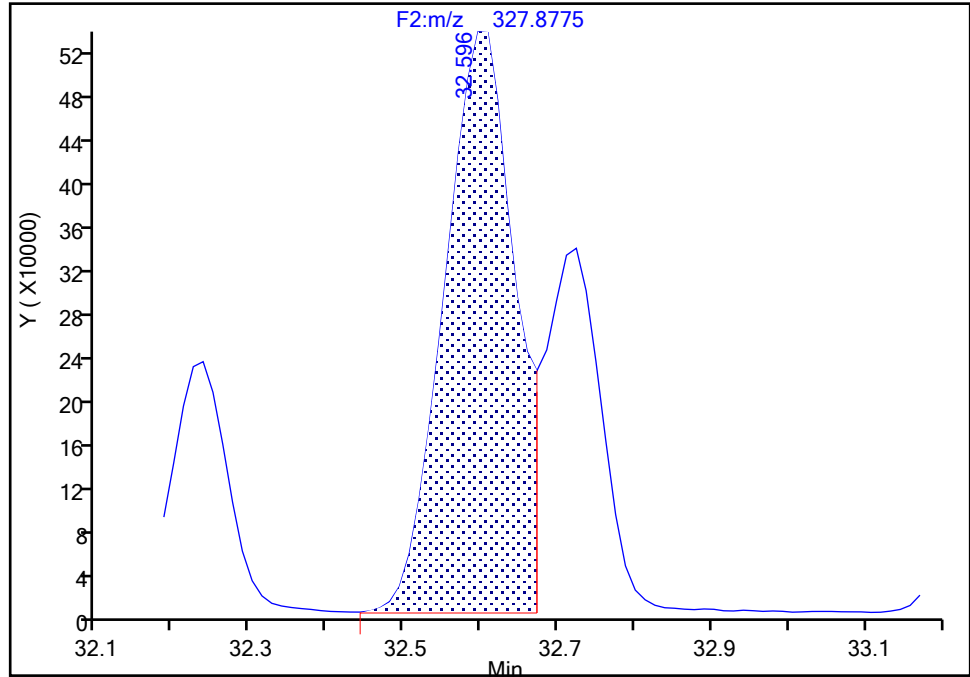
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Injection Date: 15-Jul-2024 12:43:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-86/87/97/109/119/125, CAS: STL02295

Signal: 2

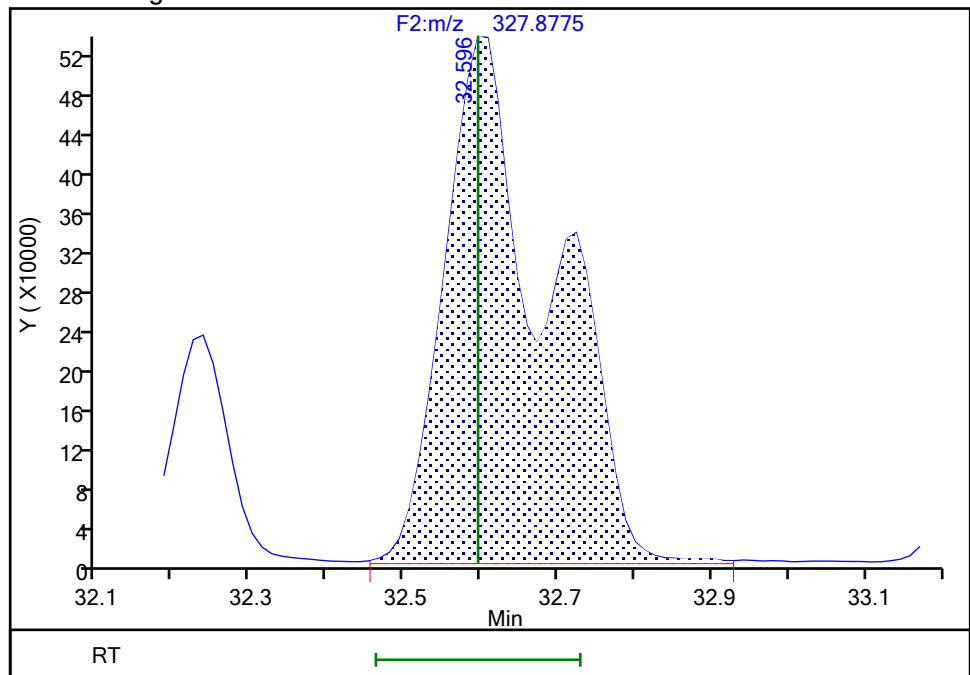
RT: 32.60  
Area: 3413445  
Amount: 198.1663  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.60  
Area: 5100130  
Amount: 296.5275  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 15-Jul-2024 13:52:37 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

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BASFHWC-Pass 9/6/2024 4:19:54 PM  
3627

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d

Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

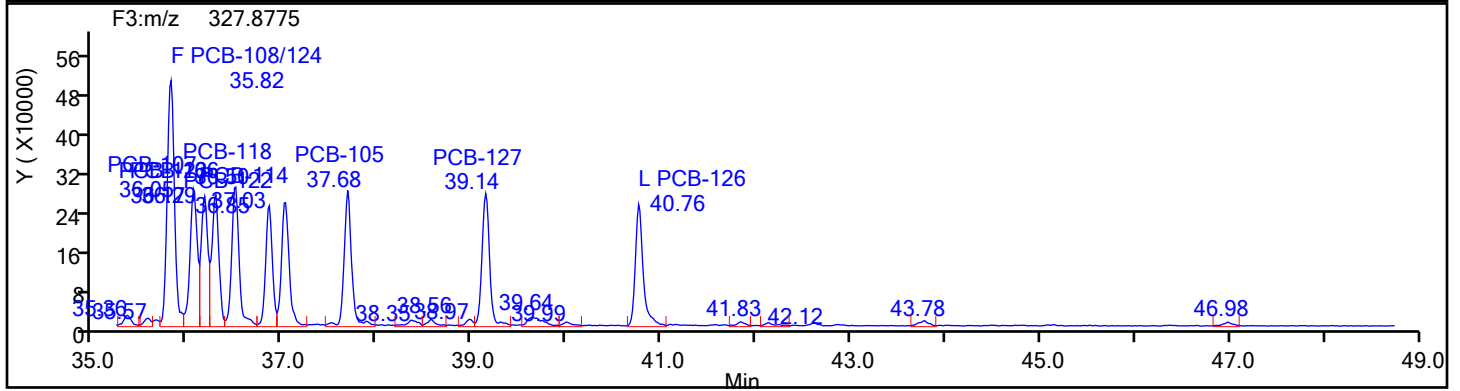
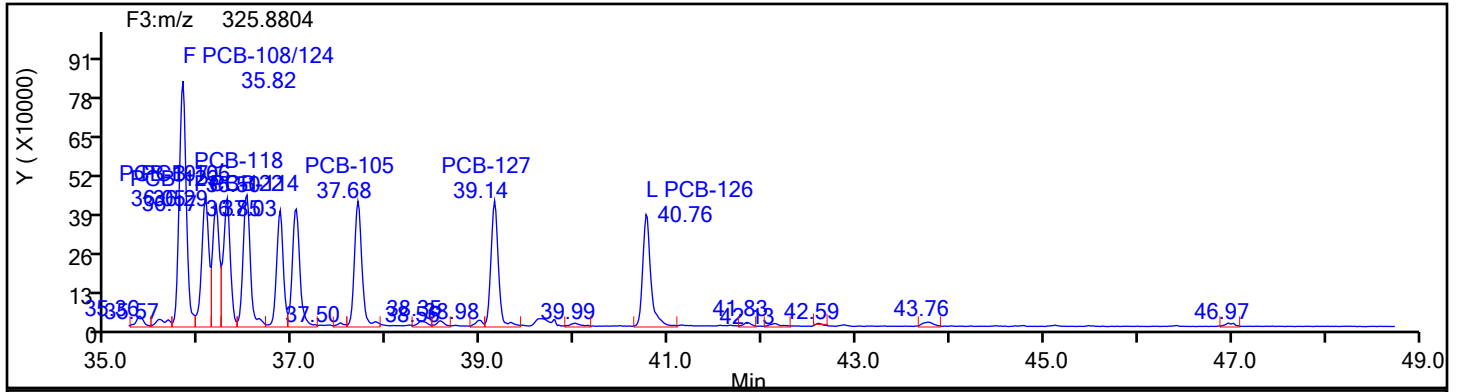
Worklist#: 88747

Sample Line#: 1

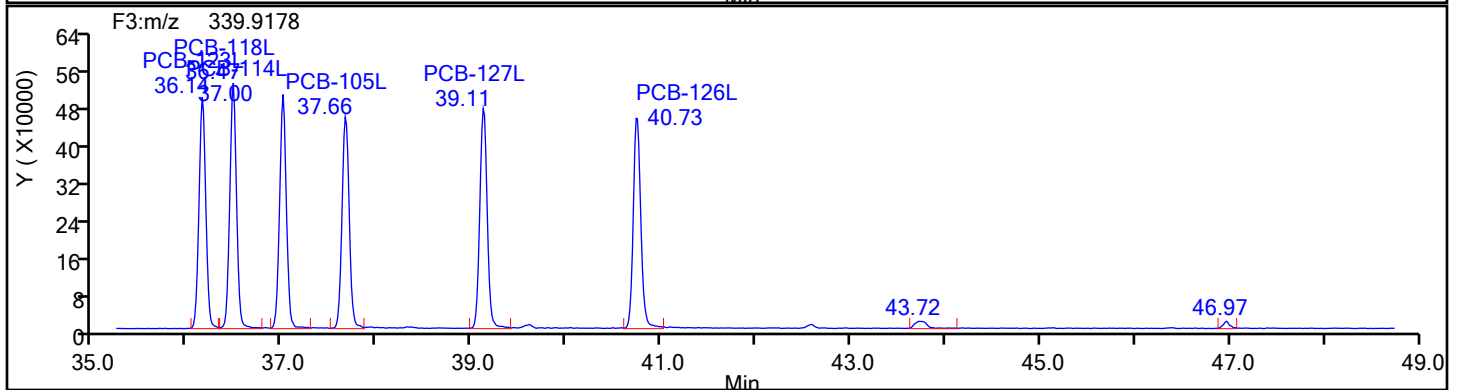
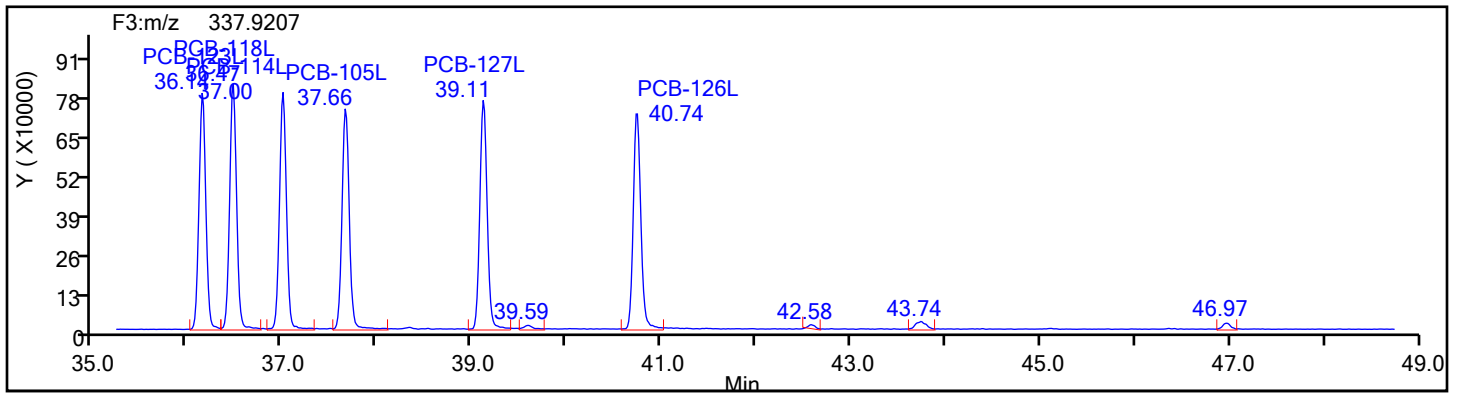
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



PePCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d

Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

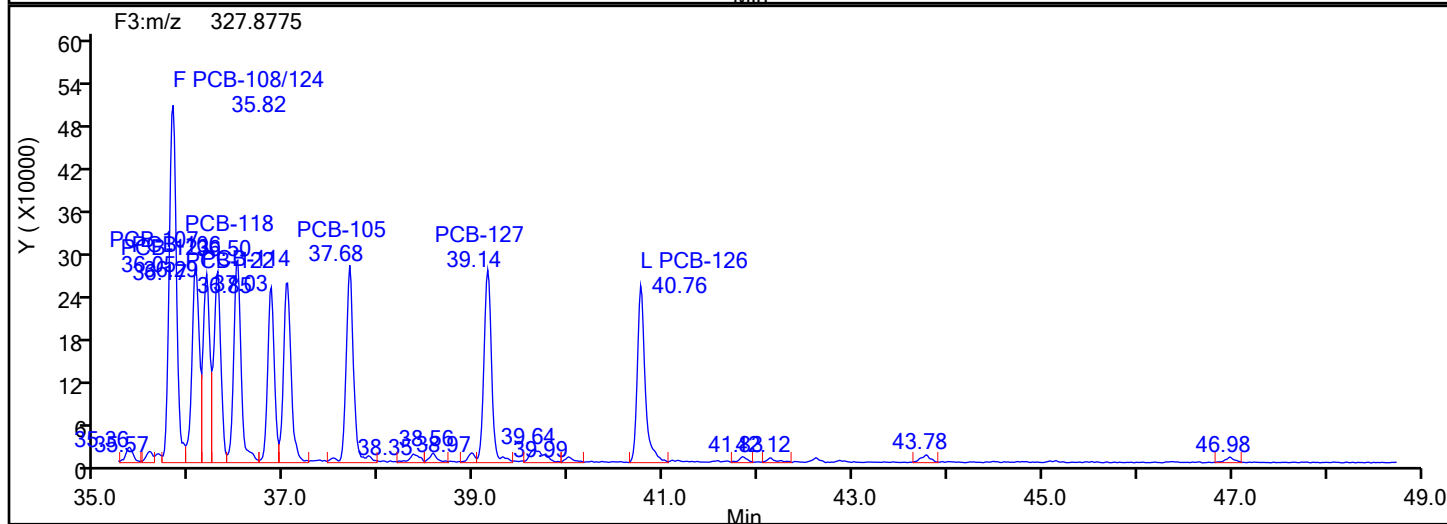
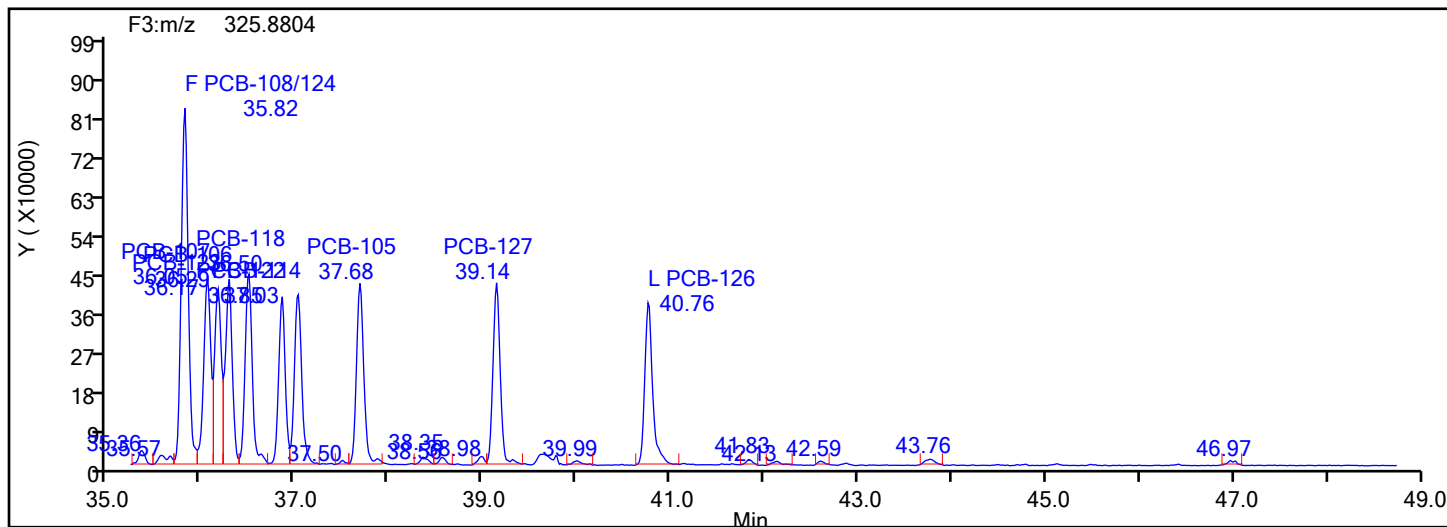
Worklist#: 88747

Sample Line#: 1

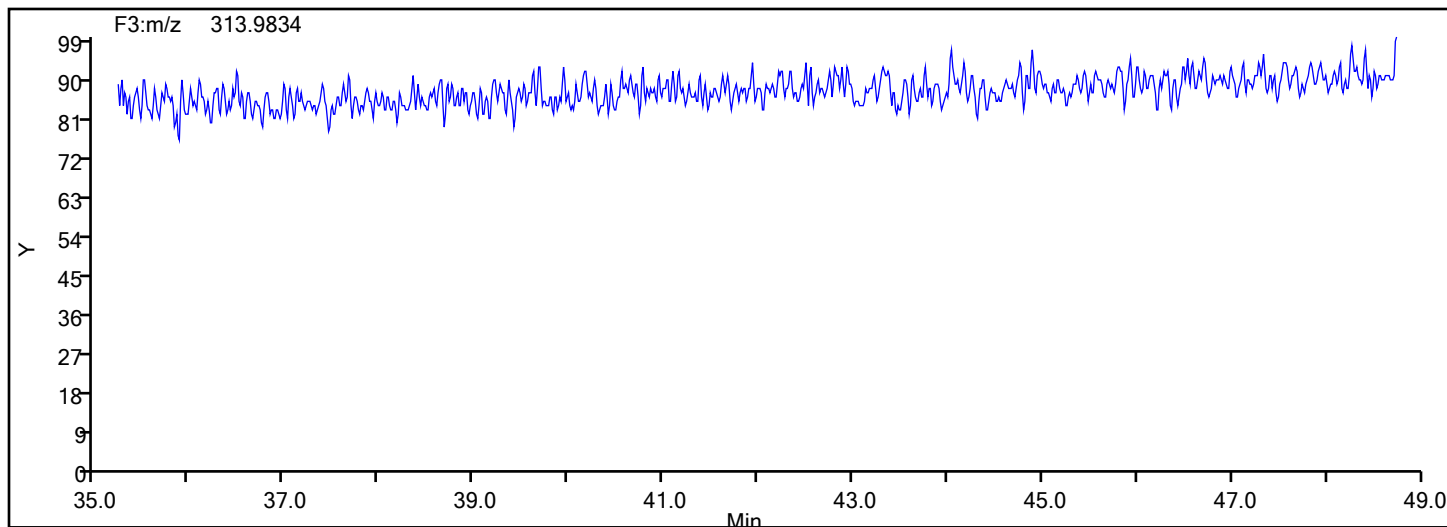
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3

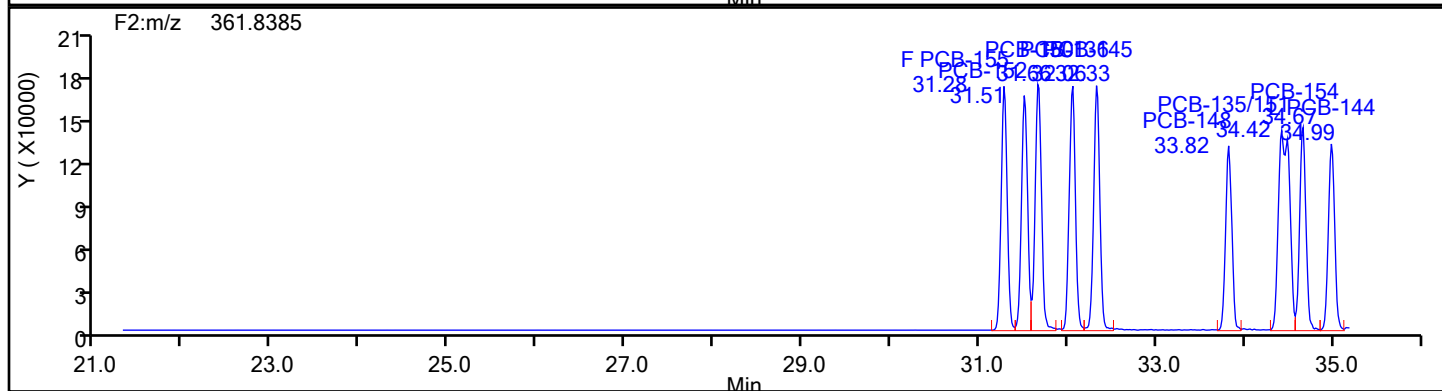
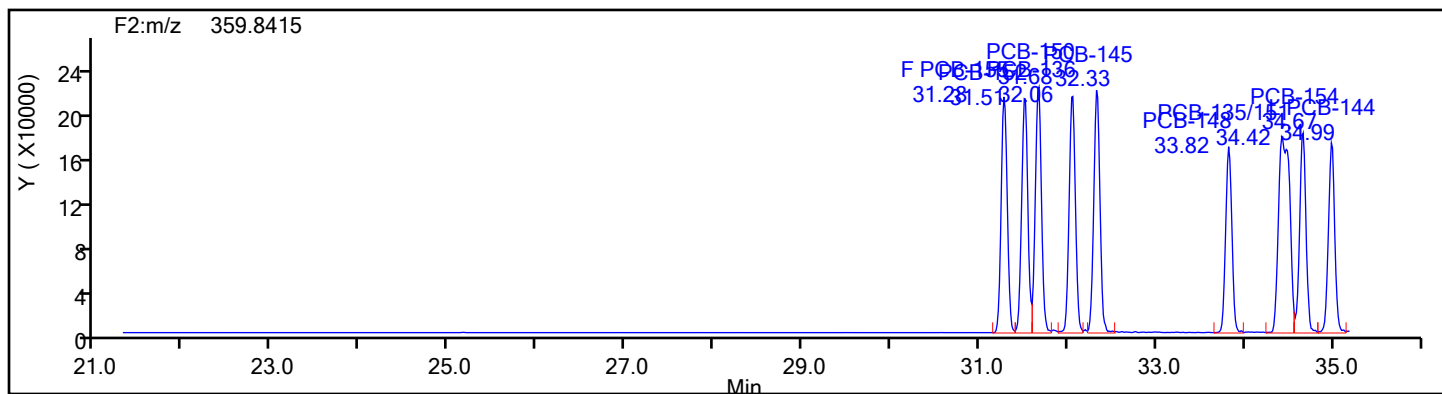


## PePCB F3 Lock Mass

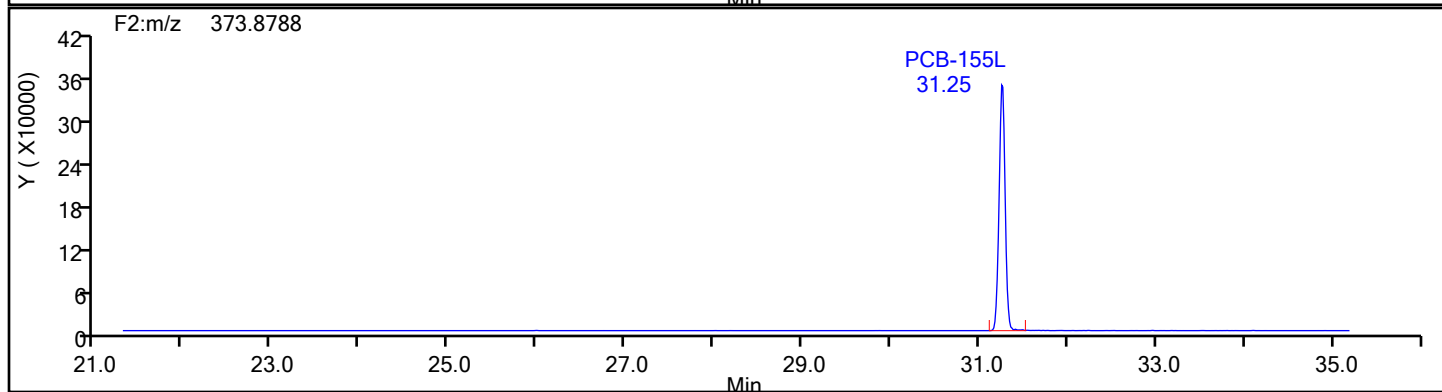
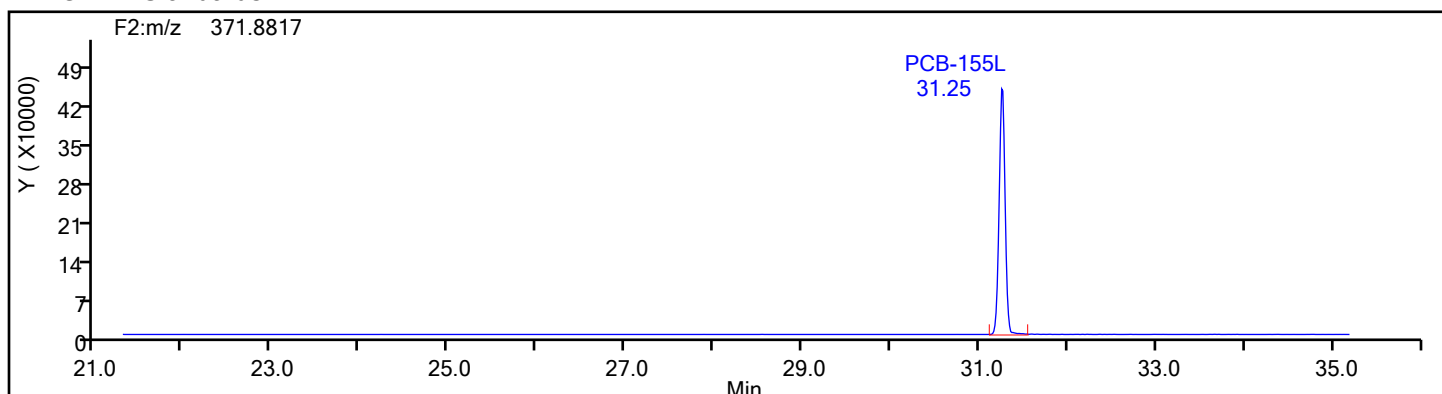


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88747 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2

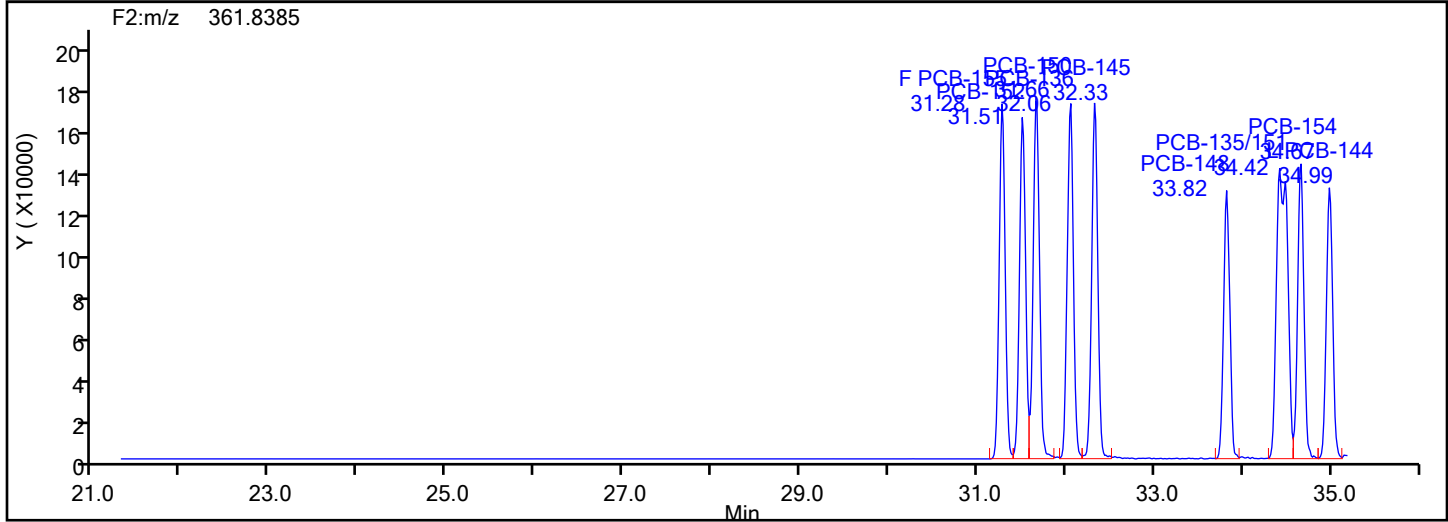
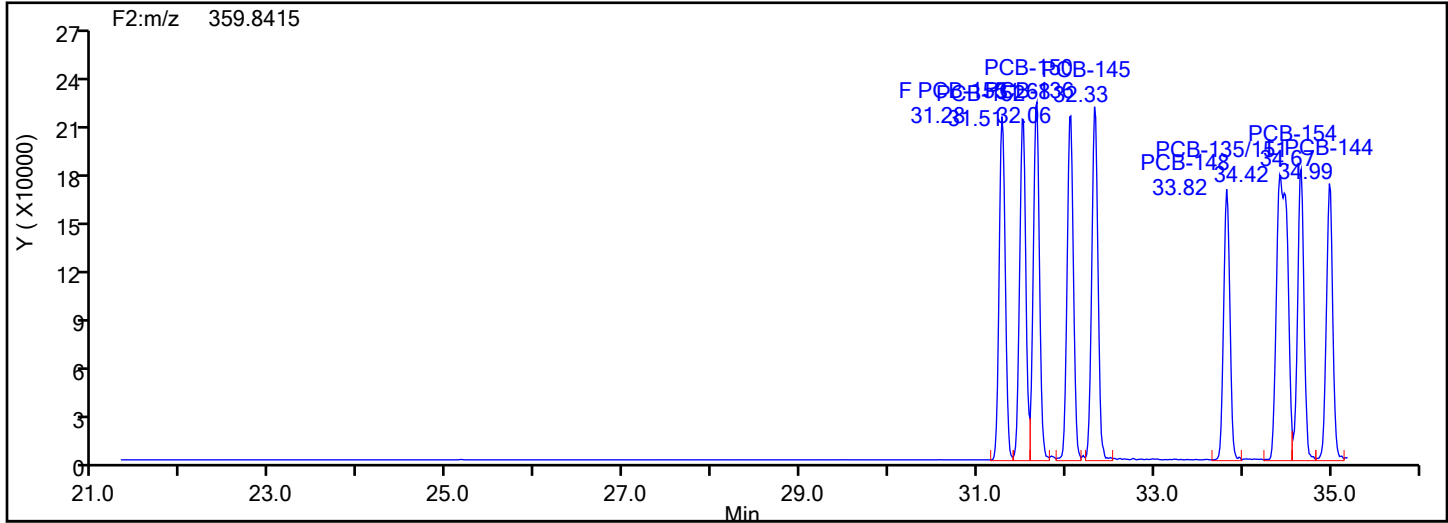


## HxPCB F2 Standards

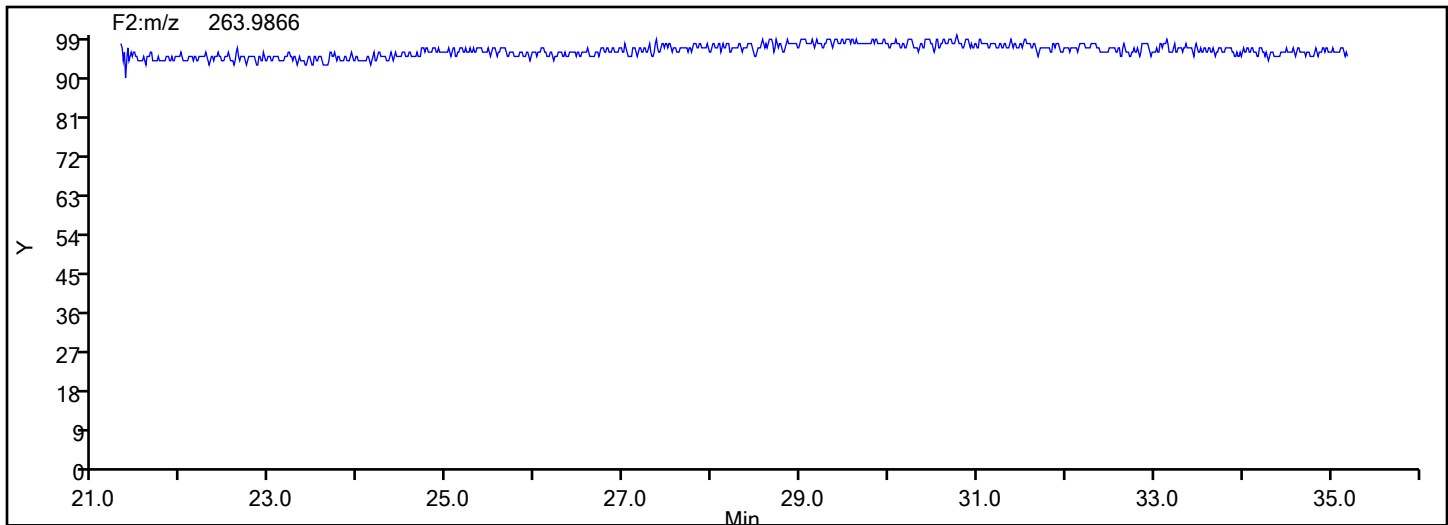


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88747 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2



## HxPCB F2 Lock Mass



## Eurofins Knoxville

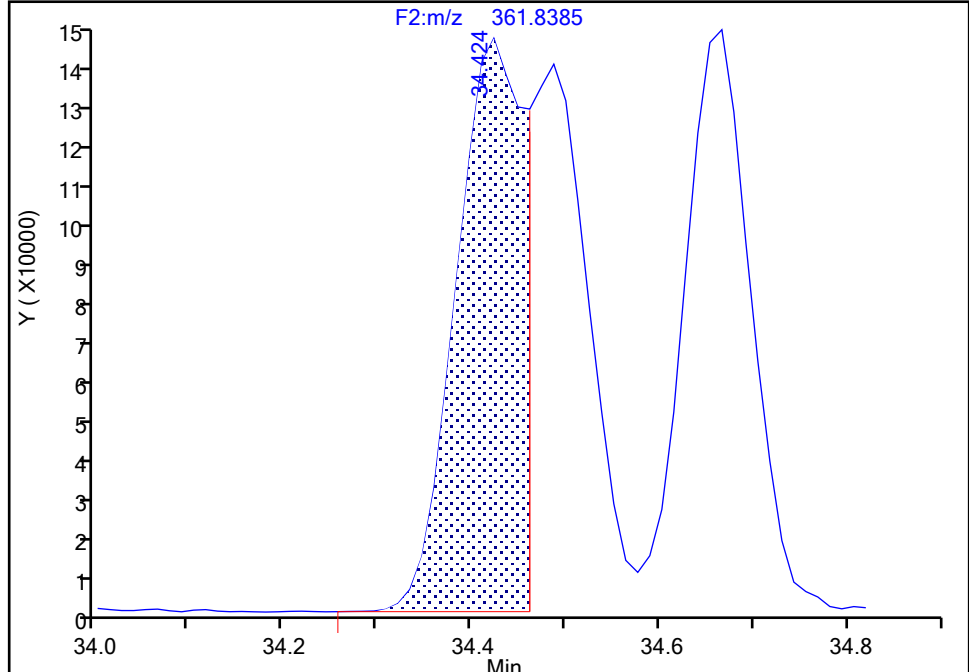
Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 2

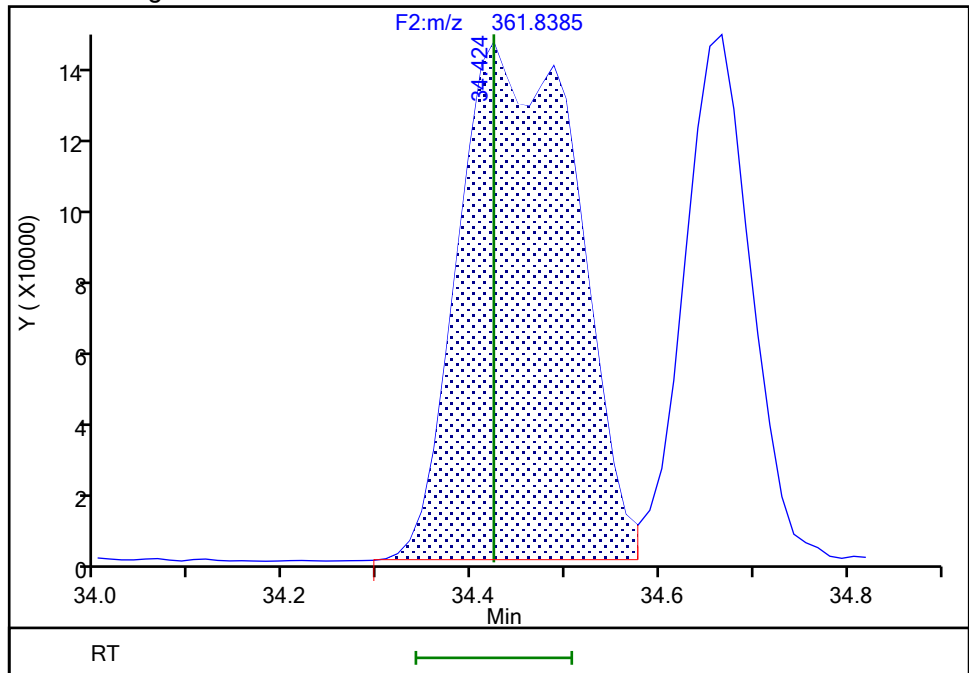
RT: 34.42  
Area: 695848  
Amount: 83.609960  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.42  
Area: 1249054  
Amount: 103.9169  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 15-Jul-2024 13:52:59 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d

Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

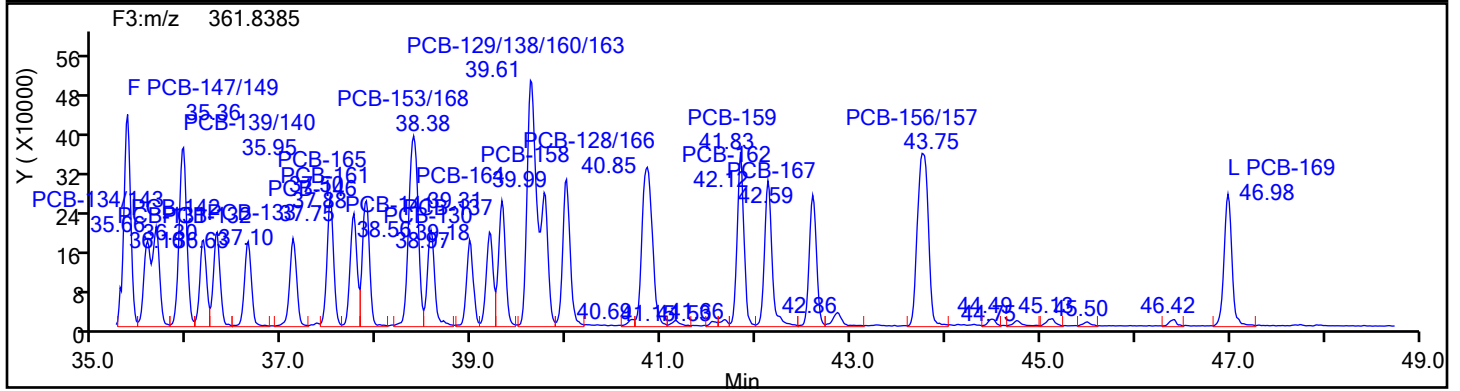
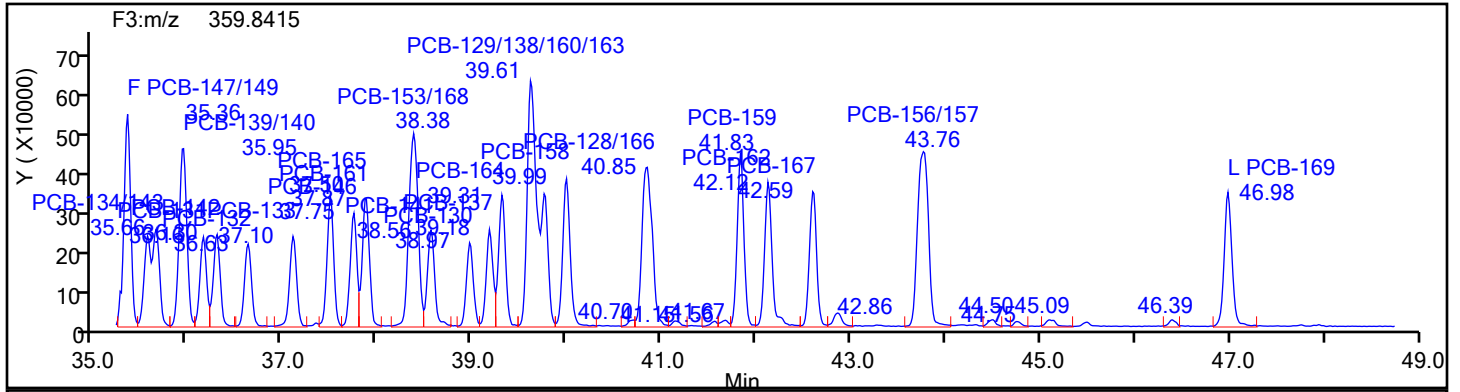
Worklist#: 88747

Sample Line#: 1

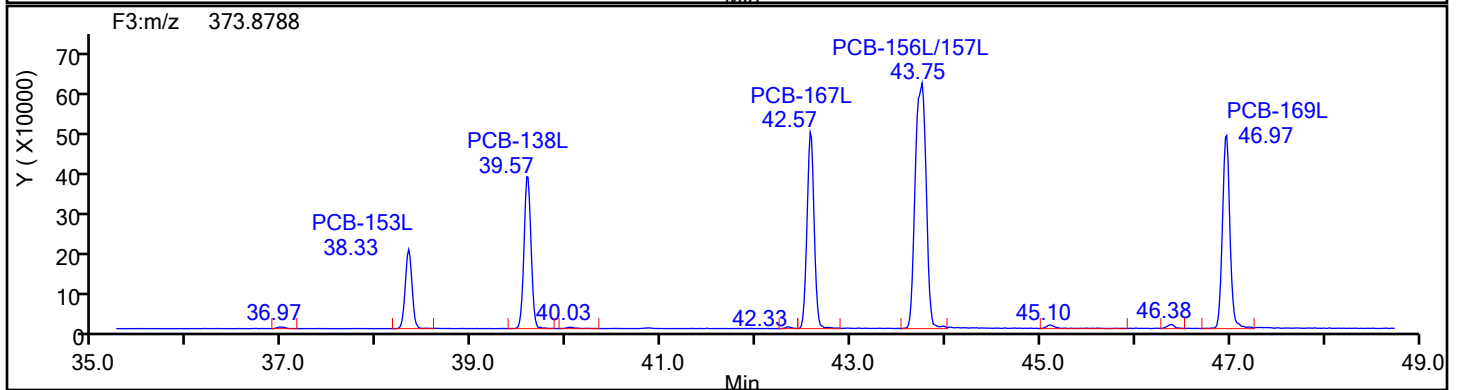
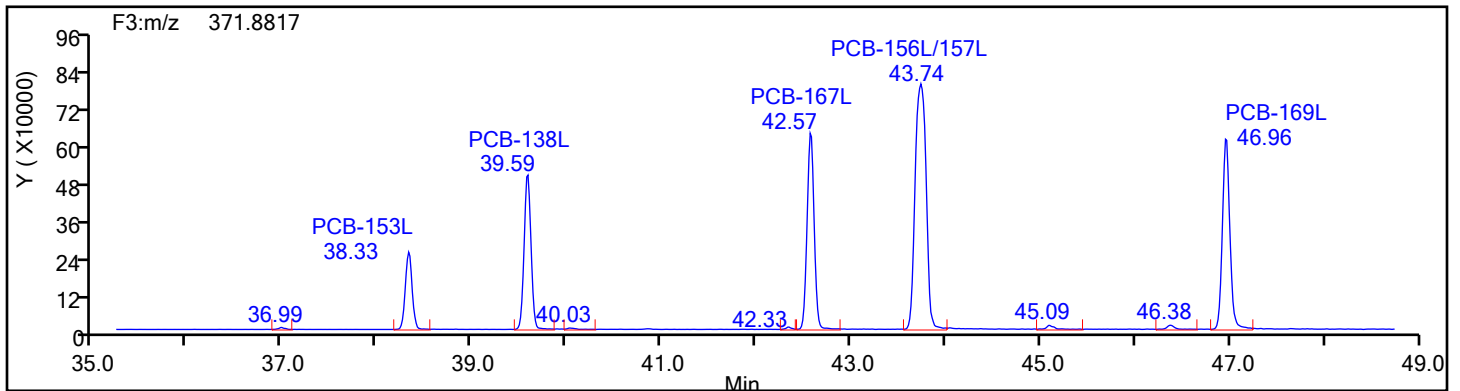
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



HxPCB F3 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d

Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

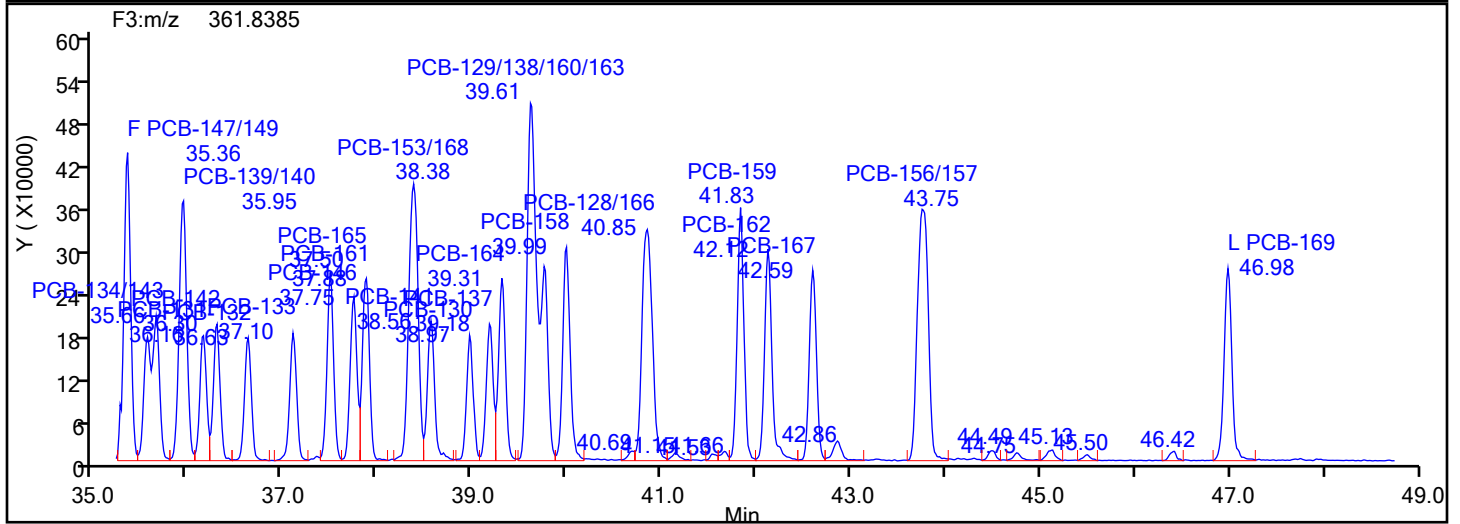
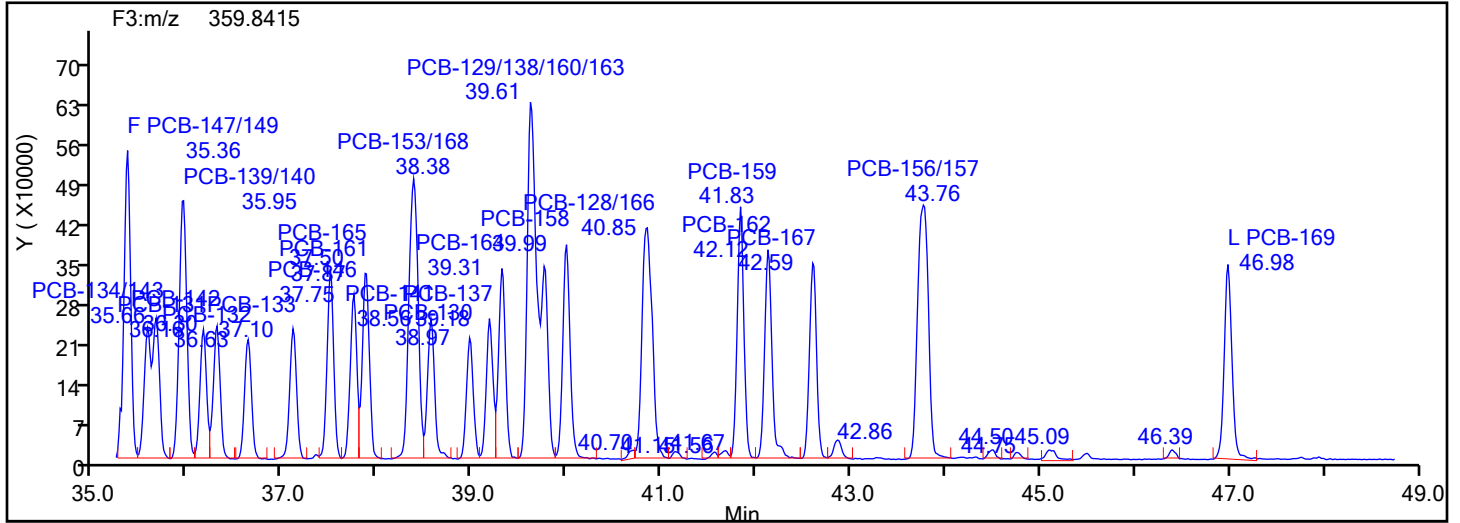
Worklist#: 88747

Sample Line#: 1

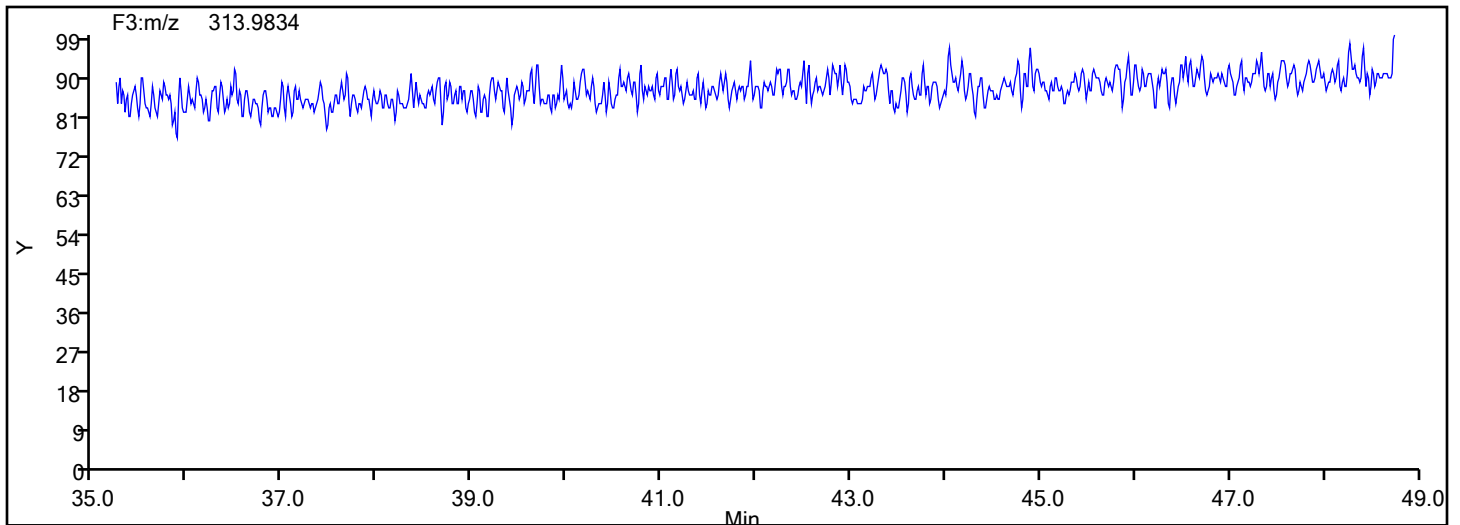
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



## HxPCB F3 Lock Mass



## Eurofins Knoxville

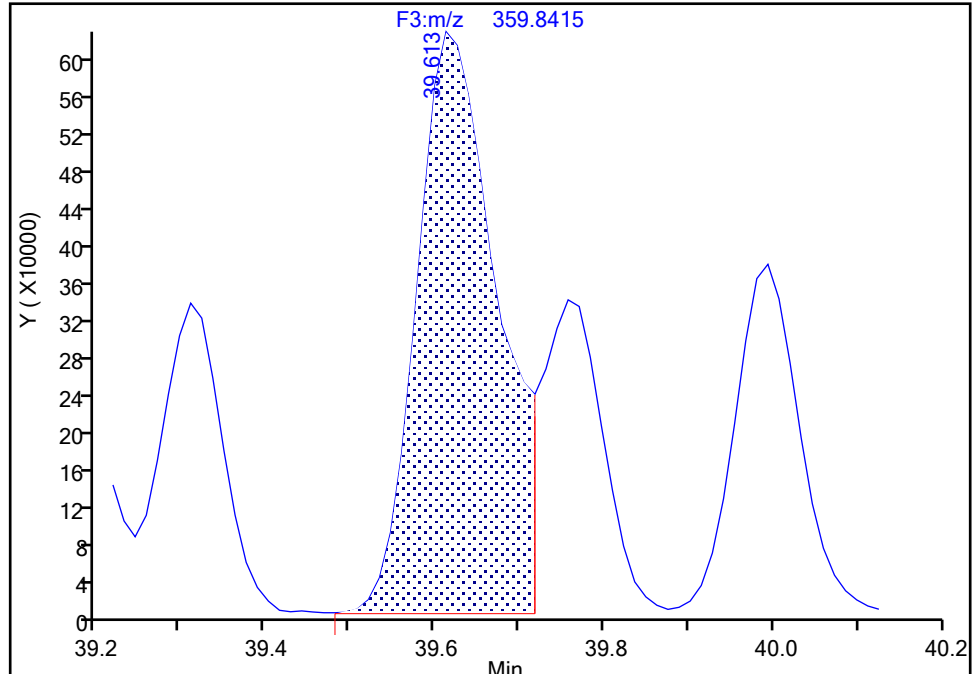
Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

**PCB-129/138/160/163, CAS: STL02296**

Signal: 1

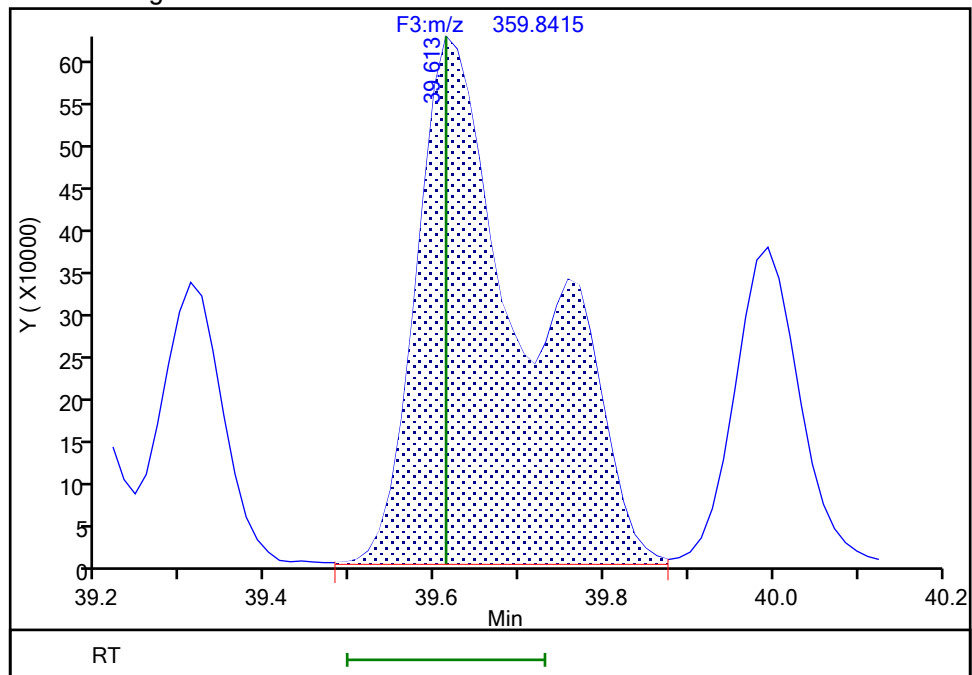
RT: 39.61  
Area: 4142861  
Amount: 132.0987  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.61  
Area: 5781725  
Amount: 188.3000  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 15-Jul-2024 13:53:27 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

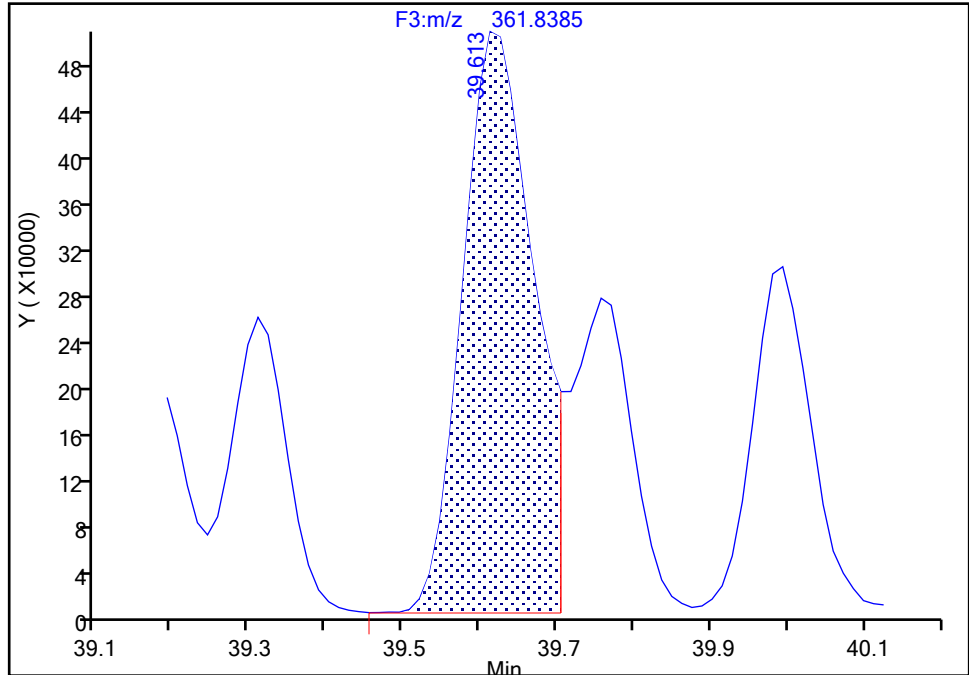
Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 2

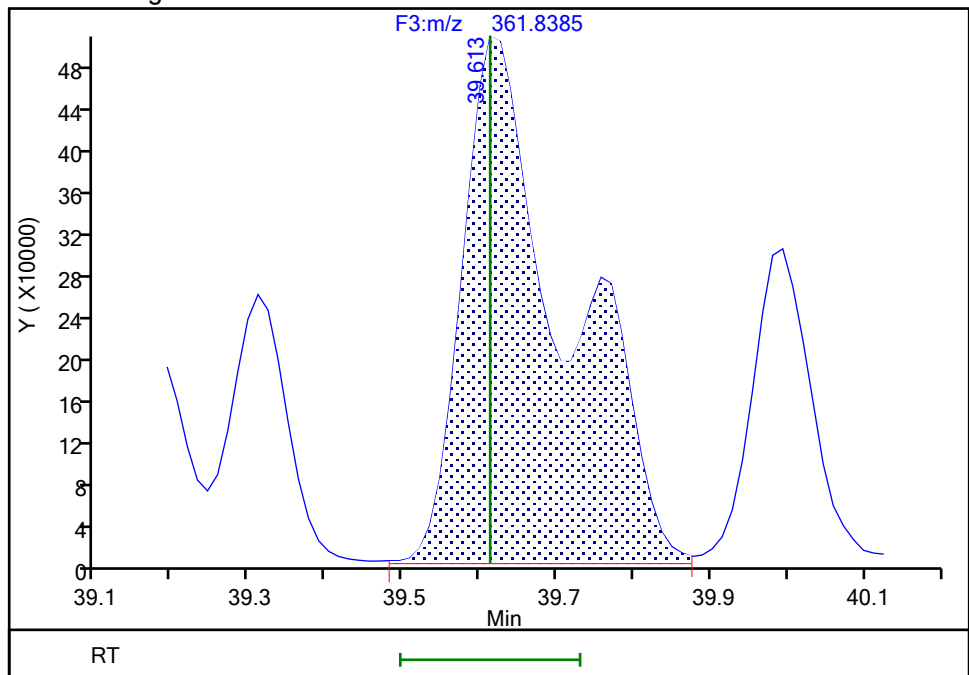
RT: 39.61  
Area: 3201327  
Amount: 132.0987  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.61  
Area: 4687044  
Amount: 188.3000  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 15-Jul-2024 13:53:36 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d

Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

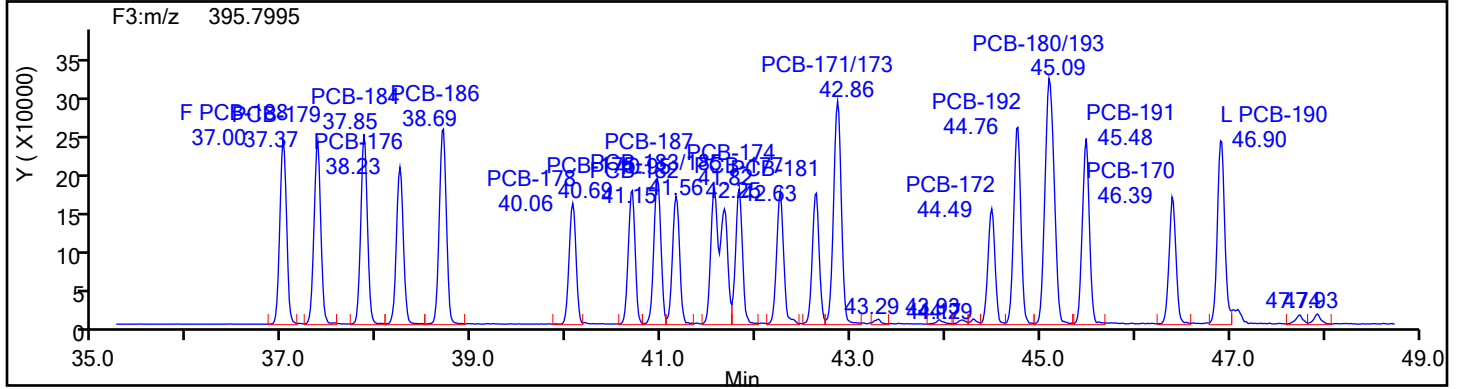
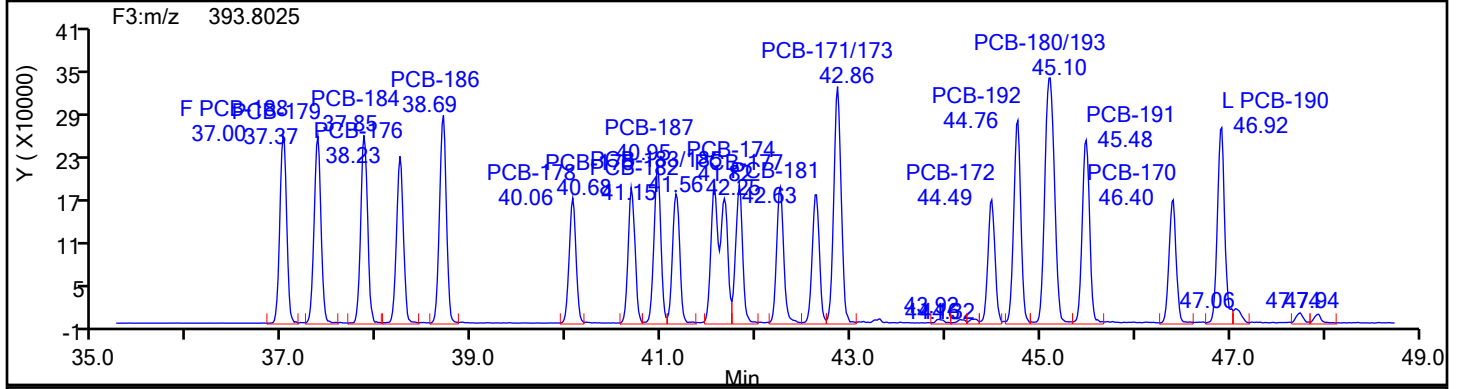
Worklist#: 88747

Sample Line#: 1

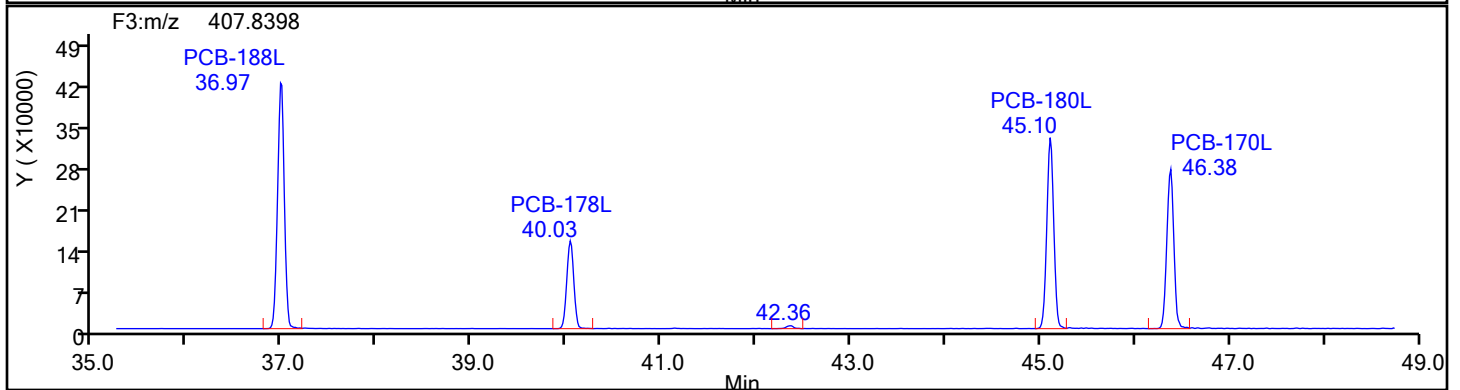
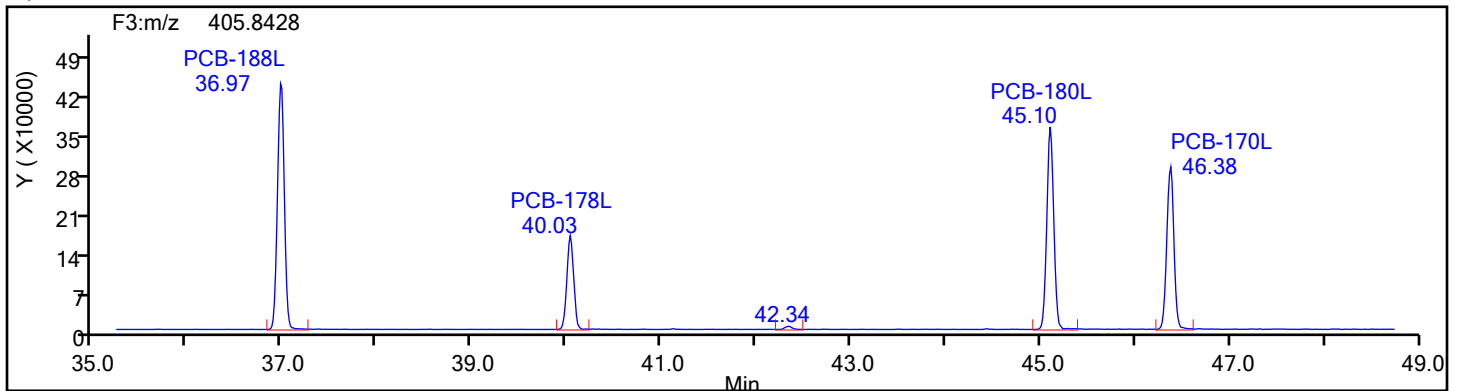
Column Type: SPB-Octyl

Column Dia: 0.25 mm

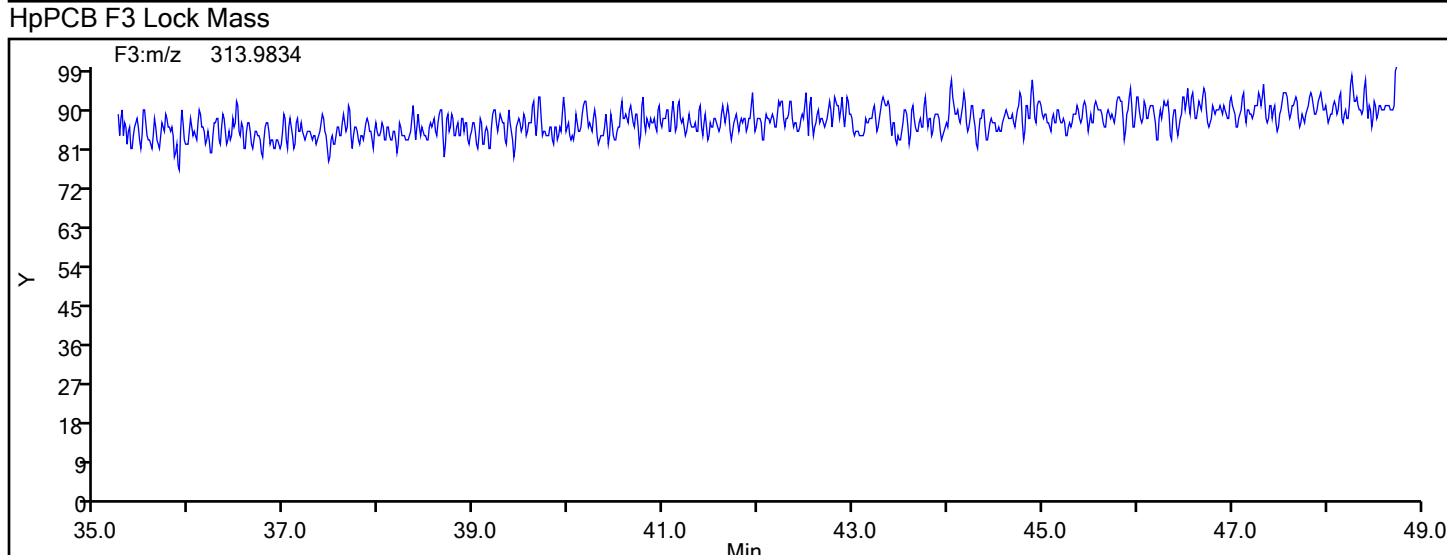
HpPCB F3



HpPCB F3 Standards



Data File:	\\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d		
Injection Date:	15-Jul-2024 12:43:00	Injection Vol:	1.0 ul
Instrument ID:	D2D	Operator ID:	Xcalibur_System
Method:	PCBs_D2D	Limit Group:	HR - EPA_23 PCB ICAL
Client ID:			
Worklist#:	88747	Sample Line#:	1
Column Type:	SPB-Octyl	Column Dia:	0.25 mm
HpPCB F3			



## Eurofins Knoxville

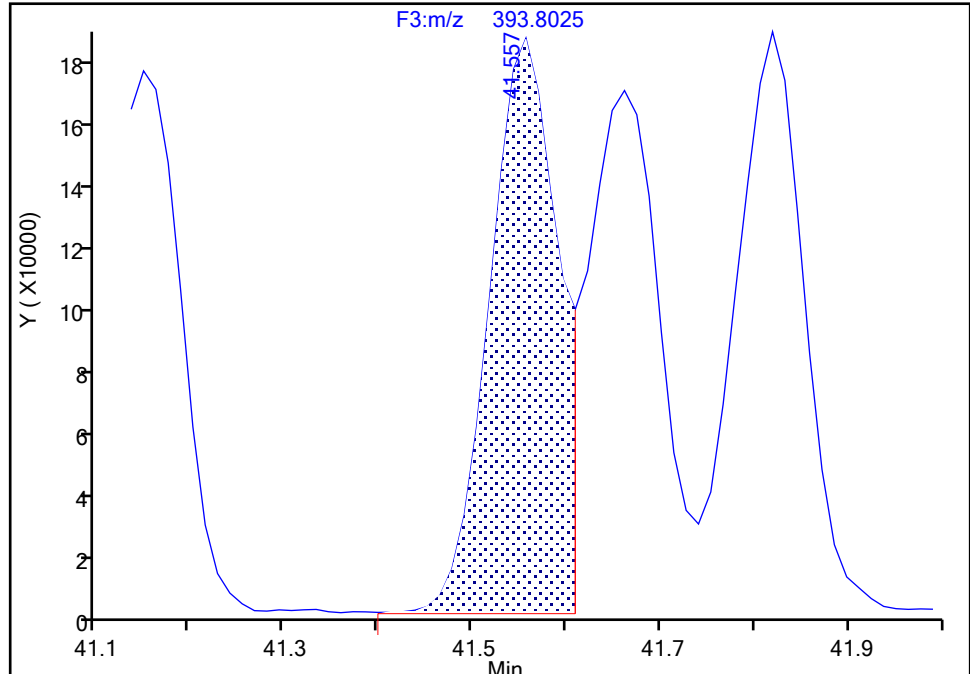
Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

**PCB-183/185, CAS: STL02297**

Signal: 1

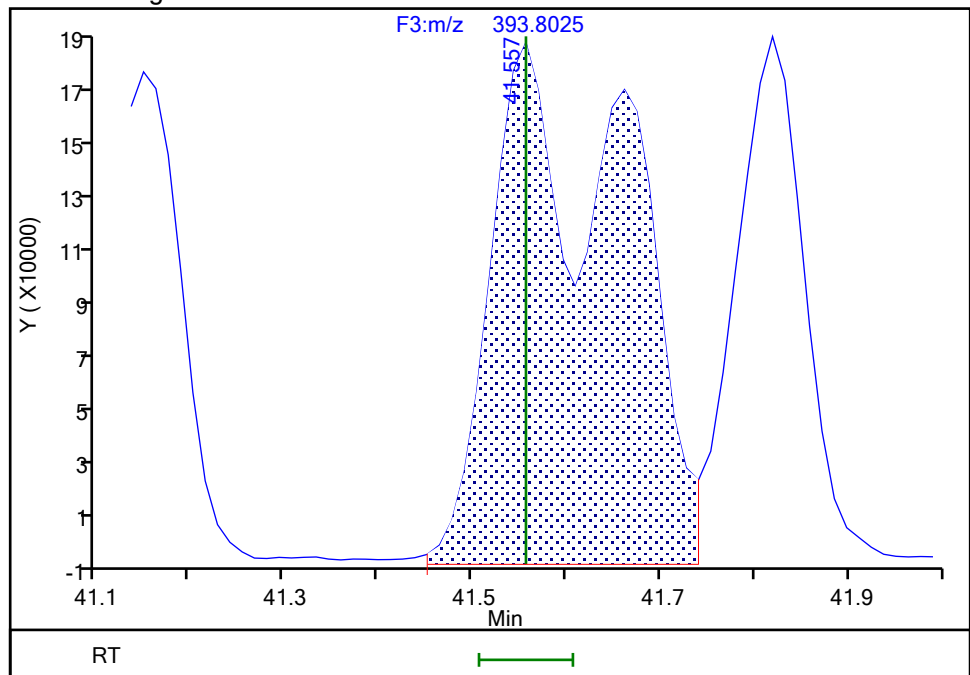
RT: 41.56  
Area: 937504  
Amount: 51.547291  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.56  
Area: 1827264  
Amount: 98.480827  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 15-Jul-2024 13:53:58 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

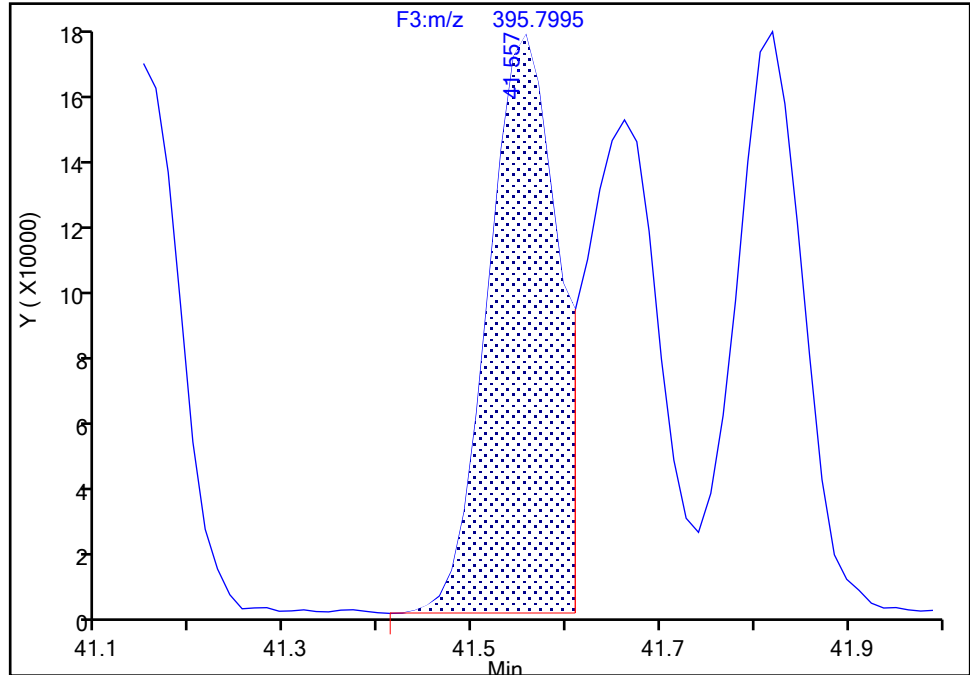
Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-183/185, CAS: STL02297

Signal: 2

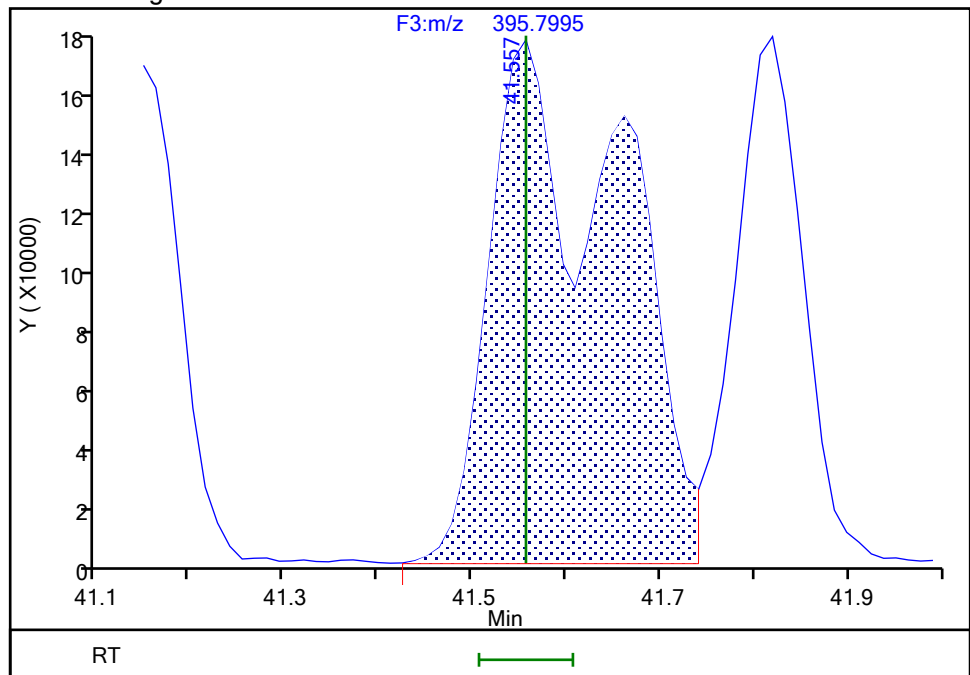
RT: 41.56  
Area: 909828  
Amount: 51.547291  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.56  
Area: 1702054  
Amount: 98.480827  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 15-Jul-2024 13:54:07 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

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BASFHWC-Pass 20240626  
9/6/2024 4:19:54 PM

## Eurofins Knoxville

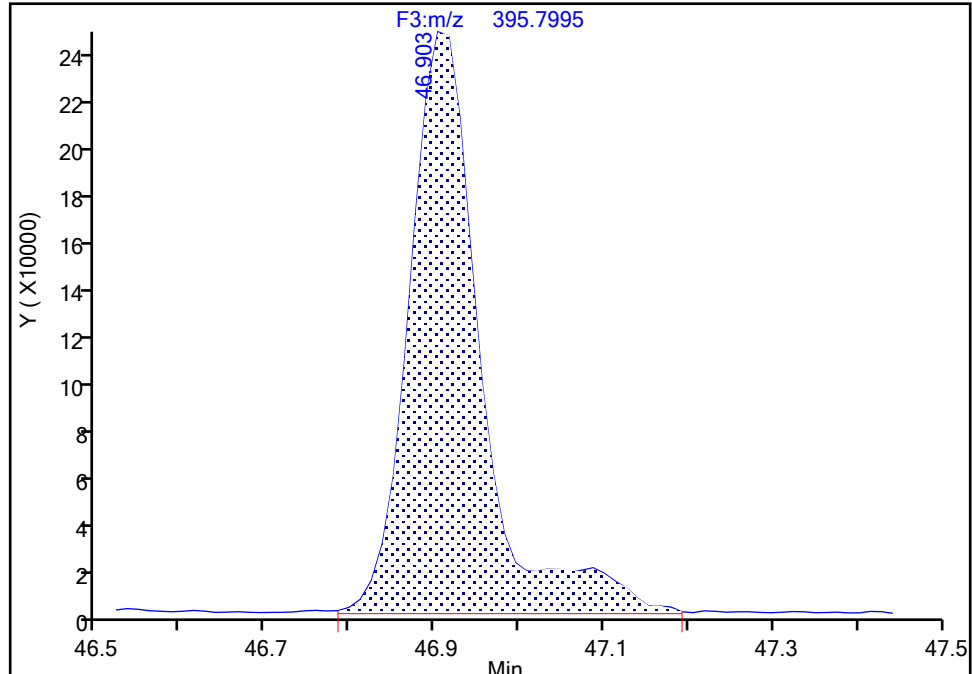
Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-190, CAS: 41411-64-7

Signal: 2

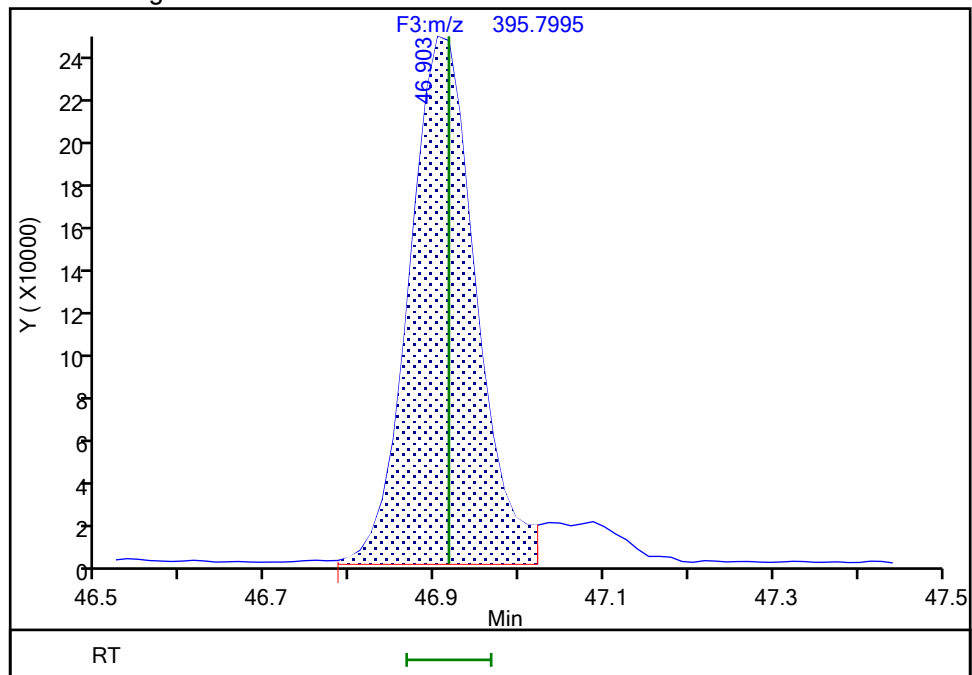
RT: 46.90  
Area: 1445451  
Amount: 59.407581  
Amount Units: pg/ul

## Processing Integration Results



RT: 46.90  
Area: 1314605  
Amount: 56.714997  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: F9EE, 15-Jul-2024 13:54:32 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d

Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

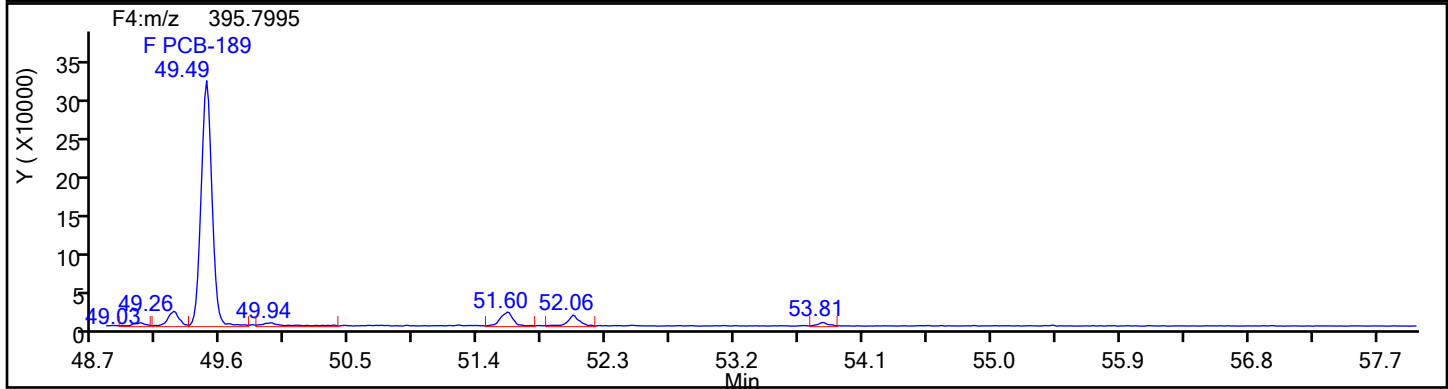
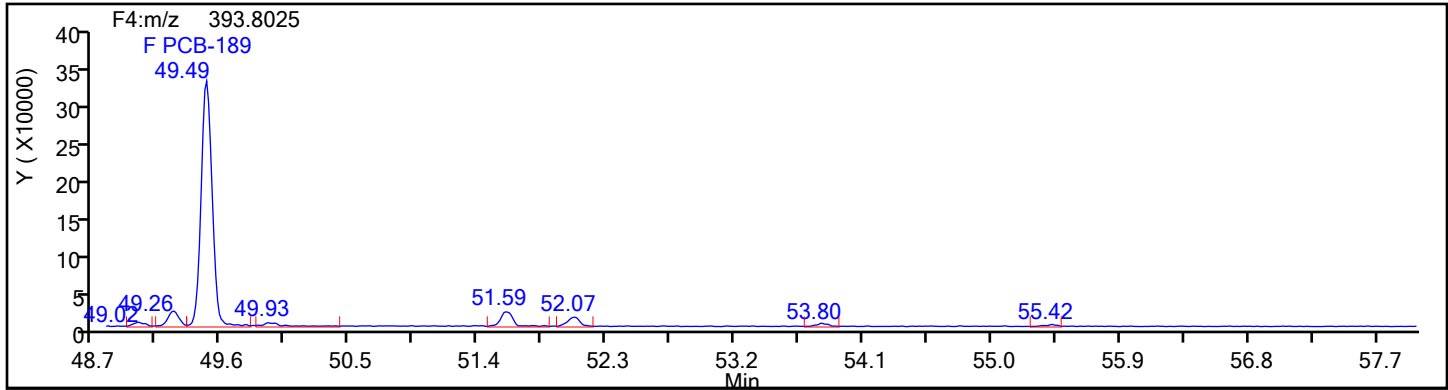
Worklist#: 88747

Sample Line#: 1

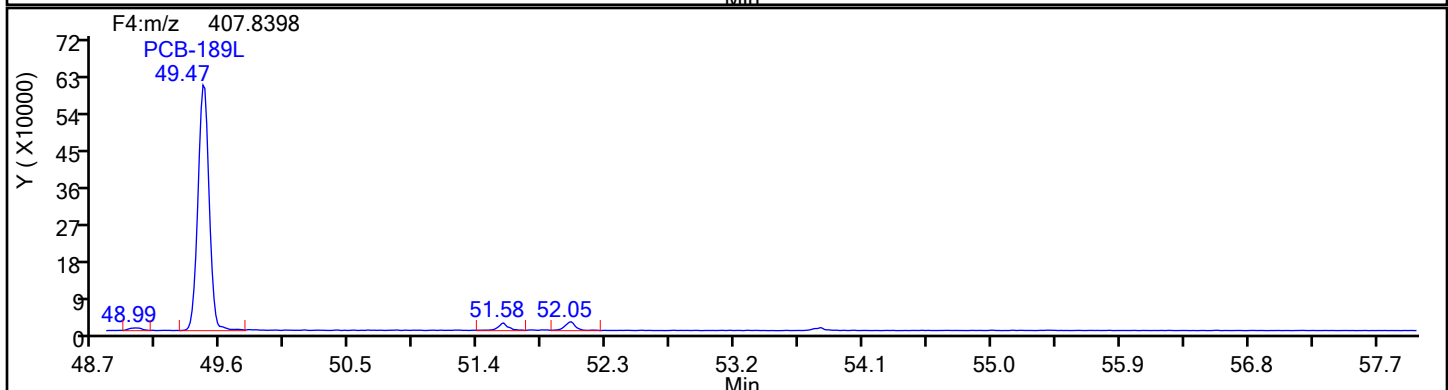
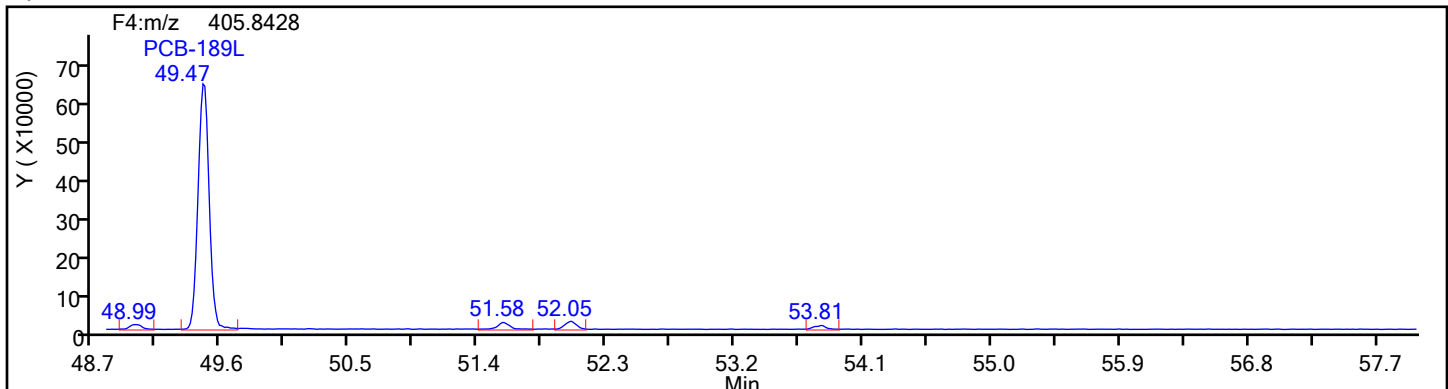
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d

Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

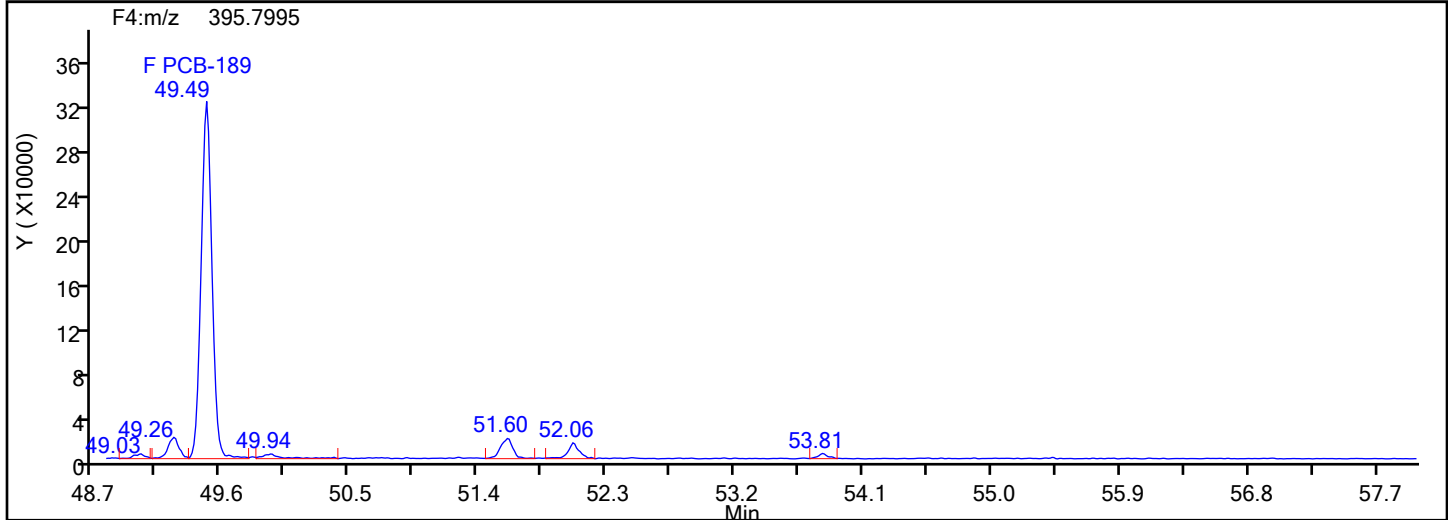
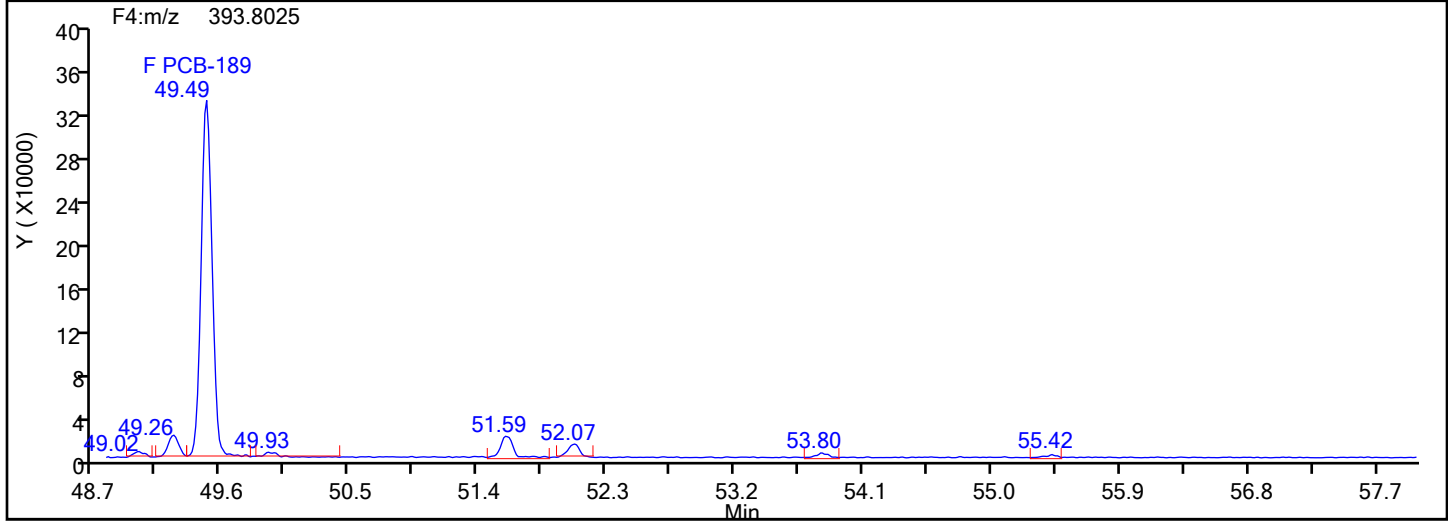
Worklist#: 88747

Sample Line#: 1

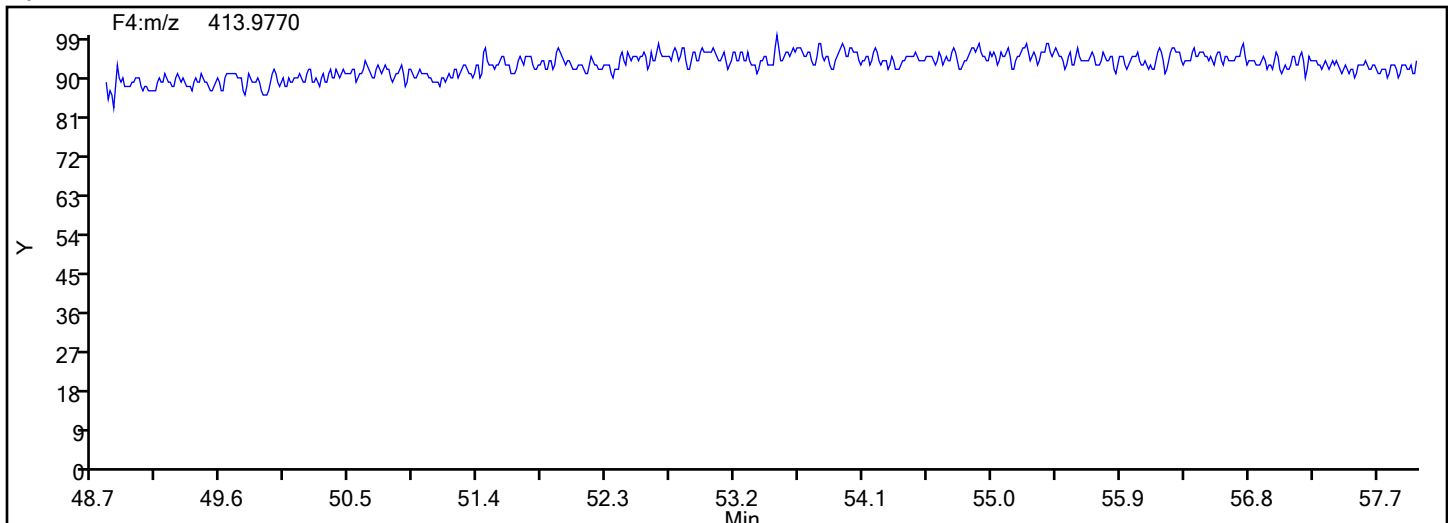
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\2240715c1a.d

Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

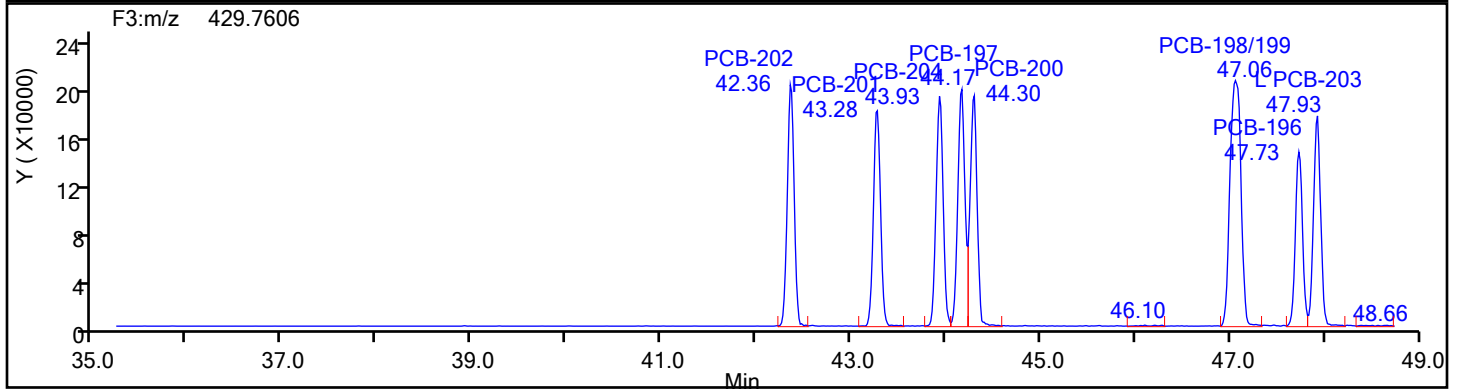
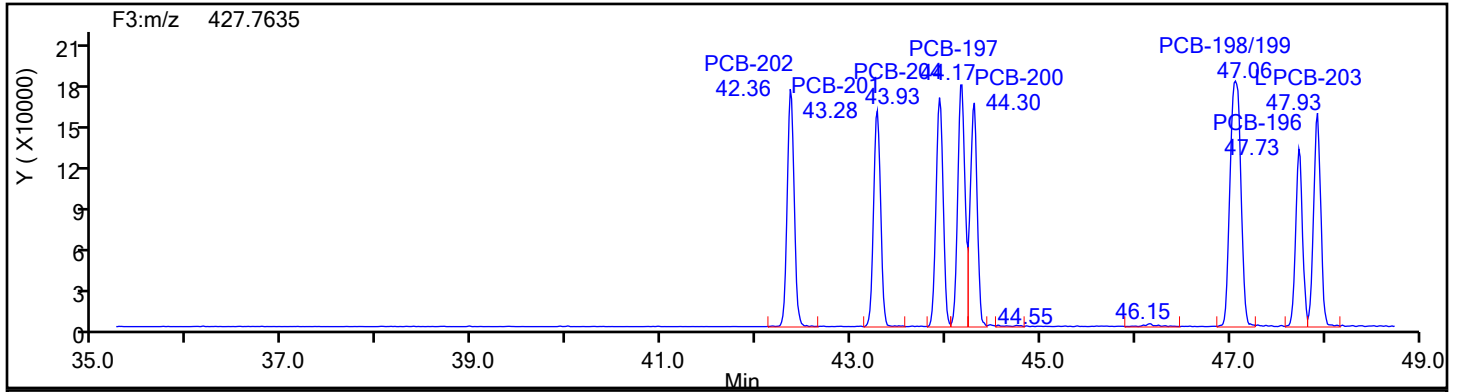
Worklist#: 88747

Sample Line#: 1

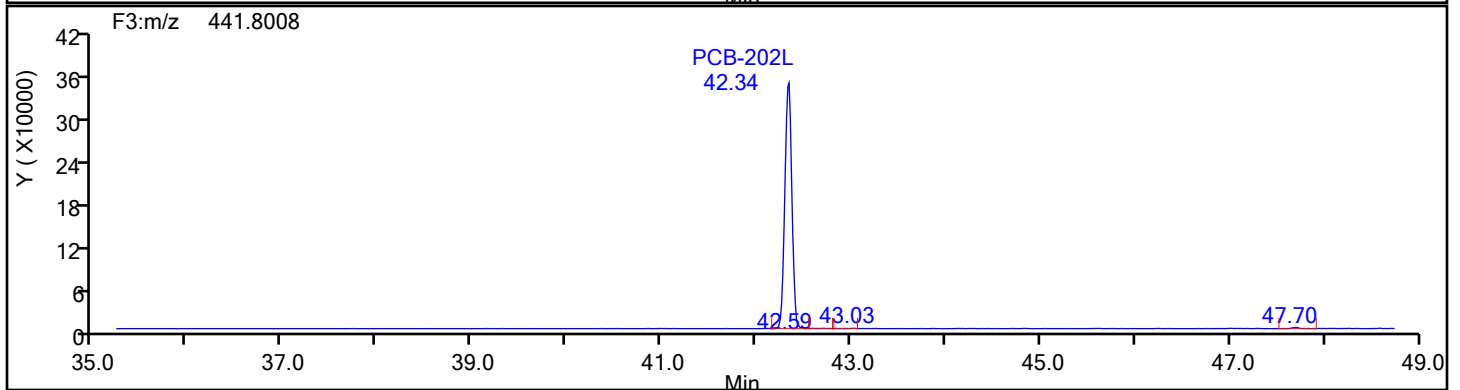
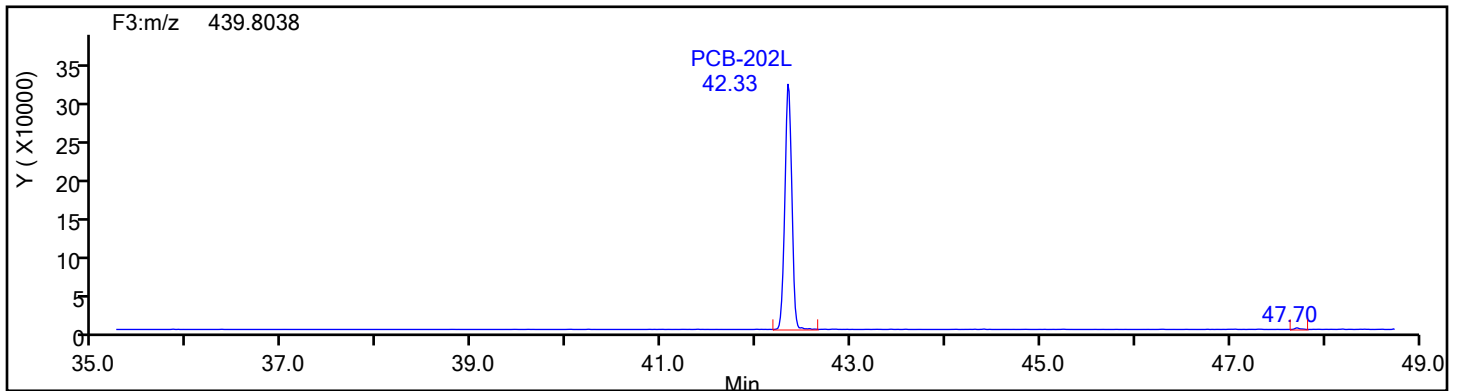
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3

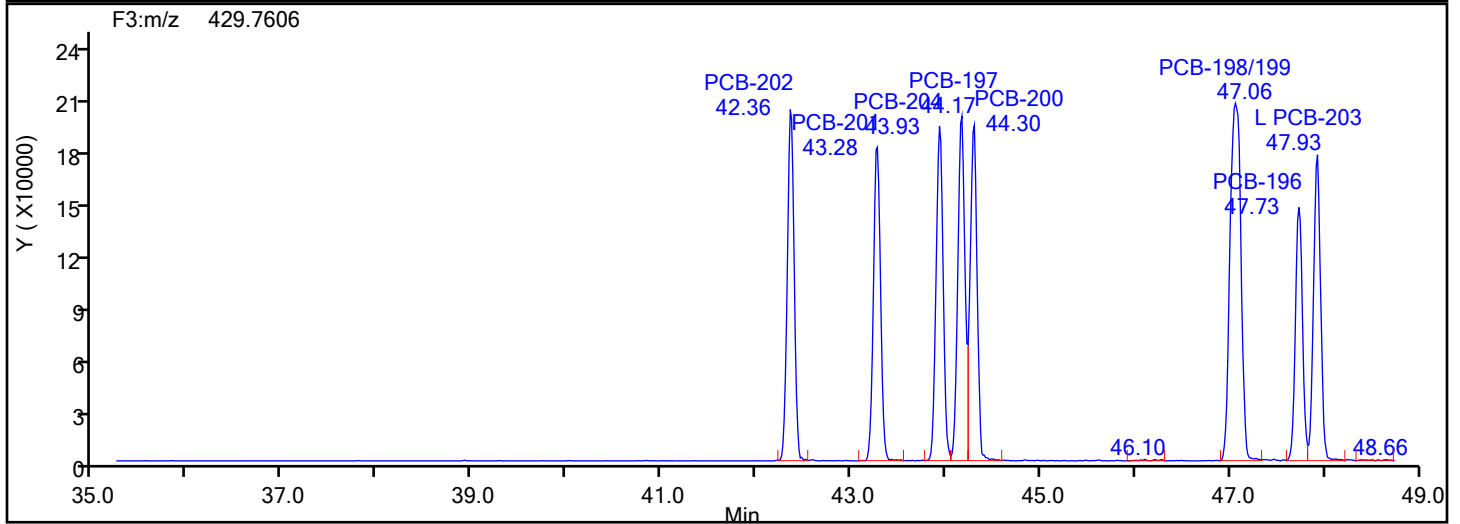
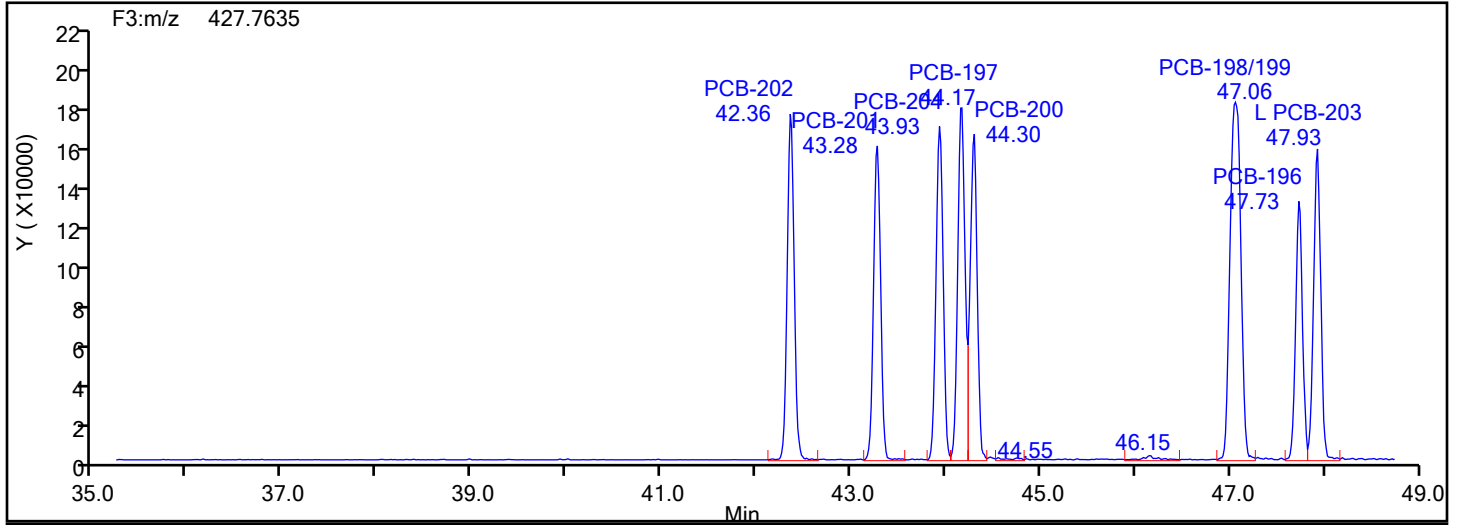


OcPCB F3 Standards

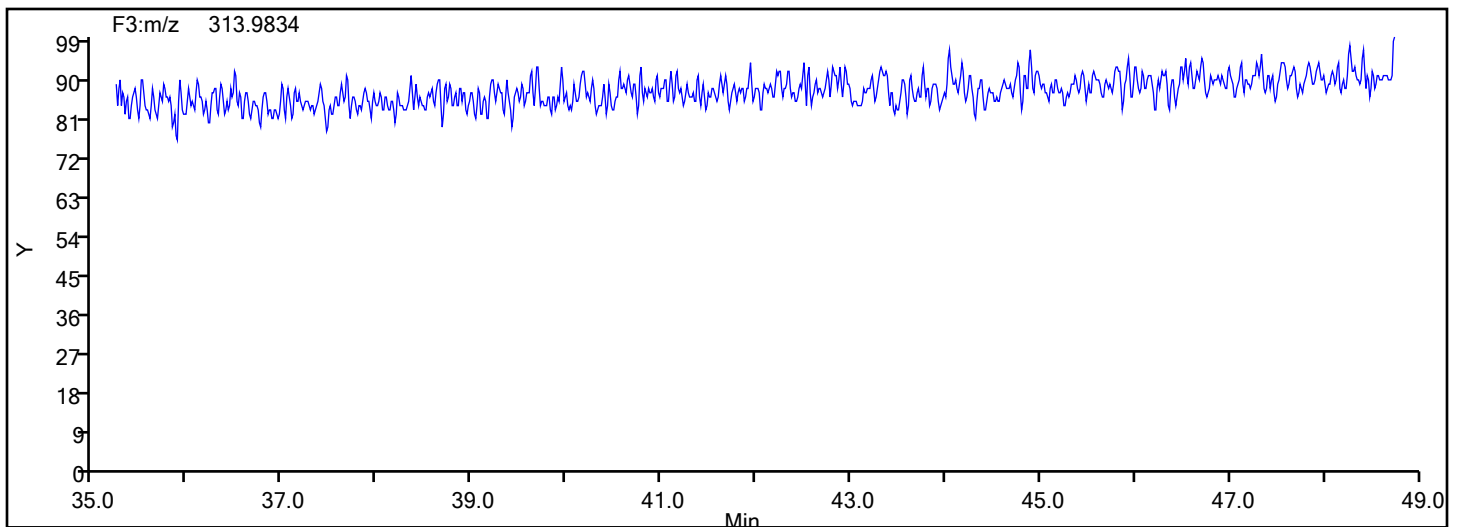


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88747 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3



## OcPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d

Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

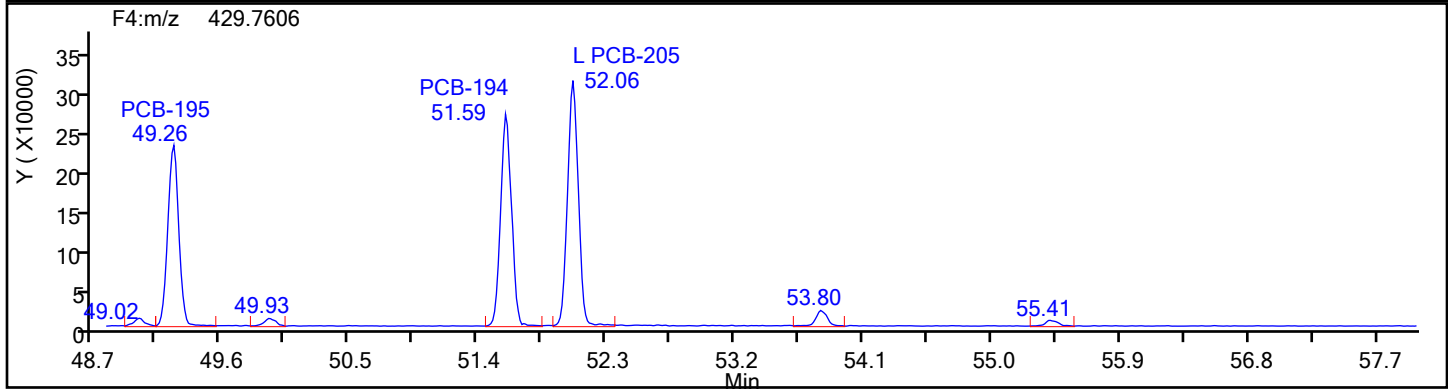
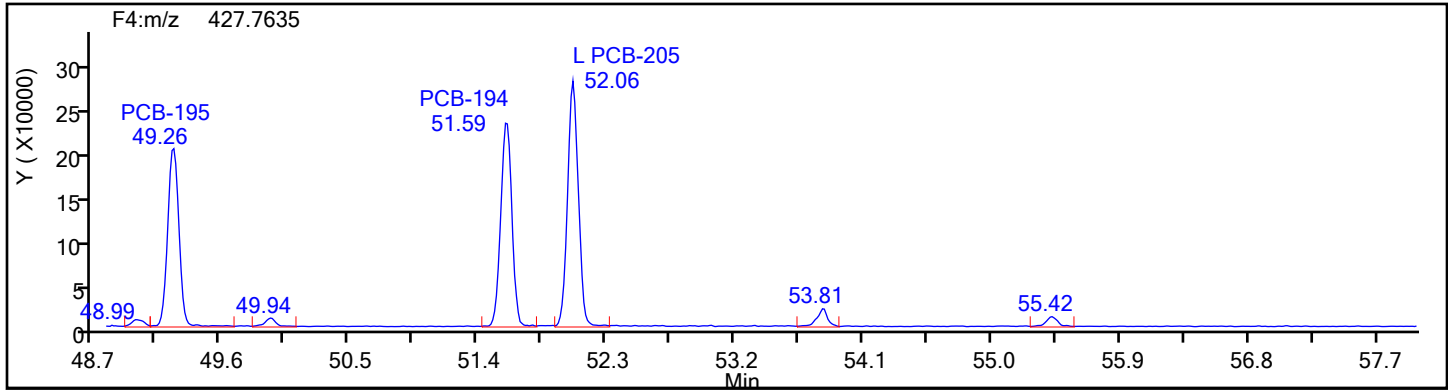
Worklist#: 88747

Sample Line#: 1

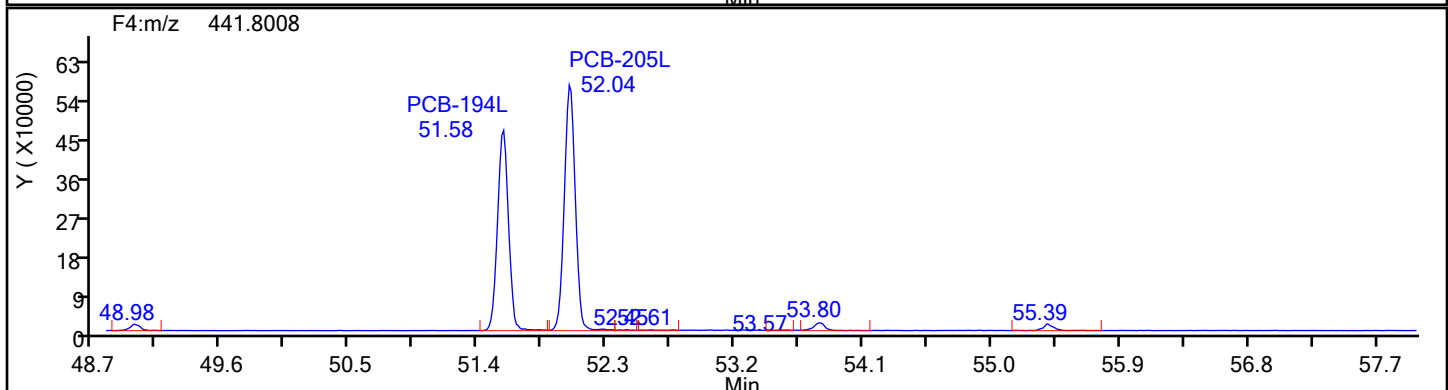
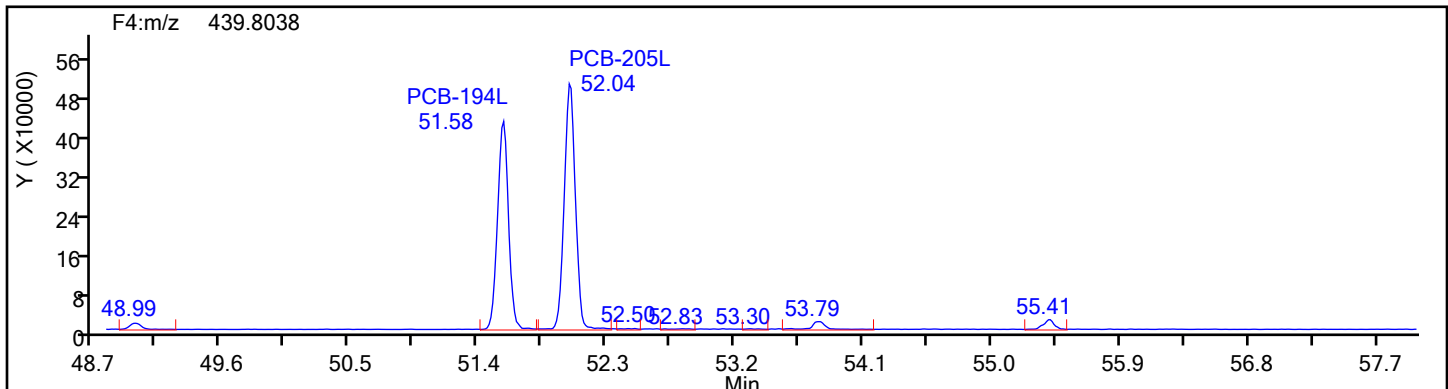
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4



OcPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d

Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

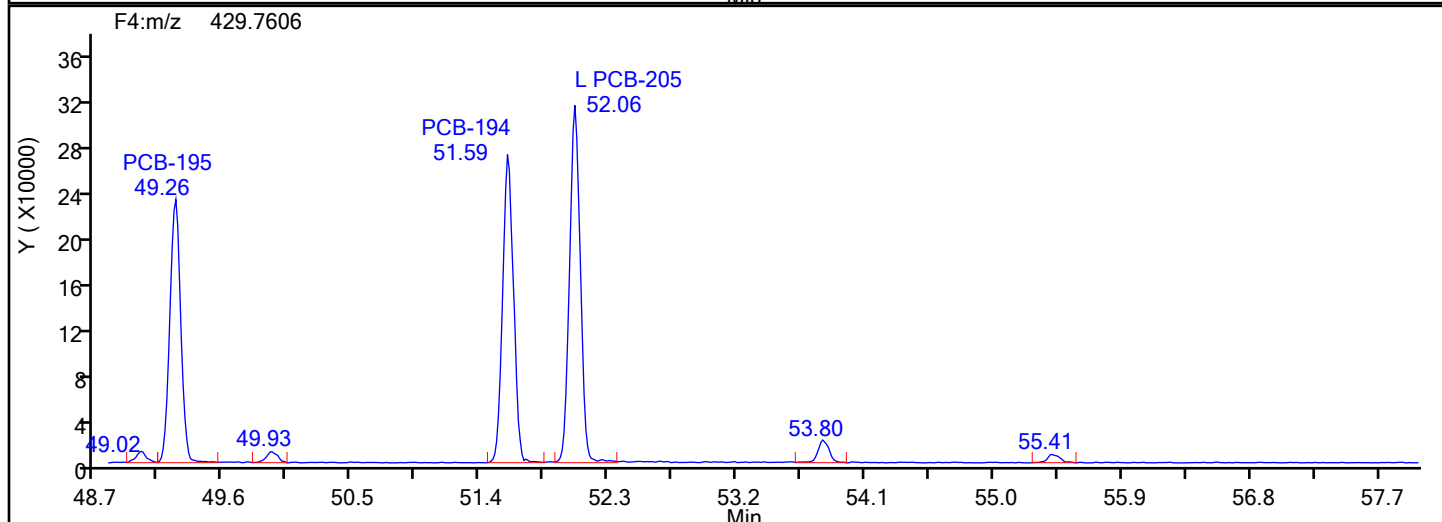
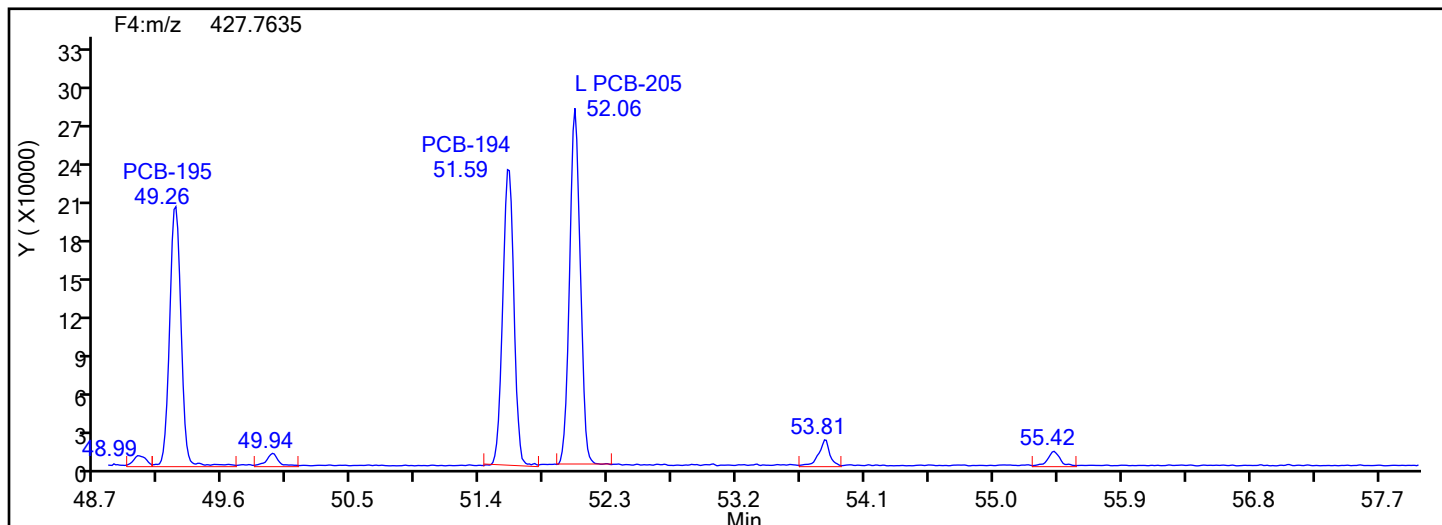
Worklist#: 88747

Sample Line#: 1

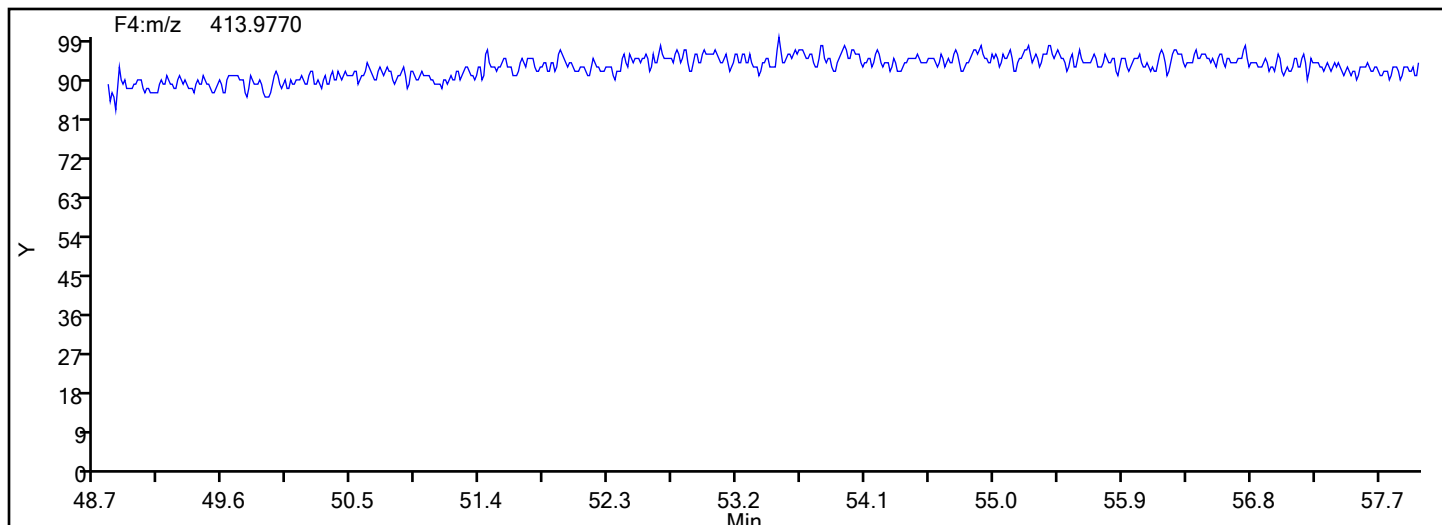
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4

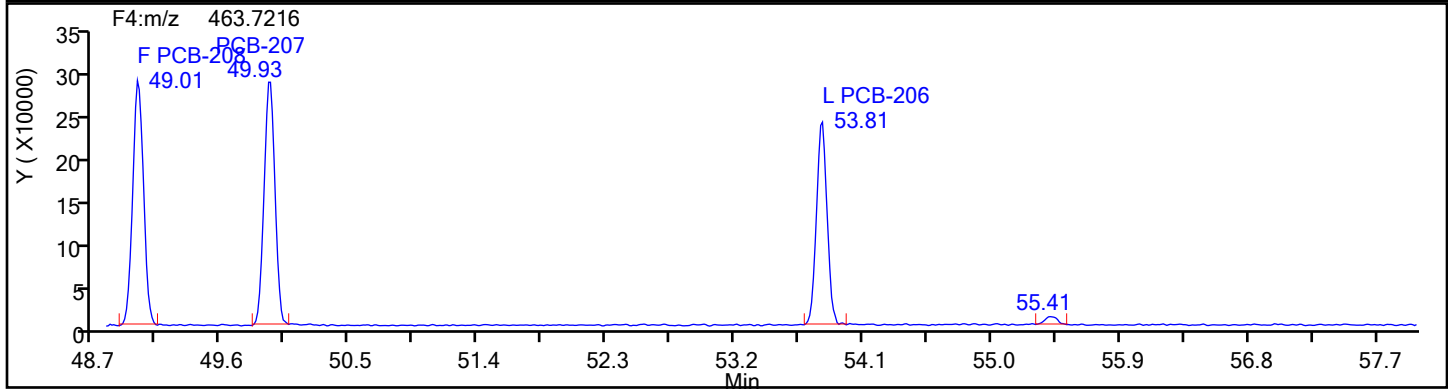
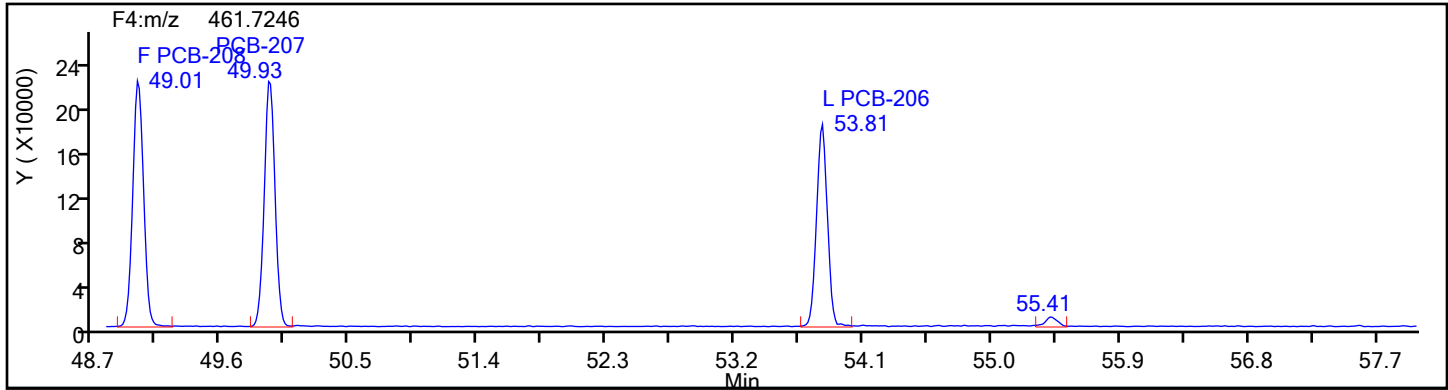


## OcPCB F4 Lock Mass

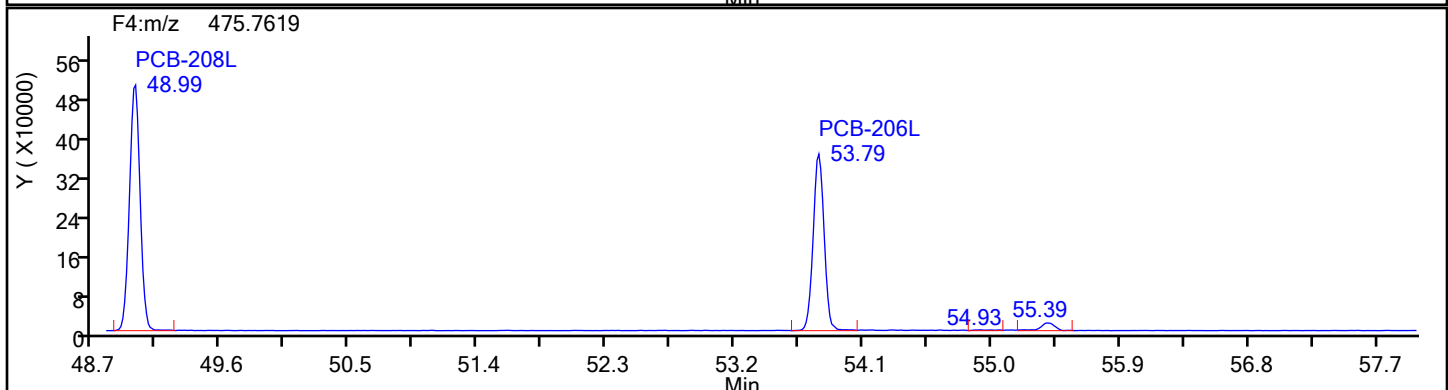
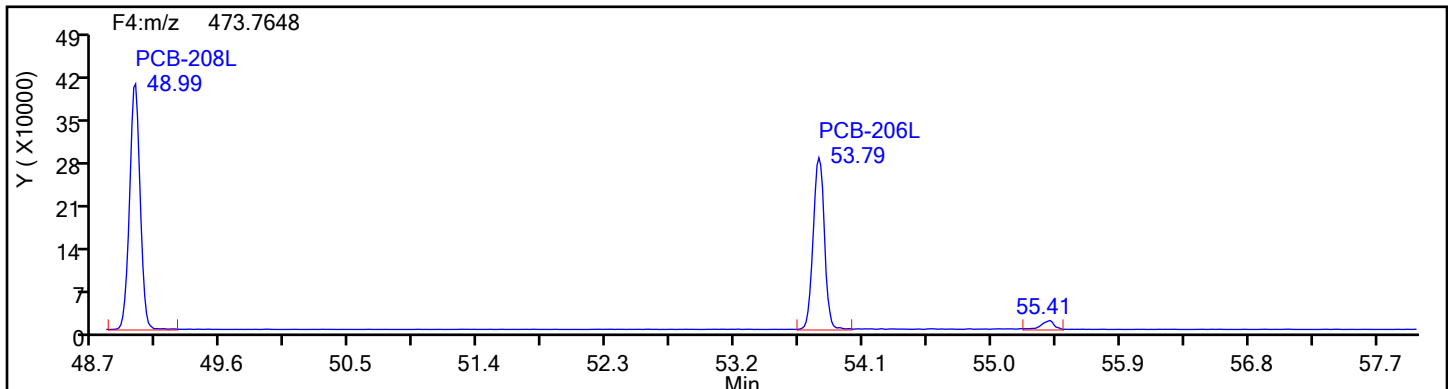


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88747 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4



## NoPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d

Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

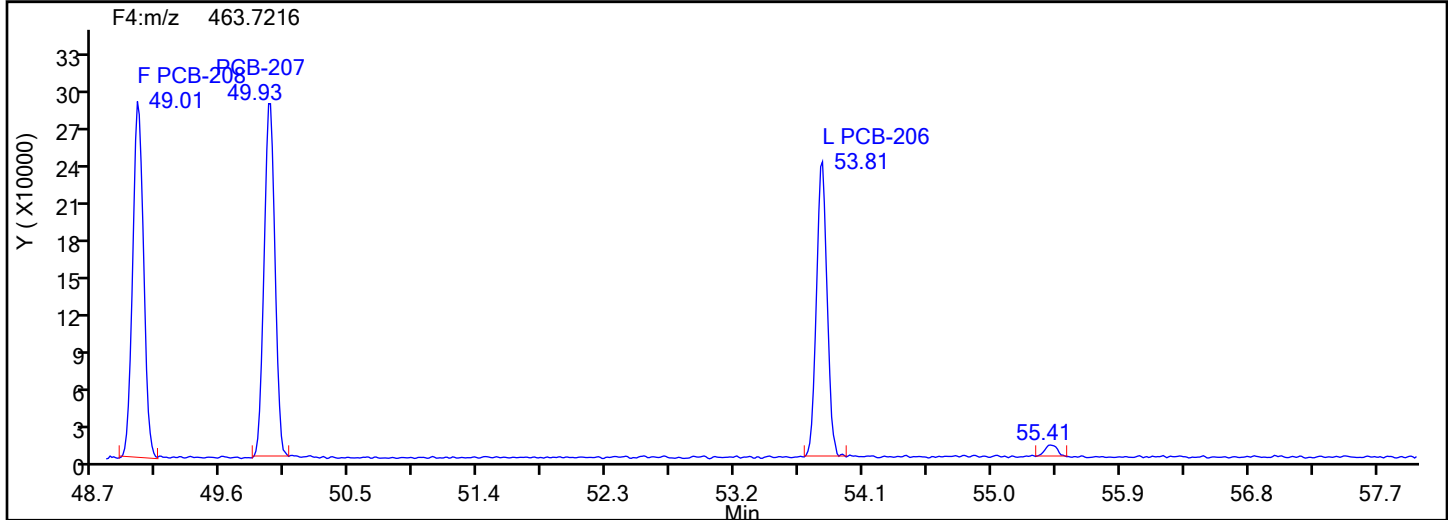
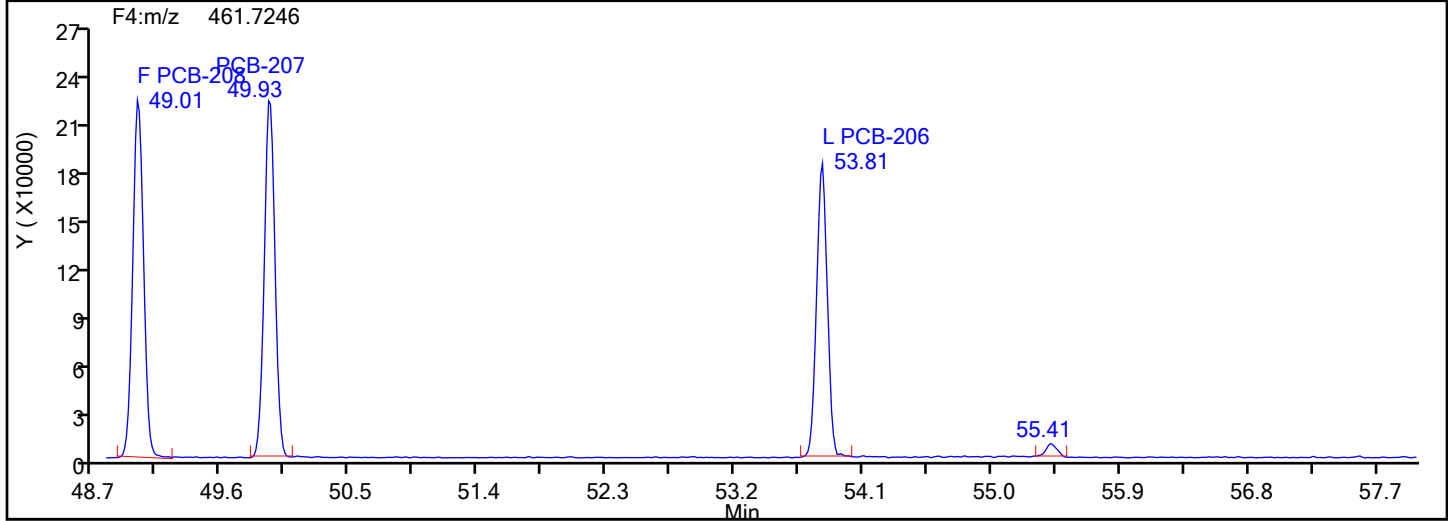
Worklist#: 88747

Sample Line#: 1

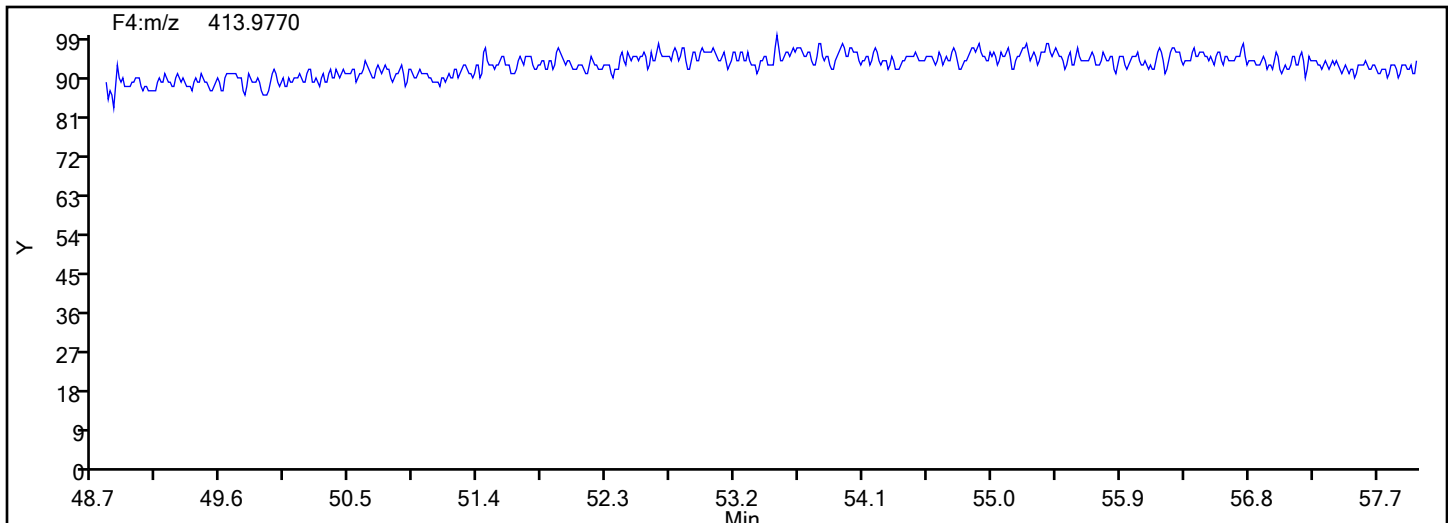
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



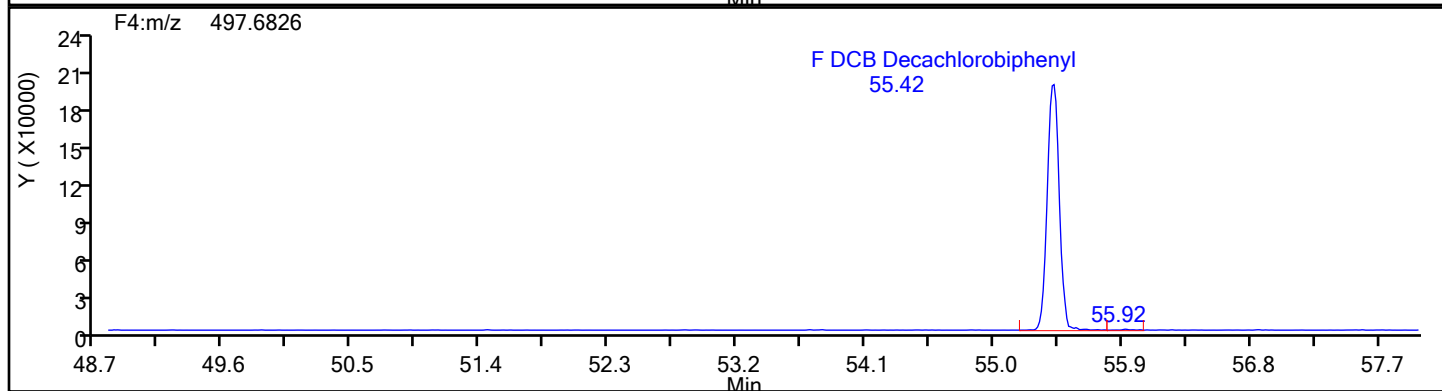
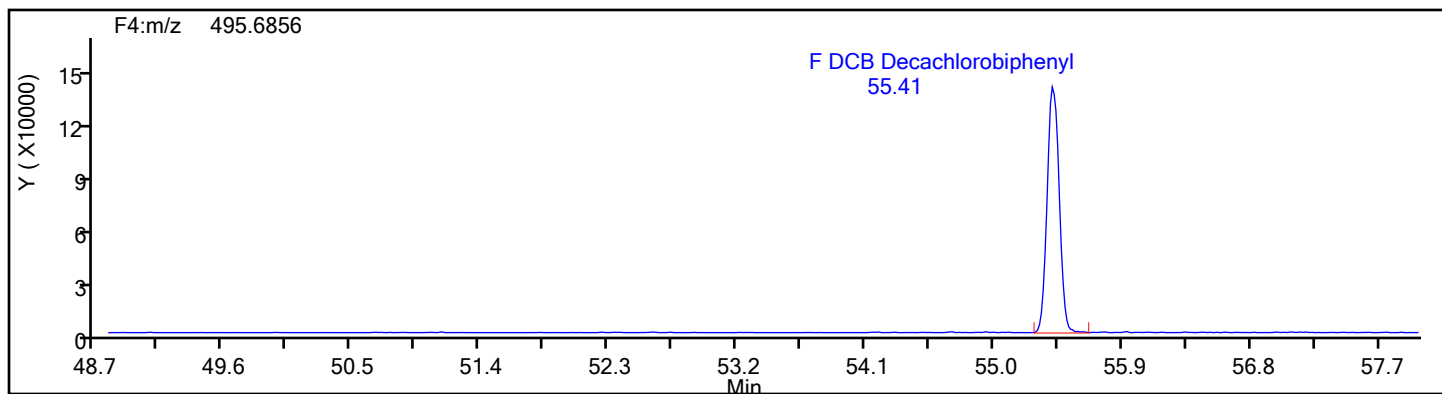
NoPCB F4 Lock Mass



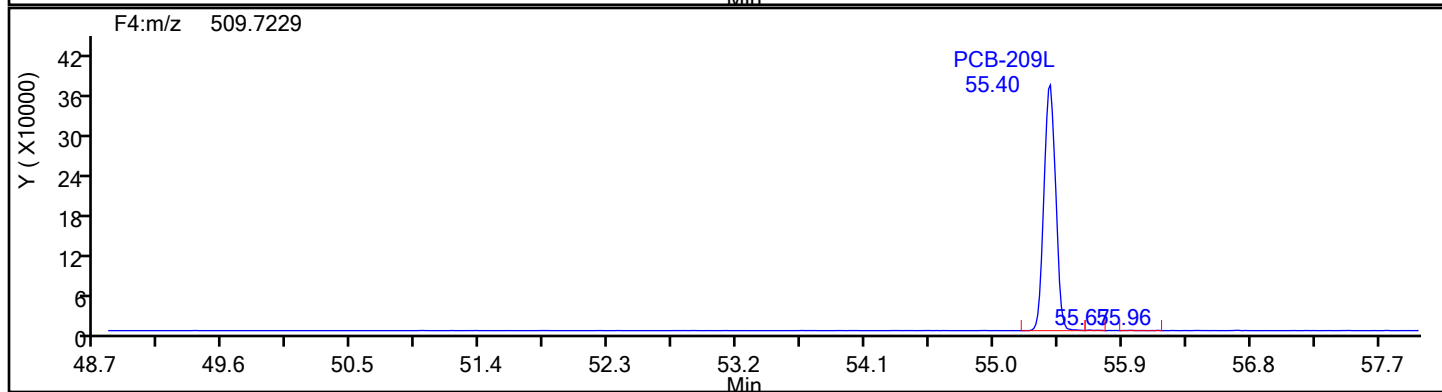
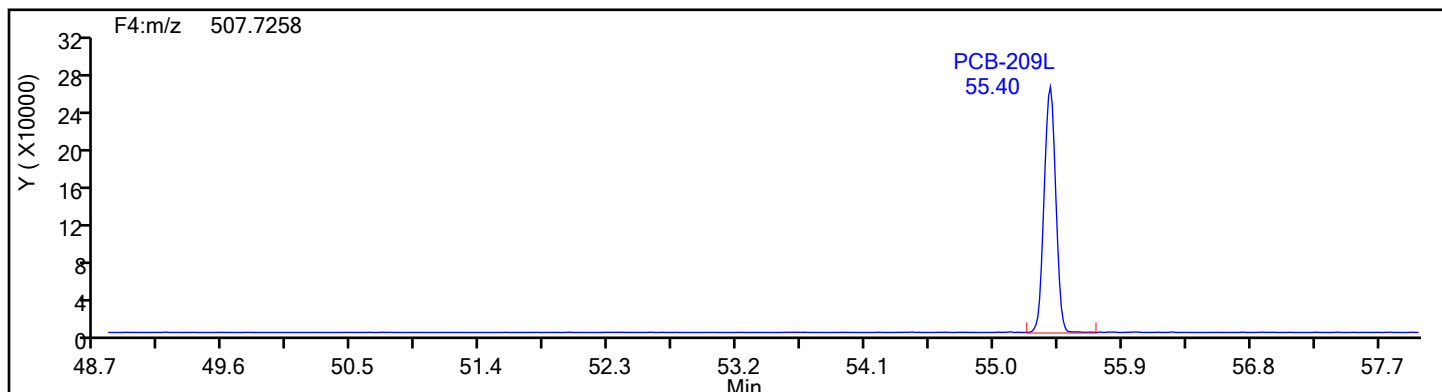


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d  
Injection Date: 15-Jul-2024 12:43:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88747 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4



## DePCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\d2240715c1a.d

Injection Date: 15-Jul-2024 12:43:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

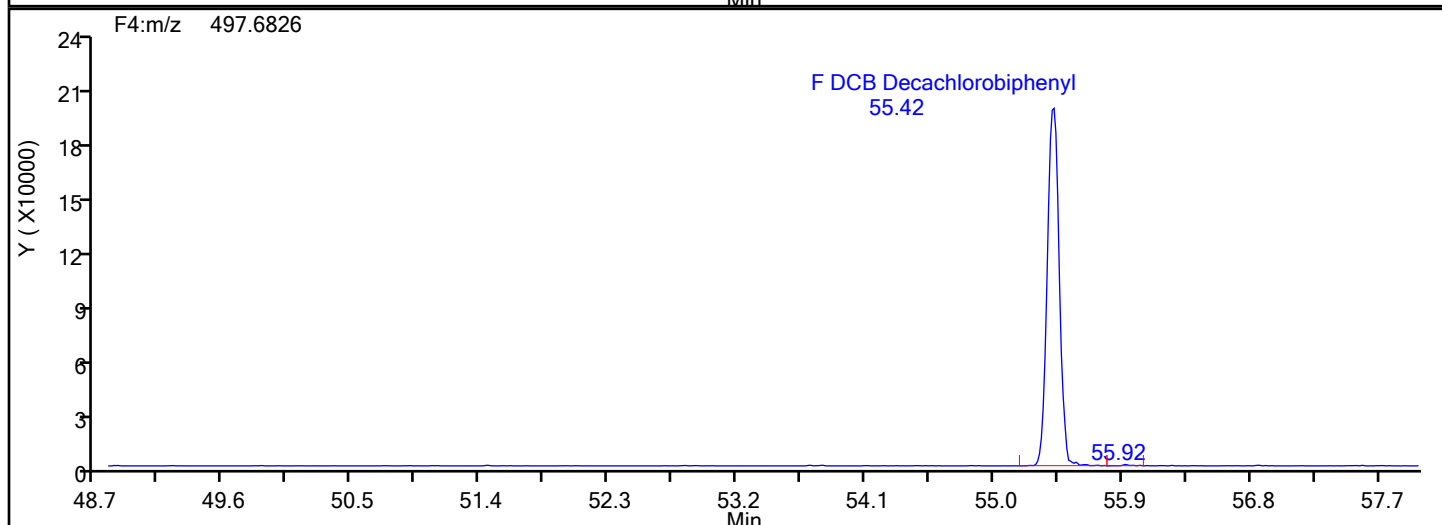
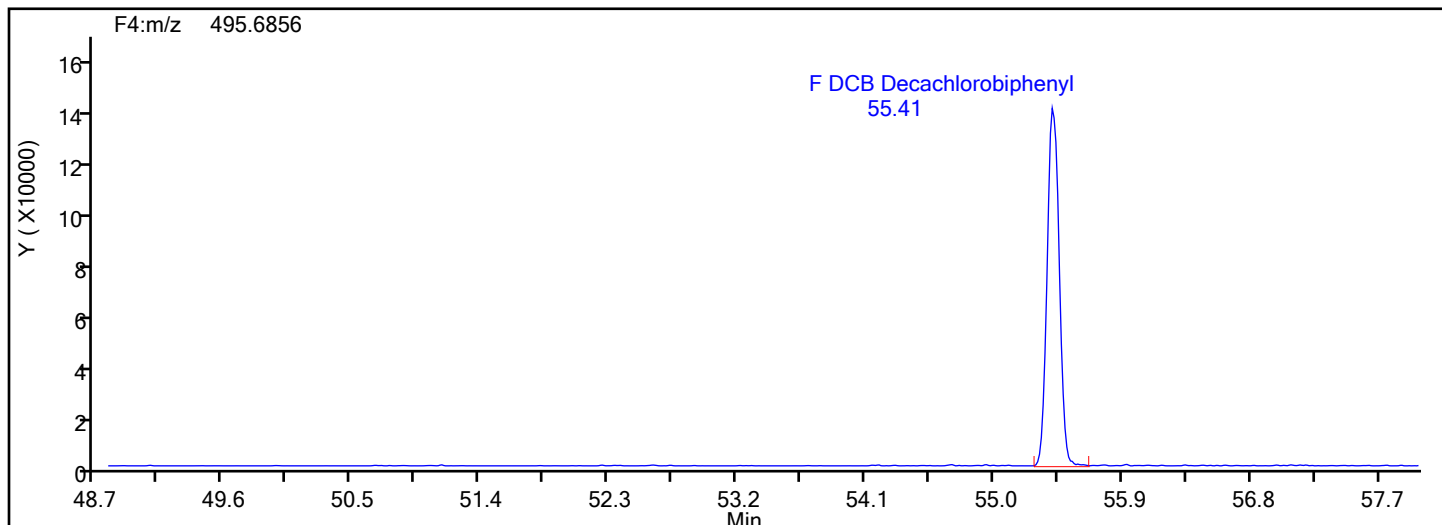
Worklist#: 88747

Sample Line#: 1

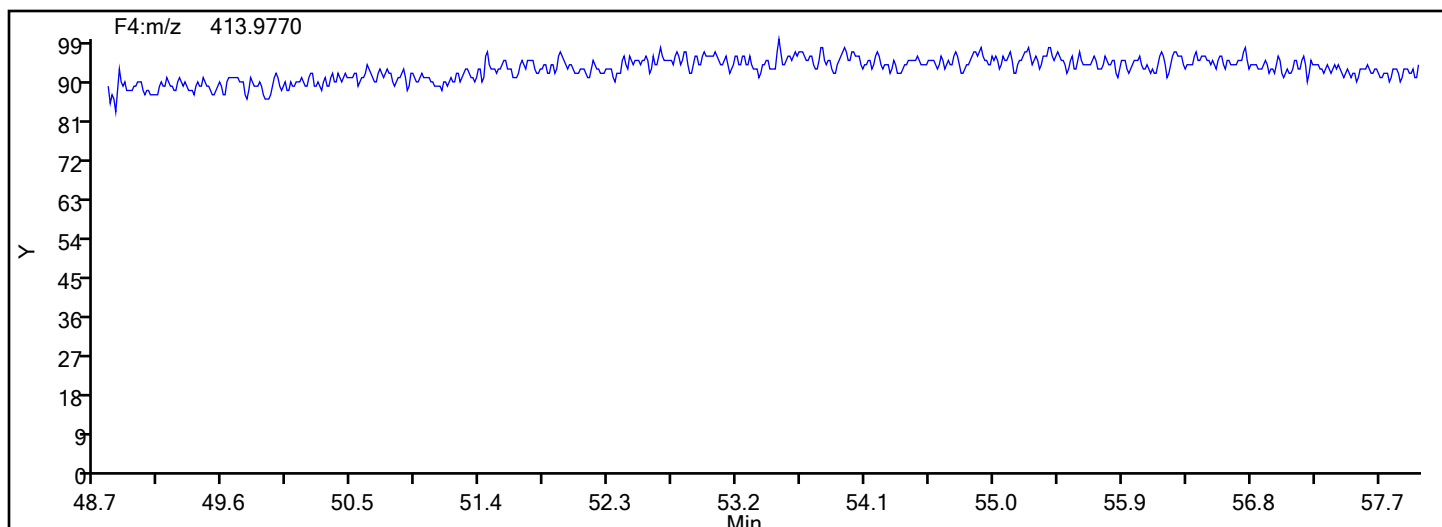
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



DePCB F4 Lock Mass



FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: WDMCCV 140-88809/1 Calibration Date: 07/16/2024 11:46

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240716c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1	AveID	1.219	1.232		50.5	50.0	1.1	25.0
PCB-2	AveID	1.181	1.187		50.3	50.0	0.5	25.0
PCB-3	AveID	1.221	1.254		51.4	50.0	2.8	25.0
PCB-4	AveID	1.282	1.274		49.7	50.0	-0.6	25.0
PCB-10	AveID	1.315	1.373		52.2	50.0	4.4	25.0
PCB-9	AveID	1.422	1.414		49.7	50.0	-0.6	25.0
PCB-7	AveID	1.413	1.417		50.1	50.0	0.3	25.0
PCB-6	AveID	1.542	1.537		49.8	50.0	-0.3	25.0
PCB-5	AveID	1.339	1.334		49.8	50.0	-0.4	25.0
PCB-8	AveID	1.589	1.637		51.5	50.0	3.0	25.0
PCB-19	AveID	1.281	1.249		48.7	50.0	-2.5	25.0
PCB-14	AveID	1.402	1.421		50.7	50.0	1.3	25.0
PCB-18	AveID	1.765	1.740		98.6	100	-1.4	25.0
PCB-18/30	AveID	1.765	1.740		98.6	100	-1.4	25.0
PCB-30	AveID	1.765	1.740		98.6	100	-1.4	25.0
PCB-11	AveID	1.295	1.349		52.1	50.0	4.2	25.0
PCB-17	AveID	1.243	1.214		48.8	50.0	-2.3	25.0
PCB-12	AveID	1.336	1.351		101	100	1.2	25.0
PCB-12/13	AveID	1.336	1.351		101	100	1.2	25.0
PCB-13	AveID	1.336	1.351		101	100	1.2	25.0
PCB-27	AveID	1.833	1.822		49.7	50.0	-0.6	25.0
PCB-24	AveID	1.678	1.681		50.1	50.0	0.2	25.0
PCB-16	AveID	1.129	1.161		51.5	50.0	2.9	25.0
PCB-15	AveID	1.290	1.314		50.9	50.0	1.9	25.0
PCB-54	AveID	1.273	1.313		51.5	50.0	3.1	25.0
PCB-32	AveID	1.832	1.833		50.0	50.0	0.0	25.0
PCB-34	AveID	1.128	1.195		53.0	50.0	5.9	25.0
PCB-23	AveID	1.081	1.156		53.5	50.0	6.9	25.0
PCB-26	AveID	1.125	1.170		104	100	3.9	25.0
PCB-26/29	AveID	1.125	1.170		104	100	3.9	25.0
PCB-29	AveID	1.125	1.170		104	100	3.9	25.0
PCB-25	AveID	1.273	1.355		53.2	50.0	6.4	25.0
PCB-50	AveID	0.8578	0.8168		95.2	100	-4.8	25.0
PCB-50/53	AveID	0.8578	0.8168		95.2	100	-4.8	25.0
PCB-53	AveID	0.8578	0.8168		95.2	100	-4.8	25.0
PCB-31	AveID	1.153	1.223		53.0	50.0	6.1	25.0
PCB-20	AveID	1.172	1.203		103	100	2.6	25.0
PCB-20/28	AveID	1.172	1.203		103	100	2.6	25.0
PCB-28	AveID	1.172	1.203		103	100	2.6	25.0
PCB-45	AveID	0.8264	0.8201		99.2	100	-0.8	25.0
PCB-45/51	AveID	0.8264	0.8201		99.2	100	-0.8	25.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: WDMCCV 140-88809/1 Calibration Date: 07/16/2024 11:46

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240716c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-51	AveID	0.8264	0.8201		99.2	100	-0.8	25.0
PCB-21	AveID	1.075	1.131		105	100	5.3	25.0
PCB-21/33	AveID	1.075	1.131		105	100	5.3	25.0
PCB-33	AveID	1.075	1.131		105	100	5.3	25.0
PCB-46	AveID	0.7101	0.6801		47.9	50.0	-4.2	25.0
PCB-22	AveID	1.193	1.248		52.3	50.0	4.6	25.0
PCB-52	AveID	0.9194	0.8942		48.6	50.0	-2.7	25.0
PCB-43	AveID	1.033	1.004		97.1	100	-2.9	25.0
PCB-43/73	AveID	1.033	1.004		97.1	100	-2.9	25.0
PCB-73	AveID	1.033	1.004		97.1	100	-2.9	25.0
PCB-36	AveID	1.107	1.147		51.8	50.0	3.6	25.0
PCB-49	AveID	1.069	1.013		94.8	100	-5.2	25.0
PCB-49/69	AveID	1.069	1.013		94.8	100	-5.2	25.0
PCB-69	AveID	1.069	1.013		94.8	100	-5.2	25.0
PCB-39	AveID	1.158	1.217		52.5	50.0	5.1	25.0
PCB-48	AveID	0.8399	0.8036		47.8	50.0	-4.3	25.0
PCB-104	AveID	1.009	1.025		50.8	50.0	1.6	25.0
PCB-44	AveID	0.9731	0.9324		144	150	-4.2	25.0
PCB-44/47/65	AveID	0.9731	0.9324		144	150	-4.2	25.0
PCB-47	AveID	0.9731	0.9324		144	150	-4.2	25.0
PCB-65	AveID	0.9731	0.9324		144	150	-4.2	25.0
PCB-38	AveID	1.084	1.078		49.7	50.0	-0.6	25.0
PCB-59	AveID	1.185	1.103		140	150	-6.9	25.0
PCB-59/62/75	AveID	1.185	1.103		140	150	-6.9	25.0
PCB-62	AveID	1.185	1.103		140	150	-6.9	25.0
PCB-75	AveID	1.185	1.103		140	150	-6.9	25.0
PCB-96	AveID	1.094	1.059		48.4	50.0	-3.2	25.0
PCB-42	AveID	0.8097	0.8020		49.5	50.0	-0.9	25.0
PCB-35	AveID	1.130	1.192		52.8	50.0	5.5	25.0
PCB-40	AveID	0.8863	0.8416		142	150	-5.0	25.0
PCB-40/41/71	AveID	0.8863	0.8416		142	150	-5.0	25.0
PCB-41	AveID	0.8863	0.8416		142	150	-5.0	25.0
PCB-71	AveID	0.8863	0.8416		142	150	-5.0	25.0
PCB-37	AveID	1.144	1.143		50.0	50.0	-0.0	25.0
PCB-64	AveID	1.178	1.088		46.2	50.0	-7.6	25.0
PCB-72	AveID	1.094	1.088		49.7	50.0	-0.6	25.0
PCB-103	AveID	0.8741	0.8635		49.4	50.0	-1.2	25.0
PCB-68	AveID	1.253	1.276		50.9	50.0	1.8	25.0
PCB-94	AveID	0.7640	0.7058		46.2	50.0	-7.6	25.0
PCB-57	AveID	1.082	1.095		50.6	50.0	1.3	25.0
PCB-95	AveID	0.8033	0.8062		50.2	50.0	0.4	25.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: WDMCCV 140-88809/1 Calibration Date: 07/16/2024 11:46

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240716c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-58	AveID	1.325	1.330		50.2	50.0	0.4	25.0
PCB-100	AveID	0.8429	0.8216		97.5	100	-2.5	25.0
PCB-93	AveID	0.8429	0.8216		97.5	100	-2.5	25.0
PCB-93/100	AveID	0.8429	0.8216		97.5	100	-2.5	25.0
PCB-67	AveID	1.423	1.389		48.8	50.0	-2.4	25.0
PCB-102	AveID	0.8262	0.8129		98.4	100	-1.6	25.0
PCB-98	AveID	0.8262	0.8129		98.4	100	-1.6	25.0
PCB-98/102	AveID	0.8262	0.8129		98.4	100	-1.6	25.0
PCB-63	AveID	1.124	1.106		49.2	50.0	-1.6	25.0
PCB-61	AveID	1.261	1.220		194	200	-3.2	25.0
PCB-61/70/74/76	AveID	1.261	1.220		194	200	-3.2	25.0
PCB-70	AveID	1.261	1.220		194	200	-3.2	25.0
PCB-74	AveID	1.261	1.220		194	200	-3.2	25.0
PCB-76	AveID	1.261	1.220		194	200	-3.2	25.0
PCB-88	AveID	0.8013	0.7865		98.2	100	-1.9	25.0
PCB-88/91	AveID	0.8013	0.7865		98.2	100	-1.9	25.0
PCB-91	AveID	0.8013	0.7865		98.2	100	-1.9	25.0
PCB-84	AveID	0.7299	0.7337		50.3	50.0	0.5	25.0
PCB-66	AveID	1.258	1.295		51.4	50.0	2.9	25.0
PCB-55	AveID	1.324	1.342		50.7	50.0	1.4	25.0
PCB-89	AveID	0.7798	0.7469		47.9	50.0	-4.2	25.0
PCB-56	AveID	1.233	1.235		50.1	50.0	0.1	25.0
PCB-121	AveID	1.296	1.290		49.7	50.0	-0.5	25.0
PCB-60	AveID	1.123	1.067		47.5	50.0	-5.0	25.0
PCB-92	AveID	0.8546	0.8532		49.9	50.0	-0.2	25.0
PCB-80	AveID	1.324	1.308		49.4	50.0	-1.2	25.0
PCB-155	AveID	0.9444	0.9866		52.2	50.0	4.5	25.0
PCB-101	AveID	0.9550	0.9429		148	150	-1.3	25.0
PCB-113	AveID	0.9550	0.9429		148	150	-1.3	25.0
PCB-152	AveID	0.9895	1.004		50.7	50.0	1.5	25.0
PCB-90	AveID	0.9550	0.9429		148	150	-1.3	25.0
PCB-90/101/113	AveID	0.9550	0.9429		148	150	-1.3	25.0
PCB-150	AveID	1.013	1.043		51.5	50.0	2.9	25.0
PCB-136	AveID	1.012	1.026		50.7	50.0	1.4	25.0
PCB-83	AveID	0.8385	0.8458		101	100	0.9	25.0
PCB-83/99	AveID	0.8385	0.8458		101	100	0.9	25.0
PCB-99	AveID	0.8385	0.8458		101	100	0.9	25.0
PCB-112	AveID	1.411	1.399		49.6	50.0	-0.9	25.0
PCB-145	AveID	0.9685	0.9944		51.3	50.0	2.7	25.0
PCB-109	AveID	1.047	1.029		295	300	-1.7	25.0
PCB-119	AveID	1.047	1.029		295	300	-1.7	25.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: WDMCCV 140-88809/1 Calibration Date: 07/16/2024 11:46

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240716c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-125	AveID	1.047	1.029		295	300	-1.7	25.0
PCB-86	AveID	1.047	1.029		295	300	-1.7	25.0
PCB-86/87/97/109/119/125	AveID	1.047	1.029		295	300	-1.7	25.0
PCB-87	AveID	1.047	1.029		295	300	-1.7	25.0
PCB-97	AveID	1.047	1.029		295	300	-1.7	25.0
PCB-79	AveID	1.437	1.345		46.8	50.0	-6.4	25.0
PCB-78	AveID	1.162	1.189		51.2	50.0	2.4	25.0
PCB-116	AveID	1.041	1.032		149	150	-0.8	25.0
PCB-117	AveID	1.041	1.032		149	150	-0.8	25.0
PCB-85	AveID	1.041	1.032		149	150	-0.8	25.0
PCB-85/116/117	AveID	1.041	1.032		149	150	-0.8	25.0
PCB-110	AveID	1.192	1.181		99.1	100	-0.9	25.0
PCB-110/115	AveID	1.192	1.181		99.1	100	-0.9	25.0
PCB-115	AveID	1.192	1.181		99.1	100	-0.9	25.0
PCB-81	AveID	1.080	1.028		47.6	50.0	-4.9	25.0
PCB-148	AveID	0.7603	0.7789		51.2	50.0	2.4	25.0
PCB-82	AveID	0.8303	0.8410		50.6	50.0	1.3	25.0
PCB-77	AveID	1.084	1.066		49.2	50.0	-1.7	25.0
PCB-111	AveID	1.213	1.184		48.8	50.0	-2.4	25.0
PCB-135	AveID	0.7256	0.7255		100.0	100	-0.0	25.0
PCB-135/151	AveID	0.7256	0.7255		100.0	100	-0.0	25.0
PCB-151	AveID	0.7256	0.7255		100.0	100	-0.0	25.0
PCB-120	AveID	1.476	1.445		48.9	50.0	-2.1	25.0
PCB-154	AveID	0.8129	0.8380		51.5	50.0	3.1	25.0
PCB-144	AveID	0.7852	0.7941		50.6	50.0	1.1	25.0
PCB-147	AveID	0.8950	0.8175		91.3	100	-8.7	25.0
PCB-147/149	AveID	0.8950	0.8175		91.3	100	-8.7	25.0
PCB-149	AveID	0.8950	0.8175		91.3	100	-8.7	25.0
PCB-134	AveID	0.7967	0.7498		94.1	100	-5.9	25.0
PCB-134/143	AveID	0.7967	0.7498		94.1	100	-5.9	25.0
PCB-143	AveID	0.7967	0.7498		94.1	100	-5.9	25.0
PCB-108	AveID	1.141	1.053		92.4	100	-7.7	25.0
PCB-108/124	AveID	1.141	1.053		92.4	100	-7.7	25.0
PCB-124	AveID	1.141	1.053		92.4	100	-7.7	25.0
PCB-139	AveID	0.8769	0.8200		93.5	100	-6.5	25.0
PCB-139/140	AveID	0.8769	0.8200		93.5	100	-6.5	25.0
PCB-140	AveID	0.8769	0.8200		93.5	100	-6.5	25.0
PCB-107	AveID	1.212	1.175		48.5	50.0	-3.1	25.0
PCB-123	AveID	1.072	1.096		51.1	50.0	2.2	25.0
PCB-131	AveID	0.7503	0.6891		45.9	50.0	-8.2	25.0
PCB-106	AveID	1.084	1.108		51.1	50.0	2.2	25.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
 SDG No.: \_\_\_\_\_  
 Lab Sample ID: WDMCCV 140-88809/1 Calibration Date: 07/16/2024 11:46  
 Instrument ID: D2D Calib Start Date: 05/31/2024 14:36  
 GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13  
 Lab File ID: d2240716c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-142	AveID	0.7507	0.7055		47.0	50.0	-6.0	25.0
PCB-118	AveID	1.206	1.179		48.9	50.0	-2.2	25.0
PCB-132	AveID	0.7489	0.7036		47.0	50.0	-6.1	25.0
PCB-122	AveID	0.9567	0.9837		51.4	50.0	2.8	25.0
PCB-188	AveID	1.135	1.129		49.7	50.0	-0.5	25.0
PCB-114	AveID	1.084	1.084		50.0	50.0	0.0	25.0
PCB-133	AveID	0.8096	0.7505		46.4	50.0	-7.3	25.0
PCB-179	AveID	1.428	1.362		47.7	50.0	-4.6	25.0
PCB-165	AveID	1.025	0.9870		48.2	50.0	-3.7	25.0
PCB-105	AveID	1.188	1.203		50.6	50.0	1.3	25.0
PCB-146	AveID	0.9637	0.9007		46.7	50.0	-6.5	25.0
PCB-184	AveID	1.367	1.371		50.1	50.0	0.3	25.0
PCB-161	AveID	1.129	1.100		48.7	50.0	-2.6	25.0
PCB-176	AveID	1.233	1.215		49.3	50.0	-1.5	25.0
PCB-153	AveID	1.094	1.036		94.8	100	-5.2	25.0
PCB-153/168	AveID	1.094	1.036		94.8	100	-5.2	25.0
PCB-168	AveID	1.094	1.036		94.8	100	-5.2	25.0
PCB-141	AveID	0.8755	0.8370		47.8	50.0	-4.4	25.0
PCB-186	AveID	1.474	1.504		51.0	50.0	2.1	25.0
PCB-130	AveID	0.7051	0.6512		46.2	50.0	-7.6	25.0
PCB-127	AveID	1.139	1.170		51.3	50.0	2.7	25.0
PCB-137	AveID	0.7767	0.7681		49.5	50.0	-1.1	25.0
PCB-164	AveID	1.038	1.005		48.4	50.0	-3.2	25.0
PCB-129	AveID	0.9464	0.8914		188	200	-5.8	25.0
PCB-129/138/160/163	AveID	0.9464	0.8914		188	200	-5.8	25.0
PCB-138	AveID	0.9464	0.8914		188	200	-5.8	25.0
PCB-160	AveID	0.9464	0.8914		188	200	-5.8	25.0
PCB-163	AveID	0.9464	0.8914		188	200	-5.8	25.0
PCB-158	AveID	1.311	1.231		46.9	50.0	-6.1	25.0
PCB-178	AveID	0.8946	0.8861		49.5	50.0	-1.0	25.0
PCB-175	AveID	0.9524	0.9614		50.5	50.0	0.9	25.0
PCB-126	AveID	1.098	1.135		51.7	50.0	3.4	25.0
PCB-128	AveID	0.9829	0.9417		95.8	100	-4.2	25.0
PCB-128/166	AveID	0.9829	0.9417		95.8	100	-4.2	25.0
PCB-166	AveID	0.9829	0.9417		95.8	100	-4.2	25.0
PCB-187	AveID	1.102	1.126		51.1	50.0	2.2	25.0
PCB-182	AveID	0.9247	0.9921		53.6	50.0	7.3	25.0
PCB-183	AveID	0.9825	0.9689		98.6	100	-1.4	25.0
PCB-183/185	AveID	0.9825	0.9689		98.6	100	-1.4	25.0
PCB-185	AveID	0.9825	0.9689		98.6	100	-1.4	25.0
PCB-174	AveID	0.9642	0.998		51.8	50.0	3.6	25.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: WDMCCV 140-88809/1 Calibration Date: 07/16/2024 11:46

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240716c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-159	AveID	1.386	1.356		48.9	50.0	-2.1	25.0
PCB-162	AveID	1.257	1.221		48.6	50.0	-2.9	25.0
PCB-177	AveID	0.9773	1.001		51.2	50.0	2.5	25.0
PCB-202	AveID	1.036	1.068		51.6	50.0	3.1	25.0
PCB-167	AveID	1.116	1.118		50.1	50.0	0.2	25.0
PCB-181	AveID	0.9505	0.9671		50.9	50.0	1.7	25.0
PCB-171	AveID	0.9336	0.9112		97.6	100	-2.4	25.0
PCB-171/173	AveID	0.9336	0.9112		97.6	100	-2.4	25.0
PCB-173	AveID	0.9336	0.9112		97.6	100	-2.4	25.0
PCB-201	AveID	0.9754	1.021		52.4	50.0	4.7	25.0
PCB-156	AveID	1.110	1.112		100	100	0.1	25.0
PCB-156/157	AveID	1.110	1.112		100	100	0.1	25.0
PCB-157	AveID	1.110	1.112		100	100	0.1	25.0
PCB-204	AveID	1.049	1.042		49.7	50.0	-0.6	25.0
PCB-197	AveID	1.146	1.117		48.8	50.0	-2.5	25.0
PCB-200	AveID	1.007	1.061		52.7	50.0	5.4	25.0
PCB-172	AveID	0.8519	0.9015		52.9	50.0	5.8	25.0
PCB-192	AveID	1.346	1.444		53.6	50.0	7.3	25.0
PCB-180	AveID	1.168	1.201		103	100	2.9	25.0
PCB-180/193	AveID	1.168	1.201		103	100	2.9	25.0
PCB-193	AveID	1.168	1.201		103	100	2.9	25.0
PCB-191	AveID	1.289	1.427		55.4	50.0	10.7	25.0
PCB-170	AveID	1.187	1.201		50.6	50.0	1.3	25.0
PCB-190	AveID	1.332	1.418		53.2	50.0	6.4	25.0
PCB-169	AveID	1.163	1.138		49.0	50.0	-2.1	25.0
PCB-198	AveID	0.8698	0.8833		102	100	1.6	25.0
PCB-198/199	AveID	0.8698	0.8833		102	100	1.6	25.0
PCB-199	AveID	0.8698	0.8833		102	100	1.6	25.0
PCB-196	AveID	0.7806	0.7983		51.1	50.0	2.3	25.0
PCB-203	AveID	0.9292	0.9835		52.9	50.0	5.8	25.0
PCB-208	AveID	1.137	1.118		49.1	50.0	-1.7	25.0
PCB-195	AveID	0.8263	0.7846		47.5	50.0	-5.1	25.0
PCB-189	AveID	0.9633	1.028		53.4	50.0	6.7	25.0
PCB-207	AveID	1.376	1.276		46.4	50.0	-7.2	25.0
PCB-194	AveID	0.9735	0.9256		47.5	50.0	-4.9	25.0
PCB-205	AveID	1.088	1.098		50.5	50.0	0.9	25.0
PCB-206	AveID	1.335	1.228		46.0	50.0	-8.0	25.0
PCB-209	AveID	1.100	1.111		50.5	50.0	0.9	25.0
PCB-1L	Ave	1.611	1.611		100	100	0.0	30.0
PCB-3L	Ave	1.589	1.552		97.7	100	-2.3	30.0
PCB-4L	Ave	0.6475	0.6482		100	100	0.1	30.0



FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: WDMCCV 140-88809/1 Calibration Date: 07/16/2024 11:46

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240716c1a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-19L	Ave	0.6285	0.6131		97.5	100	-2.5	30.0
PCB-15L	Ave	1.079	1.085		101	100	0.5	30.0
PCB-54L	Ave	0.5562	0.6071		109	100	9.1	30.0
PCB-104L	Ave	1.216	1.223		101	100	0.6	30.0
PCB-37L	Ave	0.8749	0.8603		98.3	100	-1.7	30.0
PCB-155L	Ave	1.085	1.083		99.8	100	-0.2	30.0
PCB-81L	Ave	1.247	1.219		97.8	100	-2.2	30.0
PCB-77L	Ave	1.321	1.283		97.1	100	-2.9	30.0
PCB-123L	Ave	0.9731	0.9423		96.8	100	-3.2	30.0
PCB-118L	Ave	1.010	0.9860		97.6	100	-2.4	30.0
PCB-188L	Ave	1.313	1.294		98.5	100	-1.5	30.0
PCB-114L	Ave	0.9949	0.9858		99.1	100	-0.9	30.0
PCB-105L	Ave	0.9514	0.9681		102	100	1.7	30.0
PCB-126L	Ave	0.9439	0.9657		102	100	2.3	30.0
PCB-202L	Ave	0.9818	0.9926		101	100	1.1	30.0
PCB-167L	Ave	1.257	1.285		102	100	2.2	30.0
PCB-156L	Ave	1.211	1.259		208	200	4.0	30.0
PCB-156L/157L	Ave	1.211	1.259		208	200	4.0	30.0
PCB-157L	Ave	1.211	1.259		208	200	4.0	30.0
PCB-170L	Ave	0.8362	0.8523		102	100	1.9	30.0
PCB-169L	Ave	1.244	1.314		106	100	5.6	30.0
PCB-208L	Ave	0.9576	0.9546		99.7	100	-0.3	30.0
PCB-189L	Ave	1.441	1.466		102	100	1.7	30.0
PCB-205L	Ave	1.179	1.222		104	100	3.7	30.0
PCB-206L	Ave	0.6947	0.7793		112	100	12.2	30.0
PCB-209L	Ave	0.6669	0.8272		124	100	24.0	30.0
PCB-8L	AveID	1.207	1.124		46.6	50.0	-6.8	25.0
PCB-28L	Ave	1.049	0.9712		46.3	50.0	-7.5	30.0
PCB-95L	AveID	0.7218	0.7011		48.6	50.0	-2.9	25.0
PCB-79L	AveID	1.002	1.000		49.9	50.0	-0.1	25.0
PCB-111L	Ave	1.370	1.238		45.2	50.0	-9.6	30.0
PCB-153L	AveID	0.9169	0.7943		43.3	50.0	-13.4	25.0
PCB-178L	Ave	1.031	0.9308		45.1	50.0	-9.8	30.0

# Resolution Check Report ( DFS SN: 3190 )

Date: 16 Jul 2024 11:10  
MID Experiment: ResCheck\_1668  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43KnxPCB.lua  
Status: RESOLUTION PASSED

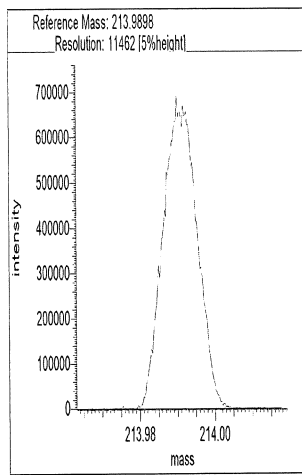
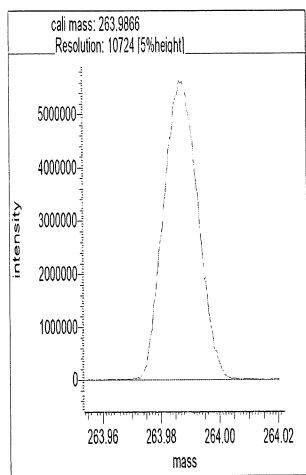
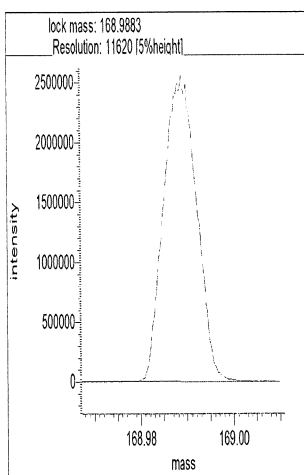
d2240716r1

## Segment 1

Lock mass 168.9883 [m/z] Resolution: 11620 [5%height]

Cali. mass 263.9866 [m/z] Resolution: 10724 [5%height]

Ref. mass 213.9898 [m/z] Resolution: 11462 [5%height]

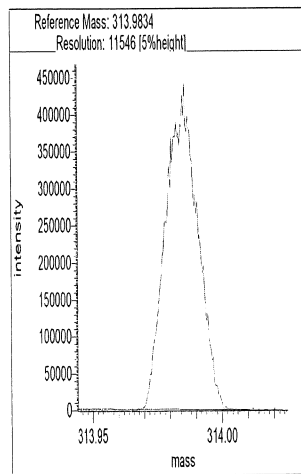
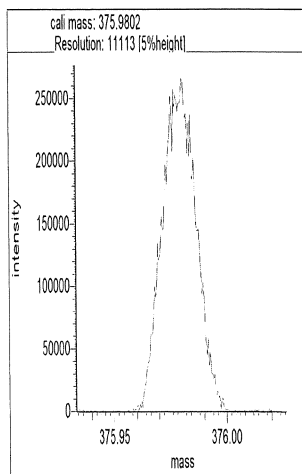
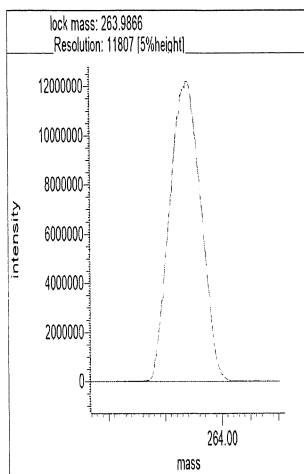


## Segment 2

Lock mass 263.9866 [m/z] Resolution: 11807 [5%height]

Cali. mass 375.9802 [m/z] Resolution: 11113 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 11546 [5%height]

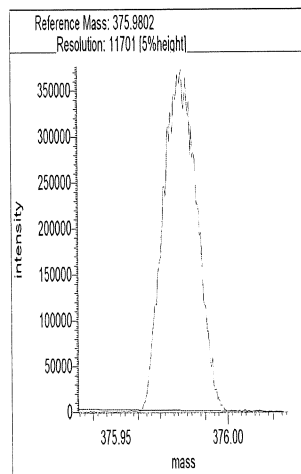
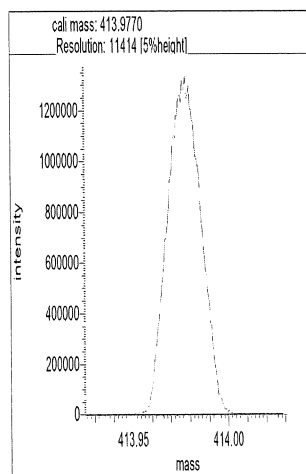
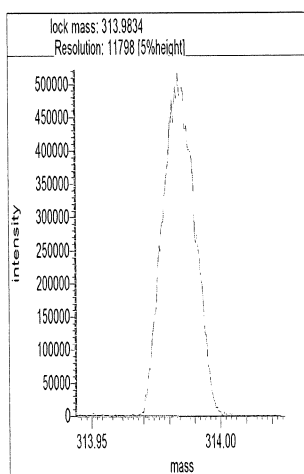


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 11798 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11414 [5%height]

Ref. mass 375.9802 [m/z] Resolution: 11701 [5%height]

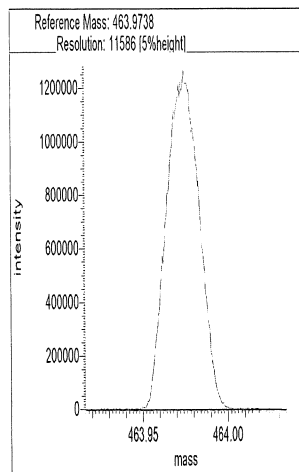
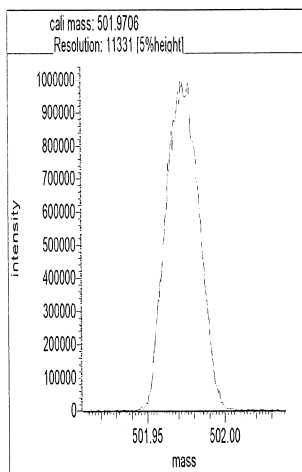
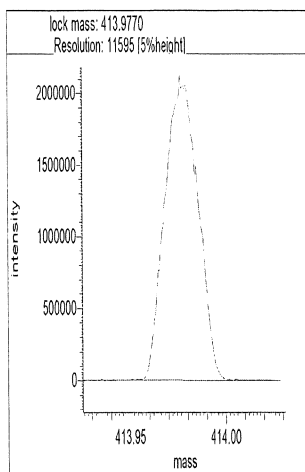


### Segment 4

Lock mass 413.9770 [m/z] Resolution: 11595 [5%height]

Cali. mass 501.9706 [m/z] Resolution: 11331 [5%height]

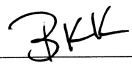
Ref. mass 463.9738 [m/z] Resolution: 11586 [5%height]



## Reports

11:19:46: Peak matching procedure started  
11:19:46:  
11:19:47: Reference mass: 168.98827  
11:19:47: Sample mass: 214.0  
11:19:48:  
11:19:48: Finding reference mass  
11:19:49: Finding sample mass  
11:19:50:  
11:19:55: [1] 213.9902 amu, mean: 213.9902 SD: 0.05 mmu or: 0.22 ppm  
11:19:59: [2] 213.9902 amu, mean: 213.9902 SD: 0.06 mmu or: 0.27 ppm  
11:20:02: [3] 213.9903 amu, mean: 213.9902 SD: 0.15 mmu or: 0.69 ppm  
11:20:05: [4] 213.9905 amu, mean: 213.9903 SD: 0.15 mmu or: 0.69 ppm  
11:20:06:  
11:20:06: Stop requested. Please wait for procedure to finish.  
11:20:06:  
11:20:08: [5] 213.9903 amu, mean: 213.9903 SD: 0.13 mmu or: 0.60 ppm  
11:20:10:  
11:20:10: Peakmatching stopped

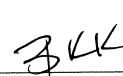
Signature

 7/16/24

## Reports

11:20:21: Peak matching procedure started  
11:20:22:  
11:20:22: Reference mass: 213.98975  
11:20:23: Sample mass: 264.0  
11:20:23:  
11:20:24: Finding reference mass  
11:20:25: Finding sample mass  
11:20:25:  
11:20:31: [1] 263.9870 amu, mean: 263.9870  
11:20:34: [2] 263.9872 amu, mean: 263.9871 SD: 0.15 mmu or: 0.56 ppm  
11:20:37: [3] 263.9876 amu, mean: 263.9873 SD: 0.33 mmu or: 1.25 ppm  
11:20:41: [4] 263.9875 amu, mean: 263.9873 SD: 0.30 mmu or: 1.15 ppm  
11:20:41:  
11:20:41: Stop requested. Please wait for procedure to finish.  
11:20:41:  
11:20:44:  
11:20:44: Peakmatching stopped


Signature

 7/16/24

## Reports

11:21:00: Peak matching procedure started  
11:21:00:  
11:21:01: Reference mass: 263.98656  
11:21:01: Sample mass: 314.0  
11:21:02:  
11:21:02: Finding reference mass  
11:21:04: Finding sample mass  
11:21:04:  
11:21:10: [1] 313.9848 amu, mean: 313.9848  
11:21:13: [2] 313.9847 amu, mean: 313.9848 SD: 0.02 mmu or: 0.08 ppm  
11:21:16: [3] 313.9842 amu, mean: 313.9846 SD: 0.34 mmu or: 1.08 ppm  
11:21:19: [4] 313.9846 amu, mean: 313.9846 SD: 0.28 mmu or: 0.89 ppm  
11:21:20:  
11:21:20: Stop requested. Please wait for procedure to finish.  
11:21:20:  
11:21:22:  
11:21:23: Peakmatching stopped


Signature

 7/16/24

## Reports

11:21:35: Peak matching procedure started  
11:21:35:  
11:21:36: Reference mass: 313.98336  
11:21:36: Sample mass: 376.0  
11:21:37:  
11:21:37: Finding reference mass  
11:21:38: Finding sample mass  
11:21:39:  
11:21:45: [1] 375.9817 amu, mean: 375.9817  
11:21:48: [2] 375.9811 amu, mean: 375.9814 SD: 0.39 mmu or: 1.03 ppm  
11:21:51: [3] 375.9803 amu, mean: 375.9810 SD: 0.69 mmu or: 1.84 ppm  
11:21:54: [4] 375.9816 amu, mean: 375.9812 SD: 0.63 mmu or: 1.69 ppm  
11:21:55:  
11:21:55: Stop requested. Please wait for procedure to finish.  
11:21:55:  
11:21:58:  
11:21:58: Peakmatching stopped

Signature

 7/16/24



## Reports

11:21:35: Peak matching procedure started  
11:21:35:  
11:21:36: Reference mass: 313.98336  
11:21:36: Sample mass: 376.0  
11:21:37:  
11:21:37: Finding reference mass  
11:21:38: Finding sample mass  
11:21:39:  
11:21:45: [1] 375.9817 amu, mean: 375.9817  
11:21:48: [2] 375.9811 amu, mean: 375.9814 SD: 0.39 mmu or: 1.03 ppm  
11:21:51: [3] 375.9803 amu, mean: 375.9810 SD: 0.69 mmu or: 1.84 ppm  
11:21:54: [4] 375.9816 amu, mean: 375.9812 SD: 0.63 mmu or: 1.69 ppm  
11:21:55:  
11:21:55: Stop requested. Please wait for procedure to finish.  
11:21:55:  
11:21:58:  
11:21:58: Peakmatching stopped

Signature

BKK 7/16/24

## Reports

11:22:15: Peak matching procedure started  
11:22:15:  
11:22:16: Reference mass: 375.98017  
11:22:16: Sample mass: 414.0  
11:22:17:  
11:22:17: Finding reference mass  
11:22:18: Finding sample mass  
11:22:19:  
11:22:25: [1] 413.9776 amu, mean: 413.9776 SD: 0.05 mmu or: 0.12 ppm  
11:22:28: [2] 413.9777 amu, mean: 413.9776 SD: 0.06 mmu or: 0.15 ppm  
11:22:31: [3] 413.9775 amu, mean: 413.9776 SD: 0.06 mmu or: 0.15 ppm  
11:22:34: [4] 413.9775 amu, mean: 413.9776 SD: 0.06 mmu or: 0.15 ppm  
11:22:35:  
11:22:35: Stop requested. Please wait for procedure to finish.  
11:22:35:  
11:22:37:  
11:22:38: Peakmatching stopped

Signature

 7/16/24

## Reports

11:22:50: Peak matching procedure started  
11:22:51:  
11:22:51: Reference mass: 413.97698  
11:22:52: Sample mass: 464.0  
11:22:52:  
11:22:53: Finding reference mass  
11:22:54: Finding sample mass  
11:22:54:  
11:23:00: [1] 463.9739 amu, mean: 463.9739  
11:23:03: [2] 463.9742 amu, mean: 463.9740 SD: 0.22 mmu or: 0.48 ppm  
11:23:06: [3] 463.9741 amu, mean: 463.9741 SD: 0.16 mmu or: 0.35 ppm  
11:23:10: [4] 463.9743 amu, mean: 463.9741 SD: 0.18 mmu or: 0.40 ppm  
11:23:10:  
11:23:10: Stop requested. Please wait for procedure to finish.  
11:23:10:  
11:23:13:  
11:23:13: Peakmatching stopped

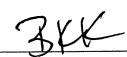
Signature

BVK 7/16/24

## Reports

11:23:24: Peak matching procedure started  
11:23:25:  
11:23:25: Reference mass: 463.97378  
11:23:26: Sample mass: 502.0  
11:23:26:  
11:23:27: Finding reference mass  
11:23:28: Finding sample mass  
11:23:28:  
11:23:34: [1] 501.9705 amu, mean: 501.9705  
11:23:37: [2] 501.9711 amu, mean: 501.9708 SD: 0.43 mmu or: 0.86 ppm  
11:23:40: [3] 501.9705 amu, mean: 501.9707 SD: 0.37 mmu or: 0.73 ppm  
11:23:44: [4] 501.9702 amu, mean: 501.9706 SD: 0.40 mmu or: 0.79 ppm  
11:23:45:  
11:23:45: Stop requested. Please wait for procedure to finish.  
11:23:45:  
11:23:47:  
11:23:47: Peakmatching stopped

Signature

 7/16/24

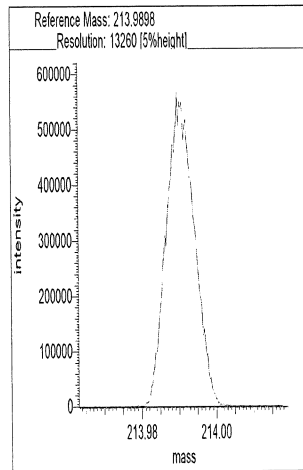
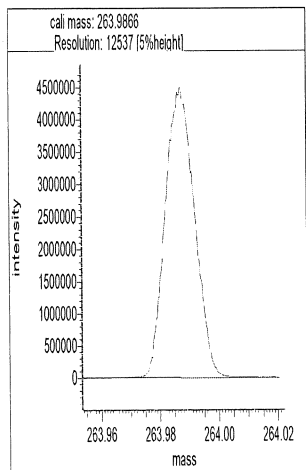
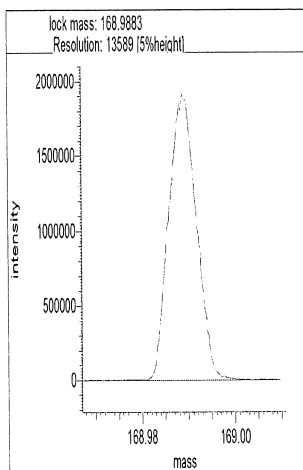
# Resolution Check Report ( DFS SN: 3190 )

Date: 16 Jul 2024 22:41  
MID Experiment: ResCheck\_1668  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43KnxPCB.lua  
Status: RESOLUTION PASSED

-d2240716r2

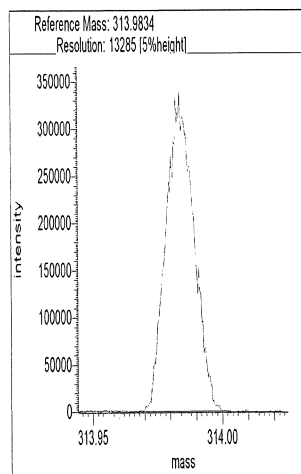
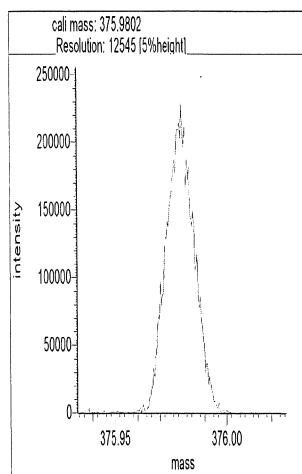
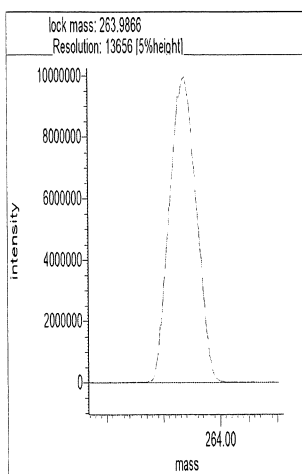
## Segment 1

Lock mass 168.9883 [m/z] Resolution: 13589 [5%height]  
Cali. mass 263.9866 [m/z] Resolution: 12537 [5%height]  
Ref. mass 213.9898 [m/z] Resolution: 13260 [5%height]



## Segment 2

Lock mass 263.9866 [m/z] Resolution: 13656 [5%height]  
Cali. mass 375.9802 [m/z] Resolution: 12545 [5%height]  
Ref. mass 313.9834 [m/z] Resolution: 13285 [5%height]

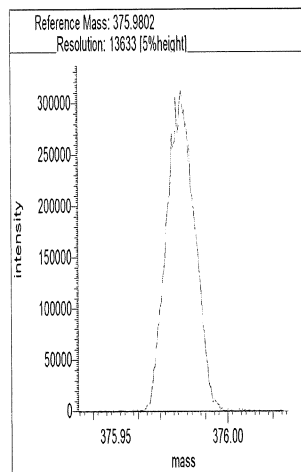
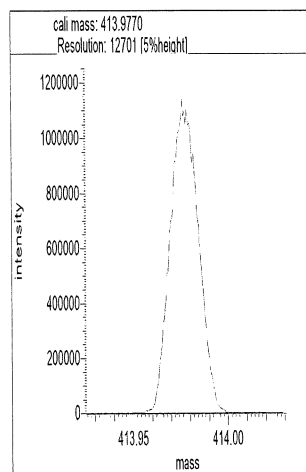
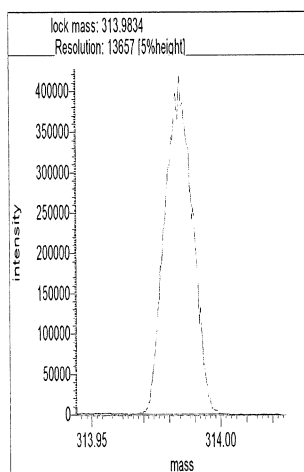


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 13657 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 12701 [5%height]

Ref. mass 375.9802 [m/z] Resolution: 13633 [5%height]

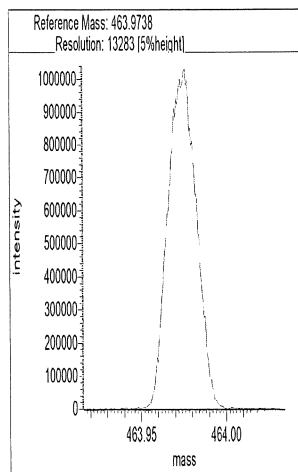
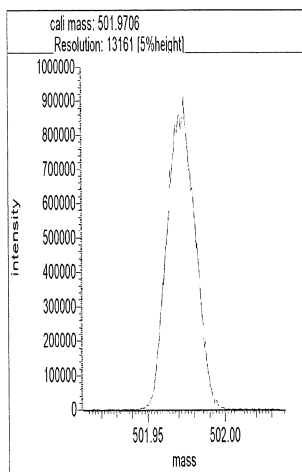
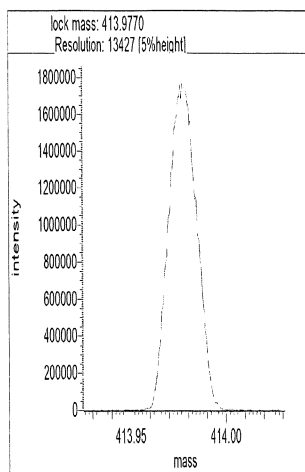


### Segment 4

Lock mass 413.9770 [m/z] Resolution: 13427 [5%height]

Cali. mass 501.9706 [m/z] Resolution: 13161 [5%height]

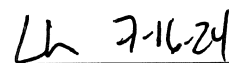
Ref. mass 463.9738 [m/z] Resolution: 13283 [5%height]



## Reports

22:50:11: Peak matching procedure started  
22:50:11:  
22:50:12: Reference mass: 168.98827  
22:50:12: Sample mass: 214.0  
22:50:13:  
22:50:13: Finding reference mass  
22:50:14: Finding sample mass  
22:50:15:  
22:50:20: [1] 213.9903 amu, mean: 213.9903  
22:50:24: [2] 213.9905 amu, mean: 213.9904 SD: 0.12 mmu or: 0.57 ppm  
22:50:27: [3] 213.9902 amu, mean: 213.9903 SD: 0.16 mmu or: 0.75 ppm  
22:50:30: [4] 213.9902 amu, mean: 213.9903 SD: 0.14 mmu or: 0.65 ppm  
22:50:31:  
22:50:31: Stop requested. Please wait for procedure to finish.  
22:50:31:  
22:50:33:  
22:50:34: Peakmatching stopped

Signature

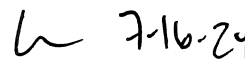
Handwritten signature in black ink, appearing to be "LH 7-16-24".



## Reports

22:51:04: Peak matching procedure started  
22:51:05:  
22:51:05: Reference mass: 213.98975  
22:51:06: Sample mass: 264.0  
22:51:06:  
22:51:07: Finding reference mass  
22:51:08: Finding sample mass  
22:51:08:  
22:51:14: [1] 263.9877 amu, mean: 263.9877  
22:51:17: [2] 263.9874 amu, mean: 263.9875 SD: 0.24 mmu or: 0.92 ppm  
22:51:20: [3] 263.9877 amu, mean: 263.9876 SD: 0.19 mmu or: 0.73 ppm  
22:51:24: [4] 263.9873 amu, mean: 263.9875 SD: 0.21 mmu or: 0.81 ppm  
22:51:24:  
22:51:24: Stop requested. Please wait for procedure to finish.  
22:51:24:  
22:51:27:  
22:51:27: Peakmatching stopped


Signature

Handwritten signature in black ink, appearing to be "L 7-16-24".

## Reports

22:51:47: Peak matching procedure started  
22:51:47:  
22:51:48: Reference mass: 263.98656  
22:51:48: Sample mass: 314.0  
22:51:49:  
22:51:49: Finding reference mass  
22:51:50: Finding sample mass  
22:51:51:  
22:51:57: [1] 313.9853 amu, mean: 313.9853  
22:52:00: [2] 313.9840 amu, mean: 313.9846 SD: 0.91 mmu or: 2.91 ppm  
22:52:03: [3] 313.9844 amu, mean: 313.9845 SD: 0.66 mmu or: 2.10 ppm  
22:52:07: [4] 313.9846 amu, mean: 313.9845 SD: 0.54 mmu or: 1.72 ppm  
22:52:08:  
22:52:08: Stop requested. Please wait for procedure to finish.  
22:52:08:  
22:52:10: [5] 313.9847 amu, mean: 313.9846 SD: 0.48 mmu or: 1.52 ppm  
22:52:11:  
22:52:12: Peakmatching stopped

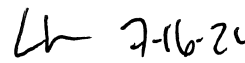
Signature

 7-16-24

## Reports

22:52:32: Peak matching procedure started  
22:52:33:  
22:52:33: Reference mass: 313.98336  
22:52:34: Sample mass: 376.0  
22:52:34:  
22:52:35: Finding reference mass  
22:52:36: Finding sample mass  
22:52:37:  
22:52:42: [1] 375.9811 amu, mean: 375.9811  
22:52:45: [2] 375.9806 amu, mean: 375.9809 SD: 0.37 mmu or: 0.98 ppm  
22:52:49: [3] 375.9819 amu, mean: 375.9812 SD: 0.67 mmu or: 1.77 ppm  
22:52:52: [4] 375.9811 amu, mean: 375.9812 SD: 0.55 mmu or: 1.46 ppm  
22:52:52:  
22:52:52: Stop requested. Please wait for procedure to finish.  
22:52:52:  
22:52:55:  
22:52:56: Peakmatching stopped


Signature

Handwritten signature in black ink, appearing to be "Lh 7-16-24".

## Reports

22:52:32: Peak matching procedure started  
22:52:33:  
22:52:33: Reference mass: 313.98336  
22:52:34: Sample mass: 376.0  
22:52:34:  
22:52:35: Finding reference mass  
22:52:36: Finding sample mass  
22:52:37:  
22:52:42: [1] 375.9811 amu, mean: 375.9811  
22:52:45: [2] 375.9806 amu, mean: 375.9809 SD: 0.37 mmu or: 0.98 ppm  
22:52:49: [3] 375.9819 amu, mean: 375.9812 SD: 0.67 mmu or: 1.77 ppm  
22:52:52: [4] 375.9811 amu, mean: 375.9812 SD: 0.55 mmu or: 1.46 ppm  
22:52:52:  
22:52:52: Stop requested. Please wait for procedure to finish.  
22:52:52:  
22:52:55:  
22:52:56: Peakmatching stopped


Signature

 7-16-24

## Reports

22:53:17: Peak matching procedure started  
22:53:18:  
22:53:18: Reference mass: 375.98017  
22:53:19: Sample mass: 414.0  
22:53:19:  
22:53:20: Finding reference mass  
22:53:21: Finding sample mass  
22:53:21:  
22:53:27: [1] 413.9778 amu, mean: 413.9778  
22:53:30: [2] 413.9773 amu, mean: 413.9776 SD: 0.33 mmu or: 0.80 ppm  
22:53:33: [3] 413.9773 amu, mean: 413.9775 SD: 0.27 mmu or: 0.66 ppm  
22:53:37: [4] 413.9769 amu, mean: 413.9773 SD: 0.39 mmu or: 0.93 ppm  
22:53:37:  
22:53:37: Stop requested. Please wait for procedure to finish.  
22:53:37:  
22:53:40:  
22:53:40: Peakmatching stopped


Signature

 7-16-24

## Reports

22:54:08: Peak matching procedure started  
22:54:08:  
22:54:09: Reference mass: 413.97698  
22:54:09: Sample mass: 464.0  
22:54:10:  
22:54:10: Finding reference mass  
22:54:11: Finding sample mass  
22:54:12:  
22:54:17: [1] 463.9733 amu, mean: 463.9733  
22:54:21: [2] 463.9738 amu, mean: 463.9736 SD: 0.30 mmu or: 0.65 ppm  
22:54:24: [3] 463.9749 amu, mean: 463.9740 SD: 0.79 mmu or: 1.70 ppm  
22:54:27: [4] 463.9739 amu, mean: 463.9740 SD: 0.64 mmu or: 1.39 ppm  
22:54:28:  
22:54:28: Stop requested. Please wait for procedure to finish.  
22:54:28:  
22:54:30:  
22:54:31: Peakmatching stopped

Signature

 7-16-24

## Reports

22:54:53: Peak matching procedure started  
22:54:53:  
22:54:54: Reference mass: 463.97378  
22:54:54: Sample mass: 502.0  
22:54:55:  
22:54:55: Finding reference mass  
22:54:56: Finding sample mass  
22:54:57:  
22:55:03: [1] 501.9706 amu, mean: 501.9706 SD: 0.13 mmu or: 0.27 ppm  
22:55:06: [2] 501.9705 amu, mean: 501.9705 SD: 0.25 mmu or: 0.49 ppm  
22:55:09: [3] 501.9709 amu, mean: 501.9707 SD: 0.26 mmu or: 0.52 ppm  
22:55:12: [4] 501.9704 amu, mean: 501.9706 SD: 0.26 mmu or: 0.52 ppm  
22:55:13:  
22:55:13: Stop requested. Please wait for procedure to finish.  
22:55:13:  
22:55:16: [5] 501.9706 amu, mean: 501.9706 SD: 0.22 mmu or: 0.45 ppm  
22:55:17:  
22:55:18: Peakmatching stopped

Signature

Data File:	\\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d				
Lims ID:	WDMCCV				
Client ID:					
Sample Type:	WDMCCV				
Inject. Date:	16-Jul-2024 11:46:00	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	140-0033521-001				
Operator ID:	Xcalibur_System	Instrument ID:	D2D		
Sublist:	chrom-PCBs_D2D*sub2				
Method:	\\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\PCBs_D2D.m				
Limit Group:	HR - EPA_23 PCB ICAL				
Last Update:	16-Jul-2024 19:00:31	Calib Date:	31-May-2024 21:13:00		
Integrator:	Picker				
Quant Method:	Isotopic Dilution	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d				
Column 1 :	SPB-Octyl ( 0.25 mm)		Det: F1(11.07 :21.70 )		
Process Host:	CTX1685				

Date: 16-Jul-2024 19:00:31

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total Monochlorobiphenyls					152.2	152.2	0.1670	0.1670		
D PCB-1L	11:39	9115555	3.12	1.6108	100.0	100.0	0.2153	0.2153	100	
D PCB-3L	13:48	8781029	3.19	1.5891	97.7	97.7	0.2182	0.2182	97.67	
PCB-1	11:39	5616719	3.19	1.2191	50.5	50.5	0.1442	0.1442	101	
PCB-2	13:38	5309144	3.12	1.1805	50.3	50.3	0.1686	0.1686	101	
PCB-3	13:49	5506934	3.15	1.2206	51.4	51.4	0.1881	0.1881	103	
S Total Dichlorobiphenyls					607.7	607.7	0.0782	0.0782		
D PCB-4L	14:03	3667351	1.63	0.6475	100.1	100.1	0.1755	0.1755	100	
* PCB-9L	16:00	5657544	1.63		100.0	100.0				
\$ PCB-8L	16:50	2756320	1.63	1.2066	46.6	46.6	0.1158	0.1158	93.19	
D PCB-15L	19:54	6137304	1.63	1.0789	100.5	100.5	0.1053	0.1053	101	
PCB-4	14:04	2335606	1.54	1.2818	49.7	49.7	0.0904	0.0904	99.37	
PCB-10	14:14	3365529	1.61	1.3149	52.2	52.2	0.0819	0.0819	104	
PCB-9	16:01	3465791	1.61	1.4224	49.7	49.7	0.0757	0.0757	99.40	
PCB-7	16:11	3473705	1.57	1.4134	50.1	50.1	0.0762	0.0762	100	
PCB-6	16:26	3766905	1.59	1.5421	49.8	49.8	0.0698	0.0698	99.66	
PCB-5	16:44	3268905	1.65	1.3395	49.8	49.8	0.0804	0.0804	99.56	
PCB-8	16:52	4013358	1.62	1.5889	51.5	51.5	0.0678	0.0678	103	
PCB-14	18:28	3482507	1.58	1.4025	50.7	50.7	0.0768	0.0768	101	
PCB-11	19:19	3306358	1.58	1.2951	52.1	52.1	0.0831	0.0831	104	
PCB-12	19:37	6625391	1.60	1.3358	101.2	101.2	0.0806	0.0806	101	
PCB-13 (C12)	19:37	6625391	1.60	1.3358	101.2	101.2	0.0806	0.0806	101	
PCB-15	19:55	4032997	1.56	1.2903	50.9	50.9	0.0779	0.0779	102	
S Total Trichlorobiphenyls					1230.9	1230.9	0.5850	0.5850		
D PCB-19L	17:09	2360889	1.08	0.6285	97.5	97.5	0.4655	0.4655	97.54	
* PCB-32L	20:22	3850714	1.10		100.0	100.0				
* PCB-31L	22:37	7936603	1.06		100.0	100.0				
\$ PCB-28L	22:55	3853874	1.03	1.0494	46.3	46.3	0.1225	0.1225	92.55	
D PCB-37L	26:56	6827471	1.07	0.8749	98.3	98.3	0.1469	0.1469	98.32	
PCB-19	17:10	1473864	1.04	1.2809	48.7	48.7	0.0513	0.0513	97.48	
PCB-18	18:58	4107448	1.10	1.7652	98.6	98.6	0.0372	0.0372	98.56	
PCB-30 (C18)	18:58	4107448	1.10	1.7652	98.6	98.6	0.0372	0.0372	98.56	
PCB-17	19:25	1432840	1.11	1.2430	48.8	48.8	0.0528	0.0528	97.65	



Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-27	19:39	2150991	1.06	1.8327	49.7	49.7	0.0358	0.0358	99.43	
PCB-24	19:46	1983920	1.06	1.6777	50.1	50.1	0.0392	0.0392	100	
PCB-16	19:54	1370950	1.03	1.1286	51.5	51.5	0.0582	0.0582	103	
PCB-32	20:24	2163318	1.06	1.8324	50.0	50.0	0.0358	0.0358	100	
PCB-34	21:38	4077948	1.05	1.1277	53.0	53.0	0.8841	0.8841	106	
PCB-23	21:47	3946701	1.05	1.0813	53.5	53.5	0.9220	0.9220	107	
PCB-26	22:07	7985704	1.05	1.1255	103.9	103.9	0.8859	0.8859	104	
PCB-29 (C26)	22:07	7985704	1.05	1.1255	103.9	103.9	0.8859	0.8859	104	
PCB-25	22:20	4624844	1.08	1.2728	53.2	53.2	0.7833	0.7833	106	
PCB-31	22:39	4175394	1.06	1.1532	53.0	53.0	0.8645	0.8645	106	
PCB-20	22:57	8211096	1.06	1.1718	102.6	102.6	0.8508	0.8508	103	
PCB-28 (C20)	22:57	8211096	1.06	1.1718	102.6	102.6	0.8508	0.8508	103	
PCB-21	23:07	7721950	1.07	1.0746	105.3	105.3	0.9278	0.9278	105	M
PCB-33 (C21)	23:07	7721950	1.07	1.0746	105.3	105.3	0.9278	0.9278	105	M
PCB-22	23:35	4260116	1.06	1.1932	52.3	52.3	0.8355	0.8355	105	
PCB-36	25:07	3916269	1.11	1.1071	51.8	51.8	0.9006	0.9006	104	
PCB-39	25:29	4153486	1.07	1.1581	52.5	52.5	0.8609	0.8609	105	
PCB-38	26:04	3679973	1.07	1.0843	49.7	49.7	0.9195	0.9195	99.42	
PCB-35	26:32	4068615	1.06	1.1297	52.8	52.8	0.8826	0.8826	106	
PCB-37	26:57	3901345	1.06	1.1435	50.0	50.0	0.8719	0.8719	99.94	
S Total Tetrachlorobiphenyls					2040.5	2040.5	0.5726	0.5726		
D PCB-54L	20:13	2337710	0.83	0.5562	109.1	109.1	0.0528	0.0528	109	
* PCB-52L	24:45	4227367	0.83		100.0	100.0				
\$ PCB-79L	32:39	2645296	0.81	1.0018	49.9	49.9	0.3567	0.3567	99.85	
D PCB-81L	33:39	5153951	0.81	1.2470	97.8	97.8	0.2867	0.2867	97.77	
D PCB-77L	34:13	5423447	0.81	1.3212	97.1	97.1	0.2706	0.2706	97.10	
PCB-54	20:14	1534189	0.78	1.2733	51.5	51.5	0.0488	0.0488	103	
PCB-50	22:23	4320027	0.78	0.8578	95.2	95.2	0.7357	0.7357	95.23	
PCB-53 (C50)	22:23	4320027	0.78	0.8578	95.2	95.2	0.7357	0.7357	95.23	
PCB-45	23:07	4337047	0.80	0.8264	99.2	99.2	0.7636	0.7636	99.23	M
PCB-51 (C45)	23:07	4337047	0.80	0.8264	99.2	99.2	0.7636	0.7636	99.23	M
PCB-46	23:22	1798433	0.78	0.7101	47.9	47.9	0.8887	0.8887	95.78	
PCB-52	24:46	2364483	0.79	0.9194	48.6	48.6	0.6864	0.6864	97.25	
PCB-43	24:55	5307492	0.79	1.0333	97.1	97.1	0.6107	0.6107	97.12	M
PCB-73 (C43)	24:55	5307492	0.79	1.0333	97.1	97.1	0.6107	0.6107	97.12	M
PCB-49	25:11	5355662	0.80	1.0685	94.8	94.8	0.5906	0.5906	94.77	
PCB-69 (C49)	25:11	5355662	0.80	1.0685	94.8	94.8	0.5906	0.5906	94.77	
PCB-48	25:31	2124900	0.82	0.8399	47.8	47.8	0.7514	0.7514	95.68	
PCB-44	25:46	7396676	0.79	0.9731	143.7	143.7	0.6485	0.6485	95.82	
PCB-47 (C44)	25:46	7396676	0.79	0.9731	143.7	143.7	0.6485	0.6485	95.82	
PCB-65 (C44)	25:46	7396676	0.79	0.9731	143.7	143.7	0.6485	0.6485	95.82	
PCB-59	26:05	8751389	0.79	1.1853	139.6	139.6	0.5324	0.5324	93.07	
PCB-62 (C59)	26:05	8751389	0.79	1.1853	139.6	139.6	0.5324	0.5324	93.07	
PCB-75 (C59)	26:05	8751389	0.79	1.1853	139.6	139.6	0.5324	0.5324	93.07	
PCB-42	26:17	2120715	0.79	0.8097	49.5	49.5	0.7794	0.7794	99.05	
PCB-40	26:47	6676660	0.78	0.8863	142.4	142.4	0.7120	0.7120	94.96	M
PCB-41 (C40)	26:47	6676660	0.78	0.8863	142.4	142.4	0.7120	0.7120	94.96	M
PCB-71 (C40)	26:47	6676660	0.78	0.8863	142.4	142.4	0.7120	0.7120	94.96	M
PCB-64	27:00	2876811	0.82	1.1776	46.2	46.2	0.5359	0.5359	92.39	
PCB-72	27:49	2877278	0.78	1.0943	49.7	49.7	0.5767	0.5767	99.43	
PCB-68	28:06	3374356	0.76	1.2533	50.9	50.9	0.5035	0.5035	102	
PCB-57	28:32	2896462	0.82	1.0818	50.6	50.6	0.5833	0.5833	101	
PCB-58	28:46	3517625	0.77	1.3253	50.2	50.2	0.4761	0.4761	100	
PCB-67	28:56	3671734	0.80	1.4230	48.8	48.8	0.4435	0.4435	97.57	
PCB-63	29:11	2923632	0.78	1.1240	49.2	49.2	0.5615	0.5615	98.37	
PCB-61	29:32	12909390	0.79	1.2612	193.5	193.5	0.5003	0.5003	96.77	
PCB-70 (C61)	29:32	12909390	0.79	1.2612	193.5	193.5	0.5003	0.5003	96.77	
PCB-74 (C61)	29:32	12909390	0.79	1.2612	193.5	193.5	0.5003	0.5003	96.77	
PCB-76 (C61)	29:32	12909390	0.79	1.2612	193.5	193.5	0.5003	0.5003	96.77	
PCB-66	29:52	3423325	0.80	1.2583	51.4	51.4	0.5015	0.5015	103	
PCB-55	30:02	3548105	0.81	1.3236	50.7	50.7	0.4768	0.4768	101	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-56	30:33	3265735	0.80	1.2334	50.1	50.1	0.5116	0.5116	100	
PCB-60	30:45	2821382	0.81	1.1230	47.5	47.5	0.5619	0.5619	95.01	
PCB-80	31:08	3459612	0.80	1.3243	49.4	49.4	0.4765	0.4765	98.80	
PCB-79	32:40	3556444	0.79	1.4368	46.8	46.8	0.4392	0.4392	93.60	
PCB-78	33:14	3144992	0.77	1.1618	51.2	51.2	0.5432	0.5432	102	
PCB-81	33:40	2648266	0.81	1.0802	47.6	47.6	0.5864	0.5864	95.14	
PCB-77	34:14	2889772	0.79	1.0836	49.2	49.2	0.5803	0.5803	98.35	
S Total Pentachlorobiphenyls					2273.5	2273.5	0.2771	0.2771		
D PCB-104L	25:41	3651313	1.60	1.2161	100.6	100.6	0.0599	0.0599	101	
\$ PCB-95L	28:39	1279955	1.59	0.7218	48.6	48.6	0.0780	0.0780	97.13	
* PCB-101L	31:34	2984853	1.62		100.0	100.0				
\$ PCB-111L	34:13	1847414	1.56	1.3699	45.2	45.2	0.0531	0.0531	90.36	
D PCB-123L	36:12	4777559	1.56	0.9731	96.8	96.8	1.022	1.022	96.83	
D PCB-118L	36:31	4998745	1.56	1.0102	97.6	97.6	0.9849	0.9849	97.60	
D PCB-114L	37:03	4997968	1.61	0.9949	99.1	99.1	1.000	1.000	99.09	
D PCB-105L	37:43	4907983	1.58	0.9514	101.7	101.7	1.046	1.046	102	
* PCB-127L	39:10	5069950	1.61		100.0	100.0				
D PCB-126L	40:48	4896235	1.61	0.9439	102.3	102.3	1.054	1.054	102	
PCB-104	25:42	1870561	1.55	1.0087	50.8	50.8	0.0501	0.0501	102	
PCB-96	26:06	1934191	1.62	1.0940	48.4	48.4	0.0462	0.0462	96.84	
PCB-103	27:59	1576467	1.59	0.8741	49.4	49.4	0.0578	0.0578	98.78	
PCB-94	28:14	1288498	1.56	0.7640	46.2	46.2	0.0661	0.0661	92.38	
PCB-95	28:41	1471812	1.62	0.8033	50.2	50.2	0.0629	0.0629	100	
PCB-93	28:52	2999795	1.58	0.8429	97.5	97.5	0.0600	0.0600	97.47	
PCB-100 (C93)	28:52	2999795	1.58	0.8429	97.5	97.5	0.0600	0.0600	97.47	
PCB-98	29:02	2968254	1.56	0.8262	98.4	98.4	0.0612	0.0612	98.40	M
PCB-102 (C98)	29:02	2968254	1.56	0.8262	98.4	98.4	0.0612	0.0612	98.40	M
PCB-88	29:32	2871595	1.58	0.8013	98.1	98.1	0.0631	0.0631	98.15	
PCB-91 (C88)	29:32	2871595	1.58	0.8013	98.1	98.1	0.0631	0.0631	98.15	
PCB-84	29:46	1339509	1.62	0.7299	50.3	50.3	0.0692	0.0692	101	
PCB-89	30:14	1363667	1.67	0.7798	47.9	47.9	0.0648	0.0648	95.78	
PCB-121	30:37	2354456	1.65	1.2964	49.7	49.7	0.0390	0.0390	99.48	
PCB-92	31:00	1557670	1.64	0.8546	49.9	49.9	0.0591	0.0591	99.84	
PCB-90	31:34	5164349	1.59	0.9550	148.1	148.1	0.0529	0.0529	98.74	
PCB-101 (C90)	31:34	5164349	1.59	0.9550	148.1	148.1	0.0529	0.0529	98.74	
PCB-113 (C90)	31:34	5164349	1.59	0.9550	148.1	148.1	0.0529	0.0529	98.74	
PCB-83	32:09	3088423	1.57	0.8385	100.9	100.9	0.0603	0.0603	101	
PCB-99 (C83)	32:09	3088423	1.57	0.8385	100.9	100.9	0.0603	0.0603	101	
PCB-112	32:17	2554284	1.54	1.4111	49.6	49.6	0.0358	0.0358	99.15	
PCB-86	32:39	11273839	1.62	1.0473	294.8	294.8	0.0483	0.0483	98.27	M
PCB-87 (C86)	32:39	11273839	1.62	1.0473	294.8	294.8	0.0483	0.0483	98.27	M
PCB-97 (C86)	32:39	11273839	1.62	1.0473	294.8	294.8	0.0483	0.0483	98.27	M
PCB-109 (C86)	32:39	11273839	1.62	1.0473	294.8	294.8	0.0483	0.0483	98.27	M
PCB-119 (C86)	32:39	11273839	1.62	1.0473	294.8	294.8	0.0483	0.0483	98.27	M
PCB-125 (C86)	32:39	11273839	1.62	1.0473	294.8	294.8	0.0483	0.0483	98.27	M
PCB-85	33:23	5654216	1.60	1.0408	148.8	148.8	0.0486	0.0486	99.19	
PCB-116 (C85)	33:23	5654216	1.60	1.0408	148.8	148.8	0.0486	0.0486	99.19	
PCB-117 (C85)	33:23	5654216	1.60	1.0408	148.8	148.8	0.0486	0.0486	99.19	
PCB-110	33:35	4312960	1.61	1.1919	99.1	99.1	0.0424	0.0424	99.11	
PCB-115 (C110)	33:35	4312960	1.61	1.1919	99.1	99.1	0.0424	0.0424	99.11	
PCB-82	33:54	1535290	1.57	0.8303	50.6	50.6	0.0609	0.0609	101	
PCB-111	34:15	2160975	1.56	1.2125	48.8	48.8	0.0417	0.0417	97.62	
PCB-120	34:43	2637923	1.59	1.4762	48.9	48.9	0.0342	0.0342	97.88	
PCB-108	35:52	5177491	1.55	1.1405	92.3	92.3	0.7276	0.7276	92.35	
PCB-124 (C108)	35:52	5177491	1.55	1.1405	92.3	92.3	0.7276	0.7276	92.35	
PCB-107	36:06	2886772	1.61	1.2121	48.4	48.4	0.6847	0.6847	96.90	
PCB-123	36:13	2618206	1.61	1.0722	51.1	51.1	0.7575	0.7575	102	
PCB-106	36:20	2722719	1.61	1.0839	51.1	51.1	0.7656	0.7656	102	
PCB-118	36:33	2948001	1.49	1.2055	48.9	48.9	0.6809	0.6809	97.84	
PCB-122	36:55	2417681	1.60	0.9567	51.4	51.4	0.8674	0.8674	103	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-114	37:04	2709690	1.58	1.0842	50.0	50.0	0.7420	0.7420	100	
PCB-105	37:44	2951653	1.58	1.1879	50.6	50.6	0.6834	0.6834	101	
PCB-127	39:12	2875117	1.62	1.1394	51.3	51.3	0.7283	0.7283	103	
PCB-126	40:49	2779640	1.56	1.0976	51.7	51.7	0.8278	0.8278	103	
S Total Hexachlorobiphenyls					2032.9	2032.9	0.2948	0.2948		
D PCB-155L	31:19	3231168	1.29	1.0851	99.8	99.8	0.0412	0.0412	99.76	
\$ PCB-153L	38:23	1756985	1.33	0.9169	43.3	43.3	0.7331	0.7331	86.63	
* PCB-138L	39:38	3458578	1.28		100.0	100.0				
D PCB-167L	42:37	4443726	1.29	1.2572	102.2	102.2	0.5399	0.5399	102	
D PCB-156L	43:48	8708544	1.27	1.2106	208.0	208.0	0.5607	0.5607	104	
D PCB-157L (C156L)	43:48	8708544	1.27	1.2106	208.0	208.0	0.5607	0.5607	104	
D PCB-169L	47:01	4542972	1.27	1.2439	105.6	105.6	0.5457	0.5457	106	
PCB-155	31:20	1593937	1.30	0.9444	52.2	52.2	0.003515	0.003515	104	
PCB-152	31:34	1622046	1.27	0.9895	50.7	50.7	0.003355	0.003355	101	
PCB-150	31:43	1685208	1.28	1.0132	51.5	51.5	0.003276	0.003276	103	
PCB-136	32:06	1657828	1.26	1.0116	50.7	50.7	0.003281	0.003281	101	
PCB-145	32:23	1606505	1.34	0.9685	51.3	51.3	0.003427	0.003427	103	
PCB-148	33:52	1258383	1.26	0.7603	51.2	51.2	0.004366	0.004366	102	
PCB-135	34:29	2344059	1.32	0.7256	100.0	100.0	0.004575	0.004575	99.98	M
PCB-151 (C135)	34:29	2344059	1.32	0.7256	100.0	100.0	0.004575	0.004575	99.98	M
PCB-154	34:43	1353788	1.27	0.8129	51.5	51.5	0.004083	0.004083	103	
PCB-144	35:03	1282993	1.27	0.7852	50.6	50.6	0.004227	0.004227	101	
PCB-147	35:24	3616304	1.26	0.8950	91.3	91.3	0.4319	0.4319	91.34	
PCB-149 (C147)	35:24	3616304	1.26	0.8950	91.3	91.3	0.4319	0.4319	91.34	
PCB-134	35:43	3317098	1.26	0.7967	94.1	94.1	0.4852	0.4852	94.12	
PCB-143 (C134)	35:43	3317098	1.26	0.7967	94.1	94.1	0.4852	0.4852	94.12	
PCB-139	35:59	3627479	1.24	0.8769	93.5	93.5	0.4409	0.4409	93.51	
PCB-140 (C139)	35:59	3627479	1.24	0.8769	93.5	93.5	0.4409	0.4409	93.51	
PCB-131	36:13	1524182	1.26	0.7503	45.9	45.9	0.5152	0.5152	91.84	
PCB-142	36:21	1560483	1.29	0.7507	47.0	47.0	0.5150	0.5150	93.98	
PCB-132	36:40	1556303	1.28	0.7489	47.0	47.0	0.5162	0.5162	93.95	
PCB-133	37:10	1659946	1.29	0.8096	46.3	46.3	0.4775	0.4775	92.70	
PCB-165	37:33	2183120	1.23	1.0247	48.2	48.2	0.3773	0.3773	96.32	
PCB-146	37:47	1992165	1.27	0.9637	46.7	46.7	0.4012	0.4012	93.46	
PCB-161	37:55	2432132	1.25	1.1288	48.7	48.7	0.3425	0.3425	97.41	
PCB-153	38:26	4584900	1.27	1.0938	94.8	94.8	0.3534	0.3534	94.76	
PCB-168 (C153)	38:26	4584900	1.27	1.0938	94.8	94.8	0.3534	0.3534	94.76	
PCB-141	38:37	1851378	1.25	0.8755	47.8	47.8	0.4415	0.4415	95.60	
PCB-130	39:01	1440502	1.29	0.7051	46.2	46.2	0.5483	0.5483	92.36	
PCB-137	39:14	1698984	1.26	0.7767	49.4	49.4	0.4977	0.4977	98.90	
PCB-164	39:22	2221974	1.26	1.0382	48.4	48.4	0.3723	0.3723	96.75	
PCB-129	39:40	7886577	1.26	0.9464	188.4	188.4	0.4085	0.4085	94.19	M
PCB-138 (C129)	39:40	7886577	1.26	0.9464	188.4	188.4	0.4085	0.4085	94.19	M
PCB-160 (C129)	39:40	7886577	1.26	0.9464	188.4	188.4	0.4085	0.4085	94.19	M
PCB-163 (C129)	39:40	7886577	1.26	0.9464	188.4	188.4	0.4085	0.4085	94.19	M
PCB-158	40:03	2722153	1.26	1.3110	46.9	46.9	0.2949	0.2949	93.87	
PCB-128	40:53	4165756	1.26	0.9829	95.8	95.8	0.3933	0.3933	95.80	
PCB-166 (C128)	40:53	4165756	1.26	0.9829	95.8	95.8	0.3933	0.3933	95.80	
PCB-159	41:53	2999437	1.27	1.3856	48.9	48.9	0.2790	0.2790	97.87	
PCB-162	42:11	2700603	1.24	1.2571	48.6	48.6	0.3075	0.3075	97.12	
PCB-167	42:39	2483707	1.27	1.1159	50.1	50.1	0.2867	0.2867	100	
PCB-156	43:48	4840430	1.24	1.1104	100.1	100.1	0.4317	0.4317	100	
PCB-157 (C156)	43:48	4840430	1.24	1.1104	100.1	100.1	0.4317	0.4317	100	
PCB-169	47:02	2586051	1.28	1.1628	49.0	49.0	0.2820	0.2820	97.91	
S Total Heptachlorobiphenyls					1224.6	1224.6	0.0187	0.0187		
D PCB-188L	37:02	3391924	1.07	1.3133	98.5	98.5	0.0164	0.0164	98.53	
\$ PCB-178L	40:05	1219881	1.10	1.0313	45.1	45.1	0.0209	0.0209	90.25	
* PCB-180L	45:10	2621251	1.09		100.0	100.0				
D PCB-170L	46:26	2234212	1.08	0.8362	101.9	101.9	0.0257	0.0257	102	
D PCB-189L	49:32	5013631	1.08	1.4414	101.7	101.7	0.5075	0.5075	102	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-188	37:03	1914772	1.08	1.1350	49.7	49.7	0.000652	0.000652	99.48	
PCB-179	37:25	1915965	1.08	1.4276	47.7	47.7	0.000635	0.000635	95.42	
PCB-184	37:54	1928024	1.09	1.3672	50.1	50.1	0.000663	0.000663	100	
PCB-176	38:17	1708611	1.09	1.2331	49.3	49.3	0.000736	0.000736	98.52	
PCB-186	38:45	2115636	1.08	1.4737	51.0	51.0	0.000616	0.000616	102	
PCB-178	40:07	1246362	1.08	0.8946	49.5	49.5	0.001014	0.001014	99.05	
PCB-175	40:44	1352287	1.03	0.9524	50.5	50.5	0.000952	0.000952	101	
PCB-187	41:00	1583295	1.08	1.1018	51.1	51.1	0.000823	0.000823	102	
PCB-182	41:12	1395443	1.06	0.9247	53.6	53.6	0.000981	0.000981	107	
PCB-183	41:37	2725658	1.03	0.9825	98.6	98.6	0.000923	0.000923	98.62	Ma
PCB-185 (C183)	41:37	2725658	1.03	0.9825	98.6	98.6	0.000923	0.000923	98.62	Ma
PCB-174	41:52	1404297	1.09	0.9642	51.8	51.8	0.000941	0.000941	104	
PCB-177	42:18	1408355	1.10	0.9773	51.2	51.2	0.000928	0.000928	102	
PCB-181	42:41	1360318	1.04	0.9505	50.9	50.9	0.000954	0.000954	102	
PCB-171	42:55	2563401	1.08	0.9336	97.6	97.6	0.000972	0.000972	97.60	
PCB-173 (C171)	42:55	2563401	1.08	0.9336	97.6	97.6	0.000972	0.000972	97.60	
PCB-172	44:32	1267981	1.08	0.8519	52.9	52.9	0.001065	0.001065	106	
PCB-192	44:49	2030799	1.07	1.3459	53.6	53.6	0.000674	0.000674	107	
PCB-180	45:10	3378130	1.06	1.1676	102.9	102.9	0.000777	0.000777	103	
PCB-193 (C180)	45:10	3378130	1.06	1.1676	102.9	102.9	0.000777	0.000777	103	
PCB-191	45:32	2007257	1.11	1.2891	55.4	55.4	0.000704	0.000704	111	
PCB-170	46:27	1342175	1.04	1.1865	50.6	50.6	0.000988	0.000988	101	
PCB-190	46:58	1993783	1.07	1.3322	53.2	53.2	0.000681	0.000681	106	
PCB-189	49:33	2577156	1.07	0.9633	53.4	53.4	0.3763	0.3763	107	
S Total Octachlorobiphenyls					606.1	606.1	0.0571	0.0571		
D PCB-202L	42:24	2601939	0.91	0.9818	101.1	101.1	0.004980	0.004980	101	
* PCB-194L	51:38	3420677	0.89		100.0	100.0				
D PCB-205L	52:06	4181101	0.92	1.1786	103.7	103.7	0.0688	0.0688	104	
PCB-202	42:25	1389621	0.90	1.0359	51.6	51.6	0.0239	0.0239	103	
PCB-201	43:20	1328901	0.94	0.9754	52.4	52.4	0.0254	0.0254	105	
PCB-204	43:59	1355565	0.91	1.0485	49.7	49.7	0.0236	0.0236	99.37	
PCB-197	44:14	1453440	0.88	1.1458	48.8	48.8	0.0216	0.0216	97.50	
PCB-200	44:21	1380977	0.96	1.0072	52.7	52.7	0.0246	0.0246	105	
PCB-198	47:07	2298224	0.88	0.8698	101.6	101.6	0.0285	0.0285	102	
PCB-199 (C198)	47:07	2298224	0.88	0.8698	101.6	101.6	0.0285	0.0285	102	
PCB-196	47:47	1038626	0.87	0.7806	51.1	51.1	0.0317	0.0317	102	
PCB-203	47:59	1279443	0.90	0.9292	52.9	52.9	0.0267	0.0267	106	
PCB-195	49:19	1640225	0.91	0.8263	47.5	47.5	0.1617	0.1617	94.95	
PCB-194	51:39	1934963	0.93	0.9735	47.5	47.5	0.1373	0.1373	95.08	
PCB-205	52:07	2295227	0.91	1.0878	50.5	50.5	0.1228	0.1228	101	
S Total Nonachlorobiphenyls					141.5	141.5	0.3308	0.3308		
D PCB-208L	49:03	3265542	0.81	0.9576	99.7	99.7	0.2518	0.2518	99.69	
D PCB-206L	53:51	2665642	0.80	0.6947	112.2	112.2	0.3472	0.3472	112	
PCB-208	49:04	1825048	0.79	1.1374	49.1	49.1	0.3269	0.3269	98.27	
PCB-207	50:00	1891974	0.80	1.3756	46.4	46.4	0.3050	0.3050	92.76	
PCB-206	53:52	1636846	0.78	1.3346	46.0	46.0	0.3607	0.3607	92.02	
D PCB-209L	55:28	2829415	0.70	0.6669	124.0	124.0	0.0608	0.0608	124	
DCB Decachlorobiphenyl	55:30	1571408	0.73	1.1004	50.5	50.5	0.0227	0.0227	101	
S Polychlorinated biphenyls, Total					10208	10208	0.2486	0.2486		

## QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

61CV1668CS3\_00018

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Lims ID: WDMCCV  
Client ID:  
Sample Type: WDMCCV  
Inject. Date: 16-Jul-2024 11:46:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033521-001  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Sublist: chrom-PCBs\_D2D\*sub2  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 16-Jul-2024 19:00:31 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1685

First Level Reviewer: V4XA

Date: 16-Jul-2024 19:00:31

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:39	11:39	0	0.728	6900392	2567965	1303	3257	1971		
202.0766	11:39	11:39	0	0.728	2215163	841484	791	1977	1064	3.12(2.66-3.60)	
PCB-3L											
200.0795	13:48	13:48	0	0.863	6687065	1986436	1303	3257	1525		
202.0766	13:48	13:48	0	0.863	2093964	623742	791	1977	789	3.19(2.66-3.60)	
PCB-1											
188.0393	11:39	11:39	0	1.001	4276140	1637202	1695	4237	966		
190.0363	11:39	11:39	0	1.001	1340579	514038	702	1755	732	3.19(2.66-3.60)	
PCB-2											
188.0393	13:38	13:38	0	0.988	4022028	1220426	1695	4237	720		
190.0363	13:38	13:38	0	0.988	1287116	395609	702	1755	564	3.12(2.66-3.60)	
PCB-3											
188.0393	13:49	13:49	0	1.001	4179066	1203478	1695	4237	710		
190.0363	13:49	13:49	0	1.001	1327868	384168	702	1755	547	3.15(2.66-3.60)	
PCB-4L											
234.0406	14:03	14:03	0	0.878	2273876	703756	506	1265	1391		
236.0376	14:03	14:03	0	0.878	1393475	436658	180	450	2426	1.63(1.33-1.79)	
PCB-9L											
234.0406	16:00	16:00	0		3502787	923978	506	1265	1826		
236.0376	16:00	16:00	0		2154757	585499	180	450	3253	1.63(1.33-1.79)	
PCB-8L											
234.0406	16:50	16:50	0	1.198	1707375	428997	506	1265	848		
236.0376	16:50	16:50	0	1.198	1048945	274221	180	450	1523	1.63(1.33-1.79)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:54	19:54	0	1.245	3805637	803916	506	1265	1589		
236.0376	19:54	19:54	0	1.245	2331667	511064	180	450	2839	1.63(1.33-1.79)	
PCB-4											
222.0003	14:04	14:04	0	1.001	1414915	437641	174	435	2515		
223.9974	14:04	14:04	0	1.001	920691	295446	355	887	832	1.54(1.33-1.79)	
PCB-10											
222.0003	14:14	14:14	0	1.013	2077878	646175	174	435	3714		
223.9974	14:14	14:14	0	1.013	1287651	399435	355	887	1125	1.61(1.33-1.79)	
PCB-9											
222.0003	16:01	16:01	0	1.140	2136365	592631	174	435	3406		
223.9974	16:01	16:01	0	1.140	1329426	370122	355	887	1043	1.61(1.33-1.79)	
PCB-7											
222.0003	16:11	16:11	0	1.152	2121615	580853	174	435	3338		
223.9974	16:11	16:11	0	1.152	1352090	372966	355	887	1051	1.57(1.33-1.79)	
PCB-6											
222.0003	16:26	16:26	0	1.169	2312434	619777	174	435	3562		
223.9974	16:26	16:26	0	1.169	1454471	384501	355	887	1083	1.59(1.33-1.79)	
PCB-5											
222.0003	16:44	16:44	0	1.191	2034294	557091	174	435	3202		
223.9974	16:44	16:44	0	1.191	1234611	341707	355	887	963	1.65(1.33-1.79)	
PCB-8											
222.0003	16:52	16:52	0	1.200	2480839	615692	174	435	3538		
223.9974	16:52	16:52	0	1.200	1532519	376079	355	887	1059	1.62(1.33-1.79)	
PCB-14											
222.0003	18:28	18:28	0	0.927	2131972	497485	174	435	2859		
223.9974	18:28	18:28	0	0.927	1350535	318335	355	887	897	1.58(1.33-1.79)	
PCB-11											
222.0003	19:19	19:19	0	0.970	2027179	430658	174	435	2475		
223.9974	19:18	19:19	-1	0.970	1279179	272282	355	887	767	1.58(1.33-1.79)	
PCB-12											
222.0003	19:37	19:37	0	0.985	4073605	652012	174	435	3747		
223.9974	19:37	19:37	0	0.985	2551786	413792	355	887	1166	1.60(1.33-1.79)	
PCB-13 (C12)											
222.0003	19:37	19:37	0	0.985	4073605	652012	174	435	3747		
223.9974	19:37	19:37	0	0.985	2551786	413792	355	887	1166	1.60(1.33-1.79)	
PCB-15											
222.0003	19:55	19:55	0	1.001	2454928	483321	174	435	2778		
223.9974	19:56	19:55	1	1.001	1578069	313168	355	887	882	1.56(1.33-1.79)	
PCB-19L											
268.0016	17:09	17:09	0	0.842	1223781	317211	476	1190	666		
269.9986	17:08	17:09	-1	0.841	1137108	299380	569	1422	526	1.08(0.88-1.20)	
PCB-32L											
268.0016	20:22	20:22	0		2014173	462423	476	1190	971		
269.9986	20:22	20:22	0		1836541	430393	569	1422	756	1.10(0.88-1.20)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-31L											
268.0016	22:37	22:37	0		4086908	920388	552	1380	1667		
269.9986	22:37	22:37	0		3849695	874732	371	927	2358	1.06(0.88-1.20)	
PCB-28L											
268.0016	22:55	22:55	0	1.013	1953585	412152	552	1380	747		
269.9986	22:55	22:55	0	1.013	1900289	404499	371	927	1090	1.03(0.88-1.20)	
PCB-37L											
268.0016	26:56	26:56	0	1.190	3523883	645265	552	1380	1169		
269.9986	26:56	26:56	0	1.190	3303588	607675	371	927	1638	1.07(0.88-1.20)	
PCB-19											
255.9613	17:10	17:10	0	1.001	752335	206108	105	262	1963		
257.9584	17:10	17:10	0	1.001	721529	200036	57	142	3509	1.04(0.88-1.20)	
PCB-18											
255.9613	18:58	18:58	0	1.106	2152236	345083	105	262	3287		
257.9584	18:58	18:58	0	1.106	1955212	320008	57	142	5614	1.10(0.88-1.20)	
PCB-30 (C18)											
255.9613	18:58	18:58	0	1.106	2152236	345083	105	262	3287		
257.9584	18:58	18:58	0	1.106	1955212	320008	57	142	5614	1.10(0.88-1.20)	
PCB-17											
255.9613	19:25	19:25	0	1.133	753334	187226	105	262	1783		
257.9584	19:25	19:25	0	1.133	679506	169693	57	142	2977	1.11(0.88-1.20)	
PCB-27											
255.9613	19:39	19:39	0	1.146	1105307	288797	105	262	2750		
257.9584	19:39	19:39	0	1.146	1045684	267513	57	142	4693	1.06(0.88-1.20)	
PCB-24											
255.9613	19:46	19:46	0	1.153	1019524	254634	105	262	2425		
257.9584	19:46	19:46	0	1.153	964396	242685	57	142	4258	1.06(0.88-1.20)	
PCB-16											
255.9613	19:54	19:54	0	1.160	695042	158567	105	262	1510		
257.9584	19:54	19:54	0	1.160	675908	158613	57	142	2783	1.03(0.88-1.20)	
PCB-32											
255.9613	20:24	20:24	0	1.189	1111560	271087	105	262	2582		
257.9584	20:24	20:24	0	1.189	1051758	259816	57	142	4558	1.06(0.88-1.20)	
PCB-34											
255.9613	21:38	21:38	0	1.262	2085272	501096	2955	7387	170		
257.9584	21:38	21:38	0	1.262	1992676	478355	2042	5105	234	1.05(0.88-1.20)	
PCB-23											
255.9613	21:47	21:47	0	1.270	2024682	456694	2955	7387	155		
257.9584	21:47	21:47	0	1.270	1922019	436263	2042	5105	214	1.05(0.88-1.20)	
PCB-26											
255.9613	22:07	22:07	0	1.290	4092841	881829	2955	7387	298		
257.9584	22:07	22:07	0	1.290	3892863	841084	2042	5105	412	1.05(0.88-1.20)	
PCB-29 (C26)											
255.9613	22:07	22:07	0	1.290	4092841	881829	2955	7387	298		
257.9584	22:07	22:07	0	1.290	3892863	841084	2042	5105	412	1.05(0.88-1.20)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-25											
255.9613	22:20	22:20	0	0.829	2396377	510182	2955	7387	173		
257.9584	22:20	22:20	0	0.829	2228467	461912	2042	5105	226	1.08(0.88-1.20)	
PCB-31											
255.9613	22:39	22:39	0	0.841	2143919	471345	2955	7387	160		
257.9584	22:38	22:39	-1	0.841	2031475	434984	2042	5105	213	1.06(0.88-1.20)	
PCB-20											
255.9613	22:57	22:57	0	0.852	4221125	696630	2955	7387	236		
257.9584	22:57	22:57	-1	0.852	3989971	649363	2042	5105	318	1.06(0.88-1.20)	
PCB-28 (C20)											
255.9613	22:57	22:57	0	0.852	4221125	696630	2955	7387	236		
257.9584	22:57	22:57	-1	0.852	3989971	649363	2042	5105	318	1.06(0.88-1.20)	
PCB-21											
255.9613	23:07	23:07	0	0.859	3983313	466424	2955	7387	158		M
257.9584	23:07	23:07	0	0.859	3738637	444144	2042	5105	218	1.07(0.88-1.20)	M
PCB-33 (C21)											
255.9613	23:07	23:07	0	0.859	3983313	466424	2955	7387	158		M
257.9584	23:07	23:07	0	0.859	3738637	444144	2042	5105	218	1.07(0.88-1.20)	M
PCB-22											
255.9613	23:35	23:35	0	0.876	2188162	470657	2955	7387	159		
257.9584	23:35	23:35	0	0.876	2071954	450447	2042	5105	221	1.06(0.88-1.20)	
PCB-36											
255.9613	25:07	25:07	0	0.933	2062925	377048	2955	7387	128		
257.9584	25:07	25:07	0	0.933	1853344	372687	2042	5105	183	1.11(0.88-1.20)	
PCB-39											
255.9613	25:29	25:29	0	0.946	2145122	416840	2955	7387	141		
257.9584	25:29	25:29	0	0.946	2008364	393709	2042	5105	193	1.07(0.88-1.20)	
PCB-38											
255.9613	26:04	26:04	0	0.968	1899846	381818	2955	7387	129		
257.9584	26:04	26:04	0	0.968	1780127	354900	2042	5105	174	1.07(0.88-1.20)	
PCB-35											
255.9613	26:32	26:32	0	0.985	2096295	379981	2955	7387	129		
257.9584	26:32	26:32	0	0.985	1972320	361023	2042	5105	177	1.06(0.88-1.20)	
PCB-37											
255.9613	26:57	26:57	0	1.000	2006406	363987	2955	7387	123		
257.9584	26:57	26:57	0	1.000	1894939	337240	2042	5105	165	1.06(0.88-1.20)	
PCB-54L											
301.9626	20:13	20:13	0	0.817	1062092	251238	95	237	2645		
303.9597	20:13	20:13	0	0.817	1275618	314915	10	25	31492	0.83(0.65-0.89)	
PCB-52L											
301.9626	24:45	24:45	0		1911377	424437	653	1632	650		
303.9597	24:45	24:45	0		2315990	523029	702	1755	745	0.83(0.65-0.89)	
PCB-79L											
301.9626	32:39	32:39	0	0.970	1184445	223560	653	1632	342		
303.9597	32:39	32:39	0	0.970	1460851	283581	702	1755	404	0.81(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-81L											
301.9626	33:39	33:39	0	1.360	2310502	421748	653	1632	646		
303.9597	33:39	33:39	0	1.360	2843449	522699	702	1755	745	0.81(0.65-0.89)	
PCB-77L											
301.9626	34:13	34:13	0	1.383	2433312	426599	653	1632	653		
303.9597	34:13	34:13	0	1.383	2990135	524807	702	1755	748	0.81(0.65-0.89)	
PCB-54											
289.9224	20:14	20:14	0	1.000	670143	166617	37	92	4503		
291.9194	20:14	20:14	0	1.000	864046	212116	104	260	2040	0.78(0.65-0.89)	
PCB-50											
289.9224	22:23	22:23	0	1.107	1892281	434524	1113	2782	390		
291.9194	22:23	22:23	0	1.107	2427746	555960	1280	3200	434	0.78(0.65-0.89)	
PCB-53 (C50)											
289.9224	22:23	22:23	0	1.107	1892281	434524	1113	2782	390		
291.9194	22:23	22:23	0	1.107	2427746	555960	1280	3200	434	0.78(0.65-0.89)	
PCB-45											
289.9224	23:07	23:07	0	1.144	1932567	256966	1113	2782	231		M
291.9194	23:07	23:07	0	1.144	2404480	308453	1280	3200	241	0.80(0.65-0.89)	M
PCB-51 (C45)											
289.9224	23:07	23:07	0	1.144	1932567	256966	1113	2782	231		M
291.9194	23:07	23:07	0	1.144	2404480	308453	1280	3200	241	0.80(0.65-0.89)	M
PCB-46											
289.9224	23:22	23:22	0	1.156	786499	180936	1113	2782	163		
291.9194	23:23	23:22	1	1.157	1011934	232885	1280	3200	182	0.78(0.65-0.89)	
PCB-52											
289.9224	24:46	24:46	0	1.226	1046538	241259	1113	2782	217		
291.9194	24:46	24:46	0	1.226	1317945	307302	1280	3200	240	0.79(0.65-0.89)	
PCB-43											
289.9224	24:55	24:55	0	1.233	2337637	316134	1113	2782	284		M
291.9194	24:55	24:55	0	1.233	2969855	399978	1280	3200	312	0.79(0.65-0.89)	M
PCB-73 (C43)											
289.9224	24:55	24:55	0	1.233	2337637	316134	1113	2782	284		M
291.9194	24:55	24:55	0	1.233	2969855	399978	1280	3200	312	0.79(0.65-0.89)	M
PCB-49											
289.9224	25:11	25:11	0	1.247	2388529	333803	1113	2782	300		
291.9194	25:11	25:11	-1	1.246	2967133	425107	1280	3200	332	0.80(0.65-0.89)	
PCB-69 (C49)											
289.9224	25:11	25:11	0	1.247	2388529	333803	1113	2782	300		
291.9194	25:11	25:11	-1	1.246	2967133	425107	1280	3200	332	0.80(0.65-0.89)	
PCB-48											
289.9224	25:31	25:31	0	1.263	954391	216118	1113	2782	194		
291.9194	25:31	25:31	0	1.263	1170509	267154	1280	3200	209	0.82(0.65-0.89)	
PCB-44											
289.9224	25:46	25:46	0	1.275	3256855	633280	1113	2782	569		
291.9194	25:46	25:46	0	1.275	4139821	817087	1280	3200	638	0.79(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-47 (C44)											
289.9224	25:46	25:46	0	1.275	3256855	633280	1113	2782	569		
291.9194	25:46	25:46	0	1.275	4139821	817087	1280	3200	638	0.79(0.65-0.89)	
PCB-65 (C44)											
289.9224	25:46	25:46	0	1.275	3256855	633280	1113	2782	569		
291.9194	25:46	25:46	0	1.275	4139821	817087	1280	3200	638	0.79(0.65-0.89)	
PCB-59											
289.9224	26:05	26:05	0	1.291	3855506	592209	1113	2782	532		
291.9194	26:05	26:05	0	1.291	4895883	751282	1280	3200	587	0.79(0.65-0.89)	
PCB-62 (C59)											
289.9224	26:05	26:05	0	1.291	3855506	592209	1113	2782	532		
291.9194	26:05	26:05	0	1.291	4895883	751282	1280	3200	587	0.79(0.65-0.89)	
PCB-75 (C59)											
289.9224	26:05	26:05	0	1.291	3855506	592209	1113	2782	532		
291.9194	26:05	26:05	0	1.291	4895883	751282	1280	3200	587	0.79(0.65-0.89)	
PCB-42											
289.9224	26:17	26:17	0	1.301	933648	194981	1113	2782	175		
291.9194	26:17	26:17	0	1.301	1187067	253994	1280	3200	198	0.79(0.65-0.89)	
PCB-40											
289.9224	26:47	26:47	0	1.326	2928856	450722	1113	2782	405		M
291.9194	26:47	26:47	0	1.326	3747804	569519	1280	3200	445	0.78(0.65-0.89)	M
PCB-41 (C40)											
289.9224	26:47	26:47	0	1.326	2928856	450722	1113	2782	405		M
291.9194	26:47	26:47	0	1.326	3747804	569519	1280	3200	445	0.78(0.65-0.89)	M
PCB-71 (C40)											
289.9224	26:47	26:47	0	1.326	2928856	450722	1113	2782	405		M
291.9194	26:47	26:47	0	1.326	3747804	569519	1280	3200	445	0.78(0.65-0.89)	M
PCB-64											
289.9224	27:00	27:00	0	1.336	1297158	269581	1113	2782	242		
291.9194	27:00	27:00	0	1.336	1579653	341193	1280	3200	267	0.82(0.65-0.89)	
PCB-72											
289.9224	27:49	27:49	0	0.826	1261446	267168	1113	2782	240		
291.9194	27:49	27:49	0	0.826	1615832	347156	1280	3200	271	0.78(0.65-0.89)	
PCB-68											
289.9224	28:06	28:06	0	0.835	1457924	289004	1113	2782	260		
291.9194	28:06	28:06	0	0.835	1916432	374162	1280	3200	292	0.76(0.65-0.89)	
PCB-57											
289.9224	28:32	28:32	0	0.848	1301098	275187	1113	2782	247		
291.9194	28:32	28:32	0	0.848	1595364	342605	1280	3200	268	0.82(0.65-0.89)	
PCB-58											
289.9224	28:46	28:46	0	0.855	1526270	316295	1113	2782	284		
291.9194	28:46	28:46	0	0.855	1991355	403007	1280	3200	315	0.77(0.65-0.89)	
PCB-67											
289.9224	28:56	28:56	0	0.860	1627579	310843	1113	2782	279		
291.9194	28:55	28:56	-1	0.859	2044155	398154	1280	3200	311	0.80(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-63											
289.9224	29:11	29:11	0	0.867	1281004	261873	1113	2782	235		
291.9194	29:11	29:11	0	0.867	1642628	334502	1280	3200	261	0.78(0.65-0.89)	
PCB-61											
289.9224	29:32	29:32	0	0.878	5697245	657983	1113	2782	591		
291.9194	29:33	29:32	1	0.878	7212145	826568	1280	3200	646	0.79(0.65-0.89)	
PCB-70 (C61)											
289.9224	29:32	29:32	0	0.878	5697245	657983	1113	2782	591		
291.9194	29:33	29:32	1	0.878	7212145	826568	1280	3200	646	0.79(0.65-0.89)	
PCB-74 (C61)											
289.9224	29:32	29:32	0	0.878	5697245	657983	1113	2782	591		
291.9194	29:33	29:32	1	0.878	7212145	826568	1280	3200	646	0.79(0.65-0.89)	
PCB-76 (C61)											
289.9224	29:32	29:32	0	0.878	5697245	657983	1113	2782	591		
291.9194	29:33	29:32	1	0.878	7212145	826568	1280	3200	646	0.79(0.65-0.89)	
PCB-66											
289.9224	29:52	29:52	0	0.888	1524452	291009	1113	2782	261		
291.9194	29:51	29:52	-1	0.887	1898873	361452	1280	3200	282	0.80(0.65-0.89)	
PCB-55											
289.9224	30:02	30:02	0	0.892	1586086	324415	1113	2782	291		
291.9194	30:02	30:02	0	0.892	1962019	392746	1280	3200	307	0.81(0.65-0.89)	
PCB-56											
289.9224	30:33	30:33	0	0.908	1456439	295864	1113	2782	266		
291.9194	30:33	30:33	0	0.908	1809296	371207	1280	3200	290	0.80(0.65-0.89)	
PCB-60											
289.9224	30:45	30:45	0	0.914	1265830	248869	1113	2782	224		
291.9194	30:45	30:45	0	0.914	1555552	313862	1280	3200	245	0.81(0.65-0.89)	
PCB-80											
289.9224	31:08	31:08	0	0.925	1540354	303963	1113	2782	273		
291.9194	31:08	31:08	0	0.925	1919258	385870	1280	3200	301	0.80(0.65-0.89)	
PCB-79											
289.9224	32:40	32:40	0	0.971	1566749	281353	1113	2782	253		
291.9194	32:40	32:40	0	0.971	1989695	353127	1280	3200	276	0.79(0.65-0.89)	
PCB-78											
289.9224	33:14	33:14	0	0.987	1366291	244119	1113	2782	219		
291.9194	33:14	33:14	0	0.987	1778701	310597	1280	3200	243	0.77(0.65-0.89)	
PCB-81											
289.9224	33:40	33:40	0	1.000	1186393	213572	1113	2782	192		
291.9194	33:40	33:40	0	1.000	1461873	260259	1280	3200	203	0.81(0.65-0.89)	
PCB-77											
289.9224	34:14	34:14	0	1.000	1278800	228296	1113	2782	205		
291.9194	34:14	34:14	0	1.000	1610972	277886	1280	3200	217	0.79(0.65-0.89)	
PCB-104L											
337.9207	25:41	25:41	0	0.813	2247592	481272	85	212	5662		
339.9178	25:41	25:41	0	0.813	1403721	300312	91	227	3300	1.60(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-95L											
337.9207	28:39	28:39	0	1.116	786461	162985	85	212	1917		
339.9178	28:39	28:39	0	1.116	493494	105507	91	227	1159	1.59(1.32-1.78)	
PCB-101L											
337.9207	31:34	31:34	0		1847588	373365	85	212	4393		
339.9178	31:34	31:34	0		1137265	230987	91	227	2538	1.62(1.32-1.78)	
PCB-111L											
337.9207	34:13	34:13	0	1.084	1124610	220540	85	212	2595		
339.9178	34:14	34:13	1	1.085	722804	145249	91	227	1596	1.56(1.32-1.78)	
PCB-123L											
337.9207	36:12	36:12	0	1.147	2914413	582046	2156	5390	270		
339.9178	36:12	36:12	0	1.147	1863146	368737	1642	4105	225	1.56(1.32-1.78)	
PCB-118L											
337.9207	36:31	36:31	0	1.157	3044055	577440	2156	5390	268		
339.9178	36:31	36:31	0	1.157	1954690	363351	1642	4105	221	1.56(1.32-1.78)	
PCB-114L											
337.9207	37:03	37:03	0	1.174	3080976	591297	2156	5390	274		
339.9178	37:03	37:03	0	1.174	1916992	368679	1642	4105	225	1.61(1.32-1.78)	
PCB-105L											
337.9207	37:43	37:43	0	1.195	3006377	580409	2156	5390	269		
339.9178	37:43	37:43	0	1.195	1901606	370799	1642	4105	226	1.58(1.32-1.78)	
PCB-127L											
337.9207	39:10	39:10	0		3130946	590966	2156	5390	274		
339.9178	39:10	39:10	0		1939004	363380	1642	4105	221	1.61(1.32-1.78)	
PCB-126L											
337.9207	40:48	40:48	0	1.292	3019967	522520	2156	5390	242		
339.9178	40:48	40:48	0	1.292	1876268	327313	1642	4105	199	1.61(1.32-1.78)	
PCB-104											
325.8804	25:42	25:42	0	1.001	1137563	250379	140	350	1788		
327.8775	25:42	25:42	0	1.001	732998	161725	18	45	8985	1.55(1.32-1.78)	
PCB-96											
325.8804	26:06	26:06	0	1.016	1194583	258704	140	350	1848		
327.8775	26:06	26:06	0	1.016	739608	163658	18	45	9092	1.62(1.32-1.78)	
PCB-103											
325.8804	27:59	27:59	0	1.090	968378	213021	140	350	1522		
327.8775	27:59	27:59	0	1.090	608089	135536	18	45	7530	1.59(1.32-1.78)	
PCB-94											
325.8804	28:14	28:14	0	1.100	786107	170727	140	350	1219		
327.8775	28:14	28:14	0	1.100	502391	108346	18	45	6019	1.56(1.32-1.78)	
PCB-95											
325.8804	28:41	28:41	0	1.117	909429	191714	140	350	1369		
327.8775	28:41	28:41	0	1.117	562383	118304	18	45	6572	1.62(1.32-1.78)	
PCB-93											
325.8804	28:52	28:52	0	1.124	1837521	300712	140	350	2148		
327.8775	28:53	28:52	1	1.125	1162274	188467	18	45	10470	1.58(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-100 (C93)											
325.8804	28:52	28:52	0	1.124	1837521	300712	140	350	2148		
327.8775	28:53	28:52	1	1.125	1162274	188467	18	45	10470	1.58(1.32-1.78)	
PCB-98											
325.8804	29:02	29:02	0	1.131	1810488	219716	140	350	1569		M
327.8775	29:01	29:02	-1	1.130	1157766	142712	18	45	7928	1.56(1.32-1.78)	M
PCB-102 (C98)											
325.8804	29:02	29:02	0	1.131	1810488	219716	140	350	1569		M
327.8775	29:01	29:02	-1	1.130	1157766	142712	18	45	7928	1.56(1.32-1.78)	M
PCB-88											
325.8804	29:32	29:32	0	1.150	1758226	182157	140	350	1301		
327.8775	29:32	29:32	0	1.150	1113369	120774	18	45	6710	1.58(1.32-1.78)	
PCB-91 (C88)											
325.8804	29:32	29:32	0	1.150	1758226	182157	140	350	1301		
327.8775	29:32	29:32	0	1.150	1113369	120774	18	45	6710	1.58(1.32-1.78)	
PCB-84											
325.8804	29:46	29:46	0	1.159	827899	170920	140	350	1221		
327.8775	29:46	29:46	0	1.159	511610	100074	18	45	5560	1.62(1.32-1.78)	
PCB-89											
325.8804	30:14	30:14	0	1.178	852026	172906	140	350	1235		
327.8775	30:14	30:14	0	1.178	511641	102020	18	45	5668	1.67(1.32-1.78)	
PCB-121											
325.8804	30:37	30:37	0	1.193	1466592	291055	140	350	2079		
327.8775	30:37	30:37	-1	1.192	887864	177269	18	45	9848	1.65(1.32-1.78)	
PCB-92											
325.8804	31:00	31:00	0	0.856	968452	196561	140	350	1404		
327.8775	31:00	31:00	0	0.856	589218	120882	18	45	6716	1.64(1.32-1.78)	
PCB-90											
325.8804	31:34	31:34	0	1.229	3170560	484440	140	350	3460		
327.8775	31:34	31:34	0	1.229	1993789	300835	18	45	16713	1.59(1.32-1.78)	
PCB-101 (C90)											
325.8804	31:34	31:34	0	1.229	3170560	484440	140	350	3460		
327.8775	31:34	31:34	0	1.229	1993789	300835	18	45	16713	1.59(1.32-1.78)	
PCB-113 (C90)											
325.8804	31:34	31:34	0	1.229	3170560	484440	140	350	3460		
327.8775	31:34	31:34	0	1.229	1993789	300835	18	45	16713	1.59(1.32-1.78)	
PCB-83											
325.8804	32:09	32:09	0	1.252	1885018	244105	140	350	1744		
327.8775	32:09	32:09	0	1.252	1203405	157629	18	45	8757	1.57(1.32-1.78)	
PCB-99 (C83)											
325.8804	32:09	32:09	0	1.252	1885018	244105	140	350	1744		
327.8775	32:09	32:09	0	1.252	1203405	157629	18	45	8757	1.57(1.32-1.78)	
PCB-112											
325.8804	32:17	32:17	0	1.257	1547446	307542	140	350	2197		
327.8775	32:17	32:17	0	1.257	1006838	194573	18	45	10810	1.54(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-86											M
325.8804	32:39	32:39	0	1.272	6972443	718831	140	350	5135		M
327.8775	32:39	32:39	0	1.272	4301396	446323	18	45	24796	1.62(1.32-1.78)	M
PCB-87 (C86)											M
325.8804	32:39	32:39	0	1.272	6972443	718831	140	350	5135		M
327.8775	32:39	32:39	0	1.272	4301396	446323	18	45	24796	1.62(1.32-1.78)	M
PCB-97 (C86)											M
325.8804	32:39	32:39	0	1.272	6972443	718831	140	350	5135		M
327.8775	32:39	32:39	0	1.272	4301396	446323	18	45	24796	1.62(1.32-1.78)	M
PCB-109 (C86)											M
325.8804	32:39	32:39	0	1.272	6972443	718831	140	350	5135		M
327.8775	32:39	32:39	0	1.272	4301396	446323	18	45	24796	1.62(1.32-1.78)	M
PCB-119 (C86)											M
325.8804	32:39	32:39	0	1.272	6972443	718831	140	350	5135		M
327.8775	32:39	32:39	0	1.272	4301396	446323	18	45	24796	1.62(1.32-1.78)	M
PCB-125 (C86)											M
325.8804	32:39	32:39	0	1.272	6972443	718831	140	350	5135		M
327.8775	32:39	32:39	0	1.272	4301396	446323	18	45	24796	1.62(1.32-1.78)	M
PCB-85											
325.8804	33:23	33:23	0	1.300	3482886	411921	140	350	2942		
327.8775	33:23	33:23	0	1.300	2171330	247692	18	45	13761	1.60(1.32-1.78)	
PCB-116 (C85)											
325.8804	33:23	33:23	0	1.300	3482886	411921	140	350	2942		
327.8775	33:23	33:23	0	1.300	2171330	247692	18	45	13761	1.60(1.32-1.78)	
PCB-117 (C85)											
325.8804	33:23	33:23	0	1.300	3482886	411921	140	350	2942		
327.8775	33:23	33:23	0	1.300	2171330	247692	18	45	13761	1.60(1.32-1.78)	
PCB-110											
325.8804	33:35	33:35	0	1.308	2661212	376334	140	350	2688		
327.8775	33:35	33:35	0	1.308	1651748	230087	18	45	12783	1.61(1.32-1.78)	
PCB-115 (C110)											
325.8804	33:35	33:35	0	1.308	2661212	376334	140	350	2688		
327.8775	33:35	33:35	0	1.308	1651748	230087	18	45	12783	1.61(1.32-1.78)	
PCB-82											
325.8804	33:54	33:54	0	1.320	937153	170566	140	350	1218		
327.8775	33:54	33:54	0	1.320	598137	112586	18	45	6255	1.57(1.32-1.78)	
PCB-111											
325.8804	34:15	34:15	0	1.334	1316101	260396	140	350	1860		
327.8775	34:16	34:15	1	1.335	844874	167451	18	45	9303	1.56(1.32-1.78)	
PCB-120											
325.8804	34:43	34:43	0	1.352	1617745	311068	140	350	2222		
327.8775	34:43	34:43	0	1.352	1020178	199513	18	45	11084	1.59(1.32-1.78)	
PCB-108											
325.8804	35:52	35:52	0	1.397	3148479	613440	1847	4617	332		
327.8775	35:52	35:52	0	1.397	2029012	392739	1242	3105	316	1.55(1.32-1.78)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-124 (C108)											
325.8804	35:52	35:52	0	1.397	3148479	613440	1847	4617	332		
327.8775	35:52	35:52	0	1.397	2029012	392739	1242	3105	316	1.55(1.32-1.78)	
PCB-107											
325.8804	36:06	36:06	0	1.406	1778903	314168	1847	4617	170		
327.8775	36:06	36:06	0	1.406	1107869	196815	1242	3105	158	1.61(1.32-1.78)	
PCB-123											
325.8804	36:13	36:13	0	1.000	1614500	321636	1847	4617	174		
327.8775	36:14	36:13	1	1.001	1003706	194097	1242	3105	156	1.61(1.32-1.78)	
PCB-106											
325.8804	36:20	36:20	0	1.004	1680275	323203	1847	4617	175		
327.8775	36:20	36:20	0	1.004	1042444	203767	1242	3105	164	1.61(1.32-1.78)	
PCB-118											
325.8804	36:33	36:33	0	1.001	1762312	334803	1847	4617	181		
327.8775	36:33	36:33	0	1.001	1185689	211868	1242	3105	171	1.49(1.32-1.78)	
PCB-122											
325.8804	36:55	36:55	0	1.011	1487886	290655	1847	4617	157		
327.8775	36:54	36:55	-1	1.010	929795	177729	1242	3105	143	1.60(1.32-1.78)	
PCB-114											
325.8804	37:04	37:04	0	1.000	1659567	292016	1847	4617	158		
327.8775	37:04	37:04	0	1.000	1050123	184275	1242	3105	148	1.58(1.32-1.78)	
PCB-105											
325.8804	37:44	37:44	0	1.001	1806561	318400	1847	4617	172		
327.8775	37:44	37:44	0	1.001	1145092	198329	1242	3105	160	1.58(1.32-1.78)	
PCB-127											
325.8804	39:12	39:12	0	1.039	1777301	325735	1847	4617	176		
327.8775	39:12	39:12	0	1.039	1097816	197714	1242	3105	159	1.62(1.32-1.78)	
PCB-126											
325.8804	40:49	40:49	0	1.000	1693140	265104	1847	4617	144		
327.8775	40:49	40:49	0	1.000	1086500	177493	1242	3105	143	1.56(1.32-1.78)	
PCB-155L											
371.8817	31:19	31:19	0	0.790	1822540	377671	59	147	6401		
373.8788	31:19	31:19	0	0.790	1408628	285106	49	122	5818	1.29(1.05-1.43)	
PCB-153L											
371.8817	38:23	38:23	0	0.900	1002259	192192	1165	2912	165		
373.8788	38:23	38:23	0	0.900	754726	143419	668	1670	215	1.33(1.05-1.43)	
PCB-138L											
371.8817	39:38	39:38	0		1940478	378957	1165	2912	325		
373.8788	39:38	39:38	0		1518100	296133	668	1670	443	1.28(1.05-1.43)	
PCB-167L											
371.8817	42:37	42:37	0	1.075	2502153	463833	1165	2912	398		
373.8788	42:37	42:37	0	1.075	1941573	359726	668	1670	539	1.29(1.05-1.43)	
PCB-156L											
371.8817	43:48	43:48	0	1.105	4874784	612681	1165	2912	526		
373.8788	43:48	43:48	0	1.105	3833760	486795	668	1670	729	1.27(1.05-1.43)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-157L (C156L)											
371.8817	43:48	43:48	0	1.105	4874784	612681	1165	2912	526		
373.8788	43:48	43:48	0	1.105	3833760	486795	668	1670	729	1.27(1.05-1.43)	
PCB-169L											
371.8817	47:01	47:01	0	1.186	2543545	444537	1165	2912	382		
373.8788	47:01	47:01	0	1.186	1999427	358909	668	1670	537	1.27(1.05-1.43)	
PCB-155											
359.8415	31:20	31:20	0	1.001	901358	189469	2	5	94735		
361.8385	31:19	31:20	-1	1.000	692579	145758	7	17	20823	1.30(1.05-1.43)	
PCB-152											
359.8415	31:34	31:34	0	1.008	906023	190247	2	5	95124		
361.8385	31:34	31:34	0	1.008	716023	147204	7	17	21029	1.27(1.05-1.43)	
PCB-150											
359.8415	31:43	31:43	0	1.013	945023	189000	2	5	94500		
361.8385	31:43	31:43	0	1.013	740185	159507	7	17	22787	1.28(1.05-1.43)	
PCB-136											
359.8415	32:06	32:06	0	1.025	925220	191541	2	5	95771		
361.8385	32:06	32:06	0	1.025	732608	150070	7	17	21439	1.26(1.05-1.43)	
PCB-145											
359.8415	32:23	32:23	0	1.034	919676	187810	2	5	93905		
361.8385	32:23	32:23	0	1.034	686829	142022	7	17	20289	1.34(1.05-1.43)	
PCB-148											
359.8415	33:52	33:52	0	1.082	702383	147048	2	5	73524		
361.8385	33:52	33:52	0	1.082	556000	115837	7	17	16548	1.26(1.05-1.43)	
PCB-135											
359.8415	34:29	34:29	0	1.101	1332767	147667	2	5	73834		M
361.8385	34:29	34:29	0	1.101	1011292	110938	7	17	15848	1.32(1.05-1.43)	M
PCB-151 (C135)											
359.8415	34:29	34:29	0	1.101	1332767	147667	2	5	73834		M
361.8385	34:29	34:29	0	1.101	1011292	110938	7	17	15848	1.32(1.05-1.43)	M
PCB-154											
359.8415	34:43	34:43	0	1.109	757258	156773	2	5	78387		
361.8385	34:43	34:43	0	1.109	596530	115819	7	17	16546	1.27(1.05-1.43)	
PCB-144											
359.8415	35:03	35:03	0	1.119	717686	148682	2	5	74341		
361.8385	35:03	35:03	0	1.119	565307	117459	7	17	16780	1.27(1.05-1.43)	
PCB-147											
359.8415	35:24	35:24	0	1.131	2016875	401299	571	1427	703		
361.8385	35:24	35:24	0	1.131	1599429	320284	483	1207	663	1.26(1.05-1.43)	
PCB-149 (C147)											
359.8415	35:24	35:24	0	1.131	2016875	401299	571	1427	703		
361.8385	35:24	35:24	0	1.131	1599429	320284	483	1207	663	1.26(1.05-1.43)	
PCB-134											
359.8415	35:43	35:43	0	1.141	1846560	194048	571	1427	340		
361.8385	35:43	35:43	0	1.141	1470538	153571	483	1207	318	1.26(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-143 (C134)											
359.8415	35:43	35:43	0	1.141	1846560	194048	571	1427	340		
361.8385	35:43	35:43	0	1.141	1470538	153571	483	1207	318	1.26(1.05-1.43)	
PCB-139											
359.8415	35:59	35:59	0	1.149	2010679	357318	571	1427	626		
361.8385	35:59	35:59	0	1.149	1616800	275792	483	1207	571	1.24(1.05-1.43)	
PCB-140 (C139)											
359.8415	35:59	35:59	0	1.149	2010679	357318	571	1427	626		
361.8385	35:59	35:59	0	1.149	1616800	275792	483	1207	571	1.24(1.05-1.43)	
PCB-131											
359.8415	36:13	36:13	0	1.157	850288	167924	571	1427	294		
361.8385	36:13	36:13	0	1.157	673894	133893	483	1207	277	1.26(1.05-1.43)	
PCB-142											
359.8415	36:21	36:21	0	1.161	878150	172566	571	1427	302		
361.8385	36:21	36:21	0	1.161	682333	128807	483	1207	267	1.29(1.05-1.43)	
PCB-132											
359.8415	36:40	36:40	0	1.171	873162	164553	571	1427	288		
361.8385	36:41	36:40	1	1.172	683141	132534	483	1207	274	1.28(1.05-1.43)	
PCB-133											
359.8415	37:10	37:10	0	1.187	935916	183097	571	1427	321		
361.8385	37:10	37:10	0	1.187	724030	136542	483	1207	283	1.29(1.05-1.43)	
PCB-165											
359.8415	37:33	37:33	0	0.881	1204418	237037	571	1427	415		
361.8385	37:33	37:33	0	0.881	978702	186516	483	1207	386	1.23(1.05-1.43)	
PCB-146											
359.8415	37:47	37:47	0	0.887	1114825	221850	571	1427	389		
361.8385	37:48	37:47	1	0.887	877340	170097	483	1207	352	1.27(1.05-1.43)	
PCB-161											
359.8415	37:55	37:55	0	0.890	1349946	257084	571	1427	450		
361.8385	37:56	37:55	1	0.890	1082186	211200	483	1207	437	1.25(1.05-1.43)	
PCB-153											
359.8415	38:26	38:26	0	0.902	2564696	352864	571	1427	618		
361.8385	38:25	38:26	-1	0.901	2020204	284520	483	1207	589	1.27(1.05-1.43)	
PCB-168 (C153)											
359.8415	38:26	38:26	0	0.902	2564696	352864	571	1427	618		
361.8385	38:25	38:26	-1	0.901	2020204	284520	483	1207	589	1.27(1.05-1.43)	
PCB-141											
359.8415	38:37	38:37	0	0.906	1027851	195594	571	1427	343		
361.8385	38:37	38:37	0	0.906	823527	150372	483	1207	311	1.25(1.05-1.43)	
PCB-130											
359.8415	39:01	39:01	0	0.916	812510	164923	571	1427	289		
361.8385	39:01	39:01	0	0.916	627992	127965	483	1207	265	1.29(1.05-1.43)	
PCB-137											
359.8415	39:14	39:14	0	0.920	947147	188894	571	1427	331		
361.8385	39:14	39:14	0	0.920	751837	154215	483	1207	319	1.26(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-164											
359.8415	39:22	39:22	0	0.924	1240815	241176	571	1427	422		
361.8385	39:22	39:22	0	0.924	981159	188646	483	1207	391	1.26(1.05-1.43)	
PCB-129											
359.8415	39:40	39:40	0	0.931	4397874	479229	571	1427	839		M
361.8385	39:40	39:40	0	0.931	3488703	381118	483	1207	789	1.26(1.05-1.43)	M
PCB-138 (C129)											
359.8415	39:40	39:40	0	0.931	4397874	479229	571	1427	839		M
361.8385	39:40	39:40	0	0.931	3488703	381118	483	1207	789	1.26(1.05-1.43)	M
PCB-160 (C129)											
359.8415	39:40	39:40	0	0.931	4397874	479229	571	1427	839		M
361.8385	39:40	39:40	0	0.931	3488703	381118	483	1207	789	1.26(1.05-1.43)	M
PCB-163 (C129)											
359.8415	39:40	39:40	0	0.931	4397874	479229	571	1427	839		M
361.8385	39:40	39:40	0	0.931	3488703	381118	483	1207	789	1.26(1.05-1.43)	M
PCB-158											
359.8415	40:03	40:03	0	0.940	1519809	282390	571	1427	495		
361.8385	40:03	40:03	0	0.940	1202344	218327	483	1207	452	1.26(1.05-1.43)	
PCB-128											
359.8415	40:53	40:53	0	0.959	2320807	298668	571	1427	523		
361.8385	40:53	40:53	0	0.959	1844949	245150	483	1207	508	1.26(1.05-1.43)	
PCB-166 (C128)											
359.8415	40:53	40:53	0	0.959	2320807	298668	571	1427	523		
361.8385	40:53	40:53	0	0.959	1844949	245150	483	1207	508	1.26(1.05-1.43)	
PCB-159											
359.8415	41:53	41:53	0	0.983	1675896	320952	571	1427	562		
361.8385	41:53	41:53	0	0.983	1323541	246555	483	1207	510	1.27(1.05-1.43)	
PCB-162											
359.8415	42:11	42:11	0	0.990	1497323	269486	571	1427	472		
361.8385	42:11	42:11	0	0.990	1203280	215398	483	1207	446	1.24(1.05-1.43)	
PCB-167											
359.8415	42:39	42:39	0	1.001	1389670	259454	571	1427	454		
361.8385	42:39	42:39	0	1.001	1094037	209040	483	1207	433	1.27(1.05-1.43)	
PCB-156											
359.8415	43:48	43:48	0	1.000	2682814	339146	571	1427	594		
361.8385	43:48	43:48	0	1.000	2157616	269157	483	1207	557	1.24(1.05-1.43)	
PCB-157 (C156)											
359.8415	43:48	43:48	0	1.000	2682814	339146	571	1427	594		
361.8385	43:48	43:48	0	1.000	2157616	269157	483	1207	557	1.24(1.05-1.43)	
PCB-169											
359.8415	47:02	47:02	0	1.001	1450941	249158	571	1427	436		
361.8385	47:02	47:02	0	1.001	1135110	193037	483	1207	400	1.28(1.05-1.43)	
PCB-188L											
405.8428	37:02	37:02	0	0.820	1756683	349544	43	107	8129		
407.8398	37:02	37:02	0	0.820	1635241	326314	1	2	326314	1.07(0.89-1.21)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-178L											
405.8428	40:05	40:05	0	0.888	639009	130126	43	107	3026		
407.8398	40:05	40:05	0	0.888	580872	112593	1	2	112593	1.10(0.89-1.21)	
PCB-180L											
405.8428	45:10	45:10	0		1365650	272856	43	107	6345		
407.8398	45:10	45:10	0		1255601	238499	1	2	238499	1.09(0.89-1.21)	
PCB-170L											
405.8428	46:26	46:26	0	1.028	1161279	221254	43	107	5145		
407.8398	46:26	46:26	0	1.028	1072933	205287	1	2	205287	1.08(0.89-1.21)	
PCB-189L											
405.8428	49:32	49:32	0	1.097	2602993	480125	1135	2837	423		
407.8398	49:32	49:32	0	1.097	2410638	444100	742	1855	599	1.08(0.89-1.21)	
PCB-188											
393.8025	37:03	37:03	0	1.001	992207	203514	1	2	203514		
395.7995	37:03	37:03	0	1.001	922565	184358	1	2	184358	1.08(0.89-1.21)	
PCB-179											
393.8025	37:25	37:25	0	1.011	993641	191793	1	2	191793		
395.7995	37:24	37:25	-1	1.010	922324	178944	1	2	178944	1.08(0.89-1.21)	
PCB-184											
393.8025	37:54	37:54	0	1.024	1005086	203392	1	2	203392		
395.7995	37:54	37:54	0	1.024	922938	180562	1	2	180562	1.09(0.89-1.21)	
PCB-176											
393.8025	38:17	38:17	0	1.034	892027	171463	1	2	171463		
395.7995	38:17	38:17	0	1.034	816584	165739	1	2	165739	1.09(0.89-1.21)	
PCB-186											
393.8025	38:45	38:45	0	1.046	1098438	210133	1	2	210133		
395.7995	38:45	38:45	0	1.046	1017198	198554	1	2	198554	1.08(0.89-1.21)	
PCB-178											
393.8025	40:07	40:07	0	1.083	646272	129542	1	2	129542		
395.7995	40:07	40:07	0	1.083	600090	119512	1	2	119512	1.08(0.89-1.21)	
PCB-175											
393.8025	40:44	40:44	0	1.100	685421	136242	1	2	136242		
395.7995	40:44	40:44	0	1.100	666866	140498	1	2	140498	1.03(0.89-1.21)	
PCB-187											
393.8025	41:00	41:00	0	1.107	822928	170115	1	2	170115		
395.7995	41:00	41:00	0	1.107	760367	149451	1	2	149451	1.08(0.89-1.21)	
PCB-182											
393.8025	41:12	41:12	0	1.113	717195	142059	1	2	142059		
395.7995	41:12	41:12	0	1.113	678248	133999	1	2	133999	1.06(0.89-1.21)	
PCB-183											
393.8025	41:37	41:37	0	1.124	1383060	148268	1	2	148268		Ma
395.7995	41:36	41:37	-1	1.123	1342598	134599	1	2	134599	1.03(0.89-1.21)	M
PCB-185 (C183)											
393.8025	41:37	41:37	0	1.124	1383060	148268	1	2	148268		Ma
395.7995	41:36	41:37	-1	1.123	1342598	134599	1	2	134599	1.03(0.89-1.21)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-174											
393.8025	41:52	41:52	0	1.131	733870	141860	1	2	141860		
395.7995	41:52	41:52	0	1.131	670427	132891	1	2	132891	1.09(0.89-1.21)	
PCB-177											
393.8025	42:18	42:18	0	1.143	736948	138270	1	2	138270		
395.7995	42:18	42:18	0	1.143	671407	121802	1	2	121802	1.10(0.89-1.21)	
PCB-181											
393.8025	42:41	42:41	0	1.153	694194	133355	1	2	133355		
395.7995	42:41	42:41	0	1.153	666124	129893	1	2	129893	1.04(0.89-1.21)	
PCB-171											
393.8025	42:55	42:55	0	1.159	1328218	247309	1	2	247309		
395.7995	42:55	42:55	0	1.159	1235183	220371	1	2	220371	1.08(0.89-1.21)	
PCB-173 (C171)											
393.8025	42:55	42:55	0	1.159	1328218	247309	1	2	247309		
395.7995	42:55	42:55	0	1.159	1235183	220371	1	2	220371	1.08(0.89-1.21)	
PCB-172											
393.8025	44:32	44:32	0	0.899	657879	128452	1	2	128452		
395.7995	44:32	44:32	0	0.899	610102	118343	1	2	118343	1.08(0.89-1.21)	
PCB-192											
393.8025	44:49	44:49	0	0.905	1048193	194315	1	2	194315		
395.7995	44:49	44:49	0	0.905	982606	184782	1	2	184782	1.07(0.89-1.21)	
PCB-180											
393.8025	45:10	45:10	0	0.912	1734370	251710	1	2	251710		
395.7995	45:09	45:10	-1	0.911	1643760	234213	1	2	234213	1.06(0.89-1.21)	
PCB-193 (C180)											
393.8025	45:10	45:10	0	0.912	1734370	251710	1	2	251710		
395.7995	45:09	45:10	-1	0.911	1643760	234213	1	2	234213	1.06(0.89-1.21)	
PCB-191											
393.8025	45:32	45:32	0	0.919	1054186	201457	1	2	201457		
395.7995	45:32	45:32	0	0.919	953071	179478	1	2	179478	1.11(0.89-1.21)	
PCB-170											
393.8025	46:27	46:27	0	0.938	684430	129686	1	2	129686		
395.7995	46:27	46:27	0	0.938	657745	124110	1	2	124110	1.04(0.89-1.21)	
PCB-190											
393.8025	46:58	46:58	0	0.948	1028816	189004	1	2	189004		
395.7995	46:58	46:58	0	0.948	964967	185726	1	2	185726	1.07(0.89-1.21)	
PCB-189											
393.8025	49:33	49:33	0	1.000	1329780	239790	1056	2640	227		
395.7995	49:33	49:33	0	1.000	1247376	228221	284	710	804	1.07(0.89-1.21)	
PCB-202L											
439.8038	42:24	42:24	0	0.821	1241885	245804	4	10	61451		
441.8008	42:23	42:24	-1	0.821	1360054	266846	6	15	44474	0.91(0.76-1.02)	
PCB-194L											
439.8038	51:38	51:38	0		1614398	301641	82	205	3679		
441.8008	51:38	51:38	0		1806279	339823	126	315	2697	0.89(0.76-1.02)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-205L											
439.8038	52:06	52:06	0	1.009	2008324	368846	82	205	4498		
441.8008	52:06	52:06	0	1.009	2172777	407238	126	315	3232	0.92(0.76-1.02)	
PCB-202											
427.7635	42:25	42:25	0	1.000	659652	134766	44	110	3063		
429.7606	42:25	42:25	0	1.000	729969	146448	7	17	20921	0.90(0.76-1.02)	
PCB-201											
427.7635	43:20	43:20	0	1.022	644827	125986	44	110	2863		
429.7606	43:20	43:20	0	1.022	684074	134210	7	17	19173	0.94(0.76-1.02)	
PCB-204											
427.7635	43:59	43:59	0	1.038	647368	129021	44	110	2932		
429.7606	43:59	43:59	0	1.038	708197	137225	7	17	19604	0.91(0.76-1.02)	
PCB-197											
427.7635	44:14	44:14	0	1.043	678302	131740	44	110	2994		
429.7606	44:13	44:14	-1	1.043	775138	146329	7	17	20904	0.88(0.76-1.02)	
PCB-200											
427.7635	44:21	44:21	0	1.046	677999	125977	44	110	2863		
429.7606	44:21	44:21	0	1.046	702978	135858	7	17	19408	0.96(0.76-1.02)	
PCB-198											
427.7635	47:07	47:07	0	1.111	1074750	141114	44	110	3207		
429.7606	47:07	47:07	0	1.111	1223474	155730	7	17	22247	0.88(0.76-1.02)	
PCB-199 (C198)											
427.7635	47:07	47:07	0	1.111	1074750	141114	44	110	3207		
429.7606	47:07	47:07	0	1.111	1223474	155730	7	17	22247	0.88(0.76-1.02)	
PCB-196											
427.7635	47:47	47:47	0	0.917	484627	91734	44	110	2085		
429.7606	47:47	47:47	0	0.917	553999	106108	7	17	15158	0.87(0.76-1.02)	
PCB-203											
427.7635	47:59	47:59	0	0.921	605002	116924	44	110	2657		
429.7606	47:59	47:59	0	0.921	674441	126828	7	17	18118	0.90(0.76-1.02)	
PCB-195											
427.7635	49:19	49:19	0	0.946	782750	152356	219	547	696		
429.7606	49:19	49:19	0	0.946	857475	169565	196	490	865	0.91(0.76-1.02)	
PCB-194											
427.7635	51:39	51:39	0	0.991	934232	176508	219	547	806		
429.7606	51:39	51:39	0	0.991	1000731	186595	196	490	952	0.93(0.76-1.02)	
PCB-205											
427.7635	52:07	52:07	0	1.000	1091671	203629	219	547	930		
429.7606	52:07	52:07	0	1.000	1203556	226422	196	490	1155	0.91(0.76-1.02)	
PCB-208L											
473.7648	49:03	49:03	0	0.950	1460031	277675	203	507	1368		
475.7619	49:03	49:03	0	0.950	1805511	352238	416	1040	847	0.81(0.65-0.89)	
PCB-206L											
473.7648	53:51	53:51	0	1.043	1181643	214950	203	507	1059		
475.7619	53:51	53:51	0	1.043	1483999	271595	416	1040	653	0.80(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-208											
461.7246	49:04	49:04	0	1.001	804039	154516	315	787	491		
463.7216	49:04	49:04	0	1.001	1021009	199175	622	1555	320	0.79(0.65-0.89)	
PCB-207											
461.7246	50:00	50:00	0	1.019	840289	160454	315	787	509		
463.7216	50:00	50:00	0	1.019	1051685	205323	622	1555	330	0.80(0.65-0.89)	
PCB-206											
461.7246	53:52	53:52	0	1.000	716123	131103	315	787	416		
463.7216	53:52	53:52	0	1.000	920723	175891	622	1555	283	0.78(0.65-0.89)	
PCB-209L											
507.7258	55:28	55:28	0	1.074	1165139	219986	59	147	3729		
509.7229	55:28	55:28	0	1.074	1664276	299805	45	112	6662	0.70(0.59-0.79)	
DCB Decachlorobiphenyl											
495.6856	55:30	55:30	0	1.000	665279	117157	14	35	8368		
497.6826	55:29	55:30	-1	1.000	906129	158408	38	95	4169	0.73(0.59-0.79)	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

### Reagents:

61CV1668CS3\_00018

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
CCV Relative RT Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
 Lims ID: WDMCCV  
 Client ID:  
 Sample Type: WDMCCV  
 Inject. Date: 16-Jul-2024 11:46:00 ALS Bottle#: 0 Worklist Smp#: 1  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info:  
 Misc. Info.: 140-0033521-001  
 Operator ID: Xcalibur\_System Instrument ID: D2D  
 Sublist: chrom-PCBs\_D2D\*sub2  
 Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\PCBs\_D2D.m  
 Limit Group: HR - EPA\_23 PCB ICAL  
 Last Update: 16-Jul-2024 19:00:31 Calib Date: 31-May-2024 21:13:00  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
 Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
 Process Host: CTX1685  
 First Level Reviewer: V4XA Date: 16-Jul-2024 19:00:31  
 Start Cal Date: 31-May-2024 14:36:00  
 End Cal Date: 31-May-2024 21:13:00

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-1L		11:34	11:39	5	15	0.7253	0.7280	0.717 - 0.7472
PCB-3L		13:43	13:48	5	15	0.8606	0.8628	0.849 - 0.8798
PCB-1	L	11:35	11:39	5		1.0011	1.0011	0.995 - 1.0085
PCB-2		13:34	13:38	4		0.9885	0.9876	0.985 - 0.9925
PCB-3	L	13:44	13:49	5		1.0010	1.0009	0.998 - 1.0048
PCB-4L		13:59	14:03	4	15	0.8771	0.8784	0.865 - 0.8956
PCB-9L		15:57	16:00	3		1.0000	1.0000	0.987 - 1.0128
PCB-8L		16:48	16:50	2		1.1991	1.1983	1.192 - 1.1989
PCB-15L		19:52	19:54	3	15	1.2459	1.2449	1.233 - 1.2530
PCB-4	L	14:00	14:04	4		1.0009	1.0009	0.994 - 1.0058
PCB-10		14:10	14:14	4		1.0132	1.0131	1.010 - 1.0168
PCB-9		15:58	16:01	3		1.1421	1.1403	1.135 - 1.1415
PCB-7		16:08	16:11	3		1.1534	1.1516	1.147 - 1.1538
PCB-6		16:22	16:26	4		1.1703	1.1693	1.164 - 1.1706
PCB-5		16:41	16:44	3		1.1929	1.1909	1.186 - 1.1926
PCB-8		16:48	16:52	4		1.2013	1.2002	1.194 - 1.2008
PCB-14		18:26	18:28	2		0.9278	0.9274	0.926 - 0.9305
PCB-11		19:16	19:19	3		0.9702	0.9703	0.968 - 0.9725
PCB-12/13		19:34	19:37	4		0.9848	0.9855	0.983 - 0.9875
PCB-15	L	19:53	19:55	2		1.0013	1.0007	0.997 - 1.0050
PCB-19L		17:05	17:09	4	15	0.8402	0.8419	0.831 - 0.8547
PCB-32L		20:20	20:22	2		1.0000	1.0000	0.998 - 1.0024
PCB-31L		22:37	22:37	1		1.0000	1.0000	0.998 - 1.0022
PCB-28L		22:55	22:55	0		1.0130	1.0130	1.006 - 1.0201



Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-37L		26:54	26:56	2	15	1.1902	1.1904	1.178 - 1.1995
PCB-19	L	17:06	17:10	4		1.0008	1.0008	0.996 - 1.0058
PCB-18/30		18:57	18:58	2		1.1085	1.1058	1.104 - 1.1093
PCB-17		19:23	19:25	2		1.1347	1.1326	1.129 - 1.1352
PCB-27		19:37	19:39	2		1.1478	1.1456	1.141 - 1.1471
PCB-24		19:44	19:46	2		1.1547	1.1525	1.148 - 1.1542
PCB-16		19:51	19:54	3		1.1617	1.1602	1.156 - 1.1621
PCB-32		20:22	20:24	2		1.1917	1.1893	1.185 - 1.1908
PCB-34		21:37	21:38	1		1.2654	1.2620	1.257 - 1.2623
PCB-23		21:47	21:47	1		1.2744	1.2702	1.266 - 1.2715
PCB-26/29		22:06	22:07	1		1.2931	1.2896	1.282 - 1.2915
PCB-25		22:19	22:20	1		0.8293	0.8291	0.829 - 0.8325
PCB-31		22:38	22:39	1		0.8412	0.8410	0.840 - 0.8438
PCB-20/28		22:56	22:57	1		0.8526	0.8524	0.851 - 0.8568
PCB-21/33		23:06	23:07	1		0.8588	0.8586	0.858 - 0.8637
PCB-22		23:33	23:35	2		0.8754	0.8756	0.875 - 0.8786
PCB-36		25:07	25:07	0		0.9334	0.9326	0.932 - 0.9352
PCB-39		25:28	25:29	1		0.9467	0.9464	0.945 - 0.9483
PCB-38		26:03	26:04	1		0.9681	0.9677	0.966 - 0.9695
PCB-35		26:31	26:32	1		0.9857	0.9853	0.984 - 0.9875
PCB-37	L	26:55	26:57	2		1.0005	1.0005	0.999 - 1.0024
PCB-54L		20:10	20:13	3	15	0.8149	0.8167	0.811 - 0.8247
PCB-52L		24:45	24:45	0		1.0000	1.0000	0.992 - 1.0083
PCB-79L		32:41	32:39	-1		0.9707	0.9704	0.969 - 0.9718
PCB-81L		33:40	33:39	0	15	1.3604	1.3601	1.351 - 1.3641
PCB-77L		34:13	34:13	1	15	1.3832	1.3833	1.373 - 1.3867
PCB-54	L	20:12	20:14	3		1.0000	1.0000	0.996 - 1.0041
PCB-50/53		22:23	22:23	1		1.1097	1.1075	1.102 - 1.1106
PCB-45/51		23:06	23:07	1		1.1459	1.1435	1.137 - 1.1453
PCB-46		23:20	23:22	2		1.1573	1.1562	1.153 - 1.1576
PCB-52		24:46	24:46	0		1.2284	1.2257	1.222 - 1.2263
PCB-43/73		24:55	24:55	0		1.2353	1.2327	1.230 - 1.2346
PCB-49/69		25:12	25:11	0		1.2499	1.2466	1.242 - 1.2499
PCB-48		25:32	25:31	0		1.2665	1.2631	1.259 - 1.2636
PCB-44/47/65		25:47	25:46	0		1.2785	1.2751	1.269 - 1.2770
PCB-59/62/75		26:05	26:05	1		1.2931	1.2909	1.284 - 1.2919
PCB-42		26:17	26:17	1		1.3033	*1.3010	1.296 - 1.3007
PCB-40/41/71		26:47	26:47	1		1.3280	*1.3257	1.317 - 1.3250
PCB-64		27:00	27:00	0		1.3388	*1.3358	1.331 - 1.3355
PCB-72		27:50	27:49	-1		0.8271	0.8264	0.826 - 0.8291
PCB-68		28:07	28:06	-1		0.8354	0.8352	0.835 - 0.8375
PCB-57		28:33	28:32	-1		0.8480	0.8477	0.847 - 0.8500
PCB-58		28:47	28:46	-1		0.8552	0.8549	0.854 - 0.8574
PCB-67		28:57	28:56	-1		0.8601	0.8598	0.859 - 0.8620
PCB-63		29:13	29:11	-1		0.8677	0.8674	0.866 - 0.8694
PCB-61/70/74/76		29:33	29:32	-1		0.8780	0.8777	0.875 - 0.8810

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-66		29:52	29:52	0		0.8875	0.8876	0.886 - 0.8894
PCB-55		30:02	30:02	1		0.8920	0.8925	0.891 - 0.8943
PCB-56		30:32	30:33	1		0.9072	0.9077	0.907 - 0.9098
PCB-60		30:45	30:45	0		0.9137	0.9138	0.913 - 0.9158
PCB-80		31:10	31:08	-2		0.9259	0.9252	0.924 - 0.9268
PCB-79		32:42	32:40	-2		0.9715	0.9707	0.970 - 0.9726
PCB-78		33:15	33:14	-1		0.9878	0.9875	0.986 - 0.9890
PCB-81	T	33:41	33:40	-1		1.0008	1.0004	0.999 - 1.0020
PCB-77	T/L	34:15	34:14	0		1.0007	1.0004	0.999 - 1.0019
PCB-104L		25:42	25:41	0	15	0.8129	0.8134	0.810 - 0.8199
PCB-95L		28:40	28:39	0		1.1155	1.1160	1.112 - 1.1179
PCB-101L		31:36	31:34	-2		1.0000	1.0000	0.994 - 1.0065
PCB-111L		34:17	34:13	-3		1.0850	1.0842	1.079 - 1.0891
PCB-123L		36:15	36:12	-2	15	1.1469	1.1468	1.141 - 1.1511
PCB-118L		36:34	36:31	-3	15	1.1573	1.1568	1.151 - 1.1614
PCB-114L		37:06	37:03	-2	15	1.1739	1.1739	1.168 - 1.1780
PCB-105L		37:44	37:43	-1	15	1.1943	1.1947	1.188 - 1.1989
PCB-127L		39:13	39:10	-2		1.0000	1.0000	0.995 - 1.0053
PCB-126L		40:49	40:48	-1	15	1.2917	1.2925	1.285 - 1.2956
PCB-104	L	25:42	25:42	0		1.0005	1.0010	0.998 - 1.0039
PCB-96		26:05	26:06	2		1.0149	1.0164	1.013 - 1.0195
PCB-103		28:01	27:59	-1		1.0907	1.0901	1.087 - 1.0912
PCB-94		28:14	28:14	0		1.0991	1.0996	1.097 - 1.1003
PCB-95		28:41	28:41	0		1.1165	1.1170	1.113 - 1.1193
PCB-93/100		28:54	28:52	-1		1.1250	1.1244	1.120 - 1.1267
PCB-98/102		29:03	29:02	-1		1.1310	1.1309	1.127 - 1.1336
PCB-88/91		29:33	29:32	0		1.1499	1.1503	1.143 - 1.1505
PCB-84		29:46	29:46	1		1.1584	1.1593	1.157 - 1.1603
PCB-89		30:15	30:14	0		1.1773	1.1777	1.175 - 1.1786
PCB-121		30:40	30:37	-2		1.1937	*1.1926	1.188 - 1.1922
PCB-92		31:02	31:00	-2		0.8564	0.8564	0.856 - 0.8589
PCB-90/101/113		31:37	31:34	-2		1.2306	1.2295	1.224 - 1.2307
PCB-83/99		32:12	32:09	-2		1.2535	1.2524	1.245 - 1.2525
PCB-112		32:19	32:17	-2		1.2580	1.2573	1.254 - 1.2574
PCB-86/87/97/109/119/125		32:41	32:39	-2		1.2724	1.2718	1.265 - 1.2756
PCB-85/116/117		33:25	33:23	-2		1.3008	1.3002	1.293 - 1.3007
PCB-110/115		33:36	33:35	0		1.3078	1.3081	1.303 - 1.3092
PCB-82		33:54	33:54	0		1.3198	*1.3201	1.316 - 1.3194
PCB-111		34:19	34:15	-3		1.3357	*1.3340	1.329 - 1.3330
PCB-120		34:46	34:43	-3		1.3531	*1.3519	1.348 - 1.3514
PCB-108/124		35:54	35:52	-2		1.3975	1.3967	1.390 - 1.3967
PCB-107		36:09	36:06	-3		1.4072	*1.4059	1.401 - 1.4049
PCB-123	T	36:16	36:13	-3		1.0007	1.0004	1.000 - 1.0023
PCB-106		36:22	36:20	-2		1.0036	1.0036	1.003 - 1.0057
PCB-118	T	36:35	36:33	-2		1.0004	1.0007	0.999 - 1.0019
PCB-122		36:56	36:55	-1		1.0101	1.0108	1.009 - 1.0117

Compound	T/L	ICAL RT	CCV RT	Δ RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-114	T	37:07	37:04	-2		1.0004	1.0004	0.999 - 1.0018
PCB-105	T	37:46	37:44	-1		1.0007	1.0007	0.999 - 1.0018
PCB-127		39:14	39:12	-2		1.0397	1.0394	1.037 - 1.0399
PCB-126	T/L	40:51	40:49	-2		1.0006	1.0003	1.000 - 1.0016
PCB-155L		31:22	31:19	-3	15	0.7904	0.7898	0.787 - 0.7951
PCB-153L		38:27	38:23	-4		0.9005	0.9004	0.899 - 0.9028
PCB-138L		39:41	39:38	-2		1.0000	1.0000	0.979 - 1.0208
PCB-167L		42:42	42:37	-4	15	1.0759	1.0752	1.071 - 1.0792
PCB-156L/157L		43:51	43:48	-3	15	1.1050	1.1047	1.100 - 1.1084
PCB-169L		47:05	47:01	-3	15	1.1862	1.1859	1.184 - 1.1864
PCB-155	L	31:24	31:20	-3		1.0008	1.0008	0.998 - 1.0031
PCB-152		31:35	31:34	-1		1.0069	1.0082	1.006 - 1.0096
PCB-150		31:45	31:43	-2		1.0122	1.0131	1.011 - 1.0144
PCB-136		32:07	32:06	0		1.0236	1.0253	1.024 - 1.0268
PCB-145		32:24	32:23	-1		1.0330	1.0343	1.033 - 1.0358
PCB-148		33:56	33:52	-3		1.0816	1.0816	1.080 - 1.0830
PCB-135/151		34:31	34:29	-2		1.1004	1.1012	1.099 - 1.1038
PCB-154		34:46	34:43	-3		1.1085	1.1086	1.106 - 1.1107
PCB-144		35:05	35:03	-2		1.1183	1.1192	1.117 - 1.1199
PCB-147/149		35:27	35:24	-3		1.1301	1.1306	1.127 - 1.1326
PCB-134/143		35:45	35:43	-1		1.1394	1.1407	1.136 - 1.1409
PCB-139/140		36:03	35:59	-3		1.1490	1.1495	1.146 - 1.1515
PCB-131		36:15	36:13	-1		1.1553	1.1566	1.154 - 1.1571
PCB-142		36:23	36:21	-2		1.1599	1.1608	1.159 - 1.1621
PCB-132		36:42	36:40	-1		1.1700	1.1713	1.168 - 1.1728
PCB-133		37:13	37:10	-3		1.1863	1.1868	1.184 - 1.1872
PCB-165		37:37	37:33	-3		0.8808	0.8810	0.880 - 0.8825
PCB-146		37:52	37:47	-4		0.8867	0.8866	0.886 - 0.8882
PCB-161		37:59	37:55	-4		0.8897	0.8897	0.889 - 0.8914
PCB-153/168		38:29	38:26	-3		0.9014	0.9017	0.900 - 0.9040
PCB-141		38:40	38:37	-2		0.9054	0.9060	0.905 - 0.9075
PCB-130		39:04	39:01	-2		0.9150	0.9155	0.915 - 0.9172
PCB-137		39:18	39:14	-3		0.9202	0.9205	0.920 - 0.9224
PCB-164		39:25	39:22	-2		0.9230	0.9236	0.923 - 0.9252
PCB-129/138/160/163		39:44	39:40	-3		0.9304	0.9306	0.930 - 0.9349
PCB-158		40:06	40:03	-3		0.9393	0.9396	0.939 - 0.9409
PCB-128/166		40:57	40:53	-3		0.9590	0.9593	0.958 - 0.9617
PCB-159		41:58	41:53	-4		0.9828	0.9827	0.982 - 0.9839
PCB-162		42:15	42:11	-4		0.9895	0.9895	0.988 - 0.9907
PCB-167	T	42:43	42:39	-4		1.0006	1.0006	0.999 - 1.0016
PCB-156/157	T	43:53	43:48	-4		1.0006	1.0003	0.999 - 1.0025
PCB-169	T/L	47:06	47:02	-3		1.0006	1.0006	0.999 - 1.0015
PCB-188L		37:06	37:02	-4	15	0.8198	0.8199	0.817 - 0.8243
PCB-178L		40:09	40:05	-3		0.8875	0.8877	0.884 - 0.8916
PCB-180L		45:15	45:10	-5		1.0000	1.0000	0.996 - 1.0037
PCB-170L		46:30	46:26	-3	15	1.0276	1.0282	1.024 - 1.0317

Compound	T/L	ICAL RT	CCV RT	Δ RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-189L		49:37	49:32	-4	15	1.0965	1.0969	1.093 - 1.1000
PCB-188	L	37:07	37:03	-4		1.0007	1.0007	1.000 - 1.0022
PCB-179		37:27	37:25	-1		1.0096	1.0106	1.009 - 1.0115
PCB-184		37:59	37:54	-5		1.0241	1.0238	1.023 - 1.0254
PCB-176		38:20	38:17	-2		1.0333	1.0341	1.033 - 1.0351
PCB-186		38:48	38:45	-2		1.0457	1.0465	1.045 - 1.0476
PCB-178		40:10	40:07	-3		1.0830	1.0834	1.081 - 1.0837
PCB-175		40:48	40:44	-4		1.1000	1.1001	1.098 - 1.1008
PCB-187		41:05	41:00	-4		1.1074	1.1075	1.106 - 1.1082
PCB-182		41:17	41:12	-4		1.1127	1.1128	1.111 - 1.1137
PCB-183/185		41:42	41:37	-5		1.1241	1.1238	1.123 - 1.1260
PCB-174		41:56	41:52	-3		1.1305	1.1309	1.129 - 1.1313
PCB-177		42:22	42:18	-3		1.1422	1.1426	1.140 - 1.1430
PCB-181		42:45	42:41	-4		1.1524	1.1526	1.151 - 1.1535
PCB-171/173		42:58	42:55	-3		1.1585	1.1590	1.156 - 1.1602
PCB-172		44:37	44:32	-4		0.8993	0.8992	0.899 - 0.9008
PCB-192		44:54	44:49	-4		0.9049	0.9048	0.904 - 0.9060
PCB-180/193		45:14	45:10	-4		0.9117	0.9117	0.911 - 0.9130
PCB-191		45:37	45:32	-4		0.9194	0.9194	0.919 - 0.9209
PCB-170		46:31	46:27	-4		0.9377	0.9377	0.937 - 0.9392
PCB-190		47:02	46:58	-3		0.9481	0.9483	0.948 - 0.9496
PCB-189	T/L	49:38	49:33	-4		1.0003	1.0003	0.999 - 1.0013
PCB-202L		42:28	42:24	-3	15	0.8211	0.8212	0.819 - 0.8249
PCB-194L		51:43	51:38	-4		1.0000	1.0000	0.996 - 1.0040
PCB-205L		52:11	52:06	-4	15	1.0092	1.0092	1.004 - 1.0138
PCB-202	L	42:29	42:25	-4		1.0006	1.0003	0.999 - 1.0027
PCB-201		43:24	43:20	-4		1.0223	1.0220	1.020 - 1.0237
PCB-204		44:05	43:59	-5		1.0381	1.0375	1.036 - 1.0388
PCB-197		44:19	44:14	-5		1.0437	1.0431	1.042 - 1.0445
PCB-200		44:25	44:21	-3		1.0462	1.0462	1.045 - 1.0473
PCB-198/199		47:12	47:07	-4		1.1115	1.1113	1.109 - 1.1132
PCB-196		47:53	47:47	-5		0.9175	0.9171	0.917 - 0.9189
PCB-203		48:05	47:59	-5		0.9212	0.9209	0.921 - 0.9226
PCB-195		49:24	49:19	-4		0.9465	0.9465	0.946 - 0.9481
PCB-194		51:44	51:39	-4		0.9914	0.9914	0.991 - 0.9926
PCB-205	L	52:13	52:07	-5		1.0005	1.0002	0.999 - 1.0013
PCB-208L		49:08	49:03	-5	15	0.9503	0.9500	0.947 - 0.9534
PCB-206L		53:56	53:51	-5	15	1.0431	1.0431	1.038 - 1.0472
PCB-208	L	49:10	49:04	-5		1.0005	1.0005	0.999 - 1.0013
PCB-207		50:05	50:00	-5		1.0193	1.0193	1.019 - 1.0205
PCB-206	L	53:58	53:52	-5		1.0005	1.0002	1.000 - 1.0015
PCB-209L		55:35	55:28	-6	15	1.0748	1.0743	1.069 - 1.0784
DCB Decachlorobiphenyl	L	55:35	55:30	-5		1.0002	1.0005	0.999 - 1.0012

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

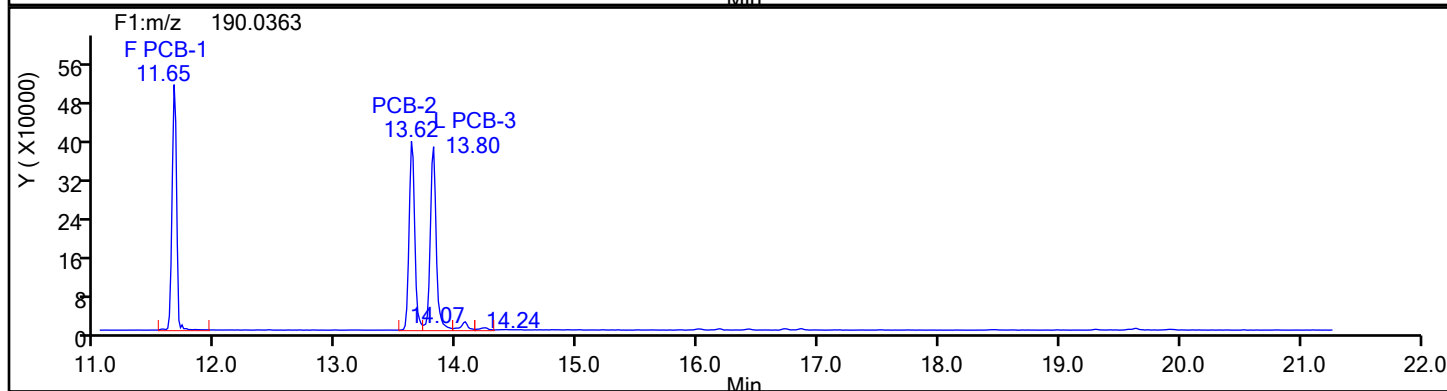
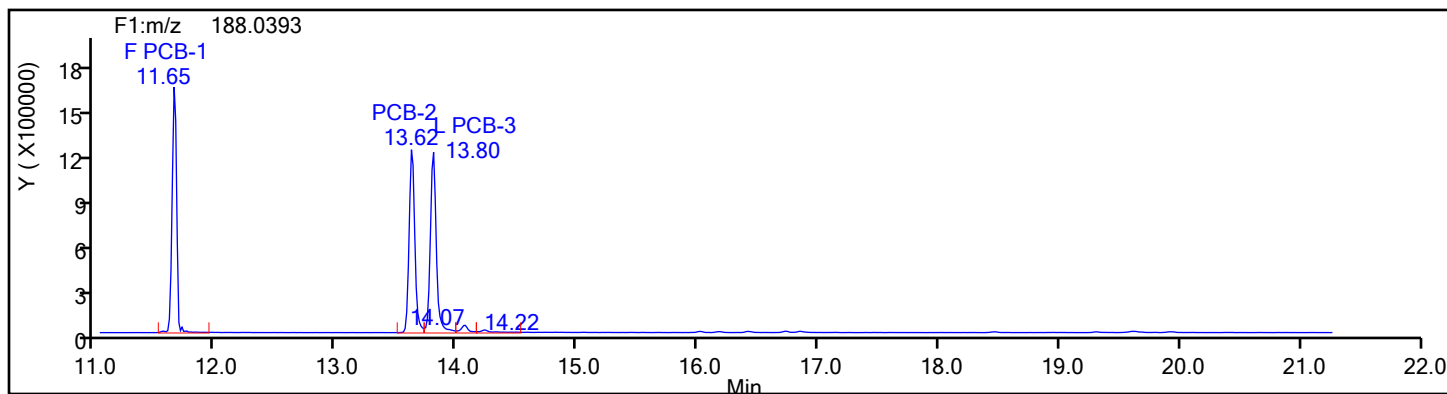
Worklist#: 88809

Sample Line#: 1

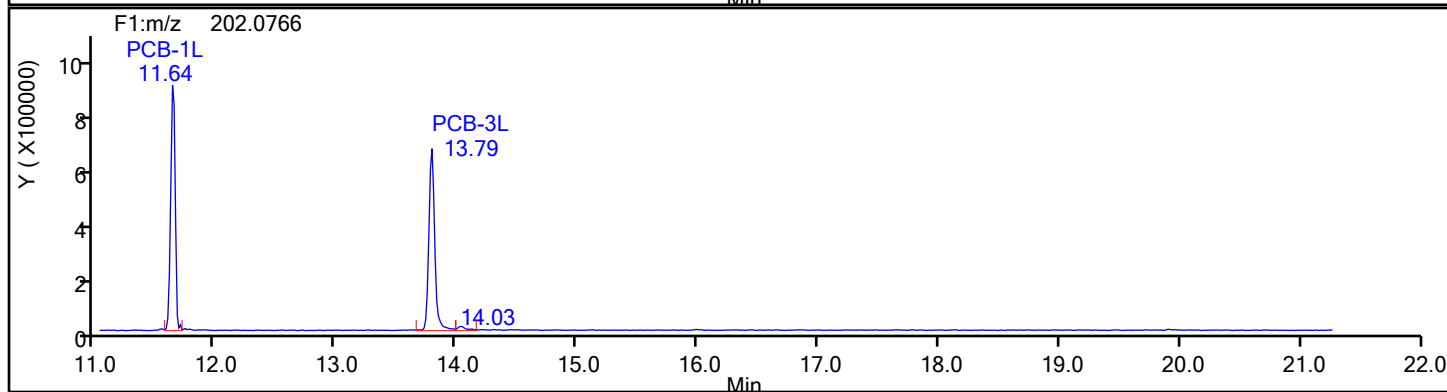
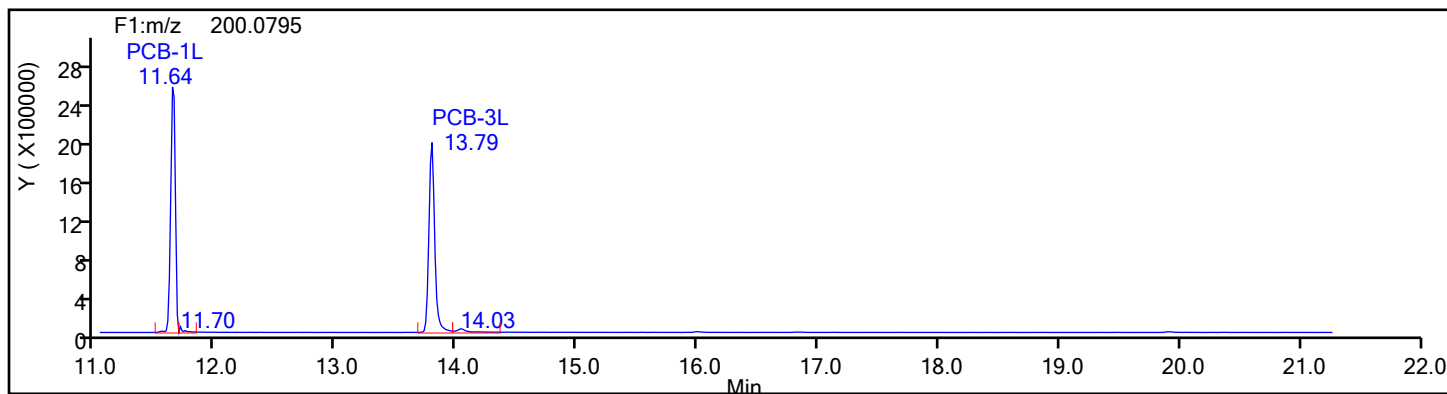
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

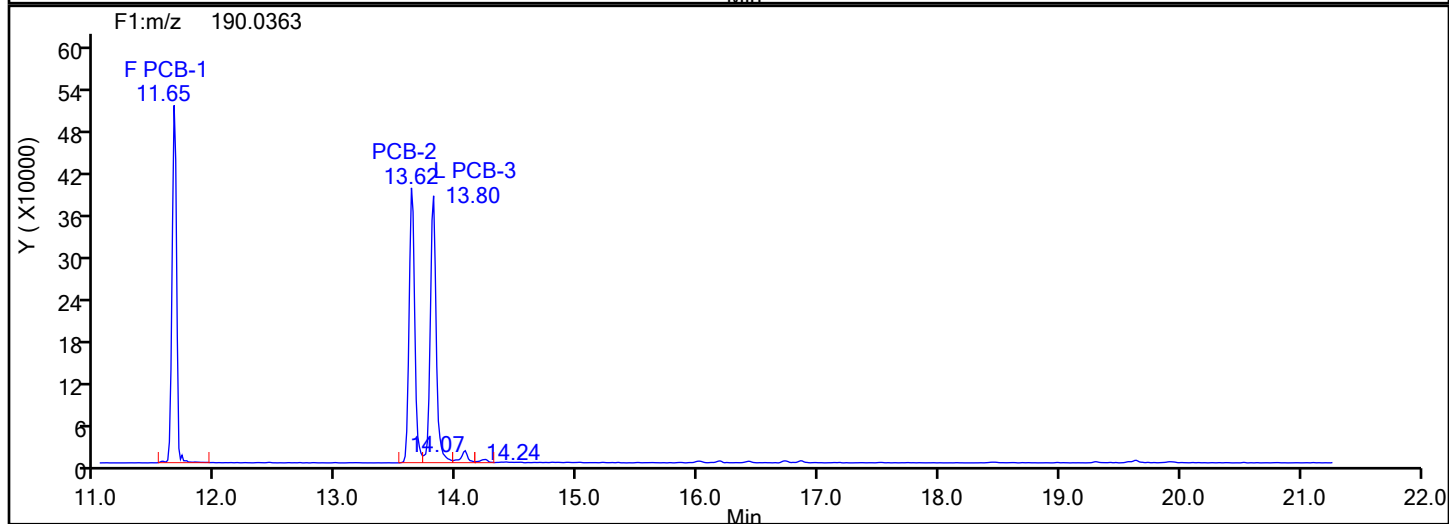
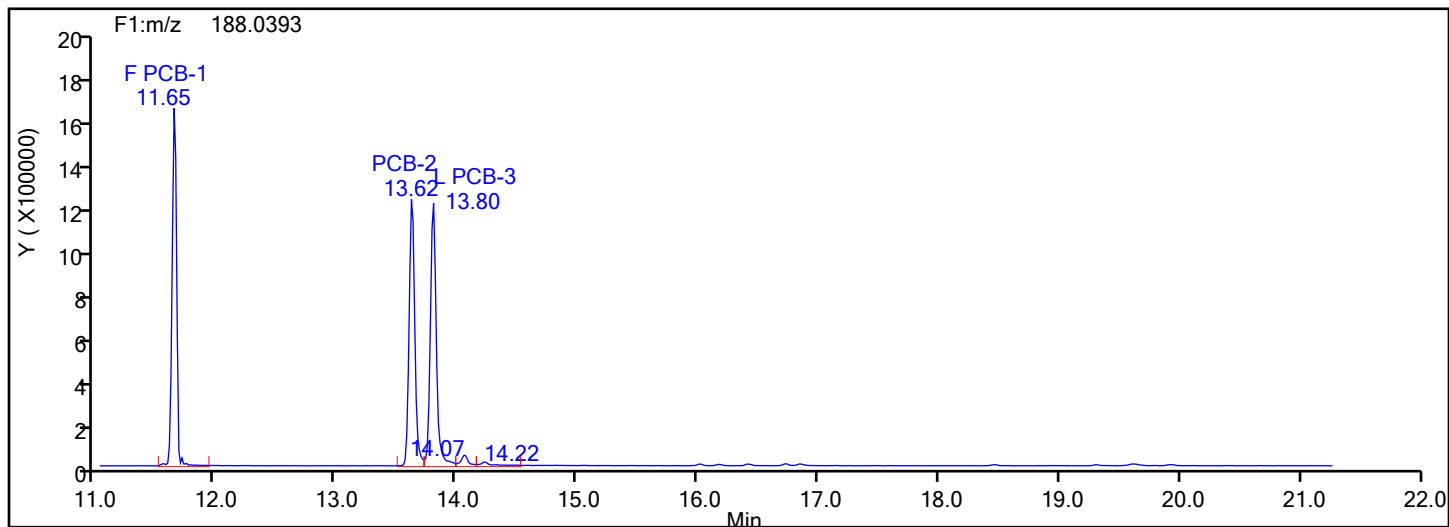
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Sample Line#: 1

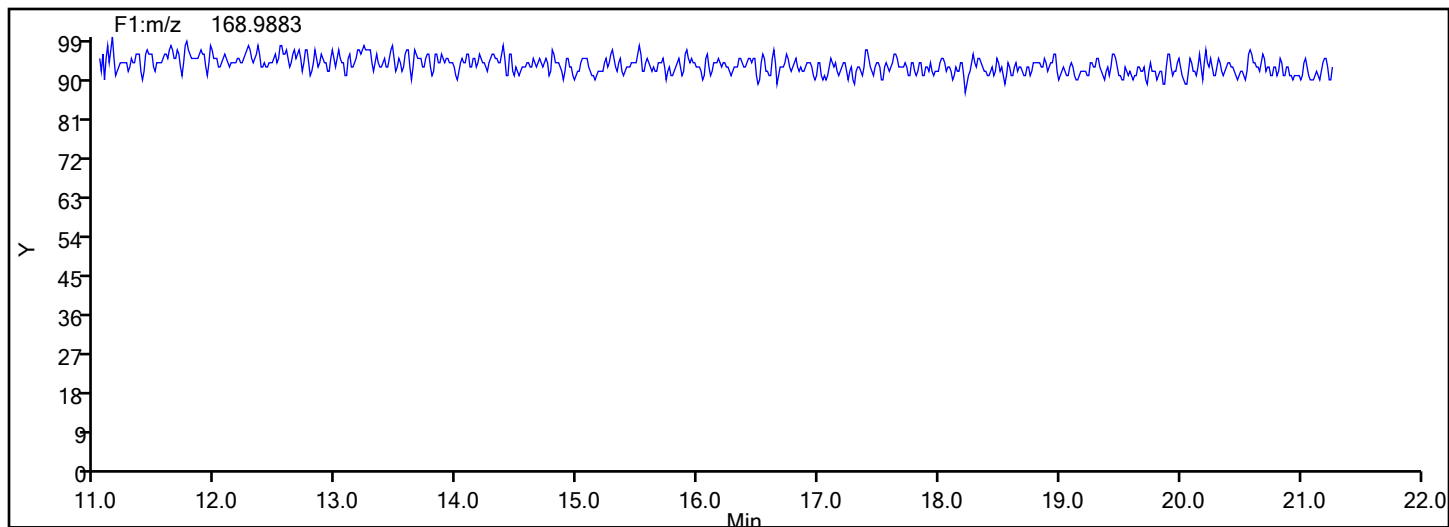
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

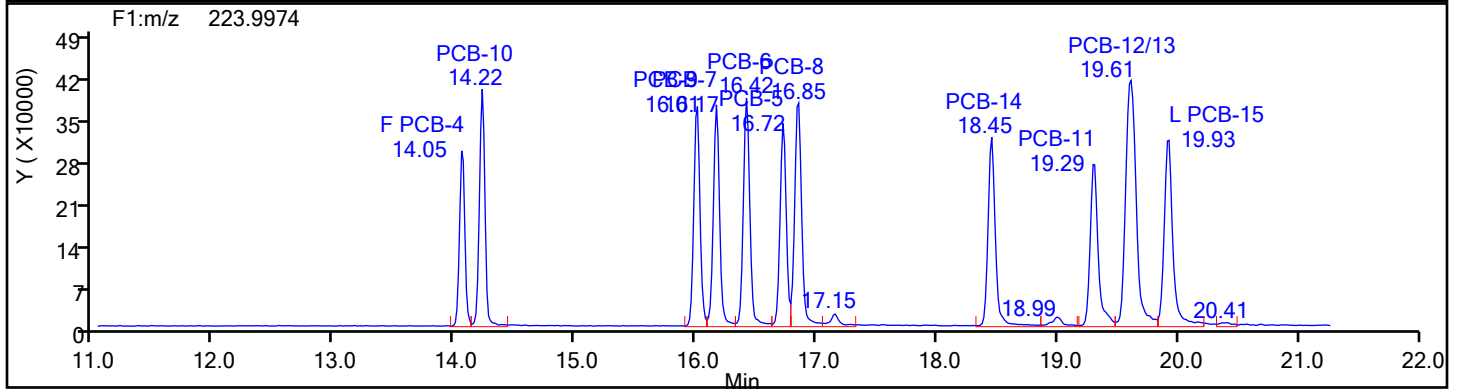
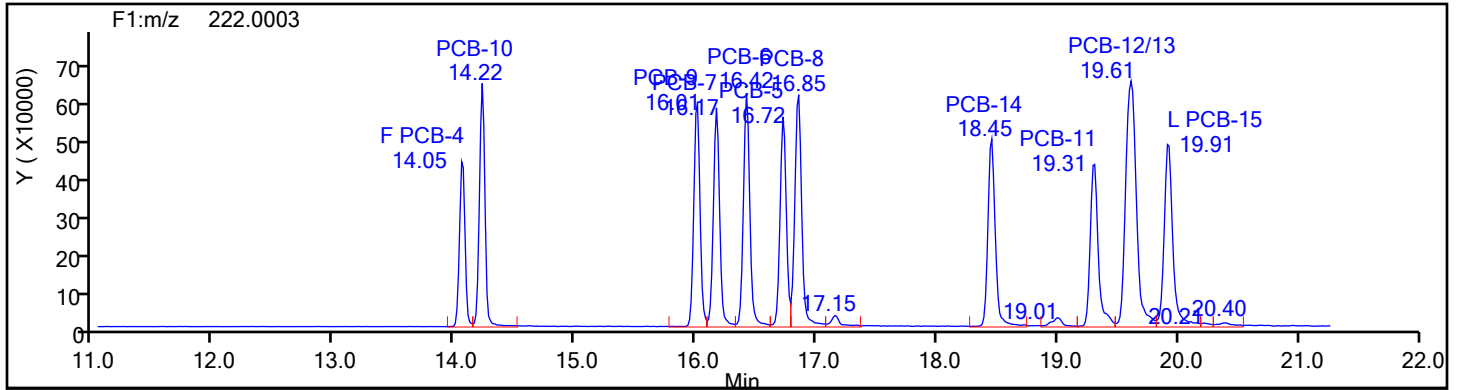
Worklist#: 88809

Sample Line#: 1

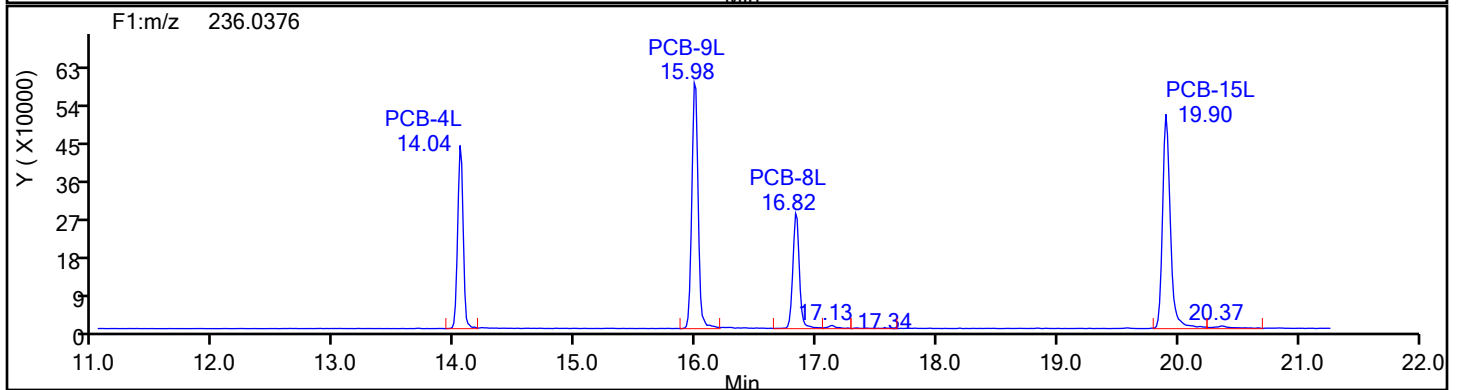
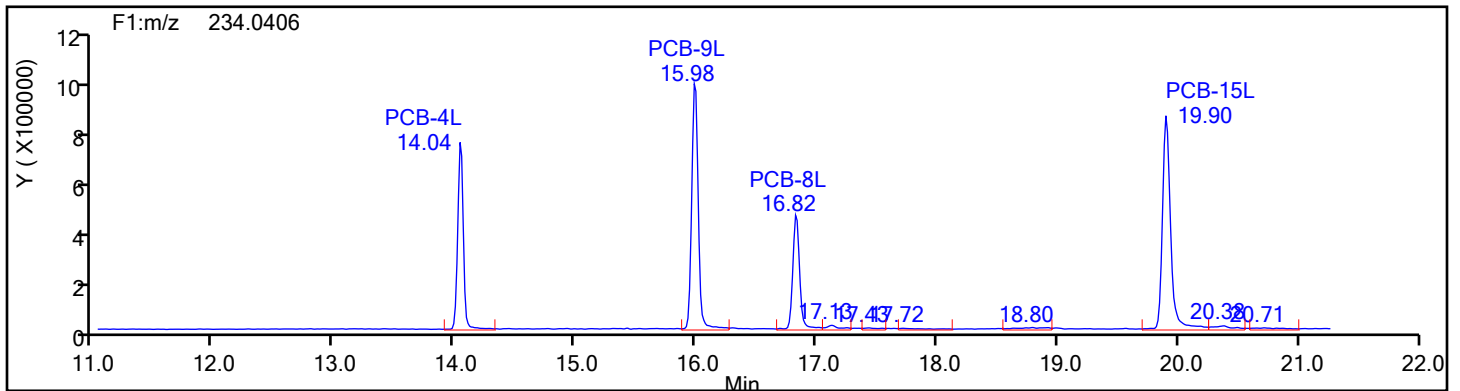
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1

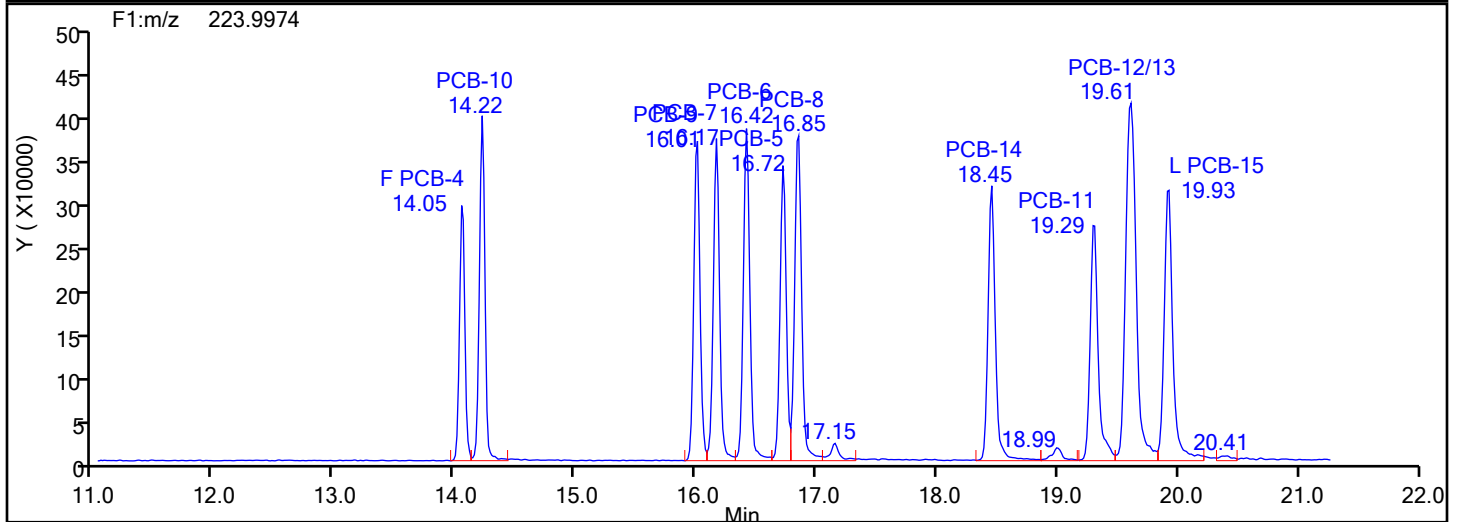
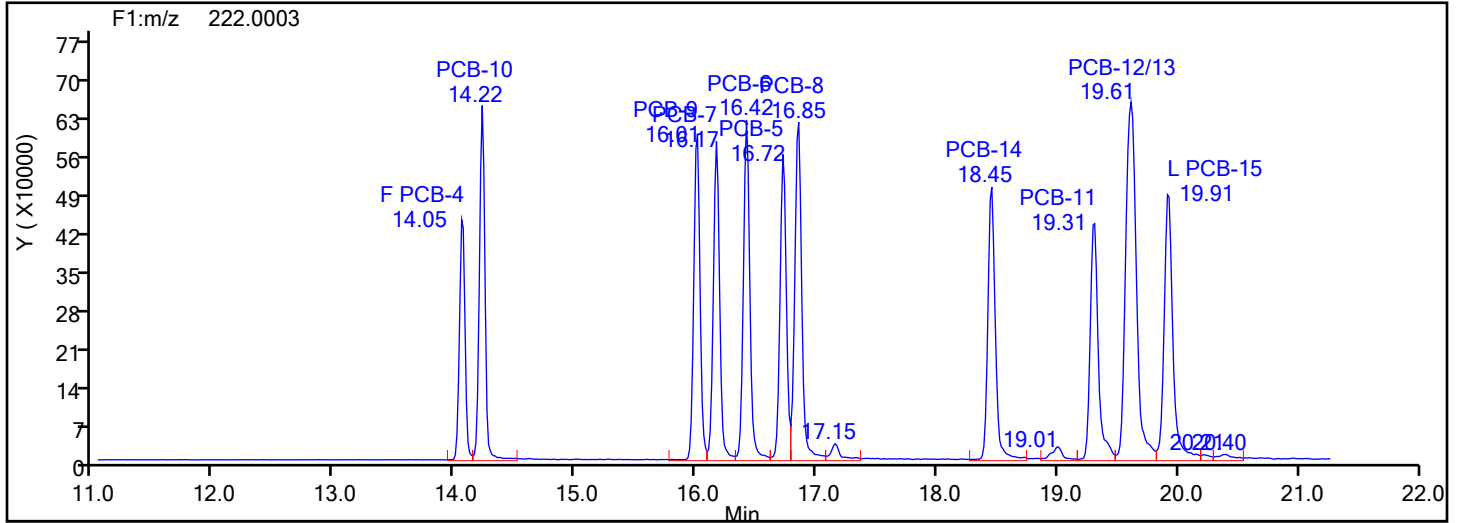


DiPCB F1 Standards

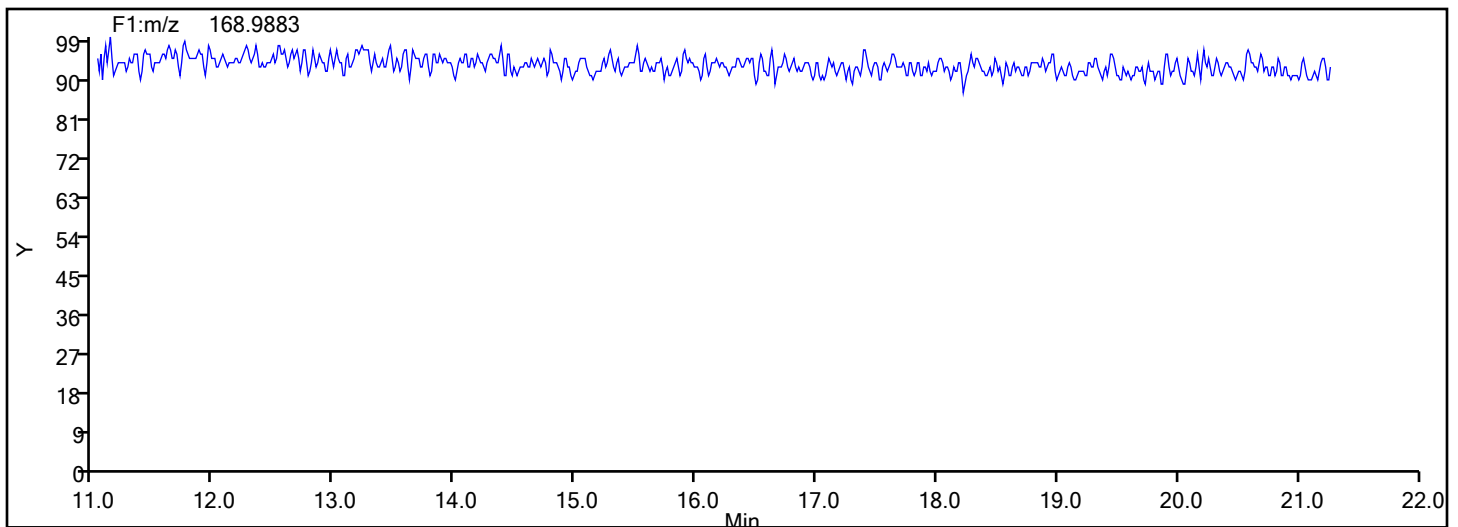


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88809 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DiPCB F1



## DiPCB F1 Lock Mass





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

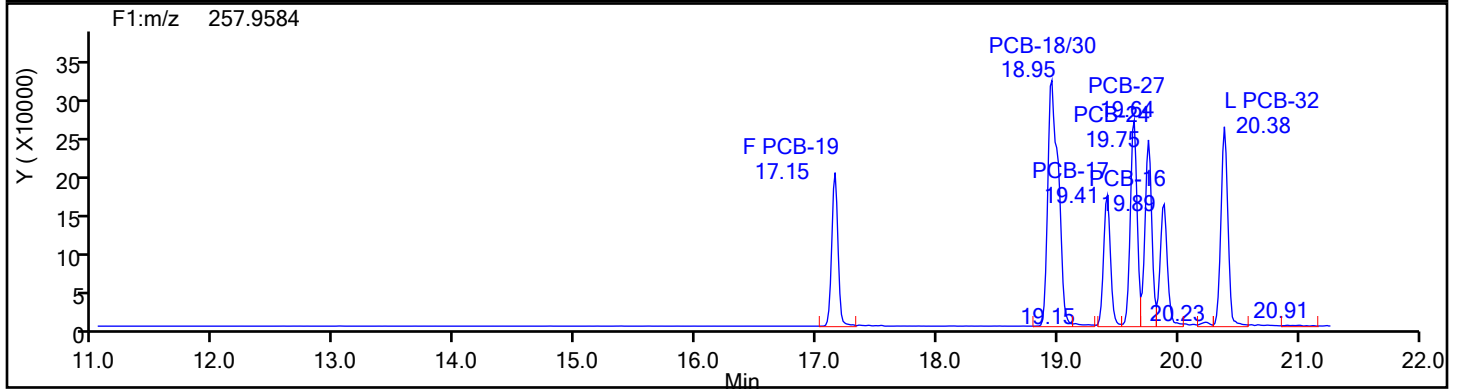
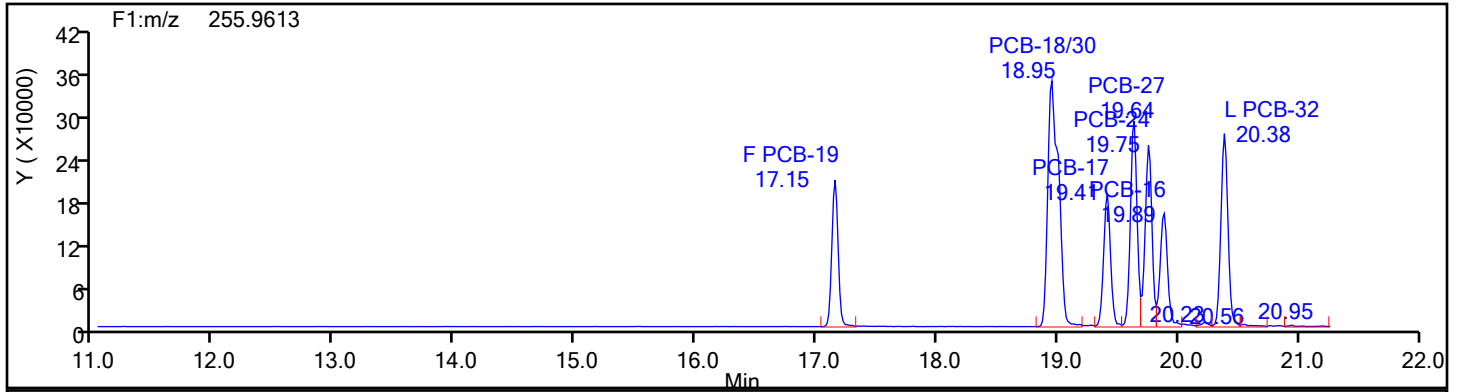
Worklist#: 88809

Sample Line#: 1

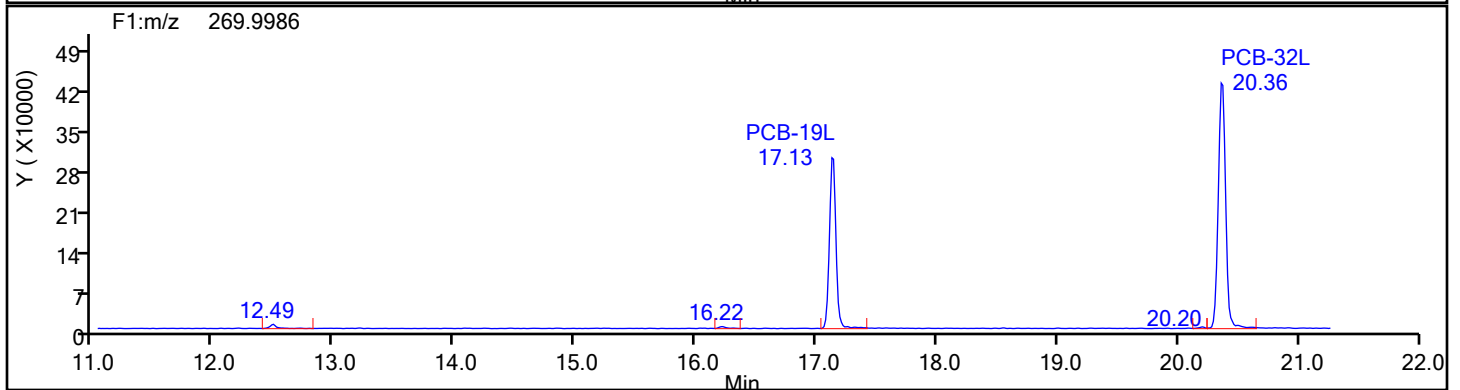
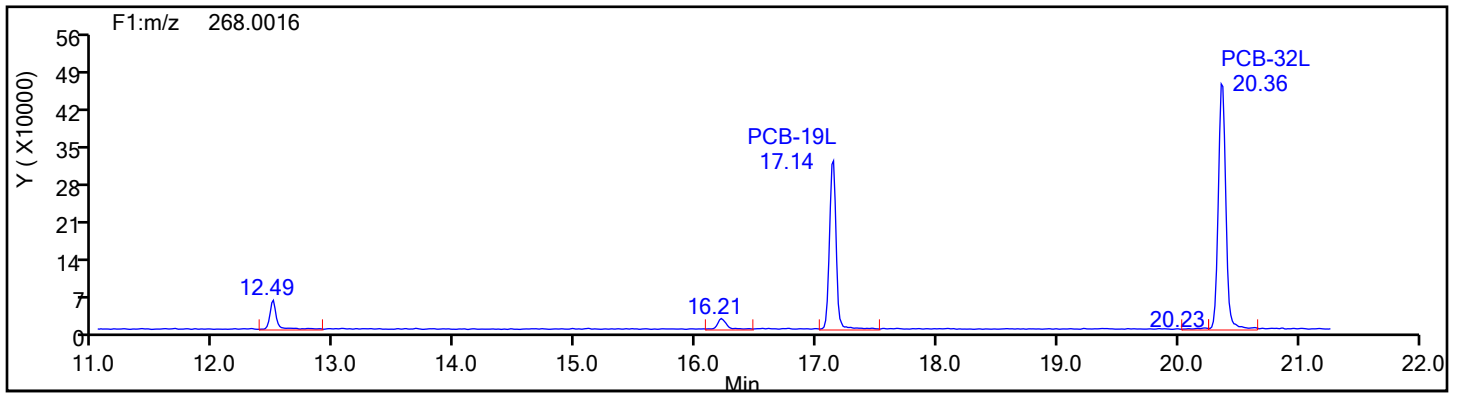
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

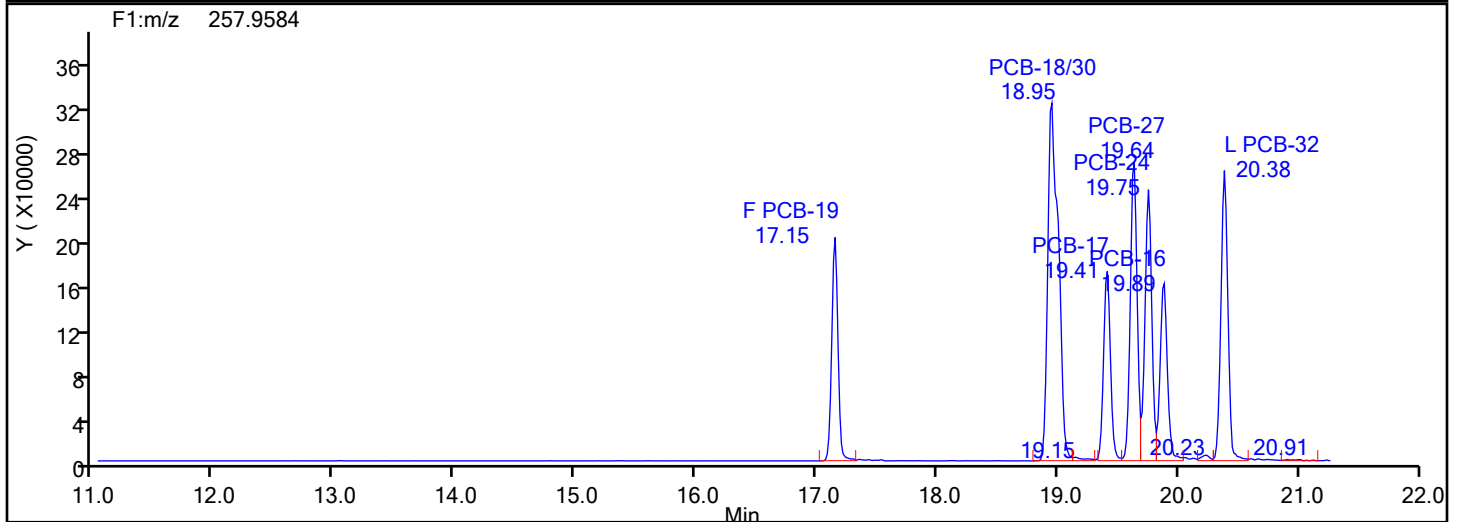
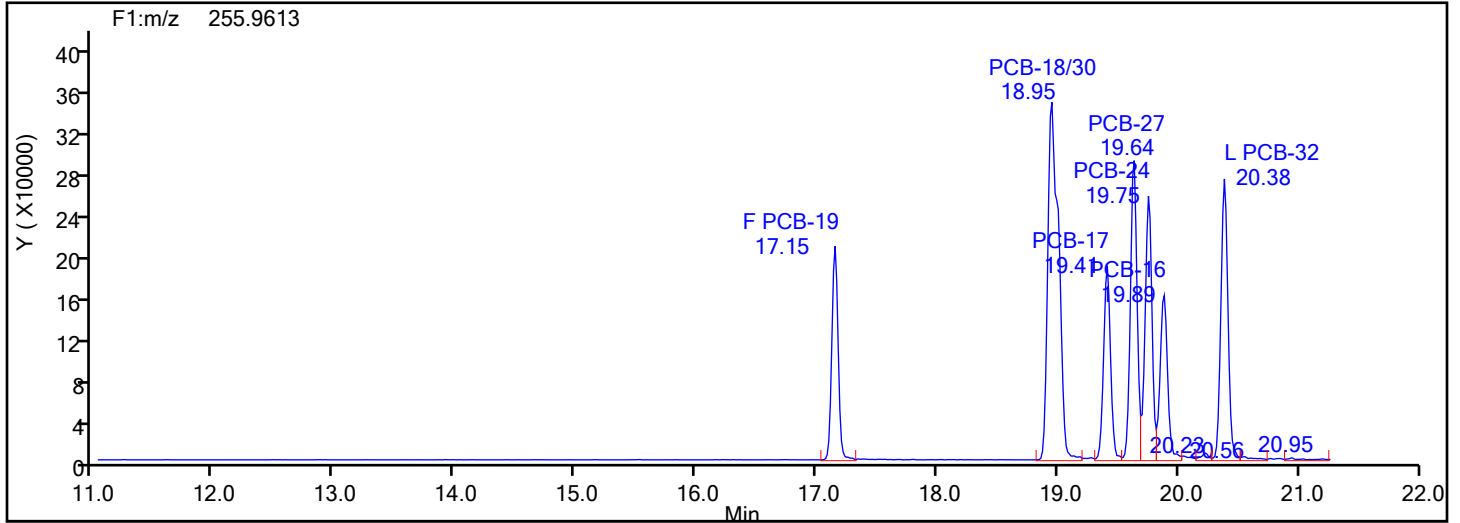
Worklist#: 88809

Sample Line#: 1

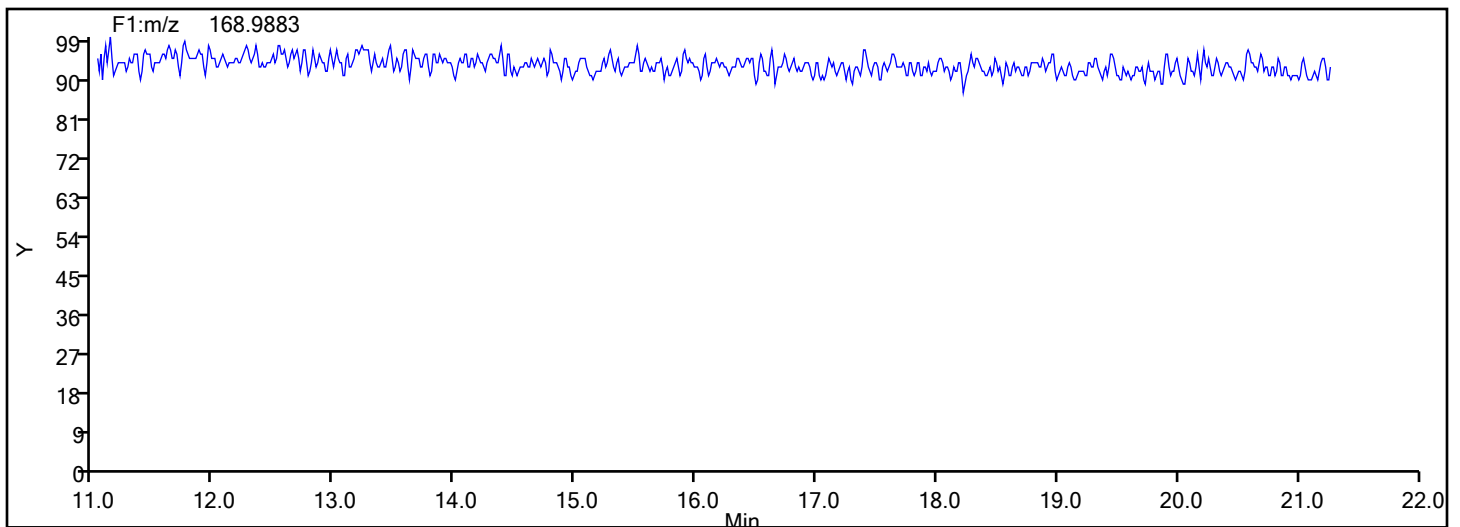
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

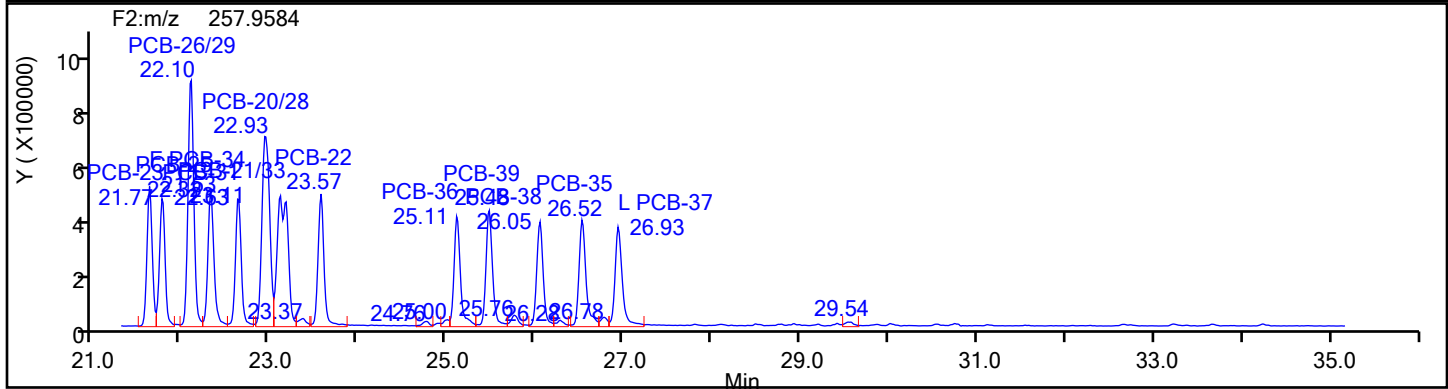
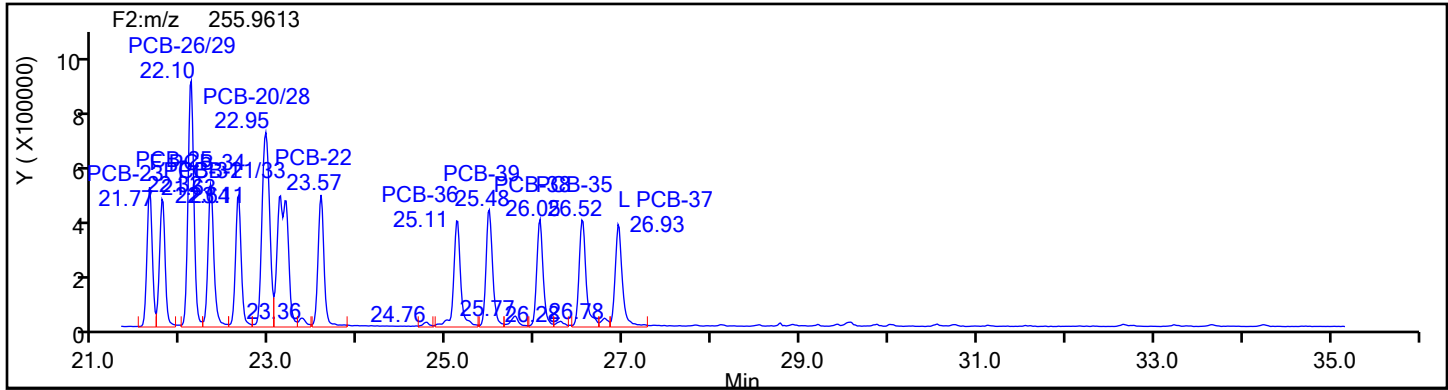
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Sample Line#: 1

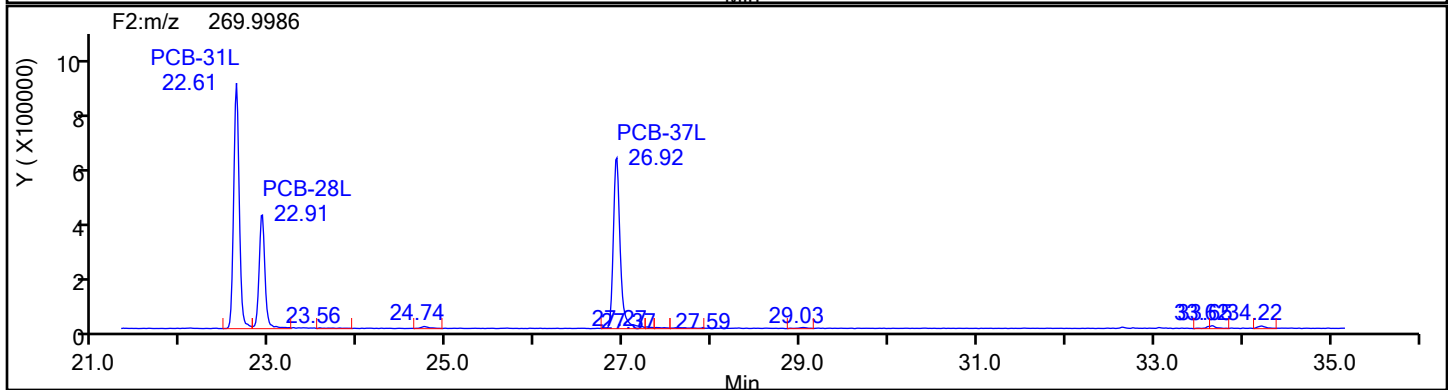
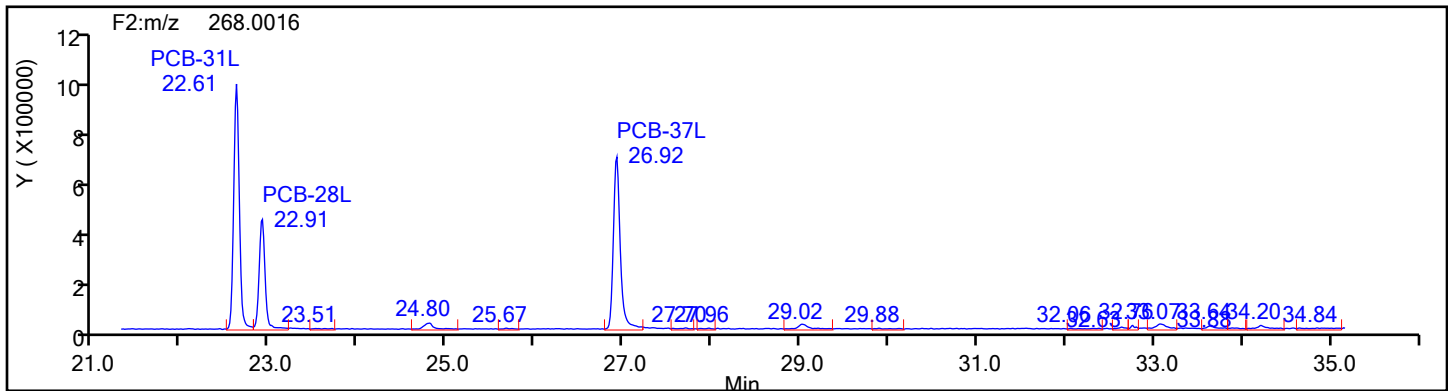
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

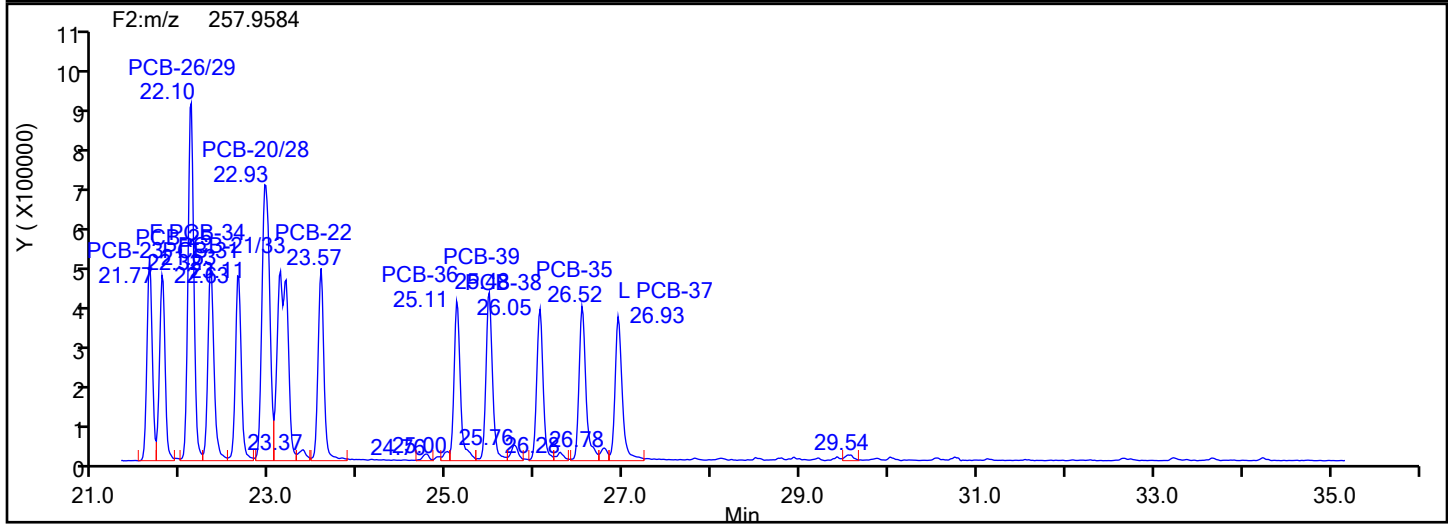
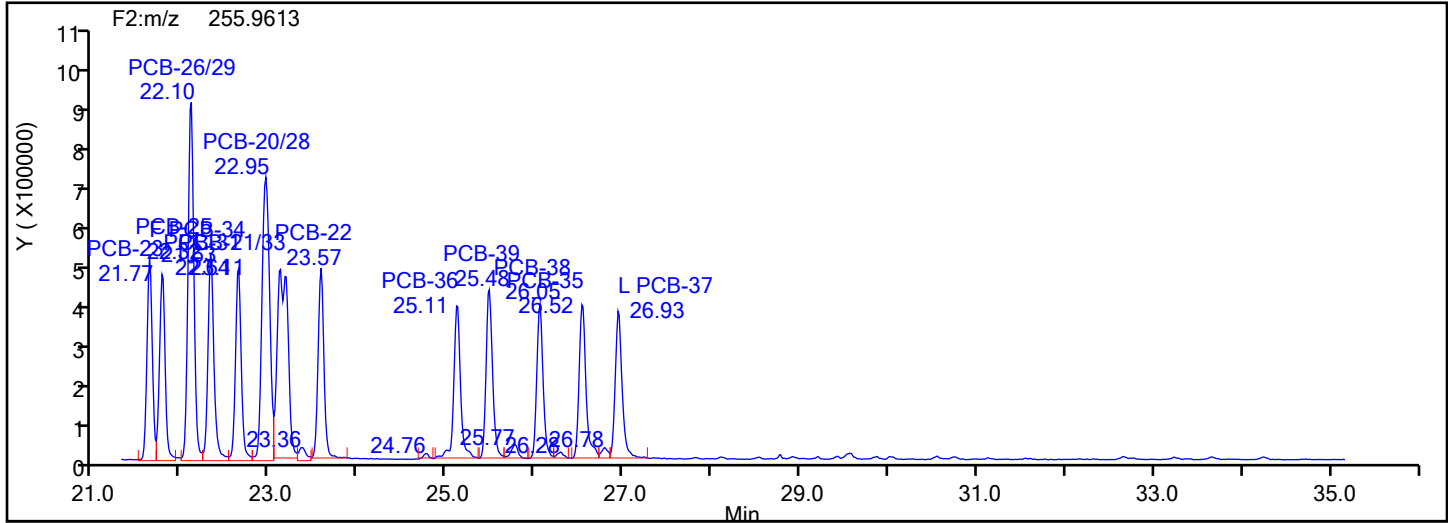
Worklist#: 88809

Sample Line#: 1

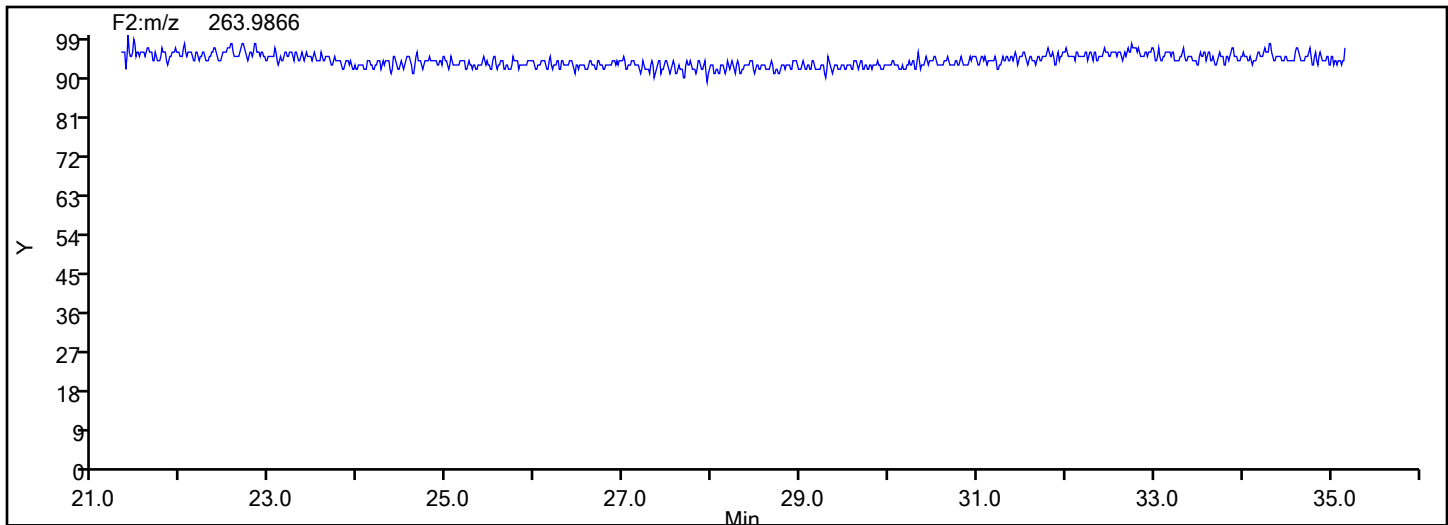
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Instrument ID: D2D

Lims ID: WDMCCV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

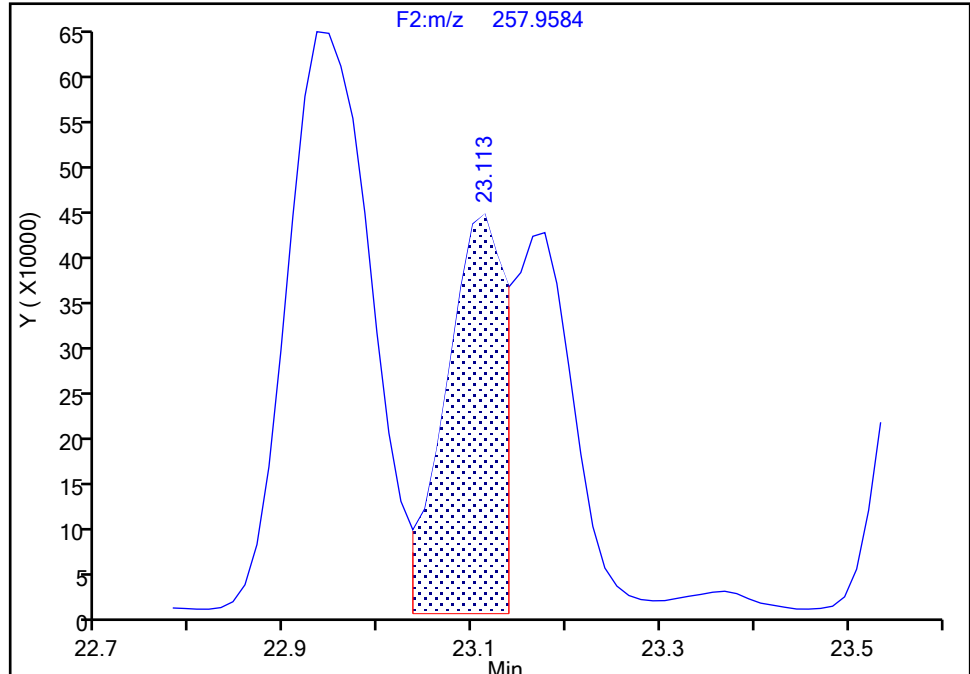
Detector F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 2

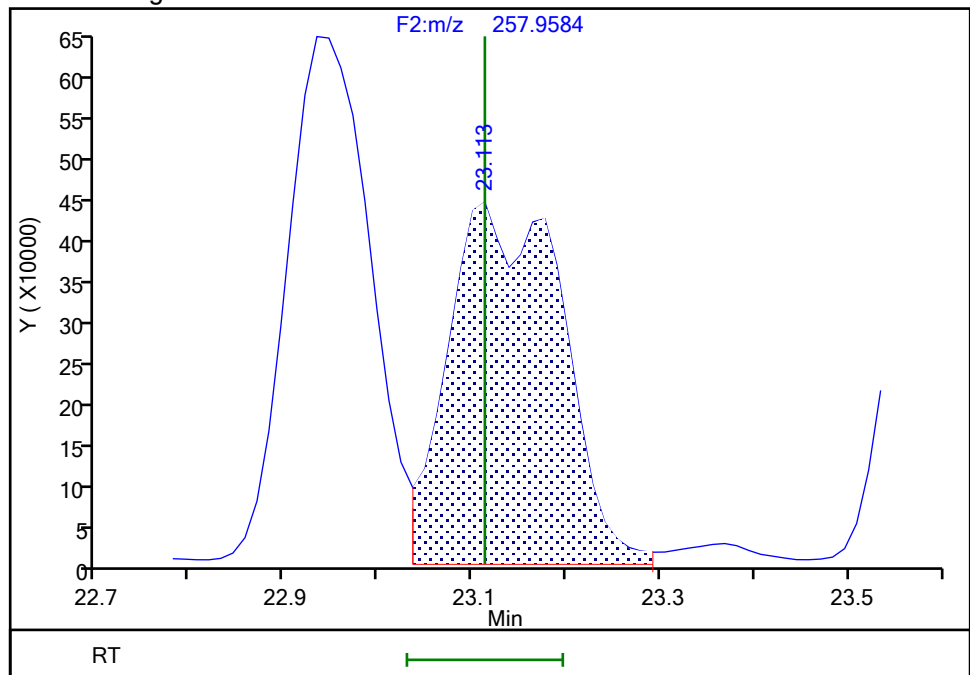
RT: 23.11  
Area: 1876282  
Amount: 52.769048  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.11  
Area: 3738637  
Amount: 105.2511  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 16-Jul-2024 18:54:15 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

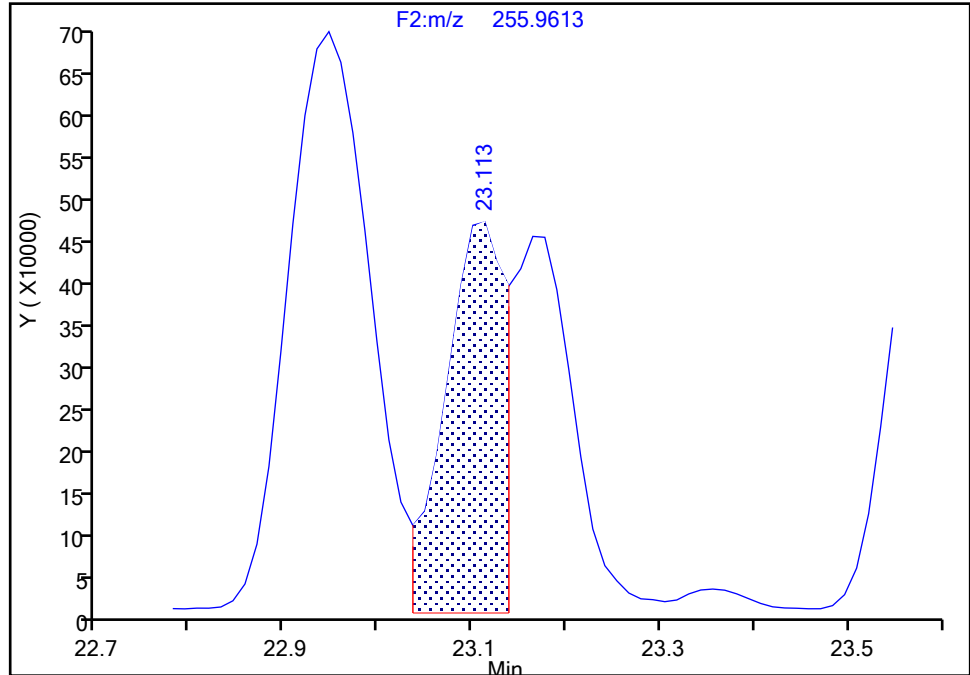
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Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 1

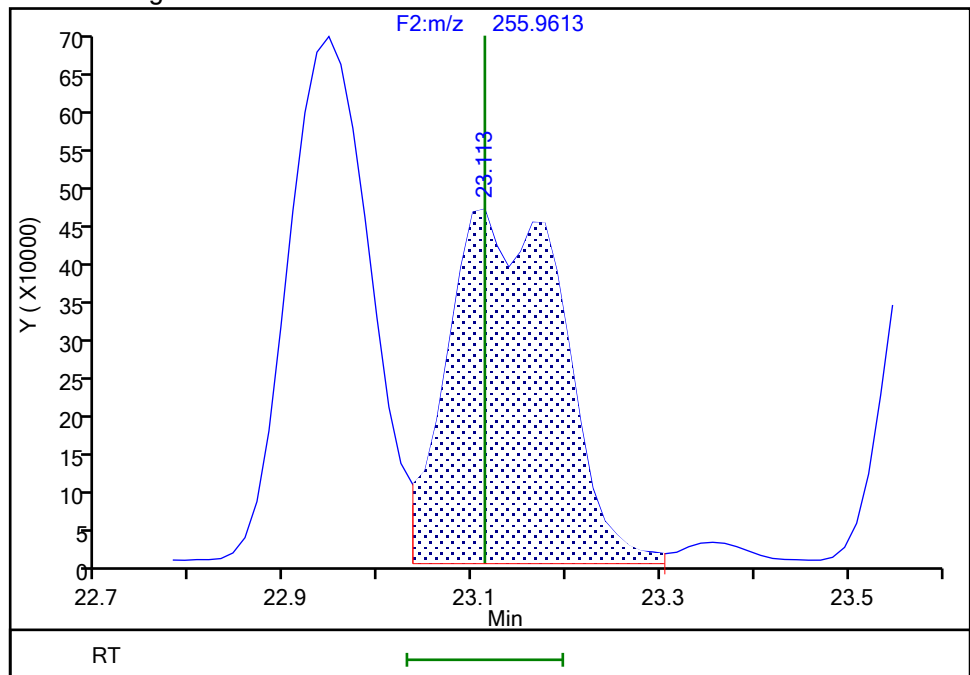
RT: 23.11  
Area: 1995222  
Amount: 52.769048  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.11  
Area: 3983313  
Amount: 105.2511  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 16-Jul-2024 18:54:21 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Page 2719 of 3199

BASFHWC-Pass 2024-07-16 13:19:54 PM  
9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

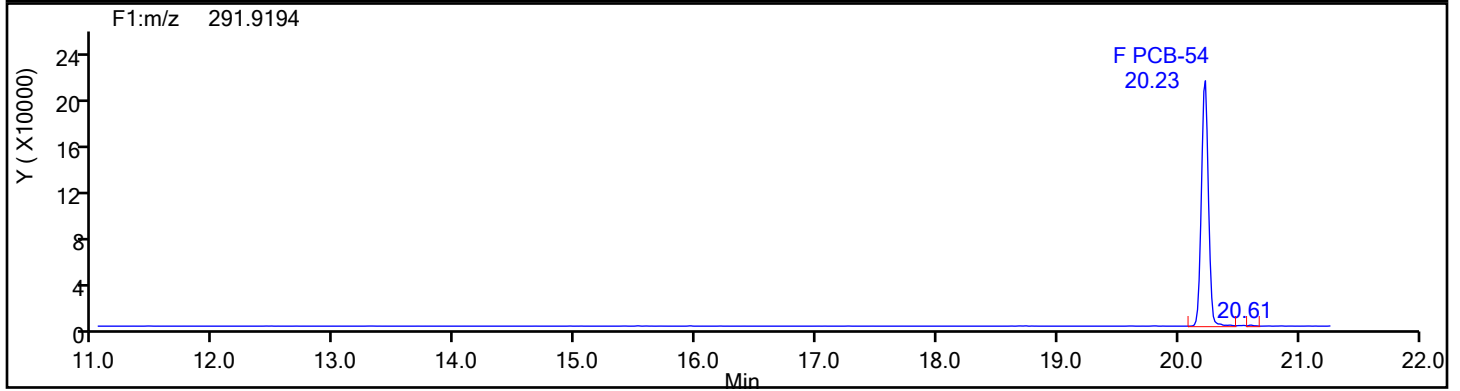
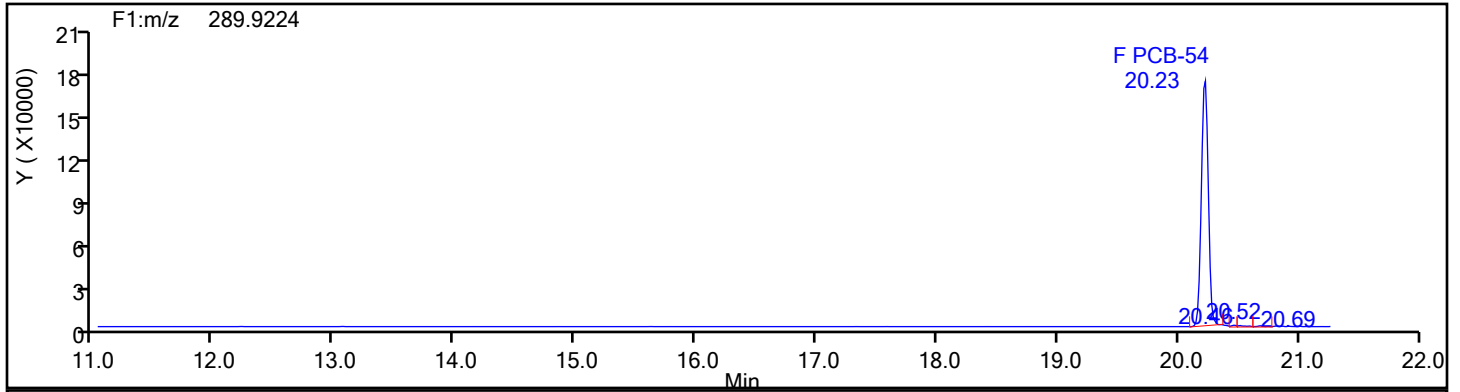
Worklist#: 88809

Sample Line#: 1

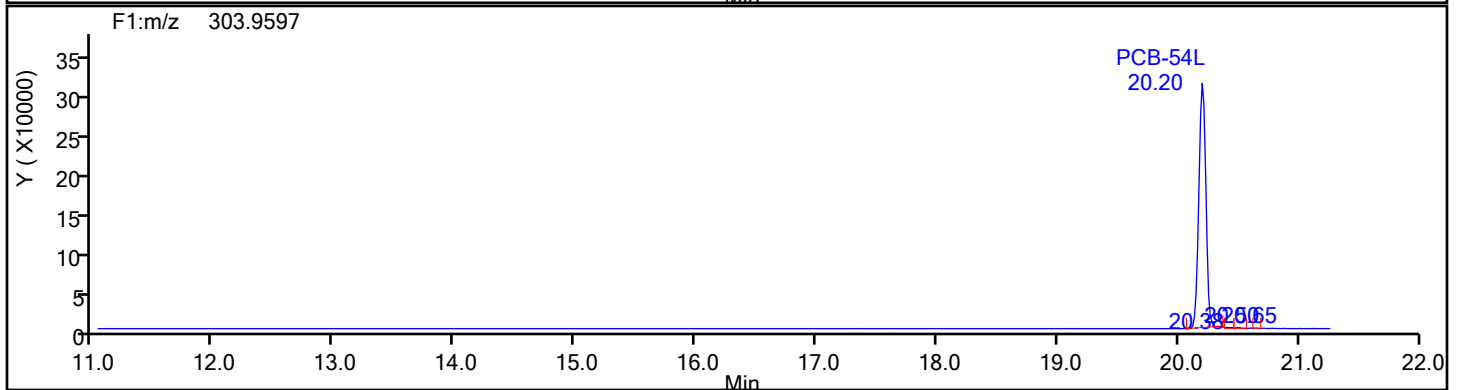
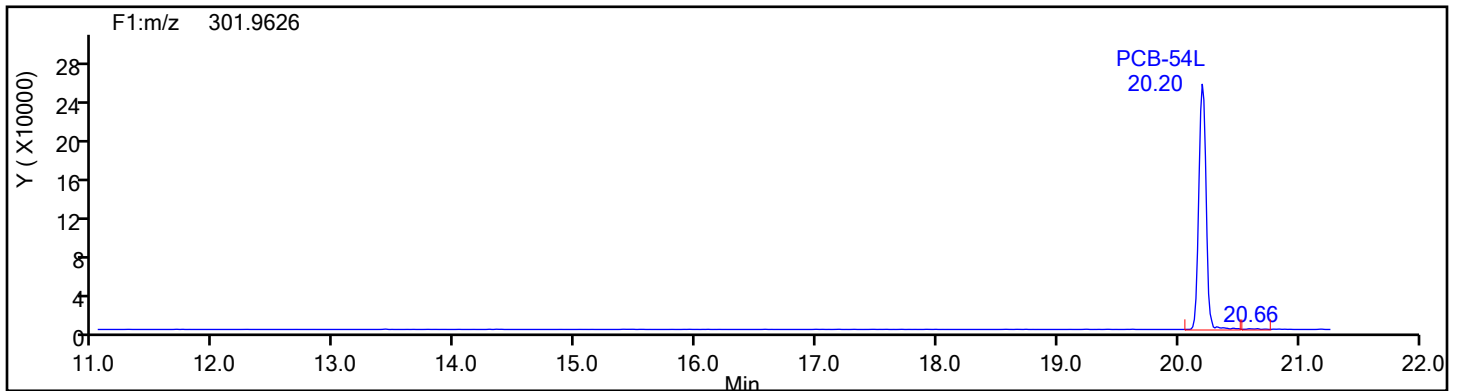
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1

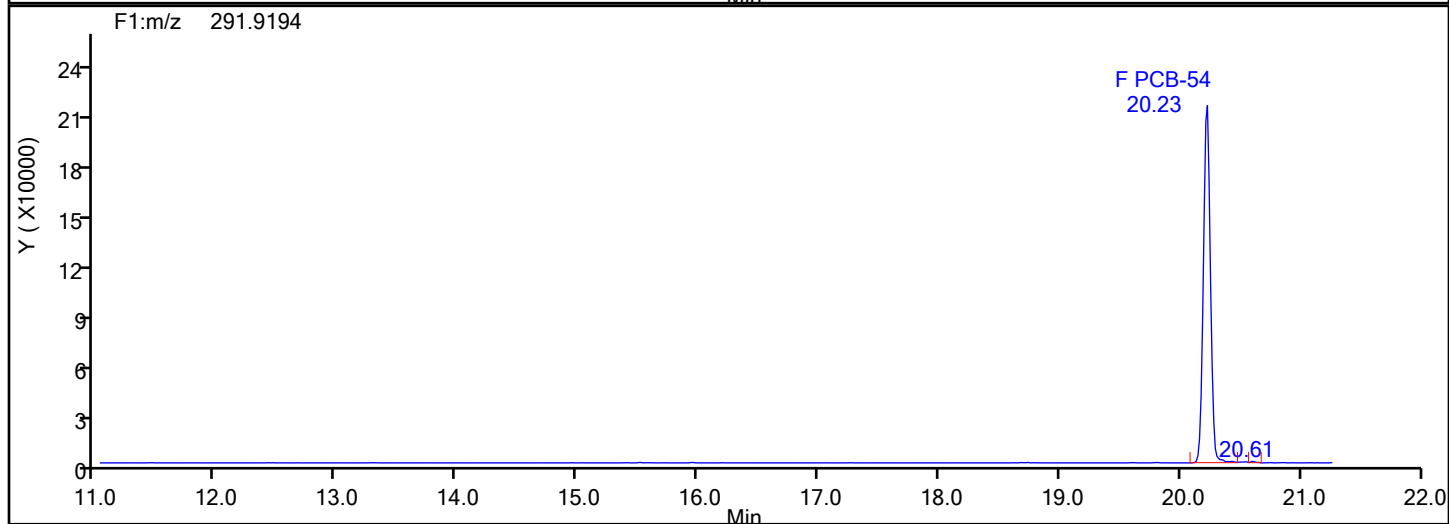
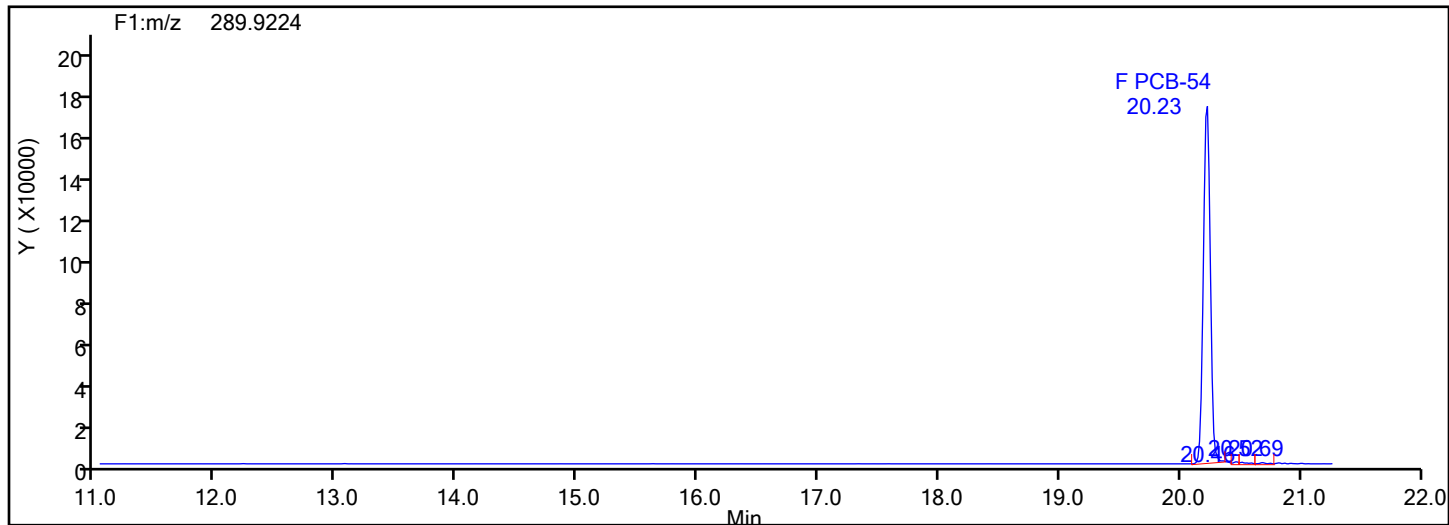


TePCB F1 Standards

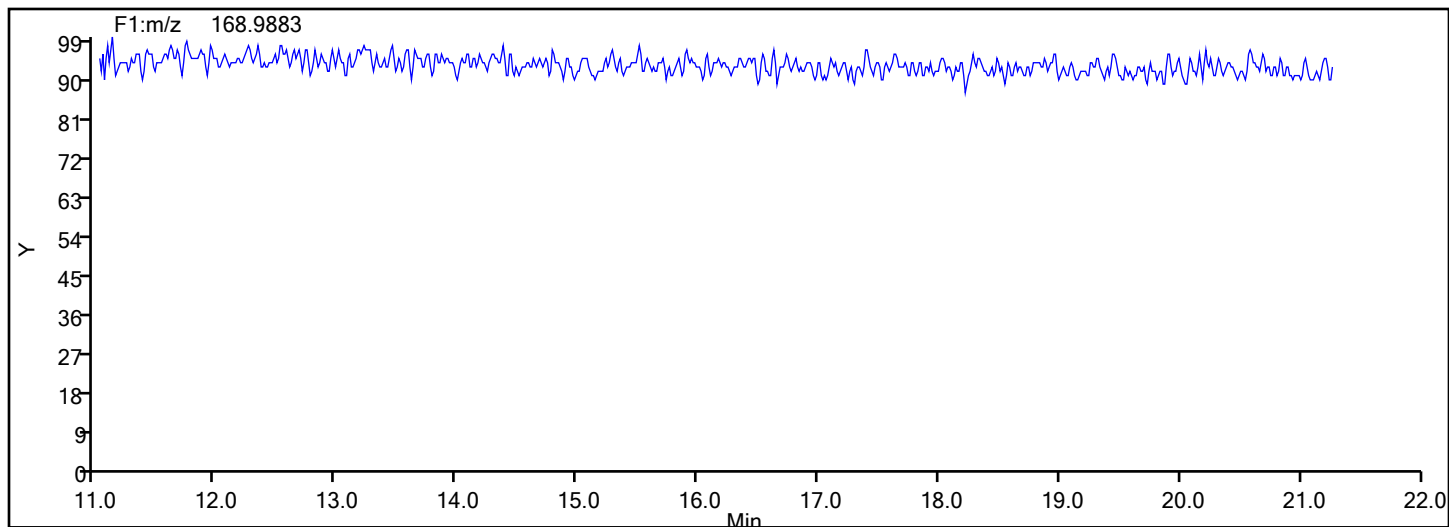


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88809 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1



## TePCB F1 Lock Mass





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

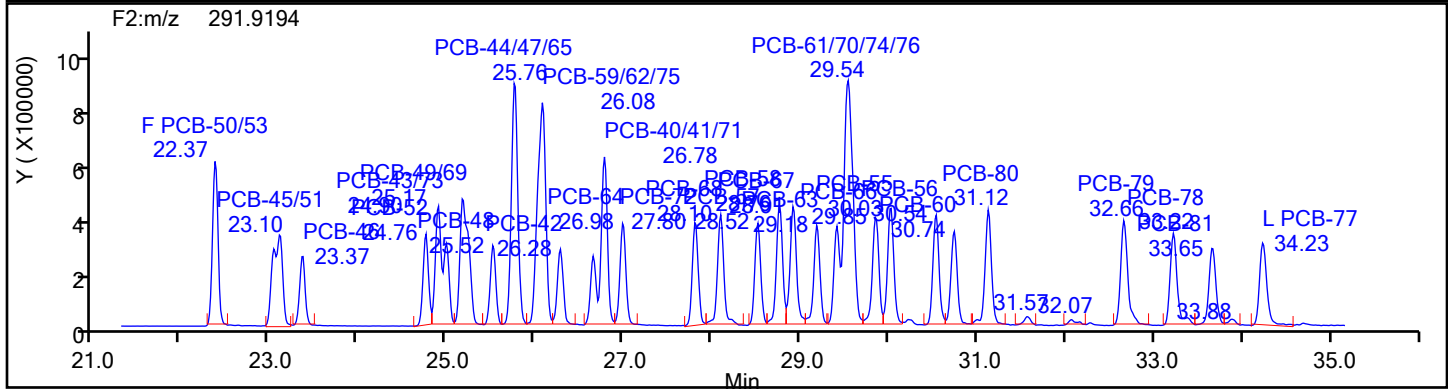
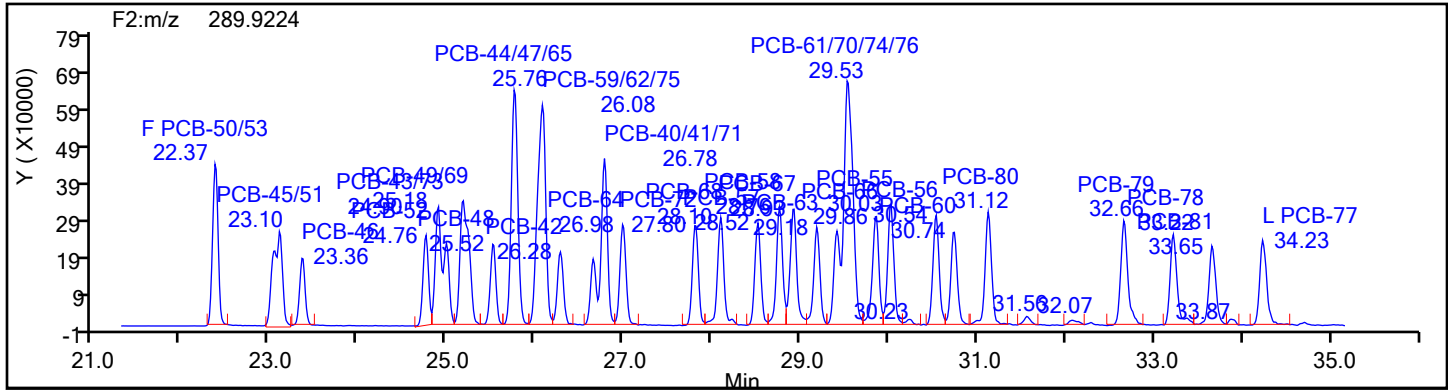
Worklist#: 88809

Sample Line#: 1

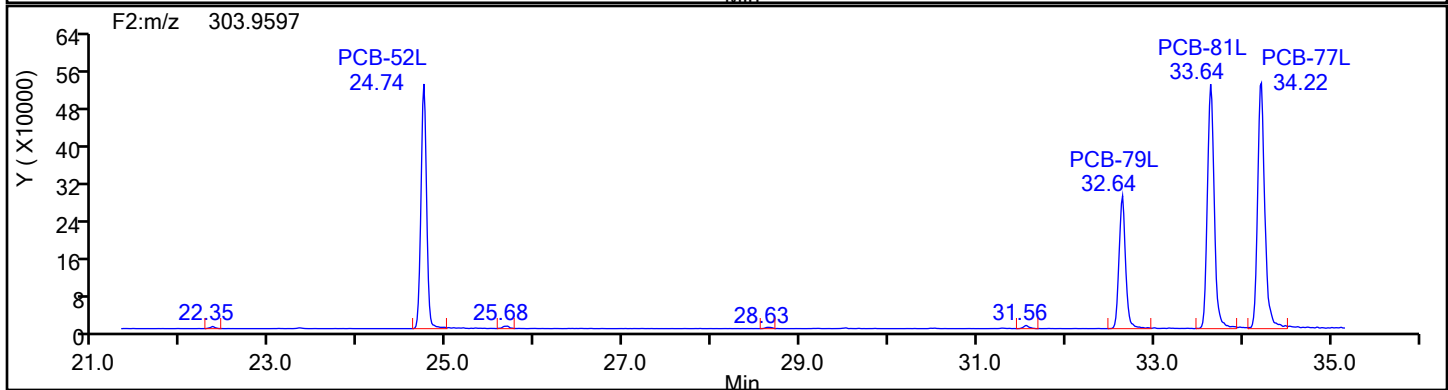
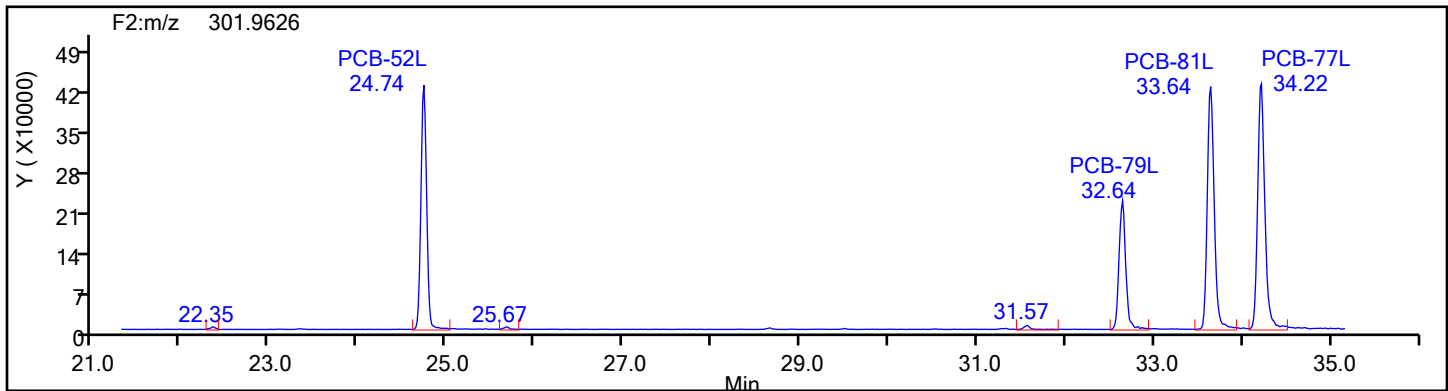
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



TePCB F2 Standards



## Eurofins Knoxville

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Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

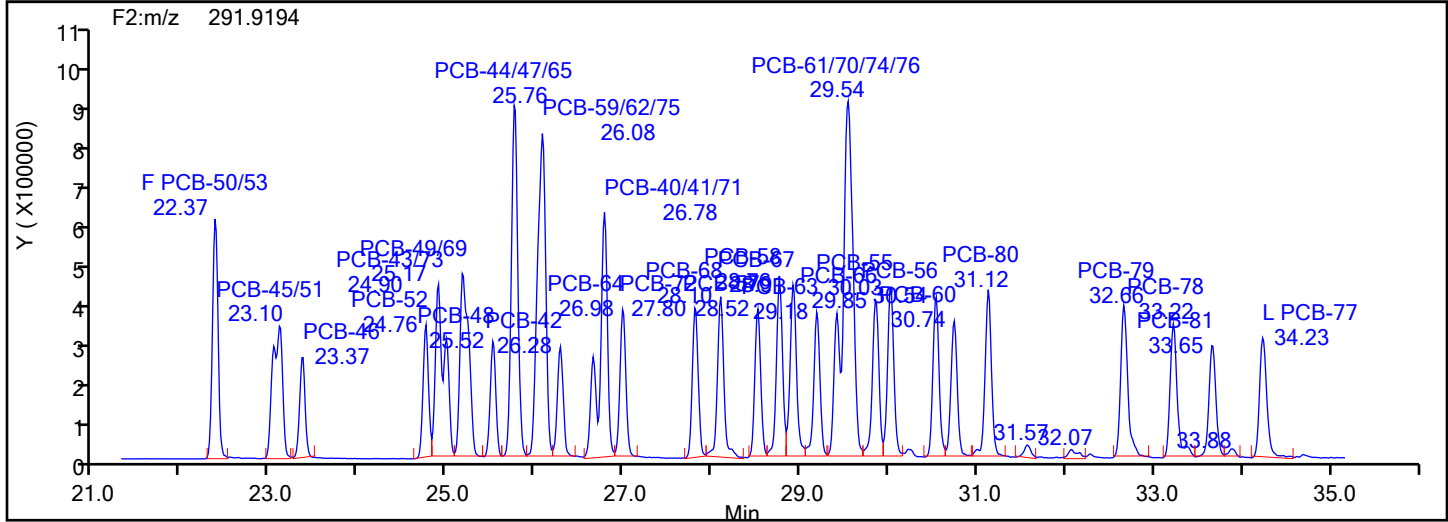
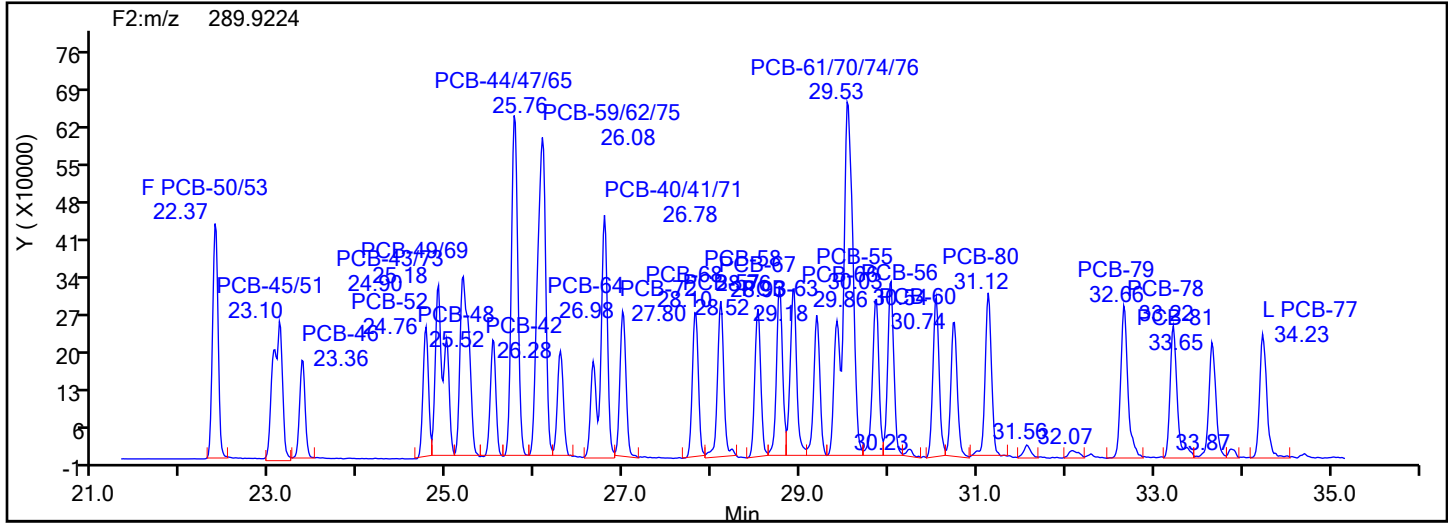
Worklist#: 88809

Sample Line#: 1

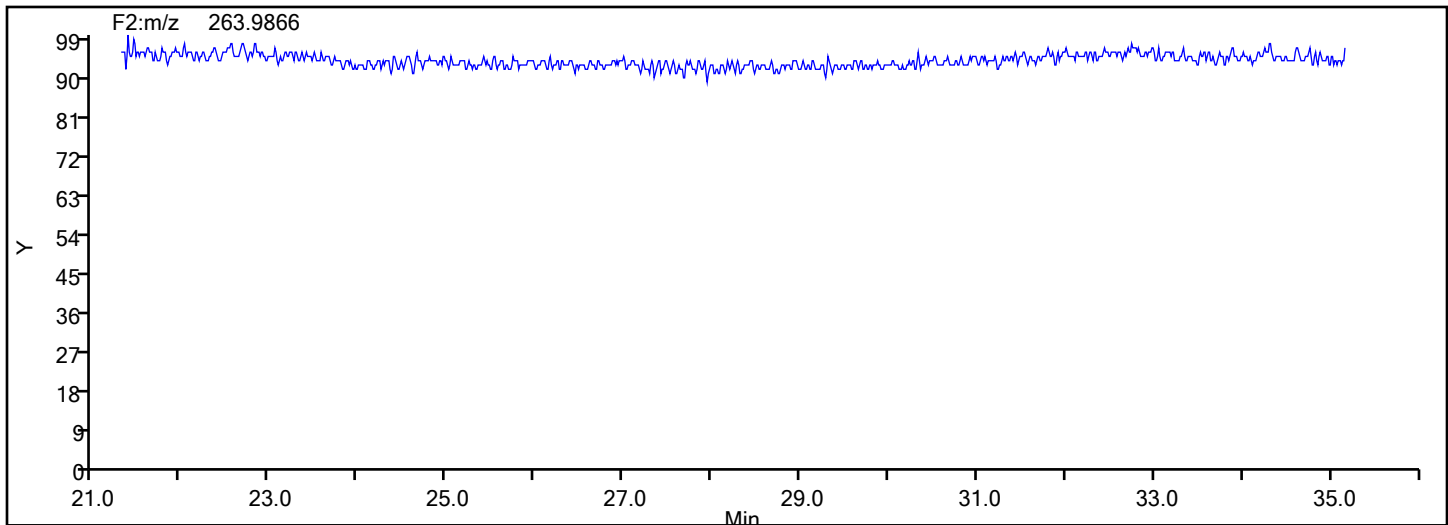
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



## TePCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Instrument ID: D2D

Lims ID: WDMCCV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

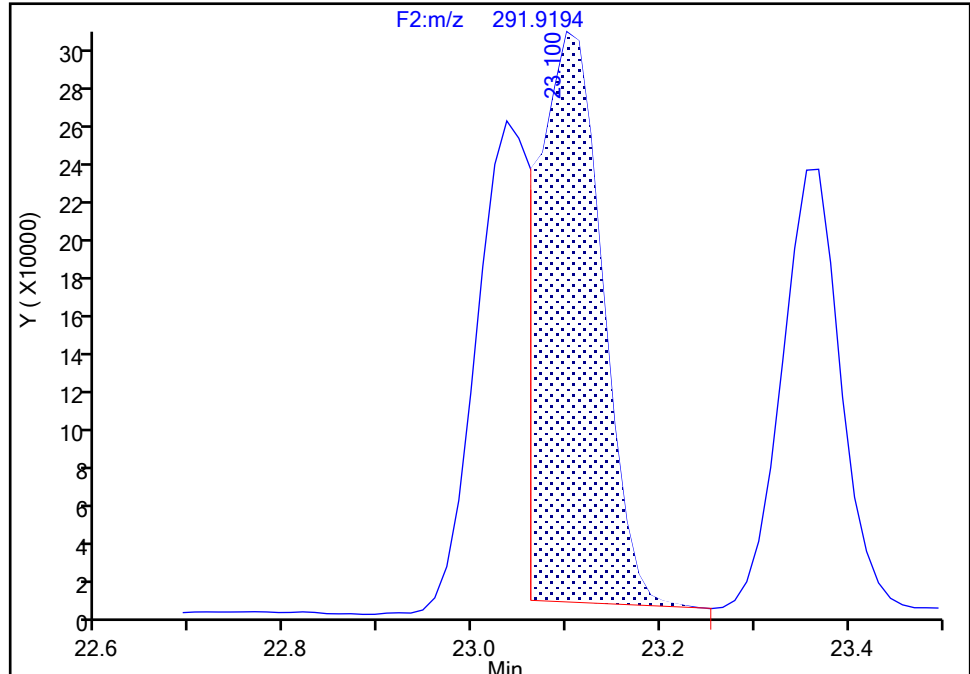
Detector F2(21.81 :35.54 )

**PCB-45/51, CAS: STL01804**

Signal: 2

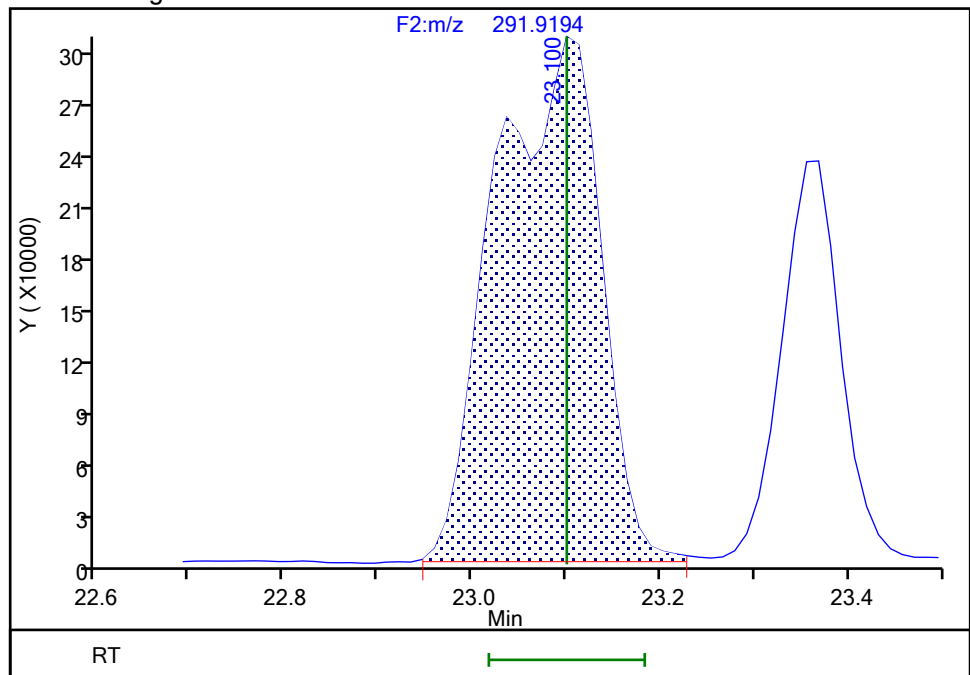
RT: 23.10  
Area: 1389479  
Amount: 53.529524  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.10  
Area: 2404480  
Amount: 99.229095  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 16-Jul-2024 18:54:34 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

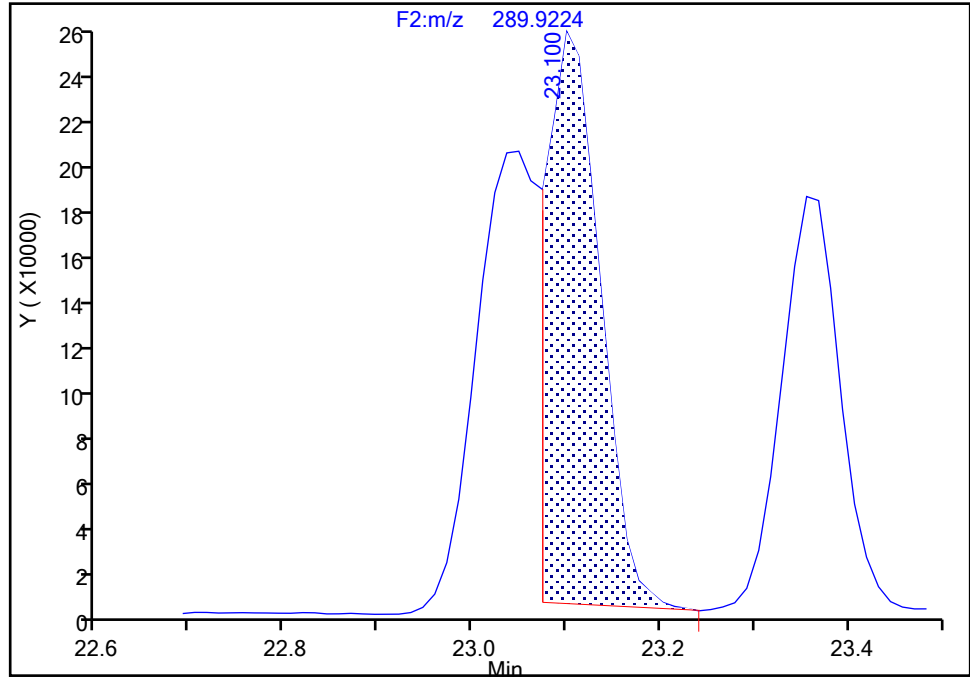
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-45/51, CAS: STL01804**

Signal: 1

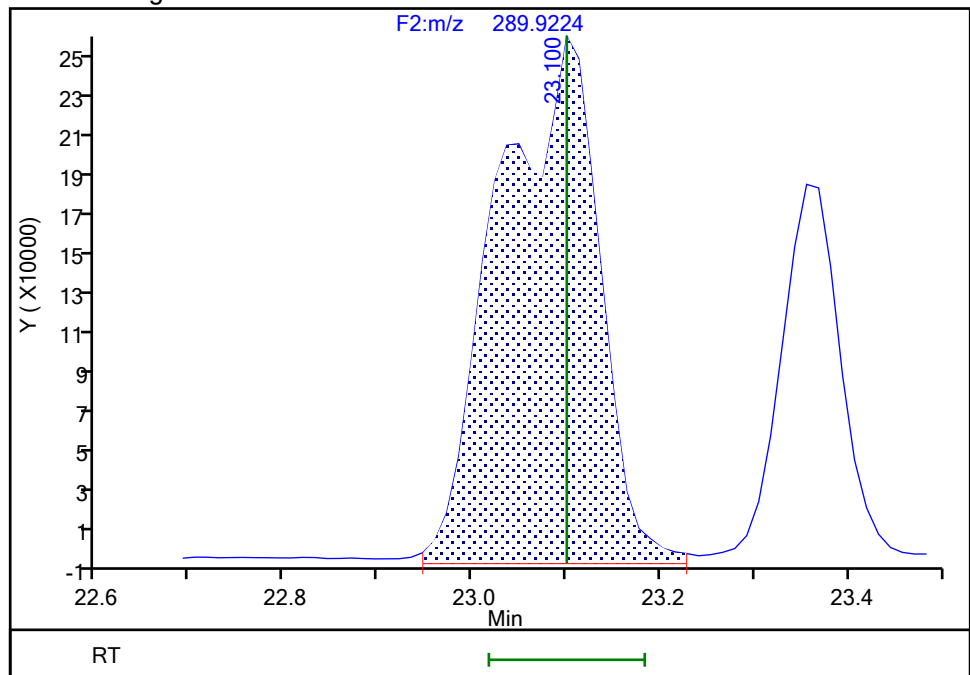
RT: 23.10  
Area: 950158  
Amount: 53.529524  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.10  
Area: 1932567  
Amount: 99.229095  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 16-Jul-2024 18:54:39 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 2024-07-16 13:37:25  
9/6/2024  
4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Instrument ID: D2D

Lims ID: WDMCCV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

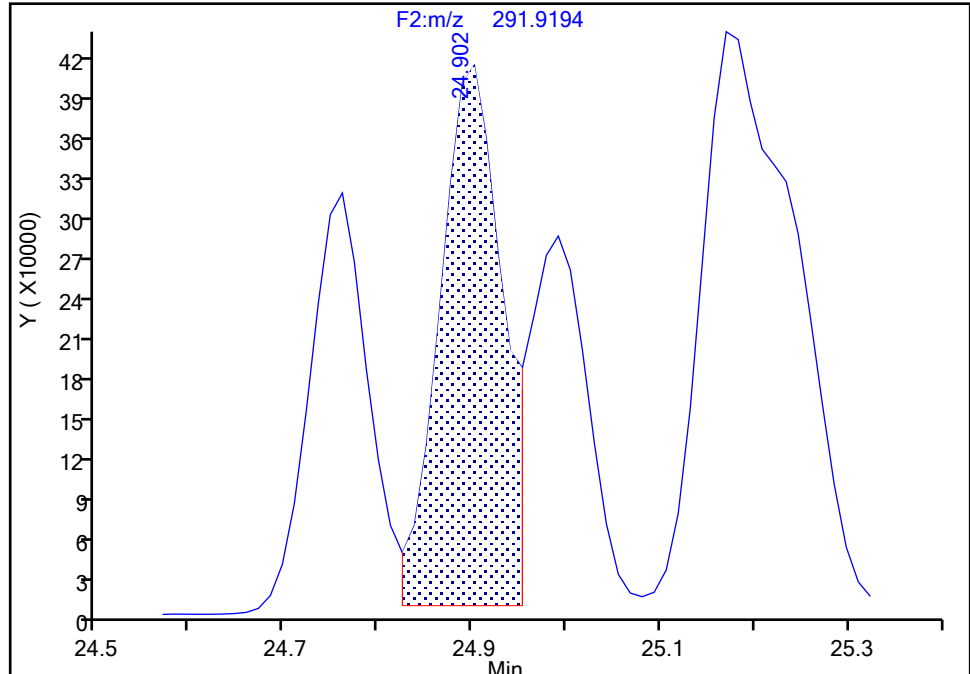
Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 2

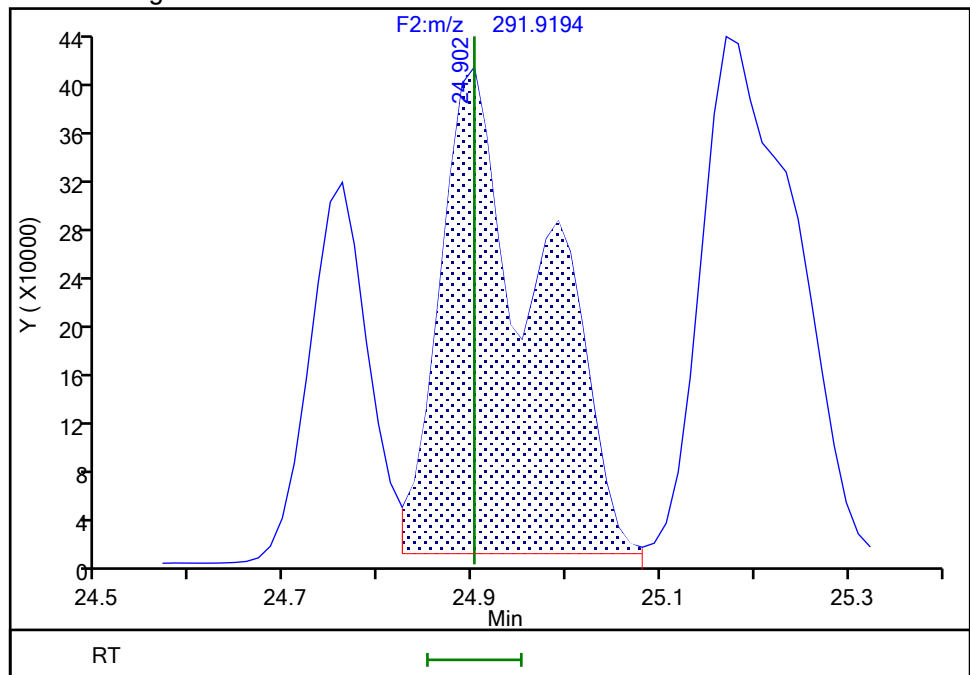
RT: 24.90  
Area: 1824797  
Amount: 59.755711  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.90  
Area: 2969855  
Amount: 97.116854  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 16-Jul-2024 18:54:47 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

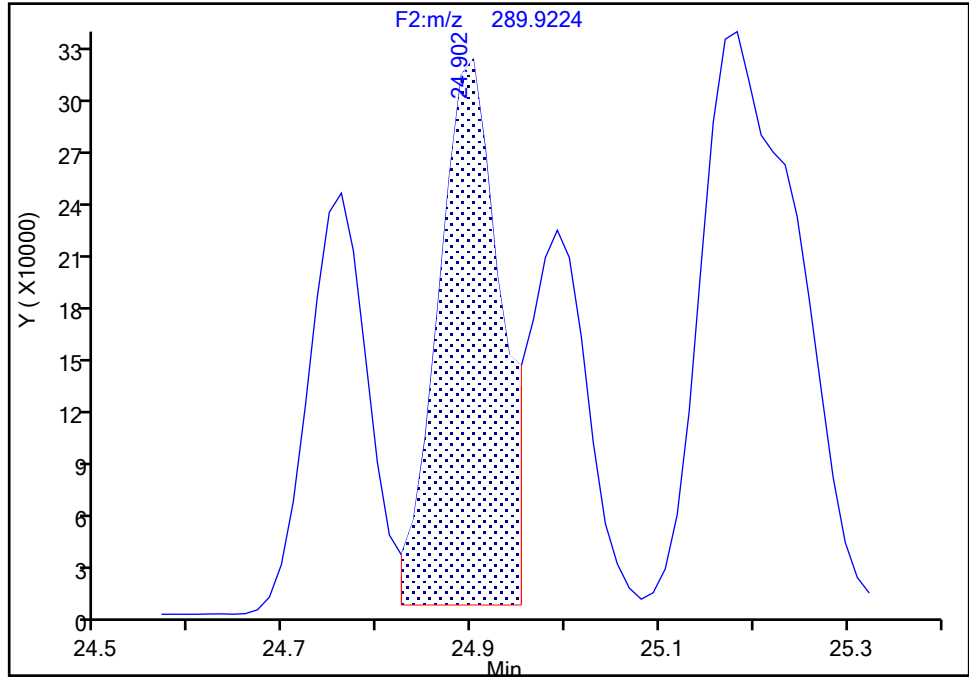
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 1

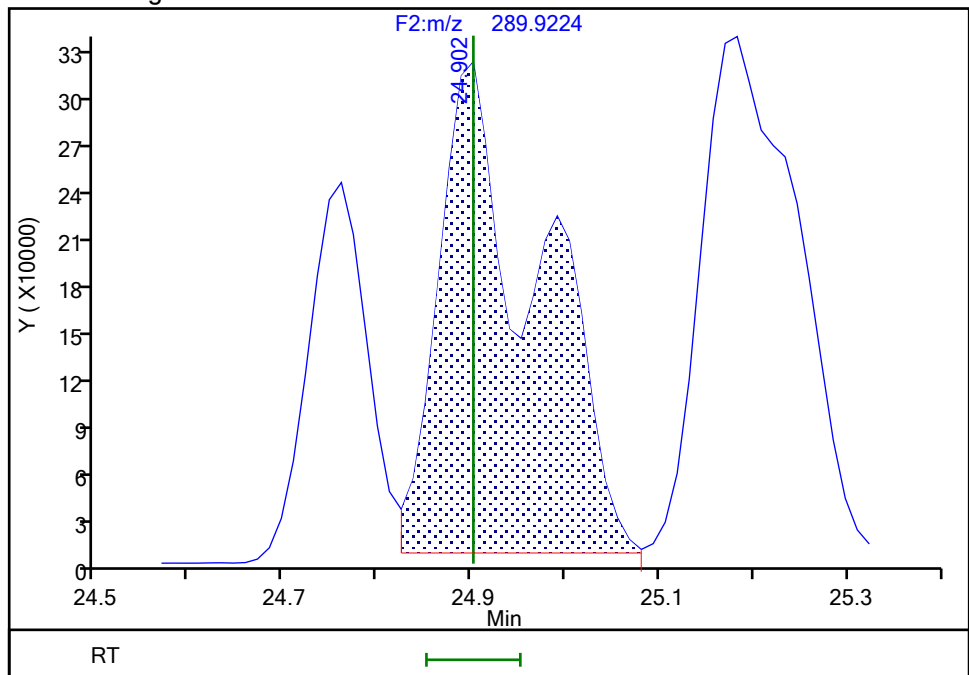
RT: 24.90  
Area: 1440887  
Amount: 59.755711  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.90  
Area: 2337637  
Amount: 97.116854  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 16-Jul-2024 18:54:52 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 2024-07-16 13:37:27  
9/6/2024  
4:19:54 PM

## Eurofins Knoxville

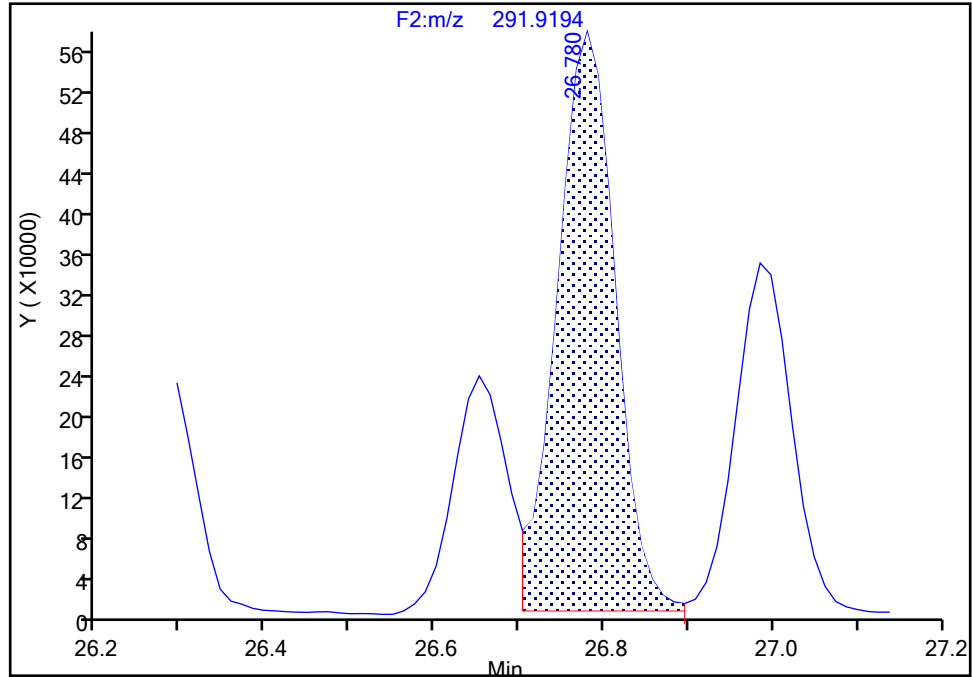
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-40/41/71, CAS: STL02292

Signal: 2

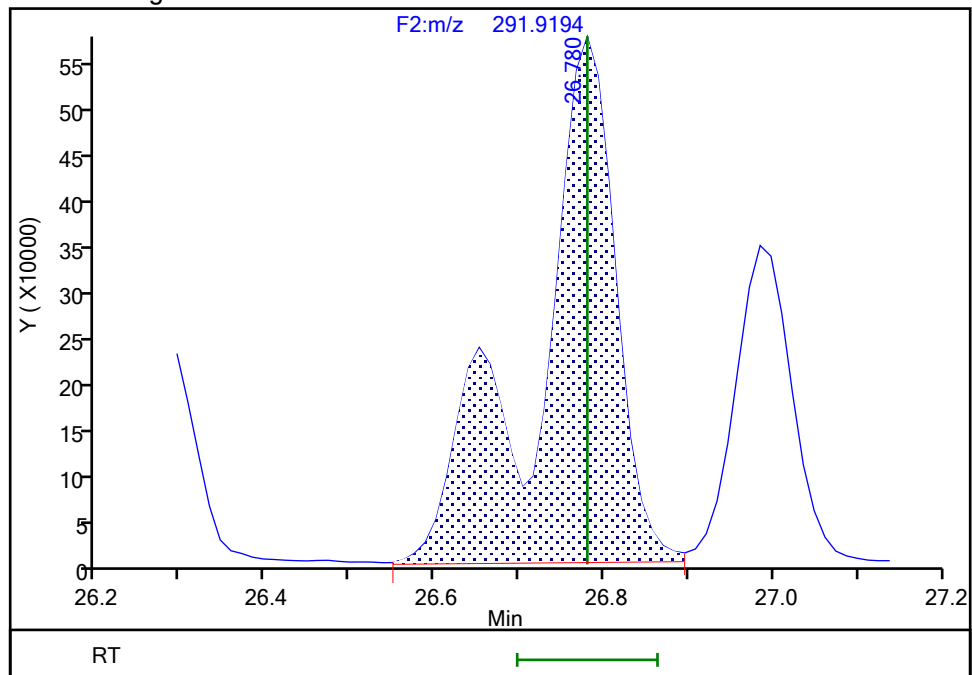
RT: 26.78  
Area: 2709477  
Amount: 102.9436  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.78  
Area: 3747804  
Amount: 142.4332  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 16-Jul-2024 18:55:03 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

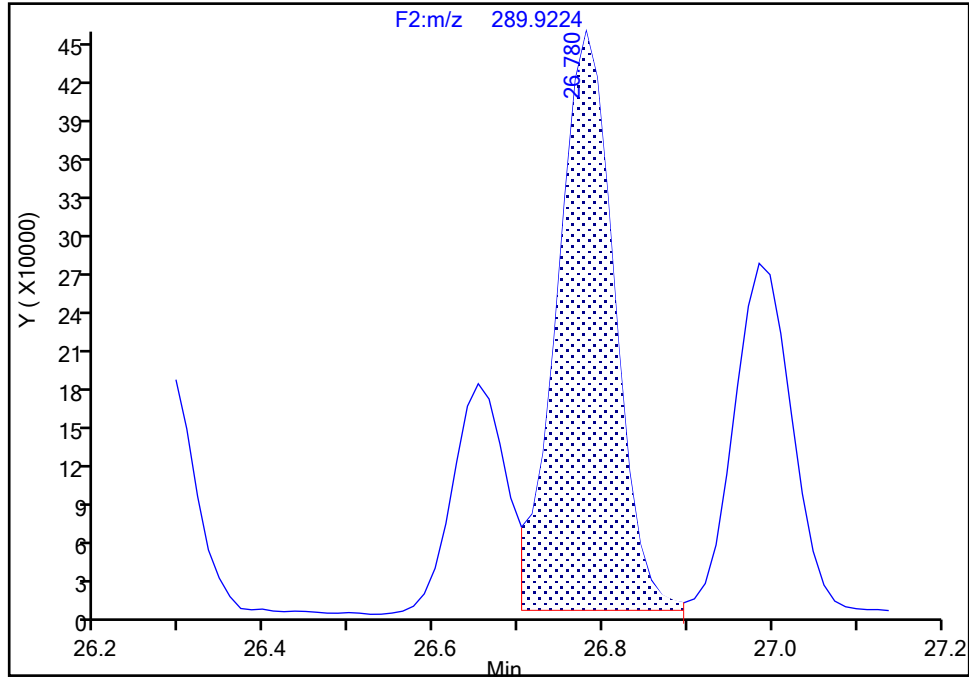
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-40/41/71, CAS: STL02292

Signal: 1

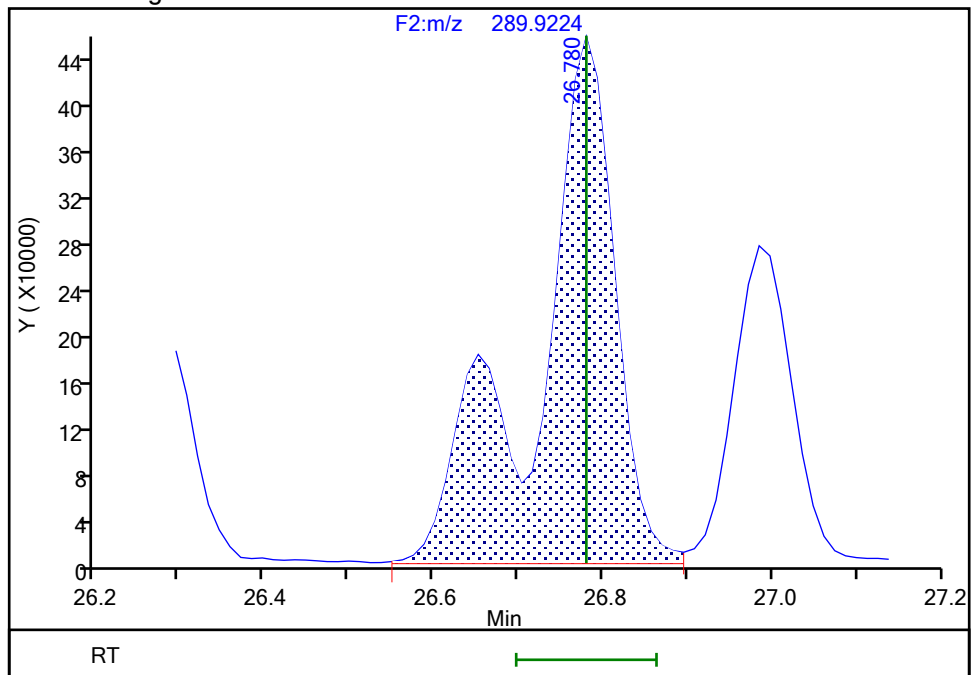
RT: 26.78  
Area: 2116080  
Amount: 102.9436  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.78  
Area: 2928856  
Amount: 142.4332  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 16-Jul-2024 18:55:09 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

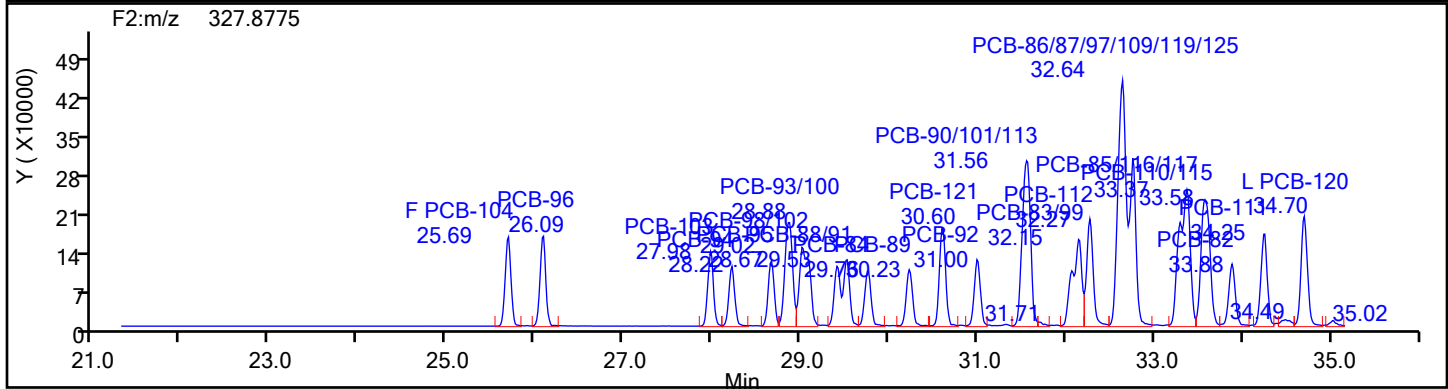
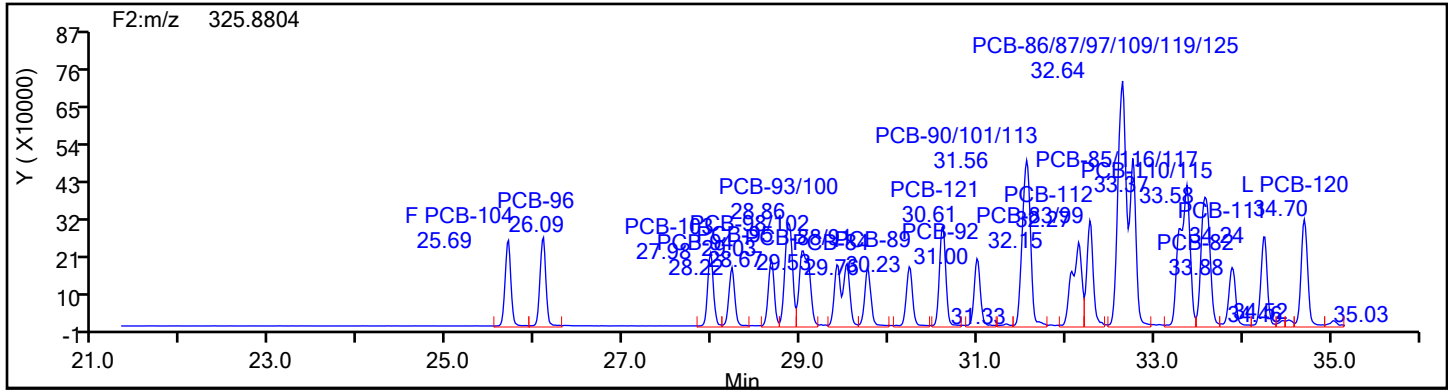
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BASFHWC-Pass 2024-07-16 13:29  
9/6/2024  
4:19:54 PM

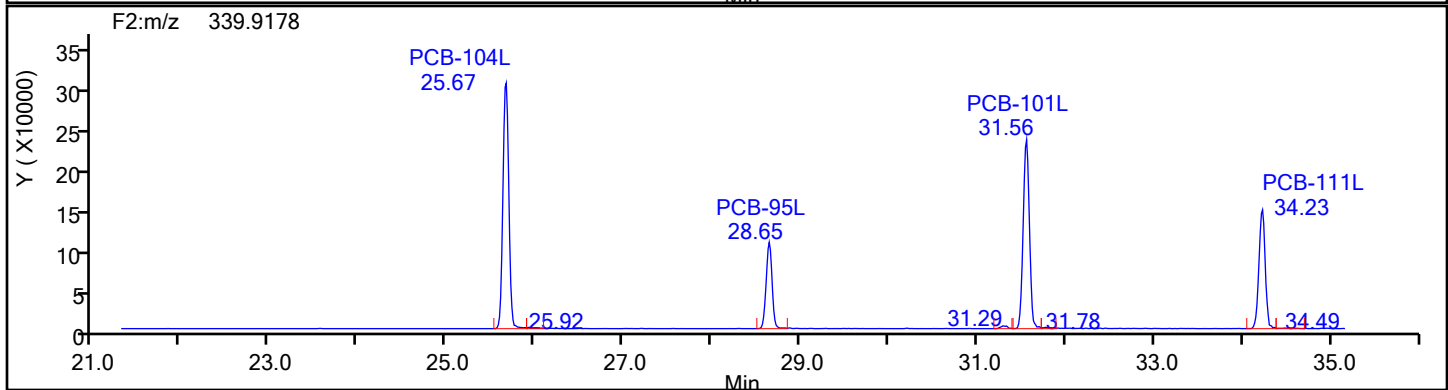
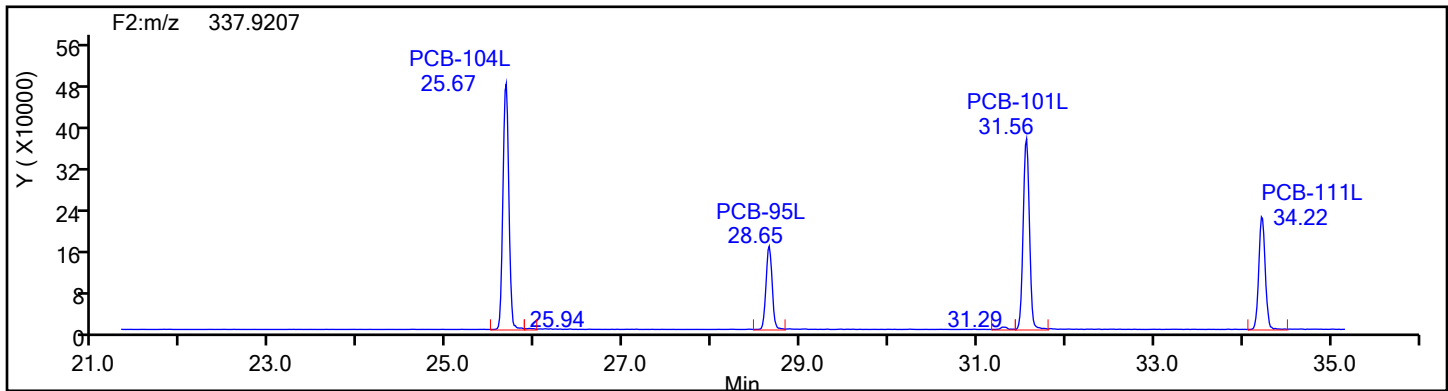


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88809 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2

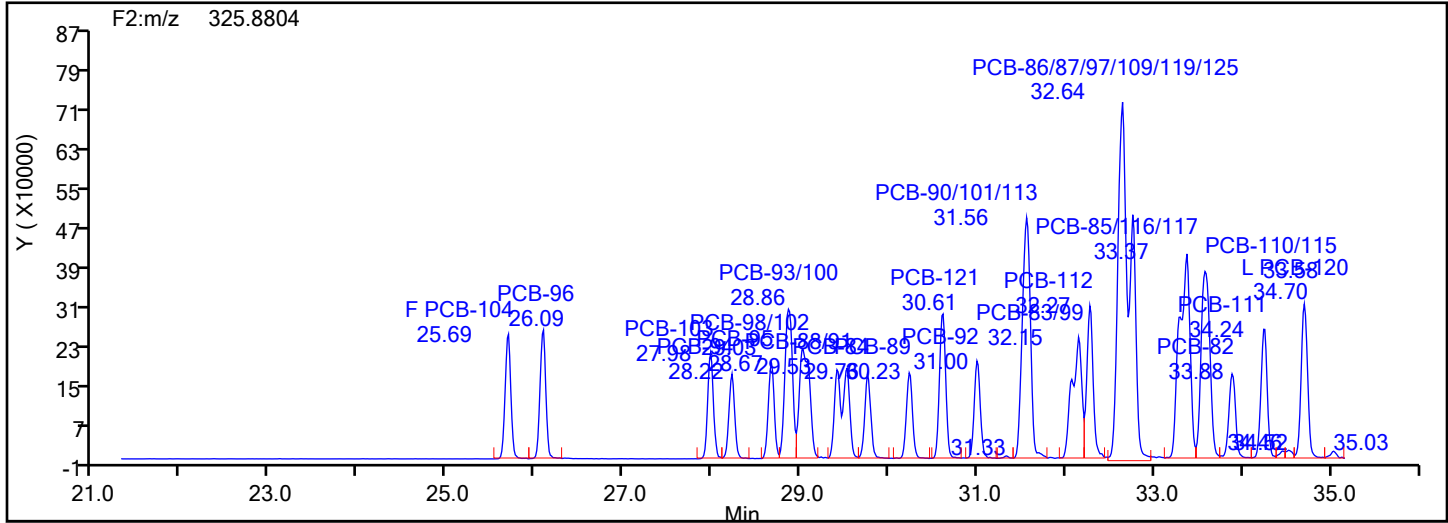


## PePCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88809 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2



## Eurofins Knoxville

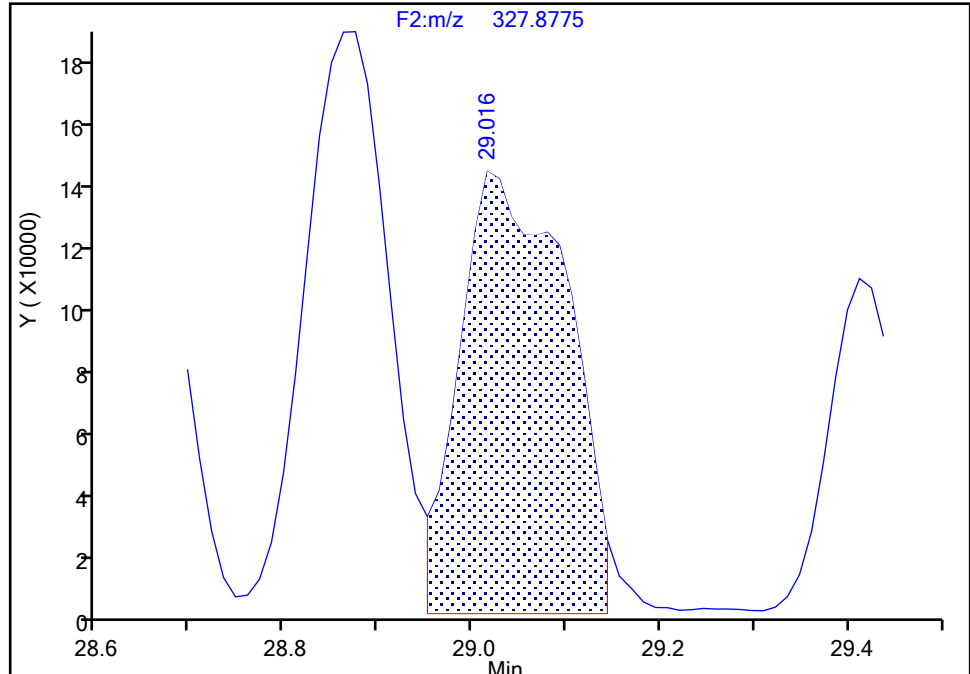
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

PCB-98/102, CAS: STL01843

Signal: 2

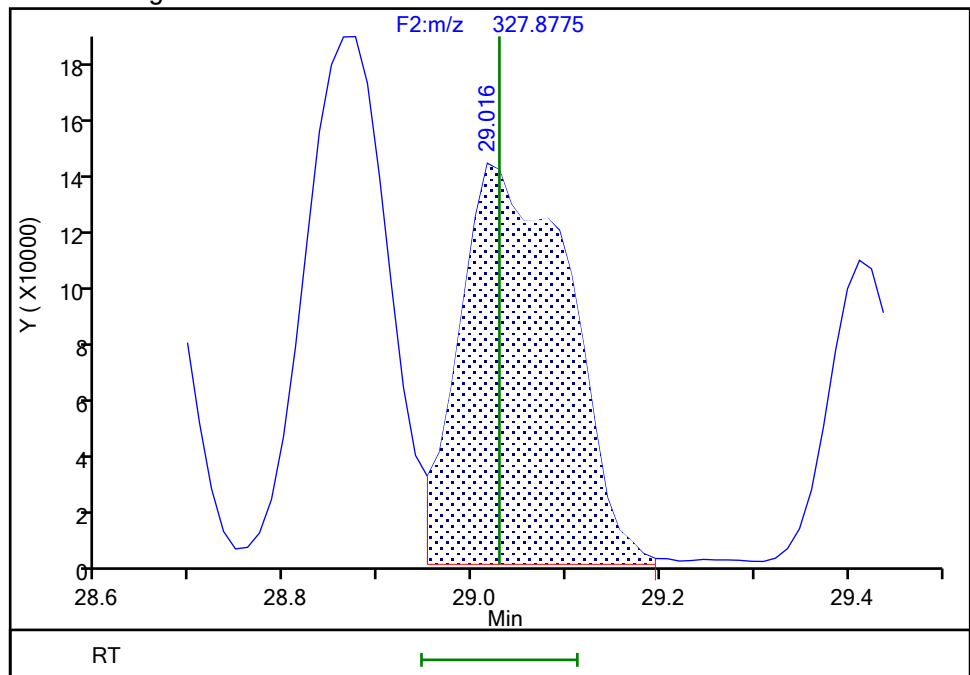
RT: 29.02  
Area: 1136595  
Amount: 97.696744  
Amount Units: pg/ul

## Processing Integration Results



RT: 29.02  
Area: 1157766  
Amount: 98.398569  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 16-Jul-2024 18:55:35 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Instrument ID: D2D

Lims ID: WDMCCV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

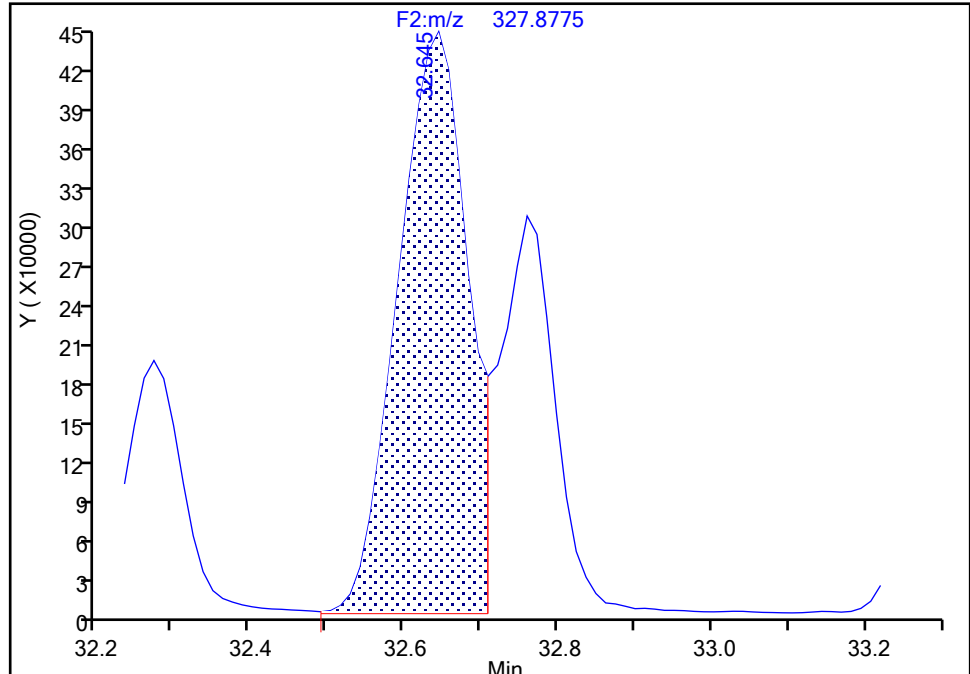
F2(21.81 :35.54 )

PCB-86/87/97/109/119/125, CAS: STL02295

Signal: 2

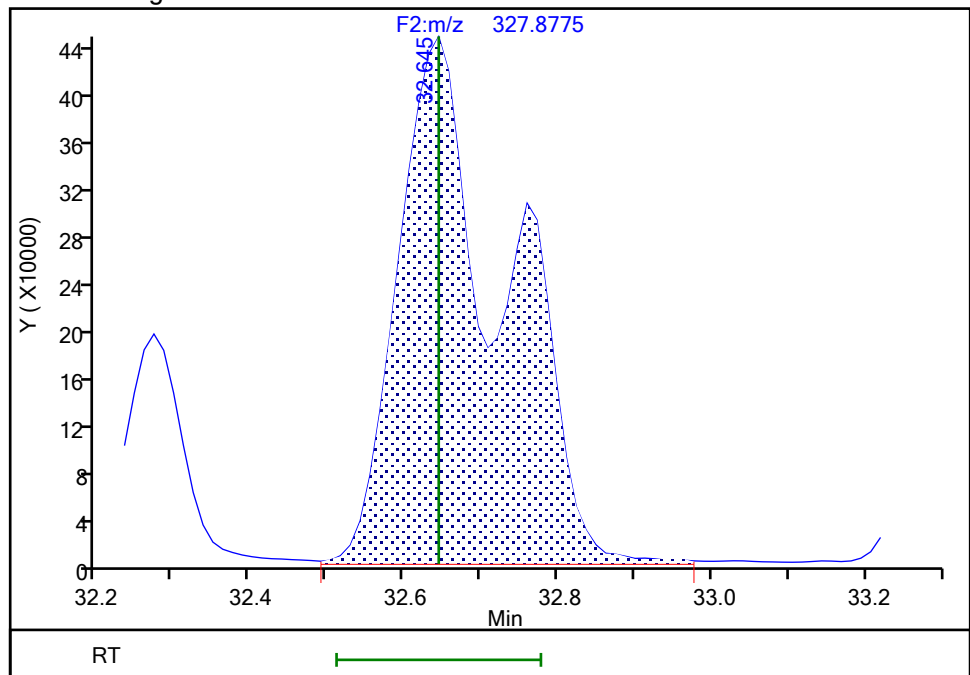
RT: 32.64  
Area: 2795319  
Amount: 190.1257  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.64  
Area: 4301396  
Amount: 294.8237  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 16-Jul-2024 18:55:50 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

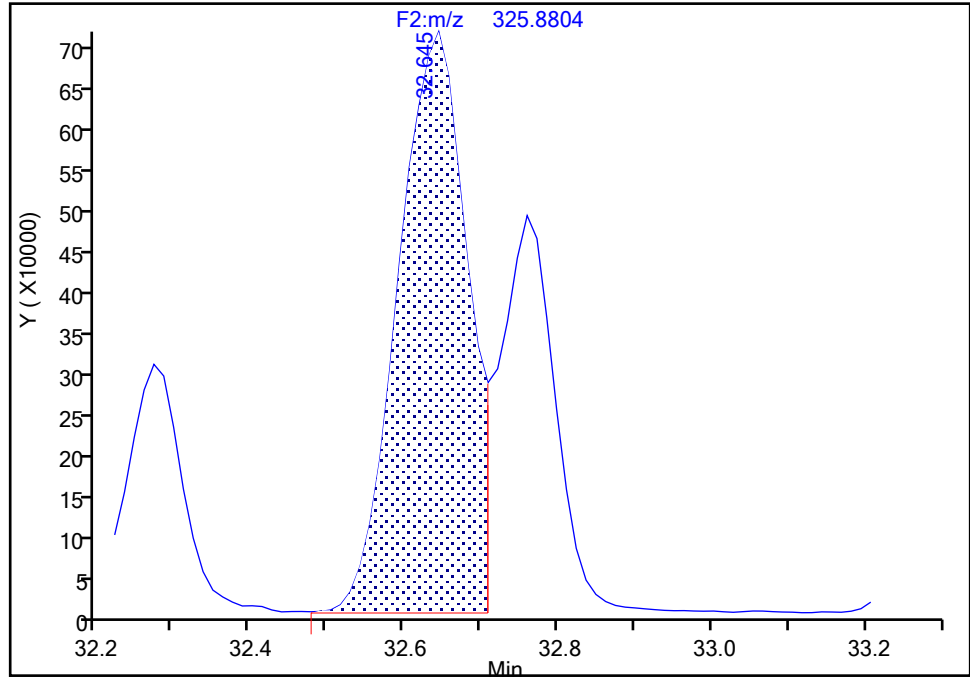
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-86/87/97/109/119/125, CAS: STL02295

Signal: 1

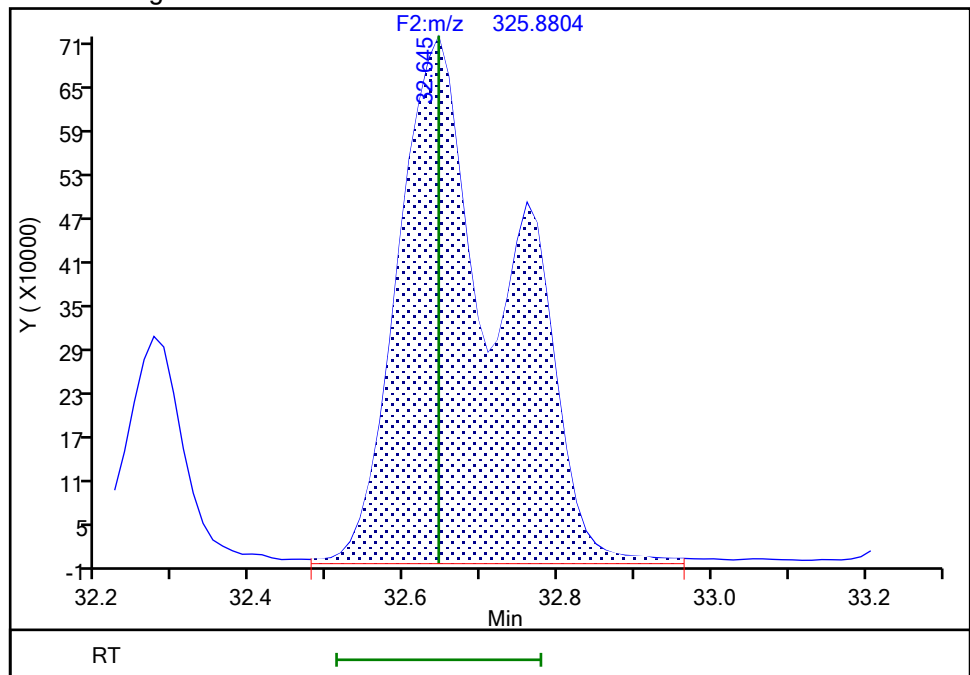
RT: 32.64  
Area: 4474944  
Amount: 190.1257  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.64  
Area: 6972443  
Amount: 294.8237  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 16-Jul-2024 18:55:57 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

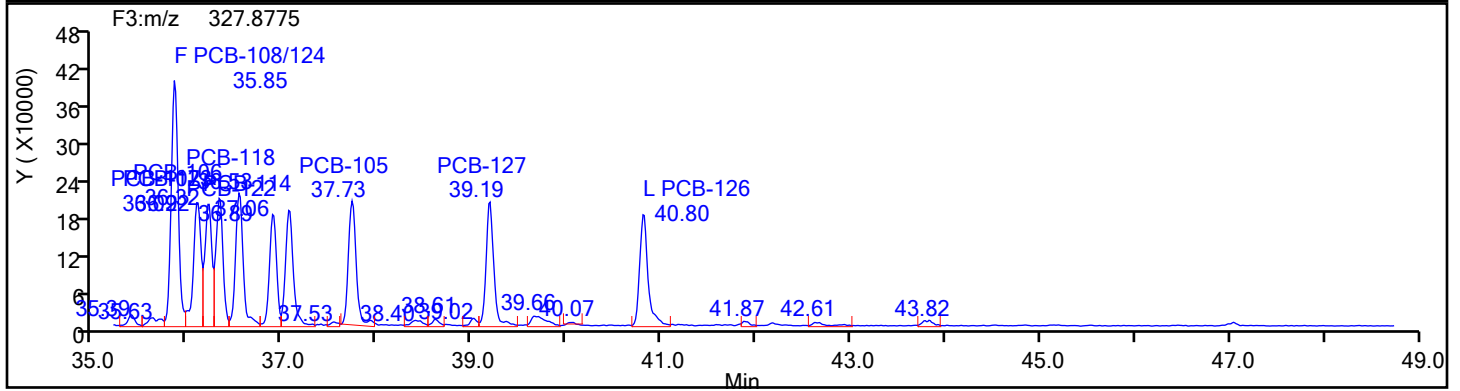
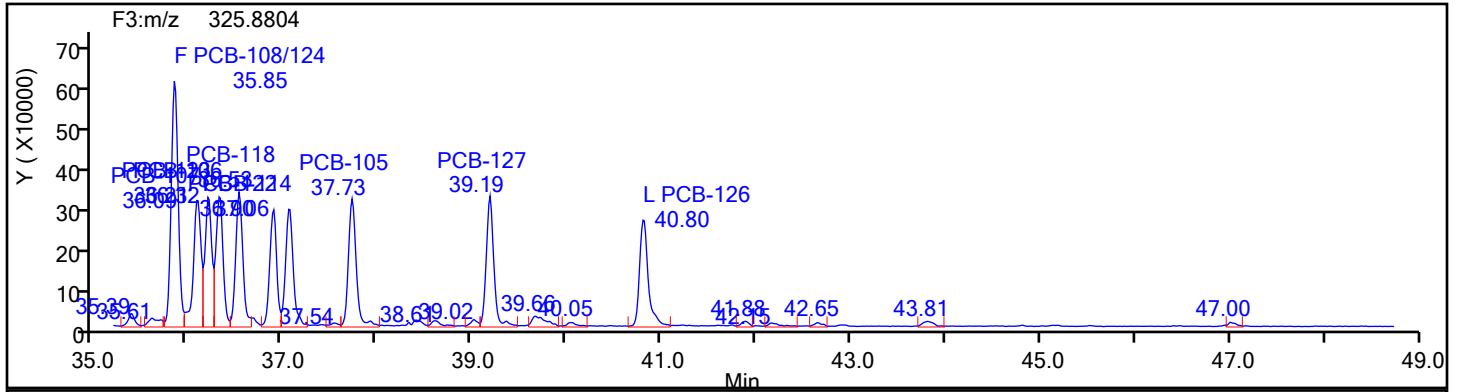
Worklist#: 88809

Sample Line#: 1

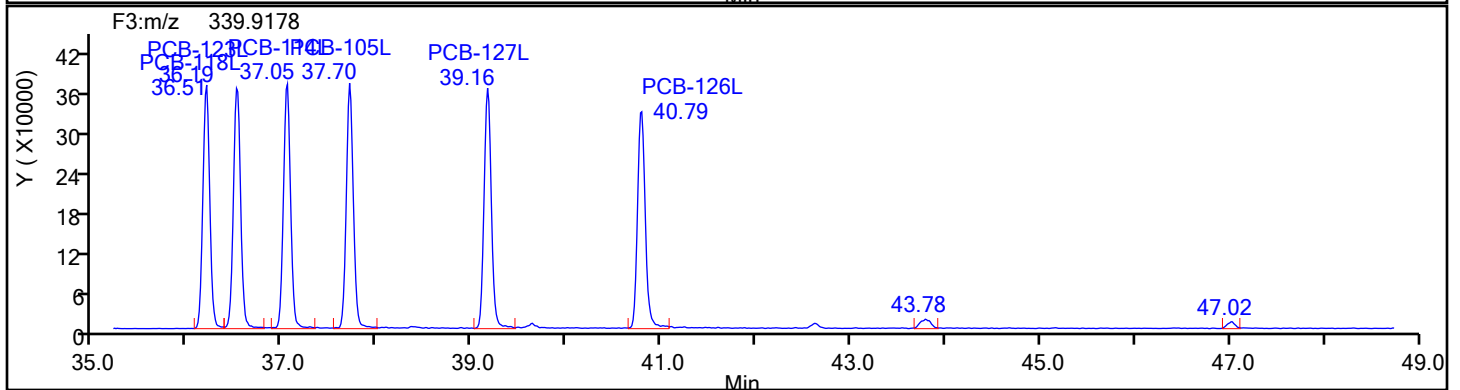
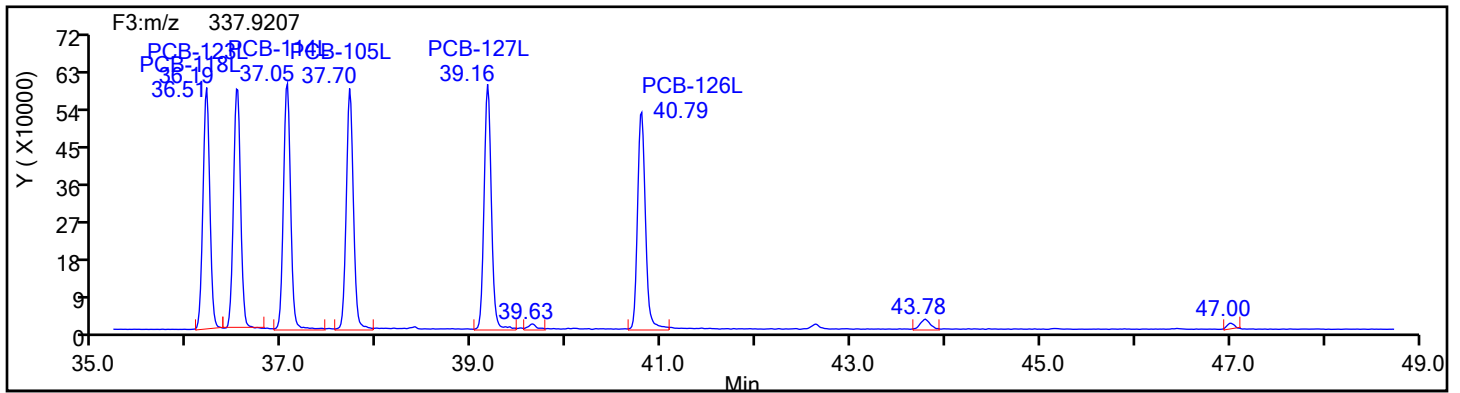
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



PePCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

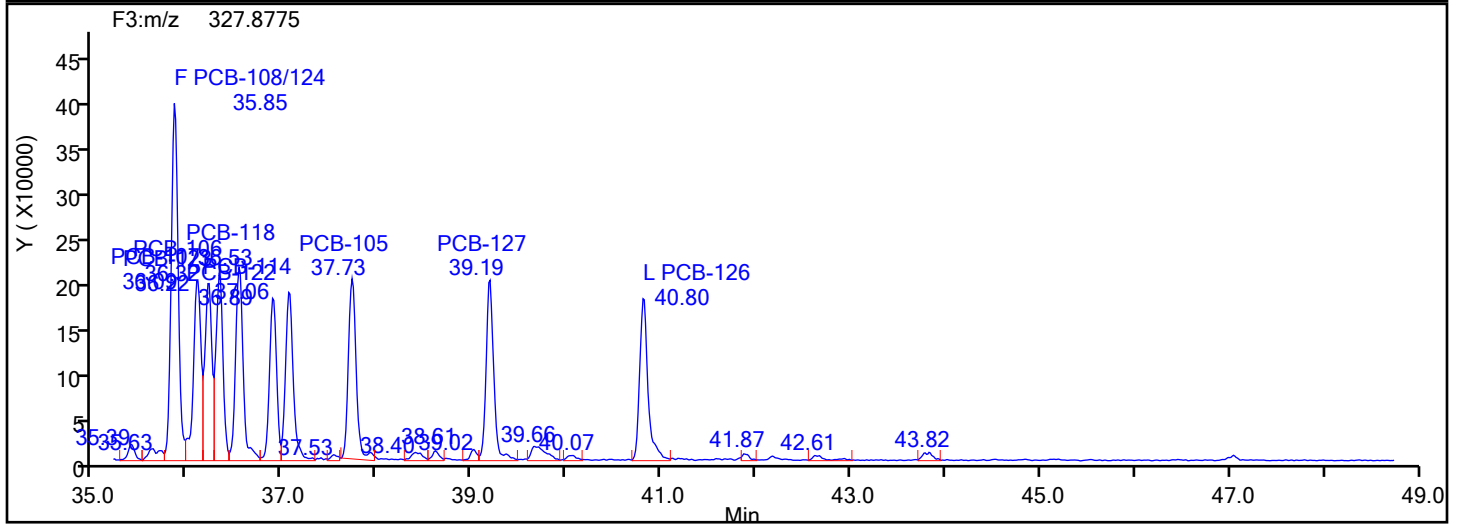
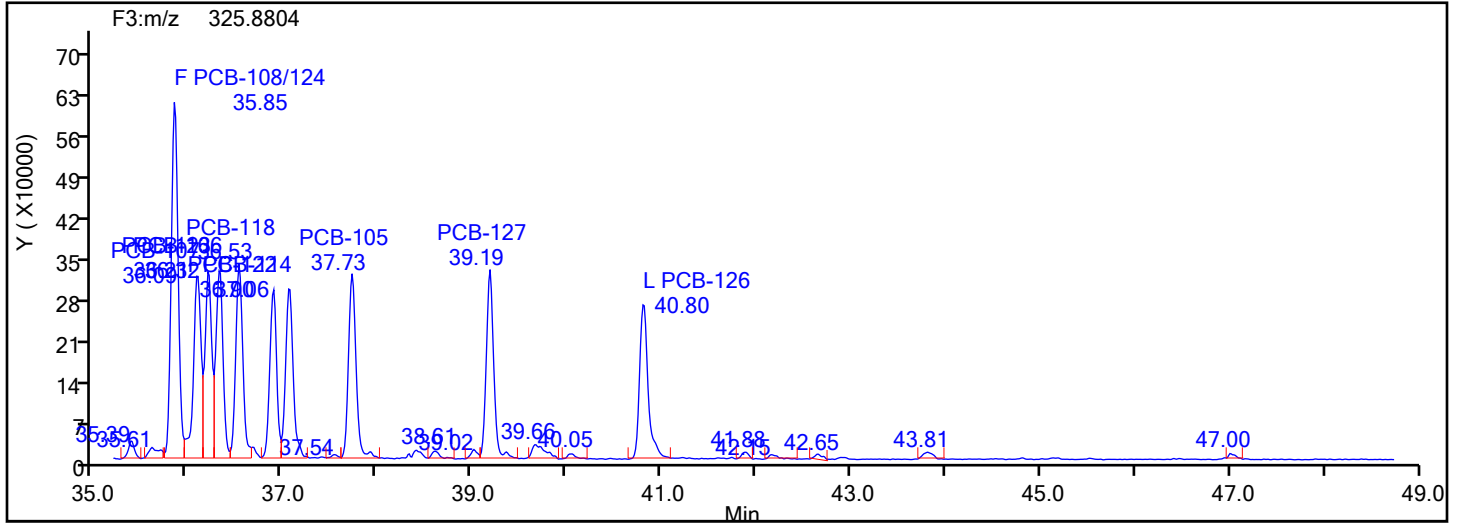
Worklist#: 88809

Sample Line#: 1

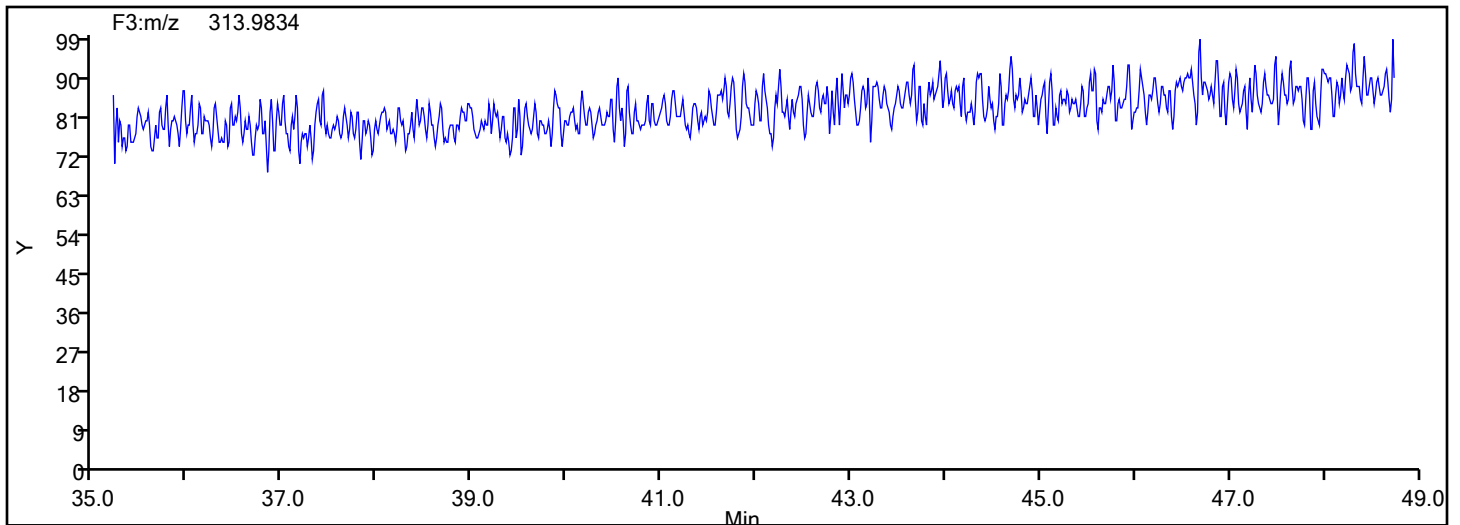
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3

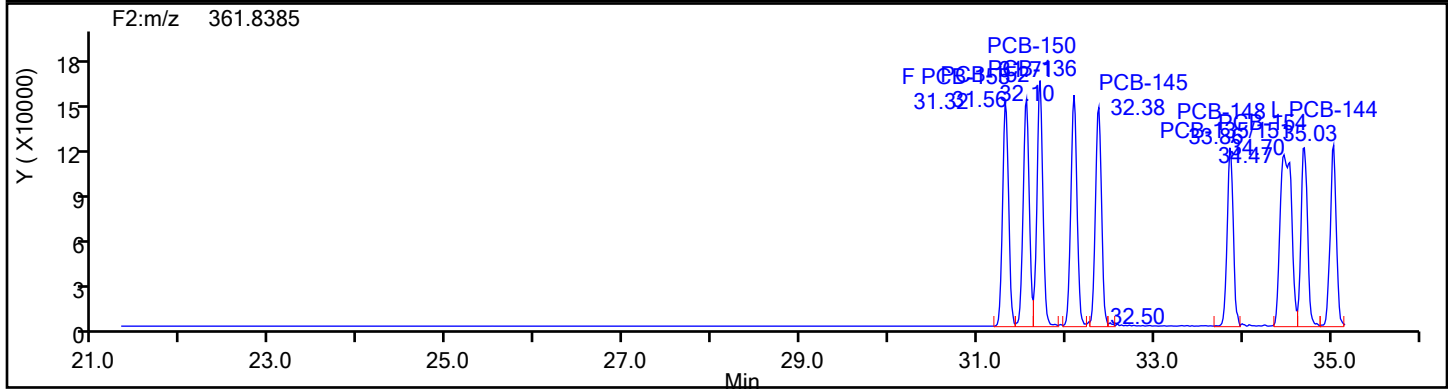
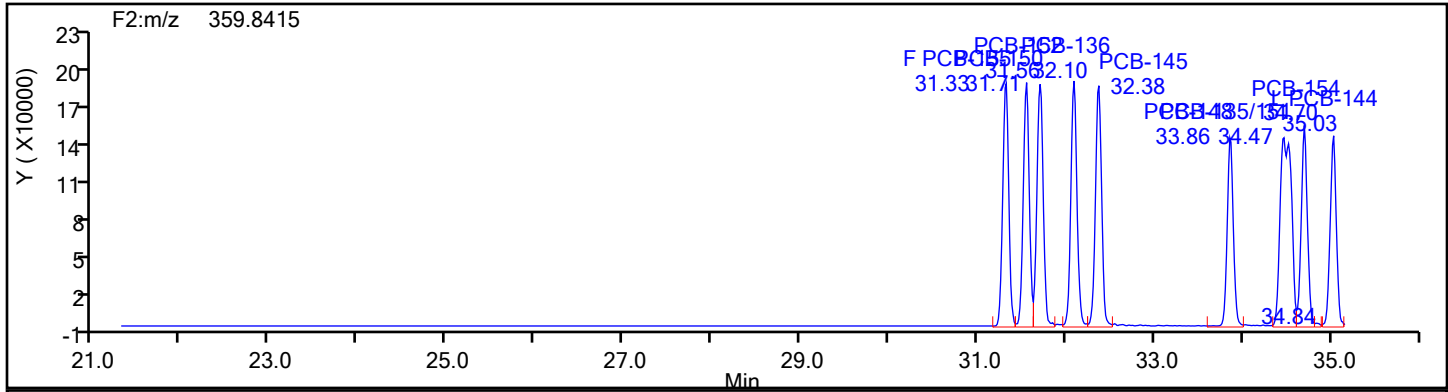


## PePCB F3 Lock Mass

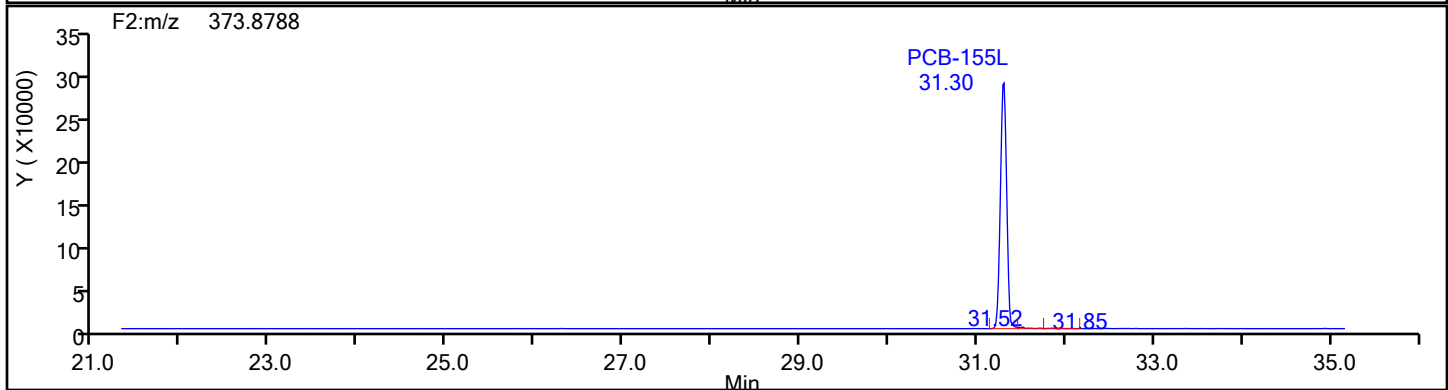
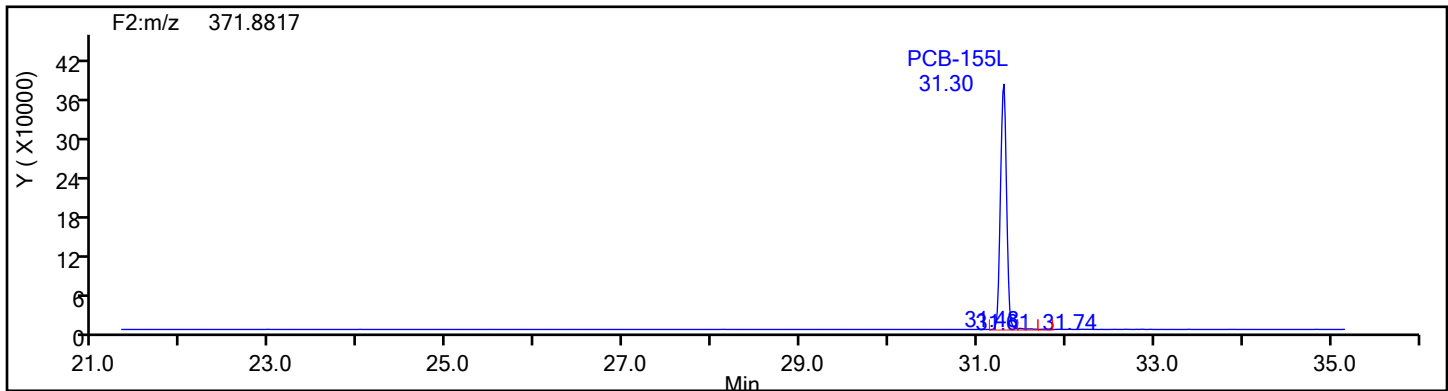


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88809 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2



## HxPCB F2 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

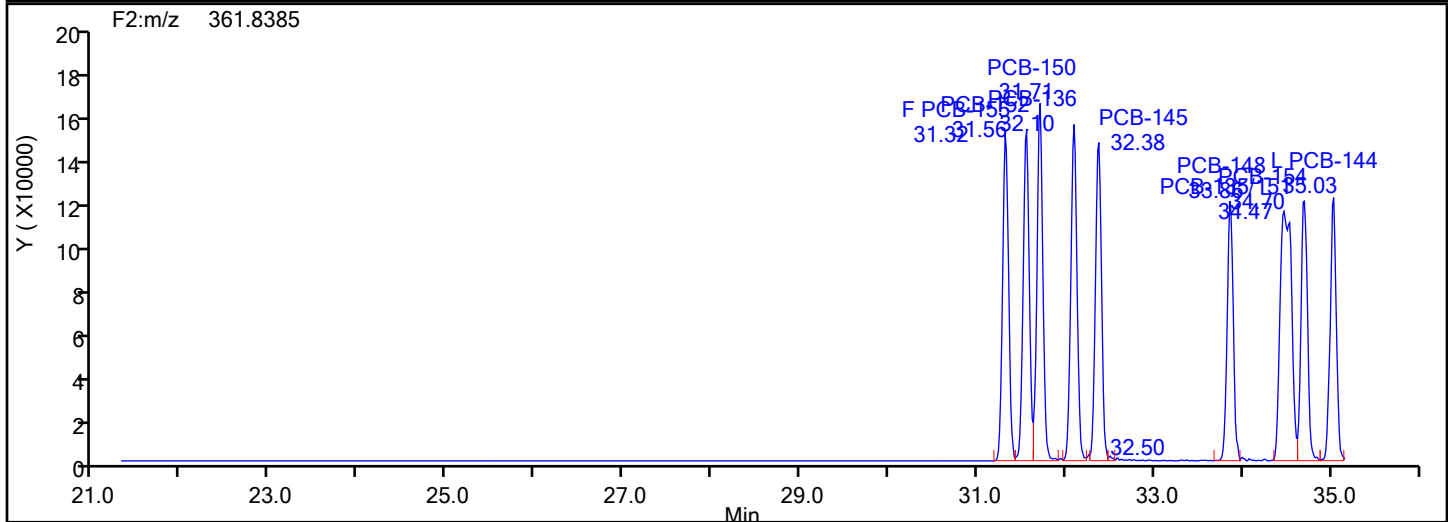
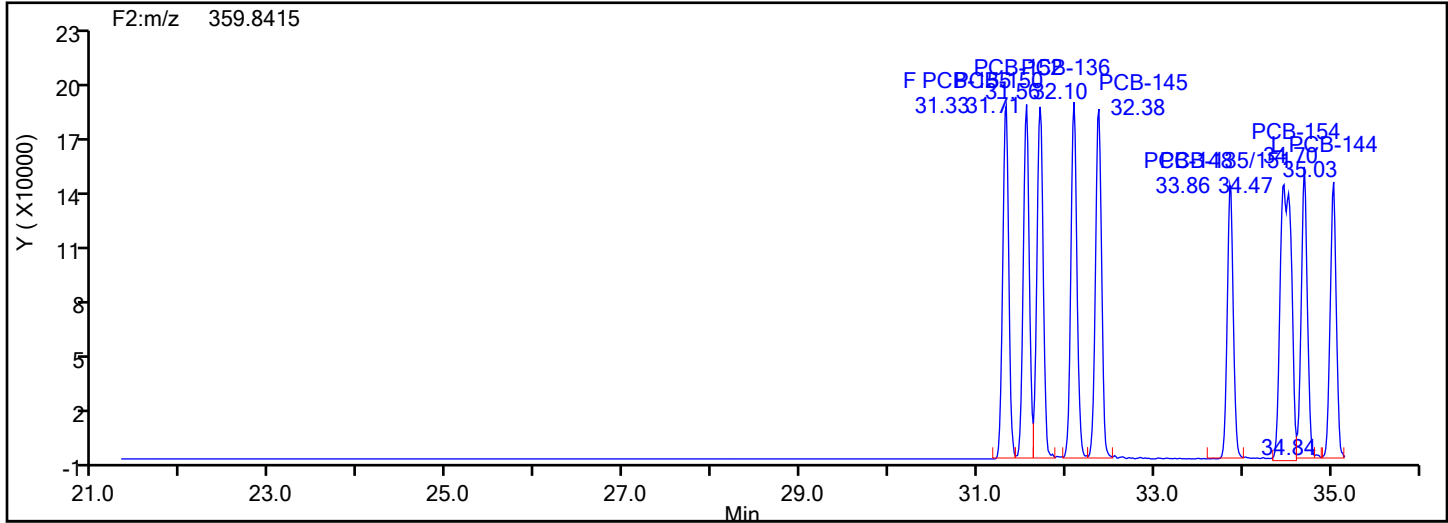
Worklist#: 88809

Sample Line#: 1

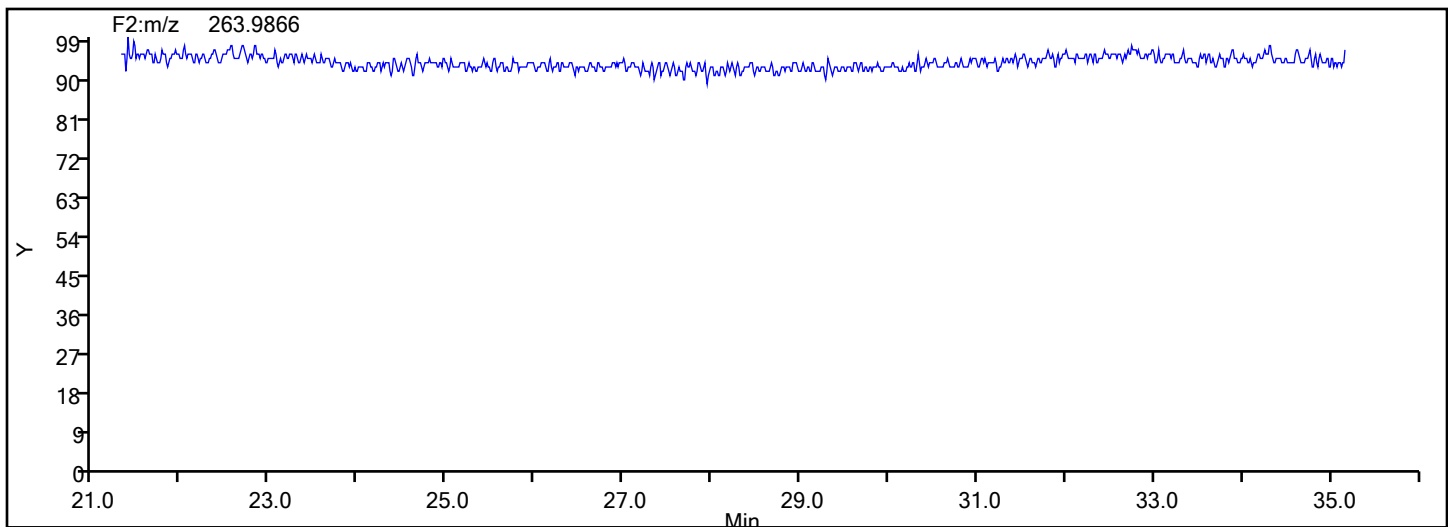
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F2



## HxPCB F2 Lock Mass



## Eurofins Knoxville

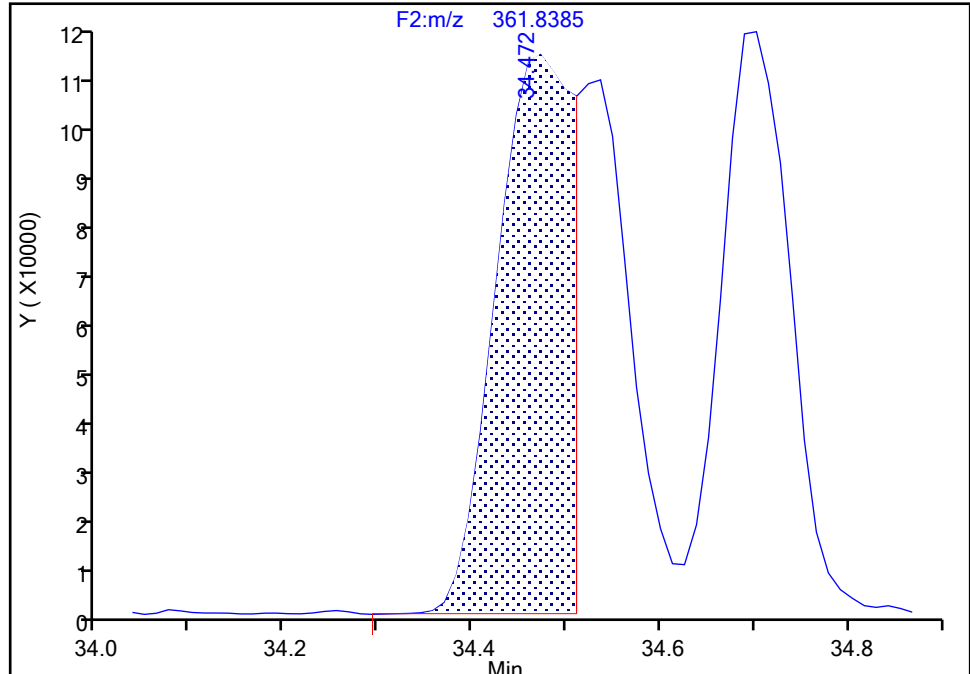
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 2

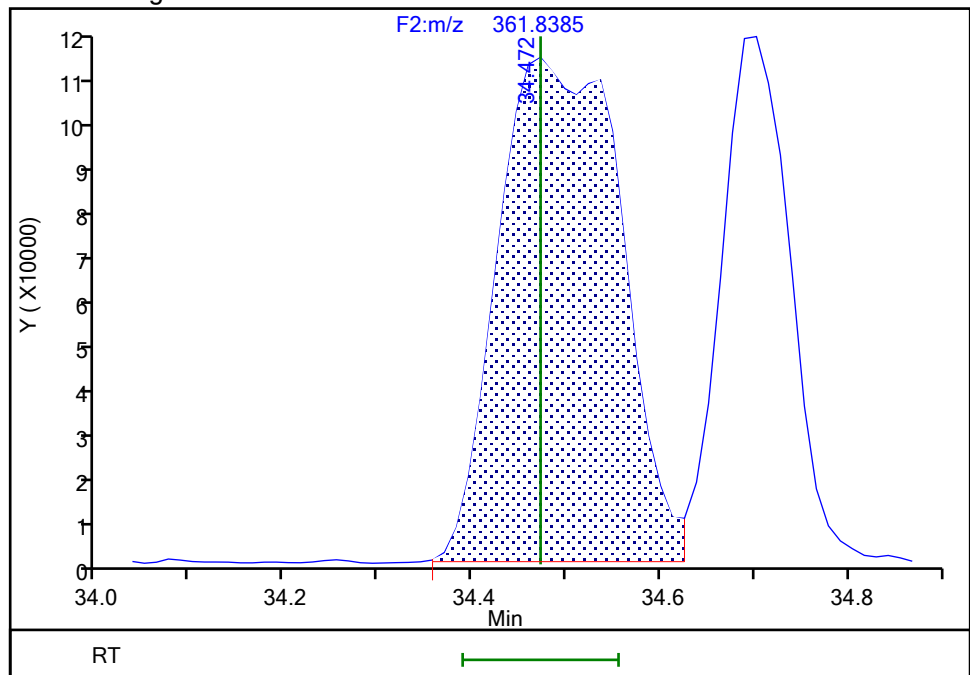
RT: 34.47  
Area: 607676  
Amount: 55.311598  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.47  
Area: 1011292  
Amount: 99.984383  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 16-Jul-2024 18:56:19 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

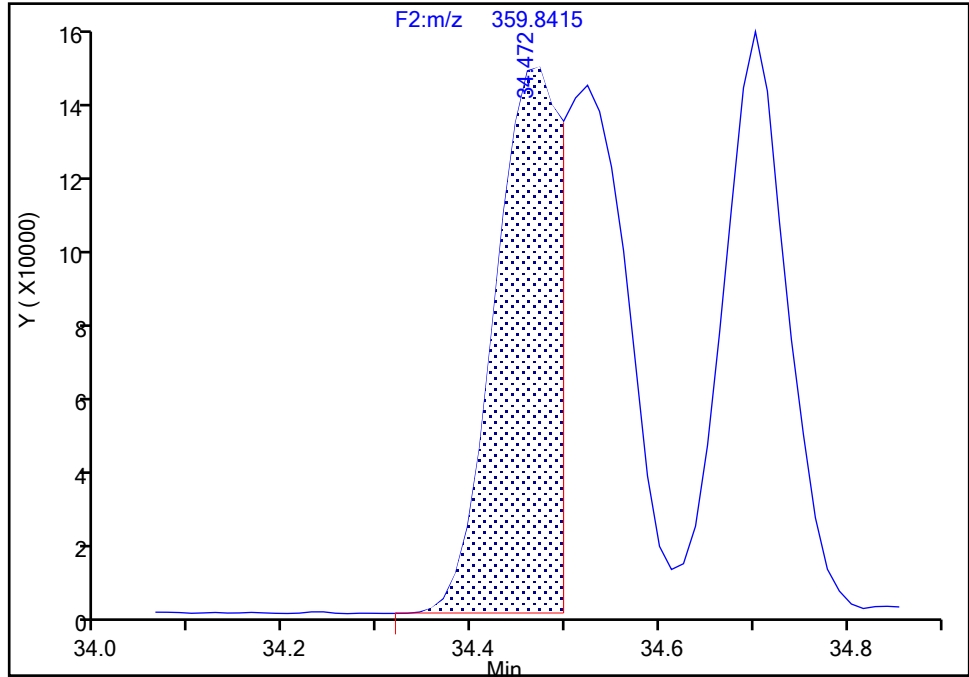
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 1

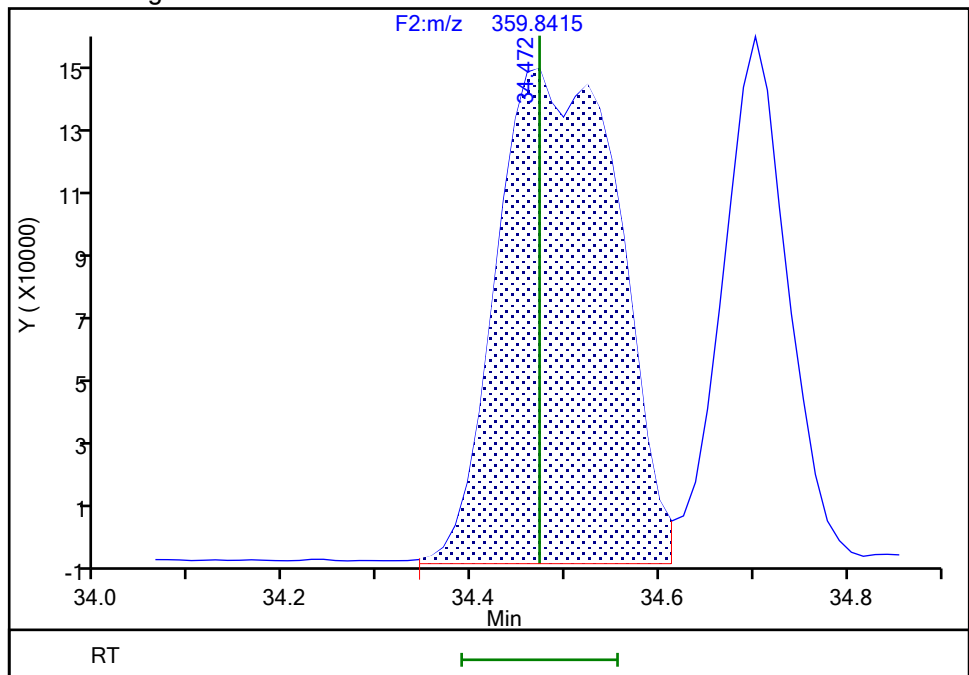
RT: 34.47  
Area: 689063  
Amount: 55.311598  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.47  
Area: 1332767  
Amount: 99.984383  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 16-Jul-2024 18:56:26 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 2024-06-20 13:40:26  
9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

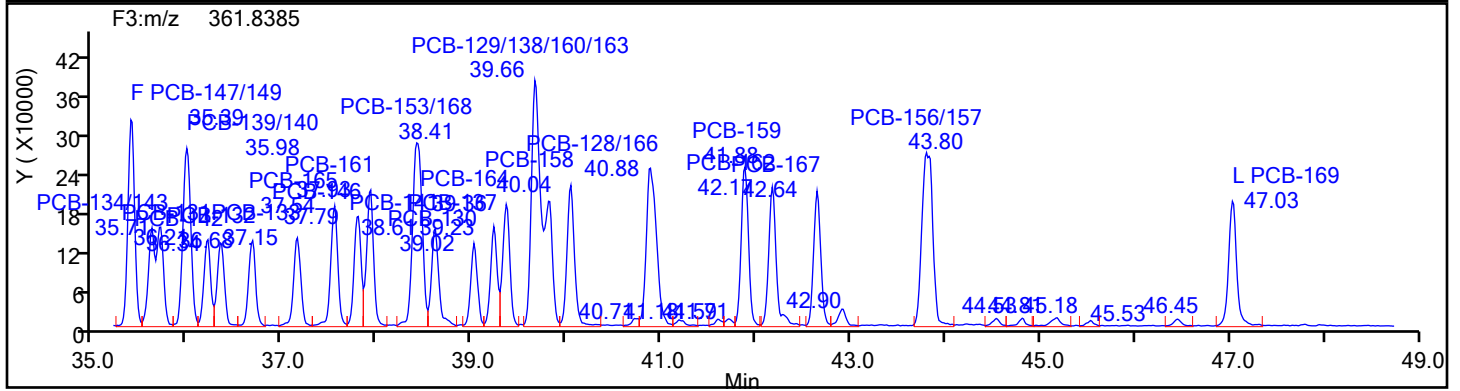
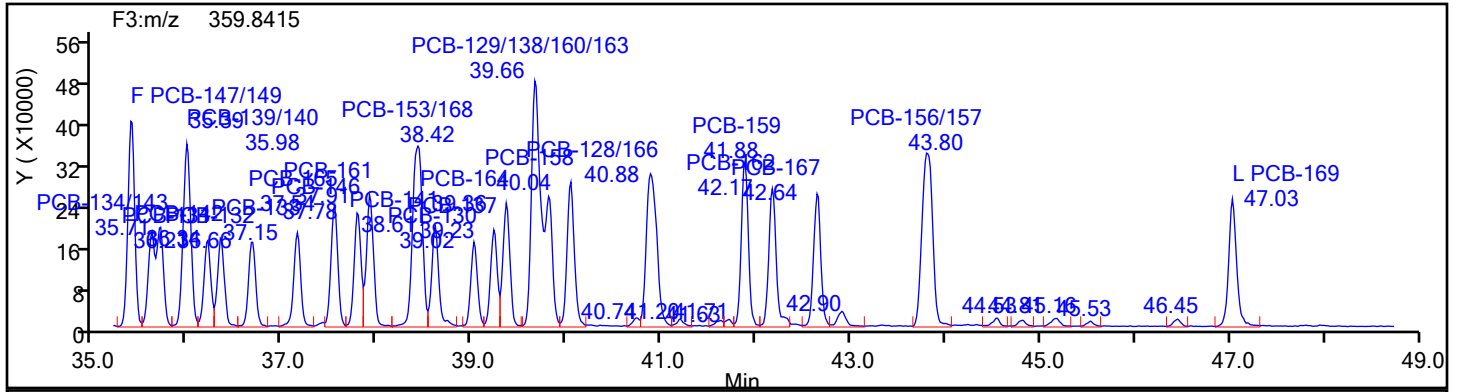
Worklist#: 88809

Sample Line#: 1

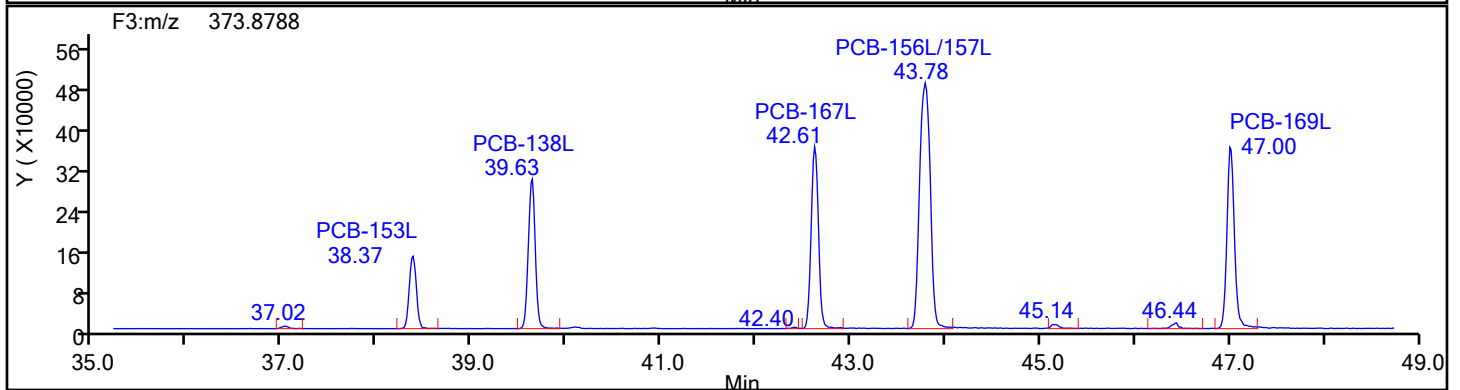
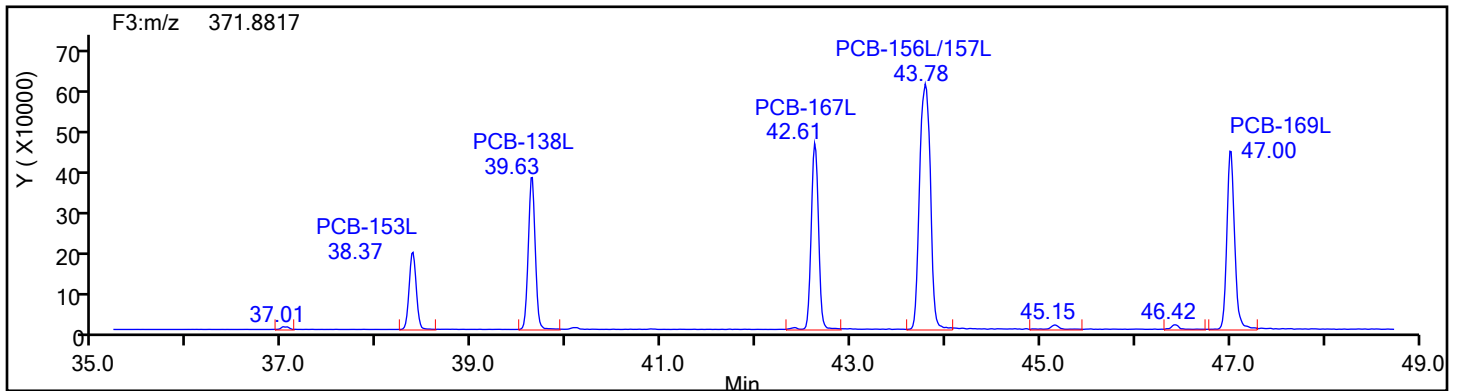
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



## HxPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

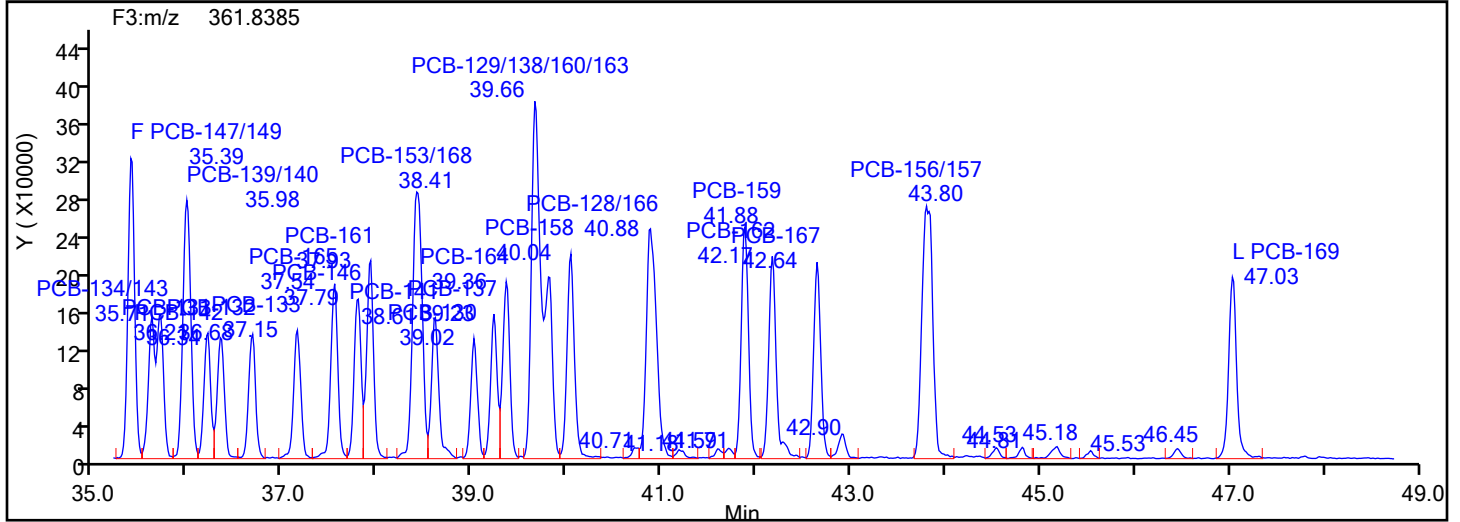
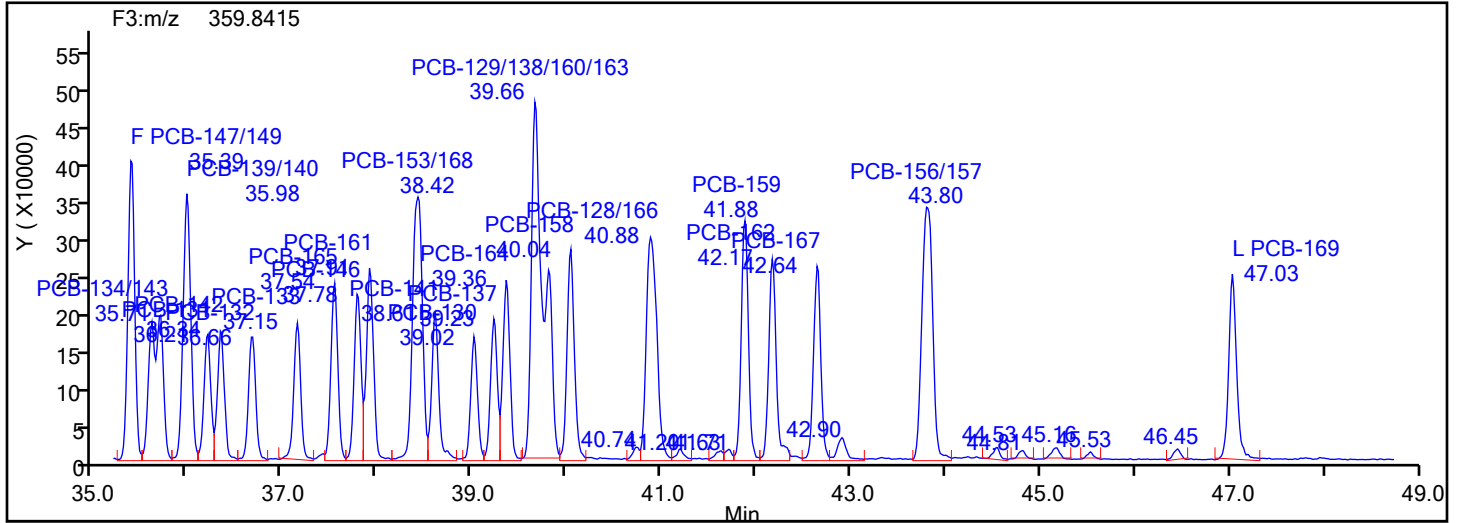
Worklist#: 88809

Sample Line#: 1

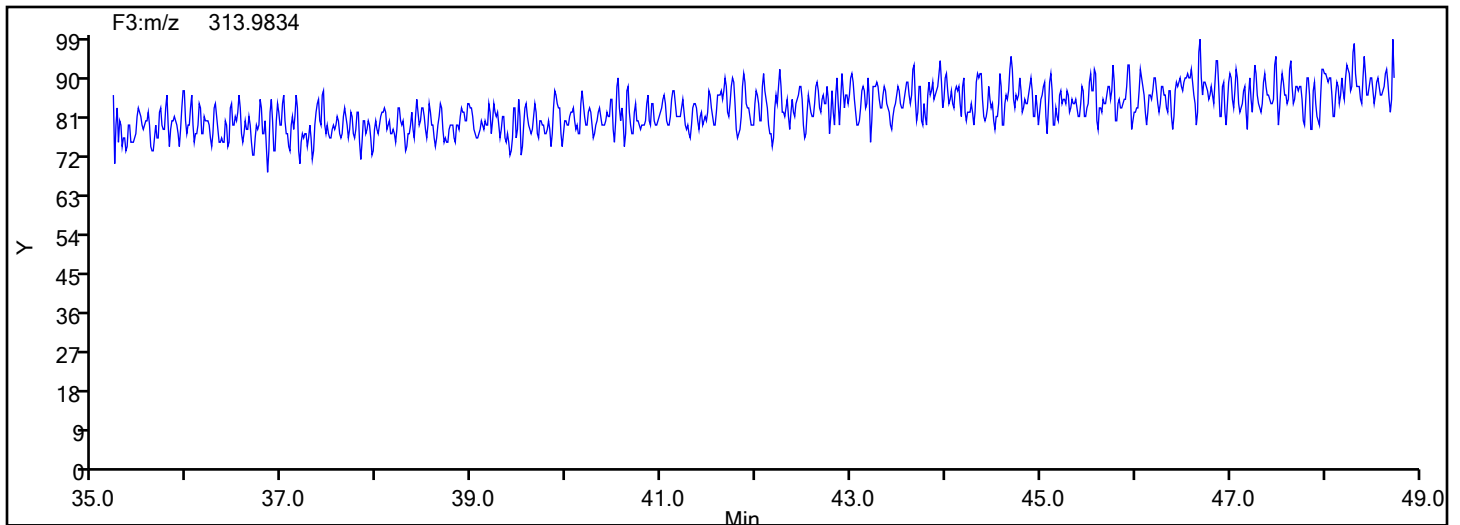
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



## HxPCB F3 Lock Mass



## Eurofins Knoxville

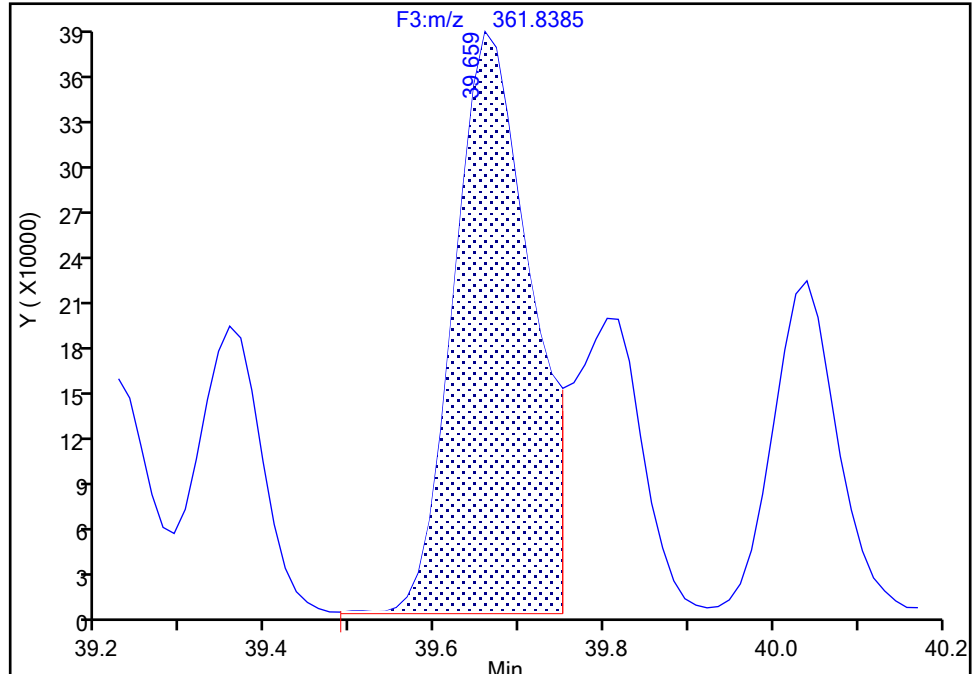
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Injection Date: 16-Jul-2024 11:46:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 2

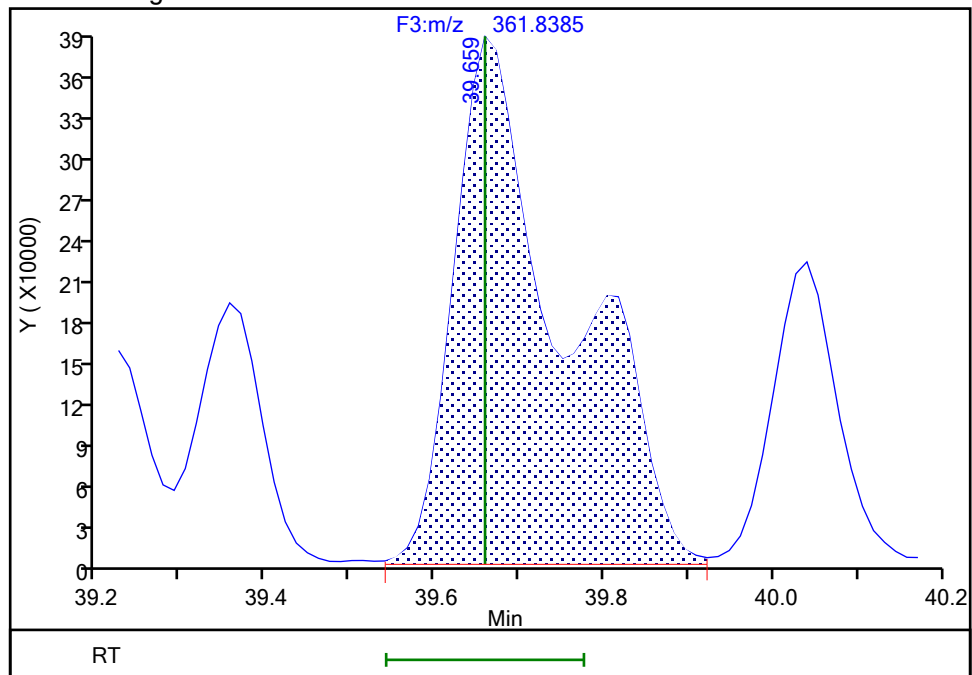
RT: 39.66  
Area: 2400485  
Amount: 132.7857  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.66  
Area: 3488703  
Amount: 188.3717  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 16-Jul-2024 18:56:54 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

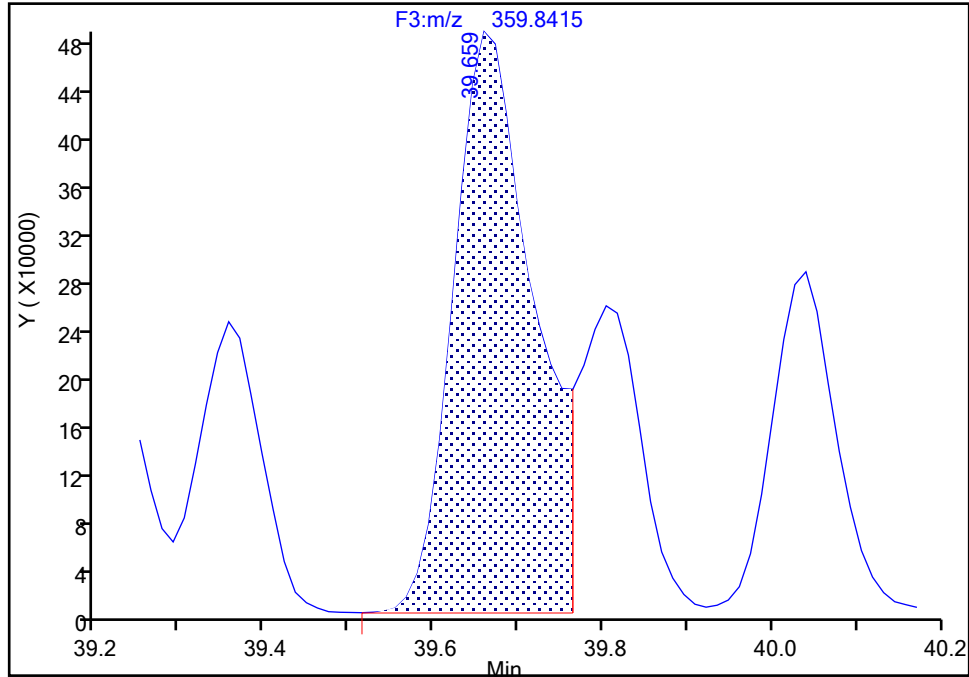
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

**PCB-129/138/160/163, CAS: STL02296**

Signal: 1

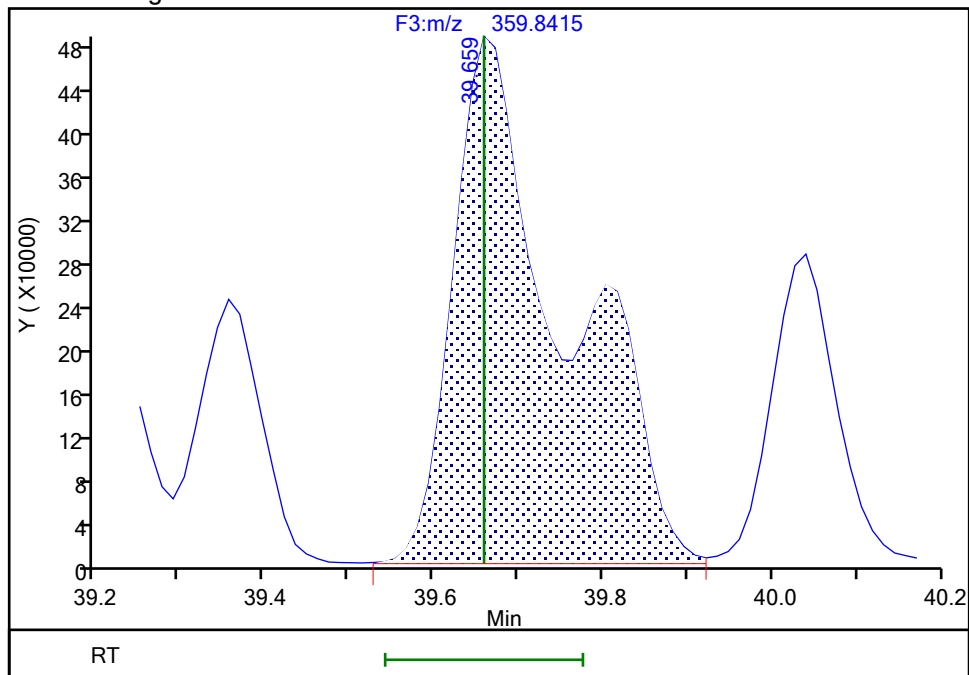
RT: 39.66  
Area: 3158864  
Amount: 132.7857  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.66  
Area: 4397874  
Amount: 188.3717  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 16-Jul-2024 18:56:59 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Page 2744 of 3199

BASFHWC-Pass 2024-07-16 13:37:44  
9/6/2024  
4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

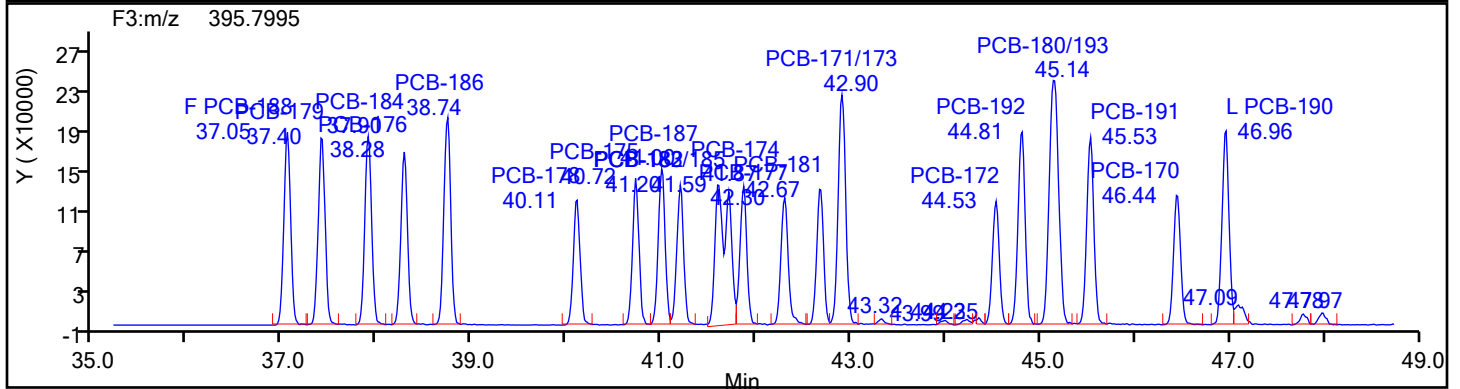
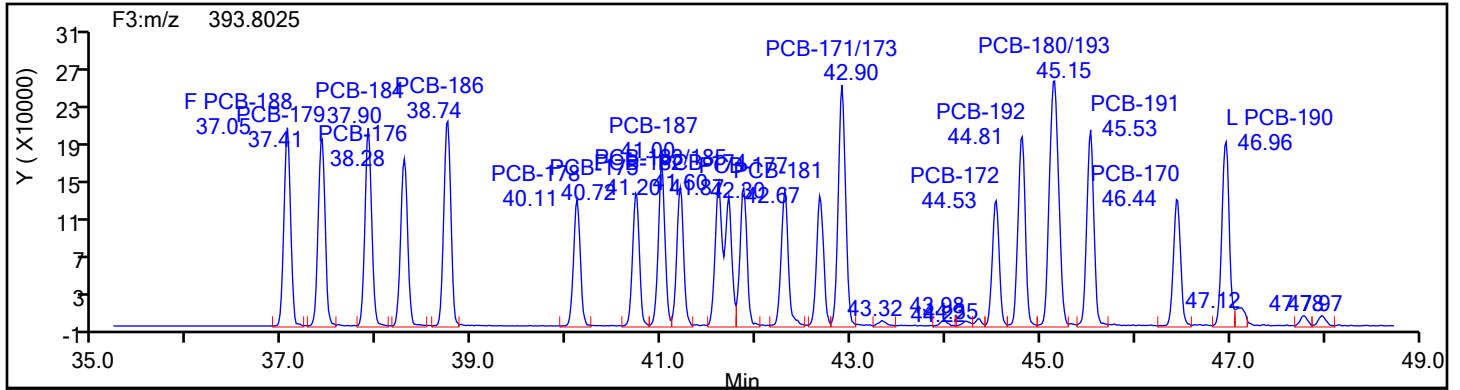
Worklist#: 88809

Sample Line#: 1

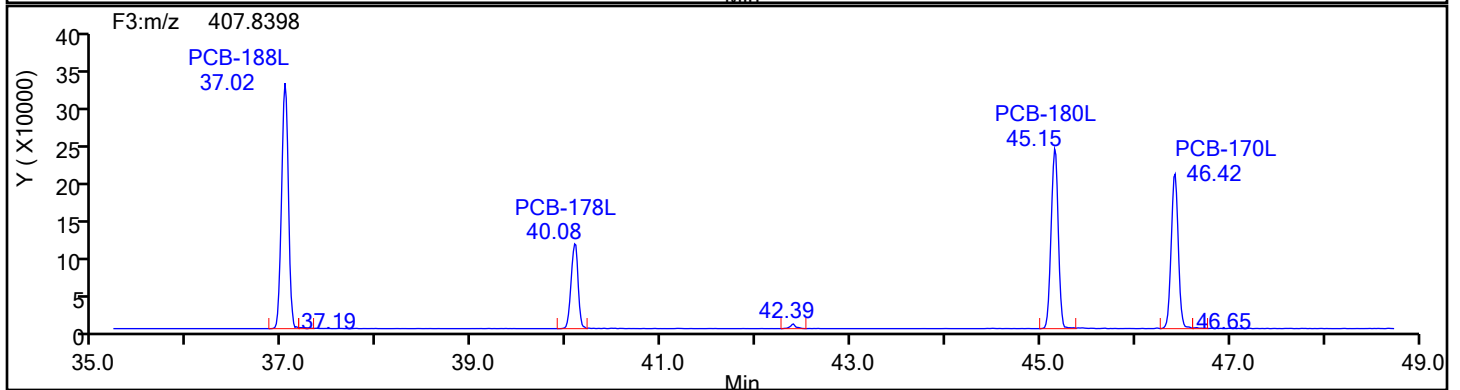
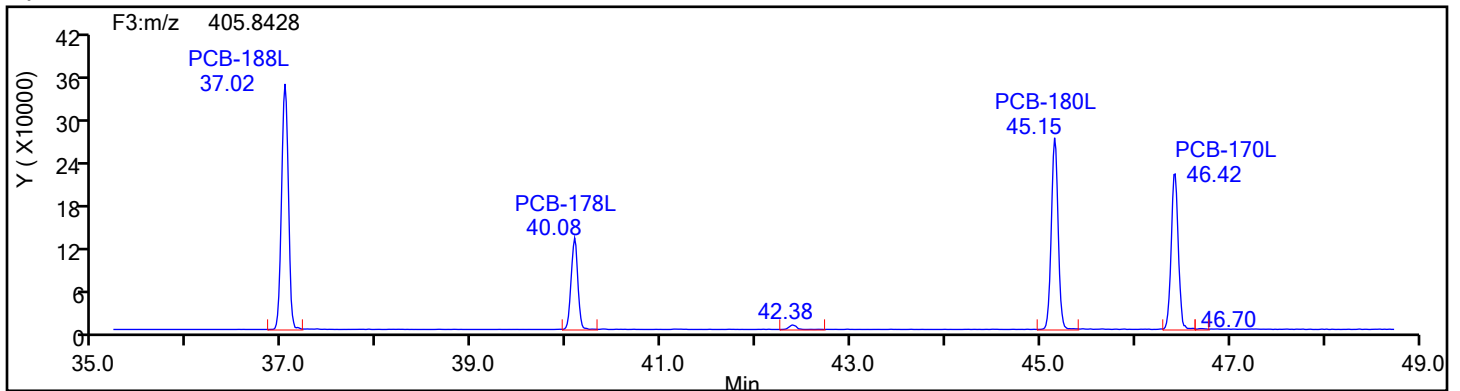
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



HpPCB F3 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

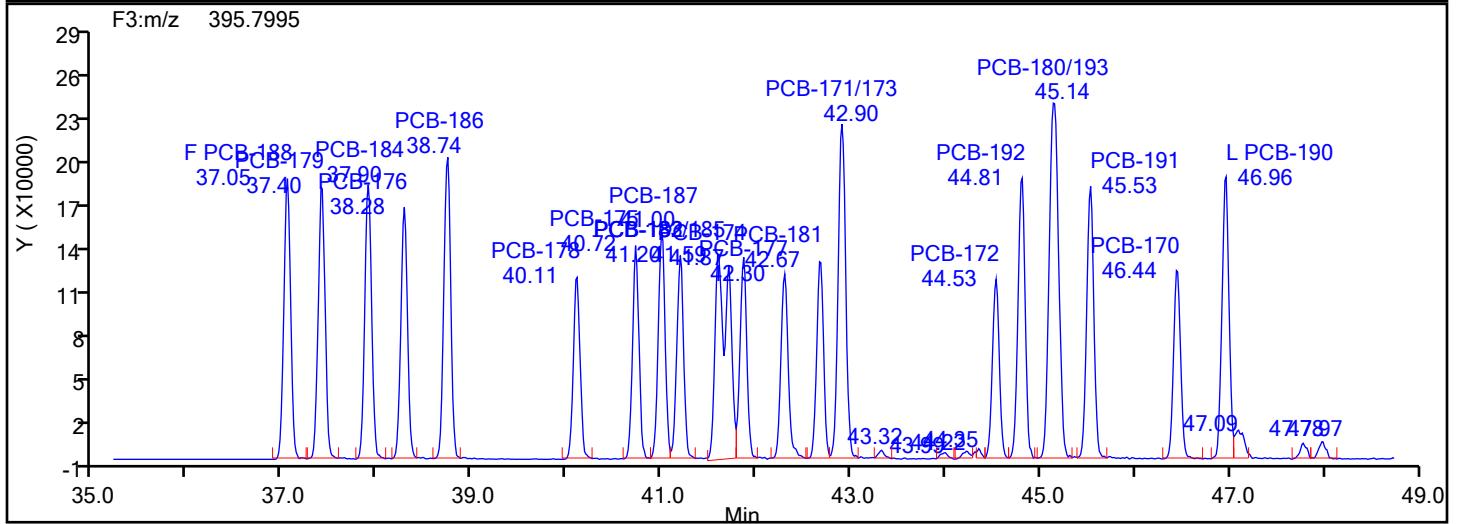
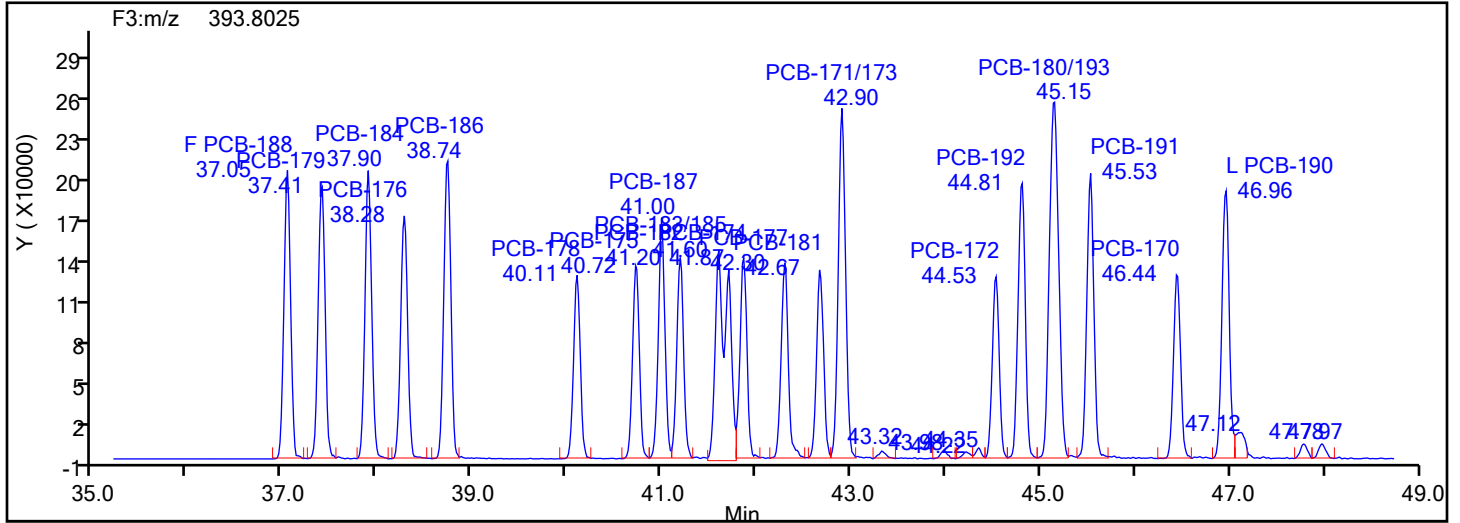
Worklist#: 88809

Sample Line#: 1

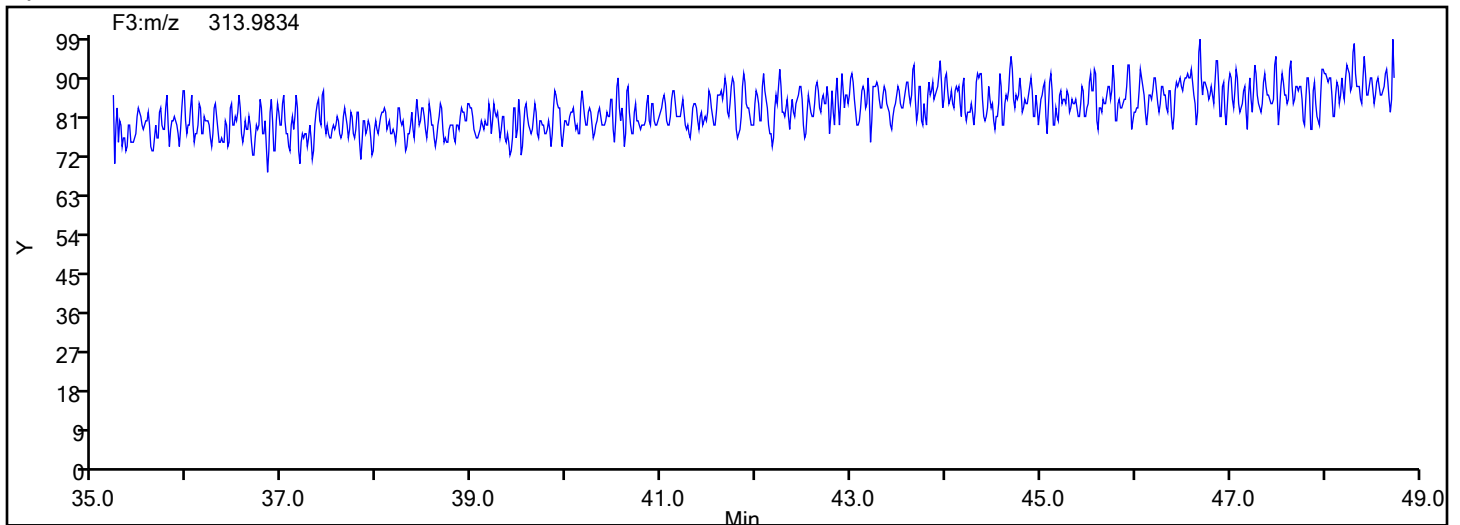
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



## HpPCB F3 Lock Mass



## Eurofins Knoxville

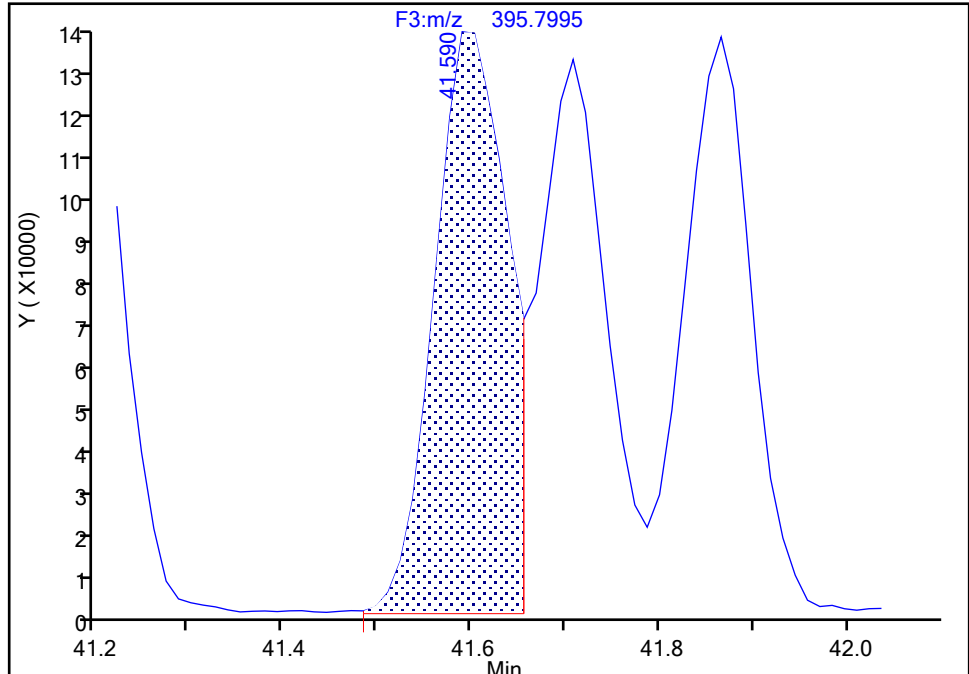
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-183/185, CAS: STL02297

Signal: 2

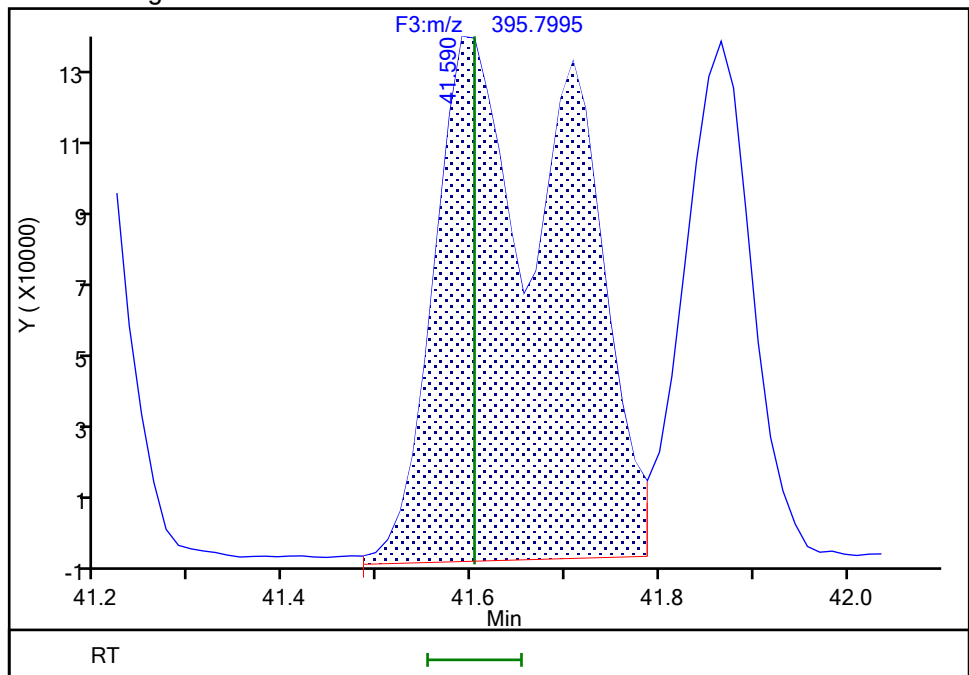
RT: 41.59  
Area: 714289  
Amount: 52.290266  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.59  
Area: 1342598  
Amount: 98.619151  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 16-Jul-2024 18:58:00 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

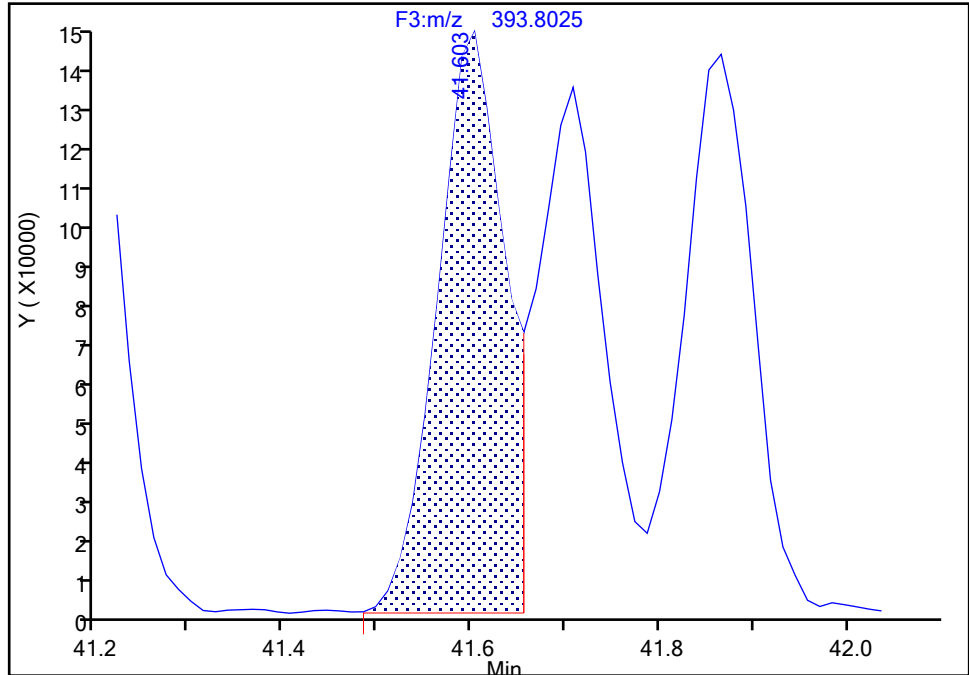
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Injection Date: 16-Jul-2024 11:46:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-183/185, CAS: STL02297

Signal: 1

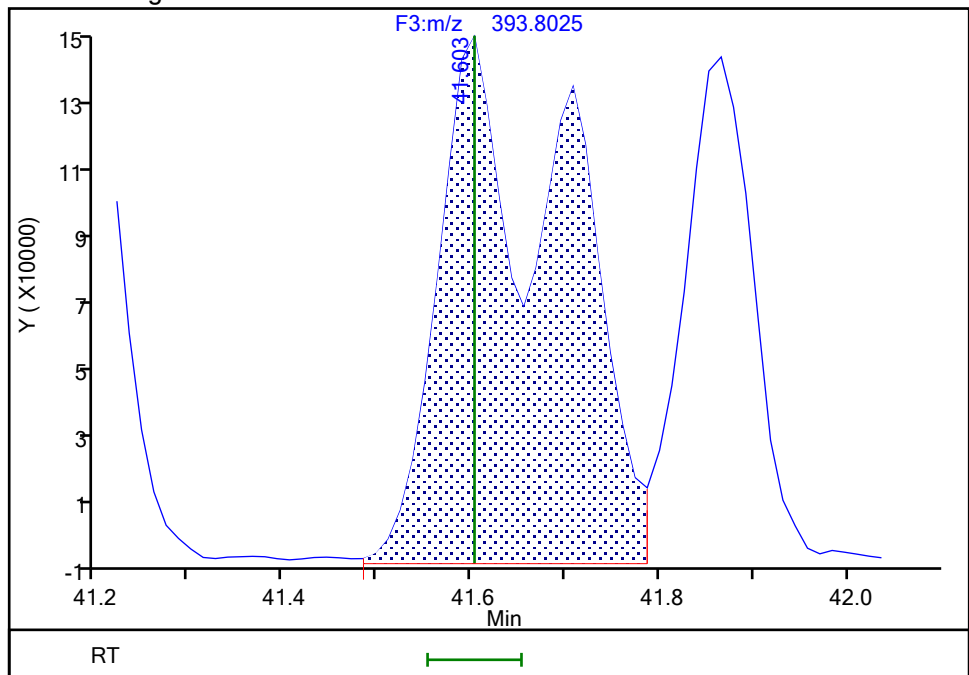
RT: 41.60  
Area: 730921  
Amount: 52.290266  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.60  
Area: 1383060  
Amount: 98.619151  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 16-Jul-2024 18:58:55 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

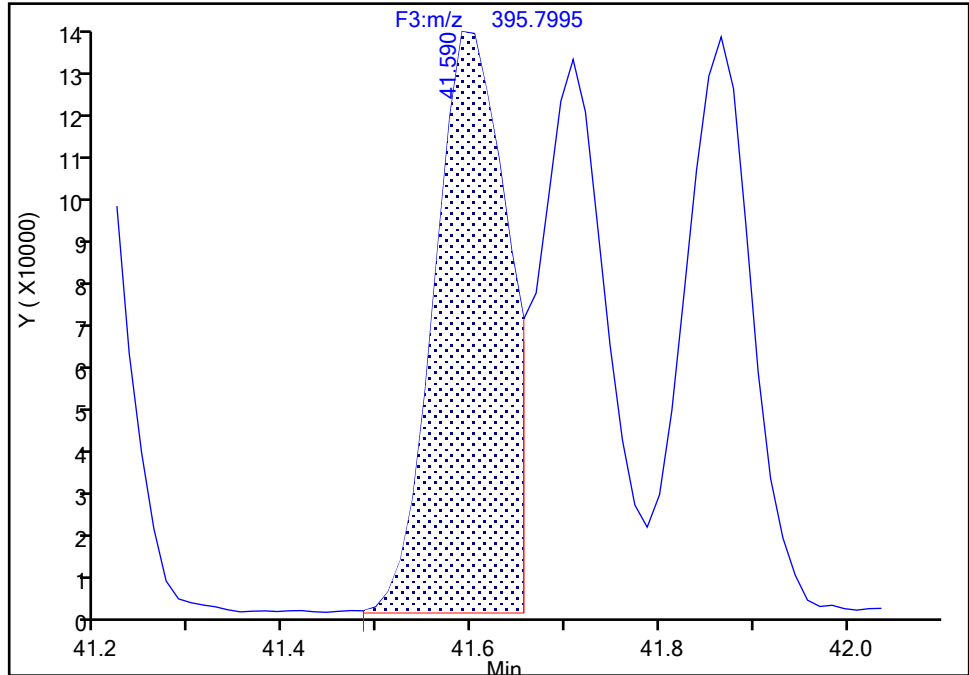
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-183/185, CAS: STL02297

Signal: 2

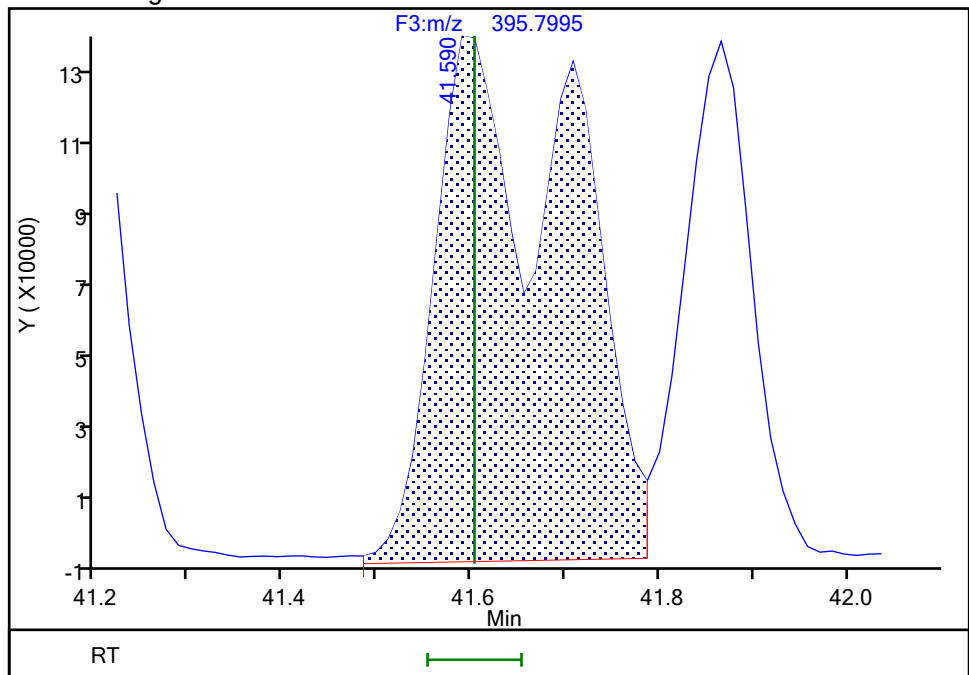
RT: 41.59  
Area: 714289  
Amount: 52.290266  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.59  
Area: 1342598  
Amount: 98.619151  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 16-Jul-2024 18:58:55 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

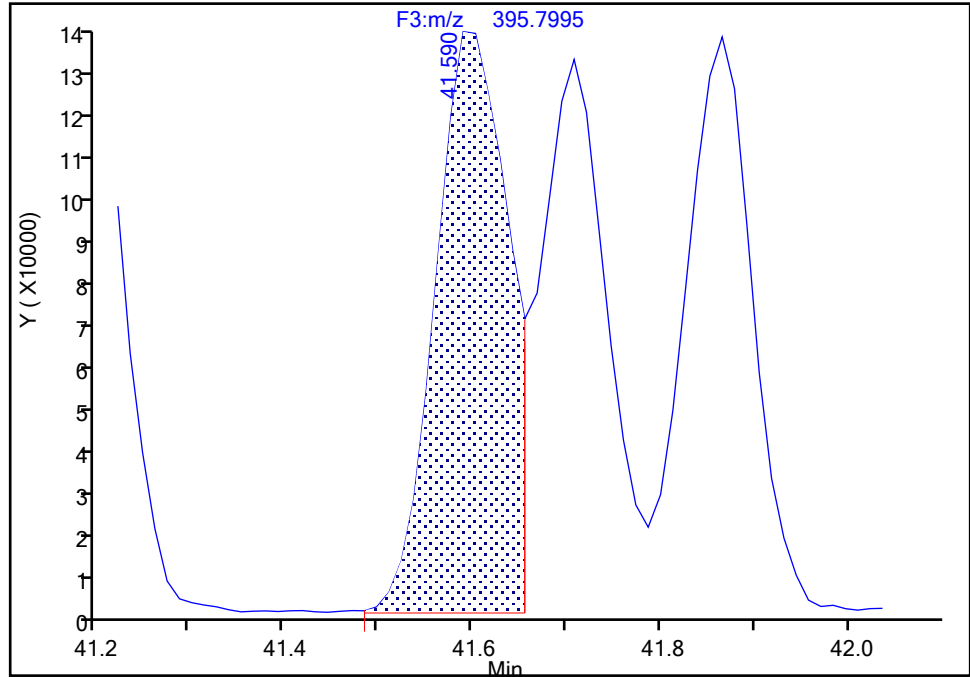
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

**PCB-183/185, CAS: STL02297**

Signal: 3

RT: 41.60  
Area: 1445210  
Amount: 52.290266  
Amount Units: pg/ul

## Processing Integration Results



## Manual Integration Results

RT: 41.60  
Area: 2725658  
Amount: 98.619151  
Amount Units: pg/ul

Reviewer: V4XA, 16-Jul-2024 18:58:55 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

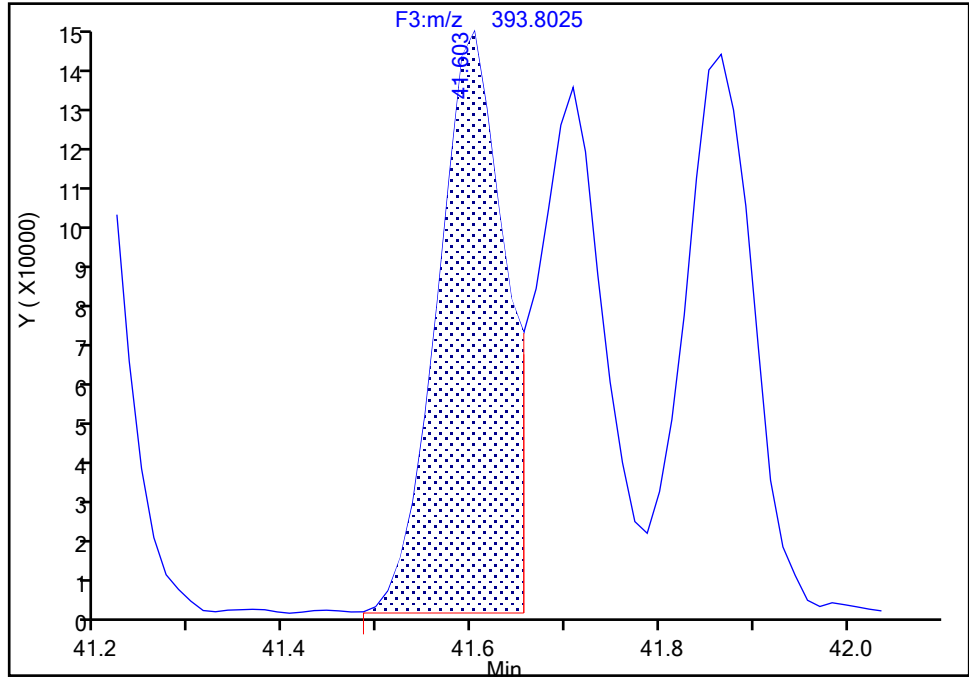
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Injection Date: 16-Jul-2024 11:46:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-183/185, CAS: STL02297

Signal: 1

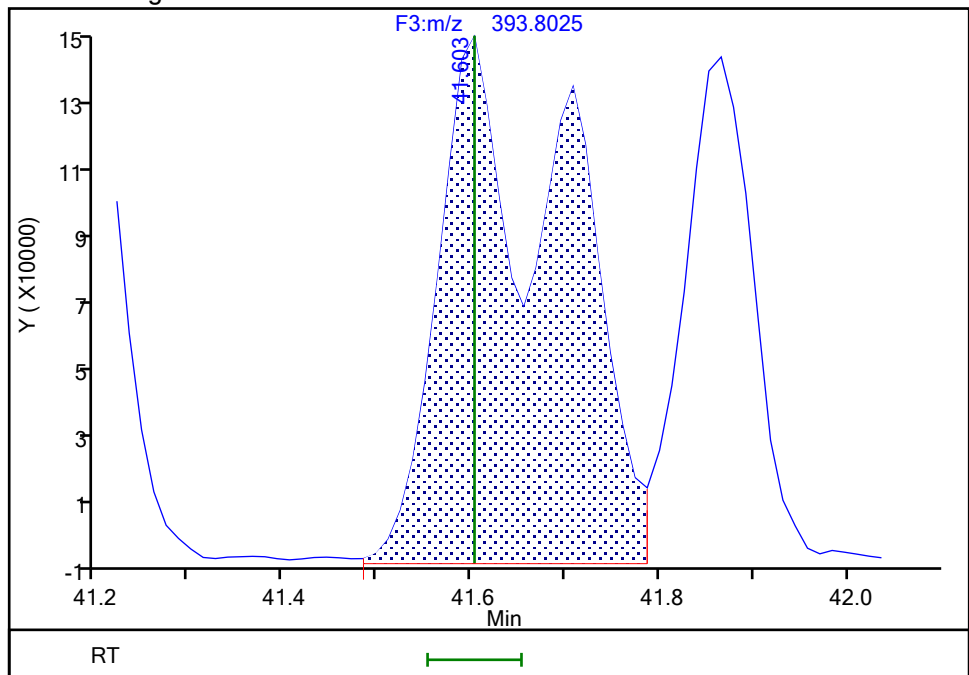
RT: 41.60  
Area: 730921  
Amount: 52.290266  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.60  
Area: 1383060  
Amount: 98.619151  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 16-Jul-2024 18:58:58 -04:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

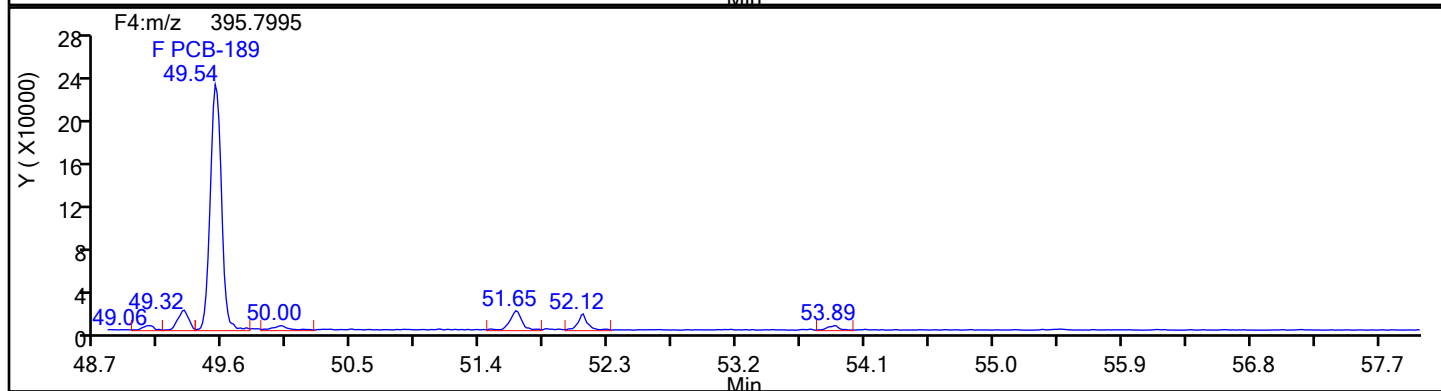
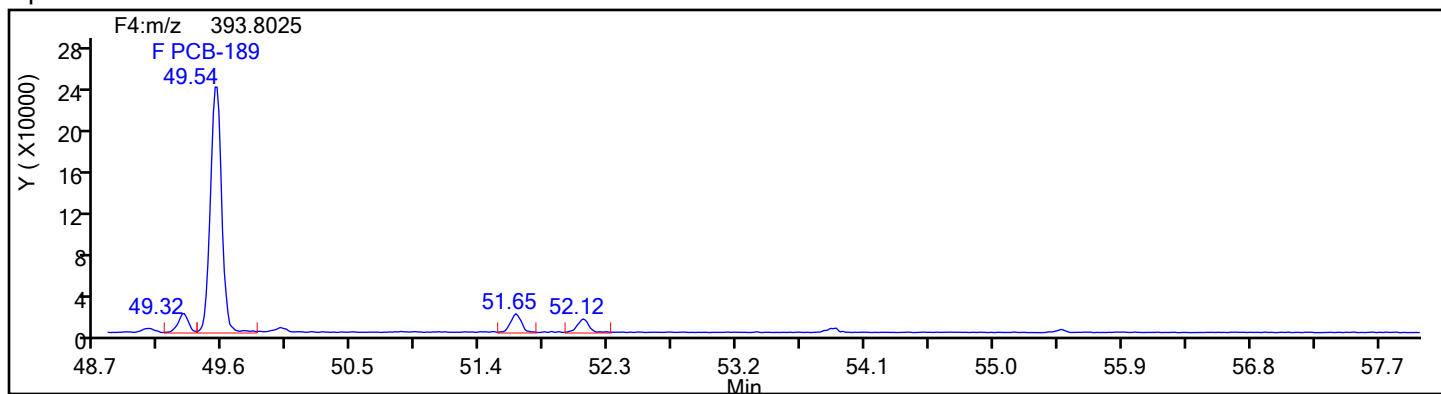
Worklist#: 88809

Sample Line#: 1

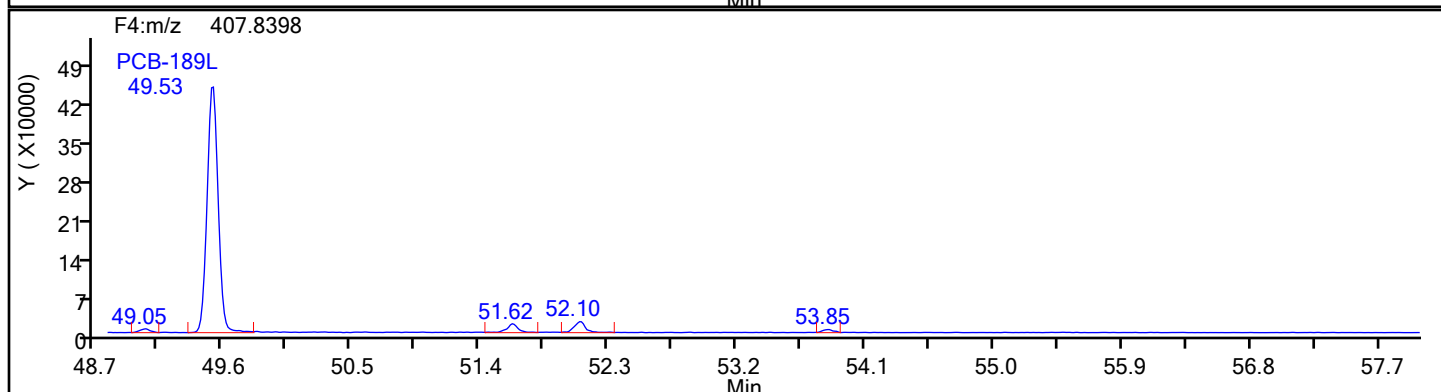
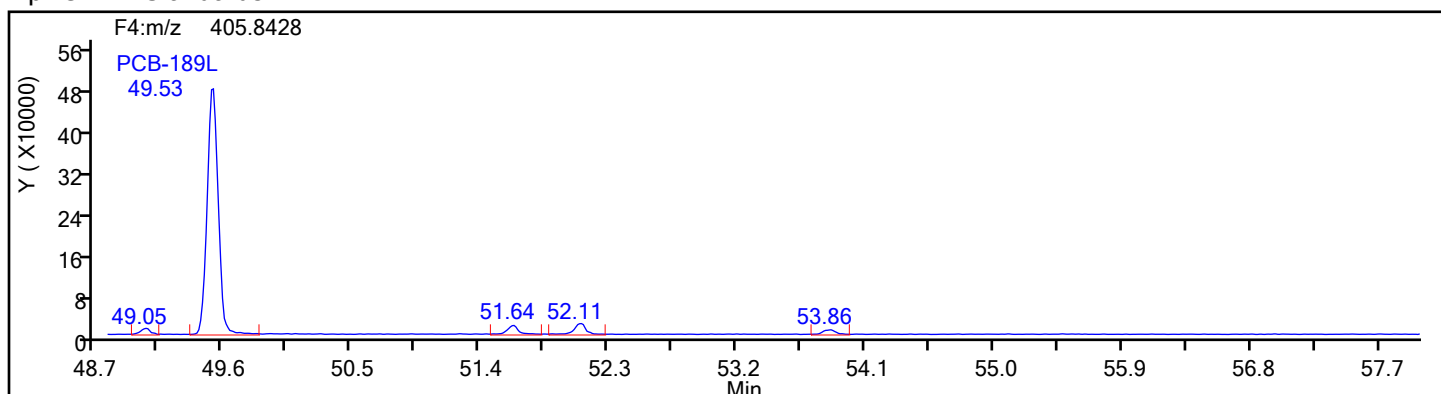
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

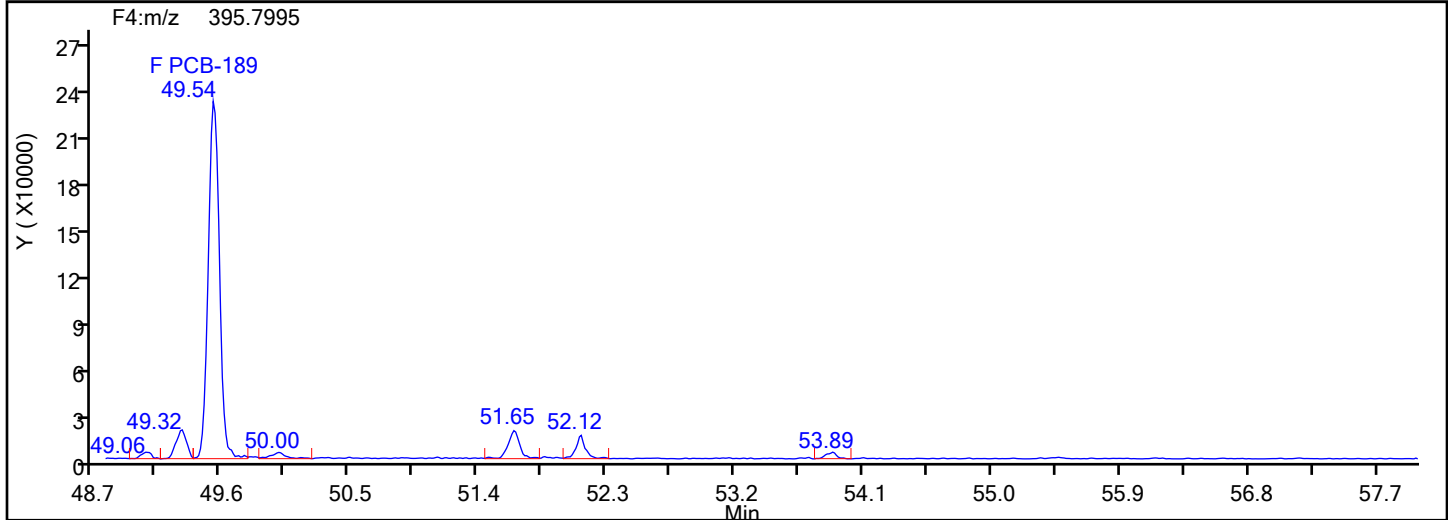
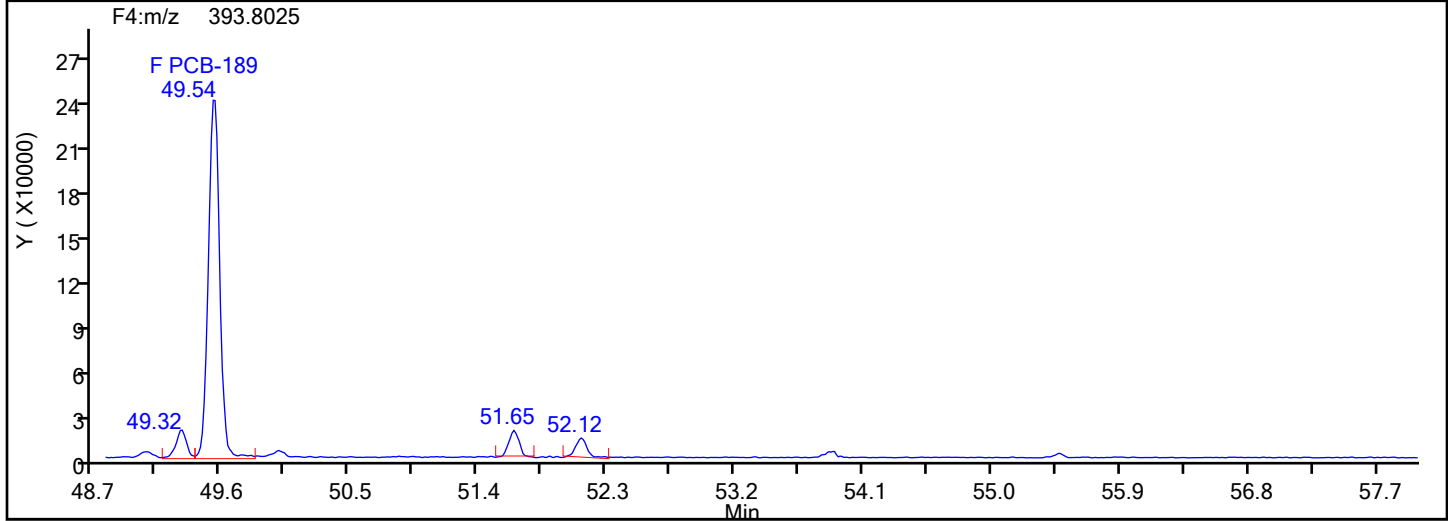
Worklist#: 88809

Sample Line#: 1

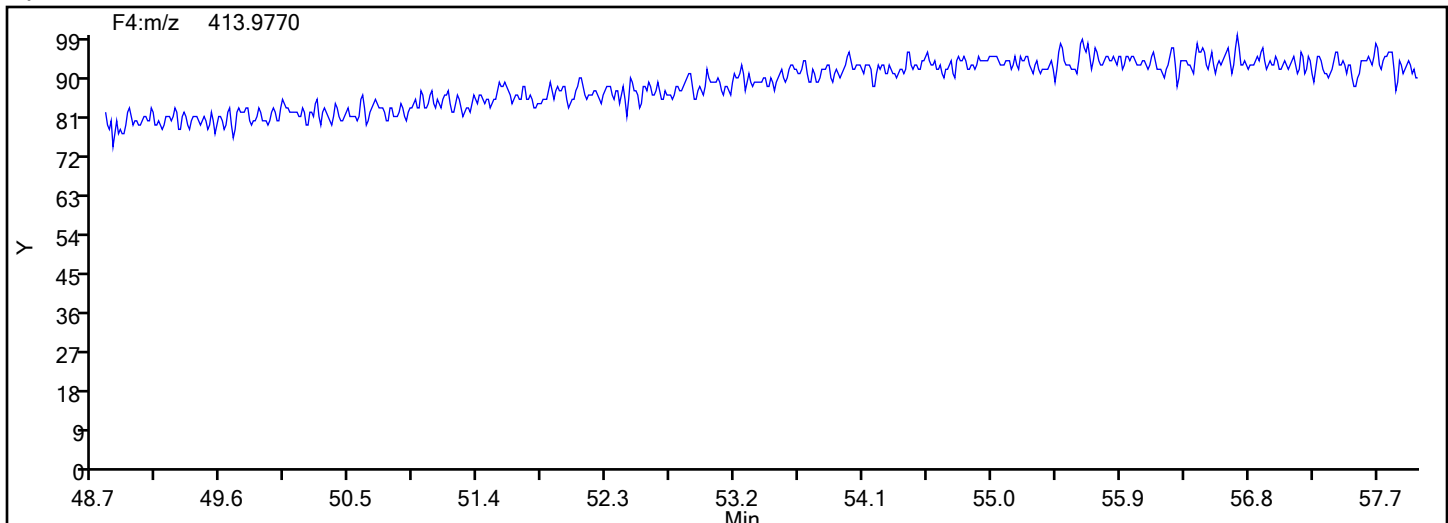
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



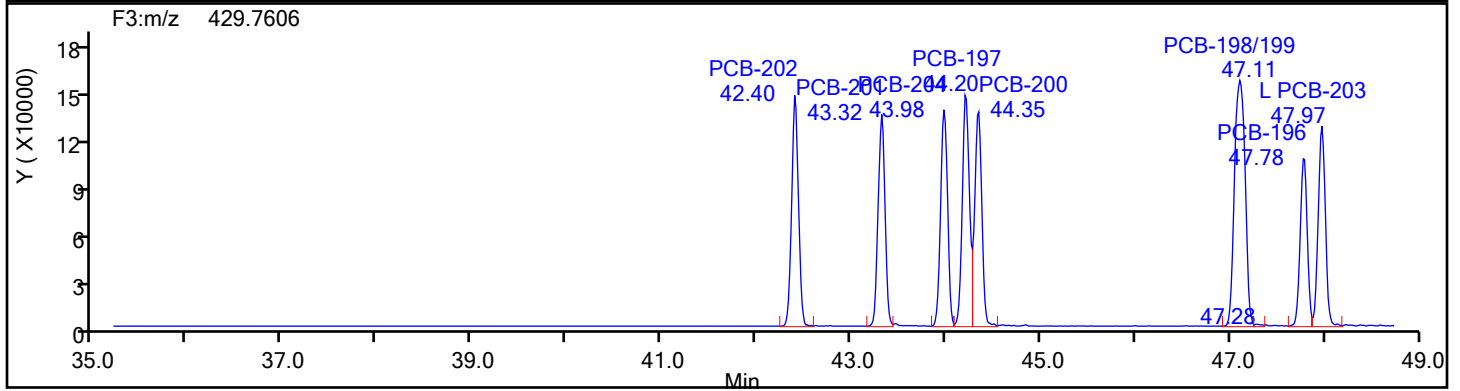
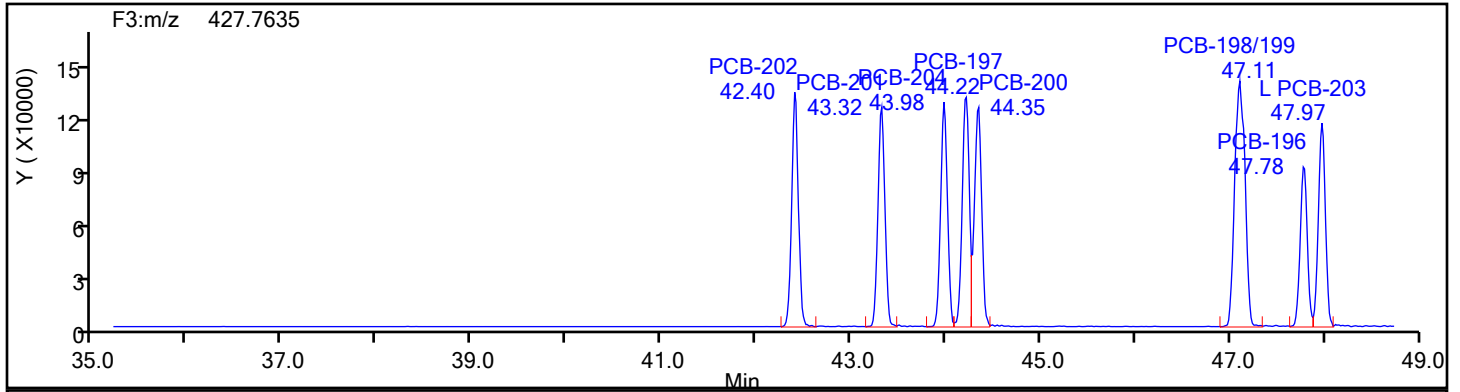
HpPCB F4 Lock Mass



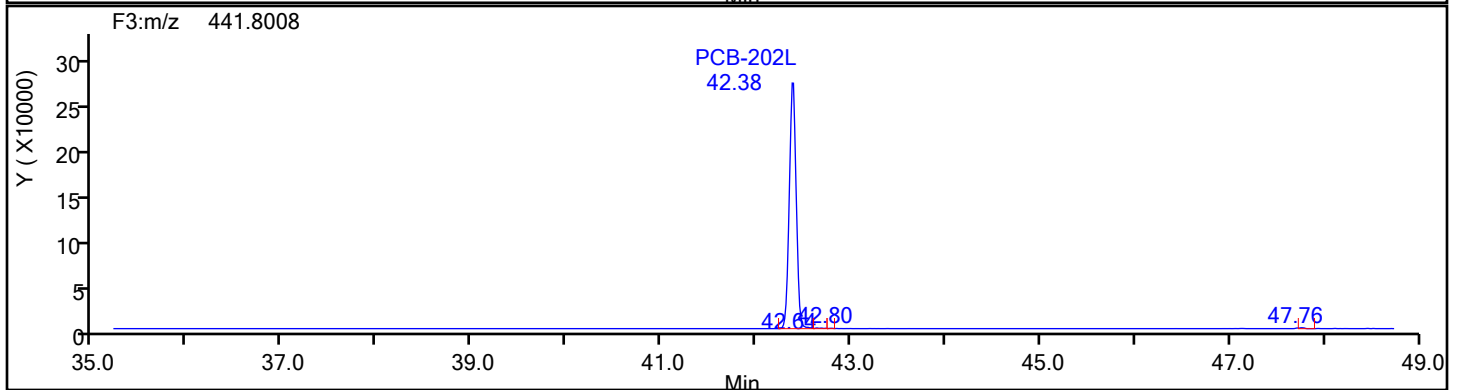
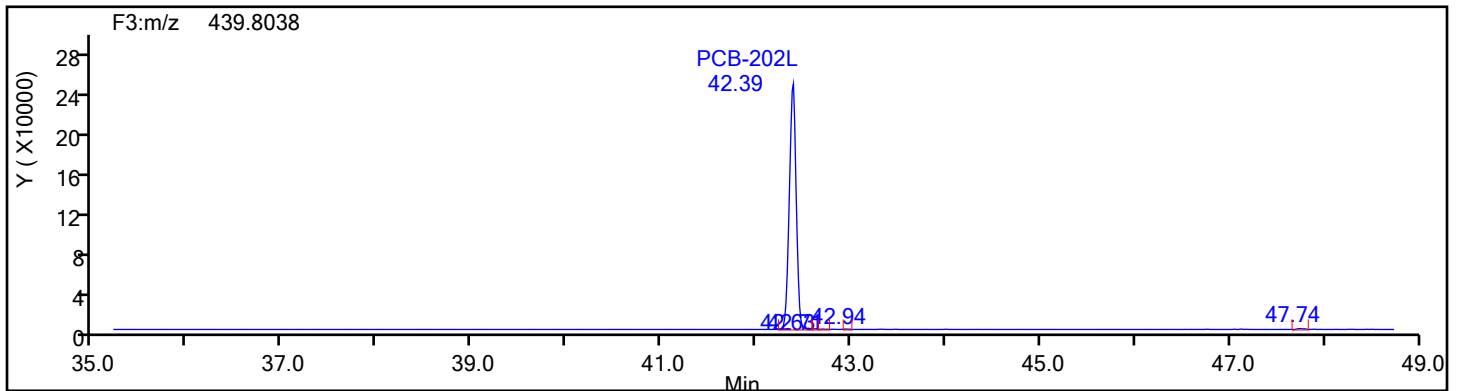


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88809 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3



## OcPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

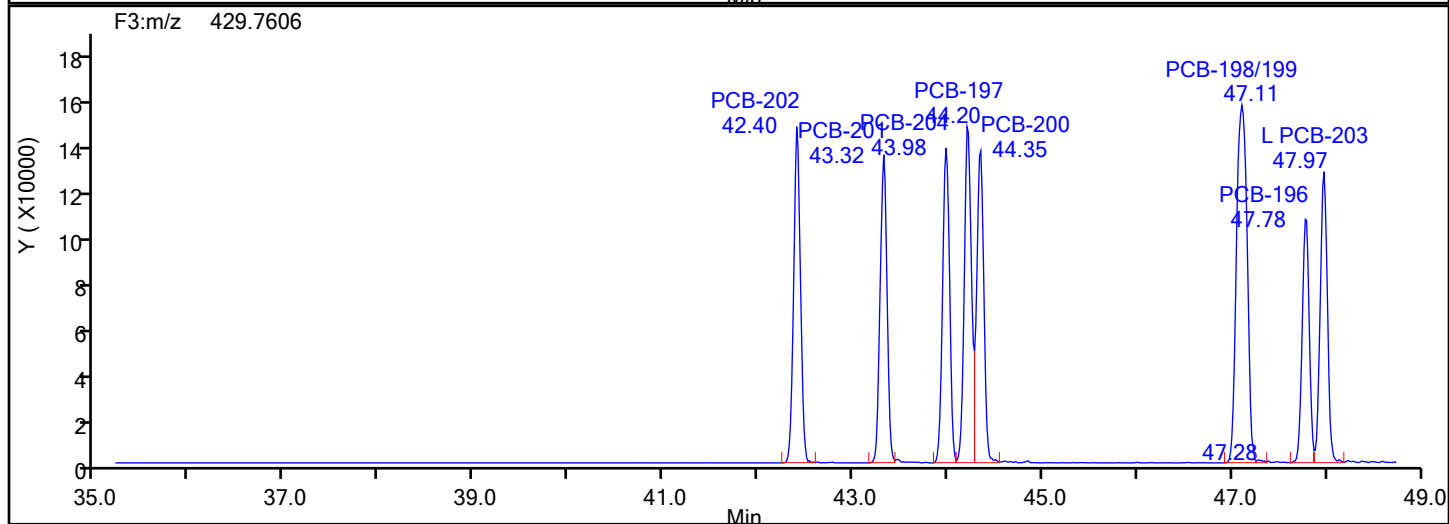
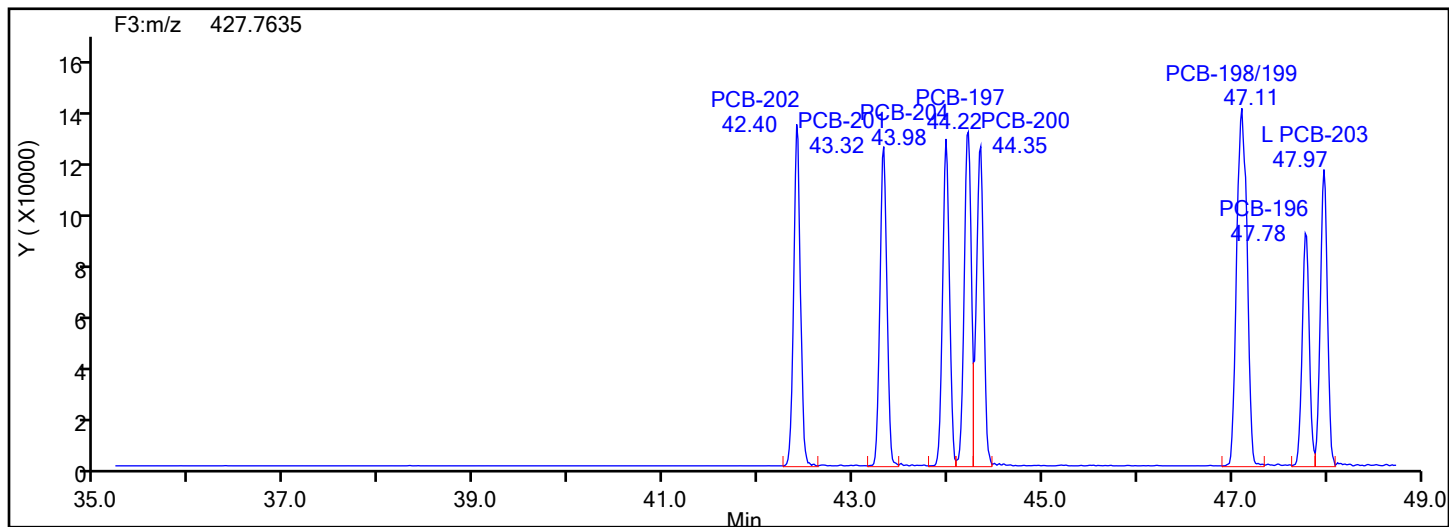
Worklist#: 88809

Sample Line#: 1

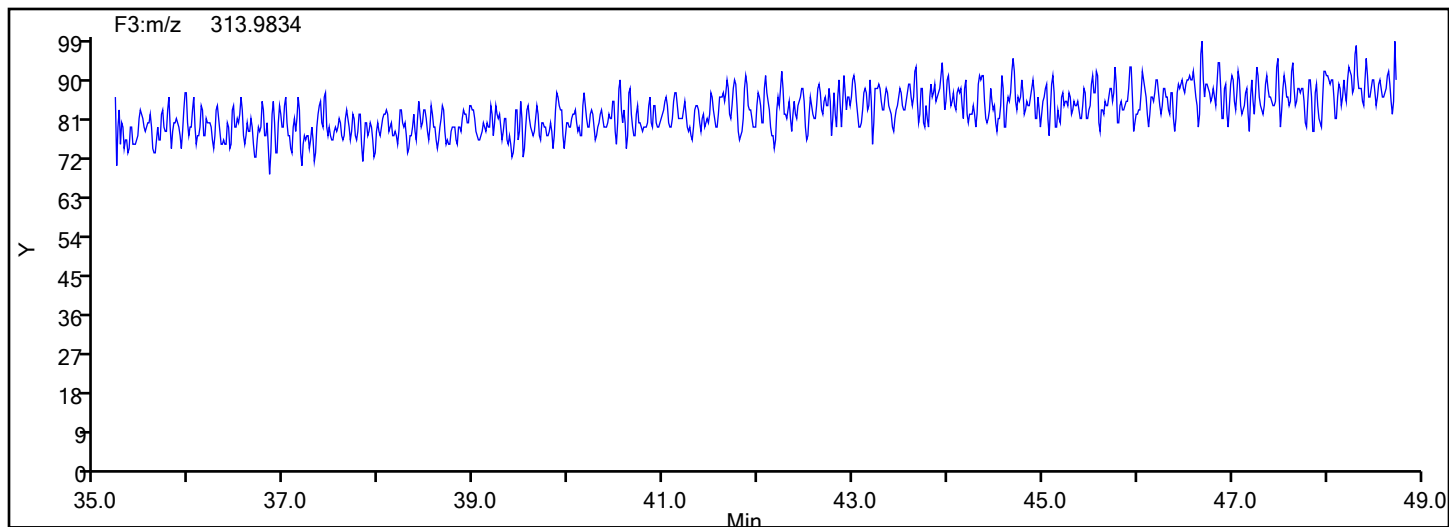
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3



## OcPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

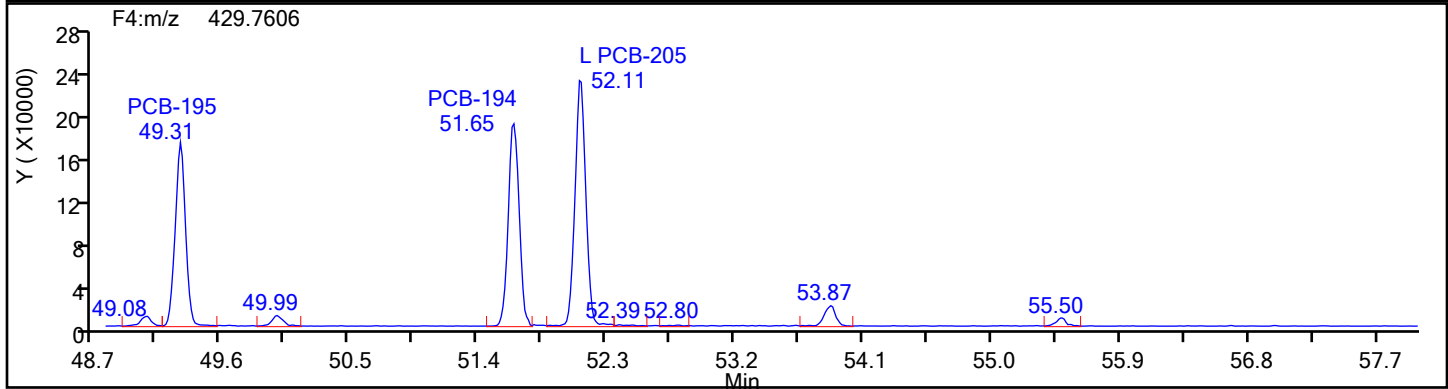
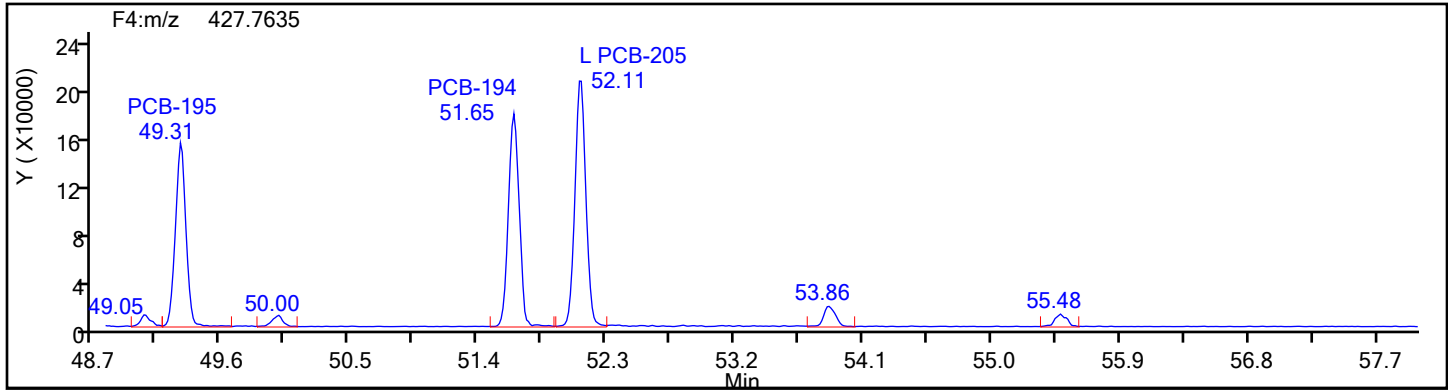
Worklist#: 88809

Sample Line#: 1

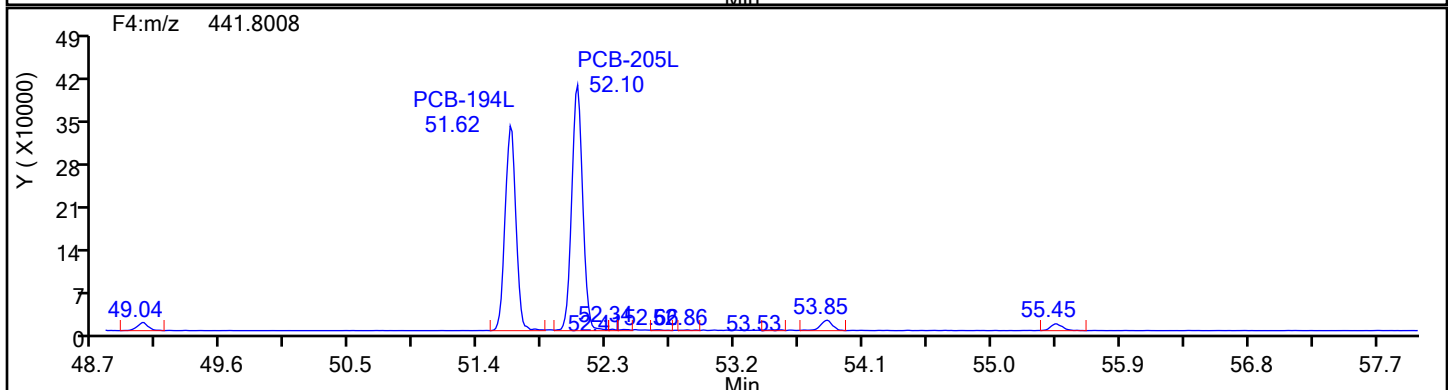
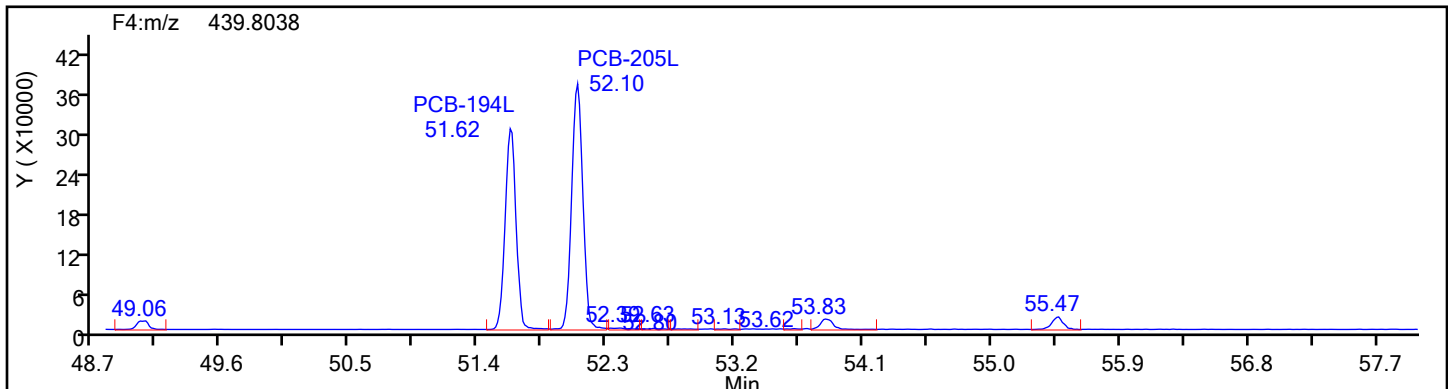
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4

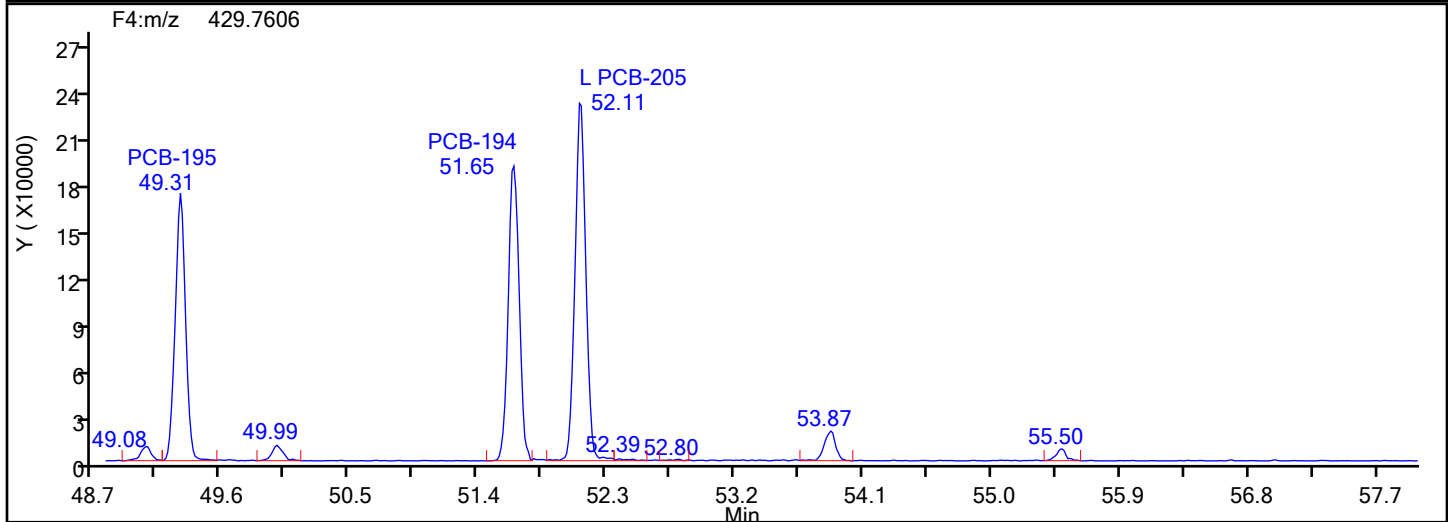
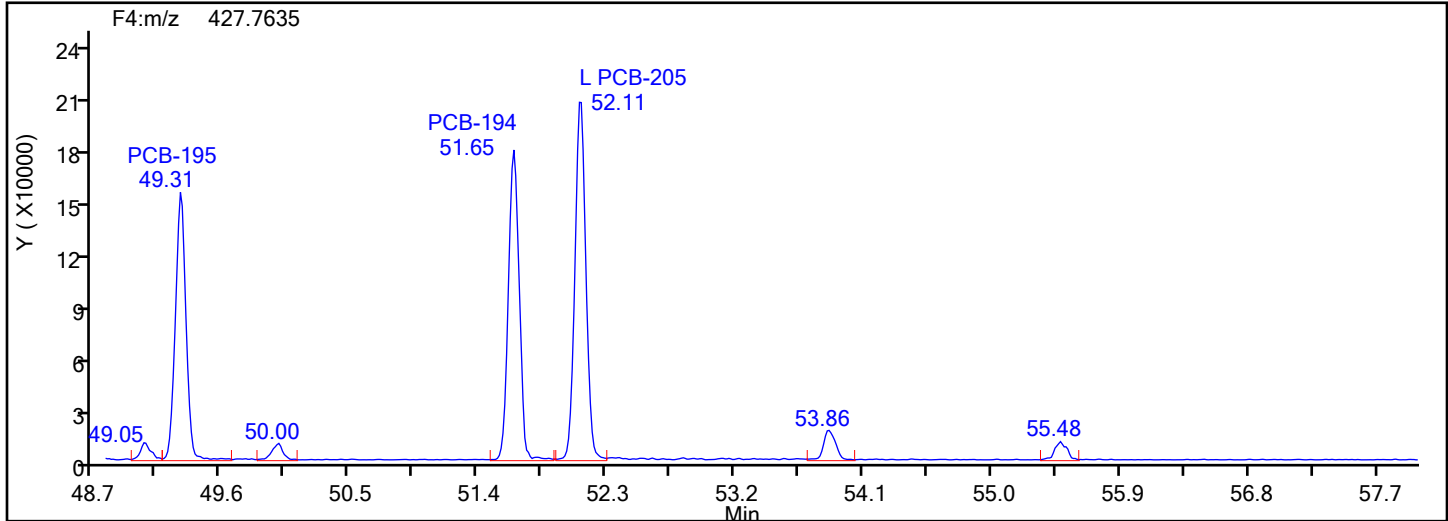


OcPCB F4 Standards

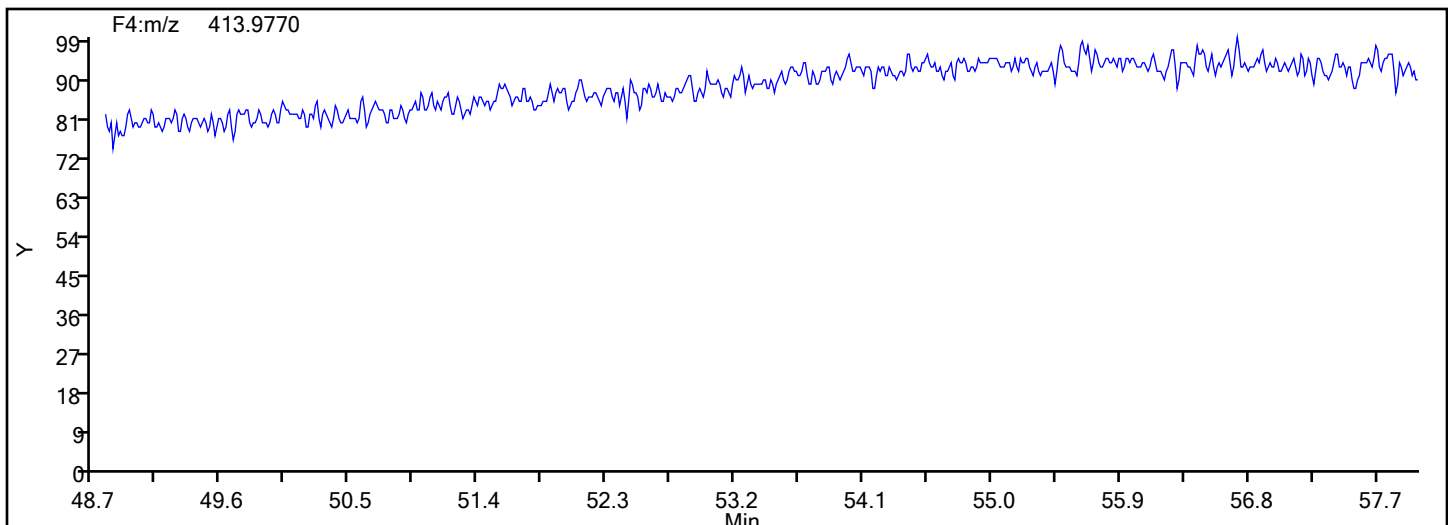


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88809 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4



## OcPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

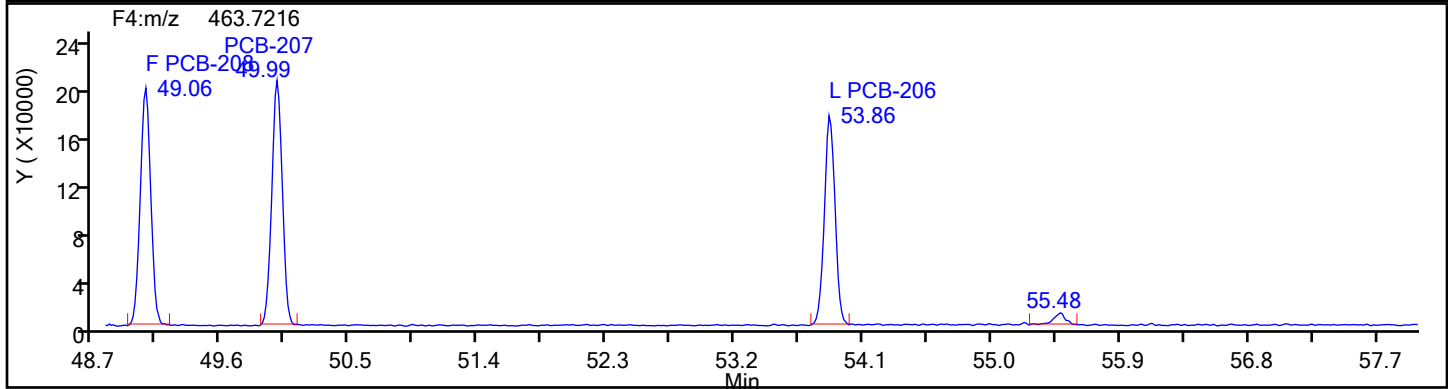
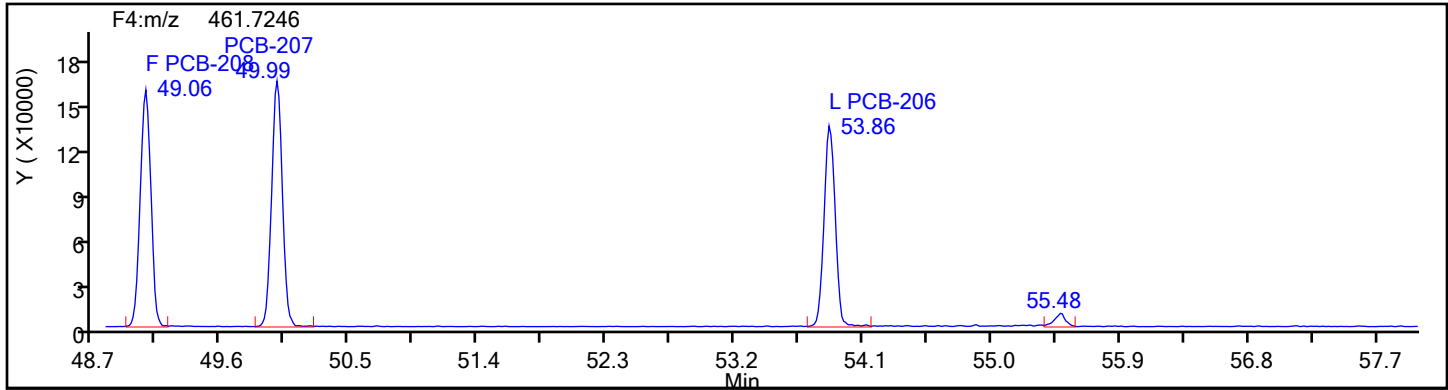
Worklist#: 88809

Sample Line#: 1

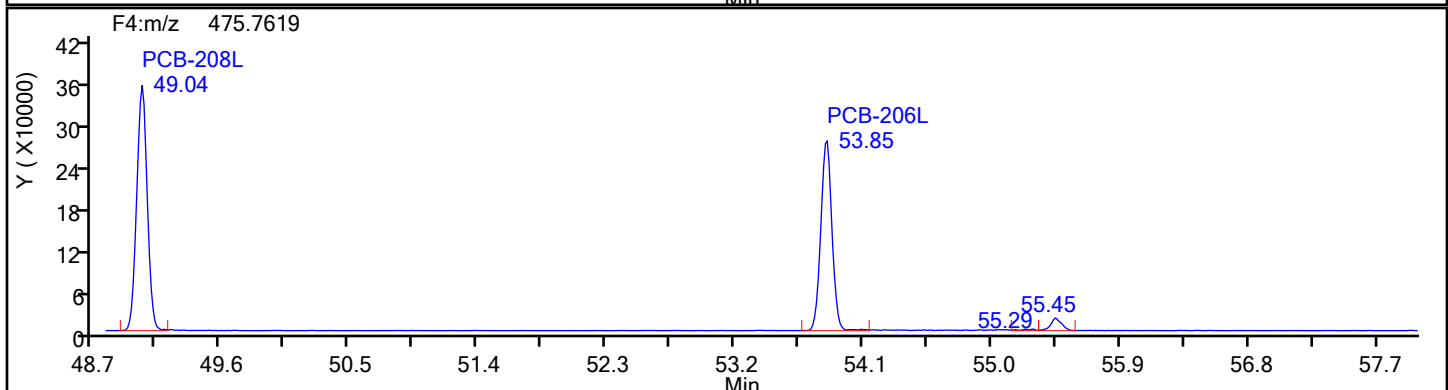
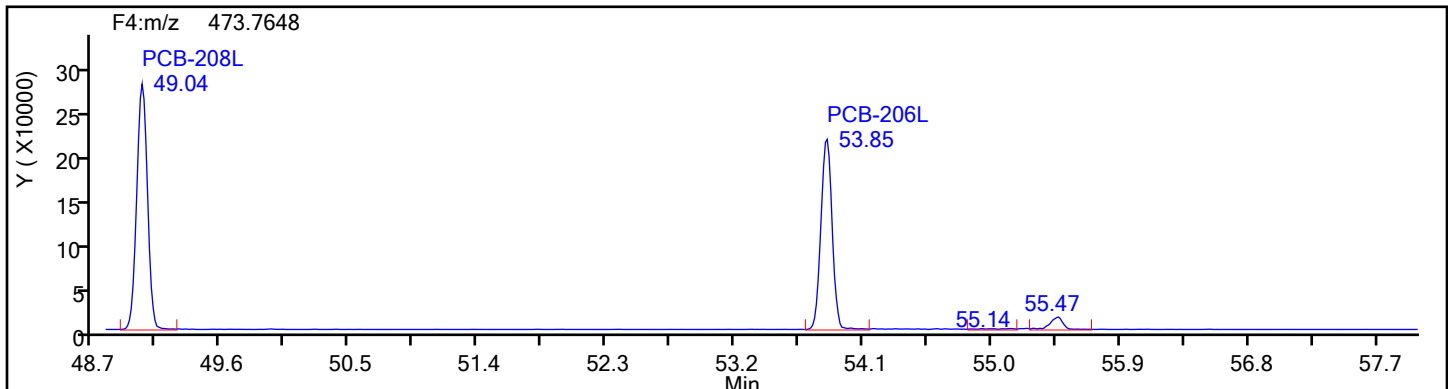
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



NoPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

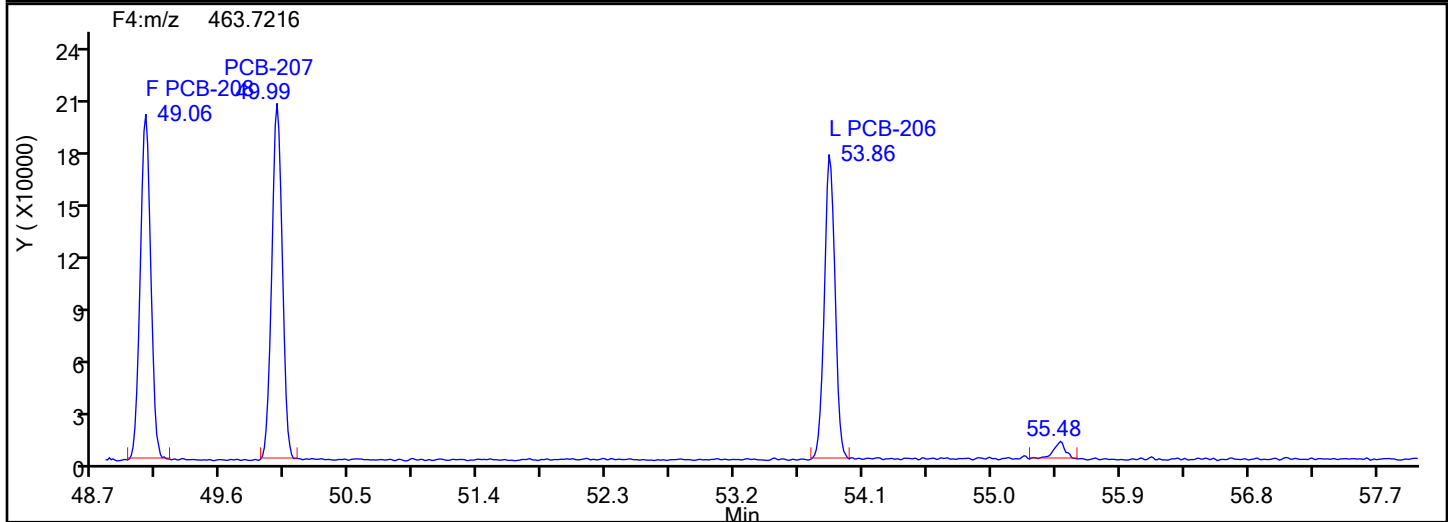
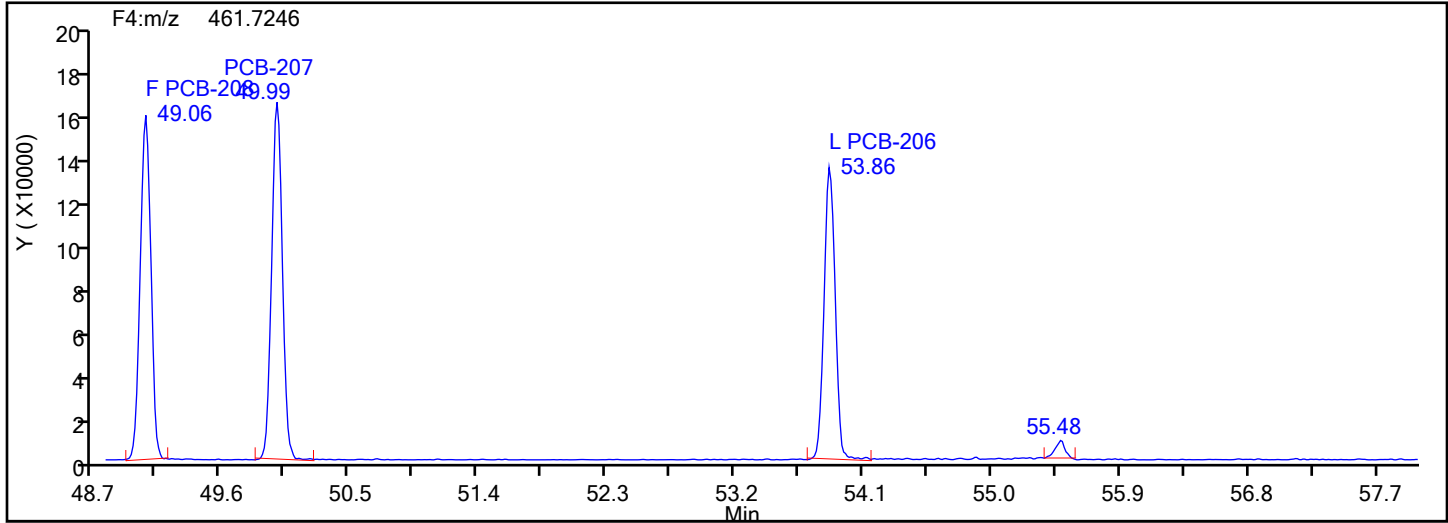
Worklist#: 88809

Sample Line#: 1

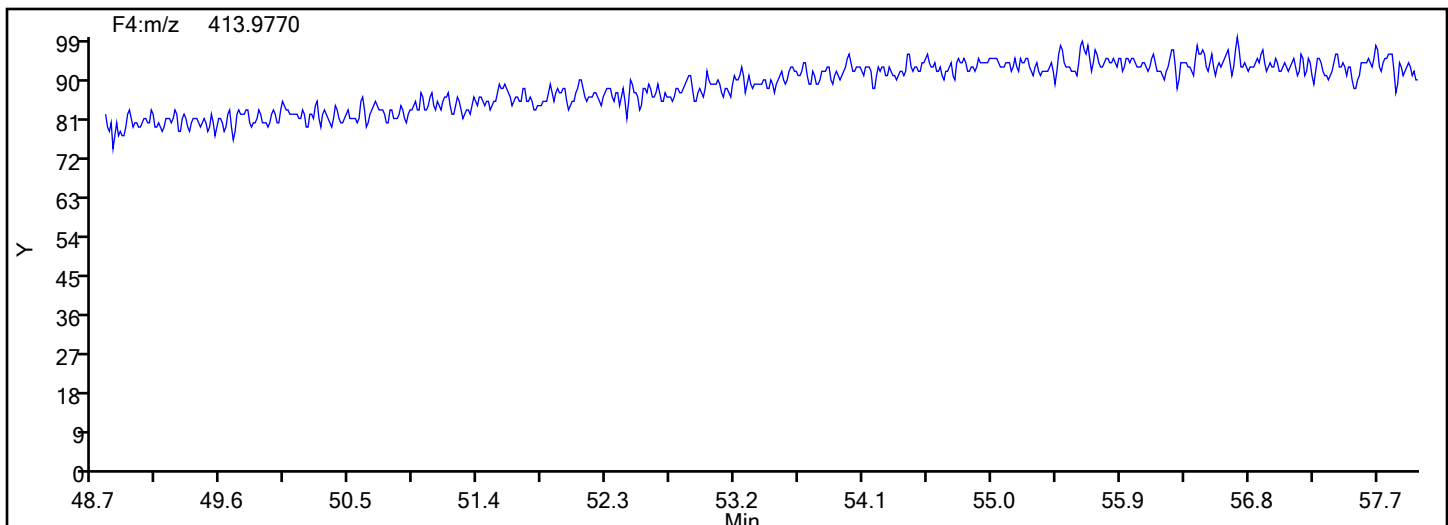
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4

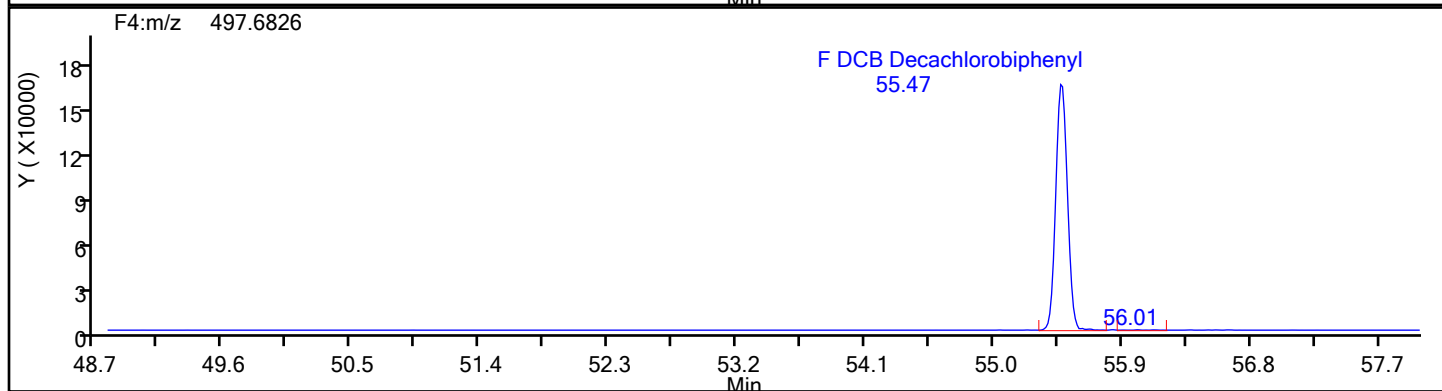
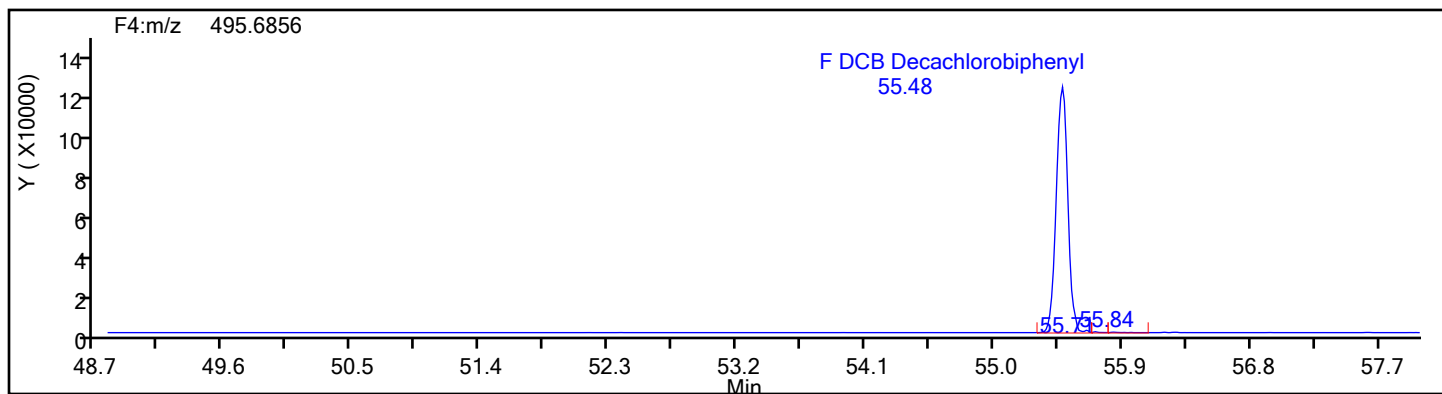


NoPCB F4 Lock Mass

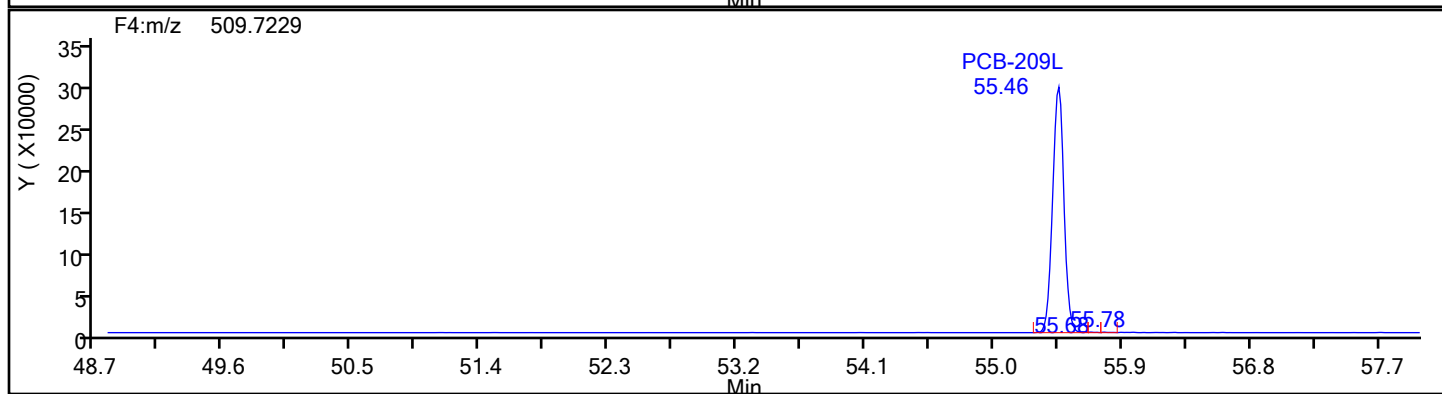
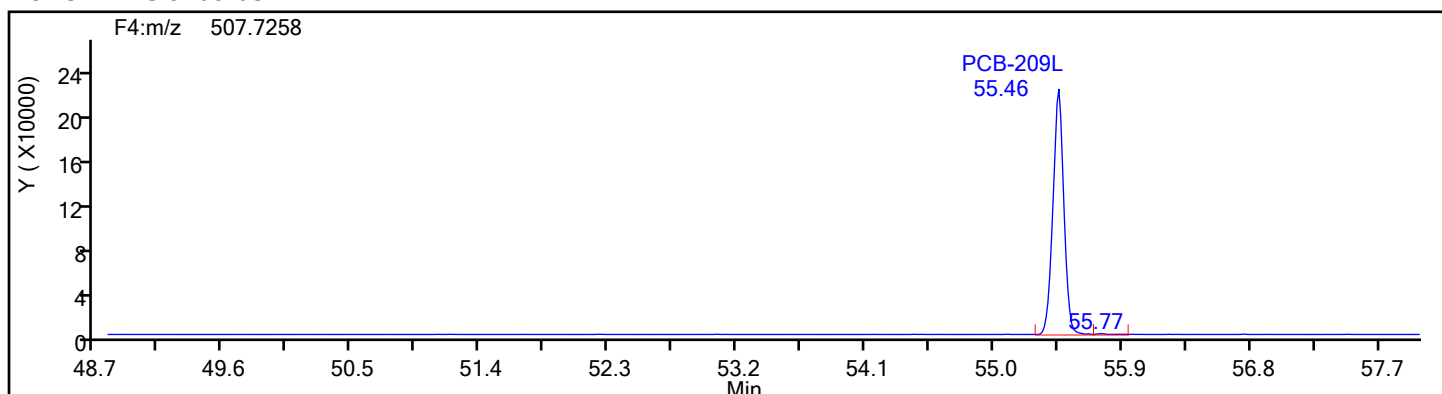


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d  
Injection Date: 16-Jul-2024 11:46:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88809 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4



## DePCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33521.b\d2240716c1a.d

Injection Date: 16-Jul-2024 11:46:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

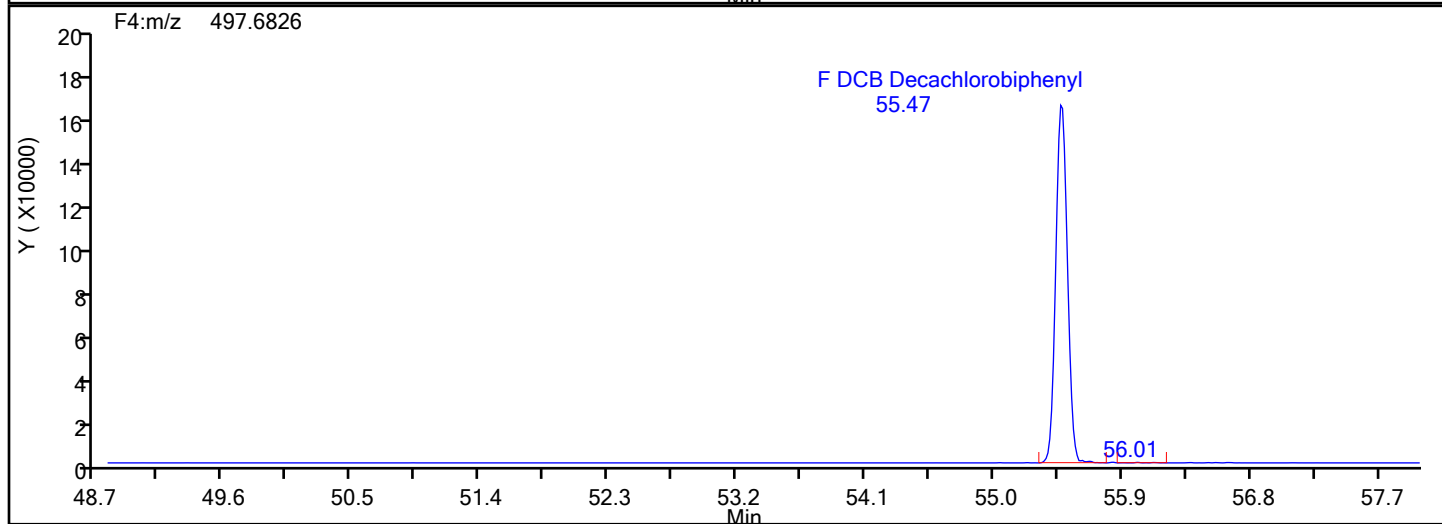
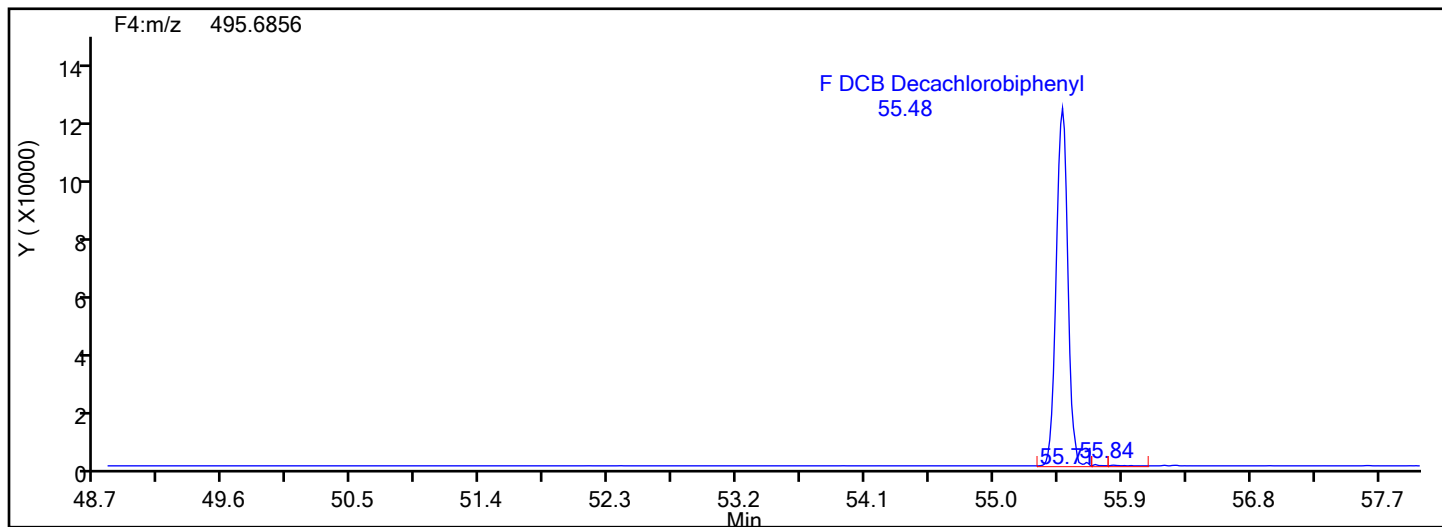
Worklist#: 88809

Sample Line#: 1

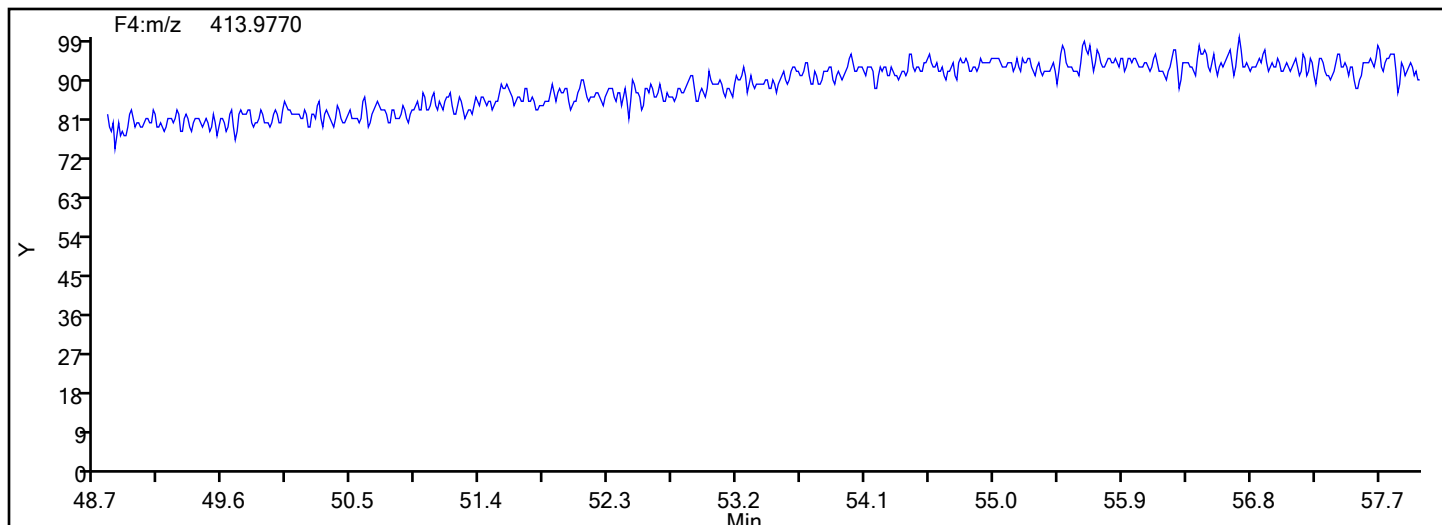
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



DePCB F4 Lock Mass





FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID: WDMCCV 140-88834/1 Calibration Date: 07/16/2024 23:14  
Instrument ID: D2D Calib Start Date: 05/31/2024 14:36  
GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13  
Lab File ID: d2240716c2a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1	AveID	1.219	1.216		49.9	50.0	-0.2	25.0
PCB-2	AveID	1.181	1.203		50.9	50.0	1.9	25.0
PCB-3	AveID	1.221	1.250		51.2	50.0	2.4	25.0
PCB-4	AveID	1.282	1.274		49.7	50.0	-0.6	25.0
PCB-10	AveID	1.315	1.395		53.0	50.0	6.1	25.0
PCB-9	AveID	1.422	1.460		51.3	50.0	2.6	25.0
PCB-7	AveID	1.413	1.466		51.9	50.0	3.7	25.0
PCB-6	AveID	1.542	1.590		51.5	50.0	3.1	25.0
PCB-5	AveID	1.339	1.356		50.6	50.0	1.2	25.0
PCB-8	AveID	1.589	1.670		52.6	50.0	5.1	25.0
PCB-19	AveID	1.281	1.249		48.8	50.0	-2.5	25.0
PCB-14	AveID	1.402	1.407		50.2	50.0	0.3	25.0
PCB-18	AveID	1.765	1.706		96.7	100	-3.3	25.0
PCB-18/30	AveID	1.765	1.706		96.7	100	-3.3	25.0
PCB-30	AveID	1.765	1.706		96.7	100	-3.3	25.0
PCB-11	AveID	1.295	1.356		52.3	50.0	4.7	25.0
PCB-17	AveID	1.243	1.178		47.4	50.0	-5.2	25.0
PCB-12	AveID	1.336	1.361		102	100	1.9	25.0
PCB-12/13	AveID	1.336	1.361		102	100	1.9	25.0
PCB-13	AveID	1.336	1.361		102	100	1.9	25.0
PCB-27	AveID	1.833	1.761		48.1	50.0	-3.9	25.0
PCB-24	AveID	1.678	1.635		48.7	50.0	-2.5	25.0
PCB-16	AveID	1.129	1.129		50.0	50.0	0.0	25.0
PCB-15	AveID	1.290	1.342		52.0	50.0	4.0	25.0
PCB-54	AveID	1.273	1.276		50.1	50.0	0.3	25.0
PCB-32	AveID	1.832	1.805		49.3	50.0	-1.5	25.0
PCB-34	AveID	1.128	1.197		53.1	50.0	6.1	25.0
PCB-23	AveID	1.081	1.184		54.8	50.0	9.5	25.0
PCB-26	AveID	1.125	1.196		106	100	6.2	25.0
PCB-26/29	AveID	1.125	1.196		106	100	6.2	25.0
PCB-29	AveID	1.125	1.196		106	100	6.2	25.0
PCB-25	AveID	1.273	1.379		54.2	50.0	8.4	25.0
PCB-50	AveID	0.8578	0.8242		96.1	100	-3.9	25.0
PCB-50/53	AveID	0.8578	0.8242		96.1	100	-3.9	25.0
PCB-53	AveID	0.8578	0.8242		96.1	100	-3.9	25.0
PCB-31	AveID	1.153	1.235		53.6	50.0	7.1	25.0
PCB-20	AveID	1.172	1.234		105	100	5.3	25.0
PCB-20/28	AveID	1.172	1.234		105	100	5.3	25.0
PCB-28	AveID	1.172	1.234		105	100	5.3	25.0
PCB-21	AveID	1.075	1.160		108	100	7.9	25.0
PCB-21/33	AveID	1.075	1.160		108	100	7.9	25.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: WDMCCV 140-88834/1 Calibration Date: 07/16/2024 23:14

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240716c2a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-33	AveID	1.075	1.160		108	100	7.9	25.0
PCB-45	AveID	0.8264	0.8462		102	100	2.4	25.0
PCB-45/51	AveID	0.8264	0.8462		102	100	2.4	25.0
PCB-51	AveID	0.8264	0.8462		102	100	2.4	25.0
PCB-46	AveID	0.7101	0.6892		48.5	50.0	-2.9	25.0
PCB-22	AveID	1.193	1.272		53.3	50.0	6.6	25.0
PCB-52	AveID	0.9194	0.8979		48.8	50.0	-2.3	25.0
PCB-43	AveID	1.033	1.031		99.8	100	-0.2	25.0
PCB-43/73	AveID	1.033	1.031		99.8	100	-0.2	25.0
PCB-73	AveID	1.033	1.031		99.8	100	-0.2	25.0
PCB-36	AveID	1.107	1.166		52.7	50.0	5.3	25.0
PCB-49	AveID	1.069	1.034		96.7	100	-3.3	25.0
PCB-49/69	AveID	1.069	1.034		96.7	100	-3.3	25.0
PCB-69	AveID	1.069	1.034		96.7	100	-3.3	25.0
PCB-39	AveID	1.158	1.249		53.9	50.0	7.9	25.0
PCB-48	AveID	0.8399	0.8314		49.5	50.0	-1.0	25.0
PCB-104	AveID	1.009	1.044		51.8	50.0	3.5	25.0
PCB-44	AveID	0.9731	0.9465		146	150	-2.7	25.0
PCB-44/47/65	AveID	0.9731	0.9465		146	150	-2.7	25.0
PCB-47	AveID	0.9731	0.9465		146	150	-2.7	25.0
PCB-65	AveID	0.9731	0.9465		146	150	-2.7	25.0
PCB-38	AveID	1.084	1.131		52.2	50.0	4.3	25.0
PCB-59	AveID	1.185	1.125		142	150	-5.1	25.0
PCB-59/62/75	AveID	1.185	1.125		142	150	-5.1	25.0
PCB-62	AveID	1.185	1.125		142	150	-5.1	25.0
PCB-75	AveID	1.185	1.125		142	150	-5.1	25.0
PCB-96	AveID	1.094	1.061		48.5	50.0	-3.0	25.0
PCB-42	AveID	0.8097	0.8352		51.6	50.0	3.2	25.0
PCB-35	AveID	1.130	1.191		52.7	50.0	5.5	25.0
PCB-40	AveID	0.8863	0.8478		144	150	-4.3	25.0
PCB-40/41/71	AveID	0.8863	0.8478		144	150	-4.3	25.0
PCB-41	AveID	0.8863	0.8478		144	150	-4.3	25.0
PCB-71	AveID	0.8863	0.8478		144	150	-4.3	25.0
PCB-37	AveID	1.144	1.166		51.0	50.0	2.0	25.0
PCB-64	AveID	1.178	1.137		48.3	50.0	-3.5	25.0
PCB-72	AveID	1.094	1.095		50.0	50.0	0.0	25.0
PCB-103	AveID	0.8741	0.8790		50.3	50.0	0.6	25.0
PCB-68	AveID	1.253	1.234		49.2	50.0	-1.6	25.0
PCB-94	AveID	0.7640	0.7333		48.0	50.0	-4.0	25.0
PCB-57	AveID	1.082	1.129		52.2	50.0	4.4	25.0
PCB-95	AveID	0.8033	0.8022		49.9	50.0	-0.1	25.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID: WDMCCV 140-88834/1 Calibration Date: 07/16/2024 23:14  
Instrument ID: D2D Calib Start Date: 05/31/2024 14:36  
GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13  
Lab File ID: d2240716c2a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-58	AveID	1.325	1.369		51.6	50.0	3.3	25.0
PCB-100	AveID	0.8429	0.8145		96.6	100	-3.4	25.0
PCB-93	AveID	0.8429	0.8145		96.6	100	-3.4	25.0
PCB-93/100	AveID	0.8429	0.8145		96.6	100	-3.4	25.0
PCB-67	AveID	1.423	1.390		48.9	50.0	-2.3	25.0
PCB-102	AveID	0.8262	0.8039		97.3	100	-2.7	25.0
PCB-98	AveID	0.8262	0.8039		97.3	100	-2.7	25.0
PCB-98/102	AveID	0.8262	0.8039		97.3	100	-2.7	25.0
PCB-63	AveID	1.124	1.127		50.2	50.0	0.3	25.0
PCB-88	AveID	0.8013	0.7809		97.5	100	-2.5	25.0
PCB-88/91	AveID	0.8013	0.7809		97.5	100	-2.5	25.0
PCB-91	AveID	0.8013	0.7809		97.5	100	-2.5	25.0
PCB-61	AveID	1.261	1.234		196	200	-2.2	25.0
PCB-61/70/74/76	AveID	1.261	1.234		196	200	-2.2	25.0
PCB-70	AveID	1.261	1.234		196	200	-2.2	25.0
PCB-74	AveID	1.261	1.234		196	200	-2.2	25.0
PCB-76	AveID	1.261	1.234		196	200	-2.2	25.0
PCB-84	AveID	0.7299	0.7154		49.0	50.0	-2.0	25.0
PCB-66	AveID	1.258	1.324		52.6	50.0	5.2	25.0
PCB-55	AveID	1.324	1.344		50.8	50.0	1.5	25.0
PCB-89	AveID	0.7798	0.7279		46.7	50.0	-6.7	25.0
PCB-56	AveID	1.233	1.232		50.0	50.0	-0.1	25.0
PCB-121	AveID	1.296	1.261		48.7	50.0	-2.7	25.0
PCB-60	AveID	1.123	1.073		47.8	50.0	-4.5	25.0
PCB-92	AveID	0.8546	0.8275		48.4	50.0	-3.2	25.0
PCB-80	AveID	1.324	1.313		49.6	50.0	-0.8	25.0
PCB-155	AveID	0.9444	0.9838		52.1	50.0	4.2	25.0
PCB-152	AveID	0.9895	1.015		51.3	50.0	2.6	25.0
PCB-101	AveID	0.9550	0.9454		149	150	-1.0	25.0
PCB-113	AveID	0.9550	0.9454		149	150	-1.0	25.0
PCB-90	AveID	0.9550	0.9454		149	150	-1.0	25.0
PCB-90/101/113	AveID	0.9550	0.9454		149	150	-1.0	25.0
PCB-150	AveID	1.013	1.058		52.2	50.0	4.4	25.0
PCB-136	AveID	1.012	1.047		51.8	50.0	3.5	25.0
PCB-83	AveID	0.8385	0.8195		97.7	100	-2.3	25.0
PCB-83/99	AveID	0.8385	0.8195		97.7	100	-2.3	25.0
PCB-99	AveID	0.8385	0.8195		97.7	100	-2.3	25.0
PCB-112	AveID	1.411	1.371		48.6	50.0	-2.9	25.0
PCB-145	AveID	0.9685	1.008		52.0	50.0	4.0	25.0
PCB-109	AveID	1.047	0.996		285	300	-4.9	25.0
PCB-119	AveID	1.047	0.996		285	300	-4.9	25.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: WDMCCV 140-88834/1 Calibration Date: 07/16/2024 23:14

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240716c2a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-125	AveID	1.047	0.996		285	300	-4.9	25.0
PCB-86	AveID	1.047	0.996		285	300	-4.9	25.0
PCB-86/87/97/109/119/125	AveID	1.047	0.996		285	300	-4.9	25.0
PCB-87	AveID	1.047	0.996		285	300	-4.9	25.0
PCB-97	AveID	1.047	0.996		285	300	-4.9	25.0
PCB-79	AveID	1.437	1.331		46.3	50.0	-7.4	25.0
PCB-78	AveID	1.162	1.192		51.3	50.0	2.6	25.0
PCB-116	AveID	1.041	1.008		145	150	-3.2	25.0
PCB-117	AveID	1.041	1.008		145	150	-3.2	25.0
PCB-85	AveID	1.041	1.008		145	150	-3.2	25.0
PCB-85/116/117	AveID	1.041	1.008		145	150	-3.2	25.0
PCB-110	AveID	1.192	1.147		96.2	100	-3.8	25.0
PCB-110/115	AveID	1.192	1.147		96.2	100	-3.8	25.0
PCB-115	AveID	1.192	1.147		96.2	100	-3.8	25.0
PCB-81	AveID	1.080	1.026		47.5	50.0	-5.0	25.0
PCB-148	AveID	0.7603	0.7889		51.9	50.0	3.8	25.0
PCB-82	AveID	0.8303	0.8268		49.8	50.0	-0.4	25.0
PCB-77	AveID	1.084	1.063		49.0	50.0	-1.9	25.0
PCB-111	AveID	1.213	1.192		49.1	50.0	-1.7	25.0
PCB-135	AveID	0.7256	0.7504		103	100	3.4	25.0
PCB-135/151	AveID	0.7256	0.7504		103	100	3.4	25.0
PCB-151	AveID	0.7256	0.7504		103	100	3.4	25.0
PCB-120	AveID	1.476	1.452		49.2	50.0	-1.7	25.0
PCB-154	AveID	0.8129	0.8527		52.5	50.0	4.9	25.0
PCB-144	AveID	0.7852	0.8151		51.9	50.0	3.8	25.0
PCB-147	AveID	0.8950	0.8453		94.5	100	-5.6	25.0
PCB-147/149	AveID	0.8950	0.8453		94.5	100	-5.6	25.0
PCB-149	AveID	0.8950	0.8453		94.5	100	-5.6	25.0
PCB-134	AveID	0.7967	0.7557		94.9	100	-5.2	25.0
PCB-134/143	AveID	0.7967	0.7557		94.9	100	-5.2	25.0
PCB-143	AveID	0.7967	0.7557		94.9	100	-5.2	25.0
PCB-108	AveID	1.141	1.104		96.8	100	-3.2	25.0
PCB-108/124	AveID	1.141	1.104		96.8	100	-3.2	25.0
PCB-124	AveID	1.141	1.104		96.8	100	-3.2	25.0
PCB-139	AveID	0.8769	0.8381		95.6	100	-4.4	25.0
PCB-139/140	AveID	0.8769	0.8381		95.6	100	-4.4	25.0
PCB-140	AveID	0.8769	0.8381		95.6	100	-4.4	25.0
PCB-107	AveID	1.212	1.162		47.9	50.0	-4.1	25.0
PCB-131	AveID	0.7503	0.7091		47.3	50.0	-5.5	25.0
PCB-123	AveID	1.072	1.046		48.8	50.0	-2.4	25.0
PCB-106	AveID	1.084	1.105		51.0	50.0	1.9	25.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: WDMCCV 140-88834/1 Calibration Date: 07/16/2024 23:14

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240716c2a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-142	AveID	0.7507	0.7442		49.6	50.0	-0.9	25.0
PCB-118	AveID	1.206	1.217		50.5	50.0	0.9	25.0
PCB-132	AveID	0.7489	0.7017		46.9	50.0	-6.3	25.0
PCB-122	AveID	0.9567	0.9499		49.6	50.0	-0.7	25.0
PCB-188	AveID	1.135	1.159		51.1	50.0	2.1	25.0
PCB-114	AveID	1.084	1.115		51.4	50.0	2.8	25.0
PCB-133	AveID	0.8096	0.7453		46.0	50.0	-7.9	25.0
PCB-179	AveID	1.428	1.377		48.2	50.0	-3.6	25.0
PCB-165	AveID	1.025	1.035		50.5	50.0	1.0	25.0
PCB-105	AveID	1.188	1.190		50.1	50.0	0.2	25.0
PCB-146	AveID	0.9637	0.9303		48.3	50.0	-3.5	25.0
PCB-184	AveID	1.367	1.371		50.2	50.0	0.3	25.0
PCB-161	AveID	1.129	1.104		48.9	50.0	-2.2	25.0
PCB-176	AveID	1.233	1.255		50.9	50.0	1.8	25.0
PCB-153	AveID	1.094	1.088		99.5	100	-0.6	25.0
PCB-153/168	AveID	1.094	1.088		99.5	100	-0.6	25.0
PCB-168	AveID	1.094	1.088		99.5	100	-0.6	25.0
PCB-141	AveID	0.8755	0.8388		47.9	50.0	-4.2	25.0
PCB-186	AveID	1.474	1.507		51.1	50.0	2.2	25.0
PCB-130	AveID	0.7051	0.6648		47.1	50.0	-5.7	25.0
PCB-127	AveID	1.139	1.137		49.9	50.0	-0.2	25.0
PCB-137	AveID	0.7767	0.7712		49.7	50.0	-0.7	25.0
PCB-164	AveID	1.038	1.040		50.1	50.0	0.2	25.0
PCB-129	AveID	0.9464	0.9141		193	200	-3.4	25.0
PCB-129/138/160/163	AveID	0.9464	0.9141		193	200	-3.4	25.0
PCB-138	AveID	0.9464	0.9141		193	200	-3.4	25.0
PCB-160	AveID	0.9464	0.9141		193	200	-3.4	25.0
PCB-163	AveID	0.9464	0.9141		193	200	-3.4	25.0
PCB-158	AveID	1.311	1.268		48.4	50.0	-3.3	25.0
PCB-178	AveID	0.8946	0.9148		51.1	50.0	2.3	25.0
PCB-175	AveID	0.9524	0.9649		50.7	50.0	1.3	25.0
PCB-126	AveID	1.098	1.119		51.0	50.0	1.9	25.0
PCB-128	AveID	0.9829	0.9417		95.8	100	-4.2	25.0
PCB-128/166	AveID	0.9829	0.9417		95.8	100	-4.2	25.0
PCB-166	AveID	0.9829	0.9417		95.8	100	-4.2	25.0
PCB-187	AveID	1.102	1.104		50.1	50.0	0.2	25.0
PCB-182	AveID	0.9247	0.9722		52.6	50.0	5.1	25.0
PCB-183	AveID	0.9825	0.9557		97.3	100	-2.7	25.0
PCB-183/185	AveID	0.9825	0.9557		97.3	100	-2.7	25.0
PCB-185	AveID	0.9825	0.9557		97.3	100	-2.7	25.0
PCB-174	AveID	0.9642	1.009		52.3	50.0	4.7	25.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID: WDMCCV 140-88834/1 Calibration Date: 07/16/2024 23:14  
Instrument ID: D2D Calib Start Date: 05/31/2024 14:36  
GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13  
Lab File ID: d2240716c2a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-159	AveID	1.386	1.345		48.5	50.0	-2.9	25.0
PCB-162	AveID	1.257	1.211		48.2	50.0	-3.6	25.0
PCB-177	AveID	0.9773	0.9592		49.1	50.0	-1.9	25.0
PCB-202	AveID	1.036	1.061		51.2	50.0	2.5	25.0
PCB-167	AveID	1.116	1.122		50.3	50.0	0.6	25.0
PCB-181	AveID	0.9505	0.9580		50.4	50.0	0.8	25.0
PCB-171	AveID	0.9336	0.9097		97.4	100	-2.6	25.0
PCB-171/173	AveID	0.9336	0.9097		97.4	100	-2.6	25.0
PCB-173	AveID	0.9336	0.9097		97.4	100	-2.6	25.0
PCB-201	AveID	0.9754	1.018		52.2	50.0	4.3	25.0
PCB-156	AveID	1.110	1.120		101	100	0.9	25.0
PCB-156/157	AveID	1.110	1.120		101	100	0.9	25.0
PCB-157	AveID	1.110	1.120		101	100	0.9	25.0
PCB-204	AveID	1.049	1.059		50.5	50.0	1.0	25.0
PCB-197	AveID	1.146	1.103		48.1	50.0	-3.8	25.0
PCB-200	AveID	1.007	1.082		53.7	50.0	7.5	25.0
PCB-172	AveID	0.8519	0.8458		49.6	50.0	-0.7	25.0
PCB-192	AveID	1.346	1.456		54.1	50.0	8.2	25.0
PCB-180	AveID	1.168	1.225		105	100	4.9	25.0
PCB-180/193	AveID	1.168	1.225		105	100	4.9	25.0
PCB-193	AveID	1.168	1.225		105	100	4.9	25.0
PCB-191	AveID	1.289	1.395		54.1	50.0	8.2	25.0
PCB-170	AveID	1.187	1.182		49.8	50.0	-0.4	25.0
PCB-190	AveID	1.332	1.481		55.6	50.0	11.1	25.0
PCB-169	AveID	1.163	1.167		50.2	50.0	0.3	25.0
PCB-198	AveID	0.8698	0.9054		104	100	4.1	25.0
PCB-198/199	AveID	0.8698	0.9054		104	100	4.1	25.0
PCB-199	AveID	0.8698	0.9054		104	100	4.1	25.0
PCB-196	AveID	0.7806	0.8343		53.4	50.0	6.9	25.0
PCB-203	AveID	0.9292	0.9908		53.3	50.0	6.6	25.0
PCB-208	AveID	1.137	1.114		49.0	50.0	-2.0	25.0
PCB-195	AveID	0.8263	0.7967		48.2	50.0	-3.6	25.0
PCB-189	AveID	0.9633	1.013		52.6	50.0	5.2	25.0
PCB-207	AveID	1.376	1.299		47.2	50.0	-5.6	25.0
PCB-194	AveID	0.9735	0.9200		47.3	50.0	-5.5	25.0
PCB-205	AveID	1.088	1.088		50.0	50.0	0.0	25.0
PCB-206	AveID	1.335	1.224		45.8	50.0	-8.3	25.0
PCB-209	AveID	1.100	1.104		50.2	50.0	0.3	25.0
PCB-1L	Ave	1.611	1.610		99.9	100	-0.0	30.0
PCB-3L	Ave	1.589	1.551		97.6	100	-2.4	30.0
PCB-4L	Ave	0.6475	0.6418		99.1	100	-0.9	30.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: WDMCCV 140-88834/1 Calibration Date: 07/16/2024 23:14

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240716c2a.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-19L	Ave	0.6285	0.6344		101	100	0.9	30.0
PCB-15L	Ave	1.079	1.025		95.0	100	-5.0	30.0
PCB-54L	Ave	0.5562	0.6177		111	100	11.1	30.0
PCB-104L	Ave	1.216	1.249		103	100	2.7	30.0
PCB-37L	Ave	0.8749	0.8628		98.6	100	-1.4	30.0
PCB-155L	Ave	1.085	1.088		100	100	0.3	30.0
PCB-81L	Ave	1.247	1.191		95.5	100	-4.5	30.0
PCB-77L	Ave	1.321	1.270		96.1	100	-3.9	30.0
PCB-123L	Ave	0.9731	0.9605		98.7	100	-1.3	30.0
PCB-118L	Ave	1.010	1.028		102	100	1.8	30.0
PCB-188L	Ave	1.313	1.297		98.7	100	-1.3	30.0
PCB-114L	Ave	0.9949	0.9949		100	100	0.0	30.0
PCB-105L	Ave	0.9514	0.9883		104	100	3.9	30.0
PCB-126L	Ave	0.9439	0.9478		100	100	0.4	30.0
PCB-202L	Ave	0.9818	0.9670		98.5	100	-1.5	30.0
PCB-167L	Ave	1.257	1.276		102	100	1.5	30.0
PCB-156L	Ave	1.211	1.238		205	200	2.3	30.0
PCB-156L/157L	Ave	1.211	1.238		205	200	2.3	30.0
PCB-157L	Ave	1.211	1.238		205	200	2.3	30.0
PCB-170L	Ave	0.8362	0.8553		102	100	2.3	30.0
PCB-169L	Ave	1.244	1.327		107	100	6.7	30.0
PCB-208L	Ave	0.9576	0.9592		100	100	0.2	30.0
PCB-189L	Ave	1.441	1.530		106	100	6.1	30.0
PCB-205L	Ave	1.179	1.248		106	100	5.9	30.0
PCB-206L	Ave	0.6947	0.7663		110	100	10.3	30.0
PCB-209L	Ave	0.6669	0.8086		121	100	21.3	30.0
PCB-8L	AveID	1.207	1.166		48.3	50.0	-3.4	25.0
PCB-28L	Ave	1.049	0.995		47.4	50.0	-5.2	30.0
PCB-95L	AveID	0.7218	0.6925		48.0	50.0	-4.1	25.0
PCB-79L	AveID	1.002	1.003		50.1	50.0	0.0	25.0
PCB-111L	Ave	1.370	1.266		46.2	50.0	-7.6	30.0
PCB-153L	AveID	0.9169	0.7973		43.5	50.0	-13.0	25.0
PCB-178L	Ave	1.031	0.9569		46.4	50.0	-7.2	30.0

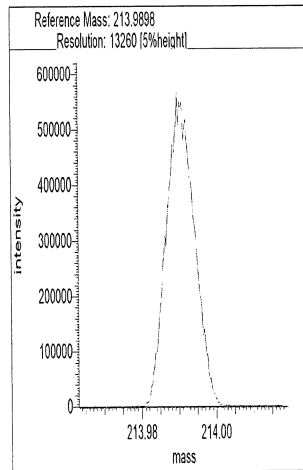
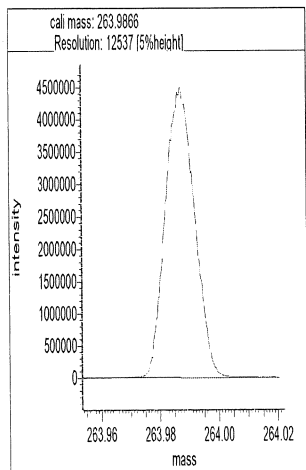
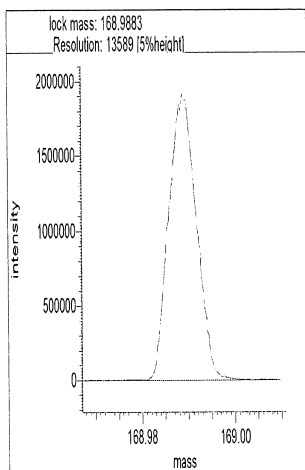
# Resolution Check Report ( DFS SN: 3190 )

Date: 16 Jul 2024 22:41  
MID Experiment: ResCheck\_1668  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43KnxPCB.lua  
Status: RESOLUTION PASSED

-d2240716r2

## Segment 1

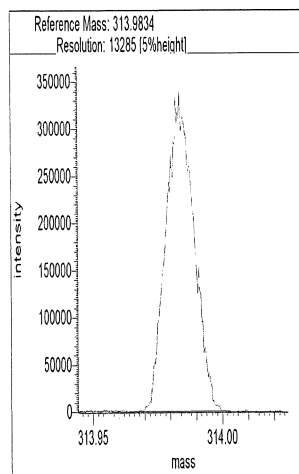
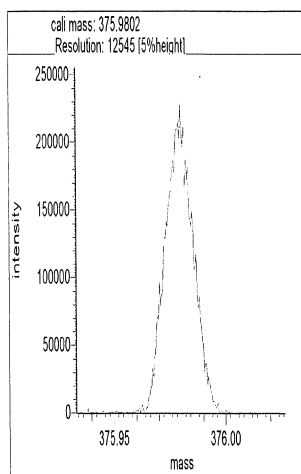
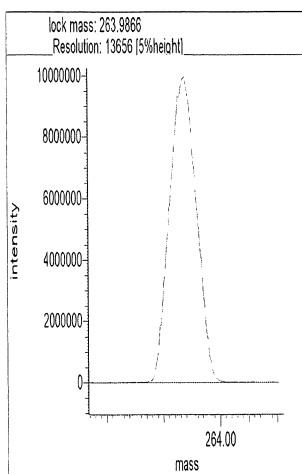
Lock mass 168.9883 [m/z] Resolution: 13589 [5%height]  
Cali. mass 263.9866 [m/z] Resolution: 12537 [5%height]  
Ref. mass 213.9898 [m/z] Resolution: 13260 [5%height]



## Segment 2

Lock mass 263.9866 [m/z] Resolution: 13656 [5%height]  
Cali. mass 375.9802 [m/z] Resolution: 12545 [5%height]  
Ref. mass 313.9834 [m/z] Resolution: 13285 [5%height]



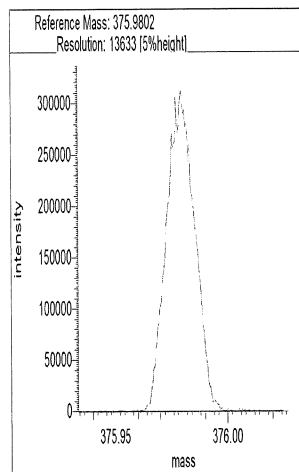
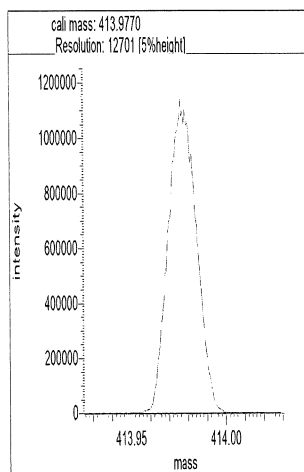
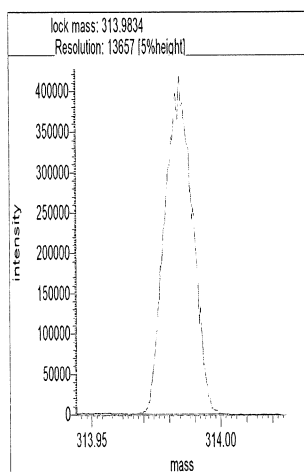


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 13657 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 12701 [5%height]

Ref. mass 375.9802 [m/z] Resolution: 13633 [5%height]

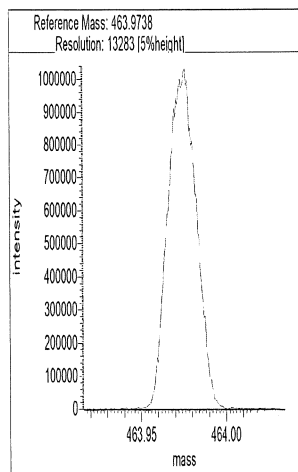
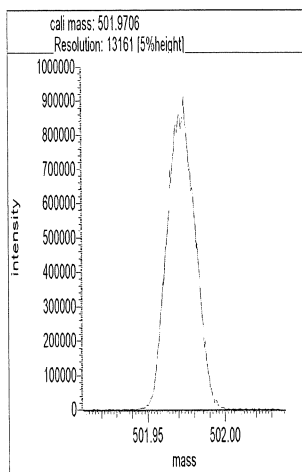
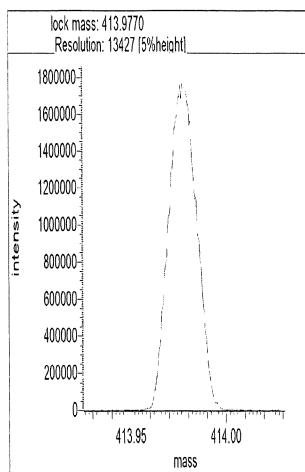


### Segment 4

Lock mass 413.9770 [m/z] Resolution: 13427 [5%height]

Cali. mass 501.9706 [m/z] Resolution: 13161 [5%height]

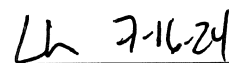
Ref. mass 463.9738 [m/z] Resolution: 13283 [5%height]



## Reports

22:50:11: Peak matching procedure started  
22:50:11:  
22:50:12: Reference mass: 168.98827  
22:50:12: Sample mass: 214.0  
22:50:13:  
22:50:13: Finding reference mass  
22:50:14: Finding sample mass  
22:50:15:  
22:50:20: [1] 213.9903 amu, mean: 213.9903  
22:50:24: [2] 213.9905 amu, mean: 213.9904 SD: 0.12 mmu or: 0.57 ppm  
22:50:27: [3] 213.9902 amu, mean: 213.9903 SD: 0.16 mmu or: 0.75 ppm  
22:50:30: [4] 213.9902 amu, mean: 213.9903 SD: 0.14 mmu or: 0.65 ppm  
22:50:31:  
22:50:31: Stop requested. Please wait for procedure to finish.  
22:50:31:  
22:50:33:  
22:50:34: Peakmatching stopped

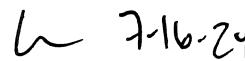
Signature

Handwritten signature in black ink, appearing to be 'LH 7-16-24'.

## Reports

22:51:04: Peak matching procedure started  
22:51:05:  
22:51:05: Reference mass: 213.98975  
22:51:06: Sample mass: 264.0  
22:51:06:  
22:51:07: Finding reference mass  
22:51:08: Finding sample mass  
22:51:08:  
22:51:14: [1] 263.9877 amu, mean: 263.9877  
22:51:17: [2] 263.9874 amu, mean: 263.9875 SD: 0.24 mmu or: 0.92 ppm  
22:51:20: [3] 263.9877 amu, mean: 263.9876 SD: 0.19 mmu or: 0.73 ppm  
22:51:24: [4] 263.9873 amu, mean: 263.9875 SD: 0.21 mmu or: 0.81 ppm  
22:51:24:  
22:51:24: Stop requested. Please wait for procedure to finish.  
22:51:24:  
22:51:27:  
22:51:27: Peakmatching stopped


Signature

Handwritten signature in black ink, appearing to be "L 7-16-24".

## Reports

22:51:47: Peak matching procedure started  
22:51:47:  
22:51:48: Reference mass: 263.98656  
22:51:48: Sample mass: 314.0  
22:51:49:  
22:51:49: Finding reference mass  
22:51:50: Finding sample mass  
22:51:51:  
22:51:57: [1] 313.9853 amu, mean: 313.9853  
22:52:00: [2] 313.9840 amu, mean: 313.9846 SD: 0.91 mmu or: 2.91 ppm  
22:52:03: [3] 313.9844 amu, mean: 313.9845 SD: 0.66 mmu or: 2.10 ppm  
22:52:07: [4] 313.9846 amu, mean: 313.9845 SD: 0.54 mmu or: 1.72 ppm  
22:52:08:  
22:52:08: Stop requested. Please wait for procedure to finish.  
22:52:08:  
22:52:10: [5] 313.9847 amu, mean: 313.9846 SD: 0.48 mmu or: 1.52 ppm  
22:52:11:  
22:52:12: Peakmatching stopped

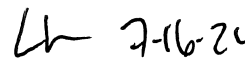
Signature

 7-16-24

## Reports

22:52:32: Peak matching procedure started  
22:52:33:  
22:52:33: Reference mass: 313.98336  
22:52:34: Sample mass: 376.0  
22:52:34:  
22:52:35: Finding reference mass  
22:52:36: Finding sample mass  
22:52:37:  
22:52:42: [1] 375.9811 amu, mean: 375.9811  
22:52:45: [2] 375.9806 amu, mean: 375.9809 SD: 0.37 mmu or: 0.98 ppm  
22:52:49: [3] 375.9819 amu, mean: 375.9812 SD: 0.67 mmu or: 1.77 ppm  
22:52:52: [4] 375.9811 amu, mean: 375.9812 SD: 0.55 mmu or: 1.46 ppm  
22:52:52:  
22:52:52: Stop requested. Please wait for procedure to finish.  
22:52:52:  
22:52:55:  
22:52:56: Peakmatching stopped


Signature

Handwritten signature in black ink, appearing to be "Lh 7-16-24".

## Reports

22:52:32: Peak matching procedure started  
22:52:33: Reference mass: 313.98336  
22:52:34: Sample mass: 376.0  
22:52:34: Finding reference mass  
22:52:36: Finding sample mass  
22:52:37:  
22:52:42: [1] 375.9811 amu, mean: 375.9811 SD: 0.37 mmu or: 0.98 ppm  
22:52:45: [2] 375.9806 amu, mean: 375.9809 SD: 0.67 mmu or: 1.77 ppm  
22:52:49: [3] 375.9819 amu, mean: 375.9812 SD: 0.55 mmu or: 1.46 ppm  
22:52:52: [4] 375.9811 amu, mean: 375.9812 SD: 0.55 mmu or: 1.46 ppm  
22:52:52:  
22:52:52: Stop requested. Please wait for procedure to finish.  
22:52:52:  
22:52:55:  
22:52:56: Peakmatching stopped


Signature

 7-16-24

## Reports

22:53:17: Peak matching procedure started  
22:53:18:  
22:53:18: Reference mass: 375.98017  
22:53:19: Sample mass: 414.0  
22:53:19:  
22:53:20: Finding reference mass  
22:53:21: Finding sample mass  
22:53:21:  
22:53:27: [1] 413.9778 amu, mean: 413.9778  
22:53:30: [2] 413.9773 amu, mean: 413.9776 SD: 0.33 mmu or: 0.80 ppm  
22:53:33: [3] 413.9773 amu, mean: 413.9775 SD: 0.27 mmu or: 0.66 ppm  
22:53:37: [4] 413.9769 amu, mean: 413.9773 SD: 0.39 mmu or: 0.93 ppm  
22:53:37:  
22:53:37: Stop requested. Please wait for procedure to finish.  
22:53:37:  
22:53:40:  
22:53:40: Peakmatching stopped

Signature


 7-16-24



## Reports

22:54:08: Peak matching procedure started  
22:54:08:  
22:54:09: Reference mass: 413.97698  
22:54:09: Sample mass: 464.0  
22:54:10:  
22:54:10: Finding reference mass  
22:54:11: Finding sample mass  
22:54:12:  
22:54:17: [1] 463.9733 amu, mean: 463.9733  
22:54:21: [2] 463.9738 amu, mean: 463.9736 SD: 0.30 mmu or: 0.65 ppm  
22:54:24: [3] 463.9749 amu, mean: 463.9740 SD: 0.79 mmu or: 1.70 ppm  
22:54:27: [4] 463.9739 amu, mean: 463.9740 SD: 0.64 mmu or: 1.39 ppm  
22:54:28:  
22:54:28: Stop requested. Please wait for procedure to finish.  
22:54:28:  
22:54:30:  
22:54:31: Peakmatching stopped

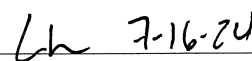
Signature

 7/16/24

## Reports

22:54:53: Peak matching procedure started  
22:54:53:  
22:54:54: Reference mass: 463.97378  
22:54:54: Sample mass: 502.0  
22:54:55:  
22:54:55: Finding reference mass  
22:54:56: Finding sample mass  
22:54:57:  
22:55:03: [1] 501.9706 amu, mean: 501.9706 SD: 0.13 mmu or: 0.27 ppm  
22:55:06: [2] 501.9705 amu, mean: 501.9705 SD: 0.25 mmu or: 0.49 ppm  
22:55:09: [3] 501.9709 amu, mean: 501.9707 SD: 0.26 mmu or: 0.52 ppm  
22:55:12: [4] 501.9704 amu, mean: 501.9706 SD: 0.26 mmu or: 0.52 ppm  
22:55:13:  
22:55:13: Stop requested. Please wait for procedure to finish.  
22:55:13:  
22:55:16: [5] 501.9706 amu, mean: 501.9706 SD: 0.22 mmu or: 0.45 ppm  
22:55:17:  
22:55:18: Peakmatching stopped

Signature

Handwritten signature in black ink, appearing to be "Lh 7-16-24".

# Resolution Check Report ( DFS SN: 3190 )

Date: 17 Jul 2024 09:26  
MID Experiment: ResCheck\_1668  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43KnxPCB.lua  
Status: RESOLUTION PASSED

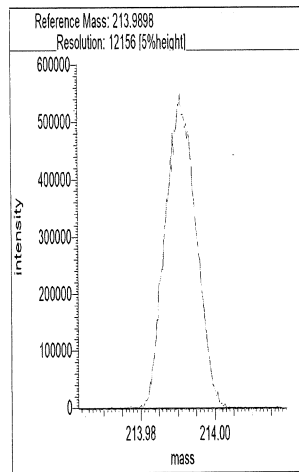
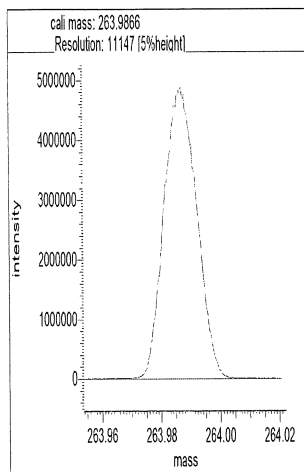
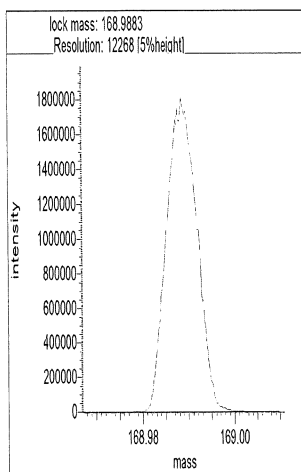
## Segment 1

-d2240717r1

Lock mass 168.9883 [m/z] Resolution: 12268 [5%height]

Cali. mass 263.9866 [m/z] Resolution: 11147 [5%height]

Ref. mass 213.9898 [m/z] Resolution: 12156 [5%height]

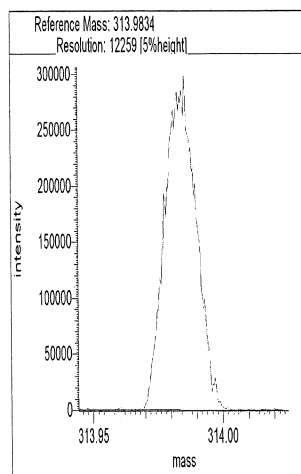
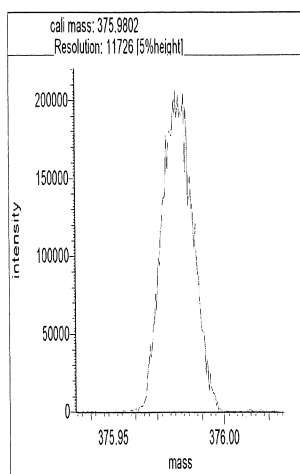
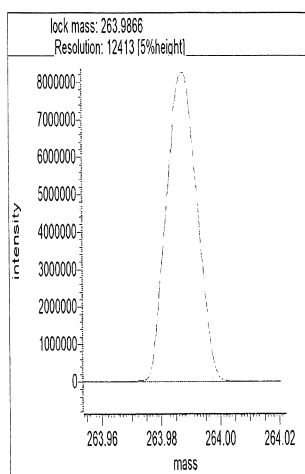


## Segment 2

Lock mass 263.9866 [m/z] Resolution: 12413 [5%height]

Cali. mass 375.9802 [m/z] Resolution: 11726 [5%height]

Ref. mass 313.9834 [m/z] Resolution: 12259 [5%height]

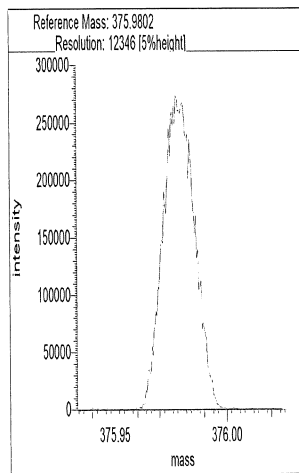
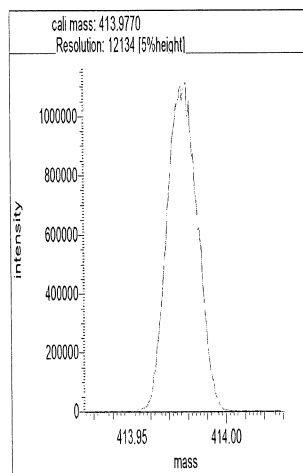
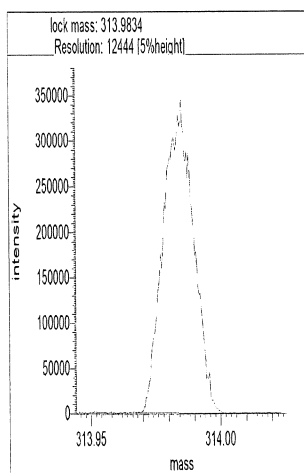


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 12444 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 12134 [5%height]

Ref. mass 375.9802 [m/z] Resolution: 12346 [5%height]

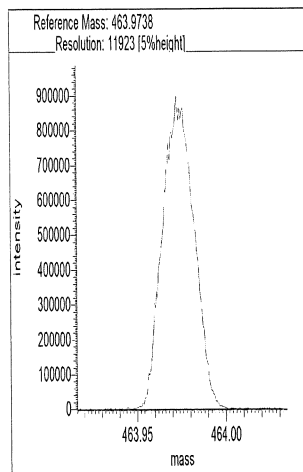
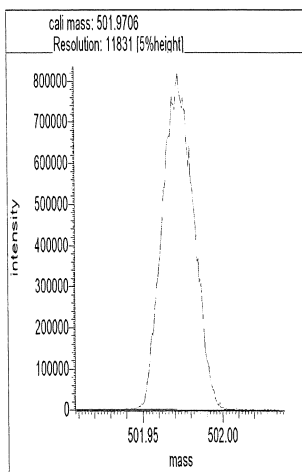
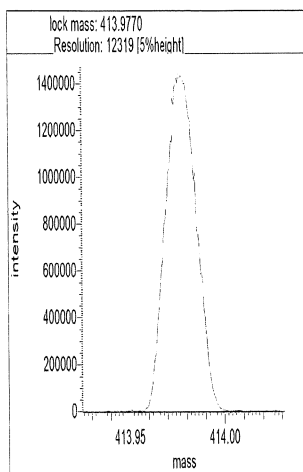


### Segment 4

Lock mass 413.9770 [m/z] Resolution: 12319 [5%height]

Cali. mass 501.9706 [m/z] Resolution: 11831 [5%height]

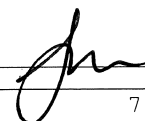
Ref. mass 463.9738 [m/z] Resolution: 11923 [5%height]



## Reports

09:40:26: Peak matching procedure started  
09:40:27:  
09:40:27: Reference mass: 168.98827  
09:40:28: Sample mass: 214.0  
09:40:28:  
09:40:29: Finding reference mass  
09:40:30: Finding sample mass  
09:40:30:  
09:40:36: [1] 213.9901 amu, mean: 213.9901  
09:40:39: [2] 213.9904 amu, mean: 213.9902 SD: 0.24 mmu or: 1.14 ppm  
09:40:42: [3] 213.9903 amu, mean: 213.9903 SD: 0.18 mmu or: 0.84 ppm  
09:40:46: [4] 213.9903 amu, mean: 213.9903 SD: 0.15 mmu or: 0.69 ppm  
09:40:49:  
09:40:49: Stop requested. Please wait for procedure to finish.  
09:40:49:  
09:40:49: [5] 213.9901 amu, mean: 213.9902 SD: 0.14 mmu or: 0.66 ppm  
09:40:52:  
09:40:53: Peakmatching stopped

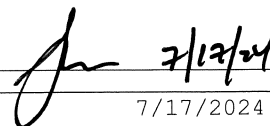
Signature

 7/17/24

## Reports

09:40:57: Peak matching procedure started  
09:40:58:  
09:40:58: Reference mass: 213.98975  
09:40:59: Sample mass: 264.0  
09:40:59:  
09:41:00: Finding reference mass  
09:41:01: Finding sample mass  
09:41:01:  
09:41:07: [1] 263.9872 amu, mean: 263.9872  
09:41:10: [2] 263.9870 amu, mean: 263.9871 SD: 0.14 mmu or: 0.54 ppm  
09:41:13: [3] 263.9874 amu, mean: 263.9872 SD: 0.18 mmu or: 0.69 ppm  
09:41:17: [4] 263.9868 amu, mean: 263.9871 SD: 0.24 mmu or: 0.92 ppm  
09:41:17:  
09:41:17: Stop requested. Please wait for procedure to finish.  
09:41:17:  
09:41:20:  
09:41:20: Peakmatching stopped

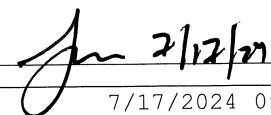
Signature



## Reports

09:41:56: Peak matching procedure started  
09:41:56:  
09:41:57: Reference mass: 263.98656  
09:41:57: Sample mass: 314.0  
09:41:58:  
09:41:58: Finding reference mass  
09:41:59: Finding sample mass  
09:42:00:  
09:42:05: [1] 313.9845 amu, mean: 313.9845  
09:42:09: [2] 313.9845 amu, mean: 313.9845 SD: 0.03 mmu or: 0.10 ppm  
09:42:12: [3] 313.9847 amu, mean: 313.9846 SD: 0.11 mmu or: 0.34 ppm  
09:42:15: [4] 313.9844 amu, mean: 313.9845 SD: 0.12 mmu or: 0.39 ppm  
09:42:15:  
09:42:15: Stop requested. Please wait for procedure to finish.  
09:42:15:  
09:42:18:  
09:42:18: Peakmatching stopped

Signature


A handwritten signature in black ink, appearing to be 'Jm 2/12/24', is written over a horizontal line.



## Reports

09:42:23: Peak matching procedure started  
09:42:24:  
09:42:24: Reference mass: 313.98336  
09:42:25: Sample mass: 376.0  
09:42:25:  
09:42:26: Finding reference mass  
09:42:27: Finding sample mass  
09:42:27:  
09:42:33: [1] 375.9808 amu, mean: 375.9808  
09:42:36: [2] 375.9811 amu, mean: 375.9810 SD: 0.20 mmu or: 0.53 ppm  
09:42:40: [3] 375.9812 amu, mean: 375.9811 SD: 0.21 mmu or: 0.56 ppm  
09:42:43: [4] 375.9802 amu, mean: 375.9808 SD: 0.46 mmu or: 1.23 ppm  
09:42:43:  
09:42:43: Stop requested. Please wait for procedure to finish.  
09:42:43:  
09:42:46:  
09:42:47: Peakmatching stopped

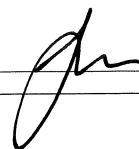
Signature

 7/17/24

## Reports

09:42:23: Peak matching procedure started  
09:42:24:  
09:42:24: Reference mass: 313.98336  
09:42:25: Sample mass: 376.0  
09:42:25:  
09:42:26: Finding reference mass  
09:42:27: Finding sample mass  
09:42:27:  
09:42:33: [1] 375.9808 amu, mean: 375.9808  
09:42:36: [2] 375.9811 amu, mean: 375.9810 SD: 0.20 mmu or: 0.53 ppm  
09:42:40: [3] 375.9812 amu, mean: 375.9811 SD: 0.21 mmu or: 0.56 ppm  
09:42:43: [4] 375.9802 amu, mean: 375.9808 SD: 0.46 mmu or: 1.23 ppm  
09:42:43:  
09:42:43: Stop requested. Please wait for procedure to finish.  
09:42:43:  
09:42:46:  
09:42:47: Peakmatching stopped

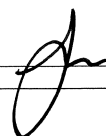
Signature

 7/17/24

## Reports

09:42:52: Peak matching procedure started  
09:42:53:  
09:42:53: Reference mass: 375.98017  
09:42:54: Sample mass: 414.0  
09:42:54:  
09:42:55: Finding reference mass  
09:42:56: Finding sample mass  
09:42:57:  
09:43:02: [1] 413.9777 amu, mean: 413.9777  
09:43:05: [2] 413.9777 amu, mean: 413.9777 SD: 0.02 mmu or: 0.05 ppm  
09:43:09: [3] 413.9778 amu, mean: 413.9777 SD: 0.08 mmu or: 0.18 ppm  
09:43:12: [4] 413.9775 amu, mean: 413.9777 SD: 0.13 mmu or: 0.31 ppm  
09:43:13:  
09:43:13: Stop requested. Please wait for procedure to finish.  
09:43:13:  
09:43:15:  
09:43:15: Peakmatching stopped

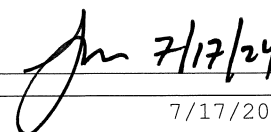
Signature

 7/17/24

## Reports

09:43:20: Peak matching procedure started  
09:43:21:  
09:43:21: Reference mass: 413.97698  
09:43:22: Sample mass: 464.0  
09:43:22:  
09:43:23: Finding reference mass  
09:43:24: Finding sample mass  
09:43:24:  
09:43:30: [1] 463.9749 amu, mean: 463.9749  
09:43:33: [2] 463.9748 amu, mean: 463.9748 SD: 0.06 mmu or: 0.12 ppm  
09:43:37: [3] 463.9748 amu, mean: 463.9748 SD: 0.05 mmu or: 0.10 ppm  
09:43:40: [4] 463.9745 amu, mean: 463.9747 SD: 0.19 mmu or: 0.42 ppm  
09:43:40:  
09:43:40: Stop requested. Please wait for procedure to finish.  
09:43:40:  
09:43:43:  
09:43:43: Peakmatching stopped

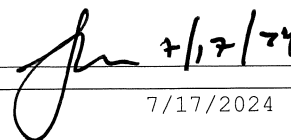
Signature

Handwritten signature in black ink, appearing to be 'Jm' followed by the date '7/17/24'.

## Reports

09:43:47: Peak matching procedure started  
09:43:48:  
09:43:48: Reference mass: 463.97378  
09:43:49: Sample mass: 502.0  
09:43:49:  
09:43:50: Finding reference mass  
09:43:51: Finding sample mass  
09:43:51:  
09:43:57: [1] 501.9706 amu, mean: 501.9706  
09:44:00: [2] 501.9715 amu, mean: 501.9710 SD: 0.66 mmu or: 1.32 ppm  
09:44:04: [3] 501.9709 amu, mean: 501.9710 SD: 0.48 mmu or: 0.95 ppm  
09:44:07: [4] 501.9702 amu, mean: 501.9708 SD: 0.56 mmu or: 1.12 ppm  
09:44:07:  
09:44:07: Stop requested. Please wait for procedure to finish.  
09:44:07:  
09:44:10:  
09:44:10: Peakmatching stopped

Signature

A handwritten signature in black ink, appearing to be 'J. Smith', followed by the date '7/17/24'.

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Lims ID: WDMCCV  
Client ID:  
Sample Type: WDMCCV  
Inject. Date: 16-Jul-2024 23:14:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033532-001  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Sublist: chrom-PCBs\_D2D\*sub2  
  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 00:29:40 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1626

First Level Reviewer: V4XA

Date: 17-Jul-2024 00:29:40

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total Monochlorobiphenyls					152.0	152.0	0.1478	0.1478		
D PCB-1L	11:39	8386204	3.17	1.6108	99.9	99.9	0.2517	0.2517	99.94	
D PCB-3L	13:47	8078970	3.24	1.5891	97.6	97.6	0.2551	0.2551	97.59	
PCB-1	11:39	5099335	3.12	1.2191	49.9	49.9	0.1249	0.1249	99.75	
PCB-2	13:37	4950390	3.13	1.1805	50.9	50.9	0.1487	0.1487	102	
PCB-3	13:48	5050341	3.13	1.2206	51.2	51.2	0.1698	0.1698	102	
S Total Dichlorobiphenyls					617.0	617.0	0.0670	0.0670		
D PCB-4L	14:02	3343676	1.57	0.6475	99.1	99.1	0.1808	0.1808	99.12	
* PCB-9L	15:59	5209520	1.61		100.0	100.0				
\$ PCB-8L	16:49	2530195	1.56	1.2066	48.3	48.3	0.1281	0.1281	96.62	
D PCB-15L	19:54	5337793	1.63	1.0789	95.0	95.0	0.1085	0.1085	94.97	
PCB-4	14:03	2129477	1.58	1.2818	49.7	49.7	0.0752	0.0752	99.37	
PCB-10	14:13	3026696	1.63	1.3149	53.0	53.0	0.0702	0.0702	106	
PCB-9	15:59	3168465	1.62	1.4224	51.3	51.3	0.0649	0.0649	103	
PCB-7	16:10	3181199	1.58	1.4134	51.9	51.9	0.0653	0.0653	104	
PCB-6	16:25	3449804	1.62	1.5421	51.5	51.5	0.0599	0.0599	103	
PCB-5	16:43	2942136	1.52	1.3395	50.6	50.6	0.0689	0.0689	101	
PCB-8	16:50	3624706	1.63	1.5889	52.6	52.6	0.0581	0.0581	105	
PCB-14	18:26	3053570	1.62	1.4025	50.2	50.2	0.0658	0.0658	100	
PCB-11	19:17	2942270	1.61	1.2951	52.3	52.3	0.0713	0.0713	105	
PCB-12	19:36	5909025	1.59	1.3358	101.9	101.9	0.0691	0.0691	102	
PCB-13 (C12)	19:36	5909025	1.59	1.3358	101.9	101.9	0.0691	0.0691	102	
PCB-15	19:54	3581715	1.55	1.2903	52.0	52.0	0.0686	0.0686	104	
S Total Trichlorobiphenyls					1239.6	1239.6	0.4865	0.4865		
D PCB-19L	17:07	2151903	1.05	0.6285	100.9	100.9	0.4746	0.4746	101	
* PCB-32L	20:21	3392061	1.09		100.0	100.0				
* PCB-31L	22:37	7183283	1.04		100.0	100.0				
\$ PCB-28L	22:53	3574193	1.09	1.0494	47.4	47.4	0.1294	0.1294	94.83	
D PCB-37L	26:54	6197442	1.07	0.8749	98.6	98.6	0.1553	0.1553	98.61	
PCB-19	17:09	1344051	1.06	1.2809	48.8	48.8	0.0586	0.0586	97.52	
PCB-18	18:56	3671777	1.09	1.7652	96.7	96.7	0.0425	0.0425	96.66	
PCB-30 (C18)	18:56	3671777	1.09	1.7652	96.7	96.7	0.0425	0.0425	96.66	
PCB-17	19:24	1267566	1.07	1.2430	47.4	47.4	0.0604	0.0604	94.78	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-27	19:38	1895034	1.07	1.8327	48.1	48.1	0.0409	0.0409	96.10	
PCB-24	19:45	1759184	1.04	1.6777	48.7	48.7	0.0447	0.0447	97.46	
PCB-16	19:53	1215110	1.07	1.1286	50.0	50.0	0.0665	0.0665	100	
PCB-32	20:23	1942348	1.04	1.8324	49.3	49.3	0.0409	0.0409	98.52	
PCB-34	21:38	3709445	1.07	1.1277	53.1	53.1	0.7277	0.7277	106	
PCB-23	21:46	3668678	1.04	1.0813	54.7	54.7	0.7589	0.7589	109	
PCB-26	22:06	7410666	1.07	1.1255	106.2	106.2	0.7292	0.7292	106	
PCB-29 (C26)	22:06	7410666	1.07	1.1255	106.2	106.2	0.7292	0.7292	106	
PCB-25	22:19	4274583	1.07	1.2728	54.2	54.2	0.6448	0.6448	108	
PCB-31	22:37	3827105	1.06	1.1532	53.5	53.5	0.7116	0.7116	107	
PCB-20	22:56	7645181	1.05	1.1718	105.3	105.3	0.7003	0.7003	105	
PCB-28 (C20)	22:56	7645181	1.05	1.1718	105.3	105.3	0.7003	0.7003	105	
PCB-21	23:06	7186406	1.07	1.0746	107.9	107.9	0.7637	0.7637	108	M
PCB-33 (C21)	23:06	7186406	1.07	1.0746	107.9	107.9	0.7637	0.7637	108	M
PCB-22	23:34	3942345	1.07	1.1932	53.3	53.3	0.6877	0.6877	107	
PCB-36	25:06	3612341	1.00	1.1071	52.7	52.7	0.7413	0.7413	105	
PCB-39	25:28	3871084	1.04	1.1581	53.9	53.9	0.7086	0.7086	108	
PCB-38	26:02	3505360	1.02	1.0843	52.2	52.2	0.7568	0.7568	104	
PCB-35	26:31	3691367	1.04	1.1297	52.7	52.7	0.7264	0.7264	105	
PCB-37	26:56	3612699	1.07	1.1435	51.0	51.0	0.7176	0.7176	102	
S Total Tetrachlorobiphenyls					2066.1	2066.1	0.4989	0.4989		
D PCB-54L	20:12	2095360	0.81	0.5562	111.1	111.1	0.0542	0.0542	111	
* PCB-52L	24:44	3811382	0.81		100.0	100.0				
\$ PCB-79L	32:38	2351372	0.81	1.0018	50.0	50.0	0.4556	0.4556	100	
D PCB-81L	33:38	4540619	0.80	1.2470	95.5	95.5	0.3703	0.3703	95.54	
D PCB-77L	34:12	4839197	0.81	1.3212	96.1	96.1	0.3495	0.3495	96.10	
PCB-54	20:12	1337363	0.78	1.2733	50.1	50.1	0.0347	0.0347	100	
PCB-50	22:22	3865566	0.79	0.8578	96.1	96.1	0.6413	0.6413	96.09	
PCB-53 (C50)	22:22	3865566	0.79	0.8578	96.1	96.1	0.6413	0.6413	96.09	
PCB-45	23:06	3968780	0.80	0.8264	102.4	102.4	0.6656	0.6656	102	M
PCB-51 (C45)	23:06	3968780	0.80	0.8264	102.4	102.4	0.6656	0.6656	102	M
PCB-46	23:21	1616200	0.81	0.7101	48.5	48.5	0.7747	0.7747	97.06	
PCB-52	24:45	2105619	0.75	0.9194	48.8	48.8	0.5983	0.5983	97.66	
PCB-43	24:53	4836931	0.80	1.0333	99.8	99.8	0.5323	0.5323	99.81	M
PCB-73 (C43)	24:53	4836931	0.80	1.0333	99.8	99.8	0.5323	0.5323	99.81	M
PCB-49	25:10	4847859	0.78	1.0685	96.7	96.7	0.5148	0.5148	96.74	
PCB-69 (C49)	25:10	4847859	0.78	1.0685	96.7	96.7	0.5148	0.5148	96.74	
PCB-48	25:31	1949479	0.80	0.8399	49.5	49.5	0.6549	0.6549	98.98	
PCB-44	25:45	6658468	0.77	0.9731	145.9	145.9	0.5653	0.5653	97.27	
PCB-47 (C44)	25:45	6658468	0.77	0.9731	145.9	145.9	0.5653	0.5653	97.27	
PCB-65 (C44)	25:45	6658468	0.77	0.9731	145.9	145.9	0.5653	0.5653	97.27	
PCB-59	26:04	7911833	0.78	1.1853	142.3	142.3	0.4641	0.4641	94.89	
PCB-62 (C59)	26:04	7911833	0.78	1.1853	142.3	142.3	0.4641	0.4641	94.89	
PCB-75 (C59)	26:04	7911833	0.78	1.1853	142.3	142.3	0.4641	0.4641	94.89	
PCB-42	26:16	1958550	0.74	0.8097	51.6	51.6	0.6794	0.6794	103	
PCB-40	26:46	5964056	0.77	0.8863	143.5	143.5	0.6206	0.6206	95.65	M
PCB-41 (C40)	26:46	5964056	0.77	0.8863	143.5	143.5	0.6206	0.6206	95.65	M
PCB-71 (C40)	26:46	5964056	0.77	0.8863	143.5	143.5	0.6206	0.6206	95.65	M
PCB-64	26:59	2665789	0.76	1.1776	48.3	48.3	0.4671	0.4671	96.54	
PCB-72	27:48	2567376	0.78	1.0943	50.0	50.0	0.5027	0.5027	100	
PCB-68	28:05	2892845	0.78	1.2533	49.2	49.2	0.4389	0.4389	98.43	
PCB-57	28:30	2647486	0.78	1.0818	52.2	52.2	0.5085	0.5085	104	
PCB-58	28:45	3209533	0.79	1.3253	51.6	51.6	0.4150	0.4150	103	
PCB-67	28:55	3260268	0.79	1.4230	48.9	48.9	0.3866	0.3866	97.70	
PCB-63	29:11	2643607	0.77	1.1240	50.2	50.2	0.4894	0.4894	100	
PCB-61	29:31	11574719	0.79	1.2612	195.7	195.7	0.4361	0.4361	97.84	
PCB-70 (C61)	29:31	11574719	0.79	1.2612	195.7	195.7	0.4361	0.4361	97.84	
PCB-74 (C61)	29:31	11574719	0.79	1.2612	195.7	195.7	0.4361	0.4361	97.84	
PCB-76 (C61)	29:31	11574719	0.79	1.2612	195.7	195.7	0.4361	0.4361	97.84	
PCB-66	29:50	3105151	0.76	1.2583	52.6	52.6	0.4372	0.4372	105	
PCB-55	30:00	3151336	0.78	1.3236	50.8	50.8	0.4156	0.4156	102	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-56	30:31	2889258	0.77	1.2334	49.9	49.9	0.4460	0.4460	99.90	
PCB-60	30:43	2516117	0.76	1.1230	47.8	47.8	0.4898	0.4898	95.54	
PCB-80	31:07	3079362	0.79	1.3243	49.6	49.6	0.4154	0.4154	99.16	
PCB-79	32:39	3120990	0.78	1.4368	46.3	46.3	0.3828	0.3828	92.63	
PCB-78	33:13	2795287	0.81	1.1618	51.3	51.3	0.4735	0.4735	103	
PCB-81	33:40	2329103	0.79	1.0802	47.5	47.5	0.5024	0.5024	94.97	
PCB-77	34:13	2571471	0.77	1.0836	49.0	49.0	0.5147	0.5147	98.08	
S Total Pentachlorobiphenyls					2249.2	2249.2	0.3031	0.3031		
D PCB-104L	25:40	3261160	1.61	1.2161	102.7	102.7	0.0464	0.0464	103	
\$ PCB-95L	28:38	1129215	1.70	0.7218	48.0	48.0	0.0582	0.0582	95.94	
* PCB-101L	31:33	2610978	1.59		100.0	100.0				
\$ PCB-111L	34:13	1653289	1.68	1.3699	46.2	46.2	0.0412	0.0412	92.45	
D PCB-123L	36:10	4401233	1.59	0.9731	98.7	98.7	1.034	1.034	98.70	
D PCB-118L	36:30	4712798	1.62	1.0102	101.8	101.8	0.996	0.996	102	
D PCB-114L	37:02	4558870	1.61	0.9949	100.0	100.0	1.011	1.011	100	
D PCB-105L	37:42	4528624	1.56	0.9514	103.9	103.9	1.057	1.057	104	
* PCB-127L	39:09	4582317	1.59		100.0	100.0				
D PCB-126L	40:47	4343266	1.56	0.9439	100.4	100.4	1.066	1.066	100	
PCB-104	25:41	1702775	1.59	1.0087	51.8	51.8	0.0582	0.0582	104	
PCB-96	26:04	1730788	1.57	1.0940	48.5	48.5	0.0536	0.0536	97.02	
PCB-103	27:59	1433360	1.62	0.8741	50.3	50.3	0.0671	0.0671	101	
PCB-94	28:12	1195731	1.58	0.7640	48.0	48.0	0.0768	0.0768	95.98	
PCB-95	28:39	1308065	1.58	0.8033	49.9	49.9	0.0731	0.0731	99.87	
PCB-93	28:51	2656278	1.60	0.8429	96.6	96.6	0.0696	0.0696	96.64	
PCB-100 (C93)	28:51	2656278	1.60	0.8429	96.6	96.6	0.0696	0.0696	96.64	
PCB-98	29:01	2621781	1.63	0.8262	97.3	97.3	0.0710	0.0710	97.31	
PCB-102 (C98)	29:01	2621781	1.63	0.8262	97.3	97.3	0.0710	0.0710	97.31	
PCB-88	29:31	2546539	1.53	0.8013	97.5	97.5	0.0732	0.0732	97.45	
PCB-91 (C88)	29:31	2546539	1.53	0.8013	97.5	97.5	0.0732	0.0732	97.45	
PCB-84	29:45	1166497	1.66	0.7299	49.0	49.0	0.0804	0.0804	98.01	
PCB-89	30:13	1186836	1.62	0.7798	46.7	46.7	0.0753	0.0753	93.34	
PCB-121	30:36	2056805	1.60	1.2964	48.6	48.6	0.0453	0.0453	97.30	
PCB-92	30:59	1349288	1.54	0.8546	48.4	48.4	0.0687	0.0687	96.83	
PCB-90	31:33	4624472	1.58	0.9550	148.5	148.5	0.0615	0.0615	98.99	
PCB-101 (C90)	31:33	4624472	1.58	0.9550	148.5	148.5	0.0615	0.0615	98.99	
PCB-113 (C90)	31:33	4624472	1.58	0.9550	148.5	148.5	0.0615	0.0615	98.99	
PCB-83	32:08	2672589	1.60	0.8385	97.7	97.7	0.0700	0.0700	97.74	
PCB-99 (C83)	32:08	2672589	1.60	0.8385	97.7	97.7	0.0700	0.0700	97.74	
PCB-112	32:16	2234761	1.57	1.4111	48.6	48.6	0.0416	0.0416	97.12	
PCB-86	32:38	9744121	1.61	1.0473	285.3	285.3	0.0560	0.0560	95.10	M
PCB-87 (C86)	32:38	9744121	1.61	1.0473	285.3	285.3	0.0560	0.0560	95.10	M
PCB-97 (C86)	32:38	9744121	1.61	1.0473	285.3	285.3	0.0560	0.0560	95.10	M
PCB-109 (C86)	32:38	9744121	1.61	1.0473	285.3	285.3	0.0560	0.0560	95.10	M
PCB-119 (C86)	32:38	9744121	1.61	1.0473	285.3	285.3	0.0560	0.0560	95.10	M
PCB-125 (C86)	32:38	9744121	1.61	1.0473	285.3	285.3	0.0560	0.0560	95.10	M
PCB-85	33:21	4929829	1.60	1.0408	145.2	145.2	0.0564	0.0564	96.83	
PCB-116 (C85)	33:21	4929829	1.60	1.0408	145.2	145.2	0.0564	0.0564	96.83	
PCB-117 (C85)	33:21	4929829	1.60	1.0408	145.2	145.2	0.0564	0.0564	96.83	
PCB-110	33:34	3740792	1.58	1.1919	96.2	96.2	0.0492	0.0492	96.24	
PCB-115 (C110)	33:34	3740792	1.58	1.1919	96.2	96.2	0.0492	0.0492	96.24	
PCB-82	33:53	1348093	1.53	0.8303	49.8	49.8	0.0707	0.0707	99.57	
PCB-111	34:14	1943003	1.60	1.2125	49.1	49.1	0.0484	0.0484	98.27	
PCB-120	34:42	2367096	1.63	1.4762	49.2	49.2	0.0398	0.0398	98.34	
PCB-108	35:51	4979248	1.55	1.1405	96.8	96.8	0.7876	0.7876	96.82	
PCB-124 (C108)	35:51	4979248	1.55	1.1405	96.8	96.8	0.7876	0.7876	96.82	
PCB-107	36:05	2619344	1.59	1.2121	47.9	47.9	0.7411	0.7411	95.85	
PCB-123	36:12	2301955	1.45	1.0722	48.8	48.8	0.8407	0.8407	97.56	
PCB-106	36:19	2490760	1.69	1.0839	51.0	51.0	0.8287	0.8287	102	
PCB-118	36:32	2867062	1.58	1.2055	50.5	50.5	0.6951	0.6951	101	
PCB-122	36:53	2141457	1.58	0.9567	49.6	49.6	0.9389	0.9389	99.29	



Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-114	37:03	2541007	1.64	1.0842	51.4	51.4	0.8025	0.8025	103	
PCB-105	37:43	2694871	1.60	1.1879	50.1	50.1	0.7567	0.7567	100	
PCB-127	39:10	2562386	1.57	1.1394	49.9	49.9	0.7883	0.7883	99.75	
PCB-126	40:48	2429525	1.57	1.0976	51.0	51.0	0.9093	0.9093	102	
S Total Hexachlorobiphenyls					2070.9	2070.9	0.2519	0.2519		
D PCB-155L	31:17	2841597	1.29	1.0851	100.3	100.3	0.007005	0.007005	100	
\$ PCB-153L	38:22	1566523	1.29	0.9169	43.5	43.5	0.4633	0.4633	86.96	
* PCB-138L	39:37	3094786	1.28		100.0	100.0				
D PCB-167L	42:37	3950050	1.29	1.2572	101.5	101.5	0.3406	0.3406	102	
D PCB-156L	43:47	7661821	1.29	1.2106	204.5	204.5	0.3537	0.3537	102	
D PCB-157L (C156L)	43:47	7661821	1.29	1.2106	204.5	204.5	0.3537	0.3537	102	
D PCB-169L	47:00	4105540	1.26	1.2439	106.7	106.7	0.3442	0.3442	107	
PCB-155	31:19	1397795	1.29	0.9444	52.1	52.1	0.001797	0.001797	104	
PCB-152	31:32	1442309	1.25	0.9895	51.3	51.3	0.001715	0.001715	103	
PCB-150	31:42	1503629	1.26	1.0132	52.2	52.2	0.001675	0.001675	104	
PCB-136	32:05	1488249	1.29	1.0116	51.8	51.8	0.001678	0.001678	104	
PCB-145	32:21	1431460	1.22	0.9685	52.0	52.0	0.001752	0.001752	104	
PCB-148	33:51	1120907	1.27	0.7603	51.9	51.9	0.002232	0.002232	104	
PCB-135	34:27	2132230	1.30	0.7256	103.4	103.4	0.002339	0.002339	103	M
PCB-151 (C135)	34:27	2132230	1.30	0.7256	103.4	103.4	0.002339	0.002339	103	M
PCB-154	34:42	1211496	1.24	0.8129	52.4	52.4	0.002088	0.002088	105	
PCB-144	35:01	1158076	1.28	0.7852	51.9	51.9	0.002161	0.002161	104	
PCB-147	35:23	3321442	1.25	0.8950	94.4	94.4	0.3695	0.3695	94.45	
PCB-149 (C147)	35:23	3321442	1.25	0.8950	94.4	94.4	0.3695	0.3695	94.45	
PCB-134	35:41	2969222	1.28	0.7967	94.8	94.8	0.4151	0.4151	94.85	
PCB-143 (C134)	35:41	2969222	1.28	0.7967	94.8	94.8	0.4151	0.4151	94.85	
PCB-139	35:59	3293133	1.27	0.8769	95.6	95.6	0.3772	0.3772	95.58	
PCB-140 (C139)	35:59	3293133	1.27	0.8769	95.6	95.6	0.3772	0.3772	95.58	
PCB-131	36:11	1393176	1.18	0.7503	47.3	47.3	0.4408	0.4408	94.51	
PCB-142	36:20	1462116	1.28	0.7507	49.6	49.6	0.4405	0.4405	99.13	
PCB-132	36:40	1378586	1.26	0.7489	46.8	46.8	0.4416	0.4416	93.69	
PCB-133	37:09	1464176	1.27	0.8096	46.0	46.0	0.4085	0.4085	92.05	M
PCB-165	37:32	2033546	1.25	1.0247	50.5	50.5	0.3227	0.3227	101	
PCB-146	37:47	1827804	1.28	0.9637	48.3	48.3	0.3432	0.3432	96.54	
PCB-161	37:54	2169030	1.27	1.1288	48.9	48.9	0.2930	0.2930	97.81	
PCB-153	38:24	4274110	1.27	1.0938	99.4	99.4	0.3024	0.3024	99.45	
PCB-168 (C153)	38:24	4274110	1.27	1.0938	99.4	99.4	0.3024	0.3024	99.45	
PCB-141	38:35	1647880	1.25	0.8755	47.9	47.9	0.3777	0.3777	95.80	
PCB-130	39:01	1306062	1.24	0.7051	47.1	47.1	0.4690	0.4690	94.28	
PCB-137	39:13	1515146	1.17	0.7767	49.6	49.6	0.4258	0.4258	99.30	
PCB-164	39:21	2043179	1.32	1.0382	50.1	50.1	0.3185	0.3185	100	
PCB-129	39:39	7183712	1.27	0.9464	193.2	193.2	0.3494	0.3494	96.59	M
PCB-138 (C129)	39:39	7183712	1.27	0.9464	193.2	193.2	0.3494	0.3494	96.59	M
PCB-160 (C129)	39:39	7183712	1.27	0.9464	193.2	193.2	0.3494	0.3494	96.59	M
PCB-163 (C129)	39:39	7183712	1.27	0.9464	193.2	193.2	0.3494	0.3494	96.59	M
PCB-158	40:02	2491806	1.26	1.3110	48.4	48.4	0.2523	0.2523	96.74	
PCB-128	40:53	3700172	1.30	0.9829	95.8	95.8	0.3365	0.3365	95.80	
PCB-166 (C128)	40:53	3700172	1.30	0.9829	95.8	95.8	0.3365	0.3365	95.80	
PCB-159	41:52	2642312	1.25	1.3856	48.5	48.5	0.2387	0.2387	97.06	
PCB-162	42:10	2379739	1.28	1.2571	48.2	48.2	0.2631	0.2631	96.35	
PCB-167	42:37	2216074	1.23	1.1159	50.3	50.3	0.2326	0.2326	101	
PCB-156	43:48	4290110	1.27	1.1104	100.9	100.9	0.3813	0.3813	101	
PCB-157 (C156)	43:48	4290110	1.27	1.1104	100.9	100.9	0.3813	0.3813	101	
PCB-169	47:01	2395275	1.27	1.1628	50.2	50.2	0.2444	0.2444	100	
S Total Heptachlorobiphenyls					1223.1	1223.1	0.0210	0.0210		
D PCB-188L	37:01	3039136	1.06	1.3133	98.7	98.7	0.0133	0.0133	98.74	
\$ PCB-178L	40:04	1121274	1.06	1.0313	46.4	46.4	0.0169	0.0169	92.78	
* PCB-180L	45:09	2343614	1.07		100.0	100.0				
D PCB-170L	46:24	2004498	1.05	0.8362	102.3	102.3	0.0209	0.0209	102	
D PCB-189L	49:30	4711179	1.08	1.4414	106.1	106.1	0.4040	0.4040	106	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-188	37:02	1760941	1.08	1.1350	51.1	51.1	0.008129	0.008129	102	
PCB-179	37:24	1736042	1.08	1.4276	48.2	48.2	0.007869	0.007869	96.44	
PCB-184	37:54	1728937	1.07	1.3672	50.1	50.1	0.008217	0.008217	100	
PCB-176	38:16	1582484	1.05	1.2331	50.9	50.9	0.009110	0.009110	102	
PCB-186	38:44	1899747	1.06	1.4737	51.1	51.1	0.007623	0.007623	102	
PCB-178	40:05	1153474	1.05	0.8946	51.1	51.1	0.0126	0.0126	102	
PCB-175	40:44	1216664	1.11	0.9524	50.7	50.7	0.0118	0.0118	101	
PCB-187	41:00	1392673	1.12	1.1018	50.1	50.1	0.0102	0.0102	100	
PCB-182	41:11	1225803	1.03	0.9247	52.6	52.6	0.0121	0.0121	105	
PCB-183	41:35	2410069	1.05	0.9825	97.3	97.3	0.0114	0.0114	97.27	M
PCB-185 (C183)	41:35	2410069	1.05	0.9825	97.3	97.3	0.0114	0.0114	97.27	M
PCB-174	41:52	1272539	1.08	0.9642	52.3	52.3	0.0117	0.0117	105	
PCB-177	42:18	1209446	1.05	0.9773	49.1	49.1	0.0115	0.0115	98.15	
PCB-181	42:41	1207952	1.04	0.9505	50.4	50.4	0.0118	0.0118	101	
PCB-171	42:54	2294136	1.07	0.9336	97.4	97.4	0.0120	0.0120	97.44	
PCB-173 (C171)	42:54	2294136	1.07	0.9336	97.4	97.4	0.0120	0.0120	97.44	
PCB-172	44:31	1066480	1.04	0.8519	49.6	49.6	0.0132	0.0132	99.29	
PCB-192	44:47	1836411	1.09	1.3459	54.1	54.1	0.008347	0.008347	108	
PCB-180	45:08	3088409	1.05	1.1676	104.9	104.9	0.009621	0.009621	105	
PCB-193 (C180)	45:08	3088409	1.05	1.1676	104.9	104.9	0.009621	0.009621	105	
PCB-191	45:31	1758475	1.02	1.2891	54.1	54.1	0.008714	0.008714	108	
PCB-170	46:26	1184475	1.05	1.1865	49.8	49.8	0.0121	0.0121	99.60	
PCB-190	46:57	1866823	1.02	1.3322	55.6	55.6	0.008432	0.008432	111	
PCB-189	49:32	2386368	1.04	0.9633	52.6	52.6	0.2352	0.2352	105	
S Total Octachlorobiphenyls					612.1	612.1	0.0934	0.0934		
D PCB-202L	42:22	2266311	0.90	0.9818	98.5	98.5	0.0206	0.0206	98.49	
* PCB-194L	51:36	3079961	0.93		100.0	100.0				
D PCB-205L	52:05	3842901	0.91	1.1786	105.9	105.9	0.0476	0.0476	106	
PCB-202	42:24	1202827	0.93	1.0359	51.2	51.2	0.003690	0.003690	102	
PCB-201	43:19	1153127	0.90	0.9754	52.2	52.2	0.003919	0.003919	104	
PCB-204	43:59	1200534	0.89	1.0485	50.5	50.5	0.003646	0.003646	101	
PCB-197	44:13	1249324	0.89	1.1458	48.1	48.1	0.003336	0.003336	96.22	
PCB-200	44:21	1226601	0.90	1.0072	53.7	53.7	0.003795	0.003795	107	
PCB-198	47:05	2051926	0.91	0.8698	104.1	104.1	0.004395	0.004395	104	
PCB-199 (C198)	47:05	2051926	0.91	0.8698	104.1	104.1	0.004395	0.004395	104	
PCB-196	47:46	945377	0.94	0.7806	53.4	53.4	0.004897	0.004897	107	
PCB-203	47:58	1122749	0.92	0.9292	53.3	53.3	0.004114	0.004114	107	
PCB-195	49:17	1530882	0.91	0.8263	48.2	48.2	0.3818	0.3818	96.42	
PCB-194	51:38	1767808	0.88	0.9735	47.3	47.3	0.3241	0.3241	94.51	
PCB-205	52:06	2090823	0.92	1.0878	50.0	50.0	0.2901	0.2901	100	
S Total Nonachlorobiphenyls					142.0	142.0	0.7185	0.7185		
D PCB-208L	49:02	2954442	0.81	0.9576	100.2	100.2	0.8894	0.8894	100	
D PCB-206L	53:50	2360301	0.80	0.6947	110.3	110.3	1.226	1.226	110	
PCB-208	49:03	1646084	0.79	1.1374	49.0	49.0	0.7116	0.7116	97.97	
PCB-207	49:59	1725807	0.81	1.3756	47.2	47.2	0.6626	0.6626	94.42	
PCB-206	53:51	1443967	0.80	1.3346	45.8	45.8	0.7815	0.7815	91.68	
D PCB-209L	55:26	2490467	0.72	0.6669	121.3	121.3	0.0700	0.0700	121	
DCB Decachlorobiphenyl	55:28	1374907	0.70	1.1004	50.2	50.2	0.0141	0.0141	100	M
S Polychlorinated biphenyls, Total					10270	10270	0.2727	0.2727		

**QC Flag Legend**

Processing Flags

Review Flags

M - Manually Integrated

**Reagents:**

61CV1668CS3\_00018

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\2240716c2a.d  
Lims ID: WDMCCV  
Client ID:  
Sample Type: WDMCCV  
Inject. Date: 16-Jul-2024 23:14:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033532-001  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Sublist: chrom-PCBs\_D2D\*sub2  
Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 00:29:40 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1626

First Level Reviewer: V4XA

Date: 17-Jul-2024 00:29:40

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:39	11:39	0	0.729	6375243	2432316	1389	3472	1751		
202.0766	11:39	11:39	0	0.729	2010961	776465	931	2327	834	3.17(2.66-3.60)	
PCB-3L											
200.0795	13:47	13:47	0	0.863	6172809	1796078	1389	3472	1293		
202.0766	13:47	13:47	0	0.863	1906161	561064	931	2327	603	3.24(2.66-3.60)	
PCB-1											
188.0393	11:39	11:39	0	1.001	3861183	1451957	1418	3545	1024		
190.0363	11:39	11:39	0	1.001	1238152	452926	536	1340	845	3.12(2.66-3.60)	
PCB-2											
188.0393	13:37	13:37	0	0.988	3752066	1123845	1418	3545	793		
190.0363	13:37	13:37	0	0.988	1198324	357722	536	1340	667	3.13(2.66-3.60)	
PCB-3											
188.0393	13:48	13:48	0	1.001	3827708	1090610	1418	3545	769		
190.0363	13:48	13:48	0	1.001	1222633	346033	536	1340	646	3.13(2.66-3.60)	
PCB-4L											
234.0406	14:02	14:02	0	0.878	2044140	634984	535	1337	1187		
236.0376	14:02	14:02	0	0.878	1299536	402395	135	337	2981	1.57(1.33-1.79)	
PCB-9L											
234.0406	15:59	15:59	0		3213579	879838	535	1337	1645		
236.0376	15:59	15:59	0		1995941	550771	135	337	4080	1.61(1.33-1.79)	
PCB-8L											
234.0406	16:49	16:49	0	1.199	1540343	403021	535	1337	753		
236.0376	16:49	16:49	0	1.199	989852	261331	135	337	1936	1.56(1.33-1.79)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:54	19:54	0	1.245	3306500	700321	535	1337	1309		
236.0376	19:54	19:54	0	1.245	2031293	429198	135	337	3179	1.63(1.33-1.79)	
PCB-4											
222.0003	14:03	14:03	0	1.001	1304337	403920	140	350	2885		
223.9974	14:03	14:03	0	1.001	825140	255381	260	650	982	1.58(1.33-1.79)	
PCB-10											
222.0003	14:13	14:13	0	1.013	1877550	578624	140	350	4133		
223.9974	14:13	14:13	0	1.013	1149146	350856	260	650	1349	1.63(1.33-1.79)	
PCB-9											
222.0003	15:59	15:59	0	1.140	1957684	529644	140	350	3783		
223.9974	15:59	15:59	0	1.140	1210781	330463	260	650	1271	1.62(1.33-1.79)	
PCB-7											
222.0003	16:10	16:10	0	1.152	1950171	513698	140	350	3669		
223.9974	16:10	16:10	0	1.152	1231028	315568	260	650	1214	1.58(1.33-1.79)	
PCB-6											
222.0003	16:25	16:25	0	1.170	2133069	552499	140	350	3946		
223.9974	16:25	16:25	0	1.170	1316735	342964	260	650	1319	1.62(1.33-1.79)	
PCB-5											
222.0003	16:43	16:43	0	1.191	1775205	488353	140	350	3488		
223.9974	16:43	16:43	0	1.191	1166931	315140	260	650	1212	1.52(1.33-1.79)	
PCB-8											
222.0003	16:50	16:50	0	1.199	2248728	556492	140	350	3975		
223.9974	16:50	16:50	0	1.199	1375978	339677	260	650	1306	1.63(1.33-1.79)	
PCB-14											
222.0003	18:26	18:26	0	0.927	1889087	415152	140	350	2965		
223.9974	18:27	18:26	1	0.927	1164483	265247	260	650	1020	1.62(1.33-1.79)	
PCB-11											
222.0003	19:17	19:17	0	0.970	1813335	379994	140	350	2714		
223.9974	19:17	19:17	0	0.970	1128935	239204	260	650	920	1.61(1.33-1.79)	
PCB-12											
222.0003	19:36	19:36	0	0.985	3630453	565068	140	350	4036		
223.9974	19:35	19:36	-1	0.985	2278572	359768	260	650	1384	1.59(1.33-1.79)	
PCB-13 (C12)											
222.0003	19:36	19:36	0	0.985	3630453	565068	140	350	4036		
223.9974	19:35	19:36	-1	0.985	2278572	359768	260	650	1384	1.59(1.33-1.79)	
PCB-15											
222.0003	19:54	19:54	0	1.001	2178218	433648	140	350	3097		
223.9974	19:54	19:54	0	1.001	1403497	271776	260	650	1045	1.55(1.33-1.79)	
PCB-19L											
268.0016	17:07	17:07	0	0.841	1099655	290056	501	1252	579		
269.9986	17:07	17:07	0	0.841	1052248	283124	449	1122	631	1.05(0.88-1.20)	
PCB-32L											
268.0016	20:21	20:21	0		1771709	411574	501	1252	822		
269.9986	20:21	20:21	0		1620352	384656	449	1122	857	1.09(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-31L											
268.0016	22:37	22:37	0		3670196	823627	569	1422	1447		
269.9986	22:37	22:37	0		3513087	788576	307	767	2569	1.04(0.88-1.20)	
PCB-28L											
268.0016	22:53	22:53	0	1.012	1861707	403009	569	1422	708		
269.9986	22:53	22:53	0	1.012	1712486	381564	307	767	1243	1.09(0.88-1.20)	
PCB-37L											
268.0016	26:54	26:54	0	1.190	3202847	570250	569	1422	1002		
269.9986	26:54	26:54	0	1.190	2994595	530725	307	767	1729	1.07(0.88-1.20)	
PCB-19											
255.9613	17:09	17:09	0	1.002	691954	186533	90	225	2073		
257.9584	17:09	17:09	0	1.002	652097	177202	82	205	2161	1.06(0.88-1.20)	
PCB-18											
255.9613	18:56	18:56	0	1.106	1914644	306994	90	225	3411		
257.9584	18:56	18:56	0	1.106	1757133	282864	82	205	3450	1.09(0.88-1.20)	
PCB-30 (C18)											
255.9613	18:56	18:56	0	1.106	1914644	306994	90	225	3411		
257.9584	18:56	18:56	0	1.106	1757133	282864	82	205	3450	1.09(0.88-1.20)	
PCB-17											
255.9613	19:24	19:24	0	1.134	656605	158329	90	225	1759		
257.9584	19:24	19:24	0	1.134	610961	151485	82	205	1847	1.07(0.88-1.20)	
PCB-27											
255.9613	19:38	19:38	0	1.147	979877	234604	90	225	2607		
257.9584	19:38	19:38	0	1.147	915157	227448	82	205	2774	1.07(0.88-1.20)	
PCB-24											
255.9613	19:45	19:45	0	1.153	897061	222868	90	225	2476		
257.9584	19:45	19:45	0	1.153	862123	213376	82	205	2602	1.04(0.88-1.20)	
PCB-16											
255.9613	19:53	19:53	0	1.161	628116	143497	90	225	1594		
257.9584	19:53	19:53	0	1.161	586994	137281	82	205	1674	1.07(0.88-1.20)	
PCB-32											
255.9613	20:23	20:23	0	1.190	991612	236487	90	225	2628		
257.9584	20:23	20:23	0	1.190	950736	228709	82	205	2789	1.04(0.88-1.20)	
PCB-34											
255.9613	21:38	21:38	0	1.263	1915234	453150	1635	4087	277		
257.9584	21:38	21:38	0	1.263	1794211	437045	1979	4947	221	1.07(0.88-1.20)	
PCB-23											
255.9613	21:46	21:46	0	1.271	1867038	430958	1635	4087	264		
257.9584	21:46	21:46	0	1.271	1801640	404593	1979	4947	204	1.04(0.88-1.20)	
PCB-26											
255.9613	22:06	22:06	0	1.291	3832747	818514	1635	4087	501		
257.9584	22:05	22:06	-1	1.290	3577919	753876	1979	4947	381	1.07(0.88-1.20)	
PCB-29 (C26)											
255.9613	22:06	22:06	0	1.291	3832747	818514	1635	4087	501		
257.9584	22:05	22:06	-1	1.290	3577919	753876	1979	4947	381	1.07(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-25											
255.9613	22:19	22:19	0	0.829	2204931	451422	1635	4087	276		
257.9584	22:19	22:19	0	0.829	2069652	419906	1979	4947	212	1.07(0.88-1.20)	
PCB-31											
255.9613	22:37	22:37	0	0.841	1971703	420296	1635	4087	257		
257.9584	22:37	22:37	0	0.841	1855402	392297	1979	4947	198	1.06(0.88-1.20)	
PCB-20											
255.9613	22:56	22:56	0	0.853	3923553	630894	1635	4087	386		
257.9584	22:56	22:56	-1	0.852	3721628	591349	1979	4947	299	1.05(0.88-1.20)	
PCB-28 (C20)											
255.9613	22:56	22:56	0	0.853	3923553	630894	1635	4087	386		
257.9584	22:56	22:56	-1	0.852	3721628	591349	1979	4947	299	1.05(0.88-1.20)	
PCB-21											
255.9613	23:06	23:06	0	0.858	3708300	433106	1635	4087	265		M
257.9584	23:06	23:06	0	0.858	3478106	398921	1979	4947	202	1.07(0.88-1.20)	M
PCB-33 (C21)											
255.9613	23:06	23:06	0	0.858	3708300	433106	1635	4087	265		M
257.9584	23:06	23:06	0	0.858	3478106	398921	1979	4947	202	1.07(0.88-1.20)	M
PCB-22											
255.9613	23:34	23:34	0	0.876	2041221	425043	1635	4087	260		
257.9584	23:34	23:34	0	0.876	1901124	398805	1979	4947	202	1.07(0.88-1.20)	
PCB-36											
255.9613	25:06	25:06	0	0.933	1805411	363771	1635	4087	222		
257.9584	25:06	25:06	0	0.933	1806930	339085	1979	4947	171	1.00(0.88-1.20)	
PCB-39											
255.9613	25:28	25:28	0	0.946	1973426	375685	1635	4087	230		
257.9584	25:28	25:28	0	0.946	1897658	361487	1979	4947	183	1.04(0.88-1.20)	
PCB-38											
255.9613	26:02	26:02	0	0.968	1768060	340792	1635	4087	208		
257.9584	26:02	26:02	0	0.968	1737300	318738	1979	4947	161	1.02(0.88-1.20)	
PCB-35											
255.9613	26:31	26:31	0	0.986	1882496	344949	1635	4087	211		
257.9584	26:31	26:31	0	0.986	1808871	332855	1979	4947	168	1.04(0.88-1.20)	
PCB-37											
255.9613	26:56	26:56	0	1.001	1870403	330836	1635	4087	202		
257.9584	26:56	26:56	0	1.001	1742296	311580	1979	4947	157	1.07(0.88-1.20)	
PCB-54L											
301.9626	20:12	20:12	0	0.817	935717	236692	85	212	2785		
303.9597	20:12	20:12	0	0.817	1159643	295076	11	27	26825	0.81(0.65-0.89)	
PCB-52L											
301.9626	24:44	24:44	0		1705959	378297	597	1492	634		
303.9597	24:44	24:44	0		2105423	460814	953	2382	484	0.81(0.65-0.89)	
PCB-79L											
301.9626	32:38	32:38	0	0.970	1049756	198542	597	1492	333		
303.9597	32:38	32:38	0	0.970	1301616	244272	953	2382	256	0.81(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-81L											
301.9626	33:38	33:38	0	1.360	2022012	383829	597	1492	643		
303.9597	33:38	33:38	0	1.360	2518607	476727	953	2382	500	0.80(0.65-0.89)	
PCB-77L											
301.9626	34:12	34:12	0	1.383	2170836	377740	597	1492	633		
303.9597	34:12	34:12	0	1.383	2668361	459642	953	2382	482	0.81(0.65-0.89)	
PCB-54											
289.9224	20:12	20:12	0	1.000	583921	143385	24	60	5974		
291.9194	20:12	20:12	0	1.000	753442	185192	70	175	2646	0.78(0.65-0.89)	
PCB-50											
289.9224	22:22	22:22	0	1.108	1706227	384536	1080	2700	356		
291.9194	22:22	22:22	0	1.108	2159339	502130	788	1970	637	0.79(0.65-0.89)	
PCB-53 (C50)											
289.9224	22:22	22:22	0	1.108	1706227	384536	1080	2700	356		
291.9194	22:22	22:22	0	1.108	2159339	502130	788	1970	637	0.79(0.65-0.89)	
PCB-45											
289.9224	23:06	23:06	0	1.144	1764198	230090	1080	2700	213		M
291.9194	23:06	23:06	0	1.144	2204582	286555	788	1970	364	0.80(0.65-0.89)	M
PCB-51 (C45)											
289.9224	23:06	23:06	0	1.144	1764198	230090	1080	2700	213		M
291.9194	23:06	23:06	0	1.144	2204582	286555	788	1970	364	0.80(0.65-0.89)	M
PCB-46											
289.9224	23:21	23:21	0	1.156	724293	168018	1080	2700	156		
291.9194	23:21	23:21	0	1.156	891907	207338	788	1970	263	0.81(0.65-0.89)	
PCB-52											
289.9224	24:45	24:45	0	1.225	903943	209286	1080	2700	194		
291.9194	24:45	24:45	0	1.225	1201676	275087	788	1970	349	0.75(0.65-0.89)	
PCB-43											
289.9224	24:53	24:53	0	1.232	2156004	286429	1080	2700	265		M
291.9194	24:53	24:53	0	1.232	2680927	354785	788	1970	450	0.80(0.65-0.89)	M
PCB-73 (C43)											
289.9224	24:53	24:53	0	1.232	2156004	286429	1080	2700	265		M
291.9194	24:53	24:53	0	1.232	2680927	354785	788	1970	450	0.80(0.65-0.89)	M
PCB-49											
289.9224	25:10	25:10	0	1.246	2129000	301982	1080	2700	280		
291.9194	25:10	25:10	0	1.246	2718859	374139	788	1970	475	0.78(0.65-0.89)	
PCB-69 (C49)											
289.9224	25:10	25:10	0	1.246	2129000	301982	1080	2700	280		
291.9194	25:10	25:10	0	1.246	2718859	374139	788	1970	475	0.78(0.65-0.89)	
PCB-48											
289.9224	25:31	25:31	0	1.263	864472	193920	1080	2700	180		
291.9194	25:31	25:31	0	1.263	1085007	239186	788	1970	304	0.80(0.65-0.89)	
PCB-44											
289.9224	25:45	25:45	0	1.275	2896837	564330	1080	2700	523		
291.9194	25:45	25:45	0	1.275	3761631	723737	788	1970	918	0.77(0.65-0.89)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-47 (C44)											
289.9224	25:45	25:45	0	1.275	2896837	564330	1080	2700	523		
291.9194	25:45	25:45	0	1.275	3761631	723737	788	1970	918	0.77(0.65-0.89)	
PCB-65 (C44)											
289.9224	25:45	25:45	0	1.275	2896837	564330	1080	2700	523		
291.9194	25:45	25:45	0	1.275	3761631	723737	788	1970	918	0.77(0.65-0.89)	
PCB-59											
289.9224	26:04	26:04	0	1.291	3465469	522116	1080	2700	483		
291.9194	26:04	26:04	0	1.291	4446364	670879	788	1970	851	0.78(0.65-0.89)	
PCB-62 (C59)											
289.9224	26:04	26:04	0	1.291	3465469	522116	1080	2700	483		
291.9194	26:04	26:04	0	1.291	4446364	670879	788	1970	851	0.78(0.65-0.89)	
PCB-75 (C59)											
289.9224	26:04	26:04	0	1.291	3465469	522116	1080	2700	483		
291.9194	26:04	26:04	0	1.291	4446364	670879	788	1970	851	0.78(0.65-0.89)	
PCB-42											
289.9224	26:16	26:16	0	1.301	834770	179427	1080	2700	166		
291.9194	26:17	26:16	1	1.301	1123780	235012	788	1970	298	0.74(0.65-0.89)	
PCB-40											
289.9224	26:46	26:46	0	1.326	2601940	418550	1080	2700	388		M
291.9194	26:46	26:46	0	1.326	3362116	505984	788	1970	642	0.77(0.65-0.89)	M
PCB-41 (C40)											
289.9224	26:46	26:46	0	1.326	2601940	418550	1080	2700	388		M
291.9194	26:46	26:46	0	1.326	3362116	505984	788	1970	642	0.77(0.65-0.89)	M
PCB-71 (C40)											
289.9224	26:46	26:46	0	1.326	2601940	418550	1080	2700	388		M
291.9194	26:46	26:46	0	1.326	3362116	505984	788	1970	642	0.77(0.65-0.89)	M
PCB-64											
289.9224	26:59	26:59	0	1.336	1153825	243308	1080	2700	225		
291.9194	26:59	26:59	0	1.336	1511964	320659	788	1970	407	0.76(0.65-0.89)	
PCB-72											
289.9224	27:48	27:48	0	0.826	1124476	237945	1080	2700	220		
291.9194	27:48	27:48	0	0.826	1442900	308783	788	1970	392	0.78(0.65-0.89)	
PCB-68											
289.9224	28:05	28:05	0	0.835	1267155	254734	1080	2700	236		
291.9194	28:05	28:05	0	0.835	1625690	326892	788	1970	415	0.78(0.65-0.89)	
PCB-57											
289.9224	28:30	28:30	0	0.847	1161703	244948	1080	2700	227		
291.9194	28:30	28:30	0	0.847	1485783	308992	788	1970	392	0.78(0.65-0.89)	
PCB-58											
289.9224	28:45	28:45	0	0.855	1416016	296417	1080	2700	274		
291.9194	28:45	28:45	0	0.855	1793517	368515	788	1970	468	0.79(0.65-0.89)	
PCB-67											
289.9224	28:55	28:55	0	0.859	1443113	281269	1080	2700	260		
291.9194	28:55	28:55	0	0.859	1817155	353371	788	1970	448	0.79(0.65-0.89)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-63											
289.9224	29:11	29:11	0	0.867	1150153	233437	1080	2700	216		
291.9194	29:11	29:11	0	0.867	1493454	279772	788	1970	355	0.77(0.65-0.89)	
PCB-61											
289.9224	29:31	29:31	0	0.878	5094620	604336	1080	2700	560		
291.9194	29:31	29:31	0	0.878	6480099	759649	788	1970	964	0.79(0.65-0.89)	
PCB-70 (C61)											
289.9224	29:31	29:31	0	0.878	5094620	604336	1080	2700	560		
291.9194	29:31	29:31	0	0.878	6480099	759649	788	1970	964	0.79(0.65-0.89)	
PCB-74 (C61)											
289.9224	29:31	29:31	0	0.878	5094620	604336	1080	2700	560		
291.9194	29:31	29:31	0	0.878	6480099	759649	788	1970	964	0.79(0.65-0.89)	
PCB-76 (C61)											
289.9224	29:31	29:31	0	0.878	5094620	604336	1080	2700	560		
291.9194	29:31	29:31	0	0.878	6480099	759649	788	1970	964	0.79(0.65-0.89)	
PCB-66											
289.9224	29:50	29:50	0	0.887	1341807	266419	1080	2700	247		
291.9194	29:50	29:50	0	0.887	1763344	340882	788	1970	433	0.76(0.65-0.89)	
PCB-55											
289.9224	30:00	30:00	0	0.892	1382820	277787	1080	2700	257		
291.9194	30:00	30:00	0	0.892	1768516	351843	788	1970	447	0.78(0.65-0.89)	
PCB-56											
289.9224	30:31	30:31	0	0.907	1260189	248672	1080	2700	230		
291.9194	30:31	30:31	0	0.907	1629069	313268	788	1970	398	0.77(0.65-0.89)	
PCB-60											
289.9224	30:43	30:43	0	0.913	1086325	203591	1080	2700	189		
291.9194	30:44	30:43	1	0.914	1429792	277811	788	1970	353	0.76(0.65-0.89)	
PCB-80											
289.9224	31:07	31:07	0	0.925	1356161	277711	1080	2700	257		
291.9194	31:07	31:07	0	0.925	1723201	340426	788	1970	432	0.79(0.65-0.89)	
PCB-79											
289.9224	32:39	32:39	0	0.971	1372521	244987	1080	2700	227		
291.9194	32:39	32:39	0	0.971	1748469	314119	788	1970	399	0.78(0.65-0.89)	
PCB-78											
289.9224	33:13	33:13	0	0.987	1253056	221778	1080	2700	205		
291.9194	33:13	33:13	0	0.987	1542231	270727	788	1970	344	0.81(0.65-0.89)	
PCB-81											
289.9224	33:40	33:40	0	1.001	1030027	189517	1080	2700	175		
291.9194	33:40	33:40	0	1.001	1299076	242073	788	1970	307	0.79(0.65-0.89)	
PCB-77											
289.9224	34:13	34:13	0	1.001	1118896	189980	1080	2700	176		
291.9194	34:13	34:13	0	1.001	1452575	258234	788	1970	328	0.77(0.65-0.89)	
PCB-104L											
337.9207	25:40	25:40	0	0.813	2009992	435865	95	237	4588		
339.9178	25:39	25:40	-1	0.813	1251168	271202	24	60	11300	1.61(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-95L											
337.9207	28:38	28:38	0	1.116	711715	145264	95	237	1529		
339.9178	28:38	28:38	0	1.116	417500	90569	24	60	3774	1.70(1.32-1.78)	
PCB-101L											
337.9207	31:33	31:33	0		1602398	323033	95	237	3400		
339.9178	31:32	31:33	-1		1008580	203211	24	60	8467	1.59(1.32-1.78)	
PCB-111L											
337.9207	34:13	34:13	0	1.084	1037052	208813	95	237	2198		
339.9178	34:13	34:13	0	1.084	616237	122063	24	60	5086	1.68(1.32-1.78)	
PCB-123L											
337.9207	36:10	36:10	0	1.146	2703438	517671	2046	5115	253		
339.9178	36:10	36:10	0	1.146	1697795	332297	1473	3682	226	1.59(1.32-1.78)	
PCB-118L											
337.9207	36:30	36:30	0	1.157	2915118	562619	2046	5115	275		
339.9178	36:30	36:30	0	1.157	1797680	351748	1473	3682	239	1.62(1.32-1.78)	
PCB-114L											
337.9207	37:02	37:02	0	1.174	2811880	547276	2046	5115	267		
339.9178	37:02	37:02	0	1.174	1746990	333367	1473	3682	226	1.61(1.32-1.78)	
PCB-105L											
337.9207	37:42	37:42	0	1.195	2757608	511099	2046	5115	250		
339.9178	37:42	37:42	0	1.195	1771016	341300	1473	3682	232	1.56(1.32-1.78)	
PCB-127L											
337.9207	39:09	39:09	0		2815038	540448	2046	5115	264		
339.9178	39:09	39:09	0		1767279	334207	1473	3682	227	1.59(1.32-1.78)	
PCB-126L											
337.9207	40:47	40:47	0	1.293	2649537	467689	2046	5115	229		
339.9178	40:47	40:47	0	1.293	1693729	300039	1473	3682	204	1.56(1.32-1.78)	
PCB-104											
325.8804	25:41	25:41	0	1.000	1044876	229466	120	300	1912		
327.8775	25:41	25:41	0	1.000	657899	152199	46	115	3309	1.59(1.32-1.78)	
PCB-96											
325.8804	26:04	26:04	0	1.016	1057934	227052	120	300	1892		
327.8775	26:04	26:04	0	1.016	672854	149809	46	115	3257	1.57(1.32-1.78)	
PCB-103											
325.8804	27:59	27:59	0	1.090	887273	185897	120	300	1549		
327.8775	27:59	27:59	0	1.090	546087	117542	46	115	2555	1.62(1.32-1.78)	
PCB-94											
325.8804	28:12	28:12	0	1.099	731667	152265	120	300	1269		
327.8775	28:12	28:12	0	1.099	464064	97608	46	115	2122	1.58(1.32-1.78)	
PCB-95											
325.8804	28:39	28:39	0	1.117	801315	175637	120	300	1464		
327.8775	28:39	28:39	0	1.117	506750	113624	46	115	2470	1.58(1.32-1.78)	
PCB-93											
325.8804	28:51	28:51	0	1.124	1633851	262805	120	300	2190		
327.8775	28:51	28:51	0	1.124	1022427	168553	46	115	3664	1.60(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-100 (C93)											
325.8804	28:51	28:51	0	1.124	1633851	262805	120	300	2190		
327.8775	28:51	28:51	0	1.124	1022427	168553	46	115	3664	1.60(1.32-1.78)	
PCB-98											
325.8804	29:01	29:01	0	1.130	1623555	200444	120	300	1670		
327.8775	29:01	29:01	0	1.130	998226	119337	46	115	2594	1.63(1.32-1.78)	
PCB-102 (C98)											
325.8804	29:01	29:01	0	1.130	1623555	200444	120	300	1670		
327.8775	29:01	29:01	0	1.130	998226	119337	46	115	2594	1.63(1.32-1.78)	
PCB-88											
325.8804	29:31	29:31	0	1.150	1539732	167653	120	300	1397		
327.8775	29:31	29:31	0	1.150	1006807	114155	46	115	2482	1.53(1.32-1.78)	
PCB-91 (C88)											
325.8804	29:31	29:31	0	1.150	1539732	167653	120	300	1397		
327.8775	29:31	29:31	0	1.150	1006807	114155	46	115	2482	1.53(1.32-1.78)	
PCB-84											
325.8804	29:45	29:45	0	1.159	728458	142259	120	300	1185		
327.8775	29:45	29:45	0	1.159	438039	92196	46	115	2004	1.66(1.32-1.78)	
PCB-89											
325.8804	30:13	30:13	0	1.178	734234	160197	120	300	1335		
327.8775	30:13	30:13	0	1.178	452602	92613	46	115	2013	1.62(1.32-1.78)	
PCB-121											
325.8804	30:36	30:36	0	1.192	1265694	256323	120	300	2136		
327.8775	30:36	30:36	0	1.192	791111	158881	46	115	3454	1.60(1.32-1.78)	
PCB-92											
325.8804	30:59	30:59	0	0.857	818026	169471	120	300	1412		
327.8775	30:59	30:59	0	0.857	531262	108044	46	115	2349	1.54(1.32-1.78)	
PCB-90											
325.8804	31:33	31:33	0	1.230	2834303	420244	120	300	3502		
327.8775	31:33	31:33	0	1.230	1790169	277911	46	115	6042	1.58(1.32-1.78)	
PCB-101 (C90)											
325.8804	31:33	31:33	0	1.230	2834303	420244	120	300	3502		
327.8775	31:33	31:33	0	1.230	1790169	277911	46	115	6042	1.58(1.32-1.78)	
PCB-113 (C90)											
325.8804	31:33	31:33	0	1.230	2834303	420244	120	300	3502		
327.8775	31:33	31:33	0	1.230	1790169	277911	46	115	6042	1.58(1.32-1.78)	
PCB-83											
325.8804	32:08	32:08	0	1.252	1644572	208661	120	300	1739		
327.8775	32:08	32:08	0	1.252	1028017	129302	46	115	2811	1.60(1.32-1.78)	
PCB-99 (C83)											
325.8804	32:08	32:08	0	1.252	1644572	208661	120	300	1739		
327.8775	32:08	32:08	0	1.252	1028017	129302	46	115	2811	1.60(1.32-1.78)	
PCB-112											
325.8804	32:16	32:16	0	1.257	1364509	272401	120	300	2270		
327.8775	32:16	32:16	0	1.257	870252	171256	46	115	3723	1.57(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-86											M
325.8804	32:38	32:38	0	1.272	6008834	622497	120	300	5187		M
327.8775	32:38	32:38	-1	1.271	3735287	387246	46	115	8418	1.61(1.32-1.78)	M
PCB-87 (C86)											M
325.8804	32:38	32:38	0	1.272	6008834	622497	120	300	5187		M
327.8775	32:38	32:38	-1	1.271	3735287	387246	46	115	8418	1.61(1.32-1.78)	M
PCB-97 (C86)											M
325.8804	32:38	32:38	0	1.272	6008834	622497	120	300	5187		M
327.8775	32:38	32:38	-1	1.271	3735287	387246	46	115	8418	1.61(1.32-1.78)	M
PCB-109 (C86)											M
325.8804	32:38	32:38	0	1.272	6008834	622497	120	300	5187		M
327.8775	32:38	32:38	-1	1.271	3735287	387246	46	115	8418	1.61(1.32-1.78)	M
PCB-119 (C86)											M
325.8804	32:38	32:38	0	1.272	6008834	622497	120	300	5187		M
327.8775	32:38	32:38	-1	1.271	3735287	387246	46	115	8418	1.61(1.32-1.78)	M
PCB-125 (C86)											M
325.8804	32:38	32:38	0	1.272	6008834	622497	120	300	5187		M
327.8775	32:38	32:38	-1	1.271	3735287	387246	46	115	8418	1.61(1.32-1.78)	M
PCB-85											
325.8804	33:21	33:21	0	1.300	3030782	345462	120	300	2879		
327.8775	33:21	33:21	0	1.300	1899047	213198	46	115	4635	1.60(1.32-1.78)	
PCB-116 (C85)											
325.8804	33:21	33:21	0	1.300	3030782	345462	120	300	2879		
327.8775	33:21	33:21	0	1.300	1899047	213198	46	115	4635	1.60(1.32-1.78)	
PCB-117 (C85)											
325.8804	33:21	33:21	0	1.300	3030782	345462	120	300	2879		
327.8775	33:21	33:21	0	1.300	1899047	213198	46	115	4635	1.60(1.32-1.78)	
PCB-110											
325.8804	33:34	33:34	0	1.308	2290945	324134	120	300	2701		
327.8775	33:35	33:34	1	1.309	1449847	207388	46	115	4508	1.58(1.32-1.78)	
PCB-115 (C110)											
325.8804	33:34	33:34	0	1.308	2290945	324134	120	300	2701		
327.8775	33:35	33:34	1	1.309	1449847	207388	46	115	4508	1.58(1.32-1.78)	
PCB-82											
325.8804	33:53	33:53	0	1.320	815332	161025	120	300	1342		
327.8775	33:53	33:53	0	1.320	532761	102978	46	115	2239	1.53(1.32-1.78)	
PCB-111											
325.8804	34:14	34:14	0	1.334	1196309	238692	120	300	1989		
327.8775	34:14	34:14	0	1.334	746694	148768	46	115	3234	1.60(1.32-1.78)	
PCB-120											
325.8804	34:42	34:42	0	1.352	1468253	284074	120	300	2367		
327.8775	34:42	34:42	0	1.352	898843	173360	46	115	3769	1.63(1.32-1.78)	
PCB-108											
325.8804	35:51	35:51	0	1.397	3027200	563792	1927	4817	293		
327.8775	35:51	35:51	0	1.397	1952048	370078	1138	2845	325	1.55(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-124 (C108)											
325.8804	35:51	35:51	0	1.397	3027200	563792	1927	4817	293		
327.8775	35:51	35:51	0	1.397	1952048	370078	1138	2845	325	1.55(1.32-1.78)	
PCB-107											
325.8804	36:05	36:05	0	1.406	1607327	304124	1927	4817	158		
327.8775	36:05	36:05	0	1.406	1012017	188726	1138	2845	166	1.59(1.32-1.78)	
PCB-123											
325.8804	36:12	36:12	0	1.001	1362939	287017	1927	4817	149		
327.8775	36:12	36:12	0	1.001	939016	179320	1138	2845	158	1.45(1.32-1.78)	
PCB-106											
325.8804	36:19	36:19	0	1.004	1564638	288866	1927	4817	150		
327.8775	36:19	36:19	0	1.004	926122	184158	1138	2845	162	1.69(1.32-1.78)	
PCB-118											
325.8804	36:32	36:32	0	1.001	1754127	329878	1927	4817	171		
327.8775	36:32	36:32	0	1.001	1112935	217927	1138	2845	192	1.58(1.32-1.78)	
PCB-122											
325.8804	36:53	36:53	0	1.010	1310593	260651	1927	4817	135		
327.8775	36:53	36:53	0	1.010	830864	168946	1138	2845	148	1.58(1.32-1.78)	
PCB-114											
325.8804	37:03	37:03	0	1.001	1579391	273179	1927	4817	142		
327.8775	37:03	37:03	0	1.001	961616	164600	1138	2845	145	1.64(1.32-1.78)	
PCB-105											
325.8804	37:43	37:43	0	1.001	1658379	297819	1927	4817	155		
327.8775	37:43	37:43	0	1.001	1036492	180683	1138	2845	159	1.60(1.32-1.78)	
PCB-127											
325.8804	39:10	39:10	0	1.039	1567052	277574	1927	4817	144		
327.8775	39:11	39:10	1	1.039	995334	176068	1138	2845	155	1.57(1.32-1.78)	
PCB-126											
325.8804	40:48	40:48	0	1.000	1484036	250154	1927	4817	130		
327.8775	40:48	40:48	0	1.000	945489	152920	1138	2845	134	1.57(1.32-1.78)	
PCB-155L											
371.8817	31:17	31:17	0	0.790	1603107	331901	13	32	25531		
373.8788	31:17	31:17	0	0.790	1238490	257286	3	7	85762	1.29(1.05-1.43)	
PCB-153L											
371.8817	38:22	38:22	0	0.900	882295	171769	882	2205	195		
373.8788	38:22	38:22	0	0.900	684228	134434	151	377	890	1.29(1.05-1.43)	
PCB-138L											
371.8817	39:37	39:37	0		1737582	341081	882	2205	387		
373.8788	39:37	39:37	0		1357204	261955	151	377	1735	1.28(1.05-1.43)	
PCB-167L											
371.8817	42:37	42:37	0	1.076	2227568	434485	882	2205	493		
373.8788	42:37	42:37	0	1.076	1722482	340036	151	377	2252	1.29(1.05-1.43)	
PCB-156L											
371.8817	43:47	43:47	0	1.105	4313036	535921	882	2205	608		
373.8788	43:47	43:47	0	1.105	3348785	413511	151	377	2738	1.29(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-157L (C156L)											
371.8817	43:47	43:47	0	1.105	4313036	535921	882	2205	608		
373.8788	43:47	43:47	0	1.105	3348785	413511	151	377	2738	1.29(1.05-1.43)	
PCB-169L											
371.8817	47:00	47:00	0	1.186	2288303	395571	882	2205	448		
373.8788	47:00	47:00	0	1.186	1817237	311576	151	377	2063	1.26(1.05-1.43)	
PCB-155											
359.8415	31:19	31:19	0	1.001	786509	166898	2	5	83449		
361.8385	31:19	31:19	0	1.001	611286	125593	2	5	62797	1.29(1.05-1.43)	
PCB-152											
359.8415	31:32	31:32	0	1.008	802510	156326	2	5	78163		
361.8385	31:33	31:32	1	1.009	639799	129123	2	5	64562	1.25(1.05-1.43)	
PCB-150											
359.8415	31:42	31:42	0	1.013	837801	170919	2	5	85460		
361.8385	31:42	31:42	0	1.013	665828	133945	2	5	66973	1.26(1.05-1.43)	
PCB-136											
359.8415	32:05	32:05	0	1.026	837756	177173	2	5	88587		
361.8385	32:05	32:05	0	1.026	650493	132519	2	5	66260	1.29(1.05-1.43)	
PCB-145											
359.8415	32:21	32:21	0	1.034	785615	157282	2	5	78641		
361.8385	32:21	32:21	0	1.034	645845	128168	2	5	64084	1.22(1.05-1.43)	
PCB-148											
359.8415	33:51	33:51	0	1.082	626713	128596	2	5	64298		
361.8385	33:51	33:51	0	1.082	494194	102662	2	5	51331	1.27(1.05-1.43)	
PCB-135											
359.8415	34:27	34:27	0	1.101	1206104	138202	2	5	69101		M
361.8385	34:27	34:27	0	1.101	926126	107959	2	5	53980	1.30(1.05-1.43)	M
PCB-151 (C135)											
359.8415	34:27	34:27	0	1.101	1206104	138202	2	5	69101		M
361.8385	34:27	34:27	0	1.101	926126	107959	2	5	53980	1.30(1.05-1.43)	M
PCB-154											
359.8415	34:42	34:42	0	1.109	671551	135478	2	5	67739		
361.8385	34:42	34:42	0	1.109	539945	103522	2	5	51761	1.24(1.05-1.43)	
PCB-144											
359.8415	35:01	35:01	0	1.119	650433	131195	2	5	65598		
361.8385	35:01	35:01	0	1.119	507643	104626	2	5	52313	1.28(1.05-1.43)	
PCB-147											
359.8415	35:23	35:23	0	1.131	1848029	376360	462	1155	815		
361.8385	35:23	35:23	0	1.131	1473413	297988	342	855	871	1.25(1.05-1.43)	
PCB-149 (C147)											
359.8415	35:23	35:23	0	1.131	1848029	376360	462	1155	815		
361.8385	35:23	35:23	0	1.131	1473413	297988	342	855	871	1.25(1.05-1.43)	
PCB-134											
359.8415	35:41	35:41	0	1.141	1667996	179389	462	1155	388		
361.8385	35:41	35:41	0	1.141	1301226	139720	342	855	409	1.28(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-143 (C134)											
359.8415	35:41	35:41	0	1.141	1667996	179389	462	1155	388		
361.8385	35:41	35:41	0	1.141	1301226	139720	342	855	409	1.28(1.05-1.43)	
PCB-139											
359.8415	35:59	35:59	0	1.150	1841183	314409	462	1155	681		
361.8385	35:59	35:59	0	1.150	1451950	248527	342	855	727	1.27(1.05-1.43)	
PCB-140 (C139)											
359.8415	35:59	35:59	0	1.150	1841183	314409	462	1155	681		
361.8385	35:59	35:59	0	1.150	1451950	248527	342	855	727	1.27(1.05-1.43)	
PCB-131											
359.8415	36:11	36:11	0	1.157	754510	151279	462	1155	327		
361.8385	36:11	36:11	0	1.157	638666	128593	342	855	376	1.18(1.05-1.43)	
PCB-142											
359.8415	36:20	36:20	0	1.161	822085	161581	462	1155	350		
361.8385	36:20	36:20	0	1.161	640031	127667	342	855	373	1.28(1.05-1.43)	
PCB-132											
359.8415	36:40	36:40	0	1.172	769016	151742	462	1155	328		
361.8385	36:40	36:40	0	1.172	609570	124527	342	855	364	1.26(1.05-1.43)	
PCB-133											
359.8415	37:09	37:09	0	1.187	818326	155159	462	1155	336		M
361.8385	37:09	37:09	0	1.187	645850	128318	342	855	375	1.27(1.05-1.43)	M
PCB-165											
359.8415	37:32	37:32	0	0.881	1130979	223004	462	1155	483		
361.8385	37:32	37:32	0	0.881	902567	173140	342	855	506	1.25(1.05-1.43)	
PCB-146											
359.8415	37:47	37:47	0	0.887	1025961	205643	462	1155	445		
361.8385	37:47	37:47	0	0.887	801843	161428	342	855	472	1.28(1.05-1.43)	
PCB-161											
359.8415	37:54	37:54	0	0.890	1211872	238797	462	1155	517		
361.8385	37:54	37:54	0	0.890	957158	192693	342	855	563	1.27(1.05-1.43)	
PCB-153											
359.8415	38:24	38:24	0	0.901	2394995	343418	462	1155	743		
361.8385	38:24	38:24	0	0.901	1879115	275880	342	855	807	1.27(1.05-1.43)	
PCB-168 (C153)											
359.8415	38:24	38:24	0	0.901	2394995	343418	462	1155	743		
361.8385	38:24	38:24	0	0.901	1879115	275880	342	855	807	1.27(1.05-1.43)	
PCB-141											
359.8415	38:35	38:35	0	0.906	915278	168380	462	1155	364		
361.8385	38:35	38:35	0	0.906	732602	129229	342	855	378	1.25(1.05-1.43)	
PCB-130											
359.8415	39:01	39:01	0	0.916	723590	140667	462	1155	304		
361.8385	39:01	39:01	0	0.916	582472	118667	342	855	347	1.24(1.05-1.43)	
PCB-137											
359.8415	39:13	39:13	0	0.920	818228	164109	462	1155	355		
361.8385	39:13	39:13	0	0.920	696918	134340	342	855	393	1.17(1.05-1.43)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-164											
359.8415	39:21	39:21	0	0.924	1162662	220835	462	1155	478		
361.8385	39:21	39:21	0	0.924	880517	177348	342	855	519	1.32(1.05-1.43)	
PCB-129											
359.8415	39:39	39:39	0	0.931	4023086	454096	462	1155	983		M
361.8385	39:39	39:39	0	0.931	3160626	354788	342	855	1037	1.27(1.05-1.43)	M
PCB-138 (C129)											
359.8415	39:39	39:39	0	0.931	4023086	454096	462	1155	983		M
361.8385	39:39	39:39	0	0.931	3160626	354788	342	855	1037	1.27(1.05-1.43)	M
PCB-160 (C129)											
359.8415	39:39	39:39	0	0.931	4023086	454096	462	1155	983		M
361.8385	39:39	39:39	0	0.931	3160626	354788	342	855	1037	1.27(1.05-1.43)	M
PCB-163 (C129)											
359.8415	39:39	39:39	0	0.931	4023086	454096	462	1155	983		M
361.8385	39:39	39:39	0	0.931	3160626	354788	342	855	1037	1.27(1.05-1.43)	M
PCB-158											
359.8415	40:02	40:02	0	0.940	1389275	245664	462	1155	532		
361.8385	40:01	40:02	-1	0.939	1102531	194275	342	855	568	1.26(1.05-1.43)	
PCB-128											
359.8415	40:53	40:53	0	0.959	2092736	272502	462	1155	590		
361.8385	40:53	40:53	0	0.959	1607436	216523	342	855	633	1.30(1.05-1.43)	
PCB-166 (C128)											
359.8415	40:53	40:53	0	0.959	2092736	272502	462	1155	590		
361.8385	40:53	40:53	0	0.959	1607436	216523	342	855	633	1.30(1.05-1.43)	
PCB-159											
359.8415	41:52	41:52	0	0.983	1470262	280405	462	1155	607		
361.8385	41:52	41:52	0	0.983	1172050	222577	342	855	651	1.25(1.05-1.43)	
PCB-162											
359.8415	42:10	42:10	0	0.990	1337285	245497	462	1155	531		
361.8385	42:10	42:10	0	0.990	1042454	191355	342	855	560	1.28(1.05-1.43)	
PCB-167											
359.8415	42:37	42:37	0	1.000	1221286	220916	462	1155	478		
361.8385	42:38	42:37	1	1.001	994788	196896	342	855	576	1.23(1.05-1.43)	
PCB-156											
359.8415	43:48	43:48	0	1.001	2403093	297272	462	1155	643		
361.8385	43:48	43:48	0	1.001	1887017	231677	342	855	677	1.27(1.05-1.43)	
PCB-157 (C156)											
359.8415	43:48	43:48	0	1.001	2403093	297272	462	1155	643		
361.8385	43:48	43:48	0	1.001	1887017	231677	342	855	677	1.27(1.05-1.43)	
PCB-169											
359.8415	47:01	47:01	0	1.001	1339316	224493	462	1155	486		
361.8385	47:01	47:01	0	1.001	1055959	175895	342	855	514	1.27(1.05-1.43)	
PCB-188L											
405.8428	37:01	37:01	0	0.820	1564171	308552	30	75	10285		
407.8398	37:00	37:01	-1	0.820	1474965	287551	3	7	95850	1.06(0.89-1.21)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-178L											
405.8428	40:04	40:04	0	0.888	575760	120879	30	75	4029		
407.8398	40:04	40:04	0	0.888	545514	106324	3	7	35441	1.06(0.89-1.21)	
PCB-180L											
405.8428	45:09	45:09	0		1213457	241339	30	75	8045		
407.8398	45:09	45:09	0		1130157	228666	3	7	76222	1.07(0.89-1.21)	
PCB-170L											
405.8428	46:24	46:24	0	1.028	1028696	196536	30	75	6551		
407.8398	46:25	46:24	1	1.028	975802	186565	3	7	62188	1.05(0.89-1.21)	
PCB-189L											
405.8428	49:30	49:30	0	1.097	2443074	449733	808	2020	557		
407.8398	49:30	49:30	0	1.097	2268105	410979	550	1375	747	1.08(0.89-1.21)	
PCB-188											
393.8025	37:02	37:02	0	1.000	914967	179132	20	50	8957		
395.7995	37:02	37:02	1	1.001	845974	172541	2	5	86271	1.08(0.89-1.21)	
PCB-179											
393.8025	37:24	37:24	0	1.010	902357	172629	20	50	8631		
395.7995	37:24	37:24	0	1.010	833685	161754	2	5	80877	1.08(0.89-1.21)	
PCB-184											
393.8025	37:54	37:54	0	1.024	895615	180505	20	50	9025		
395.7995	37:54	37:54	0	1.024	833322	166295	2	5	83148	1.07(0.89-1.21)	
PCB-176											
393.8025	38:16	38:16	0	1.034	810315	151184	20	50	7559		
395.7995	38:16	38:16	-1	1.034	772169	147416	2	5	73708	1.05(0.89-1.21)	
PCB-186											
393.8025	38:44	38:44	0	1.046	977961	192436	20	50	9622		
395.7995	38:43	38:44	-1	1.046	921786	183258	2	5	91629	1.06(0.89-1.21)	
PCB-178											
393.8025	40:05	40:05	0	1.083	591295	112043	20	50	5602		
395.7995	40:06	40:05	1	1.083	562179	107570	2	5	53785	1.05(0.89-1.21)	
PCB-175											
393.8025	40:44	40:44	0	1.100	640962	123380	20	50	6169		
395.7995	40:43	40:44	-1	1.100	575702	108563	2	5	54282	1.11(0.89-1.21)	
PCB-187											
393.8025	41:00	41:00	0	1.108	734817	141018	20	50	7051		
395.7995	41:00	41:00	0	1.108	657856	132019	2	5	66010	1.12(0.89-1.21)	
PCB-182											
393.8025	41:11	41:11	0	1.113	622079	117817	20	50	5891		
395.7995	41:11	41:11	0	1.113	603724	119049	2	5	59525	1.03(0.89-1.21)	
PCB-183											
393.8025	41:35	41:35	0	1.124	1237068	128072	20	50	6404		M
395.7995	41:36	41:35	1	1.124	1173001	122575	2	5	61288	1.05(0.89-1.21)	M
PCB-185 (C183)											
393.8025	41:35	41:35	0	1.124	1237068	128072	20	50	6404		M
395.7995	41:36	41:35	1	1.124	1173001	122575	2	5	61288	1.05(0.89-1.21)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-174											
393.8025	41:52	41:52	0	1.131	659834	120267	20	50	6013		
395.7995	41:52	41:52	0	1.131	612705	117092	2	5	58546	1.08(0.89-1.21)	
PCB-177											
393.8025	42:18	42:18	0	1.143	618699	121617	20	50	6081		
395.7995	42:18	42:18	0	1.143	590747	108329	2	5	54165	1.05(0.89-1.21)	
PCB-181											
393.8025	42:41	42:41	0	1.153	615130	117782	20	50	5889		
395.7995	42:40	42:41	-1	1.153	592822	112010	2	5	56005	1.04(0.89-1.21)	
PCB-171											
393.8025	42:54	42:54	0	1.159	1183539	211792	20	50	10590		
395.7995	42:54	42:54	0	1.159	1110597	208656	2	5	104328	1.07(0.89-1.21)	
PCB-173 (C171)											
393.8025	42:54	42:54	0	1.159	1183539	211792	20	50	10590		
395.7995	42:54	42:54	0	1.159	1110597	208656	2	5	104328	1.07(0.89-1.21)	
PCB-172											
393.8025	44:31	44:31	0	0.899	544705	108171	20	50	5409		
395.7995	44:31	44:31	0	0.899	521775	98085	2	5	49043	1.04(0.89-1.21)	
PCB-192											
393.8025	44:47	44:47	0	0.905	956729	190335	20	50	9517		
395.7995	44:47	44:47	0	0.905	879682	171306	2	5	85653	1.09(0.89-1.21)	
PCB-180											
393.8025	45:08	45:08	0	0.912	1584016	220940	20	50	11047		
395.7995	45:09	45:08	1	0.912	1504393	214315	2	5	107158	1.05(0.89-1.21)	
PCB-193 (C180)											
393.8025	45:08	45:08	0	0.912	1584016	220940	20	50	11047		
395.7995	45:09	45:08	1	0.912	1504393	214315	2	5	107158	1.05(0.89-1.21)	
PCB-191											
393.8025	45:31	45:31	0	0.919	889344	176189	20	50	8809		
395.7995	45:31	45:31	0	0.919	869131	154866	2	5	77433	1.02(0.89-1.21)	
PCB-170											
393.8025	46:26	46:26	0	0.938	606026	118735	20	50	5937		
395.7995	46:26	46:26	0	0.938	578449	106795	2	5	53398	1.05(0.89-1.21)	
PCB-190											
393.8025	46:57	46:57	0	0.948	940856	175210	20	50	8761		
395.7995	46:57	46:57	0	0.948	925967	166693	2	5	83347	1.02(0.89-1.21)	
PCB-189											
393.8025	49:32	49:32	0	1.001	1216449	229443	345	862	665		
395.7995	49:32	49:32	0	1.001	1169919	215101	435	1087	494	1.04(0.89-1.21)	
PCB-202L											
439.8038	42:22	42:22	0	0.821	1072751	209964	16	40	13123		
441.8008	42:22	42:22	0	0.821	1193560	234749	22	55	10670	0.90(0.76-1.02)	
PCB-194L											
439.8038	51:36	51:36	0		1488058	279004	58	145	4810		
441.8008	51:36	51:36	0		1591903	303934	73	182	4163	0.93(0.76-1.02)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-205L											
439.8038	52:05	52:05	0	1.009	1825726	328750	58	145	5668		
441.8008	52:05	52:05	0	1.009	2017175	368495	73	182	5048	0.91(0.76-1.02)	
PCB-202											
427.7635	42:24	42:24	0	1.001	580822	116122	4	10	29031		
429.7606	42:24	42:24	0	1.001	622005	123228	3	7	41076	0.93(0.76-1.02)	
PCB-201											
427.7635	43:19	43:19	0	1.022	546732	102588	4	10	25647		
429.7606	43:19	43:19	0	1.022	606395	116916	3	7	38972	0.90(0.76-1.02)	
PCB-204											
427.7635	43:59	43:59	0	1.038	566063	113242	4	10	28311		
429.7606	43:59	43:59	0	1.038	634471	124233	3	7	41411	0.89(0.76-1.02)	
PCB-197											
427.7635	44:13	44:13	0	1.043	590032	120462	4	10	30116		
429.7606	44:12	44:13	-1	1.043	659292	126836	3	7	42279	0.89(0.76-1.02)	
PCB-200											
427.7635	44:21	44:21	0	1.047	580762	112470	4	10	28118		
429.7606	44:20	44:21	-1	1.046	645839	124808	3	7	41603	0.90(0.76-1.02)	
PCB-198											
427.7635	47:05	47:05	0	1.111	975363	123553	4	10	30888		
429.7606	47:05	47:05	0	1.111	1076563	137485	3	7	45828	0.91(0.76-1.02)	
PCB-199 (C198)											
427.7635	47:05	47:05	0	1.111	975363	123553	4	10	30888		
429.7606	47:05	47:05	0	1.111	1076563	137485	3	7	45828	0.91(0.76-1.02)	
PCB-196											
427.7635	47:46	47:46	0	0.917	457057	85571	4	10	21393		
429.7606	47:46	47:46	0	0.917	488320	95786	3	7	31929	0.94(0.76-1.02)	
PCB-203											
427.7635	47:58	47:58	0	0.921	538063	103552	4	10	25888		
429.7606	47:57	47:58	-1	0.921	584686	109622	3	7	36541	0.92(0.76-1.02)	
PCB-195											
427.7635	49:17	49:17	0	0.946	730961	135917	266	665	511		
429.7606	49:18	49:17	1	0.947	799921	152081	614	1535	248	0.91(0.76-1.02)	
PCB-194											
427.7635	51:38	51:38	0	0.991	825386	158904	266	665	597		
429.7606	51:38	51:38	0	0.991	942422	182573	614	1535	297	0.88(0.76-1.02)	
PCB-205											
427.7635	52:06	52:06	0	1.000	999708	188629	266	665	709		
429.7606	52:06	52:06	0	1.000	1091115	204413	614	1535	333	0.92(0.76-1.02)	
PCB-208L											
473.7648	49:02	49:02	0	0.950	1320151	252769	1696	4240	149		
475.7619	49:01	49:02	-1	0.950	1634291	316182	290	725	1090	0.81(0.65-0.89)	
PCB-206L											
473.7648	53:50	53:50	0	1.043	1049744	198982	1696	4240	117		
475.7619	53:50	53:50	0	1.043	1310557	242569	290	725	836	0.80(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-208											
461.7246	49:03	49:03	0	1.000	724864	142091	206	515	690		
463.7216	49:03	49:03	0	1.000	921220	180185	1636	4090	110	0.79(0.65-0.89)	
PCB-207											
461.7246	49:59	49:59	0	1.019	774228	144674	206	515	702		
463.7216	49:59	49:59	0	1.019	951579	183643	1636	4090	112	0.81(0.65-0.89)	
PCB-206											
461.7246	53:51	53:51	0	1.000	641635	120060	206	515	583		
463.7216	53:51	53:51	-1	1.000	802332	148502	1636	4090	91	0.80(0.65-0.89)	
PCB-209L											
507.7258	55:26	55:26	0	1.074	1046453	190870	99	247	1928		
509.7229	55:26	55:26	0	1.074	1444014	260589	10	25	26059	0.72(0.59-0.79)	
DCB Decachlorobiphenyl											M
495.6856	55:28	55:28	0	1.000	564247	100948	6	15	16825		
497.6826	55:28	55:28	0	1.000	810660	147920	22	55	6724	0.70(0.59-0.79)	M

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61CV1668CS3\_00018

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
CCV Relative RT Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
 Lims ID: WDMCCV  
 Client ID:  
 Sample Type: WDMCCV  
 Inject. Date: 16-Jul-2024 23:14:00 ALS Bottle#: 0 Worklist Smp#: 1  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info:  
 Misc. Info.: 140-0033532-001  
 Operator ID: Xcalibur\_System Instrument ID: D2D  
 Sublist: chrom-PCBs\_D2D\*sub2  
 Method: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\PCBs\_D2D.m  
 Limit Group: HR - EPA\_23 PCB ICAL  
 Last Update: 17-Jul-2024 00:29:40 Calib Date: 31-May-2024 21:13:00  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
 Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
 Process Host: CTX1626  
 First Level Reviewer: V4XA Date: 17-Jul-2024 00:29:40  
 Start Cal Date: 31-May-2024 14:36:00  
 End Cal Date: 31-May-2024 21:13:00

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-1L		11:34	11:39	5	15	0.7253	0.7286	0.717 - 0.7472
PCB-3L		13:43	13:47	4	15	0.8606	0.8627	0.849 - 0.8798
PCB-1	L	11:35	11:39	5		1.0011	1.0011	0.995 - 1.0085
PCB-2		13:34	13:37	3		0.9885	0.9876	0.985 - 0.9925
PCB-3	L	13:44	13:48	4		1.0010	1.0010	0.998 - 1.0048
PCB-4L		13:59	14:02	3	15	0.8771	0.8783	0.865 - 0.8956
PCB-9L		15:57	15:59	2		1.0000	1.0000	0.987 - 1.0128
PCB-8L		16:48	16:49	2		1.1991	1.1985	1.192 - 1.1989
PCB-15L		19:52	19:54	2	15	1.2459	1.2451	1.233 - 1.2530
PCB-4	L	14:00	14:03	3		1.0009	1.0009	0.994 - 1.0058
PCB-10		14:10	14:13	3		1.0132	1.0131	1.010 - 1.0168
PCB-9		15:58	15:59	2		1.1421	1.1395	1.135 - 1.1415
PCB-7		16:08	16:10	2		1.1534	1.1517	1.147 - 1.1538
PCB-6		16:22	16:25	3		1.1703	1.1695	1.164 - 1.1706
PCB-5		16:41	16:43	2		1.1929	1.1910	1.186 - 1.1926
PCB-8		16:48	16:50	2		1.2013	1.1995	1.194 - 1.2008
PCB-14		18:26	18:26	1		0.9278	0.9267	0.926 - 0.9305
PCB-11		19:16	19:17	1		0.9702	0.9696	0.968 - 0.9725
PCB-12/13		19:34	19:36	3		0.9848	0.9855	0.983 - 0.9875
PCB-15	L	19:53	19:54	1		1.0013	1.0007	0.997 - 1.0050
PCB-19L		17:05	17:07	2	15	0.8402	0.8412	0.831 - 0.8547
PCB-32L		20:20	20:21	1		1.0000	1.0000	0.998 - 1.0024
PCB-31L		22:37	22:37	1		1.0000	1.0000	0.998 - 1.0022
PCB-28L		22:55	22:53	-1		1.0130	1.0124	1.006 - 1.0201

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-37L		26:54	26:54	0	15	1.1902	1.1899	1.178 - 1.1995
PCB-19	L	17:06	17:09	3		1.0008	1.0015	0.996 - 1.0058
PCB-18/30		18:57	18:56	0		1.1085	1.1059	1.104 - 1.1093
PCB-17		19:23	19:24	1		1.1347	1.1336	1.129 - 1.1352
PCB-27		19:37	19:38	1		1.1478	1.1466	1.141 - 1.1471
PCB-24		19:44	19:45	1		1.1547	1.1535	1.148 - 1.1542
PCB-16		19:51	19:53	2		1.1617	1.1612	1.156 - 1.1621
PCB-32		20:22	20:23	1		1.1917	1.1903	1.185 - 1.1908
PCB-34		21:37	21:38	1		1.2654	*1.2632	1.257 - 1.2623
PCB-23		21:47	21:46	0		1.2744	1.2714	1.266 - 1.2715
PCB-26/29		22:06	22:06	1		1.2931	1.2908	1.282 - 1.2915
PCB-25		22:19	22:19	1		0.8293	0.8294	0.829 - 0.8325
PCB-31		22:38	22:37	0		0.8412	0.8408	0.840 - 0.8438
PCB-20/28		22:56	22:56	0		0.8526	0.8527	0.851 - 0.8568
PCB-21/33		23:06	23:06	0		0.8588	0.8584	0.858 - 0.8637
PCB-22		23:33	23:34	1		0.8754	0.8760	0.875 - 0.8786
PCB-36		25:07	25:06	0		0.9334	0.9330	0.932 - 0.9352
PCB-39		25:28	25:28	0		0.9467	0.9463	0.945 - 0.9483
PCB-38		26:03	26:02	0		0.9681	0.9677	0.966 - 0.9695
PCB-35		26:31	26:31	0		0.9857	0.9857	0.984 - 0.9875
PCB-37	L	26:55	26:56	1		1.0005	1.0010	0.999 - 1.0024
PCB-54L		20:10	20:12	2	15	0.8149	0.8165	0.811 - 0.8247
PCB-52L		24:45	24:44	0		1.0000	1.0000	0.992 - 1.0083
PCB-79L		32:41	32:38	-2		0.9707	0.9704	0.969 - 0.9718
PCB-81L		33:40	33:38	-1	15	1.3604	1.3602	1.351 - 1.3641
PCB-77L		34:13	34:12	-1	15	1.3832	1.3829	1.373 - 1.3867
PCB-54	L	20:12	20:12	1		1.0000	1.0000	0.996 - 1.0041
PCB-50/53		22:23	22:22	0		1.1097	1.1076	1.102 - 1.1106
PCB-45/51		23:06	23:06	0		1.1459	1.1436	1.137 - 1.1453
PCB-46		23:20	23:21	1		1.1573	1.1563	1.153 - 1.1576
PCB-52		24:46	24:45	-1		1.2284	1.2253	1.222 - 1.2263
PCB-43/73		24:55	24:53	-1		1.2353	1.2323	1.230 - 1.2346
PCB-49/69		25:12	25:10	-2		1.2499	1.2462	1.242 - 1.2499
PCB-48		25:32	25:31	-1		1.2665	1.2633	1.259 - 1.2636
PCB-44/47/65		25:47	25:45	-1		1.2785	1.2753	1.269 - 1.2770
PCB-59/62/75		26:05	26:04	0		1.2931	1.2911	1.284 - 1.2919
PCB-42		26:17	26:16	-1		1.3033	1.3006	1.296 - 1.3007
PCB-40/41/71		26:47	26:46	0		1.3280	*1.3259	1.317 - 1.3250
PCB-64		27:00	26:59	-1		1.3388	*1.3361	1.331 - 1.3355
PCB-72		27:50	27:48	-2		0.8271	0.8264	0.826 - 0.8291
PCB-68		28:07	28:05	-2		0.8354	0.8348	0.835 - 0.8375
PCB-57		28:33	28:30	-2		0.8480	0.8473	0.847 - 0.8500
PCB-58		28:47	28:45	-1		0.8552	0.8549	0.854 - 0.8574
PCB-67		28:57	28:55	-2		0.8601	0.8595	0.859 - 0.8620
PCB-63		29:13	29:11	-1		0.8677	0.8674	0.866 - 0.8694
PCB-61/70/74/76		29:33	29:31	-1		0.8780	0.8777	0.875 - 0.8810

Compound	T/L	ICAL RT	CCV RT	Δ RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-66		29:52	29:50	-2		0.8875	0.8872	0.886 - 0.8894
PCB-55		30:02	30:00	-1		0.8920	0.8921	0.891 - 0.8943
PCB-56		30:32	30:31	-1		0.9072	0.9073	0.907 - 0.9098
PCB-60		30:45	30:43	-2		0.9137	0.9134	0.913 - 0.9158
PCB-80		31:10	31:07	-2		0.9259	0.9252	0.924 - 0.9268
PCB-79		32:42	32:39	-3		0.9715	0.9708	0.970 - 0.9726
PCB-78		33:15	33:13	-2		0.9878	0.9875	0.986 - 0.9890
PCB-81	T	33:41	33:40	-1		1.0008	1.0008	0.999 - 1.0020
PCB-77	T/L	34:15	34:13	-1		1.0007	1.0007	0.999 - 1.0019
PCB-104L		25:42	25:40	-1	15	0.8129	0.8133	0.810 - 0.8199
PCB-95L		28:40	28:38	-2		1.1155	1.1156	1.112 - 1.1179
PCB-101L		31:36	31:33	-2		1.0000	1.0000	0.994 - 1.0065
PCB-111L		34:17	34:13	-4		1.0850	1.0842	1.079 - 1.0891
PCB-123L		36:15	36:10	-4	15	1.1469	1.1465	1.141 - 1.1511
PCB-118L		36:34	36:30	-4	15	1.1573	1.1569	1.151 - 1.1614
PCB-114L		37:06	37:02	-4	15	1.1739	1.1735	1.168 - 1.1780
PCB-105L		37:44	37:42	-2	15	1.1943	1.1948	1.188 - 1.1989
PCB-127L		39:13	39:09	-3		1.0000	1.0000	0.995 - 1.0053
PCB-126L		40:49	40:47	-2	15	1.2917	1.2926	1.285 - 1.2956
PCB-104	L	25:42	25:41	-1		1.0005	1.0005	0.998 - 1.0039
PCB-96		26:05	26:04	0		1.0149	1.0159	1.013 - 1.0195
PCB-103		28:01	27:59	-2		1.0907	1.0901	1.087 - 1.0912
PCB-94		28:14	28:12	-1		1.0991	1.0991	1.097 - 1.1003
PCB-95		28:41	28:39	-1		1.1165	1.1165	1.113 - 1.1193
PCB-93/100		28:54	28:51	-3		1.1250	1.1240	1.120 - 1.1267
PCB-98/102		29:03	29:01	-2		1.1310	1.1305	1.127 - 1.1336
PCB-88/91		29:33	29:31	-1		1.1499	1.1499	1.143 - 1.1505
PCB-84		29:46	29:45	0		1.1584	1.1594	1.157 - 1.1603
PCB-89		30:15	30:13	-1		1.1773	1.1778	1.175 - 1.1786
PCB-121		30:40	30:36	-4		1.1937	1.1922	1.188 - 1.1922
PCB-92		31:02	30:59	-2		0.8564	0.8567	0.856 - 0.8589
PCB-90/101/113		31:37	31:33	-3		1.2306	1.2296	1.224 - 1.2307
PCB-83/99		32:12	32:08	-3		1.2535	1.2525	1.245 - 1.2525
PCB-112		32:19	32:16	-2		1.2580	1.2574	1.254 - 1.2574
PCB-86/87/97/109/119/125		32:41	32:38	-3		1.2724	1.2719	1.265 - 1.2756
PCB-85/116/117		33:25	33:21	-3		1.3008	1.2998	1.293 - 1.3007
PCB-110/115		33:36	33:34	-1		1.3078	1.3082	1.303 - 1.3092
PCB-82		33:54	33:53	-1		1.3198	*1.3202	1.316 - 1.3194
PCB-111		34:19	34:14	-4		1.3357	*1.3341	1.329 - 1.3330
PCB-120		34:46	34:42	-4		1.3531	*1.3520	1.348 - 1.3514
PCB-108/124		35:54	35:51	-3		1.3975	*1.3969	1.390 - 1.3967
PCB-107		36:09	36:05	-4		1.4072	*1.4061	1.401 - 1.4049
PCB-123	T	36:16	36:12	-4		1.0007	1.0007	1.000 - 1.0023
PCB-106		36:22	36:19	-3		1.0036	1.0040	1.003 - 1.0057
PCB-118	T	36:35	36:32	-3		1.0004	1.0007	0.999 - 1.0019
PCB-122		36:56	36:53	-3		1.0101	1.0104	1.009 - 1.0117



Compound	T/L	ICAL RT	CCV RT	Δ RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-114	T	37:07	37:03	-3		1.0004	1.0007	0.999 - 1.0018
PCB-105	T	37:46	37:43	-2		1.0007	1.0007	0.999 - 1.0018
PCB-127		39:14	39:10	-4		1.0397	1.0390	1.037 - 1.0399
PCB-126	T/L	40:51	40:48	-2		1.0006	1.0003	1.000 - 1.0016
PCB-155L		31:22	31:17	-5	15	0.7904	0.7897	0.787 - 0.7951
PCB-153L		38:27	38:22	-5		0.9005	0.9004	0.899 - 0.9028
PCB-138L		39:41	39:37	-4		1.0000	1.0000	0.979 - 1.0208
PCB-167L		42:42	42:37	-5	15	1.0759	1.0756	1.071 - 1.0792
PCB-156L/157L		43:51	43:47	-4	15	1.1050	1.1051	1.100 - 1.1084
PCB-169L		47:05	47:00	-4	15	1.1862	1.1864	1.184 - 1.1864
PCB-155	L	31:24	31:19	-5		1.0008	1.0008	0.998 - 1.0031
PCB-152		31:35	31:32	-2		1.0069	1.0082	1.006 - 1.0096
PCB-150		31:45	31:42	-3		1.0122	1.0131	1.011 - 1.0144
PCB-136		32:07	32:05	-1		1.0236	1.0257	1.024 - 1.0268
PCB-145		32:24	32:21	-3		1.0330	1.0343	1.033 - 1.0358
PCB-148		33:56	33:51	-4		1.0816	1.0821	1.080 - 1.0830
PCB-135/151		34:31	34:27	-4		1.1004	1.1013	1.099 - 1.1038
PCB-154		34:46	34:42	-4		1.1085	1.1090	1.106 - 1.1107
PCB-144		35:05	35:01	-4		1.1183	1.1193	1.117 - 1.1199
PCB-147/149		35:27	35:23	-4		1.1301	1.1311	1.127 - 1.1326
PCB-134/143		35:45	35:41	-3		1.1394	1.1408	1.136 - 1.1409
PCB-139/140		36:03	35:59	-4		1.1490	1.1500	1.146 - 1.1515
PCB-131		36:15	36:11	-3		1.1553	1.1567	1.154 - 1.1571
PCB-142		36:23	36:20	-3		1.1599	1.1613	1.159 - 1.1621
PCB-132		36:42	36:40	-2		1.1700	1.1718	1.168 - 1.1728
PCB-133		37:13	37:09	-4		1.1863	*1.1874	1.184 - 1.1872
PCB-165		37:37	37:32	-5		0.8808	0.8807	0.880 - 0.8825
PCB-146		37:52	37:47	-5		0.8867	0.8865	0.886 - 0.8882
PCB-161		37:59	37:54	-5		0.8897	0.8896	0.889 - 0.8914
PCB-153/168		38:29	38:24	-5		0.9014	0.9013	0.900 - 0.9040
PCB-141		38:40	38:35	-4		0.9054	0.9056	0.905 - 0.9075
PCB-130		39:04	39:01	-3		0.9150	0.9155	0.915 - 0.9172
PCB-137		39:18	39:13	-4		0.9202	0.9204	0.920 - 0.9224
PCB-164		39:25	39:21	-3		0.9230	0.9235	0.923 - 0.9252
PCB-129/138/160/163		39:44	39:39	-4		0.9304	0.9306	0.930 - 0.9349
PCB-158		40:06	40:02	-4		0.9393	0.9396	0.939 - 0.9409
PCB-128/166		40:57	40:53	-4		0.9590	0.9593	0.958 - 0.9617
PCB-159		41:58	41:52	-5		0.9828	0.9827	0.982 - 0.9839
PCB-162		42:15	42:10	-5		0.9895	0.9895	0.988 - 0.9907
PCB-167	T	42:43	42:37	-6		1.0006	1.0003	0.999 - 1.0016
PCB-156/157	T	43:53	43:48	-4		1.0006	1.0006	0.999 - 1.0025
PCB-169	T/L	47:06	47:01	-4		1.0006	1.0006	0.999 - 1.0015
PCB-188L		37:06	37:01	-4	15	0.8198	0.8199	0.817 - 0.8243
PCB-178L		40:09	40:04	-4		0.8875	0.8877	0.884 - 0.8916
PCB-180L		45:15	45:09	-6		1.0000	1.0000	0.996 - 1.0037
PCB-170L		46:30	46:24	-5	15	1.0276	1.0279	1.024 - 1.0317



Compound	T/L	ICAL RT	CCV RT	Δ RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-189L		49:37	49:30	-6	15	1.0965	1.0967	1.093 - 1.1000
PCB-188	L	37:07	37:02	-5		1.0007	1.0004	1.000 - 1.0022
PCB-179		37:27	37:24	-3		1.0096	1.0103	1.009 - 1.0115
PCB-184		37:59	37:54	-5		1.0241	1.0238	1.023 - 1.0254
PCB-176		38:20	38:16	-3		1.0333	1.0341	1.033 - 1.0351
PCB-186		38:48	38:44	-3		1.0457	1.0465	1.045 - 1.0476
PCB-178		40:10	40:05	-5		1.0830	1.0831	1.081 - 1.0837
PCB-175		40:48	40:44	-4		1.1000	1.1004	1.098 - 1.1008
PCB-187		41:05	41:00	-5		1.1074	1.1076	1.106 - 1.1082
PCB-182		41:17	41:11	-5		1.1127	1.1129	1.111 - 1.1137
PCB-183/185		41:42	41:35	-6		1.1241	1.1235	1.123 - 1.1260
PCB-174		41:56	41:52	-4		1.1305	1.1310	1.129 - 1.1313
PCB-177		42:22	42:18	-4		1.1422	1.1427	1.140 - 1.1430
PCB-181		42:45	42:41	-4		1.1524	1.1530	1.151 - 1.1535
PCB-171/173		42:58	42:54	-4		1.1585	1.1590	1.156 - 1.1602
PCB-172		44:37	44:31	-6		0.8993	0.8991	0.899 - 0.9008
PCB-192		44:54	44:47	-6		0.9049	0.9047	0.904 - 0.9060
PCB-180/193		45:14	45:08	-6		0.9117	0.9116	0.911 - 0.9130
PCB-191		45:37	45:31	-6		0.9194	0.9193	0.919 - 0.9209
PCB-170		46:31	46:26	-5		0.9377	0.9379	0.937 - 0.9392
PCB-190		47:02	46:57	-5		0.9481	0.9482	0.948 - 0.9496
PCB-189	T/L	49:38	49:32	-5		1.0003	1.0005	0.999 - 1.0013
PCB-202L		42:28	42:22	-5	15	0.8211	0.8211	0.819 - 0.8249
PCB-194L		51:43	51:36	-6		1.0000	1.0000	0.996 - 1.0040
PCB-205L		52:11	52:05	-6	15	1.0092	1.0092	1.004 - 1.0138
PCB-202	L	42:29	42:24	-5		1.0006	1.0006	0.999 - 1.0027
PCB-201		43:24	43:19	-5		1.0223	1.0223	1.020 - 1.0237
PCB-204		44:05	43:59	-6		1.0381	1.0378	1.036 - 1.0388
PCB-197		44:19	44:13	-6		1.0437	1.0434	1.042 - 1.0445
PCB-200		44:25	44:21	-4		1.0462	1.0465	1.045 - 1.0473
PCB-198/199		47:12	47:05	-6		1.1115	1.1113	1.109 - 1.1132
PCB-196		47:53	47:46	-6		0.9175	0.9173	0.917 - 0.9189
PCB-203		48:05	47:58	-6		0.9212	0.9211	0.921 - 0.9226
PCB-195		49:24	49:17	-6		0.9465	0.9465	0.946 - 0.9481
PCB-194		51:44	51:38	-6		0.9914	0.9914	0.991 - 0.9926
PCB-205	L	52:13	52:06	-6		1.0005	1.0005	0.999 - 1.0013
PCB-208L		49:08	49:02	-6	15	0.9503	0.9502	0.947 - 0.9534
PCB-206L		53:56	53:50	-6	15	1.0431	1.0431	1.038 - 1.0472
PCB-208	L	49:10	49:03	-7		1.0005	1.0003	0.999 - 1.0013
PCB-207		50:05	49:59	-6		1.0193	1.0193	1.019 - 1.0205
PCB-206	L	53:58	53:51	-6		1.0005	1.0005	1.000 - 1.0015
PCB-209L		55:35	55:26	-8	15	1.0748	1.0743	1.069 - 1.0784
DCB Decachlorobiphenyl	L	55:35	55:28	-7		1.0002	1.0005	0.999 - 1.0012

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

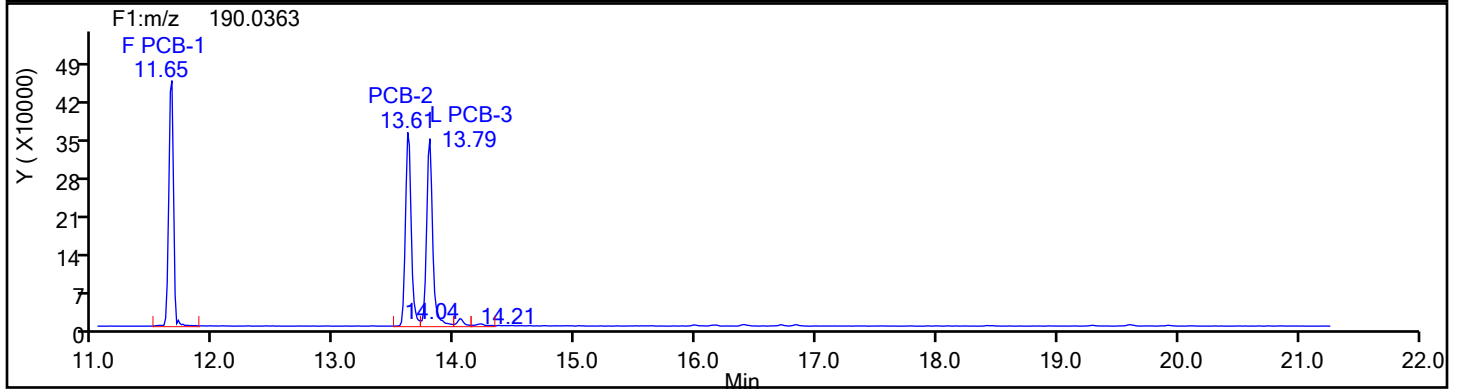
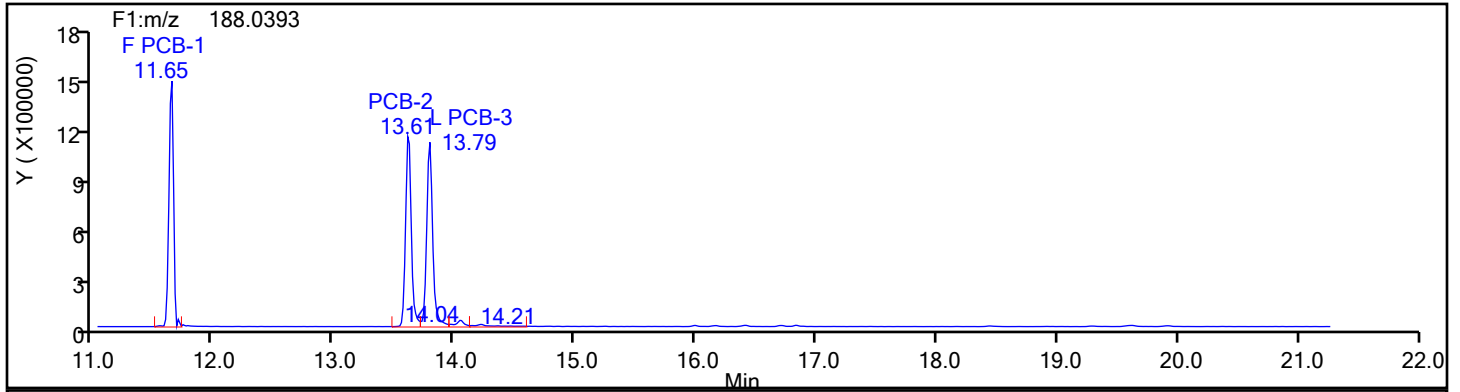
Worklist#: 88834

Sample Line#: 1

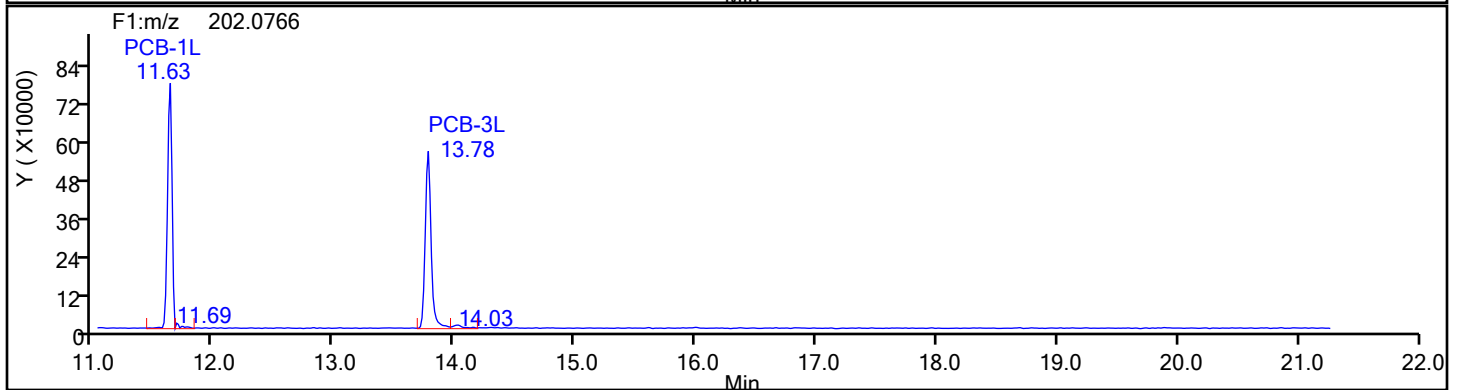
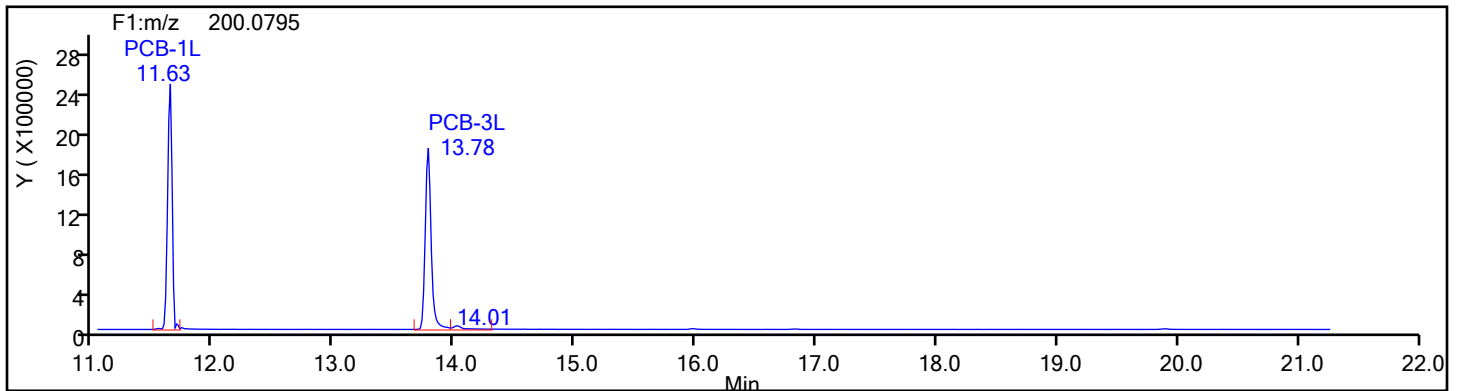
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

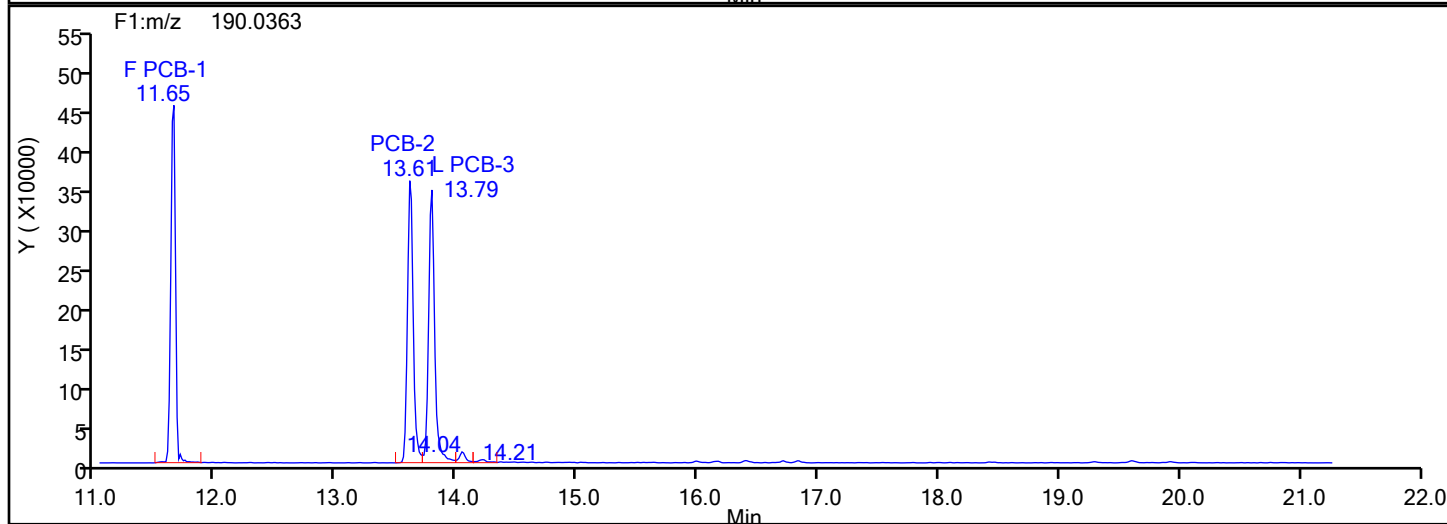
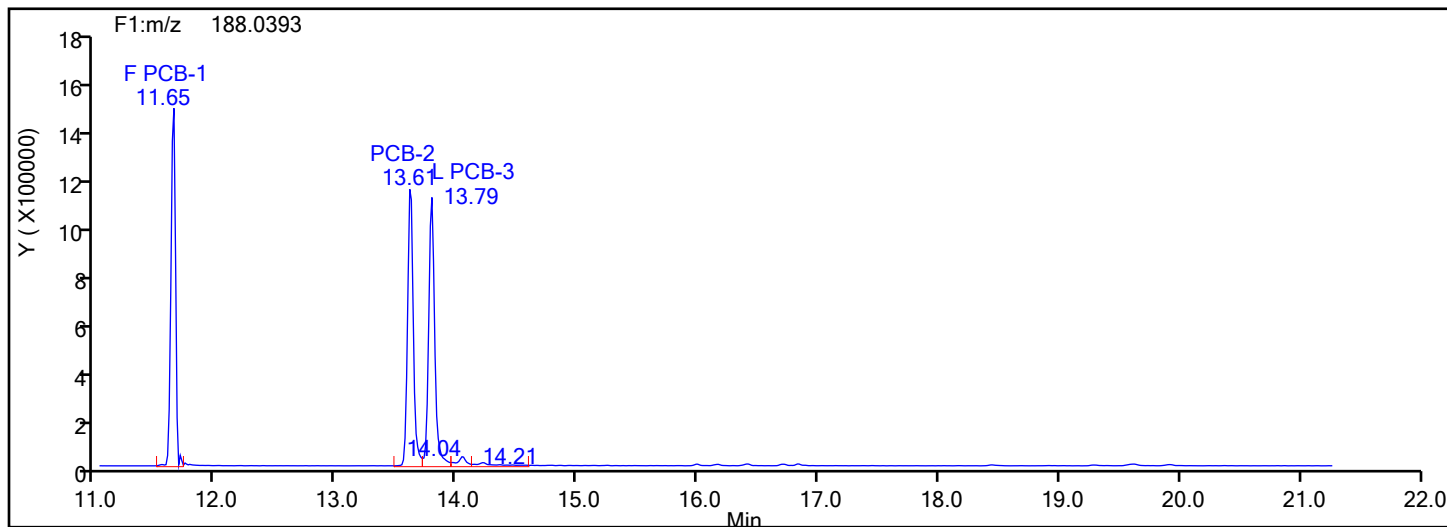
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Sample Line#: 1

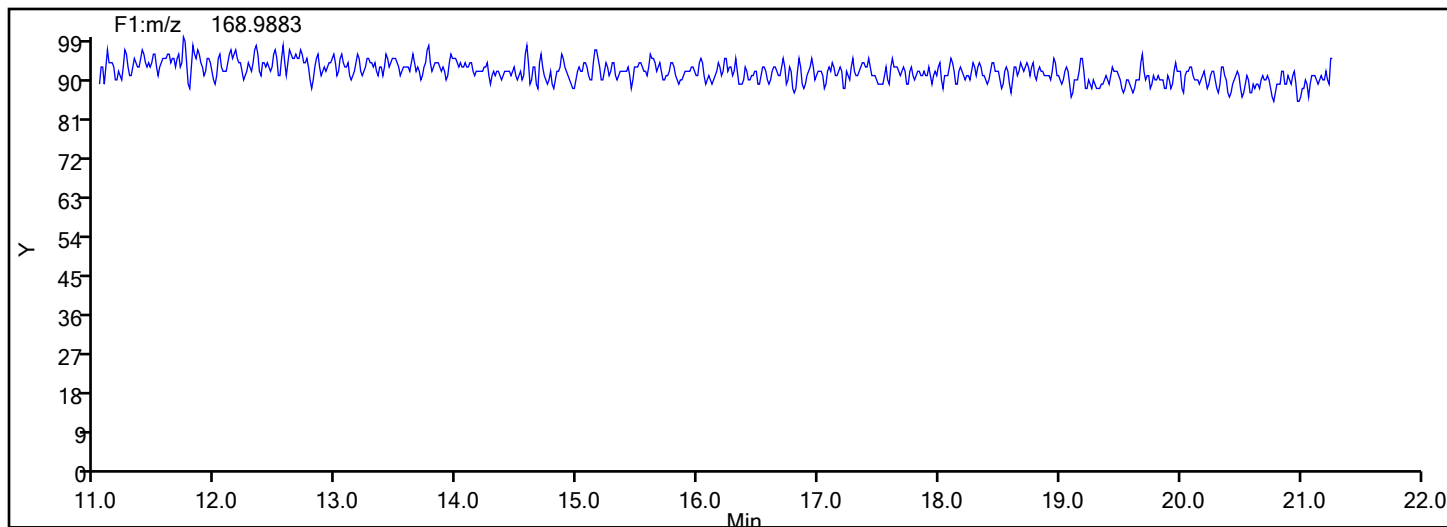
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

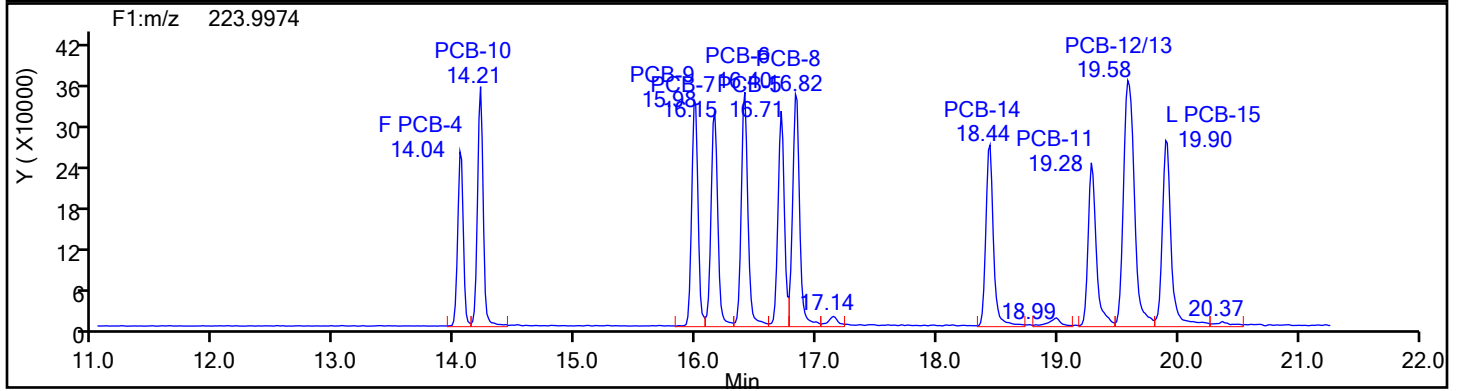
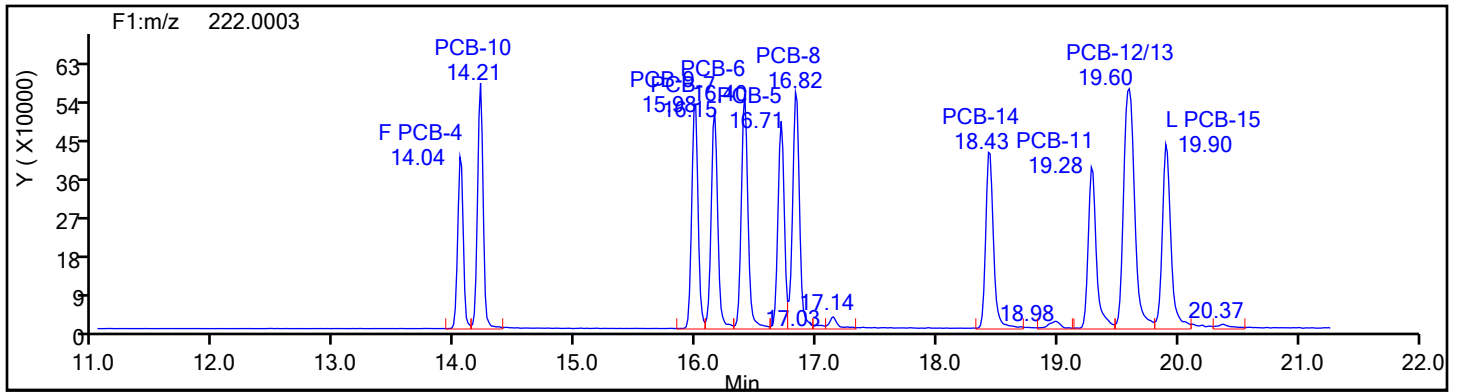
Worklist#: 88834

Sample Line#: 1

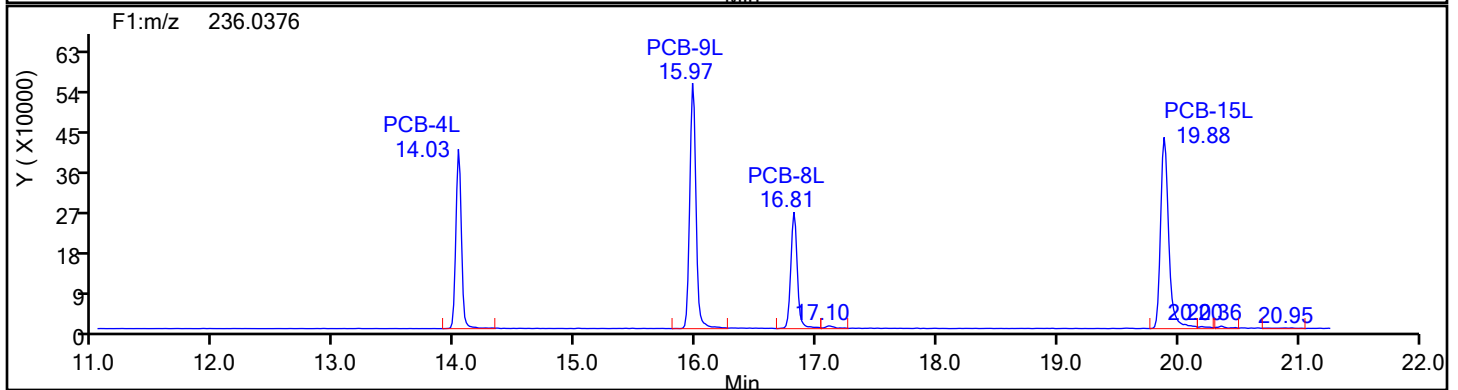
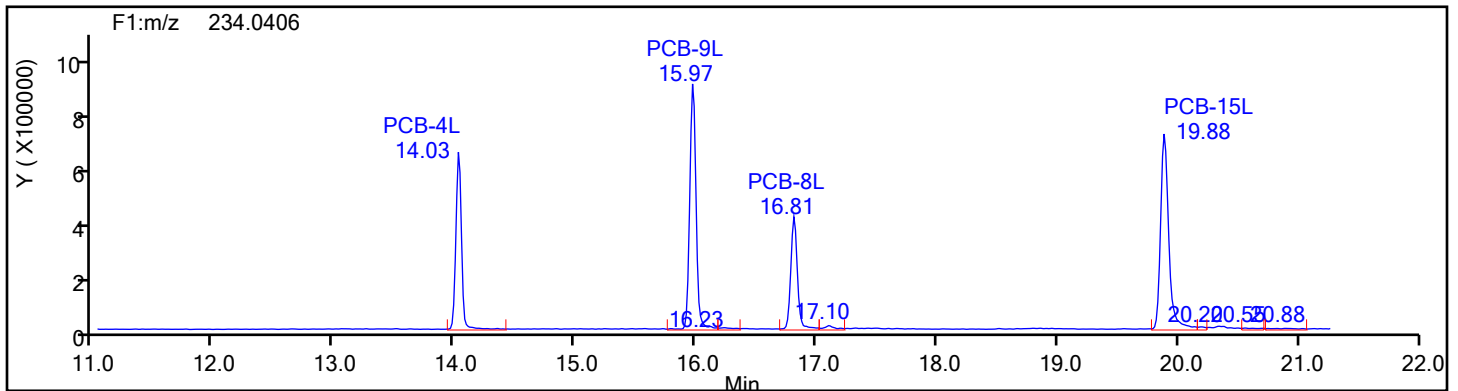
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

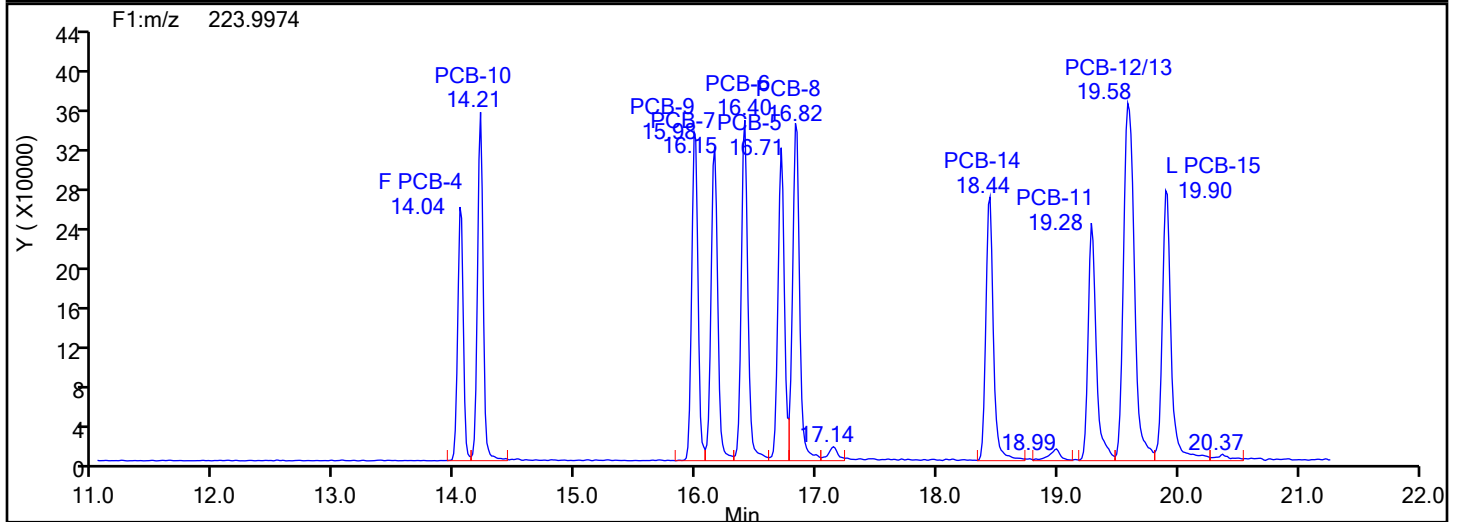
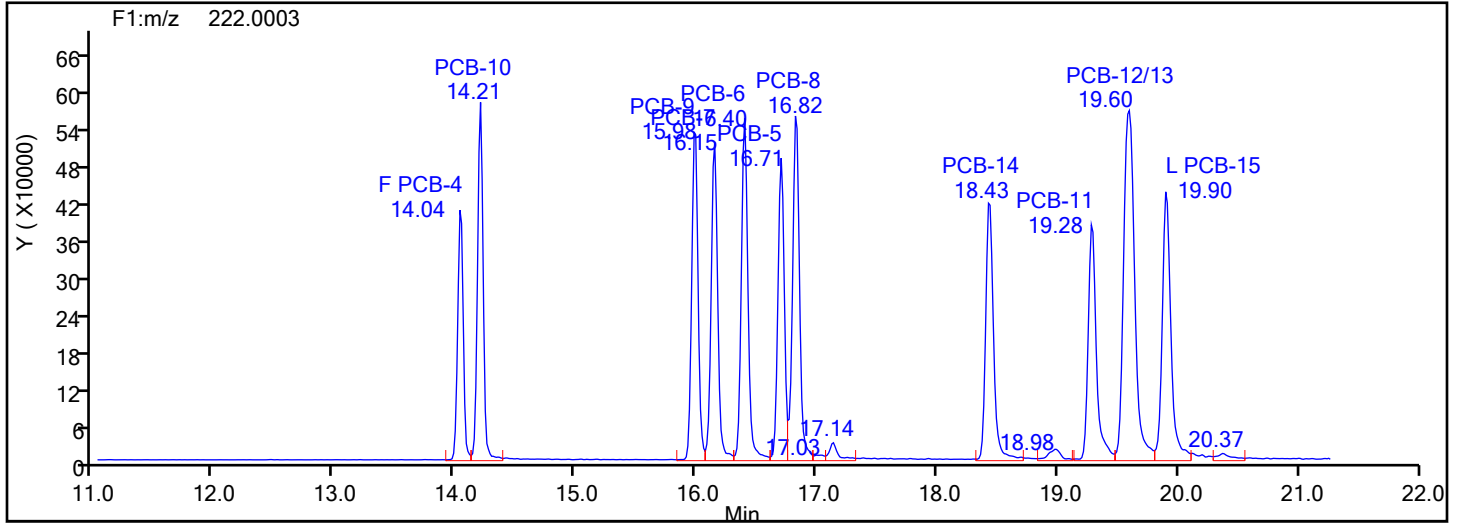
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Sample Line#: 1

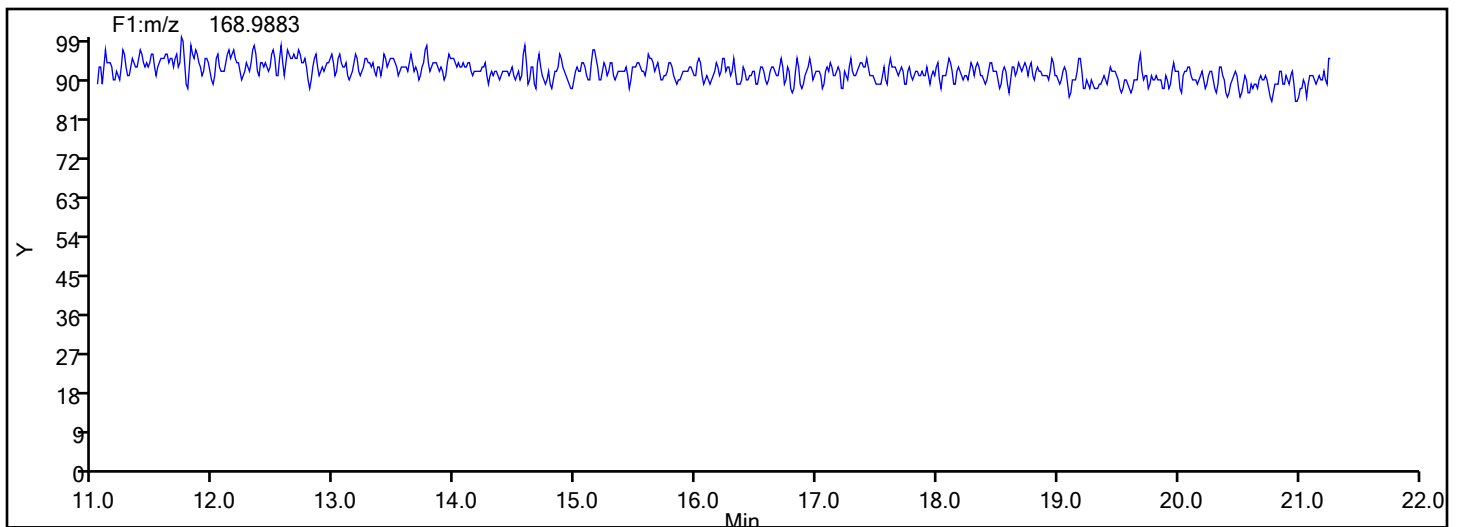
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

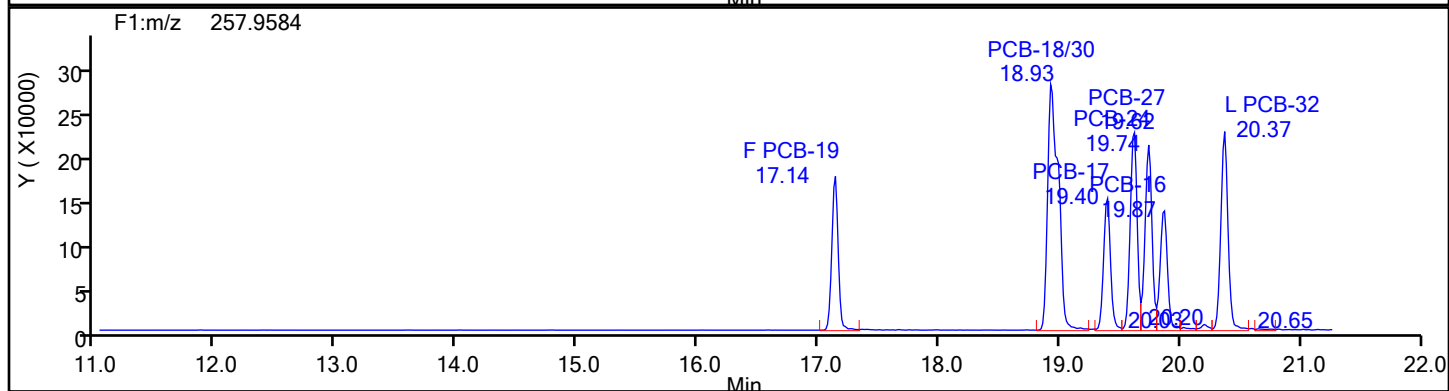
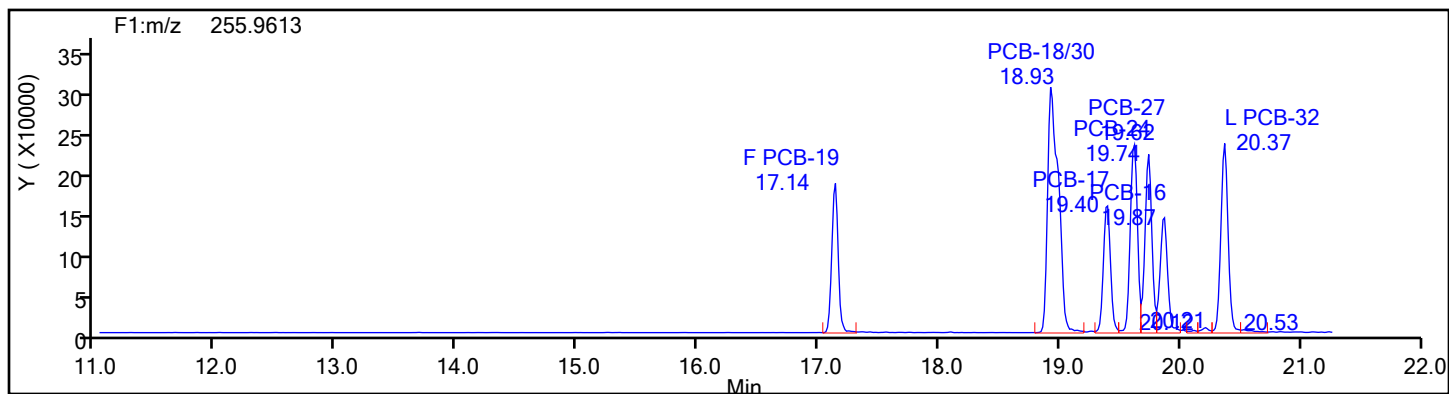
Worklist#: 88834

Sample Line#: 1

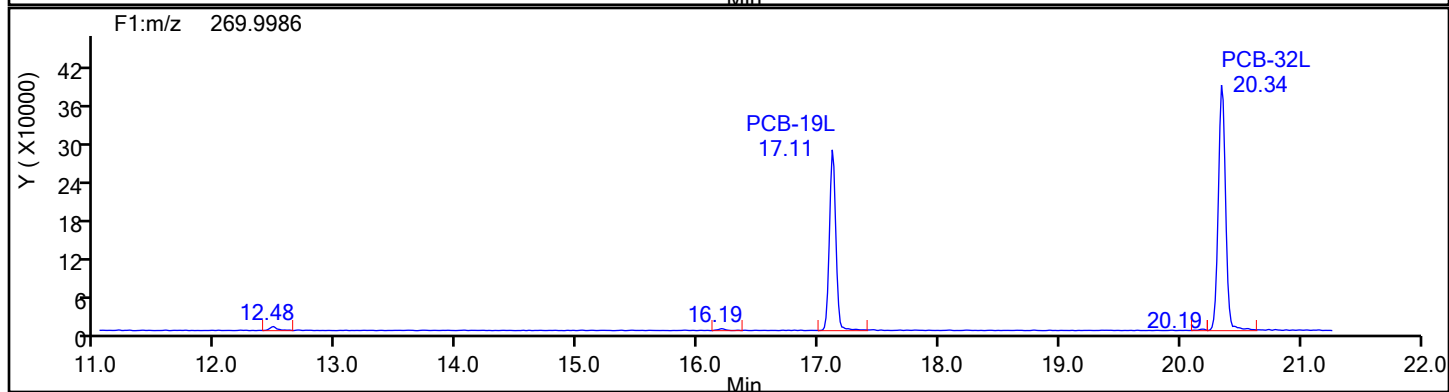
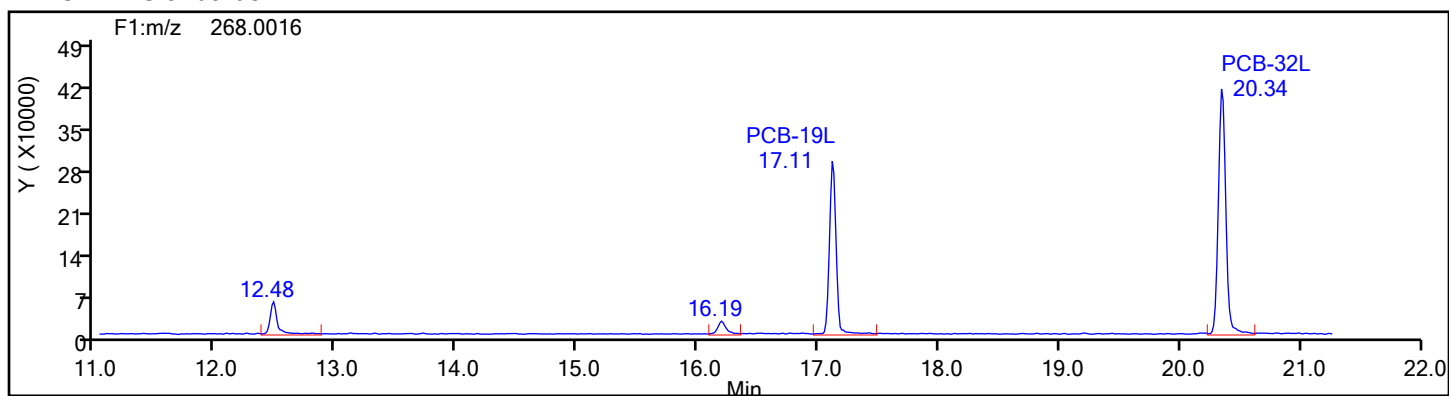
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1

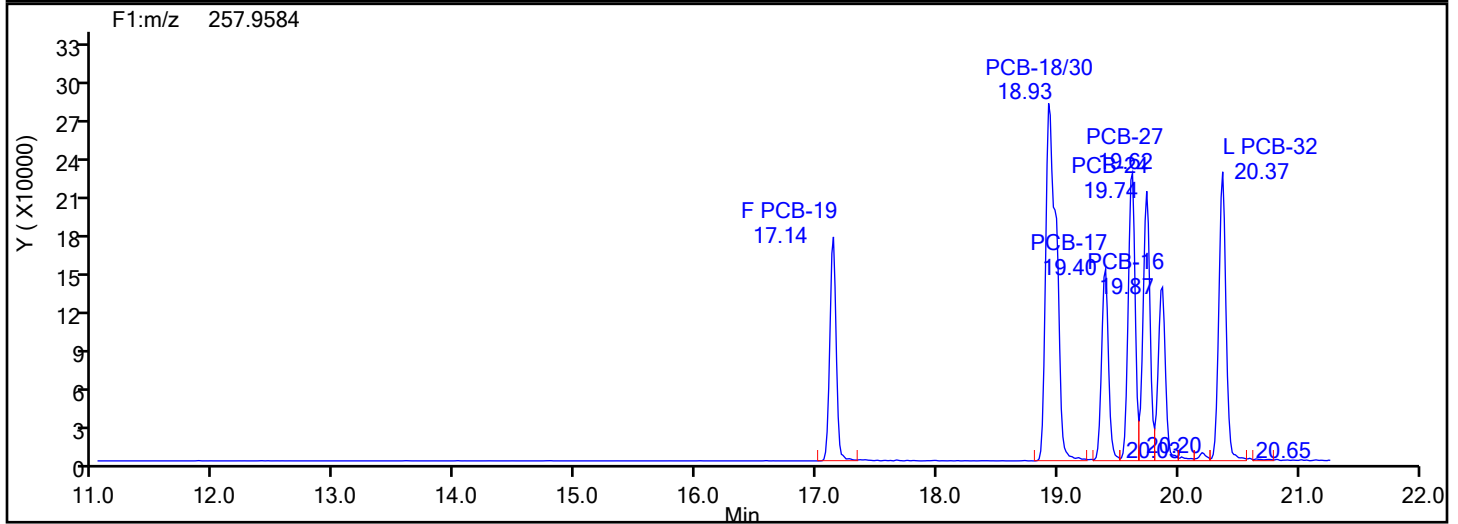
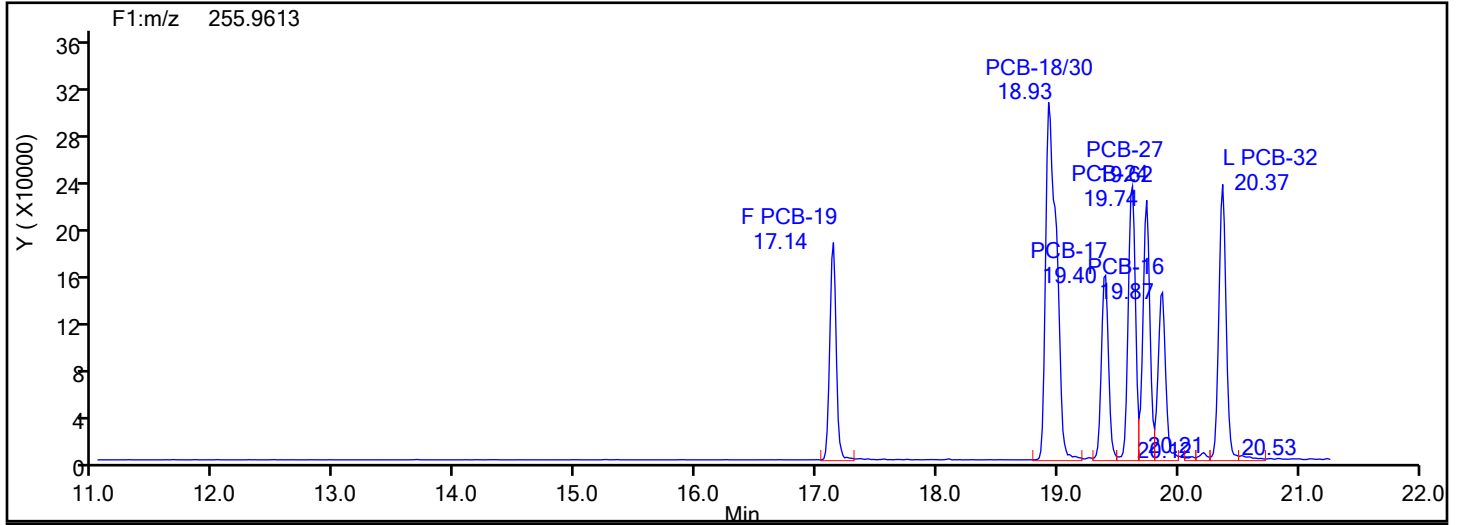


TriPCB F1 Standards

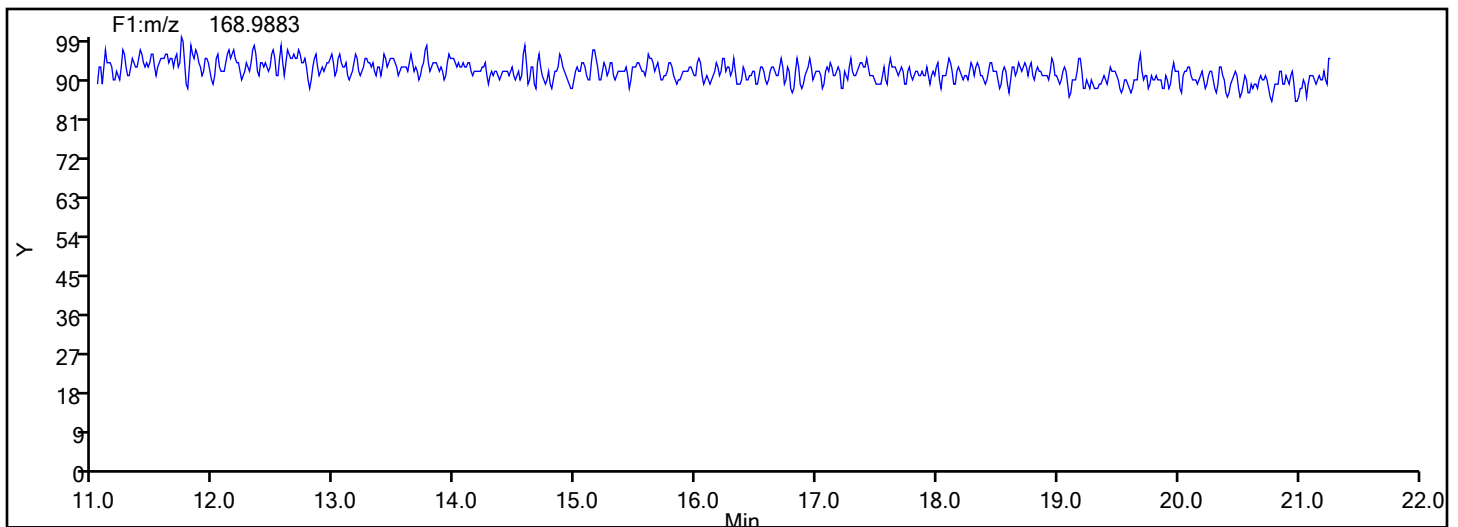


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88834 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TriPCB F1



## TriPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

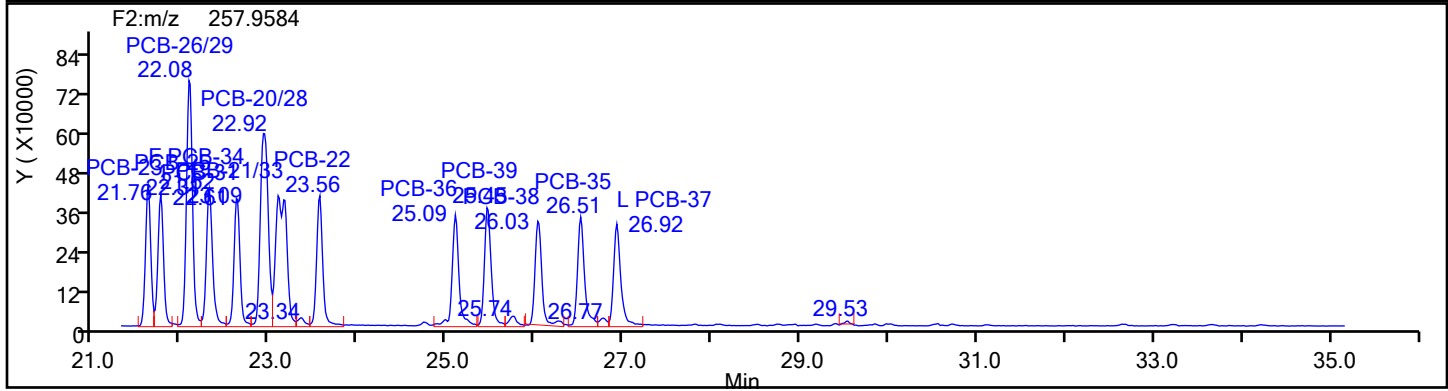
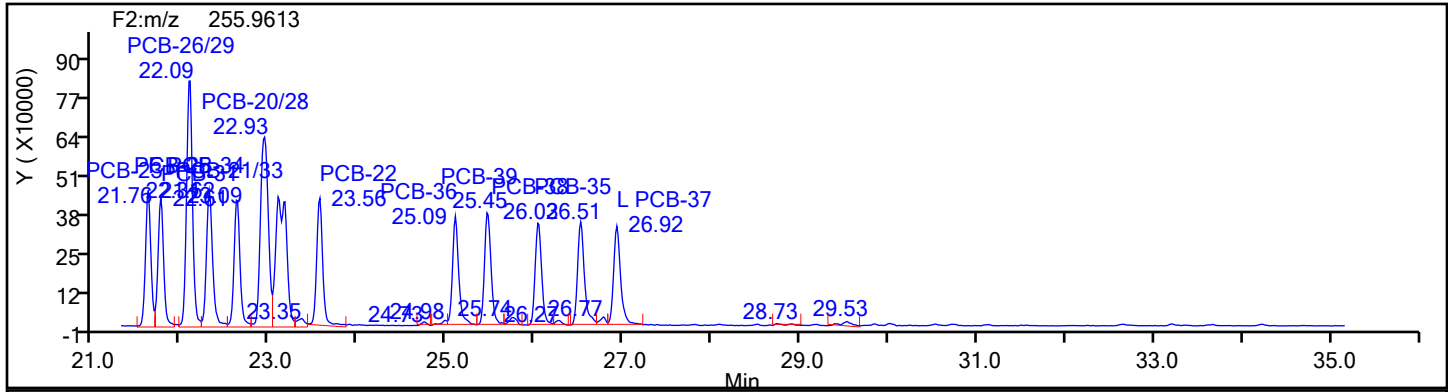
Worklist#: 88834

Sample Line#: 1

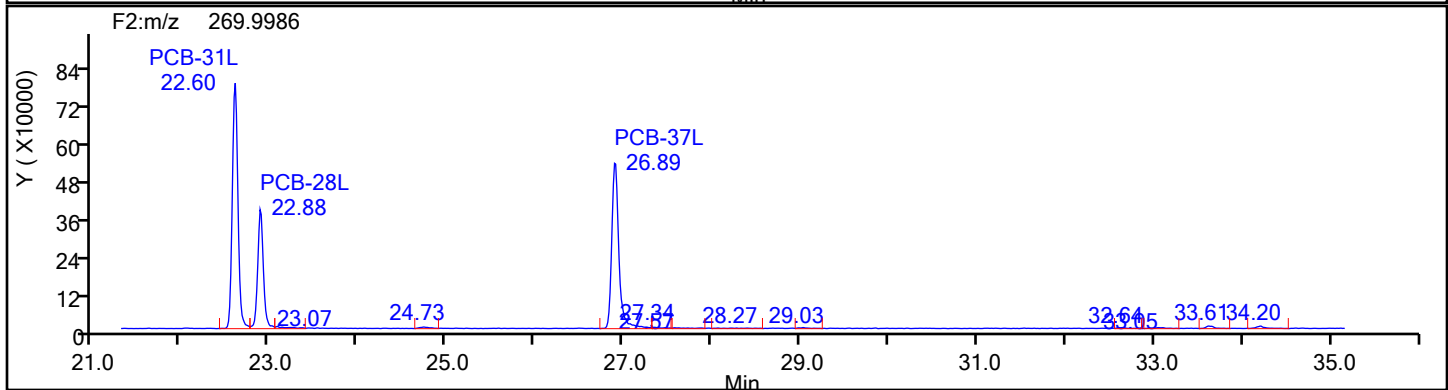
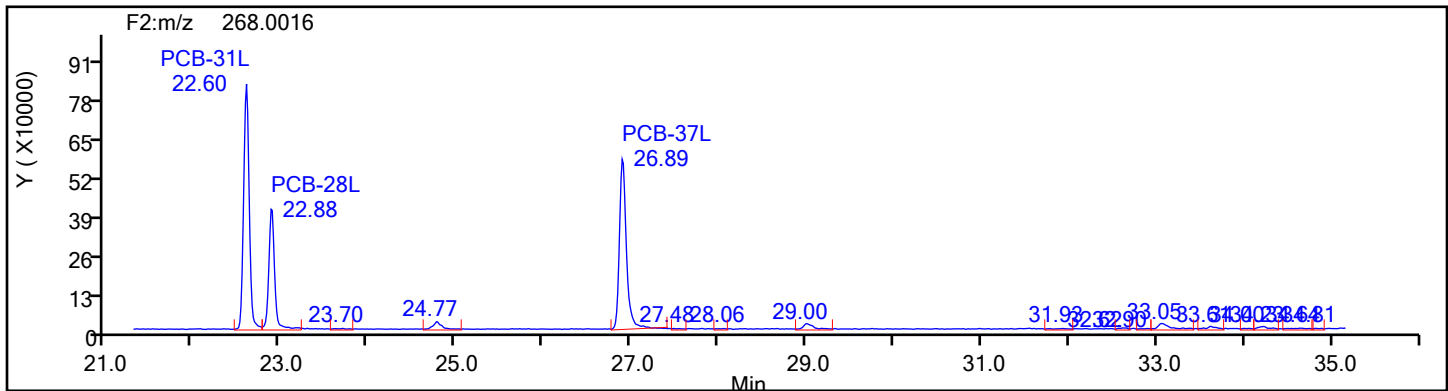
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

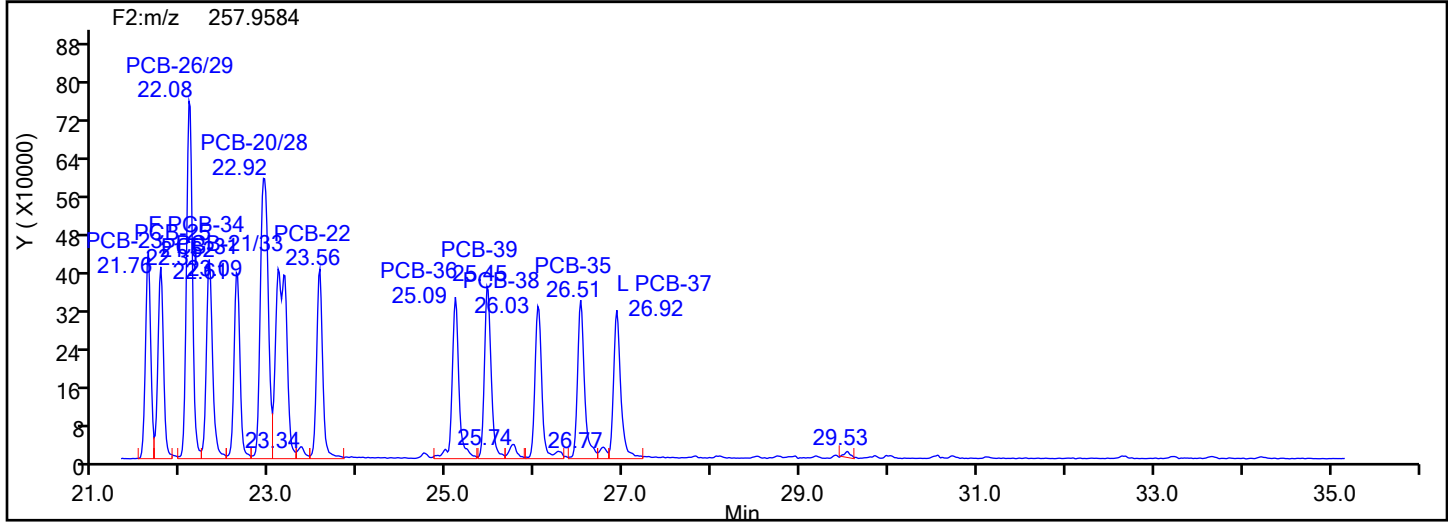
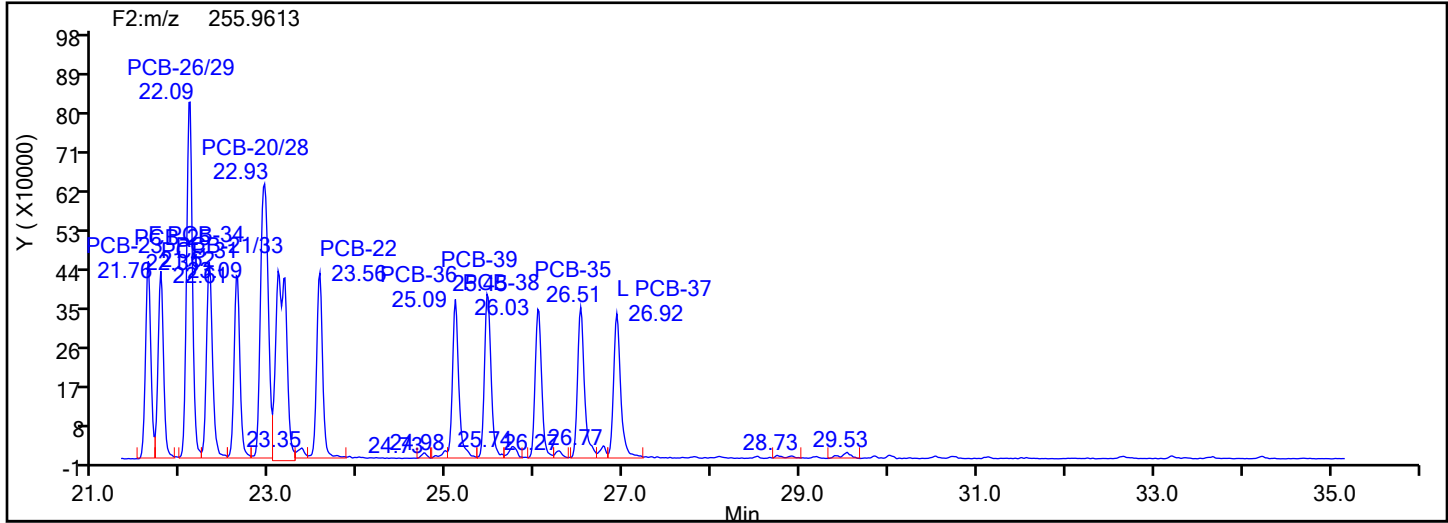
Worklist#: 88834

Sample Line#: 1

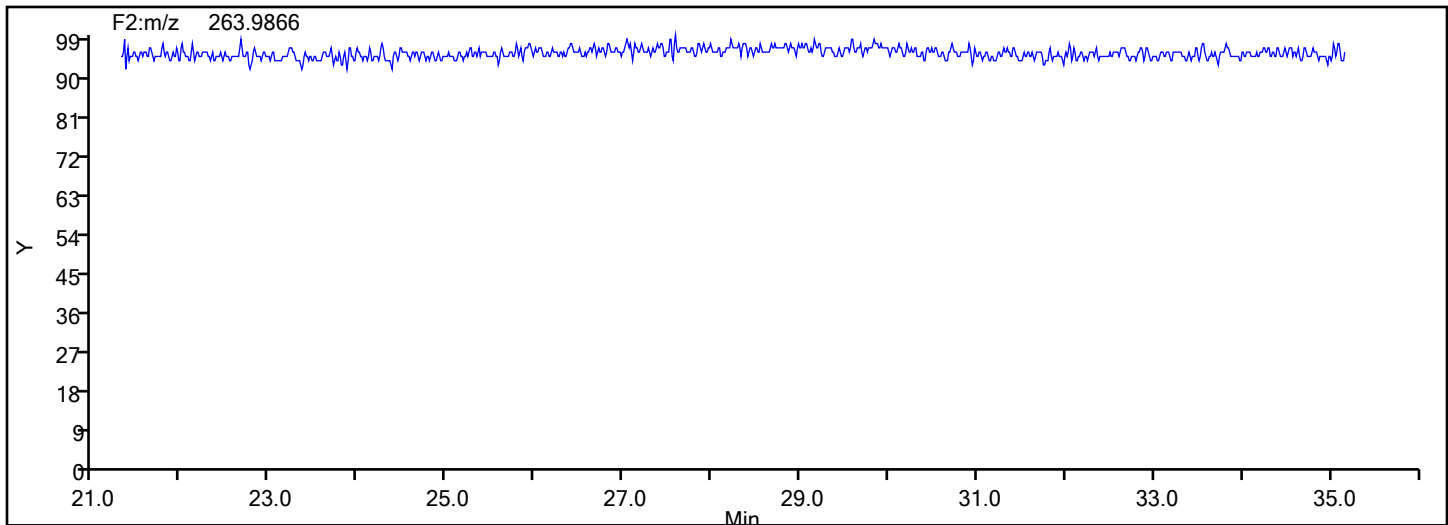
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Instrument ID: D2D

Lims ID: WDMCCV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

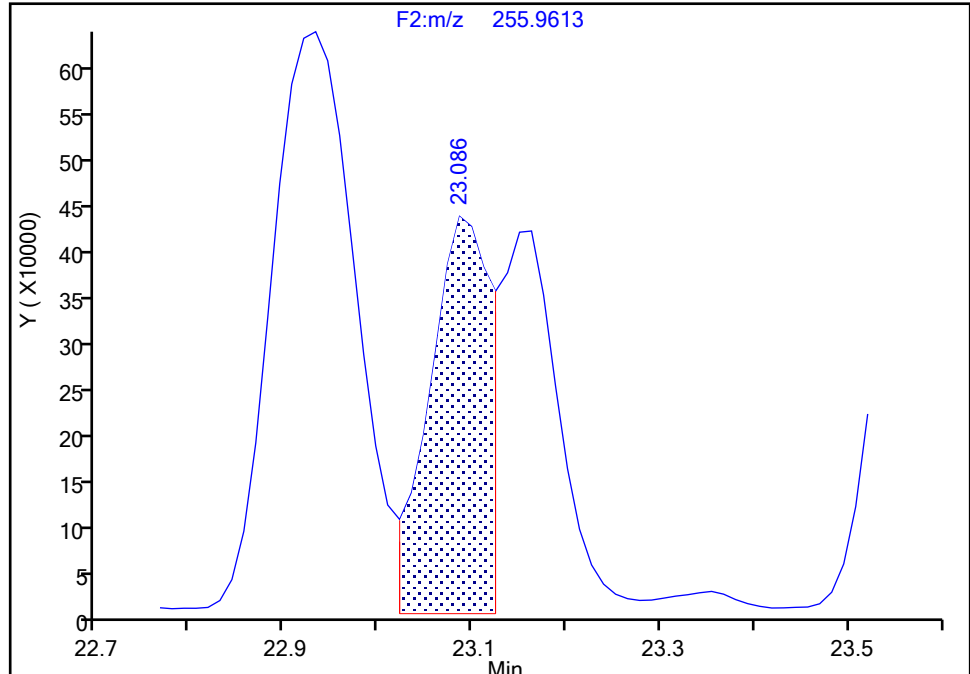
Detector F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 1

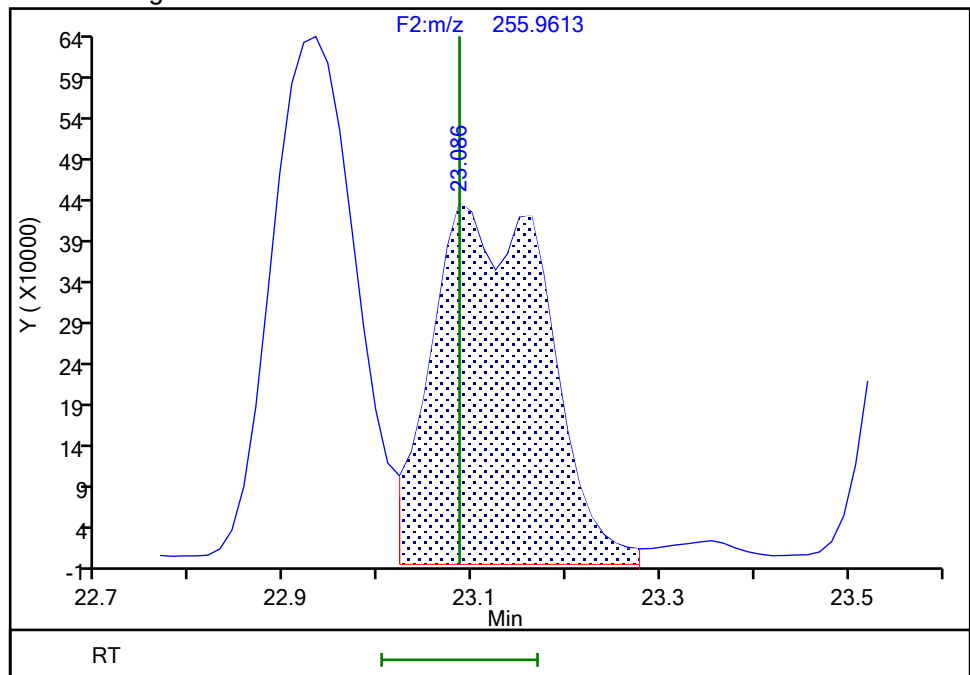
RT: 23.09  
Area: 1873089  
Amount: 54.711796  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.09  
Area: 3708300  
Amount: 107.9093  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 00:24:21 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

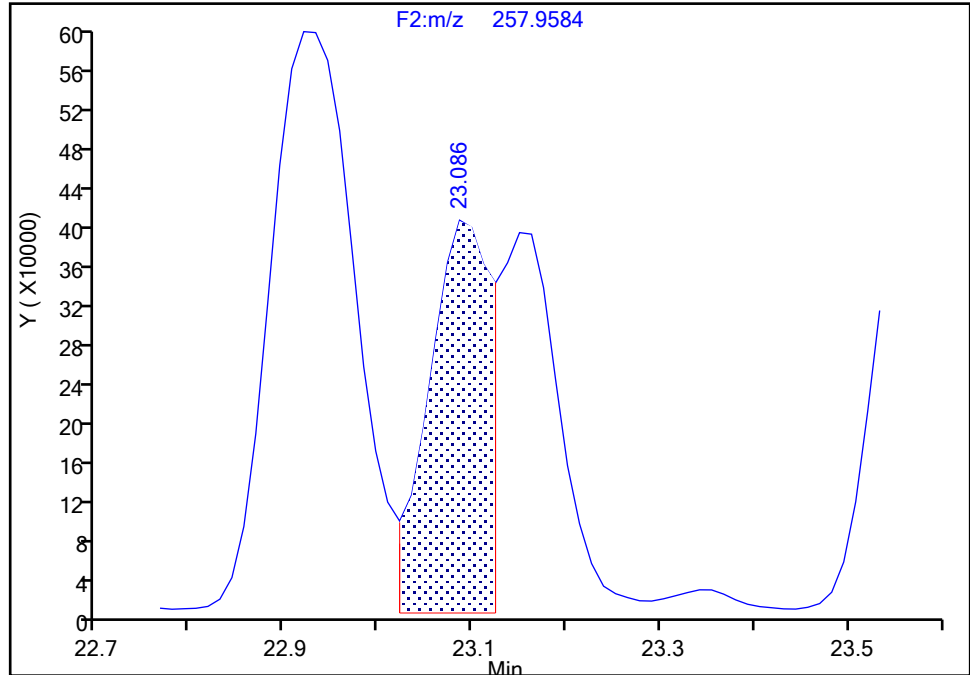
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-21/33, CAS: STL01800

Signal: 2

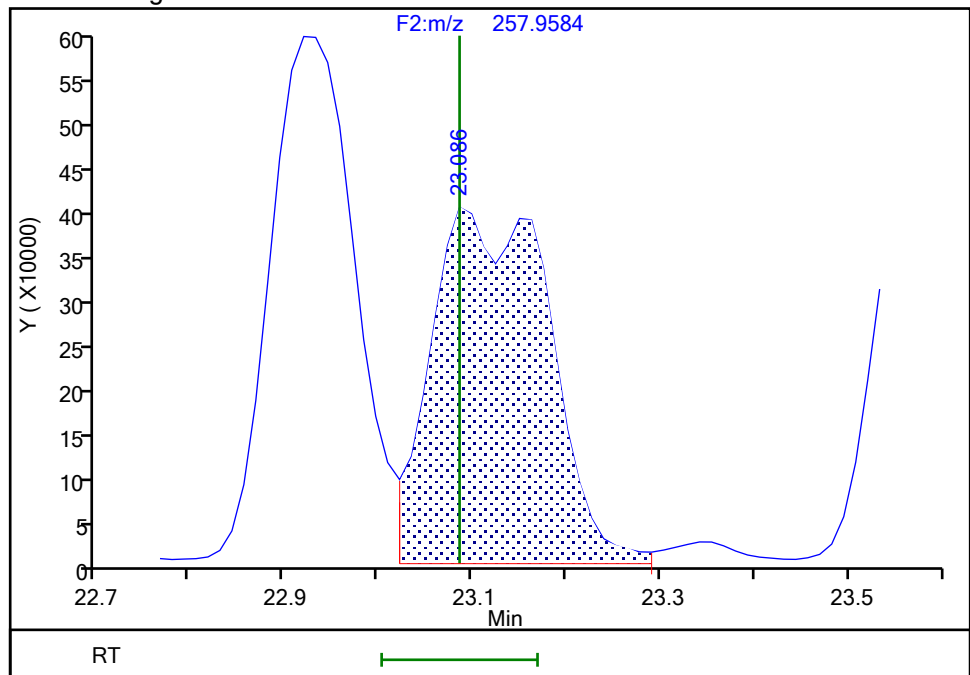
RT: 23.09  
Area: 1770539  
Amount: 54.711796  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.09  
Area: 3478106  
Amount: 107.9093  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 00:24:27 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

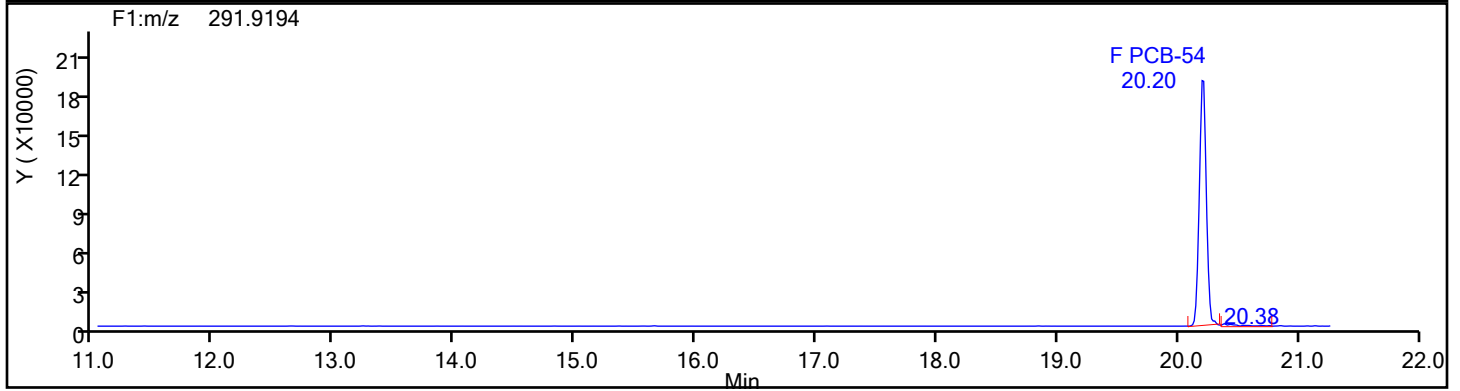
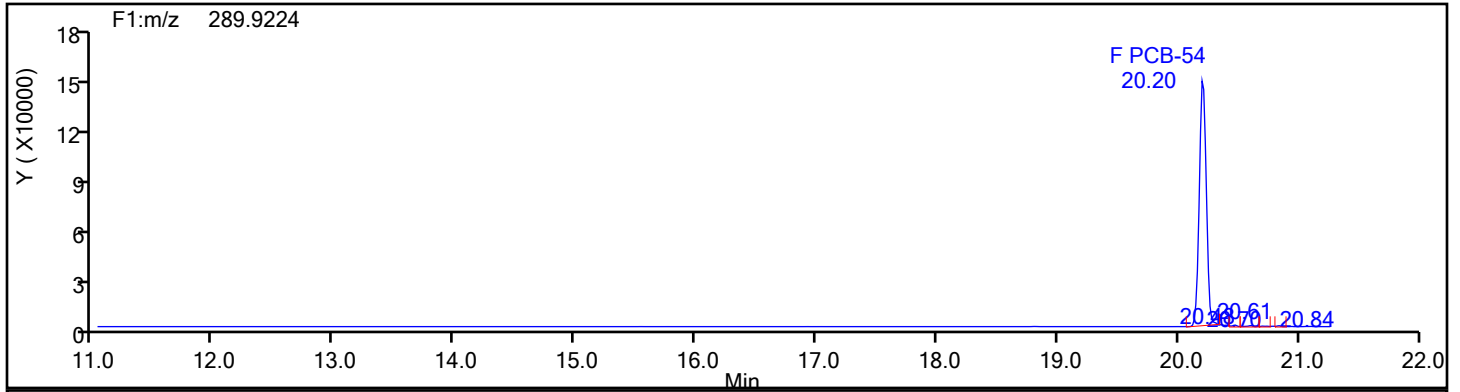
Worklist#: 88834

Sample Line#: 1

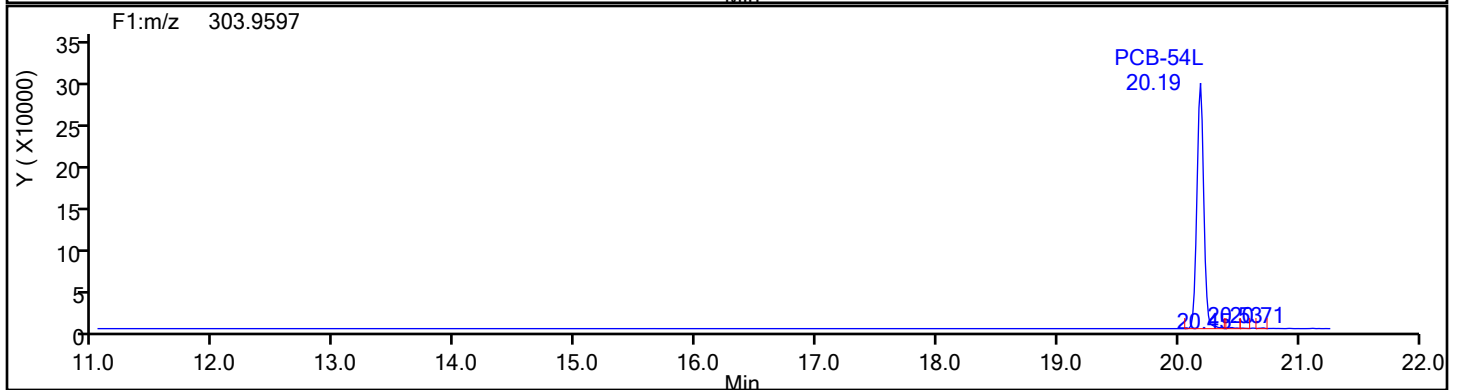
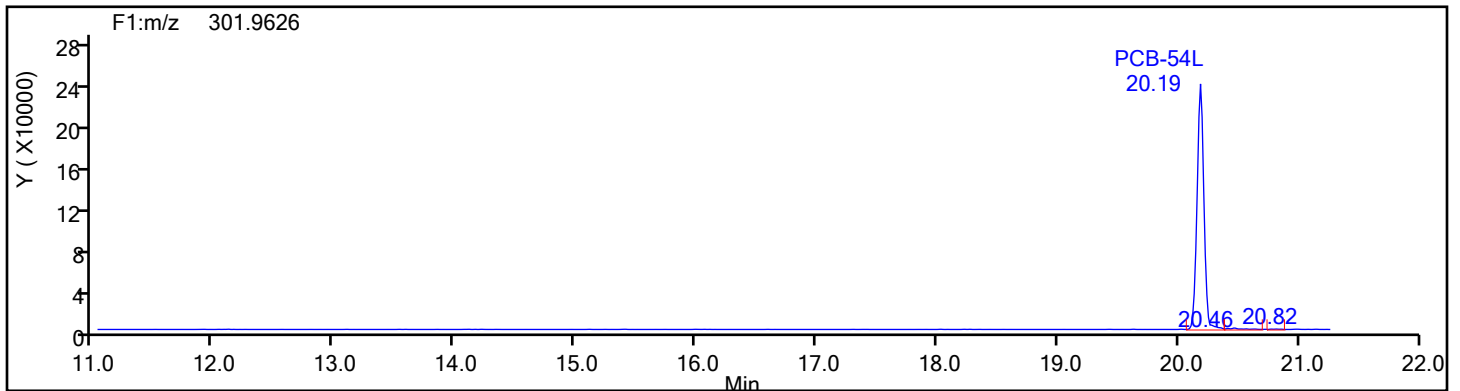
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



TePCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

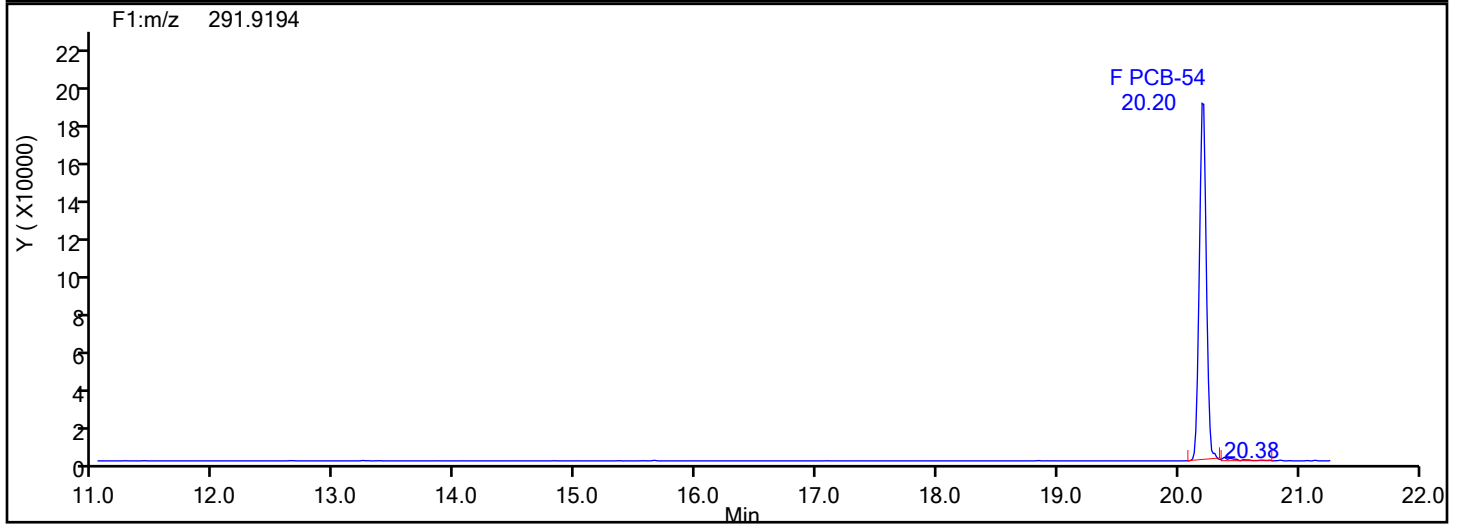
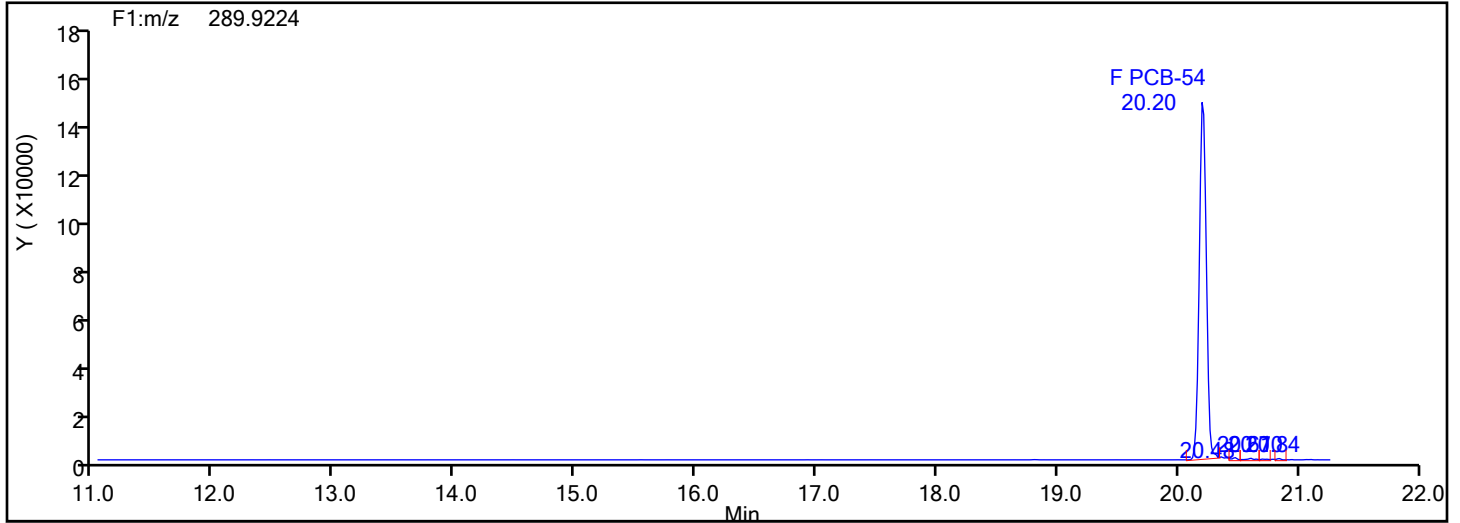
Worklist#: 88834

Sample Line#: 1

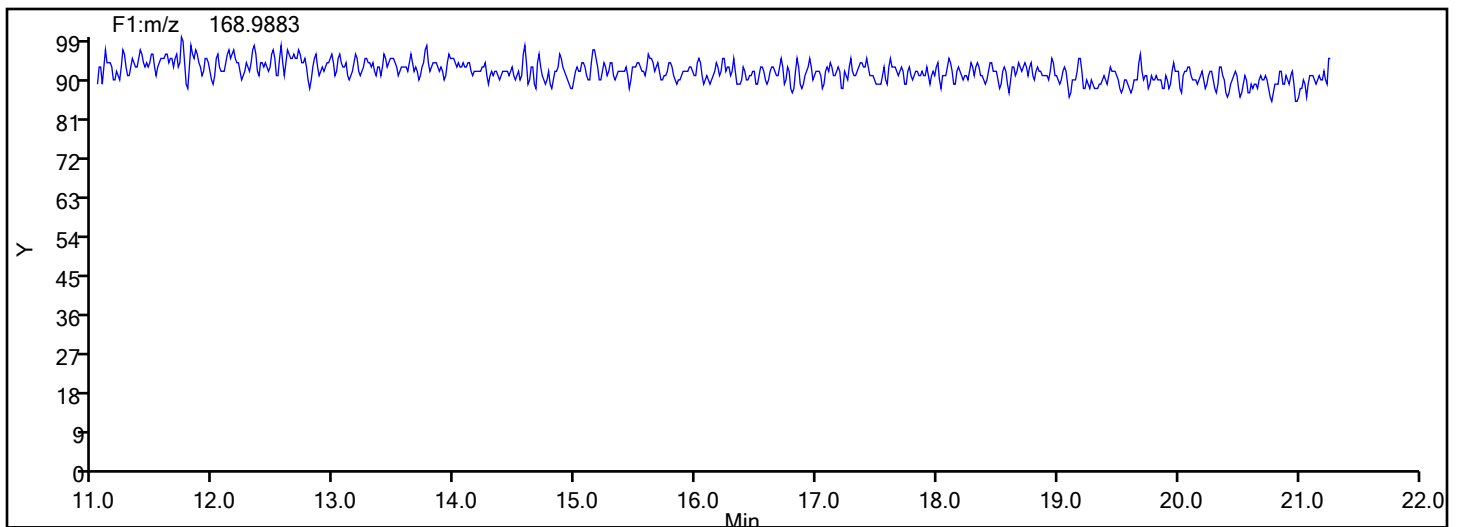
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



TePCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

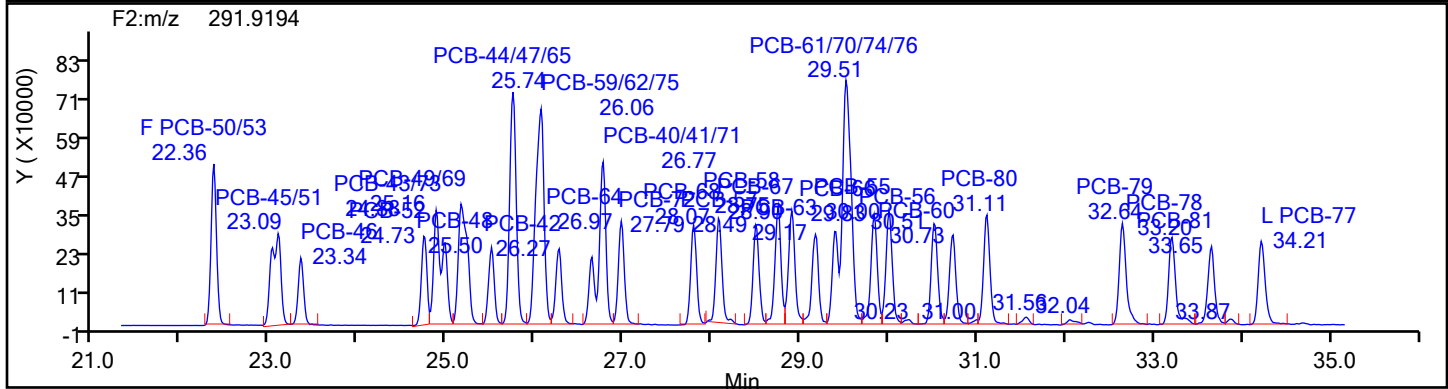
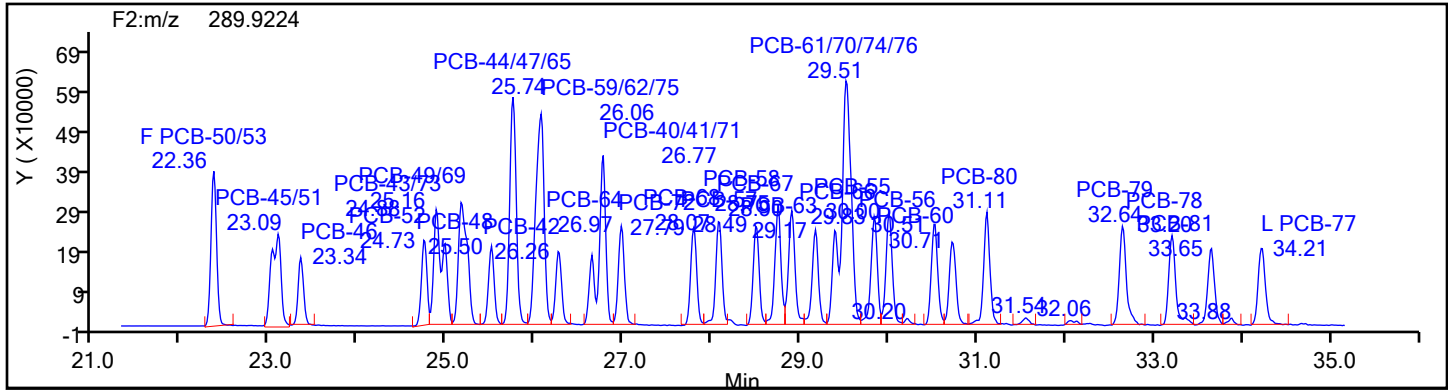
Worklist#: 88834

Sample Line#: 1

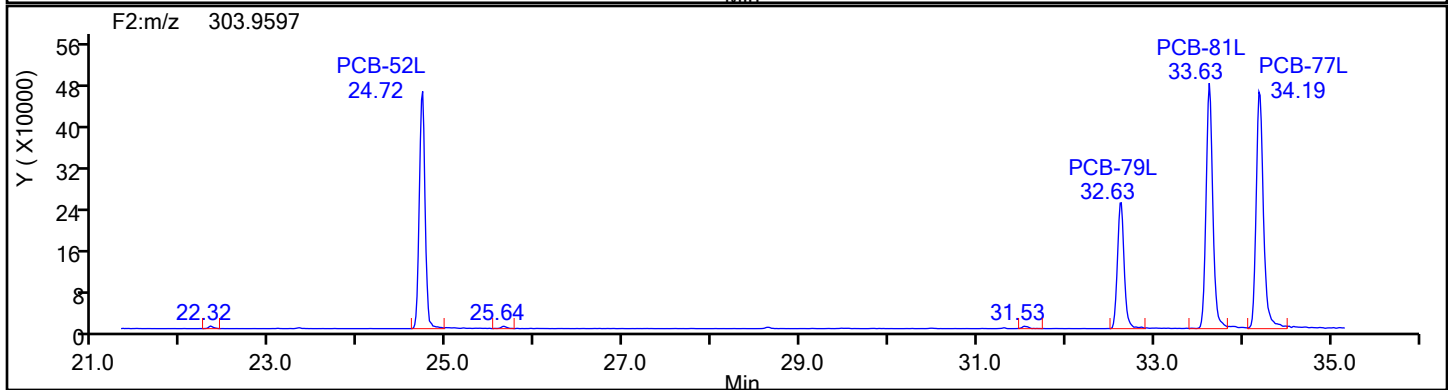
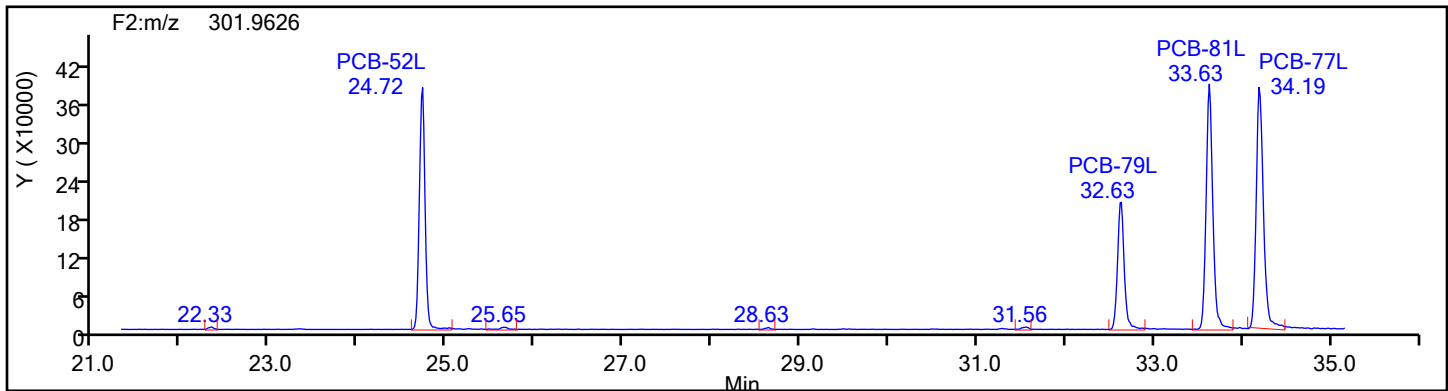
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



TePCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

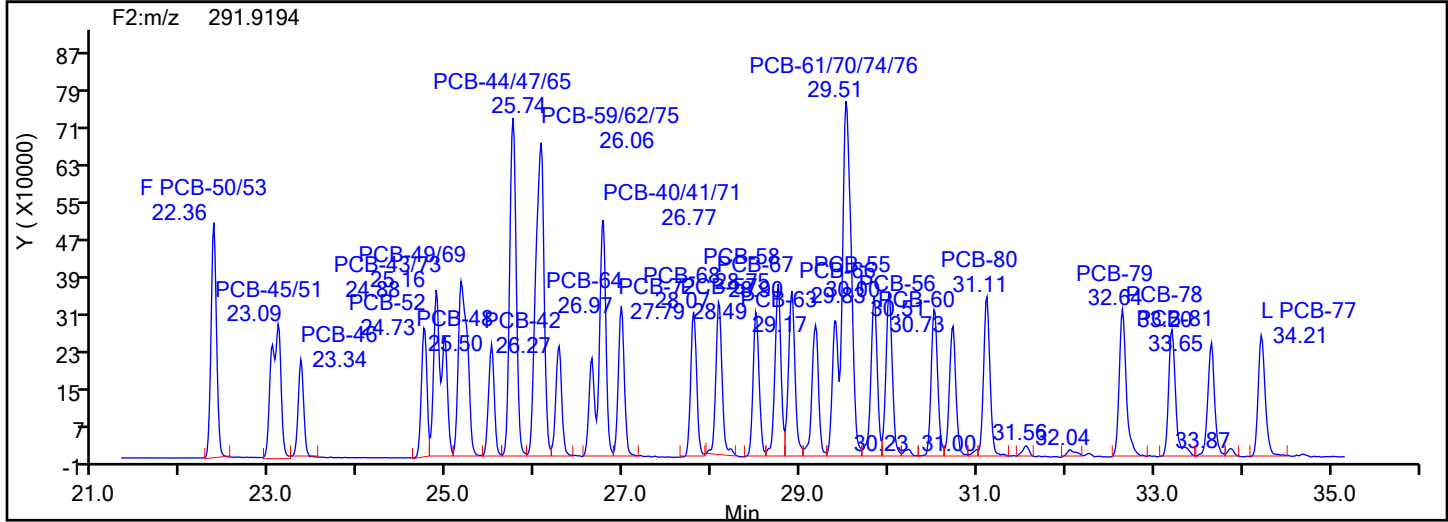
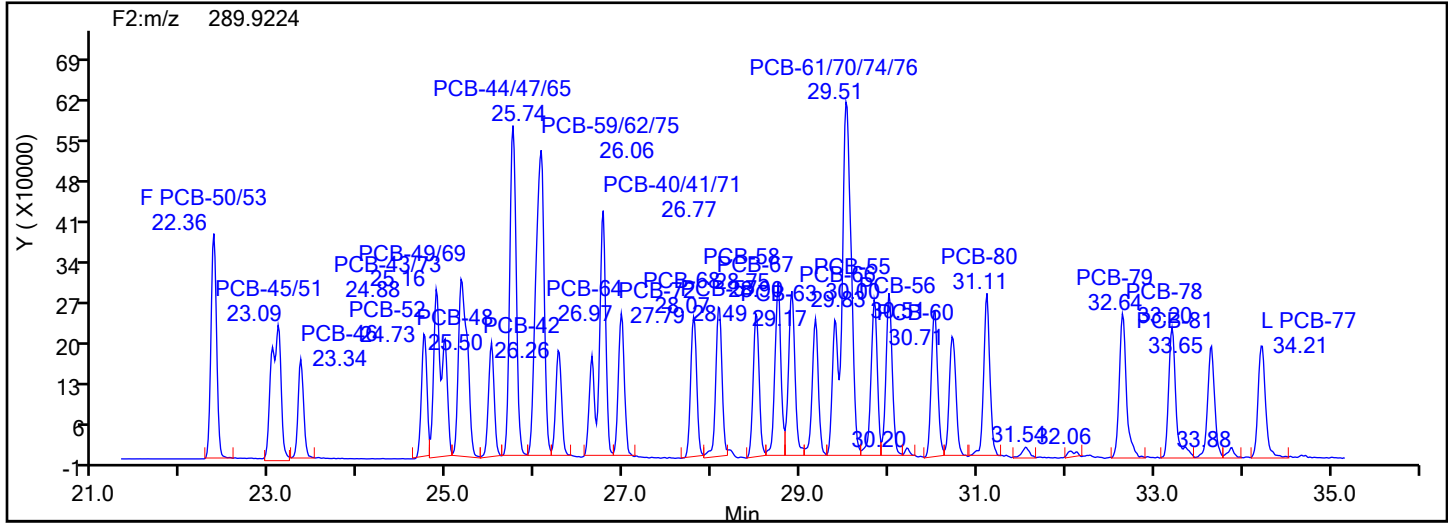
Worklist#: 88834

Sample Line#: 1

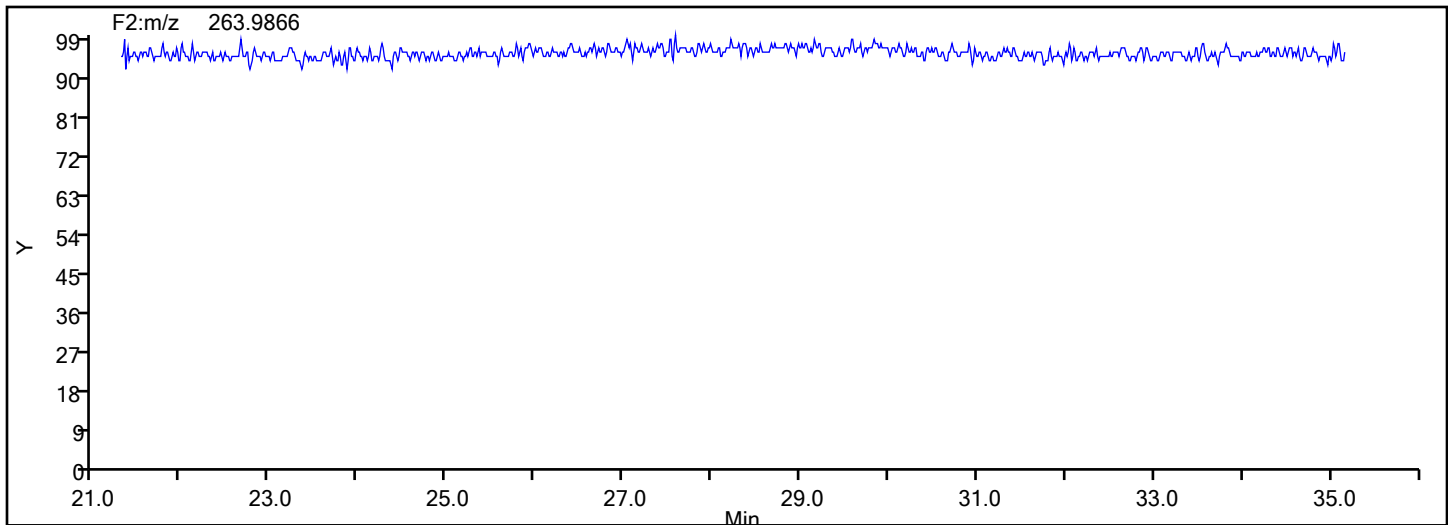
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



## TePCB F2 Lock Mass



## Eurofins Knoxville

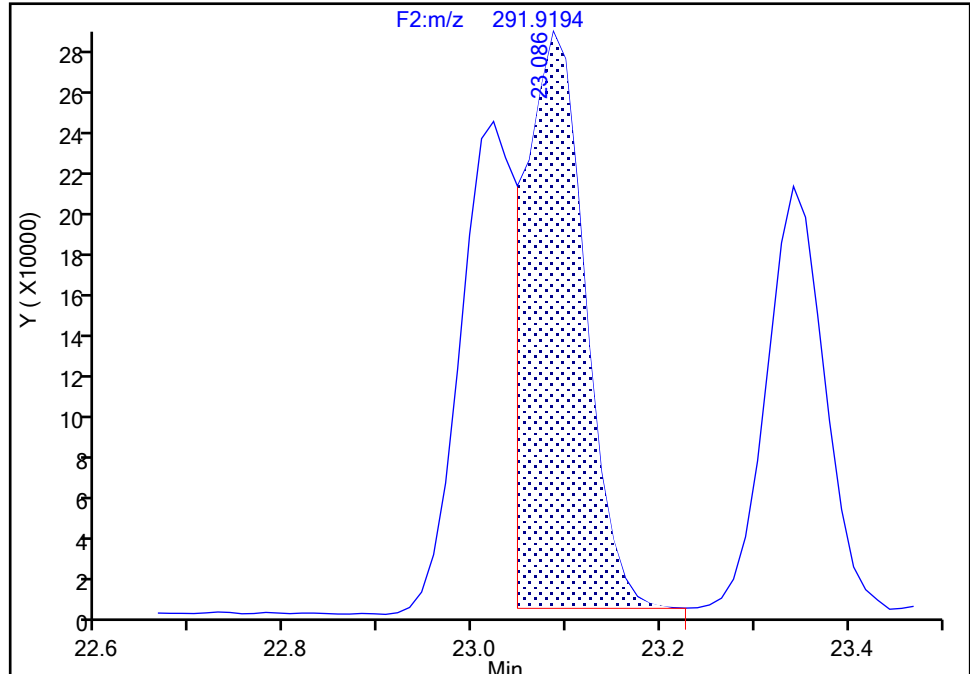
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-45/51, CAS: STL01804

Signal: 2

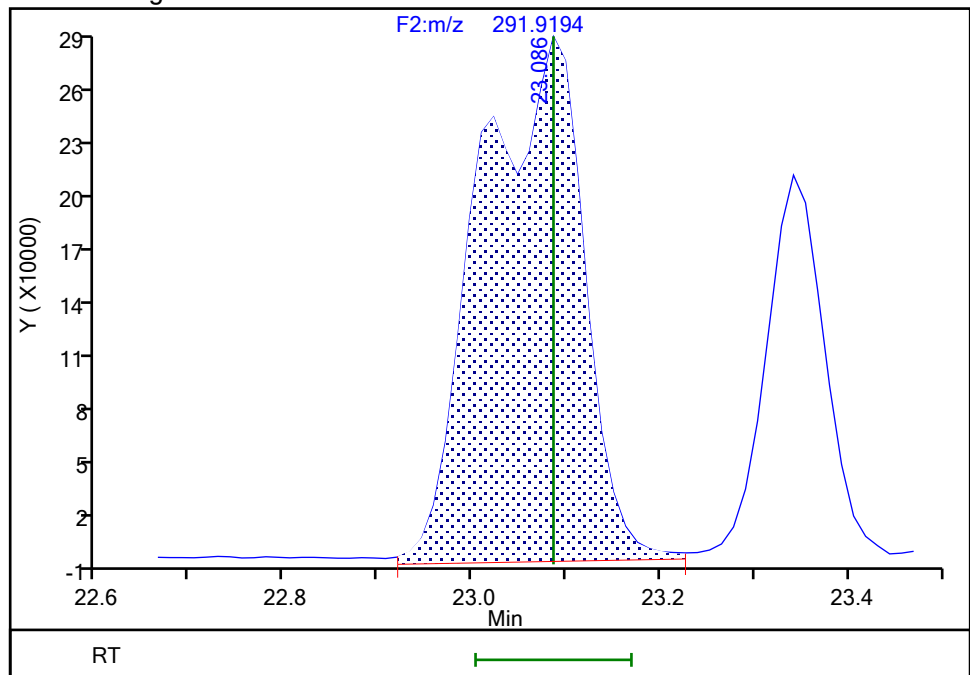
RT: 23.09  
Area: 1217037  
Amount: 56.457779  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.09  
Area: 2204582  
Amount: 102.3968  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 00:24:42 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline



## Eurofins Knoxville

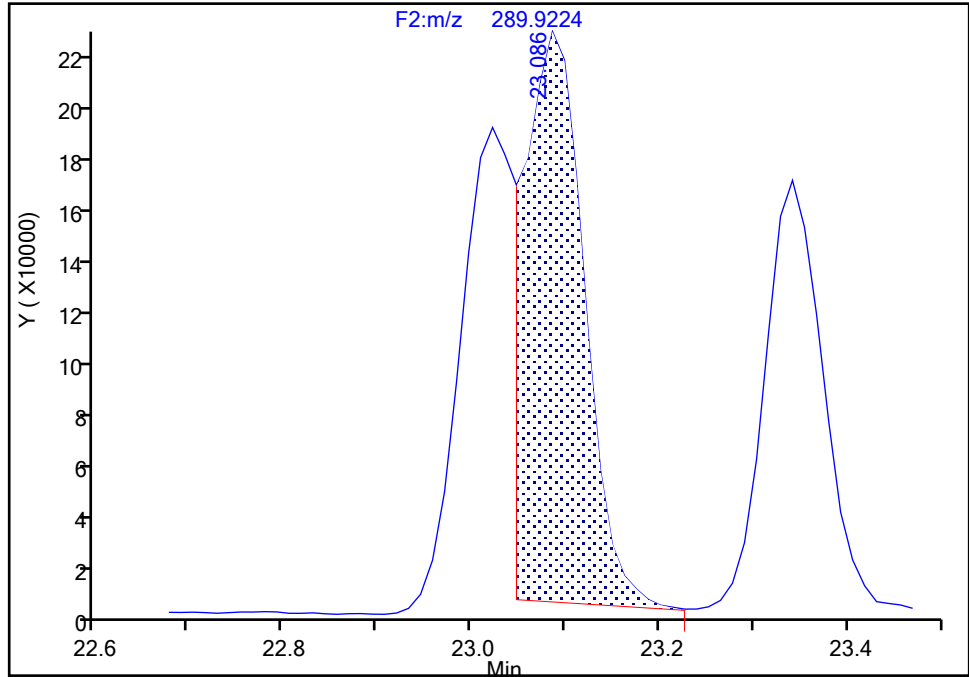
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-45/51, CAS: STL01804**

Signal: 1

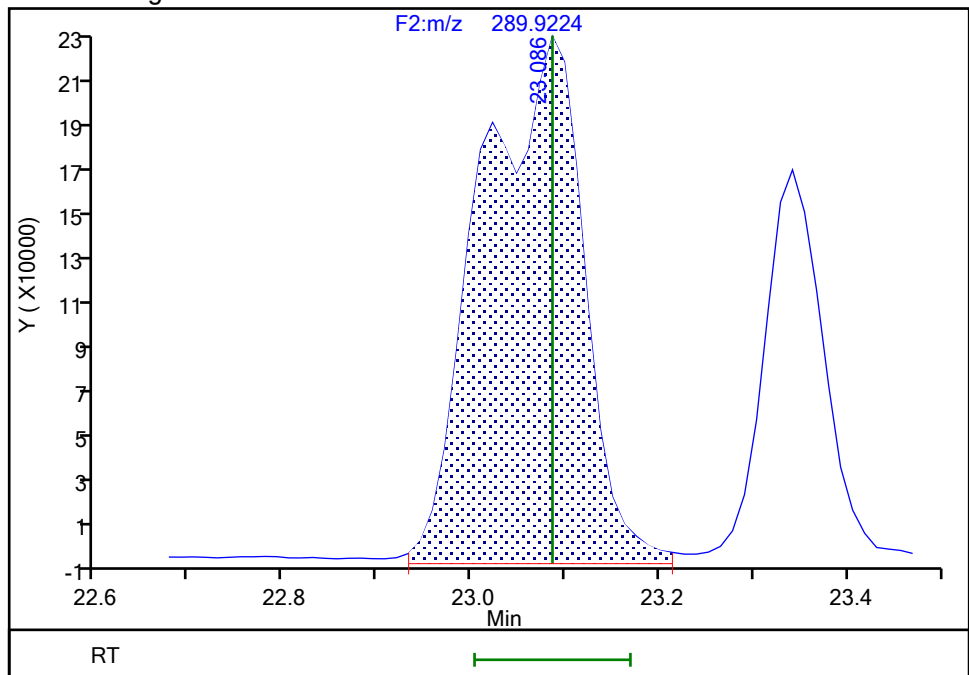
RT: 23.09  
Area: 971200  
Amount: 56.457779  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.09  
Area: 1764198  
Amount: 102.3968  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 00:24:49 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 2024-06-20 13:38:34  
9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Instrument ID: D2D

Lims ID: WDMCCV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

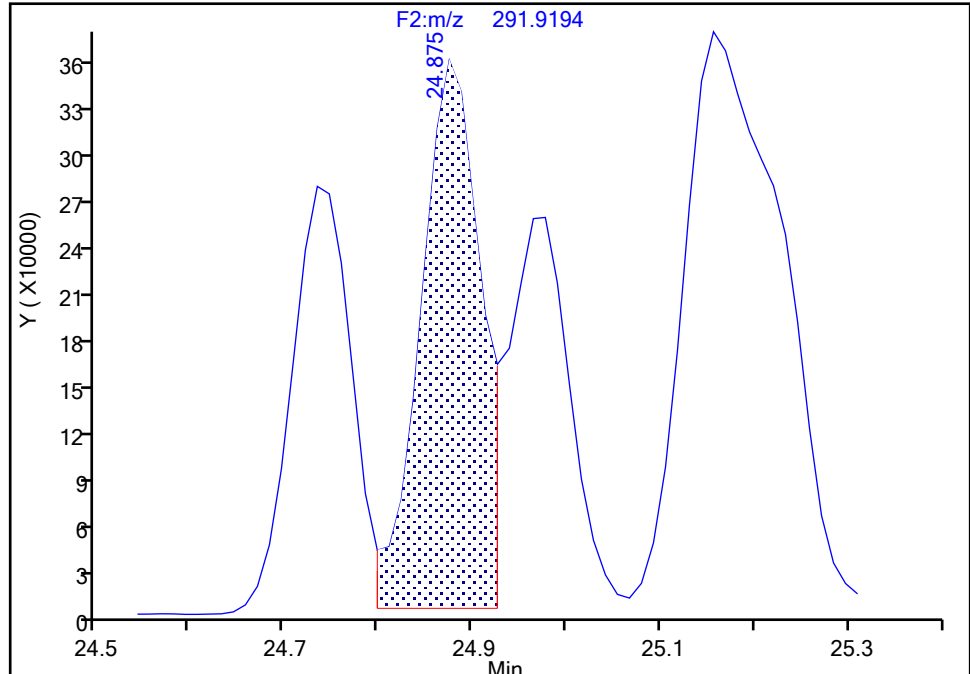
Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 2

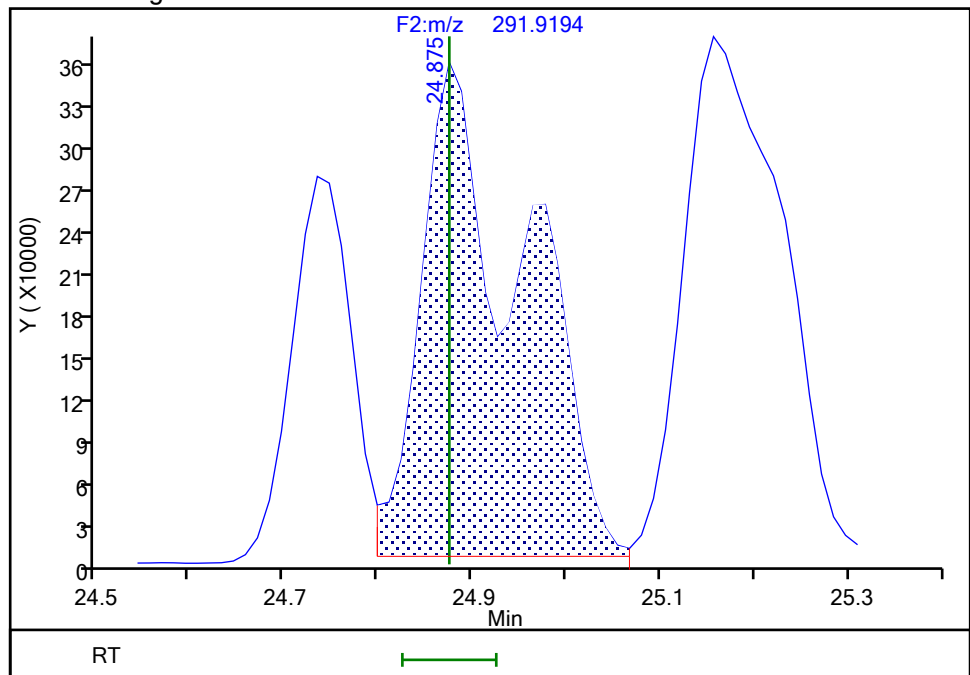
RT: 24.88  
Area: 1554290  
Amount: 57.873172  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.88  
Area: 2680927  
Amount: 99.806696  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 00:24:59 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

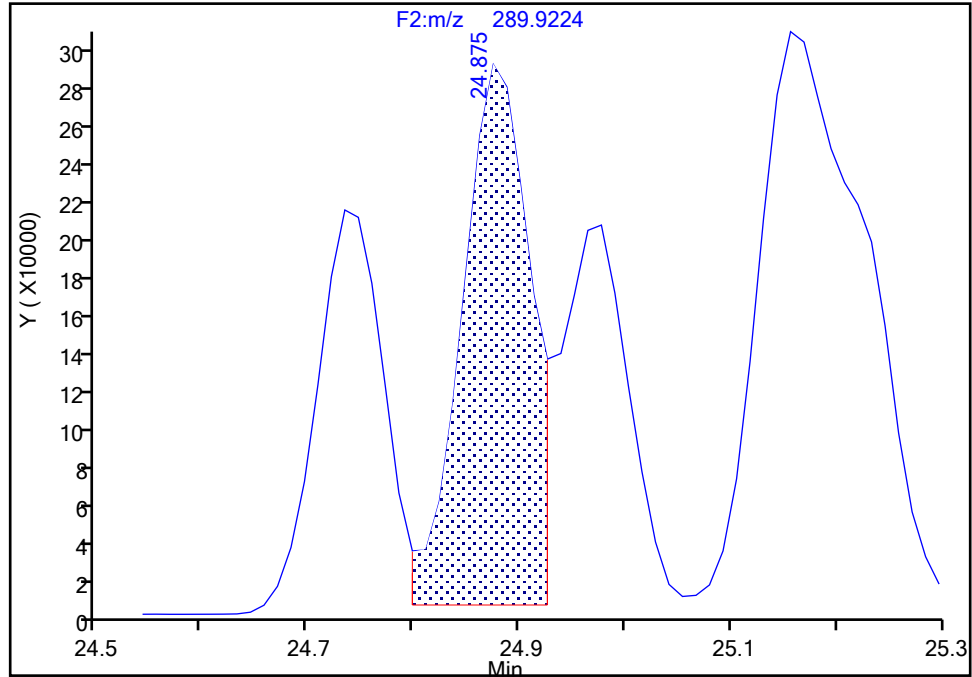
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-43/73, CAS: STL02293

Signal: 1

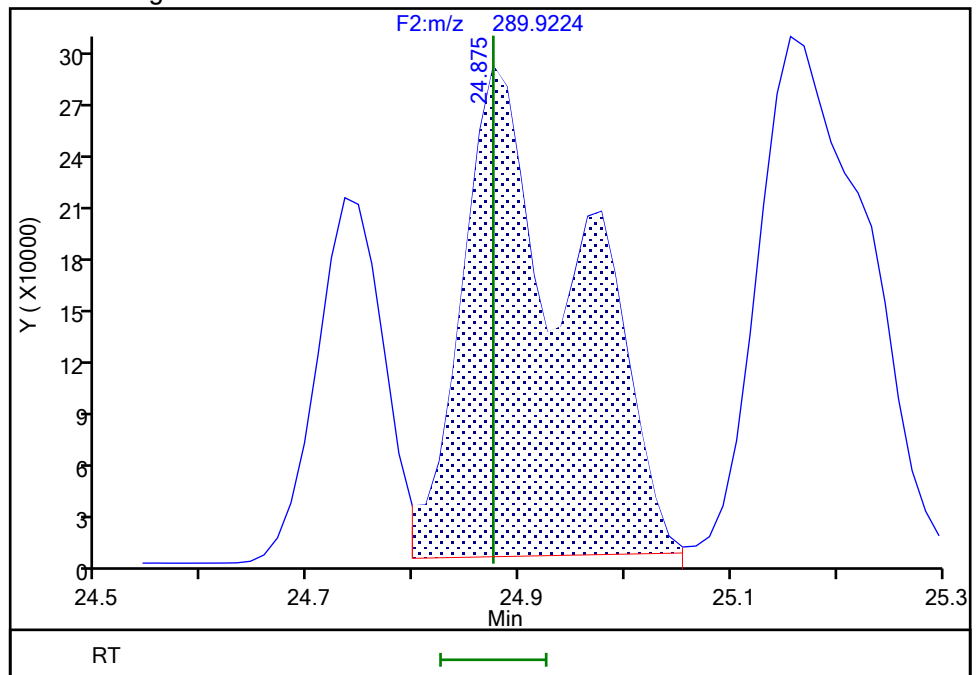
RT: 24.88  
Area: 1250417  
Amount: 57.873172  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.88  
Area: 2156004  
Amount: 99.806696  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 00:25:04 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 2024-06-20 13:38:36

9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Instrument ID: D2D

Lims ID: WDMCCV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

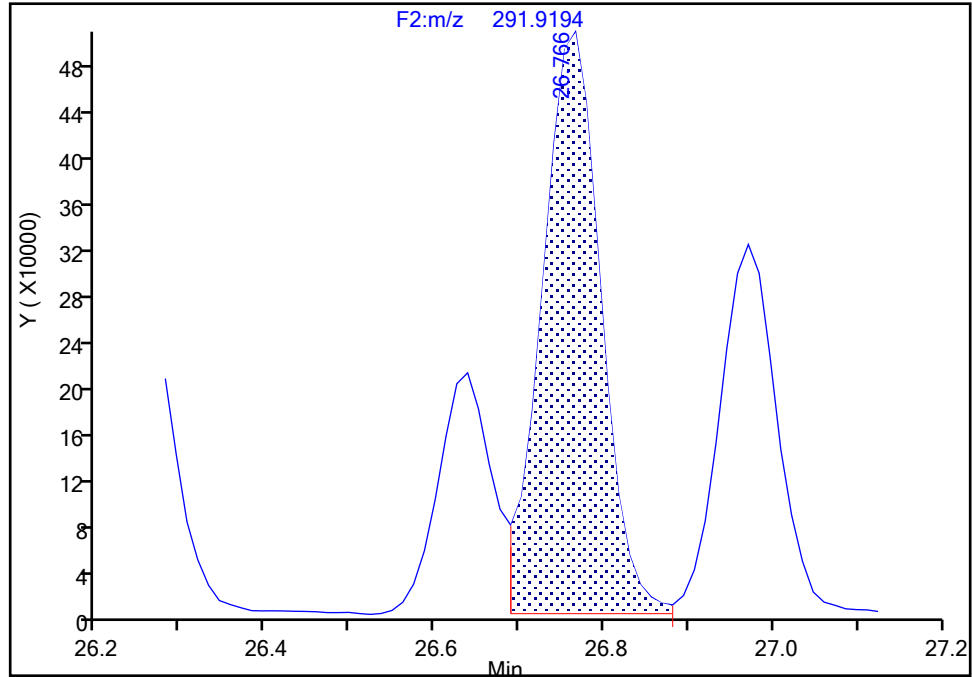
Detector F2(21.81 :35.54 )

PCB-40/41/71, CAS: STL02292

Signal: 2

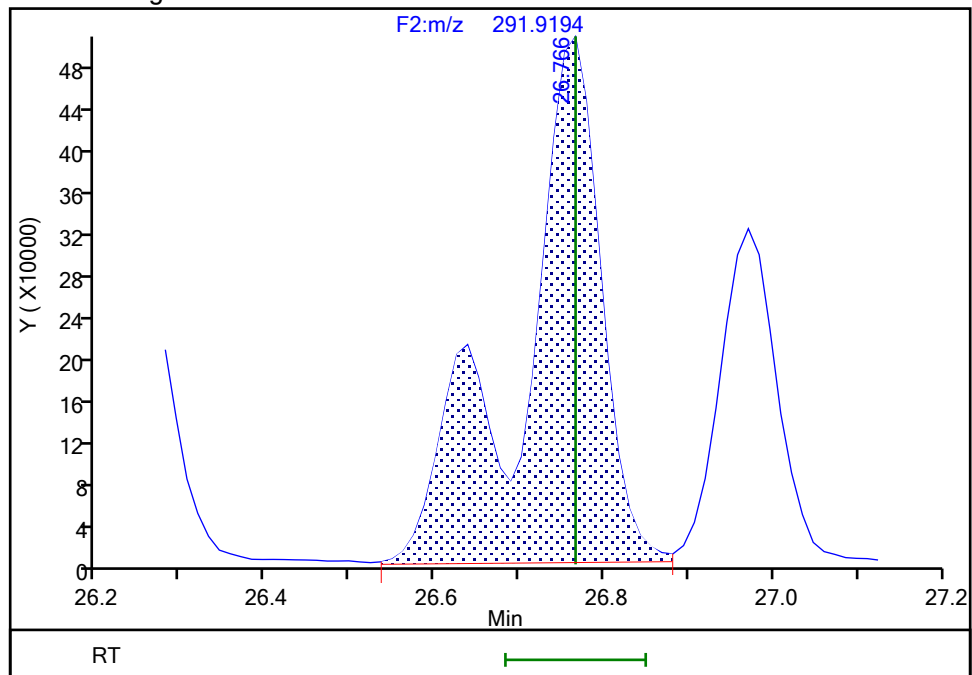
RT: 26.77  
Area: 2436439  
Amount: 104.4648  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.77  
Area: 3362116  
Amount: 143.4757  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 00:25:17 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

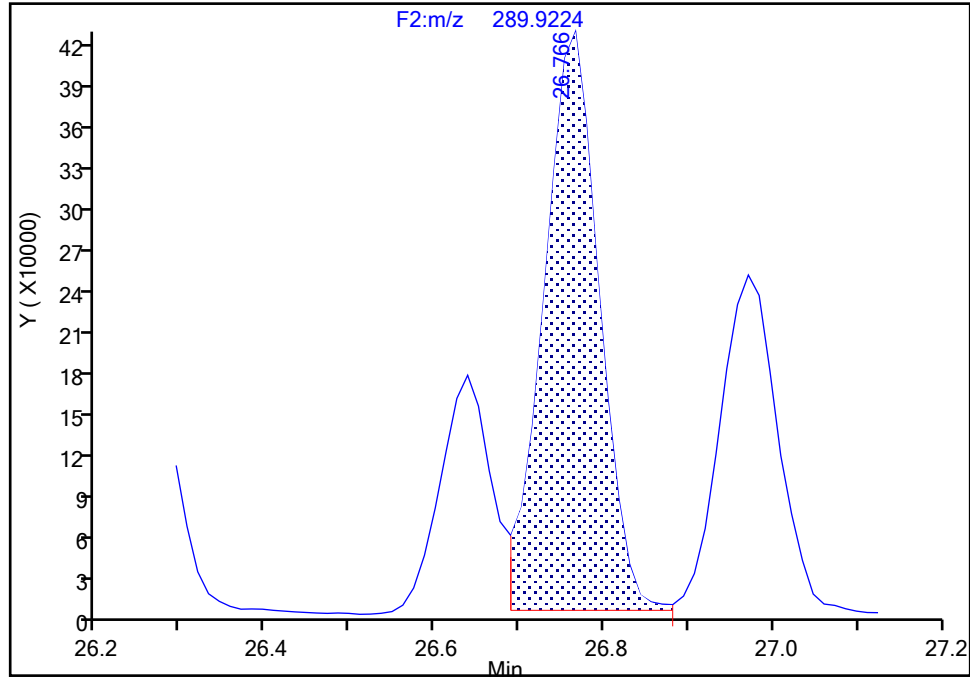
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-40/41/71, CAS: STL02292

Signal: 1

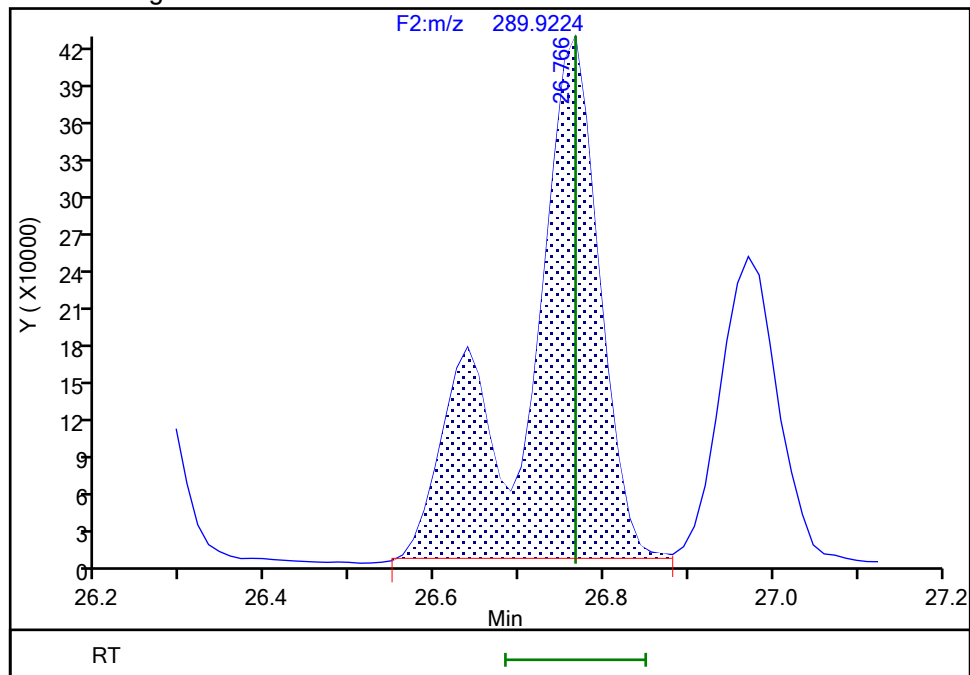
RT: 26.77  
Area: 1905996  
Amount: 104.4648  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.77  
Area: 2601940  
Amount: 143.4757  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 00:25:22 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 9/6/2024 3838

4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

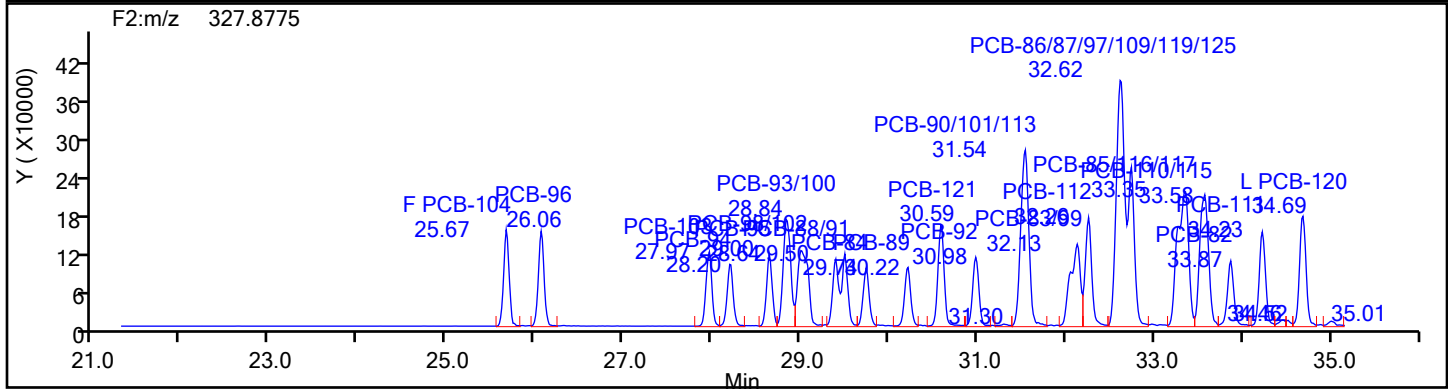
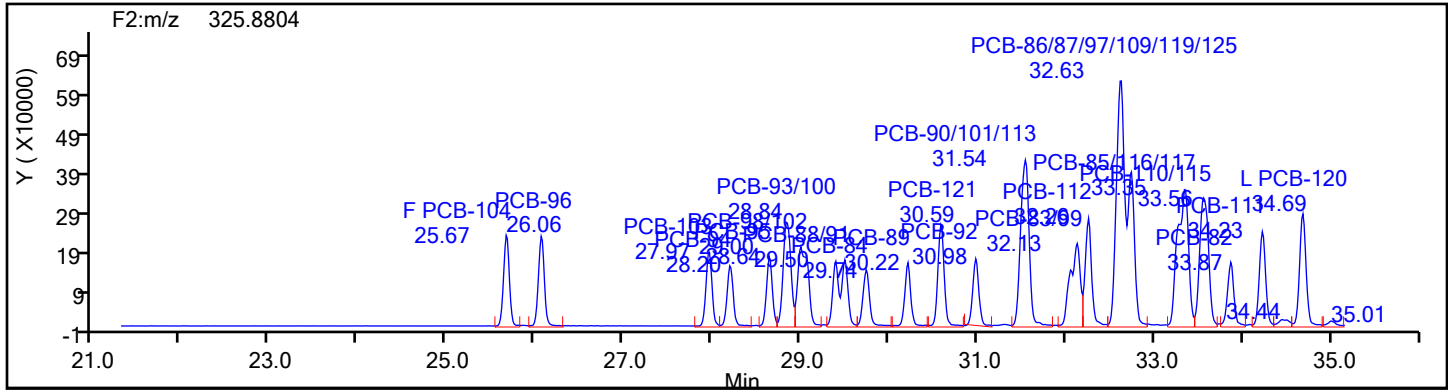
Worklist#: 88834

Sample Line#: 1

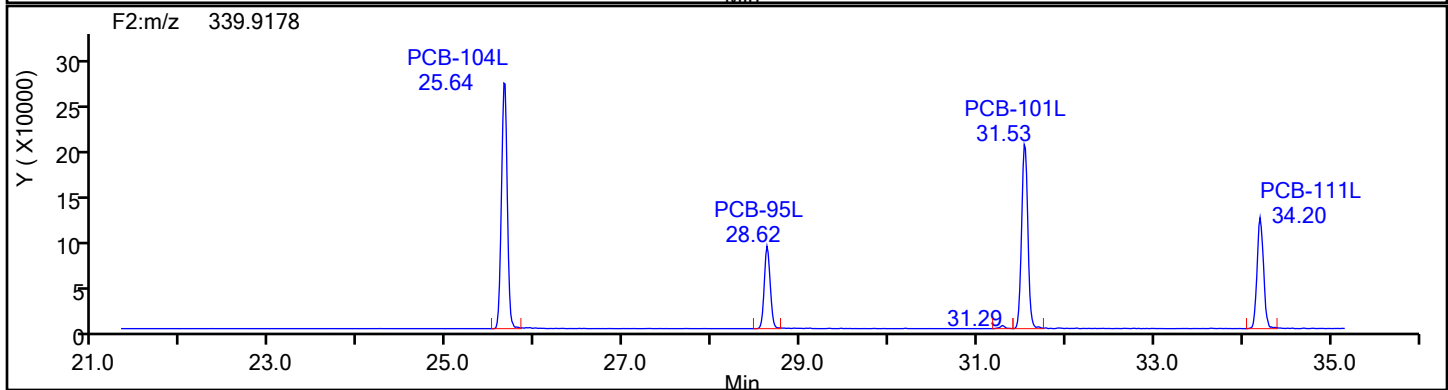
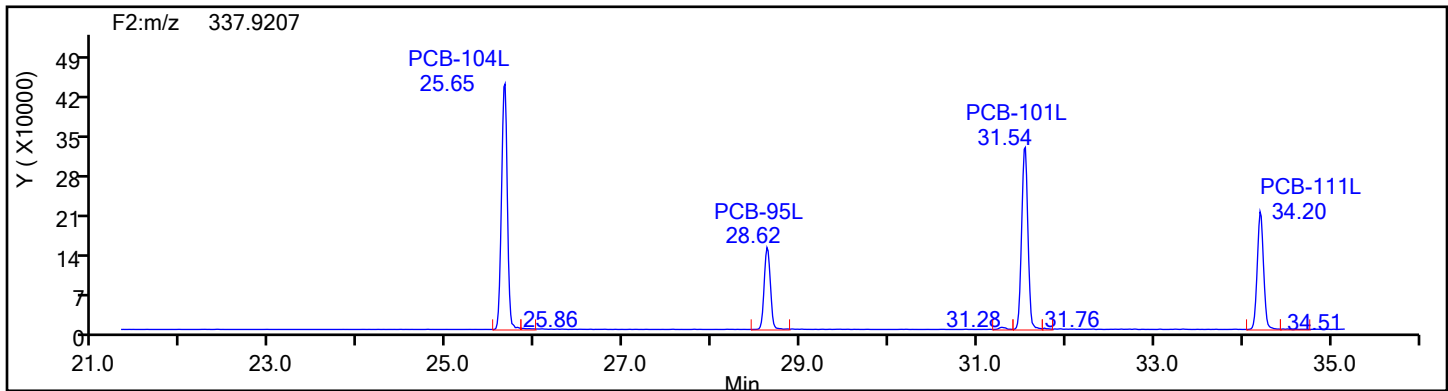
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F2



## PePCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

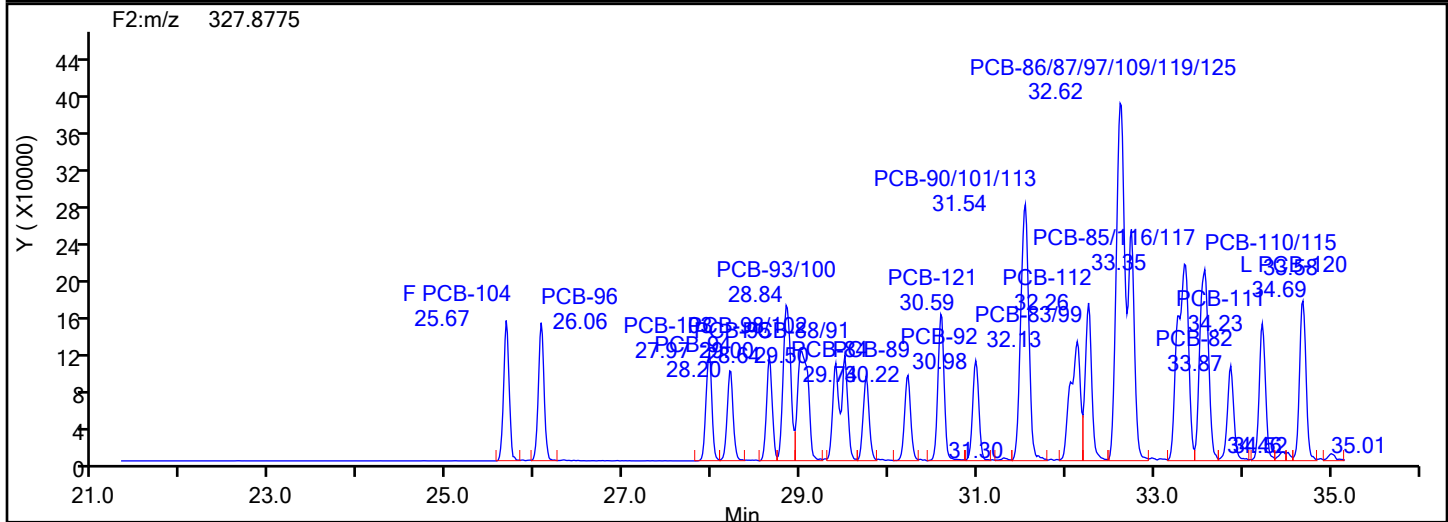
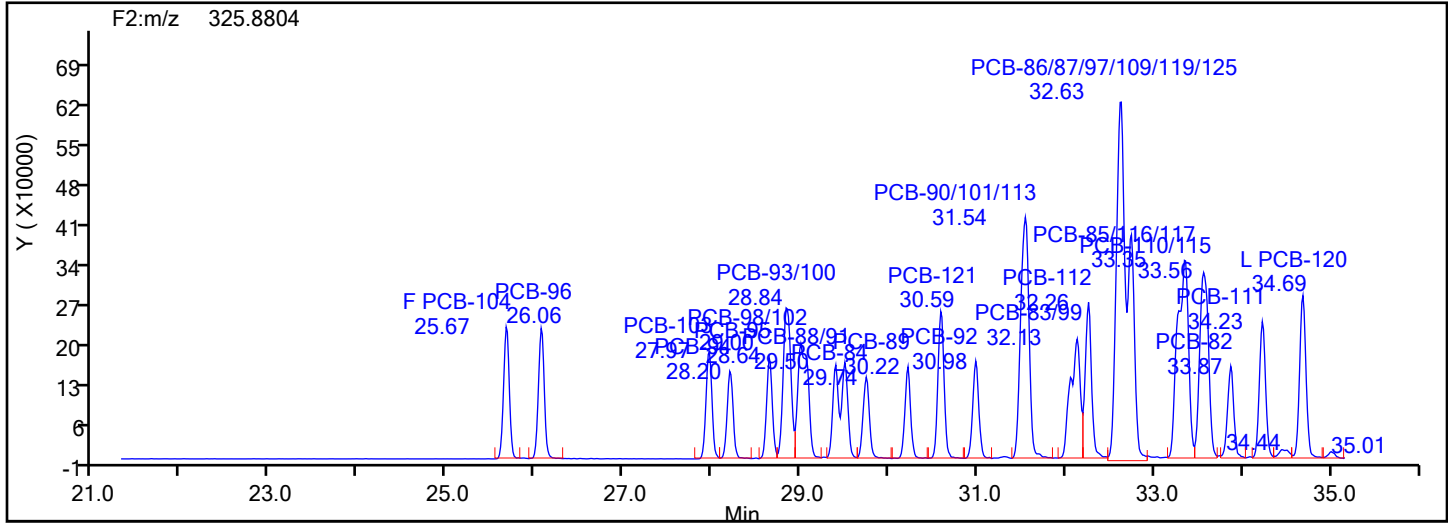
Worklist#: 88834

Sample Line#: 1

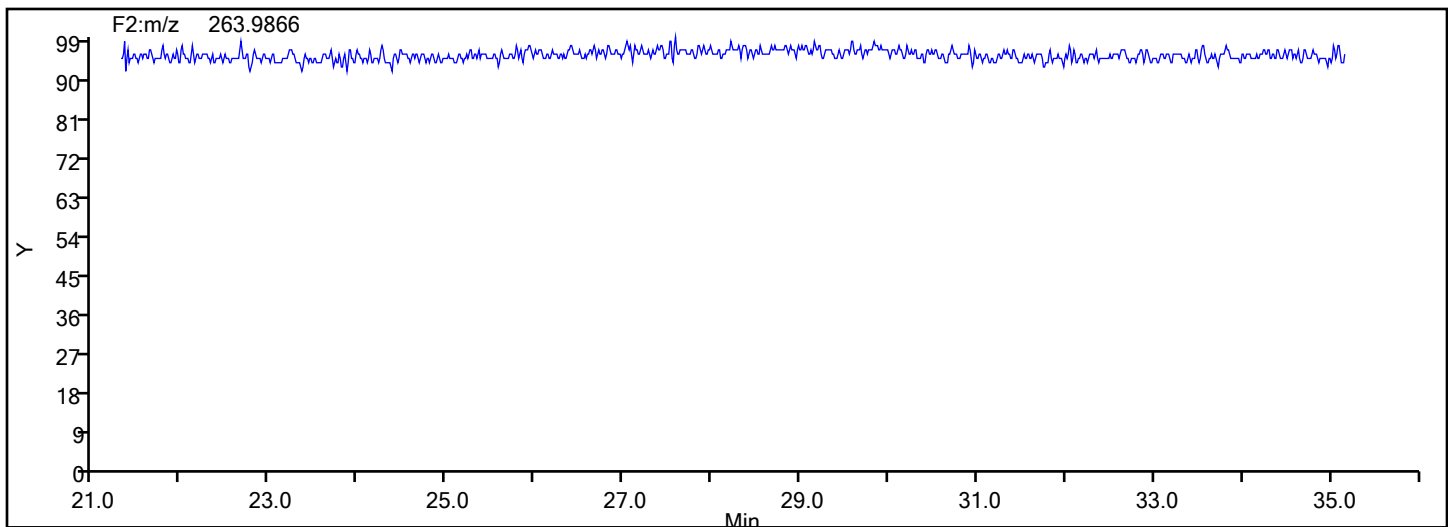
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F2



## PePCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Instrument ID: D2D

Lims ID: WDMCCV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

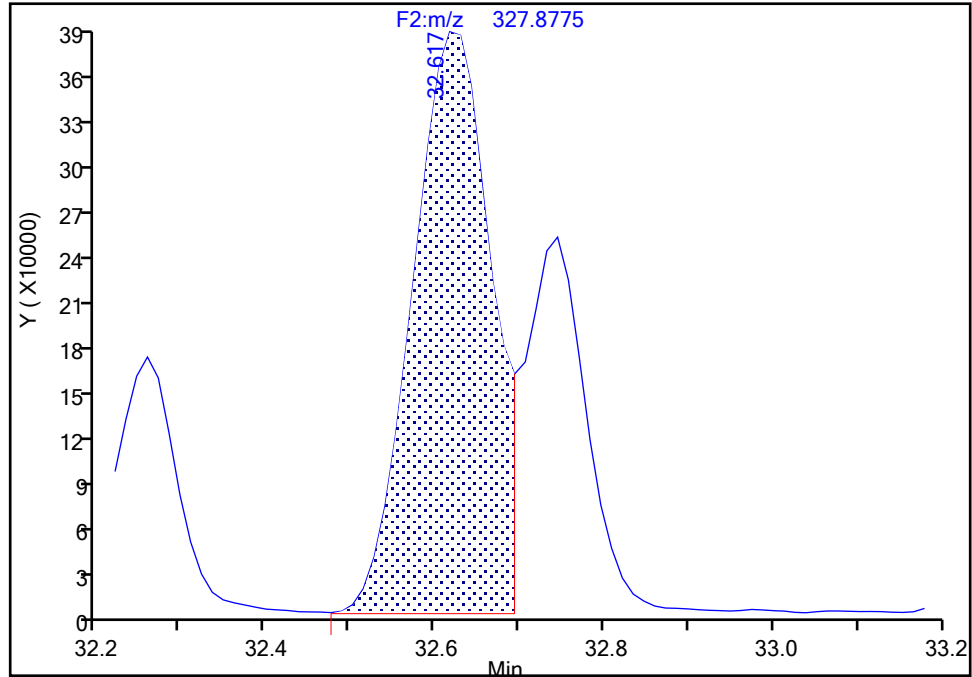
Detector F2(21.81 :35.54 )

PCB-86/87/97/109/119/125, CAS: STL02295

Signal: 2

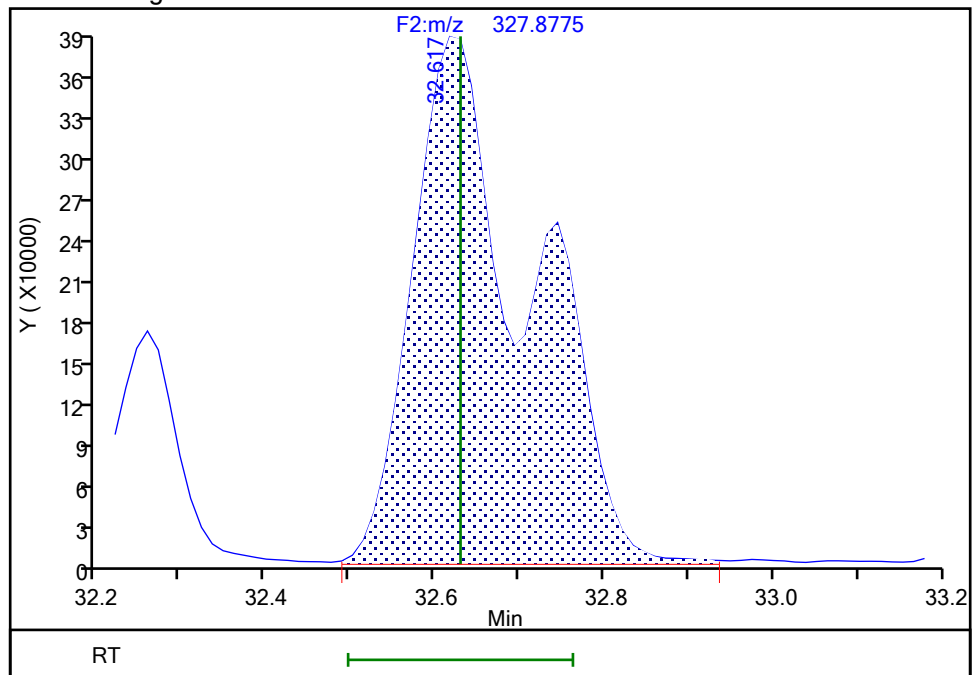
RT: 32.62  
Area: 2491540  
Amount: 188.4457  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.62  
Area: 3735287  
Amount: 285.3056  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 00:25:49 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline



## Eurofins Knoxville

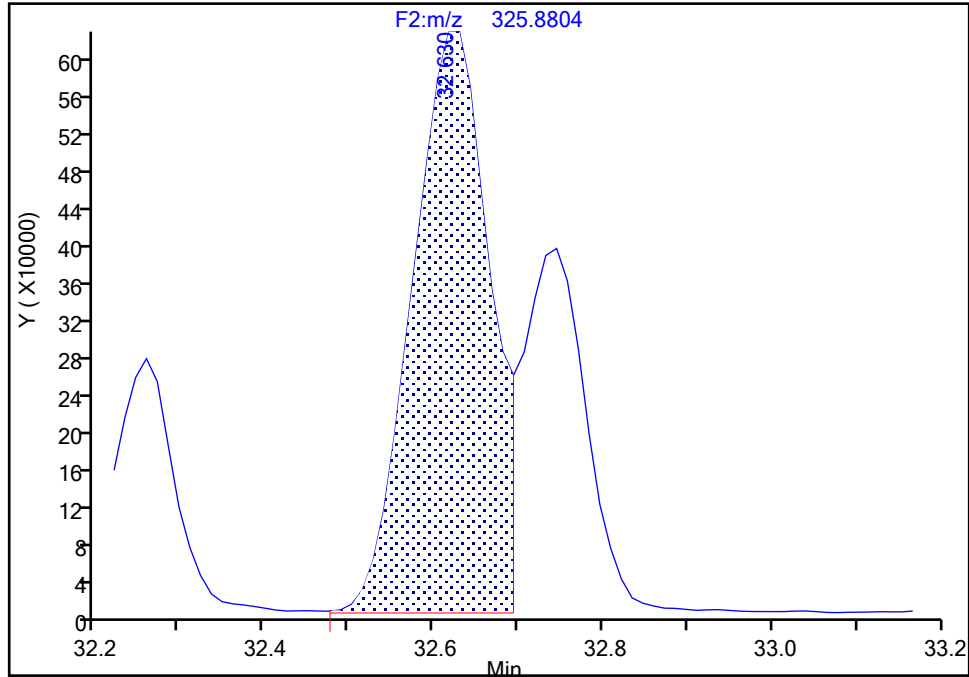
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-86/87/97/109/119/125, CAS: STL02295**

Signal: 1

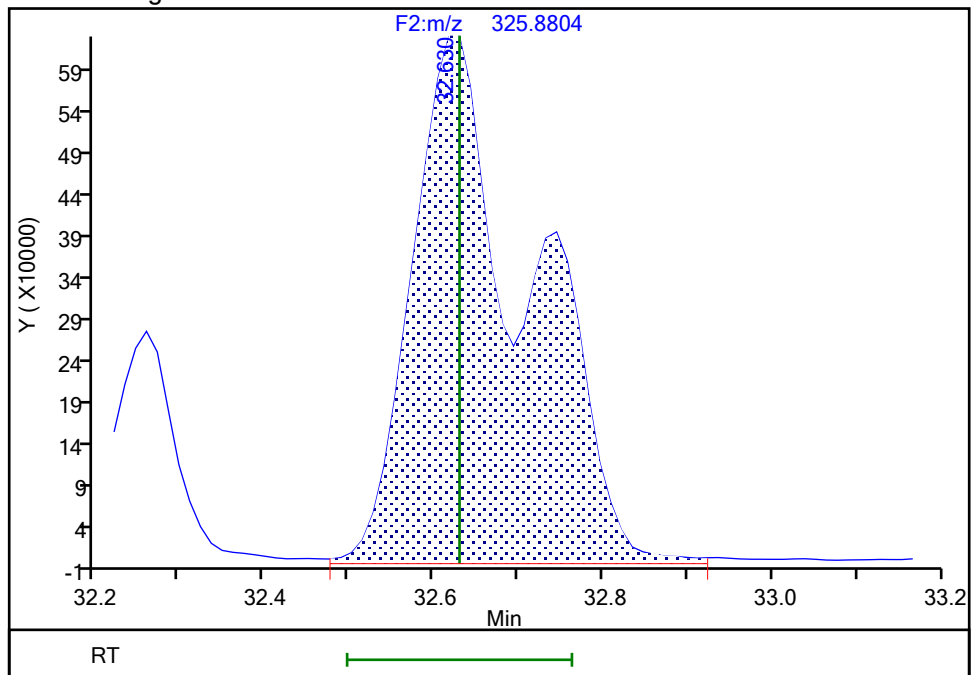
RT: 32.63  
Area: 3944500  
Amount: 188.4457  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.63  
Area: 6008834  
Amount: 285.3056  
Amount Units: pg/ul

## Manual Integration Results



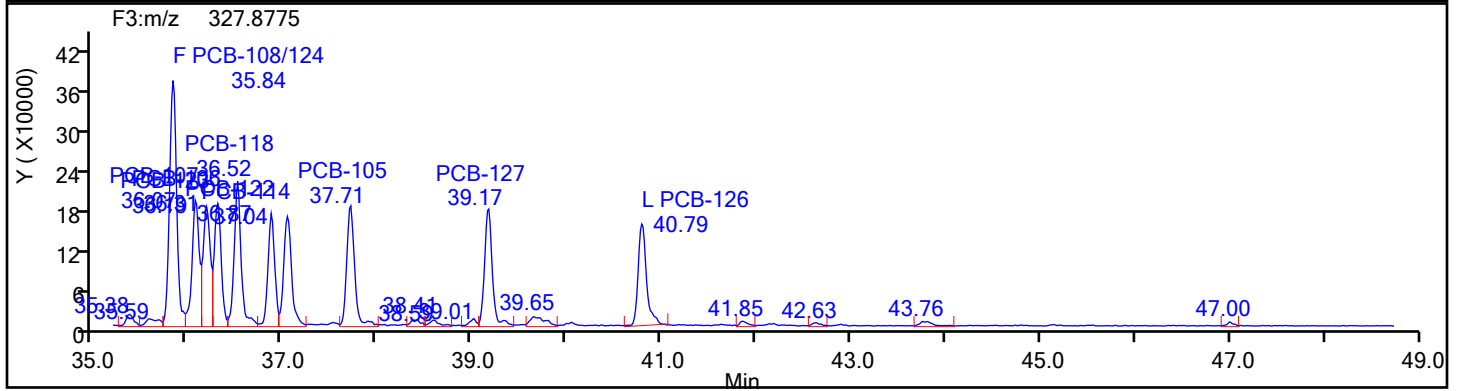
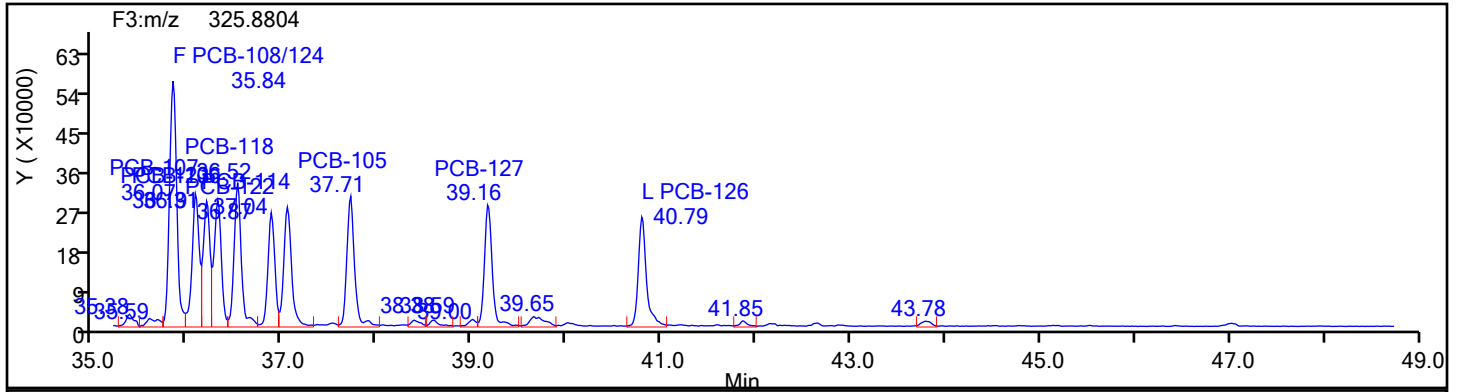
Reviewer: V4XA, 17-Jul-2024 00:25:55 -04:00:00 (UTC)

Audit Action: Manually Integrated

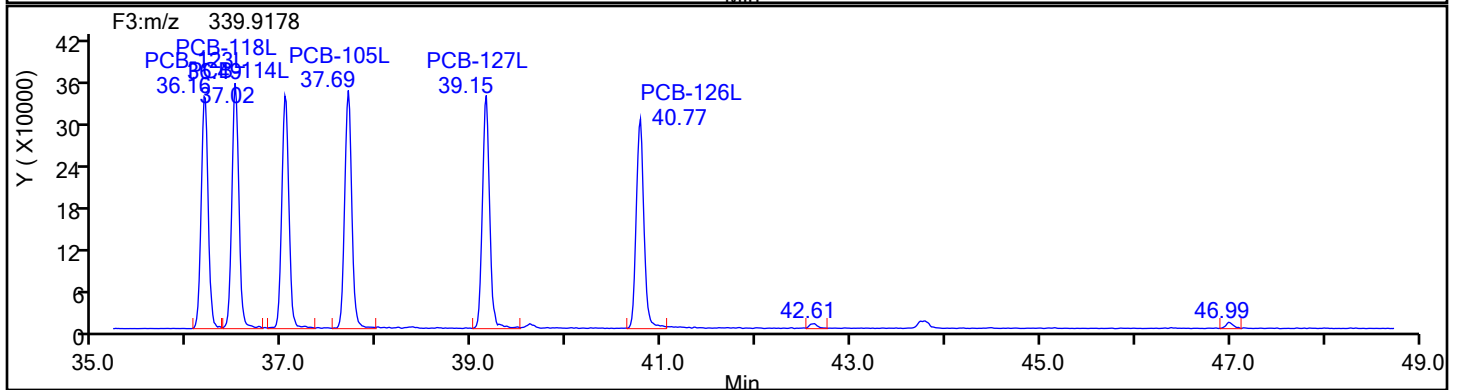
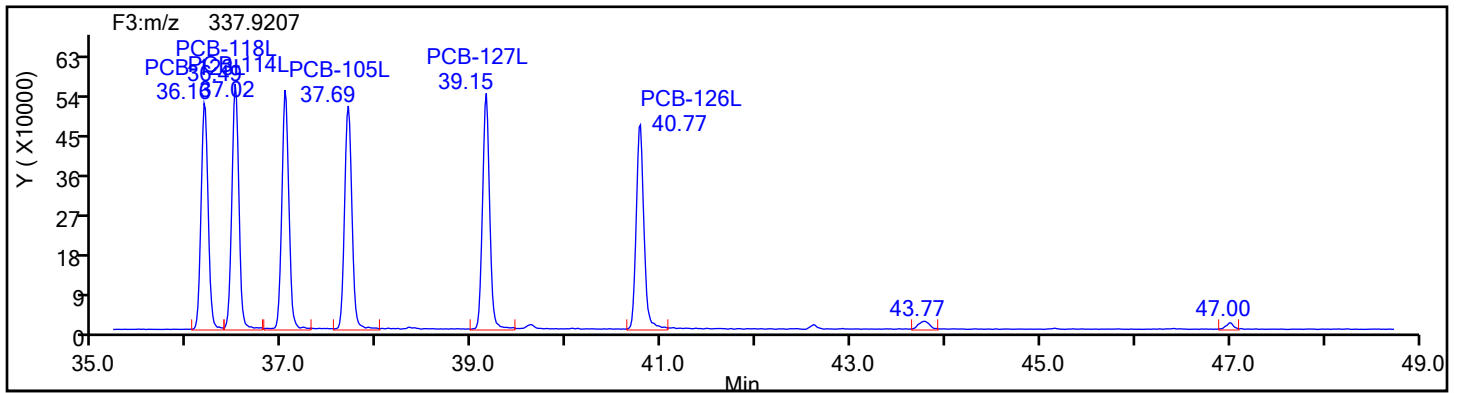
Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88834 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F3



## PePCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

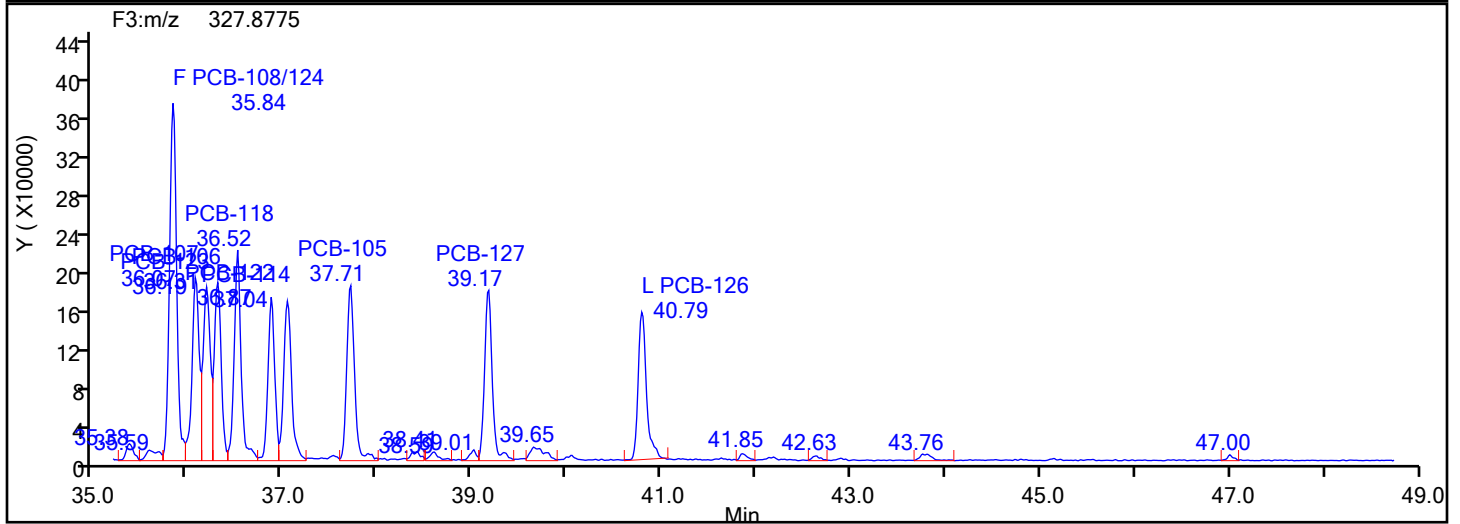
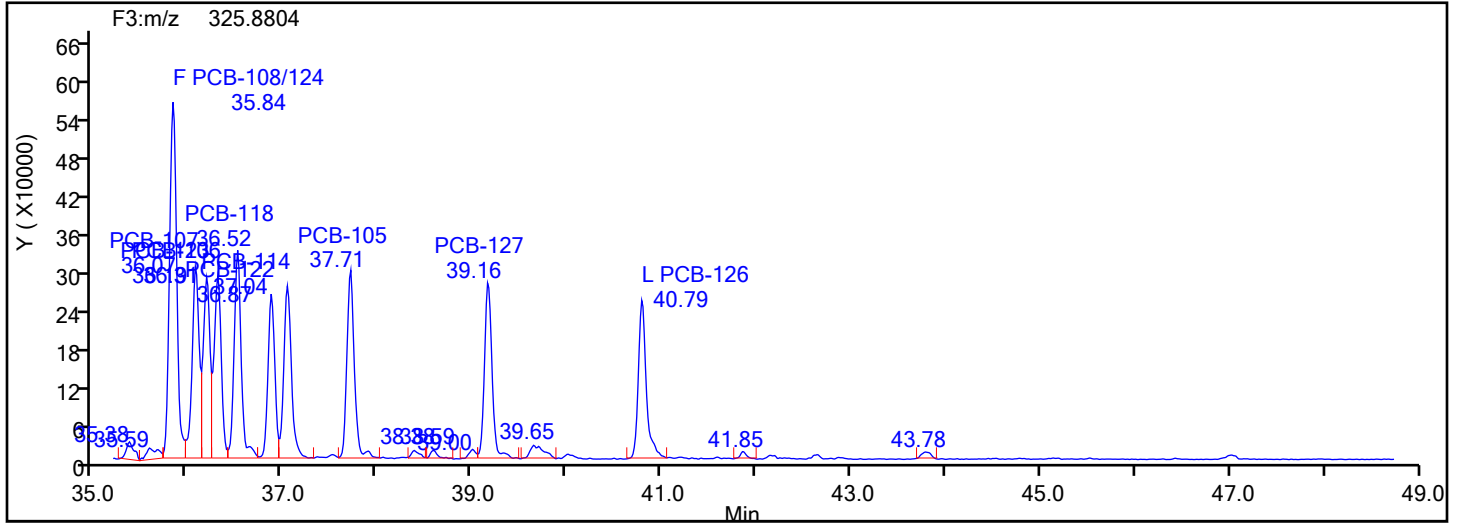
Worklist#: 88834

Sample Line#: 1

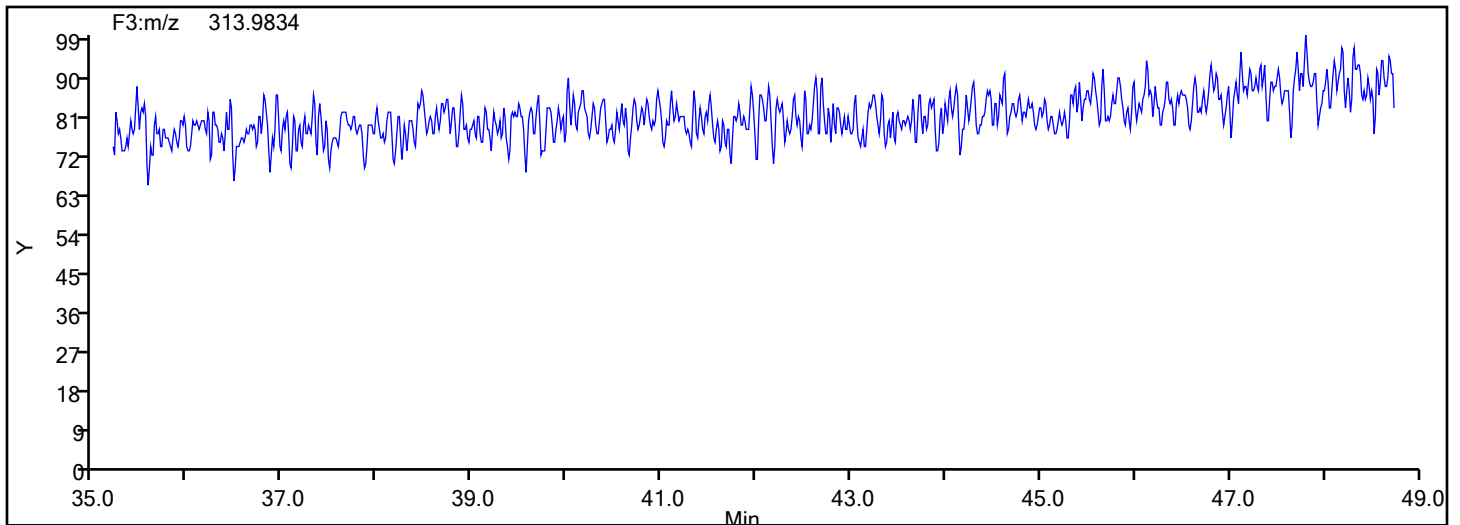
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3

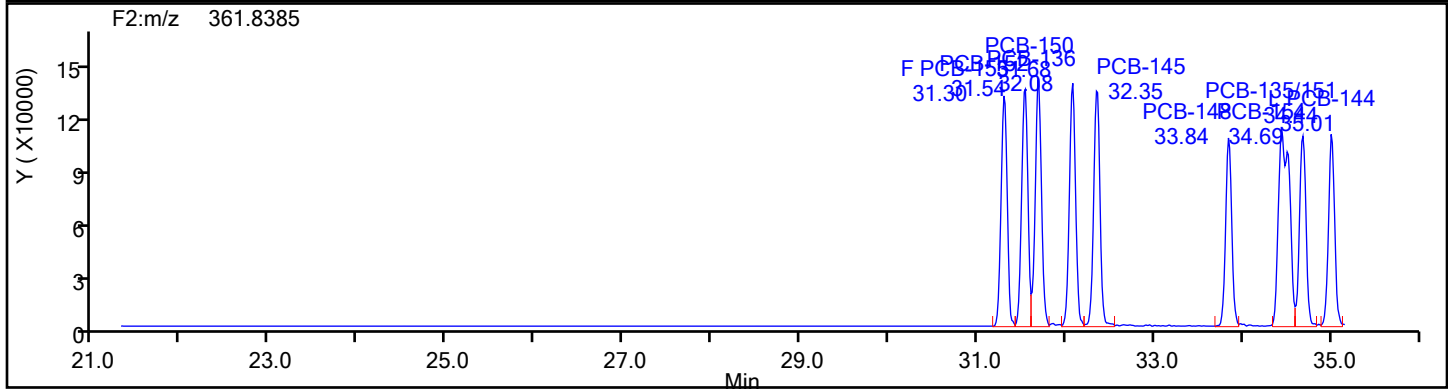
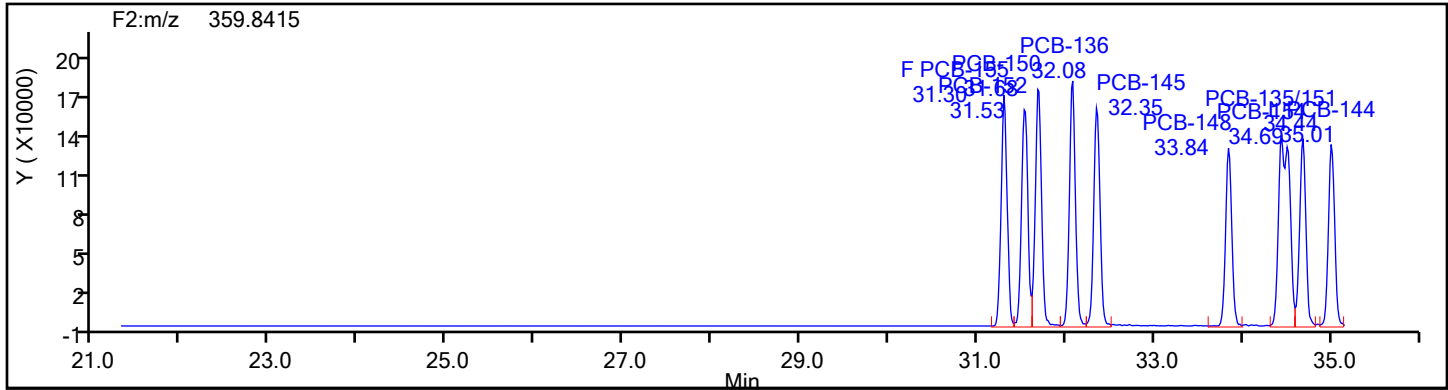


## PePCB F3 Lock Mass

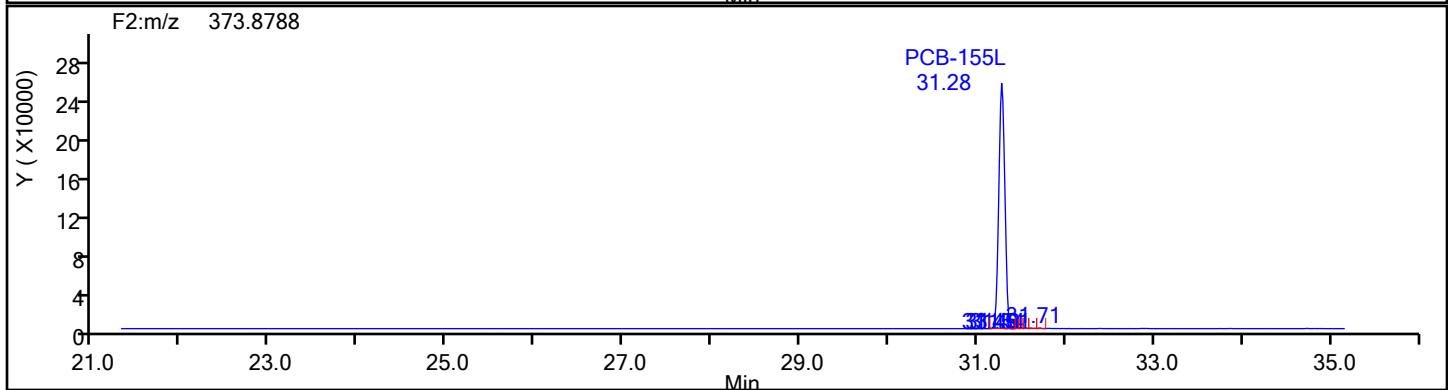
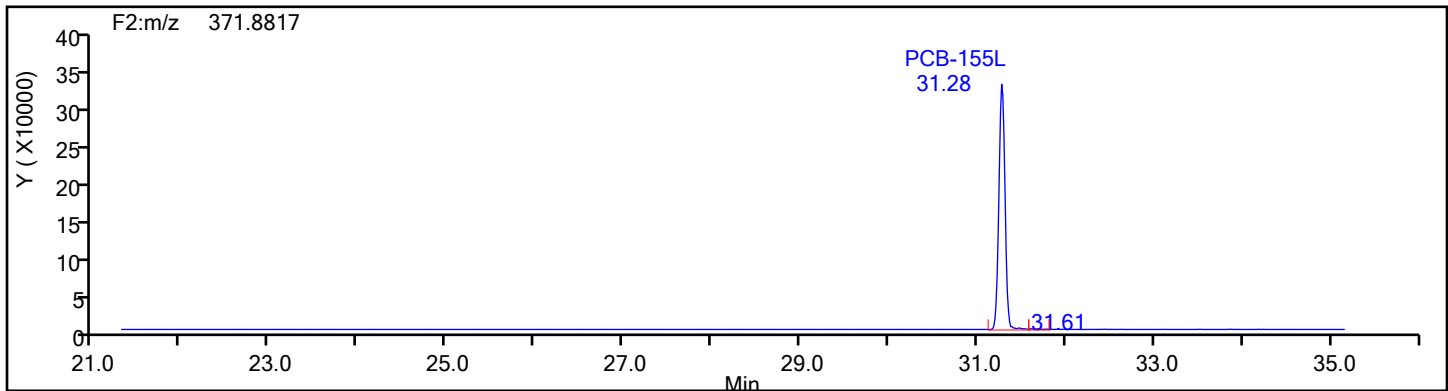


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88834 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2



## HxPCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

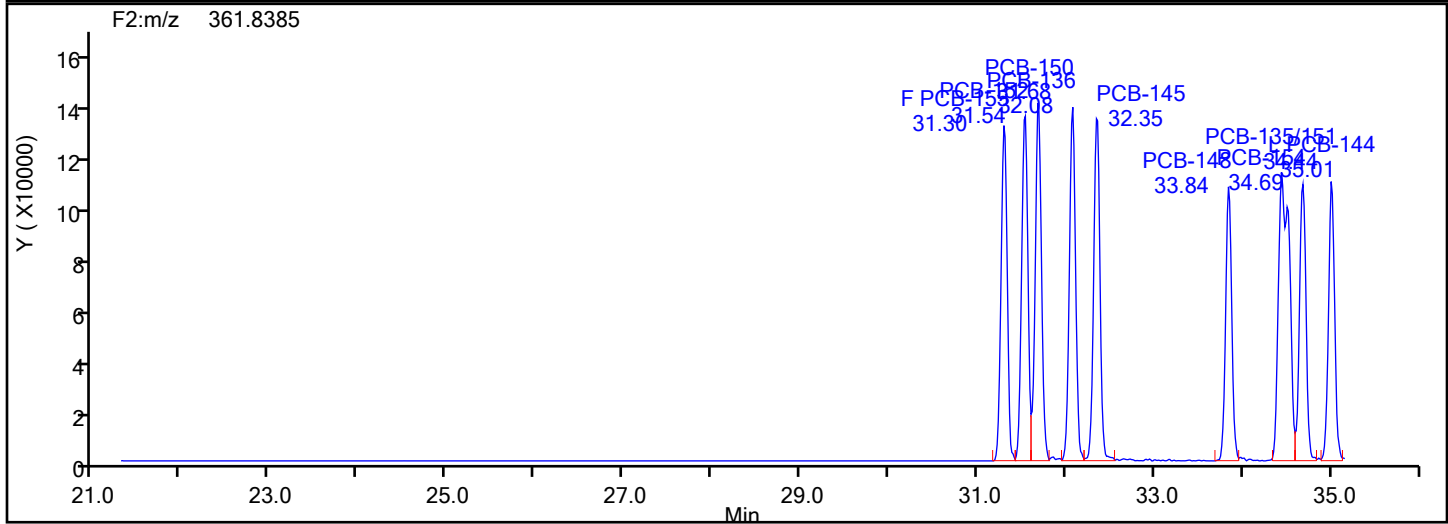
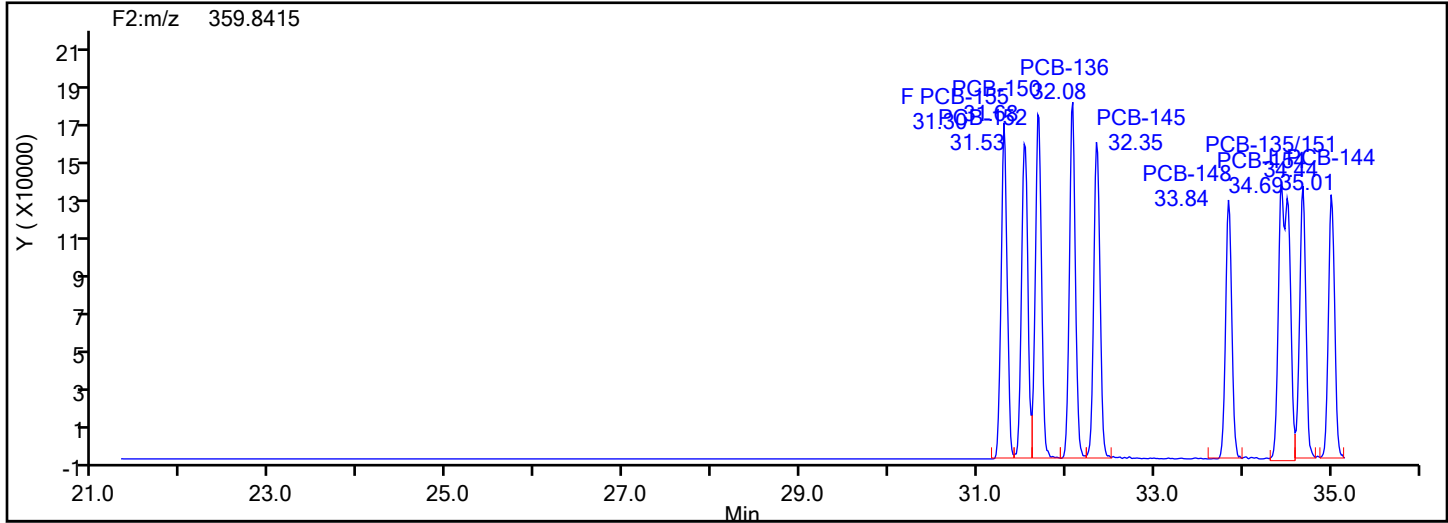
Worklist#: 88834

Sample Line#: 1

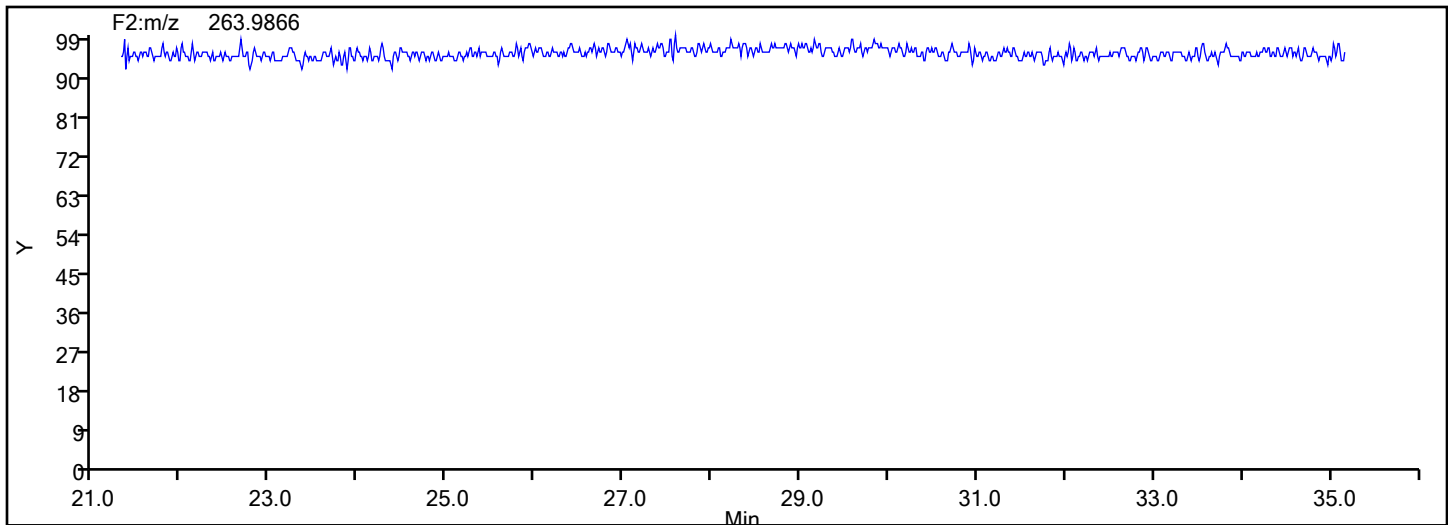
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F2



## HxPCB F2 Lock Mass



## Eurofins Knoxville

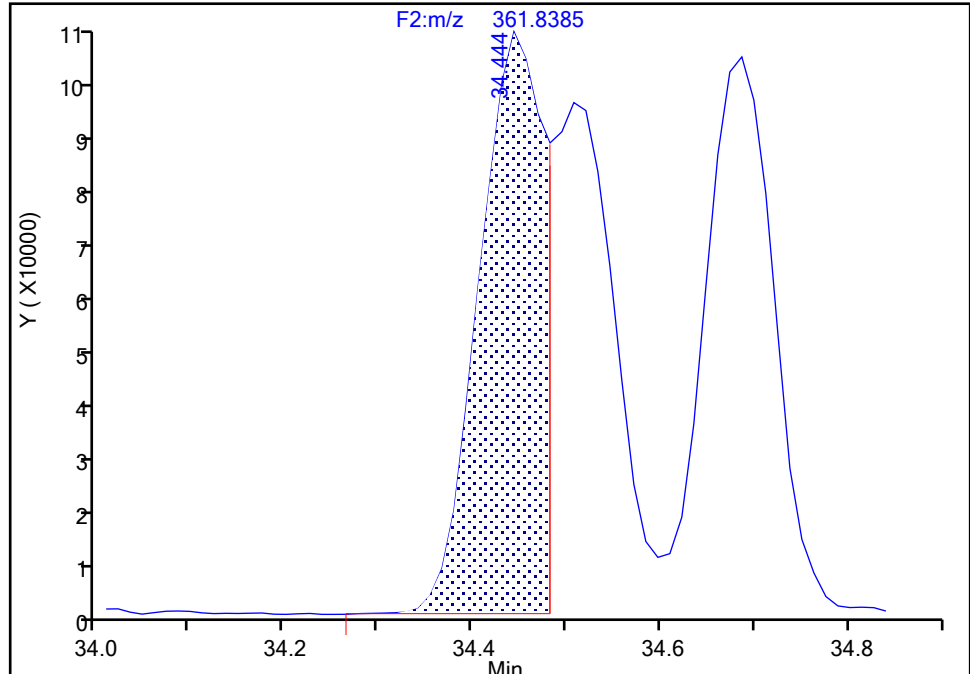
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector: F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 2

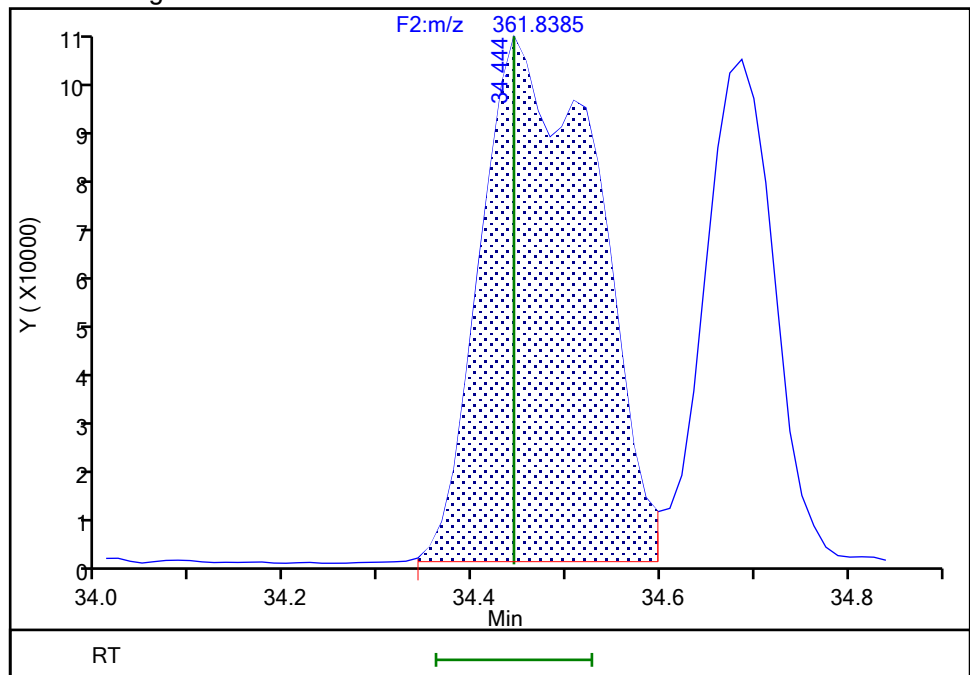
RT: 34.44  
Area: 505713  
Amount: 55.202683  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.44  
Area: 926126  
Amount: 103.4177  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 00:26:17 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

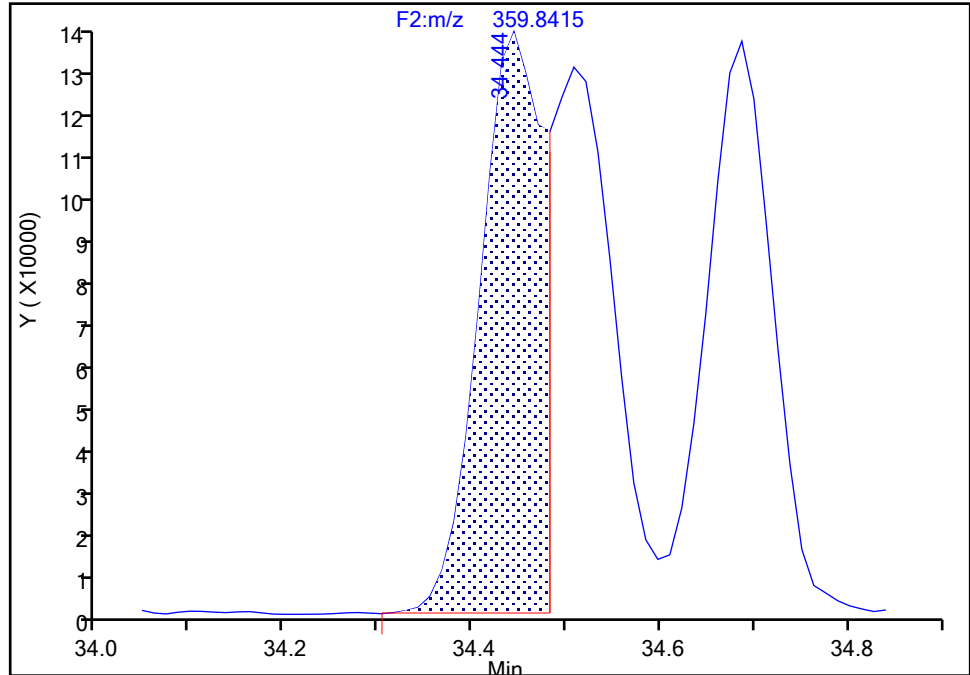
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 1

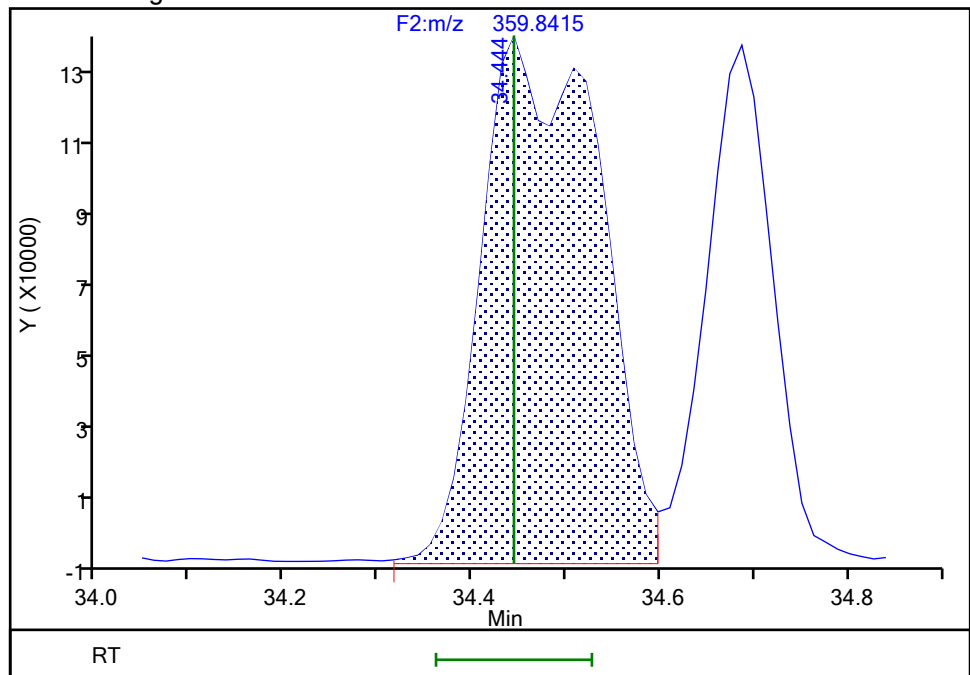
RT: 34.44  
Area: 632437  
Amount: 55.202683  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.44  
Area: 1206104  
Amount: 103.4177  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 00:26:21 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 20240716 3848  
9/6/2024  
4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

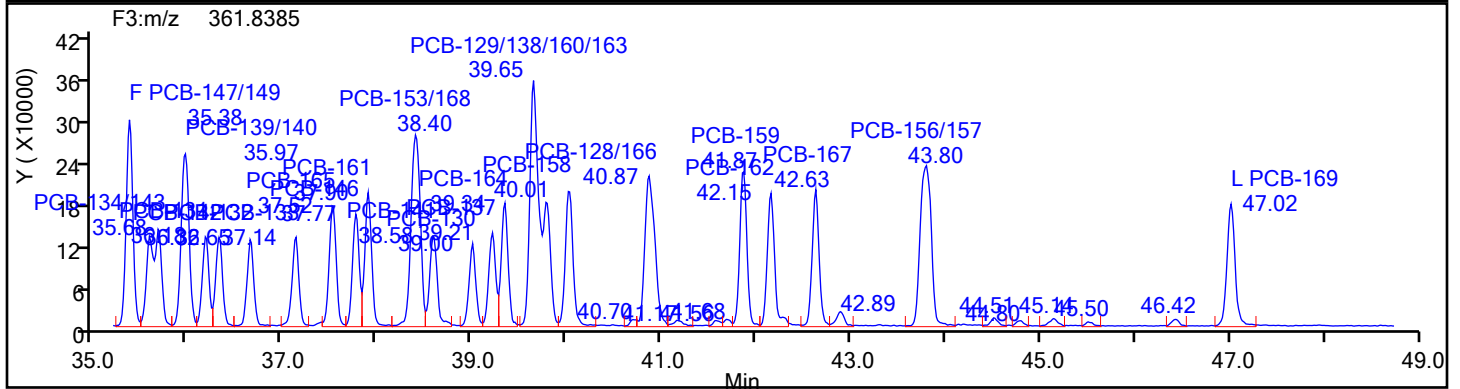
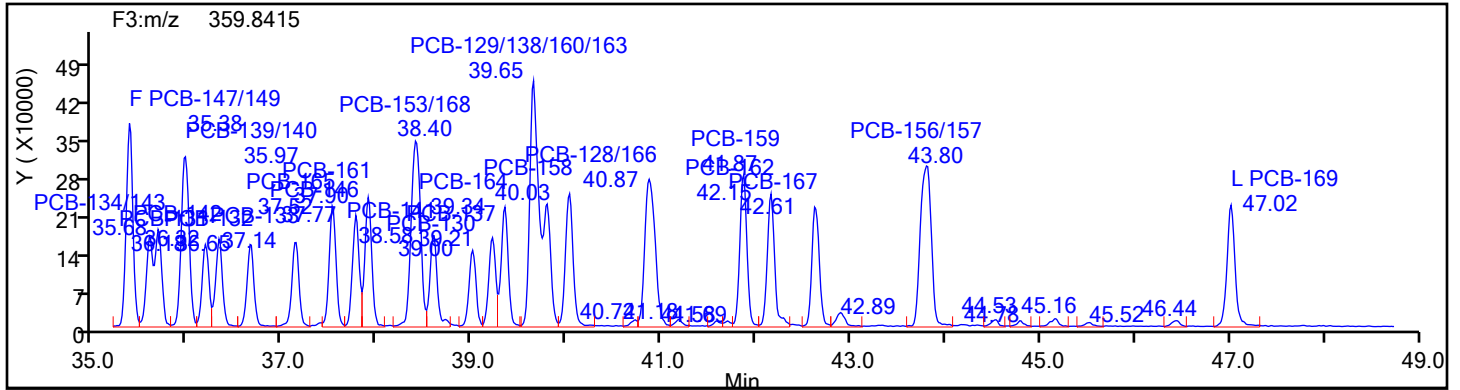
Worklist#: 88834

Sample Line#: 1

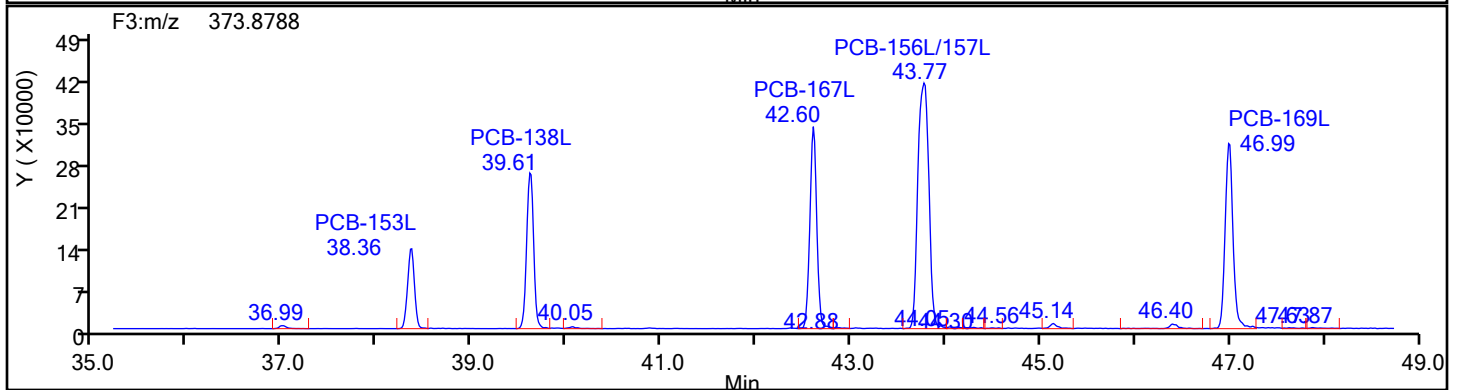
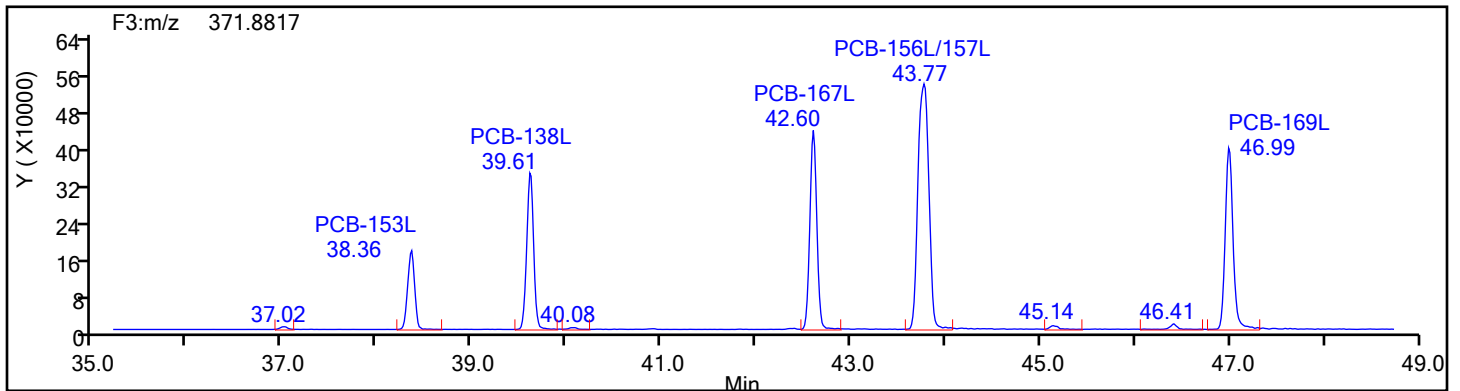
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



HxPCB F3 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

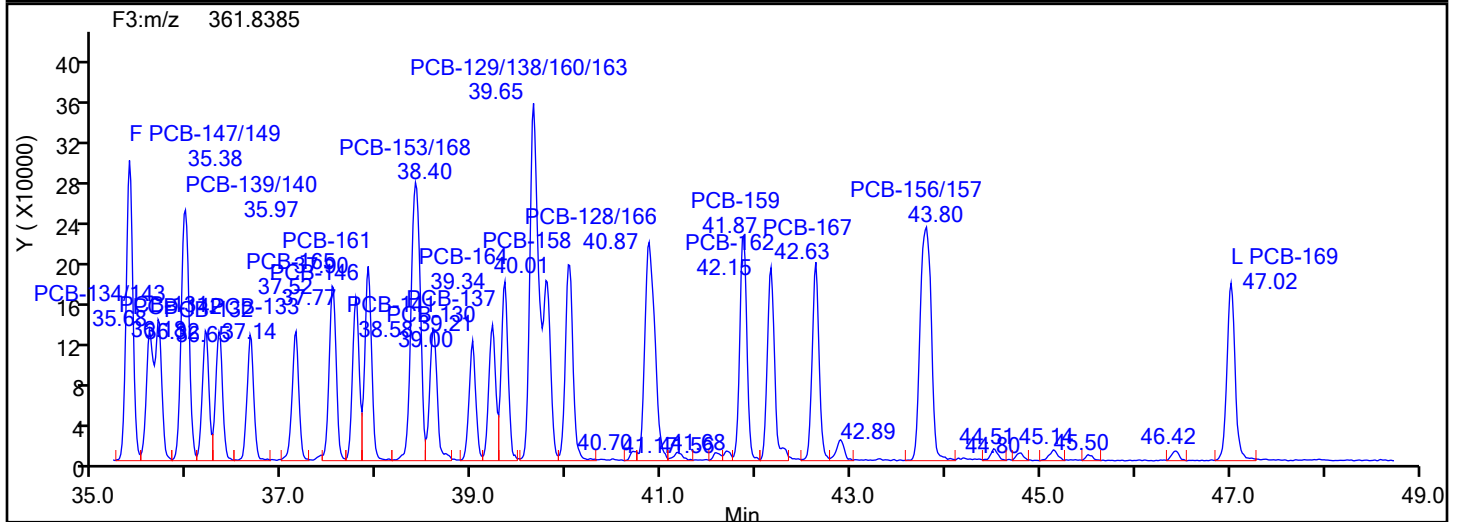
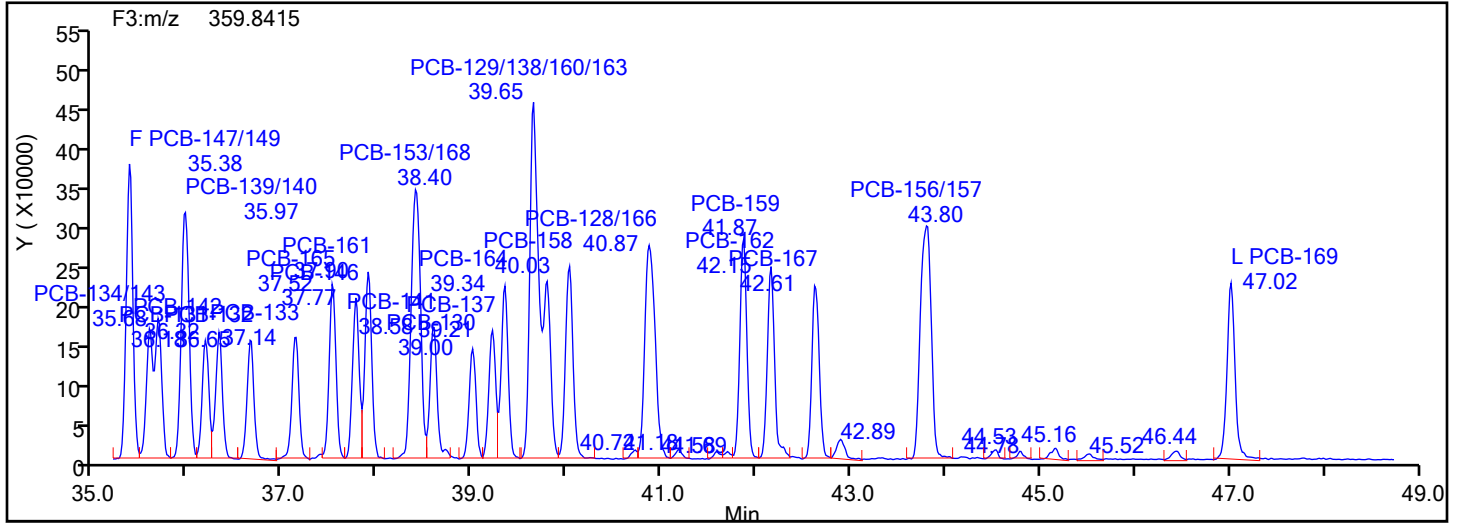
Worklist#: 88834

Sample Line#: 1

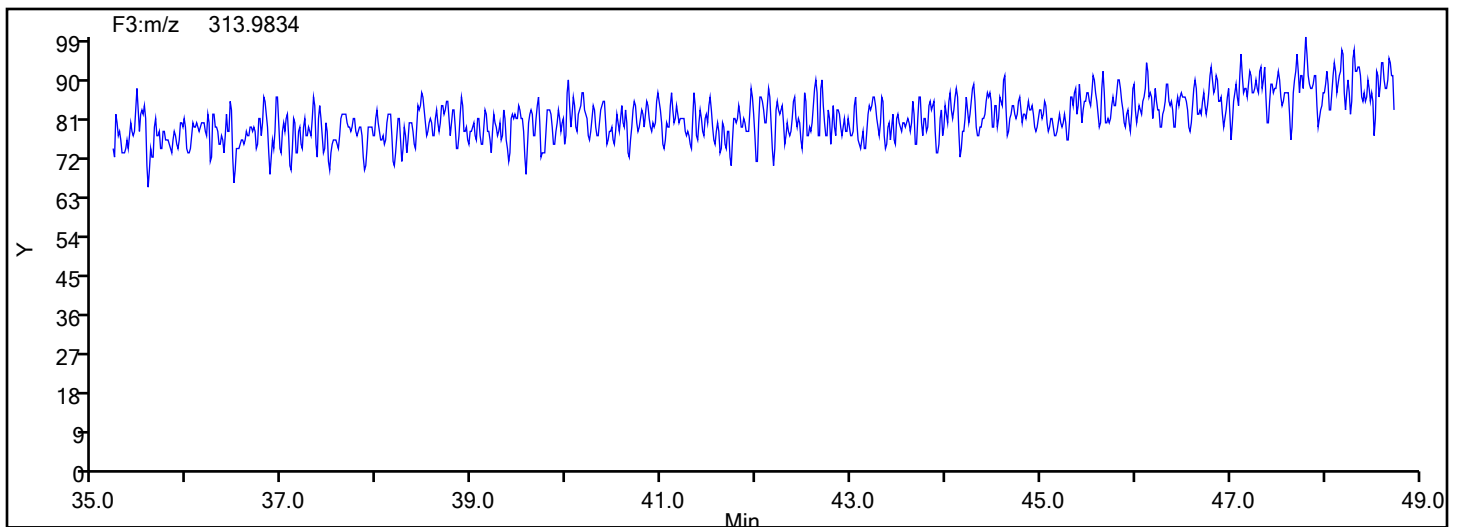
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



## HxPCB F3 Lock Mass



## Eurofins Knoxville

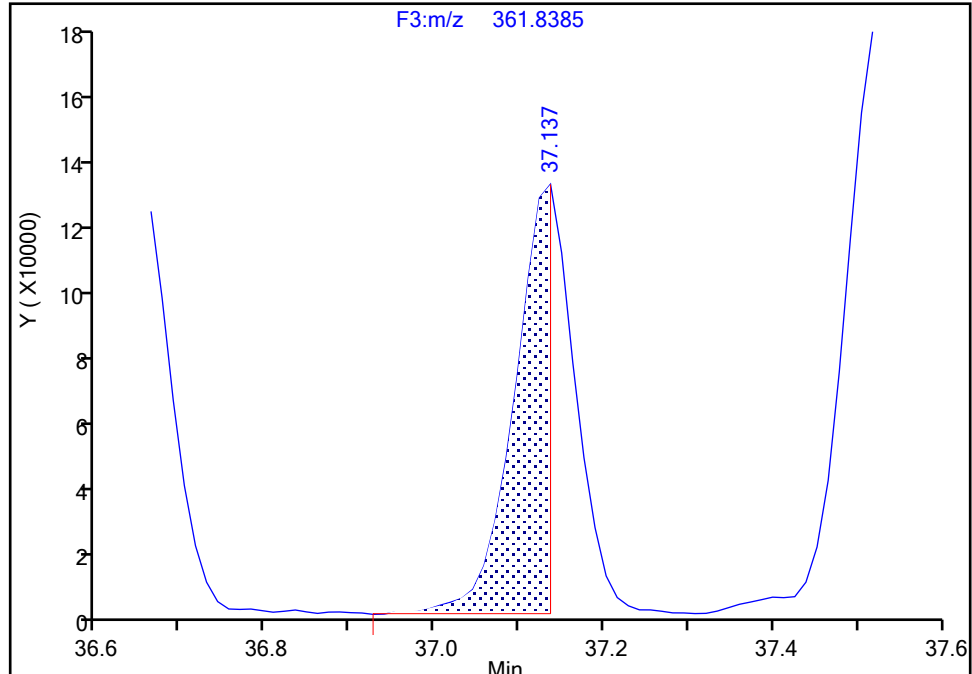
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-133, CAS: 35694-04-3

Signal: 2

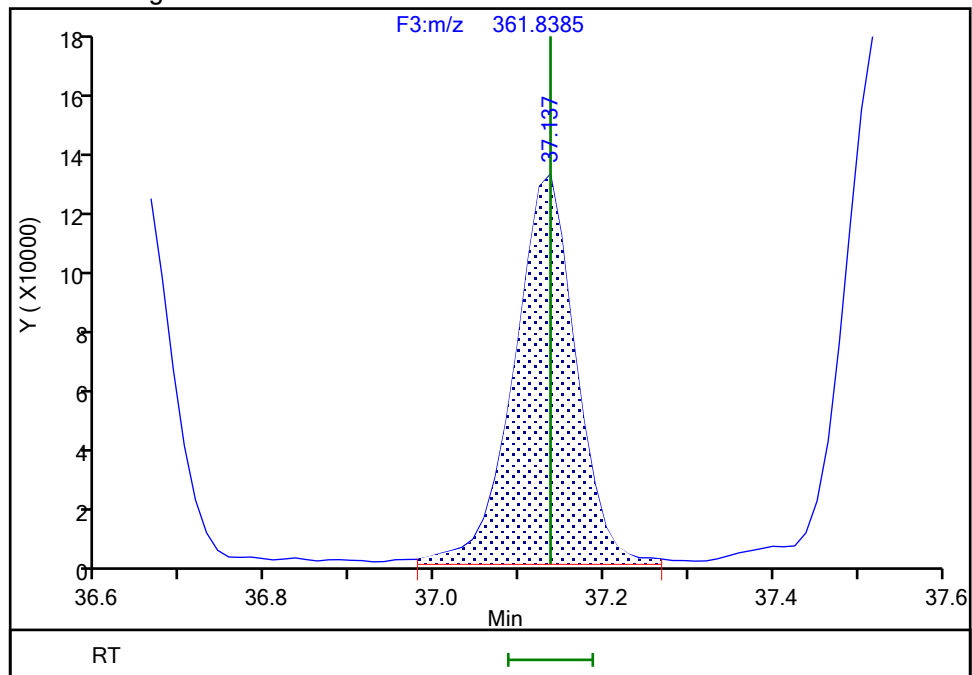
RT: 37.14  
Area: 370097  
Amount: 37.358761  
Amount Units: pg/ul

## Processing Integration Results



RT: 37.14  
Area: 645850  
Amount: 46.027216  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 00:26:34 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

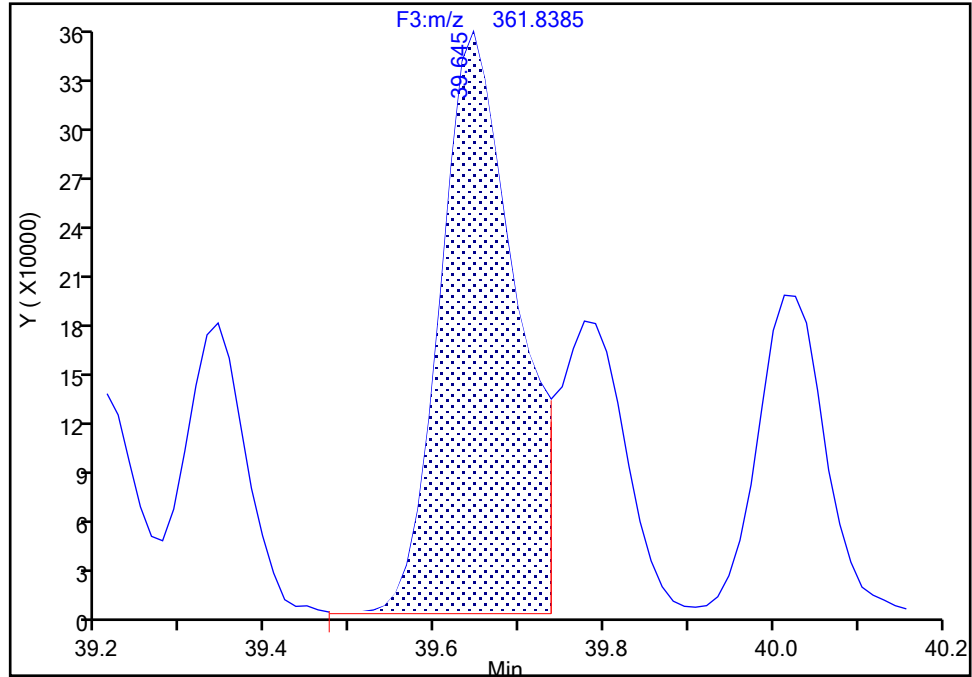
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

**PCB-129/138/160/163, CAS: STL02296**

Signal: 2

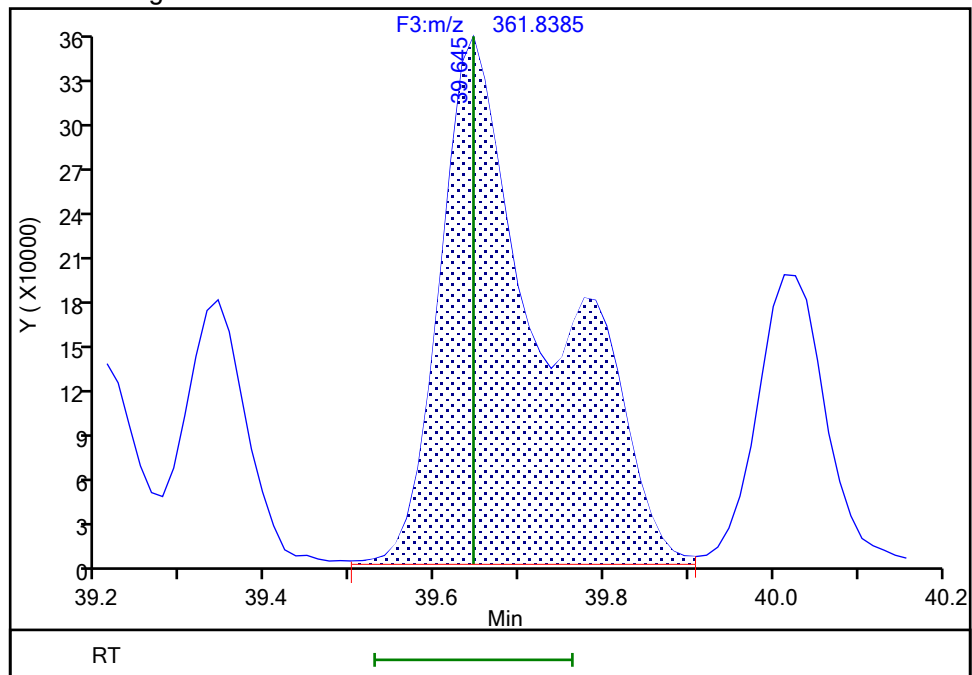
RT: 39.65  
Area: 2197317  
Amount: 134.8449  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.65  
Area: 3160626  
Amount: 193.1753  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 00:26:50 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Instrument ID: D2D

Lims ID: WDMCCV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#: 0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

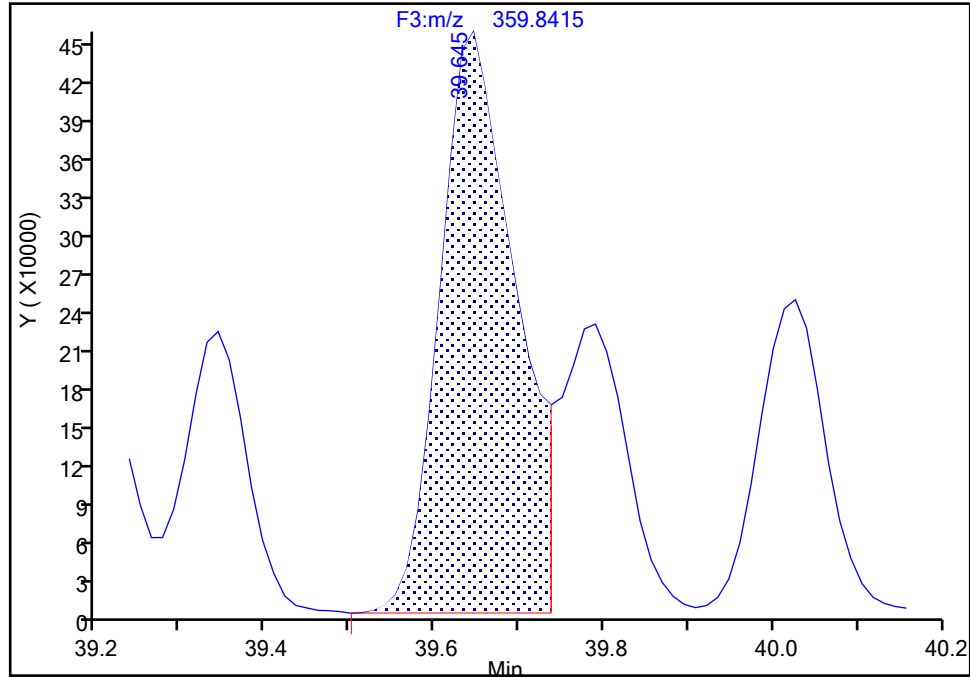
Detector F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 1

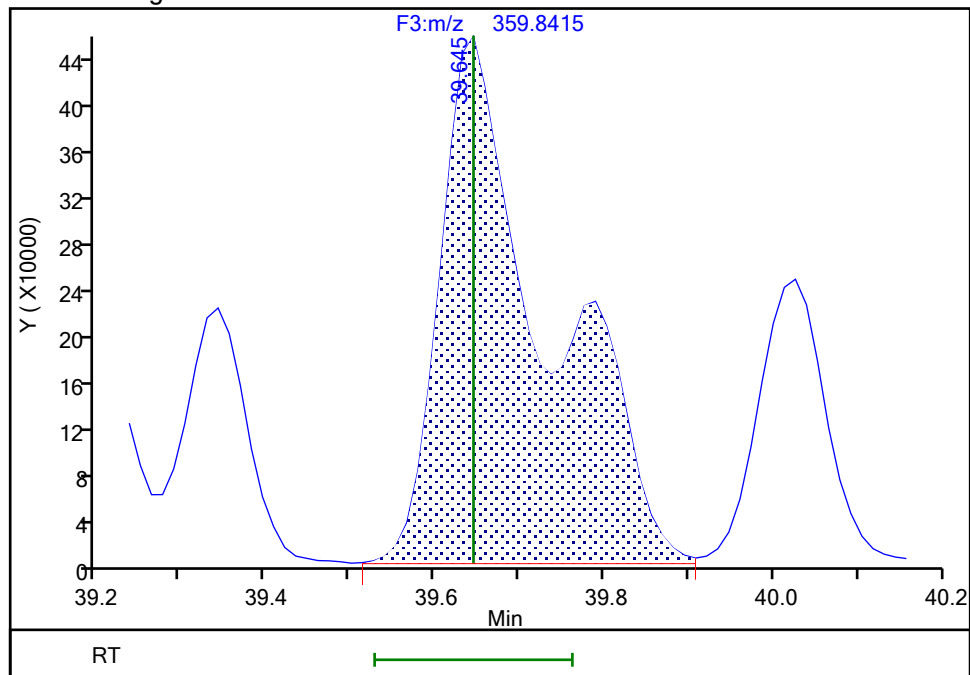
RT: 39.65  
Area: 2817233  
Amount: 134.8449  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.65  
Area: 4023086  
Amount: 193.1753  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 00:26:56 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

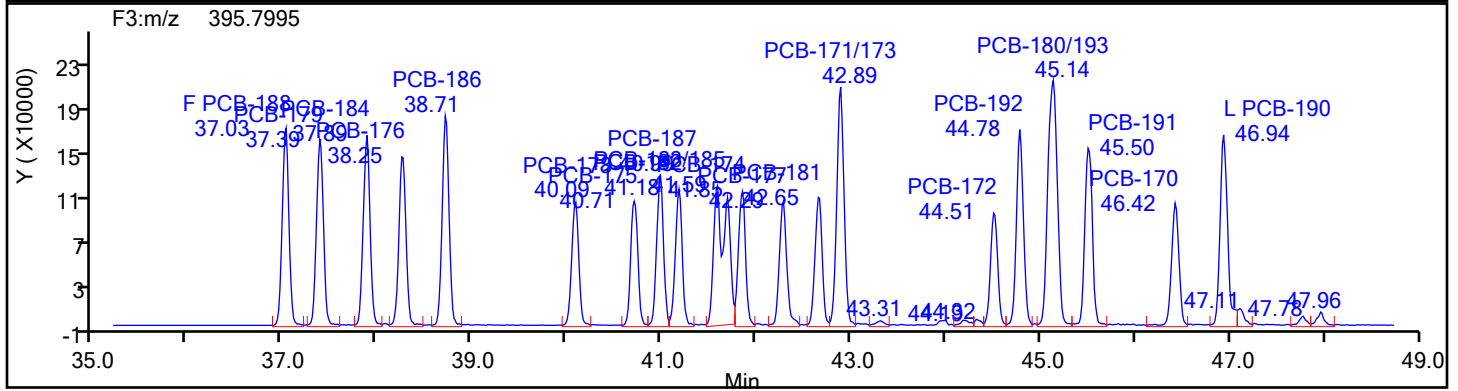
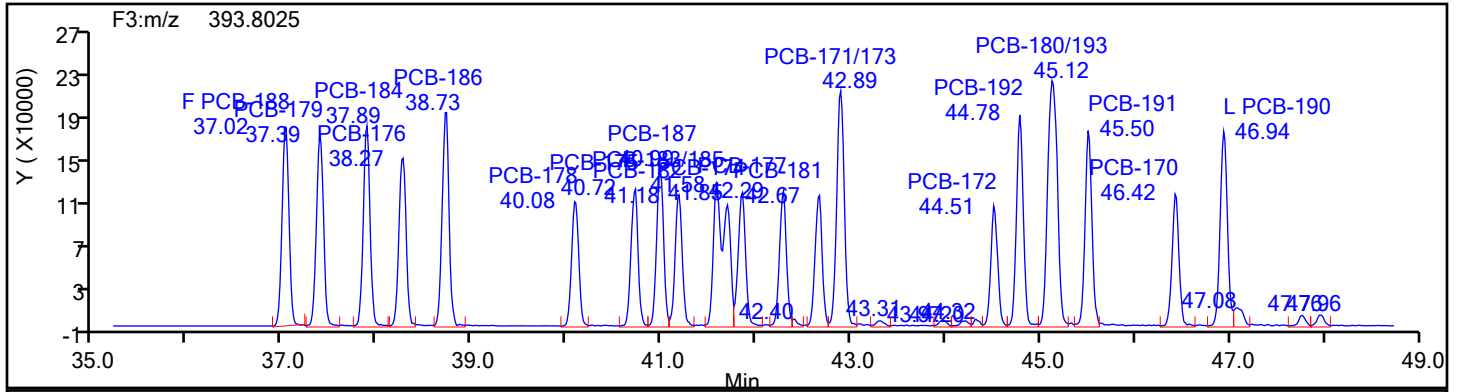
Worklist#: 88834

Sample Line#: 1

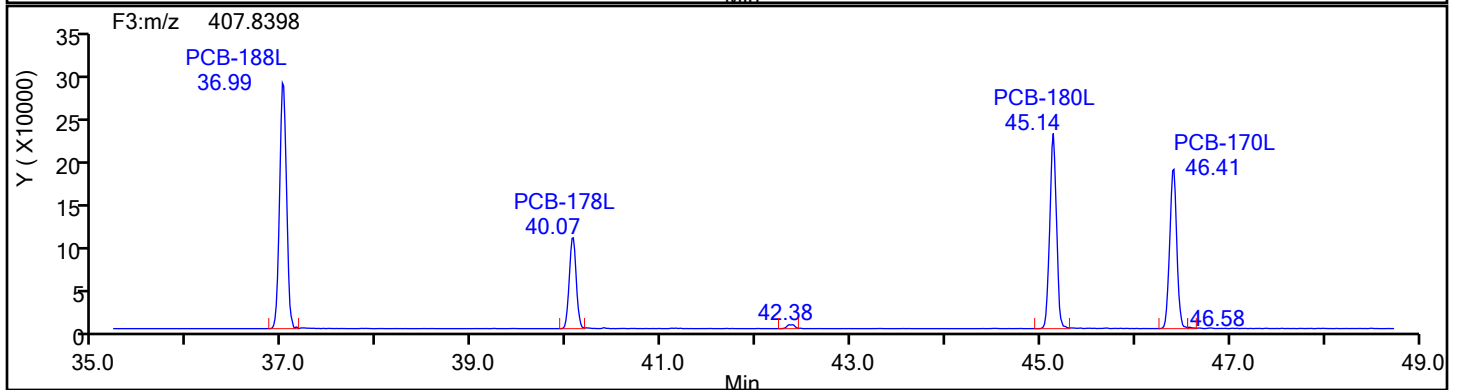
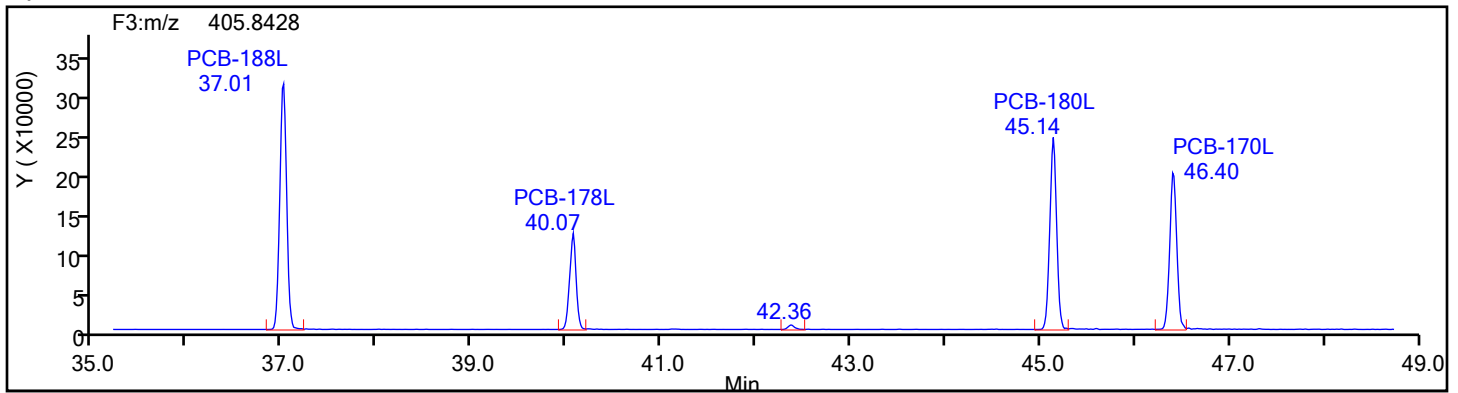
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



## HpPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

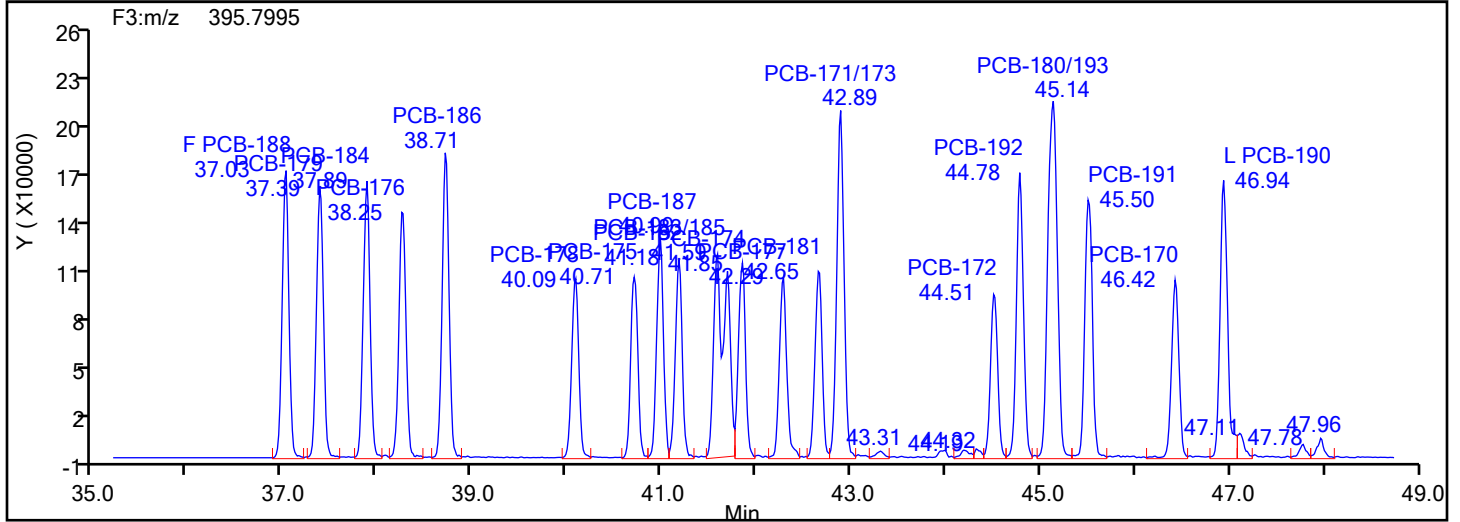
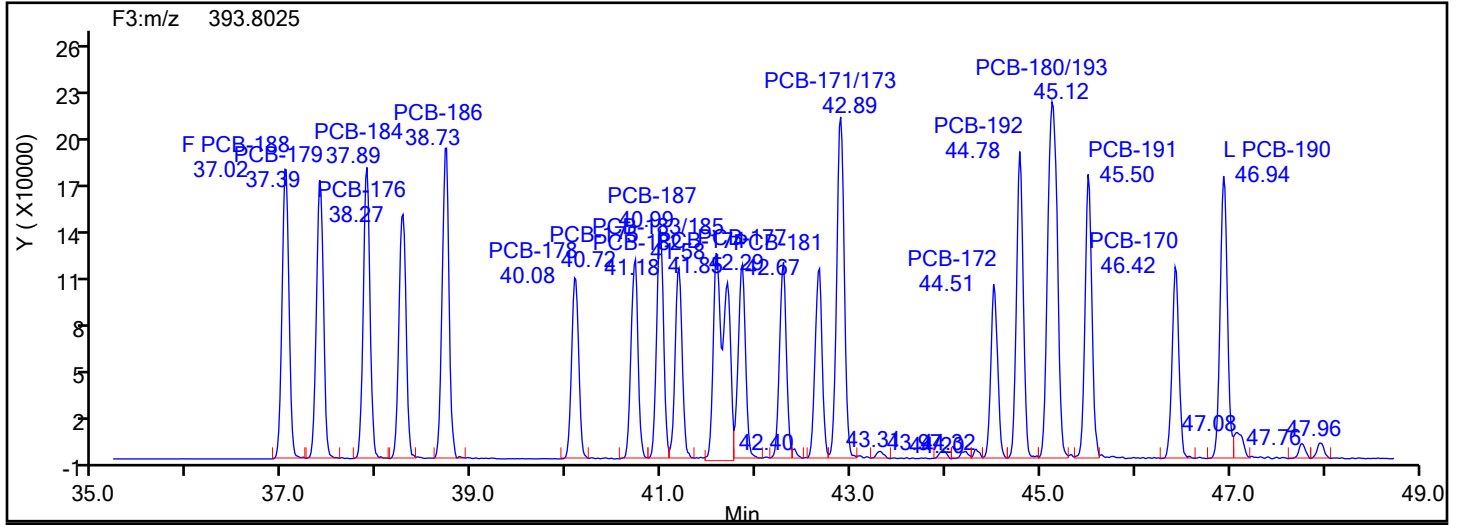
Worklist#: 88834

Sample Line#: 1

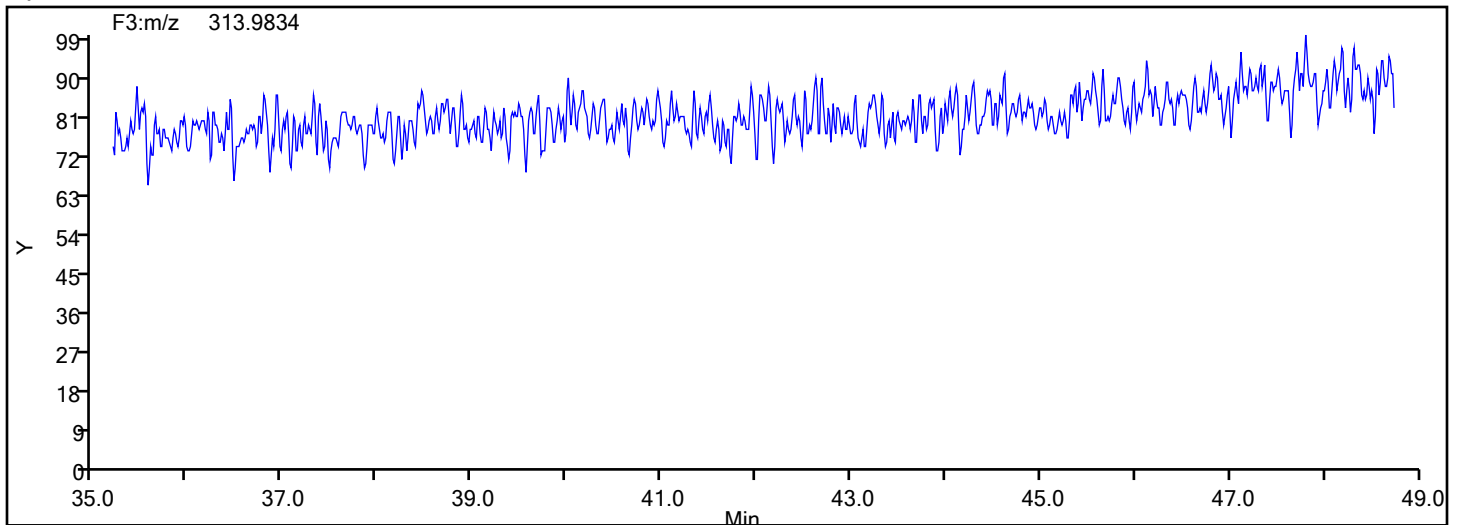
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



## HpPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Instrument ID: D2D

Lims ID: WDMCCV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

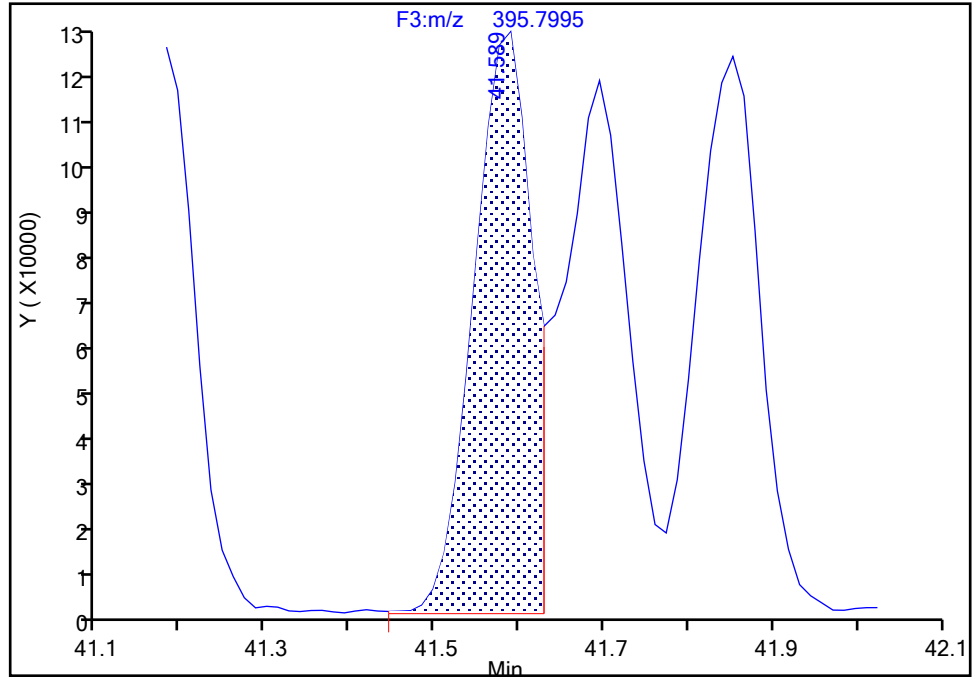
Detector F3(35.64 :49.10 )

**PCB-183/185, CAS: STL02297**

Signal: 2

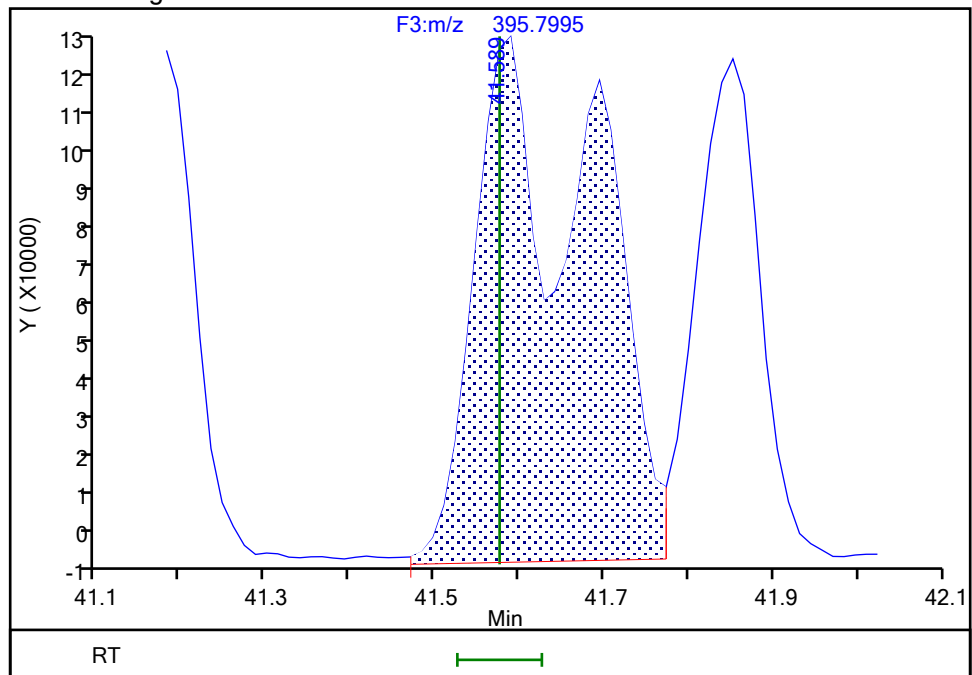
RT: 41.59  
Area: 576112  
Amount: 50.544304  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.59  
Area: 1173001  
Amount: 97.271595  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 00:27:14 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

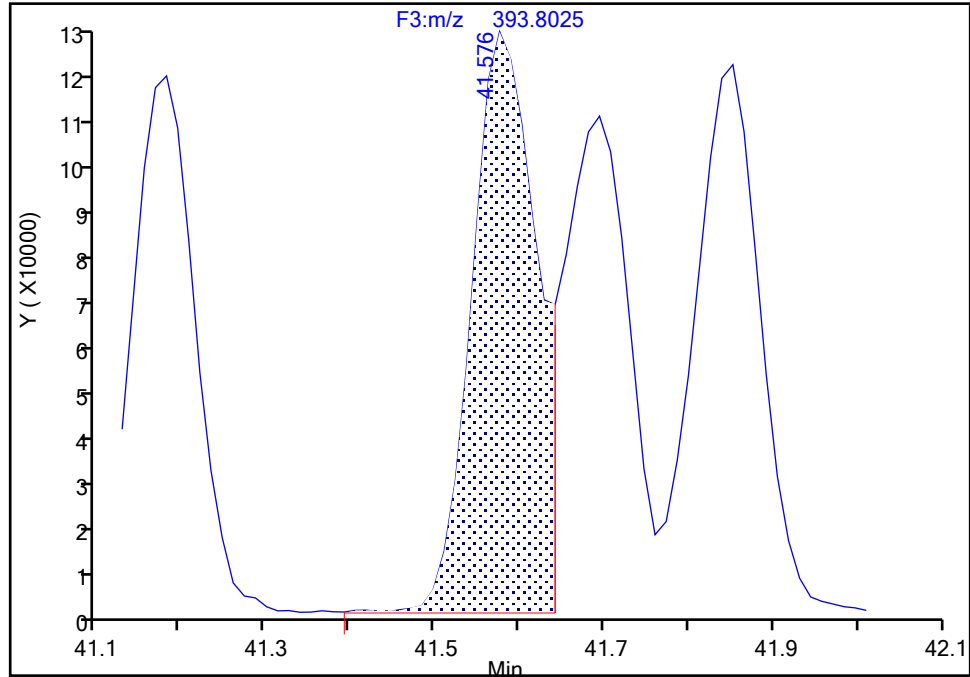
Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-183/185, CAS: STL02297

Signal: 1

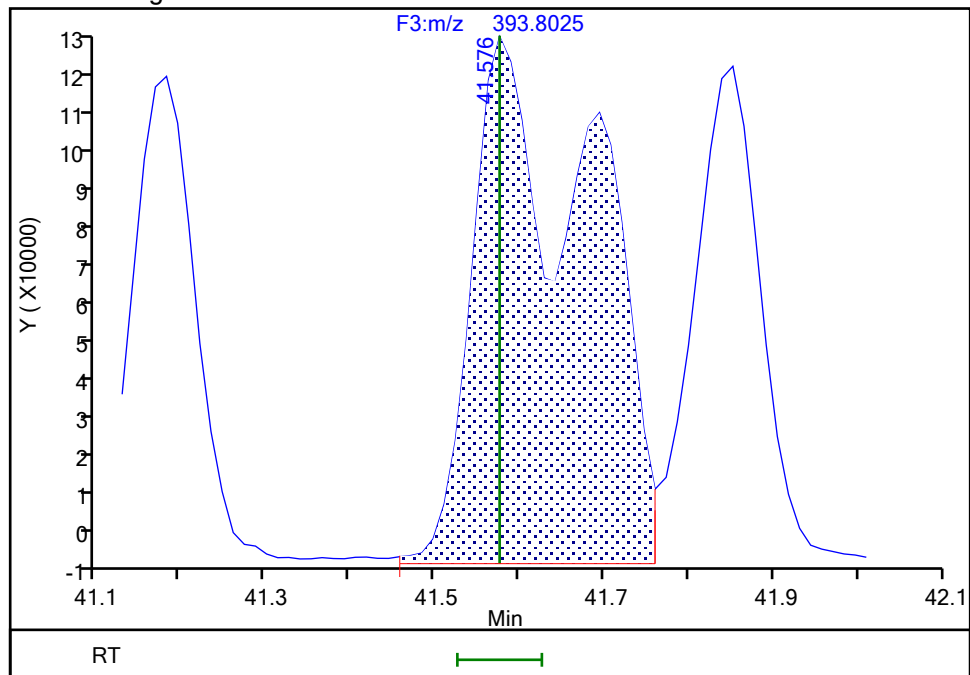
RT: 41.58  
Area: 676209  
Amount: 50.544304  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.58  
Area: 1237068  
Amount: 97.271595  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 00:27:22 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFHWC-Pass 2024-06-20 13:38:57

9/6/2024 4:19:54 PM



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

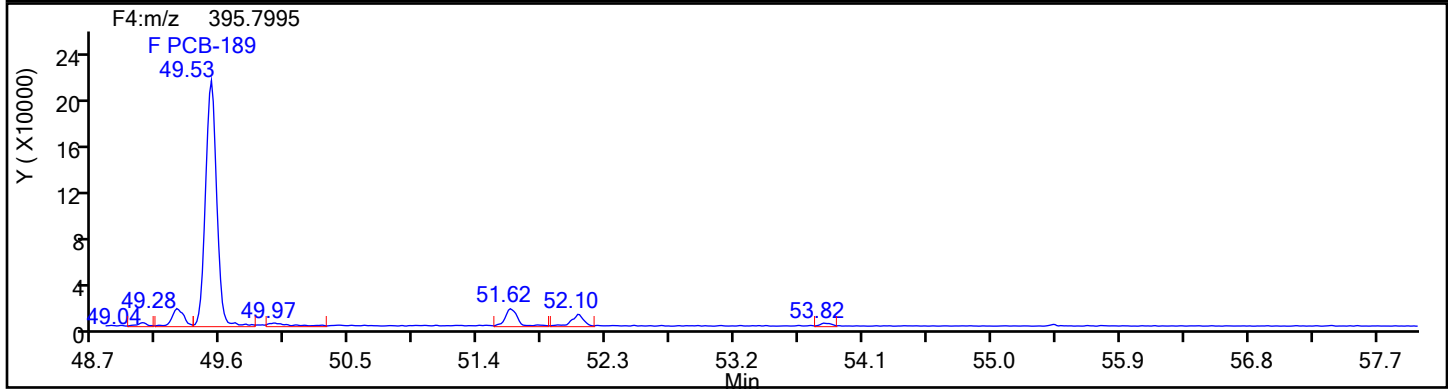
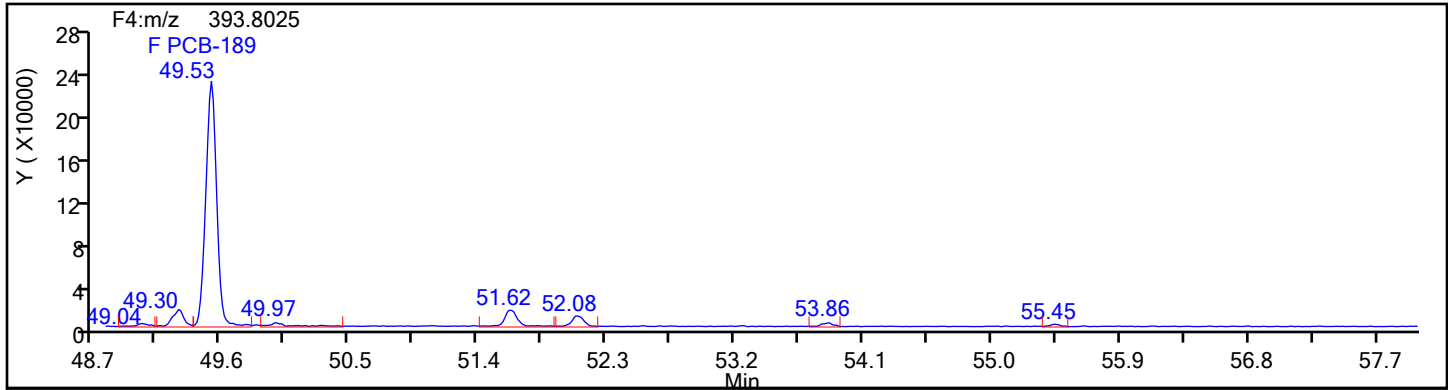
Worklist#: 88834

Sample Line#: 1

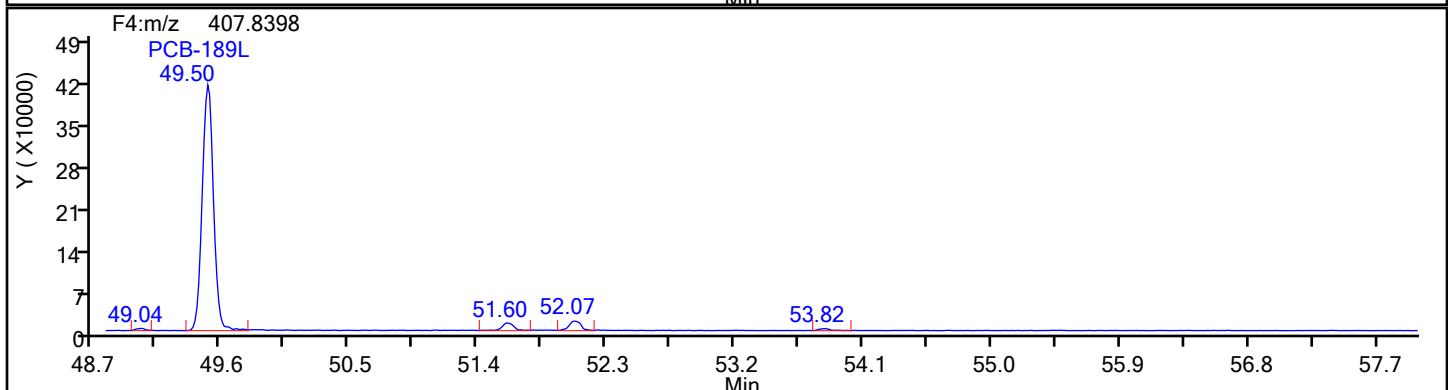
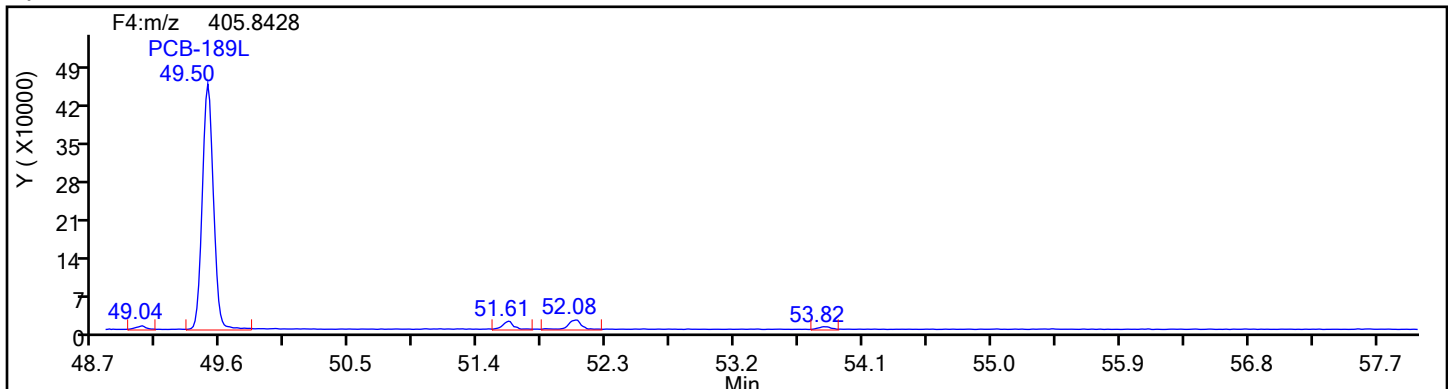
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

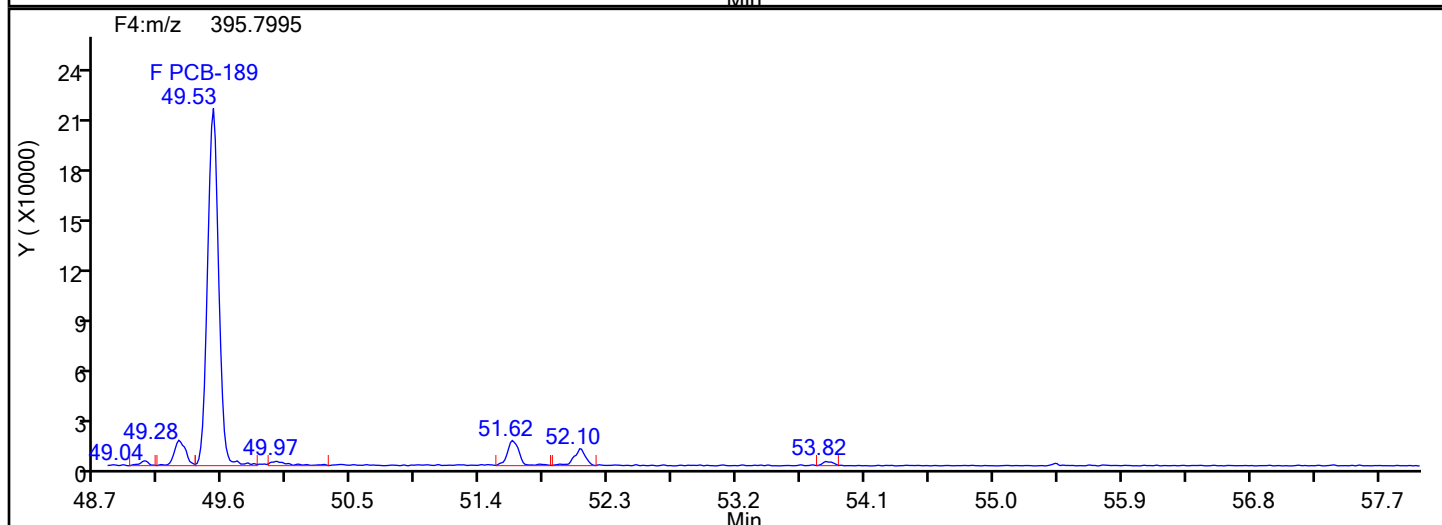
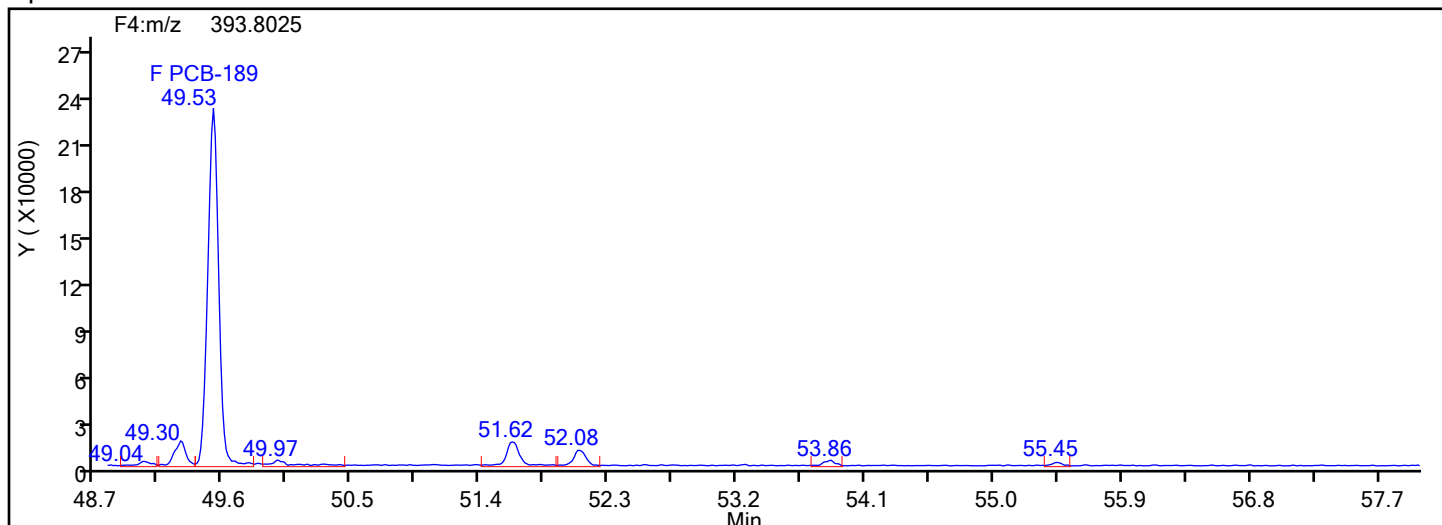
Worklist#: 88834

Sample Line#: 1

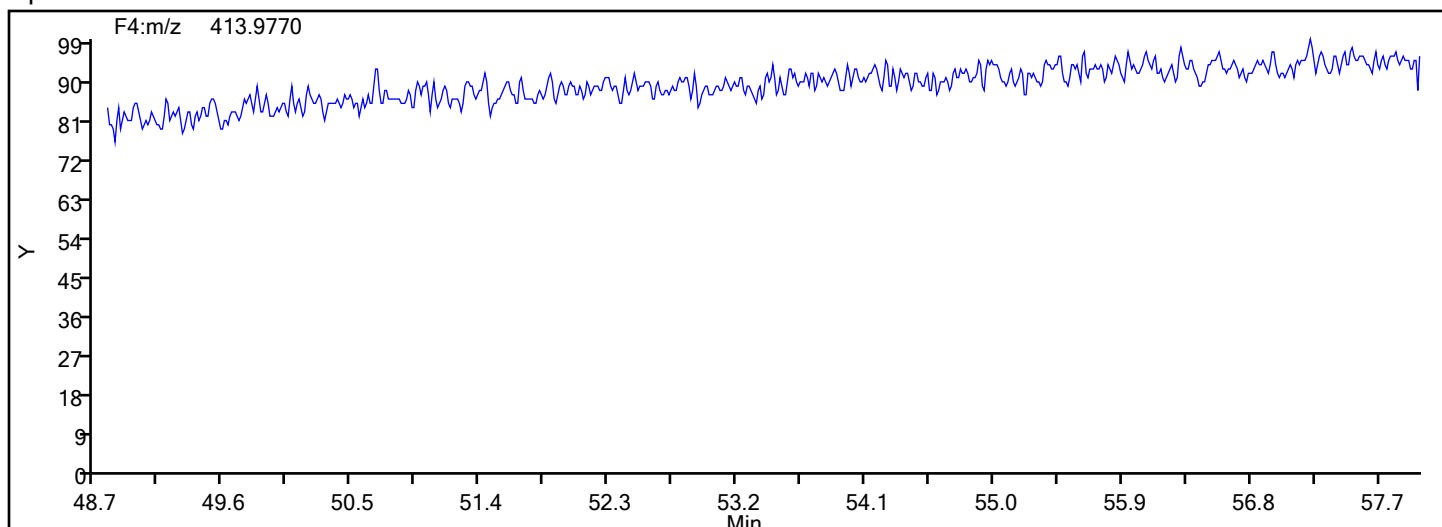
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



## HpPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

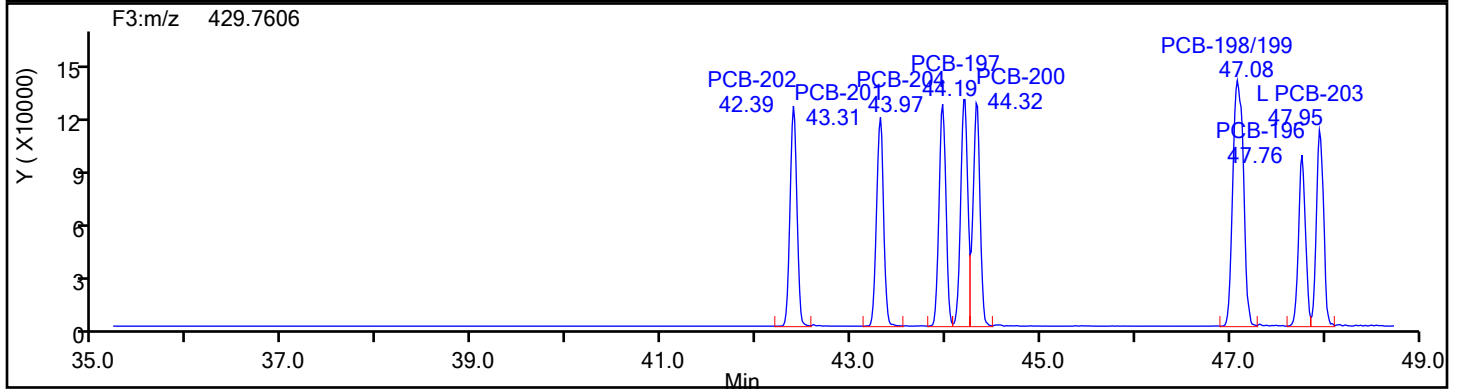
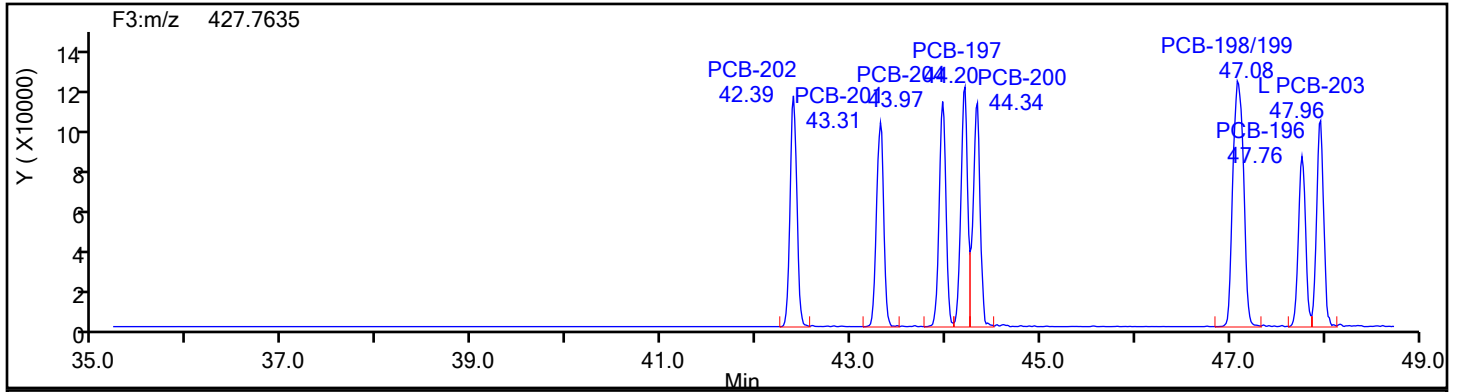
Worklist#: 88834

Sample Line#: 1

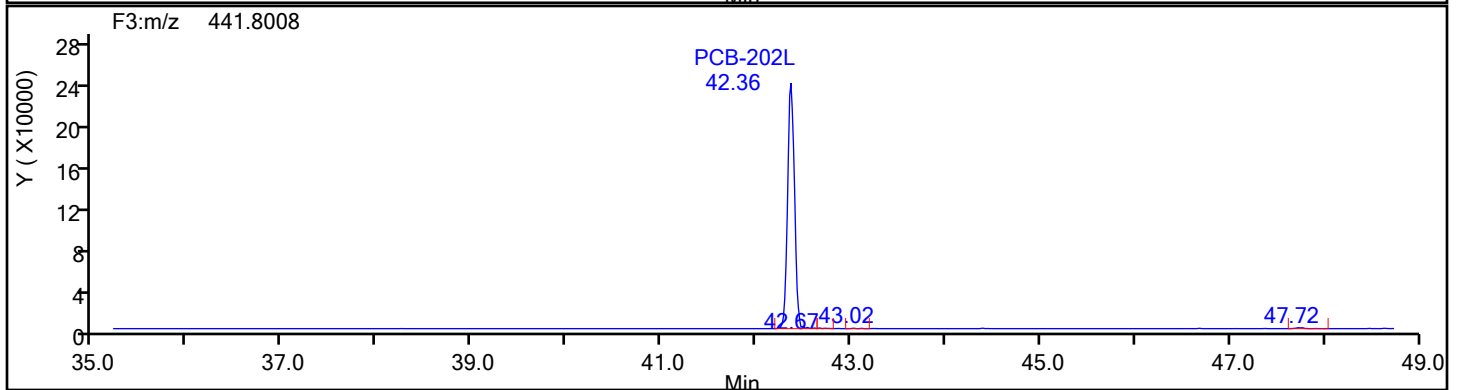
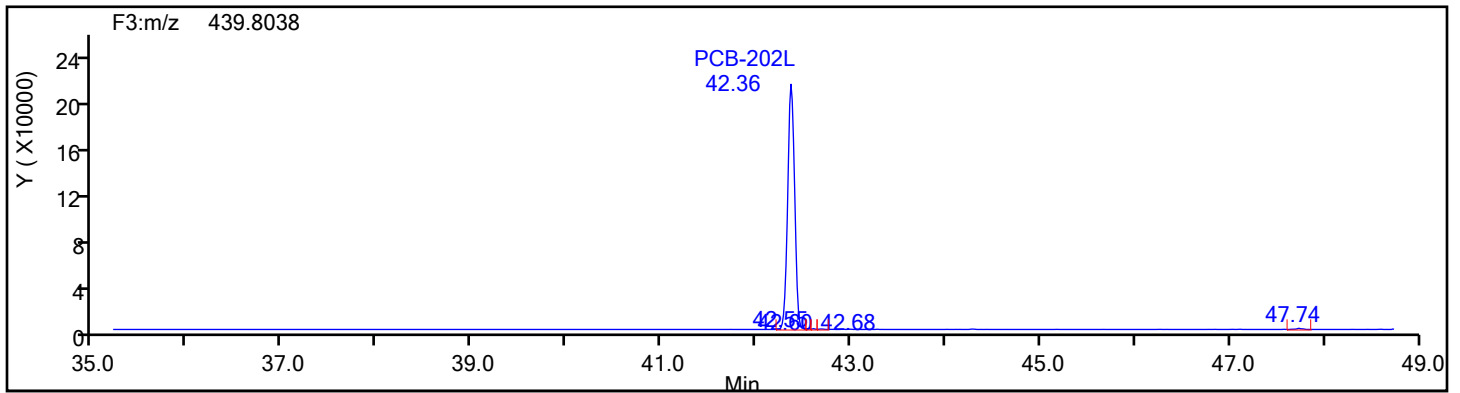
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3



OcPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

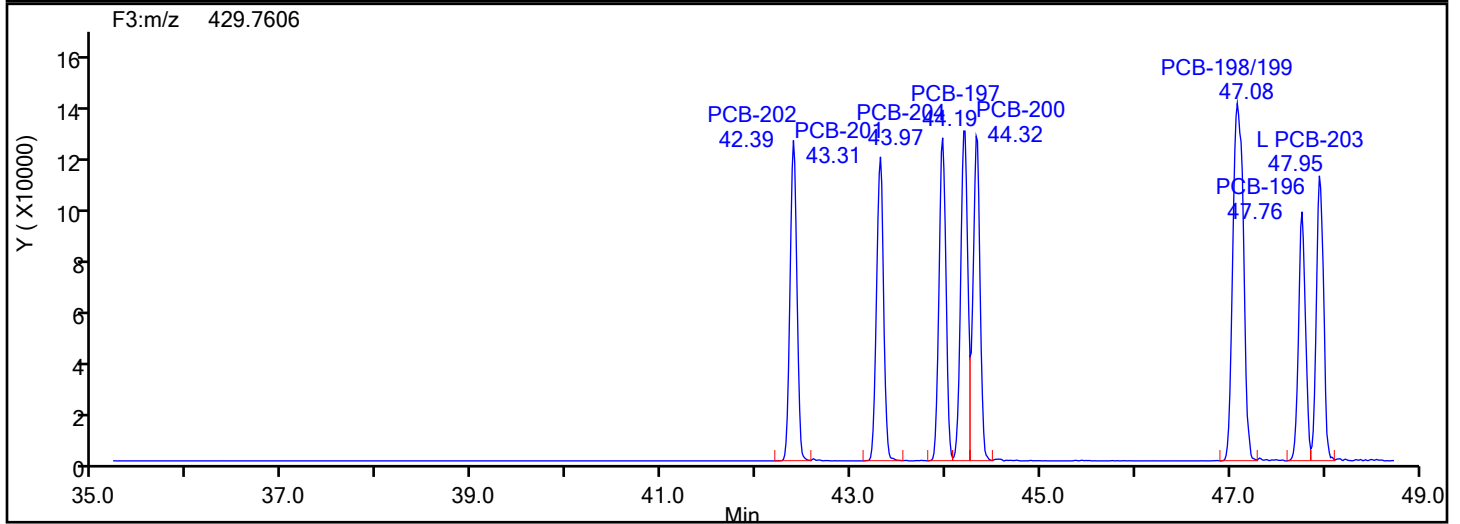
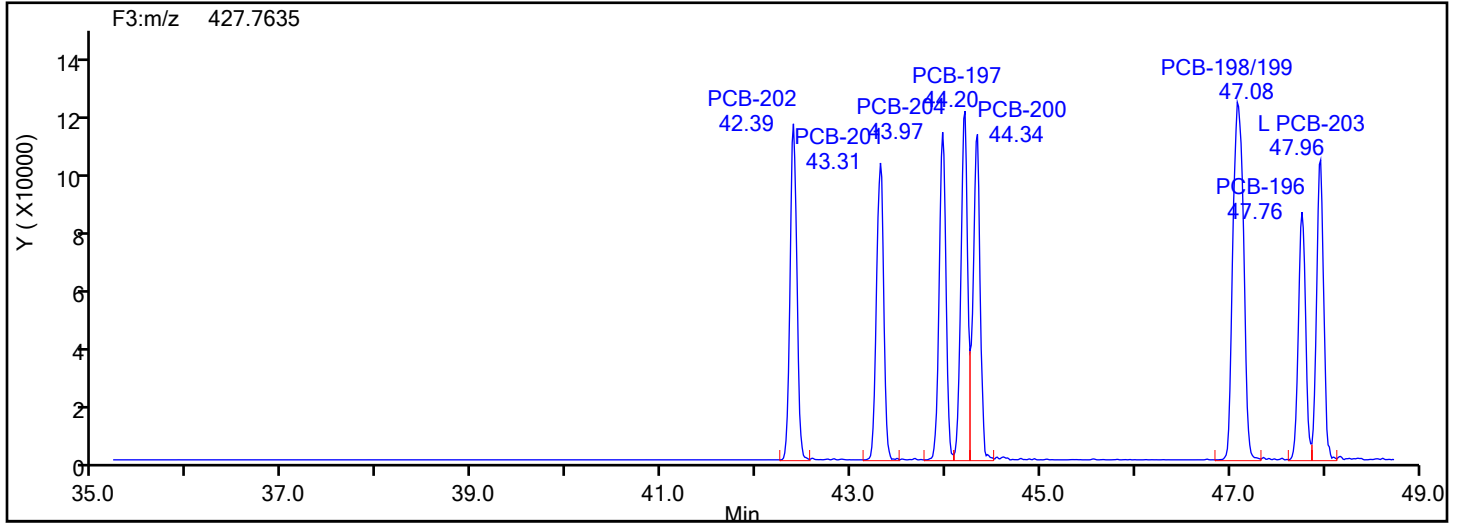
Worklist#: 88834

Sample Line#: 1

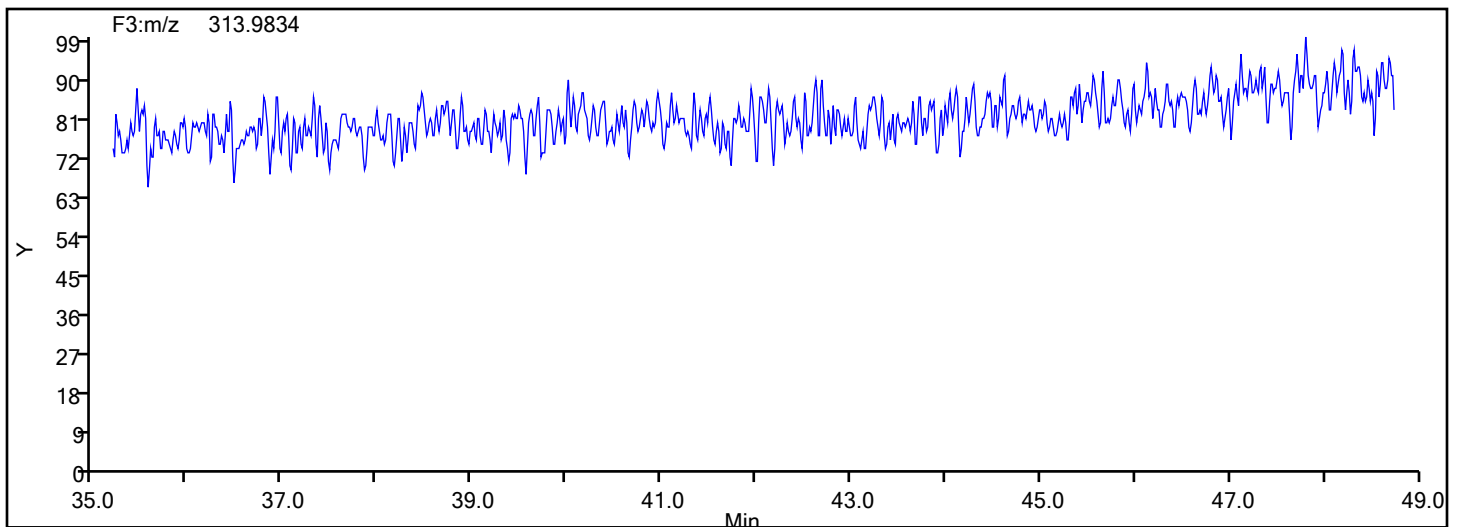
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3

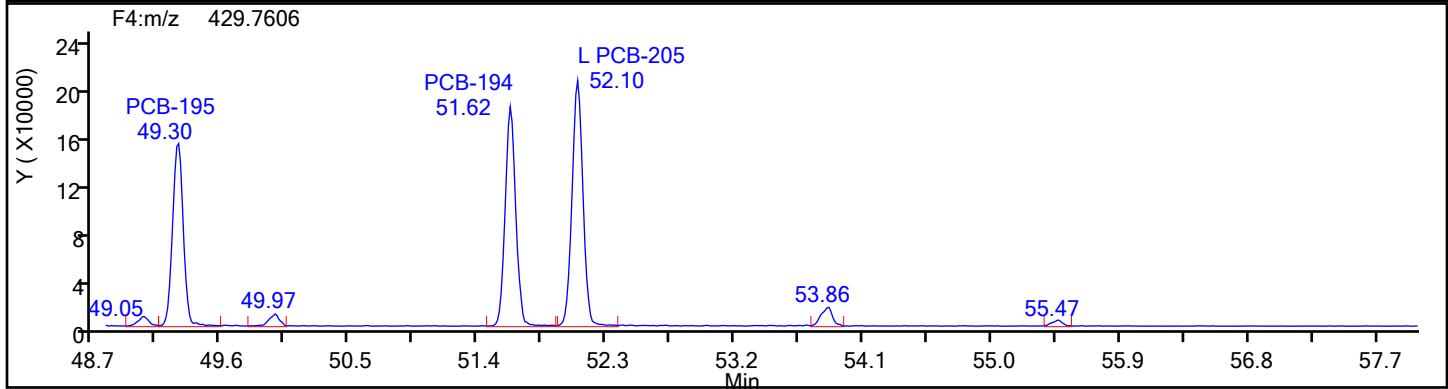
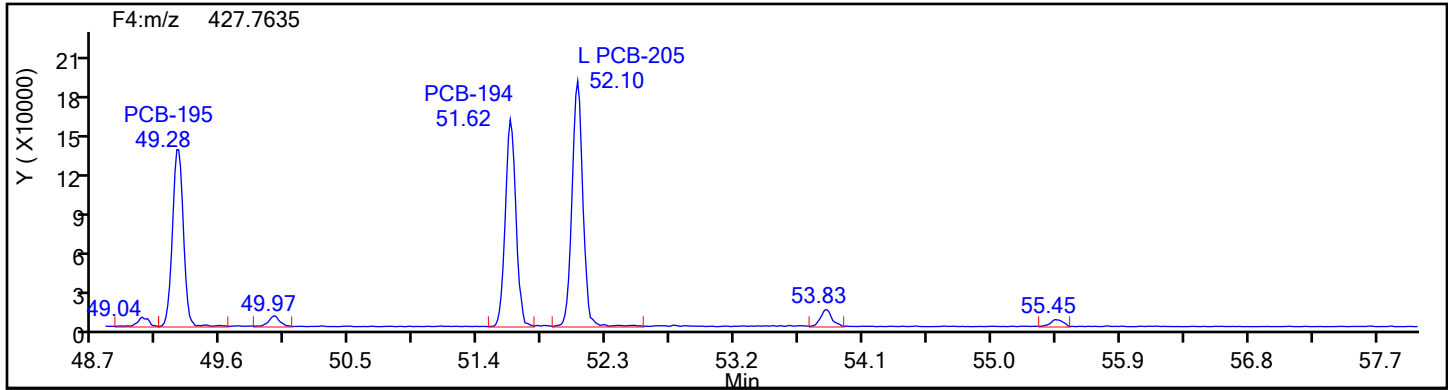


## OcPCB F3 Lock Mass

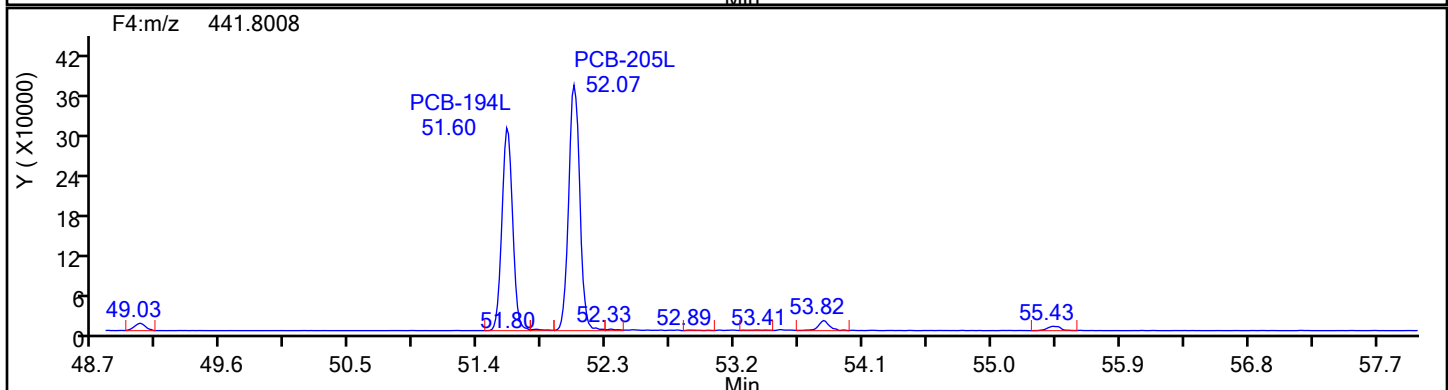
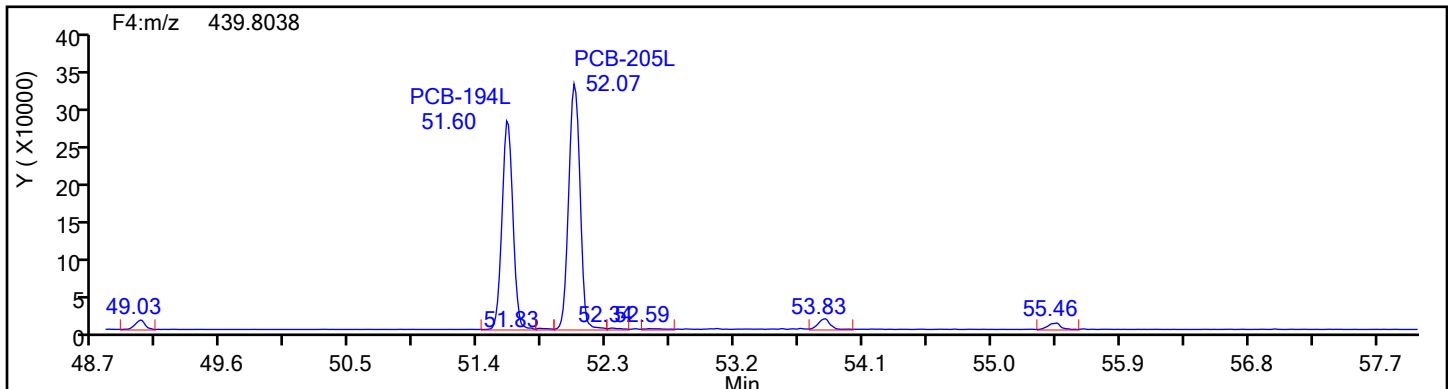


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88834 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4



## OcPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

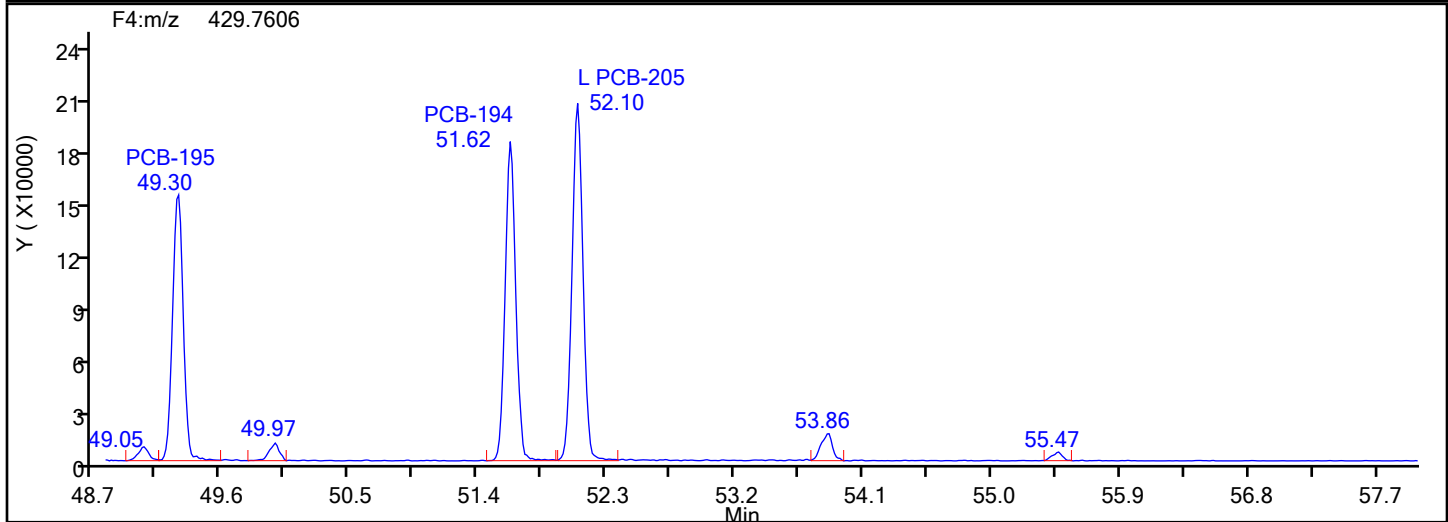
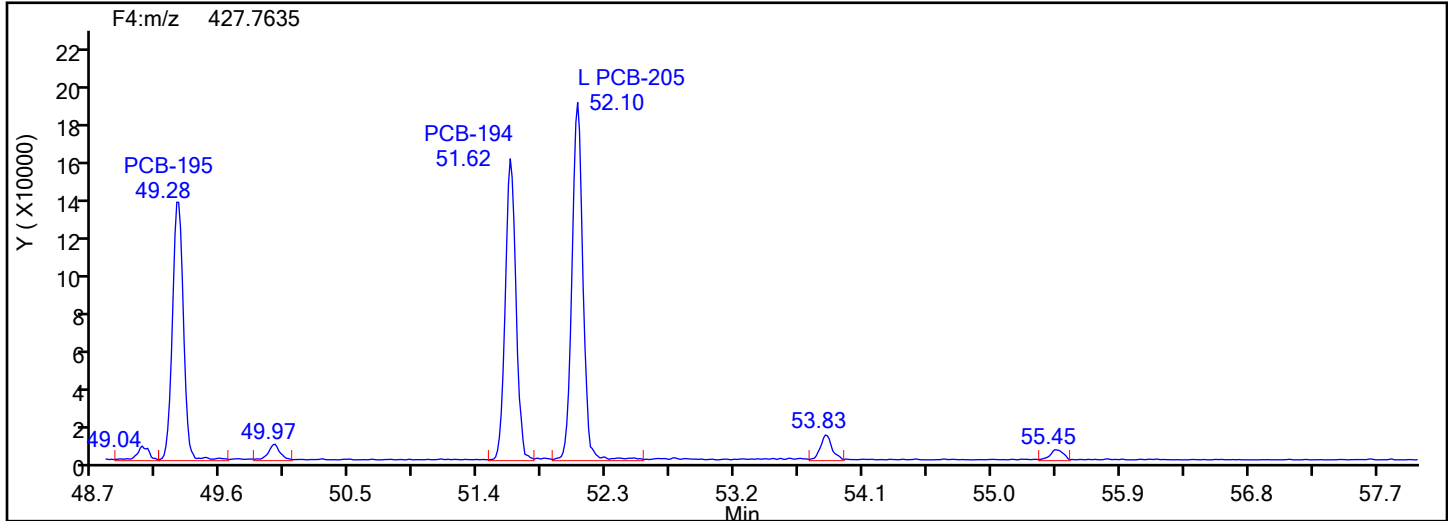
Worklist#: 88834

Sample Line#: 1

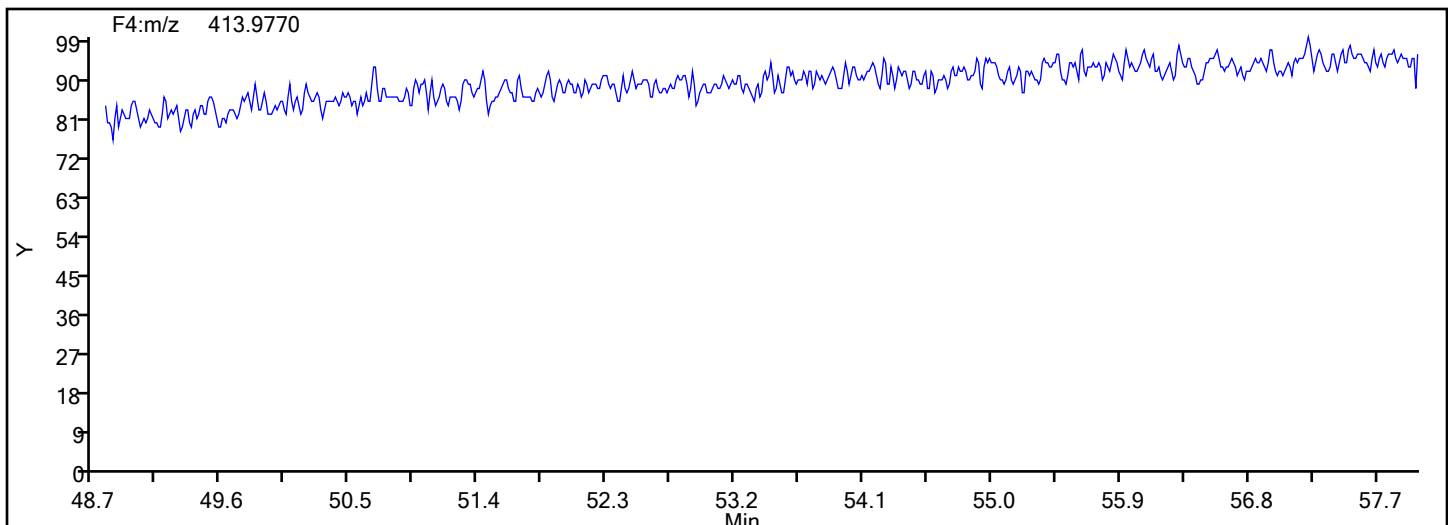
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4

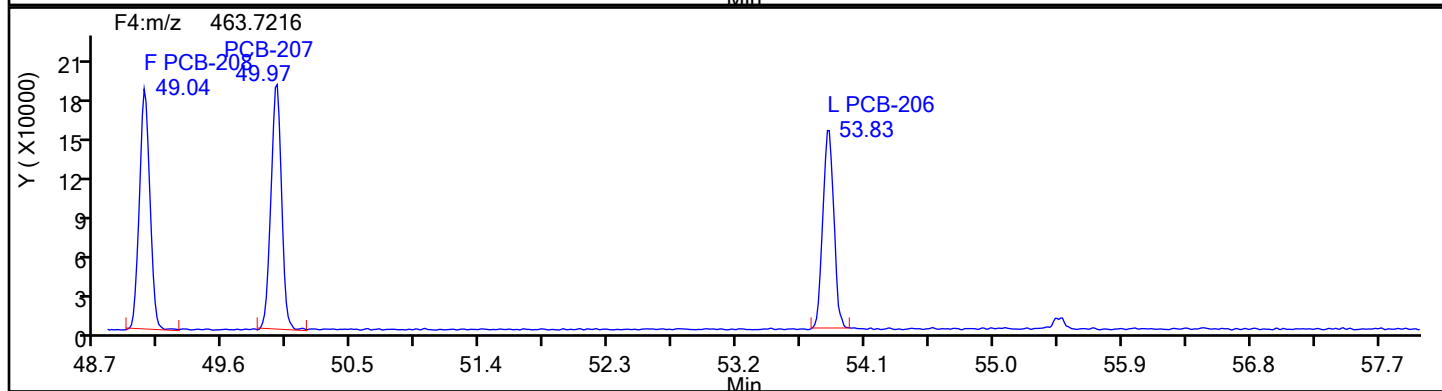
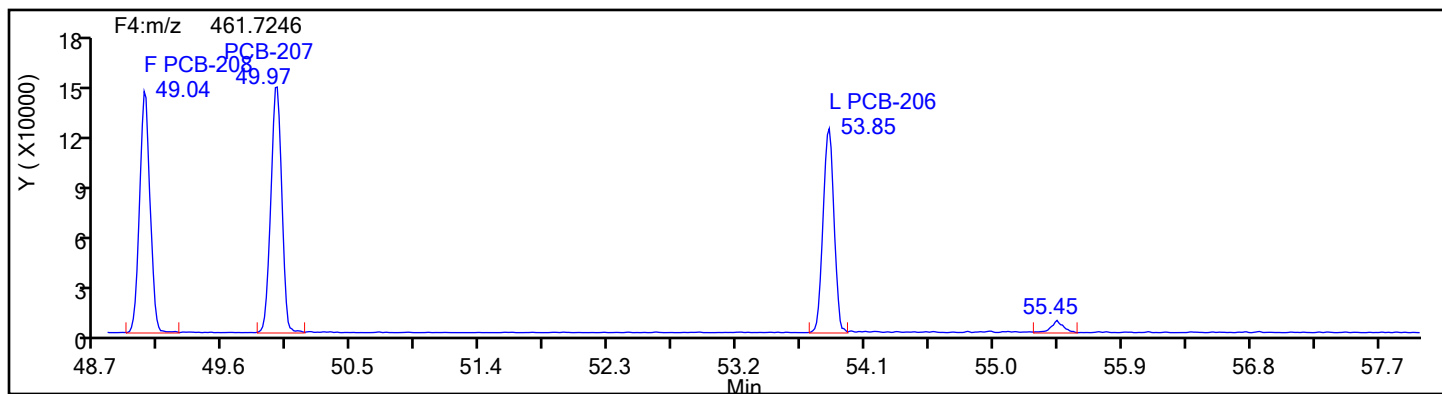


## OcPCB F4 Lock Mass

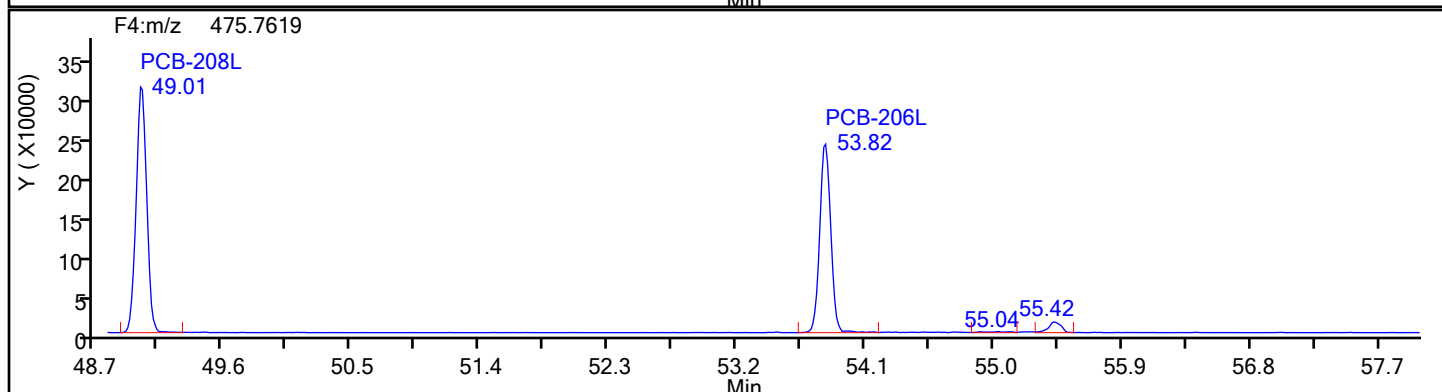
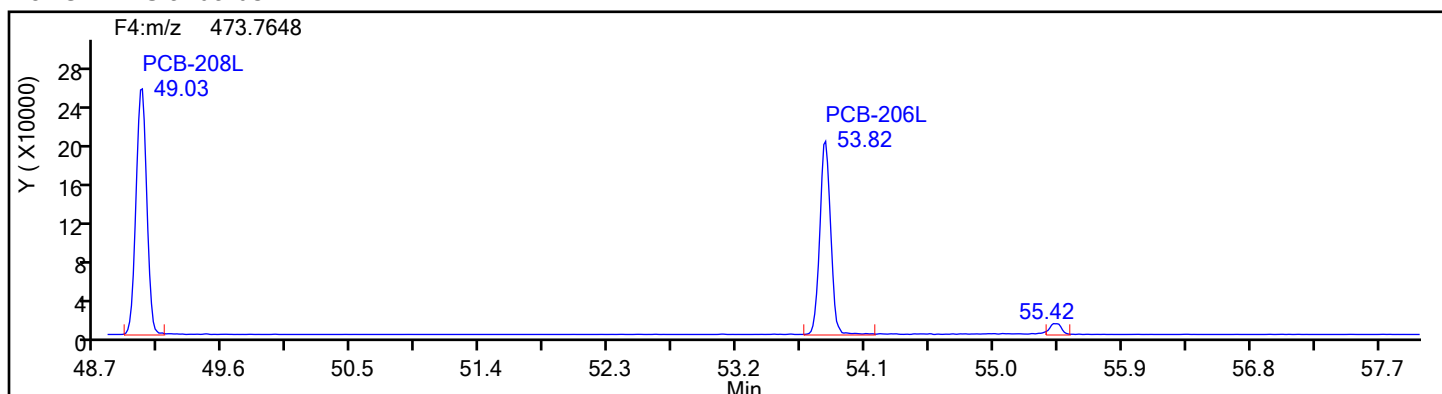


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88834 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4



## NoPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d

Injection Date: 16-Jul-2024 23:14:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

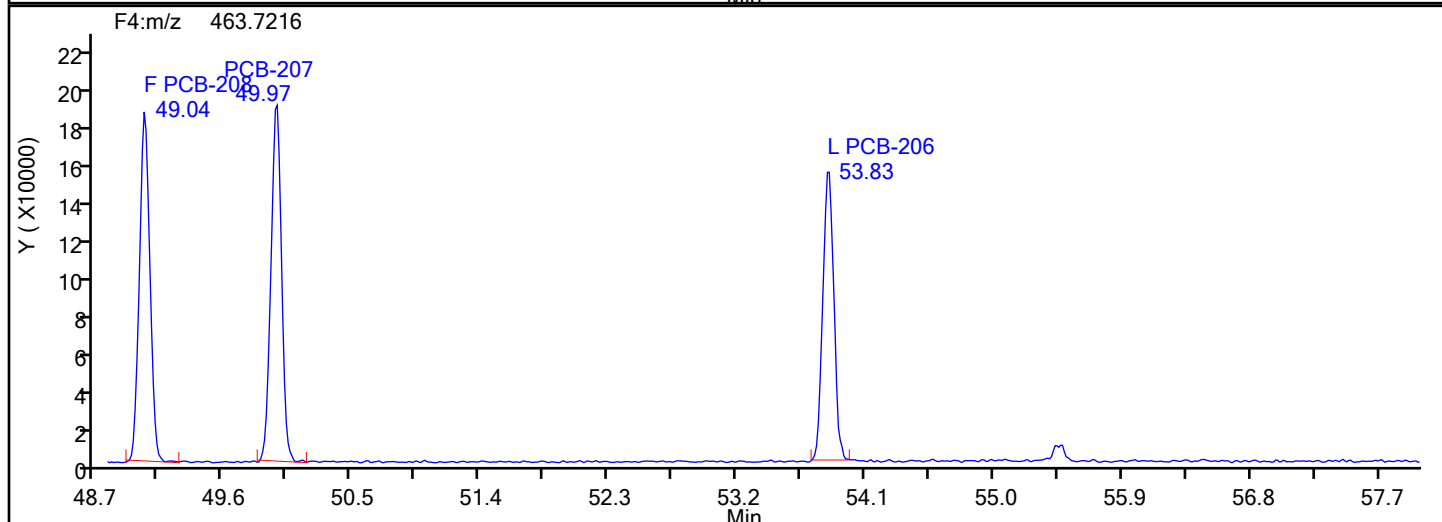
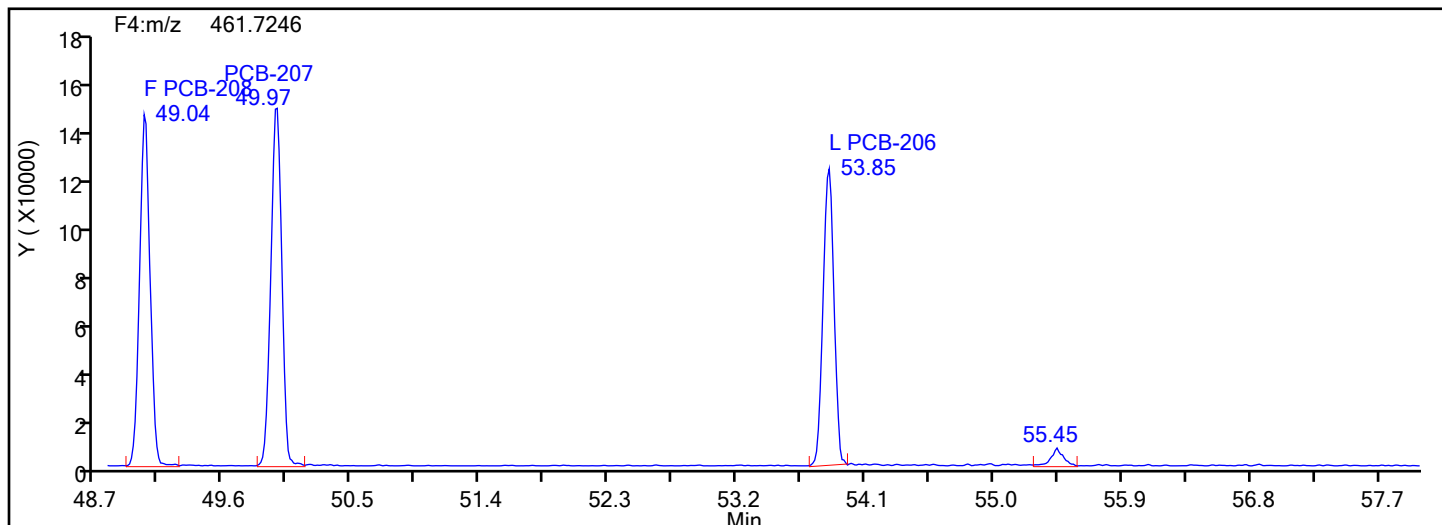
Worklist#: 88834

Sample Line#: 1

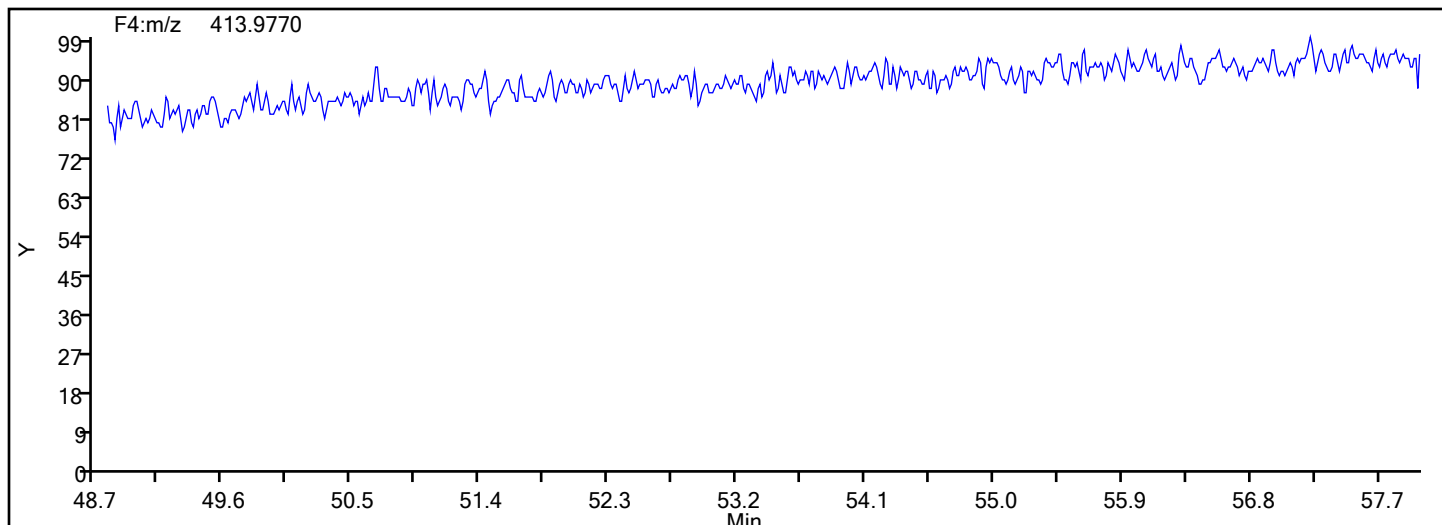
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



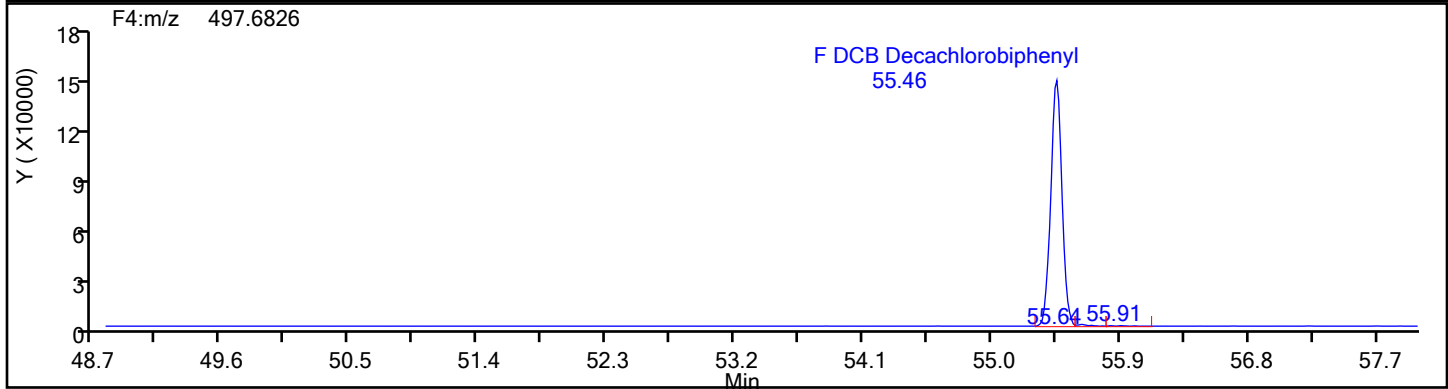
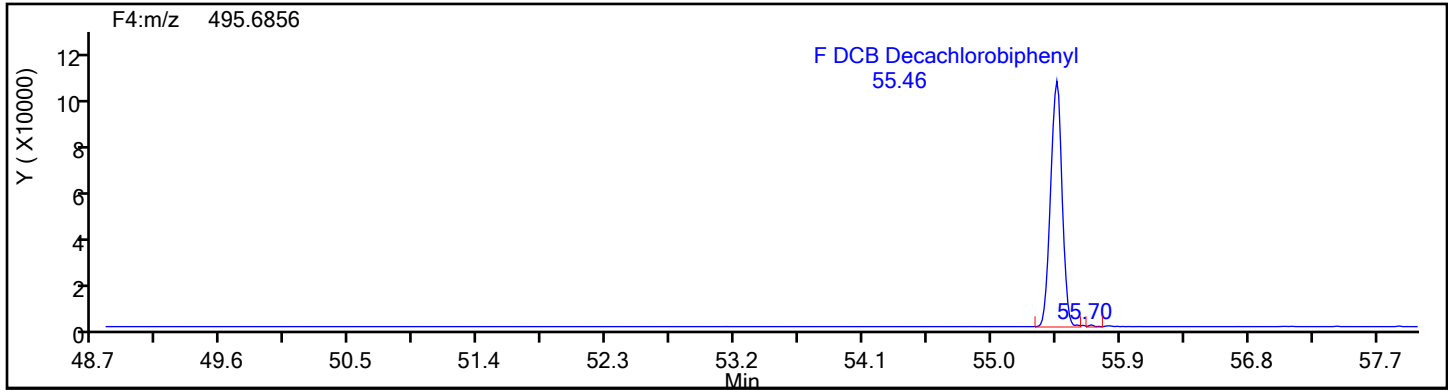
NoPCB F4 Lock Mass



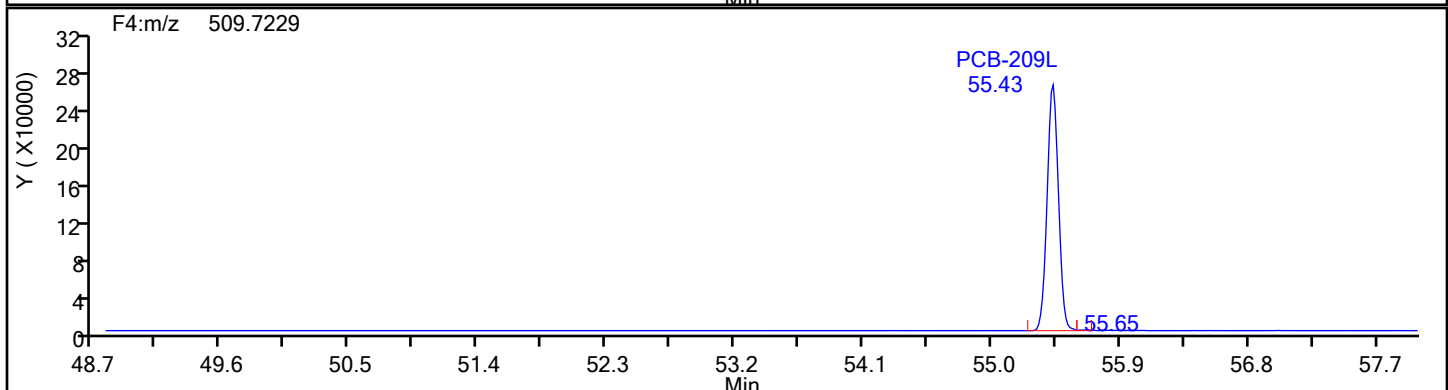
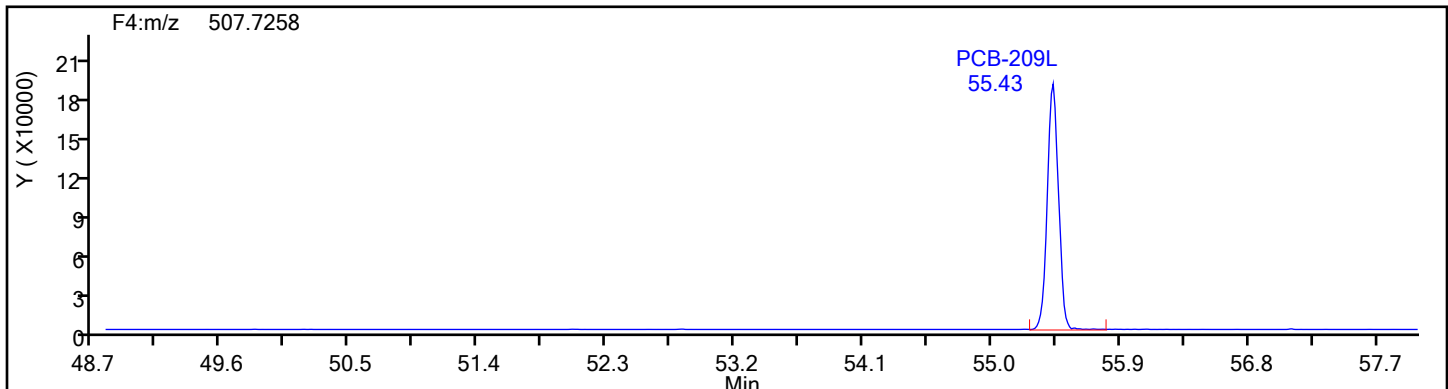


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88834 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4

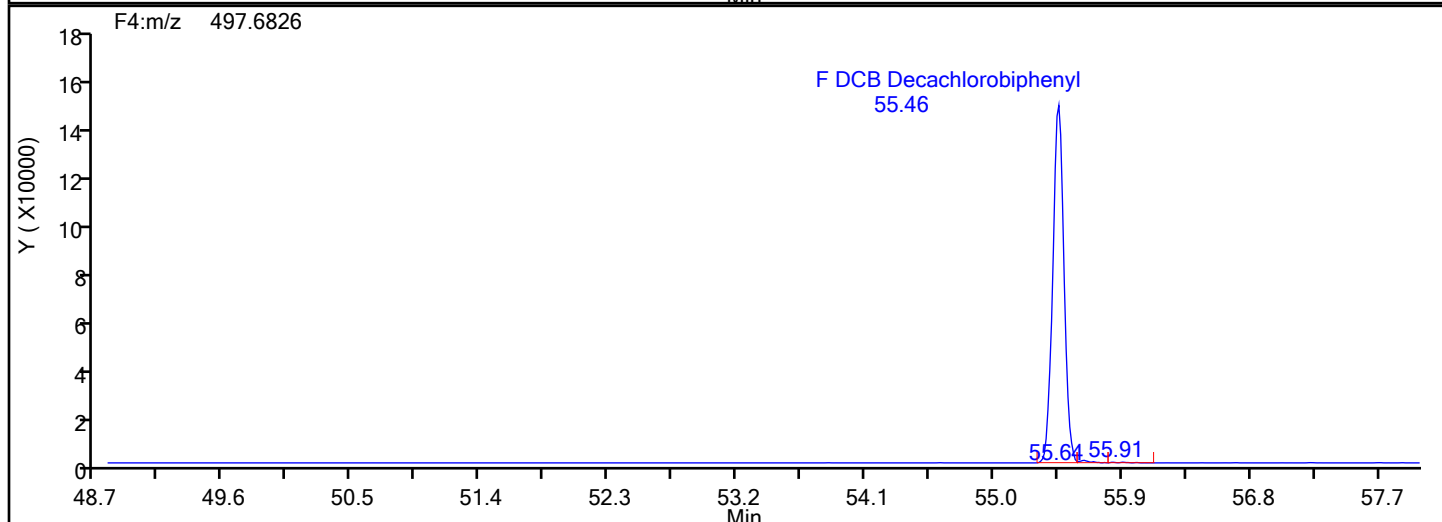
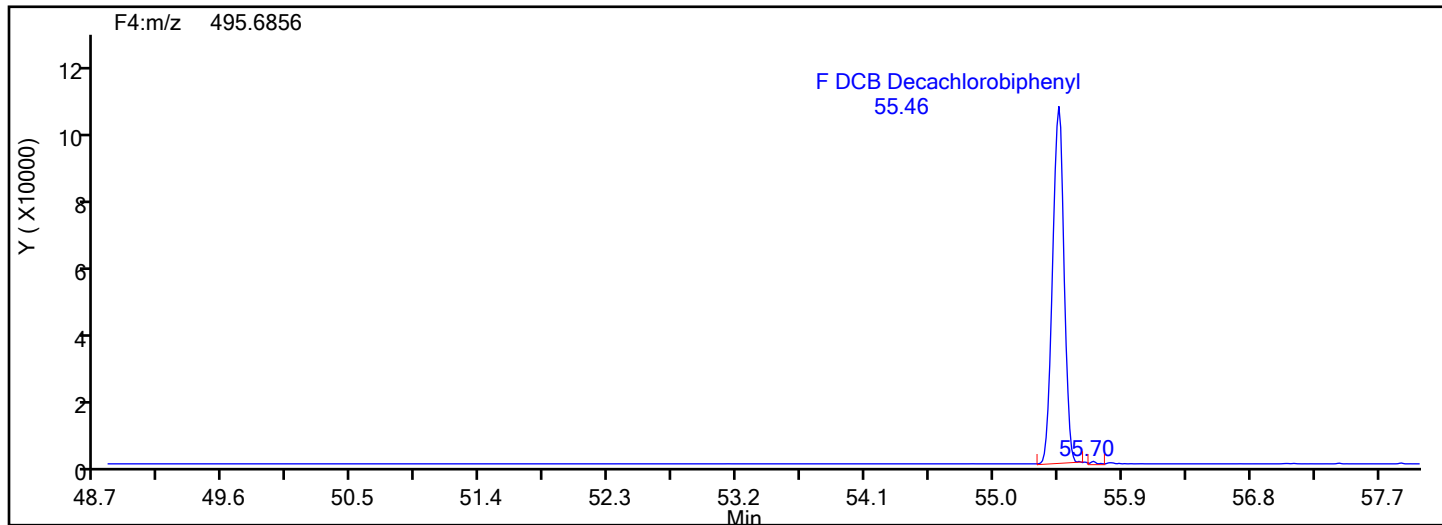


## DePCB F4 Standards

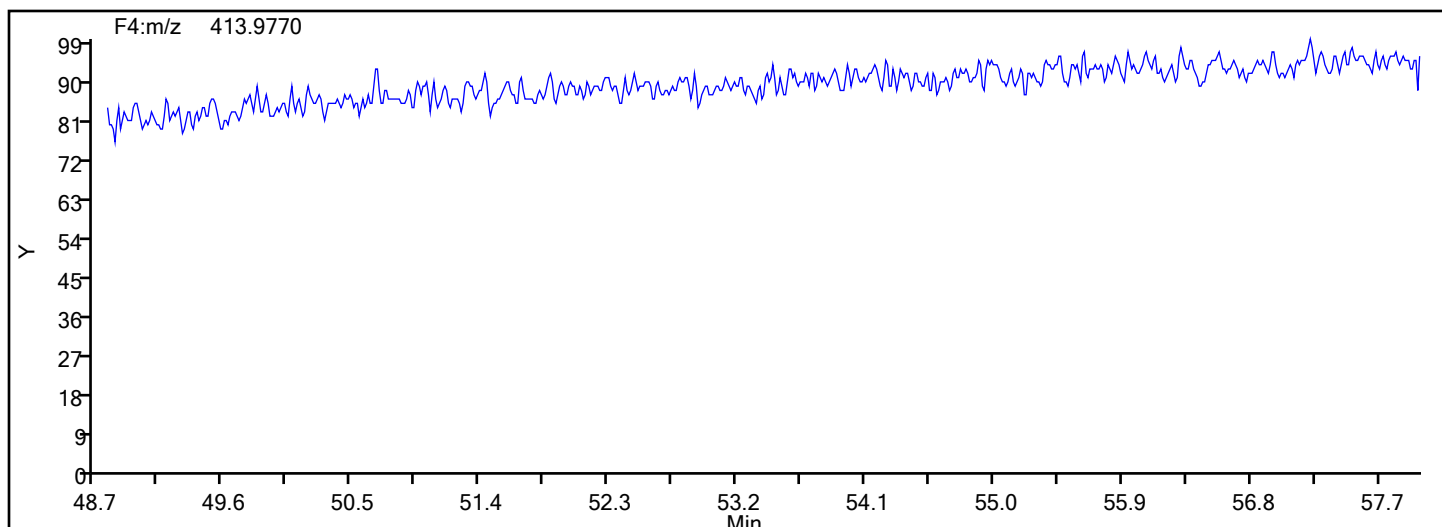


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240716-33532.b\d2240716c2a.d  
Injection Date: 16-Jul-2024 23:14:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88834 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DePCB F4



## DePCB F4 Lock Mass



## Eurofins Knoxville

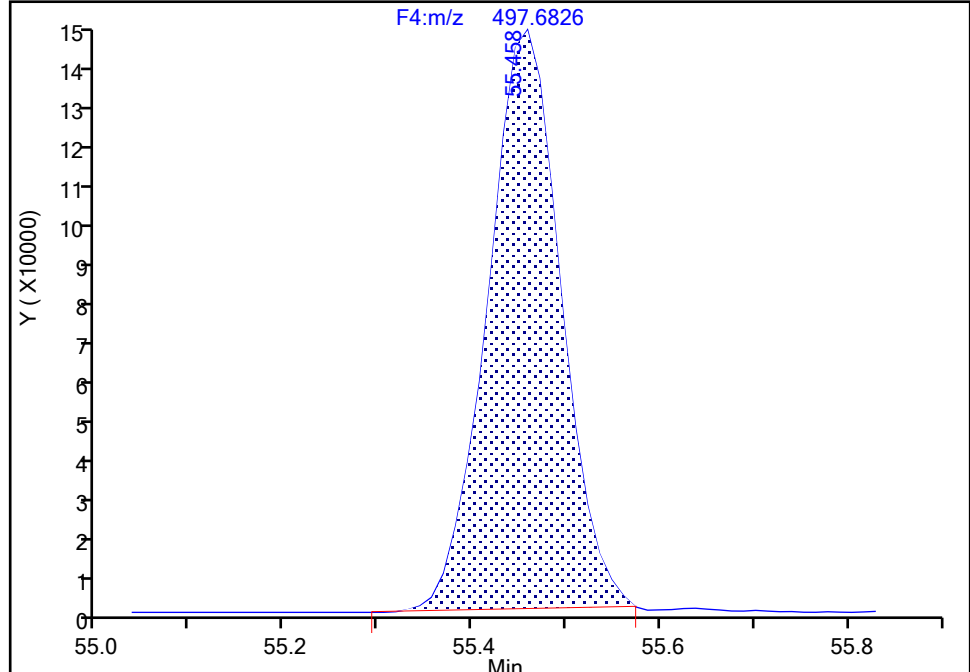
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Injection Date: 16-Jul-2024 23:14:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F4(49.20 :57.50 )

## DCB Decachlorobiphenyl, CAS: 2051-24-3

Signal: 2

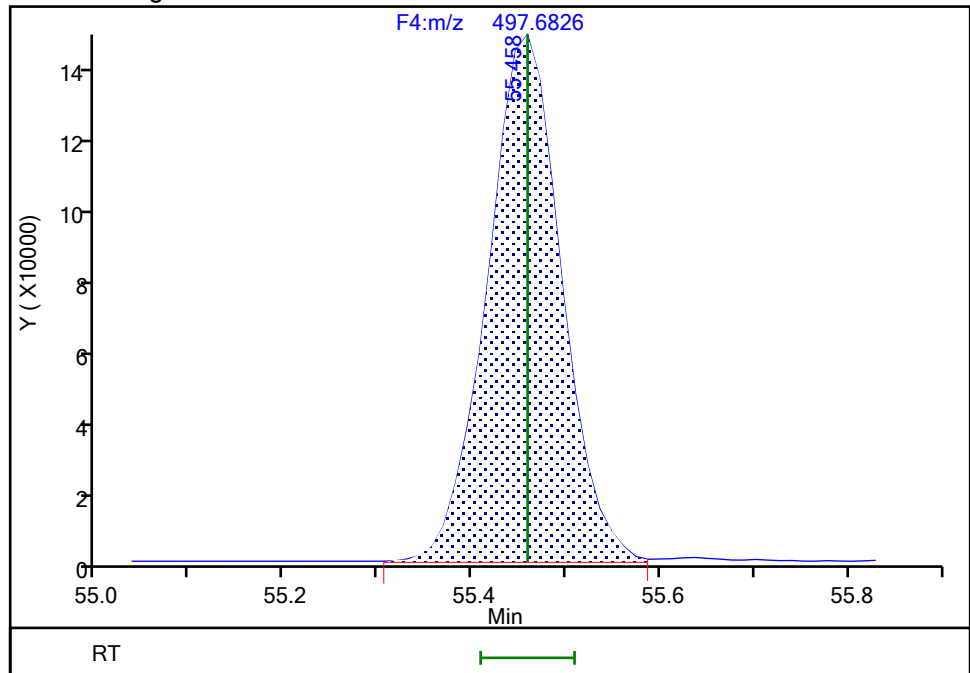
RT: 55.46  
Area: 798516  
Amount: 49.726725  
Amount Units: pg/ul

## Processing Integration Results



RT: 55.46  
Area: 810660  
Amount: 50.169855  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 17-Jul-2024 00:27:45 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID: WDMCCV 140-88871/1 Calibration Date: 07/17/2024 12:39  
Instrument ID: D2D Calib Start Date: 05/31/2024 14:36  
GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13  
Lab File ID: d2240717c1c.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-1	AveID	1.219	1.146		47.0	50.0	-6.0	25.0
PCB-2	AveID	1.181	1.088		46.1	50.0	-7.9	25.0
PCB-3	AveID	1.221	1.182		48.4	50.0	-3.2	25.0
PCB-4	AveID	1.282	1.212		47.3	50.0	-5.5	25.0
PCB-10	AveID	1.315	1.371		52.1	50.0	4.3	25.0
PCB-9	AveID	1.422	1.412		49.7	50.0	-0.7	25.0
PCB-7	AveID	1.413	1.409		49.9	50.0	-0.3	25.0
PCB-6	AveID	1.542	1.518		49.2	50.0	-1.5	25.0
PCB-5	AveID	1.339	1.302		48.6	50.0	-2.8	25.0
PCB-8	AveID	1.589	1.631		51.3	50.0	2.6	25.0
PCB-19	AveID	1.281	1.237		48.3	50.0	-3.4	25.0
PCB-14	AveID	1.402	1.343		47.9	50.0	-4.3	25.0
PCB-18	AveID	1.765	1.695		96.0	100	-4.0	25.0
PCB-18/30	AveID	1.765	1.695		96.0	100	-4.0	25.0
PCB-30	AveID	1.765	1.695		96.0	100	-4.0	25.0
PCB-11	AveID	1.295	1.315		50.8	50.0	1.5	25.0
PCB-17	AveID	1.243	1.158		46.6	50.0	-6.8	25.0
PCB-12	AveID	1.336	1.316		98.5	100	-1.5	25.0
PCB-12/13	AveID	1.336	1.316		98.5	100	-1.5	25.0
PCB-13	AveID	1.336	1.316		98.5	100	-1.5	25.0
PCB-27	AveID	1.833	1.779		48.5	50.0	-2.9	25.0
PCB-24	AveID	1.678	1.588		47.3	50.0	-5.4	25.0
PCB-16	AveID	1.129	1.128		50.0	50.0	-0.0	25.0
PCB-15	AveID	1.290	1.289		49.9	50.0	-0.1	25.0
PCB-54	AveID	1.273	1.247		49.0	50.0	-2.1	25.0
PCB-32	AveID	1.832	1.819		49.6	50.0	-0.8	25.0
PCB-34	AveID	1.128	1.132		50.2	50.0	0.4	25.0
PCB-23	AveID	1.081	1.149		53.1	50.0	6.2	25.0
PCB-26	AveID	1.125	1.133		101	100	0.6	25.0
PCB-26/29	AveID	1.125	1.133		101	100	0.6	25.0
PCB-29	AveID	1.125	1.133		101	100	0.6	25.0
PCB-25	AveID	1.273	1.298		51.0	50.0	2.0	25.0
PCB-50	AveID	0.8578	0.7642		89.1	100	-10.9	25.0
PCB-50/53	AveID	0.8578	0.7642		89.1	100	-10.9	25.0
PCB-53	AveID	0.8578	0.7642		89.1	100	-10.9	25.0
PCB-31	AveID	1.153	1.174		50.9	50.0	1.8	25.0
PCB-20	AveID	1.172	1.154		98.5	100	-1.5	25.0
PCB-20/28	AveID	1.172	1.154		98.5	100	-1.5	25.0
PCB-28	AveID	1.172	1.154		98.5	100	-1.5	25.0
PCB-21	AveID	1.075	1.102		103	100	2.5	25.0
PCB-21/33	AveID	1.075	1.102		103	100	2.5	25.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID: WDMCCV 140-88871/1 Calibration Date: 07/17/2024 12:39  
Instrument ID: D2D Calib Start Date: 05/31/2024 14:36  
GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13  
Lab File ID: d2240717c1c.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-33	AveID	1.075	1.102		103	100	2.5	25.0
PCB-45	AveID	0.8264	0.7578		91.7	100	-8.3	25.0
PCB-45/51	AveID	0.8264	0.7578		91.7	100	-8.3	25.0
PCB-51	AveID	0.8264	0.7578		91.7	100	-8.3	25.0
PCB-46	AveID	0.7101	0.6300		44.4	50.0	-11.3	25.0
PCB-22	AveID	1.193	1.222		51.2	50.0	2.4	25.0
PCB-52	AveID	0.9194	0.8422		45.8	50.0	-8.4	25.0
PCB-43	AveID	1.033	0.9624		93.1	100	-6.9	25.0
PCB-43/73	AveID	1.033	0.9624		93.1	100	-6.9	25.0
PCB-73	AveID	1.033	0.9624		93.1	100	-6.9	25.0
PCB-36	AveID	1.107	1.108		50.0	50.0	0.0	25.0
PCB-49	AveID	1.069	0.9495		88.9	100	-11.1	25.0
PCB-49/69	AveID	1.069	0.9495		88.9	100	-11.1	25.0
PCB-69	AveID	1.069	0.9495		88.9	100	-11.1	25.0
PCB-39	AveID	1.158	1.165		50.3	50.0	0.6	25.0
PCB-48	AveID	0.8399	0.7560		45.0	50.0	-10.0	25.0
PCB-104	AveID	1.009	1.012		50.2	50.0	0.3	25.0
PCB-44	AveID	0.9731	0.8622		133	150	-11.4	25.0
PCB-44/47/65	AveID	0.9731	0.8622		133	150	-11.4	25.0
PCB-47	AveID	0.9731	0.8622		133	150	-11.4	25.0
PCB-65	AveID	0.9731	0.8622		133	150	-11.4	25.0
PCB-38	AveID	1.084	1.025		47.3	50.0	-5.5	25.0
PCB-59	AveID	1.185	1.042		132	150	-12.1	25.0
PCB-59/62/75	AveID	1.185	1.042		132	150	-12.1	25.0
PCB-62	AveID	1.185	1.042		132	150	-12.1	25.0
PCB-75	AveID	1.185	1.042		132	150	-12.1	25.0
PCB-96	AveID	1.094	1.027		47.0	50.0	-6.1	25.0
PCB-42	AveID	0.8097	0.7672		47.4	50.0	-5.2	25.0
PCB-35	AveID	1.130	1.142		50.5	50.0	1.1	25.0
PCB-40	AveID	0.8863	0.7847		133	150	-11.5	25.0
PCB-40/41/71	AveID	0.8863	0.7847		133	150	-11.5	25.0
PCB-41	AveID	0.8863	0.7847		133	150	-11.5	25.0
PCB-71	AveID	0.8863	0.7847		133	150	-11.5	25.0
PCB-37	AveID	1.144	1.083		47.3	50.0	-5.3	25.0
PCB-64	AveID	1.178	1.024		43.5	50.0	-13.1	25.0
PCB-72	AveID	1.094	1.002		45.8	50.0	-8.4	25.0
PCB-103	AveID	0.8741	0.8721		49.9	50.0	-0.2	25.0
PCB-68	AveID	1.253	1.178		47.0	50.0	-6.0	25.0
PCB-94	AveID	0.7640	0.7080		46.3	50.0	-7.3	25.0
PCB-57	AveID	1.082	1.040		48.1	50.0	-3.8	25.0
PCB-95	AveID	0.8033	0.7944		49.5	50.0	-1.1	25.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: WDMCCV 140-88871/1 Calibration Date: 07/17/2024 12:39

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240717c1c.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-58	AveID	1.325	1.304		49.2	50.0	-1.6	25.0
PCB-100	AveID	0.8429	0.8040		95.4	100	-4.6	25.0
PCB-93	AveID	0.8429	0.8040		95.4	100	-4.6	25.0
PCB-93/100	AveID	0.8429	0.8040		95.4	100	-4.6	25.0
PCB-67	AveID	1.423	1.314		46.2	50.0	-7.7	25.0
PCB-102	AveID	0.8262	0.8295		100	100	0.4	25.0
PCB-98	AveID	0.8262	0.8295		100	100	0.4	25.0
PCB-98/102	AveID	0.8262	0.8295		100	100	0.4	25.0
PCB-63	AveID	1.124	1.074		47.8	50.0	-4.4	25.0
PCB-88	AveID	0.8013	0.7642		95.4	100	-4.6	25.0
PCB-88/91	AveID	0.8013	0.7642		95.4	100	-4.6	25.0
PCB-91	AveID	0.8013	0.7642		95.4	100	-4.6	25.0
PCB-61	AveID	1.261	1.166		185	200	-7.6	25.0
PCB-61/70/74/76	AveID	1.261	1.166		185	200	-7.6	25.0
PCB-70	AveID	1.261	1.166		185	200	-7.6	25.0
PCB-74	AveID	1.261	1.166		185	200	-7.6	25.0
PCB-76	AveID	1.261	1.166		185	200	-7.6	25.0
PCB-84	AveID	0.7299	0.7229		49.5	50.0	-1.0	25.0
PCB-66	AveID	1.258	1.234		49.1	50.0	-1.9	25.0
PCB-55	AveID	1.324	1.265		47.8	50.0	-4.5	25.0
PCB-89	AveID	0.7798	0.7320		46.9	50.0	-6.1	25.0
PCB-56	AveID	1.233	1.172		47.5	50.0	-5.0	25.0
PCB-121	AveID	1.296	1.281		49.4	50.0	-1.2	25.0
PCB-60	AveID	1.123	1.001		44.6	50.0	-10.9	25.0
PCB-92	AveID	0.8546	0.8593		50.3	50.0	0.5	25.0
PCB-80	AveID	1.324	1.261		47.6	50.0	-4.8	25.0
PCB-155	AveID	0.9444	0.9644		51.1	50.0	2.1	25.0
PCB-101	AveID	0.9550	0.9327		147	150	-2.3	25.0
PCB-113	AveID	0.9550	0.9327		147	150	-2.3	25.0
PCB-152	AveID	0.9895	0.997		50.4	50.0	0.8	25.0
PCB-90	AveID	0.9550	0.9327		147	150	-2.3	25.0
PCB-90/101/113	AveID	0.9550	0.9327		147	150	-2.3	25.0
PCB-150	AveID	1.013	1.044		51.5	50.0	3.0	25.0
PCB-136	AveID	1.012	1.033		51.1	50.0	2.2	25.0
PCB-83	AveID	0.8385	0.8151		97.2	100	-2.8	25.0
PCB-83/99	AveID	0.8385	0.8151		97.2	100	-2.8	25.0
PCB-99	AveID	0.8385	0.8151		97.2	100	-2.8	25.0
PCB-112	AveID	1.411	1.393		49.4	50.0	-1.3	25.0
PCB-145	AveID	0.9685	1.010		52.1	50.0	4.3	25.0
PCB-109	AveID	1.047	1.009		289	300	-3.6	25.0
PCB-119	AveID	1.047	1.009		289	300	-3.6	25.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: WDMCCV 140-88871/1 Calibration Date: 07/17/2024 12:39

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240717c1c.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-125	AveID	1.047	1.009		289	300	-3.6	25.0
PCB-86	AveID	1.047	1.009		289	300	-3.6	25.0
PCB-86/87/97/109/119/125	AveID	1.047	1.009		289	300	-3.6	25.0
PCB-87	AveID	1.047	1.009		289	300	-3.6	25.0
PCB-97	AveID	1.047	1.009		289	300	-3.6	25.0
PCB-79	AveID	1.437	1.311		45.6	50.0	-8.8	25.0
PCB-78	AveID	1.162	1.097		47.2	50.0	-5.6	25.0
PCB-116	AveID	1.041	1.016		146	150	-2.4	25.0
PCB-117	AveID	1.041	1.016		146	150	-2.4	25.0
PCB-85	AveID	1.041	1.016		146	150	-2.4	25.0
PCB-85/116/117	AveID	1.041	1.016		146	150	-2.4	25.0
PCB-110	AveID	1.192	1.188		99.7	100	-0.3	25.0
PCB-110/115	AveID	1.192	1.188		99.7	100	-0.3	25.0
PCB-115	AveID	1.192	1.188		99.7	100	-0.3	25.0
PCB-81	AveID	1.080	0.9589		44.4	50.0	-11.2	25.0
PCB-148	AveID	0.7603	0.7867		51.7	50.0	3.5	25.0
PCB-82	AveID	0.8303	0.8602		51.8	50.0	3.6	25.0
PCB-77	AveID	1.084	0.9899		45.7	50.0	-8.6	25.0
PCB-111	AveID	1.213	1.222		50.4	50.0	0.8	25.0
PCB-135	AveID	0.7256	0.7377		102	100	1.7	25.0
PCB-135/151	AveID	0.7256	0.7377		102	100	1.7	25.0
PCB-151	AveID	0.7256	0.7377		102	100	1.7	25.0
PCB-154	AveID	0.8129	0.8502		52.3	50.0	4.6	25.0
PCB-120	AveID	1.476	1.485		50.3	50.0	0.6	25.0
PCB-144	AveID	0.7852	0.7984		50.8	50.0	1.7	25.0
PCB-147	AveID	0.8950	0.8186		91.5	100	-8.5	25.0
PCB-147/149	AveID	0.8950	0.8186		91.5	100	-8.5	25.0
PCB-149	AveID	0.8950	0.8186		91.5	100	-8.5	25.0
PCB-134	AveID	0.7967	0.7182		90.2	100	-9.8	25.0
PCB-134/143	AveID	0.7967	0.7182		90.2	100	-9.8	25.0
PCB-143	AveID	0.7967	0.7182		90.2	100	-9.8	25.0
PCB-108	AveID	1.141	1.039		91.1	100	-8.9	25.0
PCB-108/124	AveID	1.141	1.039		91.1	100	-8.9	25.0
PCB-124	AveID	1.141	1.039		91.1	100	-8.9	25.0
PCB-139	AveID	0.8769	0.7784		88.8	100	-11.2	25.0
PCB-139/140	AveID	0.8769	0.7784		88.8	100	-11.2	25.0
PCB-140	AveID	0.8769	0.7784		88.8	100	-11.2	25.0
PCB-107	AveID	1.212	1.113		45.9	50.0	-8.2	25.0
PCB-131	AveID	0.7503	0.6509		43.4	50.0	-13.2	25.0
PCB-123	AveID	1.072	1.090		50.9	50.0	1.7	25.0
PCB-106	AveID	1.084	1.087		50.1	50.0	0.2	25.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID: WDMCCV 140-88871/1 Calibration Date: 07/17/2024 12:39  
Instrument ID: D2D Calib Start Date: 05/31/2024 14:36  
GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13  
Lab File ID: d2240717c1c.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-142	AveID	0.7507	0.6922		46.1	50.0	-7.8	25.0
PCB-118	AveID	1.206	1.160		48.1	50.0	-3.8	25.0
PCB-132	AveID	0.7489	0.6373		42.6	50.0	-14.9	25.0
PCB-122	AveID	0.9567	0.9560		50.0	50.0	-0.0	25.0
PCB-188	AveID	1.135	1.109		48.9	50.0	-2.3	25.0
PCB-114	AveID	1.084	1.101		50.8	50.0	1.5	25.0
PCB-133	AveID	0.8096	0.7050		43.5	50.0	-12.9	25.0
PCB-179	AveID	1.428	1.364		47.8	50.0	-4.4	25.0
PCB-165	AveID	1.025	0.9561		46.7	50.0	-6.7	25.0
PCB-105	AveID	1.188	1.194		50.2	50.0	0.5	25.0
PCB-146	AveID	0.9637	0.8587		44.6	50.0	-10.9	25.0
PCB-184	AveID	1.367	1.346		49.2	50.0	-1.5	25.0
PCB-161	AveID	1.129	1.009		44.7	50.0	-10.6	25.0
PCB-176	AveID	1.233	1.218		49.4	50.0	-1.2	25.0
PCB-153	AveID	1.094	1.010		92.4	100	-7.6	25.0
PCB-153/168	AveID	1.094	1.010		92.4	100	-7.6	25.0
PCB-168	AveID	1.094	1.010		92.4	100	-7.6	25.0
PCB-141	AveID	0.8755	0.7700		44.0	50.0	-12.1	25.0
PCB-186	AveID	1.474	1.474		50.0	50.0	0.0	25.0
PCB-130	AveID	0.7051	0.6182		43.8	50.0	-12.3	25.0
PCB-127	AveID	1.139	1.138		50.0	50.0	-0.1	25.0
PCB-137	AveID	0.7767	0.7420		47.8	50.0	-4.5	25.0
PCB-164	AveID	1.038	0.9820		47.3	50.0	-5.4	25.0
PCB-129	AveID	0.9464	0.8497		180	200	-10.2	25.0
PCB-129/138/160/163	AveID	0.9464	0.8497		180	200	-10.2	25.0
PCB-138	AveID	0.9464	0.8497		180	200	-10.2	25.0
PCB-160	AveID	0.9464	0.8497		180	200	-10.2	25.0
PCB-163	AveID	0.9464	0.8497		180	200	-10.2	25.0
PCB-158	AveID	1.311	1.206		46.0	50.0	-8.0	25.0
PCB-178	AveID	0.8946	0.9154		51.2	50.0	2.3	25.0
PCB-175	AveID	0.9524	0.9568		50.2	50.0	0.5	25.0
PCB-126	AveID	1.098	1.120		51.0	50.0	2.1	25.0
PCB-128	AveID	0.9829	0.9207		93.7	100	-6.3	25.0
PCB-128/166	AveID	0.9829	0.9207		93.7	100	-6.3	25.0
PCB-166	AveID	0.9829	0.9207		93.7	100	-6.3	25.0
PCB-187	AveID	1.102	1.158		52.6	50.0	5.1	25.0
PCB-182	AveID	0.9247	0.9776		52.9	50.0	5.7	25.0
PCB-183	AveID	0.9825	0.9559		97.3	100	-2.7	25.0
PCB-183/185	AveID	0.9825	0.9559		97.3	100	-2.7	25.0
PCB-185	AveID	0.9825	0.9559		97.3	100	-2.7	25.0
PCB-174	AveID	0.9642	0.9840		51.0	50.0	2.1	25.0



FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Lab Sample ID: WDMCCV 140-88871/1 Calibration Date: 07/17/2024 12:39  
Instrument ID: D2D Calib Start Date: 05/31/2024 14:36  
GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13  
Lab File ID: d2240717c1c.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-159	AveID	1.386	1.282		46.3	50.0	-7.5	25.0
PCB-162	AveID	1.257	1.165		46.3	50.0	-7.3	25.0
PCB-177	AveID	0.9773	1.003		51.3	50.0	2.6	25.0
PCB-202	AveID	1.036	1.067		51.5	50.0	3.0	25.0
PCB-167	AveID	1.116	1.090		48.9	50.0	-2.3	25.0
PCB-181	AveID	0.9505	0.9656		50.8	50.0	1.6	25.0
PCB-171	AveID	0.9336	0.9038		96.8	100	-3.2	25.0
PCB-171/173	AveID	0.9336	0.9038		96.8	100	-3.2	25.0
PCB-173	AveID	0.9336	0.9038		96.8	100	-3.2	25.0
PCB-201	AveID	0.9754	1.000		51.3	50.0	2.5	25.0
PCB-156	AveID	1.110	1.091		98.2	100	-1.8	25.0
PCB-156/157	AveID	1.110	1.091		98.2	100	-1.8	25.0
PCB-157	AveID	1.110	1.091		98.2	100	-1.8	25.0
PCB-204	AveID	1.049	1.073		51.2	50.0	2.3	25.0
PCB-197	AveID	1.146	1.140		49.8	50.0	-0.5	25.0
PCB-200	AveID	1.007	1.035		51.4	50.0	2.7	25.0
PCB-172	AveID	0.8519	0.8724		51.2	50.0	2.4	25.0
PCB-192	AveID	1.346	1.472		54.7	50.0	9.4	25.0
PCB-180	AveID	1.168	1.238		106	100	6.1	25.0
PCB-180/193	AveID	1.168	1.238		106	100	6.1	25.0
PCB-193	AveID	1.168	1.238		106	100	6.1	25.0
PCB-191	AveID	1.289	1.427		55.3	50.0	10.7	25.0
PCB-170	AveID	1.187	1.212		51.1	50.0	2.1	25.0
PCB-190	AveID	1.332	1.477		55.4	50.0	10.8	25.0
PCB-169	AveID	1.163	1.119		48.1	50.0	-3.7	25.0
PCB-198	AveID	0.8698	0.9329		107	100	7.3	25.0
PCB-198/199	AveID	0.8698	0.9329		107	100	7.3	25.0
PCB-199	AveID	0.8698	0.9329		107	100	7.3	25.0
PCB-196	AveID	0.7806	0.8484		54.3	50.0	8.7	25.0
PCB-203	AveID	0.9292	1.036		55.8	50.0	11.5	25.0
PCB-208	AveID	1.137	1.122		49.3	50.0	-1.3	25.0
PCB-195	AveID	0.8263	0.7729		46.8	50.0	-6.5	25.0
PCB-189	AveID	0.9633	0.9776		50.7	50.0	1.5	25.0
PCB-207	AveID	1.376	1.287		46.8	50.0	-6.4	25.0
PCB-194	AveID	0.9735	0.9065		46.6	50.0	-6.9	25.0
PCB-205	AveID	1.088	1.075		49.4	50.0	-1.2	25.0
PCB-206	AveID	1.335	1.240		46.5	50.0	-7.1	25.0
PCB-209	AveID	1.100	1.095		49.7	50.0	-0.5	25.0
PCB-1L	Ave	1.611	1.459		90.6	100	-9.4	30.0
PCB-3L	Ave	1.589	1.322		83.2	100	-16.8	30.0
PCB-4L	Ave	0.6475	0.6483		100	100	0.1	30.0

FORM VII  
HI-RES PCBS CONTINUING CALIBRATION DATA

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Lab Sample ID: WDMCCV 140-88871/1 Calibration Date: 07/17/2024 12:39

Instrument ID: D2D Calib Start Date: 05/31/2024 14:36

GC Column: SPB-Octyl ID: 0.25 (mm) Calib End Date: 05/31/2024 21:13

Lab File ID: d2240717c1c.d Conc. Units: pg/uL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
PCB-19L	Ave	0.6285	0.6295		100	100	0.2	30.0
PCB-15L	Ave	1.079	1.004		93.0	100	-7.0	30.0
PCB-54L	Ave	0.5562	0.6686		120	100	20.2	30.0
PCB-104L	Ave	1.216	1.249		103	100	2.7	30.0
PCB-37L	Ave	0.8749	0.8216		93.9	100	-6.1	30.0
PCB-155L	Ave	1.085	1.121		103	100	3.3	30.0
PCB-81L	Ave	1.247	1.234		99.0	100	-1.0	30.0
PCB-77L	Ave	1.321	1.273		96.4	100	-3.6	30.0
PCB-123L	Ave	0.9731	0.9654		99.2	100	-0.8	30.0
PCB-118L	Ave	1.010	1.004		99.3	100	-0.7	30.0
PCB-188L	Ave	1.313	1.273		96.9	100	-3.1	30.0
PCB-114L	Ave	0.9949	1.010		102	100	1.5	30.0
PCB-105L	Ave	0.9514	0.9851		104	100	3.5	30.0
PCB-126L	Ave	0.9439	0.9756		103	100	3.4	30.0
PCB-202L	Ave	0.9818	0.9895		101	100	0.8	30.0
PCB-167L	Ave	1.257	1.291		103	100	2.7	30.0
PCB-156L	Ave	1.211	1.274		211	200	5.2	30.0
PCB-156L/157L	Ave	1.211	1.274		211	200	5.2	30.0
PCB-157L	Ave	1.211	1.274		211	200	5.2	30.0
PCB-170L	Ave	0.8362	0.8579		103	100	2.6	30.0
PCB-169L	Ave	1.244	1.375		111	100	10.5	30.0
PCB-208L	Ave	0.9576	1.020		107	100	6.5	30.0
PCB-189L	Ave	1.441	1.394		96.7	100	-3.3	30.0
PCB-205L	Ave	1.179	1.231		104	100	4.4	30.0
PCB-206L	Ave	0.6947	0.8106		117	100	16.7	30.0
PCB-209L	Ave	0.6669	0.9179		138	100	37.6*	30.0
PCB-8L	AveID	1.207	1.168		48.4	50.0	-3.2	25.0
PCB-28L	Ave	1.049	0.9846		46.9	50.0	-6.2	30.0
PCB-95L	AveID	0.7218	0.6986		48.4	50.0	-3.2	25.0
PCB-79L	AveID	1.002	0.9939		49.6	50.0	-0.8	25.0
PCB-111L	Ave	1.370	1.275		46.5	50.0	-6.9	30.0
PCB-153L	AveID	0.9169	0.7771		42.4	50.0	-15.3	25.0
PCB-178L	Ave	1.031	0.9281		45.0	50.0	-10.0	30.0

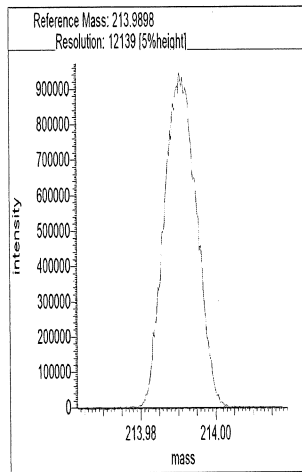
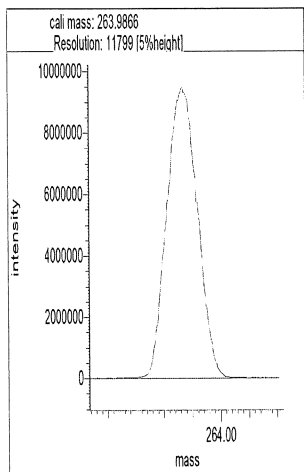
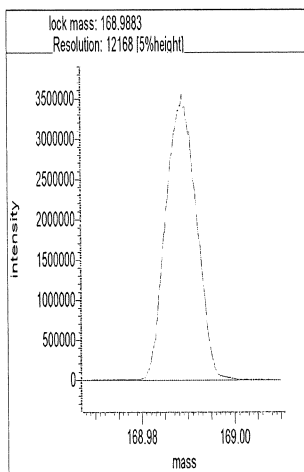
# Resolution Check Report ( DFS SN: 3190 )

Date: 17 Jul 2024 11:16  
MID Experiment: ResCheck\_1668  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43KnxPCB.lua  
Status: RESOLUTION PASSED

\_d2240717r2

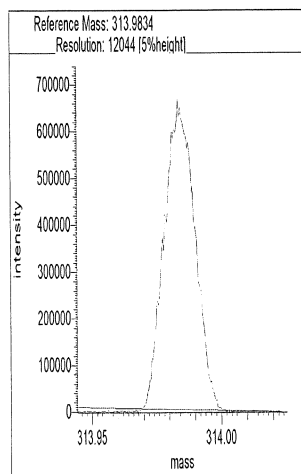
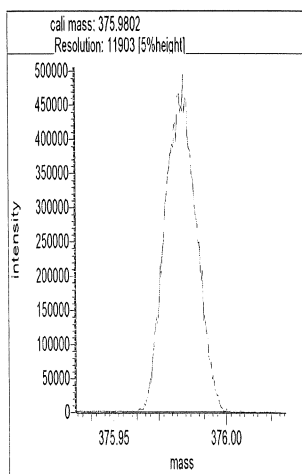
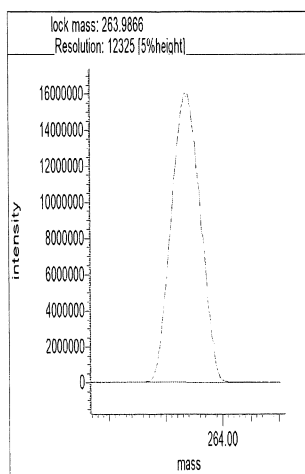
## Segment 1

Lock mass 168.9883 [m/z] Resolution: 12168 [5%height]  
Cali. mass 263.9866 [m/z] Resolution: 11799 [5%height]  
Ref. mass 213.9898 [m/z] Resolution: 12139 [5%height]



## Segment 2

Lock mass 263.9866 [m/z] Resolution: 12325 [5%height]  
Cali. mass 375.9802 [m/z] Resolution: 11903 [5%height]  
Ref. mass 313.9834 [m/z] Resolution: 12044 [5%height]

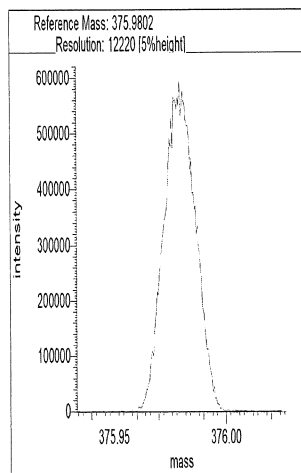
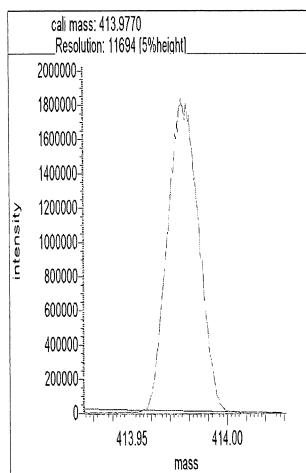
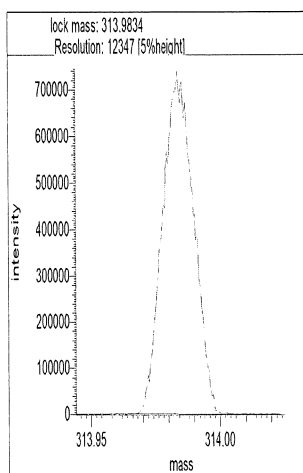


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 12347 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 11694 [5%height]

Ref. mass 375.9802 [m/z] Resolution: 12220 [5%height]

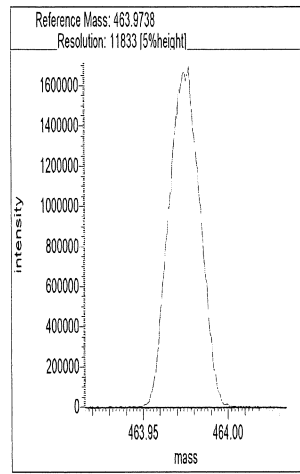
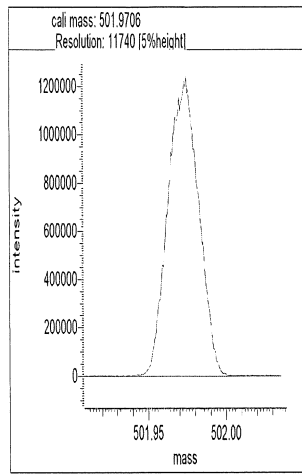
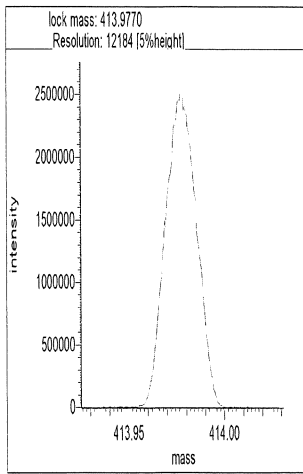


### Segment 4

Lock mass 413.9770 [m/z] Resolution: 12184 [5%height]

Cali. mass 501.9706 [m/z] Resolution: 11740 [5%height]

Ref. mass 463.9738 [m/z] Resolution: 11833 [5%height]



## Reports

11:24:47: Peak matching procedure started  
11:24:48:  
11:24:48: Reference mass: 168.98827  
11:24:49: Sample mass: 214.0  
11:24:49:  
11:24:50: Finding reference mass  
11:24:50: Finding sample mass  
11:24:51:  
11:24:57: [1] 213.9904 amu, mean: 213.9904  
11:25:00: [2] 213.9907 amu, mean: 213.9905 SD: 0.20 mmu or: 0.94 ppm  
11:25:03: [3] 213.9908 amu, mean: 213.9906 SD: 0.21 mmu or: 0.97 ppm  
11:25:07: [4] 213.9905 amu, mean: 213.9906 SD: 0.18 mmu or: 0.82 ppm  
11:25:07:  
11:25:07: Stop requested. Please wait for procedure to finish.  
11:25:07:  
11:25:10:  
11:25:10: Peakmatching stopped

Signature

BKK 7/17/24

## Reports

11:25:31: Peak matching procedure started  
11:25:32:  
11:25:32: Reference mass: 213.98975  
11:25:33: Sample mass: 264.0  
11:25:33:  
11:25:34: Finding reference mass  
11:25:35: Finding sample mass  
11:25:36:  
11:25:41: [1] 263.9872 amu, mean: 263.9872  
11:25:45: [2] 263.9874 amu, mean: 263.9873 SD: 0.17 mmu or: 0.65 ppm  
11:25:48: [3] 263.9877 amu, mean: 263.9874 SD: 0.24 mmu or: 0.89 ppm  
11:25:51: [4] 263.9873 amu, mean: 263.9874 SD: 0.20 mmu or: 0.75 ppm  
11:25:51:  
11:25:51: Stop requested. Please wait for procedure to finish.  
11:25:51:  
11:25:54:  
11:25:55: Peakmatching stopped

Signature

BKK 7/17/24

## Reports

11:26:28: Peak matching procedure started  
11:26:28:  
11:26:29: Reference mass: 263.98656  
11:26:29: Sample mass: 314.0  
11:26:30:  
11:26:30: Finding reference mass  
11:26:31: Finding sample mass  
11:26:32:  
11:26:38: [1] 313.9843 amu, mean: 313.9843  
11:26:41: [2] 313.9846 amu, mean: 313.9845 SD: 0.18 mmu or: 0.56 ppm  
11:26:44: [3] 313.9849 amu, mean: 313.9846 SD: 0.30 mmu or: 0.95 ppm  
11:26:47: [4] 313.9847 amu, mean: 313.9847 SD: 0.25 mmu or: 0.80 ppm  
11:26:48:  
11:26:48: Stop requested. Please wait for procedure to finish.  
11:26:48:  
11:26:50:  
11:26:51: Peakmatching stopped

Signature

3K 7/17/24



## Reports

11:27:12: Peak matching procedure started  
11:27:12:  
11:27:13: Reference mass: 313.98336  
11:27:13: Sample mass: 376.0  
11:27:14:  
11:27:14: Finding reference mass  
11:27:15: Finding sample mass  
11:27:16:  
11:27:22: [1] 375.9812 amu, mean: 375.9812  
11:27:25: [2] 375.9814 amu, mean: 375.9813 SD: 0.13 mmu or: 0.34 ppm  
11:27:28: [3] 375.9812 amu, mean: 375.9813 SD: 0.11 mmu or: 0.30 ppm  
11:27:31: [4] 375.9809 amu, mean: 375.9812 SD: 0.23 mmu or: 0.60 ppm  
11:27:32:  
11:27:32: Stop requested. Please wait for procedure to finish.  
11:27:32:  
11:27:34:  
11:27:35: Peakmatching stopped

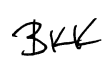
Signature

BKV 7/17/24

## Reports

11:27:12: Peak matching procedure started  
11:27:12:  
11:27:13: Reference mass: 313.98336  
11:27:13: Sample mass: 376.0  
11:27:14:  
11:27:14: Finding reference mass  
11:27:15: Finding sample mass  
11:27:16:  
11:27:22: [1] 375.9812 amu, mean: 375.9812 SD: 0.13 mmu or: 0.34 ppm  
11:27:25: [2] 375.9814 amu, mean: 375.9813 SD: 0.11 mmu or: 0.30 ppm  
11:27:28: [3] 375.9812 amu, mean: 375.9813 SD: 0.11 mmu or: 0.30 ppm  
11:27:31: [4] 375.9809 amu, mean: 375.9812 SD: 0.23 mmu or: 0.60 ppm  
11:27:32:  
11:27:32: Stop requested. Please wait for procedure to finish.  
11:27:32:  
11:27:34:  
11:27:35: Peakmatching stopped

Signature

 7/17/24

## Reports

11:27:59: Peak matching procedure started  
11:28:00:  
11:28:00: Reference mass: 375.98017  
11:28:01: Sample mass: 414.0  
11:28:01:  
11:28:02: Finding reference mass  
11:28:03: Finding sample mass  
11:28:03:  
11:28:09: [1] 413.9781 amu, mean: 413.9781  
11:28:12: [2] 413.9780 amu, mean: 413.9780 SD: 0.10 mmu or: 0.25 ppm  
11:28:15: [3] 413.9774 amu, mean: 413.9778 SD: 0.39 mmu or: 0.95 ppm  
11:28:19: [4] 413.9779 amu, mean: 413.9778 SD: 0.32 mmu or: 0.78 ppm  
11:28:19:  
11:28:19: Stop requested. Please wait for procedure to finish.  
11:28:19:  
11:28:22:  
11:28:22: Peakmatching stopped


Signature

BKK 7/17/24

## Reports

11:28:41: Peak matching procedure started  
11:28:42:  
11:28:42: Reference mass: 413.97698  
11:28:43: Sample mass: 464.0  
11:28:43:  
11:28:44: Finding reference mass  
11:28:45: Finding sample mass  
11:28:45:  
11:28:51: [1] 463.9738 amu, mean: 463.9738  
11:28:54: [2] 463.9741 amu, mean: 463.9740 SD: 0.23 mmu or: 0.50 ppm  
11:28:57: [3] 463.9744 amu, mean: 463.9741 SD: 0.29 mmu or: 0.62 ppm  
11:29:01: [4] 463.9745 amu, mean: 463.9742 SD: 0.31 mmu or: 0.68 ppm  
11:29:01:  
11:29:01: Stop requested. Please wait for procedure to finish.  
11:29:01:  
11:29:04:  
11:29:04: Peakmatching stopped

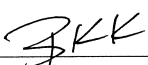
Signature

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## Reports

11:29:34: Peak matching procedure started  
11:29:35:  
11:29:35: Reference mass: 463.97378  
11:29:36: Sample mass: 502.0  
11:29:36:  
11:29:37: Finding reference mass  
11:29:38: Finding sample mass  
11:29:38:  
11:29:44: [1] 501.9708 amu, mean: 501.9708  
11:29:47: [2] 501.9701 amu, mean: 501.9704 SD: 0.48 mmu or: 0.96 ppm  
11:29:50: [3] 501.9705 amu, mean: 501.9705 SD: 0.34 mmu or: 0.68 ppm  
11:29:54: [4] 501.9703 amu, mean: 501.9704 SD: 0.30 mmu or: 0.59 ppm  
11:29:54:  
11:29:54: Stop requested. Please wait for procedure to finish.  
11:29:54:  
11:29:57:  
11:29:57: Peakmatching stopped

Signature

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# Resolution Check Report ( DFS SN: 3190 )



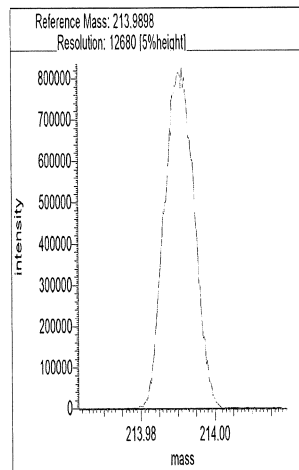
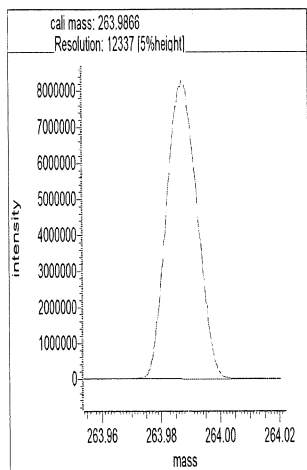
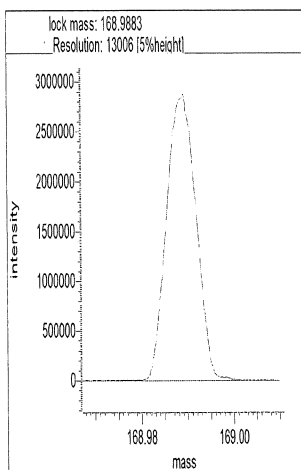
Component Testing  
Techniques

Date: 17 Jul 2024 22:40  
MID Experiment: ResCheck\_1668  
Target Resolution: 10000  
Resolution Warning : 10000  
Resolution Error : 10000  
Reference: FC43KnxPCB.lua  
Status: RESOLUTION PASSED

-d2240717r3

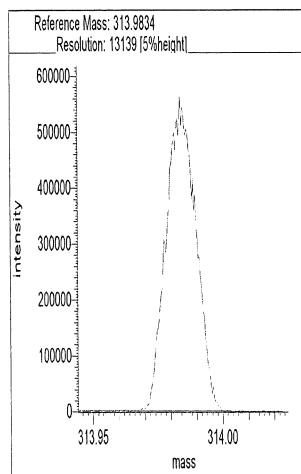
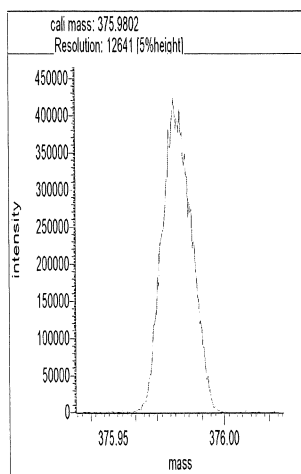
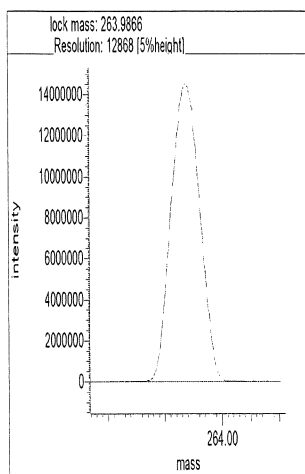
## Segment 1

Lock mass 168.9883 [m/z] Resolution: 13006 [5%height]  
Cali. mass 263.9866 [m/z] Resolution: 12337 [5%height]  
Ref. mass 213.9898 [m/z] Resolution: 12680 [5%height]



## Segment 2

Lock mass 263.9866 [m/z] Resolution: 12868 [5%height]  
Cali. mass 375.9802 [m/z] Resolution: 12641 [5%height]  
Ref. mass 313.9834 [m/z] Resolution: 13139 [5%height]

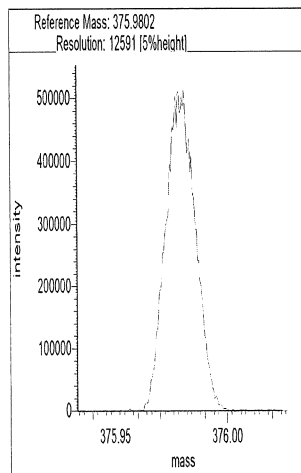
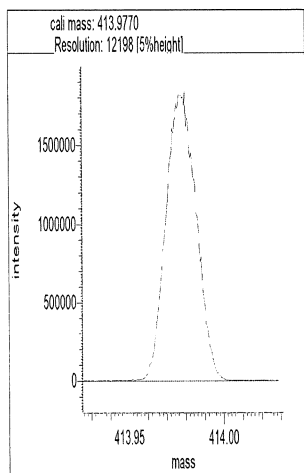
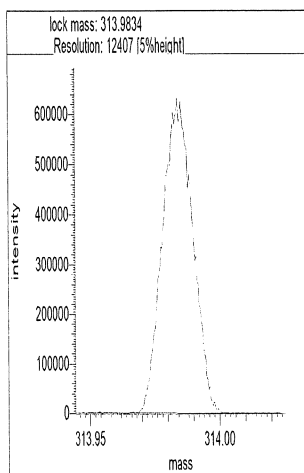


### Segment 3

Lock mass 313.9834 [m/z] Resolution: 12407 [5%height]

Cali. mass 413.9770 [m/z] Resolution: 12198 [5%height]

Ref. mass 375.9802 [m/z] Resolution: 12591 [5%height]

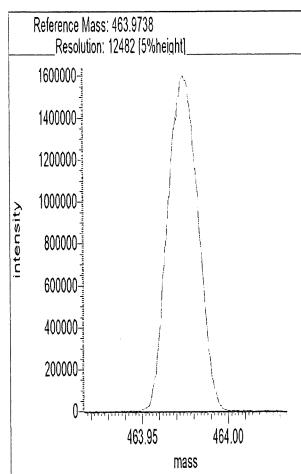
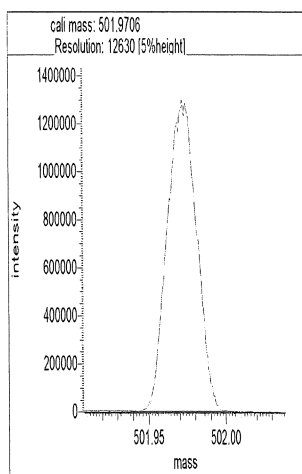
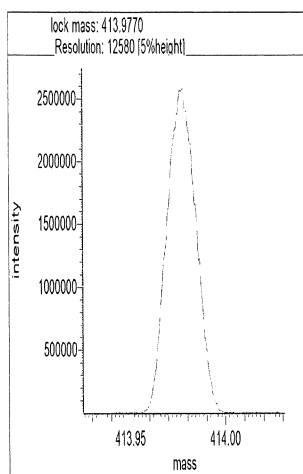


### Segment 4

Lock mass 413.9770 [m/z] Resolution: 12580 [5%height]

Cali. mass 501.9706 [m/z] Resolution: 12630 [5%height]

Ref. mass 463.9738 [m/z] Resolution: 12482 [5%height]





## Reports

22:49:14: Peak matching procedure started  
22:49:15:  
22:49:15: Reference mass: 168.98827  
22:49:16: Sample mass: 214.0  
22:49:16:  
22:49:17: Finding reference mass  
22:49:18: Finding sample mass  
22:49:18:  
22:49:24: [1] 213.9903 amu, mean: 213.9903  
22:49:27: [2] 213.9902 amu, mean: 213.9903 SD: 0.13 mmu or: 0.59 ppm  
22:49:30: [3] 213.9903 amu, mean: 213.9903 SD: 0.09 mmu or: 0.42 ppm  
22:49:33: [4] 213.9906 amu, mean: 213.9903 SD: 0.17 mmu or: 0.80 ppm  
22:49:34:  
22:49:34: Stop requested. Please wait for procedure to finish.  
22:49:34:  
22:49:37:  
22:49:37: Peakmatching stopped

Signature

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## Reports

22:50:00: Peak matching procedure started  
22:50:00:  
22:50:01: Reference mass: 213.98975  
22:50:01: Sample mass: 264.0  
22:50:02:  
22:50:02: Finding reference mass  
22:50:03: Finding sample mass  
22:50:04:  
22:50:10: [1] 263.9874 amu, mean: 263.9874  
22:50:13: [2] 263.9871 amu, mean: 263.9872 SD: 0.18 mmu or: 0.66 ppm  
22:50:16: [3] 263.9870 amu, mean: 263.9871 SD: 0.19 mmu or: 0.73 ppm  
22:50:19: [4] 263.9870 amu, mean: 263.9871 SD: 0.17 mmu or: 0.64 ppm  
22:50:20:  
22:50:20: Stop requested. Please wait for procedure to finish.  
22:50:20:  
22:50:22:  
22:50:23: Peakmatching stopped


Signature



## Reports

22:50:40: Peak matching procedure started  
22:50:40:  
22:50:41: Reference mass: 263.98656  
22:50:41: Sample mass: 314.0  
22:50:42:  
22:50:42: Finding reference mass  
22:50:44: Finding sample mass  
22:50:44:  
22:50:50: [1] 313.9848 amu, mean: 313.9848  
22:50:53: [2] 313.9845 amu, mean: 313.9847 SD: 0.23 mmu or: 0.72 ppm  
22:50:57: [3] 313.9850 amu, mean: 313.9848 SD: 0.23 mmu or: 0.73 ppm  
22:51:00: [4] 313.9848 amu, mean: 313.9848 SD: 0.19 mmu or: 0.61 ppm  
22:51:00:  
22:51:00: Stop requested. Please wait for procedure to finish.  
22:51:00:  
22:51:03:  
22:51:03: Peakmatching stopped

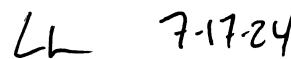
Signature

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## Reports

22:51:21: Peak matching procedure started  
22:51:22:  
22:51:22: Reference mass: 313.98336  
22:51:23: Sample mass: 376.0  
22:51:23:  
22:51:24: Finding reference mass  
22:51:25: Finding sample mass  
22:51:25:  
22:51:31: [1] 375.9809 amu, mean: 375.9809  
22:51:34: [2] 375.9807 amu, mean: 375.9808 SD: 0.17 mmu or: 0.45 ppm  
22:51:37: [3] 375.9809 amu, mean: 375.9808 SD: 0.13 mmu or: 0.35 ppm  
22:51:41: [4] 375.9813 amu, mean: 375.9809 SD: 0.25 mmu or: 0.68 ppm  
22:51:41:  
22:51:41: Stop requested. Please wait for procedure to finish.  
22:51:41:  
22:51:44:  
22:51:44: Peakmatching stopped


Signature



## Reports

22:51:21: Peak matching procedure started  
22:51:22:  
22:51:22: Reference mass: 313.98336  
22:51:23: Sample mass: 376.0  
22:51:23:  
22:51:24: Finding reference mass  
22:51:25: Finding sample mass  
22:51:25:  
22:51:31: [1] 375.9809 amu, mean: 375.9809  
22:51:34: [2] 375.9807 amu, mean: 375.9808 SD: 0.17 mmu or: 0.45 ppm  
22:51:37: [3] 375.9809 amu, mean: 375.9808 SD: 0.13 mmu or: 0.35 ppm  
22:51:41: [4] 375.9813 amu, mean: 375.9809 SD: 0.25 mmu or: 0.68 ppm  
22:51:41:  
22:51:41: Stop requested. Please wait for procedure to finish.  
22:51:41:  
22:51:44:  
22:51:44: Peakmatching stopped

Signature

 7-17-24

## Reports

22:52:05: Peak matching procedure started  
22:52:05:  
22:52:06: Reference mass: 375.98017  
22:52:06: Sample mass: 414.0  
22:52:07:  
22:52:07: Finding reference mass  
22:52:08: Finding sample mass  
22:52:09:  
22:52:14: [1] 413.9777 amu, mean: 413.9777  
22:52:18: [2] 413.9776 amu, mean: 413.9776 SD: 0.10 mmu or: 0.24 ppm  
22:52:21: [3] 413.9775 amu, mean: 413.9776 SD: 0.13 mmu or: 0.30 ppm  
22:52:24: [4] 413.9780 amu, mean: 413.9777 SD: 0.23 mmu or: 0.56 ppm  
22:52:24:  
22:52:24: Stop requested. Please wait for procedure to finish.  
22:52:24:  
22:52:27:  
22:52:28: Peakmatching stopped


Signature

LL 7-17-24

## Reports

22:52:46: Peak matching procedure started  
22:52:47:  
22:52:47: Reference mass: 413.97698  
22:52:48: Sample mass: 464.0  
22:52:48:  
22:52:49: Finding reference mass  
22:52:50: Finding sample mass  
22:52:50:  
22:52:56: [1] 463.9738 amu, mean: 463.9738  
22:52:59: [2] 463.9742 amu, mean: 463.9740 SD: 0.27 mmu or: 0.59 ppm  
22:53:02: [3] 463.9748 amu, mean: 463.9743 SD: 0.47 mmu or: 1.00 ppm  
22:53:05: [4] 463.9745 amu, mean: 463.9743 SD: 0.40 mmu or: 0.86 ppm  
22:53:06:  
22:53:06: Stop requested. Please wait for procedure to finish.  
22:53:06:  
22:53:09:  
22:53:09: Peakmatching stopped

Signature

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## Reports

22:53:32: Peak matching procedure started  
22:53:33:  
22:53:33: Reference mass: 463.97378  
22:53:34: Sample mass: 502.0  
22:53:34:  
22:53:35: Finding reference mass  
22:53:36: Finding sample mass  
22:53:36:  
22:53:42: [1] 501.9706 amu, mean: 501.9706  
22:53:45: [2] 501.9707 amu, mean: 501.9706 SD: 0.11 mmu or: 0.22 ppm  
22:53:49: [3] 501.9705 amu, mean: 501.9706 SD: 0.12 mmu or: 0.24 ppm  
22:53:52: [4] 501.9709 amu, mean: 501.9707 SD: 0.18 mmu or: 0.37 ppm  
22:53:52:  
22:53:52: Stop requested. Please wait for procedure to finish.  
22:53:52:  
22:53:55:  
22:53:55: Peakmatching stopped

Signature





Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Lims ID: WDMCCV  
Client ID:  
Sample Type: WDMCCV  
Inject. Date: 17-Jul-2024 12:39:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033539-001  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Sublist: chrom-PCBs\_D2D\*sub2  
  
Method: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 17:24:20 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1640

First Level Reviewer: P0IK

Date: 17-Jul-2024 17:24:20

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total Monochlorobiphenyls					141.5	141.5	0.1437	0.1437		
D PCB-1L	11:38	10546217	3.19	1.6108	90.6	90.6	0.2469	0.2469	90.60	
D PCB-3L	13:46	9552572	3.19	1.5891	83.2	83.2	0.2503	0.2503	83.19	
PCB-1	11:39	6040690	3.16	1.2191	47.0	47.0	0.1168	0.1168	93.97	
PCB-2	13:37	5465680	3.13	1.1805	46.1	46.1	0.1434	0.1434	92.14	
PCB-3	13:47	5644812	3.09	1.2206	48.4	48.4	0.1710	0.1710	96.83	
S Total Dichlorobiphenyls					595.2	595.2	0.0627	0.0627		
D PCB-4L	14:01	4684442	1.56	0.6475	100.1	100.1	0.1336	0.1336	100	
* PCB-9L	15:58	7226148	1.64		100.0	100.0				
\$ PCB-8L	16:49	3484860	1.59	1.2066	48.4	48.4	0.0955	0.0955	96.78	
D PCB-15L	19:53	7252883	1.60	1.0789	93.0	93.0	0.0802	0.0802	93.03	
PCB-4	14:03	2838261	1.54	1.2818	47.3	47.3	0.0696	0.0696	94.54	
PCB-10	14:13	4091054	1.54	1.3149	52.1	52.1	0.0657	0.0657	104	
PCB-9	15:59	4215071	1.59	1.4224	49.6	49.6	0.0607	0.0607	99.29	
PCB-7	16:09	4206318	1.58	1.4134	49.9	49.9	0.0611	0.0611	99.72	
PCB-6	16:24	4531078	1.55	1.5421	49.2	49.2	0.0560	0.0560	98.46	
PCB-5	16:42	3884657	1.59	1.3395	48.6	48.6	0.0645	0.0645	97.18	
PCB-8	16:49	4866766	1.58	1.5889	51.3	51.3	0.0544	0.0544	103	
PCB-14	18:26	4006469	1.57	1.4025	47.9	47.9	0.0616	0.0616	95.72	
PCB-11	19:17	3924526	1.59	1.2951	50.8	50.8	0.0667	0.0667	102	
PCB-12	19:36	7856523	1.56	1.3358	98.5	98.5	0.0647	0.0647	98.54	
PCB-13 (C12)	19:36	7856523	1.56	1.3358	98.5	98.5	0.0647	0.0647	98.54	
PCB-15	19:54	4674037	1.59	1.2903	49.9	49.9	0.0649	0.0649	99.89	
S Total Trichlorobiphenyls					1189.9	1189.9	0.7911	0.7911		
D PCB-19L	17:07	3245186	1.05	0.6285	100.2	100.2	0.3017	0.3017	100	
* PCB-32L	20:21	5155198	1.11		100.0	100.0				
* PCB-31L	22:36	8054564	1.04		100.0	100.0				
\$ PCB-28L	22:52	3965298	1.05	1.0494	46.9	46.9	0.1433	0.1433	93.83	
D PCB-37L	26:53	6617333	1.02	0.8749	93.9	93.9	0.1719	0.1719	93.90	
PCB-19	17:08	2006710	1.05	1.2809	48.3	48.3	0.0530	0.0530	96.55	
PCB-18	18:56	5500817	1.05	1.7652	96.0	96.0	0.0385	0.0385	96.03	
PCB-30 (C18)	18:56	5500817	1.05	1.7652	96.0	96.0	0.0385	0.0385	96.03	
PCB-17	19:23	1879408	1.06	1.2430	46.6	46.6	0.0546	0.0546	93.18	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-27	19:36	2886286	1.05	1.8327	48.5	48.5	0.0370	0.0370	97.06	
PCB-24	19:44	2576140	1.04	1.6777	47.3	47.3	0.0405	0.0405	94.64	
PCB-16	19:51	1830652	1.05	1.1286	50.0	50.0	0.0601	0.0601	99.97	
PCB-32	20:21	2950721	1.05	1.8324	49.6	49.6	0.0370	0.0370	99.24	
PCB-34	21:36	3744908	1.06	1.1277	50.2	50.2	1.203	1.203	100	
PCB-23	21:45	3800258	1.00	1.0813	53.1	53.1	1.255	1.255	106	
PCB-26	22:05	7494759	1.05	1.1255	100.6	100.6	1.206	1.206	101	
PCB-29 (C26)	22:05	7494759	1.05	1.1255	100.6	100.6	1.206	1.206	101	
PCB-25	22:18	4293757	1.02	1.2728	51.0	51.0	1.066	1.066	102	
PCB-31	22:37	3885148	0.99	1.1532	50.9	50.9	1.177	1.177	102	
PCB-20	22:55	7638864	1.02	1.1718	98.5	98.5	1.158	1.158	98.51	
PCB-28 (C20)	22:55	7638864	1.02	1.1718	98.5	98.5	1.158	1.158	98.51	
PCB-21	23:05	7289070	1.00	1.0746	102.5	102.5	1.263	1.263	103	M
PCB-33 (C21)	23:05	7289070	1.00	1.0746	102.5	102.5	1.263	1.263	103	M
PCB-22	23:32	4043714	0.97	1.1932	51.2	51.2	1.137	1.137	102	
PCB-36	25:05	3665432	0.99	1.1071	50.0	50.0	1.226	1.226	100	
PCB-39	25:27	3854527	1.03	1.1581	50.3	50.3	1.172	1.172	101	
PCB-38	26:01	3391615	1.01	1.0843	47.3	47.3	1.251	1.251	94.54	M
PCB-35	26:30	3777819	1.03	1.1297	50.5	50.5	1.201	1.201	101	
PCB-37	26:55	3582353	1.05	1.1435	47.3	47.3	1.187	1.187	94.68	
S Total Tetrachlorobiphenyls					1923.6	1923.6	0.5922	0.5922		
D PCB-54L	20:11	3446551	0.81	0.5562	120.2	120.2	0.0671	0.0671	120	
* PCB-52L	24:43	4984785	0.79		100.0	100.0				
\$ PCB-79L	32:37	3105792	0.79	1.0018	49.6	49.6	0.4259	0.4259	99.21	
D PCB-81L	33:37	6151601	0.81	1.2470	99.0	99.0	0.3519	0.3519	98.97	
D PCB-77L	34:11	6348043	0.79	1.3212	96.4	96.4	0.3322	0.3322	96.39	
PCB-54	20:12	2148136	0.77	1.2733	48.9	48.9	0.0292	0.0292	97.90	
PCB-50	22:21	4776253	0.79	0.8578	89.1	89.1	0.7618	0.7618	89.09	
PCB-53 (C50)	22:21	4776253	0.79	0.8578	89.1	89.1	0.7618	0.7618	89.09	
PCB-45	23:05	4736262	0.76	0.8264	91.7	91.7	0.7907	0.7907	91.70	M
PCB-51 (C45)	23:05	4736262	0.76	0.8264	91.7	91.7	0.7907	0.7907	91.70	M
PCB-46	23:20	1968585	0.76	0.7101	44.4	44.4	0.9202	0.9202	88.72	
PCB-52	24:44	2631734	0.79	0.9194	45.8	45.8	0.7107	0.7107	91.60	
PCB-43	24:52	6014665	0.80	1.0333	93.1	93.1	0.6324	0.6324	93.13	M
PCB-73 (C43)	24:52	6014665	0.80	1.0333	93.1	93.1	0.6324	0.6324	93.13	M
PCB-49	25:09	5934041	0.79	1.0685	88.9	88.9	0.6115	0.6115	88.86	
PCB-69 (C49)	25:09	5934041	0.79	1.0685	88.9	88.9	0.6115	0.6115	88.86	
PCB-48	25:30	2362392	0.79	0.8399	45.0	45.0	0.7780	0.7780	90.01	
PCB-44	25:44	8082843	0.80	0.9731	132.9	132.9	0.6715	0.6715	88.60	
PCB-47 (C44)	25:44	8082843	0.80	0.9731	132.9	132.9	0.6715	0.6715	88.60	
PCB-65 (C44)	25:44	8082843	0.80	0.9731	132.9	132.9	0.6715	0.6715	88.60	
PCB-59	26:03	9768868	0.79	1.1853	131.9	131.9	0.5513	0.5513	87.92	
PCB-62 (C59)	26:03	9768868	0.79	1.1853	131.9	131.9	0.5513	0.5513	87.92	
PCB-75 (C59)	26:03	9768868	0.79	1.1853	131.9	131.9	0.5513	0.5513	87.92	
PCB-42	26:15	2397468	0.78	0.8097	47.4	47.4	0.8071	0.8071	94.76	
PCB-40	26:45	7356395	0.80	0.8863	132.8	132.8	0.7373	0.7373	88.53	M
PCB-41 (C40)	26:45	7356395	0.80	0.8863	132.8	132.8	0.7373	0.7373	88.53	M
PCB-71 (C40)	26:45	7356395	0.80	0.8863	132.8	132.8	0.7373	0.7373	88.53	M
PCB-64	26:58	3199468	0.82	1.1776	43.5	43.5	0.5549	0.5549	86.95	
PCB-72	27:47	3132099	0.79	1.0943	45.8	45.8	0.5972	0.5972	91.59	
PCB-68	28:04	3681812	0.74	1.2533	47.0	47.0	0.5214	0.5214	94.01	
PCB-57	28:29	3251043	0.78	1.0818	48.1	48.1	0.6040	0.6040	96.17	
PCB-58	28:44	4074136	0.75	1.3253	49.2	49.2	0.4930	0.4930	98.37	
PCB-67	28:54	4105572	0.79	1.4230	46.2	46.2	0.4592	0.4592	92.32	
PCB-63	29:10	3356560	0.75	1.1240	47.8	47.8	0.5814	0.5814	95.57	
PCB-61	29:30	14572895	0.78	1.2612	184.9	184.9	0.5181	0.5181	92.44	
PCB-70 (C61)	29:30	14572895	0.78	1.2612	184.9	184.9	0.5181	0.5181	92.44	
PCB-74 (C61)	29:30	14572895	0.78	1.2612	184.9	184.9	0.5181	0.5181	92.44	
PCB-76 (C61)	29:30	14572895	0.78	1.2612	184.9	184.9	0.5181	0.5181	92.44	
PCB-66	29:50	3857507	0.76	1.2583	49.1	49.1	0.5193	0.5193	98.11	
PCB-55	29:59	3951641	0.77	1.3236	47.8	47.8	0.4937	0.4937	95.54	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-56	30:30	3662067	0.75	1.2334	47.5	47.5	0.5298	0.5298	95.01	
PCB-60	30:42	3128323	0.78	1.1230	44.6	44.6	0.5819	0.5819	89.14	
PCB-80	31:06	3939203	0.80	1.3243	47.6	47.6	0.4935	0.4935	95.19	
PCB-79	32:38	4095667	0.78	1.4368	45.6	45.6	0.4548	0.4548	91.22	
PCB-78	33:12	3426491	0.79	1.1618	47.2	47.2	0.5624	0.5624	94.38	
PCB-81	33:38	2949367	0.77	1.0802	44.4	44.4	0.5914	0.5914	88.77	
PCB-77	34:13	3141966	0.76	1.0836	45.7	45.7	0.6172	0.6172	91.35	
S Total Pentachlorobiphenyls					2248.8	2248.8	0.4058	0.4058		
D PCB-104L	25:38	4613770	1.64	1.2161	102.7	102.7	0.0701	0.0701	103	
\$ PCB-95L	28:37	1611620	1.64	0.7218	48.4	48.4	0.0871	0.0871	96.79	
* PCB-101L	31:32	3694971	1.63		100.0	100.0				
\$ PCB-111L	34:12	2355197	1.65	1.3699	46.5	46.5	0.0622	0.0622	93.06	
D PCB-123L	36:10	5117641	1.57	0.9731	99.2	99.2	1.332	1.332	99.20	
D PCB-118L	36:29	5319797	1.61	1.0102	99.3	99.3	1.283	1.283	99.34	
D PCB-114L	37:01	5352468	1.60	0.9949	101.5	101.5	1.303	1.303	101	
D PCB-105L	37:40	5221902	1.58	0.9514	103.5	103.5	1.362	1.362	104	
* PCB-127L	39:08	5301117	1.61		100.0	100.0				
D PCB-126L	40:46	5172007	1.57	0.9439	103.4	103.4	1.373	1.373	103	
PCB-104	25:40	2333742	1.59	1.0087	50.1	50.1	0.0563	0.0563	100	
PCB-96	26:03	2370020	1.59	1.0940	47.0	47.0	0.0519	0.0519	93.91	
PCB-103	27:58	2011864	1.56	0.8741	49.9	49.9	0.0649	0.0649	99.77	
PCB-94	28:12	1633242	1.60	0.7640	46.3	46.3	0.0743	0.0743	92.67	
PCB-95	28:38	1832655	1.56	0.8033	49.4	49.4	0.0707	0.0707	98.90	
PCB-93	28:50	3709622	1.60	0.8429	95.4	95.4	0.0674	0.0674	95.39	
PCB-100 (C93)	28:50	3709622	1.60	0.8429	95.4	95.4	0.0674	0.0674	95.39	
PCB-98	29:00	3826959	1.59	0.8262	100.4	100.4	0.0687	0.0687	100	
PCB-102 (C98)	29:00	3826959	1.59	0.8262	100.4	100.4	0.0687	0.0687	100	
PCB-88	29:30	3525873	1.63	0.8013	95.4	95.4	0.0708	0.0708	95.37	
PCB-91 (C88)	29:30	3525873	1.63	0.8013	95.4	95.4	0.0708	0.0708	95.37	
PCB-84	29:44	1667745	1.53	0.7299	49.5	49.5	0.0778	0.0778	99.04	
PCB-89	30:13	1688615	1.58	0.7798	46.9	46.9	0.0728	0.0728	93.87	
PCB-121	30:35	2955848	1.59	1.2964	49.4	49.4	0.0438	0.0438	98.84	
PCB-92	30:59	1982192	1.56	0.8546	50.3	50.3	0.0664	0.0664	101	
PCB-90	31:32	6454556	1.59	0.9550	146.5	146.5	0.0594	0.0594	97.66	
PCB-101 (C90)	31:32	6454556	1.59	0.9550	146.5	146.5	0.0594	0.0594	97.66	
PCB-113 (C90)	31:32	6454556	1.59	0.9550	146.5	146.5	0.0594	0.0594	97.66	
PCB-83	32:08	3760759	1.57	0.8385	97.2	97.2	0.0677	0.0677	97.21	
PCB-99 (C83)	32:08	3760759	1.57	0.8385	97.2	97.2	0.0677	0.0677	97.21	
PCB-112	32:15	3213155	1.57	1.4111	49.4	49.4	0.0402	0.0402	98.71	
PCB-86	32:37	13968750	1.57	1.0473	289.1	289.1	0.0542	0.0542	96.37	M
PCB-87 (C86)	32:37	13968750	1.57	1.0473	289.1	289.1	0.0542	0.0542	96.37	M
PCB-97 (C86)	32:37	13968750	1.57	1.0473	289.1	289.1	0.0542	0.0542	96.37	M
PCB-109 (C86)	32:37	13968750	1.57	1.0473	289.1	289.1	0.0542	0.0542	96.37	M
PCB-119 (C86)	32:37	13968750	1.57	1.0473	289.1	289.1	0.0542	0.0542	96.37	M
PCB-125 (C86)	32:37	13968750	1.57	1.0473	289.1	289.1	0.0542	0.0542	96.37	M
PCB-85	33:20	7028046	1.60	1.0408	146.4	146.4	0.0545	0.0545	97.57	
PCB-116 (C85)	33:20	7028046	1.60	1.0408	146.4	146.4	0.0545	0.0545	97.57	
PCB-117 (C85)	33:20	7028046	1.60	1.0408	146.4	146.4	0.0545	0.0545	97.57	
PCB-110	33:34	5482438	1.60	1.1919	99.7	99.7	0.0476	0.0476	99.70	
PCB-115 (C110)	33:34	5482438	1.60	1.1919	99.7	99.7	0.0476	0.0476	99.70	
PCB-82	33:52	1984469	1.56	0.8303	51.8	51.8	0.0684	0.0684	104	
PCB-111	34:13	2818899	1.59	1.2125	50.4	50.4	0.0468	0.0468	101	
PCB-120	34:41	3425735	1.60	1.4762	50.3	50.3	0.0385	0.0385	101	
PCB-108	35:50	5439508	1.55	1.1405	91.1	91.1	1.103	1.103	91.07	
PCB-124 (C108)	35:50	5439508	1.55	1.1405	91.1	91.1	1.103	1.103	91.07	
PCB-107	36:04	2913920	1.54	1.2121	45.9	45.9	1.038	1.038	91.81	
PCB-123	36:11	2790300	1.55	1.0722	50.8	50.8	1.150	1.150	102	
PCB-106	36:18	2844933	1.55	1.0839	50.1	50.1	1.160	1.160	100	
PCB-118	36:30	3085212	1.49	1.2055	48.1	48.1	1.025	1.025	96.21	
PCB-122	36:52	2503170	1.55	0.9567	50.0	50.0	1.315	1.315	99.93	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-114	37:03	2945801	1.54	1.0842	50.8	50.8	1.098	1.098	102	
PCB-105	37:42	3116315	1.62	1.1879	50.2	50.2	1.059	1.059	100	
PCB-127	39:09	2980097	1.46	1.1394	49.9	49.9	1.104	1.104	99.89	
PCB-126	40:46	2897484	1.57	1.0976	51.0	51.0	1.265	1.265	102	
S Total Hexachlorobiphenyls					1976.8	1976.8	0.3940	0.3940		
D PCB-155L	31:16	4142933	1.29	1.0851	103.3	103.3	0.0465	0.0465	103	
\$ PCB-153L	38:21	1970139	1.30	0.9169	42.4	42.4	0.8460	0.8460	84.75	
* PCB-138L	39:36	3889853	1.25		100.0	100.0				
D PCB-167L	42:35	5022399	1.27	1.2572	102.7	102.7	0.6269	0.6269	103	
D PCB-156L	43:46	9911817	1.29	1.2106	210.5	210.5	0.6510	0.6510	105	
D PCB-157L (C156L)	43:46	9911817	1.29	1.2106	210.5	210.5	0.6510	0.6510	105	
D PCB-169L	46:59	5348234	1.26	1.2439	110.5	110.5	0.6336	0.6336	111	
PCB-155	31:18	1997712	1.27	0.9444	51.1	51.1	0.0487	0.0487	102	
PCB-152	31:32	2065930	1.27	0.9895	50.4	50.4	0.0464	0.0464	101	
PCB-150	31:41	2162320	1.31	1.0132	51.5	51.5	0.0454	0.0454	103	
PCB-136	32:04	2140846	1.25	1.0116	51.1	51.1	0.0454	0.0454	102	
PCB-145	32:21	2091801	1.30	0.9685	52.1	52.1	0.0475	0.0475	104	
PCB-148	33:50	1629613	1.25	0.7603	51.7	51.7	0.0604	0.0604	103	
PCB-135	34:26	3056168	1.27	0.7256	101.7	101.7	0.0633	0.0633	102	M
PCB-151 (C135)	34:26	3056168	1.27	0.7256	101.7	101.7	0.0633	0.0633	102	M
PCB-154	34:40	1761240	1.25	0.8129	52.3	52.3	0.0565	0.0565	105	
PCB-144	35:00	1653846	1.29	0.7852	50.8	50.8	0.0585	0.0585	102	
PCB-147	35:22	4150916	1.27	0.8950	91.5	91.5	0.5575	0.5575	91.47	
PCB-149 (C147)	35:22	4150916	1.27	0.8950	91.5	91.5	0.5575	0.5575	91.47	
PCB-134	35:41	3641841	1.25	0.7967	90.2	90.2	0.6263	0.6263	90.15	M
PCB-143 (C134)	35:41	3641841	1.25	0.7967	90.2	90.2	0.6263	0.6263	90.15	M
PCB-139	35:57	3947132	1.28	0.8769	88.8	88.8	0.5690	0.5690	88.77	M
PCB-140 (C139)	35:57	3947132	1.28	0.8769	88.8	88.8	0.5690	0.5690	88.77	M
PCB-131	36:11	1650209	1.24	0.7503	43.4	43.4	0.6650	0.6650	86.75	
PCB-142	36:19	1754933	1.27	0.7507	46.1	46.1	0.6647	0.6647	92.21	
PCB-132	36:39	1615690	1.28	0.7489	42.5	42.5	0.6662	0.6662	85.09	
PCB-133	37:07	1787402	1.27	0.8096	43.5	43.5	0.6163	0.6163	87.08	
PCB-165	37:31	2424106	1.26	1.0247	46.7	46.7	0.4869	0.4869	93.31	
PCB-146	37:45	2176991	1.24	0.9637	44.6	44.6	0.5178	0.5178	89.10	
PCB-161	37:54	2557734	1.25	1.1288	44.7	44.7	0.4420	0.4420	89.38	
PCB-153	38:24	5123129	1.25	1.0938	92.4	92.4	0.4562	0.4562	92.37	
PCB-168 (C153)	38:24	5123129	1.25	1.0938	92.4	92.4	0.4562	0.4562	92.37	
PCB-141	38:35	1952070	1.32	0.8755	44.0	44.0	0.5699	0.5699	87.94	
PCB-130	38:59	1567370	1.25	0.7051	43.8	43.8	0.7076	0.7076	87.68	
PCB-137	39:12	1881297	1.26	0.7767	47.8	47.8	0.6424	0.6424	95.54	
PCB-164	39:20	2489782	1.29	1.0382	47.3	47.3	0.4806	0.4806	94.59	
PCB-129	39:38	8616599	1.27	0.9464	179.6	179.6	0.5272	0.5272	89.78	M
PCB-138 (C129)	39:38	8616599	1.27	0.9464	179.6	179.6	0.5272	0.5272	89.78	M
PCB-160 (C129)	39:38	8616599	1.27	0.9464	179.6	179.6	0.5272	0.5272	89.78	M
PCB-163 (C129)	39:38	8616599	1.27	0.9464	179.6	179.6	0.5272	0.5272	89.78	M
PCB-158	40:01	3057389	1.27	1.3110	46.0	46.0	0.3806	0.3806	91.98	
PCB-128	40:51	4668302	1.24	0.9829	93.7	93.7	0.5076	0.5076	93.66	
PCB-166 (C128)	40:51	4668302	1.24	0.9829	93.7	93.7	0.5076	0.5076	93.66	
PCB-159	41:51	3249722	1.25	1.3856	46.3	46.3	0.3601	0.3601	92.51	
PCB-162	42:08	2953657	1.27	1.2571	46.3	46.3	0.3969	0.3969	92.67	
PCB-167	42:37	2737922	1.25	1.1159	48.9	48.9	0.3553	0.3553	97.71	
PCB-156	43:48	5405382	1.24	1.1104	98.2	98.2	0.5753	0.5753	98.22	
PCB-157 (C156)	43:48	5405382	1.24	1.1104	98.2	98.2	0.5753	0.5753	98.22	
PCB-169	47:00	2993417	1.29	1.1628	48.1	48.1	0.3639	0.3639	96.26	
S Total Heptachlorobiphenyls					1223.8	1223.8	0.0183	0.0183		
D PCB-188L	36:59	4043049	1.05	1.3133	96.9	96.9	0.0451	0.0451	96.91	
\$ PCB-178L	40:03	1474240	1.11	1.0313	45.0	45.0	0.0575	0.0575	89.99	
* PCB-180L	45:07	3176763	1.07		100.0	100.0				
D PCB-170L	46:24	2725381	1.04	0.8362	102.6	102.6	0.0709	0.0709	103	
D PCB-189L	49:30	5400685	1.05	1.4414	96.7	96.7	0.4655	0.4655	96.72	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-188	37:01	2242053	1.03	1.1350	48.9	48.9	0.008916	0.008916	97.72	
PCB-179	37:22	2308203	1.07	1.4276	47.8	47.8	0.008714	0.008714	95.55	
PCB-184	37:52	2277806	1.07	1.3672	49.2	49.2	0.009099	0.009099	98.46	
PCB-176	38:15	2061049	1.05	1.2331	49.4	49.4	0.0101	0.0101	98.78	
PCB-186	38:42	2494614	1.07	1.4737	50.0	50.0	0.008441	0.008441	100	
PCB-178	40:05	1548974	1.05	0.8946	51.2	51.2	0.0139	0.0139	102	
PCB-175	40:42	1619034	1.08	0.9524	50.2	50.2	0.0131	0.0131	100	
PCB-187	40:58	1960201	1.05	1.1018	52.6	52.6	0.0113	0.0113	105	
PCB-182	41:10	1654120	1.07	0.9247	52.9	52.9	0.0135	0.0135	106	
PCB-183	41:35	3235075	1.02	0.9825	97.3	97.3	0.0127	0.0127	97.30	M
PCB-185 (C183)	41:35	3235075	1.02	0.9825	97.3	97.3	0.0127	0.0127	97.30	M
PCB-174	41:50	1665023	1.03	0.9642	51.0	51.0	0.0129	0.0129	102	
PCB-177	42:16	1696951	1.03	0.9773	51.3	51.3	0.0127	0.0127	103	
PCB-181	42:38	1633834	1.03	0.9505	50.8	50.8	0.0131	0.0131	102	
PCB-171	42:53	3058485	1.04	0.9336	96.8	96.8	0.0133	0.0133	96.80	
PCB-173 (C171)	42:53	3058485	1.04	0.9336	96.8	96.8	0.0133	0.0133	96.80	
PCB-172	44:30	1476194	1.08	0.8519	51.2	51.2	0.0146	0.0146	102	
PCB-192	44:46	2490505	1.09	1.3459	54.7	54.7	0.009243	0.009243	109	
PCB-180	45:07	4190441	1.10	1.1676	106.1	106.1	0.0107	0.0107	106	
PCB-193 (C180)	45:07	4190441	1.10	1.1676	106.1	106.1	0.0107	0.0107	106	
PCB-191	45:30	2413905	1.06	1.2891	55.3	55.3	0.009650	0.009650	111	
PCB-170	46:25	1651213	1.06	1.1865	51.1	51.1	0.0136	0.0136	102	
PCB-190	46:55	2498766	1.07	1.3322	55.4	55.4	0.009338	0.009338	111	
PCB-189	49:31	2639800	1.05	0.9633	50.7	50.7	0.1557	0.1557	101	
S Total Octachlorobiphenyls					615.1	615.1	0.0864	0.0864		
D PCB-202L	42:22	3143401	0.92	0.9818	100.8	100.8	0.0156	0.0156	101	
* PCB-194L	51:36	3874028	0.90		100.0	100.0				
D PCB-205L	52:04	4768261	0.91	1.1786	104.4	104.4	0.0777	0.0777	104	
PCB-202	42:23	1677226	0.94	1.0359	51.5	51.5	0.0526	0.0526	103	
PCB-201	43:18	1571547	0.90	0.9754	51.3	51.3	0.0559	0.0559	103	
PCB-204	43:57	1685744	0.89	1.0485	51.1	51.1	0.0520	0.0520	102	
PCB-197	44:11	1792452	0.89	1.1458	49.8	49.8	0.0476	0.0476	99.53	
PCB-200	44:19	1626114	0.90	1.0072	51.4	51.4	0.0541	0.0541	103	
PCB-198	47:05	2932502	0.91	0.8698	107.3	107.3	0.0627	0.0627	107	
PCB-199 (C198)	47:05	2932502	0.91	0.8698	107.3	107.3	0.0627	0.0627	107	
PCB-196	47:46	1333428	0.90	0.7806	54.3	54.3	0.0698	0.0698	109	
PCB-203	47:57	1628819	0.96	0.9292	55.8	55.8	0.0587	0.0587	112	
PCB-195	49:17	1842656	0.88	0.8263	46.8	46.8	0.1905	0.1905	93.53	
PCB-194	51:37	2161138	0.92	0.9735	46.6	46.6	0.1617	0.1617	93.11	
PCB-205	52:05	2562745	0.90	1.0878	49.4	49.4	0.1447	0.1447	98.82	
S Total Nonachlorobiphenyls					142.6	142.6	0.2233	0.2233		
D PCB-208L	49:01	3949838	0.81	0.9576	106.5	106.5	0.2295	0.2295	106	
D PCB-206L	53:49	3140103	0.81	0.6947	116.7	116.7	0.3164	0.3164	117	
PCB-208	49:02	2216835	0.79	1.1374	49.3	49.3	0.2184	0.2184	98.69	
PCB-207	49:58	2281183	0.81	1.3756	46.8	46.8	0.2056	0.2056	93.56	
PCB-206	53:50	1946531	0.78	1.3346	46.4	46.4	0.2459	0.2459	92.90	
D PCB-209L	55:25	3555802	0.71	0.6669	137.6	137.6	0.0370	0.0370	138	
DCB Decachlorobiphenyl	55:27	1945954	0.73	1.1004	49.7	49.7	0.0243	0.0243	99.47	
S Polychlorinated biphenyls, Total					9965.5	9965.5	0.2887	0.2887		

**QC Flag Legend**

Processing Flags

Review Flags

M - Manually Integrated

**Reagents:**

61CV1668CS3\_00018

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\2240717c1c.d  
Lims ID: WDMCCV  
Client ID:  
Sample Type: WDMCCV  
Inject. Date: 17-Jul-2024 12:39:00 ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033539-001  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Sublist: chrom-PCBs\_D2D\*sub2  
Method: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 17-Jul-2024 17:24:20 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1640

First Level Reviewer: P0IK

Date: 17-Jul-2024 17:24:20

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:38	11:38	0	0.728	8029853	3104820	2298	5745	1351		
202.0766	11:38	11:38	0	0.728	2516364	981954	861	2152	1140	3.19(2.66-3.60)	
PCB-3L											
200.0795	13:46	13:46	0	0.863	7274277	2120587	2298	5745	923		
202.0766	13:46	13:46	0	0.863	2278295	666851	861	2152	775	3.19(2.66-3.60)	
PCB-1											
188.0393	11:39	11:39	0	1.001	4587613	1764985	1712	4280	1031		
190.0363	11:39	11:39	0	1.001	1453077	552536	615	1537	898	3.16(2.66-3.60)	
PCB-2											
188.0393	13:37	13:37	0	0.989	4143009	1234414	1712	4280	721		
190.0363	13:36	13:37	-1	0.988	1322671	390495	615	1537	635	3.13(2.66-3.60)	
PCB-3											
188.0393	13:47	13:47	0	1.001	4266000	1219456	1712	4280	712		
190.0363	13:47	13:47	0	1.001	1378812	395955	615	1537	644	3.09(2.66-3.60)	
PCB-4L											
234.0406	14:01	14:01	0	0.878	2855186	888681	515	1287	1726		
236.0376	14:01	14:01	0	0.878	1829256	554651	172	430	3225	1.56(1.33-1.79)	
PCB-9L											
234.0406	15:58	15:58	0		4485244	1228593	515	1287	2386		
236.0376	15:58	15:58	0		2740904	756662	172	430	4399	1.64(1.33-1.79)	
PCB-8L											
234.0406	16:49	16:49	0	1.199	2141707	557573	515	1287	1083		
236.0376	16:49	16:49	0	1.199	1343153	350333	172	430	2037	1.59(1.33-1.79)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:53	19:53	0	1.245	4461310	938685	515	1287	1823		
236.0376	19:53	19:53	0	1.245	2791573	597752	172	430	3475	1.60(1.33-1.79)	
PCB-4											
222.0003	14:03	14:03	0	1.002	1721850	529677	165	412	3210		
223.9974	14:03	14:03	0	1.002	1116411	339102	350	875	969	1.54(1.33-1.79)	
PCB-10											
222.0003	14:13	14:13	0	1.013	2479696	771898	165	412	4678		
223.9974	14:13	14:13	0	1.013	1611358	491455	350	875	1404	1.54(1.33-1.79)	
PCB-9											
222.0003	15:59	15:59	0	1.140	2585972	695536	165	412	4215		
223.9974	15:59	15:59	0	1.140	1629099	440815	350	875	1259	1.59(1.33-1.79)	
PCB-7											
222.0003	16:09	16:09	0	1.152	2577617	685085	165	412	4152		
223.9974	16:09	16:09	0	1.152	1628701	432413	350	875	1235	1.58(1.33-1.79)	
PCB-6											
222.0003	16:24	16:24	0	1.170	2757082	717207	165	412	4347		
223.9974	16:24	16:24	0	1.170	1773996	465519	350	875	1330	1.55(1.33-1.79)	
PCB-5											
222.0003	16:42	16:42	0	1.191	2385625	669802	165	412	4059		
223.9974	16:42	16:42	0	1.191	1499032	413726	350	875	1182	1.59(1.33-1.79)	
PCB-8											
222.0003	16:49	16:49	0	1.200	2980840	732265	165	412	4438		
223.9974	16:49	16:49	0	1.200	1885926	469561	350	875	1342	1.58(1.33-1.79)	
PCB-14											
222.0003	18:26	18:26	0	0.927	2446959	573156	165	412	3474		
223.9974	18:26	18:26	0	0.927	1559510	364561	350	875	1042	1.57(1.33-1.79)	
PCB-11											
222.0003	19:17	19:17	0	0.970	2408432	511785	165	412	3102		
223.9974	19:17	19:17	0	0.970	1516094	321623	350	875	919	1.59(1.33-1.79)	
PCB-12											
222.0003	19:36	19:36	0	0.985	4791709	764384	165	412	4633		
223.9974	19:35	19:36	-1	0.985	3064814	478651	350	875	1368	1.56(1.33-1.79)	
PCB-13 (C12)											
222.0003	19:36	19:36	0	0.985	4791709	764384	165	412	4633		
223.9974	19:35	19:36	-1	0.985	3064814	478651	350	875	1368	1.56(1.33-1.79)	
PCB-15											
222.0003	19:54	19:54	0	1.001	2867243	567074	165	412	3437		
223.9974	19:54	19:54	0	1.001	1806794	355713	350	875	1016	1.59(1.33-1.79)	
PCB-19L											
268.0016	17:07	17:07	0	0.841	1663311	444268	570	1425	779		
269.9986	17:07	17:07	0	0.841	1581875	427828	359	897	1192	1.05(0.88-1.20)	
PCB-32L											
268.0016	20:21	20:21	0		2714496	640728	570	1425	1124		
269.9986	20:21	20:21	0		2440702	583659	359	897	1626	1.11(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-31L											
268.0016	22:36	22:36	0		4102257	917002	702	1755	1306		
269.9986	22:36	22:36	0		3952307	909188	397	992	2290	1.04(0.88-1.20)	
PCB-28L											
268.0016	22:52	22:52	0	1.012	2029313	425033	702	1755	605		
269.9986	22:52	22:52	0	1.012	1935985	407919	397	992	1028	1.05(0.88-1.20)	
PCB-37L											
268.0016	26:53	26:53	0	1.190	3349101	610197	702	1755	869		
269.9986	26:53	26:53	0	1.190	3268232	581936	397	992	1466	1.02(0.88-1.20)	
PCB-19											
255.9613	17:08	17:08	0	1.002	1029939	266851	127	317	2101		
257.9584	17:08	17:08	0	1.002	976771	256971	110	275	2336	1.05(0.88-1.20)	
PCB-18											
255.9613	18:56	18:56	0	1.106	2814214	462101	127	317	3639		
257.9584	18:56	18:56	0	1.106	2686603	436531	110	275	3968	1.05(0.88-1.20)	
PCB-30 (C18)											
255.9613	18:56	18:56	0	1.106	2814214	462101	127	317	3639		
257.9584	18:56	18:56	0	1.106	2686603	436531	110	275	3968	1.05(0.88-1.20)	
PCB-17											
255.9613	19:23	19:23	0	1.133	967809	238895	127	317	1881		
257.9584	19:23	19:23	0	1.133	911599	222711	110	275	2025	1.06(0.88-1.20)	
PCB-27											
255.9613	19:36	19:36	0	1.146	1475766	363938	127	317	2866		
257.9584	19:36	19:36	0	1.146	1410520	354211	110	275	3220	1.05(0.88-1.20)	
PCB-24											
255.9613	19:44	19:44	0	1.153	1316329	319696	127	317	2517		
257.9584	19:44	19:44	0	1.153	1259811	313812	110	275	2853	1.04(0.88-1.20)	
PCB-16											
255.9613	19:51	19:51	0	1.161	936707	215024	127	317	1693		
257.9584	19:51	19:51	0	1.161	893945	204821	110	275	1862	1.05(0.88-1.20)	
PCB-32											
255.9613	20:21	20:21	0	1.190	1514528	365137	127	317	2875		
257.9584	20:21	20:21	0	1.190	1436193	338529	110	275	3078	1.05(0.88-1.20)	
PCB-34											
255.9613	21:36	21:36	0	1.263	1923914	459501	3688	9220	125		
257.9584	21:36	21:36	0	1.263	1820994	444062	2783	6957	160	1.06(0.88-1.20)	
PCB-23											
255.9613	21:45	21:45	0	1.271	1896247	434654	3688	9220	118		
257.9584	21:45	21:45	0	1.271	1904011	428310	2783	6957	154	1.00(0.88-1.20)	
PCB-26											
255.9613	22:05	22:05	0	1.291	3837782	817049	3688	9220	222		
257.9584	22:05	22:05	0	1.291	3656977	772218	2783	6957	277	1.05(0.88-1.20)	
PCB-29 (C26)											
255.9613	22:05	22:05	0	1.291	3837782	817049	3688	9220	222		
257.9584	22:05	22:05	0	1.291	3656977	772218	2783	6957	277	1.05(0.88-1.20)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-25											
255.9613	22:18	22:18	0	0.829	2169495	454893	3688	9220	123		
257.9584	22:18	22:18	0	0.829	2124262	432186	2783	6957	155	1.02(0.88-1.20)	
PCB-31											
255.9613	22:37	22:37	0	0.841	1933499	419402	3688	9220	114		
257.9584	22:36	22:37	-1	0.841	1951649	415744	2783	6957	149	0.99(0.88-1.20)	
PCB-20											
255.9613	22:55	22:55	0	0.853	3856336	637580	3688	9220	173		
257.9584	22:55	22:55	-1	0.852	3782528	614660	2783	6957	221	1.02(0.88-1.20)	
PCB-28 (C20)											
255.9613	22:55	22:55	0	0.853	3856336	637580	3688	9220	173		
257.9584	22:55	22:55	-1	0.852	3782528	614660	2783	6957	221	1.02(0.88-1.20)	
PCB-21											
255.9613	23:05	23:05	0	0.858	3635433	438647	3688	9220	119		M
257.9584	23:05	23:05	0	0.858	3653637	420421	2783	6957	151	1.00(0.88-1.20)	M
PCB-33 (C21)											
255.9613	23:05	23:05	0	0.858	3635433	438647	3688	9220	119		M
257.9584	23:05	23:05	0	0.858	3653637	420421	2783	6957	151	1.00(0.88-1.20)	M
PCB-22											
255.9613	23:32	23:32	0	0.875	1989110	418032	3688	9220	113		
257.9584	23:32	23:32	0	0.875	2054604	419619	2783	6957	151	0.97(0.88-1.20)	
PCB-36											
255.9613	25:05	25:05	0	0.933	1821069	348539	3688	9220	95		
257.9584	25:05	25:05	0	0.933	1844363	327297	2783	6957	118	0.99(0.88-1.20)	
PCB-39											
255.9613	25:27	25:27	0	0.946	1955334	389963	3688	9220	106		
257.9584	25:27	25:27	0	0.946	1899193	386083	2783	6957	139	1.03(0.88-1.20)	
PCB-38											
255.9613	26:01	26:01	0	0.968	1702143	348443	3688	9220	94		M
257.9584	26:01	26:01	0	0.968	1689472	325427	2783	6957	117	1.01(0.88-1.20)	M
PCB-35											
255.9613	26:30	26:30	0	0.986	1918026	362268	3688	9220	98		
257.9584	26:30	26:30	0	0.986	1859793	342443	2783	6957	123	1.03(0.88-1.20)	
PCB-37											
255.9613	26:55	26:55	0	1.001	1833079	320513	3688	9220	87		
257.9584	26:55	26:55	0	1.001	1749274	308994	2783	6957	111	1.05(0.88-1.20)	
PCB-54L											
301.9626	20:11	20:11	0	0.817	1538972	364952	135	337	2703		
303.9597	20:11	20:11	0	0.817	1907579	460775	48	120	9599	0.81(0.65-0.89)	
PCB-52L											
301.9626	24:43	24:43	0		2207313	471769	796	1990	593		
303.9597	24:43	24:43	0		2777472	594628	1076	2690	553	0.79(0.65-0.89)	
PCB-79L											
301.9626	32:37	32:37	0	0.970	1368170	258446	796	1990	325		
303.9597	32:37	32:37	0	0.970	1737622	332470	1076	2690	309	0.79(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-81L											
301.9626	33:37	33:37	0	1.361	2746667	498908	796	1990	627		
303.9597	33:37	33:37	0	1.361	3404934	622938	1076	2690	579	0.81(0.65-0.89)	
PCB-77L											
301.9626	34:11	34:11	0	1.383	2803508	479360	796	1990	602		
303.9597	34:11	34:11	0	1.383	3544535	592363	1076	2690	551	0.79(0.65-0.89)	
PCB-54											
289.9224	20:12	20:12	0	1.000	935044	229522	42	105	5465		
291.9194	20:12	20:12	0	1.000	1213092	305305	81	202	3769	0.77(0.65-0.89)	
PCB-50											
289.9224	22:21	22:21	0	1.107	2110927	503192	975	2437	516		
291.9194	22:21	22:21	0	1.107	2665326	624389	1892	4730	330	0.79(0.65-0.89)	
PCB-53 (C50)											
289.9224	22:21	22:21	0	1.107	2110927	503192	975	2437	516		
291.9194	22:21	22:21	0	1.107	2665326	624389	1892	4730	330	0.79(0.65-0.89)	
PCB-45											
289.9224	23:05	23:05	0	1.143	2048340	267302	975	2437	274		M
291.9194	23:05	23:05	0	1.143	2687922	354272	1892	4730	187	0.76(0.65-0.89)	M
PCB-51 (C45)											
289.9224	23:05	23:05	0	1.143	2048340	267302	975	2437	274		M
291.9194	23:05	23:05	0	1.143	2687922	354272	1892	4730	187	0.76(0.65-0.89)	M
PCB-46											
289.9224	23:20	23:20	0	1.156	851765	200342	975	2437	205		
291.9194	23:20	23:20	0	1.156	1116820	261952	1892	4730	138	0.76(0.65-0.89)	
PCB-52											
289.9224	24:44	24:44	0	1.225	1164280	270592	975	2437	278		
291.9194	24:44	24:44	0	1.225	1467454	347486	1892	4730	184	0.79(0.65-0.89)	
PCB-43											
289.9224	24:52	24:52	0	1.232	2665390	357091	975	2437	366		M
291.9194	24:52	24:52	0	1.232	3349275	448717	1892	4730	237	0.80(0.65-0.89)	M
PCB-73 (C43)											
289.9224	24:52	24:52	0	1.232	2665390	357091	975	2437	366		M
291.9194	24:52	24:52	0	1.232	3349275	448717	1892	4730	237	0.80(0.65-0.89)	M
PCB-49											
289.9224	25:09	25:09	0	1.246	2611322	361037	975	2437	370		
291.9194	25:09	25:09	0	1.246	3322719	465028	1892	4730	246	0.79(0.65-0.89)	
PCB-69 (C49)											
289.9224	25:09	25:09	0	1.246	2611322	361037	975	2437	370		
291.9194	25:09	25:09	0	1.246	3322719	465028	1892	4730	246	0.79(0.65-0.89)	
PCB-48											
289.9224	25:30	25:30	0	1.263	1042401	237813	975	2437	244		
291.9194	25:30	25:30	0	1.263	1319991	296518	1892	4730	157	0.79(0.65-0.89)	
PCB-44											
289.9224	25:44	25:44	0	1.275	3581367	702967	975	2437	721		
291.9194	25:44	25:44	0	1.275	4501476	881519	1892	4730	466	0.80(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-47 (C44)											
289.9224	25:44	25:44	0	1.275	3581367	702967	975	2437	721		
291.9194	25:44	25:44	0	1.275	4501476	881519	1892	4730	466	0.80(0.65-0.89)	
PCB-65 (C44)											
289.9224	25:44	25:44	0	1.275	3581367	702967	975	2437	721		
291.9194	25:44	25:44	0	1.275	4501476	881519	1892	4730	466	0.80(0.65-0.89)	
PCB-59											
289.9224	26:03	26:03	0	1.290	4316248	666833	975	2437	684		
291.9194	26:03	26:03	0	1.290	5452620	843557	1892	4730	446	0.79(0.65-0.89)	
PCB-62 (C59)											
289.9224	26:03	26:03	0	1.290	4316248	666833	975	2437	684		
291.9194	26:03	26:03	0	1.290	5452620	843557	1892	4730	446	0.79(0.65-0.89)	
PCB-75 (C59)											
289.9224	26:03	26:03	0	1.290	4316248	666833	975	2437	684		
291.9194	26:03	26:03	0	1.290	5452620	843557	1892	4730	446	0.79(0.65-0.89)	
PCB-42											
289.9224	26:15	26:15	0	1.300	1052845	223929	975	2437	230		
291.9194	26:15	26:15	0	1.300	1344623	282830	1892	4730	149	0.78(0.65-0.89)	
PCB-40											
289.9224	26:45	26:45	0	1.325	3259180	504614	975	2437	518		M
291.9194	26:45	26:45	0	1.325	4097215	655476	1892	4730	346	0.80(0.65-0.89)	M
PCB-41 (C40)											
289.9224	26:45	26:45	0	1.325	3259180	504614	975	2437	518		M
291.9194	26:45	26:45	0	1.325	4097215	655476	1892	4730	346	0.80(0.65-0.89)	M
PCB-71 (C40)											
289.9224	26:45	26:45	0	1.325	3259180	504614	975	2437	518		M
291.9194	26:45	26:45	0	1.325	4097215	655476	1892	4730	346	0.80(0.65-0.89)	M
PCB-64											
289.9224	26:58	26:58	0	1.336	1438243	307864	975	2437	316		
291.9194	26:58	26:58	0	1.336	1761225	382143	1892	4730	202	0.82(0.65-0.89)	
PCB-72											
289.9224	27:47	27:47	0	0.826	1386880	300398	975	2437	308		
291.9194	27:47	27:47	0	0.826	1745219	368975	1892	4730	195	0.79(0.65-0.89)	
PCB-68											
289.9224	28:04	28:04	0	0.835	1567201	327526	975	2437	336		
291.9194	28:04	28:04	0	0.835	2114611	417994	1892	4730	221	0.74(0.65-0.89)	
PCB-57											
289.9224	28:29	28:29	0	0.847	1421474	316822	975	2437	325		
291.9194	28:29	28:29	0	0.847	1829569	390973	1892	4730	207	0.78(0.65-0.89)	
PCB-58											
289.9224	28:44	28:44	0	0.855	1740431	359311	975	2437	369		
291.9194	28:44	28:44	0	0.855	2333705	449857	1892	4730	238	0.75(0.65-0.89)	
PCB-67											
289.9224	28:54	28:54	0	0.859	1811909	349262	975	2437	358		
291.9194	28:54	28:54	0	0.859	2293663	438046	1892	4730	232	0.79(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-63											
289.9224	29:10	29:10	0	0.867	1439643	293945	975	2437	301		
291.9194	29:10	29:10	0	0.867	1916917	378185	1892	4730	200	0.75(0.65-0.89)	
PCB-61											
289.9224	29:30	29:30	0	0.878	6393837	754062	975	2437	773		
291.9194	29:30	29:30	0	0.878	8179058	942858	1892	4730	498	0.78(0.65-0.89)	
PCB-70 (C61)											
289.9224	29:30	29:30	0	0.878	6393837	754062	975	2437	773		
291.9194	29:30	29:30	0	0.878	8179058	942858	1892	4730	498	0.78(0.65-0.89)	
PCB-74 (C61)											
289.9224	29:30	29:30	0	0.878	6393837	754062	975	2437	773		
291.9194	29:30	29:30	0	0.878	8179058	942858	1892	4730	498	0.78(0.65-0.89)	
PCB-76 (C61)											
289.9224	29:30	29:30	0	0.878	6393837	754062	975	2437	773		
291.9194	29:30	29:30	0	0.878	8179058	942858	1892	4730	498	0.78(0.65-0.89)	
PCB-66											
289.9224	29:50	29:50	0	0.887	1664079	320051	975	2437	328		
291.9194	29:50	29:50	0	0.887	2193428	415535	1892	4730	220	0.76(0.65-0.89)	
PCB-55											
289.9224	29:59	29:59	0	0.892	1719962	334541	975	2437	343		
291.9194	29:59	29:59	0	0.892	2231679	438595	1892	4730	232	0.77(0.65-0.89)	
PCB-56											
289.9224	30:30	30:30	0	0.907	1565111	319726	975	2437	328		
291.9194	30:30	30:30	0	0.907	2096956	420350	1892	4730	222	0.75(0.65-0.89)	
PCB-60											
289.9224	30:42	30:42	0	0.913	1373827	272598	975	2437	280		
291.9194	30:42	30:42	0	0.913	1754496	344502	1892	4730	182	0.78(0.65-0.89)	
PCB-80											
289.9224	31:06	31:06	0	0.925	1746504	342691	975	2437	351		
291.9194	31:05	31:06	-1	0.925	2192699	428573	1892	4730	227	0.80(0.65-0.89)	
PCB-79											
289.9224	32:38	32:38	0	0.971	1793723	319457	975	2437	328		
291.9194	32:38	32:38	0	0.971	2301944	404652	1892	4730	214	0.78(0.65-0.89)	
PCB-78											
289.9224	33:12	33:12	0	0.987	1507548	258811	975	2437	265		
291.9194	33:11	33:12	-1	0.987	1918943	333865	1892	4730	176	0.79(0.65-0.89)	
PCB-81											
289.9224	33:38	33:38	0	1.000	1281211	230850	975	2437	237		
291.9194	33:38	33:38	0	1.000	1668156	306186	1892	4730	162	0.77(0.65-0.89)	
PCB-77											
289.9224	34:13	34:13	0	1.001	1360670	245597	975	2437	252		
291.9194	34:13	34:13	0	1.001	1781296	322923	1892	4730	171	0.76(0.65-0.89)	
PCB-104L											
337.9207	25:38	25:38	0	0.813	2867862	636611	195	487	3265		
339.9178	25:38	25:38	0	0.813	1745908	385095	62	155	6211	1.64(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-95L											
337.9207	28:37	28:37	0	1.116	1001427	216988	195	487	1113		
339.9178	28:37	28:37	0	1.116	610193	129535	62	155	2089	1.64(1.32-1.78)	
PCB-101L											
337.9207	31:32	31:32	0		2292657	470672	195	487	2414		
339.9178	31:32	31:32	0		1402314	282816	62	155	4562	1.63(1.32-1.78)	
PCB-111L											
337.9207	34:12	34:12	0	1.085	1465253	289541	195	487	1485		
339.9178	34:12	34:12	0	1.085	889944	177128	62	155	2857	1.65(1.32-1.78)	
PCB-123L											
337.9207	36:10	36:10	0	1.147	3129078	616555	3401	8502	181		
339.9178	36:10	36:10	0	1.147	1988563	399078	1795	4487	222	1.57(1.32-1.78)	
PCB-118L											
337.9207	36:29	36:29	0	1.158	3280892	624642	3401	8502	184		
339.9178	36:29	36:29	0	1.158	2038905	389367	1795	4487	217	1.61(1.32-1.78)	
PCB-114L											
337.9207	37:01	37:01	0	1.174	3291893	640010	3401	8502	188		
339.9178	37:01	37:01	0	1.174	2060575	412139	1795	4487	230	1.60(1.32-1.78)	
PCB-105L											
337.9207	37:40	37:40	0	1.195	3197856	599778	3401	8502	176		
339.9178	37:40	37:40	0	1.195	2024046	396469	1795	4487	221	1.58(1.32-1.78)	
PCB-127L											
337.9207	39:08	39:08	0		3266507	615137	3401	8502	181		
339.9178	39:08	39:08	0		2034610	387259	1795	4487	216	1.61(1.32-1.78)	
PCB-126L											
337.9207	40:46	40:46	0	1.293	3162750	557001	3401	8502	164		
339.9178	40:46	40:46	0	1.293	2009257	345095	1795	4487	192	1.57(1.32-1.78)	
PCB-104											
325.8804	25:40	25:40	0	1.001	1431049	309055	135	337	2289		
327.8775	25:40	25:40	0	1.001	902693	198719	97	242	2049	1.59(1.32-1.78)	
PCB-96											
325.8804	26:03	26:03	0	1.016	1456631	320385	135	337	2373		
327.8775	26:03	26:03	0	1.016	913389	195252	97	242	2013	1.59(1.32-1.78)	
PCB-103											
325.8804	27:58	27:58	0	1.091	1225001	260102	135	337	1927		
327.8775	27:57	27:58	-1	1.090	786863	169808	97	242	1751	1.56(1.32-1.78)	
PCB-94											
325.8804	28:12	28:12	0	1.100	1005733	204438	135	337	1514		
327.8775	28:11	28:12	-1	1.100	627509	132233	97	242	1363	1.60(1.32-1.78)	
PCB-95											
325.8804	28:38	28:38	0	1.117	1117805	244070	135	337	1808		
327.8775	28:38	28:38	0	1.117	714850	149836	97	242	1545	1.56(1.32-1.78)	
PCB-93											
325.8804	28:50	28:50	0	1.125	2284038	389301	135	337	2884		
327.8775	28:50	28:50	0	1.125	1425584	237771	97	242	2451	1.60(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-100 (C93)											
325.8804	28:50	28:50	0	1.125	2284038	389301	135	337	2884		
327.8775	28:50	28:50	0	1.125	1425584	237771	97	242	2451	1.60(1.32-1.78)	
PCB-98											
325.8804	29:00	29:00	0	1.131	2351386	281168	135	337	2083		
327.8775	29:00	29:00	0	1.131	1475573	175474	97	242	1809	1.59(1.32-1.78)	
PCB-102 (C98)											
325.8804	29:00	29:00	0	1.131	2351386	281168	135	337	2083		
327.8775	29:00	29:00	0	1.131	1475573	175474	97	242	1809	1.59(1.32-1.78)	
PCB-88											
325.8804	29:30	29:30	0	1.151	2184177	232068	135	337	1719		
327.8775	29:30	29:30	0	1.151	1341696	140898	97	242	1453	1.63(1.32-1.78)	
PCB-91 (C88)											
325.8804	29:30	29:30	0	1.151	2184177	232068	135	337	1719		
327.8775	29:30	29:30	0	1.151	1341696	140898	97	242	1453	1.63(1.32-1.78)	
PCB-84											
325.8804	29:44	29:44	0	1.160	1009413	202555	135	337	1500		
327.8775	29:44	29:44	0	1.160	658332	132892	97	242	1370	1.53(1.32-1.78)	
PCB-89											
325.8804	30:13	30:13	0	1.179	1035084	207689	135	337	1538		
327.8775	30:13	30:13	0	1.179	653531	128512	97	242	1325	1.58(1.32-1.78)	
PCB-121											
325.8804	30:35	30:35	0	1.193	1816592	381999	135	337	2830		
327.8775	30:35	30:35	0	1.193	1139256	234422	97	242	2417	1.59(1.32-1.78)	
PCB-92											
325.8804	30:59	30:59	0	0.857	1207805	242405	135	337	1796		
327.8775	30:59	30:59	0	0.857	774387	156415	97	242	1613	1.56(1.32-1.78)	
PCB-90											
325.8804	31:32	31:32	0	1.230	3963807	605642	135	337	4486		
327.8775	31:32	31:32	1	1.230	2490749	374941	97	242	3865	1.59(1.32-1.78)	
PCB-101 (C90)											
325.8804	31:32	31:32	0	1.230	3963807	605642	135	337	4486		
327.8775	31:32	31:32	1	1.230	2490749	374941	97	242	3865	1.59(1.32-1.78)	
PCB-113 (C90)											
325.8804	31:32	31:32	0	1.230	3963807	605642	135	337	4486		
327.8775	31:32	31:32	1	1.230	2490749	374941	97	242	3865	1.59(1.32-1.78)	
PCB-83											
325.8804	32:08	32:08	0	1.253	2297644	309740	135	337	2294		
327.8775	32:08	32:08	0	1.253	1463115	192376	97	242	1983	1.57(1.32-1.78)	
PCB-99 (C83)											
325.8804	32:08	32:08	0	1.253	2297644	309740	135	337	2294		
327.8775	32:08	32:08	0	1.253	1463115	192376	97	242	1983	1.57(1.32-1.78)	
PCB-112											
325.8804	32:15	32:15	0	1.258	1961254	360755	135	337	2672		
327.8775	32:15	32:15	0	1.258	1251901	229767	97	242	2369	1.57(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-86											M
325.8804	32:37	32:37	0	1.272	8539085	889430	135	337	6588		M
327.8775	32:37	32:37	0	1.272	5429665	559992	97	242	5773	1.57(1.32-1.78)	M
PCB-87 (C86)											M
325.8804	32:37	32:37	0	1.272	8539085	889430	135	337	6588		M
327.8775	32:37	32:37	0	1.272	5429665	559992	97	242	5773	1.57(1.32-1.78)	M
PCB-97 (C86)											M
325.8804	32:37	32:37	0	1.272	8539085	889430	135	337	6588		M
327.8775	32:37	32:37	0	1.272	5429665	559992	97	242	5773	1.57(1.32-1.78)	M
PCB-109 (C86)											M
325.8804	32:37	32:37	0	1.272	8539085	889430	135	337	6588		M
327.8775	32:37	32:37	0	1.272	5429665	559992	97	242	5773	1.57(1.32-1.78)	M
PCB-119 (C86)											M
325.8804	32:37	32:37	0	1.272	8539085	889430	135	337	6588		M
327.8775	32:37	32:37	0	1.272	5429665	559992	97	242	5773	1.57(1.32-1.78)	M
PCB-125 (C86)											M
325.8804	32:37	32:37	0	1.272	8539085	889430	135	337	6588		M
327.8775	32:37	32:37	0	1.272	5429665	559992	97	242	5773	1.57(1.32-1.78)	M
PCB-85											
325.8804	33:20	33:20	0	1.301	4323723	490979	135	337	3637		
327.8775	33:20	33:20	0	1.301	2704323	310278	97	242	3199	1.60(1.32-1.78)	
PCB-116 (C85)											
325.8804	33:20	33:20	0	1.301	4323723	490979	135	337	3637		
327.8775	33:20	33:20	0	1.301	2704323	310278	97	242	3199	1.60(1.32-1.78)	
PCB-117 (C85)											
325.8804	33:20	33:20	0	1.301	4323723	490979	135	337	3637		
327.8775	33:20	33:20	0	1.301	2704323	310278	97	242	3199	1.60(1.32-1.78)	
PCB-110											
325.8804	33:34	33:34	0	1.310	3372839	490897	135	337	3636		
327.8775	33:33	33:34	-1	1.309	2109599	301612	97	242	3109	1.60(1.32-1.78)	
PCB-115 (C110)											
325.8804	33:34	33:34	0	1.310	3372839	490897	135	337	3636		
327.8775	33:33	33:34	-1	1.309	2109599	301612	97	242	3109	1.60(1.32-1.78)	
PCB-82											
325.8804	33:52	33:52	0	1.321	1210309	228373	135	337	1692		
327.8775	33:52	33:52	0	1.321	774160	145080	97	242	1496	1.56(1.32-1.78)	
PCB-111											
325.8804	34:13	34:13	0	1.335	1729090	357699	135	337	2650		
327.8775	34:13	34:13	0	1.335	1089809	229069	97	242	2362	1.59(1.32-1.78)	
PCB-120											
325.8804	34:41	34:41	0	1.353	2105758	411167	135	337	3046		
327.8775	34:41	34:41	0	1.353	1319977	258577	97	242	2666	1.60(1.32-1.78)	
PCB-108											
325.8804	35:50	35:50	0	1.398	3310162	628776	2194	5485	287		
327.8775	35:49	35:50	-1	1.398	2129346	408424	2817	7042	145	1.55(1.32-1.78)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-124 (C108)											
325.8804	35:50	35:50	0	1.398	3310162	628776	2194	5485	287		
327.8775	35:49	35:50	-1	1.398	2129346	408424	2817	7042	145	1.55(1.32-1.78)	
PCB-107											
325.8804	36:04	36:04	0	1.407	1764973	347805	2194	5485	159		
327.8775	36:04	36:04	0	1.407	1148947	217165	2817	7042	77	1.54(1.32-1.78)	
PCB-123											
325.8804	36:11	36:11	0	1.001	1695763	334246	2194	5485	152		
327.8775	36:11	36:11	0	1.001	1094537	212773	2817	7042	76	1.55(1.32-1.78)	
PCB-106											
325.8804	36:18	36:18	0	1.004	1729795	323731	2194	5485	148		
327.8775	36:18	36:18	-1	1.004	1115138	210831	2817	7042	75	1.55(1.32-1.78)	
PCB-118											
325.8804	36:30	36:30	0	1.000	1845234	350508	2194	5485	160		
327.8775	36:30	36:30	0	1.000	1239978	225253	2817	7042	80	1.49(1.32-1.78)	
PCB-122											
325.8804	36:52	36:52	0	1.010	1520137	292741	2194	5485	133		
327.8775	36:51	36:52	-1	1.010	983033	190208	2817	7042	68	1.55(1.32-1.78)	
PCB-114											
325.8804	37:03	37:03	0	1.001	1785520	313202	2194	5485	143		
327.8775	37:03	37:03	0	1.001	1160281	205542	2817	7042	73	1.54(1.32-1.78)	
PCB-105											
325.8804	37:42	37:42	0	1.001	1925918	346809	2194	5485	158		
327.8775	37:42	37:42	0	1.001	1190397	214541	2817	7042	76	1.62(1.32-1.78)	
PCB-127											
325.8804	39:09	39:09	0	1.039	1767366	310991	2194	5485	142		
327.8775	39:09	39:09	-1	1.039	1212731	203800	2817	7042	72	1.46(1.32-1.78)	
PCB-126											
325.8804	40:46	40:46	0	1.000	1768007	284032	2194	5485	129		
327.8775	40:46	40:46	0	1.000	1129477	180301	2817	7042	64	1.57(1.32-1.78)	
PCB-155L											
371.8817	31:16	31:16	0	0.790	2331012	476934	88	220	5420		
373.8788	31:16	31:16	0	0.790	1811921	371700	64	160	5808	1.29(1.05-1.43)	
PCB-153L											
371.8817	38:21	38:21	0	0.900	1112597	210533	1172	2930	180		
373.8788	38:21	38:21	0	0.900	857542	169406	1213	3032	140	1.30(1.05-1.43)	
PCB-138L											
371.8817	39:36	39:36	0		2159472	424174	1172	2930	362		
373.8788	39:36	39:36	0		1730381	332325	1213	3032	274	1.25(1.05-1.43)	
PCB-167L											
371.8817	42:35	42:35	0	1.075	2813298	545102	1172	2930	465		
373.8788	42:35	42:35	0	1.075	2209101	422225	1213	3032	348	1.27(1.05-1.43)	
PCB-156L											
371.8817	43:46	43:46	0	1.105	5575635	675528	1172	2930	576		
373.8788	43:45	43:46	-2	1.105	4336182	525149	1213	3032	433	1.29(1.05-1.43)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-157L (C156L)											
371.8817	43:46	43:46	0	1.105	5575635	675528	1172	2930	576		
373.8788	43:45	43:46	-2	1.105	4336182	525149	1213	3032	433	1.29(1.05-1.43)	
PCB-169L											
371.8817	46:59	46:59	0	1.186	2977649	498558	1172	2930	425		
373.8788	46:59	46:59	0	1.186	2370585	407842	1213	3032	336	1.26(1.05-1.43)	
PCB-155											
359.8415	31:18	31:18	0	1.001	1116957	236532	63	157	3754		
361.8385	31:18	31:18	0	1.001	880755	181327	93	232	1950	1.27(1.05-1.43)	
PCB-152											
359.8415	31:32	31:32	0	1.008	1155528	233950	63	157	3713		
361.8385	31:32	31:32	0	1.008	910402	191645	93	232	2061	1.27(1.05-1.43)	
PCB-150											
359.8415	31:41	31:41	0	1.013	1225324	253731	63	157	4027		
361.8385	31:41	31:41	0	1.013	936996	190002	93	232	2043	1.31(1.05-1.43)	
PCB-136											
359.8415	32:04	32:04	0	1.026	1187770	242061	63	157	3842		
361.8385	32:04	32:04	0	1.026	953076	196189	93	232	2110	1.25(1.05-1.43)	
PCB-145											
359.8415	32:21	32:21	0	1.034	1180424	229616	63	157	3645		
361.8385	32:21	32:21	0	1.034	911377	185059	93	232	1990	1.30(1.05-1.43)	
PCB-148											
359.8415	33:50	33:50	0	1.082	905032	184976	63	157	2936		
361.8385	33:50	33:50	0	1.082	724581	152845	93	232	1643	1.25(1.05-1.43)	
PCB-135											
359.8415	34:26	34:26	0	1.101	1711308	188145	63	157	2986		M
361.8385	34:26	34:26	1	1.101	1344860	151379	93	232	1628	1.27(1.05-1.43)	M
PCB-151 (C135)											
359.8415	34:26	34:26	0	1.101	1711308	188145	63	157	2986		M
361.8385	34:26	34:26	1	1.101	1344860	151379	93	232	1628	1.27(1.05-1.43)	M
PCB-154											
359.8415	34:40	34:40	0	1.109	978550	187024	63	157	2969		
361.8385	34:40	34:40	0	1.109	782690	152170	93	232	1636	1.25(1.05-1.43)	
PCB-144											
359.8415	35:00	35:00	0	1.119	932721	184759	63	157	2933		
361.8385	35:00	35:00	0	1.119	721125	143767	93	232	1546	1.29(1.05-1.43)	
PCB-147											
359.8415	35:22	35:22	0	1.131	2319029	499859	998	2495	501		
361.8385	35:22	35:22	0	1.131	1831887	390852	536	1340	729	1.27(1.05-1.43)	
PCB-149 (C147)											
359.8415	35:22	35:22	0	1.131	2319029	499859	998	2495	501		
361.8385	35:22	35:22	0	1.131	1831887	390852	536	1340	729	1.27(1.05-1.43)	
PCB-134											
359.8415	35:41	35:41	0	1.141	2023864	211487	998	2495	212		M
361.8385	35:41	35:41	0	1.141	1617977	172484	536	1340	322	1.25(1.05-1.43)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-143 (C134)											M
359.8415	35:41	35:41	0	1.141	2023864	211487	998	2495	212		M
361.8385	35:41	35:41	0	1.141	1617977	172484	536	1340	322	1.25(1.05-1.43)	
PCB-139											M
359.8415	35:57	35:57	0	1.150	2213067	384284	998	2495	385		M
361.8385	35:57	35:57	0	1.150	1734065	306540	536	1340	572	1.28(1.05-1.43)	
PCB-140 (C139)											M
359.8415	35:57	35:57	0	1.150	2213067	384284	998	2495	385		M
361.8385	35:57	35:57	0	1.150	1734065	306540	536	1340	572	1.28(1.05-1.43)	
PCB-131											
359.8415	36:11	36:11	0	1.157	914456	190182	998	2495	191		
361.8385	36:11	36:11	0	1.157	735753	148882	536	1340	278	1.24(1.05-1.43)	
PCB-142											
359.8415	36:19	36:19	0	1.162	981871	191273	998	2495	192		
361.8385	36:18	36:19	-1	1.161	773062	149936	536	1340	280	1.27(1.05-1.43)	
PCB-132											
359.8415	36:39	36:39	0	1.172	908181	177036	998	2495	177		
361.8385	36:39	36:39	0	1.172	707509	135472	536	1340	253	1.28(1.05-1.43)	
PCB-133											
359.8415	37:07	37:07	0	1.187	998702	198840	998	2495	199		
361.8385	37:07	37:07	0	1.187	788700	151444	536	1340	283	1.27(1.05-1.43)	
PCB-165											
359.8415	37:31	37:31	0	0.881	1353447	272431	998	2495	273		
361.8385	37:31	37:31	0	0.881	1070659	212536	536	1340	397	1.26(1.05-1.43)	
PCB-146											
359.8415	37:45	37:45	0	0.886	1206340	254660	998	2495	255		
361.8385	37:46	37:45	1	0.887	970651	198777	536	1340	371	1.24(1.05-1.43)	
PCB-161											
359.8415	37:54	37:54	0	0.890	1419674	268059	998	2495	269		
361.8385	37:54	37:54	0	0.890	1138060	215358	536	1340	402	1.25(1.05-1.43)	
PCB-153											
359.8415	38:24	38:24	0	0.902	2848169	406946	998	2495	408		
361.8385	38:23	38:24	-1	0.901	2274960	326740	536	1340	610	1.25(1.05-1.43)	
PCB-168 (C153)											
359.8415	38:24	38:24	0	0.902	2848169	406946	998	2495	408		
361.8385	38:23	38:24	-1	0.901	2274960	326740	536	1340	610	1.25(1.05-1.43)	
PCB-141											
359.8415	38:35	38:35	0	0.906	1109015	208799	998	2495	209		
361.8385	38:35	38:35	0	0.906	843055	165109	536	1340	308	1.32(1.05-1.43)	
PCB-130											
359.8415	38:59	38:59	0	0.915	871299	167017	998	2495	167		
361.8385	38:59	38:59	0	0.915	696071	137640	536	1340	257	1.25(1.05-1.43)	
PCB-137											
359.8415	39:12	39:12	0	0.920	1049308	215860	998	2495	216		
361.8385	39:12	39:12	0	0.920	831989	159209	536	1340	297	1.26(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-164											
359.8415	39:20	39:20	0	0.923	1400263	275815	998	2495	276		
361.8385	39:20	39:20	0	0.923	1089519	218239	536	1340	407	1.29(1.05-1.43)	
PCB-129											
359.8415	39:38	39:38	0	0.931	4823541	533795	998	2495	535		M
361.8385	39:38	39:38	0	0.931	3793058	423322	536	1340	790	1.27(1.05-1.43)	M
PCB-138 (C129)											
359.8415	39:38	39:38	0	0.931	4823541	533795	998	2495	535		M
361.8385	39:38	39:38	0	0.931	3793058	423322	536	1340	790	1.27(1.05-1.43)	M
PCB-160 (C129)											
359.8415	39:38	39:38	0	0.931	4823541	533795	998	2495	535		M
361.8385	39:38	39:38	0	0.931	3793058	423322	536	1340	790	1.27(1.05-1.43)	M
PCB-163 (C129)											
359.8415	39:38	39:38	0	0.931	4823541	533795	998	2495	535		M
361.8385	39:38	39:38	0	0.931	3793058	423322	536	1340	790	1.27(1.05-1.43)	M
PCB-158											
359.8415	40:01	40:01	0	0.940	1709857	314265	998	2495	315		
361.8385	40:01	40:01	0	0.940	1347532	242785	536	1340	453	1.27(1.05-1.43)	
PCB-128											
359.8415	40:51	40:51	0	0.959	2587499	322808	998	2495	323		
361.8385	40:50	40:51	-1	0.959	2080803	264989	536	1340	494	1.24(1.05-1.43)	
PCB-166 (C128)											
359.8415	40:51	40:51	0	0.959	2587499	322808	998	2495	323		
361.8385	40:50	40:51	-1	0.959	2080803	264989	536	1340	494	1.24(1.05-1.43)	
PCB-159											
359.8415	41:51	41:51	0	0.983	1804756	349114	998	2495	350		
361.8385	41:51	41:51	0	0.983	1444966	279725	536	1340	522	1.25(1.05-1.43)	
PCB-162											
359.8415	42:08	42:08	0	0.990	1654359	295736	998	2495	296		
361.8385	42:08	42:08	0	0.990	1299298	245664	536	1340	458	1.27(1.05-1.43)	
PCB-167											
359.8415	42:37	42:37	0	1.001	1519266	291083	998	2495	292		
361.8385	42:37	42:37	0	1.001	1218656	229245	536	1340	428	1.25(1.05-1.43)	
PCB-156											
359.8415	43:48	43:48	0	1.001	2997611	374497	998	2495	375		
361.8385	43:47	43:48	-1	1.000	2407771	300906	536	1340	561	1.24(1.05-1.43)	
PCB-157 (C156)											
359.8415	43:48	43:48	0	1.001	2997611	374497	998	2495	375		
361.8385	43:47	43:48	-1	1.000	2407771	300906	536	1340	561	1.24(1.05-1.43)	
PCB-169											
359.8415	47:00	47:00	0	1.001	1686632	276827	998	2495	277		
361.8385	47:00	47:00	0	1.001	1306785	225572	536	1340	421	1.29(1.05-1.43)	
PCB-188L											
405.8428	36:59	36:59	0	0.820	2067153	413847	82	205	5047		
407.8398	36:59	36:59	0	0.820	1975896	396444	65	162	6099	1.05(0.89-1.21)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-178L											
405.8428	40:03	40:03	0	0.888	775816	158514	82	205	1933		
407.8398	40:03	40:03	0	0.888	698424	141208	65	162	2172	1.11(0.89-1.21)	
PCB-180L											
405.8428	45:07	45:07	0		1638874	317204	82	205	3868		
407.8398	45:07	45:07	0		1537889	301937	65	162	4645	1.07(0.89-1.21)	
PCB-170L											
405.8428	46:24	46:24	0	1.028	1387238	260766	82	205	3180		
407.8398	46:23	46:24	-1	1.028	1338143	247245	65	162	3804	1.04(0.89-1.21)	
PCB-189L											
405.8428	49:30	49:30	0	1.097	2766564	501772	1120	2800	448		
407.8398	49:30	49:30	0	1.097	2634121	491707	836	2090	588	1.05(0.89-1.21)	
PCB-188											
393.8025	37:01	37:01	0	1.001	1136220	232383	23	57	10104		
395.7995	37:01	37:01	0	1.001	1105833	220575	10	25	22058	1.03(0.89-1.21)	
PCB-179											
393.8025	37:22	37:22	0	1.010	1192123	235358	23	57	10233		
395.7995	37:23	37:22	1	1.011	1116080	217120	10	25	21712	1.07(0.89-1.21)	
PCB-184											
393.8025	37:52	37:52	0	1.024	1177259	227168	23	57	9877		
395.7995	37:52	37:52	0	1.024	1100547	217049	10	25	21705	1.07(0.89-1.21)	
PCB-176											
393.8025	38:15	38:15	0	1.034	1054816	201456	23	57	8759		
395.7995	38:15	38:15	0	1.034	1006233	199073	10	25	19907	1.05(0.89-1.21)	
PCB-186											
393.8025	38:42	38:42	0	1.046	1289503	249156	23	57	10833		
395.7995	38:43	38:42	1	1.047	1205111	239981	10	25	23998	1.07(0.89-1.21)	
PCB-178											
393.8025	40:05	40:05	0	1.084	794015	152855	23	57	6646		
395.7995	40:05	40:05	0	1.084	754959	147482	10	25	14748	1.05(0.89-1.21)	
PCB-175											
393.8025	40:42	40:42	0	1.100	839509	161663	23	57	7029		
395.7995	40:42	40:42	0	1.100	779525	152275	10	25	15228	1.08(0.89-1.21)	
PCB-187											
393.8025	40:58	40:58	0	1.108	1004763	196112	23	57	8527		
395.7995	40:58	40:58	0	1.108	955438	190644	10	25	19064	1.05(0.89-1.21)	
PCB-182											
393.8025	41:10	41:10	0	1.113	853113	165023	23	57	7175		
395.7995	41:10	41:10	0	1.113	801007	155498	10	25	15550	1.07(0.89-1.21)	
PCB-183											
393.8025	41:35	41:35	0	1.124	1632030	169270	23	57	7360		M
395.7995	41:35	41:35	0	1.124	1603045	165367	10	25	16537	1.02(0.89-1.21)	M
PCB-185 (C183)											
393.8025	41:35	41:35	0	1.124	1632030	169270	23	57	7360		M
395.7995	41:35	41:35	0	1.124	1603045	165367	10	25	16537	1.02(0.89-1.21)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-174											
393.8025	41:50	41:50	0	1.131	846450	164890	23	57	7169		
395.7995	41:50	41:50	0	1.131	818573	160297	10	25	16030	1.03(0.89-1.21)	
PCB-177											
393.8025	42:16	42:16	0	1.143	862117	163520	23	57	7110		
395.7995	42:16	42:16	0	1.143	834834	161092	10	25	16109	1.03(0.89-1.21)	
PCB-181											
393.8025	42:38	42:38	0	1.153	829955	163519	23	57	7110		
395.7995	42:38	42:38	0	1.153	803879	155194	10	25	15519	1.03(0.89-1.21)	
PCB-171											
393.8025	42:53	42:53	0	1.159	1557597	287816	23	57	12514		
395.7995	42:53	42:53	0	1.159	1500888	274345	10	25	27435	1.04(0.89-1.21)	
PCB-173 (C171)											
393.8025	42:53	42:53	0	1.159	1557597	287816	23	57	12514		
395.7995	42:53	42:53	0	1.159	1500888	274345	10	25	27435	1.04(0.89-1.21)	
PCB-172											
393.8025	44:30	44:30	0	0.899	765568	152898	23	57	6648		
395.7995	44:30	44:30	0	0.899	710626	142933	10	25	14293	1.08(0.89-1.21)	
PCB-192											
393.8025	44:46	44:46	0	0.904	1301520	247757	23	57	10772		
395.7995	44:46	44:46	0	0.904	1188985	229450	10	25	22945	1.09(0.89-1.21)	
PCB-180											
393.8025	45:07	45:07	0	0.911	2190945	307320	23	57	13362		
395.7995	45:07	45:07	0	0.911	1999496	285418	10	25	28542	1.10(0.89-1.21)	
PCB-193 (C180)											
393.8025	45:07	45:07	0	0.911	2190945	307320	23	57	13362		
395.7995	45:07	45:07	0	0.911	1999496	285418	10	25	28542	1.10(0.89-1.21)	
PCB-191											
393.8025	45:30	45:30	0	0.919	1244050	240344	23	57	10450		
395.7995	45:29	45:30	-1	0.919	1169855	223644	10	25	22364	1.06(0.89-1.21)	
PCB-170											
393.8025	46:25	46:25	0	0.938	847882	155122	23	57	6744		
395.7995	46:25	46:25	0	0.938	803331	148174	10	25	14817	1.06(0.89-1.21)	
PCB-190											
393.8025	46:55	46:55	0	0.948	1290513	246915	23	57	10735		
395.7995	46:56	46:55	1	0.948	1208253	227116	10	25	22712	1.07(0.89-1.21)	
PCB-189											
393.8025	49:31	49:31	0	1.000	1351688	249818	350	875	714		
395.7995	49:31	49:31	0	1.000	1288112	242744	246	615	987	1.05(0.89-1.21)	
PCB-202L											
439.8038	42:22	42:22	0	0.821	1504680	285637	4	10	71409		
441.8008	42:21	42:22	-1	0.821	1638721	310512	34	85	9133	0.92(0.76-1.02)	
PCB-194L											
439.8038	51:36	51:36	0		1838083	346799	133	332	2608		
441.8008	51:36	51:36	0		2035945	382013	134	335	2851	0.90(0.76-1.02)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-205L											
439.8038	52:04	52:04	0	1.009	2268224	417209	133	332	3137		
441.8008	52:03	52:04	-1	1.009	2500037	465947	134	335	3477	0.91(0.76-1.02)	
PCB-202											
427.7635	42:23	42:23	0	1.000	812212	161648	79	197	2046		
429.7606	42:23	42:23	0	1.000	865014	167538	51	127	3285	0.94(0.76-1.02)	
PCB-201											
427.7635	43:18	43:18	0	1.022	742288	142737	79	197	1807		
429.7606	43:18	43:18	0	1.022	829259	166756	51	127	3270	0.90(0.76-1.02)	
PCB-204											
427.7635	43:57	43:57	0	1.038	794410	159156	79	197	2015		
429.7606	43:57	43:57	0	1.038	891334	177664	51	127	3484	0.89(0.76-1.02)	
PCB-197											
427.7635	44:11	44:11	0	1.043	844281	160549	79	197	2032		
429.7606	44:11	44:11	0	1.043	948171	177660	51	127	3484	0.89(0.76-1.02)	
PCB-200											
427.7635	44:19	44:19	0	1.046	769624	153030	79	197	1937		
429.7606	44:19	44:19	1	1.046	856490	161352	51	127	3164	0.90(0.76-1.02)	
PCB-198											
427.7635	47:05	47:05	0	1.111	1398964	177398	79	197	2246		
429.7606	47:04	47:05	-1	1.111	1533538	189132	51	127	3708	0.91(0.76-1.02)	
PCB-199 (C198)											
427.7635	47:05	47:05	0	1.111	1398964	177398	79	197	2246		
429.7606	47:04	47:05	-1	1.111	1533538	189132	51	127	3708	0.91(0.76-1.02)	
PCB-196											
427.7635	47:46	47:46	0	0.917	631163	118945	79	197	1506		
429.7606	47:45	47:46	-1	0.917	702265	135044	51	127	2648	0.90(0.76-1.02)	
PCB-203											
427.7635	47:57	47:57	0	0.921	798501	152390	79	197	1929		
429.7606	47:57	47:57	0	0.921	830318	160098	51	127	3139	0.96(0.76-1.02)	
PCB-195											
427.7635	49:17	49:17	0	0.946	865088	163544	327	817	500		
429.7606	49:17	49:17	0	0.946	977568	187324	229	572	818	0.88(0.76-1.02)	
PCB-194											
427.7635	51:37	51:37	0	0.991	1035159	195965	327	817	599		
429.7606	51:37	51:37	0	0.991	1125979	211728	229	572	925	0.92(0.76-1.02)	
PCB-205											
427.7635	52:05	52:05	0	1.000	1212481	221026	327	817	676		
429.7606	52:05	52:05	0	1.000	1350264	247613	229	572	1081	0.90(0.76-1.02)	
PCB-208L											
473.7648	49:01	49:01	0	0.950	1772448	341931	278	695	1230		
475.7619	49:01	49:01	0	0.950	2177390	431755	363	907	1189	0.81(0.65-0.89)	
PCB-206L											
473.7648	53:49	53:49	0	1.043	1406746	265092	278	695	954		
475.7619	53:49	53:49	1	1.043	1733357	320467	363	907	883	0.81(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-208											
461.7246	49:02	49:02	0	1.001	976183	185478	214	535	867		
463.7216	49:02	49:02	0	1.001	1240652	236349	555	1387	426	0.79(0.65-0.89)	
PCB-207											
461.7246	49:58	49:58	0	1.019	1022370	201926	214	535	944		
463.7216	49:58	49:58	0	1.019	1258813	247169	555	1387	445	0.81(0.65-0.89)	
PCB-206											
461.7246	53:50	53:50	0	1.000	851808	163838	214	535	766		
463.7216	53:50	53:50	0	1.000	1094723	210215	555	1387	379	0.78(0.65-0.89)	
PCB-209L											
507.7258	55:25	55:25	0	1.074	1472987	266265	32	80	8321		
509.7229	55:25	55:25	0	1.074	2082815	376274	40	100	9407	0.71(0.59-0.79)	
DCB Decachlorobiphenyl											
495.6856	55:27	55:27	0	1.000	820169	158189	34	85	4653		
497.6826	55:27	55:27	0	1.000	1125785	210095	35	87	6003	0.73(0.59-0.79)	

### QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

### Reagents:

61CV1668CS3\_00018

Amount Added: 20.00

Units: uL

Eurofins Knoxville  
CCV Relative RT Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
 Lims ID: WDMCCV  
 Client ID:  
 Sample Type: WDMCCV  
 Inject. Date: 17-Jul-2024 12:39:00 ALS Bottle#: 0 Worklist Smp#: 1  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info:  
 Misc. Info.: 140-0033539-001  
 Operator ID: Xcalibur\_System Instrument ID: D2D  
 Sublist: chrom-PCBs\_D2D\*sub2  
 Method: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\PCBs\_D2D.m  
 Limit Group: HR - EPA\_23 PCB ICAL  
 Last Update: 17-Jul-2024 17:24:20 Calib Date: 31-May-2024 21:13:00  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
 Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
 Process Host: CTX1640  
 First Level Reviewer: P0IK Date: 17-Jul-2024 17:24:20  
 Start Cal Date: 31-May-2024 14:36:00  
 End Cal Date: 31-May-2024 21:13:00

Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-1L		11:34	11:38	5	15	0.7253	0.7284	0.717 - 0.7472
PCB-3L		13:43	13:46	4	15	0.8606	0.8625	0.849 - 0.8798
PCB-1	L	11:35	11:39	5		1.0011	1.0011	0.995 - 1.0085
PCB-2		13:34	13:37	4		0.9885	0.9886	0.985 - 0.9925
PCB-3	L	13:44	13:47	4		1.0010	1.0010	0.998 - 1.0048
PCB-4L		13:59	14:01	3	15	0.8771	0.8782	0.865 - 0.8956
PCB-9L		15:57	15:58	2		1.0000	1.0000	0.987 - 1.0128
PCB-8L		16:48	16:49	1		1.1991	1.1987	1.192 - 1.1989
PCB-15L		19:52	19:53	2	15	1.2459	1.2452	1.233 - 1.2530
PCB-4	L	14:00	14:03	4		1.0009	1.0019	0.994 - 1.0058
PCB-10		14:10	14:13	3		1.0132	1.0131	1.010 - 1.0168
PCB-9		15:58	15:59	1		1.1421	1.1397	1.135 - 1.1415
PCB-7		16:08	16:09	2		1.1534	1.1519	1.147 - 1.1538
PCB-6		16:22	16:24	3		1.1703	1.1697	1.164 - 1.1706
PCB-5		16:41	16:42	2		1.1929	1.1912	1.186 - 1.1926
PCB-8		16:48	16:49	2		1.2013	1.1997	1.194 - 1.2008
PCB-14		18:26	18:26	0		0.9278	0.9266	0.926 - 0.9305
PCB-11		19:16	19:17	1		0.9702	0.9696	0.968 - 0.9725
PCB-12/13		19:34	19:36	2		0.9848	0.9855	0.983 - 0.9875
PCB-15	L	19:53	19:54	1		1.0013	1.0007	0.997 - 1.0050
PCB-19L		17:05	17:07	2	15	0.8402	0.8411	0.831 - 0.8547
PCB-32L		20:20	20:21	1		1.0000	1.0000	0.998 - 1.0024
PCB-31L		22:37	22:36	0		1.0000	1.0000	0.998 - 1.0022
PCB-28L		22:55	22:52	-2		1.0130	1.0124	1.006 - 1.0201



Compound	T/L	ICAL RT	CCV RT	RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-37L		26:54	26:53	-1	15	1.1902	1.1901	1.178 - 1.1995
PCB-19	L	17:06	17:08	3		1.0008	1.0015	0.996 - 1.0058
PCB-18/30		18:57	18:56	-1		1.1085	1.1060	1.104 - 1.1093
PCB-17		19:23	19:23	0		1.1347	1.1329	1.129 - 1.1352
PCB-27		19:37	19:36	0		1.1478	1.1459	1.141 - 1.1471
PCB-24		19:44	19:44	0		1.1547	1.1528	1.148 - 1.1542
PCB-16		19:51	19:51	1		1.1617	1.1605	1.156 - 1.1621
PCB-32		20:22	20:21	0		1.1917	1.1897	1.185 - 1.1908
PCB-34		21:37	21:36	0		1.2654	*1.2629	1.257 - 1.2623
PCB-23		21:47	21:45	-1		1.2744	1.2711	1.266 - 1.2715
PCB-26/29		22:06	22:05	0		1.2931	1.2905	1.282 - 1.2915
PCB-25		22:19	22:18	0		0.8293	0.8293	0.829 - 0.8325
PCB-31		22:38	22:37	0		0.8412	0.8412	0.840 - 0.8438
PCB-20/28		22:56	22:55	-1		0.8526	0.8526	0.851 - 0.8568
PCB-21/33		23:06	23:05	-1		0.8588	0.8583	0.858 - 0.8637
PCB-22		23:33	23:32	-1		0.8754	0.8754	0.875 - 0.8786
PCB-36		25:07	25:05	-1		0.9334	0.9330	0.932 - 0.9352
PCB-39		25:28	25:27	-1		0.9467	0.9463	0.945 - 0.9483
PCB-38		26:03	26:01	-1		0.9681	0.9677	0.966 - 0.9695
PCB-35		26:31	26:30	-1		0.9857	0.9857	0.984 - 0.9875
PCB-37	L	26:55	26:55	0		1.0005	1.0010	0.999 - 1.0024
PCB-54L		20:10	20:11	2	15	0.8149	0.8167	0.811 - 0.8247
PCB-52L		24:45	24:43	-1		1.0000	1.0000	0.992 - 1.0083
PCB-79L		32:41	32:37	-4		0.9707	0.9700	0.969 - 0.9718
PCB-81L		33:40	33:37	-2	15	1.3604	1.3606	1.351 - 1.3641
PCB-77L		34:13	34:11	-2	15	1.3832	1.3833	1.373 - 1.3867
PCB-54	L	20:12	20:12	1		1.0000	1.0000	0.996 - 1.0041
PCB-50/53		22:23	22:21	-1		1.1097	1.1072	1.102 - 1.1106
PCB-45/51		23:06	23:05	-1		1.1459	1.1433	1.137 - 1.1453
PCB-46		23:20	23:20	0		1.1573	1.1560	1.153 - 1.1576
PCB-52		24:46	24:44	-2		1.2284	1.2250	1.222 - 1.2263
PCB-43/73		24:55	24:52	-2		1.2353	1.2320	1.230 - 1.2346
PCB-49/69		25:12	25:09	-3		1.2499	1.2459	1.242 - 1.2499
PCB-48		25:32	25:30	-2		1.2665	1.2630	1.259 - 1.2636
PCB-44/47/65		25:47	25:44	-2		1.2785	1.2751	1.269 - 1.2770
PCB-59/62/75		26:05	26:03	-1		1.2931	1.2903	1.284 - 1.2919
PCB-42		26:17	26:15	-1		1.3033	1.3004	1.296 - 1.3007
PCB-40/41/71		26:47	26:45	-2		1.3280	*1.3251	1.317 - 1.3250
PCB-64		27:00	26:58	-2		1.3388	*1.3359	1.331 - 1.3355
PCB-72		27:50	27:47	-3		0.8271	0.8262	0.826 - 0.8291
PCB-68		28:07	28:04	-3		0.8354	0.8346	0.835 - 0.8375
PCB-57		28:33	28:29	-3		0.8480	0.8471	0.847 - 0.8500
PCB-58		28:47	28:44	-2		0.8552	0.8548	0.854 - 0.8574
PCB-67		28:57	28:54	-3		0.8601	0.8593	0.859 - 0.8620
PCB-63		29:13	29:10	-2		0.8677	0.8673	0.866 - 0.8694
PCB-61/70/74/76		29:33	29:30	-2		0.8780	0.8776	0.875 - 0.8810

Compound	T/L	ICAL RT	CCV RT	Δ RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-66		29:52	29:50	-2		0.8875	0.8871	0.886 - 0.8894
PCB-55		30:02	29:59	-2		0.8920	0.8920	0.891 - 0.8943
PCB-56		30:32	30:30	-2		0.9072	0.9072	0.907 - 0.9098
PCB-60		30:45	30:42	-3		0.9137	0.9133	0.913 - 0.9158
PCB-80		31:10	31:06	-3		0.9259	0.9251	0.924 - 0.9268
PCB-79		32:42	32:38	-3		0.9715	0.9707	0.970 - 0.9726
PCB-78		33:15	33:12	-3		0.9878	0.9875	0.986 - 0.9890
PCB-81	T	33:41	33:38	-3		1.0008	1.0004	0.999 - 1.0020
PCB-77	T/L	34:15	34:13	-2		1.0007	1.0007	0.999 - 1.0019
PCB-104L		25:42	25:38	-3	15	0.8129	0.8131	0.810 - 0.8199
PCB-95L		28:40	28:37	-3		1.1155	1.1162	1.112 - 1.1179
PCB-101L		31:36	31:32	-4		1.0000	1.0000	0.994 - 1.0065
PCB-111L		34:17	34:12	-5		1.0850	1.0847	1.079 - 1.0891
PCB-123L		36:15	36:10	-4	15	1.1469	1.1471	1.141 - 1.1511
PCB-118L		36:34	36:29	-4	15	1.1573	1.1575	1.151 - 1.1614
PCB-114L		37:06	37:01	-4	15	1.1739	1.1742	1.168 - 1.1780
PCB-105L		37:44	37:40	-4	15	1.1943	1.1951	1.188 - 1.1989
PCB-127L		39:13	39:08	-4		1.0000	1.0000	0.995 - 1.0053
PCB-126L		40:49	40:46	-3	15	1.2917	1.2930	1.285 - 1.2956
PCB-104	L	25:42	25:40	-2		1.0005	1.0010	0.998 - 1.0039
PCB-96		26:05	26:03	-1		1.0149	1.0165	1.013 - 1.0195
PCB-103		28:01	27:58	-3		1.0907	1.0908	1.087 - 1.0912
PCB-94		28:14	28:12	-2		1.0991	1.1002	1.097 - 1.1003
PCB-95		28:41	28:38	-2		1.1165	1.1172	1.113 - 1.1193
PCB-93/100		28:54	28:50	-3		1.1250	1.1252	1.120 - 1.1267
PCB-98/102		29:03	29:00	-3		1.1310	1.1311	1.127 - 1.1336
PCB-88/91		29:33	29:30	-2		1.1499	*1.1506	1.143 - 1.1505
PCB-84		29:46	29:44	-1		1.1584	1.1601	1.157 - 1.1603
PCB-89		30:15	30:13	-2		1.1773	1.1785	1.175 - 1.1786
PCB-121		30:40	30:35	-5		1.1937	*1.1930	1.188 - 1.1922
PCB-92		31:02	30:59	-3		0.8564	0.8565	0.856 - 0.8589
PCB-90/101/113		31:37	31:32	-5		1.2306	1.2299	1.224 - 1.2307
PCB-83/99		32:12	32:08	-4		1.2535	*1.2533	1.245 - 1.2525
PCB-112		32:19	32:15	-3		1.2580	*1.2583	1.254 - 1.2574
PCB-86/87/97/109/119/125		32:41	32:37	-4		1.2724	1.2723	1.265 - 1.2756
PCB-85/116/117		33:25	33:20	-4		1.3008	1.3007	1.293 - 1.3007
PCB-110/115		33:36	33:34	-1		1.3078	*1.3097	1.303 - 1.3092
PCB-82		33:54	33:52	-2		1.3198	*1.3212	1.316 - 1.3194
PCB-111		34:19	34:13	-5		1.3357	*1.3351	1.329 - 1.3330
PCB-120		34:46	34:41	-4		1.3531	*1.3531	1.348 - 1.3514
PCB-108/124		35:54	35:50	-3		1.3975	*1.3980	1.390 - 1.3967
PCB-107		36:09	36:04	-4		1.4072	*1.4073	1.401 - 1.4049
PCB-123	T	36:16	36:11	-4		1.0007	1.0007	1.000 - 1.0023
PCB-106		36:22	36:18	-3		1.0036	1.0040	1.003 - 1.0057
PCB-118	T	36:35	36:30	-4		1.0004	1.0004	0.999 - 1.0019
PCB-122		36:56	36:52	-4		1.0101	1.0104	1.009 - 1.0117

Compound	T/L	ICAL RT	CCV RT	Δ RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-114	T	37:07	37:03	-4		1.0004	1.0007	0.999 - 1.0018
PCB-105	T	37:46	37:42	-4		1.0007	1.0007	0.999 - 1.0018
PCB-127		39:14	39:09	-4		1.0397	1.0394	1.037 - 1.0399
PCB-126	T/L	40:51	40:46	-4		1.0006	1.0003	1.000 - 1.0016
PCB-155L		31:22	31:16	-6	15	0.7904	0.7895	0.787 - 0.7951
PCB-153L		38:27	38:21	-6		0.9005	0.9003	0.899 - 0.9028
PCB-138L		39:41	39:36	-4		1.0000	1.0000	0.979 - 1.0208
PCB-167L		42:42	42:35	-6	15	1.0759	1.0753	1.071 - 1.0792
PCB-156L/157L		43:51	43:46	-5	15	1.1050	1.1052	1.100 - 1.1084
PCB-169L		47:05	46:59	-6	15	1.1862	1.1862	1.184 - 1.1864
PCB-155	L	31:24	31:18	-6		1.0008	1.0008	0.998 - 1.0031
PCB-152		31:35	31:32	-3		1.0069	1.0082	1.006 - 1.0096
PCB-150		31:45	31:41	-4		1.0122	1.0131	1.011 - 1.0144
PCB-136		32:07	32:04	-2		1.0236	1.0258	1.024 - 1.0268
PCB-145		32:24	32:21	-3		1.0330	1.0343	1.033 - 1.0358
PCB-148		33:56	33:50	-5		1.0816	1.0822	1.080 - 1.0830
PCB-135/151		34:31	34:26	-5		1.1004	1.1010	1.099 - 1.1038
PCB-154		34:46	34:40	-6		1.1085	1.1087	1.106 - 1.1107
PCB-144		35:05	35:00	-4		1.1183	1.1194	1.117 - 1.1199
PCB-147/149		35:27	35:22	-4		1.1301	1.1313	1.127 - 1.1326
PCB-134/143		35:45	35:41	-3		1.1394	1.1409	1.136 - 1.1409
PCB-139/140		36:03	35:57	-5		1.1490	1.1498	1.146 - 1.1515
PCB-131		36:15	36:11	-3		1.1553	1.1569	1.154 - 1.1571
PCB-142		36:23	36:19	-3		1.1599	1.1615	1.159 - 1.1621
PCB-132		36:42	36:39	-3		1.1700	1.1720	1.168 - 1.1728
PCB-133		37:13	37:07	-5		1.1863	1.1872	1.184 - 1.1872
PCB-165		37:37	37:31	-5		0.8808	0.8809	0.880 - 0.8825
PCB-146		37:52	37:45	-6		0.8867	0.8864	0.886 - 0.8882
PCB-161		37:59	37:54	-5		0.8897	0.8898	0.889 - 0.8914
PCB-153/168		38:29	38:24	-5		0.9014	0.9016	0.900 - 0.9040
PCB-141		38:40	38:35	-4		0.9054	0.9059	0.905 - 0.9075
PCB-130		39:04	38:59	-4		0.9150	0.9155	0.915 - 0.9172
PCB-137		39:18	39:12	-5		0.9202	0.9204	0.920 - 0.9224
PCB-164		39:25	39:20	-4		0.9230	0.9235	0.923 - 0.9252
PCB-129/138/160/163		39:44	39:38	-5		0.9304	0.9306	0.930 - 0.9349
PCB-158		40:06	40:01	-5		0.9393	0.9395	0.939 - 0.9409
PCB-128/166		40:57	40:51	-5		0.9590	0.9593	0.958 - 0.9617
PCB-159		41:58	41:51	-6		0.9828	0.9827	0.982 - 0.9839
PCB-162		42:15	42:08	-6		0.9895	0.9895	0.988 - 0.9907
PCB-167	T	42:43	42:37	-6		1.0006	1.0006	0.999 - 1.0016
PCB-156/157	T	43:53	43:48	-5		1.0006	1.0006	0.999 - 1.0025
PCB-169	T/L	47:06	47:00	-6		1.0006	1.0006	0.999 - 1.0015
PCB-188L		37:06	36:59	-6	15	0.8198	0.8197	0.817 - 0.8243
PCB-178L		40:09	40:03	-5		0.8875	0.8876	0.884 - 0.8916
PCB-180L		45:15	45:07	-7		1.0000	1.0000	0.996 - 1.0037
PCB-170L		46:30	46:24	-5	15	1.0276	1.0283	1.024 - 1.0317

Compound	T/L	ICAL RT	CCV RT	Δ RT (secs)	RT Lmt	ICAL RRT	CCV RRT	RRT Limits
PCB-189L		49:37	49:30	-6	15	1.0965	1.0970	1.093 - 1.1000
PCB-188	L	37:07	37:01	-6		1.0007	1.0007	1.000 - 1.0022
PCB-179		37:27	37:22	-4		1.0096	1.0103	1.009 - 1.0115
PCB-184		37:59	37:52	-7		1.0241	1.0238	1.023 - 1.0254
PCB-176		38:20	38:15	-4		1.0333	1.0341	1.033 - 1.0351
PCB-186		38:48	38:42	-5		1.0457	1.0462	1.045 - 1.0476
PCB-178		40:10	40:05	-5		1.0830	1.0835	1.081 - 1.0837
PCB-175		40:48	40:42	-6		1.1000	1.1002	1.098 - 1.1008
PCB-187		41:05	40:58	-6		1.1074	1.1077	1.106 - 1.1082
PCB-182		41:17	41:10	-6		1.1127	1.1130	1.111 - 1.1137
PCB-183/185		41:42	41:35	-7		1.1241	1.1240	1.123 - 1.1260
PCB-174		41:56	41:50	-5		1.1305	1.1311	1.129 - 1.1313
PCB-177		42:22	42:16	-5		1.1422	1.1428	1.140 - 1.1430
PCB-181		42:45	42:38	-6		1.1524	1.1528	1.151 - 1.1535
PCB-171/173		42:58	42:53	-5		1.1585	1.1592	1.156 - 1.1602
PCB-172		44:37	44:30	-6		0.8993	0.8991	0.899 - 0.9008
PCB-192		44:54	44:46	-7		0.9049	0.9044	0.904 - 0.9060
PCB-180/193		45:14	45:07	-7		0.9117	0.9113	0.911 - 0.9130
PCB-191		45:37	45:30	-6		0.9194	0.9193	0.919 - 0.9209
PCB-170		46:31	46:25	-5		0.9377	0.9379	0.937 - 0.9392
PCB-190		47:02	46:55	-6		0.9481	0.9480	0.948 - 0.9496
PCB-189	T/L	49:38	49:31	-6		1.0003	1.0003	0.999 - 1.0013
PCB-202L		42:28	42:22	-5	15	0.8211	0.8210	0.819 - 0.8249
PCB-194L		51:43	51:36	-6		1.0000	1.0000	0.996 - 1.0040
PCB-205L		52:11	52:04	-6	15	1.0092	1.0092	1.004 - 1.0138
PCB-202	L	42:29	42:23	-6		1.0006	1.0003	0.999 - 1.0027
PCB-201		43:24	43:18	-6		1.0223	1.0220	1.020 - 1.0237
PCB-204		44:05	43:57	-7		1.0381	1.0375	1.036 - 1.0388
PCB-197		44:19	44:11	-7		1.0437	1.0431	1.042 - 1.0445
PCB-200		44:25	44:19	-6		1.0462	1.0459	1.045 - 1.0473
PCB-198/199		47:12	47:05	-6		1.1115	1.1114	1.109 - 1.1132
PCB-196		47:53	47:46	-6		0.9175	0.9173	0.917 - 0.9189
PCB-203		48:05	47:57	-7		0.9212	0.9208	0.921 - 0.9226
PCB-195		49:24	49:17	-6		0.9465	0.9464	0.946 - 0.9481
PCB-194		51:44	51:37	-6		0.9914	0.9914	0.991 - 0.9926
PCB-205	L	52:13	52:05	-7		1.0005	1.0002	0.999 - 1.0013
PCB-208L		49:08	49:01	-7	15	0.9503	0.9499	0.947 - 0.9534
PCB-206L		53:56	53:49	-7	15	1.0431	1.0429	1.038 - 1.0472
PCB-208	L	49:10	49:02	-7		1.0005	1.0005	0.999 - 1.0013
PCB-207		50:05	49:58	-7		1.0193	1.0193	1.019 - 1.0205
PCB-206	L	53:58	53:50	-7		1.0005	1.0005	1.000 - 1.0015
PCB-209L		55:35	55:25	-9	15	1.0748	1.0741	1.069 - 1.0784
DCB Decachlorobiphenyl	L	55:35	55:27	-8		1.0002	1.0005	0.999 - 1.0012

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

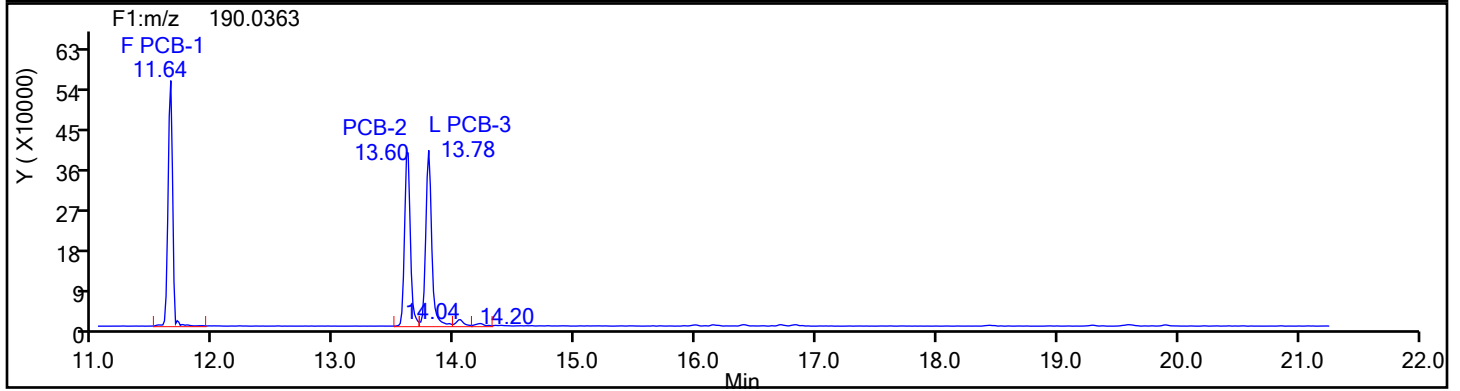
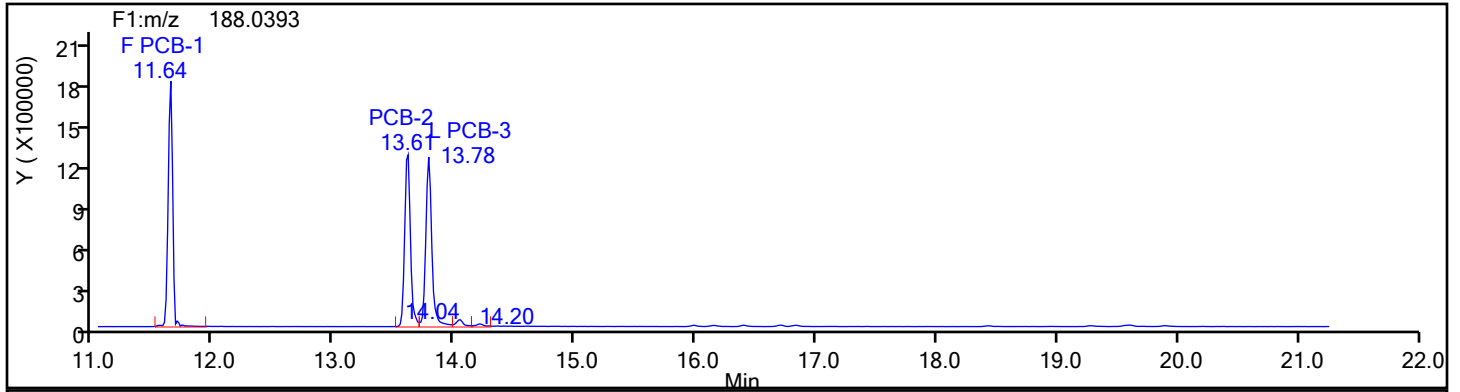
Worklist#: 88871

Sample Line#: 1

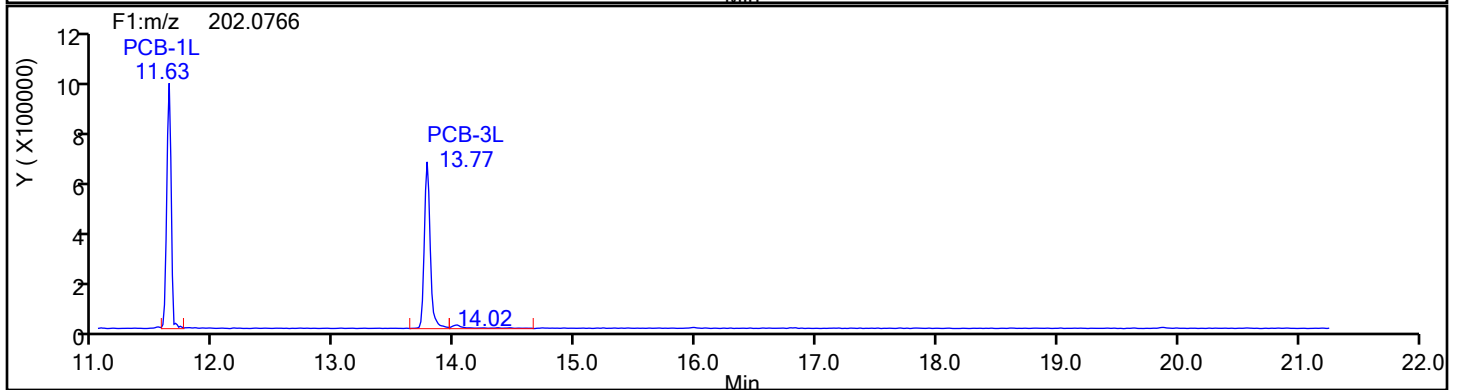
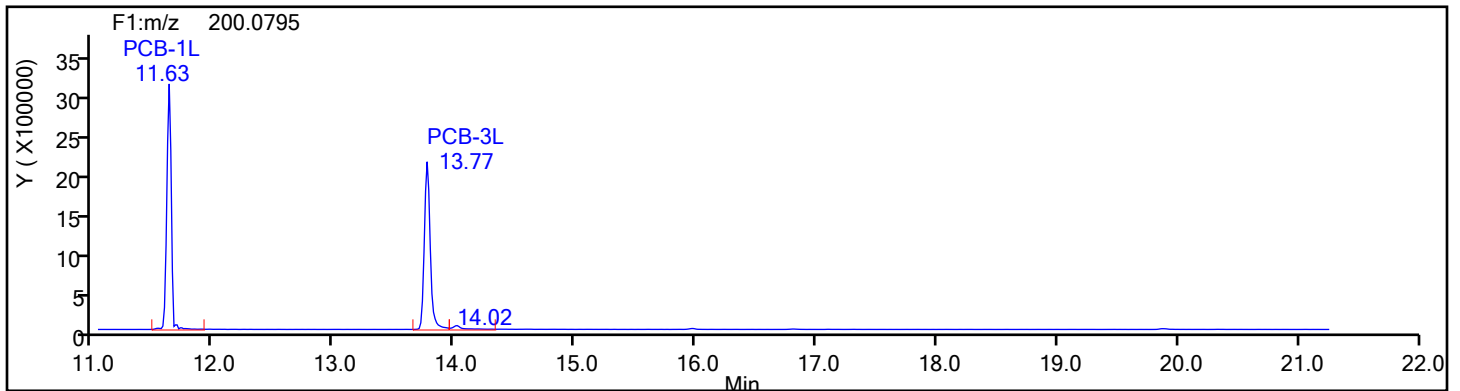
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

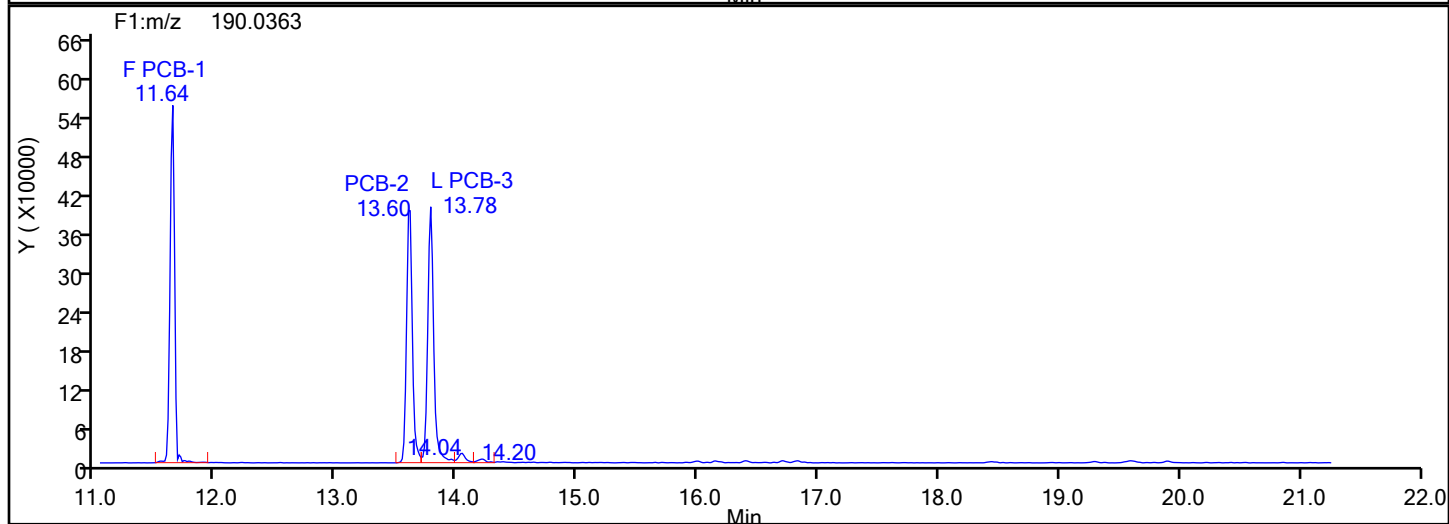
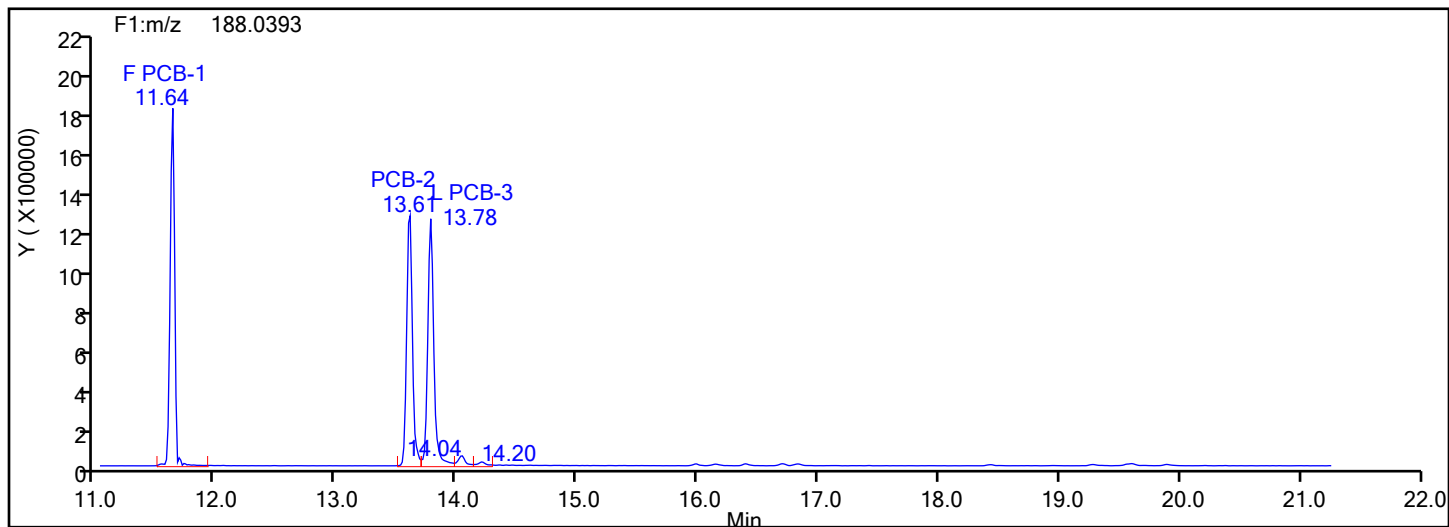
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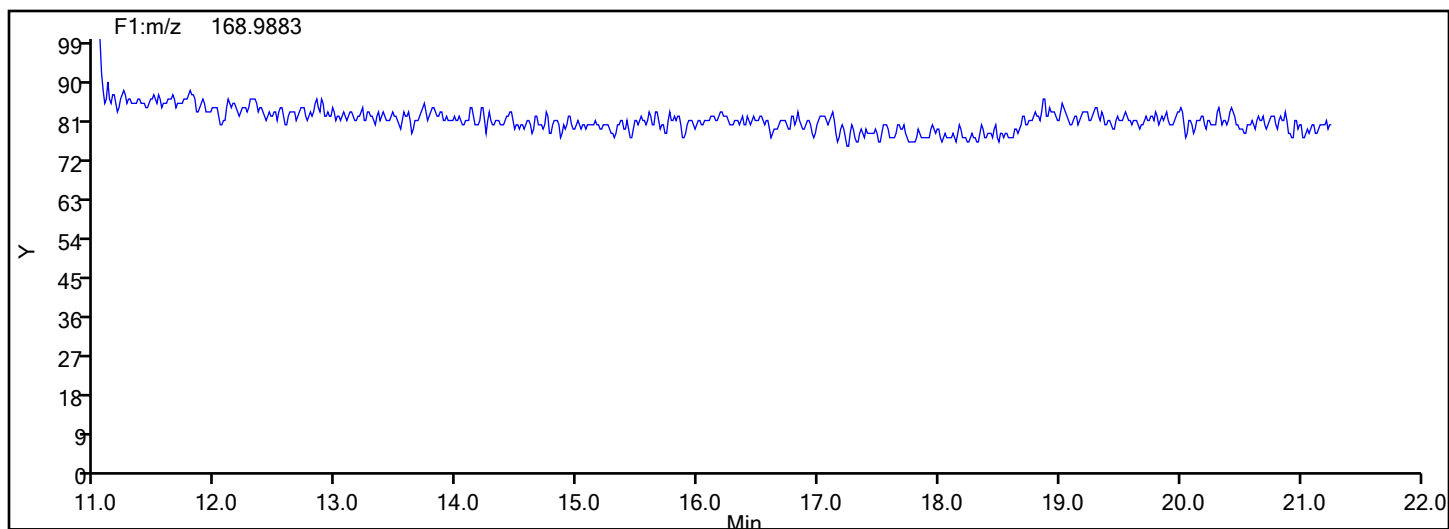
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Lock Mass



## Eurofins Knoxville

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Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

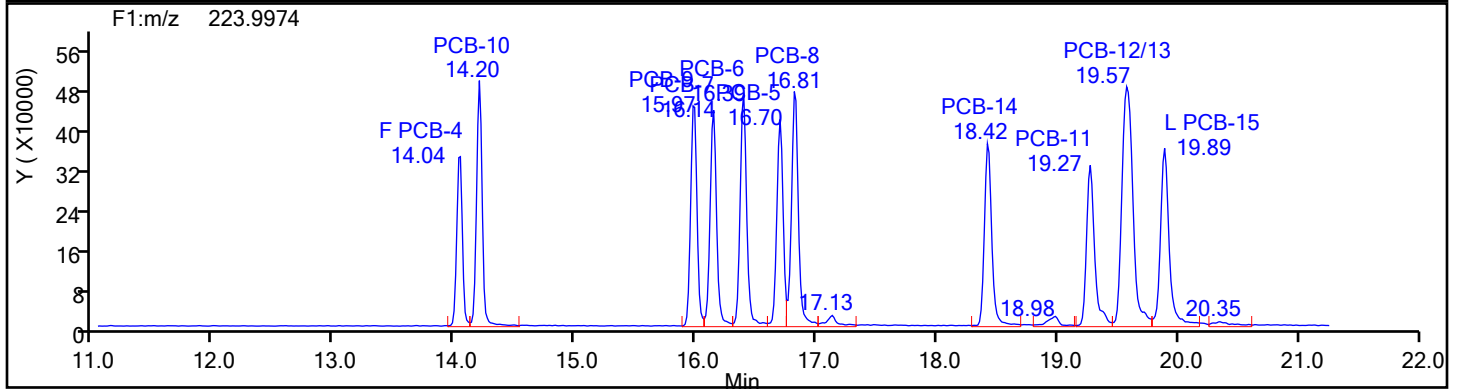
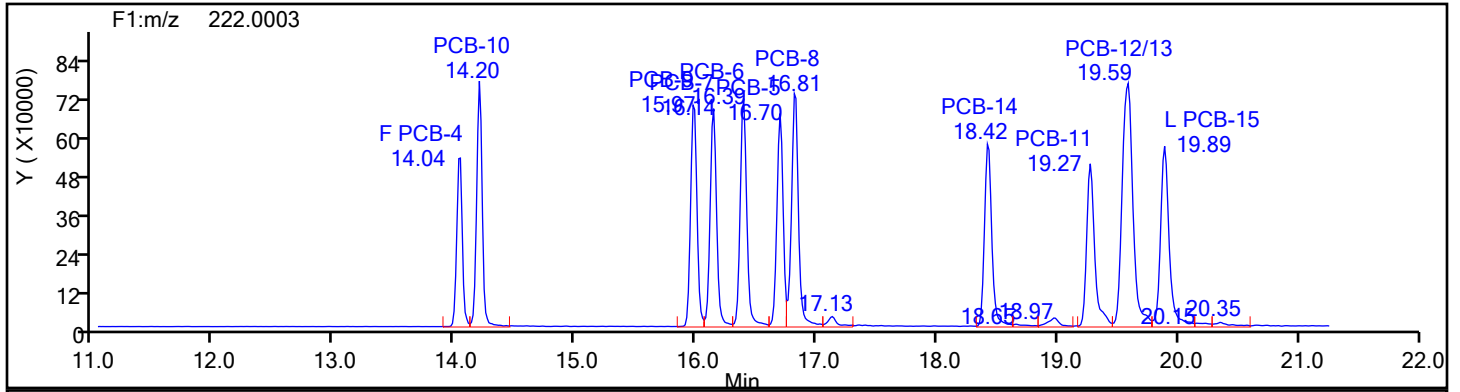
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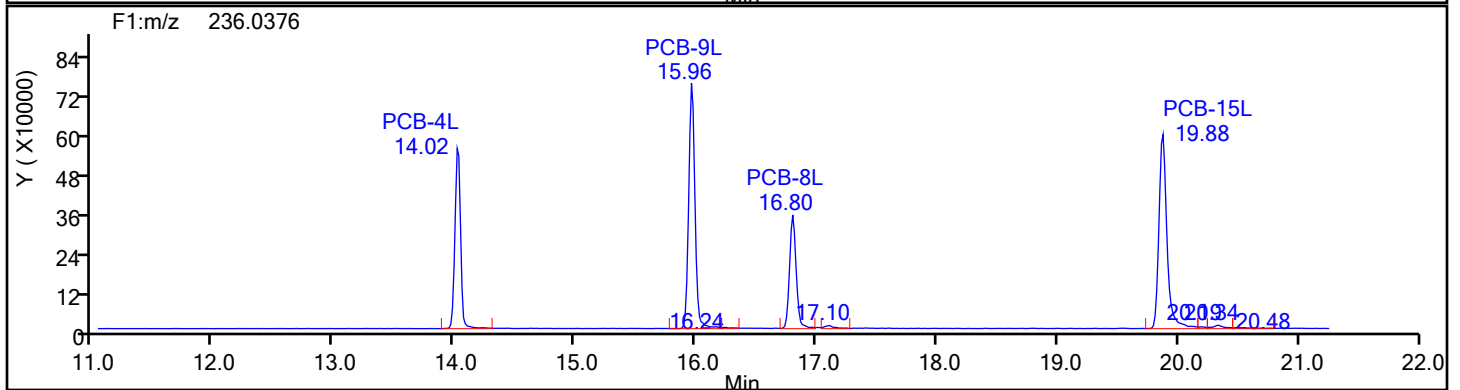
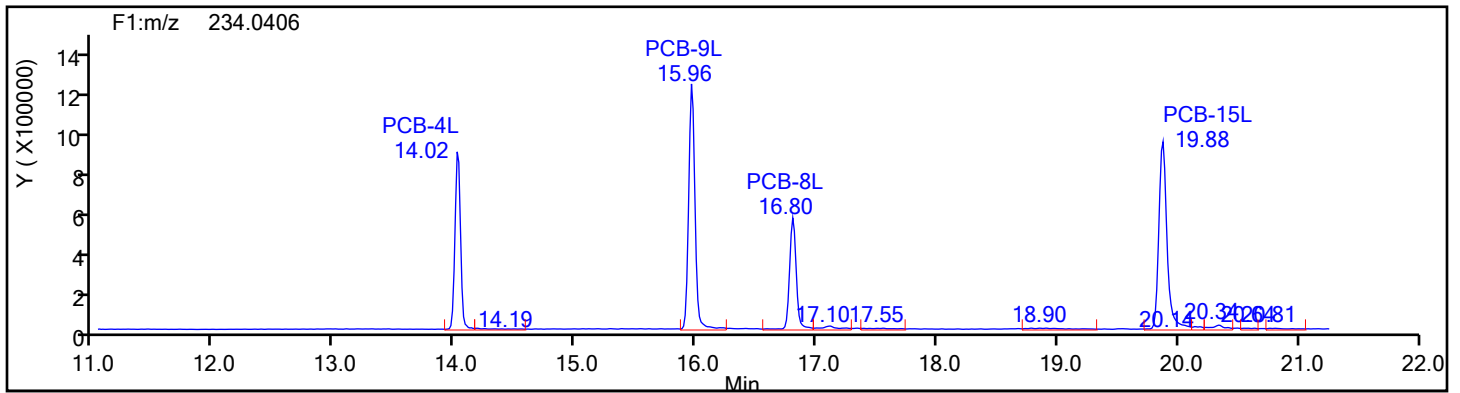
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

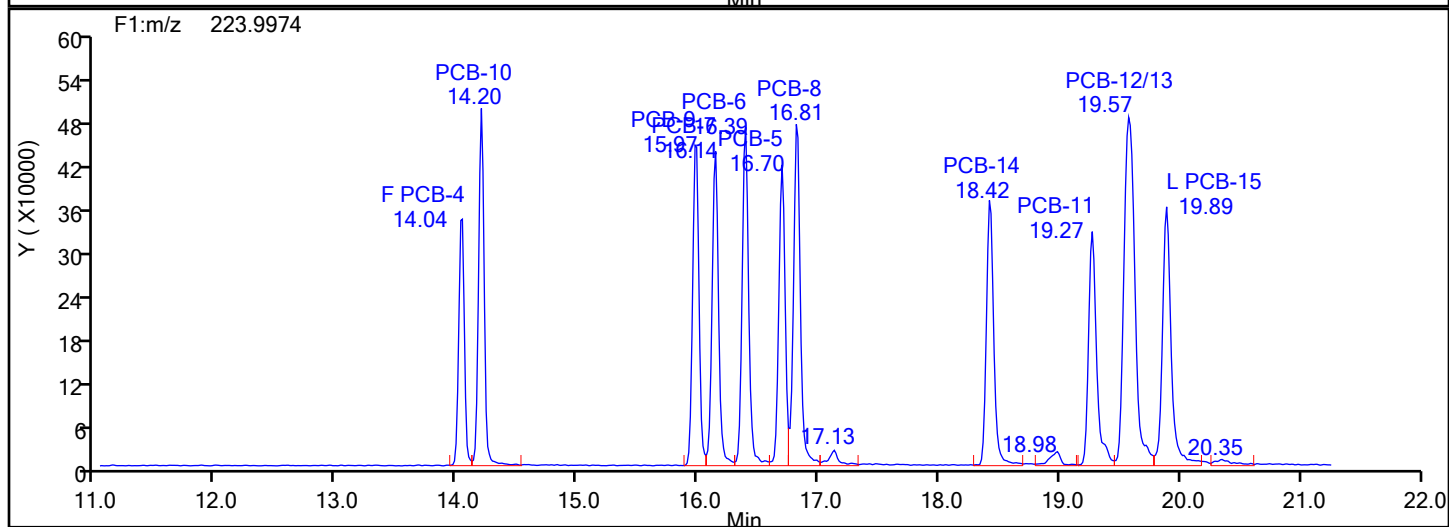
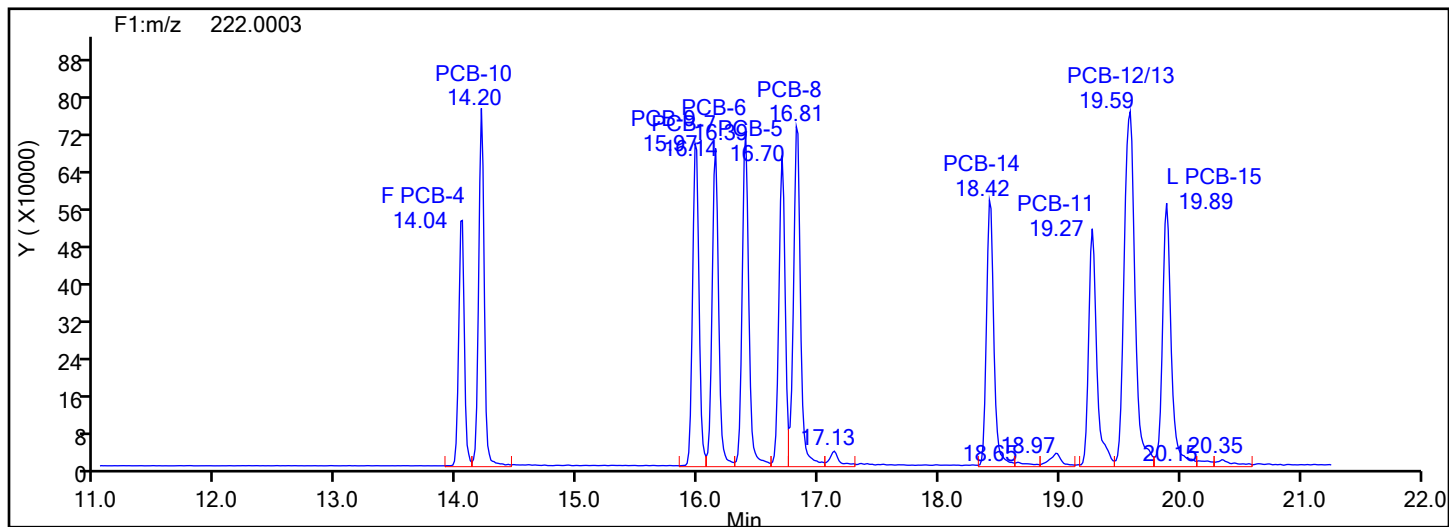
Worklist#: 88871

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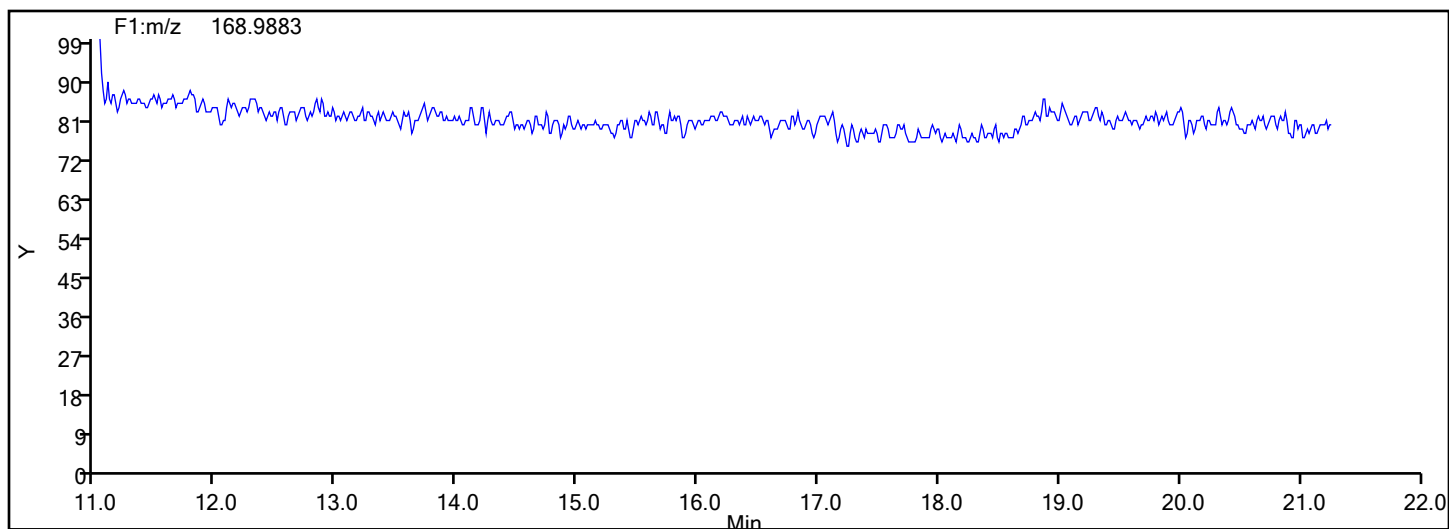
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Lock Mass





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

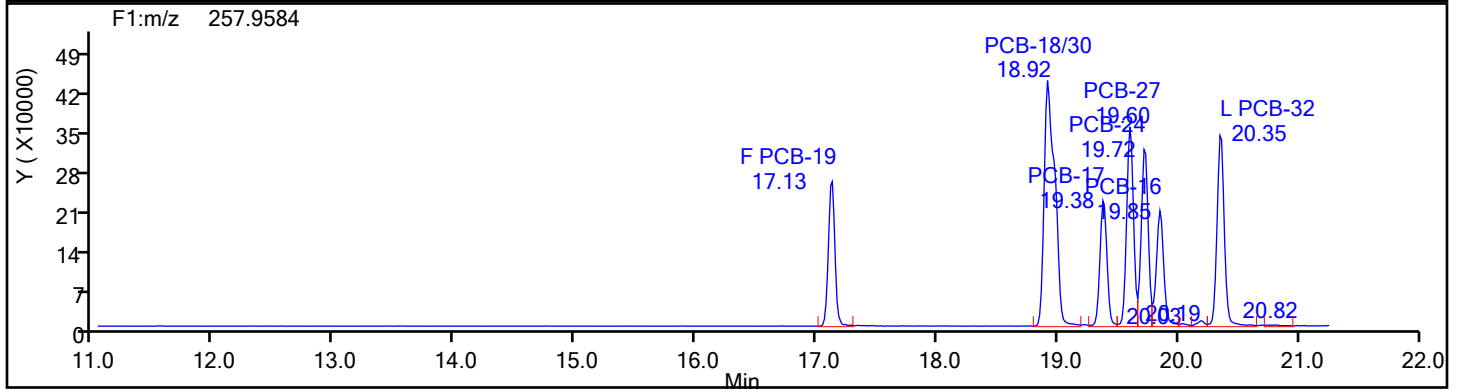
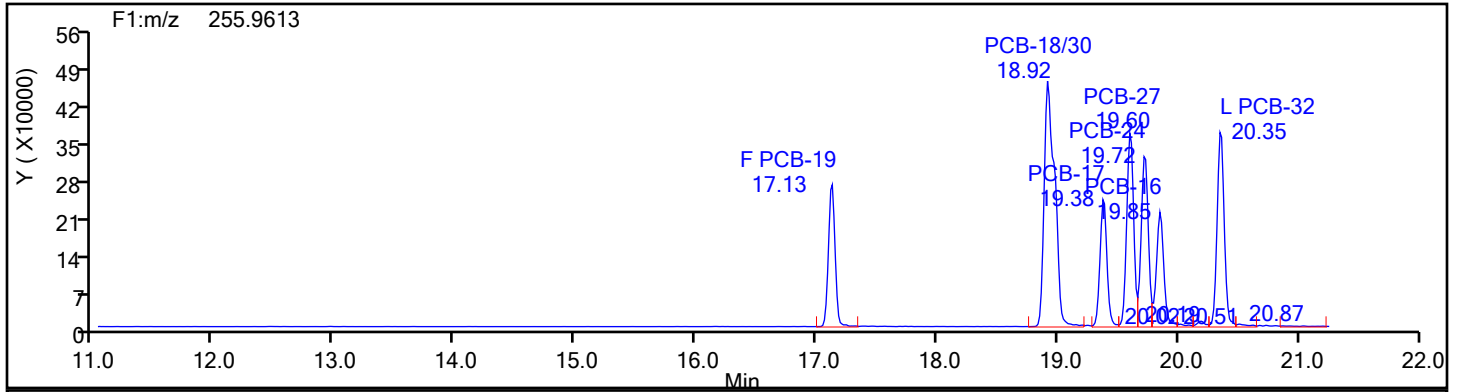
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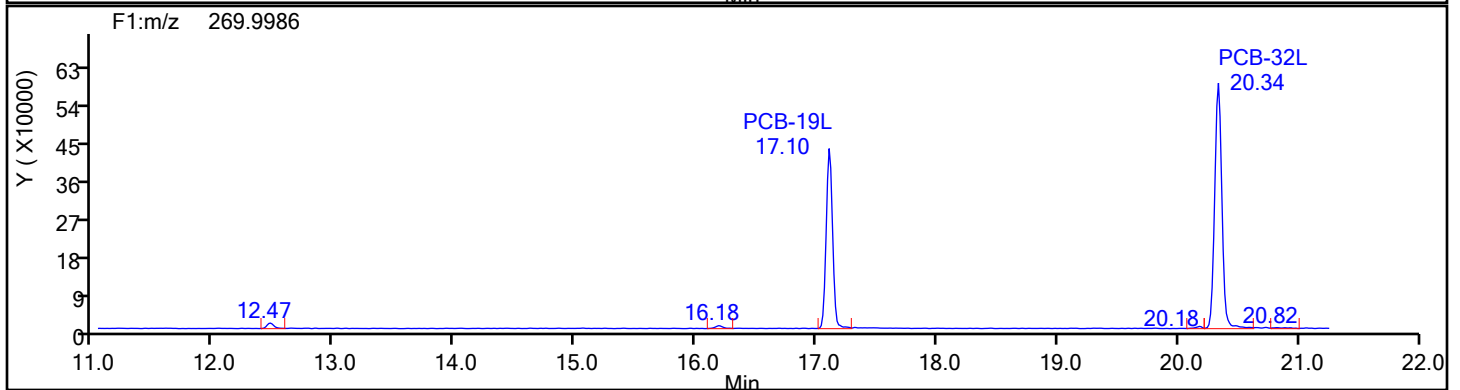
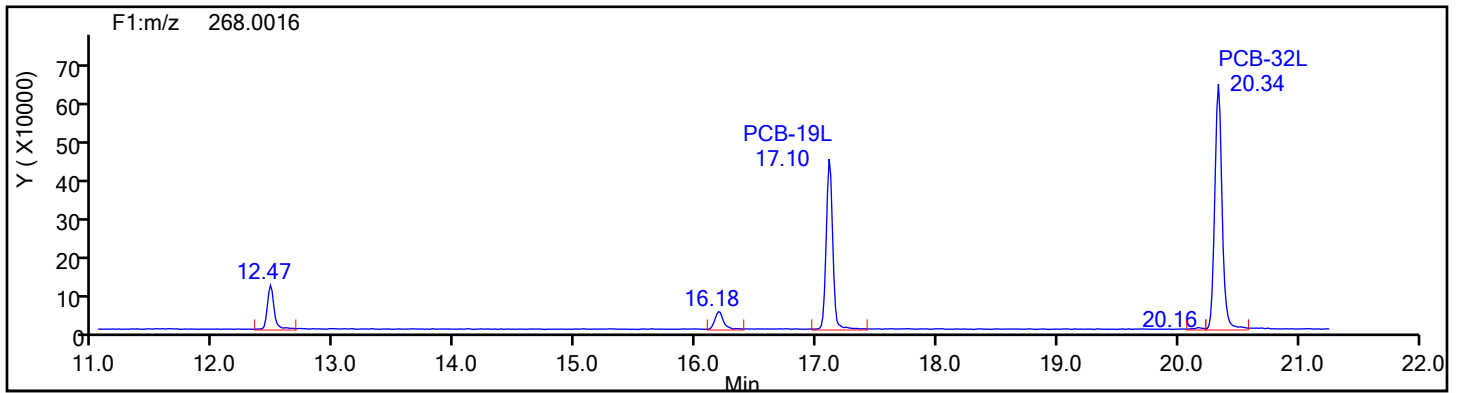
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

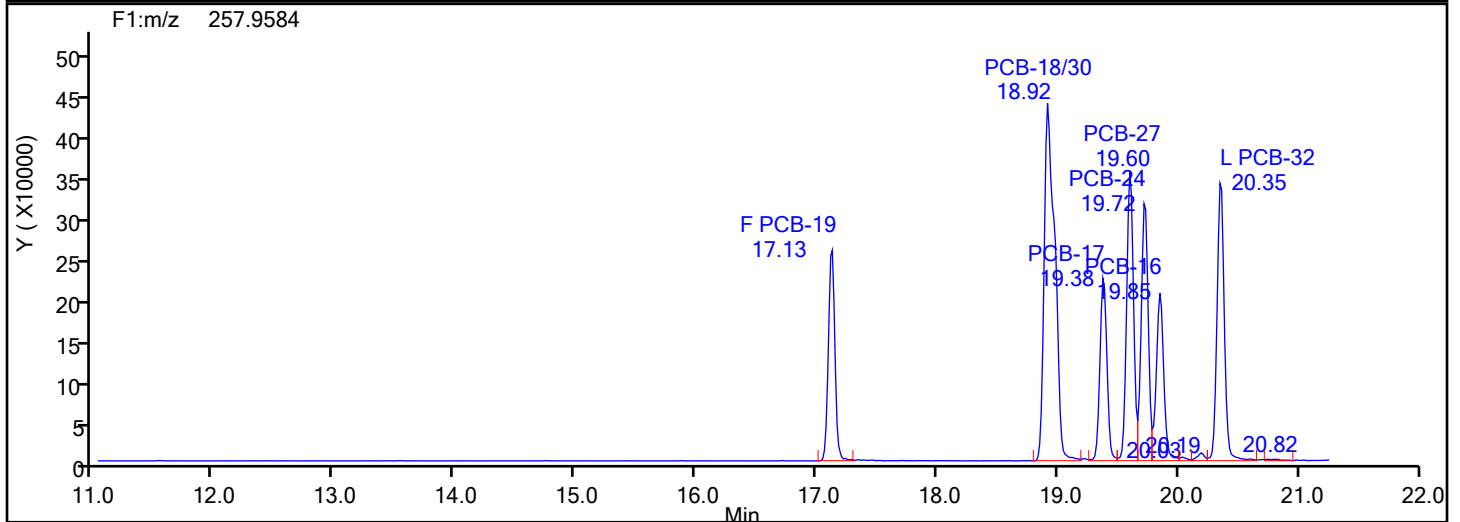
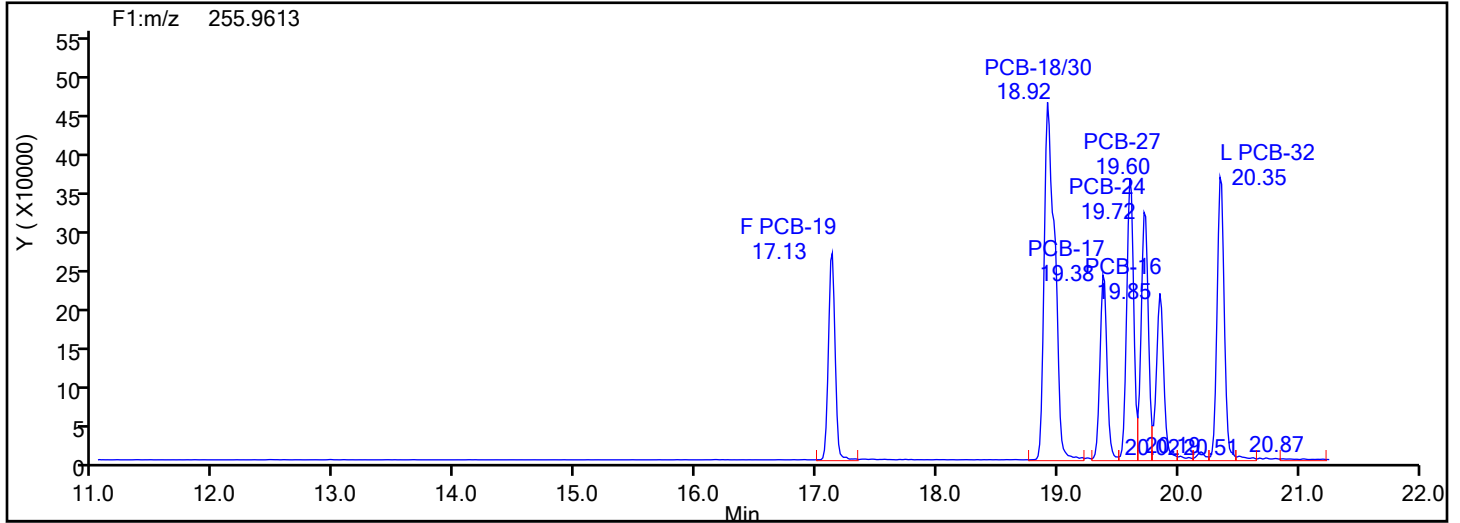
Worklist#: 88871

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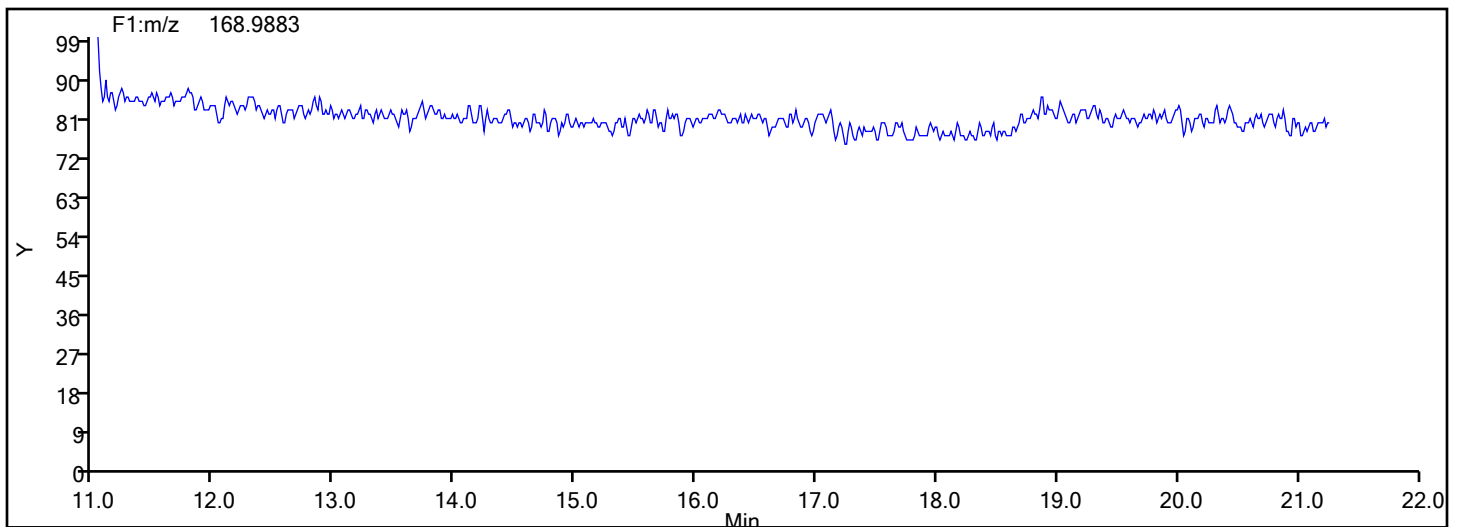
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

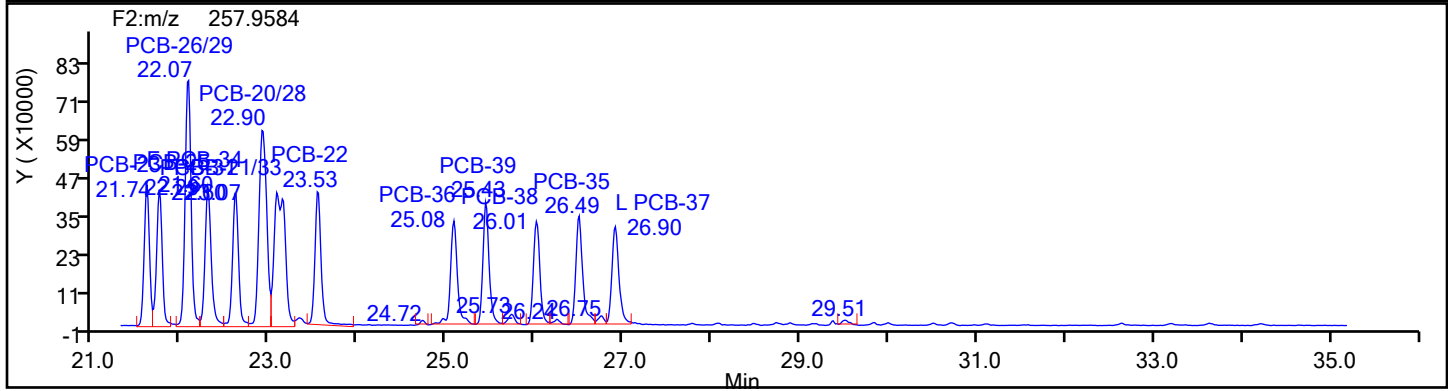
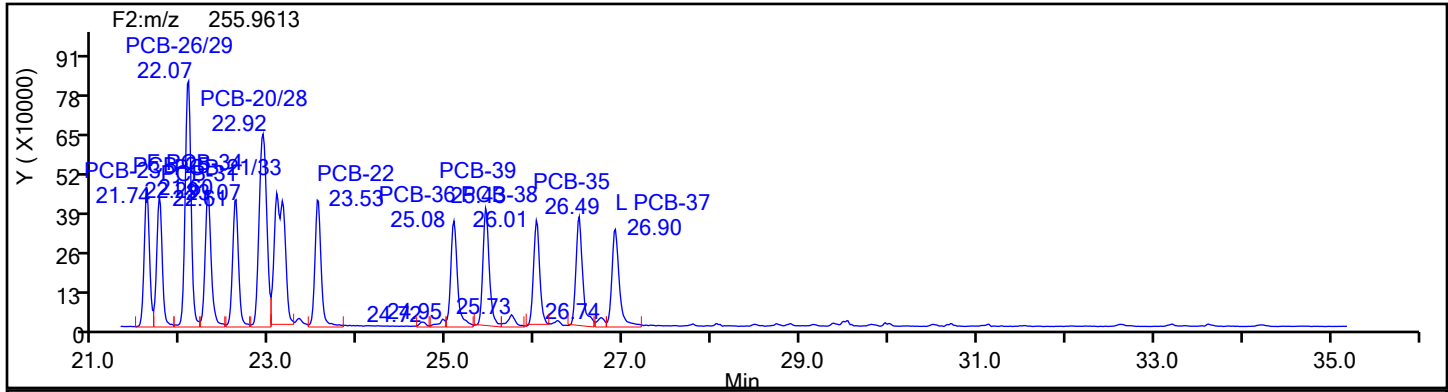
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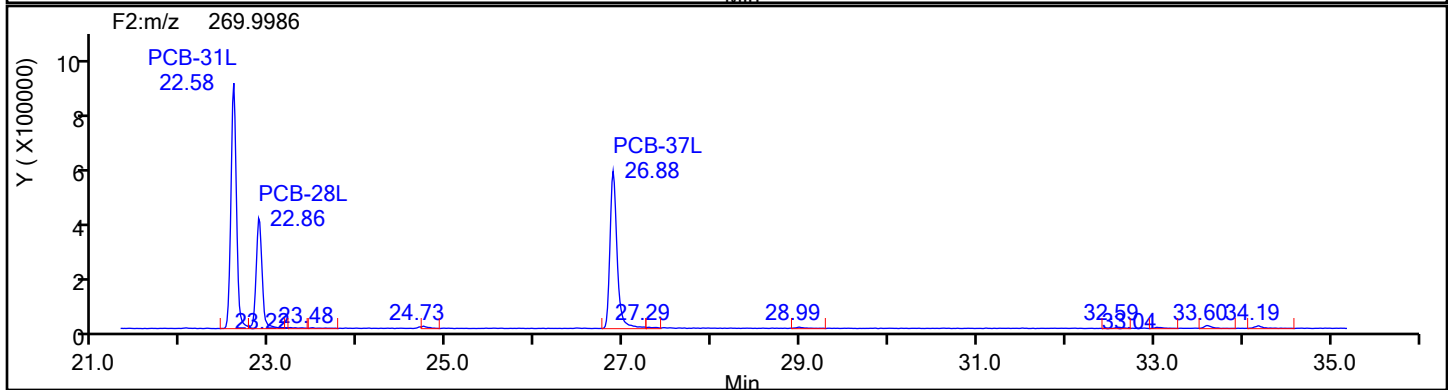
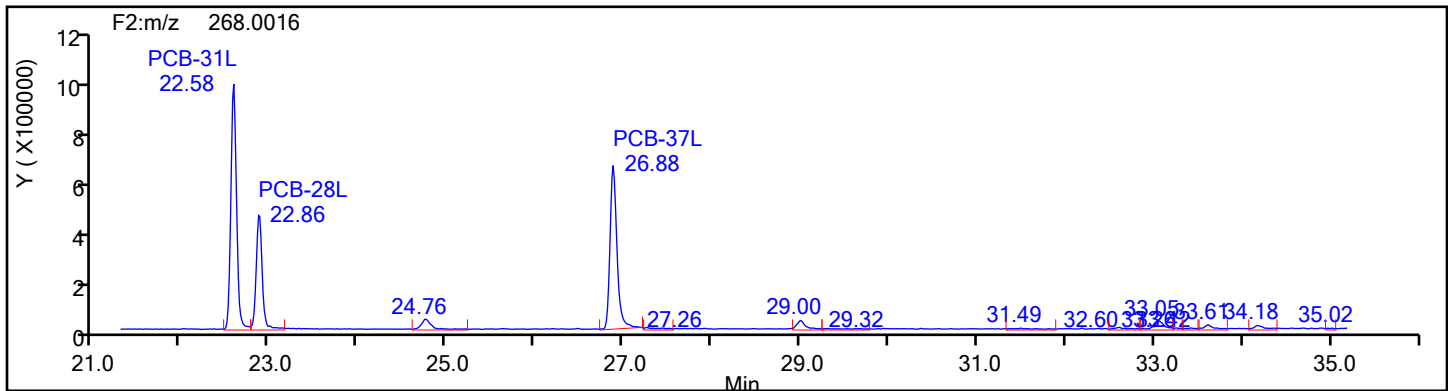
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

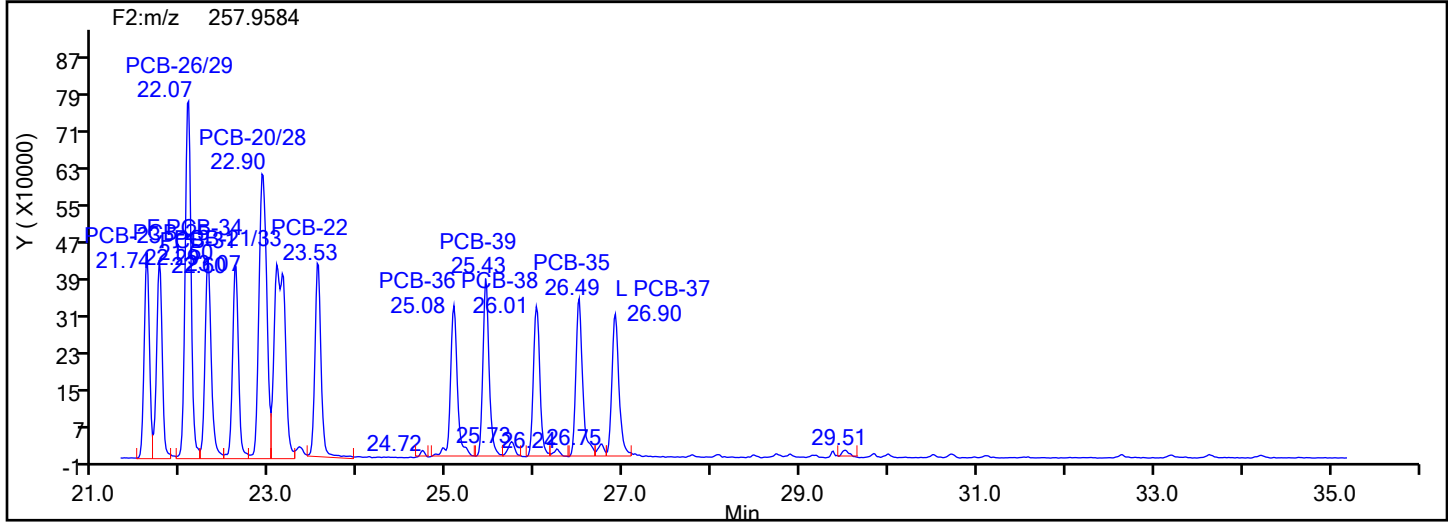
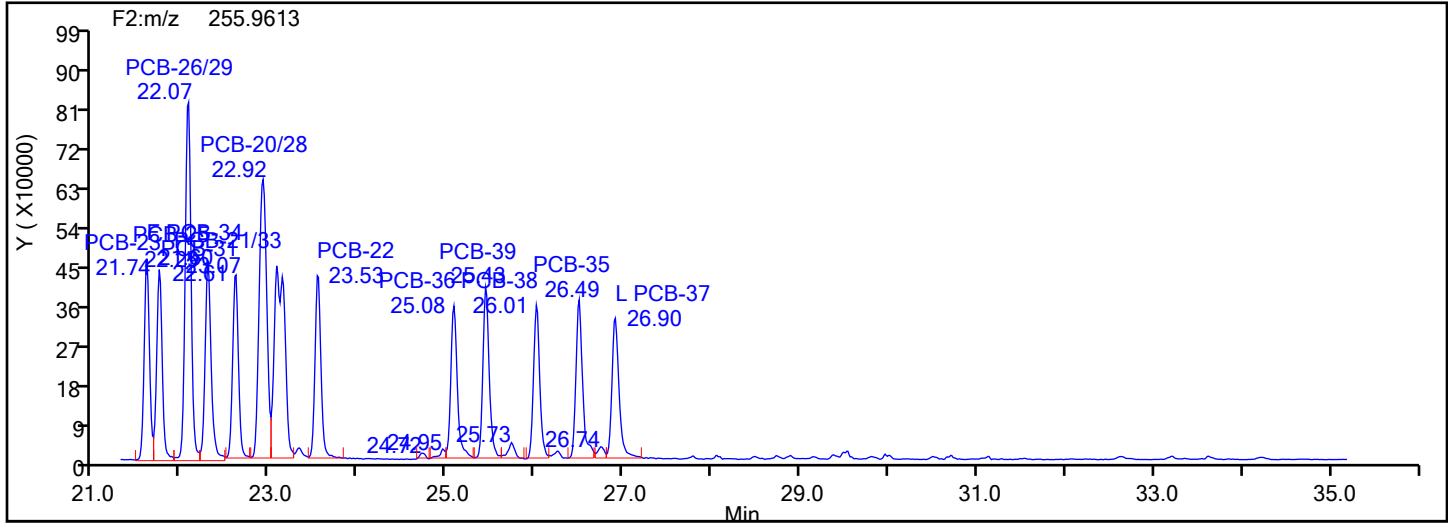
Worklist#: 88871

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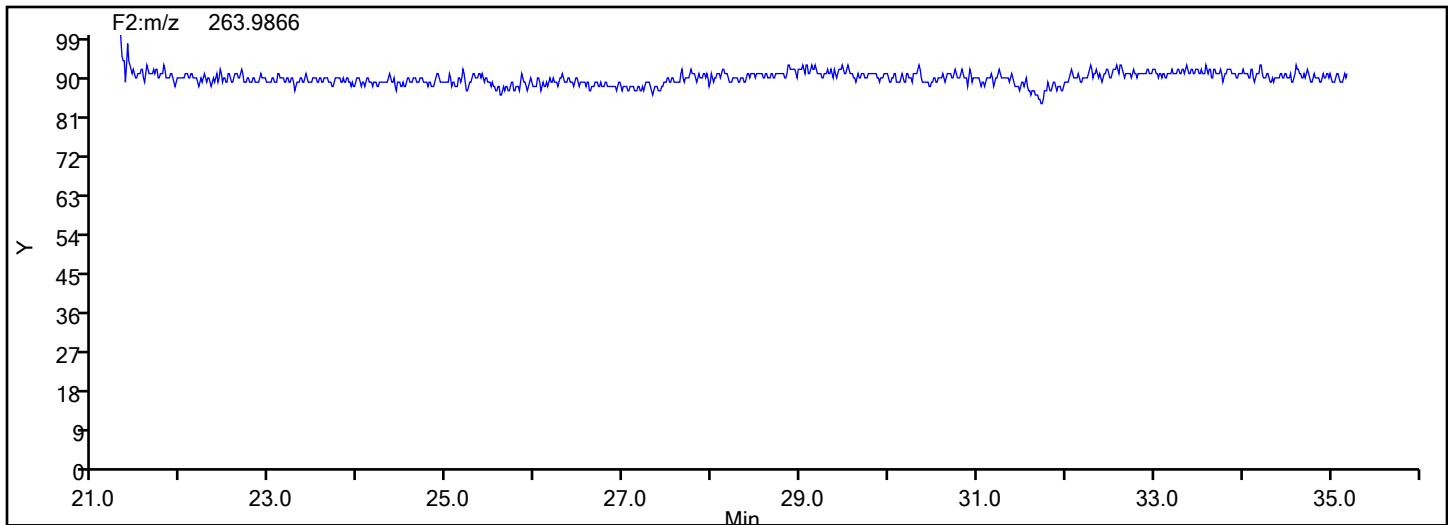
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Lock Mass



## Eurofins Knoxville

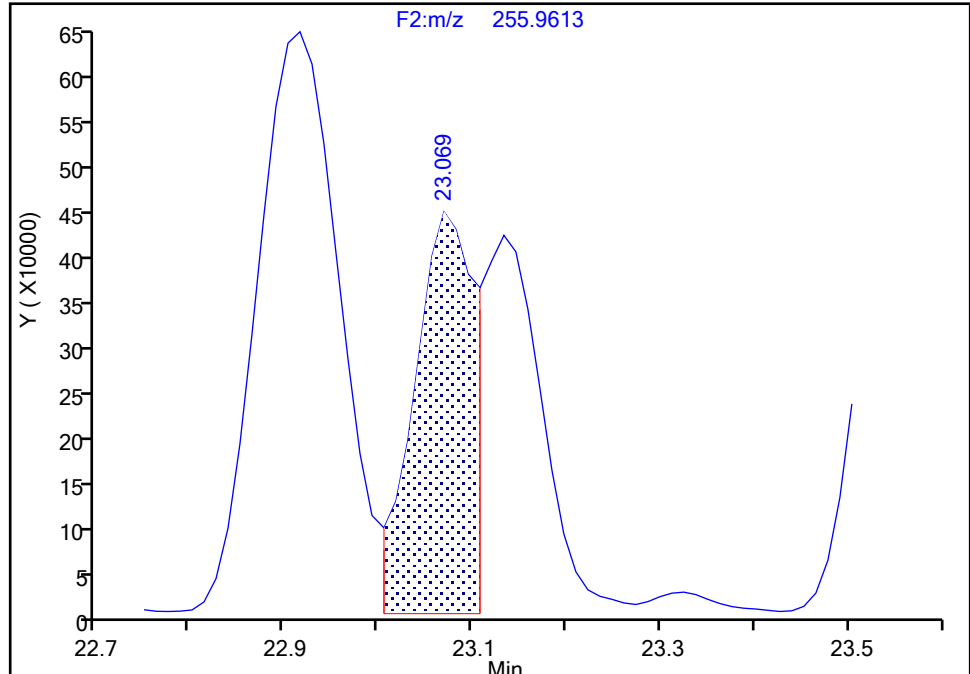
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Injection Date: 17-Jul-2024 12:39:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 1

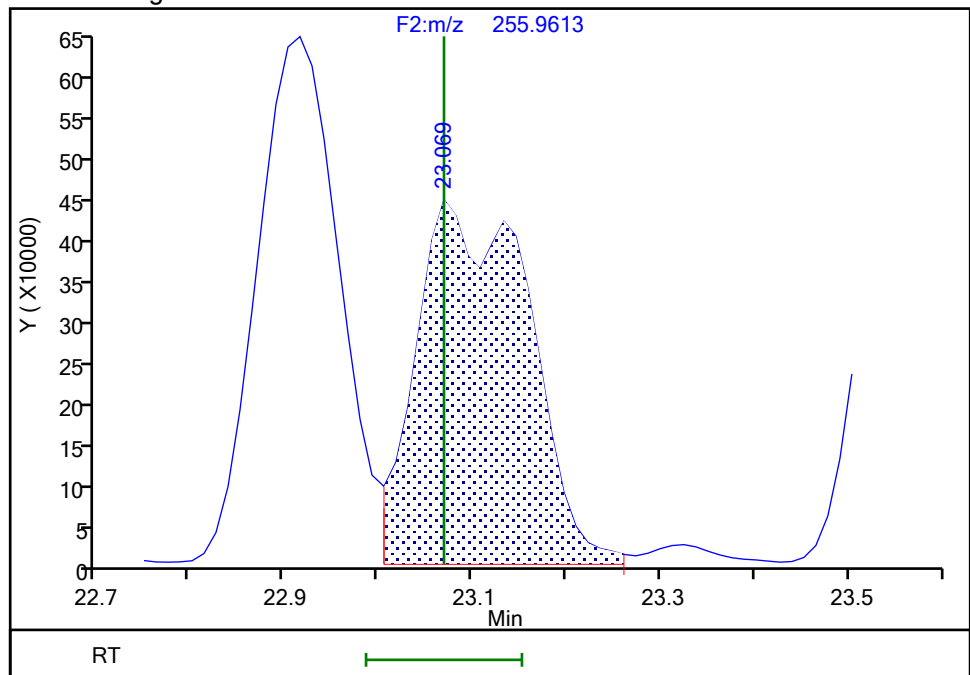
RT: 23.07  
Area: 1886595  
Amount: 52.646283  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.07  
Area: 3635433  
Amount: 102.5058  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 17-Jul-2024 16:51:11 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Instrument ID: D2D

Lims ID: WDMCCV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

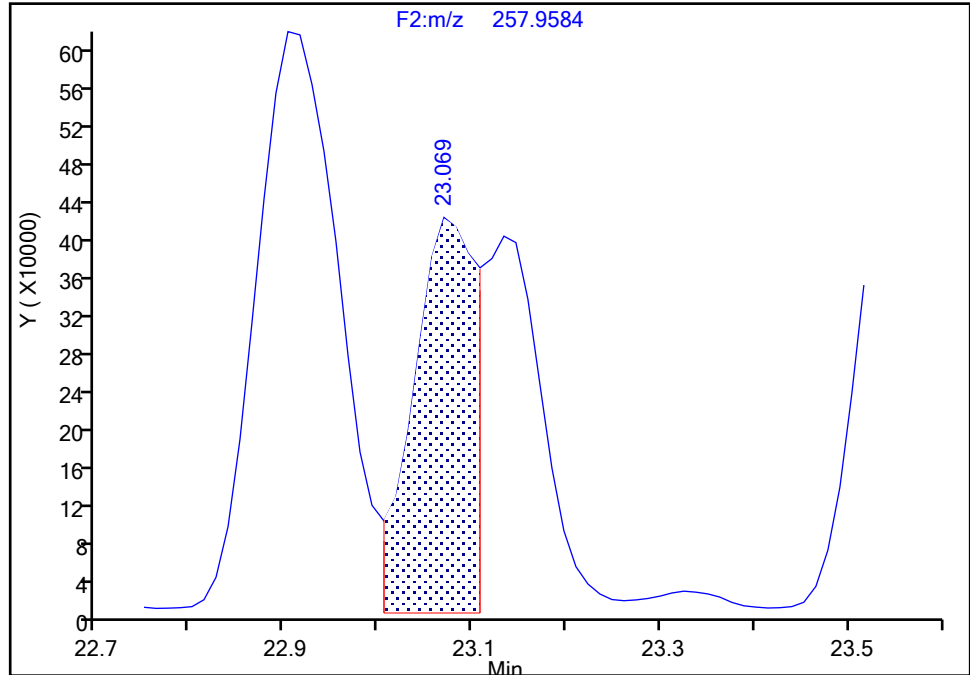
F2(21.81 :35.54 )

**PCB-21/33, CAS: STL01800**

Signal: 2

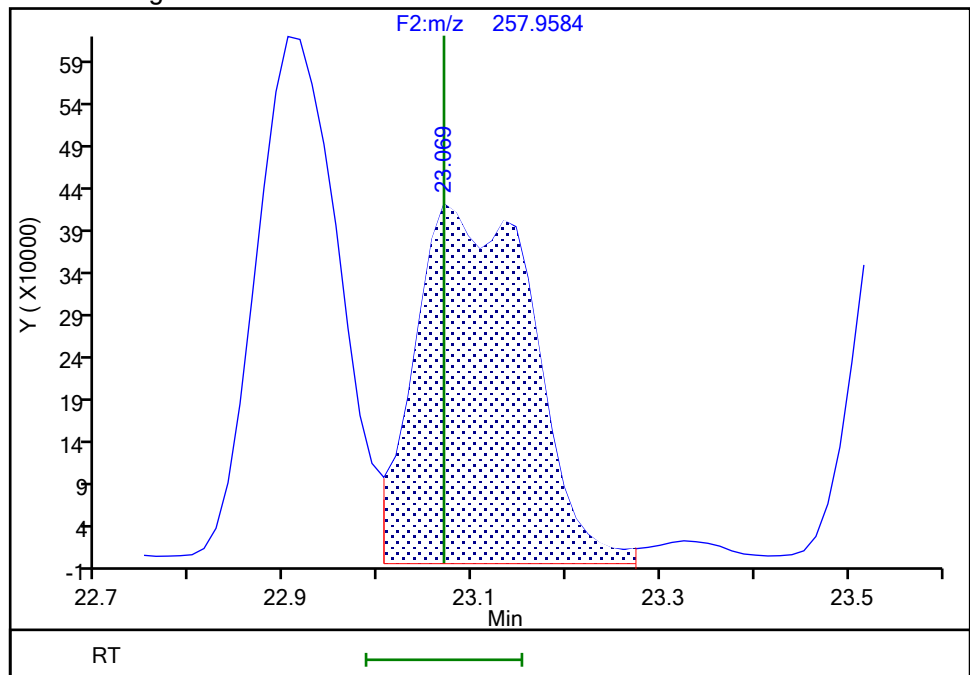
RT: 23.07  
Area: 1857021  
Amount: 52.646283  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.07  
Area: 3653637  
Amount: 102.5058  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 17-Jul-2024 16:51:20 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

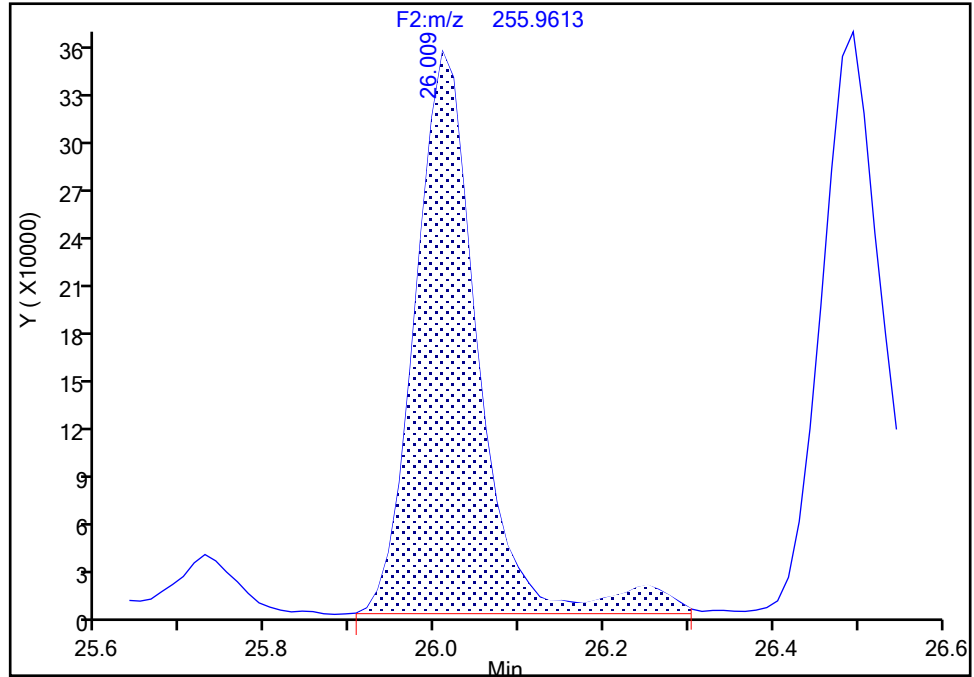
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Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-38, CAS: 53555-66-1**

Signal: 1

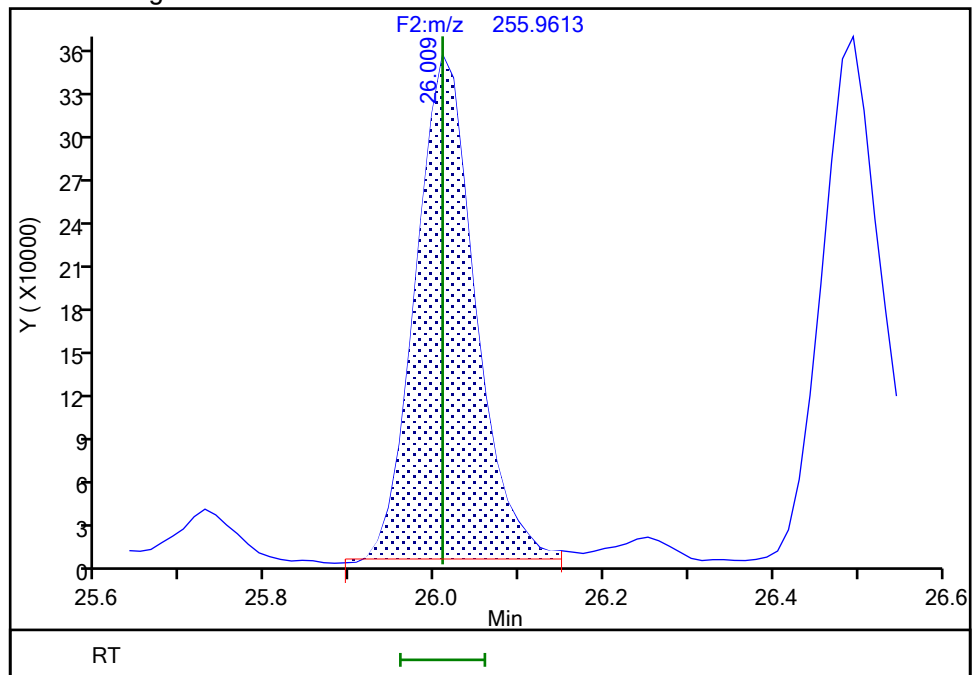
RT: 26.01  
Area: 1830904  
Amount: 49.062644  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.01  
Area: 1702143  
Amount: 47.268132  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 17-Jul-2024 16:51:33 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

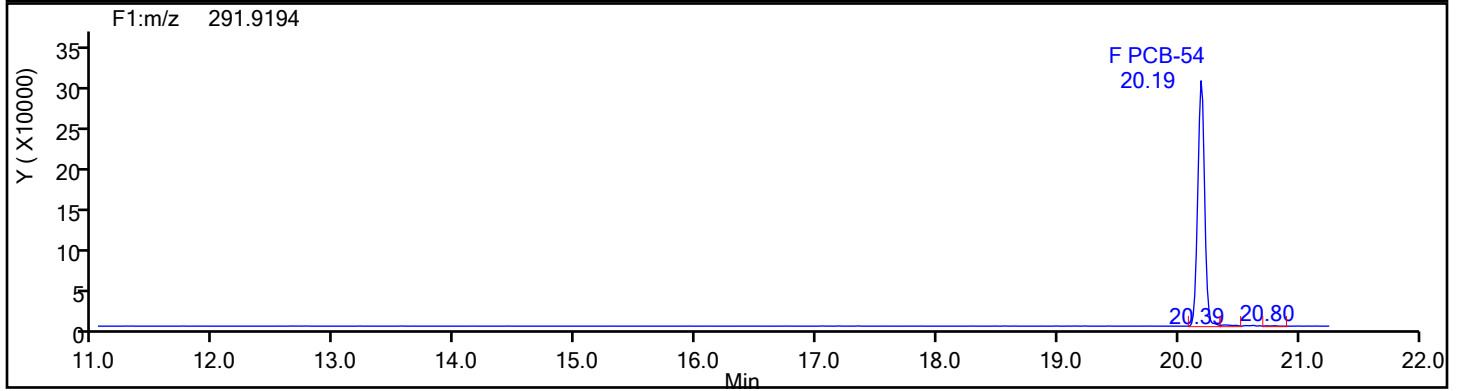
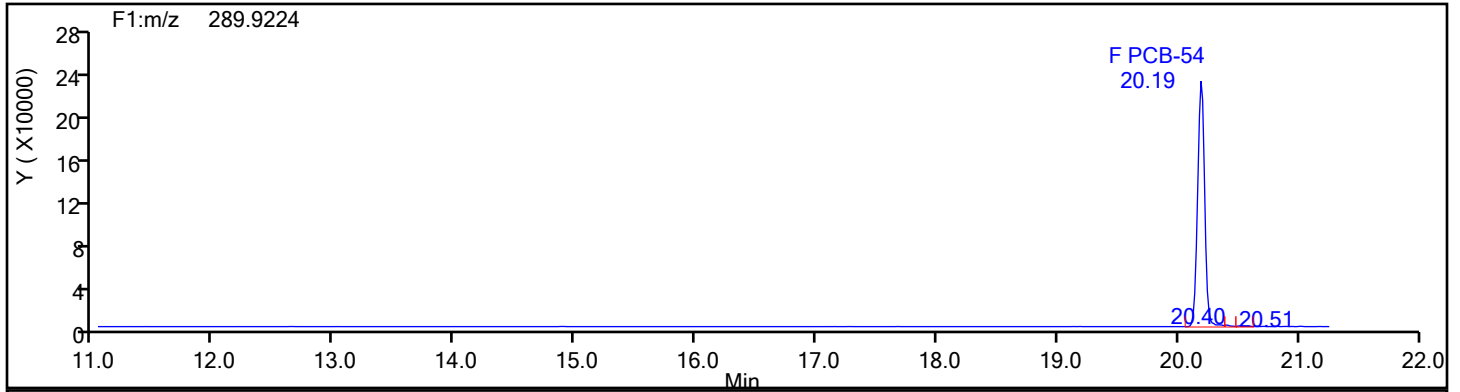
Worklist#: 88871

Sample Line#: 1

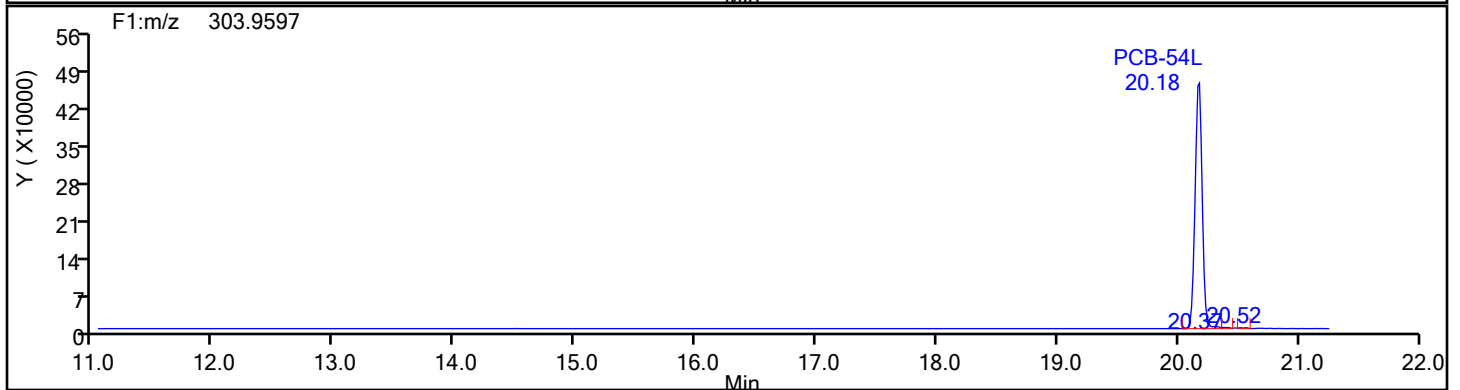
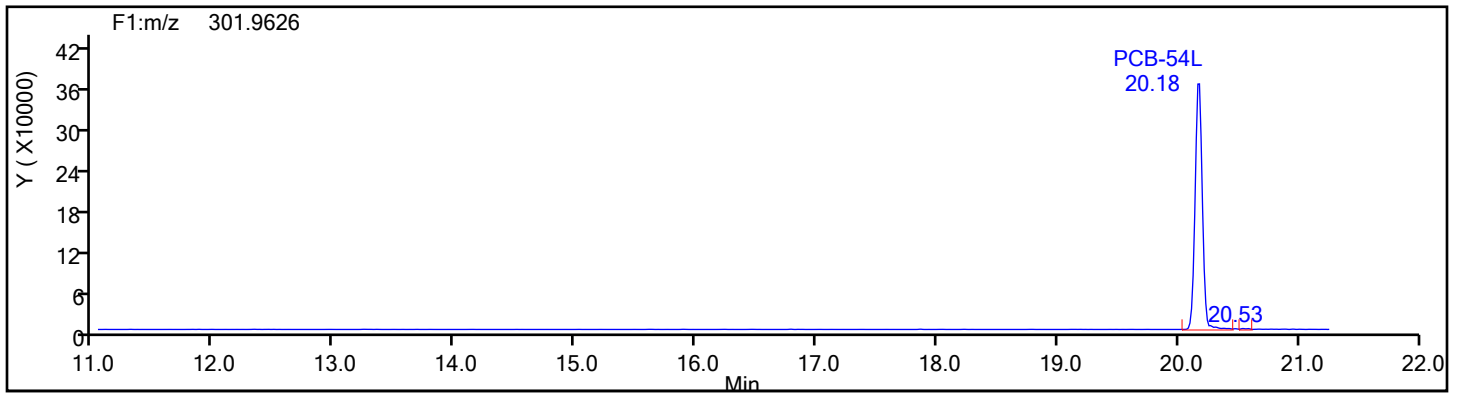
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



TePCB F1 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

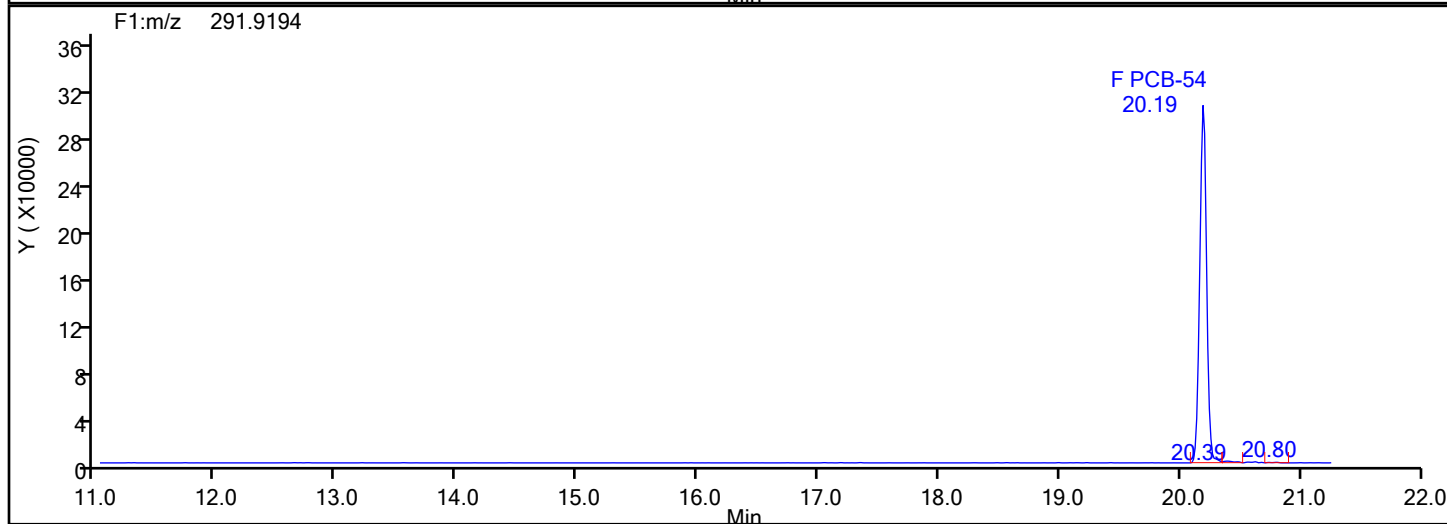
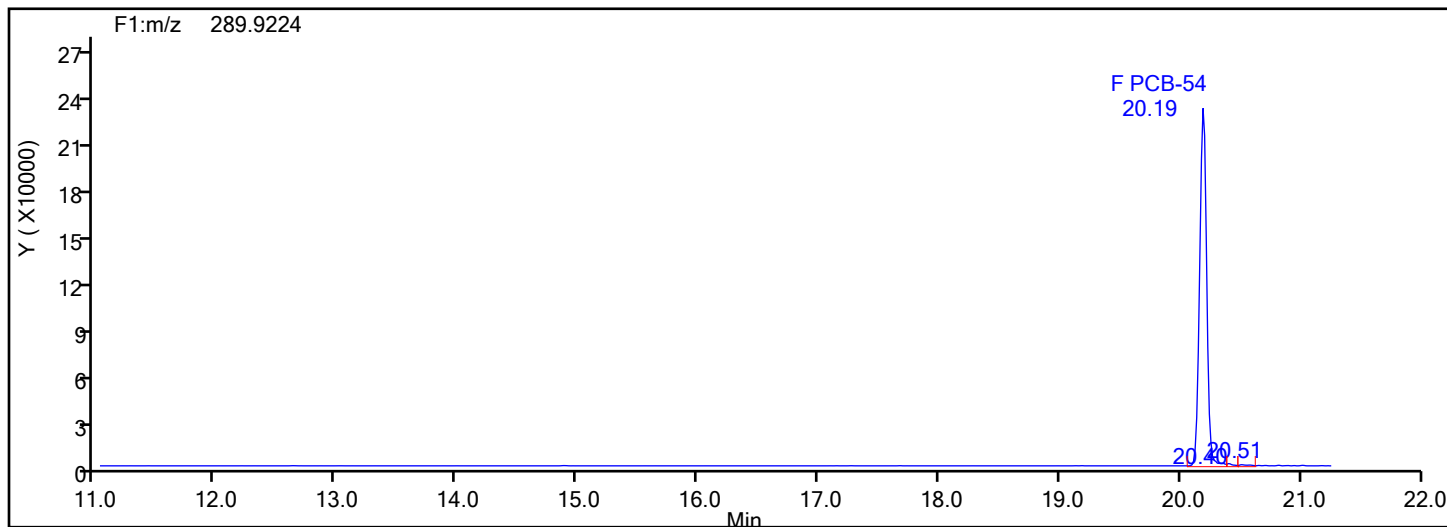
Worklist#: 88871

Sample Line#: 1

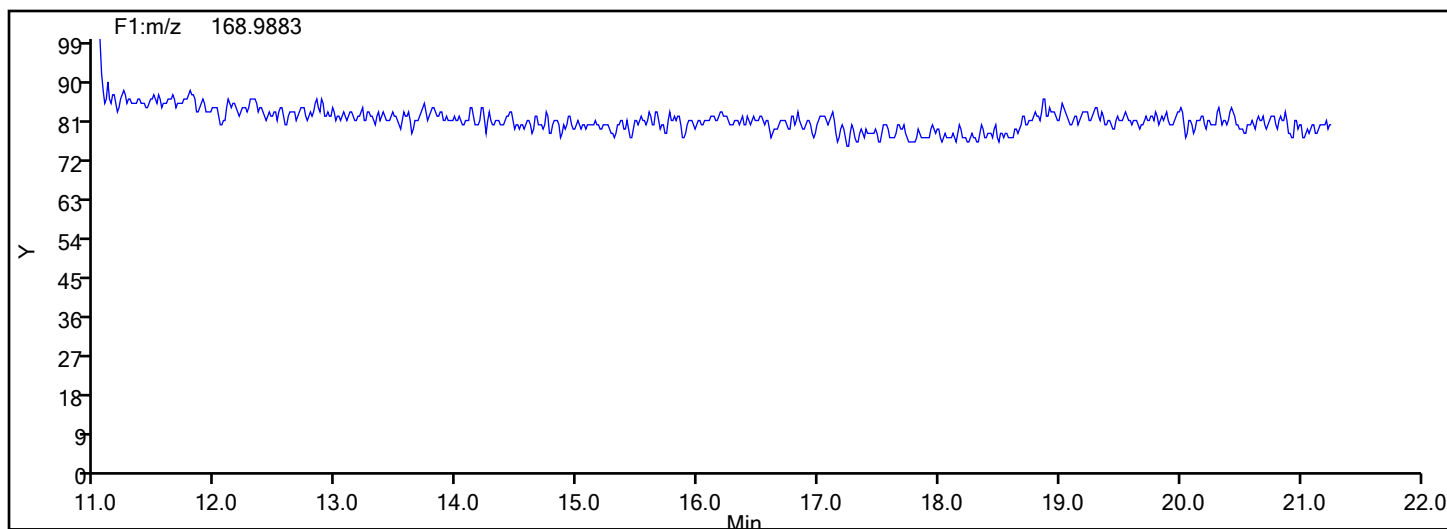
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



TePCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

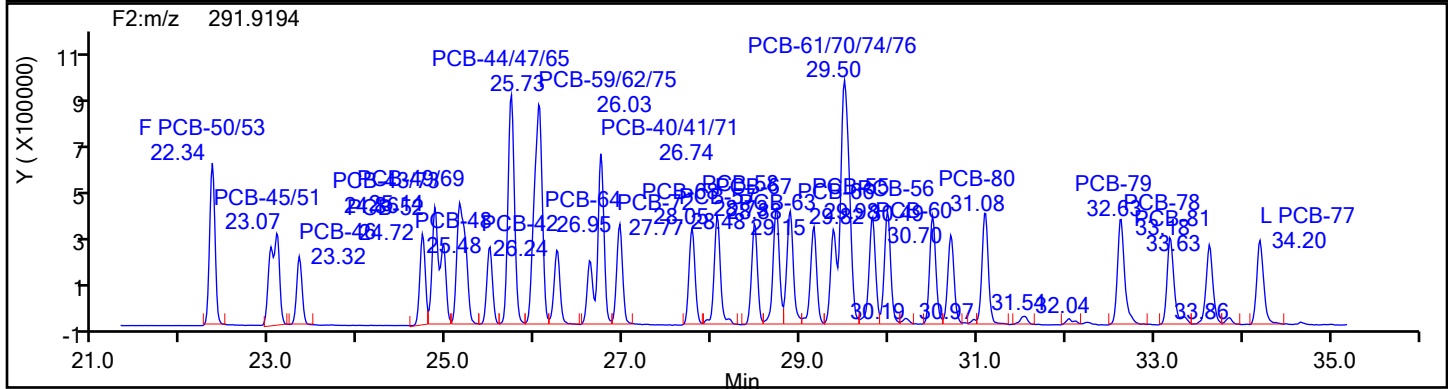
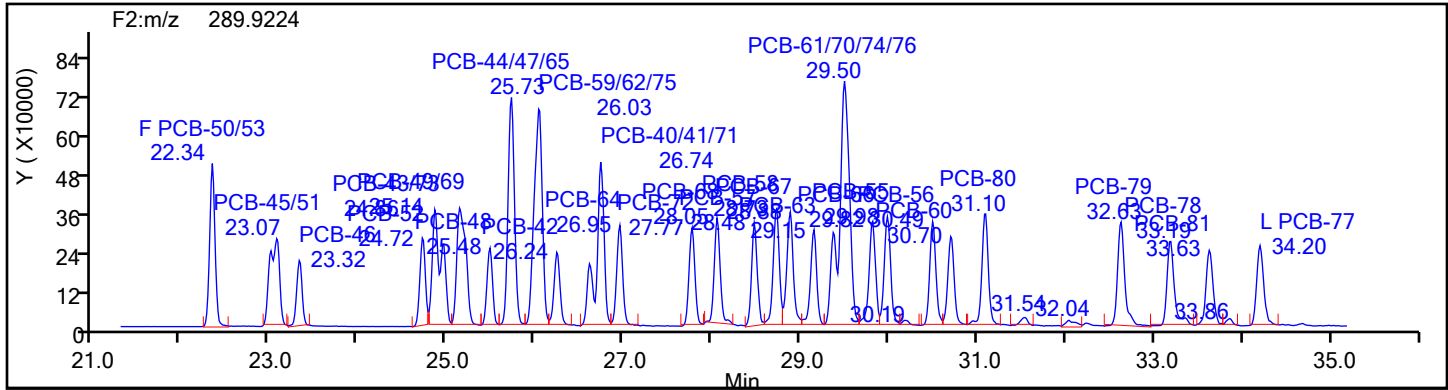
Worklist#: 88871

Sample Line#: 1

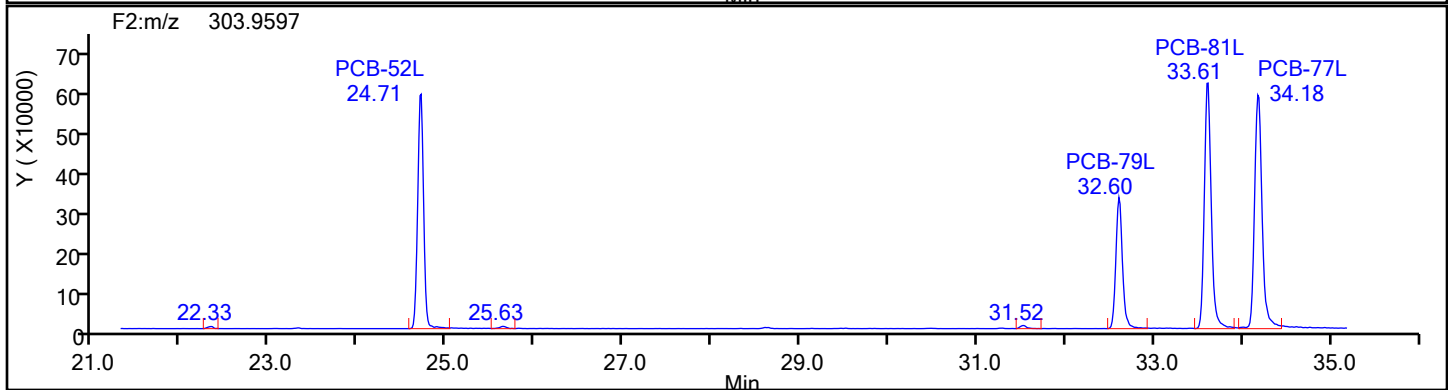
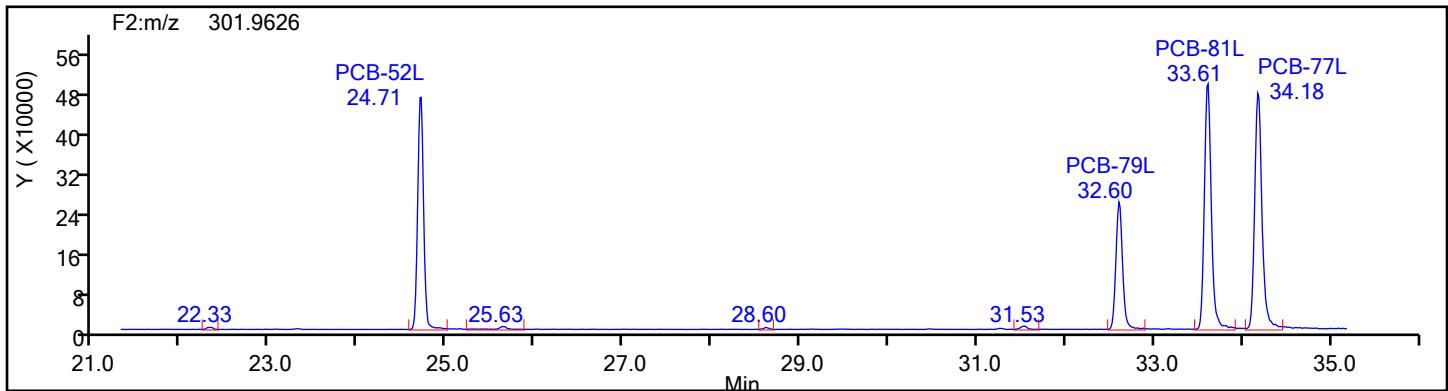
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



TePCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

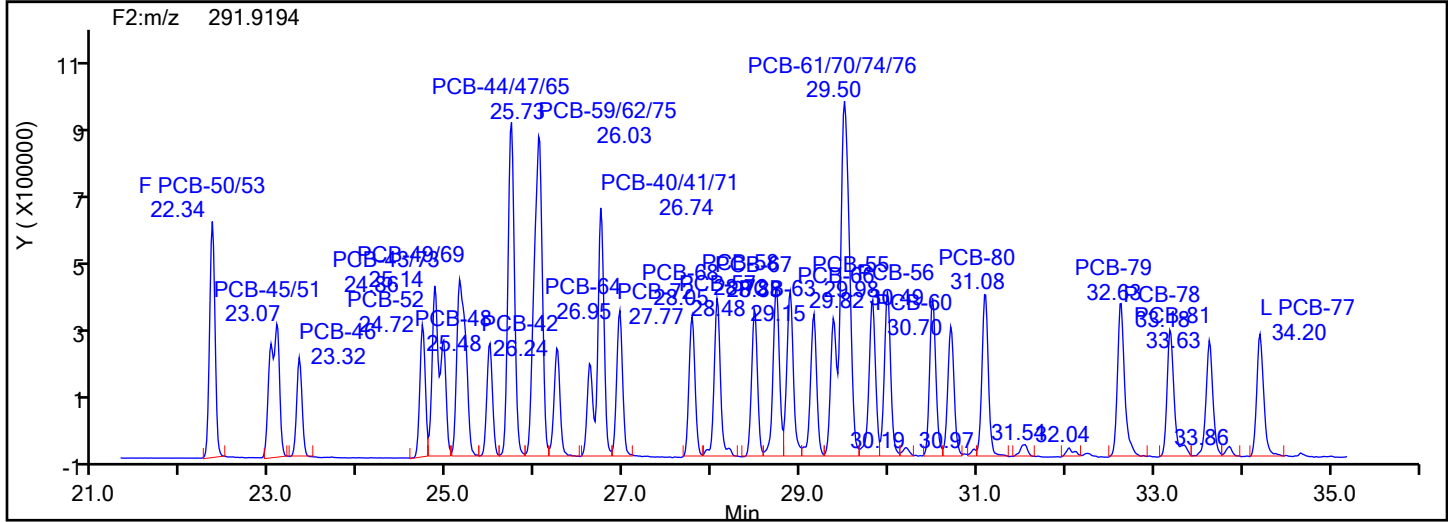
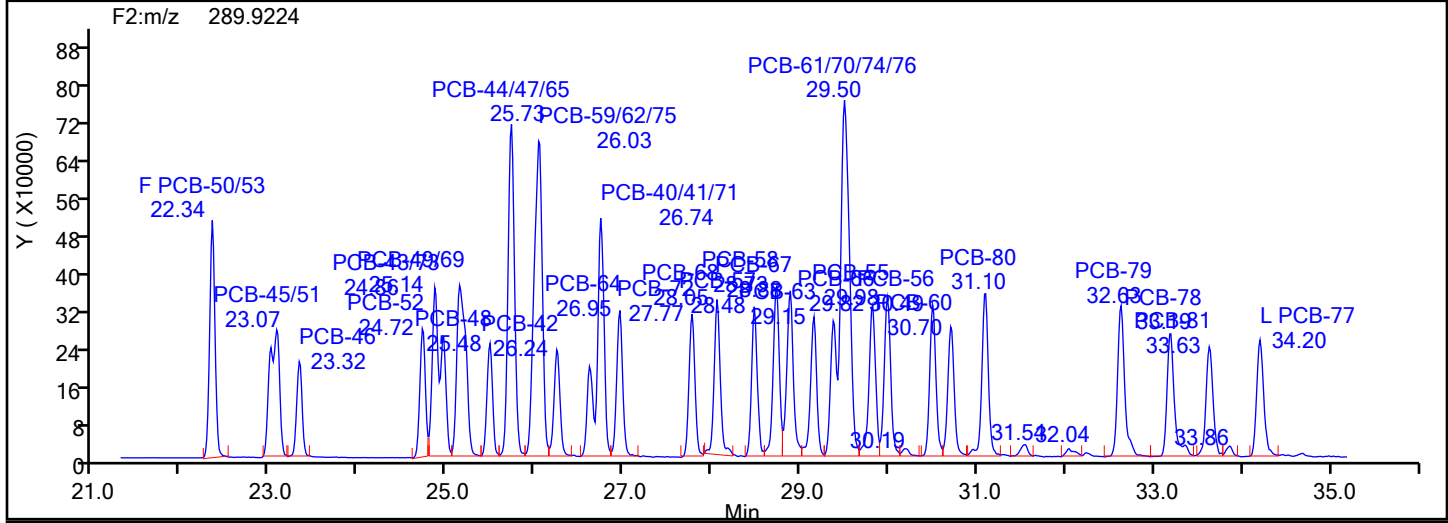
Worklist#: 88871

Sample Line#: 1

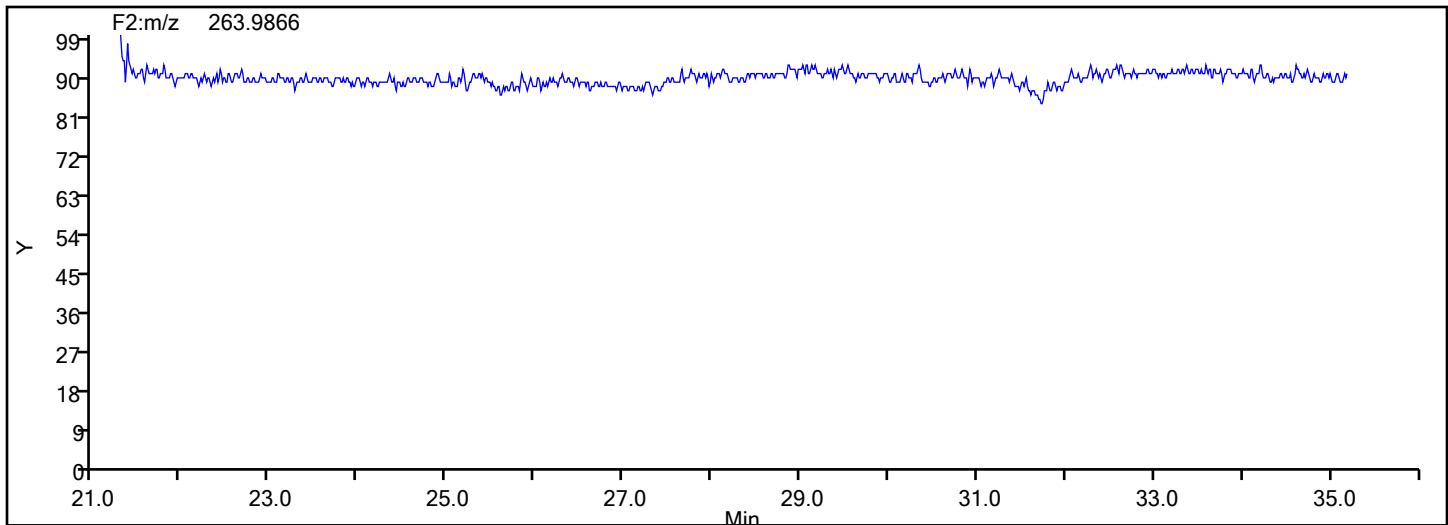
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



## TePCB F2 Lock Mass



## Eurofins Knoxville

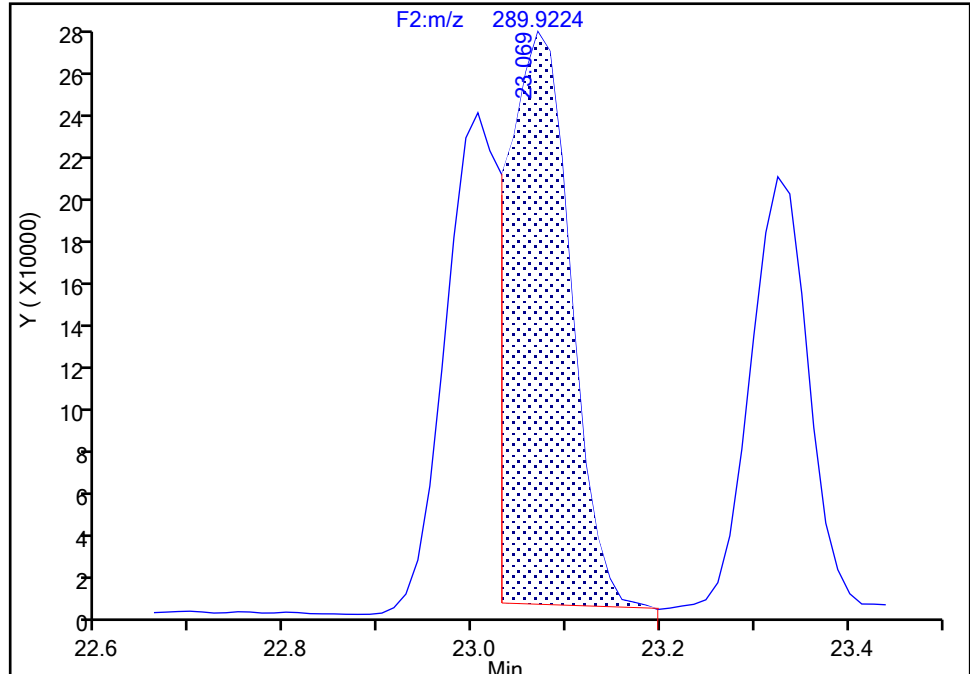
Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Injection Date: 17-Jul-2024 12:39:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-45/51, CAS: STL01804

Signal: 1

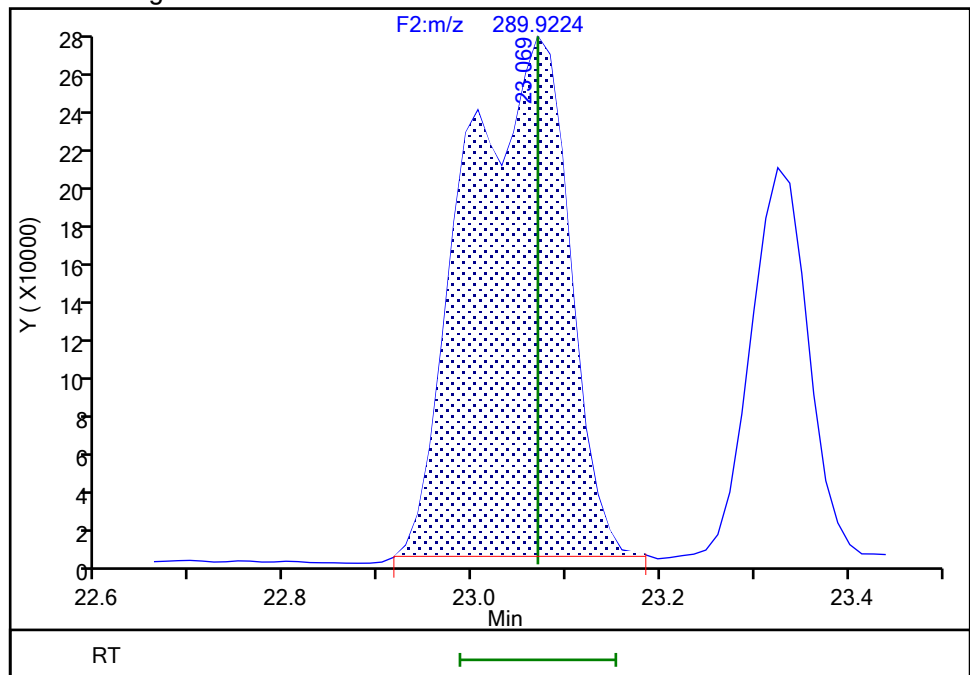
RT: 23.07  
Area: 1189852  
Amount: 51.790029  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.07  
Area: 2048340  
Amount: 91.698414  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 17-Jul-2024 16:51:52 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

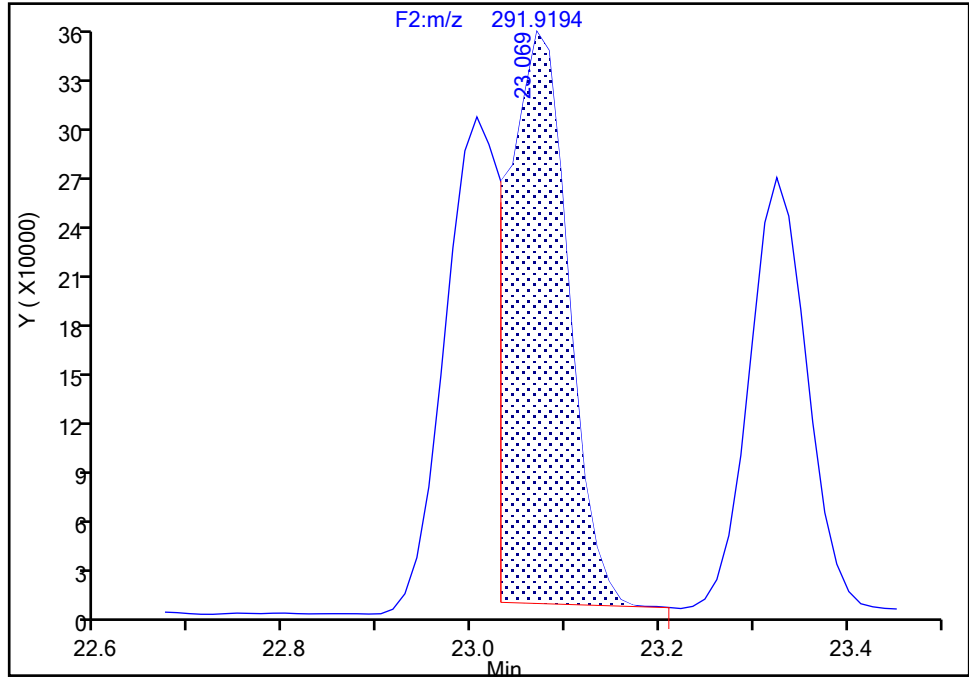
Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Injection Date: 17-Jul-2024 12:39:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-45/51, CAS: STL01804

Signal: 2

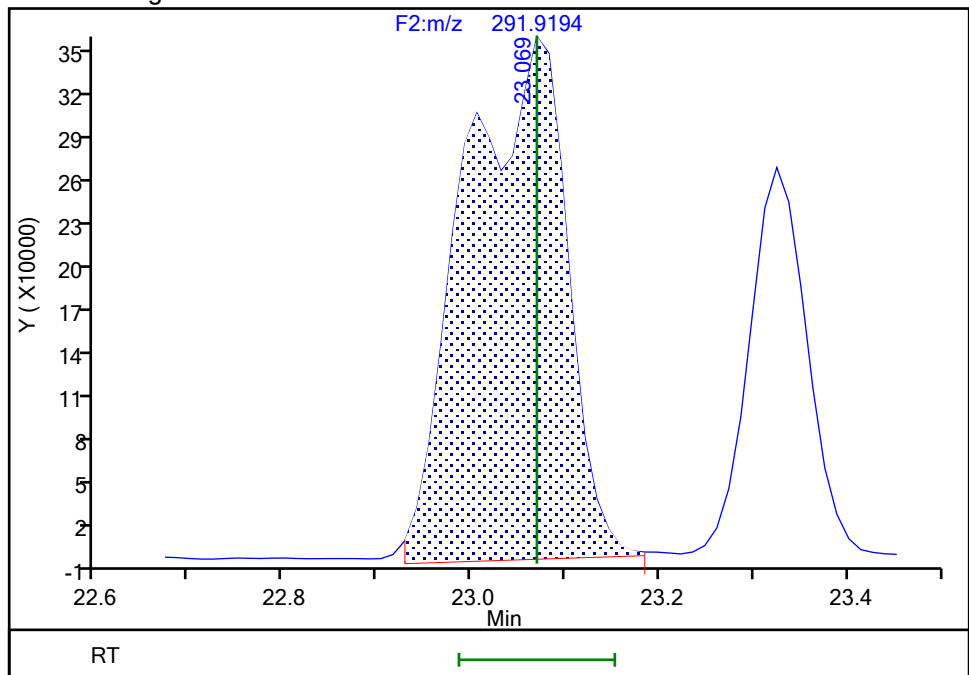
RT: 23.07  
Area: 1485125  
Amount: 51.790029  
Amount Units: pg/ul

## Processing Integration Results



RT: 23.07  
Area: 2687922  
Amount: 91.698414  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 17-Jul-2024 16:51:59 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

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BASFHWC-Pass 202406263942

9/6/2024  
4:19:54 PM

## Eurofins Knoxville

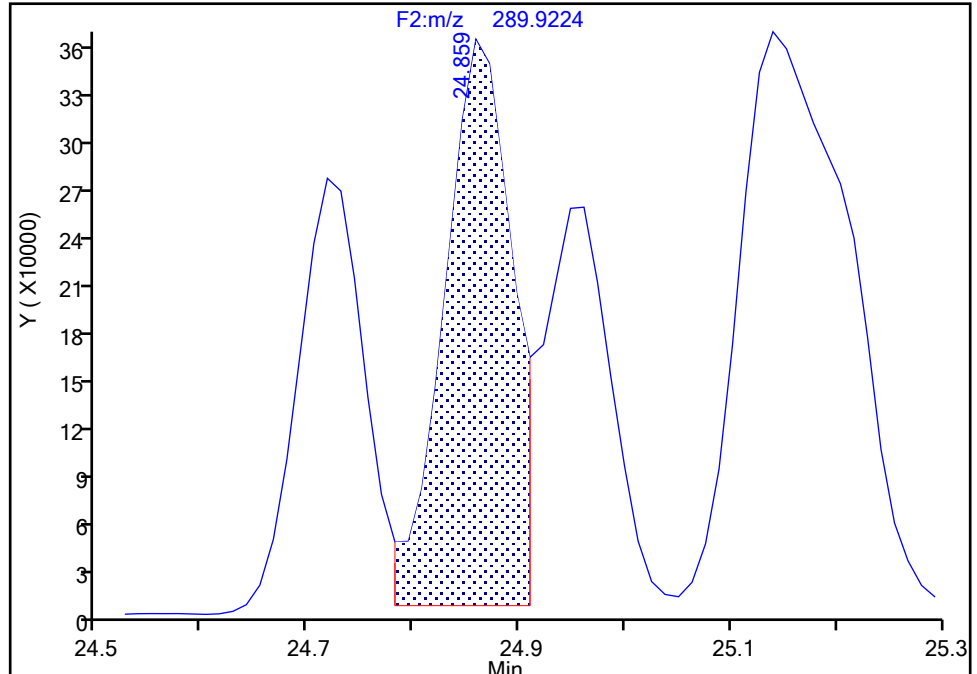
Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Injection Date: 17-Jul-2024 12:39:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 1

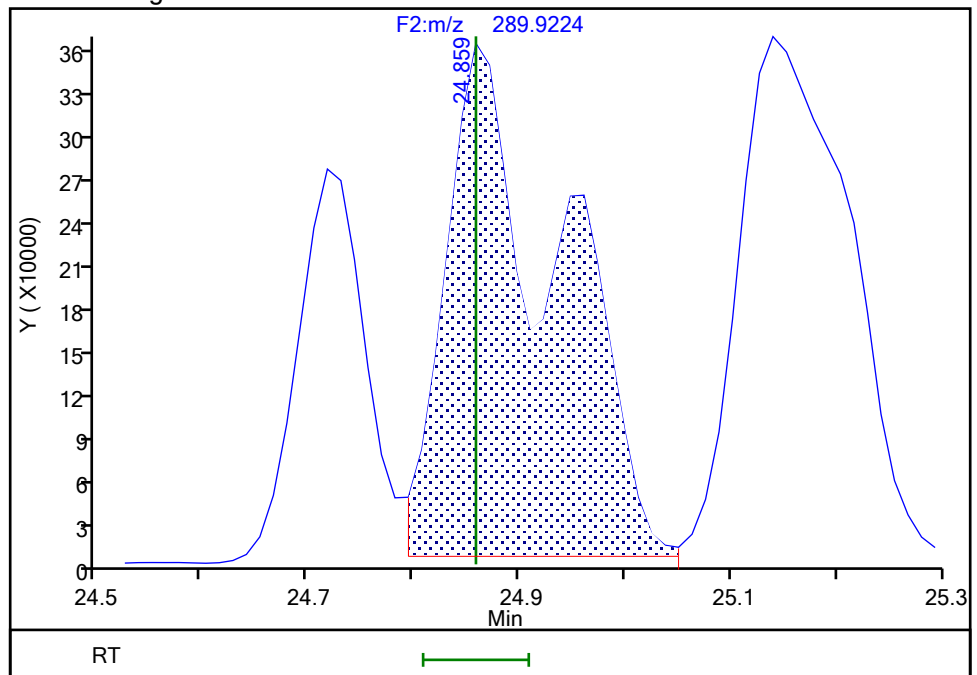
RT: 24.86  
Area: 1567427  
Amount: 54.844094  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.86  
Area: 2665390  
Amount: 93.131780  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 17-Jul-2024 16:52:11 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Instrument ID: D2D

Lims ID: WDMCCV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

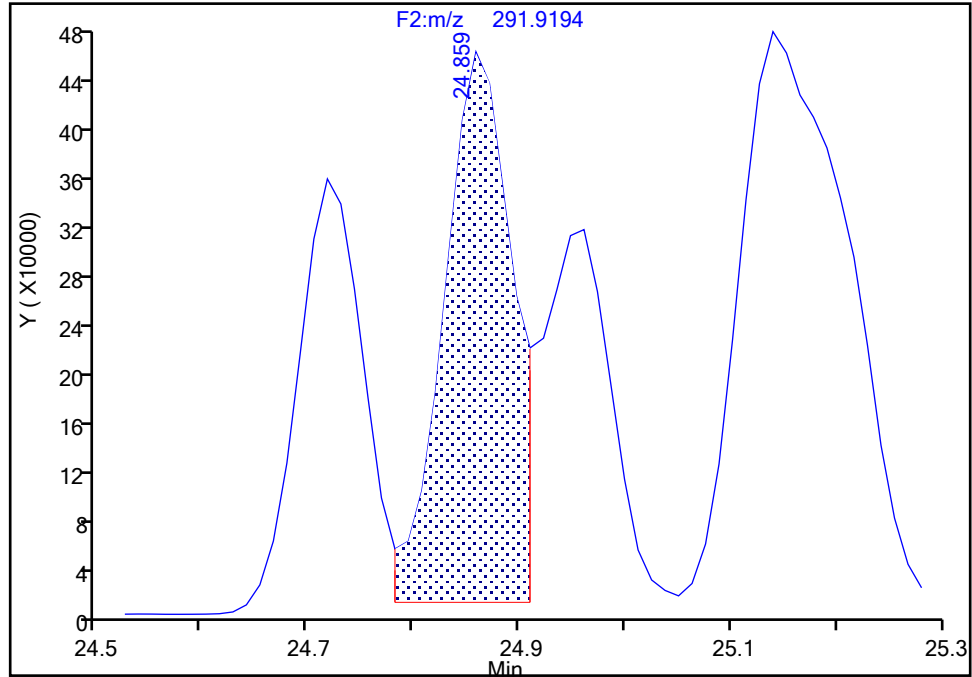
Detector F2(21.81 :35.54 )

**PCB-43/73, CAS: STL02293**

Signal: 2

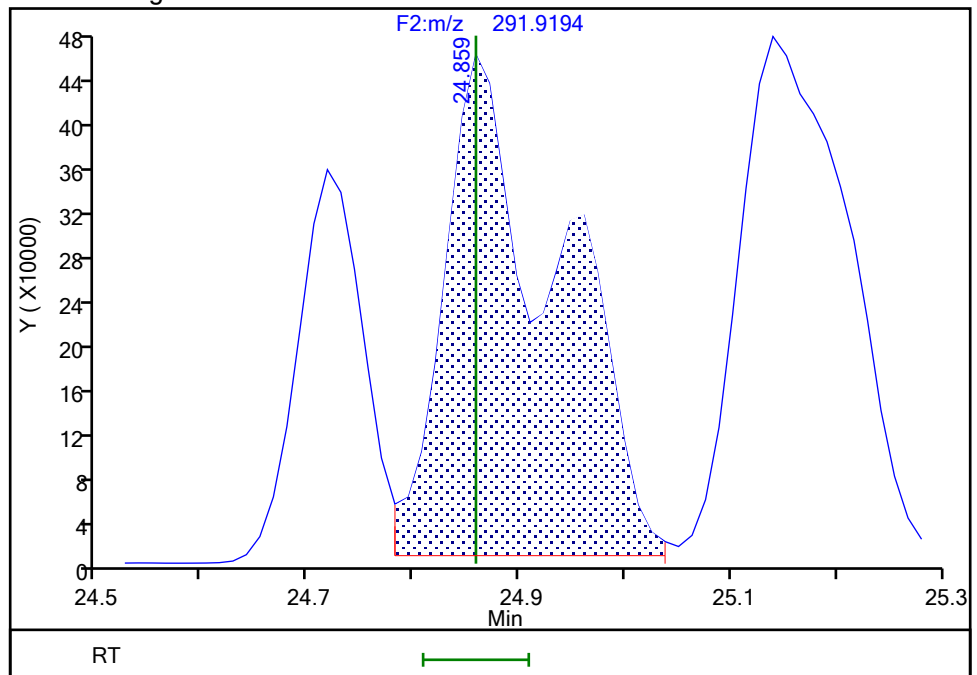
RT: 24.86  
Area: 1974531  
Amount: 54.844094  
Amount Units: pg/ul

## Processing Integration Results



RT: 24.86  
Area: 3349275  
Amount: 93.131780  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 17-Jul-2024 16:52:21 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

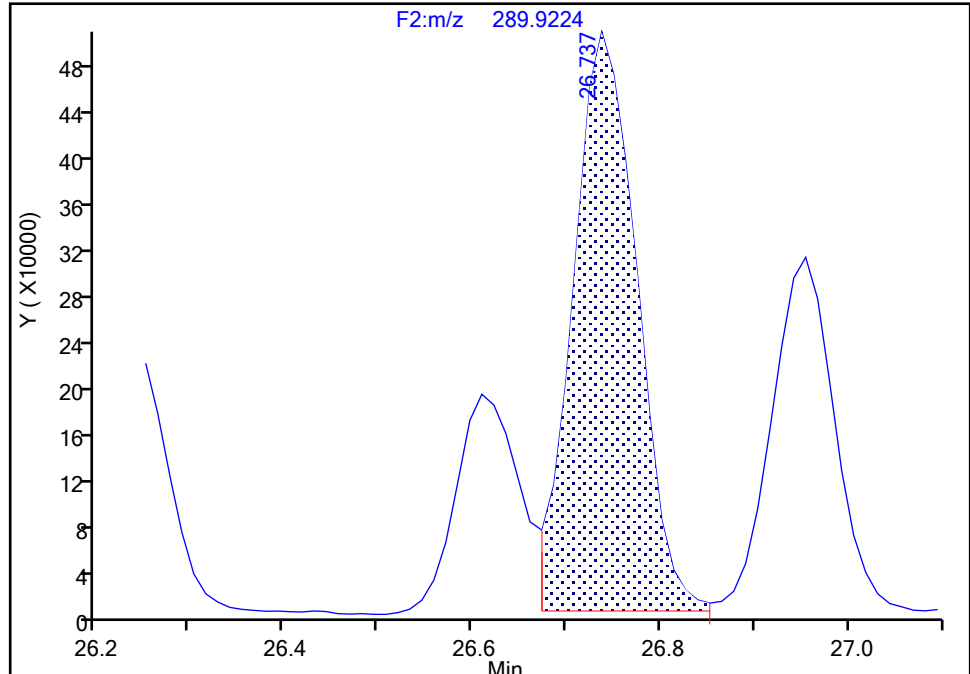
Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Injection Date: 17-Jul-2024 12:39:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-40/41/71, CAS: STL02292

Signal: 1

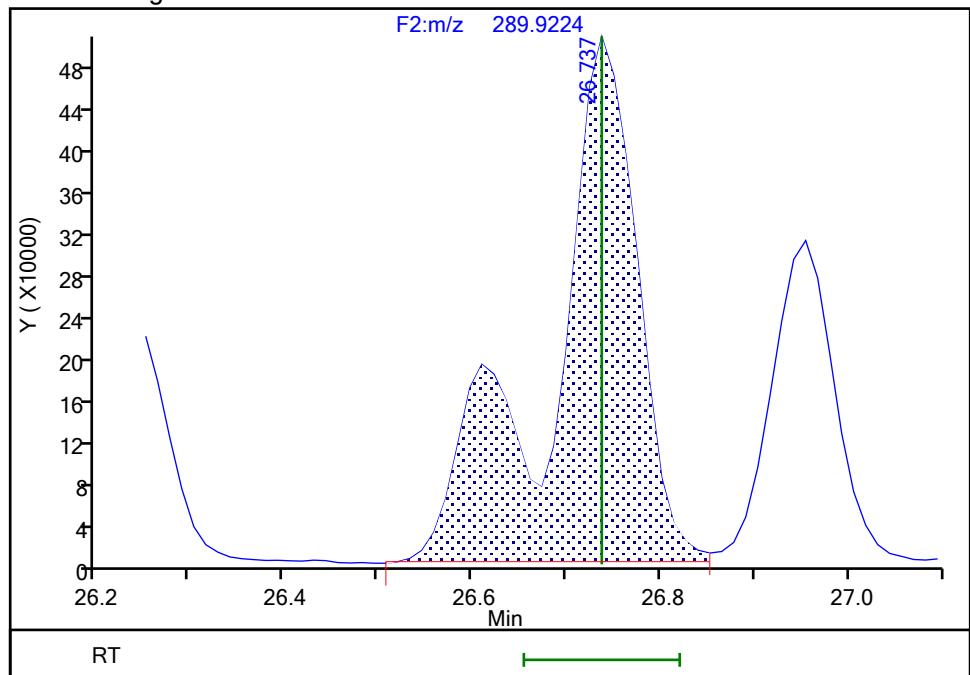
RT: 26.74  
Area: 2372592  
Amount: 96.947662  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.74  
Area: 3259180  
Amount: 132.8001  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 17-Jul-2024 16:52:37 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Instrument ID: D2D

Lims ID: WDMCCV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#: 0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

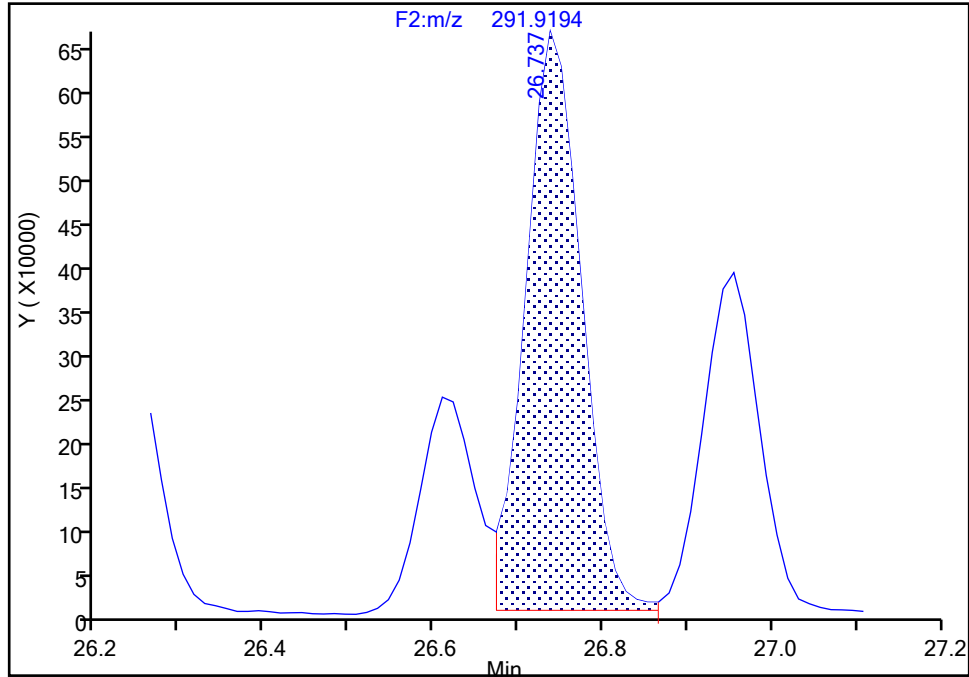
Detector F2(21.81 :35.54 )

PCB-40/41/71, CAS: STL02292

Signal: 2

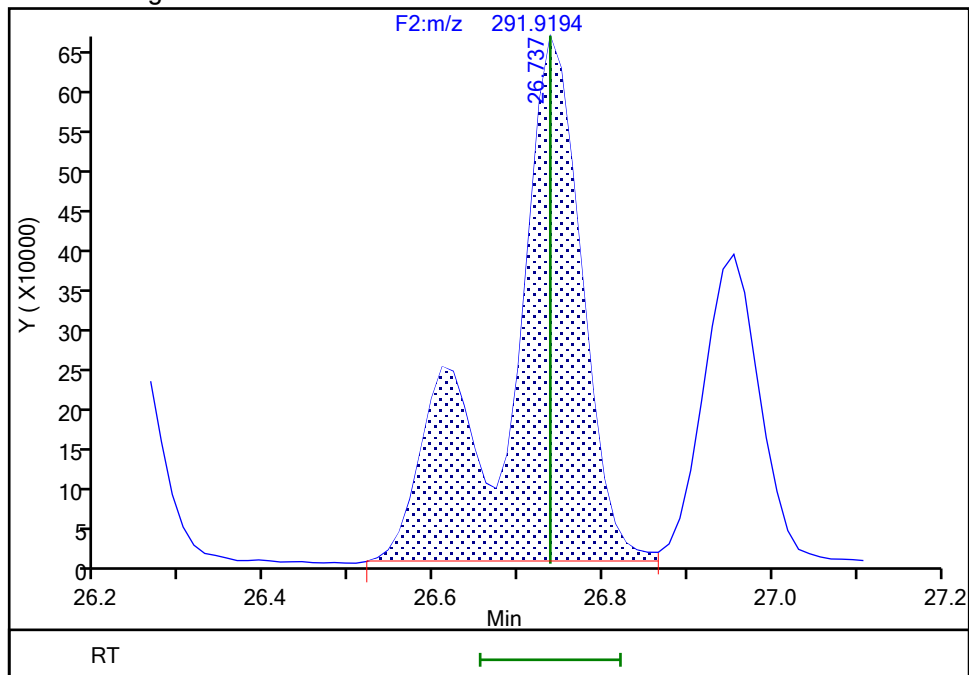
RT: 26.74  
Area: 2997776  
Amount: 96.947662  
Amount Units: pg/ul

## Processing Integration Results



RT: 26.74  
Area: 4097215  
Amount: 132.8001  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 17-Jul-2024 16:52:47 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

Chrom Revision: 2.3 26-Jun-2024 16:13:32

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Vol: 1.0 ul

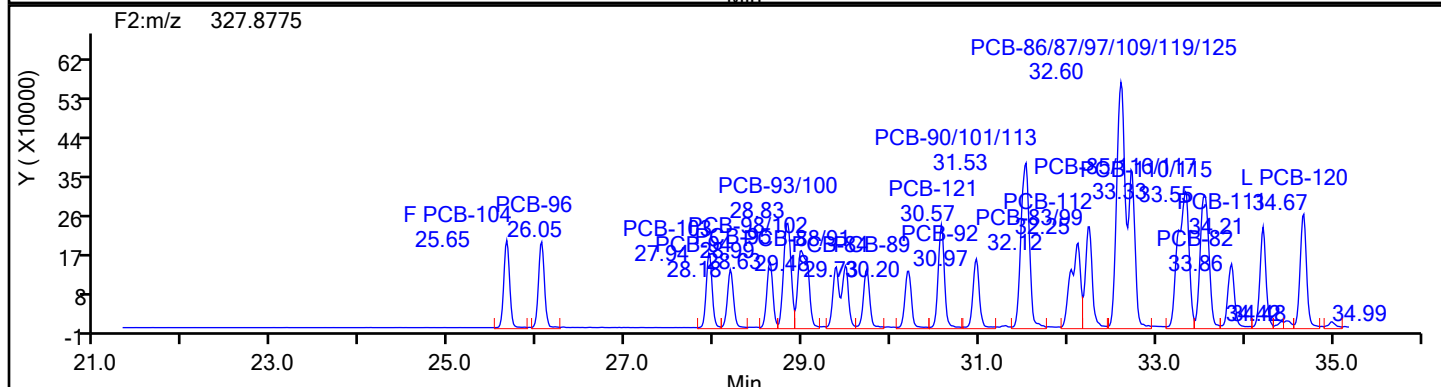
Operator ID: Xcalibur System

Limit Group: HR - EPA 23 PCB ICAL

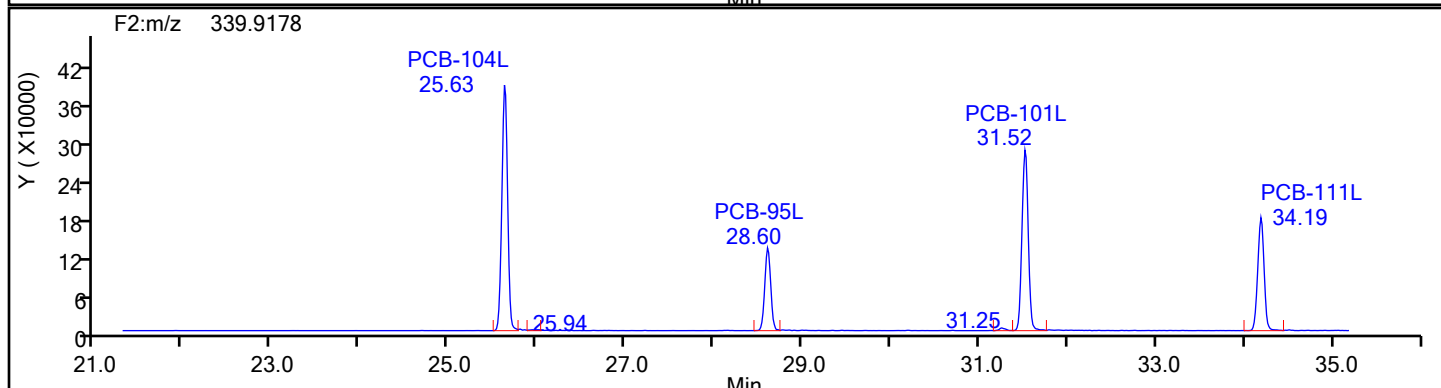
Sample Line#: 1

Column Dia: 0.25 mm

PePCB F2

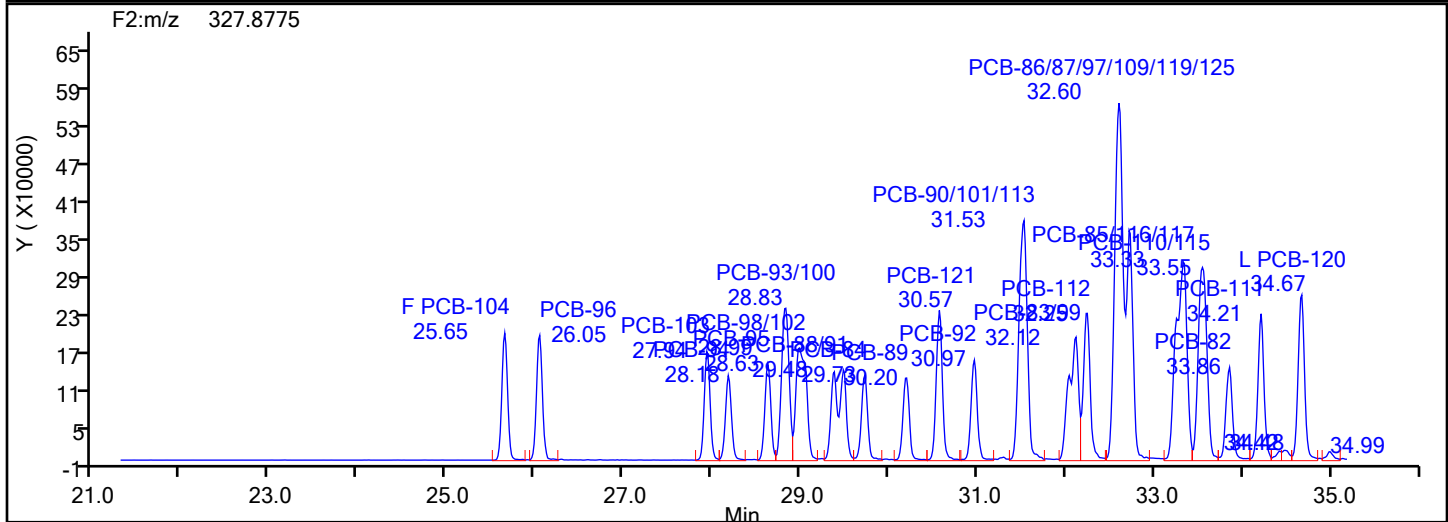
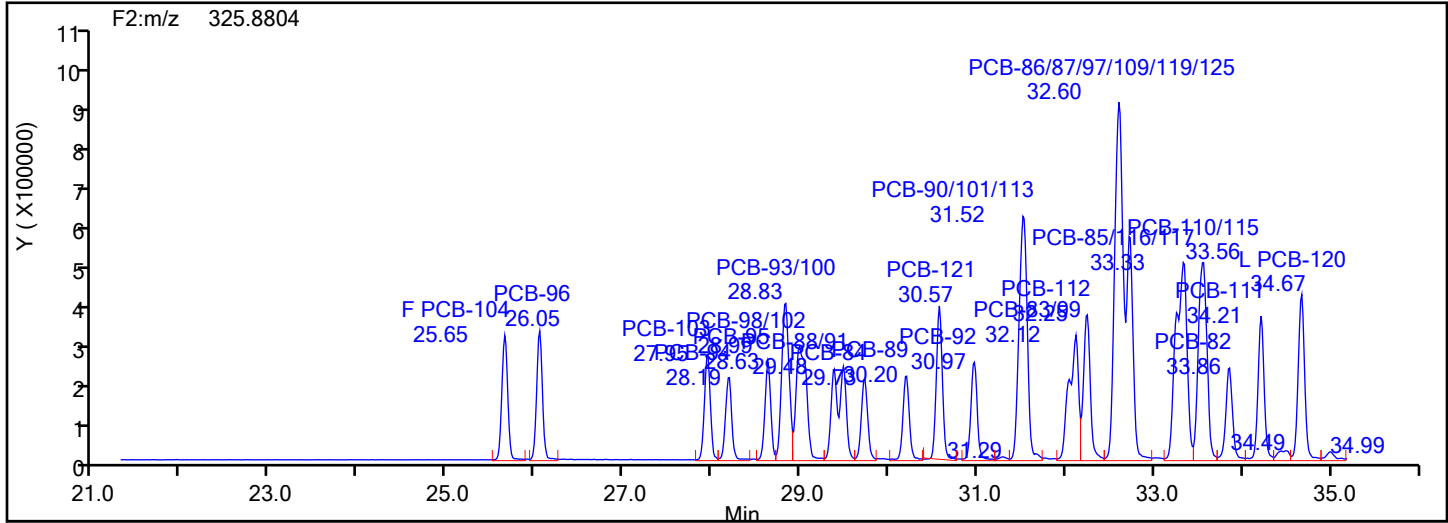


PePCB F2 Standards

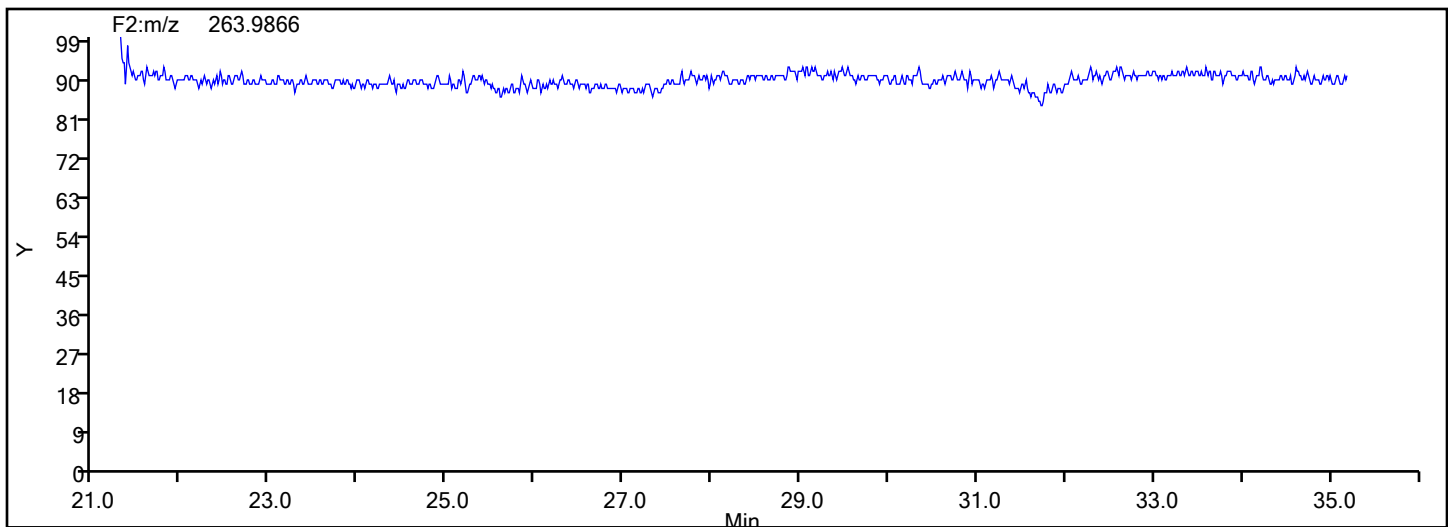


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Injection Date: 17-Jul-2024 12:39:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88871 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2



## PePCB F2 Lock Mass



## Eurofins Knoxville

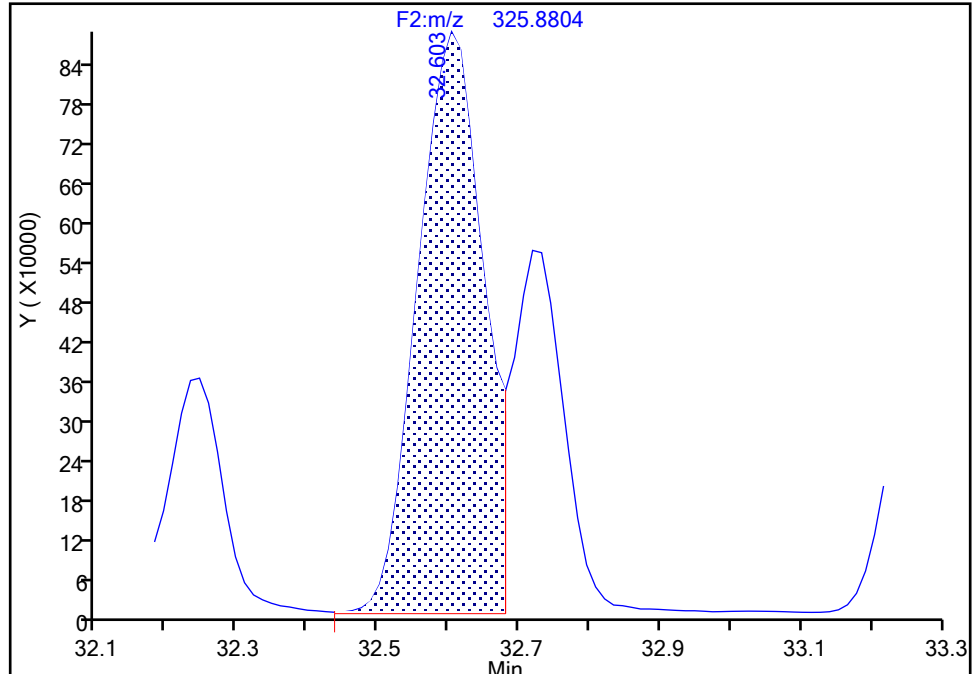
Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Injection Date: 17-Jul-2024 12:39:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-86/87/97/109/119/125, CAS: STL02295

Signal: 1

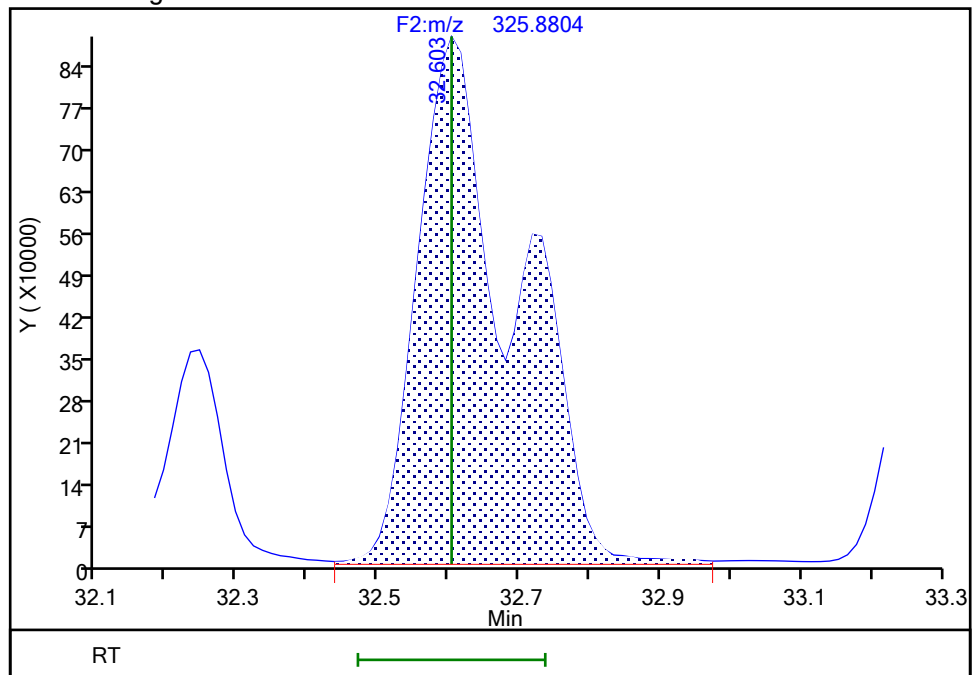
RT: 32.60  
Area: 5765514  
Amount: 194.3057  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.60  
Area: 8539085  
Amount: 289.0955  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 17-Jul-2024 16:54:33 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

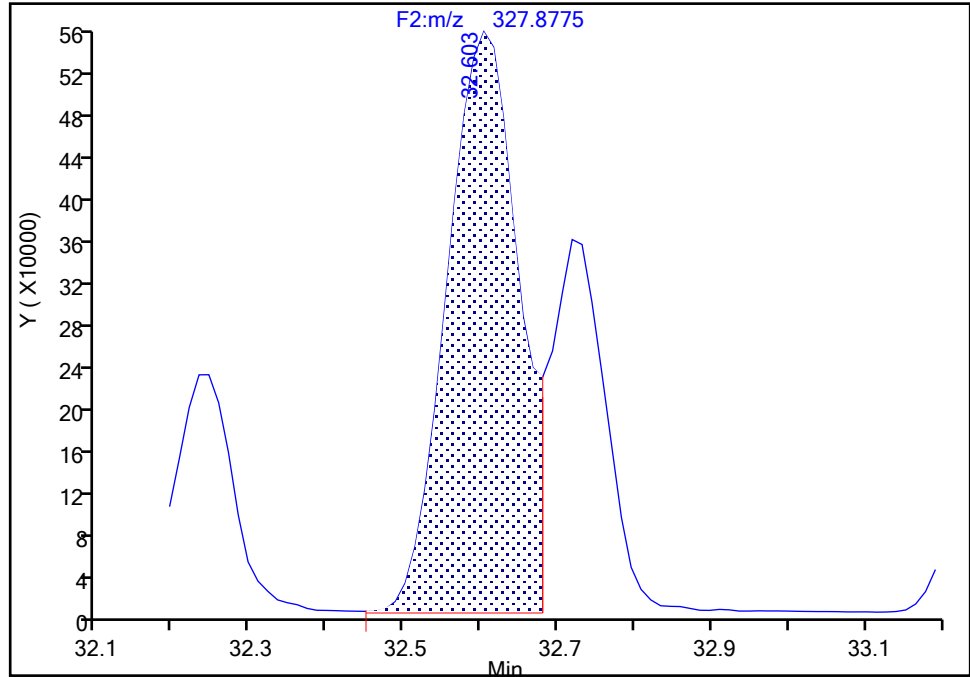
Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Injection Date: 17-Jul-2024 12:39:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

PCB-86/87/97/109/119/125, CAS: STL02295

Signal: 2

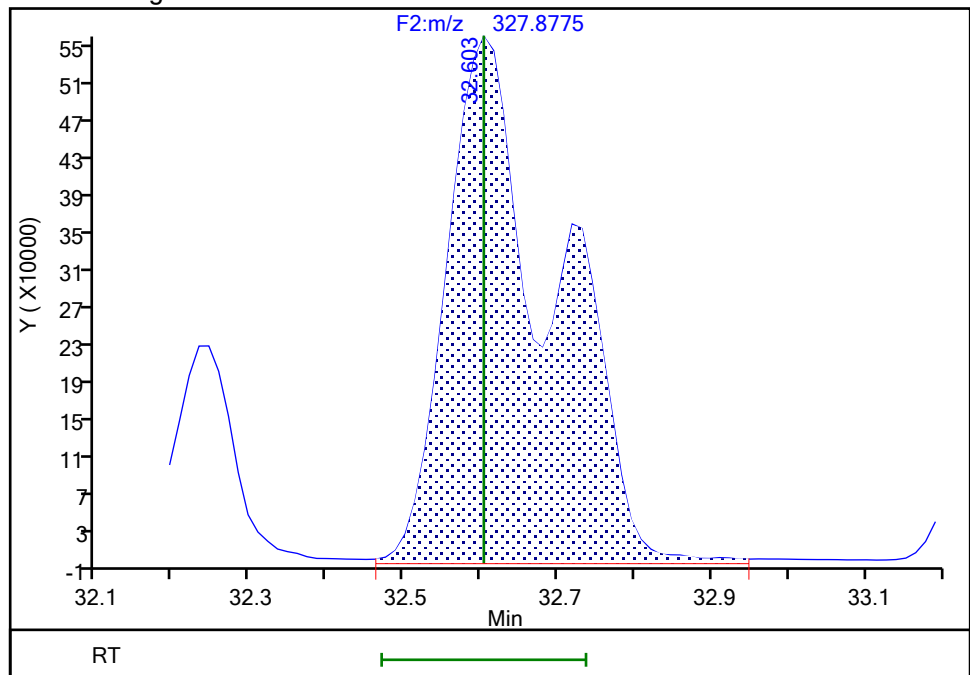
RT: 32.60  
Area: 3623108  
Amount: 194.3057  
Amount Units: pg/ul

## Processing Integration Results



RT: 32.60  
Area: 5429665  
Amount: 289.0955  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 17-Jul-2024 16:54:40 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

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BASFHWC-Pass 2024-07-17 16:54:40  
4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

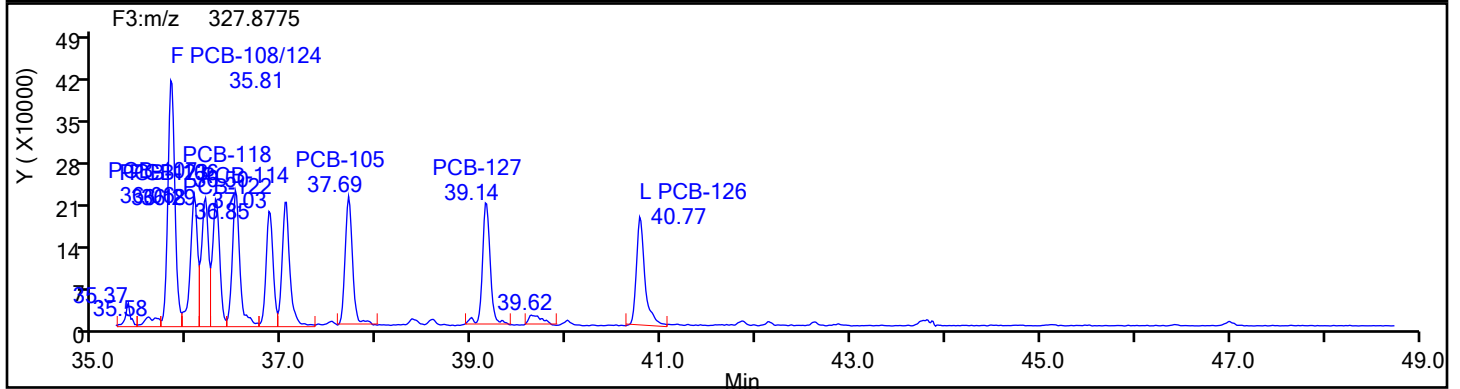
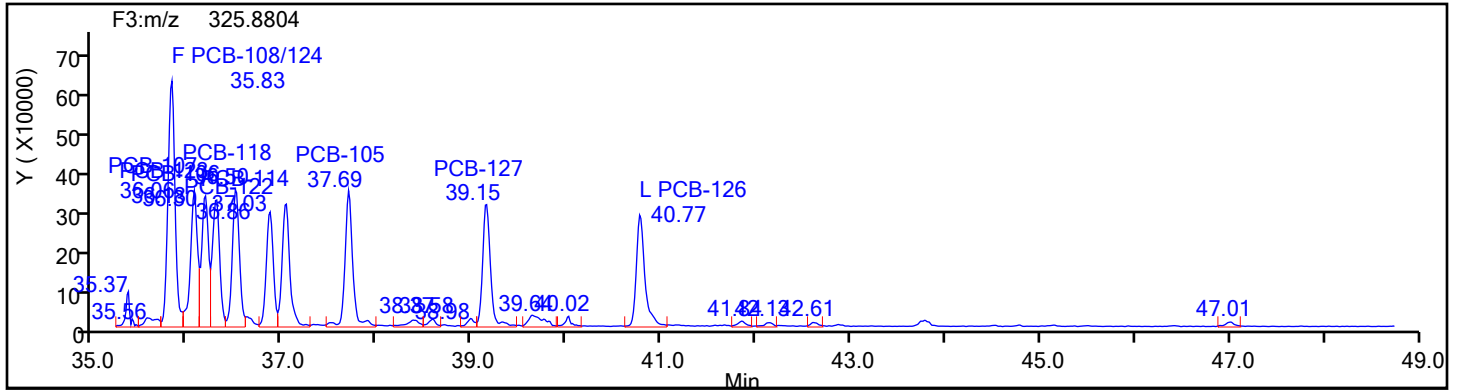
Worklist#: 88871

Sample Line#: 1

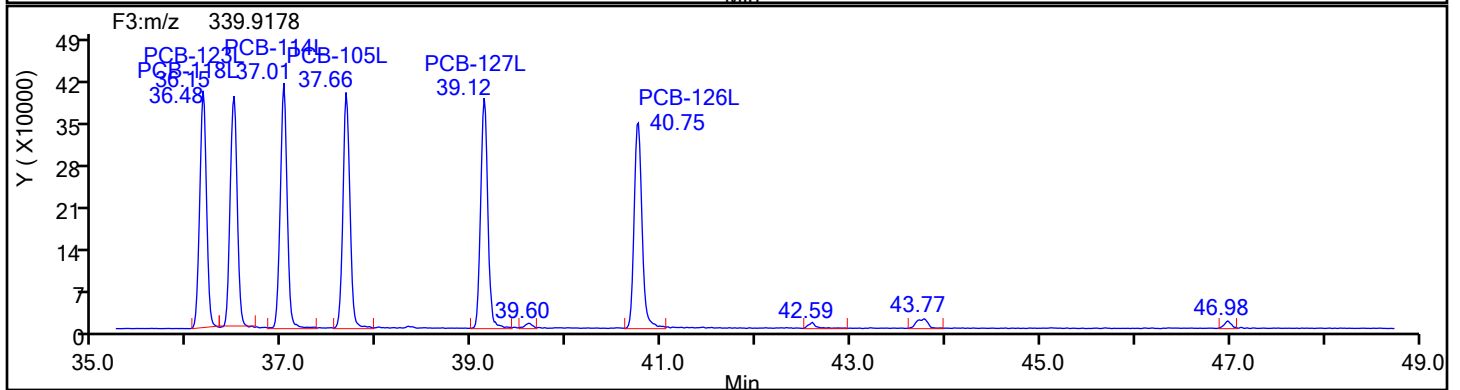
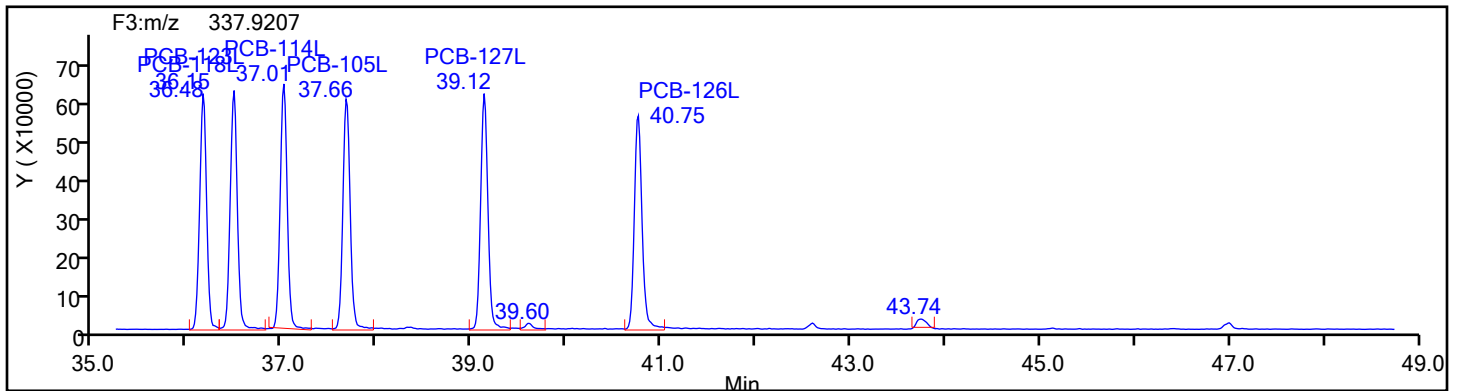
Column Type: SPB-Octyl

Column Dia: 0.25 mm

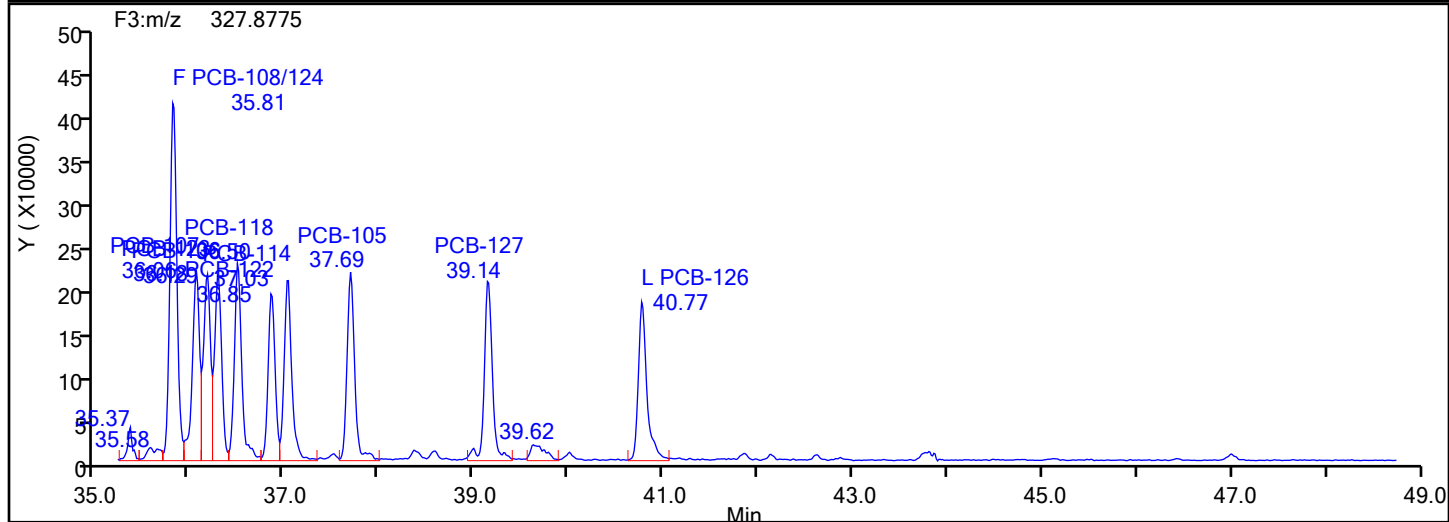
PePCB F3



PePCB F3 Standards

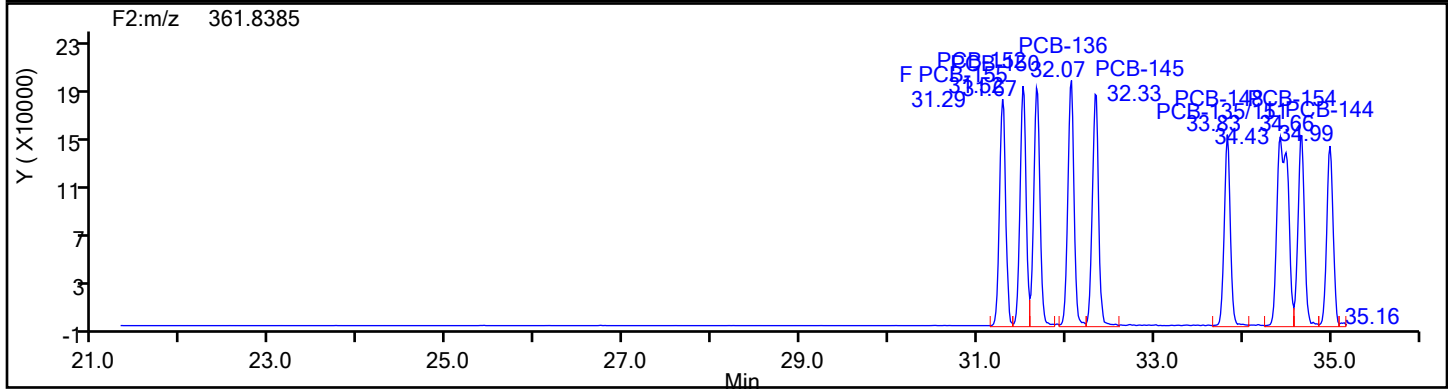
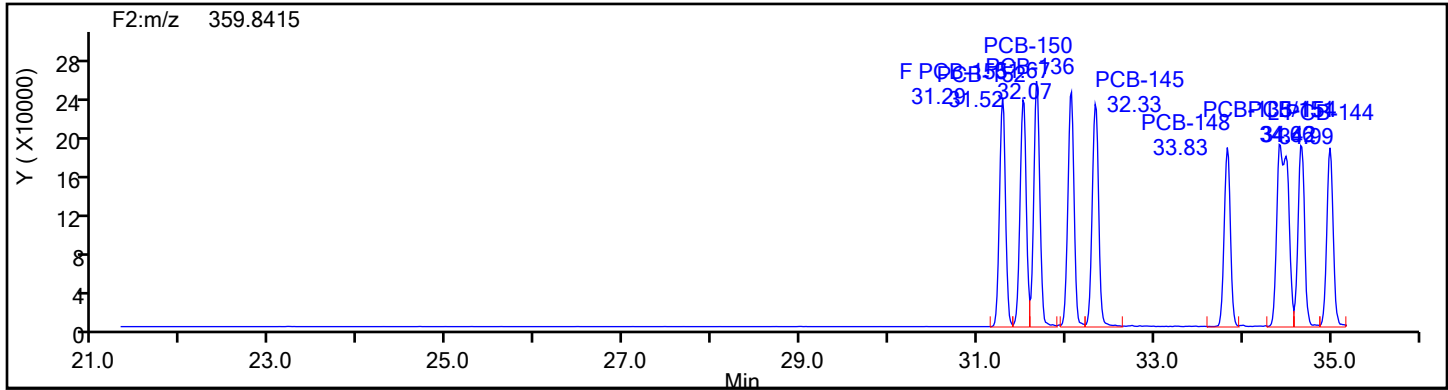


Data File:	\\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d		
Injection Date:	17-Jul-2024 12:39:00	Injection Vol:	1.0 ul
Instrument ID:	D2D	Operator ID:	Xcalibur_System
Method:	PCBs_D2D	Limit Group:	HR - EPA_23 PCB ICAL
Client ID:			
Worklist#:	88871	Sample Line#:	1
Column Type:	SPB-Octyl	Column Dia:	0.25 mm
PePCB F3			

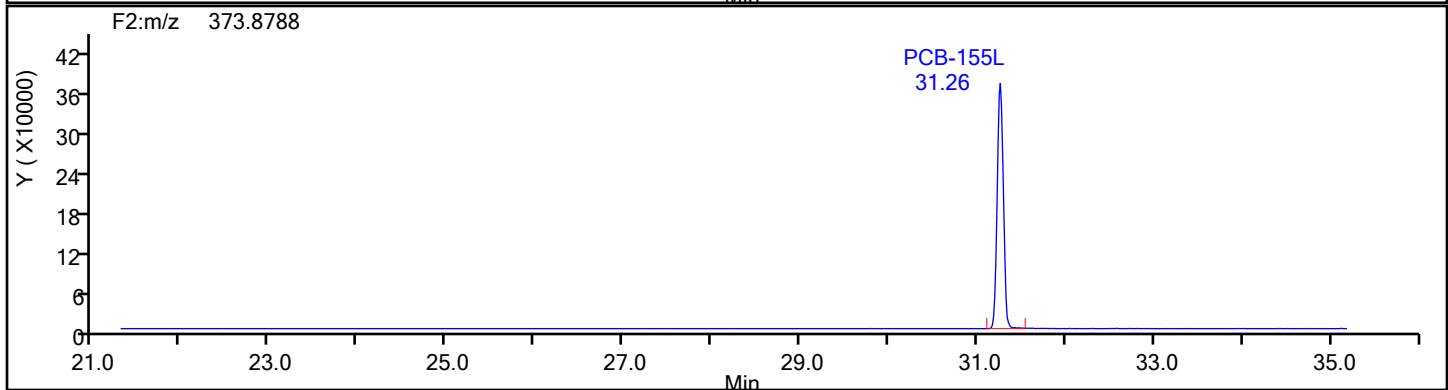
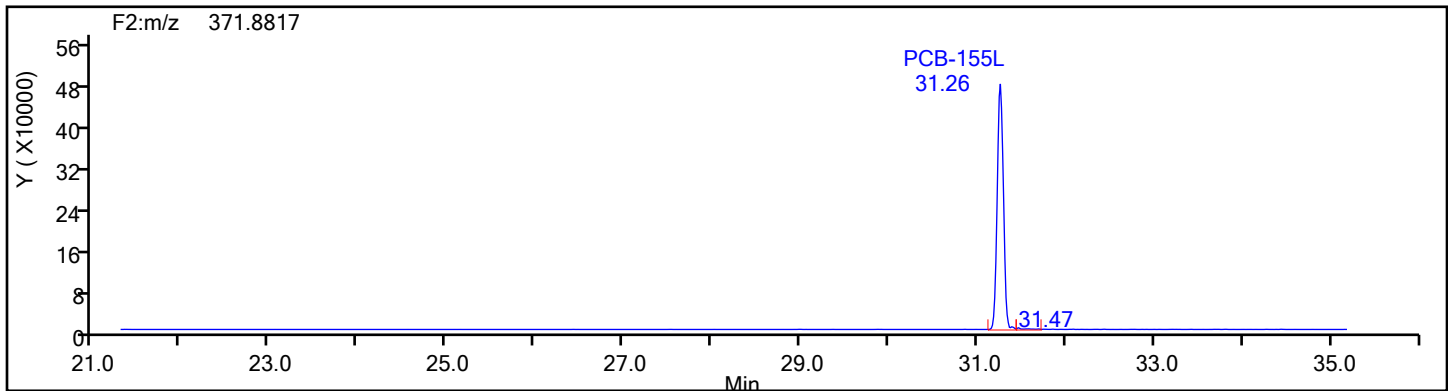


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Injection Date: 17-Jul-2024 12:39:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88871 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2



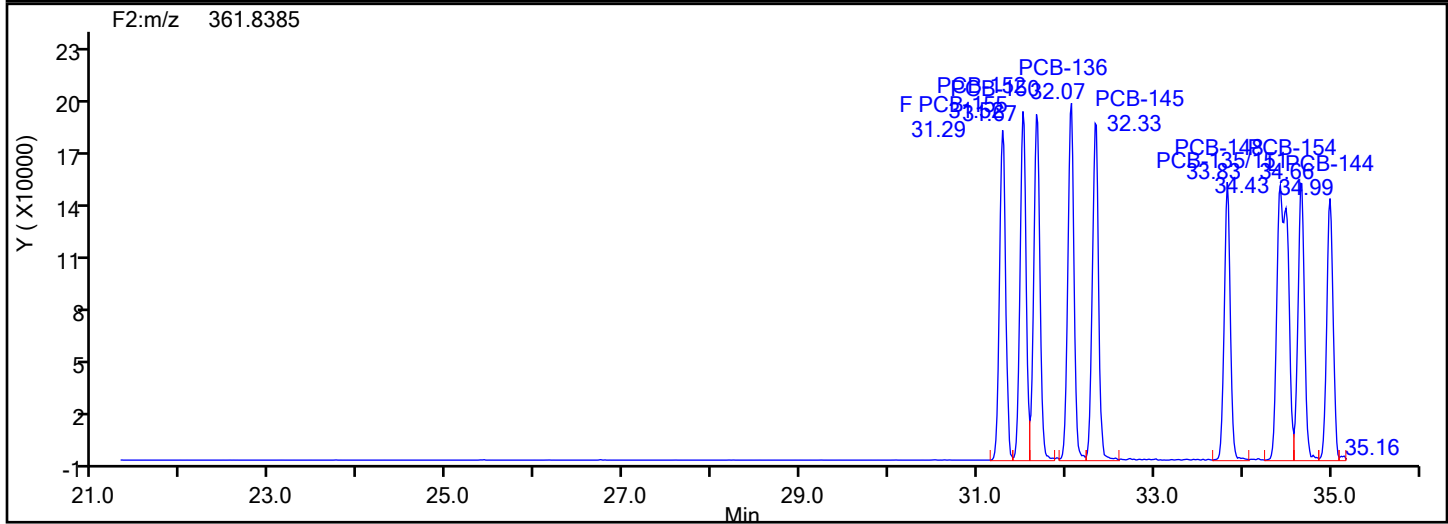
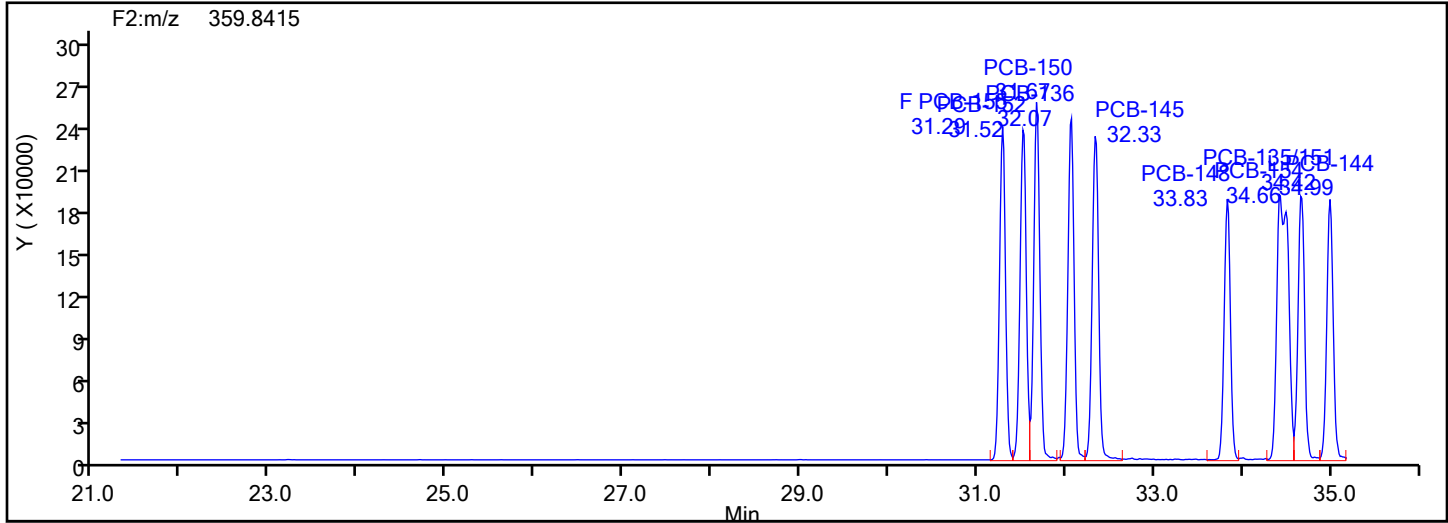
## HxPCB F2 Standards



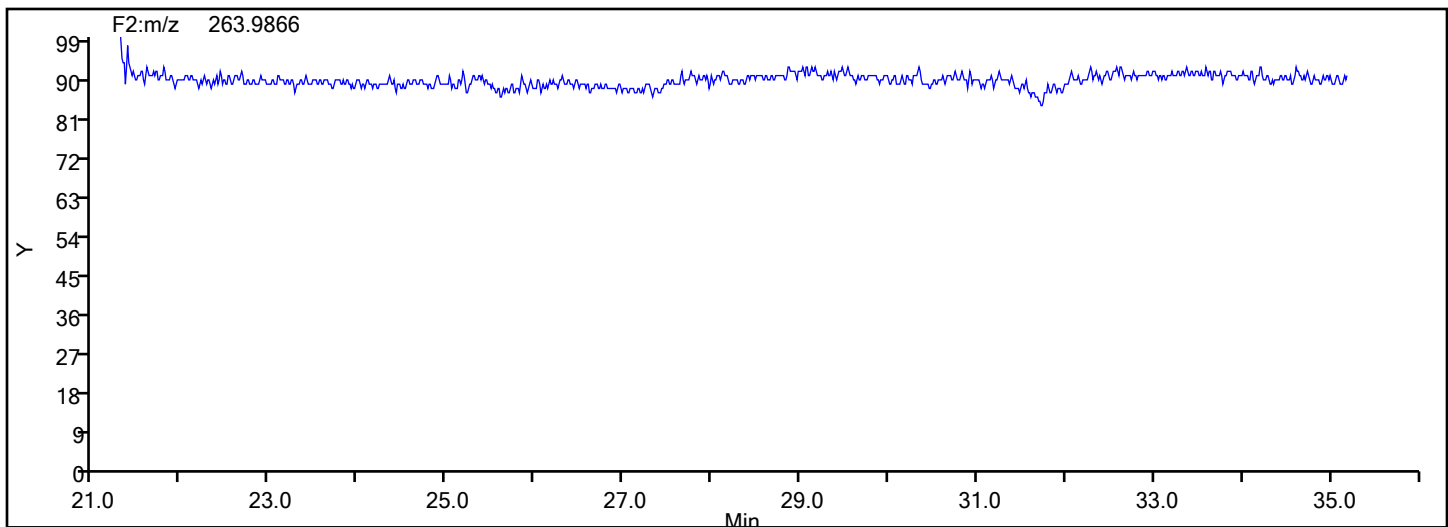


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Injection Date: 17-Jul-2024 12:39:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88871 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
HxPCB F2



## HxPCB F2 Lock Mass



## Eurofins Knoxville

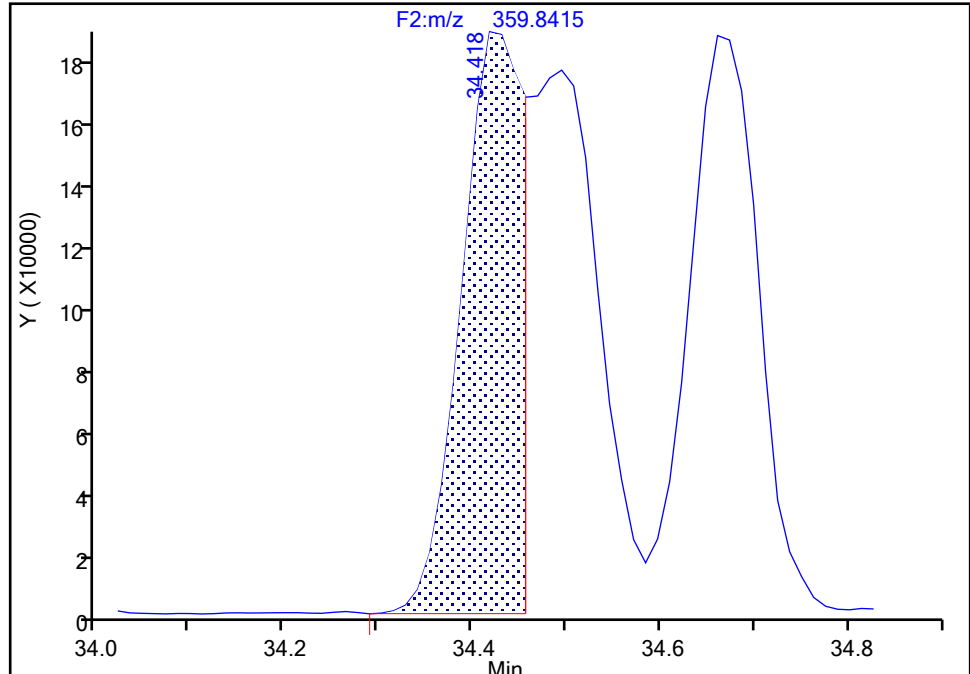
Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Injection Date: 17-Jul-2024 12:39:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 1

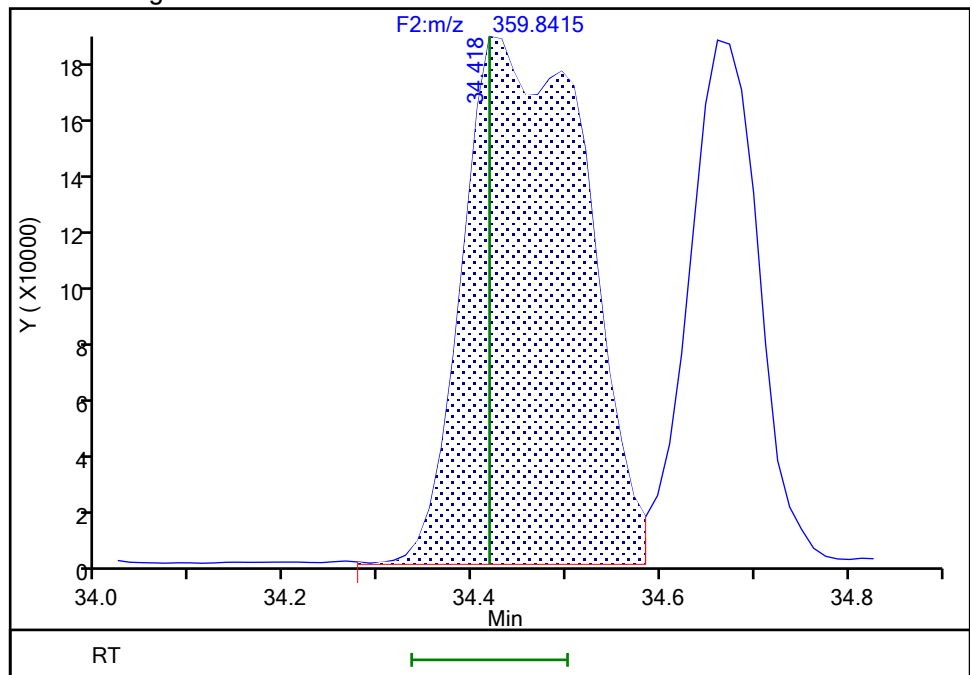
RT: 34.42  
Area: 818324  
Amount: 52.039430  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.42  
Area: 1711308  
Amount: 101.6699  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 17-Jul-2024 16:55:12 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

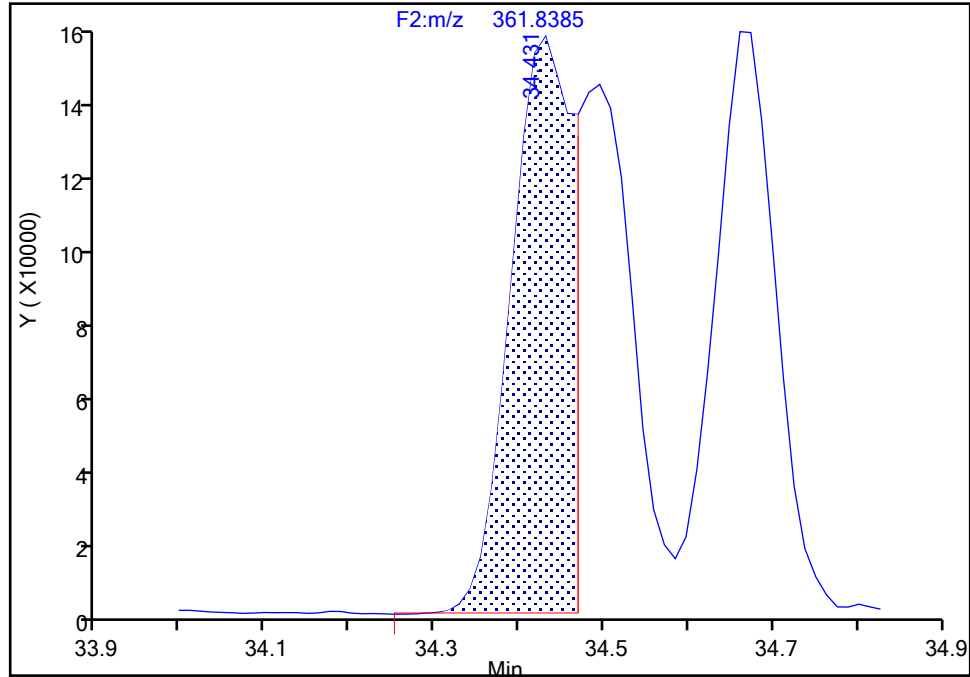
Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Injection Date: 17-Jul-2024 12:39:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F2(21.81 :35.54 )

**PCB-135/151, CAS: STL01819**

Signal: 2

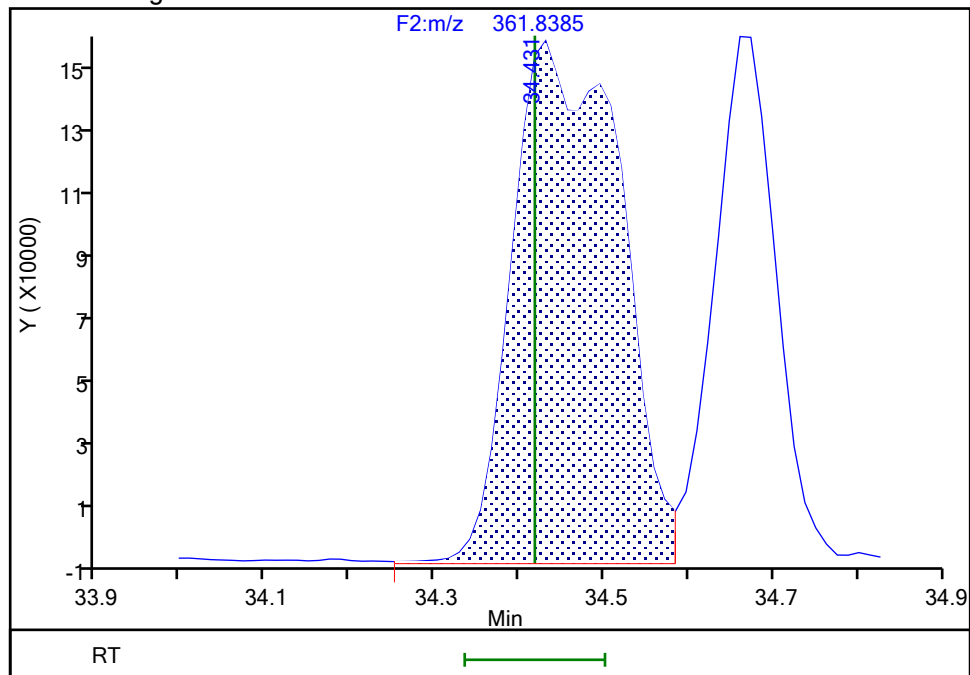
RT: 34.43  
Area: 745966  
Amount: 52.039430  
Amount Units: pg/ul

## Processing Integration Results



RT: 34.43  
Area: 1344860  
Amount: 101.6699  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 17-Jul-2024 16:55:20 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

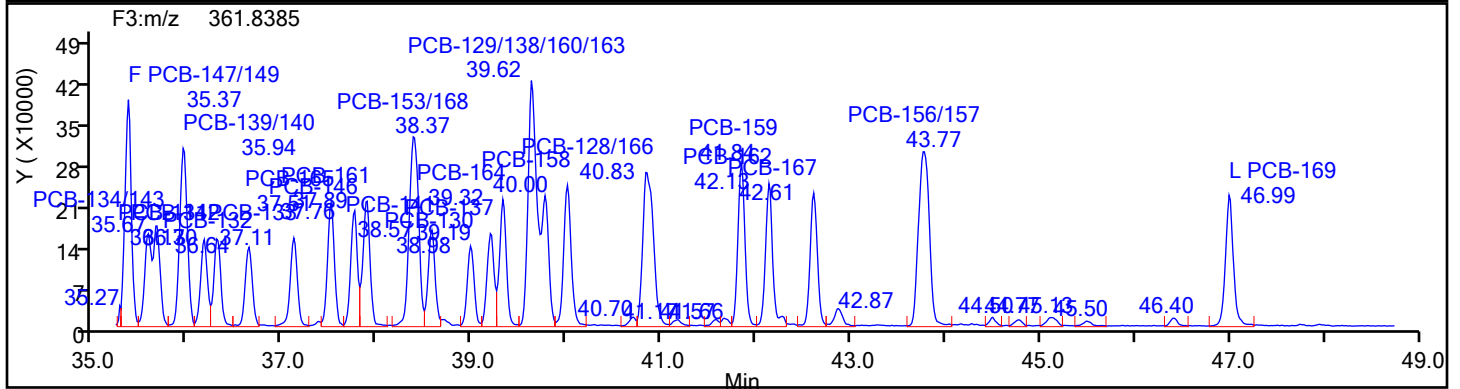
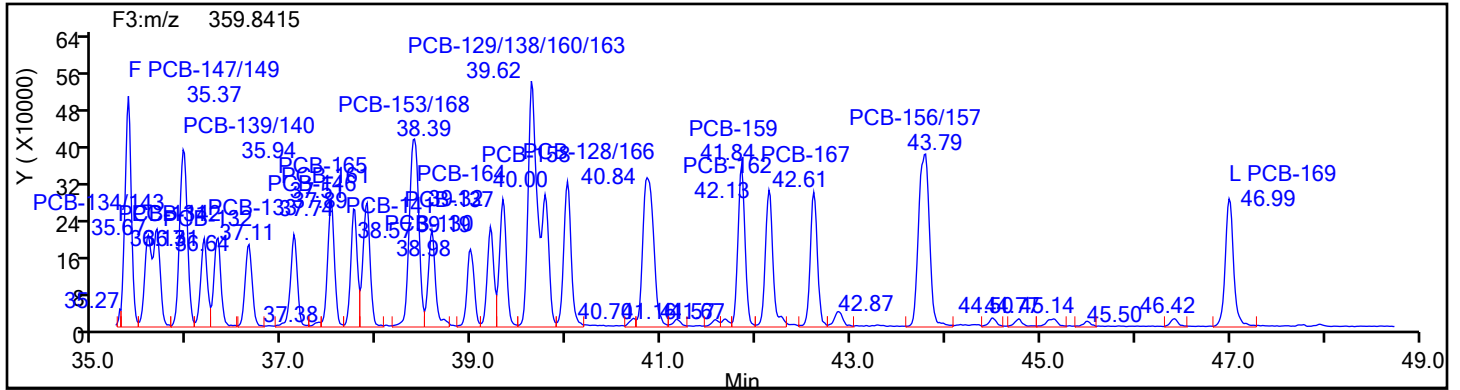
Worklist#: 88871

Sample Line#: 1

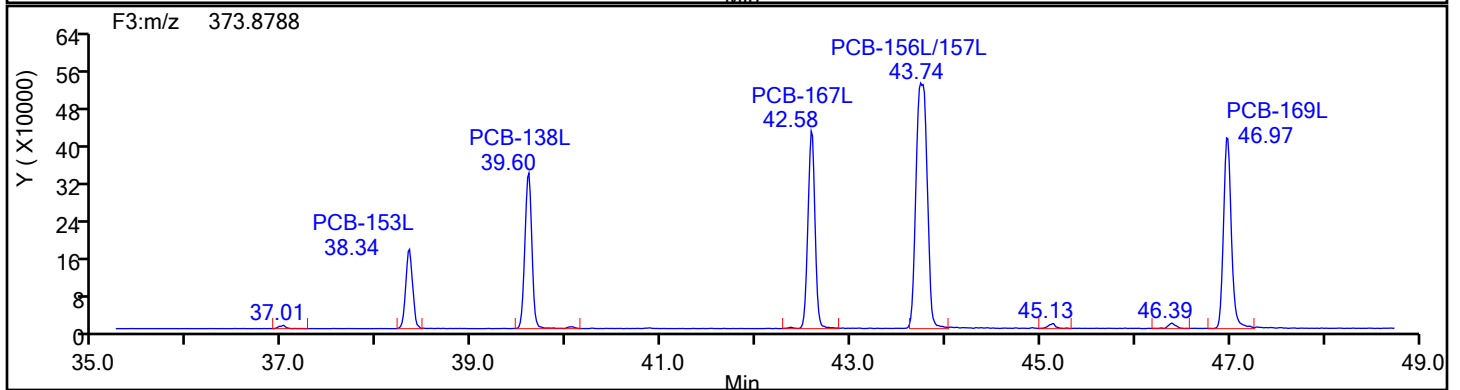
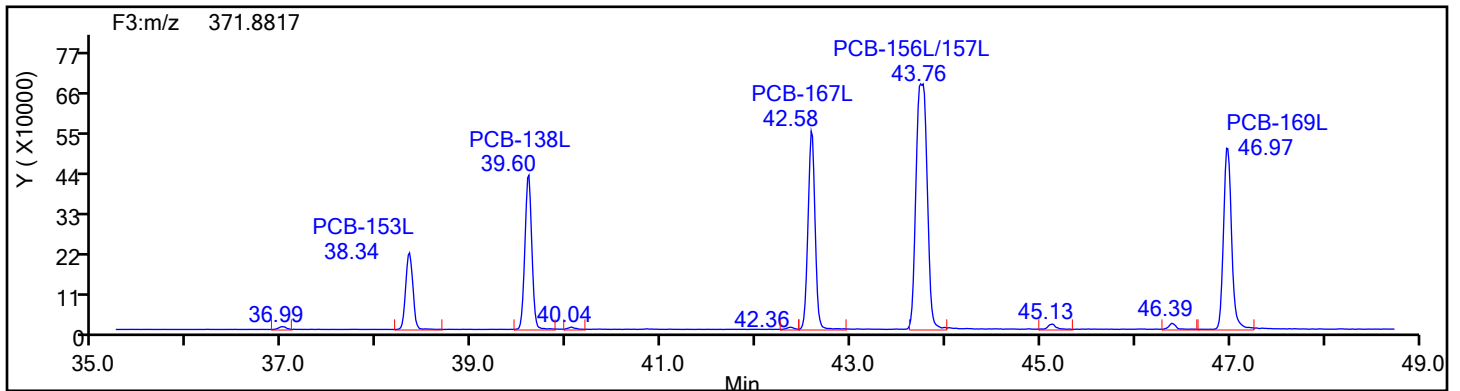
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



HxPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

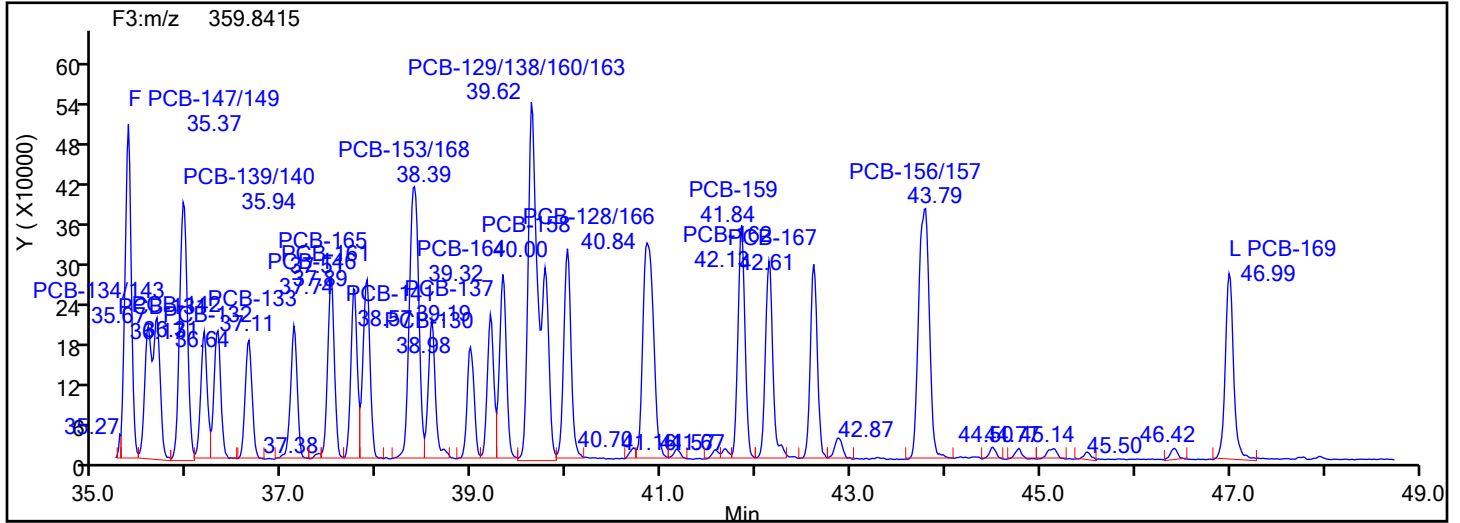
Worklist#: 88871

Sample Line#: 1

Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



## Eurofins Knoxville

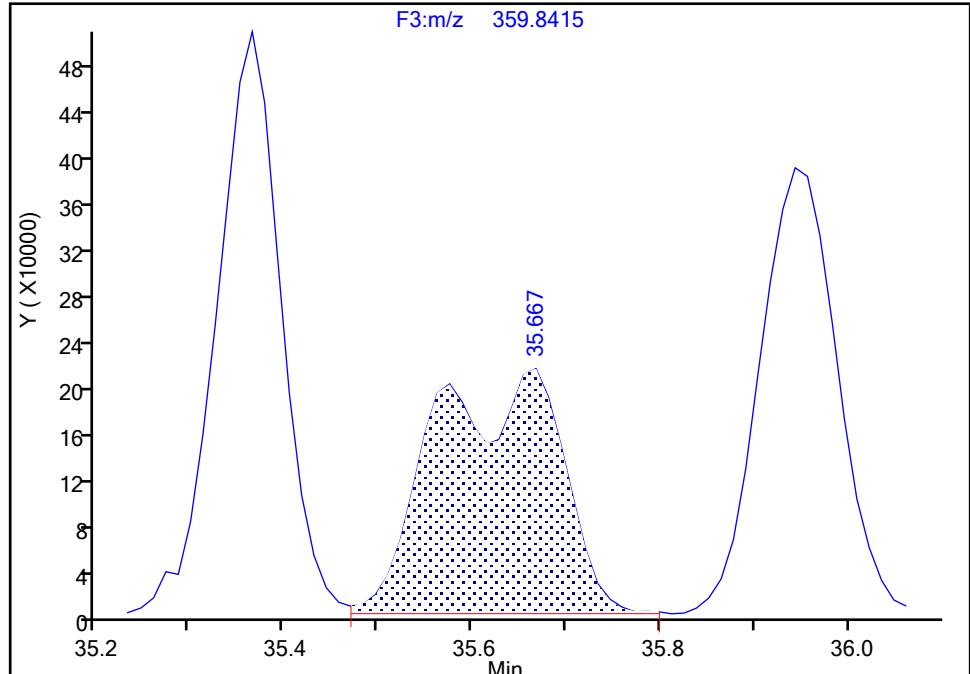
Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Injection Date: 17-Jul-2024 12:39:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-134/143, CAS: STL01818

Signal: 1

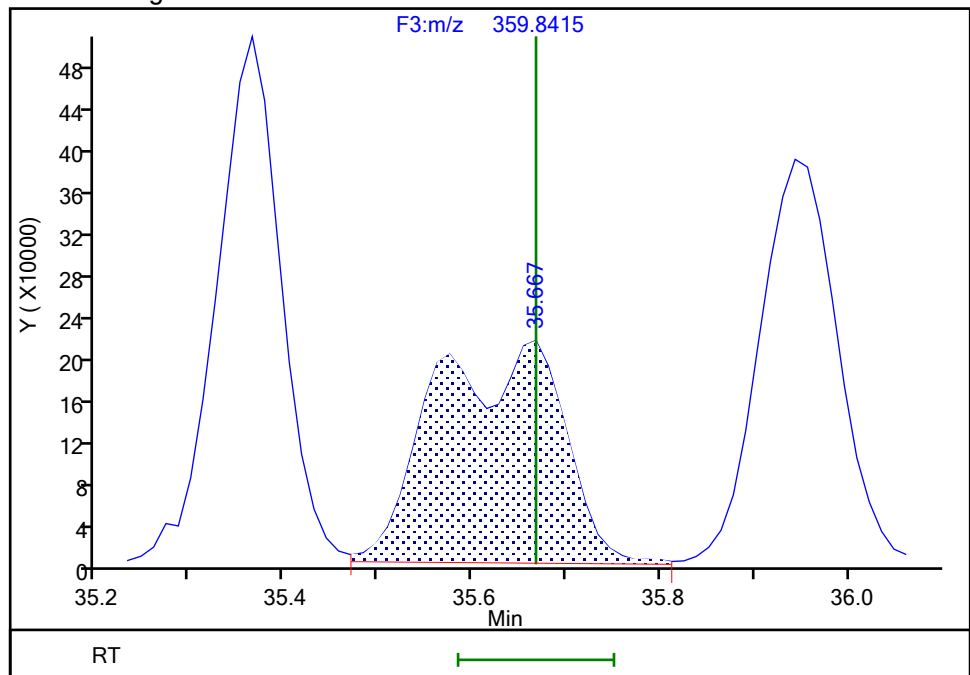
RT: 35.67  
Area: 2011000  
Amount: 89.833443  
Amount Units: pg/ul

## Processing Integration Results



RT: 35.67  
Area: 2023864  
Amount: 90.151884  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 17-Jul-2024 16:55:37 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

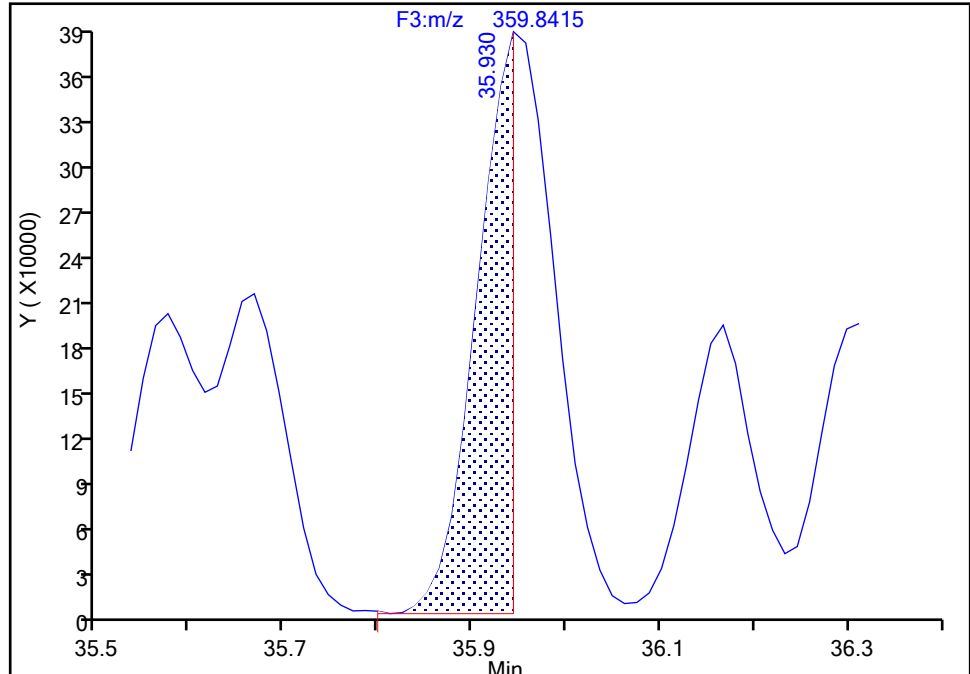
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Injection Date: 17-Jul-2024 12:39:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

**PCB-139/140, CAS: STL01820**

Signal: 1

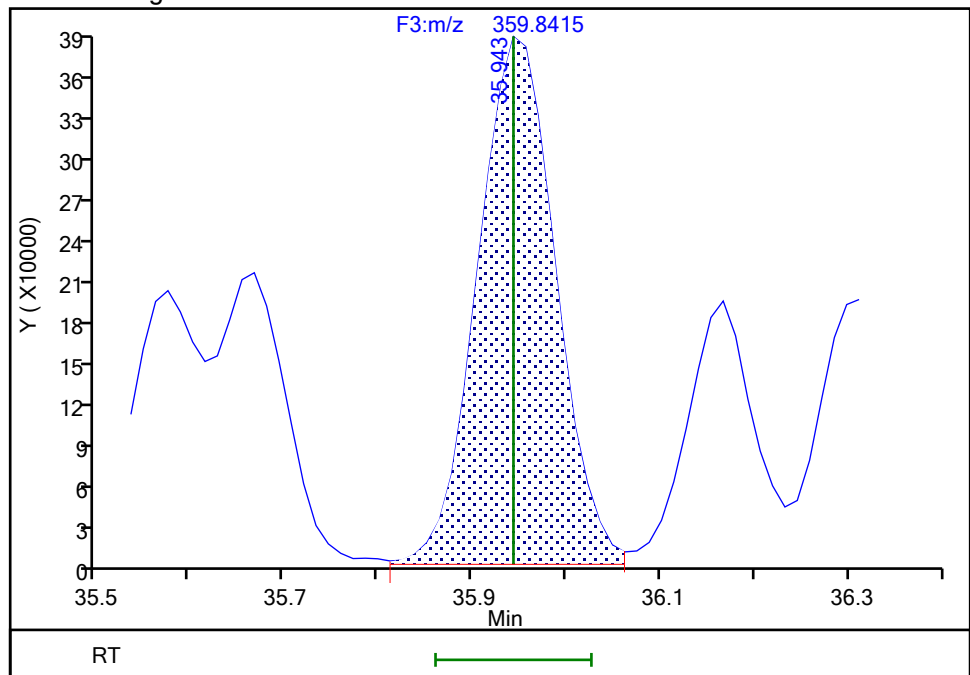
RT: 35.93  
Area: 1004918  
Amount: 61.602168  
Amount Units: pg/ul

## Processing Integration Results



RT: 35.94  
Area: 2213067  
Amount: 88.774515  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 17-Jul-2024 16:55:37 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

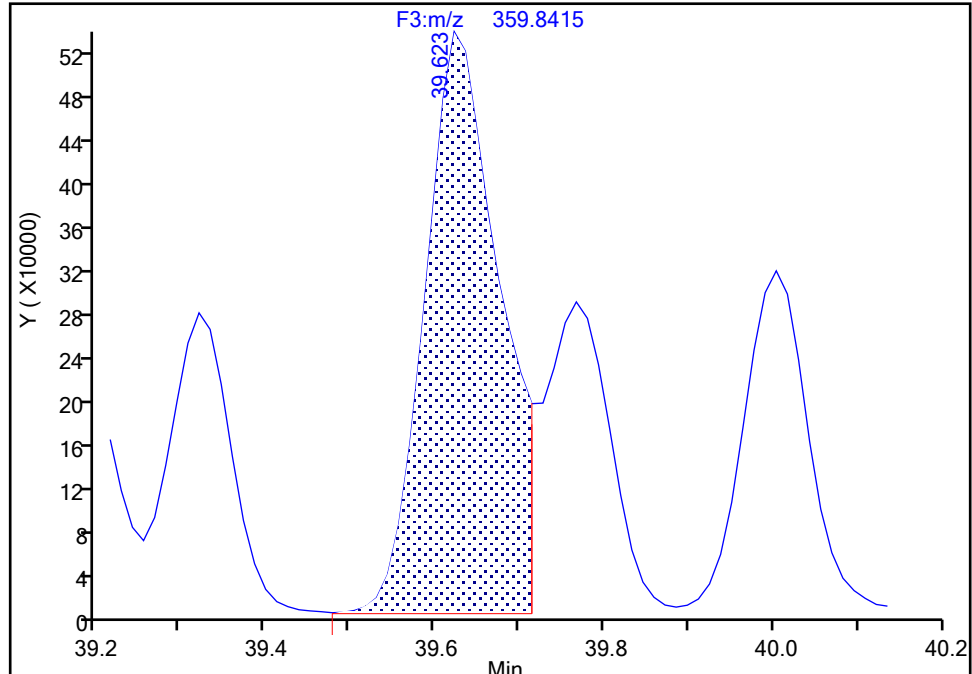
Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Injection Date: 17-Jul-2024 12:39:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 1

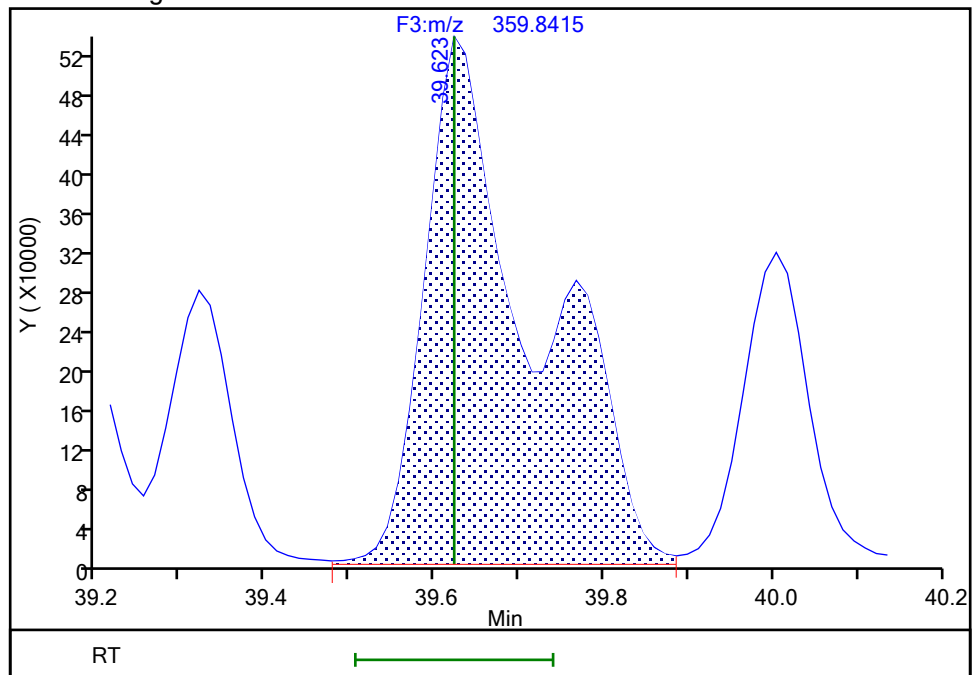
RT: 39.62  
Area: 3257582  
Amount: 122.0790  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.62  
Area: 4823541  
Amount: 179.5557  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 17-Jul-2024 16:55:53 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration



## Eurofins Knoxville

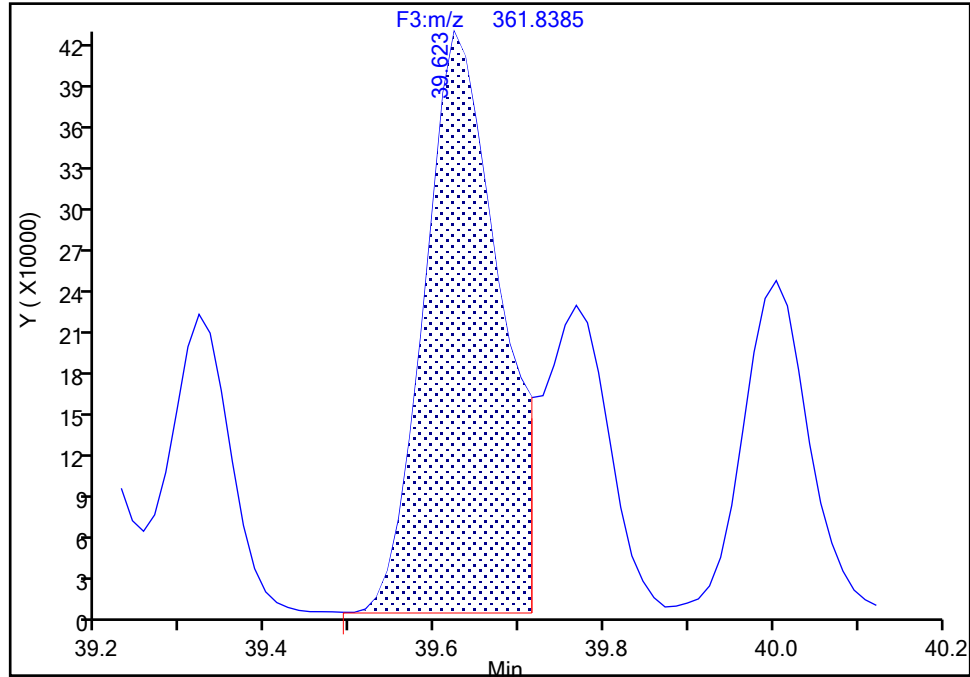
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Injection Date: 17-Jul-2024 12:39:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 2

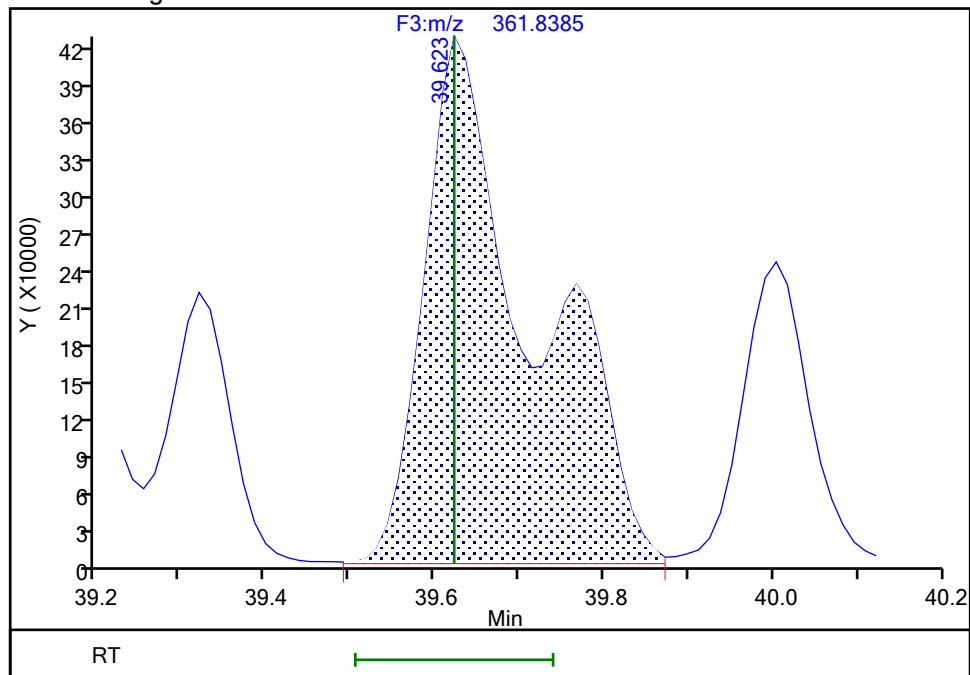
RT: 39.62  
Area: 2600801  
Amount: 122.0790  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.62  
Area: 3793058  
Amount: 179.5557  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 17-Jul-2024 16:56:00 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

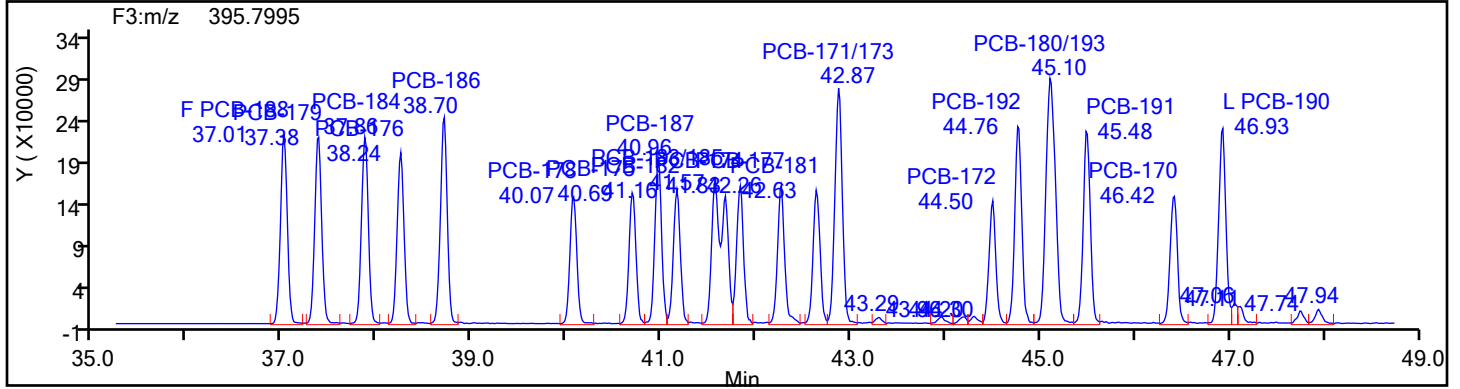
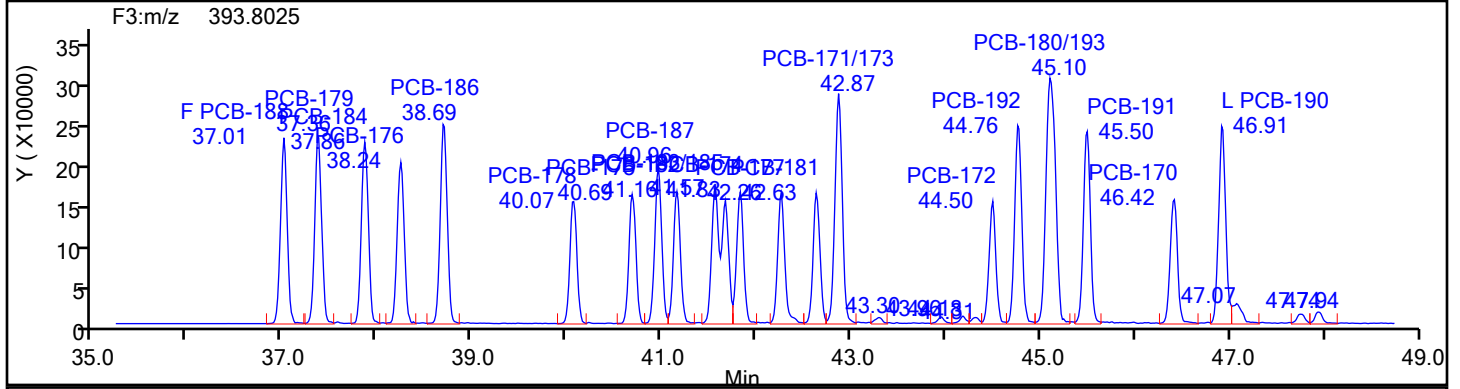
Worklist#: 88871

Sample Line#: 1

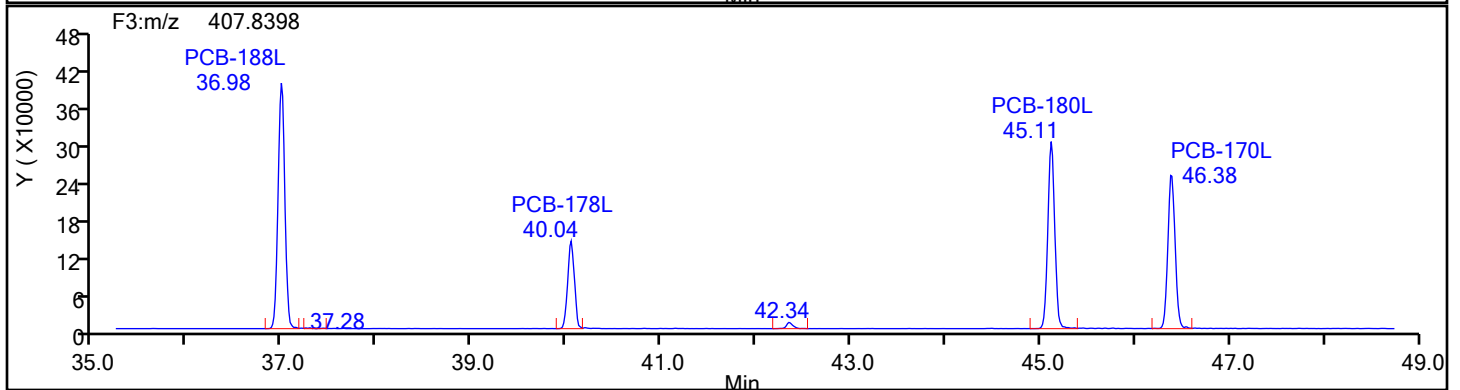
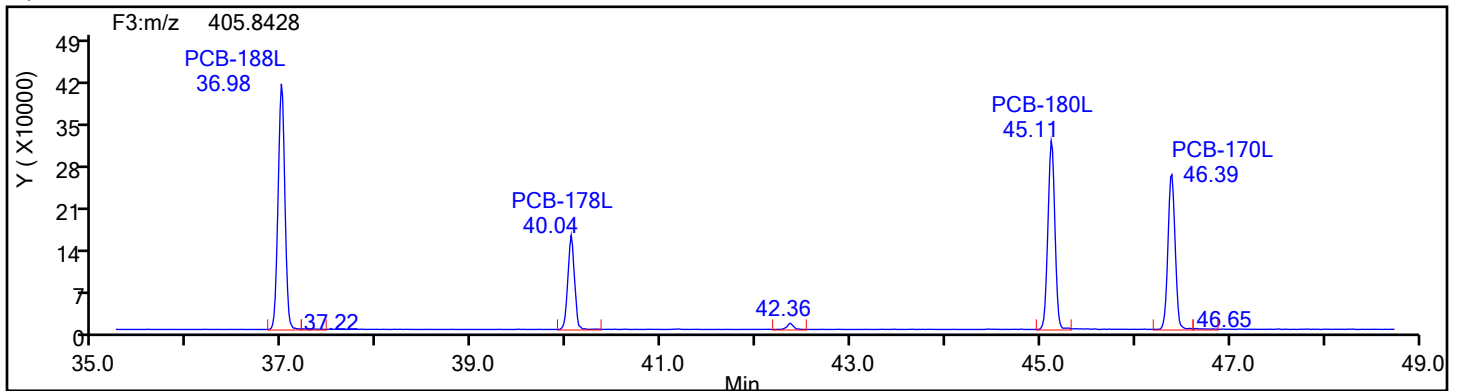
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



## HpPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

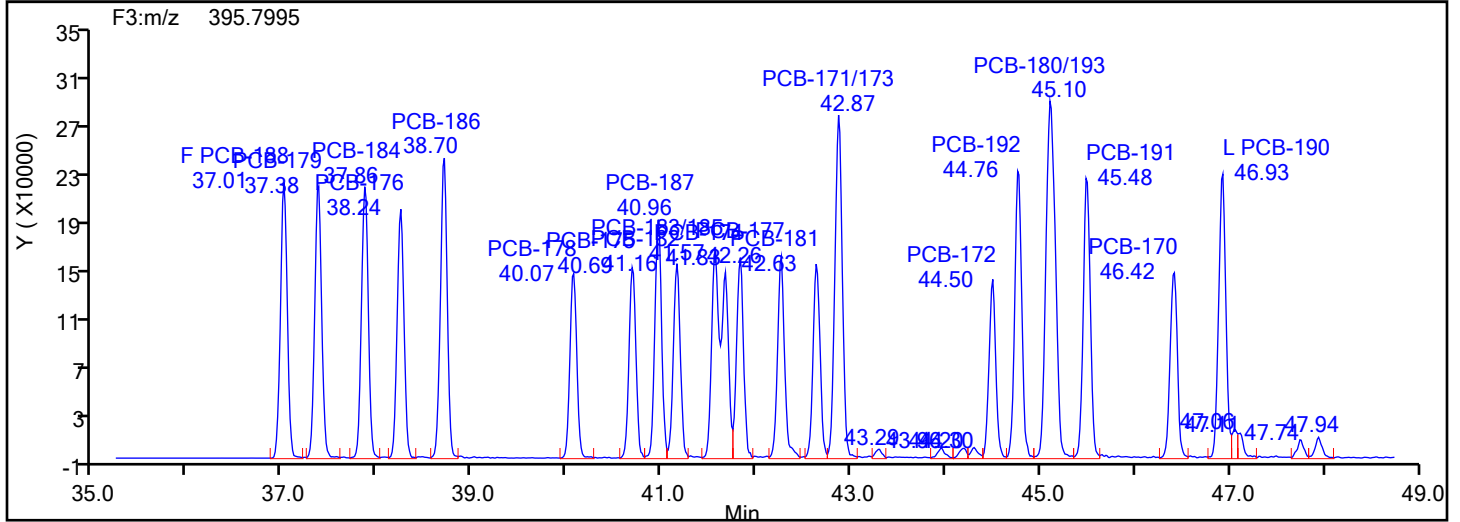
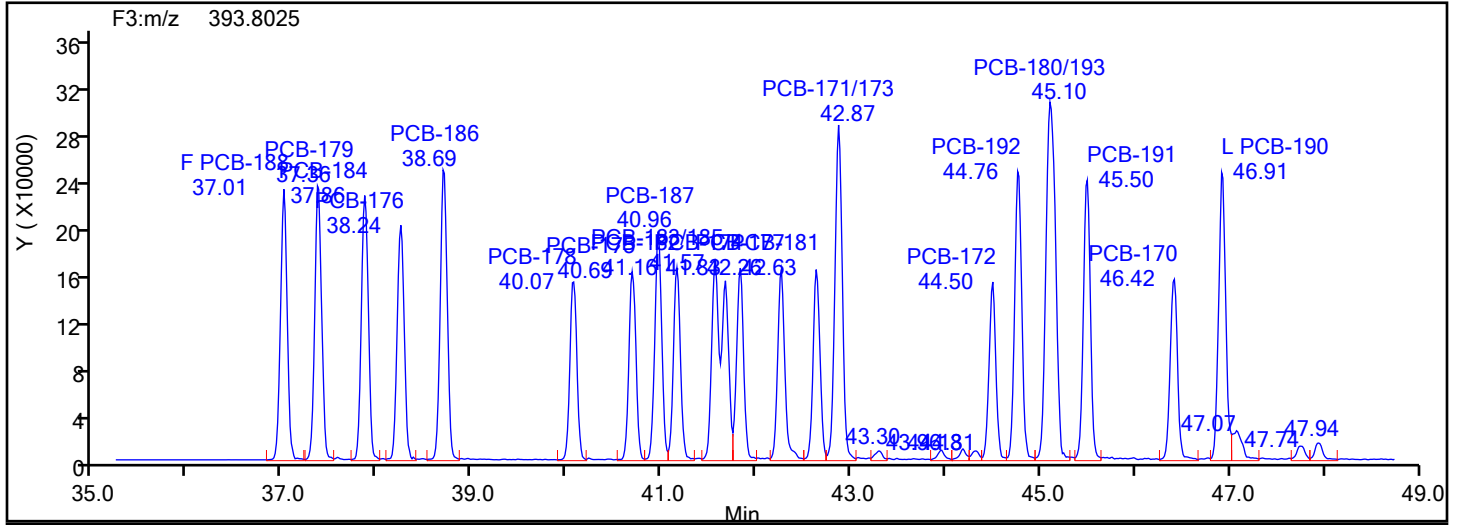
Worklist#: 88871

Sample Line#: 1

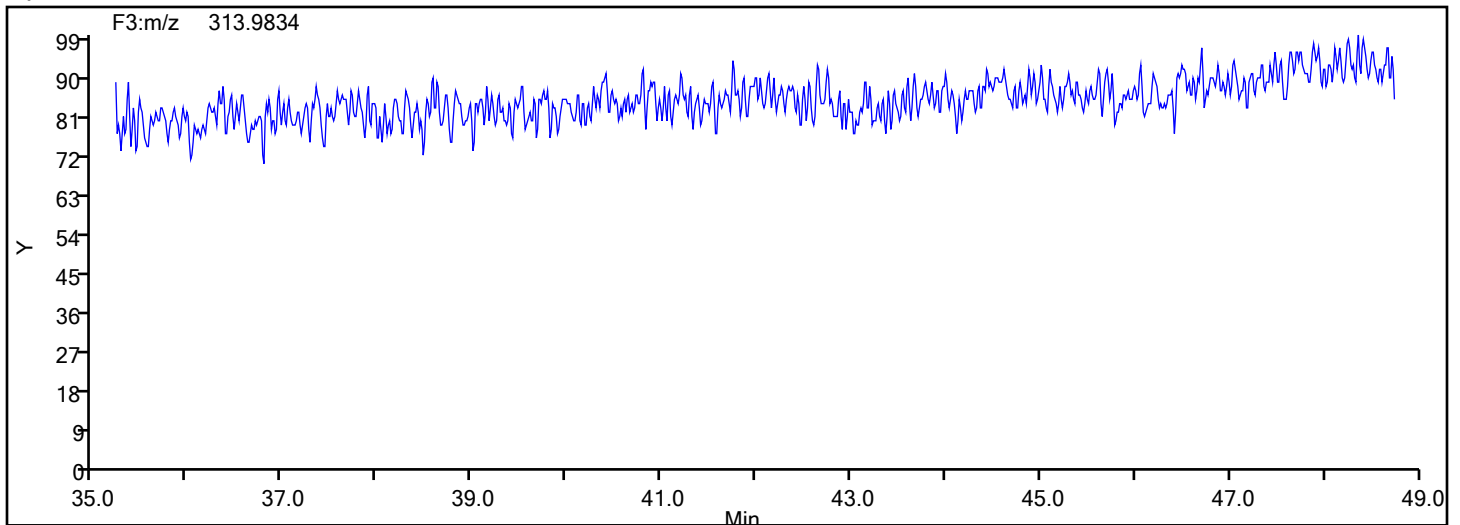
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



## HpPCB F3 Lock Mass



## Eurofins Knoxville

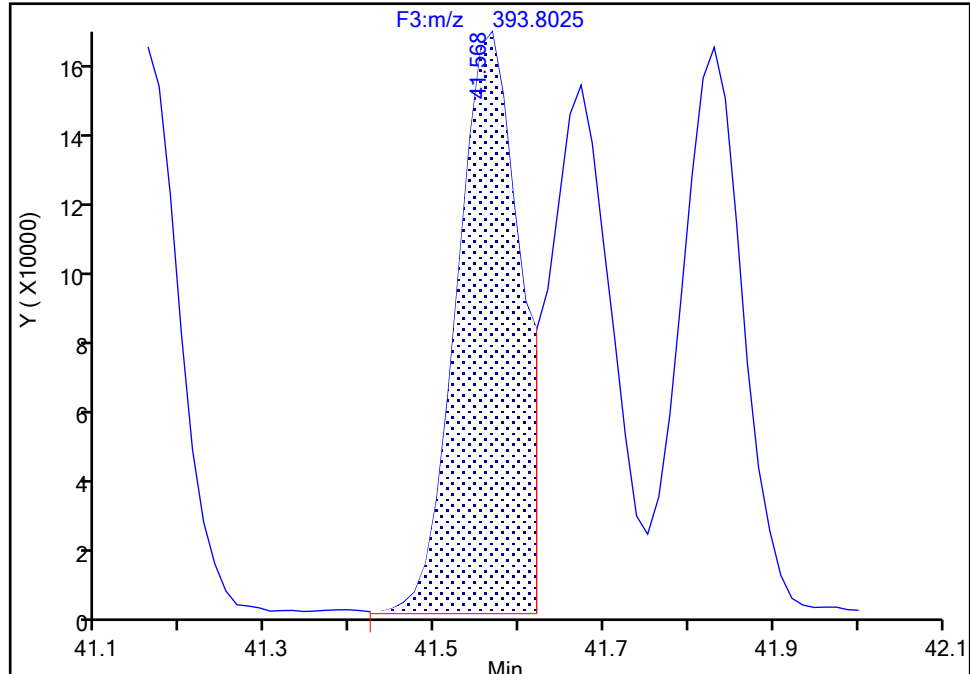
Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Injection Date: 17-Jul-2024 12:39:00 Instrument ID: D2D  
Lims ID: WDMCCV  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 1  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-183/185, CAS: STL02297

Signal: 1

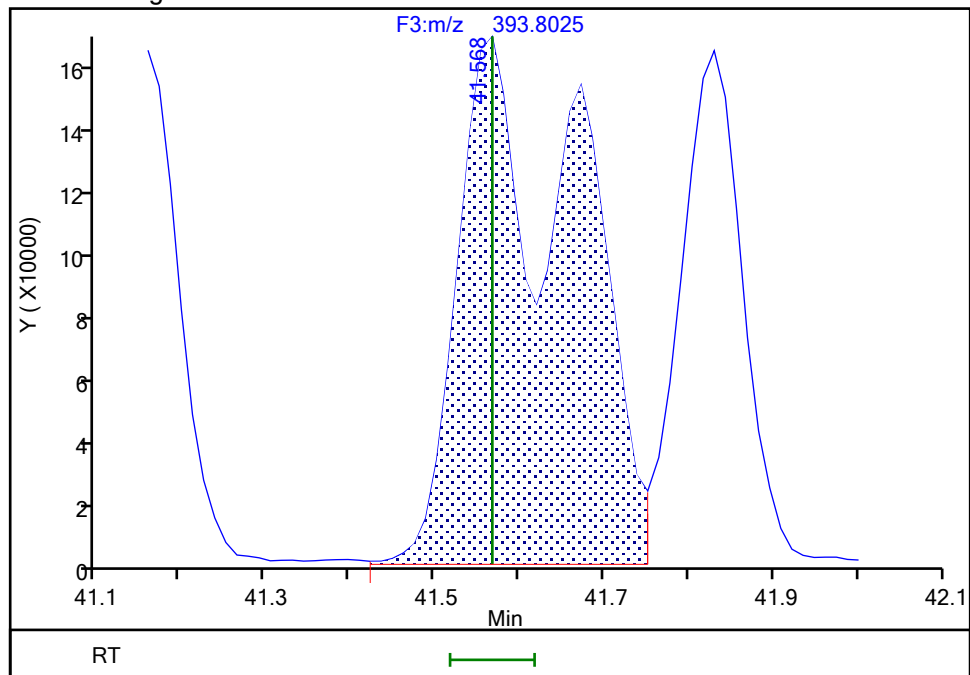
RT: 41.57  
Area: 867673  
Amount: 51.844788  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.57  
Area: 1632030  
Amount: 97.296347  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 17-Jul-2024 16:56:23 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Instrument ID: D2D

Lims ID: WDMCCV

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 1

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

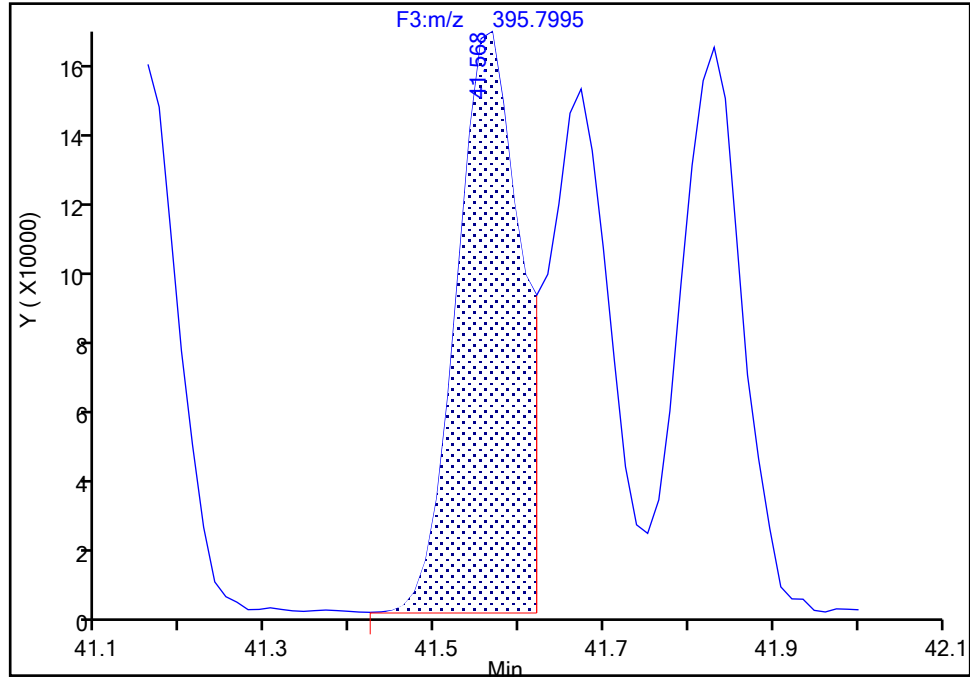
Detector F3(35.64 :49.10 )

**PCB-183/185, CAS: STL02297**

Signal: 2

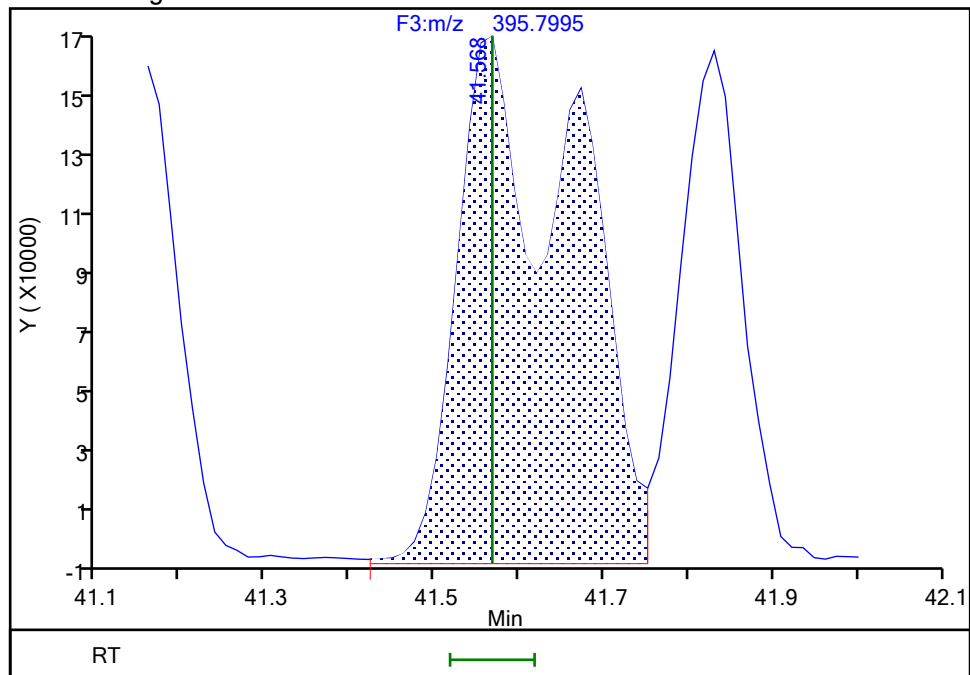
RT: 41.57  
Area: 856151  
Amount: 51.844788  
Amount Units: pg/ul

## Processing Integration Results



RT: 41.57  
Area: 1603045  
Amount: 97.296347  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: P0IK, 17-Jul-2024 16:56:32 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Incomplete Integration

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

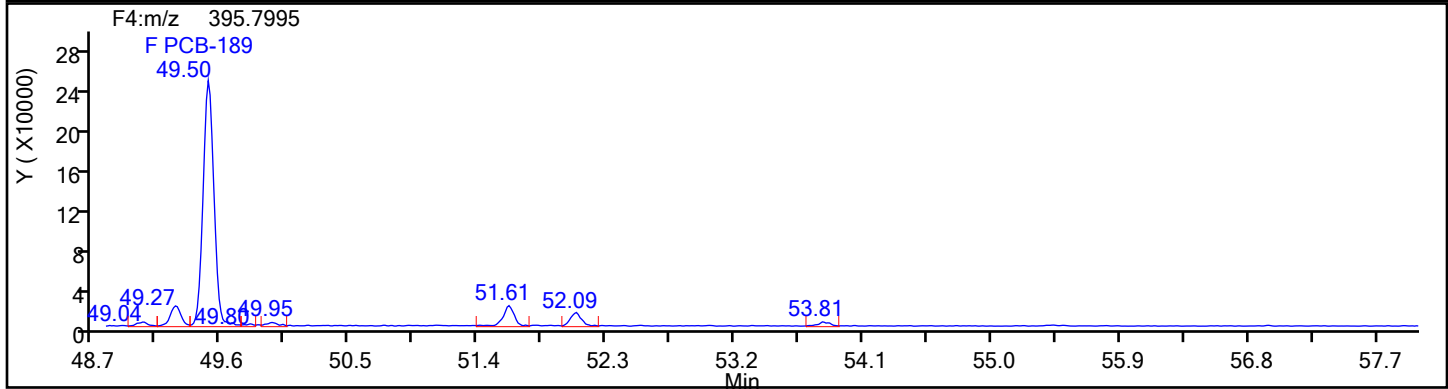
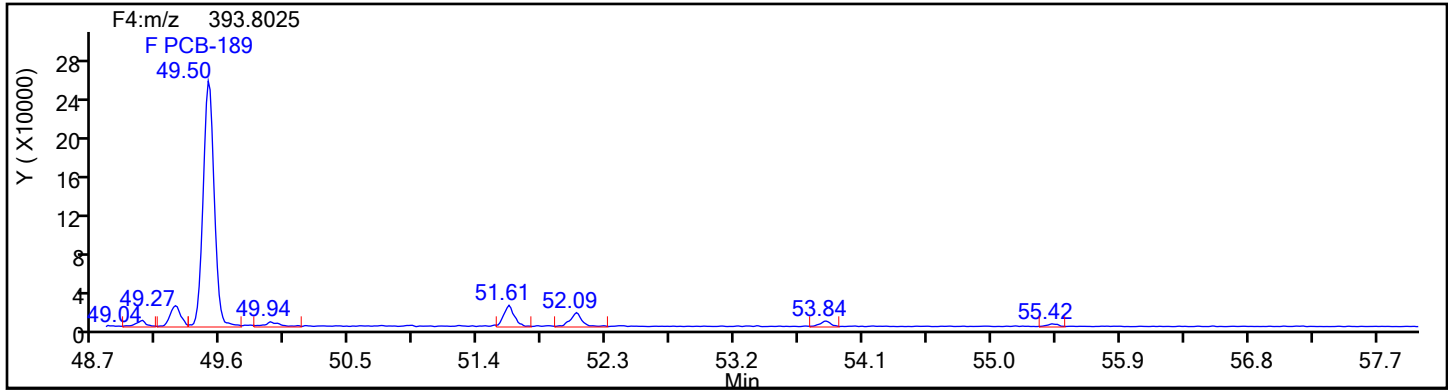
Worklist#: 88871

Sample Line#: 1

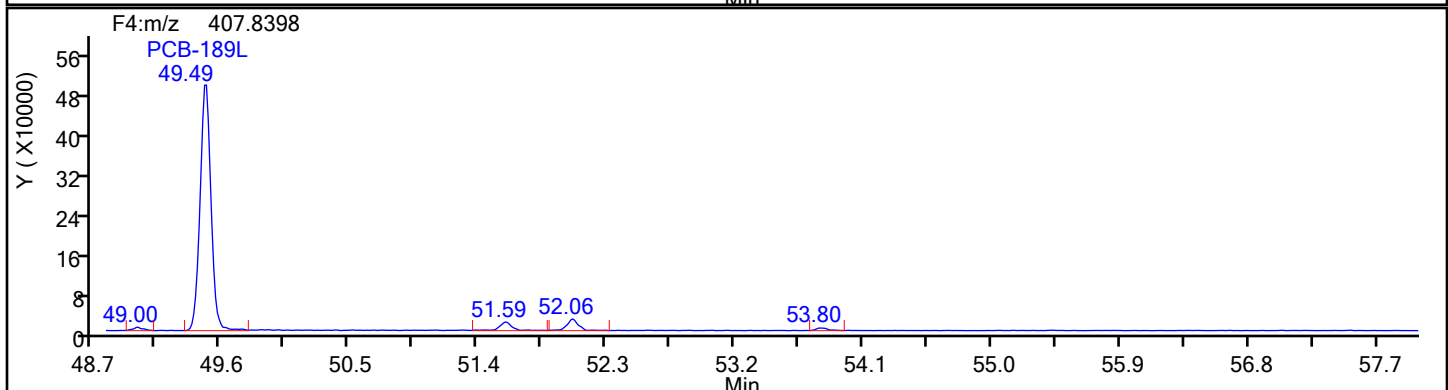
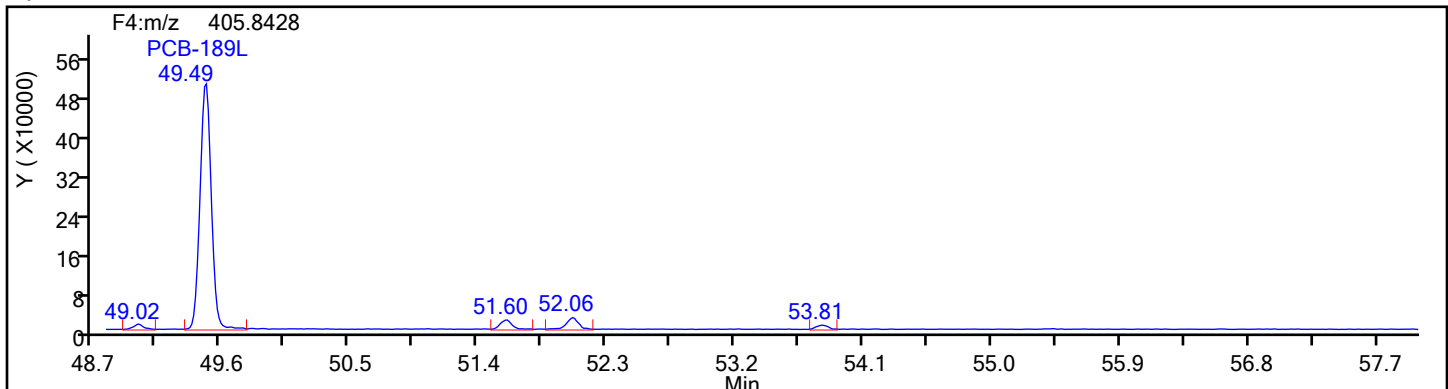
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

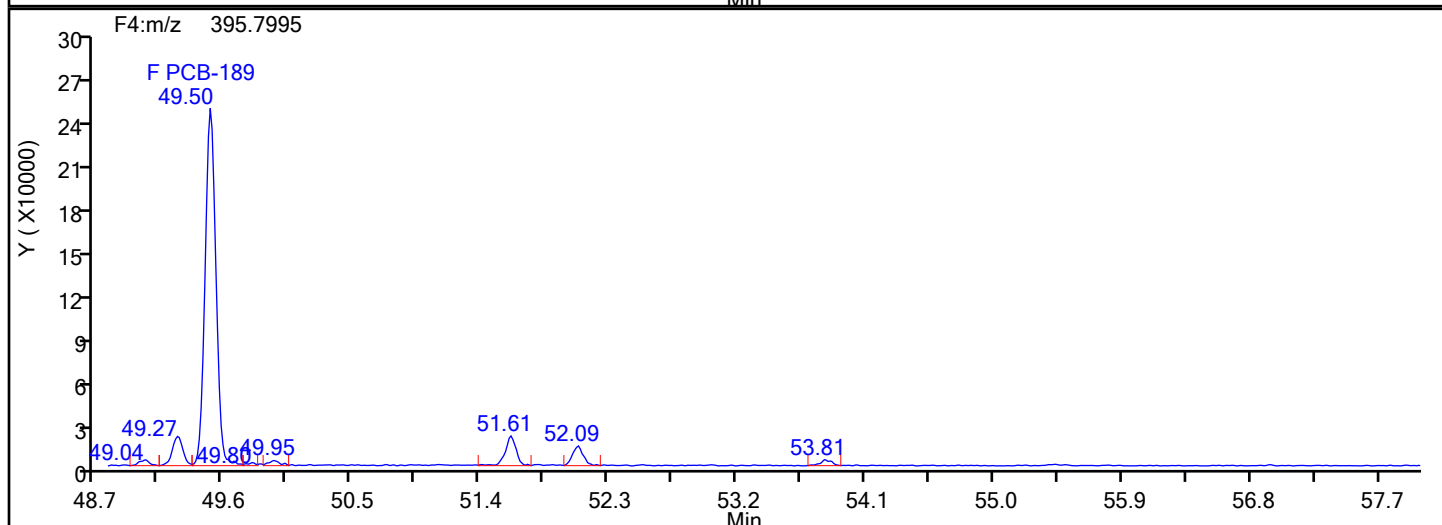
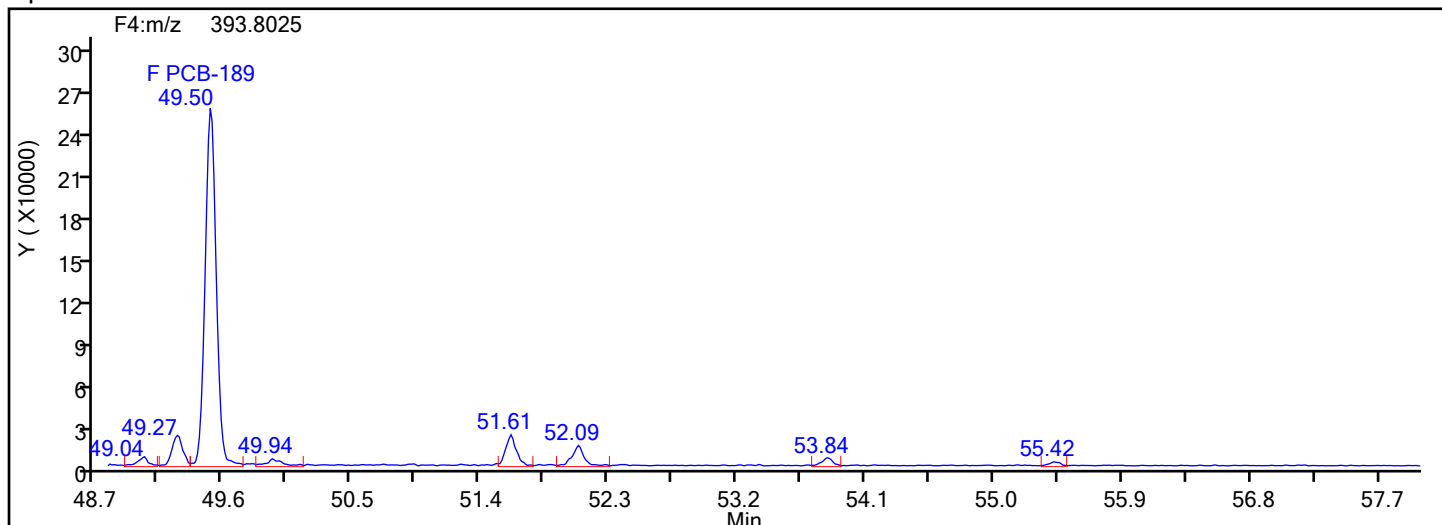
Worklist#: 88871

Sample Line#: 1

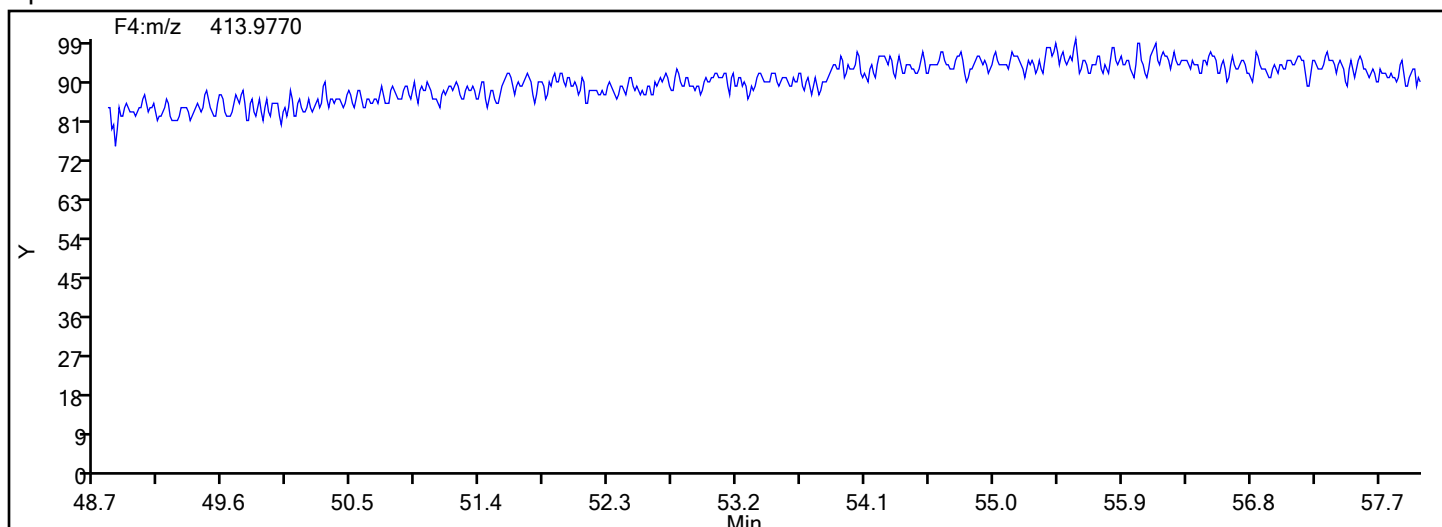
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

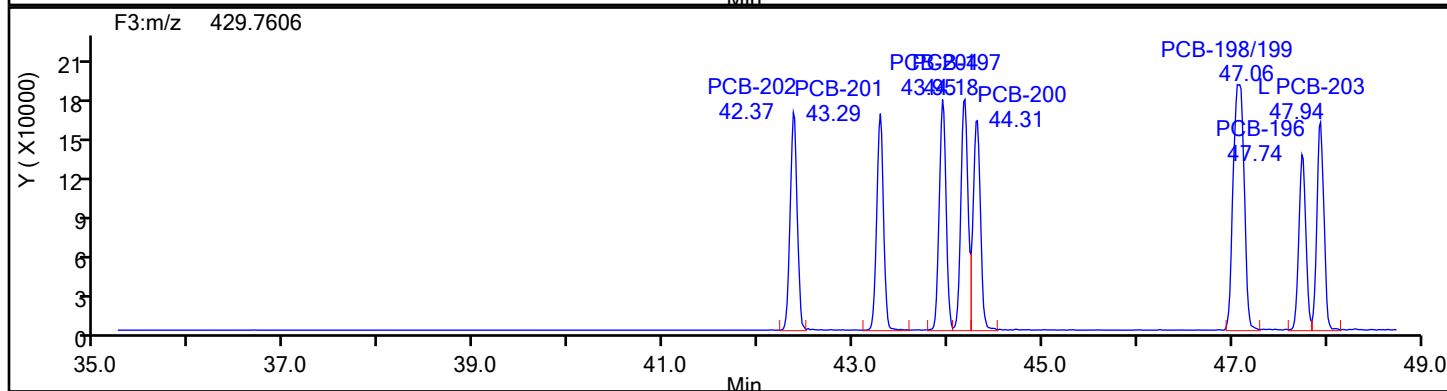
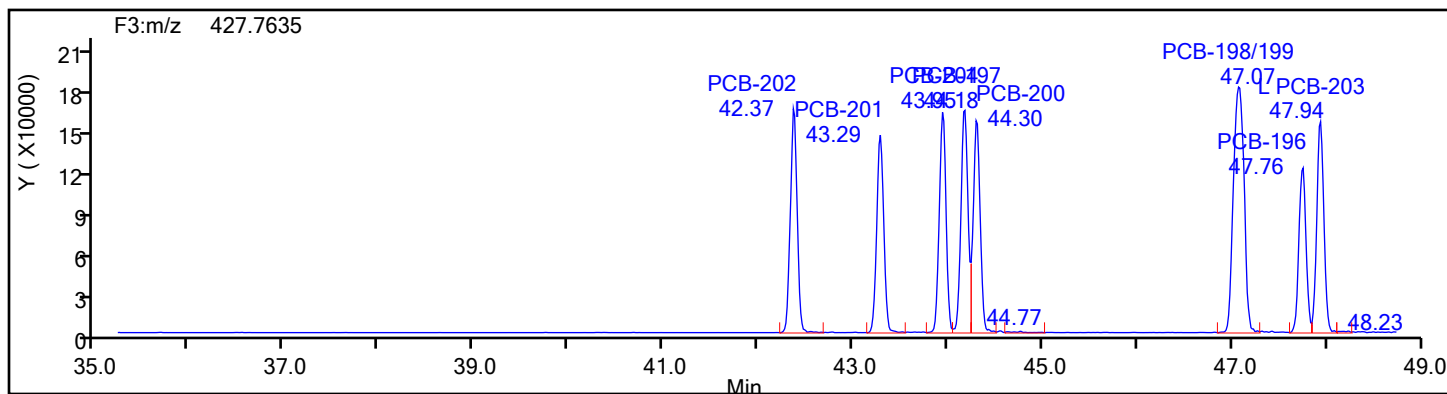
Worklist#: 88871

Sample Line#: 1

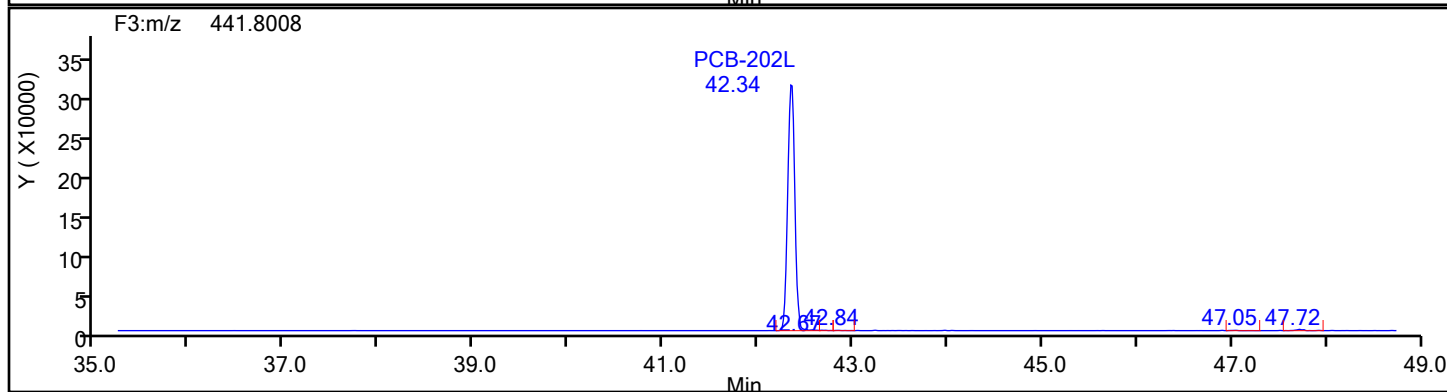
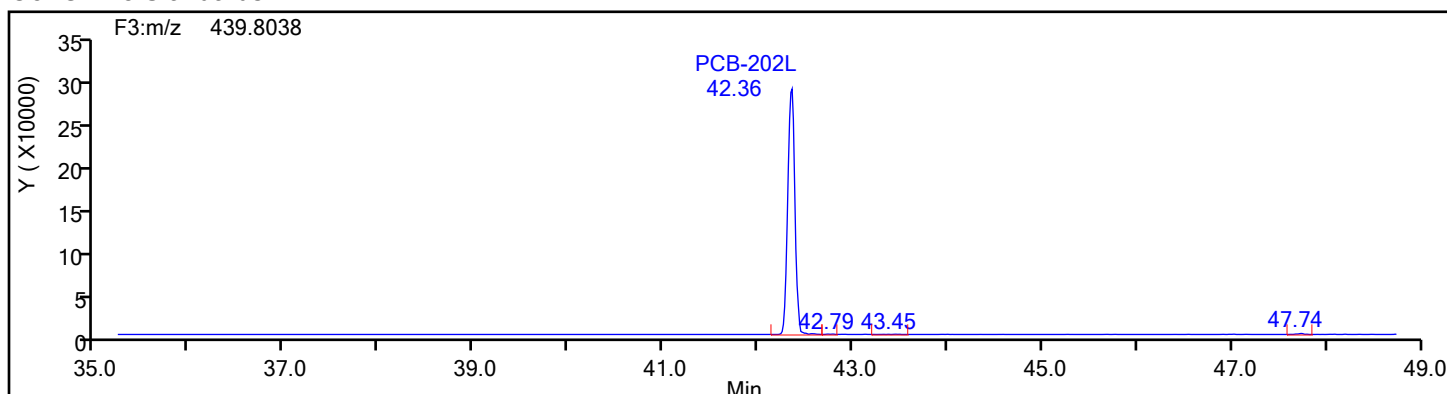
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3



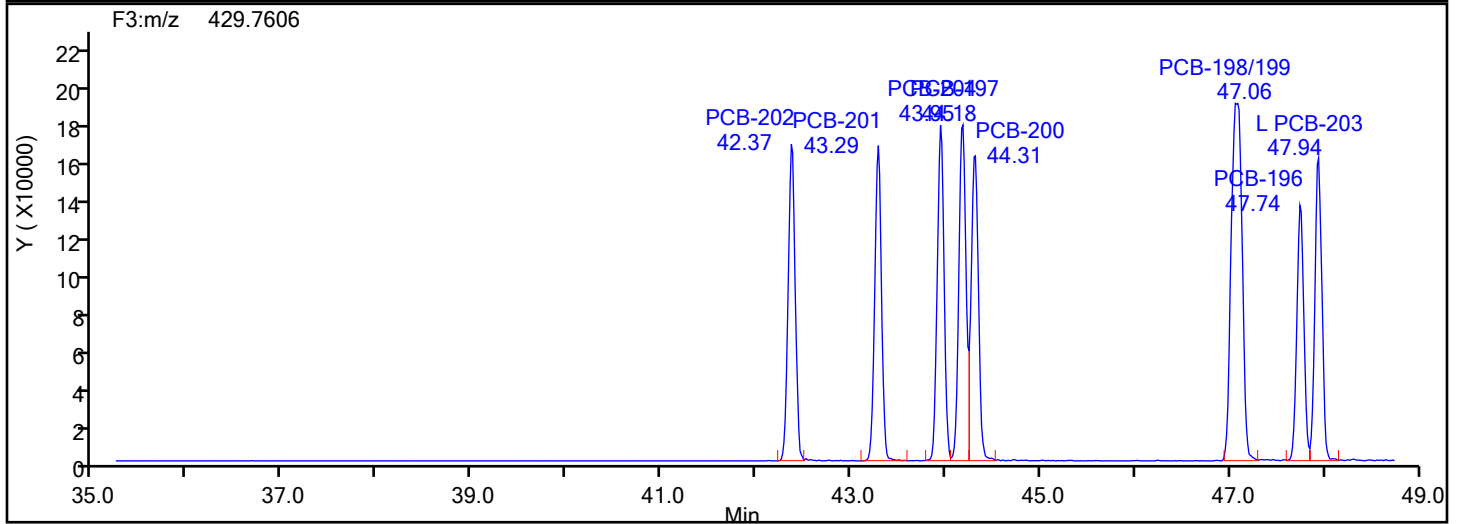
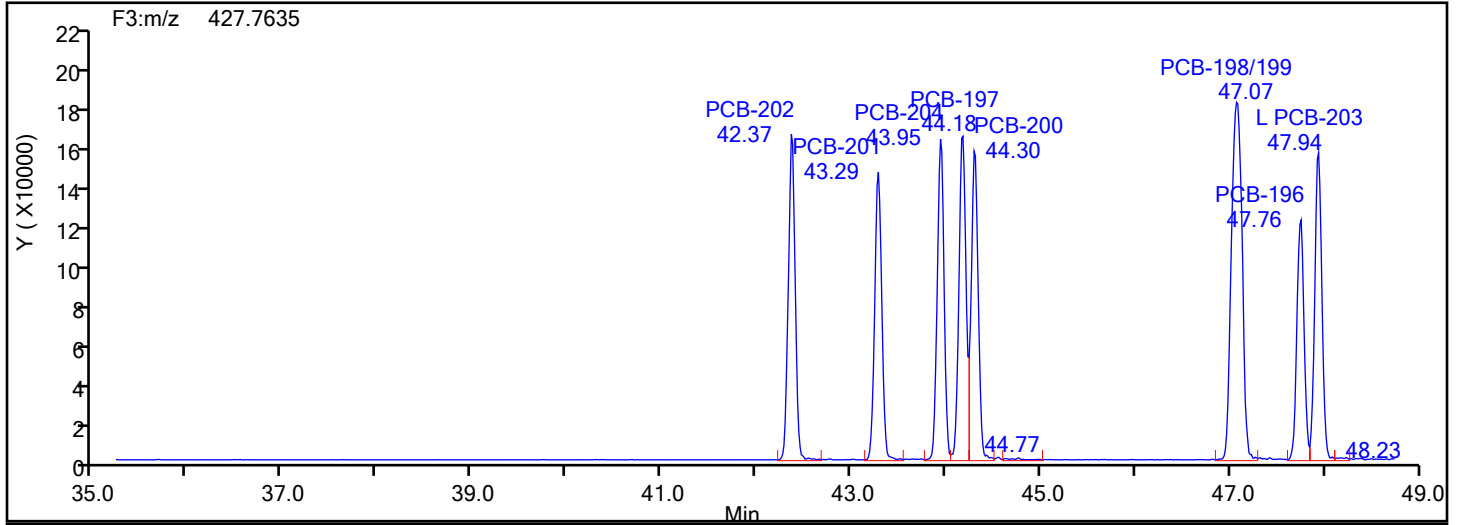
OcPCB F3 Standards



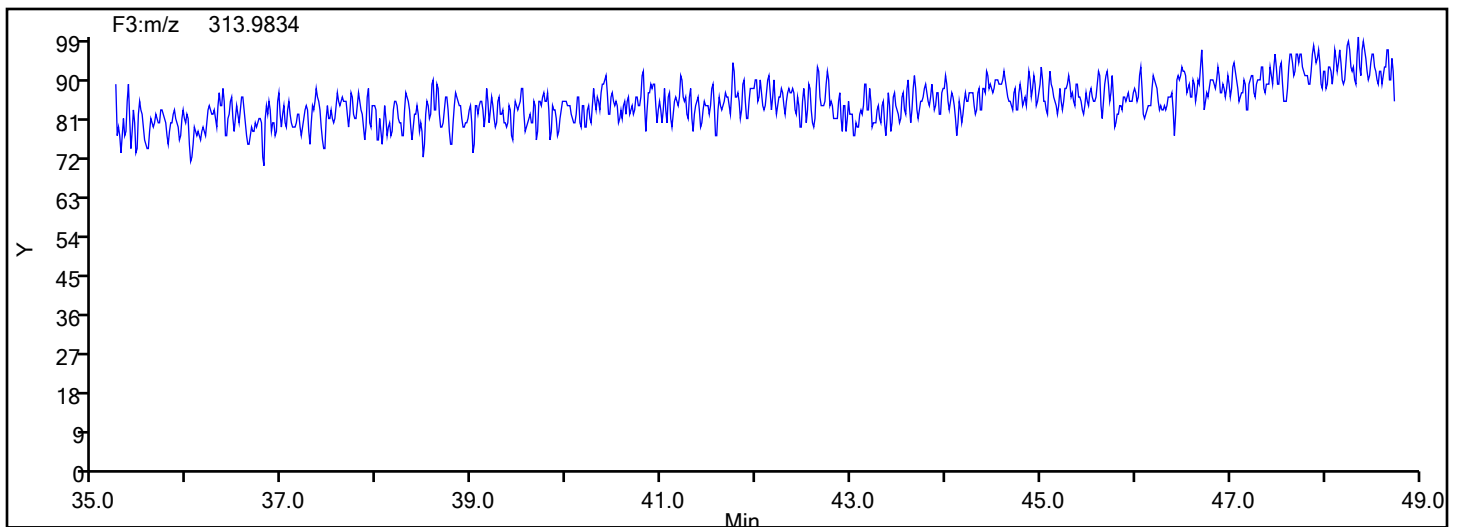


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Injection Date: 17-Jul-2024 12:39:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88871 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F3

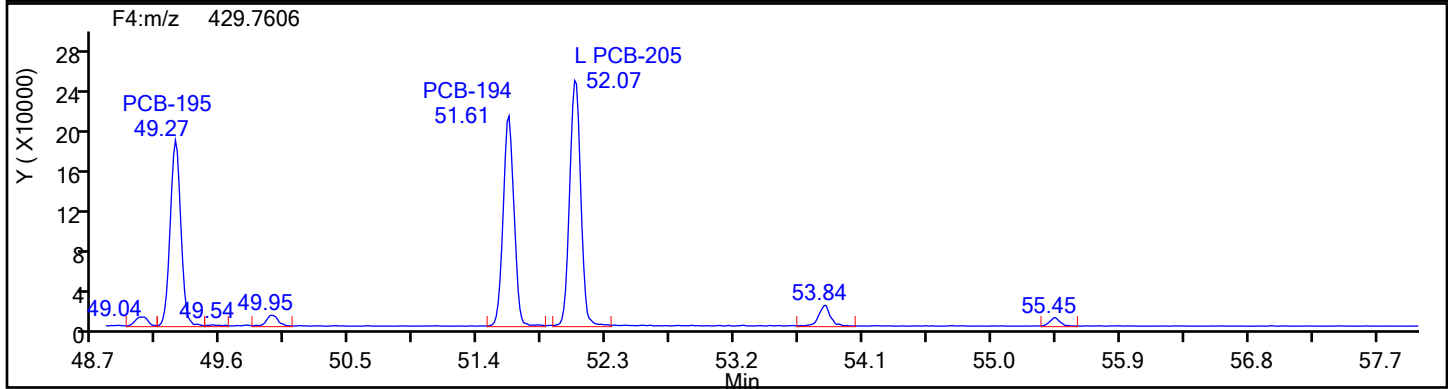
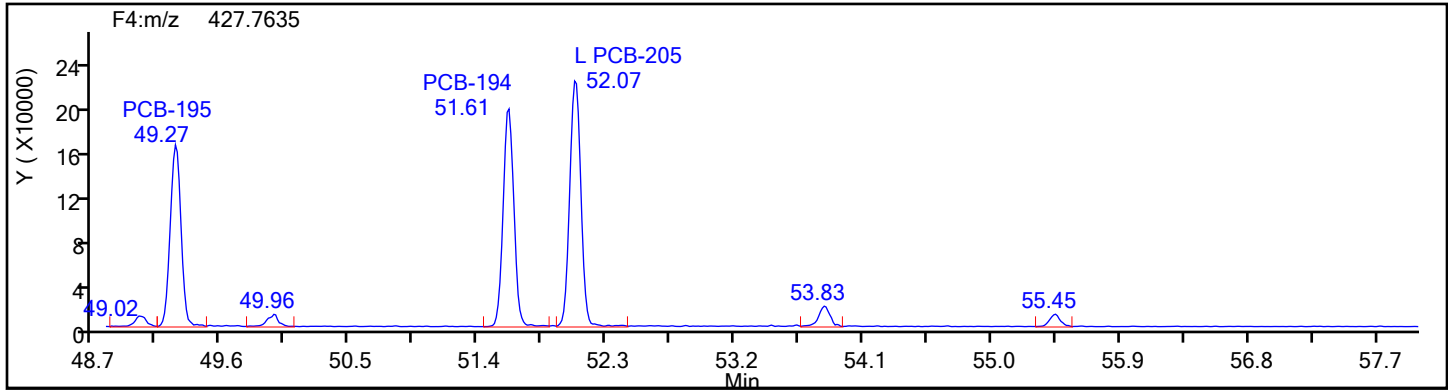


## OcPCB F3 Lock Mass

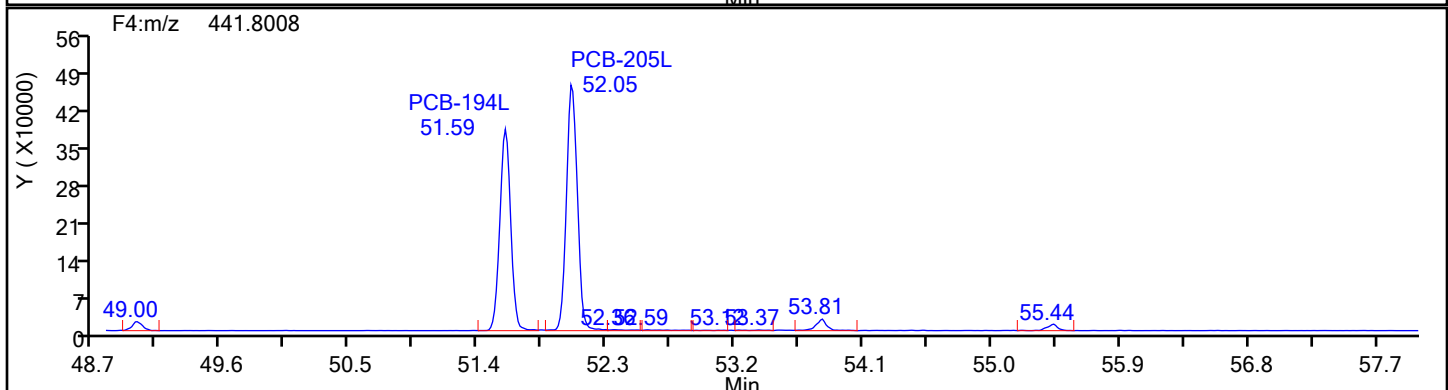
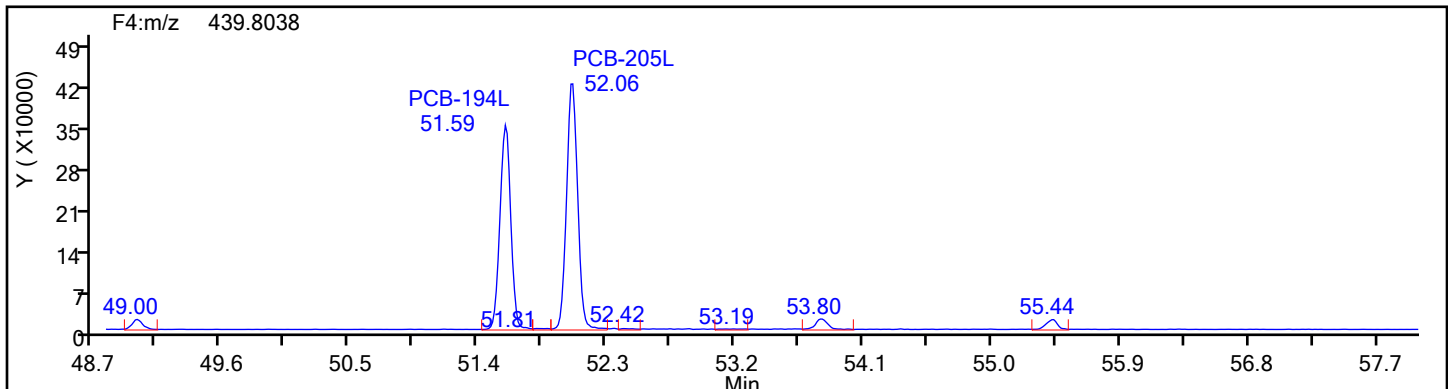


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Injection Date: 17-Jul-2024 12:39:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88871 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
OcPCB F4



## OcPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

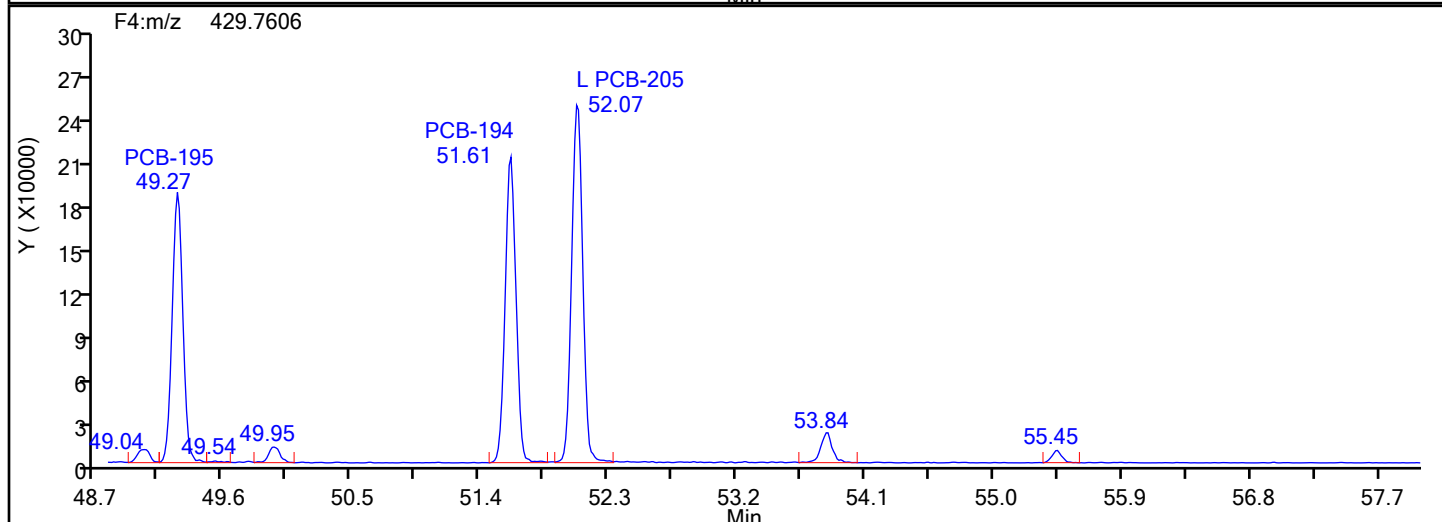
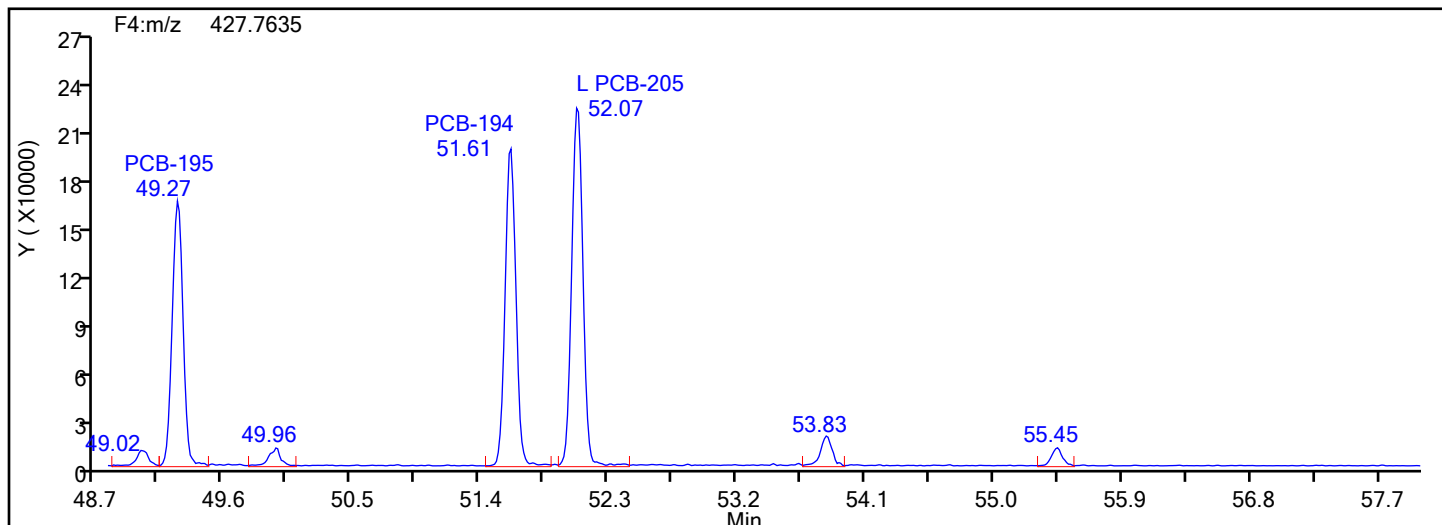
Worklist#: 88871

Sample Line#: 1

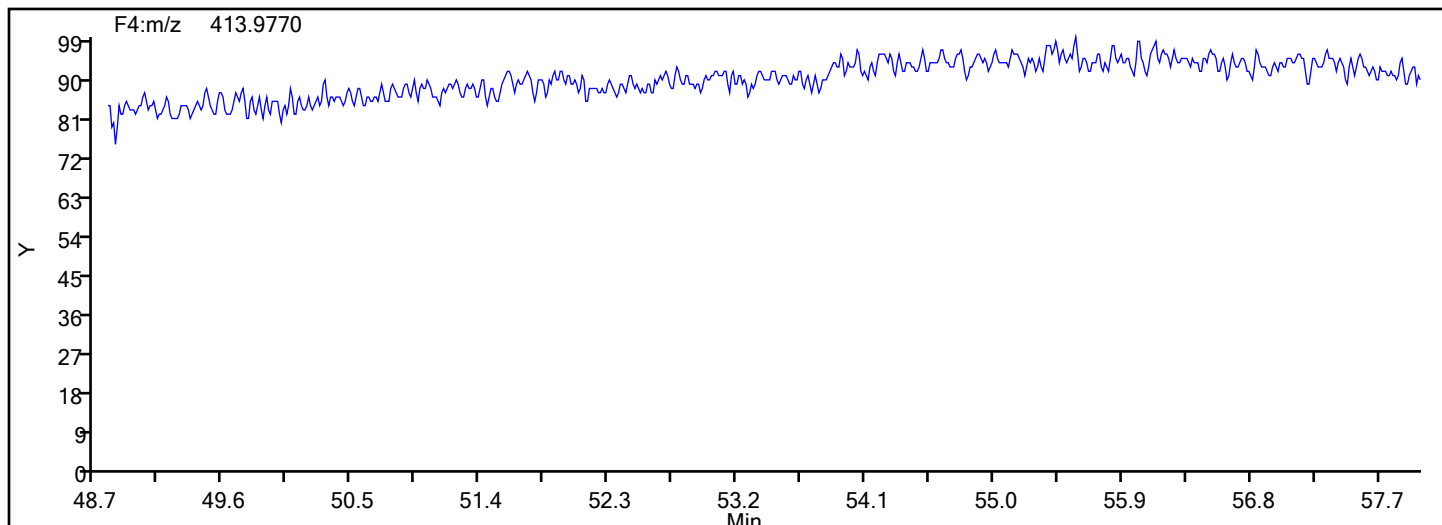
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4

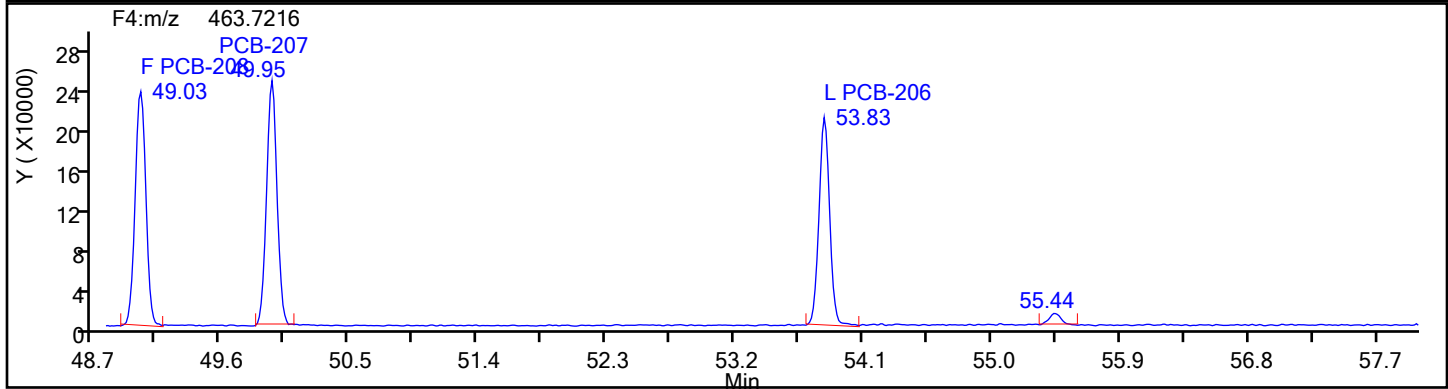
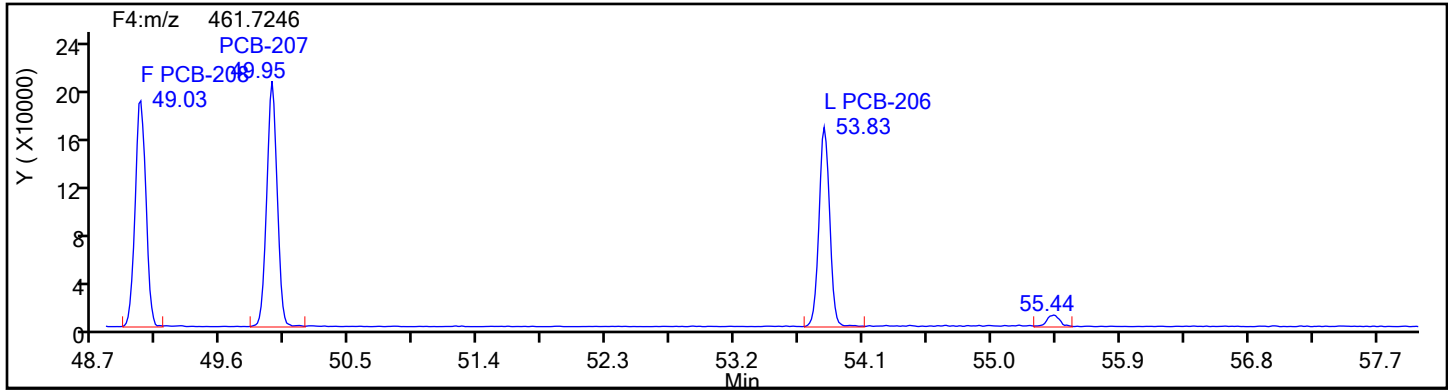


## OcPCB F4 Lock Mass

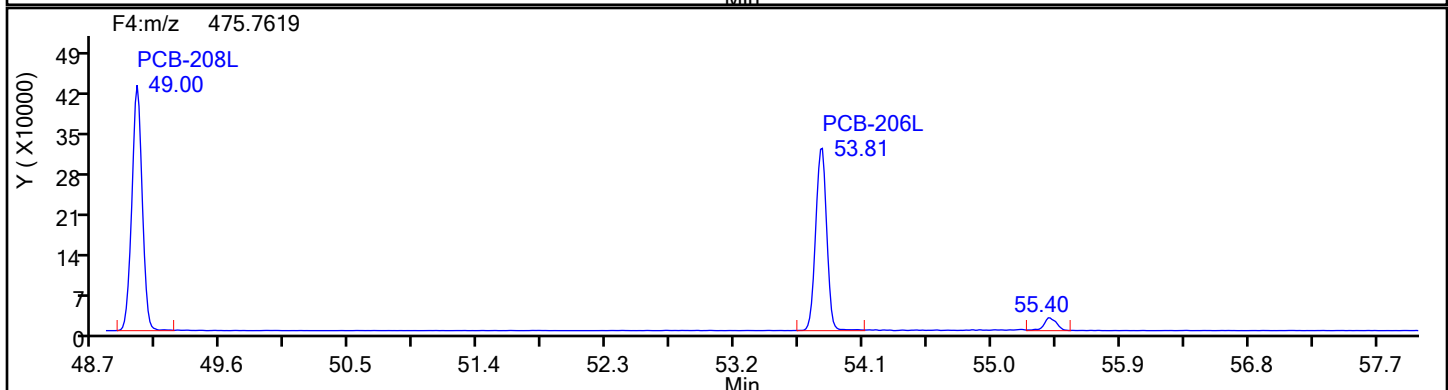
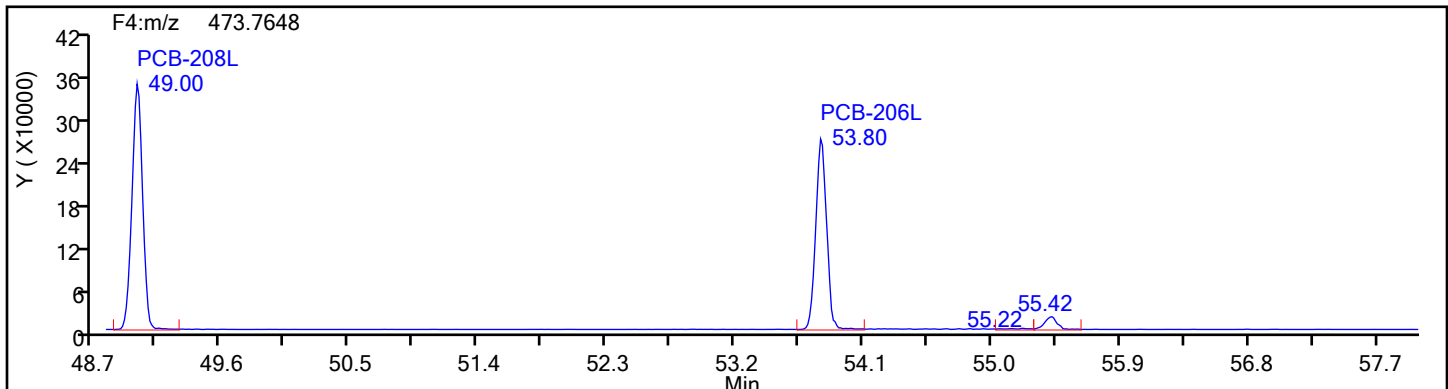


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d  
Injection Date: 17-Jul-2024 12:39:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88871 Sample Line#: 1  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
NoPCB F4



## NoPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

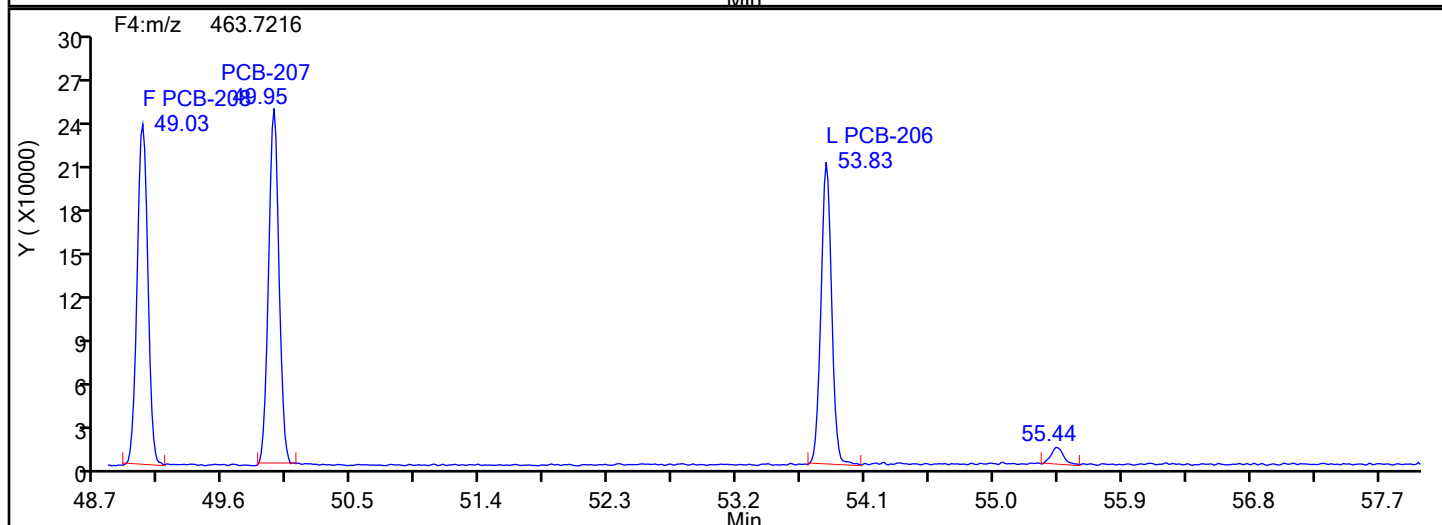
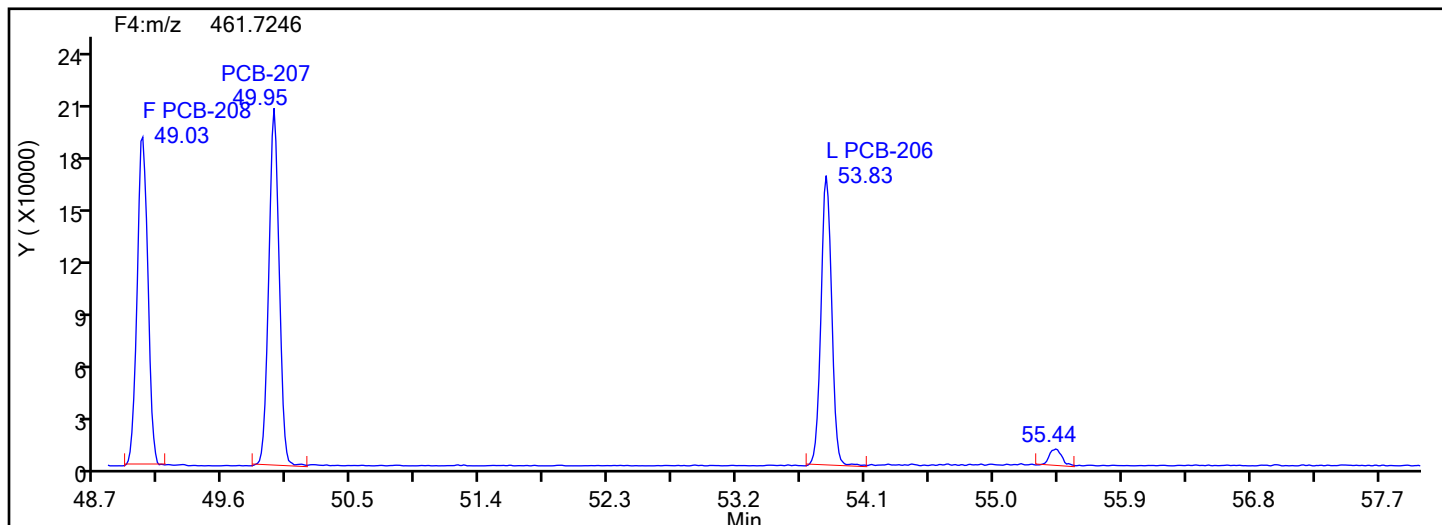
Worklist#: 88871

Sample Line#: 1

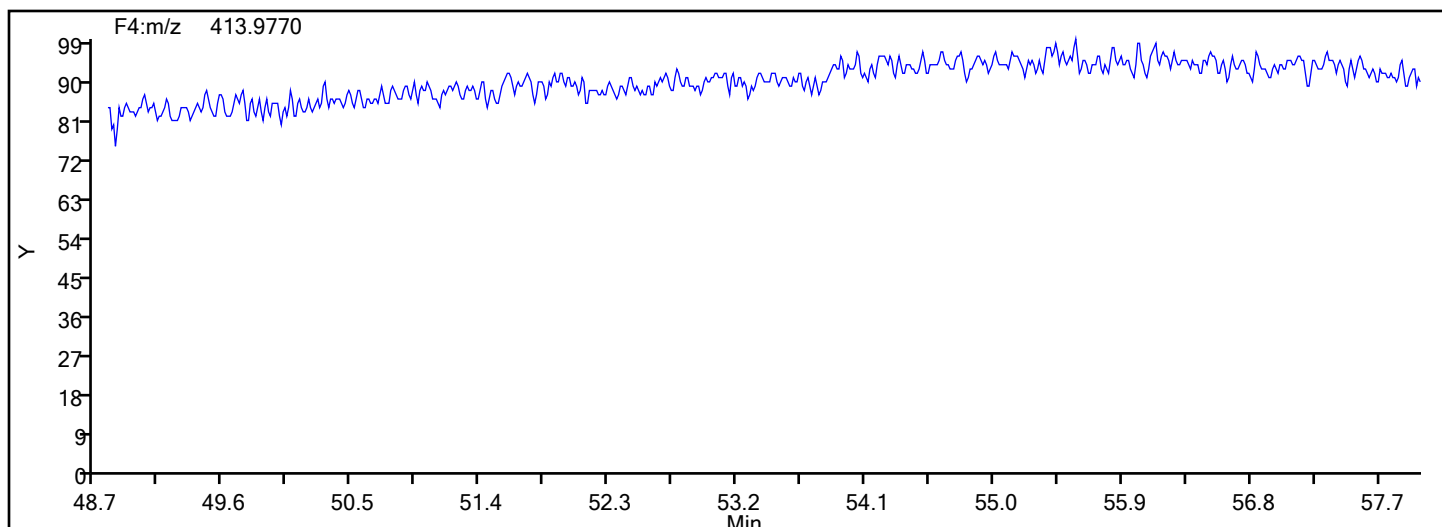
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



NoPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

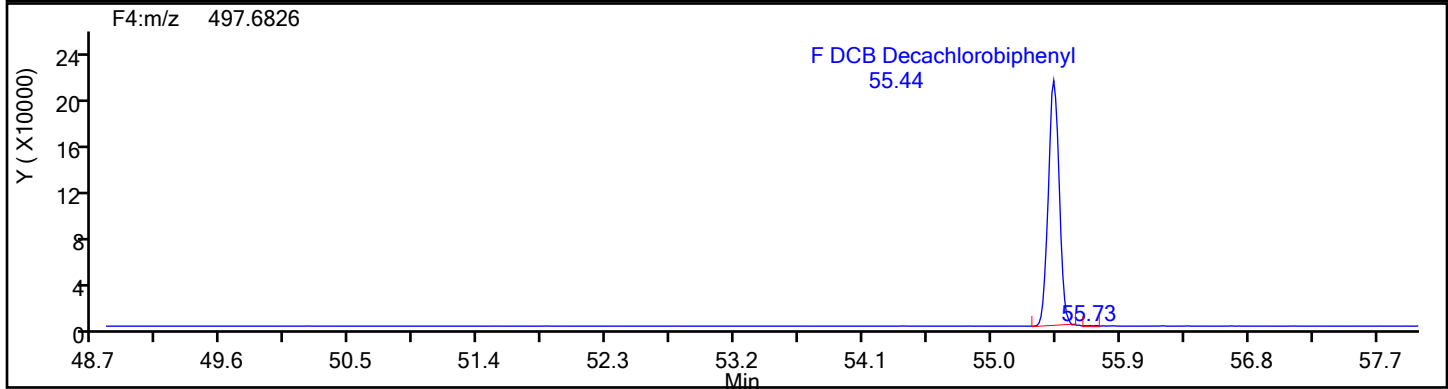
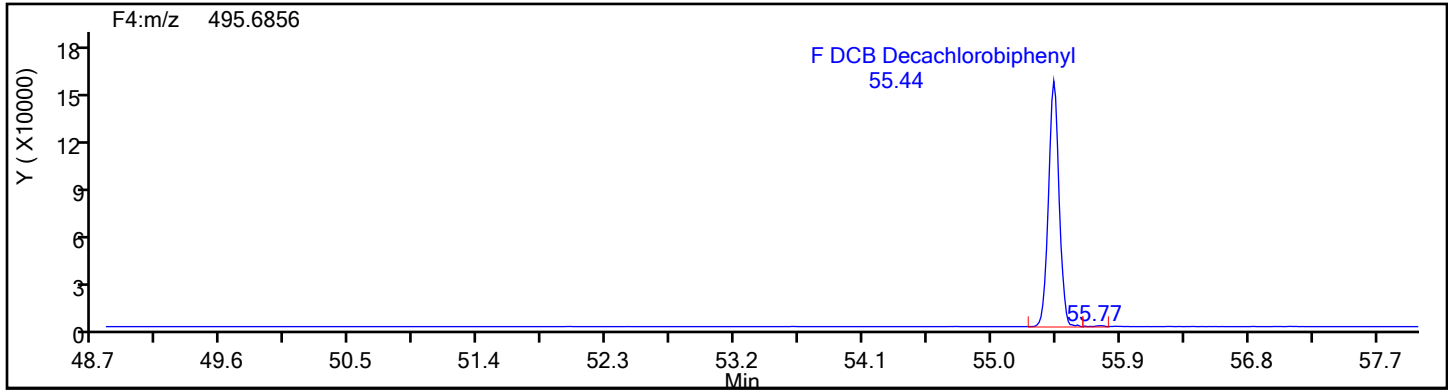
Worklist#: 88871

Sample Line#: 1

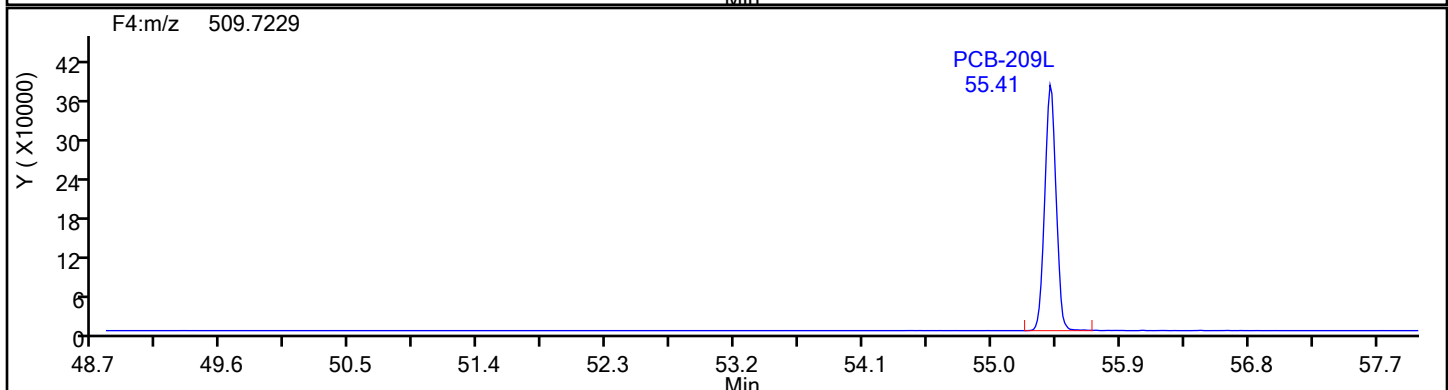
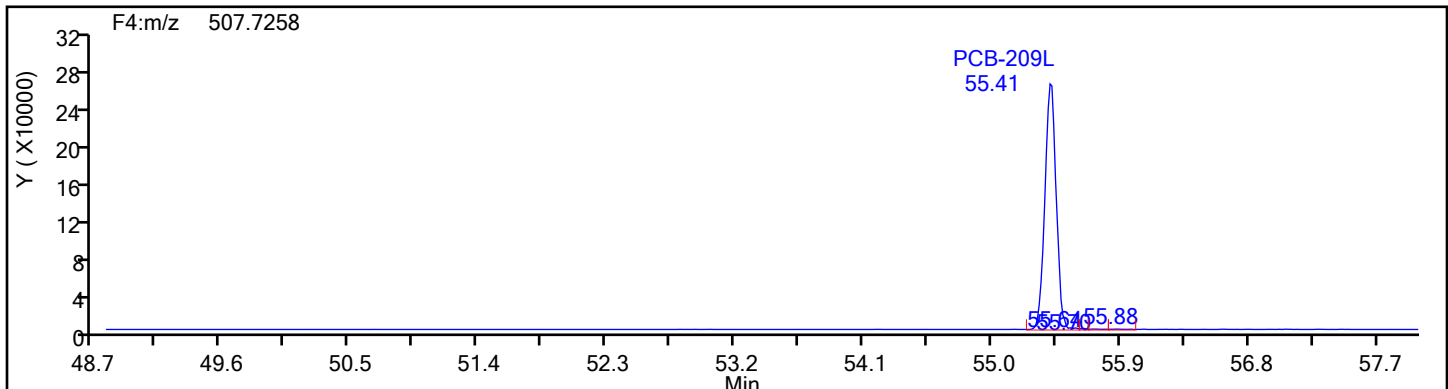
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



DePCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240717-33539.b\d2240717c1c.d

Injection Date: 17-Jul-2024 12:39:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

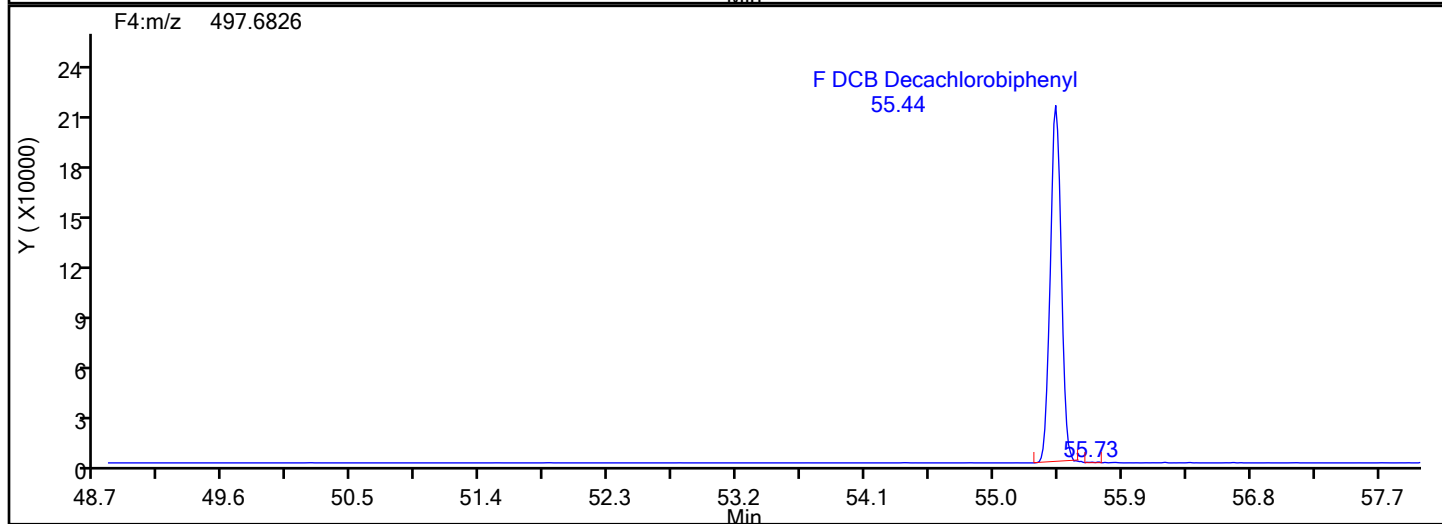
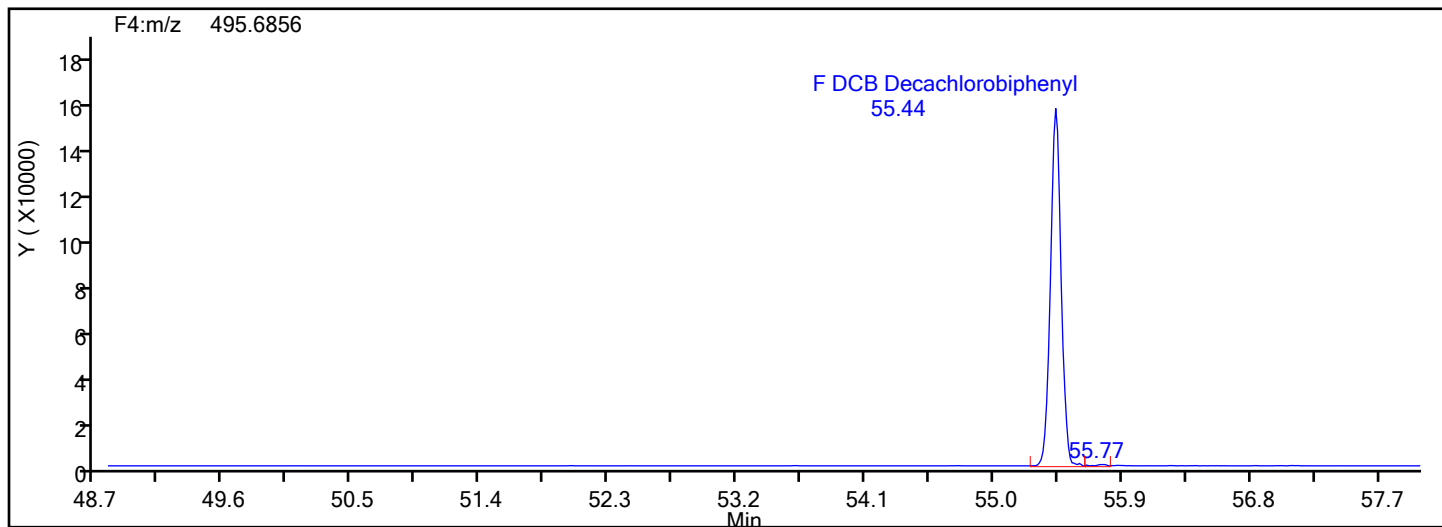
Worklist#: 88871

Sample Line#: 1

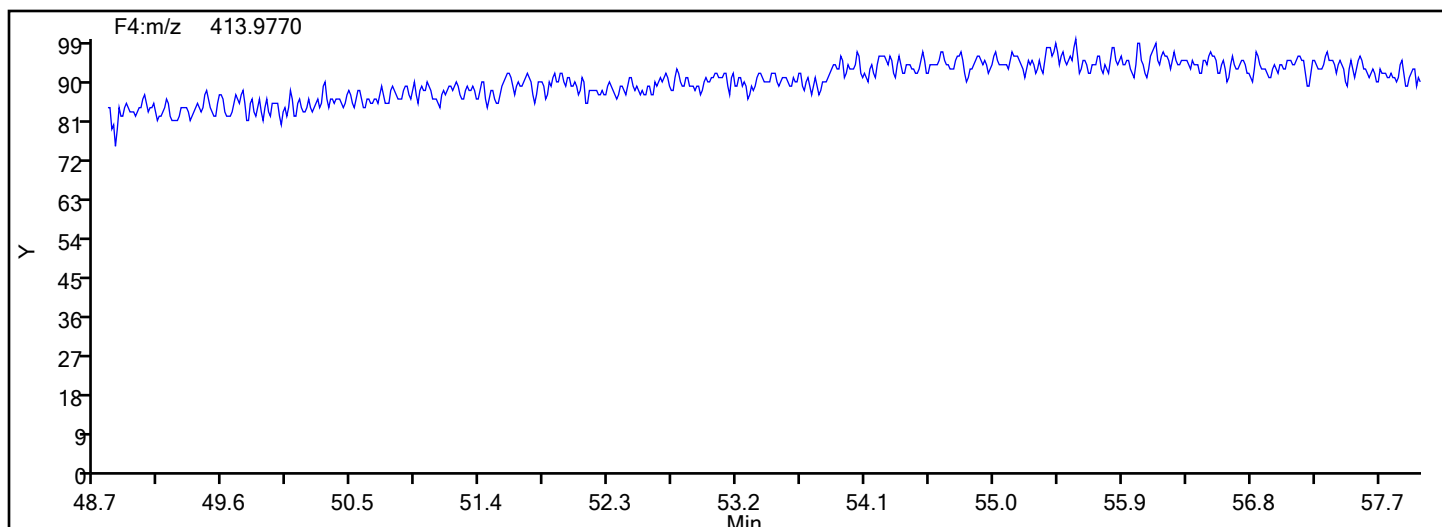
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



DePCB F4 Lock Mass



FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>MB 140-88193/21-B</u>
Matrix: <u>Air</u>	Lab File ID: <u>mb140-8819321-b.d</u>
Analysis Method: <u>23</u>	Date Collected: _____
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1 (Sample)</u>	Date Analyzed: <u>07/15/2024 16:31</u>
Con. Extract Vol.: <u>30 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1 (uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88747</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
34883-43-7	PCB-8	ND		0.600	0.132	0.0112
37680-65-2	PCB-18	ND	C	0.600	0.285	0.00504
7012-37-5	PCB-28	0.03705	J q C20	0.600	0.252	0.0106
41464-39-5	PCB-44	0.04942	J C	0.900	0.390	0.0120
35693-99-3	PCB-52	ND		0.300	0.132	0.0127
32598-10-0	PCB-66	ND		0.300	0.120	0.00925
32598-13-3	PCB-77	ND		0.300	0.126	0.0106
70362-50-4	PCB-81	ND		0.300	0.0960	0.0110
37680-73-2	PCB-101	ND	C90	0.900	0.390	0.0101
32598-14-4	PCB-105	ND		0.300	0.102	0.0141
74472-37-0	PCB-114	ND		0.300	0.165	0.0149
31508-00-6	PCB-118	ND		0.300	0.183	0.0133
65510-44-3	PCB-123	ND		0.300	0.171	0.0154
57465-28-8	PCB-126	ND		0.300	0.123	0.0156
38380-07-3	PCB-128	0.005771	J q C	0.600	0.204	0.00396
35065-28-2	PCB-138	ND	C129	1.20	0.510	0.00411
35065-27-1	PCB-153	0.005324	J q C	0.600	0.249	0.00356
38380-08-4	PCB-156	ND	C	0.600	0.255	0.00443
69782-90-7	PCB-157	ND	C156	0.600	0.255	0.00443
52663-72-6	PCB-167	ND		0.300	0.180	0.00289
32774-16-6	PCB-169	ND		0.300	0.123	0.00276
35065-30-6	PCB-170	ND		0.300	0.132	0.00421
35065-29-3	PCB-180	ND	C	0.600	0.204	0.00338
52663-68-0	PCB-187	ND		0.300	0.126	0.00358
39635-31-9	PCB-189	ND		0.300	0.147	0.00459
52663-78-2	PCB-195	ND		0.300	0.159	0.00414
40186-72-9	PCB-206	ND		0.300	0.171	0.0152
2051-24-3	PCB-209	ND		0.300	0.138	0.00132



FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>MB 140-88193/21-B</u>
Matrix: <u>Air</u>	Lab File ID: <u>mb140-8819321-b.d</u>
Analysis Method: <u>23</u>	Date Collected: _____
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1 (Sample)</u>	Date Analyzed: <u>07/15/2024 16:31</u>
Con. Extract Vol.: <u>30 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1 (uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88747</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
234432-85-0	PCB-1L	69		20-145
208263-77-8	PCB-3L	76		20-145
234432-86-1	PCB-4L	66		20-145
208263-67-6	PCB-15L	72		20-145
234432-87-2	PCB-19L	69		20-145
208263-79-0	PCB-37L	75		20-145
234432-88-3	PCB-54L	80		20-145
105600-23-5	PCB-77L	80		20-145
208461-24-9	PCB-81L	80		20-145
234432-89-4	PCB-104L	80		20-145
208263-62-1	PCB-105L	87		20-145
208263-63-2	PCB-114L	82		20-145
104130-40-7	PCB-118L	83		20-145
208263-64-3	PCB-123L	82		20-145
208263-65-4	PCB-126L	88		20-145
234432-90-7	PCB-155L	77		20-145
208263-68-7	PCB-156L	88	C	20-145
235416-30-5	PCB-157L	88	C156	20-145
208263-69-8	PCB-167L	83		20-145
208263-70-1	PCB-169L	90		20-145
160901-80-4	PCB-170L	86		20-145
234432-91-8	PCB-188L	80		20-145
208263-73-4	PCB-189L	88		20-145
105600-26-8	PCB-202L	81		20-145
234446-64-1	PCB-205L	91		20-145
208263-75-6	PCB-206L	93		20-145
234432-92-9	PCB-208L	90		20-145
105600-27-9	PCB-209L	102		20-145

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: \_\_\_\_\_ Lab Sample ID: MB 140-88193/21-B  
Matrix: Air Lab File ID: mb140-8819321-b.d  
Analysis Method: 23 Date Collected: \_\_\_\_\_  
Extract. Method: Combined Prep Date Extracted: 06/27/2024 14:35  
Sample wt/vol: 1 (Sample) Date Analyzed: 07/15/2024 16:31  
Con. Extract Vol.: 30 (mL) Dilution Factor: 1  
Injection Volume: 1 (uL) GC Column: SPB-Octyl ID: 0.25 (mm)  
% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
Cleanup Factor: \_\_\_\_\_ Level: (low/med) Low  
Analysis Batch No.: 88747 Units: ng/Sample  
Preparation Batch No.: 88193 Instrument ID: Excalibur D2D DFS

CAS NO.	SURROGATE	%REC	Q	LIMITS
208263-76-7	PCB-28L	72		20-130
235416-29-2	PCB-111L	73		20-130
232919-67-4	PCB-178L	75		20-130

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d  
Lims ID: MB 140-88193/21-B  
Client ID:  
Sample Type: MB  
Inject. Date: 15-Jul-2024 16:31:00 ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033504-008  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 15-Jul-2024 19:54:52 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1621

First Level Reviewer: V4XA

Date: 15-Jul-2024 19:54:51

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total Monochlorobiphenyls					0.0621	0.0528	0.0180	0.0180		RQ
D PCB-1L	11:36	6154647	3.21	1.6108	69.4	69.4	0.2671	0.2671	69.39	
D PCB-3L	13:44	6623594	3.16	1.5891	75.7	75.7	0.2707	0.2707	75.70	
PCB-1	11:37	3965	3.13	1.2191	0.0621	0.0528	0.0163	0.0163		RQM
PCB-2	13:38						0.0183	0.0183		
PCB-3	13:48						0.0194	0.0194		
S Total Dichlorobiphenyls					0.2312	0.2115	0.0433	0.0433		RQ
D PCB-4L	13:59	2356262	1.57	0.6475	66.1	66.1	0.1607	0.1607	66.09	
* PCB-9L	15:56	5505948	1.62		100.0	100.0				
\$ PCB-8L	16:50						0.1593	0.1593		
D PCB-15L	19:51	4250121	1.63	1.0789	71.5	71.5	0.0964	0.0964	71.54	
PCB-4	14:04						0.0514	0.0514		
PCB-10	14:13						0.0453	0.0453		
PCB-9	16:00						0.0419	0.0419		
PCB-7	16:10						0.0421	0.0421		
PCB-6	16:25						0.0386	0.0386		
PCB-5	16:43						0.0444	0.0444		
PCB-8	16:50						0.0375	0.0375		
PCB-14	18:27						0.0425	0.0425		
PCB-11	19:14	9049	1.56	1.2951	0.2312	0.2115	0.0460	0.0460		RQM
PCB-12	19:35						0.0446	0.0446		
PCB-13 (C12)	19:35						0.0446	0.0446		
PCB-15	19:54						0.0421	0.0421		
S Total Trichlorobiphenyls					0.2990	0.2766	0.0306	0.0306		RQ
D PCB-19L	17:04	1527593	1.06	0.6285	68.6	68.6	0.6416	0.6416	68.61	
* PCB-32L	20:18	3542426	1.08		100.0	100.0				
* PCB-31L	22:33	8504651	1.05		100.0	100.0				
\$ PCB-28L	22:51	6430642	1.06	1.0494	72.1	72.1	0.1582	0.1582	72.05	
D PCB-37L	26:51	5610313	1.06	0.8749	75.4	75.4	0.1898	0.1898	75.40	
PCB-19	17:06						0.0232	0.0232		RQU
PCB-18	18:56						0.0168	0.0168		
PCB-30 (C18)	18:56						0.0168	0.0168		
PCB-17	19:24						0.0239	0.0239		
PCB-27	19:37						0.0162	0.0162		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-24	19:45						0.0177	0.0177		
PCB-16	19:52						0.0263	0.0263		
PCB-32	20:17	2326	0.97	1.8324	0.0831	0.0831	0.0162	0.0162		M
PCB-34	21:37						0.0366	0.0366		
PCB-23	21:45						0.0381	0.0381		
PCB-26	22:05						0.0367	0.0367		
PCB-29 (C26)	22:05						0.0367	0.0367		
PCB-25	22:18						0.0324	0.0324		
PCB-31	22:36	4530	0.92	1.1532	0.0700	0.0700	0.0358	0.0358		M
PCB-20	22:52	8120	1.04	1.1718	0.1459	0.1235	0.0352	0.0352		RQ
PCB-28 (C20)	22:52	8120	1.04	1.1718	0.1459	0.1235	0.0352	0.0352		RQ
PCB-21	23:05						0.0384	0.0384		
PCB-33 (C21)	23:05						0.0384	0.0384		
PCB-22	23:33						0.0346	0.0346		
PCB-36	25:05						0.0373	0.0373		
PCB-39	25:27						0.0356	0.0356		
PCB-38	26:01						0.0380	0.0380		
PCB-35	26:30						0.0365	0.0365		
PCB-37	26:54						0.0361	0.0361		
S Total Tetrachlorobiphenyls					0.1647	0.1647	0.0354	0.0354		
D PCB-54L	20:09	1584258	0.84	0.5562	80.4	80.4	0.1020	0.1020	80.40	M
* PCB-52L	24:40	4465558	0.81		100.0	100.0				
\$ PCB-79L	32:36						0.1427	0.1427		
D PCB-81L	33:34	4433863	0.80	1.2470	79.6	79.6	0.0939	0.0939	79.63	
D PCB-77L	34:09	4706621	0.81	1.3212	79.8	79.8	0.0886	0.0886	79.78	
PCB-54	20:12						0.007079	0.007079		
PCB-50	22:21						0.0452	0.0452		
PCB-53 (C50)	22:21						0.0452	0.0452		
PCB-45	23:05						0.0470	0.0470		
PCB-51 (C45)	23:05						0.0470	0.0470		
PCB-46	23:20						0.0547	0.0547		
PCB-52	24:44						0.0422	0.0422		
PCB-43	24:52						0.0376	0.0376		
PCB-73 (C43)	24:52						0.0376	0.0376		
PCB-49	25:09						0.0363	0.0363		
PCB-69 (C49)	25:09						0.0363	0.0363		
PCB-48	25:30						0.0462	0.0462		
PCB-44	25:43	7326	0.85	0.9731	0.1647	0.1647	0.0399	0.0399		
PCB-47 (C44)	25:43	7326	0.85	0.9731	0.1647	0.1647	0.0399	0.0399		
PCB-65 (C44)	25:43	7326	0.85	0.9731	0.1647	0.1647	0.0399	0.0399		
PCB-59	26:03						0.0327	0.0327		
PCB-62 (C59)	26:03						0.0327	0.0327		
PCB-75 (C59)	26:03						0.0327	0.0327		
PCB-42	26:15						0.0479	0.0479		
PCB-40	26:45						0.0438	0.0438		
PCB-41 (C40)	26:45						0.0438	0.0438		
PCB-71 (C40)	26:45						0.0438	0.0438		
PCB-64	26:57						0.0330	0.0330		
PCB-72	27:47						0.0355	0.0355		
PCB-68	28:04						0.0310	0.0310		
PCB-57	28:29						0.0359	0.0359		
PCB-58	28:44						0.0293	0.0293		
PCB-67	28:53						0.0273	0.0273		
PCB-63	29:09						0.0345	0.0345		
PCB-61	29:30						0.0308	0.0308		
PCB-70 (C61)	29:30						0.0308	0.0308		
PCB-74 (C61)	29:30						0.0308	0.0308		
PCB-76 (C61)	29:30						0.0308	0.0308		
PCB-66	29:49						0.0308	0.0308		
PCB-55	29:59						0.0293	0.0293		
PCB-56	30:30						0.0315	0.0315		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-60	30:42						0.0346	0.0346		
PCB-80	31:06						0.0293	0.0293		
PCB-79	32:38						0.0270	0.0270		
PCB-78	33:12						0.0334	0.0334		
PCB-81	33:38						0.0366	0.0366		
PCB-77	34:12						0.0352	0.0352		
S Total Pentachlorobiphenyls					0.1536	0.0838	0.0391	0.0391		RQ
D PCB-104L	25:36	2919740	1.62	1.2161	79.9	79.9	0.0625	0.0625	79.87	
\$ PCB-95L	28:37						0.0997	0.0997		
* PCB-101L	31:29	3006037	1.60		100.0	100.0				
\$ PCB-111L	34:09	3021586	1.56	1.3699	73.4	73.4	0.0555	0.0555	73.38	
D PCB-123L	36:07	4334760	1.57	0.9731	81.8	81.8	1.559	1.559	81.77	
D PCB-118L	36:26	4567477	1.57	1.0102	83.0	83.0	1.502	1.502	83.01	
D PCB-114L	36:59	4444892	1.61	0.9949	82.0	82.0	1.525	1.525	82.02	
D PCB-105L	37:38	4492167	1.63	0.9514	86.7	86.7	1.595	1.595	86.68	
* PCB-127L	39:06	5447154	1.57		100.0	100.0				
D PCB-126L	40:43	4522703	1.57	0.9439	88.0	88.0	1.608	1.608	87.97	
PCB-104	25:40						0.0320	0.0320		
PCB-96	26:04						0.0295	0.0295		
PCB-103	27:57						0.0369	0.0369		
PCB-94	28:12						0.0422	0.0422		
PCB-95	28:39						0.0402	0.0402		
PCB-93	28:50						0.0383	0.0383		
PCB-100 (C93)	28:50						0.0383	0.0383		
PCB-98	29:00						0.0391	0.0391		
PCB-102 (C98)	29:00						0.0391	0.0391		
PCB-88	29:29						0.0403	0.0403		
PCB-91 (C88)	29:29						0.0403	0.0403		
PCB-84	29:44						0.0442	0.0442		
PCB-89	30:12						0.0414	0.0414		
PCB-121	30:34						0.0249	0.0249		
PCB-92	30:58						0.0378	0.0378		
PCB-90	31:30	810	1.55	0.9550	0.0753	0.0290	0.0338	0.0338		RQ
PCB-101 (C90)	31:30	810	1.55	0.9550	0.0753	0.0290	0.0338	0.0338		RQ
PCB-113 (C90)	31:30	810	1.55	0.9550	0.0753	0.0290	0.0338	0.0338		RQ
PCB-83	32:07						0.0385	0.0385		
PCB-99 (C83)	32:07						0.0385	0.0385		
PCB-112	32:15						0.0229	0.0229		
PCB-86	32:36						0.0308	0.0308		
PCB-87 (C86)	32:36						0.0308	0.0308		
PCB-97 (C86)	32:36						0.0308	0.0308		
PCB-109 (C86)	32:36						0.0308	0.0308		
PCB-119 (C86)	32:36						0.0308	0.0308		
PCB-125 (C86)	32:36						0.0308	0.0308		
PCB-85	33:20						0.0310	0.0310		
PCB-116 (C85)	33:20						0.0310	0.0310		
PCB-117 (C85)	33:20						0.0310	0.0310		
PCB-110	33:33						0.0271	0.0271		
PCB-115 (C110)	33:33						0.0271	0.0271		
PCB-82	33:49	1328	1.55	0.8303	0.0783	0.0548	0.0389	0.0389		RQ
PCB-111	34:13						0.0266	0.0266		
PCB-120	34:40						0.0219	0.0219		
PCB-108	35:49						0.0483	0.0483		
PCB-124 (C108)	35:49						0.0483	0.0483		
PCB-107	36:04						0.0454	0.0454		
PCB-123	36:11						0.0513	0.0513		
PCB-106	36:18						0.0508	0.0508		
PCB-118	36:30						0.0445	0.0445		
PCB-122	36:52						0.0576	0.0576		
PCB-114	37:02						0.0495	0.0495		

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-105	37:41						0.0471	0.0471		
PCB-127	39:09						0.0483	0.0483		
PCB-126	40:46						0.0521	0.0521		
S Total Hexachlorobiphenyls					0.2287	0.1553	0.0120	0.0120		RQ
D PCB-155L	31:14	2500592	1.26	1.0851	76.7	76.7	0.0348	0.0348	76.66	
\$ PCB-153L	38:17	66340	1.42	0.9169	1.814	1.814	0.8203	0.8203		
* PCB-138L	39:34	3720867	1.25		100.0	100.0				
\$ PCB-159L	41:56						1.218	1.218		
D PCB-167L	42:33	3900119	1.28	1.2572	83.4	83.4	0.5111	0.5111	83.37	
D PCB-156L	43:43	7896028	1.31	1.2106	175.3	175.3	0.5308	0.5308	87.65	
D PCB-157L (C156L)	43:43	7896028	1.31	1.2106	175.3	175.3	0.5308	0.5308	87.65	
D PCB-169L	46:56	4154839	1.24	1.2439	89.8	89.8	0.5166	0.5166	89.77	
PCB-155	31:17						0.007090	0.007090		
PCB-152	31:31						0.006767	0.006767		
PCB-150	31:41						0.006609	0.006609		
PCB-136	32:04						0.006619	0.006619		
PCB-145	32:20						0.006914	0.006914		
PCB-148	33:50						0.008807	0.008807		
PCB-135	34:26						0.009229	0.009229		
PCB-151 (C135)	34:26						0.009229	0.009229		
PCB-154	34:40						0.008237	0.008237		
PCB-144	35:00						0.008528	0.008528		
PCB-147	35:19	1625	1.24	0.8950	0.0739	0.0455	0.0145	0.0145		RQ
PCB-149 (C147)	35:19	1625	1.24	0.8950	0.0739	0.0455	0.0145	0.0145		RQ
PCB-134	35:40						0.0163	0.0163		
PCB-143 (C134)	35:40						0.0163	0.0163		
PCB-139	35:57						0.0148	0.0148		
PCB-140 (C139)	35:57						0.0148	0.0148		
PCB-131	36:10						0.0173	0.0173		
PCB-142	36:19						0.0173	0.0173		
PCB-132	36:37	1455	1.37	0.7489	0.0487	0.0487	0.0173	0.0173		
PCB-133	37:07						0.0160	0.0160		
PCB-165	37:30						0.0127	0.0127		
PCB-146	37:45						0.0135	0.0135		
PCB-161	37:52						0.0115	0.0115		
PCB-153	38:21	774	1.24	1.0938	0.0315	0.0177	0.0119	0.0119		RQM
PCB-168 (C153)	38:21	774	1.24	1.0938	0.0315	0.0177	0.0119	0.0119		RQM
PCB-141	38:34						0.0148	0.0148		
PCB-130	38:59						0.0184	0.0184		
PCB-137	39:11						0.0167	0.0167		
PCB-164	39:17	515	1.24	1.0382	0.0315	0.0124	0.0125	0.0125		RQM
PCB-129	39:37						0.0137	0.0137		
PCB-138 (C129)	39:37						0.0137	0.0137		
PCB-160 (C129)	39:37						0.0137	0.0137		
PCB-163 (C129)	39:37						0.0137	0.0137		
PCB-158	40:00						0.009898	0.009898		
PCB-128	40:51	754	1.24	0.9829	0.0288	0.0192	0.0132	0.0132		RQ
PCB-166 (C128)	40:51	754	1.24	0.9829	0.0288	0.0192	0.0132	0.0132		RQ
PCB-159	41:50	641	1.24	1.3856	0.0142	0.0116	0.009365	0.009365		RQ
PCB-162	42:08						0.0103	0.0103		
PCB-167	42:36						0.009637	0.009637		
PCB-156	43:46						0.0148	0.0148		
PCB-157 (C156)	43:46						0.0148	0.0148		
PCB-169	46:59						0.009208	0.009208		
S Total Heptachlorobiphenyls					0.0381	0.0341	0.0122	0.0122		RQ
D PCB-188L	36:57	2969658	1.06	1.3133	80.2	80.2	0.0406	0.0406	80.21	
\$ PCB-178L	40:01	2183302	1.11	1.0313	75.1	75.1	0.0517	0.0517	75.10	
* PCB-180L	45:05	2818911	1.09		100.0	100.0				
D PCB-170L	46:21	2033255	1.08	0.8362	86.3	86.3	0.0638	0.0638	86.26	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
D PCB-189L	49:27	4804531	1.04	1.4414	87.9	87.9	0.2095	0.2095	87.87	
PCB-188	37:00						0.009565	0.009565		
PCB-179	37:23						0.009211	0.009211		
PCB-184	37:52						0.009618	0.009618		
PCB-176	38:15						0.0107	0.0107		
PCB-186	38:42						0.008922	0.008922		
PCB-178	40:04						0.0147	0.0147		
PCB-175	40:41						0.0138	0.0138		
PCB-187	40:58						0.0119	0.0119		
PCB-182	41:09						0.0142	0.0142		
PCB-183	41:31						0.0134	0.0134		RQU
PCB-185 (C183)	41:31						0.0134	0.0134		RQU
PCB-174	41:50						0.0136	0.0136		
PCB-177	42:16						0.0135	0.0135		
PCB-181	42:39						0.0138	0.0138		
PCB-171	42:52						0.0141	0.0141		
PCB-173 (C171)	42:52						0.0141	0.0141		
PCB-172	44:30						0.0154	0.0154		
PCB-192	44:46	1148	1.05	1.3459	0.0381	0.0341	0.009770	0.009770		RQ
PCB-180	45:07						0.0113	0.0113		
PCB-193 (C180)	45:07						0.0113	0.0113		
PCB-191	45:30						0.0102	0.0102		
PCB-170	46:25						0.0140	0.0140		
PCB-190	46:55						0.009870	0.009870		
PCB-189	49:30						0.0153	0.0153		
S Total Octachlorobiphenyls					0.0199	0.009168	0.008479	0.008479		RQ
D PCB-202L	42:19	2236094	0.91	0.9818	80.8	80.8	0.0172	0.0172	80.79	
* PCB-194L	51:33	3793364	0.91		100.0	100.0				
D PCB-205L	52:01	4051127	0.91	1.1786	90.6	90.6	0.0477	0.0477	90.62	
PCB-202	42:22						0.006650	0.006650		
PCB-201	43:17						0.007063	0.007063		
PCB-204	43:57						0.006570	0.006570		
PCB-197	44:11						0.006012	0.006012		
PCB-200	44:19						0.006840	0.006840		
PCB-198	47:04						0.007920	0.007920		
PCB-199 (C198)	47:04						0.007920	0.007920		
PCB-196	47:44						0.008825	0.008825		
PCB-203	47:56						0.007414	0.007414		
PCB-195	49:16						0.0138	0.0138		
PCB-194	51:36						0.0117	0.0117		
PCB-205	52:04	404	0.89	1.0878	0.0199	0.009168	0.0105	0.0105		RQ
S Total Nonachlorobiphenyls							0.0508	0.0508		
D PCB-208L	48:58	3272639	0.82	0.9576	90.1	90.1	0.1423	0.1423	90.09	
D PCB-206L	53:46	2450870	0.81	0.6947	93.0	93.0	0.1961	0.1961	93.00	
PCB-208	49:01						0.0458	0.0458		
PCB-207	49:56						0.0428	0.0428		
PCB-206	53:49						0.0508	0.0508		
D PCB-209L	55:22	2582380	0.72	0.6669	102.1	102.1	0.0673	0.0673	102	
DCB Decachlorobiphenyl	55:25						0.004412	0.004412		
S Polychlorinated biphenyls, Total					1.135		0.0263	0.0263		RQ
PCB-28L (PRC)	0.0						0.0	0.0		
PCB-47L (PRC)	0.0						0.0	0.0		
PCB-8L (PRC)	0.0						0.0	0.0		
PCB-141L (PRC)	0.0						0.0	0.0		
PCB-111L (PRC)	0.0						0.0	0.0		
PCB-70L (PRC)	0.0						0.0	0.0		
PCB-182L (PRC)	0.0						0.0	0.0		
PCB-80L (PRC)	0.0						0.0	0.0		

**QC Flag Legend**

Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

Review Flags

M - Manually Integrated

U - Marked Undetected



Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d  
Lims ID: MB 140-88193/21-B  
Client ID:  
Sample Type: MB  
Inject. Date: 15-Jul-2024 16:31:00 ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033504-008  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 15-Jul-2024 19:54:52 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICAL File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1621

First Level Reviewer: V4XA

Date: 15-Jul-2024 19:54:51

Signal	RT (min.)	Adj RT (min.)	⌈ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:36	11:36	-3	0.728	4693001	1803061	1310	3275	1376		
202.0766	11:36	11:36	-3	0.728	1461646	567359	1307	3267	434	3.21(2.66-3.60)	
PCB-3L											
200.0795	13:44	13:44	-3	0.862	5029876	1514116	1310	3275	1156		
202.0766	13:44	13:44	-3	0.862	1593718	467628	1307	3267	358	3.16(2.66-3.60)	
PCB-1											
188.0393	11:37	11:37	-3	1.002	3005	1015	106	265	10		RQM
190.0363	11:35	11:37	-5	0.999	1655	473	82	205	6	1.82(2.66-3.60)	M
Empc Correction					960	324	82	205	4		
PCB-2											
188.0393	13:35						106	265			
190.0363	13:35						82	205			
PCB-3											
188.0393	13:46						106	265			
190.0363	13:46						82	205			
PCB-4L											
234.0406	13:59	13:59	-3	0.878	1440555	453498	484	1210	937		
236.0376	13:59	13:59	-3	0.878	915707	290065	149	372	1947	1.57(1.33-1.79)	
PCB-9L											
234.0406	15:56	15:59	-3		3406952	940864	484	1210	1944		
236.0376	15:56	15:59	-3		2098996	579790	149	372	3891	1.62(1.33-1.79)	
PCB-8L											
234.0406	16:45						484	1210			
236.0376	16:45						149	372			

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-15L											
234.0406	19:51	19:49	-3	1.246	2635154	554283	484	1210	1145		
236.0376	19:51	19:49	-3	1.246	1614967	348245	149	372	2337	1.63(1.33-1.79)	
PCB-4											
222.0003	14:01						64	160			
223.9974	14:01						132	330			
PCB-10											
222.0003	14:10						64	160			
223.9974	14:10						132	330			
PCB-9											
222.0003	15:56						64	160			
223.9974	15:56						132	330			
PCB-7											
222.0003	16:06						64	160			
223.9974	16:06						132	330			
PCB-6											
222.0003	16:21						64	160			
223.9974	16:21						132	330			
PCB-5											
222.0003	16:39						64	160			
223.9974	16:39						132	330			
PCB-8											
222.0003	16:46						64	160			
223.9974	16:46						132	330			
PCB-14											
222.0003	18:24						64	160			
223.9974	18:24						132	330			
PCB-11											
222.0003	19:14	19:14	-3	0.970	6354	1685	64	160	26		RQM
	Empc Correction				5514	1438	64	160	22		M
223.9974	19:13	19:14	-3	0.969	3535	922	132	330	7	1.80(1.33-1.79)	
PCB-12											
222.0003	19:32						64	160			
223.9974	19:32						132	330			
PCB-13 (C12)											
222.0003	19:32						64	160			
223.9974	19:32						132	330			
PCB-15											
222.0003	19:51						64	160			
223.9974	19:51						132	330			
PCB-19L											
268.0016	17:04	17:05	-3	0.841	787072	210200	738	1845	285		
269.9986	17:04	17:05	-3	0.841	740521	201110	646	1615	311	1.06(0.88-1.20)	
PCB-32L											
268.0016	20:18	20:21	-3		1839131	443316	738	1845	601		
269.9986	20:18	20:21	-3		1703295	414689	646	1615	642	1.08(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-31L											
268.0016	22:33	22:36	-3		4358926	923541	779	1947	1186		
269.9986	22:33	22:36	-3		4145725	893318	428	1070	2087	1.05(0.88-1.20)	
PCB-28L											
268.0016	22:51	22:50	-2	1.013	3307002	702215	779	1947	901		
269.9986	22:51	22:50	-2	1.013	3123640	654214	428	1070	1529	1.06(0.88-1.20)	
PCB-37L											
268.0016	26:51	26:50	-3	1.190	2888266	487353	779	1947	626		
269.9986	26:51	26:50	-3	1.190	2722047	470222	428	1070	1099	1.06(0.88-1.20)	
PCB-19											
255.9613	17:05						31	77			RQU
257.9584	17:05						18	45			
PCB-18											
255.9613	18:52						31	77			
257.9584	18:52						18	45			
PCB-30 (C18)											
255.9613	18:52						31	77			
257.9584	18:52						18	45			
PCB-17											
255.9613	19:20						31	77			
257.9584	19:20						18	45			
PCB-27											
255.9613	19:33						31	77			
257.9584	19:33						18	45			
PCB-24											
255.9613	19:41						31	77			
257.9584	19:41						18	45			
PCB-16											
255.9613	19:48						31	77			
257.9584	19:48						18	45			
PCB-32											
255.9613	20:17	20:17	-6	1.188	1144	302	31	77	10		M
257.9584	20:20	20:17	-2	1.192	1182	392	18	45	22	0.97(0.88-1.20)	M
PCB-34											
255.9613	21:32						53	132			
257.9584	21:32						105	262			
PCB-23											
255.9613	21:41						53	132			
257.9584	21:41						105	262			
PCB-26											
255.9613	22:01						53	132			
257.9584	22:01						105	262			
PCB-29 (C26)											
255.9613	22:01						53	132			
257.9584	22:01						105	262			

Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-25											
255.9613	22:16						53	132			
257.9584	22:16						105	262			
PCB-31											
255.9613	22:36	22:35	-1	0.842	2169	619	53	132	12		M
257.9584	22:35	22:35	-2	0.841	2361	457	105	262	4	0.92(0.88-1.20)	M
PCB-20											
255.9613	22:52	22:54	-4	0.851	4140	751	53	132	14		RQ
257.9584	22:52	22:54	-3	0.852	5452	1121	105	262	11	0.76(0.88-1.20)	
	Empc Correction				3980	722	105	262	7		
PCB-28 (C20)											
255.9613	22:52	22:54	-4	0.851	4140	751	53	132	14		RQ
257.9584	22:52	22:54	-3	0.852	5452	1121	105	262	11	0.76(0.88-1.20)	
	Empc Correction				3980	722	105	262	7		
PCB-21											
255.9613	23:03						53	132			
257.9584	23:03						105	262			
PCB-33 (C21)											
255.9613	23:03						53	132			
257.9584	23:03						105	262			
PCB-22											
255.9613	23:31						53	132			
257.9584	23:31						105	262			
PCB-36											
255.9613	25:03						53	132			
257.9584	25:03						105	262			
PCB-39											
255.9613	25:24						53	132			
257.9584	25:24						105	262			
PCB-38											
255.9613	25:59						53	132			
257.9584	25:59						105	262			
PCB-35											
255.9613	26:28						53	132			
257.9584	26:28						105	262			
PCB-37											
255.9613	26:52						53	132			
257.9584	26:52						105	262			
PCB-54L											
301.9626	20:09	20:09	-3	0.816	722561	177952	139	347	1280		M
303.9597	20:09	20:09	-3	0.816	861697	210335	56	140	3756	0.84(0.65-0.89)	M
PCB-52L											
301.9626	24:40	24:43	-3		1997013	435130	255	637	1706		
303.9597	24:40	24:43	-3		2468545	555527	209	522	2658	0.81(0.65-0.89)	
PCB-79L											
301.9626	32:34						255	637			
303.9597	32:34						209	522			

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-81L											
301.9626	33:34	33:33	-3	1.361	1973854	358903	255	637	1407		
303.9597	33:35	33:33	-2	1.361	2460009	438348	209	522	2097	0.80(0.65-0.89)	
PCB-77L											
301.9626	34:09	34:07	-2	1.384	2111248	369280	255	637	1448		
303.9597	34:09	34:07	-2	1.384	2595373	456788	209	522	2186	0.81(0.65-0.89)	
PCB-54											
289.9224	20:12						5	12			
291.9194	20:12						9	22			
PCB-50											
289.9224	22:17						27	67			
291.9194	22:17						99	247			
PCB-53 (C50)											
289.9224	22:17						27	67			
291.9194	22:17						99	247			
PCB-45											
289.9224	23:03						27	67			
291.9194	23:03						99	247			
PCB-51 (C45)											
289.9224	23:03						27	67			
291.9194	23:03						99	247			
PCB-46											
289.9224	23:17						27	67			
291.9194	23:17						99	247			
PCB-52											
289.9224	24:40						27	67			
291.9194	24:40						99	247			
PCB-43											
289.9224	24:49						27	67			
291.9194	24:49						99	247			
PCB-73 (C43)											
289.9224	24:49						27	67			
291.9194	24:49						99	247			
PCB-49											
289.9224	25:06						27	67			
291.9194	25:06						99	247			
PCB-69 (C49)											
289.9224	25:06						27	67			
291.9194	25:06						99	247			
PCB-48											
289.9224	25:26						27	67			
291.9194	25:26						99	247			
PCB-44											
289.9224	25:43	25:40	-2	1.276	3363	597	27	67	22		
291.9194	25:41	25:40	-3	1.275	3963	724	99	247	7	0.85(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-47 (C44)											
289.9224	25:43	25:40	-2	1.276	3363	597	27	67	22		
291.9194	25:41	25:40	-3	1.275	3963	724	99	247	7	0.85(0.65-0.89)	
PCB-65 (C44)											
289.9224	25:43	25:40	-2	1.276	3363	597	27	67	22		
291.9194	25:41	25:40	-3	1.275	3963	724	99	247	7	0.85(0.65-0.89)	
PCB-59											
289.9224	25:59						27	67			
291.9194	25:59						99	247			
PCB-62 (C59)											
289.9224	25:59						27	67			
291.9194	25:59						99	247			
PCB-75 (C59)											
289.9224	25:59						27	67			
291.9194	25:59						99	247			
PCB-42											
289.9224	26:12						27	67			
291.9194	26:12						99	247			
PCB-40											
289.9224	26:41						27	67			
291.9194	26:41						99	247			
PCB-41 (C40)											
289.9224	26:41						27	67			
291.9194	26:41						99	247			
PCB-71 (C40)											
289.9224	26:41						27	67			
291.9194	26:41						99	247			
PCB-64											
289.9224	26:54						27	67			
291.9194	26:54						99	247			
PCB-72											
289.9224	27:45						27	67			
291.9194	27:45						99	247			
PCB-68											
289.9224	28:02						27	67			
291.9194	28:02						99	247			
PCB-57											
289.9224	28:27						27	67			
291.9194	28:27						99	247			
PCB-58											
289.9224	28:42						27	67			
291.9194	28:42						99	247			
PCB-67											
289.9224	28:51						27	67			
291.9194	28:51						99	247			

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-63											
289.9224	29:07						27	67			
291.9194	29:07						99	247			
PCB-61											
289.9224	29:28						27	67			
291.9194	29:28						99	247			
PCB-70 (C61)											
289.9224	29:28						27	67			
291.9194	29:28						99	247			
PCB-74 (C61)											
289.9224	29:28						27	67			
291.9194	29:28						99	247			
PCB-76 (C61)											
289.9224	29:28						27	67			
291.9194	29:28						99	247			
PCB-66											
289.9224	29:47						27	67			
291.9194	29:47						99	247			
PCB-55											
289.9224	29:57						27	67			
291.9194	29:57						99	247			
PCB-56											
289.9224	30:27						27	67			
291.9194	30:27						99	247			
PCB-60											
289.9224	30:40						27	67			
291.9194	30:40						99	247			
PCB-80											
289.9224	31:04						27	67			
291.9194	31:04						99	247			
PCB-79											
289.9224	32:36						27	67			
291.9194	32:36						99	247			
PCB-78											
289.9224	33:09						27	67			
291.9194	33:09						99	247			
PCB-81											
289.9224	33:35						27	67			
291.9194	33:35						99	247			
PCB-77											
289.9224	34:11						27	67			
291.9194	34:11						99	247			
PCB-104L											
337.9207	25:36	25:37	-3	0.813	1805404	385963	137	342	2817		
339.9178	25:36	25:37	-3	0.813	1114336	249127	46	115	5416	1.62(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-95L											
337.9207	28:34						137	342			
339.9178	28:34						46	115			
PCB-101L											
337.9207	31:29	31:31	-2		1851281	364791	137	342	2663		
339.9178	31:29	31:31	-2		1154756	236569	46	115	5143	1.60(1.32-1.78)	
PCB-111L											
337.9207	34:09	34:09	-2	1.085	1842320	371752	137	342	2714		
339.9178	34:09	34:09	-2	1.085	1179266	233904	46	115	5085	1.56(1.32-1.78)	
PCB-123L											
337.9207	36:07	36:07	-2	1.147	2646887	513631	4505	11262	114		
339.9178	36:07	36:07	-2	1.147	1687873	325787	1639	4097	199	1.57(1.32-1.78)	
PCB-118L											
337.9207	36:26	36:27	-3	1.157	2791285	521932	4505	11262	116		
339.9178	36:26	36:27	-3	1.157	1776192	339643	1639	4097	207	1.57(1.32-1.78)	
PCB-114L											
337.9207	36:59	36:58	-2	1.174	2741218	531244	4505	11262	118		
339.9178	36:59	36:58	-2	1.174	1703674	329198	1639	4097	201	1.61(1.32-1.78)	
PCB-105L											
337.9207	37:38	37:37	-2	1.195	2784965	510655	4505	11262	113		
339.9178	37:38	37:37	-2	1.195	1707202	314977	1639	4097	192	1.63(1.32-1.78)	
PCB-127L											
337.9207	39:06	39:07	-2		3327234	620806	4505	11262	138		
339.9178	39:06	39:07	-2		2119920	391402	1639	4097	239	1.57(1.32-1.78)	
PCB-126L											
337.9207	40:43	40:42	-2	1.293	2763225	495937	4505	11262	110		
339.9178	40:43	40:42	-2	1.293	1759478	312548	1639	4097	191	1.57(1.32-1.78)	
PCB-104											
325.8804	25:37						69	172			
327.8775	25:37						13	32			
PCB-96											
325.8804	26:01						69	172			
327.8775	26:01						13	32			
PCB-103											
325.8804	27:54						69	172			
327.8775	27:54						13	32			
PCB-94											
325.8804	28:09						69	172			
327.8775	28:09						13	32			
PCB-95											
325.8804	28:36						69	172			
327.8775	28:36						13	32			
PCB-93											
325.8804	28:47						69	172			
327.8775	28:47						13	32			



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-100 (C93)											
325.8804	28:47						69	172			
327.8775	28:47						13	32			
PCB-98											
325.8804	28:57						69	172			
327.8775	28:57						13	32			
PCB-102 (C98)											
325.8804	28:57						69	172			
327.8775	28:57						13	32			
PCB-88											
325.8804	29:26						69	172			
327.8775	29:26						13	32			
PCB-91 (C88)											
325.8804	29:26						69	172			
327.8775	29:26						13	32			
PCB-84											
325.8804	29:41						69	172			
327.8775	29:41						13	32			
PCB-89											
325.8804	30:09						69	172			
327.8775	30:09						13	32			
PCB-121											
325.8804	30:31						69	172			
327.8775	30:31						13	32			
PCB-92											
325.8804	30:57						69	172			
327.8775	30:57						13	32			
PCB-90											
325.8804	31:30	31:28	-2	1.231	1781	316	69	172	5		RQ
	Empc Correction				492	170	69	172	2		
327.8775	31:29	31:28	-3	1.230	318	110	13	32	8	5.60(1.32-1.78)	
PCB-101 (C90)											
325.8804	31:30	31:28	-2	1.231	1781	316	69	172	5		RQ
	Empc Correction				492	170	69	172	2		
327.8775	31:29	31:28	-3	1.230	318	110	13	32	8	5.60(1.32-1.78)	
PCB-113 (C90)											
325.8804	31:30	31:28	-2	1.231	1781	316	69	172	5		RQ
	Empc Correction				492	170	69	172	2		
327.8775	31:29	31:28	-3	1.230	318	110	13	32	8	5.60(1.32-1.78)	
PCB-83											
325.8804	32:04						69	172			
327.8775	32:04						13	32			
PCB-99 (C83)											
325.8804	32:04						69	172			
327.8775	32:04						13	32			

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-112											
325.8804	32:11						69	172			
327.8775	32:11						13	32			
PCB-86											
325.8804	32:35						69	172			
327.8775	32:35						13	32			
PCB-87 (C86)											
325.8804	32:35						69	172			
327.8775	32:35						13	32			
PCB-97 (C86)											
325.8804	32:35						69	172			
327.8775	32:35						13	32			
PCB-109 (C86)											
325.8804	32:35						69	172			
327.8775	32:35						13	32			
PCB-119 (C86)											
325.8804	32:35						69	172			
327.8775	32:35						13	32			
PCB-125 (C86)											
325.8804	32:35						69	172			
327.8775	32:35						13	32			
PCB-85											
325.8804	33:16						69	172			
327.8775	33:16						13	32			
PCB-116 (C85)											
325.8804	33:16						69	172			
327.8775	33:16						13	32			
PCB-117 (C85)											
325.8804	33:16						69	172			
327.8775	33:16						13	32			
PCB-110											
325.8804	33:29						69	172			
327.8775	33:29						13	32			
PCB-115 (C110)											
325.8804	33:29						69	172			
327.8775	33:29						13	32			
PCB-82											
325.8804	33:49	33:48	-3	1.321	1378	452	69	172	7		RQ
	Empc Correction				807	305	69	172	4		
327.8775	33:49	33:48	-2	1.322	521	197	13	32	15	2.64(1.32-1.78)	
PCB-111											
325.8804	34:09						69	172			
327.8775	34:09						13	32			
PCB-120											
325.8804	34:37						69	172			
327.8775	34:37						13	32			

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-108											
325.8804	35:46						137	342			
327.8775	35:46						48	120			
PCB-124 (C108)											
325.8804	35:46						137	342			
327.8775	35:46						48	120			
PCB-107											
325.8804	36:00						137	342			
327.8775	36:00						48	120			
PCB-123											
325.8804	36:09						137	342			
327.8775	36:09						48	120			
PCB-106											
325.8804	36:16						137	342			
327.8775	36:16						48	120			
PCB-118											
325.8804	36:28						137	342			
327.8775	36:28						48	120			
PCB-122											
325.8804	36:49						137	342			
327.8775	36:49						48	120			
PCB-114											
325.8804	37:00						137	342			
327.8775	37:00						48	120			
PCB-105											
325.8804	37:40						137	342			
327.8775	37:40						48	120			
PCB-127											
325.8804	39:07						137	342			
327.8775	39:07						48	120			
PCB-126											
325.8804	40:44						137	342			
327.8775	40:44						48	120			
PCB-155L											
371.8817	31:14	31:14	-2	0.789	1394426	292602	43	107	6805		
373.8788	31:14	31:14	-2	0.789	1106166	230089	48	120	4794	1.26(1.05-1.43)	
PCB-153L											
371.8817	38:17	38:19	-3	0.900	38979	7565	795	1987	10		
373.8788	38:17	38:19	-3	0.900	27361	5494	1060	2650	5	1.42(1.05-1.43)	
PCB-138L											
371.8817	39:34	39:36	-2		2068162	400504	795	1987	504		
373.8788	39:33	39:36	-3		1652705	321054	1060	2650	303	1.25(1.05-1.43)	
PCB-159L											
371.8817	41:55						795	1987			
373.8788	41:55						1060	2650			

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-167L											
371.8817	42:33	42:32	-2	1.075	2190712	423649	795	1987	533		
373.8788	42:33	42:32	-2	1.075	1709407	320297	1060	2650	302	1.28(1.05-1.43)	
PCB-156L											
371.8817	43:43	43:42	-2	1.105	4476040	561809	795	1987	707		
373.8788	43:43	43:42	-2	1.105	3419988	413024	1060	2650	390	1.31(1.05-1.43)	
PCB-157L (C156L)											
371.8817	43:43	43:42	-2	1.105	4476040	561809	795	1987	707		
373.8788	43:43	43:42	-2	1.105	3419988	413024	1060	2650	390	1.31(1.05-1.43)	
PCB-169L											
371.8817	46:56	46:55	-2	1.186	2300926	422216	795	1987	531		
373.8788	46:56	46:55	-2	1.186	1853913	324965	1060	2650	307	1.24(1.05-1.43)	
PCB-155											
359.8415	31:15						9	22			
361.8385	31:15						5	12			
PCB-152											
359.8415	31:29						9	22			
361.8385	31:29						5	12			
PCB-150											
359.8415	31:39						9	22			
361.8385	31:39						5	12			
PCB-136											
359.8415	32:02						9	22			
361.8385	32:02						5	12			
PCB-145											
359.8415	32:18						9	22			
361.8385	32:18						5	12			
PCB-148											
359.8415	33:48						9	22			
361.8385	33:48						5	12			
PCB-135											
359.8415	34:29						9	22			
361.8385	34:29						5	12			
PCB-151 (C135)											
359.8415	34:29						9	22			
361.8385	34:29						5	12			
PCB-154											
359.8415	34:38						9	22			
361.8385	34:38						5	12			
PCB-144											
359.8415	34:57						9	22			
361.8385	34:57						5	12			
PCB-147											
359.8415	35:19	35:20	-3	1.131	900	330	21	52	16		RQ
361.8385	35:19	35:20	-3	1.131	1739	648	11	27	59	0.52(1.05-1.43)	
Empc Correction					725	266	11	27	24		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-149 (C147)											RQ
359.8415	35:19	35:20	-3	1.131	900	330	21	52	16		
361.8385	35:19	35:20	-3	1.131	1739	648	11	27	59	0.52(1.05-1.43)	
Empc Correction					725	266	11	27	24		
PCB-134											
359.8415	35:38						21	52			
361.8385	35:38						11	27			
PCB-143 (C134)											
359.8415	35:38						21	52			
361.8385	35:38						11	27			
PCB-139											
359.8415	35:55						21	52			
361.8385	35:55						11	27			
PCB-140 (C139)											
359.8415	35:55						21	52			
361.8385	35:55						11	27			
PCB-131											
359.8415	36:08						21	52			
361.8385	36:08						11	27			
PCB-142											
359.8415	36:16						21	52			
361.8385	36:16						11	27			
PCB-132											
359.8415	36:37	36:36	-2	1.172	841	245	21	52	12		
361.8385	36:37	36:36	-1	1.173	614	164	11	27	15	1.37(1.05-1.43)	
PCB-133											
359.8415	37:04						21	52			
361.8385	37:04						11	27			
PCB-165											
359.8415	37:29						21	52			
361.8385	37:29						11	27			
PCB-146											
359.8415	37:44						21	52			
361.8385	37:44						11	27			
PCB-161											
359.8415	37:51						21	52			
361.8385	37:51						11	27			
PCB-153											RQM
359.8415	38:21	38:21	-2	0.901	429	209	21	52	10		M
361.8385	38:21	38:21	-2	0.901	947	299	11	27	27	0.45(1.05-1.43)	M
Empc Correction					345	168	11	27	15		
PCB-168 (C153)											RQM
359.8415	38:21	38:21	-2	0.901	429	209	21	52	10		M
361.8385	38:21	38:21	-2	0.901	947	299	11	27	27	0.45(1.05-1.43)	M
Empc Correction					345	168	11	27	15		

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-141											
359.8415	38:33						21	52			
361.8385	38:33						11	27			
PCB-130											
359.8415	38:58						21	52			
361.8385	38:58						11	27			
PCB-137											
359.8415	39:10						21	52			
361.8385	39:10						11	27			
PCB-164											
359.8415	39:17	39:17	-2	0.923	1074	411	21	52	20		RQM
	Empc Correction				285	158	21	52	8		M
361.8385	39:18	39:17	-1	0.924	230	128	11	27	12	4.67(1.05-1.43)	
PCB-129											
359.8415	39:36						21	52			
361.8385	39:36						11	27			
PCB-138 (C129)											
359.8415	39:36						21	52			
361.8385	39:36						11	27			
PCB-160 (C129)											
359.8415	39:36						21	52			
361.8385	39:36						11	27			
PCB-163 (C129)											
359.8415	39:36						21	52			
361.8385	39:36						11	27			
PCB-158											
359.8415	39:59						21	52			
361.8385	39:59						11	27			
PCB-128											
359.8415	40:51	40:50	0	0.960	790	203	21	52	10		RQ
	Empc Correction				417	169	21	52	8		
361.8385	40:52	40:50	1	0.960	337	137	11	27	12	2.34(1.05-1.43)	
PCB-166 (C128)											
359.8415	40:51	40:50	0	0.960	790	203	21	52	10		RQ
	Empc Correction				417	169	21	52	8		
361.8385	40:52	40:50	1	0.960	337	137	11	27	12	2.34(1.05-1.43)	
PCB-159											
359.8415	41:50	41:49	0	0.983	355	144	21	52	7		RQ
361.8385	41:49	41:49	-1	0.983	431	133	11	27	12	0.82(1.05-1.43)	
	Empc Correction				286	116	11	27	11		
PCB-162											
359.8415	42:06						21	52			
361.8385	42:06						11	27			
PCB-167											
359.8415	42:34						21	52			
361.8385	42:34						11	27			

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-156											
359.8415	43:45						21	52			
361.8385	43:45						11	27			
PCB-157 (C156)											
359.8415	43:45						21	52			
361.8385	43:45						11	27			
PCB-169											
359.8415	46:58						21	52			
361.8385	46:58						11	27			
PCB-188L											
405.8428	36:57	36:57	-2	0.820	1530832	309964	112	280	2768		
407.8398	36:57	36:57	-2	0.820	1438826	288777	4	10	72194	1.06(0.89-1.21)	
PCB-178L											
405.8428	40:01	40:01	-2	0.887	1146296	223958	112	280	2000		
407.8398	40:01	40:01	-2	0.887	1037006	202811	4	10	50703	1.11(0.89-1.21)	
PCB-180L											
405.8428	45:05	45:07	-2		1467396	283995	112	280	2536		
407.8398	45:05	45:07	-2		1351515	259544	4	10	64886	1.09(0.89-1.21)	
PCB-170L											
405.8428	46:21	46:21	-2	1.028	1054620	201427	112	280	1798		
407.8398	46:21	46:21	-2	1.028	978635	188498	4	10	47125	1.08(0.89-1.21)	
PCB-189L											
405.8428	49:27	49:27	-2	1.097	2443997	454833	522	1305	871		
407.8398	49:27	49:27	-2	1.097	2360534	427294	331	827	1291	1.04(0.89-1.21)	
PCB-188											
393.8025	36:59						24	60			
395.7995	36:59						2	5			
PCB-179											
393.8025	37:21						24	60			
395.7995	37:21						2	5			
PCB-184											
393.8025	37:50						24	60			
395.7995	37:50						2	5			
PCB-176											
393.8025	38:13						24	60			
395.7995	38:13						2	5			
PCB-186											
393.8025	38:40						24	60			
395.7995	38:40						2	5			
PCB-178											
393.8025	40:02						24	60			
395.7995	40:02						2	5			
PCB-175											
393.8025	40:39						24	60			
395.7995	40:39						2	5			

Signal	RT (min.)	Adj RT (min.)	⌈ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-187											
393.8025	40:56						24	60			
395.7995	40:56						2	5			
PCB-182											
393.8025	41:07						24	60			
395.7995	41:07						2	5			
PCB-183											
393.8025	41:32						24	60			RQU
395.7995	41:32						2	5			
PCB-185 (C183)											
393.8025	41:32						24	60			RQU
395.7995	41:32						2	5			
PCB-174											
393.8025	41:48						24	60			
395.7995	41:48						2	5			
PCB-177											
393.8025	42:14						24	60			
395.7995	42:14						2	5			
PCB-181											
393.8025	42:36						24	60			
395.7995	42:36						2	5			
PCB-171											
393.8025	42:50						24	60			
395.7995	42:50						2	5			
PCB-173 (C171)											
393.8025	42:50						24	60			
395.7995	42:50						2	5			
PCB-172											
393.8025	44:28						24	60			
395.7995	44:28						2	5			
PCB-192											
393.8025	44:46	44:45	0	0.905	588	235	24	60	10		RQ
395.7995	44:45	44:45	-1	0.905	695	354	2	5	177	0.85(0.89-1.21)	
Empc Correction					560	223	2	5	112		
PCB-180											
393.8025	45:05						24	60			
395.7995	45:05						2	5			
PCB-193 (C180)											
393.8025	45:05						24	60			
395.7995	45:05						2	5			
PCB-191											
393.8025	45:28						24	60			
395.7995	45:28						2	5			
PCB-170											
393.8025	46:23						24	60			
395.7995	46:23						2	5			



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-190											
393.8025	46:54						24	60			
395.7995	46:54						2	5			
PCB-189											
393.8025	49:28						32	80			
395.7995	49:28						20	50			
PCB-202L											
439.8038	42:19	42:18	-2	0.821	1065455	206518	18	45	11473		
441.8008	42:19	42:18	-2	0.821	1170639	228966	19	47	12051	0.91(0.76-1.02)	
PCB-194L											
439.8038	51:33	51:35	-2		1811631	342683	84	210	4080		
441.8008	51:33	51:35	-2		1981733	363474	75	187	4846	0.91(0.76-1.02)	
PCB-205L											
439.8038	52:01	52:00	-2	1.009	1926371	370374	84	210	4409		
441.8008	52:01	52:00	-2	1.009	2124756	393073	75	187	5241	0.91(0.76-1.02)	
PCB-202											
427.7635	42:20						10	25			
429.7606	42:20						2	5			
PCB-201											
427.7635	43:15						10	25			
429.7606	43:15						2	5			
PCB-204											
427.7635	43:55						10	25			
429.7606	43:55						2	5			
PCB-197											
427.7635	44:09						10	25			
429.7606	44:09						2	5			
PCB-200											
427.7635	44:17						10	25			
429.7606	44:17						2	5			
PCB-198											
427.7635	47:02						10	25			
429.7606	47:02						2	5			
PCB-199 (C198)											
427.7635	47:02						10	25			
429.7606	47:02						2	5			
PCB-196											
427.7635	47:43						10	25			
429.7606	47:43						2	5			
PCB-203											
427.7635	47:55						10	25			
429.7606	47:55						2	5			
PCB-195											
427.7635	49:15						29	72			
429.7606	49:15						6	15			

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-194											
427.7635	51:34						29	72			
429.7606	51:34						6	15			
PCB-205											
427.7635	52:04	52:03	0	1.001	662	347	29	72	12		RQ
	Empc Correction				190	62	29	72	2		
429.7606	52:02	52:03	-2	1.000	214	70	6	15	12	3.09(0.76-1.02)	
PCB-208L											
473.7648	48:58	48:58	-2	0.950	1472003	274199	194	485	1413		
475.7619	48:58	48:58	-2	0.950	1800636	334376	191	477	1751	0.82(0.65-0.89)	
PCB-206L											
473.7648	53:46	53:45	-2	1.043	1095691	213307	194	485	1100		
475.7619	53:46	53:45	-2	1.043	1355179	254231	191	477	1331	0.81(0.65-0.89)	
PCB-208											
461.7246	48:59						47	117			
463.7216	48:59						80	200			
PCB-207											
461.7246	49:54						47	117			
463.7216	49:54						80	200			
PCB-206											
461.7246	53:48						47	117			
463.7216	53:48						80	200			
PCB-209L											
507.7258	55:22	55:22	-2	1.074	1085323	188634	57	142	3309		
509.7229	55:23	55:22	-2	1.074	1497057	264493	70	175	3778	0.72(0.59-0.79)	
DCB Decachlorobiphenyl											
495.6856	55:23						7	17			
497.6826	55:23						2	5			
PCB-28L (PRC)											
0.0											
PCB-47L (PRC)											
0.0											
PCB-8L (PRC)											
0.0											
PCB-141L (PRC)											
0.0											
PCB-111L (PRC)											
0.0											
PCB-70L (PRC)											
0.0											
PCB-182L (PRC)											
0.0											
PCB-80L (PRC)											
0.0											

## QC Flag Legend

### Processing Flags

R - Failed Signal Ratio Test

Q - EMPC-Estimated Max. Possible Conc.

### Review Flags

M - Manually Integrated

U - Marked Undetected

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

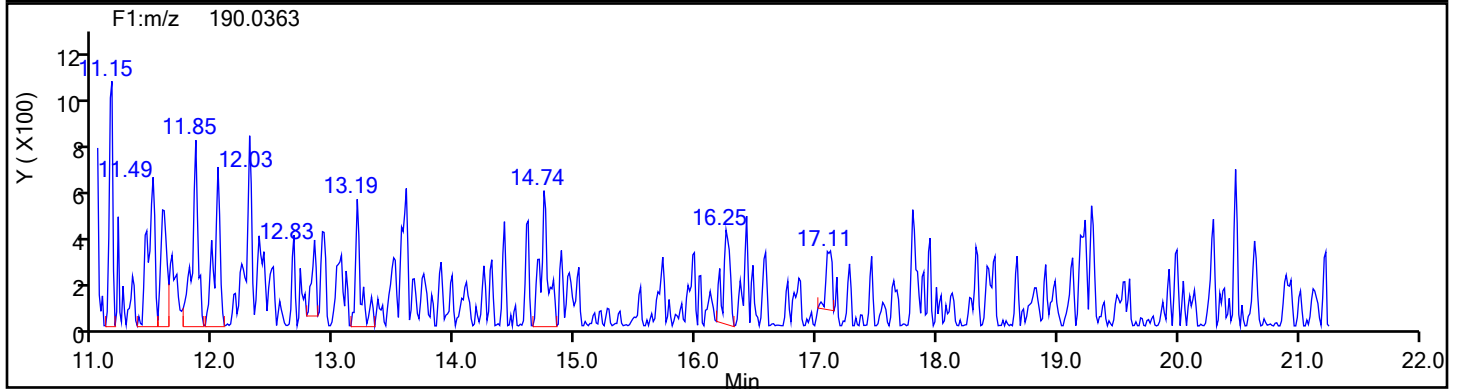
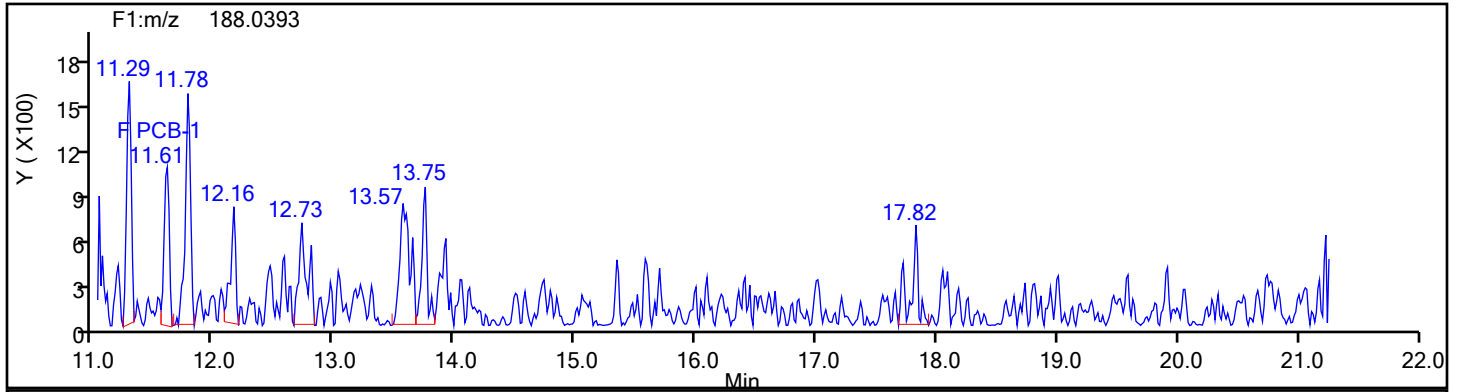
Worklist#: 88747

Sample Line#: 8

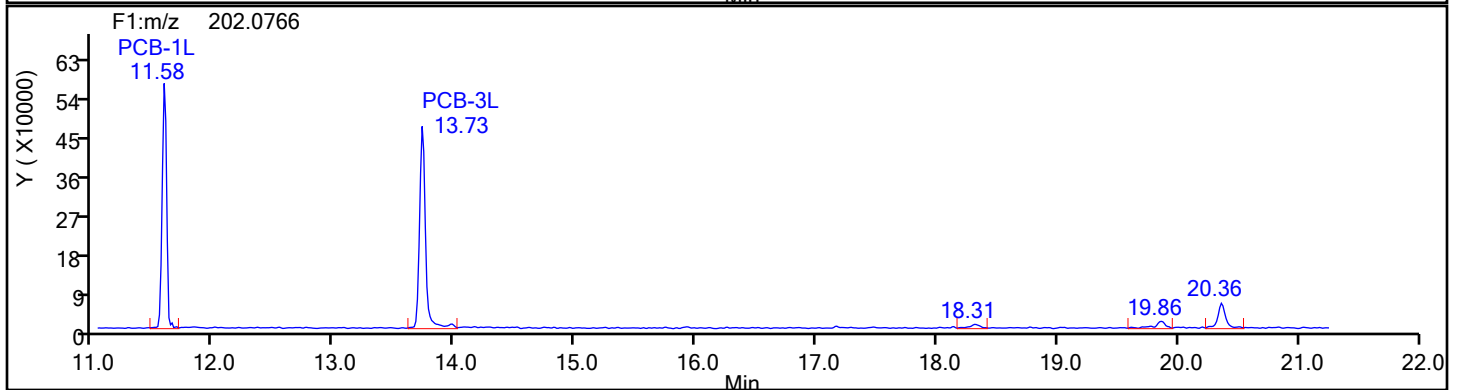
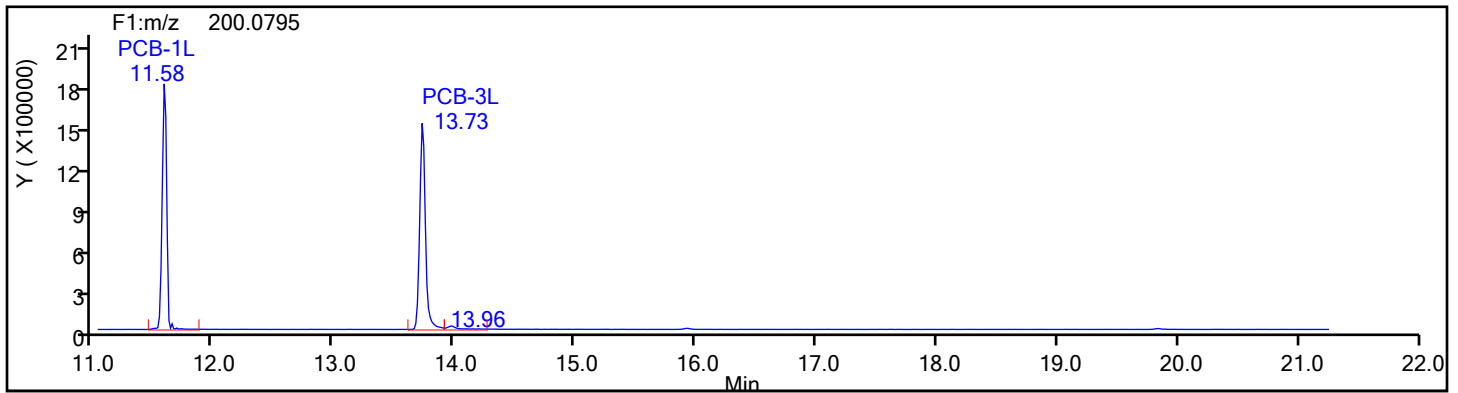
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

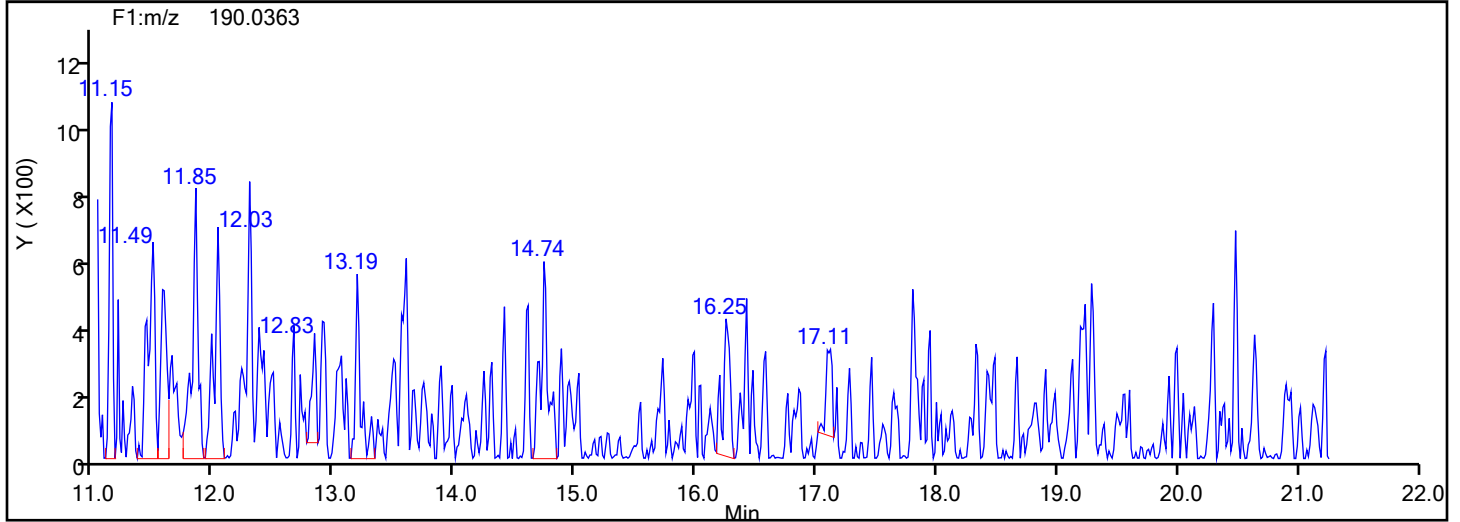
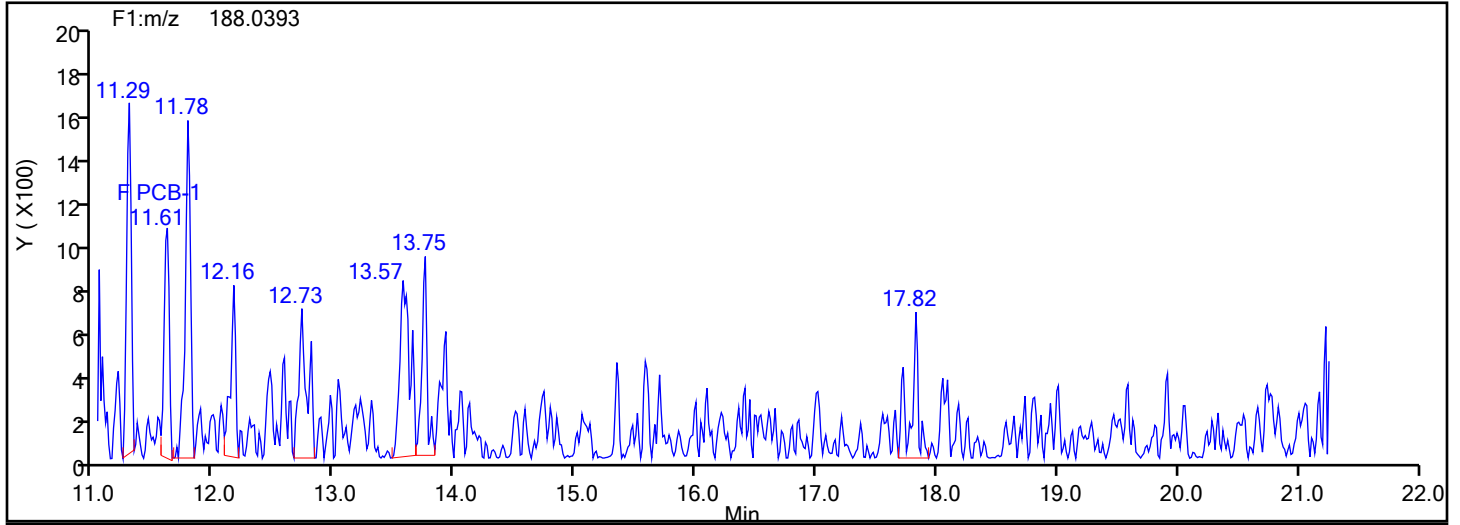
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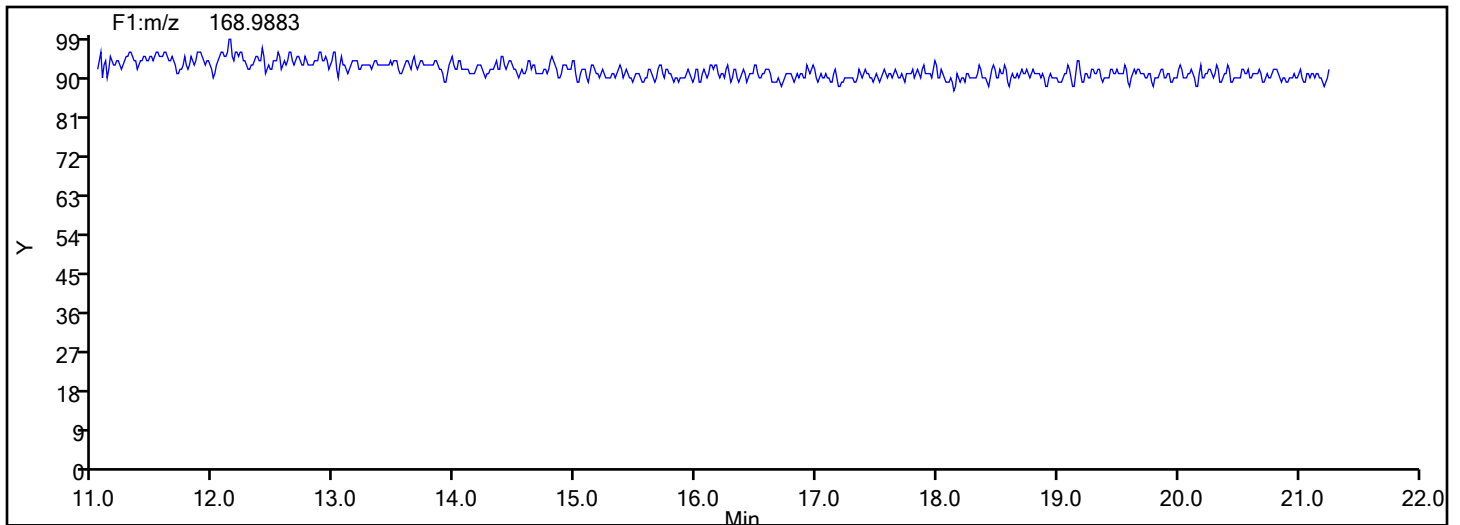
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

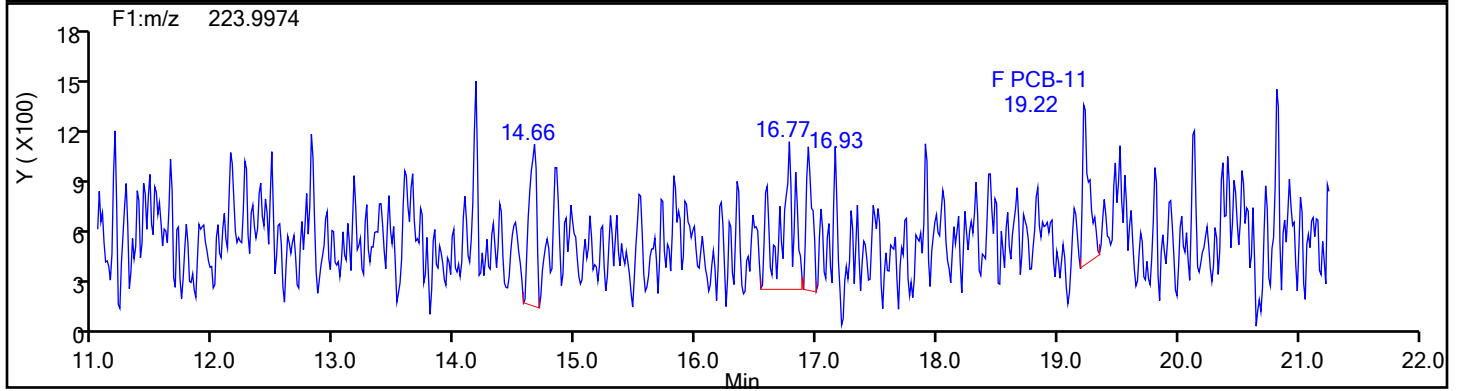
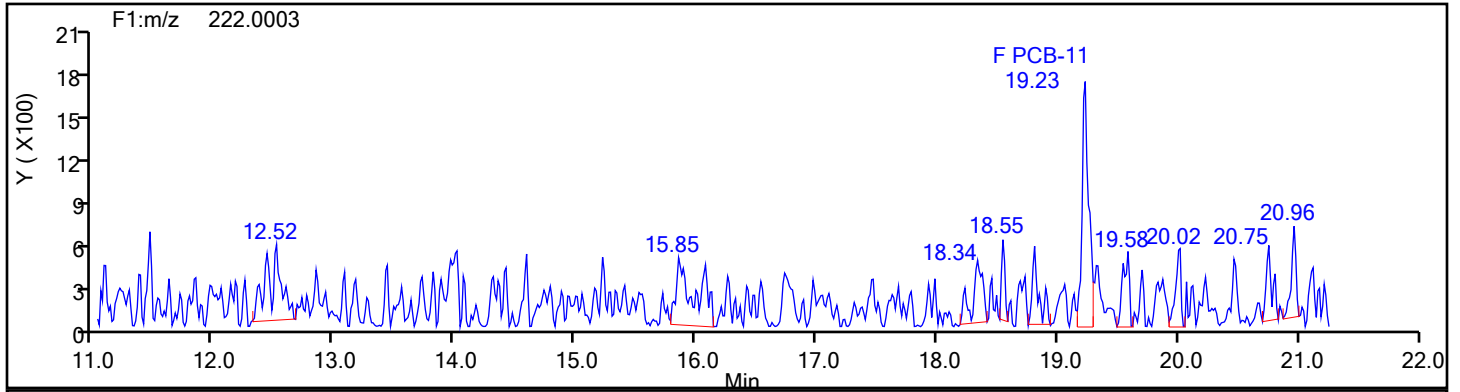
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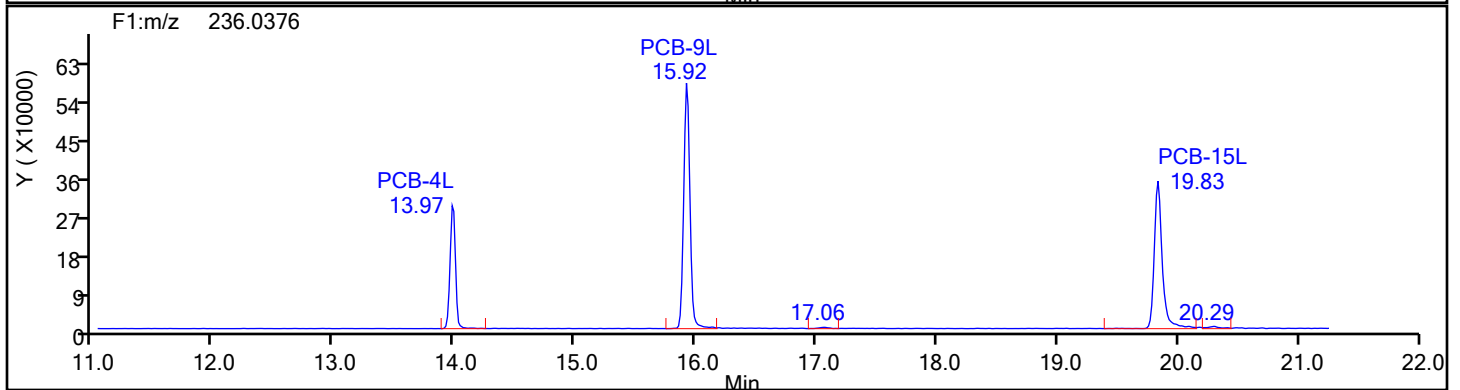
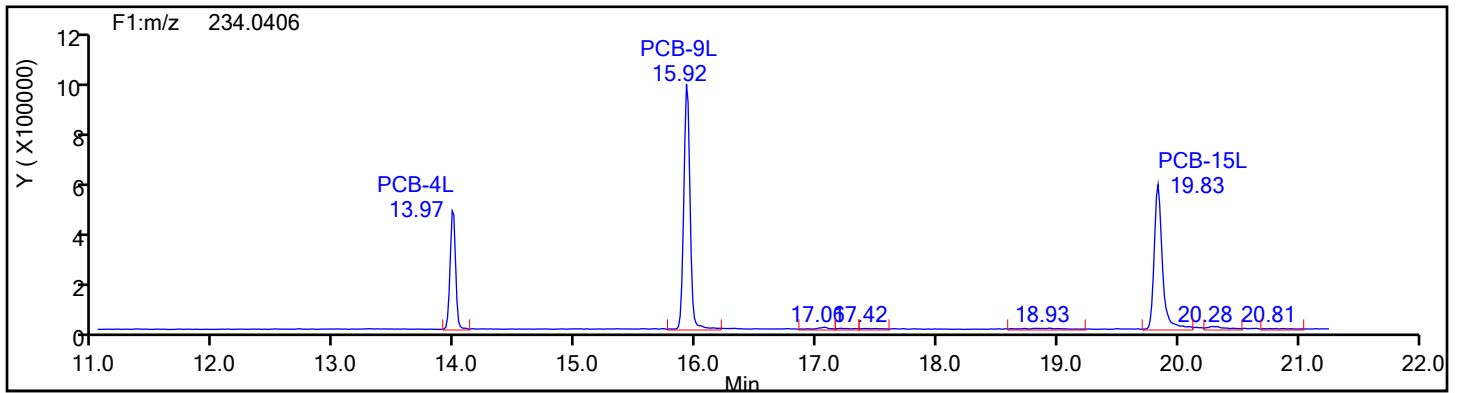
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

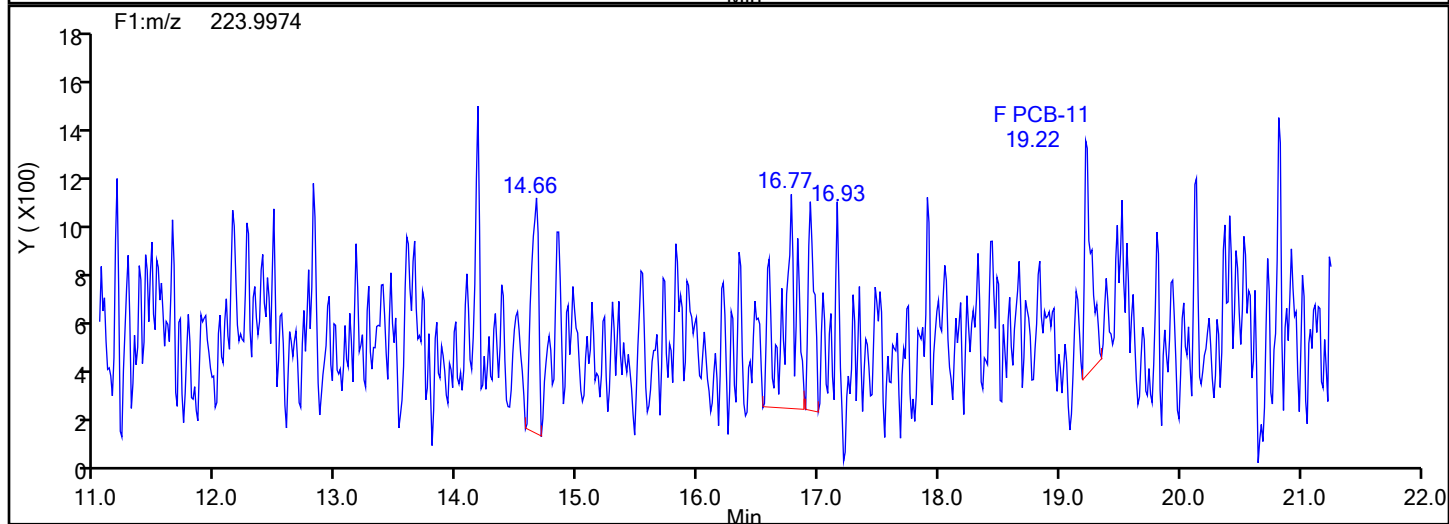
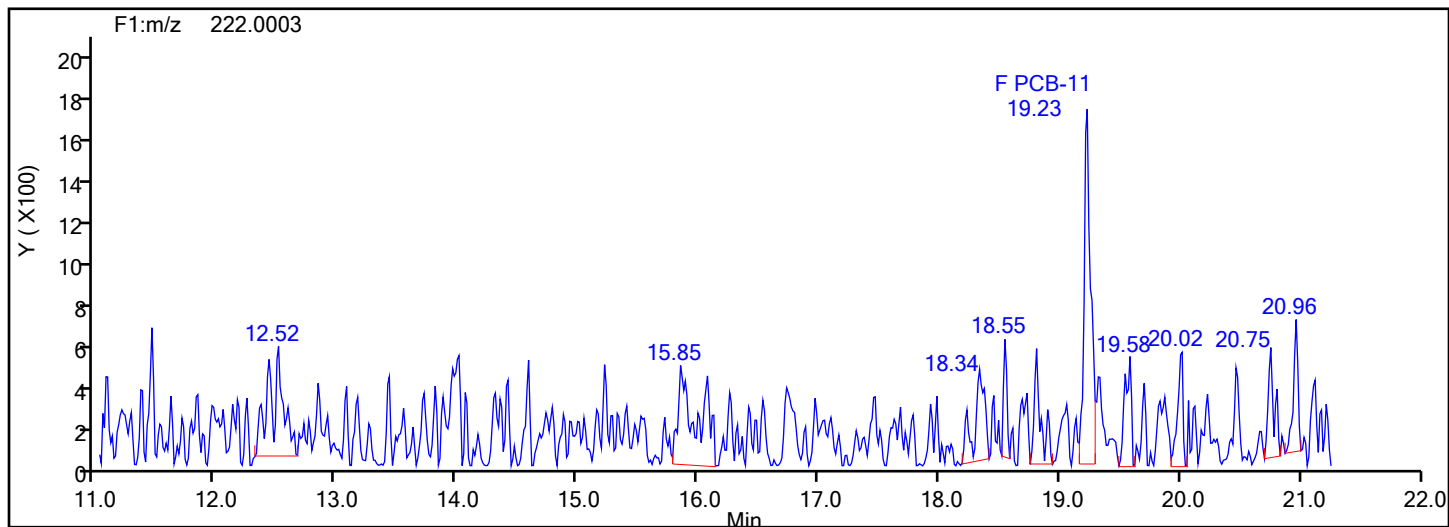
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Sample Line#: 8

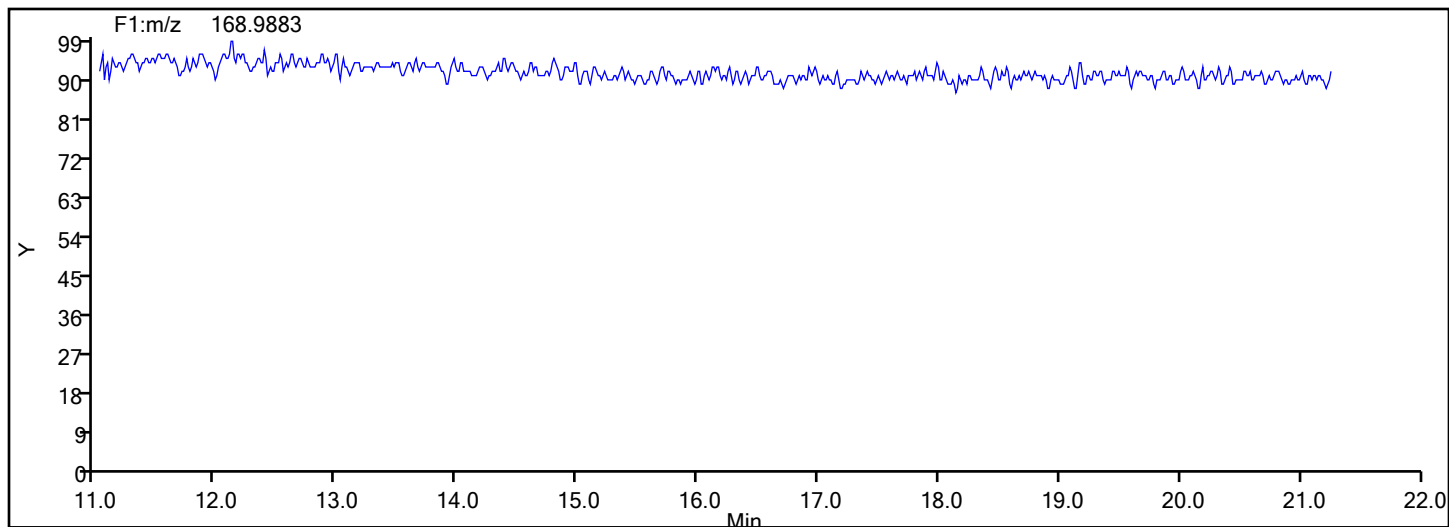
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

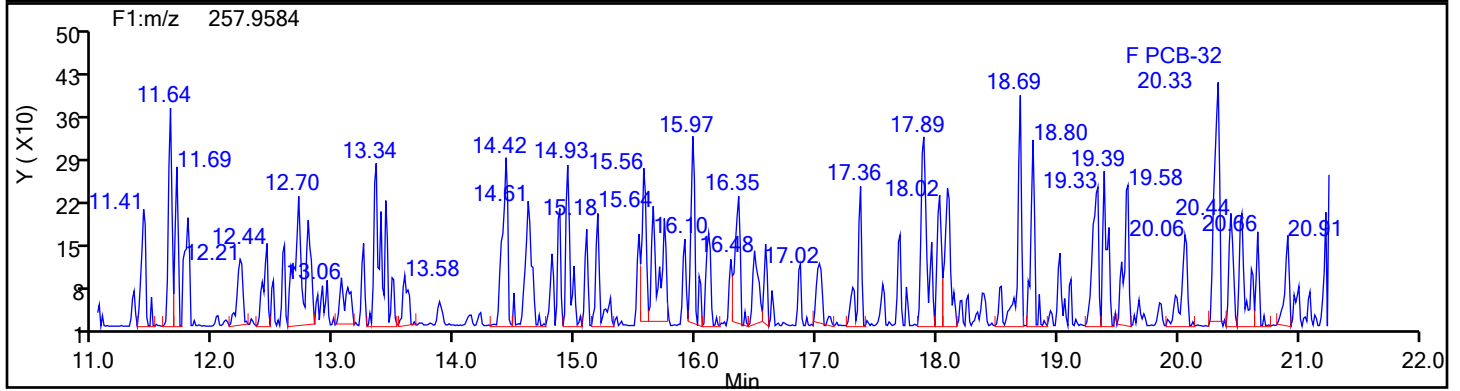
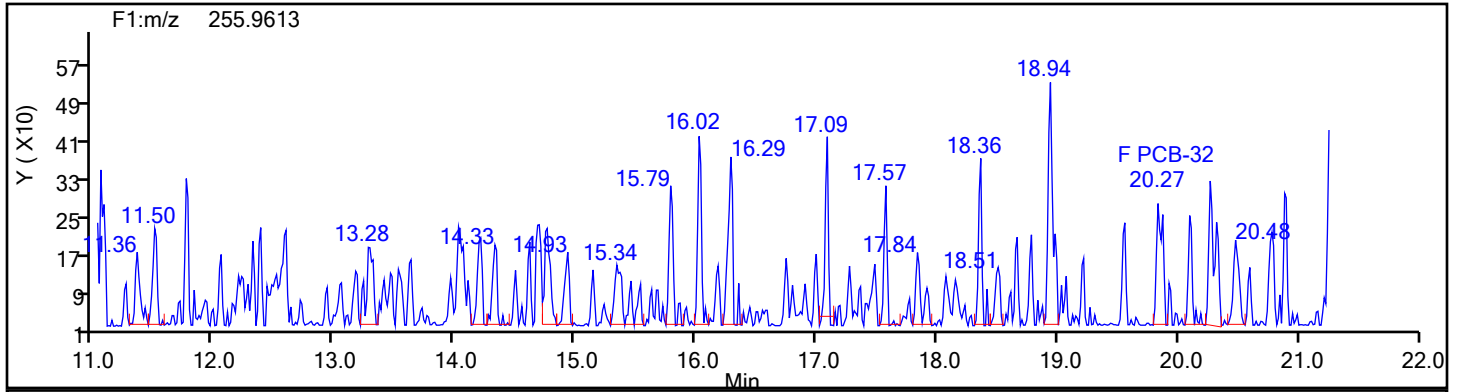
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Sample Line#: 8

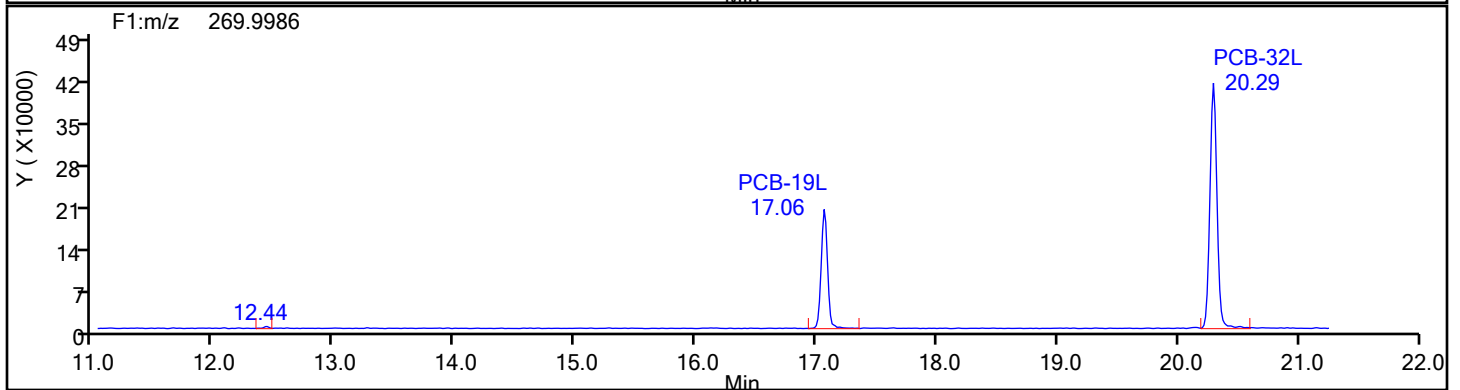
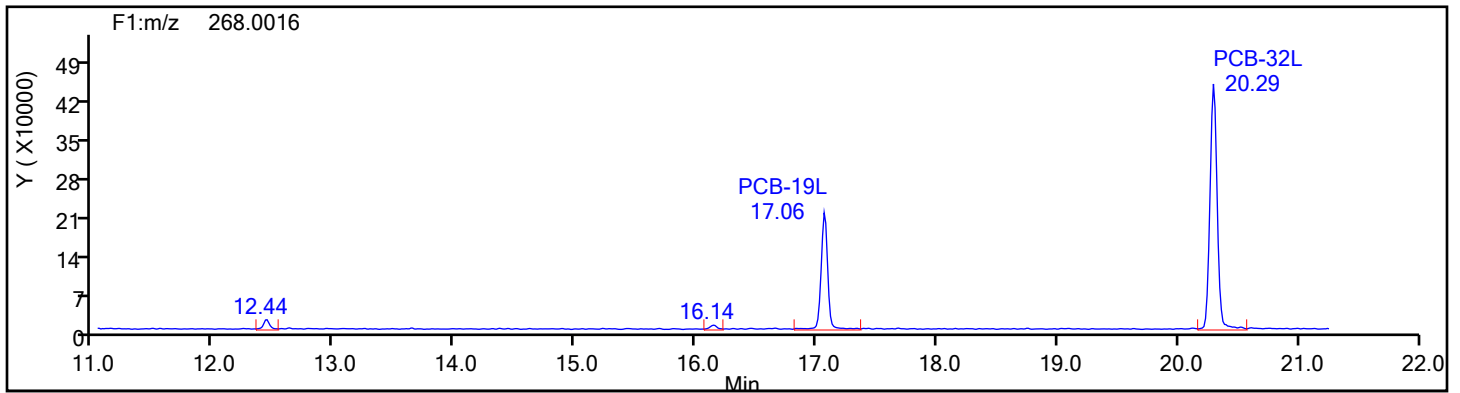
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

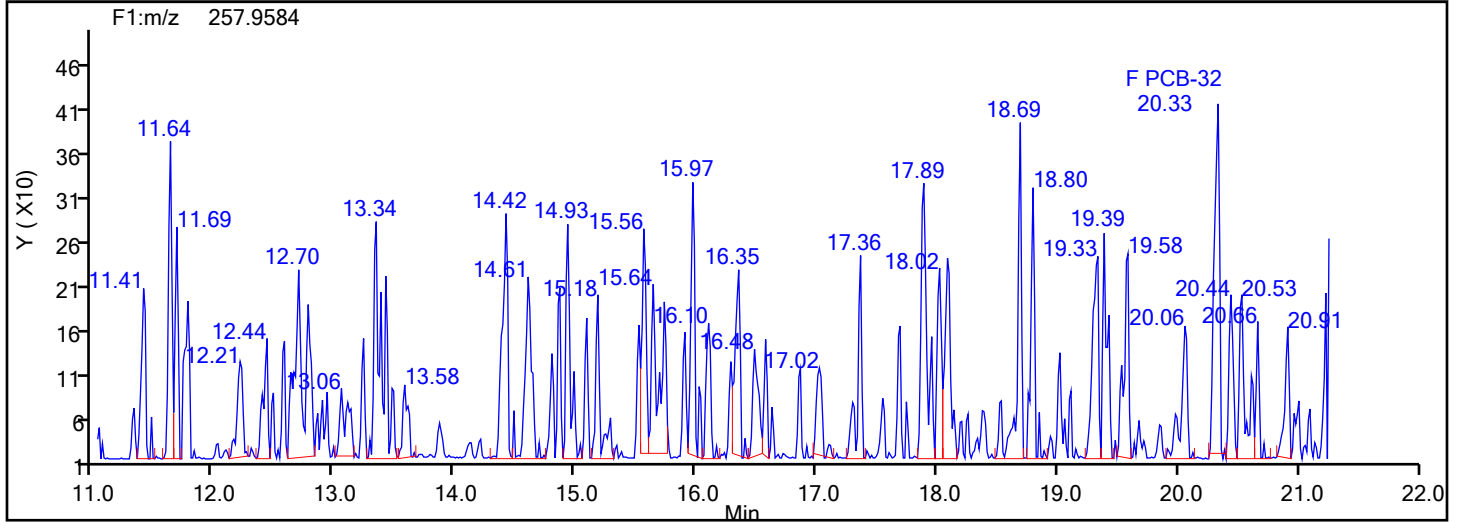
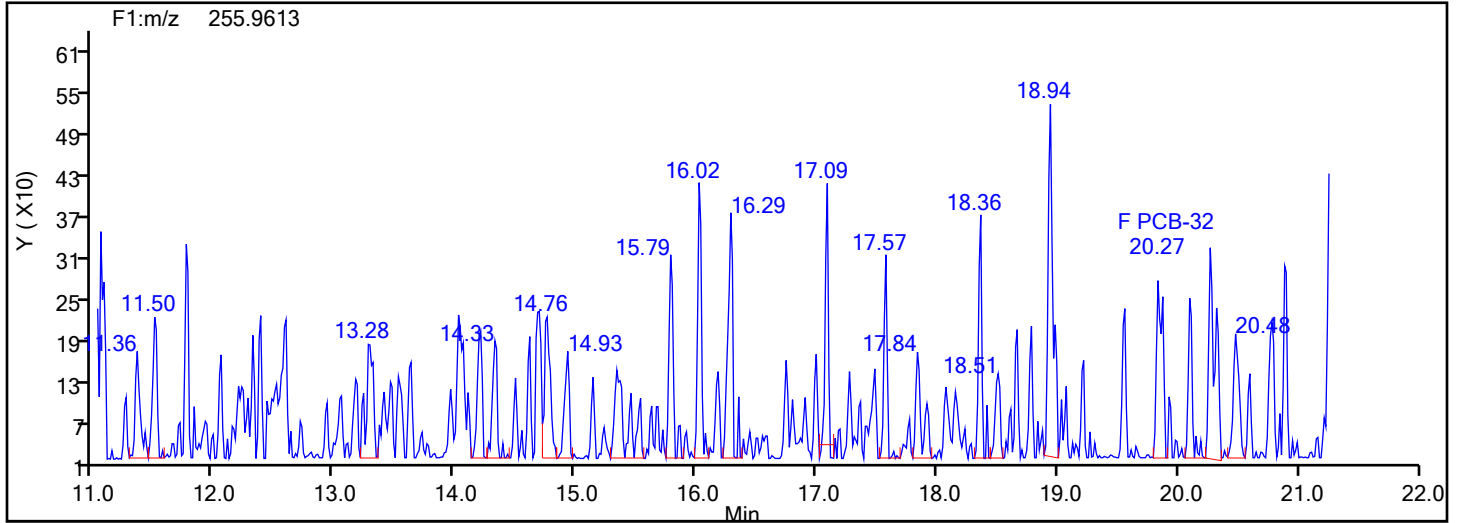
Worklist#: 88747

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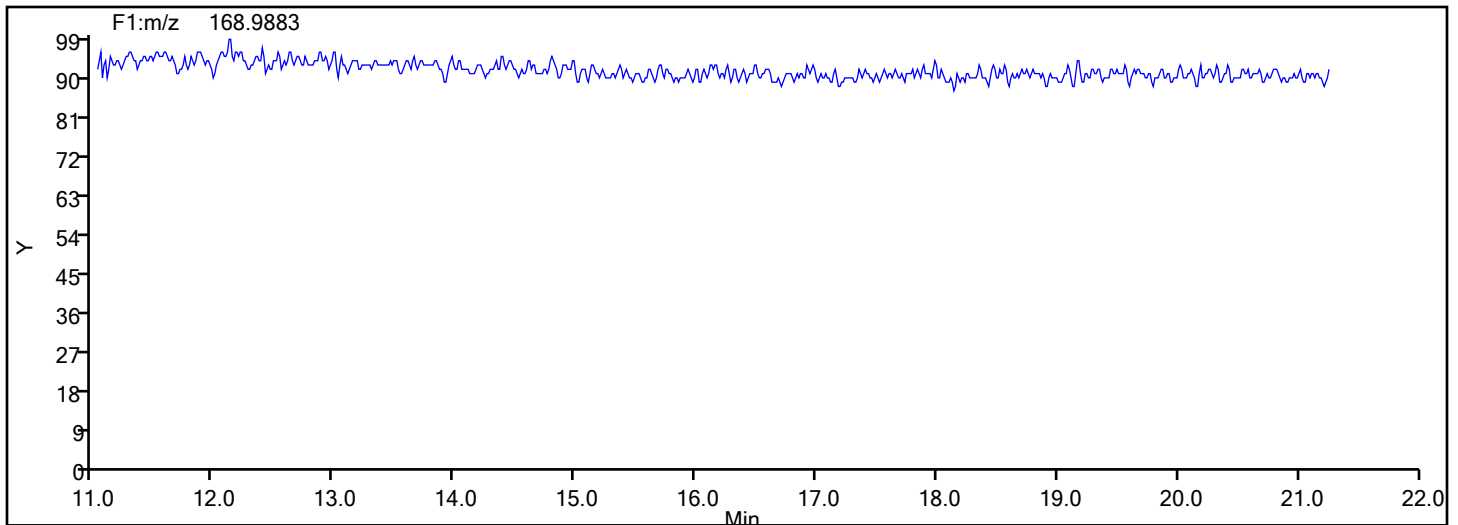
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

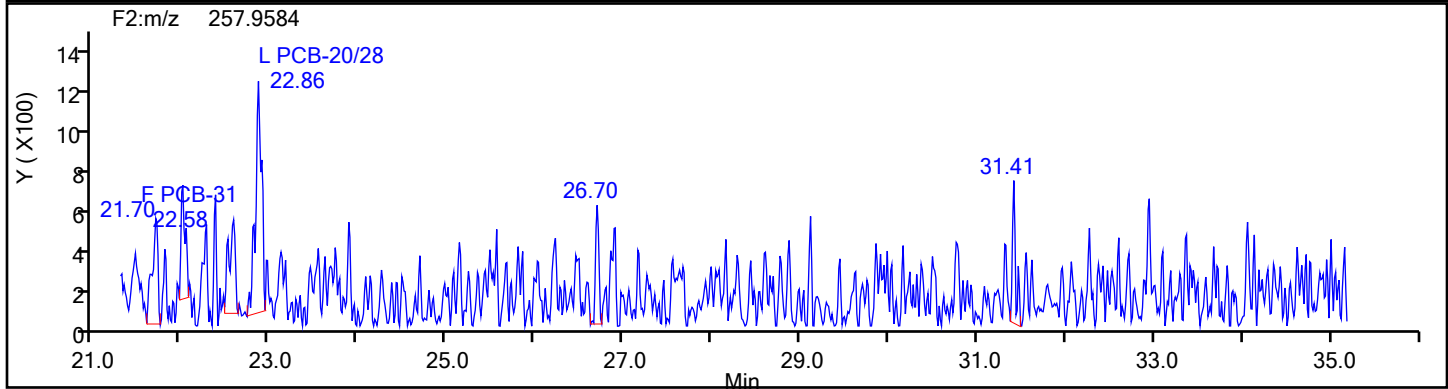
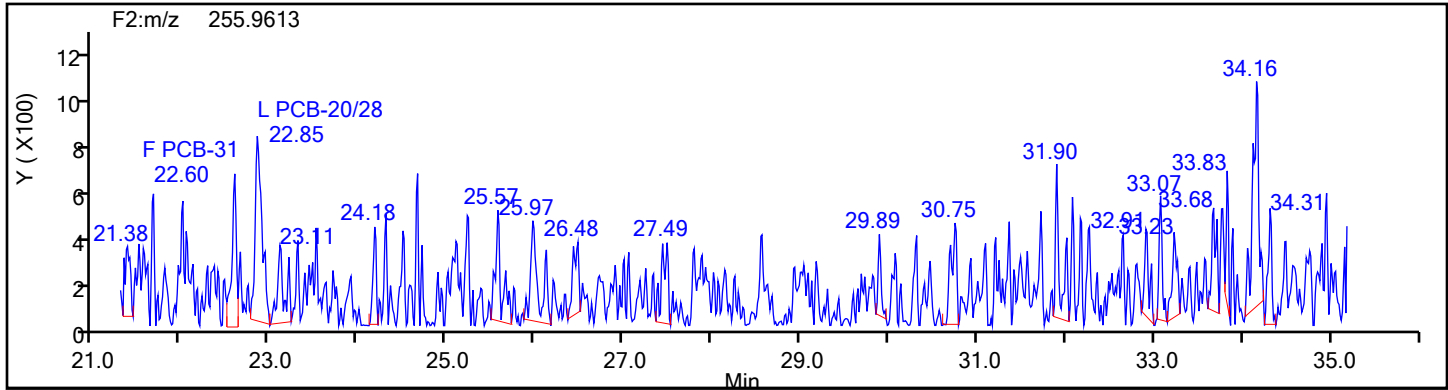
Worklist#: 88747

Sample Line#: 8

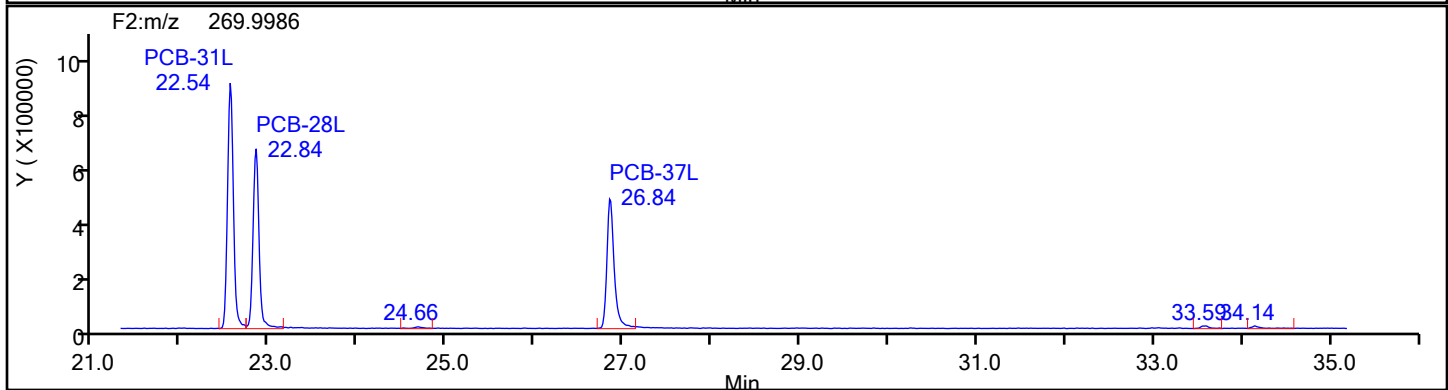
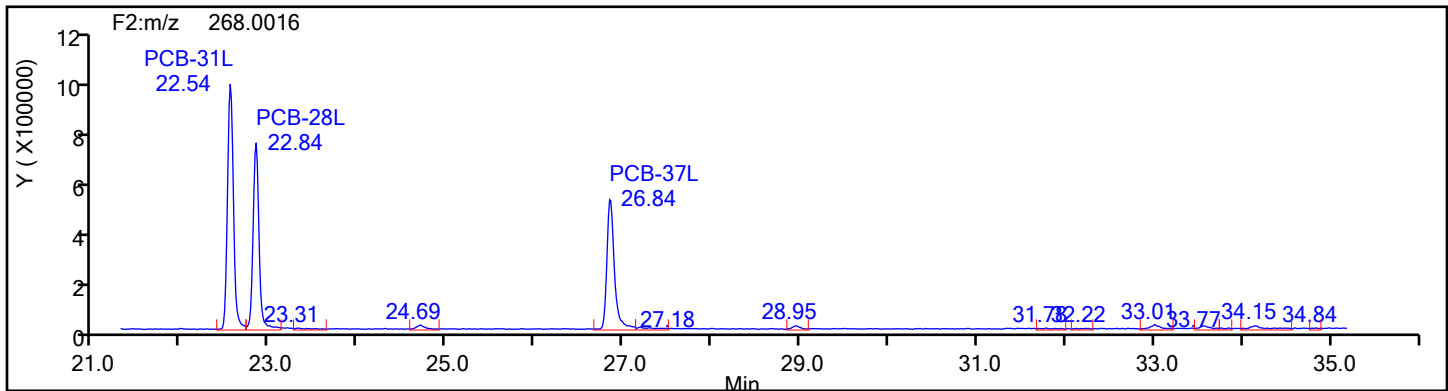
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

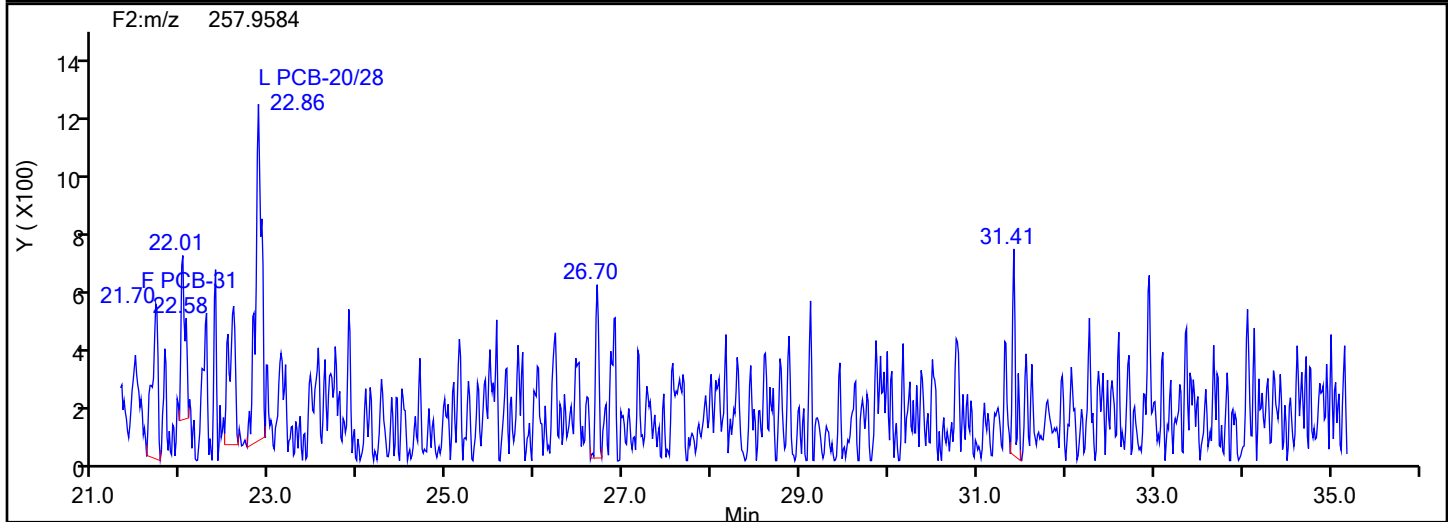
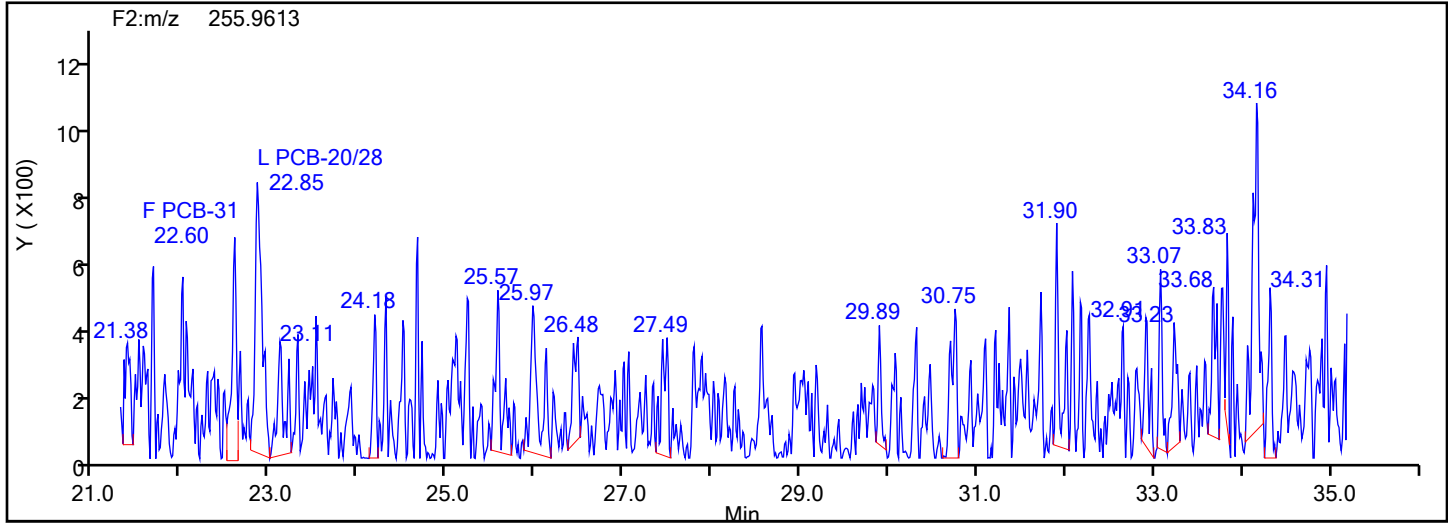
Worklist#: 88747

Sample Line#: 8

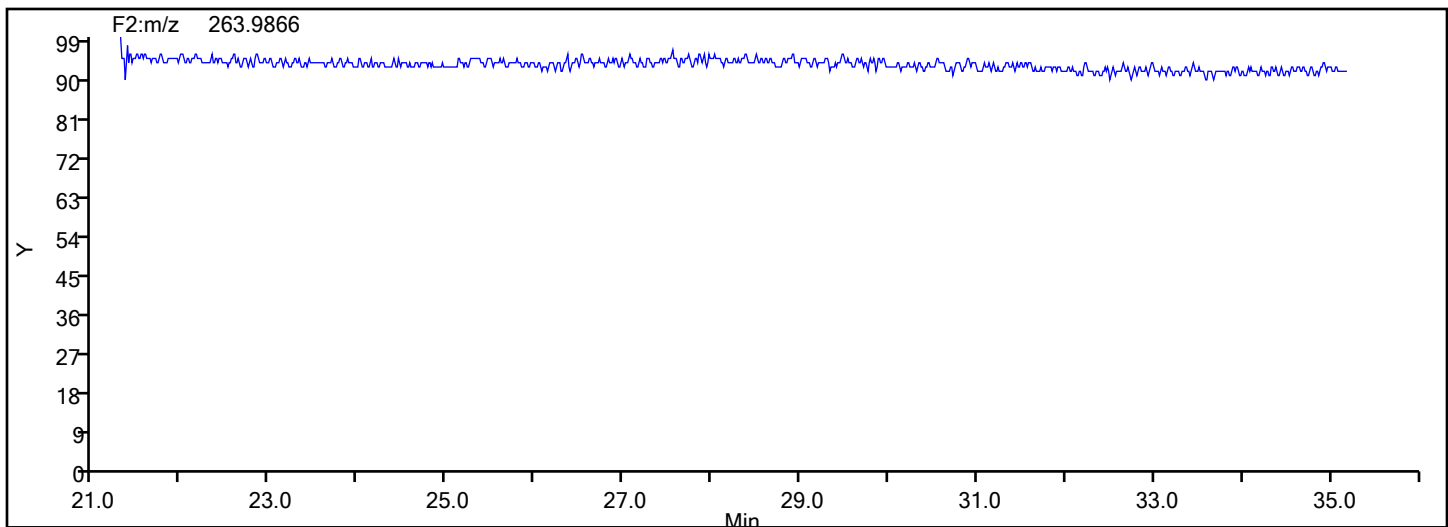
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

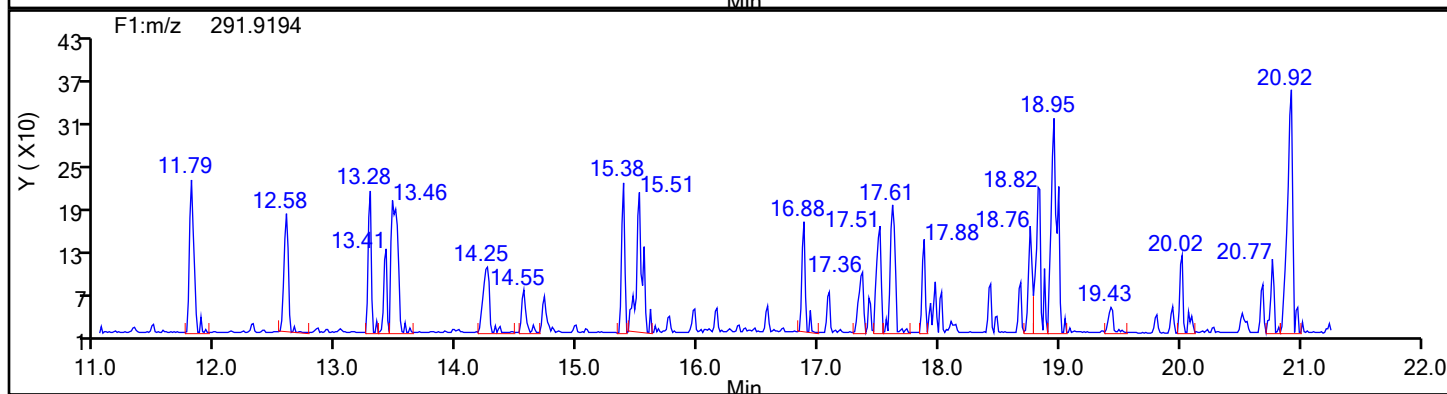
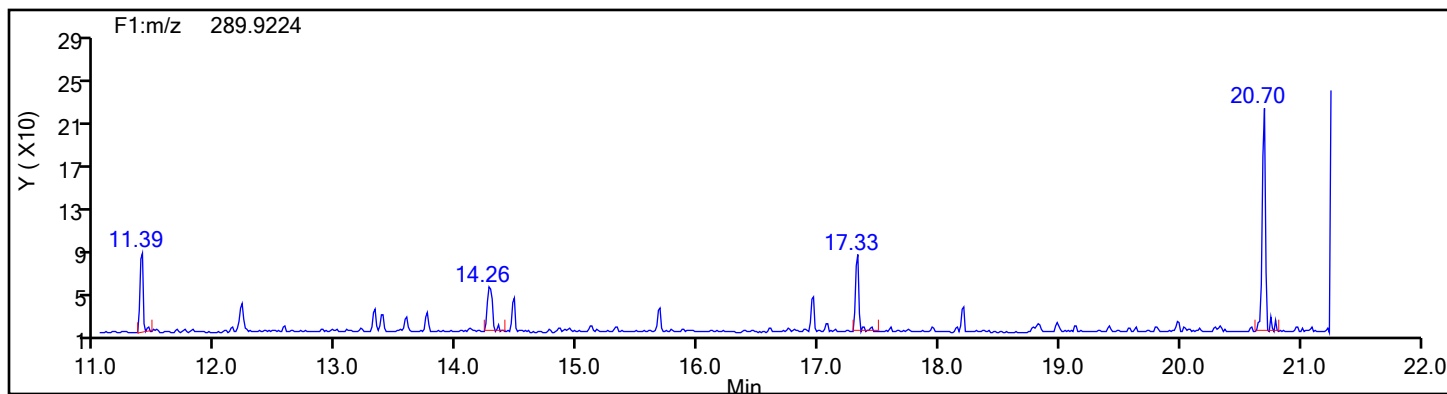
Worklist#: 88747

Sample Line#: 8

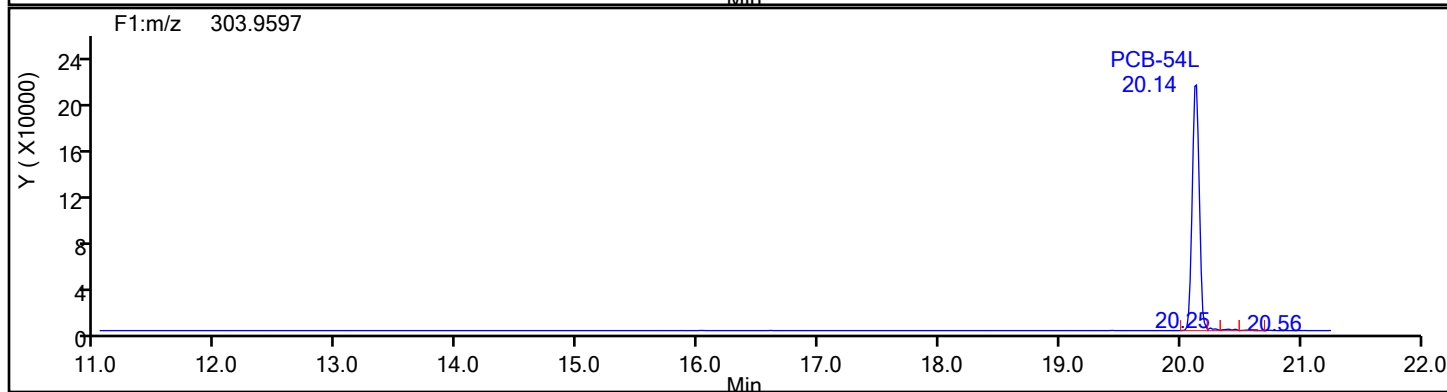
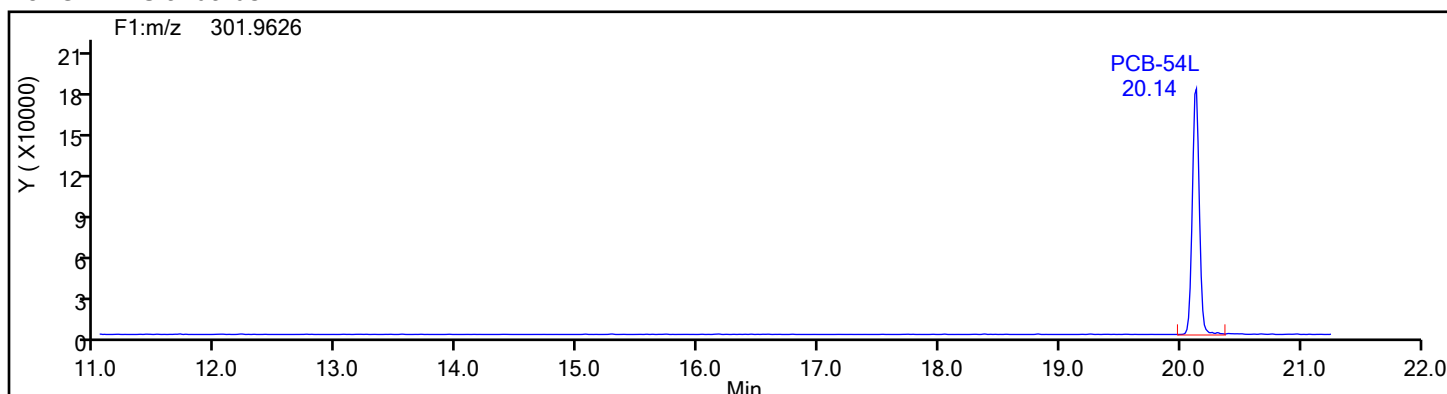
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



TePCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

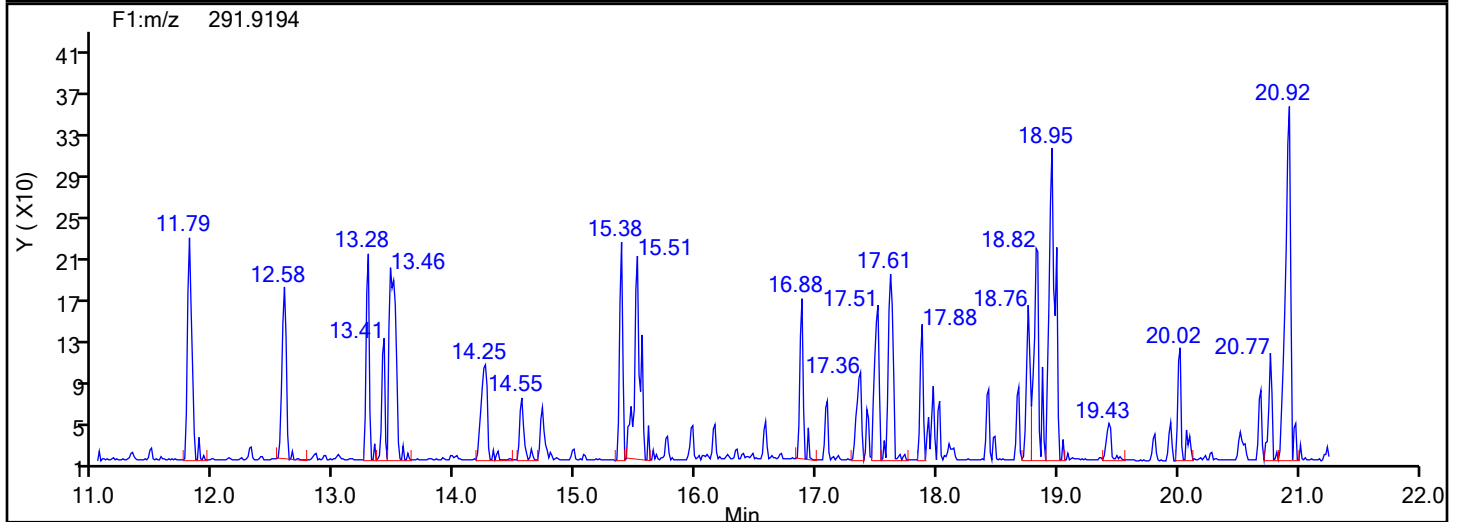
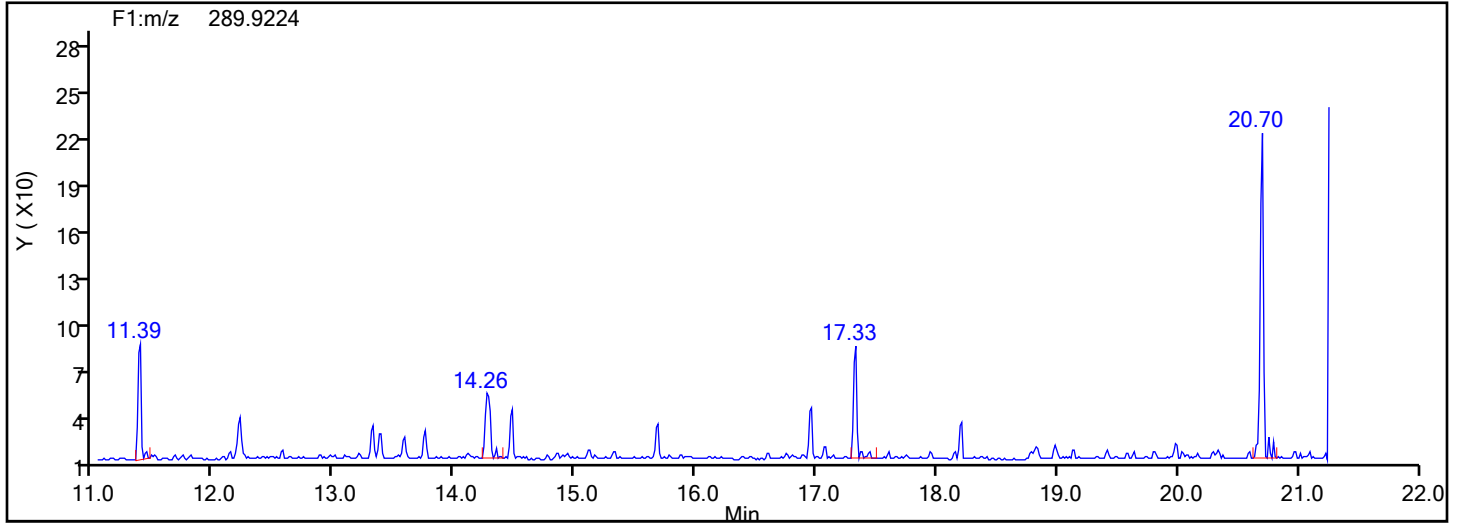
Worklist#: 88747

Sample Line#: 8

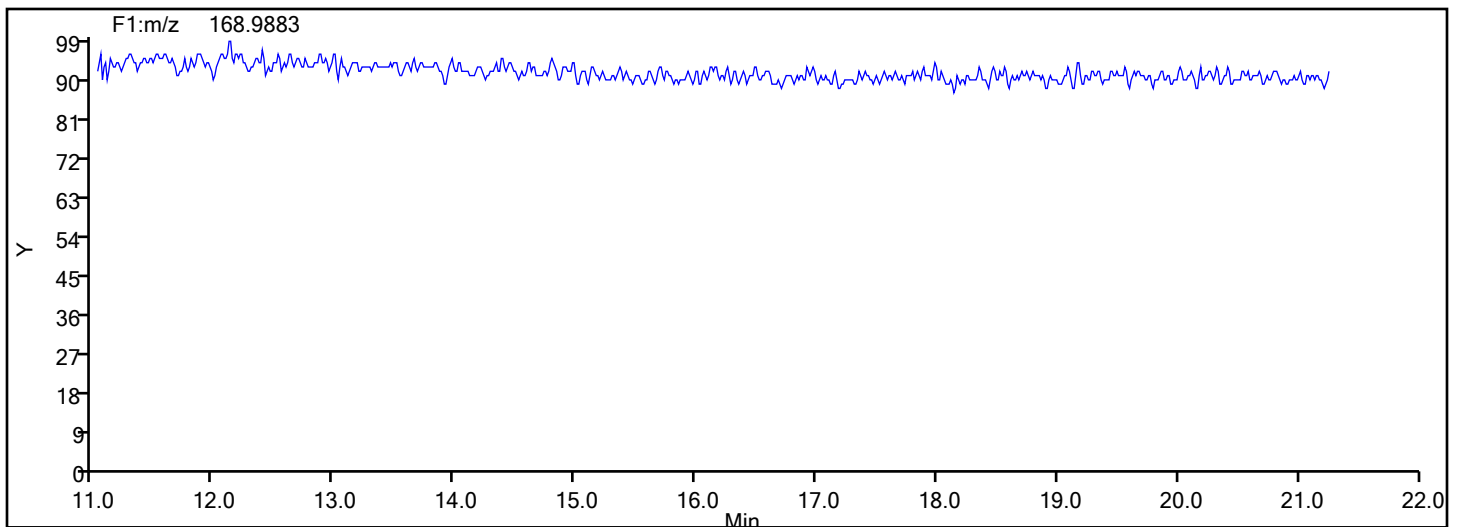
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



TePCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Instrument ID: D2D

Lims ID: MB 140-88193/21-B

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 8

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

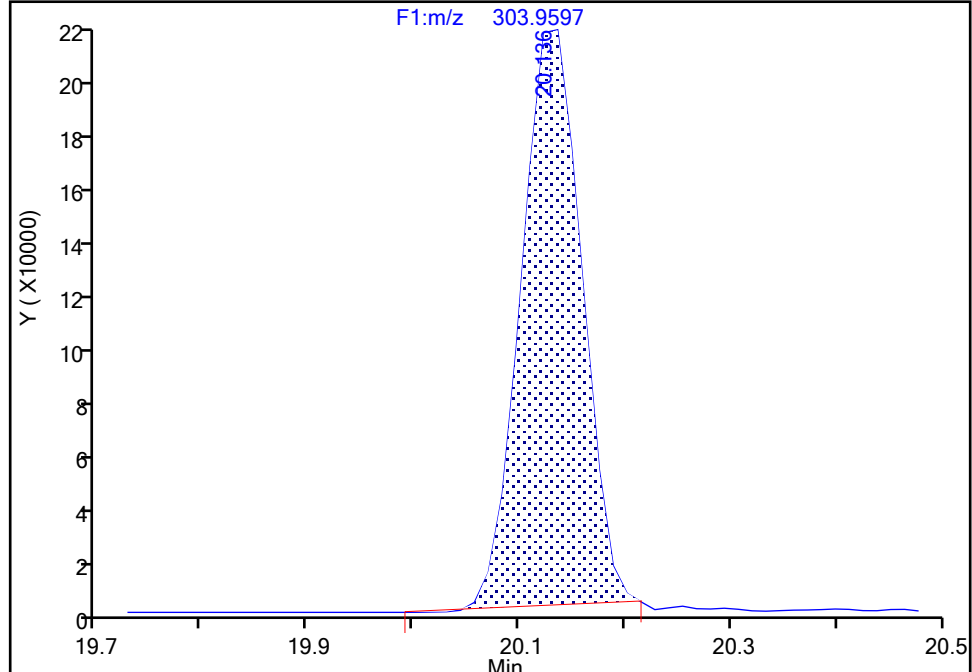
Detector F1(11.07 :21.70 )

**PCB-54L, CAS: 234432-88-3**

Signal: 2

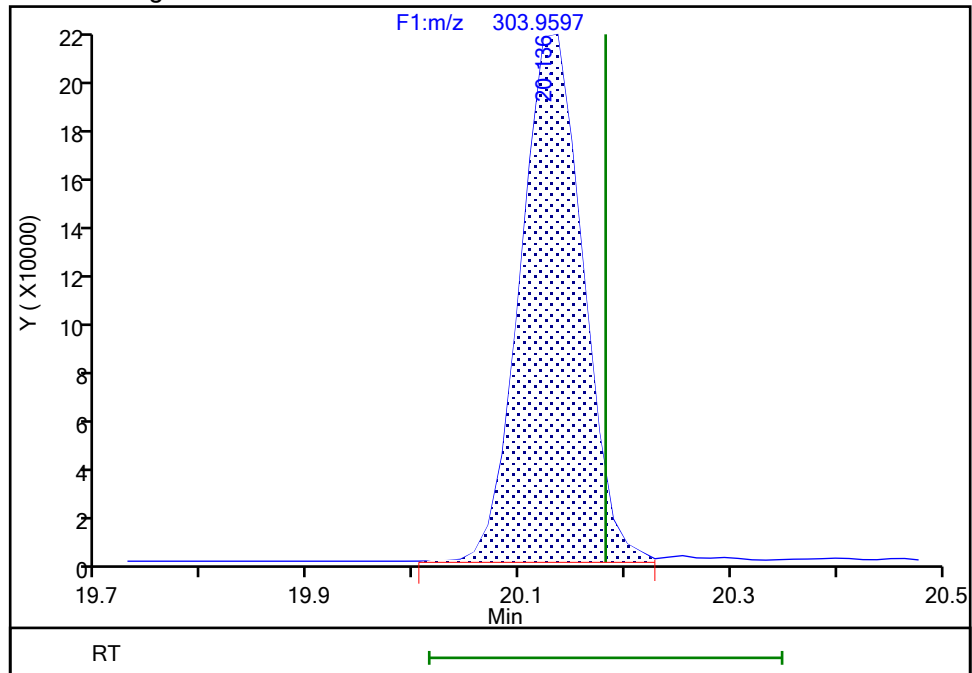
RT: 20.14  
Area: 834120  
Amount: 79.004154  
Amount Units: pg/ul

## Processing Integration Results



RT: 20.14  
Area: 861697  
Amount: 80.403733  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 15-Jul-2024 19:51:52 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

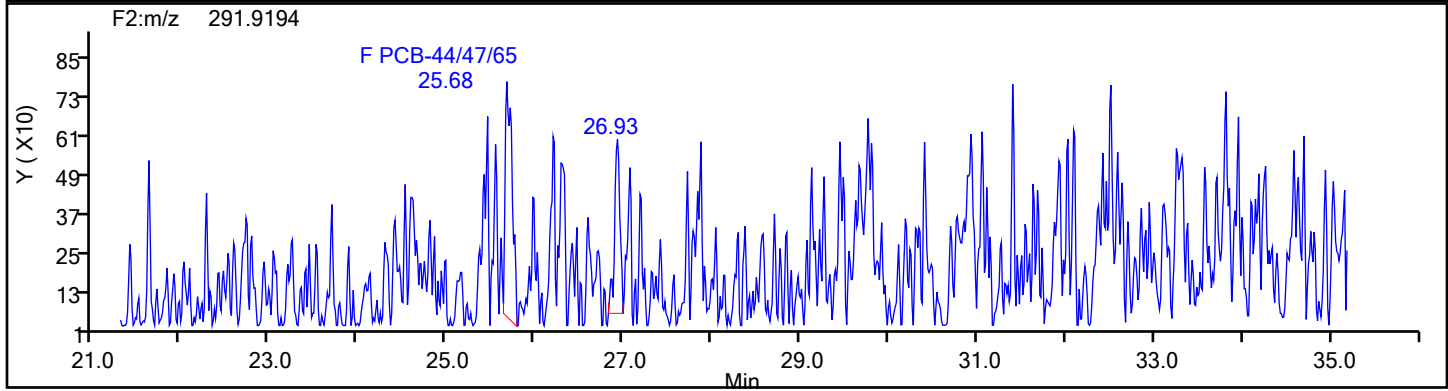
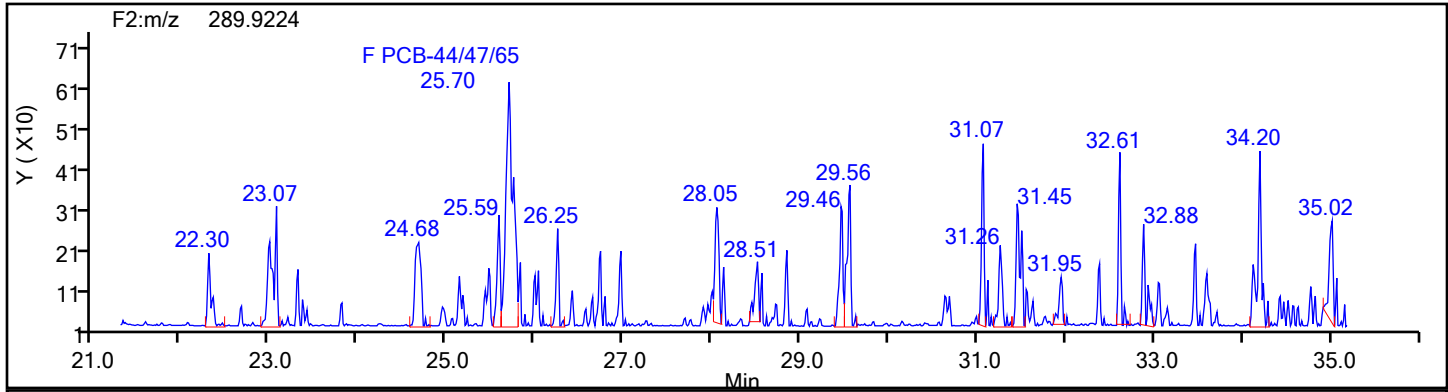
Worklist#: 88747

Sample Line#: 8

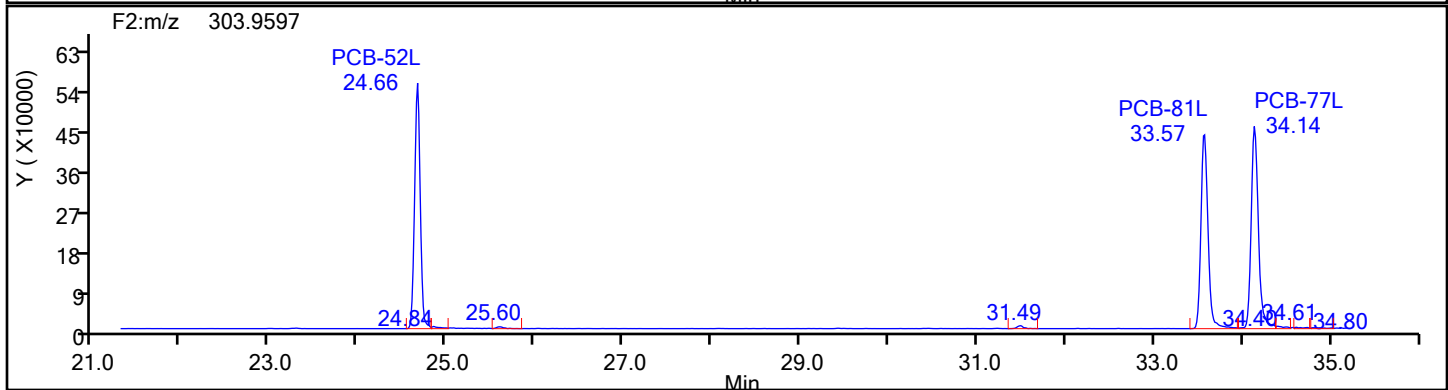
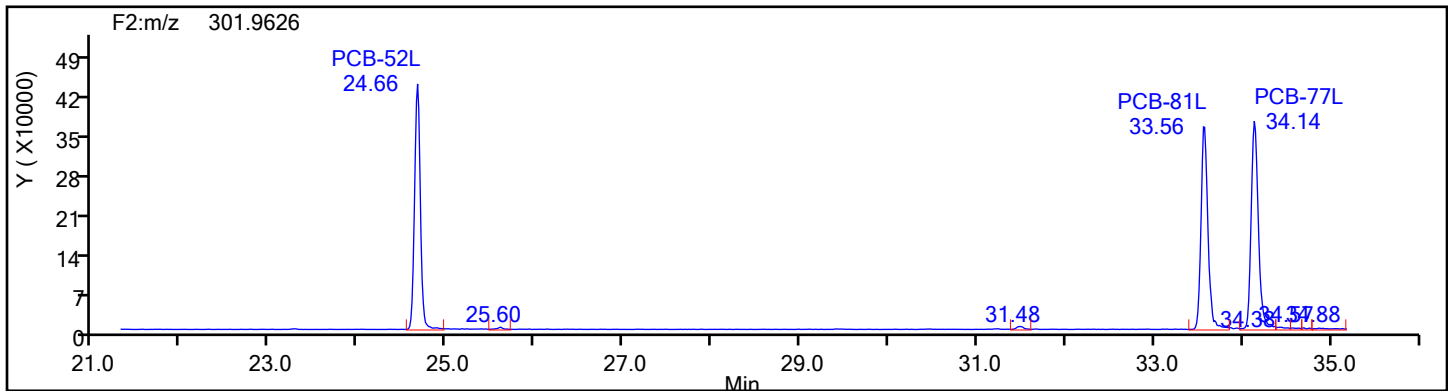
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



TePCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

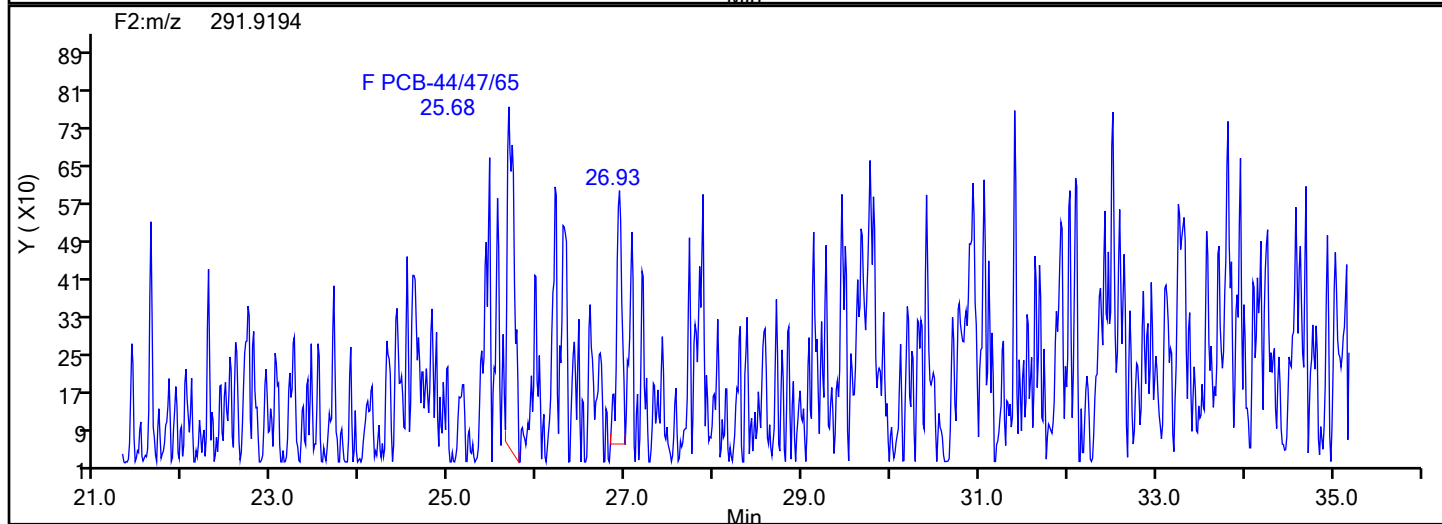
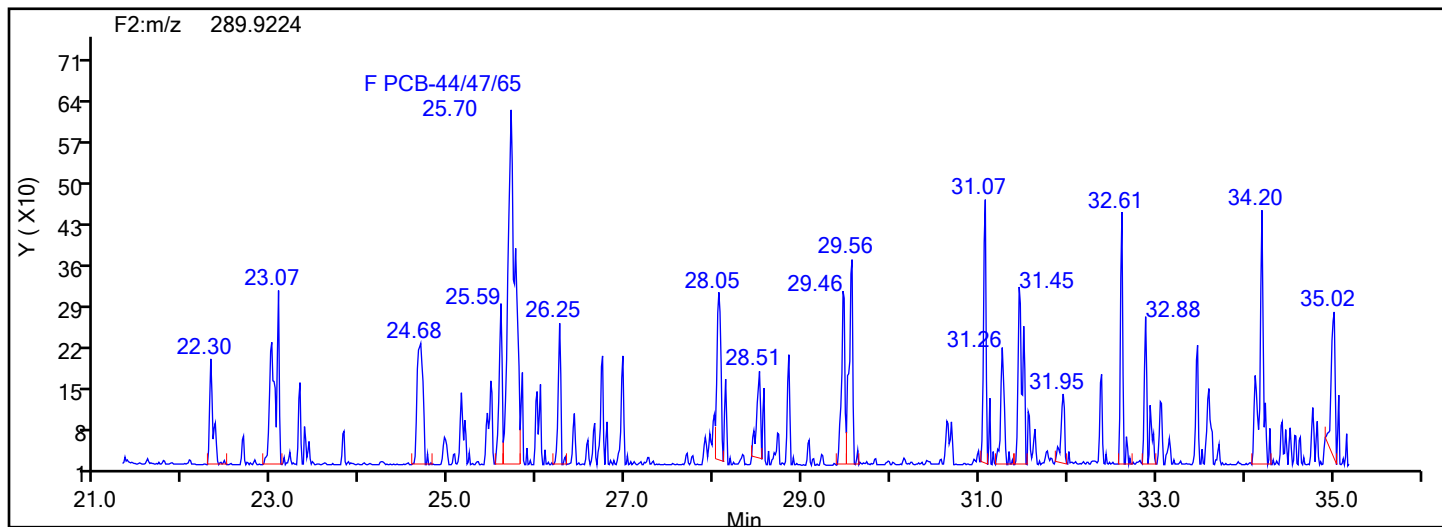
Worklist#: 88747

Sample Line#: 8

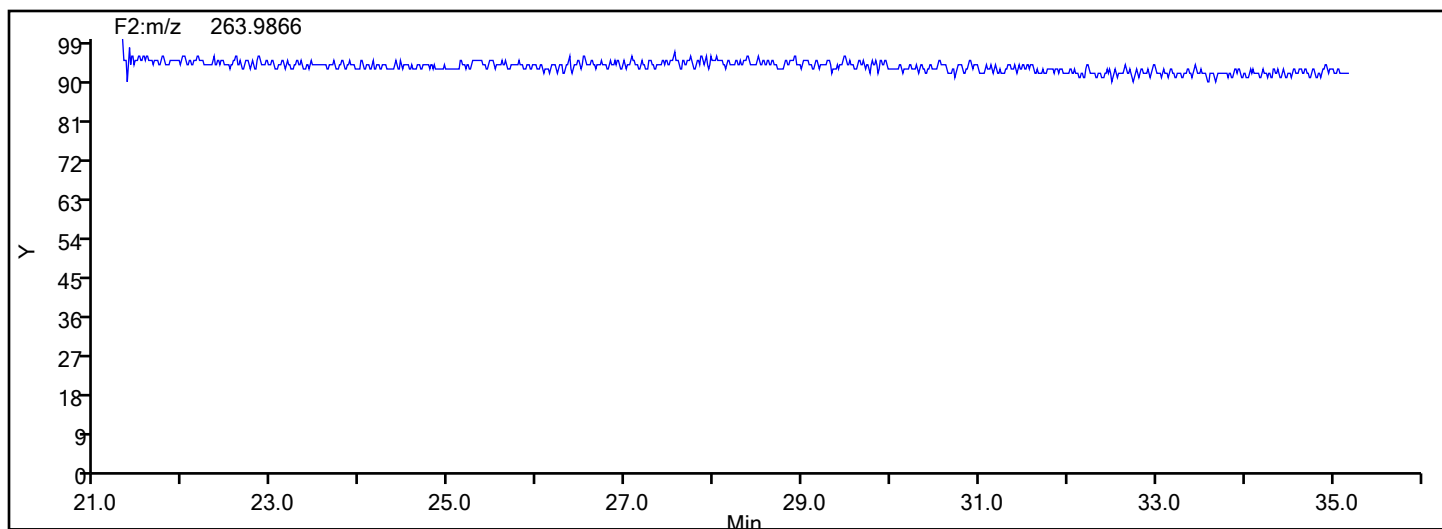
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



TePCB F2 Lock Mass





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

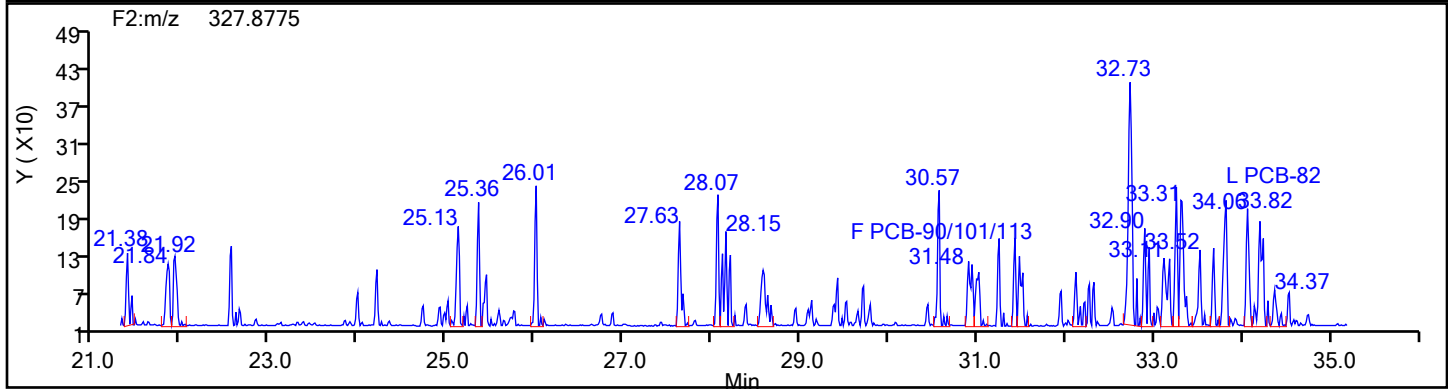
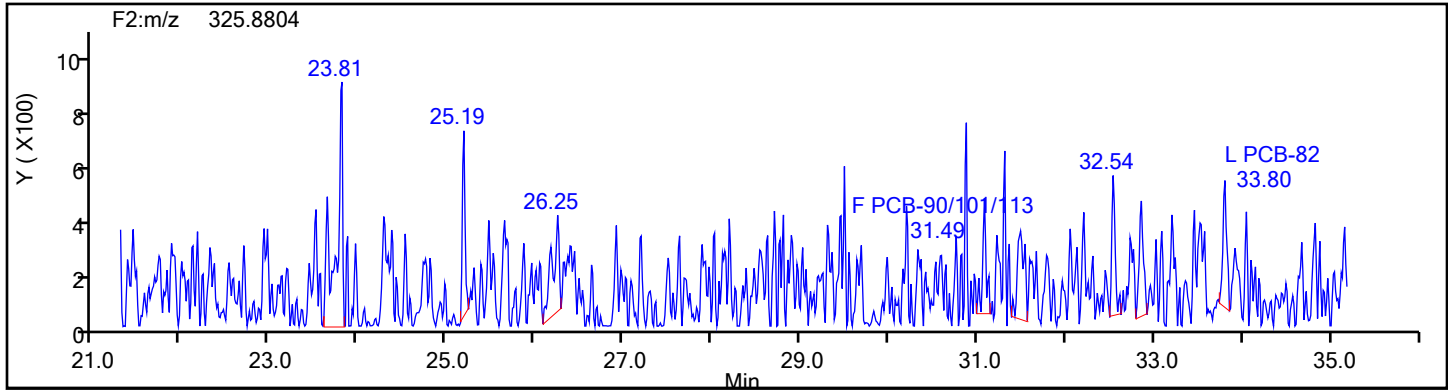
Worklist#: 88747

Sample Line#: 8

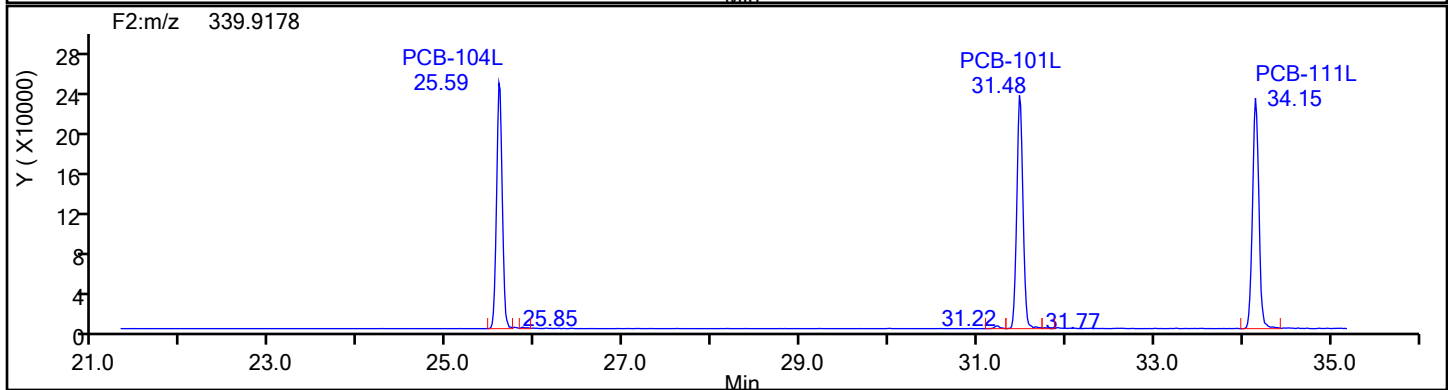
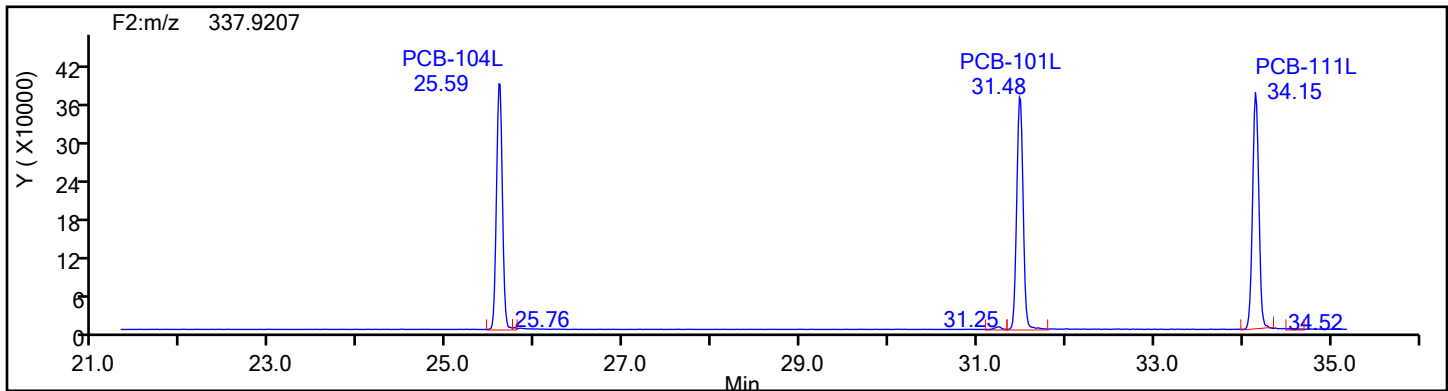
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F2



PePCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

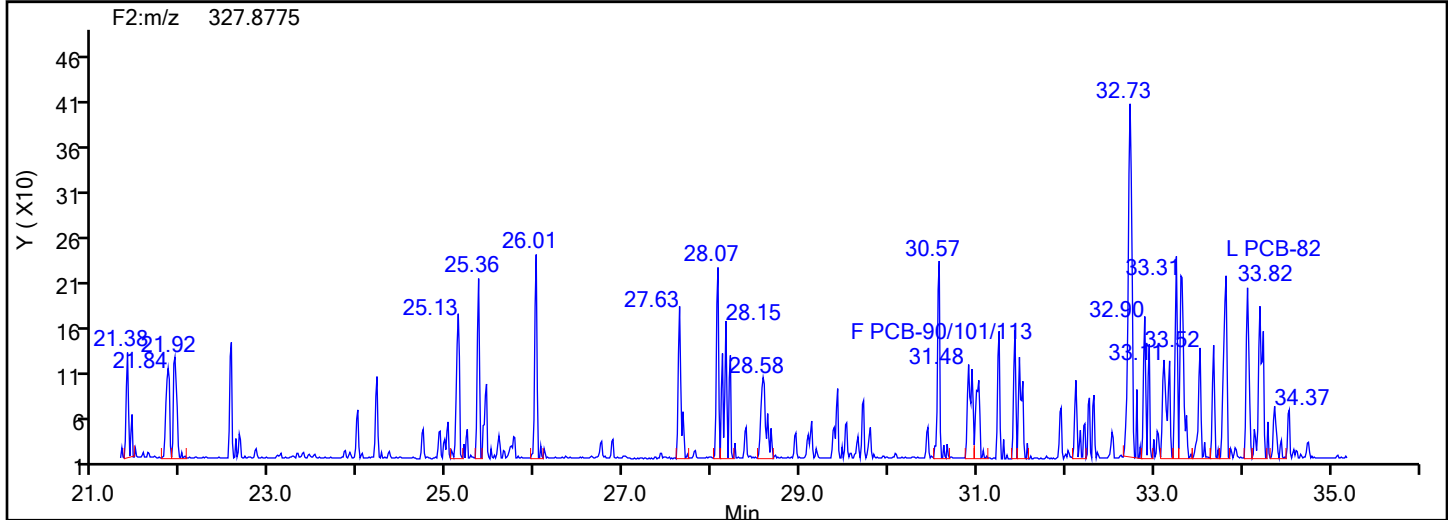
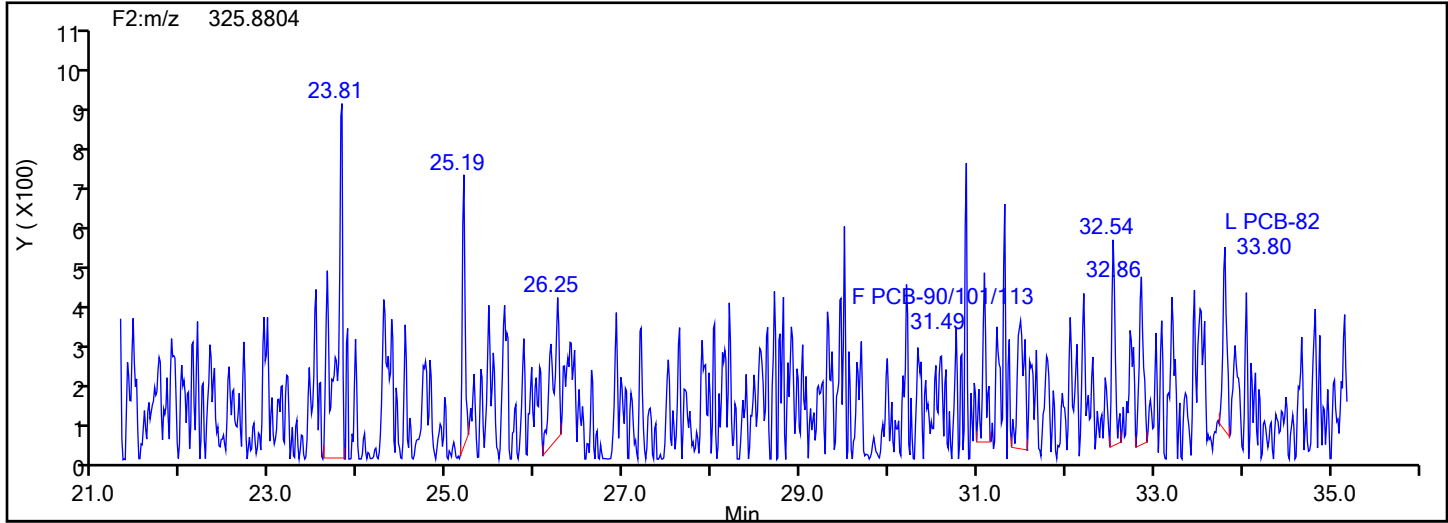
Worklist#: 88747

Sample Line#: 8

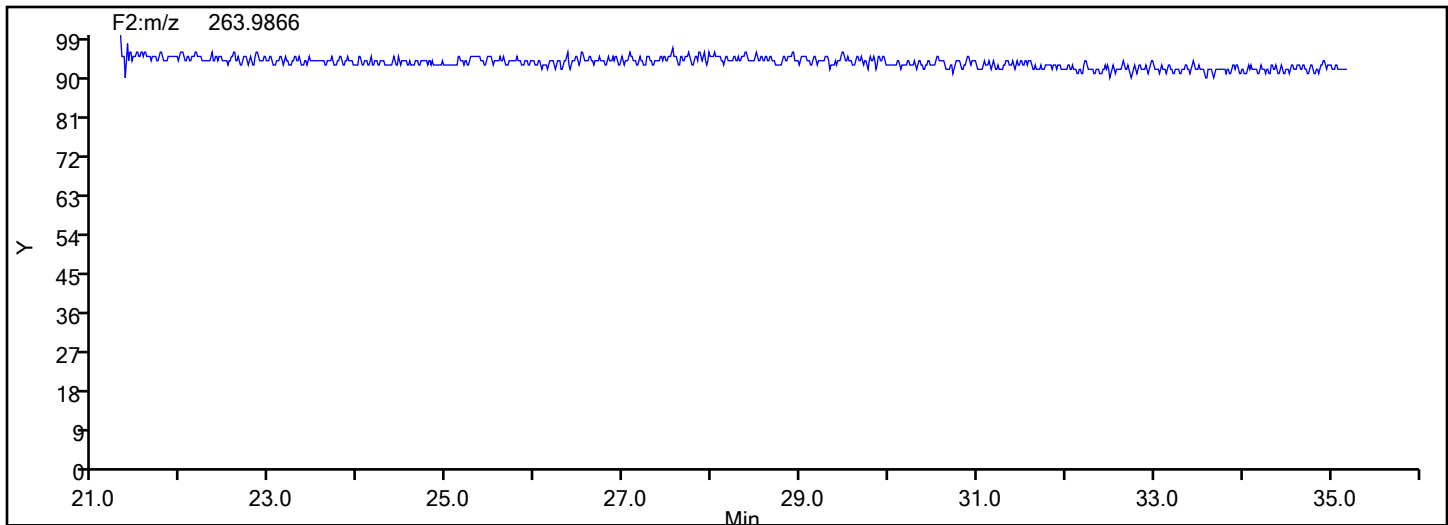
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F2



## PePCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

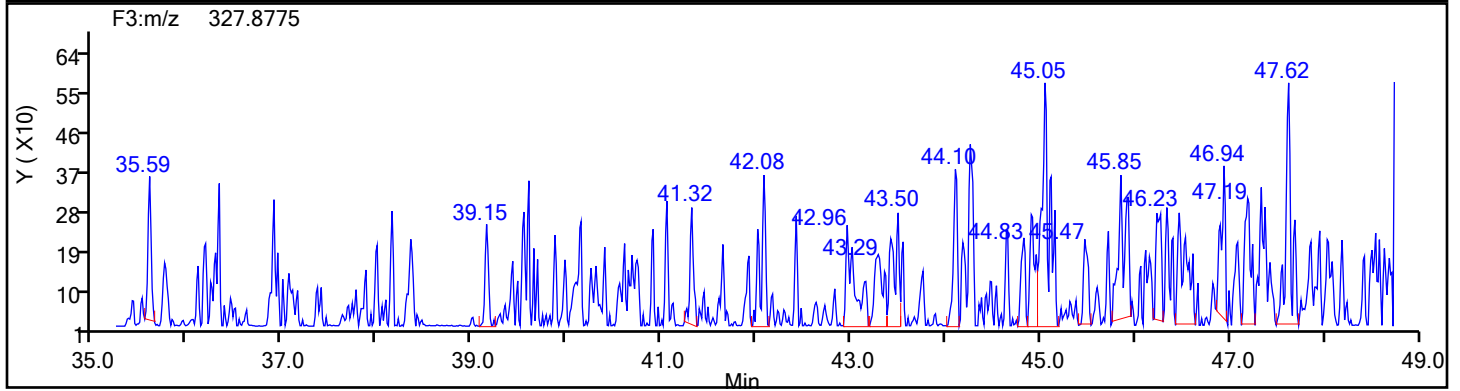
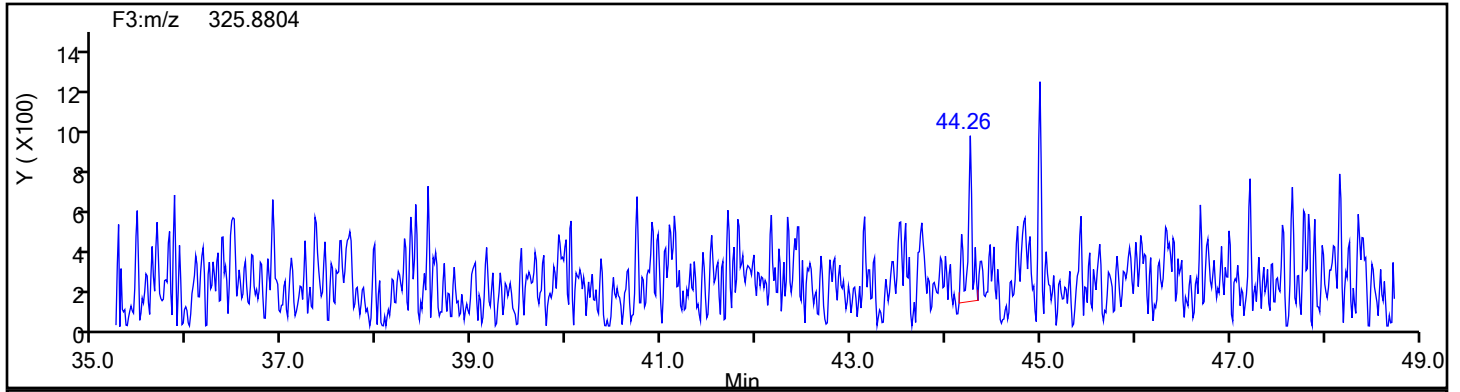
Worklist#: 88747

Sample Line#: 8

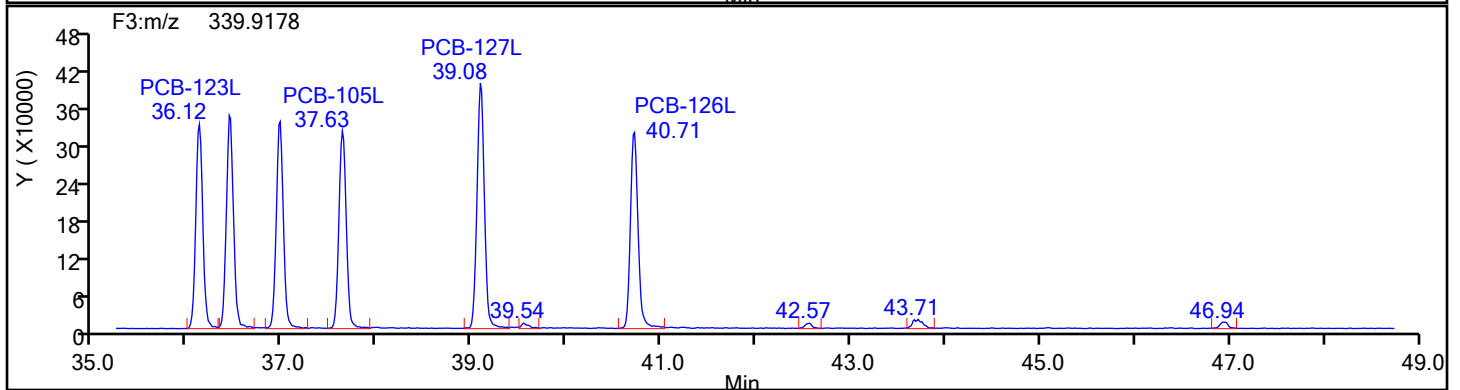
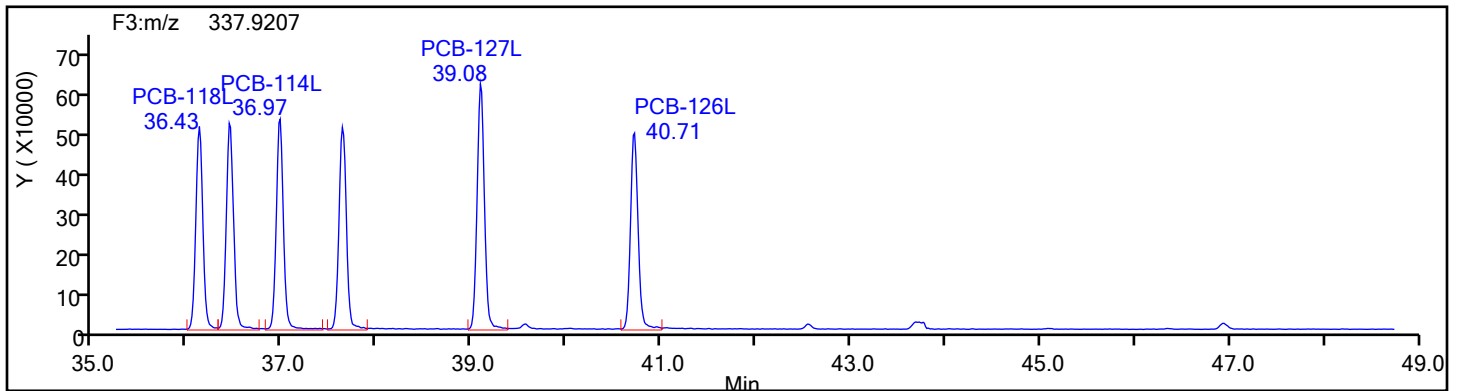
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



## PePCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

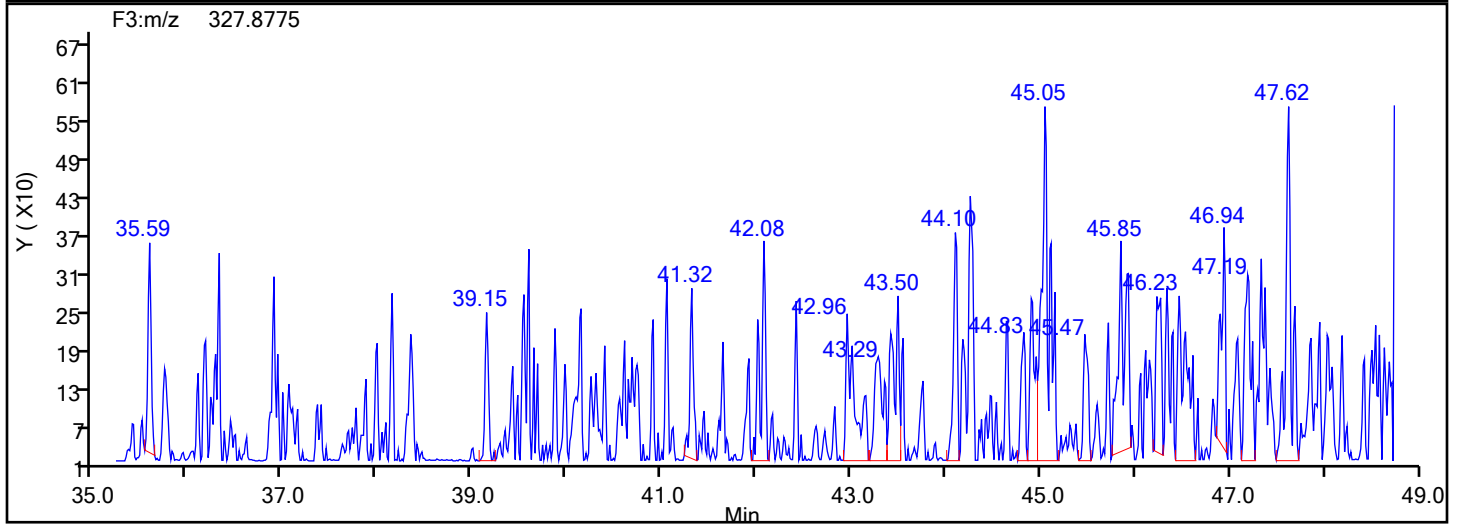
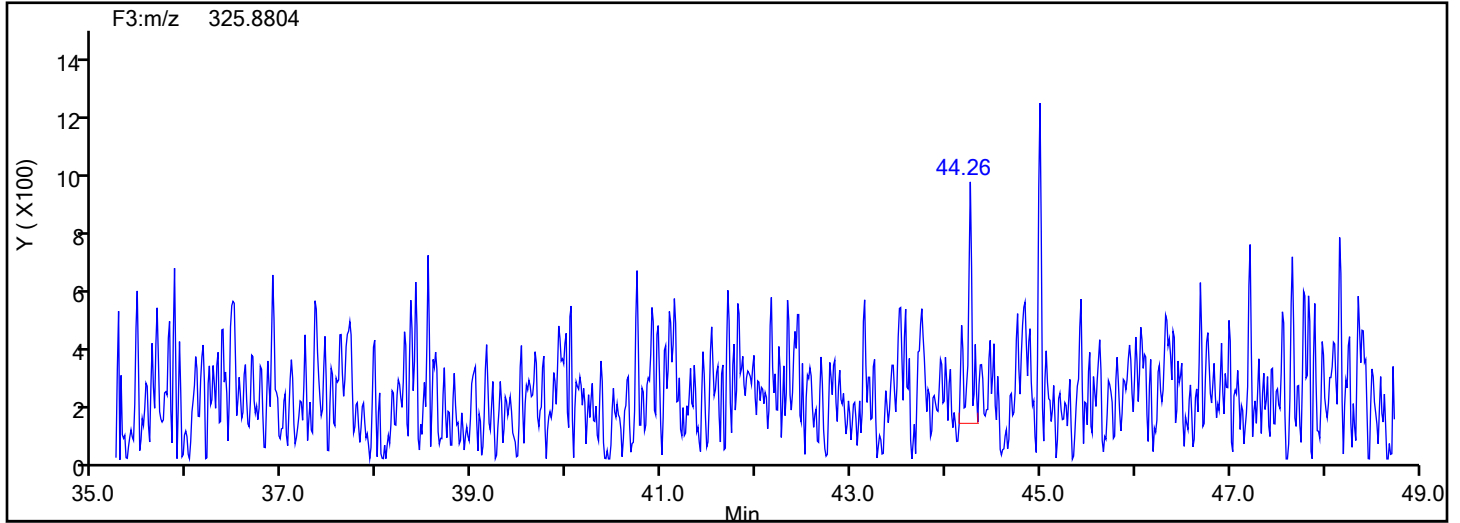
Worklist#: 88747

Sample Line#: 8

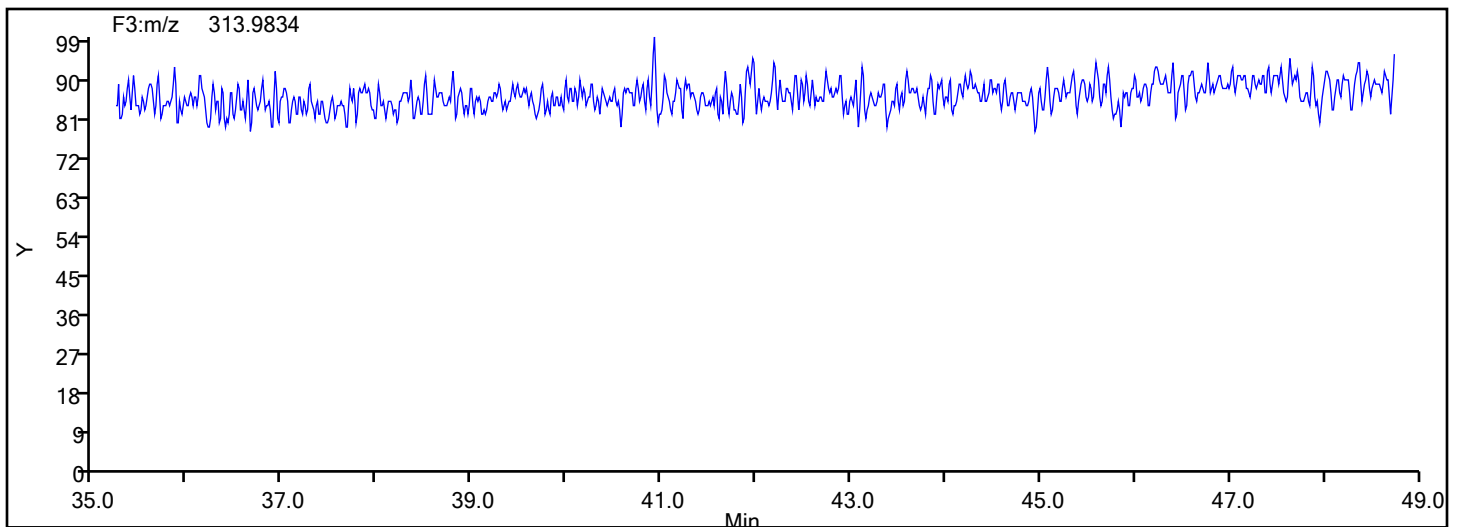
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



## PePCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

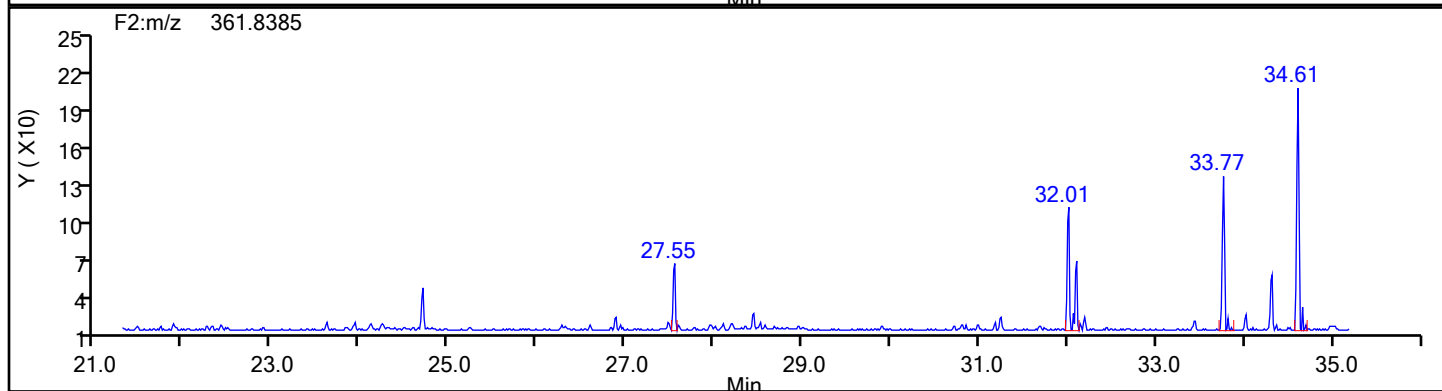
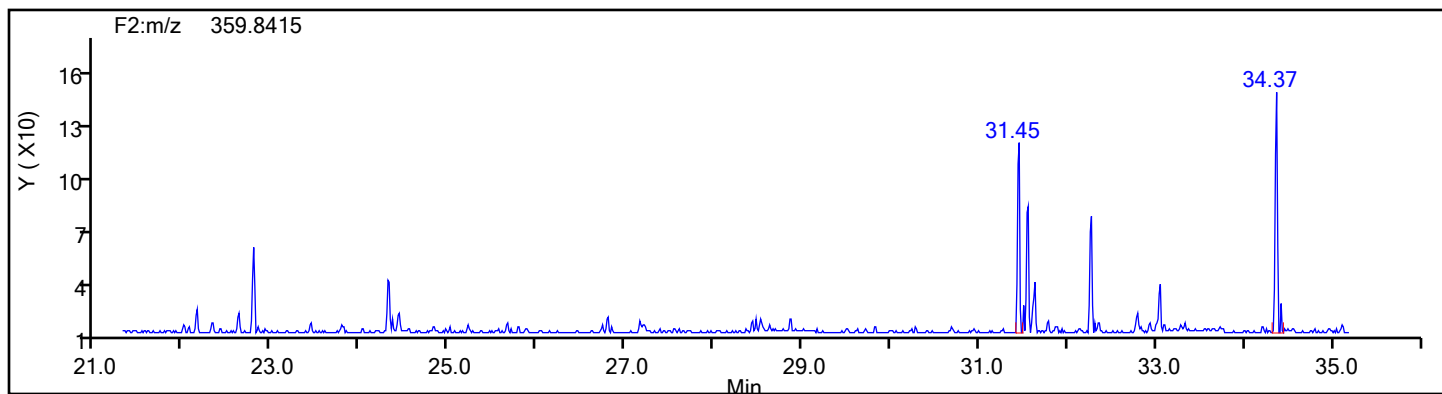
Worklist#: 88747

Sample Line#: 8

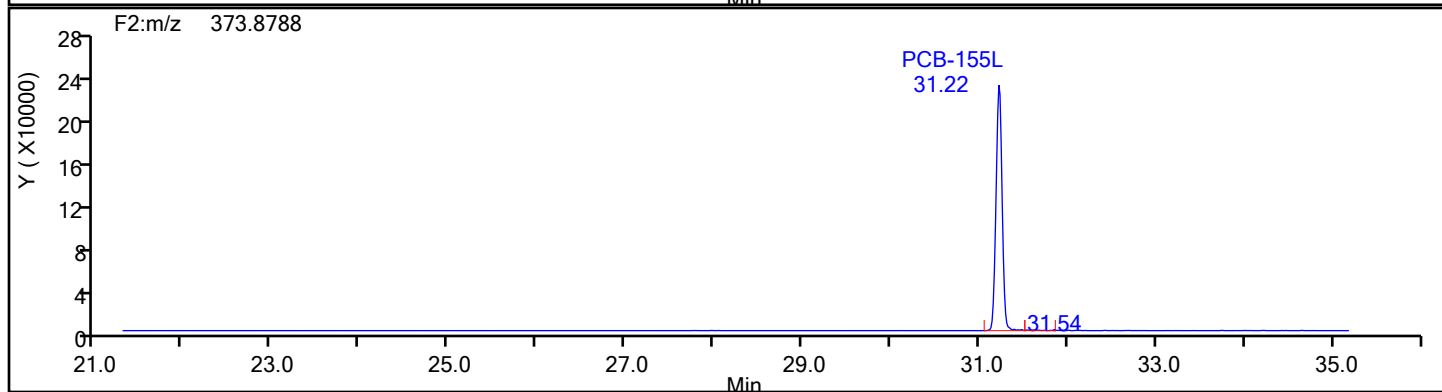
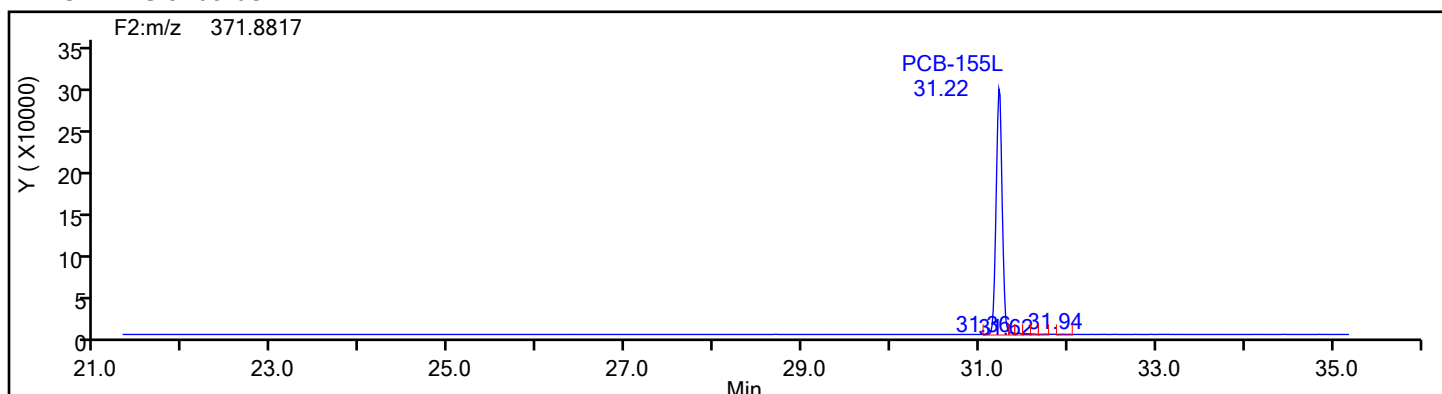
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F2



## HxPCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

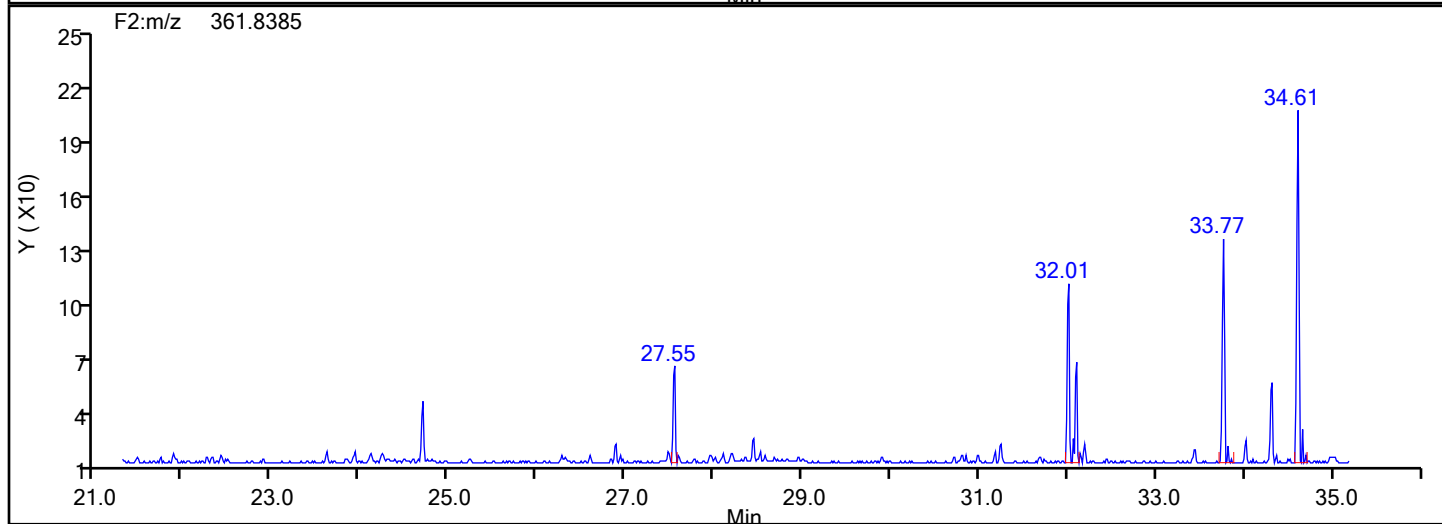
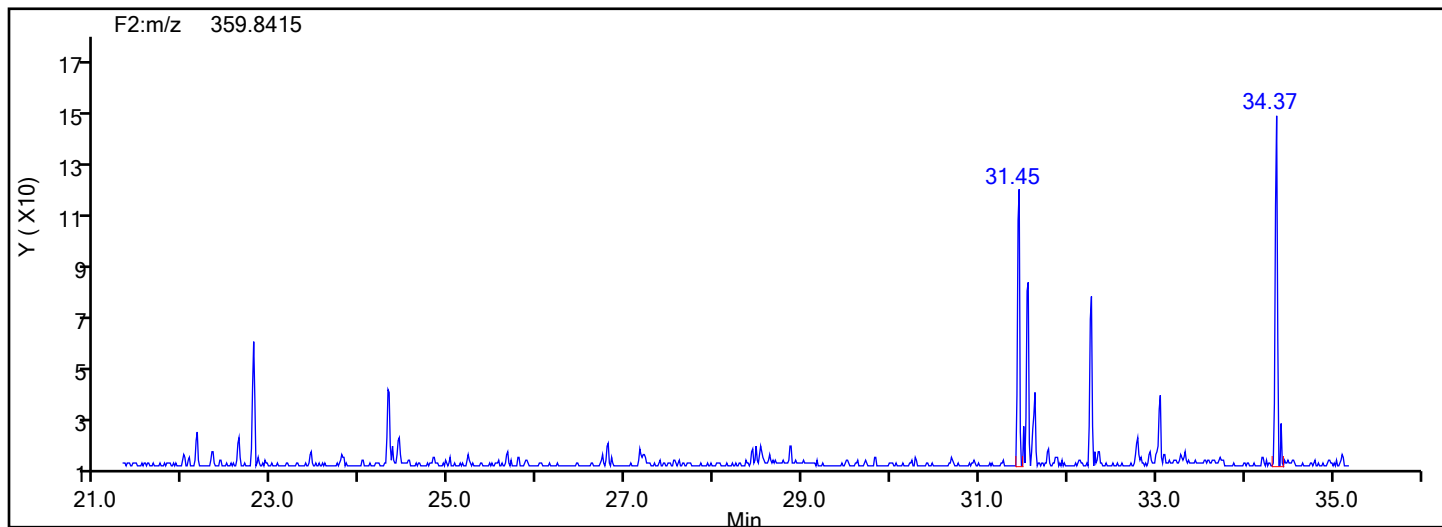
Worklist#: 88747

Sample Line#: 8

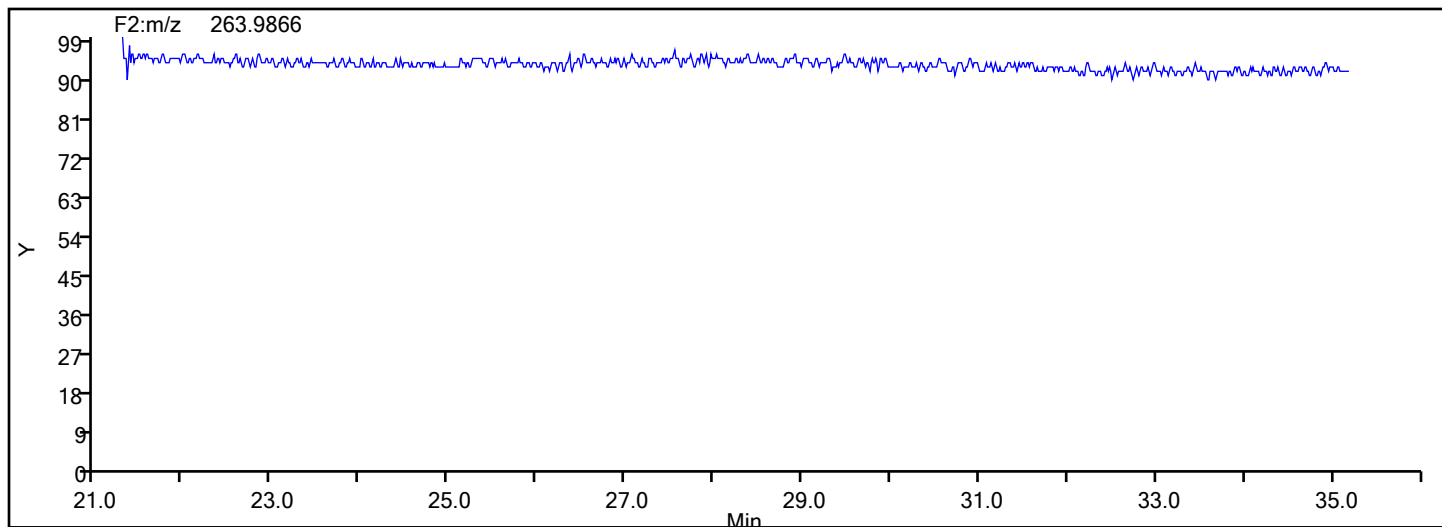
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F2



## HxPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

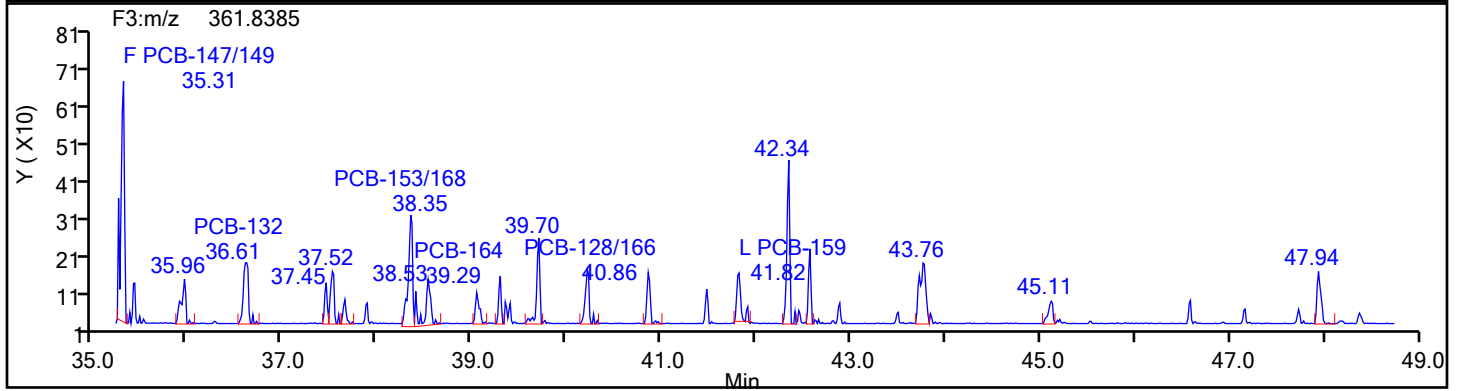
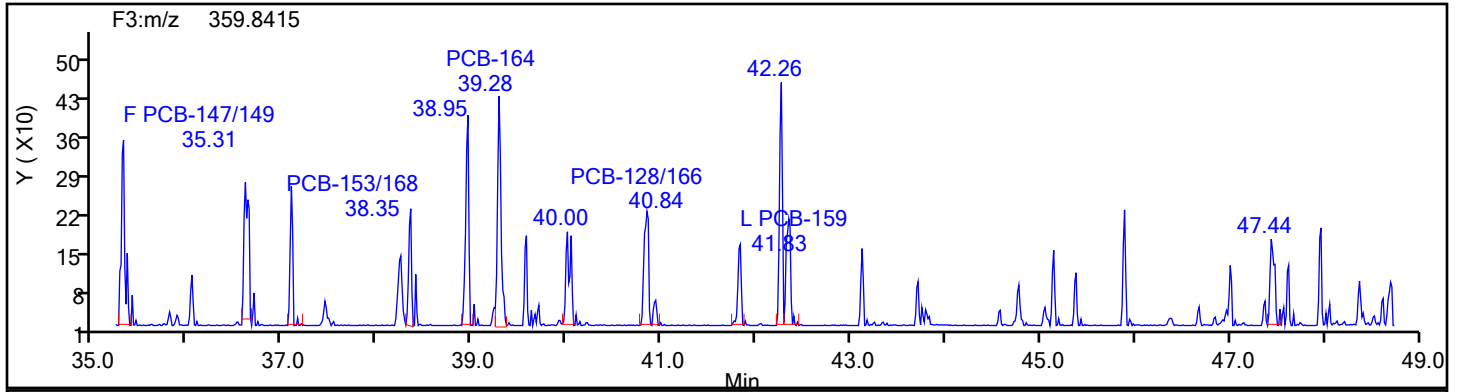
Worklist#: 88747

Sample Line#: 8

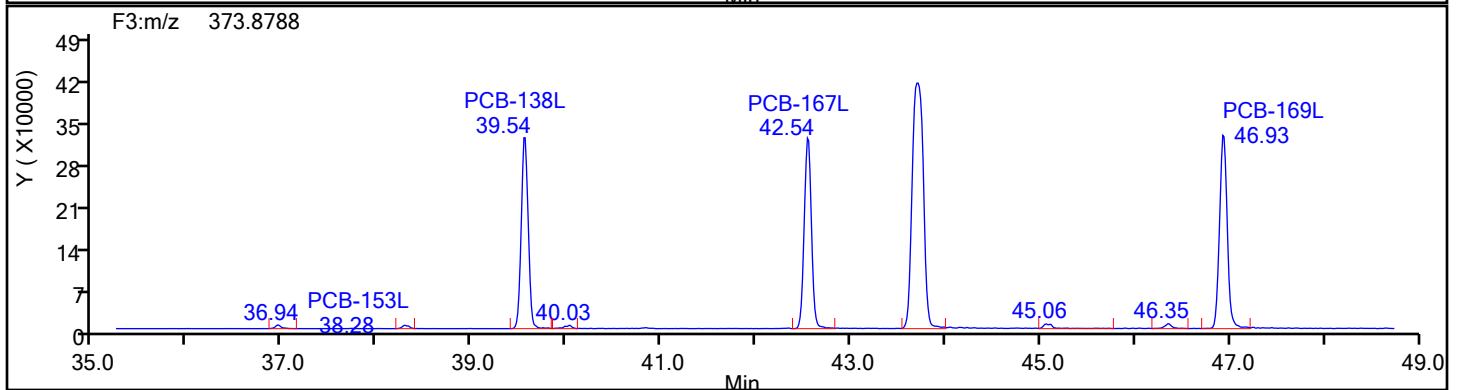
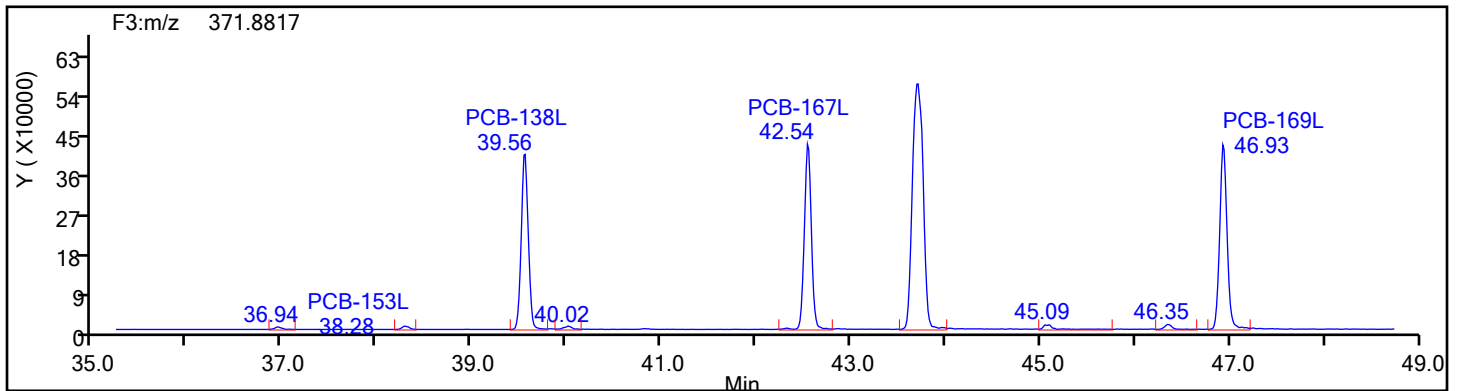
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



HxPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

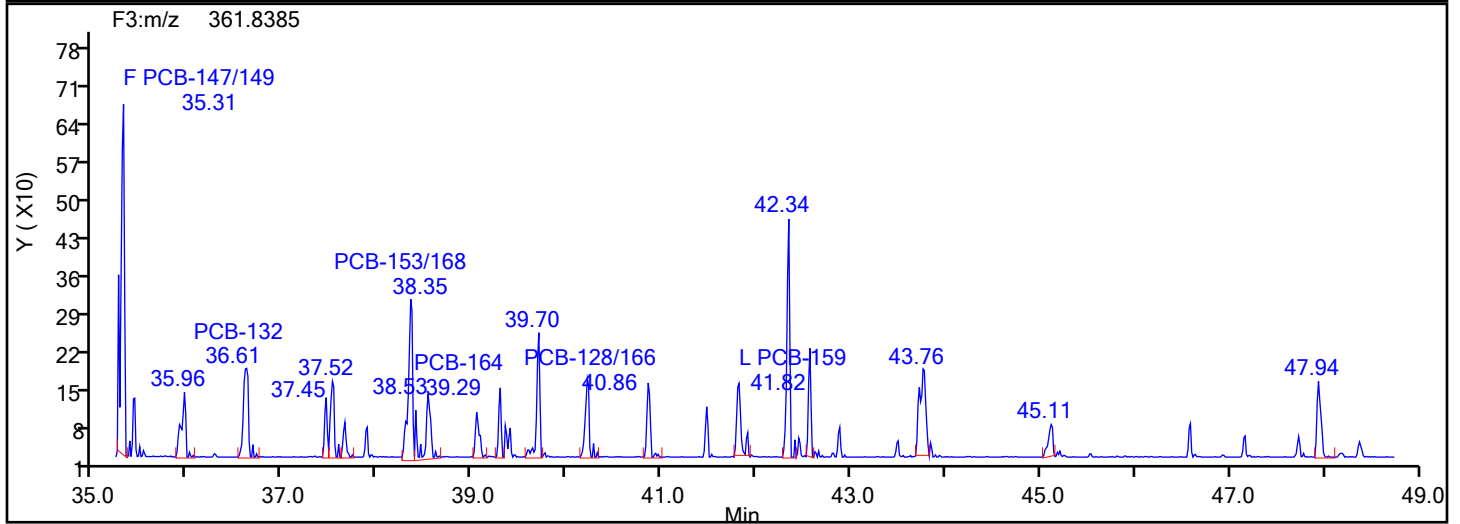
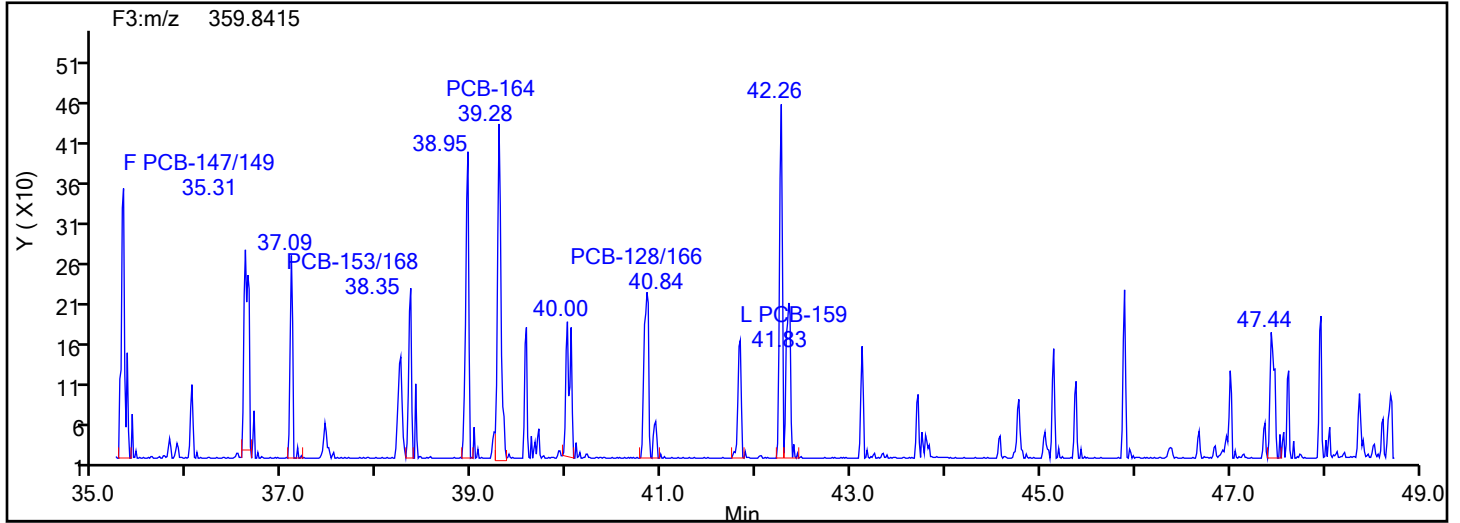
Worklist#: 88747

Sample Line#: 8

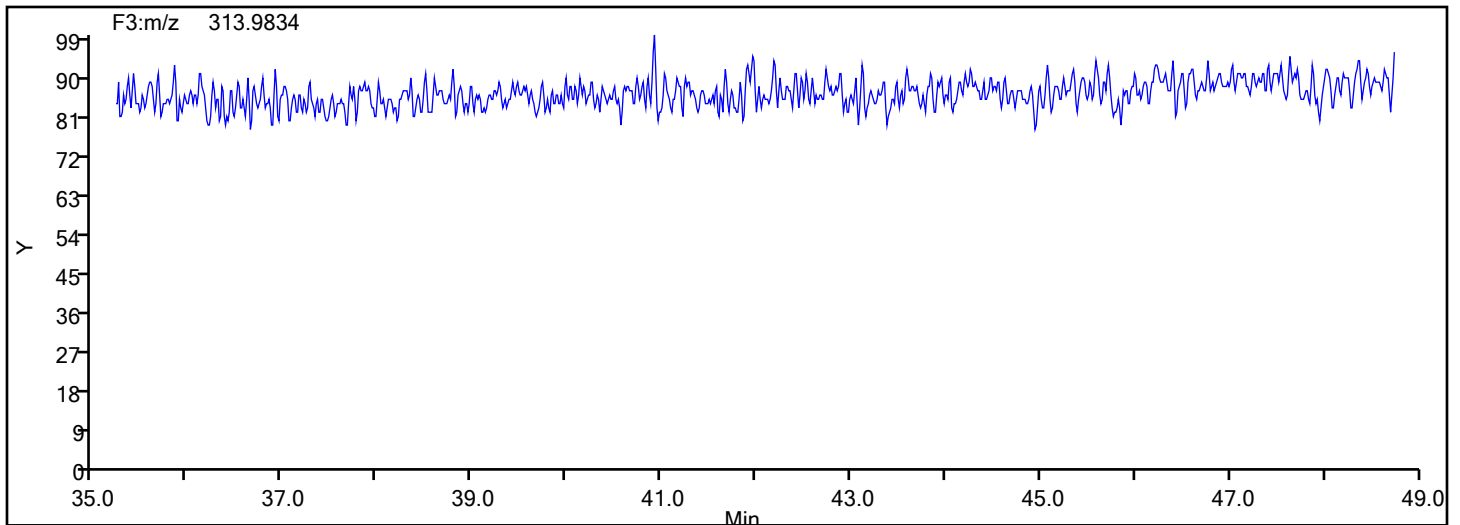
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



## HxPCB F3 Lock Mass





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Instrument ID: D2D

Lims ID: MB 140-88193/21-B

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 8

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

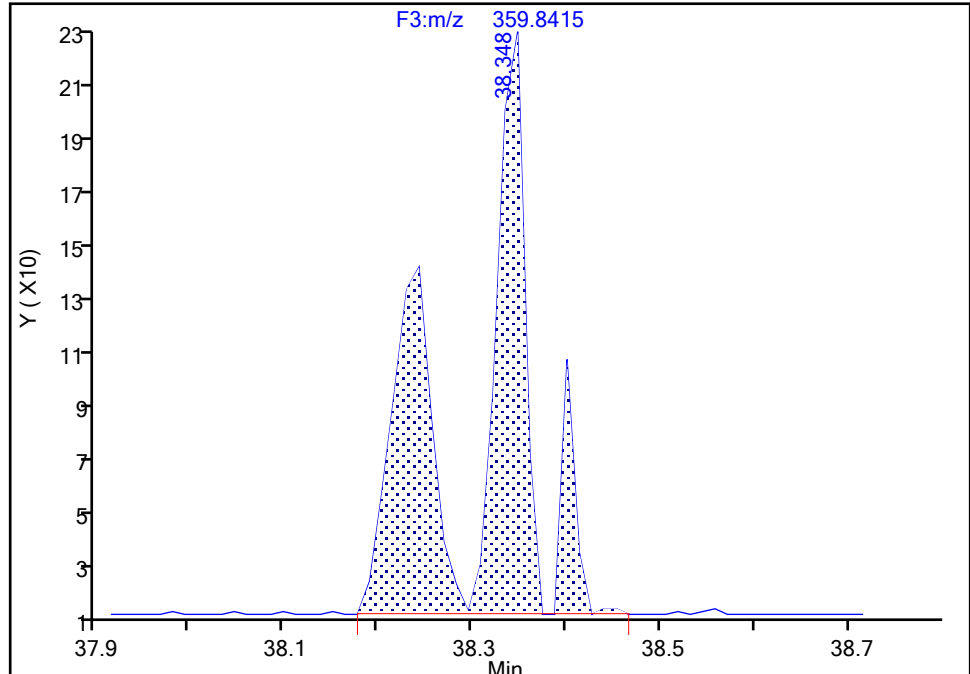
Detector F3(35.64 :49.10 )

**PCB-153/168, CAS: STL01822**

Signal: 1

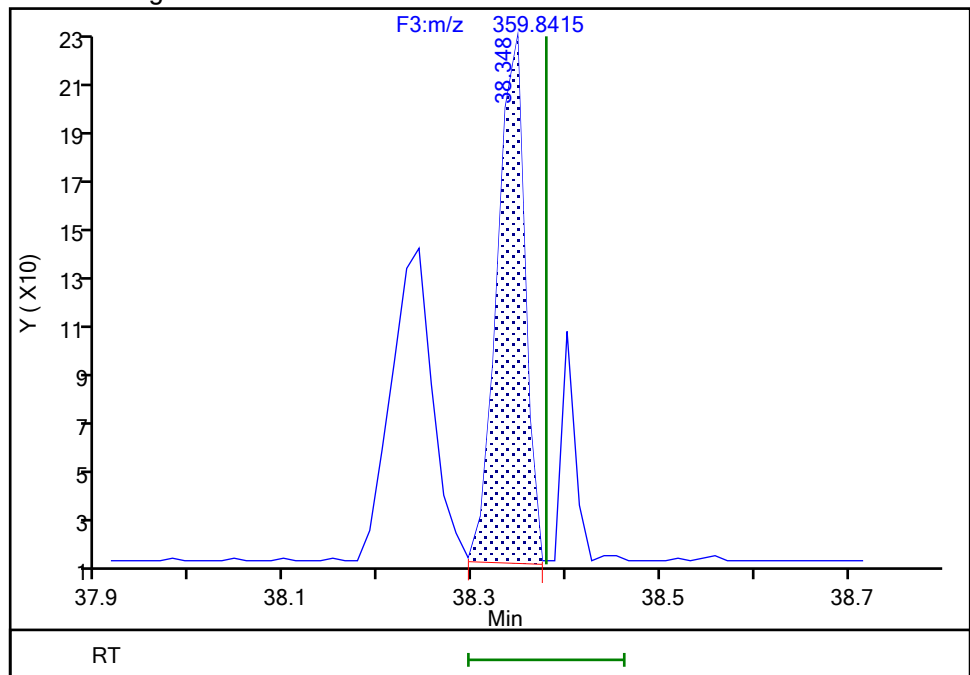
RT: 38.35  
Area: 899  
Amount: 0.040833  
Amount Units: pg/ul

## Processing Integration Results



RT: 38.35  
Area: 429  
Amount: 0.031548  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 15-Jul-2024 19:53:14 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

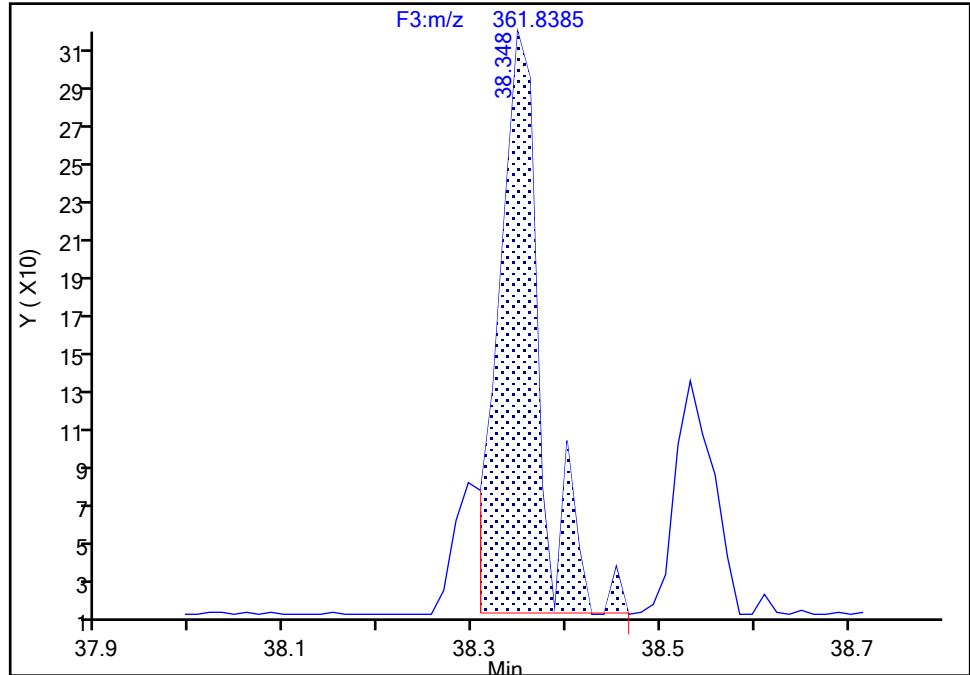
Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d  
Injection Date: 15-Jul-2024 16:31:00 Instrument ID: D2D  
Lims ID: MB 140-88193/21-B  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-153/168, CAS: STL01822

Signal: 2

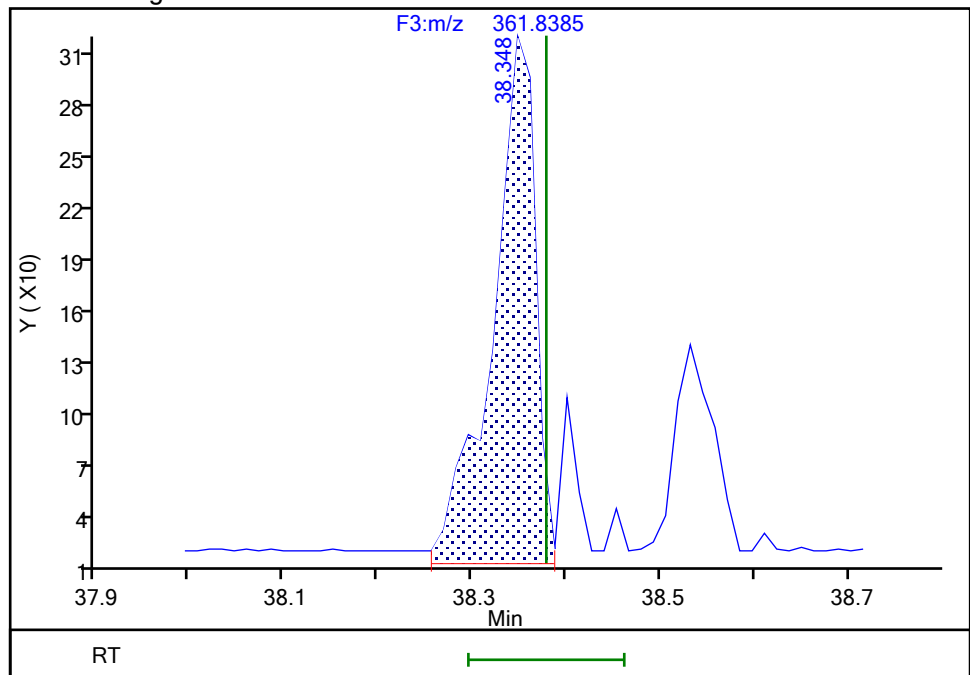
RT: 38.35  
Area: 882  
Amount: 0.040833  
Amount Units: pg/ul

## Processing Integration Results



RT: 38.35  
Area: 947  
Amount: 0.031548  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 15-Jul-2024 19:53:21 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

Page 3027 of 3199

BASFHWC-Pass 20240715  
9/6/2024 4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

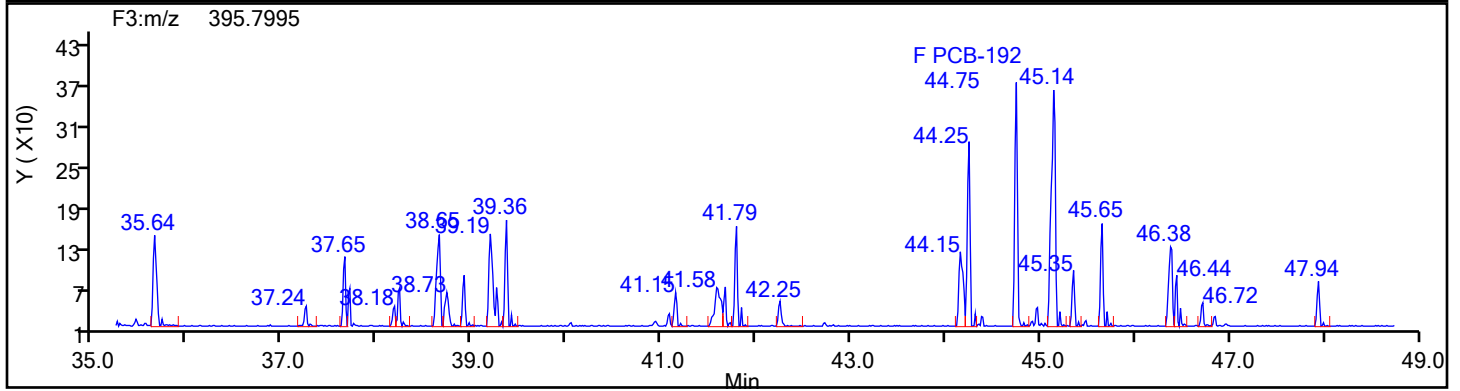
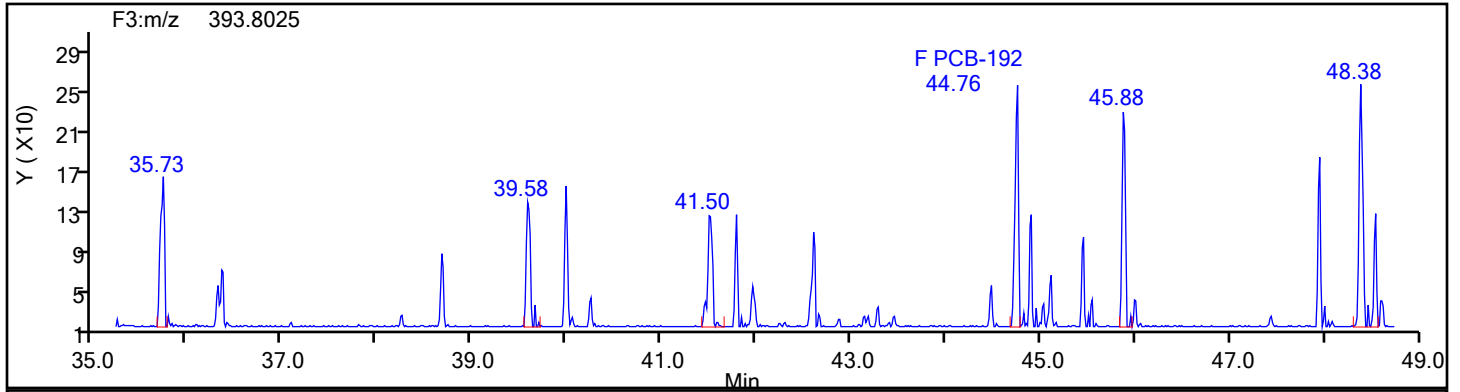
Worklist#: 88747

Sample Line#: 8

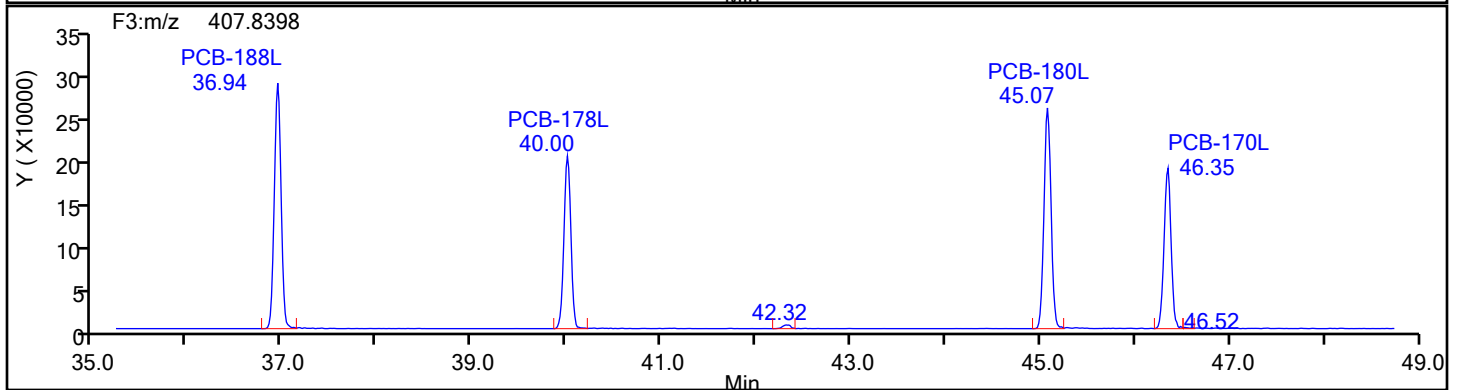
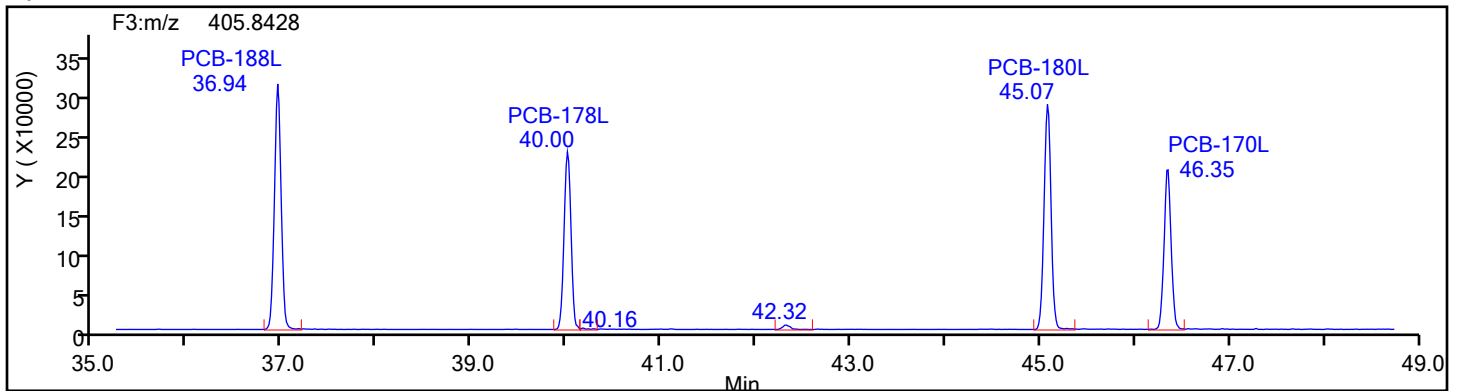
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



HpPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

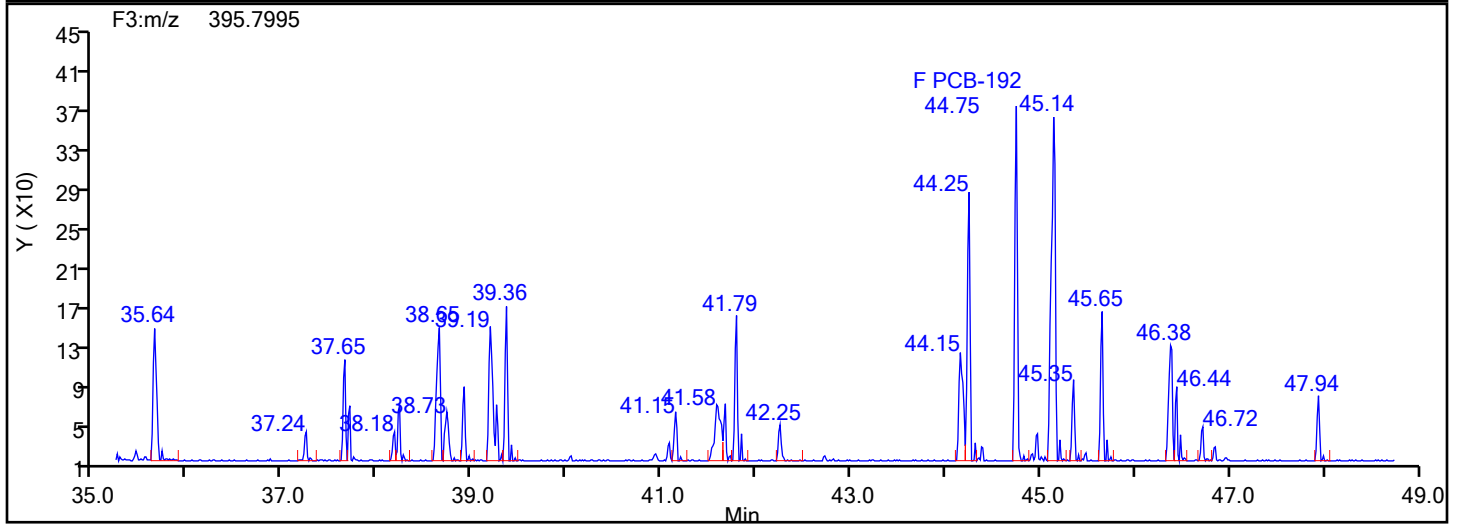
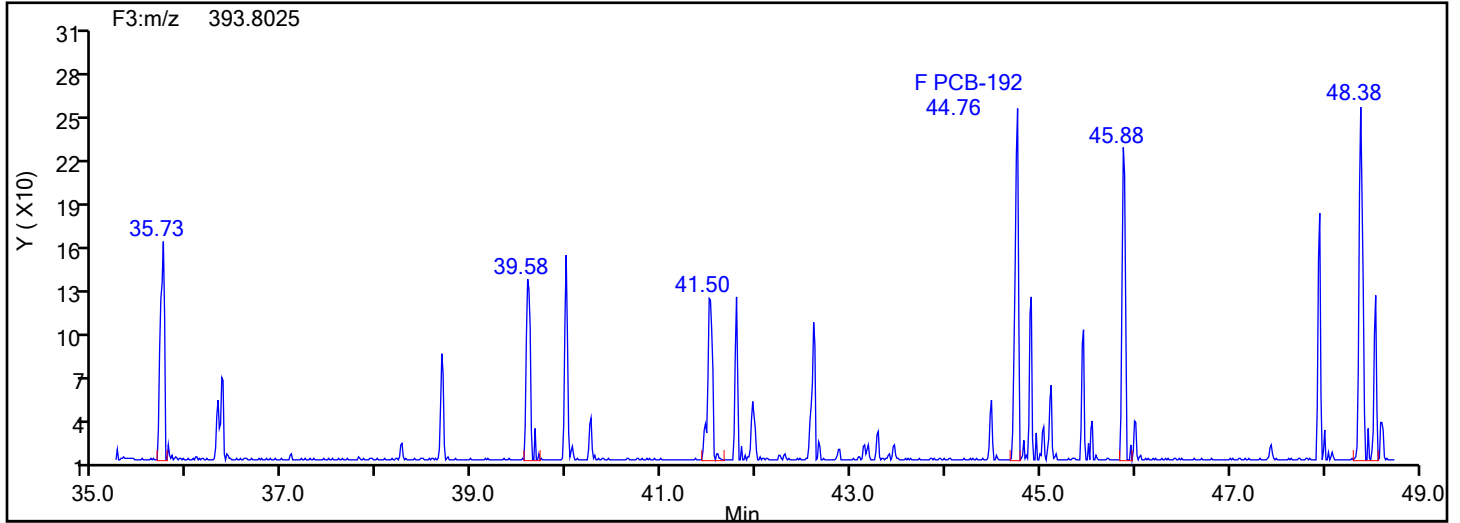
Worklist#: 88747

Sample Line#: 8

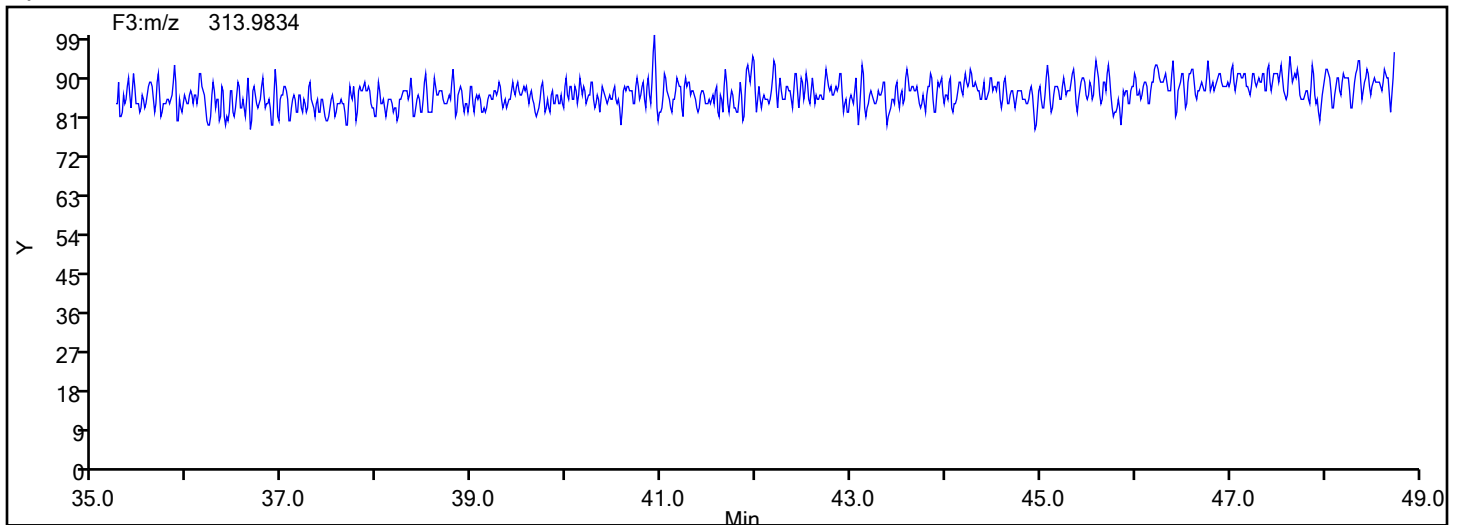
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



HpPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

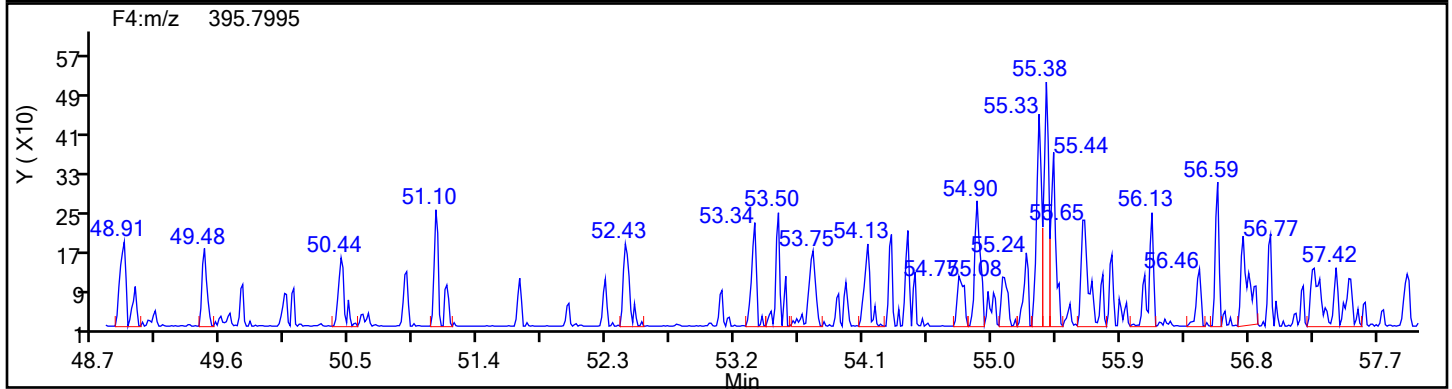
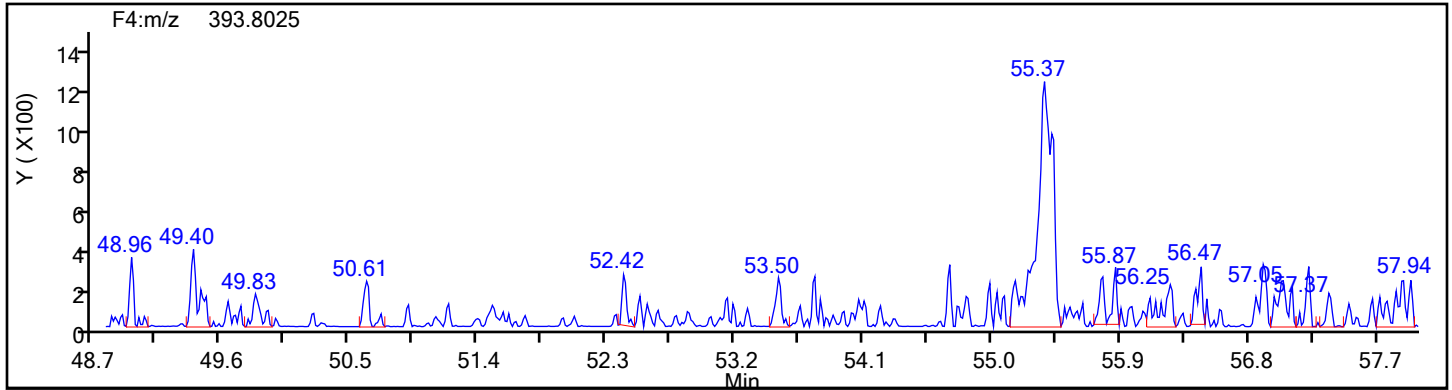
Worklist#: 88747

Sample Line#: 8

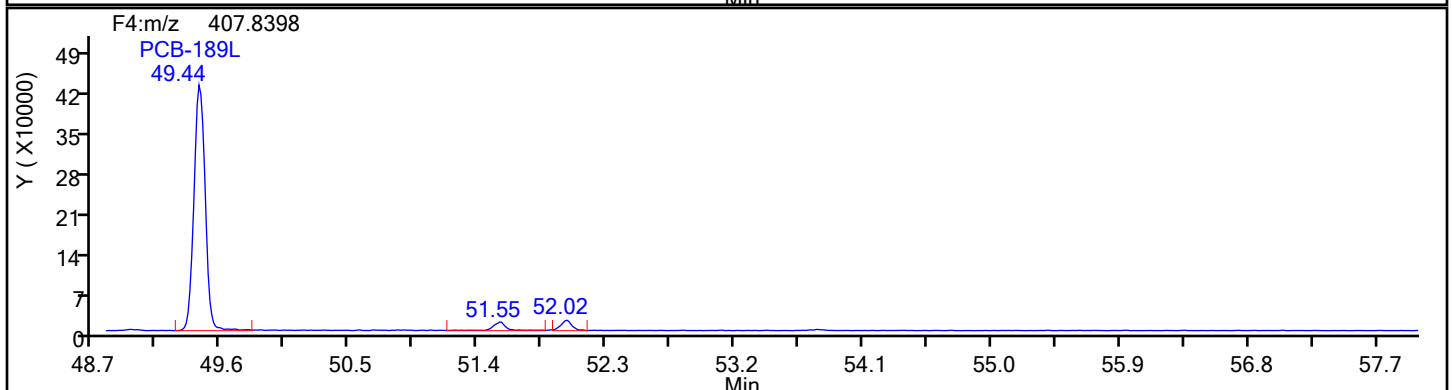
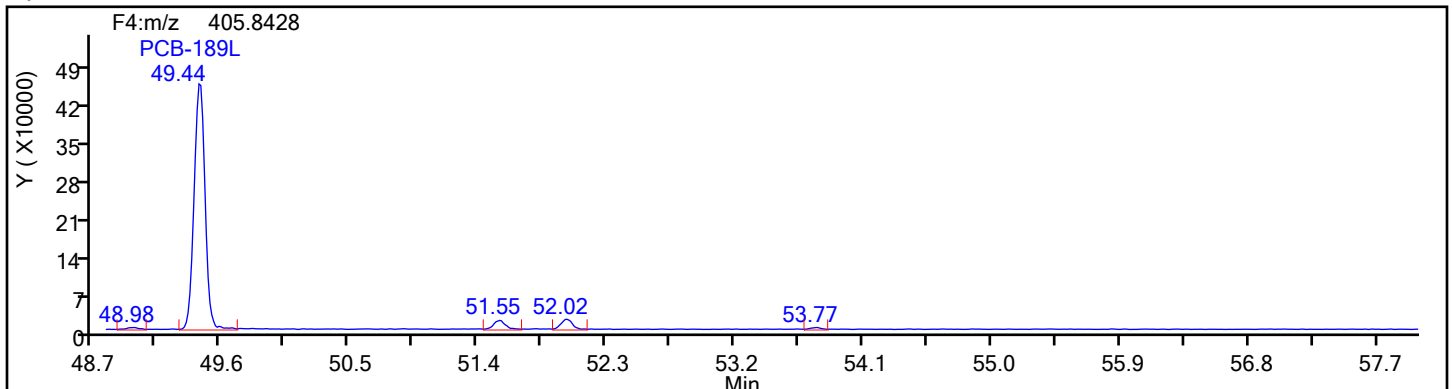
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

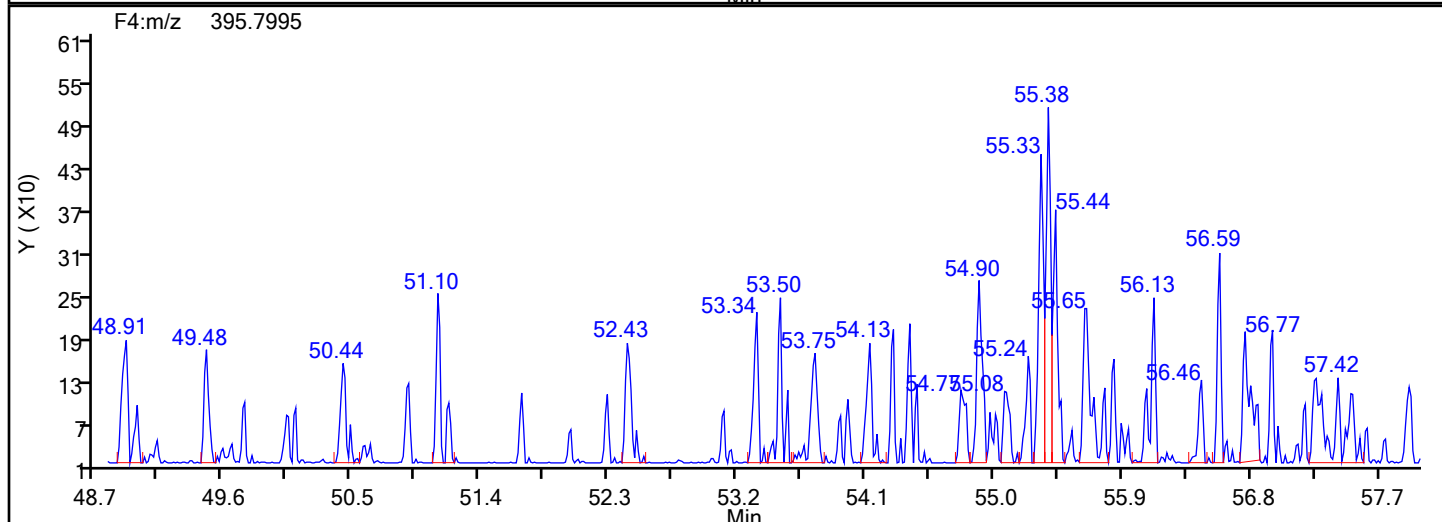
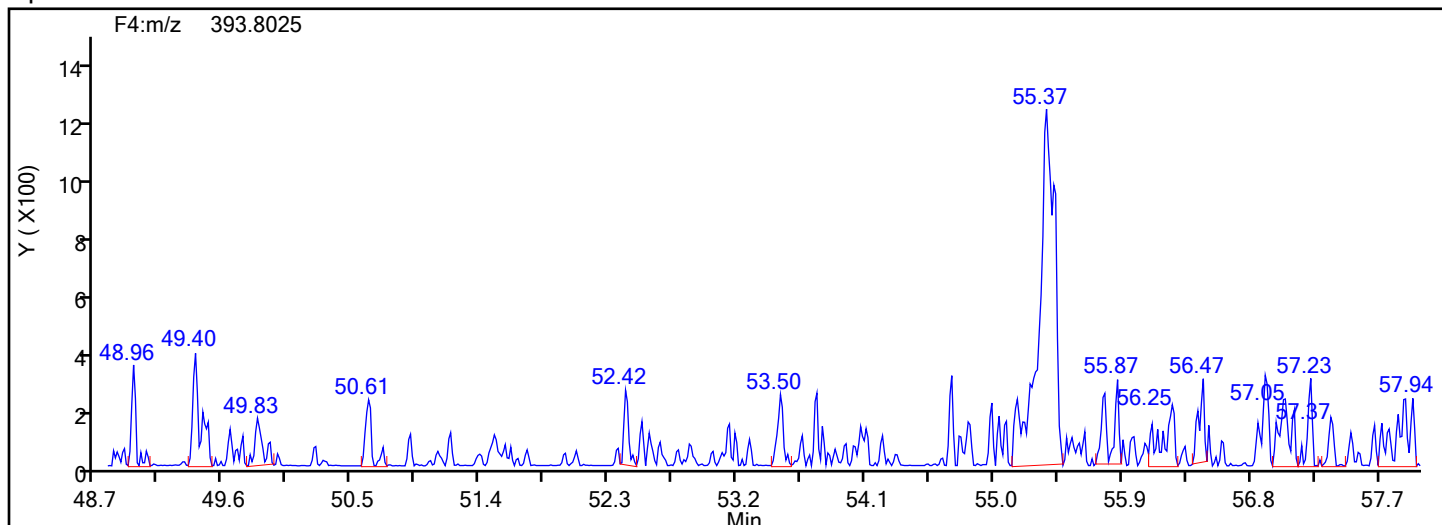
Worklist#: 88747

Sample Line#: 8

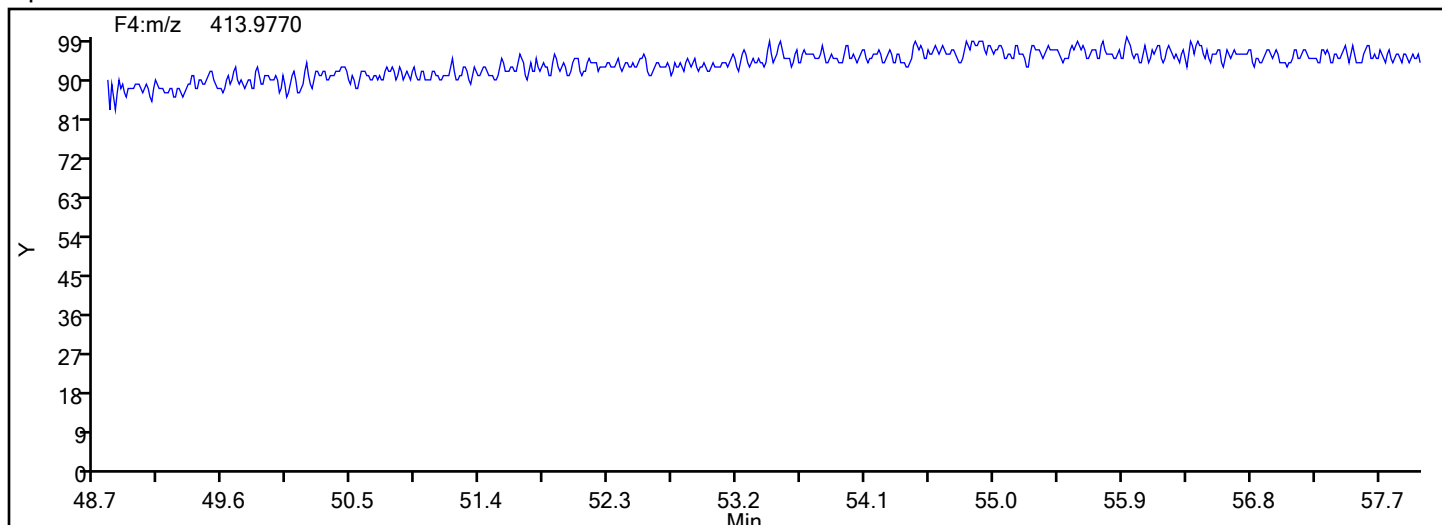
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

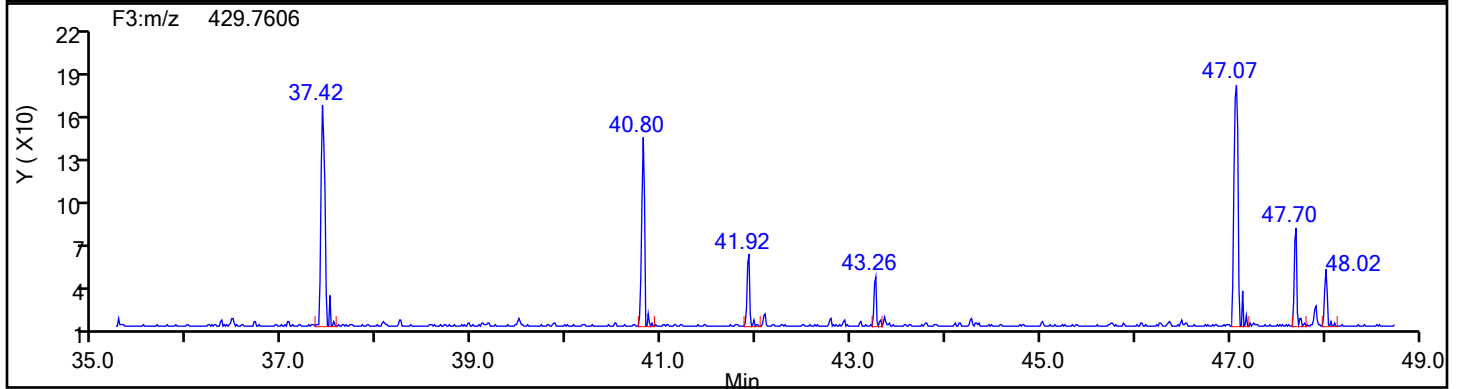
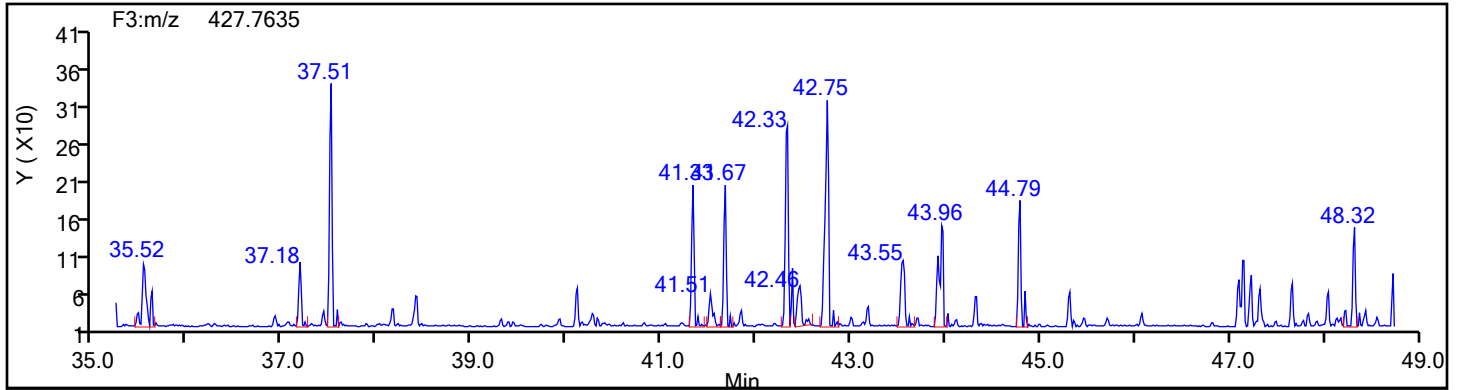
Worklist#: 88747

Sample Line#: 8

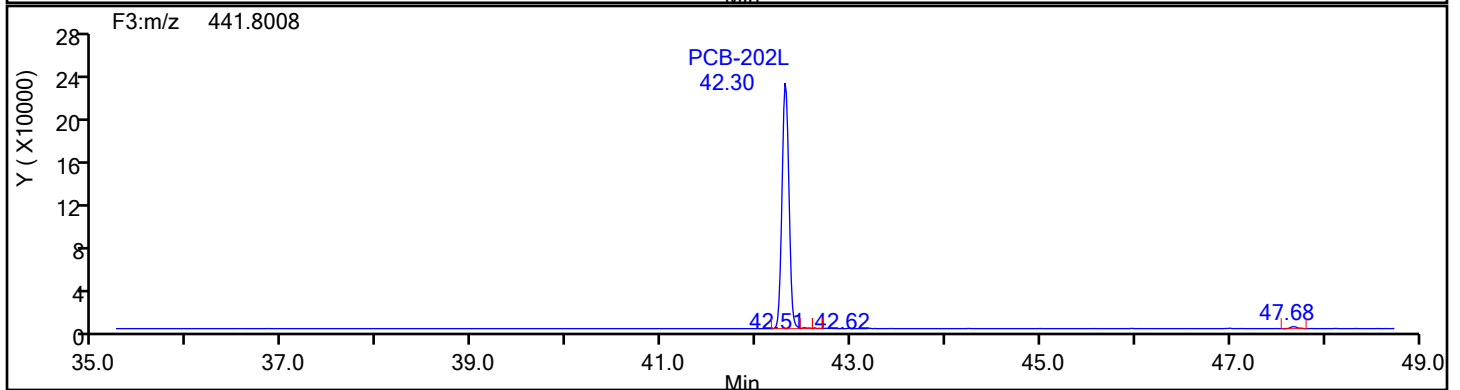
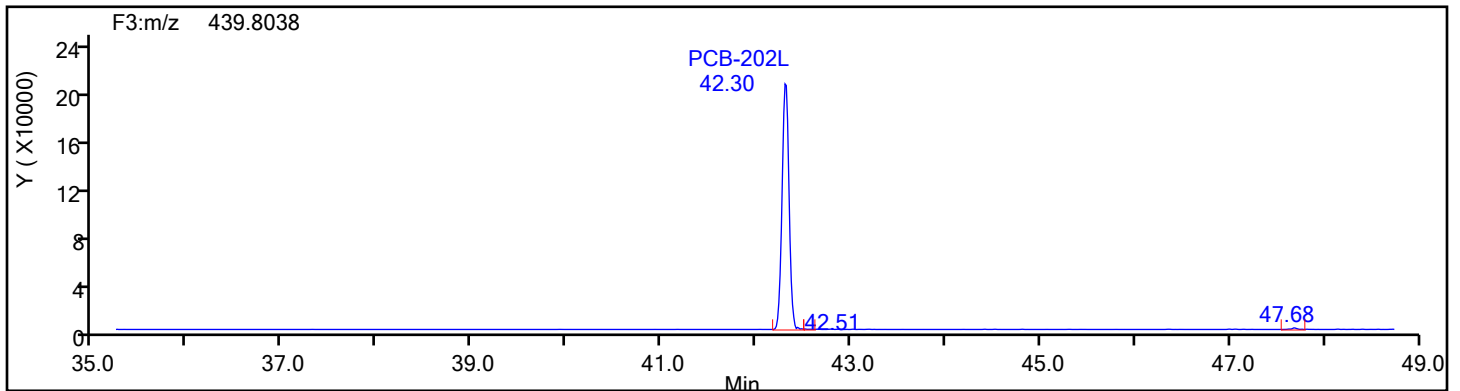
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3



OcPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

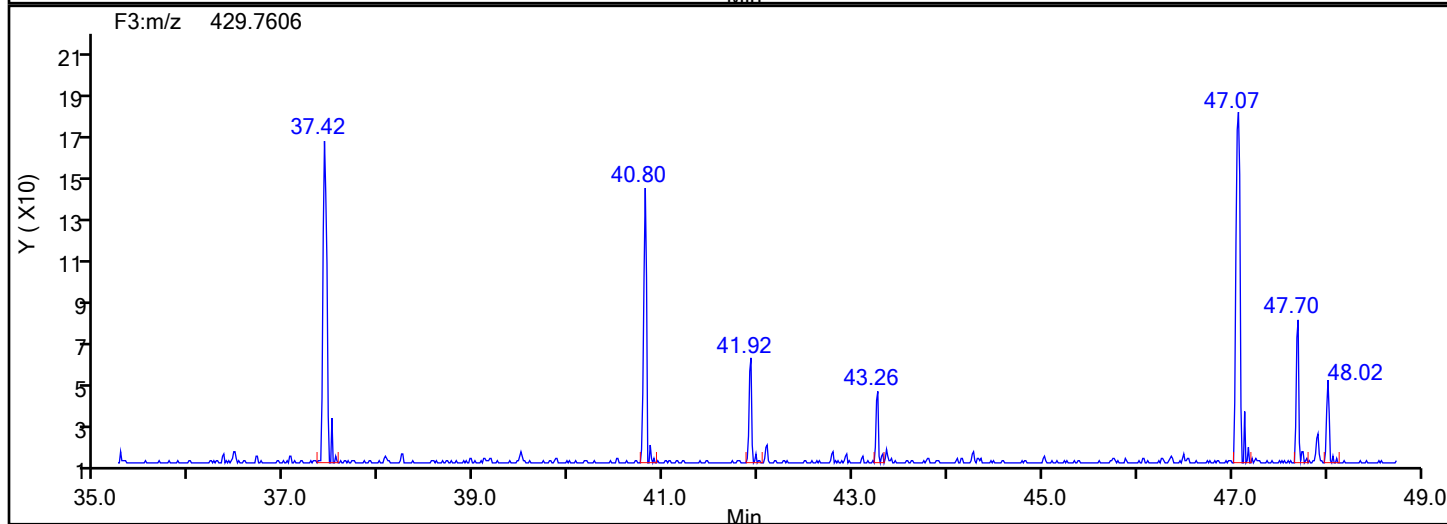
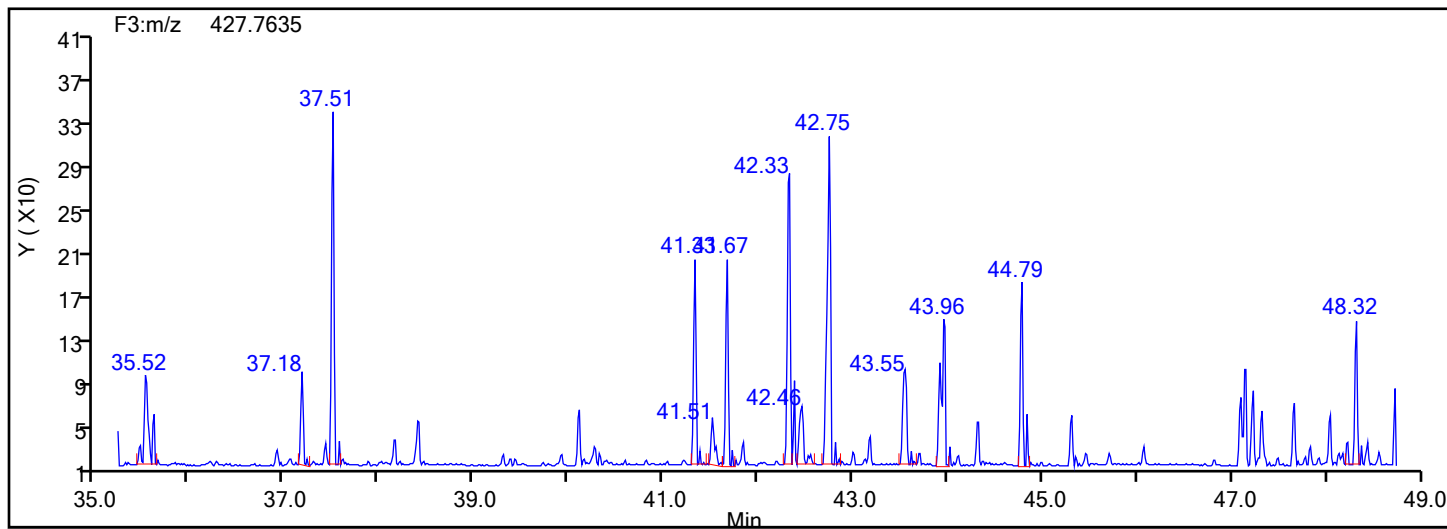
Worklist#: 88747

Sample Line#: 8

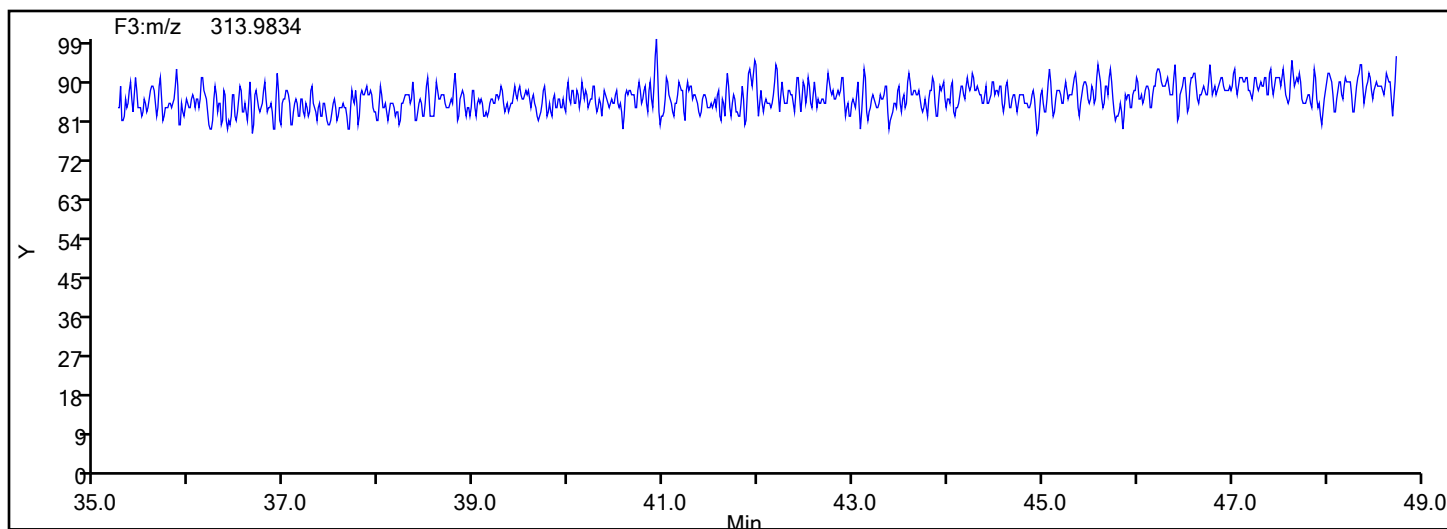
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3



## OcPCB F3 Lock Mass





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

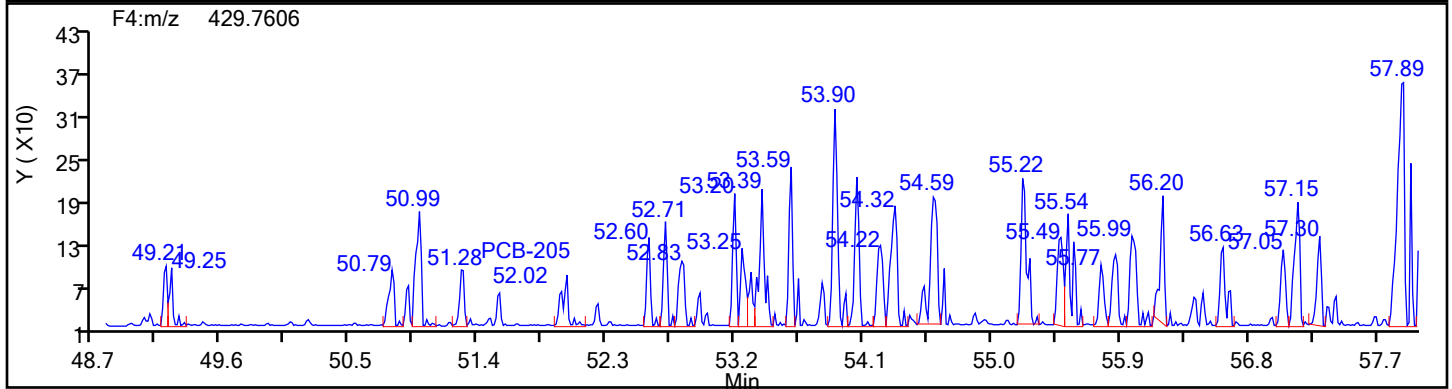
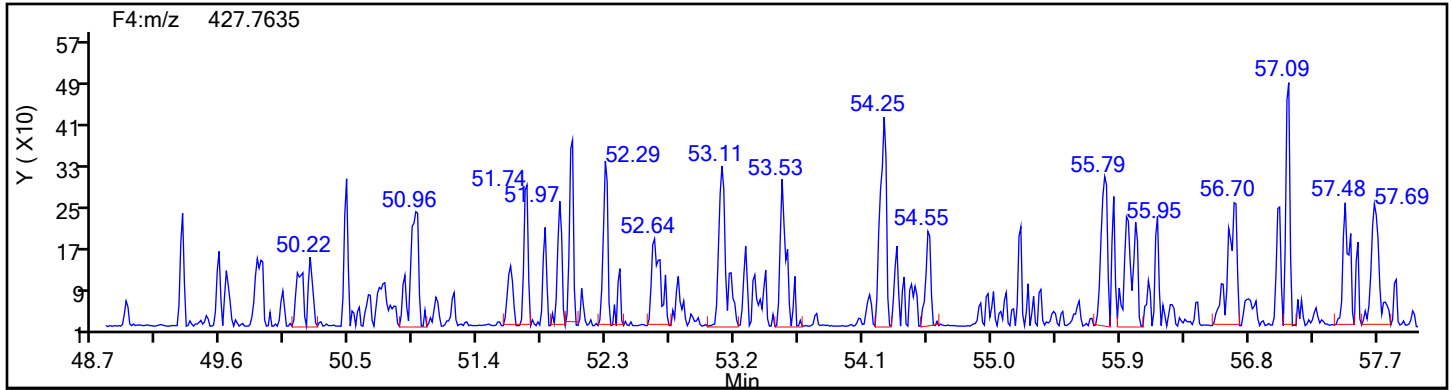
Worklist#: 88747

Sample Line#: 8

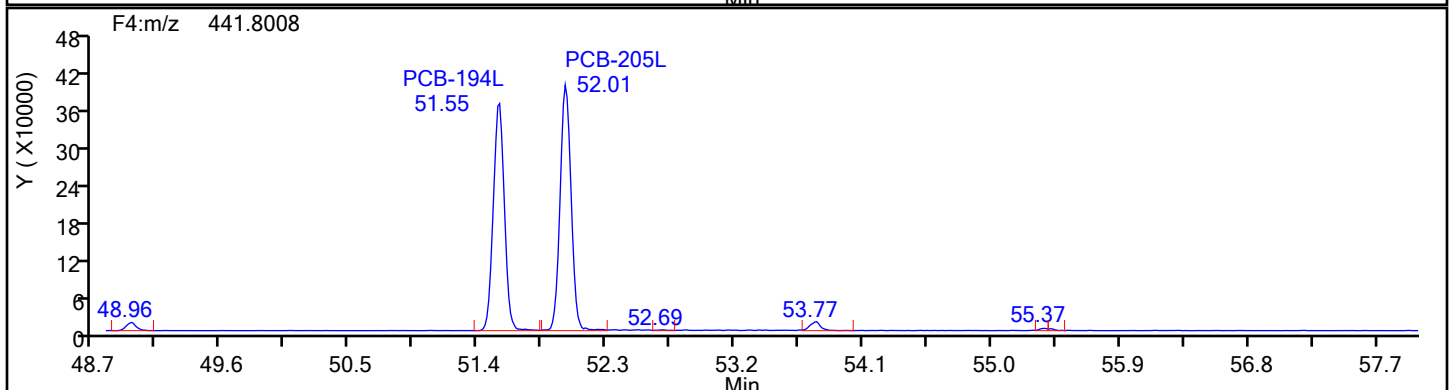
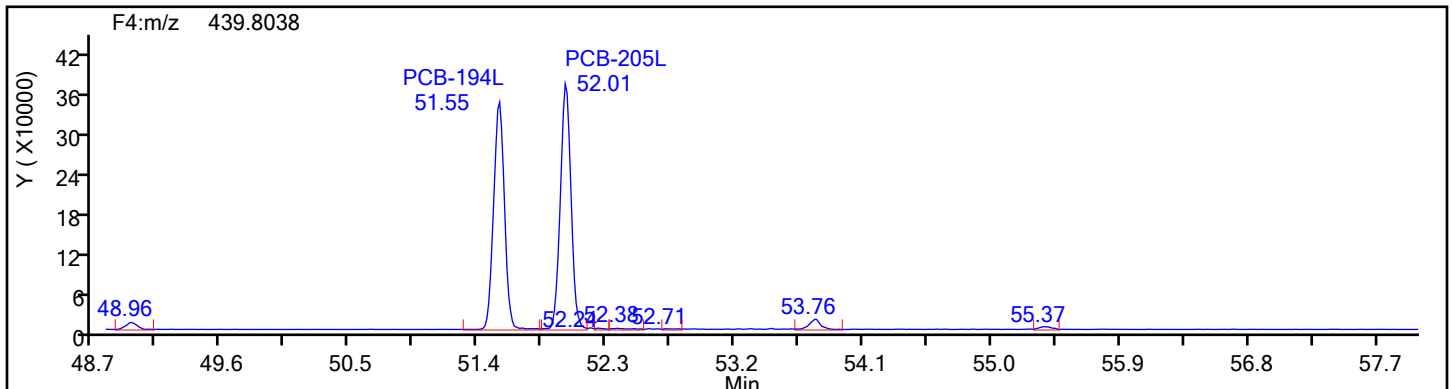
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4



OcPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

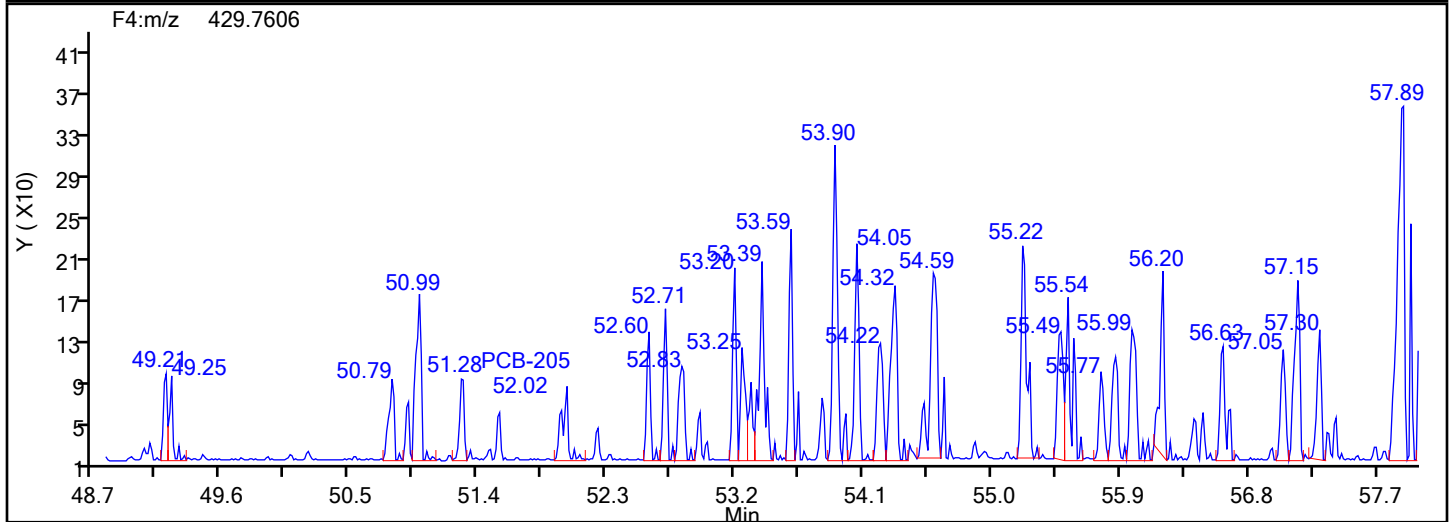
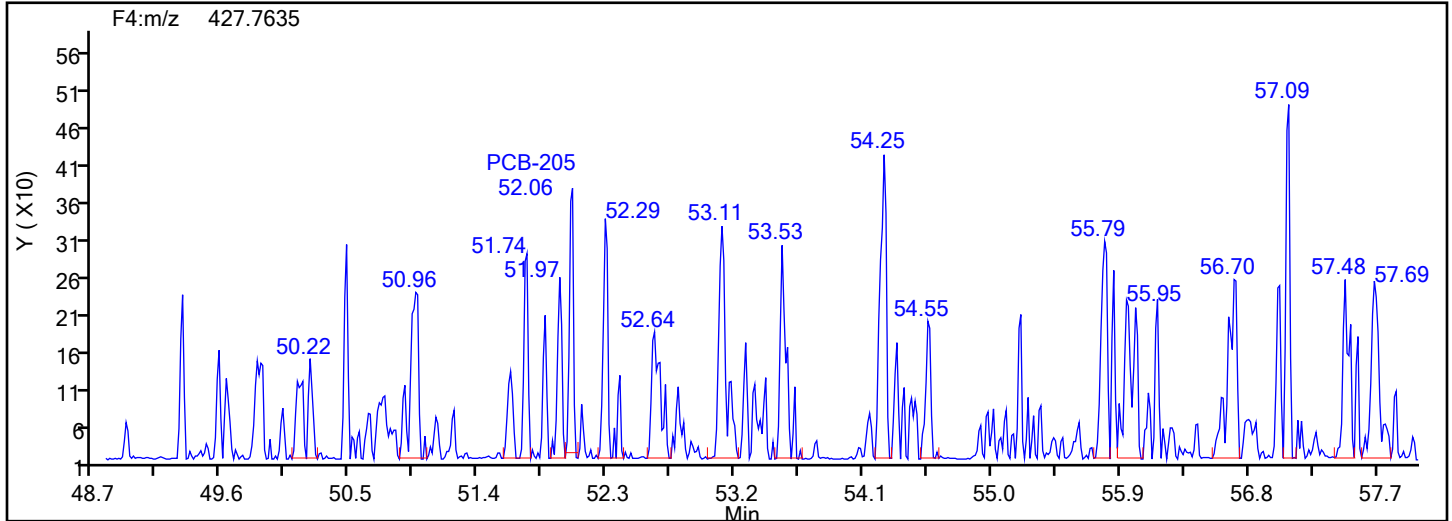
Worklist#: 88747

Sample Line#: 8

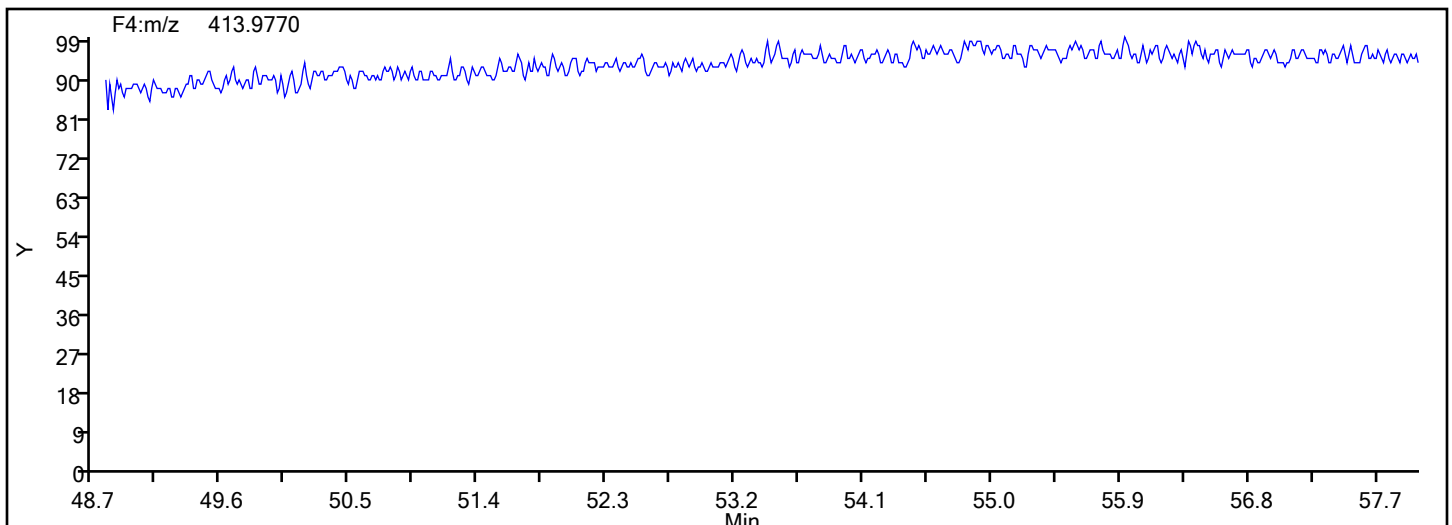
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4



## OcPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

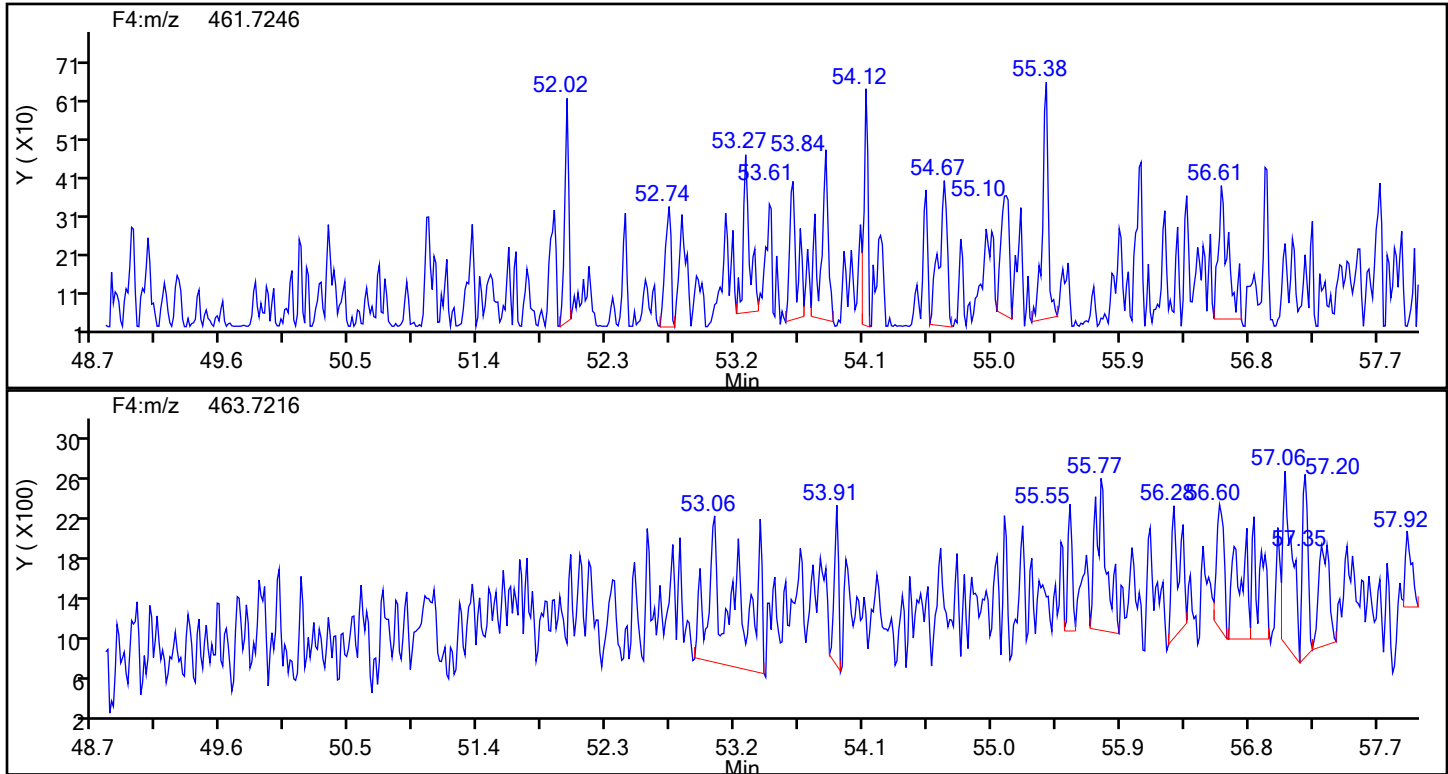
Worklist#: 88747

Sample Line#: 8

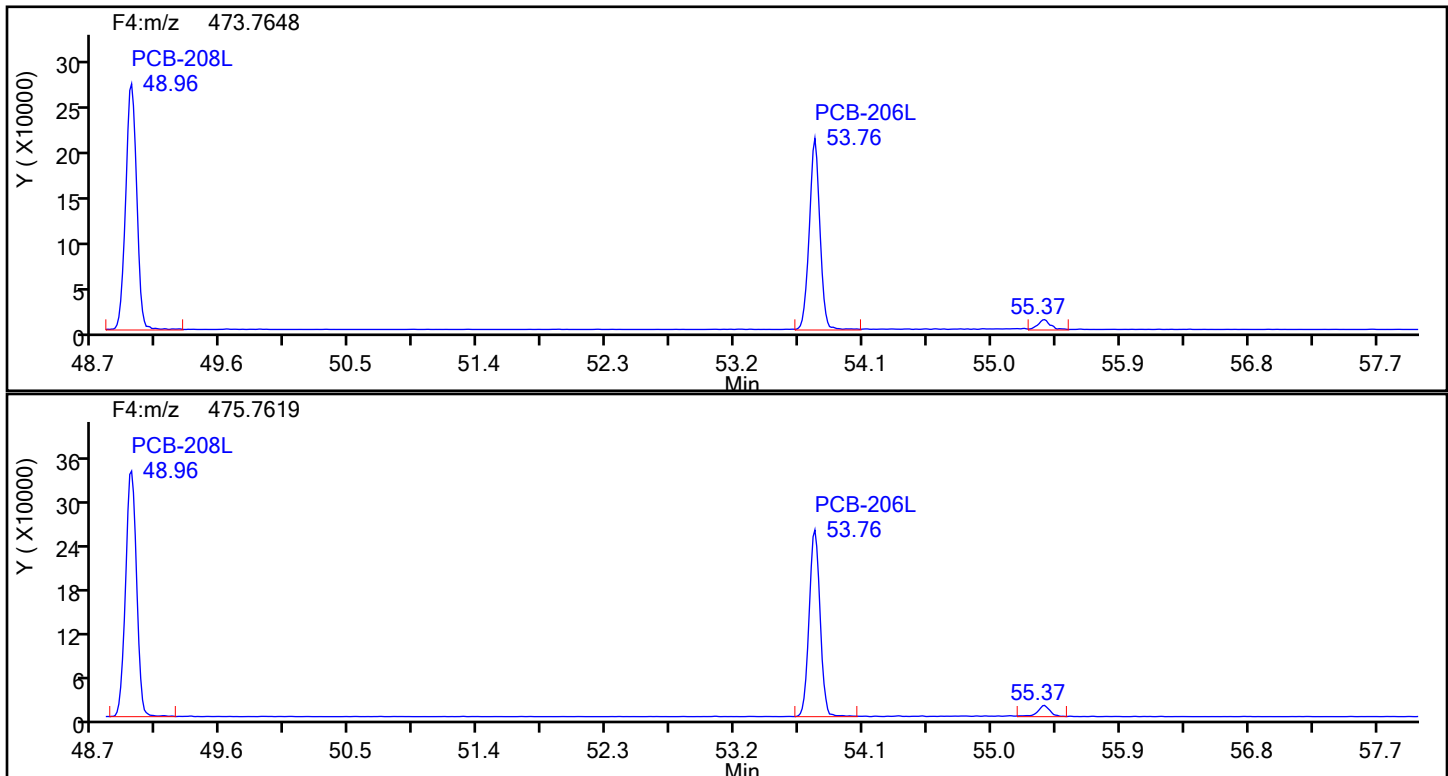
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



NoPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

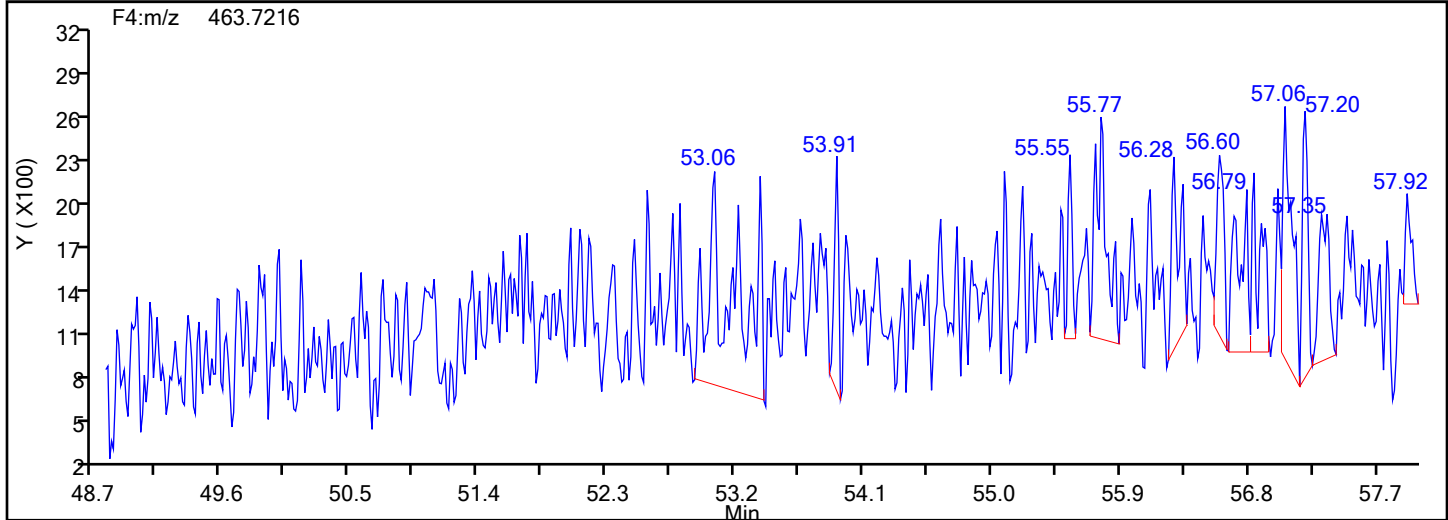
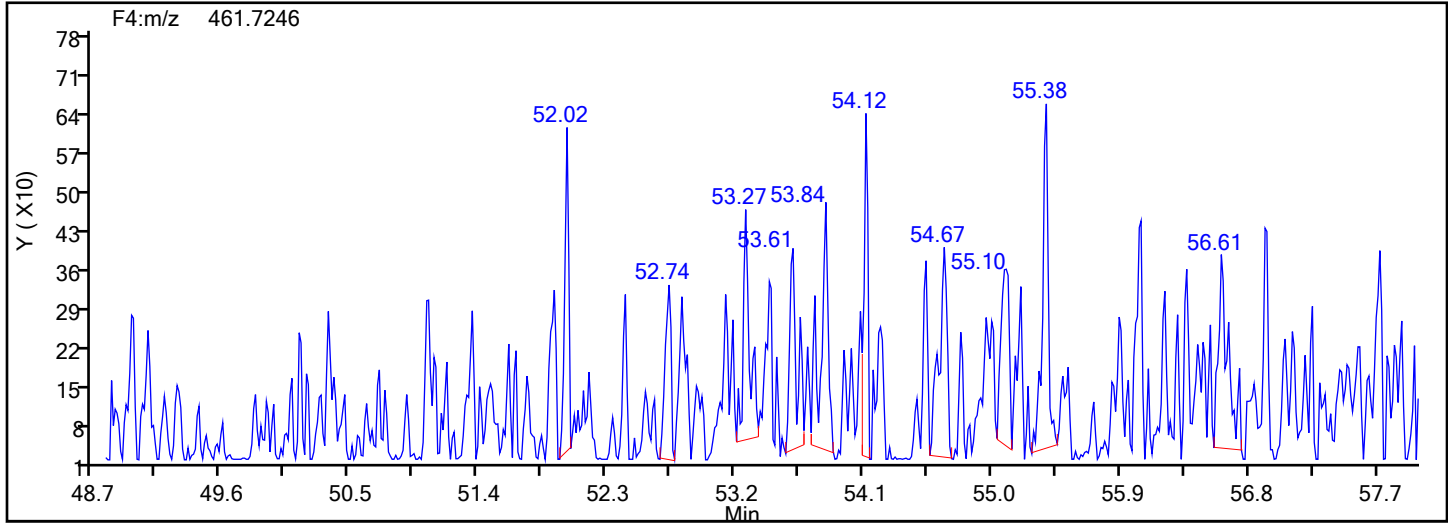
Worklist#: 88747

Sample Line#: 8

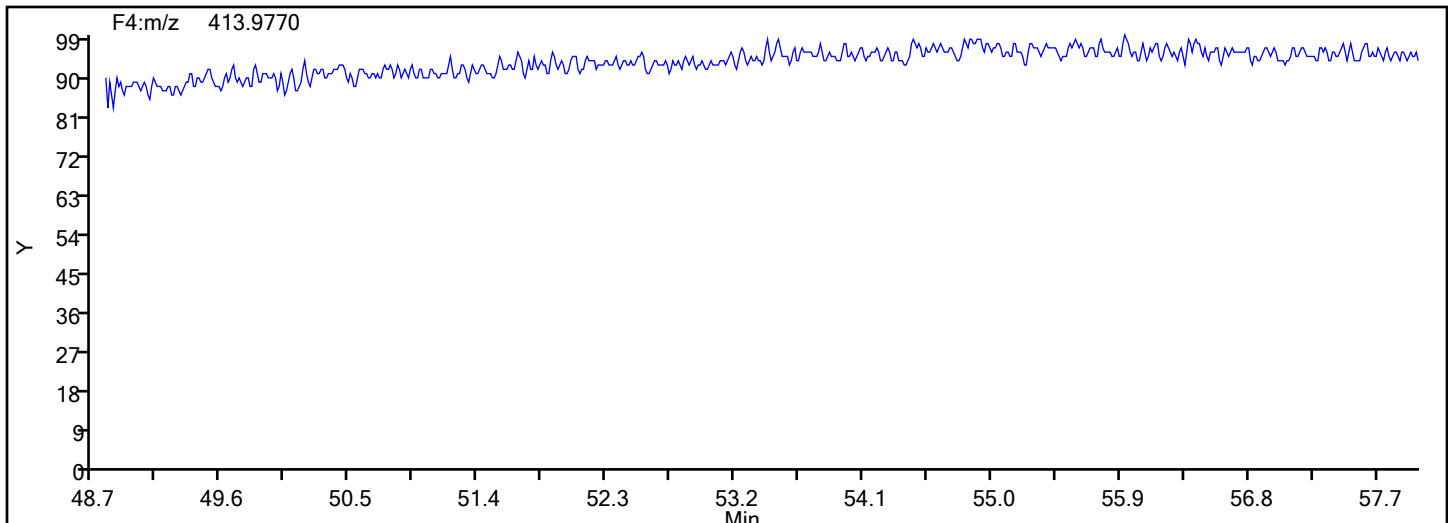
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



## NoPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

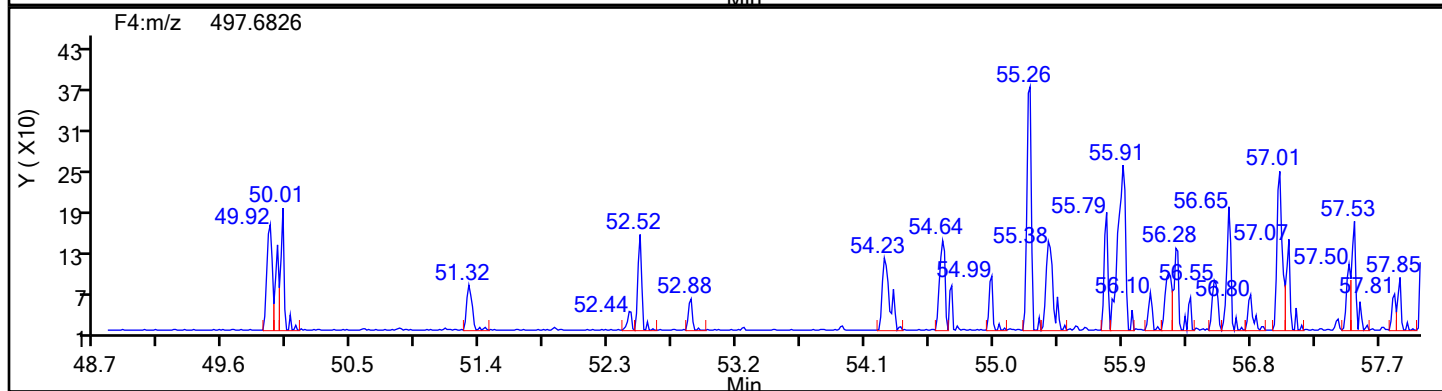
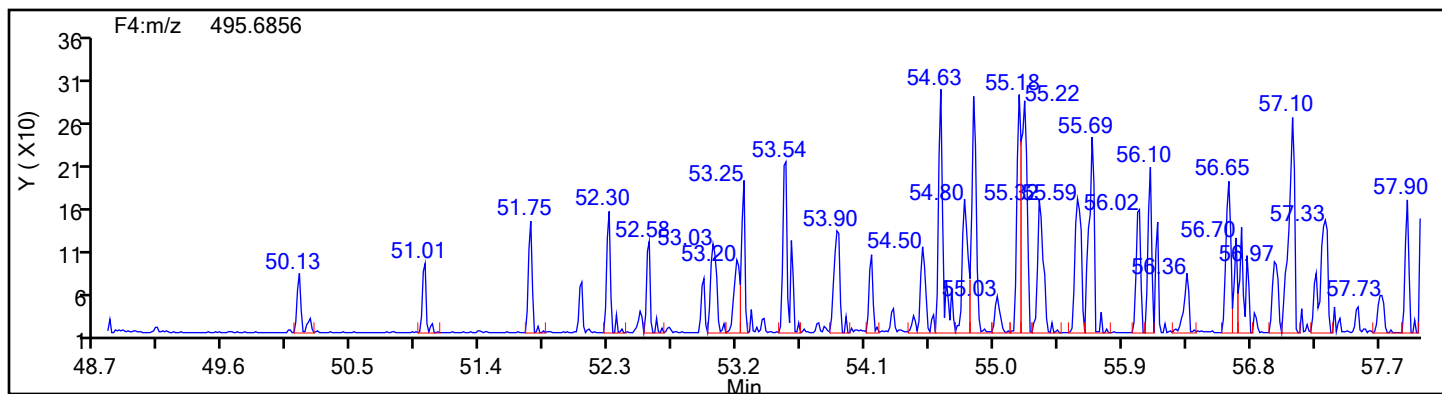
Worklist#: 88747

Sample Line#: 8

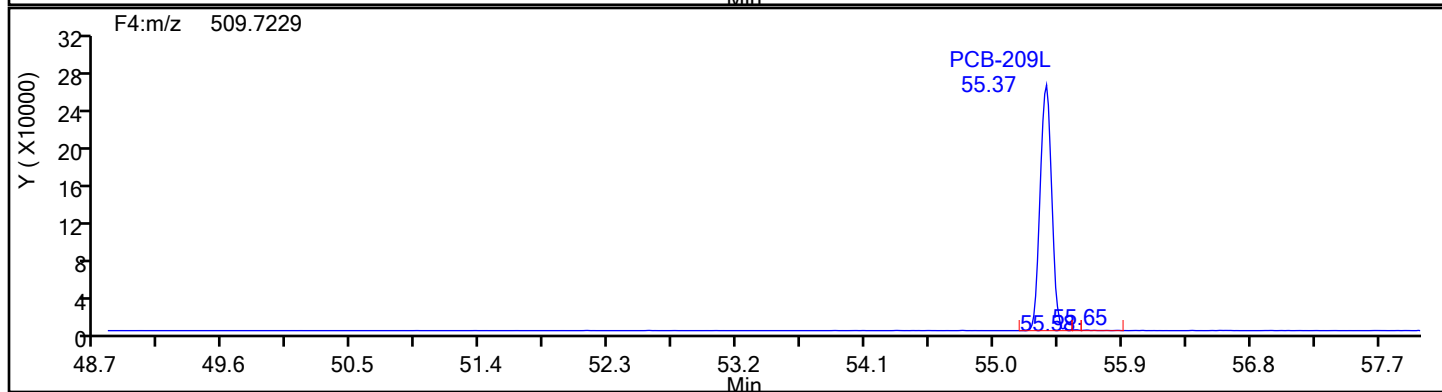
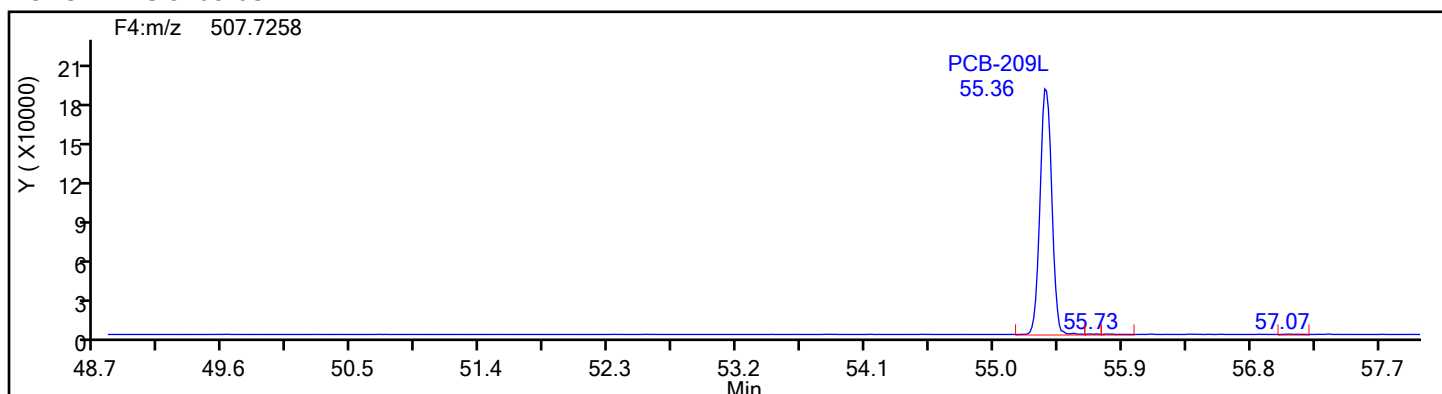
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



DePCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d

Injection Date: 15-Jul-2024 16:31:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

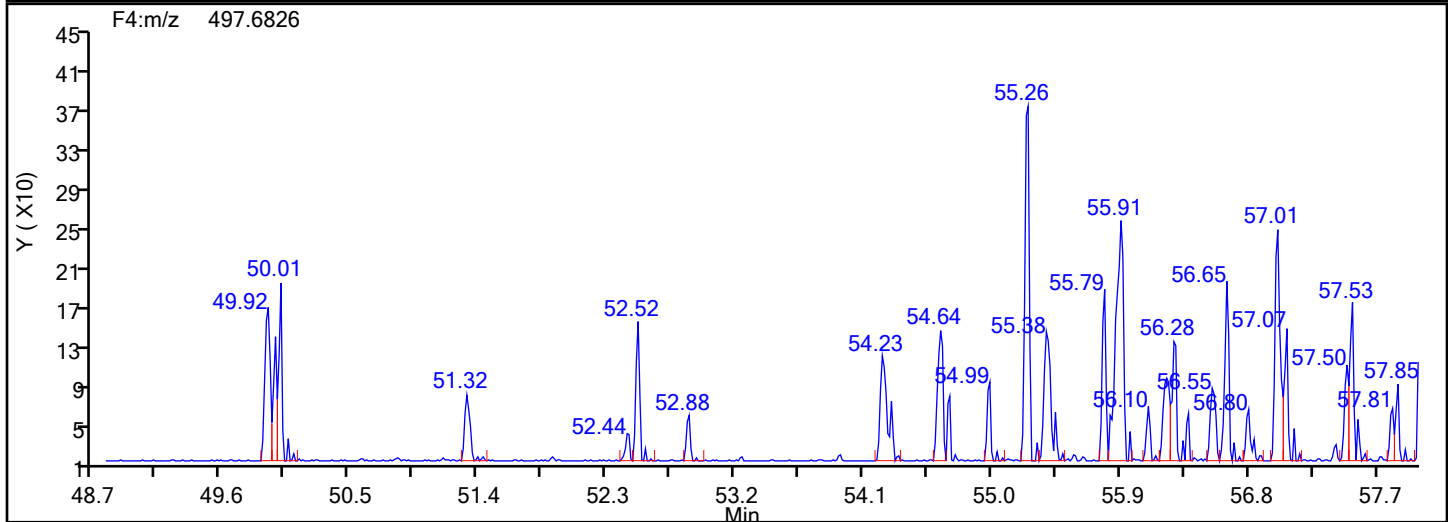
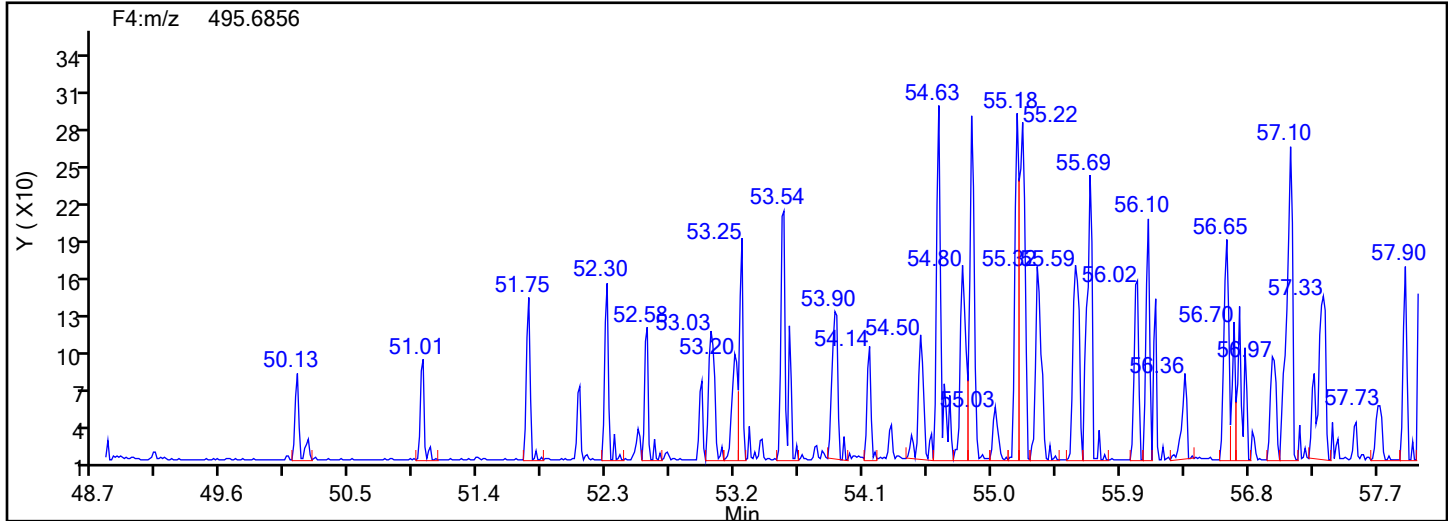
Worklist#: 88747

Sample Line#: 8

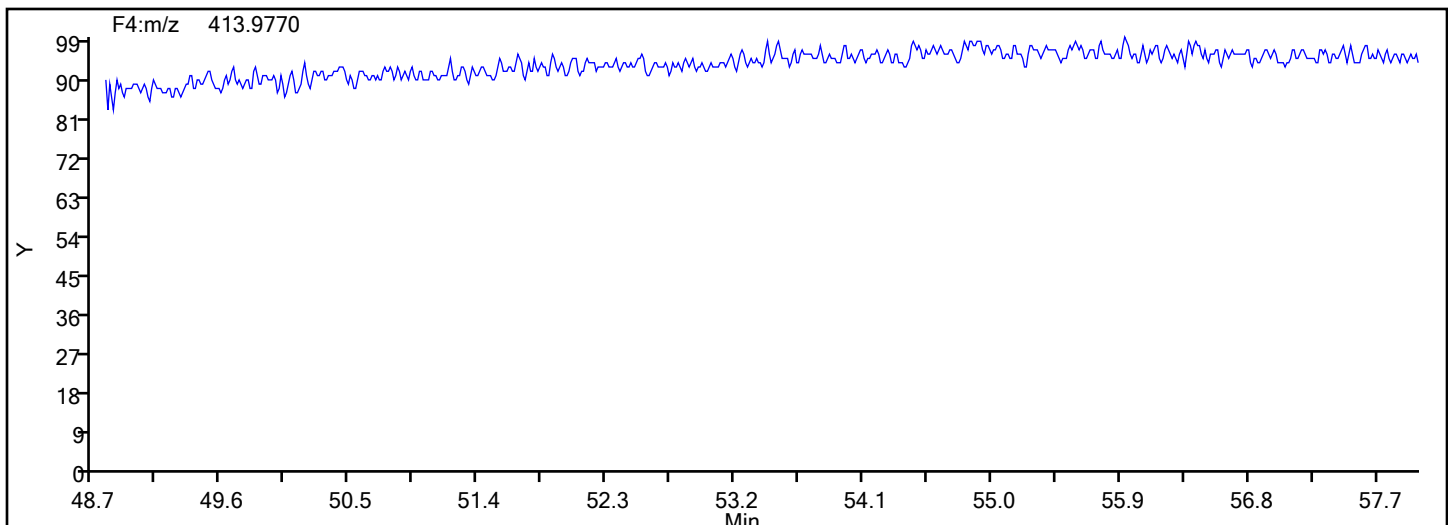
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



DePCB F4 Lock Mass



Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\mb140-8819321-b.d  
Lims ID: MB 140-88193/21-B  
Client ID:  
Sample Type: MB  
Inject. Date: 15-Jul-2024 16:31:00 ALS Bottle#: 0 Worklist Smp#: 8  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033504-008  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 15-Jul-2024 19:54:52 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1621

First Level Reviewer: V4XA

Date: 15-Jul-2024 19:54:51

Compound	Amount Added	Amount Recovered	% Rec.
PCB-28L	100.0	72.1	72.05
PCB-111L	100.0	73.4	73.38
PCB-178L	100.0	75.1	75.10

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>LCS 140-88193/19-B</u>
Matrix: <u>Air</u>	Lab File ID: <u>lcs140-8819319-b.d</u>
Analysis Method: <u>23</u>	Date Collected: _____
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1 (Sample)</u>	Date Analyzed: <u>07/15/2024 13:44</u>
Con. Extract Vol.: <u>30 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1 (uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88747</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
34883-43-7	PCB-8	14.00		0.600	0.132	0.0265
37680-65-2	PCB-18	28.19	C	0.600	0.285	0.0188
7012-37-5	PCB-28	28.01	C20	0.600	0.252	0.201
41464-39-5	PCB-44	38.43	C	0.900	0.390	0.162
35693-99-3	PCB-52	12.81		0.300	0.132	0.171
32598-10-0	PCB-66	14.43		0.300	0.120	0.125
32598-13-3	PCB-77	13.34		0.300	0.126	0.143
70362-50-4	PCB-81	13.65		0.300	0.0960	0.148
37680-73-2	PCB-101	44.01	C90	0.900	0.390	0.0309
32598-14-4	PCB-105	14.04		0.300	0.102	0.201
74472-37-0	PCB-114	13.87		0.300	0.165	0.217
31508-00-6	PCB-118	13.37		0.300	0.183	0.193
65510-44-3	PCB-123	14.01		0.300	0.171	0.231
57465-28-8	PCB-126	14.13		0.300	0.123	0.235
38380-07-3	PCB-128	26.16	C	0.600	0.204	0.0991
35065-28-2	PCB-138	53.12	C129	1.20	0.510	0.103
35065-27-1	PCB-153	26.20	C	0.600	0.249	0.0891
38380-08-4	PCB-156	28.29	C	0.600	0.255	0.110
69782-90-7	PCB-157	28.29	C156	0.600	0.255	0.110
52663-72-6	PCB-167	13.90		0.300	0.180	0.0715
32774-16-6	PCB-169	14.12		0.300	0.123	0.0710
35065-30-6	PCB-170	13.58		0.300	0.132	0.0151
35065-29-3	PCB-180	29.84	C	0.600	0.204	0.0125
52663-68-0	PCB-187	13.79		0.300	0.126	0.0133
39635-31-9	PCB-189	14.59		0.300	0.147	0.0445
52663-78-2	PCB-195	14.03		0.300	0.159	0.0971
40186-72-9	PCB-206	13.02		0.300	0.171	0.138
2051-24-3	PCB-209	14.30		0.300	0.138	0.0351



FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>LCS 140-88193/19-B</u>
Matrix: <u>Air</u>	Lab File ID: <u>lcs140-8819319-b.d</u>
Analysis Method: <u>23</u>	Date Collected: _____
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1 (Sample)</u>	Date Analyzed: <u>07/15/2024 13:44</u>
Con. Extract Vol.: <u>30 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1 (uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88747</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
234432-85-0	PCB-1L	74		15-145
208263-77-8	PCB-3L	73		15-145
234432-86-1	PCB-4L	72		15-145
208263-67-6	PCB-15L	71		15-145
234432-87-2	PCB-19L	68		15-145
208263-79-0	PCB-37L	73		15-145
234432-88-3	PCB-54L	78		15-145
105600-23-5	PCB-77L	79		40-145
208461-24-9	PCB-81L	78		40-145
234432-89-4	PCB-104L	74		40-145
208263-62-1	PCB-105L	85		40-145
208263-63-2	PCB-114L	80		40-145
104130-40-7	PCB-118L	81		40-145
208263-64-3	PCB-123L	79		40-145
208263-65-4	PCB-126L	84		40-145
234432-90-7	PCB-155L	74		40-145
208263-68-7	PCB-156L	86	C	40-145
235416-30-5	PCB-157L	86	C156	40-145
208263-69-8	PCB-167L	83		40-145
208263-70-1	PCB-169L	86		40-145
160901-80-4	PCB-170L	86		40-145
234432-91-8	PCB-188L	77		40-145
208263-73-4	PCB-189L	86		40-145
105600-26-8	PCB-202L	79		40-145
234446-64-1	PCB-205L	86		40-145
208263-75-6	PCB-206L	88		40-145
234432-92-9	PCB-208L	86		40-145
105600-27-9	PCB-209L	96		40-145

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCS 140-88193/19-B  
Matrix: Air Lab File ID: lcs140-8819319-b.d  
Analysis Method: 23 Date Collected: \_\_\_\_\_  
Extract. Method: Combined Prep Date Extracted: 06/27/2024 14:35  
Sample wt/vol: 1 (Sample) Date Analyzed: 07/15/2024 13:44  
Con. Extract Vol.: 30 (mL) Dilution Factor: 1  
Injection Volume: 1 (uL) GC Column: SPB-Octyl ID: 0.25 (mm)  
% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
Cleanup Factor: \_\_\_\_\_ Level: (low/med) Low  
Analysis Batch No.: 88747 Units: ng/Sample  
Preparation Batch No.: 88193 Instrument ID: Excalibur D2D DFS

CAS NO.	SURROGATE	%REC	Q	LIMITS
208263-76-7	PCB-28L	67		15-145
235416-29-2	PCB-111L	72		40-145
232919-67-4	PCB-178L	70		40-145

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d  
 Lims ID: LCS 140-88193/19-B  
 Client ID:  
 Sample Type: LCS  
 Inject. Date: 15-Jul-2024 13:44:00 ALS Bottle#: 0 Worklist Smp#: 2  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info:  
 Misc. Info.: 140-0033504-002  
 Operator ID: Xcalibur\_System Instrument ID: D2D  
 Method: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\PCBs\_D2D.m  
 Limit Group: HR - EPA\_23 PCB ICAL  
 Last Update: 15-Jul-2024 19:43:22 Calib Date: 31-May-2024 21:13:00  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
 Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
 Process Host: CTX1621

First Level Reviewer: V4XA

Date: 15-Jul-2024 19:43:22

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total Monochlorobiphenyls					142.1	142.1	0.1944	0.1944		
D PCB-1L	11:36	6649210	3.17	1.6108	73.5	73.5	0.3140	0.3140	73.54	
D PCB-3L	13:44	6529848	3.18	1.5891	73.2	73.2	0.3183	0.3183	73.20	
PCB-1	11:36	3870258	3.21	1.2191	47.7	47.7	0.1714	0.1714	95.49	
PCB-2	13:35	3649858	3.11	1.1805	46.9	46.9	0.1970	0.1970	93.84	
PCB-3	13:45	3780974	3.09	1.2206	47.4	47.4	0.2149	0.2149	94.88	
S Total Dichlorobiphenyls					573.9	573.9	0.1020	0.1020		
D PCB-4L	13:59	2600582	1.63	0.6475	71.5	71.5	0.2101	0.2101	71.55	
* PCB-9L	15:56	5613212	1.63		100.0	100.0				
D PCB-15L	19:50	4309261	1.63	1.0789	71.2	71.2	0.1261	0.1261	71.15	
PCB-4	14:01	1565938	1.59	1.2818	47.0	47.0	0.1208	0.1208	93.95	
PCB-10	14:10	2240765	1.61	1.3149	49.3	49.3	0.1067	0.1067	98.65	
PCB-9	15:57	2307415	1.63	1.4224	47.0	47.0	0.0987	0.0987	93.90	
PCB-7	16:07	2240193	1.58	1.4134	45.9	45.9	0.0993	0.0993	91.75	
PCB-6	16:22	2449277	1.59	1.5421	46.0	46.0	0.0910	0.0910	91.94	
PCB-5	16:40	2144962	1.62	1.3395	46.4	46.4	0.1048	0.1048	92.70	
PCB-8	16:48	2562472	1.56	1.5889	46.7	46.7	0.0883	0.0883	93.36	
PCB-14	18:23	2459707	1.55	1.4025	50.8	50.8	0.1001	0.1001	102	
PCB-11	19:14	2218991	1.60	1.2951	49.6	49.6	0.1084	0.1084	99.19	
PCB-12	19:32	4488919	1.60	1.3358	97.3	97.3	0.1051	0.1051	97.27	
PCB-13 (C12)	19:32	4488919	1.60	1.3358	97.3	97.3	0.1051	0.1051	97.27	
PCB-15	19:51	2677062	1.61	1.2903	48.1	48.1	0.0994	0.0994	96.29	
S Total Trichlorobiphenyls					1128.9	1128.9	0.4744	0.4744		
D PCB-19L	17:04	1639875	1.03	0.6285	68.1	68.1	0.5754	0.5754	68.13	
* PCB-32L	20:18	3829250	1.08		100.0	100.0				
* PCB-31L	22:34	9302010	1.06		100.0	100.0				
\$ PCB-28L	22:50	6501814	1.07	1.0494	66.6	66.6	0.1042	0.1042	66.61	
D PCB-37L	26:51	5971021	1.08	0.8749	73.4	73.4	0.1250	0.1250	73.37	
PCB-19	17:06	949312	1.07	1.2809	45.2	45.2	0.0865	0.0865	90.39	
PCB-18	18:53	2719852	1.09	1.7652	94.0	94.0	0.0627	0.0627	93.96	
PCB-30 (C18)	18:53	2719852	1.09	1.7652	94.0	94.0	0.0627	0.0627	93.96	
PCB-17	19:21	950739	1.07	1.2430	46.6	46.6	0.0891	0.0891	93.28	
PCB-27	19:35	1413343	1.09	1.8327	47.0	47.0	0.0604	0.0604	94.05	
PCB-24	19:42	1327341	1.00	1.6777	48.2	48.2	0.0660	0.0660	96.49	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-16	19:49	906714	1.04	1.1286	49.0	49.0	0.0981	0.0981	97.98	
PCB-32	20:20	1488202	1.01	1.8324	49.5	49.5	0.0604	0.0604	99.05	
PCB-34	21:34	3197834	1.05	1.1277	47.5	47.5	0.6959	0.6959	94.98	
PCB-23	21:43	3121272	1.04	1.0813	48.3	48.3	0.7258	0.7258	96.69	
PCB-26	22:02	6180132	1.05	1.1255	92.0	92.0	0.6973	0.6973	91.96	
PCB-29 (C26)	22:02	6180132	1.05	1.1255	92.0	92.0	0.6973	0.6973	91.96	
PCB-25	22:16	3586087	1.05	1.2728	47.2	47.2	0.6166	0.6166	94.37	
PCB-31	22:34	3277053	1.07	1.1532	47.6	47.6	0.6805	0.6805	95.18	
PCB-20	22:53	6533308	1.05	1.1718	93.4	93.4	0.6697	0.6697	93.37	
PCB-28 (C20)	22:53	6533308	1.05	1.1718	93.4	93.4	0.6697	0.6697	93.37	
PCB-21	23:03	5968238	1.05	1.0746	93.0	93.0	0.7303	0.7303	93.02	M
PCB-33 (C21)	23:03	5968238	1.05	1.0746	93.0	93.0	0.7303	0.7303	93.02	M
PCB-22	23:30	3367906	1.07	1.1932	47.3	47.3	0.6577	0.6577	94.54	
PCB-36	25:03	3012475	1.05	1.1071	45.6	45.6	0.7089	0.7089	91.15	
PCB-39	25:24	3213863	1.07	1.1581	46.5	46.5	0.6776	0.6776	92.95	
PCB-38	25:59	2932658	1.03	1.0843	45.3	45.3	0.7237	0.7237	90.59	
PCB-35	26:27	3313998	1.07	1.1297	49.1	49.1	0.6947	0.6947	98.26	
PCB-37	26:52	3182818	1.05	1.1435	46.6	46.6	0.6863	0.6863	93.23	
S Total Tetrachlorobiphenyls					1850.2	1850.2	0.4774	0.4774		
D PCB-54L	20:09	1653833	0.83	0.5562	77.6	77.6	0.0769	0.0769	77.65	
* PCB-52L	24:41	4752713	0.79		100.0	100.0				
D PCB-81L	33:35	4610084	0.81	1.2470	77.8	77.8	0.1182	0.1182	77.79	
D PCB-77L	34:09	4971538	0.80	1.3212	79.2	79.2	0.1116	0.1116	79.17	
PCB-54	20:10	1003895	0.80	1.2733	47.7	47.7	0.0837	0.0837	95.34	
PCB-50	22:19	3339657	0.78	0.8578	81.3	81.3	0.6114	0.6114	81.27	
PCB-53 (C50)	22:19	3339657	0.78	0.8578	81.3	81.3	0.6114	0.6114	81.27	
PCB-45	23:03	3402682	0.76	0.8264	85.9	85.9	0.6346	0.6346	85.94	M
PCB-51 (C45)	23:03	3402682	0.76	0.8264	85.9	85.9	0.6346	0.6346	85.94	M
PCB-46	23:18	1429408	0.79	0.7101	42.0	42.0	0.7386	0.7386	84.04	
PCB-52	24:42	1880979	0.82	0.9194	42.7	42.7	0.5704	0.5704	85.41	
PCB-43	24:50	4438679	0.79	1.0333	89.7	89.7	0.5075	0.5075	89.66	M
PCB-73 (C43)	24:50	4438679	0.79	1.0333	89.7	89.7	0.5075	0.5075	89.66	M
PCB-49	25:07	4417901	0.78	1.0685	86.3	86.3	0.4908	0.4908	86.30	
PCB-69 (C49)	25:07	4417901	0.78	1.0685	86.3	86.3	0.4908	0.4908	86.30	
PCB-48	25:28	1754730	0.78	0.8399	43.6	43.6	0.6244	0.6244	87.22	
PCB-44	25:42	5972617	0.79	0.9731	128.1	128.1	0.5390	0.5390	85.41	
PCB-47 (C44)	25:42	5972617	0.79	0.9731	128.1	128.1	0.5390	0.5390	85.41	
PCB-65 (C44)	25:42	5972617	0.79	0.9731	128.1	128.1	0.5390	0.5390	85.41	
PCB-59	26:01	7036419	0.79	1.1853	123.9	123.9	0.4425	0.4425	82.61	
PCB-62 (C59)	26:01	7036419	0.79	1.1853	123.9	123.9	0.4425	0.4425	82.61	
PCB-75 (C59)	26:01	7036419	0.79	1.1853	123.9	123.9	0.4425	0.4425	82.61	
PCB-42	26:13	1756467	0.81	0.8097	45.3	45.3	0.6478	0.6478	90.57	
PCB-40	26:43	5489175	0.78	0.8863	129.3	129.3	0.5917	0.5917	86.18	
PCB-41 (C40)	26:43	5489175	0.78	0.8863	129.3	129.3	0.5917	0.5917	86.18	
PCB-71 (C40)	26:43	5489175	0.78	0.8863	129.3	129.3	0.5917	0.5917	86.18	
PCB-64	26:55	2467691	0.80	1.1776	43.7	43.7	0.4454	0.4454	87.48	
PCB-72	27:45	2300815	0.80	1.0943	43.9	43.9	0.4793	0.4793	87.78	
PCB-68	28:02	2694036	0.81	1.2533	44.9	44.9	0.4185	0.4185	89.74	
PCB-57	28:27	2375772	0.77	1.0818	45.8	45.8	0.4848	0.4848	91.68	
PCB-58	28:41	3058322	0.77	1.3253	48.2	48.2	0.3957	0.3957	96.33	
PCB-67	28:51	2937788	0.82	1.4230	43.1	43.1	0.3686	0.3686	86.18	
PCB-63	29:07	2391293	0.79	1.1240	44.4	44.4	0.4666	0.4666	88.82	
PCB-61	29:28	10646198	0.79	1.2612	176.2	176.2	0.4158	0.4158	88.10	
PCB-70 (C61)	29:28	10646198	0.79	1.2612	176.2	176.2	0.4158	0.4158	88.10	
PCB-74 (C61)	29:28	10646198	0.79	1.2612	176.2	176.2	0.4158	0.4158	88.10	
PCB-76 (C61)	29:28	10646198	0.79	1.2612	176.2	176.2	0.4158	0.4158	88.10	
PCB-66	29:47	2898687	0.81	1.2583	48.1	48.1	0.4168	0.4168	96.17	
PCB-55	29:57	3004399	0.77	1.3236	47.4	47.4	0.3962	0.3962	94.76	
PCB-56	30:28	2785394	0.78	1.2334	47.1	47.1	0.4252	0.4252	94.28	
PCB-60	30:40	2394411	0.78	1.1230	44.5	44.5	0.4670	0.4670	89.01	
PCB-80	31:04	2915109	0.80	1.3243	45.9	45.9	0.3960	0.3960	91.90	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-79	32:36	3013893	0.79	1.4368	43.8	43.8	0.3650	0.3650	87.57	
PCB-78	33:10	2640378	0.80	1.1618	47.4	47.4	0.4514	0.4514	94.87	
PCB-81	33:36	2266019	0.82	1.0802	45.5	45.5	0.4949	0.4949	91.01	
PCB-77	34:10	2395136	0.79	1.0836	44.5	44.5	0.4750	0.4750	88.92	
S Total Pentachlorobiphenyls					2185.7	2185.7	0.3047	0.3047		
D PCB-104L	25:36	3012176	1.58	1.2161	74.2	74.2	0.0858	0.0858	74.15	
* PCB-101L	31:29	3340304	1.62		100.0	100.0				
\$ PCB-111L	34:10	3306825	1.58	1.3699	72.3	72.3	0.0762	0.0762	72.27	
D PCB-123L	36:07	4649248	1.60	0.9731	78.6	78.6	0.9620	0.9620	78.56	
D PCB-118L	36:27	4956725	1.65	1.0102	80.7	80.7	0.9267	0.9267	80.69	
D PCB-114L	36:59	4837899	1.59	0.9949	80.0	80.0	0.9410	0.9410	79.97	
D PCB-105L	37:39	4918511	1.61	0.9514	85.0	85.0	0.9839	0.9839	85.01	
* PCB-127L	39:06	6081203	1.60		100.0	100.0				
D PCB-126L	40:43	4818323	1.58	0.9439	83.9	83.9	0.992	0.992	83.95	
PCB-104	25:38	1414872	1.59	1.0087	46.6	46.6	0.0974	0.0974	93.13	
PCB-96	26:01	1499492	1.62	1.0940	45.5	45.5	0.0898	0.0898	91.01	
PCB-103	27:55	1278818	1.70	0.8741	48.6	48.6	0.1124	0.1124	97.14	
PCB-94	28:09	1032151	1.55	0.7640	44.8	44.8	0.1286	0.1286	89.70	
PCB-95	28:36	1171781	1.59	0.8033	48.4	48.4	0.1223	0.1223	96.86	
PCB-93	28:48	2325587	1.62	0.8429	91.6	91.6	0.1166	0.1166	91.60	
PCB-100 (C93)	28:48	2325587	1.62	0.8429	91.6	91.6	0.1166	0.1166	91.60	
PCB-98	28:58	2314394	1.61	0.8262	93.0	93.0	0.1189	0.1189	93.00	M
PCB-102 (C98)	28:58	2314394	1.61	0.8262	93.0	93.0	0.1189	0.1189	93.00	M
PCB-88	29:27	2239867	1.64	0.8013	92.8	92.8	0.1226	0.1226	92.80	
PCB-91 (C88)	29:27	2239867	1.64	0.8013	92.8	92.8	0.1226	0.1226	92.80	
PCB-84	29:42	1050157	1.51	0.7299	47.8	47.8	0.1346	0.1346	95.53	
PCB-89	30:10	1113282	1.57	0.7798	47.4	47.4	0.1260	0.1260	94.79	
PCB-121	30:33	1863852	1.60	1.2964	47.7	47.7	0.0758	0.0758	95.46	M
PCB-92	30:56	1273921	1.59	0.8546	49.5	49.5	0.1150	0.1150	98.98	M
PCB-90	31:29	4219915	1.60	0.9550	146.7	146.7	0.1029	0.1029	97.80	
PCB-101 (C90)	31:29	4219915	1.60	0.9550	146.7	146.7	0.1029	0.1029	97.80	
PCB-113 (C90)	31:29	4219915	1.60	0.9550	146.7	146.7	0.1029	0.1029	97.80	
PCB-83	32:05	2518193	1.65	0.8385	99.7	99.7	0.1172	0.1172	99.70	
PCB-99 (C83)	32:05	2518193	1.65	0.8385	99.7	99.7	0.1172	0.1172	99.70	
PCB-112	32:13	2080870	1.53	1.4111	49.0	49.0	0.0696	0.0696	97.91	
PCB-86	32:35	9190717	1.58	1.0473	291.3	291.3	0.0938	0.0938	97.12	M
PCB-87 (C86)	32:35	9190717	1.58	1.0473	291.3	291.3	0.0938	0.0938	97.12	M
PCB-97 (C86)	32:35	9190717	1.58	1.0473	291.3	291.3	0.0938	0.0938	97.12	M
PCB-109 (C86)	32:35	9190717	1.58	1.0473	291.3	291.3	0.0938	0.0938	97.12	M
PCB-119 (C86)	32:35	9190717	1.58	1.0473	291.3	291.3	0.0938	0.0938	97.12	M
PCB-125 (C86)	32:35	9190717	1.58	1.0473	291.3	291.3	0.0938	0.0938	97.12	M
PCB-85	33:18	4569985	1.57	1.0408	145.8	145.8	0.0944	0.0944	97.18	
PCB-116 (C85)	33:18	4569985	1.57	1.0408	145.8	145.8	0.0944	0.0944	97.18	
PCB-117 (C85)	33:18	4569985	1.57	1.0408	145.8	145.8	0.0944	0.0944	97.18	
PCB-110	33:30	3583722	1.59	1.1919	99.8	99.8	0.0824	0.0824	99.82	
PCB-115 (C110)	33:30	3583722	1.59	1.1919	99.8	99.8	0.0824	0.0824	99.82	
PCB-82	33:49	1252993	1.58	0.8303	50.1	50.1	0.1183	0.1183	100	
PCB-111	34:11	1831251	1.63	1.2125	50.1	50.1	0.0810	0.0810	100	
PCB-120	34:39	2225632	1.59	1.4762	50.1	50.1	0.0666	0.0666	100	
PCB-108	35:48	4814931	1.60	1.1405	87.3	87.3	0.7076	0.7076	87.29	
PCB-124 (C108)	35:48	4814931	1.60	1.1405	87.3	87.3	0.7076	0.7076	87.29	
PCB-107	36:02	2559231	1.58	1.2121	43.7	43.7	0.6658	0.6658	87.32	
PCB-123	36:09	2327578	1.57	1.0722	46.7	46.7	0.7700	0.7700	93.38	Ma
PCB-106	36:16	2324402	1.67	1.0839	44.3	44.3	0.7445	0.7445	88.68	Ma
PCB-118	36:29	2664025	1.51	1.2055	44.6	44.6	0.6430	0.6430	89.16	
PCB-122	36:50	2190350	1.62	0.9567	47.3	47.3	0.8435	0.8435	94.68	
PCB-114	37:00	2424450	1.54	1.0842	46.2	46.2	0.7232	0.7232	92.45	
PCB-105	37:40	2734137	1.58	1.1879	46.8	46.8	0.6698	0.6698	93.59	
PCB-127	39:07	2499375	1.57	1.1394	45.4	45.4	0.7083	0.7083	90.72	
PCB-126	40:45	2491750	1.58	1.0976	47.1	47.1	0.7840	0.7840	94.23	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total Hexachlorobiphenyls					1919.3	1919.3	0.2656	0.2656		
D PCB-155L	31:14	2679547	1.28	1.0851	73.9	73.9	0.0340	0.0340	73.93	
* PCB-138L	39:34	4129793	1.31		100.0	100.0				
D PCB-167L	42:34	4287492	1.27	1.2572	82.6	82.6	0.3727	0.3727	82.58	
D PCB-156L	43:44	8585970	1.29	1.2106	171.7	171.7	0.3871	0.3871	85.87	
D PCB-157L (C156L)	43:44	8585970	1.29	1.2106	171.7	171.7	0.3871	0.3871	85.87	
D PCB-169L	46:57	4431397	1.28	1.2439	86.3	86.3	0.3767	0.3767	86.27	
PCB-155	31:16	1219805	1.30	0.9444	48.2	48.2	0.0620	0.0620	96.40	
PCB-152	31:29	1292067	1.32	0.9895	48.7	48.7	0.0591	0.0591	97.46	
PCB-150	31:39	1359107	1.28	1.0132	50.1	50.1	0.0577	0.0577	100	
PCB-136	32:02	1368358	1.31	1.0116	50.5	50.5	0.0578	0.0578	101	
PCB-145	32:18	1317581	1.24	0.9685	50.8	50.8	0.0604	0.0604	102	
PCB-148	33:48	985382	1.26	0.7603	48.4	48.4	0.0770	0.0770	96.74	
PCB-135	34:25	2037838	1.23	0.7256	104.8	104.8	0.0806	0.0806	105	M
PCB-151 (C135)	34:25	2037838	1.23	0.7256	104.8	104.8	0.0806	0.0806	105	M
PCB-154	34:39	1097854	1.32	0.8129	50.4	50.4	0.0720	0.0720	101	
PCB-144	34:58	1073803	1.24	0.7852	51.0	51.0	0.0745	0.0745	102	
PCB-147	35:20	3478490	1.24	0.8950	89.8	89.8	0.3629	0.3629	89.84	
PCB-149 (C147)	35:20	3478490	1.24	0.8950	89.8	89.8	0.3629	0.3629	89.84	
PCB-134	35:38	2977022	1.27	0.7967	86.4	86.4	0.4077	0.4077	86.38	
PCB-143 (C134)	35:38	2977022	1.27	0.7967	86.4	86.4	0.4077	0.4077	86.38	
PCB-139	35:56	3281152	1.29	0.8769	86.5	86.5	0.3704	0.3704	86.49	
PCB-140 (C139)	35:56	3281152	1.29	0.8769	86.5	86.5	0.3704	0.3704	86.49	
PCB-131	36:08	1372671	1.22	0.7503	42.3	42.3	0.4329	0.4329	84.58	
PCB-142	36:17	1471604	1.34	0.7507	45.3	45.3	0.4326	0.4326	90.62	
PCB-132	36:36	1415970	1.30	0.7489	43.7	43.7	0.4337	0.4337	87.40	
PCB-133	37:06	1463688	1.21	0.8096	41.8	41.8	0.4012	0.4012	83.58	
PCB-165	37:29	1971684	1.26	1.0247	44.5	44.5	0.3169	0.3169	88.95	
PCB-146	37:43	1790427	1.23	0.9637	42.9	42.9	0.3370	0.3370	85.89	
PCB-161	37:51	2115905	1.23	1.1288	43.3	43.3	0.2877	0.2877	86.66	
PCB-153	38:22	4132589	1.23	1.0938	87.3	87.3	0.2969	0.2969	87.34	
PCB-168 (C153)	38:22	4132589	1.23	1.0938	87.3	87.3	0.2969	0.2969	87.34	
PCB-141	38:32	1626989	1.30	0.8755	43.0	43.0	0.3710	0.3710	85.91	
PCB-130	38:58	1296236	1.26	0.7051	42.5	42.5	0.4606	0.4606	84.99	
PCB-137	39:10	1581794	1.28	0.7767	47.1	47.1	0.4182	0.4182	94.15	
PCB-164	39:18	2061307	1.27	1.0382	45.9	45.9	0.3128	0.3128	91.78	
PCB-129	39:36	7249725	1.27	0.9464	177.1	177.1	0.3432	0.3432	88.53	M
PCB-138 (C129)	39:36	7249725	1.27	0.9464	177.1	177.1	0.3432	0.3432	88.53	M
PCB-160 (C129)	39:36	7249725	1.27	0.9464	177.1	177.1	0.3432	0.3432	88.53	M
PCB-163 (C129)	39:36	7249725	1.27	0.9464	177.1	177.1	0.3432	0.3432	88.53	M
PCB-158	39:58	2465955	1.26	1.3110	43.5	43.5	0.2477	0.2477	86.95	
PCB-128	40:49	3708716	1.27	0.9829	87.2	87.2	0.3304	0.3304	87.21	
PCB-166 (C128)	40:49	3708716	1.27	0.9829	87.2	87.2	0.3304	0.3304	87.21	
PCB-159	41:49	2642885	1.24	1.3856	44.1	44.1	0.2344	0.2344	88.18	
PCB-162	42:07	2421885	1.24	1.2571	44.5	44.5	0.2584	0.2584	89.06	
PCB-167	42:35	2217538	1.30	1.1159	46.3	46.3	0.2382	0.2382	92.70	
PCB-156	43:46	4495166	1.25	1.1104	94.3	94.3	0.3662	0.3662	94.30	
PCB-157 (C156)	43:46	4495166	1.25	1.1104	94.3	94.3	0.3662	0.3662	94.30	
PCB-169	46:58	2425978	1.27	1.1628	47.1	47.1	0.2366	0.2366	94.16	
S Total Heptachlorobiphenyls					1131.8	1131.8	0.0497	0.0497		
D PCB-188L	36:58	3279824	1.07	1.3133	77.0	77.0	0.0175	0.0175	76.96	
\$ PCB-178L	40:01	2327402	1.08	1.0313	69.5	69.5	0.0223	0.0223	69.54	
* PCB-180L	45:06	3245036	1.05		100.0	100.0				
D PCB-170L	46:22	2321942	1.08	0.8362	85.6	85.6	0.0275	0.0275	85.57	
D PCB-189L	49:28	5332070	1.07	1.4414	85.7	85.7	0.3047	0.3047	85.72	
PCB-188	36:59	1729143	1.07	1.1350	46.5	46.5	0.0363	0.0363	92.90	
PCB-179	37:21	1737083	1.08	1.4276	43.4	43.4	0.0342	0.0342	86.89	
PCB-184	37:51	1723496	1.01	1.3672	45.0	45.0	0.0357	0.0357	90.02	
PCB-176	38:13	1546506	1.09	1.2331	44.8	44.8	0.0395	0.0395	89.56	
PCB-186	38:40	1895524	1.02	1.4737	45.9	45.9	0.0331	0.0331	91.84	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-178	40:03	1162274	1.05	0.8946	46.4	46.4	0.0545	0.0545	92.77	
PCB-175	40:40	1222999	1.06	0.9524	45.8	45.8	0.0512	0.0512	91.69	
PCB-187	40:57	1418493	1.07	1.1018	46.0	46.0	0.0443	0.0443	91.93	
PCB-182	41:08	1212585	1.04	0.9247	46.8	46.8	0.0527	0.0527	93.64	
PCB-183	41:33	2409788	1.08	0.9825	87.6	87.6	0.0496	0.0496	87.57	Ma
PCB-185 (C183)	41:33	2409788	1.08	0.9825	87.6	87.6	0.0496	0.0496	87.57	Ma
PCB-174	41:49	1268040	1.11	0.9642	47.0	47.0	0.0506	0.0506	93.91	
PCB-177	42:15	1293966	1.03	0.9773	47.3	47.3	0.0499	0.0499	94.55	
PCB-181	42:37	1249345	1.04	0.9505	46.9	46.9	0.0513	0.0513	93.85	
PCB-171	42:51	2366416	1.05	0.9336	90.5	90.5	0.0522	0.0522	90.49	
PCB-173 (C171)	42:51	2366416	1.05	0.9336	90.5	90.5	0.0522	0.0522	90.49	
PCB-172	44:29	1195600	1.01	0.8519	50.1	50.1	0.0572	0.0572	100	
PCB-192	44:44	1948482	1.05	1.3459	51.7	51.7	0.0362	0.0362	103	
PCB-180	45:05	3252772	1.06	1.1676	99.5	99.5	0.0418	0.0418	99.47	
PCB-193 (C180)	45:05	3252772	1.06	1.1676	99.5	99.5	0.0418	0.0418	99.47	
PCB-191	45:29	1950726	1.09	1.2891	54.0	54.0	0.0378	0.0378	108	
PCB-170	46:24	1246693	1.03	1.1865	45.3	45.3	0.0503	0.0503	90.50	
PCB-190	46:54	1968154	0.93	1.3322	52.7	52.7	0.0366	0.0366	105	
PCB-189	49:29	2498875	1.10	0.9633	48.6	48.6	0.1484	0.1484	97.30	
S Total Octachlorobiphenyls					586.4	586.4	0.1419	0.1419		
D PCB-202L	42:19	2512532	0.96	0.9818	78.9	78.9	0.0565	0.0565	78.86	
* PCB-194L	51:34	4315361	0.93		100.0	100.0				
D PCB-205L	52:02	4394391	0.91	1.1786	86.4	86.4	0.0864	0.0864	86.40	
PCB-202	42:21	1269311	0.93	1.0359	48.8	48.8	0.0833	0.0833	97.54	
PCB-201	43:16	1174025	0.86	0.9754	47.9	47.9	0.0884	0.0884	95.81	
PCB-204	43:56	1263456	0.91	1.0485	48.0	48.0	0.0823	0.0823	95.92	
PCB-197	44:10	1343750	0.93	1.1458	46.7	46.7	0.0753	0.0753	93.35	
PCB-200	44:17	1339819	0.96	1.0072	52.9	52.9	0.0856	0.0856	106	
PCB-198	47:03	2200552	0.93	0.8698	100.7	100.7	0.0992	0.0992	101	
PCB-199 (C198)	47:03	2200552	0.93	0.8698	100.7	100.7	0.0992	0.0992	101	
PCB-196	47:44	995928	0.89	0.7806	50.8	50.8	0.1105	0.1105	102	
PCB-203	47:54	1229468	0.91	0.9292	52.7	52.7	0.0928	0.0928	105	
PCB-195	49:15	1698009	0.90	0.8263	46.8	46.8	0.3236	0.3236	93.52	
PCB-194	51:35	1933702	0.88	0.9735	45.2	45.2	0.2746	0.2746	90.40	
PCB-205	52:03	2199672	0.89	1.0878	46.0	46.0	0.2458	0.2458	92.04	
S Total Nonachlorobiphenyls					135.4	135.4	0.4108	0.4108		
D PCB-208L	48:58	3565618	0.80	0.9576	86.3	86.3	0.1685	0.1685	86.28	
D PCB-206L	53:47	2636411	0.79	0.6947	87.9	87.9	0.2322	0.2322	87.94	
PCB-208	49:00	1900138	0.81	1.1374	46.9	46.9	0.3960	0.3960	93.70	
PCB-207	49:56	1927568	0.80	1.3756	45.2	45.2	0.3774	0.3774	90.37	
PCB-206	53:48	1526453	0.80	1.3346	43.4	43.4	0.4589	0.4589	86.77	
D PCB-209L	55:23	2754819	0.72	0.6669	95.7	95.7	0.0858	0.0858	95.73	
DCB Decachlorobiphenyl	55:25	1445204	0.69	1.1004	47.7	47.7	0.1170	0.1170	95.35	
S Polychlorinated biphenyls, Total					9559.2	9559.2	0.2604	0.2604		

**QC Flag Legend**

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d  
Lims ID: LCS 140-88193/19-B  
Client ID:  
Sample Type: LCS  
Inject. Date: 15-Jul-2024 13:44:00 ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033504-002  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 15-Jul-2024 19:43:22 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1621

First Level Reviewer: V4XA

Date: 15-Jul-2024 19:43:22

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:36	11:36	-3	0.728	5054751	1959005	2026	5065	967		
202.0766	11:36	11:36	-3	0.728	1594459	624213	1223	3057	510	3.17(2.66-3.60)	
PCB-3L											
200.0795	13:44	13:44	-3	0.862	4965818	1576603	2026	5065	778		
202.0766	13:44	13:44	-3	0.862	1564030	481358	1223	3057	394	3.18(2.66-3.60)	
PCB-1											
188.0393	11:36	11:37	-3	1.001	2951456	1160979	1615	4037	719		
190.0363	11:36	11:37	-3	1.001	918802	365272	544	1360	671	3.21(2.66-3.60)	
PCB-2											
188.0393	13:35	13:35	-3	0.989	2762180	889535	1615	4037	551		
190.0363	13:35	13:35	-3	0.989	887678	285135	544	1360	524	3.11(2.66-3.60)	
PCB-3											
188.0393	13:45	13:46	-3	1.001	2857148	902382	1615	4037	559		
190.0363	13:45	13:46	-3	1.001	923826	286499	544	1360	527	3.09(2.66-3.60)	
PCB-4L											
234.0406	13:59	13:59	-3	0.878	1610695	506461	709	1772	714		
236.0376	14:00	13:59	-3	0.879	989887	311664	165	412	1889	1.63(1.33-1.79)	
PCB-9L											
234.0406	15:56	15:59	-3		3478983	996918	709	1772	1406		
236.0376	15:56	15:59	-3		2134229	608892	165	412	3690	1.63(1.33-1.79)	
PCB-15L											
234.0406	19:50	19:49	-3	1.246	2671500	614409	709	1772	867		
236.0376	19:50	19:49	-3	1.246	1637761	373158	165	412	2262	1.63(1.33-1.79)	
PCB-4											
222.0003	14:01	14:01	-3	1.002	961749	311026	193	482	1612		
223.9974	14:01	14:01	-3	1.002	604189	191948	314	785	611	1.59(1.33-1.79)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-10											
222.0003	14:10	14:11	-3	1.013	1380611	456421	193	482	2365		
223.9974	14:10	14:11	-3	1.013	860154	280294	314	785	893	1.61(1.33-1.79)	
PCB-9											
222.0003	15:57	15:57	-3	1.141	1431532	412350	193	482	2137		
223.9974	15:57	15:57	-3	1.141	875883	253223	314	785	806	1.63(1.33-1.79)	
PCB-7											
222.0003	16:07	16:07	-3	1.152	1372045	401687	193	482	2081		
223.9974	16:07	16:07	-3	1.152	868148	250085	314	785	796	1.58(1.33-1.79)	
PCB-6											
222.0003	16:22	16:22	-3	1.170	1503888	420257	193	482	2177		
223.9974	16:22	16:22	-3	1.170	945389	262354	314	785	836	1.59(1.33-1.79)	
PCB-5											
222.0003	16:40	16:40	-3	1.192	1324940	374323	193	482	1939		
223.9974	16:40	16:40	-3	1.192	820022	236623	314	785	754	1.62(1.33-1.79)	
PCB-8											
222.0003	16:48	16:47	-3	1.201	1562200	409756	193	482	2123		
223.9974	16:47	16:47	-3	1.200	1000272	255941	314	785	815	1.56(1.33-1.79)	
PCB-14											
222.0003	18:23	18:25	-4	0.926	1495356	361125	193	482	1871		
223.9974	18:23	18:25	-4	0.926	964351	227718	314	785	725	1.55(1.33-1.79)	
PCB-11											
222.0003	19:14	19:15	-3	0.970	1364439	319048	193	482	1653		
223.9974	19:14	19:15	-3	0.970	854552	196377	314	785	625	1.60(1.33-1.79)	
PCB-12											
222.0003	19:32	19:33	-3	0.985	2765189	457792	193	482	2372		
223.9974	19:32	19:33	-3	0.985	1723730	286596	314	785	913	1.60(1.33-1.79)	
PCB-13 (C12)											
222.0003	19:32	19:33	-3	0.985	2765189	457792	193	482	2372		
223.9974	19:32	19:33	-3	0.985	1723730	286596	314	785	913	1.60(1.33-1.79)	
PCB-15											
222.0003	19:51	19:52	-3	1.001	1653205	362997	193	482	1881		
223.9974	19:51	19:52	-3	1.001	1023857	222234	314	785	708	1.61(1.33-1.79)	
PCB-19L											
268.0016	17:04	17:05	-3	0.841	833491	228515	878	2195	260		
269.9986	17:04	17:05	-3	0.841	806384	222994	481	1202	464	1.03(0.88-1.20)	
PCB-32L											
268.0016	20:18	20:21	-3		1989761	487843	878	2195	556		
269.9986	20:18	20:21	-3		1839489	451492	481	1202	939	1.08(0.88-1.20)	
PCB-31L											
268.0016	22:34	22:36	-2		4778569	1128823	601	1502	1878		
269.9986	22:34	22:36	-2		4523441	1051404	353	882	2978	1.06(0.88-1.20)	
PCB-28L											
268.0016	22:50	22:50	-2	1.012	3363072	748321	601	1502	1245		
269.9986	22:50	22:50	-2	1.012	3138742	699256	353	882	1981	1.07(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-37L											
268.0016	26:51	26:50	-2	1.190	3097878	590640	601	1502	983		
269.9986	26:51	26:50	-2	1.190	2873143	547273	353	882	1550	1.08(0.88-1.20)	
PCB-19											
255.9613	17:06	17:05	-3	1.002	491221	138306	79	197	1751		
257.9584	17:06	17:05	-3	1.002	458091	126772	121	302	1048	1.07(0.88-1.20)	
PCB-18											
255.9613	18:53	18:52	-3	1.106	1415769	233326	79	197	2953		
257.9584	18:53	18:52	-3	1.106	1304083	210240	121	302	1738	1.09(0.88-1.20)	
PCB-30 (C18)											
255.9613	18:53	18:52	-3	1.106	1415769	233326	79	197	2953		
257.9584	18:53	18:52	-3	1.106	1304083	210240	121	302	1738	1.09(0.88-1.20)	
PCB-17											
255.9613	19:21	19:20	-3	1.134	490816	121061	79	197	1532		
257.9584	19:21	19:20	-3	1.134	459923	114815	121	302	949	1.07(0.88-1.20)	
PCB-27											
255.9613	19:35	19:33	-2	1.147	737682	184802	79	197	2339		
257.9584	19:34	19:33	-3	1.146	675661	167531	121	302	1385	1.09(0.88-1.20)	
PCB-24											
255.9613	19:42	19:41	-3	1.154	663319	164152	79	197	2078		
257.9584	19:42	19:41	-3	1.154	664022	163224	121	302	1349	1.00(0.88-1.20)	
PCB-16											
255.9613	19:49	19:48	-3	1.161	462486	116959	79	197	1480		
257.9584	19:49	19:48	-3	1.161	444228	106476	121	302	880	1.04(0.88-1.20)	
PCB-32											
255.9613	20:20	20:18	-3	1.191	748666	188137	79	197	2381		
257.9584	20:20	20:18	-3	1.191	739536	182404	121	302	1507	1.01(0.88-1.20)	
PCB-34											
255.9613	21:34	21:32	-2	1.264	1637190	397992	1935	4837	206		
257.9584	21:34	21:32	-2	1.264	1560644	369479	1637	4092	226	1.05(0.88-1.20)	
PCB-23											
255.9613	21:43	21:41	-2	1.272	1591539	369152	1935	4837	191		
257.9584	21:43	21:41	-2	1.272	1529733	359182	1637	4092	219	1.04(0.88-1.20)	
PCB-26											
255.9613	22:02	22:01	-3	1.291	3161453	709643	1935	4837	367		
257.9584	22:02	22:01	-3	1.291	3018679	668144	1637	4092	408	1.05(0.88-1.20)	
PCB-29 (C26)											
255.9613	22:02	22:01	-3	1.291	3161453	709643	1935	4837	367		
257.9584	22:02	22:01	-3	1.291	3018679	668144	1637	4092	408	1.05(0.88-1.20)	
PCB-25											
255.9613	22:16	22:16	-2	0.829	1840492	380805	1935	4837	197		
257.9584	22:16	22:16	-2	0.829	1745595	372514	1637	4092	228	1.05(0.88-1.20)	
PCB-31											
255.9613	22:34	22:36	-3	0.841	1691242	383744	1935	4837	198		
257.9584	22:34	22:36	-3	0.841	1585811	368312	1637	4092	225	1.07(0.88-1.20)	

Chrom Revision: 2.3 26-Jun-2024 16:13:32

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

	Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
	PCB-20											
	255.9613	22:53	22:54	-2	0.852	3349817	542314	1935	4837	280		
	257.9584	22:53	22:54	-2	0.852	3183491	515036	1637	4092	315	1.05(0.88-1.20)	
	PCB-28 (C20)											
	255.9613	22:53	22:54	-2	0.852	3349817	542314	1935	4837	280		
	257.9584	22:53	22:54	-2	0.852	3183491	515036	1637	4092	315	1.05(0.88-1.20)	
	PCB-21											
	255.9613	23:03	23:03	-2	0.858	3053677	358729	1935	4837	185		M
	257.9584	23:03	23:03	-2	0.858	2914561	348981	1637	4092	213	1.05(0.88-1.20)	M
	PCB-33 (C21)											
	255.9613	23:03	23:03	-2	0.858	3053677	358729	1935	4837	185		M
	257.9584	23:03	23:03	-2	0.858	2914561	348981	1637	4092	213	1.05(0.88-1.20)	M
	PCB-22											
	255.9613	23:30	23:32	-3	0.875	1742917	387080	1935	4837	200		
	257.9584	23:30	23:32	-3	0.875	1624989	351244	1637	4092	215	1.07(0.88-1.20)	
	PCB-36											
	255.9613	25:03	25:03	-2	0.933	1541942	308562	1935	4837	159		
	257.9584	25:03	25:03	-2	0.933	1470533	292595	1637	4092	179	1.05(0.88-1.20)	
	PCB-39											
	255.9613	25:24	25:25	-2	0.946	1658592	329378	1935	4837	170		
	257.9584	25:24	25:25	-2	0.946	1555271	313147	1637	4092	191	1.07(0.88-1.20)	
	PCB-38											
	255.9613	25:59	25:59	-2	0.968	1490594	311579	1935	4837	161		
	257.9584	25:59	25:59	-2	0.968	1442064	298860	1637	4092	183	1.03(0.88-1.20)	
	PCB-35											
	255.9613	26:27	26:28	-2	0.985	1710849	318842	1935	4837	165		
	257.9584	26:27	26:28	-2	0.985	1603149	301174	1637	4092	184	1.07(0.88-1.20)	
	PCB-37											
	255.9613	26:52	26:52	-2	1.000	1627255	305139	1935	4837	158		
	257.9584	26:52	26:52	-2	1.000	1555563	293685	1637	4092	179	1.05(0.88-1.20)	
	PCB-54L											
	301.9626	20:09	20:09	-3	0.816	750838	183841	137	342	1342		
	303.9597	20:09	20:09	-3	0.816	902995	228827	24	60	9534	0.83(0.65-0.89)	
	PCB-52L											
	301.9626	24:41	24:43	-2		2092532	469709	310	775	1515		
	303.9597	24:41	24:43	-2		2660181	598703	320	800	1871	0.79(0.65-0.89)	
	PCB-81L											
	301.9626	33:35	33:33	-2	1.361	2069623	377811	310	775	1219		
	303.9597	33:35	33:33	-2	1.361	2540461	472348	320	800	1476	0.81(0.65-0.89)	
	PCB-77L											
	301.9626	34:09	34:07	-2	1.384	2205751	395334	310	775	1275		
	303.9597	34:09	34:07	-2	1.384	2765787	487699	320	800	1524	0.80(0.65-0.89)	
	PCB-54											
	289.9224	20:10	20:12	-2	1.000	444919	111059	54	135	2057		
	291.9194	20:09	20:12	-3	0.999	558976	136531	122	305	1119	0.80(0.65-0.89)	

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	Signal	RT (min.)	Adj RT (min.)	Δ Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
	PCB-50											
	289.9224	22:19	22:17	-2	1.108	1464845	337692	816	2040	414		
	291.9194	22:19	22:17	-2	1.108	1874812	432579	1002	2505	432	0.78(0.65-0.89)	
	PCB-53 (C50)											
	289.9224	22:19	22:17	-2	1.108	1464845	337692	816	2040	414		
	291.9194	22:19	22:17	-2	1.108	1874812	432579	1002	2505	432	0.78(0.65-0.89)	
	PCB-45											
	289.9224	23:03	23:03	-2	1.144	1466664	196648	816	2040	241		M
	291.9194	23:03	23:03	-2	1.144	1936018	257207	1002	2505	257	0.76(0.65-0.89)	M
	PCB-51 (C45)											
	289.9224	23:03	23:03	-2	1.144	1466664	196648	816	2040	241		M
	291.9194	23:03	23:03	-2	1.144	1936018	257207	1002	2505	257	0.76(0.65-0.89)	M
	PCB-46											
	289.9224	23:18	23:16	-2	1.157	631856	149737	816	2040	184		
	291.9194	23:18	23:16	-2	1.157	797552	187108	1002	2505	187	0.79(0.65-0.89)	
	PCB-52											
	289.9224	24:42	24:40	-2	1.226	848942	201052	816	2040	246		
	291.9194	24:42	24:40	-2	1.226	1032037	244889	1002	2505	244	0.82(0.65-0.89)	
	PCB-43											
	289.9224	24:50	24:50	-2	1.233	1956839	262341	816	2040	321		M
	291.9194	24:50	24:50	-2	1.233	2481840	326322	1002	2505	326	0.79(0.65-0.89)	M
	PCB-73 (C43)											
	289.9224	24:50	24:50	-2	1.233	1956839	262341	816	2040	321		M
	291.9194	24:50	24:50	-2	1.233	2481840	326322	1002	2505	326	0.79(0.65-0.89)	M
	PCB-49											
	289.9224	25:07	25:05	-2	1.247	1931717	265003	816	2040	325		
	291.9194	25:07	25:05	-2	1.247	2486184	341228	1002	2505	341	0.78(0.65-0.89)	
	PCB-69 (C49)											
	289.9224	25:07	25:05	-2	1.247	1931717	265003	816	2040	325		
	291.9194	25:07	25:05	-2	1.247	2486184	341228	1002	2505	341	0.78(0.65-0.89)	
	PCB-48											
	289.9224	25:28	25:26	-2	1.264	769564	167594	816	2040	205		
	291.9194	25:28	25:26	-2	1.264	985166	218319	1002	2505	218	0.78(0.65-0.89)	
	PCB-44											
	289.9224	25:42	25:40	-2	1.276	2639113	508199	816	2040	623		
	291.9194	25:42	25:40	-2	1.276	3333504	653722	1002	2505	652	0.79(0.65-0.89)	
	PCB-47 (C44)											
	289.9224	25:42	25:40	-2	1.276	2639113	508199	816	2040	623		
	291.9194	25:42	25:40	-2	1.276	3333504	653722	1002	2505	652	0.79(0.65-0.89)	
	PCB-65 (C44)											
	289.9224	25:42	25:40	-2	1.276	2639113	508199	816	2040	623		
	291.9194	25:42	25:40	-2	1.276	3333504	653722	1002	2505	652	0.79(0.65-0.89)	
	PCB-59											
	289.9224	26:01	25:58	-2	1.291	3107073	468396	816	2040	574		
	291.9194	26:01	25:58	-2	1.291	3929346	609924	1002	2505	609	0.79(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-62 (C59)											
289.9224	26:01	25:58	-2	1.291	3107073	468396	816	2040	574		
291.9194	26:01	25:58	-2	1.291	3929346	609924	1002	2505	609	0.79(0.65-0.89)	
PCB-75 (C59)											
289.9224	26:01	25:58	-2	1.291	3107073	468396	816	2040	574		
291.9194	26:01	25:58	-2	1.291	3929346	609924	1002	2505	609	0.79(0.65-0.89)	
PCB-42											
289.9224	26:13	26:11	-2	1.301	783372	172356	816	2040	211		
291.9194	26:13	26:11	-2	1.301	973095	211132	1002	2505	211	0.81(0.65-0.89)	
PCB-40											
289.9224	26:43	26:41	-2	1.326	2404893	377054	816	2040	462		
291.9194	26:43	26:41	-2	1.326	3084282	483922	1002	2505	483	0.78(0.65-0.89)	
PCB-41 (C40)											
289.9224	26:43	26:41	-2	1.326	2404893	377054	816	2040	462		
291.9194	26:43	26:41	-2	1.326	3084282	483922	1002	2505	483	0.78(0.65-0.89)	
PCB-71 (C40)											
289.9224	26:43	26:41	-2	1.326	2404893	377054	816	2040	462		
291.9194	26:43	26:41	-2	1.326	3084282	483922	1002	2505	483	0.78(0.65-0.89)	
PCB-64											
289.9224	26:55	26:53	-2	1.336	1093065	232524	816	2040	285		
291.9194	26:56	26:53	-2	1.337	1374626	280131	1002	2505	280	0.80(0.65-0.89)	
PCB-72											
289.9224	27:45	27:46	-2	0.826	1025005	220559	816	2040	270		
291.9194	27:45	27:46	-2	0.826	1275810	273608	1002	2505	273	0.80(0.65-0.89)	
PCB-68											
289.9224	28:02	28:02	-2	0.834	1206907	240309	816	2040	294		
291.9194	28:02	28:02	-2	0.834	1487129	299468	1002	2505	299	0.81(0.65-0.89)	
PCB-57											
289.9224	28:27	28:28	-2	0.847	1032400	217757	816	2040	267		
291.9194	28:27	28:28	-2	0.847	1343372	284799	1002	2505	284	0.77(0.65-0.89)	
PCB-58											
289.9224	28:41	28:42	-2	0.854	1326848	269303	816	2040	330		
291.9194	28:41	28:42	-2	0.854	1731474	340459	1002	2505	340	0.77(0.65-0.89)	
PCB-67											
289.9224	28:51	28:51	-2	0.859	1323075	267997	816	2040	328		
291.9194	28:51	28:51	-2	0.859	1614713	318253	1002	2505	318	0.82(0.65-0.89)	
PCB-63											
289.9224	29:07	29:07	-2	0.867	1053720	205458	816	2040	252		
291.9194	29:07	29:07	-2	0.867	1337573	262299	1002	2505	262	0.79(0.65-0.89)	
PCB-61											
289.9224	29:28	29:28	-2	0.877	4711803	567216	816	2040	695		
291.9194	29:28	29:28	-2	0.877	5934395	714984	1002	2505	714	0.79(0.65-0.89)	
PCB-70 (C61)											
289.9224	29:28	29:28	-2	0.877	4711803	567216	816	2040	695		
291.9194	29:28	29:28	-2	0.877	5934395	714984	1002	2505	714	0.79(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-74 (C61)											
289.9224	29:28	29:28	-2	0.877	4711803	567216	816	2040	695		
291.9194	29:28	29:28	-2	0.877	5934395	714984	1002	2505	714	0.79(0.65-0.89)	
PCB-76 (C61)											
289.9224	29:28	29:28	-2	0.877	4711803	567216	816	2040	695		
291.9194	29:28	29:28	-2	0.877	5934395	714984	1002	2505	714	0.79(0.65-0.89)	
PCB-66											
289.9224	29:47	29:47	-2	0.887	1295299	250256	816	2040	307		
291.9194	29:47	29:47	-2	0.887	1603388	308303	1002	2505	308	0.81(0.65-0.89)	
PCB-55											
289.9224	29:57	29:57	-2	0.892	1308070	263201	816	2040	323		
291.9194	29:57	29:57	-2	0.892	1696329	341975	1002	2505	341	0.77(0.65-0.89)	
PCB-56											
289.9224	30:28	30:28	-2	0.907	1219991	246318	816	2040	302		
291.9194	30:28	30:28	-2	0.907	1565403	312855	1002	2505	312	0.78(0.65-0.89)	
PCB-60											
289.9224	30:40	30:40	-2	0.913	1049353	210879	816	2040	258		
291.9194	30:40	30:40	-2	0.913	1345058	264869	1002	2505	264	0.78(0.65-0.89)	
PCB-80											
289.9224	31:04	31:04	-2	0.925	1298382	263183	816	2040	323		
291.9194	31:04	31:04	-2	0.925	1616727	323307	1002	2505	323	0.80(0.65-0.89)	
PCB-79											
289.9224	32:36	32:36	-2	0.971	1333978	239970	816	2040	294		
291.9194	32:36	32:36	-2	0.971	1679915	297595	1002	2505	297	0.79(0.65-0.89)	
PCB-78											
289.9224	33:10	33:10	-2	0.987	1171701	208491	816	2040	256		
291.9194	33:09	33:10	-2	0.987	1468677	263703	1002	2505	263	0.80(0.65-0.89)	
PCB-81											
289.9224	33:36	33:36	-2	1.000	1021276	191050	816	2040	234		
291.9194	33:36	33:36	-2	1.000	1244743	232401	1002	2505	232	0.82(0.65-0.89)	
PCB-77											
289.9224	34:10	34:11	-2	1.001	1058689	187798	816	2040	230		
291.9194	34:10	34:11	-2	1.001	1336447	240967	1002	2505	240	0.79(0.65-0.89)	
PCB-104L											
337.9207	25:36	25:37	-2	0.813	1842499	411636	242	605	1701		
339.9178	25:36	25:37	-2	0.813	1169677	265187	49	122	5412	1.58(1.32-1.78)	
PCB-101L											
337.9207	31:29	31:31	-2		2067091	426204	242	605	1761		
339.9178	31:29	31:31	-2		1273213	270642	49	122	5523	1.62(1.32-1.78)	
PCB-111L											
337.9207	34:10	34:09	-2	1.085	2024863	401301	242	605	1658		
339.9178	34:10	34:09	-2	1.085	1281962	251410	49	122	5131	1.58(1.32-1.78)	
PCB-123L											
337.9207	36:07	36:07	-2	1.147	2861365	556128	2391	5977	233		
339.9178	36:07	36:07	-2	1.147	1787883	355924	1910	4775	186	1.60(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-118L											
337.9207	36:27	36:27	-2	1.158	3086066	600853	2391	5977	251		
339.9178	36:27	36:27	-2	1.158	1870659	370609	1910	4775	194	1.65(1.32-1.78)	
PCB-114L											
337.9207	36:59	36:58	-2	1.174	2972296	592773	2391	5977	248		
339.9178	36:59	36:58	-2	1.174	1865603	367668	1910	4775	192	1.59(1.32-1.78)	
PCB-105L											
337.9207	37:39	37:37	-1	1.196	3032272	582709	2391	5977	244		
339.9178	37:39	37:37	-1	1.196	1886239	363658	1910	4775	190	1.61(1.32-1.78)	
PCB-127L											
337.9207	39:06	39:07	-1		3739501	707938	2391	5977	296		
339.9178	39:06	39:07	-1		2341702	440622	1910	4775	231	1.60(1.32-1.78)	
PCB-126L											
337.9207	40:43	40:42	-2	1.293	2953787	540588	2391	5977	226		
339.9178	40:43	40:42	-2	1.293	1864536	334455	1910	4775	175	1.58(1.32-1.78)	
PCB-104											
325.8804	25:38	25:37	-2	1.001	868916	190798	198	495	964		
327.8775	25:38	25:37	-2	1.001	545956	121834	68	170	1792	1.59(1.32-1.78)	
PCB-96											
325.8804	26:01	26:01	-2	1.016	926773	204525	198	495	1033		
327.8775	26:01	26:01	-3	1.016	572719	120425	68	170	1771	1.62(1.32-1.78)	
PCB-103											
325.8804	27:55	27:54	-2	1.090	804769	173300	198	495	875		
327.8775	27:55	27:54	-2	1.090	474049	93538	68	170	1376	1.70(1.32-1.78)	
PCB-94											
325.8804	28:09	28:09	-2	1.100	627794	131536	198	495	664		
327.8775	28:09	28:09	-2	1.100	404357	82515	68	170	1213	1.55(1.32-1.78)	
PCB-95											
325.8804	28:36	28:35	-2	1.117	719028	159029	198	495	803		
327.8775	28:36	28:35	-2	1.117	452753	98682	68	170	1451	1.59(1.32-1.78)	
PCB-93											
325.8804	28:48	28:47	-2	1.125	1438666	245176	198	495	1238		
327.8775	28:48	28:47	-2	1.125	886921	149091	68	170	2193	1.62(1.32-1.78)	
PCB-100 (C93)											
325.8804	28:48	28:47	-2	1.125	1438666	245176	198	495	1238		
327.8775	28:48	28:47	-2	1.125	886921	149091	68	170	2193	1.62(1.32-1.78)	
PCB-98											
325.8804	28:58	28:58	-2	1.131	1427214	169204	198	495	855		M
327.8775	28:58	28:58	-2	1.131	887180	109464	68	170	1610	1.61(1.32-1.78)	M
PCB-102 (C98)											
325.8804	28:58	28:58	-2	1.131	1427214	169204	198	495	855		M
327.8775	28:58	28:58	-2	1.131	887180	109464	68	170	1610	1.61(1.32-1.78)	M
PCB-88											
325.8804	29:27	29:26	-2	1.151	1389889	154400	198	495	780		
327.8775	29:27	29:26	-2	1.151	849978	92840	68	170	1365	1.64(1.32-1.78)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-91 (C88)											
325.8804	29:27	29:26	-2	1.151	1389889	154400	198	495	780		
327.8775	29:27	29:26	-2	1.151	849978	92840	68	170	1365	1.64(1.32-1.78)	
PCB-84											
325.8804	29:42	29:41	-2	1.160	632129	131087	198	495	662		
327.8775	29:41	29:41	-2	1.160	418028	80307	68	170	1181	1.51(1.32-1.78)	
PCB-89											
325.8804	30:10	30:09	-2	1.178	680636	135731	198	495	686		
327.8775	30:10	30:09	-2	1.179	432646	93042	68	170	1368	1.57(1.32-1.78)	
PCB-121											
325.8804	30:33	30:31	-2	1.193	1146945	231182	198	495	1168		M
327.8775	30:33	30:31	-2	1.193	716907	144573	68	170	2126	1.60(1.32-1.78)	M
PCB-92											
325.8804	30:56	30:56	-2	0.857	782159	163582	198	495	826		M
327.8775	30:56	30:56	-2	0.857	491762	100715	68	170	1481	1.59(1.32-1.78)	M
PCB-90											
325.8804	31:29	31:28	-2	1.230	2593891	400592	198	495	2023		
327.8775	31:29	31:28	-2	1.230	1626024	249511	68	170	3669	1.60(1.32-1.78)	
PCB-101 (C90)											
325.8804	31:29	31:28	-2	1.230	2593891	400592	198	495	2023		
327.8775	31:29	31:28	-2	1.230	1626024	249511	68	170	3669	1.60(1.32-1.78)	
PCB-113 (C90)											
325.8804	31:29	31:28	-2	1.230	2593891	400592	198	495	2023		
327.8775	31:29	31:28	-2	1.230	1626024	249511	68	170	3669	1.60(1.32-1.78)	
PCB-83											
325.8804	32:05	32:04	-2	1.254	1568607	196045	198	495	990		
327.8775	32:05	32:04	-2	1.254	949586	126257	68	170	1857	1.65(1.32-1.78)	
PCB-99 (C83)											
325.8804	32:05	32:04	-2	1.254	1568607	196045	198	495	990		
327.8775	32:05	32:04	-2	1.254	949586	126257	68	170	1857	1.65(1.32-1.78)	
PCB-112											
325.8804	32:13	32:11	-2	1.259	1259485	249081	198	495	1258		
327.8775	32:13	32:11	-2	1.259	821385	154920	68	170	2278	1.53(1.32-1.78)	
PCB-86											
325.8804	32:35	32:35	-2	1.273	5629189	578234	198	495	2920		M
327.8775	32:35	32:35	-2	1.273	3561528	372313	68	170	5475	1.58(1.32-1.78)	M
PCB-87 (C86)											
325.8804	32:35	32:35	-2	1.273	5629189	578234	198	495	2920		M
327.8775	32:35	32:35	-2	1.273	3561528	372313	68	170	5475	1.58(1.32-1.78)	M
PCB-97 (C86)											
325.8804	32:35	32:35	-2	1.273	5629189	578234	198	495	2920		M
327.8775	32:35	32:35	-2	1.273	3561528	372313	68	170	5475	1.58(1.32-1.78)	M
PCB-109 (C86)											
325.8804	32:35	32:35	-2	1.273	5629189	578234	198	495	2920		M
327.8775	32:35	32:35	-2	1.273	3561528	372313	68	170	5475	1.58(1.32-1.78)	M



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-119 (C86)											M
325.8804	32:35	32:35	-2	1.273	5629189	578234	198	495	2920		M
327.8775	32:35	32:35	-2	1.273	3561528	372313	68	170	5475	1.58(1.32-1.78)	M
PCB-125 (C86)											M
325.8804	32:35	32:35	-2	1.273	5629189	578234	198	495	2920		M
327.8775	32:35	32:35	-2	1.273	3561528	372313	68	170	5475	1.58(1.32-1.78)	M
PCB-85											
325.8804	33:18	33:16	-2	1.301	2795145	328445	198	495	1659		
327.8775	33:18	33:16	-2	1.301	1774840	208631	68	170	3068	1.57(1.32-1.78)	
PCB-116 (C85)											
325.8804	33:18	33:16	-2	1.301	2795145	328445	198	495	1659		
327.8775	33:18	33:16	-2	1.301	1774840	208631	68	170	3068	1.57(1.32-1.78)	
PCB-117 (C85)											
325.8804	33:18	33:16	-2	1.301	2795145	328445	198	495	1659		
327.8775	33:18	33:16	-2	1.301	1774840	208631	68	170	3068	1.57(1.32-1.78)	
PCB-110											
325.8804	33:30	33:29	-2	1.309	2198899	312270	198	495	1577		
327.8775	33:31	33:29	-2	1.310	1384823	198739	68	170	2923	1.59(1.32-1.78)	
PCB-115 (C110)											
325.8804	33:30	33:29	-2	1.309	2198899	312270	198	495	1577		
327.8775	33:31	33:29	-2	1.310	1384823	198739	68	170	2923	1.59(1.32-1.78)	
PCB-82											
325.8804	33:49	33:48	-2	1.321	766725	141708	198	495	716		
327.8775	33:50	33:48	-2	1.322	486268	87416	68	170	1286	1.58(1.32-1.78)	
PCB-111											
325.8804	34:11	34:09	-2	1.335	1135822	223295	198	495	1128		
327.8775	34:11	34:09	-2	1.335	695429	134272	68	170	1975	1.63(1.32-1.78)	
PCB-120											
325.8804	34:39	34:37	-2	1.353	1366661	259228	198	495	1309		
327.8775	34:39	34:37	-2	1.353	858971	170562	68	170	2508	1.59(1.32-1.78)	
PCB-108											
325.8804	35:48	35:46	-2	1.398	2965254	563363	1684	4210	335		
327.8775	35:48	35:46	-2	1.398	1849677	346671	1328	3320	261	1.60(1.32-1.78)	
PCB-124 (C108)											
325.8804	35:48	35:46	-2	1.398	2965254	563363	1684	4210	335		
327.8775	35:48	35:46	-2	1.398	1849677	346671	1328	3320	261	1.60(1.32-1.78)	
PCB-107											
325.8804	36:02	36:00	-2	1.408	1569185	293200	1684	4210	174		
327.8775	36:02	36:00	-2	1.408	990046	181987	1328	3320	137	1.58(1.32-1.78)	
PCB-123											Ma
325.8804	36:09	36:09	-2	1.001	1422621	269358	1684	4210	160		M
327.8775	36:09	36:09	-2	1.001	904957	177615	1328	3320	134	1.57(1.32-1.78)	
PCB-106											Ma
325.8804	36:16	36:16	-2	1.004	1452631	295807	1684	4210	176		M
327.8775	36:16	36:16	-2	1.004	871771	179352	1328	3320	135	1.67(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-118											
325.8804	36:29	36:29	-2	1.001	1601319	316782	1684	4210	188		
327.8775	36:29	36:29	-2	1.001	1062706	195140	1328	3320	147	1.51(1.32-1.78)	
PCB-122											
325.8804	36:50	36:50	-2	1.010	1355195	266659	1684	4210	158		
327.8775	36:50	36:50	-2	1.010	835155	167569	1328	3320	126	1.62(1.32-1.78)	
PCB-114											
325.8804	37:00	37:00	-2	1.001	1471719	259998	1684	4210	154		
327.8775	37:00	37:00	-2	1.001	952731	164904	1328	3320	124	1.54(1.32-1.78)	
PCB-105											
325.8804	37:40	37:40	-1	1.001	1674009	303041	1684	4210	180		
327.8775	37:40	37:40	-1	1.001	1060128	188105	1328	3320	142	1.58(1.32-1.78)	
PCB-127											
325.8804	39:07	39:07	-2	1.039	1525767	286769	1684	4210	170		
327.8775	39:08	39:07	-1	1.039	973608	177175	1328	3320	133	1.57(1.32-1.78)	
PCB-126											
325.8804	40:45	40:44	-1	1.001	1525119	256057	1684	4210	152		
327.8775	40:45	40:44	-1	1.001	966631	162244	1328	3320	122	1.58(1.32-1.78)	
PCB-155L											
371.8817	31:14	31:14	-2	0.789	1503580	307549	49	122	6277		
373.8788	31:14	31:14	-2	0.789	1175967	247871	54	135	4590	1.28(1.05-1.43)	
PCB-138L											
371.8817	39:34	39:36	-2		2340051	460681	745	1862	618		
373.8788	39:34	39:36	-2		1789742	363023	799	1997	454	1.31(1.05-1.43)	
PCB-167L											
371.8817	42:34	42:32	-1	1.076	2397237	454517	745	1862	610		
373.8788	42:34	42:32	-1	1.076	1890255	362726	799	1997	454	1.27(1.05-1.43)	
PCB-156L											
371.8817	43:44	43:42	-1	1.105	4840816	606796	745	1862	814		
373.8788	43:44	43:42	0	1.106	3745154	461412	799	1997	577	1.29(1.05-1.43)	
PCB-157L (C156L)											
371.8817	43:44	43:42	-1	1.105	4840816	606796	745	1862	814		
373.8788	43:44	43:42	0	1.106	3745154	461412	799	1997	577	1.29(1.05-1.43)	
PCB-169L											
371.8817	46:57	46:55	-1	1.187	2490285	446053	745	1862	599		
373.8788	46:58	46:55	0	1.187	1941112	343557	799	1997	430	1.28(1.05-1.43)	
PCB-155											
359.8415	31:16	31:15	-2	1.001	688789	143981	63	157	2285		
361.8385	31:16	31:15	-2	1.001	531016	110900	67	167	1655	1.30(1.05-1.43)	
PCB-152											
359.8415	31:29	31:29	-2	1.008	733954	152133	63	157	2415		
361.8385	31:29	31:29	-2	1.008	558113	124846	67	167	1863	1.32(1.05-1.43)	
PCB-150											
359.8415	31:39	31:39	-2	1.013	763382	154589	63	157	2454		
361.8385	31:39	31:39	-2	1.013	595725	120579	67	167	1800	1.28(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-136											
359.8415	32:02	32:02	-2	1.025	776696	155534	63	157	2469		
361.8385	32:02	32:02	-2	1.026	591662	117933	67	167	1760	1.31(1.05-1.43)	
PCB-145											
359.8415	32:18	32:18	-2	1.034	728547	145024	63	157	2302		
361.8385	32:18	32:18	-2	1.034	589034	120347	67	167	1796	1.24(1.05-1.43)	
PCB-148											
359.8415	33:48	33:48	-2	1.082	549038	107718	63	157	1710		
361.8385	33:48	33:48	-2	1.082	436344	87552	67	167	1307	1.26(1.05-1.43)	
PCB-135											
359.8415	34:25	34:25	-1	1.102	1122642	126402	63	157	2006		M
361.8385	34:24	34:25	-2	1.101	915196	104027	67	167	1553	1.23(1.05-1.43)	M
PCB-151 (C135)											
359.8415	34:25	34:25	-1	1.102	1122642	126402	63	157	2006		M
361.8385	34:24	34:25	-2	1.101	915196	104027	67	167	1553	1.23(1.05-1.43)	M
PCB-154											
359.8415	34:39	34:38	-2	1.109	625268	123047	63	157	1953		
361.8385	34:39	34:38	-2	1.109	472586	95855	67	167	1431	1.32(1.05-1.43)	
PCB-144											
359.8415	34:58	34:57	-2	1.119	593432	113900	63	157	1808		
361.8385	34:58	34:57	-2	1.119	480371	91866	67	167	1371	1.24(1.05-1.43)	
PCB-147											
359.8415	35:20	35:20	-2	1.131	1922536	366895	512	1280	717		
361.8385	35:20	35:20	-2	1.131	1555954	286396	357	892	802	1.24(1.05-1.43)	
PCB-149 (C147)											
359.8415	35:20	35:20	-2	1.131	1922536	366895	512	1280	717		
361.8385	35:20	35:20	-2	1.131	1555954	286396	357	892	802	1.24(1.05-1.43)	
PCB-134											
359.8415	35:38	35:38	-2	1.141	1667968	178752	512	1280	349		
361.8385	35:38	35:38	-2	1.141	1309054	148519	357	892	416	1.27(1.05-1.43)	
PCB-143 (C134)											
359.8415	35:38	35:38	-2	1.141	1667968	178752	512	1280	349		
361.8385	35:38	35:38	-2	1.141	1309054	148519	357	892	416	1.27(1.05-1.43)	
PCB-139											
359.8415	35:56	35:55	-2	1.150	1849031	319230	512	1280	623		
361.8385	35:56	35:55	-2	1.150	1432121	248614	357	892	696	1.29(1.05-1.43)	
PCB-140 (C139)											
359.8415	35:56	35:55	-2	1.150	1849031	319230	512	1280	623		
361.8385	35:56	35:55	-2	1.150	1432121	248614	357	892	696	1.29(1.05-1.43)	
PCB-131											
359.8415	36:08	36:08	-2	1.157	753005	156572	512	1280	306		
361.8385	36:08	36:08	-2	1.157	619666	128024	357	892	359	1.22(1.05-1.43)	
PCB-142											
359.8415	36:17	36:16	-2	1.162	843658	169981	512	1280	332		
361.8385	36:17	36:16	-2	1.162	627946	128050	357	892	359	1.34(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-132											
359.8415	36:36	36:36	-2	1.172	799221	151135	512	1280	295		
361.8385	36:36	36:36	-2	1.172	616749	125222	357	892	351	1.30(1.05-1.43)	
PCB-133											
359.8415	37:06	37:04	-1	1.188	801040	153475	512	1280	300		
361.8385	37:05	37:04	-2	1.187	662648	130262	357	892	365	1.21(1.05-1.43)	
PCB-165											
359.8415	37:29	37:30	-1	0.881	1099721	217018	512	1280	424		
361.8385	37:29	37:30	-2	0.881	871963	168162	357	892	471	1.26(1.05-1.43)	
PCB-146											
359.8415	37:43	37:44	-2	0.886	987720	194418	512	1280	380		
361.8385	37:43	37:44	-2	0.886	802707	166483	357	892	466	1.23(1.05-1.43)	
PCB-161											
359.8415	37:51	37:52	-1	0.889	1166010	223814	512	1280	437		
361.8385	37:51	37:52	-1	0.889	949895	187511	357	892	525	1.23(1.05-1.43)	
PCB-153											
359.8415	38:22	38:22	-1	0.902	2278396	334714	512	1280	654		
361.8385	38:21	38:22	-2	0.901	1854193	267777	357	892	750	1.23(1.05-1.43)	
PCB-168 (C153)											
359.8415	38:22	38:22	-1	0.902	2278396	334714	512	1280	654		
361.8385	38:21	38:22	-2	0.901	1854193	267777	357	892	750	1.23(1.05-1.43)	
PCB-141											
359.8415	38:32	38:33	-2	0.906	919338	166876	512	1280	326		
361.8385	38:32	38:33	-2	0.906	707651	131276	357	892	368	1.30(1.05-1.43)	
PCB-130											
359.8415	38:58	38:58	-1	0.915	722209	137147	512	1280	268		
361.8385	38:58	38:58	-1	0.915	574027	111547	357	892	312	1.26(1.05-1.43)	
PCB-137											
359.8415	39:10	39:10	-1	0.920	886891	171873	512	1280	336		
361.8385	39:10	39:10	-1	0.920	694903	133802	357	892	375	1.28(1.05-1.43)	
PCB-164											
359.8415	39:18	39:18	-1	0.923	1151892	229320	512	1280	448		
361.8385	39:18	39:18	-1	0.923	909415	183586	357	892	514	1.27(1.05-1.43)	
PCB-129											
359.8415	39:36	39:36	-1	0.931	4056010	448890	512	1280	877		M
361.8385	39:36	39:36	-1	0.931	3193715	354924	357	892	994	1.27(1.05-1.43)	M
PCB-138 (C129)											
359.8415	39:36	39:36	-1	0.931	4056010	448890	512	1280	877		M
361.8385	39:36	39:36	-1	0.931	3193715	354924	357	892	994	1.27(1.05-1.43)	M
PCB-160 (C129)											
359.8415	39:36	39:36	-1	0.931	4056010	448890	512	1280	877		M
361.8385	39:36	39:36	-1	0.931	3193715	354924	357	892	994	1.27(1.05-1.43)	M
PCB-163 (C129)											
359.8415	39:36	39:36	-1	0.931	4056010	448890	512	1280	877		M
361.8385	39:36	39:36	-1	0.931	3193715	354924	357	892	994	1.27(1.05-1.43)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-158											
359.8415	39:58	39:59	-2	0.939	1375926	260007	512	1280	508		
361.8385	39:59	39:59	-1	0.939	1090029	211204	357	892	592	1.26(1.05-1.43)	
PCB-128											
359.8415	40:49	40:50	-2	0.959	2076541	266520	512	1280	521		
361.8385	40:49	40:50	-3	0.959	1632175	205186	357	892	575	1.27(1.05-1.43)	
PCB-166 (C128)											
359.8415	40:49	40:50	-2	0.959	2076541	266520	512	1280	521		
361.8385	40:49	40:50	-3	0.959	1632175	205186	357	892	575	1.27(1.05-1.43)	
PCB-159											
359.8415	41:49	41:49	-1	0.983	1463931	274891	512	1280	537		
361.8385	41:49	41:49	-1	0.983	1178954	223376	357	892	626	1.24(1.05-1.43)	
PCB-162											
359.8415	42:07	42:07	-1	0.990	1342399	237377	512	1280	464		
361.8385	42:07	42:07	-1	0.990	1079486	194119	357	892	544	1.24(1.05-1.43)	
PCB-167											
359.8415	42:35	42:35	-1	1.001	1255137	232836	512	1280	455		
361.8385	42:35	42:35	-1	1.001	962401	173163	357	892	485	1.30(1.05-1.43)	
PCB-156											
359.8415	43:46	43:45	0	1.001	2493422	309326	512	1280	604		
361.8385	43:46	43:45	0	1.001	2001744	247332	357	892	693	1.25(1.05-1.43)	
PCB-157 (C156)											
359.8415	43:46	43:45	0	1.001	2493422	309326	512	1280	604		
361.8385	43:46	43:45	0	1.001	2001744	247332	357	892	693	1.25(1.05-1.43)	
PCB-169											
359.8415	46:58	46:58	-1	1.001	1357962	229763	512	1280	449		
361.8385	46:58	46:58	-1	1.001	1068016	182369	357	892	511	1.27(1.05-1.43)	
PCB-188L											
405.8428	36:58	36:57	-1	0.820	1697385	331120	40	100	8278		
407.8398	36:58	36:57	-1	0.820	1582439	304237	18	45	16902	1.07(0.89-1.21)	
PCB-178L											
405.8428	40:01	40:01	-1	0.888	1206307	233593	40	100	5840		
407.8398	40:01	40:01	-1	0.888	1121095	222486	18	45	12360	1.08(0.89-1.21)	
PCB-180L											
405.8428	45:06	45:07	-1		1663916	324939	40	100	8123		
407.8398	45:06	45:07	-1		1581120	306563	18	45	17031	1.05(0.89-1.21)	
PCB-170L											
405.8428	46:22	46:21	-1	1.028	1207413	225501	40	100	5638		
407.8398	46:22	46:21	-1	1.028	1114529	213776	18	45	11876	1.08(0.89-1.21)	
PCB-189L											
405.8428	49:28	49:27	-1	1.097	2761642	519747	819	2047	635		
407.8398	49:28	49:27	-1	1.097	2570428	481904	599	1497	805	1.07(0.89-1.21)	
PCB-188											
393.8025	36:59	36:59	-1	1.001	893521	174996	45	112	3889		
395.7995	36:59	36:59	-1	1.001	835622	164955	60	150	2749	1.07(0.89-1.21)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-179											
393.8025	37:21	37:21	-2	1.010	900409	179387	45	112	3986		
395.7995	37:21	37:21	-2	1.010	836674	155672	60	150	2595	1.08(0.89-1.21)	
PCB-184											
393.8025	37:51	37:50	-1	1.024	866564	171492	45	112	3811		
395.7995	37:51	37:50	-1	1.024	856932	175355	60	150	2923	1.01(0.89-1.21)	
PCB-176											
393.8025	38:13	38:13	-2	1.034	805405	155725	45	112	3461		
395.7995	38:13	38:13	-2	1.034	741101	148024	60	150	2467	1.09(0.89-1.21)	
PCB-186											
393.8025	38:40	38:40	-2	1.046	958675	182703	45	112	4060		
395.7995	38:40	38:40	-2	1.046	936849	184657	60	150	3078	1.02(0.89-1.21)	
PCB-178											
393.8025	40:03	40:02	-1	1.084	594465	120306	45	112	2673		
395.7995	40:03	40:02	-1	1.084	567809	114576	60	150	1910	1.05(0.89-1.21)	
PCB-175											
393.8025	40:40	40:39	-1	1.100	628123	123075	45	112	2735		
395.7995	40:40	40:39	-1	1.100	594876	115881	60	150	1931	1.06(0.89-1.21)	
PCB-187											
393.8025	40:57	40:56	-1	1.108	732693	138057	45	112	3068		
395.7995	40:57	40:56	-1	1.108	685800	129831	60	150	2164	1.07(0.89-1.21)	
PCB-182											
393.8025	41:08	41:07	-1	1.113	617487	121053	45	112	2690		
395.7995	41:08	41:07	-1	1.113	595098	118906	60	150	1982	1.04(0.89-1.21)	
PCB-183											
393.8025	41:33	41:33	-1	1.124	1252639	131979	45	112	2933		Ma
395.7995	41:33	41:33	-1	1.124	1157149	118084	60	150	1968	1.08(0.89-1.21)	M
PCB-185 (C183)											
393.8025	41:33	41:33	-1	1.124	1252639	131979	45	112	2933		Ma
395.7995	41:33	41:33	-1	1.124	1157149	118084	60	150	1968	1.08(0.89-1.21)	M
PCB-174											
393.8025	41:49	41:48	-1	1.131	666917	127374	45	112	2831		
395.7995	41:48	41:48	-2	1.131	601123	114616	60	150	1910	1.11(0.89-1.21)	
PCB-177											
393.8025	42:15	42:14	-1	1.143	655831	123023	45	112	2734		
395.7995	42:15	42:14	-1	1.143	638135	119869	60	150	1998	1.03(0.89-1.21)	
PCB-181											
393.8025	42:37	42:36	-1	1.153	636751	123577	45	112	2746		
395.7995	42:37	42:36	-1	1.153	612594	117922	60	150	1965	1.04(0.89-1.21)	
PCB-171											
393.8025	42:51	42:50	-1	1.159	1211897	224878	45	112	4997		
395.7995	42:51	42:50	-1	1.159	1154519	214686	60	150	3578	1.05(0.89-1.21)	
PCB-173 (C171)											
393.8025	42:51	42:50	-1	1.159	1211897	224878	45	112	4997		
395.7995	42:51	42:50	-1	1.159	1154519	214686	60	150	3578	1.05(0.89-1.21)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-172											
393.8025	44:29	44:28	-1	0.899	600129	119052	45	112	2646		
395.7995	44:29	44:28	-1	0.899	595471	113337	60	150	1889	1.01(0.89-1.21)	
PCB-192											
393.8025	44:44	44:45	-2	0.905	997989	196483	45	112	4366		
395.7995	44:44	44:45	-2	0.905	950493	184944	60	150	3082	1.05(0.89-1.21)	
PCB-180											
393.8025	45:05	45:05	-2	0.911	1669959	235124	45	112	5225		
395.7995	45:05	45:05	-2	0.911	1582813	225550	60	150	3759	1.06(0.89-1.21)	
PCB-193 (C180)											
393.8025	45:05	45:05	-2	0.911	1669959	235124	45	112	5225		
395.7995	45:05	45:05	-2	0.911	1582813	225550	60	150	3759	1.06(0.89-1.21)	
PCB-191											
393.8025	45:29	45:28	-1	0.919	1018359	192431	45	112	4276		
395.7995	45:29	45:28	-1	0.919	932367	183424	60	150	3057	1.09(0.89-1.21)	
PCB-170											
393.8025	46:24	46:23	-1	0.938	633308	123074	45	112	2735		
395.7995	46:24	46:23	-1	0.938	613385	117381	60	150	1956	1.03(0.89-1.21)	
PCB-190											
393.8025	46:54	46:54	-2	0.948	948298	171941	45	112	3821		
395.7995	46:54	46:54	-2	0.948	1019856	172824	60	150	2880	0.93(0.89-1.21)	
PCB-189											
393.8025	49:29	49:28	-1	1.001	1306175	241867	355	887	681		
395.7995	49:29	49:28	-1	1.001	1192700	223662	218	545	1026	1.10(0.89-1.21)	
PCB-202L											
439.8038	42:19	42:18	-1	0.821	1231699	242262	78	195	3106		
441.8008	42:19	42:18	-1	0.821	1280833	250474	62	155	4040	0.96(0.76-1.02)	
PCB-194L											
439.8038	51:34	51:35	-1		2074538	386939	151	377	2563		
441.8008	51:33	51:35	-2		2240823	420092	178	445	2360	0.93(0.76-1.02)	
PCB-205L											
439.8038	52:02	52:00	-1	1.009	2095004	394228	151	377	2611		
441.8008	52:02	52:00	-1	1.009	2299387	434991	178	445	2444	0.91(0.76-1.02)	
PCB-202											
427.7635	42:21	42:20	-1	1.001	612644	121920	87	217	1401		
429.7606	42:21	42:20	-1	1.001	656667	128291	83	207	1546	0.93(0.76-1.02)	
PCB-201											
427.7635	43:16	43:15	-1	1.022	543299	99701	87	217	1146		
429.7606	43:15	43:15	-2	1.022	630726	118144	83	207	1423	0.86(0.76-1.02)	
PCB-204											
427.7635	43:56	43:55	-1	1.038	602622	115168	87	217	1324		
429.7606	43:56	43:55	-1	1.038	660834	125742	83	207	1515	0.91(0.76-1.02)	
PCB-197											
427.7635	44:10	44:09	-1	1.043	645781	130403	87	217	1499		
429.7606	44:09	44:09	-2	1.043	697969	139680	83	207	1683	0.93(0.76-1.02)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-200											
427.7635	44:17	44:17	-2	1.046	655044	120822	87	217	1389		
429.7606	44:17	44:17	-2	1.046	684775	132687	83	207	1599	0.96(0.76-1.02)	
PCB-198											
427.7635	47:03	47:02	-1	1.112	1059924	126047	87	217	1449		
429.7606	47:02	47:02	-2	1.111	1140628	140537	83	207	1693	0.93(0.76-1.02)	
PCB-199 (C198)											
427.7635	47:03	47:02	-1	1.112	1059924	126047	87	217	1449		
429.7606	47:02	47:02	-2	1.111	1140628	140537	83	207	1693	0.93(0.76-1.02)	
PCB-196											
427.7635	47:44	47:43	0	0.917	468026	85697	87	217	985		
429.7606	47:43	47:43	-1	0.917	527902	103288	83	207	1244	0.89(0.76-1.02)	
PCB-203											
427.7635	47:54	47:55	-2	0.921	586278	108693	87	217	1249		
429.7606	47:55	47:55	-1	0.921	643190	123819	83	207	1492	0.91(0.76-1.02)	
PCB-195											
427.7635	49:15	49:15	-1	0.947	802964	154152	208	520	741		
429.7606	49:15	49:15	-1	0.947	895045	168038	679	1697	247	0.90(0.76-1.02)	
PCB-194											
427.7635	51:35	51:34	-1	0.991	906325	171378	208	520	824		
429.7606	51:35	51:34	-1	0.991	1027377	189084	679	1697	278	0.88(0.76-1.02)	
PCB-205											
427.7635	52:03	52:03	-1	1.000	1035655	191565	208	520	921		
429.7606	52:03	52:03	-1	1.000	1164017	214990	679	1697	317	0.89(0.76-1.02)	
PCB-208L											
473.7648	48:58	48:58	-2	0.950	1580189	306785	275	687	1116		
475.7619	48:58	48:58	-2	0.950	1985429	376932	246	615	1532	0.80(0.65-0.89)	
PCB-206L											
473.7648	53:47	53:45	-1	1.043	1167644	228185	275	687	830		
475.7619	53:47	53:45	-1	1.043	1468767	274687	246	615	1117	0.79(0.65-0.89)	
PCB-208											
461.7246	49:00	48:59	-1	1.001	850689	158091	267	667	592		
463.7216	49:00	48:59	-1	1.001	1049449	194347	965	2412	201	0.81(0.65-0.89)	
PCB-207											
461.7246	49:56	49:54	0	1.020	857630	167040	267	667	626		
463.7216	49:56	49:54	0	1.020	1069938	209137	965	2412	217	0.80(0.65-0.89)	
PCB-206											
461.7246	53:48	53:48	-1	1.000	679117	131166	267	667	491		
463.7216	53:48	53:48	-1	1.000	847336	162001	965	2412	168	0.80(0.65-0.89)	
PCB-209L											
507.7258	55:23	55:22	-1	1.074	1152936	212196	80	200	2652		
509.7229	55:23	55:22	-1	1.074	1601883	298205	105	262	2840	0.72(0.59-0.79)	
DCB Decachlorobiphenyl											
495.6856	55:25	55:23	0	1.000	592165	105896	144	360	735		
497.6826	55:25	55:23	0	1.000	853039	154362	119	297	1297	0.69(0.59-0.79)	

## QC Flag Legend

Processing Flags



Review Flags

M - Manually Integrated

a - User Assigned ID

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

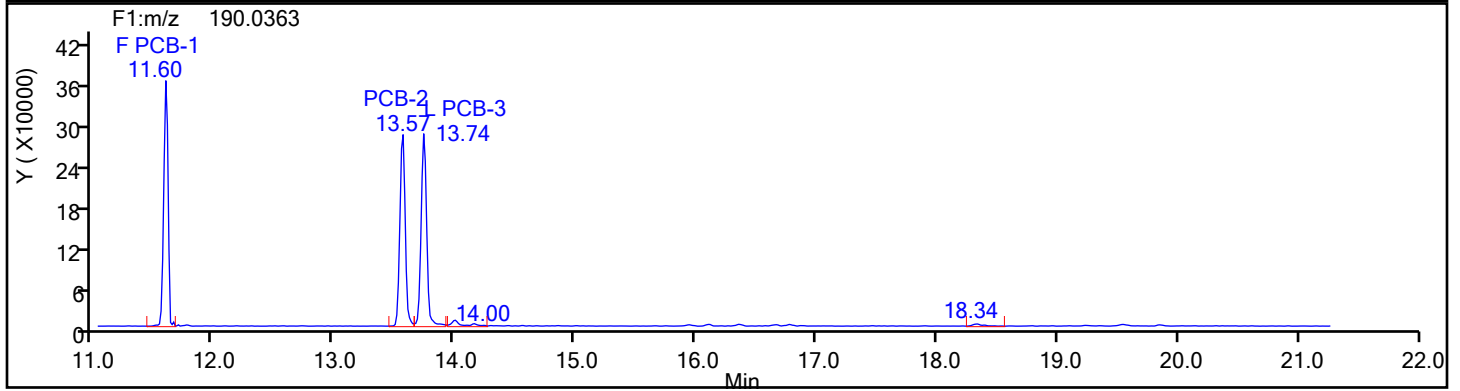
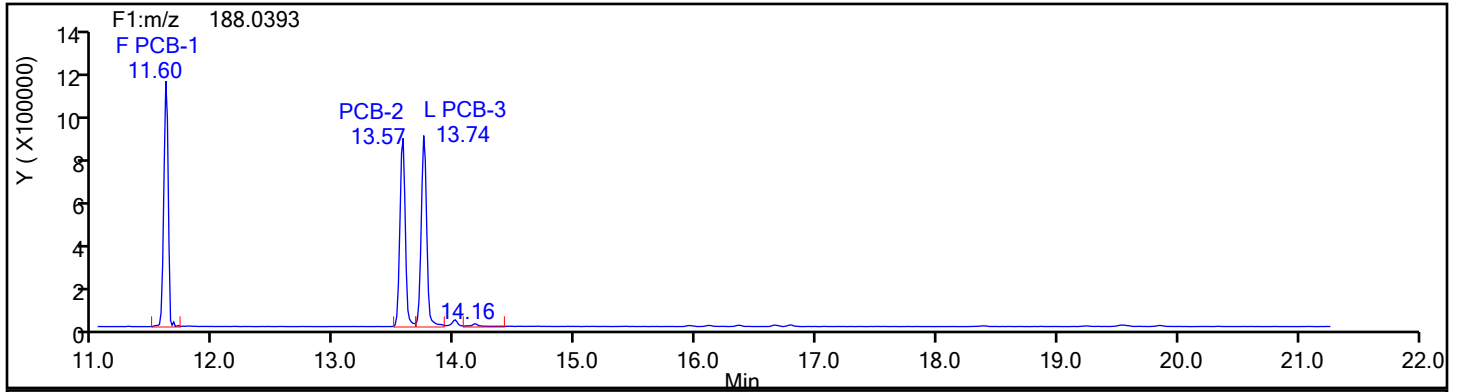
Worklist#: 88747

Sample Line#: 2

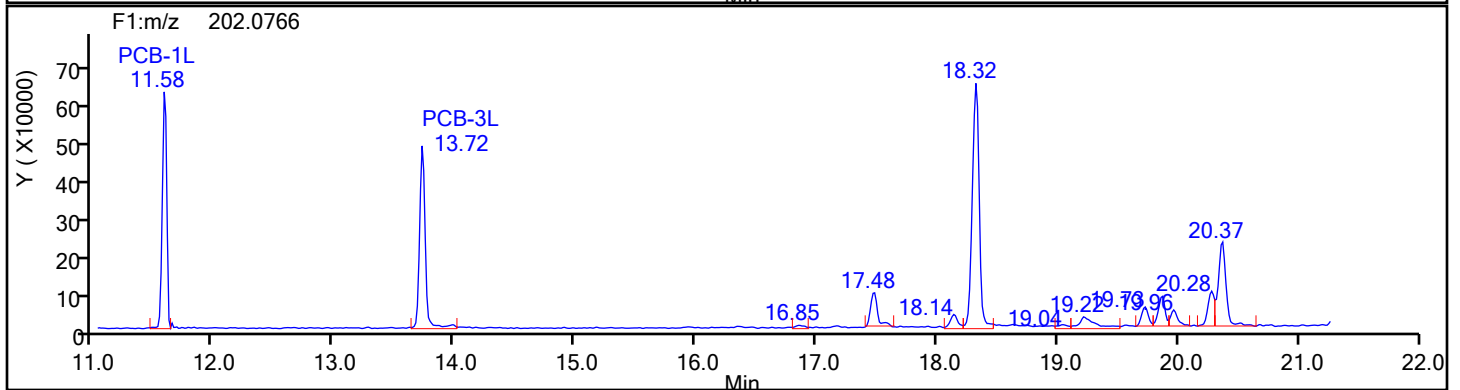
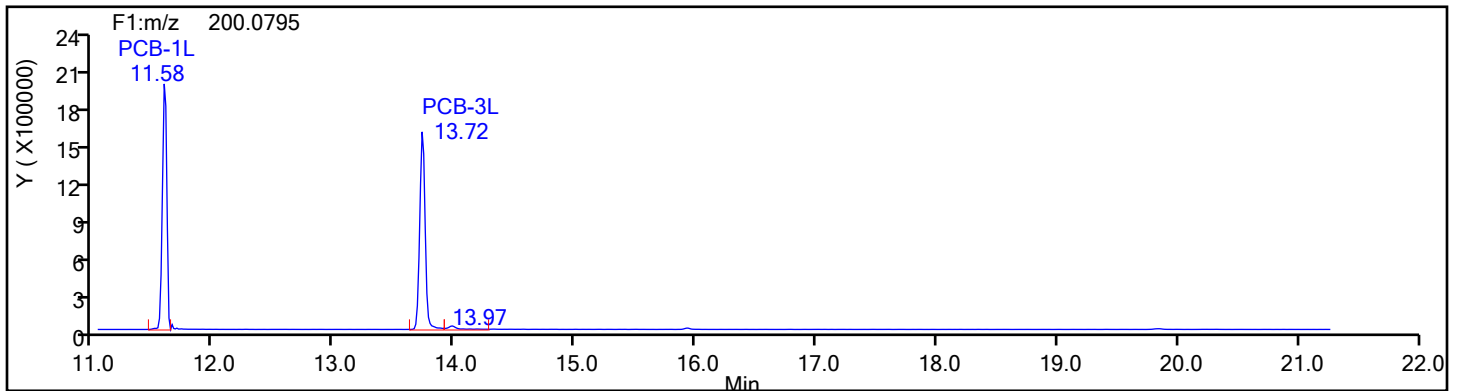
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

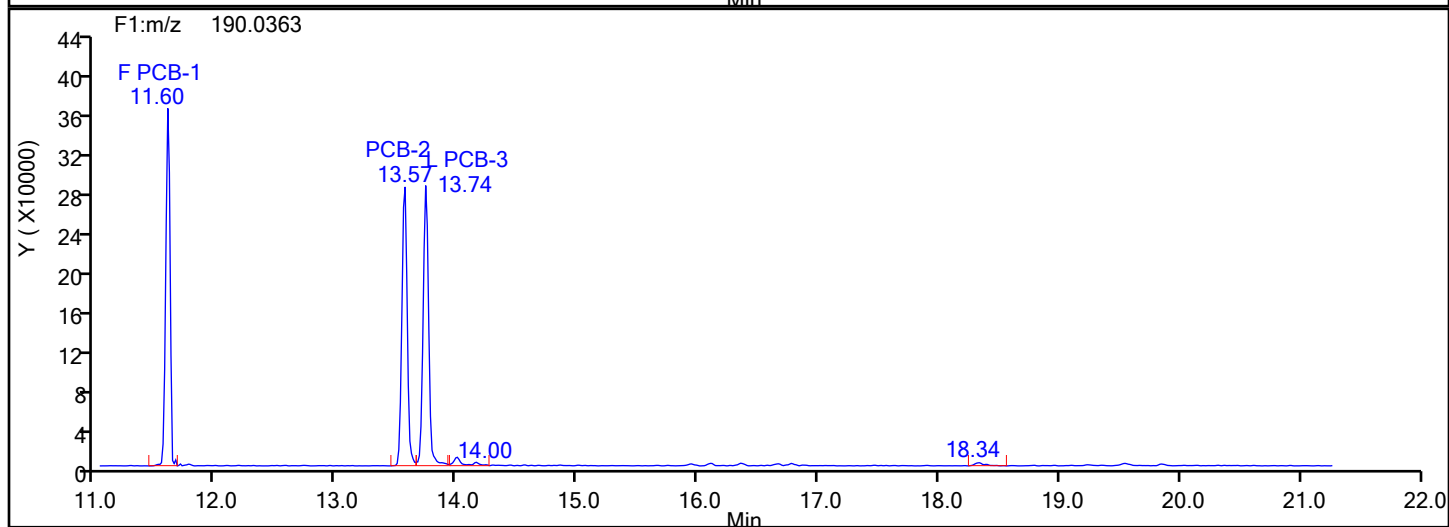
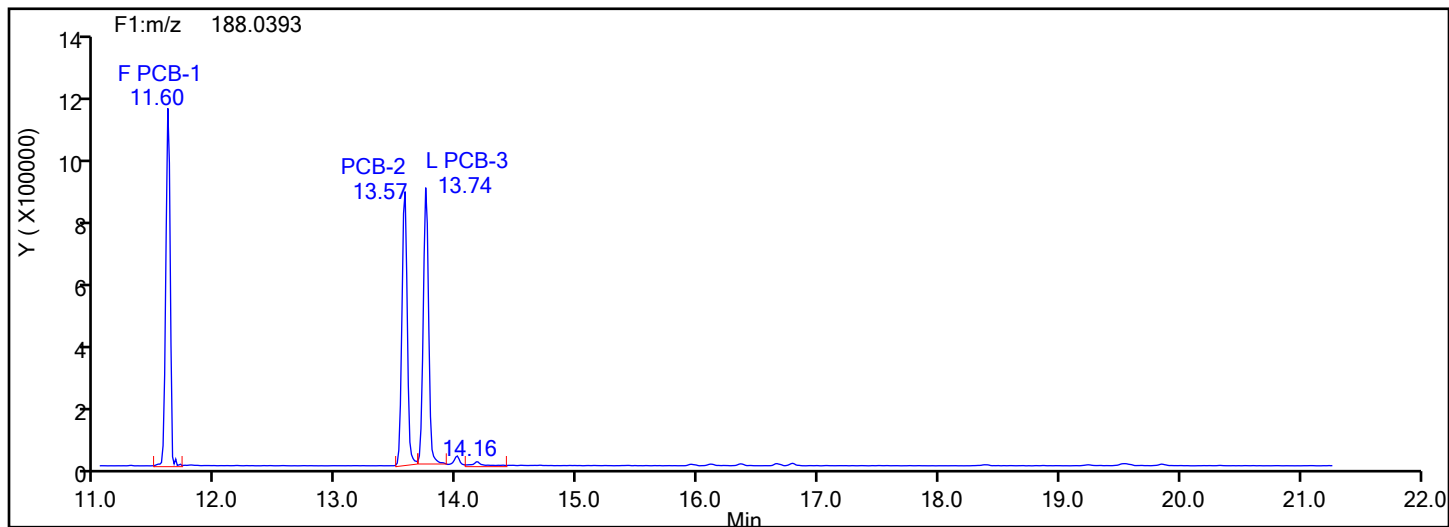
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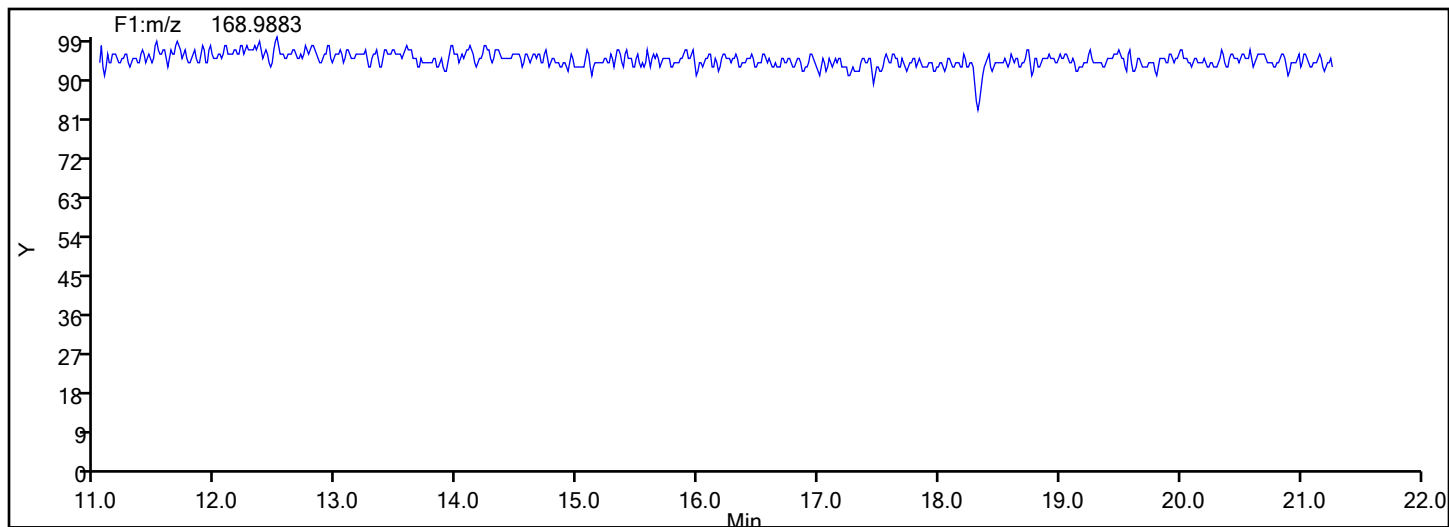
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

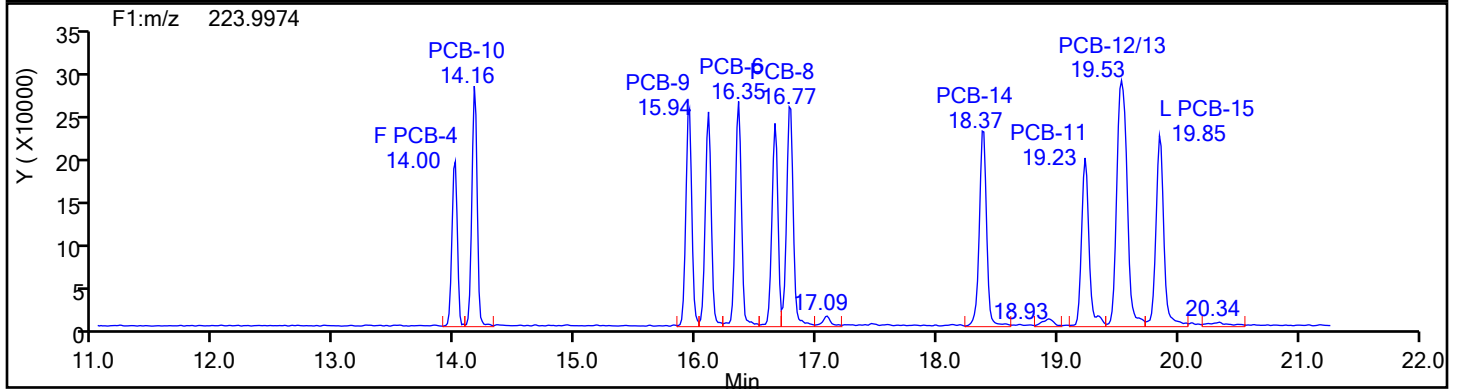
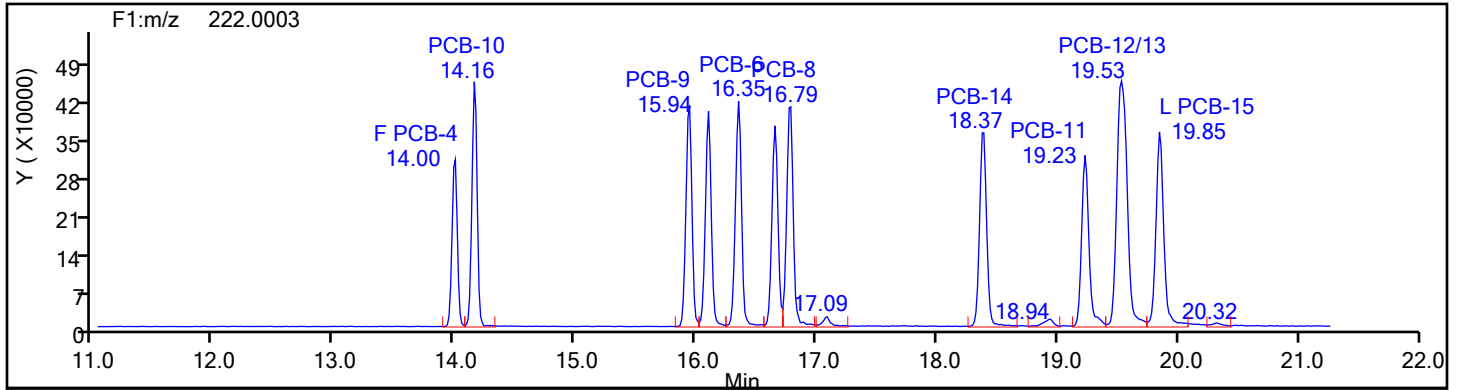
Worklist#: 88747

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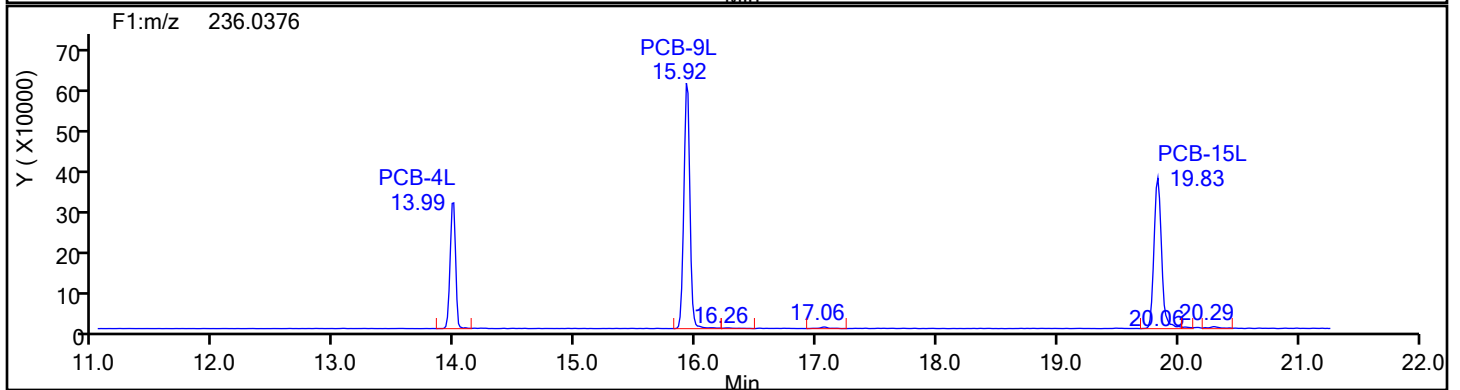
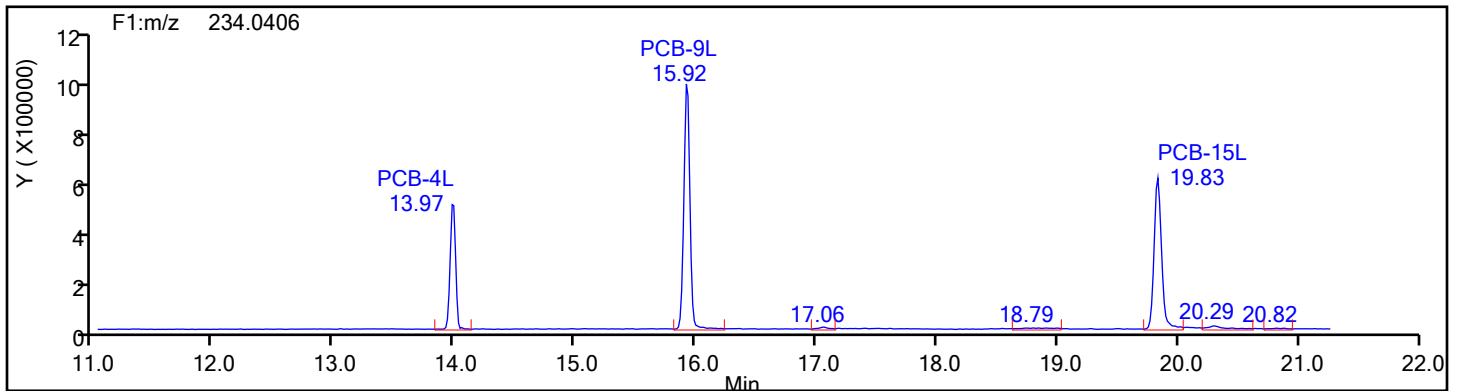
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1

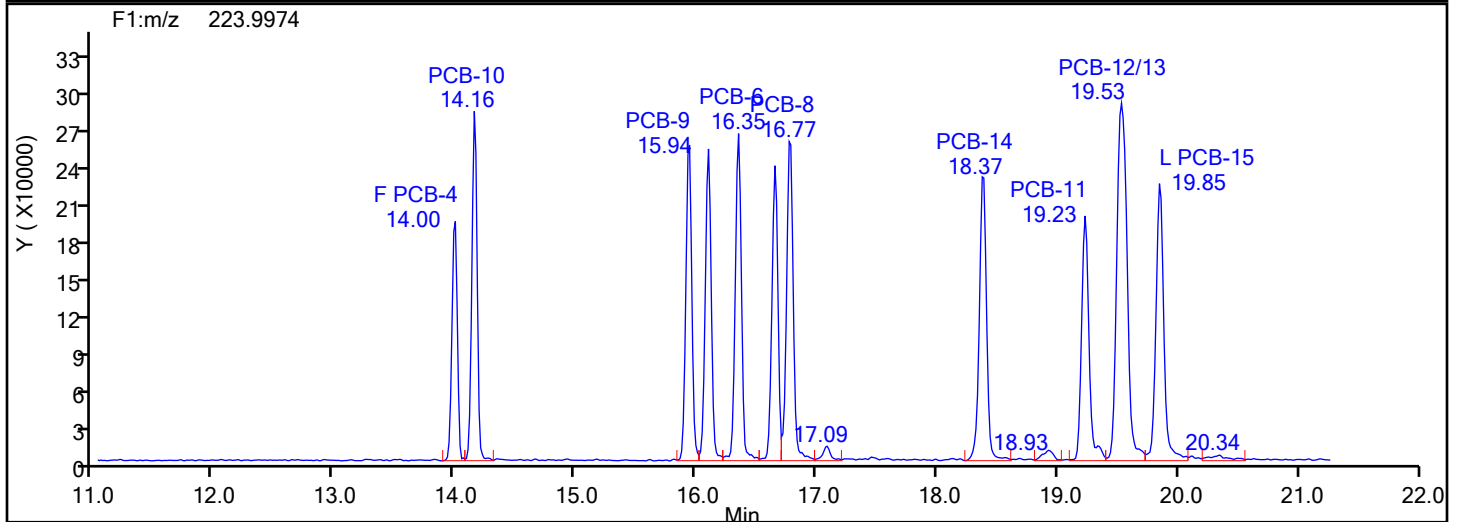
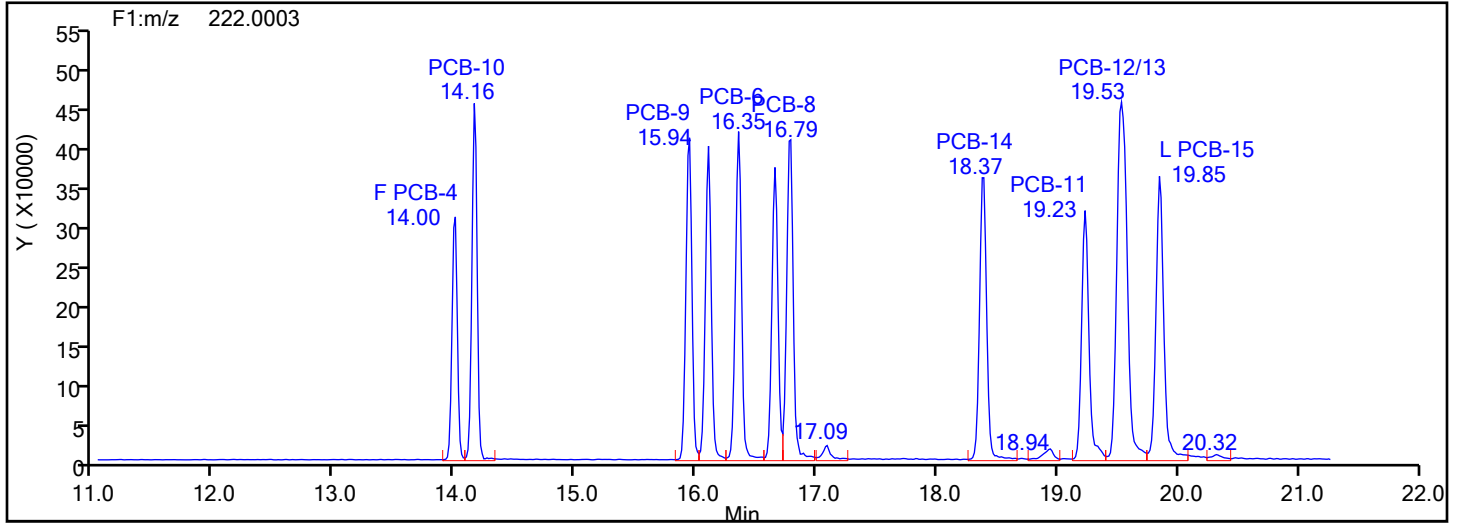


DiPCB F1 Standards

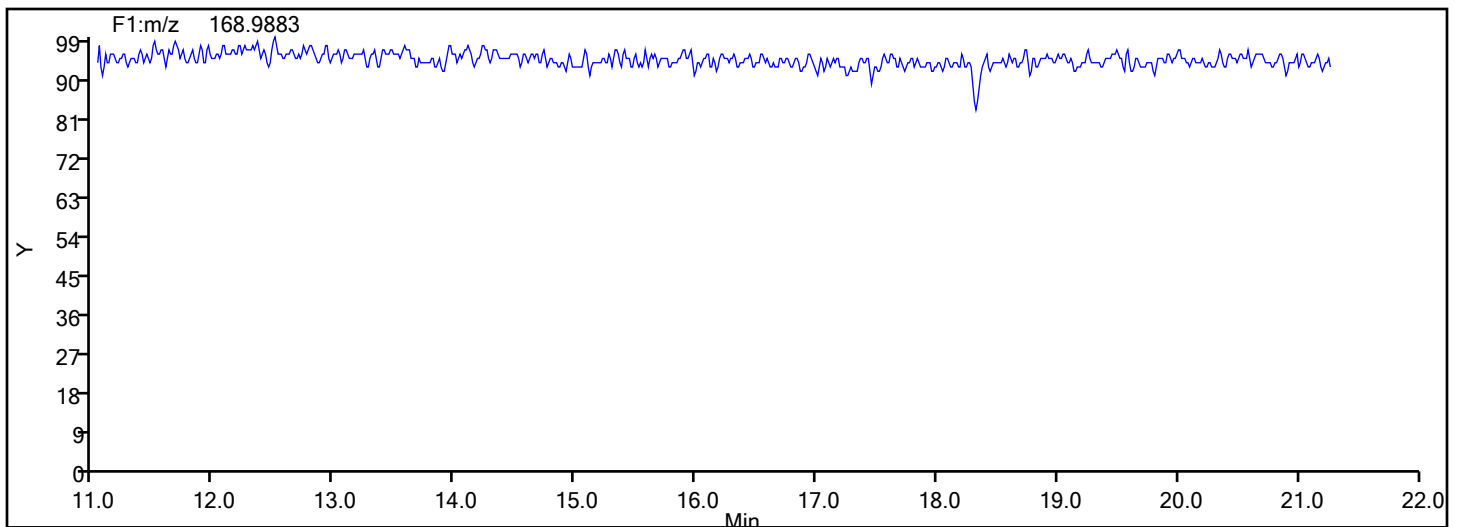


## Eurofins Knoxville

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Injection Date: 15-Jul-2024 13:44:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88747 Sample Line#: 2  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
DiPCB F1



## DiPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

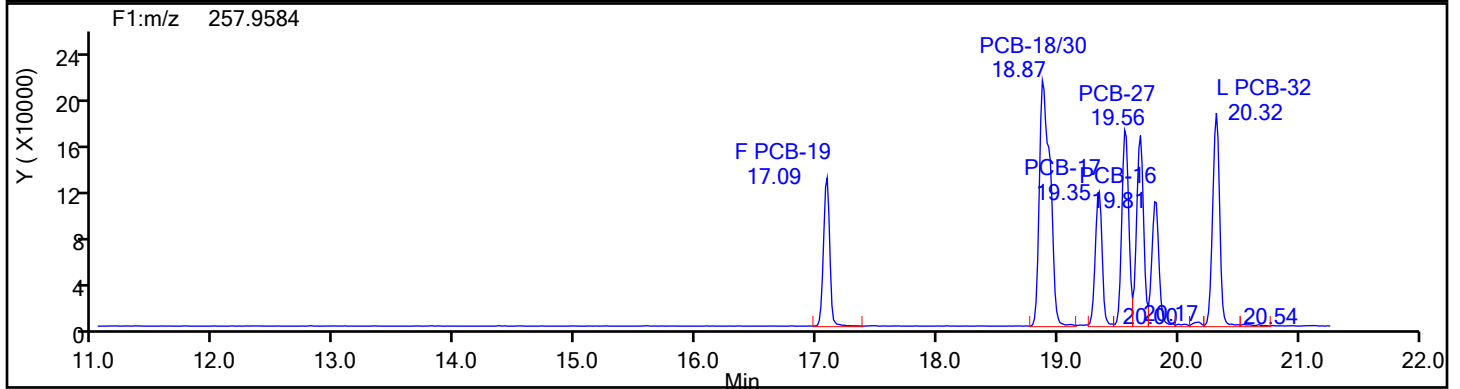
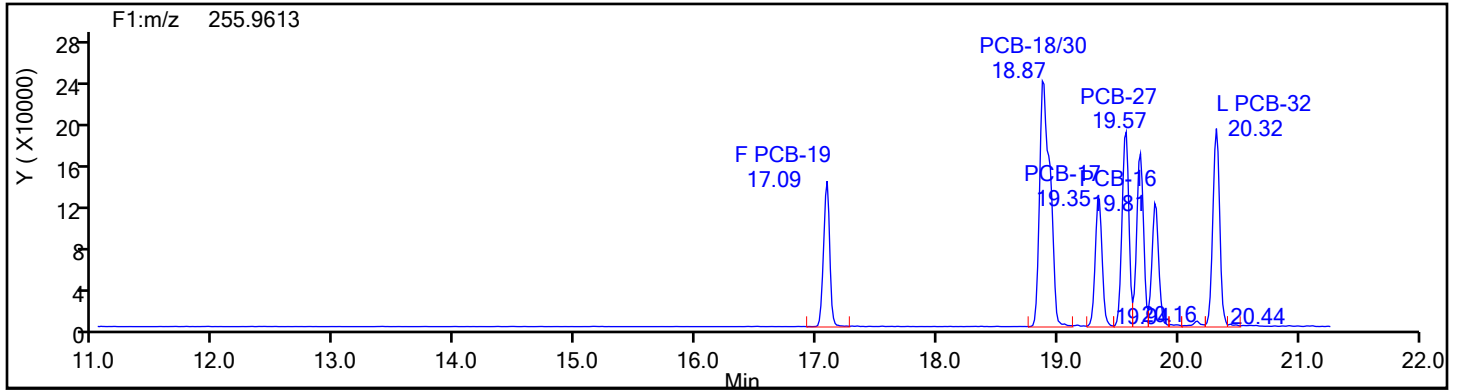
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Sample Line#: 2

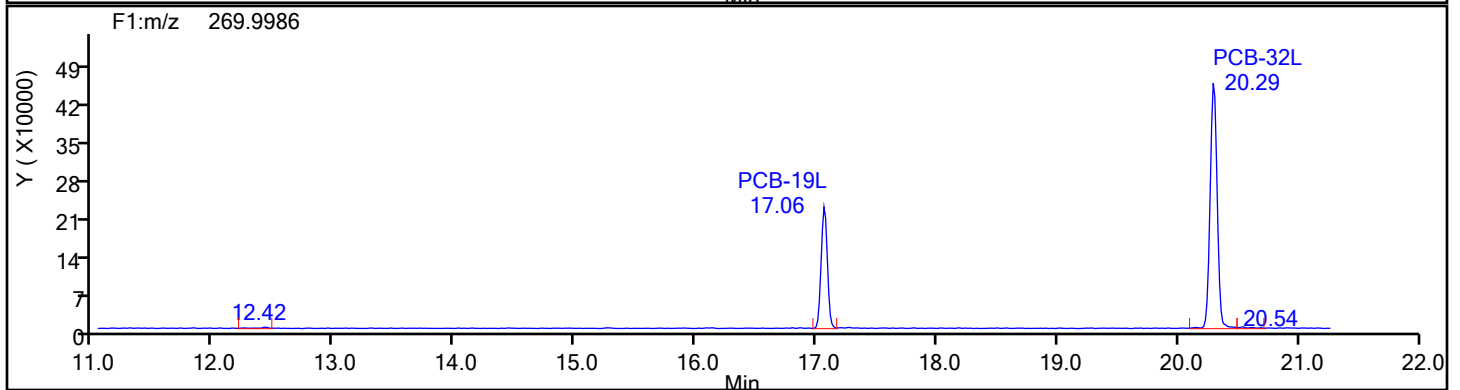
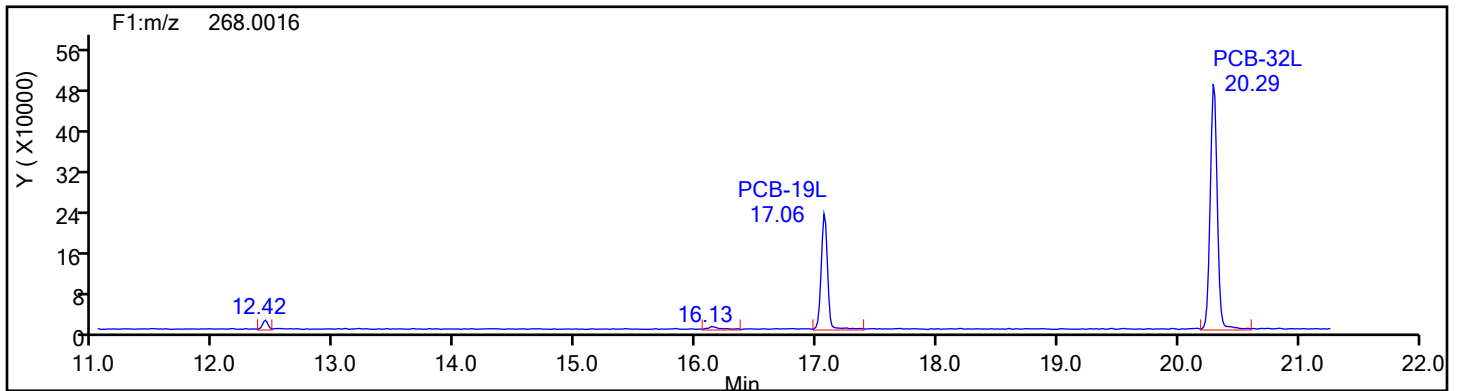
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

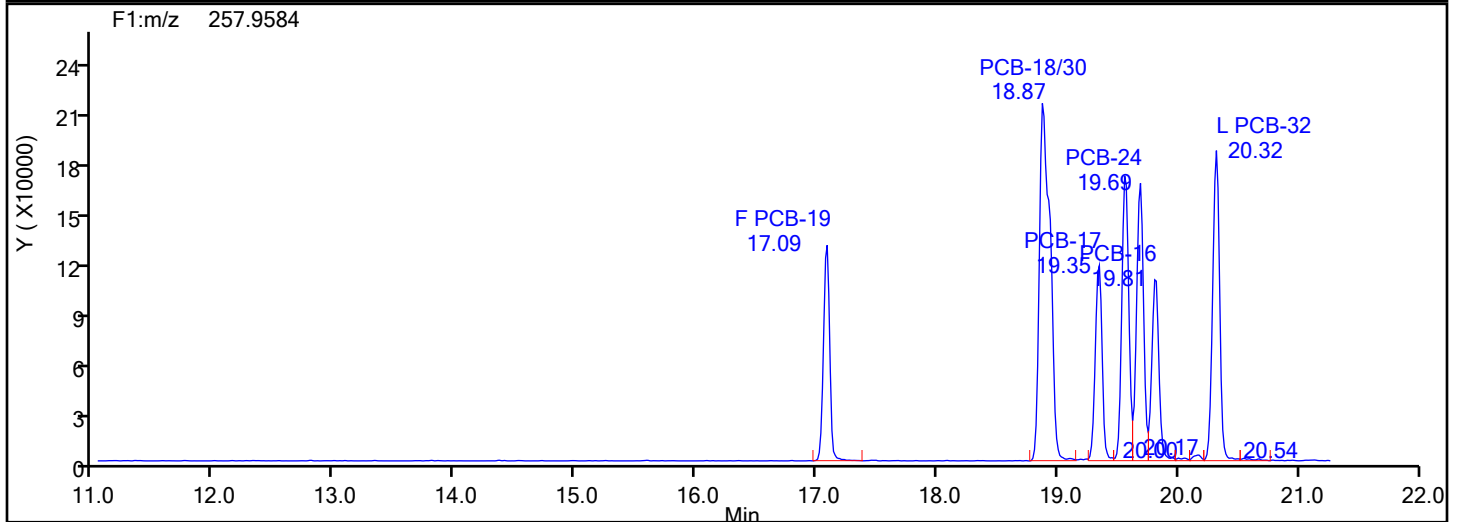
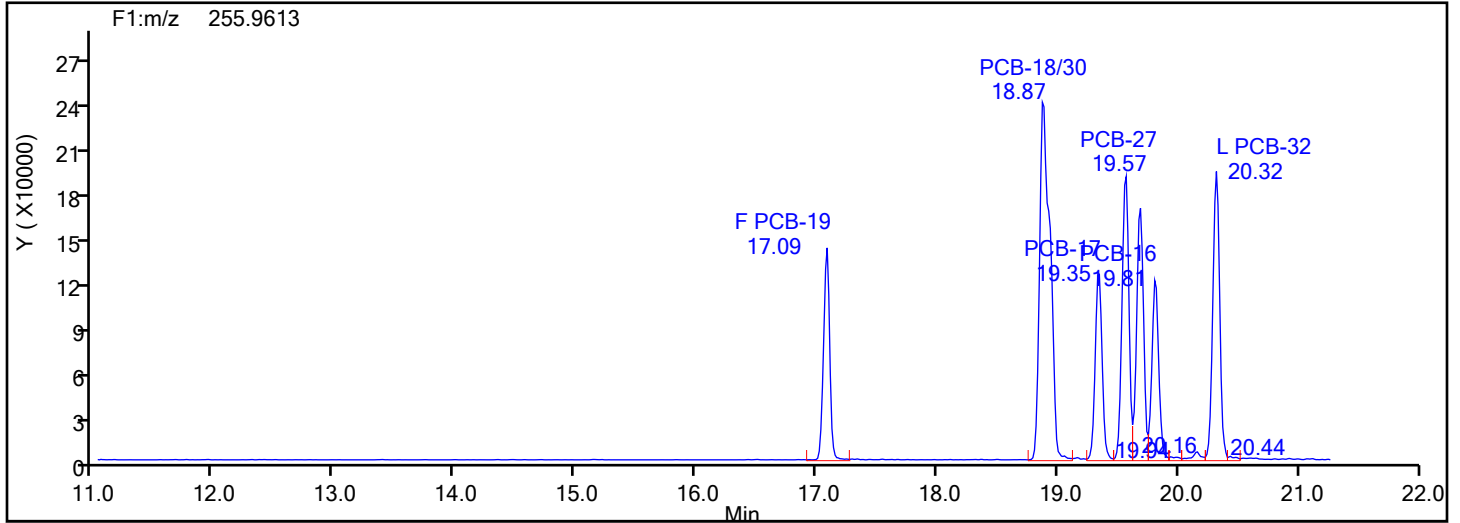
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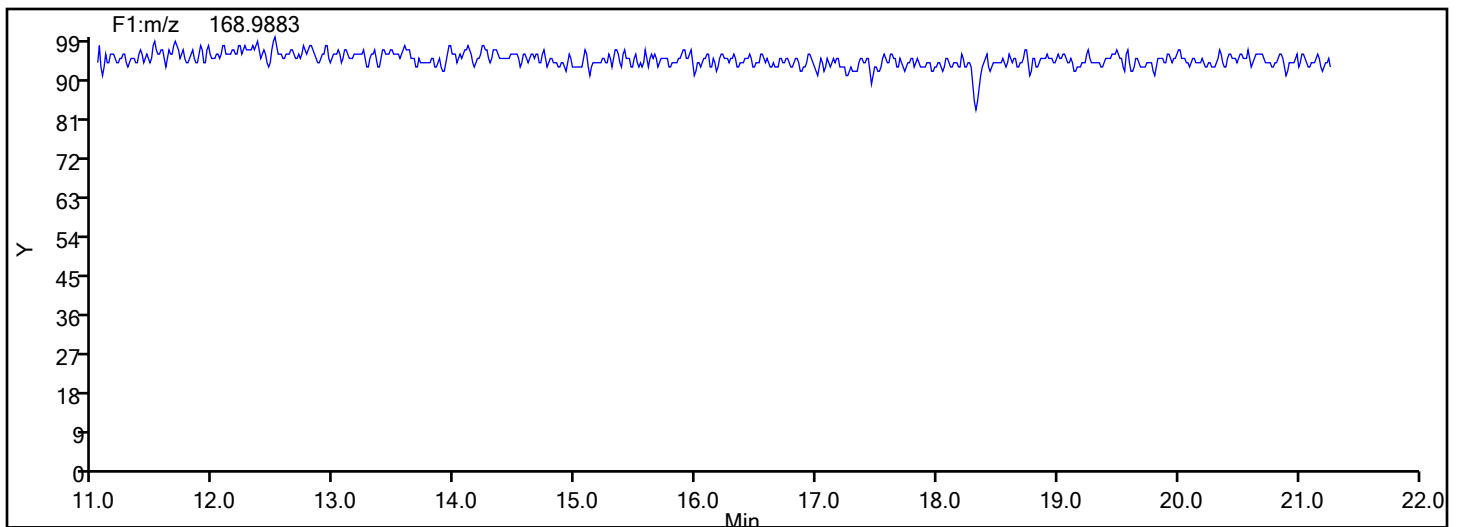
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

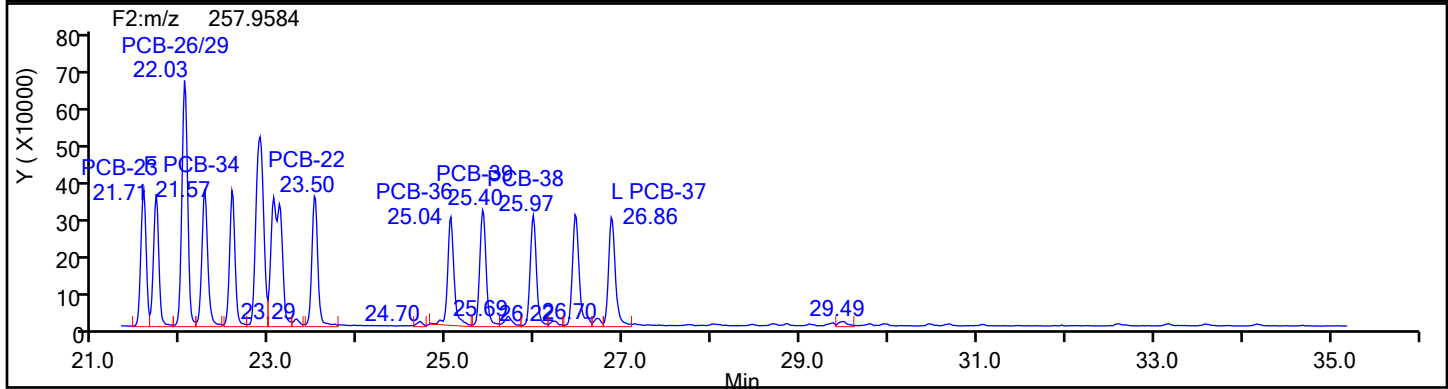
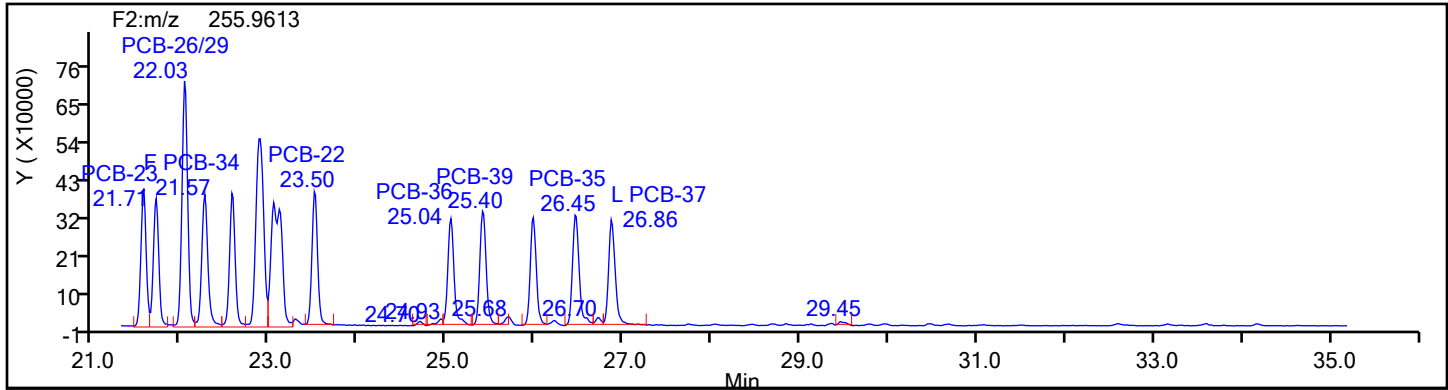
Worklist#: 88747

Sample Line#: 2

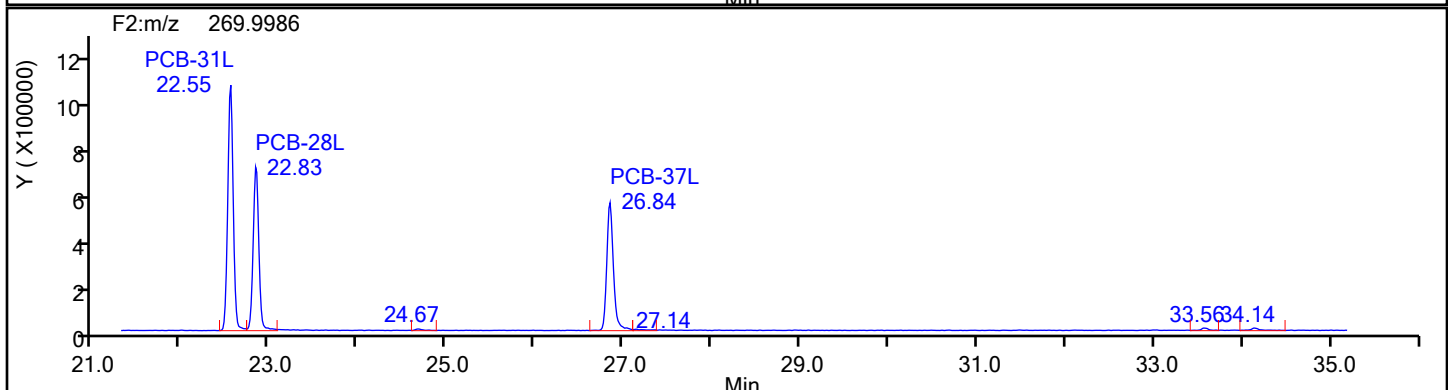
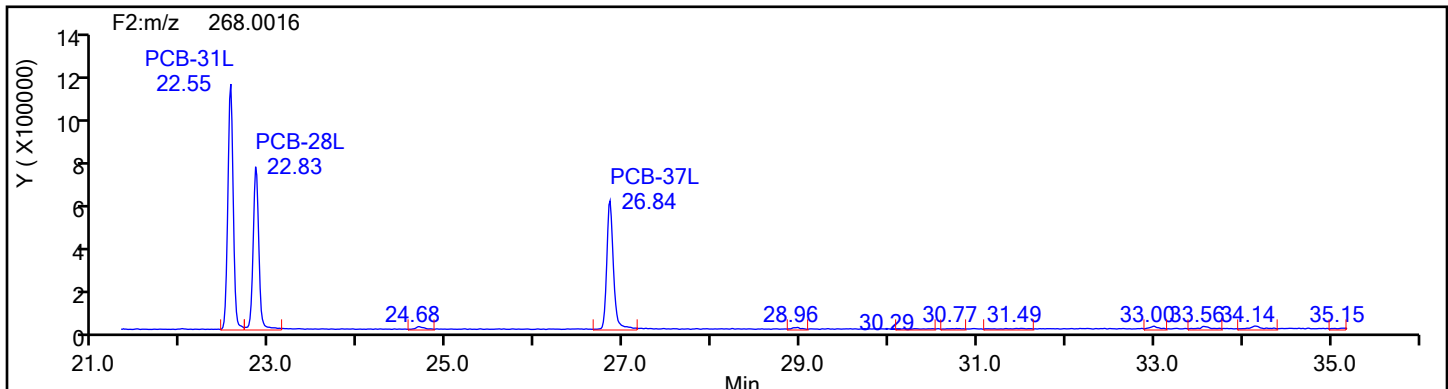
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Standards





## Eurofins Knoxville

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Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

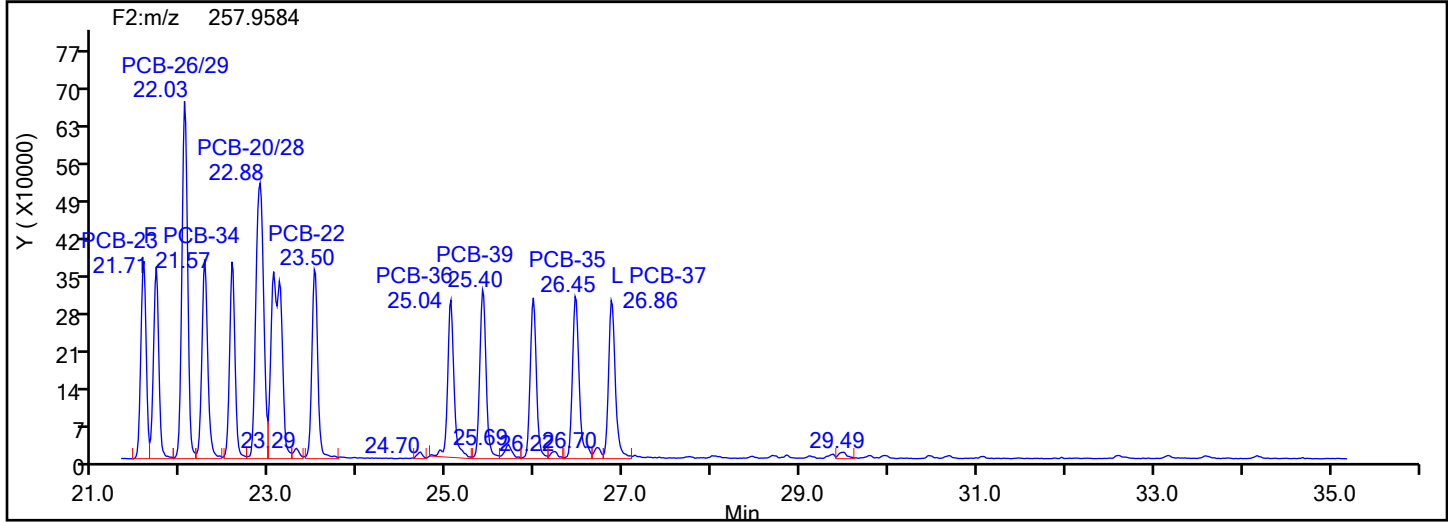
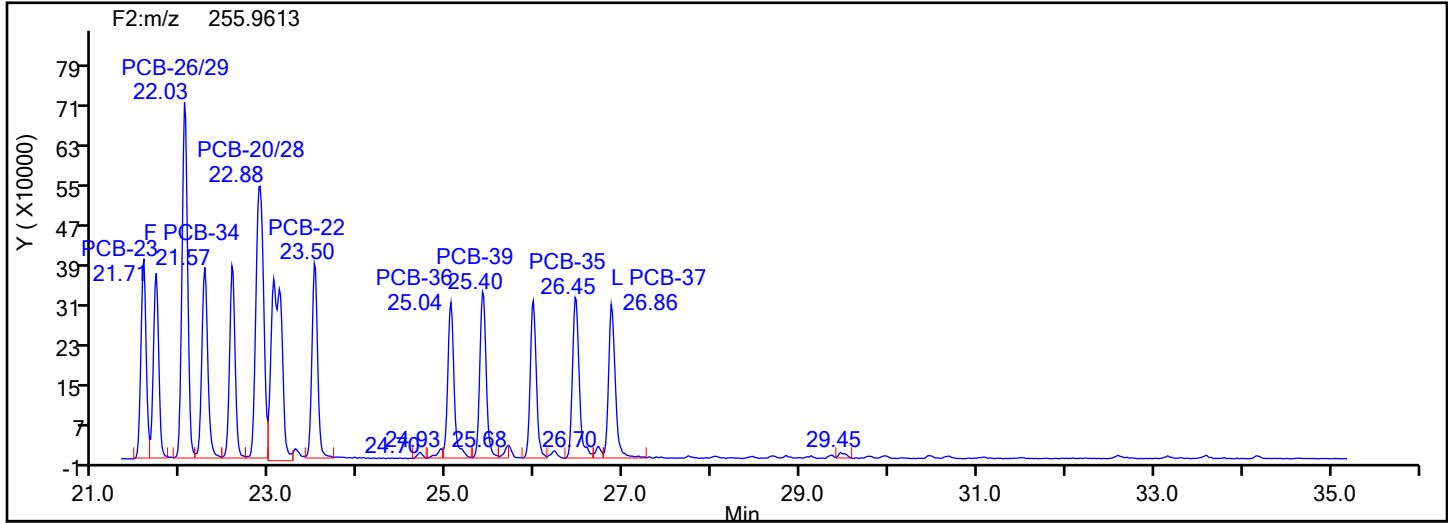
Worklist#: 88747

Sample Line#: 2

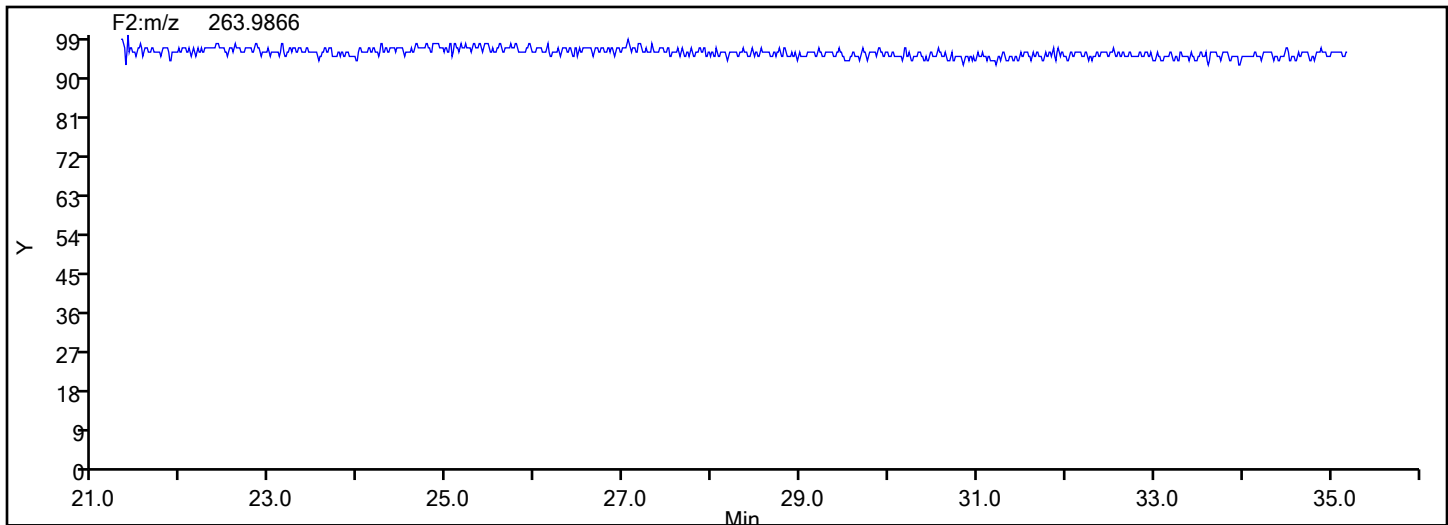
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

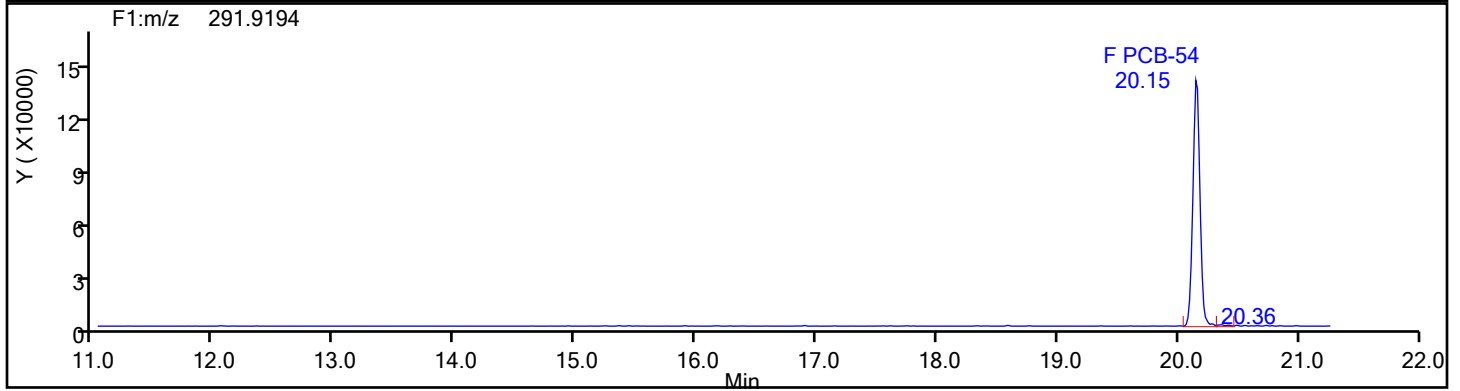
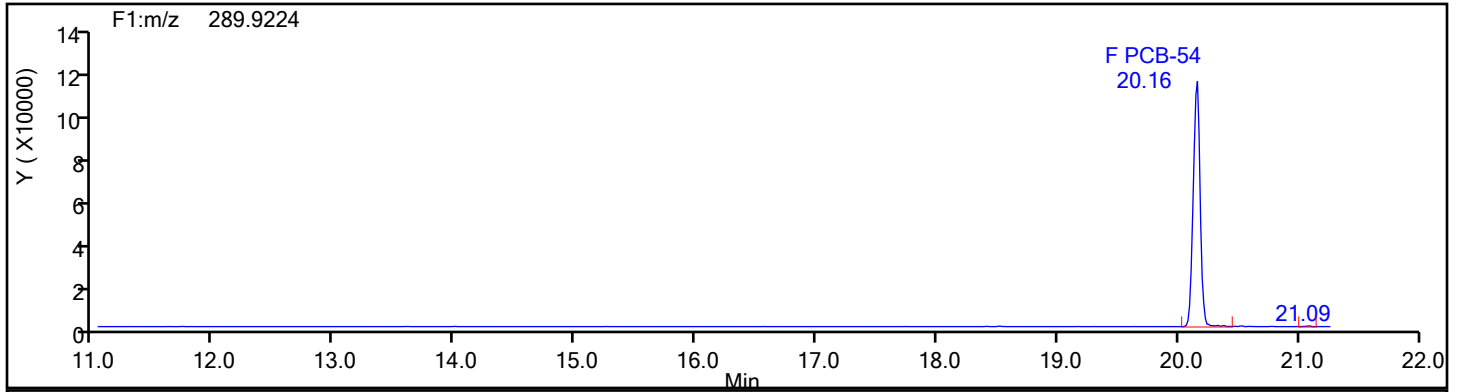
Worklist#: 88747

Sample Line#: 2

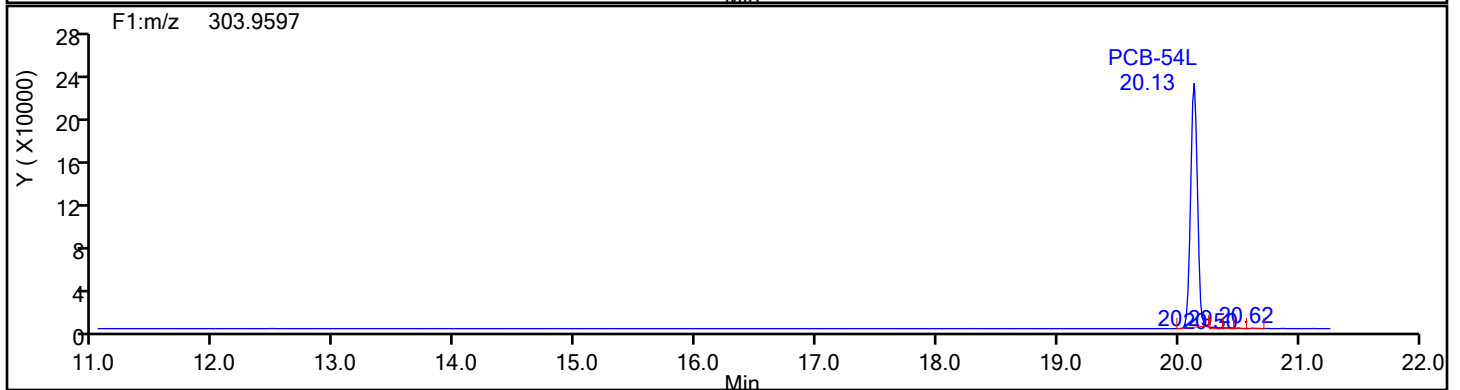
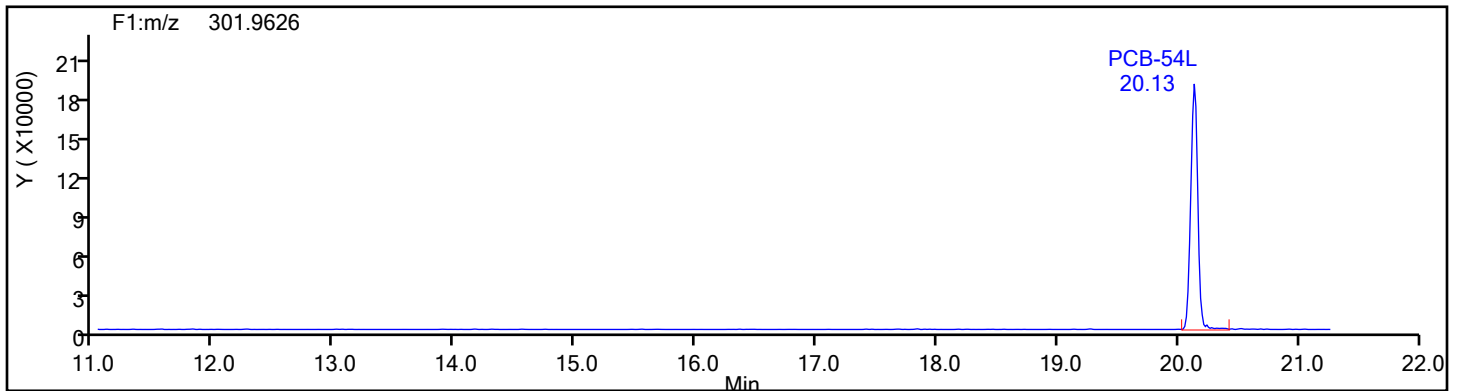
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1

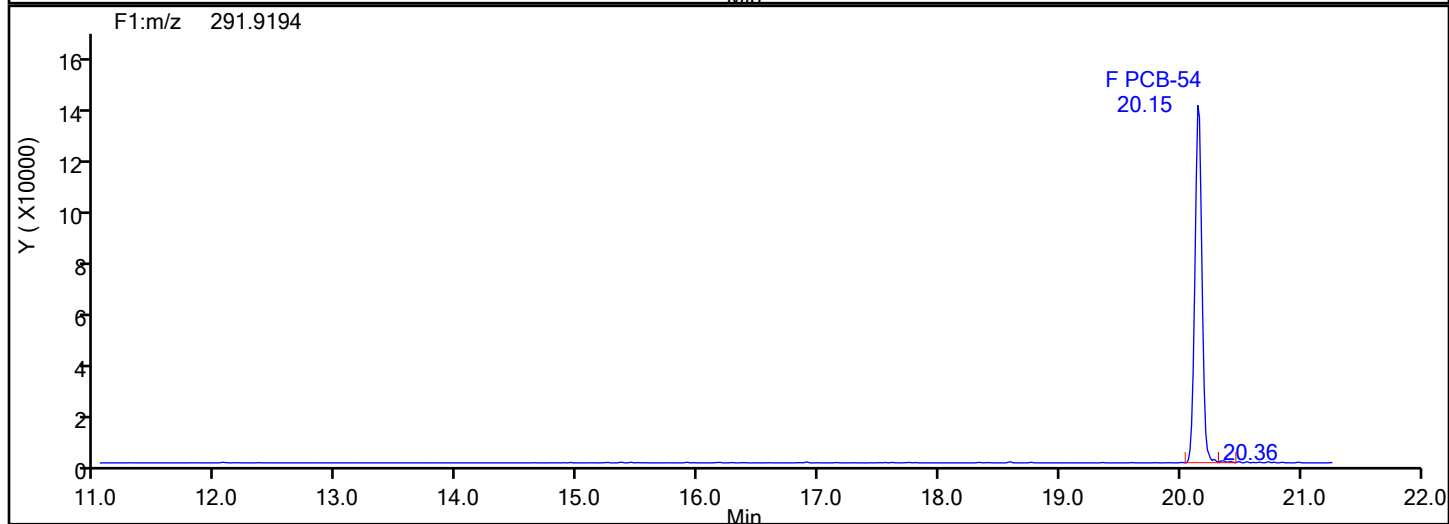
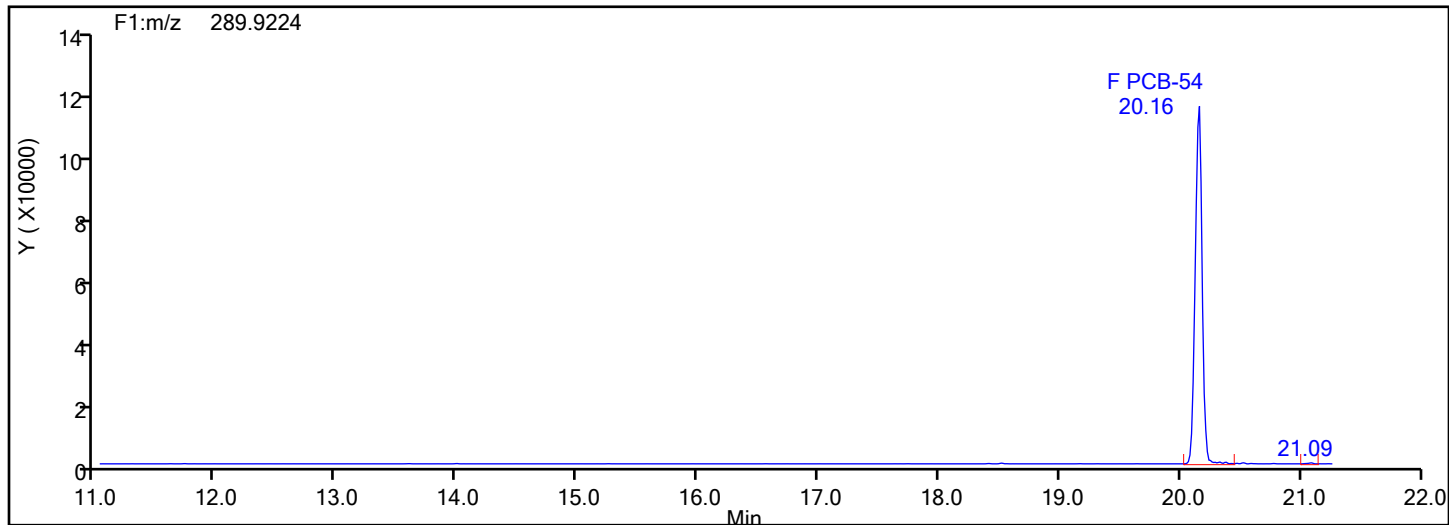


TePCB F1 Standards

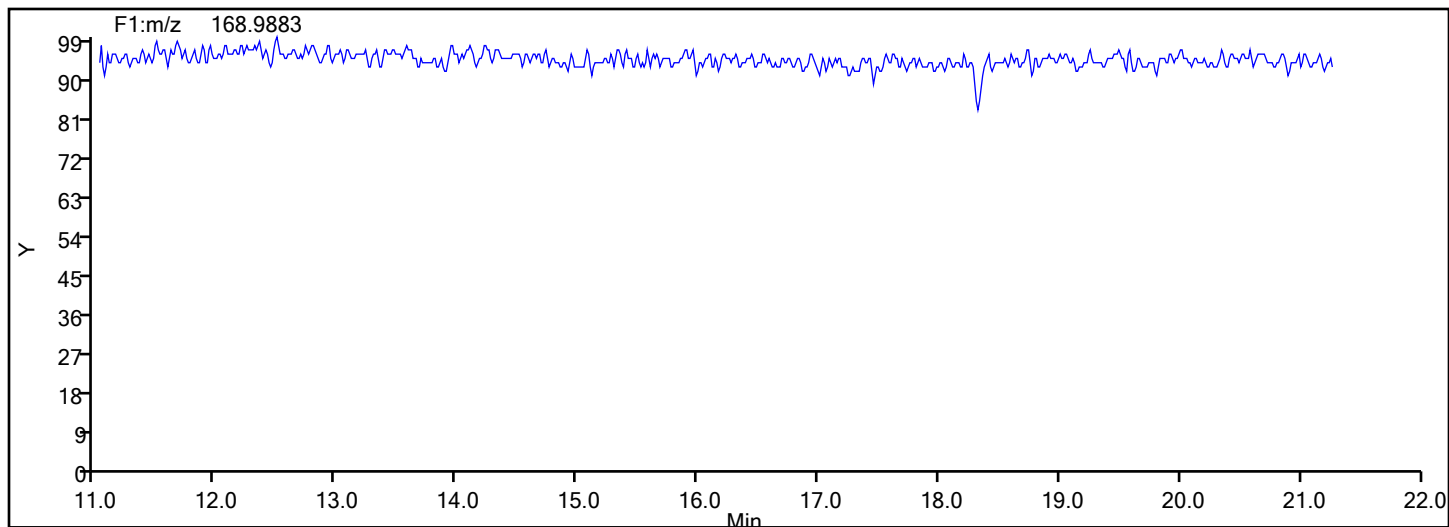


## Eurofins Knoxville

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Injection Date: 15-Jul-2024 13:44:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88747 Sample Line#: 2  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
TePCB F1



## TePCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

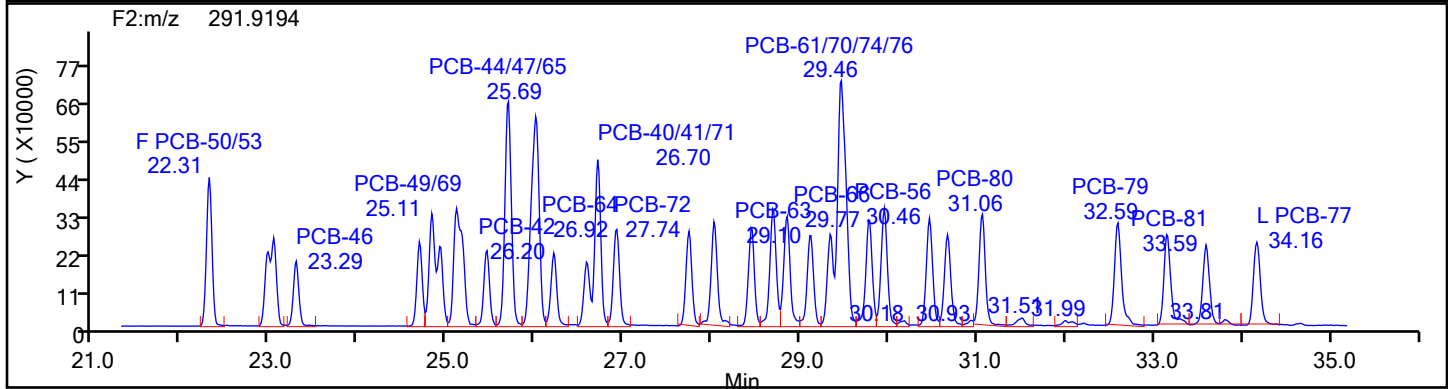
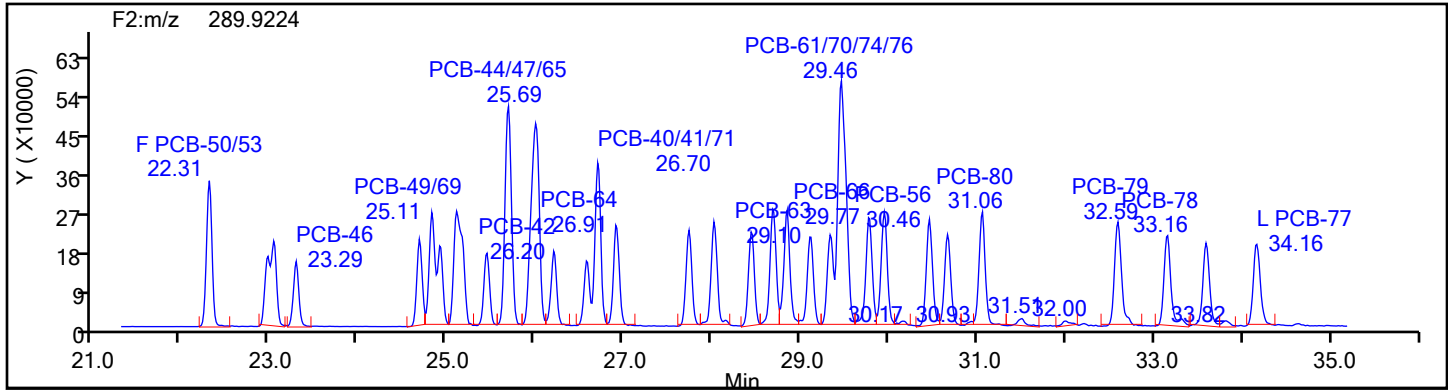
Worklist#: 88747

Sample Line#: 2

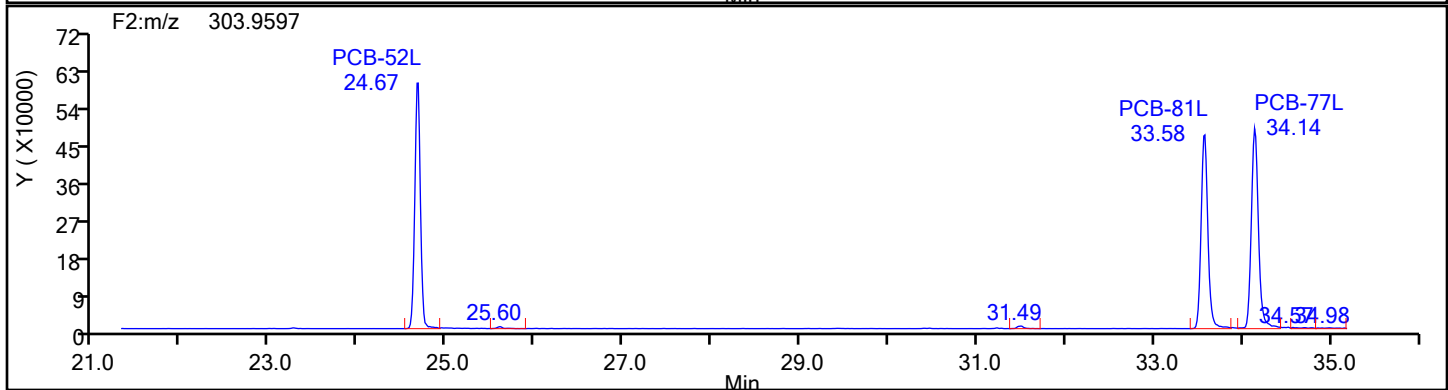
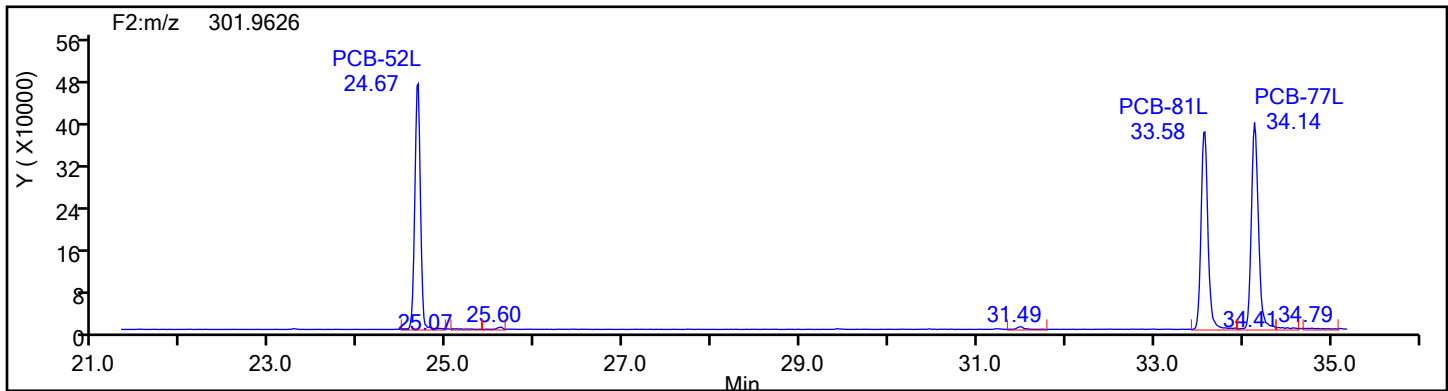
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



TePCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

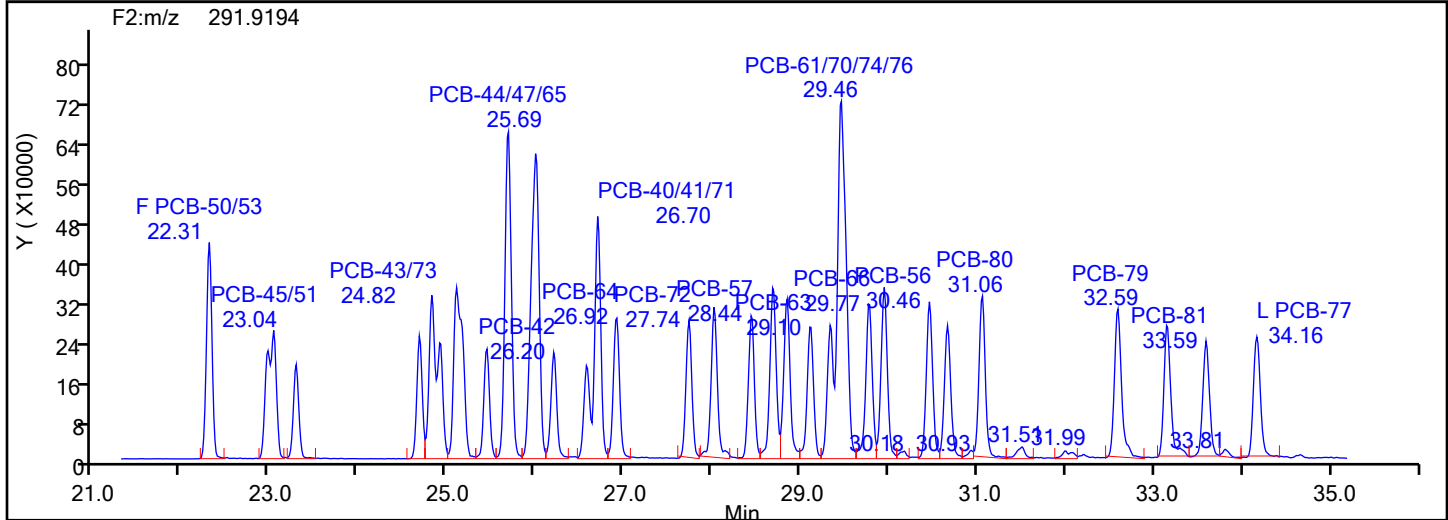
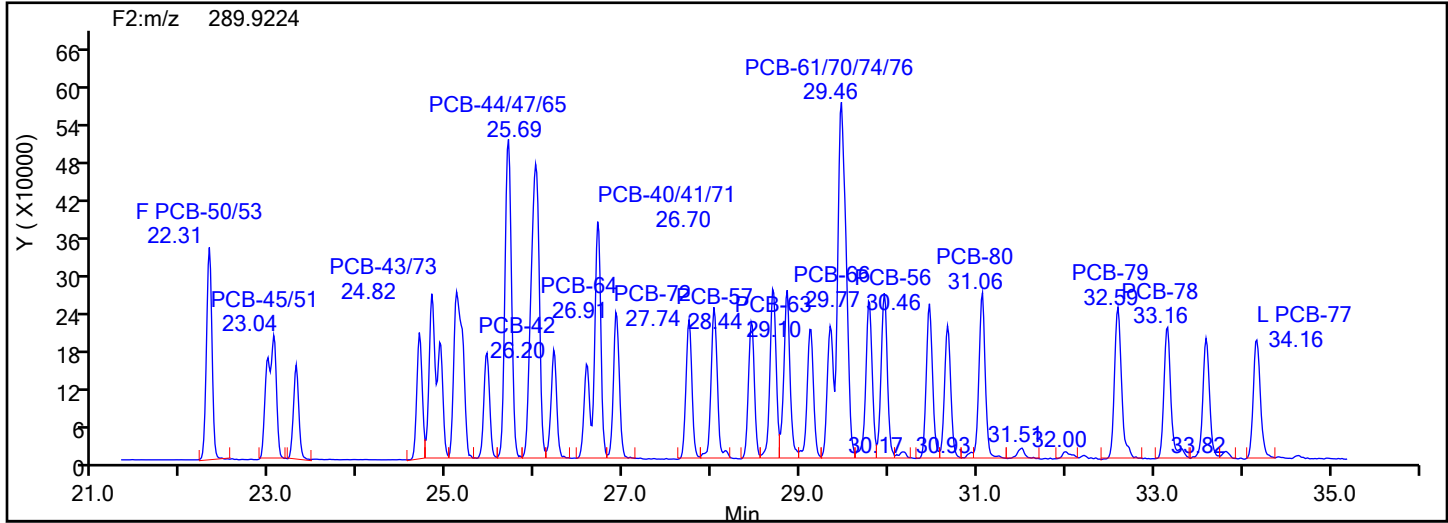
Worklist#: 88747

Sample Line#: 2

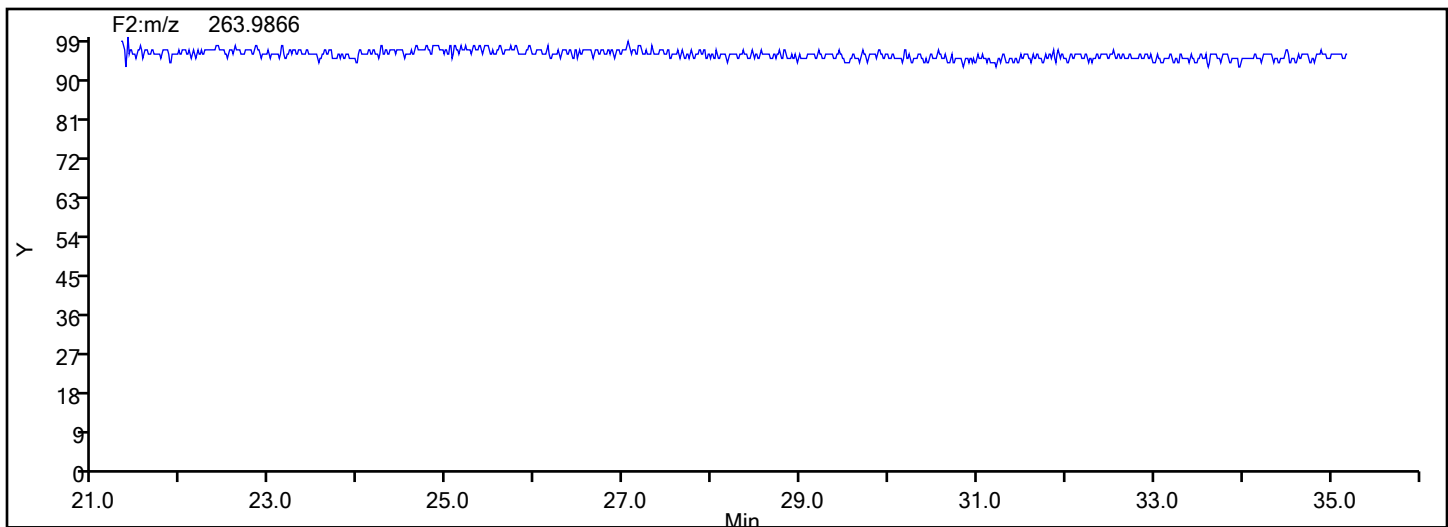
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



## TePCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

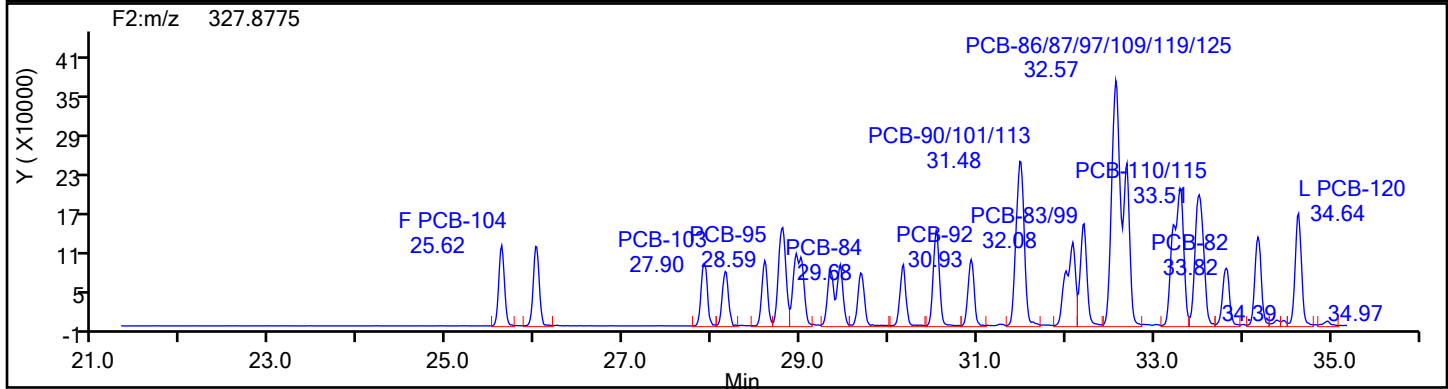
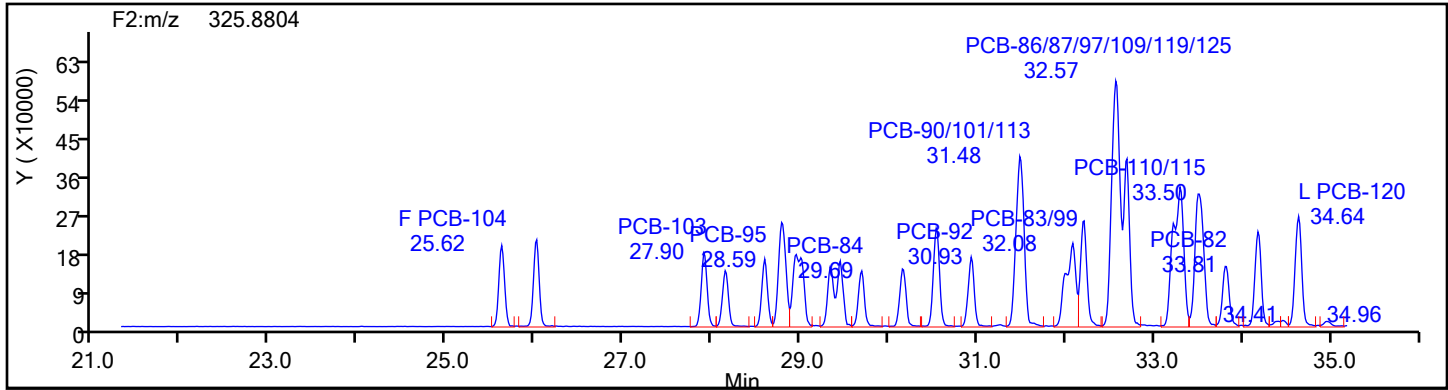
Worklist#: 88747

Sample Line#: 2

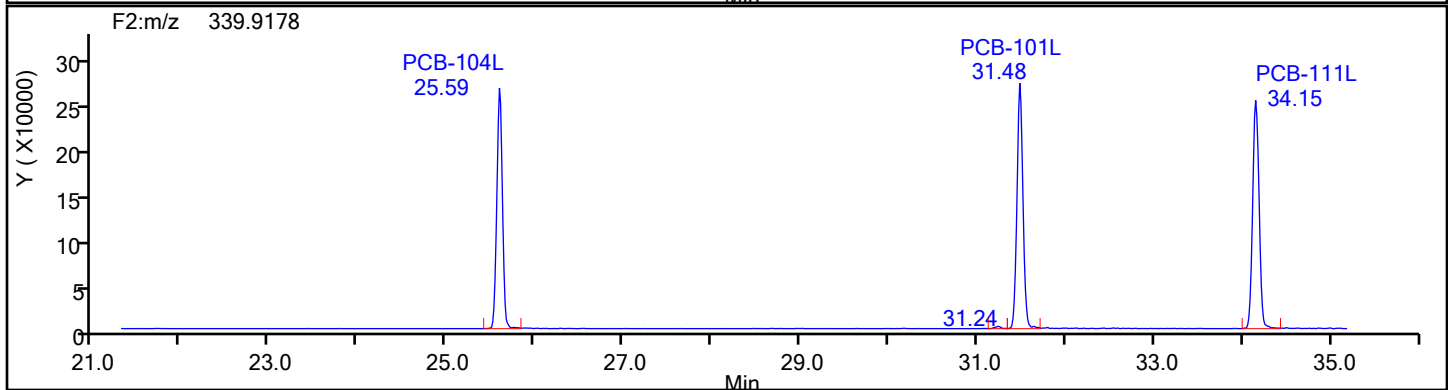
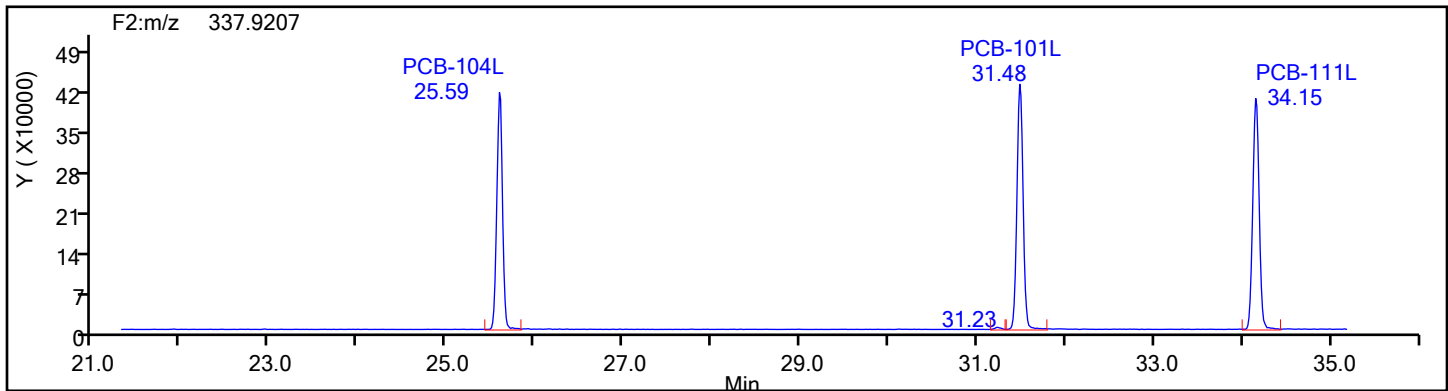
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F2



## PePCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

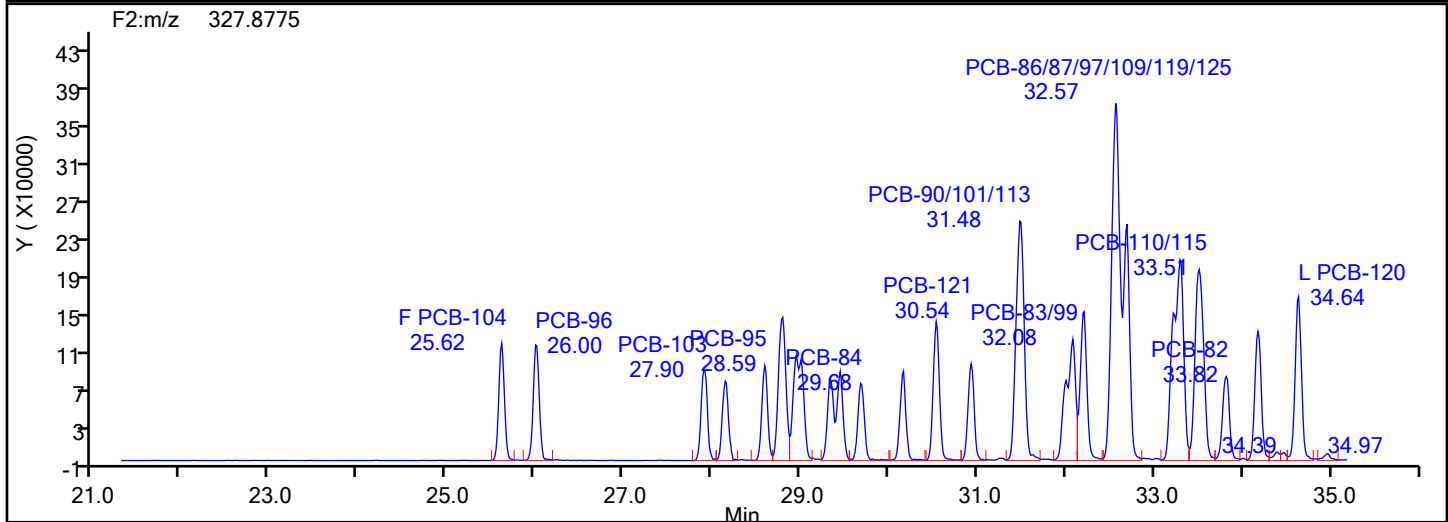
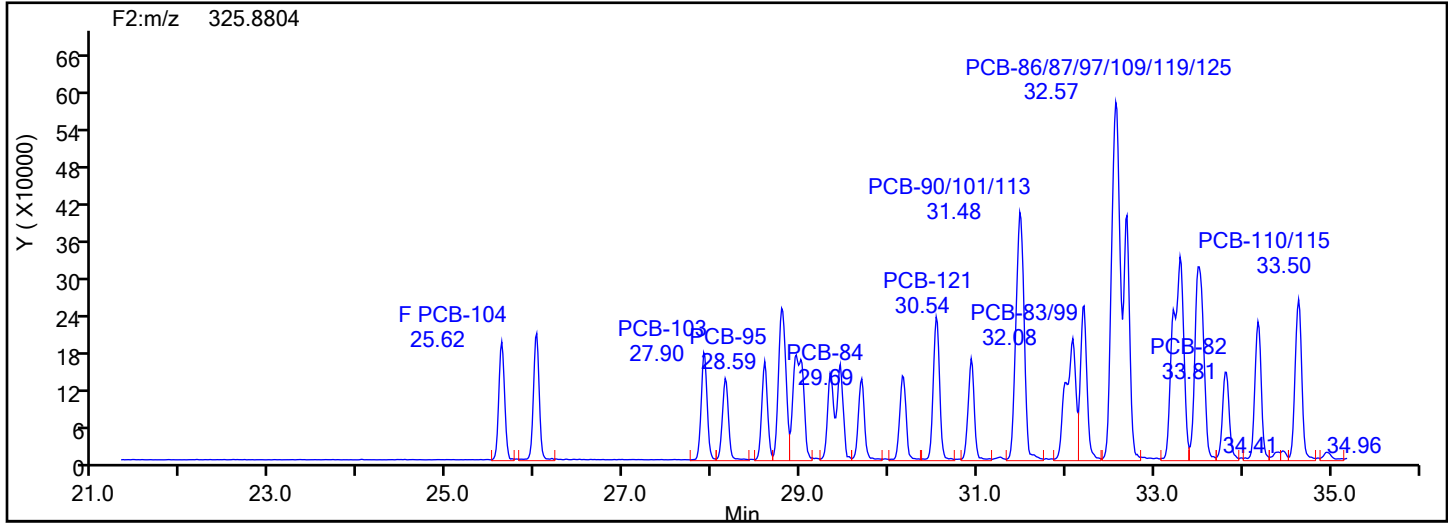
Worklist#: 88747

Sample Line#: 2

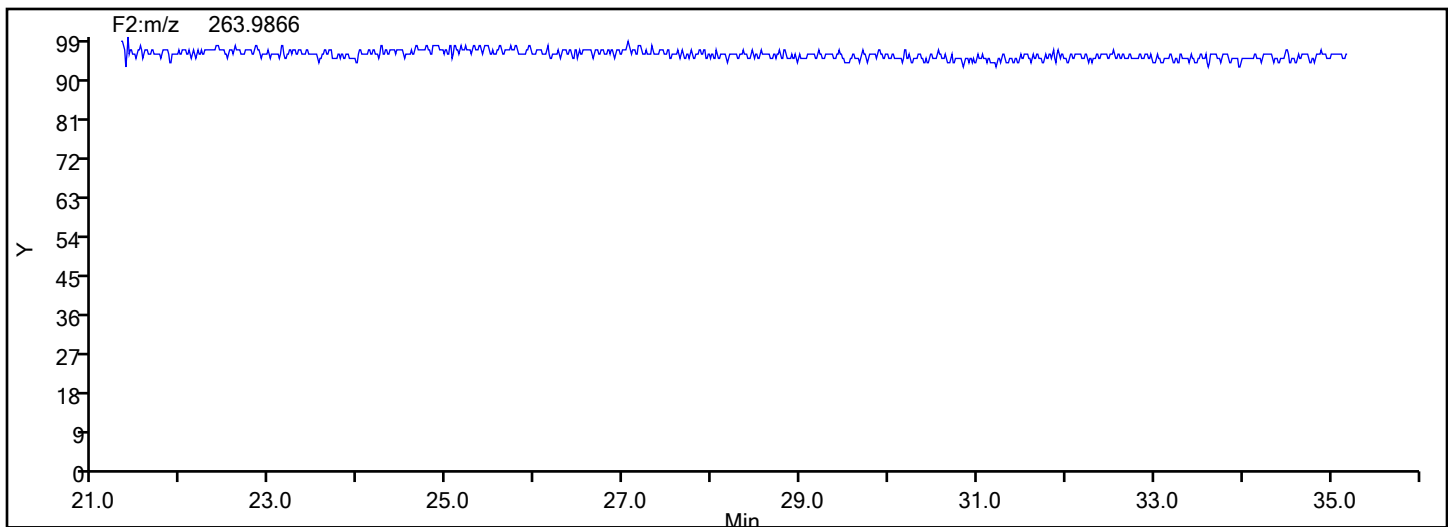
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F2



## PePCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

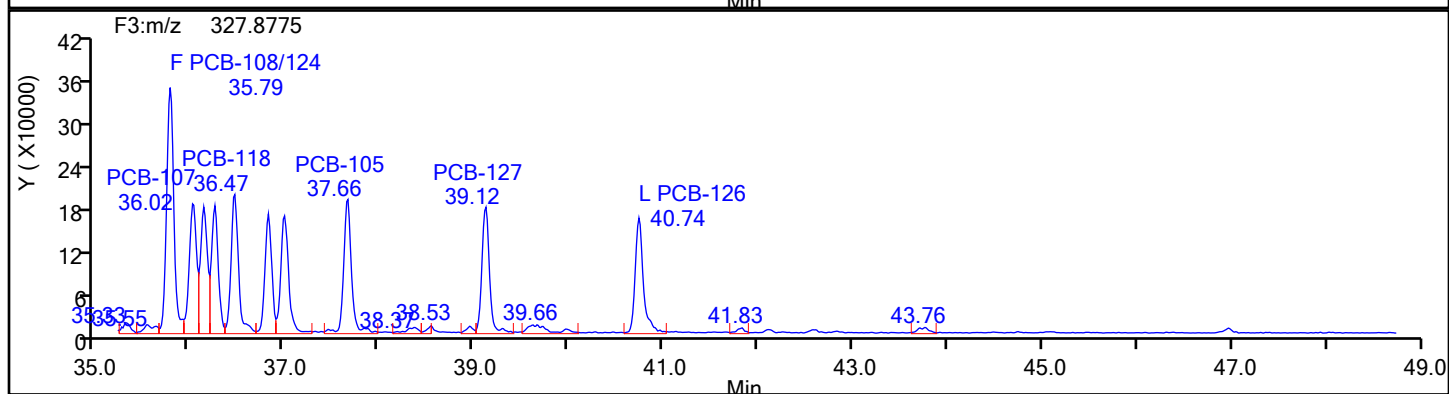
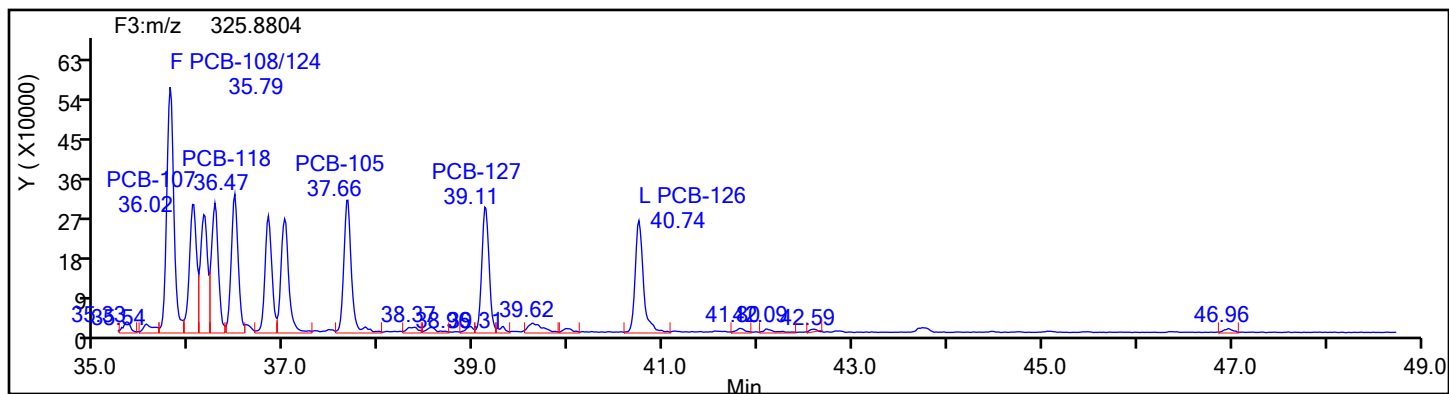
Worklist#: 88747

Sample Line#: 2

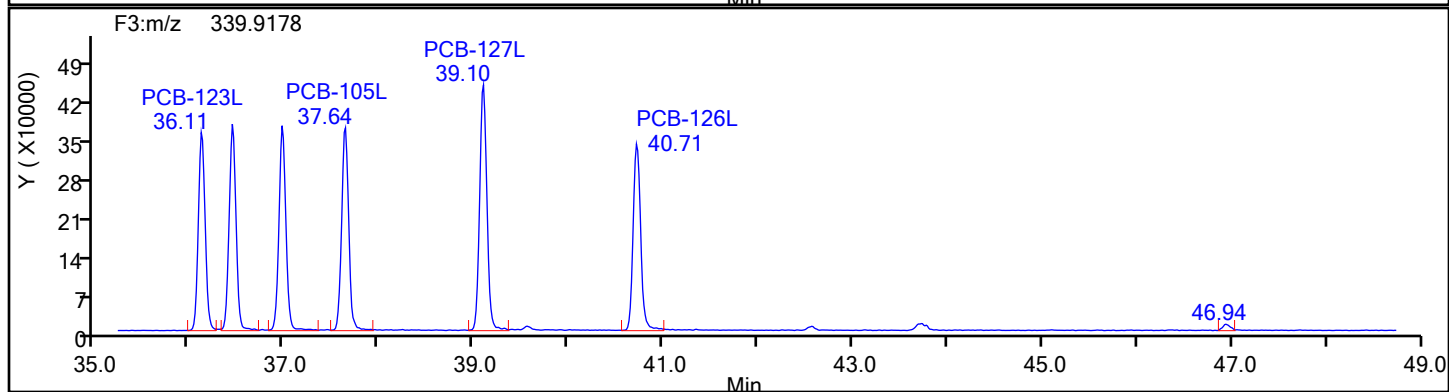
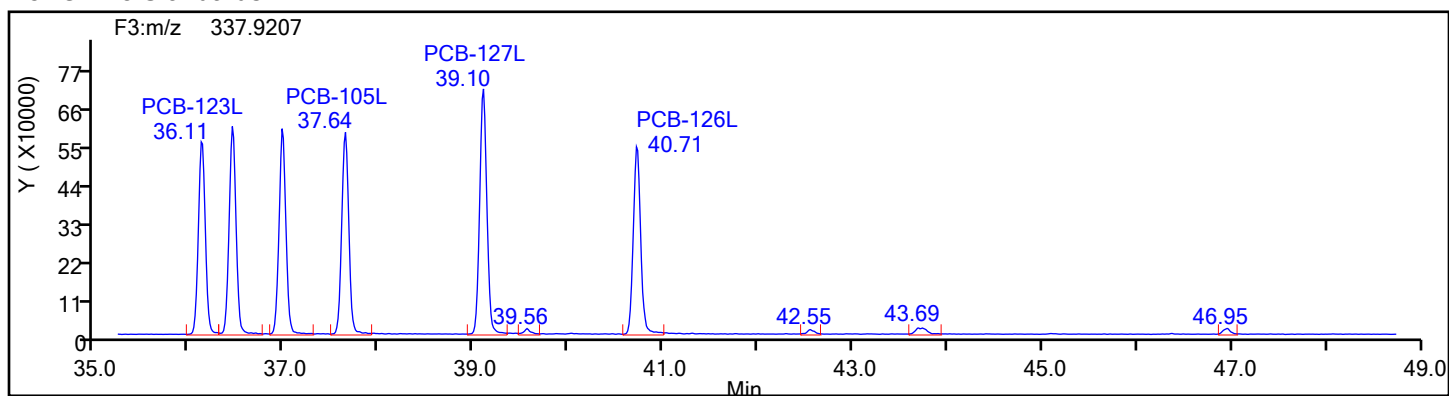
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



PePCB F3 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

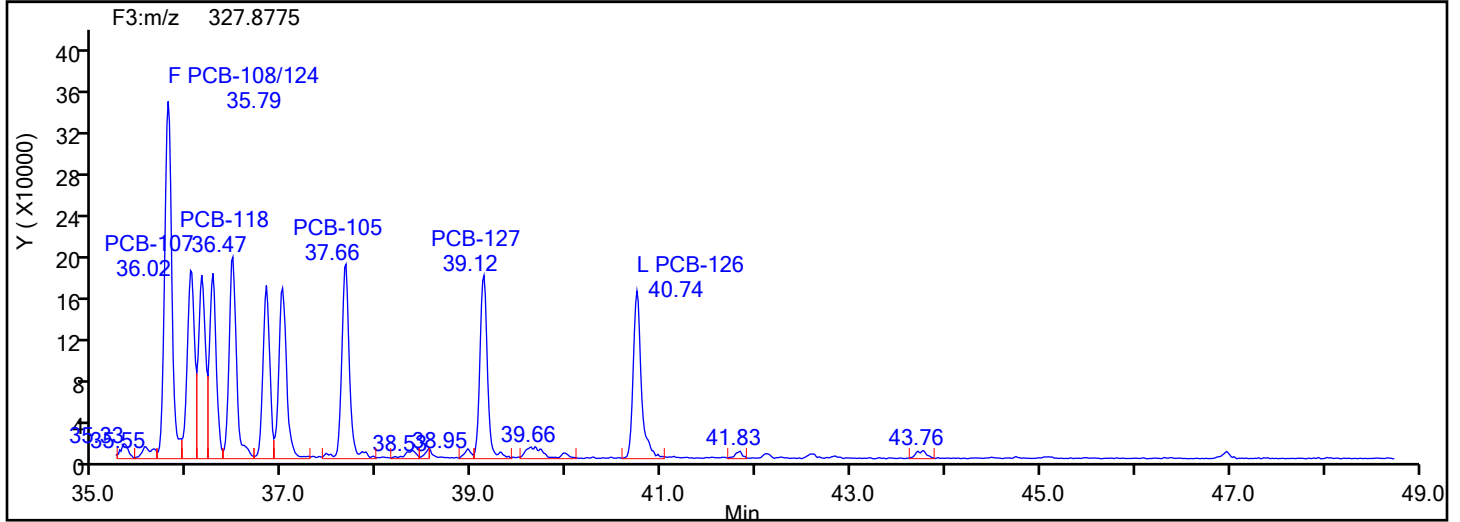
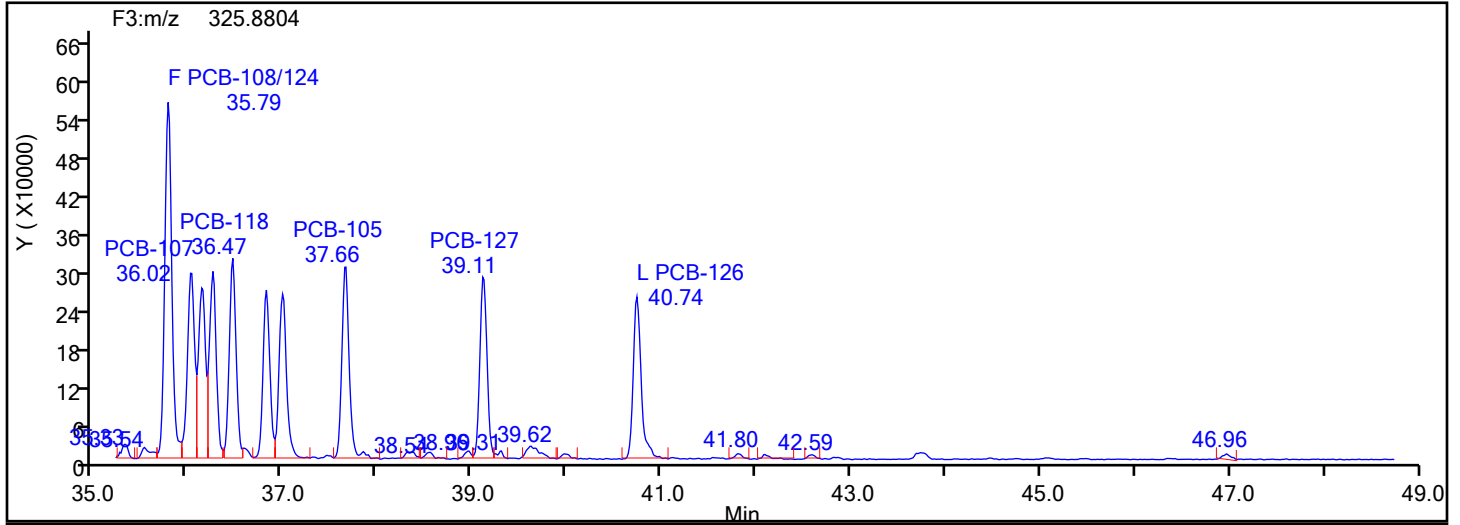
Worklist#: 88747

Sample Line#: 2

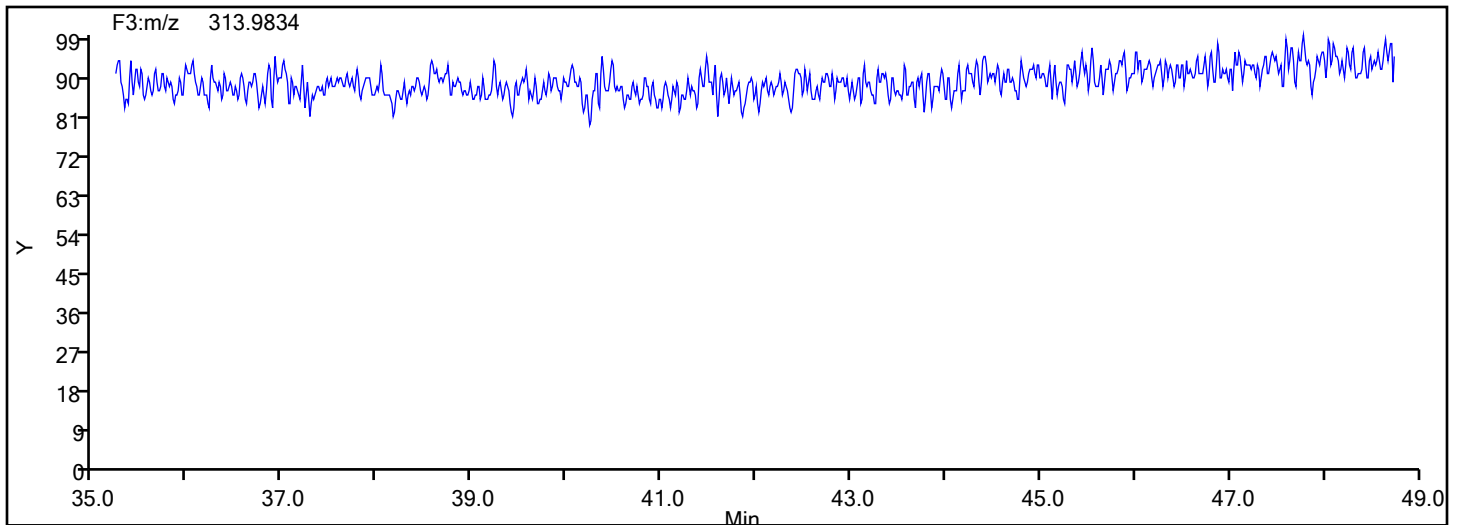
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



## PePCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Instrument ID: D2D

Lims ID: LCS 140-88193/19-B

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor: 1.0000

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

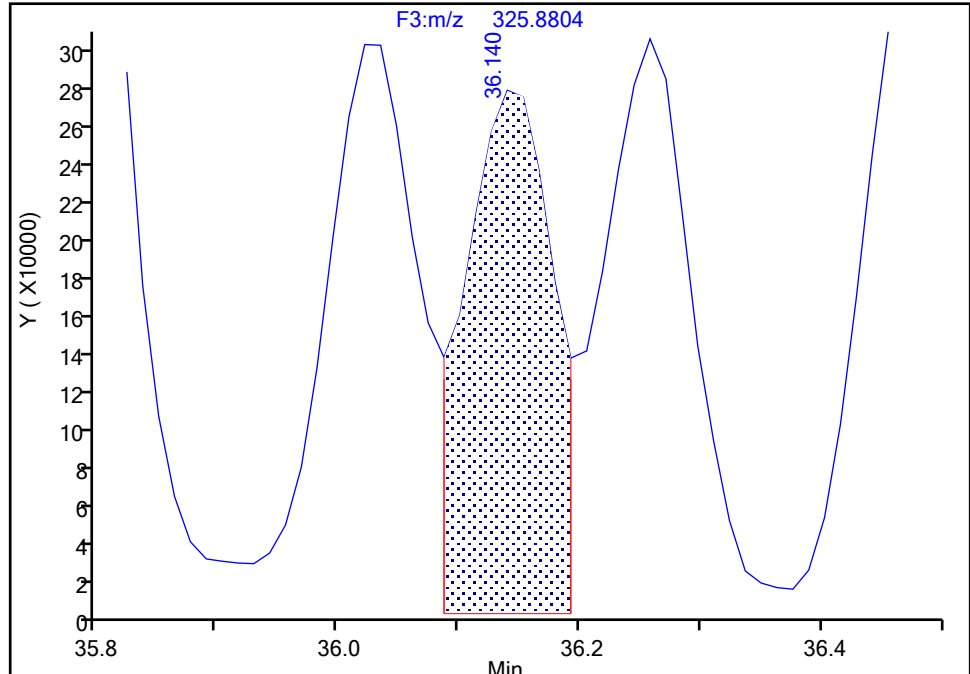
Detector F3(35.64 :49.10 )

PCB-123, CAS: 65510-44-3

Signal: 1

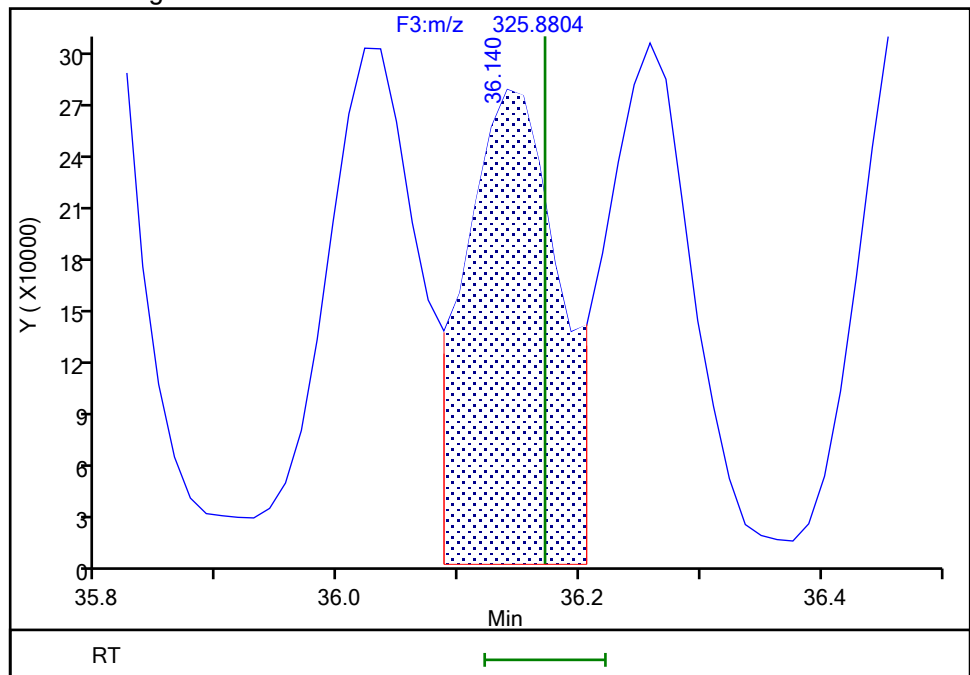
RT: 36.14  
Area: 1319569  
Amount: 44.623288  
Amount Units: pg/ul

## Processing Integration Results



RT: 36.14  
Area: 1422621  
Amount: 46.690479  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 15-Jul-2024 19:43:09 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Instrument ID: D2D

Lims ID: LCS 140-88193/19-B

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

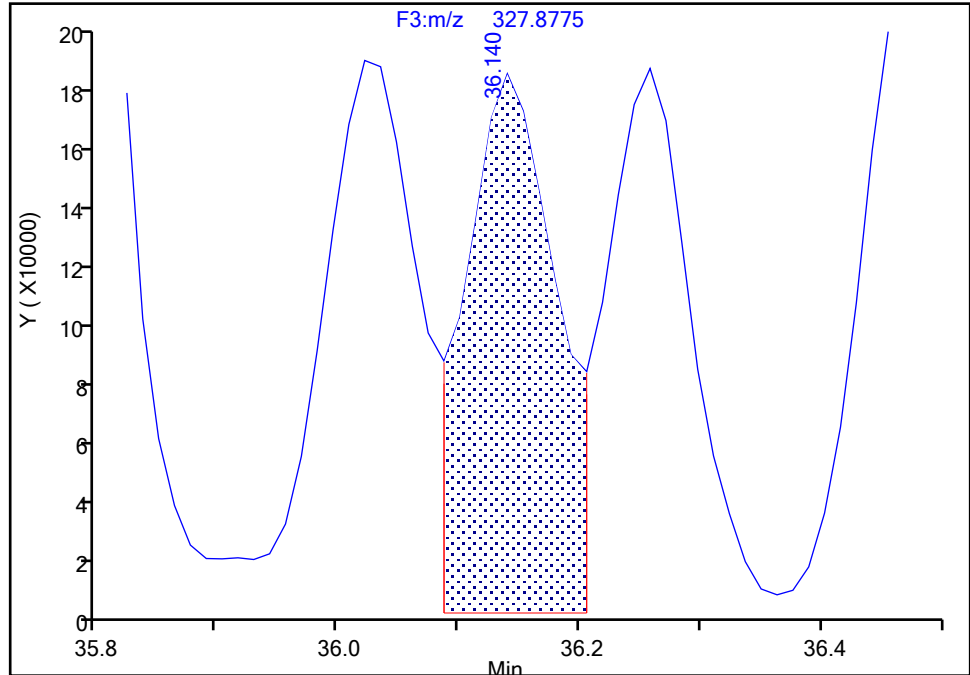
F3(35.64 :49.10 )

**PCB-123, CAS: 65510-44-3**

Signal: 2

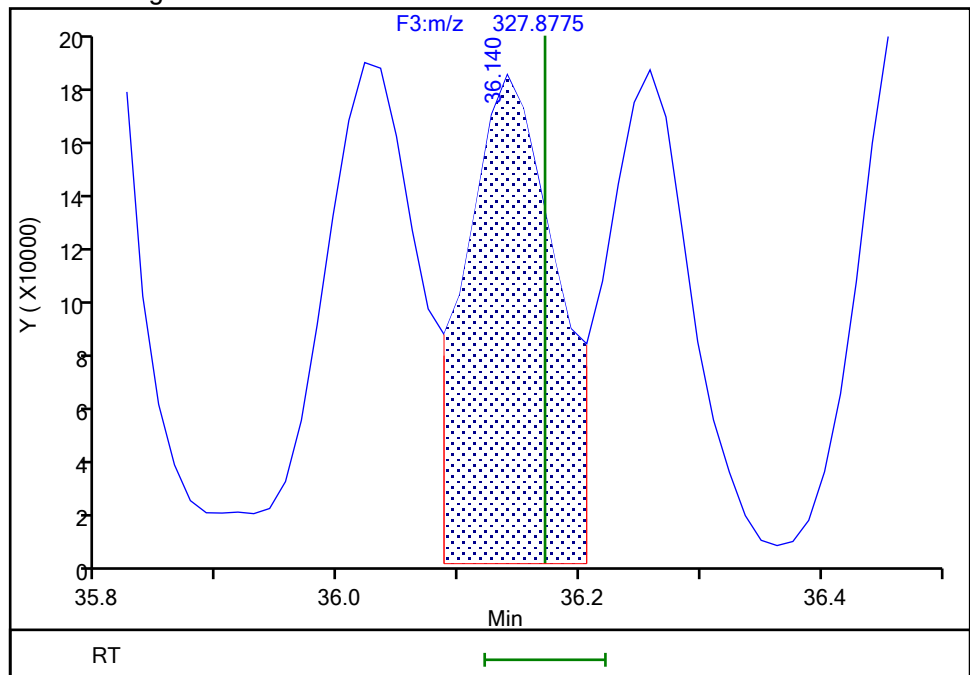
RT: 36.14  
Area: 904957  
Amount: 44.623288  
Amount Units: pg/ul

## Processing Integration Results



RT: 36.14  
Area: 904957  
Amount: 46.690479  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 15-Jul-2024 19:43:09 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

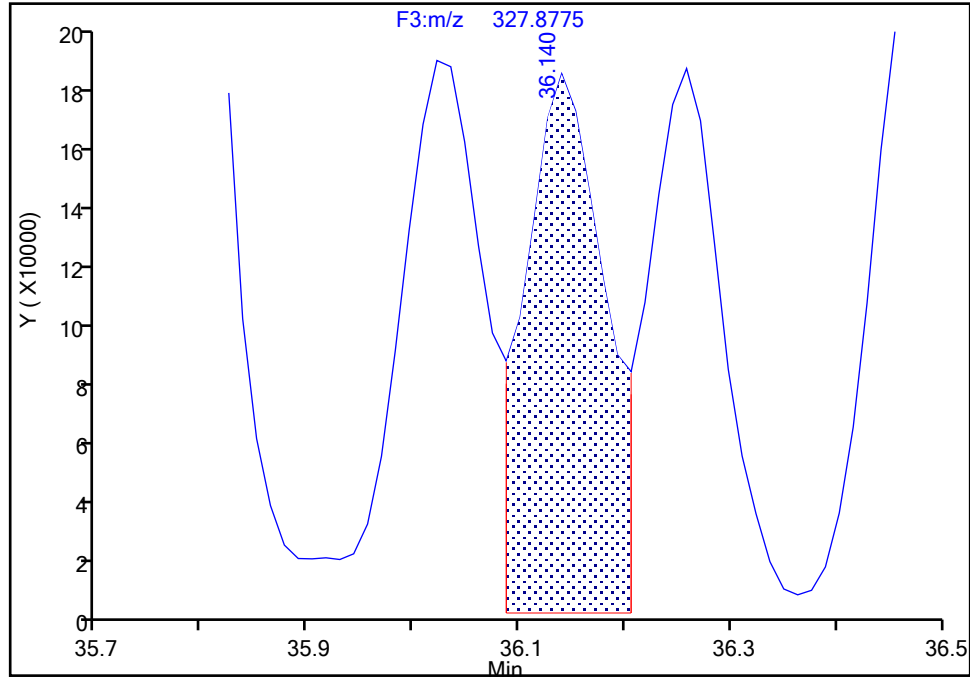
Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d  
Injection Date: 15-Jul-2024 13:44:00 Instrument ID: D2D  
Lims ID: LCS 140-88193/19-B  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

## PCB-123, CAS: 65510-44-3

Signal: 3

RT: 36.14  
Area: 2224526  
Amount: 44.623288  
Amount Units: pg/ul

## Processing Integration Results



## Manual Integration Results

RT: 36.14  
Area: 2327578  
Amount: 46.690479  
Amount Units: pg/ul

Reviewer: V4XA, 15-Jul-2024 19:43:09 -04:00:00 (UTC)

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Instrument ID: D2D

Lims ID: LCS 140-88193/19-B

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

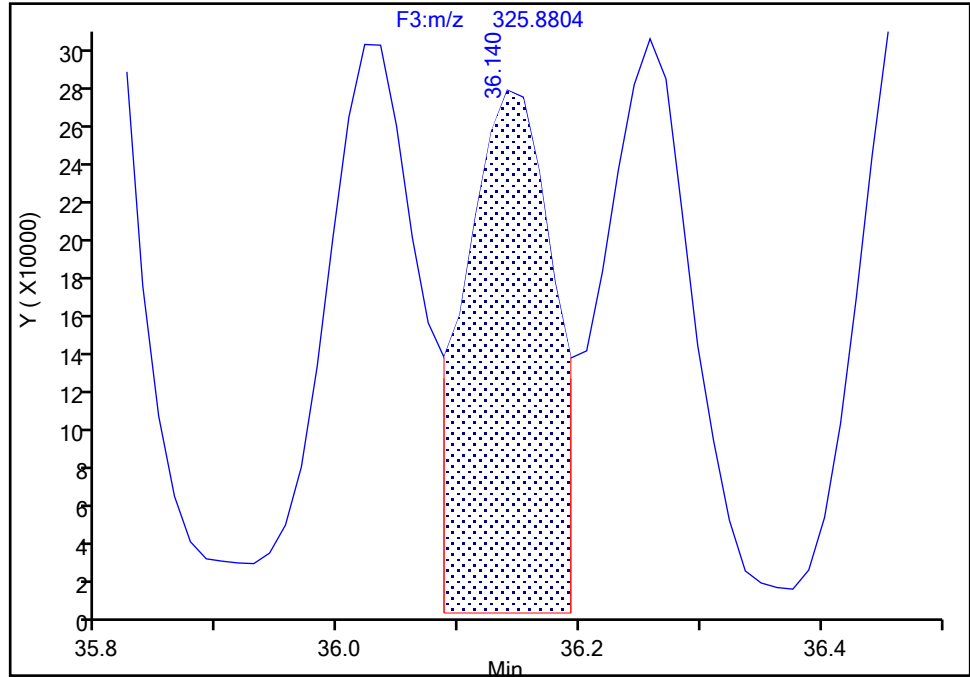
F3(35.64 :49.10 )

**PCB-123, CAS: 65510-44-3**

Signal: 1

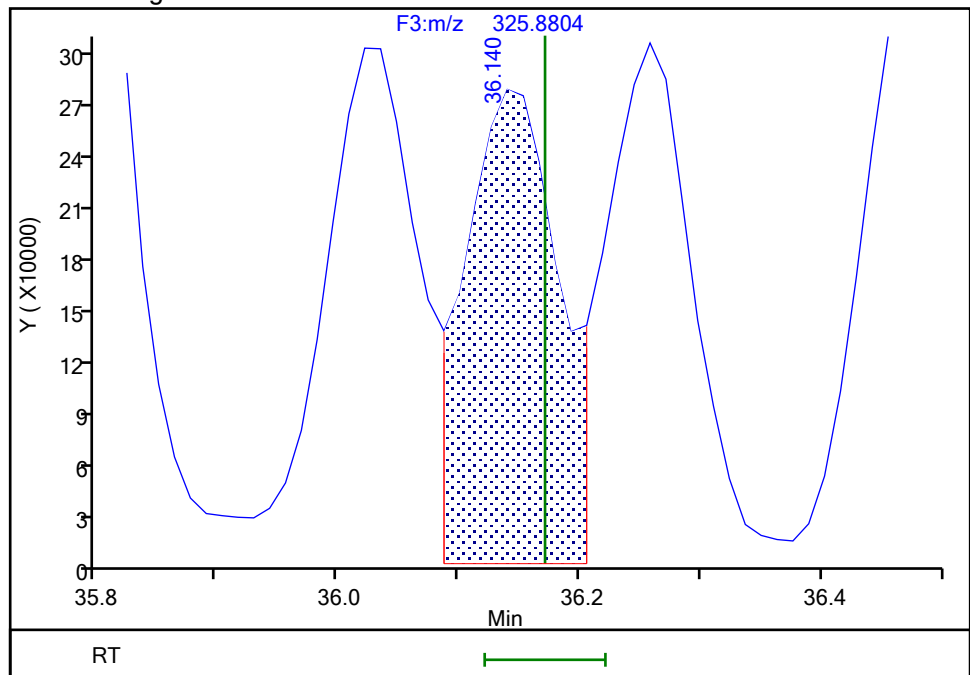
RT: 36.14  
Area: 1319569  
Amount: 44.623288  
Amount Units: pg/ul

## Processing Integration Results



RT: 36.14  
Area: 1422621  
Amount: 46.690479  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 15-Jul-2024 19:43:11 -04:00:00 (UTC)

Audit Action: Manually Integrated/Assigned Compound ID Audit Reason: Split Peak

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

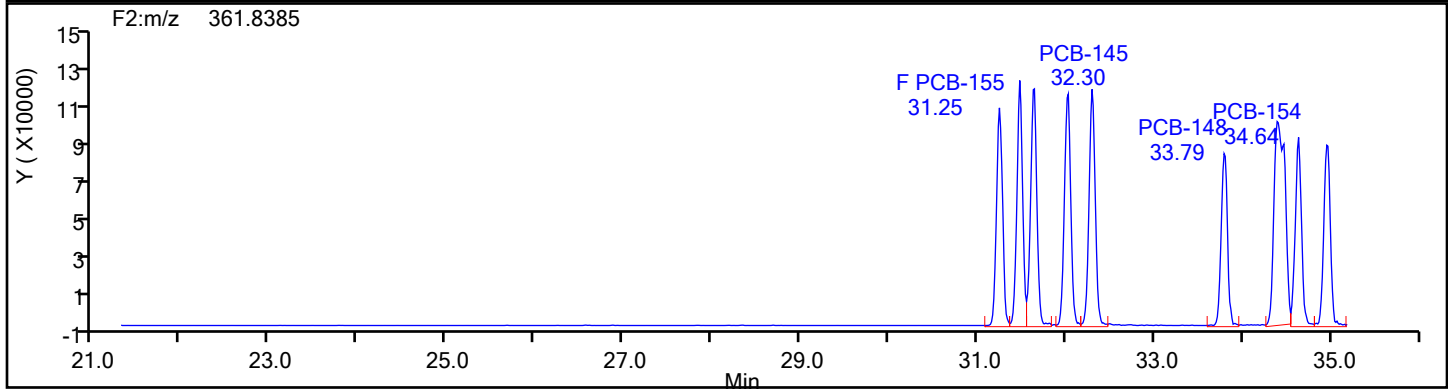
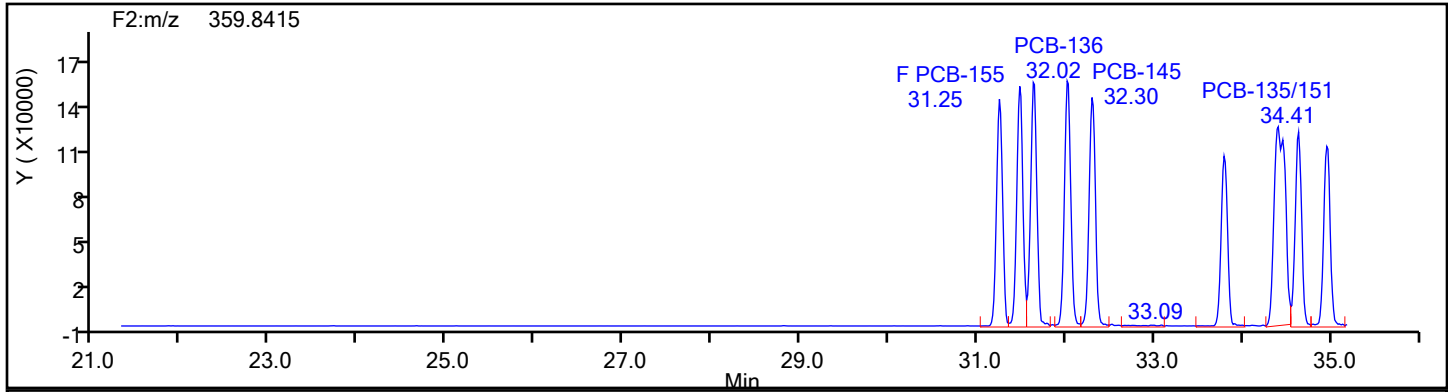
Worklist#: 88747

Sample Line#: 2

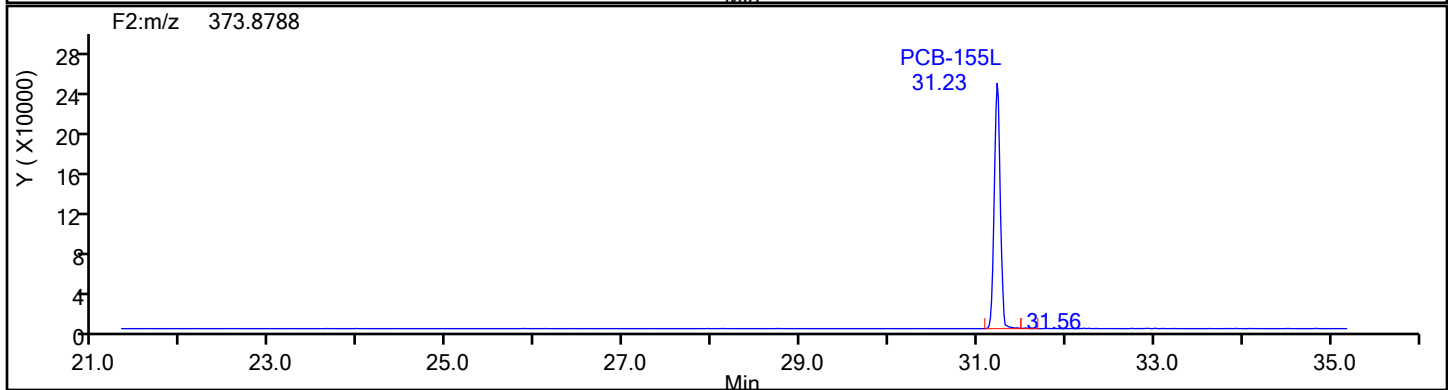
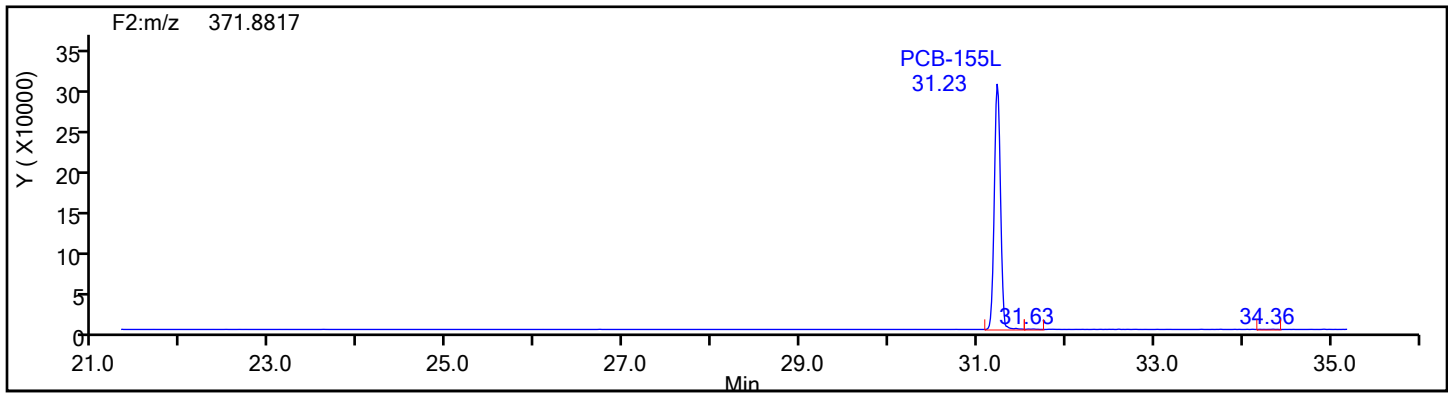
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F2



HxPCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

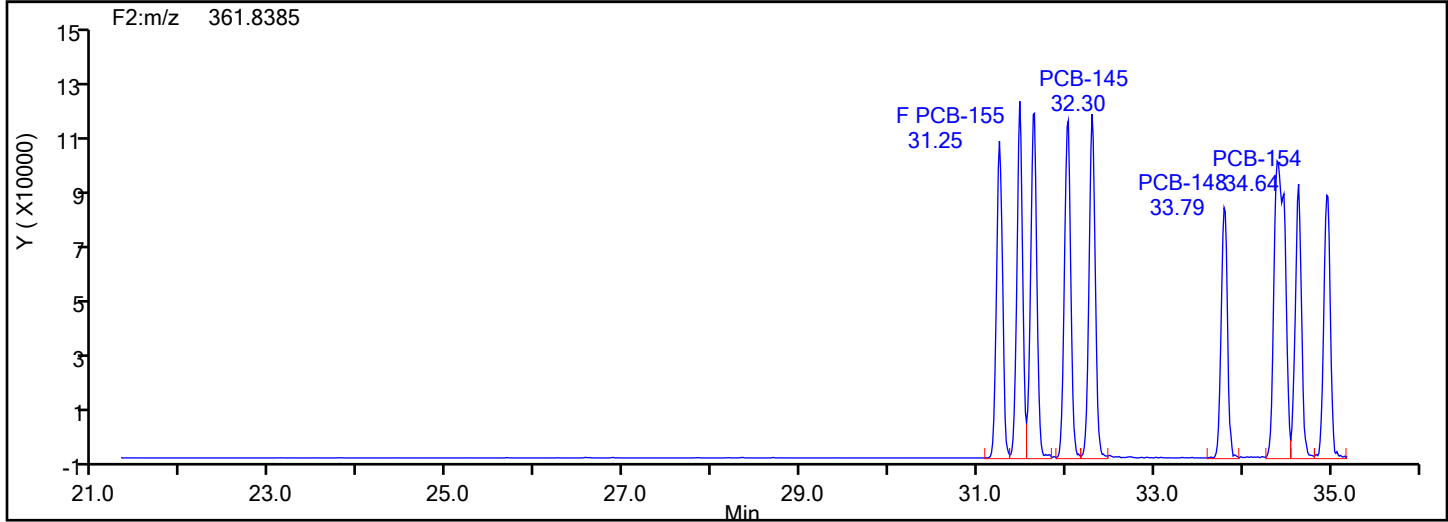
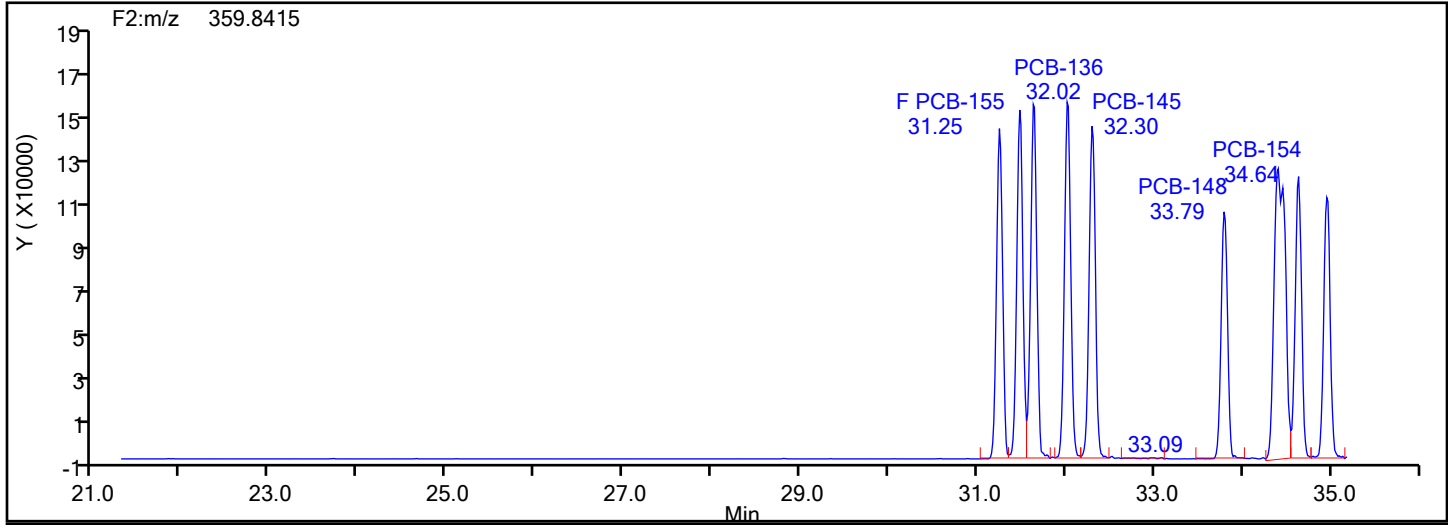
Worklist#: 88747

Sample Line#: 2

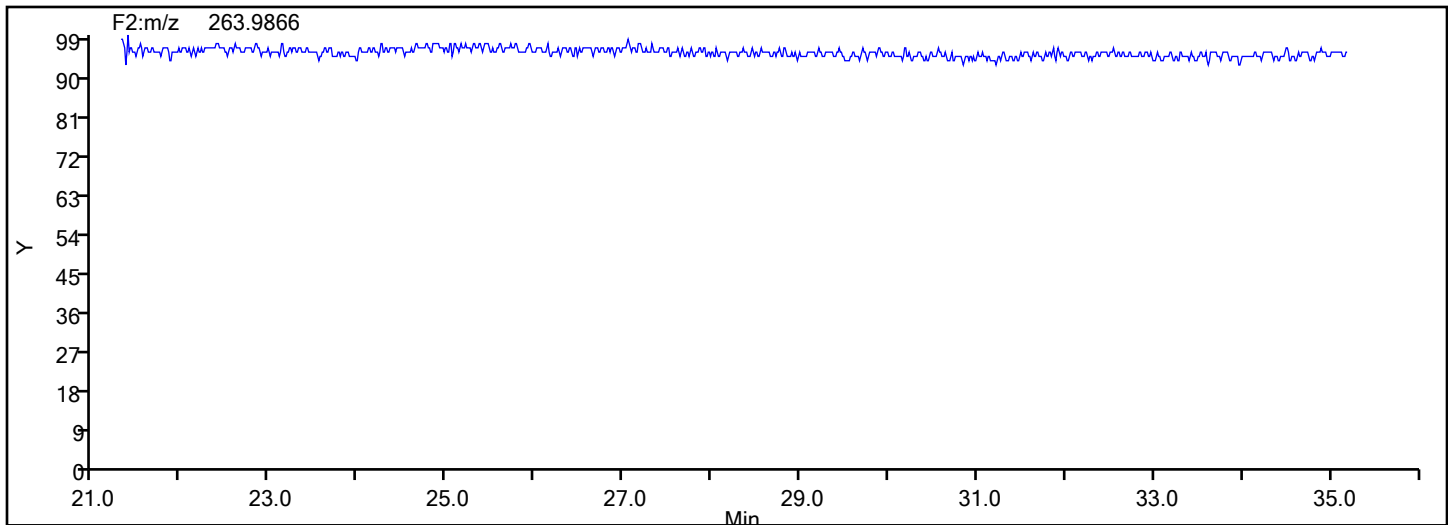
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F2



HxPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

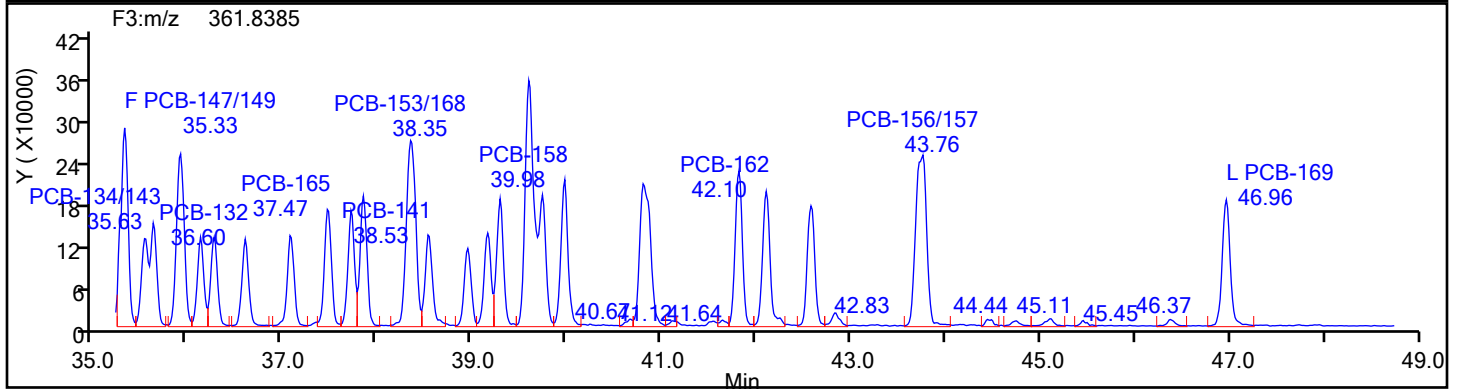
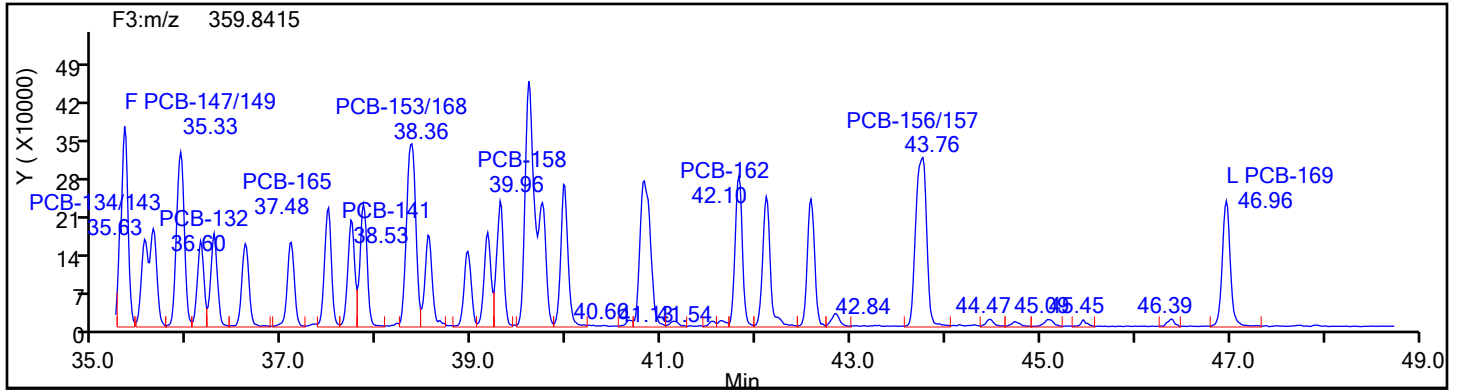
Worklist#: 88747

Sample Line#: 2

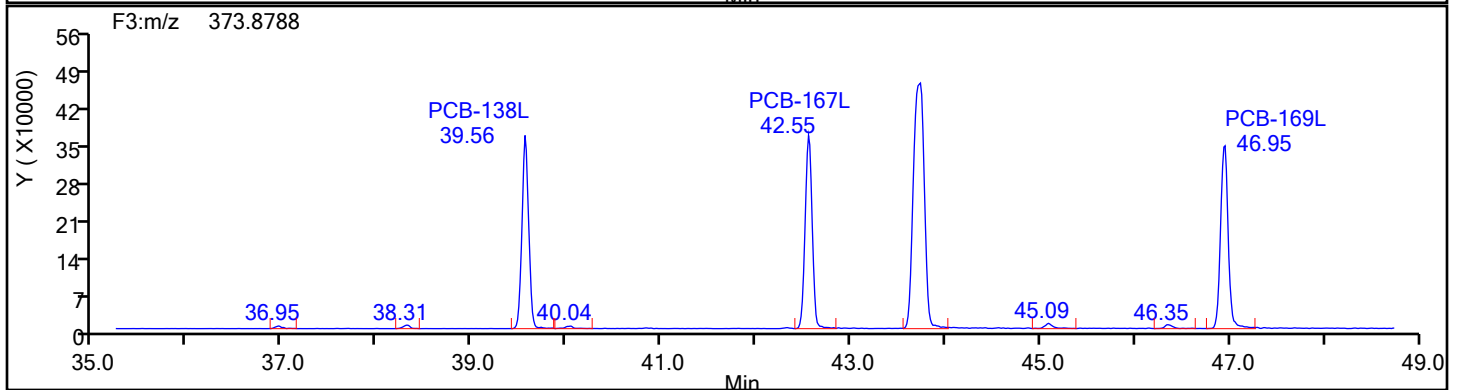
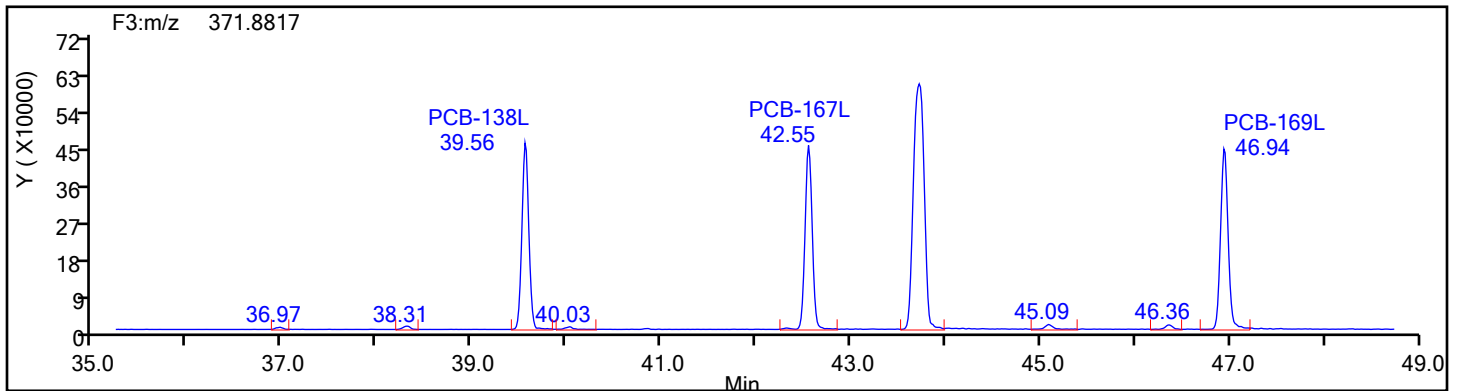
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



HxPCB F3 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

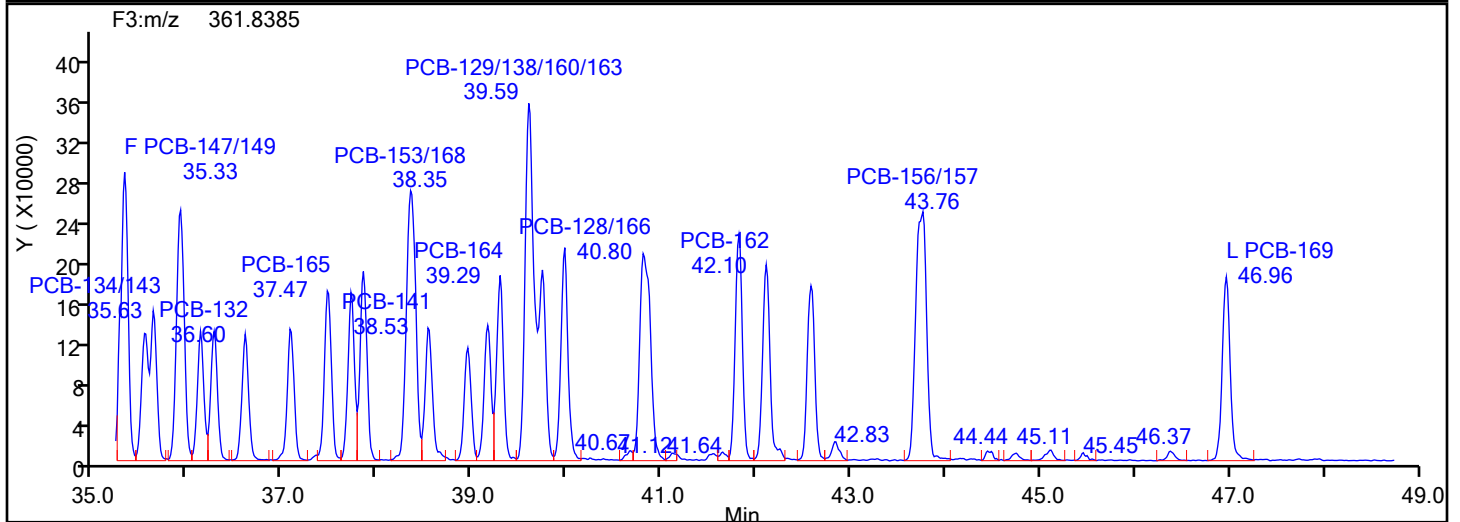
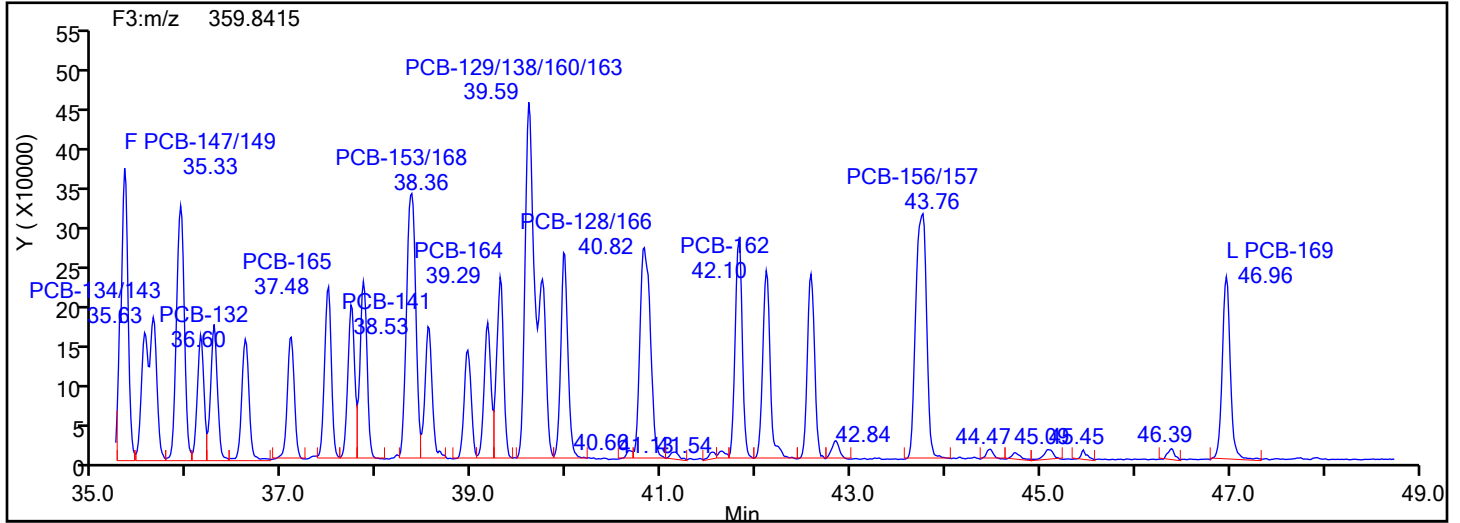
Worklist#: 88747

Sample Line#: 2

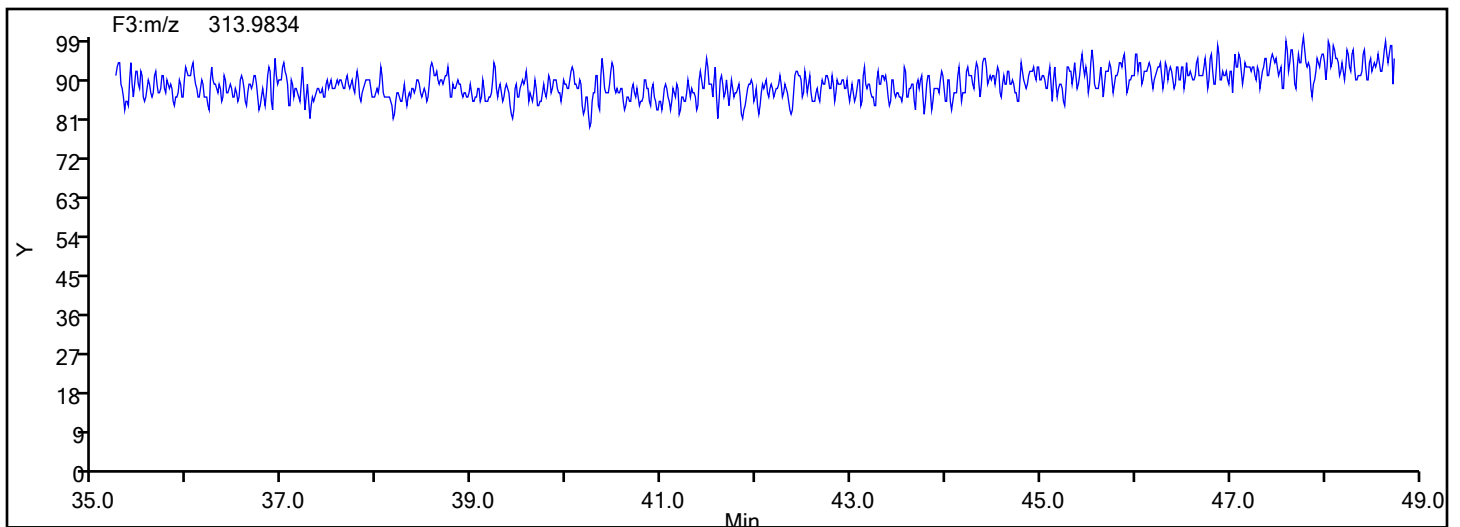
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



## HxPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Instrument ID: D2D

Lims ID: LCS 140-88193/19-B

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

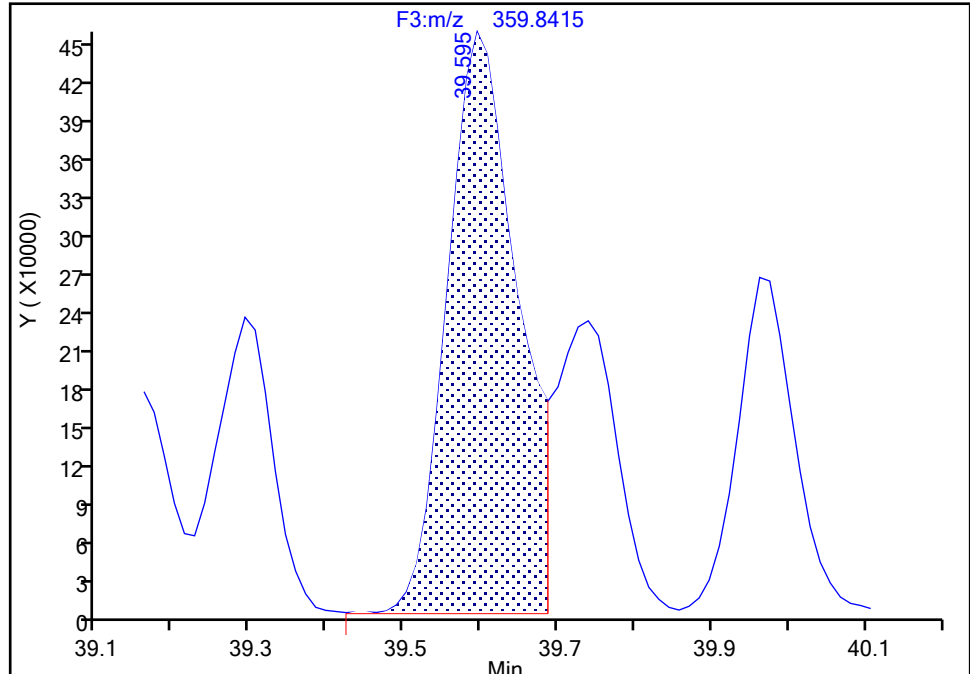
F3(35.64 :49.10 )

**PCB-129/138/160/163, CAS: STL02296**

Signal: 1

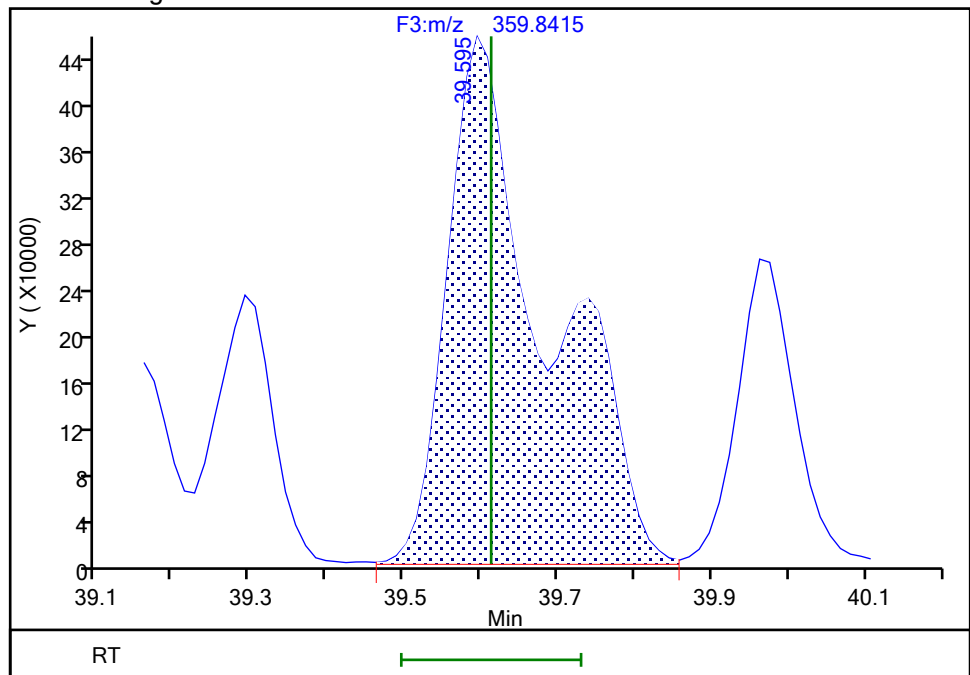
RT: 39.59  
Area: 2832584  
Amount: 123.1409  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.59  
Area: 4056010  
Amount: 177.0668  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 15-Jul-2024 19:41:17 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Instrument ID: D2D

Lims ID: LCS 140-88193/19-B

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 2

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

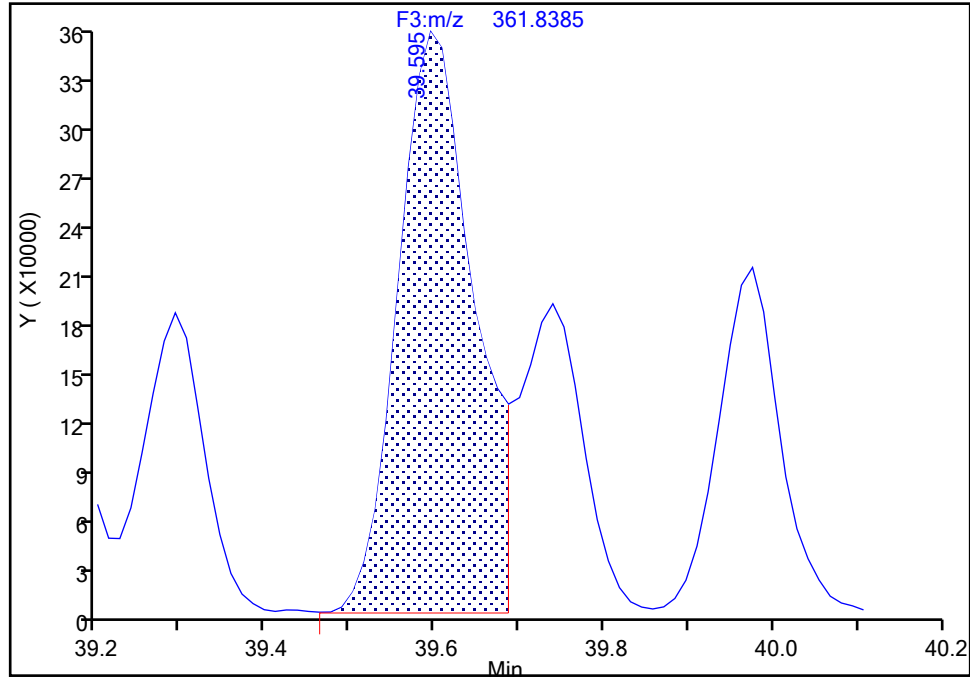
F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 2

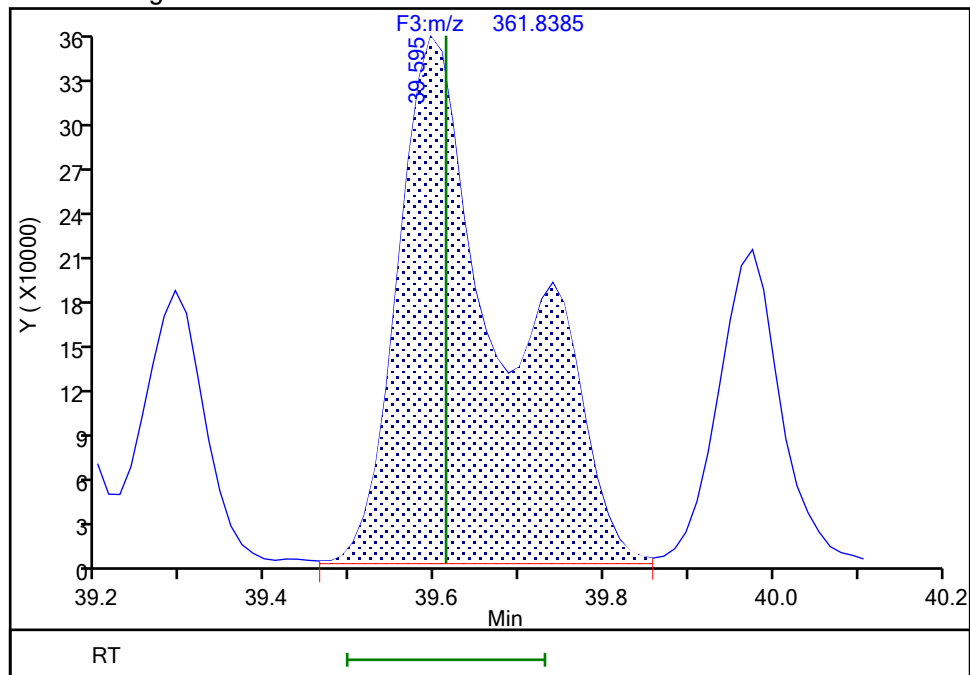
RT: 39.59  
Area: 2209227  
Amount: 123.1409  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.59  
Area: 3193715  
Amount: 177.0668  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 15-Jul-2024 19:41:24 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

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BASFWC-Pass 2024092

9/6/2024  
4:19:54 PM

## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

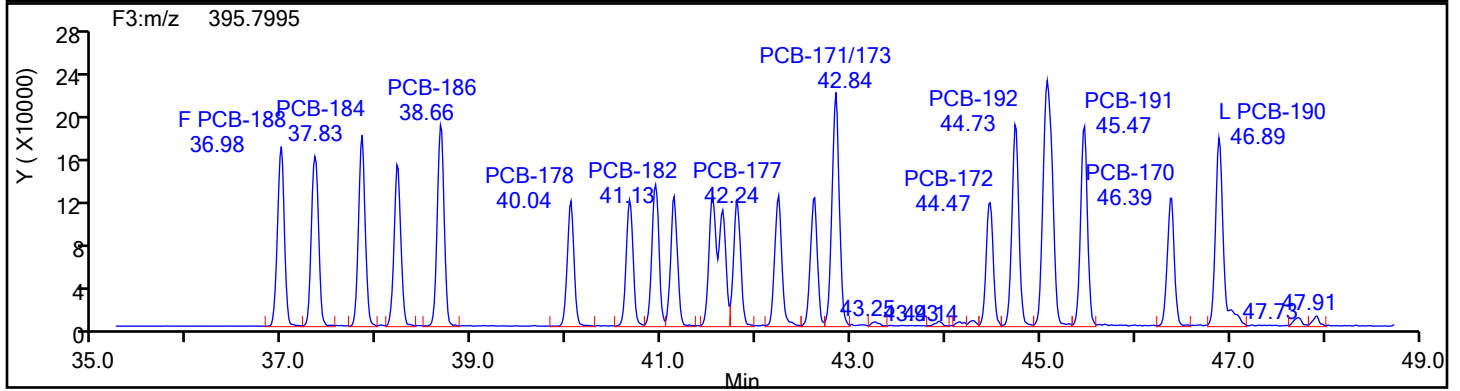
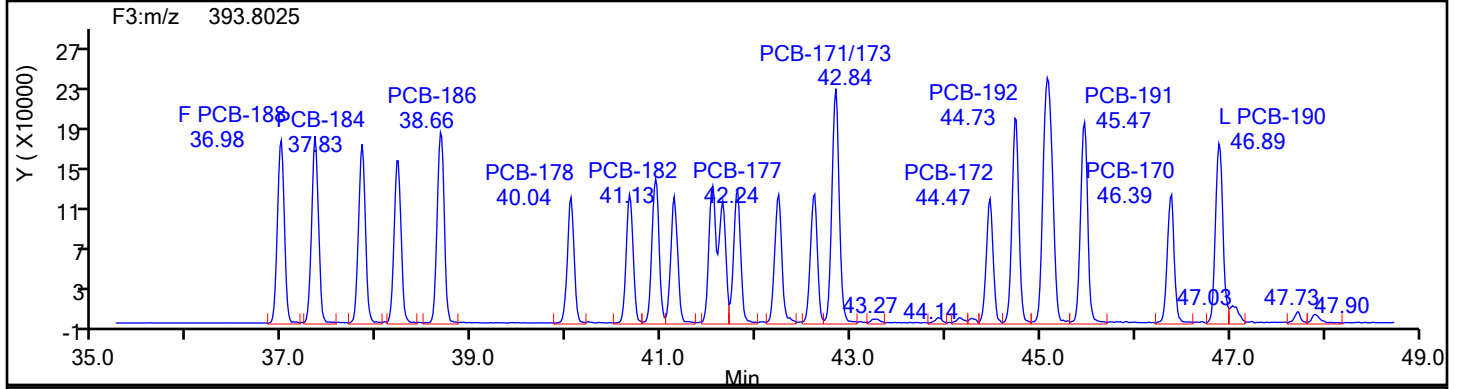
Worklist#: 88747

Sample Line#: 2

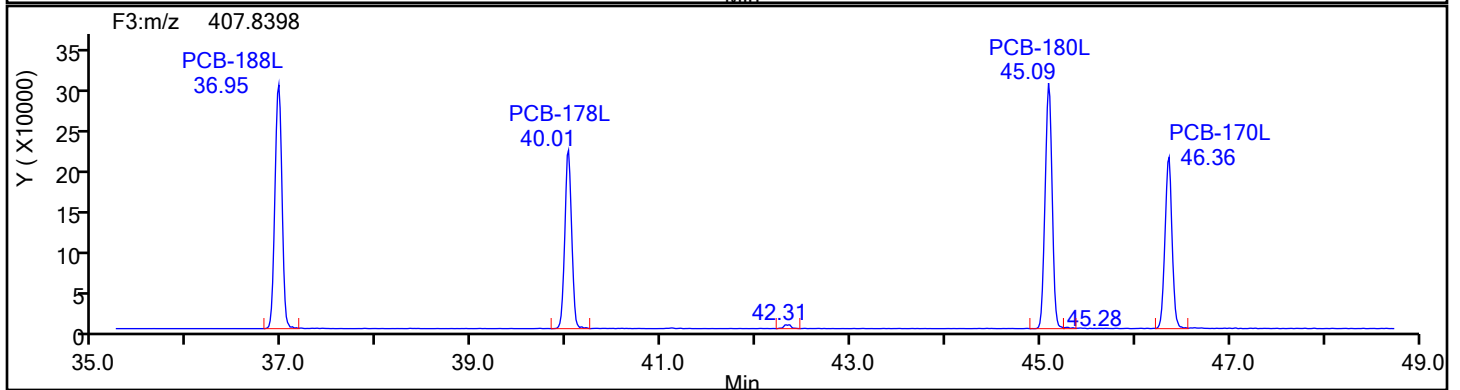
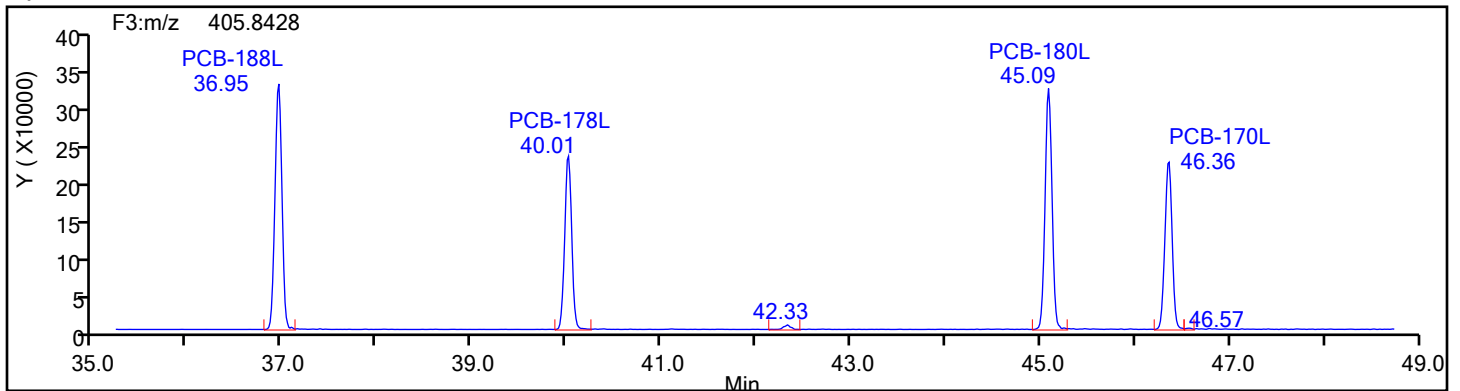
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



## HpPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

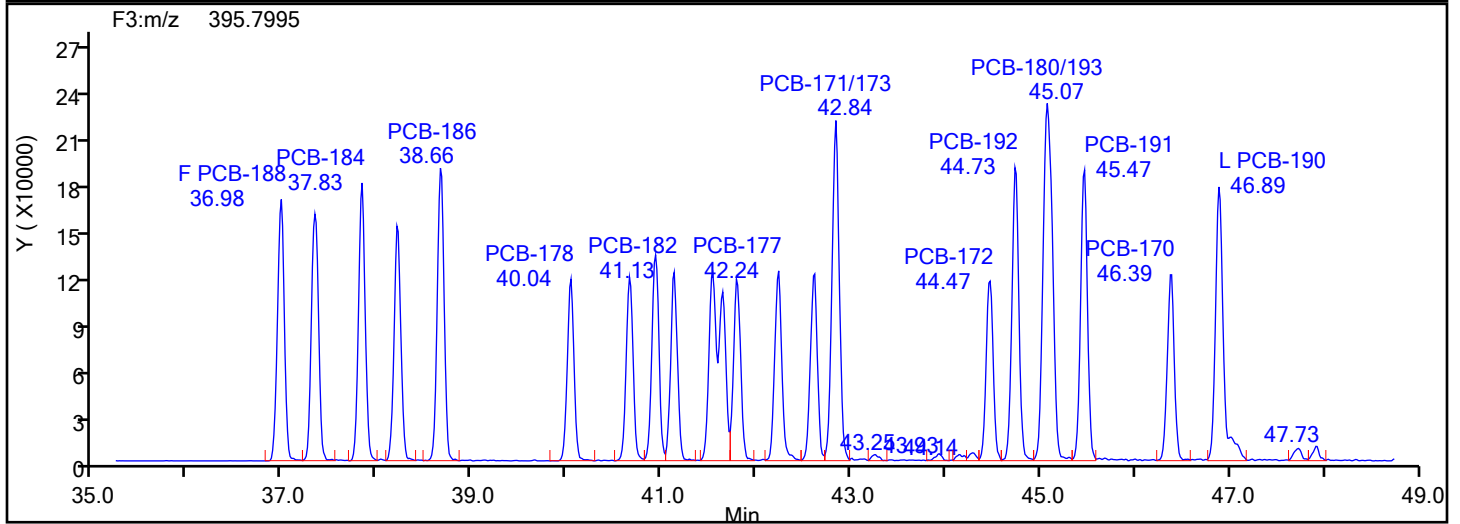
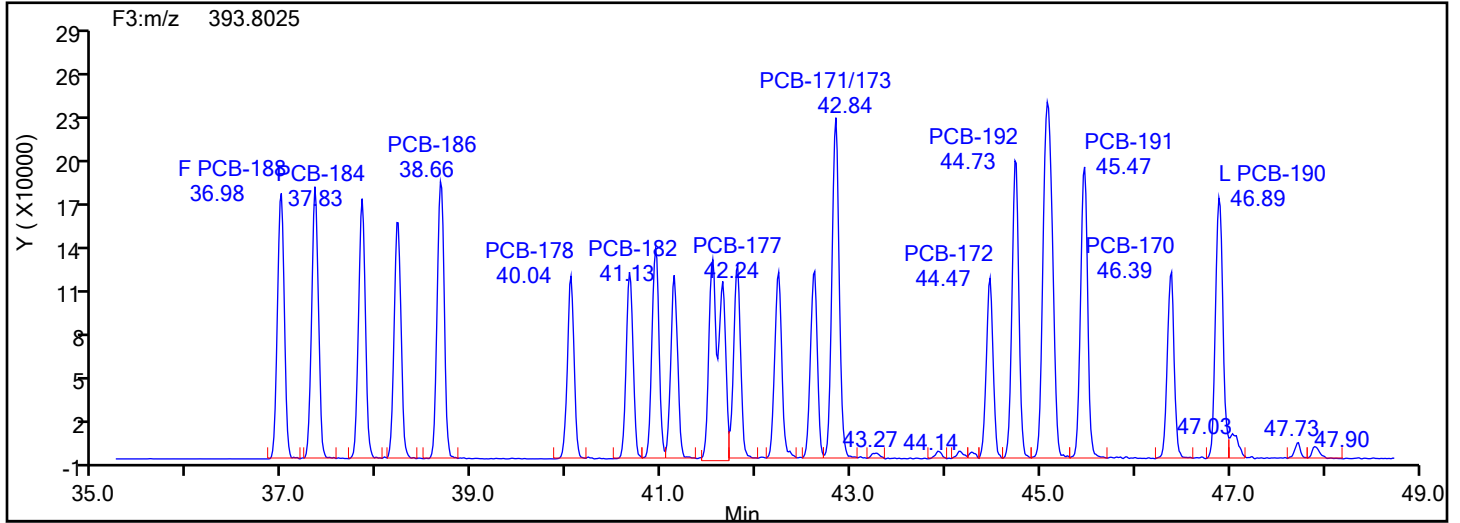
Worklist#: 88747

Sample Line#: 2

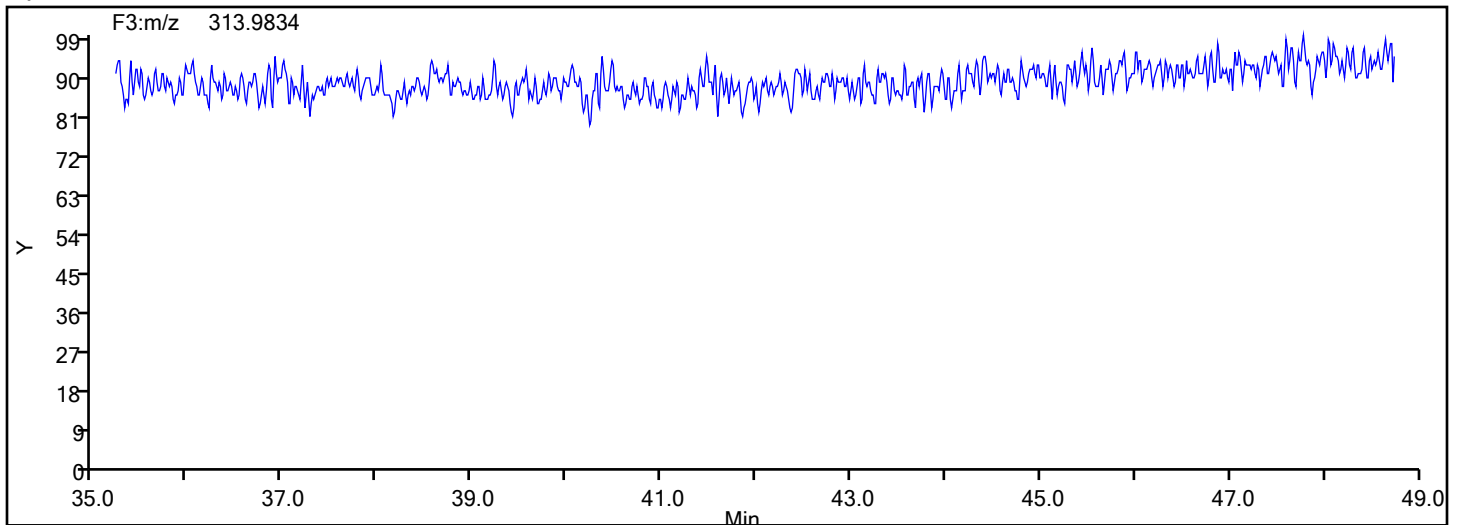
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



HpPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

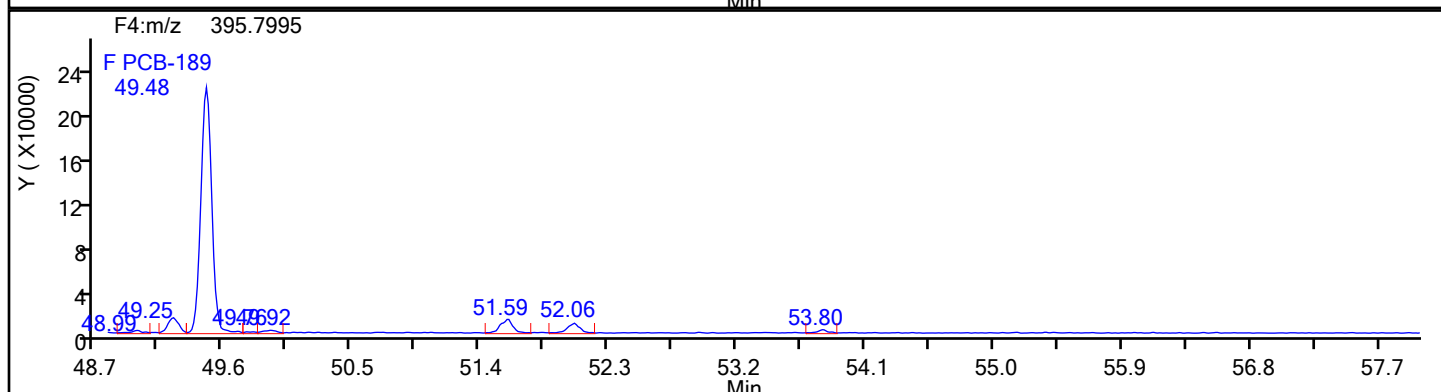
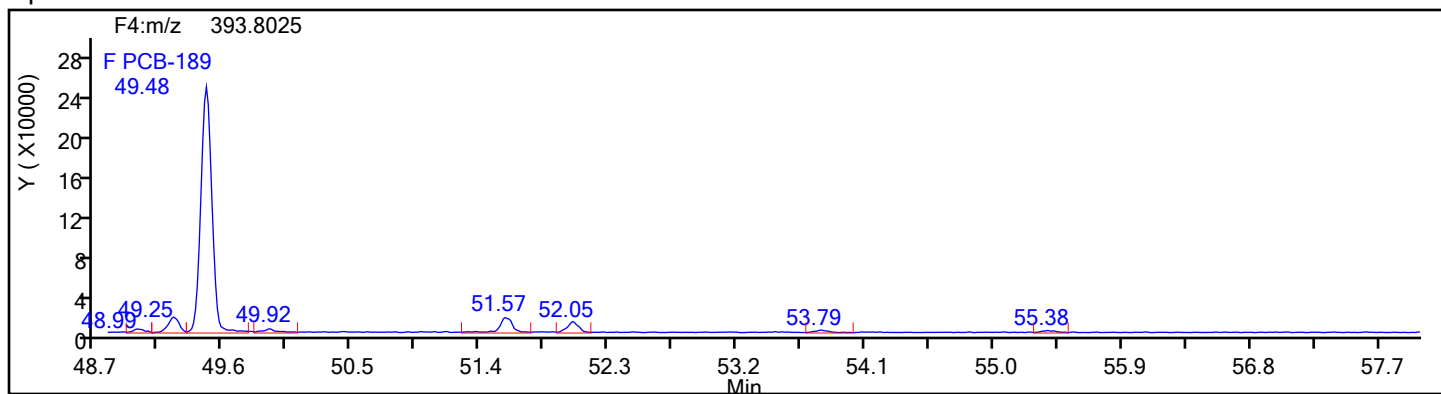
Worklist#: 88747

Sample Line#: 2

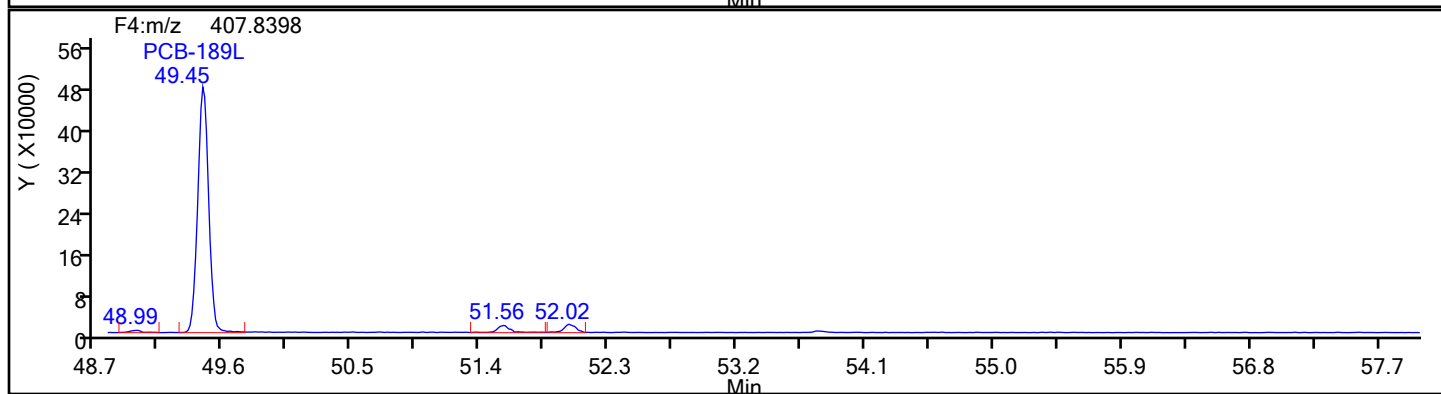
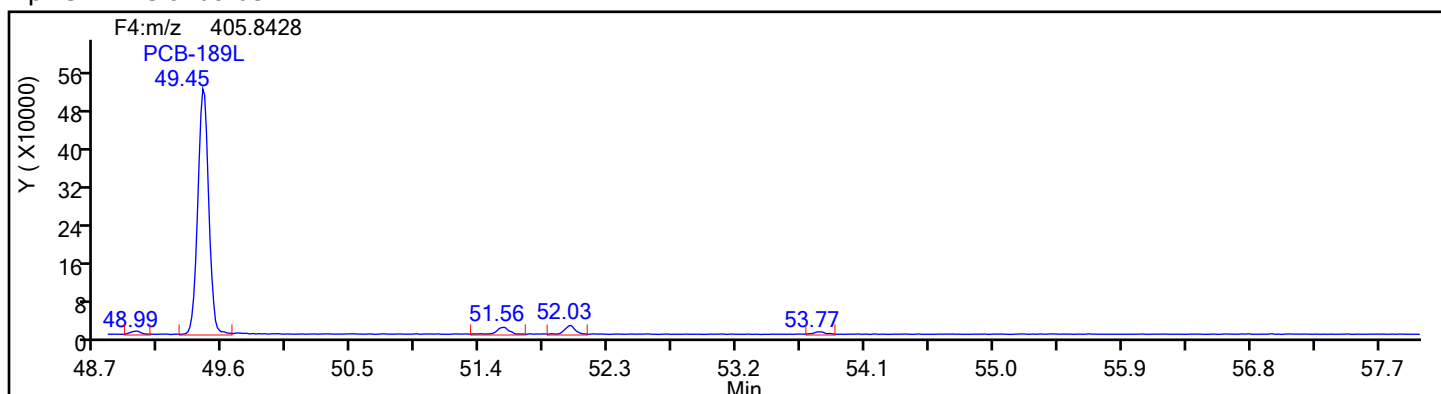
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

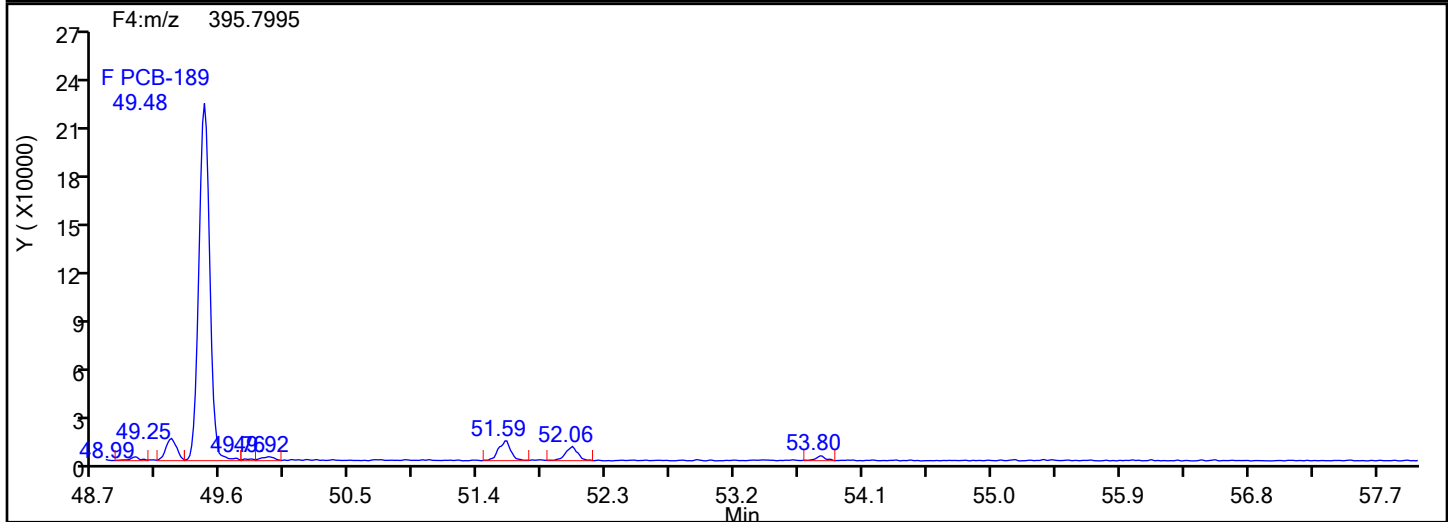
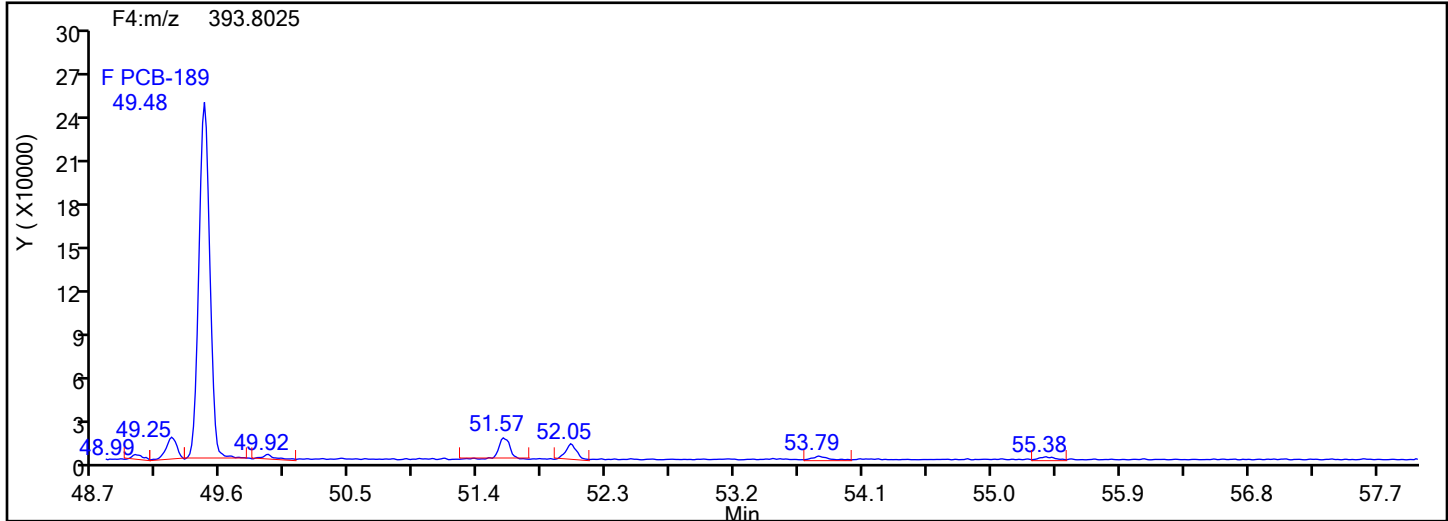
Worklist#: 88747

Sample Line#: 2

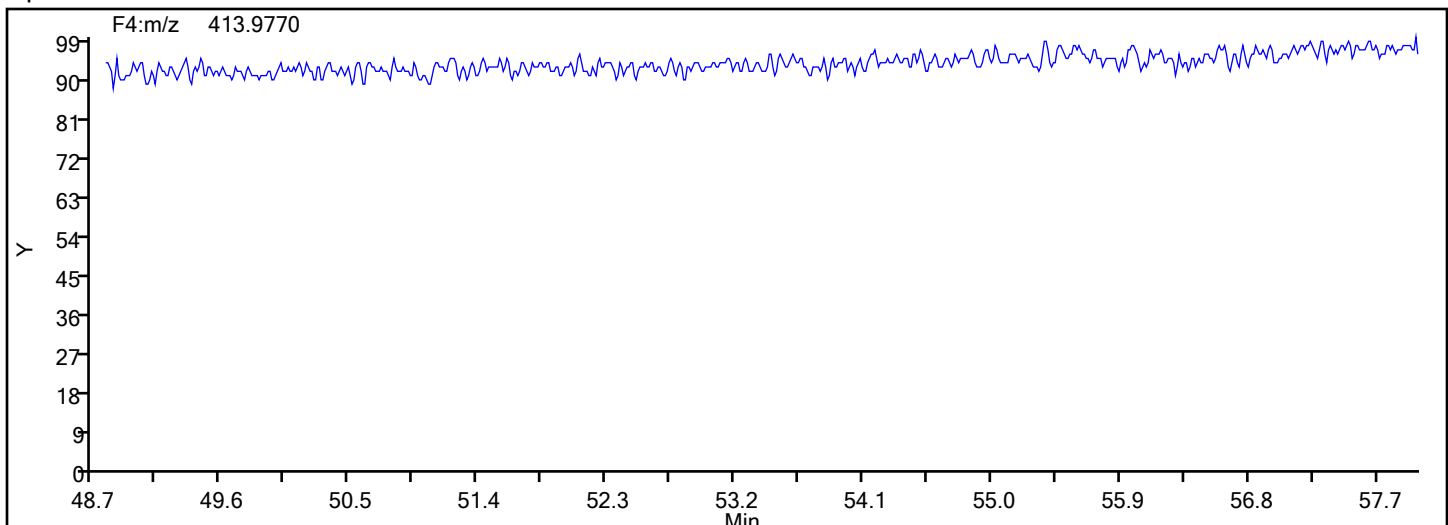
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

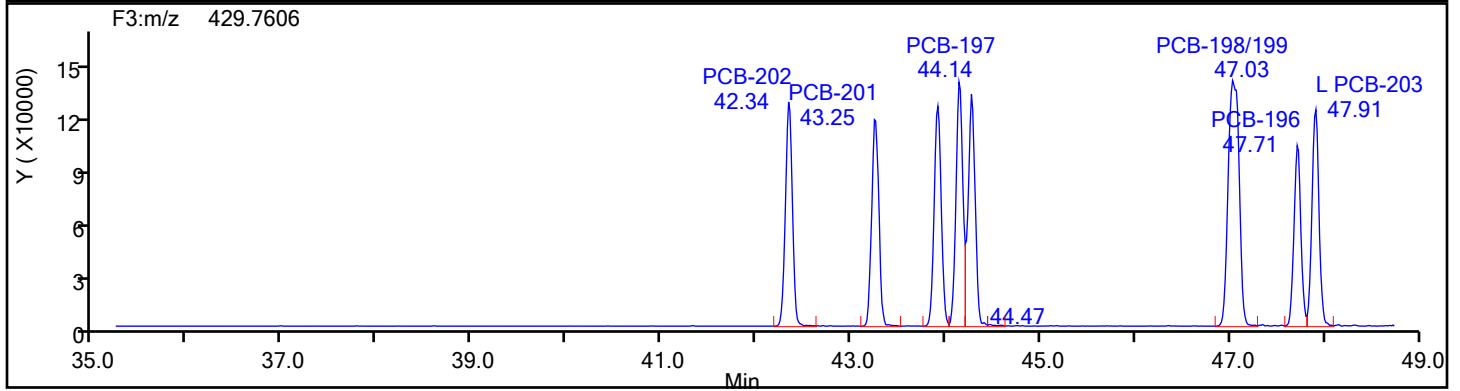
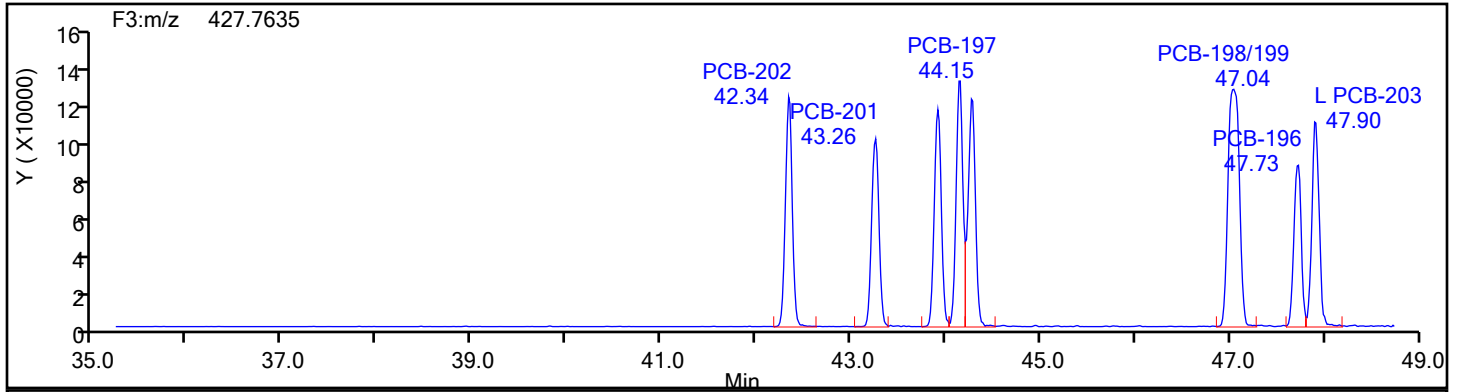
Worklist#: 88747

Sample Line#: 2

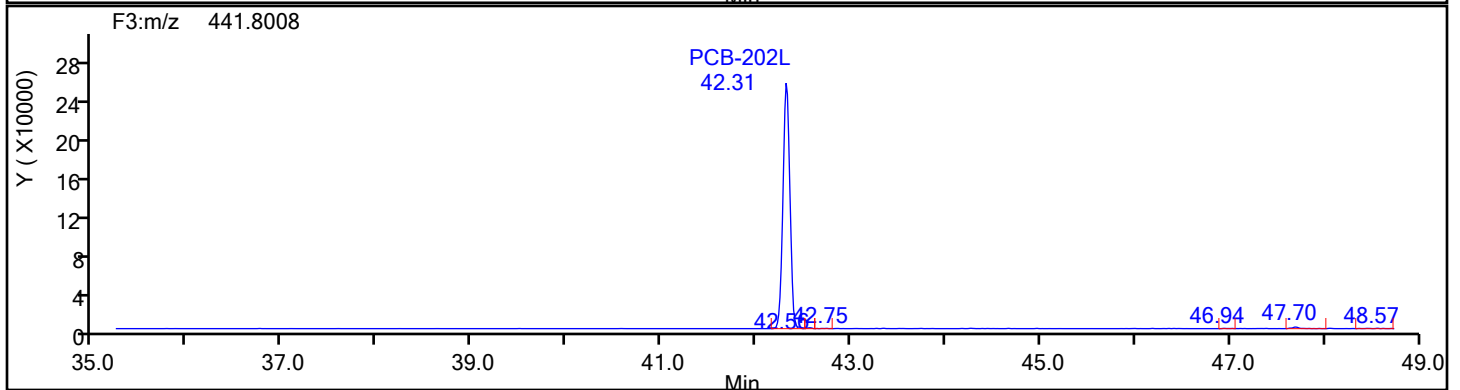
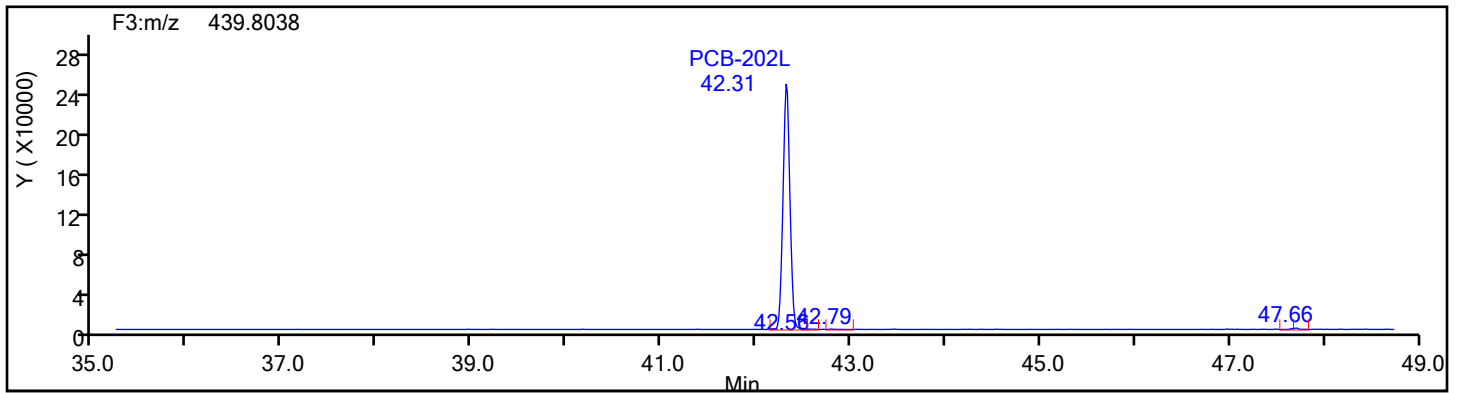
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3



OcPCB F3 Standards





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

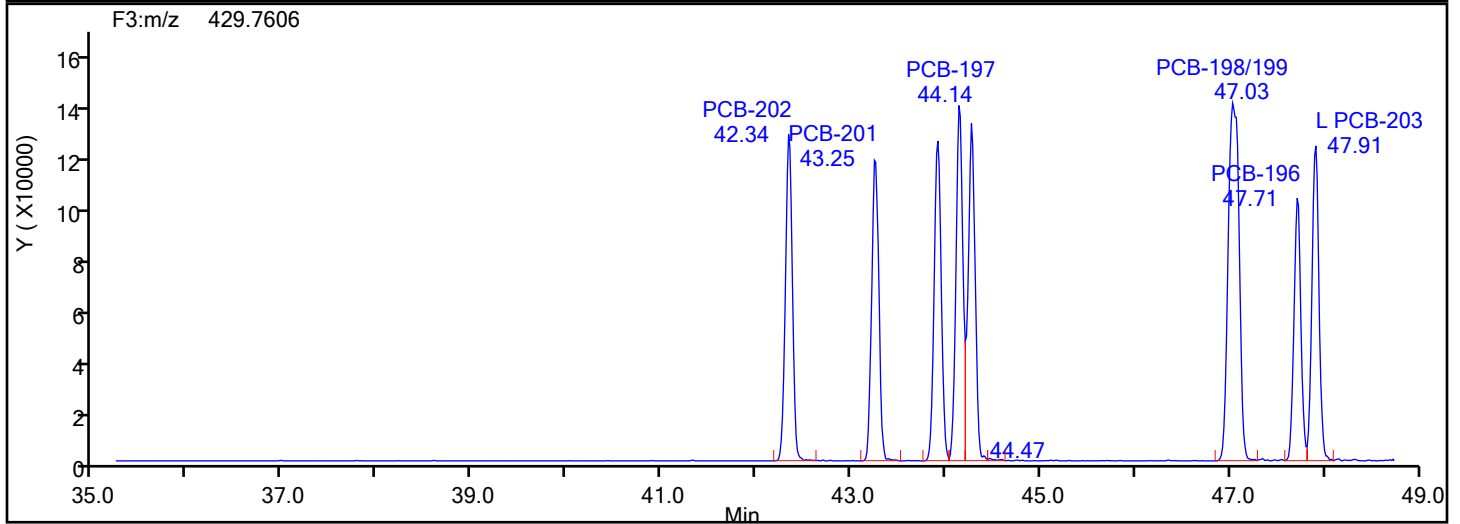
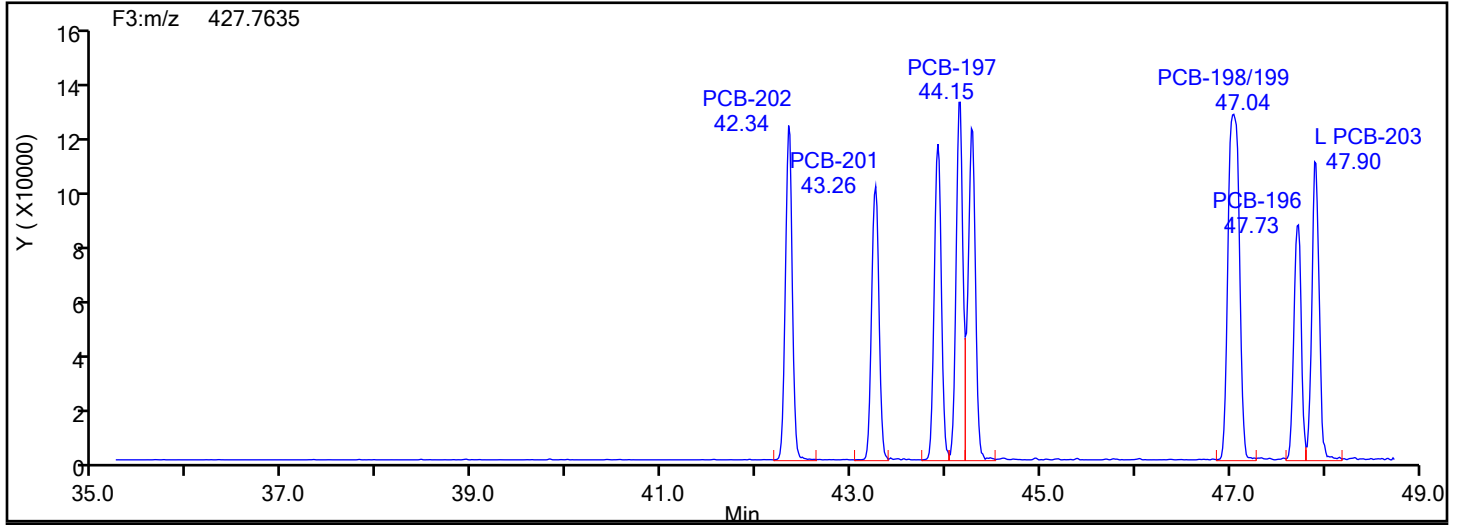
Worklist#: 88747

Sample Line#: 2

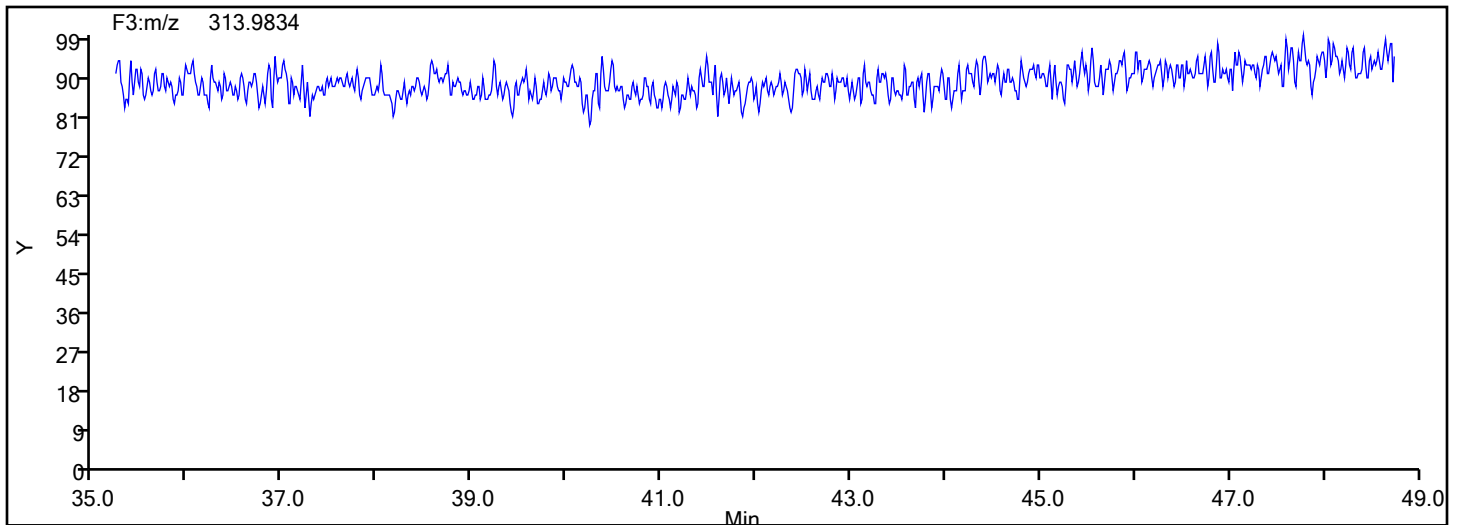
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3



## OcPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

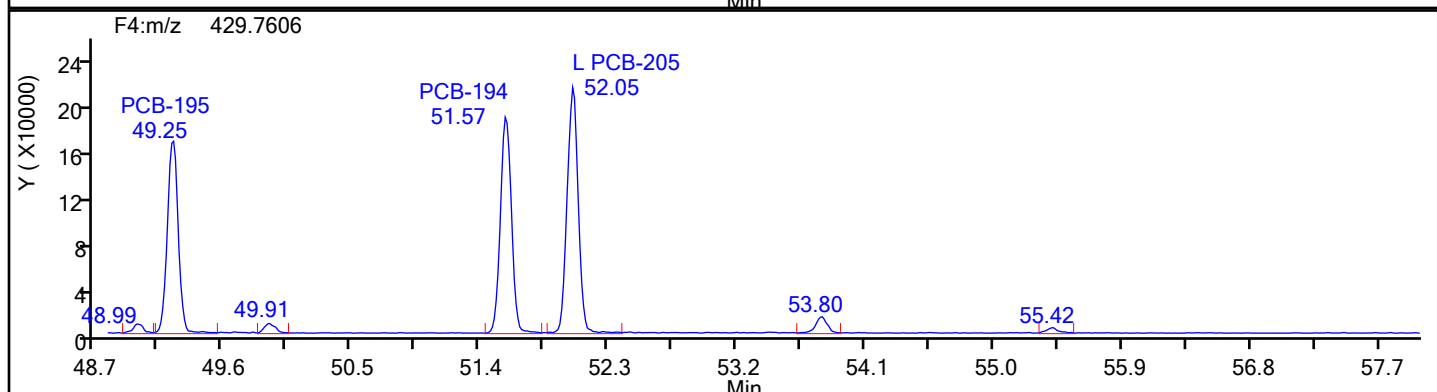
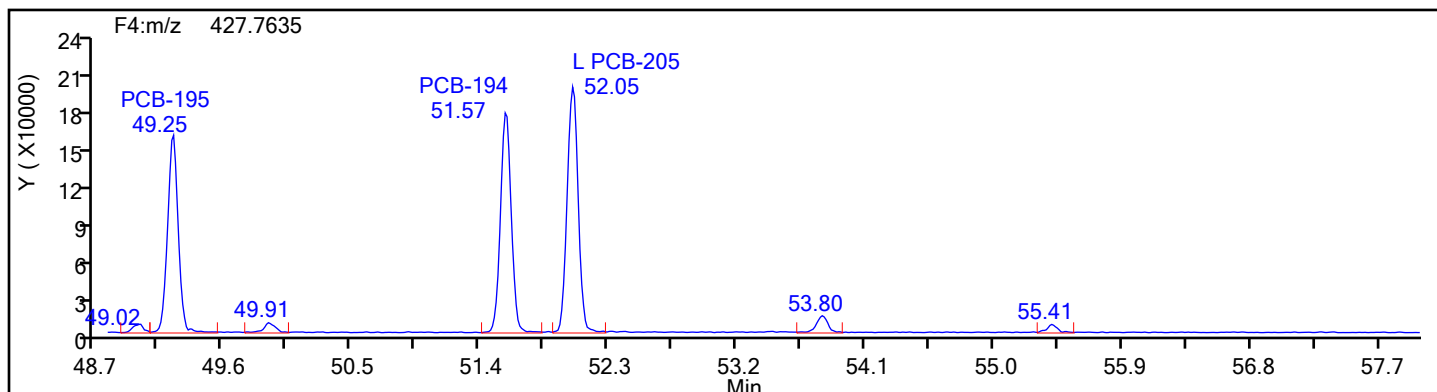
Worklist#: 88747

Sample Line#: 2

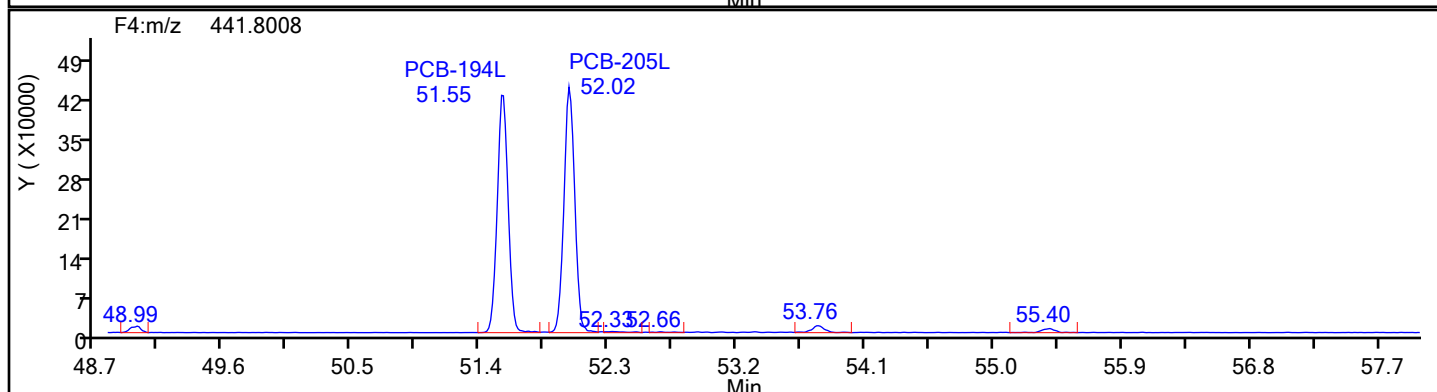
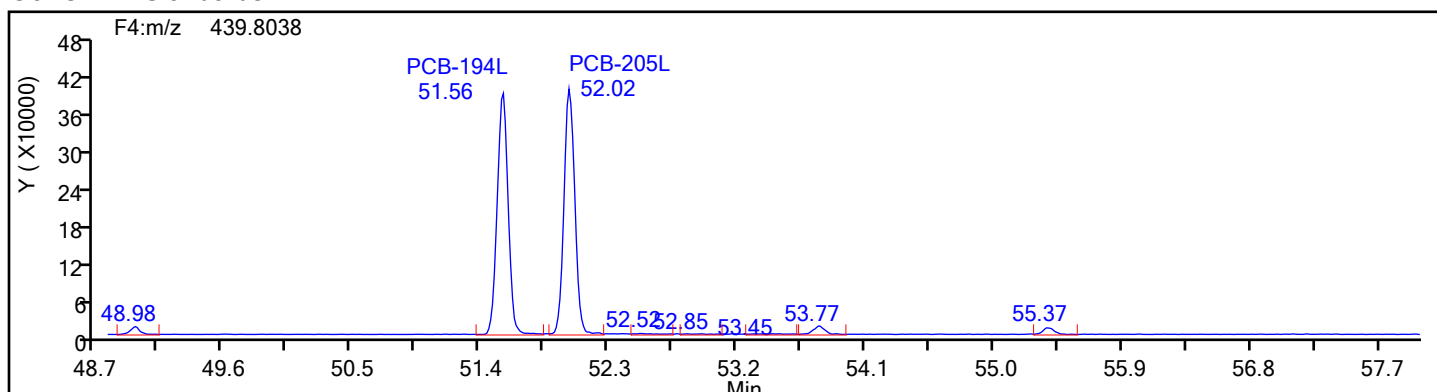
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4



OcPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

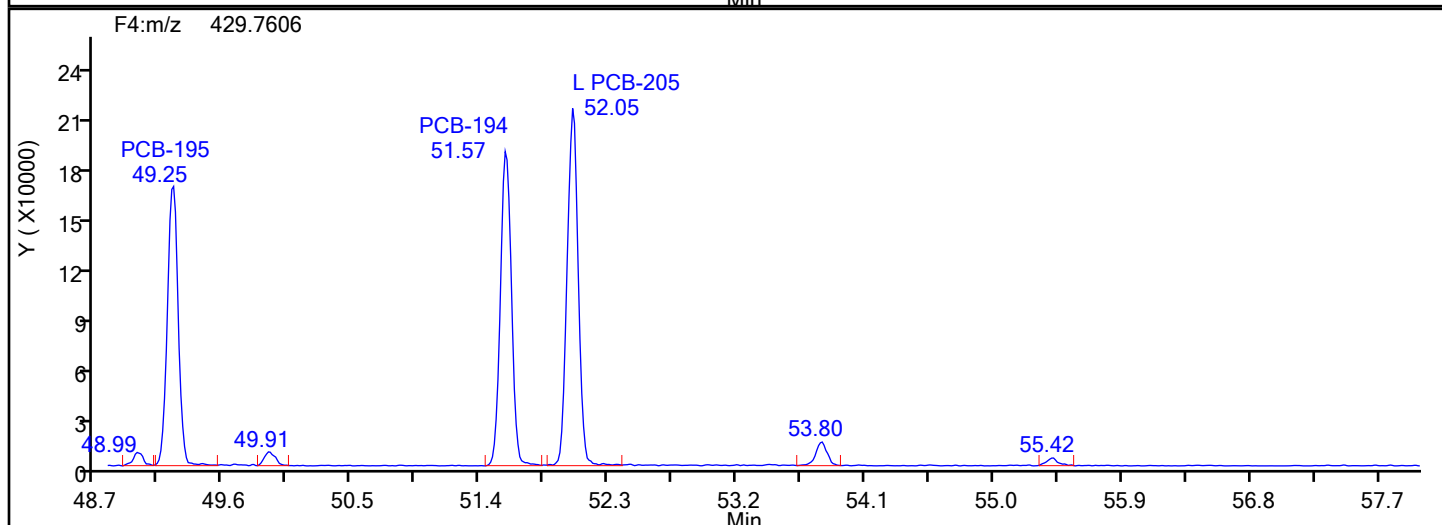
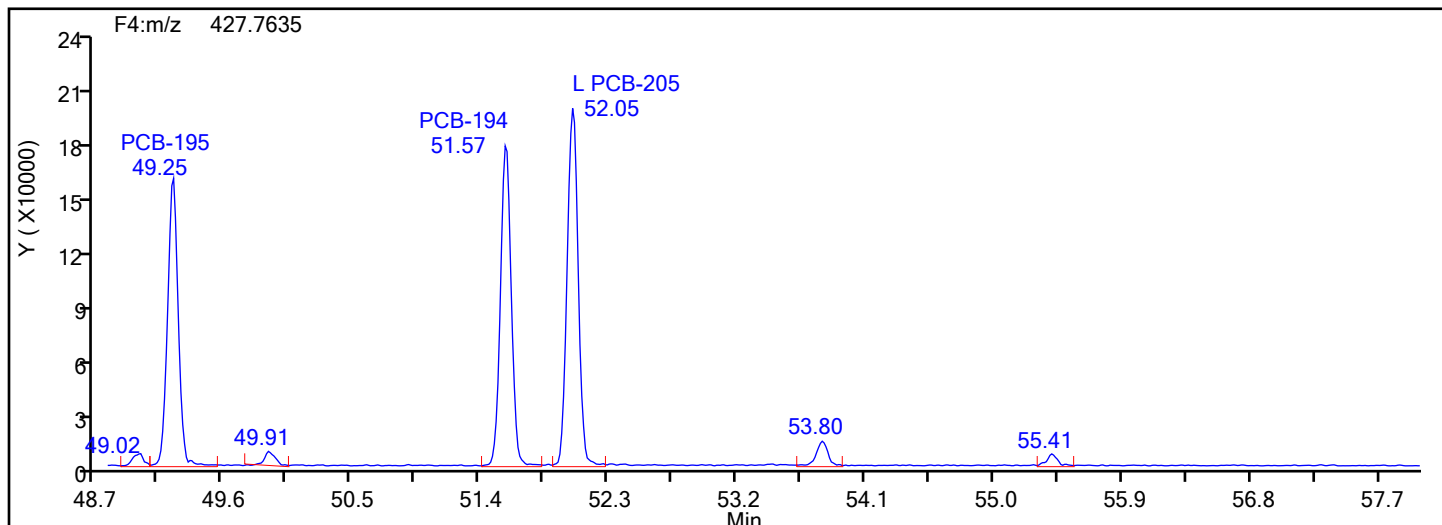
Worklist#: 88747

Sample Line#: 2

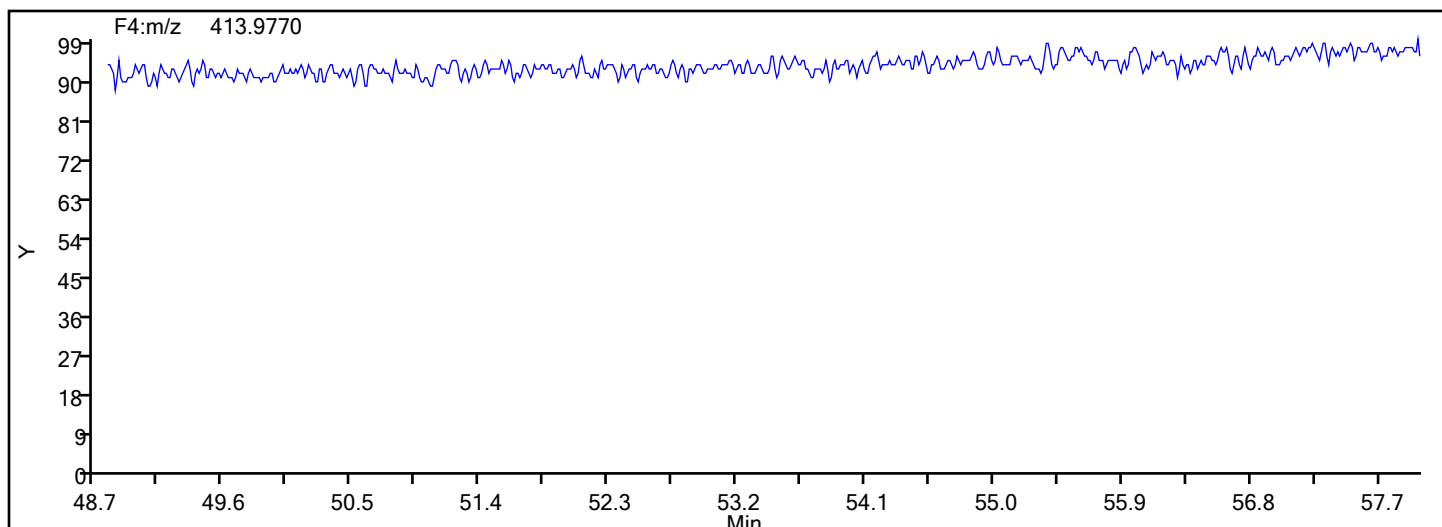
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4



## OcPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

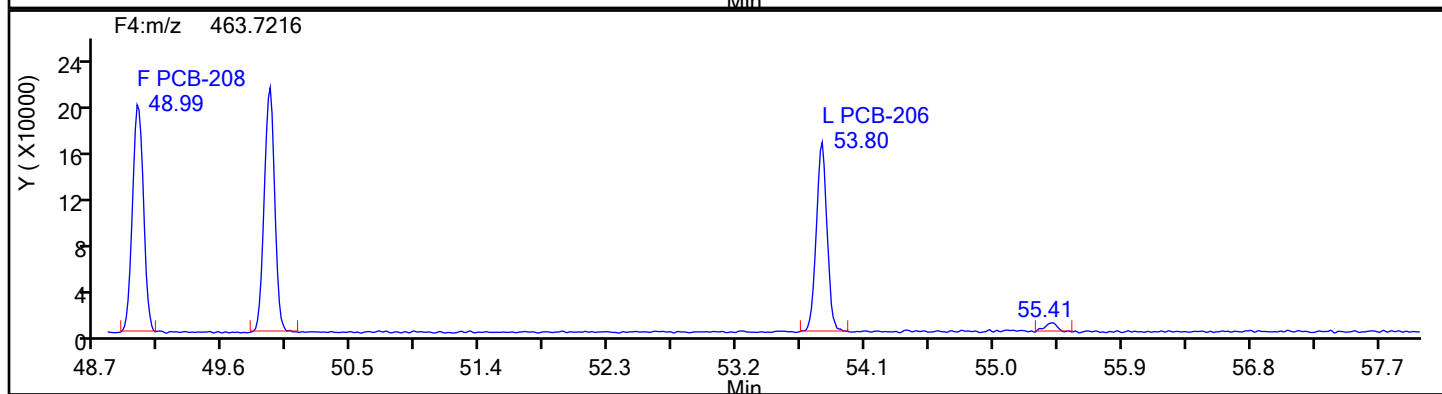
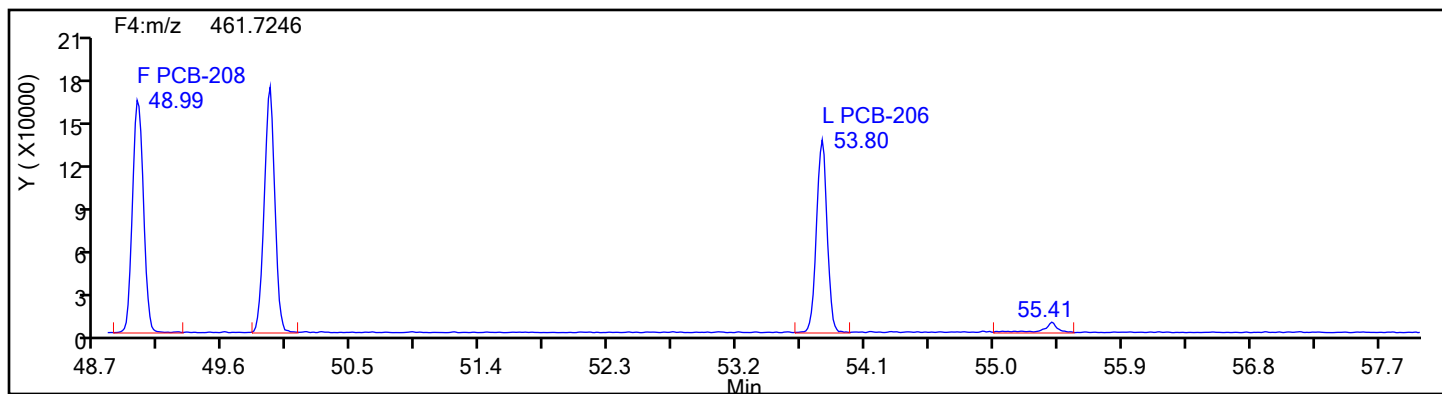
Worklist#: 88747

Sample Line#: 2

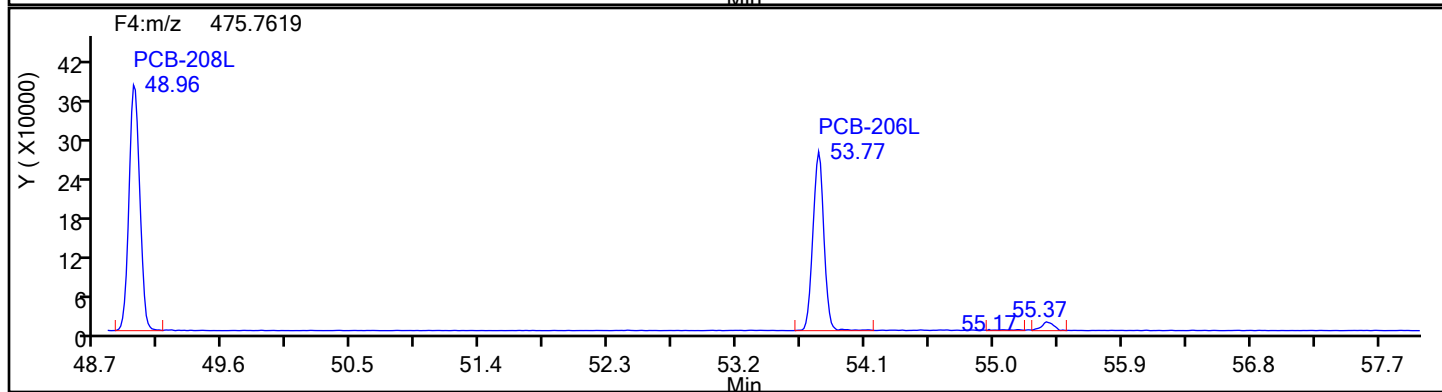
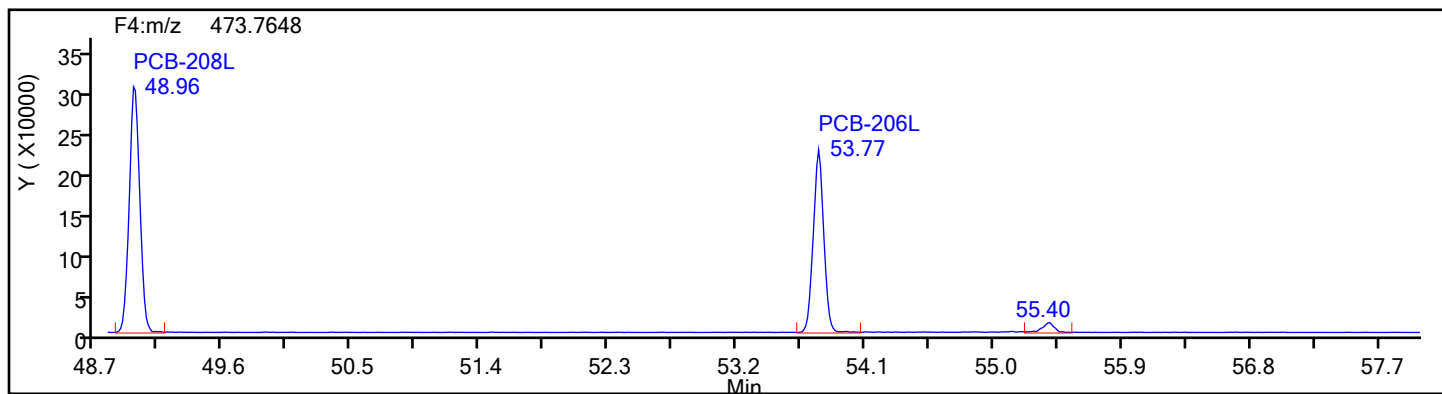
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



NoPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

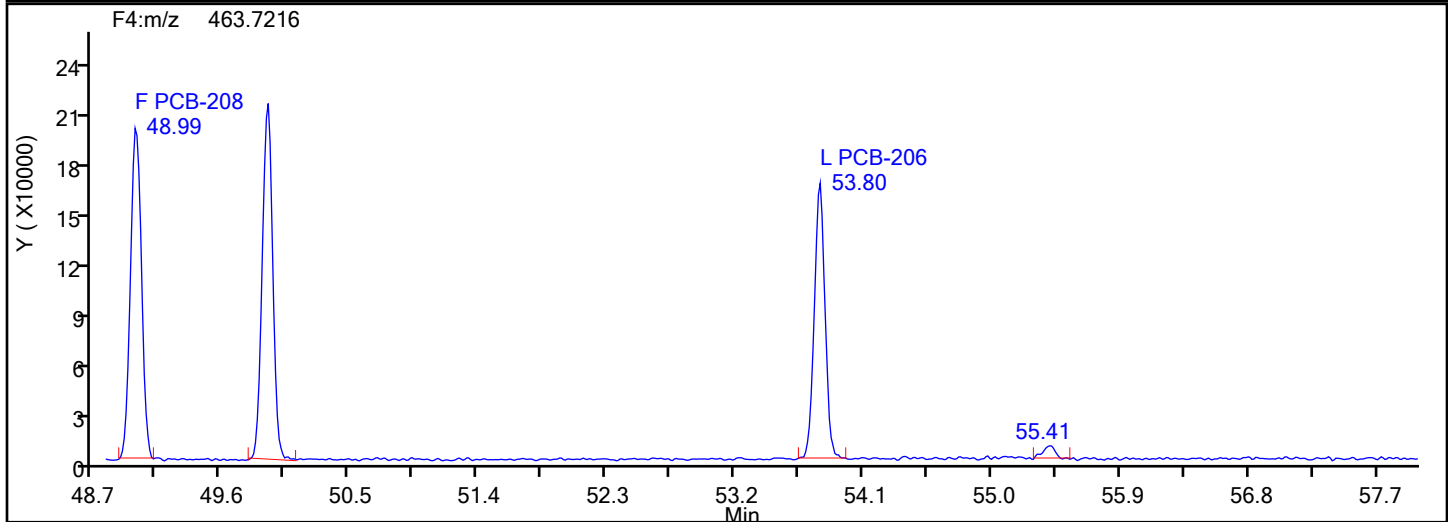
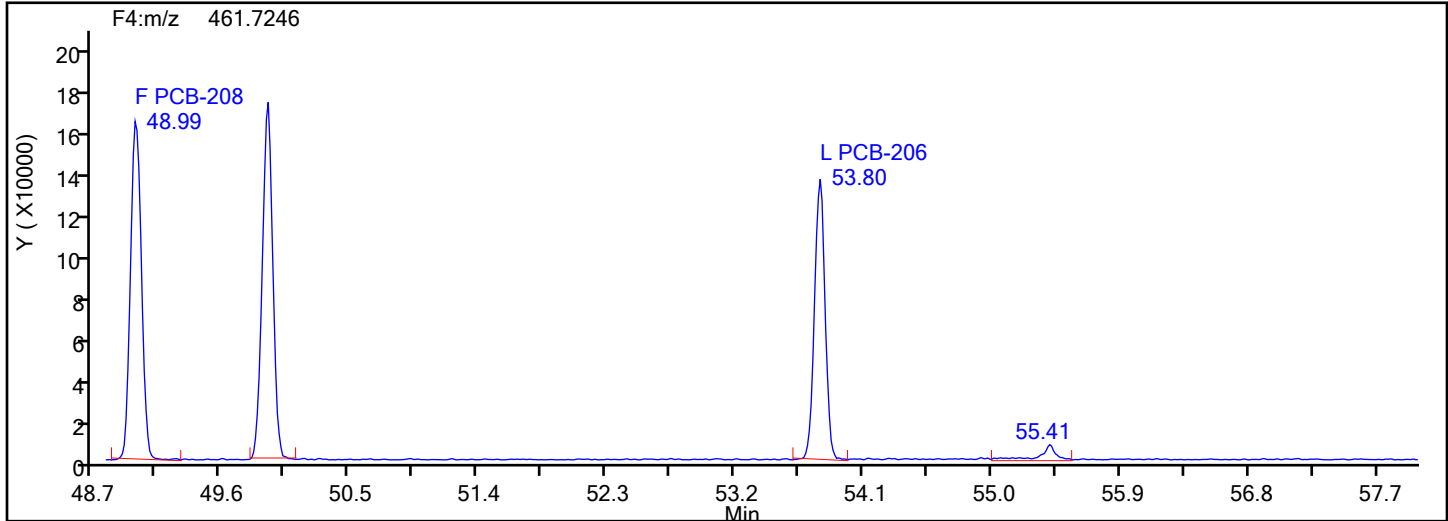
Worklist#: 88747

Sample Line#: 2

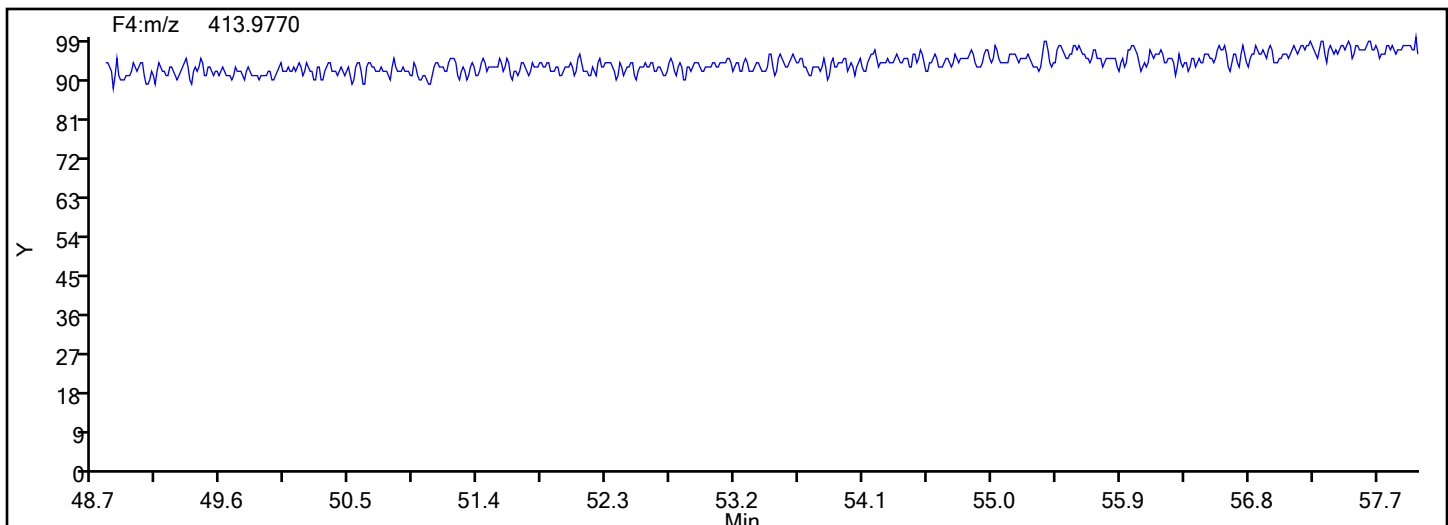
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



NoPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

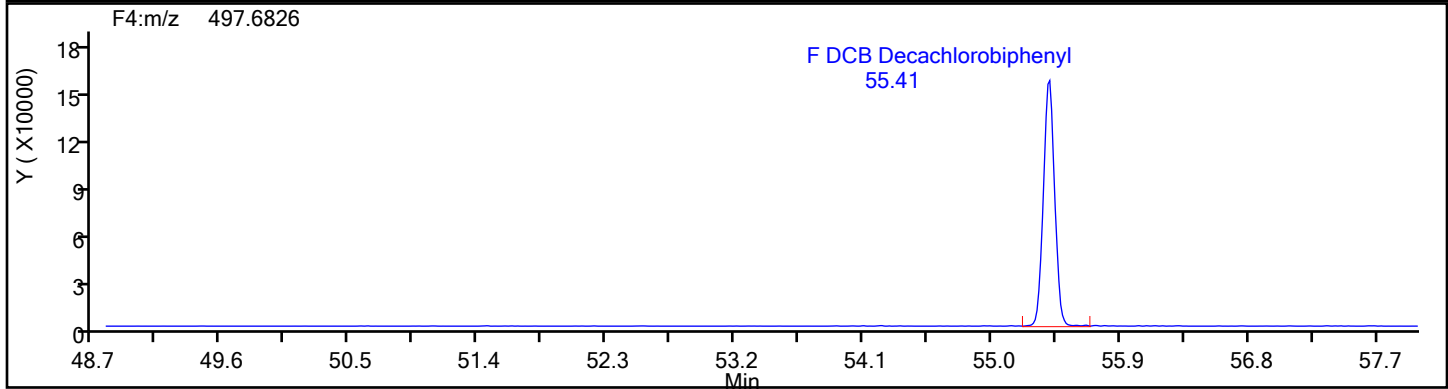
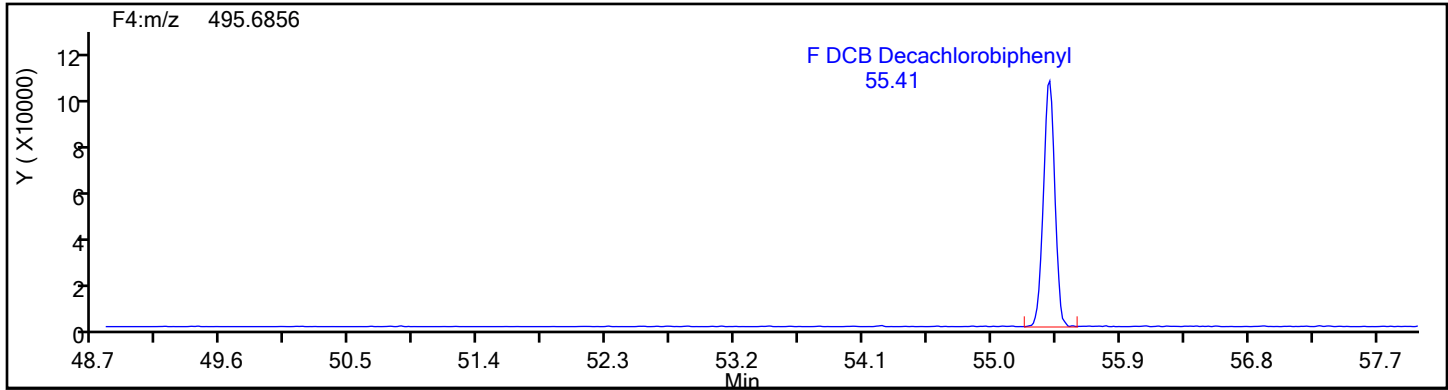
Worklist#: 88747

Sample Line#: 2

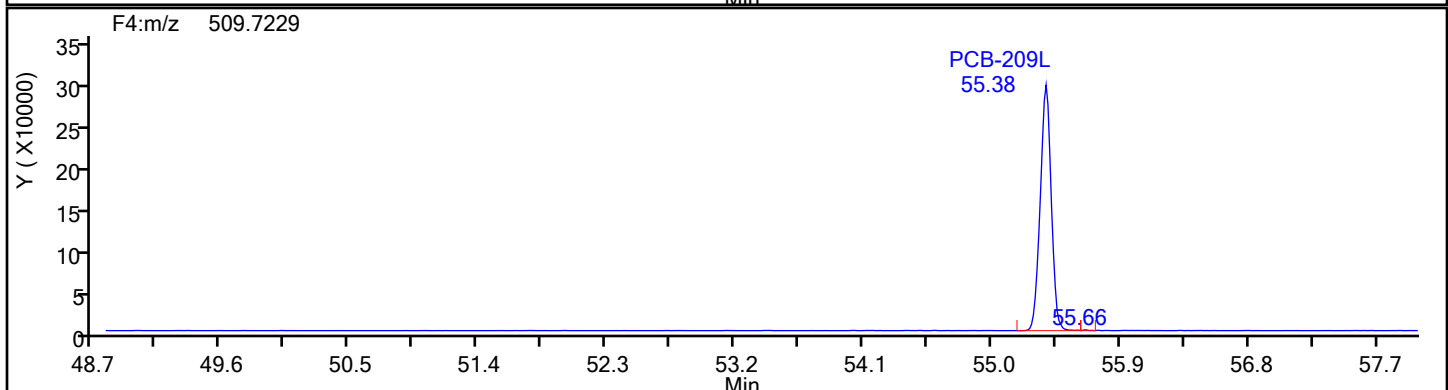
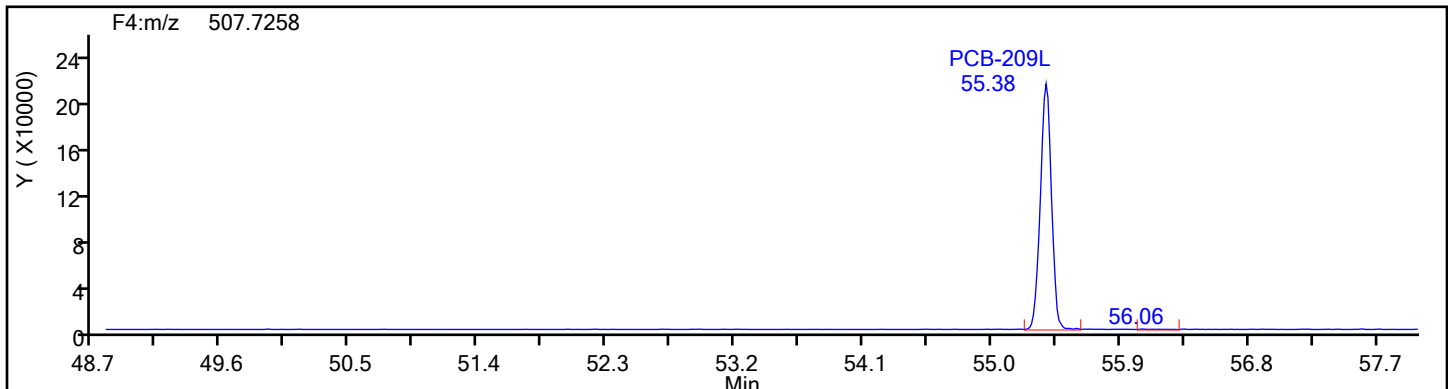
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



DePCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d

Injection Date: 15-Jul-2024 13:44:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

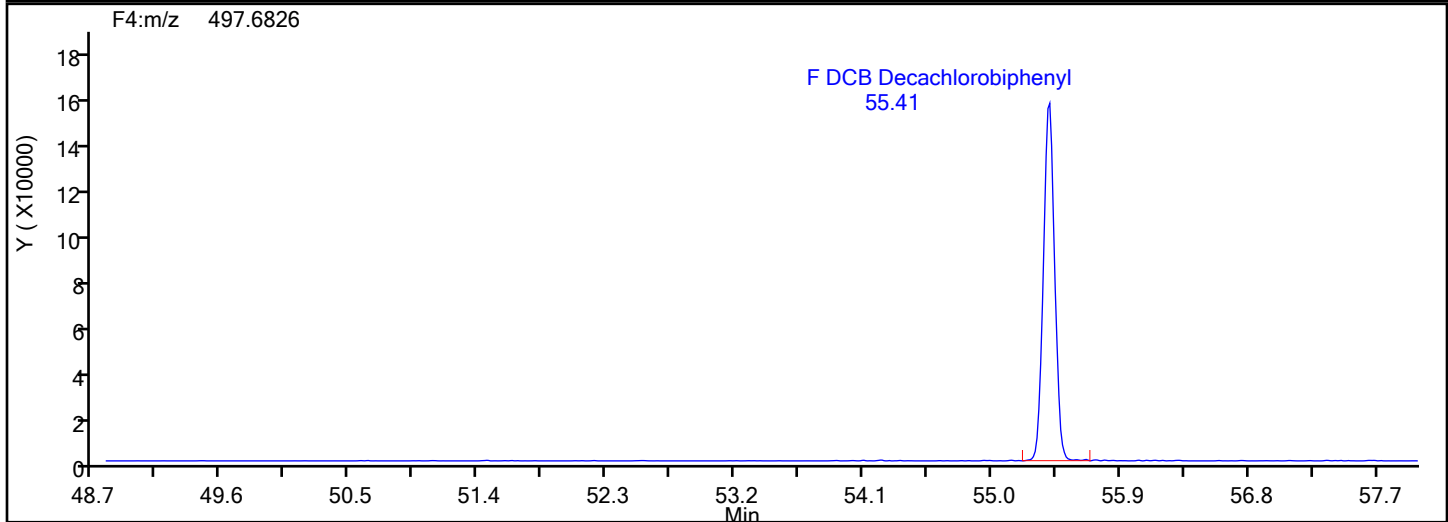
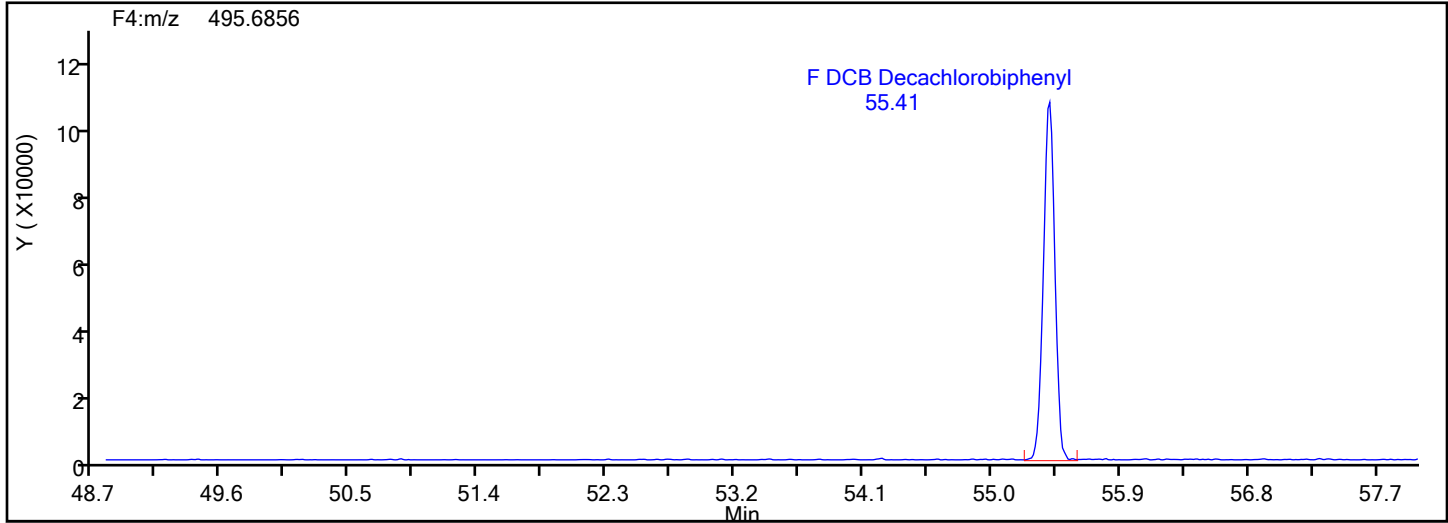
Worklist#: 88747

Sample Line#: 2

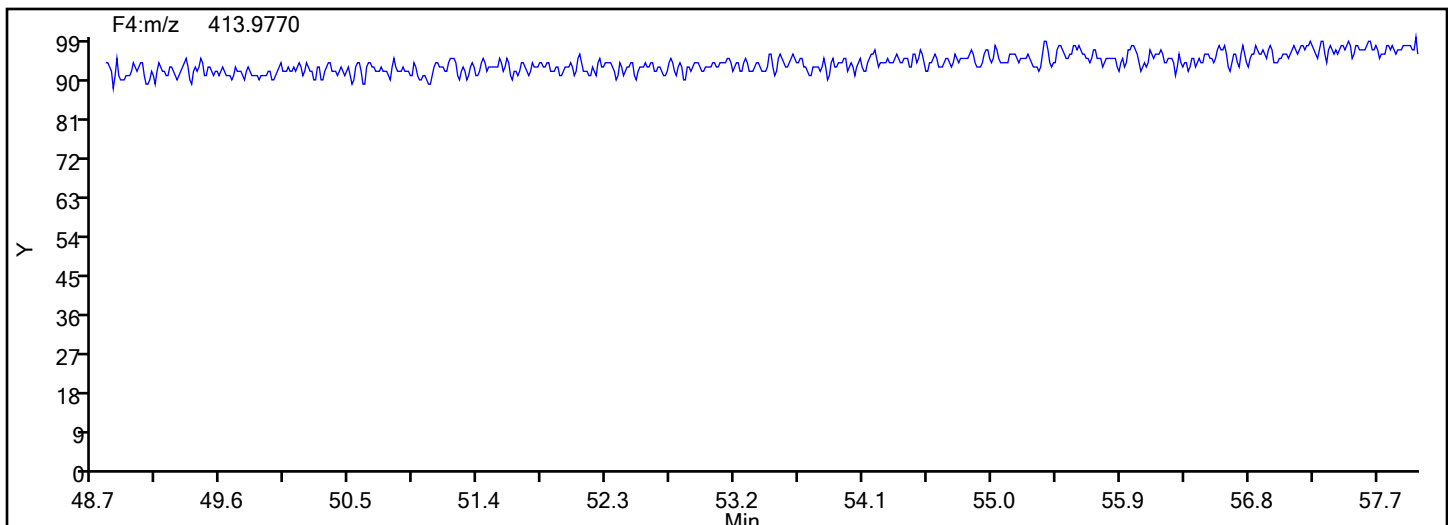
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



## DePCB F4 Lock Mass



Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcs140-8819319-b.d  
Lims ID: LCS 140-88193/19-B  
Client ID:  
Sample Type: LCS  
Inject. Date: 15-Jul-2024 13:44:00 ALS Bottle#: 0 Worklist Smp#: 2  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033504-002  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 15-Jul-2024 19:43:22 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1621

First Level Reviewer: V4XA

Date: 15-Jul-2024 19:43:22

Compound	Amount Added	Amount Recovered	% Rec.
PCB-28L	100.0	66.6	66.61
PCB-111L	100.0	72.3	72.27
PCB-178L	100.0	69.5	69.54



FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>LCSD 140-88193/20-B</u>
Matrix: <u>Air</u>	Lab File ID: <u>lcsd140-8819320-b.d</u>
Analysis Method: <u>23</u>	Date Collected: _____
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1 (Sample)</u>	Date Analyzed: <u>07/15/2024 14:45</u>
Con. Extract Vol.: <u>30 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1 (uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88747</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL	EDL
34883-43-7	PCB-8	14.42		0.600	0.132	0.0262
37680-65-2	PCB-18	28.12	C	0.600	0.285	0.0229
7012-37-5	PCB-28	27.66	C20	0.600	0.252	0.400
41464-39-5	PCB-44	37.51	C	0.900	0.390	0.190
35693-99-3	PCB-52	12.62		0.300	0.132	0.201
32598-10-0	PCB-66	14.19		0.300	0.120	0.147
32598-13-3	PCB-77	13.57		0.300	0.126	0.167
70362-50-4	PCB-81	13.54		0.300	0.0960	0.174
37680-73-2	PCB-101	44.70	C90	0.900	0.390	0.0357
32598-14-4	PCB-105	13.85		0.300	0.102	0.240
74472-37-0	PCB-114	13.99		0.300	0.165	0.256
31508-00-6	PCB-118	13.80		0.300	0.183	0.226
65510-44-3	PCB-123	13.15		0.300	0.171	0.266
57465-28-8	PCB-126	14.15		0.300	0.123	0.256
38380-07-3	PCB-128	26.73	C	0.600	0.204	0.0684
35065-28-2	PCB-138	52.42	C129	1.20	0.510	0.0710
35065-27-1	PCB-153	25.75	C	0.600	0.249	0.0615
38380-08-4	PCB-156	28.43	C	0.600	0.255	0.0761
69782-90-7	PCB-157	28.43	C156	0.600	0.255	0.0761
52663-72-6	PCB-167	13.86		0.300	0.180	0.0491
32774-16-6	PCB-169	13.79		0.300	0.123	0.0489
35065-30-6	PCB-170	13.51		0.300	0.132	0.00945
35065-29-3	PCB-180	30.29	C	0.600	0.204	0.00784
52663-68-0	PCB-187	14.84		0.300	0.126	0.00831
39635-31-9	PCB-189	14.28		0.300	0.147	0.0719
52663-78-2	PCB-195	14.19		0.300	0.159	0.0876
40186-72-9	PCB-206	13.16		0.300	0.171	0.206
2051-24-3	PCB-209	14.25		0.300	0.138	0.0269

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>Eurofins Knoxville</u>	Job No.: <u>140-37234-1</u>
SDG No.: _____	
Client Sample ID: _____	Lab Sample ID: <u>LCSD 140-88193/20-B</u>
Matrix: <u>Air</u>	Lab File ID: <u>lcsd140-8819320-b.d</u>
Analysis Method: <u>23</u>	Date Collected: _____
Extract. Method: <u>Combined Prep</u>	Date Extracted: <u>06/27/2024 14:35</u>
Sample wt/vol: <u>1 (Sample)</u>	Date Analyzed: <u>07/15/2024 14:45</u>
Con. Extract Vol.: <u>30 (mL)</u>	Dilution Factor: <u>1</u>
Injection Volume: <u>1 (uL)</u>	GC Column: <u>SPB-Octyl</u> ID: <u>0.25 (mm)</u>
% Moisture: _____ % Solids: _____	GPC Cleanup: (Y/N) <u>N</u>
Cleanup Factor: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>88747</u>	Units: <u>ng/Sample</u>
Preparation Batch No.: <u>88193</u>	Instrument ID: <u>Excalibur D2D DFS</u>

CAS NO.	ISOTOPE DILUTION	%REC	Q	LIMITS
234432-85-0	PCB-1L	67		15-145
208263-77-8	PCB-3L	70		15-145
234432-86-1	PCB-4L	65		15-145
208263-67-6	PCB-15L	69		15-145
234432-87-2	PCB-19L	66		15-145
208263-79-0	PCB-37L	72		15-145
234432-88-3	PCB-54L	75		15-145
105600-23-5	PCB-77L	78		40-145
208461-24-9	PCB-81L	77		40-145
234432-89-4	PCB-104L	72		40-145
208263-62-1	PCB-105L	82		40-145
208263-63-2	PCB-114L	77		40-145
104130-40-7	PCB-118L	77		40-145
208263-64-3	PCB-123L	76		40-145
208263-65-4	PCB-126L	84		40-145
234432-90-7	PCB-155L	70		40-145
208263-68-7	PCB-156L	84	C	40-145
235416-30-5	PCB-157L	84	C156	40-145
208263-69-8	PCB-167L	81		40-145
208263-70-1	PCB-169L	86		40-145
160901-80-4	PCB-170L	83		40-145
234432-91-8	PCB-188L	73		40-145
208263-73-4	PCB-189L	82		40-145
105600-26-8	PCB-202L	76		40-145
234446-64-1	PCB-205L	81		40-145
208263-75-6	PCB-206L	87		40-145
234432-92-9	PCB-208L	83		40-145
105600-27-9	PCB-209L	94		40-145

FORM I  
HI-RES PCBS ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
SDG No.: \_\_\_\_\_  
Client Sample ID: \_\_\_\_\_ Lab Sample ID: LCSD 140-88193/20-B  
Matrix: Air Lab File ID: lcsd140-8819320-b.d  
Analysis Method: 23 Date Collected: \_\_\_\_\_  
Extract. Method: Combined Prep Date Extracted: 06/27/2024 14:35  
Sample wt/vol: 1 (Sample) Date Analyzed: 07/15/2024 14:45  
Con. Extract Vol.: 30 (mL) Dilution Factor: 1  
Injection Volume: 1 (uL) GC Column: SPB-Octyl ID: 0.25 (mm)  
% Moisture: \_\_\_\_\_ % Solids: \_\_\_\_\_ GPC Cleanup: (Y/N) N  
Cleanup Factor: \_\_\_\_\_ Level: (low/med) Low  
Analysis Batch No.: 88747 Units: ng/Sample  
Preparation Batch No.: 88193 Instrument ID: Excalibur D2D DFS

CAS NO.	SURROGATE	%REC	Q	LIMITS
208263-76-7	PCB-28L	66		15-145
235416-29-2	PCB-111L	69		40-145
232919-67-4	PCB-178L	68		40-145

Eurofins Knoxville  
Target Compound Quantitation Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d  
 Lims ID: LCSD 140-88193/20-B  
 Client ID:  
 Sample Type: LCSD  
 Inject. Date: 15-Jul-2024 14:45:00 ALS Bottle#: 0 Worklist Smp#: 3  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info:  
 Misc. Info.: 140-0033504-003  
 Operator ID: Xcalibur\_System Instrument ID: D2D  
 Method: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\PCBs\_D2D.m  
 Limit Group: HR - EPA\_23 PCB ICAL  
 Last Update: 15-Jul-2024 19:48:30 Calib Date: 31-May-2024 21:13:00  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
 Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
 Process Host: CTX1621

First Level Reviewer: V4XA

Date: 15-Jul-2024 19:48:30

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total Monochlorobiphenyls					142.3	142.3	0.1639	0.1639		
D PCB-1L	11:36	6035971	3.08	1.6108	66.5	66.5	0.2986	0.2986	66.50	
D PCB-3L	13:44	6287905	3.18	1.5891	70.2	70.2	0.3027	0.3027	70.22	
PCB-1	11:36	3500846	3.19	1.2191	47.6	47.6	0.1490	0.1490	95.15	
PCB-2	13:35	3502494	3.23	1.1805	48.1	48.1	0.1667	0.1667	96.30	
PCB-3	13:45	3577545	3.19	1.2206	46.6	46.6	0.1759	0.1759	93.23	
S Total Dichlorobiphenyls					573.9	573.9	0.1008	0.1008		
D PCB-4L	13:59	2379710	1.60	0.6475	65.2	65.2	0.2107	0.2107	65.22	
* PCB-9L	15:56	5634473	1.62		100.0	100.0				
D PCB-15L	19:51	4193287	1.59	1.0789	69.0	69.0	0.1264	0.1264	68.98	
PCB-4	14:01	1454252	1.66	1.2818	47.7	47.7	0.1201	0.1201	95.35	
PCB-10	14:10	2024282	1.59	1.3149	46.8	46.8	0.1054	0.1054	93.69	
PCB-9	15:56	2215077	1.61	1.4224	47.4	47.4	0.0974	0.0974	94.77	
PCB-7	16:07	2159016	1.60	1.4134	46.5	46.5	0.0980	0.0980	92.96	
PCB-6	16:22	2380561	1.59	1.5421	47.0	47.0	0.0898	0.0898	93.94	
PCB-5	16:40	1998820	1.58	1.3395	45.4	45.4	0.1034	0.1034	90.81	
PCB-8	16:47	2510098	1.58	1.5889	48.1	48.1	0.0872	0.0872	96.14	
PCB-14	18:23	2336132	1.55	1.4025	50.7	50.7	0.0988	0.0988	101	
PCB-11	19:14	2145269	1.62	1.2951	50.4	50.4	0.1070	0.1070	101	
PCB-12	19:32	4266875	1.63	1.3358	97.2	97.2	0.1037	0.1037	97.19	
PCB-13 (C12)	19:32	4266875	1.63	1.3358	97.2	97.2	0.1037	0.1037	97.19	
PCB-15	19:51	2530987	1.64	1.2903	46.8	46.8	0.0976	0.0976	93.56	
S Total Trichlorobiphenyls					1131.5	1131.5	0.9248	0.9248		
D PCB-19L	17:04	1542053	1.04	0.6285	65.8	65.8	0.5415	0.5415	65.81	
* PCB-32L	20:18	3727864	1.07		100.0	100.0				
* PCB-31L	22:33	8864977	1.05		100.0	100.0				
\$ PCB-28L	22:51	6133675	1.06	1.0494	65.9	65.9	0.1016	0.1016	65.93	
D PCB-37L	26:51	5572716	1.09	0.8749	71.8	71.8	0.1218	0.1218	71.85	
PCB-19	17:05	885708	1.06	1.2809	44.8	44.8	0.1051	0.1051	89.68	
PCB-18	18:53	2551584	1.05	1.7652	93.7	93.7	0.0763	0.0763	93.74	
PCB-30 (C18)	18:53	2551584	1.05	1.7652	93.7	93.7	0.0763	0.0763	93.74	
PCB-17	19:21	891427	1.06	1.2430	46.5	46.5	0.1083	0.1083	93.01	
PCB-27	19:34	1356158	1.07	1.8327	48.0	48.0	0.0735	0.0735	95.97	
PCB-24	19:42	1222470	1.02	1.6777	47.3	47.3	0.0802	0.0802	94.51	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-16	19:49	858672	1.10	1.1286	49.3	49.3	0.1193	0.1193	98.68	
PCB-32	20:20	1444303	1.07	1.8324	51.1	51.1	0.0735	0.0735	102	
PCB-34	21:34	2977651	1.07	1.1277	47.4	47.4	1.386	1.386	94.76	
PCB-23	21:43	2827358	1.05	1.0813	46.9	46.9	1.446	1.446	93.84	
PCB-26	22:02	5773793	1.04	1.1255	92.1	92.1	1.389	1.389	92.06	
PCB-29 (C26)	22:02	5773793	1.04	1.1255	92.1	92.1	1.389	1.389	92.06	
PCB-25	22:15	3337544	1.02	1.2728	47.1	47.1	1.228	1.228	94.11	
PCB-31	22:35	3006396	1.07	1.1532	46.8	46.8	1.356	1.356	93.56	
PCB-20	22:53	6021686	1.06	1.1718	92.2	92.2	1.334	1.334	92.21	
PCB-28 (C20)	22:53	6021686	1.06	1.1718	92.2	92.2	1.334	1.334	92.21	
PCB-21	23:02	5598628	1.03	1.0746	93.5	93.5	1.455	1.455	93.49	M
PCB-33 (C21)	23:02	5598628	1.03	1.0746	93.5	93.5	1.455	1.455	93.49	M
PCB-22	23:31	3128446	1.03	1.1932	47.0	47.0	1.310	1.310	94.09	
PCB-36	25:03	2934959	1.06	1.1071	47.6	47.6	1.412	1.412	95.15	
PCB-39	25:25	3018974	1.05	1.1581	46.8	46.8	1.350	1.350	93.55	
PCB-38	25:59	2792683	1.01	1.0843	46.2	46.2	1.442	1.442	92.43	
PCB-35	26:28	3166175	1.05	1.1297	50.3	50.3	1.384	1.384	101	
PCB-37	26:52	2992722	1.04	1.1435	47.0	47.0	1.367	1.367	93.93	
S Total Tetrachlorobiphenyls					1826.5	1826.5	0.5584	0.5584		
D PCB-54L	20:09	1558151	0.81	0.5562	75.1	75.1	0.0548	0.0548	75.15	
* PCB-52L	24:40	4576130	0.80		100.0	100.0				
D PCB-81L	33:35	4400128	0.80	1.2470	77.1	77.1	0.0968	0.0968	77.11	
D PCB-77L	34:09	4726758	0.80	1.3212	78.2	78.2	0.0914	0.0914	78.18	
PCB-54	20:09	933313	0.75	1.2733	47.0	47.0	0.0594	0.0594	94.08	
PCB-50	22:19	3117185	0.80	0.8578	79.6	79.6	0.7169	0.7169	79.63	
PCB-53 (C50)	22:19	3117185	0.80	0.8578	79.6	79.6	0.7169	0.7169	79.63	
PCB-45	23:03	3155083	0.79	0.8264	83.7	83.7	0.7441	0.7441	83.66	M
PCB-51 (C45)	23:03	3155083	0.79	0.8264	83.7	83.7	0.7441	0.7441	83.66	M
PCB-46	23:18	1359126	0.78	0.7101	41.9	41.9	0.8660	0.8660	83.89	
PCB-52	24:42	1764650	0.77	0.9194	42.1	42.1	0.6688	0.6688	84.12	
PCB-43	24:50	4103237	0.78	1.0333	87.0	87.0	0.5951	0.5951	87.01	M
PCB-73 (C43)	24:50	4103237	0.78	1.0333	87.0	87.0	0.5951	0.5951	87.01	M
PCB-49	25:07	3971208	0.78	1.0685	81.4	81.4	0.5755	0.5755	81.44	
PCB-69 (C49)	25:07	3971208	0.78	1.0685	81.4	81.4	0.5755	0.5755	81.44	
PCB-48	25:27	1665917	0.78	0.8399	43.5	43.5	0.7322	0.7322	86.93	
PCB-44	25:42	5552712	0.79	0.9731	125.0	125.0	0.6319	0.6319	83.36	
PCB-47 (C44)	25:42	5552712	0.79	0.9731	125.0	125.0	0.6319	0.6319	83.36	
PCB-65 (C44)	25:42	5552712	0.79	0.9731	125.0	125.0	0.6319	0.6319	83.36	
PCB-59	26:01	6549024	0.78	1.1853	121.1	121.1	0.5188	0.5188	80.72	
PCB-62 (C59)	26:01	6549024	0.78	1.1853	121.1	121.1	0.5188	0.5188	80.72	
PCB-75 (C59)	26:01	6549024	0.78	1.1853	121.1	121.1	0.5188	0.5188	80.72	
PCB-42	26:12	1667097	0.74	0.8097	45.1	45.1	0.7595	0.7595	90.24	
PCB-40	26:43	5223092	0.78	0.8863	129.1	129.1	0.6938	0.6938	86.09	M
PCB-41 (C40)	26:43	5223092	0.78	0.8863	129.1	129.1	0.6938	0.6938	86.09	M
PCB-71 (C40)	26:43	5223092	0.78	0.8863	129.1	129.1	0.6938	0.6938	86.09	M
PCB-64	26:55	2345110	0.75	1.1776	43.6	43.6	0.5222	0.5222	87.28	
PCB-72	27:45	2198127	0.76	1.0943	44.0	44.0	0.5619	0.5619	88.04	
PCB-68	28:02	2574720	0.79	1.2533	45.0	45.0	0.4906	0.4906	90.04	
PCB-57	28:27	2231267	0.75	1.0818	45.2	45.2	0.5684	0.5684	90.39	
PCB-58	28:42	2864239	0.78	1.3253	47.4	47.4	0.4640	0.4640	94.71	
PCB-67	28:51	2749236	0.76	1.4230	42.3	42.3	0.4321	0.4321	84.67	
PCB-63	29:07	2313560	0.78	1.1240	45.1	45.1	0.5471	0.5471	90.21	
PCB-61	29:28	10112814	0.79	1.2612	175.7	175.7	0.4876	0.4876	87.85	M
PCB-70 (C61)	29:28	10112814	0.79	1.2612	175.7	175.7	0.4876	0.4876	87.85	M
PCB-74 (C61)	29:28	10112814	0.79	1.2612	175.7	175.7	0.4876	0.4876	87.85	M
PCB-76 (C61)	29:28	10112814	0.79	1.2612	175.7	175.7	0.4876	0.4876	87.85	M
PCB-66	29:47	2716597	0.75	1.2583	47.3	47.3	0.4887	0.4887	94.62	
PCB-55	29:57	2853402	0.77	1.3236	47.2	47.2	0.4646	0.4646	94.48	
PCB-56	30:28	2632038	0.77	1.2334	46.8	46.8	0.4986	0.4986	93.52	
PCB-60	30:41	2265561	0.76	1.1230	44.2	44.2	0.5476	0.5476	88.41	
PCB-80	31:04	2754094	0.77	1.3243	45.6	45.6	0.4644	0.4644	91.15	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-79	32:36	2796216	0.80	1.4368	42.6	42.6	0.4280	0.4280	85.29	
PCB-78	33:10	2513660	0.78	1.1618	47.4	47.4	0.5293	0.5293	94.82	
PCB-81	33:36	2144721	0.78	1.0802	45.1	45.1	0.5815	0.5815	90.25	
PCB-77	34:10	2316623	0.82	1.0836	45.2	45.2	0.5558	0.5558	90.46	
S Total Pentachlorobiphenyls					2217.8	2217.8	0.3522	0.3522		
D PCB-104L	25:36	2803850	1.57	1.2161	71.5	71.5	0.0844	0.0844	71.53	
* PCB-101L	31:30	3223373	1.66		100.0	100.0				
\$ PCB-111L	34:10	3032403	1.57	1.3699	68.7	68.7	0.0749	0.0749	68.67	
D PCB-123L	36:07	4303840	1.62	0.9731	75.9	75.9	0.8785	0.8785	75.85	
D PCB-118L	36:27	4526728	1.62	1.0102	76.9	76.9	0.8463	0.8463	76.86	
D PCB-114L	36:59	4475794	1.61	0.9949	77.2	77.2	0.8593	0.8593	77.16	
D PCB-105L	37:38	4536138	1.61	0.9514	81.8	81.8	0.8986	0.8986	81.77	
* PCB-127L	39:06	5830451	1.57		100.0	100.0				
D PCB-126L	40:43	4631643	1.62	0.9439	84.2	84.2	0.9058	0.9058	84.16	
PCB-104	25:38	1342896	1.63	1.0087	47.5	47.5	0.1126	0.1126	94.96	
PCB-96	26:01	1403158	1.62	1.0940	45.7	45.7	0.1039	0.1039	91.49	
PCB-103	27:55	1197453	1.58	0.8741	48.9	48.9	0.1300	0.1300	97.71	
PCB-94	28:10	1030507	1.59	0.7640	48.1	48.1	0.1487	0.1487	96.21	
PCB-95	28:37	1135350	1.60	0.8033	50.4	50.4	0.1415	0.1415	101	
PCB-93	28:48	2207391	1.55	0.8429	93.4	93.4	0.1348	0.1348	93.40	
PCB-100 (C93)	28:48	2207391	1.55	0.8429	93.4	93.4	0.1348	0.1348	93.40	
PCB-98	28:58	2257622	1.64	0.8262	97.5	97.5	0.1375	0.1375	97.46	
PCB-102 (C98)	28:58	2257622	1.64	0.8262	97.5	97.5	0.1375	0.1375	97.46	
PCB-88	29:27	2126728	1.59	0.8013	94.7	94.7	0.1418	0.1418	94.66	
PCB-91 (C88)	29:27	2126728	1.59	0.8013	94.7	94.7	0.1418	0.1418	94.66	
PCB-84	29:42	1040977	1.59	0.7299	50.9	50.9	0.1557	0.1557	102	
PCB-89	30:10	1039020	1.56	0.7798	47.5	47.5	0.1457	0.1457	95.04	
PCB-121	30:33	1779175	1.60	1.2964	48.9	48.9	0.0876	0.0876	97.89	
PCB-92	30:56	1184727	1.64	0.8546	49.4	49.4	0.1330	0.1330	98.89	
PCB-90	31:30	3989911	1.59	0.9550	149.0	149.0	0.1190	0.1190	99.34	
PCB-101 (C90)	31:30	3989911	1.59	0.9550	149.0	149.0	0.1190	0.1190	99.34	
PCB-113 (C90)	31:30	3989911	1.59	0.9550	149.0	149.0	0.1190	0.1190	99.34	
PCB-83	32:05	2367680	1.56	0.8385	100.7	100.7	0.1355	0.1355	101	
PCB-99 (C83)	32:05	2367680	1.56	0.8385	100.7	100.7	0.1355	0.1355	101	
PCB-112	32:13	1903948	1.61	1.4111	48.1	48.1	0.0805	0.0805	96.24	
PCB-86	32:35	8625316	1.61	1.0473	293.7	293.7	0.1085	0.1085	97.91	M
PCB-87 (C86)	32:35	8625316	1.61	1.0473	293.7	293.7	0.1085	0.1085	97.91	M
PCB-97 (C86)	32:35	8625316	1.61	1.0473	293.7	293.7	0.1085	0.1085	97.91	M
PCB-109 (C86)	32:35	8625316	1.61	1.0473	293.7	293.7	0.1085	0.1085	97.91	M
PCB-119 (C86)	32:35	8625316	1.61	1.0473	293.7	293.7	0.1085	0.1085	97.91	M
PCB-125 (C86)	32:35	8625316	1.61	1.0473	293.7	293.7	0.1085	0.1085	97.91	M
PCB-85	33:19	4306255	1.63	1.0408	147.6	147.6	0.1092	0.1092	98.38	
PCB-116 (C85)	33:19	4306255	1.63	1.0408	147.6	147.6	0.1092	0.1092	98.38	
PCB-117 (C85)	33:19	4306255	1.63	1.0408	147.6	147.6	0.1092	0.1092	98.38	
PCB-110	33:31	3372820	1.55	1.1919	100.9	100.9	0.0953	0.0953	101	
PCB-115 (C110)	33:31	3372820	1.55	1.1919	100.9	100.9	0.0953	0.0953	101	
PCB-82	33:50	1185281	1.65	0.8303	50.9	50.9	0.1368	0.1368	102	
PCB-111	34:11	1716634	1.52	1.2125	50.5	50.5	0.0937	0.0937	101	
PCB-120	34:39	2040872	1.63	1.4762	49.3	49.3	0.0770	0.0770	98.61	
PCB-108	35:48	4509958	1.56	1.1405	88.0	88.0	0.8186	0.8186	87.97	
PCB-124 (C108)	35:48	4509958	1.56	1.1405	88.0	88.0	0.8186	0.8186	87.97	
PCB-107	36:02	2424558	1.55	1.2121	44.5	44.5	0.7703	0.7703	89.01	
PCB-123	36:09	2023000	1.52	1.0722	43.8	43.8	0.8879	0.8879	87.68	
PCB-106	36:16	2318872	1.57	1.0839	47.6	47.6	0.8614	0.8614	95.19	
PCB-118	36:29	2510380	1.55	1.2055	46.0	46.0	0.7522	0.7522	92.00	
PCB-122	36:50	2007409	1.57	0.9567	46.7	46.7	0.9759	0.9759	93.36	
PCB-114	37:00	2263495	1.61	1.0842	46.6	46.6	0.8529	0.8529	93.29	
PCB-105	37:40	2488002	1.56	1.1879	46.2	46.2	0.7998	0.7998	92.34	
PCB-127	39:07	2436822	1.60	1.1394	47.6	47.6	0.8194	0.8194	95.16	
PCB-126	40:44	2397407	1.59	1.0976	47.2	47.2	0.8529	0.8529	94.32	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
S Total Hexachlorobiphenyls					1899.1	1899.1	0.1946	0.1946		
D PCB-155L	31:15	2465920	1.28	1.0851	70.5	70.5	0.0429	0.0429	70.50	
* PCB-138L	39:34	4011284	1.27		100.0	100.0				
D PCB-167L	42:34	4080657	1.27	1.2572	80.9	80.9	0.3499	0.3499	80.91	
D PCB-156L	43:43	8179716	1.28	1.2106	168.4	168.4	0.3634	0.3634	84.22	
D PCB-157L (C156L)	43:43	8179716	1.28	1.2106	168.4	168.4	0.3634	0.3634	84.22	
D PCB-169L	46:57	4271439	1.31	1.2439	85.6	85.6	0.3536	0.3536	85.61	
PCB-155	31:15	1144085	1.32	0.9444	49.1	49.1	0.0803	0.0803	98.25	
PCB-152	31:29	1218755	1.26	0.9895	49.9	49.9	0.0766	0.0766	99.89	
PCB-150	31:39	1261386	1.27	1.0132	50.5	50.5	0.0748	0.0748	101	
PCB-136	32:02	1267811	1.29	1.0116	50.8	50.8	0.0749	0.0749	102	
PCB-145	32:19	1237221	1.24	0.9685	51.8	51.8	0.0783	0.0783	104	
PCB-148	33:49	952518	1.34	0.7603	50.8	50.8	0.0997	0.0997	102	
PCB-135	34:24	1861718	1.33	0.7256	104.1	104.1	0.1045	0.1045	104	M
PCB-151 (C135)	34:24	1861718	1.33	0.7256	104.1	104.1	0.1045	0.1045	104	M
PCB-154	34:39	1048137	1.31	0.8129	52.3	52.3	0.0933	0.0933	105	
PCB-144	34:58	1011737	1.26	0.7852	52.3	52.3	0.0965	0.0965	105	
PCB-147	35:20	3178078	1.26	0.8950	85.9	85.9	0.2504	0.2504	85.92	
PCB-149 (C147)	35:20	3178078	1.26	0.8950	85.9	85.9	0.2504	0.2504	85.92	
PCB-134	35:38	2758831	1.25	0.7967	83.8	83.8	0.2812	0.2812	83.79	
PCB-143 (C134)	35:38	2758831	1.25	0.7967	83.8	83.8	0.2812	0.2812	83.79	
PCB-139	35:56	2980138	1.24	0.8769	82.2	82.2	0.2555	0.2555	82.23	
PCB-140 (C139)	35:56	2980138	1.24	0.8769	82.2	82.2	0.2555	0.2555	82.23	
PCB-131	36:08	1234366	1.25	0.7503	39.8	39.8	0.2986	0.2986	79.61	
PCB-142	36:17	1340677	1.33	0.7507	43.2	43.2	0.2985	0.2985	86.42	
PCB-132	36:37	1258953	1.28	0.7489	40.7	40.7	0.2992	0.2992	81.35	
PCB-133	37:06	1382969	1.31	0.8096	41.3	41.3	0.2768	0.2768	82.67	
PCB-165	37:29	1852293	1.25	1.0247	43.7	43.7	0.2187	0.2187	87.47	
PCB-146	37:44	1675046	1.26	0.9637	42.1	42.1	0.2325	0.2325	84.11	
PCB-161	37:51	1934264	1.24	1.1288	41.5	41.5	0.1985	0.1985	82.92	
PCB-153	38:22	3880447	1.27	1.0938	85.8	85.8	0.2048	0.2048	85.84	
PCB-168 (C153)	38:22	3880447	1.27	1.0938	85.8	85.8	0.2048	0.2048	85.84	
PCB-141	38:33	1491290	1.22	0.8755	41.2	41.2	0.2559	0.2559	82.43	
PCB-130	38:58	1263818	1.26	0.7051	43.4	43.4	0.3178	0.3178	86.74	
PCB-137	39:10	1401992	1.25	0.7767	43.7	43.7	0.2885	0.2885	87.35	
PCB-164	39:17	1986357	1.24	1.0382	46.3	46.3	0.2158	0.2158	92.58	
PCB-129	39:36	6834267	1.26	0.9464	174.7	174.7	0.2367	0.2367	87.36	M
PCB-138 (C129)	39:36	6834267	1.26	0.9464	174.7	174.7	0.2367	0.2367	87.36	M
PCB-160 (C129)	39:36	6834267	1.26	0.9464	174.7	174.7	0.2367	0.2367	87.36	M
PCB-163 (C129)	39:36	6834267	1.26	0.9464	174.7	174.7	0.2367	0.2367	87.36	M
PCB-158	39:58	2335230	1.24	1.3110	43.1	43.1	0.1709	0.1709	86.19	
PCB-128	40:49	3619847	1.26	0.9829	89.1	89.1	0.2279	0.2279	89.11	
PCB-166 (C128)	40:49	3619847	1.26	0.9829	89.1	89.1	0.2279	0.2279	89.11	
PCB-159	41:50	2532079	1.25	1.3856	44.2	44.2	0.1617	0.1617	88.43	
PCB-162	42:07	2329915	1.23	1.2571	44.8	44.8	0.1782	0.1782	89.69	
PCB-167	42:35	2104326	1.28	1.1159	46.2	46.2	0.1636	0.1636	92.43	
PCB-156	43:45	4303558	1.27	1.1104	94.8	94.8	0.2537	0.2537	94.76	
PCB-157 (C156)	43:45	4303558	1.27	1.1104	94.8	94.8	0.2537	0.2537	94.76	
PCB-169	46:59	2283616	1.23	1.1628	46.0	46.0	0.1630	0.1630	91.95	
S Total Heptachlorobiphenyls					1145.2	1145.2	0.0381	0.0381		
D PCB-188L	36:58	2999270	1.07	1.3133	73.0	73.0	0.0240	0.0240	73.03	
\$ PCB-178L	40:01	2208262	1.08	1.0313	68.5	68.5	0.0305	0.0305	68.47	
* PCB-180L	45:05	3127155	1.08		100.0	100.0				
D PCB-170L	46:21	2166595	1.05	0.8362	82.9	82.9	0.0376	0.0376	82.85	
D PCB-189L	49:28	5043729	1.06	1.4414	82.1	82.1	0.2631	0.2631	82.09	
PCB-188	36:59	1541939	1.02	1.1350	45.3	45.3	0.0227	0.0227	90.59	
PCB-179	37:21	1605139	1.08	1.4276	43.5	43.5	0.0214	0.0214	87.06	
PCB-184	37:51	1596272	1.06	1.3672	45.2	45.2	0.0223	0.0223	90.41	
PCB-176	38:13	1423791	1.04	1.2331	44.7	44.7	0.0248	0.0248	89.41	
PCB-186	38:40	1728050	1.06	1.4737	45.4	45.4	0.0207	0.0207	90.79	

Compound	RT (min.)	Area	Ratio	Ical RRF	Amount pg/ul	EMPC pg/ul	Noise EDL	Final EDL	%Rec	Flags
PCB-178	40:02	1067651	1.00	0.8946	46.2	46.2	0.0341	0.0341	92.41	
PCB-175	40:40	1183694	1.05	0.9524	48.1	48.1	0.0321	0.0321	96.24	
PCB-187	40:57	1407494	1.05	1.1018	49.5	49.5	0.0277	0.0277	98.91	
PCB-182	41:09	1169387	1.04	0.9247	49.0	49.0	0.0330	0.0330	97.92	
PCB-183	41:32	2344828	1.11	0.9825	92.4	92.4	0.0311	0.0311	92.40	M
PCB-185 (C183)	41:32	2344828	1.11	0.9825	92.4	92.4	0.0311	0.0311	92.40	M
PCB-174	41:48	1208544	1.08	0.9642	48.5	48.5	0.0317	0.0317	97.06	
PCB-177	42:14	1205576	1.10	0.9773	47.8	47.8	0.0312	0.0312	95.52	
PCB-181	42:37	1161659	1.08	0.9505	47.3	47.3	0.0321	0.0321	94.63	
PCB-171	42:50	2246819	1.04	0.9336	93.2	93.2	0.0327	0.0327	93.17	
PCB-173 (C171)	42:50	2246819	1.04	0.9336	93.2	93.2	0.0327	0.0327	93.17	
PCB-172	44:28	1077136	1.03	0.8519	49.0	49.0	0.0358	0.0358	97.91	
PCB-192	44:45	1811414	1.06	1.3459	52.1	52.1	0.0227	0.0227	104	
PCB-180	45:05	3045334	1.09	1.1676	101.0	101.0	0.0261	0.0261	101	
PCB-193 (C180)	45:05	3045334	1.09	1.1676	101.0	101.0	0.0261	0.0261	101	
PCB-191	45:28	1773208	1.07	1.2891	53.3	53.3	0.0237	0.0237	107	
PCB-170	46:23	1157815	1.03	1.1865	45.0	45.0	0.0315	0.0315	90.08	
PCB-190	46:54	1761884	1.03	1.3322	51.2	51.2	0.0229	0.0229	102	
PCB-189	49:28	2312763	1.03	0.9633	47.6	47.6	0.2398	0.2398	95.20	
S Total Octachlorobiphenyls					586.6	586.6	0.1177	0.1177		
D PCB-202L	42:19	2346480	0.91	0.9818	76.4	76.4	0.0411	0.0411	76.43	
* PCB-194L	51:33	4262513	0.91		100.0	100.0				
D PCB-205L	52:02	4078533	0.91	1.1786	81.2	81.2	0.0583	0.0583	81.19	
PCB-202	42:21	1198361	0.93	1.0359	49.3	49.3	0.0618	0.0618	98.61	
PCB-201	43:15	1169306	0.91	0.9754	51.1	51.1	0.0657	0.0657	102	
PCB-204	43:55	1162180	0.93	1.0485	47.2	47.2	0.0611	0.0611	94.47	
PCB-197	44:09	1259206	0.89	1.1458	46.8	46.8	0.0559	0.0559	93.67	
PCB-200	44:17	1203195	0.92	1.0072	50.9	50.9	0.0636	0.0636	102	
PCB-198	47:02	2038329	0.91	0.8698	99.9	99.9	0.0736	0.0736	99.87	
PCB-199 (C198)	47:02	2038329	0.91	0.8698	99.9	99.9	0.0736	0.0736	99.87	
PCB-196	47:43	922520	0.96	0.7806	50.4	50.4	0.0821	0.0821	101	
PCB-203	47:54	1102398	0.94	0.9292	50.6	50.6	0.0689	0.0689	101	
PCB-195	49:15	1594572	0.92	0.8263	47.3	47.3	0.2920	0.2920	94.63	
PCB-194	51:35	1802981	0.89	0.9735	45.4	45.4	0.2478	0.2478	90.82	
PCB-205	52:03	2115835	0.93	1.0878	47.7	47.7	0.2218	0.2218	95.38	
S Total Nonachlorobiphenyls					135.4	135.4	0.6262	0.6262		
D PCB-208L	48:58	3381672	0.80	0.9576	82.8	82.8	0.2636	0.2636	82.85	
D PCB-206L	53:47	2583306	0.80	0.6947	87.2	87.2	0.3634	0.3634	87.24	
PCB-208	49:00	1784802	0.81	1.1374	46.4	46.4	0.6151	0.6151	92.80	
PCB-207	49:55	1852398	0.83	1.3756	45.2	45.2	0.5769	0.5769	90.30	
PCB-206	53:48	1512034	0.82	1.3346	43.9	43.9	0.6867	0.6867	87.71	
D PCB-209L	55:23	2670589	0.70	0.6669	93.9	93.9	0.1068	0.1068	93.95	
DCB Decachlorobiphenyl	55:25	1395722	0.70	1.1004	47.5	47.5	0.0895	0.0895	94.99	
S Polychlorinated biphenyls, Total					9563.6	9563.6	0.3336	0.3336		

**QC Flag Legend**

Processing Flags

Review Flags

M - Manually Integrated



Eurofins Knoxville  
Target Compound Quantitation Worksheet Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d  
 Lims ID: LCSD 140-88193/20-B  
 Client ID:  
 Sample Type: LCSD  
 Inject. Date: 15-Jul-2024 14:45:00 ALS Bottle#: 0 Worklist Smp#: 3  
 Injection Vol: 1.0 ul Dil. Factor: 1.0000  
 Sample Info:  
 Misc. Info.: 140-0033504-003  
 Operator ID: Xcalibur\_System Instrument ID: D2D  
 Method: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\PCBs\_D2D.m  
 Limit Group: HR - EPA\_23 PCB ICAL  
 Last Update: 15-Jul-2024 19:48:30 Calib Date: 31-May-2024 21:13:00  
 Integrator: Picker  
 Quant Method: Isotopic Dilution Quant By: Initial Calibration  
 Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
 Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
 Process Host: CTX1621

First Level Reviewer: V4XA

Date: 15-Jul-2024 19:48:30

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-1L											
200.0795	11:36	11:36	-3	0.728	4555385	1757302	1689	4222	1040		
202.0766	11:36	11:36	-3	0.728	1480586	573364	1396	3490	411	3.08(2.66-3.60)	
PCB-3L											
200.0795	13:44	13:44	-3	0.862	4782755	1507079	1689	4222	892		
202.0766	13:44	13:44	-3	0.862	1505150	465212	1396	3490	333	3.18(2.66-3.60)	
PCB-1											
188.0393	11:36	11:37	-3	1.001	2664739	1036669	1249	3122	830		
190.0363	11:36	11:37	-3	1.001	836107	331782	445	1112	746	3.19(2.66-3.60)	
PCB-2											
188.0393	13:35	13:35	-3	0.989	2675363	846322	1249	3122	678		
190.0363	13:35	13:35	-3	0.989	827131	263978	445	1112	593	3.23(2.66-3.60)	
PCB-3											
188.0393	13:45	13:46	-3	1.001	2723437	832312	1249	3122	666		
190.0363	13:45	13:46	-3	1.001	854108	261265	445	1112	587	3.19(2.66-3.60)	
PCB-4L											
234.0406	13:59	13:59	-3	0.878	1463336	467381	739	1847	632		
236.0376	13:59	13:59	-3	0.878	916374	299020	136	340	2199	1.60(1.33-1.79)	
PCB-9L											
234.0406	15:56	15:59	-3		3483071	988205	739	1847	1337		
236.0376	15:56	15:59	-3		2151402	615098	136	340	4523	1.62(1.33-1.79)	
PCB-15L											
234.0406	19:51	19:49	-3	1.246	2574168	575353	739	1847	779		
236.0376	19:51	19:49	-3	1.246	1619119	361705	136	340	2660	1.59(1.33-1.79)	
PCB-4											
222.0003	14:01	14:01	-3	1.002	907193	292561	154	385	1900		
223.9974	14:01	14:01	-3	1.002	547059	172831	318	795	543	1.66(1.33-1.79)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-10											
222.0003	14:10	14:11	-3	1.013	1244129	400276	154	385	2599		
223.9974	14:10	14:11	-3	1.013	780153	256566	318	795	807	1.59(1.33-1.79)	
PCB-9											
222.0003	15:56	15:57	-3	1.140	1365898	382688	154	385	2485		
223.9974	15:57	15:57	-3	1.141	849179	241902	318	795	761	1.61(1.33-1.79)	
PCB-7											
222.0003	16:07	16:07	-3	1.152	1327326	367918	154	385	2389		
223.9974	16:07	16:07	-3	1.152	831690	228619	318	795	719	1.60(1.33-1.79)	
PCB-6											
222.0003	16:22	16:22	-3	1.170	1460174	411306	154	385	2671		
223.9974	16:22	16:22	-3	1.170	920387	253162	318	795	796	1.59(1.33-1.79)	
PCB-5											
222.0003	16:40	16:40	-3	1.192	1225522	347127	154	385	2254		
223.9974	16:40	16:40	-3	1.192	773298	220788	318	795	694	1.58(1.33-1.79)	
PCB-8											
222.0003	16:47	16:47	-3	1.200	1538125	403210	154	385	2618		
223.9974	16:47	16:47	-3	1.200	971973	257821	318	795	811	1.58(1.33-1.79)	
PCB-14											
222.0003	18:23	18:25	-3	0.926	1418675	352831	154	385	2291		
223.9974	18:23	18:25	-3	0.926	917457	218298	318	795	686	1.55(1.33-1.79)	
PCB-11											
222.0003	19:14	19:15	-3	0.970	1327699	316397	154	385	2055		
223.9974	19:14	19:15	-3	0.970	817570	194734	318	795	612	1.62(1.33-1.79)	
PCB-12											
222.0003	19:32	19:33	-3	0.985	2643514	434422	154	385	2821		
223.9974	19:32	19:33	-3	0.985	1623361	272193	318	795	856	1.63(1.33-1.79)	
PCB-13 (C12)											
222.0003	19:32	19:33	-3	0.985	2643514	434422	154	385	2821		
223.9974	19:32	19:33	-3	0.985	1623361	272193	318	795	856	1.63(1.33-1.79)	
PCB-15											
222.0003	19:51	19:52	-3	1.001	1571907	334849	154	385	2174		
223.9974	19:51	19:52	-3	1.001	959080	217302	318	795	683	1.64(1.33-1.79)	
PCB-19L											
268.0016	17:04	17:05	-3	0.841	785169	215970	646	1615	334		
269.9986	17:04	17:05	-3	0.841	756884	211127	604	1510	350	1.04(0.88-1.20)	
PCB-32L											
268.0016	20:18	20:21	-3		1930946	471857	646	1615	730		
269.9986	20:18	20:21	-3		1796918	446244	604	1510	739	1.07(0.88-1.20)	
PCB-31L											
268.0016	22:33	22:36	-3		4549979	1049102	494	1235	2124		
269.9986	22:33	22:36	-3		4314998	1009807	384	960	2630	1.05(0.88-1.20)	
PCB-28L											
268.0016	22:51	22:50	-2	1.013	3159696	705415	494	1235	1428		
269.9986	22:51	22:50	-2	1.013	2973979	650066	384	960	1693	1.06(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-37L											
268.0016	26:51	26:50	-3	1.191	2907059	549134	494	1235	1112		
269.9986	26:51	26:50	-3	1.191	2665657	509877	384	960	1328	1.09(0.88-1.20)	
PCB-19											
255.9613	17:05	17:05	-3	1.001	456284	124540	110	275	1132		
257.9584	17:05	17:05	-3	1.001	429424	115296	120	300	961	1.06(0.88-1.20)	
PCB-18											
255.9613	18:53	18:52	-3	1.106	1307207	217859	110	275	1981		
257.9584	18:53	18:52	-3	1.106	1244377	207724	120	300	1731	1.05(0.88-1.20)	
PCB-30 (C18)											
255.9613	18:53	18:52	-3	1.106	1307207	217859	110	275	1981		
257.9584	18:53	18:52	-3	1.106	1244377	207724	120	300	1731	1.05(0.88-1.20)	
PCB-17											
255.9613	19:21	19:20	-3	1.134	458030	113210	110	275	1029		
257.9584	19:21	19:20	-3	1.133	433397	108791	120	300	907	1.06(0.88-1.20)	
PCB-27											
255.9613	19:34	19:33	-3	1.146	700829	175807	110	275	1598		
257.9584	19:34	19:33	-3	1.146	655329	164217	120	300	1368	1.07(0.88-1.20)	
PCB-24											
255.9613	19:42	19:41	-3	1.154	616787	154267	110	275	1402		
257.9584	19:42	19:41	-3	1.154	605683	148718	120	300	1239	1.02(0.88-1.20)	
PCB-16											
255.9613	19:49	19:48	-3	1.161	450060	108757	110	275	989		
257.9584	19:49	19:48	-3	1.161	408612	99029	120	300	825	1.10(0.88-1.20)	
PCB-32											
255.9613	20:20	20:18	-3	1.191	746604	180373	110	275	1640		
257.9584	20:20	20:18	-3	1.191	697699	168225	120	300	1402	1.07(0.88-1.20)	
PCB-34											
255.9613	21:34	21:32	-3	1.264	1539055	364977	2335	5837	156		
257.9584	21:34	21:32	-3	1.264	1438596	333202	4288	10720	78	1.07(0.88-1.20)	
PCB-23											
255.9613	21:43	21:41	-3	1.272	1446216	336130	2335	5837	144		
257.9584	21:43	21:41	-3	1.272	1381142	322550	4288	10720	75	1.05(0.88-1.20)	
PCB-26											
255.9613	22:02	22:01	-3	1.291	2944312	652330	2335	5837	279		
257.9584	22:02	22:01	-3	1.291	2829481	635838	4288	10720	148	1.04(0.88-1.20)	
PCB-29 (C26)											
255.9613	22:02	22:01	-3	1.291	2944312	652330	2335	5837	279		
257.9584	22:02	22:01	-3	1.291	2829481	635838	4288	10720	148	1.04(0.88-1.20)	
PCB-25											
255.9613	22:15	22:16	-3	0.829	1682687	361486	2335	5837	155		
257.9584	22:15	22:16	-3	0.829	1654857	347356	4288	10720	81	1.02(0.88-1.20)	
PCB-31											
255.9613	22:35	22:36	-3	0.841	1554090	346309	2335	5837	148		
257.9584	22:35	22:36	-3	0.841	1452306	334588	4288	10720	78	1.07(0.88-1.20)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-20											
255.9613	22:53	22:54	-3	0.852	3096713	494023	2335	5837	212		
257.9584	22:53	22:54	-3	0.852	2924973	480189	4288	10720	112	1.06(0.88-1.20)	
PCB-28 (C20)											
255.9613	22:53	22:54	-3	0.852	3096713	494023	2335	5837	212		
257.9584	22:53	22:54	-3	0.852	2924973	480189	4288	10720	112	1.06(0.88-1.20)	
PCB-21											
255.9613	23:02	23:03	-3	0.858	2840000	334059	2335	5837	143		M
257.9584	23:03	23:03	-2	0.859	2758628	324406	4288	10720	76	1.03(0.88-1.20)	M
PCB-33 (C21)											
255.9613	23:02	23:03	-3	0.858	2840000	334059	2335	5837	143		M
257.9584	23:03	23:03	-2	0.859	2758628	324406	4288	10720	76	1.03(0.88-1.20)	M
PCB-22											
255.9613	23:31	23:32	-3	0.876	1588267	350507	2335	5837	150		
257.9584	23:31	23:32	-3	0.876	1540179	341331	4288	10720	80	1.03(0.88-1.20)	
PCB-36											
255.9613	25:03	25:03	-3	0.933	1512719	290042	2335	5837	124		
257.9584	25:03	25:03	-3	0.933	1422240	271748	4288	10720	63	1.06(0.88-1.20)	
PCB-39											
255.9613	25:25	25:25	-2	0.947	1547276	315725	2335	5837	135		
257.9584	25:25	25:25	-2	0.947	1471698	292574	4288	10720	68	1.05(0.88-1.20)	
PCB-38											
255.9613	25:59	25:59	-3	0.968	1406169	290146	2335	5837	124		
257.9584	25:59	25:59	-3	0.968	1386514	280332	4288	10720	65	1.01(0.88-1.20)	
PCB-35											
255.9613	26:28	26:28	-2	0.986	1618410	319066	2335	5837	137		
257.9584	26:28	26:28	-2	0.986	1547765	308286	4288	10720	72	1.05(0.88-1.20)	
PCB-37											
255.9613	26:52	26:52	-2	1.001	1525150	294777	2335	5837	126		
257.9584	26:52	26:52	-2	1.001	1467572	279571	4288	10720	65	1.04(0.88-1.20)	
PCB-54L											
301.9626	20:09	20:09	-3	0.816	697958	178942	82	205	2182		
303.9597	20:09	20:09	-3	0.816	860193	213555	30	75	7119	0.81(0.65-0.89)	
PCB-52L											
301.9626	24:40	24:43	-3		2032628	449659	283	707	1589		
303.9597	24:40	24:43	-3		2543502	565305	207	517	2731	0.80(0.65-0.89)	
PCB-81L											
301.9626	33:35	33:33	-2	1.361	1955913	362224	283	707	1280		
303.9597	33:35	33:33	-2	1.361	2444215	451354	207	517	2180	0.80(0.65-0.89)	
PCB-77L											
301.9626	34:09	34:07	-2	1.384	2107649	374701	283	707	1324		
303.9597	34:09	34:07	-2	1.384	2619109	473708	207	517	2288	0.80(0.65-0.89)	
PCB-54											
289.9224	20:09	20:12	-3	1.000	400207	99441	44	110	2260		
291.9194	20:09	20:12	-3	1.000	533106	132429	75	187	1766	0.75(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-50											
289.9224	22:19	22:17	-3	1.107	1382817	314674	725	1812	434		
291.9194	22:19	22:17	-3	1.107	1734368	393326	1319	3297	298	0.80(0.65-0.89)	
PCB-53 (C50)											
289.9224	22:19	22:17	-3	1.107	1382817	314674	725	1812	434		
291.9194	22:19	22:17	-3	1.107	1734368	393326	1319	3297	298	0.80(0.65-0.89)	
PCB-45											
289.9224	23:03	23:03	-2	1.144	1391030	180538	725	1812	249		M
291.9194	23:03	23:03	-2	1.144	1764053	232122	1319	3297	176	0.79(0.65-0.89)	M
PCB-51 (C45)											
289.9224	23:03	23:03	-2	1.144	1391030	180538	725	1812	249		M
291.9194	23:03	23:03	-2	1.144	1764053	232122	1319	3297	176	0.79(0.65-0.89)	M
PCB-46											
289.9224	23:18	23:16	-3	1.156	593817	141722	725	1812	195		
291.9194	23:18	23:16	-3	1.156	765309	172020	1319	3297	130	0.78(0.65-0.89)	
PCB-52											
289.9224	24:42	24:40	-2	1.226	767923	180092	725	1812	248		
291.9194	24:42	24:40	-2	1.226	996727	225825	1319	3297	171	0.77(0.65-0.89)	
PCB-43											
289.9224	24:50	24:50	-2	1.233	1800192	235396	725	1812	325		M
291.9194	24:50	24:50	-3	1.233	2303045	299512	1319	3297	227	0.78(0.65-0.89)	M
PCB-73 (C43)											
289.9224	24:50	24:50	-2	1.233	1800192	235396	725	1812	325		M
291.9194	24:50	24:50	-3	1.233	2303045	299512	1319	3297	227	0.78(0.65-0.89)	M
PCB-49											
289.9224	25:07	25:05	-2	1.247	1743864	243796	725	1812	336		
291.9194	25:07	25:05	-3	1.247	2227344	311863	1319	3297	236	0.78(0.65-0.89)	
PCB-69 (C49)											
289.9224	25:07	25:05	-2	1.247	1743864	243796	725	1812	336		
291.9194	25:07	25:05	-3	1.247	2227344	311863	1319	3297	236	0.78(0.65-0.89)	
PCB-48											
289.9224	25:27	25:26	-3	1.264	730242	170159	725	1812	235		
291.9194	25:27	25:26	-3	1.264	935675	207325	1319	3297	157	0.78(0.65-0.89)	
PCB-44											
289.9224	25:42	25:40	-3	1.276	2446488	485478	725	1812	670		
291.9194	25:42	25:40	-3	1.276	3106224	599941	1319	3297	455	0.79(0.65-0.89)	
PCB-47 (C44)											
289.9224	25:42	25:40	-3	1.276	2446488	485478	725	1812	670		
291.9194	25:42	25:40	-3	1.276	3106224	599941	1319	3297	455	0.79(0.65-0.89)	
PCB-65 (C44)											
289.9224	25:42	25:40	-3	1.276	2446488	485478	725	1812	670		
291.9194	25:42	25:40	-3	1.276	3106224	599941	1319	3297	455	0.79(0.65-0.89)	
PCB-59											
289.9224	26:01	25:58	-2	1.292	2865847	447024	725	1812	617		
291.9194	26:01	25:58	-2	1.292	3683177	548787	1319	3297	416	0.78(0.65-0.89)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-62 (C59)											
289.9224	26:01	25:58	-2	1.292	2865847	447024	725	1812	617		
291.9194	26:01	25:58	-2	1.292	3683177	548787	1319	3297	416	0.78(0.65-0.89)	
PCB-75 (C59)											
289.9224	26:01	25:58	-2	1.292	2865847	447024	725	1812	617		
291.9194	26:01	25:58	-2	1.292	3683177	548787	1319	3297	416	0.78(0.65-0.89)	
PCB-42											
289.9224	26:12	26:11	-3	1.301	709139	151479	725	1812	209		
291.9194	26:13	26:11	-2	1.302	957958	205567	1319	3297	156	0.74(0.65-0.89)	
PCB-40											
289.9224	26:43	26:43	-2	1.326	2286597	346860	725	1812	478		M
291.9194	26:43	26:43	-2	1.326	2936495	449827	1319	3297	341	0.78(0.65-0.89)	M
PCB-41 (C40)											
289.9224	26:43	26:43	-2	1.326	2286597	346860	725	1812	478		M
291.9194	26:43	26:43	-2	1.326	2936495	449827	1319	3297	341	0.78(0.65-0.89)	M
PCB-71 (C40)											
289.9224	26:43	26:43	-2	1.326	2286597	346860	725	1812	478		M
291.9194	26:43	26:43	-2	1.326	2936495	449827	1319	3297	341	0.78(0.65-0.89)	M
PCB-64											
289.9224	26:55	26:53	-2	1.337	1006176	210964	725	1812	291		
291.9194	26:55	26:53	-2	1.337	1338934	275040	1319	3297	209	0.75(0.65-0.89)	
PCB-72											
289.9224	27:45	27:46	-3	0.826	946889	206226	725	1812	284		
291.9194	27:45	27:46	-3	0.826	1251238	269873	1319	3297	205	0.76(0.65-0.89)	
PCB-68											
289.9224	28:02	28:02	-2	0.835	1133889	227145	725	1812	313		
291.9194	28:02	28:02	-2	0.835	1440831	285999	1319	3297	217	0.79(0.65-0.89)	
PCB-57											
289.9224	28:27	28:28	-2	0.847	959016	209660	725	1812	289		
291.9194	28:27	28:28	-3	0.847	1272251	263518	1319	3297	200	0.75(0.65-0.89)	
PCB-58											
289.9224	28:42	28:42	-2	0.855	1251665	269296	725	1812	371		
291.9194	28:42	28:42	-2	0.855	1612574	332074	1319	3297	252	0.78(0.65-0.89)	
PCB-67											
289.9224	28:51	28:51	-2	0.859	1188567	237646	725	1812	328		
291.9194	28:51	28:51	-2	0.859	1560669	309805	1319	3297	235	0.76(0.65-0.89)	
PCB-63											
289.9224	29:07	29:07	-2	0.867	1011899	211628	725	1812	292		
291.9194	29:07	29:07	-2	0.867	1301661	250273	1319	3297	190	0.78(0.65-0.89)	
PCB-61											
289.9224	29:28	29:28	-2	0.877	4457836	526591	725	1812	726		M
291.9194	29:28	29:28	-2	0.877	5654978	662152	1319	3297	502	0.79(0.65-0.89)	M
PCB-70 (C61)											
289.9224	29:28	29:28	-2	0.877	4457836	526591	725	1812	726		M
291.9194	29:28	29:28	-2	0.877	5654978	662152	1319	3297	502	0.79(0.65-0.89)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-74 (C61)											M
289.9224	29:28	29:28	-2	0.877	4457836	526591	725	1812	726		M
291.9194	29:28	29:28	-2	0.877	5654978	662152	1319	3297	502	0.79(0.65-0.89)	
PCB-76 (C61)											M
289.9224	29:28	29:28	-2	0.877	4457836	526591	725	1812	726		M
291.9194	29:28	29:28	-2	0.877	5654978	662152	1319	3297	502	0.79(0.65-0.89)	
PCB-66											
289.9224	29:47	29:47	-2	0.887	1162050	233270	725	1812	322		
291.9194	29:47	29:47	-2	0.887	1554547	298485	1319	3297	226	0.75(0.65-0.89)	
PCB-55											
289.9224	29:57	29:57	-2	0.892	1242892	252026	725	1812	348		
291.9194	29:57	29:57	-2	0.892	1610510	327131	1319	3297	248	0.77(0.65-0.89)	
PCB-56											
289.9224	30:28	30:28	-2	0.907	1141320	235087	725	1812	324		
291.9194	30:28	30:28	-2	0.907	1490718	295355	1319	3297	224	0.77(0.65-0.89)	
PCB-60											
289.9224	30:41	30:40	-1	0.914	977567	197946	725	1812	273		
291.9194	30:40	30:40	-2	0.913	1287994	251732	1319	3297	191	0.76(0.65-0.89)	
PCB-80											
289.9224	31:04	31:04	-2	0.925	1200562	237755	725	1812	328		
291.9194	31:04	31:04	-2	0.925	1553532	300615	1319	3297	228	0.77(0.65-0.89)	
PCB-79											
289.9224	32:36	32:36	-2	0.971	1245912	214690	725	1812	296		
291.9194	32:36	32:36	-2	0.971	1550304	277991	1319	3297	211	0.80(0.65-0.89)	
PCB-78											
289.9224	33:10	33:10	-2	0.987	1102995	199373	725	1812	275		
291.9194	33:10	33:10	-2	0.987	1410665	248606	1319	3297	188	0.78(0.65-0.89)	
PCB-81											
289.9224	33:36	33:36	-2	1.000	939818	173109	725	1812	239		
291.9194	33:36	33:36	-2	1.000	1204903	221258	1319	3297	168	0.78(0.65-0.89)	
PCB-77											
289.9224	34:10	34:11	-2	1.001	1044845	178811	725	1812	247		
291.9194	34:10	34:11	-2	1.001	1271778	225941	1319	3297	171	0.82(0.65-0.89)	
PCB-104L											
337.9207	25:36	25:37	-2	0.813	1713549	371768	224	560	1660		
339.9178	25:36	25:37	-2	0.813	1090301	241654	45	112	5370	1.57(1.32-1.78)	
PCB-101L											
337.9207	31:30	31:31	-1		2013133	408399	224	560	1823		
339.9178	31:30	31:31	-1		1210240	246110	45	112	5469	1.66(1.32-1.78)	
PCB-111L											
337.9207	34:10	34:09	-2	1.084	1852996	361670	224	560	1615		
339.9178	34:10	34:09	-2	1.084	1179407	232279	45	112	5162	1.57(1.32-1.78)	
PCB-123L											
337.9207	36:07	36:07	-2	1.147	2661800	517636	2189	5472	236		
339.9178	36:07	36:07	-2	1.147	1642040	324431	1514	3785	214	1.62(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-118L											
337.9207	36:27	36:27	-2	1.157	2798163	543841	2189	5472	248		
339.9178	36:27	36:27	-2	1.157	1728565	340215	1514	3785	225	1.62(1.32-1.78)	
PCB-114L											
337.9207	36:59	36:58	-2	1.174	2758423	534036	2189	5472	244		
339.9178	36:59	36:58	-2	1.174	1717371	333016	1514	3785	220	1.61(1.32-1.78)	
PCB-105L											
337.9207	37:38	37:37	-2	1.195	2798745	521636	2189	5472	238		
339.9178	37:38	37:37	-2	1.195	1737393	322196	1514	3785	213	1.61(1.32-1.78)	
PCB-127L											
337.9207	39:06	39:07	-2		3564422	654532	2189	5472	299		
339.9178	39:06	39:07	-2		2266029	428253	1514	3785	283	1.57(1.32-1.78)	
PCB-126L											
337.9207	40:43	40:42	-2	1.293	2862378	531927	2189	5472	243		
339.9178	40:43	40:42	-2	1.293	1769265	324424	1514	3785	214	1.62(1.32-1.78)	
PCB-104											
325.8804	25:38	25:37	-2	1.001	831896	185553	176	440	1054		
327.8775	25:38	25:37	-2	1.001	511000	113821	103	257	1105	1.63(1.32-1.78)	
PCB-96											
325.8804	26:01	26:01	-3	1.016	867667	192977	176	440	1096		
327.8775	26:01	26:01	-3	1.016	535491	116011	103	257	1126	1.62(1.32-1.78)	
PCB-103											
325.8804	27:55	27:54	-2	1.090	733811	160079	176	440	910		
327.8775	27:55	27:54	-2	1.090	463642	102335	103	257	994	1.58(1.32-1.78)	
PCB-94											
325.8804	28:10	28:09	-2	1.100	632094	135770	176	440	771		
327.8775	28:10	28:09	-2	1.100	398413	84035	103	257	816	1.59(1.32-1.78)	
PCB-95											
325.8804	28:37	28:35	-2	1.117	698555	146052	176	440	830		
327.8775	28:36	28:35	-3	1.117	436795	92308	103	257	896	1.60(1.32-1.78)	
PCB-93											
325.8804	28:48	28:47	-2	1.125	1341704	231270	176	440	1314		
327.8775	28:48	28:47	-2	1.125	865687	147772	103	257	1435	1.55(1.32-1.78)	
PCB-100 (C93)											
325.8804	28:48	28:47	-2	1.125	1341704	231270	176	440	1314		
327.8775	28:48	28:47	-2	1.125	865687	147772	103	257	1435	1.55(1.32-1.78)	
PCB-98											
325.8804	28:58	28:58	-2	1.131	1402073	166607	176	440	947		
327.8775	28:57	28:58	-3	1.131	855549	108447	103	257	1053	1.64(1.32-1.78)	
PCB-102 (C98)											
325.8804	28:58	28:58	-2	1.131	1402073	166607	176	440	947		
327.8775	28:57	28:58	-3	1.131	855549	108447	103	257	1053	1.64(1.32-1.78)	
PCB-88											
325.8804	29:27	29:26	-2	1.150	1306729	137177	176	440	779		
327.8775	29:28	29:26	-1	1.151	819999	90940	103	257	883	1.59(1.32-1.78)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-91 (C88)											
325.8804	29:27	29:26	-2	1.150	1306729	137177	176	440	779		
327.8775	29:28	29:26	-1	1.151	819999	90940	103	257	883	1.59(1.32-1.78)	
PCB-84											
325.8804	29:42	29:41	-2	1.160	638831	130806	176	440	743		
327.8775	29:42	29:41	-2	1.160	402146	86738	103	257	842	1.59(1.32-1.78)	
PCB-89											
325.8804	30:10	30:09	-2	1.178	633716	131405	176	440	747		
327.8775	30:10	30:09	-2	1.178	405304	89028	103	257	864	1.56(1.32-1.78)	
PCB-121											
325.8804	30:33	30:31	-1	1.193	1095158	217310	176	440	1235		
327.8775	30:33	30:31	-1	1.193	684017	140120	103	257	1360	1.60(1.32-1.78)	
PCB-92											
325.8804	30:56	30:56	-2	0.856	735586	152954	176	440	869		
327.8775	30:56	30:56	-2	0.856	449141	93955	103	257	912	1.64(1.32-1.78)	
PCB-90											
325.8804	31:30	31:28	-2	1.230	2449001	361315	176	440	2053		
327.8775	31:30	31:28	-2	1.230	1540910	233130	103	257	2263	1.59(1.32-1.78)	
PCB-101 (C90)											
325.8804	31:30	31:28	-2	1.230	2449001	361315	176	440	2053		
327.8775	31:30	31:28	-2	1.230	1540910	233130	103	257	2263	1.59(1.32-1.78)	
PCB-113 (C90)											
325.8804	31:30	31:28	-2	1.230	2449001	361315	176	440	2053		
327.8775	31:30	31:28	-2	1.230	1540910	233130	103	257	2263	1.59(1.32-1.78)	
PCB-83											
325.8804	32:05	32:04	-2	1.253	1444281	187482	176	440	1065		
327.8775	32:05	32:04	-2	1.253	923399	117027	103	257	1136	1.56(1.32-1.78)	
PCB-99 (C83)											
325.8804	32:05	32:04	-2	1.253	1444281	187482	176	440	1065		
327.8775	32:05	32:04	-2	1.253	923399	117027	103	257	1136	1.56(1.32-1.78)	
PCB-112											
325.8804	32:13	32:11	-2	1.258	1173406	233983	176	440	1329		
327.8775	32:13	32:11	-2	1.258	730542	150606	103	257	1462	1.61(1.32-1.78)	
PCB-86											
325.8804	32:35	32:35	-1	1.273	5317829	542771	176	440	3084		M
327.8775	32:34	32:35	-2	1.272	3307487	343148	103	257	3332	1.61(1.32-1.78)	M
PCB-87 (C86)											
325.8804	32:35	32:35	-1	1.273	5317829	542771	176	440	3084		M
327.8775	32:34	32:35	-2	1.272	3307487	343148	103	257	3332	1.61(1.32-1.78)	M
PCB-97 (C86)											
325.8804	32:35	32:35	-1	1.273	5317829	542771	176	440	3084		M
327.8775	32:34	32:35	-2	1.272	3307487	343148	103	257	3332	1.61(1.32-1.78)	M
PCB-109 (C86)											
325.8804	32:35	32:35	-1	1.273	5317829	542771	176	440	3084		M
327.8775	32:34	32:35	-2	1.272	3307487	343148	103	257	3332	1.61(1.32-1.78)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-119 (C86)											M
325.8804	32:35	32:35	-1	1.273	5317829	542771	176	440	3084		M
327.8775	32:34	32:35	-2	1.272	3307487	343148	103	257	3332	1.61(1.32-1.78)	M
PCB-125 (C86)											M
325.8804	32:35	32:35	-1	1.273	5317829	542771	176	440	3084		M
327.8775	32:34	32:35	-2	1.272	3307487	343148	103	257	3332	1.61(1.32-1.78)	M
PCB-85											
325.8804	33:19	33:16	-1	1.301	2665968	315400	176	440	1792		
327.8775	33:19	33:16	-1	1.301	1640287	191411	103	257	1858	1.63(1.32-1.78)	
PCB-116 (C85)											
325.8804	33:19	33:16	-1	1.301	2665968	315400	176	440	1792		
327.8775	33:19	33:16	-1	1.301	1640287	191411	103	257	1858	1.63(1.32-1.78)	
PCB-117 (C85)											
325.8804	33:19	33:16	-1	1.301	2665968	315400	176	440	1792		
327.8775	33:19	33:16	-1	1.301	1640287	191411	103	257	1858	1.63(1.32-1.78)	
PCB-110											
325.8804	33:31	33:29	-2	1.309	2048013	299207	176	440	1700		
327.8775	33:31	33:29	-2	1.309	1324807	198806	103	257	1930	1.55(1.32-1.78)	
PCB-115 (C110)											
325.8804	33:31	33:29	-2	1.309	2048013	299207	176	440	1700		
327.8775	33:31	33:29	-2	1.309	1324807	198806	103	257	1930	1.55(1.32-1.78)	
PCB-82											
325.8804	33:50	33:48	-2	1.321	737789	137215	176	440	780		
327.8775	33:50	33:48	-2	1.321	447492	84515	103	257	821	1.65(1.32-1.78)	
PCB-111											
325.8804	34:11	34:09	-2	1.335	1034589	202422	176	440	1150		
327.8775	34:12	34:09	-1	1.336	682045	132851	103	257	1290	1.52(1.32-1.78)	
PCB-120											
325.8804	34:39	34:37	-2	1.353	1263728	251417	176	440	1429		
327.8775	34:39	34:37	-2	1.353	777144	152754	103	257	1483	1.63(1.32-1.78)	
PCB-108											
325.8804	35:48	35:46	-2	1.398	2747900	528498	1687	4217	313		
327.8775	35:48	35:46	-2	1.398	1762058	344649	1520	3800	227	1.56(1.32-1.78)	
PCB-124 (C108)											
325.8804	35:48	35:46	-2	1.398	2747900	528498	1687	4217	313		
327.8775	35:48	35:46	-2	1.398	1762058	344649	1520	3800	227	1.56(1.32-1.78)	
PCB-107											
325.8804	36:02	36:00	-2	1.407	1474005	281805	1687	4217	167		
327.8775	36:02	36:00	-2	1.407	950553	175569	1520	3800	116	1.55(1.32-1.78)	
PCB-123											
325.8804	36:09	36:09	-2	1.001	1220050	259615	1687	4217	154		
327.8775	36:09	36:09	-2	1.001	802950	177004	1520	3800	116	1.52(1.32-1.78)	
PCB-106											
325.8804	36:16	36:16	-2	1.004	1417683	273353	1687	4217	162		
327.8775	36:16	36:16	-2	1.004	901189	173462	1520	3800	114	1.57(1.32-1.78)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-118											
325.8804	36:29	36:29	-2	1.001	1525150	287517	1687	4217	170		
327.8775	36:29	36:29	-2	1.001	985230	182412	1520	3800	120	1.55(1.32-1.78)	
PCB-122											
325.8804	36:50	36:50	-2	1.010	1227735	241166	1687	4217	143		
327.8775	36:50	36:50	-2	1.010	779674	153062	1520	3800	101	1.57(1.32-1.78)	
PCB-114											
325.8804	37:00	37:00	-2	1.001	1395746	255416	1687	4217	151		
327.8775	37:00	37:00	-2	1.001	867749	154078	1520	3800	101	1.61(1.32-1.78)	
PCB-105											
325.8804	37:40	37:40	-1	1.001	1515521	275552	1687	4217	163		
327.8775	37:40	37:40	-2	1.001	972481	168332	1520	3800	111	1.56(1.32-1.78)	
PCB-127											
325.8804	39:07	39:07	-2	1.039	1499536	258340	1687	4217	153		
327.8775	39:07	39:07	-2	1.039	937286	169162	1520	3800	111	1.60(1.32-1.78)	
PCB-126											
325.8804	40:44	40:44	-2	1.000	1473213	246824	1687	4217	146		
327.8775	40:44	40:44	-2	1.000	924194	156702	1520	3800	103	1.59(1.32-1.78)	
PCB-155L											
371.8817	31:15	31:14	-1	0.790	1385054	281953	69	172	4086		
373.8788	31:14	31:14	-2	0.789	1080866	221989	53	132	4188	1.28(1.05-1.43)	
PCB-138L											
371.8817	39:34	39:36	-2		2240807	439177	700	1750	627		
373.8788	39:34	39:36	-2		1770477	354212	696	1740	509	1.27(1.05-1.43)	
PCB-167L											
371.8817	42:34	42:32	-1	1.076	2285223	443401	700	1750	633		
373.8788	42:34	42:32	-1	1.076	1795434	346515	696	1740	498	1.27(1.05-1.43)	
PCB-156L											
371.8817	43:43	43:42	-2	1.105	4591811	576491	700	1750	824		
373.8788	43:43	43:42	-2	1.105	3587905	447137	696	1740	642	1.28(1.05-1.43)	
PCB-157L (C156L)											
371.8817	43:43	43:42	-2	1.105	4591811	576491	700	1750	824		
373.8788	43:43	43:42	-2	1.105	3587905	447137	696	1740	642	1.28(1.05-1.43)	
PCB-169L											
371.8817	46:57	46:55	-1	1.187	2421045	427185	700	1750	610		
373.8788	46:57	46:55	-1	1.187	1850394	333602	696	1740	479	1.31(1.05-1.43)	
PCB-155											
359.8415	31:15	31:15	-2	1.000	650326	133214	85	212	1567		
361.8385	31:15	31:15	-2	1.000	493759	105670	68	170	1554	1.32(1.05-1.43)	
PCB-152											
359.8415	31:29	31:29	-2	1.008	680654	141303	85	212	1662		
361.8385	31:30	31:29	-1	1.008	538101	111185	68	170	1635	1.26(1.05-1.43)	
PCB-150											
359.8415	31:39	31:39	-2	1.013	706787	145536	85	212	1712		
361.8385	31:39	31:39	-2	1.013	554599	111204	68	170	1635	1.27(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-136											
359.8415	32:02	32:02	-2	1.025	714085	148264	85	212	1744		
361.8385	32:02	32:02	-2	1.025	553726	115128	68	170	1693	1.29(1.05-1.43)	
PCB-145											
359.8415	32:19	32:18	-1	1.034	685817	139750	85	212	1644		
361.8385	32:19	32:18	-1	1.034	551404	111765	68	170	1644	1.24(1.05-1.43)	
PCB-148											
359.8415	33:49	33:48	-1	1.082	545385	111894	85	212	1316		
361.8385	33:48	33:48	-2	1.082	407133	86597	68	170	1273	1.34(1.05-1.43)	
PCB-135											
359.8415	34:24	34:29	-2	1.101	1062866	121138	85	212	1425		M
361.8385	34:29	34:29	3	1.104	798852	90211	68	170	1327	1.33(1.05-1.43)	M
PCB-151 (C135)											
359.8415	34:24	34:29	-2	1.101	1062866	121138	85	212	1425		M
361.8385	34:29	34:29	3	1.104	798852	90211	68	170	1327	1.33(1.05-1.43)	M
PCB-154											
359.8415	34:39	34:38	-2	1.109	593913	117340	85	212	1380		
361.8385	34:39	34:38	-2	1.109	454224	90410	68	170	1330	1.31(1.05-1.43)	
PCB-144											
359.8415	34:58	34:57	-2	1.119	563661	113092	85	212	1330		
361.8385	34:58	34:57	-2	1.119	448076	89692	68	170	1319	1.26(1.05-1.43)	
PCB-147											
359.8415	35:20	35:20	-2	1.131	1774273	341709	330	825	1035		
361.8385	35:20	35:20	-2	1.131	1403805	266645	247	617	1080	1.26(1.05-1.43)	
PCB-149 (C147)											
359.8415	35:20	35:20	-2	1.131	1774273	341709	330	825	1035		
361.8385	35:20	35:20	-2	1.131	1403805	266645	247	617	1080	1.26(1.05-1.43)	
PCB-134											
359.8415	35:38	35:38	-2	1.141	1530871	161123	330	825	488		
361.8385	35:38	35:38	-2	1.141	1227960	133053	247	617	539	1.25(1.05-1.43)	
PCB-143 (C134)											
359.8415	35:38	35:38	-2	1.141	1530871	161123	330	825	488		
361.8385	35:38	35:38	-2	1.141	1227960	133053	247	617	539	1.25(1.05-1.43)	
PCB-139											
359.8415	35:56	35:55	-2	1.150	1651715	282001	330	825	855		
361.8385	35:55	35:55	-3	1.149	1328423	220677	247	617	893	1.24(1.05-1.43)	
PCB-140 (C139)											
359.8415	35:56	35:55	-2	1.150	1651715	282001	330	825	855		
361.8385	35:55	35:55	-3	1.149	1328423	220677	247	617	893	1.24(1.05-1.43)	
PCB-131											
359.8415	36:08	36:08	-2	1.157	686578	134491	330	825	408		
361.8385	36:08	36:08	-2	1.157	547788	109602	247	617	444	1.25(1.05-1.43)	
PCB-142											
359.8415	36:17	36:16	-2	1.161	764378	153137	330	825	464		
361.8385	36:17	36:16	-2	1.161	576299	109396	247	617	443	1.33(1.05-1.43)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-132											
359.8415	36:37	36:36	-2	1.172	705748	138801	330	825	421		
361.8385	36:37	36:36	-2	1.172	553205	105215	247	617	426	1.28(1.05-1.43)	
PCB-133											
359.8415	37:06	37:04	-1	1.187	784139	155615	330	825	472		
361.8385	37:05	37:04	-2	1.187	598830	119038	247	617	482	1.31(1.05-1.43)	
PCB-165											
359.8415	37:29	37:30	-2	0.880	1029717	199862	330	825	606		
361.8385	37:29	37:30	-2	0.880	822576	160842	247	617	651	1.25(1.05-1.43)	
PCB-146											
359.8415	37:44	37:44	-2	0.886	934146	179524	330	825	544		
361.8385	37:44	37:44	-2	0.886	740900	137598	247	617	557	1.26(1.05-1.43)	
PCB-161											
359.8415	37:51	37:52	-1	0.889	1070320	213167	330	825	646		
361.8385	37:51	37:52	-1	0.889	863944	171750	247	617	695	1.24(1.05-1.43)	
PCB-153											
359.8415	38:22	38:22	-1	0.901	2172609	307524	330	825	932		
361.8385	38:21	38:22	-2	0.901	1707838	243859	247	617	987	1.27(1.05-1.43)	
PCB-168 (C153)											
359.8415	38:22	38:22	-1	0.901	2172609	307524	330	825	932		
361.8385	38:21	38:22	-2	0.901	1707838	243859	247	617	987	1.27(1.05-1.43)	
PCB-141											
359.8415	38:33	38:33	-1	0.906	818269	149502	330	825	453		
361.8385	38:32	38:33	-2	0.906	673021	122214	247	617	495	1.22(1.05-1.43)	
PCB-130											
359.8415	38:58	38:58	-1	0.915	703821	137037	330	825	415		
361.8385	38:58	38:58	-1	0.915	559997	111078	247	617	450	1.26(1.05-1.43)	
PCB-137											
359.8415	39:10	39:10	-1	0.920	779609	164699	330	825	499		
361.8385	39:10	39:10	-1	0.920	622383	128392	247	617	520	1.25(1.05-1.43)	
PCB-164											
359.8415	39:17	39:18	-2	0.923	1100225	210088	330	825	637		
361.8385	39:18	39:18	-1	0.923	886132	164637	247	617	667	1.24(1.05-1.43)	
PCB-129											
359.8415	39:36	39:36	-1	0.931	3809848	431676	330	825	1308		M
361.8385	39:36	39:36	-1	0.931	3024419	325899	247	617	1319	1.26(1.05-1.43)	M
PCB-138 (C129)											
359.8415	39:36	39:36	-1	0.931	3809848	431676	330	825	1308		M
361.8385	39:36	39:36	-1	0.931	3024419	325899	247	617	1319	1.26(1.05-1.43)	M
PCB-160 (C129)											
359.8415	39:36	39:36	-1	0.931	3809848	431676	330	825	1308		M
361.8385	39:36	39:36	-1	0.931	3024419	325899	247	617	1319	1.26(1.05-1.43)	M
PCB-163 (C129)											
359.8415	39:36	39:36	-1	0.931	3809848	431676	330	825	1308		M
361.8385	39:36	39:36	-1	0.931	3024419	325899	247	617	1319	1.26(1.05-1.43)	M

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-158											
359.8415	39:58	39:59	-2	0.939	1294323	235887	330	825	715		
361.8385	39:58	39:59	-2	0.939	1040907	188266	247	617	762	1.24(1.05-1.43)	
PCB-128											
359.8415	40:49	40:50	-3	0.959	2020984	262873	330	825	797		
361.8385	40:50	40:50	-2	0.959	1598863	203653	247	617	825	1.26(1.05-1.43)	
PCB-166 (C128)											
359.8415	40:49	40:50	-3	0.959	2020984	262873	330	825	797		
361.8385	40:50	40:50	-2	0.959	1598863	203653	247	617	825	1.26(1.05-1.43)	
PCB-159											
359.8415	41:50	41:49	-1	0.983	1404904	273333	330	825	828		
361.8385	41:50	41:49	-1	0.983	1127175	224234	247	617	908	1.25(1.05-1.43)	
PCB-162											
359.8415	42:07	42:07	-1	0.989	1284453	229980	330	825	697		
361.8385	42:06	42:07	-2	0.989	1045462	186480	247	617	755	1.23(1.05-1.43)	
PCB-167											
359.8415	42:35	42:35	-1	1.001	1181080	226039	330	825	685		
361.8385	42:35	42:35	-1	1.001	923246	176179	247	617	713	1.28(1.05-1.43)	
PCB-156											
359.8415	43:45	43:45	-1	1.001	2411609	302879	330	825	918		
361.8385	43:45	43:45	-2	1.001	1891949	243248	247	617	985	1.27(1.05-1.43)	
PCB-157 (C156)											
359.8415	43:45	43:45	-1	1.001	2411609	302879	330	825	918		
361.8385	43:45	43:45	-2	1.001	1891949	243248	247	617	985	1.27(1.05-1.43)	
PCB-169											
359.8415	46:59	46:58	-1	1.001	1259076	215742	330	825	654		
361.8385	46:59	46:58	-1	1.001	1024540	182722	247	617	740	1.23(1.05-1.43)	
PCB-188L											
405.8428	36:58	36:57	-1	0.820	1547851	308338	47	117	6560		
407.8398	36:57	36:57	-2	0.820	1451419	281000	31	77	9065	1.07(0.89-1.21)	
PCB-178L											
405.8428	40:01	40:01	-2	0.887	1145049	223535	47	117	4756		
407.8398	40:01	40:01	-1	0.888	1063213	205765	31	77	6638	1.08(0.89-1.21)	
PCB-180L											
405.8428	45:05	45:07	-2		1625038	324699	47	117	6908		
407.8398	45:06	45:07	-1		1502117	295069	31	77	9518	1.08(0.89-1.21)	
PCB-170L											
405.8428	46:21	46:21	-2	1.028	1112047	211619	47	117	4503		
407.8398	46:21	46:21	-2	1.028	1054548	194880	31	77	6286	1.05(0.89-1.21)	
PCB-189L											
405.8428	49:28	49:27	-1	1.097	2597935	481278	829	2072	581		
407.8398	49:28	49:27	-1	1.097	2445794	450269	400	1000	1126	1.06(0.89-1.21)	
PCB-188											
393.8025	36:59	36:59	-2	1.000	778519	152008	31	77	4903		
395.7995	36:59	36:59	-2	1.000	763420	149158	30	75	4972	1.02(0.89-1.21)	

Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-179											
393.8025	37:21	37:21	-2	1.010	832278	166820	31	77	5381		
395.7995	37:21	37:21	-2	1.010	772861	147822	30	75	4927	1.08(0.89-1.21)	
PCB-184											
393.8025	37:51	37:50	-1	1.024	820769	167269	31	77	5396		
395.7995	37:51	37:50	-1	1.024	775503	162654	30	75	5422	1.06(0.89-1.21)	
PCB-176											
393.8025	38:13	38:13	-1	1.034	726700	146164	31	77	4715		
395.7995	38:13	38:13	-1	1.034	697091	135559	30	75	4519	1.04(0.89-1.21)	
PCB-186											
393.8025	38:40	38:40	-2	1.046	888419	175874	31	77	5673		
395.7995	38:40	38:40	-2	1.046	839631	163325	30	75	5444	1.06(0.89-1.21)	
PCB-178											
393.8025	40:02	40:02	-2	1.083	533475	109600	31	77	3535		
395.7995	40:02	40:02	-2	1.083	534176	105170	30	75	3506	1.00(0.89-1.21)	
PCB-175											
393.8025	40:40	40:39	-1	1.100	605681	122650	31	77	3956		
395.7995	40:40	40:39	-1	1.100	578013	116008	30	75	3867	1.05(0.89-1.21)	
PCB-187											
393.8025	40:57	40:56	-1	1.108	722025	141083	31	77	4551		
395.7995	40:57	40:56	-1	1.108	685469	128545	30	75	4285	1.05(0.89-1.21)	
PCB-182											
393.8025	41:09	41:07	-1	1.113	595113	114059	31	77	3679		
395.7995	41:09	41:07	-1	1.113	574274	109738	30	75	3658	1.04(0.89-1.21)	
PCB-183											
393.8025	41:32	41:32	-2	1.124	1232073	128108	31	77	4133		M
395.7995	41:32	41:32	-2	1.124	1112755	116515	30	75	3884	1.11(0.89-1.21)	M
PCB-185 (C183)											
393.8025	41:32	41:32	-2	1.124	1232073	128108	31	77	4133		M
395.7995	41:32	41:32	-2	1.124	1112755	116515	30	75	3884	1.11(0.89-1.21)	M
PCB-174											
393.8025	41:48	41:48	-2	1.131	627248	117281	31	77	3783		
395.7995	41:48	41:48	-2	1.131	581296	114518	30	75	3817	1.08(0.89-1.21)	
PCB-177											
393.8025	42:14	42:14	-2	1.143	631011	120635	31	77	3891		
395.7995	42:14	42:14	-2	1.143	574565	109252	30	75	3642	1.10(0.89-1.21)	
PCB-181											
393.8025	42:37	42:36	-2	1.153	603703	120429	31	77	3885		
395.7995	42:37	42:36	-2	1.153	557956	104224	30	75	3474	1.08(0.89-1.21)	
PCB-171											
393.8025	42:50	42:50	-2	1.159	1147628	203048	31	77	6550		
395.7995	42:51	42:50	-1	1.159	1099191	192898	30	75	6430	1.04(0.89-1.21)	
PCB-173 (C171)											
393.8025	42:50	42:50	-2	1.159	1147628	203048	31	77	6550		
395.7995	42:51	42:50	-1	1.159	1099191	192898	30	75	6430	1.04(0.89-1.21)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-172											
393.8025	44:28	44:28	-2	0.899	546219	105573	31	77	3406		
395.7995	44:28	44:28	-2	0.899	530917	101112	30	75	3370	1.03(0.89-1.21)	
PCB-192											
393.8025	44:45	44:45	-2	0.905	930470	181982	31	77	5870		
395.7995	44:45	44:45	-2	0.905	880944	169741	30	75	5658	1.06(0.89-1.21)	
PCB-180											
393.8025	45:05	45:05	-2	0.912	1586599	231213	31	77	7458		
395.7995	45:04	45:05	-2	0.911	1458735	207893	30	75	6930	1.09(0.89-1.21)	
PCB-193 (C180)											
393.8025	45:05	45:05	-2	0.912	1586599	231213	31	77	7458		
395.7995	45:04	45:05	-2	0.911	1458735	207893	30	75	6930	1.09(0.89-1.21)	
PCB-191											
393.8025	45:28	45:28	-2	0.919	915017	172612	31	77	5568		
395.7995	45:28	45:28	-2	0.919	858191	163456	30	75	5449	1.07(0.89-1.21)	
PCB-170											
393.8025	46:23	46:23	-2	0.938	588642	108756	31	77	3508		
395.7995	46:23	46:23	-2	0.938	569173	106878	30	75	3563	1.03(0.89-1.21)	
PCB-190											
393.8025	46:54	46:54	-2	0.948	893578	172084	31	77	5551		
395.7995	46:54	46:54	-2	0.948	868306	165982	30	75	5533	1.03(0.89-1.21)	
PCB-189											
393.8025	49:28	49:28	-2	1.000	1172738	212192	483	1207	439		
395.7995	49:29	49:28	-1	1.001	1140025	207343	378	945	549	1.03(0.89-1.21)	
PCB-202L											
439.8038	42:19	42:18	-1	0.821	1117745	226012	55	137	4109		
441.8008	42:19	42:18	-1	0.821	1228735	237625	45	112	5281	0.91(0.76-1.02)	
PCB-194L											
439.8038	51:33	51:35	-2		2029955	377228	103	257	3662		
441.8008	51:33	51:35	-2		2232558	432823	120	300	3607	0.91(0.76-1.02)	
PCB-205L											
439.8038	52:02	52:00	-1	1.009	1943599	353974	103	257	3437		
441.8008	52:02	52:00	-1	1.009	2134934	382574	120	300	3188	0.91(0.76-1.02)	
PCB-202											
427.7635	42:21	42:20	-1	1.001	577815	113043	64	160	1766		
429.7606	42:21	42:20	-1	1.001	620546	125427	55	137	2280	0.93(0.76-1.02)	
PCB-201											
427.7635	43:15	43:15	-2	1.022	557383	107806	64	160	1684		
429.7606	43:15	43:15	-2	1.022	611923	121629	55	137	2211	0.91(0.76-1.02)	
PCB-204											
427.7635	43:55	43:55	-2	1.038	560799	106309	64	160	1661		
429.7606	43:56	43:55	-1	1.038	601381	113065	55	137	2056	0.93(0.76-1.02)	
PCB-197											
427.7635	44:09	44:09	-2	1.043	594297	116326	64	160	1818		
429.7606	44:09	44:09	-2	1.043	664909	132010	55	137	2400	0.89(0.76-1.02)	



Signal	RT (min.)	Adj RT (min.)	Sec.	REL RT	Area	Height	Avg Noise	EDL Height	S/N	Ratio(Limits)	Flags
PCB-200											
427.7635	44:17	44:17	-2	1.046	576292	110275	64	160	1723		
429.7606	44:17	44:17	-2	1.046	626903	120062	55	137	2183	0.92(0.76-1.02)	
PCB-198											
427.7635	47:02	47:02	-2	1.111	971004	122208	64	160	1910		
429.7606	47:02	47:02	-2	1.111	1067325	137517	55	137	2500	0.91(0.76-1.02)	
PCB-199 (C198)											
427.7635	47:02	47:02	-2	1.111	971004	122208	64	160	1910		
429.7606	47:02	47:02	-2	1.111	1067325	137517	55	137	2500	0.91(0.76-1.02)	
PCB-196											
427.7635	47:43	47:43	-1	0.917	451151	83778	64	160	1309		
429.7606	47:43	47:43	-1	0.917	471369	88151	55	137	1603	0.96(0.76-1.02)	
PCB-203											
427.7635	47:54	47:55	-2	0.921	534471	105740	64	160	1652		
429.7606	47:54	47:55	-2	0.921	567927	108279	55	137	1969	0.94(0.76-1.02)	
PCB-195											
427.7635	49:15	49:15	-1	0.947	762754	138293	221	552	626		
429.7606	49:15	49:15	-2	0.946	831818	160160	490	1225	327	0.92(0.76-1.02)	
PCB-194											
427.7635	51:35	51:34	-1	0.991	850184	159311	221	552	721		
429.7606	51:35	51:34	-1	0.991	952797	176950	490	1225	361	0.89(0.76-1.02)	
PCB-205											
427.7635	52:03	52:03	-2	1.000	1019822	189780	221	552	859		
429.7606	52:03	52:03	-2	1.000	1096013	205789	490	1225	420	0.93(0.76-1.02)	
PCB-208L											
473.7648	48:58	48:58	-2	0.950	1507945	283003	418	1045	677		
475.7619	48:58	48:58	-2	0.950	1873727	357315	400	1000	893	0.80(0.65-0.89)	
PCB-206L											
473.7648	53:47	53:45	-1	1.043	1150545	214289	418	1045	513		
475.7619	53:47	53:45	-1	1.043	1432761	274523	400	1000	686	0.80(0.65-0.89)	
PCB-208											
461.7246	49:00	48:59	-1	1.001	799285	154946	313	782	495		
463.7216	49:00	48:59	-1	1.001	985517	190054	1479	3697	129	0.81(0.65-0.89)	
PCB-207											
461.7246	49:55	49:54	-1	1.019	841309	157613	313	782	504		
463.7216	49:55	49:54	-1	1.019	1011089	192486	1479	3697	130	0.83(0.65-0.89)	
PCB-206											
461.7246	53:48	53:48	-2	1.000	682856	126905	313	782	405		
463.7216	53:48	53:48	-2	1.000	829178	158063	1479	3697	107	0.82(0.65-0.89)	
PCB-209L											
507.7258	55:23	55:22	-2	1.074	1099616	193882	108	270	1795		
509.7229	55:23	55:22	-2	1.074	1570973	280229	123	307	2278	0.70(0.59-0.79)	
DCB Decachlorobiphenyl											
495.6856	55:25	55:23	0	1.001	575392	100796	79	197	1276		
497.6826	55:24	55:23	-1	1.000	820330	143250	108	270	1326	0.70(0.59-0.79)	

## QC Flag Legend

Processing Flags



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

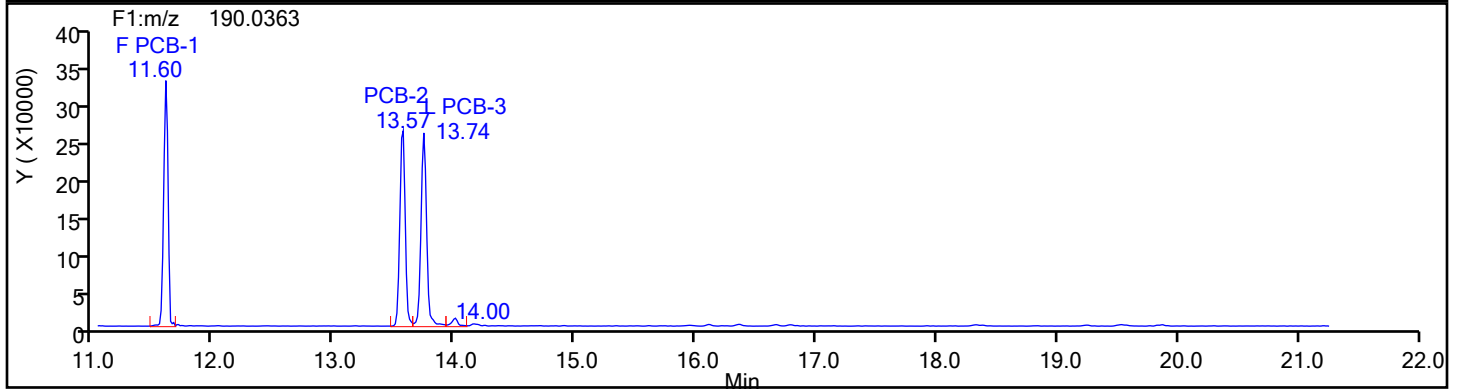
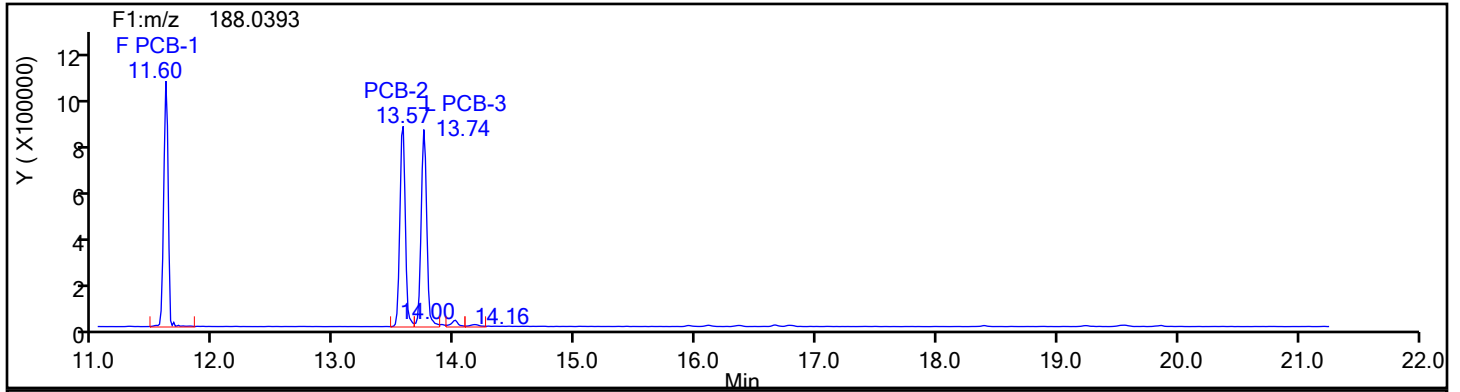
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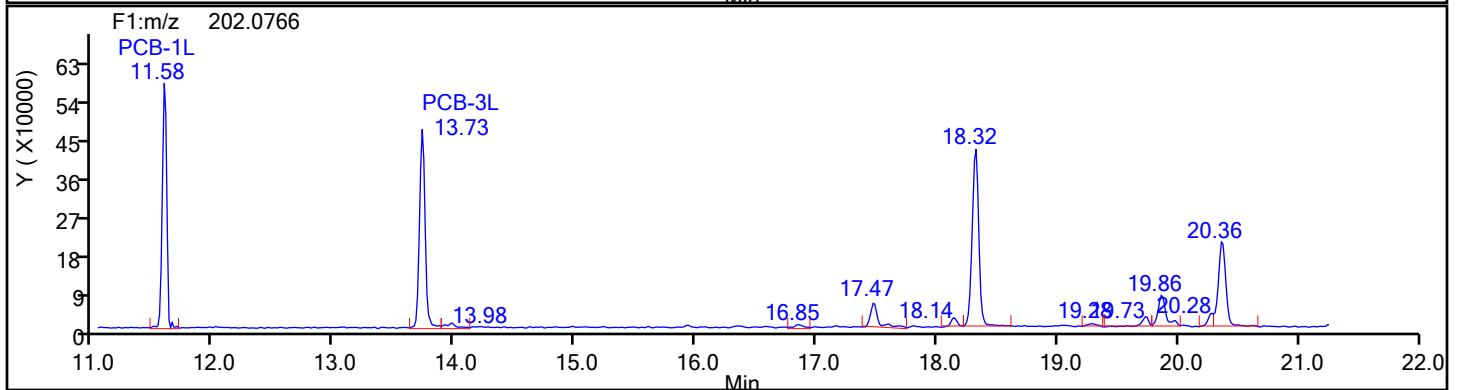
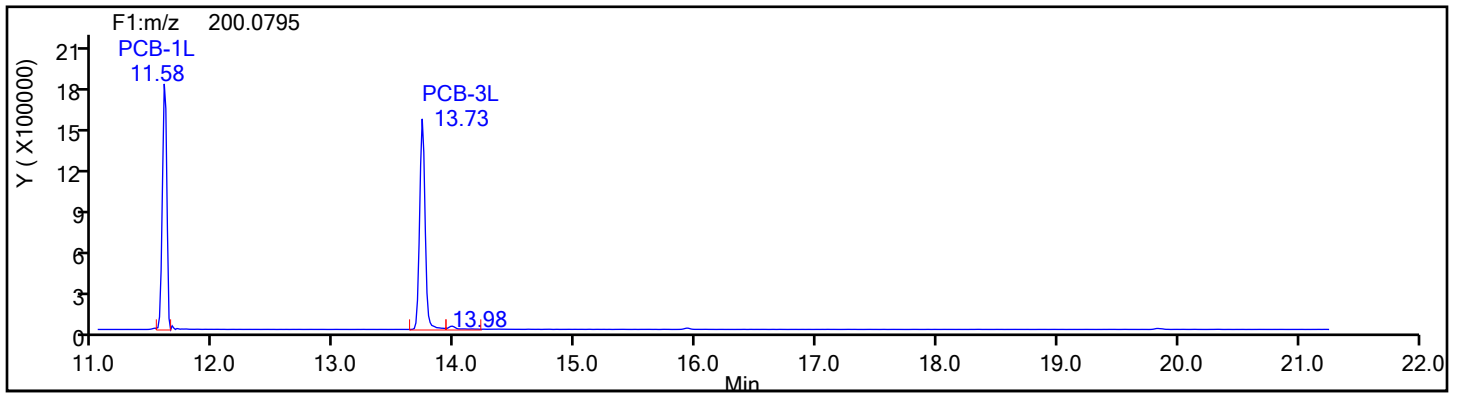
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Standards



## Eurofins Knoxville

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Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

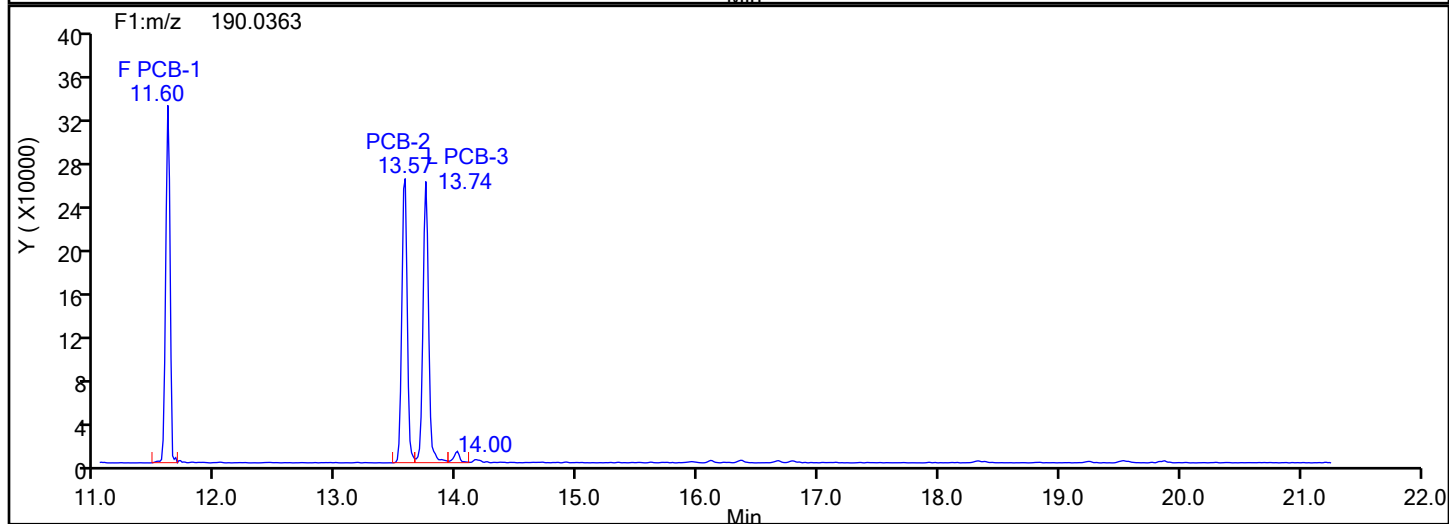
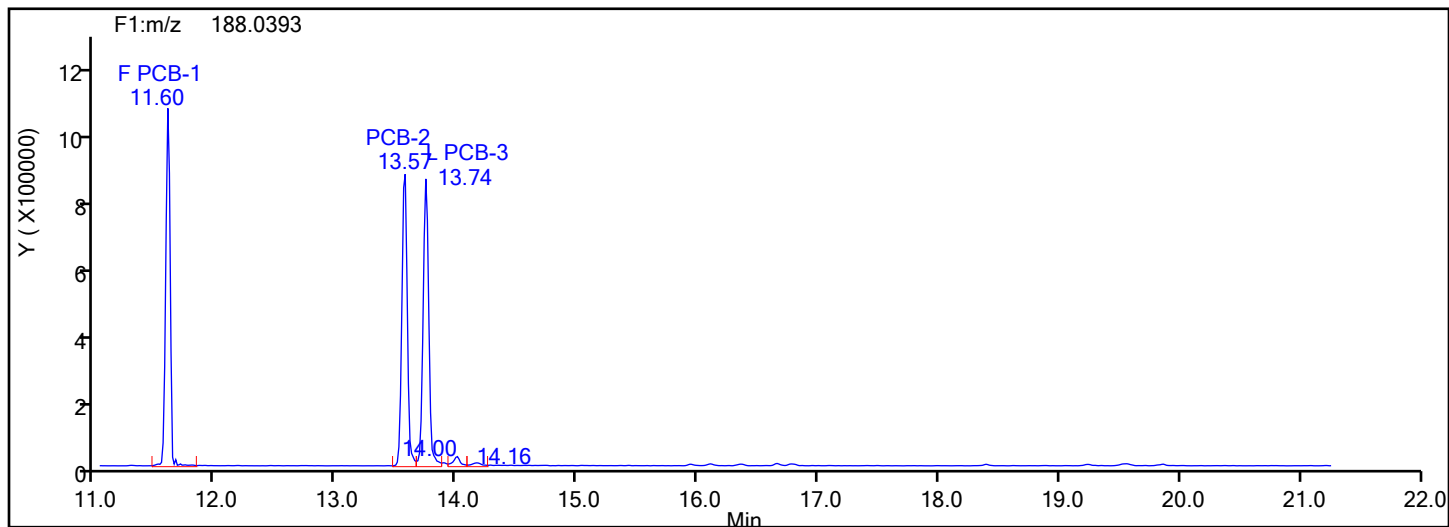
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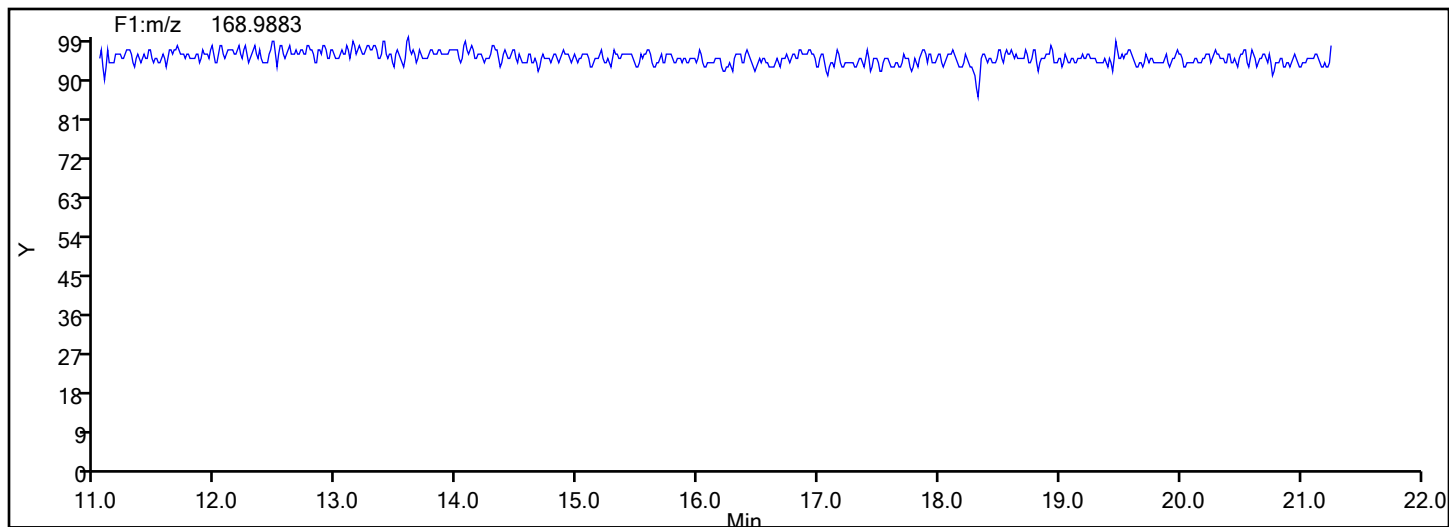
Column Type: SPB-Octyl

Column Dia: 0.25 mm

MoPCB F1



MoPCB F1 Lock Mass



## Eurofins Knoxville

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Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

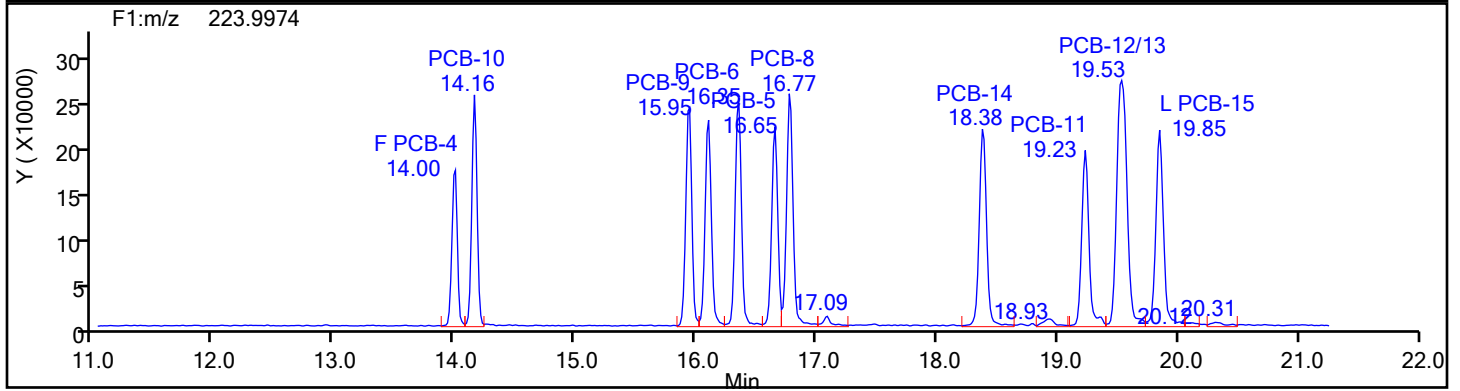
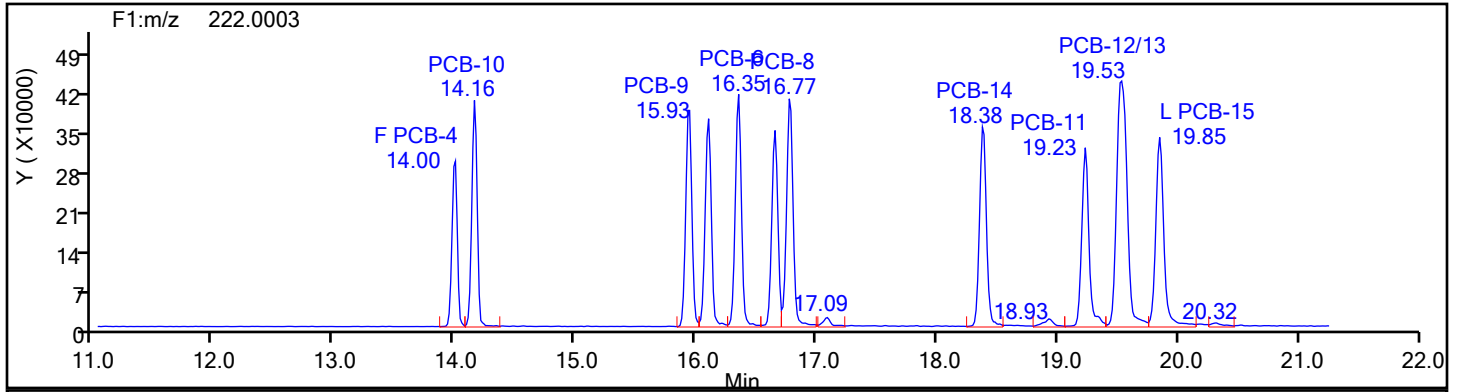
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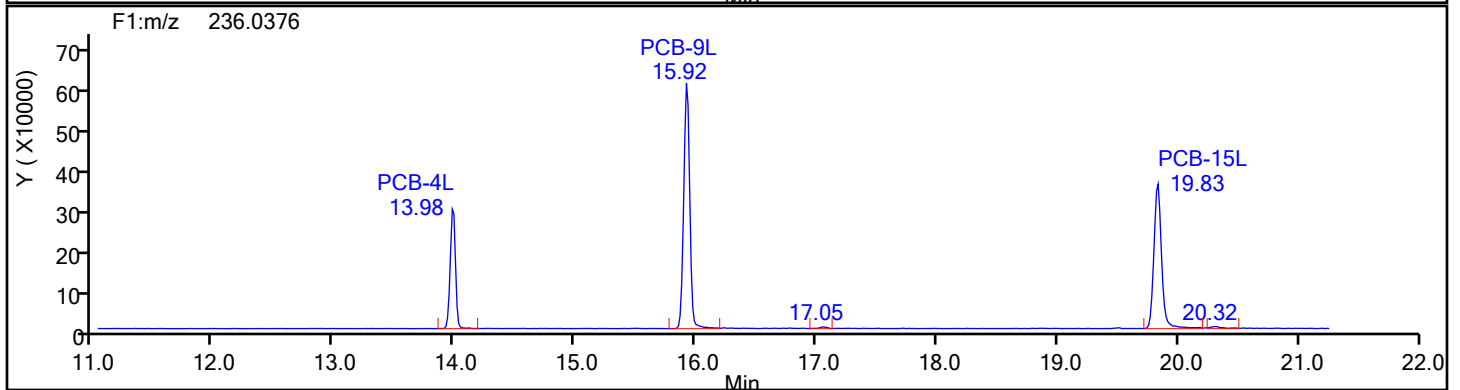
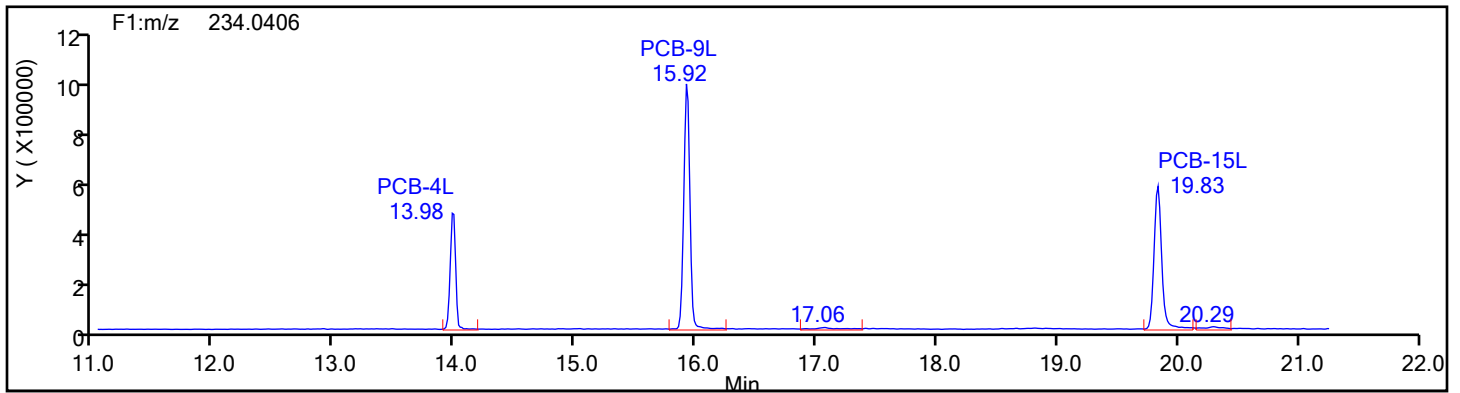
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Standards



## Eurofins Knoxville

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Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

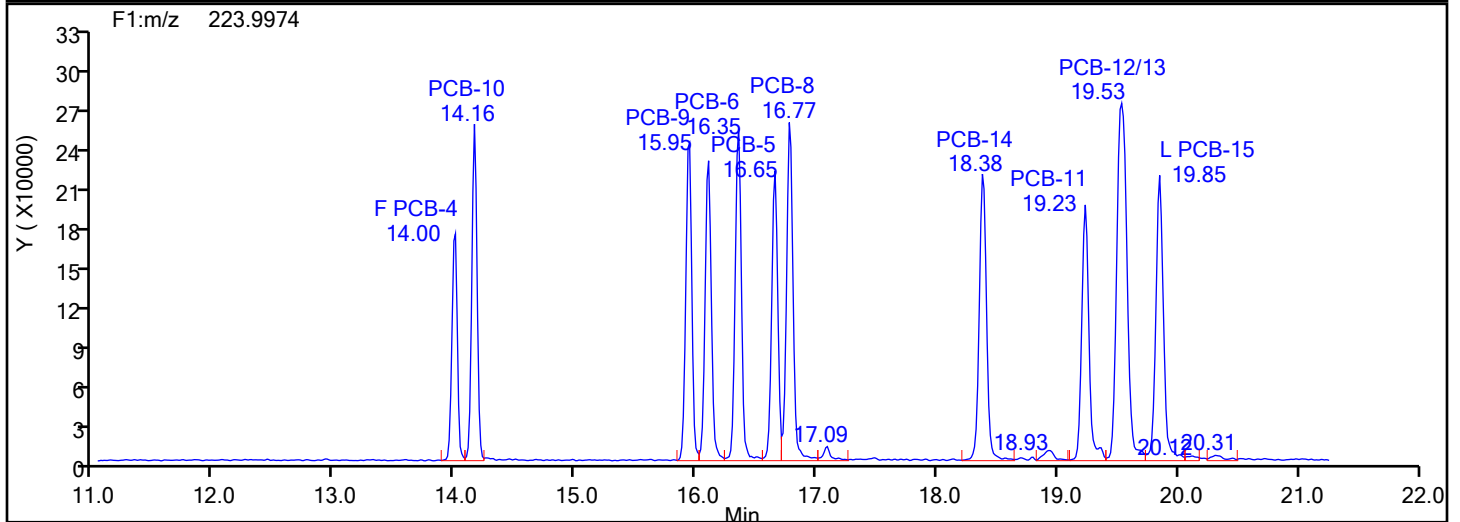
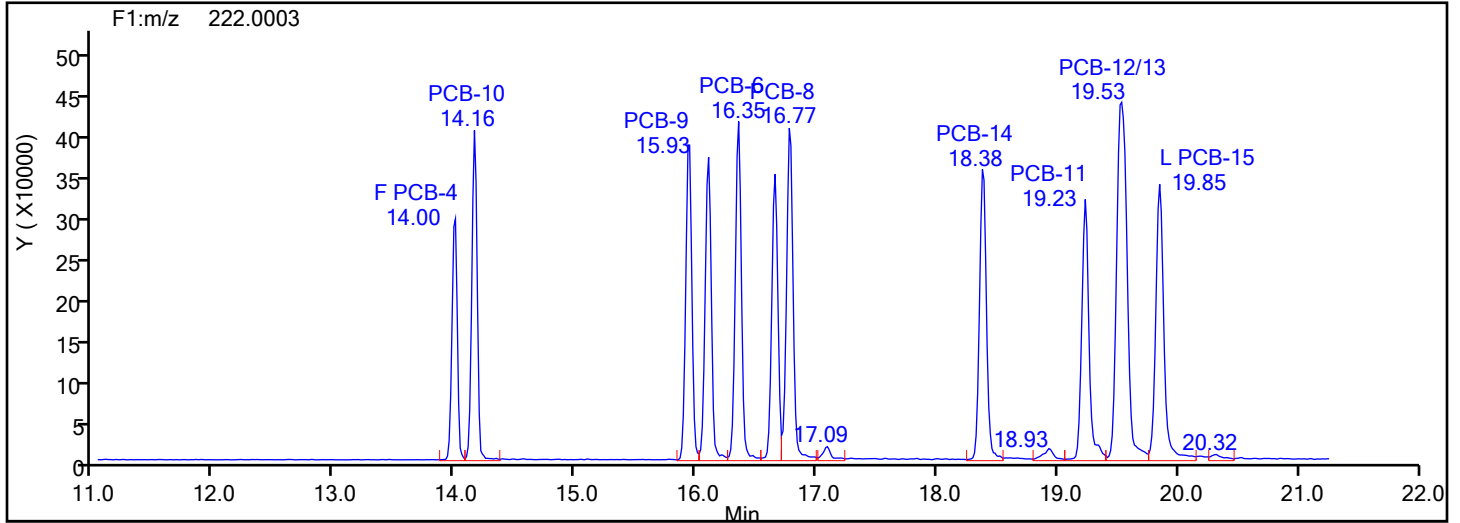
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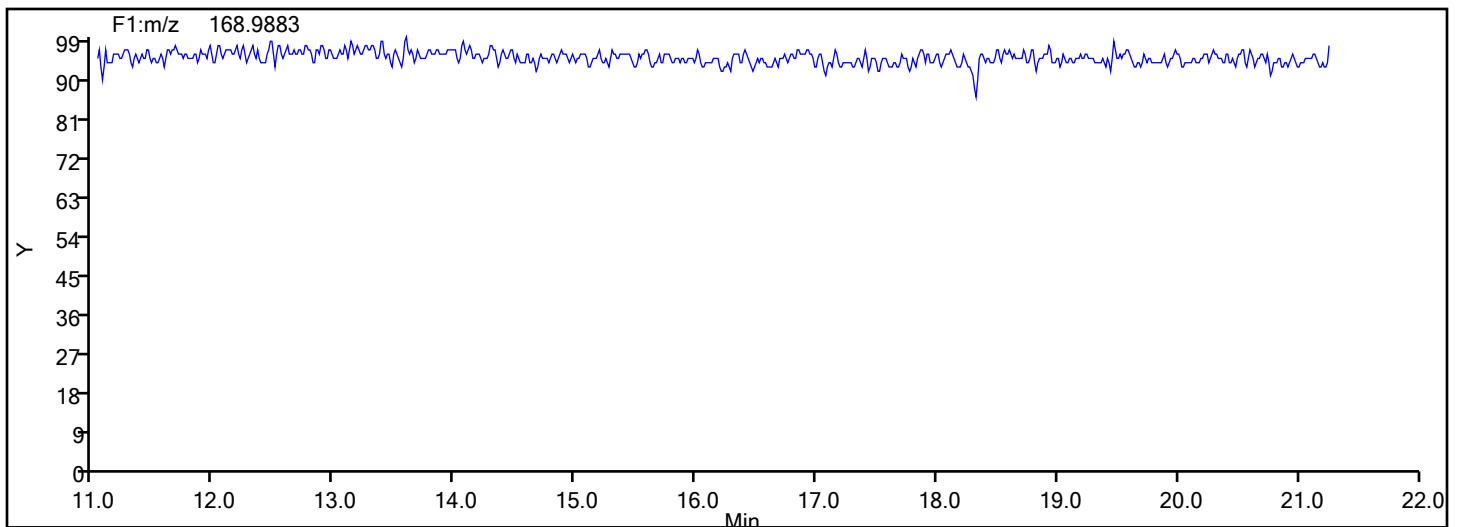
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DiPCB F1



DiPCB F1 Lock Mass



## Eurofins Knoxville

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Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

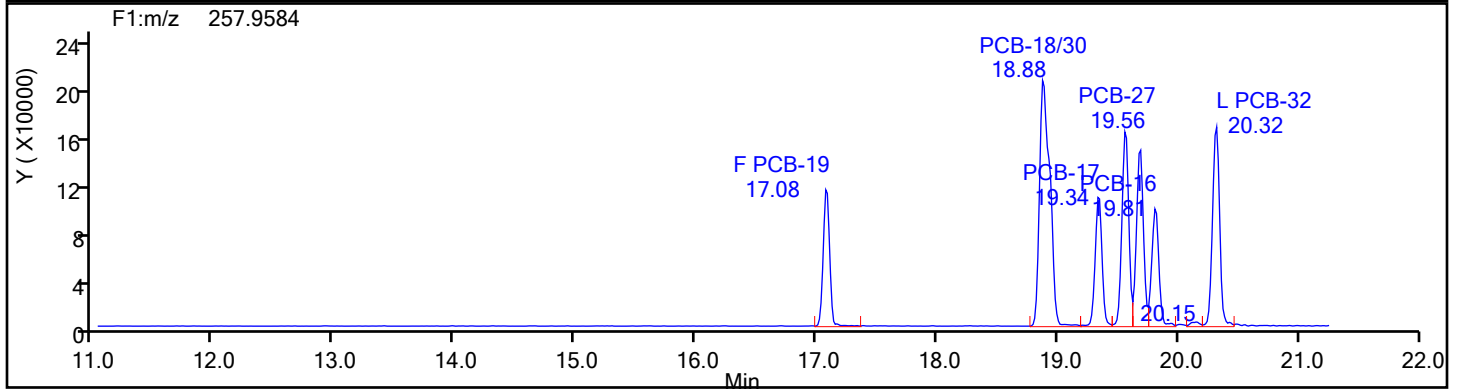
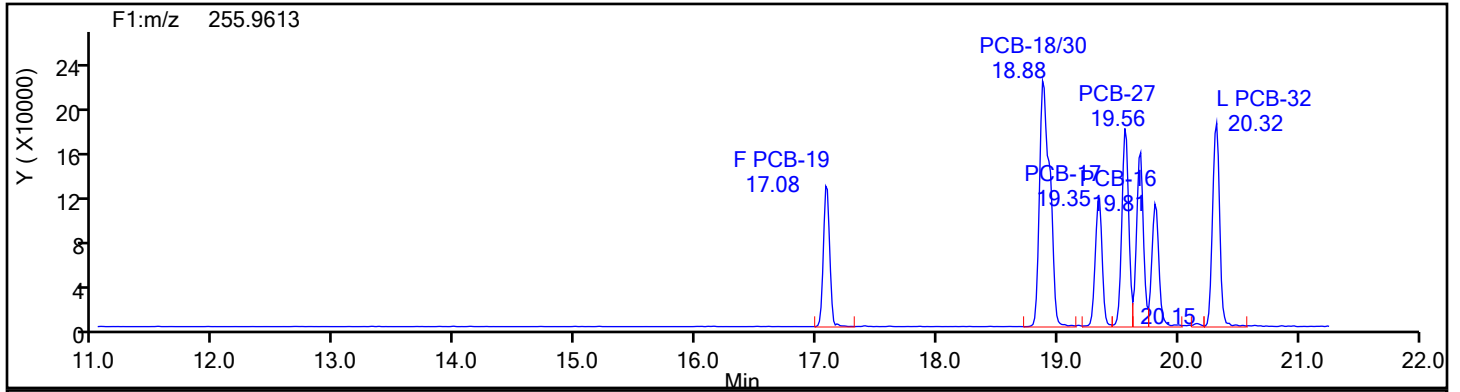
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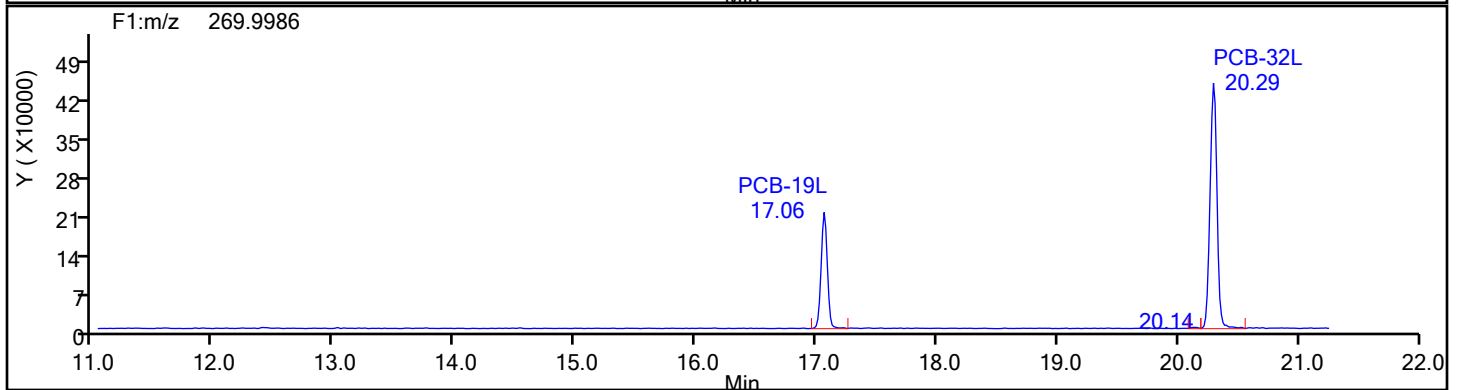
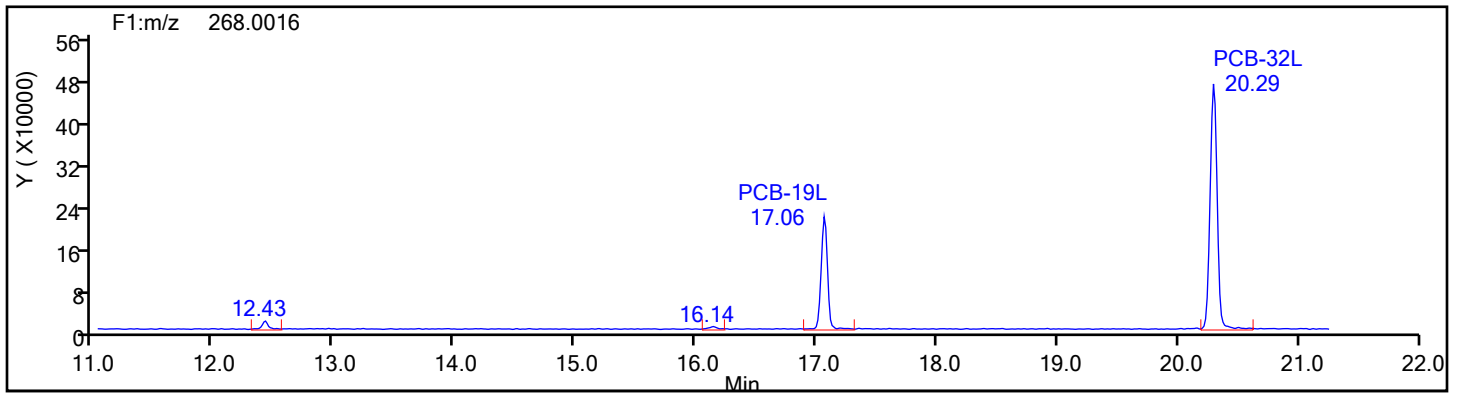
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Standards



## Eurofins Knoxville

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Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

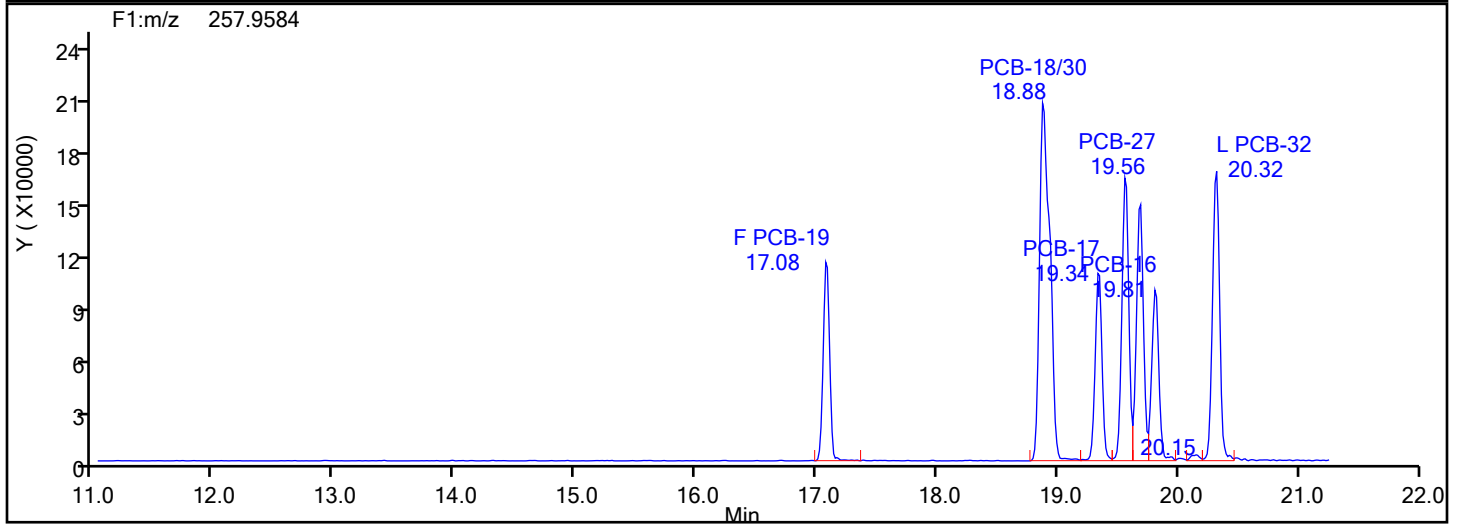
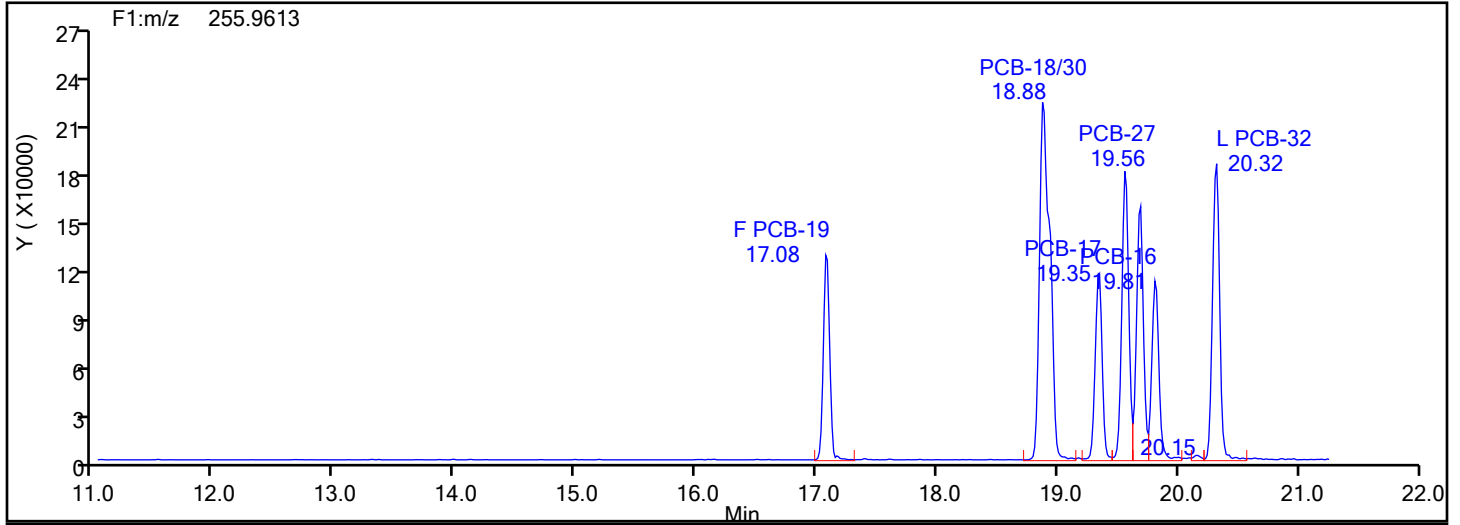
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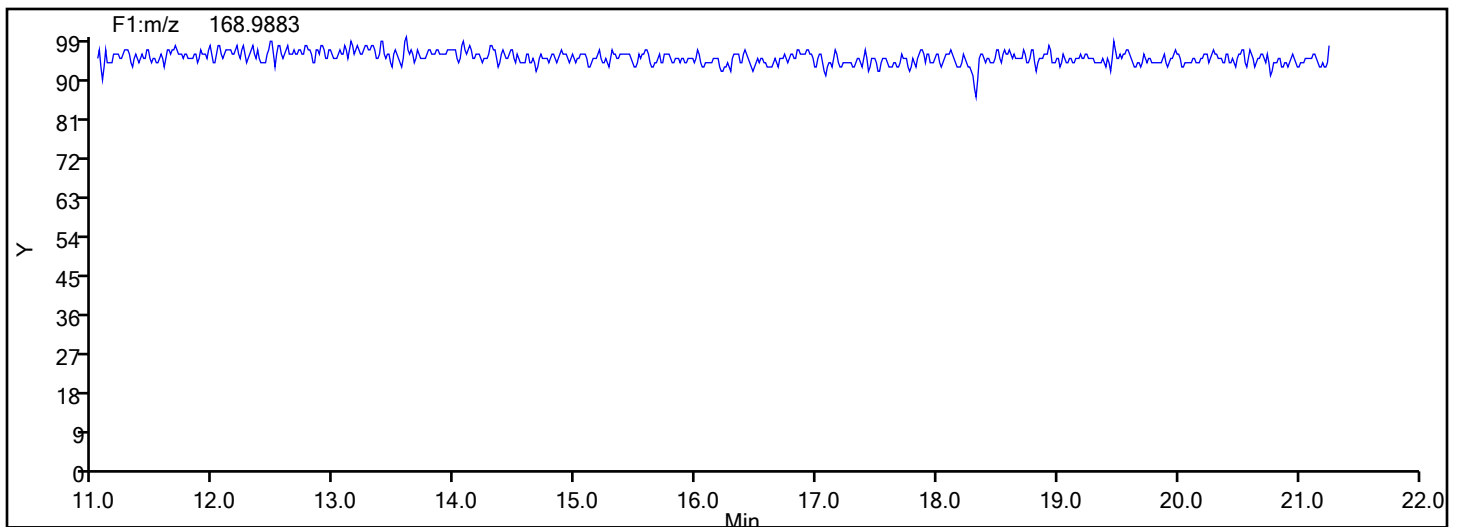
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F1



TriPCB F1 Lock Mass





## Eurofins Knoxville

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Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

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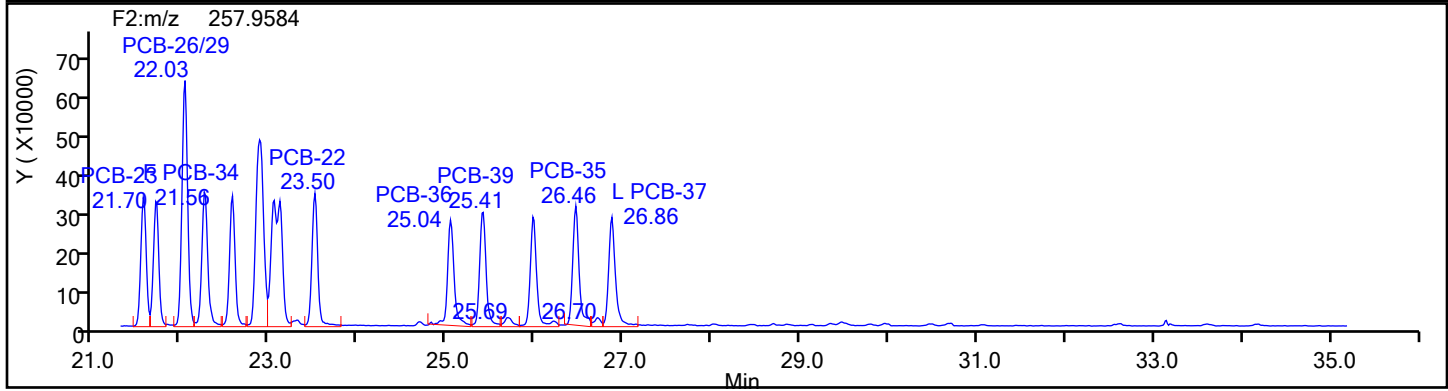
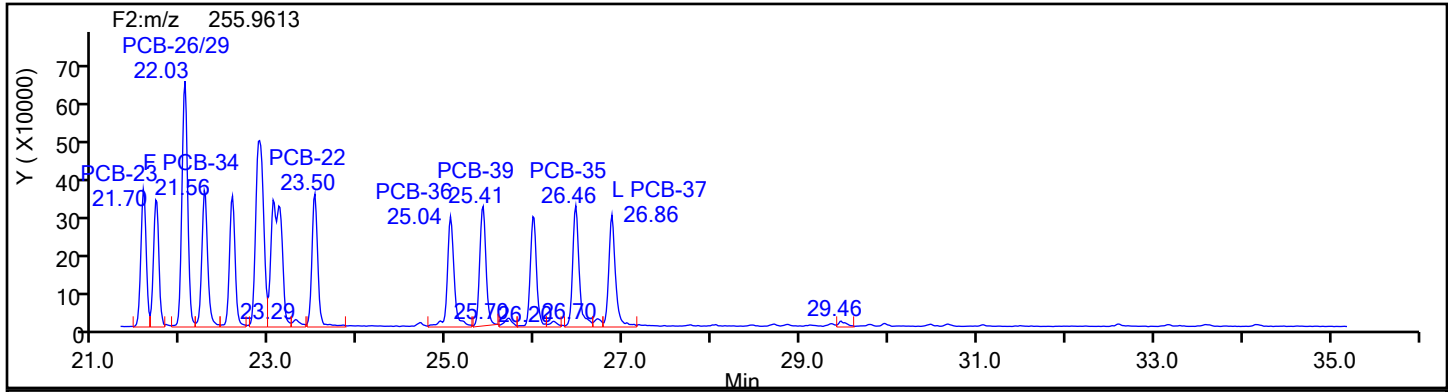
Worklist#: 88747

Sample Line#: 3

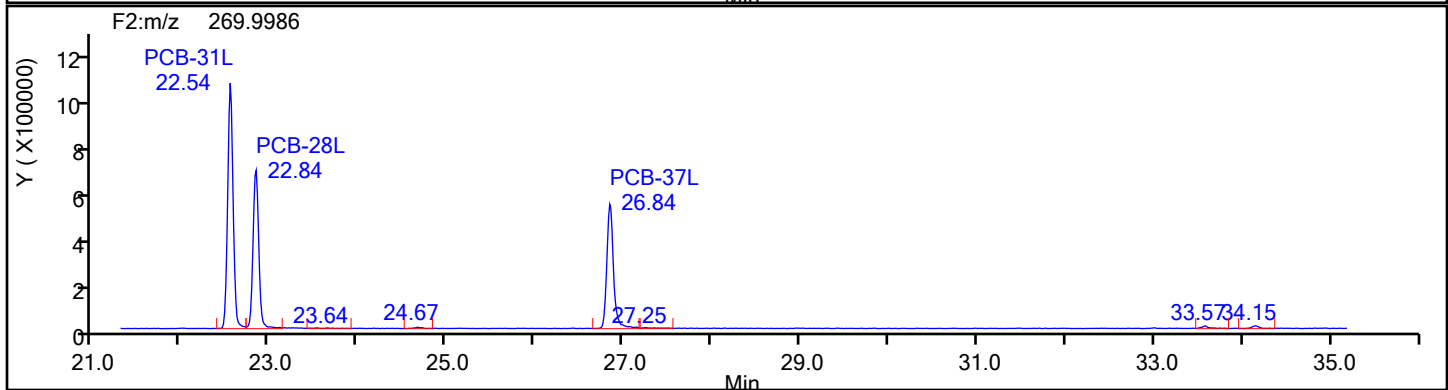
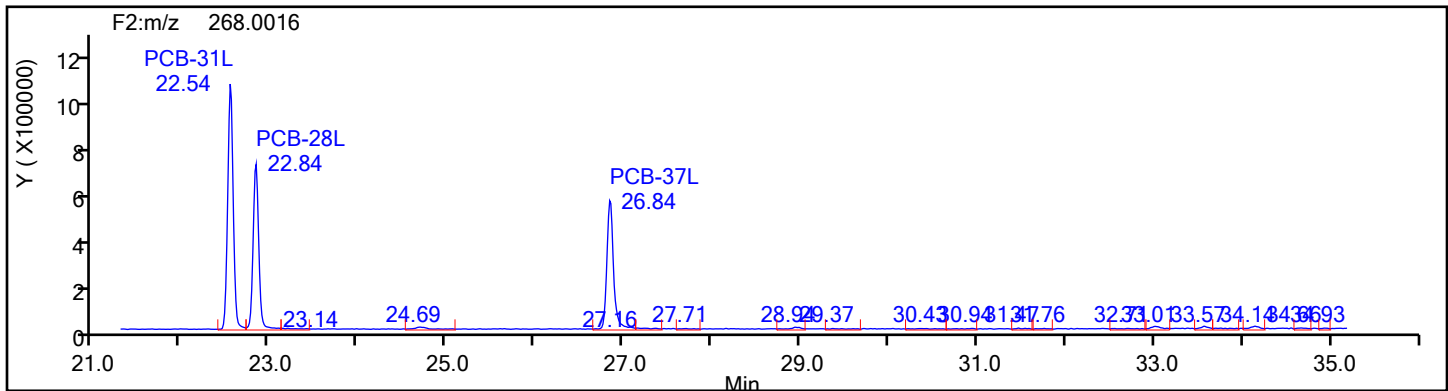
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

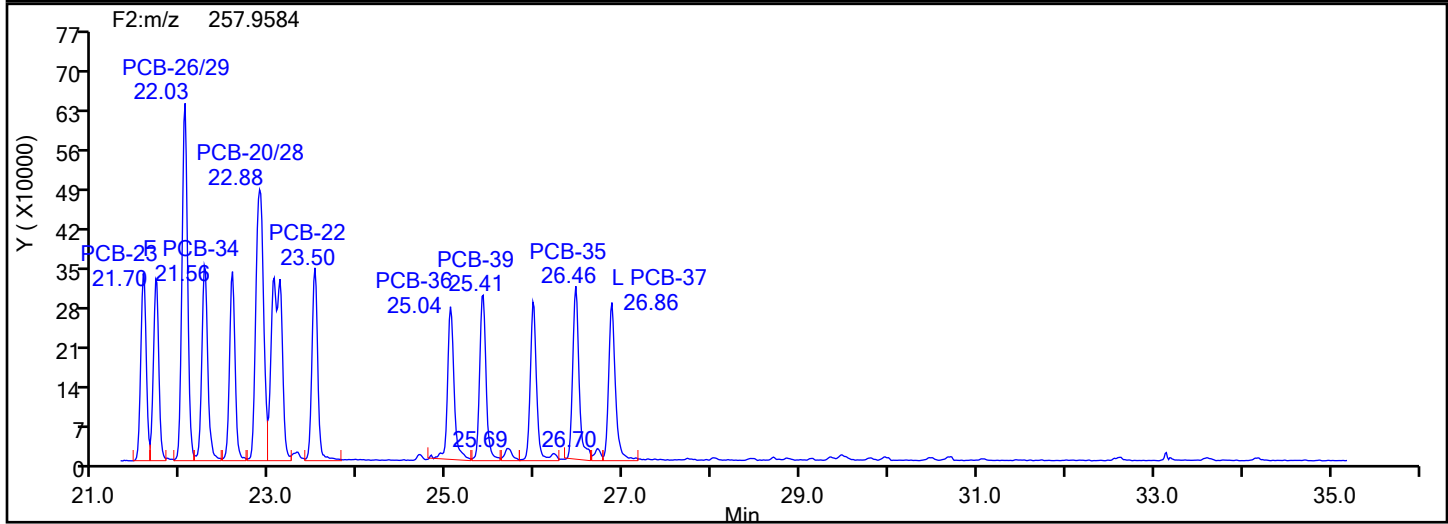
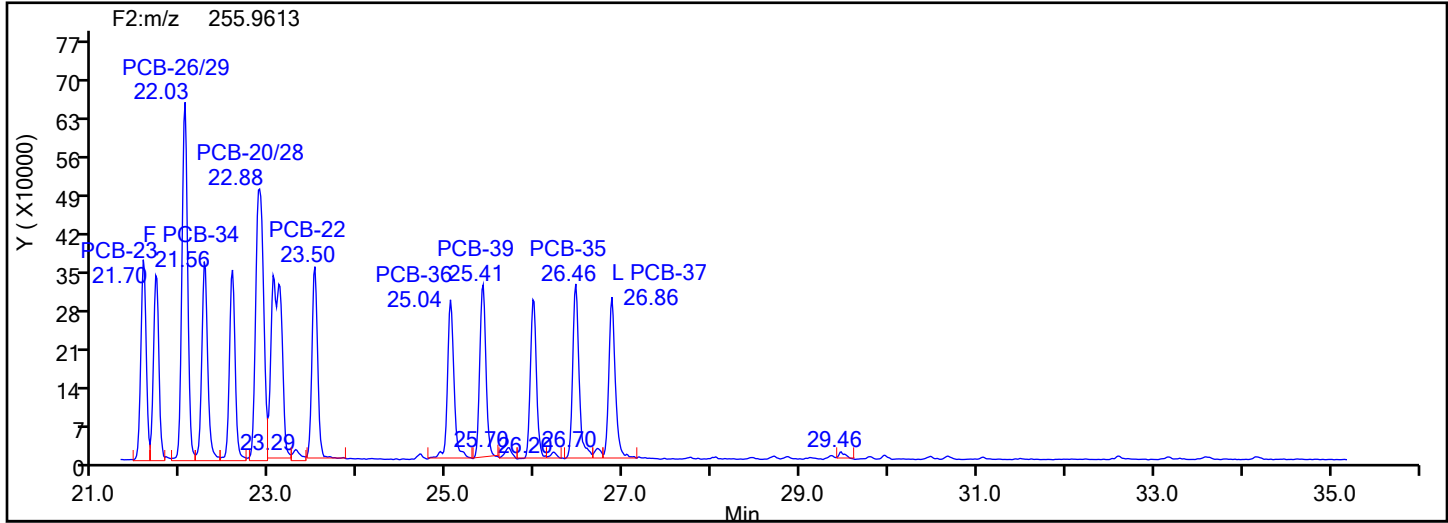
Worklist#: 88747

Sample Line#: 3

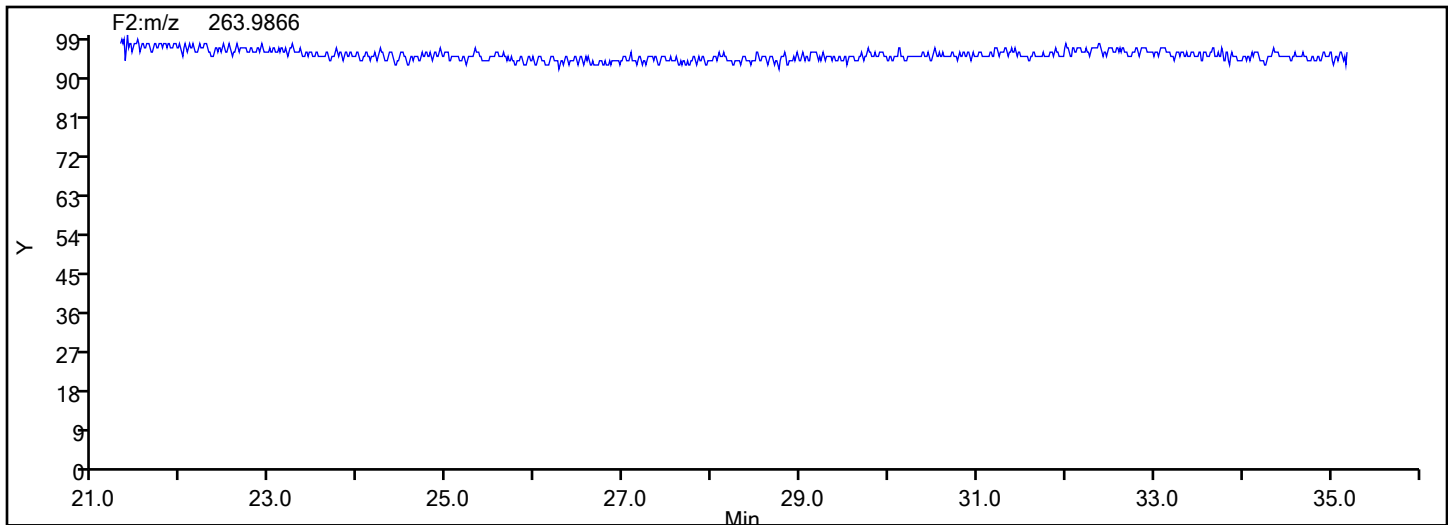
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TriPCB F2



TriPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

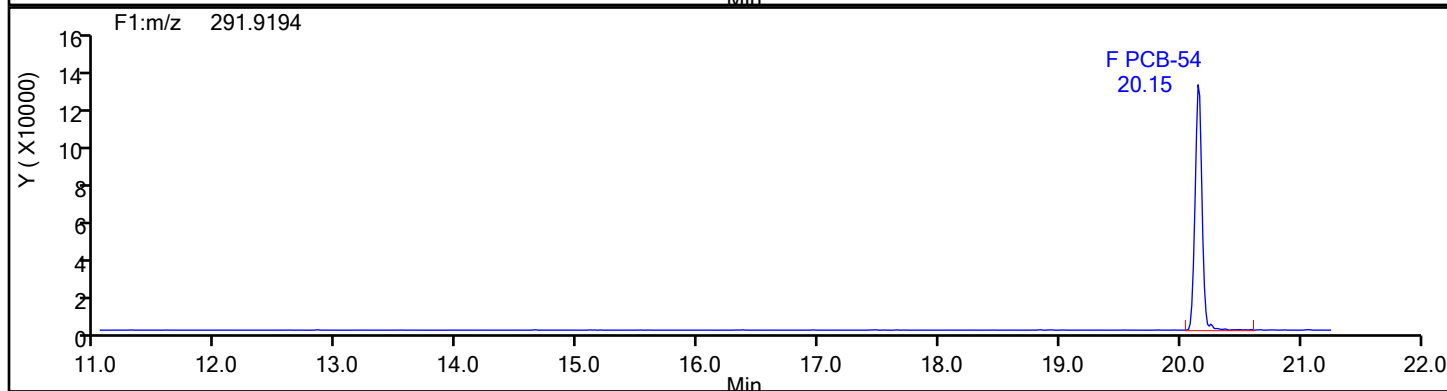
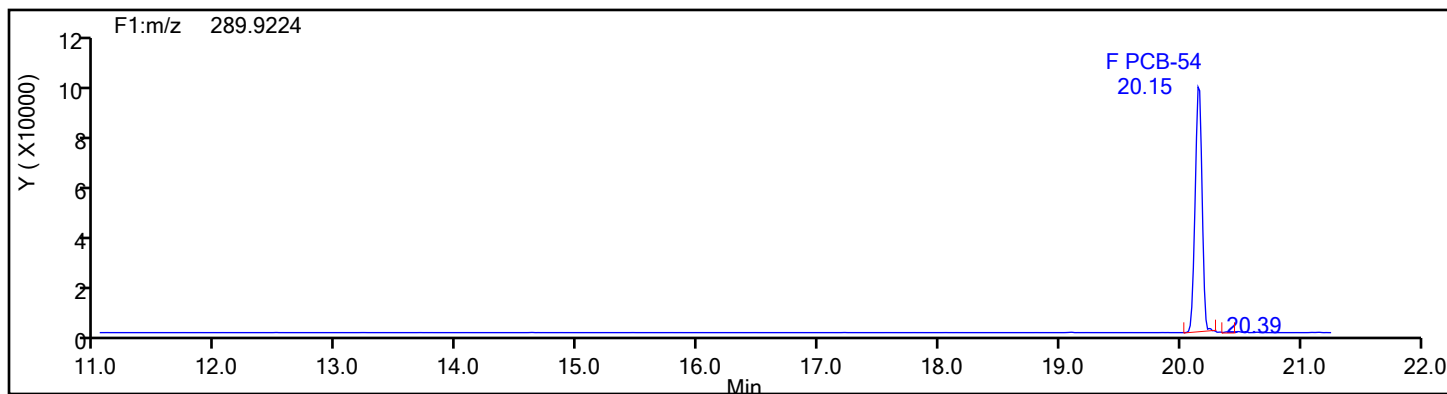
Worklist#: 88747

Sample Line#: 3

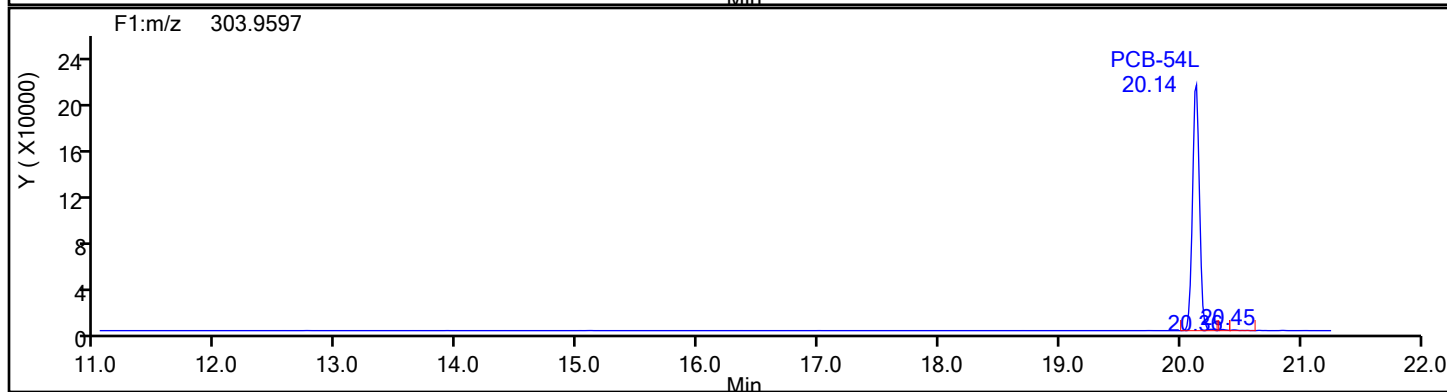
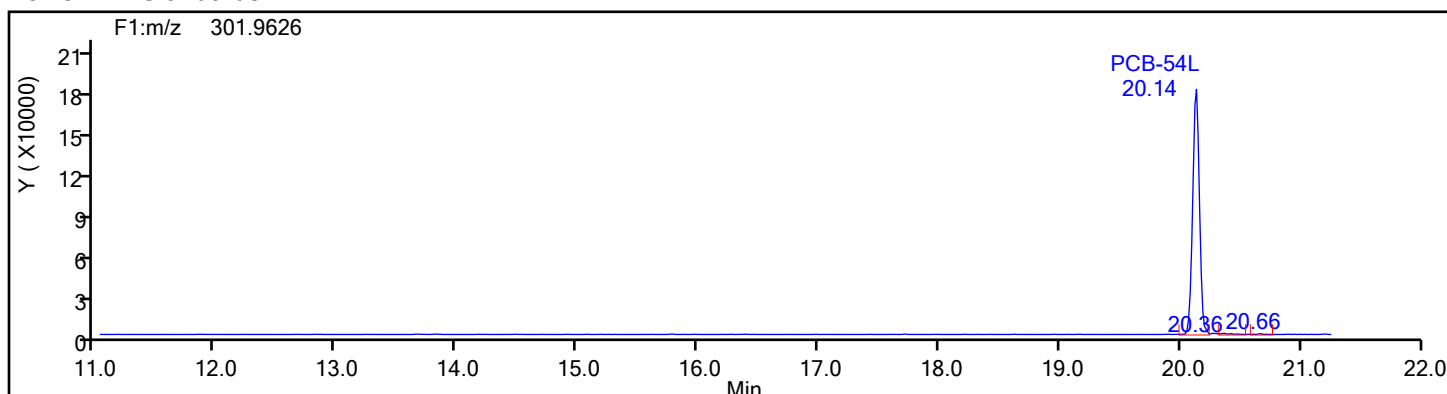
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



TePCB F1 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

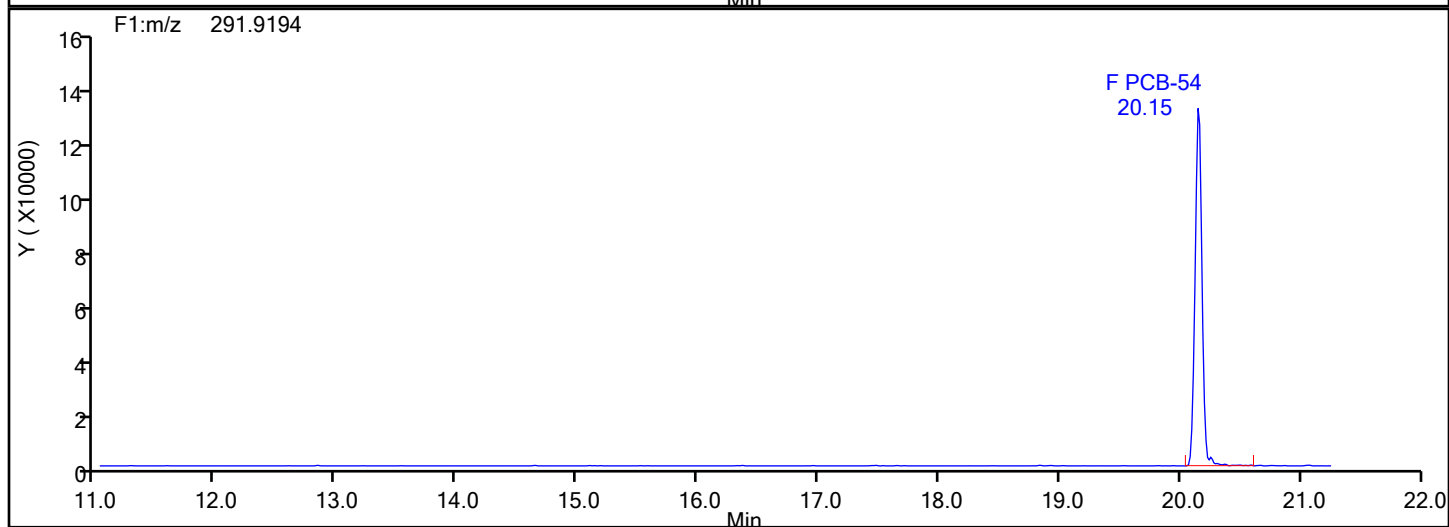
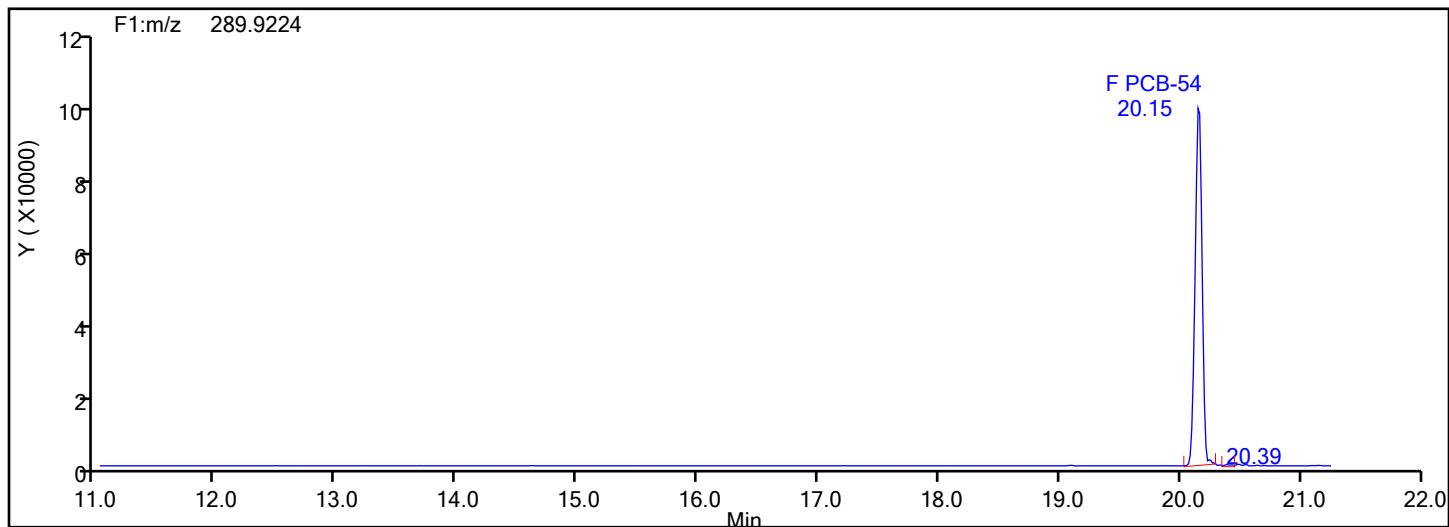
Worklist#: 88747

Sample Line#: 3

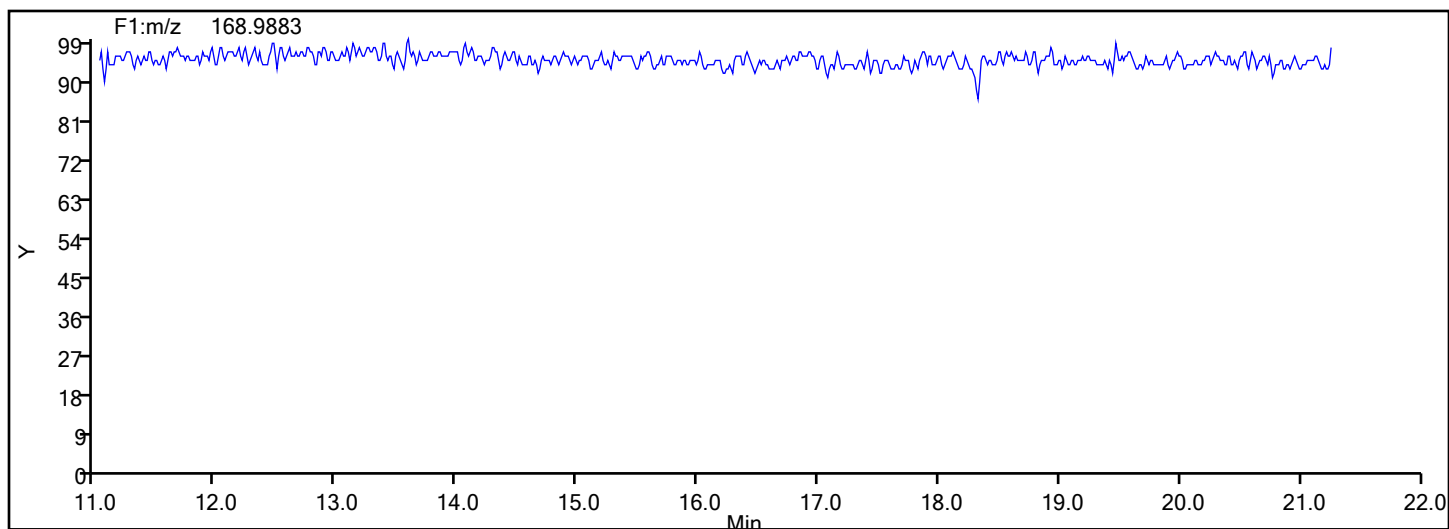
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F1



TePCB F1 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

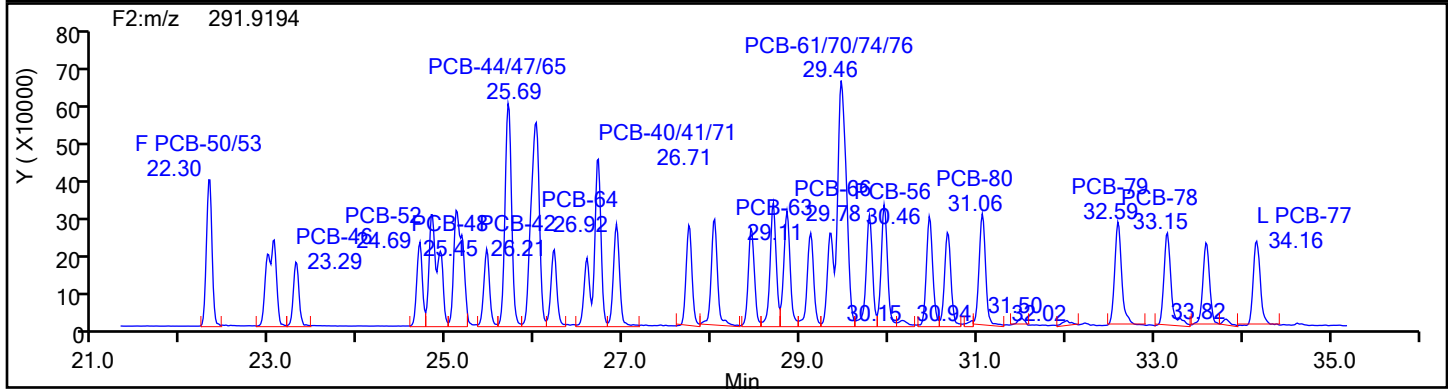
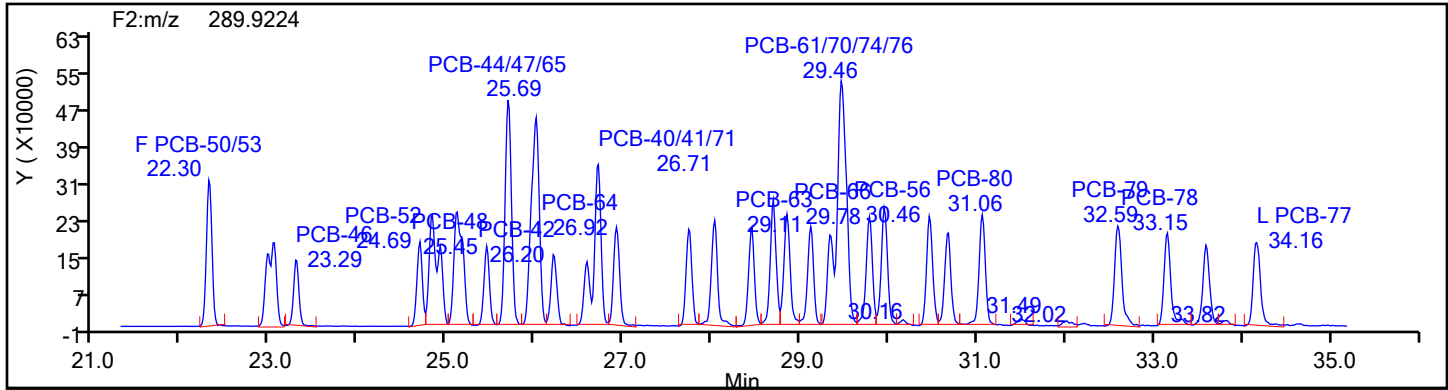
Worklist#: 88747

Sample Line#: 3

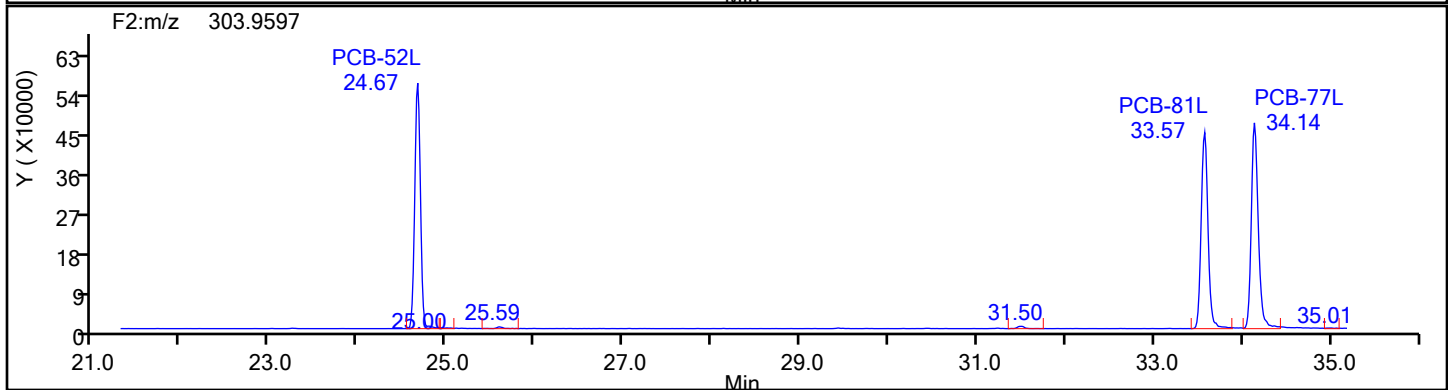
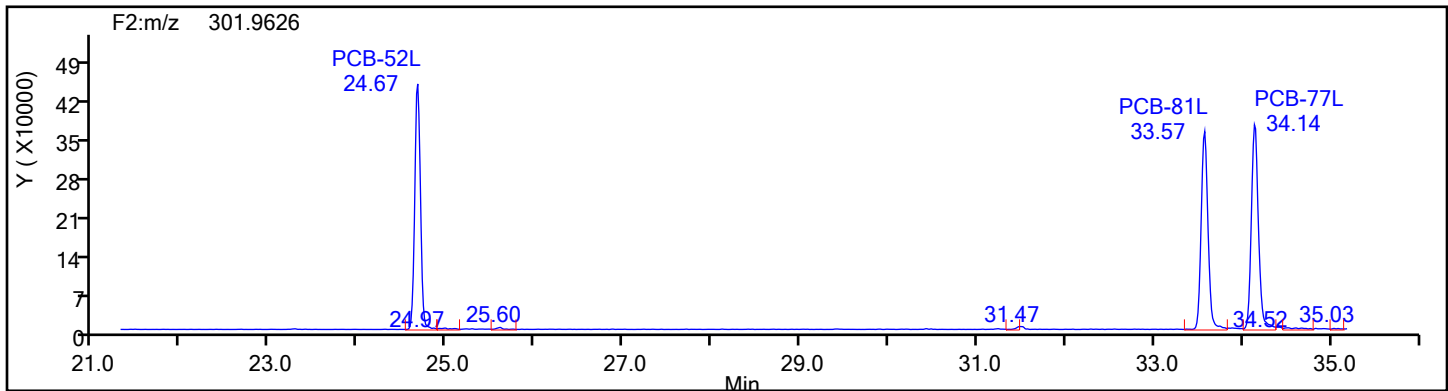
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



TePCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

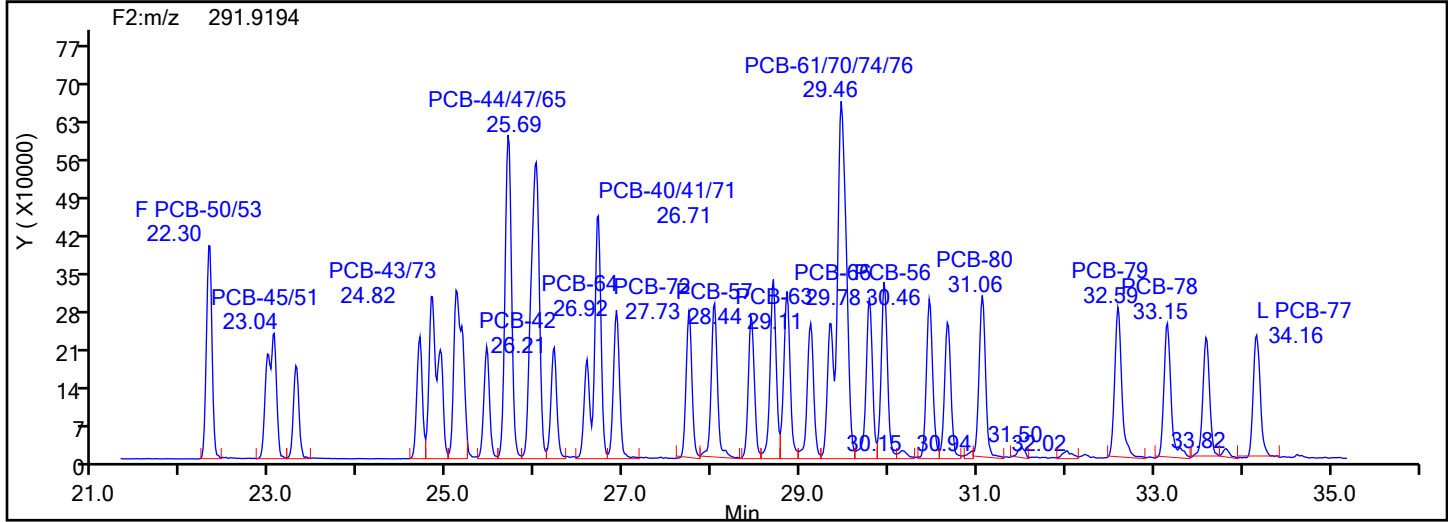
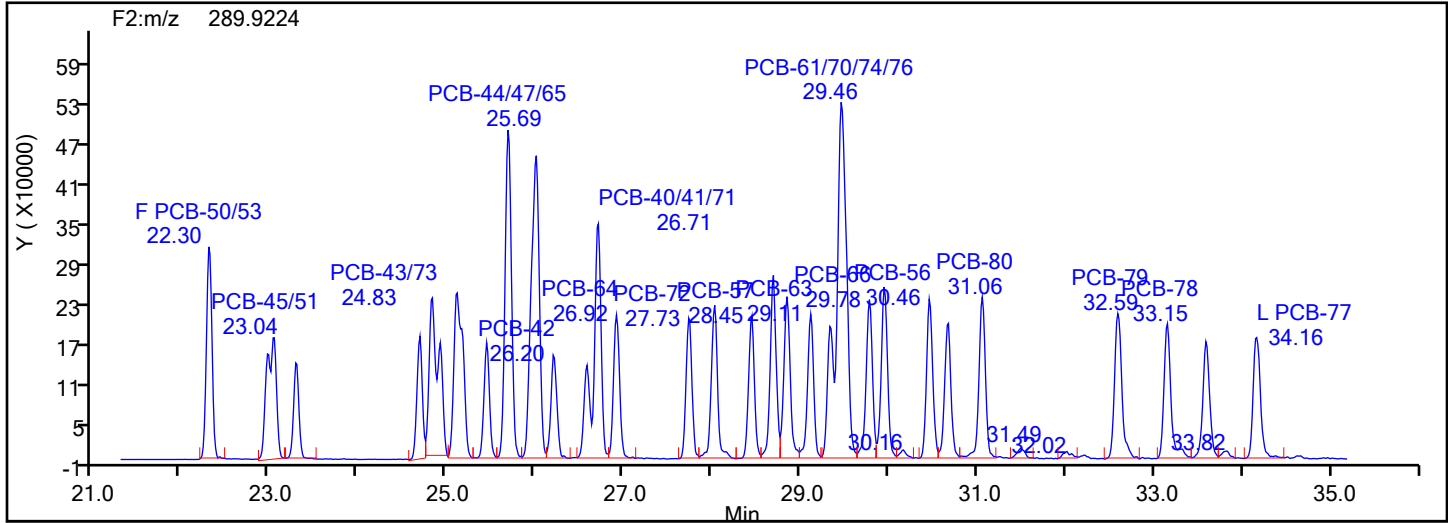
Worklist#: 88747

Sample Line#: 3

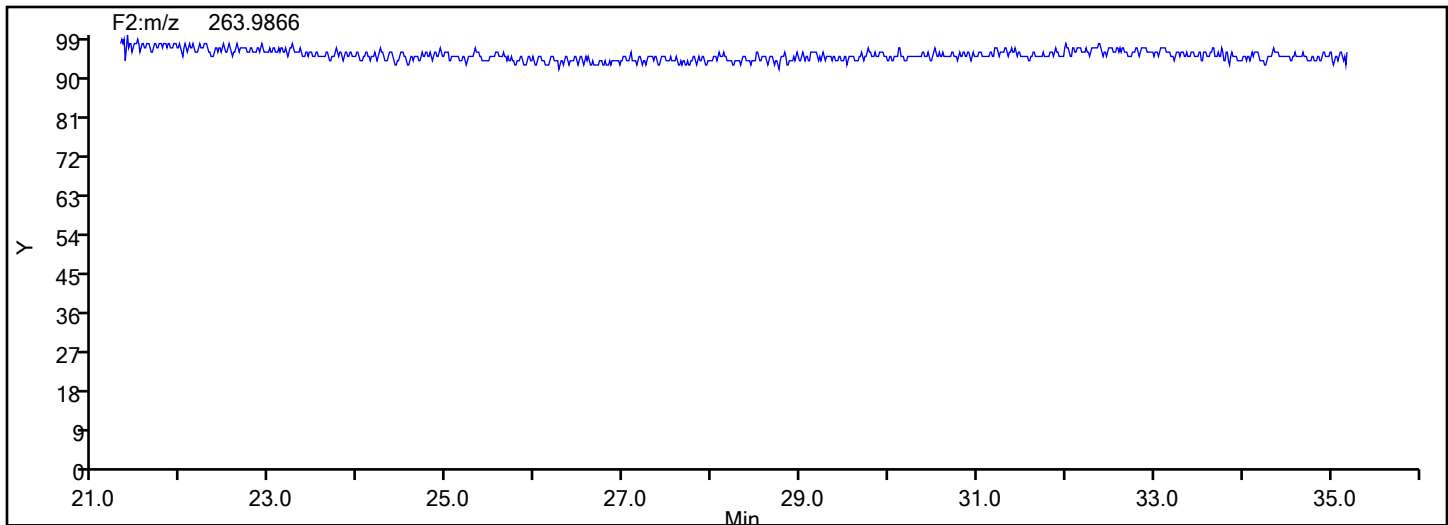
Column Type: SPB-Octyl

Column Dia: 0.25 mm

TePCB F2



## TePCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

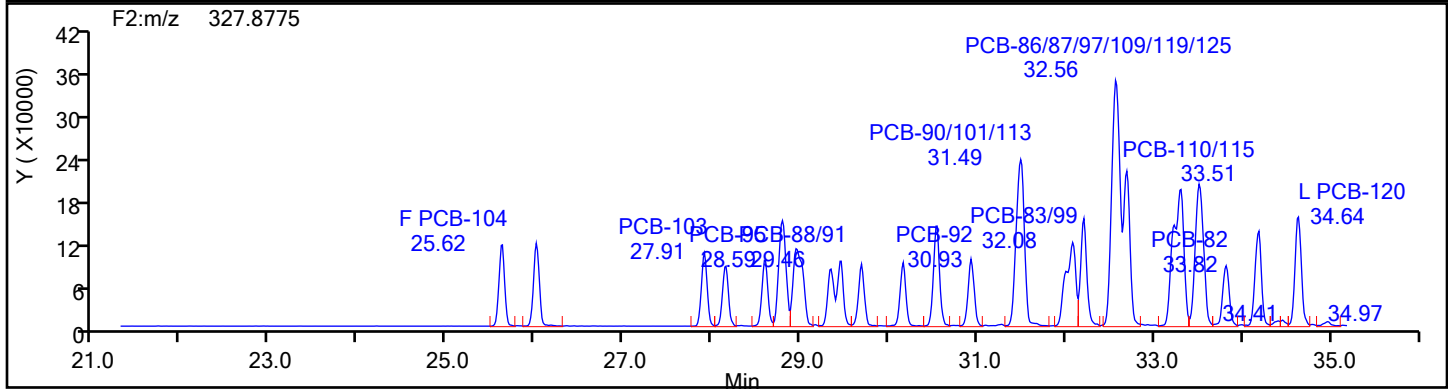
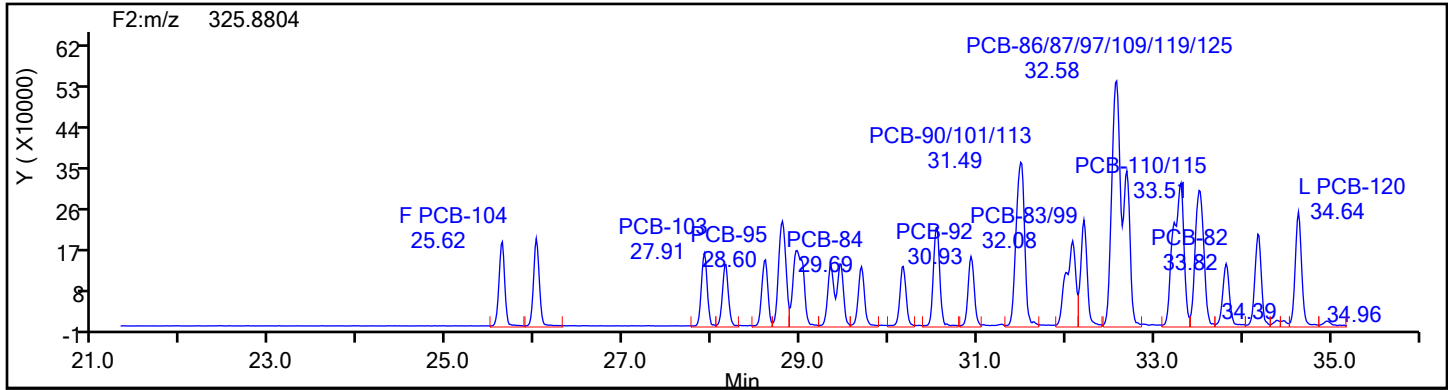
Worklist#: 88747

Sample Line#: 3

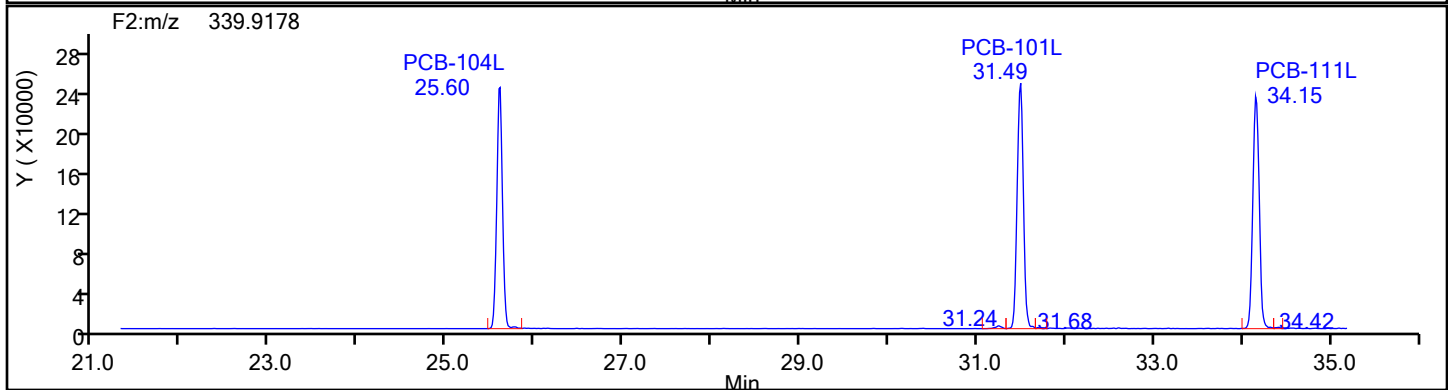
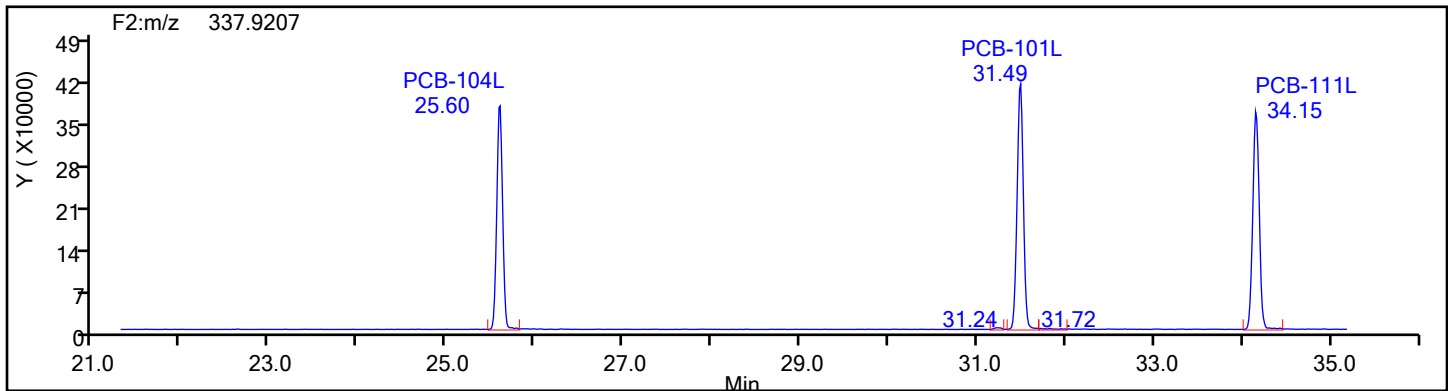
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F2

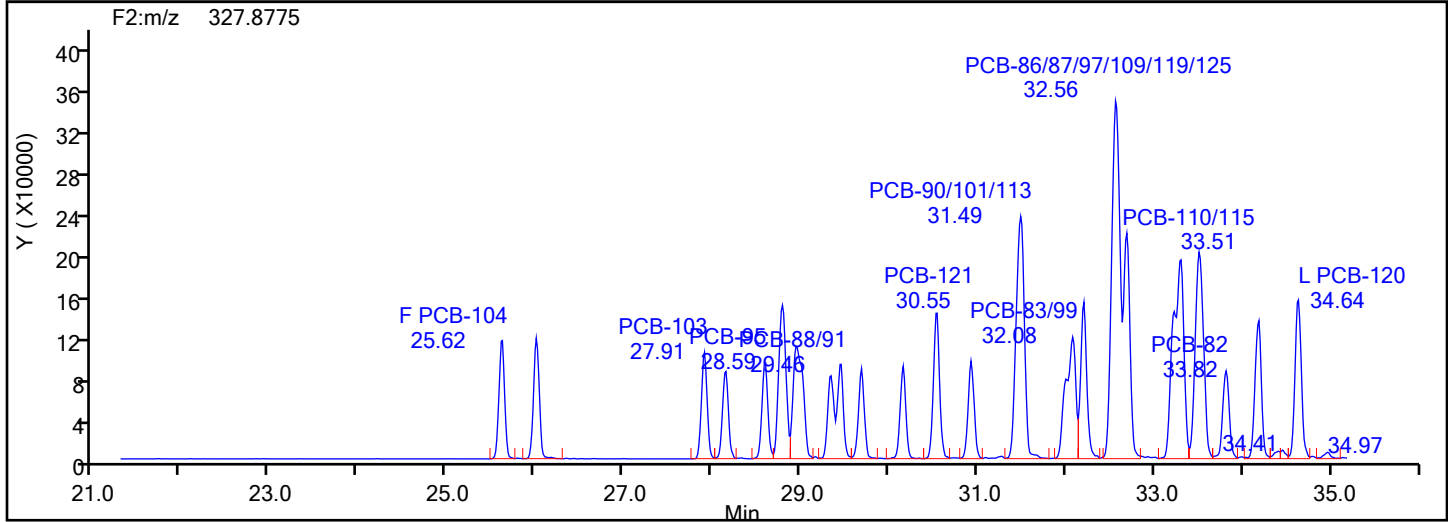
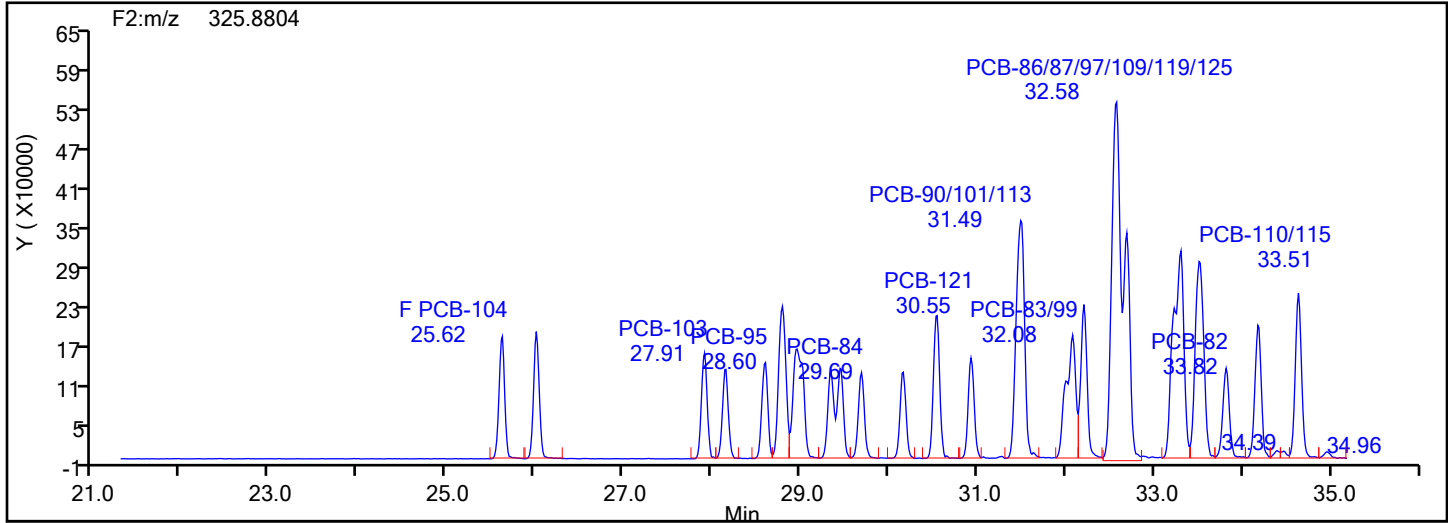


PePCB F2 Standards

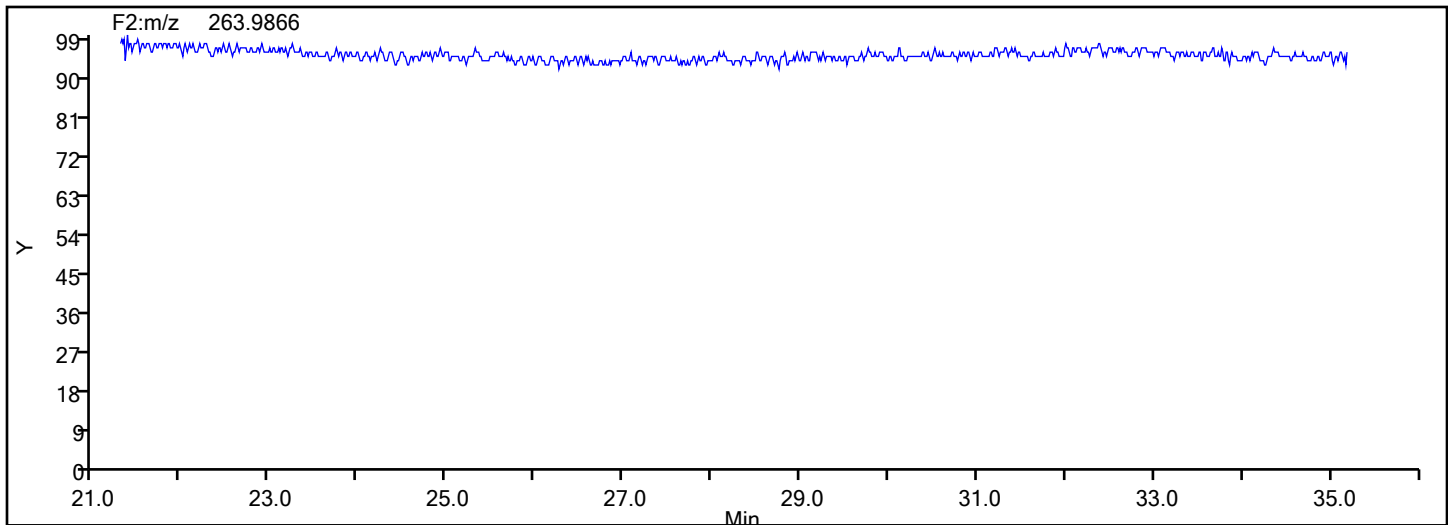


## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d  
Injection Date: 15-Jul-2024 14:45:00 Injection Vol: 1.0 ul  
Instrument ID: D2D Operator ID: Xcalibur\_System  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Client ID:  
Worklist#: 88747 Sample Line#: 3  
Column Type: SPB-Octyl Column Dia: 0.25 mm  
PePCB F2



## PePCB F2 Lock Mass





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

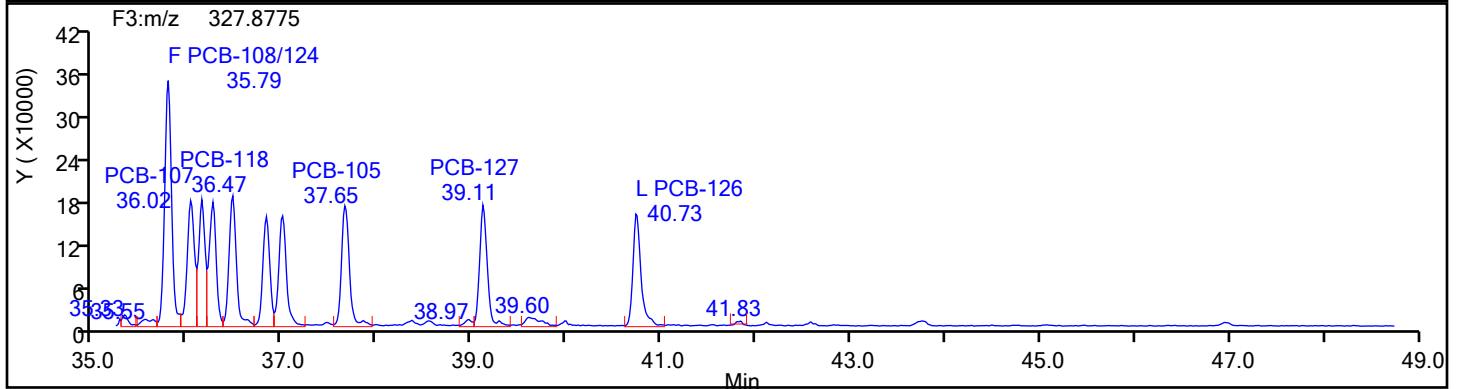
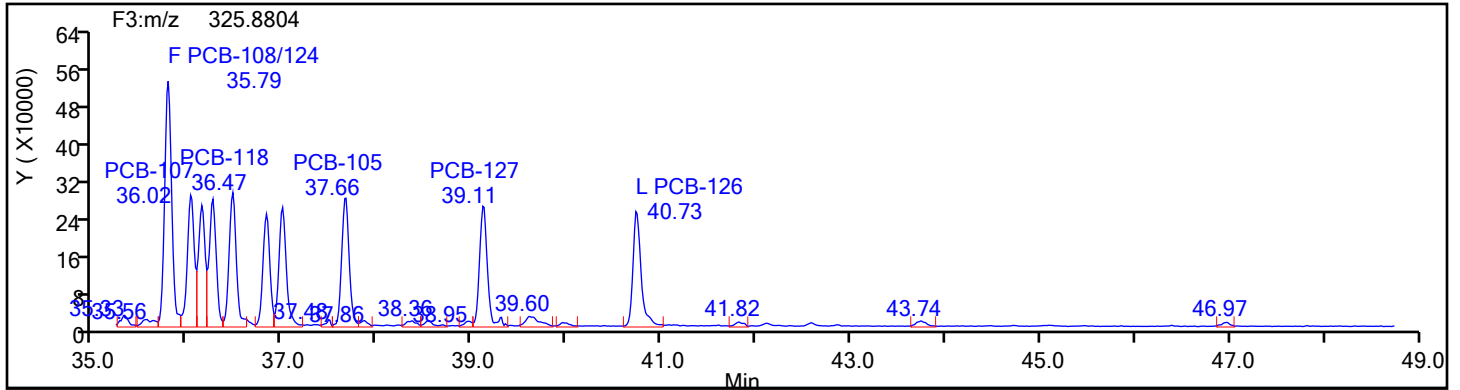
Worklist#: 88747

Sample Line#: 3

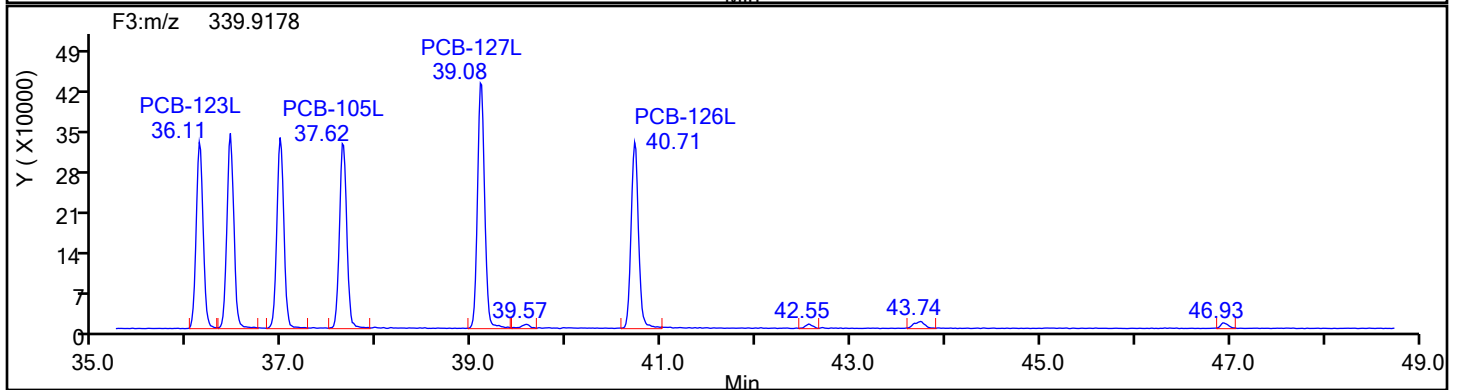
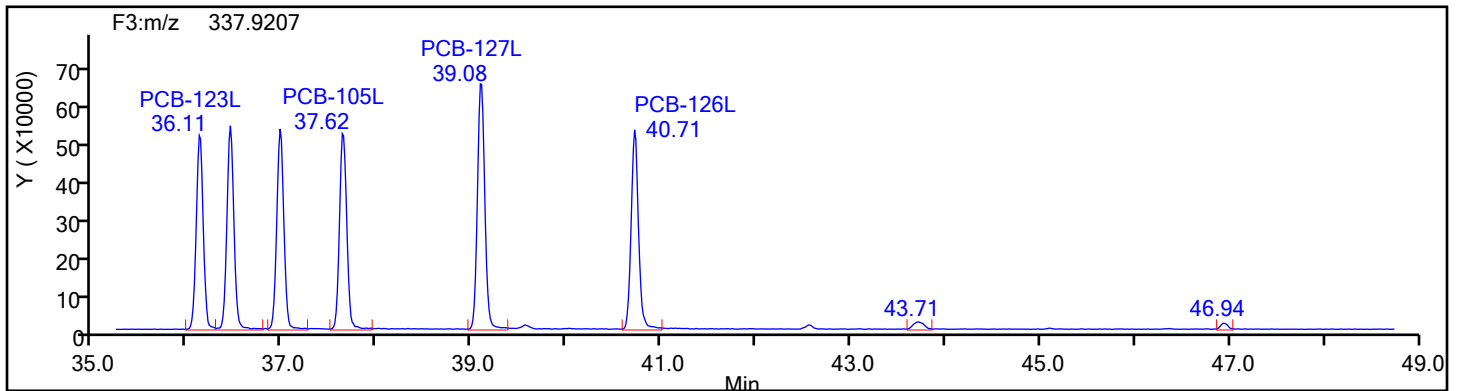
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



PePCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

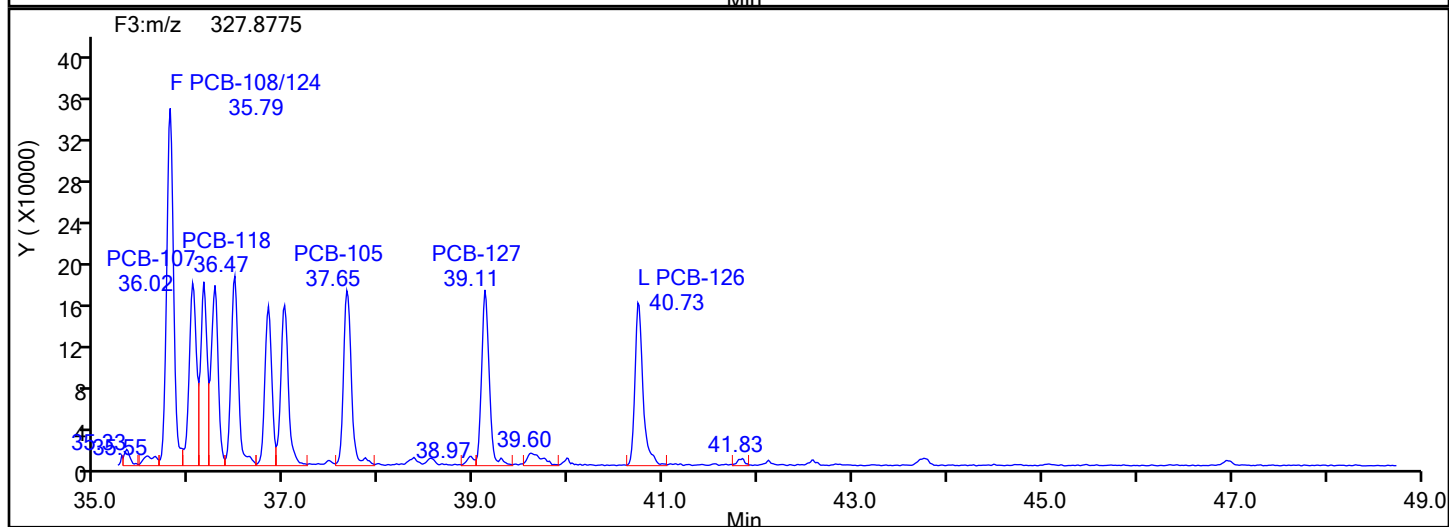
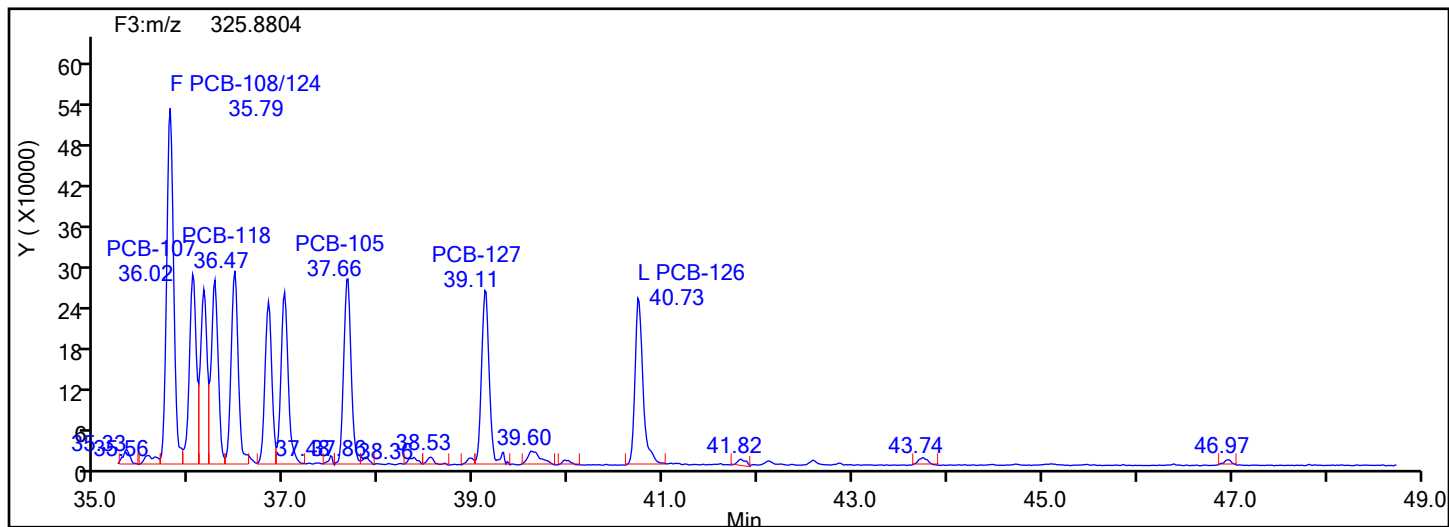
Worklist#: 88747

Sample Line#: 3

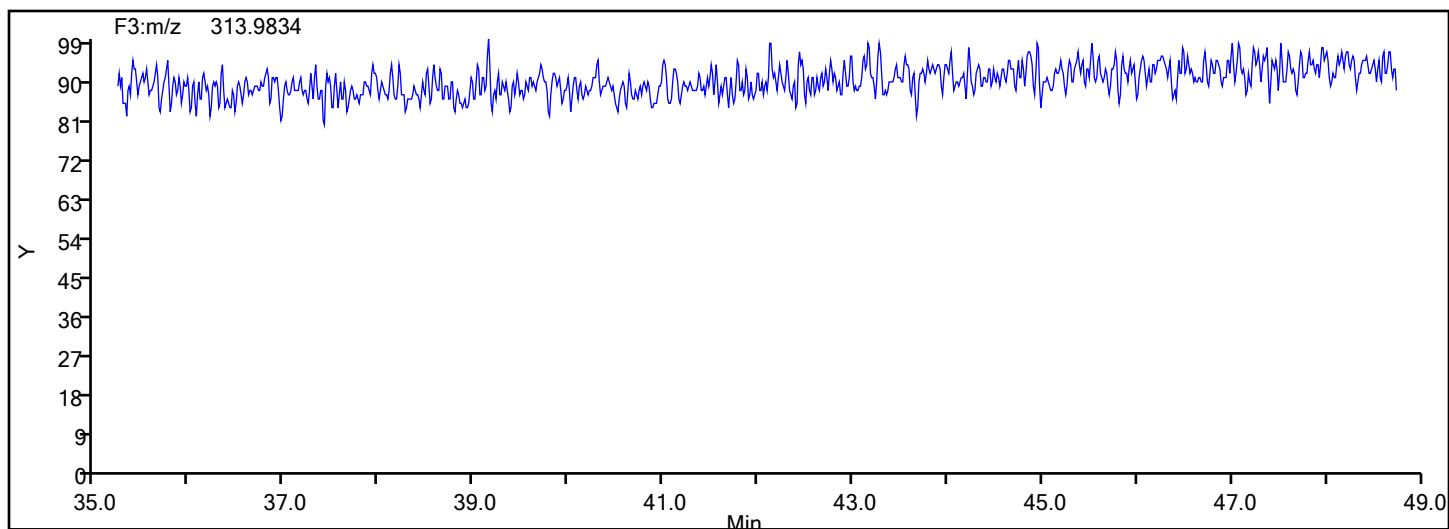
Column Type: SPB-Octyl

Column Dia: 0.25 mm

PePCB F3



## PePCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

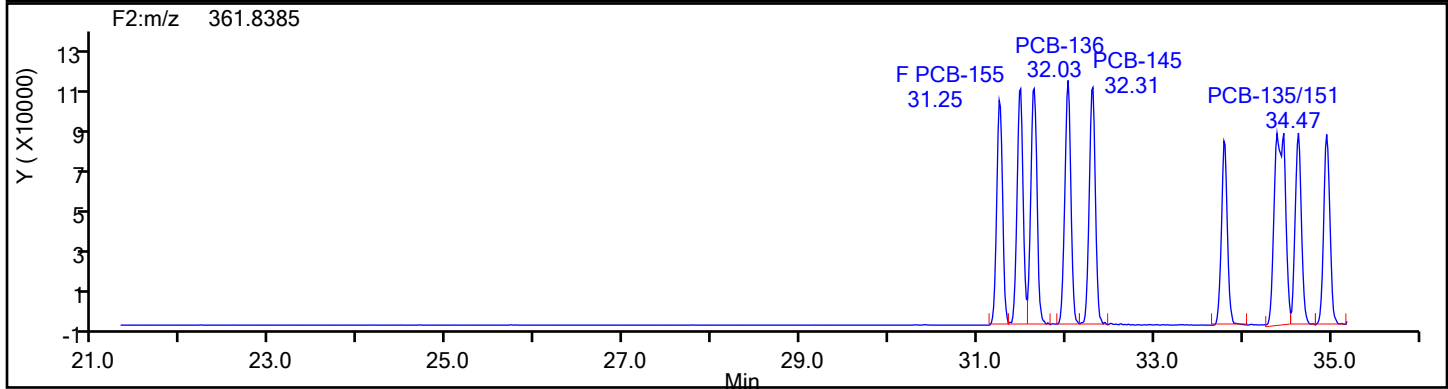
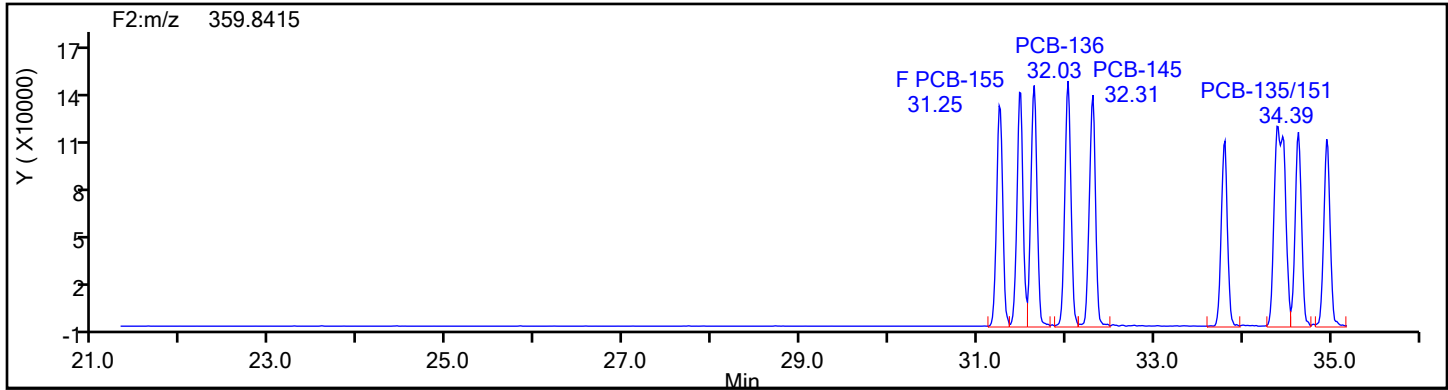
Worklist#: 88747

Sample Line#: 3

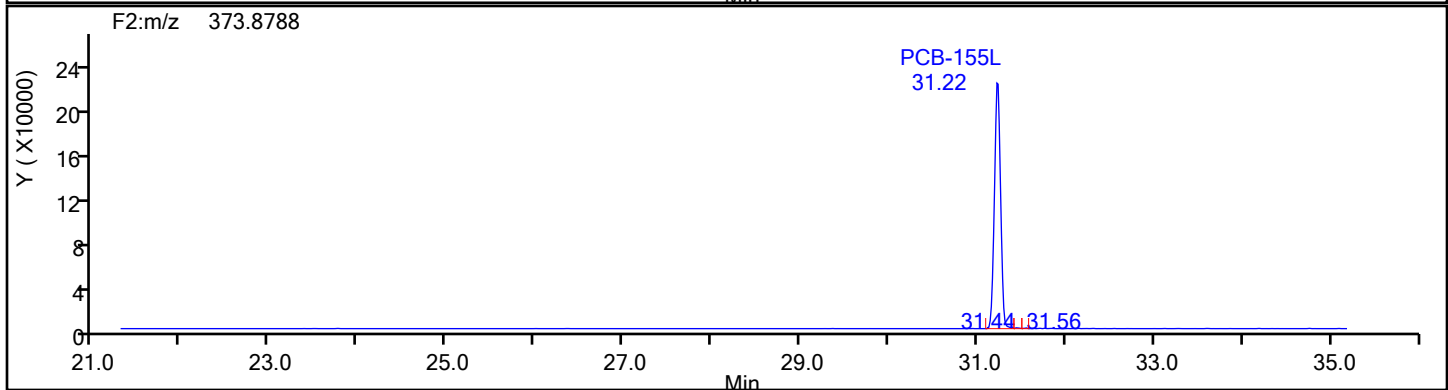
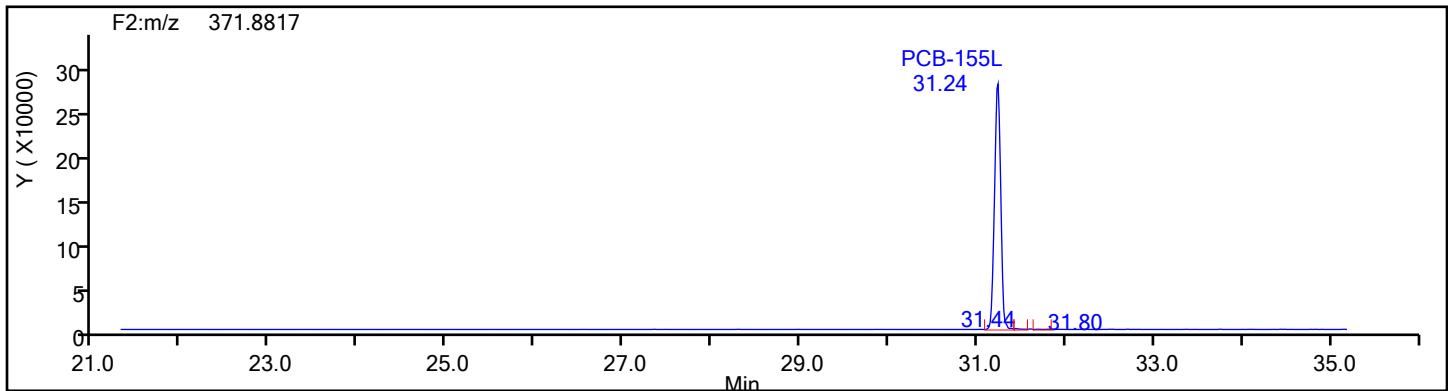
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F2



## HxPCB F2 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

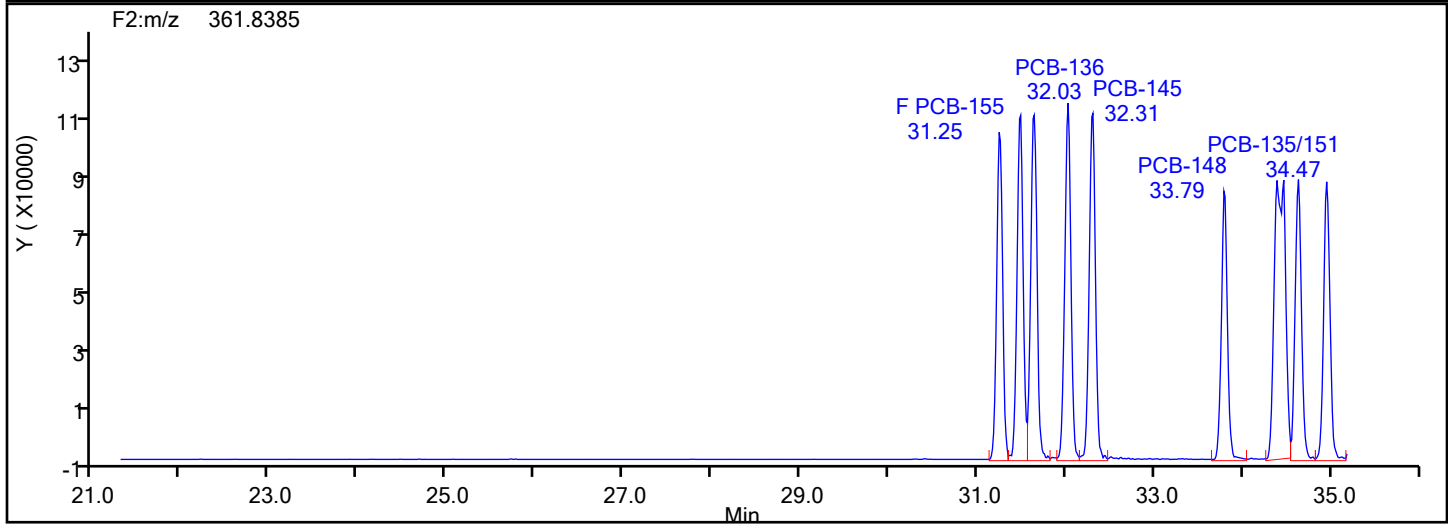
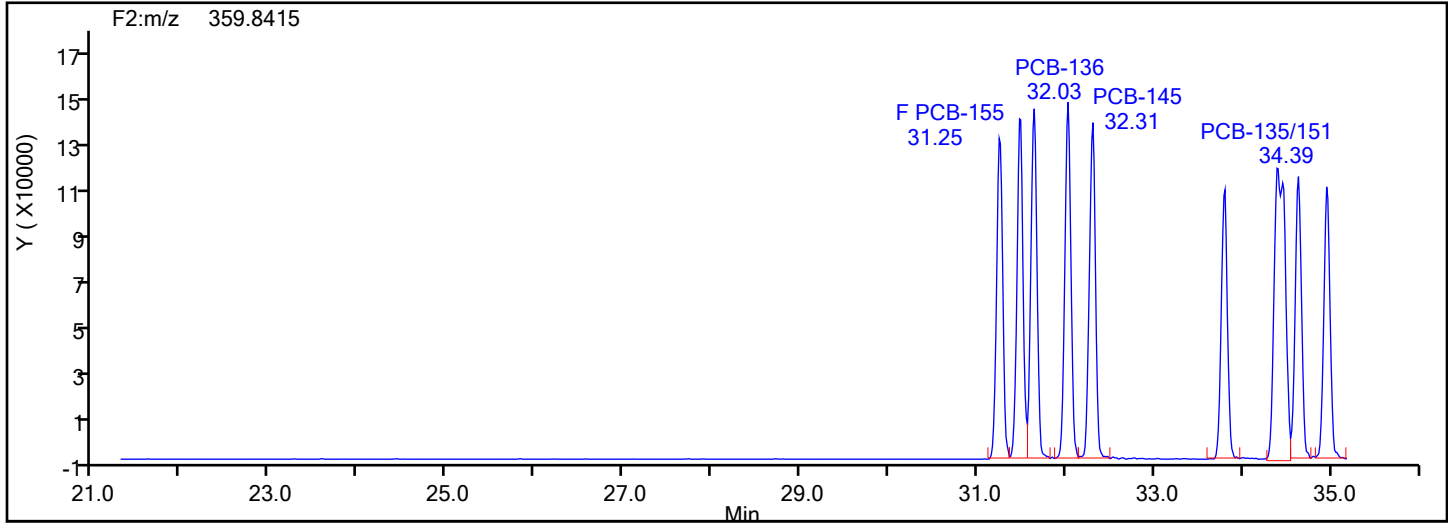
Worklist#: 88747

Sample Line#: 3

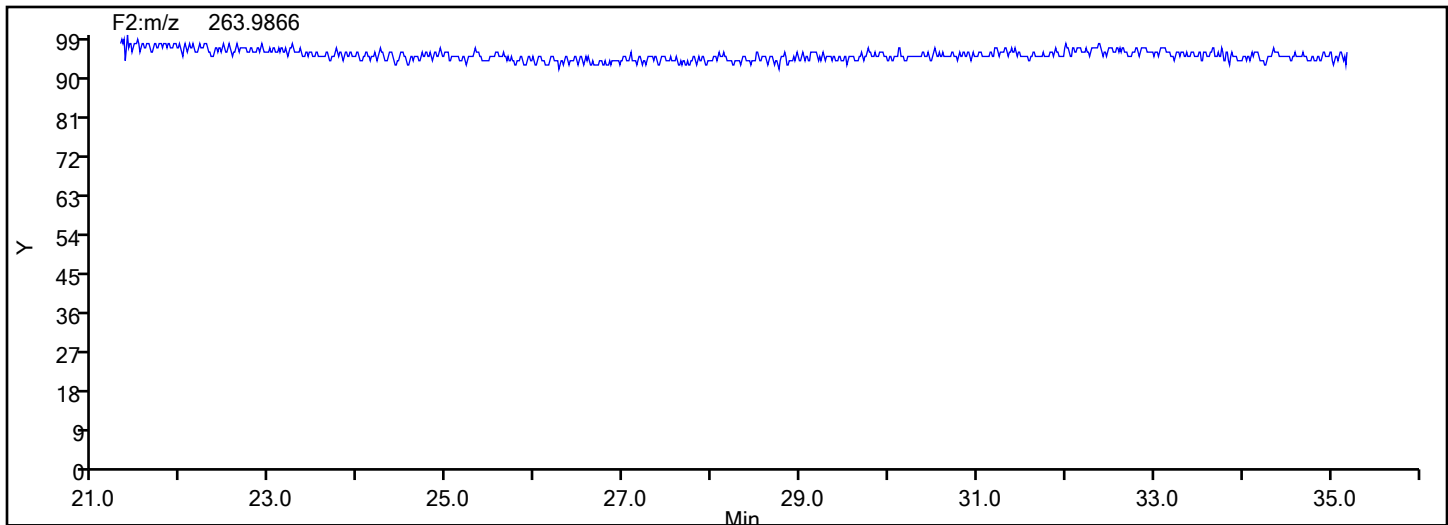
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F2



## HxPCB F2 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

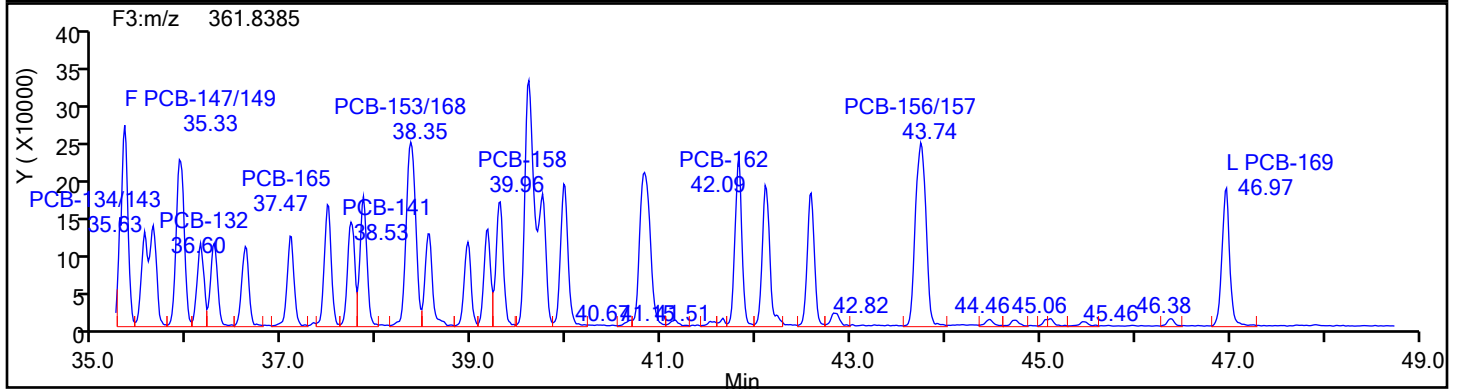
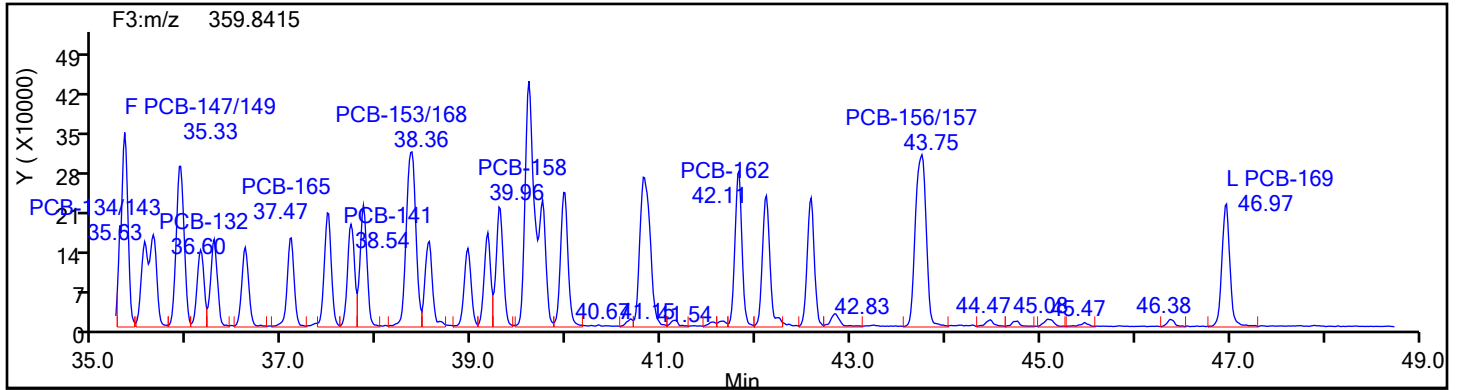
Worklist#: 88747

Sample Line#: 3

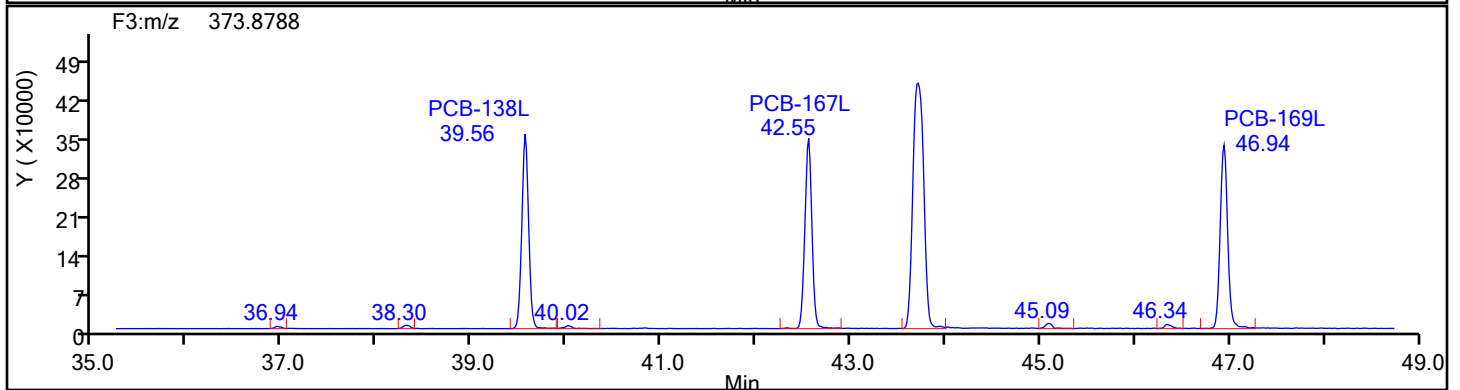
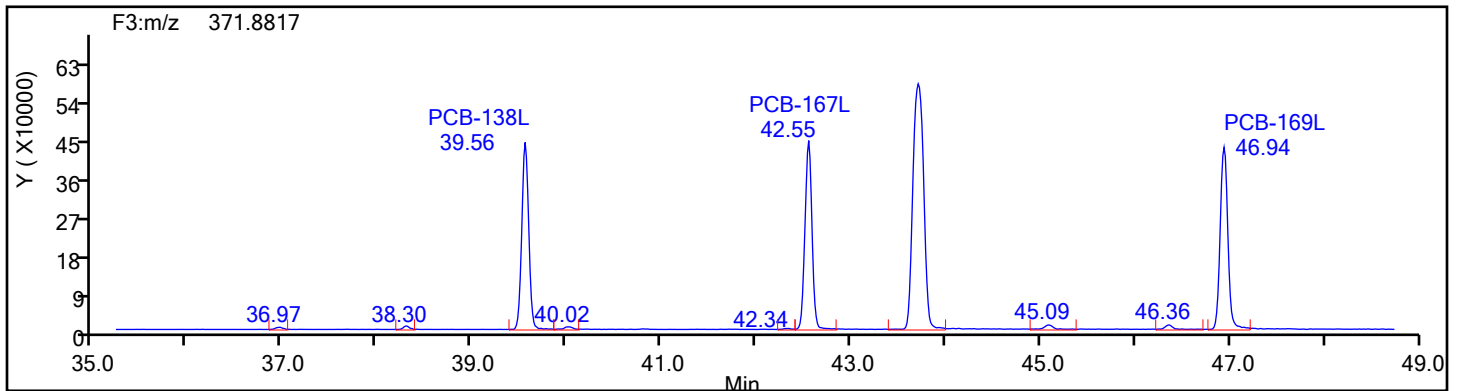
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



## HxPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

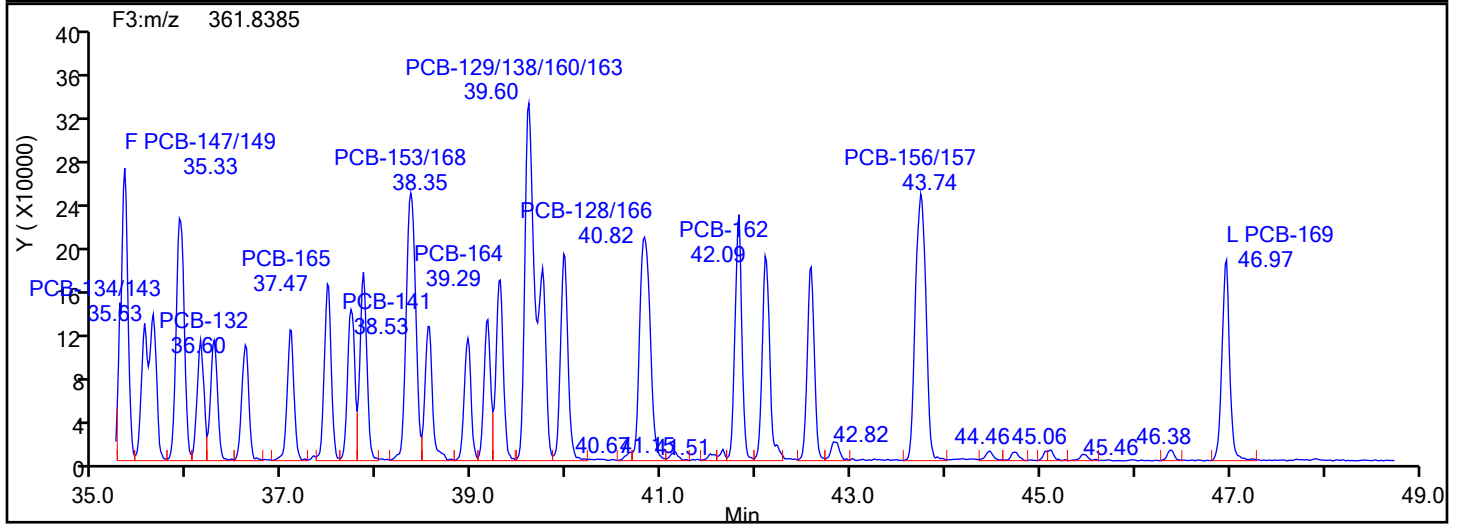
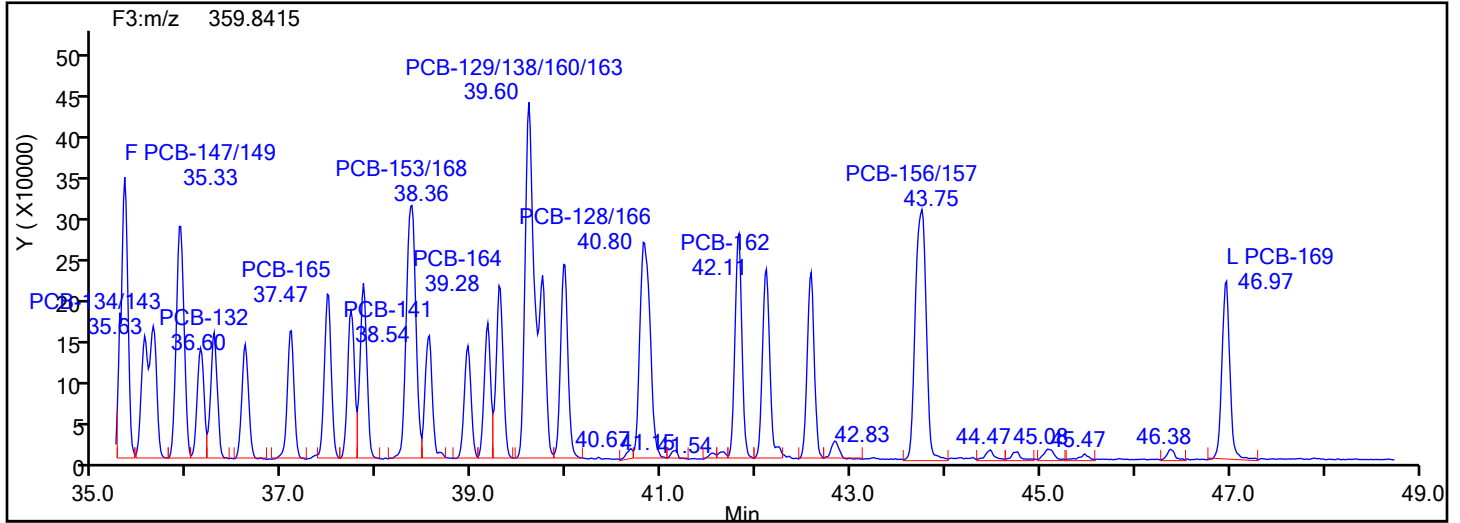
Worklist#: 88747

Sample Line#: 3

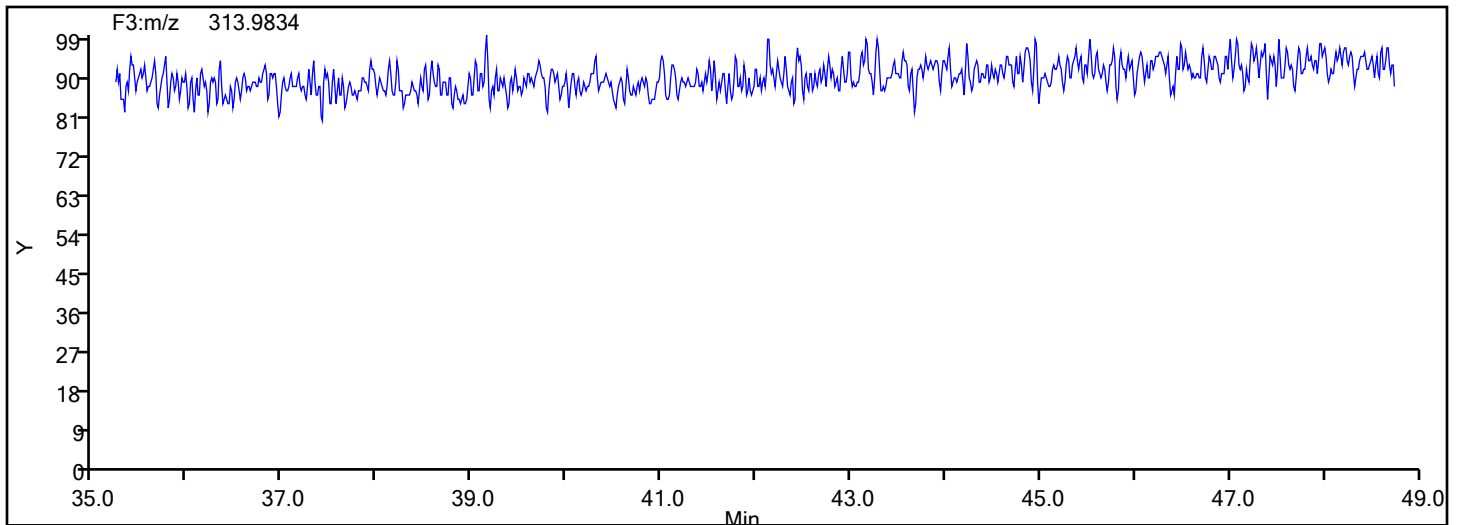
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HxPCB F3



## HxPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Instrument ID: D2D

Lims ID: LCSD 140-88193/20-B

Client ID:

Operator ID: Xcalibur\_System

ALS Bottle#:

0

Worklist Smp#: 3

Injection Vol: 1.0 ul

Dil. Factor:

1.0000

Method: PCBs\_D2D

Limit Group:

HR - EPA\_23 PCB ICAL

Column: SPB-Octyl ( 0.25 mm)

Detector

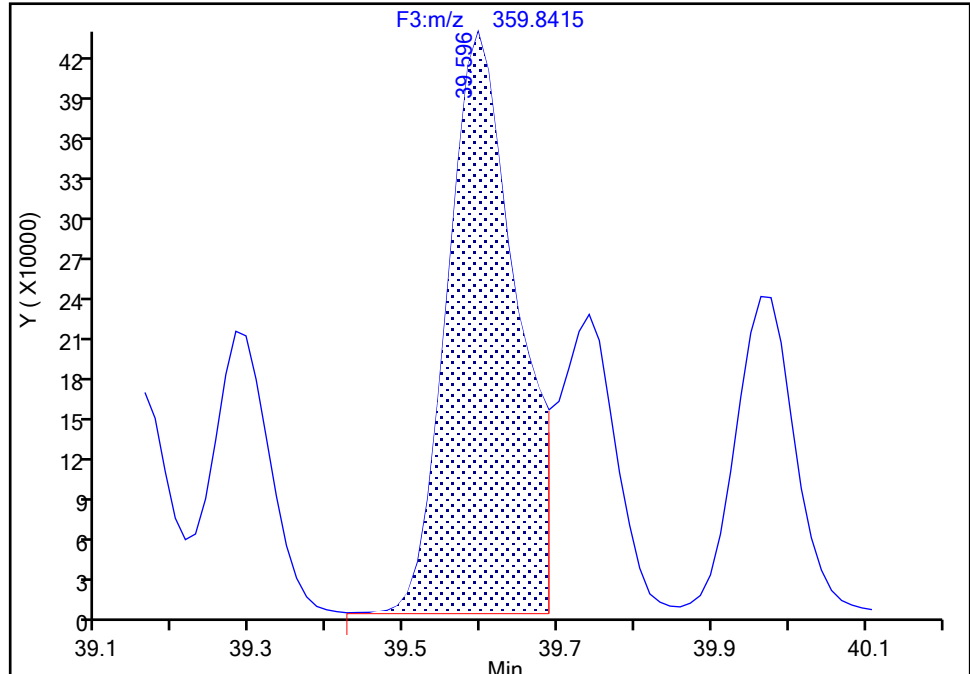
F3(35.64 :49.10 )

**PCB-129/138/160/163, CAS: STL02296**

Signal: 1

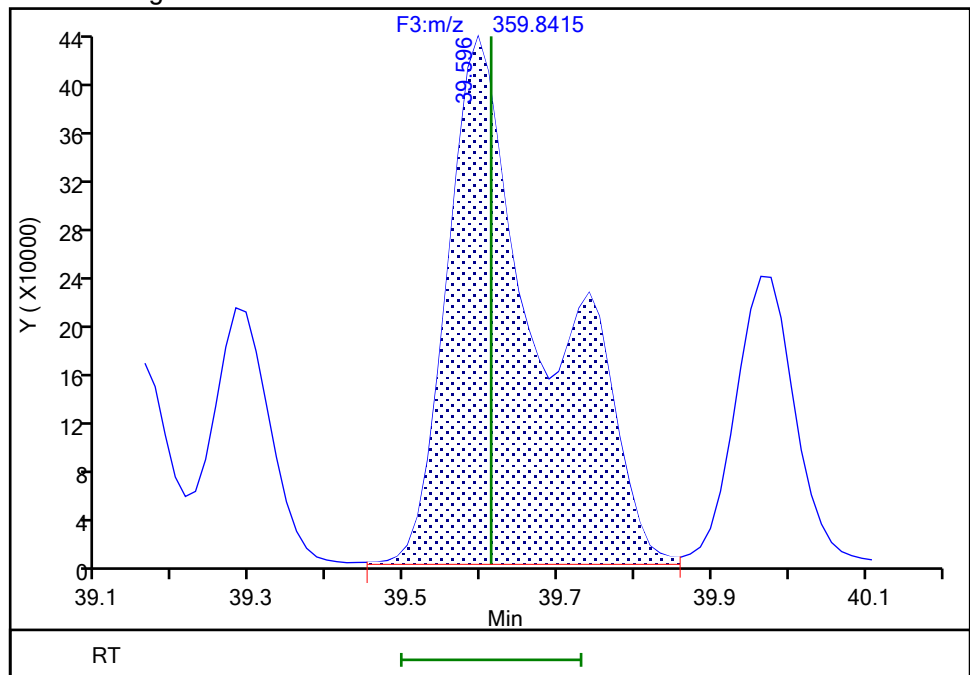
RT: 39.60  
Area: 2689720  
Amount: 122.4852  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.60  
Area: 3809848  
Amount: 174.7251  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 15-Jul-2024 19:47:04 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline

## Eurofins Knoxville

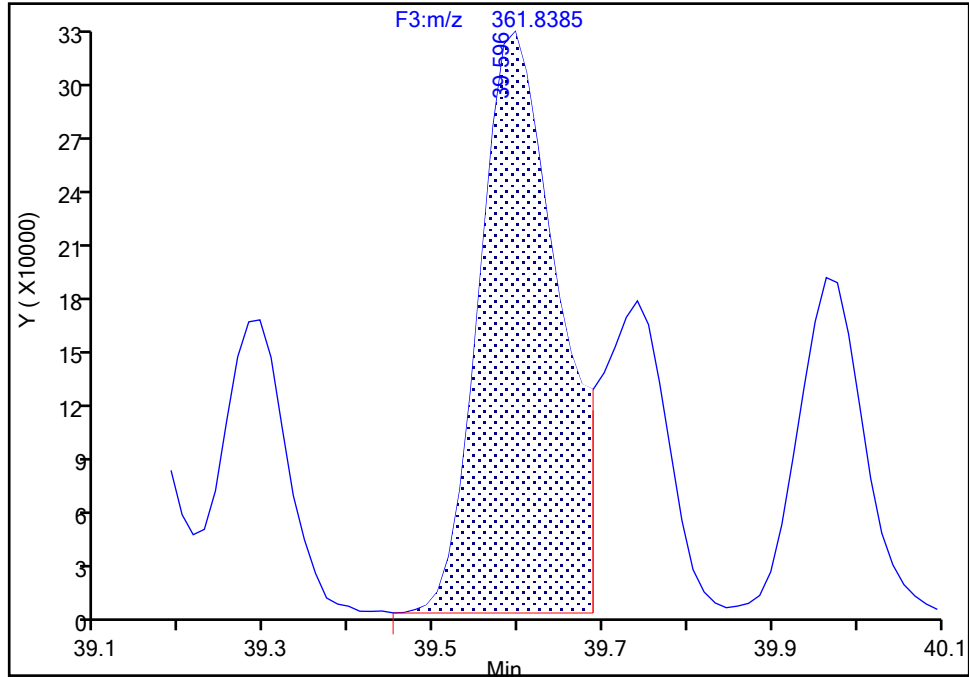
Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d  
Injection Date: 15-Jul-2024 14:45:00 Instrument ID: D2D  
Lims ID: LCSD 140-88193/20-B  
Client ID:  
Operator ID: Xcalibur\_System ALS Bottle#: 0 Worklist Smp#: 3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Method: PCBs\_D2D Limit Group: HR - EPA\_23 PCB ICAL  
Column: SPB-Octyl ( 0.25 mm) Detector F3(35.64 :49.10 )

PCB-129/138/160/163, CAS: STL02296

Signal: 2

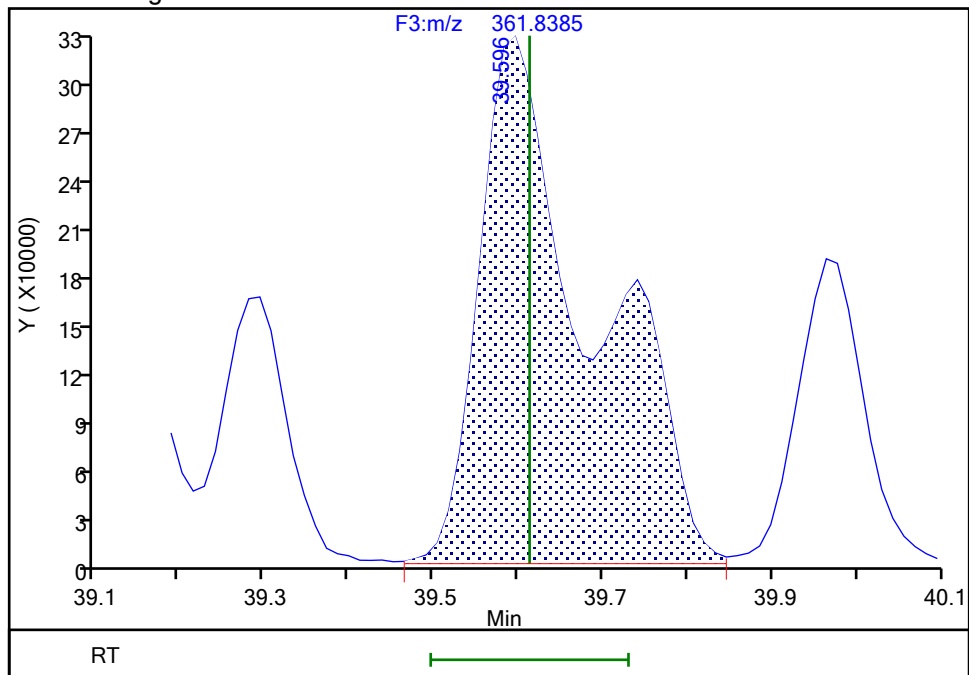
RT: 39.60  
Area: 2101216  
Amount: 122.4852  
Amount Units: pg/ul

## Processing Integration Results



RT: 39.60  
Area: 3024419  
Amount: 174.7251  
Amount Units: pg/ul

## Manual Integration Results



Reviewer: V4XA, 15-Jul-2024 19:47:08 -04:00:00 (UTC)

Audit Action: Manually Integrated

Audit Reason: Baseline



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

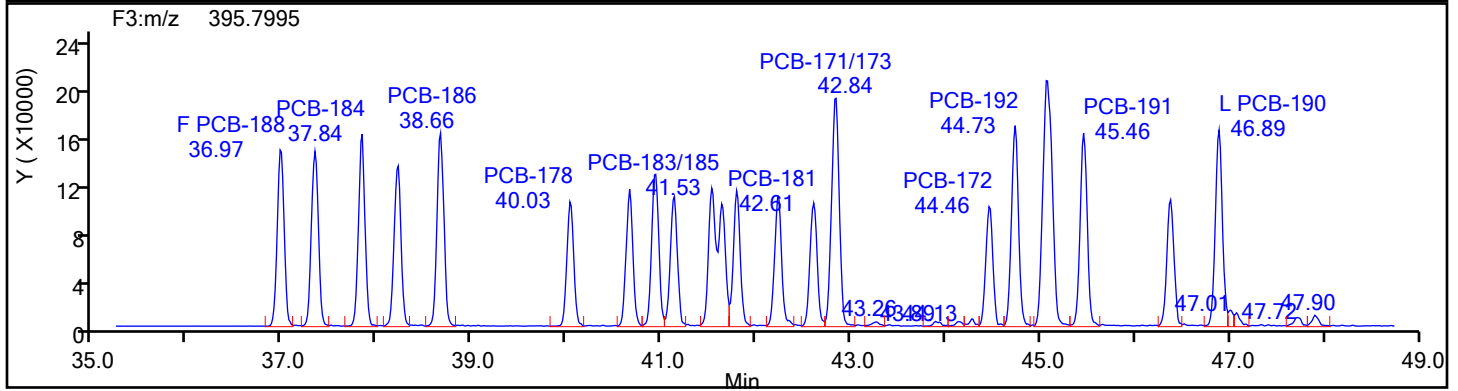
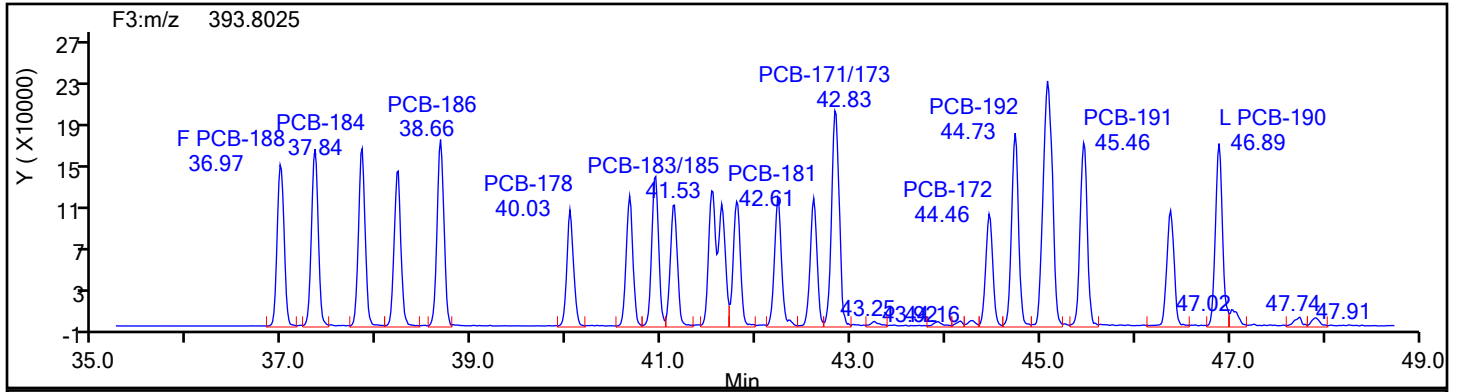
Worklist#: 88747

Sample Line#: 3

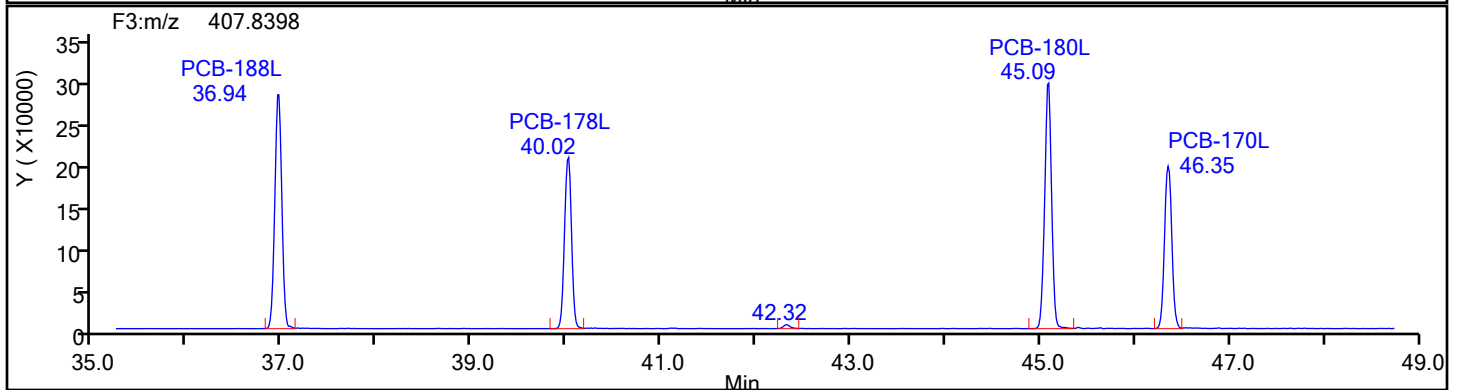
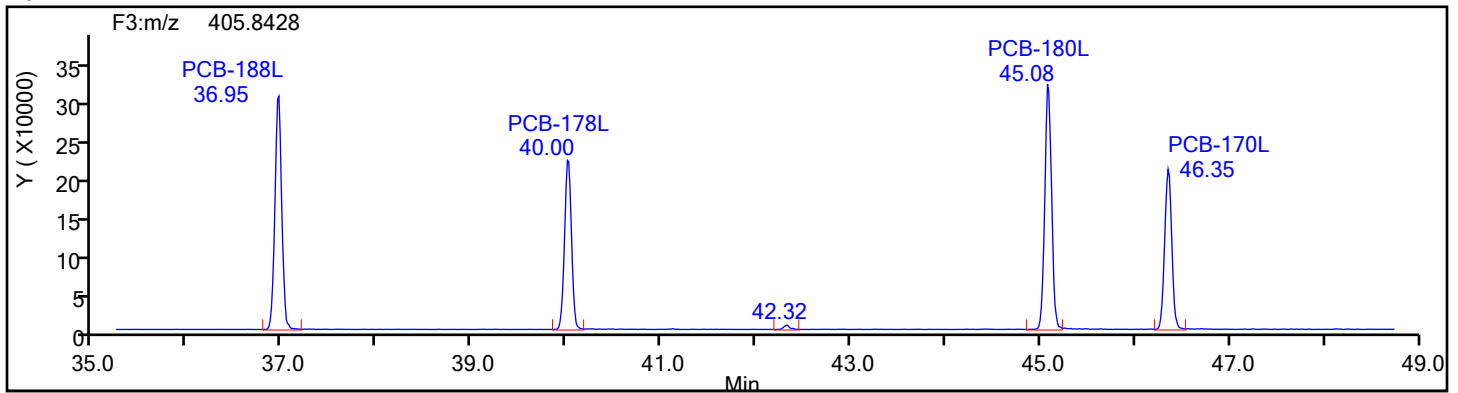
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



## HpPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

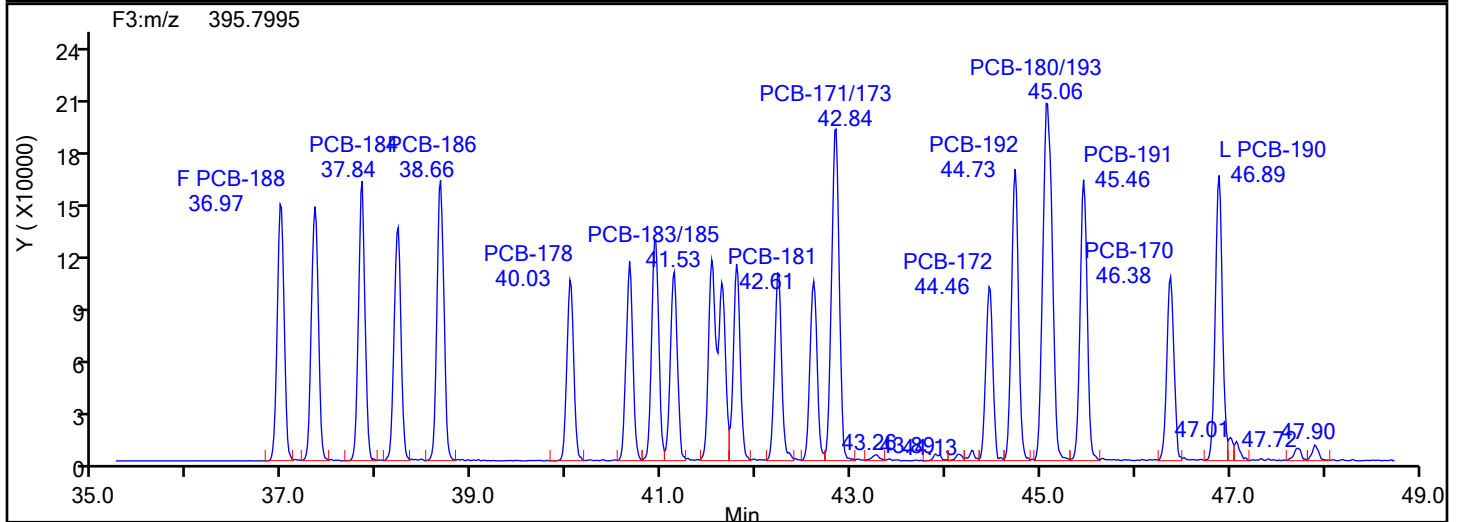
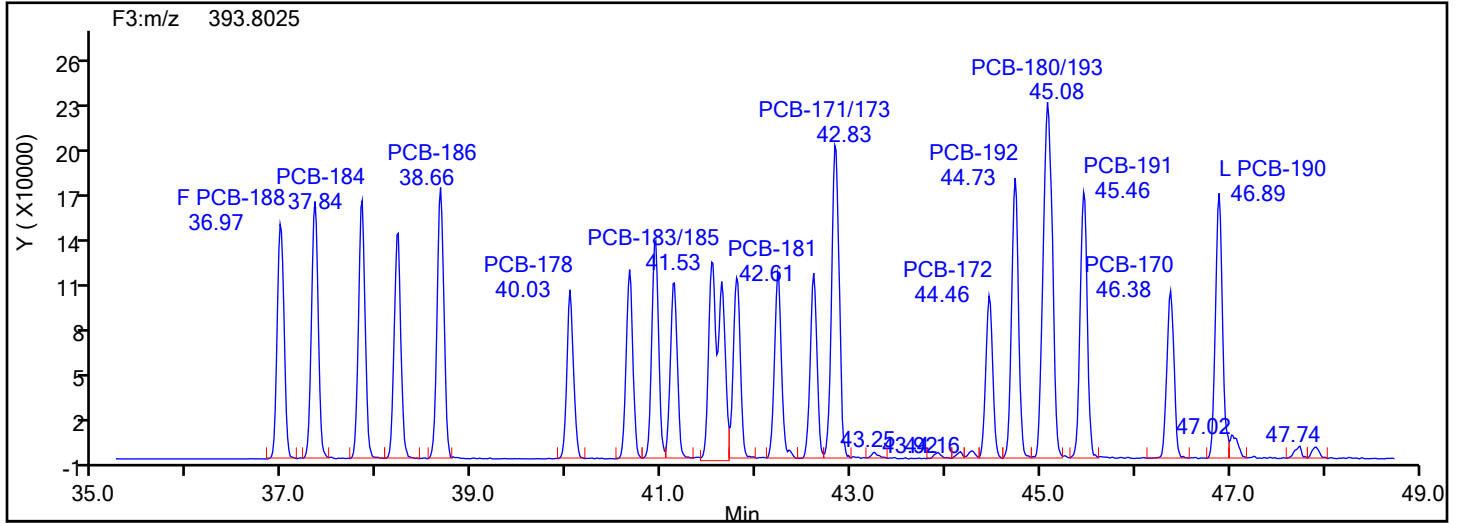
Worklist#: 88747

Sample Line#: 3

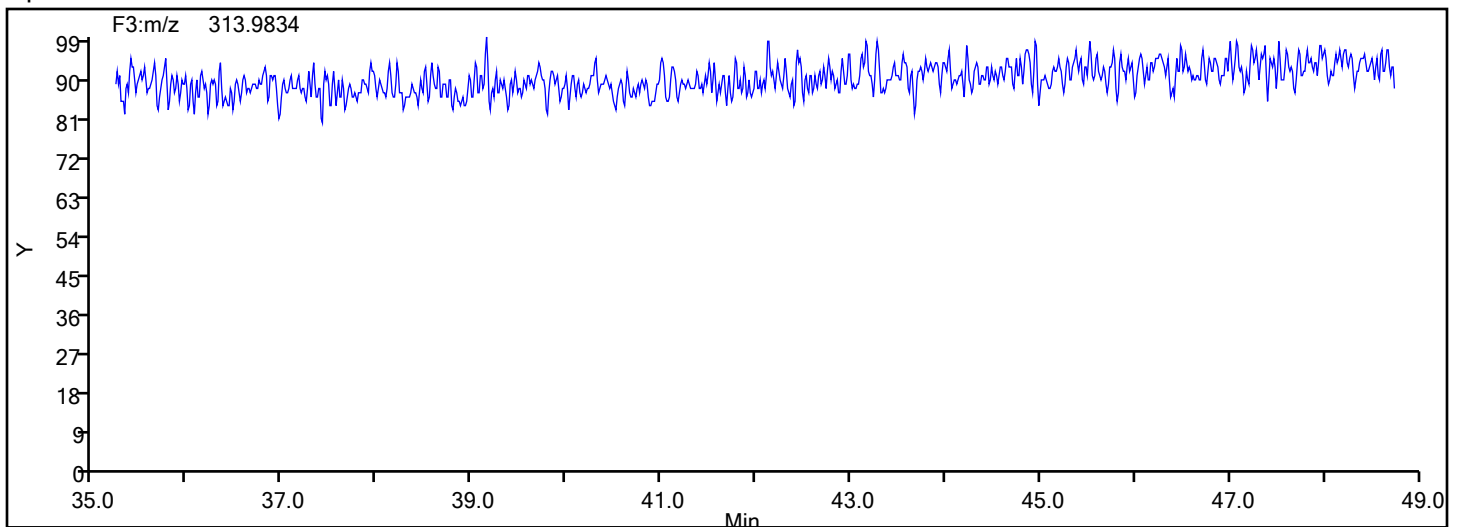
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F3



## HpPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

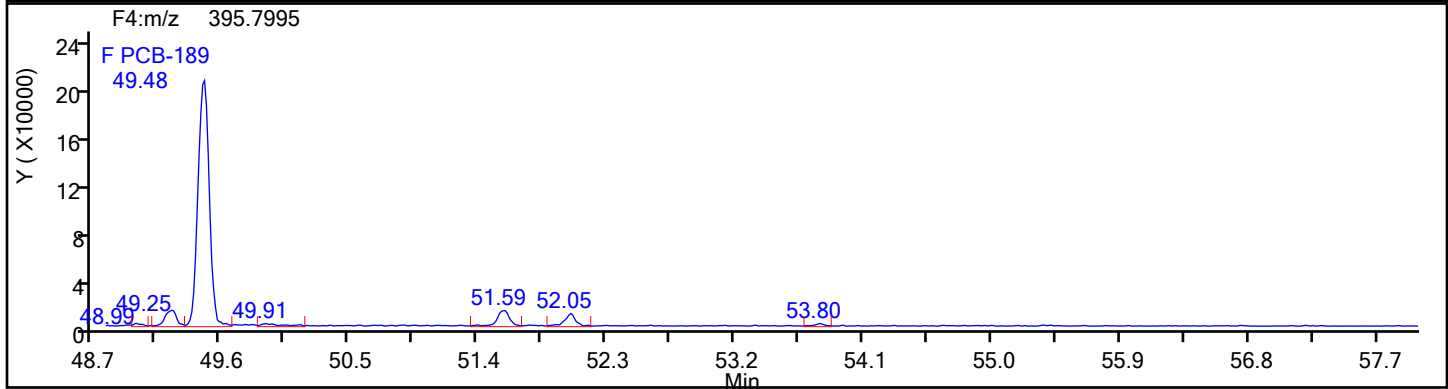
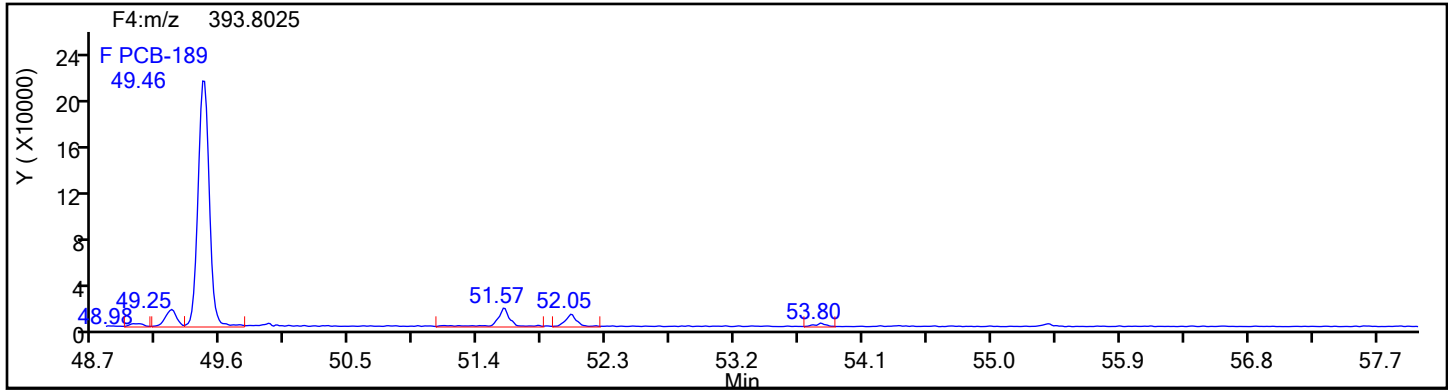
Worklist#: 88747

Sample Line#: 3

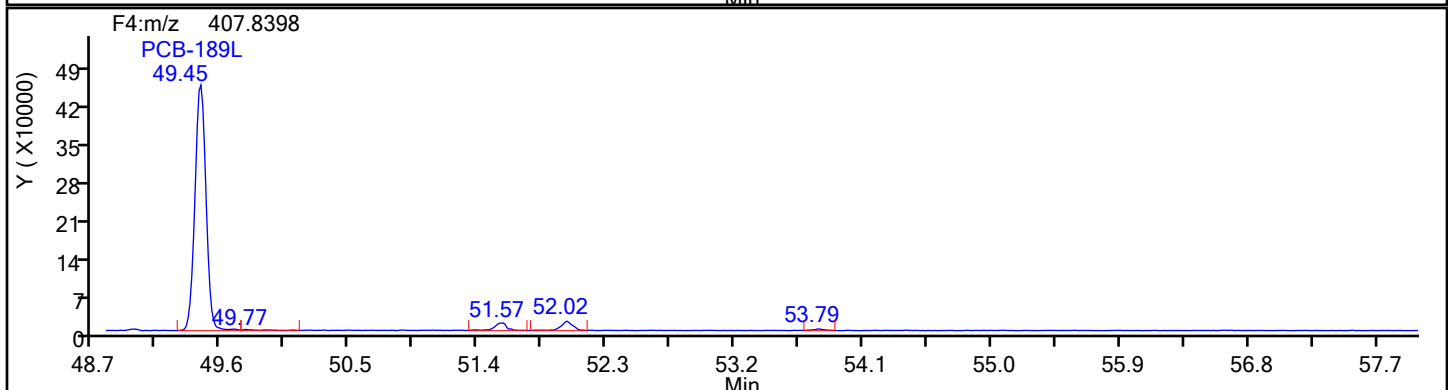
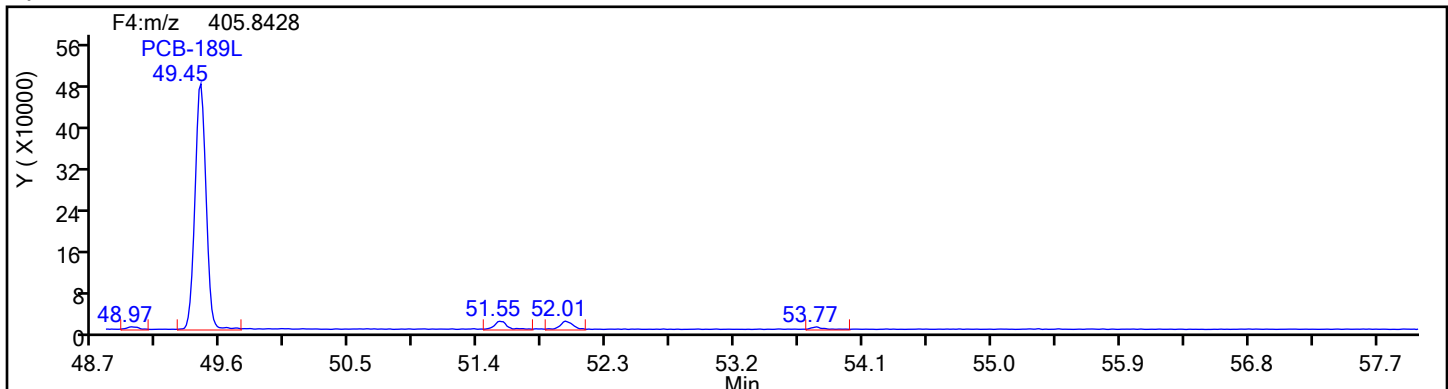
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

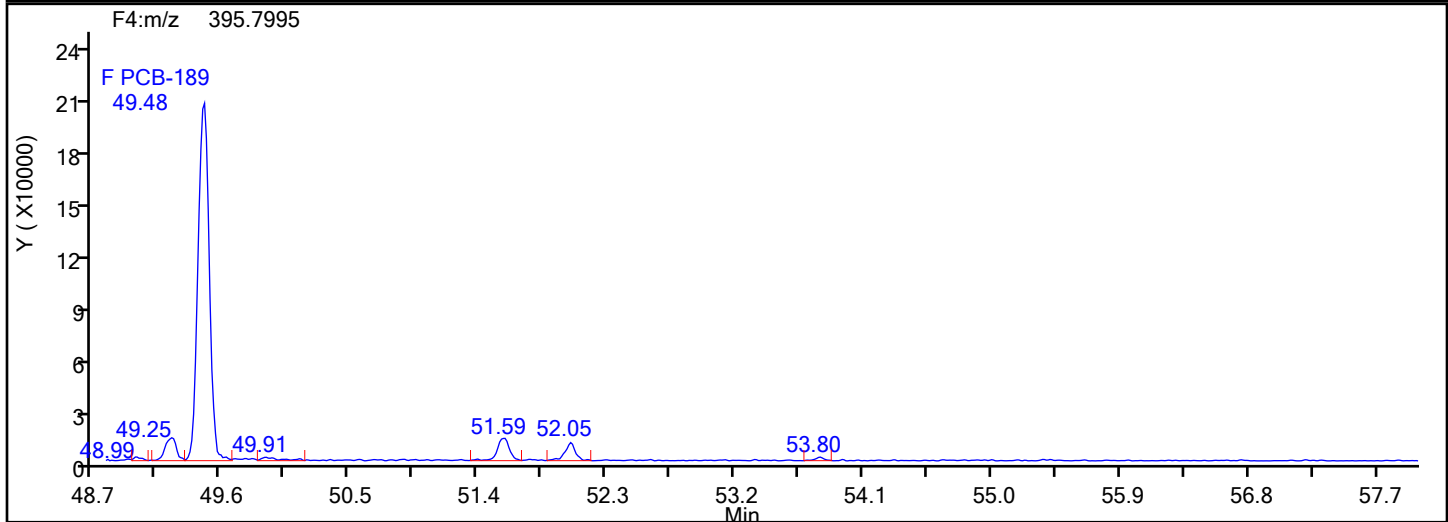
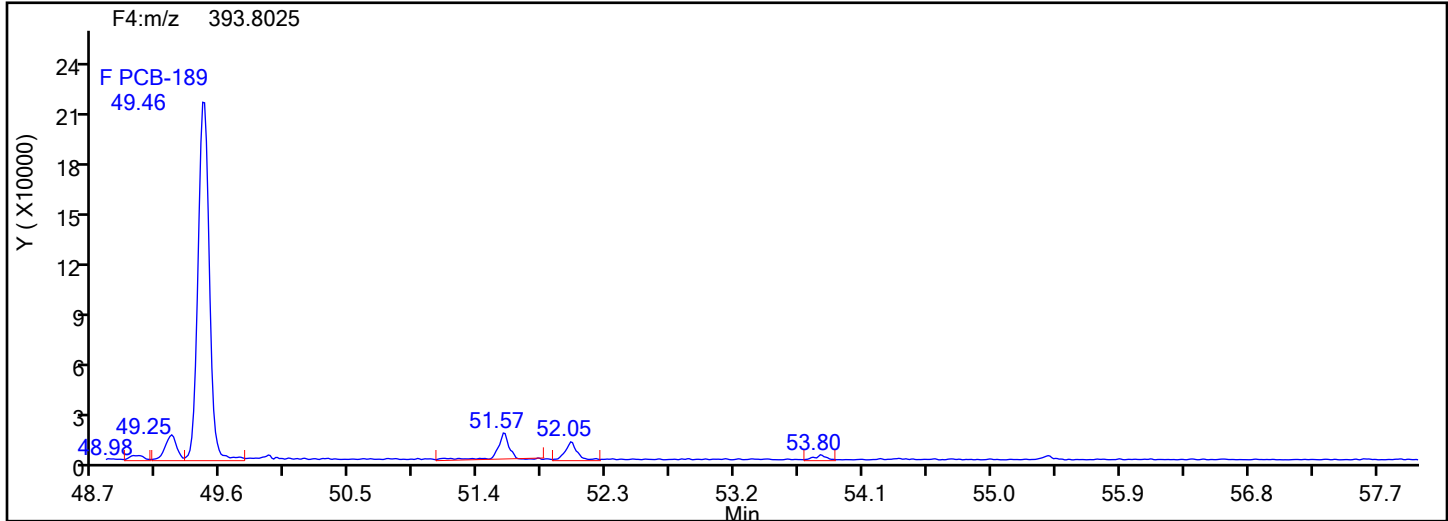
Worklist#: 88747

Sample Line#: 3

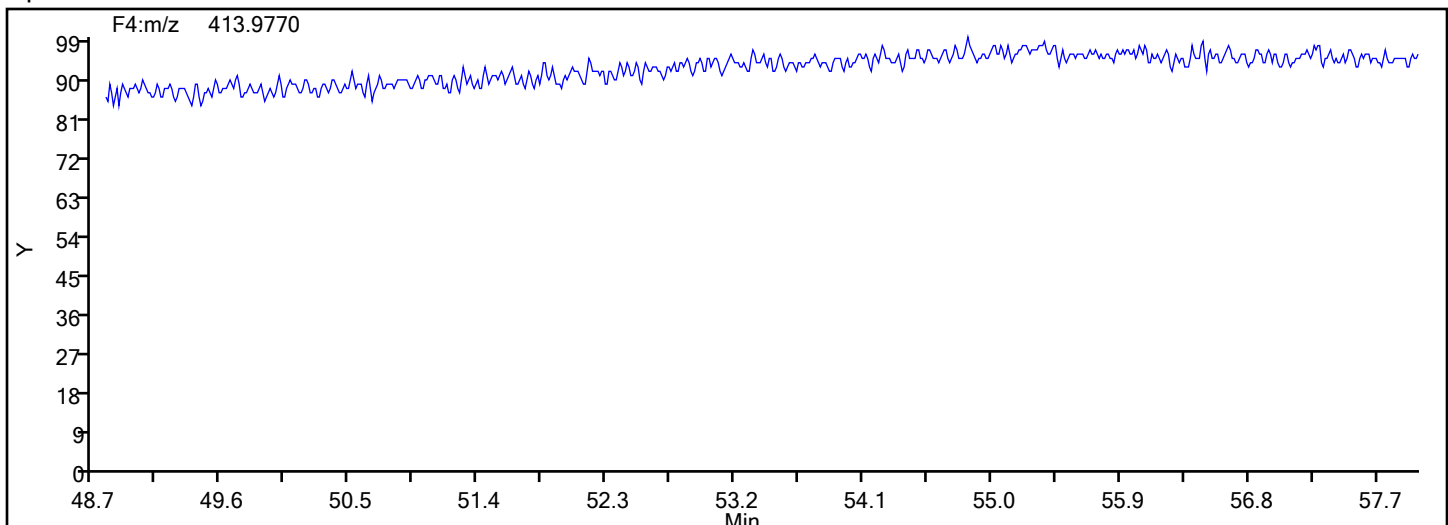
Column Type: SPB-Octyl

Column Dia: 0.25 mm

HpPCB F4



HpPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

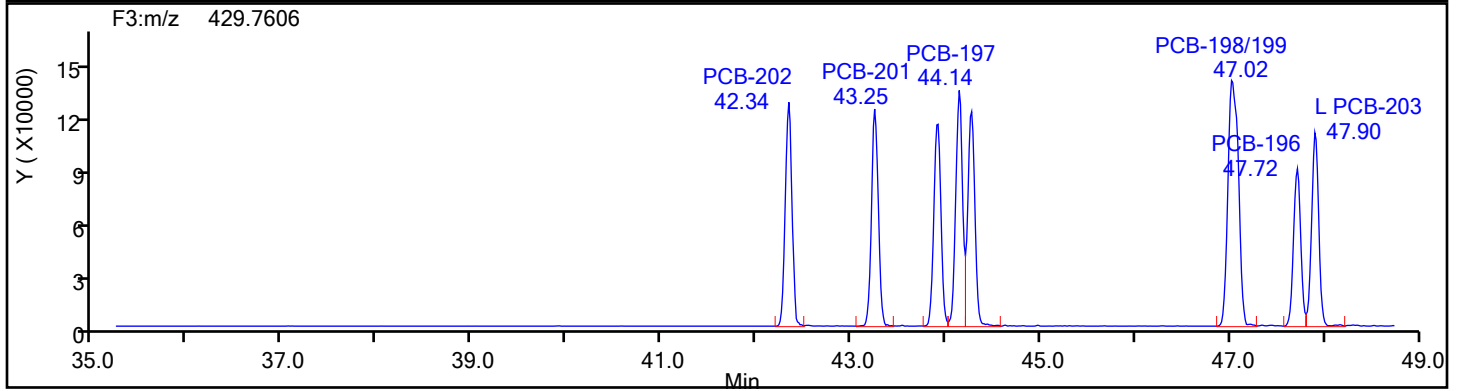
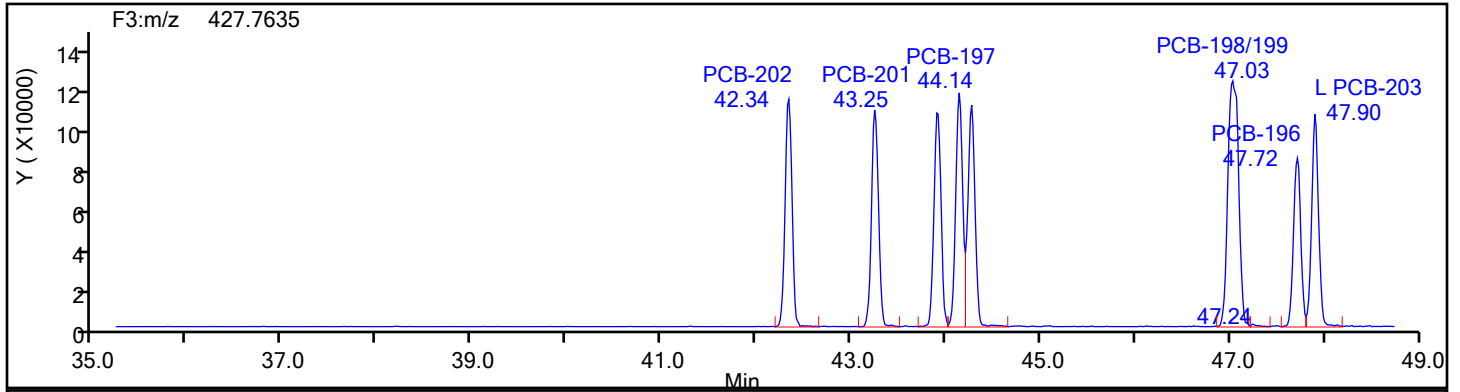
Worklist#: 88747

Sample Line#: 3

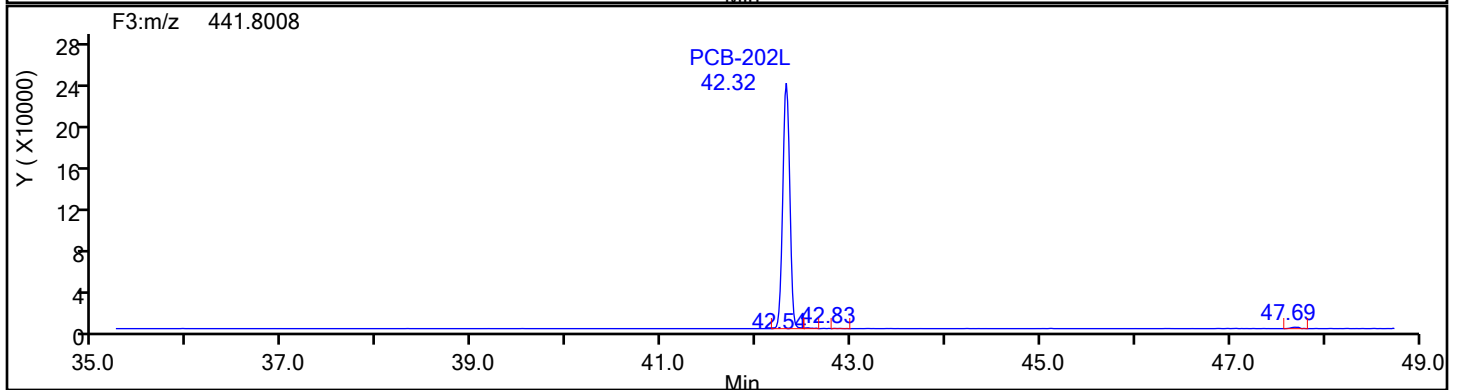
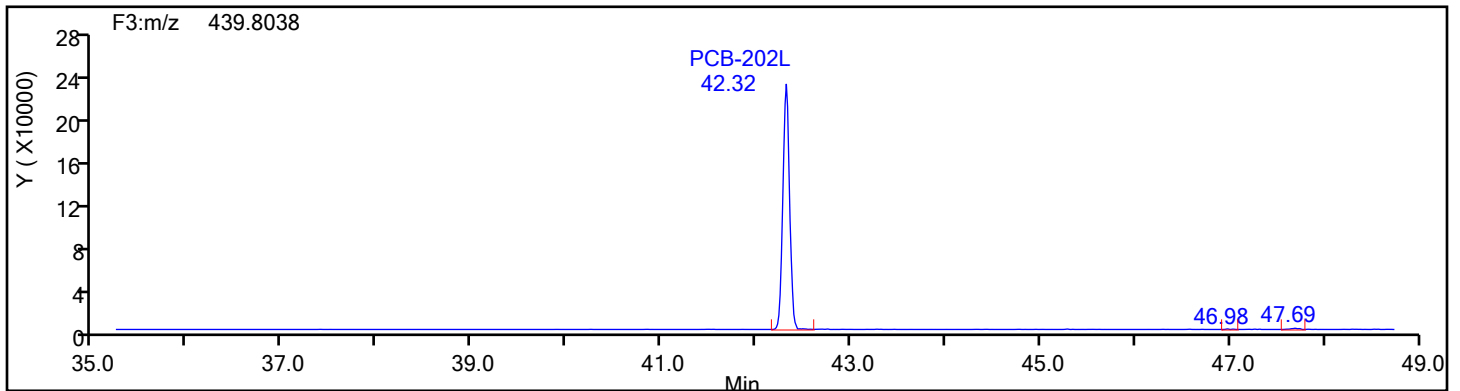
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3



OcPCB F3 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

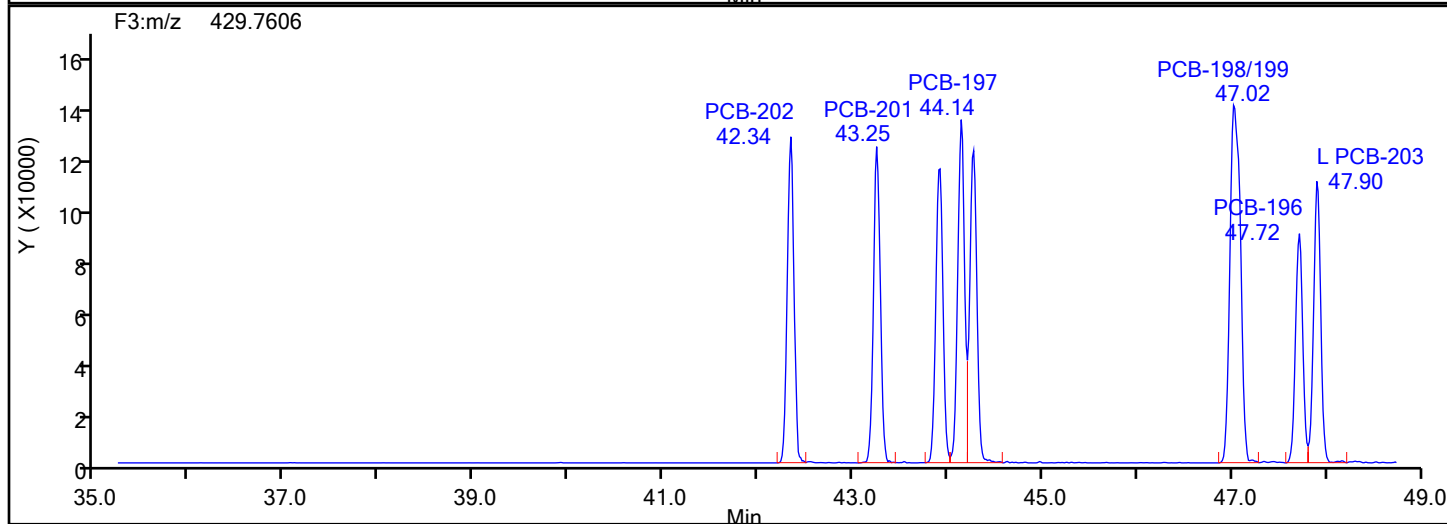
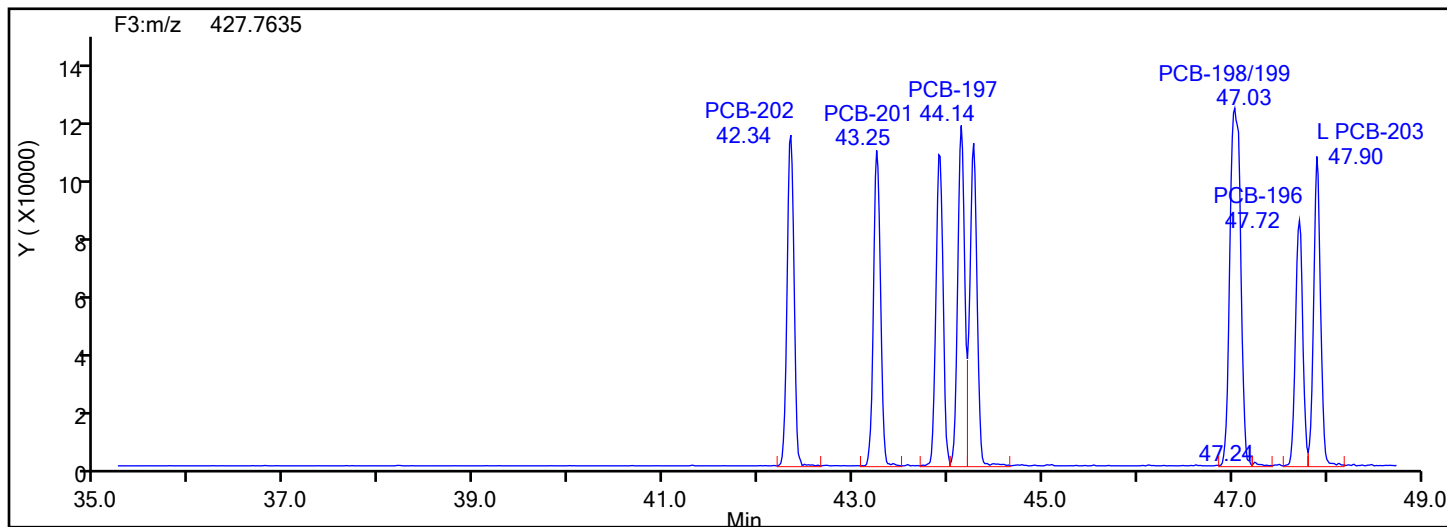
Worklist#: 88747

Sample Line#: 3

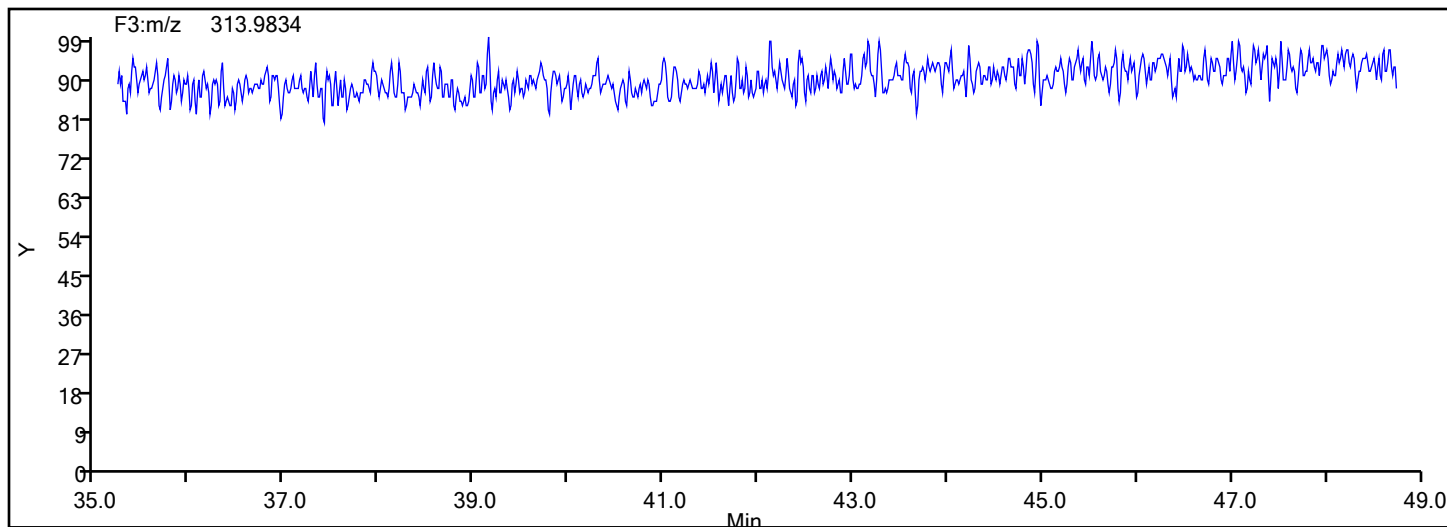
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F3



## OcPCB F3 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

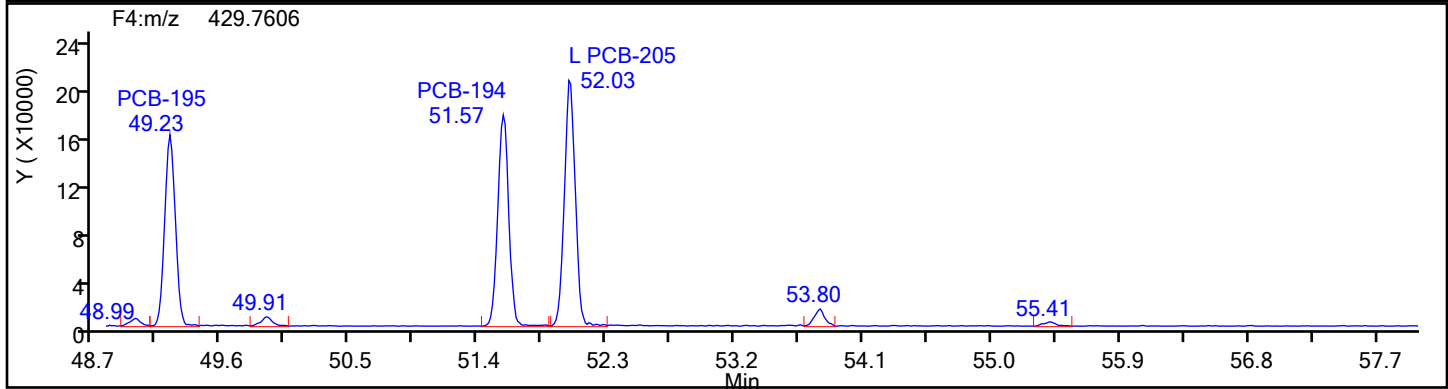
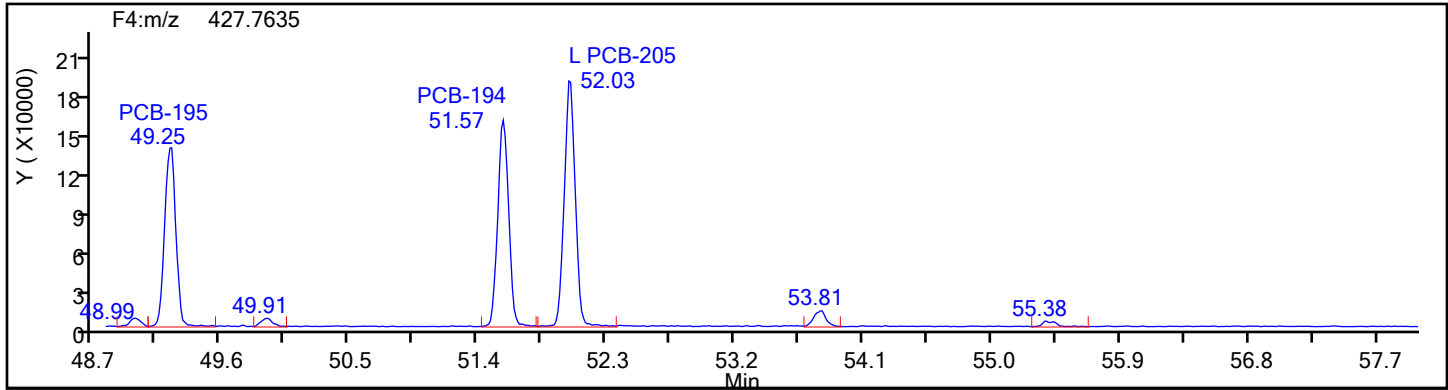
Worklist#: 88747

Sample Line#: 3

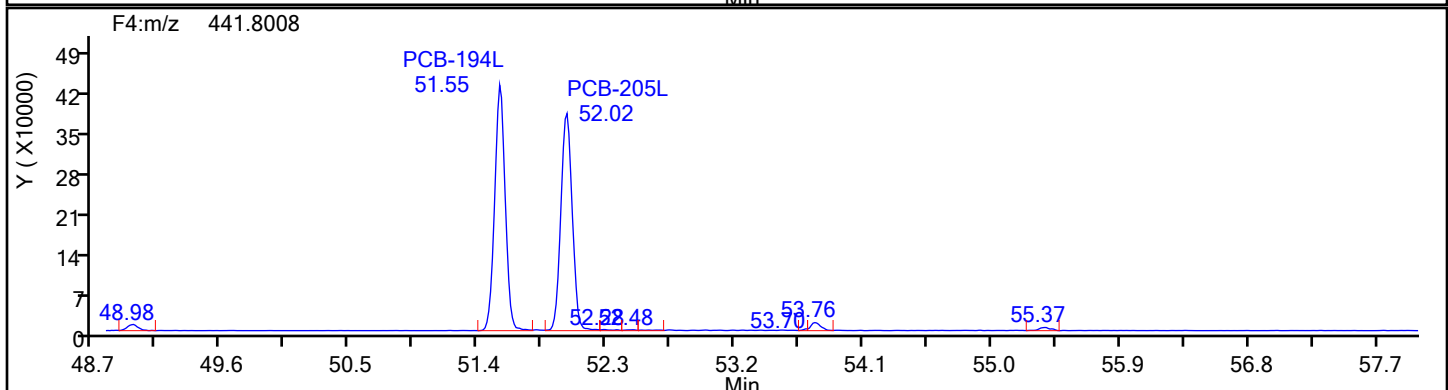
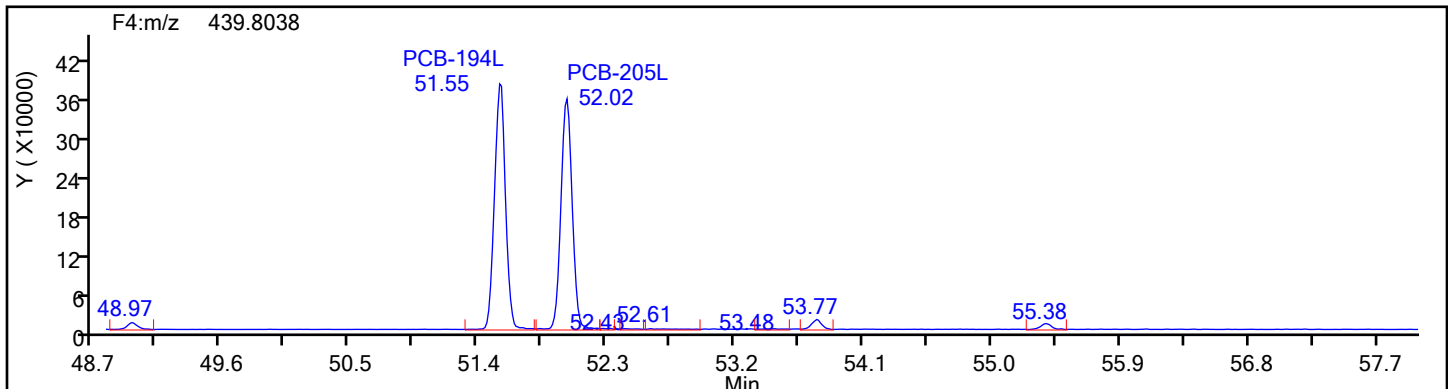
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4



OcPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

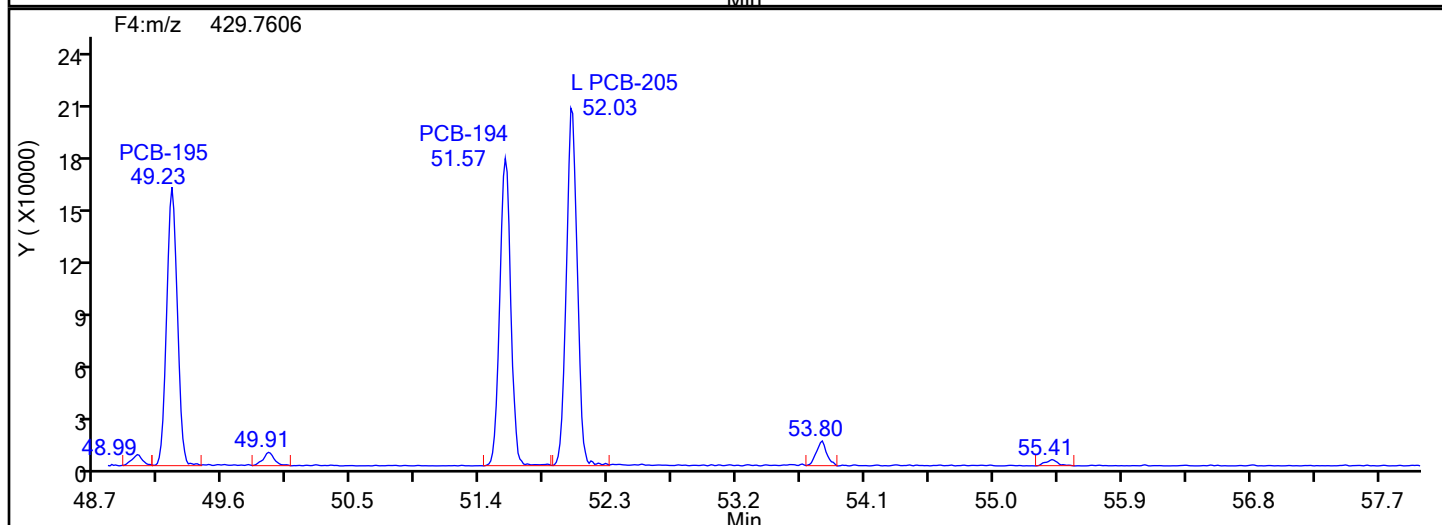
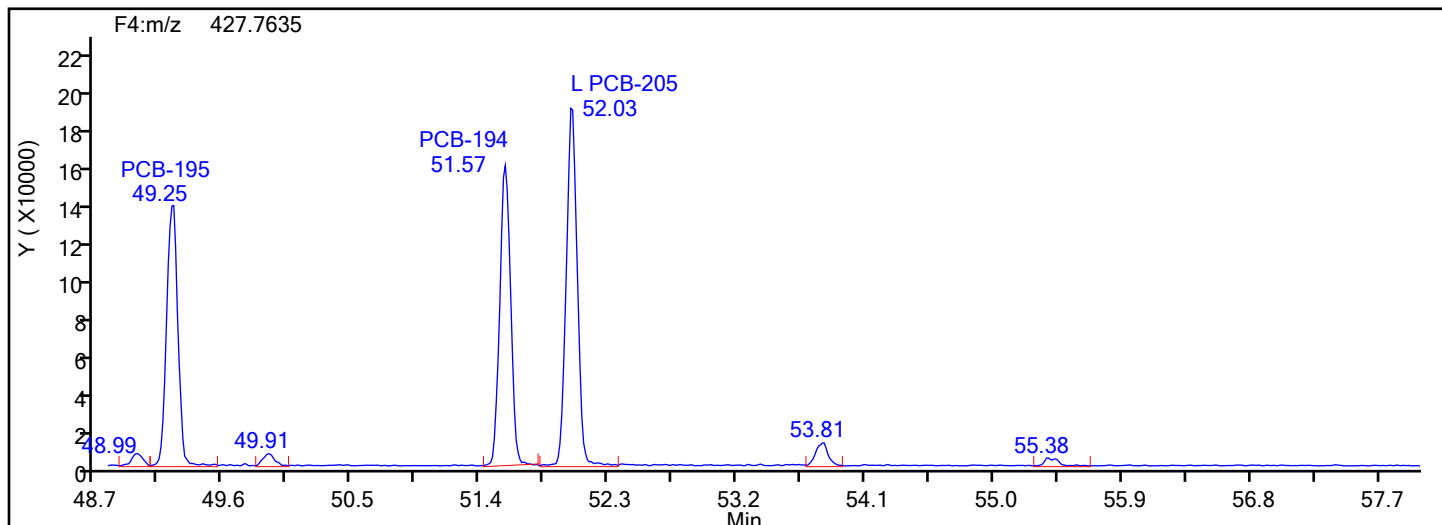
Worklist#: 88747

Sample Line#: 3

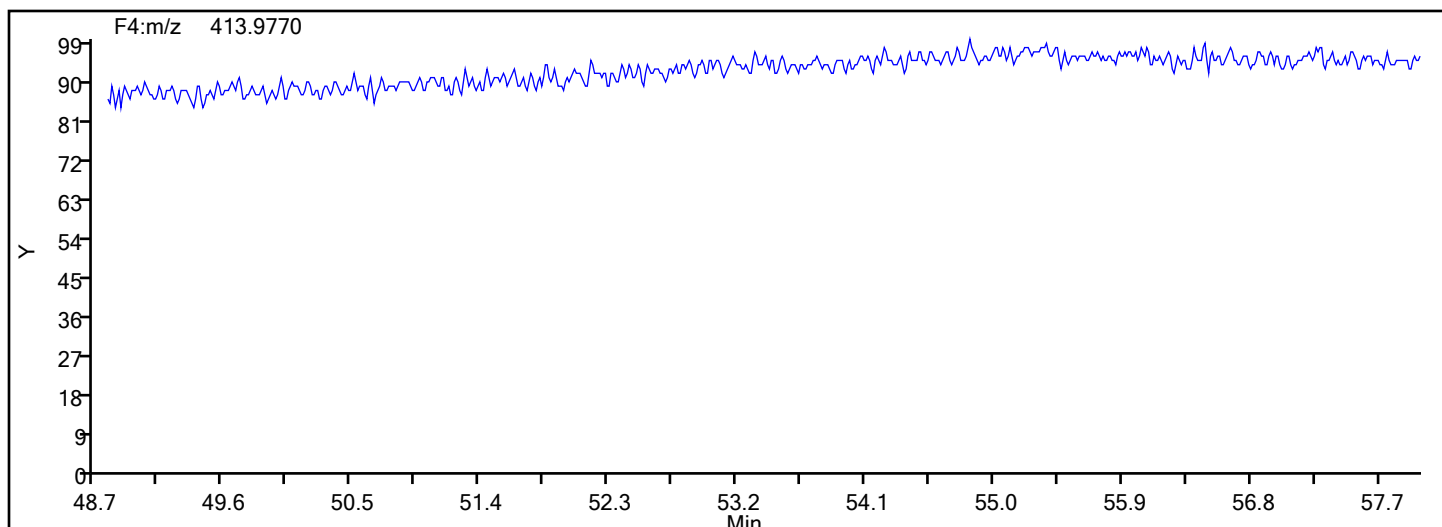
Column Type: SPB-Octyl

Column Dia: 0.25 mm

OcPCB F4



## OcPCB F4 Lock Mass





## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

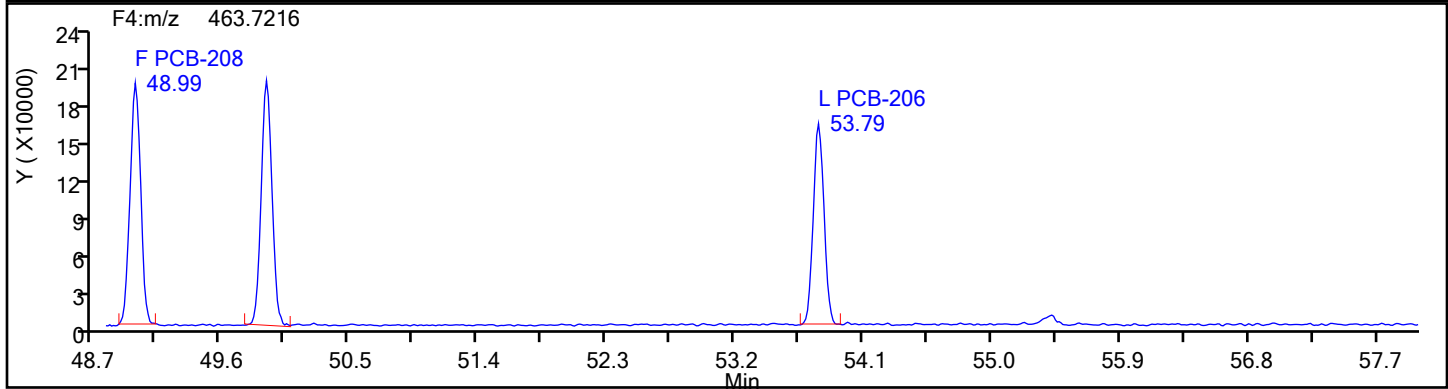
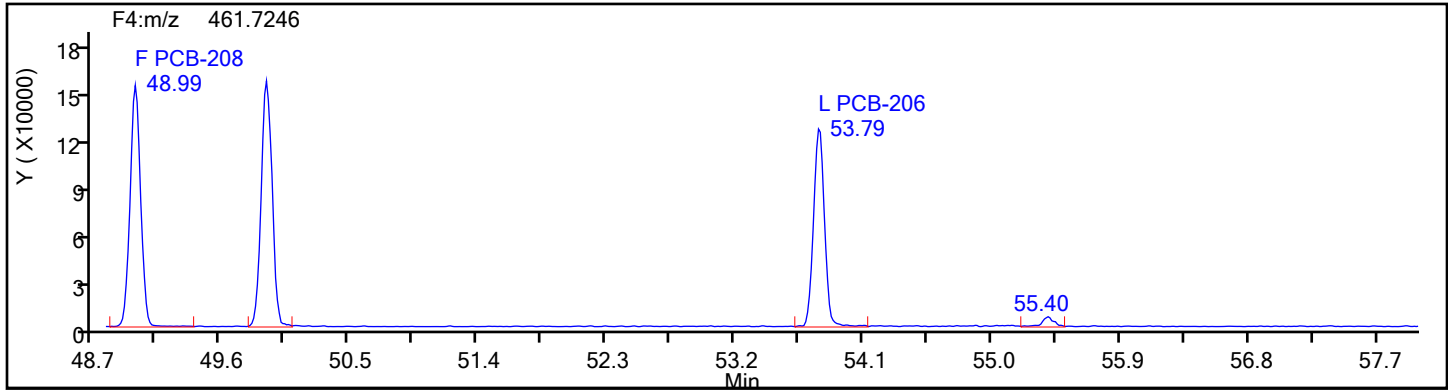
Worklist#: 88747

Sample Line#: 3

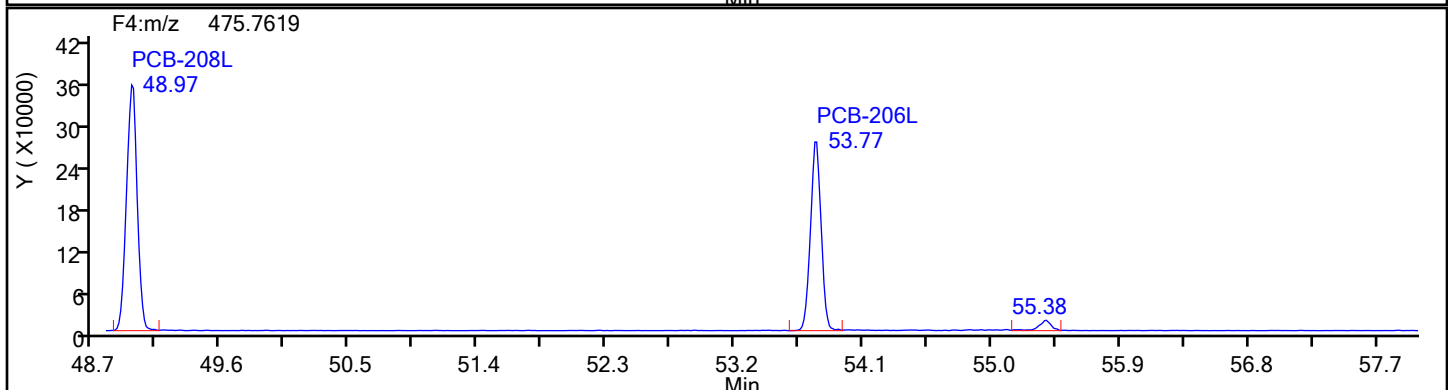
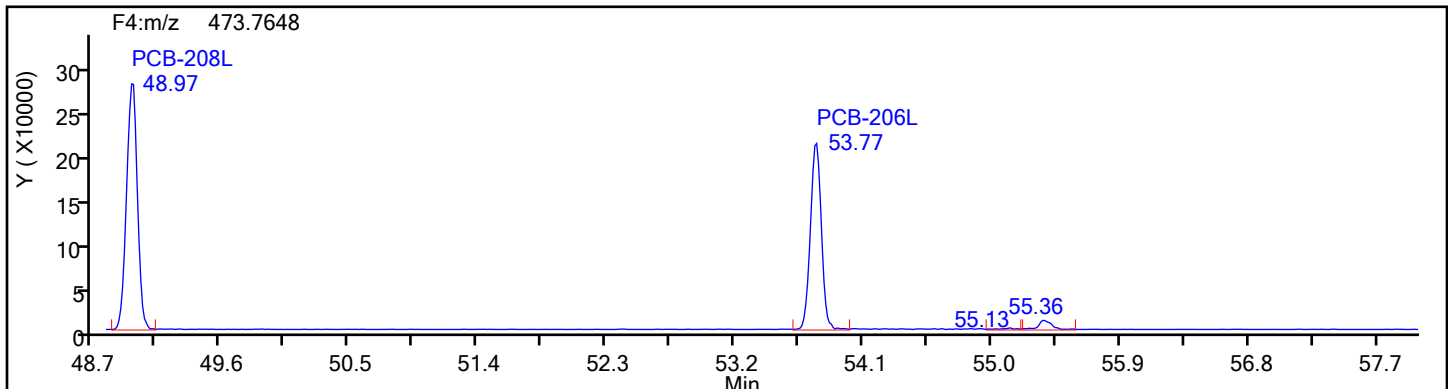
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



NoPCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

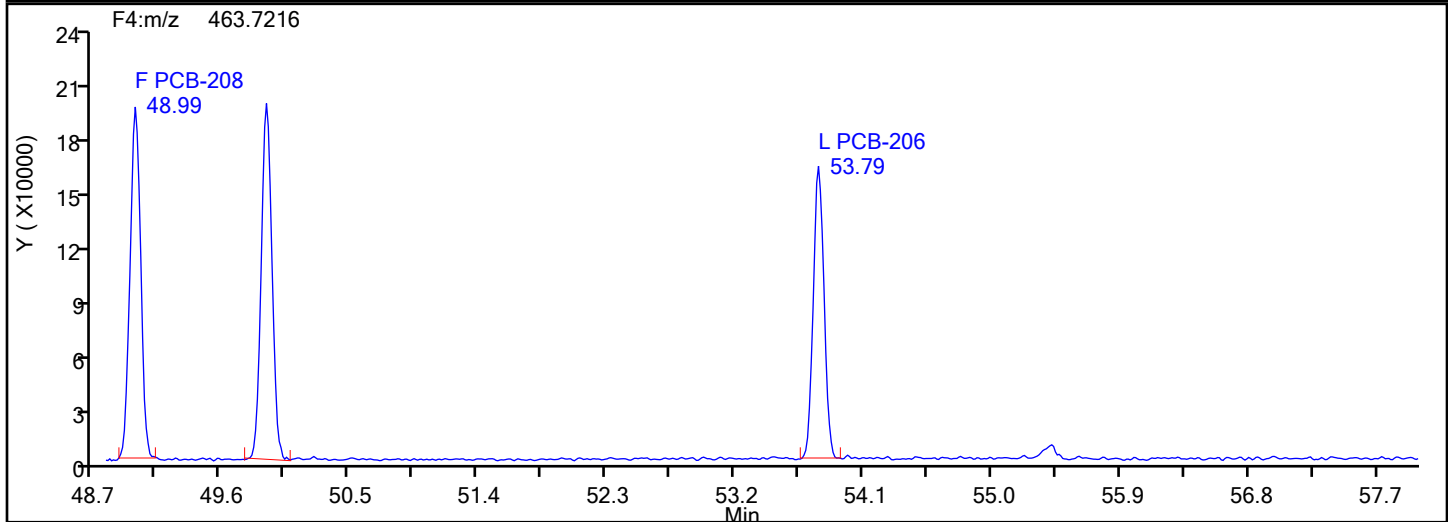
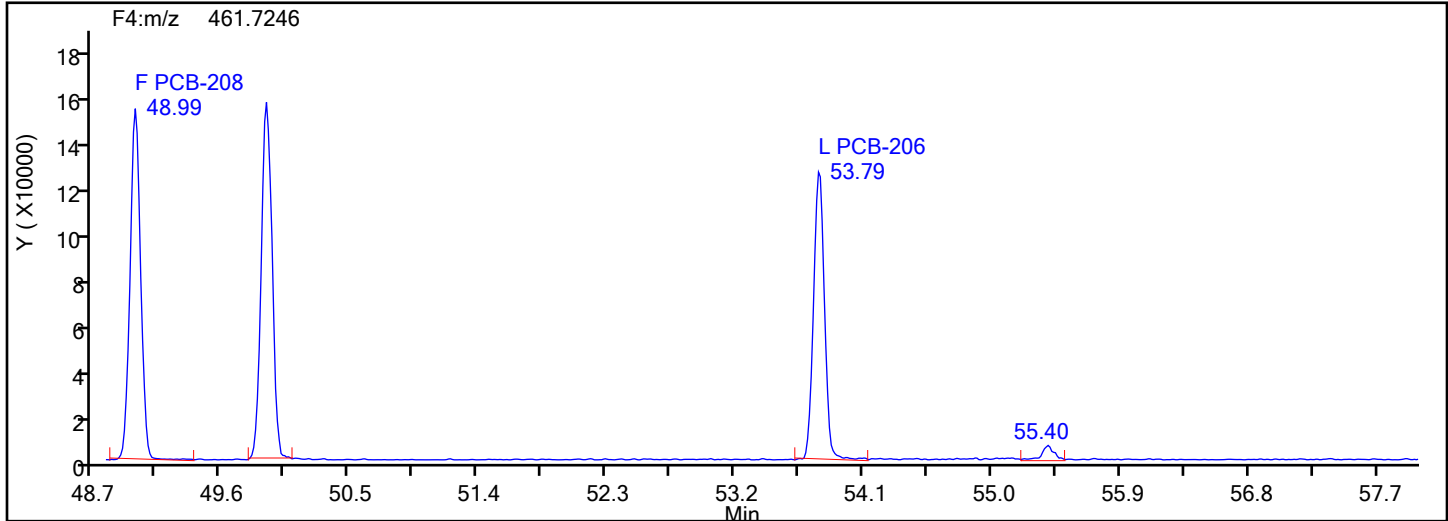
Worklist#: 88747

Sample Line#: 3

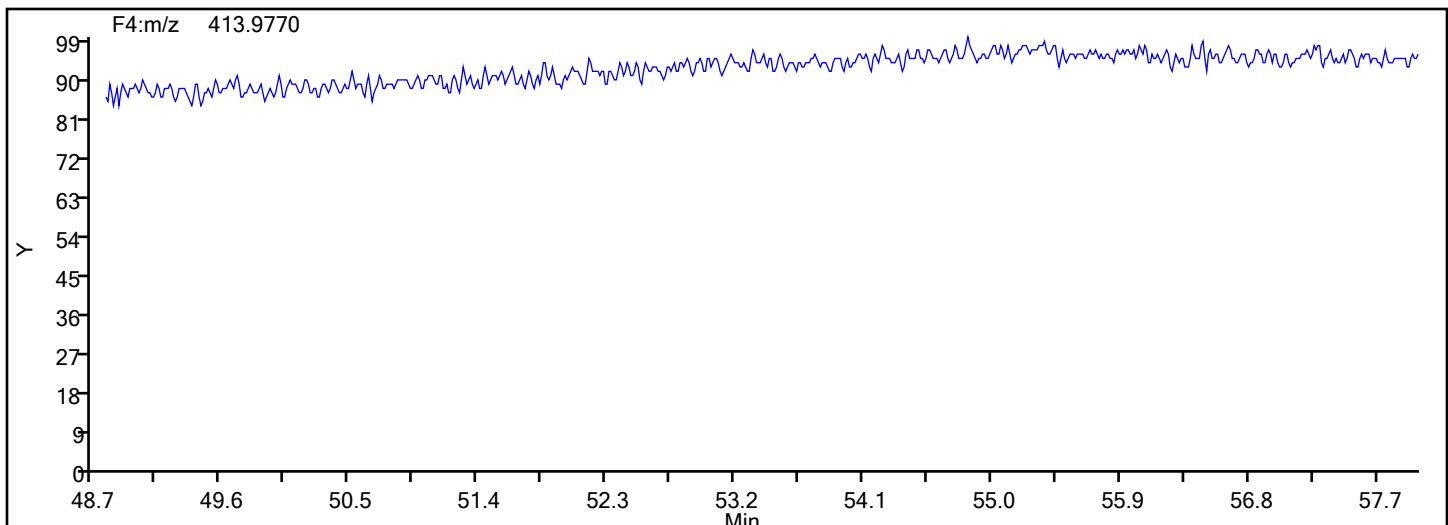
Column Type: SPB-Octyl

Column Dia: 0.25 mm

NoPCB F4



NoPCB F4 Lock Mass



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

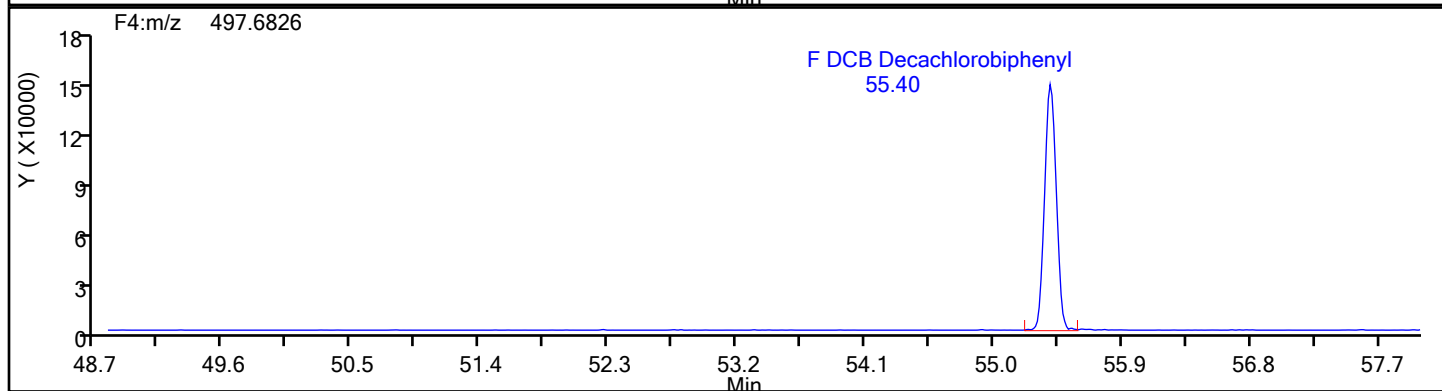
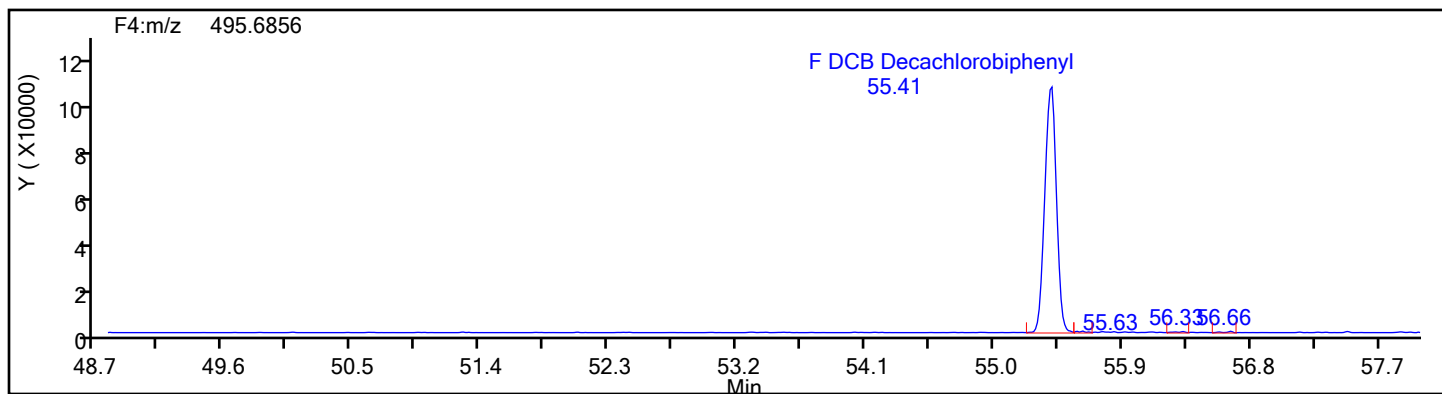
Worklist#: 88747

Sample Line#: 3

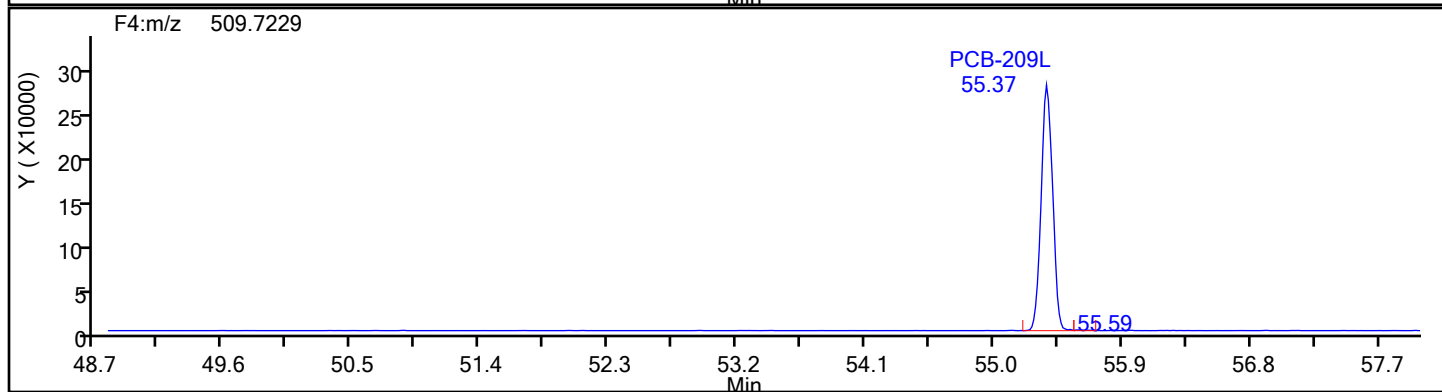
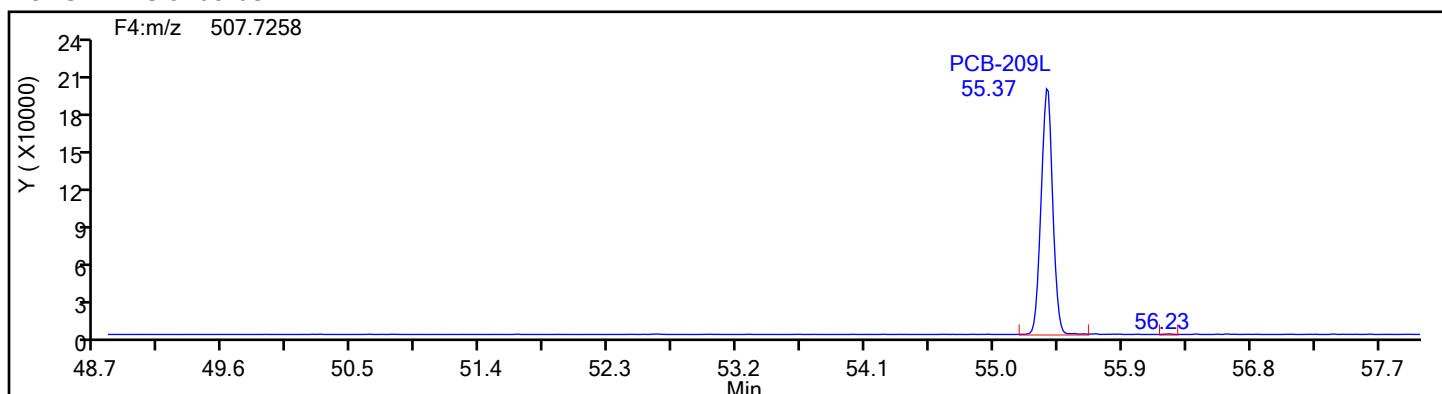
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



DePCB F4 Standards



## Eurofins Knoxville

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d

Injection Date: 15-Jul-2024 14:45:00

Injection Vol: 1.0 ul

Instrument ID: D2D

Operator ID: Xcalibur\_System

Method: PCBs\_D2D

Limit Group: HR - EPA\_23 PCB ICAL

Client ID:

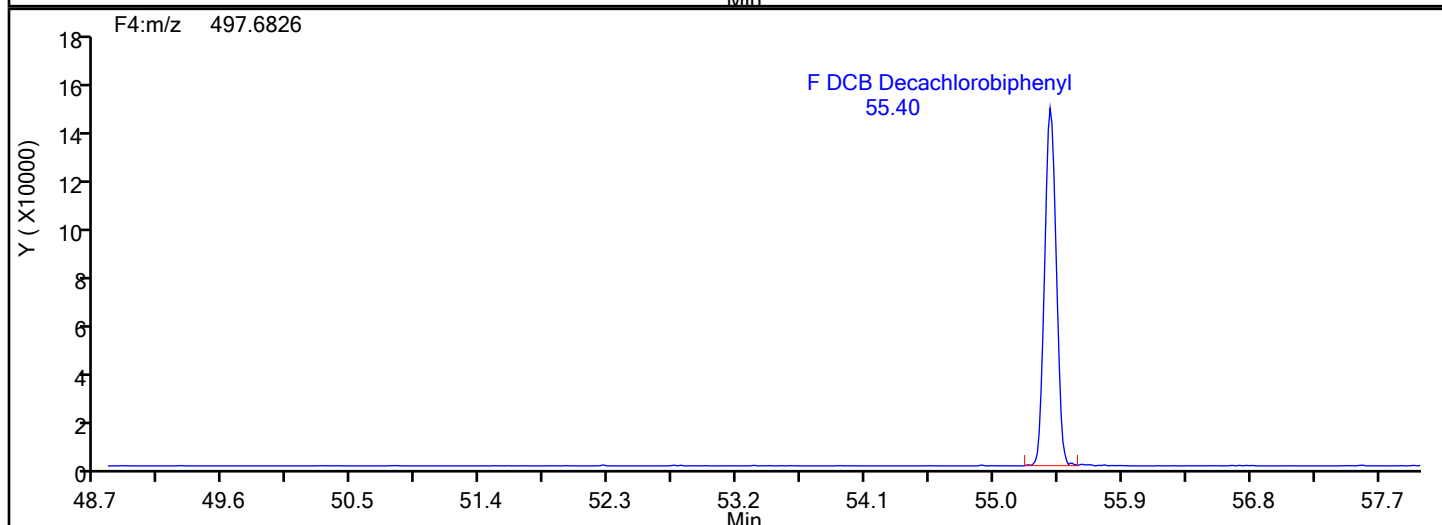
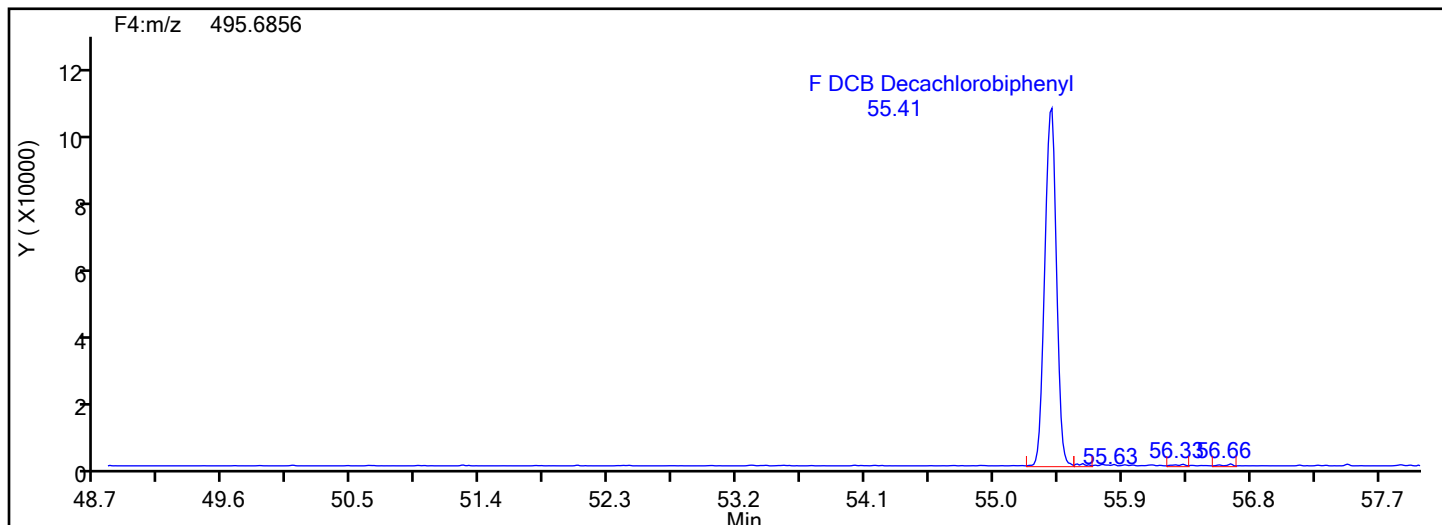
Worklist#: 88747

Sample Line#: 3

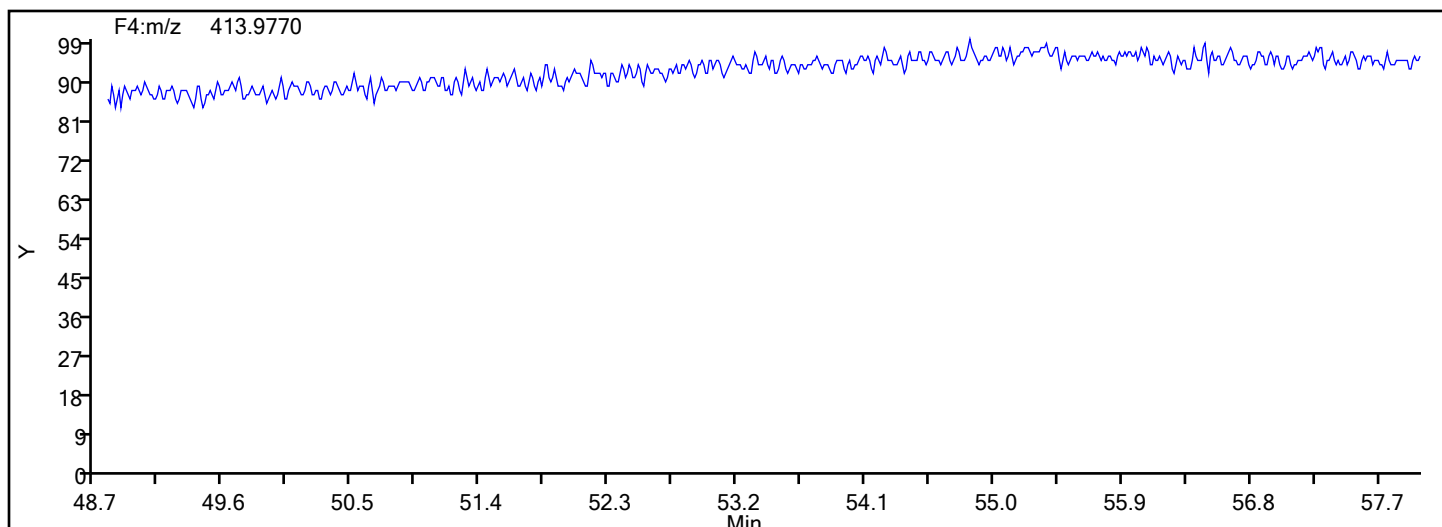
Column Type: SPB-Octyl

Column Dia: 0.25 mm

DePCB F4



## DePCB F4 Lock Mass



Eurofins Knoxville  
Recovery Report

Data File: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\lcsd140-8819320-b.d  
Lims ID: LCSD 140-88193/20-B  
Client ID:  
Sample Type: LCSD  
Inject. Date: 15-Jul-2024 14:45:00 ALS Bottle#: 0 Worklist Smp#: 3  
Injection Vol: 1.0 ul Dil. Factor: 1.0000  
Sample Info:  
Misc. Info.: 140-0033504-003  
Operator ID: Xcalibur\_System Instrument ID: D2D  
Method: \\chromfs\Knoxville\ChromData\D2D\20240715-33504.b\PCBs\_D2D.m  
Limit Group: HR - EPA\_23 PCB ICAL  
Last Update: 15-Jul-2024 19:48:30 Calib Date: 31-May-2024 21:13:00  
Integrator: Picker  
Quant Method: Isotopic Dilution Quant By: Initial Calibration  
Last ICal File: \\chromfs\Knoxville\ChromData\D2D\20240529-32883.b\d2240531pi6.d  
Column 1 : SPB-Octyl ( 0.25 mm) Det: F1(11.07 :21.70 )  
Process Host: CTX1621

First Level Reviewer: V4XA

Date: 15-Jul-2024 19:48:30

Compound	Amount Added	Amount Recovered	% Rec.
PCB-28L	100.0	65.9	65.93
PCB-111L	100.0	68.7	68.67
PCB-178L	100.0	68.5	68.47

HI-RES PCBS ANALYSIS RUN LOG

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D Start Date: 05/31/2024 14:36

Analysis Batch Number: 87130 End Date: 05/31/2024 22:58

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
IC 140-87130/1		05/31/2024 14:36	1	d2240531pi1a.d	SPB-Octyl 0.25 (mm)
IC 140-87130/2		05/31/2024 16:53	1	d2240531pi2a.d	SPB-Octyl 0.25 (mm)
IC 140-87130/3		05/31/2024 18:00	1	d2240531pi3.d	SPB-Octyl 0.25 (mm)
IC 140-87130/4		05/31/2024 19:10	1	d2240531pi4.d	SPB-Octyl 0.25 (mm)
IC 140-87130/5		05/31/2024 20:12	1	d2240531pi5.d	SPB-Octyl 0.25 (mm)
IC 140-87130/6		05/31/2024 21:13	1	d2240531pi6.d	SPB-Octyl 0.25 (mm)
ICV 140-87130/7		05/31/2024 22:58	1	d2240531icv.d	SPB-Octyl 0.25 (mm)

**Eurofins Knoxville HRMS PCB GC/MS Initial Calibration Data Review Checklist**  
**Method 1668 or SOP Number: KNOX-ID-0013 Revision 21**

Mass Res Date/Time:	5/31/24 12:51	Inst:	D2D	ICal Event #s	5117 5118 5119 (EPA_23 PCB) (1668C) (1668A)
Chrom WL #:	32883	ADII Batch #'s	87130 87131 87132 (EPA_23 PCB) (1668C) (1668A)	2nd Source Filename	d2240531.icv

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd ✓
1. Was the mass resolution documented before beginning the initial calibration?		✓			✓
2. Was the instrument resolution $\geq 8,000$ throughout ( $\geq 10,000$ for m/z 342.9792, PFK) and $\geq 10,000$ in the center of each m/z range for the PFK masses or FC43 masses?		✓			✓
3. Were the measured exact masses listed above within 5 ppm at reduced accelerating voltage?		✓			✓
4. Have PCB Mixes 1 - 5 been analyzed using the installed column to assign congener retention times, method retention times, and MID switch points?		✓			✓
5. Were the calibration standard solutions, at the number and concentrations specified in the SOP, analyzed?		✓			✓
6. Was date/time of analysis verified as correct?		✓			✓
7. Was the valley height less than 40% of the height of the shorter of the two peaks for the pair PCB 23 and PCB 34, and the pair PCB 182 and PCB 187 in the CS3 standard?		✓			✓
8. Did the PCB co-elution 156/157 co-max within 2 seconds at peak maximum on the SPB-octyl?		✓			✓
9. Was the absolute retention time of PCB 209 greater than 55 minutes in the CS3 standard?		✓			✓
10. Were the response factors calculated for each labeled standard and unlabeled native analyte using the SOP specified reference compound (Table 2), quantitation ions (Table 8), and formula (10.3.4.2)?		✓			✓
11. Is the %RSD acceptable for all native analytes (within $\pm 20\%$ calculated by IDAs, and within $\pm 35\%$ when not calculated by IDAs)?		✓			✓
12. Is the %RSD acceptable (within $\pm 35\%$ ) for all labeled standards?		✓			✓
13. Are all S/N ratios $\geq 10$ for the GC signals in each EICP (extracted ion chromatographic profile) including IDAs? (Exception: Secondary native dichloro biphenyl channel m/z 223.9974, PFK)		✓			✓
14. Are the ion abundance ratios for all native Toxics/LOCs and all labeled compounds within the control limits specified? (Exception: Native dichlorobiphenyls, PFK) (Table 9)		✓			✓
15. Were all toxic congeners uniquely resolved from non-toxic congeners?		✓			✓
16. Was an ICV analyzed and calculated according to Section 10.3.5 of the SOP?		✓		< 5 outliers, none more than $\pm 50\%$ D.	✓
17. If manual integrations were performed, are the analyst's name, reason and date noted in AD II?		✓			✓
18. If criteria were not met, was a NCM generated?	✓				NA
19. Do the ICAL AD II batches contain a completed checklist for this work list?		✓			✓
20. Verify the limit groups are picked correctly in the WL.		✓			✓
21. Are the reagents correct in the reagent tab?		✓			✓
22. First level "unlock/ clear" or "unlock clear by sublist" as appropriate?		✓			✓
23. All standards injected within 12 hours of the mass resolution check?		✓			✓
24. High point checked for saturation and low point at or below RL?		✓			✓
25. ICAL start/end dates correct on summary?		✓			✓
26. Final TALS review: Graphics uploaded, all points in the most recent active calibration event#, approved calibrations in TALS, ICV uploaded and included in all limit group batches?		✓			✓

Analyst: <u>BKK</u>		Date: <u>6/1/24</u>
Comments:		
2nd Level Reviewer: <u>Ch</u>		Date: <u>6-4-24</u>
Comments:		

HI-RES PCBS ANALYSIS RUN LOG

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D Start Date: 07/15/2024 12:43

Analysis Batch Number: 88747 End Date: 07/15/2024 18:33

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
WDMCCV 140-88747/1		07/15/2024 12:43	1	d2240715c1a.d	SPB-Octyl 0.25 (mm)
LCS 140-88193/19-B		07/15/2024 13:44	1	lcs140-8819319-b.d	SPB-Octyl 0.25 (mm)
LCSD 140-88193/20-B		07/15/2024 14:45	1	lcsd140-8819320-b.d	SPB-Octyl 0.25 (mm)
MB 140-88193/21-B		07/15/2024 16:31	1	mb140-8819321-b.d	SPB-Octyl 0.25 (mm)
ZZZZZ		07/15/2024 18:33	1		SPB-Octyl 0.25 (mm)



**Eurofins Knoxville HRMS PCB Continuing Calibration Data Review Checklist**  
**Method 1668 or SOP Number: KNOX-ID-0013 Revision 21**

<b>Start Mass Res:</b>	<b>12:27</b>	<b>WL #:</b>	<b>33504</b>	<b>CS3 Filename:</b>	<b>d2240715c1a</b>	<b>Inst/ Date:</b>	<b>D2D 7-15-24</b>
<b>End Mass Res:</b>	<b>23:40</b>	<b>AD II Batches:</b>	<b>88738, 88747</b>			<b>ICAL ADII Batch/ Event</b>	<b>87130/ 5117 87131/ 5118</b>

<b>Review Items</b>	<b>N/A</b>	<b>Yes</b>	<b>No</b>	<b>If No, why is data reportable?</b>	<b>2<sup>nd</sup> Level</b>
1. Was the mass resolution documented at both the beginning and end of the 12 hour shift and is data verified as within the 12 hour clock?		Y			Y
2. Were all graphics uploaded to AD II?		Y			Y
3. Was the mass resolution scanned and attached to the corresponding WDMCCV?		Y			Y
4. Was the instrument resolution $\geq 8,000$ throughout ( $\geq 10,000$ for m/z 342.9792) and $\geq 10,000$ in the center of each m/z range for the PFK masses as listed in the SOP or $\geq 10,000$ in the center of each m/z range for the FC43 masses as listed in the SOP.		Y			Y
5. Were the measured exact masses listed above within 5 ppm at reduced accelerating voltage?		Y			Y
6. Were the date and time of analysis verified as correct?		Y			Y
7. Were the MID switch points set to encompass the retention time windows of each congener group?		Y			Y
8. Was the valley height less than 40% of the height of the shorter of the two peaks for the pair PCB 23 and PCB 34, and the pair PCB 182 and PCB 187?		Y			Y
9. Did the PCB co-elution 156/157 co-max within 2 sec at peak max on the SPB-octyl?		Y			Y
10. Was the continuing calibration performed at the beginning of the 12 hour period after successful mass resolution and GC resolution performance check?		Y			Y
11. Was the %D for all Toxic analytes within $\pm 30\%$ for 1668A/B and $\pm 25\%$ for 1668C? (PCB 81, 77, 123, 118, 114, 105, 126, 167, 156, 157, 169, 189) Was the %D for all LOC analytes within $\pm 30\%$ for 1668A/B and $\pm 25\%$ for 1668C? (PCB 1, 3, 4, 15, 19, 37, 54, 104, 155, 188, 202, 205, 206, 208, 209)		Y			Y
12. Was the %D for all non-toxic/non-LOC analytes within $\pm 30\%$ (for all versions of 1668)?		Y			Y
13. Were the response factors calculated for each labeled standard and unlabeled target analyte using the SOP specified reference compound (Table 2), quantitation ions (Table 8), and formula (10.3.4.2)?		Y			Y
14. Were the absolute retention times of all labeled IDAs within $\pm 15$ seconds of the retention times obtained during initial calibration?		Y			Y
15. Are %D within $\pm 50\%$ for all labeled IDAs (for 1668A/B) or -50/+45% (for 1668C) in the calibration?		Y			Y
16. Are the %D within $\pm 50\%$ for all labeled field surrogates (for all versions of 1668) in the calibration?		Y			Y
17. Are the %D within -40/+30% (for 1668A/B) or $\pm 25\%$ (for 1668C) for all labeled surrogates in the calibration? <b>Note: for 1668C, PCB28L's lower limit can extend to -35%D.</b>		Y			Y
18. Are all S/N ratios $\geq 10$ for the GC signals in each EICP (extracted ion chromatographic profile) including internal standards?		Y			Y
19. Are RRTs of all unlabeled toxic/LOC analytes within their respective RRT limits?		Y			Y
20. If manual integrations were performed, are they clearly identified in the AD II batch with the analyst, date and reason?		Y			Y
21. If criteria were not met, was a NCM generated?	NA				NA
22. Do the AD II batches contain a completed checklist for this work list?		Y			Y

<b>Analyst: JMN</b>	<b>Date: 7-15-24</b>
<b>Comments:</b>	
<b>2nd Level Reviewer : MAC</b>	<b>Date: 07/17/2024</b>
<b>Comments:</b>	

**Eurofins Knoxville HRMS PCB Batch Data Review Checklist**  
**Method 1668 - KNOX-ID-0013-R21**

WL #: 33504  
ADII Batch #(s): 88738, 88747

Review Items	N/A	Yes	No	Why is data reportable?	2nd <input checked="" type="checkbox"/>
1. Was the correct ICAL used for quantitation? (Check the ICAL event number in every sample and CCV.)		Y			Y
2. Have the appropriate checklists been completed for the Work List?		Y			Y
3. Were all special project requirements met (checked in backlog report and in AD II)?		Y			Y
4. DoD requirements met?	NA			<input type="checkbox"/> NCM#140-48351: Add to Case Narrative if Manual Integrations Performed <input type="checkbox"/> Narrate reasons for multiple analyses of samples	NA
5. Were the prep factors and dilution factors verified in AD II?		Y		<input type="checkbox"/> Dilution-Respike IDA (NCM# _____)	Y
6. Sample analyses done within preparation and analytical holding time (Check for H-flag in sample result in AD II)?		Y		<input type="checkbox"/> Holding Time-Initial Analysis (NCM# _____) <input type="checkbox"/> Holding Time-Reanalysis (NCM# _____)	Y
7. Are IDAs, surrogates and field surrogates (if applicable) within QC limits?		Y		<input type="checkbox"/> IDA-Low-S/N 10:1 (NCM# _____) <input type="checkbox"/> IDA-High-Isotope Dilution (NCM# _____)	Y
8. Are IDAs, surrogates and field surrogate (if applicable) ion abundance ratios within limits?		Y		<input type="checkbox"/> Abundance ratio outside limit for IDA (NCM# _____)	Y
9. Were peaks $\geq 2.5$ S/N, which did not meet one or more of the criteria listed in section 12.1 of the SOP calculated and reported as EMPCs?		Y			Y
10. Are positive results within calibration range?		Y		<input type="checkbox"/> ICAL-Range Exceed; No Sat. (NCM# _____)	Y
11. Are all non-detects that are G-qualified narrated?	NA			<input type="checkbox"/> (NCM# _____)	NA
12. Are all manual integrations documented with analyst ID, reason and date in AD II?		Y			Y
13. Are all graphics uploaded to AD II?		Y			Y
14. Final report acceptable (1. Job Data Review was checked and all CCV's, QC, and samples are turned to 2 <sup>nd</sup> level, 2. The narrative was checked in Supervisor Desktop for all deviations and grammar errors, and 3. All QC links were verified and at least one sample from every job is linked to the ICAL)?		Y			Y
15. LCS done per prep batch and all LCS/LCSD recoveries and RPDs within QC limits?		Y		<input type="checkbox"/> LCS/LCSD-%R High (NCM# _____) <input type="checkbox"/> LCS/LCSD-Insuff. Sample (NCM# _____)	Y
16. Method blank done per prep batch and method blank or instrument blank analyzed with each sequence?		Y			Y
17. Are all analytes present in the method blank $\leq$ EML or within the specific program requirements?		Y		<input type="checkbox"/> Method Blank-Report, 10X (NCM# _____) <input type="checkbox"/> Method Blank-Report ND (NCM# _____) <input type="checkbox"/> Method Blank-Insuff. Sample (NCM# _____)	Y

<b>1<sup>st</sup> Level Reviewed by: BKK</b>	<b>Date: 7/16/2024</b>
<b>Comments:</b>	
<b>2<sup>nd</sup> Level Reviewed by: MAC</b>	<b>Date: 07/17/2024</b>
<b>Comments:</b>	

# HI-RES PCBS ANALYSIS RUN LOG

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D Start Date: 07/16/2024 11:46

Analysis Batch Number: 88809 End Date: 07/16/2024 21:40

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
WDMCCV 140-88809/1		07/16/2024 11:46	1	d2240716c1a.d	SPB-Octyl 0.25 (mm)
ZZZZZ		07/16/2024 13:37	1		SPB-Octyl 0.25 (mm)
140-37234-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	07/16/2024 14:38	1	140-37234-a-14-b.d	SPB-Octyl 0.25 (mm)
140-37234-8	M23 F-10 BOILER BT COMBINED	07/16/2024 15:40	1	140-37234-a-8-d.d	SPB-Octyl 0.25 (mm)
140-37234-1	M23 F-10 BOILER RUN 2 COMBINED	07/16/2024 16:41	1	140-37234-a-1-d.d	SPB-Octyl 0.25 (mm)
140-37234-2	M23 F-10 BOILER RUN 3 COMBINED	07/16/2024 19:38	5	140-37234-a-2-d 5x_202407161936 45.d	SPB-Octyl 0.25 (mm)
ZZZZZ		07/16/2024 20:39	5		SPB-Octyl 0.25 (mm)
140-37234-4	M23 F-10 BOILER RUN 5 COMBINED	07/16/2024 21:40	5	140-37234-a-4-d 5x.d	SPB-Octyl 0.25 (mm)

**Eurofins Knoxville HRMS PCB Continuing Calibration Data Review Checklist**  
**Method 1668 or SOP Number: KNOX-ID-0013 Revision 21**

<b>Start Mass Res:</b>	<b>11:10</b>	<b>WL #:</b>	<b>33521</b>	<b>CS3 Filename:</b>	<b>d2240716c2a</b>	<b>Inst/ Date:</b>	<b>D2D 7/16/2024</b>
<b>End Mass Res:</b>	<b>22:41</b>	<b>AD II Batches:</b>	<b>88809</b>			<b>ICAL ADII Batch/ Event</b>	<b>87130 / 5117</b>

<b>Review Items</b>	<b>N/A</b>	<b>Yes</b>	<b>No</b>	<b>If No, why is data reportable?</b>	<b>2<sup>nd</sup> Level</b>
1. Was the mass resolution documented at both the beginning and end of the 12 hour shift and is data verified as within the 12 hour clock?		Y			Y
2. Were all graphics uploaded to AD II?		Y			Y
3. Was the mass resolution scanned and attached to the corresponding WDMCCV?		Y			Y
4. Was the instrument resolution $\geq 8,000$ throughout ( $\geq 10,000$ for m/z 342.9792) and $\geq 10,000$ in the center of each m/z range for the PFK masses as listed in the SOP or $\geq 10,000$ in the center of each m/z range for the FC43 masses as listed in the SOP.		Y			Y
5. Were the measured exact masses listed above within 5 ppm at reduced accelerating voltage?		Y			Y
6. Were the date and time of analysis verified as correct?		Y			Y
7. Were the MID switch points set to encompass the retention time windows of each congener group?		Y			Y
8. Was the valley height less than 40% of the height of the shorter of the two peaks for the pair PCB 23 and PCB 34, and the pair PCB 182 and PCB 187?		Y			Y
9. Did the PCB co-elution 156/157 co-max within 2 sec at peak max on the SPB-octyl?		Y			Y
10. Was the continuing calibration performed at the beginning of the 12 hour period after successful mass resolution and GC resolution performance check?		Y			Y
11. Was the %D for all Toxic analytes within $\pm 30\%$ for 1668A/B and $\pm 25\%$ for 1668C? (PCB 81, 77, 123, 118, 114, 105, 126, 167, 156, 157, 169, 189) Was the %D for all LOC analytes within $\pm 30\%$ for 1668A/B and $\pm 25\%$ for 1668C? (PCB 1, 3, 4, 15, 19, 37, 54, 104, 155, 188, 202, 205, 206, 208, 209)		Y			Y
12. Was the %D for all non-toxic/non-LOC analytes within $\pm 30\%$ (for all versions of 1668)?		Y			Y
13. Were the response factors calculated for each labeled standard and unlabeled target analyte using the SOP specified reference compound (Table 2), quantitation ions (Table 8), and formula (10.3.4.2)?		Y			Y
14. Were the absolute retention times of all labeled IDAs within $\pm 15$ seconds of the retention times obtained during initial calibration?		Y			Y
15. Are %D within $\pm 50\%$ for all labeled IDAs (for 1668A/B) or -50/+45% (for 1668C) in the calibration?		Y			Y
16. Are the %D within $\pm 50\%$ for all labeled field surrogates (for all versions of 1668) in the calibration?		Y			Y
17. Are the %D within -40/+30% (for 1668A/B) or $\pm 25\%$ (for 1668C) for all labeled surrogates in the calibration? <b>Note: for 1668C, PCB28L's lower limit can extend to -35%D.</b>		Y			Y
18. Are all S/N ratios $\geq 10$ for the GC signals in each EICP (extracted ion chromatographic profile) including internal standards?		Y			Y
19. Are RRTs of all unlabeled toxic/LOC analytes within their respective RRT limits?		Y			Y
20. If manual integrations were performed, are they clearly identified in the AD II batch with the analyst, date and reason?		Y			Y
21. If criteria were not met, was a NCM generated?	NA				NA
22. Do the AD II batches contain a completed checklist for this work list?		Y			Y

<b>Analyst: BKK</b>	<b>Date: 7-16-24</b>
<b>Comments:</b>	
<b>2nd Level Reviewer : LKM</b>	<b>Date: 7-16-24</b>
<b>Comments:</b>	

**Eurofins Knoxville HRMS PCB Batch Data Review Checklist**  
**Method 1668 - KNOX-ID-0013-R21**

WL #: 33521  
ADII Batch #(s): 88809

Review Items	N/A	Yes	No	Why is data reportable?	2nd ✓
1. Was the correct ICAL used for quantitation? (Check the ICAL event number in every sample and CCV.)		Y			Y
2. Have the appropriate checklists been completed for the Work List?		Y			Y
3. Were all special project requirements met (checked in backlog report and in AD II)?		Y			Y
4. DoD requirements met?	NA			<input type="checkbox"/> NCM#140-48351: Add to Case Narrative if Manual Integrations Performed <input type="checkbox"/> Narrate reasons for multiple analyses of samples	NA
5. Were the prep factors and dilution factors verified in AD II?		Y		<input type="checkbox"/> Dilution-Respike IDA (NCM# _____)	Y
6. Sample analyses done within preparation and analytical holding time (Check for H-flag in sample result in AD II)?		Y		<input type="checkbox"/> Holding Time-Initial Analysis (NCM# _____) <input type="checkbox"/> Holding Time-Reanalysis (NCM# _____)	Y
7. Are IDAs, surrogates and field surrogates (if applicable) within QC limits?		Y		<input type="checkbox"/> IDA-Low-S/N 10:1 (NCM# _____) <input type="checkbox"/> IDA-High-Isotope Dilution (NCM# _____)	Y
8. Are IDAs, surrogates and field surrogate (if applicable) ion abundance ratios within limits?		Y		<input type="checkbox"/> Abundance ratio outside limit for IDA (NCM# _____)	Y
9. Were peaks $\geq 2.5$ S/N, which did not meet one or more of the criteria listed in section 12.1 of the SOP calculated and reported as EMPCs?		Y			Y
10. Are positive results within calibration range?		Y		<input type="checkbox"/> ICAL-Range Exceed;No Sat. (NCM# _____)	Y
11. Are all non-detects that are G-qualified narrated?	NA			<input type="checkbox"/> (NCM# _____)	NA
12. Are all manual integrations documented with analyst ID, reason and date in AD II?		Y			Y
13. Are all graphics uploaded to AD II?		Y			Y
14. Final report acceptable (1. Job Data Review was checked and all CCV's, QC, and samples are turned to 2 <sup>nd</sup> level, 2. The narrative was checked in Supervisor Desktop for all deviations and grammar errors, and 3. All QC links were verified and at least one sample from every job is linked to the ICAL)?		Y			Y
15. LCS done per prep batch and all LCS/LCSD recoveries and RPDs within QC limits?		Y		<input type="checkbox"/> LCS/LCSD-%R High (NCM# _____) <input type="checkbox"/> LCS/LCSD-Insuff. Sample (NCM# _____)	Y
16. Method blank done per prep batch and method blank or instrument blank analyzed with each sequence?		Y			Y
17. Are all analytes present in the method blank $\leq$ EML or within the specific program requirements?		Y		<input type="checkbox"/> Method Blank-Report, 10X (NCM# _____) <input type="checkbox"/> Method Blank-Report ND (NCM# _____) <input type="checkbox"/> Method Blank-Insuff. Sample NCM# _____	Y

<b>1<sup>st</sup> Level Reviewed by: MAC</b>	<b>Date: 07/17/2024</b>
<b>Comments:</b>	
<b>2nd Level Reviewed by: BKK</b>	<b>Date: 7/17/2024</b>
<b>Comments:</b>	

# HI-RES PCBS ANALYSIS RUN LOG

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Instrument ID: D2D Start Date: 07/16/2024 23:14

Analysis Batch Number: 88834 End Date: 07/17/2024 06:22

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
WDMCCV 140-88834/1		07/16/2024 23:14	1	d2240716c2a.d	SPB-Octyl 0.25 (mm)
ZZZZZ		07/17/2024 02:18	1		SPB-Octyl 0.25 (mm)
140-37234-5	M23 F-10 BOILER RUN 6 COMBINED	07/17/2024 04:20	5	140-37234-a-5-d -5x.d	SPB-Octyl 0.25 (mm)
140-37234-6	M23 F-10 BOILER RUN 7 COMBINED	07/17/2024 05:21	5	140-37234-a-6-d -5x.d	SPB-Octyl 0.25 (mm)
140-37234-7	M23 F-10 BOILER RUN 8 COMBINED	07/17/2024 06:22	5	140-37234-a-7-d -5x.d	SPB-Octyl 0.25 (mm)

**Eurofins Knoxville HRMS PCB Continuing Calibration Data Review Checklist**  
**Method 1668 or SOP Number: KNOX-ID-0013 Revision 21**

Start Mass Res:	22:41	WL #:	33532	CS3 Filename:	d2240716c2a	Inst/ Date:	D2D 7-16-24
End Mass Res:	09:26	AD II Batches:	88834,88835			ICAL ADII Batch/ Event	87130/ 5117 87132/ 5119

Review Items	N/A	Yes	No	If No, why is data reportable?	2 <sup>nd</sup> Level
1. Was the mass resolution documented at both the beginning and end of the 12 hour shift and is data verified as within the 12 hour clock?		Y			Y
2. Were all graphics uploaded to AD II?		Y			Y
3. Was the mass resolution scanned and attached to the corresponding WDMCCV?		Y			Y
4. Was the instrument resolution $\geq 8,000$ throughout ( $\geq 10,000$ for m/z 342.9792) and $\geq 10,000$ in the center of each m/z range for the PFK masses as listed in the SOP or $\geq 10,000$ in the center of each m/z range for the FC43 masses as listed in the SOP.		Y			Y
5. Were the measured exact masses listed above within 5 ppm at reduced accelerating voltage?		Y			Y
6. Were the date and time of analysis verified as correct?		Y			Y
7. Were the MID switch points set to encompass the retention time windows of each congener group?		Y			Y
8. Was the valley height less than 40% of the height of the shorter of the two peaks for the pair PCB 23 and PCB 34, and the pair PCB 182 and PCB 187?		Y			Y
9. Did the PCB co-elution 156/157 co-max within 2 sec at peak max on the SPB-octyl?		Y			Y
10. Was the continuing calibration performed at the beginning of the 12 hour period after successful mass resolution and GC resolution performance check?		Y			Y
11. Was the %D for all Toxic analytes within $\pm 30\%$ for 1668A/B and $\pm 25\%$ for 1668C? (PCB 81, 77, 123, 118, 114, 105, 126, 167, 156, 157, 169, 189) Was the %D for all LOC analytes within $\pm 30\%$ for 1668A/B and $\pm 25\%$ for 1668C? (PCB 1, 3, 4, 15, 19, 37, 54, 104, 155, 188, 202, 205, 206, 208, 209)		Y			Y
12. Was the %D for all non-toxic/non-LOC analytes within $\pm 30\%$ (for all versions of 1668)?		Y			Y
13. Were the response factors calculated for each labeled standard and unlabeled target analyte using the SOP specified reference compound (Table 2), quantitation ions (Table 8), and formula (10.3.4.2)?		Y			Y
14. Were the absolute retention times of all labeled IDAs within $\pm 15$ seconds of the retention times obtained during initial calibration?		Y			Y
15. Are %D within $\pm 50\%$ for all labeled IDAs (for 1668A/B) or -50/+45% (for 1668C) in the calibration?		Y			Y
16. Are the %D within $\pm 50\%$ for all labeled field surrogates (for all versions of 1668) in the calibration?		Y			Y
17. Are the %D within -40/+30% (for 1668A/B) or $\pm 25\%$ (for 1668C) for all labeled surrogates in the calibration? <b>Note: for 1668C, PCB28L's lower limit can extend to -35%D.</b>		Y			Y
18. Are all S/N ratios $\geq 10$ for the GC signals in each EICP (extracted ion chromatographic profile) including internal standards?		Y			Y
19. Are RRTs of all unlabeled toxic/LOC analytes within their respective RRT limits?		Y			Y
20. If manual integrations were performed, are they clearly identified in the AD II batch with the analyst, date and reason?		Y			Y
21. If criteria were not met, was a NCM generated?	NA				NA
22. Do the AD II batches contain a completed checklist for this work list?		Y			Y

<b>Analyst: LKM</b>	<b>Date: 7-16-24</b>
<b>Comments:</b>	
<b>2nd Level Reviewer : MAC</b>	<b>Date: 07/17/2024</b>
<b>Comments:</b>	

**Eurofins Knoxville HRMS PCB Batch Data Review Checklist**  
**Method 1668 - KNOX-ID-0013-R21**

WL #: 33532  
ADII Batch #(s): 88834,88835

Review Items	N/A	Yes	No	Why is data reportable?	2nd ✓
1. Was the correct ICAL used for quantitation? (Check the ICAL event number in every sample and CCV.)		Y			Y
2. Have the appropriate checklists been completed for the Work List?		Y			Y
3. Were all special project requirements met (checked in backlog report and in AD II)?		Y			Y
4. DoD requirements met?	NA			<input type="checkbox"/> NCM#140-48351: Add to Case Narrative if Manual Integrations Performed <input type="checkbox"/> Narrate reasons for multiple analyses of samples	NA
5. Were the prep factors and dilution factors verified in AD II?		Y		<input type="checkbox"/> Dilution-Respike IDA (NCM#_____)	Y
6. Sample analyses done within preparation and analytical holding time (Check for H-flag in sample result in AD II)?		Y		<input type="checkbox"/> Holding Time-Initial Analysis (NCM#_____) <input type="checkbox"/> Holding Time-Reanalysis (NCM#_____)	Y
7. Are IDAs, surrogates and field surrogates (if applicable) within QC limits?			N**	<input type="checkbox"/> IDA-Low-S/N 10:1 (NCM#_____) <input type="checkbox"/> IDA-High-Isotope Dilution (NCM#_____)	N
8. Are IDAs, surrogates and field surrogate (if applicable) ion abundance ratios within limits?		Y		<input type="checkbox"/> Abundance ratio outside limit for IDA (NCM#_____)	Y
9. Were peaks $\geq 2.5$ S/N, which did not meet one or more of the criteria listed in section 12.1 of the SOP calculated and reported as EMPCs?		Y			Y
10. Are positive results within calibration range?		Y		<input type="checkbox"/> ICAL-Range Exceed;No Sat. (NCM#_____)	Y
11. Are all non-detects that are G-qualified narrated?	NA			<input type="checkbox"/> (NCM#_____)	NA
12. Are all manual integrations documented with analyst ID, reason and date in AD II?		Y			Y
13. Are all graphics uploaded to AD II?		Y			Y
14. Final report acceptable (1. Job Data Review was checked and all CCV's, QC, and samples are turned to 2 <sup>nd</sup> level, 2. The narrative was checked in Supervisor Desktop for all deviations and grammar errors, and 3. All QC links were verified and at least one sample from every job is linked to the ICAL)?		Y			Y
15. LCS done per prep batch and all LCS/LCSD recoveries and RPDs within QC limits?		Y		<input type="checkbox"/> LCS/LCSD-%R High (NCM#_____) <input type="checkbox"/> LCS/LCSD-Insuff. Sample (NCM#_____)	Y
16. Method blank done per prep batch and method blank or instrument blank analyzed with each sequence?		Y			Y
17. Are all analytes present in the method blank $\leq$ EML or within the specific program requirements?		Y		<input type="checkbox"/> Method Blank-Report, 10X (NCM#_____) <input type="checkbox"/> Method Blank-Report ND (NCM#_____) <input type="checkbox"/> Method Blank-Insuff. Sample NCM#_____	Y

<b>1<sup>st</sup> Level Reviewed by: MAC</b>	<b>Date: 7/17/2024</b>
<b>Comments:</b>	
**NCM 57444-sample 140-37234-5 media was not spiked with field surrogates.	
<b>2nd Level Reviewed by: BKK</b>	<b>Date: 7/17/2024</b>
<b>Comments:</b>	



HI-RES PCBS ANALYSIS RUN LOG

Lab Name: Eurofins Knoxville Job No.: 140-37234-1  
 SDG No.: \_\_\_\_\_  
 Instrument ID: D2D Start Date: 07/17/2024 12:39  
 Analysis Batch Number: 88871 End Date: 07/17/2024 19:36

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
WDMCCV 140-88871/1		07/17/2024 12:39	1	d2240717c1c.d	SPB-Octyl 0.25 (mm)
ZZZZZ		07/17/2024 15:31	1		SPB-Octyl 0.25 (mm)
140-37234-3	M23 F-10 BOILER RUN 4 COMBINED	07/17/2024 19:36	5	140-37234-a-3-d 5xrr.d	SPB-Octyl 0.25 (mm)

**Eurofins Knoxville HRMS PCB Continuing Calibration Data Review Checklist**  
**Method 1668 or SOP Number: KNOX-ID-0013 Revision 21**

Start Mass Res:	11:18	WL #:	33539	CS3 Filename:	d2240717c1c	Inst/Date:	D2D 7/17/2024
End Mass Res:	22:40	AD II Batches:	88850 , 88851 , 88871			ICAL ADII Batch/ Event	87130 / 5117    87131 / 5118 87132 / 5119

Review Items	N/A	Yes	No	If No, why is data reportable?	2 <sup>nd</sup> Level
1. Was the mass resolution documented at both the beginning and end of the 12 hour shift and is data verified as within the 12 hour clock?		Y			Y
2. Were all graphics uploaded to AD II?		Y			Y
3. Was the mass resolution scanned and attached to the corresponding WDMCCV?		Y			Y
4. Was the instrument resolution $\geq 8,000$ throughout ( $\geq 10,000$ for m/z 342.9792) and $\geq 10,000$ in the center of each m/z range for the PFK masses as listed in the SOP or $\geq 10,000$ in the center of each m/z range for the FC43 masses as listed in the SOP.		Y			Y
5. Were the measured exact masses listed above within 5 ppm at reduced accelerating voltage?		Y			Y
6. Were the date and time of analysis verified as correct?		Y			Y
7. Were the MID switch points set to encompass the retention time windows of each congener group?		Y			Y
8. Was the valley height less than 40% of the height of the shorter of the two peaks for the pair PCB 23 and PCB 34, and the pair PCB 182 and PCB 187?		Y			Y
9. Did the PCB co-elution 156/157 co-max within 2 sec at peak max on the SPB-octyl?		Y			Y
10. Was the continuing calibration performed at the beginning of the 12 hour period after successful mass resolution and GC resolution performance check?		Y			Y
11. Was the %D for all Toxic analytes within $\pm 30\%$ for 1668A/B and $\pm 25\%$ for 1668C? (PCB 81, 77, 123, 118, 114, 105, 126, 167, 156, 157, 169, 189) Was the %D for all LOC analytes within $\pm 30\%$ for 1668A/B and $\pm 25\%$ for 1668C? (PCB 1, 3, 4, 15, 19, 37, 54, 104, 155, 188, 202, 205, 206, 208, 209)		Y			Y
12. Was the %D for all non-toxic/non-LOC analytes within $\pm 30\%$ (for all versions of 1668)?		Y			Y
13. Were the response factors calculated for each labeled standard and unlabeled target analyte using the SOP specified reference compound (Table 2), quantitation ions (Table 8), and formula (10.3.4.2)?		Y			Y
14. Were the absolute retention times of all labeled IDAs within $\pm 15$ seconds of the retention times obtained during initial calibration?		Y			Y
15. Are %D within $\pm 50\%$ for all labeled IDAs (for 1668A/B) or -50/+45% (for 1668C) in the calibration?		Y		*see below	Y
16. Are the %D within $\pm 50\%$ for all labeled field surrogates (for all versions of 1668) in the calibration?		Y			Y
17. Are the %D within -40/+30% (for 1668A/B) or $\pm 25\%$ (for 1668C) for all labeled surrogates in the calibration? <b>Note: for 1668C, PCB28L's lower limit can extend to -35%D.</b>		Y			Y
18. Are all S/N ratios $\geq 10$ for the GC signals in each EICP (extracted ion chromatographic profile) including internal standards?		Y			Y
19. Are RRTs of all unlabeled toxic/LOC analytes within their respective RRT limits?		Y			Y
20. If manual integrations were performed, are they clearly identified in the AD II batch with the analyst, date and reason?		Y			Y
21. If criteria were not met, was a NCM generated?		Y			NA
22. Do the AD II batches contain a completed checklist for this work list?		Y			Y

<b>Analyst: BKK</b>	<b>Date: 7/17/2024</b>
<b>Comments:</b>	
* M23_PCB %D for PCB-209L outside 30%D method criteria; NCM 140-57458	
<b>2nd Level Reviewer : LKM</b>	<b>Date: 7-18-24</b>
<b>Comments:</b>	

**Eurofins Knoxville HRMS PCB Batch Data Review Checklist**  
**Method 1668 - KNOX-ID-0013-R21**

WL #: 33539  
 ADII Batch #(s): 88850, 88851, 88871

Review Items	N/A	Yes	No	Why is data reportable?	2nd <input checked="" type="checkbox"/>
1. Was the correct ICAL used for quantitation? (Check the ICAL event number in every sample and CCV.)		Y			Y
2. Have the appropriate checklists been completed for the Work List?		Y			Y
3. Were all special project requirements met (checked in backlog report and in AD II)?		Y			Y
4. DoD requirements met?	NA			<input type="checkbox"/> NCM#140-48351: Add to Case Narrative if Manual Integrations Performed <input type="checkbox"/> Narrate reasons for multiple analyses of samples	NA
5. Were the prep factors and dilution factors verified in AD II?		Y		<input type="checkbox"/> Dilution-Respike IDA (NCM# _____)	Y
6. Sample analyses done within preparation and analytical holding time (Check for H-flag in sample result in AD II)?		Y		<input type="checkbox"/> Holding Time-Initial Analysis (NCM# _____) <input type="checkbox"/> Holding Time-Reanalysis (NCM# _____)	Y
7. Are IDAs, surrogates and field surrogates (if applicable) within QC limits?		Y		<input type="checkbox"/> IDA-Low-S/N 10:1 (NCM# _____) <input type="checkbox"/> IDA-High-Isotope Dilution (NCM# _____)	Y
8. Are IDAs, surrogates and field surrogate (if applicable) ion abundance ratios within limits?		Y		<input type="checkbox"/> Abundance ratio outside limit for IDA (NCM# _____)	Y
9. Were peaks $\geq 2.5$ S/N, which did not meet one or more of the criteria listed in section 12.1 of the SOP calculated and reported as EMPCs?		Y			Y
10. Are positive results within calibration range?		Y		<input type="checkbox"/> ICAL-Range Exceed; No Sat. (NCM# _____)	Y
11. Are all non-detects that are G-qualified narrated?	NA			<input type="checkbox"/> (NCM# _____)	NA
12. Are all manual integrations documented with analyst ID, reason and date in AD II?		Y			Y
13. Are all graphics uploaded to AD II?		Y			Y
14. Final report acceptable (1. Job Data Review was checked and all CCV's, QC, and samples are turned to 2 <sup>nd</sup> level, 2. The narrative was checked in Supervisor Desktop for all deviations and grammar errors, and 3. All QC links were verified and at least one sample from every job is linked to the ICAL)?		Y			Y
15. LCS done per prep batch and all LCS/LCSD recoveries and RPDs within QC limits?		Y		<input type="checkbox"/> LCS/LCSD-%R High (NCM# _____) <input type="checkbox"/> LCS/LCSD-Insuff. Sample (NCM# _____)	Y
16. Method blank done per prep batch and method blank or instrument blank analyzed with each sequence?		Y			Y
17. Are all analytes present in the method blank $\leq$ EML or within the specific program requirements?		Y*		<input type="checkbox"/> Method Blank-Report, 10X (NCM# _____) <input type="checkbox"/> Method Blank-Report ND (NCM# _____) <input type="checkbox"/> Method Blank-Insuff. Sample (NCM# _____)	Y

<b>1<sup>st</sup> Level Reviewed by:</b> LKM	<b>Date:</b> 7-18-24
<b>Comments:</b>	
* Less than program limit; NCM# 6455	
<b>2nd Level Reviewed by:</b> MSP	<b>Date:</b> 7-18-24
<b>Comments:</b>	

# HI-RES PCBS BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Batch Number: 87130 Batch Start Date: 05/31/24 14:36 Batch Analyst: Knight, Benjamin K

Batch Method: 23 Batch End Date: \_\_\_\_\_

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	61CV1668CS3 00019	61L0.51668P 00011	61L11668P 00006	61L21668P 00006	61L41668P 00006	61L51668P 00006
IC 140-87130/1		23				20 uL				
IC 140-87130/2		23					20 uL			
IC 140-87130/3		23						20 uL		
IC 140-87130/4		23			20 uL					
IC 140-87130/5		23							20 uL	
IC 140-87130/6		23								20 uL
ICV 140-87130/7		23								

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	61MX209ICVS 00010					
IC 140-87130/1		23								
IC 140-87130/2		23								
IC 140-87130/3		23								
IC 140-87130/4		23								
IC 140-87130/5		23								
IC 140-87130/6		23								
ICV 140-87130/7		23			20 uL					

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HI-RES PCBS BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Batch Number: 88193 Batch Start Date: 06/27/24 14:35 Batch Analyst: Stockton, Samuel

Batch Method: Combined Prep Batch End Date: 07/01/24 12:00

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	BotlFullWt	BotlEmptyWt	BotlVol	VolumeCollect	VolCondUsed	InitialAmount
140-37234-A-1	M23 F-10 BOILER RUN 2 COMBINED	Combined Prep, Split, 23	Air	T	1207.1 g	450.7 g	756.4 mL	756.4 mL	756.4 mL	1 Sample
140-37234-A-2	M23 F-10 BOILER RUN 3 COMBINED	Combined Prep, Split, 23	Air	T	1226.3 g	450.8 g	775.5 mL	775.5 mL	775.5 mL	1 Sample
140-37234-A-3	M23 F-10 BOILER RUN 4 COMBINED	Combined Prep, Split, 23	Air	T	1185.5 g	450.4 g	735.1 mL	735.1 mL	735.1 mL	1 Sample
140-37234-A-4	M23 F-10 BOILER RUN 5 COMBINED	Combined Prep, Split, 23	Air	T	1248.7 g	451.6 g	797.1 mL	797.1 mL	797.1 mL	1 Sample
140-37234-A-5	M23 F-10 BOILER RUN 6 COMBINED	Combined Prep, Split, 23	Air	T	1257.1 g	450.9 g	806.2 mL	806.2 mL	806.2 mL	1 Sample
140-37234-A-6	M23 F-10 BOILER RUN 7 COMBINED	Combined Prep, Split, 23	Air	T	1293.0 g	450.6 g	842.4 mL	842.4 mL	842.4 mL	1 Sample
140-37234-A-7	M23 F-10 BOILER RUN 8 COMBINED	Combined Prep, Split, 23	Air	T	1266.2 g	450.4 g	815.8 mL	815.8 mL	815.8 mL	1 Sample
140-37234-A-8	M23 F-10 BOILER BT COMBINED	Combined Prep, Split, 23	Air	T	388.0 g	179.6 g	208.4 mL	208.4 mL	208.4 mL	1 Sample
140-37234-A-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	Combined Prep, Split, 23	Air	T						1 Sample
LCS 140-88193/19		Combined Prep, Split, 23					1000 mL	1000 mL	1000 mL	1 Sample
LCSD 140-88193/20		Combined Prep, Split, 23					1000 mL	1000 mL	1000 mL	1 Sample
MB 140-88193/21		Combined Prep, Split, 23					1000 mL	1000 mL	1000 mL	1 Sample

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	61FS1668P 00006	61ID1668WRK 00057	61SP1668WRK 00009		
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The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HI-RES PCBS BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Batch Number: 88193 Batch Start Date: 06/27/24 14:35 Batch Analyst: Stockton, Samuel

Batch Method: Combined Prep Batch End Date: 07/01/24 12:00

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	FinalAmount	61FS1668P 00006	61ID1668WRK 00057	61SP1668WRK 00009		
140-37234-A-1	M23 F-10 BOILER RUN 2 COMBINED	Combined Prep, Split, 23	Air	T	30 mL	300 uL	3 mL			
140-37234-A-2	M23 F-10 BOILER RUN 3 COMBINED	Combined Prep, Split, 23	Air	T	30 mL	300 uL	3 mL			
140-37234-A-3	M23 F-10 BOILER RUN 4 COMBINED	Combined Prep, Split, 23	Air	T	30 mL	300 uL	3 mL			
140-37234-A-4	M23 F-10 BOILER RUN 5 COMBINED	Combined Prep, Split, 23	Air	T	30 mL	300 uL	3 mL			
140-37234-A-5	M23 F-10 BOILER RUN 6 COMBINED	Combined Prep, Split, 23	Air	T	30 mL	300 uL	3 mL			
140-37234-A-6	M23 F-10 BOILER RUN 7 COMBINED	Combined Prep, Split, 23	Air	T	30 mL	300 uL	3 mL			
140-37234-A-7	M23 F-10 BOILER RUN 8 COMBINED	Combined Prep, Split, 23	Air	T	30 mL	300 uL	3 mL			
140-37234-A-8	M23 F-10 BOILER BT COMBINED	Combined Prep, Split, 23	Air	T	30 mL	300 uL	3 mL			
140-37234-A-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	Combined Prep, Split, 23	Air	T	30 mL		3 mL			
LCS 140-88193/19		Combined Prep, Split, 23			30 mL		3 mL	3 mL		
LCSD 140-88193/20		Combined Prep, Split, 23			30 mL		3 mL	3 mL		
MB 140-88193/21		Combined Prep, Split, 23			30 mL		3 mL			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

# HI-RES PCBS BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Batch Number: 88193 Batch Start Date: 06/27/24 14:35 Batch Analyst: Stockton, Samuel

Batch Method: Combined Prep Batch End Date: 07/01/24 12:00

Batch Notes	
MeCL2 ID	241700
Na2SO4 ID	692772
Sulfuric Acid ID	682487
Hexane ID	241348
Analyst ID - TA Reagent Drop	ss
Analyst ID - IDA Reagent Drop	ss
Analyst ID - TA Reagent Drop Witness	dm
Analyst ID - IDA Reagent Drop Witness	dm
Analyst ID - Extraction	ss
Extraction 1 Start Time	15:30
First Extraction Start Date	06/28/2024
Extraction 1 End Time	09:11
First Extraction End Date	06/29/2024 09:11
Analyst ID - Concentration	ss
Concentration Date	07/01/2024

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

HI-RES PCBS BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Batch Number: 88338 Batch Start Date: 07/02/24 10:18 Batch Analyst: Reilly, Delaney E

Batch Method: Split Batch End Date: 07/13/24 13:10

Lab Sample ID	Client Sample ID	Method Chain	Matrix	Basis	InitialAmount	FinalAmount	61CS1668WRK 00037	61RS1668WRK 00038		
140-37234-A-1-B	M23 F-10 BOILER RUN 2 COMBINED	Split, 23	Air	T	10 mL	100 uL	1 mL	100 uL		
140-37234-A-2-B	M23 F-10 BOILER RUN 3 COMBINED	Split, 23	Air	T	10 mL	100 uL	1 mL	100 uL		
140-37234-A-3-B	M23 F-10 BOILER RUN 4 COMBINED	Split, 23	Air	T	10 mL	100 uL	1 mL	100 uL		
140-37234-A-4-B	M23 F-10 BOILER RUN 5 COMBINED	Split, 23	Air	T	10 mL	100 uL	1 mL	100 uL		
140-37234-A-5-B	M23 F-10 BOILER RUN 6 COMBINED	Split, 23	Air	T	10 mL	100 uL	1 mL	100 uL		
140-37234-A-6-B	M23 F-10 BOILER RUN 7 COMBINED	Split, 23	Air	T	10 mL	100 uL	1 mL	100 uL		
140-37234-A-7-B	M23 F-10 BOILER RUN 8 COMBINED	Split, 23	Air	T	10 mL	100 uL	1 mL	100 uL		
140-37234-A-8-B	M23 F-10 BOILER BT COMBINED	Split, 23	Air	T	10 mL	100 uL	1 mL	100 uL		
140-37234-A-14-A	M23 MEDIA CHECK A-2229 FILTER, A-2228 XAD COMBINED	Split, 23	Air	T	10 mL	100 uL	1 mL	100 uL		
LCS 140-88193/19-A		Split, 23			10 mL	100 uL	1 mL	100 uL		
LCSD 140-88193/20-A		Split, 23			10 mL	100 uL	1 mL	100 uL		
MB 140-88193/21-A		Split, 23			10 mL	100 uL	1 mL	100 uL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.



# HI-RES PCBS BATCH WORKSHEET

Lab Name: Eurofins Knoxville Job No.: 140-37234-1

SDG No.: \_\_\_\_\_

Batch Number: 88338 Batch Start Date: 07/02/24 10:18 Batch Analyst: Reilly, Delaney E

Batch Method: Split Batch End Date: 07/13/24 13:10

Batch Notes	
Analyst ID - SU Reagent Drop	der
Analyst ID - IS Reagent Drop	caa
Analyst ID - SU Reagent Drop Witness	cas
Analyst ID - IS Reagent Drop Witness	caa
Hexane ID	241348
Na2SO4 ID	692772
MeCL2 ID	241700
GPC ID	GPC 5
GPC Analyst	MJR
GPC Date	07/10/2024
Silica Gel C/U analyst	der
Silica Gel C/U Date	07/09/2024
Acid Silica Gel ID	707009
Deactivated Silica ID	702322
Analyst ID - Concentration	DAC 7/12/24

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

## Eurofins Knoxville Extraction Sheet

88193

88338

Combined\_HR

88338

82/95	→	h	Place XAD and particulate filter sample in a med Soxhlet.
	→	0.5%	Add 1.0 mL of 10 ng/mL IS (IDA) to all samples & QC. Record in TAL.

OP156R0 052024

## Eurofins Knoxville Prep Batch Review Checklist

Batch # 88193Split Batch # 88338

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd Level
1. Were the samples extracted within the required holding times?		✓		If No, NCM #: _____	✓
2. Are the final extracts free of water, precipitates, multiple phases, and for HRMS - color?		✓			✓
3. Were all project specific requirements met?		✓			✓
4. Were the correct start and completion dates entered into TALS?		✓			✓
5. Are the spike IDs and volumes correct in TALS for the method?		✓			✓
6. Does the prep batch paperwork package contain all required documentation which has been properly and completely filled out, including: <ul style="list-style-type: none"> <li>Extraction Benchsheet (Excel)</li> <li>Batch Worksheets (ANLY)</li> <li>Verify Protocol #'s (compare excel sheet to TALS)</li> <li>Was the Excel Extraction Benchsheet and Prep Batch Review Checklist scanned and attached to batch in TALS?</li> </ul>		✓			✓
7. Did extracts go through GPC cleanup? Has the following nonconformance been associated with all extracts?		✓		If Yes, <input type="checkbox"/> Clean-up Required - GPC (NCM# <u>140-57194</u> )	✓
8. Are all additional nonconformances documented appropriately?	✓			If Yes, NCM#: _____	✓
Analyst : <u>CAA</u> Date: <u>7/13/24</u>					
Comments:					
2nd Level Reviewer: <u>RKG</u> Date: <u>7/15/24</u>					
Comments:					

# Shipping and Receiving Documents

Knoxville, TN 37921-5947  
phone 865.291.3000 fax 865.584.4315

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Jason Myers		Site Contact:		Date:	
Alliance Source Testing		Tel/Fax: 512-658-4211		Lab Contact:		Carrier:	
Address 5757 Genoa Red Bluff Road		Analysis Turnaround Time		EPA M23 - ALT-034		EPA M23 - ALT-034	
City/State/Zip Pasadena, TX		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		EPA M23 - ALT-034		EPA M23 - ALT-034	
256-351-0121		TAT if different from Below		EPA M23 - ALT-034		EPA M23 - ALT-034	
HOUreports@stacktest.com		2 weeks		EPA M23 - ALT-034		EPA M23 - ALT-034	
Project Name: BASF 24-2352		1 week		EPA M23 - ALT-034		EPA M23 - ALT-034	
Site: Pasadena, TX		2 days		EPA M23 - ALT-034		EPA M23 - ALT-034	
P O #		1 day		EPA M23 - ALT-034		EPA M23 - ALT-034	
Sample F-10 Boilerentification		Sample Date		Sample Time		Sample Type (C=Comp, G=Grab)	
F-10 Boiler - Cont. #1 - Run 1						1	
F-10 Boiler - Cont. #2 - Run 1						1	
F-10 Boiler - XAD Resin Trap - Run 1						1	
F-10 Boiler - Cont. #3A - Run 1						1	
F-10 Boiler - Cont. #3B - Run 1						1	
Run 1 VOID							



Possible Hazard F-10 Boilerentification:  
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Special Instructions/QC Requirements & Comments: Reduced Reporting, Combined FH/BH Analysis

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temp. (oC):	Obs'd:	Cor'd:	Therm F-10 Boiler No.:
Relinquished by:	Company:	Received by:	Company:	Received by:	Company:
Relinquished by:	Company:	Received by:	Company:	Received by:	Company:
Relinquished by:	Company:	Received by:	Company:	Received by:	Company:

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phone 865.291.3000 fax 865.584.4315

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

**TestAmerica Laboratories, Inc.**

[illegible][illegible]

Please List any EPA waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.  
 Do any samples in this listed EPA hazardous waste?

☐ Non-Hazard    ☐ Flammable    ☐ Skin Irritant    ☐ Unknown    ☐ Return to Client    ☐ Disposal by Lab    ☐ Archive for \_\_\_\_\_ Months

BASF

Custody Seal Intact:	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Custody Seal No.:
Cooler Temp. (gC):	Obs'd:	Corrd:	Therm F-10 Boller No.:

Requisitioned by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

Company:	W. J. M. K. N. K.
Date:	20.11.24
Page:	1
Page:	1330

Date/Time: 6/19/24 06:00  
 Company: 6/19/24 06:00  
 Received by: 6/19/24 06:00  
 Date/Time: 6/19/24 06:00  
 Company: 6/19/24 06:00

Requisitioned by:		Date/Time:	Received in Laboratory by:	Company:	Date/Time:

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Knoxville, TN 37921-5947  
phone 865.291.3000 fax 865.584.4315

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

**TestAmerica Laboratories, Inc.**

[illegible]

### Special Instructions/QC Requirements & Comments: Reduced Reporting, Combined FH/BH Analysis

BASF HMC Reliance Reliance Reliance  
Pasig 6/2/2014 193



Knoxville, TN 37921-5947  
phone 865.291.3000 fax 865.584.4315

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

**TestAmerica Laboratories, Inc.**

Alliance Source Testing		AST Office: HOU		Project Manager: Jason Myers		Site Contact:		Date:		COC No:	
Address 5757 Genoa Red Bluff Road		City/State/Zip Pasadena, TX		Tel/Fax: 512-658-4211		Lab Contact:		Carrier:		of COCs	
255-351-0121		Phone		Analysis Turnaround Time		Performs MS/MSD (Y/N)		EPA M23 - ALT-034		Sample Specific Notes:	
HOJreports@stacktest.com		Project Name: BASF 24-2352		TAT if different from Below		Filtered Sample (Y/N)		EPA M23 - ALT-034		PAH, PCB	
Site: Pasadena, TX		P O #		CALENDAR DAYS		Sample Type (C=Comp, G=Grab)		EPA M23 - ALT-034		"	
				2 weeks		C		EPA M23 - ALT-034		"	
				1 week		C		EPA M23 - ALT-034		"	
				2 days		C		EPA M23 - ALT-034		"	
				1 day		C		EPA M23 - ALT-034		"	
				TAT if different from Below		C		EPA M23 - ALT-034		"	
				2 weeks		C		EPA M23 - ALT-034		"	
				1 week		C		EPA M23 - ALT-034		"	
				2 days		C		EPA M23 - ALT-034		"	
				1 day		C		EPA M23 - ALT-034		"	
				TAT if different from Below		C		EPA M23 - ALT-034		"	
				2 weeks		C		EPA M23 - ALT-034		"	
				1 week		C		EPA M23 - ALT-034		"	
				2 days		C		EPA M23 - ALT-034		"	
				1 day		C		EPA M23 - ALT-034		"	
				TAT if different from Below		C		EPA M23 - ALT-034		"	
				2 weeks		C		EPA M23 - ALT-034		"	
				1 week		C		EPA M23 - ALT-034		"	
				2 days		C		EPA M23 - ALT-034		"	
				1 day		C		EPA M23 - ALT-034		"	
				TAT if different from Below		C		EPA M23 - ALT-034		"	
				2 weeks		C		EPA M23 - ALT-034		"	
				1 week		C		EPA M23 - ALT-034		"	
				2 days		C		EPA M23 - ALT-034		"	
				1 day		C		EPA M23 - ALT-034		"	
				TAT if different from Below		C		EPA M23 - ALT-034		"	
				2 weeks		C		EPA M23 - ALT-034		"	
				1 week		C		EPA M23 - ALT-034		"	
				2 days		C		EPA M23 - ALT-034		"	
				1 day		C		EPA M23 - ALT-034		"	
				TAT if different from Below		C		EPA M23 - ALT-034		"	
				2 weeks		C		EPA M23 - ALT-034		"	
				1 week		C		EPA M23 - ALT-034		"	
				2 days		C		EPA M23 - ALT-034		"	
				1 day		C		EPA M23 - ALT-034		"	
				TAT if different from Below		C		EPA M23 - ALT-034		"	
				2 weeks		C		EPA M23 - ALT-034		"	
				1 week		C		EPA M23 - ALT-034		"	
				2 days		C		EPA M23 - ALT-034		"	
				1 day		C		EPA M23 - ALT-034		"	
				TAT if different from Below		C		EPA M23 - ALT-034		"	
				2 weeks		C		EPA M23 - ALT-034		"	
				1 week		C		EPA M23 - ALT-034		"	
				2 days		C		EPA M23 - ALT-034		"	
				1 day		C		EPA M23 - ALT-034		"	
				TAT if different from Below		C		EPA M23 - ALT-034		"	
				2 weeks		C		EPA M23 - ALT-034		"	
				1 week		C		EPA M23 - ALT-034		"	
				2 days		C		EPA M23 - ALT-034		"	
				1 day		C		EPA M23 - ALT-034		"	
				TAT if different from Below		C		EPA M23 - ALT-034		"	
				2 weeks		C		EPA M23 - ALT-034		"	
				1 week		C		EPA M23 - ALT-034		"	
				2 days		C		EPA M23 - ALT-034		"	
				1 day		C		EPA M23 - ALT-034		"	
				TAT if different from Below		C		EPA M23 - ALT-034		"	
				2 weeks		C		EPA M23 - ALT-034		"	
				1							

Knoxville, TN 37921-5947  
phone 865.291.3000 fax 865.584.4315

**TestAmerica Laboratories, Inc.**

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Project Manager: Jason Myers	Date:	COC No:
Tell/Fax: 512-658-4211	Lab Contact:	Carrier: _____ of _____ COCs

[illegible]

Walk-in Client: _____ Lab Sampling: _____		Acetone _____ 036/052 _____ 036/052 _____		(N) _____ TAT If different from Below _____ <input type="checkbox"/> 2 weeks	
Phone _____ 256-351-0121 HOUREports@stacktest.com					

<input type="checkbox"/>		T-034	lensate	T-034/T-034	Job / SDG No.:
<input type="checkbox"/>		1 week	MSD	Black Half	
<input type="checkbox"/>		2 days	Sample (Y)		
<b>Project Name: BASF 24-2352</b>					
<b>Site: Pasadena, TX</b>					

#	P.O.		Sample in	1 day		d Sample MS A	AL - Half/Bac	AL - p. Conc	AL - p. + Acc
				<input type="checkbox"/>					

[illegible][illegible]

F-10 Boiler - Cont. #2 - Run 6	6/11/24	1317-1733	C	1	✓				"
F-10 Boiler - Cont. #2 - Run 6	6/11/24	1317-1733	C	1					"

[illegible][illegible]

95 of 100


[illegible][illegible][illegible][illegible][illegible]

Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard   
 ☐ Flammable   
 ☐ Skin Irritant   
 ☐ Poison B   
 ☐ Unknown   
 ☐ Return to Client   
 ☐ Disposal by Lab   
 ☐ Archive for \_\_\_\_\_ Months

**Special Instructions/QC Requirements & Comments: Reduced Reporting, Combined FH/BH Analysis**

ASFH

Custody Seals Intact:		Custody Seal No.:		Cooler Temp. (qC):	Obs'd:	Corr'd:	Therm F-10 Boiler No.:
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Relinquished by:		Company:		Received by:		Company:	Date/Time:
				1000		WV	9/11/03

acquired by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Donor	1374	11/24/03	Donor	1374	11/24/03

[illegible]

Form No. CA-C-WI-002, Rev. 4.11, dated 1/24/2017



Knoxville, TN 37921-5947  
phone 865.291.3000 fax 865.584.4315

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Jason Myers		Site Contact:		Date:		COC No:	
Alliance Source Testing AST Office: HOU		Tel/Fax: 512-658-4211		Lab Contact:		Carrier:		of COCs	
Address 5757 Genoa Red Bluff Road		Analysis Turnaround Time		EPA M23 - ALT-034/036/052		EPA M23 - ALT-034		Sampler:	
City/State/Zip Pasadena, TX		<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS		Front Half/Back Half Acetone Rinse		BH Imp. Condensate		For Lab Use Only:	
256-351-0121 Phone		TAT if different from Below		EPA M23 - ALT-034/036/052		XAD		Walk-in Client:	
HOUreports@stacktest.com		<input type="checkbox"/> 2 weeks		Filter		EPA M23 - ALT-034		Lab Sampling:	
Project Name: BASF 24-2362		<input type="checkbox"/> 1 week		Filtered Sample (Y/N)		EPA M23 - ALT-034/036/052		Job / SDG No.:	
Site: Pasadena, TX		<input type="checkbox"/> 2 days		# of Cont.		EPA M23 - ALT-034		Sample Specific Notes:	
P O #		<input type="checkbox"/> 1 day		Matrix		BH Imp. Condensate		PAH, PCB	
Sample F-10 Boileridentification		Sample Type (C=Comp, G=Grab)		Sample Time		Sample Date			
F-10 Boiler - Cont. #1 - Run 8		C		1216-1626		6/12/24			
F-10 Boiler - Cont. #2 - Run 8		C		1216-1626		6/12/24			
F-10 Boiler - XAD Resin Trap - Run 8		C		1216-1626		6/12/24			
F-10 Boiler - Cont. #3A - Run 8		C		1216-1626		6/12/24			
F-10 Boiler - Cont. #3B - Run 8		C		1216-1626		6/12/24			

Possible Hazard F-10 Boileridentification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

Special Instructions/QC Requirements & Comments: Reduced Reporting, Combined FH/BH Analysis

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temp. (oC):	Obs'd:	Corr'd:	Therm F-10 Boiler No.:
Relinquished by: <i>Dany Cold</i>	Company: <i>ETA KNOX</i>	Received by: <i>Dany Cold</i>	Received by: <i>Dany Cold</i>	Company: <i>ETA KNOX</i>	Date/Time: <i>6/17/24 15:30</i>
Relinquished by: <i>Dany Cold</i>	Company: <i>ETA KNOX</i>	Received by: <i>Dany Cold</i>	Received by: <i>Dany Cold</i>	Company: <i>ETA KNOX</i>	Date/Time: <i>6/19/24 09:00</i>
Relinquished by: <i>Dany Cold</i>	Company: <i>ETA KNOX</i>	Received by: <i>Dany Cold</i>	Received by: <i>Dany Cold</i>	Company: <i>ETA KNOX</i>	Date/Time: <i>6/19/24 09:00</i>

Knoxville, TN 37921-5947  
phone 865.291.3000 fax 865.584.4315

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TestAmerica Laboratories, Inc.

Client Contact		Project Manager: Jason Myers		Site Contact:		Date:		COC No:	
Alliance Source Testing		AST Office: HOU		Lab Contact:		Carrier:		of COCs	
Address 5757 Genoa Red Bluff Road		Tel/Fax: 512-658-4211		Analysis Turnaround Time				Sampler:	
City/State/Zip Pasadena, TX				<input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS				For Lab Use Only:	
256-351-0121		Phone		TAT if different from Below				Walk-in Client:	
HOUreports@stacktest.com				<input type="checkbox"/> 2 weeks				Lab Sampling:	
Project Name: BASF 24-2352				<input type="checkbox"/> 1 week				Job / SDG No.:	
Site: Pasadena, TX				<input type="checkbox"/> 2 days					
P O #				<input type="checkbox"/> 1 day					
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes:		
F-10 Boiler - Cont. #1 - Blank Train	6/3/24	1300-1700				1			PAH, PCB
F-10 Boiler - Cont. #2 - Blank Train	6/3/24	1300-1700				1			"
F-10 Boiler - XAD Resin Trap - Blank Train	6/3/24	1300-1700				1			"
F-10 Boiler - Cont. #3A - Blank Train	6/3/24	1300-1700				1			"
F-10 Boiler - Cont. #3B - Blank Train	6/3/24	1300-1700				1			"
Reagent Blank - Filter	6/4/24	1100				1			"
Reagent Blank - XAD Resin Trap	6/4/24	1100				1			"
Reagent Blank - Acetone	6/4/24	1100				1			"
Reagent Blank - Toluene	6/4/24	1100				1			"
Reagent Blank - DI H2O	6/4/24	1100				1			"
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other							Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		
Possible Hazard Identification:									
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.									
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown									
Special Instructions/QC Requirements & Comments: Reduced Reporting, Combined FHHB Analysis									
Custody Seals Intact:		<input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temp. (°C): Obs'd:		Therm ID No.:	
Relinquished by:				Company:		Received by:		Date/Time:	
Relinquished by:				Company:		Received by:		Date/Time:	
Relinquished by:				Company:		Received by:		Date/Time:	

## EUROFINS KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST Log In Number:

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Are the shipping containers intact?	✓			<input type="checkbox"/> Containers, Broken	NO Custody Seal
2. Were ambient air containers received intact?				<input type="checkbox"/> Checked in lab	Received at RT 0.17 CT 0.24
3. The coolers/containers custody seal if present, is it intact?				<input type="checkbox"/> Yes <input type="checkbox"/> NA	Lab 6-19-24 Hand delivered
4. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C, VOST: 10°C) Thermometer ID : 5076 Correction factor: 30.12	✓			<input type="checkbox"/> Cooler Out of Temp, Client Contacted, Proceed/Cancel <input type="checkbox"/> Cooler Out of Temp, Same Day Receipt	10
5. Were all of the sample containers received intact?	✓			<input type="checkbox"/> Containers, Broken	12) NO + tests for RB
6. Were samples received in appropriate containers?	✓			<input type="checkbox"/> Containers, Improper; Client Contacted; Proceed/Cancel	13
7. Do sample container labels match COC? (IDs, Dates, Times)	✓			<input type="checkbox"/> COC & Samples Do Not Match <input type="checkbox"/> COC Incorrect/Incomplete <input type="checkbox"/> COC Not Received	
8. Were all of the samples listed on the COC received?	✓			<input type="checkbox"/> Sample Received, Not on COC <input type="checkbox"/> Sample on COC, Not Received	
9. Is the date/time of sample collection noted?	✓			<input type="checkbox"/> COC; No Date/Time; Client Contacted	
10. Was the sampler identified on the COC?		✓		<input checked="" type="checkbox"/> Sampler Not Listed on COC	Labeling Verified by: Date:
11. Is the client and project name/# identified?	✓			<input type="checkbox"/> COC Incorrect/Incomplete	pH test strip lot number:
12. Are tests/parameters listed for each sample?	✓	✓		<input checked="" type="checkbox"/> COC No tests on COC	
13. Is the matrix of the samples noted?	✓	✓		<input checked="" type="checkbox"/> COC Incorrect/Incomplete	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			<input type="checkbox"/> COC Incorrect/Incomplete	Box 16A: pH Preservation Box 18A: Residual Chlorine
15. Were samples received within holding time?	✓			<input type="checkbox"/> Holding Time - Receipt	Preservative:
16. Were samples received with correct chemical preservative (excluding Encore)?			✓	<input type="checkbox"/> pH Adjusted, pH Included (See box 16A) <input type="checkbox"/> Incorrect Preservative	Lot Number:
17. Were VOA samples received without headspace?			✓	<input type="checkbox"/> Headspace (VOA only) <input type="checkbox"/> Residual Chlorine	Exp Date:
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number:			✓		Analyst:
19. For 1613B water samples is pH<9?			✓		Date:
20. For rad samples was sample activity info. Provided?			✓	<input type="checkbox"/> If no, notify lab to adjust <input type="checkbox"/> Project missing info	Time:
Project #: 14007031 PM Instructions:					

Sample Receiving Associate: Ch Penner Date: 6-19-24

QA026R33.doc, 11/10/23

## Appendix F: ANALYTICAL DATA ASSESSMENT FORMS

## ASTM Method D1475 - Density

Laboratory:	Eurofins Knoxville
Report ID:	140-37217-1

### Sample Holding Time Check

[illegible]

\*\*Note: QAPP  $\leq 180$  day holding time objective.



## ASTM Method D1475 - Density

Laboratory:	Eurofins Knoxville
Report ID:	140-37217-1

### Evaluation of Precision - Field Duplicates (per CPT)

[illegible]

\*\* Note: QAPP  $\leq 20\%$  RPD objective.

# ASTM Method D1475 - Density

Laboratory:	Eurofins Knoxville
Report ID:	140-37217-1

## Evaluation of Precision - Sample Duplicate (per batch)

Batch No.:	88477			
Page No.:	19			
Parameter	Original	Duplicate	RPD	Lab RPD
Density	0.830	0.8303	✓ 0%	✓ 0%
Batch No.:				
Page No.:				
Parameter	Original	Duplicate	RPD	Lab RPD
Density				
Batch No.:				
Page No.:				
Parameter	Original	Duplicate	RPD	Lab RPD
Density				

\*\* Note: Done for internal laboratory purposes only. ≤10% RPD objective.

## Evaluation of Accuracy - LCS (per batch)

Batch No.:	88477			
Page No.:	19			
Parameter	LCS			
	Spiked	Measured	Recovery	Lab Recovery
Density	0.997	0.9970	100%	100%
Batch No.:				
Page No.:				
Parameter	LCS			
	Spiked	Measured	Recovery	Lab Recovery
Density				
Batch No.:				
Page No.:				
Parameter	LCS			
	Spiked	Measured	Recovery	Lab Recovery
Density				

\*\*Note: QAPP 99-101% recovery objective.

# ASTM Method D1475 - Density

Laboratory:	Eurofins Knoxville
Report ID:	140-37217-1

## Review of Analytical Quality Control Checks

Quality Control Sample	Criteria	Met?*	Page No.
Initial calibration	$\leq 0.5\%$ RSD	Yes	50

\* Answer as "Yes" or "No". If not met, complete table(s) below.

## Deviations on RSDs

Calibration standard	Relative Standard Deviation	ICV/CCV Batch	Samples Affected

### ASTM Method D240 - Higher Heating Value

Laboratory:	Eurofins Knoxville
Report ID:	140-37217

## Sample Holding Time Check

[illegible]

\*\*Note: QAPP  $\leq 180$  day holding time objective.

### ASTM Method D240 - Higher Heating Value

Laboratory:	Eurofins Knoxville
Report ID:	140-37217

### Evaluation of Precision - Field Duplicates (per CPT)

[illegible]

\*\* Note: QAPP  $\leq 20\%$  RPD objective.

### ASTM Method D240 - Higher Heating Value

Laboratory:	Eurofins Knoxville
Report ID:	140-37217

#### Evaluation of Precision - LCS/LCSD (per batch)

Batch No.:	88720			
Page No.:	19			
Parameter	LCS	LCSD	RPD	Lab RPD
HHV	20380	20380	✓ 0%	✓ 0%
Batch No.:				
Page No.:				
Parameter	LCS	LCSD	RPD	Lab RPD
HHV				
Batch No.:				
Page No.:				
Parameter	LCS	LCSD	RPD	Lab RPD
HHV				

\*\* Note: QAPP ≤2% RPD objective.

#### Evaluation of Precision - Sample Duplicate (per batch)

Batch No.:	88720			
Page No.:	19			
Parameter	Original	Duplicate	RPD	Lab RPD
HHV	15200	15200	✓ 0.0%	✓ 0.3%
Batch No.:				
Page No.:				
Parameter	Original	Duplicate	RPD	Lab RPD
HHV				
Batch No.:				
Page No.:				
Parameter	Original	Duplicate	RPD	Lab RPD
HHV				

\*\* Note: Done for internal laboratory purposes only. ≤10% RPD objective.

**ASTM Method D240 - Higher Heating Value**

<b>Laboratory:</b>	<b>Eurofins Knoxville</b>
<b>Report ID:</b>	<b>140-37217</b>

**Evaluation of Accuracy - LCS/LCSD (per batch)**

<b>Batch No.:</b>	88720							
<b>Page No.:</b>	19							
Parameter	LCS				LCSD			
	Spiked	Measured	Recovery	Lab Recovery	Spiked	Measured	Recovery	Lab Recovery
HHV	20600	20380	99%	99%	20600	20380	99%	99%
<b>Batch No.:</b>								
<b>Page No.:</b>								
Parameter	LCS				LCSD			
	Spiked	Measured	Recovery	Lab Recovery	Spiked	Measured	Recovery	Lab Recovery
HHV								
<b>Batch No.:</b>								
<b>Page No.:</b>								
Parameter	LCS				LCSD			
	Spiked	Measured	Recovery	Lab Recovery	Spiked	Measured	Recovery	Lab Recovery
HHV								

\*\*Note: QAPP 98-102% recovery objective.

### ASTM Method D240 - Higher Heating Value

Laboratory:	Eurofins Knoxville
Report ID:	140-37217

### Review of Analytical Quality Control Checks

Quality Control Sample	Criteria	Met?*	Page No.
Initial calibration	$\leq 1\%$ RSD	Yes	54,56
Calibration checks	$\pm 1\%$ difference from initial calibration	Yes	54,56

\* Answer as "Yes" or "No". If not met, complete table(s) below.

### Deviations on RSDs

Calibration standard	Relative Standard Deviation	ICV/CCV Batch	Samples Affected



## USEPA Method 23 - Polycyclic Aromatic Hydrocarbons and Polychlorinated Biphenyls

Laboratory:	Eurofins Knoxville
Report ID:	140-37234-1

## Sample Holding Time Check

Lab Sample No.	Sample ID	Chain of Custody Page No.	Analytes	Sample Results Page No.	Collected (mm/dd/yyyy)	Extracted (mm/dd/yyyy)	Duration (days)	Analyzed (mm/dd/yyyy)	Duration (days)
140-37234-1	M23 F-10 BOILER RUN 2 COMBINED	3209	PCB	13	6/5/2024	6/27/2024	✓ 22	7/16/2024	✓ 19
			PAH	14	6/5/2024	6/27/2024	✓ 22	7/20/2024	✓ 23
140-37234-2	M23 F-10 BOILER RUN 3 COMBINED	3210	PCB	16	6/6/2024	6/27/2024	✓ 21	7/16/2024	✓ 19
			PAH	17	6/6/2024	6/27/2024	✓ 21	7/20/2024	✓ 23
140-37234-3	M23 F-10 BOILER RUN 4 COMBINED	3211	PCB	19	6/6/2024	6/27/2024	✓ 21	7/17/2024	✓ 20
			PAH	20	6/6/2024	6/27/2024	✓ 21	7/22/2024	✓ 25
140-37234-4	M23 F-10 BOILER RUN 5 COMBINED	3212	PCB	22	6/7/2024	6/27/2024	✓ 20	7/16/2024	✓ 19
			PAH	23	6/7/2024	6/27/2024	✓ 20	7/22/2024	✓ 25
140-37234-5	M23 F-10 BOILER RUN 6 COMBINED	3213	PCB	25	6/11/2024	6/27/2024	✓ 16	7/17/2024	✓ 20
			PAH	26	6/11/2024	6/27/2024	✓ 16	7/22/2024	✓ 25
140-37234-6	M23 F-10 BOILER RUN 7 COMBINED	3214	PCB	28	6/12/2024	6/27/2024	✓ 15	7/17/2024	✓ 20
			PAH	29	6/12/2024	6/27/2024	✓ 15	7/23/2024	✓ 26
140-37234-7	M23 F-10 BOILER RUN 8 COMBINED	3215	PCB	31	6/12/2024	6/27/2024	✓ 15	7/17/2024	✓ 20
			PAH	32	6/12/2024	6/27/2024	✓ 15	7/22/2024	✓ 25
140-37234-8	M23 F-10 BOILER BT COMBINED	3216	PCB	34	6/3/2024	6/27/2024	✓ 24	7/16/2024	✓ 19
			PAH	35	6/3/2024	6/27/2024	✓ 24	7/22/2024	✓ 25
140-37234-14	M23 MEDIA CHECK A-2229 FILTER, A-2228 XA COMBINED		PCB	37	6/3/2024	6/27/2024	✓ 24	7/16/2024	✓ 19
			PAH	38	6/3/2024	6/27/2024	✓ 24	7/22/2024	✓ 25

\*\*Note: QAPP ≤30 day holding time to extraction, ≤40 day holding time from extraction to analysis objective. Holding time from extraction may be up to one year if samples are maintained below -10 C.

Were extracted samples maintained below -10 C?	Yes
------------------------------------------------	-----

## USEPA Method 23 - Polycyclic Aromatic Hydrocarbons and Polychlorinated Biphenyls

Laboratory:	Eurofins Knoxville
Report ID:	140-37234-1

## Evaluation of Contamination Effects

Quality Control Sample	Criteria	Met? *	Page
Method blank	Per batch	Yes	47, 50-51
	< RL	No	47, 50-51
Reagent blank **	Per CPT	Yes	3198
	< RL	Archived	- - -
Field proof blank	Per CPT	Yes	34,35
	< RL	No	34,35

\* Answer as "Yes" or "No". If not met, complete table(s) below.

\*\* Typically only analyzed if field proof blank contamination is present.

## Detail on Frequency Deviations

Quality Control Sample	Analysis Frequency

## Detail on Contamination Effects

QC Sample	Analyte	Result	RL
Method blank	Naphthalene	1119	75.0
	Phenanthrene	18.18	6.00
	Fluoranthene	15.46	6.00
	Pyrene	55.75	6.00
Field proof blank	PCB-8	0.659	0.600
	PCB-44	1.02	0.900
	Phenanthrene	412	60.0

## Evaluation of Precision - LCS/LCSD (One set per batch)

Batch No.:	88920		Batch No.:	88747	
Page No.:	52-53		Page No.:	49, 3041, 3106	
Analyte	RPD	RPD	Analyte	RPD	Lab RPD
Acenaphthylene	✓ 3	✓ 2	PCB-8	✓ 3	
Acenaphthene	✓ 4	✓ 4	PCB-18	✓ 0	
Anthracene	✓ 3	✓ 3	PCB-28	✓ 1	
Benz[a]anthracene	✓ 2	✓ 2	PCB-44	✓ 2	
Benzo[b]fluoranthene	✓ 0	✓ 0	PCB-52	✓ 1	
Benzo[k]fluoranthene	✓ 5	✓ 5	PCB-66	✓ 2	
Benzo[g,h,i]perylene	✓ 1	✓ 1	PCB-77	✓ 2	✓ 2
Benzo[a]pyrene	✓ 0	✓ 0	PCB-81	✓ 1	✓ 1
Benzo[e]pyrene	✓ 1	✓ 1	PCB-101	✓ 2	
Chrysene	✓ 0	✓ 0	PCB-105	✓ 1	✓ 1
Dibenz[a,h]anthracene	✓ 0	✓ 0	PCB-114	✓ 1	✓ 1
Fluoranthene	✓ 4	✓ 4	PCB-118	✓ 3	✓ 3
Fluorene	✓ 4	✓ 4	PCB-123	✓ 6	✓ 6
Indeno[1,2,3-cd]pyrene	✓ 2	✓ 2	PCB-126	✓ 0	✓ 0
2-Methylnaphthalene	✓ 6	✓ 6	PCB-128	✓ 2	
Naphthalene	✓ 17	✓ 17	PCB-138	✓ 1	
Perylene	✓ 2	✓ 2	PCB-153	✓ 2	
Phenanthrene	✓ 4	✓ 4	PCB-156	✓ 0	✓ 0
Pyrene	✓ 6	✓ 6	PCB-157	✓ 0	✓ 0
			PCB-167	✓ 0	✓ 0
			PCB-169	✓ 2	✓ 2
			PCB-170	✓ 1	
			PCB-180	✓ 1	
			PCB-187	✓ 7	
			PCB-189	✓ 2	✓ 2
			PCB-195	✓ 1	
			PCB-206	✓ 1	✓ 1
			PCB-209	✓ 0	✓ 0

\*\*Note: QAPP ≤25% RPD objective for PAHs, ≤50% RPD objective for PCBs.

## USEPA Method 23 - Polycyclic Aromatic Hydrocarbons and Polychlorinated Biphenyls

Laboratory:	Eurofins Knoxville
Report ID:	140-37234-1

## Evaluation of Accuracy - LCS (Two per batch)

Batch No.:					88747, 88920				
Page No.:					49,52-53, 3041, 3106				
LCS					LCSD				
Analyte	Spiked	Measured	Recovery	Lab Recovery	Analyte	Spiked	Measured	Recovery	Lab Recovery
Acenaphthylene	150	125.0	83%	83%	Acenaphthylene	150	121.9	81%	81%
Acenaphthene	150	141.4	94%	94%	Acenaphthene	150	135.5	90%	90%
Anthracene	150	131.1	87%	87%	Anthracene	150	126.8	85%	85%
Benz[a]anthracene	150	162.5	108%	108%	Benz[a]anthracene	150	160.0	107%	107%
Benzo[b]fluoranthene	150	143.0	95%	95%	Benzo[b]fluoranthene	150	142.3	95%	95%
Benzo[k]fluoranthene	150	132.3	88%	88%	Benzo[k]fluoranthene	150	138.9	93%	93%
Benzo[g,h,i]perylene	150	145.8	97%	97%	Benzo[g,h,i]perylene	150	146.7	98%	98%
Benzo[a]pyrene	150	129.5	86%	86%	Benzo[a]pyrene	150	129.1	86%	86%
Benzo[e]pyrene	150	146.0	97%	97%	Benzo[e]pyrene	150	144.6	96%	96%
Chrysene	150	160.9	107%	107%	Chrysene	150	161.0	107%	107%
Dibenz[a,h]anthracene	150	146.9	98%	98%	Dibenz[a,h]anthracene	150	147.5	98%	98%
Fluoranthene	150	159.9	107%	107%	Fluoranthene	150	153.2	102%	102%
Fluorene	150	147.0	98%	98%	Fluorene	150	140.8	94%	94%
Indeno[1,2,3-cd]pyrene	150	148.1	99%	99%	Indeno[1,2,3-cd]pyrene	150	144.5	96%	96%
2-Methylnaphthalene	150	163.8	109%	109%	2-Methylnaphthalene	150	153.8	103%	103%
Naphthalene	150	1224	816%	816%	Naphthalene	150	1037	691%	691%
Perylene	150	137.5	92%	92%	Perylene	150	135.0	90%	90%
Phenanthrene	150	164.4	110%	110%	Phenanthrene	150	158.6	106%	106%
Pyrene	150	202.9	135%	135%	Pyrene	150	190.9	127%	90%
PCB-8	15	14.00	93%		PCB-8	15	14.42	96%	
PCB-18	30	28.19	94%		PCB-18	30	28.12	94%	
PCB-28	30	28.01	93%		PCB-28	30	27.66	92%	
PCB-44	45	38.43	85%		PCB-44	45	37.51	83%	
PCB-52	15	12.81	85%		PCB-52	15	12.62	84%	
PCB-66	15	14.43	96%		PCB-66	15	14.19	95%	
PCB-77	15	13.34	89%	89%	PCB-77	15	13.57	90%	90%
PCB-81	15	13.65	91%	91%	PCB-81	15	13.54	90%	90%
PCB-101	45	44.01	98%		PCB-101	45	44.70	99%	
PCB-105	15	14.04	94%	94%	PCB-105	15	13.85	92%	92%
PCB-114	15	13.87	92%	92%	PCB-114	15	13.99	93%	93%
PCB-118	15	13.37	89%	89%	PCB-118	15	13.8	92%	92%
PCB-123	15	14.01	93%	93%	PCB-123	15	13.15	88%	88%
PCB-126	15	14.13	94%	94%	PCB-126	15	14.15	94%	94%
PCB-128	30	26.16	87%		PCB-128	30	26.73	89%	
PCB-138	60	53.12	89%		PCB-138	60	52.42	87%	
PCB-153	30	26.20	87%		PCB-153	30	25.75	86%	

**USEPA Method 23 - Polycyclic Aromatic Hydrocarbons and Polychlorinated Biphenyls**

LCS					LCSD				
Analyte	Spiked	Measured	Recovery	Lab Recovery	Analyte	Spiked	Measured	Recovery	Lab Recovery
PCB-156	30	28.29	94%	94%	PCB-156	30	28.43	95%	95%
PCB-157	30	28.29	94%	94%	PCB-157	30	28.43	95%	95%
PCB-167	15	13.90	93%	93%	PCB-167	15	13.86	92%	92%
PCB-169	15	14.12	94%	94%	PCB-169	15	13.79	92%	92%
PCB-170	15	13.58	91%		PCB-170	15	13.51	90%	
PCB-180	30	29.84	99%		PCB-180	30	30.29	101%	
PCB-187	15	13.79	92%		PCB-187	15	14.84	99%	
PCB-189	15	14.59	97%		PCB-189	15	14.28	95%	
PCB-195	15	14.03	94%		PCB-195	15	14.19	95%	
PCB-206	15	13.02	87%	87%	PCB-206	15	13.16	88%	88%
PCB-209	15	14.30	95%	95%	PCB-209	15	14.25	95%	95%

\*\* Note: QAPP 60-140% recovery objective for PAHs, 60-135% recovery objective for PCBs.

## USEPA Method 23 - Polycyclic Aromatic Hydrocarbons and Polychlorinated Biphenyls

<b>Laboratory:</b>	Eurofins Knoxville
<b>Report ID:</b>	140-37234-1

## Evaluation of Accuracy - Extraction Standards (Isotope Dilution)

Sample No.	Page No.	Extraction Standard (Isotope Dilution) Recovery											
		C6N	C62MN	C6Acy	C6Ace	C6Fle	C6Fla	C3Pyr	C6BaA	C6Chr	C6BbF	C6BkF	C4BeP
		20-130	20-130	20-130	20-130	20-130	20-130	20-130	20-130	20-130	20-130	20-130	20-130
140-37234-1	42-46	46	56	80	76	87	83	78	70	71	81	87	73
140-37234-2	42-46	47	56	88	80	92	86	82	70	69	79	85	73
140-37234-3	42-46	50	58	82	82	87	80	81	66	68	78	86	74
140-37234-4	42-46	49	54	78	72	86	85	86	71	79	80	89	74
140-37234-5	42-46	59	65	91	87	96	88	84	70	77	80	91	74
140-37234-6	42-46	68	70	101	91	96	90	89	70	77	71	91	74
140-37234-7	42-46	46	51	81	80	85	88	85	77	81	79	95	77
140-37234-8	42-46	60	61	88	85	91	88	84	66	73	77	85	74
140-37234-9	42-46	67	68	83	77	78	77	79	50	54	73	83	75

C6N = 13C6-Naphthalene

C62MN = 13C6-2-Methylnaphthalene

C6Acy = 13C6-Acenaphthylene

C6Ace = 13C6-Acenaphthene

C6Fle = 13C6-Fluorene

C6Fla = 13C6-Fluoranthrene

C3Pyr = 13C3-Pyrene

C6BaA = 13C6-Benzo(a)anthracene

C6Chr = 13C6-Chrysene

C6BbF = 13C6-Benzo(b)fluoranthene

C6BkF = 13C6-Benzo(k)fluoranthene

C4BeP = 13C4-Benzo(e)pyrene

Sample No.	Page No.	Extraction Standard (Isotope Dilution) Recovery											
		C4BaP	PRY	IND	DBA	BghiP	AN	C6Ph	PCB1L	PCB3L	PCB4L	PCB15L	PCB19L
		20-130	20-130	20-130	20-130	20-130	20-130	20-130	20-145	20-145	20-145	20-145	20-145
140-37234-1	42-46	90	88	88	98	87	92	75	60	70	71	84	82
140-37234-2	42-46	87	87	96	94	84	95	77	62	66	66	87	66
140-37234-3	42-46	86	86	89	96	88	88	71	55	57	63	80	67
140-37234-4	42-46	91	91	92	99	92	92	73	59	60	63	75	67
140-37234-5	42-46	93	88	86	93	93	102	80	62	65	65	84	74
140-37234-6	42-46	89	87	81	80	89	88	74	56	63	60	85	69
140-37234-7	42-46	93	91	82	102	96	88	70	56	59	61	80	69
140-37234-8	42-46	83	88	73	92	85	85	72	52	57	56	74	64
140-37234-9	42-46	82	71	60	69	63	80	68	72	71	72	72	73

C4BaP = 13C4-Benzo(a)pyrene

PRY = Perylene-d12

IND = 13C6-Indeno(1,2,3-cd)pyrene

DBA = 13C6-Dibenz(a,h)anthracene

BghiP = 13C12-Benzo(ghi)perylene

AN = 13C6-Anthracene

C6Ph = 13C6-Phenanthrene

## USEPA Method 23 - Polycyclic Aromatic Hydrocarbons and Polychlorinated Biphenyls

Sample No.	Page No.	Extraction Standard (Isotope Dilution) Recovery											
		PCB37L	PCB54L	PCB77L	PCB81L	PCB104L	PCB105L	PCB114L	PCB118L	PCB123L	PCB126L	PCB155L	PCB156L
		20-145	20-145	20-145	20-145	20-145	20-145	20-145	20-145	20-145	20-145	20-145	20-145
140-37234-1	42-46	81	102	91	89	86	91	100	86	100	93	94	98
140-37234-2	42-46	82	82	90	88	85	92	100	91	96	91	93	95
140-37234-3	42-46	80	84	86	85	92	91	94	88	93	91	95	99
140-37234-4	42-46	74	78	80	80	86	89	87	86	87	84	90	92
140-37234-5	42-46	80	86	83	83	97	92	95	88	95	90	95	97
140-37234-6	42-46	77	81	85	83	88	91	91	85	90	89	91	85
140-37234-7	42-46	71	84	82	82	82	90	91	92	89	91	85	86
140-37234-8	42-46	70	77	80	79	77	85	91	82	89	84	84	97
140-37234-9	42-46	76	83	85	83	82	87	84	87	83	88	80	89

Sample No.	Page No.	Extraction Standard (Isotope Dilution) Recovery										
		PCB157L	PCB167L	PCB169L	PCB170L	PCB188L	PCB189L	PCB202L	PCB205L	PCB206L	PCB208L	PCB209L
		20-145	20-145	20-145	20-145	20-145	20-145	20-145	20-145	20-145	20-145	20-145
140-37234-1	42-46	98	88	87	90	102	98	88	95	97	99	106
140-37234-2	42-46	95	92	89	91	98	91	92	94	92	92	107
140-37234-3	42-46	99	93	95	96	96	96	99	100	108	103	123
140-37234-4	42-46	92	88	91	93	90	90	91	93	94	87	105
140-37234-5	42-46	97	91	94	97	101	95	96	99	102	90	112
140-37234-6	42-46	85	85	87	90	94	92	94	89	95	86	113
140-37234-7	42-46	86	84	85	88	98	95	91	92	103	88	120
140-37234-8	42-46	97	84	83	86	95	91	83	88	91	89	102
140-37234-9	42-46	89	86	91	87	82	90	83	91	94	88	108

## USEPA Method 23 - Polycyclic Aromatic Hydrocarbons and Polychlorinated Biphenyls

<b>Laboratory:</b>	Eurofins Knoxville
<b>Report ID:</b>	140-37234-1

### Evaluation of Accuracy - Sampling Standards (Surrogate)

[illegible]

13C6BCF = 13C6-Benzo(c)fluorene

13C12BJF = 13C12-Benzo(j)fluoranthene

ANC = Anthracene-d10

## USEPA Method 23 - Polycyclic Aromatic Hydrocarbons and Polychlorinated Biphenyls

Laboratory:	Eurofins Knoxville
Report ID:	140-37234-1

## Review of Analytical Quality Control Checks

Quality Control Sample	Criteria	Met? *	Page No.
Initial calibration	Mean RRF $\pm$ 10% RSD for unlabeled	Yes	489-490, 1587-1600
	Mean RRF $\pm$ 20% RSD for labeled	Yes	490-491, 1600-1602
Calibration verification	Every 12 hours	Yes	1042, 1045, 1048, 1051, 1054, 3169, 3172, 3175, 3178
	RF $\pm$ 25% from ICAL RRF for unlabeled	Yes	784, 817, 850*, 884, 917*, 2547-2553, 2652-2658, 2762-2768, 2869-2875*
	RF $\pm$ 25% from ICAL RRF for pre-sampling adsorbent standard	Yes	
	RF $\pm$ 25% from ICAL RRF for pre-extraction filter standard	Yes	
	RF $\pm$ 30% from ICAL RRF for pre-extraction standard and alternative standard	No	
Retention time window and column perf. Check	Beginning of each 12-hour analytical shift	Yes	1042, 1045, 1048, 1051, 1054, 3169, 3172, 3175, 3178
	Retention time $\Delta$ < 15 sec	Yes	793-795, 828-828, 859-861, 893-895, 926-928, 2581-2598, 2687-2704, 2796-2813, 2903-2920
	Valley $\leq$ 50% (PAHs), 60% (benzo[b]fluoranthene and benzo[k]fluoranthene), 40% (PCBs)	Yes	785-790, 818-823, 851-856, 885-890, 918-923, 2454, 2455, 2457, 2458, 2460, 2461, 2463, 2464

\* Answer as "Yes" or "No". If not met, complete table(s) below.

## Deviations on Initial Calibrations

Sample ID	Calibration standard	RSD	Criteria

## Deviations on Calibration Verifications

Sample ID	Calibration standard	RPD	Criteria
CCV 140-88999/1	13C6-Indeno(1,2,3-cd)pyrene	53.4%	30%
	13C6-Dibenz(a,h)anthracene	49.9%	30%
CCV 140-89076/1	13C6-Indeno(1,2,3-cd)pyrene	38.0%	30%
WDMCCV 140-88871/1	PCB-209L	37.6%	30%



## USEPA Method 25A - Hydrocarbons

Test Firm:	Alliance Technical Group, LLC
Report ID:	AST-2024-2352

## Calibration Error Test

Date	06/05/2024				06/06/2024				06/07/2024				06/11/2024			
Runs	2				3-4				5				6			
Span (ppmv)	25				25				25				25			
Gas Range	Zero	Low	Mid	High	Zero	Low	Mid	High	Zero	Low	Mid	High	Zero	Low	Mid	High
Actual calibration value (ppmv)	0.00	15.00	25.00	45.00	0.00	15.00	25.00	45.00	0.00	15.00	25.00	45.00	0.00	15.00	25.00	45.00
Analyzer calibration response (ppmv)	-0.04	15.09	25.16	44.78	-0.04	15.39	24.83	45.12	-0.04	14.99	24.86	45.04	-0.04	14.86	25.34	45.08
Difference (ppmv)	-0.04	0.09	0.16	-0.22	-0.04	0.39	-0.17	0.12	-0.04	-0.01	-0.14	0.04	-0.04	-0.14	0.34	0.08
Calibration error	---	✓1.27%	✓1.20%	---	---	✓2.51%	✓0.88%	---	---	✓0.02%	✓-0.58%	---	---	✓-0.93%	✓1.25%	---
Tester reported calibration error	---	✓1.27%	✓1.20%	---	---	✓2.51%	✓0.88%	---	---	✓2.00%	✓-0.58%	---	---			---

## USEPA Method 25A - Hydrocarbons

Test Firm:	Alliance Technical Group, LLC
Report ID:	AST-2024-2352

## Drift Test

Run No:	2							
	Mid-level Calibration Gas				Zero Calibration Gas			
	Initial Response (ppmv)	Final Response (ppmv)	Drift	Reported Drift	Initial Response (ppmv)	Final Response (ppmv)	Drift	Reported Drift
Hour 1	25.16	25.05	✓ -0.44%	---	-0.04	-0.04	✓ 0.00%	---
Hour 2	25.05	25.24	✓ 0.76%	---	-0.04	0.01	✓ 0.20%	---
Hour 3	25.24	25.64	✓ 1.60%	---	0.01	-0.01	✓ -0.08%	---
Hour 4	25.64	25.23	✓ -1.64%	---	-0.01	-0.02	✓ -0.04%	---
Hour 5	25.23	25.18	✓ -0.20%	---	-0.02	-0.03	✓ -0.04%	---
Hour 6	25.18	25.20	✓ 0.08%	---	-0.03	0.04	✓ 0.28%	---
Hour 7	25.20	25.05	✓ -0.60%	---	0.04	0.15	✓ 0.44%	---
Hour 8	25.05	24.83	✓ -0.88%	---	0.15	0.29	✓ 0.56%	---
Hour 9	24.83	25.03	✓ 0.80%	---	0.29	0.09	✓ -0.80%	---
Total Run	25.16	25.23	✓ 0.28%	---	-0.04	-0.02	✓ 0.08%	---
Run No:	3							
	Mid-level Calibration Gas				Zero Calibration Gas			
	Initial Response (ppmv)	Final Response (ppmv)	Drift	Reported Drift	Initial Response (ppmv)	Final Response (ppmv)	Drift	Reported Drift
Hour 1	24.83	25.12	✓ 1.16%	---	-0.04	-0.04	✓ 0.00%	---
Hour 2	25.12	25.04	✓ -0.32%	---	-0.04	-0.04	✓ 0.00%	---
Hour 3	25.04	24.84	✓ -0.80%	---	-0.04	-0.03	✓ 0.04%	---
Hour 4	24.84	24.85	✓ 0.04%	---	-0.03	-0.03	✓ 0.00%	---
Total Run	24.83	24.85	✓ 0.08%	---	-0.04	-0.03	✓ 0.04%	---
Run No:	4							
	Mid-level Calibration Gas				Zero Calibration Gas			
	Initial Response (ppmv)	Final Response (ppmv)	Drift	Reported Drift	Initial Response (ppmv)	Final Response (ppmv)	Drift	Reported Drift
Hour 1	24.85	24.86	✓ 0.04%	---	-0.03	0.03	✓ 0.24%	---
Hour 2	24.86	24.55	✓ -1.24%	---	0.03	0.04	✓ 0.04%	---
Hour 3	24.55	25.10	✓ 2.20%	---	0.04	-0.04	✓ -0.32%	---
Hour 4	25.10	24.82	✓ -1.12%	---	-0.04	-0.04	✓ 0.00%	---
Total Run	24.85	24.82	✓ -0.12%	---	-0.03	-0.04	✓ -0.04%	---
Run No:	5							
	Mid-level Calibration Gas				Zero Calibration Gas			
	Initial Response (ppmv)	Final Response (ppmv)	Drift	Reported Drift	Initial Response (ppmv)	Final Response (ppmv)	Drift	Reported Drift

## USEPA Method 25A - Hydrocarbons

Hour 1	24.86	25.24	✓ 1.52%	---	-0.04	-0.04	✓ 0.00%	---
Hour 2	25.24	25.12	✓ -0.48%	---	-0.04	-0.04	✓ 0.00%	---
Hour 3	25.12	25.50	✓ 1.52%	---	-0.04	0.34	✓ 1.52%	---
Hour 4	25.50	25.36	✓ -0.56%	---	0.34	-0.04	✓ -1.52%	---
Hour 5	25.36	25.57	✓ 0.84%	---	-0.04	0.07	✓ 0.44%	---
Total Run	24.86	25.36	✓ 2.00%	---	-0.04	-0.04	✓ 0.00%	---
Run No:	6							
	Mid-level Calibration Gas				Zero Calibration Gas			
	Initial Response (ppmv)	Final Response (ppmv)	Drift	Reported Drift	Initial Response (ppmv)	Final Response (ppmv)	Drift	Reported Drift
Hour 1	25.34	25.12	✓ -0.88%	---	-0.04	-0.04	✓ 0.00%	---
Hour 2	25.12	25.35	✓ 0.92%	---	-0.04	0.10	✓ 0.56%	---
Hour 3	25.35	25.19	✓ -0.64%	---	0.10	-0.04	✓ -0.56%	---
Hour 4	25.19	25.21	✓ 0.08%	---	-0.04	-0.04	✓ 0.00%	---
Total Run	25.34	25.21	✓ -0.52%		-0.04	-0.04	✓ 0.00%	
Run No:	7							
	Mid-level Calibration Gas				Zero Calibration Gas			
	Initial Response (ppmv)	Final Response (ppmv)	Drift	Reported Drift	Initial Response (ppmv)	Final Response (ppmv)	Drift	Reported Drift
Hour 1	24.84	25.11	✓ 1.08%	---	-0.04	-0.04	✓ 0.00%	---
Hour 2	25.11	24.87	✓ -0.96%	---	-0.04	-0.04	✓ 0.00%	---
Hour 3	24.87	24.87	✓ 0.00%	---	-0.04	0.00	✓ 0.16%	---
Hour 4	24.87	24.96	✓ 0.36%	---	0.00	-0.04	✓ -0.16%	---
Total Run	24.84	24.96	✓ 0.48%	---	-0.04	-0.04	✓ 0.00%	---
Run No:	8							
	Mid-level Calibration Gas				Zero Calibration Gas			
	Initial Response (ppmv)	Final Response (ppmv)	Drift	Reported Drift	Initial Response (ppmv)	Final Response (ppmv)	Drift	Reported Drift
Hour 1	24.96	25.05	✓ 0.36%	---	-0.04	0.04	✓ 0.32%	---
Hour 2	25.05	25.20	✓ 0.60%	---	0.04	-0.04	✓ -0.32%	---
Hour 3	25.20	25.21	✓ 0.04%	---	-0.04	-0.03	✓ 0.04%	---
Hour 4	25.21	24.87	✓ -1.36%	---	-0.03	0.03	✓ 0.24%	---
Total Run	24.96	24.87	✓ -0.36%	---	-0.04	0.03	✓ 0.28%	---

\*\* Note: Allowable calibration drift is 3 percent of calibration span.